

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

**AMENDED AGENDA
CENTRAL FLORIDA EXPRESSWAY AUTHORITY
BOARD MEETING
June 11, 2020
9:00 a.m.**

Meeting location: Virtual

Meeting can be viewed through Orange County TV's live stream go to www.ocfl.net/OrangeTV, or Orange TV (Channel 488 on Spectrum (formerly Bright House), Channel 9 on Comcast, 1081 Century Link Prism TV, and 10.2 Digital Over the Air)

A. CALL TO ORDER / PLEDGE OF ALLEGIANCE

B. PUBLIC COMMENT

Pursuant to Executive Order 2020-69, and as extended by Executive Order 2020-123, both issued by Governor Ron DeSantis, "local government bodies may utilize communications media technology, such as telephonic and video conferencing, as provided in section 120.54(5)(b)2, Florida Statutes" in order to establish quorums. As such, procedures for all CFX public meetings have been temporarily modified to allow public meetings to occur remotely and reduce the spread of transmission of the COVID-19 virus.

Any public comments to the Board shall be emailed to Public.Comment@CFXway.com or by visiting the CFX Website at CFXway.com and must be received by 5:00 p.m. on June 10, 2020 to be included as part of the record. Public comments are to be limited to any such items that are identified on the board's agenda as being considered. Public comments may be read into the record except that if the comments exceed 3 minutes in length when read, they will only be attached as part of the minutes. In any case, all comments received will be distributed electronically to all Board Members in advance of the meeting. Please indicate the agenda item number related to your comments in your email subject heading.

C. APPROVAL OF MEETING MINUTES (action Item)

1. May 14, 2020 Board Meeting
2. May 14, 2020 Board Workshop
3. May 28, 2020 Board Workshop

D. APPROVAL OF AMENDED CONSENT AGENDA (action Item)

E. REPORTS

1. Chairman's Report
2. Treasurer's Report
3. Executive Director's Report

F. REGULAR AGENDA ITEMS

1. **MONTHLY COVID-19 FINANCIAL ASSESSMENT** - *Lisa Lumbard, Chief Financial Officer (info. item)*
2. **BUDGET - FY 2021 OPERATIONS, MAINTENANCE & ADMINISTRATION AND FY 2021-FY 2025 FIVE-YEAR WORK PLAN** - *Lisa Lumbard, Chief Financial Officer and Glenn Pressimone, Chief of Infrastructure (action item)*

(CONTINUED ON PAGE 2)

3. **ENVIRONMENTAL STEWARDSHIP COMMITTEE** – *Brenda Carey, Chairman* (action item)
 - a. **Tim Sallin, Commissioner Park’s appointment**
 - b. **Charles Lee, Ms. Herr’s appointment**
4. **E-PASS PAY BY PLATE APP ENHANCEMENT** – *Jim Greer, Chief of Technology/Operations* (info. Item)
5. **E-PASS PRODUCT ENHANCEMENTS** – *Michelle Maikisch, Chief of Staff/Public Affairs Officer* (info. Item)

G. BOARD MEMBER COMMENT

H. ADJOURNMENT

This meeting is open to the public.

Section 286.0105, Florida Statutes states that if a person decides to appeal any decision made by a board, agency, or commission with respect to any matter considered at a meeting or hearing, he or she will need a record of the proceedings, and that, for such purpose, he or she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.

Persons who require translation services, which are provided at no cost, should contact CFX at (407) 690-5000 x5316 or by email at lrannetta.dennis@CFXway.com at least three business days prior to the event.

In accordance with the Americans with Disabilities Act (ADA), if any person with a disability as defined by the ADA needs special accommodation to participate in this proceeding, then not later than two (2) business days prior to the proceeding, he or she should contact the Central Florida Expressway Authority at 407-690-5000.

C.

APPROVAL OF
BOARD MEETING MINUTES

1.

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

MINUTES CENTRAL FLORIDA EXPRESSWAY AUTHORITY BOARD MEETING May 14, 2020

Location: The meeting was held virtually
through Orange County TV's live stream
go to www.ocfl.net/OrangeTV, or Orange TV (Channel 488 on
Spectrum (formerly Bright House), Channel 9 on Comcast,
1081 Century Link Prism TV, and 10.2 Digital Over the Air)

A. CALL TO ORDER/PLEDGE OF ALLEGIANCE

The meeting was called to order at 9:00 a.m. by Chairman Carey.

As requested by Chairman Carey, the pledge of allegiance was led by Mayor Demings.

Recording Secretary Mimi Lamaute called the roll and announced there was a quorum with all nine (9) Board Members present.

Board Members Present:

Commissioner Brenda Carey, Seminole County (Chairman)
Mayor Buddy Dyer, City of Orlando (Vice Chairman)
Commissioner Betsy VanderLey, Orange County (Treasurer)
Commissioner Brandon Arrington, Osceola County
Mayor Jerry Demings, Orange County
Andria Herr, Gubernatorial Appointment
Jay Madara, Gubernatorial Appointment
Commissioner Sean Parks, Lake County
Commissioner Curt Smith, Brevard County

Staff Present:

Laura Kelley, Executive Director
Diego "Woody" Rodriguez, General Counsel
Mimi Lamaute, Recording Secretary

B. PUBLIC COMMENT

Recording Secretary Mimi Lamaute announced there were no public comments.

C. APPROVAL OF MARCH 12, 2020 BOARD MEETING MINUTES

A motion was made by Commissioner Arrington and seconded by Commissioner Parks to approve the March 12, 2020 Board Meeting Minutes as presented. The motion carried unanimously with all nine (9) members in attendance voting AYE by voice vote.

D. APPROVAL OF CONSENT AGENDA

The Consent Agenda was presented for approval.

ADMINISTRATIVE SERVICES

1. Approval of Right of Way Committee Reappointment – Christopher Murvin (Jay Madara’s Nomination)

CONSTRUCTION

2. Approval of Construction Contract Modifications on the following projects:

a. Project 599-537 United Signs & Signals	\$	157,725.48
b. Project 599-524 Precision Contracting Services, Inc.	\$	43,970.00
b. Project 599-156 The New Florida Industrial Electric, Inc.	(\$	43,828.44)
c. Project 253G SEMA Construction, Inc.	\$	17,047.11
d. Project 528-747 Hubbard Construction Co.	\$	471,804.55
e. Project 528-749 Preferred Materials, Inc.	(\$	148,834.43)
f. Project 528-750 Preferred Materials, Inc.	\$	18,936.41
g. Project 528-143.01 Central Florida Underground	\$	4,660.42
3. Approval of Applied Research Associates, Inc. as a Subconsultant for the Systemwide Material Testing and Geotechnical Services Contract with Ardaman & Associates, Inc., Contract No. 001434
4. Approval of Clencom, Inc. as a Subconsultant for the Poinciana Parkway ITS Contract with DRMP, Inc., Contract No. 001646
5. Ratification of Contract Award to Atlantic Civil Constructors Corp. for SR 408 Westbound Exit Ramp Improvements at Mills Avenue, Project 408-159, Contract No. 001664 (Agreement Value: \$1,470,157.29)
6. Ratification of Contract Award to Ranger Construction Industries, Inc. for SR 414 Milling & Resurfacing from Hawthorne Avenue to Keene Road, Project 414-754, Contract No. 001668 (Agreement Value: \$3,257,952.78)
7. Ratification of Contract Award to Ranger Construction Industries, Inc. for SR 414 Milling & Resurfacing from Keene Road to US 441, Project 414-755, Contract No. 001669 (Agreement Value: \$5,314,097.21)

8. Approval of Purchase Order to Media 1 Signs, Inc. for Toll Booth Wraps, Project 417-134 (Agreement Value: not-to-exceed \$84,700.00)

ENGINEERING

9. Approval of Real Image Solutions as a Subconsultant for the Miscellaneous Design Consultant Services Contract with Pegasus Engineering, LLC, Contract No. 001161
10. Approval of Supplemental Agreement No. 2 with RS&H, Inc. for Design Consultant Services - SR 417 Widening from John Young Parkway to Landstar Boulevard, Project 417-142, Contract No. 001313 (Agreement Value: not-to-exceed \$363,487.62)
11. Approval of Supplemental Agreement No. 1 with Horizon Engineering Group, Inc. for Design Consultant Services - SR 417 Widening from Landstar Boulevard to Boggy Creek Road, Project 417-149, Contract No. 001387 (Agreement Value: not-to-exceed \$510,745.68)
12. Approval of Supplemental Agreement No. 4 with Atkins North America, Inc. for Design Consultant Services - SR 417 Widening from Narcoosee Road to SR 528, Project 417-150, Contract No. 001393 (Agreement Value: \$977,700.66)
13. Approval of Greenfield Diversified d/b/a Consulex, LLC as a Subconsultant for the Miscellaneous Design Consultant Services Contract with The Balmoral Group, LLC, Contract No. 001497
14. Approval of Final Ranking and Authorization for Fee Negotiations for Design Consultant Services for SR 516 Lake-Orange Expressway, Segments 1 & 3, Projects 516-236 & 516-238, Contract Nos. 001670 & 001671

FINANCE

15. Approval of Roadway Insurance Policy with Zurich American Insurance Company (Agreement Value: \$772,000.00)

INTERNAL AUDIT

16. Acceptance of the following Internal Audit Reports:
 - a. Prior Audit Recommendations: Semi-Annual Follow-Up
 - b. Procurement and Contract Billing Audit
 - c. DHSMV Data Security Assessment
 - d. DAVID Data Security Assessment
 - e. Payment Card Industry (PCI) Assessment with Report on Compliance
 - f. Secure Code Review

LEGAL

17. Review and Re-Adoption of CFX's Ethics Policy Pursuant to Section 348.753, Florida Statutes
18. Approval of Jurisdictional Transfer from CFX to Orange County, Florida Pertaining to SR 414, Project 414-211, Parcels 375A, Part 3 and 375C
19. Approval of Jurisdictional Transfer from CFX to Orange County, Florida pertaining to SR 414, Project 414-211, Parcel 408, Part H

MAINTENANCE

20. Approval of Supplemental Agreement No. 4 with AutoBase, Inc for Purchase of a New Road Ranger Truck, Contract No. 001437 (Agreement Value: not-to-exceed \$85,000.00)
21. Approval of First Contract Renewal with Traffic Engineering and Management, LLC d/b/a Control Specialists for Traffic Signal Maintenance, Contract No. 001322 (Agreement Value: \$200,000.00)

PUBLIC OUTREACH

22. Approval of ARC Document Solutions, LLC as a Subcontractor for the Public Information Services Contract with Quest Corporation of America, Inc., Contract No. 001298

TECHNOLOGY/TOLL OPERATIONS

23. Approval of Purchase Order to PC Solutions & Integrations, Inc. for Vendor Network Support and Maintenance (Agreement Value: not-to-exceed \$134,158.35)

TRAFFIC OPERATIONS

24. Approval of Supplemental Agreement No. 3 with Vanasse Hangen Brustlin, Inc. for Three-Line Dynamic Message Signs Replacement Project, Project 599-545, Contract No. 001419 (Agreement Value: \$109,114.28)
25. Approval of Supplemental Agreement No. 2 with DRMP, Inc. for Wrong Way Driving Deployment, Project 599-526C, Contract No. 001438 (Agreement Value: not-to-exceed \$104,051.19)
26. Approval of Contract Award to Metric Engineering, Inc. for Professional Engineering Consultant Services for Development of the Intelligent Transportation Systems Master Plan, Project 599-558, Contract No. 001616 (Agreement Value: not-to-exceed \$300,000.00)

Commissioner VanderLey requested that Items #4, #10, #11, #14 and #25 be pulled for separate consideration. She will abstain from voting on these items due to a conflict of interest with DRMP, Inc. (Form 8B, Memorandum of Voting Conflict Form is attached as **Exhibit "A"**).

A motion was made by Commissioner VanderLey and seconded by Mr. Madara to approve the Consent Agenda except for items #4, #10, #11, #14 and #25. The motion carried unanimously with all nine (9) members in attendance voting AYE by voice vote.

A motion was made by Commissioner Smith and seconded by Commissioner Arrington to approve Consent Agenda items #4, #10, #11, #14 and #25. The motion carried unanimously with eight (8) members in attendance voting AYE by voice vote. Commissioner VanderLey abstained from voting.

E. REPORTS

1. CHAIRMAN'S REPORT

Chairman Carey reported on the following:

- Changes since CFX's March meeting. She thanked Ms. Kelley and her team for the quick response to insure the continued operations of the agency.
- Phasing out of the Governor's Safer at Home order. Please continue to do your part to keep our community healthy, remain mindful of your surroundings and follow the recommendations of state and local health professionals.
- Many people are beginning to venture a bit further from home. You will likely see more construction work zones during your travel, please remember to slow down and pay attention. Your safety and the safety of the workers working on CFX's roads is paramount.
- At the last board meeting, the Environmental Stewardship Committee was established. This committee will provide ongoing valuable insights in the early planning discussions of projects. Board members, if you have not made your recommendation to the Committee, please try to do so before the June board meeting.
- Upcoming Budget Workshop.
- She expressed her sincere gratitude to board members, staff, consultants, contractors, everyone that has done everything possible to keep the community moving forward. Your efforts have not gone unnoticed.

2. TREASURER'S REPORT

Commissioner VanderLey reported that toll revenues for March were \$35,479,889 which is 19.4% below projections and 19.9% below prior year.

CFX's total revenues were \$38.4 million for the month. Total Operations, Maintenance and Administration expenses were \$8.7 million for the month and \$62.9 million year-to-date, which is 5.9% under budget.

After debt service the total net revenue available for projects was \$11.1 million for March and \$179.3 million year-to-date. Our projected year-end senior lien debt service ratio is 1.77 which is below our budgeted ratio of 2.07.

3. EXECUTIVE DIRECTOR'S REPORT

Ms. Kelley provided the Executive Director's Report in written form.

In addition, Ms. Kelley expanded on the following:

- I-4/SR 408 Ramp Update

F. REGULAR AGENDA ITEMS

1. COVID-19 UPDATE

Executive Director Laura Kelley provided an update on CFX's efforts during the COVID-19 pandemic. Ms. Kelley described the focus on community and social responsibility, how the agency adopted to keep customers and the CFX team safe and how the CFX team delivered on core values by staying connected. Ms. Kelley also talked about how the team managed and monitored the impacts on revenue and kept projects going.

(This item was presented for informational purposes. No Board action was taken.)

2. ENVIRONMENTAL STEWARDSHIP COMMITTEE BOARD APPOINTMENTS

Chairman Carey requested the below nominations for the Environmental Stewardship Committee be confirmed by the CFX Board:

- Richard Durr, Seminole County
- Robert Mindick, Osceola County
- Beth Jackson, Orange County
- Brittany C. Seller, City of Orlando
- Jim Barfield, Brevard County

A motion was made by Commissioner Arrington and seconded by Commissioner VanderLey to approve the nominations of Mr. Durr, Mr. Mindick, Ms. Jackson, Ms. Seller and Mr. Barfield to the Environmental Stewardship Committee. The motion carried unanimously with all nine (9) members in attendance voting AYE by voice vote.

G. BOARD MEMBER COMMENT

The following board members commented:

- Commissioner Parks
- Mayor Demings

H. ADJOURNMENT

Chairman Carey adjourned the meeting at 9:30 a.m.

Brenda Carey
Chairman
Central Florida Expressway Authority

Mimi Lamaute
Recording Secretary
Central Florida Expressway Authority

Minutes approved on _____, 2020.

Pursuant to the Florida Public Records Law and the CFX Records & Information Management Program Policy, audiotapes of all Board and applicable Committee meetings are maintained and available upon request to the Custodian of Public Records at (407) 690-5326, PublicRecords@CFXway.com, or 4974 ORL Tower Road, Orlando, FL 32807. Additionally, videotapes of Board meetings are available at the CFX website, www.CFXway.com.

2.

APPOINTED OFFICERS (continued)

- A copy of the form must be provided immediately to the other members of the agency.
- The form must be read publicly at the next meeting after the form is filed.

IF YOU MAKE NO ATTEMPT TO INFLUENCE THE DECISION EXCEPT BY DISCUSSION AT THE MEETING:

- You must disclose orally the nature of your conflict in the measure before participating.
- You must complete the form and file it within 15 days after the vote occurs with the person responsible for recording the minutes of the meeting, who must incorporate the form in the minutes. A copy of the form must be provided immediately to the other members of the agency, and the form must be read publicly at the next meeting after the form is filed.

DISCLOSURE OF LOCAL OFFICER'S INTEREST

I, Betsy VanderLey, hereby disclose that on May 14, 20 20 :

(a) A measure came or will come before my agency which (check one or more)

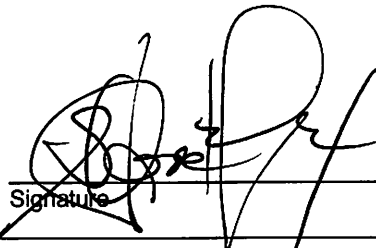
- inured to my special private gain or loss;
- inured to the special gain or loss of my business associate, _____ ;
- inured to the special gain or loss of my relative, _____ ;
- inured to the special gain or loss of DRMP, Inc., by whom I am retained; or
- inured to the special gain or loss of _____, which is the parent subsidiary, or sibling organization or subsidiary of a principal which has retained me.

(b) The measure before my agency and the nature of my conflicting interest in the measure is as follows:

As the manager of a Limited Liability Corporation which provides business development services to DRMP, Inc., I am required to abstain from the vote as a conflict of interest pursuant to Section 112.313, Florida Statutes because DRMP, Inc., is either directly being awarded a contract or they are a subcontractor that will directly benefit from a contract award. Therefore, the following items will be removed from the Consent Agenda for the Central Florida Expressway Authority agenda for May 14, 2020 and I will abstain from voting on these items once they are placed on the Non-Consent Agenda:

- Item 4: Approval of Clencom, Inc., as a Sub-consultant for the Poinciana Parkway ITS Contract with DRMP, Inc., Contract No. 001646
 - Item 10: Approval of Supplemental Agreement No. 2 with RS&H, Inc. for Design Consultant Services-SR 417 Widening from John Young Parkway to Landstar Blvd., Project 417-149, Contract No. 001313
 - Item 11: Approval of Supplemental Agreement No.1 with Horizon Engineering Group, Inc for Design Consultant Services- SR 417 widening from Landstar Blvd. to Boggy Creek Road, Project 417-142, Contract No. 001387
 - Item 14: Approval of Final Ranking and Authorization for Negotiations for Design Consultant Services for SR 516 Lake-Orange Expressway, Segments 1 & 3, Projects 516-236 & 516-238, Contract Nos. 001670 & 001671
 - Item 25: Approval of Supplemental Agmt No.2 with DRMP, Inc., for Wrong Way Driving Deployment, Project 599-526C, Contract No. 004138
- If disclosure of specific information would violate confidentiality or privilege pursuant to law or rules governing attorneys, a public officer, who is also an attorney, may comply with the disclosure requirements of this section by disclosing the nature of the interest in such a way as to provide the public with notice of the conflict.

May 14, 2020
Date Filed


Signature

NOTICE: UNDER PROVISIONS OF FLORIDA STATUTES §112.317, A FAILURE TO MAKE ANY REQUIRED DISCLOSURE CONSTITUTES GROUNDS FOR AND MAY BE PUNISHED BY ONE OR MORE OF THE FOLLOWING: IMPEACHMENT, REMOVAL OR SUSPENSION FROM OFFICE OR EMPLOYMENT, DEMOTION, REDUCTION IN SALARY, REPRIMAND, OR A CIVIL PENALTY NOT TO EXCEED \$10,000.

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

**MINUTES
CENTRAL FLORIDA EXPRESSWAY AUTHORITY
BOARD WORKSHOP
May 14, 2020**

**Meeting location: Virtual
Call: (321) 430-0870
Conference ID: 698 639 039#**

A. CALL TO ORDER/PLEDGE OF ALLEGIANCE

The Workshop was called to order at 9:40 a.m. by Chairman Carey.

The pledge of allegiance was led by Ms. Herr.

Recording Secretary Mimi Lamaute called the roll and announced nine (9) Board Members were present.

Board Members Appearing Virtually:

Commissioner Brenda Carey, Seminole County (Chairman)
Mayor Buddy Dyer, City of Orlando (Vice Chairman)
Commissioner Betsy VanderLey, Orange County (Treasurer)
Commissioner Brandon Arrington, Osceola County
Mayor Jerry Demings, Orange County
Andria Herr, Gubernatorial Appointment
Jay Madara, Gubernatorial Appointment
Commissioner Sean Parks, Lake County
Commissioner Curt Smith, Brevard County

Staff Appearing Virtually:

Mimi Lamaute, Recording Secretary
Laura Kelley, Executive Director
Lisa Lumbard, Chief Financial Officer
George Coello, Manager of IT Support
Glenn Pressimone, Chief of Infrastructure
Diego "Woody" Rodriguez, General Counsel

Others Appearing Virtually:

Hugh Miller, CDM Smith
Brent Wilder, PFM Financial Advisors, LLC

The Chairman provided instructions for today's virtual meeting, reminders and an overview of today's workshop agenda.

B. PUBLIC COMMENT

Recording Secretary Mimi Lamaute announced there were no public comments.

C. DRAFT FY 2021 OPERATIONS, MAINTENANCE & ADMINISTRATION BUDGET/FY 2021 THROUGH FY 2025 FIVE-YEAR WORK PLAN

Chief Financial Officer Lisa Lumbard presented the Draft FY 2021 Operations, Maintenance & Administration Budget, including the non-system road, Goldenrod Road Extension.

Ms. Lumbard explained that CDM Smith completed their annual report in February 2020 but due to the COVID-19 pandemic CDM Smith revised their forecast.

Ms. Lumbard explained the proposed OM&A budget based on CDM Smith's recommended revenue forecast.

Chief of Infrastructure Glenn Pressimone presented the Draft FY2021 – FY2025 Five-Year Work Plan. He explained the funding distribution and the major projects in the Work Plan. He also provided details on the revisions to the work plan due to CDM Smith's revised revenue forecast.

Ms. Lumbard confirmed that the Draft Work Plan was fundable and explained the results of the capital planning model.

She explained there is now a process in place wherein the CFO approves construction projects before they are put out to bid. This ensures sufficient funds are available to complete construction projects before they begin.

She reiterated that CFX will be monitoring revenue and expenses closely and will come back to the board mid-way through the year with any necessary adjustments.

Discussion ensued regarding CDM Smith's forecast and the region's financial recovery. The Board members asked questions, provided verbal comments and gave direction and feedback regarding the draft Budget and Work Plan.

Hugh Miller, Traffic Engineer with CDM Smith which serves as CFX's Traffic and Earnings Consultant, explained how the forecast that is being recommended was calculated.

Mayor Demings left the workshop at 10:30 a.m.

The board by consensus requested the following from staff:

- At least for the next quarter, a monthly agenda item presented by Ms. Lumbard, CFO, detailing the financial forecast of CFX and a budget review.
 - A metric will be set in advance of the next board meeting. This will be an indicator that if revenues fall by more than X percentage then further action will be taken at that time;
- Present to the Board three (3) additional revenue forecast scenarios: a flat scenario for FY 2021 revenues, a 2% reduction in FY 2021 revenues and a 5% reduction in FY 2021 revenues.

By consensus the Board agreed to hold a Budget Workshop on May 28, 2020 at 9:00 a.m.

D. BOARD MEMBER COMMENT

There were no additional Board member comments.

E. ADJOURNMENT

Chairman Carey adjourned the Workshop at 10:44 a.m.

Brenda Carey
Chairman
Central Florida Expressway Authority

Mimi Lamaute
Recording Secretary
Central Florida Expressway Authority

Minutes approved on _____, 2020.

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3.

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

MINUTES CENTRAL FLORIDA EXPRESSWAY AUTHORITY BOARD WORKSHOP May 28, 2020

Meeting location: Virtual

Orange County TV's live audio stream on May 28th through www.ocfl.net/OrangeTV, or Orange TV (Channel 488 on Spectrum (formerly Bright House), Channel 9 on Comcast, 1081 Century Link Prism TV, and 10.2 Digital Over the Air)

A. CALL TO ORDER/PLEDGE OF ALLEGIANCE

The Workshop was called to order at 9:00 a.m. by Chairman Carey.

The pledge of allegiance was led by Mayor Dyer.

Recording Secretary Mimi Lamaute called the roll and announced eight (8) Board Members were present.

Board Members Appearing Virtually:

Commissioner Brenda Carey, Seminole County (Chairman)
Mayor Buddy Dyer, City of Orlando (Vice Chairman)
Commissioner Betsy VanderLey, Orange County (Treasurer)
Commissioner Brandon Arrington, Osceola County
Mayor Jerry Demings, Orange County
Andria Herr, Gubernatorial Appointment
Commissioner Sean Parks, Lake County
Commissioner Curt Smith, Brevard County

Board Members Absent:

Jay Madara, Gubernatorial Appointment

Staff Appearing Virtually:

Mimi Lamaute, Recording Secretary
Laura Kelley, Executive Director
Lisa Lumbard, Chief Financial Officer
George Coello, Manager of IT Support
Glenn Pressimone, Chief of Infrastructure
Diego "Woody" Rodriguez, General Counsel

Others Appearing Virtually:

Hugh Miller, CDM Smith

The Chairman provided instructions for today's virtual meeting, reminders and an overview of today's workshop agenda.

B. PUBLIC COMMENT

Recording Secretary Mimi Lamaute announced there were no public comments.

C. DRAFT FY 2021 OPERATIONS, MAINTENANCE & ADMINISTRATION BUDGET/FY 2021 THROUGH FY 2025 FIVE-YEAR WORK PLAN

Hugh Miller, Traffic Engineer with CDM Smith which serves as CFX's Traffic and Earnings Consultant, presented the details on the traffic and revenue impacts from COVID-19 and forecasts using different scenarios. The scenarios depict depth and duration of main event, recovery from the virus and lasting effects.

Discussion ensued regarding the details of the forecasted growth rate and impacts on projects.

Chief Financial Officer Lisa Lumbard highlighted CFX's strengths and its ability to manage through downturn periods.

Ms. Lumbard and Chief of Infrastructure Glenn Pressimone described the impacts to the OM&A and workplan based on each scenario: Scenarios C, C¹, D¹ and E¹

The Board members asked questions which were answered by Ms. Lumbard and Mr. Pressimone.

Ms. Lumbard stated that going forward the CFO approves construction projects before going out to bid. This ensures sufficient funds are available to complete construction projects before they begin.

Each board member described the reasoning for and their scenario preference. Direction was provided to staff to prepare Scenario C for a vote at the June 11th board meeting.

Ms. Kelley stated that staff will also prepare a traffic and revenue status report to be presented at the June board meeting. Chairman Carey requested the report be presented as a regular agenda item.

D. BOARD MEMBER COMMENT

There were no additional Board member comments.

E. ADJOURNMENT

Chairman Carey adjourned the workshop at 10:25 a.m.

Brenda Carey
Chairman
Central Florida Expressway Authority

Mimi Lamaute
Recording Secretary
Central Florida Expressway Authority

Minutes approved on _____, 2020.

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CENTRAL FLORIDA EXPRESSWAY AUTHORITY

AMENDED CONSENT AGENDA June 11, 2020

ADMINISTRATIVE SERVICES

1. Approval of the following appointment:
 - a. Operations Committee Reappointment – Mark Meyer (Jay Madara's Appointment)

CONSTRUCTION

2. Approval of Construction Contract Modifications on the following projects:
 - a. Project 417-134 Hubbard Construction Co. \$ 57,208.62
 - b. Project 528-747 Hubbard Construction Co. \$ 148,450.65
3. Approval of Supplemental Agreement No. 1 with Elipsis Engineering & Consulting, LLC for Systemwide Construction Engineering and Inspection Services, Contract No. 001368 (Agreement Value: \$1,200,000.00)

ENGINEERING

4. Authorization of Mitigation Credit Purchases with Southport Ranch Mitigation Bank, LLC for Projects 417-141 and 417-412 (Agreement Value: not-to-exceed \$290,000.00)
5. Approval of Supplemental Agreement No. 2 with Parsons Transportation Group, Inc. for Design Consultant Services for SR 429 Widening from Florida's Turnpike to West Road, Project 429-152, Contract No. 001395 (Agreement Value: \$2,061,383.23)
6. Approval of Supplemental Agreement No. 3 with Moffatt & Nichol, Inc. for Design Consultant Services for SR 429 Widening from West Road to SR 414, Project 429-153, Contract No. 001396 (Agreement Value: \$663,330.37)
7. Approval of Contract Award to RS&H, Inc. for Project Development and Environment (PD&E) Study for the Northeast Connector Expressway Phase 1, Project 599-228, Contract No. 001546 (Agreement Value: \$940,000.00)
8. Approval of Contract Award to TLP Engineering Consultants, Inc. for Design Consultant Services for SR 408 Tampa Avenue Interchange, Project 408-315, Contract No. 001617 (Agreement Value: not-to-exceed \$5,600,000.00)
9. Approval of Contract Award to Wantman Group, Inc. for Design Consultant Services for Poinciana Parkway Extension Segment 1, Project 538-234, Contract No. 001647 (Agreement Value: not-to-exceed \$5,750,000.00)
10. Approval of Contract Award to GAI Consultant, Inc. for Design Consultant Services for Poinciana Parkway Extension Segment 2, Project 538-235, Contract No. 001648 (Agreement Value: not-to-exceed \$6,200,000.00)

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

11. Award of Contract to Kimley-Horn and Associates, Inc. for Design Consultant Services for CR 532 Widening from Old Lake Wilson Road to US 17/92, Project 538-235A, Contract No. 001649 (Agreement Value: not-to-exceed \$3,700,000.00)

LEGAL

12. Approval of Interlocal Agreement Regarding Relocation of Utilities Along SR 538 Between Tohopekaliga Water Authority and the Central Florida Expressway Authority, Project 538-165
13. Approval of Joint Participation Agreement Between Osceola County and the Central Florida Expressway Authority for CR 532 (Osceola- Polk County Line Road) Widening from Old Lake Wilson Road to US 17/92, Project No. 538-235

MAINTENANCE

14. Approval of First Contract Renewal with Ayres Associates, Inc. for Systemwide Overhead Sign Inspection Services, Contract No. 001432 (Agreement Value: not-to-exceed \$320,000.00)
15. Authorization to Execute a Maintenance Agreement with Vertiv Corporation for Preventive Air Conditioning Services, Contract No. 001696 (Agreement Value: \$62,190.00)

TECHNOLOGY/TOLL OPERATIONS

16. Approval of Purchase Order to Avaya for CFX Voice Messaging and Call Center Telephone Maintenance and Support Service (Agreement Value: not-to-exceed \$60,562.98)
- * 17. Approval of Contract Award to AllianceOne Receivables Management, Inc. a wholly owned subsidiary of Teleperformance for CFX Customer Service Operations, Contract No. 001653 (Agreement Value: \$87,170,217.64)
18. Approval of Contract Award to inContact, Inc. d/b/a NICE – inContact for Contact Center as a Service (CCaaS) Platforms, Contract No. 001665 (Agreement Value: \$593,900.00)
19. Approval of Supplemental Agreement No. 1 with ISF, Inc. for Management Consulting Services, Contract No. 001627 (Agreement Value: \$424,000.00)

TRAFFIC OPERATIONS

20. Approval of Contract Award to SICE, Inc. for Wrong Way Driving Deployment, Project 599-526C, Contract No. 001683 (Agreement Value: \$4,205,688.65)

The following items are for information only:

- A. The following is a list of advertisement(s) from May 4, 2020 through June 7, 2020:
 1. 408-522: Hiawassee Photovoltaic – Re-advertise Design/Build Construction

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

2. Systemwide (SSBE) – CEI Services
3. ITS Maintenance Contract – RFP
4. 528-161: SR 528 Widening from SR 417 to Innovation Way – Design Services (possible 6/7 advertisement date)

B. The following items are for information only and are subject to change:

The following is a list of anticipated advertisements (3-4 month look ahead)

1. Disclosure Counsel
2. Supplier Diversity Support Consultant
3. Advocacy Service
4. SR 538 Widening Poinciana Parkway Design Build – CEI Services
5. SR 429 Widening Stoneybrook West to FTE – CEI Services
6. Systemwide Coatings – CEI Services
7. Systemwide ITS, Lighting, Tolling – CEI Services
8. SR 429 Widening West Road to SR 414 – CEI Services
9. SR 429 Widening FTE to West Road – CEI Services
10. 599-421: E-PASS Magnolia Service Center Renovations – Design Build Construction
11. 417-162: SR 417 Pond Modifications – Construction Bid
12. 599-756: SR 408 Aesthetic Coatings – Construction Bid
13. 599-759: South Access Road Slope Repair – Construction Bid
14. 429-758: SR 429 Pavement Repairs – Construction Bid
15. 408-831: SR 408/SR 417 Interchange Landscape – Construction Bid
16. 408-830: SR 408 from SR 417 to Alafaya Landscape – Construction Bid
17. 417-141: SR 417 Widening from International Drive to John Young Parkway – Construction Bid
18. 599-545: DMS Replacement Project – Construction Bid
19. 414-640: SR 414 Guide Sign System Replacement
20. 417-142: SR 417 Widening from John Young Parkway to Landstar Blvd – Construction Bid
21. 417-151: SR 417/SR 528 Bridge Bearing Replacements – Construction Bid
22. 599-419: Systemwide Toll Plaza AC Replacements – Construction Bid
23. Appraiser Services

CONSENT AGENDA ITEM

#1

Mimi Lamaute

From: Madara, Jay (NBCUniversal) <Jay.Madara@nbcuni.com>
Sent: Tuesday, June 2, 2020 5:29 PM
To: Mimi Lamaute
Subject: RE: CFX - Committee Appointments

Hi Mimi. At this point for the June meeting, I have one more re-appointment: Mark Meyer to the Operations Committee. I'm still working on appointments for Audit, Finance, and Environmental with the goal to have to you prior to the next Board meeting.

.....

Mimi Lamaute
**Board Services Coordinator/
CFX Financial Disclosure Coordinator**

Central Florida Expressway Authority
4974 ORL Tower Road • Orlando, FL 32807
407.690.5310 (p) • (f) 407.690.5384
CFXway.com

PLEASE NOTE: Florida has a very broad public records law (F. S. 119).

Mark Meyer

Director, CNL Real Estate and Development

**Operations Committee Appointment submitted by
Jay Madara**



Mark Meyer is Project Director for CNL. Meyer is responsible for providing leadership in the development and investment services platform throughout the US, including the overall process from sourcing real estate opportunities, project management and asset management, including long-range planning, new business development and financial reporting. Meyer previously served in several CNL companies with corporate services, brokerage, tenant representation, project and operations management. Additionally, as a Senior Project Manager for CNL Community Development and CNL Real Estate Services.

Over 29 years practicing real estate development across multiple industry sectors in both public and private workplaces, Meyer began his professional career as a licensed general contractor in the Midwest and is a member of the Urban Land Institute, YMCA Development Board, National Association of Industrial and Office Professionals. He is a visiting lecturer at University of Florida and Valencia Collage on various real estate topics.

Meyer earned a Master's degree from the University of Florida and while attending taught as an adjunct professor, and a bachelor's degree from Western Illinois University in Engineering Technology and Business Administration. He lives in Orlando with his wife and two children.

CONSENT AGENDA ITEM

#2

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

MEMORANDUM

TO: CFX Board Members

FROM: Ben Dreiling, P.E.
Director of Construction 

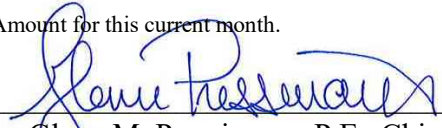
DATE: May 15, 2020

SUBJECT: Construction Contract Modifications

Authorization is requested to execute the following Construction Contract Modifications. Supporting detailed information is attached.

Project No.	Contractor	Contract Description	Original Contract Amount (\$)	Previous Authorized Adjustments (\$)	Requested (\$) June 2020	Total Amount (\$) to Date*	Time Increase or Decrease
417-134	Hubbard Construction Co.	SR 417 Widening, Econlockhatchee Canal to Aloma Ave.	\$ 44,810,996.19	\$ 5,656.03	\$ 57,208.62	\$ 44,873,860.84	0
528-747	Hubbard Construction Co.	SR 528 Milling & Resurfacing, SR 417 to Innovation Way	\$ 11,158,000.00	\$ 471,804.55	\$ 148,450.65	\$ 11,778,255.20	0
TOTAL					\$ 205,659.27		

* Includes Requested Amount for this current month.

Reviewed By: 
Glenn M. Pressimone, P.E., Chief of Infrastructure

Project 417-134: SR 417 Widening, Econlockhatchee to Seminole County
Hubbard Construction Co.
SA 417-134-0620-06

Existing Sound Wall Post Repair SB SR 417

The existing sound wall support post for the proposed architectural precast column was damaged prior to construction and required repair.

ADD THE FOLLOWING ITEM:

Existing Sound Wall Post Repair \$ 12,125.56

Installation of DMS Catwalk SB SR 417

A catwalk was installed for maintenance access to the Dynamic Message Sign (DMS) on SB SR 417. The catwalk provides access over live traffic without impact to the traveling public.

ADD THE FOLLOWING ITEM:

Installation of DMS Catwalk \$ 25,559.03

Concrete Pavement Changes at Open Road Tolled Lanes

Crushed concrete base was used in lieu of asphalt at the University Plaza open road tolled lanes to allow water to percolate into the soil underneath the concrete pavement. New access ducts from the toll plaza tunnel to existing E-PASS lanes were also installed at this location.

INCREASE THE FOLLOWING ITEM:

Reinforced Cement Concrete Pavement, 12" \$ 22,135.00

DECREASE THE FOLLOWING ITEM:

4" Type B Asphalt Base, Base Group 2 \$ (12,191.04)

ADD THE FOLLOWING ITEM:

Crushed Concrete Base (6") at Open Road Tolled Lanes \$ 9,580.07

Subtotal: Concrete Pavement Changes at Open Road Tolled Lanes \$ 19,524.03

TOTAL AMOUNT FOR PROJECT 417-134

\$ 57,208.62

Project 528-747: SR 528 Milling & Resurfacing, SR 417 to Innovation Way
Hubbard Construction Co.
SA 528-747-0620-02

Quantity Adjustments Associated with Cross Slope Corrections

These pay item increases are attributed to the additional quantities required to perform cross slope corrections that were detected through the use of LiDAR.

INCREASE THE FOLLOWING ITEMS:

Milling Existing Asphalt Pavement, 1 1/2" Avg Depth	\$	4,365.30
Superpave Asphaltic Concrete, Traffic C	\$	6,052.00
Superpave Asphaltic Concrete, Traffic D, PG 76-22	\$	2,067.80
Miscellaneous Asphalt Pavement	\$	47,230.05
Guardrail Reset, Single Faced	\$	<u>26,693.10</u>
	\$	86,408.25

ADD THE FOLLOWING ITEM:

Additional Maintenance of Traffic for Guardrail Reset	\$	13,615.52
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Subtotal: Quantity Adjustments Associated with Cross Slope Corrections \$ 100,023.77

Shoulder Width Adjustments

Existing shoulder widths varied at multiple locations throughout the project. The widths were paved to provide uniformity with existing roadside features.

INCREASE THE FOLLOWING ITEMS:

Milling Existing Asphalt Pavement, 2" Avg Depth	\$	5,834.08
Milling Existing Asphalt Pavement, 1 1/2" Avg Depth	\$	5,368.44
Superpave Asphaltic Concrete, Traffic C	\$	13,131.06
Superpave Asphaltic Concrete, Traffic D, PG 76-22	\$	<u>24,093.30</u>
	\$	48,426.88


TOTAL AMOUNT FOR PROJECT 528-747 \$ **148,450.65**

**CONSENT AGENDA ITEM
#3**

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

MEMORANDUM

TO: CFX Board Members

FROM: Aneth Williams
Director of Procurement 
Aneth Williams (Jun 2, 2020 10:17 EDT)

DATE: May 27, 2020

SUBJECT: Approval of Supplemental Agreement No. 1 with Elipsis Engineering & Consulting, LLC for Systemwide Construction Engineering and Inspection Services
Contract No. 001368

Board approval is requested for Supplemental Agreement No. 1 with Elipsis Engineering & Consulting, LLC for a not-to-exceed amount of \$1,200,000.00. The original contract was for three years with two one-year renewals.

The services include miscellaneous drainage, stormwater and systemwide coatings projects.

Original Contract	\$3,500,000.00
Supplemental Agreement No. 1	<u>\$1,200,000.00</u>
Total	\$4,700,000.00

This contract is a component of projects budgeted in the Five-Year Work Plan.

Reviewed by: 
Ben Dreiling, PE
Director of Construction



CENTRAL FLORIDA EXPRESSWAY AUTHORITY
SUPPLEMENTAL AGREEMENT NO. 1

Contract Name: Systemwide Construction, Engineering and Inspection Services

Contract No: 001368

This Supplemental Agreement No. 1 entered into this 11th day of June 2020, by and between CENTRAL FLORIDA EXPRESSWAY AUTHORITY (“CFX”), and ELIPSIS ENGINEERING & CONSULTING, INC. (the “Consultant”), the same being supplementary to the Contract between the aforesaid, dated August 8, 2018.

1. CFX desires to increase the Scope of Work in the amount of \$1,200,000.00. This will allow for upcoming renewal and replacement projects in the Five-Year Work Plan, to include but not limited to miscellaneous drainage and stormwater projects and systemwide coatings projects.
2. The Consultant hereby agrees to the increase scope of work and amount with no increase in the term of the Contract.
3. CFX and Consultant agree that this Supplemental Agreement No.1 shall not alter or change in any manner the force and effect of the Contract except insofar as the same is altered and amended by this Supplemental Agreement No. 1; that acceptance of this Supplemental Agreement No. 1 signifies the Consultant’s waiver of all future rights for additional compensation, with respect to this Supplemental Agreement, which is not already defined herein or in the fee proposal.

SUPPLEMENTAL AGREEMENT NO. 1

Contract Name: Systemwide Construction, Engineering and Inspection Services

Contract No.: 001368

Cost of additional services: \$1,200,000.00

This Supplemental Agreement No. 1 entered as of the day and year first written above.

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

By: _____
Director of Procurement

ELIPSIS ENGINEERING & CONSULTING, INC.

By: _____

Print Name

Title: _____

Witness: _____

Date: _____

Approved as to form and execution, only.

General Counsel for CFX

AGREEMENT

**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
AND
ELIPSIS ENGINEERING & CONSULTING, LLC**

**SYSTEMWIDE CONSTRUCTION ENGINEERING AND
INSPECTION SERVICES**

CONTRACT NO. 001368

**CONTRACT DATE: AUGUST 9, 2018
CONTRACT AMOUNT: \$3,500,000.00**

**AGREEMENT, SCOPE OF SERVICES, METHOD OF
COMPENSATION, DETAILS OF COSTS AND FEES,
AND PROJECT ORGANIZATIONAL CHART**

**AGREEMENT, SCOPE OF SERVICES, METHOD OF COMPENSATION, DETAILS OF
COSTS AND FEES AND PROJECT ORGANIZATIONAL CHART**

FOR

SYSTEMWIDE CONSTRUCTION ENGINEERING AND INSPECTION SERVICES

CONTRACT NO. 001368

AUGUST 2018

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

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Agreement for Systemwide Miscellaneous CEI Services

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**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
AGREEMENT FOR SYSTEMWIDE CONSTRUCTION ENGINEERING AND INSPECTION
SERVICES
CONTRACT NO. 001368**

THIS AGREEMENT, made and entered into this 9th day of August 2018, by and between the CENTRAL FLORIDA EXPRESSWAY AUTHORITY, a corporate body and agency of the State of Florida, created by Chapter 2014-171 Laws of Florida, 2014, (Chapter 348, Part III, Florida Statutes) hereinafter called the "CFX" and Elipsis Engineering & Consulting, LLC, hereinafter called "CONSULTANT", a Florida Limited Liability Company, registered and authorized to do business in the state of Florida, whose principal address is 530 S. Main Street, Winter Garden, FL. 34787.

That the CFX did determine that the CONSULTANT is fully qualified to render the services contracted.

WITNESSETH:

1.0 SERVICES TO BE PROVIDED

CFX does hereby retain the CONSULTANT to furnish Construction Engineering and Inspection (CEI) services required by CFX. CFX has a core staff of CEI management personnel and is engaging the CONSULTANT to provide support personnel on an as-needed, per project basis. Support personnel required by CFX may include, but are not necessarily limited to, Project Administrator, Contract Support Specialist, Senior Inspector, Inspector, Asphalt Plant Inspector, Inspector's Aide, Survey Party Chief Instrument Man, Rod Man/Chain Man, Environmental Specialist, Casting Yard Engineer, Senior ITS Inspector, ITS Inspector.

The CONSULTANT and CFX mutually agree to furnish, each to the other, the respective services, information and items as described in Exhibit "A", Scope of Services, attached hereto and made a part hereof.

Before any additions or deletions to the work described in Exhibit "A", and before undertaking any changes or revisions to such work, the parties shall negotiate any necessary cost changes and shall enter into a Supplemental Amendment covering such modifications and the compensation to be paid therefore.

Reference herein to this Agreement shall be considered to include any Supplemental Agreement thereto.

CFX's Director of Construction or his authorized designee shall provide the management and technical direction for this Agreement on behalf of CFX. All technical and administrative provisions of this Agreement shall be managed by the Director of Construction and the CONSULTANT shall comply with all of the directives of the Director of Construction that are within the purview of this Agreement. Decisions concerning Agreement amendments and adjustments, such as time extensions and supplemental agreements shall be made by the Director of Construction.

The work covered by this Agreement includes providing CEI services for a variety of CFX projects including, but not necessarily limited to, roadway and bridge construction, landscaping construction, fence construction, signing construction, roadway lighting construction, drainage modifications/construction, utility construction, and toll facility renovations/modifications/construction.

This Agreement is considered a non-exclusive Agreement between the parties.

2.0 TERM OF AGREEMENT AND RENEWALS

Unless otherwise provided herein or by Supplemental Agreement, the provisions of this Agreement will remain in full force and effect for a three (3) year term from the date of the Notice to Proceed for the first task assignment. Renewal of this Agreement for up to two (2) one-year renewals periods may be exercised by CFX at its sole discretion. Renewals will be based, in part, on a determination by CFX that the value and level of service provided by the CONSULTANT are satisfactory and adequate for CFX's needs.

The CONSULTANT agrees to commence the scheduled services for each assigned project within ten (10) calendar days from the date specified in the written Notice to Proceed from the Director of Construction, which notice to proceed will become part of this Agreement. The CONSULTANT shall complete scheduled project services within the timeframe(s) agreed to by the parties or as may be modified by subsequent Supplemental Agreement.

3.0 PROJECT SCHEDULE

It shall be the responsibility of the CONSULTANT to ensure at all times that sufficient time remains within the project schedule within which to complete the services on the project. In the event there have been delays which would affect the scheduled project completion date, the CONSULTANT shall submit a written request to CFX which identifies the reason(s) for the delay, the amount of time related to each reason and specific indication as to whether or not the delays were concurrent with one another. CFX will review the request and make a determination as to granting all or part of the requested extension.

In the event the scheduled project completion date is reached and the CONSULTANT has not requested, or if CFX has denied, an extension of the completion date, partial progress payments will be stopped when the scheduled project completion date is met. No further payment for the project will be made until a time extension is granted or all work has been completed and accepted by CFX.

4.0 PROFESSIONAL STAFF

The CONSULTANT shall maintain an adequate and competent professional staff to enable the CONSULTANT to timely perform under this Agreement. The CONSULTANT shall continue to be authorized to do business within the State of Florida. In the performance of these professional services, the CONSULTANT shall use that degree of care and skill ordinarily exercised by other similar professionals in the field under similar conditions in similar localities. The CONSULTANT shall use due care in performing the required services and shall have due regard for acceptable standards of construction engineering and inspection principles. The CONSULTANT may associate with it such

specialists, for the purpose of its services hereunder, without additional cost to CFX, other than those costs negotiated within the limits and terms of this Agreement. Should the CONSULTANT desire to utilize specialists, the CONSULTANT shall be fully responsible for satisfactory completion of all subcontracted work. It is understood and agreed that CFX will not, except for such services so designated herein, permit or authorize the CONSULTANT to perform less than the total contract work with other than its own organization.

Prior to retaining a subconsultant, or assigning any work to a subconsultant, the CONSULTANT shall verify that the subconsultant does not have any conflicts and acknowledges its duty to comply with CFX's Code of Ethics. The CONSULTANT shall ensure that each subconsultant adheres to, and cause all subconsultants to be bound by, all requirements, conditions, and standards set forth herein. The CONSULTANT shall collect and maintain the necessary subconsultant compliance and acknowledgement documentation and remove any subconsultant immediately, if the necessary said documentation is unavailable or the subconsultant is not adhering to the requirements and standards herein. The CONSULTANT shall provide subconsultant compliance and acknowledgement documentation to CFX upon request.

The approved subconsultants are:

A2 Group, Inc. - 03728 ✓	Adaptive Consulting Engineers, LLC - 32636
AE Engineering, Inc., - 29520 ✓	Civil Site Engineering, Inc., - 26984 ✓
Kinard-Stone, Inc., - 32638	Madrid Engineering Group, Inc. - 32335 ✓
Metric Engineering, Inc. - 00274 ✓	Pi Consulting Services, LLC - 23198 ✓
AECOM, Inc. - 30273 ✓	CDM Smith, Inc. - 20415 ✓
DRMP, Inc. - 00146 ✓	Eisman & Russo, Inc. - 07372 ✓
England, Thims & Miller, Inc. - 30977 ✓	EXP U.S. Services, Inc. - 32635 ✓
*GPI, LLC *	HNTB Corporation - 00232 ✓
Johnson, Mirmiran, & Thompson, Inc. - 2230 ✓	KCCS, Inc. - 05951 ✓
Jones, Wood & Gentry, Inc. - 03966 ✓	PRAGMA Consulting, LLC - 05955 ✓
Target Engineering Group, LLC - 10476 ✓	Transystems Corporation Consultants *
Rummel, Klepper & Kahl, LLP dba RK&K - 13474	

CONSULTANT shall not further sublet, sell, transfer, assign, delegate, subcontract, or otherwise dispose of this Contract or any portion thereof, or of the CONSULTANT's right, title, or interest therein without the written consent of CFX, which may be withheld in CFX'S sole and absolute discretion. Any attempt by CONSULTANT to dispose of this Contract as described above, in part or in whole, without CFX's written consent shall be null and void and shall, at CFX's option, constitute a default under the Contract.

If, during the term of the Contract, CONSULTANT desires to subcontract any portion(s) of the work to a subconsultant that was not disclosed by the CONSULTANT to CFX at the time that the Contract was originally awarded, and such subcontract would, standing alone or aggregated with prior subcontracts awarded to the proposed subconsultant, equal or exceed twenty five thousand dollars (\$25,000.00), the CONSULTANT shall first submit a request to CFX's Director of Procurement for authorization to enter into such subcontract. Except in the case of an emergency, as determined by the

Executive Director or his/her designee, no such subcontract shall be executed by the CONSULTANT until it has been approved by CFX Board. In the event of a designated emergency, the CONSULTANT may enter into such a subcontract with the prior written approval of the Executive Director or his/her designee, but such subcontract shall contain a provision that provides that it shall be automatically terminated if not approved by CFX Board at its next regularly scheduled meeting.

5.0 COMPENSATION

CFX agrees to pay the CONSULTANT compensation as detailed in Exhibit "B", Method of Compensation, attached hereto and made a part hereof, in the amount of \$3,500,000.00. Bills for fees or other compensation for services or expenses shall be submitted to CFX in detail sufficient for a proper pre-audit and post audit thereof.

The CONSULTANT may be liable for CFX costs resulting from negligent, reckless or intentionally wrongful errors or deficiencies in designs furnished under this Agreement. CFX may enforce such liability and collect the amount due if the recoverable cost will exceed the administrative cost involved or is otherwise in CFX's best interest. Records of costs incurred by the CONSULTANT under terms of this Agreement shall be maintained and made available upon request to CFX at all times during the period of this Agreement and for five (5) years after final payment is made. Copies of these documents and records shall be furnished to CFX upon request. The CONSULTANT agrees to incorporate the provisions of this paragraph in any subcontract into which it might enter with reference to the work performed. Records of costs incurred includes the CONSULTANT's general accounting records and the project records, together with supporting documents and records, of the CONSULTANT and all subconsultants performing work on the project, and all other records of the CONSULTANT and subconsultants considered necessary by CFX for a proper audit of project costs. The obligations in this paragraph shall survive the termination of the Agreement and continue in full force and effect.

The general cost principles and procedures for the negotiation and administration, and the determination or allowance of costs under this Agreement shall be as set forth in the Code of Federal Regulations, Titles 23, 48, 49, and other pertinent Federal and State Regulations, as applicable and determined by CFX, with the understanding that there is no conflict between State and Federal regulations in that the more restrictive of the applicable regulations will govern. Whenever travel costs are included in Exhibit "B", the provisions of Section 112.061, Florida Statutes, shall govern as to reimbursable costs.

Payments shall be made in accordance with the Local Government Prompt Payment Act in part VII, Section 218, Florida Statutes.

6.0 DOCUMENT OWNERSHIP AND RECORDS

Notwithstanding Paragraph 17, CONSULTANT acknowledges that CFX is a body politic and corporate, an agency of the State of Florida, and is subject to the Public Records Act codified in Chapter 119, Florida Statutes. To the extent that the CONSULTANT is in the possession of documents that fall within the definition of public records subject to the Public Records Act, which public records have not yet been delivered to CFX, Consultant agrees to comply with Section 119.0701, Florida Statutes.

IF THE CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONSULTANT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT Phone: 407-690-5000, e-mail: publicrecords@cfxway.com, and address: Central Florida Expressway Authority, 4974 ORL Tower Road, Orlando, FL. 32807.

An excerpt of Section 119.0701, Florida Statutes is below.

Per Section 119.0701(1), "Contractor" means an individual, partnership, corporation, or business entity that enters into a contract for services with a public agency and is acting on behalf of the public agency as provided under s. 119.011(2).

Per Section 119.0701(b). The contractor shall comply with public records laws, specifically to:

1. Keep and maintain public records required by the public agency to perform the service.
2. Upon request from the public agency's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in this chapter or as otherwise provided by law.
3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the public agency.
4. Upon completion of the contract, transfer, at no cost, to the public agency all public records in possession of the contractor or keep and maintain public records required by the public agency to perform the service. If the contractor transfers all public records to the public agency upon completion of the contract, the contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the contractor keeps and maintains public records upon completion of the contract, the contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the public agency, upon request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.

The CONSULTANT shall allow public access to all documents, papers, letters, or other material as approved and authorized by CFX and subject to the provisions of Chapter 119, Florida Statutes, and made or received by the CONSULTANT in conjunction with this Agreement. Failure by the CONSULTANT to grant such public access shall be grounds for immediate unilateral cancellation of this Agreement by CFX.

The obligations in Section 6.0, Document Ownership and Records, shall survive the expiration or termination of this Agreement and continue in full force and effect.

7.0 COMPLIANCE WITH LAWS

The CONSULTANT shall comply with all federal, state and local laws and ordinances applicable to the work or payment for work thereof, and shall not discriminate on the grounds of race, color, religion, sex, or national origin in the performance of work under this contract.

The CONSULTANT shall keep fully informed regarding and shall fully and timely comply with all current laws and future laws that may affect those engaged or employed in the performance of this Agreement.

8.0 WAGE RATES AND TRUTH-IN-NEGOTIATIONS CERTIFICATE

The CONSULTANT hereby certifies, covenants and warrants that wage rates and other factual unit costs as shown in attached Exhibit "C", Details of Costs and Fees, supporting the compensation provided in Paragraph 5.0 are accurate, complete and current as of the date of this Agreement. It is further agreed that said price provided in Paragraph 5.0 hereof shall be adjusted to exclude any significant sums where CFX shall determine the price was increased due to inaccurate, incomplete or non-current wage rates and other factual unit costs. All such adjustments shall be made within one year following the date of final billing or acceptance of the work by CFX, whichever is later.

9.0 TERMINATION

CFX may terminate this Agreement in whole or in part at any time the interest of CFX requires such termination.

If CFX determines that the performance of the CONSULTANT is not satisfactory, CFX shall have the option of (a) immediately terminating the Agreement or (b) notifying the CONSULTANT of the deficiency with a requirement that the deficiency be corrected within a specified time, otherwise the Agreement will be terminated at the end of such time.

If CFX requires termination of the Agreement for reasons other than unsatisfactory performance of the CONSULTANT, CFX shall notify the CONSULTANT in writing of such termination, not less than seven (7) calendar days as to the effective date of termination or specify the stage of work at which the Agreement is to be terminated.

If CFX abandons the work or subtracts from the work, suspends, or terminates the Agreement as presently outlined, the CONSULTANT shall be compensated for actual costs, as determined in Exhibit "B", for work performed by the CONSULTANT prior to abandonment or termination of the Agreement.

The ownership of all engineering documents completed or partially completed at the time of such termination or abandonment, shall be retained by CFX.

The ownership of all engineering documents completed or partially completed at the time of such termination or abandonment, shall be retained by CFX.

CFX reserves the right to cancel and terminate this Agreement in the event the CONSULTANT or any employee, servant, or agent of the CONSULTANT is indicted or has a direct information issued against him for any crime arising out of or in conjunction with any work being performed by the CONSULTANT for or on behalf of CFX, without penalty. It is understood and agreed that in the event of such termination, all tracings, plans, specifications, maps, and data prepared or obtained under this Agreement shall immediately be turned over to CFX. The CONSULTANT shall be compensated for its services rendered up to the time of any such termination in accordance with Paragraph 5.0 hereof. CFX also reserves the right to terminate or cancel this Agreement in the event the CONSULTANT shall be placed in either voluntary or involuntary bankruptcy or an assignment be made for the benefit of creditors. CFX further reserves the right to suspend the qualifications of the CONSULTANT to do business with CFX upon any such indictment or direct information. In the event that any such person against whom any such indictment or direct information is brought shall have such indictment or direct information dismissed or be found not guilty, such suspension on account thereof may be lifted by CFX's Director of Construction.

10.0 ADJUSTMENTS

All services shall be performed by the CONSULTANT to the reasonable satisfaction of the Director of Construction who shall decide all questions, difficulties and dispute of any nature whatsoever that may arise under or by reason of this Agreement, the prosecution and fulfillment of the services hereunder and the character, quality, amount and value thereof; and his decision upon all claims, questions and disputes shall be final. Adjustments of compensation and term of the Agreement, because of any major changes in the work that may become necessary or desirable as the work progresses, shall be left to the absolute discretion of the Director and Supplemental Agreement(s) of such a nature as required may be entered into by the parties in accordance herewith. Disputes between the Director of Construction and the CONSULTANT that cannot be resolved shall be referred to CFX's Executive Director whose decision shall be final.

In the event that the CONSULTANT and CFX are not able to reach an agreement as to the amount of compensation to be paid to the CONSULTANT for supplemental work desired by CFX, the CONSULTANT shall be obligated to proceed with the supplemental work in a timely manner for the amount determined by CFX to be reasonable. In such event, the CONSULTANT will have the right to file a claim with CFX for such additional amounts as the CONSULTANT deems reasonable; however, in no event will the filing of the claim or the resolution or litigation thereof, through administrative procedures or the courts, relieve the CONSULTANT from the obligation to timely perform the supplemental work.

11.0 HOLD HARMLESS AND INDEMNIFICATION, SOVEREIGN IMMUNITY

The CONSULTANT shall indemnify and hold harmless CFX, and its officers and employees from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the design professional and other persons employed or utilized by the design professional in the performance of the Agreement.

Subject to the provisions and limitations set forth in law, the CONSULTANT expressly agrees to indemnify, defend, and hold harmless CFX, and its officers, and employees, from any claim, liabilities, losses, damages, and costs, including, but not limited to, reasonable attorneys' fees, arising from any act, error or omission of the CONSULTANT and other persons employed or utilized by the CONSULTANT in the performance of the Agreement, except that the CONSULTANT will not be liable under this paragraph for claims of, or damages resulting from, gross negligence, or willful, wanton or intentional misconduct of CFX, its officers, or employees during the performance of the Agreement.

When CFX receives a notice of claim for damages that may have been caused by the CONSULTANT in the performance of services required by the CONSULTANT under this Agreement, CFX will immediately forward the notice of claim to the CONSULTANT. The CONSULTANT and CFX will evaluate the notice of claim and report their findings to each other within fourteen (14) calendar days.

In the event a lawsuit is filed against CFX alleging negligence or wrongdoing by the CONSULTANT, CFX and the CONSULTANT will jointly discuss options in defending the lawsuit. After reviewing the lawsuit, CFX will determine whether to request the participation of the CONSULTANT in the defense of the lawsuit or to request that the CONSULTANT defend CFX in such lawsuit as described in this section. CFX's failure to notify the CONSULTANT of a notice of claim will not release the CONSULTANT from any of the requirements of this section upon subsequent notification by CFX to the CONSULTANT of the notice of claim or filing of a lawsuit. CFX and the CONSULTANT will pay their own cost for the evaluation, settlement negotiations and trial, if any. However, if only one party participates in the defense of the claim at trial, that party is responsible for all costs, but if the verdict determines that there is joint responsibility the costs and liability for damages will be shared in the same percentage as that judicially established, provided that CFX's liability does not exceed the limits and limitations arising from Section 768.28, Florida Statutes, the doctrine of sovereign immunity, and law.

CFX is an agency of the State of Florida whose limits of liability are set forth in Section 768.28, Florida Statutes, and nothing herein shall be construed to extend the limits of liability of CFX beyond that provided in Section 768.28, Florida Statutes. Nothing herein is intended as a waiver of CFX's sovereign immunity under Section 768.28, Florida Statutes, or law. Nothing hereby shall inure to the benefit of any third party for any purpose, which might allow claims otherwise barred by sovereign immunity or operation of law. Furthermore, all of CFX's obligations are limited to the payment of no more than the amount limitation per person and in the aggregate contained in Section 768.28, Florida Statutes, except for payments for work properly performed, even if the sovereign immunity limitations of that statute are not otherwise applicable to the matters as set forth herein.

The obligations in Section 11.0, Hold Harmless and Indemnification, Sovereign Immunity, shall survive the expiration or termination of this Agreement and continue in full force and effect.

12.0 INFRINGEMENT OF PATENTS AND COPYRIGHTS

The CONSULTANT shall pay all royalties and assume all costs arising from the use of any invention, design, process materials, equipment, product or device which is the subject of patent rights or copyrights. The CONSULTANT shall, at its expense, hold harmless and defend CFX against any claim, suit or proceeding brought against CFX which is based upon a claim, whether rightful or otherwise, that the goods or services, or any part thereof, furnished under this Agreement, constitute an infringement of any patent or copyright of the United States. The CONSULTANT shall pay all damages and costs awarded against CFX. The obligations in Section 12.0, Infringement of Patents and Copyrights, shall survive the expiration or termination of this Agreement and continue in full force and effect.

13.0 THIRD PARTY BENEFICIARY

The CONSULTANT warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the CONSULTANT to solicit or secure this Agreement, and that the CONSULTANT has not paid or agreed to pay any person, company, corporation, individual or firm any fee, commission, percentage, gift or any other consideration, contingent upon or resulting from the award or making of this Agreement. It is understood and agreed that the term "fee" shall also include brokerage fee, however denoted. For the breach or violation of this paragraph, CFX shall have the right to terminate this Agreement without liability, and, at its discretion, to deduct from the contract price, or otherwise recover, the full amount of such fee, commission percentage, gift or consideration.

14.0 INSURANCE

The CONSULTANT, at its own expense, shall keep in force and at all times maintain during the term of this Agreement all insurance of the types and to the limits specified herein.

The CONSULTANT shall require and ensure that each of its subconsultants providing services hereunder procures and maintains, until the completion of the services, insurance of the requirements, types and to the limits specified herein. Upon request from CFX, the CONSULTANT shall furnish copies of certificates of insurance evidencing coverage of each subconsultant.

The CONSULTANT shall require all insurance policies in any way related to the work and secured and maintained by the CONSULTANT to include clauses stating each underwriter shall waive all rights of recovery, under subrogation or otherwise, against CFX. The CONSULTANT shall require of subconsultants, by appropriate written agreements, similar waivers each in favor of all parties enumerated in this section. When required by the insurer, or should a policy condition not permit an endorsement, the CONSULTANT agrees to notify the insurer and request that the policy(ies) be endorsed with a Waiver of Transfer of Rights of Recovery Against Others, or an equivalent endorsement.

This Waiver of Subrogation requirement shall not apply to any policy, which includes a condition that specifically prohibits such an endorsement or voids coverage should the CONSULTANT enter into such an agreement on a pre-loss basis. At the CONSULTANT's expense, all limits must be maintained.

14.1 Commercial General Liability coverage shall be on an occurrence form policy for all

operations including, but not limited to, Contractual, Products and Completed Operations, and Personal Injury. The limits shall be not less than One Million Dollars (\$1,000,000) per occurrence, Combined Single Limits (CSL) or its equivalent. The general aggregate limit shall apply separately to this Agreement (with Insurance Services Office (ISO) Form CG 25 01 or insurer's equivalent endorsement provided to CFX) or the general aggregate limit shall be twice the required occurrence limit. CFX shall be listed as an additional insured. ISO Form CG 20 10 11 85 or if not available, ISO Forms CG 20 10 10 01 and CG 20 37 10 01, or if not available, their equivalent acceptable to CFX, shall be used to meet these requirements and a photocopy of same shall be provided with the Certificate. The CONSULTANT further agrees coverage shall not contain any endorsement(s) excluding or limiting Product/Completed Operations, Independent Consultants, Broad Form Property Damage, X-C-U Coverage, Contractual Liability, or Severability of Interests. The Additional Insured Endorsement included on all such insurance policies shall state that coverage is afforded the additional insured with respect to claims arising out of operations performed by or on behalf of the insured. If the additional insureds have other insurance which is applicable to the loss, such other insurance shall be excess to any policy of insurance required herein. The amount of the insurer's liability shall not be reduced by the existence of such other insurance.

14.2 Business Automobile Liability coverage shall be on an occurrence form policy for all owned, non-owned and hired vehicles issued on ISO Form CA 00 01 or its equivalent. The limits shall be not less than One Million Dollars (\$1,000,000) per occurrence, Combined Single Limits (CSL) or its equivalent. In the event the CONSULTANT does not own automobiles the CONSULTANT shall maintain coverage for hired and non-owned auto liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

Each of the above insurance policies shall include the following provisions: (1) The standard severability of interest clause in the policy and when applicable the cross liability insurance coverage provision which specifies that the inclusion of more than one insured shall not operate to impair the rights of one insured against another insured, and the coverages afforded shall apply as though separate policies had been issued to each insured; (2) The stated limits of liability coverage for Commercial/Comprehensive General Liability, and Business Automobile Liability, assumes that the standard "supplementary payments" clause will pay in addition to the applicable limits of liability and that these supplementary payments are not included as part of the insurance policies limits of liability.

14.3 Workers' Compensation and Employer's Liability Insurance shall be provided as required by law or regulation (statutory requirements). Employer's Liability insurance shall be provided in amounts not less than \$100,000 per accident for bodily injury by accident, \$100,000 per employee for bodily injury by disease, and \$500,000 policy limit by disease. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of CFX for all work performed by the CONSULTANT, its employees, agents and subconsultants.

14.4 Professional Liability Coverage shall have limits of not less than One Million Dollars (\$1,000,000) Combined Single Limit (CSL) or its equivalent, protecting the selected firm or individual against claims of CFX for negligence, errors, mistakes or omissions in the performance of services to be performed and furnished by the CONSULTANT.

The CONSULTANT shall provide CFX with Certificate(s) of Insurance with required endorsements on all the policies of insurance and renewals thereof in a form(s) acceptable to CFX. CFX shall be notified in writing of any reduction, cancellation or substantial change of policy or policies at

least thirty (30) days prior to the effective date of said action.

All insurance policies shall be issued by responsible companies who are acceptable to CFX and licensed to do business under the laws of the State of Florida. Each Insurance company shall minimally have an A.M. Best rating of A-VII. If requested by CFX, CFX shall have the right to examine copies and relevant provisions of the insurance policies required by this Agreement, subject to the appropriate confidentiality provisions to safeguard the proprietary nature of CONSULTANT manuscript policies.

In the event any of the aforementioned insurance policies provide greater coverage or greater limits than the minimum requirements set forth herein, then CFX shall be entitled to the full coverage and limits of such policies, and these insurance requirements will be deemed to require such greater coverage and greater limits.

Any deductible or self-insured retention must be declared to and approved by CFX. At the option of CFX, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as requests CFX, or the CONSULTANT shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

All such insurance required by the CONSULTANT shall be primary to, and not contribute with, any insurance or self-insurance maintained by CFX.

Compliance with these insurance requirements shall not relieve or limit the CONSULTANT's liabilities and obligations under this Agreement. Failure of CFX to demand such certificate or evidence of full compliance with these insurance requirements or failure of CFX to identify a deficiency from evidence provided will not be construed as a waiver of the CONSULTANT's obligation to maintain such insurance.

The acceptance of delivery by CFX of any certificate of insurance evidencing the required coverage and limits does not constitute approval or agreement by CFX that the insurance requirements have been met or the insurance policies shown in the certificates of insurance are in compliance with the requirements.

15.0 COMMUNICATIONS

The CONSULTANT agrees that it shall make no statements, press releases or publicity releases concerning this Agreement or its subject matter or otherwise disclose or permit to be disclosed any of the data or other information obtained or furnished in compliance with this Agreement, or any particulars thereof, during the period of the Agreement, without first notifying CFX and securing its consent in writing, except as required by law. The CONSULTANT also agrees that it shall not publish, copyright or patent any of the data furnished in compliance with this Agreement, it being understood that, under Paragraph 6.0 hereof, such data or information is the property of CFX.

Regarding the use of logos, printed documents and presentations produced for CFX shall not contain the name or logo of the CONSULTANT unless approved by CFX's Public Affairs Officer or his/her designee. Prior approval by CFX's Public Affairs Officer or his/her designee is required if a copy of the CFX logo or any CFX mark, including trademarks, service marks, or any other mark, collectively referred as "Marks," is to be used in a document or presentation. The Marks shall not be altered in any way. The width and height of the Marks shall be of equal proportions. If a black and white Mark is utilized, the Mark shall be properly screened to insure all layers of the Mark are visible. The proper

presentation of CFX Marks is of utmost importance to CFX. Any questions regarding the use of CFX Marks shall be directed to the CFX Public Affairs Officer or his/her designee.

16.0 STANDARD OF CONDUCT

The CONSULTANT covenants and agrees that it and its employees shall be bound by the standards of conduct provided in the Florida Statutes, Chapter 112, Part III, Section 348.753, and Section 104.31 and the CFX Code of Ethics, as it relates to work performed under this Agreement, which standards will be made a part of this Agreement by reference as though set forth in full. The CONSULTANT agrees to complete the Potential Conflict Disclosure Form with contract execution, annually by July 1, and in the event of changed circumstances. If the Disclosure Form is not submitted, or is submitted, but is incomplete, CFX has the right to withhold payments pending receipt of an explanation of such omissions or to terminate the contract for cause. The CONSULTANT agrees to incorporate the first sentence of this paragraph and the second paragraph of this provision in any subcontract into which it might enter with reference to the work performed.

The CONSULTANT acknowledges that it has read CFX's Code of Ethics and the referenced statutes and to the extent applicable to the CONSULTANT, agrees to act in a manner that is consistent with CFX's Code of Ethics.

17.0 DOCUMENTED ALIENS

The CONSULTANT warrants that all persons performing work for CFX under this Agreement, regardless of the nature or duration of such work, shall be United States citizens or properly authorized and documented aliens. The CONSULTANT shall comply with all federal, state and local laws and regulations pertaining to the employment of unauthorized or undocumented aliens at all times during the performance of this Agreement and shall indemnify and hold CFX harmless for any violations of the same. Furthermore, if CFX determines that CONSULTANT has knowingly employed any unauthorized alien in the performance of this Agreement, CFX may immediately and unilaterally terminate this Agreement for cause.

The obligations in Section 17.0, Documented Aliens, shall survive the expiration or termination of this Agreement and continue in full force and effect.

18.0 E-VERIFY CLAUSE

CONSULTANT shall utilize the U.S. Department of Homeland Security's E-Verify System to verify the employment eligibility of all new employees hired by the CONSULTANT during the term of the contract. CONSULTANT shall require all of its subconsultants to verify the employment eligibility of all new employees hired by the subconsultants during the term of the Agreement.

19.0 CONFLICT OF INTEREST

The CONSULTANT shall not knowingly enter into any other contract with CFX during the term of this Agreement which would create or involve a conflict of interest with the services provided herein. Likewise, subconsultants shall not knowingly enter into any other contract with CFX during the term of this Agreement which would create or involve a conflict of interest with the service provided herein and as described below. Questions regarding potential conflicts of interest shall be addressed to the Executive Director for resolution.

During the term of this Agreement the CONSULTANT is not eligible to pursue any advertised construction engineering and inspection projects of CFX as either a prime or subconsultant where the CONSULTANT participated in the oversight of the projects or for any project which the CONSULTANT prepared plans and/or specifications. Subconsultants are also ineligible to pursue construction engineering and inspection projects where they participated in the oversight of the projects or for any project which the subconsultant was involved in the preparation of plans and/or specifications.

20.0 INSPECTOR GENERAL

CONSULTANT agrees to comply with Section 20.055(5), Florida Statutes, and agrees to cooperate with the inspector general in any investigation, audit, inspection, review, or hearing pursuant to this section. CONSULTANT agrees to incorporate in all subcontracts the obligation to comply with Section 20.055(5). The obligations in Section 20.0, Inspector General, shall survive the expiration or termination of this Agreement and continue in full force and effect.

21.0 PUBLIC ENTITY CRIME INFORMATION AND ANTI-DISCRIMINATION STATEMENT

Pursuant to Section 287.133(2)(a), Florida Statutes, “a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in s. 287.017 for CATEGORY TWO (\$35,000) for a period of 36 months following the date of being placed on the convicted vendor list.” Pursuant to Section 287.134(2)(a), Florida Statutes, “an entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier,

subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity.”

22.0 COMPANIES PURSUANT TO SECTION 287.135 AND 215.473

CFX may terminate this Agreement for breach of contract if the Consultant:

- 22.1. submitted a false certification as provided under Florida Statute 287.135(5); or
- 22.2. been placed on the Scrutinized Companies with Activities in Sudan List; or
- 22.3. been placed on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List; or
- 22.4. been engaged in business operations in Cuba or Syria; or
- 22.5. found to have been placed on the Scrutinized Companies that Boycott Israel List or is engaged in a boycott of Israel.

23.0 AVAILABILITY OF FUNDS

CFX’s performance and obligation to pay under this contract are contingent upon an annual budget appropriation by its Board. The parties agree that in the event funds are not appropriated, this Agreement may be terminated, which shall be effective upon CFX giving notice to the CONSULTANT to that effect.

24.0 AUDIT AND EXAMINATION OF RECORDS

24.1 Definition of Records:

(i) “Contract Records” shall include, but not be limited to, all information, communications and data, whether in writing or stored on a computer, computer disks, microfilm, writings, working papers, drafts, computer printouts, field notes, charts or any other data compilations, books of account, photographs, videotapes and audiotapes supporting documents, any other papers or preserved data in whatever form, related to the Contract or the CONSULTANT’s performance of the Contract determined necessary or desirable by CFX for any purpose. Proposal Records shall include, but not be limited to, all information and data, whether in writing or stored on a computer, writings, working papers, computer printouts, charts or other data compilations that contain or reflect information, data or calculations used by CONSULTANT in determining labor, unit price, or any other component of a bid submitted to CFX.

(ii) “Proposal Records” shall include, but not be limited to, any material relating to the determination or application of equipment rates, home and field overhead rates, related time schedules, labor rates, efficiency or productivity factors, arithmetic extensions, quotations from subcontractors, or material suppliers, profit contingencies and any manuals standard in the industry that may be used by CONSULTANT in determining a price.

24.2 CFX reserves and is granted the right (at any time and from time to time, for any reason whatsoever) to review, audit, copy, examine and investigate in any manner, any Contract Records (as

herein defined) or Proposal Records (as hereinafter defined) of the CONSULTANT or any subcontractor. By submitting a response to the Request for Proposal, CONSULTANT or any subcontractor submits to and agree to comply with the provisions of this section.

24.3 If CFX requests access to or review of any Contract Documents or Proposal Records and CONSULTANT refuses such access or review, or delays such access or review for over ten (10) calendar days, CONSULTANT shall be in default under its Contract with CFX, and such refusal shall, without any other or additional actions or omissions, constitute grounds for suspension or disqualification of CONSULTANT. These provisions shall not be limited in any manner by the existence of any CONSULTANT claims or pending litigation relating to the Contract. Disqualification or suspension of the CONSULTANT for failure to comply with this section shall also preclude the CONSULTANT from acting in the future as a subcontractor of another contractor doing work for CFX during the period of disqualification or suspension. Disqualification shall mean the CONSULTANT is not eligible for and shall be precluded from doing future work for CFX until reinstated by CFX.

24.4 Final Audit for Project Closeout: The CONSULTANT shall permit CFX, at CFX's option, to perform or have performed, an audit of the records of the CONSULTANT and any or all subconsultants to support the compensation paid the CONSULTANT. The audit will be performed as soon as practical after completion and acceptance of the contracted services. In the event funds paid to the CONSULTANT under the Contract are subsequently determined to have been inadvertently paid by CFX because of accounting errors or charges not in conformity with the Contract, the CONSULTANT agrees that such amounts are due to CFX upon demand. Final payment to the CONSULTANT shall be adjusted for audit results.

24.5 CONSULTANT shall preserve all Proposal Records and Contract Records for the entire term of the Contract and for a period of five (5) years after the later of: (i) final acceptance of the project by CFX, (ii) until all claims (if any) regarding the Contract are resolved, or (iii) expiration of the Proposal Records and Contract Records' status as public records, as and if applicable, under Chapter 119, Florida Statutes.

24.6 The obligations in Section 24.0, Audit and Examination of Records, shall survive the expiration or termination of this Agreement and continue in full force and effect.

25.0 GOVERNING LAW AND VENUE

This Agreement shall be governed by and constructed in accordance with the laws of the State of Florida. The parties consent to the exclusive jurisdiction of the courts located in Orange County, Florida. The obligations in Section 25.0, Governing Law and Venue, shall survive the expiration or termination of this Agreement and continue in full force and effect.

26.0 NOTICE

All notices required pursuant to the terms hereof shall be sent by First Class United States Mail. Unless prior written notification of an alternate address for notices is sent, all notices shall be sent to the following addresses:

To CFX: Central Florida Expressway Authority
4974 ORL Tower Road
Orlando, FL 32807
Attn: Chief of Infrastructure

Central Florida Expressway Authority
4974 ORL Tower Road
Orlando, FL 32807
Attn: General Counsel

To CONSULTANT: Elipsis Engineering & Consulting, LLC
530 S. Main Street
Winter Garden, FL. 34787
Attn: Sarah Blake

Elipsis Engineering & Consulting, LLC
530 S. Main Street
Winter Garden, FL. 34787
Attn: Chris Nolen

27.0 HEADINGS

Headings are given to the sections of the Agreement solely as a convenience to facilitate reference. Such headings shall not be deemed in any way material or relevant to the construction or interpretation of the Agreement.

28.0 CONTRACT LANGUAGE AND INTERPRETATION

All words used herein in the singular form shall extend to and include the plural. All words used in the plural form shall extend to and include the singular. All words used in any gender shall extend to and include all genders.

References to statutes or regulations shall include all statutory or regulatory provisions consolidating, amending, or replacing the statute or regulation referred to. Words not otherwise defined that have well known technical or industry meanings, are used in accordance with such recognized meanings. References to persons include their respective functions and capacities.

If the CONSULTANT discovers any material discrepancy, deficiency, ambiguity, error, or omission in this Agreement, or is otherwise in doubt as to the meaning of any provision of the Agreement, the CONSULTANT shall immediately notify CFX and request clarification of CFX's interpretation of this Agreement.

The Agreement shall not be more strictly construed against either party hereto by reason of the fact that one party may have drafted or prepared any or all of the terms and provisions hereof.

29.0 ASSIGNMENT

This Agreement may not be assigned without the written consent of CFX.

30.0 SEVERABILITY

The invalidity or non-enforceability of any portion or provision of this Agreement shall not affect the validity or enforceability of any other portion or provision. Any invalid or unenforceable portion or provision shall be deemed severed from this Agreement and the balance hereof shall be construed and enforced as if this Agreement did not contain such invalid or unenforceable portion or provision.

31.0 INTEGRATION

This Agreement constitutes the entire agreement among the parties pertaining to the subject matter hereof and supersedes all prior and contemporaneous agreements, understandings, negotiations and discussions of the parties, whether oral or written, and there are no other agreements between the parties in connection with the subject matter hereof. No waiver, amendment, or modification of these terms hereof will be valid unless in writing, signed by all parties and only to the extent therein set forth.

32.0 ATTACHMENTS

- Exhibit "A", Scope of Services
- Exhibit "B", Method of Compensation
- Exhibit "C", Details of Cost and Fees
- Exhibit "D", Project Organization Chart

IN WITNESS WHEREOF, the CONSULTANT and CFX have caused this instrument to be signed by their respective duly authorized officials, as of the day and year first above written. This Contract was awarded by CFX's Board of Directors at its meeting on August 9, 2018.

**ELIPSIS ENGINEERING
& CONSULTING, LLC**

**CENTRAL FLORIDA
EXPRESSWAY AUTHORITY**

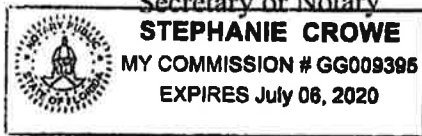
BY: Sarah m Blake
Authorized Signature

BY: [Signature]
Director of Procurement

Title: managing member

Print Name: Aneeth Williams

ATTEST: [Signature] (Seal)
Secretary or Notary



2018 AUG 9 AM 9:25

Approved as to form and execution, only.

General Counsel for CFX

Joseph Lassatore

EXHIBIT A
SCOPE OF SERVICES

EXHIBIT A
SCOPE OF SERVICES

CONSTRUCTION ENGINEERING AND INSPECTION CONSULTANT

I. PURPOSE

The Central Florida Expressway Authority (CFX) requires the services of a consultant in connection with Construction Engineering and Inspection (CEI) services. CFX has a core staff of CEI management personnel and is seeking assistance from a Consultant who will provide support personnel on an as-needed, per project basis. Support personnel required by CFX may include, but is not necessarily limited to; Senior Project Engineer, Project Administrator, Senior Inspector, Inspector, Asphalt Plant Inspector, Inspector's Aide, Survey Party Chief Instrument Man, Rod Man/Chain Man, Environmental Specialist, Casting Yard Engineer, Senior ITS Inspector, ITS Inspector and others deemed necessary and authorized by CFX on a variety of contracts scheduled to be awarded for construction.

The Consultant shall minimize, to the extent possible, CFX's need to apply its own resources to authorized assignments. CFX, at its option, may elect to expand, reduce or delete the extent of each work element described in this Scope of Services.

CFX will request Consultant services on an as-needed, per project basis as described below. There is no guarantee that any or all of the services described in this Scope of Services will be assigned during the term of the Agreement. Further, the Consultant, as indicated below, will provide these services on a non-exclusive basis. CFX, at its option, may elect to have any of the services performed by other consultants or CFX staff.

The Consultant is one of several consultants who are under contract to CFX to provide support personnel for various construction projects. At least 30 days before the notice to proceed is issued to the construction contractor for a project, CFX will identify the CEI support personnel it will require by job classification and request from the consultants a list of resumes for available individuals. From these resumes, CFX will select the most qualified team and negotiate fees and expenses with that consultant. The intent of this process is to ensure that CFX has a resource pool of consultants who can provide qualified professional, technical and administrative personnel, in the required numbers and at the required times, to assure that services and responsibilities assigned under this Scope of Services are effectively and efficiently carried out.

II. GENERAL REQUIREMENTS

The Consultant shall exercise its independent professional judgment in performing its obligations and responsibilities under the Contract.

The Consultant shall be prequalified by the Florida Department of Transportation (FDOT) to perform the appropriate work categories established by the FDOT.

III. BEGINNING AND LENGTH OF SERVICES

Work shall commence upon issuance of the written Notice to Proceed from the Director of Construction. (References to CFX's Director of Construction shall be taken to mean his designated representative as well.) The Contract term will be three (3) years with two 1-year renewal options.

Services to be provided by the Consultant will be initiated and completed as directed by CFX's Director of Construction for each Task Work Order Assignment authorized under the Contract.

The Director of Construction shall furnish the Consultant a Letter of Authorization for each Task Work Order outlining the services to be performed and the compensation to be paid for services authorized pursuant to the Scope of Services document attached to the Letter of Authorization. No payment for work performed shall be made to the Consultant unless a Letter of Authorization for that Task Work Order has been mutually agreed to in writing by CFX and Consultant (refer to the Method of Compensation).

For the duration of each project assigned under the Contract, the Consultant shall coordinate closely with CFX to minimize rescheduling of Consultant activities due to construction delays or changes in scheduling of the construction contractor's activities.

For estimating purposes, the Consultant will be allowed an accumulation of fifteen (15) calendar days to perform preliminary administrative services prior to the issuance of the notice to proceed to the construction contractor and fifteen (15) days to demobilize after final acceptance by CFX of an assigned project.

IV. SERVICES

The Consultant will perform the following tasks in the conduct of the Agreement for each assigned project. The following tasks provide an example of the type of work to be required but are not intended to be all inclusive.

A. General

It shall be the responsibility of the Consultant to provide services as necessary to administer the construction contracts in a manner so as to verify that the projects are constructed in conformity with the plans, specifications, contract provisions and within the time allotted by the construction contracts.

The Consultant is expected to pursue its work in such a manner as to cover all major contractor activities and make periodic condition inspections regardless of time of day, or date, or weather

conditions.

The Consultant shall advise CFX of any omissions, substitutions, defects, or deficiencies noted in the work of the construction contractor and the corrective action taken. The work provided by the Contractor shall in no way relieve the construction contractor of responsibility for the satisfactory performance of the construction contract.

B. Inspection Services

The Consultant shall provide services to monitor the construction contractor's on-site construction operations as required to determine that the quality of workmanship and materials is such that the assigned project will be completed in substantial conformity with the plans, specifications, and other contract provisions, and within the specified contract time. The Consultant shall keep detailed, accurate records of the construction contractor's daily operations, progress, and significant events that affect the work.

The standard procedures and practices of CFX for inspection of construction projects are set forth in CFX Construction Project Administration Manual (CPAM: <https://www.cfxway.com/doing-business/contractor-resources/cpam-manual/>) The Consultant shall, in general, perform inspection services in accordance with these standard procedures and practices and approved variations as may be appropriate.

C. Testing

The Consultant shall perform field testing services including but not limited to nuclear density, moisture content, etc. Laboratory Testing of component materials shall be performed by others.

D. Management Engineering Services

The Consultant shall perform the management engineering services necessary to verify that proper coordination of the activities of all parties involved in accomplishing completion of the assigned project is achieved; to maintain complete, accurate records of all activities and events relating to the assigned project; to properly document the significant changes to the assigned project; to provide, upon request, interpretations of the plans, specifications and contract provisions; to make recommendations to CFX to resolve disputes which arise in relation to the assigned project; and to maintain an adequate level of surveillance of the construction contractor's activities. The Consultant shall also perform any other management engineering services that are required to fulfill its responsibilities under the Contract. All records and documentation will be in accordance with standard procedures, format and content, and the policies and procedures of CFX.

Services may include, but are not necessarily limited to the following:

1. At the direction of CFX, schedule and conduct a preconstruction conference for each assigned project. Record significant information and decisions made at this conference and distribute copies of the minutes to the appropriate parties.
2. Maintain project files in accordance with CFX's methods and utilizing CFX's filing system.
3. Receive, review, and recommend acceptance by CFX of the construction contractor's project construction schedule, prepared and submitted in accordance with the construction project's contract documents.
4. Maintain, on a daily basis, a complete and accurate record of the activities and events relating to the assigned project and a record of the work completed by the construction contractor, including quantities of pay items in conformity with final estimate preparation procedures and specifications. The Consultant shall immediately report apparent, significant changes in quantity, time, or cost as they are noted.
5. Maintain a construction diary, including weather, appropriate for the type of construction being performed.
6. Maintain a log of all materials entering into the work with proper indication of the basis of acceptance of each shipment of material.
7. Maintain records of all sampling and testing accomplished and analyze such records as required to ascertain acceptability of materials and completed work items. Reports for records of work and testing results shall be maintained in the Consultant's files for each assigned project.
8. Assess the need for plant testing or inspection, ensure inspectors are scheduled as needed and monitor material testing invoicing for accuracy
9. Once each month, prepare a comprehensive tabulation of the quantity of each pay item satisfactorily completed to date. Quantities shall be based on daily records or calculations. Calculations shall be retained. The tabulation will be used for preparation of the monthly progress estimate. The monthly progress estimate will be jointly prepared by the construction contractor and Consultant. Progress estimates shall be submitted to CFX for review and processing.
10. The Consultant shall make and record such measurements as are necessary to calculate and document quantities for pay items; make and record preconstruction and excavated cross section surveys of the assigned project in those areas where earth work (subsoil excavation) will be paid by calculating volumes removed and paid for within authorized limits at contract unit prices specified in the construction contract. The Consultant shall

perform incidental engineering surveys as may be necessary to carry out the services and to verify and confirm the accuracy of the construction contractor's survey layout work on an occasional and random basis.

11. If requested by CFX, provide to the construction contractor interpretations of the plans, specifications, and contract provisions. In such instances, the Consultant shall confer with CFX when an interpretation involves complex issues or may have an impact on the cost of performing the work.
12. Analyze problems that arise on a project and proposals submitted by the construction contractor and prepare and submit a recommendation to CFX.
13. Analyze changes to the plans, specifications, or contract provisions and extra work which appear to be necessary to carry out the intent of the contract when it is determined that a change or extra work is necessary and such work is within the scope and intent of the original contract for an assigned project.
14. When it is determined that a modification to the original contract for an assigned project is required due to a necessary change in the character of the work, negotiate prices with the construction contractor and prepare and submit for approval by CFX a change proposal request in accordance with applicable procedures.
15. In the event that the construction contractor gives notice, either written or verbal, that it deems certain work to be performed is beyond the scope of the construction contract, and that it intends to claim additional compensation, the Consultant shall maintain accurate force account records of the costs involved in such work. These records shall include manpower and equipment times and materials installed (temporary or permanent) in the portion of the work in dispute.
16. In the event that the construction contractor submits a claim for additional compensation on an assigned project, analyze the submittal and prepare a recommendation to CFX covering validity and reasonableness of charges, and conduct negotiations leading to recommendations for settlement of the claim. Maintain complete force account and other records of work involved in claims.
17. In the event that the construction contractor for a project submits a request for extension of the allowable contract time on an assigned project, analyze the request and prepare a recommendation to CFX covering accuracy of statements and the actual effect of delaying factors on completion of controlling work items.
18. Prepare and submit to CFX all close out documentation for each assigned project, including, but not limited to, formal notification of Final Construction Inspection, Final Acceptance; assembled and indexed written guarantees, certifications, operation and

maintenance manuals, and similar items required by the construction contract documents; completed project (Final) Quantity Computation Manual, with supporting documentation; a written summary of any outstanding issues, claims and matters affecting the Final Contract close out process; the Final Estimate; one full size set each from the construction contractor and the Consultant of the marked record drawings; and similar project close out requirements. The Consultant shall complete this task within fifteen (15) calendar days after final acceptance by CFX of the assigned project (demobilization period).

19. Assist CFX's representatives in preparing for arbitration hearings or litigation that may occur during the Consultant's contract time in connection with an assigned project.
20. Monitor each assigned project to the extent necessary to determine whether construction activities violate the requirements of any permits. Notify the construction contractor of any violations or potential violations and require the construction contractor's immediate resolution of the problem. Immediately report violations to CFX.
21. Track shop drawing/sample submittals and approvals for each assigned project. Tracking shall include maintaining the status of each submittal as it progresses through review and approval. The Consultant shall actively encourage all reviewers to accomplish reviews promptly. The Consultant shall review samples, catalog data, shop drawings, laboratory, shop, and mill tests of materials and equipment, and other data which the construction contractor is required to submit, only for conformance and compliance with the design concept of the assigned project as set forth by the construction contract documents.
22. Provide coordination between the construction contractor and utility companies to facilitate that conflicting utilities are removed, adjusted, or protected in-place in a timely manner to minimize delays to construction operations. Maintain documentation in accordance with the procedures for the assigned project.
23. Conduct weekly meetings with the respective contractor, subcontractors, and/or utility companies for each assigned project to review plans, schedules, problems, or other areas of concern. Prepare and transmit meeting minutes to CFX within two (2) days following the meeting.
24. Conduct and document field review for each assigned project of the maintenance of traffic operation during and after normal working hours, weekends, holidays, and during inclement weather. If maintenance of traffic features create a potential hazard to the public, notify the construction contractor's representative immediately and verify that corrective action is taken.
25. When needed to prevent delays in construction contractor's operations, provide the timely analysis of a situation, recommend alternative solutions, prepare any necessary

sketches, field data, and other resources required to continue the construction progress.

26. When requested by CFX, perform Independent Assurance Services on work being performed by other CCEI or Materials Testing Consultants in accordance with CFX's IA Manual (<https://www.cfxway.com/doing-business/contractor-resources/ia-manual/>).

V. PERSONNEL

A. General Requirements

The Consultant shall provide the required number of qualified personnel as necessary to effectively carry out its responsibilities under the Contract.

B. Personnel Qualifications

The Consultant shall use only competent personnel who are qualified by education, experience, and certification where required. When requested by CFX, the Consultant shall submit resumes detailing education, experience qualifications and certifications of personnel in the required job classifications that the Consultant is proposing for consideration for assignment to the construction project. Minimum qualifications for the Consultant's personnel are defined in Paragraph "E" of this Article.

C. Staffing

For each assigned Task Work Order the Consultant shall staff personnel as required to complete the final project closeout. Responsible personnel, thoroughly familiar with all aspects of construction and measurement of the various pay items, shall be available to resolve disputed final pay quantities until the assigned project/task has been closed out. An individual on an assigned project whose performance is subsequently determined by CFX to be unsatisfactory shall be replaced by the Consultant within one (1) week after notification and shall not be proposed for future assignments unless authorized in writing by the Director of Construction.

Consultant personnel assigned to a project are considered by CFX to be committed to performing services under the Contract. Any changes will require written approval of CFX.

When the construction contractor's operations on a project diminish, CFX will direct an appropriate reduction, by job classification, in the Consultant's personnel. Such reduction of the Consultant's forces by CFX shall be accomplished within one (1) week after notification.

In the event a construction contract suspension on an assigned project requires the removal of Consultant forces from the project, the Consultant will be allowed up to a maximum of ten (10) days to demobilize, relocate, or terminate such forces.

D. Licensing for Equipment Operation

The Consultant shall be responsible for obtaining proper licenses for equipment and personnel operating equipment when licenses are required. Licensing of surface moisture/density (nuclear) gauges shall be obtained through the State of Florida Department of Health, Bureau of Radiation Control, Radio Active Materials Section. Only nuclear density inspectors approved by the FDOT shall be authorized to operate surface moisture/density gauges.

E. Personnel Training and Experience Standards

The following are the minimum training and experience standards for Consultant personnel.

1. Senior Project Engineer

Registration by the Florida State Board of Engineer Examiners as a Professional Engineer and six (6) years of highway construction engineering experience. Experience shall include at least five (5) years of major road or bridge construction. Qualifications include the ability to communicate effectively and actively direct a highly complex and specialized construction engineering administration and inspection program; plan and organize the work of subordinate staff members; consult with CFX's Director of Construction and his staff; develop and review policies, methods, practices and procedures; review the program for conformity with FDOT standards and as amended by CFX. The Senior Project Engineer must be able to interpret and monitor scheduled construction progress; must be qualified to manage field changes, change orders, claims and public complaints.

Qualification:

FDOT Advanced MOT

Attend the CTQP Quality Control Manager course and pass the examination.

Certifications:

None

A Master's Degree in Engineering may be substituted for one (1) year engineering experience.

2. Project Administrator

A Civil Engineering Degree plus four (4) years of engineering experience in construction of major road or bridge structures, or for non-degreeed personnel eight (8) years of responsible and related engineering experience, two (2) years of which involved construction of major road or bridge structures.

Receives general instruction regarding assignments and is expected to exercise initiative and independent judgment in solution of work problems. Directs and assigns specific tasks to inspectors

and assistants for all phases of the construction project. Will be responsible for the progress and final estimates throughout the construction project duration. Must have the following:

Qualifications:

FDOT Intermediate MOT
CTQP Final Estimates Level II

Other:

Attend CTQP Quality Control Manager Course and pass the examination.

A Master's Degree in Engineering may be substituted for one (1) year of engineering experience

3. Contract Support Specialist

High school diploma or equivalent plus four (4) years construction project related experience. Should exercise independent judgment in planning work details and making technical decisions related to office aspects of the project. Must be able to interpret project drawings and technical specifications, organize and summarize construction quantities, and perform computer data entry. Must have technical skill to maintain As-Built (record) drawings.

Qualifications:

CTQP Final Estimates Levels I & II

4. Senior Inspector/Senior Engineer Intern

High School graduate plus four (4) years of experience in construction inspection two (2) years of which shall have been in bridge and/or roadway construction). Responsible for performing highly complex technical assignments in field surveying and construction layout, making and checking engineering computations, inspecting construction work and conducting field tests and is responsible for coordinating and managing the lower level inspectors. Work is performed under general supervision of the Project Administrator. Must have the following:

Qualifications:

CTQP Concrete Field Inspector Level I
CTQP Concrete Transportation Construction Inspector (CTCI) Level II (all bridges)
CTQP Asphalt Roadway Level I (If applicable)
CTQP Asphalt Roadway Level II (If applicable)
CTQP Earthwork Construction Inspection Level I
CTQP Earthwork Construction Inspection Level II
CTQP Pile Driving Inspection (If applicable)
CTQP Drilled Shaft Inspection (If applicable – required for inspection of all drilled shafts including miscellaneous structures such as Sign structures, Lighting structures, and Traffic Signal structures)
CTQP Grouting Technician Level I (If applicable)

CTQP Post-Tensioning Technician Level I (If applicable)
FDOT Intermediate MOT
CTQP Final Estimates Level I

Certifications:

Nuclear Radiation Safety

SSPC course: C-3 Supervisor/Competent Person Training for Deleading of Industrial Structures (If applicable)

5. Resident Compliance Specialist

Graduation from an accredited high school or equivalent with one (1) year of experience as a resident compliance officer on a construction project or two (2) years of assisting the compliance officer in monitoring the project. Should have prior experience in both State funded and Federal Aid funded construction projects with FDOT and knowledge of EEO/AA laws and FDOT's DBE and OJT programs. Ability to analyze, collect, evaluates data, and take appropriate action when necessary. Must attend all training workshops or meetings for Resident Compliance Specialists as determined necessary.

6. Inspector/Engineer Intern

High school graduate or equivalent plus two (2) years experience in construction inspection, one (1) year of which shall have been in bridge and/or roadway construction inspection, plus the following:

Qualifications:

CTQP Concrete Field Inspector Level I

CTQP Asphalt Roadway Level I (If applicable)

CTQP Earthwork Construction Inspection Level I

CTQP Pile Driving Inspection (If applicable)

CTQP Drilled Shaft Inspection (If applicable— required for inspection of all drilled shafts including miscellaneous structures such as Sign structures, Lighting structures, and Traffic Signal structures)

CTQP Final Estimates Level I

Certifications:

Nuclear Radiation Safety

Or a Civil Engineering degree with the ability to earn additional required qualifications within one year. (Note: Engineer Intern classification requires E.I.T. certificate.)

Responsible for performing assignments in assisting Senior Inspector in the performance of their duties. Receive general supervision from the Senior Inspector who reviews work while in

progress. Civil Engineering graduates must obtain certifications within the first year of working as an inspector or Engineer Intern. Exceptions will be permitted on a case-by-case basis so long as qualifications and certifications are appropriate for specific inspection duties.

7. Asphalt Plant Inspector

High School graduate or equivalent plus one (1) year experience in the surveillance and inspection of hot mix asphalt plant operations and the following:

Qualifications:

CTQP Asphalt Plant Level I
CTQP Asphalt Plant Level II
CTQP Final Estimates Level I

Certifications:

None

8. Inspector's Aide

High School graduate or equivalent and able to perform basic mathematical calculation and follow simple technical instructions. Duties are to assist higher-level inspectors.

9. Survey Party Chief

High School graduate plus four years of experience in construction surveying (including two (2) years as Party Chief). Experienced in field engineering and construction layout, making and checking survey computations and supervising a survey party. Work is performed under general supervision of Project Administrator.

10. Instrument Man

High school graduate plus three (3) years of experience in construction surveying one (1) year of which shall have been as instrument-man. Responsible for performing assignments in assisting Party Chief in the performance of their duties. Receives general supervision from Party Chief who reviews work while in progress.

11. Rod Man/Chain Man

High school graduate with some survey experience or training preferred. Receives supervision from and assists Party Chief who reviews work while in progress.

12. Secretary/Clerk Typist

High school graduate or equivalent plus two (2) years of secretarial and/or clerical experience. Ability to type at a rate of 35 correct words per minute. Experienced in the use of standard word processing software. Should exercise independent initiative to help relieve the supervisor of clerical detail. Work under general supervision of the Senior Project Engineer and their staff.

13. Environmental Specialist

A bachelors degree with a major in one of the physical or natural sciences or engineering and two (2) years of professional experience in environmental protection, regulation or health; one of the physical or natural sciences; or engineering; or a Masters degree in one of the physical or natural sciences or engineering and one (1) year of professional experience described above; or a Doctorate degree in one of the physical of natural sciences or engineering or one (1) year of experience as an Environmental Specialist I with the State Of Florida. Receives general instruction regarding assignments and is expected to exercise initiative, and independent judgment in the solution of work problems. Must have knowledge of the terminology, principles, data collection, and analytical techniques and procedures of the physical or natural sciences. Also must have ability to collect, evaluate, analyze, and interpret scientific or technical data.

14. Geotechnical Engineer

Be a registered Professional Engineer in the State of Florida (or if registered in another state, have the ability to obtain registration in Florida within 6 months) with a minimum of 5 years of experience in being in responsible charge of the geotechnical foundation construction engineering and dynamic testing work on at least five (5) CFX or FDOT bridge projects, including FDOT Structures Design Category 2 bridge projects, having driven pile foundations/drilled shaft foundations or similar projects for other State Department of Transportations. "Responsible charge" experience shall include verifiable and successful drilled shaft installation and coring inspections and constructions, static, Osterberg Cell and/or Statnamic load test experience, as well as Pile Driving Analyzer (PDA), WEAP computer program and CAPWAP computer programs to analyze concrete/steel/timber piling.

15. Geotechnical Technician

Knowledge in the use and provisions of the PDA system, WEAP and CAPWAP computer programs to analyze concrete/steel/timber piling in conjunction with dynamic load tests with a minimum of three (3) years of experience on at least two (2) CFX or FDOT bridge projects.

Qualifications:

CTQP Pile Driving Inspection

CTQP Drilled Shaft Inspection

16. Public Information Officer

High school graduate or equivalent and be knowledgeable in public information and/or advertising involving mass circulation or distribution of literature, mass advertising or other similar activities and performed such work for a at least three (3) years.

17. Utility Coordinator

High school graduate or equivalent and be knowledgeable of CFX's Standards, policies, procedures, and agreements and shall have a minimum of 4 years of experience performing utility coordination in accordance with CFX or FDOT Standards, policies, procedures, and agreements.

18. Senior ITS Inspector

High school graduate or equivalent plus four (4) years of experience in construction inspection, two (2) years of which shall have been in ITS construction inspection, plus the following:

Qualifications:

Fiber Installation Inspection and OTDR Fiber Testing
DMS Operation and Testing
Controller Operation and Testing
CCTV Installation, Operation and Testing
Familiarity with Existing Communication Equipment and Switches

Certifications:

IMSA Level II

or a Civil Engineering degree and one (1) year of ITS CEI experience.

Responsible for performing highly complex technical assignments in field surveying and construction layout, making and checking engineering computations, inspecting construction work and conducting field tests and is responsible for coordinating and managing the lower level inspectors. Work is performed under the general supervision of the Project Administrator.

19. ITS Inspector

High school graduate or equivalent plus two (2) years experience in construction inspection, one (1) year of which shall have been in ITS construction inspection, plus the following:

Qualifications:

Fiber Installation Inspection and OTDR Fiber Testing
DMS Operation and Testing
Controller Operation and Testing
CCTV Installation, Operation and Testing
Familiarity with Existing Communication Equipment and Switches

Certifications:

None

or a Civil Engineering degree.

Responsible for performing assignments in assisting Senior Inspector in the performance of their duties. Receive general supervision from the Senior Inspector who reviews work while in progress. Civil Engineering graduates must obtain certifications within the first year of working as an inspector or Engineer Intern. Exceptions will be permitted on a case-by-case basis so long as qualifications and certifications are appropriate for specific inspection duties.

VI. QUALITY ASSURANCE (QA) PROGRAM

A. Quality Reviews

The Consultant shall conduct semi-annual reviews to make certain its organization is in compliance with the requirements cited in the Scope of Services. Quality Reviews shall be conducted to evaluate the adequacy of materials, processes, documentation, procedures, training, guidance, and staffing included in the execution of the Contract. Quality Reviews shall also be developed and performed to achieve compliance with specific QA provisions contained in this Scope of Services. The semi-annual reviews shall be submitted to CFX in written form no later than one (1) month after the review.

On assigned projects with short duration (9 months or less), the Consultant shall perform an initial QA review within the first two (2) months of the start of construction.

On asphalt projects, the Consultant shall perform an initial QA review on its asphalt inspection staff after the construction contractor has completed ten (10) full work days of mainline asphalt paving operations, or 25% of the asphalt pay item amount (whichever is less) to validate that all sampling, testing, inspection, and documentation are occurring as required.

B. QA Plan

Within thirty (30) days after execution of the Contract, the Consultant shall furnish a QA Plan to the Director of Construction. The QA Plan shall detail the procedures, evaluation criteria, and instructions of the Consultant's organization for providing services pursuant to the Contract. Unless specifically waived, no payment will be made for any services until CFX approves the Consultant QA Plan.

Significant changes to the work requirements may require the Consultant to revise the QA Plan. The Consultant shall keep the plan current with the work requirements. The Plan shall include, but not be limited to, the following areas:

1. **Organization:** A description is required of the Consultant QA Organization and its functional relationship to the part of the organization performing the work under the Contract. The authority, responsibilities and autonomy of the QA organization shall be detailed as well as the names and qualifications of personnel in the quality control organization.
2. **Quality Reviews:** The Consultant QA shall detail the methods used to monitor and achieve organization compliance with Contract requirements for services and products.
3. **Quality Records:** The Consultant shall outline the types of records which will be generated and maintained during the execution of its QA program.
4. **Control of Subconsultants and Vendors:** The Consultant shall detail the methods used to control subconsultants and vendor quality.
5. **Quality Assurance Certification:** An officer of the Consultant firm shall certify that the inspection and documentation was done in accordance with specifications, plans, standard indices, and CFX procedures.
6. **Quality Records:** The Consultant shall maintain adequate records of the quality assurance actions performed by its organization (including subcontractors and vendors) in providing services and products under the Contract. All records shall indicate the nature and number of observations made, the number and type of deficiencies found, and the corrective actions taken. These records shall be available to CFX, upon request, during the term of the Contract. All records shall be kept at the primary job site and will be subject to audit review.

VII. ITEMS TO BE FURNISHED BY CFX TO THE CONSULTANT

The following printed documents, facilities, equipment and services are furnished by CFX, either directly or as provided by the Contractor on selected construction projects.

- A. Project Construction Contract.
- B. Project Construction (Design) Drawings.
- C. Project Supplemental Specifications.
- D. Project Special Provisions.
- E. R.O.W. Drawings, geotechnical reports, permits and similar documents.
- F. Copy of the original plan quantities project computation manual.
- G. CFX Policy and Procedures Manual.
- H. CFX standardized forms to be used with documentation and reporting procedures.
- I. CFX General Specifications and Technical Specifications.

Unless otherwise stated by CFX at the time of the Task Authorization, the Consultant shall provide office space for its personnel to effectively carry out the requirements of this Scope of Services. Such office expenses will not be paid separately but will be included in the fees negotiated for each assigned project.

VIII. ITEMS TO BE FURNISHED BY THE CONSULTANT

The Consultant shall furnish the quantity of the following items required to effectively perform the work and services required. Except as stated herein, these items are considered normal and incidental to the type of services provided and will not be reimbursed by CFX.

- A. FDOT Standard Specifications for Road and Bridge Construction, current edition.
- B. FDOT Design Standards, current edition.
- C. FDOT Structures Design Standards, current edition.
- D. FDOT Construction Manual, current edition.
- E. FDOT Materials Sampling, Testing and Reporting Guide, current edition.
- F. FDOT Qualified Products Listing, current edition.
- G. FDOT Utility Accommodation Guide, current edition.

- H. FDOT Inspection-In-Depth of the Materials and Construction Control Process Manual, current edition.
- I. FDOT Basis of Estimates and Computation Manual, current edition.
- J. FDOT Sample Computation Manual, Final Estimate Preparation Short Course, and Carter Key Manual, current edition.
- K. Miscellaneous office supplies and accommodations, such as stationery, rubber stamps, engineering rules, pads, pens, daily diaries, survey books, staplers, punches, electronic calculators, adding machines, tape recorder, mail box, postal fees, and any other items necessary to maintain an office.
- L. Project vehicles for CFX related business. Documentation of mileage for CFX related business will be required. Vehicles will be equipped with appropriate safety equipment and must be able to effectively carry out requirements of this Agreement. Vehicles shall have the name and phone number of the consulting firm visibly displayed on both sides of the vehicle.
- M. Project telephones and services, including long distance charges.
- N. CEI personnel qualification and registration fees, licenses, personnel badges, safety restrictions, carrying lockers, and security systems. Progress photographs, videos, project claim documentation, and expenditures directed by CFX's representatives.
- O. Applicable software to calculate Monthly Project Progress Estimates in a format acceptable to CFX and all other software packages determined by CFX to be essential to the execution of the Contract.
- P. The Consultant shall supply survey, inspection and testing equipment, essential in order to carry out the work under this Agreement. Such equipment includes those non-consumable and non-expendable items, which are normally needed for a CEI project and are essential in order to carry out the work under this Agreement.
- Q. Hard hats shall have the name of the consulting firm visibly displayed.
- R. Equipment described herein and expendable materials under this Agreement will remain the property of the Consultant and shall be removed at completion of the work.
- S. The Consultant's handling of nuclear density gauges shall be in compliance with their license.

- T. The Consultant shall retain responsibility for risk of loss or damage to said equipment during performance of this Agreement. Field office equipment shall be maintained and in operational condition at all times.
- U. Any additional equipment and furnishings considered by the Consultant to perform the required services are optional to the Consultant, at its expense.

IX. LIAISON

The Consultant shall be fully responsible for performing all tasks assigned under this Scope of Services and interrelated documents on each assigned project. All activities and decisions of the Consultant relating to the projects shall be subject to review and approval by CFX. The Consultant shall provide and maintain close coordination and support of all activities, correspondence, documentation, reports and other communication related to construction progress, delays, changes, claims, and significant events, whereby CFX may carry out its responsibilities.

Upon confirmation of award of an assigned project and scheduled start of construction, the Consultant shall be ready to assign personnel within two weeks after CFX's notification to the Consultant to begin the services. No personnel shall be assigned until written notification has been issued. Consultant personnel will generally be required at all times while the construction contractor is working on an assigned project.

X. COOPERATION AND PERFORMANCE OF THE CONSULTANT

During the term of the Contract, CFX will conduct reviews of the various phases and stages of the Consultant's operations.

Reviews will be conducted in accordance with established CFX policies on work phases to determine compliance with this Scope of Services and the sufficiency with which procedures are being effectively applied to verify that the construction work and administration activities are performed in reasonable conformity with policies, plans, specifications, and provisions of the assigned project. The Consultant shall cooperate and assist CFX's representative in the conduct of the reviews.

When deficiencies are indicated in a review, remedial action shall be immediately implemented by the Consultant in conformance with CFX's recommendations. CFX's remedial recommendations and the Consultant's actions will be documented by CFX. In general, remedial action shall be required commensurate with the degree and nature of the deficiencies cited. Additional compensation will not be paid for remedial action taken to correct deficiencies by the Consultant. Remedial actions may include any or all of, but are not necessarily limited to, the following actions:

- A. Further subdivide assigned inspection responsibilities, re-assign inspection personnel or

assign additional inspection personnel. The Consultant shall comply with this action within forty-eight (48) hours of notification.

- B. Replace personnel whose performance has been determined by CFX to be inadequate.
- C. Increase the frequency of the project control testing immediately in the appropriate phase of work when such is the responsibility of the Consultant.
- D. Increase the scope and frequency of training conducted by the Consultant.

XI. SUBCONSULTANT SERVICES

Services assigned to subconsultants must be approved in advance by CFX in accordance with the Contract requirements. The subconsultants must be qualified by CFX to perform all work assigned to them.

Subconsultant services will be paid in accordance with Exhibit B.

XII. OTHER SERVICES

The Consultant shall, upon written authorization by CFX, perform any additional services not otherwise identified in this Scope of Services as may be required in connection with an assigned project. The following items are not included as part of the Contract, but may be required to supplement the Consultant's services under the Contract.

- A. The Consultant shall, upon review, approval, and written authorization by CFX, make such changes and revisions to the plans and specifications as may be required in order to complete the construction activities for an assigned project.
- B. The Consultant shall, upon written request by CFX, provide qualified engineers and/or engineering technicians to serve as engineering witnesses, provide exhibits, and otherwise assist in any litigation or hearings in connection with the construction contract(s).
- C. The Consultant shall, upon written request by CFX, provide off-site inspection services.

XIII. POST CONSTRUCTION CLAIMS REVIEW

In the event the contractor for an assigned project submits a claim for additional compensation and/or time, and the Consultant has completed the terms of the Contract, the Consultant shall, at the written request from CFX, analyze the claim, prepare a recommendation to CFX covering validity and reasonableness of charges and/or assist in negotiations leading to settlement of the claim. Compensation will be separately reimbursed by a supplement to the Contract.

XIV. INVOICING INSTRUCTIONS

Monthly invoices shall be submitted in a format and distribution schedule defined by CFX no later than the 20th day of the following month.

If the Consultant cannot submit their monthly invoice on time, the Consultant shall notify CFX's Resident Engineer prior to the due date the reason for the delay and the planned submittal date. Once submitted, the Consultant Project Principal or Senior Project Engineer shall notify CFX's Resident Engineer via e-mail of the total delay in calendar days and the reason(s) for the delay(s).

All invoices shall be submitted in hard copy formats with timesheets and other backup as appropriate. A Final Invoice will be submitted to CFX no later than the 30th day following Final Acceptance of the individual project or as requested by CFX.

XV. CONTRADICTIONS:

In the event of a contradiction between the provisions of this Scope of Services and the Consultant's proposal as made a part of their Agreement, the provisions of the Scope of Services shall apply.

XVI. METHOD OF COMPENSATION:

All consultant and subconsultant services authorized by CFX will be paid for in accordance with Exhibit B.


END OF SCOPE

**CONSENT AGENDA ITEM
#4**

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

MEMORANDUM

TO: CFX Board Members

FROM: Aneth Williams
Director of Procurement 
Aneth Williams (Jun 2, 2020 18:39 EDT)

DATE: May 26, 2020

SUBJECT: Authorization of Mitigation Credit Purchases with Southport Ranch Mitigation Bank, LLC for Projects 417-141 and 417-142

Board authorization is requested for the Executive Director to enter into an agreement with Southport Ranch Mitigation Bank, LLC for a not-to-exceed amount of \$290,000.00 for mitigation bank credits.

The widening of SR 417 from International Drive to Landstar Boulevard requires the purchase of mitigation credits to offset impacts to wetlands that are within the project limits.

These projects are included in the Five-Year Work Plan.

Reviewed by: 

Will Hawthorne, P.E.
Director of Engineering



Glenn Prossimone (Jun 3, 2022 08:34 EDT)

**CONSENT AGENDA ITEM
#5**

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

MEMORANDUM

TO: CFX Board Members

FROM: Aneth Williams 
Director of Procurement Aneth Williams (Jun 2, 2020 19:15 EDT)

DATE: May 27, 2020

SUBJECT: Approval of Supplemental Agreement No. 2 with Parsons Transportation Group, Inc. for Design Consultant Services for SR 429 Widening from Florida's Turnpike to West Road
Project 429-152, Contract No. 001395

Board approval is requested for Supplemental Agreement No. 2 with Parsons Transportation Group, Inc., for a not-to-exceed amount of \$2,061,383.23. The original contract was for five years with five one-year renewals.

The services include additional professional services to prepare construction plans and bid documents.

Original Contract	\$6,750,000.00
Supplemental Agreement No. 1	\$ 0.00
Supplemental Agreement No. 2	<u>\$2,061,383.23</u>
Total	\$8,811,383,23

This project is included in the Five-Year Work Plan.

Reviewed by: 

Will Hawthorne, PE
Director of Engineering


Glenn Prossimone (Jun 3, 2020 10:28 EDT)

SUPPLEMENTAL AGREEMENT NO. 2
TO
AGREEMENT FOR PROFESSIONAL SERVICES
FINAL DESIGN
SR 429 Widening from Florida's Turnpike to West Road

THIS SUPPLEMENTAL AGREEMENT is made and entered into this _____ day of _____, 2020, by and between the CENTRAL FLORIDA EXPRESSWAY AUTHORITY, a corporate body and agency of the State of Florida, hereinafter called "CFX" and the consulting firm of PARSONS TRANSPORTATION GROUP, INC. of Orlando, Florida, hereinafter called the "CONSULTANT".

WHEREAS, Articles 2.0 and 11.0 of the Agreement for Professional Services between CFX and the CONSULTANT, dated the 8th day of November 2018, provides that in the event that CFX shall change the amount of work in Exhibit "A" of the said Agreement for Professional Services, the fees to be paid to the CONSULTANT shall be subject to adjustment as shall be mutually agreed upon:

NOW, THEREFORE, BE IT RESOLVED THAT:

1. CFX hereby authorizes the CONSULTANT to proceed with additional services as outlined in the Consultant's May 15, 2020 letter to CFX, which is attached hereto and made a part of this Supplemental Agreement.
2. Exhibit "B", Article 2.00 of the Agreement for Professional Services is amended as follows:

- a. The Salary Related Costs are adjusted upwards by \$788,858.29 to \$3,939,031.77.
- b. The Direct Expenses - Lump Sum (Prime) are adjusted upwards by \$600.00 to \$19,540.63.
- c. The Subcontract Items are adjusted upward by \$1,697,442.70 to \$4,852,810.83.

• Moffatt & Nichol	\$176,457.72
• TEDS	\$179,045.62
• FBT	\$207,825.52
• GEC	\$339,268.98
• MGV	\$150,758.34
• BASE	\$275,405.23
• Antillian	\$349,386.22
• WBQ	\$17,256.60
• IF Rooks	\$2,038.47

- d. The Allowance is adjusted downward by \$425,517.76 to \$0.00.

The Total Maximum Limiting Amount is adjusted upwards by \$2,061,383.23 to \$8,811,383.23.

3. All provisions of said Agreement for Professional Services, or any Supplements thereto, not modified by the above, shall remain in full force and effect, the same as if they had been set forth herein. In the event of a conflict between the provisions of this Supplemental Agreement and of the said Consultant Agreement, or any Supplements thereto, the provisions of this Supplemental Agreement, to the extent such provision is reasonable, shall take precedence.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed, electronically, the day and year first above written.

CENTRAL FLORIDA
EXPRESSWAY AUTHORITY

By: _____
Director of Procurement

PARSONS TRANSPORTATION GROUP, INC.

By: _____
Print Name:
Title:

Approved as to form and execution, only.

General Counsel for CFX

C:\Users\hawthorne\Central Florida Expressway Authority\Engineering - Engineering Documents\General\429-152 SR 429 Widening FTE to West Road\1_Administration\1.2_Contract\1.2.A Supplemental Agreements\SA 2\Parsons-429-152 -SA2.docx



MEMORANDUM

Date: May 18, 2020
To: Will Hawthorne, PE CFX Director of Engineering
From: Scott Kamien, PE *SMK*
Subject: Design Consultant Services - Contract 001395
CFX Project No. 429-152
SR 429 Widening from FTE to West Road – Supplemental Agreement #2

Comments:

I have reviewed the fee sheet and scope of services submitted by Parson Transportation Group provided via email first on January 30, 2020 and finalized on May 15, 2020 for the SR 429 Widening from FTE to West Road. SA #2 is for additional professional services to prepare construction plans and bid documents for the ParClo interchange at Plant Street., MPO cross-section along Plant Street and the auxiliary lane for the project add the additional associated bridge widenings.

Supplemental Agreement #2 request is attached and costs are detailed below:

\$ 789,458.29 Parson as Prime
\$ 1,697,442.70 Total Subconsultant Fees
\$ 2,486,900.99 Total Requested Contract Amount

The total staff hours for each task are reasonable and acceptable, and the man hour rates are consistent with their contract; therefore, I recommend approval of this Supplemental Agreement in the amount of \$2,486,900.99.

Should you have questions or need additional information, please call me at 321.354.9798.

CC:

Keith Jackson, PE Dewberry
File

May 15, 2020

Mr. Scott Kamien, P.E.
Sr. Project Manager
Dewberry Engineers, Inc.
800 N. Magnolia Ave., Suite 1000
Orlando, FL 32803

Re: SR 429
From South of Florida's Turnpike to West Road
Contract 001395; Project 429-152
Supplemental Agreement #2

Dear Scott:

For your review and approval for the Authority's execution, please find attached one (1) copy of Supplemental Agreement (SA) No. 2 for the revisions to the scope of work for the subject project. This updated SA No. 2 package includes the following:

1. Scope of Work Revisions
2. Additional Staff Hours
3. Revised Fee Details

The SA has been updated to include Part Time Shoulder Use infrastructure as well as additional ramp modifications, this is in addition to Plant Street Interchange Modifications and adding of auxiliary lanes. The initial submittal of the SA included an audit package for RS&H, which has not been included with this update. A separate SA (SA 1) was prepared for the toll infrastructure work by RS&H.

Should you have any questions or need any additional information, please feel free to contact me at 407-415-4648 or Thomas.e.Davidson@Parsons.com. I look forward to continuing our work together on this important CFX project.

Sincerely,



Ted Davidson, P.E.
Project Manager

Cc: file 649388



SR 429
From Florida's Turnpike to West Road
CONTRACT 001395
PROJECT NO. 429-152

SUPPLEMENTAL AGREEMENT #2
JANUARY 30, 2020 (REVISED MARCH 27, 2020)

SCOPE OF WORK

This Supplemental Agreement (SA) is prepared due to additional mainline inside widening limits, a new interchange configuration at Plant Street (including widening of Plant Street), a new ramp configuration at the NB exit to Florida's Turnpike, additional auxiliary lanes in each direction between Florida's Turnpike and West Road, additional ramp resurfacing limits, infrastructure for Part Time Shoulder Use (PTSU)/incident management (see Page 5 below for scope desired by Authority), and additional lighting currently missing between Plant Street and West Road (includes conversion of existing outside lighting to median lighting). It should be noted that outside ramp widening (auxiliary lanes) has been pulled back from Station 1106 to Station 1126 on the SB roadway. This will be considered in the adjusted hours.

One new tolling facility is being added within the limits of the Plant Street Interchange. Adding the tolling facility requires a new subconsultant to be added to the design team. A separate earlier SA was prepared for this work for the new subconsultant, RS&H. Support work for that facility, other than RS&H's tasks are included in this SA.

The original Scope of Work items affected by these changes are listed below along with a description of the additional primary and ancillary work required. The staff hours and fee estimates are included as an attachment to this Scope of Work. In addition, these changes to the original scope of work on the project impact the design schedule. The original 15-month schedule was previously amended to a 21-month schedule to accommodate the scope changes.

1) Scope of Work Items

1. Project Control

A. Contract maintenance and progress meetings for an additional 6 months.

2. 4.3 Preliminary Design Report (PDR)

A. Parsons will update and submit a revised PDR for modification to the Plant Street Interchange alternatives, including compatibility with adjacent projects and turning movement evaluations, auxiliary lanes, and NB exit to Florida's Turnpike. A discussion of the proposed tolling facility will also be added. This will include revisions to the roadway, drainage, structures, and traffic write ups and revisions to figures, tables and appendices.

3. 4.4 Surveys and Mapping

A. MG Vera will collect additional topo survey along Plant Street and within the Plant Street Interchange R/W to encompass the area of improvement along Plant Street and Drainage Pond modifications. They will also re-survey the Plant Street Ramps that were recently resurfaced and acquire pond bottom information. Additional survey along the NB exit to Florida's Turnpike will also be acquired.

B. WBQ will collect additional R/W survey limits between E. Crown Point Road and Ocoee-Apopka Road along Plant/Franklin Street and provide up to 4 legal descriptions/sketches as needed for R/W acquisition. (Note: It is assumed that the cities of Winter Garden and Ocoee will buy the R/W. It is also assumed that no R/W maps will be provided, meaning only sketches and legal descriptions are assumed by the estimate to be needed).

- C. IF Rooks will combine the additional survey from MG Vera and WBQ into the overall survey master file.
- 4. 4.5 Geotechnical Investigations**
- A. For the Plant Street Interchange, GEC will perform geotechnical services for the new Plant Street Ramp alignments; widening of Plant Street; new ramp bridge over Palm Drive (using hours for a new braided ramp bridge originally negotiated); additional FCRR bridge widening; and widening of the NB Plant Street bridge (using hours for a new braided ramp bridge previously negotiated); new retaining wall along the ramp limits; new toll facilities; and new pond configurations. Note that consideration will be made for the geotechnical services already included in the original estimate for the assumed two new bridges and retaining walls for a braided ramp alternative that has been replaced with the Plant Street Interchange.
 - B. GEC will also perform geotechnical services for the new inside roadway widening limits from Station 1126 to Station 1166 (project begin to just south of Florida's Turnpike), which includes new inside widening of bridge structures at the Trail and Warrior Road bridges from the extension of the roadway inside widening limits. They will also perform geotechnical services for the additional ramp widening of the NB off-ramp to Florida's Turnpike, including outside widening of the existing NB Warrior Road bridge.
 - C. Antillian will provide geotechnical services for the additional bridge and retaining wall widening (due to the new auxiliary lanes) on the outsides of the SB Plant Street Bridge, SB Palm Drive Bridge, NW Ditch bridges, Fuller's Cross bridges, and Ocoee-Apopka Road bridges, as well as for PTSU/incident management structures and additional sign structures.
- 5. 4.6 Contamination Impact Analysis**
- A. GEC will update their contamination report for the additional Plant Street Interchange limits.
- 6. 4.7 Pavement Design**
- A. Parsons will provide additional ramp pavement designs and Plant Street pavement design due to the Plant Street Interchange and NB off-ramp to Florida's Turnpike improvements.
- 7. 4.10 Environmental Permits**
- A. Eagle's nest impacts related to the SB off-ramp improvements at Plant Street may require additional coordination, but no direct environmental support hours are requested.
- 8. 4.11 Utilities**
- A. MG Vera will carry out additional Subsurface Utility Exploration along the limits of the new Plant Street Ramps and Plant Street widening improvements, as well as along the widening limits of the NB off-ramp to Florida's Turnpike.
 - B. WBQ will provide utility coordination services related to any utility considerations from the modified Plant Street Interchange and Plant Street improvements, but this time is already encompassed by the original estimate and no additional time is requested.
- 9. 4.12 Roadway Design**
- A. Parsons will design for the additional inside widening from approximately Sta. 1126 to Sta. 1166, while also accounting for the elimination of outside ramp widening from Sta. 1106 to Sta. 1126.
 - B. Parsons will design for additional ramp length over the originally assumed braided ramp for the preferred alternative Partial Clover Leaf Ramp at Plant Street and resulting realigned NB on-ramp as well as modifications to the existing SB on-ramp to accommodate new turning movements, mainline auxiliary lane, and toll plaza modifications. Parsons will also design for additional ramp length for the widened NB off-ramp to Florida's Turnpike.
 - C. Parsons will design roadway improvements on Plant Street between E. Crown Point Road and Ocoee-Apopka road due to the interchange modifications.

- D. Parsons will design for a new NB auxiliary lane from the Florida's Turnpike NB on-ramp to the West Road off-ramp. Parsons will also design for an extension of the SB auxiliary lane from West Road to the Florida's Turnpike off-ramp.
- E. Parsons will design increased ramp resurfacing limits over the original proposal based on maintenance limits provided by CFX.

10. 4.13 Structures Design

- A. Parsons will design for the new inside bridge widenings and retaining wall modifications for the Pedestrian Walkway (Trail) and Warrior Road Bridges.
- B. Parsons will design for new outside widening of the NB Warrior Road Bridge due to the widening of the NB exit ramp to Florida's Turnpike.
- C. Parsons will design for the additional outside bridge widening and retaining wall modifications for the FCRR Bridge.
- D. Parsons will design for the additional outside bridge widening and retaining wall modifications of the Plant Street Bridge in the SB direction due to the upgrade of the on-ramp from one to two lanes and also on the NB side for ramp improvements. The NB widening has significant width, which also varies.
- E. Parsons will design for the new single span ramp bridge with MSE walls over Palm Drive (Note that no additional hours are requested for this design based on original estimate assuming two single span bridges for a future braided ramp. The hours for one of the assumed single span bridges is used for this bridge, the other has been credited back).
- F. Parsons will design for the outside widening of the NB Palm Drive Bridge to accommodate the auxiliary lane.
- G. Parsons will review the existing Palm bridge for extension of the MSE Wall and possible accommodation of future piles in between the existing Palm Bridge and the new Palm Bridge to avoid impacting MSE wall straps in the future.
- H. Parsons will design for the outside bridge widenings and slope protection modification in the NB and SB directions for the NW Ditch Bridge.
- I. Florida Bridge & Transportation will develop the design documents for the outside bridge widenings and retaining wall modifications in the NB and SB directions for the Fuller's Cross and Ocoee-Apopka Road bridge crossings.
- J. BASE will develop the structural design documentation for the additional sign structures and signal structures required due to the Plant Street Interchange, new auxiliary lanes, and Conceptual Signing Plan (CSP). They will also prepare the structure designs for all static and dynamic message signs needed for implementing PTSU and incident management.
- K. BASE will evaluate existing sign structures for panel replacement based on the CSP.
- L. Retaining Walls: Parsons will design and provide wall control drawings for retaining walls to keep toe of slope within limited access right-of-way for the Plant Street Interchange Ramps, as well as at bridge ends impacted by the additional bridge widenings.

11. 4.14 Drainage Design

- A. Parsons will prepare design documentation for the new pond modifications/locations associated with the Plant Street Interchange, extended inside widening limits, ramp improvements and auxiliary lanes. Design for the auxiliary lanes will include hydroplaning evaluation.
- B. Parsons will prepare design documentation for the modifications of the stormwater collection system to accommodate the interchange modifications, new inside widening limits and auxiliary lanes.
- C. Parsons will design collection and conveyance systems for the Plant Street Widening, including incorporating off-site runoff.

12. 4.15 Lighting Plans

- A. TEDS will prepare design documentation for extending the lighting limits from just north of Plant Street to just south of West Road (approximately 1 mile of new lighting).

- B. TEDS will prepare design documentation for existing outside lighting impacted by the new auxiliary lanes with consideration for implementing median lighting.
 - C. TEDS will prepare design documentation for new interchange lighting at Plant Street.
 - D. TEDS will take over the underdeck bridge lighting and optional services lighting for potentially upgrading Turnpike Interchange lights to LED from Parsons.
- 13. 4.16 Traffic Engineering**
- A. Traffic Studies: TEDS will develop turning movement analyses for the Plant Street Interchange alternatives.
 - B. Maintenance of Traffic Plans: Moffat and Nichol will prepare additional traffic control documentation for the new inside widening locations, auxiliary lane locations (new outside phase), additional ramp modifications, and Plant Street Interchange modifications. This will include traffic control for widening Plant Street.
- 14. 4.17 Signing & Pavement Marking Plans**
- A. Parsons will design additional signing for the Plant Street Interchange Modifications, additional ramp modifications, Auxiliary Lanes and CSP. This will include incorporating signing information provided by others for PTSU and incident management into the plans. Static and dynamic sign panels for incident management will be included and quantified for construction. This includes overhead lane control DMS panels (Red X, Yellow Arrow, Green Arrow).
 - B. Parsons will design additional Pavement Markings required for the new inside widening, auxiliary lanes, ramp modifications, and Plant Street Interchange improvements.
- 15. 4.18 Signalization Plans (New Scope Item)**
- A. TEDS will design 6 new signal locations and 1 signal modification for the Plant Street Interchange.
- 16. 4.20 Cost Estimates**
- A. Parsons will prepare additional costing data for the Plant Street Interchange, additional inside widening, additional ramp improvements, and auxiliary lane improvements.
- 17. 4.21 Special Provisions and Specifications**
- A. No original scope of work change.
- 18. 4.22 Fiber optic Network (FON) & Intelligent Transportation Systems (ITS)**
- A. Parsons will revise FON & ITS design plans to accommodate the Plant Street Interchange, auxiliary lanes, additional ramp improvements, and new or modified toll facilities on the project.
 - B. ITS design will also include all fiber, power supply, conduit, pull boxes, control cabinets, etc. needed for future PTSU operations (Overall PTSU concept design provided by others).
- 19. 4.23 Toll Plazas (New Scope Item)**
- A. The work being done by RS&H was added under SA 1.

SCOPE ADDITION: PTSU Infrastructure Design
(Provided by Authority GEC)

REQUESTED SCOPE CHANGE (By Authority):

Complete design of all infrastructure needed for future Part-time Shoulder Use (PTSU) and Incident Management. This includes plans, quantities and specs for construction.

WHAT THIS AFFECTS:

CFX wants to go forward with the construction of all OH sign gantries identified in the latest SR 429 Conceptual Signing Plan. The Incident Management capabilities of the system will be operational on opening day. The PTSU lanes themselves will not be used on opening day; they will be used in a future year when traffic volumes/delays warrant their use.

The overall gantry design is to include all future static signs and dynamic message signs related to both PTSU and Incident Management.

Construction plans and quantities are to include the gantry design with all static and dynamic signs related to incident management only. This includes overhead lane control DMS panels (Red X, Yellow Arrow, Green Arrow).

The static sign panels and overhead lane control DMS panels for PTSU will be added in the future when opening the PTSU lanes is warranted.

Additional geotech borings and structural design is needed for the ultimate gantry and foundation designs.

ITS design is to include all fiber, power supply, conduit, pull boxes, control cabinets, etc. needed for future PTSU operations

SUPPLEMENTAL AGREEMENT NO. 1
TO
AGREEMENT FOR PROFESSIONAL SERVICES
FINAL DESIGN
SR 429 Widening from Florida's Turnpike to West Road

THIS SUPPLEMENTAL AGREEMENT is made and entered into this 17th day of MARCH, 2020, by and between the CENTRAL FLORIDA EXPRESSWAY AUTHORITY, a corporate body and agency of the State of Florida, hereinafter called "CFX" and the consulting firm of PARSONS TRANSPORTATION GROUP, INC. of Orlando, Florida, hereinafter called the "CONSULTANT".

WHEREAS, Articles 2.0 and 11.0 of the Agreement for Professional Services between CFX and the CONSULTANT, dated the 8th day of November 2018, provides that in the event that CFX shall change the amount of work in Exhibit "A" of the said Agreement for Professional Services, the fees to be paid to the CONSULTANT shall be subject to adjustment as shall be mutually agreed upon:

20 MAR 18 - 2:11

NOW, THEREFORE, BE IT RESOLVED THAT:


1. CFX hereby authorizes the CONSULTANT to proceed with additional services as outlined in the Consultant's February 20, 2020 letter to CFX, which is attached hereto and made a part of this Supplemental Agreement.
 2. Exhibit "B", Article 2.00 of the Agreement for Professional Services is amended as follows:
 - a. The Salary Related Costs remain unchanged at \$3,150,173.48.
 - b. The Direct Expenses - Lump Sum (Prime) remains unchanged at \$18,941,630.
 - c. The Subcontract Items are adjusted upward by \$90,239.23 to \$3,155,362.15.
 - RS&H \$90,239.23
 - d. The Allowance is adjusted downward by \$90,239.23 to \$425,517.76.
- The Total Maximum Limiting Amount remains unchanged at \$6,750,000.00.
3. All provisions of said Agreement for Professional Services, or any Supplements thereto, not modified by the above, shall remain in full force and effect the same as if they had been set forth herein. In the event of a conflict between the provisions of this Supplemental Agreement and of the said Consultant Agreement, or any Supplements thereto, the provisions of this Supplemental Agreement, to the extent such provision is reasonable, shall take precedence.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed, in quadruplicate, the day and year first above written.

CENTRAL FLORIDA
EXPRESSWAY AUTHORITY


By: 
Director of Procurement

PARSONS TRANSPORTATION GROUP, INC.

Witness: 
Print Name: Thomas E. Davidson

By: 
Title: VICE PRESIDENT

Approved as to form and execution, only.


General Counsel for CFX

\\dfsprd1.oocaa.internal\Store\Departments\Engineering\General\429-152 SR 429 Widening FTE to West Road\1_Administration\1.2_Contract\1.2.A Supplemental Agreements\SA 1\Parsons-429-152 -SA1.docx

AGREEMENT

**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
AND
PARSONS TRANSPORTATION GROUP, INC.**

**SR 429 WIDENING FROM FLORIDA'S TURNPIKE TO
WEST ROAD**

CONTRACT NO. 001395, PROJECT NO. 429-152

**CONTRACT DATE: NOVEMBER 8, 2018
CONTRACT AMOUNT: \$6,750,000.00**

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

**AGREEMENT, SCOPE OF SERVICES, METHOD
OF COMPENSATION, DETAILS OF COSTS AND
FEES, PROJECT ORGANIZATIONAL CHART,
PROJECT LOCATION MAP, AND SCHEDULE**

**AGREEMENT, SCOPE OF SERVICES, METHOD OF COMPENSATION, DETAILS OF
COSTS AND FEES AND PROJECT ORGANIZATIONAL CHART**

FOR

SR 429 WIDENING FROM FLORIDA'S TURNPIKE TO WEST ROAD

PROJECT NO. 429-152

DESIGN ENGINEERING SERVICES

CONTRACT NO. 001395

NOVEMBER 2018

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

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Agreement for Design Professional Services

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**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
AGREEMENT FOR PROFESSIONAL SERVICES**

THIS AGREEMENT, made and entered into this 8th day of November, 2018, by and between the CENTRAL FLORIDA EXPRESSWAY AUTHORITY, a corporate body and agency of the State of Florida, created by Chapter 2014-171, Laws of Florida, which is codified in Chapter 348, Part III of the Florida Statutes, hereinafter "CFX," and Parsons Transportation Group, Inc., hereinafter called "CONSULTANT," registered and authorized to conduct business in the State of Florida, carrying on professional practice in engineering, with offices located at 201 East Pine Street, Suite 900, Orlando, FL. 32801.

WITNESSETH:

WHEREAS, CONSULTANT represents that it is fully qualified and authorized to render the professional services contracted herein.

NOW, THEREFORE, in consideration of the mutual understandings and covenants set forth herein, CFX and CONSULTANT agree as follows:

1.0. DEFINITIONS.

Reference herein to the Project Manager shall mean CFX's Director of Engineering or his authorized designee. The Project Manager shall provide the management and technical direction for this Agreement on behalf of CFX. All technical and administrative provisions of this Agreement shall be managed by the Project Manager and the CONSULTANT shall comply with all of the directives of the Project Manager that are within the purview of this Agreement. Decisions concerning Agreement amendments and adjustments, such as time extensions and supplemental agreements shall be made by the Project Manager.

2.0. SERVICES TO BE PROVIDED

CFX does hereby retain the CONSULTANT to furnish certain professional services in connection with the design of SR 429 Widening from Florida's Turnpike to West Road identified as Project No. 429-152 and Contract No. 001395.

The CONSULTANT and CFX mutually agree to furnish, each to the other, the respective services, information and items as described in **Exhibit "A"**, Scope of Services, attached hereto and made a part hereof.

Before rendering any of the services, any additions or deletions to the work described in **Exhibit "A"**, and before undertaking any changes or revisions to such work, the parties shall negotiate any necessary cost changes and shall enter into a Supplemental Amendment covering such modifications and the compensation to be paid therefore.

The work covered by this Agreement as described in **Exhibit "A,"** includes the preparation of construction plans for one construction project. If the work is divided into more than one construction project by CFX's Project Manager, then the CONSULTANT shall supply construction plans for each project. A Supplemental Agreement will be required for the additional work.

All construction plans, documents, reports, studies and other data prepared by the CONSULTANT shall bear the endorsement of a person in the full employ of the CONSULTANT and duly registered by the State of Florida in the appropriate professional category.

After CFX's acceptance of construction plans and documents for the project, the original set of CONSULTANT's drawings, tracings, plans, maps and CADD files shall be provided to CFX, along with one record set of the final plans. The CONSULTANT shall signify, by affixing an endorsement (seal/signature, as appropriate) on every sheet of the record set, that the work shown on the endorsed sheets was produced by the CONSULTANT. With the tracings and the record set of prints, the CONSULTANT shall submit a final set of design computations. The computations shall be bound in an 8-1/2 x 11" format and shall be endorsed (seal/signature, as appropriate) by the CONSULTANT. Refer to **Exhibit "A"** for the computation data required for this Agreement.

The CONSULTANT shall submit a final set of reports and studies which shall be endorsed (seal/signature) by the CONSULTANT.

The CONSULTANT shall not be liable for use by CFX of said plans, documents, reports, studies or other data for any purpose other than intended by the terms of this Agreement.

This Agreement is considered a non-exclusive Agreement between the parties.

3.0. TERM OF AGREEMENT AND RENEWALS

Unless otherwise provided herein or by Supplemental Agreement, the provisions of this Agreement will remain in full force and effect for a five (5) year term from the date of the Notice to Proceed for the required project services as detailed in **Exhibit "A,"** with five one-year renewals at CFX's option. The options to renew are at the sole discretion and election of CFX. Renewals will be based, in part, on a determination by CFX that the value and level of service provided by the CONSULTANT are satisfactory and adequate for CFX's needs. If a renewal option is exercised, CFX will provide CONSULTANT with written notice of its intent at least thirty (30) days prior to the expiration of the original term and subsequent renewal, if any.

The CONSULTANT agrees to commence the scheduled project services to be rendered within ten (10) calendar days from the date specified in the written Notice to Proceed from the Project Manager, which Notice to Proceed will become part of this Agreement. The CONSULTANT shall complete scheduled project services within the timeframe(s) specified in **Exhibit "A"**, or as may be modified by subsequent Supplemental Agreement.

4.0. PROJECT SCHEDULE

The CONSULTANT agrees to provide Project Schedule progress reports for each project in a format acceptable to CFX and at intervals established by CFX. CFX will be entitled at all times to be

advised, at its request, as to the status of work being done by the CONSULTANT and of the details thereof. Coordination shall be maintained by the CONSULTANT with representatives of CFX, or of other agencies interested in the project on behalf of CFX. Either party to the Agreement may request and be granted a conference.

In the event there are delays on the part of CFX as to the approval of any of the materials submitted by the CONSULTANT or if there are delays occasioned by circumstances beyond the control of the CONSULTANT, which delay the scheduled project completion date, CFX may grant to the CONSULTANT by "Letter of Time Extension" an extension of the scheduled project completion date equal to the aforementioned delays. The letter will be for time only and will not include any additional compensation.

It shall be the responsibility of the CONSULTANT to ensure at all times that sufficient time remains within the project schedule within which to complete the services on the project. In the event there have been delays which would affect the scheduled project completion date, the CONSULTANT shall submit a written request to CFX which identifies the reason(s) for the delay, the amount of time related to each reason and specific indication as to whether or not the delays were concurrent with one another. CFX will review the request and make a determination as to granting all or part of the requested extension.

In the event the scheduled project completion date is reached, and the CONSULTANT has not requested, or if CFX has denied, an extension of the completion date, partial progress payments will be stopped when the scheduled project completion date is met. No further payment for the project will be made until a time extension is granted or all work has been completed and accepted by CFX.

5.0. PROFESSIONAL STAFF

The CONSULTANT shall maintain an adequate and competent professional staff to enable the CONSULTANT to timely perform under this Agreement. The CONSULTANT shall continue to be authorized to do business within the State of Florida. In the performance of these professional services, the CONSULTANT shall use that degree of care and skill ordinarily exercised by other similar professionals in the field under similar conditions in similar localities. The CONSULTANT shall use due care in performing in a design capacity and shall have due regard for acceptable standards of design principles. The CONSULTANT may associate with it such specialists, for the purpose of its services hereunder, without additional cost to CFX, other than those costs negotiated within the limits and terms of this Agreement. Should the CONSULTANT desire to utilize specialists, the CONSULTANT shall be fully responsible for satisfactory completion of all subcontracted work. The CONSULTANT, however, shall not sublet, assign or transfer any work under this Agreement to other than the associate consultants listed below without the written consent of CFX. It is understood and agreed that CFX will not, except for such services so designated herein, permit or authorize the CONSULTANT to perform less than the total contract work with other than its own organization.

Prior to retaining a subconsultant, or assigning any work to a subconsultant, the CONSULTANT shall verify that the subconsultant does not have any conflicts and acknowledges its duty to comply with CFX's Code of Ethics. The CONSULTANT shall ensure that each subconsultant adheres to, and cause all subconsultants to be bound by, all requirements, conditions, and standards set forth herein. The

CONSULTANT shall collect and maintain the necessary subconsultant compliance and acknowledgement documentation and remove any subconsultant immediately, if the necessary said documentation is unavailable or the subconsultant is not adhering to the requirements and standards herein. The CONSULTANT shall provide subconsultant compliance and acknowledgement documentation to CFX upon request.

The approved subconsultants are:

- Class II - Antillian Engineering Associates, Inc.
- Class I - BASE Consultants, Inc.
- Class I - Florida Bridge and Transportation, Inc.
- Class II - Geotechnical and Environmental Consultants, Inc.
- Class I - I.F. Rooks & Associates, LLC
- Class I - Manuel G Vera & Associates, Inc.
- Class II - Manuel G Vera & Associates, Inc. (survey)
- Class I - Moffatt & Nichol, Inc.
- Class I - Scalar Consulting Group, Inc.
- Class I - Traffic Engineering Data Solutions, Inc.
- Class I - WBQ Design & Engineering, Inc.
- Class II - WBQ Design & Engineering, Inc. (survey)

CONSULTANT shall not further sublet, sell, transfer, assign, delegate, subcontract, or otherwise dispose of this Contract or any portion thereof, or of the CONSULTANT's right, title, or interest therein without the written consent of CFX, which may be withheld in CFX's sole and absolute discretion. Any attempt by CONSULTANT to dispose of this Contract as described above, in part or in whole, without CFX's written consent shall be null and void and shall, at CFX's option, constitute a default under the Contract.

If, during the term of the Contract, CONSULTANT desires to subcontract any portion(s) of the work to a subconsultant that was not disclosed by the CONSULTANT to CFX at the time that the Contract was originally awarded, and such subcontract would, standing alone or aggregated with prior subcontracts awarded to the proposed subconsultant, equal or exceed twenty five thousand dollars (\$25,000.00), the CONSULTANT shall first submit a request to CFX's Director of Procurement for authorization to enter into such subcontract. Except in the case of an emergency, as determined by the Executive Director or his/her designee, no such subcontract shall be executed by the CONSULTANT until it has been approved by CFX Board. In the event of a designated emergency, the CONSULTANT may enter into such a subcontract with the prior written approval of the Executive Director or his/her designee, but such subcontract shall contain a provision that provides that it shall be automatically terminated if not approved by CFX Board at its next regularly scheduled meeting.

6.0. COMPENSATION

CFX agrees to pay the CONSULTANT compensation as detailed in **Exhibit "B"**, Method of Compensation, attached hereto and made a part hereof, in the not-to-exceed amount of \$6,750,000.00 for the initial five-year term of this Agreement. Bills for fees or other compensation for services or expenses shall be submitted to CFX in detail sufficient for a proper pre-audit and post audit thereof.

The CONSULTANT may be liable for CFX costs resulting from errors or deficiencies in designs furnished under this Agreement. CFX may enforce such liability and collect the amount due if the recoverable cost will exceed the administrative cost involved or is otherwise in CFX's best interest. Records of costs incurred by the CONSULTANT under terms of this Agreement shall be maintained and made available upon request to CFX at all times during the period of this Agreement and for five (5) years after final payment is made. Copies of these documents and records shall be furnished to CFX upon request. The CONSULTANT agrees to incorporate the provisions of this paragraph in any subcontract into which it might enter with reference to the work performed. Records of costs incurred includes the CONSULTANT's general accounting records and the project records, together with supporting documents and records, of the CONSULTANT and all subconsultants performing work on the project, and all other records of the CONSULTANT and subconsultants considered necessary by CFX for a proper audit of project costs. The obligations in this paragraph shall survive the termination of the Agreement and continue in full force and effect.

The general cost principles and procedures for the negotiation and administration, and the determination or allowance of costs under this Agreement shall be as set forth in the Code of Federal Regulations, Titles 23, 48, 49, and other pertinent Federal and State Regulations, as applicable, with the understanding that there is no conflict between State and Federal regulations in that the more restrictive of the applicable regulations will govern. Whenever travel costs are included in **Exhibit "B"**, the provisions of Section 112.061, Florida Statutes, shall govern as to reimbursable costs.

Payments shall be made in accordance with the Local Government Prompt Payment Act in part VII, Section 218, Florida Statutes.

7.0. DOCUMENT OWNERSHIP AND RECORDS

All plans, documents, reports, studies, and/or other data prepared or obtained under this Agreement shall be considered instruments made for services and shall become the property of CFX without restriction or limitation on their use on this project; and shall be made available, upon request, to CFX at any time. CFX will have the right to visit the site for inspection of the work and the drawings of the CONSULTANT at any time. Unless changed by written agreement of the parties, said site shall be 201 East Pine Street, Suite 900, Orlando, FL. 32801.

Notwithstanding Section 17, entitled "Communications, Public Relations, and Use of Logos," CONSULTANT acknowledges that CFX is a body politic and corporate, an agency of the State of Florida, and is subject to the Public Records Act codified in Chapter 119, Florida Statutes. To the extent that the CONSULTANT is in the possession of documents that fall within the definition of public records subject to the Public Records Act, which public records have not yet been delivered to CFX, CONSULTANT agrees to comply with Section 119.0701, Florida Statutes.

IF THE CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONSULTANT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT Phone: 407-690-5000, e-mail: publicrecords@cfxway.com, and address: Central Florida Expressway Authority, 4974 ORL Tower Road, Orlando, FL. 32807.

An excerpt of Section 119.0701, Florida Statutes is below.

Per Section 119.0701(1), "Contractor" means an individual, partnership, corporation, or business entity that enters into a contract for services with a public agency and is acting on behalf of the public agency as provided under s. 119.011(2).

Per Section 119.0701(b). The contractor shall comply with public records laws, specifically to:

1. Keep and maintain public records required by the public agency to perform the service.
2. Upon request from the public agency's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in this chapter or as otherwise provided by law.
3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the public agency.
4. Upon completion of the contract, transfer, at no cost, to the public agency all public records in possession of the contractor or keep and maintain public records required by the public agency to perform the service. If the contractor transfers all public records to the public agency upon completion of the contract, the contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the contractor keeps and maintains public records upon completion of the contract, the contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the public agency, upon request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.

The CONSULTANT shall allow public access to all documents, papers, letters, or other material as approved and authorized by CFX and subject to the provisions of Chapter 119, Florida Statutes, and

made or received by the CONSULTANT in conjunction with this Agreement. Failure by the CONSULTANT to grant such public access shall be grounds for immediate unilateral cancellation of this Agreement by CFX.

The obligations in Section 7.0, Document Ownership and Records, shall survive the expiration or termination of this Agreement and continue in full force and effect.

8.0. COMPLIANCE WITH LAWS

The CONSULTANT shall comply with all federal, state and local laws and ordinances applicable to the work or payment for work thereof, and shall not discriminate on the grounds of race, color, religion, sex, or national origin in the performance of work under this contract.

The CONSULTANT shall keep fully informed regarding and shall fully and timely comply with all current laws and future laws that may affect those engaged or employed in the performance of this Agreement.

9.0. WAGE RATES AND TRUTH-IN-NEGOTIATIONS CERTIFICATE

The CONSULTANT hereby certifies, covenants and warrants that wage rates and other factual unit costs as shown in attached **Exhibit "C"**, Details of Costs and Fees, supporting the compensation provided in Section 6.0 are accurate, complete and current as of the date of this Agreement. It is further agreed that said price provided in Section 6.0 hereof shall be adjusted to exclude any significant sums where CFX shall determine the price was increased due to inaccurate, incomplete or non-current wage rates and other factual unit costs. All such adjustments shall be made within one year following the date of final billing or acceptance of the work by CFX, whichever is later.

10.0. TERMINATION

CFX may terminate this Agreement in whole or in part, for any reason or no reason, at any time the interest of CFX requires such termination.

If CFX determines that the performance of the CONSULTANT is not satisfactory, CFX shall have the option of (a) immediately terminating the Agreement or (b) notifying the CONSULTANT of the deficiency with a requirement that the deficiency be corrected within a specified time, otherwise the Agreement will be terminated at the end of such time.

If CFX requires termination of the Agreement for reasons other than unsatisfactory performance of the CONSULTANT, CFX shall notify the CONSULTANT in writing of such termination, not less than seven (7) calendar days as to the effective date of termination or specify the stage of work at which the Agreement is to be terminated.

If CFX abandons the work or subtracts from the work, suspends, or terminates the Agreement as presently outlined, the CONSULTANT shall be compensated in accordance with **Exhibit "B"** for work properly performed by the CONSULTANT prior to abandonment or termination of the Agreement. The

ownership of all engineering documents completed or partially completed at the time of such termination or abandonment, shall be transferred to and retained by CFX.

CFX reserves the right to cancel and terminate this Agreement in the event the CONSULTANT or any employee, servant, or agent of the CONSULTANT is indicted or has a direct information issued against him for any crime arising out of or in conjunction with any work being performed by the CONSULTANT for or on behalf of CFX, without penalty. It is understood and agreed that in the event of such termination, all tracings, plans, specifications, maps, and data prepared or obtained under this Agreement shall immediately be turned over to CFX. The CONSULTANT shall be compensated for work properly performed rendered up to the time of any such termination in accordance with Section 7.0 hereof. CFX also reserves the right to terminate or cancel this Agreement in the event the CONSULTANT shall be placed in either voluntary or involuntary bankruptcy or an assignment be made for the benefit of creditors. CFX further reserves the right to suspend the qualifications of the CONSULTANT to do business with CFX upon any such indictment or direct information. In the event that any such person against whom any such indictment or direct information is brought shall have such indictment or direct information dismissed or be found not guilty, such suspension on account thereof may be lifted by CFX.

11.0. ADJUSTMENTS

All services shall be performed by the CONSULTANT to the reasonable satisfaction of the Project Manager who shall decide all questions, difficulties and dispute of any nature whatsoever that may arise under or by reason of this Agreement, the prosecution and fulfillment of the services hereunder and the character, quality, amount and value thereof. Adjustments of compensation and term of the Agreement, because of any major changes in the work that may become necessary or desirable as the work progresses, shall be left to the absolute discretion of the Executive Director and Supplemental Agreement(s) of such a nature as required may be entered into by the parties in accordance herewith. Disputes between the Project Manager and the CONSULTANT that cannot be resolved shall be referred to the Executive Director whose decision shall be final.

In the event that the CONSULTANT and CFX are not able to reach an agreement as to the amount of compensation to be paid to the CONSULTANT for supplemental work desired by CFX, the CONSULTANT shall be obligated to proceed with the supplemental work in a timely manner for the amount determined by CFX to be reasonable. In such event, the CONSULTANT will have the right to file a claim with CFX for such additional amounts as the CONSULTANT deems reasonable for consideration by the Executive Director; however, in no event will the filing of the claim or the resolution or litigation thereof, through administrative procedures or the courts, relieve the CONSULTANT from the obligation to timely perform the supplemental work.

12.0. HOLD HARMLESS AND INDEMNIFICATION, SOVEREIGN IMMUNITY

The CONSULTANT shall indemnify and hold harmless CFX, and its officers and employees from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the CONSULTANT

and other persons employed or utilized by the design professional in the performance of the Agreement.

Subject to the provisions and limitations set forth in law, the CONSULTANT expressly agrees to indemnify, defend, and hold harmless CFX, and its officers, and employees, from any claim, liabilities, losses, damages, and costs, including, but not limited to, reasonable attorneys' fees, arising from any act, error or omission of the CONSULTANT and other persons employed or utilized by the CONSULTANT in the performance of the Agreement, except that the CONSULTANT will not be liable under this paragraph for claims of, or damages resulting from, gross negligence, or willful, wanton or intentional misconduct of CFX, its officers, or employees during the performance of the Agreement.

When CFX receives a notice of claim for damages that may have been caused by the CONSULTANT in the performance of services required by the CONSULTANT under this Agreement, CFX will immediately forward the notice of claim to the CONSULTANT. The CONSULTANT and the AUTHORITY will evaluate the notice of claim and report their findings to each other within fourteen (14) calendar days.

In the event a lawsuit is filed against CFX alleging negligence or wrongdoing by the CONSULTANT, CFX and the CONSULTANT will jointly discuss options in defending the lawsuit. After reviewing the lawsuit, CFX will determine whether to request the participation of the CONSULTANT in the defense of the lawsuit or to request that the CONSULTANT defend CFX in such lawsuit as described in this section. CFX's failure to notify the CONSULTANT of a notice of claim will not release the CONSULTANT from any of the requirements of this section upon subsequent notification by CFX to the CONSULTANT of the notice of claim or filing of a lawsuit. CFX and the CONSULTANT will pay their own cost for the evaluation, settlement negotiations and trial, if any. However, if only one party participates in the defense of the claim at trial, that party is responsible for all of its costs, but if the verdict determines that there is joint responsibility, the costs of defense and liability for damages will be shared in the same percentage as that judicially established, provided that CFX's liability does not exceed the limits and limitations arising from Section 768.28, Florida Statutes, the doctrine of sovereign immunity, and law.

CFX is an agency of the State of Florida whose limits of liability are set forth in Section 768.28, Florida Statutes, and nothing herein shall be construed to extend the limits of liability of CFX beyond that provided in Section 768.28, Florida Statutes. Nothing herein is intended as a waiver of CFX's sovereign immunity under Section 768.28, Florida Statutes, or law. Nothing hereby shall inure to the benefit of any third party for any purpose, which might allow claims otherwise barred by sovereign immunity or operation of law. Furthermore, all of CFX's obligations are limited to the payment of no more than the amount limitation per person and in the aggregate contained in Section 768.28, Florida Statutes, except for payments for work properly performed, even if the sovereign immunity limitations of that statute are not otherwise applicable to the matters as set forth herein.

The obligations in Section 12.0, Hold Harmless and Indemnification, shall survive the expiration or termination of this Agreement and continue in full force and effect.

13.0. INFRINGEMENT OF PATENTS AND COPYRIGHTS

The CONSULTANT shall pay all royalties and assume all costs arising from the use of any invention, design, process materials, equipment, product or device which is the subject of patent rights or copyrights. The CONSULTANT shall, at its expense, hold harmless and defend CFX against any claim, suit or proceeding brought against CFX which is based upon a claim, whether rightful or otherwise, that the goods or services, or any part thereof, furnished under this Agreement, constitute an infringement of any patent or copyright of the United States. The CONSULTANT shall pay all damages and costs awarded against CFX. The obligations in Section 13.0, Infringement of Patents and Copyrights, shall survive the expiration or termination of this Agreement and continue in full force and effect.

14.0. THIRD PARTY BENEFICIARY

The CONSULTANT warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the CONSULTANT to solicit or secure this Agreement, and that the CONSULTANT has not paid or agreed to pay any person, company, corporation, individual or firm, other than a bona fide employee working solely for the CONSULTANT any fee, commission, percentage, gift or any other consideration, contingent upon or resulting from the award or making of this Agreement. It is understood and agreed that the term "fee" shall also include brokerage fee, however denoted. For the breach or violation of this paragraph, CFX shall have the right to terminate this Agreement without liability, and, at its discretion, to deduct from the contract price, or otherwise recover, the full amount of such fee, commission percentage, gift or consideration.

15.0. INSURANCE

The CONSULTANT, at its own expense, shall keep in force and at all times maintain during the term of this Agreement all insurance of the types and to the limits specified herein.

The CONSULTANT shall require and ensure that each of its subconsultants providing services hereunder procures and maintains, until the completion of the services, insurance of the requirements, types and to the limits specified herein. Upon request from CFX, the CONSULTANT shall furnish copies of certificates of insurance and endorsements evidencing coverage of each subconsultant.

The CONSULTANT shall require all insurance policies in any way related to the work and secured and maintained by the CONSULTANT to include clauses stating each underwriter shall waive all rights of recovery, under subrogation or otherwise, against CFX. The CONSULTANT shall require of subconsultants, by appropriate written agreements, similar waivers each in favor of all parties enumerated in this section. When required by the insurer, or should a policy condition not permit an endorsement, the CONSULTANT agrees to notify the insurer and request that the policy(ies) be endorsed with a Waiver of Transfer of Rights of Recovery Against Others, or an equivalent endorsement.

This Waiver of Subrogation requirement shall not apply to any policy, which includes a condition that specifically prohibits such an endorsement or voids coverage should the CONSULTANT enter into such an agreement on a pre-loss basis. At the CONSULTANT's expense, all limits must be maintained.

15.1 Commercial General Liability coverage shall be on an occurrence form policy for all operations including, but not limited to, Contractual, Products and Completed Operations, and Personal Injury. The limits shall be not less than One Million Dollars (\$1,000,000) per occurrence, Combined Single Limits (CSL) or its equivalent. The general aggregate limit shall apply separately to this Agreement (with the ISO CG 25 01 or insurer's equivalent endorsement provided to CFX) or the general aggregate limit shall be twice the required occurrence limit. CFX shall be listed as an additional insured. ISO Form CG 20 10 11 85 or if not available, ISO Forms CG 20 10 10 01 and CG 20 37 10 01, or if not available, their equivalent acceptable to CFX, shall be used to meet these requirements and a photocopy of same shall be provided with the Certificate. The CONSULTANT further agrees coverage shall not contain any endorsement(s) excluding or limiting Product/Completed Operations, Independent Consultants, Broad Form Property Damage, X-C-U Coverage, Contractual Liability, or Severability of Interests. The Additional Insured Endorsement included on all such insurance policies shall state that coverage is afforded the additional insured with respect to claims arising out of operations performed by or on behalf of the insured. If the additional insureds have other insurance which is applicable to the loss, such other insurance shall be excess to any policy of insurance required herein. The amount of the insurer's liability shall not be reduced by the existence of such other insurance.

15.2 Business Automobile Liability coverage shall be on an occurrence form policy for all owned, non-owned and hired vehicles issued on ISO form CA 00 01 or its equivalent. The limits shall be not less than One Million Dollars (\$1,000,000) per occurrence, Combined Single Limits (CSL) or its equivalent. In the event the CONSULTANT does not own automobiles the CONSULTANT shall maintain coverage for hired and non-owned auto liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

Each of the above insurance policies shall include the following provisions: (1) The standard severability of interest clause in the policy and when applicable the cross liability insurance coverage provision which specifies that the inclusion of more than one insured shall not operate to impair the rights of one insured against another insured, and the coverages afforded shall apply as though separate policies had been issued to each insured; (2) The stated limits of liability coverage for Commercial/Comprehensive General Liability, and Business Automobile Liability, assumes that the standard "supplementary payments" clause will pay in addition to the applicable limits of liability and that these supplementary payments are not included as part of the insurance policies limits of liability.

15.3 Workers' Compensation and Employer's Liability Insurance shall be provided as required by law or regulation (statutory requirements). Employer's Liability insurance shall be provided in amounts not less than \$100,000 per accident for bodily injury by accident, \$100,000 per employee for bodily injury by disease, and \$500,000 policy limit by disease. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of CFX for all work performed by the CONSULTANT, its employees, agents and subconsultants.

15.4 Professional Liability Coverage shall have limits of not less than One Million Dollars (\$1,000,000) Combined Single Limit (CSL) or its equivalent, protecting the selected firm or individual against claims of CFX for negligence, errors, mistakes or omissions in the performance of services to be performed and furnished by the CONSULTANT.

The CONSULTANT shall provide CFX with Certificate(s) of Insurance with required endorsements on all the policies of insurance and renewals thereof in a form(s) acceptable to CFX. CFX

shall be notified in writing of any reduction, cancellation or substantial change of policy or policies at least thirty (30) days prior to the effective date of said action.

All insurance policies shall be issued by responsible companies who are acceptable to CFX and licensed to do business under the laws of the State of Florida. Each Insurance company shall minimally have an A.M. Best rating of A-VII. If requested by CFX, CFX shall have the right to examine copies and relevant provisions of the insurance policies required by this Agreement, subject to the appropriate confidentiality provisions to safeguard the proprietary nature of CONSULTANT manuscript policies.

In the event any of the aforementioned insurance policies provide greater coverage or greater limits than the minimum requirements set forth herein, then CFX shall be entitled to the full coverage and limits of such policies, and these insurance requirements will be deemed to require such greater coverage and greater limits.

Any deductible or self-insured retention must be declared to and approved by CFX. At the option of CFX, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as requests CFX, or the CONSULTANT shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

All such insurance required by the CONSULTANT shall be primary to, and not contribute with, any insurance or self-insurance maintained by CFX.

Compliance with these insurance requirements shall not relieve or limit the CONSULTANT's liabilities and obligations under this Agreement. Failure of CFX to demand such certificate or evidence of full compliance with these insurance requirements or failure of CFX to identify a deficiency from evidence provided will not be construed as a waiver of the CONSULTANT's obligation to maintain such insurance.

The acceptance of delivery by CFX of any certificate of insurance evidencing the required coverage and limits does not constitute approval or agreement by CFX that the insurance requirements have been met or the insurance policies shown in the certificates of insurance are in compliance with the requirements.

16.0. COMMUNICATIONS, PUBLIC RELATIONS, AND USE OF LOGOS

The CONSULTANT agrees that it shall make no statements, press releases or publicity releases concerning this Agreement or its subject matter or otherwise disclose or permit to be disclosed any of the data or other information obtained or furnished in compliance with this Agreement, or any particulars thereof, during the period of the Agreement, without first notifying CFX and securing its consent in writing, except as required by law. The CONSULTANT also agrees that it shall not publish, copyright or patent any of the data, documents, reports, or other written or electronic materials furnished in compliance with this Agreement, it being understood that, under Section 7.0 hereof, such data or information is the property of CFX.

Regarding the use of logos, printed documents and presentations produced for CFX shall not contain the name or logo of the CONSULTANT unless approved by CFX's Public Affairs Officer or his/her designee. Prior approval by CFX's Public Affairs Officer or his/her designee is required if a copy of the CFX logo or any CFX mark, including trademarks, service marks, or any other mark, collectively referred as "Marks," is to be used in a document or presentation. The Marks shall not be altered in any

way. The width and height of the Marks shall be of equal proportions. If a black and white Mark is utilized, the Mark shall be properly screened to insure all layers of the Mark are visible. The proper presentation of CFX Marks is of utmost importance to CFX. Any questions regarding the use of CFX Marks shall be directed to the CFX Public Affairs Officer or his/her designee.

17.0. STANDARD OF CONDUCT

The CONSULTANT covenants and agrees that it and its employees shall be bound by the standards of conduct provided in Florida Statutes, Chapter 112, Part III, Section 348.753, and Section 104.31 and the CFX Code of Ethics as it relates to work performed under this Agreement, which standards will by reference be made a part of this Agreement as though set forth in full. The CONSULTANT agrees to complete the Potential Conflict Disclosure Form with contract execution, annually by July 1, and in the event of changed circumstances. If the Disclosure Form is not submitted, or is submitted, but is incomplete, CFX has the right to withhold payments pending receipt of an explanation of such omissions or to terminate the contract for cause. The CONSULTANT agrees to incorporate the provisions of this paragraph in any subcontract into which it might enter with reference to the work performed.

The CONSULTANT acknowledges that it has read CFX's Code of Ethics and the referenced statutes and to the extent applicable to the CONSULTANT, agrees to abide with such policy.

18.0. DOCUMENTED ALIENS

The CONSULTANT warrants that all persons performing work for CFX under this Agreement, regardless of the nature or duration of such work, shall be United States citizens or properly authorized and documented aliens. The CONSULTANT shall comply with all federal, state and local laws and regulations pertaining to the employment of unauthorized or undocumented aliens at all times during the performance of this Agreement and shall indemnify and hold CFX harmless for any violations of the same. Furthermore, if CFX determines that CONSULTANT has knowingly employed any unauthorized alien in the performance of this Agreement, CFX may immediately and unilaterally terminate this Agreement for cause.

The obligations in Section 18.0, Documented Aliens, shall survive the expiration or termination of this Agreement and continue in full force and effect.

19.0. E-VERIFY CLAUSE

CONSULTANT shall utilize the U.S. Department of Homeland Security's E-Verify System to verify the employment eligibility of all new employees hired by the CONSULTANT during the term of the contract. CONSULTANT shall require all of its subconsultants to verify the employment eligibility of all new employees hired by the subconsultants during the term of the Agreement.

20.0. CONFLICT OF INTEREST

The CONSULTANT shall not knowingly enter into any other contract with CFX during the term of this Agreement which would create or involve a conflict of interest with the services provided herein. Likewise, subconsultants shall not knowingly enter into any other contract with CFX during the term of this Agreement which would create or involve a conflict of interest with the service provided herein and as described below. Questions regarding potential conflicts of interest shall be addressed to the Executive Director for resolution.

During the term of this Agreement the CONSULTANT is NOT eligible to pursue any advertised construction engineering and inspection projects of CFX as either a prime or subconsultant where the CONSULTANT participated in the oversight of the projects or for any project which the CONSULTANT prepared plans and/or specifications. Subconsultants are also ineligible to pursue construction engineering and inspection projects where they participated in the oversight of the projects or for any project which the subconsultant was involved in the preparation of plans and/or specifications.

21.0. INSPECTOR GENERAL

CONSULTANT agrees to comply with Section 20.055(5), Florida Statutes, and agrees to cooperate with the inspector general in any investigation, audit, inspection, review, or hearing pursuant to this section. CONSULTANT agree to incorporate in all subcontracts the obligation to comply with Section 20.055(5). The obligations in this paragraph shall survive the expiration or termination of this Agreement and continue in full force and effect.

22.0. PUBLIC ENTITY CRIME INFORMATION AND ANTI-DISCRIMINATION STATEMENT

Pursuant to Section 287.133(2)(a), Florida Statutes, “a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in s. 287.017 for CATEGORY TWO (\$35,000) for a period of 36 months following the date of being placed on the convicted vendor list.”
Pursuant to Section 287.134(2)(a), Florida Statutes, “an entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction

or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity.”

23.0. COMPANIES PURSUANT TO SECTION 287.135 AND 215.473

CFX may terminate this Agreement for breach of contract if the Consultant:

- 23.1. submitted a false certification as provided under Florida Statute 287.135(5); or
- 23.2. been placed on the Scrutinized Companies with Activities in Sudan List; or
- 23.3. been placed on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List; or
- 23.4. been engaged in business operations in Cuba or Syria; or
- 23.5. found to have been placed on the Scrutinized Companies that Boycott Israel List or is engaged in a boycott of Israel.

24.0. AVAILABILITY OF FUNDS

CFX’s performance and obligation to pay under this Agreement are contingent upon an annual budget appropriation by its Board. The parties agree that in the event funds are not appropriated, this Agreement may be terminated, which shall be effective upon CFX giving notice to the CONSULTANT to that effect.

25.0. AUDIT AND EXAMINATION OF RECORDS

25.1 Definition of Records:

(i) “Contract Records” shall include, but not be limited to, all information, communications and data, whether in writing or stored on a computer, computer disks, microfilm, writings, working papers, drafts, computer printouts, field notes, charts or any other data compilations, books of account, photographs, videotapes and audiotapes supporting documents, any other papers or preserved data in whatever form, related to the Contract or the CONSULTANT’s performance of the Contract determined necessary or desirable by CFX for any purpose. Proposal Records shall include, but not be limited to, all information and data, whether in writing or stored on a computer, writings, working papers, computer printouts, charts or other data compilations that contain or reflect information, data or calculations used by CONSULTANT in determining labor, unit price, or any other component of a bid submitted to CFX.

(ii) “Proposal Records” shall include, but not be limited to, any material relating to the determination or application of equipment rates, home and field overhead rates, related time schedules, labor rates, efficiency or productivity factors, arithmetic extensions, quotations from subcontractors, or material suppliers, profit contingencies and any manuals standard in the industry that may be used by CONSULTANT in determining a price.

25.2 CFX reserves and is granted the right (at any time and from time to time, for any reason whatsoever) to review, audit, copy, examine and investigate in any manner, any Contract Records (as herein defined) or Proposal Records (as hereinafter defined) of the CONSULTANT or any subcontractor. By submitting a response to the Request for Proposal, CONSULTANT or any subcontractor submits to and agree to comply with the provisions of this section.

25.3 If CFX requests access to or review of any Contract Documents or Proposal Records and CONSULTANT refuses such access or review or delays such access or review for over ten (10) calendar days, CONSULTANT shall be in default under its Contract with CFX, and such refusal shall, without any other or additional actions or omissions, constitute grounds for suspension or disqualification of CONSULTANT. These provisions shall not be limited in any manner by the existence of any CONSULTANT claims or pending litigation relating to the Contract. Disqualification or suspension of the CONSULTANT for failure to comply with this section shall also preclude the CONSULTANT from acting in the future as a subcontractor of another contractor doing work for CFX during the period of disqualification or suspension. Disqualification shall mean the CONSULTANT is not eligible for and shall be precluded from doing future work for CFX until reinstated by CFX.

25.4 Final Audit for Project Closeout: The CONSULTANT shall permit CFX, at CFX's option, to perform or have performed, an audit of the records of the CONSULTANT and any or all subconsultants to support the compensation paid the CONSULTANT. The audit will be performed as soon as practical after completion and acceptance of the contracted services. In the event funds paid to the CONSULTANT under the Contract are subsequently determined to have been inadvertently paid by CFX because of accounting errors or charges not in conformity with the Contract, the CONSULTANT agrees that such amounts are due to CFX upon demand. Final payment to the CONSULTANT shall be adjusted for audit results.

25.5 CONSULTANT shall preserve all Proposal Records and Contract Records for the entire term of the Contract and for a period of five (5) years after the later of: (i) final acceptance of the project by CFX, (ii) until all claims (if any) regarding the Contract are resolved, or (iii) expiration of the Proposal Records and Contract Records' status as public records, as and if applicable, under Chapter 119, Florida Statutes.

25.6 The obligations in Section 25.0, Audit and Examination of Records, shall survive the expiration or termination of this Agreement and continue in full force and effect.

26.0. GOVERNING LAW AND VENUE

This Agreement shall be governed by and constructed in accordance with the laws of the State of Florida. The parties consent to the exclusive jurisdiction of the courts located in Orange County, Florida.

The obligations in Section 26.0, Governing Law and Venue, shall survive the expiration or termination of this Agreement and continue in full force and effect.

27.0. NOTICE

All notices required pursuant to the terms hereof shall be sent by First Class United States Mail. Unless prior written notification of an alternate address for notices is sent, all notices shall be sent to the following addresses:

To CFX: Central Florida Expressway Authority
4974 ORL Tower Road
Orlando, FL 32807
Attn: Chief of Infrastructure

Central Florida Expressway Authority
4974 ORL Tower Road
Orlando, FL 32807
Attn: General Counsel

To CONSULTANT: Parsons Transportation Group, Inc.
201 East Pine Street, Suite 900
Orlando, FL. 32801
Attn: Rhet Schmidt

Parsons Transportation Group, Inc.
201 East Pine Street, Suite 900
Orlando, FL. 32801
Attn: Ted Davidson

28.0. HEADINGS

Headings are given to the sections of the Agreement solely as a convenience to facilitate reference. Such headings shall not be deemed in any way material or relevant to the construction or interpretation of the Agreement.

29.0. CONTRACT LANGUAGE AND INTERPRETATION

All words used herein in the singular form shall extend to and include the plural. All words used in the plural form shall extend to and include the singular. All words used in any gender shall extend to and include all genders.

References to statutes or regulations shall include all statutory or regulatory provisions consolidating, amending, or replacing the statute or regulation referred to. Words not otherwise defined

that have well known technical or industry meanings, are used in accordance with such recognized meanings. References to persons include their respective functions and capacities.

If the CONSULTANT discovers any material discrepancy, deficiency, ambiguity, error, or omission in this Agreement, or is otherwise in doubt as to the meaning of any provision of the Agreement, the CONSULTANT shall immediately notify CFX and request clarification of CFX's interpretation of this Agreement.

The Agreement shall not be more strictly construed against either party hereto by reason of the fact that one party may have drafted or prepared any or all of the terms and provisions hereof.

30.0. ASSIGNMENT

This Agreement may not be assigned without the written consent of CFX.

31.0. SEVERABILITY

The invalidity or non-enforceability of any portion or provision of this Agreement shall not affect the validity or enforceability of any other portion or provision. Any invalid or unenforceable portion or provision shall be deemed severed from this Agreement and the balance hereof shall be construed and enforced as if this Agreement did not contain such invalid or unenforceable portion or provision.

32.0. INTEGRATION

This Agreement constitutes the entire agreement among the parties pertaining to the subject matter hereof and supersedes all prior and contemporaneous agreements, understandings, negotiations and discussions of the parties, whether oral or written, and there are no other agreements between the parties in connection with the subject matter hereof. No waiver, amendment, or modification of these terms hereof will be valid unless in writing, signed by all parties and only to the extent therein set forth.

33.0. ATTACHMENTS

- Exhibit "A", Scope of Services
- Exhibit "B", Method of Compensation
- Exhibit "C", Details of Cost and Fees
- Exhibit "D", Project Organization Chart
- Exhibit "E", Project Location Map
- Exhibit "F", Project Schedule

[SIGNATURES TO FOLLOW]

IN WITNESS WHEREOF, the CONSULTANT and CFX have caused this instrument to be signed by their respective duly authorized officials, as of the day and year first above written. This Contract was awarded by CFX's Board of Directors at its meeting on November 8, 2018.

PARSONS TRANSPORTATION GROUP, INC.

**CENTRAL FLORIDA
EXPRESSWAY AUTHORITY**

BY: [Signature]
Authorized Signature

BY: [Signature]
Director of Procurement

Print Name: RHETT L. SCHMIDT

Print Name: Aneth Williams

Title: VICE PRESIDENT

Effective Date: 12/20/18

ATTEST: [Signature] (Seal)
Secretary of Notary



Approved as to form and execution, only.

[Signature]
General Counsel for CFX

18 NOV 27 8:59

EXHIBIT A

SCOPE OF SERVICES

Exhibit A

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

SCOPE OF SERVICES

FOR

**S.R. 429 WIDENING FROM FLORIDA'S
TURNPIKE TO WEST ROAD**

PROJECT NO. 429-152

IN ORANGE COUNTY, FLORIDA

October 22, 2018

Exhibit A
SCOPE OF SERVICES
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1.0 GENERAL

1.1 Location

- A. See EXHIBIT "E", Project Location Map.

1.2 Description

The services will include final design and preparation of construction drawings / specifications for the proposed S.R. 429 inside widening from Florida's Turnpike to West Road. Specifically, the project consists of widening to the inside for the additional general use lane and widening to the median to accommodate appropriate inside shoulder width (closed 40' median with median barrier). All mainline bridges within the project limits, Trail, Warrior Road, Turnpike, SR 50, Story Road, Florida Central Railroad, Plant Street (SR 438), Palm Drive, Northwest Ditch, East Crown Point Road (Fuller's Cross) and Ocoee Apopka Road (CR 437), will also be widened to accommodate the appropriate shoulder widths, additional general use lane or ramp modifications as per the concept. Ramp improvements will also be made at the following locations; SR 429 NB to Turnpike, Turnpike to NB SR 429, West Road to SR 429 SB, SR 429 SB to SR 50, SR 429 SB to Turnpike and Turnpike to SR 429 SB. Additional elements include milling & resurfacing, surveying, drainage evaluation and design, permitting, lighting, signing and pavement markings, signalization, ITS (fiber optic network), maintenance of traffic, utility design and coordination, geotechnical analysis, scheduling and project control, progress reporting and other tasks and associated activities.

1.3 Purpose

- A. The purpose of this Exhibit is to describe the scope of work and responsibilities required in connection with Final Engineering and Final Construction Drawings and Documents for the proposed S.R. 429 inside widening from Florida's Turnpike to West Road.
- B. The Consultant shall perform those engineering services as required for final roadway/drainage plans, final bridge plans, final lighting plans, final traffic control plans, final utility plans, final ITS (fiber optic network) plans, final signalization plans (if required), final signing and pavement marking plans and preparation of a complete environmental resource application (or permit modification) including 100% storm water management.
- C. CFX's Project Manager will provide contract administration, management services, and technical reviews of all work associated with the preliminary and final designs.
- D. It is understood that references throughout this document to items of work and services to be performed are the responsibility of the Consultant unless

otherwise expressly stated as the responsibility of others.

1.4 Organization

- A. CFX's Project Manager will administer the Consultant services detailed in this scope. The following sections define the duties and obligations of CFX and the Consultant.

1.5 Term of Agreement for Design Services

- A. The term of the Agreement to perform the required design services shall be within fifteen (15) months from notice to proceed, including all reviews. Any fast track of services will be at the direction of CFX's Project Manager.
- B. The Consultant may continue the design efforts while design submittals are being reviewed. Doing so, however, in no way relieves the Consultant of the responsibility to incorporate review comments into the design, nor does it entitle the Consultant to any additional design fees as a result of making changes due to review comments.

- 1. Project Milestones:

- The Consultant will prepare a tabulation of major project milestones.

- 2. Project Schedule:

- The Consultant shall include a schedule of major design tasks.

2.0 STANDARDS

- A. The applicable design and construction standards and policies of the Florida Department of Transportation, Federal Highway Administration (FHWA), American Association of State Highway and Transportation Officials (AASHTO), Transportation Research Board (TRB), Standard Building Code, CFX's Design Practices and Standard Notes and CFX's Guidelines for Preparation of Signing and Pavement Marking Plans shall be followed throughout the design and construction of the project unless specifically stated otherwise. The editions of the applicable standards and policies in effect at the time of Contract execution shall be used except as follows:

- 1. Division II, Construction Details, and Division III, Materials, of the FDOT Standard Specifications for Road and Bridge Construction, 2018 edition, and updates thereafter, shall be used for this project.
 - 2. The FDOT Standard Plans, latest edition and subsequent interim indexes and updates, shall be used for this project.

3. **The FDOT Design Manual, latest edition, shall be used for this project.**
4. **The FDOT Basis of Estimates Handbook, latest edition, shall be used for this project.**
5. **The AASHTO Policy on Geometric Design of Highway and Streets (Green Book), 2004 edition, shall be used for this project.**
6. **The FHWA Manual on Uniform Traffic Control Devices (MUTCD), 2009 edition, as amended, shall be used for this project.**

3.0 DESIGN CRITERIA

3.1 General

Design of this project will be guided by the basic design criteria listed below.

- A. The design criteria listed in this section and Project Design Directives, provided by CFX during the course of the project, may supplement the Project Design Guidelines.
- B. Design year – 2045
- C. Design vehicle – WB-62FL
- D. Along with the 30% design submittal, the Consultant shall provide a tabulation of all applicable drainage and stormwater management criteria from Federal, State and local agencies and indicated which will be used for all segments and portions of the project. Unless otherwise directed by CFX, the Consultant shall use the most restrictive or conservative criteria applicable.

3.2 Geometry

The following criteria are to be incorporated into the design:

DESIGN ELEMENT	EXPRESSWAY		CROSSROADS/ COLLECTORS
	MAINLINE	RAMPS	
Design Speed, MPH	70 mph	30 mph (Loop) 50 mph (Diamond) 50 mph (Directional)	30 Local 45 Urban 50 Rural
Horizontal Alignment Max. Curve, Degrees	3° 30'	24° 45' Loop 8° 15' Diamond 8° 15' Directional	20°
Max. Superelevation, ft/ft.	0.10	0.10	0.05 Urban 0.10 Rural
Lane Drop Tapers			
Transitions	70:1	50:1	
	Use spirals for curves > 1° 30'	Use spirals for curves > 1° 30'	Use spirals for curves > 1° 30'
Vertical Alignment Max. Grade	3%	5% to 7% (30 mph) 3% to 5% (50 mph)	5% Arterial Rural 7% Collector

DESIGN ELEMENT	EXPRESSWAY		CROSSROADS/ COLLECTORS
	MAINLINE	RAMPS	
Vertical Curvature (K) (K=Len./%grade change)			Rural
Crest	506 290 to 540 AASHTO	31 (30 mph) 136 (50 mph) 110 to 160 Other (AASHTO)	31 to 136
Sag	206 150 to 200 AASHTO	31 (30 mph) 136 (50 mph) 90 to 110 Other (AASHTO)	37 to 96
Decision Sight Dist., ft.	Refer to AASHTO	N/A	N/A
Cross Sections			
Lane Widths, ft.	12	12 dual lanes 15 min. single lane	12 inner lanes 12-16 outer lanes
Shoulder width, ft.			
Right	4-Lane 12 (10 paved)	Single Lane 6 (4 paved)	8 (4* paved)
Left	8 (4 paved)	6 (2 paved)	2 (2 paved)
			* min. 5' paved
Right	6-Lane 12 (10 paved)	Dual Lane 10* (8* paved)	
Left	12 (10 paved)	8 (4 paved) (* add 2' for interstate)	
Bridges, ft.			
Right	4-Lane 10	Single-Lane 6	
Left	6	6	
Right	6(or more)-Lanes 12	Dual Lane 10	
Left	12	6	
Cross Slopes			
Traffic Lanes	2% (4-lane) 3% or tbd (6-lane)	2%	2%
Bridge Lanes	2% typ. (no break)		
Left Shoulder	Match Mainline	5%	5%
Right Shoulder	Match Mainline	6%	6%

DESIGN ELEMENT	EXPRESSWAY		CROSSROADS/ COLLECTORS
	MAINLINE	RAMPS	
Median Width (4-lane), ft. (E.O.P./E.O.P.)	64' (typical) 26' (with barrier)	N/A	22' or 40'
Lateral Offset	FDM 215.2.4	FDM 215.2.4	FDM 215.2.4
Vertical Clearance, ft.			
Over Roadway*	16.5	16.5	16.5
Overhead Signs	17.5	17.5	17.5
Over Railroad	23.5	23.5	N/A

Ramp Operations

- a. Two thousand (2,000) ft. between entrance and exit terminals – full freeways
- b. Six hundred (600) ft. between exit and entrance terminals
- c. Single Lane Entrance Ramp Parallel
- d. Exit Ramp Taper of 550 ft. (3° – divergence)

Right of Way

- a. Ten (10) ft. from back of walls or limit of construction.
- b. Two (2) ft. from back of sidewalk on frontage roads.
- c. Drainage and construction easements as required
- d. Limited access right-of-way limits per Index 450
- e. Right of way limits for ramps is based upon limit of construction plus 10 feet.

3.3 Bridge and Other Structures

- A. All plans and designs shall be prepared in accordance with the latest standard specifications adopted by AASHTO, FDOT Structures Manual, FDOT Design Manual, FDOT Standard Plans, etc., except as otherwise directed by CFX.

4.0 WORK PERFORMED BY CONSULTANT

The Consultant shall be responsible for the work outlined in this Section. The work shall conform to the standards, criteria, and requirements of this Scope of Services.

4.1 Design Features

- A. The work required for this project includes preparation of final construction drawings and specifications as well as the preparation of a complete environmental resource application.
- B. Major elements of the work include the following:

The services will include final design and preparation of construction drawings / specifications for the proposed S.R. 429 inside widening from Florida's Turnpike (Station 1172.00 +/-) to north of the West Road bridge (Station 325+00). Specifically, the project consists of widening to the inside for the additional

general use lane and widening to the median to accommodate appropriate inside shoulder width. All mainline bridges within the project limits; Trail, Warrior Road, Turnpike, SR 50, Story Road, Florida Central Railroad, SR 438, Palm Drive, Northwest Ditch, East Crown Point Road and CR 437 will also be widened to accommodate the appropriate shoulder widths and additional general use lane or ramp modifications as per the concept. Ramp improvements will also be made at the following locations; SR 429 NB to Turnpike, Turnpike to NB SR 429, West Road to SR 429 SB, SR 429 SB to SR 50, SR 429 SB to Turnpike and Turnpike to SR 429 SB. Additional elements include milling & resurfacing, surveying, drainage evaluation and design, permitting, lighting, signing and pavement markings, signalization (if needed), ITS, maintenance of traffic, utility design and coordination, geotechnical analysis, scheduling and project control, progress reporting and other tasks and associated activities.

4.2 Governmental Agencies

- A. The Consultant shall coordinate with and assist in securing the approval of all interested agencies involved. These agencies may include, but are not necessarily limited to Orange County, FDOT, FDEP and applicable Water Management District(s).

4.3 Preliminary Design Report - Review

- A. The Consultant shall review the project concept for proposed alternatives with regard to proposed design criteria, maintenance of traffic and construction feasibility.

At the completion of this review, the Consultant shall submit to CFX a written list of recommendations and proposed revisions, if any, to the basic layout. A conference will be scheduled by CFX's Project Manager with the Consultant to resolve any outstanding differences and agree upon a final layout for the project. Alternatives for a braided ramp and trumpet interchange shall be studied for the Plant Street exit from NB SR 429. Once one of these alternatives is considered to be carried to final design. In addition, an auxiliary lane from West Road on-ramp to Palm Drive off-ramp on SB SR 429 shall be reviewed.

4.4 Surveys and Mapping

- A. All Surveying and Mapping shall be performed under the direction of a Surveyor and Mapper properly licensed with the Florida Board of Professional Surveyors and Mappers, under Chapter 472, Florida Statutes. The Consultant shall review data provided by CFX and provide complete field surveys suitable for contract document preparation.

Survey activities shall be coordinated with the Consultant's design team including roadway, drainage, structures, geotechnical, and other disciplines as required.

Field surveys shall be performed with minimal disruption of the normal traffic flow for the project. Field personnel shall use safety devices such as warning signs, traffic cones, warning lights, and safety vests at all times, according to the Florida Department of Transportation requirements. Advanced warning signs required when survey crews are working on CFX's system shall be made with 3M Scotchlite Diamond Grade Fluorescent orange roll up sign sheeting.

B. Alignment

Right of Way dgn/geopak files and alignment dgn/geopak files (as available) to be provided to design team by CFX. Calculate/Locate Alignment and R/W for construction purposes. Alignment and R/W will not be set/staked in field. Alignment will be referenced by station and offset of control established in Task 27.1 Horizontal Project Control (HPC) and Task 27.2 Vertical PC/Bench Line and included in CTL/PNC sheets prepared in Task 27.5 Reference Points.

C. Reference Points

1. Utilize Right of Way dgn/geopak files and alignment dgn/geopak files (as available) provided to design team by CFX, control established in Task 27.1 and Task 27.2 and alignment/RW from Task 27.3. Prepare CTL/PNC sheets for Design Plans (mainline and side streets)

D. Bench Levels

1. Bench marks are included on control points

E. Topography

1. Planimetric mapping and a digital terrain model (DTM), suitable for 1"=50' display scale shall be conducted by the Consultant.
2. The Consultant will obtain existing pavement elevations from LAMP data sufficient to create a pavement DTM.
3. Natural Ground/soft shots will be collected by conventional survey means and merged with pavement LAMP data to create an overall DTM for the project.
4. Additional topographic and DTM surveys, as needed for the project design, are the responsibility of the Consultant. These may include pavement elevations.

F. Drainage Survey

Perform a drainage survey including pipe type, location, size and flow line elevations as needed for design.

G. Underground Utilities

1. **Quality Level B Designating: Provide Utility Designates at each street crossing within the LA R/W (Warrior Rd, SR50, E Story Rd, E. Plant St., Palm Drive, N Fullers Cross Rd., Ocoee Apopka Rd, Clarcona Ocoee Rd) = Total Linear footage of Utilities: 10.92 miles**
 - a. **SR 429 Mainline**
 - CFX will designate the FON on both sides of SR 429 throughout project limits
 - Street lighting along the mainline is not included in this scope of services
 - b. **Warrior Road – 0.13 mile x 6 utilities = 0.78 miles of DES**
 - c. **SR50 Road - 0.17 mile x 15 utilities = 2.55 miles of DES**
 - d. **E. Story Road – 0.12 mile x 10 utilities = 1.20 miles of DES**
 - e. **E. Plant Street – 0.28 mile x 10 utilities = 2.80 miles of DES**
 - f. **Palm Drive – 0.08 mile x 10 utilities = 0.80 miles of DES**
 - g. **N. Fullers Cross Road – 0.09 mile x 10 utilities = 0.95 miles of DES**
 - h. **Ocoee Apopka Road – 0.08 mile x 10 utilities = 0.80 miles of DES**
 - i. **Clarcona Ocoee Road - 0.13 mile x 8 utilities = 1.04 miles of DES**
2. **Locates for verification of QLB and non-tonables : Total Test Hole Bank: 70**
 - a. **- Cross Streets/Interchange - 8 sides streets with 5 test holes per side street = 40 test holes**
 - b. **- Laterals crossing mainline and misc. locations as needed to confirm utility alignment = 30 test holes**
3. **Quality Level A Locating - Total Test Hole Bank: 230**
 - a. **SR 429 Mainline: 3-Overhead Truss Signs (30THs), 3-Overhead Cantilever Signs (15 THs), 10 - Multi-post Signs (100 THs), 1 - Box Culvert Ext. (3 THs), 1 pipe culvert extension (2 THs), 4 - CCTV Poles (20 THs), 6 cantilever DMS if HSR chosen (30 THs), 1 cantilever DMS (5 THs), 1 Full Span DMS (10 THs), 3 MVDS poles (15 THs), Test Holes for drainage are not anticipated.**
 - b. **Miscellaneous locating (50THs)**
4. **Survey**
 - a. **Stake all proposed sign, signal, and structure locations prior to QLA locating**
 - b. **Map all utility designates and locates (including FON marked by CFX)**

H. Side Street Surveys

Perform topographic and utility surveys of side streets as may be needed for engineering design.

I. Bridge Survey

Provide bridge survey data as needed for engineering design.

J. Jurisdictional Line Surveys

Perform Jurisdictional Line Surveys as needed for engineering design and permitting.

K. Geotechnical Surveys

Locate and/or stake boring locations as needed for geotechnical investigations.

L. Right-of-Way Ties

Locate right-of-way limits for construction purposes. No new right-of-way is anticipated.

M. Prior to construction, the Consultant shall re-flag and reset project horizontal and vertical control points and meet with the construction contractor to review these points.

N. Low Altitude Mapping Photography

1. Furnish all aerial photography, photogrammetry, and related products for the total project in accordance with the Florida Department of Transportation Surveying & Mapping Procedures, Topic No. 550-030-101.

The following procedures shall be utilized for this project: 3D topographic hard-surface survey along the SR-429 corridor from Toe-of-Slope to Toe-of-Slope.

a. Flight: Perform the flight utilizing helicopter at 350 feet above grade using a high precision aerial mapping camera with (FMC) forward motion compensation and with an average weighted resolution of 105 and above. Photography shall be at a negative scale of approximately 1" = 50'.

b. Limits: Mapping from Toe-of-Slope to Toe-of-Slope along the SR-429 from ± 1.5 miles south of Florida's Turnpike to north of West Road (Station 335).

- c. Limits at the Florida Turnpike include the on/off ramps to and from SR 429. The flyovers are not included in the LAMP mapping.
- d. Field Survey: Aerial targets are placed right and left of the alignment and spaced along the project as directed by the photogrammetrist. Target size is specified by the photogrammetrist and should have a contrasting black and white pattern. Horizontal values and vertical elevations are required on all targets.
- e. Analytical Triangulation: Normal A.T. procedures shall be used similar to that which is performed for other flight scales.
- f. DTM Collection: Data shall be collected at spots and break lines similar to what is done with all photogrammetric projects. Scales of 1"=20' shall have data points collected at approximately 33 feet and 1"=50' at 65 feet intervals. All data shall be delivered as MicroStation files on CD ROM conforming to DEPARTMENT mapping procedures.
- g. Raster imagery to be provided in HMR & TIFF format from the fixed-wing flight at 1" = 40'.

O. CFX ITS/FON

CFX will locate the FON one time at the beginning of design during the survey phase. Once the FON/ITS lines are flagged, the Consultant shall survey the located FON/ITS locations in the field. The survey data collected will be included in the 30% plans submittal package.

The CFX GSC will review the plan submittals to ensure that the FON is shown correctly as actually located in the field. The CFX GSC will also determine if there are any overlapping projects that need to be represented in the design plans as a part of the ITS Component review of the 30% plans.

SUE will be done as required based on the Design Project Manager's recommendations and provided to CFX for their information.

4.5 Geotechnical Investigation

- A. The Consultant shall perform a geotechnical investigation of the project in accordance with the requirements of CFX.
- B. Investigations shall be performed with minimal disruption of the normal traffic flow for the project. Field personnel shall use safety devices such as warning signs, traffic cones, warning lights, and safety vests at all times, according to CFX requirements. The Consultant shall adhere to all traffic control requirements when taking samples on existing roadways. A traffic control plan

and permit may be required. Any advanced warning signs required when crews are working on CFX system shall be made with 3M Scotchlite Diamond Grade Fluorescent orange roll up sign sheeting.

- C. The work includes, but is not limited to, identifying roadway structural section requirements, LBR testing, design methods for the selected foundation, external stability evaluation at proprietary retaining walls, groundwater and estimated seasonal high groundwater level, estimate of the maximum rate of pumping that will be required at sites that dewatering is anticipated, certification of all under drain and pond draw down times, pH and resistivity conditions requiring design considerations, soil shrinkage/swell characteristics, slope stability and benching in embankment/excavation locations, recommendation for methods of rock excavation, potential imported borrow sites and availability of structural section materials, location and depths of unsuitable material (muck), and design alternatives based on geotechnical findings; design values for active, at rest, and passive soil pressures; allowable design loads or pressures for each foundation type, corrosion testing for structures and design of foundations for sign structures. The work will also include verification of existing median bridge foundation capacities previously constructed for future widening.
- D. The results of the geotechnical investigation shall be contained in a Geotechnical Report which shall be submitted to CFX's Project Manager for approval. The geotechnical investigation shall include all necessary laboratory testing of materials.
- E. Upon approval of the Geotechnical Report, the Consultant shall proceed with preparation of the pavement and foundation designs.
- F. Boring profiles shall be included on cross-section sheets in the contract plans and include the boring number, station, offset, soil legend, observed water table, design high water elevation and geotechnical consultant's address. A boring number and target symbol shall be shown at the appropriate location on the roadway and bridge plans.
- G. Roadway core samples shall be taken to determine the existing pavement section. The Consultant shall submit a plan to CFX for location approval.

4.6 Contamination Impact Analysis

- A. The Consultant shall perform a contamination impact analysis of the project in accordance with the applicable rules and regulations of the FDOT Project Development and Environment Guidelines, Chapter 22, the Florida Department of Environmental Protection (FDEP), and all other pertinent State or Federal agencies having jurisdiction, and the requirements of CFX.
- B. At a minimum, the Consultant shall conduct a windshield survey along the project corridor to identify any new sources of environmental

contamination not reported in the referenced document(s).

- C. The testing of any sites including the use of ground penetrating radar, if required to complete the design and/or construction of the project, will be added to the Scope of Services by Supplemental Agreement.

4.7 Pavement Design

- A. The Consultant shall prepare the pavement design as appropriate in accordance with the requirements of the FDOT Pavement Design Manual.
- B. The proposed pavement design recommendation, resulting from the Consultant's analysis of the various alternatives, shall be contained in a Pavement Design Summary.
- C. Milling and resurfacing limits extend from approximately Station 1106+20 to north of West Road, approximately Station 335+00. Portions of ramps at gore areas impacted by widening are included.
- D. Full depth pavement shall be provided in the median shoulders, except for 3' adjacent to the median barrier.

4.8 Borrow Pits

- A. The Consultant's geotechnical investigation may include the investigation of current borrow pits. The location and testing of any new borrow pits if required to complete the construction of the project shall be added to the Scope of Services by Supplemental Agreement. The analysis and test results shall be contained in a separate report submitted not later than the preliminary submittal.

4.9 Governmental Agency and Public Meetings

- A. Except as may be provided elsewhere in this Scope of Services, the Consultant shall have appropriate representatives present at such meetings, conferences or hearings as CFX may direct to secure necessary approvals and/or support of the project by county, municipal, or other governmental agencies. If so directed, the Consultant shall also have appropriate representatives present at meetings or conferences of CFX, its Chairman or staff.
- B. The Consultant shall assist CFX in presentations to various parties. The Consultant shall prepare exhibits pertaining to basic roadway improvements. CFX will prepare exhibits pertaining to aesthetic treatments and other design issues if applicable. This scope assumes presentations at one meeting with adjacent property owners.

4.10 Environmental Permits

- A. CFX's Project Manager will review, coordinate and submit the applications for all environmental permits, including EPA's NPDES General Permits for Stormwater Discharges from Construction Sites. The Consultant shall provide all information, permit applications and data relating to Stormwater Management and Floodplain Impacts required for the permits to CFX. (CFX will be responsible for preparing all of the Wetlands and Protected Species analysis and documentation required for the permits.) The Consultant shall:
1. Attend the pre-application meetings and site visits with CFX and regulatory agencies.
 2. Provide additional information requested at the pre-application by regulatory agencies for permits.
 3. Provide aerial maps at a 1"=400' scale which include SCS soils data, 100-year floodplain limits and proposed project.
 4. Provide all plans, calculations, sketches and reports required for permits except as described above.
 5. Provide copies of all drainage calculation, including pond routing nodal diagrams, for the project.
 6. Assist CFX in responding to any requests for additional information made by regulatory agencies after the permit application is submitted.
 7. Incorporate any changes required by changes in regulatory agency requirements during the course of the project. If this requires additional work by the Consultant a Supplemental Agreement will be prepared.
 8. Prepare a list of adjacent landowners along with address and nine-digit zip code at all wetland encroachment sites.
 9. Provide all permit application material in .pdf format.
 10. The Consultant will provide dredge and fill sketched as required by the permitting agencies if applicable. Mitigation plans, if required, may be added as a supplemental service.
 11. Determine extent of floodplain impacts, if any, and provide compensatory flood stages as required.

4.11 Utilities

A. Location

The Consultant shall obtain available utility mapping and information and identify all utilities within the general project limits to determine potential conflicts and relocations. Where a potential conflict exists, the Consultant may need to arrange to probe or expose ("pothole") the utility and survey the horizontal and vertical location of the utility line. The Consultant shall coordinate this effort with involved utility companies. All existing utilities shall be shown on appropriate preliminary construction plans. The Consultant's notes shall include the name and telephone number of contact persons for the construction contractor's use.

B. Utility Coordination

1. The Consultant shall identify utility owners within the project limits and contact each to obtain utility system maps, plan mark-ups or equivalent utility sketches and/or as-built drawings depicting the location of their facilities. The Consultant shall prepare reproducible utility adjustments plans based on information provided by respective utility companies.
2. Private utilities will prepare design plans for the relocation of their facilities. If a utility cannot or will not prepare these design plans, the work shall be added to the scope by Supplemental Agreement and the Consultant shall prepare design plans for utility relocation for approval of the utility and review by CFX.
3. Where utility conflicts occur, which require utility relocation agreements between the affected utility and CFX, the Consultant shall prepare the necessary data/plans required for the agreements. The Consultant shall advise CFX seven days in advance of meetings with utility companies/agencies scheduled to discuss utility relocations.
4. The preparation and negotiation of the agreement will be performed by CFX's Project Manager. After approval of the agreement by the utility and CFX, the Consultant shall prepare reproducible utility adjustment sheets identifying proposed relocations with respect to the construction plans.
5. The Consultant shall prepare a utility conflict matrix to assist in identifying and resolving conflicts between utilities and proposed construction prior to completion of the plans.
6. The Consultant shall obtain utility work schedules from the utility companies for all utility relocation or adjustments required to

accommodate construction.

7. The Consultant shall prepare the Utility Certification Letter certifying that all utility negotiations (full execution of each agreement, approved utility work schedule, technical special provisions written, etc.) have been completed with arrangements made for utility work to be undertaken and completed as required.
8. The Consultant shall make two utility contacts with the utility agencies (Phase II and Phase III) and hold a utility conference at each contact.

4.12 Roadway Design

- A. A Typical Section Package will not be prepared for this project. Rather, typical sections for mainline and impacted interchange ramps will be prepared as part of the 15% submittal and submitted to CFX for review and approval.
- B. The Consultant shall design the geometrics for this project using the design standards included in the scope. The design elements shall include, but not be limited to, the horizontal and vertical alignments, cross section template development, lane width, shoulder widths, cross slopes, borders, sight distance, side slopes, lane transitions, superelevations, features of intersections, ramp terminal details, interchanges, and limited access points.
- C. The Consultant shall prepare designs and contract documents for the roadway improvements, including, but not necessarily limited to:
 1. Cover sheet (key sheet)
 2. Summary of Pay Items
 3. General notes
 4. Summary Quantities sheets
 5. Project Layout
 6. Typical roadway sections
 7. Typical roadway details
 8. Plans and profiles (plans at 1"=50' scale)

9. Interchange layout plans
10. Ramp Terminal Details
11. Crossroad plans and profiles (1"= 50' scale)
12. Cross-sections (with pattern plan) (1" = 20' horiz.) (1" = 5' vert.)
 - a. Earthwork quantities
13. Traffic Control Sheets including Temporary Drainage
14. Utility Adjustment Sheets - as deemed necessary
15. Details
16. Special provisions
17. Special specifications

4.13 Structures Design

- A. Prior to commencement of final design, the consultant shall prepare a Bridge Concept Memorandum which documents a limited range of structural alternatives and identifies preferred alternatives. Specifically, the alternatives to be examined include beam type, wall type / configuration, foundation pile type, and preliminary load rating analysis of existing exterior beams at widened sections.
- B. The Consultant shall prepare designs and contract documents for structural design including, but not necessarily limited to the following items.
 1. Two new single span bridge structures for a braided ramp flyover of the Plant Street Exit Ramp.
 2. Complete Bridge Widening designs will be provided for widening of the following bridges:
 - a. Trail SB – outside widening
 - b. Trail NB – outside widening
 - c. Warrior Road SB – outside widening
 - d. Turnpike SB – inside widening
 - e. Turnpike NB – inside widening
 - f. Colonial Drive (SR 50) SB – inside widening
 - g. Colonial Drive (SR 50) NB – inside widening
 - h. Story Road SB – inside widening
 - i. Story Road NB – inside widening
 - j. Florida Central Railroad SB – inside & outside widening

- k. Florida Central Railroad NB – inside widening
 - l. Plant Street (SR 438) SB – inside widening
 - m. Plant Street (SR 438) NB – inside widening
 - n. Palm Drive SB – inside widening
 - o. Palm Drive NB – inside widening
 - p. Northwest Ditch SB – inside widening
 - q. Northwest Ditch NB – inside widening
 - r. East Crown Point Road (Fuller’s Cross) SB – inside widening
 - s. East Crown Point Road (Fuller’s Cross) SB – inside widening
 - t. Ocoee Apopka Road (CR 437) SB - inside widening
 - u. Ocoee Apopka Road (CR 437) SB – inside widening
3. Retaining walls (may vary based on final design limits)
- a. Permanent MSE walls:
 - Wall extension at Trail Bridge SB, south abutment – approximately 100 LF
 - Wall extension at Trail Bridge SB, north abutment – approximately 100 LF
 - Wall extension at Trail Bridge NB, south abutment – approximately 100 LF
 - Wall extension at Trail Bridge NB, north abutment – approximately 100 LF
 - Wall between Trail and Warrior Road, west side - approximately 1000 LF
 - Wall extension at Warrior Road Bridge SB, south abutment – approximately 30 LF
 - Wall extension at Warrior Road Bridge SB, north abutment – approximately 100 LF
 - Wall extension at Florida Central RR Bridge SB, south abutment – approximately 100 LF
 - Wall extension at Florida Central RR Bridge SB, south abutment – approximately 100 LF
 - Wall adjacent to Pond CP-5 north of Story Road, west side – approximately 500 LF
 - b. Critical Temporary Walls (may vary based on final design limits)
 - Soldier pile wall for construction of Trail Bridge permanent walls (4 total) – 60 LF (40 LF anchored, 20 LF cantilever)
 - Soldier pile wall for construction of Warrior Road Bridge SB permanent walls (2 total) - 60 LF (40 LF anchored, 20 LF cantilever)
 - Soldier pile wall for construction of permanent MSE wall between Trail and Warrior Road - 1000 LF (anchored)
 - Soldier pile wall for construction of permanent MSE wall adjacent to Pond CP-5 north of Story Road - 50 LF (anchored)

4. Box Culverts – Extension of one side of double 9’ x 5’ Box Culvert at approximately Station 157.
 5. Slope protection as required for the spill through abutments at Northwest Ditch
 6. Approach slabs for bridge widenings
 7. Summary quantity tables
 8. Special provisions and specifications are not anticipated to be required for the structures work, however, if required will be included.
 9. Stage construction-sequencing details will consist of bridge cross sections showing demolition and construction phases with corresponding traffic positions and will be coordinated with the maintenance of traffic plans.
 10. Sign\Signal structures: To replace existing structures impacted by the widening and provide additional anticipated sign structures.
 - a. 9 Overhead Cantilever Sign Structures (Including 6 DMS Structures for active traffic control for Hard Shoulder Running)
 - b. 4 Overhead Span Sign Structures (Including 1 structure(s) with walk-in or single line DMS)
 - c. No signal structures are anticipated.
 11. Structural design of sound walls. CFX to provide limits and locations. Assumed 1400 LF along Westfield Community per CFX preliminary cost estimate.
 12. The Consultant shall perform Load Rating Analysis per FDOT criteria for bridges at the 90% design phase. The Load Rating Analysis packages shall be submitted for their review and approval.
- C. The Consultant shall perform an evaluation of the existing median bridge foundations, previously constructed for future widening, to determine acceptability for HL93 loading and the potential for additional future transit loading.

4.14 Drainage Design

- A. As part of the drainage design requirements, the Consultant shall:
 1. Perform all drainage design in accordance with the approved criteria from Section 3.1D.
 2. Finalize the pond design at the 30% submittal. Modify ten (10)

existing ponds for additional treatment for the ramp modification areas and slight increase of mainline impervious area. Treatment and attenuation calculations will be prepared for ten (10) existing ponds. Modify outfall control structures for 6-lane configuration for ten (10) existing pond structures.

3. Have its chief drainage engineer available at the scheduled (bi-weekly/monthly) team meetings to review progress and discuss problems.
 4. Notify CFX's Project Manager immediately if any deviation from approved design criteria is anticipated.
 5. Provide drainage/contour maps as needed used in the development of the drainage design to CFX for use in scheduled reviews. These maps will be returned to the Consultant along with review comments at the end of the review process.
 6. Provide copies of its internal quality control comments and calculations at the scheduled reviews.
 7. Prepare one (1) Bridge Hydraulics Report(s) that includes Northwest Ditch. The BHR is anticipated to be reviewed and approved by CFX, Orange County, and FEMA. No CLOMR is anticipated.
 8. Modification of existing floodplain analysis and compensation ponds is included to obtain required permits.
 9. Perform cross drain analysis for seven crossings due to widening. One crossing will be a CBC and the remainder are pipes.
 10. Prepare a technical memorandum identifying existing drainage concerns along the corridor and potential fixes or modifications. Known existing drainage concerns include:
 - A. Seepage along the northbound front slope approaching West Road
 - B. Closure of an existing well at Plant Street
 11. Critical duration analysis is not included in this effort and, if required, shall be added to the scope by Supplemental Agreement. A pond siting report is not required.
- B. The Consultant shall prepare designs and contract documents for drainage features including, but not necessarily limited to:
1. Connector pipes
 2. Drainage structure details

3. Storm drain and culvert profiles and/or drainage cross-sections
4. Lateral ditches/channels
5. Outfall ditches/channels
6. Retention/detention ponds/exfiltration system

4.15 Roadway Lighting

- A. The Consultant shall provide a complete set of final roadway lighting documents in accordance with FDOT and CFX design criteria. These plans shall include replacement of all CFX lighting on the corridor to LED, including roadway and ramp fixtures, overhead sign lighting and underdeck lighting. The work shall include coordination with the local utility to provide electrical service. Plan sheet scale shall be at 1"=50' scale.
- B. If required, CFX will provide a cut sheet for the type of lighting fixtures to be used for this project.
- C. The Consultant will prepare designs and contract documents for lighting design including, but not necessarily limited to the following items.
 1. Cover sheet (key sheet)
 2. Tabulation of Quantities
 3. General notes
 4. Pole data and Legend sheet
 5. Project Layout sheet
 6. Plans sheets (plans at 1"=50' scale)
 7. Service point detail
 8. Special Details

4.16 Traffic Engineering

- A. Traffic Data will be furnished by CFX.
- B. Maintenance of Traffic Plans
 1. The Consultant shall prepare maintenance of traffic plans at scale of 1"=50' to safely and effectively move vehicular and pedestrian traffic during all phases of construction. The designs shall include construction phasing of roadways ingress and egress to existing property owners and businesses, routing, signing and pavement markings, and detour quantity tabulations. Special consideration shall be given to the construction of the drainage system when developing the construction phases. Positive drainage must be maintained at all times.

2. The Consultant shall investigate the need for temporary traffic signals, signs, alternative detour roads, arrow boards, flagging operations, and the use of materials such as sheet pilings in the analysis. A certified designer who has completed the FDOT training course shall prepare the maintenance of traffic plan.
3. Traffic shall be maintained during all phases of project construction at all locations, including existing posted speed, lane widths and number of lanes unless determined by CFX and other governmental agencies. This includes meeting with the governmental agencies which may be impacted by the maintenance of traffic plans.

4.17 Signing and Pavement Marking Plans

- A. The Consultant shall prepare designs and contract documents for final signing and pavement marking plans including layouts showing the locations of ground mounted and overhead signs, special sign details, lighting, and any structural or foundation requirements in accordance with applicable design standards. Any requirements for electric service shall be coordinated with the local electric utility.
- B. CFX will provide conceptual signing plans for the project as deemed necessary.
- C. Plan sheets will be developed at a scale of 1"=50' (11"x17" format).
- D. The following existing structures will be impacted by the widening and need to be replaced; three (3) cantilevers, three (3) span trusses (one full and two half span), and ten (10) multi-post sign structures.

4.18 Signalization Plans

- A. Signal plans are not anticipated for this improvement. If requested, the Consultant shall prepare designs and contract documents for final signalization plans including layouts showing the locations of mast arms and pedestrian features, special signal details, lighting, and any structural or foundation requirements in accordance with applicable design standards. Any requirements for electric service shall be coordinated with the local electric utility.
- B. Plan sheets will be developed at a scale of 1"=50' (11"x17" format).

4.19 Right-of-Way Surveys

- A. No additional right-of-way is anticipated for this project.

4.20 Cost Estimates

- A. The Consultant shall prepare and submit to CFX construction cost estimates at the 60%, 90%, 100%, Pre-Bid and Bid Set submittals outlined

herein. The estimate shall be based on the current unit prices as applied to the latest concept of the proposed construction.

4.21 Special Provisions and Specifications

- A. The Consultant shall prepare and submit at the 90% level special provisions, special specifications, and technical special provisions for items, details and procedures not adequately covered by CFX's Technical Specifications.

4.22 Fiber Optic Network (FON)

A. Fiber Optic Infrastructure Plans

1. The site construction plans shall be developed at a scale of 1" equals 50 feet. These plans shall include the relocation of all existing fiber optic ductbanks, cables, manholes, and pull boxes in areas where the existing locations conflict with construction and as necessary to relocate the FON into the new paved shoulder. The Consultant shall identify existing physical features and utilities that will impact the construction and installation of the equipment. The Consultant shall review and modify standard FON details as necessary.
2. Fiber optic network (FON) plans shall include the following:
 - a. Roadway geometry
 - b. Rights-of-Way
 - c. Existing utilities within the right-of-way including CFX's FON
 - d. Physical features affecting construction/installation (sign structures, light poles, fences, etc.)
 - e. Manhole/Pull box locations and stub-out details (standard details provided)
 - f. Device layout
 - g. Device installation details
 - h. Conduit installation details (standard details provided)
 - i. Fiber optic cable route marker detail (standard details provided)
 - j. Fiber count per conduit
 - k. Communications interconnect
 - l. Connectivity with the FON backbone conduits
 - m. Fiber cable design to include link loss budget calculations, per Corning standard recommended procedure for new or relocated fiber optic cabling.
 - n. Fiber cable routing summaries, fiber cable allocation charts, and splice details and tables for new or relocated fiber optic cabling.
 - o. Controller cabinet, structure, and foundation details for proposed CFX device sites.
 - p. Power interconnect, calculations to support conductor size, and details. Power conductors to each device location shall be sized to the capacity of the main breaker in the cabinet. Determination on

conductor sizing and voltage drop limits are only required for proposed sites and existing sites where the total site load is being significantly modified.

- q. Grounding
- r. Table of quantities
- s. Special notes
- t. Maintenance of fiber operations (protection of existing FON through all phases of construction and cutover phasing to ensure continuous operation of existing ITS devices)
- u. All existing and proposed FON to be included and shown with roadway cross sections and drainage cross sections
- v. Replacement of the existing FON to inside of the new paved shoulder, including attachment of the FON to SR 429 bridges over intersecting arterials and installation of fiber optic manholes in the paved shoulder.
- w. Relocation of existing CCTV sites and any necessary structures, foundations, attachment details, power service, fiber optic connections, and cabinets (standard details provided), in the event existing CCTV is not compatible with proposed construction. All existing analog CCTV within the project limits shall be upgraded to HD cameras.
- x. Relocation of existing data collection sensor (DCS) sites and any necessary structures, foundations, attachment details, power service, fiber optic connections, and cabinets (standard details provided), in the event existing DCS would not survive project construction. Support the FCC application process for any relocated DCS sites.
- y. Relocation of existing traffic monitoring sites (TMS) and any necessary structures, foundations, attachment details, power service, fiber optic connections, and cabinets (standard details provided), in the event existing TMS would not survive project construction. All TMS to be re-configured and calibrated during construction to account for any lane shifts and the added lanes.
- z. Relocation of existing one-line and three-line dynamic message sign (DMS) sites and any necessary structures, foundations, attachment details, power service, fiber optic connections, and cabinets (standard details provided), in the event existing DMS would not survive project construction. All existing Skyline DMS shall be replaced with new generation color DMS.
- aa. Conversion of all existing ITS devices within the project limits from point-to-point fiber optic modems to gigabit Ethernet field switches, relocation of video encoders from the mainline toll plazas to the CCTV cabinets, and upgrading other cabinet equipment as needed to meet current CFX ITS equipment standards.
- bb. Design of active traffic management system for hard shoulder running, which includes 6 DMS locations.

cc. Install new WWDS at the following off-ramps:

- West Road northbound.
- Plant Street southbound and northbound.

3. The Consultant shall take the following information into consideration when developing the site construction plans:

- a. Minimize utility conflicts and adjustments.
- b. Minimize traffic impact.
- c. Accessibility and ease of equipment maintenance.
- d. Safety of equipment maintenance personnel and the traveling public.
- e. Maintain the existing FON system through all phases of construction.
- f. Environmental conditions.
- g. Concurrent/future CFX projects.
- h. Compatibility with existing and proposed ITS infrastructure (e.g. CFX enhanced grounding standards for ITS devices, CFX transient voltage surge suppression (TVSS) standards for ITS devices, etc.)
- i. Leased conduits in CFX FON duct bank that are occupied by the fiber optic cable of other agencies or entities.
- j. Location of proposed sound walls

B. Splice and Cable Routing Details

1. The Consultant shall provide splicing detail diagrams to document proposed fiber optic splices within and between manholes, ITS devices, tollbooths, and other junction points. This includes splice diagrams for re-termination of drop or end to end (butt) splices.
2. Proposed splicing tables shall include ITS device connectivity, fiber use, drop cable fiber identification, drop cable identification, backbone cable identification, translateral cable identification, backbone into mainline cable identification, and toll plaza patch panel jack.
3. The Consultant shall provide cable routing diagrams and fiber allocation charts in CFX's standard format to document the functional connectivity between proposed fiber optic conduit and splices.

C. Maintenance Of Fiber Operations

1. The Consultant shall provide a plan of action to ensure existing fiber optic network is not disrupted during construction operations.
2. The Consultant shall determine the sequence of fiber optic cable splices to minimize disruption to communications.

D. Inside Plant Plans

1. The Consultant shall be responsible for any data collection necessary to complete its design.
2. All equipment shown on the inside-plant construction plans shall be clearly delineated as existing, proposed, or by-others. The Consultant shall be responsible for identifying and detailing on the inside-plant construction plans with notes and drawings any make-ready work required. The Consultant shall also provide a table of quantities for all materials and equipment specified in the inside-plant construction plans.
3. The Consultant shall sign and seal final inside-plant construction plans by a licensed professional Electrical Engineer registered in the state of Florida. The inside-plant construction plans shall be subject to the review and approval of CFX.

E. Standard CFX specifications will be provided to the Consultant. The Consultant shall review the specifications and modify them as necessary.

4.23 Toll Plazas

- A. This proposal does not include modifications and/or improvements to any of the existing toll plazas, including any associated equipment and gantry systems.

4.24 Post-Design Services

- A. Services shall begin after authorization by CFX. The Consultant compensation for post-design services may be added by Supplemental Agreement and shall be at an hourly rate, inclusive of overhead, profit and expenses, and exclusive of travel. No compensation will be made for correction of errors and omissions.
- B. The Consultant shall support the post design process as follows:
 1. Answer questions relative to the plans, typical sections, quantities and special provisions.
 2. Make any necessary corrections to the plans, typical sections, quantities, notes, etc., as may be required.
 3. Attend pre-award meeting with construction contractor, CFX, and CFX's CEI.
- C. The Consultant shall, prior to the pre-bid conference, be prepared to walk the project with CFX's CEI to discuss the plans and details. The Consultant shall be prepared to attend the pre-bid conference and respond to questions related to the plans, details, and special provisions.
- D. The Consultant shall prepare any addenda required to clarify the work included in the construction contract documents. Addenda may be required based on the project inspection with the CEI, or questions developed in the pre-bid conference, or conditions discovered by bidders during the bid

period. Addenda will not be issued for Contractor initiated design changes or value engineering proposed work.

- E. The Consultant shall be available to respond to questions in the field that may arise relative to the plans, details or special provisions during construction. The Consultant shall periodically (monthly) visit the project site to observe the progress of construction on the project. This visit will not replace the formal construction inspection by CFX. It is intended to provide the opportunity of the design team to observe whether the work is being performed in general conformance with the project plans. Written memos of all such field trips shall be submitted to CFX within five working days of the trip.
- F. The Consultant shall review and approve shop drawings for structural, lighting, signing, traffic signal elements, and toll plaza shop drawings. This work will include the erection procedure plans, review proposals for substitutions, develop supplemental agreements, and provide other engineering services required to facilitate construction of the project. Reviews will be conducted and returned within two weeks from receipt of information.
- G. The Consultant shall appoint a responsible member of the firm to be the contact person for all post-design services. The person should be continually available during the course of construction for review of design plans.
- H. The Consultant shall make every reasonable effort to process any material presented for review in a prompt manner recognizing a construction contract is underway.
- I. The Consultant's key staff shall attend a maximum of three (3) partnering meetings as requested by CFX's Project Manager. The Consultant shall also attend progress/coordination meetings as requested by CFX's Project Manager including, but not limited to, the Notice to Proceed meeting.
- J. Approved design bridge load ratings were obtained by the Consultant under the final design phase of this contract. The Contractor shall be responsible for revising and resubmitting the load ratings if changes to the bridge design occur during construction. Otherwise, the Consultant shall provide written correspondence to CFX when construction is complete that the bridges were constructed in accordance with the plans and the design load ratings still apply.
- K. The Consultant shall provide geotechnical engineering services as needed by CFX, relative to pile driving, earthwork, embankment and MSE wall construction.
- L. The Consultant shall provide utility consulting services as needed by CFX, relative to proposed utility adjustments within the project limits.
- M. The Consultant shall prepare Record Drawings in electronic format following completion of the construction phase. CFX shall provide all As-

Built drawings from the Contractor / CEI to the Consultant for their use in preparation of the Record Drawings.

5.0 MATERIALS FURNISHED BY CFX OR ITS DESIGNEE

5.1 Record Documents

- A. CFX will provide the Consultant, within ten working days of a written request, the following items:
 - 1. Available record drawings of existing conditions
 - 2. Available right-of-way plans of existing conditions
 - 3. Current list available to CFX of owners of all affected properties within the section.
 - 4. Sample plans to be used as guidelines for format, organization and content.
 - 5. Title searches of all affected properties for use by the Consultant in the preparation of the right-of-way maps.
 - 6. Contract unit prices from latest CFX construction projects.

5.2 Traffic Data

- A. CFX will provide the following design traffic data:
 - 1. Current and design year ADT
 - 2. Current and design year peak hour volumes
 - 3. Turning movements at each intersection/interchange
 - 4. K, D and T factors
 - 5. Design speed - See Section 3.02, Geometry.
 - 6. AVI Percentages

5.3 Other

- 1. Utility designates for the FON and roadway lighting within CFX right-of-way.

6.0 WORK PERFORMED BY CFX OR ITS DESIGNEE

6.1 Right-of-Way Acquisition

- A. If necessary, CFX, or its designee, will review all right-of-way plans, parcel sketches and legal descriptions prepared by the Consultant. CFX will handle all appraisals, negotiations, relocations, condemnation, and property settlements.

6.2 Utility Agreements

- A. CFX will support, as necessary, the Consultant's acquisition of information required for utility agreements.

6.3 Public Involvement

- A. CFX will provide a moderator for all required public meetings and provide guidelines for the Public Involvement aspects of the project. The need for public meetings or public hearings will be determined by CFX. CFX will be responsible for mailings and advertisements for the public meetings.

6.4 Contracts and Specifications Services

- A. CFX will prepare the necessary bid documents for the construction contract using plans, technical special provisions, and special specifications prepared by the Consultant.

6.5 Post-Design Services

- A. CFX will be the principal initial contact for post-design questions and answer questions on a limited scope.
- B. CFX's CEI representative will be responsible for collection and documentation of all As-Built information for the constructed improvements.

6.6 Environmental Permits

- A. CFX will review and submit the environmental permit applications and coordinate with the Consultant on requests for additional information from the regulatory agencies.
- B. CFX will stake wetland lines and coordinate agency site visits. CFX will also prepare the wetland and wildlife analysis and documentation for the permits.
- C. CFX will be responsible for all permitting application fees.

6.7 Conceptual Specialty Design

- A. CFX will provide a conceptual major guide signing plan.
- B. CFX to provide proposed sound wall locations.
- C. CFX will provide conceptual aesthetics design and treatments for structures.

7.0 ADMINISTRATION

7.1 Central Florida Expressway Authority

- A. CFX's Project Manager will administer the Consultant services detailed in this scope.

- B. All contractual payments and changes shall be reviewed and approved by CFX's Project Manager.

7.2 CFX's Project Manager

CFX's Project Manager will:

- A. Conduct ongoing reviews of the Consultant's progress in performing the work and furnish technical comments in a timely manner.
- B. Review the Consultant's billings.
- C. Review and evaluate the Consultant's requests for extension of time and supplemental agreements and recommend appropriate action.
- D. Review all correspondence with public agencies prior to the Consultant's mailing of any correspondence except for requests for information.
- E. Coordinate the distribution of public information.
- F. Coordinate the data (including documentation of prior rights, cost estimates and plans) necessary for CFX to prepare and execute all utility and railroad agreements.
- G. Conduct an introductory meeting to deliver relevant information and explain the administration process.
- H. Review the Consultant's Quality Control program and the Consultant's conformance to the Quality Control Program.
- I. Provide a focal point contact for all questions, requests, and submittals.
- J. Provide a system to monitor the Consultant's schedule, progress and key milestone submittal dates.

7.3 Consultant

- A. The Consultant has total responsibility for the accuracy and completeness of the construction contract documents and related design prepared under this project and shall check all such material accordingly. The plans will be reviewed by CFX for conformity with CFX procedures and the terms of the Contract, as well as coordination with adjacent design contracts. Review by CFX does not include detailed review or checking of design of major components and related details or the accuracy with which such designs are depicted on the plans. The responsibility for accuracy and completeness of such items remains solely that of the Consultant. The Consultant shall:
 - 1. Establish, furnish and maintain suitable office facilities to serve as the project office for the duration of the project at a location

acceptable to CFX.

2. Maintain an adequate staff of qualified support personnel to perform the work necessary to complete the project.
3. Establish internal accounting methods and procedures for documenting and monitoring project costs.
4. Establish and maintain contract administration procedures, which will include supplemental agreements, time extensions and subcontracts.

7.4 Project Control

- A. The Consultant shall provide data for CFX's Management Information System to monitor costs and manpower, and report progress. This project control system may include features to:
 1. Determine and highlight critical path work from initial plans as work progresses.
 2. Identify progress against schedule for each identified work item.
 3. Forecast completion dates from current progress.
 4. Highlight rescheduled work in any area which is out of required sequence.
 5. Highlight rescheduling that has overloaded any physical area that requires more resources than originally allocated.
 6. Forecast future conflicts in any area.

7.5 Work Progress

- A. The Consultant shall meet with CFX's Project Manager on a bi-weekly basis (or more often if necessary) and provide written progress reports which describe the work performed on each task. The dates and times of these meetings will be established by CFX. Two working days prior to each progress meeting, the Consultant shall provide CFX's Project Manager with a draft copy of the Progress Report and a typewritten agenda for the meeting. The Consultant shall prepare typewritten meeting minutes and submit them to CFX's Project Manager within five working days after the meeting. The minutes shall indicate issues discussed and the resolution or action required to resolve any issues.

7.6 Schedule

- A. Within twenty (20) calendar days after receipt of the Notice to Proceed, the Consultant shall provide a schedule of calendar deadlines in a format

prescribed by CFX.

7.7 Project Related Correspondence

- A. The Consultant shall furnish copies of all written correspondence between the Consultant and any party pertaining specifically to this project to CFX for its records within one (1) week of the receipt or mailing of said correspondence. The Consultant shall record and distribute the minutes of all meetings pertaining to this project.

7.8 Quality Control

- A. The Consultant has total responsibility for the accuracy and completeness of the plans and related designs prepared under this project and shall check all such material accordingly. Consultant shall have a quality control plan in effect during the entire time work is being performed under the Contract. The plan shall establish a process whereby calculations are independently checked, plans checked, corrected and back checked. All plans, calculations, and documents submitted for review shall be clearly marked as being fully checked by a qualified individual other than the originator.
- B. The Consultant's quality control plan shall be submitted to CFX within fifteen (15) working days of receipt of written notice to proceed.

7.9 Consultant Personnel

- A. The Consultant's work shall be performed and/or directed by the key personnel identified in Exhibit "D". Any changes in the indicated key personnel or the Consultant's office in charge of the work shall be subject to review and approval by CFX.

7.10 Site Visit

- A. The Consultant shall arrange a site visit within twenty (20) calendar days of receipt of written Notice to Proceed. Consultant personnel assigned to perform the work on the project shall attend. CFX representatives will be present. Within seven calendar days of the site visit, the Consultant shall issue to CFX a brief written report including observations, discussions, and any questions pertaining to the scope or level of effort of the project. The purpose of this visit is to acquaint key personnel with the details and features of the project to facilitate the design process.

7.11 Acceptability of the Work

- A. The plans, design, calculations, reports and other documents furnished under this Scope of Services shall conform to the "standards-of-the industry" quality as acceptable to CFX. The criteria for acceptance shall be a product of neat appearance, well organized, accurate and complete,

technically and grammatically correct, checked in accordance with the approved Quality Control program, and have the maker and checker identified. The minimum standard of appearance, organization and content of drawings shall be similar to the type produced by the Florida Department of Transportation and CFX.

7.12 Design Documentation

- A. The Consultant shall submit any design notes, sketches, worksheets, and computations to document the design conclusions reached during the development of the construction contract documents to CFX for review.
- B. The design notes and computations shall be recorded on 8-1/2" x 11" computation sheets, appropriately titled, numbered, dated, indexed and signed by the designer and checker. Computer output forms and other oversized sheets shall be folded or legibly reduced to 8-1/2" x 11" size. The data shall be bound in a hard-back folder for submittal to CFX.
- C. A CD/DVD with electronic (PDF Format) copies of the design notes and computations shall be submitted to CFX with each review submittal. When the plans are submitted for 90% review, the design notes and computations corrected for any CFX comments shall be resubmitted. At the project completion (bid set), one (1) hard copy of the final set of the design notes and computations, sealed by a Professional Engineer, registered in the State of Florida, shall be submitted with the record set of plans and tracings.
- D. Design notes and calculations shall include, but are not necessarily limited to, the following data:
 - 1. Field survey notes and computations.
 - 2. Design criteria used for the project.
 - 3. Geometric design calculations for horizontal alignment.
 - 4. Vertical geometry calculations.
 - 5. Drainage calculations
 - 6. Structural design calculations.
 - 7. Geotechnical report.
 - 8. Hydraulics Report for each bridged stream crossing.
 - 9. Earthwork calculations not included in the quantity computation booklet.
 - 10. Calculations showing cost comparisons of various alternatives considered, if applicable

11. Computations of quantities.
12. Documentation of decisions reached resulting from meetings, telephone conversations, or site visits.
13. Lighting and voltage drop calculations.
14. Lighting service letter from the power company stating the following: service voltage, type of service (overhead or underground), location of power company service point, and any other power company requirements.

7.13 Reviews and Submittals

- A. Review and coordination of the Consultant's work by CFX shall continue through the project development process
- B. Formal submittals for review shall be made to CFX when the plans have been developed to the following levels of completion:
 1. Preliminary Engineering (Memorandum) (1 CD/DVD with all files in pdf format, and three (3) hard copy sets)
 2. 30% Roadway Plans (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX GEC and two (2) hard copies of plans to the CFX project manager)
 3. 30% Bridge and Structural Plans (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX GEC and two (2) hard copies of plans to the CFX project manager)
 4. 60% Roadway and specifications, Geotechnical Report (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX GEC and two (2) hard copies of plans to the CFX project manager)
 5. 60% Bridge Plans required only on Category 2 bridges.
 6. 90% Bridge and Structural Plans (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX GEC and two (2) hard copies of plans to the CFX project manager)
 7. 90% Roadway and specifications (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX GEC and two (2) hard copies of plans to the CFX project manager)
 8. 100% Roadway, Bridge and specifications, Geotechnical Report (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX GEC and two (2) hard copies of plans to the CFX project manager)

9. Pre-Bid Plans (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX GEC and two (2) hard copies of plans to the CFX project manager)
 10. Bid Set (1 set signed and sealed plans, 1 set "clean" plans, 1 set signed and sealed reports and one (1) CD/DVD with .PDF of all plans and reports)
- C. Formal review submittals shall include copies as listed above. 8-1/2" x 11" and 11" x 17" documents do not require reproducible copies.
 - D. Preparation and distribution of roadway and ROW plans to other than CFX or CFX GEC will not be made until approved by CFX.
 - E. The format of review submittal plans shall conform to the FDOT Design Manual, except as amended by CFX.
 - F. Due to the compact schedule of the design, review, and construction process, any modification to the agreed submittal dates will require a letter from the Consultant to CFX giving:
 1. The reason for the delay.
 2. The design components impacted.
 3. Proposed methods to maintain submittal dates.
 - G. The Consultant shall submit all CADD files, including GEOPAK files, use in the preparation of the plans and right of way mapping on compact disk with the final submittal.

7.14 30% Roadway Plan Submittal

- A. At the completion of this phase, design and plan development should be approximately 30 percent complete except stormwater pond designs. The designs of the stormwater ponds shall be at 90% complete. The following material shall be developed and submitted for review:
 1. Key Map Prepared
 - a) Location map shown complete with destinations, ranges and townships.
 - b) Beginning and ending stations shown.
 - c) Any equations on project shown.
 - d) Project numbers and title shown.

- e) Index shown.
2. Drainage Map Prepared
- a) Existing culvert sizes and elevations.
 - b) Horizontal alignment shown.
 - c) Drainage areas and flow arrows shown.
 - d) High water information shown.
 - e) Beginning and end stations shown along with any equations on project.
 - f) Interchange supplemental maps prepared.
3. Typical Section Sheets
- a) Ramp typical sections developed.
 - b) Pavement structure shown.
 - c) Special details developed.
 - d) General notes shown.
4. Plan and Profile Sheets
- a) Centerline plotted.
 - b) Reference points and bench marks shown.
 - c) Existing topography.
 - d) Base line of surveys, curve data, bearings, etc. shown.
 - e) Beginning and end stations (project and construction).
 - f) Geometric dimensions.
 - g) Proposed and existing limited access right-of-way lines.
 - h) Existing ground line.
 - i) Proposed profile grade.
 - j) Type, size and horizontal location of existing utilities.
 - k) Drainage structures and numbers are shown

- l) Drainage ponds are shown.
- 5. Cross Sections
 - a) Existing ground line.
 - b) Preliminary templates at critical locations (not to exceed 500 feet).
 - c) Existing utilities shown.
- 6. Interchange Layout and Ramp Profiles
 - a) Geometric dimensions.
 - b) Proposed profile grades.
- 7. Right-of-Way Control Survey
- 8. Signing and Pavement Markings
 - a) Striping layout.
 - b) Sign structure locations.

7.15 30% Bridge and Structural Plan Submittal

- A. At completion of this phase, design and plan development should be approximately 30 percent complete. The Consultant shall refer to FDOT Structural Design Guidelines for plan contents and submittal requirements. Preliminary geotechnical results and recommendations should also be included with this submittal.

7.16 60% Roadway Plan Submittal

- A. At completion of this phase, design and plan development should be approximately 60 percent complete except stormwater pond designs. The designs of the stormwater ponds shall be at 100% complete. The following material shall be developed and submitted for review:
 - 1. Key Map
 - a) Project description and number shown.
 - b) Equations, exceptions and bridge stations shown.
 - c) North arrow and scale included.
 - d) Consultant and CFX sign-off included.

- e) **Contract set index complete.**
 - f) **Index of sheets updated.**
2. **Drainage Maps**
- a) **Flood data shown.**
 - b) **Cross drains and storm sewer shown.**
 - c) **Bridges shown with beginning and ending stations.**
 - d) **Interchange supplemental sheets updated.**
3. **Typical Section Sheets**
- a) **All required typical sections are included.**
 - b) **Limited access right-of-way lines are shown.**
 - c) **Design speed and traffic are shown.**
 - d) **Special details have been completed.**
 - e) **Station limits of each typical section are shown.**
4. **Plan and Profile Sheets**
- a) **Match lines shown.**
 - b) **Limited access right-of-way lines shown.**
 - c) **Stations and offset shown for all fence corners and angles.**
 - d) **All work shown should be within right-of-way or proposed easement.**
 - e) **Drainage structures and numbers are shown.**
 - f) **Drainage ponds shown.**
 - g) **Curve data and superelevation included.**
 - h) **Pavement edges, shoulders and dimensions shown.**
 - i) **Project and construction limits shown.**
 - j) **Bridges shown with beginning and ending stations.**

- k) General Notes.
- 5. Drainage Structures
 - a) Drainage structures plotted and numbered.
 - b) Station location and offsets identified.
- 6. Cross Sections
 - a) Templates are shown at all stations.
 - b) Limited access right-of-way lines are shown.
 - c) Cross section pattern sheet included.
 - d) Miscellaneous notes included.
 - e) Boring profiles.
- 7. Interchange Layouts, Ramp Profiles and Intersection Details
 - a) Geometric data shown.
 - b) Profiles finalized.
 - c) Coordinate data shown.
 - d) Limited access right-of-way lines shown.
 - e) Curve data shown.
 - f) Bearings and bridges shown.
 - g) Cross roads, frontage roads, and access roads shown.
 - h) Intersection details shown.
- 8. Traffic Control Plans
- 9. Utility Adjustments
- 10. Signing and Pavement Marking Plans
- 11. Intelligent Transportation System (ITS) Plans
- 12. Highway Lighting Plans
- 13. Selective Clearing and Grubbing (if required)

7.17 90 % Bridge and Structure Plan Submittal

- A. At completion of this phase, design and plan development should be approximately 90 percent complete. The Consultant shall refer to FDOT Structural Design Guidelines for plan contents and submittal requirements.

7.18 90% Roadway Plan Submittal

- A. At completion of this phase, design and plan development should be approximately 90 percent complete. The following material shall be developed and submitted for review:

1. Key Map
 - a) Length of Project with exceptions shown.
 - b) Index of sheets updated.
2. Drainage Maps
 - a) Drainage divides, areas and flow arrows shown.
 - b) Elevation datum and design high water information shown.
 - c) Disclaimer and other appropriate notes added.
3. Typical Section Sheets
4. Plan and Profile Sheets
 - a) Curve Control Points (P.C., P.I., P.T.) flagged and labeled.
 - b) Limits of side road construction.
 - c) Angle and stationing for intersections.
 - d) Treatment for non-standard superelevation transitions diagramed.
 - e) General notes shown.
 - f) Special ditches profiled.
5. Drainage Structures
 - a) Existing structures requiring modifications are shown.
 - b) Existing and proposed utilities are shown.

6. Soil Borings
 - a) Soils data and estimated high seasonal groundwater table shown.
7. Cross Section Sheets
 - a) Scale and special ditch grades shown.
 - b) Utilities plotted.
 - c) Sub-excavation shown.
 - d) Volumes computed and shown.
8. Utility Relocation Plans
 - a) Utility relocation plans prepared.
9. Traffic Control Plans
10. Signing and Pavement Marking Plans
11. Signalization Plans
12. Intelligent Transportation System (ITS) Plans
13. Highway Lighting Plans
14. Selective Clearing and Grubbing (if required)

7.19 100% Roadway, Bridge, Structural and Right-of-Way Plans

- A. At the completion of this phase, the design plans and special provisions shall be 100 percent complete.

7.20 Pre-Bid Plans


7.21 Bid Set

**CONSENT AGENDA ITEM
#6**

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

MEMORANDUM

TO: CFX Board Members

FROM: Aneth Williams 
Director of Procurement Aneth Williams (Jun 2, 2020 19:20 EDT)

DATE: May 27, 2020


SUBJECT: Approval of Supplemental Agreement No. 3 with Moffatt & Nichol, Inc.
for Design Consultant Services for SR 429 Widening from West Road to SR 414
Project 429-153, Contract No. 001396

Board approval is requested for Supplemental Agreement No. 3 with Moffatt & Nichol, Inc., for a not-to-exceed amount of \$663,330.37. The original contract was for five years with five one-year renewals.

The services include additional design and geotechnical services.

Original Contract	\$5,160,000.00
Supplemental Agreement No. 1	\$ 0.00
Supplemental Agreement No. 2	\$ 0.00
Supplemental Agreement No. 3	<u>\$ 663,330.37</u>
Total	\$5,823,330.37

This project is included in the Five-Year Work Plan.

Reviewed by: 

Will Hawthorne, PE
Director of Engineering


Glenn Prossimone (Jun 3, 2020 09:07 EDT)

SUPPLEMENTAL AGREEMENT NO. 3
TO
AGREEMENT FOR PROFESSIONAL SERVICES
FINAL DESIGN
SR 429 Widening from West Road to SR 414

THIS SUPPLEMENTAL AGREEMENT is made and entered into this _____ day of _____, 2020, by and between the CENTRAL FLORIDA EXPRESSWAY AUTHORITY, a corporate body and agency of the State of Florida, hereinafter called "CFX" and the consulting firm of MOFFATT & NICHOL, INC. of Lake Mary, Florida, hereinafter called the "CONSULTANT".

WHEREAS, Articles 2.00 and 12.0 of the Agreement for Professional Services between CFX and the CONSULTANT, dated the 14th day of March 2019, provides that in the event that CFX shall change the amount of work in Exhibit "A" of the said Agreement for Professional Services, the fees to be paid to the CONSULTANT shall be subject to adjustment as shall be mutually agreed upon:

NOW, THEREFORE, BE IT RESOLVED THAT:

1. CFX hereby authorizes the CONSULTANT to proceed with additional services as outlined in the Consultant's May 8, 2020 letter to CFX, which is attached hereto and made a part of this Supplemental Agreement.

2. Exhibit "B", Article 2.00 of the Agreement for Professional Services is amended as follows:

a. The Salary Related Costs are adjusted upwards by \$575,563.97 at \$3,025,878.32.

b. The Direct Expenses (Lump Sum) remains unchanged at \$8,665.55.

c. The Subcontract Items are adjusted upwards by \$364,731.83 to \$2,788,786.50.

- Ardaman \$60,716.80
- BASE \$149,631.34
- DRMP \$61,138.02
- EPG \$72,735.41
- WBQ \$20,510.26

d. The Allowance is adjusted downward by \$276,965.43 to \$0.00.

The Total Maximum Limiting Amount is adjusted upwards by \$663,330.37 to \$5,823,330.37.

3. All provisions of said Agreement for Professional Services, or any Supplements thereto, not modified by the above, shall remain in full force and effect, the same as if they had been set forth herein. In the event of a conflict between the provisions of this Supplemental Agreement and of the said Consultant Agreement, or any

Supplements thereto, the provisions of this Supplemental Agreement, to the extent such provision is reasonable, shall take precedence.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed, electronically, the day and year first above written.

CENTRAL FLORIDA
EXPRESSWAY AUTHORITY

By: _____
Director of Procurement

MOFFATT & NICHOL, INC.

By: _____
Title:
Print Name:

Approved as to form and execution, only.

General Counsel for CFX

<https://cfxgov.sharepoint.com/operations/engineering/Shared Documents/General/429-153 SR 429 Widening West Road to SR 414/2 Contract/2.A Supplemental Agreements/SA 3/Moffatt 429-153 -SA3.docx>



MEMORANDUM

Date: May 11, 2020
To: Will Hawthorne, PE CFX Director of Engineering
From: Carnot W. Evans, PE *CWE*
Subject: Design Consultant Services - Contract 001396
CFX Project No. 429-153
SR 429 Widening from West Road to SR 414
Supplemental Agreement No. 3

Comments:

I have reviewed the fee sheet and scope of services submitted by Moffat and Nichol, Inc. provided via email first on March 2, 2020 and then updated on May 8, 2020 (after GEC review) for the SR 429 Widening from West Road to SR 414 design project. This requested contract amendment is to provide professional services for additional design and geotechnical services due to the additional PTSU structures, ITS, lighting and bridge design for the box girder bridges over CR 437A.

The work authorization request is attached and additional costs are detailed below:

\$ 575,563.97	Moffat and Nichol as Prime
<u>\$ 364,731.83</u>	<u>Additional Subconsultant Fees</u>
\$ 940,295.80	Total Additional Subconsultant Fees
\$ 940,295.80	Total Requested Contract Amendment Amount

The total staff hours for each task are reasonable and acceptable, and the man hour rates are consistent with their contract; therefore, I recommend approval of this agreement in the amount of \$940,295.80.

Should you have questions or need additional information, please call me at 321.354.9757.

cc:

Keith Jackson, PE Dewberry
File



1025 Greenwood Blvd., Suite 371
Lake Mary, FL 32746

(407) 562-2030 Fax (407) 562-2031
www.moffatnichol.com

May 8, 2020

Will Hawthorne, P.E.
Director of Engineering
Central Florida Expressway Authority
4974 Orlando Tower Rd.
Orlando, FL 32807

Subject: SR 429 Widening from West Road to SR 414
Project No: 429-153
Supplemental Amendment 3

Dear Will:

Attached is our supplemental for additional services on the above referenced project.

This amendment addresses the following major components:

- Extending the project limits to north of the Binion Road overpass
- Additional structural services for replacing the existing SR 429 bridge over CR 437A using steel box girders
- Implementing the new arc hazard criteria
- Implementing the PTSU gantry structures

If you have any questions, please contact me.

Sincerely,

MOFFATT & NICHOL

William Terwilleger

William A Terwilleger, P.E.
Project Manager

Exhibit A

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

SCOPE OF SERVICES

FOR

**S.R. 429 WIDENING FROM
West Road to SR 414
Supplemental No. 3**

PROJECT NO. 429-153

IN ORANGE COUNTY, FLORIDA

May 8, 2020

Exhibit A

SCOPE OF SERVICES

1.0 GENERAL

1.1 Description

The services will include final design and preparation of construction drawings / specifications for the proposed S.R. 429 inside widening from West Road to SR 414 to extend the project limits to north of Binion Road overpass. Additional elements include milling & resurfacing, drainage evaluation and design, lighting, signing and pavement markings, signalization, ITS (fiber optic network), maintenance of traffic, utility design and coordination, geotechnical analysis, scheduling and project control, progress reporting and other tasks and associated activities.

1.2 Purpose

- A. The purpose of this Exhibit is to describe the scope of work and responsibilities required in connection with Final Engineering and Final Construction Drawings and Documents for the proposed S.R. 429 inside widening from West Road to SR 414.

4.0 WORK PERFORMED BY CONSULTANT

The Consultant shall be responsible for the work outlined in this Section. The work shall conform to the standards, criteria, and requirements of this Scope of Services.

4.1 Design Features

- A. The work required for this project includes preparation of final construction drawings and specifications as well as the preparation of a complete environmental resource application.
- B. Major elements of the work include the following:

The additional services will include final design and preparation of construction drawings / specifications for the proposed S.R. 429 inside widening from West Road (Station 540+00) to north of the Binion Road overpass (Sta 572+35). Additional elements include milling & resurfacing, drainage evaluation and design, permitting, lighting, signing and pavement markings, ITS, maintenance of traffic, utility design and coordination, geotechnical analysis, scheduling and project control, progress reporting and other tasks and associated activities.

4.5 Geotechnical Investigation

- A. The work includes, additional boring for structures and geotechnical design support relative to foundations for sign structures. The work will also include verification of existing median bridge foundation capacities previously constructed for future widening.

1. Perform site reconnaissance and utility clearance coordination relative to supplemental boring locations.
2. Perform 8 SPT borings and 4 auger borings spread between the existing ponds designated 200-3, 200-4 and 200-1A and Pond A, B2, B3, and 4 at the CR 437A interchange. Purpose of the borings is to explore the soil characteristics relative to poor pond performance
3. Conduct a total of 8 field permeability tests in the existing ponds (including 200-3, 200-4 and 200-1A) in order to explore the soil characteristics relative to poor pond performance
4. Perform a total of 20 SPT borings to a depth of 40 feet each for 10 new overhead sign structures required for the project. A mixture of cantilever and truss structures are proposed for a total of 20 new uprights with drilled shaft foundations.
5. Visually examine all recovered soil samples in the laboratory utilizing the Unified Soil Classification System. Perform laboratory tests on selected representative soil samples, including grain size analysis, Atterberg limits, organic content, natural moisture content, and corrosion series testing as appropriate.
6. Collect groundwater level measurements and estimate wet seasonal high groundwater tables.
7. Conduct geotechnical engineering evaluation and provide findings relative to exploration and testing in Ponds 200-3, 200-4, and 200-1A. Provide geotechnical support relative to potential improvements.
8. Provide geotechnical engineering evaluation and support relative to the new sign structure foundation support.

4.12 Roadway Design

- A. Horizontal/Vertical Master Design Files
 1. Extend project limits approximately 3,240 ft through the SR 414 interchange to maintain 3 lanes of traffic.
 2. Cross Section Design Files- Additional cross sections for extended project limits
- B. Traffic Control Analysis- Additional effort for extended project limits
- C. Traffic Control Design Files - Additional effort for extended project limits
- D. Roadway Plans
 1. Profile Sheet-additional sheets required for extended project limits
 2. Plan Sheet - Additional sheets required for extended project limits
 3. Cross Sections- Additional cross sections required for extended project limits
 4. Temporary Traffic Control Plan Sheets-additional sheets required for extended project limits
 5. Temporary Traffic Control Cross Section Sheets- Additional cross sections required for extended project limits

4.13 Structures Design

- A. The Consultant shall prepare designs and contract documents for structural design including, new bridge designs for SR 429 bridge over Ocoee Apopka Road. The design shall use steel box girders. The additional services will include the following:
1. Provide design and preparation of construction drawings / specifications for the construction of a new steel box girder bridge with complex geometry due to span length, variable beam spacing and skew.
 2. Design and load rate the new steel box bridge structure for three (3) construction phases with different loading conditions.
 3. Prepare final and temporary bracing details needed for the bridge stability at each construction phase. Includes analysis of differential deflection, beam camber and concrete closure pours.
 4. Provide erection sequence plans with temporary structure supports for each construction phase
 5. Design and load rate new steel box girder bridge for the final condition.
- B. Evaluation of existing bridge approach retaining walls:
1. Review and analyze the existing retaining walls for possible extension due to the increase height of the new roadway profile. The existing walls consist of a soldier steel pile and wood lagging system with tieback anchors and a 12-in concrete fascia panel. This proprietary wall system was a redesign of the proposed steel sheet pile and tieback wall system shown on the previous project contract plans. The design was performed by Schnabel Foundation Company. The review analysis includes the following:
 2. Verification of the capacity of the existing tieback anchors subject to additional surcharge load at approximately 15 segments of the existing walls. The existing wall segments differ in wall height, tieback length and tieback location from top of wall.
 3. Design and evaluation of a similar wall system following the current walls alignment placing new soldier piles and tiebacks between the existing. The existing soldier pile and tieback anchors are spaced at 8-ft centers.
 4. Evaluation of a three-tier wall system to reduce impact on the existing tieback anchors. Options include MSE walls and/or cast in place walls.
- C. Sign structures: New structures required for the PTSR.
1. Original estimates were based on preliminary CSP, use of existing structures and use of FDOT standards for new. Conceptual Signing Plans (CSP) for the project was updated based on part time shoulder

use (PTSU). This supplement incorporates efforts associated with the proposed changes to the signing based on the new Conceptual Signing Plans (CSP) and implementation of the new PTSU Sign Structures guide standards. Following items are covered under this SA:

2. Reduced overhead cantilever structures from 8 to 5
3. 5 new half span PTSU structures with dual column supports in the median
4. 8 half spans with shared dual column support in the median
5. 4 Type 4 PTSU's with horizontal truss below tri-chord and dual column supports in the median
6. Implement the guide standards (32 sheets) and complete associated table of variables covering the different gantry types
7. We anticipate combination of FDOT Mathcad programs and use finite element programs for analysis, design and detailing.

4.14 Drainage Design

- A. As part of the drainage design requirements, the Consultant shall:
 1. Perform all drainage design in accordance with the approved criteria from Section 3.1D.
 2. Two additional ponds for extension (no routing). Treatment and attenuation calculations will be prepared for the 2 existing ponds.
 3. Extend drainage maps.
 4. Additional structures for project extension.
 5. Prepare a technical memorandum identifying existing drainage concerns along the corridor and potential fixes or modifications. Known existing drainage concerns include: Ponds 200-3 and 201-A infiltration, Pond 200-1 grading.
 6. A pond siting report is not required.
 7. Assumes ponds will not need modifications for permitting criteria. Modifications required for permitting shall be added to the scope by Supplemental Agreement.
- B. The Consultant shall prepare designs and contract documents for drainage features including, but not necessarily limited to:
 1. Connector pipes
 2. Drainage structure details
 3. Storm drain and culvert profiles and/or drainage cross-sections
 4. Lateral ditches/channels
 5. Outfall ditches/channels
 6. Retention/detention ponds/exfiltration system
- C. CR 437A Interchange Modifications

1. Analysis and redesign for Ponds within the 437A interchange to account for the new wall locations. The following ponds will be included Pond A, B-1, B-2, B-3, C, D, 4.
2. Review and analysis of existing storm drain and offsite bypass drainage along CR 437A.
3. Additional structures to modify existing drainage basins.
4. Pond details for revised Pond A, B-1, B-2, B-3, C, D, and 4. Grading modifications (6) and control structures (4). No revisions to control structure or grading for Pond 5.

4.15 Roadway Lighting

- A. The Consultant shall provide a complete set of final roadway lighting documents in accordance with FDOT and CFX design criteria to extend the project limits to Sta 572+35.
- B. This supplemental agreement addresses the following scope additions.
 1. Project extension to the north on SR 429.
 2. Box girder lighting for CR 437A bridge.
 3. PTSU Lane Control Overhead Sign Lighting.

These scope additions require additional work within the following project activity tasks. Refer to staff hours for additional information.

- 23.2 Lighting Design Analysis Report
- 23.5 Reference and Master Design Files
- 23.8 Quantities
- 23.14 Quality Assurance/Quality Control
- 23.16 Supervision
- 23.17 Coordination
- 24.3 Tabulation of Quantities
- 24.5 Pole Data, Legend and Criteria
- 24.8 Plan Sheet
- 24.9 Special Details
- 24.13 Quality Assurance/Quality Control
- 24.14 Supervision

- C. The following steps are involved in detailed arc flash hazard analysis:
 1. Identify the locations of lighting load centers at the power service-entrance locations. Conduct a field visit to obtain any necessary data required for the arc flash hazard analysis.
 2. Data Collection
 3. Obtain the feeder conductor sizes and lengths starting the utility transformer and continuing to all devices included in the arc flash analysis.
 4. Obtain all circuit breaker and fuse amperage, manufacturer, model, and trip unit settings.

5. Utility Information - – Coordination is required with the local power company to gather technical information on their transformer including impedance, KVA rating, operating voltage, service voltage configuration and available fault current.
6. Prepare a One-Line Diagram of the system for each individual power service-entrance location. The results of analysis such as short circuit studies and arc flash hazard assessment shall be placed on the diagram.
7. Perform a short Circuit Study – Calculate the short circuit current in symmetrical RMS amperes for all buses or equipment, and for each possible operation mode.
8. Calculate arc current for every required equipment or bus.
9. Estimate arcing time by plotting Time-Current Curve and obtaining the trip time of branch and main circuit breakers.
10. Estimate arc flash incident energy for the equipment at the given distances. Evaluate incident energy for each type of possible connection and arc current changing through the series of breaker operations.
11. Determine the arc flash boundary.
12. The arc flash hazard analysis shall be documented in a detailed report. The report should include the following:
 - a. The name of person performing the assessment
 - b. The date of assessment.
 - c. All data collected and used in the assessment, including protective device settings.
 - d. Assumptions used in the absence of data.
 - e. The name of the software and the revision.
13. Provide documentation for all results related to incident energy and arc flash boundary for each equipment.
14. Arc Flash Labeling – Arc flash labels are to be placed on exterior cover of equipment at the power service-entrance locations. Equipment like, (a) Non-fused disconnect switch on the line side of meter, (b) service-entrance rated overcurrent protection device, (c) electrical distribution cabinet. Arc flash labels should be located in a place that is easily visible and readable from some distance. The label shall include nominal voltage, arc flash boundary, and site-specific level of personal protection equipment, minimum arc rating of clothing, available incident energy and the corresponding working distance. The labels shall be included in both the contract drawings and design documentation report.

4.17 Signing and Pavement Marking Plans

- A. The Consultant shall prepare designs and contract documents for final signing and pavement marking plans including layouts showing the locations of ground mounted and overhead signs, special sign details, lighting, and any structural or foundation requirements in accordance with applicable design standards. Any requirements for electric service shall be coordinated with

the local electric utility.

B. Signing

1. Truss locations (Interim/Ultimate) – PTSU gantries and type are marked on the latest CSP (10 new overhead structures). Gantry uprights (to the outside) are to be installed at the interim location, either outside the clear zone or guardrail setback requirements.

C. Median barrier connections - Construct now based on dead load, wind load, equipment. Dewberry to provide bolt pattern, bolt size, and loads, EORs to design foundation based on soils.

D. Pavement markings

E. Striping – Use Solid yellow like normal for inside edge of GP lanes (no additional striping/chevrons for shoulder).

F. Rumble strips – Place at current standard offset of 18” from GP lanes (this will be in future PTSU lane).

4.22 Fiber Optic Network (FON)

A. Fiber Optic Infrastructure Plans This supplemental agreement addresses the following scope additions.

1. Project extension to the north on SR 429.
2. PTSU Lane Control ITS equipment/infrastructure.

These scope additions require additional work within the following project activity tasks. Refer to staff hours for additional information.

- 33.7 Existing ITS System
- 33.9 Reference and Master ITS Design File
- 33.13 Quantities
- 33.19 Quality Assurance/Quality Control
- 33.20 Supervision
- 33.21 Coordination
- 34.6 Typical and Special Details
- 34.7 Plan Sheet
- 34.9 Fiber Optic Splice Diagrams
- 34.20 Quality Assurance/Quality Control
- 34.21 Supervision

SUPPLEMENTAL AGREEMENT NO. 2
TO
AGREEMENT FOR PROFESSIONAL SERVICES
FINAL DESIGN
SR 429 Widening from West Road to SR 414

THIS SUPPLEMENTAL AGREEMENT is made and entered into this _____ day of _____, 2020, by and between the CENTRAL FLORIDA EXPRESSWAY AUTHORITY, a corporate body and agency of the State of Florida, hereinafter called "CFX" and the consulting firm of MOFFATT & NICHOL, INC. of Lake Mary, Florida, hereinafter called the "CONSULTANT".

WHEREAS, Articles 2.00 and 12.0 of the Agreement for Professional Services between CFX and the CONSULTANT, dated the 14th day of March 2019, provides that in the event that CFX shall change the amount of work in Exhibit "A" of the said Agreement for Professional Services, the fees to be paid to the CONSULTANT shall be subject to adjustment as shall be mutually agreed upon:

NOW, THEREFORE, BE IT RESOLVED THAT:

1. CFX hereby authorizes the CONSULTANT to proceed with additional services as outlined in the Consultant's December 16, 2019 letter to CFX, which is attached hereto and made a part of this Supplemental Agreement.
2. Exhibit "B", Article 2.00 of the Agreement for Professional Services is amended as follows:

- a. The Salary Related Costs remains unchanged at \$2,450,314.35.
- b. The Direct Expenses (Lump Sum) remains unchanged at \$8,665.55.
- c. The Subcontract Items are adjusted upwards by \$96,523.54 to \$2,424,054.67.
 - MASER \$96,523.54
- d. The Allowance is adjusted downward by \$96,523.54 to \$276,965.43.

The Total Maximum Limiting Amount remains unchanged at \$5,160,000.00.

3. All provisions of said Agreement for Professional Services, or any Supplements thereto, not modified by the above, shall remain in full force and effect, the same as if they had been set forth herein. In the event of a conflict between the provisions of this Supplemental Agreement and of the said Consultant Agreement, or any Supplements thereto, the provisions of this Supplemental Agreement, to the extent such provision is reasonable, shall take precedence.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed, in triplicate, the day and year first above written.

CENTRAL FLORIDA
EXPRESSWAY AUTHORITY

By: Aneth Williams Digitally signed by Aneth Williams
Date: 2020.04.08 16:15:26 -04'00'
Director of Procurement

MOFFATT & NICHOL, INC.

Digitally signed by Darrell Nance
DN: cn=Darrell Nance, ou=Moffatt & Nichol,
email=dnance@moffattnichol.com,
c=US
Date: 2020.04.08 08:44:11 -04'00'



Witness: _____

By: _____

Print Name: Darrell Nance


Title: Vice President

Approved as to form and execution, only.

Diego "Woody" Rodriguez Digitally signed by Diego
"Woody" Rodriguez
Date: 2020.04.08 15:10:10 -04'00'

General Counsel for CFX

<https://cfxgov.sharepoint.com/operations/engineering/Shared Documents/General/429-153 SR 429 Widening West Road to SR 414/2 Contract/2.A Supplemental Agreements/SA 2/Final/Moffatt 429-153 -SA2.docx>

Date: January 21, 2020
To: Will Hawthorne, PE CFX Director of Engineering
From: Carnot W. Evans, PE 
Subject: Design Consultant Services - Contract 001396
CFX Project No. 429-153
SR 429 Widening from West Road to SR 414
Supplemental Agreement No. 2

Comments:

I have reviewed the fee sheet and scope of services submitted by Moffat and Nichol, Inc. provided via email first on December 19, 2019 and then updated on January 20, 2020 (after GEC review) for the SR 429 Widening from West Road to SR 414 design project. This requested contract amendment is to provide professional services for additional survey and geotechnical services due to the extension of the project limits and additional existing drainage structures encountered in the field.

The work authorization request is attached and additional costs are detailed below:

\$ 0.00	Moffat and Nichol as Prime
\$ 96,523.54	<u>Additional Subconsultant Fees (Maser)</u>
\$ 96,523.54	Total Additional Subconsultant Fees
\$ 96,523.54	Total Requested Contract Amendment Amount

The total staff hours for each task are reasonable and acceptable, and the man hour rates are consistent with their contract; therefore, I recommend approval of this agreement in the amount of \$96,523.54.

Should you have questions or need additional information, please call me at 321.354.9757.

cc:

Keith Jackson, PE Dewberry
File



1025 Greenwood Blvd., Suite 371
Lake Mary, FL 32746

(407) 562-2030 Fax (407) 562-2031
www.moffattnichol.com

December 16, 2019

Will Hawthorne, P.E.
Director of Engineering
Central Florida Expressway Authority
4974 Orlando Tower Rd.
Orlando, FL 32807

Subject: SR 429 Widening from West Road to SR 414
Project No: 429-153
Supplemental Amendment 2 (Additional Survey for extended project limits)

Dear Will:

Attached is our supplemental for additional survey for extending the project limits for this project in order to carry the proposed three-lane typical section through the SR 414 interchange and tie into the existing three-lane section to the north.

This amendment addresses obtaining the additional survey required to complete this design.

If you have any questions, please contact me.

Sincerely,

MOFFATT & NICHOL

William A Terwilleger, P.E.
Project Manager

EXHIBIT "A" SCOPE OF SERVICES

27 SURVEY

27.3 Alignment and/or Existing Right of Way (R/W) Lines

Tie Sufficient R/W & CL to Verify position of Alignment and R/W for additional 0.6 miles

27.5 Reference Points

Edit CTL/PNC sheets to account for 0.6 additional miles of ROW Determination

27.6 Topography/Digital Terrain Model (DTM) (3D)

24 acres of off topo survey and DTM including landscape areas in median and wooded areas along right of way

27.10 Underground Utilities

- Quality Level B Designating: Provide Utility Designates at
 - a. SR 429 Mainline – 0.6 miles x 2 utilities = 1.2 miles of DES
 - b. CFX will designate their FON, electrical and toll facilities within the SR429 ROW throughout project limits
 - c. Designating efforts include all other utilities except the CFX designated facilities

- Locates for verification of QLB and non-tuneable: Total Test Hole Bank:70
 - a. Laterals crossing mainline and misc. locations as needed to confirm utility alignment = 2

27.15 Pond Site Survey

3D DTM Survey of 2 Pond Bottoms.

27.18 Geotechnical Support

Perform 3-dimensional (X,Y,Z) field location, or stakeout, of boring sites established by geotechnical engineer. Includes field edits, analysis and processing of all field collected data and/or reports.

27.27 Work Zone Safety

Provide work zone as required by CFX standards.

27.28 Miscellaneous Surveys

Survey to map all utilities marked by CFX (FON & lighting)

27.30 Document Research

Perform research of documentation to support field and office efforts involving surveying and mapping.

27.31 Field Review

Perform verification of the field conditions as related to the collected survey data.

27.33 Quality Assurance/Quality Control (QA/QC)

Establish and implement a QA/QC plan. Also includes subconsultant review, response to comments and any resolution meetings if required, preparation of submittals for review, etc.

27.34 Supervision

Perform all activities required to supervise and coordinate project. These activities must be performed by the project supervisor, a Florida P.S.M. or their delegate as approved by the CFX Surveying Office.

27.35 Coordination

Coordinate survey activities with other disciplines. These activities must be performed by the project supervisor, a Florida P.S.M. or their delegate as approved by the CFX Surveying Office.

SUPPLEMENTAL AGREEMENT NO. 1
TO
AGREEMENT FOR PROFESSIONAL SERVICES
FINAL DESIGN
SR 429 Widening from West Road to SR 414

THIS SUPPLEMENTAL AGREEMENT is made and entered into this 5th day of SEPTEMBER, 2019, by and between the CENTRAL FLORIDA EXPRESSWAY AUTHORITY, a corporate body and agency of the State of Florida, hereinafter called "CFX" and the consulting firm of MOFFATT & NICHOL, INC. of Lake Mary, Florida, hereinafter called the "CONSULTANT".

WHEREAS, Articles 2.00 and 12.0 of the Agreement for Professional Services between CFX and the CONSULTANT, dated the 14th day of March 2019, provides that in the event that CFX shall change the amount of work in Exhibit "A" of the said Agreement for Professional Services, the fees to be paid to the CONSULTANT shall be subject to adjustment as shall be mutually agreed upon:

NOW, THEREFORE, BE IT RESOLVED THAT:

1. CFX hereby authorizes the CONSULTANT to proceed with additional services as outlined in the Consultant's July 29, 2019 letter to CFX, which is attached hereto and made a part of this Supplemental Agreement.
2. Exhibit "B", Article 2.00 of the Agreement for Professional Services is amended as follows:
 - a. The Salary Related Costs remains unchanged at \$2,450,314.35.
 - b. The Direct Expenses (Lump Sum) remains unchanged at \$8,665.55.
 - c. The Subcontract Items are adjusted upwards by \$9,154.52 to \$2,327,531.13.
 - Page One (\$229,592.81)
 - NADIC \$238,747.33
 - d. The Allowance is adjusted downward by \$9,154.52 to \$373,488.97.

The Total Maximum Limiting Amount remains unchanged at \$5,160,000.00.


3. All provisions of said Agreement for Professional Services, or any Supplements thereto, not modified by the above, shall remain in full force and effect, the same as if they had been set forth herein. In the event of a conflict between the provisions of this Supplemental Agreement and of the said Consultant Agreement, or any Supplements thereto, the provisions of this Supplemental Agreement, to the extent such provision is reasonable, shall take precedence.


IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed, in triplicate, the day and year first above written.

CENTRAL FLORIDA
EXPRESSWAY AUTHORITY


By: 
Director of Procurement

MOFFATT & NICHOL, INC.

Witness: 
Print Name: Bill Terwilliger

By: 
Title: VICE PRESIDENT

Approved as to form and execution, only.


General Counsel for CFX

\\dfsprd1\Store\Departments\Engineering\General\429-153 SR 429 Widening West Road to SR 414\2 Contract\2.A
Supplemental Agreements\SA 1\Moffatt 429-153 -SA1.docx

AGREEMENT

**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
AND
MOFFATT & NICHOL, INC.**

SR 429 WIDENING FROM WEST ROAD TO SR 414

CONTRACT NO. 001396, PROJECT 429-153

CONTRACT DATE: MARCH 14, 2019

CONTRACT AMOUNT: \$5,160,000.00

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

**AGREEMENT, SCOPE OF SERVICES, METHOD OF
COMPENSATION, DETAILS OF COSTS AND FEES,
PROJECT ORGANIZATIONAL CHART, PROJECT
LOCATION MAP, AND SCHEDULE**

**AGREEMENT, SCOPE OF SERVICES, METHOD OF COMPENSATION, DETAILS OF
COSTS AND FEES, PROJECT ORGANIZATIONAL CHART, PROJECT LOCATION
MAP, AND SCHEDULE**

FOR

SR 429 WIDENING FROM WEST ROAD TO SR 414

DESIGN SERVICES

**CONTRACT NO. 001396
PROJECT 429-153**

MARCH 2019

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

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B	Exhibit "B", Method of Compensation
C	Exhibit "C", Details of Cost and Fees
D	Exhibit "D", Project Organization Chart
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**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
AGREEMENT FOR PROFESSIONAL SERVICES**

THIS AGREEMENT, made and entered into this 14th day of March 2019, by and between CENTRAL FLORIDA EXPRESSWAY AUTHORITY, a corporate body and agency of the State of Florida, created by Chapter 2014-171, Laws of Florida, which is codified in Chapter 348, Part III of the Florida Statutes, hereinafter "CFX," and Moffatt & Nichol, Inc., hereinafter called "CONSULTANT," registered and authorized to conduct business in the State of Florida, carrying on professional practice in engineering, with offices located at 1025 Greenwood Boulevard, Suite 371, Lake Mary, FL. 32746.

WITNESSETH:

WHEREAS, CONSULTANT represents that it is fully qualified and authorized to render the professional services contracted herein.

NOW, THEREFORE, in consideration of the mutual understandings and covenants set forth herein, CFX and CONSULTANT agree as follows:

1.0. DEFINITIONS.

Reference herein to the Project Manager shall mean CFX's Director of Engineering or his authorized designee. The Project Manager shall provide the management and technical direction for this Agreement on behalf of CFX. All technical and administrative provisions of this Agreement shall be managed by the Project Manager and the CONSULTANT shall comply with all of the directives of the Project Manager that are within the purview of this Agreement. Decisions concerning Agreement amendments and adjustments, such as time extensions and supplemental agreements shall be made by the Project Manager.

2.0. SERVICES TO BE PROVIDED

CFX does hereby retain the CONSULTANT to furnish certain professional services in connection with the design of SR429 Widening from West Rd. to SR 414 identified as Project No. 429-153 and Contract No. 001396.

The CONSULTANT and CFX mutually agree to furnish, each to the other, the respective services, information and items as described in **Exhibit "A"**, Scope of Services, attached hereto and made a part hereof.

Before rendering any of the services, any additions or deletions to the work described in **Exhibit "A"**, and before undertaking any changes or revisions to such work, the parties shall negotiate any necessary cost changes and shall enter into a Supplemental Amendment covering such modifications and the compensation to be paid therefore.

The work covered by this Agreement as described in **Exhibit "A,"** includes the preparation of construction plans for one construction project. If the work is divided into more than one construction project by CFX's Project Manager, then the CONSULTANT shall supply construction plans for each project. A Supplemental Agreement will be required for the additional work.

All construction plans, documents, reports, studies and other data prepared by the CONSULTANT shall bear the endorsement of a person in the full employ of the CONSULTANT and duly registered by the State of Florida in the appropriate professional category.

After CFX's acceptance of construction plans and documents for the project, the original set of CONSULTANT's drawings, tracings, plans, maps and CADD files shall be provided to CFX, along with one record set of the final plans. The CONSULTANT shall signify, by affixing an endorsement (seal/signature, as appropriate) on every sheet of the record set, that the work shown on the endorsed sheets was produced by the CONSULTANT. With the tracings and the record set of prints, the CONSULTANT shall submit a final set of design computations. The computations shall be bound in an 8-1/2 x 11" format and shall be endorsed (seal/signature, as appropriate) by the CONSULTANT. Refer to **Exhibit "A"** for the computation data required for this Agreement.

The CONSULTANT shall submit a final set of reports and studies which shall be endorsed (seal/signature) by the CONSULTANT.

The CONSULTANT shall not be liable for use by CFX of said plans, documents, reports, studies or other data for any purpose other than intended by the terms of this Agreement.

This Agreement is considered a non-exclusive Agreement between the parties.

3.0. TERM OF AGREEMENT AND RENEWALS

Unless otherwise provided herein or by Supplemental Agreement, the provisions of this Agreement will remain in full force and effect for a five (5) year term from the date of the Notice to Proceed for the required project services as detailed in **Exhibit "A,"** with five one-year renewals at CFX's option. The options to renew are at the sole discretion and election of CFX. Renewals will be based, in part, on a determination by CFX that the value and level of service provided by the CONSULTANT are satisfactory and adequate for CFX's needs. If a renewal option is exercised, CFX will provide CONSULTANT with written notice of its intent at least thirty (30) days prior to the expiration of the original term and subsequent renewal, if any.

The CONSULTANT agrees to commence the scheduled project services to be rendered within ten (10) calendar days from the date specified in the written Notice to Proceed from the Project Manager, which Notice to Proceed will become part of this Agreement. The CONSULTANT shall complete scheduled project services within the timeframe(s) specified in **Exhibit "A"**, or as may be modified by subsequent Supplemental Agreement.

4.0. PROJECT SCHEDULE

The CONSULTANT agrees to provide Project Schedule progress reports for each project in a format acceptable to CFX and at intervals established by CFX. CFX will be entitled at all times to be advised, at its request, as to the status of work being done by the CONSULTANT and of the details

thereof. Coordination shall be maintained by the CONSULTANT with representatives of CFX, or of other agencies interested in the project on behalf of CFX. Either party to the Agreement may request and be granted a conference.

In the event there are delays on the part of CFX as to the approval of any of the materials submitted by the CONSULTANT or if there are delays occasioned by circumstances beyond the control of the CONSULTANT, which delay the scheduled project completion date, CFX may grant to the CONSULTANT by "Letter of Time Extension" an extension of the scheduled project completion date equal to the aforementioned delays. The letter will be for time only and will not include any additional compensation.

It shall be the responsibility of the CONSULTANT to ensure at all times that sufficient time remains within the project schedule within which to complete the services on the project. In the event there have been delays which would affect the scheduled project completion date, the CONSULTANT shall submit a written request to CFX which identifies the reason(s) for the delay, the amount of time related to each reason and specific indication as to whether or not the delays were concurrent with one another. CFX will review the request and make a determination as to granting all or part of the requested extension.

In the event the scheduled project completion date is reached and the CONSULTANT has not requested, or if CFX has denied, an extension of the completion date, partial progress payments will be stopped when the scheduled project completion date is met. No further payment for the project will be made until a time extension is granted or all work has been completed and accepted by CFX.

5.0. PROFESSIONAL STAFF

The CONSULTANT shall maintain an adequate and competent professional staff to enable the CONSULTANT to timely perform under this Agreement. The CONSULTANT shall continue to be authorized to do business within the State of Florida. In the performance of these professional services, the CONSULTANT shall use that degree of care and skill ordinarily exercised by other similar professionals in the field under similar conditions in similar localities. The CONSULTANT shall use due care in performing in a design capacity and shall have due regard for acceptable standards of design principles. The CONSULTANT may associate with it such specialists, for the purpose of its services hereunder, without additional cost to CFX, other than those costs negotiated within the limits and terms of this Agreement. Should the CONSULTANT desire to utilize specialists, the CONSULTANT shall be fully responsible for satisfactory completion of all subcontracted work. The CONSULTANT, however, shall not sublet, assign or transfer any work under this Agreement to other than the associate consultants listed below without the written consent of CFX. It is understood and agreed that CFX will not, except for such services so designated herein, permit or authorize the CONSULTANT to perform less than the total contract work with other than its own organization.

Prior to retaining a subconsultant, or assigning any work to a subconsultant, the CONSULTANT shall verify that the subconsultant does not have any conflicts and acknowledges its duty to comply with CFX's Code of Ethics. The CONSULTANT shall ensure that each subconsultant adheres to, and cause all subconsultants to be bound by, all requirements, conditions, and standards set forth herein. The CONSULTANT shall collect and maintain the necessary subconsultant compliance and

acknowledgement documentation and remove any subconsultant immediately, if the necessary said documentation is unavailable or the subconsultant is not adhering to the requirements and standards herein. The CONSULTANT shall provide subconsultant compliance and acknowledgement documentation to CFX upon request.

The approved subconsultants are:

BASE Consultants, Inc. (Class I)	DRMP, Inc. (Class I)
Environmental Science Associates (Class I)	EPG Engineering (Class I)
Maser Consulting P.A. (Class I)	WBQ Design & Engineering, Inc. (Class I)
Ardaman & Associates, Inc. (Class II)	Maser Consulting P.A. (Survey) (Class II)
Page One Consultants, Inc. (Class II)	

CONSULTANT shall not further sublet, sell, transfer, assign, delegate, subcontract, or otherwise dispose of this Contract or any portion thereof, or of the CONSULTANT's right, title, or interest therein without the written consent of CFX, which may be withheld in CFX's sole and absolute discretion. Any attempt by CONSULTANT to dispose of this Contract as described above, in part or in whole, without CFX's written consent shall be null and void and shall, at CFX's option, constitute a default under the Contract.

If, during the term of the Contract, CONSULTANT desires to subcontract any portion(s) of the work to a subconsultant that was not disclosed by the CONSULTANT to CFX at the time that the Contract was originally awarded, and such subcontract would, standing alone or aggregated with prior subcontracts awarded to the proposed subconsultant, equal or exceed twenty five thousand dollars (\$25,000.00), the CONSULTANT shall first submit a request to CFX's Director of Procurement for authorization to enter into such subcontract. Except in the case of an emergency, as determined by the Executive Director or his/her designee, no such subcontract shall be executed by the CONSULTANT until it has been approved by CFX Board. In the event of a designated emergency, the CONSULTANT may enter into such a subcontract with the prior written approval of the Executive Director or his/her designee, but such subcontract shall contain a provision that provides that it shall be automatically terminated if not approved by CFX Board at its next regularly scheduled meeting.

6.0. COMPENSATION

CFX agrees to pay the CONSULTANT compensation as detailed in **Exhibit "B"**, Method of Compensation, attached hereto and made a part hereof, in the not-to-exceed amount of \$5,160,000.00 for the initial five-year term of this Agreement. Bills for fees or other compensation for services or expenses shall be submitted to CFX in detail sufficient for a proper pre-audit and post audit thereof.

The CONSULTANT may be liable for CFX costs resulting from errors or deficiencies in designs furnished under this Agreement. CFX may enforce such liability and collect the amount due if the recoverable cost will exceed the administrative cost involved or is otherwise in CFX's best interest. Records of costs incurred by the CONSULTANT under terms of this Agreement shall be maintained and made available upon request to CFX at all times during the period of this Agreement and for five (5)

years after final payment is made. Copies of these documents and records shall be furnished to CFX upon request. The CONSULTANT agrees to incorporate the provisions of this paragraph in any subcontract into which it might enter with reference to the work performed. Records of costs incurred includes the CONSULTANT's general accounting records and the project records, together with supporting documents and records, of the CONSULTANT and all subconsultants performing work on the project, and all other records of the CONSULTANT and subconsultants considered necessary by CFX for a proper audit of project costs. The obligations in this paragraph shall survive the termination of the Agreement and continue in full force and effect.

The general cost principles and procedures for the negotiation and administration, and the determination or allowance of costs under this Agreement shall be as set forth in the Code of Federal Regulations, Titles 23, 48, 49, and other pertinent Federal and State Regulations, as applicable, with the understanding that there is no conflict between State and Federal regulations in that the more restrictive of the applicable regulations will govern. Whenever travel costs are included in **Exhibit "B"**, the provisions of Section 112.061, Florida Statutes, shall govern as to reimbursable costs.

Payments shall be made in accordance with the Local Government Prompt Payment Act in part VII, Section 218, Florida Statutes.

7.0. DOCUMENT OWNERSHIP AND RECORDS

All plans, documents, reports, studies, and/or other data prepared or obtained under this Agreement shall be considered instruments made for services and shall become the property of CFX without restriction or limitation on their use on this project; and shall be made available, upon request, to CFX at any time. CFX will have the right to visit the site for inspection of the work and the drawings of the CONSULTANT at any time. Unless changed by written agreement of the parties, said site shall be 1025 Greenwood Boulevard, Suite 371, Lake Mary, FL. 32746.

Notwithstanding Section 17, entitled "Communications, Public Relations, and Use of Logos," CONSULTANT acknowledges that CFX is a body politic and corporate, an agency of the State of Florida, and is subject to the Public Records Act codified in Chapter 119, Florida Statutes. To the extent that the CONSULTANT is in the possession of documents that fall within the definition of public records subject to the Public Records Act, which public records have not yet been delivered to CFX, CONSULTANT agrees to comply with Section 119.0701, Florida Statutes.

IF THE CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONSULTANT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT Phone: 407-690-5000, e-mail: publicrecords@cfxway.com, and address: Central Florida Expressway Authority, 4974 ORL Tower Road, Orlando, FL. 32807.

An excerpt of Section 119.0701, Florida Statutes is below.

Per Section 119.0701(1), "Contractor" means an individual, partnership, corporation, or business entity that enters into a contract for services with a public agency and is acting on behalf of the public agency as provided under s. 119.011(2).

Per Section 119.0701(b). The contractor shall comply with public records laws, specifically to:

1. Keep and maintain public records required by the public agency to perform the service.
2. Upon request from the public agency's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in this chapter or as otherwise provided by law.
3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the public agency.
4. Upon completion of the contract, transfer, at no cost, to the public agency all public records in possession of the contractor or keep and maintain public records required by the public agency to perform the service. If the contractor transfers all public records to the public agency upon completion of the contract, the contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the contractor keeps and maintains public records upon completion of the contract, the contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the public agency, upon request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.

The CONSULTANT shall allow public access to all documents, papers, letters, or other material as approved and authorized by CFX and subject to the provisions of Chapter 119, Florida Statutes, and made or received by the CONSULTANT in conjunction with this Agreement. Failure by the CONSULTANT to grant such public access shall be grounds for immediate unilateral cancellation of this Agreement by CFX.

The obligations in Section 7.0, Document Ownership and Records, shall survive the expiration or termination of this Agreement and continue in full force and effect.

8.0. COMPLIANCE WITH LAWS

The CONSULTANT shall comply with all federal, state and local laws and ordinances applicable to the work or payment for work thereof, and shall not discriminate on the grounds of race, color, religion, sex, or national origin in the performance of work under this contract.

The CONSULTANT shall keep fully informed regarding and shall fully and timely comply with all current laws and future laws that may affect those engaged or employed in the performance of this Agreement.

9.0. WAGE RATES AND TRUTH-IN-NEGOTIATIONS CERTIFICATE

The CONSULTANT hereby certifies, covenants and warrants that wage rates and other factual unit costs as shown in attached **Exhibit "C"**, Details of Costs and Fees, supporting the compensation provided in Section 6.0 are accurate, complete and current as of the date of this Agreement. It is further agreed that said price provided in Section 6.0 hereof shall be adjusted to exclude any significant sums where CFX shall determine the price was increased due to inaccurate, incomplete or non-current wage rates and other factual unit costs. All such adjustments shall be made within one year following the date of final billing or acceptance of the work by CFX, whichever is later.

10.0. TERMINATION

CFX may terminate this Agreement in whole or in part, for any reason or no reason, at any time the interest of CFX requires such termination.

If CFX determines that the performance of the CONSULTANT is not satisfactory, CFX shall have the option of (a) immediately terminating the Agreement or (b) notifying the CONSULTANT of the deficiency with a requirement that the deficiency be corrected within a specified time, otherwise the Agreement will be terminated at the end of such time.

If CFX requires termination of the Agreement for reasons other than unsatisfactory performance of the CONSULTANT, CFX shall notify the CONSULTANT in writing of such termination, not less than seven (7) calendar days as to the effective date of termination or specify the stage of work at which the Agreement is to be terminated.

If CFX abandons the work or subtracts from the work, suspends, or terminates the Agreement as presently outlined, the CONSULTANT shall be compensated in accordance with **Exhibit "B"** for work properly performed by the CONSULTANT prior to abandonment or termination of the Agreement. The ownership of all engineering documents completed or partially completed at the time of such termination or abandonment, shall be transferred to and retained by CFX.

CFX reserves the right to cancel and terminate this Agreement in the event the CONSULTANT or any employee, servant, or agent of the CONSULTANT is indicted or has a direct information issued against him for any crime arising out of or in conjunction with any work being performed by the CONSULTANT for or on behalf of CFX, without penalty. It is understood and agreed that in the event of such termination, all tracings, plans, specifications, maps, and data prepared or obtained under this Agreement shall immediately be turned over to CFX. The CONSULTANT shall be compensated for

work properly performed rendered up to the time of any such termination in accordance with Section 7.0 hereof. CFX also reserves the right to terminate or cancel this Agreement in the event the CONSULTANT shall be placed in either voluntary or involuntary bankruptcy or an assignment be made for the benefit of creditors. CFX further reserves the right to suspend the qualifications of the CONSULTANT to do business with CFX upon any such indictment or direct information. In the event that any such person against whom any such indictment or direct information is brought shall have such indictment or direct information dismissed or be found not guilty, such suspension on account thereof may be lifted by CFX.

11.0. ADJUSTMENTS

All services shall be performed by the CONSULTANT to the reasonable satisfaction of the Project Manager who shall decide all questions, difficulties and dispute of any nature whatsoever that may arise under or by reason of this Agreement, the prosecution and fulfillment of the services hereunder and the character, quality, amount and value thereof. Adjustments of compensation and term of the Agreement, because of any major changes in the work that may become necessary or desirable as the work progresses, shall be left to the absolute discretion of the Executive Director and Supplemental Agreement(s) of such a nature as required may be entered into by the parties in accordance herewith. Disputes between the Project Manager and the CONSULTANT that cannot be resolved shall be referred to the Executive Director whose decision shall be final.

In the event that the CONSULTANT and CFX are not able to reach an agreement as to the amount of compensation to be paid to the CONSULTANT for supplemental work desired by CFX, the CONSULTANT shall be obligated to proceed with the supplemental work in a timely manner for the amount determined by CFX to be reasonable. In such event, the CONSULTANT will have the right to file a claim with CFX for such additional amounts as the CONSULTANT deems reasonable for consideration by the Executive Director; however, in no event will the filing of the claim or the resolution or litigation thereof, through administrative procedures or the courts, relieve the CONSULTANT from the obligation to timely perform the supplemental work.

12.0. HOLD HARMLESS AND INDEMNIFICATION, SOVEREIGN IMMUNITY

The CONSULTANT shall indemnify and hold harmless CFX, and its officers and employees from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the CONSULTANT and other persons employed or utilized by the design professional in the performance of the Agreement.

Subject to the provisions and limitations set forth in law, the CONSULTANT expressly agrees to indemnify, defend, and hold harmless CFX, and its officers, and employees, from any claim, liabilities, losses, damages, and costs, including, but not limited to, reasonable attorneys' fees, arising from any act, error or omission of the CONSULTANT and other persons employed or utilized by the CONSULTANT in the performance of the Agreement, except that the CONSULTANT will not be liable under this paragraph for claims of, or damages resulting from, gross negligence, or willful, wanton or intentional misconduct of CFX, its officers, or employees during the performance of the Agreement.

When CFX receives a notice of claim for damages that may have been caused by the CONSULTANT in the performance of services required by the CONSULTANT under this Agreement, CFX will immediately forward the notice of claim to the CONSULTANT. The CONSULTANT and the AUTHORITY will evaluate the notice of claim and report their findings to each other within fourteen (14) calendar days.

In the event a lawsuit is filed against CFX alleging negligence or wrongdoing by the CONSULTANT, CFX and the CONSULTANT will jointly discuss options in defending the lawsuit. After reviewing the lawsuit, CFX will determine whether to request the participation of the CONSULTANT in the defense of the lawsuit or to request that the CONSULTANT defend CFX in such lawsuit as described in this section. CFX's failure to notify the CONSULTANT of a notice of claim will not release the CONSULTANT from any of the requirements of this section upon subsequent notification by CFX to the CONSULTANT of the notice of claim or filing of a lawsuit. CFX and the CONSULTANT will pay their own cost for the evaluation, settlement negotiations and trial, if any. However, if only one party participates in the defense of the claim at trial, that party is responsible for all of its costs, but if the verdict determines that there is joint responsibility, the costs of defense and liability for damages will be shared in the same percentage as that judicially established, provided that CFX's liability does not exceed the limits and limitations arising from Section 768.28, Florida Statutes, the doctrine of sovereign immunity, and law.

CFX is an agency of the State of Florida whose limits of liability are set forth in Section 768.28, Florida Statutes, and nothing herein shall be construed to extend the limits of liability of CFX beyond that provided in Section 768.28, Florida Statutes. Nothing herein is intended as a waiver of CFX's sovereign immunity under Section 768.28, Florida Statutes, or law. Nothing hereby shall inure to the benefit of any third party for any purpose, which might allow claims otherwise barred by sovereign immunity or operation of law. Furthermore, all of CFX's obligations are limited to the payment of no more than the amount limitation per person and in the aggregate contained in Section 768.28, Florida Statutes, except for payments for work properly performed, even if the sovereign immunity limitations of that statute are not otherwise applicable to the matters as set forth herein.

The obligations in Section 12.0, Hold Harmless and Indemnification, shall survive the expiration or termination of this Agreement and continue in full force and effect.

13.0. INFRINGEMENT OF PATENTS AND COPYRIGHTS

The CONSULTANT shall pay all royalties and assume all costs arising from the use of any invention, design, process materials, equipment, product or device which is the subject of patent rights or copyrights. The CONSULTANT shall, at its expense, hold harmless and defend CFX against any claim, suit or proceeding brought against CFX which is based upon a claim, whether rightful or otherwise, that the goods or services, or any part thereof, furnished under this Agreement, constitute an infringement of any patent or copyright of the United States. The CONSULTANT shall pay all damages and costs awarded against CFX. The obligations in Section 13.0, Infringement of Patents and Copyrights, shall survive the expiration or termination of this Agreement and continue in full force and effect.

14.0. INSURANCE

The CONSULTANT, at its own expense, shall keep in force and at all times maintain during the term of this Agreement all insurance of the types and to the limits specified herein.

The CONSULTANT shall require and ensure that each of its subconsultants providing services hereunder procures and maintains, until the completion of the services, insurance of the requirements, types and to the limits specified herein. Upon request from CFX, the CONSULTANT shall furnish copies of certificates of insurance and endorsements evidencing coverage of each subconsultant.

The CONSULTANT shall require all insurance policies in any way related to the work and secured and maintained by the CONSULTANT to include clauses stating each underwriter shall waive all rights of recovery, under subrogation or otherwise, against CFX. The CONSULTANT shall require of subconsultants, by appropriate written agreements, similar waivers each in favor of all parties enumerated in this section. When required by the insurer, or should a policy condition not permit an endorsement, the CONSULTANT agrees to notify the insurer and request that the policy(ies) be endorsed with a Waiver of Transfer of Rights of Recovery Against Others, or an equivalent endorsement.

This Waiver of Subrogation requirement shall not apply to any policy, which includes a condition that specifically prohibits such an endorsement or voids coverage should the CONSULTANT enter into such an agreement on a pre-loss basis. At the CONSULTANT's expense, all limits must be maintained.

14.1 Commercial General Liability coverage shall be on an occurrence form policy for all operations including, but not limited to, Contractual, Products and Completed Operations, and Personal Injury. The limits shall be not less than One Million Dollars (\$1,000,000) per occurrence, Combined Single Limits (CSL) or its equivalent. The general aggregate limit shall apply separately to this Agreement (with the ISO CG 25 01 or insurer's equivalent endorsement provided to CFX) or the general aggregate limit shall be twice the required occurrence limit. CFX shall be listed as an additional insured. ISO Form CG 20 10 11 85 or if not available, ISO Forms CG 20 10 10 01 and CG 20 37 10 01, or if not available, their equivalent acceptable to CFX, shall be used to meet these requirements and a photocopy of same shall be provided with the Certificate. The CONSULTANT further agrees coverage shall not contain any endorsement(s) excluding or limiting Product/Completed Operations, Independent Consultants, Broad Form Property Damage, X-C-U Coverage, Contractual Liability, or Severability of Interests. The Additional Insured Endorsement included on all such insurance policies shall state that coverage is afforded the additional insured with respect to claims arising out of operations performed by or on behalf of the insured. If the additional insureds have other insurance which is applicable to the loss, such other insurance shall be excess to any policy of insurance required herein. The amount of the insurer's liability shall not be reduced by the existence of such other insurance.

14.2 Business Automobile Liability coverage shall be on an occurrence form policy for all owned, non-owned and hired vehicles issued on ISO form CA 00 01 or its equivalent. The limits shall be not less than One Million Dollars (\$1,000,000) per occurrence, Combined Single Limits (CSL) or its equivalent. In the event the CONSULTANT does not own automobiles the CONSULTANT shall maintain coverage for hired and non-owned auto liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

Each of the above insurance policies shall include the following provisions: (1) The standard severability of interest clause in the policy and when applicable the cross liability insurance coverage provision which specifies that the inclusion of more than one insured shall not operate to impair the rights of one insured against another insured, and the coverages afforded shall apply as though separate policies had been issued to each insured; (2) The stated limits of liability coverage for Commercial/Comprehensive General Liability, and Business Automobile Liability, assumes that the standard "supplementary payments" clause will pay in addition to the applicable limits of liability and that these supplementary payments are not included as part of the insurance policies limits of liability.

14.3 Workers' Compensation and Employer's Liability Insurance shall be provided as required by law or regulation (statutory requirements). Employer's Liability insurance shall be provided in amounts not less than \$100,000 per accident for bodily injury by accident, \$100,000 per employee for bodily injury by disease, and \$500,000 policy limit by disease. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of CFX for all work performed by the CONSULTANT, its employees, agents and subconsultants.

14.4 Professional Liability Coverage shall have limits of not less than One Million Dollars (\$1,000,000) Combined Single Limit (CSL) or its equivalent, protecting the selected firm or individual against claims of CFX for negligence, errors, mistakes or omissions in the performance of services to be performed and furnished by the CONSULTANT.

The CONSULTANT shall provide CFX with Certificate(s) of Insurance with required endorsements on all the policies of insurance and renewals thereof in a form(s) acceptable to CFX. CFX shall be notified in writing of any reduction, cancellation or substantial change of policy or policies at least thirty (30) days prior to the effective date of said action.

All insurance policies shall be issued by responsible companies who are acceptable to CFX and licensed to do business under the laws of the State of Florida. Each Insurance company shall minimally have an A.M. Best rating of A-VII. If requested by CFX, CFX shall have the right to examine copies and relevant provisions of the insurance policies required by this Agreement, subject to the appropriate confidentiality provisions to safeguard the proprietary nature of CONSULTANT manuscript policies.

In the event any of the aforementioned insurance policies provide greater coverage or greater limits than the minimum requirements set forth herein, then CFX shall be entitled to the full coverage and limits of such policies, and these insurance requirements will be deemed to require such greater coverage and greater limits.

Any deductible or self-insured retention must be declared to and approved by CFX. At the option of CFX, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as requests CFX, or the CONSULTANT shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

All such insurance required by the CONSULTANT shall be primary to, and not contribute with, any insurance or self-insurance maintained by CFX.

Compliance with these insurance requirements shall not relieve or limit the CONSULTANT's liabilities and obligations under this Agreement. Failure of CFX to demand such certificate or evidence of full compliance with these insurance requirements or failure of CFX to identify a deficiency from evidence provided will not be construed as a waiver of the CONSULTANT's obligation to maintain such insurance.

The acceptance of delivery by CFX of any certificate of insurance evidencing the required coverage and limits does not constitute approval or agreement by CFX that the insurance requirements have been met or the insurance policies shown in the certificates of insurance are in compliance with the requirements.

15.0. COMMUNICATIONS, PUBLIC RELATIONS, AND USE OF LOGOS

The CONSULTANT agrees that it shall make no statements, press releases or publicity releases concerning this Agreement or its subject matter or otherwise disclose or permit to be disclosed any of the data or other information obtained or furnished in compliance with this Agreement, or any particulars thereof, during the period of the Agreement, without first notifying CFX and securing its consent in writing, except as required by law. The CONSULTANT also agrees that it shall not publish, copyright or patent any of the data, documents, reports, or other written or electronic materials furnished in compliance with this Agreement, it being understood that, under Section 7.0 hereof, such data or information is the property of CFX.

Regarding the use of logos, printed documents and presentations produced for CFX shall not contain the name or logo of the CONSULTANT unless approved by CFX's Public Affairs Officer or his/her designee. Prior approval by CFX's Public Affairs Officer or his/her designee is required if a copy of the CFX logo or any CFX mark, including trademarks, service marks, or any other mark, collectively referred as "Marks," is to be used in a document or presentation. The Marks shall not be altered in any way. The width and height of the Marks shall be of equal proportions. If a black and white Mark is utilized, the Mark shall be properly screened to insure all layers of the Mark are visible. The proper presentation of CFX Marks is of utmost importance to CFX. Any questions regarding the use of CFX Marks shall be directed to the CFX Public Affairs Officer or his/her designee.

16.0. CONFLICT OF INTEREST AND STANDARD OF CONDUCT

No Contingent Fees. CONSULTANT warrants that it has not employed or retained any entity or person, other than a bona fide employee working solely for CONSULTANT, to solicit or secure this Contract, and that CONSULTANT has not paid or agreed to pay any person, company, corporation, individual or firm any fee, commission, percentage, gift or any other consideration, contingent upon or resulting from the award or making of this Contract. It is understood and agreed that the term "fee" shall also include brokerage fee, however denoted. For breach of this provision, CFX shall have the right to terminate this Contract without liability, and, at its discretion, to deduct from the contract price, or otherwise recover, the full amount of such fee, commission percentage, gift or consideration.

CONSULTANT acknowledges that CFX officials and employees are prohibited from soliciting and accepting funds or gifts from any person who has, maintains, or seeks business relations with CFX in accordance with CFX's Code of Ethics. CONSULTANT acknowledges that it has read the CFX's Code of Ethics and, to the extent applicable, CONSULTANT will comply with the aforesaid CFX's Code of Ethics in connection with performance of the Contract.

As required by Section 348.753, Florida Statutes, and CFX's Code of Ethics, CONSULTANT agrees to complete CFX's Potential Conflict Disclosure Form prior to the execution of the Contract, upon the occurrence of an event that requires disclosure, and annually, not later than July 1st.

CONSULTANT covenants and agrees that it and its employees, officers, agents, and subconsultants shall be bound by the standards of conduct provided in Section 112.313, Florida Statutes, as it relates to work performed under this Contract, which standards will be reference be made a part of this Contract as though set forth in full. The CONSULTANT agrees to incorporate the provisions of this paragraph in any subcontract into which it might enter with reference to the work performed.

CONSULTANT hereby certifies that no officer, agent or employee of CFX has any "material interest" (as defined in Section 112.312(15), Florida Statutes) either directly or indirectly, in the business of CONSULTANT, and that no such person shall have any such interest at any time during the term of this Agreement.

The CONSULTANT shall not knowingly enter into any other contract with CFX during the term of this Agreement which would create or involve a conflict of interest with the services provided herein. Likewise, subconsultants shall not knowingly enter into any other contract with CFX during the term of this Agreement which would create or involve a conflict of interest with the service provided herein and as described below. Questions regarding potential conflicts of interest shall be addressed to the Executive Director for resolution.

During the term of this Agreement the CONSULTANT is NOT eligible to pursue any advertised construction engineering and inspection projects of CFX as either a prime or subconsultant where the CONSULTANT participated in the oversight of the projects or for any project which the CONSULTANT prepared plans and/or specifications. Subconsultants are also ineligible to pursue construction engineering and inspection projects where they participated in the oversight of the projects or for any project which the subconsultant was involved in the preparation of plans and/or specifications.

17.0. DOCUMENTED ALIENS

The CONSULTANT warrants that all persons performing work for CFX under this Agreement, regardless of the nature or duration of such work, shall be United States citizens or properly authorized and documented aliens. The CONSULTANT shall comply with all federal, state and local laws and regulations pertaining to the employment of unauthorized or undocumented aliens at all times during the performance of this Agreement and shall indemnify and hold CFX harmless for any violations of the same. Furthermore, if CFX determines that CONSULTANT has knowingly employed any unauthorized alien in the performance of this Agreement, CFX may immediately and unilaterally terminate this Agreement for cause.

The obligations in Section 17.0, Documented Aliens, shall survive the expiration or termination of this Agreement and continue in full force and effect.

18.0. E-VERIFY CLAUSE

CONSULTANT shall utilize the U.S. Department of Homeland Security's E-Verify System to verify the employment eligibility of all new employees hired by the CONSULTANT during the term of

the contract. CONSULTANT shall require all of its subconsultants to verify the employment eligibility of all new employees hired by the subconsultants during the term of the Agreement.

19.0. INSPECTOR GENERAL

CONSULTANT agrees to comply with Section 20.055(5), Florida Statutes, and agrees to cooperate with the inspector general in any investigation, audit, inspection, review, or hearing pursuant to this section. CONSULTANT agree to incorporate in all subcontracts the obligation to comply with Section 20.055(5). The obligations in this paragraph shall survive the expiration or termination of this Agreement and continue in full force and effect.

20.0. PUBLIC ENTITY CRIME INFORMATION AND ANTI-DISCRIMINATION STATEMENT

Pursuant to Section 287.133(2)(a), Florida Statutes,

“a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in s. 287.017 for CATEGORY TWO (\$35,000) for a period of 36 months following the date of being placed on the convicted vendor list.”

Pursuant to Section 287.134(2)(a), Florida Statutes, “an entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity.”

21.0. COMPANIES PURSUANT TO SECTION 287.135 AND 215.473

CFX may terminate this Agreement for breach of contract if the Consultant:

- 21.1. submitted a false certification as provided under Florida Statute 287.135(5); or
- 21.2. been placed on the Scrutinized Companies with Activities in Sudan List; or
- 21.3. been placed on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List; or

- 21.4. been engaged in business operations in Cuba or Syria; or
- 21.5. found to have been placed on the Scrutinized Companies that Boycott Israel List or is engaged in a boycott of Israel.

22.0. AVAILABILITY OF FUNDS

CFX's performance and obligation to pay under this Agreement are contingent upon an annual budget appropriation by its Board. The parties agree that in the event funds are not appropriated, this Agreement may be terminated, which shall be effective upon CFX giving notice to the CONSULTANT to that effect.

23.0. AUDIT AND EXAMINATION OF RECORDS

23.1 Definition of Records:

(i) "Contract Records" shall include, but not be limited to, all information, communications and data, whether in writing or stored on a computer, computer disks, microfilm, writings, working papers, drafts, computer printouts, field notes, charts or any other data compilations, books of account, photographs, videotapes and audiotapes supporting documents, any other papers or preserved data in whatever form, related to the Contract or the CONSULTANT's performance of the Contract determined necessary or desirable by CFX for any purpose. Proposal Records shall include, but not be limited to, all information and data, whether in writing or stored on a computer, writings, working papers, computer printouts, charts or other data compilations that contain or reflect information, data or calculations used by CONSULTANT in determining labor, unit price, or any other component of a bid submitted to CFX.

(ii) "Proposal Records" shall include, but not be limited to, any material relating to the determination or application of equipment rates, home and field overhead rates, related time schedules, labor rates, efficiency or productivity factors, arithmetic extensions, quotations from subcontractors, or material suppliers, profit contingencies and any manuals standard in the industry that may be used by CONSULTANT in determining a price.

23.2 CFX reserves and is granted the right (at any time and from time to time, for any reason whatsoever) to review, audit, copy, examine and investigate in any manner, any Contract Records (as herein defined) or Proposal Records (as hereinafter defined) of the CONSULTANT or any subcontractor.

By submitting a response to the Request for Proposal, CONSULTANT or any subcontractor submits to and agree to comply with the provisions of this section.

23.3 If CFX requests access to or review of any Contract Documents or Proposal Records and CONSULTANT refuses such access or review or delays such access or review for over ten (10) calendar days, CONSULTANT shall be in default under its Contract with CFX, and such refusal shall, without any other or additional actions or omissions, constitute grounds for suspension or disqualification of CONSULTANT. These provisions shall not be limited in any manner by the existence of any CONSULTANT claims or pending litigation relating to the Contract. Disqualification or suspension of the CONSULTANT for failure to comply with this section shall also preclude the CONSULTANT from acting in the future as a subcontractor of another contractor doing work for CFX during the period of

disqualification or suspension. Disqualification shall mean the CONSULTANT is not eligible for and shall be precluded from doing future work for CFX until reinstated by CFX.

23.4 Final Audit for Project Closeout: The CONSULTANT shall permit CFX, at CFX's option, to perform or have performed, an audit of the records of the CONSULTANT and any or all subconsultants to support the compensation paid the CONSULTANT. The audit will be performed as soon as practical after completion and acceptance of the contracted services. In the event funds paid to the CONSULTANT under the Contract are subsequently determined to have been inadvertently paid by CFX because of accounting errors or charges not in conformity with the Contract, the CONSULTANT agrees that such amounts are due to CFX upon demand. Final payment to the CONSULTANT shall be adjusted for audit results.

23.5 CONSULTANT shall preserve all Proposal Records and Contract Records for the entire term of the Contract and for a period of five (5) years after the later of: (i) final acceptance of the project by CFX, (ii) until all claims (if any) regarding the Contract are resolved, or (iii) expiration of the Proposal Records and Contract Records' status as public records, as and if applicable, under Chapter 119, Florida Statutes.

23.6 The obligations in Section 23.0, Audit and Examination of Records, shall survive the expiration or termination of this Agreement and continue in full force and effect.

24.0. GOVERNING LAW AND VENUE

This Agreement shall be governed by and constructed in accordance with the laws of the State of Florida. The parties consent to the exclusive jurisdiction of the courts located in Orange County, Florida. The obligations in Section 24.0, Governing Law and Venue, shall survive the expiration or termination of this Agreement and continue in full force and effect.

25.0. NOTICE

All notices required pursuant to the terms hereof shall be sent by First Class United States Mail. Unless prior written notification of an alternate address for notices is sent, all notices shall be sent to the following addresses:

To CFX: Central Florida Expressway Authority
 4974 ORL Tower Road
 Orlando, FL 32807
 Attn: Chief of Infrastructure

Central Florida Expressway Authority
4974 ORL Tower Road
Orlando, FL 32807

Attn: General Counsel

To CONSULTANT: Moffatt & Nichol, Inc.
1025 Greenwood Boulevard, Suite 371
Lake Mary, FL. 32746
Attn: Bill Terwilleger, P.E.

Moffatt & Nichol, Inc.
1025 Greenwood Boulevard, Suite 371
Lake Mary, FL. 32746
Attn: Darrell Nance, P.E.

26.0. HEADINGS

Headings are given to the sections of the Agreement solely as a convenience to facilitate reference. Such headings shall not be deemed in any way material or relevant to the construction or interpretation of the Agreement.

27.0. CONTRACT LANGUAGE AND INTERPRETATION

All words used herein in the singular form shall extend to and include the plural. All words used in the plural form shall extend to and include the singular. All words used in any gender shall extend to and include all genders.

References to statutes or regulations shall include all statutory or regulatory provisions consolidating, amending, or replacing the statute or regulation referred to. Words not otherwise defined that have well known technical or industry meanings, are used in accordance with such recognized meanings. References to persons include their respective functions and capacities.

If the CONSULTANT discovers any material discrepancy, deficiency, ambiguity, error, or omission in this Agreement, or is otherwise in doubt as to the meaning of any provision of the Agreement, the CONSULTANT shall immediately notify CFX and request clarification of CFX's interpretation of this Agreement.

The Agreement shall not be more strictly construed against either party hereto by reason of the fact that one party may have drafted or prepared any or all of the terms and provisions hereof.

28.0. ASSIGNMENT

This Agreement may not be assigned without the written consent of CFX.

29.0. SEVERABILITY

The invalidity or non-enforceability of any portion or provision of this Agreement shall not affect the validity or enforceability of any other portion or provision. Any invalid or unenforceable portion or

provision shall be deemed severed from this Agreement and the balance hereof shall be construed and enforced as if this Agreement did not contain such invalid or unenforceable portion or provision.

30.0. INTEGRATION

This Agreement constitutes the entire agreement among the parties pertaining to the subject matter hereof and supersedes all prior and contemporaneous agreements, understandings, negotiations and discussions of the parties, whether oral or written, and there are no other agreements between the parties in connection with the subject matter hereof. No waiver, amendment, or modification of these terms hereof will be valid unless in writing, signed by all parties and only to the extent therein set forth.

31.0. ATTACHMENTS

- Exhibit "A", Scope of Services
- Exhibit "B", Method of Compensation
- Exhibit "C", Details of Cost and Fees
- Exhibit "D", Project Organization Chart
- Exhibit "E", Project Location Map
- Exhibit "F", Project Schedule
- Exhibit "G", Potential Conflict Disclosure Form

[SIGNATURES TO FOLLOW]

IN WITNESS WHEREOF, the CONSULTANT and CFX have caused this instrument to be signed by their respective duly authorized officials, as of the day and year first above written. This Contract was awarded by CFX's Board of Directors at its meeting on March 14, 2019.

MOFFAT & NICHOL, INC.

**CENTRAL FLORIDA
EXPRESSWAY AUTHORITY**

BY: 
Authorized Signature

BY: 
Director of Procurement

Print Name: ERIC NICHOL

Print Name: Aneth Williams

Title: PRESIDENT / CEO

Effective Date: _____

ATTEST: _____ (Seal)
Secretary or Notary

Approved as to form and execution, only.


General Counsel for CFX

'19 APR 1 PM 4:54

CALIFORNIA ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California }

19 APR 1 PM 5:02

County of Contra Costa }

On March 22, 2019 before me, N. Harris
(Here insert name and title of the officer)

personally appeared Eric Nichol
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

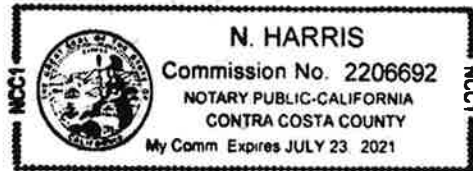
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

[Handwritten Signature]

Notary Public Signature

(Notary Public Seal)



ADDITIONAL OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT

(Title or description of attached document)

(Title or description of attached document continued)

Number of Pages _____ Document Date _____

CAPACITY CLAIMED BY THE SIGNER

- Individual (s)
- Corporate Officer

_____ (Title)

- Partner(s)
- Attorney-in-Fact
- Trustee(s)
- Other _____

INSTRUCTIONS FOR COMPLETING THIS FORM

This form complies with current California statutes regarding notary wording and, if needed, should be completed and attached to the document. Acknowledgments from other states may be completed for documents being sent to that state so long as the wording does not require the California notary to violate California notary law.

- State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgment.
- Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the acknowledgment is completed.
- The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public).
- Print the name(s) of document signer(s) who personally appear at the time of notarization.
- Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. he/she/they, is /are) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
- The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different acknowledgment form.
- Signature of the notary public must match the signature on file with the office of the county clerk.
 - ❖ Additional information is not required but could help to ensure this acknowledgment is not misused or attached to a different document.
 - ❖ Indicate title or type of attached document, number of pages and date.
 - ❖ Indicate the capacity claimed by the signer. If the claimed capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary).
- Securely attach this document to the signed document with a staple.

EXHIBIT A

SCOPE OF SERVICES

Exhibit A

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

SCOPE OF SERVICES

FOR

**S.R. 429 WIDENING FROM
West Road to SR 414**

PROJECT NO. 429-153

IN ORANGE COUNTY, FLORIDA

February 25, 2019

Exhibit A
SCOPE OF SERVICES

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1.0 GENERAL

1.1 Location

- A. See EXHIBIT "E", Project Location Map.

1.2 Description

The services will include final design and preparation of construction drawings / specifications for the proposed S.R. 429 inside widening from West Road to SR 414. Specifically, the project consists of widening to the inside for the additional general use lane and widening to the median to accommodate appropriate inside shoulder width (closed 40' median with median barrier). All mainline bridges within the project limits, W. Orange Trail, McCormick Road, Ocoee Apopka Road, SR 414, and the SB exit ramp to SR 414 will also be widened to accommodate the appropriate shoulder widths, additional general use lane or ramp modifications as per the concept. Also included is replacing the existing mainline bridges at CR 437A with a new single span bridge including raise mainline profile for increased depth of structure. Additional elements include milling & resurfacing, surveying, drainage evaluation and design, permitting, lighting, signing and pavement markings, signalization, ITS (fiber optic network), maintenance of traffic, utility design and coordination, geotechnical analysis, scheduling and project control, progress reporting and other tasks and associated activities.

1.3 Purpose

- A. The purpose of this Exhibit is to describe the scope of work and responsibilities required in connection with Final Engineering and Final Construction Drawings and Documents for the proposed S.R. 429 inside widening from West Road to SR 414.
- B. The Consultant shall perform those engineering services as required for final roadway/drainage plans, final bridge plans, final lighting plans, final traffic control plans, final utility plans, final ITS (fiber optic network) plans, final signalization plans (if required), final signing and pavement marking plans and preparation of a complete environmental resource application (or permit modification) including 100% storm water management.
- C. CFX's Project Manager will provide contract administration, management services, and technical reviews of all work associated with the preliminary and final designs.
- D. It is understood that references throughout this document to items of work and services to be performed are the responsibility of the Consultant unless otherwise expressly stated as the responsibility of others.

1.4 Organization

- A. CFX's Project Manager will administer the Consultant services detailed in this scope. The following sections define the duties and obligations of CFX and the Consultant.

1.5 Term of Agreement for Design Services

- A. The term of the Agreement to perform the required design services shall be within fifteen (15) months from notice to proceed, including all reviews. Any fast track of services will be at the direction of CFX's Project Manager.
- B. The Consultant may continue the design efforts while design submittals are being reviewed. Doing so, however, in no way relieves the Consultant of the responsibility to incorporate review comments into the design, nor does it entitle the Consultant to any additional design fees as a result of making changes due to review comments.

- 1. Project Milestones:

The Consultant will prepare a tabulation of major project milestones.

- 2. Project Schedule:

The Consultant shall include a schedule of major design tasks.

2.0 STANDARDS

- A. The applicable design and construction standards and policies of the Florida Department of Transportation, Federal Highway Administration (FHWA), American Association of State Highway and Transportation Officials (AASHTO), Transportation Research Board (TRB), Standard Building Code, CFX's Design Practices and Standard Notes and CFX's Guidelines for Preparation of Signing and Pavement Marking Plans shall be followed throughout the design and construction of the project unless specifically stated otherwise. The editions of the applicable standards and policies in effect at the time of Contract execution shall be used except as follows:

- 1. Division II, Construction Details, and Division III, Materials, of the FDOT Standard Specifications for Road and Bridge Construction, 2018 edition, and updates thereafter, shall be used for this project.

- 2. The FDOT Standard Plans, latest edition and subsequent interim indexes and updates, shall be used for this project.

- 3. The FDOT Design Manual, latest edition, shall be used for this project.

- 4. The FDOT Basis of Estimates Handbook, latest edition, shall be used for this project.

5. The AASHTO Policy on Geometric Design of Highway and Streets (Green Book), 2004 edition, shall be used for this project.
6. The FHWA Manual on Uniform Traffic Control Devices (MUTCD), 2009 edition, as amended, shall be used for this project.

3.0 DESIGN CRITERIA

3.1 General

Design of this project will be guided by the basic design criteria listed below.

- A. The design criteria listed in this section and Project Design Directives, provided by CFX during the course of the project, may supplement the Project Design Guidelines.
- B. Design year – 2045
- C. Design vehicle – WB-62FL
- D. Along with the 30% design submittal, the Consultant shall provide a tabulation of all applicable drainage and stormwater management criteria from Federal, State and local agencies and indicated which will be used for all segments and portions of the project. Unless otherwise directed by CFX, the Consultant shall use the most restrictive or conservative criteria applicable.

3.2 Geometry

The following criteria are to be incorporated into the design:

DESIGN ELEMENT	EXPRESSWAY		CROSSROADS/ COLLECTORS
	MAINLINE	RAMPS	
Design Speed, MPH	70 mph	30 mph (Loop) 50 mph (Diamond) 50 mph (Directional)	30 Local 45 Urban 50 Rural
Horizontal Alignment Max. Curve, Degrees	3° 30'	24° 45' Loop 8° 15' Diamond 8° 15' Directional	20°
Max. Superelevation, ft/ft.	0.10	0.10	0.05 Urban 0.10 Rural
Lane Drop Tapers			
Transitions	70:1	50:1	

	Use spirals for curves > 1° 30'	Use spirals for curves > 1° 30'	Use spirals for curves > 1° 30'
Vertical Alignment Max. Grade	3%	5% to 7% (30 mph) 3% to 5% (50 mph)	5% Arterial Rural 7% Collector

DESIGN ELEMENT	EXPRESSWAY		CROSSROADS/ COLLECTORS
	MAINLINE	RAMPS	
Vertical Curvature (K) (K=Len./%grade change)			Rural
Crest	506 290 to 540 AASHTO	31 (30 mph) 136 (50 mph) 110 to 160 Other (AASHTO)	31 to 136
Sag	206 150 to 200 AASHTO	31 (30 mph) 136 (50 mph) 90 to 110 Other (AASHTO)	37 to 96
Decision Sight Dist., ft.	Refer to AASHTO	N/A	N/A
Cross Sections			
Lane Widths, ft.	12	12 dual lanes 15 min. single lane	12 inner lanes 12-16 outer lanes
Shoulder width, ft.			
Right	4-Lane 12 (10 paved)	Single Lane 6 (4 paved)	8 (4* paved)
Left	8 (4 paved)	6 (2 paved)	2 (2 paved)
			* min. 5' paved
Right	6-Lane 12 (10 paved)	Dual Lane 10* (8* paved)	
Left	12 (10 paved)	8 (4 paved) (* add 2' for interstate)	
Bridges, ft.			
Right	4-Lane 10	Single-Lane 6	
Left	6	6	
Right	6(or more)-Lanes 12	Dual Lane 10	
Left	12	6	
Cross Slopes			
Traffic Lanes	2% (4-lane) 3% or tbd (6-lane)	2%	2%
Bridge Lanes	2% typ. (no break)		
Left Shoulder	Match Mainline	5%	5%
Right Shoulder	Match Mainline	6%	6%

DESIGN ELEMENT	EXPRESSWAY		CROSSROADS/ COLLECTORS
	MAINLINE	RAMPS	
Median Width (4-lane), ft. (E.O.P./E.O.P.)	64' (typical) 26' (with barrier)	N/A	22' or 40'
Lateral Offset	FDM 215.2.4	FDM 215.2.4	FDM 215.2.4
Vertical Clearance, ft.			
Over Roadway*	16.5	16.5	16.5
Overhead Signs	17.5	17.5	17.5
Over Railroad	23.5	23.5	N/A

Ramp Operations

- a. Two thousand (2,000) ft. between entrance and exit terminals – full freeways
- b. Six hundred (600) ft. between exit and entrance terminals
- c. Single Lane Entrance Ramp Parallel
- d. Exit Ramp Taper of 550 ft. (3° – divergence)

Right of Way

- a. Ten (10) ft. from back of walls or limit of construction.
- b. Two (2) ft. from back of sidewalk on frontage roads.
- c. Drainage and construction easements as required
- d. Limited access right-of-way limits per Index 450
- e. Right of way limits for ramps is based upon limit of construction plus 10 feet.

3.3 Bridge and Other Structures

- A. All plans and designs shall be prepared in accordance with the latest standard specifications adopted by AASHTO, FDOT Structures Manual, FDOT Design Manual, FDOT Standard Plans, etc., except as otherwise directed by CFX.

4.0 WORK PERFORMED BY CONSULTANT

The Consultant shall be responsible for the work outlined in this Section. The work shall conform to the standards, criteria, and requirements of this Scope of Services.

4.1 Design Features

- A. The work required for this project includes preparation of final construction drawings and specifications as well as the preparation of a complete environmental resource application.
- B. Major elements of the work include the following:

The services will include final design and preparation of construction drawings / specifications for the proposed S.R. 429 inside widening from West Road (Station 326+50 +/-) to north of the SR 429 bridge over the SB exit ramp to SR 414 (Station 540+00). Specifically, the project consists of widening to the inside for the additional general use lane and widening to the median to accommodate appropriate inside shoulder width. All mainline bridges within the project limits, W. Orange Trail, McCormick Road, Ocoee Apopka Road, SR 414, and the SB exit ramp to SR 414 will also be widened to accommodate the appropriate shoulder widths, additional general use lane or ramp modifications as per the concept. Also included is replacing the existing mainline bridges at CR 437A with a new single span bridge including raise mainline profile for increased depth of structure. Additional elements include milling & resurfacing, surveying, drainage evaluation and design, permitting, lighting, signing and pavement markings, signalization (if needed), ITS, maintenance of traffic, utility design and coordination, geotechnical analysis, scheduling and project control, progress reporting and other tasks and associated activities.

4.2 Governmental Agencies

- A. The Consultant shall coordinate with and assist in securing the approval of all interested agencies involved. These agencies may include, but are not necessarily limited to Orange County, FDOT, FDEP and applicable Water Management District(s).

4.3 Preliminary Design Report - Review

- A. The Consultant shall review the project concept for proposed alternatives with regard to proposed design criteria, maintenance of traffic and construction feasibility.

At the completion of this review, the Consultant shall submit to CFX a written list of recommendations and proposed revisions, if any, to the basic layout. A conference will be scheduled by CFX's Project Manager with the Consultant to resolve any outstanding differences and agree upon a final

layout for the project.

B. Preliminary Design Report (PDR) - Review: Brief report addressing the following items:

1. Horizontal sight distance and outside widening through first horizontal curve
2. Potential tier wall along Golf Course for flattening slopes
3. Possible redesign of the interchange at CR 437A, including replace existing bridges
4. MSE walls at McCormick Road, settlement issues, pipe inspection
5. Concrete pavement widening at Toll Plaza
6. McCormick Road bridge constraint due to 69KV line
7. Pavement analysis
8. Expressway Median treatment
9. Hydroplane analysis
10. Lane Drop Analysis at SR 429 and SR 414 Interchange
 - a. Provide alternative analysis for the mainline and ramp connections at the SR 414 interchange detailing the operational results of a No-Build and Build scenarios using comparative analysis. The Build scenario includes carrying a lane drop thru the SR 414 interchange. The No-Build and Build scenarios will be tested in an existing year, an interim year, and a horizon year. The specific existing, interim, and horizon years shall be determined in discussions with CFX staff.
 - b. If the existing, interim, and horizon years for the lane drop analysis are determined to be different from the years provided by CFX, M&N will perform a straight-line interpolation between the available years to produce the traffic for the target years. If any targeted year is outside of the traffic years provided by CFX, M&N will reduce or grow the traffic from the provided year by 2 percent per year to the targeted year.
All Daily traffic (AADT) provided, or interpolated, shall be converted to peak hour volumes using peak hour factors derived from provided counts, or using factors recommended by CFX staff.
 - c. Traffic entering and exiting the mainline using the SR 414 interchange will be assigned using existing count percentages. M&N will review current travel demand model future runs to determine if land use adjacent to the SR 414 interchange requires the split of traffic entering and exiting the mainline to be adjusted.

Any assumption that changes the future percentages of entering and exiting traffic from the interchange will be documented.

- d. M&N will develop a No-Build traffic operations model in Synchro. The limits of the model shall include the on and off ramps to SR 414 to the north, and the on and off ramps on the north side of Ocoee Apopka Road to the south. The model shall include all ramps at the SR 414 interchange, and part of SR 414. The No-Build existing year model shall be calibrated using field observations of existing queuing and operations.
- e. After the No-Build existing year model is deemed to provide a reasonable base for analysis, a Build model shall be produced by utilizing the No-build model and performing editing to create the Build scenario. Both models will be updated for the future years by updating the traffic based on the future years traffic forecast. Because the improvement being tested in the Build scenario will not induce traffic demand, or change the travel route, both the No-Build and the Build models shall utilize the same traffic forecasts and the same entering and exiting traffic assignments.
- f. M&N will output Measures of Effectiveness (MOEs) from the No-Build and Build models for performing comparative analysis. The MOEs will be documented for each scenario, for each year, and the differences shall be noted.
The comparative analysis shall include a matrix of MOEs by scenario and year that highlights the differences in performance. A narrative will also be provided that details the operations indicated from the Synchro traffic simulation runs.
- g. M&N will prepare a traffic operations analysis technical memorandum including the results of microscopic simulation analyses. The memorandum will include all traffic, assumptions, and traffic assignments. The memorandum will include traffic figures showing the daily and peak hour traffic utilized for the Build and No-Build scenarios for the existing, interim, and future years. A digital copy of the Draft Technical Memorandum will be prepared for CFX staff to review and revised based on any comments provided. The comments provided by CFX staff on the Draft Technical Memorandum will be addressed in the Final Technical Memorandum.

4.4 Surveys and Mapping

- A. All Surveying and Mapping shall be performed under the direction of a Surveyor and Mapper properly licensed with the Florida Board of Professional Surveyors and Mappers, under Chapter 472, Florida Statutes. The Consultant shall review data provided by CFX and provide complete field surveys suitable for contract document preparation.

Survey activities shall be coordinated with the Consultant's design team including roadway, drainage, structures, geotechnical, and other disciplines as required.

Field surveys shall be performed with minimal disruption of the normal traffic flow for the project. Field personnel shall use safety devices such as warning signs, traffic cones, warning lights, and safety vests at all times, according to the Florida Department of Transportation requirements. Advanced warning signs required when survey crews are working on CFX's system shall be made with 3M Scotchlite Diamond Grade Fluorescent orange roll up sign sheeting.

- B. Alignment

Right of Way dgn/geopak files and alignment dgn/geopak files (as available) to be provided to design team by CFX. Calculate/Locate Alignment and R/W for construction purposes. Alignment and R/W will not be set/staked in field. Alignment will be referenced by station and offset of control established in 27.1 and 27.2 and included in CTL/PNC sheets prepared in 27.5.

- C. Reference Points

1. Utilize Right of Way dgn/geopak files and alignment dgn/geopak files (as available) provided to design team by CFX, control established in Task 27.1 and Task 27.2 and alignment/RW from Task 27.3. Prepare CTL/PNC sheets for Design Plans (mainline and side streets)

- D. Bench Levels

1. Bench marks are included on control points

- E. Topography

1. Planimetric mapping and a digital terrain model (DTM), suitable for 1" = 50' display scale shall be conducted by the Consultant.
2. Topographic survey will extend from the edge of paved shoulder to toe of slope and/or right of way fence. Provide DTM to existing or R/W throughout the corridor.

3. The Consultant will obtain existing pavement elevations and cross slopes along the inside travel lane and outside travel lane every 100'.
4. Cross-sections will be performed at 1000' intervals along the mainline to verify DTM.
5. Additional topographic and DTM surveys, as needed for the project design, are the responsibility of the Consultant. These may include existing water bodies and pavement elevations.
6. Water Retention Areas/Floodplain Compensation Ponds –survey data to create complete DTM. Location of all existing features on site. Estimated number of ponds = 2.
7. Line cutting and work zone safety as necessary to complete the above scope items.

F. Drainage Survey

Perform a drainage survey including pipe type, location, size and flow line elevations as needed for design.

G. Underground Utilities

1. Quality Level B Designating: Provide Utility Designates at
 - a. SR 429 Mainline - 5.4 miles x 1 utilities = 5.4 miles of DES
 - b. CFX will designate their FON, electrical and toll facilities within the SR429 ROW throughout project limits
 - c. Designating efforts include all other utilities except the CFX designated facilities
 - d. S Binion Rd - .1-mile x 2 utilities = .2 miles of DES
 - e. Maitland Blvd Ext. - 2.33-mile x 1 utilities = 2.33 miles of DES
 - f. Harmon Rd - .21-mile x 4 utilities = .84 miles of DES
 - g. Ocoee Apopka Rd - .35-mile x 4 utilities = 1.40 miles of DES
 - h. W McCormick Rd - .13-mile x 5 utilities = .65 mile of DES
 - i. W Orange Trail - .06-mile x 2 utilities = .12 mile of DES
 - j. Clarcona Ocoee Rd - .14-mile x 5 utilities = .70 mile of DES
2. Locates for verification of QLB and non-tonables : Total Test Hole Bank:70
 - a. - Cross Streets/Interchange - 1 cross section per cross street (22 utilities) = 22 THs
 - b. Laterals crossing mainline and misc. locations as needed to confirm utility alignment = 26

3. **Quality Level A Locating - Total Test Hole Bank: 230**
 - a. SR 429 Mainline: 10 - Overhead Truss Signs (100THs), 8 - Overhead Cantilever Signs (40THs), 14 - Multi-post Signs (56THs), 2 - Box Culvert Ext. (4THs), 10 - CCTV Poles (10THs), 4 - Misc. Drainage Structures (4THs)
 - b. Ocoee Apopka Rd: 6 - Signal Mast Arms (30THs)
 - c. Noise Wall, MSE Wall, Miscellaneous locating (20THs)

4. **Survey**
 - a. Stake all proposed sign, signal, and structure locations prior to QLA locating
 - b. Map all utility designates and locates (including FON and electrical lighting marked by CFX)

H. Side Street Surveys

Perform topographic and utility surveys of side streets as may be needed for engineering design.

I. Bridge Survey

Provide bridge survey data as needed for engineering design. Utilize Terrestrial Mobile and/or Static Lidar for clearance, features, and any other extraction needed to support design.

J. Jurisdictional Line Surveys

Perform Jurisdictional Line Surveys as needed for engineering design and permitting. Locate wetland flags delineated by CFX's GEC: anticipate ±xx mile of wetland delineation (includes surveying flagging for surface waters or roadside ditches).

K. Geotechnical Surveys

Locate and/or stake boring locations as needed for geotechnical investigations.

L. Right-of-Way Ties

Locate right-of-way limits for construction purposes. No new right-of-way is anticipated.

- M. Prior to construction, the Consultant shall re-flag and reset project horizontal and vertical control points and meet with the construction contractor to review these points.**

N. CFX ITS/FON

CFX will locate the FON one time at the beginning of design during the survey phase. Once the FON/ITS lines are flagged, the Consultant shall survey the located FON/ITS locations in the field. The survey data collected will be included in the 30% plans submittal package.

The CFX GSC will review the plan submittals to ensure that the FON is shown correctly as actually located in the field. The CFX GSC will also determine if there are any overlapping projects that need to be represented in the design plans as a part of the ITS Component review of the 30% plans.

SUE will be done as required based on the Design Project Manager's recommendations and provided to CFX for their information.

4.5 Geotechnical Investigation

- A. The Consultant shall perform a geotechnical investigation of the project in accordance with the requirements of CFX.
- B. Investigations shall be performed with minimal disruption of the normal traffic flow for the project. Field personnel shall use safety devices such as warning signs, traffic cones, warning lights, and safety vests at all times, according to CFX requirements. The Consultant shall adhere to all traffic control requirements when taking samples on existing roadways. A traffic control plan and permit may be required. Any advanced warning signs required when crews are working on CFX system shall be made with 3M Scotchlite Diamond Grade Fluorescent orange roll up sign sheeting.
- C. The work includes, but is not limited to, identifying roadway structural section requirements, LBR testing, design methods for the selected foundation, external stability evaluation at proprietary retaining walls, groundwater and estimated seasonal high groundwater level, estimate of the maximum rate of pumping that will be required at sites that dewatering is anticipated, certification of all under drain and pond draw down times, pH and resistivity conditions requiring design considerations, soil shrinkage/swell characteristics, slope stability and benching in embankment/excavation locations, recommendation for methods of rock excavation, potential imported borrow sites and availability of structural section materials, location and depths of unsuitable material (muck), and design alternatives based on geotechnical findings; design values for active, at rest, and passive soil pressures; allowable design loads or pressures for each foundation type, corrosion testing for structures and design of foundations for sign structures. The work will also include verification of existing median bridge foundation capacities previously constructed for future widening.
- D. The results of the geotechnical investigation shall be contained in a Geotechnical Report which shall be submitted to CFX's Project Manager for approval. The geotechnical investigation shall include all necessary

laboratory testing of materials.

- E. Upon approval of the Geotechnical Report, the Consultant shall proceed with preparation of the pavement and foundation designs.
- F. Boring profiles shall be included on cross-section sheets in the contract plans and include the boring number, station, offset, soil legend, observed water table, design high water elevation and geotechnical consultant's address. A boring number and target symbol shall be shown at the appropriate location on the roadway and bridge plans.
- G. Roadway core samples shall be taken to determine the existing pavement section. The Consultant shall submit a plan to CFX for location approval.

4.6 Contamination Impact Analysis

- A. The Consultant shall perform a contamination impact analysis of the project in accordance with the applicable rules and regulations of the FDOT Project Development and Environment Guidelines, Chapter 22, the Florida Department of Environmental Protection (FDEP), and all other pertinent State or Federal agencies having jurisdiction, and the requirements of CFX.
- B. At a minimum, the Consultant shall conduct a windshield survey along the project corridor to identify any new sources of environmental contamination not reported in the referenced document(s).
- C. The testing of any sites including the use of ground penetrating radar, if required to complete the design and/or construction of the project, will be added to the Scope of Services by Supplemental Agreement.

4.7 Pavement Design

- A. The Consultant shall prepare the pavement design as appropriate in accordance with the requirements of the FDOT Pavement Design Manual.
- B. The proposed pavement design recommendation, resulting from the Consultant's analysis of the various alternatives, shall be contained in a Pavement Design Summary.
- C. Milling and resurfacing limits extend from approximately Station 1106+20 to north of West Road, approximately Station 335+00. Portions of ramps at gore areas impacted by widening are included.
- D. Full depth pavement shall be provided in the median shoulders, except for 3' adjacent to the median barrier.

4.8 Borrow Pits

- A. The Consultant's geotechnical investigation may include the investigation

of current borrow pits. The location and testing of any new borrow pits if required to complete the construction of the project shall be added to the Scope of Services by Supplemental Agreement. The analysis and test results shall be contained in a separate report submitted not later than the preliminary submittal.

4.9 Governmental Agency and Public Meetings

- A. Except as may be provided elsewhere in this Scope of Services, the Consultant shall have appropriate representatives present at such meetings, conferences or hearings as CFX may direct to secure necessary approvals and/or support of the project by county, municipal, or other governmental agencies. If so directed, the Consultant shall also have appropriate representatives present at meetings or conferences of CFX, its Chairman or staff.
- B. The Consultant shall assist CFX in presentations to various parties. The Consultant shall prepare exhibits pertaining to basic roadway improvements. CFX will prepare exhibits pertaining to aesthetic treatments and other design issues if applicable. This scope assumes presentations at one meeting with adjacent property owners.

4.10 Environmental Permits

- A. CFX's Project Manager will review, coordinate and submit the applications for all environmental permits, including EPA's NPDES General Permits for Stormwater Discharges from Construction Sites. The Consultant shall provide all information, permit applications and data relating to Stormwater Management and Floodplain Impacts required for the permits to CFX. (CFX will be responsible for preparing all of the Wetlands and Protected Species analysis and documentation required for the permits.) The Consultant shall:
 - 1. Attend the pre-application meetings and site visits with CFX and regulatory agencies.
 - 2. Provide additional information requested at the pre-application by regulatory agencies for permits.
 - 3. Provide aerial maps at a 1"=400' scale which include SCS soils data, 100-year floodplain limits and proposed project.
 - 4. Provide all plans, calculations, sketches and reports required for permits except as described above.
 - 5. Provide copies of all drainage calculation, including pond routing nodal diagrams, for the project.
 - 6. Assist CFX in responding to any requests for additional information made by regulatory agencies after the permit application is submitted.

7. Incorporate any changes required by changes in regulatory agency requirements during the course of the project. If this requires additional work by the Consultant a Supplemental Agreement will be prepared.
8. Prepare a list of adjacent landowners along with address and nine-digit zip code at all wetland encroachment sites.
9. Provide all permit application material in .pdf format.
10. The Consultant will provide dredge and fill sketched as required by the permitting agencies if applicable. Mitigation plans, if required, may be added as a supplemental service.
11. Determine extent of floodplain impacts, if any, and provide compensatory flood stages as required
12. Preliminary field evaluation of general land use and wildlife habitat within existing ROW, pond sites, and bridges
13. FDEP permit modifications for SR 429 and SR 414 permits for stormwater criteria associated with additional impervious surfaces. No USACE permitting anticipated.
14. Species-specific survey for gopher tortoise (burrows likely along the outer ROW perimeter and within dry ponds
15. USFWS coordination to obtain concurrence that sand skink surveys are not warranted in previously disturbed/maintained grass ROW.
16. Pre-application meeting with FDEP

4.11 Utilities

A. Location

The Consultant shall obtain available utility mapping and information and identify all utilities within the general project limits to determine potential conflicts and relocations. Where a potential conflict exists, the Consultant may need to arrange to probe or expose ("pothole") the utility and survey the horizontal and vertical location of the utility line. The Consultant shall coordinate this effort with involved utility companies. All existing utilities shall be shown on appropriate preliminary construction plans. The Consultant's notes shall include the name and telephone number of contact persons for the construction contractor's use.

B. Utility Coordination

1. The Consultant shall identify utility owners within the project limits and contact each to obtain utility system maps, plan mark-ups or equivalent utility sketches and/or as-built drawings depicting the location of their facilities. The Consultant shall prepare reproducible utility adjustments plans based on information provided by respective utility companies.
2. Private utilities will prepare design plans for the relocation of their facilities. If a utility cannot or will not prepare these design plans, the work shall be added to the scope by Supplemental Agreement and the Consultant shall prepare design plans for utility relocation for approval of the utility and review by CFX.
3. Where utility conflicts occur, which require utility relocation agreements between the affected utility and CFX, the Consultant shall prepare the necessary data/plans required for the agreements. The Consultant shall advise CFX seven days in advance of meetings with utility companies/agencies scheduled to discuss utility relocations.
4. The preparation and negotiation of the agreement will be performed by CFX's Project Manager. After approval of the agreement by the utility and CFX, the Consultant shall prepare reproducible utility adjustment sheets identifying proposed relocations with respect to the construction plans.
5. The Consultant shall prepare a utility conflict matrix to assist in identifying and resolving conflicts between utilities and proposed construction prior to completion of the plans.
6. The Consultant shall obtain utility work schedules from the utility companies for all utility relocation or adjustments required to accommodate construction.
7. The Consultant shall prepare the Utility Certification Letter certifying that all utility negotiations (full execution of each agreement, approved utility work schedule, technical special provisions written, etc.) have been completed with arrangements made for utility work to be undertaken and completed as required.
8. The Consultant shall make two utility contacts with the utility agencies (Phase II and Phase III) and hold a utility conference at each contact.

4.12 Roadway Design

- A. A Typical Section Package will not be prepared for this project. Rather, typical sections for mainline and impacted interchange ramps will be prepared as part of the 15% submittal and submitted to CFX for review and approval.

- B. The Consultant shall design the geometrics for this project using the design standards included in the scope. The design elements shall include, but not be limited to, the horizontal and vertical alignments, cross section template development, lane width, shoulder widths, cross slopes, borders, sight distance, side slopes, lane transitions, superelevations, features of intersections, ramp terminal details, interchanges, and limited access points.
- C. The Consultant shall prepare designs and contract documents for the roadway improvements, including, but not necessarily limited to:
 - 1. Cover sheet (key sheet)
 - 2. Summary of Pay Items
 - 3. General notes
 - 4. Summary Quantities sheets
 - 5. Project Layout
 - 6. Typical roadway sections
 - 7. Typical roadway details
 - 8. Plans and profiles (plans at 1" = 50' scale)
 - 9. Interchange layout plans
 - 10. Ramp Terminal Details
 - 11. Crossroad plans and profiles (1" = 50' scale)
 - 12. Cross-sections (with pattern plan) (1" = 20' horiz.) (1" = 5' vert.)
 - a. Earthwork quantities
 - 13. Traffic Control Sheets including Temporary Drainage
 - 14. Utility Adjustment Sheets - as deemed necessary
 - 15. Details
 - 16. Special provisions
 - 17. Special specifications

4.13 Structures Design

- A. Prior to commencement of final design, the consultant shall prepare a Bridge Concept Memorandum which documents a limited range of structural alternatives and identifies preferred alternatives. Specifically, the

alternatives to be examined include beam type, wall type / configuration, foundation pile type, and preliminary load rating analysis of existing exterior beams at widened sections.

- B. The Consultant shall prepare designs and contract documents for structural design including, but not necessarily limited to the following items.
1. Complete Bridge Widening designs will be provided for widening of the following bridges:
 - a. W. Orange Trail SB – inside widening
 - b. W. Orange Trail NB – inside widening
 - c. McCormick Road SB – inside widening
 - d. McCormick Road NB – inside widening
 - e. Ocoee Apopka Road SB – inside widening or Bridge Replacement
 - f. Ocoee Apopka Road NB – inside widening or Bridge Replacement
 - g. Harmon Road SB – inside & outside widening
 - h. Harmon Road NB – inside widening
 - i. SB exit ramp to SR 414SB – inside widening
 - j. SB exit ramp to SR 414NB – inside widening
 2. Retaining walls (may vary based on final design limits)
 - a. Permanent MSE walls:
 - i. Wall extension at Ocoee Apopka Road SB, south abutment – approximately 100 LF
 - ii. Wall extension at Ocoee Apopka Road SB, north abutment – approximately 100 LF
 - iii. Wall extension at Ocoee Apopka Road NB, south abutment – approximately 100 LF
 - iv. Wall extension at Ocoee Apopka Road NB, north abutment – approximately 100 LF
 - b. Critical Temporary Walls
 - i. Wall for construction of Ocoee Apopka Road Bridge replacement (4 total)
 3. Box Culverts – Raise head wall of conspan structure
 4. Approach slabs for bridge widenings
 5. Summary quantity tables
 6. Special provisions and specifications are not anticipated to be required for the structures work, however, if required will be included.

7. Stage construction-sequencing details will consist of bridge cross sections showing demolition and construction phases with corresponding traffic positions and will be coordinated with the maintenance of traffic plans.
 8. Sign\Signal structures: To replace existing structures impacted by the widening and provide additional anticipated sign structures.
 - a. 8 Overhead Cantilever Sign Structures
 - b. 7 full trusses (static + 1-line DMS) analyze for new panels/new loading and 1 replacement truss and 1 midspan DMS
 - c. Two signal structures are anticipated.
 - d. Three CCTV poles
 9. Structural design of sound walls. 4000 LF
 10. The Consultant shall perform Load Rating Analysis per FDOT criteria for bridges at the 90% design phase. The Load Rating Analysis packages shall be submitted for their review and approval.
- C. The Consultant shall perform an evaluation of the existing median bridge foundations, previously constructed for future widening, to determine acceptability for HL93 loading and the potential for additional future transit loading.

4.14 Drainage Design

- A. As part of the drainage design requirements, the Consultant shall:
1. Perform all drainage design in accordance with the approved criteria from Section 3.1D.
 2. Finalize the pond design at the 30% submittal. Modify 13 existing ponds for additional treatment for the ramp modification areas and slight increase of mainline impervious area. Treatment and attenuation calculations will be prepared for 13 existing ponds. Modify outfall control structures for 6-lane configuration for 13 existing pond structures.
 3. Have its chief drainage engineer available at the scheduled (bi-weekly/monthly) team meetings to review progress and discuss problems.
 4. Notify CFX's Project Manager immediately if any deviation from approved design criteria is anticipated.
 5. Provide drainage/contour maps as needed used in the development of the drainage design to CFX for use in scheduled reviews. These maps will be returned to the Consultant along with review comments

at the end of the review process.

6. Provide copies of its internal quality control comments and calculations at the scheduled reviews.
 7. Prepare a technical memorandum identifying existing drainage concerns along the corridor and potential fixes or modifications. Known existing drainage concerns include: None at this time.
 8. Critical duration analysis is not included in this effort and, if required, shall be added to the scope by Supplemental Agreement. A pond siting report is not required.
- B. The Consultant shall prepare designs and contract documents for drainage features including, but not necessarily limited to:
1. Connector pipes
 2. Drainage structure details
 3. Storm drain and culvert profiles and/or drainage cross-sections
 4. Lateral ditches/channels
 5. Outfall ditches/channels
 6. Retention/detention ponds/exfiltration system

4.15 Roadway Lighting

- A. The Consultant shall provide a complete set of final roadway lighting documents in accordance with FDOT and CFX design criteria. These plans shall include replacement of all CFX lighting on the corridor to LED, including roadway and ramp fixtures, overhead sign lighting and underdeck lighting. The work shall include coordination with the local utility to provide electrical service. Plan sheet scale shall be at 1"=50' scale.
- B. If required, CFX will provide a cut sheet for the type of lighting fixtures to be used for this project.
- C. The Consultant will prepare designs and contract documents for lighting design including, but not necessarily limited to the following items.
 1. Cover sheet (key sheet)
 2. Tabulation of Quantities
 3. General notes
 4. Pole data and Legend sheet

5. Project Layout sheet
 6. Plans sheets (plans at 1" =50' scale)
 7. Service point detail
 8. Special Details
- D. Lighting Justification Report is not required
 - E. Lighting design analysis report
 - F. SR 429 Proposed roadway lighting design limits: West Road (approximate Sta 325+00) to north of SR 414 (approximate Sta 540+00)
 - G. Lighting approach: Retrofit existing conventional HPS lighting system with conventional LED fixtures within the defined lighting limits. Replace existing conventional lighting system where spacing does not accommodate widening at West Road realignment and Ramp Gores. Retrofit existing conventional light poles to remain/relocate with LED fixtures. Add lighting system along SR 429 in 0.5-mile gap between McCormick Road and CR 437A interchange lighting. Replace existing load centers.
 - H. Design to accommodate the proposed 6-lane typical section (includes full inside and outside shoulders).
 - I. Underdeck lighting at all impacted bridge sites. No remote drivers anticipated since no work over high volume roads.
 - J. Sign lighting within project signing limits.

4.16 Traffic Engineering

- A. Traffic Data will be furnished by CFX.
- B. Maintenance of Traffic Plans
 1. The Consultant shall prepare maintenance of traffic plans at scale of 1" =50' to safely and effectively move vehicular and pedestrian traffic during all phases of construction. The designs shall include construction phasing of roadways ingress and egress to existing property owners and businesses, routing, signing and pavement markings, and detour quantity tabulations. Special consideration shall be given to the construction of the drainage system when developing the construction phases. Positive drainage must be maintained at all times.
 2. The Consultant shall investigate the need for temporary traffic

signals, signs, alternative detour roads, arrow boards, flagging operations, and the use of materials such as sheet pilings in the analysis. A certified designer who has completed the FDOT training course shall prepare the maintenance of traffic plan.

3. Traffic shall be maintained during all phases of project construction at all locations, including existing posted speed, lane widths and number of lanes unless determined by CFX and other governmental agencies. This includes meeting with the governmental agencies which may be impacted by the maintenance of traffic plans.

4.17 Signing and Pavement Marking Plans

- A. The Consultant shall prepare designs and contract documents for final signing and pavement marking plans including layouts showing the locations of ground mounted and overhead signs, special sign details, lighting, and any structural or foundation requirements in accordance with applicable design standards. Any requirements for electric service shall be coordinated with the local electric utility.
- B. CFX will provide conceptual signing plans for the project as deemed necessary.
- C. Plan sheets will be developed at a scale of 1" = 50' (11"x17" format).
- D. The following existing structures will be impacted by the widening and need to be replaced; six (6) cantilevers, three (2) span trusses (one full and one-half span), two (2) bridge mount, and twelve (12) multi-post sign structures.

4.18 Signalization Plans

- A. Signal plans are not anticipated for this improvement. If requested, the Consultant shall prepare designs and contract documents for final signalization plans including layouts showing the locations of mast arms and pedestrian features, special signal details, lighting, and any structural or foundation requirements in accordance with applicable design standards. Any requirements for electric service shall be coordinated with the local electric utility.
- B. Plan sheets will be developed at a scale of 1" = 50' (11"x17" format).
- C. SR 429 NB off-ramp @ CR 437A
 1. 1 mast arm replacement and re-looping for new dual left turn lanes on CR 437A
 2. Fiber interconnect replacement due to new bridge impacts
- D. SR 429 SB off-ramp @ CR 437A
 1. 1 mast arm replacement and re-looping for new dual left turn lanes

on CR 437A

2. Fiber interconnect replacement due to new bridge impacts

4.19 Right-of-Way Surveys

A. No additional right-of-way is anticipated for this project.

4.20 Cost Estimates

A. The Consultant shall prepare and submit to CFX construction cost estimates at the 60%, 90%, 100%, Pre-Bid and Bid Set submittals outlined herein. The estimate shall be based on the current unit prices as applied to the latest concept of the proposed construction.

4.21 Special Provisions and Specifications

A. The Consultant shall prepare and submit at the 90% level special provisions, special specifications, and technical special provisions for items, details and procedures not adequately covered by CFX's Technical Specifications.

4.22 Fiber Optic Network (FON)

A. Fiber Optic Infrastructure Plans

1. The site construction plans shall be developed at a scale of 1" equals 50 feet. These plans shall include the relocation of all existing fiber optic ductbanks, cables, manholes, and pull boxes in areas where the existing locations conflict with construction and as necessary to relocate the FON into the new paved shoulder. The Consultant shall identify existing physical features and utilities that will impact the construction and installation of the equipment. The Consultant shall review and modify standard FON details as necessary.
2. Fiber optic network (FON) plans shall include the following:
 - a. Roadway geometry
 - b. Rights-of-Way
 - c. Existing utilities within the right-of-way including CFX's FON
 - d. Physical features affecting construction/installation (sign structures, light poles, fences, etc.)
 - e. Manhole/Pull box locations and stub-out details (standard details provided)
 - f. Device layout
 - g. Device installation details
 - h. Conduit installation details (standard details provided)
 - i. Fiber optic cable route marker detail (standard details provided)

- j. Fiber count per conduit
- k. Communications interconnect
- l. Connectivity with the FON backbone conduits
- m. Fiber cable splice details for new or relocated fiber optic cabling.
- n. Controller cabinet, CCTV/ TMS pole, and foundation details for proposed CCTV/ TMS sites.
- o. Power interconnect, calculations to support conductor size, and details. Power conductors to each device location shall be sized to the maximum connected load in the cabinet plus 10A to accommodate other loads such as UPS battery charging or Maintenance equipment (lowering device drill, shop vac, etc.). Determination on conductor sizing and voltage drop limits are only required for proposed sites and existing sites where the total site load is being significantly modified.
- p. Grounding
- q. Table of quantities
- r. Special notes
- s. Maintenance of fiber operations (protection of existing FON through all phases of construction and cutover phasing to ensure continuous operation of existing ITS devices)
- t. All existing and proposed FON to be included and shown with roadway cross sections and drainage cross sections
- u. Relocation/replacement of existing CCTV sites and any necessary structures, foundations, attachment details, power service, fiber optic connections, and cabinets (standard details provided), in the event existing CCTV is not compatible with proposed construction.
- v. Relocation/replacement/upgrade of existing data collection sensor (DCS) sites and any necessary structures, foundations, attachment details, power service, fiber optic connections, and cabinets (standard details provided), in the event existing DCS would not survive project construction.
- w. Relocation/ replacement of existing dynamic message sign (DMS) sites and any necessary structures, foundations, attachment details, power service, fiber optic connections, and cabinets (standard details provided), in the event existing DMS would not survive project construction.
- x. Relocation/ replacement/upgrade of existing traffic monitoring sites (TMS) sites and any necessary structures, foundations, attachment details, power service, fiber optic connections, and cabinets (standard details provided), in the event existing TMS would not survive project construction.
- y. Wrong-Way Detection RRFs for SR 429 off-ramps to CR 437A road are to remain as-is.
- z. Toll Violation Structure: Northbound and southbound structure and associated control circuit to be removed due to inside widening.

aa. Accommodate conduit and access pull boxes for future Part Time Shoulder Running (PTSR) ITS where reasonable.

3. Upgrading other cabinet equipment as needed to meet current CFX ITS equipment standards within the project limits The Consultant shall take the following information into consideration when developing the site construction plans:
 - a. Minimize utility conflicts and adjustments.
 - b. Minimize traffic impact.
 - c. Accessibility and ease of equipment maintenance.
 - d. Safety of equipment maintenance personnel and the traveling public.
 - e. Maintain the existing FON system through all phases of construction.
 - f. Environmental conditions.
 - g. Concurrent/future CFX projects.
 - h. Compatibility with existing and proposed ITS infrastructure (e.g. CFX enhanced grounding standards for ITS devices, CFX transient voltage surge suppression (TVSS) standards for ITS devices, etc.)
 - i. Leased conduits in CFX FON duct bank that are occupied by the fiber optic cable of other agencies or entities.
 - j. Location of proposed sound walls

Summary of Assumed FON Impacts	
FON Backbone	Notes
SR 429 NB: FOMH-429-28.4A-NB to FOMH-429-29.8-NB	CR 437A bridge replacement and existing FON attachment to bridge deck
SR 429 SB: FOMH-429-28.4-SB to FOMH-429-29.8-SB	CR 437A bridge replacement and existing FON attachment to bridge deck
SR 429 NB: FOMH-429-26.7-NB to FOMH-429-27.1-NB	Outside widening through the horizontal curve near West Rd
FON Drops/Laterals	Notes
Multiple locations along SR 429 NB/ SB	Cut/fill grade changes or wall construction along the outside roadway embankments

Summary of Assumed Device Impacts	
3-Line Walk-in DMS Sites	Notes
DMS-429-28.2-NB	To be relocated to new structure due to inside widening impacting existing structure
2-Line Toll DMS Sites	Notes
DMS-429-26.9-NB	To be relocated to new structure due to outside widening impacting existing structure near West Rd

DMS-429-27.5-NB	To be relocated about existing structure due to additional thru lane created by widening
DMS-429-27.9-SB	To be relocated about existing structure due to additional thru lane created by widening
DMS-429-28.3-SB	To be relocated about existing structure due to additional thru lane created by widening
CCTV Sites	
Notes	
CCTV-429-26.6-SB	To remain as-is
CCTV-429-26.9-NB	To be replaced due to outside widening near West Rd
CCTV-429-27.4-NB	To remain as-is
CCTV-429-27.5-SB	To remain as-is
CCTV-429-28.0-SB	To remain as-is
CCTV-429-28.2-SB	To remain as-is
CCTV-429-28.4-NB	To remain as-is
CCTV-429-29.0-NB	To be replaced due to bridge replacement at CR 437A
CCTV-429-28.8-SB	To remain as-is
CCTV-429-30.0-NB	To remain as-is
CCTV-429-30.3-SB	To remain as-is
CCTV/TMS Sites	
Notes	
CCTV/TMS-429-26.8-NB	To be replaced due to outside widening near West Rd
TMS Sites	
Notes	
TMS-429-27.9-SB	To be adjusted/modified due to additional thru lane created by widening
TMS-429-28.7-NB	To be adjusted/modified due to additional thru lane created by widening
TMS-429-29.5-NB	To be adjusted/modified due to additional thru lane created by widening
TMS-429-29.8-SB	To be adjusted/modified due to additional thru lane created by widening

TMS-429-29.8A-SB	To be adjusted/modified due to additional thru lane created by widening
TMS-429-30.0-NB	To be adjusted/modified due to additional thru lane created by widening
DCS Sites	
	Notes
DCS-429-26.9-SB	To be replaced due to outside widening impacting existing structure near West Rd
DCS-429-28.7-NB	To be upgraded due to additional thru lane created by widening
DCS-429-29.7-SB	To be upgraded due to additional thru lane created by widening
DCS-429-30.0-NB	To be upgraded due to additional thru lane created by widening
Wrong-way Detection Sites	
	Notes
WWD-429-28.8-NB	To remain as-is
WWD-429-29.0-SB	To remain as-is
Load Center Sites	
	Notes
ESM-429-26.9-SB	To be upgraded to standard due to impacts to existing connected devices
ESM-429-26.9-NB	To be upgraded to standard due to impacts to existing connected devices
ESM-429-27.7-SB	To remain as-is
ESM-429-28.0-SB	To remain as-is
ESM-429-28.2-NB	To be upgraded to standard due to impacts to existing connected devices
ESM-429-28.2-SB	To remain as-is
ESM-429-29.0-NB	To be upgraded to standard due to impacts to existing connected devices
ESM-429-29.8-NB	To remain as-is
ESM-429-30.3-SB	To remain as-is

B. Splice and Cable Routing Details

1. The Consultant shall provide splicing detail diagrams to document proposed fiber optic splices within and between manholes, ITS devices, tollbooths, and other junction points. This includes splice diagrams for

re-termination of drop or end to end (butt) splices.

2. Proposed splicing tables shall include ITS device connectivity, fiber use, drop cable fiber identification, drop cable identification, backbone cable identification, translateral cable identification, backbone into mainline cable identification, and toll plaza patch panel jack.
3. The Consultant shall provide cable routing diagrams and fiber allocation charts in CFX's standard format to document the functional connectivity between proposed fiber optic conduit and splices.

C. Maintenance Of Fiber Operations

1. The Consultant shall provide a plan of action to ensure existing fiber optic network is not disrupted during construction operations.
2. The Consultant shall determine the sequence of fiber optic cable splices to minimize disruption to communications.

D. Inside Plant Plans

1. The Consultant shall be responsible for any data collection necessary to complete its design.
2. All equipment shown on the inside-plant construction plans shall be clearly delineated as existing, proposed, or by-others. The Consultant shall be responsible for identifying and detailing on the inside-plant construction plans with notes and drawings any make-ready work required. The Consultant shall also provide a table of quantities for all materials and equipment specified in the inside-plant construction plans.
3. The Consultant shall sign and seal final inside-plant construction plans by a licensed professional Electrical Engineer registered in the state of Florida. The inside-plant construction plans shall be subject to the review and approval of CFX.

E. Standard CFX specifications will be provided to the Consultant. The Consultant shall review the specifications and modify them as necessary.

4.23 Toll Plazas

- A. This proposal does not include modifications and/or improvements to any of the existing toll plazas, including any associated equipment and gantry systems.

4.24 Post-Design Services

- A. Services shall begin after authorization by CFX. The Consultant compensation for post-design services may be added by Supplemental

Agreement and shall be at an hourly rate, inclusive of overhead, profit and expenses, and exclusive of travel. No compensation will be made for correction of errors and omissions.

- B. The Consultant shall support the post design process as follows:
 - 1. Answer questions relative to the plans, typical sections, quantities and special provisions.
 - 2. Make any necessary corrections to the plans, typical sections, quantities, notes, etc., as may be required.
 - 3. Attend pre-award meeting with construction contractor, CFX, and CFX's CEI.
- C. The Consultant shall, prior to the pre-bid conference, be prepared to walk the project with CFX's CEI to discuss the plans and details. The Consultant shall be prepared to attend the pre-bid conference and respond to questions related to the plans, details, and special provisions.
- D. The Consultant shall prepare any addenda required to clarify the work included in the construction contract documents. Addenda may be required based on the project inspection with the CEI, or questions developed in the pre-bid conference, or conditions discovered by bidders during the bid period. Addenda will not be issued for Contractor initiated design changes or value engineering proposed work.
- E. The Consultant shall be available to respond to questions in the field that may arise relative to the plans, details or special provisions during construction. The Consultant shall periodically (monthly) visit the project site to observe the progress of construction on the project. This visit will not replace the formal construction inspection by CFX. It is intended to provide the opportunity of the design team to observe whether the work is being performed in general conformance with the project plans. Written memos of all such field trips shall be submitted to CFX within five working days of the trip.
- F. The Consultant shall review and approve shop drawings for structural, lighting, signing, traffic signal elements, and toll plaza shop drawings. This work will include the erection procedure plans, review proposals for substitutions, develop supplemental agreements, and provide other engineering services required to facilitate construction of the project. Reviews will be conducted and returned within two weeks from receipt of information.
- G. The Consultant shall appoint a responsible member of the firm to be the contact person for all post-design services. The person should be continually available during the course of construction for review of design plans.
- H. The Consultant shall make every reasonable effort to process any material

presented for review in a prompt manner recognizing a construction contract is underway.

- I. The Consultant's key staff shall attend a maximum of three (3) partnering meetings as requested by CFX's Project Manager. The Consultant shall also attend progress/coordination meetings as requested by CFX's Project Manager including, but not limited to, the Notice to Proceed meeting.
- J. Approved design bridge load ratings were obtained by the Consultant under the final design phase of this contract. The Contractor shall be responsible for revising and resubmitting the load ratings if changes to the bridge design occur during construction. Otherwise, the Consultant shall provide written correspondence to CFX when construction is complete that the bridges were constructed in accordance with the plans and the design load ratings still apply.
- K. The Consultant shall provide geotechnical engineering services as needed by CFX, relative to pile driving, earthwork, embankment and MSE wall construction.
- L. The Consultant shall provide utility consulting services as needed by CFX, relative to proposed utility adjustments within the project limits.
- M. The Consultant shall prepare Record Drawings in electronic format following completion of the construction phase. CFX shall provide all As- Built drawings from the Contractor / CEI to the Consultant for their use in preparation of the Record Drawings.

5.0 MATERIALS FURNISHED BY CFX OR ITS DESIGNEE

5.1 Record Documents

- A. CFX will provide the Consultant, within ten working days of a written request, the following items:
 - 1. Available record drawings of existing conditions
 - 2. Available right-of-way plans of existing conditions
 - 3. Current list available to CFX of owners of all affected properties within the section.
 - 4. Sample plans to be used as guidelines for format, organization and content.
 - 5. Title searches of all affected properties for use by the Consultant in the preparation of the right-of-way maps.
 - 6. Contract unit prices from latest CFX construction projects.

5.2 Traffic Data

- A. CFX will provide the following design traffic data:
1. Current and design year ADT
 2. Current and design year peak hour volumes
 3. Turning movements at each intersection/interchange
 4. K, D and T factors
 5. Design speed - See Section 3.02, Geometry.
 6. AVI Percentages

5.3 Other

1. Utility designates for the FON and roadway lighting within CFX right-of-way.

6.0 WORK PERFORMED BY CFX OR ITS DESIGNEE

6.1 Right-of-Way Acquisition

- A. If necessary, CFX, or its designee, will review all right-of-way plans, parcel sketches and legal descriptions prepared by the Consultant. CFX will handle all appraisals, negotiations, relocations, condemnation, and property settlements.

6.2 Utility Agreements

- A. CFX will support, as necessary, the Consultant's acquisition of information required for utility agreements.

6.3 Public Involvement

- A. CFX will provide a moderator for all required public meetings and provide guidelines for the Public Involvement aspects of the project. The need for public meetings or public hearings will be determined by CFX. CFX will be responsible for mailings and advertisements for the public meetings.

6.4 Contracts and Specifications Services

- A. CFX will prepare the necessary bid documents for the construction contract using plans, technical special provisions, and special specifications prepared by the Consultant.

6.5 Post-Design Services

- A. CFX will be the principal initial contact for post-design questions and

answer questions on a limited scope.

- B. CFX's CEI representative will be responsible for collection and documentation of all As-Built information for the constructed improvements.

6.6 Environmental Permits

- A. CFX will review and submit the environmental permit applications and coordinate with the Consultant on requests for additional information from the regulatory agencies.
- B. CFX will stake wetland lines and coordinate agency site visits. CFX will also prepare the wetland and wildlife analysis and documentation for the permits.
- C. CFX will be responsible for all permitting application fees.

6.7 Conceptual Specialty Design

- A. CFX will provide a conceptual major guide signing plan.
- B. CFX to provide proposed sound wall locations.
- C. CFX will provide conceptual aesthetics design and treatments for structures.

7.0 ADMINISTRATION

7.1 Central Florida Expressway Authority

- A. CFX's Project Manager will administer the Consultant services detailed in this scope.
- B. All contractual payments and changes shall be reviewed and approved by CFX's Project Manager.

7.2 CFX's Project Manager will:

- A. Conduct ongoing reviews of the Consultant's progress in performing the work and furnish technical comments in a timely manner.
- B. Review the Consultant's billings.
- C. Review and evaluate the Consultant's requests for extension of time and supplemental agreements and recommend appropriate action.
- D. Review all correspondence with public agencies prior to the Consultant's mailing of any correspondence except for requests for information.
- E. Coordinate the distribution of public information.

- F. Coordinate the data (including documentation of prior rights, cost estimates and plans) necessary for CFX to prepare and execute all utility and railroad agreements.
- G. Conduct an introductory meeting to deliver relevant information and explain the administration process.
- H. Review the Consultant's Quality Control program and the Consultant's conformance to the Quality Control Program.
- I. Provide a focal point contact for all questions, requests, and submittals.
- J. Provide a system to monitor the Consultant's schedule, progress and key milestone submittal dates.

7.3 Consultant

- A. The Consultant has total responsibility for the accuracy and completeness of the construction contract documents and related design prepared under this project and shall check all such material accordingly. The plans will be reviewed by CFX for conformity with CFX procedures and the terms of the Contract, as well as coordination with adjacent design contracts. Review by CFX does not include detailed review or checking of design of major components and related details or the accuracy with which such designs are depicted on the plans. The responsibility for accuracy and completeness of such items remains solely that of the Consultant. The Consultant shall:
 - 1. Establish, furnish and maintain suitable office facilities to serve as the project office for the duration of the project at a location acceptable to CFX.
 - 2. Maintain an adequate staff of qualified support personnel to perform the work necessary to complete the project.
 - 3. Establish internal accounting methods and procedures for documenting and monitoring project costs.
 - 4. Establish and maintain contract administration procedures, which will include supplemental agreements, time extensions and subcontracts.

7.4 Project Control

- A. The Consultant shall provide data for CFX's Management Information System to monitor costs and manpower, and report progress. This project control system may include features to:
 - 1. Determine and highlight critical path work from initial plans as work

progresses.

2. Identify progress against schedule for each identified work item.
3. Forecast completion dates from current progress.
4. Highlight rescheduled work in any area which is out of required sequence.
5. Highlight rescheduling that has overloaded any physical area that requires more resources than originally allocated.
6. Forecast future conflicts in any area.

7.5 Work Progress

- A. The Consultant shall meet with CFX's Project Manager on a bi-weekly basis (or more often if necessary) and provide written progress reports which describe the work performed on each task. The dates and times of these meetings will be established by CFX. Two working days prior to each progress meeting, the Consultant shall provide CFX's Project Manager with a draft copy of the Progress Report and a typewritten agenda for the meeting. The Consultant shall prepare typewritten meeting minutes and submit them to CFX's Project Manager within five working days after the meeting. The minutes shall indicate issues discussed and the resolution or action required to resolve any issues.

7.6 Schedule

- A. Within twenty (20) calendar days after receipt of the Notice to Proceed, the Consultant shall provide a schedule of calendar deadlines in a format prescribed by CFX.

7.7 Project Related Correspondence

- A. The Consultant shall furnish copies of all written correspondence between the Consultant and any party pertaining specifically to this project to CFX for its records within one (1) week of the receipt or mailing of said correspondence. The Consultant shall record and distribute the minutes of all meetings pertaining to this project.

7.8 Quality Control

- A. The Consultant has total responsibility for the accuracy and completeness of the plans and related designs prepared under this project and shall check all such material accordingly. Consultant shall have a quality control plan in effect during the entire time work is being performed under the Contract. The plan shall establish a process whereby calculations are independently checked, plans checked, corrected and back checked. All plans, calculations, and documents submitted for review shall be clearly marked as being fully checked by a qualified individual other than the originator.

- B. The Consultant's quality control plan shall be submitted to CFX within fifteen (15) working days of receipt of written notice to proceed.

7.9 Consultant Personnel

- A. The Consultant's work shall be performed and/or directed by the key personnel identified in Exhibit "D". Any changes in the indicated key personnel or the Consultant's office in charge of the work shall be subject to review and approval by CFX.

7.10 Site Visit

- A. The Consultant shall arrange a site visit within twenty (20) calendar days of receipt of written Notice to Proceed. Consultant personnel assigned to perform the work on the project shall attend. CFX representatives will be present. Within seven calendar days of the site visit, the Consultant shall issue to CFX a brief written report including observations, discussions, and any questions pertaining to the scope or level of effort of the project. The purpose of this visit is to acquaint key personnel with the details and features of the project to facilitate the design process.

7.11 Acceptability of the Work

- A. The plans, design, calculations, reports and other documents furnished under this Scope of Services shall conform to the "standards-of-the industry" quality as acceptable to CFX. The criteria for acceptance shall be a product of neat appearance, well organized, accurate and complete, technically and grammatically correct, checked in accordance with the approved Quality Control program, and have the maker and checker identified. The minimum standard of appearance, organization and content of drawings shall be similar to the type produced by the Florida Department of Transportation and CFX.

7.12 Design Documentation

- A. The Consultant shall submit any design notes, sketches, worksheets, and computations to document the design conclusions reached during the development of the construction contract documents to CFX for review.
- B. The design notes and computations shall be recorded on 8-1/2" x 11" computation sheets, appropriately titled, numbered, dated, indexed and signed by the designer and checker. Computer output forms and other oversized sheets shall be folded or legibly reduced to 8-1/2" x 11" size. The data shall be bound in a hard-back folder for submittal to CFX.
- C. A CD/DVD with electronic (PDF Format) copies of the design notes and computations shall be submitted to CFX with each review submittal. When the plans are submitted for 90% review, the design notes and computations

corrected for any CFX comments shall be resubmitted. At the project completion (bid set), one (1) hard copy of the final set of the design notes and computations, sealed by a Professional Engineer, registered in the State of Florida, shall be submitted with the record set of plans and tracings.

- D. Design notes and calculations shall include, but are not necessarily limited to, the following data:
1. Field survey notes and computations.
 2. Design criteria used for the project.
 3. Geometric design calculations for horizontal alignment.
 4. Vertical geometry calculations.
 5. Drainage calculations
 6. Structural design calculations.
 7. Geotechnical report.
 8. Hydraulics Report for each bridged stream crossing.
 9. Earthwork calculations not included in the quantity computation booklet.
 10. Calculations showing cost comparisons of various alternatives considered, if applicable
 11. Computations of quantities.
 12. Documentation of decisions reached resulting from meetings, telephone conversations, or site visits.
 13. Lighting and voltage drop calculations.
 14. Lighting service letter from the power company stating the following: service voltage, type of service (overhead or underground), location of power company service point, and any other power company requirements.

7.13 Reviews and Submittals

- A. Review and coordination of the Consultant's work by CFX shall continue through the project development process
- B. Formal submittals for review shall be made to CFX when the plans have been developed to the following levels of completion:

1. Preliminary Engineering (Memorandum) (1 CD/DVD with all files in pdf format, and three (3) hard copy sets)
 2. 30% Roadway Plans (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX GEC and two (2) hard copies of plans to the CFX project manager)
 3. 30% Bridge and Structural Plans (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX GEC and two (2) hard copies of plans to the CFX project manager)
 4. 60% Roadway and specifications, Geotechnical Report (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX GEC and two (2) hard copies of plans to the CFX project manager)
 5. 60% Bridge Plans required only on Category 2 bridges.
 6. 90% Bridge and Structural Plans (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX GEC and two (2) hard copies of plans to the CFX project manager)
 7. 90% Roadway and specifications (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX GEC and two (2) hard copies of plans to the CFX project manager)
 8. 100% Roadway, Bridge and specifications, Geotechnical Report (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX GEC and two (2) hard copies of plans to the CFX project manager)
 9. Pre-Bid Plans (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX GEC and two (2) hard copies of plans to the CFX project manager)
 10. Bid Set (1 set signed and sealed plans, 1 set "clean" plans, 1 set signed and sealed reports and one (1) CD/DVD with .PDF of all plans and reports)
- C. Formal review submittals shall include copies as listed above. 8-1/2" x 11" and 11" x 17" documents do not require reproducible copies.
- D. Preparation and distribution of roadway and ROW plans to other than CFX or CFX GEC will not be made until approved by CFX.
- E. The format of review submittal plans shall conform to the FDOT Design Manual, except as amended by CFX.
- F. Due to the compact schedule of the design, review, and construction

process, any modification to the agreed submittal dates will require a letter from the Consultant to CFX giving:

1. The reason for the delay.
 2. The design components impacted.
 3. Proposed methods to maintain submittal dates.
- G. The Consultant shall submit all CADD files, including GEOPAK files, use in the preparation of the plans and right of way mapping on compact disk with the final submittal.

7.14 30% Roadway Plan Submittal

- A. At the completion of this phase, design and plan development should be approximately 30 percent complete except stormwater pond designs. The designs of the stormwater ponds shall be at 90% complete. The following material shall be developed and submitted for review:
1. Key Map Prepared
 - a. Location map shown complete with destinations, ranges and townships.
 - b. Beginning and ending stations shown.
 - c. Any equations on project shown.
 - d. Project numbers and title shown.
 - e. Index shown.
 2. Drainage Map Prepared
 - a. Existing culvert sizes and elevations.
 - b. Horizontal alignment shown.
 - c. Drainage areas and flow arrows shown.
 - d. High water information shown.
 - e. Beginning and end stations shown along with any equations on project.
 - f. Interchange supplemental maps prepared.
 3. Typical Section Sheets
 - a. Ramp typical sections developed.
 - b. Pavement structure shown.
 - c. Special details developed.
 - d. General notes shown.
 4. Plan and Profile Sheets
 - a. Centerline plotted.

- b. Reference points and bench marks shown.
 - c. Existing topography.
 - d. Base line of surveys, curve data, bearings, etc. shown.
 - e. Beginning and end stations (project and construction).
 - f. Geometric dimensions.
 - g. Proposed and existing limited access right-of-way lines.
 - h. Existing ground line.
 - i. Proposed profile grade.
 - j. Type, size and horizontal location of existing utilities.
 - k. Drainage structures and numbers are shown
 - l. Drainage ponds are shown.
5. Cross Sections
- a. Existing ground line.
 - b. Preliminary templates at critical locations (not to exceed 500 feet).
 - c. Existing utilities shown.
6. Interchange Layout and Ramp Profiles
- a. Geometric dimensions.
 - b. Proposed profile grades.
7. Right-of-Way Control Survey
8. Signing and Pavement Markings
- a. Striping layout.
 - b. Sign structure locations.

7.15 30% Bridge and Structural Plan Submittal

- A. At completion of this phase, design and plan development should be approximately 30 percent complete. The Consultant shall refer to FDOT Structural Design Guidelines for plan contents and submittal requirements. Preliminary geotechnical results and recommendations should also be included with this submittal.

7.16 60% Roadway Plan Submittal

- A. At completion of this phase, design and plan development should be approximately 60 percent complete except stormwater pond designs. The designs of the stormwater ponds shall be at 100% complete. The following material shall be developed and submitted for review:
 - 1. Key Map
 - a. Project description and number shown.

- b. Equations, exceptions and bridge stations shown.
 - c. North arrow and scale included.
 - d. Consultant and CFX sign-off included.
 - e. Contract set index complete.
 - f. Index of sheets updated.
2. Drainage Maps
- a. Flood data shown.
 - b. Cross drains and storm sewer shown.
 - c. Bridges shown with beginning and ending stations.
 - d. Interchange supplemental sheets updated.
3. Typical Section Sheets
- a. All required typical sections are included.
 - b. Limited access right-of-way lines are shown.
 - c. Design speed and traffic are shown.
 - d. Special details have been completed.
 - e. Station limits of each typical section are shown.
4. Plan and Profile Sheets
- a. Match lines shown.
 - b. Limited access right-of-way lines shown.
 - c. Stations and offset shown for all fence corners and angles.
 - d. All work shown should be within right-of-way or proposed easement.
 - e. Drainage structures and numbers are shown.
 - f. Drainage ponds shown.
 - g. Curve data and superelevation included.
 - h. Pavement edges, shoulders and dimensions shown.
 - i. Project and construction limits shown.
 - j. Bridges shown with beginning and ending stations.
 - k. General Notes.
5. Drainage Structures
- a. Drainage structures plotted and numbered.
 - b. Station location and offsets identified.
6. Cross Sections
- a. Templates are shown at all stations.
 - b. Limited access right-of-way lines are shown.
 - c. Cross section pattern sheet included.
 - d. Miscellaneous notes included.
 - e. Boring profiles.
7. Interchange Layouts, Ramp Profiles and Intersection Details

- a. Geometric data shown.
 - b. Profiles finalized.
 - c. Coordinate data shown.
 - d. Limited access right-of-way lines shown.
 - e. Curve data shown.
 - f. Bearings and bridges shown.
 - g. Cross roads, frontage roads, and access roads shown.
 - h. Intersection details shown.
- 8. Traffic Control Plans
 - 9. Utility Adjustments
 - 10. Signing and Pavement Marking Plans
 - 11. Intelligent Transportation System (ITS) Plans
 - 12. Highway Lighting Plans
 - 13. Selective Clearing and Grubbing (if required)

7.17 90 % Bridge and Structure Plan Submittal

- A. At completion of this phase, design and plan development should be approximately 90 percent complete. The Consultant shall refer to FDOT Structural Design Guidelines for plan contents and submittal requirements.

7.18 90% Roadway Plan Submittal

- A. At completion of this phase, design and plan development should be approximately 90 percent complete. The following material shall be developed and submitted for review:
 - 1. Key Map
 - a. Length of Project with exceptions shown.
 - b. Index of sheets updated.
 - 2. Drainage Maps
 - a. Drainage divides, areas and flow arrows shown.
 - b. Elevation datum and design high water information shown.
 - c. Disclaimer and other appropriate notes added.
 - 3. Typical Section Sheets
 - 4. Plan and Profile Sheets
 - a. Curve Control Points (P.C., P.I., P.T.) flagged and labeled.


- b. Limits of side road construction.
 - c. Angle and stationing for intersections.
 - d. Treatment for non-standard superelevation transitions diagramed.
 - e. General notes shown.
 - f. Special ditches profiled.
5. Drainage Structures
- a. Existing structures requiring modifications are shown.
 - b. Existing and proposed utilities are shown.
6. Soil Borings
- a. Soils data and estimated high seasonal groundwater table shown.
7. Cross Section Sheets
- a. Scale and special ditch grades shown.
 - b. Utilities plotted.
 - c. Sub-excavation shown.
 - d. Volumes computed and shown.
8. Utility Relocation Plans
- a. Utility relocation plans prepared.
9. Traffic Control Plans
10. Signing and Pavement Marking Plans
11. Signalization Plans
12. Intelligent Transportation System (ITS) Plans
13. Highway Lighting Plans
14. Selective Clearing and Grubbing (if required)
- 7.19 100% Roadway, Bridge, Structural and Right-of-Way Plans**
- A. At the completion of this phase, the design plans and special provisions shall be 100 percent complete.
- 7.20 Pre-Bid Plans**
- 7.21 Bid Set**

**CONSENT AGENDA ITEM
#7**

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

MEMORANDUM

TO: CFX Board Members

FROM: Aneth Williams
Director of Procurement 
Aneth Williams (Jun 4, 2020 14:04 EDT)

DATE: June 1, 2020

SUBJECT: Approval of Contract Award to RS&H, Inc.
for Project Development and Environment (PD&E) Study for the Northeast
Connector Expressway Phase 1
Project 599-228, Contract No. 001546

The Board approved on August 8, 2019, final rankings and authorization for fee negotiations with firms for Project Development and Environment (PD&E) Study for the Northeast Connector Expressway Phase 1. Negotiations with RS&H, Inc. have been completed. Board award of the contract to RS&H, Inc. is requested in the amount of \$940,000.00. The contract is for five (5) years with five one-year renewals.

This project is included in the Five-Year Work Plan.

Reviewed by 

Will Hawthorne, PE
Director of Engineering


Glenn Prossimone (Jun 4, 2020 15:29 EDT)

AGREEMENT

**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
AND
RS&H, INC.**

**NORTHEAST CONNECTOR EXPRESSWAY PHASE 1
PROJECT DEVELOPMENT AND ENVIRONMENTAL
(PD&E) STUDY**

CONTRACT NO. 001546, PROJECT 599-228

**CONTRACT DATE: JUNE 11, 2020
CONTRACT AMOUNT: \$940,000.00**

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

**AGREEMENT, SCOPE OF SERVICES, METHOD OF
COMPENSATION, DETAILS OF COSTS AND FEES,
PROJECT ORGANIZATIONAL CHART, PROJECT
LOCATION MAP, SCHEDULE, AND POTENTIAL
NON-CONFLICT DISCLOSURE FORM**

**AGREEMENT, SCOPE OF SERVICES, METHOD OF COMPENSATION, DETAILS OF
COSTS AND FEES, PROJECT ORGANIZATIONAL CHART, PROJECT LOCATION
MAP, SCHEDULE, AND POTENTIAL NON-CONFLICT DISCLOSURE FORM**

FOR

**NORTHEAST CONNECTOR EXPRESSWAY PHASE 1 PROJECT DEVELOPMENT
AND ENVIRONMENTAL (PD&E) STUDY**

CONTRACT NO. 001546, PROJECT 599-228

JUNE 2020

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

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CENTRAL FLORIDA EXPRESSWAY AUTHORITY
AGREEMENT FOR PROFESSIONAL SERVICES

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**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
AGREEMENT FOR PROFESSIONAL SERVICES**

THIS AGREEMENT, made and entered into this 13th day of February 2020, by and between the CENTRAL FLORIDA EXPRESSWAY AUTHORITY, a corporate body and agency of the State of Florida, created by Chapter 2014-171, Laws of Florida, which is codified in Chapter 348, Part III of the Florida Statutes, hereinafter "CFX," and RS&H, Inc., hereinafter called "CONSULTANT," registered and authorized to conduct business in the State of Florida, carrying on professional practice in engineering, with offices located at 301 E. Pine Street, Suite 350, Orlando, FL. 32801.

WITNESSETH:

WHEREAS, CONSULTANT represents that it is fully qualified and authorized to render the professional services contracted herein.

NOW, THEREFORE, in consideration of the mutual understandings and covenants set forth herein, CFX and CONSULTANT agree as follows:

1.0. DEFINITIONS.

Reference herein to the Project Manager shall mean CFX's Director of Engineering or his authorized designee. The Project Manager shall provide the management and technical direction for this Agreement on behalf of CFX. All technical and administrative provisions of this Agreement shall be managed by the Project Manager and the CONSULTANT shall comply with all of the directives of the Project Manager that are within the purview of this Agreement. Decisions concerning Agreement amendments and adjustments, such as time extensions and supplemental agreements shall be made by the Project Manager.

2.0. SERVICES TO BE PROVIDED

CFX does hereby retain the CONSULTANT to furnish certain professional services in connection with the Northeast Connector Expressway - Phase 1 Project Development and Environmental Study identified as Project 599-228 and Contract No. 001546.

The CONSULTANT and CFX mutually agree to furnish, each to the other, the respective services, information and items as described in **Exhibit "A"**, Scope of Services, attached hereto and made a part hereof.

Before rendering any of the services, any additions or deletions to the work described in **Exhibit "A"**, and before undertaking any changes or revisions to such work, the parties shall negotiate any necessary cost changes and shall enter into a Supplemental Amendment covering such modifications and the compensation to be paid therefore.

The work covered by this Agreement as described in **Exhibit "A,"** includes the preparation of a project development and environmental study for the Northeast Connector Expressway - Phase 1. A Supplemental Agreement will be required for the additional work.

All documents, reports, studies and other data prepared by the CONSULTANT shall bear the endorsement of a person in the full employ of the CONSULTANT and duly registered by the State of Florida in the appropriate professional category.

After the CFX's acceptance of the documents for the project, the original set of CONSULTANT's drawings, tracings, plans, maps and CADD files shall be provided to CFX, along with one record set of the final report. The CONSULTANT shall signify, by affixing an endorsement (seal/signature, as appropriate) on the cover sheet of the record set, that the work shown in the report was produced by the CONSULTANT.

The CONSULTANT shall submit a final set of reports and studies which shall be endorsed (seal/signature) by the CONSULTANT.

The CONSULTANT shall not be liable for use by CFX of said plans, documents, reports, studies or other data for any purpose other than intended by the terms of this Agreement.

This Agreement is considered a non-exclusive Agreement between the parties.

3.0. TERM OF AGREEMENT AND RENEWALS

Unless otherwise provided herein or by Supplemental Agreement, the provisions of this Agreement will remain in full force and effect for a five (5) year term from the date of the Notice to Proceed for the required project services as detailed in **Exhibit "A,"** with five one-year renewals at CFX's option. The options to renew are at the sole discretion and election of CFX. Renewals will be based, in part, on a determination by CFX that the value and level of service provided by the CONSULTANT are satisfactory and adequate for CFX's needs. If a renewal option is exercised, CFX will provide CONSULTANT with written notice of its intent at least thirty (30) days prior to the expiration of the original term and subsequent renewal, if any.

The CONSULTANT agrees to commence the scheduled project services to be rendered within ten (10) calendar days from the date specified in the written Notice to Proceed from the Project Manager, which Notice to Proceed will become part of this Agreement. The CONSULTANT shall complete scheduled project services within the timeframe(s) specified in **Exhibit "A,"** or as may be modified by subsequent Supplemental Agreement.

4.0. PROJECT SCHEDULE

The CONSULTANT agrees to provide Project Schedule progress reports in a format acceptable to CFX and at intervals established by CFX. CFX will be entitled at all times to be advised, at its request, as to the status of work being done by the CONSULTANT and of the details thereof. Coordination shall be maintained by the CONSULTANT with representatives of CFX, or of other agencies interested in the project on behalf of CFX. Either party to the Agreement may request and be granted a conference.

In the event there are delays on the part of CFX as to the approval of any of the materials submitted by the CONSULTANT or if there are delays occasioned by circumstances beyond the control of the CONSULTANT, which delay the scheduled project completion date, CFX may grant to the CONSULTANT by "Letter of Time Extension" an extension of the scheduled project completion date equal to the aforementioned delays. The letter will be for time only and will not include any additional compensation.

It shall be the responsibility of the CONSULTANT to ensure at all times that sufficient time remains within the project schedule within which to complete the services on the project. In the event there have been delays which would affect the scheduled project completion date, the CONSULTANT shall submit a written request to CFX which identifies the reason(s) for the delay, the amount of time related to each reason and specific indication as to whether or not the delays were concurrent with one another. CFX will review the request and make a determination as to granting all or part of the requested extension.

In the event the scheduled project completion date is reached, and the CONSULTANT has not requested, or if CFX has denied, an extension of the completion date, partial progress payments will be stopped when the scheduled project completion date is met. No further payment for the project will be made until a time extension is granted or all work has been completed and accepted by CFX.

5.0. PROFESSIONAL STAFF

The CONSULTANT shall maintain an adequate and competent professional staff to enable the CONSULTANT to timely perform under this Agreement. The CONSULTANT shall continue to be authorized to do business within the State of Florida. In the performance of these professional services, the CONSULTANT shall use that degree of care and skill ordinarily exercised by other similar professionals in the field under similar conditions in similar localities. The CONSULTANT shall use due care in performing in a design capacity and shall have due regard for acceptable standards of design principles. The CONSULTANT may associate with it such specialists, for the purpose of its services hereunder, without additional cost to CFX, other than those costs negotiated within the limits and terms of this Agreement. Should the CONSULTANT desire to utilize specialists, the CONSULTANT shall be fully responsible for satisfactory completion of all subcontracted work. The CONSULTANT, however, shall not sublet, assign or transfer any work under this Agreement to other than the associate consultants listed below without the written consent of CFX. It is understood and agreed that CFX will not, except for such services so designated herein, permit or authorize the CONSULTANT to perform less than the total contract work with other than its own organization.

Prior to retaining a subconsultant, or assigning any work to a subconsultant, the CONSULTANT shall verify that the subconsultant does not have any conflicts and acknowledges its duty to comply with CFX's Code of Ethics. The CONSULTANT shall ensure that each subconsultant adheres to, and cause all subconsultants to be bound by, all requirements, conditions, and standards set forth herein. The CONSULTANT shall collect and maintain the necessary subconsultant compliance and acknowledgement documentation and remove any subconsultant immediately, if the necessary said documentation is unavailable or the subconsultant is not adhering to the requirements and standards

herein. The CONSULTANT shall provide subconsultant compliance and acknowledgement documentation to CFX upon request.

The approved subconsultants are:

CLASS I

The Balmoral Group, LLC

Southeastern Archaeological Research, Inc.

CLASS II

Geotechnical and Environmental Consultants, Inc.

Myra Planning & Design, LLC

CONSULTANT shall not further sublet, sell, transfer, assign, delegate, subcontract, or otherwise dispose of this Contract or any portion thereof, or of the CONSULTANT's right, title, or interest therein without the written consent of CFX, which may be withheld in CFX's sole and absolute discretion. Any attempt by CONSULTANT to dispose of this Contract as described above, in part or in whole, without CFX's written consent shall be null and void and shall, at CFX's option, constitute a default under the Contract.

If, during the term of the Contract, CONSULTANT desires to subcontract any portion(s) of the work to a subconsultant that was not disclosed by the CONSULTANT to CFX at the time that the Contract was originally awarded, and such subcontract would, standing alone or aggregated with prior subcontracts awarded to the proposed subconsultant, equal or exceed twenty five thousand dollars (\$25,000.00), the CONSULTANT shall first submit a request to CFX's Director of Procurement for authorization to enter into such subcontract. Except in the case of an emergency, as determined by the Executive Director or his/her designee, no such subcontract shall be executed by the CONSULTANT until it has been approved by CFX Board. In the event of a designated emergency, the CONSULTANT may enter into such a subcontract with the prior written approval of the Executive Director or his/her designee, but such subcontract shall contain a provision that provides that it shall be automatically terminated if not approved by CFX Board at its next regularly scheduled meeting.

6.0. COMPENSATION

CFX agrees to pay the CONSULTANT compensation as detailed in **Exhibit "B"**, Method of Compensation, attached hereto and made a part hereof, in the not-to-exceed amount of \$940,000.00 for the initial five-year term of this Agreement. Bills for fees or other compensation for services or expenses shall be submitted to CFX in detail sufficient for a proper pre-audit and post audit thereof.

The CONSULTANT may be liable for CFX costs resulting from errors or deficiencies in the report furnished under this Agreement. CFX may enforce such liability and collect the amount due if the recoverable cost will exceed the administrative cost involved or is otherwise in CFX's best interest. Records of costs incurred by the CONSULTANT under terms of this Agreement shall be maintained and made available upon request to CFX at all times during the period of this Agreement and for five (5) years after final payment is made. Copies of these documents and records shall be furnished to CFX upon request. The CONSULTANT agrees to incorporate the provisions of this paragraph in any subcontract into which it might enter with reference to the work performed. Records of costs incurred includes the CONSULTANT's general accounting records and the project records, together with

supporting documents and records, of the CONSULTANT and all subconsultants performing work on the project, and all other records of the CONSULTANT and subconsultants considered necessary by CFX for a proper audit of project costs. The obligations in this paragraph shall survive the termination of the Agreement and continue in full force and effect.

The general cost principles and procedures for the negotiation and administration, and the determination or allowance of costs under this Agreement shall be as set forth in the Code of Federal Regulations, Titles 23, 48, 49, and other pertinent Federal and State Regulations, as applicable, with the understanding that there is no conflict between State and Federal regulations in that the more restrictive of the applicable regulations will govern. Whenever travel costs are included in **Exhibit "B"**, the provisions of Section 112.061, Florida Statutes, shall govern as to reimbursable costs.

Payments shall be made in accordance with the Local Government Prompt Payment Act in part VII, Section 218, Florida Statutes.

7.0. DOCUMENT OWNERSHIP AND RECORDS

All plans, documents, reports, studies, and/or other data prepared or obtained under this Agreement shall be considered instruments made for services and shall become the property of CFX without restriction or limitation on their use on this project; and shall be made available, upon request, to CFX at any time. CFX will have the right to visit the site for inspection of the work and the drawings of the CONSULTANT at any time. Unless changed by written agreement of the parties, said site shall be 301 E. Pine Street, Suite 350, Orlando, FL. 32801.

Notwithstanding Section 17, entitled "Communications, Public Relations, and Use of Logos," CONSULTANT acknowledges that CFX is a body politic and corporate, an agency of the State of Florida, and is subject to the Public Records Act codified in Chapter 119, Florida Statutes. To the extent that the CONSULTANT is in the possession of documents that fall within the definition of public records subject to the Public Records Act, which public records have not yet been delivered to CFX, CONSULTANT agrees to comply with Section 119.0701, Florida Statutes.

IF THE CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONSULTANT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT Phone: 407-690-5000, e-mail: publicrecords@cfxway.com, and address: Central Florida Expressway Authority, 4974 ORL Tower Road, Orlando, FL. 32807.

An excerpt of Section 119.0701, Florida Statutes is below.

Per Section 119.0701(1), "Contractor" means an individual, partnership, corporation, or business entity that enters into a contract for services with a public agency and is acting on behalf of the public agency as provided under s. 119.011(2).

Per Section 119.0701(b). The contractor shall comply with public records laws, specifically to:

1. Keep and maintain public records required by the public agency to perform the service.
2. Upon request from the public agency's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in this chapter or as otherwise provided by law.
3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the public agency.
4. Upon completion of the contract, transfer, at no cost, to the public agency all public records in possession of the contractor or keep and maintain public records required by the public agency to perform the service. If the contractor transfers all public records to the public agency upon completion of the contract, the contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the contractor keeps and maintains public records upon completion of the contract, the contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the public agency, upon request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.

The CONSULTANT shall allow public access to all documents, papers, letters, or other material as approved and authorized by CFX and subject to the provisions of Chapter 119, Florida Statutes, and made or received by the CONSULTANT in conjunction with this Agreement. Failure by the CONSULTANT to grant such public access shall be grounds for immediate unilateral cancellation of this Agreement by CFX.

The obligations in Section 7.0, Document Ownership and Records, shall survive the expiration or termination of this Agreement and continue in full force and effect.

8.0. COMPLIANCE WITH LAWS

The CONSULTANT shall comply with all federal, state and local laws and ordinances applicable to the work or payment for work thereof, and shall not discriminate on the grounds of race, color, religion, sex, or national origin in the performance of work under this contract.

The CONSULTANT shall keep fully informed regarding and shall fully and timely comply with all current laws and future laws that may affect those engaged or employed in the performance of this Agreement.

8.1 Limitation of Liability: Pursuant to SECTION 558.0035(1)(d), Florida Statutes, CONSULTANT maintains any professional liability insurance required under this contract. Therefore, pursuant to Section 558.0035(1)(c), Florida Statutes, an individual employee or agent of the CONSULTANT may not be held individually liable for damages resulting from negligence occurring within the course and scope of professional services rendered under this professional services contract

9.0. WAGE RATES AND TRUTH-IN-NEGOTIATIONS CERTIFICATE

The CONSULTANT hereby certifies, covenants and warrants that wage rates and other factual unit costs as shown in attached **Exhibit "C"**, Details of Costs and Fees, supporting the compensation provided in Section 6.0 are accurate, complete and current as of the date of this Agreement. It is further agreed that said price provided in Section 6.0 hereof shall be adjusted to exclude any significant sums where CFX shall determine the price was increased due to inaccurate, incomplete or non-current wage rates and other factual unit costs. All such adjustments shall be made within one year following the date of final billing or acceptance of the work by CFX, whichever is later.

10.0. TERMINATION

CFX may terminate this Agreement in whole or in part, for any reason or no reason, at any time the interest of CFX requires such termination.

If CFX determines that the performance of the CONSULTANT is not satisfactory, CFX shall have the option of (a) immediately terminating in writing the Agreement or (b) notifying the CONSULTANT in writing of the deficiency with a requirement that the deficiency be corrected within a specified time, otherwise the Agreement will be terminated at the end of such time.

If CFX requires termination of the Agreement for reasons other than unsatisfactory performance of the CONSULTANT, CFX shall notify the CONSULTANT in writing of such termination, not less than seven (7) calendar days as to the effective date of termination or specify the stage of work at which the Agreement is to be terminated.

If CFX abandons the work or subtracts from the work, suspends, or terminates the Agreement as presently outlined, the CONSULTANT shall be compensated in accordance with **Exhibit "B"** for work properly performed by the CONSULTANT prior to abandonment or termination of the Agreement. The ownership of all engineering documents completed or partially completed at the time of such termination or abandonment, shall be transferred to and retained by CFX.

CFX reserves the right to cancel and terminate this Agreement in the event the CONSULTANT or any employee, servant, or agent of the CONSULTANT is indicted or has a direct information issued against him for any crime arising out of or in conjunction with any work being performed by the CONSULTANT for or on behalf of CFX, without penalty. It is understood and agreed that in the event of such termination, all tracings, plans, specifications, maps, and data prepared or obtained under this Agreement shall immediately be turned over to CFX. The CONSULTANT shall be compensated for work properly performed rendered up to the time of any such termination in accordance with Section 7.0 hereof. CFX also reserves the right to terminate or cancel this Agreement in the event the

CONSULTANT shall be placed in either voluntary or involuntary bankruptcy or an assignment be made for the benefit of creditors. CFX further reserves the right to suspend the qualifications of the CONSULTANT to do business with CFX upon any such indictment or direct information. In the event that any such person against whom any such indictment or direct information is brought shall have such indictment or direct information dismissed or be found not guilty, such suspension on account thereof may be lifted by CFX.

11.0. ADJUSTMENTS

All services shall be performed by the CONSULTANT to the reasonable satisfaction of the Project Manager who shall decide all questions, difficulties and dispute of any nature whatsoever that may arise under or by reason of this Agreement, the prosecution and fulfillment of the services hereunder and the character, quality, amount and value thereof. Adjustments of compensation and term of the Agreement, because of any major changes in the work that may become necessary or desirable as the work progresses, shall be left to the absolute discretion of the Executive Director and Supplemental Agreement(s) of such a nature as required may be entered into by the parties in accordance herewith. Disputes between the Project Manager and the CONSULTANT that cannot be resolved shall be referred to the Executive Director whose decision shall be final.

In the event that the CONSULTANT and CFX are not able to reach an agreement as to the amount of compensation to be paid to the CONSULTANT for supplemental work desired by CFX, the CONSULTANT shall be obligated to proceed with the supplemental work in a timely manner for the amount determined by CFX to be reasonable. In such event, the CONSULTANT will have the right to file a claim with CFX for such additional amounts as the CONSULTANT deems reasonable for consideration by the Executive Director; however, in no event will the filing of the claim or the resolution or litigation thereof, through administrative procedures or the courts, relieve the CONSULTANT from the obligation to timely perform the supplemental work.

12.0. HOLD HARMLESS AND INDEMNIFICATION, SOVEREIGN IMMUNITY

The CONSULTANT shall indemnify and hold harmless CFX, and its officers and employees from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the CONSULTANT and other persons employed or utilized by the design professional in the performance of the Agreement.

Subject to the provisions and limitations set forth in law, the CONSULTANT expressly agrees to indemnify, defend, and hold harmless CFX, and its officers, and employees, from any claim, liabilities, losses, damages, and costs, including, but not limited to, reasonable attorneys' fees, arising from any act, error or omission of the CONSULTANT and other persons employed or utilized by the CONSULTANT in the performance of the Agreement, except that the CONSULTANT will not be liable under this paragraph for claims of, or damages resulting from, gross negligence, or willful, wanton or intentional misconduct of CFX, its officers, or employees during the performance of the Agreement.

When CFX receives a notice of claim for damages that may have been caused by the CONSULTANT in the performance of services required by the CONSULTANT under this Agreement,

CFX will immediately forward the notice of claim to the CONSULTANT. The CONSULTANT and the AUTHORITY will evaluate the notice of claim and report their findings to each other within fourteen (14) calendar days.

In the event a lawsuit is filed against CFX alleging negligence or wrongdoing by the CONSULTANT, CFX and the CONSULTANT will jointly discuss options in defending the lawsuit. After reviewing the lawsuit, CFX will determine whether to request the participation of the CONSULTANT in the defense of the lawsuit or to request that the CONSULTANT defend CFX in such lawsuit as described in this section. CFX's failure to notify the CONSULTANT of a notice of claim will not release the CONSULTANT from any of the requirements of this section upon subsequent notification by CFX to the CONSULTANT of the notice of claim or filing of a lawsuit. CFX and the CONSULTANT will pay their own cost for the evaluation, settlement negotiations and trial, if any. However, if only one party participates in the defense of the claim at trial, that party is responsible for all of its costs, but if the verdict determines that there is joint responsibility, the costs of defense and liability for damages will be shared in the same percentage as that judicially established, provided that CFX's liability does not exceed the limits and limitations arising from Section 768.28, Florida Statutes, the doctrine of sovereign immunity, and law.

CFX is an agency of the State of Florida whose limits of liability are set forth in Section 768.28, Florida Statutes, and nothing herein shall be construed to extend the limits of liability of CFX beyond that provided in Section 768.28, Florida Statutes. Nothing herein is intended as a waiver of CFX's sovereign immunity under Section 768.28, Florida Statutes, or law. Nothing hereby shall inure to the benefit of any third party for any purpose, which might allow claims otherwise barred by sovereign immunity or operation of law. Furthermore, all of CFX's obligations are limited to the payment of no more than the amount limitation per person and in the aggregate contained in Section 768.28, Florida Statutes, except for payments for work properly performed, even if the sovereign immunity limitations of that statute are not otherwise applicable to the matters as set forth herein.

The obligations in Section 12.0, Hold Harmless and Indemnification, shall survive the expiration or termination of this Agreement and continue in full force and effect.

13.0. INFRINGEMENT OF PATENTS AND COPYRIGHTS

The CONSULTANT shall pay all royalties and assume all costs arising from the use of any invention, design, process materials, equipment, product or device which is the subject of patent rights or copyrights. The CONSULTANT shall, at its expense, hold harmless and defend CFX against any claim, suit or proceeding brought against CFX which is based upon a claim, whether rightful or otherwise, that the goods or services, or any part thereof, furnished under this Agreement, constitute an infringement of any patent or copyright of the United States. The CONSULTANT shall pay all damages and costs awarded against CFX. The obligations in Section 13.0, Infringement of Patents and Copyrights, shall survive the expiration or termination of this Agreement and continue in full force and effect.

14.0. INSURANCE

The CONSULTANT, at its own expense, shall keep in force and at all times maintain during the

term of this Agreement all insurance of the types and to the limits specified herein.

The CONSULTANT shall require and ensure that each of its subconsultants providing services hereunder procures and maintains, until the completion of the services, insurance of the requirements, types and to the limits specified herein. Upon request from CFX, the CONSULTANT shall furnish copies of certificates of insurance and endorsements evidencing coverage of each subconsultant.

The CONSULTANT shall require all insurance policies in any way related to the work and secured and maintained by the CONSULTANT to include clauses stating each underwriter shall waive all rights of recovery, under subrogation or otherwise, against CFX. The CONSULTANT shall require of subconsultants, by appropriate written agreements, similar waivers each in favor of all parties enumerated in this section. When required by the insurer, or should a policy condition not permit an endorsement, the CONSULTANT agrees to notify the insurer and request that the policy(ies) be endorsed with a Waiver of Transfer of Rights of Recovery Against Others, or an equivalent endorsement.

This Waiver of Subrogation requirement shall not apply to any policy, which includes a condition that specifically prohibits such an endorsement or voids coverage should the CONSULTANT enter into such an agreement on a pre-loss basis. At the CONSULTANT's expense, all limits must be maintained.

14.1 Commercial General Liability coverage shall be on an occurrence form policy for all operations including, but not limited to, Contractual, Products and Completed Operations, and Personal Injury. The limits shall be not less than One Million Dollars (\$1,000,000) per occurrence, Combined Single Limits (CSL) or its equivalent. The general aggregate limit shall apply separately to this Agreement (with the ISO CG 25 01 or insurer's equivalent endorsement provided to CFX) or the general aggregate limit shall be twice the required occurrence limit. CFX shall be listed as an additional insured. ISO Form CG 20 10 11 85 or if not available, ISO Forms CG 20 10 10 01 and CG 20 37 10 01, or if not available, their equivalent acceptable to CFX, shall be used to meet these requirements and a photocopy of same shall be provided with the Certificate. The CONSULTANT further agrees coverage shall not contain any endorsement(s) excluding or limiting Product/Completed Operations, Independent Consultants, Broad Form Property Damage, X-C-U Coverage, Contractual Liability, or Severability of Interests. The Additional Insured Endorsement included on all such insurance policies shall state that coverage is afforded the additional insured with respect to claims arising out of operations performed by or on behalf of the insured. If the additional insureds have other insurance which is applicable to the loss, such other insurance shall be excess to any policy of insurance required herein. The amount of the insurer's liability shall not be reduced by the existence of such other insurance.

14.2 Business Automobile Liability coverage shall be on an occurrence form policy for all owned, non-owned and hired vehicles issued on ISO form CA 00 01 or its equivalent. The limits shall be not less than One Million Dollars (\$1,000,000) per occurrence/annual aggregate. In the event the CONSULTANT does not own automobiles the CONSULTANT shall maintain coverage for hired and non-owned auto liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

Each of the above insurance policies shall include the following provisions: (1) The standard severability of interest clause in the policy and when applicable the cross liability insurance coverage provision which specifies that the inclusion of more than one insured shall not operate to impair the rights of one insured against another insured, and the coverages afforded shall apply as though separate policies had been issued to each insured; (2) The stated limits of liability coverage for

Commercial/Comprehensive General Liability, and Business Automobile Liability, assumes that the standard "supplementary payments" clause will pay in addition to the applicable limits of liability and that these supplementary payments are not included as part of the insurance policies limits of liability.

14.3 Workers' Compensation and Employer's Liability Insurance shall be provided as required by law or regulation (statutory requirements). Employer's Liability insurance shall be provided in amounts not less than \$100,000 per accident for bodily injury by accident, \$100,000 per employee for bodily injury by disease, and \$500,000 policy limit by disease. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of CFX for all work performed by the CONSULTANT, its employees, agents and subconsultants.

14.4 Professional Liability Coverage shall have limits of not less than One Million Dollars (\$1,000,000) per claim / annual aggregate, protecting the selected firm or individual against claims of CFX for negligence, errors, mistakes or omissions in the performance of services to be performed and furnished by the CONSULTANT.

The CONSULTANT shall provide CFX with Certificate(s) of Insurance with required endorsements on all the policies of insurance and renewals thereof in a form(s) acceptable to CFX. CFX shall be notified in writing of any reduction, cancellation or substantial change of policy or policies at least thirty (30) days prior to the effective date of said action.

All insurance policies shall be issued by responsible companies who are acceptable to CFX and licensed to do business under the laws of the State of Florida. Each Insurance company shall minimally have an A.M. Best rating of A-VII. If requested by CFX, CFX shall have the right to examine copies and relevant provisions of the insurance policies required by this Agreement, subject to the appropriate confidentiality provisions to safeguard the proprietary nature of CONSULTANT manuscript policies.

In the event any of the aforementioned insurance policies provide greater coverage or greater limits than the minimum requirements set forth herein, then CFX shall be entitled to the full coverage and limits of such policies, and these insurance requirements will be deemed to require such greater coverage and greater limits.

Any deductible or self-insured retention must be declared to and approved by CFX. At the option of CFX, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as requests CFX, or the CONSULTANT shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

All such insurance required by the CONSULTANT shall be primary to, and not contribute with, any insurance or self-insurance maintained by CFX.

Compliance with these insurance requirements shall not relieve or limit the CONSULTANT's liabilities and obligations under this Agreement. Failure of CFX to demand such certificate or evidence of full compliance with these insurance requirements or failure of CFX to identify a deficiency from evidence provided will not be construed as a waiver of the CONSULTANT's obligation to maintain such insurance.

The acceptance of delivery by CFX of any certificate of insurance evidencing the required coverage and limits does not constitute approval or agreement by CFX that the insurance requirements have been met or the insurance policies shown in the certificates of insurance are in compliance with the requirements.

15.0. COMMUNICATIONS, PUBLIC RELATIONS, AND USE OF LOGOS

The CONSULTANT agrees that it shall make no statements, press releases or publicity releases concerning this Agreement or its subject matter or otherwise disclose or permit to be disclosed any of the data or other information obtained or furnished in compliance with this Agreement, or any particulars thereof, during the period of the Agreement, without first notifying CFX and securing its consent in writing, except as required by law. The CONSULTANT also agrees that it shall not publish, copyright or patent any of the data, documents, reports, or other written or electronic materials furnished in compliance with this Agreement, it being understood that, under Section 7.0 hereof, such data or information is the property of CFX.

Regarding the use of logos, printed documents and presentations produced for CFX shall not contain the name or logo of the CONSULTANT unless approved by CFX's Public Affairs Officer or his/her designee. Prior approval by CFX's Public Affairs Officer or his/her designee is required if a copy of the CFX logo or any CFX mark, including trademarks, service marks, or any other mark, collectively referred as "Marks," is to be used in a document or presentation. The Marks shall not be altered in any way. The width and height of the Marks shall be of equal proportions. If a black and white Mark is utilized, the Mark shall be properly screened to insure all layers of the Mark are visible. The proper presentation of CFX Marks is of utmost importance to CFX. Any questions regarding the use of CFX Marks shall be directed to the CFX Public Affairs Officer or his/her designee.

16.0. CONFLICT OF INTEREST AND STANDARD OF CONDUCT

No Contingent Fees. CONSULTANT warrants that it has not employed or retained any entity or person, other than a bona fide employee working solely for CONSULTANT, to solicit or secure this Contract, and that CONSULTANT has not paid or agreed to pay any person, company, corporation, individual or firm any fee, commission, percentage, gift or any other consideration, contingent upon or resulting from the award or making of this Contract. It is understood and agreed that the term "fee" shall also include brokerage fee, however denoted. For breach of this provision, CFX shall have the right to terminate this Contract without liability, and, at its discretion, to deduct from the contract price, or otherwise recover, the full amount of such fee, commission percentage, gift or consideration.

CONSULTANT acknowledges that CFX officials and employees are prohibited from soliciting and accepting funds or gifts from any person who has, maintains, or seeks business relations with CFX in accordance with CFX's Code of Ethics. CONSULTANT acknowledges that it has read the CFX's Code of Ethics and, to the extent applicable, CONSULTANT will comply with the aforesaid CFX's Code of Ethics in connection with performance of the Contract.

As required by Section 348.753, Florida Statutes, and CFX's Code of Ethics, CONSULTANT agrees to complete CFX's Potential Conflict Disclosure Form prior to the execution of the Contract, upon the occurrence of an event that requires disclosure, and annually, not later than July 1st.

CONSULTANT covenants and agrees that it and its employees, officers, agents, and subconsultants shall be bound by the standards of conduct provided in Section 112.313, Florida Statutes, as it relates to work performed under this Contract, which standards will be reference be made a part of this Contract as though set forth in full. The CONSULTANT agrees to incorporate the provisions of this

paragraph in any subcontract into which it might enter with reference to the work performed.

CONSULTANT hereby certifies that no officer, agent or employee of CFX has any "material interest" (as defined in Section 112.312(15), Florida Statutes) either directly or indirectly, in the business of CONSULTANT, and that no such person shall have any such interest at any time during the term of this Agreement.

The CONSULTANT shall not knowingly enter into any other contract with CFX during the term of this Agreement which would create or involve a conflict of interest with the services provided herein. Likewise, subconsultants shall not knowingly enter into any other contract with CFX during the term of this Agreement which would create or involve a conflict of interest with the service provided herein and as described below. Questions regarding potential conflicts of interest shall be addressed to the Executive Director for resolution.

During the term of this Agreement the CONSULTANT is NOT eligible to pursue any advertised construction engineering and inspection projects of CFX as either a prime or subconsultant where the CONSULTANT participated in the oversight of the projects or for any project which the CONSULTANT prepared plans and/or specifications. Subconsultants are also ineligible to pursue construction engineering and inspection projects where they participated in the oversight of the projects or for any project which the subconsultant was involved in the preparation of plans and/or specifications.

17.0. DOCUMENTED ALIENS

The CONSULTANT warrants that all persons performing work for CFX under this Agreement, regardless of the nature or duration of such work, shall be United States citizens or properly authorized and documented aliens. The CONSULTANT shall comply with all federal, state and local laws and regulations pertaining to the employment of unauthorized or undocumented aliens at all times during the performance of this Agreement and shall indemnify and hold CFX harmless for any violations of the same. Furthermore, if CFX determines that CONSULTANT has knowingly employed any unauthorized alien in the performance of this Agreement, CFX may immediately and unilaterally terminate this Agreement for cause.

The obligations in Section 17.0, Documented Aliens, shall survive the expiration or termination of this Agreement and continue in full force and effect.

18.0. E-VERIFY CLAUSE

CONSULTANT shall utilize the U.S. Department of Homeland Security's E-Verify System to verify the employment eligibility of all new employees hired by the CONSULTANT during the term of the contract. CONSULTANT shall require all of its subconsultants to verify the employment eligibility of all new employees hired by the subconsultants during the term of the Agreement.

19.0. INSPECTOR GENERAL

CONSULTANT agrees to comply with Section 20.055(5), Florida Statutes, and agrees to cooperate with the inspector general in any investigation, audit, inspection, review, or hearing pursuant to

this section. CONSULTANT agree to incorporate in all subcontracts the obligation to comply with Section 20.055(5). The obligations in this paragraph shall survive the expiration or termination of this Agreement and continue in full force and effect.

20.0. PUBLIC ENTITY CRIME INFORMATION AND ANTI-DISCRIMINATION STATEMENT

Pursuant to Section 287.133(2)(a), Florida Statutes,

“a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in s. 287.017 for CATEGORY TWO (\$35,000) for a period of 36 months following the date of being placed on the convicted vendor list.”

Pursuant to Section 287.134(2)(a), Florida Statutes, “an entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity.”

21.0. COMPANIES PURSUANT TO SECTION 287.135 AND 215.473

CFX may terminate this Agreement for breach of contract if the Consultant:

- 21.1. submitted a false certification as provided under Florida Statute 287.135(5); or
- 21.2. been placed on the Scrutinized Companies with Activities in Sudan List; or
- 21.3. been placed on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List; or
- 21.4. been engaged in business operations in Cuba or Syria; or
- 21.5. found to have been placed on the Scrutinized Companies that Boycott Israel List or is engaged in a boycott of Israel.

22.0. AVAILABILITY OF FUNDS

CFX's performance and obligation to pay under this Agreement are contingent upon an annual budget appropriation by its Board. The parties agree that in the event funds are not appropriated, this Agreement may be terminated, which shall be effective upon CFX giving notice to the CONSULTANT to that effect.

23.0. AUDIT AND EXAMINATION OF RECORDS

23.1 Definition of Records:

(i) "Contract Records" shall include, but not be limited to, all information, communications and data, whether in writing or stored on a computer, computer disks, microfilm, writings, working papers, drafts, computer printouts, field notes, charts or any other data compilations, books of account, photographs, videotapes and audiotapes supporting documents, any other papers or preserved data in whatever form, related to the Contract or the CONSULTANT's performance of the Contract determined necessary or desirable by CFX for any purpose. Proposal Records shall include, but not be limited to, all information and data, whether in writing or stored on a computer, writings, working papers, computer printouts, charts or other data compilations that contain or reflect information, data or calculations used by CONSULTANT in determining labor, unit price, or any other component of a bid submitted to CFX.

(ii) "Proposal Records" shall include, but not be limited to, any material relating to the determination or application of equipment rates, home and field overhead rates, related time schedules, labor rates, efficiency or productivity factors, arithmetic extensions, quotations from subcontractors, or material suppliers, profit contingencies and any manuals standard in the industry that may be used by CONSULTANT in determining a price.

23.2 CFX reserves and is granted the right (at any time and from time to time, for any reason whatsoever) to review, audit, copy, examine and investigate in any manner, any Contract Records (as herein defined) or Proposal Records (as hereinafter defined) of the CONSULTANT or any subcontractor.

By submitting a response to the Request for Proposal, CONSULTANT or any subcontractor submits to and agree to comply with the provisions of this section.

23.3 If CFX requests access to or review of any Contract Documents or Proposal Records and CONSULTANT refuses such access or review or delays such access or review for over ten (10) calendar days, CONSULTANT shall be in default under its Contract with CFX, and such refusal shall, without any other or additional actions or omissions, constitute grounds for suspension or disqualification of CONSULTANT. These provisions shall not be limited in any manner by the existence of any CONSULTANT claims or pending litigation relating to the Contract. Disqualification or suspension of the CONSULTANT for failure to comply with this section shall also preclude the CONSULTANT from acting in the future as a subcontractor of another contractor doing work for CFX during the period of disqualification or suspension. Disqualification shall mean the CONSULTANT is not eligible for and shall be precluded from doing future work for CFX until reinstated by CFX.

23.4 Final Audit for Project Closeout: The CONSULTANT shall permit CFX, at CFX's option, to perform or have performed, an audit of the records of the CONSULTANT and any or all

subconsultants to support the compensation paid the CONSULTANT. The audit will be performed as soon as practical after completion and acceptance of the contracted services. In the event funds paid to the CONSULTANT under the Contract are subsequently determined to have been inadvertently paid by CFX because of accounting errors or charges not in conformity with the Contract, the CONSULTANT agrees that such amounts are due to CFX upon demand. Final payment to the CONSULTANT shall be adjusted for audit results.

23.5 CONSULTANT shall preserve all Proposal Records and Contract Records for the entire term of the Contract and for a period of five (5) years after the later of: (i) final acceptance of the project by CFX, (ii) until all claims (if any) regarding the Contract are resolved, or (iii) expiration of the Proposal Records and Contract Records' status as public records, as and if applicable, under Chapter 119, Florida Statutes.

23.6 The obligations in Section 23.0, Audit and Examination of Records, shall survive the expiration or termination of this Agreement and continue in full force and effect.

24.0. GOVERNING LAW AND VENUE

This Agreement shall be governed by and constructed in accordance with the laws of the State of Florida. The parties consent to the exclusive jurisdiction of the courts located in Orange County, Florida.

The obligations in Section 24.0, Governing Law and Venue, shall survive the expiration or termination of this Agreement and continue in full force and effect.

25.0. NOTICE

All notices required pursuant to the terms hereof shall be sent by First Class United States Mail. Unless prior written notification of an alternate address for notices is sent, all notices shall be sent to the following addresses:

To CFX: Central Florida Expressway Authority
 4974 ORL Tower Road
 Orlando, FL 32807
 Attn: Chief of Infrastructure

 Central Florida Expressway Authority
 4974 ORL Tower Road
 Orlando, FL 32807
 Attn: General Counsel

To CONSULTANT: RS&H
301 E. Pine Street, Suite 350
Orlando, FL. 32801
Attn: Edward J. Gonzalez, P.E.

RS&H
301 E. Pine Street, Suite 350
Orlando, FL. 32801
Attn: Dan Kristoff, P.E.

26.0. HEADINGS

Headings are given to the sections of the Agreement solely as a convenience to facilitate reference. Such headings shall not be deemed in any way material or relevant to the construction or interpretation of the Agreement.

27.0. CONTRACT LANGUAGE AND INTERPRETATION

All words used herein in the singular form shall extend to and include the plural. All words used in the plural form shall extend to and include the singular. All words used in any gender shall extend to and include all genders.

References to statutes or regulations shall include all statutory or regulatory provisions consolidating, amending, or replacing the statute or regulation referred to. Words not otherwise defined that have well known technical or industry meanings, are used in accordance with such recognized meanings. References to persons include their respective functions and capacities.

If the CONSULTANT discovers any material discrepancy, deficiency, ambiguity, error, or omission in this Agreement, or is otherwise in doubt as to the meaning of any provision of the Agreement, the CONSULTANT shall immediately notify CFX and request clarification of CFX's interpretation of this Agreement.

The Agreement shall not be more strictly construed against either party hereto by reason of the fact that one party may have drafted or prepared any or all of the terms and provisions hereof.

28.0. ASSIGNMENT

This Agreement may not be assigned without the written consent of CFX.

29.0. SEVERABILITY

The invalidity or non-enforceability of any portion or provision of this Agreement shall not affect the validity or enforceability of any other portion or provision. Any invalid or unenforceable portion or provision shall be deemed severed from this Agreement and the balance hereof shall be construed and enforced as if this Agreement did not contain such invalid or unenforceable portion or provision.

30.0. INTEGRATION

This Agreement constitutes the entire agreement among the parties pertaining to the subject matter hereof and supersedes all prior and contemporaneous agreements, understandings, negotiations

and discussions of the parties, whether oral or written, and there are no other agreements between the parties in connection with the subject matter hereof. No waiver, amendment, or modification of these terms hereof will be valid unless in writing, signed by all parties and only to the extent therein set forth.

31.0. ATTACHMENTS

- Exhibit "A", Scope of Services
- Exhibit "B", Method of Compensation
- Exhibit "C", Details of Cost and Fees
- Exhibit "D", Project Organization Chart
- Exhibit "E", Project Location Map
- Exhibit "F", Project Schedule
- Exhibit "G", Potential Conflict Disclosure Form

[SIGNATURES TO FOLLOW]

IN WITNESS WHEREOF, the CONSULTANT and CFX have caused this instrument to be signed by their respective duly authorized officials, as of the day and year first above written. This Contract was awarded by CFX's Governing Board at its meeting on June 11, 2020.

RS&H, INC.

**CENTRAL FLORIDA
EXPRESSWAY AUTHORITY**

BY: _____
Authorized Signature

BY: _____
Director of Procurement

Print Name: _____

Print Name: _____

Title: _____

Effective Date: _____

ATTEST: _____ (Seal)
Secretary or Notary

Approved as to form and execution, only.

General Counsel for CFX

EXHIBIT A

SCOPE OF SERVICES

Central Florida Expressway Authority

Final

SCOPE OF SERVICES

Project Development and Environment (PD&E) Study

for the

**NORTHEAST CONNECTOR EXPRESSWAY PHASE 1
from Cyrils Drive to Nova Road (CR 532)**

CFX Project # 599-228

Contract # 001546

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SCOPE OF SERVICES FOR CONSULTING ENGINEERING SERVICES

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY

for the

NORTHEAST CONNECTOR EXPRESSWAY PHASE 1 from Cyrils Drive to Nova Road (CR 532)

This Exhibit forms an integral part of an agreement between the Central Florida Expressway Authority (hereinafter referred to as the CFX) and the selected planning and engineering firm (hereinafter referred to as the CONSULTANT) relative to the project described as follows:

DESCRIPTION

A new expressway connection between State Road (SR) 417 and Nova Road (CR 532) in Osceola County has been an identified need in several local long-range plans and master plans. CFX recently completed Concept, Feasibility, and Mobility Studies that included an assessment of new expressway connections through this area of East Central Florida. In addition, CFX is currently performing a PD&E Re-evaluation of the previously approved Osceola County Expressway Authority's Northeast Connector Expressway Phase 1 PD&E Study that proposed a connection from SR 417 to Sunbridge Parkway. This PD&E study will build upon two CFX Concept, Feasibility, and Mobility Studies that have recently been completed for potential expressway projects in this area. Specifically, this study will consider segments of the Osceola Parkway Extension and Northeast Connector Expressway studies to analyze and evaluate an approximately 4-mile new-location expressway connection from the proposed terminus of the Osceola Parkway Extension expressway at Cyrils Drive to Nova Road. The proposed Study Area for the project is depicted on **Attachment A**.

PURPOSE

The purpose of this Exhibit is to describe the scope of work and the responsibilities of the CONSULTANT, CFX, the CFX's general engineering consultant (GEC) Dewberry Engineers, the CFX's traffic and revenue consultant (T&RC) CDM Smith and the CFX public involvement consultant (PIC) Quest.

The Project Development process shall follow the Florida Department of Transportation's (FDOT) publication titled "Project Development and Environment Manual", current edition. The publication will be referred to as the PD&E Manual. All tasks identified in this scope of work will be done in accordance with the PD&E Manual, Project Environmental Impact Report (PEIR) unless otherwise stated. In the event of a contradiction between the provision of the PEIR requirements and this exhibit, the provisions of the PEIR will apply.

Using the information contained in the above mentioned studies as a foundation, this PD&E study will develop more detailed information to select a preferred alternative. The work will include the preparation of environmental reports and documents which evaluate the physical, natural, social, cultural, air and noise quality, economic and human impacts of the alternatives. Preliminary engineering plans and studies which address the economic and engineering feasibility, traffic capacity and levels of service, geometrics, soils, structures, interchange and intersection requirements shall be performed. Public involvement and interagency coordination will be an integral part of the assessment process.

The GEC will provide contract administration, project management services and technical reviews of all work associated with the development and preparation of the engineering / environmental study reports required for this project. The GEC is authorized by the CFX to provide the management and technical direction for this Agreement on behalf of the CFX. The CONSULTANT shall comply with all of the GEC's directions that are within the purview of this Agreement.

STUDY OBJECTIVE

The general objective of this study is to provide documented information necessary for the CFX to reach a decision on the type, design, and location of the proposed expressway extension from Cyrils Drive to Nova Road (CR 532). All factors related to the design and location of the facility must be considered including: transportation needs, financial feasibility, social impacts, economic factors, environmental impacts, engineering analysis, and right-of-way requirements.

The specific objective of the study is to prepare a series of reports documenting the preliminary engineering and design concept, including existing and predicted conditions, typical sections, right-of-way requirements, potential new interchange locations and design concepts, environmental impacts, and costs of the improvement and its alternatives.

The documentation shall be developed to and in compliance with all applicable state regulations and all applicable state issuances governing the content and development of this study type. The resultant engineering and environmental reports prepared during the study shall satisfy the level of documentation required for a non-federally funded transportation improvement when a PEIR is prepared. Formal adoption by the CFX of the study documentation, including the identification of a preferred alignment alternative, will constitute Location and Design Concept Acceptance of the proposed action as a PEIR.

STUDY REQUIREMENTS AND PROVISIONS FOR WORK

Governing Regulations

The services performed by the CONSULTANT shall be in compliance with all applicable CFX and FDOT Manuals and Guidelines. The FDOT's Manuals and Guidelines incorporate by requirement or reference all applicable State and Federal regulations. The current edition, including updates, of the following FDOT Manuals and Guidelines shall be used in the performance of this work. It is understood that AASHTO criteria shall apply as incipient policy. Some standards may not apply to the project, but are listed for reference.

- Florida Statutes
- Florida Administrative Codes
- Applicable federal regulations and technical advisories.

- Project Development and Environment Manual
- Plans Preparation Manual
- Roadway Traffic and Design Standards
- Highway Capacity Manual
- Manual of Uniform Traffic Control Devices (MUTCD)
- Manual of Uniform Minimum Standards for Design, Construction, and Maintenance for Streets and Highways
- Bicycle Facilities Planning and Design Manual
- Right-of-Way Mapping Handbook
- Location Survey Manual
- EFB User Guide
- Drainage Manual
- Outline Specifications - Aerial Surveys/Photogrammetry
- Soils and Foundations Manual
- Structures Design Guidelines
- CADD Manual (No. 625-050-001)
- CADD Production Criteria Handbook
- Florida's Level of Service Standards and Guidelines Manual for Planning (No. 525-000-005)
- Equivalent Single Axle Load Guidelines (No. 525-030-121)
- Design Traffic Procedure (No. 525-030-120)
- K-Factor Estimation Process
- Project Traffic Forecasting Guidelines
- Florida Highway Landscape Guide
- Basis of Estimates Manual

Notice to Proceed Meeting/Scoping Meeting

The CONSULTANT shall meet with appropriate CFX, GEC, PIC and T&RC personnel immediately following receipt of the Notice to Proceed. At a minimum, the CONSULTANT's Project Manager and senior project personnel shall attend. At the Notice to Proceed Meeting, the CFX will:

- a. Render any relevant information in its possession;
- b. Establish any ground rules upon which the study process will be conducted;
- c. Bring to the attention of the CONSULTANT any special or controversial issues to be considered in the study; and
- d. Explain the financial administration of the contract.

Key Personnel

The CONSULTANT'S work shall be performed and directed by the key personnel identified by the CONSULTANT and approved by the CFX. Any changes in the indicated personnel shall be subject to review and approval by the CFX.

Correspondence

Copies of all written correspondence between the CONSULTANT and any party pertaining specifically to this study shall be provided to the CFX, GEC and PIC for their records within one (1) week of the receipt of said correspondence.

Submittals

The CONSULTANT may be required to provide (Draft and Final) hard copies of the required documents as listed below. These are the anticipated submittals for the project. This tabulation will be used for printing estimating purposes, and the GEC Project Manager will determine the number of copies required prior to each submittal. Electronic submittals shall accompany all hard copy submittals.

<u>Provisions for Work:</u>	<u>Copies:</u>
Quality Control Plan	2
Project Schedule	N/A*

<u>Engineering Items:</u>	<u>Copies:</u>
Existing Conditions Technical Memorandum	2
Alternative Corridor Evaluation Report	2
First Draft Preliminary Engineering Report	2
Final Preliminary Engineering Report (Signed and Sealed)	4
Location Hydraulics Report	2
Pond Siting Report	2
Conceptual Design Roadway Plan Set	2
Conceptual Right-of-Way Plans	2
Geotechnical Report	2
Typical Section Package	2
Utility Assessment Package	2

<u>Environmental Items:</u>	<u>Copies:</u>
Advance Notification Package	2
Public Involvement Plan	N/A – PIC will prepare
Project Environmental Impact Report	4
Noise Study Report	2
Air Quality Report/Tech Memo	2
Contamination Screening Evaluation Report	2
Public Hearing Transcript	2
Natural Resource Evaluation	2
Cultural Resource Assessment Survey	2
Water Quality Impact Evaluation Report	2

* *Electronic submittal only*

Upon completion of the study, the CONSULTANT shall deliver to the CFX and GEC, in an organized manner, all project files, maps, sketches, worksheets, and other materials used or generated during the study process.

Coordination with other Entities

The CONSULTANT shall coordinate with all federal, state and local agencies and citizen groups that would have an influence upon the study and preparation of the preliminary engineering and environmental documents.

The CONSULTANT will be required to coordinate with and assist the CFX in securing necessary agency approvals.

The CONSULTANT will be required to coordinate this study with all other studies and projects within the project area – including, but not limited to, FDOT, County, and CFX (e.g., Osceola Parkway Extension).

Project Schedule

The PD&E Study is expected to have a fifteen (15) month duration. Within ten (10) calendar days after receipt of the Notice to Proceed, the CONSULTANT shall provide a schedule of calendar deadlines to the GEC for review. The CONSULTANT shall update the project schedule on a monthly basis and inform the CFX of any substantial potential schedule modifications.

Quality Control

The CONSULTANT shall be responsible for ensuring that all work products conform to CFX standards and criteria. This shall be accomplished through an internal Quality Control (QC) process performed by the CONSULTANT. This QC process shall ensure that quality is achieved through checking, reviewing, and surveillance of work activities by objective and qualified individuals who were not directly responsible for performing the initial work.

The CONSULTANT shall submit a Quality Assurance/Quality Control (QA/QC) Plan to the GEC for their review and approval within twenty (20) working days following the Notice to Proceed Meeting.

Project Management, Meetings and Coordination

The CONSULTANT shall meet with the CFX as needed throughout the life of the project. The CONSULTANT should be prepared to meet with the CFX and /or GEC on a bi-monthly basis for progress meetings; therefore, thirty (30) meetings should be anticipated. The actual frequency of the meetings will vary depending on the project stage and pending activities.

Progress reports shall be delivered to the CFX in a format as prescribed by the GEC and no less than 5 days prior to submission of the corresponding invoice. Judgment on whether work of sufficient quality and quantity has been accomplished will be made by the GEC Project Manager by comparing the reported percent complete against actual work accomplished.

1 PUBLIC INVOLVEMENT

Public involvement includes communicating to and receiving information from all interested persons, groups, and government organizations on topics related to the PD&E Study. The CFX Public Involvement Consultant (PIC) shall coordinate and perform the appropriate level of public involvement for this project as outlined in the PD&E Manual and the following sections. The CONSULTANT shall provide support to the PIC.

All public involvement tasks and activities will be coordinated with the CFX.

1.1 Public Involvement Plan

The PIC will prepare a comprehensive Public Involvement Plan (PIP) and submit to the CONSULTANT and GEC within twenty (20) working days following the Notice to Proceed meeting.

The purpose of the PIP is to establish and maintain a strategy for early, meaningful, and continuous public and stakeholder involvement throughout the PD&E process. Obtaining stakeholder public consensus throughout the PD&E phase is the desired outcome of the PIP.

The PIC shall perform activities necessary to support the PIP that includes the identification of stakeholders and interested parties and the preparation of meeting notes.

1.2 Mailing List

The CONSULTANT shall be responsible for developing, maintaining, and updating a project mailing list which will include:

- a. Affected residents, business tenants and property owners within the project area.
- b. Interested parties, including:
 1. Residents/property owners within 300 feet of the alternative alignments.
 2. Other informed parties who notify the CONSULTANT that they desire to be added to the mailing list.
- c. Special interest groups

The CONSULTANT will maintain the mailing list in a computer file which is acceptable to the CFX. For each mailing, the CONSULTANT will provide the CFX and PIC a computer file of the mailing list certified by the CONSULTANT as true and correct. Additional groups and/or individuals may be included on the mailing list as requested.

1.3 Notice of Intent (N/A)

1.4 Advance Notification

At the beginning of the project, the CONSULTANT shall prepare the Advance Notification and transmittal letter in accordance with the PD&E Manual for the CFX's Executive Director or designee to submit to the State Clearing House. The CONSULTANT shall distribute the Advance Notification package to all appropriate agencies within twenty (20) working days of the Notice to Proceed meeting.

1.5 Scheduled Public Meetings

The CFX has determined that multiple public meetings will be required to provide adequate opportunities for the public to participate in the PD&E Study. The CONSULTANT shall provide to the PIC all support necessary for the CFX to hold or participate in two (2) public meetings, as listed below:

- a. Public Kick-off Meeting (General study overview, area, schedule, issues, etc.)
- b. Public Hearing (Preferred Alternative)

For each meeting, the CONSULTANT shall prepare and/or provide:

- a. Scripts or agenda for presentation.
- b. Graphics for presentation.

The CONSULTANT will attend the meetings with an appropriate number of personnel to assist the PIC and CFX staff.

1.5.1 Project Advisory Committees

The CONSULTANT shall work with the PIC and GEC to establish a PD&E Project Advisory Group (PAG), and Environmental Advisory Group (EAG), which will include staff from governmental agencies, permitting agencies, environmental organizations, special interest groups and other entities as approved by the CFX. The CONSULTANT will be available to meet with the PAG and EAG up to two (2) times each (a total of four [4] meetings) during the PD&E Study to present information regarding the project, receive input from the PAG and EAG members and respond to questions.

The CONSULTANT will coordinate with the CFX, the PIC and the GEC to prepare the initial PAG and EAG members list. The PIC will be responsible for contacting the PAG and EAG members and maintaining coordination with them throughout the study. The CONSULTANT will also be responsible for preparing all materials, exhibits, presentations, etc. to be distributed to the PAG/EAG members.

1.5.2 Officials Project Kick-Off

The CONSULTANT will assist the PIC by providing script and graphics for a project kick-off presentation to, at a minimum, the Osceola County commission and MetroPlan Orlando boards (and technical committees as required) at their regularly scheduled meetings.

1.6 Unscheduled Public Meetings

In addition to scheduled public meetings, the CONSULTANT may be required to participate in unscheduled meetings with the public, elected officials, or public agencies (MetroPlan Orlando, Osceola County neighborhood groups, etc.). The CONSULTANT shall be available with no more than a five (5) working days' notice, to attend these meetings or make presentations at the request of the CFX. Such meetings and presentations may be held at any hour between 7:00 a.m. and 12:00 midnight on any day of the week. The CONSULTANT may be called upon to provide maps, draft news releases, audio-visual displays, and similar material for such meetings. The CONSULTANT shall be prepared to attend up to eighteen (18) such unscheduled meetings.

Additionally, the CONSULTANT will be prepared to present to the CFX Board, the MetroPlan Orlando Board, and Osceola County Board prior to the two milestone meetings.

1.7 Public Hearing

The PIC and CONSULTANT shall provide all support necessary for the CFX to hold or participate in one (1) public hearing, as described in section 1.5 of this document.

1.8 LDCA - N/A

1.9 Special Public Involvement Requirements - N/A

1.9.1 Project Information Line/General Public Correspondence

The CONSULTANT shall make available knowledgeable staff which interested parties may call with questions concerning the project. The PIC will maintain this project information line and the CONSULTANT will provide support to the PIC to answer questions and respond to comments.

1.9.2 Project Newsletters

The PIC shall prepare and distribute three (3) project newsletters which will be designed to inform interested parties as to the status of the project. The CONSULTANT shall support the PIC by providing appropriate information to include in the newsletters. Newsletters shall have the quality of desktop publishing and be comparable to the previous work efforts of the CFX. Distribution of the three (3) newsletters will coincide with key project milestones as follows:

- a. Project Kick-off/Introductory Newsletter
- b. Pre-Public Hearing Newsletter
- c. Post-Public Hearing Newsletter

The PIC will distribute newsletters to all interested parties, public officials, affected property owners, special interest groups, etc. as identified above.

Interested parties include those contained on the CONSULTANT's mailing list and other informed parties who request to be added to the mailing list. Distribution of the Newsletter may involve direct mail as well as distribution through various media such as public schools, churches, civic organizations, public libraries, etc.

The Introductory Newsletter may contain language to alert affected property owners and tenants of the possibility that certain environmental and/or engineering personnel may require access to their property. Prior to any actual property access, the CONSULTANT shall contact the owner or tenant by the use of a CFX standard right-of-entry letter via US Post Office mail delivery.

1.9.3 Project Webpage

The CONSULTANT shall provide information about the study to the PIC for inclusion in the CFX Webpage. After initial posting of the project information, the CONSULTANT shall provide updated information to the PIC four times during the study. These times will coincide with the newsletter mailings.

1.9.4 In-House Displays

The CONSULTANT shall maintain within its office a viewing area where interested parties may inspect displays including, but not limited to, the following:

- a. 1" =200' scale and/or 1" =400' scale concepts showing all alternatives
- b. Available aerial photography of the study area
- c. A regional map

A representative within the CONSULTANT's office shall be available to assist interested parties and answer questions dealing with the project. Questions which the CONSULTANT is unable to answer shall be referred to the CFX, PIC, and GEC. Upon consultation with the CFX, PIC, and GEC, the CONSULTANT shall draft responses to the questioning parties which shall be endorsed and distributed by the CFX, PIC, or GEC.

The CONSULTANT also agrees to supply duplicates of the 1" =200' scale concepts and the 1" = 400' scale concepts for display in the CFX's office.

2 ENGINEERING ANALYSIS AND REPORTS

2.1 Data Collection

Immediately following the Notice to Proceed, the CONSULTANT shall begin data collection. The information collected should include all data necessary to adequately identify and evaluate the location and design of the facility. All data collection efforts should be performed in accordance with the PD&E Manual.

The CONSULTANT shall make maximum use of existing information available from state, regional and local agencies such as the Florida Geographic Data Library (FGDL), or other appropriate databases that include existing features. This data base information shall be compatible for use on base maps used for public presentations, corridor maps, and alternative plans.

2.2 Field Review

The CONSULTANT shall conduct all anticipated field trips needed to collect engineering data.

2.3 Survey Coordination

The CONSULTANT shall use aerial photography as a basis for plotting various data necessary for both engineering and environmental analysis, alternative corridor and design studies, and the development of the preliminary plans of conceptual design. Copies of aerial photography are the prime source of information used to convey project considerations to the public at public meetings. The GEC shall be responsible for coordinating with CFX regarding project requirements, review of survey data and scheduling. Existing available controlled aerial photography will be utilized and the digital aerial photography should be compatible with Microstation and vertical data identified using 2' contour aerials. The GEC will recommend mapping scales for approval by CFX. The most current existing available aerial photography, either provided by CFX or obtained by the CONSULTANT, will be utilized.

2.4 Geotechnical

The CONSULTANT will obtain information to describe the soil composition within the project study area using previous geotechnical reports and investigations, county and city soil survey maps, and other information from the Soil Conservation Service and detailed soil surveys as needed to determine the impacts of the project.

This task is for the CONSULTANT to coordinate with the geotechnical staff regarding project requirements, review of geotechnical data, and scheduling.

2.5 Traffic

The CONSULTANT will coordinate with CFX and the T&RC and obtain all project traffic related information including travel demand forecasting, design traffic and all operational analysis required for completion of the study from CFX.

2.5.9 Traffic Data for Noise Study

The CONSULTANT will obtain required traffic information from CFX and the T&RC.

2.5.10 Traffic Data for Air Analysis

The CONSULTANT will obtain required traffic information from CFX and the T&RC.

2.5.11 Signalization Analysis

In coordination with the CFX, the T&RC shall perform signalization analysis and/or signal warrant studies at the intersections in accordance with all applicable manuals, procedures, guidelines, and current design memorandums. The T&RC will propose preliminary signal timing plan and signal operation plan for each intersection that requires signalization on the recommended alternative. The CONSULTANT shall coordinate with the T&RC on the signalization analysis and the associated geometry of the intersections.

2.6 Safety

The CONSULTANT shall obtain available data from FDOT'S Crash Analysis Reporting System (CARS) (Program numbers AARPJ12 and AARPJ13) and Signal Four for various highway segments within the study area. The CONSULTANT will obtain the most recent data for the previous five years. The data collected shall include the number and type of crashes, crash locations, number of fatalities and injuries, and estimates of property damage and economic loss.

2.7 Utilities and Railroads

The CONSULTANT shall collect data on the location of all existing utilities within the study area. The CONSULTANT shall obtain data and information and meet with utility owners concerning proposed utility improvements, some of which may influence location/design considerations. Utility data to be collected will address the following:

- a. Overhead Transmission lines, microwave towers, etc.
- b. Underground water, gas, sanitary sewer, force mains, power and telephone cables, etc.
- c. Bridge attachments.

Based on the coordination with the utility companies along the project, the CONSULTANT shall prepare a Utility Assessment Package as described in the PD&E Manual. The CONSULTANT will also address impacts to existing and proposed railroads, if applicable.

2.8 Needs

2.8.1 Transportation Plans

The CONSULTANT shall collect and summarize at a minimum:

- a. Metro Plan Orlando Long Range Transportation Plan
- b. Osceola County Comprehensive Plan
- c. LYNX
- d. Non-motorized modes, including bikeways and pedestrian walkways
- e. Other applicable transportation plans

2.8.2 Analysis of Existing Conditions

The CONSULTANT will analyze the existing facility and conditions for deficiencies.

2.8.3 Purpose and Need

The CONSULTANT will prepare the purpose and need statement and project description. The CFX and GEC will review and approve the Purpose and Need statement.

2.9 Corridor Analysis

2.9.1 Corridor Identification

Using the study area data and the CONSULTANT'S overall understanding of the study area, the CONSULTANT shall review the previous studies to confirm a viable corridor and determine if other viable corridors exist within which alternative alignments should be developed. The corridor analysis shall be performed in accordance with the PD&E Manual and shall be documented in the Alternative Corridor Evaluation Report.

The results of the Corridor Analysis will be reviewed with the CFX and GEC for final determination of the viable corridor.

2.10 Roadway

2.10.1 Existing Roadway Characteristics

The CONSULTANT shall document the existing roadway characteristics within the project limits. The CONSULTANT will review and document available plans, pavement reports, existing rights-of-way, tax and maintenance maps and other readily available data. This effort should include obtaining the design plans for any adjacent project(s) being advanced by CFX, FDOT District 5, and Osceola County. The

CONSULTANT should have detailed knowledge of the various projects that make up the overall improvement.

The CONSULTANT shall develop a CADD database, supported by computer spreadsheets, that includes all existing highway characteristics noted above, as appropriate. CADD database information shall be compatible for use on aerial photography used for Public Hearing displays, the Corridor Base Map(s), and Conceptual Design Plans.

2.10.2 Typical Section Analysis

The CONSULTANT shall develop appropriate typical sections for the project. These will include CFX's standard typical sections for new location expressways and interchange ramps. Typical sections for connecting roadways will be developed to meet the requirements of the government agency that is responsible for the maintenance of the roadway. The CONSULTANT shall examine typical sections that may result in minimizing right-of-way, and the incorporating of other desirable features, as deemed appropriate.

2.10.3 Roadway Design Alternatives

Based on CFX direction, the CONSULTANT will then prepare the Refined Conceptual Alternative at an increased level of detail on a base map at a comparable scale. Schematic interchanges and working profiles will be developed for the refined alternative.

The Refined Conceptual Alternative will be presented to the PAG and the EAG for review and input. Based on responses received from the PAG and the EAG, the CONSULTANT will recommend refinements that should be carried forward and developed as the preferred alternative.

The CONSULTANT will abstain from identifying the preferred alternative prior to the public hearing unless specifically requested or authorized to do so by the CFX.

The entire Alternatives Development and Evaluation process shall be documented by the CONSULTANT in the Preliminary Engineering Report.

The CONSULTANT will further refine the Conceptual Alternative, thereby creating the Preferred Alternative. The Preferred Alternative will be prepared on the base maps at an appropriate scale for review and evaluation. Working profiles will be developed for the Preferred Alternative along with interchange concepts and other preliminary design features including property access treatments, stormwater facilities and toll plaza envelopes.

The CONSULTANT will make the most efficient use of existing roadways and rights-of-way in developing typical and special sections. The CONSULTANT will develop, evaluate and document alternative sections such as, but not limited to, cantilever overhangs, retained earth walls, slope stabilization, and innovative drainage systems. Business and residential development, drainage requirements, environmental impacts and maintenance-of-traffic will be considered, evaluated and documented during this project phase.

The Preferred Alternative will be developed to a point at which the following can be determined:

- a. Horizontal and vertical alignment
- b. Typical cross section

- c. Preliminary right-of-way needs and impacts
- d. Preliminary drainage needs (showing required outfalls)
- e. Existing and proposed utility locations
- f. General soils information
- g. Local roadway improvement needs
- h. Structure locations, sizes, spans, etc.
- i. Potential stormwater pond sites, sizes, locations, etc.
- j. Retaining walls
- k. Sound walls
- l. Other features as directed by the CFX and GEC

2.10.4 Access Management

The CONSULTANT will ensure the appropriate access management standards are reflected within any alternative that effects the local roadway network.

2.10.5 Identify Construction Segments

The CONSULTANT shall make a preliminary review of feasible segments for construction projects within the project in consideration of MPO priorities, budget, priority needs, maintenance of traffic, and the public demand for the improvements.

2.11 Structures

2.11.1 Existing Structure Characteristics

The CONSULTANT shall inventory and research existing structures to assess their age, rating, and any other factors that could be used to determine condition and future use or need for replacement.

2.11.2 Structures Typical Section Analysis

The CONSULTANT shall develop all appropriate structural typical section alternatives for the project. These will include the CFX's standard typical sections, and any typical sections that may result in minimizing right-of-way and environmental impacts and incorporating context sensitive solutions for complex bridges and retaining walls.

2.11.3 Structures Design Alternatives

The CONSULTANT will show estimated bridge limits on the Viable Alternative concept. Schematic elevations for bridges over cross roads, which will indicate the basic typical section under the bridge and the approximate length will be prepared. Based on the bridge requirements, the CONSULTANT will determine the structure type and unit costs for each viable alternative bridge.

2.12 Drainage

The CONSULTANT shall collect hydraulic data as needed to assess constraints for the viable alternative. This effort will be coordinated with CFX and Osceola County to identify any historic maintenance problems involving drainage or flooding which may affect the viability of the concept design and influence the evaluation results. The history and past hydraulic performance will be noted on all structures.

The CONSULTANT will collect any stormwater management or master drainage plans prepared for the area to determine the hydrologic basin characteristics, both existing and future, of bridges and culverts, such as size, topography, and land use. The CONSULTANT will inventory the immediate upstream and downstream structures and inventory existing storm drain systems; noting their type, size, hydraulic basin they serve, and discharge points.

The CONSULTANT will determine and quantify the base floodplain involvement for the viable alternative. Additionally, the CONSULTANT will obtain all data necessary to analyze any encroachments

The CONSULTANT shall perform preliminary drainage design in order to determine potential outfall locations and preliminary sizes (volume and area) of required detention and/or retention facilities for stormwater treatment or attenuation. The location and size of potential detention/retention areas will be determined for the viable alternate. A maximum of two (2) stormwater treatment / attenuation alternates per drainage basin will be identified, including the recommended alternate for each basin. The CONSULTANT shall prepare a PD&E Pond Siting Report and pond shapes will be prepared in CADD format. The CONSULTANT shall perform pond sites analysis and floodplain impact compensation analysis for the proposed ponds. A cost estimate will be prepared for alternative pond sites selected and a summary of recommended pond sites will be provided. The CONSULTANT shall identify Seasonal High Water elevations using available geotechnical data

The CONSULTANT shall prepare a Location Hydraulics Report, which shall include: identify and list all existing cross drains for its size, length, and flow lines information; perform proposed cross drain analysis based on recommended typical sections, using HY8 software; perform preliminary analysis for proposed bridge improvements. The analysis includes 50-year, 100-year and 500-year stages in the river and flood stage increment compared to existing condition for each cross drain; provide recommendation summary table for proposed cross drain size and length based on the analysis.

2.13 Concept Plans

2.13.1 Prepare Base Map for Conceptual Plans

The CONSULTANT will review the aerial base maps used for the corridor analysis and update or provide any additional information as required for the development and evaluation of the Conceptual Design Plans. Information to be checked and updated will include:

- a. Existing features: plot existing roadway right-of-way, intersections, bicycle/pedestrian walkways, and drainage easements.
- b. Street names: label street names and highway numbers in immediate project area.
- c. Surface features: label all pertinent cultural and natural features and land use information.
- d. North Arrow: locate north arrow at upper-mid portion of sheet. Show scale and aerial flight date with north arrow.
- e. Plot property lines.
- f. Plot new data as it becomes available to keep base maps up to date.

2.13.2 Alternative Concept Plan

The CONSULTANT will prepare an alternative concept plan. At a minimum, the concept plan should include defined right-of-way required and horizontal geometry. The CONSULTANT will overlay the concept plan on the base maps. The concept plan will be prepared at a scale of 1"=200'. In addition, the

CONSULTANT will draw an overall location plan of the project alternative at a ratio of 1" = 100'. The concept plan will be drawn on standard size 11" x 17" reproducible sheets with standard title boxes. The drawings shall be provided of suitable size and scale for public display at meeting and hearings.

2.13.3 Preferred Alternative Concept Plans

Upon approval by the CFX of the preferred alternative, the CONSULTANT will develop the preferred alternative on the base maps at a scale of 1" = 100" that includes refinements from the public hearing.

2.14 Typical Section Package

The CONSULTANT will prepare the Typical Section Package in accordance with the FDOT's Design Manual.

2.15 Design Exception and Variation (N/A)

2.16 Multi-Modal Accommodations

The CONSULTANT will coordinate with transit and local government officials in order to determine what multi-modal accommodations will be studied and evaluated as part of the project alternative. This includes identifying the location of potential "Park and Ride" facilities, potential public transit stop operational or safety improvements, and potential multi-use trail crossing.

2.17 Park and Ride Lots

The CONSULTANT will identify potential locations for "Park and Ride" facilities.

2.18 Maintenance of Traffic

The CONSULTANT will analyze the preferred alternative for constructability and the ability to maintain traffic. If the constructability analysis indicates that there will be a substantial cost to maintain traffic, the cost to maintain traffic estimate will be included in the cost estimate for that alternative.

2.19 Comparative Analysis and Evaluation

The CONSULTANT will prepare an evaluation matrix, which will include the significant impacts and costs of the preferred alternative. The No-Build Alternative will be included in the matrix.

The evaluation matrix will, at a minimum, include the following features:

- a. Construction Costs
- b. Right-of-way impacts
- c. Engineering costs
- d. Utility impact costs
- e. Environmental impacts
- f. Socio-Economic impacts
- g. Maintenance of traffic impacts
- h. Potential parcel impacts
- i. Drainage impacts / costs
- j. Hazardous material impacts

The CONSULTANT shall be prepared to present the preferred alternative and the evaluation at the project Public Hearing.

The CONSULTANT will complete an evaluation of the Preferred Alternative. This will include engineering, environmental and public input.

2.20 Selection of Preferred Alternative

Upon completion of the evaluation and comparison, the CONSULTANT will identify the Preferred Alternative to the CFX.

2.21 Value Engineering (N/A)

2.22 Risk Management (N/A)

2.23 Construction Cost Estimate

As part of the alternatives evaluation, the CONSULTANT shall prepare a construction cost estimate for the alternatives as well as a refined cost estimate of the Preferred Alternative.

2.24 Right-of-Way Cost Estimate

The CONSULTANT will provide the CFX with pertinent R/W information (existing/proposed & parcel take/remainder) for the alternative shown on aerials and a Google Earth file (.kmz) as well as spreadsheet tables. GEC staff will prepare preliminary R/W costs.

2.25 Preliminary Engineering Report (PER)

The CONSULTANT will prepare the Preliminary Engineering Report (PER) and all required supporting engineering reports in accordance with the PD&E Manual for review and comment by the CFX and GEC. Following review by the CFX, the CONSULTANT will make this report available to the public prior to the Public Hearing. The Final PER will be finalized after the Public Hearing.

2.26 Other Engineering Services N/A

2.27 Quality Assurance/Quality Control

Establish and implement a QA/QC plan. Also includes sub consultant review, response to comments and any resolution meetings if required, and preparation of submittals for review. The CONSULTANT shall be responsible for insuring that all work products conform to CFX standards and criteria. This shall be accomplished through an internal Quality Control (QC) process performed by the CONSULTANT. This QC process shall insure that quality is achieved through checking, reviewing, and supervision of work activities by objective and qualified individuals who were not directly responsible for performing the initial analysis and work. The CFX or GEC may, at any time, request copies of the CONSULTANT'S QA/QC review materials.

3 ENVIRONMENTAL ANALYSIS AND REPORTS

The CONSULTANT shall perform the appropriate level of environmental analysis of each community, cultural, natural, or physical feature of the project and prepare the required corresponding documentation as outlined in the PD&E Manual.

The Environmental Documents prepared by the CONSULTANT will comply with the procedures listed in the PD&E Manual, and will also follow the format and include content described in the PD&E Manual. The task of documentation includes the preparation of interim and draft reports prepared by the CONSULTANT for review and comment by the CFX and GEC prior to producing final reports and documents.

3.1 Land Use Changes

The CONSULTANT shall review existing and future land uses and analyze the compatibility of the project with the identified land use in accordance with the PD&E Manual. An analysis will be required that demonstrates to what extent the expressway would likely change the surrounding land use, compared to existing (taking into account current plans and ongoing roadway improvements).

3.2 Socioeconomic Characteristics

The CONSULTANT will conduct an overview of the study area to explore the socioeconomic issues, features, and activities that will influence the development of the preferred alternative. Socioeconomic features to be cataloged will include, but not be limited to:

- a. Schools
- b. Places of worship
- c. Community centers and parks
- d. Other public facilities
- e. Neighborhoods
- f. Specialized housing

The CONSULTANT will collect enough meaningful data to perform a comprehensive socioeconomic analysis that can be used in conjunction with the other environmental factors in evaluating the preferred alternative. The CONSULTANT should be prepared to interview knowledgeable people and conduct field reviews to verify as necessary.

The CONSULTANT will describe existing neighborhoods and evaluate the potential impacts of the project upon them.

3.3 Economic

The CONSULTANT shall prepare an Existing Conditions Technical Memorandum that documents key community amenities and features within the study area. The CONSULTANT shall also document how public comments, ideas, and concerns have been addressed as part of the project. The preferred alternative proposing a new roadway alignment with new traffic patterns can greatly alter access/ease of access to local businesses

3.4 Mobility

The CONSULTANT shall review and analyze current mobility options for local traffic and pedestrians to access area businesses, parks, places of worship, etc. and how mobility options may be altered with a new expressway facility.

3.5 Aesthetics

Aesthetic considerations such as impacts on existing neighborhoods and surrounding communities (positive and negative), landscaping opportunities, gateway opportunities, theme opportunities and vistas/focal points shall also be addressed. Structural design opportunities, stormwater facility, preservation of existing vegetation, and vacated right-of-way potential will also be considered. The CONSULTANT shall evaluate the potential visual and aesthetic impacts to the community associated with the project in accordance with the PD&E Manual.

3.6 Relocation Potential (N/A)

3.7 Archaeological and Historical Resources

The CONSULTANT will provide a cultural resource assessment for the preferred alternative, which shall include coordination with SHPO. A complete Cultural Resource Assessment Survey will be performed in accordance with the PD&E Manual. The CONSULTANT shall completely analyze the impacts to all cultural and historic resources within the Area of Potential Effect (APE) and prepare a Cultural Resource Assessment Request Package as described in the PD&E Manual.

3.8 Recreational/ Section 4(f)

Section 4(f) is not applicable. Recreational areas will be identified as part of 3.2.

3.9 Wetlands and Essential Fish Habitat

The CONSULTANT will collect all available information on wetlands located within the study area. The CONSULTANT will evaluate and document all potential impacts to the study area wetlands in accordance with the PD&E Manual.

The CONSULTANT shall collect all data necessary to confirm there are no aquatic preserves or essential fish habitats located within the study area.

3.10 Water Quality

The CONSULTANT will obtain information on the existing water quality of potential receiving water bodies and evaluate the project's potential for enhancing or degrading their water quality. A Water Quality Impact Evaluation checklist and supporting documentation will be prepared pursuant to the PD&E Manual.

3.11 Special Designation

The CONSULTANT shall collect all data necessary to perform an assessment of Outstanding Florida Waters in accordance with the PD&E Manual. The CONSULTANT will confirm there are no Wild and Scenic River designations within the study area. The CONSULTANT will confirm no aquatic preserves or

Wild and Scenic Rivers are impacted by the project and provide the appropriate level of documentation in accordance with the PD&E Manual.

3.12 Wildlife and Habitat

The CONSULTANT will generally describe the project area and, more specifically, describe the area within the proposed right-of-way limits including common names and Latin binomials for dominant and/or representative species. The CONSULTANT will further quantify areas that will be impacted both directly (within the right-of-way limits) and indirectly (ecotone encroachment, etc.) by the preferred alternative.

The CONSULTANT will record all fauna observed and outline what species might be expected to be found based on flora. Any State or Federal “critical habitat” must be identified.

The CONSULTANT will obtain all biological information needed to prepare a Natural Resources Evaluation of the project where endangered or threatened species are identified. The CONSULTANT will prepare a Natural Resources Evaluation for the project in accordance with the PD&E Manual.

3.13 Identify Permit Conditions

The CONSULTANT will obtain permit related information about sites that may require dredge and fill permits, water quality permits or stormwater discharge permits. This task includes the identification of all permitting agencies. The CONSULTANT shall identify permit conditions, and type of permits required.

3.14 Farmlands

The CONSULTANT will confirm and document that there are no farmland impacts associated with this project in accordance with the PD&E Manual.

3.15 Noise

The CONSULTANT shall perform a traffic noise analysis in accordance with the FDOT PD&E Manual. A desktop review will be performed to assess the potential for traffic noise impacts and if a detailed noise analysis is warranted. This task will include collecting all data necessary to perform the noise impact analysis. The CONSULTANT will develop Traffic Noise Model input data and evaluate the existing conditions, the No-Build Alternative and one Build Alternative for the Noise Sensitive Areas (NSAs) potentially impacted by traffic noise. The CONSULTANT will conduct detailed traffic noise barrier analyses for NSAs within 400 feet of the project corridor. The CONSULTANT shall prepare a comprehensive Tech Memo in lieu of a full Noise Study Report.

3.16 Air Quality

The CONSULTANT shall collect all data necessary to perform the air quality screening test in accordance with the PD&E Manual. The air quality study will be performed in accordance with the PD&E Manual. It is anticipated that the project will pass the Air Quality Screening model and no detailed air quality analysis will be required. The air quality analysis will be documented in a brief Technical Memorandum.

3.17 Construction Impact Analysis

The CONSULTANT will address potential construction impacts associated with this project in accordance with the PD&E Manual.

3.18 Contamination

The CONSULTANT shall collect all data necessary to perform the Contamination Screening Evaluation in accordance with the PD&E Manual.

3.19 Class of Action Determination (N/A)

3.20 Type II Categorical Exclusion (N/A)

3.21 PEIR

The CONSULTANT will prepare the Project Environmental Impact Report (PEIR) in accordance with the PD&E Manual for review and comment by the CFX and GEC. The CONSULTANT will document Project Planning Consistency consistent with requirements for a State Environmental Impact Report (SEIR) in the PEIR. Following review by the CFX, the CONSULTANT will prepare this report after all other reports have been finalized and will make this report available to the public prior to the Public Hearing. The Final PEIR will be finalized after the Public Hearing.

3.22 Environmental Assessment (N/A)

3.23 FONSI (N/A)

3.24 Draft EIS (N/A)

3.25 Final EIS (N/A)

3.26 Quality Assurance/ Quality Control

Establish and implement a QA/QC plan. Also includes sub consultant review, response to comments, and any resolution meetings, if required.

4 MISCELLANEOUS

4.1 Contract and Project Files

Project Management efforts include complete setup and maintenance, development of monthly progress reports, schedule updates, and effort to develop and execute sub-consultant agreements etc. Progress reports shall be delivered to the GEC in a format as prescribed by CFX and no less than 5 days prior to submission of the corresponding invoice. The Project Manager will make judgment on whether work of sufficient quality and quantity has been accomplished by comparing the reported percent complete against actual work accomplished.

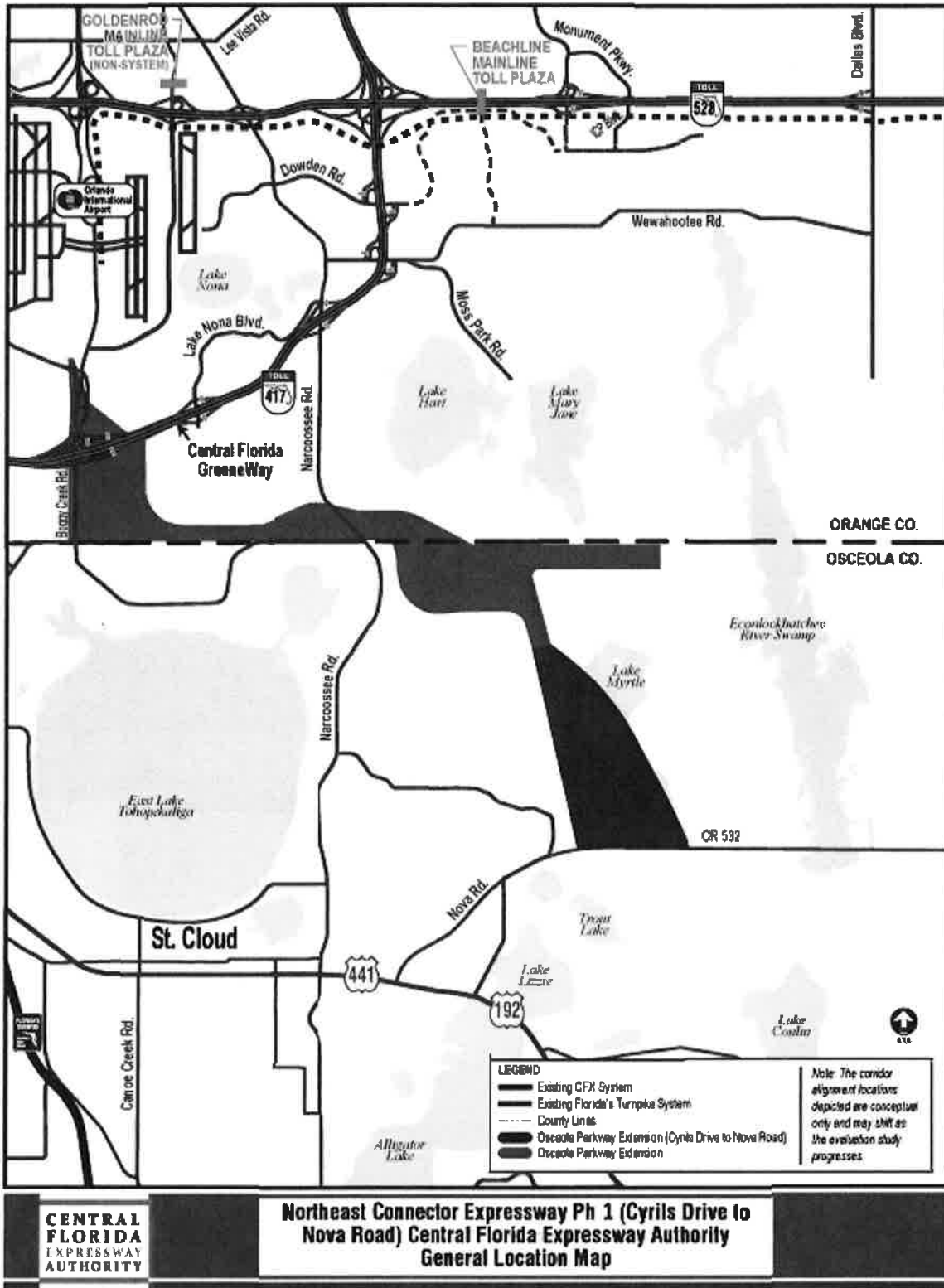
Within ten (10) calendar days after the Notice to Proceed, the CONSULTANT shall provide a schedule of calendar deadlines.

4.2 Project Management Meetings and Coordination

The CONSULTANT shall meet with CFX as needed throughout the life of the project. It is anticipated thirty (30) monthly progress meetings will be needed. These meetings will include progress and miscellaneous review and other coordination activities with CFX.

4.3 Additional Services – N/A

ATTACHMENT A - GENERAL LOCATION MAP



ATTACHMENT B - DESIGN CRITERIA

The CONSULTANT shall coordinate and perform the appropriate level of engineering analysis for this project as outlined in the PD&E Manual and the following sections.

Development of this project will be guided by the basic design criteria listed below.

Design Element	Design Standard	Source
<u>Design Year</u>	2045	- Scope of Services
<u>Design Vehicle</u>	WB-62FL/WB-67	- AASHTO 2004, Pg. 18 - FDOT PPM Vol. I, p 1-19
<u>Design Speed</u> Rural Freeway Urban Freeway Urban Arterial Rural Arterial Other Frontage Road Service Road Access Road Ramp Directional Loop	70 mph 60 mph 45 mph ¹ 55 mph 45 mph 50 mph As appropriate 50 mph 30 mph	- FDOT PPM Vol. I, Tbl. 1.9.1, 1.9.2
<u>Lane Widths</u> Freeway Ramp 1-lane 2-lane Turning Roadway Arterial Collector/Service Road Bicycle Rural/Urban	12-ft 15-ft 24-ft Case dependent 12-ft 12-ft 5-ft/4-ft (designated or undesignated)	- FDOT PPM Vol. I, Tbl. 2.1.1, 2.1.2, 2.1.3 & 2.14.1

Design Element	Design Standard	Source																																																																																																																		
<u>Cross Slope (lanes 1-way)</u> Roadway 2-lane (2) 3-lane (3) 4-lane (4) ₂ Bridge Section <u>Max. Lane "Roll-over"</u> DS 35 mph DS 35 mph	-0.02 ft/ft (2) -0.02 ft/ft (2), -0.03 ft/ft (1) +0.02 ft/ft (1), -0.02 ft/ft (2), -0.03 (2) -0.02 (typical, uniform, no slope break) 4.0% 5.0% (between though lane & aux. lane) 6.0% (between though lane & aux. lane)	- FDOT PPM Vol. I, Fig. 2.1.1 - PPM Vol. I, Sect. 2.1.5 - FDOT PPM Vol. I, Fig. 2.1.1 - PPM Vol. I, Table 2.1.4																																																																																																																		
<u>Median Width</u> Freeway DS 60 mph DS 60 mph All Arterial & Collector DS 45 mph DS 45 mph Offset Left Turn Lanes Median width 30-ft Median width 30-ft	60 to (64-ft*) 40-ft 26-ft (with barrier) 22-ft 40-ft Parallel offset lane Taper offset lane	- FDOT PPM Vol. I, Tbl. 2.2.1 - FDOT PPM Vol. I, Sect. 2.13.3 & Fig. 2.13.2 - AASHTO Exh. 9-98																																																																																																																		
<u>Shoulder Width (lanes 1-way)</u> Freeway 3-lane or more 2-lane Ramp 1-lane 2-lane Aux. Lane Arterial & Collector (Norm. volume) 2-lane divided 1-lane undivided Service Road, 2-Lane, 2-Way, Undivided <u>Shoulder Cross Slope</u> <u>Max. Shoulder "Roll-over"</u> <u>Bridge section (lanes 1-way)</u> 2-lane 3-lane or more 1-lane ramp 2-lane ramp Service Road, 2-Lane, 2-Way, Undivided	<table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="2">Total (ft)</th> <th colspan="2">Paved (ft)</th> </tr> <tr> <th>Outside</th> <th>Left</th> <th>Outside</th> <th>Left</th> </tr> </thead> <tbody> <tr> <td>Freeway</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3-lane or more</td> <td>12</td> <td>12</td> <td>10</td> <td>10</td> </tr> <tr> <td>2-lane</td> <td>12</td> <td>8</td> <td>10</td> <td>4</td> </tr> <tr> <td>Ramp</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1-lane</td> <td>6</td> <td>6</td> <td>4</td> <td>2</td> </tr> <tr> <td>2-lane</td> <td>10</td> <td>8</td> <td>8</td> <td>4</td> </tr> <tr> <td>Aux. Lane</td> <td>12</td> <td>N/A</td> <td>10</td> <td>N/A</td> </tr> <tr> <td>Arterial & Collector (Norm. volume)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2-lane divided</td> <td>10</td> <td>8</td> <td>5</td> <td>0</td> </tr> <tr> <td>1-lane undivided</td> <td>10</td> <td>N/A</td> <td>5</td> <td>N/A</td> </tr> <tr> <td>Service Road, 2-Lane, 2-Way, Undivided</td> <td>10</td> <td>10</td> <td>5</td> <td>5</td> </tr> <tr> <td><u>Shoulder Cross Slope</u></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><u>Max. Shoulder "Roll-over"</u></td> <td>0.06</td> <td>0.05</td> <td>-</td> <td>-</td> </tr> <tr> <td><u>Bridge section (lanes 1-way)</u></td> <td>7.0%</td> <td>7.0%</td> <td>-</td> <td>-</td> </tr> <tr> <td>2-lane</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3-lane or more</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1-lane ramp</td> <td>10</td> <td>6</td> <td>-</td> <td>-</td> </tr> <tr> <td>2-lane ramp</td> <td>10</td> <td>10</td> <td>-</td> <td>-</td> </tr> <tr> <td>Service Road, 2-Lane, 2-Way, Undivided</td> <td>6</td> <td>6</td> <td>-</td> <td>-</td> </tr> <tr> <td>1-lane undivided</td> <td>10</td> <td>6</td> <td>-</td> <td>-</td> </tr> <tr> <td>2-lane</td> <td>10</td> <td>10</td> <td>-</td> <td>-</td> </tr> </tbody> </table>		Total (ft)		Paved (ft)		Outside	Left	Outside	Left	Freeway					3-lane or more	12	12	10	10	2-lane	12	8	10	4	Ramp					1-lane	6	6	4	2	2-lane	10	8	8	4	Aux. Lane	12	N/A	10	N/A	Arterial & Collector (Norm. volume)					2-lane divided	10	8	5	0	1-lane undivided	10	N/A	5	N/A	Service Road, 2-Lane, 2-Way, Undivided	10	10	5	5	<u>Shoulder Cross Slope</u>					<u>Max. Shoulder "Roll-over"</u>	0.06	0.05	-	-	<u>Bridge section (lanes 1-way)</u>	7.0%	7.0%	-	-	2-lane					3-lane or more					1-lane ramp	10	6	-	-	2-lane ramp	10	10	-	-	Service Road, 2-Lane, 2-Way, Undivided	6	6	-	-	1-lane undivided	10	6	-	-	2-lane	10	10	-	-	- FDOT PPM Vol. I, Tbl. 2.3.1 to 2.3.4, Fig. 2.3.1 - Design Standards Index No. 510 - FDOT PPM Vol. I, Fig. 2.0.1, 2.0.2, 2.0.4
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<u>Border Width</u> Freeway Ramp Arterial/Collector DS 45 mph DS 45 mph Arterial/Collector (Curb & Gutter) DS = 45 mph DS 40 mph	94-ft, (94-ft desirable) 94-ft, (L.O.C. plus 10-ft as minimum) 40-ft 33-ft 14-ft (12-ft with bike lane) 12-ft (10-ft with bike lane)	- FDOT PPM Vol. I, Tbl. 2.5.1, 2.5.2 - (OOCEA Policy) ₃																																																																																																																		

Design Element	Design Standard		Source
	Fill Height (ft)	Rate	
<u>Roadside Slopes</u> Front slope Front slope (curb & gutter) Back slope Back slope (curb & gutter)	0.0-5	1:6	- FDOT PPM Vol. I, Tbl. 2.4.1 - (OOCEA Policy) ₃ Use 1:3 slopes, avoid 1:2 slopes except where as necessary
	5-10	1:6 to CZ & 1:4	
	10-20	1:6 to CZ & 1:3	
	□□20	1:2 with guardrail (Use 10-ft bench at half the height of fill)	
	All	1:2 not flatter than 1:6	
	All	1:4 or 1:3 w/ standard width trap, ditch & 1:6 front slope	
	All	1:2 not flatter than 1:6	
<u>Max. Grade / Max. Change in Grade</u> Freeway (Rural / Urban) Ramp Directional Loop Arterial Rural Urban Collector Frontage Road/Service Road Min. Grade Curb & Gutter	Max. Grade		- FDOT PPM Vol. I, Tbl. 2.6.1, 2.6.2 - FDOT PPM Vol. I, Tbl. 2.6.4
	3.0%	0.20% / 0.40%	
	5.0%	0.60%	
	7.0%	1.00%	
	3.5%	0.50%	
	6.0%	0.70%	
	6.5% to 9.0%	-	
8.0%	0.70%		
0.3%	-		
<u>Minimum Stopping Sight Distance</u> (Grades 2.0%)	Dsgn. Speed (mph)	Distance (ft)	- FDOT PPM Vol. I, Tbl. 2.7.1
	70	730	
	60	570	
	55	495	
	50	425	
	45	360	
30	200		
<u>Decision Sight Distance</u> (Per avoidance maneuver)	Dsgn. Speed (mph)	Distance (ft)	- AASHTO Exh. 3-3
	70	780-1445	
	60	610-1280	
	55	535-1135	
	50	465-1030	
	45	395-930	
30	220-620		

<u>Horizontal Curve Length</u> Freeway Others	V = Design Speed 30V (15V min.) 15V (400-ft min.)	- FDOT PPM Vol. I, Tbl. 2.8.2a
<u>Max. Curvature (Degree of Curve)</u> Freeway DS = 70 mph Rural DS = 60 mph Urban Arterial DS = 55 mph Rural DS = 45 mph Urban Collector DS = 45 mph Frontage Road DS = 50 mph Service Road Ramp DS = 50 mph Directional DS = 30 mph Loop	 3 30' 00" 5 15' 00" 6 30' 00" 8 15' 00" 8 15' 00" 8 15' 00" 8 15' 00" 24 45' 00"	- FDOT PPM Vol. I, Tbl. 2.8.3

Design Element	Design Standard		Source
<u>Superelevation Transition</u> Tangent Curve Spirals	80% (50% min.) 20% (50% min.) <i>(Curves □□1□□30' 00" do not use spirals)</i>		-FDOT PPM Vol. I, Sect. 2.9 - (OOCEA Policy) ₃
<u>Superelevation Rates</u> Freeway DS = 70 mph Rural DS = 60 mph Urban Arterial DS = 55 mph Rural DS = 45 mph Urban Collector DS = 45 mph Frontage Road DS = 50 mph Service Road Ramp DS = 50 mph Directional DS = 30 mph Loop	e_{max}	SE Trans. Rate	- FDOT PPM Vol. I, Tbl. 2.9.1, 2.9.2, 2.9.3, 2.9.4 - Design Standards Ind. No. 510, 511 - AASHTO Exh. 3-28
<u>Vertical Curves</u> Length, L = KA	Dsgn. Speed (mph)	K-value Crest Sag	- FDOT PPM Vol. I, Tbl. 2.8.5, 2.8.6 - AASHTO Exh. 3-72 (crest), 3-75 (sag) - OOCEA Policy ₃ <i>Note: FDOT K-values for "ALL OTHER FACILITIES" are desirable</i>
<u>Minimum Lengths</u> Freeway DS = 70 mph Rural DS = 60 mph Urban Arterial DS = 55 mph Rural DS = 45 mph Urban Collector DS = 45 mph Frontage Road DS = 50 mph Service Road Ramp DS = 50 mph Directional DS = 30 mph Loop	Crest Sag		
<u>Ramps</u> Ramp Terminals Length Taper	<u>Entrance</u> "Parallel-Type" 900 to 1200-ft 300-ft (25:1)	<u>Exit</u> "Taper-Type" 550-ft (2□□to 5□, 4□□desirable)	- Design Standards Ind. No. 525 - AASHTO Pg. 850-856
Minimum Spacing Entrance to Exit ⁶ Exit to Entrance Entrance to Entrance Exit to Exit Turning Roadways	1,600 to 2,000-ft 500-ft 1,000-ft 1,000-ft 600 to 800-ft		- AASHTO Exh. 10-68, Pg. 844

Design Element	Design Standard	Source
<u>Lane Drop Taper</u>	L = WS (DS □□45 mph) L = WS ² /60 (DS □□45 mph) 50:1 min, 70:1 desirable (freeways)	- Design Standards Ind. No. 525, 526 - AASHTO Pg. 818
<u>Clear Zone</u> Freeway DS = 70 mph Rural DS = 60 mph Urban Arterial DS = 55 mph Rural DS = 45 mph Urban Collector DS = 45 mph Frontage Road DS = 50 mph Service Road Ramp DS = 50 mph Directional 1 to 2-lane DS = 30 mph Loop 1 to 2-lane	36-ft 36-ft 30-ft 4-ft (Curb & Gutter) As appropriate 4-ft (Curb & Gutter) 24-ft 14-ft to 24-ft 10-ft to 18-ft	- FDOT PPM Vol. I, Tbl. 2.11.11
<u>Vertical Clearance</u> Over Roadway Over Railroad Sign over Roadway Over Water	16'-6" 23'-6" 17'-6" 12'-0" min.	- FDOT PPM Vol. I, Tbl. 2.10.1 to 2.10.4, Sect. 2.10.1
<u>Limited Access Limits</u> Rural Urban Crossroad overpass/no interchange	300-ft min. 100-ft min 200-ft	- FDOT PPM Vol. I, Sect. 2.14.1

Ramp Operations

- a. Two thousand (2,000) ft. between entrance and exit terminals - full freeways
- b. Six hundred (600) ft. between exit and entrance terminals
- c. Entrance Ramp Taper of 900 ft. (1° - convergence)
- d. Exit Ramp Taper of 550 ft. (3° - divergence)

Right-of-way


- a. Ten (10) ft. from back of walls or limit of construction.
- b. Two (2) ft. from back of sidewalk on frontage roads.
- c. Drainage and construction easements as required.
- d. Ninety-four (94) ft. from ramp or mainline traveled way desirable for limited access ROW.
- e. Limited access right-of-way limits per Index 450.

**CONSENT AGENDA ITEM
#8**

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

MEMORANDUM

TO: CFX Board Members

FROM: Aneth Williams
Director of Procurement 
Aneth Williams (Jun 3, 2020 10:30 EDT)

DATE: May 27, 2020

SUBJECT: Approval of Contract Award to TLP Engineering Consultants, Inc. for Design Consultant Services for SR 408 Tampa Avenue Interchange
Project 408-315, Contract No. 001617

The Board approved on February 13, 2020, the final ranking and authorization to negotiate with firms for the Design Consultant Services for SR 408 Tampa Avenue Interchange. Negotiations with TLP Engineering Consultants, Inc. have been completed. Board award of the contract to TLP Engineering Consultants, Inc. is requested in the not-to-exceed amount of \$5,600,000.00. The contract is for five (5) years with five one-year renewals.

This project is included in the Five-Year Work Plan.

Reviewed by: 

Will Hawthorne, PE
Director of Engineering


Glenn Pressimone (Jun 3, 2020 11:37 EDT)

AGREEMENT

**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
AND
TLP ENGINEERING CONSULTANTS, INC.**

SR 408 TAMPA AVENUE INTERCHANGE

CONTRACT NO. 001617, PROJECT 408-315

**CONTRACT DATE: JUNE 11, 2020
CONTRACT AMOUNT: \$5,600,000.00**

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

**AGREEMENT, SCOPE OF SERVICES, METHOD OF
COMPENSATION, DETAILS OF COSTS AND FEES,
PROJECT ORGANIZATIONAL CHART, PROJECT
LOCATION MAP, SCHEDULE, AND NON-CONFLICT
DISCLOSURE FORM**

**AGREEMENT, SCOPE OF SERVICES, METHOD OF COMPENSATION, DETAILS OF
COSTS AND FEES, PROJECT ORGANIZATIONAL CHART, PROJECT LOCATION
MAP, SCHEDULE, AND NON-CONFLICT DISCLOSURE FORM**

FOR

**SR 408 TAMPA AVENUE INTERCHANGE
PROJECT 408-315**

DESIGN SERVICES

CONTRACT NO. 001617

JUNE 2020

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

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C	Exhibit "C", Details of Cost and Fees	
D	Exhibit "D", Project Organization Chart	
E	Exhibit "E", Project Location Map	
F	Exhibit "F", Schedule	
G	Exhibit "G", Potential Conflict Disclosure Form	

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**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
AGREEMENT FOR PROFESSIONAL SERVICES**

THIS AGREEMENT, made and entered into this 11th day of June 2020, by and between the CENTRAL FLORIDA EXPRESSWAY AUTHORITY, a corporate body and agency of the State of Florida, created by Chapter 2014-171, Laws of Florida, which is codified in Chapter 348, Part III of the Florida Statutes, hereinafter "CFX," and TLP Engineering Consultants, Inc., hereinafter called "CONSULTANT," registered and authorized to conduct business in the State of Florida, carrying on professional practice in engineering, with offices located at 450 South Orange Avenue, Suite 450, Orlando, FL 32801.

WITNESSETH:

WHEREAS, CONSULTANT represents that it is fully qualified and authorized to render the professional services contracted herein.

NOW, THEREFORE, in consideration of the mutual understandings and covenants set forth herein, CFX and CONSULTANT agree as follows:

1.0. DEFINITIONS.

Reference herein to the Project Manager shall mean CFX's Director of Engineering or his authorized designee. The Project Manager shall provide the management and technical direction for this Agreement on behalf of CFX. All technical and administrative provisions of this Agreement shall be managed by the Project Manager and the CONSULTANT shall comply with all of the directives of the Project Manager that are within the purview of this Agreement. Decisions concerning Agreement amendments and adjustments, such as time extensions and supplemental agreements shall be made by the Project Manager.

2.0. SERVICES TO BE PROVIDED

CFX does hereby retain the CONSULTANT to furnish certain professional services in connection with the design of SR 408 Tampa Avenue Interchange identified as Project 408-315 and Contract No. 001617.

The CONSULTANT and CFX mutually agree to furnish, each to the other, the respective services, information and items as described in **Exhibit "A"**, Scope of Services, attached hereto and made a part hereof.

Before rendering any of the services, any additions or deletions to the work described in **Exhibit "A"**, and before undertaking any changes or revisions to such work, the parties shall negotiate any necessary cost changes and shall enter into a Supplemental Amendment covering such modifications and the compensation to be paid therefore.

The work covered by this Agreement as described in **Exhibit "A,"** includes the preparation of construction plans for one construction project. If the work is divided into more than one construction project by CFX's Project Manager, then the CONSULTANT shall supply construction plans for each project. A Supplemental Agreement will be required for the additional work.

All construction plans, documents, reports, studies and other data prepared by the CONSULTANT shall bear the endorsement of a person in the full employ of the CONSULTANT and duly registered by the State of Florida in the appropriate professional category.

After CFX's acceptance of construction plans and documents for the project, the original set of CONSULTANT's drawings, tracings, plans, maps and CADD files shall be provided to CFX, along with one record set of the final plans. The CONSULTANT shall signify, by affixing an endorsement (seal/signature, as appropriate) on every sheet of the record set, that the work shown on the endorsed sheets was produced by the CONSULTANT. With the tracings and the record set of prints, the CONSULTANT shall submit a final set of design computations. The computations shall be bound in an 8-1/2 x 11" format and shall be endorsed (seal/signature, as appropriate) by the CONSULTANT. Refer to **Exhibit "A"** for the computation data required for this Agreement.

The CONSULTANT shall submit a final set of reports and studies which shall be endorsed (seal/signature) by the CONSULTANT.

The CONSULTANT shall not be liable for use by CFX of said plans, documents, reports, studies or other data for any purpose other than intended by the terms of this Agreement.

This Agreement is considered a non-exclusive Agreement between the parties.

3.0. TERM OF AGREEMENT AND RENEWALS

Unless otherwise provided herein or by Supplemental Agreement, the provisions of this Agreement will remain in full force and effect for a five (5) year term from the date of the Notice to Proceed for the required project services as detailed in **Exhibit "A,"** with five one-year renewals at CFX's option. The options to renew are at the sole discretion and election of CFX. Renewals will be based, in part, on a determination by CFX that the value and level of service provided by the CONSULTANT are satisfactory and adequate for CFX's needs. If a renewal option is exercised, CFX will provide CONSULTANT with written notice of its intent at least thirty (30) days prior to the expiration of the original term and subsequent renewal, if any.

The CONSULTANT agrees to commence the scheduled project services to be rendered within ten (10) calendar days from the date specified in the written Notice to Proceed from the Project Manager, which Notice to Proceed will become part of this Agreement. The CONSULTANT shall complete scheduled project services within the timeframe(s) specified in **Exhibit "A"**, or as may be modified by subsequent Supplemental Agreement.

4.0. PROJECT SCHEDULE

The CONSULTANT agrees to provide Project Schedule progress reports for each project in a format acceptable to CFX and at intervals established by CFX. CFX will be entitled at all times to be advised, at its request, as to the status of work being done by the CONSULTANT and of the details

thereof. Coordination shall be maintained by the CONSULTANT with representatives of CFX, or of other agencies interested in the project on behalf of CFX. Either party to the Agreement may request and be granted a conference.

In the event there are delays on the part of CFX as to the approval of any of the materials submitted by the CONSULTANT or if there are delays occasioned by circumstances beyond the control of the CONSULTANT, which delay the scheduled project completion date, CFX may grant to the CONSULTANT by "Letter of Time Extension" an extension of the scheduled project completion date equal to the aforementioned delays. The letter will be for time only and will not include any additional compensation.

It shall be the responsibility of the CONSULTANT to ensure at all times that sufficient time remains within the project schedule within which to complete the services on the project. In the event there have been delays which would affect the scheduled project completion date, the CONSULTANT shall submit a written request to CFX which identifies the reason(s) for the delay, the amount of time related to each reason and specific indication as to whether or not the delays were concurrent with one another. CFX will review the request and make a determination as to granting all or part of the requested extension.

In the event the scheduled project completion date is reached and the CONSULTANT has not requested, or if CFX has denied, an extension of the completion date, partial progress payments will be stopped when the scheduled project completion date is met. No further payment for the project will be made until a time extension is granted or all work has been completed and accepted by CFX.

5.0. PROFESSIONAL STAFF

The CONSULTANT shall maintain an adequate and competent professional staff to enable the CONSULTANT to timely perform under this Agreement. The CONSULTANT shall continue to be authorized to do business within the State of Florida. In the performance of these professional services, the CONSULTANT shall use that degree of care and skill ordinarily exercised by other similar professionals in the field under similar conditions in similar localities. The CONSULTANT shall use due care in performing in a design capacity and shall have due regard for acceptable standards of design principles. The CONSULTANT may associate with it such specialists, for the purpose of its services hereunder, without additional cost to CFX, other than those costs negotiated within the limits and terms of this Agreement. Should the CONSULTANT desire to utilize specialists, the CONSULTANT shall be fully responsible for satisfactory completion of all subcontracted work. The CONSULTANT, however, shall not sublet, assign or transfer any work under this Agreement to other than the associate consultants listed below without the written consent of CFX. It is understood and agreed that CFX will not, except for such services so designated herein, permit or authorize the CONSULTANT to perform less than the total contract work with other than its own organization.

Prior to retaining a subconsultant, or assigning any work to a subconsultant, the CONSULTANT shall verify that the subconsultant does not have any conflicts and acknowledges its duty to comply with CFX's Code of Ethics. The CONSULTANT shall ensure that each subconsultant adheres to, and cause all subconsultants to be bound by, all requirements, conditions, and standards set forth herein. The CONSULTANT shall collect and maintain the necessary subconsultant compliance and

acknowledgement documentation and remove any subconsultant immediately, if the necessary said documentation is unavailable or the subconsultant is not adhering to the requirements and standards herein. The CONSULTANT shall provide subconsultant compliance and acknowledgement documentation to CFX upon request.

The approved subconsultants are:

Ardaman & Associates, Inc.	Class II	DRMP, Inc.	Class I
DRMP, Inc. (Survey)	Class II	Traffic Engineering Data Solutions, Inc.	Class I
Tierra, Inc.	Class II	TLP Engineering Consultants, Inc.	Class I
		Vanasse Hangen Brustlin, Inc.	Class I

CONSULTANT shall not further sublet, sell, transfer, assign, delegate, subcontract, or otherwise dispose of this Contract or any portion thereof, or of the CONSULTANT's right, title, or interest therein without the written consent of CFX, which may be withheld in CFX's sole and absolute discretion. Any attempt by CONSULTANT to dispose of this Contract as described above, in part or in whole, without CFX's written consent shall be null and void and shall, at CFX's option, constitute a default under the Contract.

If, during the term of the Contract, CONSULTANT desires to subcontract any portion(s) of the work to a subconsultant that was not disclosed by the CONSULTANT to CFX at the time that the Contract was originally awarded, and such subcontract would, standing alone or aggregated with prior subcontracts awarded to the proposed subconsultant, equal or exceed twenty five thousand dollars (\$25,000.00), the CONSULTANT shall first submit a request to CFX's Director of Procurement for authorization to enter into such subcontract. Except in the case of an emergency, as determined by the Executive Director or his/her designee, no such subcontract shall be executed by the CONSULTANT until it has been approved by CFX Board. In the event of a designated emergency, the CONSULTANT may enter into such a subcontract with the prior written approval of the Executive Director or his/her designee, but such subcontract shall contain a provision that provides that it shall be automatically terminated if not approved by CFX Board at its next regularly scheduled meeting.

6.0. COMPENSATION

CFX agrees to pay the CONSULTANT compensation as detailed in **Exhibit "B"**, Method of Compensation, attached hereto and made a part hereof, in the not-to-exceed amount of \$5,600,000.00 for the initial five-year term of this Agreement. Bills for fees or other compensation for services or expenses shall be submitted to CFX in detail sufficient for a proper pre-audit and post audit thereof.

The CONSULTANT may be liable for CFX costs resulting from errors or deficiencies in designs furnished under this Agreement. CFX may enforce such liability and collect the amount due if the recoverable cost will exceed the administrative cost involved or is otherwise in CFX's best interest. Records of costs incurred by the CONSULTANT under terms of this Agreement shall be maintained and made available upon request to CFX at all times during the period of this Agreement and for five (5) years after final payment is made. Copies of these documents and records shall be furnished to CFX

upon request. The CONSULTANT agrees to incorporate the provisions of this paragraph in any subcontract into which it might enter with reference to the work performed. Records of costs incurred includes the CONSULTANT's general accounting records and the project records, together with supporting documents and records, of the CONSULTANT and all subconsultants performing work on the project, and all other records of the CONSULTANT and subconsultants considered necessary by CFX for a proper audit of project costs. The obligations in this paragraph shall survive the termination of the Agreement and continue in full force and effect.

The general cost principles and procedures for the negotiation and administration, and the determination or allowance of costs under this Agreement shall be as set forth in the Code of Federal Regulations, Titles 23, 48, 49, and other pertinent Federal and State Regulations, as applicable, with the understanding that there is no conflict between State and Federal regulations in that the more restrictive of the applicable regulations will govern. Whenever travel costs are included in **Exhibit "B"**, the provisions of Section 112.061, Florida Statutes, shall govern as to reimbursable costs.

Payments shall be made in accordance with the Local Government Prompt Payment Act in part VII, Section 218, Florida Statutes.

7.0. DOCUMENT OWNERSHIP AND RECORDS

All plans, documents, reports, studies, and/or other data prepared or obtained under this Agreement shall be considered instruments made for services and shall become the property of CFX without restriction or limitation on their use on this project; and shall be made available, upon request, to CFX at any time. CFX will have the right to visit the site for inspection of the work and the drawings of the CONSULTANT at any time. Unless changed by written agreement of the parties, said site shall be 450 South Orange Avenue, Suite 450, Orlando, FL 32801.

Notwithstanding Section 17, entitled "Communications, Public Relations, and Use of Logos," CONSULTANT acknowledges that CFX is a body politic and corporate, an agency of the State of Florida, and is subject to the Public Records Act codified in Chapter 119, Florida Statutes. To the extent that the CONSULTANT is in the possession of documents that fall within the definition of public records subject to the Public Records Act, which public records have not yet been delivered to CFX, CONSULTANT agrees to comply with Section 119.0701, Florida Statutes.

IF THE CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONSULTANT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT Phone: 407-690-5000, e-mail: publicrecords@cfxway.com, and address: Central Florida Expressway Authority, 4974 ORL Tower Road, Orlando, FL. 32807.

An excerpt of Section 119.0701, Florida Statutes is below.

Per Section 119.0701(1), "Contractor" means an individual, partnership, corporation, or business entity that enters into a contract for services with a public agency and is acting on behalf of the public agency as provided under s. 119.011(2).

Per Section 119.0701(b). The contractor shall comply with public records laws, specifically to:

1. Keep and maintain public records required by the public agency to perform the service.
2. Upon request from the public agency's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in this chapter or as otherwise provided by law.
3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the public agency.
4. Upon completion of the contract, transfer, at no cost, to the public agency all public records in possession of the contractor or keep and maintain public records required by the public agency to perform the service. If the contractor transfers all public records to the public agency upon completion of the contract, the contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the contractor keeps and maintains public records upon completion of the contract, the contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the public agency, upon request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.

The CONSULTANT shall allow public access to all documents, papers, letters, or other material as approved and authorized by CFX and subject to the provisions of Chapter 119, Florida Statutes, and made or received by the CONSULTANT in conjunction with this Agreement. Failure by the CONSULTANT to grant such public access shall be grounds for immediate unilateral cancellation of this Agreement by CFX.

The obligations in Section 7.0, Document Ownership and Records, shall survive the expiration or termination of this Agreement and continue in full force and effect.

8.0. COMPLIANCE WITH LAWS

The CONSULTANT shall comply with all federal, state and local laws and ordinances applicable to the work or payment for work thereof, and shall not discriminate on the grounds of race, color, religion, sex, or national origin in the performance of work under this contract.

The CONSULTANT shall keep fully informed regarding and shall fully and timely comply with all current laws and future laws that may affect those engaged or employed in the performance of this Agreement.

8.1 Limitation of Liability: Pursuant to SECTION 558.0035(1)(d), Florida Statutes, CONSULTANT maintains any professional liability insurance required under this contract. Therefore, pursuant to Section 558.0035(1)(c), Florida Statutes, an individual employee or agent of the CONSULTANT may not be held individually liable for damages resulting from negligence occurring within the course and scope of professional services rendered under this professional services contract

9.0. WAGE RATES AND TRUTH-IN-NEGOTIATIONS CERTIFICATE

The CONSULTANT hereby certifies, covenants and warrants that wage rates and other factual unit costs as shown in attached **Exhibit "C"**, Details of Costs and Fees, supporting the compensation provided in Section 6.0 are accurate, complete and current as of the date of this Agreement. It is further agreed that said price provided in Section 6.0 hereof shall be adjusted to exclude any significant sums where CFX shall determine the price was increased due to inaccurate, incomplete or non-current wage rates and other factual unit costs. All such adjustments shall be made within one year following the date of final billing or acceptance of the work by CFX, whichever is later.

10.0. TERMINATION

CFX may terminate this Agreement in whole or in part, for any reason or no reason, at any time the interest of CFX requires such termination.

If CFX determines that the performance of the CONSULTANT is not satisfactory, CFX shall have the option of (a) immediately terminating in writing the Agreement or (b) notifying the CONSULTANT in writing of the deficiency with a requirement that the deficiency be corrected within a specified time, otherwise the Agreement will be terminated at the end of such time.

If CFX requires termination of the Agreement for reasons other than unsatisfactory performance of the CONSULTANT, CFX shall notify the CONSULTANT in writing of such termination, not less than seven (7) calendar days as to the effective date of termination or specify the stage of work at which the Agreement is to be terminated.

If CFX abandons the work or subtracts from the work, suspends, or terminates the Agreement as presently outlined, the CONSULTANT shall be compensated in accordance with **Exhibit "B"** for work properly performed by the CONSULTANT prior to abandonment or termination of the Agreement. The ownership of all engineering documents completed or partially completed at the time of such termination or abandonment, shall be transferred to and retained by CFX.

CFX reserves the right to cancel and terminate this Agreement in the event the CONSULTANT or any employee, servant, or agent of the CONSULTANT is indicted or has a direct information issued against him for any crime arising out of or in conjunction with any work being performed by the CONSULTANT for or on behalf of CFX, without penalty. It is understood and agreed that in the event of such termination, all tracings, plans, specifications, maps, and data prepared or obtained under this Agreement shall immediately be turned over to CFX. The CONSULTANT shall be compensated for work properly performed rendered up to the time of any such termination in accordance with Section 7.0 hereof. CFX also reserves the right to terminate or cancel this Agreement in the event the CONSULTANT shall be placed in either voluntary or involuntary bankruptcy or an assignment be made for the benefit of creditors. CFX further reserves the right to suspend the qualifications of the CONSULTANT to do business with CFX upon any such indictment or direct information. In the event that any such person against whom any such indictment or direct information is brought shall have such indictment or direct information dismissed or be found not guilty, such suspension on account thereof may be lifted by CFX.

11.0. ADJUSTMENTS

All services shall be performed by the CONSULTANT to the reasonable satisfaction of the Project Manager who shall decide all questions, difficulties and dispute of any nature whatsoever that may arise under or by reason of this Agreement, the prosecution and fulfillment of the services hereunder and the character, quality, amount and value thereof. Adjustments of compensation and term of the Agreement, because of any major changes in the work that may become necessary or desirable as the work progresses, shall be left to the absolute discretion of the Executive Director and Supplemental Agreement(s) of such a nature as required may be entered into by the parties in accordance herewith. Disputes between the Project Manager and the CONSULTANT that cannot be resolved shall be referred to the Executive Director whose decision shall be final.

In the event that the CONSULTANT and CFX are not able to reach an agreement as to the amount of compensation to be paid to the CONSULTANT for supplemental work desired by CFX, the CONSULTANT shall be obligated to proceed with the supplemental work in a timely manner for the amount determined by CFX to be reasonable. In such event, the CONSULTANT will have the right to file a claim with CFX for such additional amounts as the CONSULTANT deems reasonable for consideration by the Executive Director; however, in no event will the filing of the claim or the resolution or litigation thereof, through administrative procedures or the courts, relieve the CONSULTANT from the obligation to timely perform the supplemental work.

12.0. HOLD HARMLESS AND INDEMNIFICATION, SOVEREIGN IMMUNITY

The CONSULTANT shall indemnify and hold harmless CFX, and its officers and employees from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the CONSULTANT and other persons employed or utilized by the design professional in the performance of the Agreement.

Subject to the provisions and limitations set forth in law, the CONSULTANT expressly agrees to

indemnify, defend, and hold harmless CFX, and its officers, and employees, from any claim, liabilities, losses, damages, and costs, including, but not limited to, reasonable attorneys' fees, arising from any act, error or omission of the CONSULTANT and other persons employed or utilized by the CONSULTANT in the performance of the Agreement, except that the CONSULTANT will not be liable under this paragraph for claims of, or damages resulting from, gross negligence, or willful, wanton or intentional misconduct of CFX, its officers, or employees during the performance of the Agreement.

When CFX receives a notice of claim for damages that may have been caused by the CONSULTANT in the performance of services required by the CONSULTANT under this Agreement, CFX will immediately forward the notice of claim to the CONSULTANT. The CONSULTANT and the AUTHORITY will evaluate the notice of claim and report their findings to each other within fourteen (14) calendar days.

In the event a lawsuit is filed against CFX alleging negligence or wrongdoing by the CONSULTANT, CFX and the CONSULTANT will jointly discuss options in defending the lawsuit. After reviewing the lawsuit, CFX will determine whether to request the participation of the CONSULTANT in the defense of the lawsuit or to request that the CONSULTANT defend CFX in such lawsuit as described in this section. CFX's failure to notify the CONSULTANT of a notice of claim will not release the CONSULTANT from any of the requirements of this section upon subsequent notification by CFX to the CONSULTANT of the notice of claim or filing of a lawsuit. CFX and the CONSULTANT will pay their own cost for the evaluation, settlement negotiations and trial, if any. However, if only one party participates in the defense of the claim at trial, that party is responsible for all of its costs, but if the verdict determines that there is joint responsibility, the costs of defense and liability for damages will be shared in the same percentage as that judicially established, provided that CFX's liability does not exceed the limits and limitations arising from Section 768.28, Florida Statutes, the doctrine of sovereign immunity, and law.

CFX is an agency of the State of Florida whose limits of liability are set forth in Section 768.28, Florida Statutes, and nothing herein shall be construed to extend the limits of liability of CFX beyond that provided in Section 768.28, Florida Statutes. Nothing herein is intended as a waiver of CFX's sovereign immunity under Section 768.28, Florida Statutes, or law. Nothing hereby shall inure to the benefit of any third party for any purpose, which might allow claims otherwise barred by sovereign immunity or operation of law. Furthermore, all of CFX's obligations are limited to the payment of no more than the amount limitation per person and in the aggregate contained in Section 768.28, Florida Statutes, except for payments for work properly performed, even if the sovereign immunity limitations of that statute are not otherwise applicable to the matters as set forth herein.

The obligations in Section 12.0, Hold Harmless and Indemnification, shall survive the expiration or termination of this Agreement and continue in full force and effect.

13.0. INFRINGEMENT OF PATENTS AND COPYRIGHTS

The CONSULTANT shall pay all royalties and assume all costs arising from the use of any invention, design, process materials, equipment, product or device which is the subject of patent rights or copyrights. The CONSULTANT shall, at its expense, hold harmless and defend CFX against any claim, suit or proceeding brought against CFX which is based upon a claim, whether rightful or otherwise, that

the goods or services, or any part thereof, furnished under this Agreement, constitute an infringement of any patent or copyright of the United States. The CONSULTANT shall pay all damages and costs awarded against CFX. The obligations in Section 13.0, Infringement of Patents and Copyrights, shall survive the expiration or termination of this Agreement and continue in full force and effect.

14.0. THIRD PARTY BENEFICIARY

The CONSULTANT warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the CONSULTANT to solicit or secure this Agreement, and that the CONSULTANT has not paid or agreed to pay any person, company, corporation, individual or firm, other than a bona fide employee working solely for the CONSULTANT any fee, commission, percentage, gift or any other consideration, contingent upon or resulting from the award or making of this Agreement. It is understood and agreed that the term "fee" shall also include brokerage fee, however denoted. For the breach or violation of this paragraph, CFX shall have the right to terminate this Agreement without liability, and, at its discretion, to deduct from the contract price, or otherwise recover, the full amount of such fee, commission percentage, gift or consideration.

15.0. INSURANCE

The CONSULTANT, at its own expense, shall keep in force and at all times maintain during the term of this Agreement all insurance of the types and to the limits specified herein.

The CONSULTANT shall require and ensure that each of its subconsultants providing services hereunder procures and maintains, until the completion of the services, insurance of the requirements, types and to the limits specified herein. Upon request from CFX, the CONSULTANT shall furnish copies of certificates of insurance and endorsements evidencing coverage of each subconsultant.

The CONSULTANT shall require all insurance policies in any way related to the work and secured and maintained by the CONSULTANT to include clauses stating each underwriter shall waive all rights of recovery, under subrogation or otherwise, against CFX. The CONSULTANT shall require of subconsultants, by appropriate written agreements, similar waivers each in favor of all parties enumerated in this section. When required by the insurer, or should a policy condition not permit an endorsement, the CONSULTANT agrees to notify the insurer and request that the policy(ies) be endorsed with a Waiver of Transfer of Rights of Recovery Against Others, or an equivalent endorsement.

This Waiver of Subrogation requirement shall not apply to any policy, which includes a condition that specifically prohibits such an endorsement or voids coverage should the CONSULTANT enter into such an agreement on a pre-loss basis. At the CONSULTANT's expense, all limits must be maintained.

15.1 Commercial General Liability coverage shall be on an occurrence form policy for all operations including, but not limited to, Contractual, Products and Completed Operations, and Personal Injury. The limits shall be not less than One Million Dollars (\$1,000,000) per occurrence, Combined Single Limits (CSL) or its equivalent. The general aggregate limit shall apply separately to this Agreement (with the ISO CG 25 01 or insurer's equivalent endorsement provided to CFX) or the general aggregate limit shall be twice the required occurrence limit. CFX shall be listed as an additional insured. ISO Form CG 20 10 11 85 or if not available, ISO Forms CG 20 10 10 01 and CG 20 37 10 01, or if not

available, their equivalent acceptable to CFX, shall be used to meet these requirements and a photocopy of same shall be provided with the Certificate. The CONSULTANT further agrees coverage shall not contain any endorsement(s) excluding or limiting Product/Completed Operations, Independent Consultants, Broad Form Property Damage, X-C-U Coverage, Contractual Liability, or Severability of Interests. The Additional Insured Endorsement included on all such insurance policies shall state that coverage is afforded the additional insured with respect to claims arising out of operations performed by or on behalf of the insured. If the additional insureds have other insurance which is applicable to the loss, such other insurance shall be excess to any policy of insurance required herein. The amount of the insurer's liability shall not be reduced by the existence of such other insurance.

15.2 Business Automobile Liability coverage shall be on an occurrence form policy for all owned, non-owned and hired vehicles issued on ISO form CA 00 01 or its equivalent. The limits shall be not less than One Million Dollars (\$1,000,000) per occurrence/annual aggregate. In the event the CONSULTANT does not own automobiles the CONSULTANT shall maintain coverage for hired and non-owned auto liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

Each of the above insurance policies shall include the following provisions: (1) The standard severability of interest clause in the policy and when applicable the cross liability insurance coverage provision which specifies that the inclusion of more than one insured shall not operate to impair the rights of one insured against another insured, and the coverages afforded shall apply as though separate policies had been issued to each insured; (2) The stated limits of liability coverage for Commercial/Comprehensive General Liability, and Business Automobile Liability, assumes that the standard "supplementary payments" clause will pay in addition to the applicable limits of liability and that these supplementary payments are not included as part of the insurance policies limits of liability.

15.3 Workers' Compensation and Employer's Liability Insurance shall be provided as required by law or regulation (statutory requirements). Employer's Liability insurance shall be provided in amounts not less than \$100,000 per accident for bodily injury by accident, \$100,000 per employee for bodily injury by disease, and \$500,000 policy limit by disease. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of CFX for all work performed by the CONSULTANT, its employees, agents and subconsultants.

15.4 Professional Liability Coverage shall have limits of not less than One Million Dollars (\$1,000,000) per claim / annual aggregate, protecting the selected firm or individual against claims of CFX for negligence, errors, mistakes or omissions in the performance of services to be performed and furnished by the CONSULTANT.

The CONSULTANT shall provide CFX with Certificate(s) of Insurance with required endorsements on all the policies of insurance and renewals thereof in a form(s) acceptable to CFX. CFX shall be notified in writing of any reduction, cancellation or substantial change of policy or policies at least thirty (30) days prior to the effective date of said action.

All insurance policies shall be issued by responsible companies who are acceptable to CFX and licensed to do business under the laws of the State of Florida. Each Insurance company shall minimally have an A.M. Best rating of A-VII. If requested by CFX, CFX shall have the right to examine copies and relevant provisions of the insurance policies required by this Agreement, subject to the appropriate confidentiality provisions to safeguard the proprietary nature of CONSULTANT manuscript policies.

In the event any of the aforementioned insurance policies provide greater coverage or greater limits than the minimum requirements set forth herein, then CFX shall be entitled to the full coverage and limits of such policies, and these insurance requirements will be deemed to require such greater coverage and greater limits.

Any deductible or self-insured retention must be declared to and approved by CFX. At the option of CFX, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as requests CFX, or the CONSULTANT shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

All such insurance required by the CONSULTANT shall be primary to, and not contribute with, any insurance or self-insurance maintained by CFX.

Compliance with these insurance requirements shall not relieve or limit the CONSULTANT's liabilities and obligations under this Agreement. Failure of CFX to demand such certificate or evidence of full compliance with these insurance requirements or failure of CFX to identify a deficiency from evidence provided will not be construed as a waiver of the CONSULTANT's obligation to maintain such insurance.

The acceptance of delivery by CFX of any certificate of insurance evidencing the required coverage and limits does not constitute approval or agreement by CFX that the insurance requirements have been met or the insurance policies shown in the certificates of insurance are in compliance with the requirements.

16.0. COMMUNICATIONS, PUBLIC RELATIONS, AND USE OF LOGOS

The CONSULTANT agrees that it shall make no statements, press releases or publicity releases concerning this Agreement or its subject matter or otherwise disclose or permit to be disclosed any of the data or other information obtained or furnished in compliance with this Agreement, or any particulars thereof, during the period of the Agreement, without first notifying CFX and securing its consent in writing, except as required by law. The CONSULTANT also agrees that it shall not publish, copyright or patent any of the data, documents, reports, or other written or electronic materials furnished in compliance with this Agreement, it being understood that, under Section 7.0 hereof, such data or information is the property of CFX.

Regarding the use of logos, printed documents and presentations produced for CFX shall not contain the name or logo of the CONSULTANT unless approved by CFX's Public Affairs Officer or his/her designee. Prior approval by CFX's Public Affairs Officer or his/her designee is required if a copy of the CFX logo or any CFX mark, including trademarks, service marks, or any other mark, collectively referred as "Marks," is to be used in a document or presentation. The Marks shall not be altered in any way. The width and height of the Marks shall be of equal proportions. If a black and white Mark is utilized, the Mark shall be properly screened to insure all layers of the Mark are visible. The proper presentation of CFX Marks is of utmost importance to CFX. Any questions regarding the use of CFX Marks shall be directed to the CFX Public Affairs Officer or his/her designee.

17.0. CONFLICT OF INTEREST AND STANDARD OF CONDUCT

No Contingent Fees. CONSULTANT warrants that it has not employed or retained any entity or person, other than a bona fide employee working solely for CONSULTANT, to solicit or secure this Contract, and that CONSULTANT has not paid or agreed to pay any person, company, corporation, individual or firm any fee, commission, percentage, gift or any other consideration, contingent upon or resulting from the award or making of this Contract. It is understood and agreed that the term "fee" shall also include brokerage fee, however denoted. For breach of this provision, CFX shall have the right to terminate this Contract without liability, and, at its discretion, to deduct from the contract price, or otherwise recover, the full amount of such fee, commission percentage, gift or consideration.

CONSULTANT acknowledges that CFX officials and employees are prohibited from soliciting and accepting funds or gifts from any person who has, maintains, or seeks business relations with CFX in accordance with CFX's Code of Ethics. CONSULTANT acknowledges that it has read the CFX's Code of Ethics and, to the extent applicable, CONSULTANT will comply with the aforesaid CFX's Code of Ethics in connection with performance of the Contract.

As required by Section 348.753, Florida Statutes, and CFX's Code of Ethics, CONSULTANT agrees to complete CFX's Potential Conflict Disclosure Form prior to the execution of the Contract, upon the occurrence of an event that requires disclosure, and annually, not later than July 1st.

CONSULTANT covenants and agrees that it and its employees, officers, agents, and subconsultants shall be bound by the standards of conduct provided in Section 112.313, Florida Statutes, as it relates to work performed under this Contract, which standards will be reference be made a part of this Contract as though set forth in full. The CONSULTANT agrees to incorporate the provisions of this paragraph in any subcontract into which it might enter with reference to the work performed.

CONSULTANT hereby certifies that no officer, agent or employee of CFX has any "material interest" (as defined in Section 112.312(15), Florida Statutes) either directly or indirectly, in the business of CONSULTANT, and that no such person shall have any such interest at any time during the term of this Agreement.

The CONSULTANT shall not knowingly enter into any other contract with CFX during the term of this Agreement which would create or involve a conflict of interest with the services provided herein. Likewise, subconsultants shall not knowingly enter into any other contract with CFX during the term of this Agreement which would create or involve a conflict of interest with the service provided herein and as described below. Questions regarding potential conflicts of interest shall be addressed to the Executive Director for resolution.

During the term of this Agreement the CONSULTANT is NOT eligible to pursue any advertised construction engineering and inspection projects of CFX as either a prime or subconsultant where the CONSULTANT participated in the oversight of the projects or for any project which the CONSULTANT prepared plans and/or specifications. Subconsultants are also ineligible to pursue construction engineering and inspection projects where they participated in the oversight of the projects or for any project which the subconsultant was involved in the preparation of plans and/or specifications.

18.0. DOCUMENTED ALIENS

The CONSULTANT warrants that all persons performing work for CFX under this Agreement, regardless of the nature or duration of such work, shall be United States citizens or properly authorized and documented aliens. The CONSULTANT shall comply with all federal, state and local laws and regulations pertaining to the employment of unauthorized or undocumented aliens at all times during the performance of this Agreement and shall indemnify and hold CFX harmless for any violations of the same. Furthermore, if CFX determines that CONSULTANT has knowingly employed any unauthorized alien in the performance of this Agreement, CFX may immediately and unilaterally terminate this Agreement for cause.

The obligations in Section 18.0, Documented Aliens, shall survive the expiration or termination of this Agreement and continue in full force and effect.

19.0. E-VERIFY CLAUSE

CONSULTANT shall utilize the U.S. Department of Homeland Security's E-Verify System to verify the employment eligibility of all new employees hired by the CONSULTANT during the term of the contract. CONSULTANT shall require all of its subconsultants to verify the employment eligibility of all new employees hired by the subconsultants during the term of the Agreement.

20.0. INSPECTOR GENERAL

CONSULTANT agrees to comply with Section 20.055(5), Florida Statutes, and agrees to cooperate with the inspector general in any investigation, audit, inspection, review, or hearing pursuant to this section. CONSULTANT agree to incorporate in all subcontracts the obligation to comply with Section 20.055(5). The obligations in this paragraph shall survive the expiration or termination of this Agreement and continue in full force and effect.

21.0. PUBLIC ENTITY CRIME INFORMATION AND ANTI-DISCRIMINATION STATEMENT

Pursuant to Section 287.133(2)(a), Florida Statutes,
“a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold

amount provided in s. 287.017 for CATEGORY TWO (\$35,000) for a period of 36 months following the date of being placed on the convicted vendor list.”

Pursuant to Section 287.134(2)(a), Florida Statutes, “an entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity.”

22.0. COMPANIES PURSUANT TO SECTION 287.135 AND 215.473

CFX may terminate this Agreement for breach of contract if the Consultant:

- 22.1. submitted a false certification as provided under Florida Statute 287.135(5); or
- 22.2. been placed on the Scrutinized Companies with Activities in Sudan List; or
- 22.3. been placed on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List; or
- 22.4. been engaged in business operations in Cuba or Syria; or
- 22.5. found to have been placed on the Scrutinized Companies that Boycott Israel List or is engaged in a boycott of Israel.

23.0. AVAILABILITY OF FUNDS

CFX’s performance and obligation to pay under this Agreement are contingent upon an annual budget appropriation by its Board. The parties agree that in the event funds are not appropriated, this Agreement may be terminated, which shall be effective upon CFX giving notice to the CONSULTANT to that effect.

24.0. AUDIT AND EXAMINATION OF RECORDS

24.1 Definition of Records:

(i) “Contract Records” shall include, but not be limited to, all information, communications and data, whether in writing or stored on a computer, computer disks, microfilm, writings, working papers, drafts, computer printouts, field notes, charts or any other data compilations, books of account, photographs, videotapes and audiotapes supporting documents, any other papers or preserved data in whatever form, related to the Contract or the CONSULTANT’s performance of the Contract determined necessary or desirable by CFX for any purpose. Proposal Records shall include, but not be limited to, all information and data, whether in writing or stored on a computer, writings, working papers, computer printouts, charts or other data compilations that contain or reflect information, data or calculations used by CONSULTANT in determining labor, unit price, or any other component of a bid submitted to CFX.

(ii) "Proposal Records" shall include, but not be limited to, any material relating to the determination or application of equipment rates, home and field overhead rates, related time schedules, labor rates, efficiency or productivity factors, arithmetic extensions, quotations from subcontractors, or material suppliers, profit contingencies and any manuals standard in the industry that may be used by CONSULTANT in determining a price.

24.2 CFX reserves and is granted the right (at any time and from time to time, for any reason whatsoever) to review, audit, copy, examine and investigate in any manner, any Contract Records (as herein defined) or Proposal Records (as hereinafter defined) of the CONSULTANT or any subcontractor. By submitting a response to the Request for Proposal, CONSULTANT or any subcontractor submits to and agree to comply with the provisions of this section.

24.3 If CFX requests access to or review of any Contract Documents or Proposal Records and CONSULTANT refuses such access or review or delays such access or review for over ten (10) calendar days, CONSULTANT shall be in default under its Contract with CFX, and such refusal shall, without any other or additional actions or omissions, constitute grounds for suspension or disqualification of CONSULTANT. These provisions shall not be limited in any manner by the existence of any CONSULTANT claims or pending litigation relating to the Contract. Disqualification or suspension of the CONSULTANT for failure to comply with this section shall also preclude the CONSULTANT from acting in the future as a subcontractor of another contractor doing work for CFX during the period of disqualification or suspension. Disqualification shall mean the CONSULTANT is not eligible for and shall be precluded from doing future work for CFX until reinstated by CFX.

24.4 Final Audit for Project Closeout: The CONSULTANT shall permit CFX, at CFX's option, to perform or have performed, an audit of the records of the CONSULTANT and any or all subconsultants to support the compensation paid the CONSULTANT. The audit will be performed as soon as practical after completion and acceptance of the contracted services. In the event funds paid to the CONSULTANT under the Contract are subsequently determined to have been inadvertently paid by CFX because of accounting errors or charges not in conformity with the Contract, the CONSULTANT agrees that such amounts are due to CFX upon demand. Final payment to the CONSULTANT shall be adjusted for audit results.

24.5 CONSULTANT shall preserve all Proposal Records and Contract Records for the entire term of the Contract and for a period of five (5) years after the later of: (i) final acceptance of the project by CFX, (ii) until all claims (if any) regarding the Contract are resolved, or (iii) expiration of the Proposal Records and Contract Records' status as public records, as and if applicable, under Chapter 119, Florida Statutes.

24.6 The obligations in Section 24.0, Audit and Examination of Records, shall survive the expiration or termination of this Agreement and continue in full force and effect.

25.0. GOVERNING LAW AND VENUE

This Agreement shall be governed by and constructed in accordance with the laws of the State of Florida. The parties consent to the exclusive jurisdiction of the courts located in Orange County, Florida. The obligations in Section 25.0, Governing Law and Venue, shall survive the expiration or termination of this Agreement and continue in full force and effect.

26.0. NOTICE

All notices required pursuant to the terms hereof shall be sent by First Class United States Mail. Unless prior written notification of an alternate address for notices is sent, all notices shall be sent to the following addresses:

To CFX: Central Florida Expressway Authority
4974 ORL Tower Road
Orlando, FL 32807
Attn: Chief of Infrastructure

Central Florida Expressway Authority
4974 ORL Tower Road
Orlando, FL 32807
Attn: General Counsel

To CONSULTANT: TLP Engineering Consultants, Inc.
450 South Orange Avenue, Suite 450
Orlando, FL 32801
Attn: Yassi M. Myers, P.E.

TLP Engineering Consultants, Inc.
450 South Orange Avenue, Suite 450
Orlando, FL 32801
Attn: Jim Myers, P.E.

27.0. HEADINGS

Headings are given to the sections of the Agreement solely as a convenience to facilitate reference. Such headings shall not be deemed in any way material or relevant to the construction or interpretation of the Agreement.

28.0. CONTRACT LANGUAGE AND INTERPRETATION

All words used herein in the singular form shall extend to and include the plural. All words used in the plural form shall extend to and include the singular. All words used in any gender shall extend to and include all genders.

References to statutes or regulations shall include all statutory or regulatory provisions consolidating, amending, or replacing the statute or regulation referred to. Words not otherwise defined that have well known technical or industry meanings, are used in accordance with such recognized meanings. References to persons include their respective functions and capacities.

If the CONSULTANT discovers any material discrepancy, deficiency, ambiguity, error, or omission in this Agreement, or is otherwise in doubt as to the meaning of any provision of the Agreement, the CONSULTANT shall immediately notify CFX and request clarification of CFX's interpretation of this Agreement.

The Agreement shall not be more strictly construed against either party hereto by reason of the fact that one party may have drafted or prepared any or all of the terms and provisions hereof.

29.0. ASSIGNMENT

This Agreement may not be assigned without the written consent of CFX.

30.0. SEVERABILITY

The invalidity or non-enforceability of any portion or provision of this Agreement shall not affect the validity or enforceability of any other portion or provision. Any invalid or unenforceable portion or provision shall be deemed severed from this Agreement and the balance hereof shall be construed and enforced as if this Agreement did not contain such invalid or unenforceable portion or provision.

31.0. INTEGRATION

This Agreement constitutes the entire agreement among the parties pertaining to the subject matter hereof and supersedes all prior and contemporaneous agreements, understandings, negotiations and discussions of the parties, whether oral or written, and there are no other agreements between the parties in connection with the subject matter hereof. No waiver, amendment, or modification of these terms hereof will be valid unless in writing, signed by all parties and only to the extent therein set forth.

32.0. ATTACHMENTS

- Exhibit "A", Scope of Services
- Exhibit "B", Method of Compensation
- Exhibit "C", Details of Cost and Fees
- Exhibit "D", Project Organization Chart
- Exhibit "E", Project Location Map [Note: Attach if applicable]
- Exhibit "F", Project Schedule [Note: Attach if applicable]
- Exhibit "G", Potential Conflict Disclosure Form

[SIGNATURES TO FOLLOW]

IN WITNESS WHEREOF, the CONSULTANT and CFX have caused this instrument to be signed by their respective duly authorized officials, as of the day and year first above written. This Contract was awarded by CFX's Governing Board at its meeting on June 11, 2020.

TLP ENGINEERING CONSULTANTS, INC.

**CENTRAL FLORIDA
EXPRESSWAY AUTHORITY**

BY: _____
Authorized Signature

BY: _____
Director of Procurement

Print Name: _____

Print Name: _____

Title: _____

Effective Date: _____

ATTEST: _____ (Seal)
Secretary or Notary

Approved as to form and execution, only.

General Counsel for CFX

EXHIBIT A

SCOPE OF SERVICES

Exhibit A

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

SCOPE OF SERVICES

FOR

S.R. 408 Tampa Avenue Interchange

PROJECT NO. 408-315

IN ORANGE COUNTY, FLORIDA

May 20, 2020

Exhibit A
SCOPE OF SERVICES
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1.0 GENERAL

1.1 Location

- A. See EXHIBIT “E”, Project Location Map.

1.2 Description

The services will include final design and preparation of construction drawings / specifications for the proposed S.R. 408 Tampa Avenue Interchange. Specifically, the project consists of modifying the existing Tampa Avenue interchange from a half-diamond to a full-diamond with roundabouts along Tampa Avenue at the ramp terminals and the widening of Tampa Avenue to a 3-lane section from the intersection of Orange Center Blvd to north of the interchange. The SR 408 EB exit ramp to Tampa Avenue is to be reconstructed to accommodate the new interchange configuration. The existing SR 408 EB exit to US 441 (Orange Blossom Trail) will be reconstructed as a braided ramp over Tampa Avenue and Rio Grande to tie into Carter Street. The exact tie down location on Carter Street will be determined as per the Preliminary Design Memorandum. The existing EB exit to US 441 is to be removed and the intersection improved to accommodate a dual-left-turning movement onto US 441 NB. The existing WB entrance ramp from US 441 onto SR 408 is to be reconstructed to accommodate the proposed braided ramp for the exit SR 408 WB exit to Tampa Avenue.

Additional improvements include modifying the existing WB exit ramp to US 441 to provide for dual-left and dual-right turning movements downstream of the existing ramp toll plaza, and a signal warrant study/proposed signal at the intersection of Carter Street and Rio Grande Avenue.

Additional elements include surveying, drainage evaluation and design, permitting, lighting, signing and pavement markings, signalization, ITS (fiber optic network), toll plaza, maintenance of traffic, utility design and coordination, geotechnical analysis, scheduling and project control, progress reporting and other tasks and associated activities. Close coordination with the City of Orlando will be required.

The final plans for the I-4 Ultimate project should be considered as the base condition for the project.

1.3 Purpose

- A. The purpose of this Exhibit is to describe the scope of work and responsibilities required in connection with Final Engineering and Final Construction Drawings and Documents for the proposed S.R. 408 Tampa Avenue Interchange.

- B. The Consultant shall perform those engineering services as required for final roadway/drainage plans, final bridge plans, final lighting plans, final traffic control plans, final utility plans, final ITS (fiber optic network) plans, final toll plaza plans, final signalization plans, final signing and pavement marking plans and preparation of a complete environmental resource application (or permit modification) including 100% storm water management.
- C. CFX's Project Manager will provide contract administration, management services and technical reviews of all work associated with the preliminary and final designs.
- D. It is understood that references throughout this document to items of work and services to be performed are the responsibility of the Consultant unless otherwise expressly stated as the responsibility of others.

1.4 Organization

- A. CFX's Project Manager will administer the Consultant services detailed in this scope. The following sections define the duties and obligations of CFX and the Consultant.

1.5 Term of Agreement for Design Services

- A. The term of the Agreement to perform the required design services shall be within seventeen (17) months from notice to proceed, including all reviews. Any fast track of services will be at the direction of CFX's Project Manager.
- B. The Consultant may continue the design efforts while design submittals are being reviewed. Doing so, however, in no way relieves the Consultant of the responsibility to incorporate review comments into the design, nor does it entitle the Consultant to any additional design fees as a result of making changes due to review comments.

1. Project Milestones:

The Consultant will prepare a tabulation of major project milestones.

2. Project Schedule:

The Consultant shall include a schedule of major design tasks.

2.0 STANDARDS

- A. The applicable design and construction standards and policies of the Florida Department of Transportation, Federal Highway Administration (FHWA), American Association of State Highway and Transportation Officials (AASHTO), Transportation Research Board (TRB), Standard Building Code, CFX's Design Guidelines, CFX's ITS Design Standards, CFX's Lighting Design Standards, and CFX's Guidelines for Preparation of Signing and Pavement Marking Plans shall be followed throughout the design and construction of the project unless specifically stated otherwise. The editions of the applicable standards and policies in effect at the time of Contract execution shall be used except as follows:
1. Division II, Construction Details, and Division III, Materials, of the FDOT Standard Specifications for Road and Bridge Construction, 2019 edition, and updates thereafter, shall be used for this project.
 2. The FDOT Standard Plans, latest edition and subsequent interim indexes and updates, shall be used for this project.
 3. The FDOT Design Manual (FDM), latest edition, shall be used for this project.
 4. The FDOT Basis of Estimates (BOE) Handbook, latest edition, shall be used for this project.
 5. The AASHTO Policy on Geometric Design of Highway and Streets (Green Book), 2011 edition, shall be used for this project.
 6. The FHWA Manual on Uniform Traffic Control Devices (MUTCD), 2009 edition, as amended, shall be used for this project.

3.0 DESIGN CRITERIA

3.1 General

Design of this project will be guided by the basic design criteria listed below.

- A. The *Central Florida Expressway Authority (CFX) Design Guidelines*, latest edition.
- B. The design criteria listed in this section and Project Design Directives, provided by CFX during the course of the project, may supplement the Project Design Guidelines.
- C. Design year – 2045
- D. Design vehicle – WB-62FL
- E. Along with the 30% design submittal, the Consultant shall provide a tabulation of all applicable drainage and stormwater management criteria from Federal, State and local agencies and indicated which will be used for all segments and portions of the project. Unless otherwise directed by CFX, the Consultant shall use the most restrictive or conservative criteria applicable.

3.2 Right of Way

- A. Ten (10) ft. from back of walls or limit of construction.
- B. Two (2) ft. from back of sidewalk on frontage roads.
- C. Drainage and construction easements as required
- D. Limited access right-of-way limits per Index 450
- E. Right of way limits for ramps is based upon limit of construction plus 10 feet.

4.0 WORK PERFORMED BY CONSULTANT

The Consultant shall be responsible for the work outlined in this Section. The work shall conform to the standards, criteria, and requirements of this Scope of Services.

4.1 Design Features

A. The work required for this project includes preparation of final construction drawings and specifications as well as the preparation of a complete environmental resource application.

B. Major elements of the work include the following:

The services will include final design and preparation of construction drawings / specifications for the proposed S.R. 408 Tampa Avenue Interchange. Specifically, the project consists of modifying the existing Tampa Avenue interchange from a half-diamond to a full-diamond with roundabouts along Tampa Avenue at the ramp terminals and the widening of Tampa Avenue to a 3-lane section from the intersection of Orange Center Blvd to north of the interchange. The SR 408 EB exit ramp to Tampa Avenue is to be reconstructed to accommodate the new interchange configuration. The existing SR 408 EB exit to US 441 (Orange Blossom Trail) will be reconstructed as a braided ramp over Tampa Avenue and Rio Grande Avenue to tie into Carter Street. The exact tie down location on Carter Street will be determined as per the Preliminary Design Memorandum. The existing EB exit to US 441 is to be removed and the intersection improved to accommodate a dual-left-turning movement onto US 441 NB. The existing WB entrance ramp from US 441 onto SR 408 is to be reconstructed to accommodate the proposed braided ramp for the exit SR 408 WB exit to Tampa Avenue.

Additional improvements include modifying the existing WB exit ramp to US 441 to provide for dual-left and dual-right turning movements downstream of the existing ramp toll plaza and a signal warrant study/proposed signal at the intersection of Carter Street and Rio Grande Avenue.

Additional elements include surveying, drainage evaluation and design, permitting, lighting, signing and pavement markings, signalization, ITS (fiber optic network), toll plaza, maintenance of traffic, utility design and coordination, geotechnical analysis, scheduling and project control, progress reporting and other tasks and associated activities.

4.2 Governmental Agencies

A. The Consultant shall coordinate with and assist in securing the approval of

all interested agencies involved. These agencies may include, but are not necessarily limited to Orange County, City of Orlando, FDOT, USACE, and applicable Water Management District(s).

4.3 Preliminary Design Report - Review

- A. The Consultant shall review the project concept for proposed alternatives with regard to proposed design criteria, maintenance of traffic and construction feasibility.

At the completion of this review, the Consultant shall submit to CFX a written list of recommendations and proposed revisions, if any, to the basic layout. A conference will be scheduled by CFX's Project Manager with the Consultant to resolve any outstanding differences and agree upon a final layout for the project.

4.4 Surveys and Mapping

- A. All Surveying and Mapping shall be performed under the direction of a Surveyor and Mapper properly licensed with the Florida Board of Professional Surveyors and Mappers, under Chapter 472, Florida Statutes. The Consultant shall review data provided by CFX and provide complete field surveys suitable for contract document preparation.

Survey activities shall be coordinated with the Consultant's design team including roadway, drainage, structures, geotechnical, and other disciplines as required.

Field surveys shall be performed with minimal disruption of the normal traffic flow for the project. Field personnel shall use safety devices such as warning signs, traffic cones, warning lights, and safety vests at all times, according to the Florida Department of Transportation requirements. Advanced warning signs required when survey crews are working on CFX's system shall be made with 3M Scotchlite Diamond Grade Fluorescent orange roll up sign sheeting.

- B. Alignment

1. Establish Survey Centerline by establishing the tangent lines of existing Right of Way maps if such maps exist, or in the center of dedicated Right of Way as per subdivision plats, or in the center of the pavement when no Right of Way map or dedication exists. Set alignment points Begin, End, PC's, PT's, PI's and at maximum 1400-foot intervals along alignment.
2. Establish and set alignment in the same manner on cross roads and

major adjacent alignments.

3. Station all alignments at 100' intervals.
4. Meet with CFX's Project Manager to discuss methods for determining alignments prior to staking.

C. Reference Points

1. Set at all alignment points, left and right at 90-degrees to alignment where possible, outside the proposed construction limits.
2. Show obstructions where alternate references are set.

D. Bench Levels

1. The Consultant shall establish new benchmarks at 1000' intervals, along all alignments, using stable points. Elevation will be relative to North American Vertical Datum of 1988 (NAVD 88).

E. Topography

1. Planimetric mapping and a digital terrain model (DTM), suitable for 1"=50' display scale shall be conducted by the Consultant.
2. The Consultant will obtain existing pavement elevations and cross-slopes along the inside travel lane and outside travel lane every 100'.
3. Additional topographic and DTM surveys, as needed for the project design, are the responsibility of the Consultant. These may include existing water bodies and pavement elevations.

F. Drainage Survey

Perform a drainage survey including pipe type, location, size and flow line elevations as needed for design.

G. Underground Utilities

Locate all underground utilities, horizontally and vertically as flagged by respective utility companies or a qualified utility marking consultant. Provide soft excavation verifications as needed to verify location and at utility conflict areas.

H. Side Street Surveys

Perform topographic and utility surveys of side streets as may be needed for engineering design.

I. Bridge Survey

Provide bridge survey data as needed for engineering design.

J. Jurisdictional Line Surveys

Perform Jurisdictional Line Surveys as needed for engineering design and permitting.

K. Geotechnical Surveys

Locate boring locations as needed for geotechnical investigations.

L. Right-of-Way Ties

Locate right-of-way limits for construction purposes. New right-of-way will be required; see Section 4.19.

M. Prior to construction, the Consultant shall re-flag and reset alignment control points, references and benchmarks and meet with the construction contractor to review these points.

N. CFX ITS/FON

CFX will locate the FON one time at the beginning of design during the survey phase. Once the FON/ITS lines are flagged, the Consultant shall survey the located FON/ITS locations in the field. The survey data collected will be included in the 30% plans submittal package.

The CFX GSC will review the plan submittals to ensure that the FON is shown correctly as actually located in the field. The CFX GSC will also determine if there are any overlapping projects that need to be represented in the design plans as a part of the ITS Component review of the 30% plans.

SUE will be done as required based on the Design Project Manager's recommendations and provided to CFX for their information.

4.5 Geotechnical Investigation

A. The Consultant shall perform a geotechnical investigation of the project in accordance with the requirements of CFX.

B. Investigations shall be performed with minimal disruption of the normal traffic flow for the project. Field personnel shall use safety devices such as warning signs, traffic cones, warning lights, and safety vests at all times, according to CFX requirements. The Consultant shall adhere to all traffic control requirements when taking samples on existing roadways. A traffic control plan and permit may be required. Any advanced warning signs

required when crews are working on CFX system shall be made with 3M Scotchlite Diamond Grade Fluorescent orange roll up sign sheeting.

- C. The work includes, but is not limited to, identifying roadway structural section requirements, LBR testing, design methods for the selected foundation, external stability evaluation at proprietary retaining walls, groundwater and estimated seasonal high groundwater level, estimate of the maximum rate of pumping that will be required at sites that dewatering is anticipated, certification of all under drain and pond draw down times, pH and resistivity conditions requiring design considerations, soil shrinkage/swell characteristics, slope stability and benching in embankment/excavation locations, recommendation for methods of rock excavation, potential imported borrow sites and availability of structural section materials, location and depths of unsuitable material (muck), and design alternatives based on geotechnical findings; design values for active, at rest, and passive soil pressures; allowable design loads or pressures for each foundation type, corrosion testing for structures and design of foundations for sign structures. The work will also include verification of existing median bridge foundation capacities previously constructed for future widening.
- D. The results of the geotechnical investigation shall be contained in a Geotechnical Report which shall be submitted to CFX's Project Manager for approval. The geotechnical investigation shall include all necessary laboratory testing of materials.
- E. Upon approval of the Geotechnical Report, the Consultant shall proceed with preparation of the pavement and foundation designs.
- F. Boring profiles shall be included on cross-section sheets in the contract plans and include the boring number, station, offset, soil legend, observed water table, design high water elevation and geotechnical consultant's address. A boring number and target symbol shall be shown at the appropriate location on the roadway and bridge plans.
- G. Roadway core samples shall be taken to determine the existing pavement section. The Consultant shall submit a plan to CFX for location approval.

4.6 Contamination Impact Analysis

- A. The Consultant shall perform a contamination impact analysis of the project in accordance with the applicable rules and regulations of the FDOT Project Development and Environment Guidelines, Chapter 22, the Florida Department of Environmental Protection (FDEP), and all other pertinent State or Federal agencies having jurisdiction, and the requirements of CFX.

- B. At a minimum, the Consultant shall conduct a windshield survey along the project corridor to identify any new sources of environmental contamination not reported in the referenced document(s).
- C. The testing of any sites including the use of ground penetrating radar, if required to complete the design and/or construction of the project, will be added to the Scope of Services by Supplemental Agreement.

4.7 Pavement Design

- A. The Consultant shall prepare the pavement design as appropriate in accordance with the requirements of the FDOT for SR 408 mainline, Tampa Avenue and US 441 interchange ramps, ramp toll plazas or gantries, and any local roadways impacted by the project.
- B. The proposed pavement design recommendation, resulting from the Consultant's analysis of the various alternatives, shall be contained in a Pavement Design Summary.

4.8 Borrow Pits

- A. The Consultant's geotechnical investigation may include the investigation of current borrow pits. The location and testing of any new borrow pits if required to complete the construction of the project shall be added to the Scope of Services by Supplemental Agreement. The analysis and test results shall be contained in a separate report submitted not later than the preliminary submittal.

4.9 Governmental Agency and Public Meetings

- A. Except as may be provided elsewhere in this Scope of Services, the Consultant shall have appropriate representatives present at such meetings, conferences or hearings as CFX may direct to secure necessary approvals and/or support of the project by county, municipal, or other governmental agencies. If so directed, the Consultant shall also have appropriate representatives present at meetings or conferences of CFX, its Chairman or staff.
- B. The Consultant shall assist CFX in presentations to various parties. The Consultant shall prepare exhibits pertaining to basic roadway and noise wall elements. CFX will prepare exhibits pertaining to aesthetic treatments and other design issues if applicable. This scope assumes presentations at one meeting with adjacent property owners.

4.10 Environmental Permits

- A. CFX's Project Manager will review, coordinate and submit the applications for all environmental permits. The Consultant shall provide all information, permit applications and data relating to Stormwater Management and Floodplain Impacts required for the permits to CFX. (CFX will be responsible for preparing all of the Wetlands and Protected Species analysis and documentation required for the permits.) The Consultant shall:
1. Attend the pre-application meetings and site visits with CFX and regulatory agencies.
 2. Provide additional information requested at the pre-application by regulatory agencies for permits.
 3. Provide aerial maps at a 1"=400' scale which include SCS soils data, 100-year floodplain limits and proposed project.
 4. Provide all plans, calculations, sketches and reports required for permits except as described above.
 5. Provide copies of all drainage calculation, including pond routing nodal diagrams, for the project.
 6. Assist CFX in responding to any requests for additional information made by regulatory agencies after the permit application is submitted.
 7. Incorporate any changes required by changes in regulatory agency requirements during the course of the project. If this requires additional work by the Consultant a Supplemental Agreement will be prepared.
 8. Prepare a list of adjacent landowners along with address and nine-digit zip code at all wetland encroachment sites.
 9. Provide all permit application material in .pdf format.
 10. The Consultant will provide dredge and fill sketched as required by the permitting agencies if applicable. Mitigation plans, if required, may be added as a supplemental service.
 11. Determine extent of floodplain impacts, if any, and provide compensatory flood stages as required.

4.11 Utilities

A. Location

The Consultant shall obtain available utility mapping and information and identify all utilities within the general project limits to determine potential conflicts and relocations. Where a potential conflict exists, the Consultant may need to arrange to probe or expose ("pothole") the utility and survey the horizontal and vertical location of the utility line. The Consultant shall coordinate this effort with involved utility companies. All existing utilities shall be shown on appropriate preliminary construction plans. The Consultant's notes shall include the name and telephone number of contact persons for the construction contractor's use.

B. Utility Coordination

1. The Consultant shall prepare reproducible utility adjustments plans based on information provided by respective utility companies.
2. Private utilities will prepare design plans for the relocation of their facilities. If a utility cannot or will not prepare these design plans, the work shall be added to the scope by Supplemental Agreement and the Consultant shall prepare design plans for utility relocation for approval of the utility and review by CFX.
3. Where utility conflicts occur that require utility relocation agreements between the affected utility and CFX, the Consultant shall prepare the necessary data/plans required for the agreements. The Consultant shall advise CFX seven days in advance of meetings with utility companies/agencies scheduled to discuss utility relocations.
4. The preparation and negotiation of the agreement will be performed by CFX's Project Manager. After approval of the agreement by the utility and CFX, the Consultant shall prepare reproducible utility adjustment sheets identifying proposed relocations with respect to the construction plans.
5. The Consultant shall prepare a utility conflict matrix to assist in identifying and resolving conflicts between utilities and proposed construction prior to completion of the plans.
6. The Consultant shall obtain utility work schedules from the utility companies.
7. The Consultant shall prepare the Utility Certification Letter

certifying that all utility negotiations (full execution of each agreement, approved utility work schedule, technical special provisions written, etc.) have been completed with arrangements made for utility work to be undertaken and completed as required.

4.12 Roadway Design

- A. A Typical Section Package will not be prepared for this project. Rather, typical sections for SR 408 mainline, interchange ramps, Tampa Avenue, and impacted local roadways will be prepared as part of the Preliminary Engineering Memorandum and submitted to CFX for review and approval.
- B. The Consultant shall design the geometrics for this project using the design standards included in the *Central Florida Expressway Authority Design Guidelines*, latest edition.

4.13 Structures Design

- A. Prior to commencement of final design, the consultant shall prepare a Bridge Concept Memorandum which documents a limited range of structural alternatives and identifies preferred alternatives. Specifically, the alternatives to be examined include beam type, span configuration and foundation pile type.
- B. The Consultant shall perform Load Rating Analysis per FDOT criteria for bridges at the 90% design phase. The Load Rating Analysis packages shall be submitted to FDOT for their review and approval.
- C. The Consultant shall perform an evaluation of the existing median bridge foundations, previously constructed for future widening, to determine acceptability for HL93 loading and the potential for additional future transit loading.

4.14 Drainage Design

- A. As part of the drainage design requirements, the Consultant shall:
 - 1. Coordinate impacts to Lake Beardall, the existing Carter Street pond and treatment systems located within the SE quadrant of the proposed Tampa Avenue interchange with the City of Orlando.
 - 2. Finalize the pond design at the 30% submittal for those ponds that will require acquisition of new R/W.
 - 3. Have its chief drainage engineer available at the scheduled (bi-

weekly/monthly) team meetings to review progress and discuss problems.

4. Notify CFX's Project Manager immediately if any deviation from approved design criteria is anticipated.
5. Provide drainage/contour maps as needed used in the development of the drainage design to CFX for use in scheduled reviews. These maps will be returned to the Consultant along with review comments at the end of the review process.
6. Provide copies of its internal quality control comments and calculations at the scheduled reviews.
7. Identify in the Preliminary Engineering Memorandum any existing drainage concerns along the corridor and potential fixes or modifications.

4.15 Roadway Lighting

- A. The Consultant shall provide a complete set of final roadway lighting documents in accordance with FDOT and CFX design criteria. These plans shall include replacement of all CFX lighting on the corridor to LED, including roadway and ramp fixtures, overhead sign lighting, underdeck lighting, lighting along Tampa Avenue, Carter Street, Long Street, and Rio Grande Avenue. The work shall include coordination with the local utility to provide electrical service. Plan sheet scale shall be at 1"=50' scale.
- B. If required, CFX will provide a cut sheet for the type of lighting fixtures to be used for this project.

4.16 Traffic Engineering

- A. Traffic Data will be furnished by CFX.
- B. Maintenance of Traffic Plans
 1. The Consultant shall prepare maintenance of traffic plans at scale of 1"=50' to safely and effectively move vehicular and pedestrian traffic during all phases of construction. The designs shall include construction phasing of roadways ingress and egress to existing property owners and businesses, routing, signing and pavement markings, and detour quantity tabulations. Special consideration shall be given to the construction of the drainage system when developing the construction phases. Positive drainage must be maintained at all times.

2. The Consultant shall investigate the need for temporary traffic signals, signs, alternative detour roads, arrow boards, flagging operations, and the use of materials such as sheet pilings in the analysis. A certified designer who has completed the FDOT training course shall prepare the maintenance of traffic plan.
3. Traffic shall be maintained during all phases of project construction at all locations, including existing posted speed, lane widths and number of lanes unless determined by CFX and other governmental agencies. This includes meeting with the governmental agencies which may be impacted by the maintenance of traffic plans.

4.17 Signing and Pavement Marking Plans

- A. The Consultant shall prepare designs and contract documents for final signing and pavement marking plans including layouts showing the locations of ground mounted and overhead signs, special sign details, lighting, and any structural or foundation requirements in accordance with applicable design standards. Any requirements for electric service shall be coordinated with the local electric utility.
- B. CFX will provide conceptual signing plans for the project as deemed necessary.
- C. Plan sheets will be developed at a scale of 1"=50' (11"x17" format).

4.18 Signalization Plans

- A. For the SR 408 ramp terminals at Carter Street/Rio Grande Avenue and US 441, the Consultant shall prepare designs and contract documents for final signalization plans including layouts showing the locations of mast arms and pedestrian features, special signal details, lighting, and any structural or foundation requirements in accordance with applicable design standards. Any requirements for electric service shall be coordinated with the local electric utility.
- B. Plan sheets will be developed at a scale of 1"=50' (11"x17" format).

4.19 Right-of-Way Documents

- A. The Section Engineer shall provide complete up-to-date right-of-way maps (1"=100') and legal descriptions and parcel sketches to CFX standards on acceptable reproduction media (ink on drafting film or equivalent). These maps will show all parcels and matters of record reflected in the title searches furnished by CFX such as easements, title information, names of owners,

bearings and distances of all courses and any other data required to legally describe the existing property. Parcel sketches are to include distance measurements from the taking line to corners of structures remaining where within close proximity. Where a full or partial taking of a parcel is required, a legal description (metes and bounds) will be required for affected parcels, including the actual area of taking and/or remainder.

- B. The Section Engineer shall determine the necessity for temporary construction easements and permanent drainage easements. If easements are required, the Section Engineer shall prepare right-of-way plans, legal descriptions and sketches for easements as indicated above.
- C. Right-of-way plans shall identify limited-access right-of-way, roadway right-of-way, excess right-of-way, drainage easements, and maintenance easements, borrow pit right-of-way, temporary construction easements, and slope easements, and legal descriptions for each, as applicable.
- D. It is intended that these plans and legal documents will be used directly by CFX for the acquisition of property and must therefore be adequate for this purpose. CFX will provide the title searches necessary to prepare the right-of-way maps. The Section Engineer will review all data supplied by CFX, including reviewing latest deed of record. Any additional information necessary to complete the right-of-way maps such as field surveys and the determination of the required area of taking will be secured by the Section Engineer.
- E. The Section Engineer may be requested to testify in court in condemnation proceedings.

4.20 Cost Estimates

- A. The Consultant shall prepare and submit to CFX construction cost estimates at the 60%, 90%, 100%, Pre-Bid and Bid Set submittals outlined herein. The estimate shall be based on the current unit prices as applied to the latest concept of the proposed construction.

4.21 Special Provisions and Specifications

- A. The Consultant shall prepare and submit at the 90% level special provisions, special specifications, and technical special provisions for items, details and procedures not adequately covered by CFX's Technical Specifications.

4.22 Fiber Optic Network (FON)

- A. Fiber Optic Infrastructure Plans

1. The site construction plans shall be developed at a scale of 1" equals 50 feet. These plans shall include the relocation of all existing fiber optic ductbanks, cables, manholes, and pull boxes in areas where the existing locations conflict with construction and as necessary to relocate the FON into the new paved shoulder. The Consultant shall identify existing physical features and utilities that will impact the construction and installation of the equipment. The Consultant shall review and modify standard FON details as necessary.
2. Fiber optic network (FON) plans shall include the following:
 - a. Roadway geometry
 - b. Rights-of-Way
 - c. Existing utilities within the right-of-way including CFX's FON
 - d. Physical features affecting construction/installation (sign structures, light poles, fences, etc.)
 - e. Manhole/Pull box locations and stub-out details (standard details provided)
 - f. Device layout
 - g. Device installation details
 - h. Conduit installation details (standard details provided)
 - i. Fiber optic cable route marker detail (standard details provided)
 - j. Fiber count per conduit
 - k. Communications interconnect
 - l. Connectivity with the FON backbone conduits
 - m. Fiber cable design to include link loss budget calculations, per Corning standard recommended procedure for new or relocated fiber optic cabling.
 - n. Fiber cable routing summaries, fiber cable allocation charts, and splice details and tables for new or relocated fiber optic cabling.
 - o. Controller cabinet, structure, and foundation details for proposed CFX device sites.
 - p. Power interconnect, calculations to support conductor size, and details. Power conductors to each device location shall be sized to the capacity of the main breaker in the cabinet. Determination on conductor sizing and voltage drop limits are only required for proposed sites and existing sites where the total site load is being significantly modified.
 - q. Grounding
 - r. Table of quantities
 - s. Special notes

- t. Maintenance of fiber operations (protection of existing FON through all phases of construction and cutover phasing to ensure continuous operation of existing ITS devices)
 - u. All existing and proposed FON to be included and shown with roadway cross sections and drainage cross sections
 - v. Relocation of the existing FON to inside of the new paved shoulder, including attachment of the FON to SR 408 bridges over intersecting arterials and installation of fiber optic manholes in the paved shoulder.
 - w. Relocation of existing CCTV sites and any necessary structures, foundations, attachment details, power service, fiber optic connections, and cabinets (standard details provided), in the event existing CCTV is not compatible with proposed construction.
 - x. Relocation of existing data collection sensor (DCS) sites and any necessary structures, foundations, attachment details, power service, fiber optic connections, and cabinets (standard details provided), in the event existing DCS would not survive project construction.
 - y. Relocation of existing traffic monitoring sites (TMS) and any necessary structures, foundations, attachment details, power service, fiber optic connections, and cabinets (standard details provided), in the event existing TMS would not survive project construction.
 - z. Conversion of any existing ITS devices within the project limits from point-to-point fiber optic modems to gigabit Ethernet field switches, relocation of video encoders from the mainline toll plazas to the CCTV cabinets, and upgrading other cabinet equipment as needed to meet current CFX ITS equipment standards.
 - aa. Install new WWDS at the following off-ramps:
 - o SR 408 off-ramps to Tampa Avenue
 - o SR 408 EB off-ramp to US 441
3. The Consultant shall take the following information into consideration when developing the site construction plans:
- a. Minimize utility conflicts and adjustments.

- b. Minimize traffic impact.
- c. Accessibility and ease of equipment maintenance.
- d. Safety of equipment maintenance personnel and the traveling public.
- e. Maintain the existing FON system through all phases of construction.
- f. Environmental conditions.
- g. Concurrent/future CFX projects.
- h. Compatibility with existing and proposed ITS infrastructure (e.g. CFX enhanced grounding standards for ITS devices, CFX transient voltage surge suppression (TVSS) standards for ITS devices, etc.)
- i. Leased conduits in CFX FON duct bank that are occupied by the fiber optic cable of other agencies or entities.
- j. Location of proposed sound walls

B. Splice and Cable Routing Details

- 1. The Consultant shall provide splicing detail diagrams to document proposed fiber optic splices within and between manholes, ITS devices, tollbooths, and other junction points.
- 2. Proposed splicing tables shall include ITS device connectivity, fiber use, drop cable fiber identification, drop cable identification, backbone cable identification, translateral cable identification, backbone into mainline cable identification, and toll plaza patch panel jack.
- 3. The Consultant shall provide cable routing diagrams and fiber allocation charts in CFX's standard format to document the functional connectivity between proposed fiber optic conduit and splices.

C. Maintenance of Fiber Operations

- 1. The Consultant shall provide a plan of action to ensure existing fiber optic network is not disrupted during construction operations.
- 2. The Consultant shall determine the sequence of fiber optic cable splices to minimize disruption to communications.

D. Inside Plant Plans

- 1. The Consultant shall be responsible for any data collection necessary to complete its design.
- 2. All equipment shown on the inside-plant construction plans shall be clearly delineated as existing, proposed, or by-others. The Consultant

shall be responsible for identifying and detailing on the inside-plant construction plans with notes and drawings any make-ready work required. The Consultant shall also provide a table of quantities for all materials and equipment specified in the inside-plant construction plans.

3. The Consultant shall sign and seal final inside-plant construction plans by a licensed professional Electrical Engineer registered in the state of Florida. The inside-plant construction plans shall be subject to the review and approval of CFX.
- E. Standard CFX specifications will be provided to the Consultant. The Consultant shall review the specifications and modify them as necessary.

4.23 Toll Plazas

- A. This proposal includes new ramp plazas or AET gantry locations at the SR 408 WB exit to Tampa Avenue and the SR 408 EB entrance from Tampa Avenue.

4.24 Post-Design Services

- A. Services shall begin after authorization by CFX. The Consultant compensation for post-design services may be added by Supplemental Agreement and shall be at an hourly rate, inclusive of overhead, profit and expenses, and exclusive of travel. No compensation will be made for correction of errors and omissions.
- B. The Consultant shall support the post design process as follows:
 1. Answer questions relative to the plans, typical sections, quantities and special provisions.
 2. Make any necessary corrections to the plans, typical sections, quantities, notes, etc., as may be required.
 3. Attend pre-award meeting with construction contractor, CFX, and CFX's CEI.
- C. The Consultant shall, prior to the pre-bid conference, be prepared to walk the project with CFX's CEI to discuss the plans and details. The Consultant shall be prepared to attend the pre-bid conference and respond to questions related to the plans, details, and special provisions.
- D. The Consultant shall prepare any addenda required to clarify the work included in the construction contract documents. Addenda may be required based on the project inspection with the CEI, or questions developed in the pre-bid conference, or conditions discovered by bidders during the bid period. Addenda will not be issued for Contractor initiated design changes or value engineering proposed work.

- E. The Consultant shall be available to respond to questions in the field that may arise relative to the plans, details or special provisions during construction. The Consultant shall periodically (monthly) visit the project site to observe the progress of construction on the project. This visit will not replace the formal construction inspection by CFX. It is intended to provide the opportunity of the design team to observe whether the work is being performed in general conformance with the project plans. Written memos of all such field trips shall be submitted to CFX within five working days of the trip.
- F. The Consultant shall review and approve shop drawings for structural, lighting, signing, traffic signal elements, and toll plaza shop drawings. This work will include the erection procedure plans, review proposals for substitutions, develop supplemental agreements, and provide other engineering services required to facilitate construction of the project. Reviews will be conducted and returned within two weeks from receipt of information.
- G. The Consultant shall appoint a responsible member of the firm to be the contact person for all post-design services. The person should be continually available during the course of construction for review of design plans.
- H. The Consultant shall make every reasonable effort to process any material presented for review in a prompt manner recognizing a construction contract is underway.
- I. The Consultant's key staff shall attend a maximum of three (3) partnering meetings as requested by CFX's Project Manager. The Consultant shall also attend progress/coordination meetings as requested by CFX's Project Manager including, but not limited to, the Notice to Proceed meeting.
- J. Approved design bridge load ratings were obtained by the Consultant under the final design phase of this contract. The Contractor shall be responsible for revising and resubmitting the load ratings if changes to the bridge design occur during construction. Otherwise, the Consultant shall provide written correspondence to FDOT when construction is complete that the bridges were constructed in accordance with the plans and the design load ratings still apply.
- K. The Consultant shall provide geotechnical engineering services as needed by CFX, relative to pile driving, earthwork, embankment and MSE wall construction.
- L. The Consultant shall provide utility consulting services as needed by CFX, relative to proposed utility adjustments within the project limits.

- M. The Consultant shall prepare Record Drawings in electronic format following completion of the construction phase. CFX shall provide all As-Built drawings from the Contractor / CEI to the Consultant for their use in preparation of the Record Drawings.

5.0 MATERIALS FURNISHED BY CFX OR ITS DESIGNEE

5.1 Record Documents

- A. CFX will provide the Consultant, within ten working days of a written request, the following items:
 - 1. Available record drawings of existing conditions
 - 2. Available right-of-way plans of existing conditions
 - 3. Current list available to CFX of owners of all affected properties within the section.
 - 4. Sample plans to be used as guidelines for format, organization and content.
 - 5. Title searches of all affected properties for use by the Consultant in the preparation of the right-of-way maps.
 - 6. Contract unit prices from latest CFX construction projects.
 - 7. Drawings for the SR 408 widening planned for the I-4 Ultimate Project

5.2 Traffic Data

- A. CFX will provide the following design traffic data:
 - 1. Current and design year ADT
 - 2. Current and design year peak hour volumes
 - 3. Turning movements at each intersection/interchange
 - 4. K, D and T factors
 - 5. Design speed - See Section 3.02, Geometry.
 - 6. AVI Percentages

5.3 Other

- A. Utility designates for the FON and roadway lighting within CFX right-of-way.

6.0 WORK PERFORMED BY CFX OR ITS DESIGNEE

6.1 Right-of-Way Acquisition

- A. If necessary, CFX, or its designee, will review all right-of-way plans, parcel sketches and legal descriptions prepared by the Consultant. CFX will handle all appraisals, negotiations, relocations, condemnation, and property settlements.

6.2 Utility Agreements

- A. CFX will support, as necessary, the Consultant's acquisition of information required for utility agreements.

6.3 Public Involvement

- A. CFX will provide a moderator for all required public meetings and provide guidelines for the Public Involvement aspects of the project. The need for public meetings or public hearings will be determined by CFX. CFX will be responsible for mailings and advertisements for the public meetings.

6.4 Contracts and Specifications Services

- A. CFX will prepare the necessary bid documents for the construction contract using plans, technical special provisions, and special specifications prepared by the Consultant.

6.5 Post-Design Services

- A. CFX will be the principal initial contact for post-design questions and answer questions on a limited scope.
- B. CFX's CEI representative will be responsible for collection and documentation of all As-Built information for the constructed improvements.

6.6 Environmental Permits

- A. CFX will review and submit the environmental permit applications and coordinate with the Consultant on requests for additional information from the regulatory agencies.
- B. CFX will stake wetland lines and coordinate agency site visits. CFX will also prepare the wetland and wildlife analysis and documentation for the permits.

6.7 Conceptual Specialty Design

- A. CFX will provide a conceptual major guide signing plan.
- B. CFX to provide proposed sound wall locations.
- C. CFX will provide conceptual aesthetics design and treatments for structures.

7.0 ADMINISTRATION

7.1 Central Florida Expressway Authority

- A. CFX's Project Manager will administer the Consultant services detailed in this scope.
- B. All contractual payments and changes shall be reviewed and approved by CFX's Project Manager.

7.2 CFX's Project Manager

CFX's Project Manager will:

- A. Conduct ongoing reviews of the Consultant's progress in performing the work and furnish technical comments in a timely manner.
- B. Review the Consultant's billings.
- C. Review and evaluate the Consultant's requests for extension of time and supplemental agreements and recommend appropriate action.
- D. Review all correspondence with public agencies prior to the Consultant's mailing of any correspondence except for requests for information.
- E. Coordinate the distribution of public information.
- F. Coordinate the data (including documentation of prior rights, cost estimates and plans) necessary for CFX to prepare and execute all utility and railroad agreements.
- G. Conduct an introductory meeting to deliver relevant information and explain the administration process.
- H. Review the Consultant's Quality Control program and the Consultant's conformance to the Quality Control Program.
- I. Provide a focal point contact for all questions, requests, and submittals.
- J. Provide a system to monitor the Consultant's schedule, progress and key milestone submittal dates.

7.3 Consultant

- A. The Consultant has total responsibility for the accuracy and completeness of the construction contract documents and related design prepared under this project and shall check all such material accordingly. The plans will be

reviewed by CFX for conformity with CFX procedures and the terms of the Contract, as well as coordination with adjacent design contracts. Review by CFX does not include detailed review or checking of design of major components and related details or the accuracy with which such designs are depicted on the plans. The responsibility for accuracy and completeness of such items remains solely that of the Consultant. The Consultant shall:

1. Establish, furnish and maintain suitable office facilities to serve as the project office for the duration of the project at a location acceptable to CFX.
2. Maintain an adequate staff of qualified support personnel to perform the work necessary to complete the project.
3. Establish internal accounting methods and procedures for documenting and monitoring project costs.
4. Establish and maintain contract administration procedures, which will include supplemental agreements, time extensions and subcontracts.

7.4 Project Control

- A. The Consultant shall provide data for CFX's Management Information System to monitor costs and manpower, and report progress. This project control system may include features to:
 1. Determine and highlight critical path work from initial plans as work progresses.
 2. Identify progress against schedule for each identified work item.
 3. Forecast completion dates from current progress.
 4. Highlight rescheduled work in any area which is out of required sequence.
 5. Highlight rescheduling that has overloaded any physical area that requires more resources than originally allocated.
 6. Forecast future conflicts in any area.

7.5 Work Progress

- A. The Consultant shall meet with CFX's Project Manager on a bi-weekly basis (or more often if necessary) and provide written progress reports which describe the work performed on each task. The dates and times of

these meetings will be established by CFX. Two working days prior to each progress meeting, the Consultant shall provide CFX's Project Manager with a draft copy of the Progress Report and a typewritten agenda for the meeting. The Consultant shall prepare typewritten meeting minutes and submit them to CFX's Project Manager within five working days after the meeting. The minutes shall indicate issues discussed and the resolution or action required to resolve any issues.

7.6 Schedule

- A. Within twenty (20) calendar days after receipt of the Notice to Proceed, the Consultant shall provide a schedule of calendar deadlines in a format prescribed by CFX.

7.7 Project Related Correspondence

- A. The Consultant shall furnish copies of all written correspondence between the Consultant and any party pertaining specifically to this project to CFX for its records within one (1) week of the receipt or mailing of said correspondence. The Consultant shall record and distribute the minutes of all meetings pertaining to this project.

7.8 Quality Control

- A. The Consultant has total responsibility for the accuracy and completeness of the plans and related designs prepared under this project and shall check all such material accordingly. Consultant shall have a quality control plan in effect during the entire time work is being performed under the Contract. The plan shall establish a process whereby calculations are independently checked, plans checked, corrected and back checked. All plans, calculations, and documents submitted for review shall be clearly marked as being fully checked by a qualified individual other than the originator. The FDOT plan review checklist shall be attached and appropriate items checked.
- B. The Consultant's quality control plan shall be submitted to CFX within fifteen (15) working days of receipt of written notice to proceed.

7.9 Consultant Personnel

- A. The Consultant's work shall be performed and/or directed by the key personnel identified in Exhibit "D". Any changes in the indicated key personnel or the Consultant's office in charge of the work shall be subject to review and approval by CFX.

7.10 Site Visit

- A. The Consultant shall arrange a site visit within ten (10) calendar days of receipt of written Notice to Proceed. Consultant personnel assigned to perform the work on the project shall attend. CFX representatives will be present. Within seven calendar days of the site visit, the Consultant shall issue to CFX a brief written report including observations, discussions, and any questions pertaining to the scope or level of effort of the project. The purpose of this visit is to acquaint key personnel with the details and features of the project to facilitate the design process.

7.11 Acceptability of the Work

- A. The plans, design, calculations, reports and other documents furnished under this Scope of Services shall conform to the "standards-of-the industry" quality as acceptable to CFX. The criteria for acceptance shall be a product of neat appearance, well organized, accurate and complete, technically and grammatically correct, checked in accordance with the approved Quality Control program, and have the maker and checker identified. The minimum standard of appearance, organization and content of drawings shall be similar to the type produced by the Florida Department of Transportation and CFX.

7.12 Design Documentation

- A. The Consultant shall submit any design notes, sketches, worksheets, and computations to document the design conclusions reached during the development of the construction contract documents to CFX for review.
- B. The design notes and computations shall be recorded on 8-1/2" x 11" computation sheets, appropriately titled, numbered, dated, indexed and signed by the designer and checker. Computer output forms and other oversized sheets shall be folded or legibly reduced to 8-1/2" x 11" size. The data shall be bound in a hard-back folder for submittal to CFX.
- C. A CD/DVD with electronic (PDF Format) copies of the design notes and computations shall be submitted to CFX with each review submittal. When the plans are submitted for 90% review, the design notes and computations corrected for any CFX comments shall be resubmitted. At the project completion (bid set), one (1) hard copy of the final set of the design notes and computations, sealed by a Professional Engineer, registered in the State of Florida, shall be submitted with the record set of plans and tracings.
- D. Design notes and calculations shall include, but are not necessarily limited to, the following data:
 - 1. Field survey notes and computations.

2. Design criteria used for the project.
3. Geometric design calculations for horizontal alignment.
4. Vertical geometry calculations.
5. Right-of-way calculations.
6. Drainage computations.
7. Structural design calculations.
8. Geotechnical report.
9. Hydraulics Report for each bridged stream crossing.
10. Earthwork calculations not included in the quantity computation booklet.
11. Calculations showing cost comparisons of various alternatives considered.
12. Calculations of quantities.
13. Documentation of decisions reached resulting from meetings, telephone conversations or site visits.
14. Lighting and voltage drop calculations.
15. Lighting service letter from the power company stating the following: service voltage, type of service (overhead or underground), location of power company service point, and any other power company requirements.

7.13 Reviews and Submittals

- A. Review and coordination of the Consultant's work by CFX shall continue through the project development process
- B. Formal submittals for review shall be made to CFX when the plans have been developed to the following levels of completion:
 1. Preliminary Engineering (Memorandum) (1 CD/DVD with all files and one (1) hard copy of memorandum to CFX GEC and one (1) hard copy of memorandum to the CFX project manager)

2. 30% Roadway Plans (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX GEC and one (1) hard copy of plans to the CFX project manager)
 3. 30% Bridge and Structural Plans (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX GEC and one (1) hard copy of plans to the CFX project manager)
 4. 60% Roadway and specifications, Geotechnical Report (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX GEC and one (1) hard copy of plans to the CFX project manager)
 5. 60% Bridge Plans required only on Category 2 bridges.
 6. 90% Bridge and Structural Plans (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX GEC and one (1) hard copy of plans to the CFX project manager)
 7. 90% Roadway and specifications (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX GEC and one (1) hard copy of plans to the CFX project manager)
 8. 100% Roadway, Bridge and specifications, Geotechnical Report (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX GEC and one (1) hard copy of plans to the CFX project manager)
 9. Pre-Bid Plans (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX GEC and one (1) hard copy of plans to the CFX project manager)
 10. Bid Set (1 set signed and sealed plans, 1 set "clean" plans, 1 set signed and sealed reports and one (1) CD/DVD with .PDF of all plans and reports)
- C. Formal review submittals shall include copies as listed above. 8-1/2" x 11" and 11" x 17" documents do not require reproducible copies.
- D. Preparation and distribution of roadway and ROW plans to other than CFX or CFX GEC will not be made until approved by CFX.
- E. The format of review submittal plans shall conform to the FDOT Plans Preparation Manual, except as amended by CFX.
- F. Due to the compact schedule of the design, review and construction process, any modification to the agreed submittal dates will require a letter from the Consultant to CFX giving:

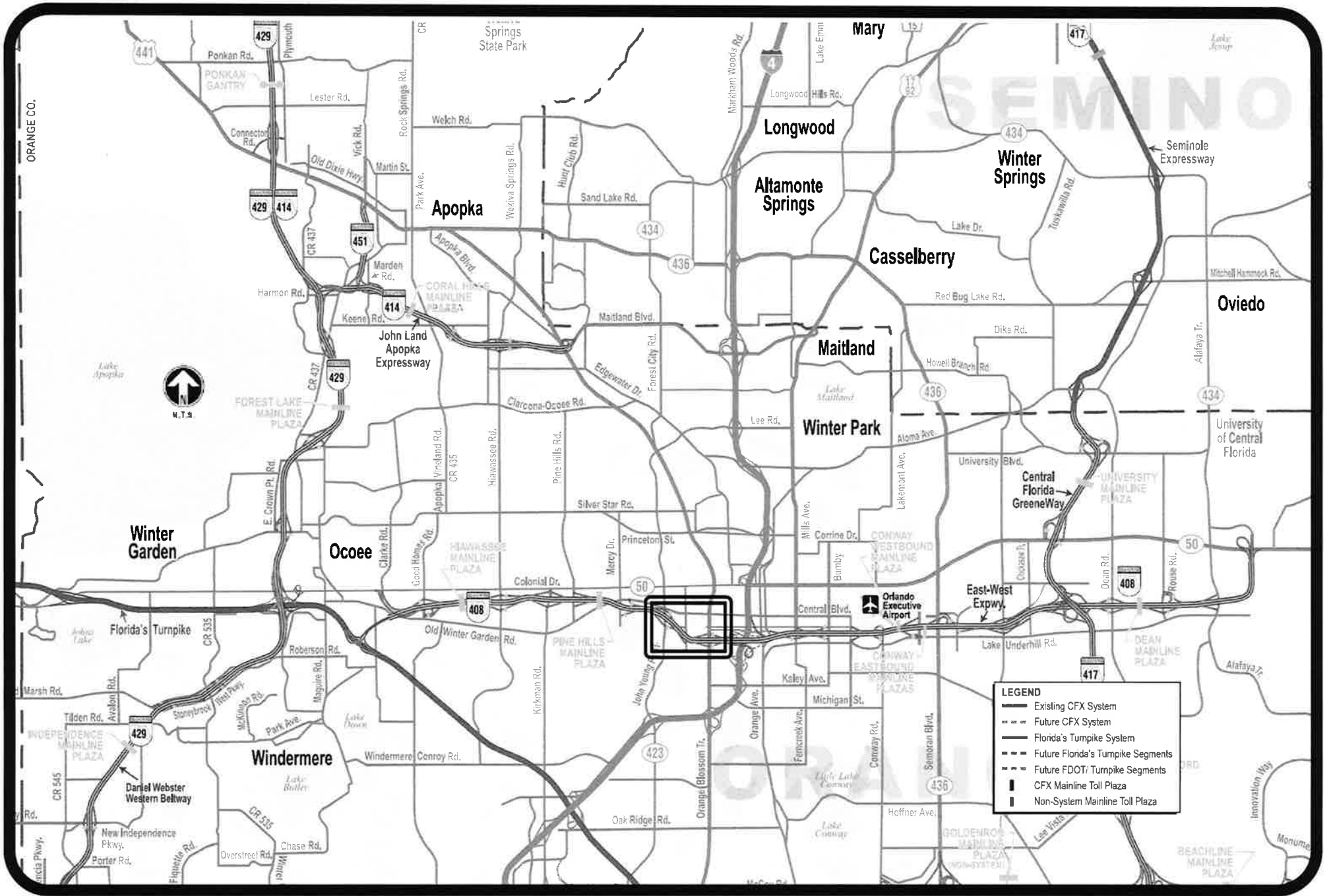
1. The reason for the delay.
 2. The design components impacted.
 3. Proposed methods to maintain submittal dates.
- G. The Consultant shall submit all CADD files, including GEOPAK files, use in the preparation of the plans and right of way mapping on compact disk with the final submittal.

7.14 Plan Phase Submittals

- A. All plan phase submittals shall be made as per the *Central Florida Expressway Authority Design Guidelines*, latest edition.

EXHIBIT E

PROJECT LOCATION MAP



Project Location Map for
 SR 408 / Tampa Avenue Interchange Improvements (408-315)

EXHIBIT F

SCHEDULE

SR 408 TAMPA AVENUE INTERCHANGE

ID	Task Name	Duration	Start	Finish	2021												
					Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
1	Notice to Proceed	1 day	Mon 6/15/20	Mon 6/15/20	I												
2	Design Survey	60 days	Tue 6/30/20	Mon 9/21/20	[Bar from Jun 30 to Sep 21]												
3	Geotechnical Investigation	190 days	Tue 6/30/20	Mon 3/22/21	[Bar from Jun 30 to Oct 21]												
4	Preliminary Concept Review/Finalize Concept	80 days	Mon 6/29/20	Fri 10/16/20	[Bar from Jun 29 to Sep 16]												
7	30% Roadway Plans	72 days	Mon 10/19/20	Tue 1/26/21	[Bar from Oct 19 to Dec 16]												
17	Bridge Concept Memorandum	45 days	Mon 10/19/20	Fri 12/18/20	[Bar from Oct 19 to Dec 18]												
21	60% Roadway & 30% Bridge Plans	98 days	Mon 12/21/20	Wed 5/5/21	[Bar from Dec 21 to Feb 19]												
30	90% Roadway & Bridge Plans	87 days	Wed 4/28/21	Thu 8/26/21	[Bar from Apr 28 to Jul 24]												
38	100% Roadway & Bridge Plans	36 days	Thu 8/19/21	Thu 10/7/21	[Bar from Aug 19 to Sep 14]												
45	Pre-Bid Plans	20 days	Fri 10/1/21	Thu 10/28/21	[Bar from Oct 1 to Oct 28]												
52	Bid Set	20 days	Fri 10/15/21	Thu 11/11/21	[Bar from Oct 15 to Nov 14]												
54	Environmental Permit	202 days	Mon 11/2/20	Tue 8/10/21	[Bar from Nov 2 to Aug 10]												


Project: Project Schedule Date: Wed 5/27/20	Task		External Tasks		Manual Task		Finish-only	
	Split		External Milestone		Duration-only		Deadline	
	Milestone		Inactive Task		Manual Summary Rollup		Critical	
	Summary		Inactive Milestone		Manual Summary		Critical Split	
	Project Summary		Inactive Summary		Start-only		Progress	

**CONSENT AGENDA ITEM
#9**

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

MEMORANDUM

TO: CFX Board Members

FROM: Aneth Williams 
Director of Procurement Aneth Williams (Jun 2, 2020 10:52 EDT)

DATE: May 27, 2020

SUBJECT: Approval of Contract Award to Wantman Group, Inc. (WGI) for Design Consultant Services for Poinciana Parkway Extension Segment 1 Project 538-234, Contract No. 001647

The Board approved on March 12, 2020, the final ranking and authorization for fee negotiations with firms for Design Consultant Services for the Poinciana Parkway Extension – Segments 1 and 2. Negotiations with WGI, Inc. for Segment 1 have been completed. Board award of the contract to WGI, Inc. is requested in the not-to-exceed amount of \$5,750,000.00. The contract is for five (5) years with five one-year renewals.

This project is included in the Five-Year Work Plan.

Reviewed by: 

Will Hawthorne, PE
Director of Engineering


Glenn Prossimone (Jun 3, 2020 11:34 EDT)

AGREEMENT

**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
AND
WGI, INC.**

**DESIGN CONSULTANT SERVICES FOR
POINCIANA PARKWAY EXTENSION (SEGMENT 1)**

CONTRACT NO. 001647, PROJECT 538-234

**CONTRACT DATE: JUNE 11, 2020
CONTRACT AMOUNT: \$5,750,000.00**

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

**AGREEMENT, SCOPE OF SERVICES, METHOD OF
COMPENSATION, DETAILS OF COSTS AND FEES,
PROJECT ORGANIZATIONAL CHART, PROJECT
LOCATION MAP, SCHEDULE, AND POTENTIAL
NON-CONFLICT DISCLOSURE FORM**

**AGREEMENT, SCOPE OF SERVICES, METHOD OF COMPENSATION, DETAILS OF
COSTS AND FEES, PROJECT ORGANIZATIONAL CHART, PROJECT LOCATION
MAP, SCHEDULE, AND POTENTIAL NON-CONFLICT DISCLOSURE FORM**

FOR

**POINCIANA PARKWAY EXTENSION (SEGMENT 1)
PROJECT 538-234**

DESIGN CONSULTANT SERVICES

CONTRACT NO. 001647

JUNE 2020

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

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**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
AGREEMENT FOR PROFESSIONAL SERVICES**

THIS AGREEMENT, made and entered into this 11th day of June 2020, by and between the CENTRAL FLORIDA EXPRESSWAY AUTHORITY, a corporate body and agency of the State of Florida, created by Chapter 2014-171, Laws of Florida, which is codified in Chapter 348, Part III of the Florida Statutes, hereinafter “CFX,” and WGI, Inc., hereinafter called “CONSULTANT,” registered and authorized to conduct business in the State of Florida, carrying on professional practice in engineering, with offices located at 2910 Maguire Road, Suite 2008, Ocoee, Florida 34761.

WITNESSETH:

WHEREAS, CONSULTANT represents that it is fully qualified and authorized to render the professional services contracted herein.

NOW, THEREFORE, in consideration of the mutual understandings and covenants set forth herein, CFX and CONSULTANT agree as follows:

1.0. DEFINITIONS.

Reference herein to the Project Manager shall mean CFX’s Director of Engineering or his authorized designee. The Project Manager shall provide the management and technical direction for this Agreement on behalf of CFX. All technical and administrative provisions of this Agreement shall be managed by the Project Manager and the CONSULTANT shall comply with all of the directives of the Project Manager that are within the purview of this Agreement. Decisions concerning Agreement amendments and adjustments, such as time extensions and supplemental agreements shall be made by the Project Manager.

2.0. SERVICES TO BE PROVIDED

CFX does hereby retain the CONSULTANT to furnish certain professional services in connection with the design of Poinciana Parkway Extension Segment 1, identified as Project 538-234 and Contract No. 001647.

The CONSULTANT and CFX mutually agree to furnish, each to the other, the respective services, information and items as described in **Exhibit “A”**, Scope of Services, attached hereto and made a part hereof.

Before rendering any of the services, any additions or deletions to the work described in **Exhibit “A”**, and before undertaking any changes or revisions to such work, the parties shall negotiate any necessary cost changes and shall enter into a Supplemental Amendment covering such modifications and the compensation to be paid therefore.

The work covered by this Agreement as described in **Exhibit "A,"** includes the preparation of construction plans for one construction project. If the work is divided into more than one construction project by CFX's Project Manager, then the CONSULTANT shall supply construction plans for each project. A Supplemental Agreement will be required for the additional work.

All construction plans, documents, reports, studies and other data prepared by the CONSULTANT shall bear the endorsement of a person in the full employ of the CONSULTANT and duly registered by the State of Florida in the appropriate professional category.

After CFX's acceptance of construction plans and documents for the project, the original set of CONSULTANT's drawings, tracings, plans, maps and CADD files shall be provided to CFX, along with one record set of the final plans. The CONSULTANT shall signify, by affixing an endorsement (seal/signature, as appropriate) on every sheet of the record set, that the work shown on the endorsed sheets was produced by the CONSULTANT. With the tracings and the record set of prints, the CONSULTANT shall submit a final set of design computations. The computations shall be bound in an 8-1/2 x 11" format and shall be endorsed (seal/signature, as appropriate) by the CONSULTANT. Refer to **Exhibit "A"** for the computation data required for this Agreement.

The CONSULTANT shall submit a final set of reports and studies which shall be endorsed (seal/signature) by the CONSULTANT.

The CONSULTANT shall not be liable for use by CFX of said plans, documents, reports, studies or other data for any purpose other than intended by the terms of this Agreement.

This Agreement is considered a non-exclusive Agreement between the parties.

3.0. TERM OF AGREEMENT AND RENEWALS

Unless otherwise provided herein or by Supplemental Agreement, the provisions of this Agreement will remain in full force and effect for a five (5) year term from the date of the Notice to Proceed for the required project services as detailed in **Exhibit "A,"** with five one-year renewals at CFX's option. The options to renew are at the sole discretion and election of CFX. Renewals will be based, in part, on a determination by CFX that the value and level of service provided by the CONSULTANT are satisfactory and adequate for CFX's needs. If a renewal option is exercised, CFX will provide CONSULTANT with written notice of its intent at least thirty (30) days prior to the expiration of the original term and subsequent renewal, if any.

The CONSULTANT agrees to commence the scheduled project services to be rendered within ten (10) calendar days from the date specified in the written Notice to Proceed from the Project Manager, which Notice to Proceed will become part of this Agreement. The CONSULTANT shall complete scheduled project services within the timeframe(s) specified in **Exhibit "A"**, or as may be modified by subsequent Supplemental Agreement.

4.0. PROJECT SCHEDULE

The CONSULTANT agrees to provide Project Schedule progress reports for each project in a format acceptable to CFX and at intervals established by CFX. CFX will be entitled at all times to be advised, at its request, as to the status of work being done by the CONSULTANT and of the details

thereof. Coordination shall be maintained by the CONSULTANT with representatives of CFX, or of other agencies interested in the project on behalf of CFX. Either party to the Agreement may request and be granted a conference.

In the event there are delays on the part of CFX as to the approval of any of the materials submitted by the CONSULTANT or if there are delays occasioned by circumstances beyond the control of the CONSULTANT, which delay the scheduled project completion date, CFX may grant to the CONSULTANT by "Letter of Time Extension" an extension of the scheduled project completion date equal to the aforementioned delays. The letter will be for time only and will not include any additional compensation.

It shall be the responsibility of the CONSULTANT to ensure at all times that sufficient time remains within the project schedule within which to complete the services on the project. In the event there have been delays which would affect the scheduled project completion date, the CONSULTANT shall submit a written request to CFX which identifies the reason(s) for the delay, the amount of time related to each reason and specific indication as to whether or not the delays were concurrent with one another. CFX will review the request and make a determination as to granting all or part of the requested extension.

In the event the scheduled project completion date is reached and the CONSULTANT has not requested, or if CFX has denied, an extension of the completion date, partial progress payments will be stopped when the scheduled project completion date is met. No further payment for the project will be made until a time extension is granted or all work has been completed and accepted by CFX.

5.0. PROFESSIONAL STAFF

The CONSULTANT shall maintain an adequate and competent professional staff to enable the CONSULTANT to timely perform under this Agreement. The CONSULTANT shall continue to be authorized to do business within the State of Florida. In the performance of these professional services, the CONSULTANT shall use that degree of care and skill ordinarily exercised by other similar professionals in the field under similar conditions in similar localities. The CONSULTANT shall use due care in performing in a design capacity and shall have due regard for acceptable standards of design principles. The CONSULTANT may associate with it such specialists, for the purpose of its services hereunder, without additional cost to CFX, other than those costs negotiated within the limits and terms of this Agreement. Should the CONSULTANT desire to utilize specialists, the CONSULTANT shall be fully responsible for satisfactory completion of all subcontracted work. The CONSULTANT, however, shall not sublet, assign or transfer any work under this Agreement to other than the associate consultants listed below without the written consent of CFX. It is understood and agreed that CFX will not, except for such services so designated herein, permit or authorize the CONSULTANT to perform less than the total contract work with other than its own organization.

Prior to retaining a subconsultant, or assigning any work to a subconsultant, the CONSULTANT shall verify that the subconsultant does not have any conflicts and acknowledges its duty to comply with CFX's Code of Ethics. The CONSULTANT shall ensure that each subconsultant adheres to, and cause all subconsultants to be bound by, all requirements, conditions, and standards set forth herein. The CONSULTANT shall collect and maintain the necessary subconsultant compliance and

acknowledgement documentation and remove any subconsultant immediately, if the necessary said documentation is unavailable or the subconsultant is not adhering to the requirements and standards herein. The CONSULTANT shall provide subconsultant compliance and acknowledgement documentation to CFX upon request.

The approved subconsultants are:

Base Consultants, Inc.	Class I
Geotechnical and Environmental Consultants, Inc.	Class II
Protean Design Group, Inc.	Class I
Singhofen & Associates, Inc.	Class I
Tierra, Inc.	Class II

CONSULTANT shall not further sublet, sell, transfer, assign, delegate, subcontract, or otherwise dispose of this Contract or any portion thereof, or of the CONSULTANT's right, title, or interest therein without the written consent of CFX, which may be withheld in CFX's sole and absolute discretion. Any attempt by CONSULTANT to dispose of this Contract as described above, in part or in whole, without CFX's written consent shall be null and void and shall, at CFX's option, constitute a default under the Contract.

If, during the term of the Contract, CONSULTANT desires to subcontract any portion(s) of the work to a subconsultant that was not disclosed by the CONSULTANT to CFX at the time that the Contract was originally awarded, and such subcontract would, standing alone or aggregated with prior subcontracts awarded to the proposed subconsultant, equal or exceed twenty five thousand dollars (\$25,000.00), the CONSULTANT shall first submit a request to CFX's Director of Procurement for authorization to enter into such subcontract. Except in the case of an emergency, as determined by the Executive Director or his/her designee, no such subcontract shall be executed by the CONSULTANT until it has been approved by CFX Board. In the event of a designated emergency, the CONSULTANT may enter into such a subcontract with the prior written approval of the Executive Director or his/her designee, but such subcontract shall contain a provision that provides that it shall be automatically terminated if not approved by CFX Board at its next regularly scheduled meeting.

6.0. COMPENSATION

CFX agrees to pay the CONSULTANT compensation as detailed in **Exhibit "B"**, Method of Compensation, attached hereto and made a part hereof, in the not-to-exceed amount of \$5,750,000.00 for the initial five-year term of this Agreement. Bills for fees or other compensation for services or expenses shall be submitted to CFX in detail sufficient for a proper pre-audit and post audit thereof.

The CONSULTANT may be liable for CFX costs resulting from errors or deficiencies in designs furnished under this Agreement. CFX may enforce such liability and collect the amount due if the recoverable cost will exceed the administrative cost involved or is otherwise in CFX's best interest. Records of costs incurred by the CONSULTANT under terms of this Agreement shall be maintained and made available upon request to CFX at all times during the period of this Agreement and for five (5)

Records of costs incurred by the CONSULTANT under terms of this Agreement shall be maintained and made available upon request to CFX at all times during the period of this Agreement and for five (5) years after final payment is made. Copies of these documents and records shall be furnished to CFX upon request. The CONSULTANT agrees to incorporate the provisions of this paragraph in any subcontract into which it might enter with reference to the work performed. Records of costs incurred includes the CONSULTANT's general accounting records and the project records, together with supporting documents and records, of the CONSULTANT and all subconsultants performing work on the project, and all other records of the CONSULTANT and subconsultants considered necessary by CFX for a proper audit of project costs. The obligations in this paragraph shall survive the termination of the Agreement and continue in full force and effect.

The general cost principles and procedures for the negotiation and administration, and the determination or allowance of costs under this Agreement shall be as set forth in the Code of Federal Regulations, Titles 23, 48, 49, and other pertinent Federal and State Regulations, as applicable, with the understanding that there is no conflict between State and Federal regulations in that the more restrictive of the applicable regulations will govern. Whenever travel costs are included in **Exhibit "B"**, the provisions of Section 112.061, Florida Statutes, shall govern as to reimbursable costs.

Payments shall be made in accordance with the Local Government Prompt Payment Act in part VII, Section 218, Florida Statutes.

7.0. DOCUMENT OWNERSHIP AND RECORDS

All plans, documents, reports, studies, and/or other data prepared or obtained under this Agreement shall be considered instruments made for services and shall become the property of CFX without restriction or limitation on their use on this project; and shall be made available, upon request, to CFX at any time. CFX will have the right to visit the site for inspection of the work and the drawings of the CONSULTANT at any time. Unless changed by written agreement of the parties, said site shall be 2910 Maguire Road, Suite 2008, Ocoee, Florida 34761.

Notwithstanding Section 17, entitled "Communications, Public Relations, and Use of Logos," CONSULTANT acknowledges that CFX is a body politic and corporate, an agency of the State of Florida, and is subject to the Public Records Act codified in Chapter 119, Florida Statutes. To the extent that the CONSULTANT is in the possession of documents that fall within the definition of public records subject to the Public Records Act, which public records have not yet been delivered to CFX, CONSULTANT agrees to comply with Section 119.0701, Florida Statutes.

IF THE CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONSULTANT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT Phone: 407-690-5000, e-mail: publicrecords@cfxway.com, and address: Central Florida Expressway Authority, 4974 ORL Tower Road, Orlando, FL. 32807.

An excerpt of Section 119.0701, Florida Statutes is below.

Per Section 119.0701(1), "Contractor" means an individual, partnership, corporation, or business entity that enters into a contract for services with a public agency and is acting on behalf of the public agency as provided under s. 119.011(2).

Per Section 119.0701(b). The contractor shall comply with public records laws, specifically to:

1. Keep and maintain public records required by the public agency to perform the service.
2. Upon request from the public agency's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in this chapter or as otherwise provided by law.
3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the public agency.
4. Upon completion of the contract, transfer, at no cost, to the public agency all public records in possession of the contractor or keep and maintain public records required by the public agency to perform the service. If the contractor transfers all public records to the public agency upon completion of the contract, the contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the contractor keeps and maintains public records upon completion of the contract, the contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the public agency, upon request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.

The CONSULTANT shall allow public access to all documents, papers, letters, or other material as approved and authorized by CFX and subject to the provisions of Chapter 119, Florida Statutes, and made or received by the CONSULTANT in conjunction with this Agreement. Failure by the CONSULTANT to grant such public access shall be grounds for immediate unilateral cancellation of this Agreement by CFX.

The obligations in Section 7.0, Document Ownership and Records, shall survive the expiration or termination of this Agreement and continue in full force and effect.

8.0. COMPLIANCE WITH LAWS

The CONSULTANT shall comply with all federal, state and local laws and ordinances applicable to the work or payment for work thereof, and shall not discriminate on the grounds of race, color, religion, sex, or national origin in the performance of work under this contract.

The CONSULTANT shall keep fully informed regarding and shall fully and timely comply with all current laws and future laws that may affect those engaged or employed in the performance of this Agreement.

8.1 Limitation of Liability: Pursuant to SECTION 558.0035(1)(d), Florida Statutes, CONSULTANT maintains any professional liability insurance required under this contract. Therefore, pursuant to Section 558.0035(1)(c), Florida Statutes, an individual employee or agent of the CONSULTANT may not be held individually liable for damages resulting from negligence occurring within the course and scope of professional services rendered under this professional services contract

9.0. WAGE RATES AND TRUTH-IN-NEGOTIATIONS CERTIFICATE

The CONSULTANT hereby certifies, covenants and warrants that wage rates and other factual unit costs as shown in attached **Exhibit "C"**, Details of Costs and Fees, supporting the compensation provided in Section 6.0 are accurate, complete and current as of the date of this Agreement. It is further agreed that said price provided in Section 6.0 hereof shall be adjusted to exclude any significant sums where CFX shall determine the price was increased due to inaccurate, incomplete or non-current wage rates and other factual unit costs. All such adjustments shall be made within one year following the date of final billing or acceptance of the work by CFX, whichever is later.

10.0. TERMINATION

CFX may terminate this Agreement in whole or in part, for any reason or no reason, at any time the interest of CFX requires such termination.

If CFX determines that the performance of the CONSULTANT is not satisfactory, CFX shall have the option of (a) immediately terminating in writing the Agreement or (b) notifying the CONSULTANT in writing of the deficiency with a requirement that the deficiency be corrected within a specified time, otherwise the Agreement will be terminated at the end of such time.

If CFX requires termination of the Agreement for reasons other than unsatisfactory performance of the CONSULTANT, CFX shall notify the CONSULTANT in writing of such termination, not less than seven (7) calendar days as to the effective date of termination or specify the stage of work at which the Agreement is to be terminated.

If CFX abandons the work or subtracts from the work, suspends, or terminates the Agreement as presently outlined, the CONSULTANT shall be compensated in accordance with **Exhibit "B"** for work properly performed by the CONSULTANT prior to abandonment or termination of the Agreement. The ownership of all engineering documents completed or partially completed at the time of such termination or abandonment, shall be transferred to and retained by CFX.

CFX reserves the right to cancel and terminate this Agreement in the event the CONSULTANT or any employee, servant, or agent of the CONSULTANT is indicted or has a direct information issued against him for any crime arising out of or in conjunction with any work being performed by the CONSULTANT for or on behalf of CFX, without penalty. It is understood and agreed that in the event of such termination, all tracings, plans, specifications, maps, and data prepared or obtained under this Agreement shall immediately be turned over to CFX. The CONSULTANT shall be compensated for work properly performed rendered up to the time of any such termination in accordance with Section 7.0 hereof. CFX also reserves the right to terminate or cancel this Agreement in the event the CONSULTANT shall be placed in either voluntary or involuntary bankruptcy or an assignment be made for the benefit of creditors. CFX further reserves the right to suspend the qualifications of the CONSULTANT to do business with CFX upon any such indictment or direct information. In the event that any such person against whom any such indictment or direct information is brought shall have such indictment or direct information dismissed or be found not guilty, such suspension on account thereof may be lifted by CFX.

11.0. ADJUSTMENTS

All services shall be performed by the CONSULTANT to the reasonable satisfaction of the Project Manager who shall decide all questions, difficulties and dispute of any nature whatsoever that may arise under or by reason of this Agreement, the prosecution and fulfillment of the services hereunder and the character, quality, amount and value thereof. Adjustments of compensation and term of the Agreement, because of any major changes in the work that may become necessary or desirable as the work progresses, shall be left to the absolute discretion of the Executive Director and Supplemental Agreement(s) of such a nature as required may be entered into by the parties in accordance herewith. Disputes between the Project Manager and the CONSULTANT that cannot be resolved shall be referred to the Executive Director whose decision shall be final.

In the event that the CONSULTANT and CFX are not able to reach an agreement as to the amount of compensation to be paid to the CONSULTANT for supplemental work desired by CFX, the CONSULTANT shall be obligated to proceed with the supplemental work in a timely manner for the amount determined by CFX to be reasonable. In such event, the CONSULTANT will have the right to file a claim with CFX for such additional amounts as the CONSULTANT deems reasonable for consideration by the Executive Director; however, in no event will the filing of the claim or the resolution or litigation thereof, through administrative procedures or the courts, relieve the CONSULTANT from the obligation to timely perform the supplemental work.

12.0. HOLD HARMLESS AND INDEMNIFICATION, SOVEREIGN IMMUNITY

The CONSULTANT shall indemnify and hold harmless CFX, and its officers and employees from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the CONSULTANT and other persons employed or utilized by the design professional in the performance of the Agreement.

When CFX receives a notice of claim for damages that may have been caused by the CONSULTANT in the performance of services required by the CONSULTANT under this Agreement, CFX will immediately forward the notice of claim to the CONSULTANT. The CONSULTANT and CFX will evaluate the notice of claim and report their findings to each other within fourteen (14) calendar days.

In the event a lawsuit is filed against CFX alleging negligence or wrongdoing by the CONSULTANT, CFX will immediately notify CONSULTANT, CFX and the CONSULTANT will jointly discuss options in defending the lawsuit. CFX and the CONSULTANT will pay their own cost for the evaluation, settlement negotiations and trial, if any.

CFX is an agency of the State of Florida whose limits of liability are set forth in Section 768.28, Florida Statutes, and nothing herein shall be construed to extend the limits of liability of CFX beyond that provided in Section 768.28, Florida Statutes. Nothing herein is intended as a waiver of CFX's sovereign immunity under Section 768.28, Florida Statutes, or law. Nothing hereby shall inure to the benefit of any third party for any purpose, which might allow claims otherwise barred by sovereign immunity or operation of law. Furthermore, any and all obligations of CFX to pay any costs, fees or expenses arising out of any lawsuit filed against CFX alleging negligence or wrongdoing by the Consultant, shall be limited to the amounts per person and in the aggregate contained in Section 768.28, Florida Statutes, even if the sovereign immunity limitations of that statute are not otherwise applicable to the matters as set forth in the lawsuit; provided, however, this monetary limitation shall not otherwise supersede any requirement of CFX to pay for work properly performed by Consultant in accordance with the terms of this Agreement.

The obligations in Section 12.0, Hold Harmless and Indemnification, shall survive the expiration or termination of this Agreement and continue in full force and effect.

13.0. INFRINGEMENT OF PATENTS AND COPYRIGHTS

The CONSULTANT shall pay all royalties and assume all costs arising from the use of any invention, design, process materials, equipment, product or device which is the subject of patent rights or copyrights. The CONSULTANT shall, at its expense, hold harmless and defend CFX against any claim, suit or proceeding brought against CFX which is based upon a claim, whether rightful or otherwise, that the goods or services, or any part thereof, furnished under this Agreement, constitute an infringement of any patent or copyright of the United States. The CONSULTANT shall pay all damages and costs awarded against CFX. The obligations in Section 13.0, Infringement of Patents and Copyrights, shall survive the expiration or termination of this Agreement and continue in full force and effect.

14.0. THIRD PARTY BENEFICIARY

The CONSULTANT warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the CONSULTANT to solicit or secure this Agreement, and that the CONSULTANT has not paid or agreed to pay any person, company, corporation, individual or firm, other than a bona fide employee working solely for the CONSULTANT any fee, commission, percentage, gift or any other consideration, contingent upon or resulting from the award or making of this

Agreement. It is understood and agreed that the term "fee" shall also include brokerage fee, however denoted. For the breach or violation of this paragraph, CFX shall have the right to terminate this Agreement without liability, and, at its discretion, to deduct from the contract price, or otherwise recover, the full amount of such fee, commission percentage, gift or consideration.

15.0. INSURANCE

The CONSULTANT, at its own expense, shall keep in force and at all times maintain during the term of this Agreement all insurance of the types and to the limits specified herein.

The CONSULTANT shall require and ensure that each of its subconsultants providing services hereunder procures and maintains, until the completion of the services, insurance of the requirements, types and to the limits specified herein. Upon request from CFX, the CONSULTANT shall furnish copies of certificates of insurance and endorsements evidencing coverage of each subconsultant.

The CONSULTANT shall require all insurance policies in any way related to the work and secured and maintained by the CONSULTANT to include clauses stating each underwriter shall waive all rights of recovery, under subrogation or otherwise, against CFX. The CONSULTANT shall require of subconsultants, by appropriate written agreements, similar waivers each in favor of all parties enumerated in this section. When required by the insurer, or should a policy condition not permit an endorsement, the CONSULTANT agrees to notify the insurer and request that the policy(ies) be endorsed with a Waiver of Transfer of Rights of Recovery Against Others, or an equivalent endorsement. This Waiver of Subrogation requirement shall not apply to any policy, which includes a condition that specifically prohibits such an endorsement or voids coverage should the CONSULTANT enter into such an agreement on a pre-loss basis. At the CONSULTANT's expense, all limits must be maintained.

15.1 Commercial General Liability coverage shall be on an occurrence form policy for all operations including, but not limited to, Contractual, Products and Completed Operations, and Personal Injury. The limits shall be not less than One Million Dollars (\$1,000,000) per occurrence, Combined Single Limits (CSL) or its equivalent. The general aggregate limit shall apply separately to this Agreement (with the ISO CG 25 01 or insurer's equivalent endorsement provided to CFX) or the general aggregate limit shall be twice the required occurrence limit. CFX shall be listed as an additional insured. ISO Form CG 20 10 11 85 or if not available, ISO Forms CG 20 10 10 01 and CG 20 37 10 01, or if not available, their equivalent acceptable to CFX, shall be used to meet these requirements and a photocopy of same shall be provided with the Certificate. The CONSULTANT further agrees coverage shall not contain any endorsement(s) excluding or limiting Product/Completed Operations, Independent Consultants, Broad Form Property Damage, X-C-U Coverage, Contractual Liability, or Severability of Interests. The Additional Insured Endorsement included on all such insurance policies shall state that coverage is afforded the additional insured with respect to claims arising out of operations performed by or on behalf of the insured. If the additional insureds have other insurance which is applicable to the loss, such other insurance shall be excess to any policy of insurance required herein. The amount of the insurer's liability shall not be reduced by the existence of such other insurance.

15.2 Business Automobile Liability coverage shall be on an occurrence form policy for all owned, non-owned and hired vehicles issued on ISO form CA 00 01 or its equivalent. The limits shall be not less than One Million Dollars (\$1,000,000) per occurrence/annual aggregate. In the event the

CONSULTANT does not own automobiles the CONSULTANT shall maintain coverage for hired and non-owned auto liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

Each of the above insurance policies shall include the following provisions: (1) The standard severability of interest clause in the policy and when applicable the cross liability insurance coverage provision which specifies that the inclusion of more than one insured shall not operate to impair the rights of one insured against another insured, and the coverages afforded shall apply as though separate policies had been issued to each insured; (2) The stated limits of liability coverage for Commercial/Comprehensive General Liability, and Business Automobile Liability, assumes that the standard "supplementary payments" clause will pay in addition to the applicable limits of liability and that these supplementary payments are not included as part of the insurance policies limits of liability.

15.3 Workers' Compensation and Employer's Liability Insurance shall be provided as required by law or regulation (statutory requirements). Employer's Liability insurance shall be provided in amounts not less than \$100,000 per accident for bodily injury by accident, \$100,000 per employee for bodily injury by disease, and \$500,000 policy limit by disease. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of CFX for all work performed by the CONSULTANT, its employees, agents and subconsultants.

15.4 Professional Liability Coverage shall have limits of not less than One Million Dollars (\$1,000,000) per claim / annual aggregate, protecting the selected firm or individual against claims of CFX for negligence, errors, mistakes or omissions in the performance of services to be performed and furnished by the CONSULTANT.

The CONSULTANT shall provide CFX with Certificate(s) of Insurance with required endorsements on all the policies of insurance and renewals thereof in a form(s) acceptable to CFX. CFX shall be notified in writing of any reduction, cancellation or substantial change of policy or policies at least thirty (30) days prior to the effective date of said action.

All insurance policies shall be issued by responsible companies who are acceptable to CFX and licensed to do business under the laws of the State of Florida. Each Insurance company shall minimally have an A.M. Best rating of A-VII. If requested by CFX, CFX shall have the right to examine copies and relevant provisions of the insurance policies required by this Agreement, subject to the appropriate confidentiality provisions to safeguard the proprietary nature of CONSULTANT manuscript policies.

In the event any of the aforementioned insurance policies provide greater coverage or greater limits than the minimum requirements set forth herein, then CFX shall be entitled to the full coverage and limits of such policies, and these insurance requirements will be deemed to require such greater coverage and greater limits.

Any deductible or self-insured retention must be declared to and approved by CFX. At the option of CFX, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as requests CFX, or the CONSULTANT shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

All such insurance required by the CONSULTANT shall be primary to, and not contribute with, any insurance or self-insurance maintained by CFX.

Compliance with these insurance requirements shall not relieve or limit the CONSULTANT's liabilities and obligations under this Agreement. Failure of CFX to demand such certificate or evidence

of full compliance with these insurance requirements or failure of CFX to identify a deficiency from evidence provided will not be construed as a waiver of the CONSULTANT's obligation to maintain such insurance.

The acceptance of delivery by CFX of any certificate of insurance evidencing the required coverage and limits does not constitute approval or agreement by CFX that the insurance requirements have been met or the insurance policies shown in the certificates of insurance are in compliance with the requirements.

16.0. COMMUNICATIONS, PUBLIC RELATIONS, AND USE OF LOGOS

The CONSULTANT agrees that it shall make no statements, press releases or publicity releases concerning this Agreement or its subject matter or otherwise disclose or permit to be disclosed any of the data or other information obtained or furnished in compliance with this Agreement, or any particulars thereof, during the period of the Agreement, without first notifying CFX and securing its consent in writing, except as required by law. The CONSULTANT also agrees that it shall not publish, copyright or patent any of the data, documents, reports, or other written or electronic materials furnished in compliance with this Agreement, it being understood that, under Section 7.0 hereof, such data or information is the property of CFX.

Regarding the use of logos, printed documents and presentations produced for CFX shall not contain the name or logo of the CONSULTANT unless approved by CFX's Public Affairs Officer or his/her designee. Prior approval by CFX's Public Affairs Officer or his/her designee is required if a copy of the CFX logo or any CFX mark, including trademarks, service marks, or any other mark, collectively referred as "Marks," is to be used in a document or presentation. The Marks shall not be altered in any way. The width and height of the Marks shall be of equal proportions. If a black and white Mark is utilized, the Mark shall be properly screened to insure all layers of the Mark are visible. The proper presentation of CFX Marks is of utmost importance to CFX. Any questions regarding the use of CFX Marks shall be directed to the CFX Public Affairs Officer or his/her designee.

17.0. CONFLICT OF INTEREST AND STANDARD OF CONDUCT

No Contingent Fees. CONSULTANT warrants that it has not employed or retained any entity or person, other than a bona fide employee working solely for CONSULTANT, to solicit or secure this Contract, and that CONSULTANT has not paid or agreed to pay any person, company, corporation, individual or firm any fee, commission, percentage, gift or any other consideration, contingent upon or resulting from the award or making of this Contract. It is understood and agreed that the term "fee" shall also include brokerage fee, however denoted. For breach of this provision, CFX shall have the right to terminate this Contract without liability, and, at its discretion, to deduct from the contract price, or otherwise recover, the full amount of such fee, commission percentage, gift or consideration.

CONSULTANT acknowledges that CFX officials and employees are prohibited from soliciting and accepting funds or gifts from any person who has, maintains, or seeks business relations with CFX in accordance with CFX's Code of Ethics. CONSULTANT acknowledges that it has read the CFX's Code of Ethics and, to the extent applicable, CONSULTANT will comply with the aforesaid CFX's Code of

Ethics in connection with performance of the Contract.

As required by Section 348.753, Florida Statutes, and CFX's Code of Ethics, CONSULTANT agrees to complete CFX's Potential Conflict Disclosure Form prior to the execution of the Contract, upon the occurrence of an event that requires disclosure, and annually, not later than July 1st.

CONSULTANT covenants and agrees that it and its employees, officers, agents, and subconsultants shall be bound by the standards of conduct provided in Section 112.313, Florida Statutes, as it relates to work performed under this Contract, which standards will be reference be made a part of this Contract as though set forth in full. The CONSULTANT agrees to incorporate the provisions of this paragraph in any subcontract into which it might enter with reference to the work performed.

CONSULTANT hereby certifies that no officer, agent or employee of CFX has any "material interest" (as defined in Section 112.312(15), Florida Statutes) either directly or indirectly, in the business of CONSULTANT, and that no such person shall have any such interest at any time during the term of this Agreement.

The CONSULTANT shall not knowingly enter into any other contract with CFX during the term of this Agreement which would create or involve a conflict of interest with the services provided herein. Likewise, subconsultants shall not knowingly enter into any other contract with CFX during the term of this Agreement which would create or involve a conflict of interest with the service provided herein and as described below. Questions regarding potential conflicts of interest shall be addressed to the Executive Director for resolution.

During the term of this Agreement the CONSULTANT is NOT eligible to pursue any advertised construction engineering and inspection projects of CFX as either a prime or subconsultant where the CONSULTANT participated in the oversight of the projects or for any project which the CONSULTANT prepared plans and/or specifications. Subconsultants are also ineligible to pursue construction engineering and inspection projects where they participated in the oversight of the projects or for any project which the subconsultant was involved in the preparation of plans and/or specifications.

18.0. DOCUMENTED ALIENS

The CONSULTANT warrants that all persons performing work for CFX under this Agreement, regardless of the nature or duration of such work, shall be United States citizens or properly authorized and documented aliens. The CONSULTANT shall comply with all federal, state and local laws and regulations pertaining to the employment of unauthorized or undocumented aliens at all times during the performance of this Agreement and shall indemnify and hold CFX harmless for any violations of the same. Furthermore, if CFX determines that CONSULTANT has knowingly employed any unauthorized alien in the performance of this Agreement, CFX may immediately and unilaterally terminate this Agreement for cause.

The obligations in Section 18.0, Documented Aliens, shall survive the expiration or termination of this Agreement and continue in full force and effect.

19.0. E-VERIFY CLAUSE

CONSULTANT shall utilize the U.S. Department of Homeland Security's E-Verify System to

verify the employment eligibility of all new employees hired by the CONSULTANT during the term of the contract. CONSULTANT shall require all of its subconsultants to verify the employment eligibility of all new employees hired by the subconsultants during the term of the Agreement.

20.0. INSPECTOR GENERAL

CONSULTANT agrees to comply with Section 20.055(5), Florida Statutes, and agrees to cooperate with the inspector general in any investigation, audit, inspection, review, or hearing pursuant to this section. CONSULTANT agree to incorporate in all subcontracts the obligation to comply with Section 20.055(5). The obligations in this paragraph shall survive the expiration or termination of this Agreement and continue in full force and effect.

21.0. PUBLIC ENTITY CRIME INFORMATION AND ANTI-DISCRIMINATION STATEMENT

Pursuant to Section 287.133(2)(a), Florida Statutes,
“a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in s. 287.017 for CATEGORY TWO (\$35,000) for a period of 36 months following the date of being placed on the convicted vendor list.”
Pursuant to Section 287.134(2)(a), Florida Statutes, “an entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity.”

22.0. COMPANIES PURSUANT TO SECTION 287.135 AND 215.473

CFX may terminate this Agreement for breach of contract if the Consultant:

- 22.1. submitted a false certification as provided under Florida Statute 287.135(5); or
- 22.2. been placed on the Scrutinized Companies with Activities in Sudan List; or

- 22.3. been placed on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List; or
- 22.4. been engaged in business operations in Cuba or Syria; or
- 22.5. found to have been placed on the Scrutinized Companies that Boycott Israel List or is engaged in a boycott of Israel.

23.0. AVAILABILITY OF FUNDS

CFX's performance and obligation to pay under this Agreement are contingent upon an annual budget appropriation by its Board. The parties agree that in the event funds are not appropriated, this Agreement may be terminated, which shall be effective upon CFX giving notice to the CONSULTANT to that effect.

24.0. AUDIT AND EXAMINATION OF RECORDS

24.1 Definition of Records:

(i) "Contract Records" shall include, but not be limited to, all information, communications and data, whether in writing or stored on a computer, computer disks, microfilm, writings, working papers, drafts, computer printouts, field notes, charts or any other data compilations, books of account, photographs, videotapes and audiotapes supporting documents, any other papers or preserved data in whatever form, related to the Contract or the CONSULTANT's performance of the Contract determined necessary or desirable by CFX for any purpose. Proposal Records shall include, but not be limited to, all information and data, whether in writing or stored on a computer, writings, working papers, computer printouts, charts or other data compilations that contain or reflect information, data or calculations used by CONSULTANT in determining labor, unit price, or any other component of a bid submitted to CFX.

(ii) "Proposal Records" shall include, but not be limited to, any material relating to the determination or application of equipment rates, home and field overhead rates, related time schedules, labor rates, efficiency or productivity factors, arithmetic extensions, quotations from subcontractors, or material suppliers, profit contingencies and any manuals standard in the industry that may be used by CONSULTANT in determining a price.

24.2 CFX reserves and is granted the right (at any time and from time to time, for any reason whatsoever) to review, audit, copy, examine and investigate in any manner, any Contract Records (as herein defined) or Proposal Records (as hereinafter defined) of the CONSULTANT or any subcontractor.

By submitting a response to the Request for Proposal, CONSULTANT or any subcontractor submits to and agree to comply with the provisions of this section.

24.3 If CFX requests access to or review of any Contract Documents or Proposal Records and CONSULTANT refuses such access or review or delays such access or review for over ten (10) calendar days, CONSULTANT shall be in default under its Contract with CFX, and such refusal shall, without any other or additional actions or omissions, constitute grounds for suspension or disqualification of CONSULTANT. These provisions shall not be limited in any manner by the existence of any CONSULTANT claims or pending litigation relating to the Contract. Disqualification or suspension of the CONSULTANT for failure to comply with this section shall also preclude the CONSULTANT from

acting in the future as a subcontractor of another contractor doing work for CFX during the period of disqualification or suspension. Disqualification shall mean the CONSULTANT is not eligible for and shall be precluded from doing future work for CFX until reinstated by CFX.

24.4 Final Audit for Project Closeout: The CONSULTANT shall permit CFX, at CFX's option, to perform or have performed, an audit of the records of the CONSULTANT and any or all subconsultants to support the compensation paid the CONSULTANT. The audit will be performed as soon as practical after completion and acceptance of the contracted services. In the event funds paid to the CONSULTANT under the Contract are subsequently determined to have been inadvertently paid by CFX because of accounting errors or charges not in conformity with the Contract, the CONSULTANT agrees that such amounts are due to CFX upon demand. Final payment to the CONSULTANT shall be adjusted for audit results.

24.5 CONSULTANT shall preserve all Proposal Records and Contract Records for the entire term of the Contract and for a period of five (5) years after the later of: (i) final acceptance of the project by CFX, (ii) until all claims (if any) regarding the Contract are resolved, or (iii) expiration of the Proposal Records and Contract Records' status as public records, as and if applicable, under Chapter 119, Florida Statutes.

24.6 The obligations in Section 24.0, Audit and Examination of Records, shall survive the expiration or termination of this Agreement and continue in full force and effect.

25.0. GOVERNING LAW AND VENUE

This Agreement shall be governed by and constructed in accordance with the laws of the State of Florida. The parties consent to the exclusive jurisdiction of the courts located in Orange County, Florida. The obligations in Section 25.0, Governing Law and Venue, shall survive the expiration or termination of this Agreement and continue in full force and effect.

26.0. NOTICE

All notices required pursuant to the terms hereof shall be sent by First Class United States Mail. Unless prior written notification of an alternate address for notices is sent, all notices shall be sent to the following addresses:

To CFX: Central Florida Expressway Authority
 4974 ORL Tower Road
 Orlando, FL 32807
 Attn: Chief of Infrastructure

 Central Florida Expressway Authority
 4974 ORL Tower Road
 Orlando, FL 32807
 Attn: General Counsel

To CONSULTANT: WGI, Inc.
2910 Maguire Road, Suite 2008.
Ocoee, Florida 34761
Attn: Henri Belrose, P.E.

WGI, Inc.
2910 Maguire Road, Suite 2008.
Ocoee, Florida 34761
Attn: Nancy Clements, P.E.

27.0. HEADINGS

Headings are given to the sections of the Agreement solely as a convenience to facilitate reference. Such headings shall not be deemed in any way material or relevant to the construction or interpretation of the Agreement.

28.0. CONTRACT LANGUAGE AND INTERPRETATION

All words used herein in the singular form shall extend to and include the plural. All words used in the plural form shall extend to and include the singular. All words used in any gender shall extend to and include all genders.

References to statutes or regulations shall include all statutory or regulatory provisions consolidating, amending, or replacing the statute or regulation referred to. Words not otherwise defined that have well known technical or industry meanings, are used in accordance with such recognized meanings. References to persons include their respective functions and capacities.

If the CONSULTANT discovers any material discrepancy, deficiency, ambiguity, error, or omission in this Agreement, or is otherwise in doubt as to the meaning of any provision of the Agreement, the CONSULTANT shall immediately notify CFX and request clarification of CFX's interpretation of this Agreement.

The Agreement shall not be more strictly construed against either party hereto by reason of the fact that one party may have drafted or prepared any or all of the terms and provisions hereof.

29.0. ASSIGNMENT

This Agreement may not be assigned without the written consent of CFX.

30.0. SEVERABILITY

The invalidity or non-enforceability of any portion or provision of this Agreement shall not affect the validity or enforceability of any other portion or provision. Any invalid or unenforceable portion or provision shall be deemed severed from this Agreement and the balance hereof shall be construed and enforced as if this Agreement did not contain such invalid or unenforceable portion or provision.

31.0. INTEGRATION

This Agreement constitutes the entire agreement among the parties pertaining to the subject matter hereof and supersedes all prior and contemporaneous agreements, understandings, negotiations and discussions of the parties, whether oral or written, and there are no other agreements between the parties in connection with the subject matter hereof. No waiver, amendment, or modification of these terms hereof will be valid unless in writing, signed by all parties and only to the extent therein set forth.

32.0. ATTACHMENTS

- Exhibit "A", Scope of Services
- Exhibit "B", Method of Compensation
- Exhibit "C", Details of Cost and Fees
- Exhibit "D", Project Organization Chart
- Exhibit "E", Project Location Map [Note: Attach if applicable]
- Exhibit "F", Project Schedule [Note: Attach if applicable]
- Exhibit "G", Potential Conflict Disclosure Form

[SIGNATURES TO FOLLOW]

IN WITNESS WHEREOF, the CONSULTANT and CFX have caused this instrument to be signed by their respective duly authorized officials, as of the day and year first above written. This Contract was awarded by CFX's Governing Board at its meeting on June 11, 2020.

WGI, INC.

**CENTRAL FLORIDA
EXPRESSWAY AUTHORITY**

BY: _____
Authorized Signature

BY: _____
Director of Procurement

Print Name: _____

Print Name: _____

Title: _____

Effective Date: _____

ATTEST: _____ (Seal)
Secretary or Notary

Approved as to form and execution, only.

General Counsel for CFX

EXHIBIT A

SCOPE OF SERVICES

Exhibit A

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

SCOPE OF SERVICES

FOR

**S.R. 538 EXTENSION (Segment 1) FROM
Orange Blossom Trail (US 17/92) to Ronald Reagan
Parkway**

PROJECT NO. 538-234

CONTRACT NO. 001647

IN OSCEOLA AND POLK COUNTIES, FLORIDA

May 21, 2020

Exhibit A
SCOPE OF SERVICES
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1.0 GENERAL

1.1 Location

- A. See EXHIBIT “E”, Project Location Map.

1.2 Description

The services will include final design and preparation of construction drawings / specifications for the proposed S.R. 538 extension from Orange Blossom Trail (SR 600, US 17/92) to Ronald Reagan Parkway. Specifically, the project consists of construction of a new limited access toll highway consisting of four lanes (two in each direction) between US 17/92 and Ronald Reagan Parkway, interchange ramps to/from US 17/92 (to/from the south only) connection to the existing SR 538 which is being widened with a concurrent project, and truncating Ronald Reagan Parkway with a cul-de-sac. This project will include construction of new bridge structures for the SR 538 main line over wetlands and floodplain areas within the Reedy Creek Mitigation Bank and over Delmar Lane. Additional elements include milling & resurfacing, surveying, drainage evaluation and design, permitting, lighting, signing and pavement markings, ITS (fiber optic network), maintenance of traffic, utility design and coordination, geotechnical analysis, right-of-way mapping, scheduling and project control, progress reporting and other tasks and associated activities.

1.3 Purpose

- A. The purpose of this Exhibit is to describe the scope of work and responsibilities required in connection with Final Engineering and Final Construction Drawings and Documents for the proposed S.R. 538 extension from US 17/92 to Ronald Reagan Parkway.
- B. The Consultant shall perform those engineering services as required for final roadway/drainage plans, final bridge plans, final lighting plans, final traffic control plans, utility coordination and final utility adjustment plans, final ITS (fiber optic network) plans, final signing and pavement marking plans and preparation of a complete environmental resource application (or permit modification) including 100% storm water management.
- C. CFX’s Project Manager will provide contract administration, management services, and technical reviews of all work associated with the preliminary and final designs.
- D. It is understood that references throughout this document to items of work and services to be performed are the responsibility of the Consultant unless otherwise expressly stated as the responsibility of others.

1.4 Organization

- A. CFX’s Project Manager will administer the Consultant services detailed in this

scope. The following sections define the duties and obligations of CFX and the Consultant.

1.5 Term of Agreement for Design Services

A. The term of the Agreement to perform the required design services shall be within eighteen (18) months from notice to proceed, including all reviews. Any fast track of services will be at the direction of CFX's Project Manager.

B. The Consultant may continue the design efforts while design submittals are being reviewed. Doing so, however, in no way relieves the Consultant of the responsibility to incorporate review comments into the design, nor does it entitle the Consultant to any additional design fees as a result of making changes due to review comments.

1. Project Milestones:

The Consultant will prepare a tabulation of major project milestones.

2. Project Schedule:

The Consultant shall include a schedule of major design tasks.

2.0 STANDARDS

- A. The applicable design and construction standards and policies of the Florida Department of Transportation, Federal Highway Administration (FHWA), American Association of State Highway and Transportation Officials (AASHTO), Transportation Research Board (TRB), Standard Building Code, CFX's Design Practices and Standard Notes and CFX's Guidelines for Preparation of Signing and Pavement Marking Plans shall be followed throughout the design and construction of the project unless specifically stated otherwise. The editions and updates of the applicable standards and policies in effect at the time of Contract execution shall be used as follows for this project:
1. Division II, Construction Details, and Division III, Materials, of the FDOT Standard Specifications for Road and Bridge Construction, 2018 edition, and updates thereafter, shall be used for this project.
 2. The FDOT Standard Plans
 3. The FDOT Design Manual,
 4. The FDOT Basis of Estimates Handbook
 5. The AASHTO Policy on Geometric Design of Highway and Streets (Green Book), 2011 edition
 6. The FHWA Manual on Uniform Traffic Control Devices (MUTCD), 2009 edition, as currently amended
 7. CFX Design Guidelines 2020 Edition

3.0 DESIGN CRITERIA

3.1 General

Design of this project will be guided by the basic design criteria listed below.

- A. The design criteria listed in this section and Project Design Directives, provided by CFX during the course of the project, may supplement the Project Design Guidelines.
- B. Design year – 2045
- C. Design vehicle – WB-62FL
- D. Along with the 30% design submittal, the Consultant shall provide a tabulation of all applicable drainage and stormwater management criteria from Federal, State and local agencies and indicated which will be used for all segments and portions of the project. Unless otherwise directed by CFX, the Consultant shall use the most restrictive or conservative criteria applicable.

3.2 Geometry

The following criteria are to be incorporated into the design:

DESIGN ELEMENT	EXPRESSWAY		CROSSROADS/ COLLECTORS
	MAINLINE	RAMPS	
Design Speed, MPH	70 mph	30 mph (Loop) 50 mph (Diamond) 50 mph (Directional)	30 Local 45 Urban 50 Rural
Horizontal Alignment Max. Curve, Degrees	3° 30'	24° 45' Loop 8° 15' Diamond 8° 15' Directional	20°
Max. Superelevation, ft/ft.	0.10	0.10	0.05 Urban 0.10 Rural
Lane Drop Tapers			
Transitions	70:1 Use spirals for curves > 1° 30'	50:1 Use spirals for curves > 1° 30'	Use spirals for curves > 1° 30'
Vertical Alignment Max. Grade	3%	5% to 7% (30 mph) 3% to 5% (50 mph)	5% Arterial Rural 7% Collector

DESIGN ELEMENT	EXPRESSWAY		CROSSROADS/ COLLECTORS
	MAINLINE	RAMPS	
Vertical Curvature (K) (K=Len./%grade change)			Rural
Crest	506 290 to 540 AASHTO	31 (30 mph) 136 (50 mph) 110 to 160 Other (AASHTO)	31 to 136
Sag	206 150 to 200 AASHTO	31 (30 mph) 136 (50 mph) 90 to 110 Other (AASHTO)	37 to 96
Decision Sight Dist., ft.	Refer to AASHTO	N/A	N/A
Cross Sections			
Lane Widths, ft.	12	12 dual lanes 15 min. single lane	12 inner lanes 12-16 outer lanes
Shoulder width, ft.			
Right	4-Lane 14 (12 paved)	Single Lane 6 (4 paved)	8 (4* paved)
Left	14 (12 paved)	6 (2 paved)	2 (2 paved)
			* min. 5' paved
Right	6-Lane 14 (12 paved)	Dual Lane 10* (8* paved)	
Left	14 (12 paved)	8 (4 paved) (* add 2' for interstate)	
Bridges, ft.			
Right	4-Lane 10	Single-Lane 6	
Left	6	6	
Right	6(or more)-Lanes 12	Dual Lane 10	
Left	12	6	
Cross Slopes			
Traffic Lanes	2% (4-lane) 3% or tbd (6-lane)	2%	2%
Bridge Lanes	2% typ. (no break)		
Left Shoulder	Match Mainline	5%	5%
Right Shoulder	Match Mainline	6%	6%

DESIGN ELEMENT	EXPRESSWAY		CROSSROADS/ COLLECTORS
	MAINLINE	RAMPS	
Median Width (4-lane), ft. (E.O.P./E.O.P.)	64' (typical) 26' (with barrier)	N/A	22' or 40'
Lateral Offset	FDM 215.2.4	FDM 215.2.4	FDM 215.2.4
Vertical Clearance, ft.			
Over Roadway*	16.5	16.5	16.5
Overhead Signs	17.5	17.5	17.5
Over Railroad	23.5	23.5	N/A

Ramp Operations

- a. Two thousand (2,000) ft. between entrance and exit terminals – full freeways
- b. Six hundred (600) ft. between exit and entrance terminals
- c. Single Lane Entrance Ramp Parallel
- d. Exit Ramp Taper of 550 ft. (3° – divergence)

Right of Way

- a. Ten (10) ft. from back of walls or limit of construction.
- b. Two (2) ft. from back of sidewalk on frontage roads.
- c. Drainage and construction easements as required
- d. Limited access right-of-way limits per Index 450
- e. Right of way limits for ramps is based upon limit of construction plus 10 feet.

3.3 Bridge and Other Structures

- A. All plans and designs shall be prepared in accordance with the following standards and specifications in effect at the time of contract execution: AASHTO LRFD Bridge Design Specifications, FDOT Structures Manual, FDOT Design Manual, FDOT Standard Plans, FDOT Load Rating Manual, except as otherwise directed by CFX.

4.0 WORK PERFORMED BY CONSULTANT

The Consultant shall be responsible for the work outlined in this Section. The work shall conform to the standards, criteria, and requirements of this Scope of Services.

4.1 Design Features

- A. The work required for this project includes preparation of final construction drawings and specifications as well as the preparation of a complete environmental resource application.
- B. Major elements of the work include the following:

The services will include final design and preparation of construction drawings / specifications for the proposed S.R. 538 extension from just south of the US 17/92 bridge (Station 94+00 +/-) to connection with the SR 538 widening project at Ronald Reagan Parkway (Station 201+00 +/-). Specifically, the project consists of construction of a new limited access toll highway consisting of four lanes (two in each direction) between US 17/92 and Ronald Reagan Parkway, interchange ramps to/from US 17/92 (to/from the south only), connection to the existing SR 538 which is being widened with a concurrent project, and truncating Ronald Reagan Parkway with a cul-de-sac. This project will include construction of new bridge structures over wetlands and floodplain areas within the Reedy Creek Mitigation Bank and over Delmar Lane. Additional elements include milling & resurfacing, surveying, drainage evaluation and design, permitting, lighting, signing and pavement markings, ITS, maintenance of traffic, utility design and coordination, right-of-way mapping, geotechnical analysis, scheduling and project control, progress reporting and other tasks and associated activities.

4.2 Governmental Agencies

- A. The Consultant shall coordinate with and assist in securing the approval of all interested agencies involved. These agencies may include, but are not necessarily limited to Osceola County, Polk County, FDOT, FDEP, FAA, and applicable Water Management District(s).

4.3 Preliminary Design Report - Review

- A. The Consultant shall review the project concept for proposed alternatives with regard to proposed design criteria, maintenance of traffic and construction feasibility.

At the completion of this review, the Consultant shall submit to CFX a written list of recommendations and proposed revisions, if any, to the basic layout. A conference will be scheduled by CFX's Project Manager with the Consultant to resolve any outstanding differences and agree upon a final layout for the project.

B. Preliminary Design Report (PDR) - Review: Brief report addressing the following items at a minimum:

1. Horizontal alignment of SR 538, and Ronald Reagan Parkway
2. Vertical alignment of SR 538, and Ronald Reagan Parkway
3. Potential wall locations along SR 538
4. Pavement analysis
5. Hydroplaning Analysis
6. Drainage pond locations
7. Utility relocations

4.4 Surveys and Mapping

A. All Surveying and Mapping shall be performed under the direction of a Surveyor and Mapper properly licensed with the Florida Board of Professional Surveyors and Mappers, under Chapter 472, Florida Statutes. The Consultant shall review data provided by CFX and provide complete field surveys suitable for contract document preparation.

Survey activities shall be coordinated with the Consultant's design team including roadway, drainage, structures, geotechnical, and other disciplines as required.

Field surveys shall be performed with minimal disruption of the normal traffic flow for the project. Field personnel shall use safety devices such as warning signs, traffic cones, warning lights, and safety vests at all times, according to the Florida Department of Transportation requirements. Advanced warning signs required when survey crews are working on CFX's system shall be made with 3M Scotchlite Diamond Grade Fluorescent orange roll up sign sheeting.

The Authority will provide aerial survey (topography and mapping) with limited control and coverage. Section 6.0 defines all work performed by the Authority or its designee.

The Authority has performed a Project Network Control Survey and documented the location and values at approximately one-half mile intervals. The Consultant shall supplement this information with additional points as necessary to meet project requirements.

B. Alignment

1. Establish Survey Centerline by establishing the tangent lines of existing Right of Way maps if such maps exist, or in the center of

dedicated Right of Way as per subdivision plats, or in the center of the pavement when no Right of Way map or dedication exists. Set alignment points Begin, End, PC's, PT's, PI's and at maximum 1400-foot intervals along alignment.

2. Establish and set alignment in the same manner on cross roads and major adjacent alignments.
3. Station all alignments at 100' intervals.
4. Meet with CFX's Project Manager to discuss methods for determining alignments prior to staking.

C. Reference Points

1. Set at all alignment points, left and right at 90-degrees to alignment where possible, outside the proposed construction limits.
2. Show obstructions where alternate references are set.

D. Bench Levels

1. The Consultant shall establish new benchmarks at 1000' intervals along all alignments, using stable points. Elevation will be relative to North American Vertical Datum of 1988 (NAVD 88).
2. The Bench Run will be based on closures between established benchmarks provided by the Authority.

E. Topography

1. Planimetric mapping and a digital terrain model (DTM), suitable for 1" = 50' display scale shall be conducted by the Consultant.
2. Cross-sections will be performed at 1000' intervals along the mainline to verify DTM.
3. Additional topographic and DTM surveys, as needed for the project design, are the responsibility of the Consultant. These may include existing water bodies and pavement elevations.

F. Drainage Survey

Perform a drainage survey including pipe type, location, size and flow line elevations as needed for design.

G. Underground Utilities

Locate all underground utilities, horizontally and vertically as flagged by

respective utility companies or a qualified utility marking consultant. Provide soft excavation verifications as needed to verify location and at utility conflict areas.

H. Side Street Surveys

As needed for engineering design, the Consultant will obtain existing pavement elevations and cross-slopes along the inside travel lane and outside travel lane every 100' and perform utility surveys of side streets.

I. Bridge Survey

Provide complete bridge survey data as needed for engineering design. Utilize Terrestrial Mobile and/or Static Lidar for clearance, features, and any other extraction needed to support design.

J. Jurisdictional Line Surveys

Perform Jurisdictional Line Surveys as needed for engineering design and permitting. Locate wetland flags delineated by CFX's GEC.

K. Geotechnical Surveys

Locate and/or stake boring locations as needed for geotechnical investigations.

L. Right-of-Way Ties

Locate right-of-way limits for construction purposes. New right-of-way is anticipated.

M. Prior to construction, the Consultant shall re-flag and reset project horizontal and vertical control points and meet with the construction contractor to review these points.

N. CFX ITS/FON

CFX will locate the FON one time at the beginning of design during the survey phase. Once the FON/ITS lines are flagged, the Consultant shall survey the located FON/ITS locations in the field. The survey data collected will be included in the 30% plans submittal package.

The CFX GSC will review the plan submittals to ensure that the FON is shown correctly as actually located in the field. The CFX GSC will also determine if there are any overlapping projects that need to be represented in the design plans as a part of the ITS Component review of the 30% plans.

SUE will be done as required based on the Design Project Manager's recommendations and provided to CFX for their information.

4.5 Geotechnical Investigation

- A. The Consultant shall perform a geotechnical investigation of the project in accordance with the requirements of CFX.
- B. Investigations shall be performed with minimal disruption of the normal traffic flow for the project. Field personnel shall use safety devices such as warning signs, traffic cones, warning lights, and safety vests at all times, according to CFX requirements. The Consultant shall adhere to all traffic control requirements when taking samples on existing roadways. A traffic control plan and permit may be required. Any advanced warning signs required when crews are working on CFX system shall be made with 3M Scotchlite Diamond Grade Fluorescent orange roll up sign sheeting.
- C. The work includes, but is not limited to, identifying roadway structural section requirements, LBR testing, design methods for the selected foundation, external stability evaluation at proprietary retaining walls, groundwater and estimated seasonal high groundwater level, estimate of the maximum rate of pumping that will be required at sites that dewatering is anticipated, certification of all under drain and pond draw down times, pH and resistivity conditions requiring design considerations, soil shrinkage/swell characteristics, slope stability and benching in embankment/excavation locations, recommendation for methods of rock excavation, potential imported borrow sites and availability of structural section materials, location and depths of unsuitable material (muck), and design alternatives based on geotechnical findings; design values for active, at rest, and passive soil pressures; allowable design loads or pressures for each foundation type, corrosion testing for structures and design of foundations for sign structures. The work will also include verification of existing median bridge foundation capacities previously constructed for future widening.
- D. The results of the geotechnical investigation shall be contained in a Geotechnical Report which shall be submitted to CFX's Project Manager for approval. The geotechnical investigation shall include all necessary laboratory testing of materials.
- E. Upon approval of the Geotechnical Report, the Consultant shall proceed with preparation of the pavement and foundation designs.
- F. Boring profiles shall be included on cross-section sheets in the contract plans and include the boring number, station, offset, soil legend, observed water table, design high water elevation and geotechnical consultant's address. A boring number and target symbol shall be shown at the appropriate location on the roadway and bridge plans.
- G. Roadway core samples shall be taken to determine the existing pavement section. The Consultant shall submit a plan to CFX for location approval.

4.6 Contamination Impact Analysis

- A. The testing of any sites including the use of ground penetrating radar, if required to complete the design and/or construction of the project, will be added to the Scope of Services by Supplemental Agreement.

4.7 Pavement Design

- A. The Consultant shall prepare the pavement design as appropriate in accordance with the requirements of the FDOT Pavement Design Manual for mainline, ramps, and cross streets.
- B. The proposed pavement design recommendation, resulting from the Consultant's analysis of the various alternatives, shall be contained in a Pavement Design Summary.

4.8 Governmental Agency and Public Meetings

- A. Except as may be provided elsewhere in this Scope of Services, the Consultant shall have appropriate representatives present at such meetings, conferences or hearings as CFX may direct to secure necessary approvals and/or support of the project by county, municipal, or other governmental agencies. If so directed, the Consultant shall also have appropriate representatives present at meetings or conferences of CFX, its Chairman or staff.
- B. The Consultant shall assist CFX in presentations to various parties. The Consultant shall prepare exhibits pertaining to basic roadway improvements. CFX will prepare exhibits pertaining to aesthetic treatments and other design issues if applicable. This scope assumes presentations at one meeting with adjacent property owners.

4.9 Environmental Permits

- A. CFX's Project Manager will review, coordinate and submit the applications for all environmental permits, including EPA's NPDES General Permits for Stormwater Discharges from Construction Sites. The Consultant shall provide all information, permit applications and data relating to Stormwater Management and Floodplain Impacts required for the permits to CFX. (CFX will be responsible for preparing all of the Wetlands and Protected Species analysis and documentation required for the permits.) The Consultant shall:
 - 1. Attend the pre-application meetings and site visits with CFX and regulatory agencies.
 - 2. Provide additional information requested at the pre-application by regulatory agencies for permits.

3. Provide aerial maps at a 1"=400' scale which include SCS soils data, 100-year floodplain limits and proposed project.
4. Provide all plans, calculations, sketches and reports required for permits except as described above.
5. Provide copies of all drainage calculation, including pond routing nodal diagrams, for the project.
6. Assist CFX in responding to any requests for additional information made by regulatory agencies after the permit application is submitted.
7. Incorporate any changes required by changes in regulatory agency requirements during the course of the project. If this requires additional work by the Consultant a Supplemental Agreement will be prepared.
8. Prepare a list of adjacent landowners along with address and nine-digit zip code at all wetland encroachment sites.
9. Provide all permit application material in .pdf format.
10. The Consultant will provide dredge and fill sketched as required by the permitting agencies if applicable. Mitigation plans, if required, may be added as a supplemental service.
11. Determine extent of floodplain impacts, if any, and provide compensatory flood stages as required
12. Preliminary field evaluation of general land use and wildlife habitat within existing ROW
13. Pre-application meeting with SFWMD

4.10 Utilities

A. Location

The Consultant shall obtain available utility mapping and information and identify all utilities within the general project limits to determine potential conflicts and relocations. Where a potential conflict exists, the Consultant may need to arrange to probe or expose ("pothole") the utility and survey the horizontal and vertical location of the utility line. The Consultant shall coordinate this effort with involved utility companies. All existing utilities shall be shown on appropriate preliminary construction plans. The Consultant's notes shall include the name and telephone number of contact persons for the construction contractor's use.

B. Utility Coordination

1. The Consultant shall identify utility owners within the project limits and contact each to obtain utility system maps, plan mark-ups or equivalent utility sketches and/or as-built drawings depicting the location of their facilities. The Consultant shall prepare reproducible utility adjustments plans based on information provided by respective utility companies.
2. Private utilities will prepare design plans for the relocation of their facilities. If a utility cannot or will not prepare these design plans, the work shall be added to the scope by Supplemental Agreement and the Consultant shall prepare design plans for utility relocation for approval of the utility and review by CFX.
3. Where utility conflicts occur, which require utility relocation agreements between the affected utility and CFX, the Consultant shall prepare the necessary data/plans required for the agreements. The Consultant shall advise CFX seven days in advance of meetings with utility companies/agencies scheduled to discuss utility relocations.
4. The preparation and negotiation of the agreement will be performed by CFX's Project Manager. After approval of the agreement by the utility and CFX, the Consultant shall prepare reproducible utility adjustment sheets identifying proposed relocations with respect to the construction plans.
5. The Consultant shall prepare a utility conflict matrix to assist in identifying and resolving conflicts between utilities and proposed construction prior to completion of the plans.
6. The Consultant shall obtain utility work schedules from the utility companies for all utility relocation or adjustments required to accommodate construction.
7. The Consultant shall prepare the Utility Certification Letter certifying that all utility negotiations (full execution of each agreement, approved utility work schedule, technical special provisions written, etc.) have been completed with arrangements made for utility work to be undertaken and completed as required.
8. The Consultant shall make two utility contacts with the utility agencies (after 60% roadway plan submittal and after 90% roadway plan submittal) and hold one utility conference.

4.11 Roadway Design

- A. A Typical Section Package was approved with the PD&E Study. Available

typical sections shall be reviewed as part of the Preliminary Design Report and changes submitted to the Authority for review and approval. When cross roads or other facilities are maintained by another agency, the Consultant must coordinate approval of that typical section with the maintaining agency.

- B. The Consultant shall design the geometrics for this project using the design standards included in the scope. The design elements shall include, but not be limited to, the horizontal and vertical alignments, cross section template development, lane width, shoulder widths, cross slopes, borders, sight distance, side slopes, lane transitions, superelevations, features of intersections, ramp terminal details, interchanges, and limited access points.

The consultant shall coordinate all relevant design elements with adjacent design teams. This effort shall include any required meetings with adjacent design teams.

- C. The Consultant shall prepare designs and contract documents for the roadway improvements, including, but not necessarily limited to:

1. Cover sheet (key sheet)
2. Summary of Pay Items
3. General notes
4. Summary Quantities sheets
5. Project Layout
6. Typical roadway sections
7. Typical roadway details
8. Plans and profiles (plans at 1" = 50' scale)
9. Interchange layout plans
10. Ramp Terminal Details
11. Crossroad plans and profiles (1" = 50' scale)
12. Cross-sections (with pattern plan) (1" = 20' horiz.) (1" = 5' vert.)
 - a. Earthwork quantities
13. Traffic Control Sheets including Temporary Drainage
14. Utility Adjustment Sheets - as deemed necessary
15. Details

16. Special provisions
17. Special specifications

4.12 Structures Design

- A. Prior to commencement of final design, the consultant shall prepare a Bridge Concept Memorandum which documents a limited range of structural alternatives and identifies preferred alternatives. Specifically, the alternatives to be examined include beam type, wall type / configuration, foundation pile type, and preliminary load rating analysis of existing exterior beams at widened sections.
- B. The Consultant shall prepare designs and contract documents for structural design including, but not necessarily limited to the following items.
 1. Complete Bridge designs will be provided for all bridges.
 2. Retaining walls, including Critical Temporary walls
 3. Box Culverts
 4. Approach slabs
 5. Details
 6. Summary quantity tables
 7. Special provisions and specifications
 8. Stage construction-sequencing details
 9. Sign\Signal structures:
 10. Noise walls (Locations to be determined)
 11. The Consultant shall perform Load Rating Analysis per FDOT criteria for bridges at the 90% design phase. The Load Rating Analysis packages shall be submitted for their review and approval.

4.13 Drainage Design

- A. As part of the drainage design requirements, the Consultant shall:
 1. Perform all drainage design in accordance with the approved criteria from Section 3.1D.
 2. Finalize the pond design at the 30% submittal.

3. Have its chief drainage engineer available at the scheduled (bi-weekly/monthly) team meetings to review progress and discuss problems.
 4. Notify CFX's Project Manager immediately if any deviation from approved design criteria is anticipated.
 5. Provide drainage/contour maps as needed used in the development of the drainage design to CFX for use in scheduled reviews. These maps will be returned to the Consultant along with review comments at the end of the review process.
 6. Provide copies of its internal quality control comments and calculations at the scheduled reviews.
 7. Prepare a technical memorandum identifying existing drainage concerns along the corridor and potential fixes or modifications. Known existing drainage concerns include: None at this time.
 8. Prepare a pond siting report.
- B. The Consultant shall prepare designs and contract documents for drainage features including, but not necessarily limited to:
1. Connector pipes
 2. Drainage structure details
 3. Storm drain and culvert profiles and/or drainage cross-sections
 4. Lateral ditches/channels
 5. Outfall ditches/channels
 6. Retention/detention ponds/exfiltration system

4.14 Roadway Lighting

- A. The Consultant shall prepare a Lighting Justification Report. The report shall provide analyses for mainlines, interchanges, and arterial roads and shall include all back-up data such that the report stands on its own. Back up data shall include current ADT's, general crash data average cost from the Florida Highway Safety Improvement Manual, crash details data from the last three years, and preliminary lighting calculations.

The report shall address warrants to determine if lighting warrants are met and shall include a benefit-cost analysis to determine if lighting is justified. The report shall include calculations for the night-to-day crash ratio as well as a table summarizing the day-time and the night-time crashes. The report

shall follow the procedures outlined in the FDOT Manual on Uniform Traffic Studies (MUTS) manual which utilize ADT, Three Year Crash Data, night/day crash ratio, percentage of night ADT, etc.

The Consultant shall provide a complete set of final roadway lighting documents in accordance with FDOT and CFX design criteria. These plans shall include installation of all CFX lighting on the corridor to as LED, including roadway and ramp fixtures, overhead sign lighting and underdeck lighting. The work shall include coordination with the local utility to provide electrical service. Plan sheet scale shall be at 1"=50' scale.

- B. If required, CFX will provide a cut sheet for the type of lighting fixtures to be used for this project.
- C. The Consultant will prepare designs and contract documents for lighting design including, but not necessarily limited to the following items.
 - 1. Cover sheet (key sheet)
 - 2. Tabulation of Quantities
 - 3. General notes
 - 4. Pole data and Legend sheet
 - 5. Project Layout sheet
 - 6. Plans sheets (plans at 1" =50' scale)
 - 7. Service point detail
 - 8. Special Details
- D. Perform an under-deck lighting analysis

4.15 Traffic Engineering

- A. Traffic Data
 - 1. Traffic data will be furnished by the Authority.
- B. Maintenance of Traffic Plans
 - 1. The Consultant shall prepare maintenance of traffic plans at scale no smaller than 1" =100' to safely and effectively move vehicular and pedestrian traffic during all phases of construction. The designs shall include construction phasing of roadways ingress and egress to existing property owners and businesses, routing, signing and pavement markings, and detour quantity tabulations. Special consideration shall be given to the construction of the drainage

system when developing the construction phases. Positive drainage must be maintained at all times.

2. The Consultant shall investigate the need for temporary traffic signals, signs, alternative detour roads, arrow boards, flagging operations, and the use of materials such as sheet pilings in the analysis. A certified designer who has completed the FDOT training course shall prepare the maintenance of traffic plan.
3. Traffic shall be maintained during all phases of project construction at all locations, including existing posted speed, lane widths and number of lanes unless determined by CFX and other governmental agencies. This includes meeting with the governmental agencies which may be impacted by the maintenance of traffic plans.

4.16 Signing and Pavement Marking Plans

- A. The Consultant shall prepare designs and contract documents for final signing and pavement marking plans including layouts showing the locations of ground mounted and overhead signs, special sign details, lighting, and any structural or foundation requirements in accordance with applicable design standards. Any requirements for electric service shall be coordinated with the local electric utility.
- B. CFX will provide conceptual signing plans for the project as deemed necessary.
- C. Plan sheets will be developed at a scale of 1" = 50' (11"x17" format).
- D. The Consultant shall determine the existing structures that will be impacted by the project and need to be replaced.

4.17 Signalization Plans

- A. Signal plans will be needed for interchange at US 17/92, but produced by CFX project 538-235. Consultant to coordinate with CFX project 538-235 for any signalization needs. Signalization plans are not anticipated for this project.

4.18 Right-of-Way Surveys

- A. Section Line Ties
 1. The Consultant shall perform a Control survey to locate Certified Corner Record locations, and prepared new Certified Corner Record forms.
 2. Perform all Section and fractional Section line surveys required for the R/W Control Surveys and R/W Mapping.

B. Subdivision Ties/Property Line Ties

1. Tie all subdivisions including condominium boundaries, at the beginning and end; block lines, and street right of way lines to the alignment. Ties will be made by closed traverse to assure acceptable closure. All block corners shall be found or set in the field with corners properly identified with size and type and shown on the R/W Control Survey.
2. Make individual property line ties where apparent property line disputes may occur. If information is available from local surveyors, submit copies of their surveys.

C. Maintained R/W Survey - (Not required)

D. Mean High Water/Safe Upland Line Survey

1. Perform a Safe Upland Line Survey for all locations where the facility crosses Sovereign Waters of the State of Florida.

E. R/W Monumentation – (Not required)

F. Stake R/W Parcels – (Not required)

At the completion of the Design and Right of Way Surveys, provide all field books, certified to the Authority, and copies of electronic files on CDROM, with certification attached.

4.19 Certified Right-of-Way Control Survey

The field Right of Way survey will serve as the basis for the Right of Way Maps and shall be presented in the format of a certified drawing on 22" x 34" electronic format. The Consultant shall certify this drawing as Specific Purpose Survey, which meets the Minimum Technical Standards adopted by the Florida Board of Professional Surveyors and Mappers in Chapter 61G17-6 of the Florida Administrative Code. These survey drawings shall be at a scale of 1 inch = 400 feet for a key map and a scale of 1 inch = 50 feet for detail sheets or at a scale acceptable to the Authority. The surveyor shall furnish the Authority with four (4) signed, sealed and certified copies of the above maps along with the original reproducible film copy and the CADD drawing files on disk.

The Consultant shall submit Right of Way Control Survey maps to the Authority for review at the following stages of completion, with data as specified.

A. 30% Right of Way Control Survey - (Key Maps)

1. Complete alignment data, including beginning of survey station, all curve data, bearings on all tangents along the alignment, all

intermediate control point stations, and end of survey station. All control points must be identified as to type and size of material set at each respective point.

2. All section lines, all quarter section lines, (and all quarter-quarter section lines when pertinent), must be shown with the station where their intersection with alignment occurs, a distance from the nearest corner to alignment, and bearings and distances between all corners. Type of corner, either found or set, should be spelled out or identified by a legend.
3. All Subdivision and Condominium boundaries with official names and recording information.
4. A separate sheet depicting all of the alignment control reference points and reference points for Public Land Survey corners along with the type and size of material used for each respective reference point. This sheet does not need to be plotted to scale. All references shall be shown with a North Arrow, pointing to the top of the page.
5. Sheet one of the key maps should contain all pertinent general survey notes and the Certification that the Specific Purpose Survey was made for the purpose of providing horizontal position data for the support or control of right of way related maps for the transportation facility shown and done under responsible charge and meets the Minimum Technical Standards of the Board of Professional Surveyors and Mappers 61G17-6 Florida Administrative Code.

B. 60% Right of Way Control Survey - (Detail Sheets)

1. Complete alignment data, including beginning of survey station, all curve data, bearing on alignment, all intermediate control point stations, end of survey station. Show all control points identified as to type and size of material set at each respective point.
2. All subdivisions, including condominium boundaries, with a station where the alignment and each subdivision line intersect. A sufficient amount of field ties must be made in order to establish the original block boundaries or existing right of way as shown on existing right of way maps in each subdivision and or condominium. A distance from alignment to the existing right of way line or nearest found or set corner and bearings and distances on all subdivision lines which were intersected with the alignment, all lot and block numbers, street names, plat book, page, and official name of each subdivision.
3. Key Maps with any revisions or corrections

- C. 90% Right of Way Control Survey
 - 1. All revisions required to support the complete Right of Way Mapping.
- D. 100% Right of Way Control Survey
 - 1. Signed and sealed copies and final CADD files
- E. Computer Mapping - All survey maps will be prepared using CADD and all submittals will include:
 - 1. CADD files in Microstation format. All maps will include point names generated on CADD level 62.
 - 2. Geometry files in an ASCII or other approved format. A computer coordinate geometry file showing point numbers with their (x, y) values and coordinate pair sets representing points and lines (alignment, blocks, R/W lines, section lines, etc.) respectively, will accompany all map submittals, all pertinent chains or figures, (i.e.: Alignment, R/W lines, Subdivision boundaries, etc.) will be in the form of an abbreviated chain or figure name followed by a point list defining the chain or figure.

4.20 Right-of-Way Maps

Right of Way Map shall be accurate, legible, complete, plotted to a scale as directed by the Authority. Right of Way Maps, Parcel Sketches and Legal Land Descriptions shall be prepared under the direction of a Surveyor and Mapper licensed with the Florida Board of Professional Surveyors and Mappers, under Chapter 472, Florida Statutes.

The Consultant shall be responsible for determining and justifying additional rights of way required by their design. The Consultant shall make every effort to minimize the limits of right of way acquisition through the creative use of existing right of way. Right of Way Maps shall be prepared by CADD. The Consultant shall be responsible for preparation of an abbreviated Right-of-Way Map for the project consisting of a Detail Sheet for the two parcels anticipated to be needed for the project. The Right-of-Way Control Survey Maps will be utilized as the background for the Right-of-Way Maps.

Right of Way Maps shall be plotted on 22" x 34" in electronic format at a scale of 1 inch = 50 feet for Detail Sheets or at a scale acceptable to the Authority. These scales should be adjusted appropriately to facilitate "uncluttered" mapping, depicting the necessary data without confusion to the users. Text size for mapping should not be smaller than 1/10".

The Consultant shall submit Map Sheets to the Authority for review at the following stages of completion, with data as specified:

A. 90% Right of Way Maps

1. Area of taking fully dimensioned with the bearings, distances and curve data, and parcel number bubble.
2. Dimensions shown on all remainders. Dimensions of large remainders may be shown as an insert at a larger scale.
3. Curve and Line tables may be used to eliminate clutter, but should be used only as needed, and shall be placed on all sheets where the curves are shown.
4. Areas of large takings/remainders (one-half acre or more) shall be shown in acres, to 3 decimal places. Areas of small takings/remainders (less than one-half acre) shall be shown to the nearest square foot.
5. Completed Title Block (all spaces must be filled in; if not applicable, show N/A). In using the strip title block, avoid placing text or mapping within 1" above the REVISION blocks.
6. Limits of Construction consistent with Design Plans, including cross-sections, drainage, mitigation, etc.

B. 100% Right of Way Maps

1. Completed Right of Way Maps revised in accordance with prior reviews.
2. Map information agrees exactly with the Parcel Sketch and Legal Description.

C. Computer Mapping

All Right of Way Maps will be prepared using the latest CADD version and submittals will include:

1. CADD files in Microstation format. All maps will include point names generated on CADD level 62.
2. Geometry files in an ASCII or other approved format. A computer coordinate geometry file showing point numbers with their (x, y) values and coordinate pair sets representing points and lines (alignment, blocks, R/W lines, section lines, etc.) respectively, will accompany all map submittals, all pertinent chains or figures, (i.e.: Alignment, R/W lines, Subdivision boundaries, etc.) will be in the form of an abbreviated chain or figure name followed by a point list defining the chain or figure.

D. Title Search

1. The Authority shall furnish the Consultant the Title Search Reports for parcels affected by the proposed right of way throughout the project.

E. Parcel Sketches and Legal Descriptions

1. Parcel Sketches are critical deliverables and must follow the submittal timeline detailed in Section 7.13. Draft Parcel Sketches shall be prepared to a legible scale on 8-1/2" x 11" size for each taking, including Limited Access Right of Way, non- Limited Access Right of Way, Temporary and Permanent easements, Ponds, Mitigation Areas and Access Rights Only, and will include:
 2. Boundary and dimensions of parent tract and approximate dimensions of taking and remainder
 2. Existing easements affecting the property
 3. Improvements, buildings
 4. Approximate areas of each taking and remainder
 5. North arrow and scale
 6. "DRAFT PARCEL SKETCH", Project Number and Parcel Number prominently displayed at the top of the page
 7. Border with space for recording reserved at the upper right corner.

F. Final Parcel Sketches and Legal Descriptions

1. Parcel Sketches are critical deliverables and must follow the submittal timeline detailed in Section 7.13. Prepare final parcel sketches and legal descriptions for each taking, including Limited Access Right of Way, non-Limited Access Right of Way, Temporary and Permanent easements, Ponds, Mitigation Areas and Access Rights Only.
2. Separate descriptions will be prepared for Limited Access and non-Limited Access Right of Way, even if the whole parcel is taken, and dimensioned on sketch.
3. Parcel Sketches and Legal Descriptions will be prepared for County and Municipality Right of Way.
4. Parcel Sketches and Legal Descriptions will include:
 - a. Boundary and dimensions of taking and remainder.
 - b. Existing easements affecting the property.
 - c. Improvements, buildings, with ties to taking line where within 25 feet.
 - d. Point of Commencement, Point of Beginning and monumentation referenced in the Legal Description.

- e. "SKETCH AND LEGAL DESCRIPTION", Project Number and Parcel Number prominently displayed at the top of the page.
- f. Areas of each taking and remainder.
- g. North arrow and scale.
- h. Border with space for recording reserved at the upper right corner.
- i. Legal descriptions of Limited Access taking, (with Limited access clause), Right of Way takings, proposed easements.
- j. All calls for adjoiners, including Section and fractional Section lines, Lot and Block lines, right of way lines, (with reference to maps if available).
- k. The Point of Commencement or Point of Beginning will be a monumented point outside limits of construction and will be a well-defined point of a Section or Grant.

5. Parcel Sketches and Legal Descriptions submitted for review shall include Geopak parcel closure files, (or alternate computation software,) and Microstation .dgn files, (separate files for each sheet).

4.21 Cost Estimates

- A. The Consultant shall prepare and submit to CFX construction cost estimates at the 60%, 90%, 100%, Pre-Bid and Bid Set submittals outlined herein. The estimate shall be based on the current unit prices as applied to the latest concept of the proposed construction.

4.22 Special Provisions and Specifications

- A. The Consultant shall prepare and submit at the 90% level special provisions, special specifications, and technical special provisions for items, details and procedures not adequately covered by CFX's Technical Specifications.

4.23 Fiber Optic Network (FON)

A. Fiber Optic Infrastructure Plans

1. The site construction plans shall be developed at a scale of 1" equals 50 feet. These plans shall include the relocation of all existing fiber optic duct banks, cables, manholes, and pull boxes in areas where the existing locations conflict with construction and as necessary to relocate the FON into the new paved shoulder. The Consultant shall identify existing physical features and utilities that will impact the construction and installation of the equipment. The Consultant shall review and modify standard FON details as necessary. In general intent is to replace existing devices with new if they are being damaged or impacted by the widening.
2. Fiber optic network (FON) plans shall include the following:

- a. Roadway geometry
- b. Rights-of-Way
- c. Existing utilities within the right-of-way including CFX's FON
- d. Physical features affecting construction/installation (sign structures, light poles, fences, etc.)
- e. Manhole/Pull box locations and stub-out details (standard details provided)
- f. Device layout
- g. Device installation details (standard details provided)
- h. Conduit installation details (standard details provided)
- i. Fiber optic cable route marker detail (standard details provided)
- j. Fiber count per conduit
- k. Communications interconnect
- l. Connectivity with the FON backbone conduits
- m. Fiber cable splice details for new or relocated fiber optic cabling.
- n. Controller cabinet, CCTV/ TMS pole, and foundation details for proposed CCTV/ TMS sites.
- o. Service point details, one-line riser diagrams, panelboard schedules
- p. Power interconnect, calculations to support conductor size, and details. Power conductors to each device location shall be sized to the maximum connected load in the cabinet plus 10A to accommodate other loads such as UPS battery charging or Maintenance equipment (lowering device drill, shop vac, etc.). Determination on conductor sizing and voltage drop limits are only required for proposed sites and existing sites where the total site load is being significantly modified. Maximum voltage drop allowed is 5% with a Max Wire size of #2 AWG running at 480 V.
- q. Design Methodology Report shall include voltage drop calculation, load analysis, short circuit current analysis, arc flash hazard analysis, typical cabinet load summary table and CCTV sighting for proposed camera locations. Power conductors to each device location shall be sized to the capacity of the main breaker in the cabinet and shall also include a 10 Amp maintenance load that is carried to the end of each circuit.
- r. Grounding (standard details provided)
- s. Table of quantities
- t. Special notes
- u. Maintenance of fiber operations (protection of existing FON through all phases of construction and cutover phasing to ensure continuous operation of existing ITS devices)
- v. All existing and proposed FON to be included and shown with roadway cross sections and drainage cross sections

- w. Installation of CCTV sites and any necessary structures, foundations, attachment details, power service, fiber optic connections, and cabinets (standard details provided). The designer is to provide 100% coverage of the roadway and ramps.
 - x. Installation of existing data collection sensor (DCS) sites and any necessary structures, foundations, attachment details, power service, fiber optic connections, and cabinets (standard details provided). At all exit ramps and DMS sites. The designer is to provide GPS locations to CFX for FCC permitting purposes.
 - y. Installation of dynamic message sign (DMS) to be centered over the proposed roadway, including structures, foundations, attachment details, power service, fiber optic connections, and cabinets (standard details provided).
 - z. Installation of traffic monitoring sites (TMS) sites and any necessary structures, foundations, attachment details, power service, fiber optic connections, and cabinets (standard details provided). TMS shall be located at all traffic movements (on-ramp, off-ramp, slip ramps, etc.)
 - aa. ITS devices within the project limits shall be gigabit Ethernet field switches, and other cabinet equipment as needed to meet current CFX ITS equipment standards.
 - bb. Install new WWDS at the following off-ramps:
 - o SR 538 WB off ramp to US 17/92
3. Upgrading other cabinet equipment as needed to meet current CFX ITS equipment standards within the project limits The Consultant shall take the following information into consideration when developing the site construction plans:
- a. Minimize utility conflicts and adjustments.
 - b. Minimize traffic impact.
 - c. Accessibility and ease of equipment maintenance.
 - d. Safety of equipment maintenance personnel and the traveling public.
 - e. Maintain the existing FON system through all phases of construction.
 - f. Environmental conditions.
 - g. Concurrent/future CFX projects.
 - h. Compatibility with existing and proposed ITS infrastructure (e.g. CFX enhanced grounding standards for ITS devices, CFX surge suppression device (SPD) standards for ITS devices, etc.)
 - i. Leased conduits in CFX FON duct bank that are occupied by the fiber optic cable of other agencies or entities.
 - j. Location of proposed sound walls
- B. Splice and Cable Routing Details

1. The Consultant shall provide splicing detail diagrams to document proposed fiber optic splices within and between manholes, ITS devices, tollbooths, and other junction points. This includes splice diagrams for re-termination of drop or end to end (butt) splices.
2. Proposed splicing tables shall include ITS device connectivity, fiber use, drop cable fiber identification, drop cable identification, backbone cable identification, translateral cable identification, backbone into mainline cable identification, and toll plaza patch panel jack.
3. The Consultant shall provide cable routing diagrams in CFX's standard format to document the functional connectivity between proposed fiber optic conduit and splices.

C. Maintenance of Fiber Operations

1. The Consultant shall provide a plan of action to ensure existing fiber optic network is not disrupted during construction operations.
2. The Consultant shall determine the sequence of fiber optic cable splices to minimize disruption to communications.

D. Inside Plant Plans

1. The Consultant shall be responsible for any data collection necessary to complete its design.
2. All equipment shown on the inside-plant construction plans shall be clearly delineated as existing, proposed, or by-others. The Consultant shall be responsible for identifying and detailing on the inside-plant construction plans with notes and drawings any make-ready work required. The Consultant shall also provide a table of quantities for all materials and equipment specified in the inside-plant construction plans.
3. The Consultant shall sign and seal final inside-plant construction plans by a licensed professional Electrical Engineer registered in the state of Florida. The inside-plant construction plans shall be subject to the review and approval of CFX.

E. Standard CFX specifications will be provided to the Consultant. The Consultant shall review the specifications and modify them as necessary.

4.24 Toll Plazas

A. This project does not include any toll collection facilities.

4.25 Post-Design Services

- A. Services shall begin after authorization by CFX. The Consultant compensation for post-design services may be added by Supplemental Agreement and shall be at an hourly rate, inclusive of overhead, profit and expenses, and exclusive of travel. No compensation will be made for correction of errors and omissions.
- B. The Consultant shall support the post design process as follows:
 - 1. Answer questions relative to the plans, typical sections, quantities and special provisions.
 - 2. Make any necessary corrections to the plans, typical sections, quantities, notes, etc., as may be required.
 - 3. Attend pre-award meeting with construction contractor, CFX, and CFX's CEI.
- C. The Consultant shall, prior to the pre-bid conference, be prepared to walk the project with CFX's CEI to discuss the plans and details. The Consultant shall be prepared to attend the pre-bid conference and respond to questions related to the plans, details, and special provisions.
- D. The Consultant shall prepare any addenda required to clarify the work included in the construction contract documents. Addenda may be required based on the project inspection with the CEI, or questions developed in the pre-bid conference, or conditions discovered by bidders during the bid period. Addenda will not be issued for Contractor initiated design changes or value engineering proposed work.
- E. The Consultant shall be available to respond to questions in the field that may arise relative to the plans, details or special provisions during construction. The Consultant shall periodically (monthly) visit the project site to observe the progress of construction on the project. This visit will not replace the formal construction inspection by CFX. It is intended to provide the opportunity of the design team to observe whether the work is being performed in general conformance with the project plans. Written memos of all such field trips shall be submitted to CFX within five working days of the trip.
- F. The Consultant shall review and approve shop drawings for structural, lighting, signing, and ITS shop drawings. This work will include the erection procedure plans, review proposals for substitutions, develop supplemental agreements, and provide other engineering services required to facilitate construction of the project. Reviews will be conducted and returned within two weeks from receipt of information.
- G. The Consultant shall appoint a responsible member of the firm to be the contact person for all post-design services. The person should be continually available during the course of construction for review of design plans.

- H. The Consultant shall make every reasonable effort to process any material presented for review in a prompt manner recognizing a construction contract is underway.
- I. The Consultant's key staff shall attend a maximum of three (3) partnering meetings as requested by CFX's Project Manager. The Consultant shall also attend progress/coordination meetings as requested by CFX's Project Manager including, but not limited to, the Notice to Proceed meeting.
- J. Approved design bridge load ratings were obtained by the Consultant under the final design phase of this contract. The Contractor shall be responsible for revising and resubmitting the load ratings if changes to the bridge design occur during construction. Otherwise, the Consultant shall provide written correspondence to CFX when construction is complete that the bridges were constructed in accordance with the plans and the design load ratings still apply.
- K. The Consultant shall provide geotechnical engineering services as needed by CFX, relative to pile driving, earthwork, embankment and MSE wall construction.
- L. The Consultant shall provide utility consulting services as needed by CFX, relative to proposed utility adjustments within the project limits.
- M. The Consultant shall prepare Record Drawings in electronic format following completion of the construction phase. CFX shall provide all As-Built drawings from the Contractor / CEI to the Consultant for their use in preparation of the Record Drawings.

5.0 MATERIALS FURNISHED BY CFX OR ITS DESIGNEE

5.1 Record Documents

- A. CFX will provide the Consultant, within ten working days of a written request, the following items:
 - 1. Available record drawings of existing conditions
 - 2. Available right-of-way plans of existing conditions
 - 3. Current list available to CFX of owners of all affected properties within the section.
 - 4. Sample plans to be used as guidelines for format, organization and content.
 - 5. Title searches of all affected properties for use by the Consultant in the preparation of the right-of-way maps.
 - 6. Contract unit prices from latest CFX construction projects.

5.2 Traffic Data

- A. CFX will provide the following design traffic data:
 - 1. Current and design year ADT
 - 2. Current and design year peak hour volumes
 - 3. Turning movements at each intersection/interchange
 - 4. K, D and T factors
 - 5. Design speed - See Section 3.02, Geometry.
 - 6. AVI Percentages

5.3 Other

- A. Utility designates for the FON and roadway lighting within CFX right-of-way.

6.0 WORK PERFORMED BY CFX OR ITS DESIGNEE

6.1 Right-of-Way Acquisition

- A. If necessary, CFX, or its designee, will review all right-of-way plans, parcel sketches and legal descriptions prepared by the Consultant. CFX will handle all appraisals, negotiations, relocations, condemnation, and property settlements.

6.2 Utility Agreements

- A. CFX will support, as necessary, the Consultant's acquisition of information required for utility agreements.

6.3 Public Involvement

- A. CFX will provide a moderator for all required public meetings and provide guidelines for the Public Involvement aspects of the project. The need for public meetings or public hearings will be determined by CFX. CFX will be responsible for mailings and advertisements for the public meetings.

6.4 Contracts and Specifications Services

- A. CFX will prepare the necessary bid documents for the construction contract using plans, technical special provisions, and special specifications prepared by the Consultant.

6.5 Post-Design Services

- A. CFX will be the principal initial contact for post-design questions and answer questions on a limited scope.
- B. CFX's CEI representative will be responsible for collection and documentation of all As-Built information for the constructed improvements.

6.6 Environmental Permits

- A. CFX will review and submit the environmental permit applications and coordinate with the Consultant on requests for additional information from the regulatory agencies.
- B. CFX will stake wetland lines and coordinate agency site visits. CFX will also prepare the wetland and wildlife analysis and documentation for the permits.
- C. CFX will be responsible for all permitting application fees.

6.7 Conceptual Specialty Design

- A. CFX will provide a conceptual major guide signing plan.
- B. CFX to provide proposed sound wall locations.

C. CFX will provide conceptual aesthetics design and treatments for structures.

7.0 ADMINISTRATION

7.1 Central Florida Expressway Authority

- A. CFX's Project Manager will administer the Consultant services detailed in this scope.
- B. All contractual payments and changes shall be reviewed and approved by CFX's Project Manager.

7.2 CFX's Project Manager will:

- A. Conduct ongoing reviews of the Consultant's progress in performing the work and furnish technical comments in a timely manner.
- B. Review the Consultant's billings.
- C. Review and evaluate the Consultant's requests for extension of time and supplemental agreements and recommend appropriate action.
- D. Review all correspondence with public agencies prior to the Consultant's mailing of any correspondence except for requests for information.
- E. Coordinate the distribution of public information.
- F. Coordinate the data (including documentation of prior rights, cost estimates and plans) necessary for CFX to prepare and execute all utility and railroad agreements.
- G. Conduct an introductory meeting to deliver relevant information and explain the administration process.
- H. Review the Consultant's Quality Control program and the Consultant's conformance to the Quality Control Program.
- I. Provide a focal point contact for all questions, requests, and submittals.
- J. Provide a system to monitor the Consultant's schedule, progress and key milestone submittal dates.

7.3 Consultant

- A. The Consultant has total responsibility for the accuracy and completeness of the construction contract documents and related design prepared under this project and shall check all such material accordingly. The plans will be reviewed by CFX for conformity with CFX procedures and the terms of the Contract, as well as coordination with adjacent design contracts. Review by CFX does not include detailed review or checking of design of major components and related details or the accuracy with which such designs are

depicted on the plans. The responsibility for accuracy and completeness of such items remains solely that of the Consultant. The Consultant shall:

1. Establish, furnish and maintain suitable office facilities to serve as the project office for the duration of the project at a location acceptable to CFX.
2. Maintain an adequate staff of qualified support personnel to perform the work necessary to complete the project.
3. Establish internal accounting methods and procedures for documenting and monitoring project costs.
4. Establish and maintain contract administration procedures, which will include supplemental agreements, time extensions and subcontracts.

7.4 Project Control

- A. The Consultant shall provide data for CFX's Management Information System to monitor costs and manpower, and report progress. This project control system may include features to:
 1. Determine and highlight critical path work from initial plans as work progresses.
 2. Identify progress against schedule for each identified work item.
 3. Forecast completion dates from current progress.
 4. Highlight rescheduled work in any area which is out of required sequence.
 5. Highlight rescheduling that has overloaded any physical area that requires more resources than originally allocated.
 6. Forecast future conflicts in any area.

7.5 Work Progress

- A. The Consultant shall meet with CFX's Project Manager on a bi-weekly basis (or more often if necessary) and provide written progress reports which describe the work performed on each task. The dates and times of these meetings will be established by CFX. Two working days prior to each progress meeting, the Consultant shall provide CFX's Project Manager with a draft copy of the Progress Report and a typewritten agenda for the meeting. The Consultant shall prepare typewritten meeting minutes and submit them to CFX's Project Manager within five working days after the meeting. The minutes shall indicate issues discussed and the resolution or

action required to resolve any issues.

7.6 Schedule

- A. Within twenty (20) calendar days after receipt of the Notice to Proceed, the Consultant shall provide a schedule of calendar deadlines in a format prescribed by CFX.

7.7 Project Related Correspondence

- A. The Consultant shall furnish copies of all written correspondence between the Consultant and any party pertaining specifically to this project to CFX for its records within one (1) week of the receipt or mailing of said correspondence. The Consultant shall record and distribute the minutes of all meetings pertaining to this project.

7.8 Quality Control

- A. The Consultant has total responsibility for the accuracy and completeness of the plans and related designs prepared under this project and shall check all such material accordingly. Consultant shall have a quality control plan in effect during the entire time work is being performed under the Contract. The plan shall establish a process whereby calculations are independently checked, plans checked, corrected and back checked. All plans, calculations, and documents submitted for review shall be clearly marked as being fully checked by a qualified individual other than the originator.
- B. The Consultant's quality control plan shall be submitted to CFX within fifteen (15) working days of receipt of written notice to proceed.

7.9 Consultant Personnel

- A. The Consultant's work shall be performed and/or directed by the key personnel identified in Exhibit "D". Any changes in the indicated key personnel or the Consultant's office in charge of the work shall be subject to review and approval by CFX.

7.10 Site Visit

- A. The Consultant shall arrange a site visit within twenty (20) calendar days of receipt of written Notice to Proceed. Consultant personnel assigned to perform the work on the project shall attend. CFX representatives will be present. Within seven calendar days of the site visit, the Consultant shall issue to CFX a brief written report including observations, discussions, and any questions pertaining to the scope or level of effort of the project. The purpose of this visit is to acquaint key personnel with the details and features of the project to facilitate the design process.

7.11 Acceptability of the Work

- A. The plans, design, calculations, reports and other documents furnished under this Scope of Services shall conform to the “standards-of-the industry” quality as acceptable to CFX. The criteria for acceptance shall be a product of neat appearance, well organized, accurate and complete, technically and grammatically correct, checked in accordance with the approved Quality Control program, and have the maker and checker identified. The minimum standard of appearance, organization and content of drawings shall be similar to the type produced by the Florida Department of Transportation and CFX.

7.12 Design Documentation

- A. The Consultant shall submit any design notes, sketches, worksheets, and computations to document the design conclusions reached during the development of the construction contract documents to CFX for review.
- B. The design notes and computations shall be recorded on 8-1/2" x 11" computation sheets, appropriately titled, numbered, dated, indexed and signed by the designer and checker. Computer output forms and other oversized sheets shall be folded or legibly reduced to 8-1/2" x 11" size. The data shall be bound in a hard-back folder for submittal to CFX.
- C. A CD/DVD with electronic (PDF Format) copies of the design notes and computations shall be submitted to CFX with each review submittal. When the plans are submitted for 90% review, the design notes and computations corrected for any CFX comments shall be resubmitted. At the project completion (bid set), one (1) hard copy of the final set of the design notes and computations, sealed by a Professional Engineer, registered in the State of Florida, shall be submitted with the record set of plans and tracings.
- D. Design notes and calculations shall include, but are not necessarily limited to, the following data:
 - 1. Field survey notes and computations.
 - 2. Design criteria used for the project.
 - 3. Geometric design calculations for horizontal alignment.
 - 4. Vertical geometry calculations.
 - 5. Drainage calculations
 - 6. Structural design calculations.
 - 7. Geotechnical report.
 - 8. Hydraulics Report for each bridged stream crossing.

9. Earthwork calculations not included in the quantity computation booklet.
10. Calculations showing cost comparisons of various alternatives considered, if applicable
11. Computations of quantities.
12. Documentation of decisions reached resulting from meetings, telephone conversations, or site visits.
13. Lighting and voltage drop calculations.
14. Lighting service letter from the power company stating the following: service voltage, type of service (overhead or underground), location of power company service point, and any other power company requirements.

7.13 Reviews and Submittals

- A. Review and coordination of the Consultant's work by CFX shall continue through the project development process
- B. Formal submittals for review shall be made to CFX when the plans have been developed to the following levels of completion:
 1. Preliminary Design Report (Memorandum) (1 CD/DVD with all files in pdf format, and one (1) hard copy set to CFX of Final Report)
 2. 30% Roadway Plans (1 CD/DVD with PDF's of submittal package and one (1) hard copy of plans to CFX project manager; and electronic copies of plans to the CFX GEC project manager)
 3. 30% Bridge and Structural Plans (1 CD/DVD with PDF's of submittal package and one (1) hard copy of plans to CFX project manager; and electronic copies of plans to the CFX GEC project manager)
 4. 60% Roadway and specifications, Geotechnical Report (1 CD/DVD with PDF's of submittal package and one (1) hard copy of plans to CFX project manager; and electronic copies of plans to the CFX GEC project manager)
 5. 60% Bridge Plans required only on Category 2 bridges.
 6. 90% Bridge and Structural Plans (1 CD/DVD with PDF's of submittal package and one (1) hard copy of plans to CFX project

manager; and electronic copies of plans to the CFX GEC project manager)

7. 90% Roadway and specifications (1 CD/DVD with PDF's of submittal package and one (1) hard copy of plans to CFX project manager; and electronic copies of plans to the CFX GEC project manager)
 8. 100% Roadway, Bridge and specifications, Geotechnical Report (1 CD/DVD with PDF's of submittal package and one (1) hard copy of plans to CFX project manager; and electronic copies of plans to the CFX GEC project manager)
 9. Pre-Bid Plans (1 CD/DVD with PDF's of submittal package and one (1) hard copy of plans to CFX project manager; and electronic copies of plans to the CFX GEC project manager)
 10. Bid Set (1 set signed and sealed plans, 1 set "clean" plans, 1 set signed and sealed reports and one (1) CD/DVD with .PDF of all plans and reports)
- C. Formal review submittals shall include copies as listed above. 8-1/2" x 11" and 11" x 17" documents do not require reproducible copies.
- D. Preparation and distribution of roadway and ROW plans to other than CFX or CFX GEC will not be made until approved by CFX.
- E. The format of review submittal plans shall conform to the FDOT Design Manual, except as amended by CFX.
- F. Due to the compact schedule of the design, review, and construction process, any modification to the agreed submittal dates will require a letter from the Consultant to CFX giving:
1. The reason for the delay.
 2. The design components impacted.
 3. Proposed methods to maintain submittal dates.
- G. The Consultant shall submit all CADD files, including GEOPAK files, use in the preparation of the plans and right of way mapping on electronic format with the final submittal.

7.14 30% Roadway Plan Submittal

- A. At the completion of this phase, design and plan development should be approximately 30 percent complete except stormwater pond designs. The designs of the stormwater ponds shall be at 90% complete. The following

material shall be developed and submitted for review:

1. Key Map Prepared
 - a. Location map shown complete with destinations, ranges and townships.
 - b. Beginning and ending stations shown.
 - c. Any equations on project shown.
 - d. Project numbers and title shown.
 - e. Index shown.

2. Drainage Map Prepared
 - a. Existing culvert sizes and elevations.
 - b. Horizontal alignment shown.
 - c. Drainage areas and flow arrows shown.
 - d. High water information shown.
 - e. Beginning and end stations shown along with any equations on project.
 - f. Interchange supplemental maps prepared.

3. Typical Section Sheets
 - a. Ramp typical sections developed.
 - b. Pavement structure shown.
 - c. Special details developed.
 - d. General notes shown.

4. Plan and Profile Sheets
 - a. Centerline plotted.
 - b. Reference points and bench marks shown.
 - c. Existing topography.
 - d. Base line of surveys, curve data, bearings, etc. shown.
 - e. Beginning and end stations (project and construction).
 - f. Geometric dimensions.
 - g. Proposed and existing limited access right-of-way lines.
 - h. Existing ground line.
 - i. Proposed profile grade.
 - j. Type, size and horizontal location of existing utilities.
 - k. Drainage structures and numbers are shown
 - l. Drainage ponds are shown.

5. Cross Sections
 - a. Existing ground line.
 - b. Preliminary templates at critical locations (not to exceed 500 feet).
 - c. Existing utilities shown.

6. Interchange Layout and Ramp Profiles
 - a. Geometric dimensions.
 - b. Proposed profile grades.
7. Right-of-Way Control Survey
8. Signing and Pavement Markings
 - a. Striping layout.
 - b. Sign structure locations.

7.15 30% Bridge and Structural Plan Submittal

- A. At completion of this phase, design and plan development should be approximately 30 percent complete. The Consultant shall refer to FDOT Structural Design Guidelines for plan contents and submittal requirements. Preliminary geotechnical results and recommendations should also be included with this submittal.

7.16 60% Roadway Plan Submittal

- A. At completion of this phase, design and plan development should be approximately 60 percent complete except stormwater pond designs. The designs of the stormwater ponds shall be at 100% complete. The following material shall be developed and submitted for review:
 1. Key Map
 - a. Project description and number shown.
 - b. Equations, exceptions and bridge stations shown.
 - c. North arrow and scale included.
 - d. Consultant and CFX sign-off included.
 - e. Contract set index complete.
 - f. Index of sheets updated.
 2. Drainage Maps
 - a. Flood data shown.
 - b. Cross drains and storm sewer shown.
 - c. Bridges shown with beginning and ending stations.
 - d. Interchange supplemental sheets updated.
 3. Typical Section Sheets
 - a. All required typical sections are included.
 - b. Limited access right-of-way lines are shown.
 - c. Design speed and traffic are shown.

- d. Special details have been completed.
 - e. Station limits of each typical section are shown.
4. Plan and Profile Sheets
- a. Match lines shown.
 - b. Limited access right-of-way lines shown.
 - c. Stations and offset shown for all fence corners and angles.
 - d. All work shown should be within right-of-way or proposed easement.
 - e. Drainage structures and numbers are shown.
 - f. Drainage ponds shown.
 - g. Curve data and superelevation included.
 - h. Pavement edges, shoulders and dimensions shown.
 - i. Project and construction limits shown.
 - j. Bridges shown with beginning and ending stations.
 - k. General Notes.
5. Drainage Structures
- a. Drainage structures plotted and numbered.
 - b. Station location and offsets identified.
6. Cross Sections
- a. Templates are shown at all stations.
 - b. Limited access right-of-way lines are shown.
 - c. Cross section pattern sheet included.
 - d. Miscellaneous notes included.
 - e. Boring profiles.
7. Interchange Layouts, Ramp Profiles and Intersection Details
- a. Geometric data shown.
 - b. Profiles finalized.
 - c. Coordinate data shown.
 - d. Limited access right-of-way lines shown.
 - e. Curve data shown.
 - f. Bearings and bridges shown.
 - g. Cross roads, frontage roads, and access roads shown.
 - h. Intersection details shown.
8. Traffic Control Plans
9. Utility Adjustments
10. Signing and Pavement Marking Plans
11. Intelligent Transportation System (ITS) Plans

12. Highway Lighting Plans
13. Selective Clearing and Grubbing (if required)

7.17 90% Bridge and Structure Plan Submittal

- A. At completion of this phase, design and plan development should be approximately 90 percent complete. The Consultant shall refer to FDOT Structural Design Guidelines for plan contents and submittal requirements.

7.18 90% Roadway Plan Submittal

- A. At completion of this phase, design and plan development should be approximately 90 percent complete. The following material shall be developed and submitted for review:

1. Key Map
 - a. Length of Project with exceptions shown.
 - b. Index of sheets updated.
2. Drainage Maps
 - a. Drainage divides, areas and flow arrows shown.
 - b. Elevation datum and design high water information shown.
 - c. Disclaimer and other appropriate notes added.
3. Typical Section Sheets
4. Plan and Profile Sheets
 - a. Curve Control Points (P.C., P.I., P.T.) flagged and labeled.
 - b. Limits of side road construction.
 - c. Angle and stationing for intersections.
 - d. Treatment for non-standard superelevation transitions diagramed.
 - e. General notes shown.
 - f. Special ditches profiled.
5. Drainage Structures
 - a. Existing structures requiring modifications are shown.
 - b. Existing and proposed utilities are shown.
6. Soil Borings
 - a. Soils data and estimated high seasonal groundwater table shown.
7. Cross Section Sheets

- a. Scale and special ditch grades shown.
- b. Utilities plotted.
- c. Sub-excavation shown.
- d. Volumes computed and shown.

8. Utility Relocation Plans

- a. Utility relocation plans prepared.

9. Traffic Control Plans

10. Signing and Pavement Marking Plans

11. Intelligent Transportation System (ITS) Plans

12. Highway Lighting Plans

13. Selective Clearing and Grubbing (if required)

7.19 100% Roadway, Bridge, Structural and Right-of-Way Plans

- A. At the completion of this phase, the design plans and special provisions shall be 100 percent complete.

7.20 Pre-Bid Plans

7.21 Bid Set

EXHIBIT D

PROJECT ORGANIZATIONAL CHART

TEAM STRENGTH | Organizational Chart

CENTRAL
FLORIDA
EXPRESSWAY
AUTHORITY

QA/QC MANAGER
WGI

Lee Dowden, PE

PROJECT MANAGER
WGI

Henri Bekrose, PE

PROJECT PRINCIPAL
WGI

Nancy Clements, PE

QC TEAM

Roadway—Lee Dowden, PE | WGI
Drainage—Will Stewart, PE, CFM | WGI
Structures—Rob Woodruff, PE | WGI
Traffic—Scott Horlander, PE | PROTEAN

ROADWAY
WGI

Chris Frank, PE
George Knox, PE

MOT
WGI

Megan Tetro, PE
Bob Harrigan, PE

DRAINAGE
WGI

Mike Jaroch, PE
Zachary Keller, PE

SINGHOFEN & ASSOCIATES ◆

Mark Troilo, PE

**SIGNING AND
PAVEMENT MARKING**
WGI

Kevin Abel, PE
Ben Needler, EI
Brad Jones

STRUCTURES
WGI

Clayton Wolfe, PE
Anthony Nguyen, PE
Dylan Albergo, PE

BASE ◆

Ram Kozhikote, PE

TOLL SITE | ARCHITECTURE
WGI

Amie Hernandez, RA
Eric Luttmann, RA
William Kenney

**ENVIRONMENTAL
PERMITTING**
WGI

Joel Johnson
Greg Griffith

UTILITY COORDINATION | SUE
WGI

Chris Stermer
Shannon Wright

LIGHTING
PROTEAN DESIGN GROUP ◆

Julio Alegre, PE, PTOE
Elie Wilson, EI

SIGNALIZATION | ITS
PROTEAN DESIGN GROUP ◆

Alex Hinkle, PE
Adam Burnett, PE
Dustin Yoder, EI

GEOTECHNICAL
TIERRA ●

Larry Moore, PE
Jeremy Sewell, PE

GEC ◆

Craig Ballock, PE
Richard McCormick, PG

SURVEY | MAPPING
WGI

Allen Quickel, PSM

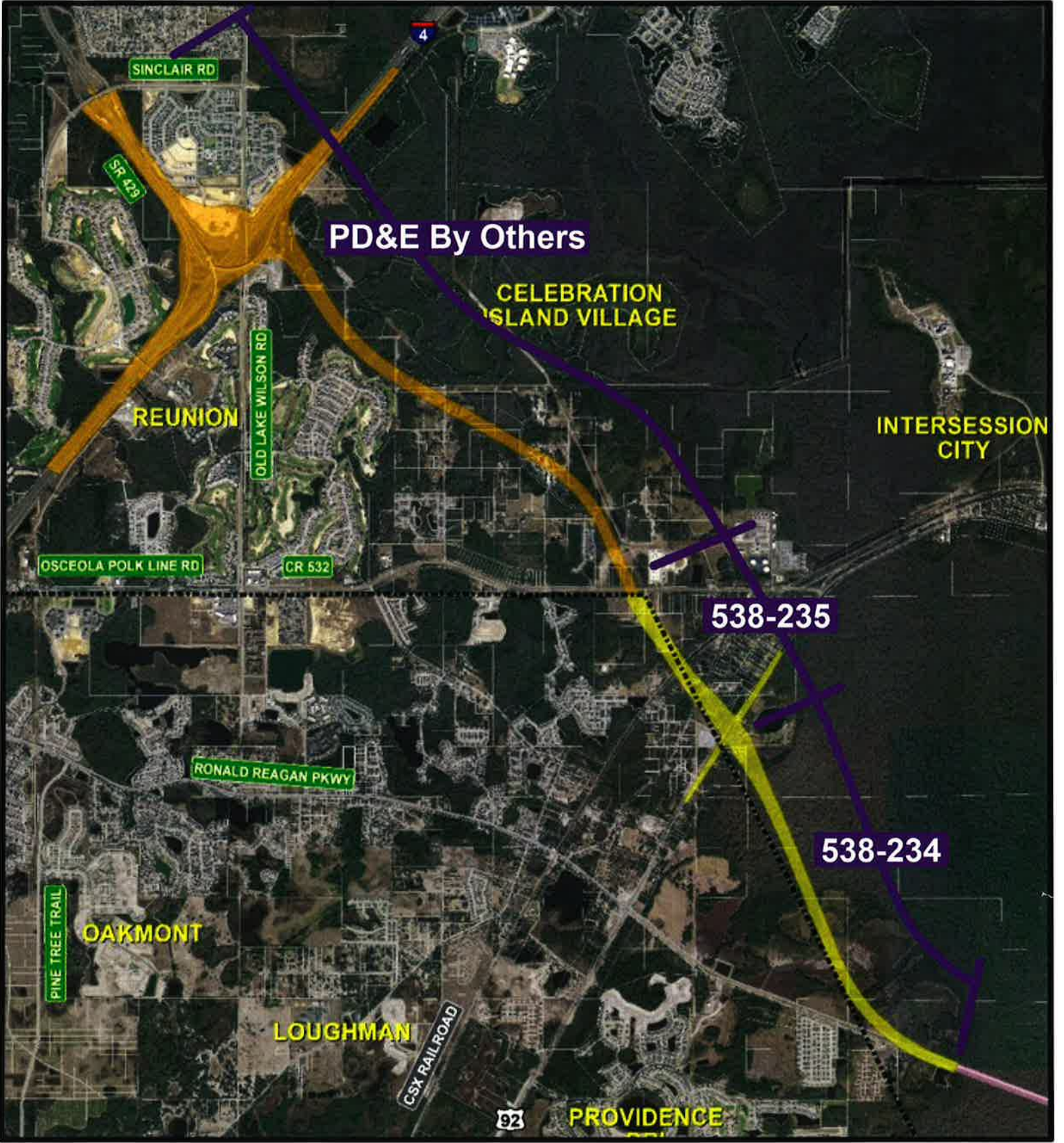
WBQ ◆

Danny Williams, PSM

● MBE ◆

EXHIBIT E

PROJECT LOCATION MAP



PD&E By Others

CELEBRATION ISLAND VILLAGE

REUNION

INTERSESSON CITY

538-235

538-234

OAKMONT

LOUGHMAN

PROVIDENCE

SINCLAIR RD

SR 429

OLD LAKE WILSON RD

OSCEOLA POLK LINE RD

CR 532

RONALD REAGAN PKWY

PINE TREE TRAIL

CSX RAILROAD

92

4

EXHIBIT F

SCHEDULE

Poinciana Parkway Extension 18-month Schedule

18-Month Schedule*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
15% Roadway & PDR	█																		
Survey & R/W Control Survey	█																		
Geotech Investigation	█																		
30% Roadway & BCM			█																
30% Structures						█													
60% Roadway						█													
ERP Package							█												
60% Structures								█											
ERP Review & Approval									█										
90% Plans & Specs											█								
100% Plans & Specs															█				
Final Plans & Specs																			█

*Includes CFX review time


- Baseline schedule
- Adjust for unique time-critical factors of Segments 1 and 2

**CONSENT AGENDA ITEM
#10**

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

MEMORANDUM

TO: CFX Board Members


FROM: Aneth Williams 
Director of Procurement

DATE: May 27, 2020

SUBJECT: Approval of Contract Award to GAI Consultant, Inc. for Design Consultant Services for Poinciana Parkway Extension Segment 2
Project 538-235, Contract No. 001648

The Board approved on March 12, 2020, the final ranking and authorization for fee negotiations with firms for Design Consultant Services for Poinciana Parkway Extension – Segments 1 and 2. Negotiations with GAI Consultant, Inc. for Segment 2 have been completed. Board award of the contract to GAI Consultant, Inc is requested in the not-to-exceed amount of \$6,200,000.00. The contract is for five (5) years with five one-year renewals.

This project is included in the Five-Year Work Plan.

Reviewed by: 
Will Hawthorne, PE
Director of Engineering


Glenn Prossimone (June 3, 2020 11:33 EDT)

AGREEMENT

**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
AND
GAI CONSULTANT, INC.**

POINCIANA PARKWAY EXTENSION SEGMENT 2

CONTRACT NO. 001648, PROJECT 538-235

**CONTRACT DATE: JUNE 11, 2020
CONTRACT AMOUNT: \$6,200,000.00**

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

**AGREEMENT, SCOPE OF SERVICES, METHOD OF
COMPENSATION, DETAILS OF COSTS AND FEES,
PROJECT ORGANIZATIONAL CHART, PROJECT
LOCATION MAP, SCHEDULE, AND POTENTIAL
NON-CONFLICT DISCLOSURE FORM**

**AGREEMENT, SCOPE OF SERVICES, METHOD OF COMPENSATION, DETAILS OF
COSTS AND FEES, PROJECT ORGANIZATIONAL CHART, PROJECT LOCATION
MAP, SCHEDULE, AND POTENTIAL NON-CONFLICT DISCLOSURE FORM**

FOR

**POINCIANA PARKWAY EXTENSION SEGMENT 2
PROJECT 538-235**

DESIGN SERVICES

CONTRACT NO. 001648

JUNE 2020

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

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C	Exhibit "C", Details of Cost and Fees	
D	Exhibit "D", Project Organization Chart	
E	Exhibit "E", Project Location Map	
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**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
AGREEMENT FOR PROFESSIONAL SERVICES**

THIS AGREEMENT, made and entered into this 11th day of June 2020, by and between the CENTRAL FLORIDA EXPRESSWAY AUTHORITY, a corporate body and agency of the State of Florida, created by Chapter 2014-171, Laws of Florida, which is codified in Chapter 348, Part III of the Florida Statutes, hereinafter “CFX,” and GAI Consultants, Inc., hereinafter called “CONSULTANT,” registered and authorized to conduct business in the State of Florida, carrying on professional practice in engineering, with offices located at 618 E South St., Suite 700, Orlando, FL 32801.

WITNESSETH:

WHEREAS, CONSULTANT represents that it is fully qualified and authorized to render the professional services contracted herein.

NOW, THEREFORE, in consideration of the mutual understandings and covenants set forth herein, CFX and CONSULTANT agree as follows:

1.0. DEFINITIONS.

Reference herein to the Project Manager shall mean CFX’s Director of Engineering or his authorized designee. The Project Manager shall provide the management and technical direction for this Agreement on behalf of CFX. All technical and administrative provisions of this Agreement shall be managed by the Project Manager and the CONSULTANT shall comply with all of the directives of the Project Manager that are within the purview of this Agreement. Decisions concerning Agreement amendments and adjustments, such as time extensions and supplemental agreements shall be made by the Project Manager.

2.0. SERVICES TO BE PROVIDED

CFX does hereby retain the CONSULTANT to furnish certain professional services in connection with the design of Poinciana Parkway Extension Segment 2 identified as Project 538-235 and Contract No. 001648.

The CONSULTANT and CFX mutually agree to furnish, each to the other, the respective services, information and items as described in **Exhibit “A”**, Scope of Services, attached hereto and made a part hereof.

Before rendering any of the services, any additions or deletions to the work described in **Exhibit “A”**, and before undertaking any changes or revisions to such work, the parties shall negotiate any necessary cost changes and shall enter into a Supplemental Amendment covering such modifications and the compensation to be paid therefore.

The work covered by this Agreement as described in **Exhibit "A,"** includes the preparation of construction plans for one construction project. If the work is divided into more than one construction project by CFX's Project Manager, then the CONSULTANT shall supply construction plans for each project. A Supplemental Agreement will be required for the additional work.

All construction plans, documents, reports, studies and other data prepared by the CONSULTANT shall bear the endorsement of a person in the full employ of the CONSULTANT and duly registered by the State of Florida in the appropriate professional category.

After CFX's acceptance of construction plans and documents for the project, the original set of CONSULTANT's drawings, tracings, plans, maps and CADD files shall be provided to CFX, along with one record set of the final plans. The CONSULTANT shall signify, by affixing an endorsement (seal/signature, as appropriate) on every sheet of the record set, that the work shown on the endorsed sheets was produced by the CONSULTANT. With the tracings and the record set of prints, the CONSULTANT shall submit a final set of design computations. The computations shall be bound in an 8-1/2 x 11" format and shall be endorsed (seal/signature, as appropriate) by the CONSULTANT. Refer to **Exhibit "A"** for the computation data required for this Agreement.

The CONSULTANT shall submit a final set of reports and studies which shall be endorsed (seal/signature) by the CONSULTANT.

The CONSULTANT shall not be liable for use by CFX of said plans, documents, reports, studies or other data for any purpose other than intended by the terms of this Agreement.

This Agreement is considered a non-exclusive Agreement between the parties.

3.0. TERM OF AGREEMENT AND RENEWALS

Unless otherwise provided herein or by Supplemental Agreement, the provisions of this Agreement will remain in full force and effect for a five (5) year term from the date of the Notice to Proceed for the required project services as detailed in **Exhibit "A,"** with five one-year renewals at CFX's option. The options to renew are at the sole discretion and election of CFX. Renewals will be based, in part, on a determination by CFX that the value and level of service provided by the CONSULTANT are satisfactory and adequate for CFX's needs. If a renewal option is exercised, CFX will provide CONSULTANT with written notice of its intent at least thirty (30) days prior to the expiration of the original term and subsequent renewal, if any.

The CONSULTANT agrees to commence the scheduled project services to be rendered within ten (10) calendar days from the date specified in the written Notice to Proceed from the Project Manager, which Notice to Proceed will become part of this Agreement. The CONSULTANT shall complete scheduled project services within the timeframe(s) specified in **Exhibit "A"**, or as may be modified by subsequent Supplemental Agreement.

4.0. PROJECT SCHEDULE

The CONSULTANT agrees to provide Project Schedule progress reports for each project in a format acceptable to CFX and at intervals established by CFX. CFX will be entitled at all times to be advised, at its request, as to the status of work being done by the CONSULTANT and of the details thereof. Coordination shall be maintained by the CONSULTANT with representatives of CFX, or of other agencies interested in the project on behalf of CFX. Either party to the Agreement may request and be granted a conference.

In the event there are delays on the part of CFX as to the approval of any of the materials submitted by the CONSULTANT or if there are delays occasioned by circumstances beyond the control of the CONSULTANT, which delay the scheduled project completion date, CFX may grant to the CONSULTANT by "Letter of Time Extension" an extension of the scheduled project completion date equal to the aforementioned delays. The letter will be for time only and will not include any additional compensation.

It shall be the responsibility of the CONSULTANT to ensure at all times that sufficient time remains within the project schedule within which to complete the services on the project. In the event there have been delays which would affect the scheduled project completion date, the CONSULTANT shall submit a written request to CFX which identifies the reason(s) for the delay, the amount of time related to each reason and specific indication as to whether or not the delays were concurrent with one another. CFX will review the request and make a determination as to granting all or part of the requested extension.

In the event the scheduled project completion date is reached and the CONSULTANT has not requested, or if CFX has denied, an extension of the completion date, partial progress payments will be stopped when the scheduled project completion date is met. No further payment for the project will be made until a time extension is granted or all work has been completed and accepted by CFX.

5.0. PROFESSIONAL STAFF

The CONSULTANT shall maintain an adequate and competent professional staff to enable the CONSULTANT to timely perform under this Agreement. The CONSULTANT shall continue to be authorized to do business within the State of Florida. In the performance of these professional services, the CONSULTANT shall use that degree of care and skill ordinarily exercised by other similar professionals in the field under similar conditions in similar localities. The CONSULTANT shall use due care in performing in a design capacity and shall have due regard for acceptable standards of design principles. The CONSULTANT may associate with it such specialists, for the purpose of its services hereunder, without additional cost to CFX, other than those costs negotiated within the limits and terms of this Agreement. Should the CONSULTANT desire to utilize specialists, the CONSULTANT shall be fully responsible for satisfactory completion of all subcontracted work. The CONSULTANT, however, shall not sublet, assign or transfer any work under this Agreement to other than the associate consultants listed below without the written consent of CFX. It is understood and agreed that CFX will not, except

for such services so designated herein, permit or authorize the CONSULTANT to perform less than the total contract work with other than its own organization.

Prior to retaining a subconsultant, or assigning any work to a subconsultant, the CONSULTANT shall verify that the subconsultant does not have any conflicts and acknowledges its duty to comply with CFX's Code of Ethics. The CONSULTANT shall ensure that each subconsultant adheres to, and cause all subconsultants to be bound by, all requirements, conditions, and standards set forth herein. The CONSULTANT shall collect and maintain the necessary subconsultant compliance and acknowledgement documentation and remove any subconsultant immediately, if the necessary said documentation is unavailable or the subconsultant is not adhering to the requirements and standards herein. The CONSULTANT shall provide subconsultant compliance and acknowledgement documentation to CFX upon request.

The approved subconsultants are:

Bentley Architects and Engineers, Inc. Class I	Brindley Pieters and Associates, Inc. Class I
Maser Consulting P.A. Class I	Maser Consulting P.A. (Survey) Class II
Traffic Engineering Data Solutions, Inc. Class I	Tierra, Inc. Class II
WBQ Design & Engineering, Inc. Class I and (Survey) Class II	

CONSULTANT shall not further sublet, sell, transfer, assign, delegate, subcontract, or otherwise dispose of this Contract or any portion thereof, or of the CONSULTANT's right, title, or interest therein without the written consent of CFX, which may be withheld in CFX's sole and absolute discretion. Any attempt by CONSULTANT to dispose of this Contract as described above, in part or in whole, without CFX's written consent shall be null and void and shall, at CFX's option, constitute a default under the Contract.

If, during the term of the Contract, CONSULTANT desires to subcontract any portion(s) of the work to a subconsultant that was not disclosed by the CONSULTANT to CFX at the time that the Contract was originally awarded, and such subcontract would, standing alone or aggregated with prior subcontracts awarded to the proposed subconsultant, equal or exceed twenty five thousand dollars (\$25,000.00), the CONSULTANT shall first submit a request to CFX's Director of Procurement for authorization to enter into such subcontract. Except in the case of an emergency, as determined by the Executive Director or his/her designee, no such subcontract shall be executed by the CONSULTANT until it has been approved by CFX Board. In the event of a designated emergency, the CONSULTANT may enter into such a subcontract with the prior written approval of the Executive Director or his/her designee, but such subcontract shall contain a provision that provides that it shall be automatically terminated if not approved by CFX Board at its next regularly scheduled meeting.

6.0. COMPENSATION

CFX agrees to pay the CONSULTANT compensation as detailed in **Exhibit "B"**, Method of Compensation, attached hereto and made a part hereof, in the not-to-exceed amount of \$6,200,000.00 for the initial five-year term of this Agreement. Bills for fees or other compensation for services or expenses shall be submitted to CFX in detail sufficient for a proper pre-audit and post audit thereof.

The CONSULTANT may be liable for CFX costs resulting from errors or deficiencies in designs furnished under this Agreement. CFX may enforce such liability and collect the amount due if the recoverable cost will exceed the administrative cost involved or is otherwise in CFX's best interest. Records of costs incurred by the CONSULTANT under terms of this Agreement shall be maintained and made available upon request to CFX at all times during the period of this Agreement and for five (5) years after final payment is made. Copies of these documents and records shall be furnished to CFX upon request. The CONSULTANT agrees to incorporate the provisions of this paragraph in any subcontract into which it might enter with reference to the work performed. Records of costs incurred includes the CONSULTANT's general accounting records and the project records, together with supporting documents and records, of the CONSULTANT and all subconsultants performing work on the project, and all other records of the CONSULTANT and subconsultants considered necessary by CFX for a proper audit of project costs. The obligations in this paragraph shall survive the termination of the Agreement and continue in full force and effect.

The general cost principles and procedures for the negotiation and administration, and the determination or allowance of costs under this Agreement shall be as set forth in the Code of Federal Regulations, Titles 23, 48, 49, and other pertinent Federal and State Regulations, as applicable, with the understanding that there is no conflict between State and Federal regulations in that the more restrictive of the applicable regulations will govern. Whenever travel costs are included in **Exhibit "B"**, the provisions of Section 112.061, Florida Statutes, shall govern as to reimbursable costs.

Payments shall be made in accordance with the Local Government Prompt Payment Act in part VII, Section 218, Florida Statutes.

7.0. DOCUMENT OWNERSHIP AND RECORDS

All plans, documents, reports, studies, and/or other data prepared or obtained under this Agreement shall be considered instruments made for services and shall become the property of CFX without restriction or limitation on their use on this project; and shall be made available, upon request, to CFX at any time. CFX will have the right to visit the site for inspection of the work and the drawings of the CONSULTANT at any time. Unless changed by written agreement of the parties, said site shall be 618 E South St., Suite 700, Orlando, FL 32801

Notwithstanding Section 17, entitled "Communications, Public Relations, and Use of Logos," CONSULTANT acknowledges that CFX is a body politic and corporate, an agency of the State of Florida, and is subject to the Public Records Act codified in Chapter 119, Florida Statutes. To the extent that the CONSULTANT is in the possession of documents that fall within the definition of public records

subject to the Public Records Act, which public records have not yet been delivered to CFX, CONSULTANT agrees to comply with Section 119.0701, Florida Statutes.

IF THE CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONSULTANT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT Phone: 407-690-5000, e-mail: publicrecords@cfxway.com, and address: Central Florida Expressway Authority, 4974 ORL Tower Road, Orlando, FL. 32807.

An excerpt of Section 119.0701, Florida Statutes is below.

Per Section 119.0701(1), "Contractor" means an individual, partnership, corporation, or business entity that enters into a contract for services with a public agency and is acting on behalf of the public agency as provided under s. 119.011(2).

Per Section 119.0701(b). The contractor shall comply with public records laws, specifically to:

1. Keep and maintain public records required by the public agency to perform the service.
2. Upon request from the public agency's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in this chapter or as otherwise provided by law.
3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the public agency.
4. Upon completion of the contract, transfer, at no cost, to the public agency all public records in possession of the contractor or keep and maintain public records required by the public agency to perform the service. If the contractor transfers all public records to the public agency upon completion of the contract, the contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the contractor keeps and maintains public records upon completion of the contract, the contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the public agency, upon request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.

The CONSULTANT shall allow public access to all documents, papers, letters, or other material as approved and authorized by CFX and subject to the provisions of Chapter 119, Florida Statutes, and made or received by the CONSULTANT in conjunction with this Agreement. Failure by the CONSULTANT to grant such public access shall be grounds for immediate unilateral cancellation of this Agreement by CFX.

The obligations in Section 7.0, Document Ownership and Records, shall survive the expiration or termination of this Agreement and continue in full force and effect.

8.0. COMPLIANCE WITH LAWS

The CONSULTANT shall comply with all federal, state and local laws and ordinances applicable to the work or payment for work thereof, and shall not discriminate on the grounds of race, color, religion, sex, or national origin in the performance of work under this contract.

The CONSULTANT shall keep fully informed regarding and shall fully and timely comply with all current laws and future laws that may affect those engaged or employed in the performance of this Agreement.

8.1 Limitation of Liability: Pursuant to SECTION 558.0035(1)(d), Florida Statutes, CONSULTANT maintains any professional liability insurance required under this contract. Therefore, pursuant to Section 558.0035(1)(c), Florida Statutes, an individual employee or agent of the CONSULTANT may not be held individually liable for damages resulting from negligence occurring within the course and scope of professional services rendered under this professional services contract

9.0. WAGE RATES AND TRUTH-IN-NEGOTIATIONS CERTIFICATE

The CONSULTANT hereby certifies, covenants and warrants that wage rates and other factual unit costs as shown in attached **Exhibit "C"**, Details of Costs and Fees, supporting the compensation provided in Section 6.0 are accurate, complete and current as of the date of this Agreement. It is further agreed that said price provided in Section 6.0 hereof shall be adjusted to exclude any significant sums where CFX shall determine the price was increased due to inaccurate, incomplete or non-current wage rates and other factual unit costs. All such adjustments shall be made within one year following the date of final billing or acceptance of the work by CFX, whichever is later.

10.0. TERMINATION

CFX may terminate this Agreement in whole or in part, for any reason or no reason, at any time the interest of CFX requires such termination.

If CFX determines that the performance of the CONSULTANT is not satisfactory, CFX shall have the option of (a) immediately terminating in writing the Agreement or (b) notifying the CONSULTANT in writing of the deficiency with a requirement that the deficiency be corrected within a specified time, otherwise the Agreement will be terminated at the end of such time.

If CFX requires termination of the Agreement for reasons other than unsatisfactory performance of the CONSULTANT, CFX shall notify the CONSULTANT in writing of such termination, not less than seven (7) calendar days as to the effective date of termination or specify the stage of work at which the Agreement is to be terminated.

If CFX abandons the work or subtracts from the work, suspends, or terminates the Agreement as presently outlined, the CONSULTANT shall be compensated in accordance with **Exhibit "B"** for work properly performed by the CONSULTANT prior to abandonment or termination of the Agreement. The ownership of all engineering documents completed or partially completed at the time of such termination or abandonment, shall be transferred to and retained by CFX.

CFX reserves the right to cancel and terminate this Agreement in the event the CONSULTANT or any employee, servant, or agent of the CONSULTANT is indicted or has a direct information issued against him for any crime arising out of or in conjunction with any work being performed by the CONSULTANT for or on behalf of CFX, without penalty. It is understood and agreed that in the event of such termination, all tracings, plans, specifications, maps, and data prepared or obtained under this Agreement shall immediately be turned over to CFX. The CONSULTANT shall be compensated for work properly performed rendered up to the time of any such termination in accordance with Section 7.0 hereof. CFX also reserves the right to terminate or cancel this Agreement in the event the CONSULTANT shall be placed in either voluntary or involuntary bankruptcy or an assignment be made for the benefit of creditors. CFX further reserves the right to suspend the qualifications of the CONSULTANT to do business with CFX upon any such indictment or direct information. In the event that any such person against whom any such indictment or direct information is brought shall have such indictment or direct information dismissed or be found not guilty, such suspension on account thereof may be lifted by CFX.

11.0. ADJUSTMENTS

All services shall be performed by the CONSULTANT to the reasonable satisfaction of the Project Manager who shall decide all questions, difficulties and dispute of any nature whatsoever that may arise under or by reason of this Agreement, the prosecution and fulfillment of the services hereunder and the character, quality, amount and value thereof. Adjustments of compensation and term of the Agreement, because of any major changes in the work that may become necessary or desirable as the work progresses, shall be left to the absolute discretion of the Executive Director and Supplemental Agreement(s) of such a nature as required may be entered into by the parties in accordance herewith. Disputes between the Project Manager and the CONSULTANT that cannot be resolved shall be referred to the Executive Director whose decision shall be final.

In the event that the CONSULTANT and CFX are not able to reach an agreement as to the amount of compensation to be paid to the CONSULTANT for supplemental work desired by CFX, the CONSULTANT shall be obligated to proceed with the supplemental work in a timely manner for the amount determined by CFX to be reasonable. In such event, the CONSULTANT will have the right to file a claim with CFX for such additional amounts as the CONSULTANT deems reasonable for consideration by the Executive Director; however, in no event will the filing of the claim or the

resolution or litigation thereof, through administrative procedures or the courts, relieve the CONSULTANT from the obligation to timely perform the supplemental work.

12.0. HOLD HARMLESS AND INDEMNIFICATION, SOVEREIGN IMMUNITY

The CONSULTANT shall indemnify and hold harmless CFX, and its officers and employees from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the CONSULTANT and other persons employed or utilized by the design professional in the performance of the Agreement.

Subject to the provisions and limitations set forth in law, the CONSULTANT expressly agrees to indemnify, defend, and hold harmless CFX, and its officers, and employees, from any claim, liabilities, losses, damages, and costs, including, but not limited to, reasonable attorneys' fees, arising from any act, error or omission of the CONSULTANT and other persons employed or utilized by the CONSULTANT in the performance of the Agreement, except that the CONSULTANT will not be liable under this paragraph for claims of, or damages resulting from, gross negligence, or willful, wanton or intentional misconduct of CFX, its officers, or employees during the performance of the Agreement.

When CFX receives a notice of claim for damages that may have been caused by the CONSULTANT in the performance of services required by the CONSULTANT under this Agreement, CFX will immediately forward the notice of claim to the CONSULTANT. The CONSULTANT and the AUTHORITY will evaluate the notice of claim and report their findings to each other within fourteen (14) calendar days.

In the event a lawsuit is filed against CFX alleging negligence or wrongdoing by the CONSULTANT, CFX and the CONSULTANT will jointly discuss options in defending the lawsuit. After reviewing the lawsuit, CFX will determine whether to request the participation of the CONSULTANT in the defense of the lawsuit or to request that the CONSULTANT defend CFX in such lawsuit as described in this section. CFX's failure to notify the CONSULTANT of a notice of claim will not release the CONSULTANT from any of the requirements of this section upon subsequent notification by CFX to the CONSULTANT of the notice of claim or filing of a lawsuit. CFX and the CONSULTANT will pay their own cost for the evaluation, settlement negotiations and trial, if any. However, if only one party participates in the defense of the claim at trial, that party is responsible for all of its costs, but if the verdict determines that there is joint responsibility, the costs of defense and liability for damages will be shared in the same percentage as that judicially established, provided that CFX's liability does not exceed the limits and limitations arising from Section 768.28, Florida Statutes, the doctrine of sovereign immunity, and law.

CFX is an agency of the State of Florida whose limits of liability are set forth in Section 768.28, Florida Statutes, and nothing herein shall be construed to extend the limits of liability of CFX beyond that provided in Section 768.28, Florida Statutes. Nothing herein is intended as a waiver of CFX's sovereign immunity under Section 768.28, Florida Statutes, or law. Nothing hereby shall inure to the benefit of any third party for any purpose, which might allow claims otherwise barred by sovereign immunity or operation of law. Furthermore, all of CFX's obligations are limited to the payment of no more than the amount limitation per person and in the aggregate contained in Section 768.28, Florida Statutes, except for payments for work properly performed, even if the sovereign immunity limitations of

that statute are not otherwise applicable to the matters as set forth herein.

The obligations in Section 12.0, Hold Harmless and Indemnification, shall survive the expiration or termination of this Agreement and continue in full force and effect.

13.0. INFRINGEMENT OF PATENTS AND COPYRIGHTS

The CONSULTANT shall pay all royalties and assume all costs arising from the use of any invention, design, process materials, equipment, product or device which is the subject of patent rights or copyrights. The CONSULTANT shall, at its expense, hold harmless and defend CFX against any claim, suit or proceeding brought against CFX which is based upon a claim, whether rightful or otherwise, that the goods or services, or any part thereof, furnished under this Agreement, constitute an infringement of any patent or copyright of the United States. The CONSULTANT shall pay all damages and costs awarded against CFX. The obligations in Section 13.0, Infringement of Patents and Copyrights, shall survive the expiration or termination of this Agreement and continue in full force and effect.

14.0. THIRD PARTY BENEFICIARY

The CONSULTANT warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the CONSULTANT to solicit or secure this Agreement, and that the CONSULTANT has not paid or agreed to pay any person, company, corporation, individual or firm, other than a bona fide employee working solely for the CONSULTANT any fee, commission, percentage, gift or any other consideration, contingent upon or resulting from the award or making of this Agreement. It is understood and agreed that the term "fee" shall also include brokerage fee, however denoted. For the breach or violation of this paragraph, CFX shall have the right to terminate this Agreement without liability, and, at its discretion, to deduct from the contract price, or otherwise recover, the full amount of such fee, commission percentage, gift or consideration.

15.0. INSURANCE

The CONSULTANT, at its own expense, shall keep in force and at all times maintain during the term of this Agreement all insurance of the types and to the limits specified herein.

The CONSULTANT shall require and ensure that each of its subconsultants providing services hereunder procures and maintains, until the completion of the services, insurance of the requirements, types and to the limits specified herein. Upon request from CFX, the CONSULTANT shall furnish copies of certificates of insurance and endorsements evidencing coverage of each subconsultant.

The CONSULTANT shall require all insurance policies in any way related to the work and secured and maintained by the CONSULTANT to include clauses stating each underwriter shall waive all rights of recovery, under subrogation or otherwise, against CFX. The CONSULTANT shall require of subconsultants, by appropriate written agreements, similar waivers each in favor of all parties enumerated in this section. When required by the insurer, or should a policy condition not permit an endorsement, the CONSULTANT agrees to notify the insurer and request that the policy(ies) be endorsed with a Waiver of Transfer of Rights of Recovery Against Others, or an equivalent endorsement.

This Waiver of Subrogation requirement shall not apply to any policy, which includes a condition that specifically prohibits such an endorsement or voids coverage should the CONSULTANT enter into such an agreement on a pre-loss basis. At the CONSULTANT's expense, all limits must be maintained.

15.1 Commercial General Liability coverage shall be on an occurrence form policy for all operations including, but not limited to, Contractual, Products and Completed Operations, and Personal Injury. The limits shall be not less than One Million Dollars (\$1,000,000) per occurrence, Combined Single Limits (CSL) or its equivalent. The general aggregate limit shall apply separately to this Agreement (with the ISO CG 25 01 or insurer's equivalent endorsement provided to CFX) or the general aggregate limit shall be twice the required occurrence limit. CFX shall be listed as an additional insured. ISO Form CG 20 10 11 85 or if not available, ISO Forms CG 20 10 10 01 and CG 20 37 10 01, or if not available, their equivalent acceptable to CFX, shall be used to meet these requirements and a photocopy of same shall be provided with the Certificate. The CONSULTANT further agrees coverage shall not contain any endorsement(s) excluding or limiting Product/Completed Operations, Independent Consultants, Broad Form Property Damage, X-C-U Coverage, Contractual Liability, or Severability of Interests. The Additional Insured Endorsement included on all such insurance policies shall state that coverage is afforded the additional insured with respect to claims arising out of operations performed by or on behalf of the insured. If the additional insureds have other insurance which is applicable to the loss, such other insurance shall be excess to any policy of insurance required herein. The amount of the insurer's liability shall not be reduced by the existence of such other insurance.

15.2 Business Automobile Liability coverage shall be on an occurrence form policy for all owned, non-owned and hired vehicles issued on ISO form CA 00 01 or its equivalent. The limits shall be not less than One Million Dollars (\$1,000,000) per occurrence/annual aggregate. In the event the CONSULTANT does not own automobiles the CONSULTANT shall maintain coverage for hired and non-owned auto liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

Each of the above insurance policies shall include the following provisions: (1) The standard severability of interest clause in the policy and when applicable the cross liability insurance coverage provision which specifies that the inclusion of more than one insured shall not operate to impair the rights of one insured against another insured, and the coverages afforded shall apply as though separate policies had been issued to each insured; (2) The stated limits of liability coverage for Commercial/Comprehensive General Liability, and Business Automobile Liability, assumes that the standard "supplementary payments" clause will pay in addition to the applicable limits of liability and that these supplementary payments are not included as part of the insurance policies limits of liability.

15.3 Workers' Compensation and Employer's Liability Insurance shall be provided as required by law or regulation (statutory requirements). Employer's Liability insurance shall be provided in amounts not less than \$100,000 per accident for bodily injury by accident, \$100,000 per employee for bodily injury by disease, and \$500,000 policy limit by disease. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of CFX for all work performed by the CONSULTANT, its employees, agents and subconsultants.

15.4 Professional Liability Coverage shall have limits of not less than One Million Dollars (\$1,000,000) per claim / annual aggregate, protecting the selected firm or individual against claims of CFX for negligence, errors, mistakes or omissions in the performance of services to be performed and furnished by the CONSULTANT.

The CONSULTANT shall provide CFX with Certificate(s) of Insurance with required endorsements on all the policies of insurance and renewals thereof in a form(s) acceptable to CFX. CFX shall be notified in writing of any reduction, cancellation or substantial change of policy or policies at least thirty (30) days prior to the effective date of said action.

All insurance policies shall be issued by responsible companies who are acceptable to CFX and licensed to do business under the laws of the State of Florida. Each Insurance company shall minimally have an A.M. Best rating of A-VII. If requested by CFX, CFX shall have the right to examine copies and relevant provisions of the insurance policies required by this Agreement, subject to the appropriate confidentiality provisions to safeguard the proprietary nature of CONSULTANT manuscript policies.

In the event any of the aforementioned insurance policies provide greater coverage or greater limits than the minimum requirements set forth herein, then CFX shall be entitled to the full coverage and limits of such policies, and these insurance requirements will be deemed to require such greater coverage and greater limits.

Any deductible or self-insured retention must be declared to and approved by CFX. At the option of CFX, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as requests CFX, or the CONSULTANT shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

All such insurance required by the CONSULTANT shall be primary to, and not contribute with, any insurance or self-insurance maintained by CFX.

Compliance with these insurance requirements shall not relieve or limit the CONSULTANT's liabilities and obligations under this Agreement. Failure of CFX to demand such certificate or evidence of full compliance with these insurance requirements or failure of CFX to identify a deficiency from evidence provided will not be construed as a waiver of the CONSULTANT's obligation to maintain such insurance.

The acceptance of delivery by CFX of any certificate of insurance evidencing the required coverage and limits does not constitute approval or agreement by CFX that the insurance requirements have been met or the insurance policies shown in the certificates of insurance are in compliance with the requirements.

16.0. COMMUNICATIONS, PUBLIC RELATIONS, AND USE OF LOGOS

The CONSULTANT agrees that it shall make no statements, press releases or publicity releases concerning this Agreement or its subject matter or otherwise disclose or permit to be disclosed any of the data or other information obtained or furnished in compliance with this Agreement, or any particulars thereof, during the period of the Agreement, without first notifying CFX and securing its consent in writing, except as required by law. The CONSULTANT also agrees that it shall not publish, copyright or patent any of the data, documents, reports, or other written or electronic materials furnished in

compliance with this Agreement, it being understood that, under Section 7.0 hereof, such data or information is the property of CFX.

Regarding the use of logos, printed documents and presentations produced for CFX shall not contain the name or logo of the CONSULTANT unless approved by CFX's Public Affairs Officer or his/her designee. Prior approval by CFX's Public Affairs Officer or his/her designee is required if a copy of the CFX logo or any CFX mark, including trademarks, service marks, or any other mark, collectively referred as "Marks," is to be used in a document or presentation. The Marks shall not be altered in any way. The width and height of the Marks shall be of equal proportions. If a black and white Mark is utilized, the Mark shall be properly screened to insure all layers of the Mark are visible. The proper presentation of CFX Marks is of utmost importance to CFX. Any questions regarding the use of CFX Marks shall be directed to the CFX Public Affairs Officer or his/her designee.

17.0. CONFLICT OF INTEREST AND STANDARD OF CONDUCT

No Contingent Fees. CONSULTANT warrants that it has not employed or retained any entity or person, other than a bona fide employee working solely for CONSULTANT, to solicit or secure this Contract, and that CONSULTANT has not paid or agreed to pay any person, company, corporation, individual or firm any fee, commission, percentage, gift or any other consideration, contingent upon or resulting from the award or making of this Contract. It is understood and agreed that the term "fee" shall also include brokerage fee, however denoted. For breach of this provision, CFX shall have the right to terminate this Contract without liability, and, at its discretion, to deduct from the contract price, or otherwise recover, the full amount of such fee, commission percentage, gift or consideration.

CONSULTANT acknowledges that CFX officials and employees are prohibited from soliciting and accepting funds or gifts from any person who has, maintains, or seeks business relations with CFX in accordance with CFX's Code of Ethics. CONSULTANT acknowledges that it has read the CFX's Code of Ethics and, to the extent applicable, CONSULTANT will comply with the aforesaid CFX's Code of Ethics in connection with performance of the Contract.

As required by Section 348.753, Florida Statutes, and CFX's Code of Ethics, CONSULTANT agrees to complete CFX's Potential Conflict Disclosure Form prior to the execution of the Contract, upon the occurrence of an event that requires disclosure, and annually, not later than July 1st.

CONSULTANT covenants and agrees that it and its employees, officers, agents, and subconsultants shall be bound by the standards of conduct provided in Section 112.313, Florida Statutes, as it relates to work performed under this Contract, which standards will be reference be made a part of this Contract as though set forth in full. The CONSULTANT agrees to incorporate the provisions of this paragraph in any subcontract into which it might enter with reference to the work performed.

CONSULTANT hereby certifies that no officer, agent or employee of CFX has any "material interest" (as defined in Section 112.312(15), Florida Statutes) either directly or indirectly, in the business of CONSULTANT, and that no such person shall have any such interest at any time during the term of this Agreement.

The CONSULTANT shall not knowingly enter into any other contract with CFX during the term of this Agreement which would create or involve a conflict of interest with the services provided herein. Likewise, subconsultants shall not knowingly enter into any other contract with CFX during the term of

this Agreement which would create or involve a conflict of interest with the service provided herein and as described below. Questions regarding potential conflicts of interest shall be addressed to the Executive Director for resolution.

During the term of this Agreement the CONSULTANT is NOT eligible to pursue any advertised construction engineering and inspection projects of CFX as either a prime or subconsultant where the CONSULTANT participated in the oversight of the projects or for any project which the CONSULTANT prepared plans and/or specifications. Subconsultants are also ineligible to pursue construction engineering and inspection projects where they participated in the oversight of the projects or for any project which the subconsultant was involved in the preparation of plans and/or specifications.

18.0. DOCUMENTED ALIENS

The CONSULTANT warrants that all persons performing work for CFX under this Agreement, regardless of the nature or duration of such work, shall be United States citizens or properly authorized and documented aliens. The CONSULTANT shall comply with all federal, state and local laws and regulations pertaining to the employment of unauthorized or undocumented aliens at all times during the performance of this Agreement and shall indemnify and hold CFX harmless for any violations of the same. Furthermore, if CFX determines that CONSULTANT has knowingly employed any unauthorized alien in the performance of this Agreement, CFX may immediately and unilaterally terminate this Agreement for cause.

The obligations in Section 18.0, Documented Aliens, shall survive the expiration or termination of this Agreement and continue in full force and effect.

19.0. E-VERIFY CLAUSE

CONSULTANT shall utilize the U.S. Department of Homeland Security's E-Verify System to verify the employment eligibility of all new employees hired by the CONSULTANT during the term of the contract. CONSULTANT shall require all of its subconsultants to verify the employment eligibility of all new employees hired by the subconsultants during the term of the Agreement.

20.0. INSPECTOR GENERAL

CONSULTANT agrees to comply with Section 20.055(5), Florida Statutes, and agrees to cooperate with the inspector general in any investigation, audit, inspection, review, or hearing pursuant to this section. CONSULTANT agree to incorporate in all subcontracts the obligation to comply with Section 20.055(5). The obligations in this paragraph shall survive the expiration or termination of this Agreement and continue in full force and effect.

21.0. PUBLIC ENTITY CRIME INFORMATION AND ANTI-DISCRIMINATION STATEMENT

Pursuant to Section 287.133(2)(a), Florida Statutes, “a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in s. 287.017 for CATEGORY TWO (\$35,000) for a period of 36 months following the date of being placed on the convicted vendor list.”

Pursuant to Section 287.134(2)(a), Florida Statutes, “an entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity.”

22.0. COMPANIES PURSUANT TO SECTION 287.135 AND 215.473

CFX may terminate this Agreement for breach of contract if the Consultant:

- 22.1. submitted a false certification as provided under Florida Statute 287.135(5); or
- 22.2. been placed on the Scrutinized Companies with Activities in Sudan List; or
- 22.3. been placed on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List; or
- 22.4. been engaged in business operations in Cuba or Syria; or
- 22.5. found to have been placed on the Scrutinized Companies that Boycott Israel List or is engaged in a boycott of Israel.

23.0. AVAILABILITY OF FUNDS

CFX’s performance and obligation to pay under this Agreement are contingent upon an annual budget appropriation by its Board. The parties agree that in the event funds are not appropriated, this Agreement may be terminated, which shall be effective upon CFX giving notice to the CONSULTANT to that effect.

24.0. AUDIT AND EXAMINATION OF RECORDS

24.1 Definition of Records:

(i) "Contract Records" shall include, but not be limited to, all information, communications and data, whether in writing or stored on a computer, computer disks, microfilm, writings, working papers, drafts, computer printouts, field notes, charts or any other data compilations, books of account, photographs, videotapes and audiotapes supporting documents, any other papers or preserved data in whatever form, related to the Contract or the CONSULTANT's performance of the Contract determined necessary or desirable by CFX for any purpose. Proposal Records shall include, but not be limited to, all information and data, whether in writing or stored on a computer, writings, working papers, computer printouts, charts or other data compilations that contain or reflect information, data or calculations used by CONSULTANT in determining labor, unit price, or any other component of a bid submitted to CFX.

(ii) "Proposal Records" shall include, but not be limited to, any material relating to the determination or application of equipment rates, home and field overhead rates, related time schedules, labor rates, efficiency or productivity factors, arithmetic extensions, quotations from subcontractors, or material suppliers, profit contingencies and any manuals standard in the industry that may be used by CONSULTANT in determining a price.

24.2 CFX reserves and is granted the right (at any time and from time to time, for any reason whatsoever) to review, audit, copy, examine and investigate in any manner, any Contract Records (as herein defined) or Proposal Records (as hereinafter defined) of the CONSULTANT or any subcontractor. By submitting a response to the Request for Proposal, CONSULTANT or any subcontractor submits to and agree to comply with the provisions of this section.

24.3 If CFX requests access to or review of any Contract Documents or Proposal Records and CONSULTANT refuses such access or review or delays such access or review for over ten (10) calendar days, CONSULTANT shall be in default under its Contract with CFX, and such refusal shall, without any other or additional actions or omissions, constitute grounds for suspension or disqualification of CONSULTANT. These provisions shall not be limited in any manner by the existence of any CONSULTANT claims or pending litigation relating to the Contract. Disqualification or suspension of the CONSULTANT for failure to comply with this section shall also preclude the CONSULTANT from acting in the future as a subcontractor of another contractor doing work for CFX during the period of disqualification or suspension. Disqualification shall mean the CONSULTANT is not eligible for and shall be precluded from doing future work for CFX until reinstated by CFX.

24.4 Final Audit for Project Closeout: The CONSULTANT shall permit CFX, at CFX's option, to perform or have performed, an audit of the records of the CONSULTANT and any or all subconsultants to support the compensation paid the CONSULTANT. The audit will be performed as soon as practical after completion and acceptance of the contracted services. In the event funds paid to the CONSULTANT under the Contract are subsequently determined to have been inadvertently paid by CFX because of accounting errors or charges not in conformity with the Contract, the CONSULTANT agrees that such amounts are due to CFX upon demand. Final payment to the CONSULTANT shall be adjusted for audit results.

24.5 CONSULTANT shall preserve all Proposal Records and Contract Records for the entire term of the Contract and for a period of five (5) years after the later of: (i) final acceptance of the project by CFX, (ii) until all claims (if any) regarding the Contract are resolved, or (iii) expiration of the Proposal Records and Contract Records' status as public records, as and if applicable, under Chapter 119, Florida Statutes.

24.6 The obligations in Section 24.0, Audit and Examination of Records, shall survive the expiration or termination of this Agreement and continue in full force and effect.

25.0. GOVERNING LAW AND VENUE

This Agreement shall be governed by and constructed in accordance with the laws of the State of Florida. The parties consent to the exclusive jurisdiction of the courts located in Orange County, Florida. The obligations in Section 25.0, Governing Law and Venue, shall survive the expiration or termination of this Agreement and continue in full force and effect.

26.0. NOTICE

All notices required pursuant to the terms hereof shall be sent by First Class United States Mail. Unless prior written notification of an alternate address for notices is sent, all notices shall be sent to the following addresses:

To CFX: Central Florida Expressway Authority
4974 ORL Tower Road
Orlando, FL 32807
Attn: Chief of Infrastructure

Central Florida Expressway Authority
4974 ORL Tower Road
Orlando, FL 32807
Attn: General Counsel

To CONSULTANT: GAI Consultants, Inc.
618 E South St., Suite 700
Orlando, FL 32801
Attn: Mark Owen, P.E.

GAI Consultants, Inc.
618 E South St., Suite 700
Orlando, FL 32801
Attn: Scott Bear, P.E.

27.0. HEADINGS

Headings are given to the sections of the Agreement solely as a convenience to facilitate reference. Such headings shall not be deemed in any way material or relevant to the construction or interpretation of the Agreement.

28.0. CONTRACT LANGUAGE AND INTERPRETATION

All words used herein in the singular form shall extend to and include the plural. All words used in the plural form shall extend to and include the singular. All words used in any gender shall extend to and include all genders.

References to statutes or regulations shall include all statutory or regulatory provisions consolidating, amending, or replacing the statute or regulation referred to. Words not otherwise defined that have well known technical or industry meanings, are used in accordance with such recognized meanings. References to persons include their respective functions and capacities.

If the CONSULTANT discovers any material discrepancy, deficiency, ambiguity, error, or omission in this Agreement, or is otherwise in doubt as to the meaning of any provision of the Agreement, the CONSULTANT shall immediately notify CFX and request clarification of CFX's interpretation of this Agreement.

The Agreement shall not be more strictly construed against either party hereto by reason of the fact that one party may have drafted or prepared any or all of the terms and provisions hereof.

29.0. ASSIGNMENT

This Agreement may not be assigned without the written consent of CFX.

30.0. SEVERABILITY

The invalidity or non-enforceability of any portion or provision of this Agreement shall not affect the validity or enforceability of any other portion or provision. Any invalid or unenforceable portion or provision shall be deemed severed from this Agreement and the balance hereof shall be construed and enforced as if this Agreement did not contain such invalid or unenforceable portion or provision.

31.0. INTEGRATION

This Agreement constitutes the entire agreement among the parties pertaining to the subject matter hereof and supersedes all prior and contemporaneous agreements, understandings, negotiations and discussions of the parties, whether oral or written, and there are no other agreements between the parties in connection with the subject matter hereof. No waiver, amendment, or modification of these terms hereof will be valid unless in writing, signed by all parties and only to the extent therein set forth.

32.0. ATTACHMENTS

- Exhibit "A", Scope of Services
- Exhibit "B", Method of Compensation
- Exhibit "C", Details of Cost and Fees
- Exhibit "D", Project Organization Chart
- Exhibit "E", Project Location Map [Note: Attach if applicable]
- Exhibit "F", Project Schedule [Note: Attach if applicable]
- Exhibit "G", Potential Conflict Disclosure Form

[SIGNATURES TO FOLLOW]

IN WITNESS WHEREOF, the CONSULTANT and CFX have caused this instrument to be signed by their respective duly authorized officials, as of the day and year first above written. This Contract was awarded by CFX's Governing Board at its meeting on June 11, 2020.

GAI CONSULTANT, INC.

**CENTRAL FLORIDA
EXPRESSWAY AUTHORITY**

BY: _____
Authorized Signature

BY: _____
Director of Procurement

Print Name: _____

Print Name: _____

Title: _____

Effective Date: _____

ATTEST: _____ (Seal)
Secretary or Notary

Approved as to form and execution, only.

General Counsel for CFX

EXHIBIT A

SCOPE OF SERVICES

Exhibit A

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

SCOPE OF SERVICES

FOR

**S.R. 538 EXTENSION (Segment 2) FROM
Osceola Polk Line Road (CR 532) to Orange Blossom
Trail (US 17/92)**

PROJECT NO. 538-235

CONTRACT NO. 001648

IN OSCEOLA AND POLK COUNTIES, FLORIDA

April 20, 2020

Exhibit A
SCOPE OF SERVICES
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1.0 GENERAL

1.1 Location

- A. See EXHIBIT "E", Project Location Map.

1.2 Description

The services will include final design and preparation of construction drawings / specifications for the proposed S.R. 538 extension from Osceola Polk Line Road (CR 532) to Orange Blossom Trail (SR 600, US 17/92). Specifically, the project consists of construction of a new limited access toll highway consisting of four lanes (two in each direction) between CR 532 and US 17/92, interchange ramps to/from CR 532 and US 17/92 (to/from the north only), and widening US 17/92 to sufficiently accommodate the proposed interchange. This project will include construction of new bridge structures for the SR 538 main line and interchange ramps over CSX RR, Old Tampa Highway, and US 17/92, and new toll collection facilities for the ramps to/from CR 532. Additional elements include milling & resurfacing, surveying, drainage evaluation and design, permitting, lighting, signing and pavement markings, signalization, ITS (fiber optic network), maintenance of traffic, utility design and coordination, geotechnical analysis, right-of-way mapping, scheduling and project control, progress reporting and other tasks and associated activities.

1.3 Purpose

- A. The purpose of this Exhibit is to describe the scope of work and responsibilities required in connection with Final Engineering and Final Construction Drawings and Documents for the proposed S.R. 538 extension from CR 532 to US 17/92.
- B. The Consultant shall perform those engineering services as required for final roadway/drainage plans, final bridge plans, final lighting plans, final traffic control plans, utility coordination and final utility adjustment plans, final ITS (fiber optic network) plans, final signalization plans (if required), final signing and pavement marking plans and preparation of a complete environmental resource application (or permit modification) including 100% storm water management.
- C. CFX's Project Manager will provide contract administration, management services, and technical reviews of all work associated with the preliminary and final designs.
- D. It is understood that references throughout this document to items of work and services to be performed are the responsibility of the Consultant unless otherwise expressly stated as the responsibility of others.

1.4 Organization

- A. CFX's Project Manager will administer the Consultant services detailed in this scope. The following sections define the duties and obligations of CFX and the Consultant.

1.5 Term of Agreement for Design Services

- A. The term of the Agreement to perform the required design services shall be within eighteen (18) months from notice to proceed, including all reviews. Any fast track of services will be at the direction of CFX's Project Manager.
- B. The Consultant may continue the design efforts while design submittals are being reviewed. Doing so, however, in no way relieves the Consultant of the responsibility to incorporate review comments into the design, nor does it entitle the Consultant to any additional design fees as a result of making changes due to review comments.

- 1. Project Milestones:

- The Consultant will prepare a tabulation of major project milestones.

- 2. Project Schedule:

- The Consultant shall include a schedule of major design tasks.

2.0 STANDARDS

- A. The applicable design and construction standards and policies of the Florida Department of Transportation, Federal Highway Administration (FHWA), American Association of State Highway and Transportation Officials (AASHTO), Transportation Research Board (TRB), Standard Building Code, CFX's Design Practices and Standard Notes and CFX's Guidelines for Preparation of Signing and Pavement Marking Plans shall be followed throughout the design and construction of the project unless specifically stated otherwise. The editions and updates of the applicable standards and policies in effect at the time of Contract execution shall be used as follows for this project:
1. Division II, Construction Details, and Division III, Materials, of the FDOT Standard Specifications for Road and Bridge Construction, 2018 edition, and updates thereafter, shall be used for this project.
 2. The FDOT Standard Plans
 3. The FDOT Design Manual,
 4. The FDOT Basis of Estimates Handbook
 5. The AASHTO Policy on Geometric Design of Highway and Streets (Green Book), 2011 edition
 6. The FHWA Manual on Uniform Traffic Control Devices (MUTCD), 2009 edition, as currently amended
 7. CFX Design Guidelines 2020 Edition

3.0 DESIGN CRITERIA

3.1 General

Design of this project will be guided by the basic design criteria listed below.

- A. The design criteria listed in this section and Project Design Directives, provided by CFX during the course of the project, may supplement the Project Design Guidelines.
- B. Design year – 2045
- C. Design vehicle – WB-62FL
- D. Along with the 30% design submittal, the Consultant shall provide a tabulation of all applicable drainage and stormwater management criteria from Federal, State and local agencies and indicated which will be used for all segments and portions of the project. Unless otherwise directed by CFX, the Consultant shall use the most restrictive or conservative criteria applicable.

3.2 Geometry

The following criteria are to be incorporated into the design:

DESIGN ELEMENT	EXPRESSWAY		CROSSROADS/ COLLECTORS
	MAINLINE	RAMPS	
Design Speed, MPH	70 mph	30 mph (Loop) 50 mph (Diamond) 50 mph (Directional)	30 Local 45 Urban 50 Rural
Horizontal Alignment Max. Curve, Degrees	3° 30'	24° 45' Loop 8° 15' Diamond 8° 15' Directional	20°
Max. Superelevation, ft/ft.	0.10	0.10	0.05 Urban 0.10 Rural
Lane Drop Tapers			
Transitions	70:1	50:1	
	Use spirals for curves > 1° 30'	Use spirals for curves > 1° 30'	Use spirals for curves > 1° 30'
Vertical Alignment Max. Grade	3%	5% to 7% (30 mph) 3% to 5% (50 mph)	5% Arterial Rural 7% Collector

DESIGN ELEMENT	EXPRESSWAY		CROSSROADS/ COLLECTORS
	MAINLINE	RAMPS	
Vertical Curvature (K) (K=Len./%grade change)			Rural
Crest	506 290 to 540 AASHTO	31 (30 mph) 136 (50 mph) 110 to 160 Other (AASHTO)	31 to 136
Sag	206 150 to 200 AASHTO	31 (30 mph) 136 (50 mph) 90 to 110 Other (AASHTO)	37 to 96
Decision Sight Dist., ft.	Refer to AASHTO	N/A	N/A
Cross Sections			
Lane Widths, ft.	12	12 dual lanes 15 min. single lane	12 inner lanes 12-16 outer lanes
Shoulder width, ft.			
Right	4-Lane 14 (12 paved)	Single Lane 6 (4 paved)	8 (4* paved)
Left	14 (12 paved)	6 (2 paved)	2 (2 paved)
			* min. 5' paved
Right	6-Lane 14 (12 paved)	Dual Lane 10* (8* paved)	
Left	14 (12 paved)	8 (4 paved) (* add 2' for interstate)	
Bridges, ft.			
Right	4-Lane 10	Single-Lane 6	
Left	6	6	
Right	6(or more)-Lanes 12	Dual Lane 10	
Left	12	6	
Cross Slopes			
Traffic Lanes	2% (4-lane) 3% or tbd (6-lane)	2%	2%
Bridge Lanes	2% typ. (no break)		
Left Shoulder	Match Mainline	5%	5%
Right Shoulder	Match Mainline	6%	6%

DESIGN ELEMENT	EXPRESSWAY		CROSSROADS/ COLLECTORS
	MAINLINE	RAMPS	
Median Width (4-lane), ft. (E.O.P./E.O.P.)	64' (typical) 26' (with barrier)	N/A	22' or 40'
Lateral Offset	FDM 215.2.4	FDM 215.2.4	FDM 215.2.4
Vertical Clearance, ft.			
Over Roadway*	16.5	16.5	16.5
Overhead Signs	17.5	17.5	17.5
Over Railroad	23.5	23.5	N/A

Ramp Operations

- a. Two thousand (2,000) ft. between entrance and exit terminals – full freeways
- b. Six hundred (600) ft. between exit and entrance terminals
- c. Single Lane Entrance Ramp Parallel
- d. Exit Ramp Taper of 550 ft. (3° – divergence)

Right of Way

- a. Ten (10) ft. from back of walls or limit of construction.
- b. Two (2) ft. from back of sidewalk on frontage roads.
- c. Drainage and construction easements as required
- d. Limited access right-of-way limits per Index 450
- e. Right of way limits for ramps is based upon limit of construction plus 10 feet.

3.3 Bridge and Other Structures

- A. All plans and designs shall be prepared in accordance with the following standards and specifications in effect at the time of contract execution: AASHTO LRFD Bridge Design Specifications, FDOT Structures Manual, FDOT Design Manual, FDOT Standard Plans, FDOT Load Rating Manual, except as otherwise directed by CFX.

4.0 WORK PERFORMED BY CONSULTANT

The Consultant shall be responsible for the work outlined in this Section. The work shall conform to the standards, criteria, and requirements of this Scope of Services.

4.1 Design Features

- A. The work required for this project includes preparation of final construction drawings and specifications as well as the preparation of a complete environmental resource application.
- B. Major elements of the work include the following:

The services will include final design and preparation of construction drawings / specifications for the proposed S.R. 538 extension from CR 532 (Station XXX +/-) to just south of the US 17/92 bridge (Station XXX +/-). Specifically, the project consists of construction of a new limited access toll highway consisting of four lanes (two in each direction) between CR 532 and US 17/92, interchange ramps to/from CR 532 and US 17/92 (to/from the north only), and widening US 17/92 to sufficiently accommodate the proposed interchange. This project will include construction of new bridge structures for the SR 538 main line and interchange ramps over CSX RR, Old Tampa Highway, and US 17/92, and new toll collection facilities for the ramps to/from CR 532. Additional elements include milling & resurfacing, surveying, drainage evaluation and design, permitting, lighting, signing and pavement markings, signalization (if needed), ITS, maintenance of traffic, utility design and coordination, right-of-way mapping, geotechnical analysis, scheduling and project control, progress reporting and other tasks and associated activities.

4.2 Governmental Agencies

- A. The Consultant shall coordinate with and assist in securing the approval of all interested agencies involved. These agencies may include, but are not necessarily limited to Orange County, FDOT, FDEP, FAA, and applicable Water Management District(s).

4.3 Preliminary Design Report - Review

- A. The Consultant shall review the project concept for proposed alternatives with regard to proposed design criteria, maintenance of traffic and construction feasibility.

At the completion of this review, the Consultant shall submit to CFX a written list of recommendations and proposed revisions, if any, to the basic layout. A conference will be scheduled by CFX's Project Manager with the Consultant to resolve any outstanding differences and agree upon a final layout for the project.

B. Preliminary Design Report (PDR) - Review: Brief report addressing the following items at a minimum:

1. Horizontal alignment of SR 538 and US 17/92
2. Vertical alignment of SR 538 and US 17/92
3. Potential wall locations along SR 538
4. Pavement analysis
5. Hydroplaning Analysis
6. Drainage pond locations
7. Utility relocations

4.4 Surveys and Mapping

A. All Surveying and Mapping shall be performed under the direction of a Surveyor and Mapper properly licensed with the Florida Board of Professional Surveyors and Mappers, under Chapter 472, Florida Statutes. The Consultant shall review data provided by CFX and provide complete field surveys suitable for contract document preparation.

Survey activities shall be coordinated with the Consultant's design team including roadway, drainage, structures, geotechnical, and other disciplines as required.

Field surveys shall be performed with minimal disruption of the normal traffic flow for the project. Field personnel shall use safety devices such as warning signs, traffic cones, warning lights, and safety vests at all times, according to the Florida Department of Transportation requirements. Advanced warning signs required when survey crews are working on CFX's system shall be made with 3M Scotchlite Diamond Grade Fluorescent orange roll up sign sheeting.

The Authority will provide aerial survey (topography and mapping) with limited control and coverage. Section 6.01 defines all work performed by the Authority or its designee.

The Authority has performed a Project Network Control Survey and documented the location and values at approximately one-half mile intervals. The Consultant shall supplement this information with additional points as necessary to meet project requirements.

B. Alignment

1. Establish Survey Centerline by establishing the tangent lines of

existing Right of Way maps if such maps exist, or in the center of dedicated Right of Way as per subdivision plats, or in the center of the pavement when no Right of Way map or dedication exists. Set alignment points Begin, End, PC's, PT's, PI's and at maximum 1400-foot intervals along alignment.

2. Establish and set alignment in the same manner on cross roads and major adjacent alignments.

C. Reference Points

1. Set at all alignment points, left and right at 90-degrees to alignment where possible, outside the proposed construction limits.
2. Show obstructions where alternate references are set.

D. Bench Levels

1. The Consultant shall establish new benchmarks at 1000' intervals along SR528, US17/92, and CR532 alignments, using stable points.
2. The Bench Run will be based on closures between established benchmarks provided by the Authority.

E. Topography

1. Planimetric mapping and a digital terrain model (DTM), suitable for 1" = 50' display scale shall be conducted by the Consultant.
2. CFX to supply Cross-sections at 1000' intervals along the mainline to verify DTM.
3. 12.78 acres of off pavement topographic survey to fill in obscure areas of DTM based on GEC provided LiDAR Survey. Southern limit is Sta 104+00.

F. Drainage Survey

Perform a drainage survey including pipe type, location, size and flow line elevations as needed for design.

G. Underground Utilities

Locate all underground utilities, horizontally and vertically as flagged by respective utility companies or a qualified utility marking consultant. Provide soft excavation verifications as needed to verify location and at utility conflict areas.

H. Side Street Surveys (N/A)

Perform topographic and utility surveys of side streets as may be needed for engineering design.

I. Bridge Survey (N/A)

Provide complete bridge survey data as needed for engineering design. Utilize Terrestrial Mobile and/or Static Lidar for clearance, features, and any other extraction needed to support design.

J. Jurisdictional Line Surveys

Perform Jurisdictional Line Surveys as needed for engineering design and permitting. Locate wetland flags delineated by CFX's GEC: anticipate ±xx mile of wetland delineation (includes surveying flagging for surface waters or roadside ditches).

K. Geotechnical Surveys

Locate and/or stake boring locations as needed for geotechnical investigations.

L. Right-of-Way Ties

Locate right-of-way limits for construction purposes. New right-of-way is anticipated.

M. CFX ITS/FON

CFX will locate the FON one time at the beginning of design during the survey phase. Once the FON/ITS lines are flagged, the Consultant shall survey the located FON/ITS locations in the field. The survey data collected will be included in the 30% plans submittal package.

The CFX GSC will review the plan submittals to ensure that the FON is shown correctly as actually located in the field. The CFX GSC will also determine if there are any overlapping projects that need to be represented in the design plans as a part of the ITS Component review of the 30% plans.

SUE will be done as required based on the Design Project Manager's recommendations and provided to CFX for their information.

Locates needed to support Geotechnical Investigation shall be coordinated as follows:

1. Geotech submits boring location plan to EOR as pdf and kmz
2. EOR identifies potential conflicts based on survey/SUE and sends BLP (pdf & kmz) and any conflicts to GEC PM

3. GEC PM provides list of conflicts and kmz of all soil borings to GSC for review
4. GSC to confirm potential conflicts and respond to EOR and GEC & CFX PMs
5. EOR or their designee to coordinate directly with CFX FON Locate Technician for field locates. Only areas of potential conflict will be located.
6. Locate schedule to be agreed upon by CFX FON Locate Technician, Geotech, Survey/SUE, and EOR
7. Sunshine One Call tickets submitted by EOR
8. CFX to respond with "8 Unmarked - Ongoing Project"

4.5 Geotechnical Investigation

- A. The Consultant shall perform a geotechnical investigation of the project in accordance with the requirements of CFX.
- B. Investigations shall be performed with minimal disruption of the normal traffic flow for the project. Field personnel shall use safety devices such as warning signs, traffic cones, warning lights, and safety vests at all times, according to CFX requirements. The Consultant shall adhere to all traffic control requirements when taking samples on existing roadways. A traffic control plan and permit may be required. Any advanced warning signs required when crews are working on CFX system shall be made with 3M Scotchlite Diamond Grade Fluorescent orange roll up sign sheeting.
- C. The work includes, but is not limited to, identifying roadway structural section requirements, LBR testing, design methods for the selected foundation, external stability evaluation at proprietary retaining walls, groundwater and estimated seasonal high groundwater level, pH and resistivity conditions requiring design considerations, soil shrinkage/swell characteristics, slope stability and benching in embankment/excavation locations, recommendation for methods of rock excavation, location and depths of unsuitable material (muck), and design alternatives based on geotechnical findings; design values for active, at rest, and passive soil pressures; allowable design loads or pressures for each foundation type, corrosion testing for structures and design of foundations for sign structures.
- D. The results of the geotechnical investigation shall be contained in a Geotechnical Report which shall be submitted to CFX's Project Manager for approval. The geotechnical investigation shall include all necessary laboratory testing of materials.
- E. Upon approval of the Geotechnical Report, the Consultant shall proceed with preparation of the pavement and foundation designs.
- F. Boring profiles shall be included on cross-section sheets in the contract plans and include the boring number, station, offset, soil legend, observed water

table, design high water elevation and geotechnical consultant's address. A boring number and target symbol shall be shown at the appropriate location on the roadway and bridge plans.

- G. Roadway core samples shall be taken to determine the existing pavement section. The Consultant shall submit a plan to CFX for location approval.

4.6 Contamination Impact Analysis

- A. The Consultant shall perform a contamination impact analysis of the project in accordance with the applicable rules and regulations of the FDOT Project Development and Environment Guidelines, Chapter 22, the Florida Department of Environmental Protection (FDEP), and all other pertinent State or Federal agencies having jurisdiction, and the requirements of CFX.
- B. At a minimum, the Consultant shall conduct a windshield survey along the project corridor to identify any new sources of environmental contamination not reported in the referenced document(s).
- C. The testing of any sites including the use of ground penetrating radar, if required to complete the design and/or construction of the project, will be added to the Scope of Services by Supplemental Agreement.

4.7 Pavement Design

- A. The Consultant shall prepare the pavement design as appropriate in accordance with the requirements of the FDOT Pavement Design Manual.
- B. The proposed pavement design recommendation, resulting from the Consultant's analysis of the various alternatives, shall be contained in a Pavement Design Summary.

4.8 Governmental Agency and Public Meetings

- A. Except as may be provided elsewhere in this Scope of Services, the Consultant shall have appropriate representatives present at such meetings, conferences or hearings as CFX may direct to secure necessary approvals and/or support of the project by county, municipal, or other governmental agencies. If so directed, the Consultant shall also have appropriate representatives present at meetings or conferences of CFX, its Chairman or staff.
- B. The Consultant shall assist CFX in presentations to various parties. The Consultant shall prepare exhibits pertaining to basic roadway improvements. CFX will prepare exhibits pertaining to aesthetic treatments and other design issues if applicable. This scope assumes presentations at one meeting with adjacent property owners.

4.9 Environmental Permits

- A. CFX's Project Manager will review, coordinate and submit the applications for all environmental permits, including EPA's NPDES General Permits for Stormwater Discharges from Construction Sites. The Consultant shall provide all information, permit applications and data relating to Stormwater Management and Floodplain Impacts required for the permits to CFX. (CFX will be responsible for preparing all of the Wetlands and Protected Species analysis and documentation required for the permits.) The Consultant shall:
1. Attend the pre-application meetings and site visits with CFX and regulatory agencies.
 2. Provide additional information requested at the pre-application by regulatory agencies for permits.
 3. Provide aerial maps at a 1"=400' scale which include SCS soils data, 100-year floodplain limits and proposed project.
 4. Provide all plans, calculations, sketches and reports required for permits except as described above.
 5. Provide copies of all drainage calculation, including pond routing nodal diagrams, for the project.
 6. Assist CFX in responding to any requests for additional information made by regulatory agencies after the permit application is submitted.
 7. Incorporate any changes required by changes in regulatory agency requirements during the course of the project. If this requires additional work by the Consultant a Supplemental Agreement will be prepared.
 8. Prepare a list of adjacent landowners along with address and nine-digit zip code at all wetland encroachment sites.
 9. Provide all permit application material in .pdf format.
 10. The Consultant will provide dredge and fill sketched as required by the permitting agencies if applicable. Mitigation plans, if required, may be added as a supplemental service.
 11. Determine extent of floodplain impacts, if any, and provide compensatory flood stages as required
 12. Preliminary field evaluation of general land use and wildlife habitat within existing ROW, pond sites, and bridges

13. Pre-application meeting with SFWMD

4.10 Utilities

A. Location

The Consultant shall obtain available utility mapping and information and identify all utilities within the general project limits to determine potential conflicts and relocations. Where a potential conflict exists, the Consultant may need to arrange to probe or expose ("pothole") the utility and survey the horizontal and vertical location of the utility line. The Consultant shall coordinate this effort with involved utility companies. All existing utilities shall be shown on appropriate preliminary construction plans. The Consultant's notes shall include the name and telephone number of contact persons for the construction contractor's use.

B. Utility Coordination

1. The Consultant shall identify utility owners within the project limits and contact each to obtain utility system maps, plan mark-ups or equivalent utility sketches and/or as-built drawings depicting the location of their facilities. The Consultant shall prepare reproducible utility adjustments plans based on information provided by respective utility companies.
2. Private utilities will prepare design plans for the relocation of their facilities. If a utility cannot or will not prepare these design plans, the work shall be added to the scope by Supplemental Agreement and the Consultant shall prepare design plans for utility relocation for approval of the utility and review by CFX.
3. Where utility conflicts occur, which require utility relocation agreements between the affected utility and CFX, the Consultant shall prepare the necessary data/plans required for the agreements. The Consultant shall advise CFX seven days in advance of meetings with utility companies/agencies scheduled to discuss utility relocations.
4. The preparation and negotiation of the agreement will be performed by CFX's Project Manager. After approval of the agreement by the utility and CFX, the Consultant shall prepare reproducible utility adjustment sheets identifying proposed relocations with respect to the construction plans.
5. The Consultant shall prepare a utility conflict matrix to assist in identifying and resolving conflicts between utilities and proposed construction prior to completion of the plans.
6. The Consultant shall obtain utility work schedules from the utility

companies for all utility relocation or adjustments required to accommodate construction.

7. The Consultant shall prepare the Utility Certification Letter certifying that all utility negotiations (full execution of each agreement, approved utility work schedule, technical special provisions written, etc.) have been completed with arrangements made for utility work to be undertaken and completed as required.
8. The Consultant shall make two utility contacts with the utility agencies (Phase II and Phase III) and hold a utility conference at each contact.

4.11 Roadway Design

- A. A Typical Section Package was approved with the PD&E Study. Available typical sections shall be reviewed as part of the Preliminary Design Report and changes submitted to the Authority for review and approval. When cross roads or other facilities are maintained by another agency, the Consultant must coordinate approval of that typical section with the maintaining agency.
- B. The Consultant shall design the geometrics for this project using the design standards included in the scope. The design elements shall include, but not be limited to, the horizontal and vertical alignments, cross section template development, lane width, shoulder widths, cross slopes, borders, sight distance, side slopes, lane transitions, superelevations, features of intersections, ramp terminal details, interchanges, and limited access points.
- C. The Consultant shall prepare designs and contract documents for the roadway improvements, including, but not necessarily limited to:
 1. Cover sheet (key sheet)
 2. Summary of Pay Items
 3. General notes
 4. Summary Quantities sheets
 5. Project Layout
 6. Typical roadway sections
 7. Typical roadway details
 8. Plans and profiles (plans at 1" = 50' scale)
 9. Interchange layout plans
 10. Ramp Terminal Details

11. Crossroad plans and profiles (1" = 50' scale)
12. Cross-sections (with pattern plan) (1" = 20' horiz.) (1" = 5' vert.)
 - a. Earthwork quantities
13. Traffic Control Sheets including Temporary Drainage
14. Utility Adjustment Sheets - as deemed necessary
15. Details
16. Special provisions
17. Special specifications

4.12 Structures Design

- A. Prior to commencement of final design, the consultant shall prepare a Bridge Concept Memorandum which documents a limited range of structural alternatives and identifies preferred alternatives. Specifically, the alternatives to be examined include beam type, wall type / configuration, foundation pile type, and preliminary load rating analysis of existing exterior beams at widened sections.
- B. The Consultant shall prepare designs and contract documents for structural design including, but not necessarily limited to the following items.
 1. Complete Bridge designs will be provided for all bridges.
 2. Retaining walls, including Critical Temporary walls
 3. Box Culverts
 4. Approach slabs
 5. Details
 6. Summary quantity tables
 7. Special provisions and specifications
 8. Stage construction-sequencing details
 9. Sign\Signal structures:
 10. Noise walls (Locations to be determined)
 11. The Consultant shall perform Load Rating Analysis per FDOT criteria for bridges at the 90% design phase. The Load Rating

Analysis packages shall be submitted for their review and approval.

4.13 Drainage Design

A. As part of the drainage design requirements, the Consultant shall:

1. Perform all drainage design in accordance with the approved criteria from Section 3.1D.
2. Finalize the pond design at the 30% submittal.
3. Have its chief drainage engineer available at the scheduled (bi-weekly/monthly) team meetings to review progress and discuss problems.
4. Notify CFX's Project Manager immediately if any deviation from approved design criteria is anticipated.
5. Provide drainage/contour maps as needed used in the development of the drainage design to CFX for use in scheduled reviews. These maps will be returned to the Consultant along with review comments at the end of the review process.
6. Provide copies of its internal quality control comments and calculations at the scheduled reviews.
7. Prepare a technical memorandum identifying existing drainage concerns along the corridor and potential fixes or modifications. Known existing drainage concerns include: None at this time.
8. Prepare a pond siting report.

B. The Consultant shall prepare designs and contract documents for drainage features including, but not necessarily limited to:

1. Connector pipes
2. Drainage structure details
3. Storm drain and culvert profiles and/or drainage cross-sections
4. Lateral ditches/channels
5. Outfall ditches/channels
6. Retention/detention ponds/exfiltrationsystem

4.14 Roadway Lighting

- A. The Consultant shall provide a complete set of final roadway lighting documents in accordance with FDOT and CFX design criteria. These plans shall include installation of all CFX lighting on the corridor to as LED, including roadway and ramp fixtures, overhead sign lighting and underdeck lighting. The work shall include coordination with the local utility to provide electrical service. Plan sheet scale shall be at 1"=50' scale.
- B. If required, CFX will provide a cut sheet for the type of lighting fixtures to be used for this project.
- C. The Consultant will prepare designs and contract documents for lighting design including, but not necessarily limited to the following items.
 - 1. Cover sheet (key sheet)
 - 2. Tabulation of Quantities
 - 3. General notes
 - 4. Pole data and Legend sheet
 - 5. Project Layout sheet
 - 6. Plans sheets (plans at 1"=50' scale)
 - 7. Service point detail
 - 8. Special Details
- D. Perform an under-deck lighting analysis

4.15 Traffic Engineering

- A. Traffic Data
 - 1. Traffic data will be furnished by the Authority.
 - 2. The Consultant will review and analyze the traffic data provided and develop recommended geometry at the intersections, including the number of turn lanes and storage lengths.
- B. Maintenance of Traffic Plans
 - 1. The Consultant shall prepare maintenance of traffic plans at scale no smaller than 1"=100' to safely and effectively move vehicular and pedestrian traffic during all phases of construction. The designs shall include construction phasing of roadways ingress and egress to existing property owners and businesses, routing, signing and pavement markings, and detour quantity tabulations. Special consideration shall be given to the construction of the drainage

system when developing the construction phases. Positive drainage must be maintained at all times.

2. The Consultant shall investigate the need for temporary traffic signals, signs, alternative detour roads, arrow boards, flagging operations, and the use of materials such as sheet pilings in the analysis. A certified designer who has completed the FDOT training course shall prepare the maintenance of traffic plan.
3. Traffic shall be maintained during all phases of project construction at all locations, including existing posted speed, lane widths and number of lanes unless determined by CFX and other governmental agencies. This includes meeting with the governmental agencies which may be impacted by the maintenance of traffic plans.

4.16 Signing and Pavement Marking Plans

- A. The Consultant shall prepare designs and contract documents for final signing and pavement marking plans including layouts showing the locations of ground mounted and overhead signs, special sign details, lighting, and any structural or foundation requirements in accordance with applicable design standards. Any requirements for electric service shall be coordinated with the local electric utility.
- B. CFX will provide conceptual signing plans for the project as deemed necessary. (Include provisions for WWD requirements)
- C. Plan sheets will be developed at a scale of 1" = 50' (11"x17" format).

4.17 Signalization Plans

- A. Signal plans will be needed for the single-point interchange at US 17/92 and may be needed for the ramps at CR 532.
- B. The Consultant shall prepare designs and contract documents for final signalization plans including layouts showing the locations of mast arms and pedestrian features, special signal details, lighting, and any structural or foundation requirements in accordance with applicable design standards. Any requirements for electric service shall be coordinated with the local electric utility.
- C. Plan sheets will be developed at a scale of 1" = 50' (11"x17" format).

4.18 Right-of-Way Surveys

A. Section Line Ties

1. The Consultant shall perform a Control survey to locate Certified Corner Record locations, and prepare new Certified Corner

Record forms.

2. Perform all Section and fractional Section line surveys required for the R/W Control Surveys and R/W Mapping.

B. Subdivision Ties/Property Line Ties

1. Tie all subdivisions including condominium boundaries, at the beginning and end; block lines, and street right of way lines to the alignment. Ties will be made by closed traverse to assure acceptable closure. All block corners shall be found or set in the field with corners properly identified with size and type and shown on the R/W Control Survey.
2. Make individual property line ties where apparent property line disputes may occur. If information is available from local surveyors, submit copies of their surveys.

C. Maintained R/W Survey - (Not required)

D. Mean High Water/Safe Upland Line Survey (Not Required)

1. Perform a Safe Upland Line Survey for all locations where the facility crosses Sovereign Waters of the State of Florida.

E. R/W Monumentation – (Not required)

F. Stake R/W Parcels – (Not required)

At the completion of the Design and Right of Way Surveys, provide all field books, certified to the Authority, and copies of electronic files on CDROM, with certification attached.

4.19 Certified Right of Way Control Survey

The field Right of Way survey will serve as the basis for the Right of Way Maps and shall be presented in the format of a certified drawing on 22" x 34". The Consultant shall certify this drawing as Specific Purpose Survey, which meets the Minimum Technical Standards adopted by the Florida Board of Professional Surveyors and Mappers in Chapter 61G17-6 of the Florida Administrative Code. These survey drawings shall be at a scale of 1 inch = 400 feet for a key map and a scale of 1 inch = 50 feet for detail sheets or at a scale acceptable to the Authority. The surveyor shall furnish the Authority with four (4) signed, sealed and certified copies of the above maps along with the original reproducible film copy and the CADD drawing files on disk.

The Consultant shall submit Right of Way Control Survey maps to the Authority for review at the following stages of completion, with data as specified.

A. 30% Right of Way Control Survey - (Key Maps)

1. Complete alignment data, including beginning of survey station, all curve data, bearings on all tangents along the alignment, all intermediate control point stations, and end of survey station. All control points must be identified as to type and size of material set at each respective point.
2. All section lines, all quarter section lines, (and all quarter-quarter section lines when pertinent), must be shown with the station where their intersection with alignment occurs, a distance from the nearest corner to alignment, and bearings and distances between all corners. Type of corner, either found or set, should be spelled out or identified by a legend.
3. All Subdivision and Condominium boundaries with official names and recording information.
4. A separate sheet depicting all of the alignment control reference points and reference points for Public Land Survey corners along with the type and size of material used for each respective reference point. This sheet does not need to be plotted to scale. All references shall be shown with a North Arrow, pointing to the top of the page.
5. Sheet one of the key maps should contain all pertinent general survey notes and the Certification that the Specific Purpose Survey was made for the purpose of providing horizontal position data for the support or control of right of way related maps for the transportation facility shown and done under responsible charge and meets the Minimum Technical Standards of the Board of Professional Surveyors and Mappers 61G17-6 Florida Administrative Code.

B. 60% Right of Way Control Survey - (Detail Sheets)

1. Complete alignment data, including beginning of survey station, all curve data, bearing on alignment, all intermediate control point stations, end of survey station. Show all control points identified as to type and size of material set at each respective point.
2. All subdivisions, including condominium boundaries, with a station where the alignment and each subdivision line intersect. A sufficient amount of field ties must be made in order to establish the original block boundaries or existing right of way as shown on existing right of way maps in each subdivision and or condominium. A distance from alignment to the existing right of way line or nearest found or set corner and bearings and distances on all subdivision lines which were intersected with the alignment, all lot and block numbers, street names, plat book, page, and

official name of each subdivision.

3. Key Maps with any revisions or corrections
- C. 90% Right of Way Control Survey
1. All revisions required to support the complete Right of Way Mapping.
- D. 100% Right of Way Control Survey
1. Signed and sealed copies and final CADD files
- E. Computer Mapping - All survey maps will be prepared using CADD and all submittals will include:
1. CADD files in Microstation format. All maps will include point names generated on appropriate CADD level.
 2. Geometry files in an ASCII or other approved format. A computer coordinate geometry file showing point numbers with their (x, y) values and coordinate pair sets representing points and lines (alignment, blocks, R/W lines, section lines, etc.) respectively, will accompany all map submittals, all pertinent chains or figures, (i.e.: Alignment, R/W lines, Subdivision boundaries, etc.) will be in the form of an abbreviated chain or figure name followed by a point list defining the chain or figure.

4.20 Right of Way Maps

Right of Way Map shall be accurate, legible, complete, plotted to a scale as directed by the Authority. Right of Way Maps, Parcel Sketches and Legal Land Descriptions shall be prepared under the direction of a Surveyor and Mapper licensed with the Florida Board of Professional Surveyors and Mappers, under Chapter 472, Florida Statutes.

The Consultant shall be responsible for determining and justifying additional rights of way required by their design. The Consultant shall make every effort to minimize the limits of right of way acquisition through the creative use of existing right of way. Right of Way Maps shall be prepared by CADD. The Consultant shall be responsible for preparation of an abbreviated Right-of-Way Map for the project consisting of a Detail Sheet for the two parcels anticipated to be needed for the project. The Right-of-Way Control Survey Maps will be utilized as the background for the Right-of-Way Maps.

Right of Way Maps shall be plotted on 22" x 34" at a scale of 1 inch = 50 feet for Detail Sheets or at a scale acceptable to the Authority. These scales should be adjusted appropriately to facilitate "uncluttered" mapping, depicting the necessary data without confusion to the users. Text size for mapping should not be smaller than 1/10".

The Consultant shall submit Map Sheets to the Authority for review at the following stages of completion, with data as specified:

- A. 90% Right of Way Maps
 - 1. Area of taking fully dimensioned with the bearings, distances and curve data, and parcel number bubble.
 - 2. Dimensions shown on all remainders. Dimensions of large remainders may be shown as an insert at a larger scale.
 - 3. Curve and Line tables may be used to eliminate clutter, but should be used only as needed, and shall be placed on all sheets where the curves are shown.
 - 4. Areas of large takings/remainders (one-half acre or more) shall be shown in acres, to 3 decimal places. Areas of small takings/remainders (less than one-half acre) shall be shown to the nearest square foot.
 - 5. Completed Title Block (all spaces must be filled in; if not applicable, show N/A). In using the strip title block, avoid placing text or mapping within 1" above the REVISION blocks.
 - 6. Limits of Construction consistent with Design Plans, including cross-sections, drainage, mitigation, etc.

- B. 100% Right of Way Maps
 - 1. Completed Right of Way Maps revised in accordance with prior reviews.
 - 2. Map information agrees exactly with the Parcel Sketch and Legal Description.

- C. Computer Mapping

All Right of Way Maps will be prepared using the latest CADD version and submittals will include:

- 1. CADD files in Microstation format. All maps will include point names generated on appropriate CADD level .
- 2. Geometry files in an ASCII or other approved format. A computer coordinate geometry file showing point numbers with their (x, y) values and coordinate pair sets representing points and lines (alignment, blocks, R/W lines, section lines, etc.) respectively, will accompany all map submittals, all pertinent chains or figures, (i.e.:

Alignment, R/W lines, Subdivision boundaries, etc.) will be in the form of an abbreviated chain or figure name followed by a point list defining the chain or figure.

D. Title Search

1. The Authority shall furnish the Consultant the Title Search Reports for parcels affected by the proposed right of way throughout the project.

E. Parcel Sketches and Legal Descriptions

1. Parcel Sketches are critical deliverables and must follow the submittal timeline detailed in Section 7.13. Draft Parcel Sketches shall be prepared to a legible scale on 8-1/2" x 11" size for each taking, including Limited Access Right of Way, non-Limited Access Right of Way, Temporary and Permanent easements, Ponds, Mitigation Areas and Access Rights Only, and will include:
 2. Boundary and dimensions of parent tract and approximate dimensions of taking and remainder
 3. Existing easements affecting the property
 4. Improvements, buildings
 5. Approximate areas of each taking and remainder
 6. North arrow and scale
 7. "DRAFT PARCEL SKETCH", Project Number and Parcel Number prominently displayed at the top of the page
 8. Border with space for recording reserved at the upper right corner.

F. Final Parcel Sketches and Legal Descriptions

1. Parcel Sketches are critical deliverables and must follow the submittal timeline detailed in Sections 7.16 & 7.18. Prepare final parcel sketches and legal descriptions for each taking, including Limited Access Right of Way, non-Limited Access Right of Way, Temporary and Permanent easements, Ponds, Mitigation Areas and Access Rights Only.
2. Separate descriptions will be prepared for Limited Access and non-Limited Access Right of Way, even if the whole parcel is taken, and dimensioned on sketch.
3. Parcel Sketches and Legal Descriptions will be prepared for County

and Municipality Right of Way.

Parcel Sketches and Legal Descriptions will include:

- a. Boundary and dimensions of taking and remainder.
- b. Existing easements affecting the property.
- c. Improvements, buildings, with ties to taking line where within 25 feet.
- d. Point of Commencement, Point of Beginning and monumentation referenced in the Legal Description.
- e. "SKETCH AND LEGAL DESCRIPTION", Project Number and Parcel Number prominently displayed at the top of the page.
- f. Areas of each taking and remainder.
- g. North arrow and scale.
- h. Border with space for recording reserved at the upper right corner.
- i. Legal descriptions of Limited Access taking, (with Limited access clause), Right of Way takings, proposed easements.
- j. All calls for adjoiners, including Section and fractional Section lines, Lot and Block lines, right of way lines, (with reference to maps if available).
- k. The Point of Commencement or Point of Beginning will be a monumented point outside limits of construction and will be a well-defined point of a Section or Grant.

Parcel Sketches and Legal Descriptions submitted for review shall include Geopak parcel closure files, (or alternate computation software,) and Microstation .dgn files, (separate files for each sheet).

4.21 Cost Estimates

- A. The Consultant shall prepare and submit to CFX construction cost estimates at the 60%, 90%, 100%, Pre-Bid and Bid Set submittals outlined herein. The estimate shall be based on the current unit prices as applied to the latest concept of the proposed construction.

4.22 Special Provisions and Specifications

- A. The Consultant shall prepare and submit at the 90% level special provisions, special specifications, and technical special provisions for items, details and procedures not adequately covered by CFX's Technical Specifications.

4.23 Intelligent Transportation Systems (ITS)

- A. Intelligent Transportation System Plans
 1. The site construction plans shall be developed at a scale of 1" equals

50 feet. These plans shall include the relocation of all existing fiber optic duct banks, cables, manholes, and pull boxes in areas where the existing locations conflict with construction and as necessary to relocate the FON into the new paved shoulder. The Consultant shall identify existing physical features and utilities that will impact the construction and installation of the equipment. The Consultant shall review and modify standard ITS details as necessary. In general intent is to replace existing devices with new if they are being damaged or impacted by the widening.

2. Intelligent Transportation System (ITS) plans shall include the following:
 - a. Roadway geometry
 - b. Rights-of-Way
 - c. Existing utilities within the right-of-way including CFX's FON
 - d. Physical features affecting construction/installation (sign structures, light poles, fences, etc.)
 - e. Manhole/Pull box locations and stub-out details (standard details provided)
 - f. Device layout
 - g. Device installation details
 - h. Conduit installation details (standard details provided)
 - i. Fiber optic cable route marker detail (standard details provided)
 - j. Fiber count per conduit
 - k. Communications interconnect
 - l. Connectivity with the FON backbone conduits
 - m. Fiber cable splice details for new or relocated fiber optic cabling.
 - n. Controller cabinet, CCTV/ TMS pole, and foundation details for proposed CCTV/ TMS sites.
 - o. Power interconnect, voltage drop calculations to support conductor size and transformer size, and details. Power conductors to each device location shall be sized to the maximum connected load in the cabinet plus 10A to accommodate other loads such as UPS battery charging or Maintenance equipment (lowering device drill, shop vac, etc.). Determination on conductor sizing and voltage drop limits are only required for proposed sites and existing sites where the total site load is being significantly modified. A maximum electrical conductor size of #2 AWG wire shall be used at a maximum service voltage of 480V. The designer shall design the electrical system around a Single-Phase system.
 - p. Design Methodology Report shall include voltage drop calculation to determine wire size and to accurately reflect a voltage drop through a transformer, typical cabinet load summary table and CCTV sighting for proposed camera

locations. Power conductors to each device location shall be sized to the capacity of the main breaker in the cabinet and shall also include a 10 Amp maintenance load that is carried to the end of each circuit.

- q. Grounding
 - r. Table of quantities
 - s. Special notes
 - t. Maintenance of fiber operations (protection of existing FON through all phases of construction and cutover phasing to ensure continuous operation of existing ITS devices)
 - u. All existing and proposed FON to be included and shown with roadway cross sections and drainage cross sections
 - v. Replacement of existing CCTV sites and any necessary structures, foundations, attachment details, power service, fiber optic connections, and cabinets (standard details provided), in the event existing CCTV is not compatible with proposed construction.
 - w. Installation of new CCTV sites to and any necessary structures, foundations, attachment details, power service, fiber optic connections, and cabinets (standard details provided) to provide 100% coverage (ramps, mainline, shoulders, etc.) of the new roadway.
 - x. Installation of data collection sensor (DCS) sites and any necessary structures, foundations, attachment details, power service, fiber optic connections, and cabinets (standard details provided), to support the Travel Time System.
 - y. Installation of dynamic message sign (DMS) to be centered over the proposed roadway, including structures, foundations, attachment details, power service, fiber optic connections, and cabinets (standard details provided). Quantity of DMS sites to be determined with input from CFX and their representative.
 - z. Installation of traffic monitoring sites (TMS) sites and any necessary structures, foundations, attachment details, power service, fiber optic connections, and cabinets (standard details provided) to provide coverage of all movements (ramps, toll plazas, split ramps, etc.) within the project limits.
 - aa. ITS devices within the project limits shall be gigabit Ethernet field switches, and other cabinet equipment as needed to meet current CFX ITS equipment standards.
 - bb. Install new WWDS and any necessary structures, foundations, attachment details, power service, fiber optic connections, and cabinets at the following off-ramps:
 - o SR 538 EB off ramp to US 17/92
 - o SR 538 WB off ramp to CR 532
3. Upgrading other cabinet equipment as needed to meet current CFX

ITS equipment standards within the project limits The Consultant shall take the following information into consideration when developing the site construction plans:

- a. Minimize utility conflicts and adjustments.
- b. Minimize traffic impact.
- c. Accessibility and ease of equipment maintenance.
- d. Safety of equipment maintenance personnel and the traveling public.
- e. Maintain the existing ITS system through all phases of construction.
- f. Environmental conditions.
- g. Concurrent/future CFX projects.
- h. Compatibility with existing and proposed ITS infrastructure (e.g. CFX enhanced grounding standards for ITS devices, CFX surge suppression (TVSS) standards for ITS devices, etc.)
- i. Leased conduits in CFX FON duct bank that are occupied by the fiber optic cable of other agencies or entities.
- j. Location of proposed sound walls

B. Splice and Cable Routing Details

1. The Consultant shall provide splicing detail diagrams to document proposed fiber optic splices within and between manholes, ITS devices, tollbooths, and other junction points. This includes splice diagrams for re-termination of drop or end to end (butt) splices.
2. Proposed splicing tables shall include ITS device connectivity, fiber use, drop cable fiber identification, drop cable identification, backbone cable identification, translateral cable identification, backbone into mainline cable identification, and toll plaza patch panel jack.
3. The Consultant shall provide cable routing diagrams in CFX's standard format to document the functional connectivity between proposed fiber optic conduit and splices.

C. Maintenance of Fiber Operations

1. The Consultant shall provide a plan of action to ensure existing fiber optic network is not disrupted during construction operations.
2. The Consultant shall determine the sequence of fiber optic cable splices to minimize disruption to communications.

D. Inside Plant Plans

1. The Consultant shall be responsible for any data collection necessary

to complete its design.

2. All equipment shown on the inside-plant construction plans shall be clearly delineated as existing, proposed, or by-others. The Consultant shall be responsible for identifying and detailing on the inside-plant construction plans with notes and drawings any make-ready work required. The Consultant shall also provide a table of quantities for all materials and equipment specified in the inside-plant construction plans.
3. The Consultant shall sign and seal final inside-plant construction plans by a licensed professional Electrical Engineer registered in the state of Florida. The inside-plant construction plans shall be subject to the review and approval of CFX.

E. Standard CFX specifications will be provided to the Consultant. The Consultant shall review the specifications and modify them as necessary.

4.24 Toll Gantry & Cabinets

Design and prepare plans for the gantries & toll cabinets as recommended for two ramp gantry locations. Plans and specifications shall include the following elements as needed to supplement CFX Standards & Specifications along with all other incidentals:

- A. Design of service cabinet, gantry, device layout, and FON patch panel, including all, structural, electrical and civil design.
- B. Concrete pavement design for the approach and exit to the gantry.
- C. Cost estimates based on lump sum pay items for Toll Facilities

4.25 Post-Design Services

- A. Services shall begin after authorization by CFX. The Consultant compensation for post-design services may be added by Supplemental Agreement and shall be at an hourly rate, inclusive of overhead, profit and expenses, and exclusive of travel. No compensation will be made for correction of errors and omissions.
- B. The Consultant shall support the post design process as follows:
 1. Answer questions relative to the plans, typical sections, quantities and special provisions.
 2. Make any necessary corrections to the plans, typical sections, quantities, notes, etc., as may be required.
 3. Attend pre-award meeting with construction contractor, CFX, and

CFX's CEI.

- C. The Consultant shall, prior to the pre-bid conference, be prepared to walk the project with CFX's CEI to discuss the plans and details. The Consultant shall be prepared to attend the pre-bid conference and respond to questions related to the plans, details, and special provisions.
- D. The Consultant shall prepare any addenda required to clarify the work included in the construction contract documents. Addenda may be required based on the project inspection with the CEI, or questions developed in the pre-bid conference, or conditions discovered by bidders during the bid period. Addenda will not be issued for Contractor initiated design changes or value engineering proposed work.
- E. The Consultant shall be available to respond to questions in the field that may arise relative to the plans, details or special provisions during construction. The Consultant shall periodically (monthly) visit the project site to observe the progress of construction on the project. This visit will not replace the formal construction inspection by CFX. It is intended to provide the opportunity of the design team to observe whether the work is being performed in general conformance with the project plans. Written memos of all such field trips shall be submitted to CFX within five working days of the trip.
- F. The Consultant shall review and approve shop drawings for structural, lighting, signing, traffic signal elements, and toll plaza shop drawings. This work will include the erection procedure plans, review proposals for substitutions, develop supplemental agreements, and provide other engineering services required to facilitate construction of the project. Reviews will be conducted and returned within two weeks from receipt of information.
- G. The Consultant shall appoint a responsible member of the firm to be the contact person for all post-design services. The person should be continually available during the course of construction for review of design plans.
- H. The Consultant shall make every reasonable effort to process any material presented for review in a prompt manner recognizing a construction contract is underway.
- I. The Consultant's key staff shall attend a maximum of three (3) partnering meetings as requested by CFX's Project Manager. The Consultant shall also attend progress/coordination meetings as requested by CFX's Project Manager including, but not limited to, the Notice to Proceed meeting.
- J. Approved design bridge load ratings were obtained by the Consultant under the final design phase of this contract. The Contractor shall be responsible for revising and resubmitting the load ratings if changes to the bridge design occur during construction. Otherwise, the Consultant shall provide written correspondence to CFX when construction is complete that the bridges were constructed in accordance with the plans and the design load ratings still

apply.

- K. The Consultant shall provide geotechnical engineering services as needed by CFX, relative to pile driving, earthwork, embankment and MSE wall construction.
- L. The Consultant shall provide utility consulting services as needed by CFX, relative to proposed utility adjustments within the project limits.
- M. The Consultant shall prepare Record Drawings in electronic format following completion of the construction phase. CFX shall provide all As-Built drawings from the Contractor / CEI to the Consultant for their use in preparation of the Record Drawings.

5.0 MATERIALS FURNISHED BY CFX OR ITS DESIGNEE

5.1 Record Documents

- A. CFX will provide the Consultant, within ten working days of a written request, the following items:
 - 1. Available record drawings of existing conditions
 - 2. Available right-of-way plans of existing conditions
 - 3. Current list available to CFX of owners of all affected properties within the section.
 - 4. Sample plans to be used as guidelines for format, organization and content.
 - 5. Title searches of all affected properties for use by the Consultant in the preparation of the right-of-way maps.
 - 6. Contract unit prices from latest CFX construction projects.

5.2 Traffic Data

- A. CFX will provide the following design traffic data:
 - 1. Current and design year ADT
 - 2. Current and design year peak hour volumes
 - 3. Turning movements at each intersection/interchange
 - 4. K, D and T factors
 - 5. Design speed - See Section 3.02, Geometry.
 - 6. AVI Percentages

5.3 Other

- A. Utility designates for the FON and roadway lighting within CFX right-of-way.

6.0 WORK PERFORMED BY CFX OR ITS DESIGNEE

6.1 Right-of-Way Acquisition

- A. CFX, or its designee, will review all right-of-way plans, parcel sketches and legal descriptions prepared by the Consultant. CFX will handle all appraisals, negotiations, relocations, condemnation, and property settlements.
- B. CFX will provide aerial survey (topography and mapping) with limited control and coverage and a Project Network Control Map.
- C. The Authority will provide the required title search reports and updates.

6.2 Utility Agreements

- A. CFX will support, as necessary, the Consultant's acquisition of information required for utility agreements.

6.3 Public Involvement

- A. CFX will provide a moderator for all required public meetings and provide guidelines for the Public Involvement aspects of the project. The need for public meetings or public hearings will be determined by CFX. CFX will be responsible for mailings and advertisements for the public meetings.

6.4 Contracts and Specifications Services

- A. CFX will prepare the necessary bid documents for the construction contract using plans, technical special provisions, and special specifications prepared by the Consultant.

6.5 Post-Design Services

- A. CFX will be the principal initial contact for post-design questions and answer questions on a limited scope.
- B. CFX's CEI representative will be responsible for collection and documentation of all As-Built information for the constructed improvements.

6.6 Environmental Permits

- A. CFX will review and submit the environmental permit applications and coordinate with the Consultant on requests for additional information from

the regulatory agencies.

- B. CFX will stake wetland lines and coordinate agency site visits. CFX will also prepare the wetland and wildlife analysis and documentation for the permits.
- C. CFX will be responsible for all permitting application fees.

6.7 Conceptual Specialty Design

- A. CFX will provide a conceptual major guide signing plan.
- B. CFX to provide proposed sound wall locations.
- C. CFX will provide conceptual aesthetics design and treatments for structures.

7.0 ADMINISTRATION

7.1 Central Florida Expressway Authority

- A. CFX's Project Manager will administer the Consultant services detailed in this scope.
- B. All contractual payments and changes shall be reviewed and approved by CFX's Project Manager.

7.2 CFX's Project Manager will:

- A. Conduct ongoing reviews of the Consultant's progress in performing the work and furnish technical comments in a timely manner.
- B. Review the Consultant's billings.
- C. Review and evaluate the Consultant's requests for extension of time and supplemental agreements and recommend appropriate action.
- D. Review all correspondence with public agencies prior to the Consultant's mailing of any correspondence except for requests for information.
- E. Coordinate the distribution of public information.
- F. Coordinate the data (including documentation of prior rights, cost estimates and plans) necessary for CFX to prepare and execute all utility and railroad agreements.
- G. Conduct an introductory meeting to deliver relevant information and explain the administration process.
- H. Review the Consultant's Quality Control program and the Consultant's conformance to the Quality Control Program.

- I. Provide a focal point contact for all questions, requests, and submittals.
- J. Provide a system to monitor the Consultant's schedule, progress and key milestone submittal dates.

7.3 Consultant

- A. The Consultant has total responsibility for the accuracy and completeness of the construction contract documents and related design prepared under this project and shall check all such material accordingly. The plans will be reviewed by CFX for conformity with CFX procedures and the terms of the Contract, as well as coordination with adjacent design contracts. Review by CFX does not include detailed review or checking of design of major components and related details or the accuracy with which such designs are depicted on the plans. The responsibility for accuracy and completeness of such items remains solely that of the Consultant. The Consultant shall:
 - 1. Establish, furnish and maintain suitable office facilities to serve as the project office for the duration of the project at a location acceptable to CFX.
 - 2. Maintain an adequate staff of qualified support personnel to perform the work necessary to complete the project.
 - 3. Establish internal accounting methods and procedures for documenting and monitoring project costs.
 - 4. Establish and maintain contract administration procedures, which will include supplemental agreements, time extensions and subcontracts.

7.4 Project Control

- A. The Consultant shall provide data for CFX's Management Information System to monitor costs and manpower, and report progress. This project control system may include features to:
 - 1. Determine and highlight critical path work from initial plans as work progresses.
 - 2. Identify progress against schedule for each identified work item.
 - 3. Forecast completion dates from current progress.
 - 4. Highlight rescheduled work in any area which is out of required sequence.
 - 5. Highlight rescheduling that has overloaded any physical area that

requires more resources than originally allocated.

6. Forecast future conflicts in any area.

7.5 Work Progress

- A. The Consultant shall meet with CFX's Project Manager on a bi-weekly basis (or more often if necessary) and provide written progress reports which describe the work performed on each task. The dates and times of these meetings will be established by CFX. Two working days prior to each progress meeting, the Consultant shall provide CFX's Project Manager with a draft copy of the Progress Report and a typewritten agenda for the meeting. The Consultant shall prepare typewritten meeting minutes and submit them to CFX's Project Manager within five working days after the meeting. The minutes shall indicate issues discussed and the resolution or action required to resolve any issues.

7.6 Schedule

- A. Within twenty (20) calendar days after receipt of the Notice to Proceed, the Consultant shall provide a schedule of calendar deadlines in a format prescribed by CFX.

7.7 Project Related Correspondence

- A. The Consultant shall furnish copies of all written correspondence between the Consultant and any party pertaining specifically to this project to CFX for its records within one (1) week of the receipt or mailing of said correspondence. The Consultant shall record and distribute the minutes of all meetings pertaining to this project.

7.8 Quality Control

- A. The Consultant has total responsibility for the accuracy and completeness of the plans and related designs prepared under this project and shall check all such material accordingly. Consultant shall have a quality control plan in effect during the entire time work is being performed under the Contract. The plan shall establish a process whereby calculations are independently checked, plans checked, corrected and back checked. All plans, calculations, and documents submitted for review shall be clearly marked as being fully checked by a qualified individual other than the originator.
- B. The Consultant's quality control plan shall be submitted to CFX within fifteen (15) working days of receipt of written notice to proceed.

7.9 Consultant Personnel

- A. The Consultant's work shall be performed and/or directed by the key personnel identified in Exhibit "D". Any changes in the indicated key

personnel or the Consultant's office in charge of the work shall be subject to review and approval by CFX.

7.10 Site Visit

- A. The Consultant shall arrange a site visit within twenty (20) calendar days of receipt of written Notice to Proceed. Consultant personnel assigned to perform the work on the project shall attend. CFX representatives will be present. Within seven calendar days of the site visit, the Consultant shall issue to CFX a brief written report including observations, discussions, and any questions pertaining to the scope or level of effort of the project. The purpose of this visit is to acquaint key personnel with the details and features of the project to facilitate the design process.

7.11 Acceptability of the Work

- A. The plans, design, calculations, reports and other documents furnished under this Scope of Services shall conform to the "standards-of-the industry" quality as acceptable to CFX. The criteria for acceptance shall be a product of neat appearance, well organized, accurate and complete, technically and grammatically correct, checked in accordance with the approved Quality Control program, and have the maker and checker identified. The minimum standard of appearance, organization and content of drawings shall be similar to the type produced by the Florida Department of Transportation and CFX.

7.12 Design Documentation

- A. The Consultant shall submit any design notes, sketches, worksheets, and computations to document the design conclusions reached during the development of the construction contract documents to CFX for review.
- B. The design notes and computations shall be recorded on 8-1/2" x 11" computation sheets, appropriately titled, numbered, dated, indexed and signed by the designer and checker. Computer output forms and other oversized sheets shall be folded or legibly reduced to 8-1/2" x 11" size. The data shall be bound in a hard-back folder for submittal to CFX.
- C. Electronic (PDF Format) copies of the design notes and computations shall be submitted to CFX with each review submittal. When the plans are submitted for 90% review, the design notes and computations corrected for any CFX comments shall be resubmitted. At the project completion (bid set), one (1) hard copy of the final set of the design notes and computations, sealed by a Professional Engineer, registered in the State of Florida, shall be submitted with the record set of plans and tracings.
- D. Design notes and calculations shall include, but are not necessarily limited to, the following data:

1. Field survey notes and computations.
2. Design criteria used for the project.
3. Geometric design calculations for horizontal alignment.
4. Vertical geometry calculations.
5. Drainage calculations
6. Structural design calculations.
7. Geotechnical report.
8. Hydraulics Report for each bridged stream crossing.
9. Earthwork calculations not included in the quantity computation booklet.
10. Calculations showing cost comparisons of various alternatives considered, if applicable
11. Computations of quantities.
12. Documentation of decisions reached resulting from meetings, telephone conversations, or site visits.
13. Lighting and voltage drop calculations.
14. Lighting service letter from the power company stating the following: service voltage, type of service (overhead or underground), location of power company service point, and any other power company requirements.

7.13 Reviews and Submittals

- A. Review and coordination of the Consultant's work by CFX shall continue through the project development process
- B. Formal submittals for review shall be made to CFX when the plans have been developed to the following levels of completion:
 1. Preliminary Design Report (Memorandum) (Electronic copies of all files in pdf format, and three (3) hard copy sets)
 2. 30% Roadway Plans (Electronic copies of PDF's of submittal package and one (1) hard copy of plans to CFX project manager; and electronic copies of plans and package to the CFX GEC project manager)

3. 30% Bridge and Structural Plans (Electronic copies of PDF's of submittal package and one (1) hard copy of plans to CFX project manager; and electronic copies of plans and package to the CFX GEC project manager)
 4. 60% Roadway and specifications, Geotechnical Report (Electronic copies of PDF's of submittal package and one (1) hard copy of plans to CFX project manager; and electronic copies of plans and package to the CFX GEC project manager)
 5. 60% Bridge Plans required only on Category 2 bridges.
 6. 90% Bridge and Structural Plans (Electronic copies of PDF's of submittal package and one (1) hard copy of plans to CFX project manager; and electronic copies of plans and package to the CFX GEC project manager)
 7. 90% Roadway and specifications (Electronic copies of PDF's of submittal package and one (1) hard copy of plans to CFX project manager; and electronic copies of plans and package to the CFX GEC project manager)
 8. 100% Roadway, Bridge and specifications, Geotechnical Report (Electronic copies of PDF's of submittal package and one (1) hard copy of plans to CFX project manager; and electronic copies of plans and package to the CFX GEC project manager)
 9. Pre-Bid Plans (Electronic copies of PDF's of submittal package and one (1) hard copy of plans to CFX project manager; and electronic copies of plans and package to the CFX GEC project manager)
 10. Bid Set (1 set signed and sealed plans, 1 set "clean" plans, 1 set signed and sealed reports and one (1) CD/DVD with .PDF of all plans and reports)
- C. Formal review submittals shall include copies as listed above. 8-1/2" x 11" and 11" x 17" documents do not require reproducible copies.
 - D. Preparation and distribution of roadway and ROW plans to other than CFX or CFX GEC will not be made until approved by CFX.
 - E. The format of review submittal plans shall conform to the FDOT Design Manual, except as amended by CFX.
 - F. Due to the compact schedule of the design, review, and construction process, any modification to the agreed submittal dates will require a letter from the Consultant to CFX giving:

1. The reason for the delay.
 2. The design components impacted.
 3. Proposed methods to maintain submittal dates.
- G. The Consultant shall submit all CADD files, including GEOPAK files, use in the preparation of the plans and right of way mapping on compact disk with the final submittal.

7.14 30% Roadway Plan Submittal

- A. At the completion of this phase, design and plan development should be approximately 30 percent complete except stormwater pond designs. The designs of the stormwater ponds shall be at 90% complete. The following material shall be developed and submitted for review:
1. Key Map Prepared
 - a. Location map shown complete with destinations, ranges and townships.
 - b. Beginning and ending stations shown.
 - c. Any equations on project shown.
 - d. Project numbers and title shown.
 - e. Index shown.
 2. Drainage Map Prepared
 - a. Existing culvert sizes and elevations.
 - b. Horizontal alignment shown.
 - c. Drainage areas and flow arrows shown.
 - d. High water information shown.
 - e. Beginning and end stations shown along with any equations on project.
 - f. Interchange supplemental maps prepared.
 3. Typical Section Sheets
 - a. Ramp typical sections developed.
 - b. Pavement structure shown.
 - c. Special details developed.
 - d. General notes shown.
 4. Plan and Profile Sheets
 - a. Centerline plotted.
 - b. Reference points and bench marks shown.
 - c. Existing topography.
 - d. Base line of surveys, curve data, bearings, etc. shown.

- e. Beginning and end stations (project and construction).
 - f. Geometric dimensions.
 - g. Proposed and existing limited access right-of-way lines.
 - h. Existing ground line.
 - i. Proposed profile grade.
 - j. Type, size and horizontal location of existing utilities.
 - k. Drainage structures and numbers are shown
 - l. Drainage ponds are shown.
5. Cross Sections
- a. Existing ground line.
 - b. Preliminary templates at critical locations (not to exceed 500 feet).
 - c. Existing utilities shown.
6. Interchange Layout and Ramp Profiles
- a. Geometric dimensions.
 - b. Proposed profile grades.
7. Right-of-Way Control Survey
8. Signing and Pavement Markings
- a. Striping layout.
 - b. Sign structure locations.

7.15 30% Bridge and Structural Plan Submittal

- A. At completion of this phase, design and plan development should be approximately 30 percent complete. The Consultant shall refer to FDOT Structural Design Guidelines for plan contents and submittal requirements. Preliminary geotechnical results and recommendations should also be included with this submittal.

7.16 60% Roadway Plan Submittal

- A. At completion of this phase, design and plan development should be approximately 60 percent complete except stormwater pond designs. The designs of the stormwater ponds shall be at 100% complete. The following material shall be developed and submitted for review:
 - 1. Key Map
 - a. Project description and number shown.
 - b. Equations, exceptions and bridge stations shown.
 - c. North arrow and scale included.

- d. Consultant and CFX sign-off included.
 - e. Contract set index complete.
 - f. Index of sheets updated.
2. Drainage Maps
- a. Flood data shown.
 - b. Cross drains and storm sewer shown.
 - c. Bridges shown with beginning and ending stations.
 - d. Interchange supplemental sheets updated.
3. Typical Section Sheets
- a. All required typical sections are included.
 - b. Limited access right-of-way lines are shown.
 - c. Design speed and traffic are shown.
 - d. Special details have been completed.
 - e. Station limits of each typical section are shown.
4. Plan and Profile Sheets
- a. Match lines shown.
 - b. Limited access right-of-way lines shown.
 - c. Stations and offset shown for all fence corners and angles.
 - d. All work shown should be within right-of-way or proposed easement.
 - e. Drainage structures and numbers are shown.
 - f. Drainage ponds shown.
 - g. Curve data and superelevation included.
 - h. Pavement edges, shoulders and dimensions shown.
 - i. Project and construction limits shown.
 - j. Bridges shown with beginning and ending stations.
 - k. General Notes.
5. Drainage Structures
- a. Drainage structures plotted and numbered.
 - b. Station location and offsets identified.
6. Cross Sections
- a. Templates are shown at all stations.
 - b. Limited access right-of-way lines are shown.
 - c. Cross section pattern sheet included.
 - d. Miscellaneous notes included.
 - e. Boring profiles.
7. Interchange Layouts, Ramp Profiles and Intersection Details
- a. Geometric data shown.

- b. Profiles finalized.
- c. Coordinate data shown.
- d. Limited access right-of-way lines shown.
- e. Curve data shown.
- f. Bearings and bridges shown.
- g. Cross roads, frontage roads, and access roads shown.
- h. Intersection details shown.

- 8. Traffic Control Plans
- 9. Utility Adjustments
- 10. Signing and Pavement Marking Plans
- 11. Intelligent Transportation System (ITS) Plans
- 12. Highway Lighting Plans
- 13. Selective Clearing and Grubbing (if required)

7.17 90 % Bridge and Structure Plan Submittal

- A. At completion of this phase, design and plan development should be approximately 90 percent complete. The Consultant shall refer to FDOT Structural Design Guidelines for plan contents and submittal requirements.

7.18 90% Roadway Plan Submittal

- A. At completion of this phase, design and plan development should be approximately 90 percent complete. The following material shall be developed and submitted for review:

- 1. Key Map
 - a. Length of Project with exceptions shown.
 - b. Index of sheets updated.
- 2. Drainage Maps
 - a. Drainage divides, areas and flow arrows shown.
 - b. Elevation datum and design high water information shown.
 - c. Disclaimer and other appropriate notes added.
- 3. Typical Section Sheets
- 4. Plan and Profile Sheets
 - a. Curve Control Points (P.C., P.I., P.T.) flagged and labeled.
 - b. Limits of side road construction.
 - c. Angle and stationing for intersections.

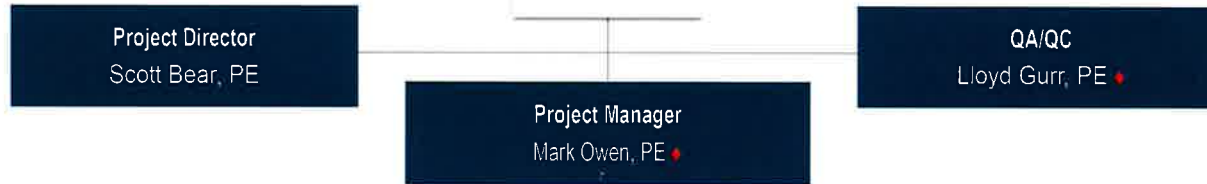
- d. Treatment for non-standard superelevation transitions diagramed.
 - e. General notes shown.
 - f. Special ditches profiled.
 - 5. Drainage Structures
 - a. Existing structures requiring modifications are shown.
 - b. Existing and proposed utilities are shown.
 - 6. Soil Borings
 - a. Soils data and estimated high seasonal groundwater table shown.
 - 7. Cross Section Sheets
 - a. Scale and special ditch grades shown.
 - b. Utilities plotted.
 - c. Sub-excavation shown.
 - d. Volumes computed and shown.
 - 8. Utility Relocation Plans
 - a. Utility relocation plans prepared.
 - 9. Traffic Control Plans
 - 10. Signing and Pavement Marking Plans
 - 11. Signalization Plans
 - 12. Intelligent Transportation System (ITS) Plans
 - 13. Highway Lighting Plans
 - 14. Selective Clearing and Grubbing (if required)
- 7.19** 100% Roadway, Bridge, Structural and Right-of-Way Plans
- A. At the completion of this phase, the design plans and special provisions shall be 100 percent complete.
- 7.20** Pre-Bid Plans
- 7.21** Bid Set

EXHIBIT D

PROJECT ORGANIZATIONAL CHART

Team Organization

All team members are GAI staff unless otherwise noted



Roadway

EOR - Eric Wooley, PE ♦
Luis Tellechea, PE
Judson Fohr, PE
Jim Schlottman, PE
Robert Jamieson, PE, PTOE

Structures

EOR - Sinan Buyukaksakal, PE ♦
Chelsea Romero, PE
Hazem Ibrahim, PE

Drainage

EOR - Laura Phillips, PE ♦
David Verlander, PE

Signing/Pvmt Marking/Signals

EOR - Sylvester Asiamah, PE ♦
Anna Zhang, PE

Lighting

EOR - Susanne Williams, PE (TEDS) ♦
Scott Hill (TEDS)

ITS

EOR - Alex Mims, PE (TEDS) ♦
Philip Boykin (TEDS)

Geotechnical & Contamination

EOR - Jeremy Sewell, PE (Tierra) ♦
Larry Moore, PE (Tierra)
Michael Blair, ASP (Tierra)
Christopher Garth, LEP (Tierra)

Tolling

Molly DeVivero, PE (BAE) ♦
Gary Kranston, RA, LEED AP (BAE)
Brenton Daily, PE (BAE)

Utility Coordination

Patricia Dickerson (BPA) ♦

Constructability

Andre Sutherland, PE

Right-of-Way Support

William "Benj" Hurt

Environmental Permitting

DJ Silverberg, MS, PWS, GTA ♦

Survey/SUE

Danny Williams, PSM (WBQ) ♦
Henry Hanson, PSM (WBQ)
Michael Ehrhart, PSM (Maser) ♦

Legend

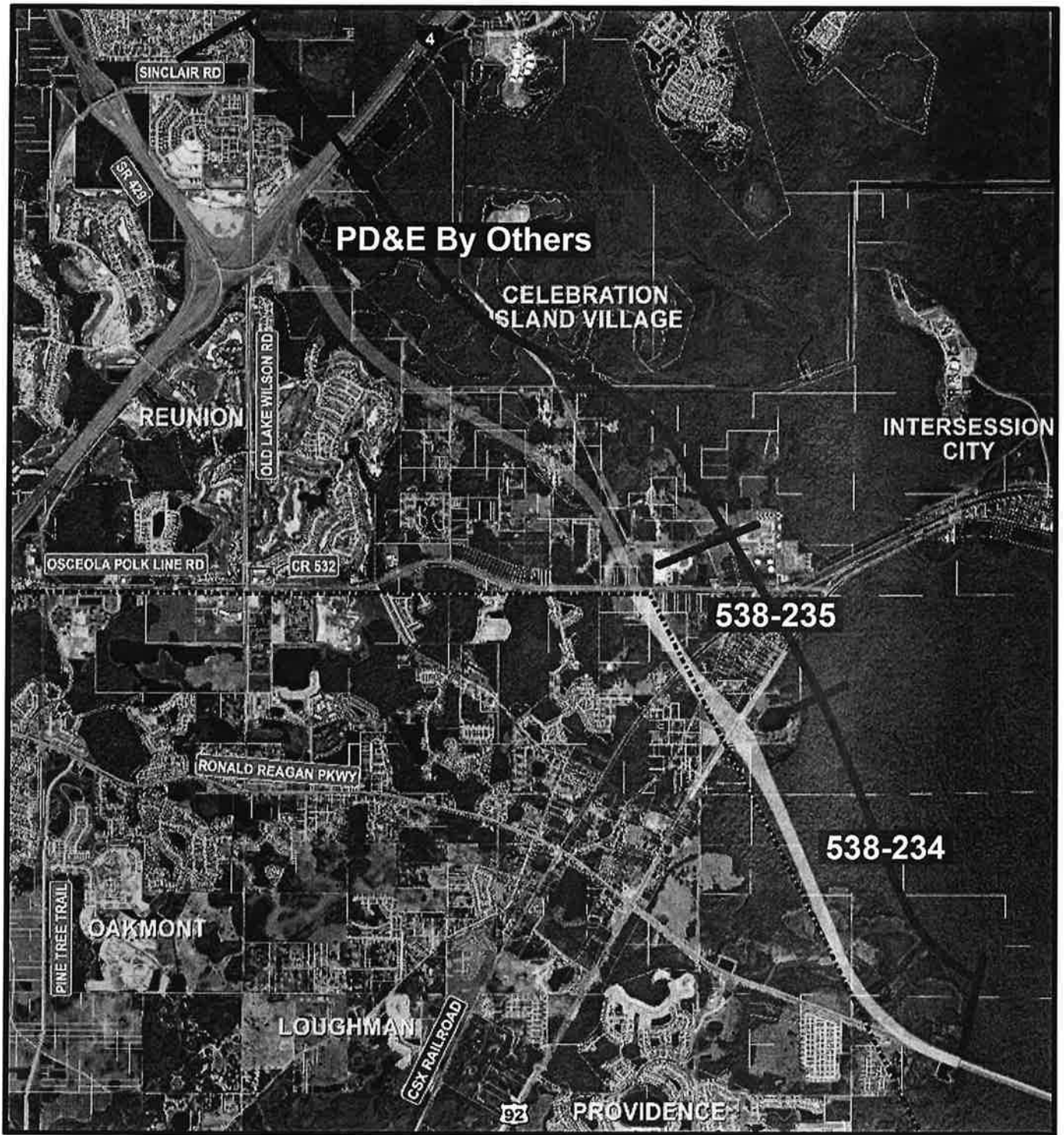
- (TEDS)..... Traffic Engineering Data Solutions, Inc. (DBE, SBE)
- (Tierra)..... Tierra, Inc. (MBE)
- (WBQ)..... WBQ Design & Engineering, Inc. (M/DBE)
- (Maser)..... Maser Consulting, PA
- (BAE)..... Bentley Architects + Engineers, Inc. (SBE)
- (BPA)..... Brindley Pieters & Associates, Inc. (DBE, SBE)

♦ Denotes key staff



EXHIBIT E

PROJECT LOCATION MAP



PD&E By Others

CELEBRATION ISLAND VILLAGE

REUNION

INTERSESSION CITY

OSCEOLA POLK LINE RD

CR 532

538-235

RONALD REAGAN PKWY

538-234

PINE TREE TRAIL

OAKMONT

LOUGHMAN

CSX RAILROAD

92


PROVIDENCE

**CONSENT AGENDA ITEM
#11**

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

MEMORANDUM

TO: CFX Board Members


FROM: Aneth Williams 
Director of Procurement Aneth Williams (Jun 2, 2020 19:26 EDT)

DATE: May 27, 2020

SUBJECT: Approval of Contract Award to Kimley-Horn and Associates, Inc.
for Design Consultant Services for CR 532 Widening from Old Lake Wilson
Road to US 17/92
Project 538-235A, Contract No. 001649

The Board approved on March 12, 2020, the final ranking and authorization for fee negotiations with firms for Design Consultant Services for CR 532 Widening from Old Lake Wilson Road to US 17/92. Negotiations with Kimley-Horn and Associates, Inc. have been completed. Board award of the contract to Kimley-Horn and Associates, Inc. is requested in the not-to-exceed amount of \$3,700,000.00. The contract is for five (5) years with five one-year renewals.

This project is included in the Five-Year Work Plan.

Reviewed by: 
Will Hawthorne, PE
Director of Engineering


Glenn Pressimone (Jun 3, 2020 09:05 EDT)

AGREEMENT

**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
AND
KIMLEY-HORN AND ASSOCIATES, INC.**

**CR 532 WIDENING FROM
OLD LAKE WILSON ROAD TO US 17/92**

CONTRACT NO. 001649, PROJECT 538-235A

**CONTRACT DATE: JUNE 11, 2020
CONTRACT AMOUNT: \$3,700,000.00**

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

**AGREEMENT, SCOPE OF SERVICES, METHOD OF
COMPENSATION, DETAILS OF COSTS AND FEES,
PROJECT ORGANIZATIONAL CHART, PROJECT
LOCATION MAP, SCHEDULE, AND NON-CONFLICT
DISCLOSURE FORM**

**AGREEMENT, SCOPE OF SERVICES, METHOD OF COMPENSATION, DETAILS
OF COSTS AND FEES, PROJECT ORGANIZATIONAL CHART, PROJECT
LOCATION MAP, SCHEDULE, AND NON-CONFLICT DISCLOSURE FORM**

FOR

**CR 532 WIDENING FROM OLD LAKE WILSON ROAD TO US 17/92
PROJECT 538-235A**

DESIGN SERVICES

CONTRACT NO. 001649

JUNE 2020

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

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D	Exhibit "D", Project Organization Chart	
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**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
AGREEMENT FOR PROFESSIONAL SERVICES**

THIS AGREEMENT, made and entered into this 11th day of June 2020, by and between the CENTRAL FLORIDA EXPRESSWAY AUTHORITY, a corporate body and agency of the State of Florida, created by Chapter 2014-171, Laws of Florida, which is codified in Chapter 348, Part III of the Florida Statutes, hereinafter “CFX,” and Kimley-Horn and Associates, Inc., hereinafter called “CONSULTANT,” registered and authorized to conduct business in the State of Florida, carrying on professional practice in engineering, with offices located at 189 S. Orange Avenue, Suite 1000, Orlando, FL 32801.

WITNESSETH:

WHEREAS, CONSULTANT represents that it is fully qualified and authorized to render the professional services contracted herein.

NOW, THEREFORE, in consideration of the mutual understandings and covenants set forth herein, CFX and CONSULTANT agree as follows:

1.0. DEFINITIONS.

Reference herein to the Project Manager shall mean CFX’s Director of Engineering or his authorized designee. The Project Manager shall provide the management and technical direction for this Agreement on behalf of CFX. All technical and administrative provisions of this Agreement shall be managed by the Project Manager and the CONSULTANT shall comply with all of the directives of the Project Manager that are within the purview of this Agreement. Decisions concerning Agreement amendments and adjustments, such as time extensions and supplemental agreements shall be made by the Project Manager.

2.0. SERVICES TO BE PROVIDED

CFX does hereby retain the CONSULTANT to furnish certain professional services in connection with the design of CR 532 Widening from Old Lake Wilson Road to US 1792 identified as Project 538-235 and Contract No. 001649.

The CONSULTANT and CFX mutually agree to furnish, each to the other, the respective services, information and items as described in **Exhibit “A”**, Scope of Services, attached hereto and made a part hereof.

Before rendering any of the services, any additions or deletions to the work described in **Exhibit “A”**, and before undertaking any changes or revisions to such work, the parties shall negotiate any necessary cost changes and shall enter into a Supplemental Amendment covering such modifications and the compensation to be paid therefore.

The work covered by this Agreement as described in **Exhibit "A,"** includes the preparation of construction plans for one construction project. If the work is divided into more than one construction project by CFX's Project Manager, then the CONSULTANT shall supply construction plans for each project. A Supplemental Agreement will be required for the additional work.

All construction plans, documents, reports, studies and other data prepared by the CONSULTANT shall bear the endorsement of a person in the full employ of the CONSULTANT and duly registered by the State of Florida in the appropriate professional category.

After CFX's acceptance of construction plans and documents for the project, the original set of CONSULTANT's drawings, tracings, plans, maps and CADD files shall be provided to CFX, along with one record set of the final plans. The CONSULTANT shall signify, by affixing an endorsement (seal/signature, as appropriate) on every sheet of the record set, that the work shown on the endorsed sheets was produced by the CONSULTANT. With the tracings and the record set of prints, the CONSULTANT shall submit a final set of design computations. The computations shall be bound in an 8-1/2 x 11" format and shall be endorsed (seal/signature, as appropriate) by the CONSULTANT. Refer to **Exhibit "A"** for the computation data required for this Agreement.

The CONSULTANT shall submit a final set of reports and studies which shall be endorsed (seal/signature) by the CONSULTANT.

The CONSULTANT shall not be liable for use by CFX of said plans, documents, reports, studies or other data for any purpose other than intended by the terms of this Agreement.

This Agreement is considered a non-exclusive Agreement between the parties.

3.0. TERM OF AGREEMENT AND RENEWALS

Unless otherwise provided herein or by Supplemental Agreement, the provisions of this Agreement will remain in full force and effect for a five (5) year term from the date of the Notice to Proceed for the required project services as detailed in **Exhibit "A,"** with five one-year renewals at CFX's option. The options to renew are at the sole discretion and election of CFX. Renewals will be based, in part, on a determination by CFX that the value and level of service provided by the CONSULTANT are satisfactory and adequate for CFX's needs. If a renewal option is exercised, CFX will provide CONSULTANT with written notice of its intent at least thirty (30) days prior to the expiration of the original term and subsequent renewal, if any.

The CONSULTANT agrees to commence the scheduled project services to be rendered within ten (10) calendar days from the date specified in the written Notice to Proceed from the Project Manager, which Notice to Proceed will become part of this Agreement. The CONSULTANT shall complete scheduled project services within the timeframe(s) specified in **Exhibit "A"**, or as may be modified by subsequent Supplemental Agreement.

4.0. PROJECT SCHEDULE

The CONSULTANT agrees to provide Project Schedule progress reports for each project in a format acceptable to CFX and at intervals established by CFX. CFX will be entitled at all times to be advised, at its request, as to the status of work being done by the CONSULTANT and of the details

thereof. Coordination shall be maintained by the CONSULTANT with representatives of CFX, or of other agencies interested in the project on behalf of CFX. Either party to the Agreement may request and be granted a conference.

In the event there are delays on the part of CFX as to the approval of any of the materials submitted by the CONSULTANT or if there are delays occasioned by circumstances beyond the control of the CONSULTANT, which delay the scheduled project completion date, CFX may grant to the CONSULTANT by "Letter of Time Extension" an extension of the scheduled project completion date equal to the aforementioned delays. The letter will be for time only and will not include any additional compensation.

It shall be the responsibility of the CONSULTANT to ensure at all times that sufficient time remains within the project schedule within which to complete the services on the project. In the event there have been delays which would affect the scheduled project completion date, the CONSULTANT shall submit a written request to CFX which identifies the reason(s) for the delay, the amount of time related to each reason and specific indication as to whether or not the delays were concurrent with one another. CFX will review the request and make a determination as to granting all or part of the requested extension.

In the event the scheduled project completion date is reached and the CONSULTANT has not requested, or if CFX has denied, an extension of the completion date, partial progress payments will be stopped when the scheduled project completion date is met. No further payment for the project will be made until a time extension is granted or all work has been completed and accepted by CFX.

5.0. PROFESSIONAL STAFF

The CONSULTANT shall maintain an adequate and competent professional staff to enable the CONSULTANT to timely perform under this Agreement. The CONSULTANT shall continue to be authorized to do business within the State of Florida. In the performance of these professional services, the CONSULTANT shall use that degree of care and skill ordinarily exercised by other similar professionals in the field under similar conditions in similar localities. The CONSULTANT shall use due care in performing in a design capacity and shall have due regard for acceptable standards of design principles. The CONSULTANT may associate with it such specialists, for the purpose of its services hereunder, without additional cost to CFX, other than those costs negotiated within the limits and terms of this Agreement. Should the CONSULTANT desire to utilize specialists, the CONSULTANT shall be fully responsible for satisfactory completion of all subcontracted work. The CONSULTANT, however, shall not sublet, assign or transfer any work under this Agreement to other than the associate consultants listed below without the written consent of CFX. It is understood and agreed that CFX will not, except for such services so designated herein, permit or authorize the CONSULTANT to perform less than the total contract work with other than its own organization.

Prior to retaining a subconsultant, or assigning any work to a subconsultant, the CONSULTANT shall verify that the subconsultant does not have any conflicts and acknowledges its duty to comply with CFX's Code of Ethics. The CONSULTANT shall ensure that each subconsultant adheres to, and cause all subconsultants to be bound by, all requirements, conditions, and standards set forth herein. The CONSULTANT shall collect and maintain the necessary subconsultant compliance and

acknowledgement documentation and remove any subconsultant immediately, if the necessary said documentation is unavailable or the subconsultant is not adhering to the requirements and standards herein. The CONSULTANT shall provide subconsultant compliance and acknowledgement documentation to CFX upon request.

The approved subconsultants are:

The Balmoral Group, LLC Class I	ECHO UES, Inc. Class I and Class II
Inwood Consulting Engineers, Inc. Class I	Southeastern Archaeological Research, Inc. Class I
Terracon Consultants, Inc. Class II	Tierra, Inc. Class II

CONSULTANT shall not further sublet, sell, transfer, assign, delegate, subcontract, or otherwise dispose of this Contract or any portion thereof, or of the CONSULTANT's right, title, or interest therein without the written consent of CFX, which may be withheld in CFX's sole and absolute discretion. Any attempt by CONSULTANT to dispose of this Contract as described above, in part or in whole, without CFX's written consent shall be null and void and shall, at CFX's option, constitute a default under the Contract.

If, during the term of the Contract, CONSULTANT desires to subcontract any portion(s) of the work to a subconsultant that was not disclosed by the CONSULTANT to CFX at the time that the Contract was originally awarded, and such subcontract would, standing alone or aggregated with prior subcontracts awarded to the proposed subconsultant, equal or exceed twenty five thousand dollars (\$25,000.00), the CONSULTANT shall first submit a request to CFX's Director of Procurement for authorization to enter into such subcontract. Except in the case of an emergency, as determined by the Executive Director or his/her designee, no such subcontract shall be executed by the CONSULTANT until it has been approved by CFX Board. In the event of a designated emergency, the CONSULTANT may enter into such a subcontract with the prior written approval of the Executive Director or his/her designee, but such subcontract shall contain a provision that provides that it shall be automatically terminated if not approved by CFX Board at its next regularly scheduled meeting.

6.0. COMPENSATION

CFX agrees to pay the CONSULTANT compensation as detailed in **Exhibit "B"**, Method of Compensation, attached hereto and made a part hereof, in the not-to-exceed amount of \$3,700,000.00 for the initial five-year term of this Agreement. Bills for fees or other compensation for services or expenses shall be submitted to CFX in detail sufficient for a proper pre-audit and post audit thereof.

The CONSULTANT may be liable for CFX costs resulting from errors or deficiencies in designs furnished under this Agreement. CFX may enforce such liability and collect the amount due if the recoverable cost will exceed the administrative cost involved or is otherwise in CFX's best interest. Records of costs incurred by the CONSULTANT under terms of this Agreement shall be maintained and made available upon request to CFX at all times during the period of this Agreement and for five (5) years after final payment is made. Copies of these documents and records shall be furnished to CFX upon request. The CONSULTANT agrees to incorporate the provisions of this paragraph in any

subcontract into which it might enter with reference to the work performed. Records of costs incurred includes the CONSULTANT's general accounting records and the project records, together with supporting documents and records, of the CONSULTANT and all subconsultants performing work on the project, and all other records of the CONSULTANT and subconsultants considered necessary by CFX for a proper audit of project costs. The obligations in this paragraph shall survive the termination of the Agreement and continue in full force and effect.

The general cost principles and procedures for the negotiation and administration, and the determination or allowance of costs under this Agreement shall be as set forth in the Code of Federal Regulations, Titles 23, 48, 49, and other pertinent Federal and State Regulations, as applicable, with the understanding that there is no conflict between State and Federal regulations in that the more restrictive of the applicable regulations will govern. Whenever travel costs are included in **Exhibit "B"**, the provisions of Section 112.061, Florida Statutes, shall govern as to reimbursable costs.

Payments shall be made in accordance with the Local Government Prompt Payment Act in part VII, Section 218, Florida Statutes.

7.0. DOCUMENT OWNERSHIP AND RECORDS

All plans, documents, reports, studies, and/or other data prepared or obtained under this Agreement shall be considered instruments made for services and shall become the property of CFX without restriction or limitation on their use on this project; and shall be made available, upon request, to CFX at any time. CFX will have the right to visit the site for inspection of the work and the drawings of the CONSULTANT at any time. Unless changed by written agreement of the parties, said site shall be 189 S. Orange Avenue, Suite 1000, Orlando, FL 32801.

Notwithstanding Section 17, entitled "Communications, Public Relations, and Use of Logos," CONSULTANT acknowledges that CFX is a body politic and corporate, an agency of the State of Florida, and is subject to the Public Records Act codified in Chapter 119, Florida Statutes. To the extent that the CONSULTANT is in the possession of documents that fall within the definition of public records subject to the Public Records Act, which public records have not yet been delivered to CFX, CONSULTANT agrees to comply with Section 119.0701, Florida Statutes.

IF THE CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONSULTANT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT Phone: 407-690-5000, e-mail: publicrecords@cfxway.com, and address: Central Florida Expressway Authority, 4974 ORL Tower Road, Orlando, FL. 32807.

An excerpt of Section 119.0701, Florida Statutes is below.

Per Section 119.0701(1), "Contractor" means an individual, partnership, corporation, or business entity that enters into a contract for services with a public agency and is acting on behalf of the public agency as provided under s. 119.011(2).

Per Section 119.0701(b). The contractor shall comply with public records laws, specifically to:

1. Keep and maintain public records required by the public agency to perform the service.
2. Upon request from the public agency's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in this chapter or as otherwise provided by law.
3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the public agency.
4. Upon completion of the contract, transfer, at no cost, to the public agency all public records in possession of the contractor or keep and maintain public records required by the public agency to perform the service. If the contractor transfers all public records to the public agency upon completion of the contract, the contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the contractor keeps and maintains public records upon completion of the contract, the contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the public agency, upon request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.

The CONSULTANT shall allow public access to all documents, papers, letters, or other material as approved and authorized by CFX and subject to the provisions of Chapter 119, Florida Statutes, and made or received by the CONSULTANT in conjunction with this Agreement. Failure by the CONSULTANT to grant such public access shall be grounds for immediate unilateral cancellation of this Agreement by CFX.

The obligations in Section 7.0, Document Ownership and Records, shall survive the expiration or termination of this Agreement and continue in full force and effect.

8.0. COMPLIANCE WITH LAWS

The CONSULTANT shall comply with all federal, state and local laws and ordinances applicable to the work or payment for work thereof, and shall not discriminate on the grounds of race, color, religion, sex, or national origin in the performance of work under this contract.

The CONSULTANT shall keep fully informed regarding and shall fully and timely comply with all current laws and future laws that may affect those engaged or employed in the performance of this Agreement.

8.1 Limitation of Liability: Pursuant to SECTION 558.0035(1)(d), Florida Statutes, CONSULTANT maintains any professional liability insurance required under this contract. Therefore, pursuant to Section 558.0035(1)(c), Florida Statutes, an individual employee or agent of the CONSULTANT may not be held individually liable for damages resulting from negligence occurring within the course and scope of professional services rendered under this professional services contract

9.0. WAGE RATES AND TRUTH-IN-NEGOTIATIONS CERTIFICATE

The CONSULTANT hereby certifies, covenants and warrants that wage rates and other factual unit costs as shown in attached **Exhibit "C"**, Details of Costs and Fees, supporting the compensation provided in Section 6.0 are accurate, complete and current as of the date of this Agreement. It is further agreed that said price provided in Section 6.0 hereof shall be adjusted to exclude any significant sums where CFX shall determine the price was increased due to inaccurate, incomplete or non-current wage rates and other factual unit costs. All such adjustments shall be made within one year following the date of final billing or acceptance of the work by CFX, whichever is later.

10.0. TERMINATION

CFX may terminate this Agreement in whole or in part, for any reason or no reason, at any time the interest of CFX requires such termination.

If CFX determines that the performance of the CONSULTANT is not satisfactory, CFX shall have the option of (a) immediately terminating in writing the Agreement or (b) notifying the CONSULTANT in writing of the deficiency with a requirement that the deficiency be corrected within a specified time, otherwise the Agreement will be terminated at the end of such time.

If CFX requires termination of the Agreement for reasons other than unsatisfactory performance of the CONSULTANT, CFX shall notify the CONSULTANT in writing of such termination, not less than seven (7) calendar days as to the effective date of termination or specify the stage of work at which the Agreement is to be terminated.

If CFX abandons the work or subtracts from the work, suspends, or terminates the Agreement as presently outlined, the CONSULTANT shall be compensated in accordance with **Exhibit "B"** for work properly performed by the CONSULTANT prior to abandonment or termination of the Agreement. The ownership of all engineering documents completed or partially completed at the time of such termination or abandonment, shall be transferred to and retained by CFX.

CFX reserves the right to cancel and terminate this Agreement in the event the CONSULTANT or any employee, servant, or agent of the CONSULTANT is indicted or has a direct information issued against him for any crime arising out of or in conjunction with any work being performed by the CONSULTANT for or on behalf of CFX, without penalty. It is understood and agreed that in the event of such termination, all tracings, plans, specifications, maps, and data prepared or obtained under this Agreement shall immediately be turned over to CFX. The CONSULTANT shall be compensated for work properly performed rendered up to the time of any such termination in accordance with Section 7.0 hereof. CFX also reserves the right to terminate or cancel this Agreement in the event the CONSULTANT shall be placed in either voluntary or involuntary bankruptcy or an assignment be made for the benefit of creditors. CFX further reserves the right to suspend the qualifications of the CONSULTANT to do business with CFX upon any such indictment or direct information. In the event that any such person against whom any such indictment or direct information is brought shall have such indictment or direct information dismissed or be found not guilty, such suspension on account thereof may be lifted by CFX.

11.0. ADJUSTMENTS

All services shall be performed by the CONSULTANT to the reasonable satisfaction of the Project Manager who shall decide all questions, difficulties and dispute of any nature whatsoever that may arise under or by reason of this Agreement, the prosecution and fulfillment of the services hereunder and the character, quality, amount and value thereof. Adjustments of compensation and term of the Agreement, because of any major changes in the work that may become necessary or desirable as the work progresses, shall be left to the absolute discretion of the Executive Director and Supplemental Agreement(s) of such a nature as required may be entered into by the parties in accordance herewith. Disputes between the Project Manager and the CONSULTANT that cannot be resolved shall be referred to the Executive Director whose decision shall be final.

In the event that the CONSULTANT and CFX are not able to reach an agreement as to the amount of compensation to be paid to the CONSULTANT for supplemental work desired by CFX, the CONSULTANT shall be obligated to proceed with the supplemental work in a timely manner for the amount determined by CFX to be reasonable. In such event, the CONSULTANT will have the right to file a claim with CFX for such additional amounts as the CONSULTANT deems reasonable for consideration by the Executive Director; however, in no event will the filing of the claim or the resolution or litigation thereof, through administrative procedures or the courts, relieve the CONSULTANT from the obligation to timely perform the supplemental work.

12.0. HOLD HARMLESS AND INDEMNIFICATION, SOVEREIGN IMMUNITY

The CONSULTANT shall indemnify and hold harmless CFX, and its officers and employees from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the CONSULTANT and other persons employed or utilized by the design professional in the performance of the Agreement.

Subject to the provisions and limitations set forth in law, the CONSULTANT expressly agrees to

indemnify, defend, and hold harmless CFX, and its officers, and employees, from any claim, liabilities, losses, damages, and costs, including, but not limited to, reasonable attorneys' fees, arising from any act, error or omission of the CONSULTANT and other persons employed or utilized by the CONSULTANT in the performance of the Agreement, except that the CONSULTANT will not be liable under this paragraph for claims of, or damages resulting from, gross negligence, or willful, wanton or intentional misconduct of CFX, its officers, or employees during the performance of the Agreement.

When CFX receives a notice of claim for damages that may have been caused by the CONSULTANT in the performance of services required by the CONSULTANT under this Agreement, CFX will immediately forward the notice of claim to the CONSULTANT. The CONSULTANT and the AUTHORITY will evaluate the notice of claim and report their findings to each other within fourteen (14) calendar days.

In the event a lawsuit is filed against CFX alleging negligence or wrongdoing by the CONSULTANT, CFX and the CONSULTANT will jointly discuss options in defending the lawsuit. After reviewing the lawsuit, CFX will determine whether to request the participation of the CONSULTANT in the defense of the lawsuit or to request that the CONSULTANT defend CFX in such lawsuit as described in this section. CFX's failure to notify the CONSULTANT of a notice of claim will not release the CONSULTANT from any of the requirements of this section upon subsequent notification by CFX to the CONSULTANT of the notice of claim or filing of a lawsuit. CFX and the CONSULTANT will pay their own cost for the evaluation, settlement negotiations and trial, if any. However, if only one party participates in the defense of the claim at trial, that party is responsible for all of its costs, but if the verdict determines that there is joint responsibility, the costs of defense and liability for damages will be shared in the same percentage as that judicially established, provided that CFX's liability does not exceed the limits and limitations arising from Section 768.28, Florida Statutes, the doctrine of sovereign immunity, and law.

CFX is an agency of the State of Florida whose limits of liability are set forth in Section 768.28, Florida Statutes, and nothing herein shall be construed to extend the limits of liability of CFX beyond that provided in Section 768.28, Florida Statutes. Nothing herein is intended as a waiver of CFX's sovereign immunity under Section 768.28, Florida Statutes, or law. Nothing hereby shall inure to the benefit of any third party for any purpose, which might allow claims otherwise barred by sovereign immunity or operation of law. Furthermore, all of CFX's obligations are limited to the payment of no more than the amount limitation per person and in the aggregate contained in Section 768.28, Florida Statutes, except for payments for work properly performed, even if the sovereign immunity limitations of that statute are not otherwise applicable to the matters as set forth herein.

The obligations in Section 12.0, Hold Harmless and Indemnification, shall survive the expiration or termination of this Agreement and continue in full force and effect.

13.0. INFRINGEMENT OF PATENTS AND COPYRIGHTS

The CONSULTANT shall pay all royalties and assume all costs arising from the use of any invention, design, process materials, equipment, product or device which is the subject of patent rights or copyrights. The CONSULTANT shall, at its expense, hold harmless and defend CFX against any claim, suit or proceeding brought against CFX which is based upon a claim, whether rightful or otherwise, that

the goods or services, or any part thereof, furnished under this Agreement, constitute an infringement of any patent or copyright of the United States. The CONSULTANT shall pay all damages and costs awarded against CFX. The obligations in Section 13.0, Infringement of Patents and Copyrights, shall survive the expiration or termination of this Agreement and continue in full force and effect.

14.0. THIRD PARTY BENEFICIARY

The CONSULTANT warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the CONSULTANT to solicit or secure this Agreement, and that the CONSULTANT has not paid or agreed to pay any person, company, corporation, individual or firm, other than a bona fide employee working solely for the CONSULTANT any fee, commission, percentage, gift or any other consideration, contingent upon or resulting from the award or making of this Agreement. It is understood and agreed that the term "fee" shall also include brokerage fee, however denoted. For the breach or violation of this paragraph, CFX shall have the right to terminate this Agreement without liability, and, at its discretion, to deduct from the contract price, or otherwise recover, the full amount of such fee, commission percentage, gift or consideration.

15.0. INSURANCE

The CONSULTANT, at its own expense, shall keep in force and at all times maintain during the term of this Agreement all insurance of the types and to the limits specified herein.

The CONSULTANT shall require and ensure that each of its subconsultants providing services hereunder procures and maintains, until the completion of the services, insurance of the requirements, types and to the limits specified herein. Upon request from CFX, the CONSULTANT shall furnish copies of certificates of insurance and endorsements evidencing coverage of each subconsultant.

The CONSULTANT shall require all insurance policies in any way related to the work and secured and maintained by the CONSULTANT to include clauses stating each underwriter shall waive all rights of recovery, under subrogation or otherwise, against CFX. The CONSULTANT shall require of subconsultants, by appropriate written agreements, similar waivers each in favor of all parties enumerated in this section. When required by the insurer, or should a policy condition not permit an endorsement, the CONSULTANT agrees to notify the insurer and request that the policy(ies) be endorsed with a Waiver of Transfer of Rights of Recovery Against Others, or an equivalent endorsement. This Waiver of Subrogation requirement shall not apply to any policy, which includes a condition that specifically prohibits such an endorsement or voids coverage should the CONSULTANT enter into such an agreement on a pre-loss basis. At the CONSULTANT's expense, all limits must be maintained.

15.1 Commercial General Liability coverage shall be on an occurrence form policy for all operations including, but not limited to, Contractual, Products and Completed Operations, and Personal Injury. The limits shall be not less than One Million Dollars (\$1,000,000) per occurrence, Combined Single Limits (CSL) or its equivalent. The general aggregate limit shall apply separately to this Agreement (with the ISO CG 25 01 or insurer's equivalent endorsement provided to CFX) or the general aggregate limit shall be twice the required occurrence limit. CFX shall be listed as an additional insured. ISO Form CG 20 10 11 85 or if not available, ISO Forms CG 20 10 10 01 and CG 20 37 10 01, or if not

available, their equivalent acceptable to CFX, shall be used to meet these requirements and a photocopy of same shall be provided with the Certificate. The CONSULTANT further agrees coverage shall not contain any endorsement(s) excluding or limiting Product/Completed Operations, Independent Consultants, Broad Form Property Damage, X-C-U Coverage, Contractual Liability, or Severability of Interests. The Additional Insured Endorsement included on all such insurance policies shall state that coverage is afforded the additional insured with respect to claims arising out of operations performed by or on behalf of the insured. If the additional insureds have other insurance which is applicable to the loss, such other insurance shall be excess to any policy of insurance required herein. The amount of the insurer's liability shall not be reduced by the existence of such other insurance.

15.2 Business Automobile Liability coverage shall be on an occurrence form policy for all owned, non-owned and hired vehicles issued on ISO form CA 00 01 or its equivalent. The limits shall be not less than One Million Dollars (\$1,000,000) per occurrence/annual aggregate. In the event the CONSULTANT does not own automobiles the CONSULTANT shall maintain coverage for hired and non-owned auto liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

Each of the above insurance policies shall include the following provisions: (1) The standard severability of interest clause in the policy and when applicable the cross liability insurance coverage provision which specifies that the inclusion of more than one insured shall not operate to impair the rights of one insured against another insured, and the coverages afforded shall apply as though separate policies had been issued to each insured; (2) The stated limits of liability coverage for Commercial/Comprehensive General Liability, and Business Automobile Liability, assumes that the standard "supplementary payments" clause will pay in addition to the applicable limits of liability and that these supplementary payments are not included as part of the insurance policies limits of liability.

15.3 Workers' Compensation and Employer's Liability Insurance shall be provided as required by law or regulation (statutory requirements). Employer's Liability insurance shall be provided in amounts not less than \$100,000 per accident for bodily injury by accident, \$100,000 per employee for bodily injury by disease, and \$500,000 policy limit by disease. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of CFX for all work performed by the CONSULTANT, its employees, agents and subconsultants.

15.4 Professional Liability Coverage shall have limits of not less than One Million Dollars (\$1,000,000) per claim / annual aggregate, protecting the selected firm or individual against claims of CFX for negligence, errors, mistakes or omissions in the performance of services to be performed and furnished by the CONSULTANT.

The CONSULTANT shall provide CFX with Certificate(s) of Insurance with required endorsements on all the policies of insurance and renewals thereof in a form(s) acceptable to CFX. CFX shall be notified in writing of any reduction, cancellation or substantial change of policy or policies at least thirty (30) days prior to the effective date of said action.

All insurance policies shall be issued by responsible companies who are acceptable to CFX and licensed to do business under the laws of the State of Florida. Each Insurance company shall minimally have an A.M. Best rating of A-VII. If requested by CFX, CFX shall have the right to examine copies and relevant provisions of the insurance policies required by this Agreement, subject to the appropriate confidentiality provisions to safeguard the proprietary nature of CONSULTANT manuscript policies.

In the event any of the aforementioned insurance policies provide greater coverage or greater limits than the minimum requirements set forth herein, then CFX shall be entitled to the full coverage and limits of such policies, and these insurance requirements will be deemed to require such greater coverage and greater limits.

Any deductible or self-insured retention must be declared to and approved by CFX. At the option of CFX, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as requests CFX, or the CONSULTANT shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

All such insurance required by the CONSULTANT shall be primary to, and not contribute with, any insurance or self-insurance maintained by CFX.

Compliance with these insurance requirements shall not relieve or limit the CONSULTANT's liabilities and obligations under this Agreement. Failure of CFX to demand such certificate or evidence of full compliance with these insurance requirements or failure of CFX to identify a deficiency from evidence provided will not be construed as a waiver of the CONSULTANT's obligation to maintain such insurance.

The acceptance of delivery by CFX of any certificate of insurance evidencing the required coverage and limits does not constitute approval or agreement by CFX that the insurance requirements have been met or the insurance policies shown in the certificates of insurance are in compliance with the requirements.

16.0. COMMUNICATIONS, PUBLIC RELATIONS, AND USE OF LOGOS

The CONSULTANT agrees that it shall make no statements, press releases or publicity releases concerning this Agreement or its subject matter or otherwise disclose or permit to be disclosed any of the data or other information obtained or furnished in compliance with this Agreement, or any particulars thereof, during the period of the Agreement, without first notifying CFX and securing its consent in writing, except as required by law. The CONSULTANT also agrees that it shall not publish, copyright or patent any of the data, documents, reports, or other written or electronic materials furnished in compliance with this Agreement, it being understood that, under Section 7.0 hereof, such data or information is the property of CFX.

Regarding the use of logos, printed documents and presentations produced for CFX shall not contain the name or logo of the CONSULTANT unless approved by CFX's Public Affairs Officer or his/her designee. Prior approval by CFX's Public Affairs Officer or his/her designee is required if a copy of the CFX logo or any CFX mark, including trademarks, service marks, or any other mark, collectively referred as "Marks," is to be used in a document or presentation. The Marks shall not be altered in any way. The width and height of the Marks shall be of equal proportions. If a black and white Mark is utilized, the Mark shall be properly screened to insure all layers of the Mark are visible. The proper presentation of CFX Marks is of utmost importance to CFX. Any questions regarding the use of CFX Marks shall be directed to the CFX Public Affairs Officer or his/her designee.

17.0. CONFLICT OF INTEREST AND STANDARD OF CONDUCT

No Contingent Fees. CONSULTANT warrants that it has not employed or retained any entity or person, other than a bona fide employee working solely for CONSULTANT, to solicit or secure this Contract, and that CONSULTANT has not paid or agreed to pay any person, company, corporation, individual or firm any fee, commission, percentage, gift or any other consideration, contingent upon or resulting from the award or making of this Contract. It is understood and agreed that the term "fee" shall also include brokerage fee, however denoted. For breach of this provision, CFX shall have the right to terminate this Contract without liability, and, at its discretion, to deduct from the contract price, or otherwise recover, the full amount of such fee, commission percentage, gift or consideration.

CONSULTANT acknowledges that CFX officials and employees are prohibited from soliciting and accepting funds or gifts from any person who has, maintains, or seeks business relations with CFX in accordance with CFX's Code of Ethics. CONSULTANT acknowledges that it has read the CFX's Code of Ethics and, to the extent applicable, CONSULTANT will comply with the aforesaid CFX's Code of Ethics in connection with performance of the Contract.

As required by Section 348.753, Florida Statutes, and CFX's Code of Ethics, CONSULTANT agrees to complete CFX's Potential Conflict Disclosure Form prior to the execution of the Contract, upon the occurrence of an event that requires disclosure, and annually, not later than July 1st.

CONSULTANT covenants and agrees that it and its employees, officers, agents, and subconsultants shall be bound by the standards of conduct provided in Section 112.313, Florida Statutes, as it relates to work performed under this Contract, which standards will be reference be made a part of this Contract as though set forth in full. The CONSULTANT agrees to incorporate the provisions of this paragraph in any subcontract into which it might enter with reference to the work performed.

CONSULTANT hereby certifies that no officer, agent or employee of CFX has any "material interest" (as defined in Section 112.312(15), Florida Statutes) either directly or indirectly, in the business of CONSULTANT, and that no such person shall have any such interest at any time during the term of this Agreement.

The CONSULTANT shall not knowingly enter into any other contract with CFX during the term of this Agreement which would create or involve a conflict of interest with the services provided herein. Likewise, subconsultants shall not knowingly enter into any other contract with CFX during the term of this Agreement which would create or involve a conflict of interest with the service provided herein and as described below. Questions regarding potential conflicts of interest shall be addressed to the Executive Director for resolution.

During the term of this Agreement the CONSULTANT is NOT eligible to pursue any advertised construction engineering and inspection projects of CFX as either a prime or subconsultant where the CONSULTANT participated in the oversight of the projects or for any project which the CONSULTANT prepared plans and/or specifications. Subconsultants are also ineligible to pursue construction engineering and inspection projects where they participated in the oversight of the projects or for any project which the subconsultant was involved in the preparation of plans and/or specifications.

18.0. DOCUMENTED ALIENS

The CONSULTANT warrants that all persons performing work for CFX under this Agreement, regardless of the nature or duration of such work, shall be United States citizens or properly authorized and documented aliens. The CONSULTANT shall comply with all federal, state and local laws and regulations pertaining to the employment of unauthorized or undocumented aliens at all times during the performance of this Agreement and shall indemnify and hold CFX harmless for any violations of the same. Furthermore, if CFX determines that CONSULTANT has knowingly employed any unauthorized alien in the performance of this Agreement, CFX may immediately and unilaterally terminate this Agreement for cause.

The obligations in Section 18.0, Documented Aliens, shall survive the expiration or termination of this Agreement and continue in full force and effect.

19.0. E-VERIFY CLAUSE

CONSULTANT shall utilize the U.S. Department of Homeland Security's E-Verify System to verify the employment eligibility of all new employees hired by the CONSULTANT during the term of the contract. CONSULTANT shall require all of its subconsultants to verify the employment eligibility of all new employees hired by the subconsultants during the term of the Agreement.

20.0. INSPECTOR GENERAL

CONSULTANT agrees to comply with Section 20.055(5), Florida Statutes, and agrees to cooperate with the inspector general in any investigation, audit, inspection, review, or hearing pursuant to this section. CONSULTANT agree to incorporate in all subcontracts the obligation to comply with Section 20.055(5). The obligations in this paragraph shall survive the expiration or termination of this Agreement and continue in full force and effect.

21.0. PUBLIC ENTITY CRIME INFORMATION AND ANTI-DISCRIMINATION STATEMENT

Pursuant to Section 287.133(2)(a), Florida Statutes,
“a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold

amount provided in s. 287.017 for CATEGORY TWO (\$35,000) for a period of 36 months following the date of being placed on the convicted vendor list.”

Pursuant to Section 287.134(2)(a), Florida Statutes, “an entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity.”

22.0. COMPANIES PURSUANT TO SECTION 287.135 AND 215.473

CFX may terminate this Agreement for breach of contract if the Consultant:

- 22.1. submitted a false certification as provided under Florida Statute 287.135(5); or
- 22.2. been placed on the Scrutinized Companies with Activities in Sudan List; or
- 22.3. been placed on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List; or
- 22.4. been engaged in business operations in Cuba or Syria; or
- 22.5. found to have been placed on the Scrutinized Companies that Boycott Israel List or is engaged in a boycott of Israel.

23.0. AVAILABILITY OF FUNDS

CFX’s performance and obligation to pay under this Agreement are contingent upon an annual budget appropriation by its Board. The parties agree that in the event funds are not appropriated, this Agreement may be terminated, which shall be effective upon CFX giving notice to the CONSULTANT to that effect.

24.0. AUDIT AND EXAMINATION OF RECORDS

24.1 Definition of Records:

(i) “Contract Records” shall include, but not be limited to, all information, communications and data, whether in writing or stored on a computer, computer disks, microfilm, writings, working papers, drafts, computer printouts, field notes, charts or any other data compilations, books of account, photographs, videotapes and audiotapes supporting documents, any other papers or preserved data in whatever form, related to the Contract or the CONSULTANT’s performance of the Contract determined necessary or desirable by CFX for any purpose. Proposal Records shall include, but not be limited to, all information and data, whether in writing or stored on a computer, writings, working papers, computer printouts, charts or other data compilations that contain or reflect information, data or calculations used by CONSULTANT in determining labor, unit price, or any other component of a bid submitted to CFX.

(ii) "Proposal Records" shall include, but not be limited to, any material relating to the determination or application of equipment rates, home and field overhead rates, related time schedules, labor rates, efficiency or productivity factors, arithmetic extensions, quotations from subcontractors, or material suppliers, profit contingencies and any manuals standard in the industry that may be used by CONSULTANT in determining a price.

24.2 CFX reserves and is granted the right (at any time and from time to time, for any reason whatsoever) to review, audit, copy, examine and investigate in any manner, any Contract Records (as herein defined) or Proposal Records (as hereinafter defined) of the CONSULTANT or any subcontractor. By submitting a response to the Request for Proposal, CONSULTANT or any subcontractor submits to and agree to comply with the provisions of this section.

24.3 If CFX requests access to or review of any Contract Documents or Proposal Records and CONSULTANT refuses such access or review or delays such access or review for over ten (10) calendar days, CONSULTANT shall be in default under its Contract with CFX, and such refusal shall, without any other or additional actions or omissions, constitute grounds for suspension or disqualification of CONSULTANT. These provisions shall not be limited in any manner by the existence of any CONSULTANT claims or pending litigation relating to the Contract. Disqualification or suspension of the CONSULTANT for failure to comply with this section shall also preclude the CONSULTANT from acting in the future as a subcontractor of another contractor doing work for CFX during the period of disqualification or suspension. Disqualification shall mean the CONSULTANT is not eligible for and shall be precluded from doing future work for CFX until reinstated by CFX.

24.4 Final Audit for Project Closeout: The CONSULTANT shall permit CFX, at CFX's option, to perform or have performed, an audit of the records of the CONSULTANT and any or all subconsultants to support the compensation paid the CONSULTANT. The audit will be performed as soon as practical after completion and acceptance of the contracted services. In the event funds paid to the CONSULTANT under the Contract are subsequently determined to have been inadvertently paid by CFX because of accounting errors or charges not in conformity with the Contract, the CONSULTANT agrees that such amounts are due to CFX upon demand. Final payment to the CONSULTANT shall be adjusted for audit results.

24.5 CONSULTANT shall preserve all Proposal Records and Contract Records for the entire term of the Contract and for a period of five (5) years after the later of: (i) final acceptance of the project by CFX, (ii) until all claims (if any) regarding the Contract are resolved, or (iii) expiration of the Proposal Records and Contract Records' status as public records, as and if applicable, under Chapter 119, Florida Statutes.

24.6 The obligations in Section 24.0, Audit and Examination of Records, shall survive the expiration or termination of this Agreement and continue in full force and effect.

25.0. GOVERNING LAW AND VENUE

This Agreement shall be governed by and constructed in accordance with the laws of the State of Florida. The parties consent to the exclusive jurisdiction of the courts located in Orange County, Florida. The obligations in Section 25.0, Governing Law and Venue, shall survive the expiration or termination of this Agreement and continue in full force and effect.

26.0. NOTICE

All notices required pursuant to the terms hereof shall be sent by First Class United States Mail. Unless prior written notification of an alternate address for notices is sent, all notices shall be sent to the following addresses:

To CFX: Central Florida Expressway Authority
4974 ORL Tower Road
Orlando, FL 32807
Attn: Chief of Infrastructure

Central Florida Expressway Authority
4974 ORL Tower Road
Orlando, FL 32807
Attn: General Counsel

To CONSULTANT: Kimley-Horn and Associates, Inc.
189 S. Orange Avenue, Suite 1000
Orlando, FL 32801
Attn: Fred Burkett, P.E.

Kimley-Horn and Associates, Inc.
189 S. Orange Avenue, Suite 1000
Orlando, FL 32801
Attn: Clif Tate, P.E.

27.0. HEADINGS

Headings are given to the sections of the Agreement solely as a convenience to facilitate reference. Such headings shall not be deemed in any way material or relevant to the construction or interpretation of the Agreement.

28.0. CONTRACT LANGUAGE AND INTERPRETATION

All words used herein in the singular form shall extend to and include the plural. All words used in the plural form shall extend to and include the singular. All words used in any gender shall extend to and include all genders.

References to statutes or regulations shall include all statutory or regulatory provisions consolidating, amending, or replacing the statute or regulation referred to. Words not otherwise defined

that have well known technical or industry meanings, are used in accordance with such recognized meanings. References to persons include their respective functions and capacities.

If the CONSULTANT discovers any material discrepancy, deficiency, ambiguity, error, or omission in this Agreement, or is otherwise in doubt as to the meaning of any provision of the Agreement, the CONSULTANT shall immediately notify CFX and request clarification of CFX's interpretation of this Agreement.

The Agreement shall not be more strictly construed against either party hereto by reason of the fact that one party may have drafted or prepared any or all of the terms and provisions hereof.

29.0. ASSIGNMENT

This Agreement may not be assigned without the written consent of CFX.

30.0. SEVERABILITY

The invalidity or non-enforceability of any portion or provision of this Agreement shall not affect the validity or enforceability of any other portion or provision. Any invalid or unenforceable portion or provision shall be deemed severed from this Agreement and the balance hereof shall be construed and enforced as if this Agreement did not contain such invalid or unenforceable portion or provision.

31.0. INTEGRATION

This Agreement constitutes the entire agreement among the parties pertaining to the subject matter hereof and supersedes all prior and contemporaneous agreements, understandings, negotiations and discussions of the parties, whether oral or written, and there are no other agreements between the parties in connection with the subject matter hereof. No waiver, amendment, or modification of these terms hereof will be valid unless in writing, signed by all parties and only to the extent therein set forth.

32.0. ATTACHMENTS

- Exhibit "A", Scope of Services
- Exhibit "B", Method of Compensation
- Exhibit "C", Details of Cost and Fees
- Exhibit "D", Project Organization Chart
- Exhibit "E", Project Location Map [Note: Attach if applicable]
- Exhibit "F", Project Schedule [Note: Attach if applicable]
- Exhibit "G", Potential Conflict Disclosure Form

[SIGNATURES TO FOLLOW]

IN WITNESS WHEREOF, the CONSULTANT and CFX have caused this instrument to be signed by their respective duly authorized officials, as of the day and year first above written. This Contract was awarded by CFX's Governing Board at its meeting on June 11, 2020.

KIMLEY-HORN AND ASSOCIATES, INC.

**CENTRAL FLORIDA
EXPRESSWAY AUTHORITY**

BY: _____
Authorized Signature

BY: _____
Director of Procurement

Print Name: _____

Print Name: _____

Title: _____

Effective Date: _____

ATTEST: _____ (Seal)
Secretary or Notary

Approved as to form and execution, only.

General Counsel for CFX

EXHIBIT A

SCOPE OF SERVICES

EXHIBIT A

SCOPE OF SERVICES
FOR
CR 532 (OSCEOLA POLK LINE ROAD) WIDENING
FROM LAKE WILLSON ROAD TO US 17 (S. ORANGE BLOSSOM TRAIL)

CENTRAL FLORIDA EXPRESSWAY AUTHORITY (CFX) CONTRACT # 001649

OSCEOLA COUNTY

April 24, 2020

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**SCOPE OF SERVICES FOR CONSULTING ENGINEERING SERVICES
HIGHWAY AND BRIDGE/STRUCTURAL DESIGN**

This Exhibit forms an integral part of the agreement between the Central Florida Expressway Authority (herein referred to as CFX) and Kimley-Horn (hereinafter referred to as the CONSULTANT) relative to the transportation facility described as follows:

CFX CONTRACT #: 001649

Federal Aid Project No.: N/A

County Section No.: N/A

Description: CR 532 (Osceola Polk Line Road) from Lake Wilson Road to US 17 (S. Orange Blossom Trail)

Bridge No(s): N/A

Rail Road Crossing No: DOT 622956D

Context Classification: C3R – Suburban Residential (transitioning from rural, and corridor also contains public service and utility facilities and commercial properties)

1 PURPOSE

The purpose of this Exhibit is to describe the scope of work and the responsibilities of the CONSULTANT and CFX in connection with the design and preparation of a complete set of construction contract documents and incidental engineering services, as necessary, for improvements to the transportation facility described herein. Osceola County (herein after referred to as COUNTY) is participating in this project through CSX and will be included in all correspondence, meetings, design decisions, reviews of documents and plans, and associated concurrences / approvals.

Major work groups include:

3.2 Major Highway Design

Minor work groups include:

2.0 Project Development and Environmental Studies

4.1.1 Miscellaneous Structures

6.1 Traffic Engineering Studies

6.2 Traffic Signal Timing

6.3.1 Intelligent Transportation Systems Analysis and Design

6.3.2 Intelligent Transportation Systems Implementation

6.3.3 Intelligent Transportation Traffic Engineering Systems Communications

7.1 Signing, Pavement Marking & Channelization

7.2 Lighting

7.3 Signalization

8.1 Control Surveying

- 8.2 Design Right of Way, and Construction Surveying
- 8.4 Right of Way Mapping
- 9.1 Soil Exploration
- 9.2 Geotechnical Lab Testing
- 9.4.1 Standard Foundation Studies

Known alternative construction contracting methods include: N/A

The general objective is for the CONSULTANT to prepare a set of contract documents including plans, specifications, supporting engineering analysis, calculations and other technical documents in accordance with Florida's Department of Transportation (herein after referred to as FDOT or the DEPARTMENT) policy, procedures and requirements. These Contract documents will be used by the contractor to build the project and test the project components. These Contract documents will be used by CFX or its Construction Engineering Inspection (CEI) representatives for inspection and final acceptance of the project. The CONSULTANT shall follow a systems engineering process to ensure that all required project components are included in the development of the Contract documents and the project can be built as designed and to specifications.

The Scope of Services establishes which items of work in the FDOT Design Manual and other pertinent manuals are specifically prescribed to accomplish the work included in this contract and indicate which items of work will be the responsibility of the CONSULTANT, CFX, and/or the COUNTY.

The CONSULTANT shall be aware that as a project is developed, certain modifications and/or improvements to the original concepts may be required. The CONSULTANT shall incorporate these refinements into the design and consider such refinements to be an anticipated and integral part of the work. This shall not be a basis for any supplemental fee request(s).

The CONSULTANT shall demonstrate good project management practices while working on this project. These include communication with CFX, COUNTY, and others as necessary, management of time and resources, and documentation. The CONSULTANT shall set up and maintain throughout the design of the project a contract file in accordance with CFX and COUNTY procedures. CONSULTANTS are expected to know the laws and rules governing their professions and are expected to provide services in accordance with current regulations, codes and ordinances and recognized standards applicable to such professional services. The Consultant shall provide qualified technical and professional personnel to perform to CFX and COUNTY standards and procedures, the duties and responsibilities assigned under the terms of this agreement. The Consultant shall minimize to the maximum extent possible CFX and the COUNTY need to apply its own resources to assignments authorized by CFX and the COUNTY.

CFX and the COUNTY will provide contract administration, management services, and technical reviews of all work associated with the development and preparation of contract documents, including Construction documents. CFX and COUNTY technical reviews are for high-level conformance and are not meant to be comprehensive reviews. The CONSULTANT shall be fully responsible for all work performed and work products developed under this Scope of Services. CFX and the COUNTY may provide job-specific information and/or functions as outlined in this contract, if favorable.

2 PROJECT DESCRIPTION

The CONSULTANT shall investigate the status of the project and become familiar with concepts and commitments (typical sections, alignments, etc.) developed from prior studies and/or activities.

This project consists of a project development study (Part 'A' of this Scope) followed by development of a design plans for construction (Part 'B' of this Scope) of CR 532 (Osceola Polk Line Road) from Lake Wilson Road to US 17 (S. Orange Blossom Trail). The total project length is approximately 2.9 miles and extends from the existing four-lane section on the east side of the Lake Wilson Road intersection across the R.R. crossing west of US 17, whereupon the roadway will transition back to a two-lane section. The limits include the intersection for the extension of the Poinciana Parkway as identified in the separate PD&E study performed for CFX (CFX Project No. 599-224).

The project includes construction of a four-lane divided roadway with multimodal accommodations as determined in the project development study, associated drainage improvements and storm water ponds, upgrading the Intelligent Transportation System, improving a CSX R.R. crossing, street lighting, and landscaping considerations. The design shall adhere to all applicable Federal, State and FDOT regulations and be in accordance with the Florida Design Manual (FDM). The CONSULTANT shall review and summarize related studies/reports and incorporate their results in the design. The CONSULTANT shall coordinate work activities with any completed/ongoing/planned projects that may affect this project.

All electronic documents prepared by the CONSULTANT must be formatted in compliance with Section 508 of the Rehabilitation Act, so they can be accessed by people with disabilities if posted on the CFX and/or COUNTY websites.

PART 'A'

The CONSULTANT shall prepare a comprehensive Project Development Technical Memorandum and associated documents and conduct a public meeting in accordance to the following sections of Part 'A'. These items will be used to initiate the design phase in PART 'B' of this scope, upon written authorization by CFX and the COUNTY, and to support this Project's Right-of-Way acquisition phase as necessary. (Note: the activities and tasks within Part 'A' closely follow the numbering of the standard FDOT staff-hour format for PD&E Studies, with an "A" placed in front of the numbers.)

A.1 ENGINEERING ANALYSES AND CONSIDERATIONS

The CONSULTANT will gather and review existing data from CFX and the COUNTY, such as transportation planning data developed for long range plans or any previously completed technical studies within the project area and will collect additional data necessary to supplement existing data. The CONSULTANT will prepare the purpose and need statement for the Project based on the information obtained from the existing data, safety analysis, evaluation of existing conditions, evaluation of traffic projections, and input received through the public involvement process. The CONSULTANT shall develop and analyze conceptual design alternatives to address the Project needs and objectives. Based on engineering analysis, the public involvement process, and environmental analysis, CFX and the COUNTY will provide concurrence on a proposed design concept to advance to the design phase.

A.1.1 Existing Conditions Analysis

The CONSULTANT will conduct field observations to review existing field conditions, verify desktop data, and obtain additional data required to understand the Project area, assess Project needs, identify physical and environmental constraints, develop and analyze Project alternatives, and assess constructability issues. The CONSULTANT will collect data describing existing conditions and characteristics of the Project including roadway geometrics, typical section elements, signalization and other operational features, access features, and right of way requirements, and other data applicable to modes and sub-modes of transportation, including walking/pedestrians, bicyclists, public transit users (including transit vehicles and riders), paratransit users (carpools, vanpools, taxis, shuttles, jitneys, school buses, coach buses), and freight (including loading/unloading and parking, emergency response vehicles, service vehicles, and freight handler vehicles). The CONSULTANT will furnish necessary exhibits for use in this Project, such as a Project Location Map, Corridor Maps, and Concept Plans.

A.1.2 Planning Consistency - Transportation Plans

The CONSULTANT will coordinate with CFX and the COUNTY to obtain and review transportation plans throughout the life of the Project for all modes of transportation including freight, transit, and non-motorized. The following plans or studies should be reviewed as appropriate:

- MetroPlan Orlando adopted Long Range Transportation Plan (LRTP) Cost Feasible and Needs Plans
- Local Government Transportation Improvement Plan (TIP)

- State Transportation Improvement Program (STIP)
- Urban Area Transportation Study
- Local Government Comprehensive Plan (LGCP)
- Local Transit Development Plans (TDP) for bus, rail, or other services
- Non-motorized (bicycle and pedestrian) Plans

A.1.3 Traffic Analysis

Traffic data will be furnished by CFX. The CONSULTANT will review the Project Traffic Forecast and Traffic Analysis Report. This report will be a separate document that is summarized in the Project Development Technical Memorandum.

A.1.3.1 Traffic Analysis Methodology

The CONSULTANT will review the traffic data and forecasts provided by CFX to determine intersection geometry for the corridor.

A.1.3.2 Traffic Counts

CFX will provide the following design traffic data:

1. Current year and design year AADT
2. Current year and design year DDHV
3. Turning movement counts at each intersection
4. K, D, and T factors
5. Design Speed
6. AVI percentages

A.1.3.3 Vehicle Classification Counts on Roadway Segments and Ramps – N/A (to be performed by CFX in-house traffic consultant)

A.1.3.4 Pedestrian, Bicycle and Other Multimodal Data

CFX will provide the following additional existing traffic data:

- Pedestrian counts
- Bicycle counts
- Freight movement

The CONSULTANT will collect the following additional existing traffic data:

- Transit data

A.1.3.5 Calibration and Validation Data – N/A (to be performed by CFX in-house traffic consultant)

A.1.3.6 Existing Traffic Operational Analysis – N/A (to be performed by CFX in-house traffic consultant)

A.1.3.7 Calibration and Validation – N/A (to be performed by CFX in-house traffic consultant)

A.1.3.8 Signalization Analysis

In coordination with CFX and the COUNTY, the CONSULTANT shall perform signalization analysis and/or signal warrant studies at the Project's intersections and propose a preliminary signal timing plan and signal operation plan for each intersection that requires signalization.

A.1.3.9 Project Traffic Analysis Report

The CFX in-house traffic consultant will prepare the Project Traffic Analysis Report (PTAR) to document development of design traffic volumes and results of the traffic analysis, which will incorporate the transit, bicycle, and pedestrian analysis performed by the Project's CONSULTANT (results must be shown on diagrams and discussed in the report).

A.1.3.10 Transportation Systems Management and Operations – N/A

A.1.4 Development of Alternatives

The CONSULTANT will identify, develop, assess, and screen preliminary potential Project alternatives, which will consist of alternative alignments, typical sections, and combinations thereof. By considering project goals and objectives, and purpose and need, the CONSULTANT in consultation with CFX and the COUNTY will identify and document alternatives to be eliminated from further detailed study.

A.1.4.1 Operational Evaluation

The CONSULTANT will analyze the operational performance of viable or feasible alternative(s) for opening and design years and any interim years as appropriate. The analysis must include multimodal evaluation for pedestrian, bicycle, and transit modes as appropriate. The analysis will also include evaluation of access management in relation to traffic safety and operational efficiency within the Study Area.

A.1.5 Signage

The CONSULTANT will evaluate existing signing and signage requirements for the Project.

A.1.6 Safety

A.1.6.1 Crash Data

The CONSULTANT will obtain the most recent five (5) years of available data from the COUNTY and other local sources for this Project. The crash data will include the number and type of crashes, crash locations, number of fatalities and injuries, and estimates of property damage and economic loss as available.

A.1.6.2 Safety Analysis

The CONSULTANT will perform safety analysis based on the information obtained from the crash data and identify project safety needs associated with the existing and future conditions. The CONSULTANT will use the Highway Safety Manual (HSM) procedures to estimate the safety performance of the Project alternatives.

A.1.6.3 Documentation of Safety Analysis

The CONSULTANT will document the results of the safety analysis in the Technical Memorandum.

A.1.7 Utilities

It is anticipated that the following Utility Agency Owners (UAOs) are within or adjacent to the Project, but it is the responsibility of the CONSULTANT to determine the final list of UAOs within the project area: Charter Communications, Kinder Morgan / Central Florida Pipeline (fuel oil), Duke Energy (electric transmission, distribution and fiber), Florida Southeast Connection (gas), Toho Water Authority (Zone 1, water and wastewater), Gulfstream Natural Gas System, Frontier Communications, CenturyLink (fiber), Comcast, MCI (fiber), Summit Broadband (fiber), Osceola County Traffic (signals), Orlando Utilities Commission (lighting), TECO Peoples Gas, Polk County Utilities (water and wastewater), Spectra Energy – Sabal Trail (gas), Uniti Fiber, Transtate Industrial Pipeline Systems (gas). These utilities include a Sabal Trail gas compression station, a Toho Water Authority water treatment plant, and Duke Energy sub-station within the project limits.

The CONSULTANT will notify the UAOs within the Project and request existing and planned utility information for major above ground and subsurface facilities within the Project. The CONSULTANT will meet with each UAO as necessary, separately or together, to understand utility conflicts and project potential impacts on utilities. The CONSULTANT will evaluate and consider potentially significant utility conflicts as they may affect the chosen corridor and/or alignment. While evaluating potential impacts and recommending mitigation strategies, the CONSULTANT should refrain from making any compensability determinations in any of the documentation/assessments that they create.

A.1.8 Railroads

The CONSULTANT shall coordinate with CSX for necessary design and permit requirements to improve the existing R.R. crossing west of the US 17 intersection including minimum median width, type of crossing (e.g. concrete slab), and potential reuse and relocation of existing signal equipment.

A.1.9 Roadway Analysis

A.1.9.1 Design Controls and Criteria

The CONSULTANT will prepare design controls and criteria for developing Project alternatives and designing initial geometrics and other roadway elements according to FDOT standards.

A.1.9.2 Typical Section Analysis

The CONSULTANT will develop conceptual typical sections for the Project alternatives which address transportation needs.

A.1.9.3 Geometric Design

The CONSULTANT will perform geometric design using the established Project design controls and criteria. The CONSULTANT will also use Project traffic data and results of traffic analysis to design appropriate roadway elements. The CONSULTANT will establish both preliminary vertical profile and horizontal alignments of the mainline. The design of Project alternatives must consider environmental constraints, physical constraints, and any additional information, as required. For each alternative evaluated in detail, the CONSULTANT shall prepare sketches of plan, profile, and typical sections as appropriate to show existing features, proposed geometry, and location of any environmental and geometric design constraints.

A.1.9.4 Access Management

The CONSULTANT will recommend the proper access classification and standard to be applied to the Project. The proposed access management plan will be presented as part of the public involvement process.

A.1.9.5 Multimodal Accommodations

The CONSULTANT will review, evaluate, and document the location and condition of existing pedestrian, bicycle, and public transit accommodations and freight services in the study area. This activity includes reviewing existing plans, reports, and studies that outline strategies or define projects associated with alternative modes of travel. The CONSULTANT will consider freight, pedestrian, bicycle, and transit in the development and evaluation of Project alternatives with a goal of improving overall mobility, access, connectivity, safety and efficiency. Multimodal accommodation may include analysis of on-street parking and loading zone modifications and/or removal, park and ride needs, as necessary. The CONSULTANT will consider and evaluate the existing and anticipated future use of the Project by bicyclists and pedestrians, the potential impacts of the Project alternatives on bicycle and pedestrian travel and propose measures to avoid or reduce adverse impacts to bicyclists and pedestrians that would use the Project.

A.1.9.6 Maintenance of Traffic

The CONSULTANT will evaluate alternatives for constructability and the ability to maintain traffic during construction and will include the estimated cost to maintain traffic in the construction cost estimate for the Project alternative.

A.1.9.7 Lighting

The CONSULTANT will evaluate the need for lighting in accordance with applicable manuals, guidelines, standards and current design memorandums and will include the estimated cost for lighting in the construction cost estimate for the Project alternative.

A.1.10 Structures - Bridge Analysis – N/A

A.1.11 Drainage

A.1.11.1 Floodplain and Environmental Permit Data Collection

The CONSULTANT will gather floodplain data from FEMA Flood Insurance Rate Maps, and other drainage related data needed to obtain permits from relevant sources including local government, local agencies, and regulatory agencies.

A.1.11.2 Drainage Analysis

The CONSULTANT will perform drainage analysis by delineating the basin boundaries by using LiDAR information, existing survey data, and field observations. The CONSULTANT will analyze and determine high water elevations in each basin and use the information to establish the preliminary roadway profile. Drainage analysis will also include checking the capacity and structural adequacy of existing cross drains, preliminary design of potential cross drain and outfall structures and identifying the recommended conceptual drainage design for the Project.

A.1.11.3 Floodplain Compensation Analysis

For each roadway alternative, the CONSULTANT will determine base floodplain elevations and estimate encroachments and appropriate compensation provisions, including floodplain compensation site requirements.

A.1.11.4 Stormwater Management Analysis

The CONSULTANT will calculate the stormwater quality and attenuation requirements and estimate the stormwater management facility needs for each roadway alternative. The CONSULTANT will identify two practical pond sites in each basin for each project alternative, estimate construction cost, compare the sites, and identify in coordination with CFX and the COUNTY a preferred pond site for each basin. Additionally, the CONSULTANT will identify inflow or outfall easement requirements for each pond site. If additional pond sites are revealed, they will be used as a potential option.

A.1.11.5 Bridge Hydraulic Evaluation – N/A

A.1.12 Survey and Geotechnical Investigation

No survey or geotechnical services are identified for PART 'A'. However, if it's deemed necessary CFX can authorize the CONSULTANT in writing to advance certain survey and/or geotechnical services from PART 'B' to PART 'A' for this Project.

A.1.13 Landscaping Analysis

The CONSULTANT will coordinate with Osceola Co on selective clearing and grubbing approach.

A.1.14 Construction Cost Estimates

The CONSULTANT will develop construction cost estimates including traffic management.

A.1.15 Right of Way Cost Estimates

The CONSULTANT will establish construction limits and determine the minimum (proposed) right of way requirements throughout the limits of the Project. Establishment of

construction limits will consider drainage features, the transportation management plan, utility relocations, stormwater pond requirements, and identified environmental issues, among other factors. The CONSULTANT will compare the existing right of way width with the proposed right of way requirements to estimate the amount of right of way that CFX and/or the COUNTY must acquire. CFX will estimate the cost for right of way acquisition and cost estimates for relocations and business damages, if any, and submit concept plans for the preferred alternative that include existing right of way lines, proposed right of way lines, and delineate individual parcels and associated acreage of property required.

A.1.16 Alternatives Evaluation

The CONSULTANT will prepare a matrix which compares the impacts, performance, and costs of the alternatives evaluated.

A.1.17 Concept Plans

The CONSULTANT will prepare concept plans for the preferred alternative overlaid on the base map at 50 scale. The base map will contain an aerial photography provided by CFX. The base map must show environmental issues that are specific to the Study Area such as cemeteries, wetlands, historic properties, high-risk contamination sites, public parks, and property lines. The CONSULTANT will prepare base maps for the following uses:

- Overall Project Location Map
- Overall Drainage Map
- Corridor Maps (Roll Plots)

A.1.18 Transportation Management Plan (TMP)

The CONSULTANT will prepare a Conceptual TMP with traffic control strategies for the Project. Items to consider among the Project's viable alternatives include traffic pacing, detour routes, paving approach and sequence, lane closure restrictions, and hauling routes / restrictions. The Conceptual TMP of the preferred alternative will be presented by the CONSULTANT on roll plots that include off-site and pavement drainage constraints, critical cross sections, typical sections for each proposed phase, and any traffic pacing, diversions, and/or detour routes.

A.1.19 Lighting Justification Report

The CONSULTANT shall prepare a Lighting Justification Report. The report shall provide analyses for mainlines, interchanges, and arterial roads and shall include all back-up data such that the report stands on its own. Back up data shall include current ADT's, general crash data average cost from the Florida Highway Safety Improvement Manual, crash details data from the last three years, and preliminary lighting calculations.

The report shall address warrants to determine if lighting warrants are met and shall include a benefit-cost analysis to determine if lighting is justified. The report shall include calculations for the night-to-day crash ratio as well as a table summarizing the day-time and the night-time crashes. The report shall follow the procedures outlined in the FDOT Manual on Uniform Traffic Studies (MUTS) manual which utilize ADT, Three Year Crash Data, night/day crash ratio, percentage of night ADT, etc.

A.2 ENVIRONMENTAL ANALYSIS

The CONSULTANT will collect pertinent environmental data, conduct analyses, and document the results of this analysis. This documentation can be by text and exhibit inserts into the Alternatives Technical Memorandum or by individual memorandums, e.g. for archaeological and historical features, potential contamination sites, and wetlands and endangered species, that are added as appendices and summarized in the memorandum. The CONSULTANT will analyze the Project’s viable alternatives with respect to impacts to natural, cultural, social and physical resources and document all analyses. Wherever appropriate the CONSULTANT will describe proposed measures to avoid, minimize, or mitigate project impacts on the environmental issues. The consultant will also summarize the results of analysis of environmental resources that were completed as part of another study or performed by others concurrent with this project.

A.2.1 Sociocultural Effects

THE CONSULTANT will conduct and document a sociocultural effects evaluation to assess social, economic, land use changes, mobility, aesthetics and relocations on communities with special consideration for minority, low-income, and other potentially underrepresented populations. Refer to Florida Department of Transportation (FDOT) Project Development and Environment (PD&E) Manual, Part 2 Chapter 4.2, for definitions. The following table from the PD&E Manual provides a list of sociocultural effects to be evaluated:

<p>Social</p> <ul style="list-style-type: none"> • Demographics • Community Cohesion • Safety/Emergency Response • Community Goals • Quality of Life • Special Community Designations <p>Economic</p> <ul style="list-style-type: none"> • Business & Employment • Tax Base • Traffic Patterns • Business Access • Special Needs Patrons 	<p>Land Use Changes</p> <ul style="list-style-type: none"> • Land Use – Urban Form • Local Plan Consistency • Open Space • Sprawl • Focal Points <p>Mobility</p> <ul style="list-style-type: none"> • Modal Choices <ul style="list-style-type: none"> ○ Pedestrian ○ Bicyclists ○ Transit • Transportation Disadvantaged • Connectivity • Traffic Circulation • Public Parking 	<p>Aesthetic Effects</p> <ul style="list-style-type: none"> • Noise/Vibration • Viewshed • Compatibility <p>Relocation Potential</p> <ul style="list-style-type: none"> • Residential • Non-Residential • Public Facilities
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A.2.1.1 Community Cohesion

The CONSULTANT will identify and assess potential Project impacts on physical barriers, traffic pattern changes, social pattern changes, and loss of connectivity to community features and facilities.

A.2.1.2 Special Community Designation

The CONSULTANT will identify and assess potential Project impacts on schools, churches, parks, emergency facilities, social services, daycare facilities, retirement centers, community

centers, and retail locations.

A.2.1.3 Safety / Emergency Response

The CONSULTANT will identify and assess potential Project impacts on the creation of isolated areas; emergency response time changes; and location of police, fire, emergency medical services, healthcare facilities, and government offices.

A.2.1.4 Demographics

The CONSULTANT will identify and assess potential Project impacts on minority, limited English proficient (LEP) persons, disabled persons, low-income populations, and/or special populations within the Project area.

A.2.1.5 Community Goals and Quality of Life

The CONSULTANT will identify and assess potential Project impacts on social value changes and compatibility with community goals and vision.

A.2.1.6 Business and Employment

The CONSULTANT will assess potential Project impacts to business and employment activity in the project area, including industries with special needs (e.g., freight distributor) or significance (e.g., regional employer), economic-oriented land use, economic development plans, special designations, and community development priorities. Assessment will also include identification of changes to routes, access, parking, or visibility that could benefit or impair businesses, employment centers, community facilities, or population.

A.2.1.7 Property Values and Tax Base

The CONSULTANT will assess potential Project impacts on the tax base, employment opportunities, and property values.

A.2.1.8 Land Use Changes

The CONSULTANT will evaluate the Project's consistency with the physical character of the area and applicable community plans.

A.2.1.9 Mobility

The CONSULTANT will evaluate potential Project impact on mobility and accessibility with regard to all transportation modes (i.e., pedestrian, bicycle, transit and vehicles) in the Study Area. The CONSULTANT will evaluate potential Project impact on mobility and accessibility on populations defined as transit dependent or zero to one car households.

A.2.1.10 Aesthetics

The CONSULTANT will evaluate and summarize the Project's effect on viewshed and vista, community focal points, historic structures, landmarks, and community character.

A.2.1.11 Relocation Potential

The CONSULTANT will identify residences, businesses, and institutional or community facilities that may require relocation to accommodate the Project, and obtain additional site-

specific information needed to evaluate the effect of each Project alternative on the displacement of residences and businesses.

A.2.2 Cultural Resources

The CONSULTANT will prepare a Research Design and Survey Methodology for the project, to be submitted to CFX and the COUNTY for approval prior to the initiation of field work. The CONSULTANT shall identify and map out the zones of probability for the Project study area and identify any previously recorded resources. The Area of Potential Effect (APE) will be determined (including pond sites). The CONSULTANT will use a professional qualified under the provisions of 36 CFR 61 in compliance with the National Historic Preservation Act of 1966 (Public Law 89-665, as amended) and the implementing regulations (36 CFR 800), as well as with the provisions contained in Chapter 267, Florida Statutes, to perform all work in this task. The CONSULTANT will assess the direct and indirect effects and will document the severity of the following items:

- Identify and analyze impacts to archaeological sites and historic resources within the Project's Area of Potential Effects (APE). The APE must include potential pond sites.
- Review and address any resources issues or comments by the State Historic Preservation Office (SHPO) listed in the Programming Screen Summary Report.
- Prepare Cultural Resources Assessment Survey (CRAS) documentation detailing the results of the survey and assessments of resource significance, including a Florida Master Site File (FMSF) form. The Research Design and Survey Methodology and the Pond Site Technical Memo will be included in the CRAS appendix.

A.2.3 Natural Resources

The CONSULTANT will assess direct and indirect effects and document the severity of the following items.

A.2.3.1 Wetlands and Surface Waters

The CONSULTANT will identify the type, quality, and function of wetlands, or reference previously completed documentation relevant to the Project. The CONSULTANT will establish Uniform Mitigation Assessment Method (UMAM) for representative wetlands and evaluate alternatives that avoid wetland impacts and, where unavoidable, identify practicable measures to minimize impacts. Any impact to wetlands requires development of a Conceptual Mitigation Plan. The CONSULTANT will document all coordination activities with resource agencies, wetland impact assessment, and mitigation analysis.

A.2.3.2 Wildlife and Habitat Analysis

The CONSULTANT will perform research, field reviews, general wildlife surveys, and coordination necessary to determine potential impacts to federal and state protected, threatened or endangered species and their habitats. Additionally, the CONSULTANT will develop a study design (which will be approved by CFX and the COUNTY) to evaluate the magnitude of Project involvement with wildlife and their habitat and provide an analysis of

wildlife and habitat conservation measures.

A.2.3.3 Special Designations – N/A

A.2.3.4 Identify Permit Needs

The CONSULTANT will review permits required, as defined by CFX, for the project including SFWMD and USACE.

A.2.4 Physical Effects - Contamination

The CONSULTANT will gather and review data and investigate contamination issues within the limits of the project and identify potentially contaminated sites. The CONSULTANT will document the data reviewed, findings, risk rating of potential contamination sites, and recommendation for additional assessment actions. A Level I Evaluation Report per FDOT's PD&E Manual, Part 2, Chapter 20.2.2 requirements shall also be prepared by the CONSULTANT for all parcels proposed for Project right-of-way acquisition.

A.3 PUBLIC INVOLVEMENT

The following tasks are to be performed for the Project Development public meeting, and for an additional public meeting during the design phase in Part B of this scope for updating the public and officials.

A.3.1 Public Involvement Plan (PIP)

The CONSULTANT will review the Public Involvement Plan (PIP) provided by the PIC and GEC within twenty (20) working days following the Notice to Proceed meeting.

The purpose of the PIP is to establish and maintain a strategy for early, meaningful, and continuous public and stakeholder involvement throughout the PD&E process. Obtaining stakeholder public consensus throughout the PD&E phase is the desired outcome of the PIP. The CONSULTANT shall perform activities necessary to support the PIP that includes the identification of stakeholders and interested parties.

A.3.2 Public Involvement Data Collection

The CONSULTANT shall be responsible for developing, maintaining, and updating a project mailing list which will include:

- Affected residents, business tenants and property owners within the project area.
- Interested parties, including:
 - a. Residents/property owners within 300 feet of the alternative alignments.
 - b. Other informed parties who notify the CONSULTANT that they desire to be added to the mailing list.
 - c. Special interest groups

The CONSULTANT will maintain the mailing list in a computer file which is acceptable to the CFX. For each mailing, the CONSULTANT will provide the CFX and PIC a computer file of the mailing list certified by the CONSULTANT as true and correct. Additional groups and/or individuals may be included on the mailing list as requested.

A.3.3 Scheduled Public Meetings

The CFX has determined that multiple public meetings will be required to provide adequate opportunities for the public to participate in the PD&E Study. The CONSULTANT shall provide to the PIC all support necessary for the CFX to hold or participate in two (2) public meetings, as listed below:

- Public Kick-off Meeting (General study overview, area, schedule, issues, etc.)
- Alternatives Meeting (Preferred Alternative)
-

For each meeting, the CONSULTANT shall prepare and/or provide:

- Scripts or agenda for presentation.
- Graphics for presentation.
- Display Boards

- Meeting summaries
- Input to response to comments as requested by CFX or PIC

For each meeting, the PIC shall prepare and/or provide:

- Handouts
- Display advertisements (the CFX or PIC will pay the cost of publishing)
- Letters for notification of elected and appointed officials, property owners, and other interested parties (the CFX or PIC will pay the cost of first class postage)
- Preparation of response letters for CFX signature on public comments
- The CONSULTANT will attend the meetings with an appropriate number of personnel to assist the PIC and CFX staff.

The PIC will investigate potential meeting locations to advise CFX of their suitability. CFX will ultimately approve the meeting location. The CFX or PIC will pay all costs for meeting location rental and insurance (if required). The PIC will be responsible for logistics associated with setting up the meeting. The PIC will distribute all required notifications to all interested parties, public officials, affected property owners, special interest groups, etc. on the mailing list.

Presentations of the Project to the CFX Governing Board and Osceola County Board of County Commissioners will be performed when final Project documents are ready.

A.3.4 Comments and Coordination Report

The PIC will prepare Comments and Coordination Report containing transcript, errata, and signed certification, as well as documentation for all public involvement activities conducted throughout the project in accordance with Part 1, Chapter 11 of the PD&E Manual.

ADDITIONAL PUBLIC INVOLVEMENT REQUIREMENTS

Project Information Line/General Public Correspondence

The CONSULTANT shall make knowledgeable staff which interested parties may call with questions concerning the project. The PIC will maintain this project information line and the CONSULTANT will provide support to the PIC to answer questions and respond to comments.

Project Newsletters

The PIC shall prepare and distribute project newsletters which will be designed to inform interested parties as to the status of the project. The CONSULTANT shall support the PIC by providing appropriate information to include in the newsletters. Newsletters shall have the quality of desktop publishing and be comparable to the previous work efforts of the CFX. Distribution of the newsletters will coincide with key project milestones as follows:

- Project Kick-off/Introductory Newsletter
- Alternatives Meeting Newsletter

The PIC will distribute newsletters to all interested parties, public officials, affected property owners, special interest groups, etc. as identified above.

Interested parties include those contained on the CONSULTANT's mailing list and other informed parties who request to be added to the mailing list. Distribution of the Newsletter may involve direct mail as well as distribution through various media such as public schools, churches, civic organizations, public libraries, etc.

The Introductory Newsletter may contain language to alert affected property owners and tenants of the possibility that certain environmental and/or engineering personnel may require access to their property. Prior to any actual property access, the CONSULTANT shall contact the owner or tenant by the use of a CFX standard right-of-entry letter via US Post Office mail delivery.

Project Webpage

The CONSULTANT shall provide information about the study to the PIC for inclusion in the CFX Webpage. After initial posting of the project information, the CONSULTANT shall provide updated information to the PIC four times during the study. These times will coincide with the newsletter mailings.

A.4 PROJECT DEVELOPMENT TECHNICAL MEMORANDUM

The CONSULTANT will prepare a comprehensive technical memorandum that documents the analyses and information gathered from the tasks described in Part 'A' Sections 1 and 2 of this scope. This technical memorandum will be submitted as a draft for CFX and COUNTY review and comment, revised as necessary by the CONSULTANT, and used in preparing for the Part A Public Meeting. Following the Part A Public Meeting the CONSULTANT will summarize and add the public meeting's results to the technical memorandum, and coordinate with CFX and the COUNTY to determine any necessary changes to the alternatives and to identify the preferred alternative for the Project. The CONSULTANT will update the technical memorandum to incorporate these changes and the preferred alternative recommendation and submit the updated memorandum for CFX and COUNTY review and comment. The CONSULTANT will provide a final signed-and-sealed document when CFX and the COUNTY approves the updated memorandum.

PART 'B'

(Note: the activities and tasks within PART 'B' closely follow the numbering of the standard FDOT staff-hour format for design beginning with Activity 3, with a "B" placed in front of the numbers. Activities / Tasks B.2.1 through B.2.22 are a continuation of Section 2 of this Scope.)

B.2.1 Project General and Roadway (Activities 3, 4, and 5)

- Public Involvement: One public meeting (included in Part A).
- Other Agency Presentations/Meetings: - N/A
- Joint Project Agreements: - N/A
- Specification Package Preparation: Standard FDOT style specifications
- Value Engineering: - N/A
- Risk Assessment Workshop: - N/A
- Plan Type: Plan and profile sheets
- Typical Section: three typical sections are anticipated
- Pavement Design: one pavement design is anticipated
- Pavement Type Selection Report(s): - N/A
- Cross Slope Correction: - N/A
- Access Management Classification: - N/A (determined in Part 'A').
- Transit Route Features: - N/A (determined in Part 'A')
- Major Intersections: - Old Lake Wilson Road and PPE Ramps
- Roadway Alternative Analysis: - N/A
- Level of TTCP: - Level III
- Temporary Lighting: - N/A
- Temporary Signals: - N/A
- Temporary Drainage: Temporary drainage design is anticipated to accommodate the temporary traffic phasing and other construction activities.
- Design Variations/Exceptions: Variation for no bike lanes and/or median width, if applicable.
- Back of Sidewalk Profiles: - N/A
- Selective Clearing and Grubbing: N/A

B.2.2 Drainage (Activities 6a and 6b)

System Type: This project will provide a closed drainage system along the proposed curb and gutter which will outfall to proposed pond sites identified during Part 'A'. There are 6 basins within the project limits. Wetland impacts are anticipated with this project.

B.2.3 Utilities Coordination (Activity 7)

The CONSULTANT is responsible to certify that all necessary arrangements for utility work on this project have been made and will not conflict with the physical construction schedule. The CONSULTANT should coordinate with CFX and COUNTY personnel to coordinate transmittals to Utility Companies and meet production schedules.

The CONSULTANT may employ more than one individual or utility engineering consultant to provide utility coordination and engineering design expertise. The CONSULTANT shall identify a dedicated person responsible for managing all utility coordination activities. This

person shall be contractually referred to as the Utility Coordination Manager and shall be identified in the CONSULTANT proposal.

The Utility Coordination Manager shall be responsible for managing all utility coordination, including the following:

- Assuring that Utility Coordination and accommodation is in accordance to the FDOT and AASHTO standards, policies, procedures, and design criteria.
- Assisting the engineer of record in identifying all existing utilities and coordinating any new installations. Assisting the Engineer of Record with resolving utility conflicts.
- Scheduling and performing utility coordination meetings, keeping and distribution of minutes/action items of all utility meetings, and ensuring expedient follow-up on all unresolved issues.
- Distributing all plans, conflict matrixes and changes to affected utility owners and making sure this information is properly coordinated and documented.
- Identifying and coordinating the completion of any COUNTY or utility owner agreement that is required for reimbursement, or accommodation of the utility facilities associated with the project.
- Review and certify that all Utility Work Schedules are correct and in accordance with CFX and COUNTY standards, policies, and procedures.
- Prepare, review and process all utility related reimbursable paperwork inclusive of betterment and salvage determination.

B.2.4 Environmental Permits and Environmental Clearances (Activity 8)

South Florida Water Management District and US Army Corps of Engineers permits are anticipated. CFX and/or the COUNTY will provide compensatory wetland mitigation in accordance with Section 373.4137, Florida Statutes, if necessary.

B.2.5 Structures (Activities 9 – 18)

There are no bridges or bridge culverts along the Osceola-Polk Line Road corridor, thus structural design and plans will be limited to miscellaneous structures. Type of Bridge Structure Work:

- BDR – N/A
- Temporary Bridge – N/A
- Short Span Concrete – N/A
- Medium Span Concrete
- Structural Steel – N/A
- Segmental Concrete – N/A
- Movable Span – N/A
- Retaining Walls: temporary critical retaining walls may be required for culvert extensions.
- Noise Barrier Walls: N/A
- Miscellaneous: for any miscellaneous structures, e.g. mast arms at new signalized intersection(s), retaining walls, or overhead signs, that are identified in Part ‘A’ of this scope (only mast arms are anticipated).

B.2.6 Signing and Pavement Markings (Activities 19 & 20)

Standard single-post signs and multi-post signs are required for this project.

B.2.7 Signalization (Activities 21 & 22)

Intersections: Lake Wilson Road is being improved by Polk County in a separate project and the Project's widening is not expected to impact the existing US 17 signal. Therefore, signal modifications are not anticipated at these two locations. Polk County is planning to construct a new signal at Old Lake Wilson Road. This existing signal will need to be modified as part of this project. In addition, a signal analysis is required to determine if signals are needed for the new ramp intersections of the Poinciana Parkway Extension. Signal designs will also be provided for these two locations if warranted.

- Traffic Data Collection
- Traffic Studies
- Count Stations
- Traffic Monitoring Sites

B.2.8 Lighting (Activities 23 & 24)

Conventional lighting will be considered along the entire corridor on both sides of Osceola Polk Line Road depending on the results of the Lighting Justification Report in Part 'A'. Lighting of the roadway and any signalized intersections shall be in conformance with FDOT FDM Section 231.

B.2.9 Landscape (Activities 25 & 26)

Include coordination with existing and/or proposed underground utilities including but not limited to lighting, drainage and ITS. Only irrigation sleeving is included in this project.

Planting Plans: N/A

Irrigation Plans: Include sleeves in the Project's design to accommodate future irrigation systems in conformance to the Landscape Opportunity Plan.

Hardscape Plans: - N/A

Outdoor Advertising: N/A

B.2.10 Survey (Activity 27)

Design Survey: horizontal and vertical control and 3D Digital Terrain Model for obscured areas and off site pond locations.

Subsurface Utility Exploration: SUE work is anticipated for this project.

Right of Way Survey: Right of Way Survey is needed for this project as right-of-way will be acquired by CFX and/or the COUNTY for proposed ponds.

Vegetation Survey: N/A

B.2.11 Photogrammetry (Activity 28) – N/A

B.2.12 Mapping (Activity 29)

Control Survey Map: - Control survey map is anticipated for this project as right-of-way will be acquired by the CFX and/or the COUNTY for proposed ponds and roadway improvements.

Right of Way Map: Right of way mapping is anticipated for this project as right-of-way will be acquired by CFX and/or the COUNTY for proposed ponds and roadway improvements.

Legal Descriptions: Legal sketch and descriptions are anticipated for this project as right-of-way will be acquired by CFX and/or the COUNTY for proposed ponds and roadway improvements.

Maintenance Map: – N/A

Miscellaneous Items: – N/A

B.2.13 Terrestrial Mobile LiDAR (Activity 30) – N/A

B.2.14 Architecture (Activity 31) – N/A

B.2.15 Noise Barriers (Activity 32) – N/A

B.2.16 Intelligent Transportation Systems (Activities 33 & 34) – N/A

B.2.17 Geotechnical (Activity 35)

The following field and lab tests are anticipated: soil drilling with SPT sampling, auger borings, undisturbed sample, perc/infiltration testing, and resilient modulus.

B.2.18 3D Modeling (Activity 36) – N/A

B.2.19 Project Schedule

Within twenty (20) days after the Notice-To-Proceed, and prior to the CONSULTANT beginning work, the CONSULTANT shall provide a detailed project activity/event schedule for CFX and the COUNTY with scheduled calendar deadlines in a format prescribed by CFX.. The schedule shall be based upon the 24 months for project development, design and right-of-way mapping. For the purpose of scheduling, the CONSULTANT shall allow for a three week review time for each phase submittal and any other submittals as appropriate

All fees and price proposals are to be based on the negotiated schedule of 24 months for final construction contract documents.

Periodically, throughout the life of the contract, the project schedule shall be reviewed and, with the approval of CFX and the COUNTY, adjusted as necessary to incorporate changes in the Scope of Services and progress to date.

B.2.20 Submittals

The CONSULTANT shall furnish construction contract documents as required by CFX to adequately control, coordinate, and approve the work concepts. The CONSULTANT shall distribute submittals as directed by CFX. CFX and the COUNTY will determine the specific number of copies required prior to each submittal.

B.2.21 Provisions for Work

All work shall be prepared with English units in accordance with the latest editions of standards and requirements utilized by CFX which include, but are not limited to, publications such as:

General

- Title 29, Part 1910, Standard 1910.1001, Code of Federal Regulations (29 C.F.R. 1910.1001) – Asbestos Standard for Industry, U.S. Occupational Safety and Health Administration (OSHA)
- 29 C.F.R. 1926.1101 – Asbestos Standard for Construction, OSHA
- 40 C.F.R. 61, Subpart M - National Emission Standard for Hazardous Air Pollutants (NESHAP), Environmental Protection Agency (EPA)
- 40 C.F.R. 763, Subpart E – Asbestos-Containing Materials in Schools, EPA
- 40 C.F.R. 763, Subpart G – Asbestos Worker Protection, EPA
- Americans with Disabilities Act (ADA) Standards for Accessible Design
- AASHTO – A Policy on Design Standards Interstate System
- AASHTO – Roadside Design Guide
- AASHTO – Roadway Lighting Design Guide
- AASHTO – A Policy for Geometric Design of Highways and Streets
- AASHTO – Highway Safety Manual
- Rule Chapter 5J-17, Florida Administrative Code (F.A.C.), Standards of Practice for Professional Surveyors and Mappers
- Chapter 469, Florida Statutes (F.S.) – Asbestos Abatement
- Rule Chapter 62-257, F.A.C., Asbestos Program
- Rule Chapter 62-302, F.A.C., Surface Water Quality Standards
- Code of Federal Regulations (C.F.R.)
- Florida Administrative Codes (F.A.C.)
- Chapters 20, 120, 215, 455, Florida Statutes (F.S.) – Florida Department of Business & Professional Regulations Rules
- Florida Department of Environmental Protection Rules
- FDOT Basis of Estimates Manual
- FDOT Computer Aided Design and Drafting (CADD) Manual
- FDOT Standard Plans
- FDOT Flexible Pavement Design Manual
- FDOT - Florida Roundabout Guide
- FDOT Handbook for Preparation of Specifications Package
- FDOT Standard Plans Instructions
- FDOT Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (“Florida Greenbook”)
- FDOT Materials Manual
- FDOT Pavement Type Selection Manual

- FDOT Design Manual
- FDOT Procedures and Policies
- FDOT Procurement Procedure 001-375-030, Compensation for Consultant Travel Time on Professional Services Agreements
- FDOT Project Development and Environment Manual
- FDOT Project Traffic Forecasting Handbook
- FDOT Public Involvement Handbook
- FDOT Rigid Pavement Design Manual
- FDOT Standard Specifications for Road and Bridge Construction
- FDOT Utility Accommodation Manual
- Manual on Speed Zoning for Highways, Roads, and Streets in Florida
- Federal Highway Administration (FHWA) - Manual on Uniform Traffic Control Devices (MUTCD)
- FHWA – National Cooperative Highway Research Program (NCHRP) Report 672, Roundabouts: An Informational Guide
- FHWA Roadway Construction Noise Model (RCNM) and Guideline Handbook
- Florida Fish and Wildlife Conservation Commission - Standard Manatee Construction Conditions 2005
- Florida Statutes (F.S.)
- Florida's Level of Service Standards and Guidelines Manual for Planning
- Model Guide Specifications – Asbestos Abatement and Management in Buildings, National Institute for Building Sciences (NIBS)
- Quality Assurance Guidelines
- Safety Standards
- Any special instructions from CFX

Roadway

- FDOT – Florida Intersection Design Guide
- FDOT - Project Traffic Forecasting Handbook
- FDOT - Quality/Level of Service Handbook
- Florida's Level of Service Standards and Highway Capacity Analysis for the SHS
- Transportation Research Board (TRB) - Highway Capacity Manual

Permits

- Chapter 373, F.S. – Water Resources
- US Fish and Wildlife Service Endangered Species Programs
- Florida Fish and Wildlife Conservation Commission Protected Wildlife Permits
- Bridge Permit Application Guide, COMDTPUB P16591.3C
- Building Permit

Drainage

- FDOT Bridge Hydraulics Handbook
- FDOT Culvert Handbook
- FDOT Drainage Manual

- FDOT Erosion and Sediment Control Manual
- FDOT Exfiltration Handbook
- FDOT Hydrology Handbook
- FDOT Open Channel Handbook
- FDOT Optional Pipe Materials Handbook
- FDOT Storm Drain Handbook
- FDOT Stormwater Management Facility Handbook
- FDOT Temporary Drainage Handbook
- FDOT Drainage Connection Permit Handbook
- FDOT Bridge Scour Manual

Survey and Mapping

- All applicable Florida Statutes and Administrative Codes
- Applicable Rules, Guidelines Codes and authorities of other Municipal, County, State and Federal Agencies.
- FDOT Aerial Surveying Standards for Transportation Projects Topic 550-020-002
- FDOT Right of Way Mapping Handbook
- FDOT Surveying Procedure Topic 550-030-101
- Florida Department of Transportation Right of Way Procedures Manual
- Florida Department of Transportation Surveying Handbook
- Right of Way Mapping Procedure 550-030-015

Traffic Engineering and Operations and ITS

- AASHTO - An Information Guide for Highway Lighting
- AASHTO - Guide for Development of Bicycle Facilities
- FHWA Standard Highway Signs Manual
- FDOT Manual on Uniform Traffic Studies (MUTS)
- FDOT Median Handbook
- FDOT Traffic Engineering Manual
- National Electric Safety Code
- National Electrical Code

Traffic Monitoring

- American Institute of Steel Construction (AISC) Manual of Steel Construction, referred to as “AISC Specifications”
- American National Standards Institute (ANSI) RP-8-00 Recommended Practice for Roadway Lighting
- AASHTO AWS D1.1/ANSI Structural Welding Code – Steel
- AASHTO D1.5/AWS D1.5 Bridge Welding Code
- FHWA Traffic Detector Handbook
- FDOT General Interest Roadway Data Procedure
- FHWA Traffic Monitoring Guide
- FDOT’s Traffic/Polling Equipment Procedures

Structures

- AASHTO Load and Resistance Factor Design (LRFD) Bridge Design Specifications and Interims
- AASHTO LRFD Movable Highway Bridge Design Specifications and Interims
- AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, and Interims
- AASHTO/-AWS-D1. 5M/D1.5: An American National Standard Bridge Welding Code
- AASHTO Guide Specifications for Structural Design of Sound Barriers
- AASHTO Manual for Condition Evaluation and Load and Resistance Factor Rating (LRFR) of Highway Bridges
- FDOT Bridge Load Rating Manual
- FDOT Structures Manual
- FDOT Structures Design Bulletins (available on FDOT Structures web site only)

Geotechnical

- FHWA Checklist and Guidelines for Review of Geotechnical Reports and Preliminary Specifications
- Manual of Florida Sampling and Testing Methods
- Soils and Foundation Handbook

Landscape Architecture

- Florida Department of Agriculture and Consumer Services Grades and Standards for Nursery Plants
- Rule Chapter 62-600, F.A.C., Domestic Wastewater Facilities
- Rule Chapter 62-761, F.A.C., Underground Storage Tank Systems
- American Concrete Institute
- American Institute of Architects - Architect's Handbook of Professional Practice
- American Society for Testing and Materials - ASTM Standards
- Brick Institute of America
- DMS - Standards for Design of State Facilities
- Florida Concrete Products Association
- FDOT – ADA/Accessibility Procedure
- FDOT – Building Code Compliance Procedure
- FDOT – Design Build Procurement and Administration
- LEED (Leadership in Energy and Environmental Design) Green Building Rating System
- National Concrete Masonry Association
- National Electrical Code
- Portland Cement Association - Concrete Masonry Handbook
- United State Green Building Council (USGBC)

B.2.22 Services to be Performed by CFX and/or the COUNTY when appropriate and available, CFX and/or the COUNTY will provide project data including:

- Numbers for field books
- Preliminary Horizontal Network Control
- Access for the CONSULTANT to utilize CFX and COUNTY Information Technology Resources
- All CFX and COUNTY agreements with Utility Agency Owner (UAO)
- All certifications necessary for project letting
- All information that may come to CFX and the COUNTY pertaining to future improvements
- All future information that may come to CFX and the COUNTY during the term of the CONSULTANT's Agreement, which in the opinion of CFX and the COUNTY is necessary for the prosecution of the work.
- Available traffic and planning data
- All approved utility relocations
- Project utility certification to CFX
- Any necessary title searches
- Engineering standards review services
- All available information in the possession of CFX and the COUNTY pertaining to utility companies whose facilities may be affected by the proposed construction.
- All future information that may come to CFX and the COUNTY pertaining to subdivision plans so that the CONSULTANT may take advantage of additional areas that can be utilized as part of the existing right of way.
- Systems traffic for Projected Design Year, with K, D, and T factors
- Previously constructed Highway Beautification or Landscape Construction Plans
- Landscape Opportunity Plan(s)
- Existing right of way maps
- Proposed right of way cost estimates
- Existing cross slope data for all RRR projects
- Existing pavement evaluation report for all RRR projects
- PD&E Documents
- Design Reports
- Letters of authorization designating the CONSULTANT as an agent of CFX and/or the COUNTY in accordance with F.S. 337.274.
- Phase reviews of plans and engineering documents
- Regarding Environmental Permitting Services:
- Approved Permit Document when available
- Approval of all contacts with environmental agencies
- General philosophies and guidelines of CFX and the COUNTY to be used in the fulfillment of this contract. Objectives, constraints, budgetary limitations, and time constraints will be completely defined by the CFX Project Manager.

B.3 PROJECT COMMON AND PROJECT GENERAL TASKS

Project Common Tasks

Project Common Tasks, as listed below, are work efforts that are applicable to many project activities, 4 (Roadway Analysis) through 35 (Geotechnical). These tasks are to be included in the project scope in each applicable activity when the described work is to be performed by the CONSULTANT.

Cost Estimates: The CONSULTANT is responsible for producing a construction cost estimate and reviewing and updating the cost estimate when scope changes occur and/or at milestones of the project. A Summary of Pay Items sheet shall be prepared with all required Plans submittals as required.

Technical Special Provisions: The CONSULTANT shall provide Technical Special Provisions for all items of work not covered by the Standard Specifications for Road and Bridge Construction and the workbook of implemented modifications.

A Technical Special Provision shall not modify the Standard Specifications and implemented modifications in any way.

The Technical Special Provisions shall provide a description of work, materials, equipment and specific requirements, method of measurement and basis of payment. Proposed Technical Special Provisions will be submitted to CFX and the COUNTY for initial review at the time of the Phase III plans review submission to CFX Project Manager. This timing will allow for adequate processing time prior to final submittal. The Technical Special Provisions will be reviewed for suitability in accordance with the Handbook for Preparation of Specification Packages. CFX and the COUNTY will review and comment. All comments will be returned to the CONSULTANT for correction and resolution. Final Technical Special Provisions shall be digitally signed and sealed in accordance with applicable Florida Statutes.

The CONSULTANT shall contact CFX for details of the current format to be used before starting preparations of Technical Special Provisions.

Modified Special Provisions: The CONSULTANT shall provide Modified Special Provisions as required by the project. Modified Special Provisions are defined in the Specifications Handbook.

A Modified Special Provision shall not modify the first nine sections of the Standard Specifications and implemented modifications in any way. All modifications to other sections must be justified to CFX and the COUNTY to be included in the project's specifications package.

Field Reviews: The CONSULTANT shall make as many trips to the project site as required to obtain necessary data for all elements of the project.

Technical Meetings: The CONSULTANT shall attend all technical meetings necessary to execute the Scope of Services of this contract. This includes meetings with CFX, COUNTY and/or Agency staff, between disciplines and subconsultants, such as access management meetings, pavement design meetings, local governments, railroads, airports, progress review meetings (phase review), and miscellaneous meetings. The CONSULTANT shall prepare, and submit to CFX and the COUNTY for review, the meeting minutes for all meetings attended by them. The meeting minutes are due within five (5) working days of attending the meeting.

Quality Assurance/Quality Control: It is the intention of CFX that design CONSULTANTS, including their subconsultant(s), are held responsible for their work, including plans review.

The purpose of CONSULTANT plan reviews is to ensure that CONSULTANT plans follow the plan preparation procedures outlined in the FDOT Design Manual, that state and federal design criteria are followed with the concept, and that the CONSULTANT submittals are complete. All subconsultant document submittals shall be submitted by the subconsultant directly to the CONSULTANT for their independent Quality Assurance/Quality Control review and subsequent submittal to CFX.

It is the CONSULTANT'S responsibility to independently and continually QC their plans and other deliverables. The CONSULTANT should regularly communicate with the CFX Project Manager to discuss and resolve issues or solicit opinions from those within designated areas of expertise.

The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of all surveys, designs, drawings, specifications and other services furnished by the CONSULTANT and their subconsultant(s) under this contract.

The CONSULTANT shall provide a Quality Control Plan that describes the procedures to be utilized to verify, independently check, and review all maps, design drawings, specifications, and other documentation prepared as a part of the contract. The CONSULTANT shall describe how the checking and review processes are to be documented to verify that the required procedures were followed. The Quality Control Plan shall be one specifically designed for this project. The CONSULTANT shall submit a Quality Control Plan for approval within twenty (20) business days of the written Notice to Proceed and it shall be signed by the CONSULTANT's Project Manager and the CONSULTANT QC Manager. The Quality Control Plan shall include the names of the CONSULTANT's staff that will perform the quality control reviews. The Quality Control reviewer shall be a Florida Licensed Professional Engineer fully prequalified under F.A.C. 14-75 in the work type being reviewed. A marked up set of prints from a Quality Control Review indicating the reviewers for each component (structures, roadway, drainage, signals, geotechnical, signing and marking, lighting, landscape, surveys, etc.) and a written resolution of comments on a point-by-point basis will be required, if requested by CFX and/or the COUNTY, with each phase submittal. The responsible Professional Engineer, Landscape Architect, or Professional Surveyor & Mapper that performed the Quality Control review will sign a statement certifying that the review was conducted and found to meet required specifications.

The CONSULTANT shall, without additional compensation, correct all errors or deficiencies in the designs, maps, drawings, specifications and/or other products and services.

Independent Peer Review: - N/A

A Constructability/Bidability Review for design Phase Plans document submittals are required on this project. These separate reviews shall be completed by someone who has not worked on the plan component that is being reviewed. These could include but are not limited to a separate office under the Prime's umbrella, a subconsultant that is qualified in the work group being reviewed, or a CEI. It does not include persons who have knowledge of the day to day design efforts. The Constructability/Bidability Review shall be performed by a person with experience working on CFX and/or COUNTY construction projects (CEI, Contractor, etc.).

The Constructability/Bidability Review shall ensure the project can be constructed and paid for as designed. Constructability/Bidability Reviews should be conducted prior to the Phase

III and Phase IV submittals, using the Phase Review Checklist (Guidance Document 1-1-A) from the FDOT Construction Project Administration Manual (CPAM) as a minimum guideline. The CONSULTANT shall submit this checklist, as well as the “marked-up” set of plans during this review, and review comments and comment responses from any previous Constructability/Bidability reviews. These items will be reviewed by CFX and COUNTY Design and Construction.

Supervision: The CONSULTANT shall supervise all technical design activities.

Coordination: The CONSULTANT shall coordinate with all disciplines of the project to produce a final set of construction documents.

Project General Tasks

Project General Tasks, described in Sections 3.1 through 3.7 below, represent work efforts that are applicable to the project as a whole and not to any one or more specific project activity. The work described in these tasks shall be performed by the CONSULTANT when included in the project scope.

B.3.1 Public Involvement – N/A (included in Part A)

B.3.2 Joint Project Agreements – N/A

B.3.3 Specifications Package Preparation

Standard CFX specifications will be provided to the Consultant. The Consultant shall review the specifications and modify them as necessary.

B.3.4 Contract Maintenance and Project Documentation

Contract maintenance includes project management effort for complete setup and maintenance of files, electronic folders and documents, developing technical monthly progress reports and schedule updates. Project documentation includes the compilation and delivery of final documents, and reports or calculations that support the development of the contract plans. Updating CFX and the COUNTY on public involvement activities, including providing Project information for CFX and COUNTY websites and responding to public and public official questions outside of the public meetings that are listed herein, are included in this task.

B.3.5 Value Engineering (Multi-Discipline Team) Review – N/A

B.3.6 Prime Consultant Project Manager Meetings

Includes only the Prime Consultant Project Manager's time for travel and attendance at Activity Technical Meetings and other meetings listed in the meeting summary for Task 3.6 on tab 3 Project General Task of the staff hour forms. Staff hours for other personnel attending Activity Technical Meetings are included in the meeting task for that specific Activity.

B.3.7 Plans Update – N/A

B.3.8 Post Design Services – N/A

B.3.9 Digital Delivery

The CONSULTANT shall deliver final contract plans and documents in digital format. The final contract plans and documents shall be digitally signed and sealed files delivered to CFX and the COUNTY on acceptable electronic media, as determined by CFX and the COUNTY.

B.3.10 Risk Assessment Workshop – N/A

B.3.11 Railroad, Transit and/or Airport Coordination – (Transit and Airport are N/A)

The CONSULTANT shall coordinate with CSX for necessary design and permit requirements to replace the existing R.R. crossing west of the US 17 intersection including minimum median width, type of crossing (e.g. concrete slab), and potential reuse and relocation of existing signal equipment.

B.3.12 Landscape and Existing Vegetation Coordination – N/A

B.3.13 Other Project General Tasks – N/A

B.4 ROADWAY ANALYSIS

The CONSULTANT shall analyze and document Roadway Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

B.4.1 Typical Section Package

A Typical Section Package will not be prepared for this project. Rather, typical sections will be prepared as part of the Alternatives Technical Memorandum and submitted to CFX and the COUNTY for review and approval.

B.4.2 Pavement Type Selection Report – N/A

B.4.3 Pavement Design Package

The CONSULTANT shall provide an approved Pavement Design Summary prior to the Phase II plans submittal date.

B.4.4 Cross-Slope Correction – N/A

B.4.5 Horizontal/Vertical Master Design Files (also see Activity 36)

The CONSULTANT shall design the geometrics using the FDOT Design Manual and Standard Plans that are most appropriate with proper consideration given to the design traffic volumes, design speed, capacity and levels of service, functional classification, adjacent land use, design consistency and driver expectancy, aesthetics, existing vegetation to be preserved, pedestrian and bicycle concerns, ADA requirements, Safe Mobility For Life Program, access management, PD&E documents and scope of work. The CONSULTANT shall also develop utility conflict information to be provided to project Utility Coordinator in the format requested by CFX and the COUNTY.

B.4.6 Access Management

The CONSULTANT shall incorporate access management standards in coordination with CFX and COUNTY staff. The CONSULTANT shall review adopted access management standards and the existing access conditions (interchange spacing, signalized intersection spacing, median opening spacing, and connection spacing). Median openings that will be closed, relocated, or substantially altered shall be shown on plan sheets and submitted with supporting documentation for review with the first plans submittal.

CFX and the COUNTY shall provide access management classification information and information derived from PD&E studies and public hearings to be used by the CONSULTANT.

B.4.7 Roundabout Evaluation – N/A

B.4.8 Roundabout Final Design Analysis – N/A

B.4.9 Cross Section Design Files

The CONSULTANT shall establish and develop cross section design files in accordance with the FDOT CADD manual and FDOT Design Manual. Includes all work required to establish and utilize intelligent/automated methods for creating cross sections including

determining the locations for which all cross sections will be shown, existing and proposed features, cross section refinement, placement of utilities and drainage, soil boxes, R/W lines, earthwork calculations, and other required labeling.

B.4.10 Temporary Traffic Control Plan (TTCP) Analysis

The CONSULTANT shall design a safe and effective TTCP to move vehicular and pedestrian traffic during all phases of construction. The design shall include construction phasing of roadways ingress and egress to existing property owners and businesses, routing, signing and pavement markings, and detour quantity tabulations, roadway pavement, drainage structures, ditches, front slopes, back slopes, drop offs within clear zone, transit stops, and traffic monitoring sites. Special consideration shall be given to the construction of the drainage system when developing the construction phases. Positive drainage must be maintained at all times. The design shall include construction phasing of roadways to accommodate the construction or relocation of utilities when the contract includes Joint Project Agreements (JPAs).

The CONSULTANT shall investigate the need for temporary traffic signals, detours, diversions, lane shifts, and the use of materials such as sheet piling in the analysis. The Traffic Control Plan shall be prepared by a certified designer who has completed training as required by the FDOT. Before proceeding with the TTCP, the CONSULTANT shall meet with the appropriate CFX and COUNTY personnel. The purpose of this meeting is to provide information to the CONSULTANT that will better coordinate the Preliminary and Final TTCP efforts.

The CONSULTANT shall consider the local impact of any lane closures or alternate routes. When the need to close a road is identified during this analysis, the CONSULTANT shall notify CFX and the COUNTY as soon as possible. Proposed road closings must be reviewed and approved by CFX and the COUNTY. Diligence shall be used to minimize negative impacts by appropriate specifications, recommendations or plans development. Local impacts to consider will be local events, holidays, peak seasons, detour route deterioration and other eventualities. CONSULTANT shall be responsible to obtain local authorities' permission for use of detour routes.

B.4.11 Master TTCP Design Files

The CONSULTANT shall develop master TTCP files showing each phase of the TTCP. This includes all work necessary for designing lane configurations, diversions, lane shifts, signing and pavement markings, temporary traffic control devices, and temporary pedestrian ways.

B.4.12 Selective Clearing and Grubbing – N/A

B.4.13 Tree Disposition Plans – N/A

B.4.14 Design Variations and Exceptions

There is potential for a design variation for median width just west of US 17/92,

B.4.15 Design Report – N/A

B.4.16 Quantities

The CONSULTANT shall develop accurate quantities and the supporting documentation, including construction days when required.

B.4.17 Cost Estimate

B.4.18 Technical Special Provisions and Modified Special Provisions

B.4.19 Other Roadway Analyses

B.4.20 Field Reviews

B.4.21 Monitor Existing Structures – N/A

B.4.22 Technical Meetings

B.4.23 Quality Assurance/Quality Control

B.4.24 Independent Peer Review – N/A

B.4.25 Supervision

B.4.26 Coordination

B.5 ROADWAY PLANS

The CONSULTANT shall prepare Roadway, TTCP, Utility Adjustment Sheets, plan sheets, notes, and details. The plans shall include the following sheets necessary to convey the intent and scope of the project for the purposes of construction.

B.5.1 Key Sheet

B.5.2 Summary of Pay Items Including Quantity Input

B.5.3 Typical Section Sheets

B.5.3.1 Typical Sections

B.5.3.2 Typical Section Details – N/A

B.5.4 General Notes/Pay Item Notes

B.5.5 Summary of Quantities Sheets

B.5.6 Project Layout

B.5.7 Plan/Profile Sheet

B.5.8 Profile Sheet – N/A

B.5.9 Plan Sheet – N/A

B.5.10 Special Profile– N/A

B.5.11 Back-of-Sidewalk Profile Sheet – N/A

B.5.12 Interchange Layout Sheet – N/A

B.5.13 Ramp Terminal Details (Plan View) – coordinate with CFX Project No. 538-235

B.5.14 Intersection Layout Details

B.5.15 Special Details– N/A

B.5.16 Cross-Section Pattern Sheets

B.5.17 Roadway Soil Survey Sheets

B.5.18 Cross Sections

B.5.19 Temporary Traffic Control Plan Sheets

B.5.20 Temporary Traffic Control Cross Section Sheets– N/A

B.5.21 Temporary Traffic Control Detail Sheets

B.5.22 Utility Adjustment Sheets

B.5.23 Selective Clearing and Grubbing Sheets – N/A

B.5.24 Tree Disposition Plan Sheets – N/A

B.5.25 Project Control Sheets

B.5.26 Environmental Detail Sheets

Coordination with CFX Permits/Environmental staff and preparing Dredge & Fill Detail sheets where applicable.

B.5.27 Utility Verification Sheets (SUE Data)

B.5.28 Quality Assurance/Quality Control

B.5.29 Supervision

B.6a DRAINAGE ANALYSIS

The CONSULTANT shall analyze and document Drainage Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

The CONSULTANT shall be responsible for designing a drainage and stormwater management system. All design work shall comply with the requirements of the appropriate regulatory agencies and the FDOT Drainage Manual.

The CONSULTANT shall coordinate fully with the appropriate permitting agencies and CFX and COUNTY staff. All activities and submittals should be coordinated through the CFX and the COUNTY. The work will include the engineering analyses for any or all of the following:

B.6a.1 Drainage Map Hydrology

Create a (pre- and/or post-condition) working drainage basin map to be used in defining the system hydrology. This map shall incorporate drainage basin boundaries, existing survey and/or LiDAR and field observations, as necessary, to define the system. Basin delineations shall also include any existing collection systems in a logical manner to aid in the development of the hydraulic model. Include coordination hours needed to convey drainage hydrologic features onto produced drainage maps.

B.6a.2 Base Clearance Calculations

Analyze, determine, and document high water elevations per basin which will be used to set roadway profile grade and roadway materials. Determine surface water elevations at cross drains, floodplains, outfalls and adjacent stormwater ponds. Determine groundwater elevations at intervals between the above-mentioned surface waters. Document findings in a Base Clearance Report.

B.6a.3 Pond Siting Analysis and Report

Reevaluate recommended pond sites and the preliminary hydrologic analysis from Part 'A'.

B.6a.4 Design of Cross Drains

Analyze the hydraulic design and performance of cross drains. Check existing cross drains to determine if they are structurally sound and can be extended. Document the design as required. Determine and provide flood data as required.

B.6a.5 Design of Ditches

Design roadway conveyance and outfall ditches. This task includes capacity calculations, longitudinal grade adjustments, flow changes, additional adjustments for ditch convergences, selection of suitable channel lining, design of side drain pipes, and documentation. (Design of linear stormwater management facilities in separate task.)

B.6a.6 Design of Stormwater Management Facility (Offsite or Infield Pond)

Design stormwater management facilities to meet requirements for stormwater quality treatment, attenuation and aesthetics. Develop proposed pond layout (contributing drainage basin, shape, contours, slopes, volumes, tie-ins, aesthetics, etc.), perform routing, pollutant/nutrient loading calculations, recovery calculations, design the outlet control structure and buoyancy calculations for pond liners when necessary.

B.6a.7 Design of Stormwater Management Facility (Roadside Treatment Swales and Linear Ponds) – N/A

B.6a.8 Design of Floodplain Compensation

Determine floodplain encroachments, coordinate with regulatory agencies, and develop proposed compensation area layout (shape, contours, slopes, volumes, etc.). Document the design following the requirements of the regulatory agency.

B.6a.9 Design of Storm Drains

Delineate contributing drainage areas, determine runoff, inlet locations, and spread. Calculate hydraulic losses (friction, utility conflict and, if necessary, minor losses). Determine design tailwater and, if necessary, outlet scour protection.

B.6a.10 Optional Culvert Material – N/A (County preference is RCP)

B.6a.11 French Drain Systems – N/A

B.6a.11a Existing French Drain Systems – N/A

B.6a.12 Drainage Wells – N/A

B.6a.13 Drainage Design Documentation Report

Compile drainage design documentation into report format. Include documentation for all the drainage design tasks and associated meetings and decisions, except for stand-alone reports, such as the Pond Siting Analysis Report and Bridge Hydraulics Report.

B.6a.14 Bridge Hydraulic Report – N/A

B.6a.15 Temporary Drainage Analysis

Evaluate and address drainage to adequately drain the road and maintain existing offsite drainage during all construction phases. Provide documentation.

B.6a.16 Cost Estimate

Prepare cost estimates for the drainage components, except bridges and earthwork for stormwater management and flood compensation sites.

B.6a.17 Technical Special Provisions / Modified Special Provisions – N/A

B.6a.18 Hydroplaning Analysis – N/A

B.6a.19 Existing Permit Analysis – N/A

B.6a.20 Other Drainage Analysis

Includes all efforts for a drainage task not covered by an existing defined task.

B.6a.21 Noise Barrier Evaluation –N/A

B.6a.22 Field Reviews

B.6a.23 Technical Meetings

Meetings with CFX and COUNTY staff, regulatory agencies, local governments such as

meetings with Osceola County, the Water Management District, FDEP, etc.

- B.6a.24 Environmental Look-Around Meetings – N/A**
- B.6a.25 Quality Assurance/Quality Control**
- B.6a.26 Independent Peer Review – N/A**
- B.6a.27 Supervision**
- B.6a.28 Coordination**

B.6b DRAINAGE PLANS

The CONSULTANT shall prepare Drainage plan sheets, notes, and details. The plans shall include the following sheets necessary to convey the intent and scope of the project for the purposes of construction.

- B.6b.1 Drainage Map**
- B.6b.2 Bridge Hydraulics Recommendation Sheets – N/A**
- B.6b.3 Summary of Drainage Structures**
- B.6b.4 Optional Pipe/Culvert Material – N/A**
- B.6b.5 Drainage Structure Sheet(s) (Per Structure)**
- B.6b.6 Miscellaneous Drainage Detail Sheets**
- B.6b.7 Lateral Ditch Plan/Profile– N/A**
- B.6b.8 Lateral Ditch Cross Sections– N/A**
- B.6b.9 Retention/Detention Pond Detail Sheet(s)**
- B.6b.10 Retention Pond Cross Sections**
- B.6b.11 Erosion Control Plan Sheet(s) – N/A**
- B.6b.12 SWPPP Sheet(s)**
- B.6b.13 Quality Assurance/Quality Control**
- B.6b.14 Supervision**

B.7 UTILITIES

The CONSULTANT shall identify utility facilities and secure agreements, utility work schedules, and plans from the Utility Agency Owners (UAO) ensuring all conflicts that exist between utility facilities and CFX construction project are addressed. The CONSULTANT shall certify all utility negotiations have been completed and that arrangements have been made for utility work to be undertaken.

B.7.1 Utility Kickoff Meeting

Before any contact with the UAO(s), the CONSULTANT shall meet with CFX and the COUNTY to receive guidance, as may be required, to assure that all necessary coordination will be accomplished in accordance with CFX and COUNTY procedures. CONSULTANT shall bring a copy of the design project work schedule reflecting utility activities.

B.7.2 Identify Existing Utility Agency Owner(s)

The Consultant shall identify all utilities within and adjacent to the project limits that may be impacted by the project.

B.7.3 Make Utility Contacts

First Contact: The CONSULTANT shall send letters and two sets of plans to each utility, one set for the utility office, and one set to CFX and the COUNTY. Includes contact by phone for meeting coordination. Request type, size, location, easements, and cost for relocation if reimbursement is claimed (note: review utility coordination from PD&E for necessity in this data gathering). Request the voltage level for power lines in the project area. Send UAO requests for reimbursement to CFX and the COUNTY for a legal opinion. Include the meeting schedule (if applicable) and the design schedule. Include typical meeting agenda. If scheduling a meeting, give 4 weeks advance notice.

Second Contact: At a minimum of 4 weeks prior to the meeting, the CONSULTANT shall transmit two complete sets of Phase II plans and the utility conflict information (when applicable and in the format requested by CFX and the COUNTY) to each UAO having facilities located within the project limits, and one set to CFX and the COUNTY.

Third Contact: Identify agreements and assemble packages. The CONSULTANT shall send agreements, letters, the utility conflict information (when applicable and in the format requested by CFX and the COUNTY) and two sets of plans to the UAO(s) including all component sets, one set for the utility office, one set to construction and maintenance if required. Include the design schedule.

B.7.4 Exception Processing – N/A

B.7.5 Preliminary Utility Meeting

The CONSULTANT shall schedule (time and place), notify participants, and conduct a preliminary utility meeting with all UAO(s) having facilities located within the project limits for the purpose of presenting the project, review the current design schedule, evaluate the utility information collected, provide follow-up information on compensable property rights from the CFX and COUNTY Legal Offices, discuss the utility work by highway contractor option with each utility, and discuss any future design issues that may impact utilities. This is also an opportunity for the UAO(s) to present proposed facilities. The

CONSULTANT shall keep accurate minutes and distribute a copy to all attendees.

B.7.6 Individual/Field Meetings

The CONSULTANT shall meet with each UAO as necessary, separately or together, throughout the project design duration to provide guidance in the interpretation of plans, review changes to the plans and schedules, standard or selective clearing and grubbing work, and assist in the development of the UAO(s) plans and work schedules. The CONSULTANT is responsible for motivating the UAO to complete and return the necessary documents after each Utility Contact or Meeting.

B.7.7 Collect and Review Plans and Data from UAO(s)

The CONSULTANT shall review utility marked plans and data individually as they are received for content. Ensure information from the UAO (utility type, material and size) is sent to the designer for inclusion in the plans. Forward all requests for utility reimbursement and supporting documentation to the DUO.

B.7.8 Subordination of Easements Coordination

The CONSULTANT, if requested by CFX and the COUNTY, shall transmit to and secure from the UAO the executed subordination agreements prepared by the appropriate CFX and COUNTY offices. The CONSULTANT shall coordinate with the DUO the programming of the necessary work program funds to compensate the UAO.

B.7.9 Utility Design Meeting

The CONSULTANT shall schedule (time and place), notify participants, and conduct a Utility meeting with all affected UAO(s). The CONSULTANT shall be prepared to discuss impacts to existing trees/vegetation and proposed landscape, drainage, traffic signalization, temporary traffic control plans (TTCP) (construction phasing), review the current design schedule and letting date, evaluate the utility information collected, provide follow-up information on compensable property rights from CFX and COUNTY Legal Offices, discuss with each UAO the utility work by highway contractor option, discuss any future design issues that may impact utilities, etc., to the extent that they may have an effect on existing or proposed utility facilities with particular emphasis on drainage and TTCP with each UAO. The intent of this meeting shall be to assist the UAOs in identifying and resolving conflicts between utilities and proposed construction before completion of the plans, including utility adjustment details. Also, to work with the UAOs to recommend potential resolution between known utility conflicts with proposed construction plans as may be deemed practical by the UAO. The CONSULTANT shall keep accurate minutes of all meetings and distribute a copy to all attendees within 3 days. See Task 4.5 (Horizontal/Vertical Master Design File) and Task 36.5 (Cross Section Design Files) for utility conflict location identification and adjustments.

B.7.10 Review Utility Markups & Work Schedules and Processing of Schedules & Agreements

The CONSULTANT shall review utility marked up plans and work schedules as they are received for content and coordinate review with the designer. Send color markups and schedules to the appropriate CFX and COUNTY offices such as survey, geotechnical, drainage, structures, lighting, roadway, signals, utilities, landscape architecture, municipalities, maintaining agency, and Traffic Operations for review and comment if required by CFX and the COUNTY. Coordinate with the CFX and the COUNTY for

execution. Distribute Executed Final Documents. Prepare Work Order for UAO(s). The CONSULTANT shall coordinate with the DUO the programming of necessary Work Program funds.

B.7.11 Utility Coordination/Follow-up

The CONSULTANT shall provide utility coordination and follow up. This includes follow-up, interpreting plans, and assisting the UAOs with completion of their work schedules and agreements. Includes phone calls, face-to-face meetings, etc., to motivate and ensure the UAO(s) complete and return the required documents in accordance with the project schedule. Ensure the resolution of all known conflicts. The CONSULTANT shall keep accurate minutes of all meetings and distribute a copy to all attendees. This task can be applied to all phases of the project

B.7.12 Utility Constructability Review

The CONSULTANT shall review utility schedules against construction contract time, and phasing for compatibility. Coordinate with and obtain written concurrence from the construction office. See Task 4.5 (Horizontal/Vertical Master Design File) and Task 36.5 (Cross Section Design Files) for utility conflict identification and adjustments.

B.7.13 Additional Utility Services – N/A

B.7.14 Processing Utility Work by Highway Contractor (UWHC)

This includes coordination of utility design effort between CFX, COUNTY, and the UAO(s). The CONSULTANT shall conduct additional coordination meetings, prepare and process the agreements, review tabulation of quantities, perform UWHC constructability and bidability review, review pay items, cost estimates and Technical Special Provisions (TSP) or Modified Special Provision (MSP) prepared by the UAO. This does not include utility the utility design effort. This item is not usually included in the scope at the time of negotiation. It is normally added as a supplemental agreement when the need is identified. Effort for the EOR is not included in this task, see Roadway Analysis Task Group 4.

B.7.15 Contract Plans to UAO(s)

If requested by CFX and/or the COUNTY, the CONSULTANT shall transmit the contract plans as processed for letting to the UAO(s). Transmittals to UAO(s) may be by certified mail, return receipt requested.

B.7.16 Certification/Close-Out

This includes hours for transmitting utility files to the DUO and preparation of the Utility Certification Letter. The CONSULTANT shall certify to the appropriate CFX and COUNTY representatives the following:

All utility negotiations (Full execution of each agreement, approved Utility Work Schedules, Technical Special Provisions or Modified Special Provisions written, etc.) have been completed with arrangements made for utility work to be undertaken and completed as required for proper coordination with the physical construction schedule.

OR

An on-site inspection was made and no utility work will be involved.

OR

Plans were sent to the Utility Companies/Agencies and no utility work is required.

B.7.17 Other Utilities – N/A

B.8 ENVIRONMENTAL PERMITS and ENVIRONMENTAL CLEARANCES

CFX's Project Manager will review, coordinate and submit the applications for all environmental permits, including EPA's NPDES General Permits for Stormwater Discharges from Construction Sites. The CONSULTANT shall provide all information, permit applications and data relating to Stormwater Management and Floodplain Impacts required for the permits to CFX. (CFX will be responsible for preparing all of the Wetlands and Protected Species analysis and documentation required for the permits.) The CONSULTANT shall:

1. Attend the pre-application meetings and site visits with CFX and regulatory agencies.
2. Provide aerial maps at a 1"=400' scale which include SCS soils data, 100-year floodplain limits and proposed project.
3. Provide all plans, calculations, sketches and reports required for permits except as described above.
4. Provide copies of all drainage calculation, including pond routing nodal diagrams, for the project.
5. Assist CFX in responding to any requests for additional information made by regulatory agencies after the permit application is submitted.
6. Incorporate any changes required by changes in regulatory agency requirements during the course of the project. If this requires additional work by the Consultant a Supplemental Agreement will be prepared.
7. Prepare a list of adjacent landowners along with address and nine-digit zip code at all wetland encroachment sites.
8. The Consultant will create and review dredge and fill sketches as required by the permitting agencies if applicable. Mitigation plans, if required, may be added as a supplemental service.
9. Determine extent of floodplain impacts, if any, and provide compensatory flood stages as required
10. Preliminary field evaluation of general land use and wildlife habitat within existing ROW, pond sites, and bridges
11. Pre-application meeting with FDEP

B.8.1 Preliminary Project Research – N/A

B.8.2 Field Work

B.8.2.1 Pond Site Alternatives:

The CONSULTANT shall coordinate with CFX on alternative pond sites.

B.8.2.2 Establish Wetland Jurisdictional Lines and Assessments – N/A

B.8.2.3 Species Surveys: – N/A

B.8.3 Agency Verification of Wetland Data – N/A

B.8.4 Complete and Submit All Required Permit Applications

CFX to prepare and submit all required permit documents. CONSULTANT to provide support to CFX in applications and response to RAIs.

B.8.4.1 Complete and Submit all Required Wetland Permit Applications:

The CONSULTANT shall assist CFX in responses to agency Requests for Additional Information (RAIs), including necessary revisions to the application package. All responses and completed application packages must be approved by CFX and the COUNTY prior to submittal to the regulatory agencies.

B.8.4.2 Complete and Submit all Required Species Permit Applications: – N/A

B.8.5 Coordinate and Review Dredge and Fill Sketches

The CONSULTANT shall provide Dredge and Fill Detail sheets to ensure information on the sketch(es) meet the requirements of the regulatory agencies and are appropriate for environmental permit application submittal and acquisition. The CONSULTANT will also provide environmental data/information as needed to support the preparation of the Dredge and Fill sketches.

B.8.6 Prepare USCG Permit Application – N/A

B.8.7 Prepare Water Management District or Local Water Control District Right of Way Occupancy Permit Application – N/A

B.8.8 Prepare Coastal Construction Control Line (CCCL) Permit Application – N/A

B.8.9 Prepare USACE Section 408 Application to Alter a Civil Works Project – N/A

B.8.10 Compensatory Mitigation Plan – N/A

B.8.11 Mitigation Coordination and Meetings – N/A

B.8.12 Other Environmental Permits – N/A

B.8.13 Technical Support to CFX for Environmental Clearances and Reevaluations (use when CONSULTANT provides technical support only) – N/A

B.8.13.1 NEPA or SEIR Re-evaluation - N/A

B.8.13.2 Archaeological and Historical Resources - (Included in Part A)

B.8.13.3 Wetland Impact Analysis – N/A

B.8.13.4 Essential Fish Habitat Impact Analysis - N/A

B.8.13.5 Protected Species and Habitat Impact Analysis – N/A

B.8.14 Preparation of Environmental Clearances and Re-evaluations (use when CONSULTANT prepares all documents associated with a re-evaluation) – N/A

B.8.15 Contamination Impact Analysis – N/A

B.8.16 Asbestos Survey – N/A

B.8.17 Technical Meetings

B.8.18 Quality Assurance/Quality Control

B.8.19 Supervision

B.8.20 Coordination

B.9 STRUCTURES - SUMMARY AND MISCELLANEOUS TASKS

The CONSULTANT shall analyze, design, and develop contract documents for all structures in accordance with applicable provisions as defined in Section 2.19, Provisions for Work. Individual tasks identified in Sections 9 through 18 are defined in the Staff Hour Estimation Handbook and within the provision defined in Section 2. 20, Provisions for Work. Contract documents shall display economical solutions for the given conditions.

The CONSULTANT shall provide Design Documentation to CFX with each submittal consisting of structural design calculations and other supporting documentation developed during the development of the plans. The design calculations submitted shall adequately address the complete design of all structural elements. These calculations shall be neatly and logically presented on digital media or, at CFX and COUNTY request, on 8 ½"x11" paper and all sheets shall be numbered. The final design calculations shall be signed and sealed by a Florida-licensed professional engineer. A cover sheet indexing the contents of the calculations shall be included and the engineer shall sign and seal that sheet. All computer programs and parameters used in the design calculations shall include sufficient backup information to facilitate the review task.

- B.9.1 Key Sheet and Index of Drawings – N/A**
- B.9.2 Project Layout– N/A**
- B.9.3 General Notes and Bid Item Notes– N/A**
- B.9.4 Miscellaneous Common Details– N/A**
- B.9.5 Incorporate Report of Core Borings**
- B.9.6 Standard Plans- Bridges – N/A**
- B.9.7 Existing Bridge Plans – N/A**
- B.9.8 Assemble Plan Summary Boxes and Quantities – N/A**
- B.9.9 Cost Estimate – N/A**
- B.9.10 Technical Special Provisions and Modified Special Provisions – N/A**
- B.9.11 Field Reviews – N/A**
- B.9.12 Technical Meetings**
- B.9.13 Quality Assurance/Quality Control**
- B.9.14 Independent Peer Review – N/A**
- B.9.15 Supervision**
- B.9.16 Coordination**

B.18 STRUCTURES - MISCELLANEOUS

The CONSULTANT shall prepare plans for Miscellaneous Structure(s) as specified in Section 2.5. If any miscellaneous structures, other than mast arms, are identified in the Part 'A' effort, e.g. permanent retaining walls, and/or overhead signs, then an appropriate level of effort and associated supplemental fee can be determined by CFX, COUNTY, and the CONSULTANT.

Concrete Box Culverts

B.18.1 Concrete Box Culverts – N/A

B.18.2 Concrete Box Culverts Extensions – N/A

B.18.3 Concrete Box Culvert Data Table Plan Sheets – N/A

B.18.4 Concrete Box Culvert Special Details Plan Sheets – N/A

Strain Poles

B.18.5 Steel Strain Poles – N/A

B.18.6 Concrete Strain Poles – N/A

B.18.7 Strain Pole Data Table Plan Sheets – N/A

B.18.8 Strain Pole Special Details Plan Sheets – N/A

Mast Arms

B.18.9 Mast Arms

B.18.10 Mast Arms Data Table Plan Sheets

B.18.11 Mast Arms Special Details Plan Sheets

Overhead/Cantilever Sign Structure

B.18.12 Cantilever Sign Structures – N/A

B.18.13 Overhead Span Sign Structures – N/A

B.18.14 Special (Long Span) Overhead Sign Structures – N/A

B.18.15 Monotube Overhead Sign Structure – N/A

B.18.16 Bridge Mounted Signs (Attached to Superstructure) – N/A

B.18.17 Overhead/Cantilever Sign Structures Data Table Plan Sheets – N/A

B.18.18 Overhead/Cantilever Sign Structures Special Details Plan Sheets – N/A

High Mast Lighting

B.18.19 Non-Standard High Mast Lighting Structures – N/A

B.18.20 High Mast Lighting Special Details Plan Sheets – N/A

Noise Barrier Walls (Ground Mount) – N/A

B.18.21 Horizontal Wall Geometry – N/A

B.18.22 Vertical Wall Geometry – N/A

B.18.23 Summary of Quantities – Aesthetic Requirements – N/A

B.18.24 Control Drawings – N/A

B.18.25 Design of Noise Barrier Walls Covered by Standards – N/A

B.18.26 Design of Noise Barrier Walls not Covered by Standards – N/A

B.18.27 Aesthetic Details – N/A

Special Structures

B.18.28 Fender System – N/A

B.18.29 Fender System Access – N/A

B.18.30 Special Structures – N/A

B.18.31 Other Structures – N/A

B.18.32 Condition Evaluation of Signal and Sign Structures, and High Mast Light Poles – N/A

B.18.33 Condition Evaluation of Signal and Sign Structures, and High Mast Light Poles (No As built or Design Plans Available) – N/A

B.18.34 Analytical Evaluation of Signal and Sign Structures, and High Mast Light Poles – N/A

B.18.35 Ancillary Structures Report – N/A

B.19 SIGNING AND PAVEMENT MARKING ANALYSIS

The CONSULTANT shall analyze and document Signing and Pavement Markings Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

B.19.1 Traffic Data Analysis – N/A

B.19.2 No Passing Zone Study – N/A

B.19.3 Reference and Master Design File

The CONSULTANT shall prepare the Signing & Marking Design file to include all necessary design elements and all associated reference files.

Included in the design are three (3) signalized intersections (CR 532 & Poinciana Parkway off-ramp, CR 532 & Poinciana Parkway on-ramp, and CR 532 & Old Lake Wilson Road) and loop replacement at the intersection of CR 532 and Orange Blossom Trail.

B.19.4 Multi-Post Sign Support Calculations

The CONSULTANT will perform multi-post sign support calculations for six (6) signs and shall determine the appropriate column size from the FDOT's Multi-Post Sign Program(s).

The six signs include the replacement of the existing three destination sign in advance of the intersection of CR 532 with Orange Blossom Trail, three (3) proposed next signal signs in advance of the intersections of CR 532 with Lake Wilson Road, Old Lake Wilson Road, and Orange Blossom Trail, and two signs in advance (eastbound and westbound) of the PPE on-ramp.

B.19.5 Sign Panel Design Analysis

Establish sign layout, letter size and series for non-standard signs listed in B.19.4.

B.19.6 Sign Lighting/Electrical Calculations – N/A

B.19.7 Quantities

B.19.8 Cost Estimate

B.19.9 Technical Special Provisions and Modified Special Provisions

B.19.10 Other Signing and Pavement Marking Analysis

The CONSULTANT will develop a multipost sign report and a traffic signal signing report, in accordance with chapter 3.1.4 of the CFX Signing and Pavement Marking Standards. The traffic signal signing document will include an autoturn analysis and a summary of all the intersection signs. Both of the documents will be submitted at the 60% submittal.

B.19.11 Field Reviews

B.19.12 Technical Meetings

B.19.13 Quality Assurance/Quality Control

B.19.14 Independent Peer Review – N/A

B.19.15 Supervision

B.19.16 Coordination

B.20 SIGNING AND PAVEMENT MARKING PLANS

The CONSULTANT shall prepare a set of Signing and Pavement Marking Plans in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums that includes the following.

B.20.1 Key Sheet

B.20.2 Summary of Pay Items Including Quantity Input – N/A

B.20.3 Tabulation of Quantities

B.20.4 General Notes/Pay Item Notes

B.20.5 Project Layout – N/A

B.20.6 Plan Sheet

B.20.7 Typical Details – N/A

B.20.8 Guide Sign Work Sheet(s)

B.20.9 Traffic Monitoring Site

B.20.10 Cross Sections

B.20.11 Special Service Point Details – N/A

B.20.12 Special Details – N/A

B.20.13 Interim Standards – N/A

B.20.14 Quality Assurance/Quality Control

The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of traffic design drawings, specifications and other services furnished by the CONSULTANT under this contract.

The CONSULTANT shall provide a Quality Control Plan that describes the procedures to be utilized to verify, independently check, and review all design drawings, specifications and other services prepared as a part of the contract. The CONSULTANT shall describe how the checking and review processes are to be documented to verify that the required procedures were followed. The Quality Control Plan may be one utilized by the CONSULTANT as part of their normal operation or it may be one specifically designed for this project.

B.20.15 Supervision

B.21 SIGNALIZATION ANALYSIS

The CONSULTANT shall analyze and document Signalization Analysis Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

B.21.1 Traffic Data Collection

B.21.2 Traffic Data Analysis

The CONSULTANT shall determine signal operation plan, intersection geometry, local signal timings, and pre-emption phasing & timings for the intersections of CR 532 & Poinciana Parkway off-ramp, CR 532 & Poinciana Parkway on-ramp, and CR 532 & Old Lake Wilson Road as part of this scope.

B.21.3 Signal Warrant Study – Included in Part A

B.21.4 Systems Timings

The CONSULTANT shall determine proper coordination timing plans including splits, force offs, offsets, and preparation of Time Space Diagram.

B.21.5 Reference and Master Signalization Design File

B.21.6 Reference and Master Interconnect Communication Design File

The CONSULTANT shall prepare the Interconnect Communication Design file to include all necessary design elements and all associated reference files for 2.9 miles along CR 532. The design will include the 72 SM fiber optic trunk line along CR 532 with no splicing or drops to the controller cabinets.

B.21.7 Overhead Street Name Sign Design

The CONSULTANT shall design Signal Mounted Overhead Street Name signs for CR 532, Poinciana Parkway off-ramp, Poinciana Parkway on-ramp, and Old Lake Wilson Road.

B.21.8 Pole Elevation Analysis

B.21.9 Traffic Signal Operation Report

B.21.10 Quantities

B.21.11 Cost Estimate

B.21.12 Technical Special Provisions and Modified Special Provisions

B.21.13 Other Signalization Analysis – N/A

B.21.14 Field Reviews

B.21.15 Technical Meetings

B.21.16 Quality Assurance/Quality Control

B.21.17 Independent Peer Review – N/A

B.21.18 Supervision

B.21.19 Coordination

B.22 SIGNALIZATION PLANS

The CONSULTANT shall prepare a set of Signalization Plans in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums, which includes the following:

B.22.1 Key Sheet

B.22.2 Summary of Pay Items Including Designer Interface Quantity Input – N/A

B.22.3 Tabulation of Quantities

B.22.4 General Notes/Pay Item Notes

B.22.5 Plan Sheet

B.22.6 Interconnect Plans

B.22.7 Traffic Monitoring Site – N/A

B.22.8 Guide Sign Worksheet

B.22.9 Special Details

B.22.10 Special Service Point Details

B.22.11 Mast Arm/Monotube Tabulation Sheet

B.22.12 Strain Pole Schedule – N/A

B.22.13 TTCP Signal (Temporary) – N/A

B.22.14 Temporary Detection Sheet – N/A

B.22.15 Utility Conflict Sheet

B.22.16 Interim Standards – N/A

B.22.17 Quality Assurance/Quality Control

B.22.18 Supervision

B.23 LIGHTING ANALYSIS

Note: Lighting Analysis and Plans are dependent on the results of the Lighting Justification Report performed in Part 'A' of this Scope. The CONSULTANT shall analyze and document Lighting Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

B.23.1 Lighting Justification Report – (performed in Part 'A')

B.23.2 Lighting Design Analysis Report

The CONSULTANT shall prepare a Preliminary Lighting Design Analysis Report. The report shall be submitted under a separate cover with the Phase II plans submittal. The report shall provide analyses for each signalized intersection lighting design and each typical section of the mainline, typical section for the ramps (one and/or two lanes), interchanges, underdeck lighting, and arterial roads. Each lighting calculation shall be properly identified as to the area that it covers.

The report shall include the Lighting Design Criteria that will be used. For projects with corridor lighting, the report shall include the evaluation of at least three lighting design alternatives. The report shall provide a recommendation on the alternative to use. Each alternative shall be properly described; the alternatives shall consider different pole heights, lamp wattage, and arm lengths. Each alternative shall be provided with a cost estimate that includes initial cost in addition to operations and maintenance cost for one year.

The report shall also include the lighting calculations for each lighted sign.

After approval of the preliminary report, the CONSULTANT shall submit a revised report for each submittal. The Lighting Design Analysis Report shall include:

- Voltage drop calculations
- Load analysis calculations for each branch circuit

B.23.3 Voltage Drop Calculations

The CONSULTANT shall submit voltage drop calculations showing the equation or equations used along with the number of luminaries per circuit, the length of each circuit, the size conductor or conductors used and their ohm resistance values. The voltage drop incurred on each circuit (total volts and percentage of drop) shall be calculated, and all work necessary to calculate the voltage drop values for each circuit should be presented in such a manner as to be duplicated by CFX and the COUNTY.

The Voltage Drop Calculations shall be submitted as part of the Lighting Design Analysis Report.

B.23.4 FDEP Coordination and Report – N/A

B.23.5 Reference and Master Design Files

The CONSULTANT shall prepare the Lighting Design file to include all necessary design elements and all associated reference files.

B.23.6 Temporary Lighting – N/A

B.23.7 Design Documentation

The CONSULTANT shall submit a Design Documentation with each plans submittal under a separate cover and not part of the roadway documentation book. At a minimum, the design documentation shall include:

- Phase submittal checklist.
- Structural calculations for special conventional pole concrete foundations.
- Correspondence with the power company concerning new electrical service.

B.23.8 Quantities

B.23.9 Cost Estimate

B.23.10 Technical Special Provisions and Modified Special Provisions - N/A

B.23.11 Other Lighting Analysis - N/A

B.23.12 Field Reviews

The CONSULTANT shall collect information from the maintaining agencies and conduct a field review. The review should include but is not limited to the following:

- Existing Lighting Equipment
- Load Center, Capabilities and Condition/Age
- Condition of Lighting Structure(s)
- Verification of horizontal clearances
- Verification of breakaway requirements

B.23.13 Technical Meetings

B.23.14 Quality Assurance/Quality Control

B.23.15 Independent Peer Review – N/A

B.23.16 Supervision

B.23.17 Coordination

B.24 LIGHTING PLANS

Note: Lighting Analysis and Plans are dependent on the results of the Lighting Justification Report performed in Part 'A' of this Scope. The CONSULTANT shall prepare a set of Lighting Plans in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

B.24.1 Key Sheet

B.24.2 Summary of Pay Item Sheet Including Designer Interface Quantity Input – N/A

B.24.3 Tabulation of Quantities

B.24.4 General Notes/Pay Item Notes

B.24.5 Pole Data, Legend & Criteria

B.24.6 Service Point Details

B.24.7 Project Layout

B.24.8 Plan Sheet

B.24.9 Special Details – N/A

B.24.10 Temporary Lighting Data and Details

B.24.11 Temporary Traffic Control Plan Sheets – N/A

B.24.12 Interim Standards

B.24.13 Quality Assurance/Quality Control

The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of traffic design drawings, specifications and other services furnished by the CONSULTANT under this contract.

The CONSULTANT shall provide a Quality Control Plan that describes the procedures to be utilized to verify, independently check, and review all design drawings, specifications and other services prepared as a part of the contract. The CONSULTANT shall describe how the checking and review processes are to be documented to verify that the required procedures were followed. The Quality Control Plan may be one utilized by the CONSULTANT as part of their normal operation or it may be one specifically designed for this project.

B.24.14 Supervision

B.25 LANDSCAPE ANALYSIS

B.25.1 Data Collection

B.25.2 Site Inventory and Analysis for Proposed Landscape

CONSULTANT to analyze suitability for landscape areas and irrigation feasibility.

B.25.3 Planting Design – N/A

B.25.3a Conceptual Planting Design – N/A

B.25.3b Final Planting Design – N/A

B.25.4 Irrigation Design

B.25.4a Conceptual Irrigation Design

Conceptual Design: Includes determination of water and power sources. Phase I design level. Sleeves for the future irrigation systems, which are not included within this Project, will be incorporated in the design and construction plans.

B.25.4a1 Feasibility Report: Includes analysis of methods, materials and operation costs associated with proposed irrigation system design.

B.25.4a2 Mainline

B.25.4a3 Interchanges, Intersections, and Rest Areas - N/A

B.25.4a4 Toll Plazas - N/A

B.25.4b Final Irrigation Design – N/A

B.25.5 Hardscape Design - N/A

B.25.6 Roll Plots

Task includes any roll plots for the project to aid in developing final plans (landscape opportunity, disposition, site inventory and analysis, etc.)

B.25.7 Cost Estimates – N/A

B.25.8 Technical Special Provisions and Modified Special Provisions – N/A

B.25.9 Inspection Services – N/A

B.25.10 Other Landscape Services – N/A

B.25.11 Outdoor Advertising – N/A

B.25.12 Field Reviews

B.25.13 Technical Meetings / Public Meetings

B.25.14 Quality Assurance/Quality Control

B.25.15 Independent Peer Review - N/A

B.25.16 Supervision

B.25.17 Project Coordination

B.25.18 Interdisciplinary Coordination

B.26 LANDSCAPE PLANS

B.26.1 Key Sheet

B.26.2 Tabulation of Quantities and Plans Schedule

B.26.3 General Notes

B.26.4 Tree and Vegetation Protection and Relocation Plans and Tree Disposition Plans – N/A

B.26.5 Planting Plans For Linear Roadway Projects – N/A

B.26.6 Planting Plans (Interchanges and Toll Plazas) – N/A

B.26.7 Planting Details and Notes – N/A

B.26.8 Irrigation Plans for Linear Roadway Project

B.26.9 Irrigation Plans for Interchange and Toll Plazas - N/A

B.26.10 Irrigation Details and Notes – N/A

B.26.11 Hardscape Plans – N/A

B.26.12 Hardscape Details and Notes – N/A

B.26.13 Maintenance Plan – N/A

B.26.14 Quality Assurance/Quality Control

B.26.15 Supervision

B.27 SURVEY

The CONSULTANT shall perform survey tasks in accordance with all applicable statutes, manuals, guidelines, standards, handbooks, procedures, and current design memoranda. The CONSULTANT shall submit all survey notes and computations to document the surveys. All field survey work shall be recorded in approved media and submitted to CFX and the COUNTY. Field books submitted to CFX and the COUNTY must be of an approved type. The field books shall be certified by the surveyor in responsible charge of work being performed before the final product is submitted.

The survey notes shall include documentation of decisions reached from meetings, telephone conversations or site visits. All like work (such as bench lines, reference points, etc.) shall be recorded contiguously. CFX and the COUNTY may not accept field survey radial locations of section corners, platted subdivision lot and block corners, alignment control points, alignment control reference points and certified section corner references. CFX and the COUNTY may instead require that these points be surveyed by true line, traverse or parallel offset.

B.27.1 Horizontal Project Control (HPC)

Establish or recover HPC, for the purpose of establishing horizontal control on the Florida State Plane Coordinate System or datum; may include primary or secondary control points. Includes analysis and processing of all field collected data, and preparation of forms.

B.27.2 Vertical Project Control (VPC)

Establish or recover VPC, for the purpose of establishing vertical control on datum; may include primary or secondary vertical control points. Includes analysis and processing of all field collected data, and preparation of forms.

B.27.3 Alignment and/or Existing Right of Way (R/W) Lines

Establish, recover or re-establish project alignment. Also includes analysis and processing of all field collected data, existing maps, and/or reports for identifying mainline, ramp, offset, or secondary alignments. Depict alignment and/or existing R/W lines (in required format) per Osceola County R/W Maps, platted or dedicated rights of way.

B.27.4 Aerial Targets – N/A

B.27.5 Reference Points

Reference Horizontal Project Control (HPC) points, project alignment, vertical control points, section, ¼ section, center of section corners and General Land Office (G.L.O.) corners as required.

B.27.6 Topography/Digital Terrain Model (DTM) (3D)

Locate all above ground features and improvements for the limits of the project by collecting the required data for the purpose of creating a DTM with sufficient density. Shoot all break lines, high and low points. Effort includes field edits, analysis and processing of all field collected data, existing maps, and/or reports.

B.27.7 Planimetric (2D) – N/A

B.27.8 Roadway Cross Sections/Profiles

Perform cross sections or profiles. May include analysis and processing of all field-collected data for comparison with DTM.

B.27.9 Side Street Surveys

Refer to tasks of this document as applicable.

B.27.10 Underground Utilities

Designation includes 2-dimensional collection of existing utilities and selected 3-dimensional verification as needed for designation. Location includes non-destructive excavation to determine size, type and location of existing utility, as necessary for final 3-dimensional verification. Survey includes collection of data on points as needed for designates and locates. Includes analysis and processing of all field collected data, and delivery of all appropriate electronic files.

B.27.11 Outfall Survey

Locate all above ground features and improvements for the limits of the project by collecting the required data for the purpose of a DTM. Survey with sufficient density of shots. Shoot all break lines, high and low points. Includes field edits, analysis and processing of all field collected data, existing maps, and/or reports.

B.27.12 Drainage Survey

Locate underground data (XYZ, pipe size, type, condition and flow line) that relates to above ground data. Includes field edits, analysis and processing of all field collected data, existing maps, and/or reports.

B.27.13 Bridge Survey (Minor/Major)

Locate required above ground features and improvements for the limits of the bridge. Includes field edits, analysis and processing of all field collected data, existing maps, and/or reports.

B.27.14 Channel Survey

Locate all topographic features and improvements for the limits of the project by collecting the required data. Includes field edits, analysis and processing of all field collected data, maps, and/or reports.

B.27.15 Pond Site Survey

Refer to tasks of this document as applicable.

B.27.16 Mitigation Survey

Refer to tasks of this document as applicable.

B.27.17 Jurisdiction Line Survey

Perform field location (2-dimensional) of jurisdiction limits as defined by respective authorities, also includes field edits, analysis and processing of all field collected data, preparation of reports.

B.27.18 Geotechnical Support

Perform 3-dimensional (X,Y,Z) field location, or stakeout, of boring sites established by

geotechnical engineer. Includes field edits, analysis and processing of all field collected data and/or reports.

B.27.19 Sectional/Grant Survey

Perform field location/placement of section corners, 1/4 section corners, and fractional corners where pertinent. Includes analysis and processing of all field-collected data and/or reports.

B.27.20 Subdivision Location

Survey all existing recorded subdivision/condominium boundaries, tracts, units, phases, blocks, street R/W lines, common areas. Includes analysis and processing of all field collected data and/or reports. If unrecorded subdivision is on file in the public records of the subject county, tie existing monumentation of the beginning and end of unrecorded subdivision.

B.27.21 Maintained R/W

Perform field location (2-dimensional) of maintained R/W limits as defined by respective authorities, if needed. Also includes field edits, analysis and processing of all field collected data, preparation of reports.

B.27.22 Boundary Survey

Perform boundary survey as defined by CFX standards. Includes analysis and processing of all field-collected data, preparation of reports.

B.27.23 Water Boundary Survey

Perform Mean High Water, Ordinary High Water and Safe Upland Line surveys as required by CFX standards.

B.27.24 Right of Way Staking, Parcel / Right of Way Line

Perform field staking and calculations of existing/proposed R/W lines for on-site review purposes.

B.27.25 Right of Way Monumentation

Set R/W monumentation as depicted on final R/W maps for corridor and water retention areas.

B.27.26 Line Cutting

Perform all efforts required to clear vegetation from the line of sight.

B.27.27 Work Zone Safety

Provide work zone as required by CFX standards.

B.27.28 Vegetation Survey

Locate vegetation within the project limits.

B.27.29 Tree Survey

Locate individual trees or palms within the project limits.

B.27.30 Miscellaneous Surveys

Refer to tasks of this document, as applicable, to perform surveys not described herein. The percent for Supplemental will be determined at negotiations. This item can only be used if authorized in writing by CFX or their representative.

B.27.31 Supplemental Surveys

Supplemental survey days and hours are to be approved in advance by DS or DLS. Refer to tasks of this document, as applicable, to perform surveys not described herein.

B.27.32 Document Research

Perform research of documentation to support field and office efforts involving surveying and mapping.

B.27.33 Field Review

Perform verification of the field conditions as related to the collected survey data.

B.27.34 Technical Meetings

Attend meetings as required and negotiated by the Surveying and Mapping Department.

B.27.35 Quality Assurance/Quality Control (QA/QC)

Establish and implement a QA/QC plan. Also includes subconsultant review, response to comments and any resolution meetings if required, preparation of submittals for review, etc.

B.27.36 Supervision

Perform all activities required to supervise and coordinate project. These activities must be performed by the project supervisor, a Florida P.S.M. or their delegate as approved by CFX.

B.27.37 Coordination

Coordinate survey activities with other disciplines. These activities must be performed by the project supervisor, a Florida P.S.M. or their delegate as approved by CFX.

B.28 PHOTOGRAMMETRY – N/A

B.29 MAPPING

The CONSULTANT will be responsible for the preparation of control survey maps, right of way maps, maintenance maps, sketches, other miscellaneous survey maps, and legal descriptions as required for this project in accordance with all applicable FDOT Manuals, Procedures, Handbooks, and Florida Statutes. All maps, surveys and legal descriptions will be prepared under the direction of a Florida Professional Surveyor and Mapper (PSM) to CFX size and format requirements utilizing CFX approved software, and will be designed to provide a high degree of uniformity and maximum readability. The CONSULTANT will submit maps, legal descriptions, quality assurance check prints, checklists, electronic media files and any other documents as required for this project to CFX and the COUNTY for review at stages of completion as negotiated.

Master CADD File

B.29.1 Alignment

B.29.2 Section and 1/4 Section Lines

B.29.3 Subdivisions / Property Lines

B.29.4 Existing Right of Way

B.29.5 Topography

B.29.6 Parent Tract Properties and Existing Easements

B.29.7 Proposed Right of Way Requirements

The ENGINEER OF RECORD (EOR) will provide the proposed requirements. The PSM is responsible for calculating the final geometry. Notification of Final Right of Way Requirements along with the purpose and duration of all easements will be specified in writing.

B.29.8 Limits of Construction

The limits of construction DGN file as provided by the EOR will be imported or referenced to the master CADD file. Additional labeling will be added as required. The PSM is required to advise the EOR of any noted discrepancies between the limits of construction line and the existing/proposed right of way lines, and for making adjustments as needed when a resolution is determined.

B.29.9 Jurisdictional/Agency Lines

These lines may include, but are not limited to, jurisdictional, wetland, water boundaries, and city/county limit lines.

Sheet Files

B.29.10 Control Survey Cover Sheet

B.29.11 Control Survey Key Sheet

B.29.12 Control Survey Detail Sheet

B.29.13 Right of Way Map Cover Sheet

B.29.14 Right of Way Map Key Sheet

B.29.15 Right of Way Map Detail Sheet

B.29.16 Maintenance Map Cover Sheet

B.29.17 Maintenance Map Key Sheet

B.29.18 Maintenance Map Detail Sheet

B.29.19 Reference Point Sheet

This sheet(s) will be included with the Control Survey Map, Right of Way Map and Maintenance Map.

B.29.20 Project Control Sheet

This sheet depicts the baseline, the benchmarks, the primary and secondary control points and their reference points including the type of material used for each point, their XYZ coordinates, scale factors and convergence angles. This sheet(s) may be included with the Control Survey Map, Right of Way Map and Maintenance Map.

B.29.21 Table of Ownerships Sheet
Miscellaneous Surveys and Sketches

B.29.22 Parcel Sketches

B.29.23 TIITF Sketches

B.29.24 Other Specific Purpose Survey(s)

B.29.25 Boundary Survey(s) Map

B.29.26 Right of Way Monumentation Map

B.29.27 Title Search Map

B.29.28 Title Search Report

B.29.29 Legal Descriptions

B.29.30 Final Map/Plans Comparison

The PSM will perform a comparison of the final right of way maps with the available construction plans to review the correctness of the type of parcel to be acquired and the stations/offsets to the required right of way. The PSM will coordinate with the EOR to resolve any conflicts or discrepancies and provide documentation of the review.

B.29.31 Field Reviews

B.29.32 Technical Meetings

B.29.33 Quality Assurance/Quality Control

B.29.34 Supervision

B.29.35 Coordination

B.29.36 Supplemental Mapping

This task is to cover efforts resulting from major design and/or development changes after 60% map development that affect the right of way requirements/parent tract property lines and may include any number of tasks. Request and approval to utilize the Supplemental Mapping hours will be in writing and approved by CFX prior to any work being done under this task.

B.35 GEOTECHNICAL

The CONSULTANT shall, for each project, be responsible for a complete geotechnical investigation. All work performed by the CONSULTANT shall be in accordance with FDOT standards, or as otherwise directed by CFX and the COUNTY. CFX and the COUNTY will make interpretations and changes regarding geotechnical standards, policies and procedures and provide guidance to the CONSULTANT.

Before beginning each phase of investigation and after the Notice to Proceed is given, the CONSULTANT shall submit an investigation plan for approval and meet with CFX and the COUNTY to review the project scope and CFX and COUNTY requirements. The investigation plan shall include, but not be limited to, the proposed boring locations and depths, and all existing geotechnical information from available sources to generally describe the surface and subsurface conditions of the project site. Additional meetings may be required to plan any additional field efforts, review plans, resolve plans/report comments, resolve responses to comments, and/or any other meetings necessary to facilitate the project. The CONSULTANT shall notify CFX and the COUNTY in adequate time to schedule a representative to attend all related meetings and field activities.

B.35.1 Document Collection and Review

CONSULTANT will review printed literature including topographic maps, county agricultural maps, aerial photography (including historic photos), ground water resources, geology bulletins, potentiometric maps, pile driving records, historic construction records and other geotechnical related resources. Prior to field reconnaissance, CONSULTANT shall review U.S.G.S., S.C.S. and potentiometric maps, and identify areas with problematic soil and groundwater conditions.

Roadway

The CONSULTANT shall be responsible for coordination of all geotechnical related field work activities. The CONSULTANT shall retain all samples until acceptance of Phase IV plans. Rock cores shall be retained as directed in writing by CFX and the COUNTY. Obtain pavement cores as directed in writing by CFX and the COUNTY.

If required by CFX and the COUNTY, a preliminary roadway exploration shall be performed before the Phase I plans submittal. The preliminary roadway exploration will be performed and results provided to the Engineer of Record to assist in setting roadway grades and locating potential problem areas. The preliminary roadway exploration shall be performed as directed in writing by CFX and the COUNTY.

CONSULTANT shall perform specialized field-testing as required by project needs and as directed in writing by CFX and the COUNTY.

All laboratory testing and classification will be performed in accordance with applicable FDOT standards, ASTM Standards or AASHTO Standards, unless otherwise specified in the Contract Documents.

B.35.2 Develop Detailed Boring Location Plan

Develop a detailed boring location plan. Meet with CFX and the COUNTY for boring plan approval. If the drilling program expects to encounter artesian conditions, the CONSULTANT shall submit a methodology(s) for plugging the borehole to CFX and the

COUNTY for approval prior to commencing with the boring program.

B.35.3 Stake Borings/Utility Clearance

Stake borings and obtain utility clearance.

B.35.4 Muck Probing

Probe standing water and surficial muck in a detailed pattern sufficient for determining removal limits to be shown in the Plans.

B.35.5 Coordinate and Develop TTCP for Field Investigation

Coordinate and develop Temporary Traffic Control Plan (TTCP). All work zone traffic control will be performed in accordance with the FDOT's Standard Plans Index 102 series.

B.35.6 Drilling Access Permits

Obtain all State, County, City, and Water Management District permits for performing geotechnical borings, as needed.

B.35.7 Property Clearances

Notify property tenants in person of drilling and field activities, if applicable. Written notification to property owners/tenants is the responsibility of CFX and the COUNTY.

B.35.8 Groundwater Monitoring

Monitor groundwater using piezometers.

B.35.9 LBR / Resilient Modulus Sampling

Collect appropriate samples for Limerock Bearing Ratio (LBR) testing.

B.35.10 Coordination of Field Work

Coordinate all field work required to provide geotechnical data for the project.

B.35.11 Soil and Rock Classification - Roadway

Refine soil profiles recorded in the field, based on results of laboratory testing.

B.35.12 Design LBR

Determine design LBR values from the 90% and mean methods when LBR testing is required by CFX.

B.35.13 Laboratory Data

Tabulate laboratory test results for inclusion in the geotechnical report, the report of tests sheet (Roadway Soil Survey Sheet), and for any necessary calculations and analyses.

B.35.14 Seasonal High-Water Table

Review the encountered ground water levels and estimate seasonal high ground water levels. Estimate seasonal low ground water levels, if requested.

B.35.15 Parameters for Water Retention Areas

Provide aquifer parameters to the project Drainage Engineer for use in stormwater modeling of water retention areas, exfiltration trenches, and/or swales.

B.35.16 Delineate Limits of Unsuitable Material

Delineate limits of unsuitable material(s) in both horizontal and vertical directions. Assist the Engineer of Record with detailing these limits on the cross-sections. If requested, prepare a plan view of the limits of unsuitable material.

B.35.17 Electronic Files for Cross-Sections

Create electronic files of boring data to include in the Roadway cross-sections.

B.35.18 Embankment Settlement and Stability

Estimate the total magnitude and time rate of embankment settlements. Calculate the factor of safety against slope stability failure.

B.35.19 Monitor Existing Structures

Provide Roadway EOR guidance on the radius to review existing structures for monitoring. Optional services (may be negotiated at a later date if needed): Identify existing structures in need of settlement, vibration and/or groundwater monitoring by the contractor during construction and coordinate with the EOR and structural engineer (when applicable) to develop mitigation strategies. When there is risk of damage to the structure or facility, provide recommendations in the geotechnical report addressing project specific needs and coordinate those locations with the EOR. See FDM Chapter 307 and Chapter 9 of the Soils and Foundations Handbook.

B.35.20 Stormwater Volume Recovery and/or Background Seepage Analysis – N/A**B.35.21 Geotechnical Recommendations**

Provide geotechnical recommendations regarding the proposed roadway construction project including the following: description of the site/alignment, design recommendations and discussion of any special considerations (i.e. removal of unsuitable material, consolidation of weak soils, estimated settlement time/amount, groundwater control, high groundwater conditions relative to pavement base, etc.) Evaluate and recommend types of geosynthetics and properties for various applications, as required.

B.35.22 Pavement Condition Survey and Pavement Evaluation Report – N/A**B.35.23 Preliminary Roadway Report**

If a preliminary roadway investigation is performed, submit a preliminary roadway report before the Phase I plans submittal. The purpose of the preliminary roadway report will be to assist in setting road grades and locating potential problems.

- Copies of U.S.G.S. and S.C.S. maps with project limits shown.
- A report of tests sheet that summarizes the laboratory test results, the soil stratification (i.e. soils grouped into layers of similar materials) and construction recommendations relative to Standard Plans Indices 120-001 and 120-002.
- The results of all tasks discussed in all previous sections regarding data interpretation and analysis.
- An appendix that contains stratified soil boring profiles, laboratory test data

sheets, sample embankment settlement and stability calculations, design LBR calculation/graphs, and other pertinent calculations.

- The CONSULTANT will respond in writing to any changes and/or comments from CFX and the COUNTY and submit any responses and revised reports.

B.35.24 Final Report

The Final Roadway Report shall include the following:

- Copies of U.S.G.S. and S.C.S. maps with project limits shown.
- A report of tests sheet that summarizes the laboratory test results, the soil stratification (i.e. soils grouped into layers of similar materials) and construction recommendations relative to Standard Plans Indices 120-001 and 120-002.
- The results of all tasks discussed in all previous sections regarding data interpretation and analysis.
- An appendix that contains stratified soil boring profiles, laboratory test data sheets, sample embankment settlement and stability calculations, design LBR calculation/graphs, and other pertinent calculations.
- The CONSULTANT will respond in writing to any changes and/or comments from CFX and the COUNTY and submit any responses and revised reports.

B.35.25 Auger Boring Drafting

Draft auger borings as directed by CFX and the COUNTY.

B.35.26 SPT Boring Drafting

Draft SPT borings as directed by CFX and the COUNTY.

Structures:

The CONSULTANT shall be responsible for coordination of all geotechnical related fieldwork activities. The CONSULTANT shall retain all samples until acceptance of Phase IV plans. Rock cores shall be retained as directed in writing by CFX and the COUNTY.

CONSULTANT shall perform specialized field-testing as required by needs of project and as directed in writing by CFX and the COUNTY.

All laboratory testing and classification will be performed in accordance with applicable FDOT standards, ASTM Standards or AASHTO Standards, unless otherwise specified in the Contract Documents.

The staff hour tasks for high embankment fills and structural foundations for bridges, box culverts, walls, high-mast lighting, overhead signs, mast arm signals, strain poles, buildings, and other structures include the following: box culvert extensions (refer to Section B.2.5 of this Scope).

B.35.27 Develop Detailed Boring Location Plan

Develop a detailed boring location plan. Meet with CFX and the COUNTY for boring plan approval. If the drilling program expects to encounter artesian conditions, the

CONSULTANT shall submit a methodology(s) for plugging the borehole to CFX and the COUNTY for approval prior to commencing with the boring program.

B.35.28 Stake Borings/Utility Clearance

Stake borings and obtain utility clearance.

B.35.29 Coordinate and Develop TTCP for Field Investigation

Coordinate and develop TTCP plan. All work zone traffic control will be performed in accordance with the FDOT's Standard Plans Index 102 series.

B.35.30 Drilling Access Permits

Obtain all State, County, City, and Water Management District permits for performing geotechnical borings, as needed.

B.35.31 Property Clearances

Notify property tenants in person of drilling and field activities, if applicable. Written notification to property owners/tenants is the responsibility of CFX and the COUNTY.

B.35.32 Collection of Corrosion Samples

Collect corrosion samples for determination of environmental classifications.

B.35.33 Coordination of Field Work

Coordinate all field work required to provide geotechnical data for the project.

B.35.34 Soil and Rock Classification – Structures

Soil profiles recorded in the field should be refined based on results of laboratory testing.

B.35.35 Tabulation of Laboratory Data

Laboratory test results should be tabulated for inclusion in the geotechnical report and for the necessary calculations and analyses.

B.35.36 Estimate Design Groundwater Level for Structures

Review encountered groundwater levels, estimate seasonal high groundwater levels, and evaluate groundwater levels for structure design.

B.35.37 Selection of Foundation Alternatives (BDR) – N/A

B.35.38 Detailed Analysis of Selected Foundation Alternate(s) – N/A

B.35.39 Bridge Construction and Testing Recommendations – N/A

B.35.40 Lateral Load Analysis (Optional) – N/A

B.35.41 Walls – N/A

B.35.42 Sheet Pile Wall Analysis (Optional) – N/A

B.35.43 Design Soil Parameters for Signs, Signals, High Mast Lights, and Strain Poles and Geotechnical Recommendations

Provide the design soil profile(s) that include the soil model/type of each layer and all soil properties required by the Engineer of Record for foundation design. Review design for geotechnical compatibility and constructability.

B.35.44 Box Culvert Analysis – If required

- Provide the design soil profile(s) that include the soil model/type of each layer and all soil properties required by the Engineer of Record for foundation design. Review design for geotechnical compatibility and constructability.
- Provide lateral earth pressure coefficients.
- Provide box culvert construction and design recommendations.
- Estimate differential and total (long term and short term) settlements.
- Evaluate wingwall stability.

B.35.45 Preliminary Report – BDR – N/A

B.35.46 Final Report - Bridge and Associated Walls – N/A

B.35.47 Final Reports - Signs, Signals, Box Culvert, Walls, and High Mast Lights

The final reports shall include the following:

- Copies of U.S.G.S. and S.C.S. maps with project limits shown.
- Summary of structure background data, S.C.S., U.S.G.S., geologic and potentiometric data.
- The results of all tasks discussed in all previous sections regarding data interpretation and analysis).
- Recommendations for foundation installation, or other site preparation soils-related construction considerations with plan sheets as necessary.
- Any special provisions required for construction that are not addressed in the DEPARTMENT's Standard specification.
- An Appendix which includes SPT and CPT boring/sounding profiles, data from any specialized field tests, engineering analysis, notes/sample calculations, sheets showing ultimate bearing capacity curves versus elevation for piles and drilled shafts, a complete FHWA check list, pile driving records (if available), and any other pertinent information.

Final reports will incorporate comments from CFX and the COUNTY and contain any additional field or laboratory test results, recommended foundation alternatives along with design parameters and special provisions for the contract plans. These reports will be submitted to CFX and the COUNTY for review prior to project completion. After review by CFX and the COUNTY, the reports will be submitted in final form and will include the following:

- All original plan sheets (11" x 17")
- One set of all plan and specification documents, in electronic format, according to CFX and COUNTY requirements
- Two sets of record prints
- Six sets of any special provisions
- All reference and support documentation used in preparation of contract plans package

Additional final reports (up to four), aside from stated above, may be needed and requested

for CFX, COUNTY, and other disciplines.

The final reports, special provisions, as well as record prints, will be signed and sealed by a Professional Engineer licensed in the State of Florida.

Draft the detailed boring/sounding standard sheet, including environmental classification, results of laboratory testing, and specialized construction requirements, for inclusion in final plans.

B.35.48 SPT Boring Drafting

Prepare a complete set of drawings to include all SPT borings, auger borings and other pertinent soils information in the plans. Include these drawings in the Final Geotechnical Report. Draft borings, location map, S.C.S. map and U.S.D.A. map as directed by CFX and the COUNTY. Soil symbols must be consistent with those presented in the latest Florida Department of Transportation Soils and Foundations Handbook.

B.35.49 Other Geotechnical – N/A

B.35.50 Technical Special Provisions and Modified Special Provisions

B.35.51 Field Reviews

Identify and note surface soil and rock conditions, surface water conditions and locations, and preliminary utility conflicts. Observe and note nearby structures and foundation types.

B.35.52 Technical Meetings

B.35.53 Quality Assurance/Quality Control

B.35.54 Supervision

B.35.55 Coordination

B.37 PROJECT REQUIREMENTS

B.37.1 Liaison Office

CFX, COUNTY, and the CONSULTANT will designate a Liaison Office and a Project Manager who shall be the representative of their respective organizations for the Project. While it is expected the CONSULTANT shall seek and receive advice from various state, regional, and local agencies, the final direction on all matters of this project remain with CFX and the COUNTY.

B.37.2 Key Personnel

The CONSULTANT's work shall be performed and directed by the key personnel identified in the proposal presentations by the CONSULTANT. Any changes in the indicated personnel shall be subject to review and approval by CFX and the COUNTY.

B.37.3 Progress Reporting

The Consultant shall meet with CFX's Project Manager on a bi-weekly basis (or more often if necessary) and provide written progress reports which describe the work performed on each task. The dates and times of these meetings will be established by CFX. Two working days prior to each progress meeting, the Consultant shall provide CFX's Project Manager with a draft copy of the Progress Report and a typewritten agenda for the meeting. The Consultant shall prepare typewritten meeting minutes and submit them to CFX's Project Manager within five working days after the meeting. The minutes shall indicate issues discussed and the resolution or action required to resolve any issues.

B.37.4 Correspondence

Copies of all written correspondence between the CONSULTANT and any party pertaining specifically to this contract shall be provided to CFX and the COUNTY for their records within one (1) week of the receipt or mailing of said correspondence.

B.37.5 Professional Endorsement

The CONSULTANT shall have a Licensed Professional Engineer in the State of Florida sign and seal all reports, documents, Technical Special Provisions and Modified Special Provisions, and plans as required by FDOT standards.

B.37.6 Computer Automation

The project will be developed utilizing Computer Aided Drafting and Design (CADD) systems. It is the responsibility of the CONSULTANT to meet the requirements in the FDOT CADD Manual. The CONSULTANT shall submit final documents and files as described therein.

B.37.7 Coordination with Other Consultants

The CONSULTANT is to coordinate his work with any and all adjacent and integral consultants so as to effect complete and homogenous plans and specifications for the project(s) described herein.

B.37.8 Optional Services

At CFX option, the CONSULTANT may be requested to provide optional services. The fee for these services shall be negotiated in accordance with the terms detailed in Exhibit B,

Method of Compensation, for a fair, competitive and reasonable cost, considering the scope and complexity of the project(s). Additional services may be authorized by Letter of Authorization or supplemental amendment in accordance with paragraph 2.00 of the Standard Consultant Agreement. The additional services may include Construction Assistance, Review of Shop Drawings, Final Bridge Load Rating, update (Category II) bridge plans electronically (CADD) for the Final "As-Built" conditions, based on documents provided by CFX (CADD Services Only) or other Services as required.

B.37.9 Design Documentation

- The Consultant shall submit any design notes, sketches, worksheets, and computations to document the design conclusions reached during the development of the construction contract documents to CFX for review.
- The design notes and computations shall be recorded on 8-1/2" x 11" computation sheets, appropriately titled, numbered, dated, indexed and signed by the designer and checker. Computer output forms and other oversized sheets shall be folded or legibly reduced to 8-1/2" x 11" size. The data shall be bound in a hard-back folder for submittal to CFX.
- A CD/DVD with electronic (PDF Format) copies of the design notes and computations shall be submitted to CFX with each review submittal. When the plans are submitted for 90% review, the design notes and computations corrected for any CFX comments shall be resubmitted. At the project completion (bid set), one (1) hard copy of the final set of the design notes and computations, sealed by a Professional Engineer, registered in the State of Florida, shall be submitted with the record set of plans and tracings.
- Design notes and calculations shall include, but are not necessarily limited to, the following data:
 - Field survey notes and computations.
 - Design criteria used for the project.
 - Geometric design calculations for horizontal alignment.
 - Vertical geometry calculations.
 - Drainage calculations
 - Structural design calculations.
 - Geotechnical report.
 - Hydraulics Report for each bridged stream crossing.
 - Earthwork calculations not included in the quantity computation booklet.
 - Calculations showing cost comparisons of various alternatives considered, if applicable
 - Computations of quantities.
 - Documentation of decisions reached resulting from meetings, telephone conversations, or site visits.
 - Lighting and voltage drop calculations.
 - Lighting service letter from the power company stating the following: service voltage, type of service (overhead or underground), location of power company service point, and any other power company requirements.

B.37.10 Reviews and Submittals

- Review and coordination of the Consultant's work by CFX and the COUNTY shall continue through the project development process
- Formal submittals for review shall be made to CFX and the COUNTY when the plans have been developed to the following levels of completion:
 - Preliminary Engineering (Memorandum) (1 CD/DVD with all files in pdf format, and two (2) hard copy sets)
 - 30% Roadway Plans (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX project manager and COUNTY project manager and electronic submittal of PDF's to CFX GEC)
 - 30% Bridge and Structural Plans (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX project manager and COUNTY project manager and electronic submittal of PDF's to CFX GEC)
 - 60% Roadway and specifications, Geotechnical Report (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX project manager and COUNTY project manager and electronic submittal of PDF's to CFX GEC)
 - 60% Bridge Plans required only on Category 2 bridges.
 - 90% Bridge and Structural Plans (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX project manager and COUNTY project manager and electronic submittal of PDF's to CFX GEC)
 - 90% Roadway and specifications (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX project manager and COUNTY project manager and electronic submittal of PDF's to CFX GEC)
 - 100% Roadway, Bridge and specifications, Geotechnical Report (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX project manager and COUNTY project manager and electronic submittal of PDF's to CFX GEC)
 - Pre-Bid Plans (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX project manager and COUNTY project manager and electronic submittal of PDF's to CFX GEC)
 - Bid Set (1 set signed and sealed plans, 1 set "clean" plans, 1 set signed and sealed reports and one (1) CD/DVD with .PDF of all plans and reports)
- Formal review submittals shall include copies as listed above. 8-1/2" x 11" and 11" x 17" documents do not require reproducible copies.
- Preparation and distribution of roadway and ROW plans to other than CFX or CFX GEC will not be made until approved by CFX.
- The format of review submittal plans shall conform to the FDOT Design Manual, except as amended by CFX and the COUNTY.
- Due to the compact schedule of the design, review, and construction process, any modification to the agreed submittal dates will require a letter from the Consultant to CFX and the COUNTY giving:
 - The reason for the delay.
 - The design components impacted.

- Proposed methods to maintain submittal dates.
- The Consultant shall submit all CADD files, including GEOPAK files, use in the preparation of the plans and right of way mapping on compact disk with the final submittal.

B.37.10.1 30% Roadway Plan Submittal

At the completion of this phase, design and plan development should be approximately 30 percent complete except stormwater pond designs. The designs of the stormwater ponds shall be at 90% complete. The following material shall be developed and submitted for review:

1. Key Map Prepared
 - a. Location map shown complete with destinations, ranges and townships.
 - b. Beginning and ending stations shown.
 - c. Any equations on project shown.
 - d. Project numbers and title shown.
 - e. Index shown.
2. Drainage Map Prepared
 - a. Existing culvert sizes and elevations.
 - b. Horizontal alignment shown.
 - c. Drainage areas and flow arrows shown.
 - d. High water information shown.
 - e. Beginning and end stations shown along with any equations on project.
 - f. Interchange supplemental maps prepared.
3. Typical Section Sheets
 - a. Ramp typical sections developed.
 - b. Pavement structure shown.
 - c. Special details developed.
 - d. General notes shown.
4. Plan and Profile Sheets
 - a. Centerline plotted.
 - b. Reference points and benchmarks shown.
 - c. Existing topography.
 - d. Base line of surveys, curve data, bearings, etc. shown.
 - e. Beginning and end stations (project and construction).
 - f. Geometric dimensions.
 - g. Proposed and existing limited access right-of-way lines.
 - h. Existing ground line.
 - i. Proposed profile grade.
 - j. Type, size and horizontal location of existing utilities.
 - k. Drainage structures and numbers are shown
 - l. Drainage ponds are shown.
5. Cross Sections
 - a. Existing ground line.
 - b. Preliminary templates at critical locations (not to exceed 500 feet).
 - c. Existing utilities shown.

6. Interchange Layout and Ramp Profiles
 - a. Geometric dimensions.
 - b. Proposed profile grades.
7. Right-of-Way Control Survey
8. Signing and Pavement Markings
 - a. Striping layout.
 - b. Sign structure locations.

B.37.10.2 30% Bridge and Structural Plan Submittal

At completion of this phase, design and plan development should be approximately 30 percent complete. The Consultant shall refer to FDOT Structural Design Guidelines for plan contents and submittal requirements. Preliminary geotechnical results and recommendations should also be included with this submittal.

B.37.10.3 60% Roadway Plan Submittal

At completion of this phase, design and plan development should be approximately 60 percent complete except stormwater pond designs. The designs of the stormwater ponds shall be at 100% complete. The following material shall be developed and submitted for review:

1. Key Map
 - a. Project description and number shown.
 - b. Equations, exceptions and bridge stations shown.
 - c. North arrow and scale included.
 - d. Consultant and CFX sign-off included.
 - e. Contract set index complete.
 - f. Index of sheets updated.
2. Drainage Maps
 - a. Flood data shown.
 - b. Cross drains and storm sewer shown.
 - c. Bridges shown with beginning and ending stations.
 - d. Interchange supplemental sheets updated.
3. Typical Section Sheets
 - a. All required typical sections are included.
 - b. Limited access right-of-way lines are shown.
 - c. Design speed and traffic are shown.
 - d. Special details have been completed.
 - e. Station limits of each typical section are shown.
4. Plan and Profile Sheets
 - a. Match lines shown.
 - b. Limited access right-of-way lines shown.
 - c. Stations and offset shown for all fence corners and angles.
 - d. All work shown should be within right-of-way or proposed easement.
 - e. Drainage structures and numbers are shown.
 - f. Drainage ponds shown.
 - g. Curve data and superelevation included.

- h. Pavement edges, shoulders and dimensions shown.
- i. Project and construction limits shown.
- j. Bridges shown with beginning and ending stations.
- k. General Notes.
- 5. Drainage Structures
 - a. Drainage structures plotted and numbered.
 - b. Station location and offsets identified.
- 6. Cross Sections
 - a. Templates are shown at all stations.
 - b. Limited access right-of-way lines are shown.
 - c. Cross section pattern sheet included.
 - d. Miscellaneous notes included.
 - e. Boring profiles.
- 7. Interchange Layouts, Ramp Profiles and Intersection Details
 - a. Geometric data shown.
 - b. Profiles finalized.
 - c. Coordinate data shown.
 - d. Limited access right-of-way lines shown.
 - e. Curve data shown.
 - f. Bearings and bridges shown.
 - g. Cross roads, frontage roads, and access roads shown.
 - h. Intersection details shown.
- 8. Traffic Control Plans
- 9. Utility Adjustments
- 10. Signing and Pavement Marking Plans
- 11. Intelligent Transportation System (ITS) Plans
- 12. Highway Lighting Plans
- 13. Selective Clearing and Grubbing (if required)

B.37.10.4 60% Bridge and Structure Plan Submittal

At completion of this phase, design and plan development should be approximately 90 percent complete. The Consultant shall refer to FDOT Structural Design Guidelines for plan contents and submittal requirements.

B.37.10.5 90% Roadway Plan Submittal

At completion of this phase, design and plan development should be approximately 90 percent complete. The following material shall be developed and submitted for review:

- 1. Key Map
 - a. Length of Project with exceptions shown.
 - b. Index of sheets updated.
- 2. Drainage Maps
 - a. Drainage divides, areas and flow arrows shown.
 - b. Elevation datum and design high water information shown.
 - c. Disclaimer and other appropriate notes added.
- 3. Typical Section Sheets

4. Plan and Profile Sheets
 - a. Curve Control Points (P.C., P.I., P.T.) flagged and labeled.
 - b. Limits of side road construction.
 - c. Angle and stationing for intersections.
 - d. Treatment for non-standard superelevation transitions diagramed.
 - e. General notes shown.
 - f. Special ditches profiled.
5. Drainage Structures
 - a. Existing structures requiring modifications are shown.
 - b. Existing and proposed utilities are shown.
6. Soil Borings
 - a. Soils data and estimated high seasonal groundwater table shown.
7. Cross Section Sheets
 - a. Scale and special ditch grades shown.
 - b. Utilities plotted.
 - c. Sub-excavation shown.
 - d. Volumes computed and shown.
8. Utility Relocation Plans
 - a. Utility relocation plans prepared
9. Traffic Control Plans
10. Signing and Pavement Marking Plans
11. Signalization Plan
12. Intelligent Transportation System (ITS) Plans
13. Highway Lighting Plans
14. Selective Clearing and Grubbing (if required)

B.37.10.6 100% Roadway, Bridge, Structural and Right-of-Way Plans

At the completion of this phase, the design plans and special provisions shall be 100 percent complete.

B.37.10.6 Pre-Bid Plans

B.37.10.6 Bid Set

B.38 INVOICING LIMITS

Payment for the work accomplished shall be in accordance with Method of Compensation of this contract. Invoices shall be submitted to CFX, in a format prescribed by CFX. The CFX Project Manager and the CONSULTANT shall monitor the cumulative invoiced billings to ensure the reasonableness of the billings compared to the project schedule and the work accomplished and accepted by CFX.

The CONSULTANT shall provide a list of key events and the associated total percentage of work considered to be complete at each event. This list shall be used to control invoicing. Payments will not be made that exceed the percentage of work for any event until those events have actually occurred and the results are acceptable to CFX.

**CONSENT AGENDA ITEM
#12**

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

MEMORANDUM

TO: CFX Board Members

FROM: Laura Newlin Kelly, Associate General Counsel Laura Newlin Kelly
Associate General Counsel
Central Florida Expressway Authority

DATE: June 2, 2020

RE: Interlocal Agreement Regarding Relocation of Utilities Along SR 538 Between Tohopekaliga Water Authority (“TWA”) and the Central Florida Expressway Authority (“CFX”) Project No. 538-165

BACKGROUND

As a part of the Poinciana Parkway Extension Project Development and Environment study approved by the Board in October 2019 (“PD&E Study”), CFX identified the need to decommission, remove, relocate, and replace two existing wastewater force mains and a reclaimed water main (collectively, “Existing Mains”) owned by TWA that were constructed within the right-of-way for State Road (“SR”) 538 (“Project”). A map of the Project is attached hereto for reference as **Attachment “A”**.

In order to facilitate the decommissioning, removal, relocation and replacement of TWA’s existing force mains and reclaimed water main (“Existing Utilities”) and to capitalize on the economies of scale, TWA and CFX staff have negotiated an interlocal agreement, whereby CFX will undertake and manage the Project as a part of the Poinciana Parkway Extension Project, subject to reimbursement from TWA for 100% of the costs and expenses associated with the decommissioning, removal, relocation and replacement of the Existing Utilities. A copy of the draft Interlocal Agreement Regarding Relocation of Utilities Along SR 538 Between Tohopekaliga Water Authority and the Central Florida Expressway Authority is attached hereto as **Attachment “B”** (“Agreement”). Pursuant to the terms of the Agreement, CFX would manage the decommissioning and removal of the Existing Mains, and the design, engineering, permitting and construction of the replacement force mains and reclaimed water main, subject to reimbursement from TWA. Upon completion of the Project and acceptance by TWA, TWA would be responsible for owning and maintaining the replacement force mains and reclaimed water main, at its sole cost and expense.

Staff is recommending that the CFX Board approve the Agreement, subject to any minor or clerical modifications or revisions approved by the General Counsel or his designee.

REQUEST

Board's approval of the following is requested:

Interlocal Agreement Regarding Relocation of Utilities Along SR 538 Between Tohopekaliga Water Authority and the Central Florida Expressway Authority, subject to any minor or clerical modifications approved by the General Counsel or designee.

ATTACHMENTS

A. Map of Project

B. Interlocal Agreement Regarding Relocation of Utilities Along SR 538 Between Tohopekaliga Water Authority and the Central Florida Expressway Authority

Reviewed by: Diego "Woody" Rodriguez Digitally signed by Diego "Woody" Rodriguez
Date: 2020.06.04 12:40:31 -04'00'

CONCEPT PLANS FOR SR-538 UTILITIES RELOCATION



APRIL, 2020

Clarence Thacker
Chairman

Domingo Sanchez
Vice-Chair

Jim Swann

Hector Lizasuain

William "Bill" Land
Board Members

Todd Swingle
Executive Director

Robert F. Pelham, P.E.
Director of Engineering

TELEPHONE LISTINGS

TOHOPEKALIGA WATER AUTHORITY.....	407-944-5000
CITY OF KISSIMMEE PUBLIC WORKS & ENGINEERING.....	407-518-2170
FLORIDA POWER CORPORATION.....	407-700-8744
SPRINT FLORIDA INC (EMBARQ).....	407-814-6344
TECOPEOPLE'S GAS.....	407-425-4661
FLORIDA GAS TRANSMISSION.....	407-295-4341
TIME-WARNER CABLE (BRIGHTHOUSE).....	407-632-8509
SUNSHINE STATE ONE-CALL OF FLORIDA (NO-CUTS).....	800-432-4770



LOCATION MAP

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

Prepared by:

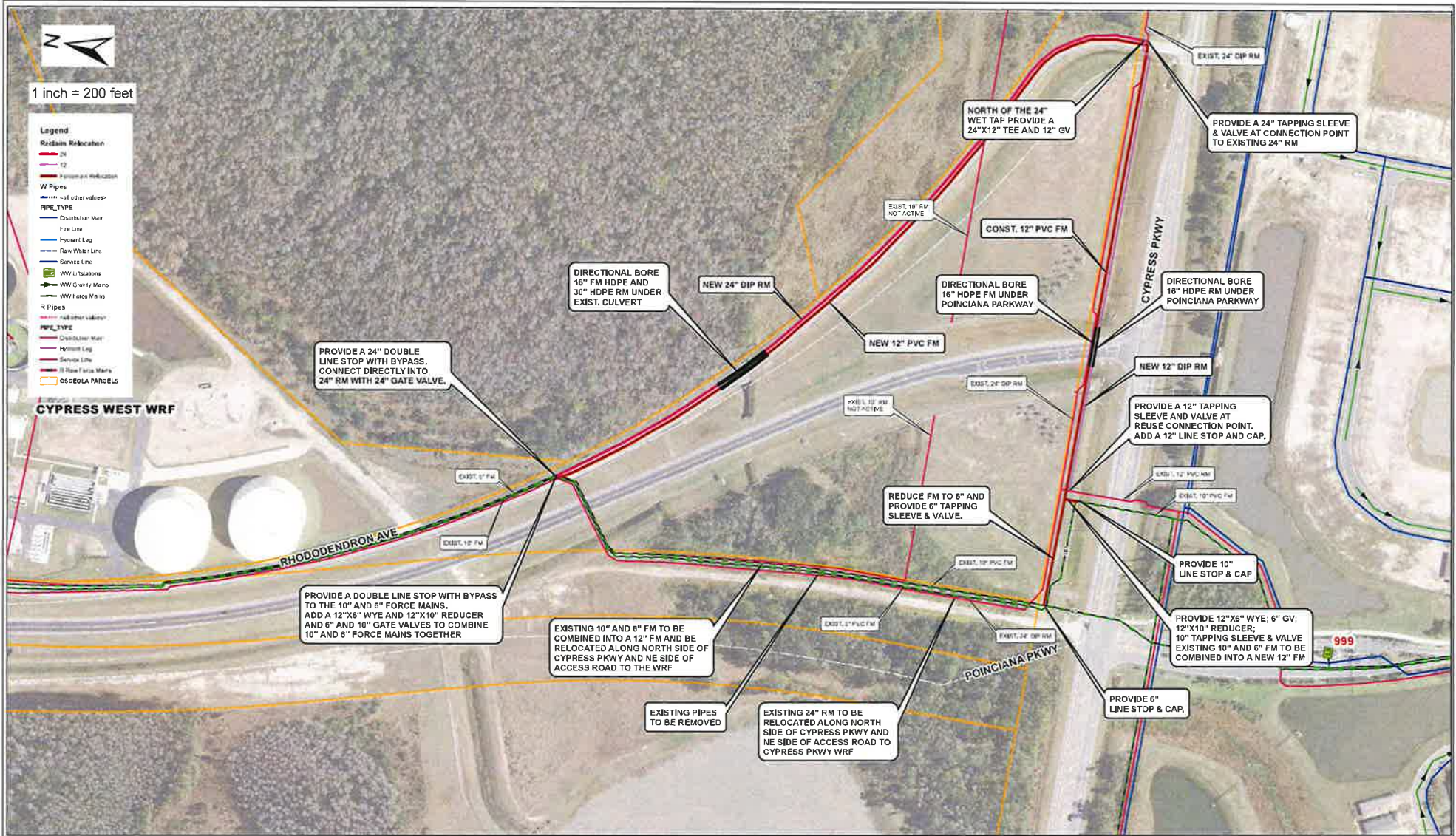
TOHOPEKALIGA WATER AUTHORITY

951 Martin Luther King Blvd.
Kissimmee, Florida 34741

INDEX OF DRAWINGS

1 OF 3.....	COVER SHEET
2 OF 3.....	PLAN
3 OF 3.....	DETAILS

Attachment A



1 inch = 200 feet

- Legend**
- Redline Relocation
 - W Pipes
 - R Pipes
 - OSCEOLA PARCELS

CYPRESS WEST WRF

APRIL, 2020	
DESIGNED BY	CHECKED BY
DRAWN BY	SUPERVISOR BY

CONCEPT PLANS

TOHO WATER AUTHORITY

351 Martin Luther King Jr. Blvd
Kissimmee, Florida 34741
(407)-944-5000



SR-538 UTILITIES RELOCATION

KISSIMMEE FLORIDA

PLAN AND DETAILS

PROJECT NO.
DISTRICT
SHEET NO.

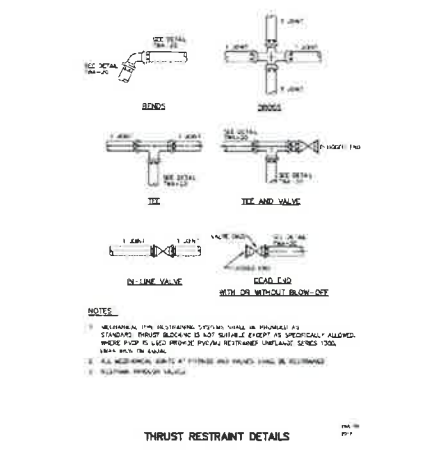
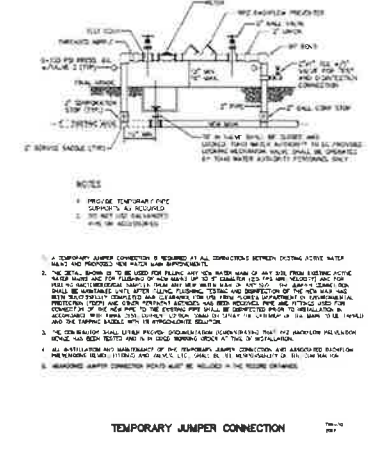
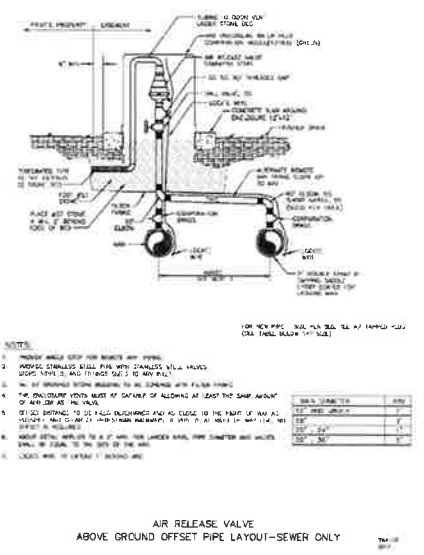
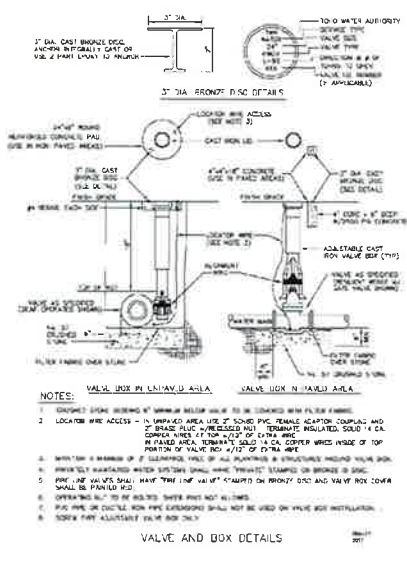
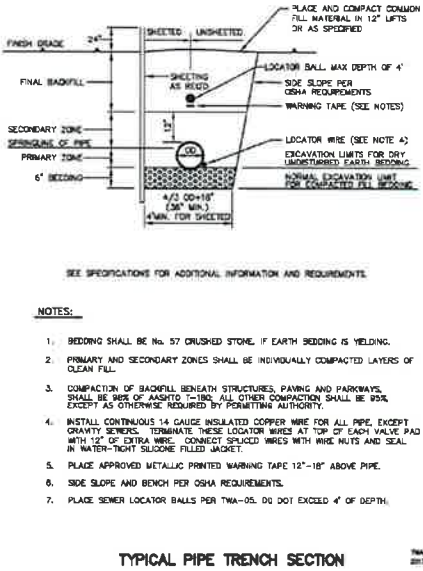
SHEET 2 OF 3

HORIZONTAL & VERTICAL SEPARATION FROM OTHER UTILITIES

OTHER PIPE	(1) QUANTITY OF PRESSURE SANITARY SERVICE (2) SANITARY SEWER FORCE MAIN (3) RECLAIMED WATER (4)	(1) STORM SEWER (2) STORMWATER FORCE MAIN (3) RECLAIMED WATER (2)	ON-SITE SEWAGE TREATMENT & DISPOSAL SYSTEM
HORIZONTAL SEPARATION	<p>10' SEPARATION (MINIMUM)</p>	<p>3' SEPARATION (MINIMUM)</p>	10' MIN.
UNDERPASS (1)	<p>18" IS THE MINIMUM EXCEPT FOR QUANTITY SERVICE. THEN 24" IS THE MINIMUM AND 12" IS PROVIDED.</p>	<p>12" IS THE MINIMUM EXCEPT FOR QUANTITY SERVICE. THEN 18" IS THE MINIMUM AND 12" IS PROVIDED.</p>	
JOINT SPACING AT CROSSINGS (FULL JOINT CENTERED)	<p>ALTERNATE 8' MINIMUM</p>	<p>ALTERNATE 3' MINIMUM</p>	

(1) WATER MAIN SHOULD CROSS ABOVE OTHER PIPE. WHEN WATER MAIN MUST BE BELOW OTHER PIPE, THE MINIMUM SEPARATION IS 18 INCHES.
 (2) RECLAIMED WATER REQUIRES UNDER PASS PART B OF CHAPTER 92-405, F.A.C.
 (3) 3 FT FOR QUANTITY SANITARY SERVICES WHERE THE BOTTOM OF THE WATER MAIN IS LAD AT LEAST 8 INCHES ABOVE THE TOP OF THE QUANTITY SANITARY SERVICE.
 (4) RECLAIMED WATER NOT INSULATED UNDER PART B OF CHAPTER 92-405, F.A.C.

TOHO 1911



RESTRAINED JOINT TABLE

PIPE SIZE	RESTRAINTS											
	10'	12'	14'	16'	18'	20'	24'	30'	36'	42'	48'	54'
18"	1	1	1	1	1	1	1	1	1	1	1	1
24"	1	1	1	1	1	1	1	1	1	1	1	1
30"	1	1	1	1	1	1	1	1	1	1	1	1
36"	1	1	1	1	1	1	1	1	1	1	1	1
42"	1	1	1	1	1	1	1	1	1	1	1	1
48"	1	1	1	1	1	1	1	1	1	1	1	1
54"	1	1	1	1	1	1	1	1	1	1	1	1

MADE CONTACTS VARY FROM THOSE STATED ABOVE. HAVE A FLORIDA REGISTERED PROFESSIONAL ENGINEER DETERMINE THE REQUIRED RESTRAINT LENGTH OF PIPING.

NOTES:

- WATER MAIN AND SEWER MAIN RESTRAINT 100' MIN. MINIMUM.
- TEMPORARY JOINTS SHALL BE RESTRAINED 100' MIN. MINIMUM.
- RESTRAINT THROUGH VALVING.
- ALL FITTINGS AND SPECIALS SHALL BE RESTRAINED AT LEAST 50' (2) MIN. LENGTH OF PIPE IN ALL DIRECTIONS.
- RESTRAINT CONNECTIONS SHALL BE RESTRAINED AS A SET.
- PIPE SHALL BE RESTRAINED IN A 1:4 TO 1:12 SLOPE IN ALL DIRECTIONS.

TOHO 1911

DATE	REVISION	BY	SUPERVISED BY
APRIL, 2020			

TOHO WATER AUTHORITY

851 Martin Luther King Jr. Blvd
Kissimmee, Florida 34741
(407)-944-5000

SR-538 UTILITIES RELOCATION

KISSIMMEE FLORIDA

DETAILS

PROJECT NO. _____
 SHEET NO. _____
 SHEET 3 OF 3

**INTERLOCAL AGREEMENT REGARDING
RELOCATION OF UTILITIES ALONG SR 538**

THIS INTERLOCAL AGREEMENT REGARDING RELOCATION OF UTILITIES ALONG STATE ROAD (“SR”) 538 (“Agreement”), effective as of the last date of execution (“Effective Date”), is entered into by and between **TOHOPEKALIGA WATER AUTHORITY**, an independent special district, established and created pursuant to Chapter 189, Florida Statutes, by special act of the Florida Legislature, whose address is 941 Martin Luther King Boulevard, Kissimmee, Florida 34741 (“TWA”) and **CENTRAL FLORIDA EXPRESSWAY AUTHORITY**, a body politic and corporate, and an agency of the state, under the laws of the State of Florida, whose address is 4974 ORL Tower Road, Orlando, Florida 32801-4414 (“CFX”) (each, a “Party and, collectively, the “Parties”).

RECITALS

WHEREAS, CFX was created pursuant to Part III, Chapter 348, Florida Statutes (“CFX Act”) to, among other things, construct, improve, maintain and operate a limited access toll road known as the Central Florida Expressway System, and was granted all powers necessary and convenient to conduct its business, including the power to contract with other public agencies; and

WHEREAS, TWA was created by special act of the Florida Legislature, Chapter 2003-368, Laws of Florida (the “TWA Act”) to, among other things, carry out the provision of potable and nonpotable water and wastewater services and facilities in areas of Osceola County and adjacent areas Florida, and was granted all powers necessary and convenient to conduct business, including the power to contract with other public agencies; and

WHEREAS, Section 163.01, Florida Statutes, authorizes the Parties to enter into an interlocal agreement; and

WHEREAS, TWA is the owner of two existing wastewater force mains (“Existing FM”) and one existing reclaimed water main (“Existing RWM”) crossing SR 538, constructed in 2002 and modified in 2016 by the original construction of SR 538 (F/K/A Poinciana Parkway) by CFX’s predecessor-in-interest, the Osceola Expressway Authority; and

WHEREAS, CFX intends to construct a four-lane divided roadway along the existing SR 538 alignment and improve the interchange of SR 538 and Cypress Parkway to accommodate the future eastern extension of SR 538 (“SR 538 Project”), necessitating the decommissioning, removal, relocation and replacement of TWA's Existing FM and Existing RWM, from approximately SR 538 Station 867+00.00 to Station 884+40.00 along the existing TWA access driveway, all as part of CFX Project 538-165 and more particularly depicted on Exhibit “A” attached hereto and incorporated herein by reference (“Project”); and

WHEREAS, CFX intends to procure the firm responsible for the design and construction of the SR 538 Project (“Design Build Firm”) through a design-build request for proposal in accordance with the requirements of Section 287.055, Florida Statutes; and

Attachment B

WHEREAS, the Design Build Firm will be responsible for the design, permitting and construction of the Project, on behalf of TWA, during the design, permitting and construction of the SR 538 Project in accordance with the terms and conditions hereof, provided; however, the Project will not include the replacement of any of TWA's existing force main or reclaimed water main beyond the Project limits set forth in **Exhibit "A"** attached hereto; and

WHEREAS, in order capitalize on the economic efficiencies of design, permitting and constructing the Project during the design, permitting and construction of the SR 538 Project, CFX and TWA desire to enter into this Agreement to set forth the terms and conditions for decommissioning the Existing FM and Existing RWM (collectively, "Existing Lines") and constructing the relocation and replacement wastewater force mains and the replacement reclaimed water main ("Replacement FM" and "Replacement RWM"), and the connection thereto, to accommodate the improvements related to the SR 538 Project.

NOW, THEREFORE, in consideration of the mutual covenants and promises set forth in this Agreement, the Parties agree as follows:

1. **Recitals.** The above recitations are true and correct and are incorporated herein as fully as if set forth hereafter.

2. **Project Managers.** Each of the Parties shall designate an authorized representative to oversee and manage the planning, design, construction and development of the Project (individually, the "Project Manager," collectively, the "Project Managers"). TWA hereby designates Edwin Matos, PE, as its Project Manager (the "TWA PM"). CFX hereby designates Will Hawthorne as its Project Manager (the "CFX PM"). Either of the Parties may elect to substitute their respective Project Manager by notice to the other Party in accordance with Section 21 hereof.

3. **Planning and Design Process.**

a. **Conceptual Plan.** On April 14, 2020, TWA delivered to CFX's representative a Conceptual Plan, as hereinafter defined, along with specifications and other criteria for the design of the Project for CFX to incorporate into the advertisement for a request for proposals for the Design Build Firm ("RFP"). The "Conceptual Plan" shall refer to the conceptual design plan, specifications and criteria reasonably necessary for the Design Build Firm to develop engineered construction plans, specifications, drawings or amendments thereto, and any other documentation reasonably required to specify the size, character and design of the improvements required for the construction of the Project ("Construction Plans").

b. **Selection of Design Build Firm.** Upon receipt of the Conceptual Plan, CFX will issue a RFP for procurement of the Design Build Firm responsible for the design, permitting and construction of the SR 538 Project, which RFP shall include the Project. CFX shall select and procure the Design Build Firm in accordance with CFX's procurement process and Section 287.055, Florida Statutes. CFX reserves the right to replace or substitute the Design Building Firm at any time with the approval of TWA, which approval shall not be unreasonably i. delayed, ii. conditioned, or iii. withheld. Subject to the provisions hereof, the Design Build Firm shall use a professional engineering firm ("Design Consultant") to design and permit, if necessary, the Project.

c. **Design and Construction Plans.** CFX, through the Design Consultant, shall prepare the Construction Plans required by CFX for the design and construction of the Project. The

Construction Plans shall be the property of CFX, but will be irrevocably licensed by CFX for the use of TWA in perpetuity, subject to the reimbursement provisions set forth below. The Construction Plans shall be signed and sealed by the Design Consultant and certified for use and reliance by TWA.

d. Review of Construction Plans. TWA, through the TWA PM, shall have the right to review and approve the Construction Plans related to the Project during the design and development of the Project (collectively, "Design Review"), which approval shall not be unreasonably i. conditioned, ii. withheld, or iii. delayed. CFX shall coordinate with the TWA PM to provide TWA with a complete set of the Construction Plans for the Project necessary for TWA PM to determine, in its reasonable discretion, if the Project meets the intent of the RFP and the Conceptual Plans of TWA. No later than twenty days following TWA PM's review of the Construction Plans, the TWA PM shall notify CFX of any revisions, corrections, value engineering, upgrades or enhancements to the Project as depicted in the Construction Plans as may be reasonably required or desired by TWA.

CFX and TWA understand and acknowledge that the Construction Plans will include portions of the SR 538 Project not otherwise included in the Project, and as such, TWA, acting through its TWA PM, shall only have the right to approve, or deny approval of, those portions of the Construction Plans related to the Project. Any denial of approval by TWA shall be in accordance with the notice provision set forth herein and shall set forth with reasonable specificity the specific elements that are not approved, and shall specify what changes are reasonably necessary in order for approval to be obtained. Notwithstanding the foregoing, TWA's right to inspect the Project as set forth herein shall be separate and distinct from any permitting and inspection requirements otherwise required hereunder.

4. Applicable Permits and Approvals. Prior to any obligation by CFX to commence construction of the Project, TWA shall obtain a utility permit or any other permit reasonably required by CFX for construction of third-party utilities within the limited access right-of-way of SR 538.

5. Design and Construction Schedule. The timeline to design and construct the SR 538 Project is currently estimated to be 36 months as more particularly outlined in Exhibit "B" attached hereto and incorporated herein by reference ("Preliminary Construction Schedule"). TWA acknowledges and understands that the Preliminary Construction Schedule is an estimate for reference only, and in no event shall CFX be liable or responsible if the timing of the Project differs from the estimates set forth in the Preliminary Construction Schedule.

6. Design and Construction Budgets.

a. Estimated Construction Budget. The cost to design and construct the Project is currently estimated to be \$1,600,000 as more particularly outlined in Exhibit "C" attached hereto and incorporated herein by reference ("Estimated Construction Budget"). TWA shall not be liable or responsible for costs related to the design, permitting, and construction that exceed \$1,758,600 (which represents the Estimated Construction Budget plus a reasonable contingency of 10% of the Estimated Construction Cost [the "Project Not-To-Exceed Amount"]), without formal amendment to this Agreement. The TWA Executive Director must approve the expenditure of any contingency related to the Project.

b. Construction Budget.

i. Preparation of Construction Budget. After completion and approval of the Construction Plans, CFX shall cause the Design Build Firm, with input from the Design

Consultant and receipt of the lowest bids from the subcontractors, to develop the Construction Budget, which shall consist of (a) a line item budget for the out-of-pocket hard and soft costs incurred by CFX associated with the design, permitting, engineering, development and construction of the Project, including, without limitation, the design, permitting, engineering and construction costs, reimbursable expenses, construction administration or general contractor fees, general expenses or general requirements incurred by CFX to construct the Project in accordance with the design build agreement executed by CFX, as may be amended from time to time (“Design and Construction Costs”), (b) any and all costs associated with the decommissioning, closure and removal of the Existing Lines; (c) the construction contingency in the amount of ten percent of the total Design and Construction Costs (“Construction Contingency”), and (d) the construction, engineering, and inspection consultant’s fee in the amount of six percent of the Design and Construction Costs plus the Construction Contingency (“CEI Fee”). The Design and Construction Costs, Construction Contingency, and CEI Fee shall be collectively referred to herein as the “Total Project Costs.” CFX may, in its sole and absolute discretion, cause the Construction Budget to be prepared by the Design Build Firm for the entirety of the SR 538 Project and in such event, the Construction Budget shall specifically identify and segregate the Total Project Costs attributable to the Project. If the Construction Budget related to the Total Project Costs attributable to the Project (also referred to as the “Project Construction Budget”) exceeds the Project Not-To-Exceed Amount, then a formal amendment to this Agreement is required.

ii. Review of Construction Budget. Upon receipt of the Construction Budget, CFX shall provide to TWA a copy of the Construction Budget for review and approval which shall outline the Total Project Costs attributable to the Project to be paid by TWA (“TWA’s Share”). TWA shall have ten business days from receipt of the Construction Budget to provide notice to CFX of TWA’s intent to approve or deny the Project Construction Budget if the Project Construction Budget is equal to or less than the Project Not-to-Exceed Amount, which approval shall not be unreasonably i. withheld, ii. conditioned, or iii. delayed. If the Project Construction Budget exceeds the Project Not-To-Exceed Amount, then TWA shall provide notice to CFX of TWA’s intent to approve or deny the Project Construction Budget within 45 days from receipt of the Construction Budget. Failure to approve or deny the Project Construction Budget within the required time period shall constitute a rejection of the Construction Budget.

iii. Acceptance of the Construction Budget. TWA’s acceptance of the Construction Budget shall constitute TWA’s agreement to pay one hundred percent (100%) of the Total Project Costs, subject to any Change Orders (hereinafter defined) in accordance with the Florida Prompt Payment Act, Part VII of Chapter 218, Florida Statutes (2019) (“Payment Period”). TWA agrees and acknowledges that the Total Project Costs shall be invoiced by the Design Build Firm on a monthly basis based on the work in place and as such, TWA shall be prepared to submit payments of TWA’s Share within said Payment Period.

iv. Rejection of the Construction Budget. In the event TWA denies approval of the Construction Budget, TWA shall provide notice to CFX of such denial and shall outline with reasonable specificity the reason or deficiency for such rejection (“Rejection Notice”). Within ten business days of the Rejection Notice, CFX may, in its sole and absolute discretion, elect to cure any issue or deficiencies outlined in the Rejection Notice by providing TWA notice of such election (“Cure Notice”). In the event CFX fails to issue a Cure Notice, TWA and CFX agree that TWA shall, at its sole cost and expense, design, permit and construct, or cause to be designed, permitted and constructed, the Project no later than one hundred eighty days from the Rejection Notice, subject to the requirements of, and rights of CFX pursuant to, Section 7.c. hereof. In the event TWA rejects the Construction Budget, CFX shall be relieved of any and all obligations hereunder to design, permit or construct the

Project, and TWA shall otherwise reimburse CFX for any and all costs incurred by CFX associated with the design, engineering, and permitting of the Project within thirty (30) days of the Rejection Notice (“Reimbursement Costs”). Failure to pay the Reimbursement Costs outlined herein shall constitute a default under this Agreement.

7. **Construction of the Project.**

a. **Commencement and Administration of Construction.** CFX, through the Design Build Firm, shall use its best efforts to commence construction of the SR 538 Project within one hundred twenty days of approval of the Construction Budget by TWA. Once construction has commenced on the SR 538 Project, CFX shall cause the Design Build Firm to diligently and in good faith proceed with the construction of the SR 538 Project in general accordance with the Preliminary Construction Schedule, subject to (i) any revision prior to the commencement of construction, (ii) any revisions during the pendency of construction if in an agreed upon Change Order, and (iii) Force Majeure (defined below). CFX and TWA agree and acknowledge that CFX shall have the right to direct the Design Build Firm and the construction of the SR 538 Project and the Project; provided, however, such construction directives shall comply with the Construction Plans, as approved by CFX and TWA.

b. **Conformance with Construction Plans and Change Orders.** The construction of the Project shall be in substantial conformance with the Construction Plans. During the course of the work on the Project, if either CFX or TWA observes, or otherwise become aware of, any defects, conflicts, or necessary changes to the Project that requires a change to the Construction Plans as they existed as of the date of issuance of the notice to proceed (“Change Order”), that Party shall immediately notify the other Party of such Change Order. To the extent feasible, the Change Order shall include any and all costs and expenses associated with the Change Order and the impact on TWA’s Share (“Change Order Costs”) and any time extensions required to complete the work outlined in the Change Order (“Time Extensions”). TWA and CFX agree that time is of the essence in making any decisions or interpretations as to any Change Orders with respect to design, materials, and other matters pertinent to the Project covered by the construction contract so as to not materially delay the work of the Design Build Firm and the completion of the SR 538 Project. The Design Build Firm, not TWA, shall be responsible for any costs associated with Change Orders required due to design defects or issues resulting from deviations from the TWA-provided Conceptual Plans or TWA standards and specifications relating to the construction of wastewater force main and reclaimed water main.

i. **Approval of Change Order by CFX.** In the event CFX determines that a Change Order is necessary for the Project, CFX shall provide notice to the TWA PM detailing the content and extent of the Change Order. Any Change Order that directly or indirectly affects the Project shall be subject to the review and approval of the TWA PM and shall be approved or denied within ten business days of receipt by the TWA PM. Change Orders that directly or indirectly affect the Project and require the expenditure of Construction Contingency require the approval of the TWA Executive Director and shall be approved or denied within ten business days by TWA. In the event the cumulative Change Order Costs exceed the Construction Contingency, the Change Order and the Change Order Cost shall be subject to amendment of this Agreement. Change Orders affecting the SR 538 Project but not affecting the Project shall not require TWA’s approval. Unless the Change Order Costs exceed the Construction Contingency or unless otherwise agreed upon by the Parties, any Change Order Costs approved by TWA shall be deducted from the Construction Contingency.

ii. **Approval of Change Order by TWA.** In the event TWA determines that a Change Order is necessary for the Project, TWA shall provide notice to the CFX PM detailing the

content and extent of the Change Order. Within ten business days of receipt of notice of the Change Order, CFX PM shall review the Change Order and provide notice of its approval or disapproval of the Change Order, which approval shall not be unreasonably i. withheld, ii. conditioned or iii. delayed. Unless the Change Order Costs exceed the Construction Contingency or unless otherwise agreed upon by the Parties, any Change Order Costs approved by TWA shall be deducted from the Construction Contingency. Any Change Order Cost that relates to the Project, in whole or in part, that exceeds or causes the exceedance of the Project Not-To-Exceed Amount must be approved by amendment to this Agreement.

iii. Change Directive. In the event (a) TWA denies a Change Order where the cumulative Change Order Costs exceed the Construction Contingency, and (b) such denial would otherwise impact the critical schedule for completion of the SR 538 Project, CFX may, in its sole and absolute discretion, elect to direct the Design Build Firm to proceed with any Change Order reasonably necessary to ensure the completion of the SR 538 Project in accordance with the Preliminary Construction Schedule incorporated into the Design Build Firm's agreement, subject to the resolution of the Change Order Costs in accordance with Section 7.b.iv below. The Change Order will be processed by CFX with the Design Build Firm as a directive and at CFX's sole risk until the Change Order Costs can be resolved. Notwithstanding the foregoing, in the event TWA fails to agree to any Change Order Costs in excess of the Construction Contingency related to the Project, CFX, reserves the right to cease construction of the Project until such time as TWA, CFX, the Committee (hereinafter defined), and Design Build Firm reach a resolution on the costs in excess of the Construction Contingency. In no event shall CFX be responsible for completing the Project, or incur any costs related to the design, permitting or construction of the Project, in the event TWA fails to pay any Change Order Costs above the Construction Contingency.

iv. Committee. In the event TWA is not in agreement any Change Order, the Parties agree and understand that the Change Order Costs shall be heard and resolved by a committee ("Committee") composed of CFX's Chief of Infrastructure or his designee, the TWA Executive Director or his designee, and a third member selected by the other two. The Parties agree to be bound by the final determination of the Committee as to whether the Change Order Costs shall be paid and the Party responsible for paying such Change Order Costs. Such Committee shall make a good faith effort to resolve any such issues as expeditiously as possible and any such issues shall be resolved within three business days from the time the Committee first considers it, unless a majority of the Committee consisting of two-thirds (2/3) of the members agrees otherwise.

In the event the Committee denies a Change Order or the Change Order Costs, then CFX shall have the right to reject the Change Order, discontinue the construction work on the Project or otherwise take any and all action reasonably necessary to mitigate additional costs to CFX related to the Change Order and the Project, and TWA shall, at its sole cost and expense, assume the responsibility for completing the construction of the Project in accordance with, and subject to the requirements of, Section 7.c. hereof. In the event of such denial of the Change Order, TWA shall remain liable for any and all Total Project Costs incurred by CFX up to and including the date of the denial of the Change Order by TWA.

v. Emergency Change Orders. In the event a situation arises that constitutes an emergency or threat to the health, safety and welfare of the general public, CFX, TWA, or the Design Build Firm or any of their agents, employees, contractors, invitees, users, guests or consultants, CFX will have the authority to execute any Change Order or change directive reasonably necessary to cure said emergency or threat without the prior consent of TWA, provided; however, CFX

shall provide such notice and opportunity for TWA to consent to such Change Order as soon as reasonably possible thereafter. In the event of such emergency or threat to public health, safety or welfare, CFX may elect, in its reasonable discretion, to use the TWA's Construction Contingency provided for in the Total Project Costs.

vi. Dispute with Design Build Firm. In the event there is a dispute between the Design Build Firm and CFX, pertaining to an issue relating to Project, TWA shall have the right to attend any dispute resolution proceeding and provide input to the CFX PM. TWA shall be responsible for payment resolutions or liability arising from the Design Build Firm's or subcontractor's disputes or delay claims arising or resulting from design, engineering, permitting, development or construction of the Project as a result of the Design Build Firm's proper use and reliance on the Conceptual Plan and other information provided by TWA for the purpose of the design or construction of the Project, or any claims resulting from activities or representations of TWA, or TWA PM, if such claims are payable pursuant to a final order as a result of arbitration, a judicial proceeding, or other binding dispute resolution proceeding, provided that TWA was made a party to any dispute resolution proceeding.

c. Construction by TWA. In the event of a Change Order is denied, TWA shall, at its sole cost and expense, assume the responsibility of completing the design, permitting and construction of the Project within the earlier of (a) one hundred eighty (180) days from the denial of the Change Order; or (b) eighteen (18) months from the issuance of a notice to proceed with construction for the SR 538 Project ("Project Deadline"). TWA shall take any and all action reasonably necessary to commence the construction of the Project within 120 days from the date of the denial of the Change Order. In the event TWA either fails to commence the design, permitting and construction of the Project in accordance with this Section, fails to continuously prosecute the performance of the same to completion with due diligence, or fails to complete the construction of the Project by the Project Deadline, CFX may, upon thirty (30) days prior notice and opportunity to cure to TWA, elect, at CFX's sole and absolute discretion, to terminate TWA's utility permit and otherwise complete construction of the Project, at the sole cost and expense of TWA, which costs and expenses may include, without limitation, any and all acceleration or Change Order costs reasonably required to complete the construction of the Project by the Project Deadline.

8. Completion of Construction.

a. Final Project Costs. Upon completion of the Project, CFX shall provide to TWA a written statement ("Final Invoice") setting forth and reconciling TWA's Share of the actual out-of-pocket hard and soft costs actually accrued by CFX associated with the design, permitting, engineering, development and construction of the Project, including, without limitation, the design, permitting, engineering and construction costs, the decommissioning, closure and removal of the Existing Lines, reimbursable expenses, construction administration or general contractor fees, general expenses or general requirements incurred by CFX to construct the Project in accordance with the design build agreement executed by CFX, as may be amended from time to time, any Change Order approved by TWA, the use of the Construction Contingency, and the CEI Fee (collectively, "TWA's Final Construction Cost"). TWA shall pay TWA's Final Construction Cost to CFX in accordance with the Florida Prompt Payment Act.

b. Additional Project Costs. In the event TWA's Final Construction Cost reflected on the Final Invoice exceeds the Total Project Costs ("Additional Costs"), CFX shall provide such additional written documentation reasonably requested by TWA to review, approve and fund the Additional Costs, which approval shall not be unreasonably i. withheld, ii. conditioned or iii. delayed.

TWA shall have ten business days thereafter to make objection to TWA's Final Construction Cost and the Additional Costs by notifying CFX of any such objection. TWA shall pay CFX an amount equal to TWA's Final Construction Cost in accordance with the Florida Prompt Payment Act. In the event TWA fails to pay an invoice for the TWA's Final Construction Cost or the Additional Costs in accordance with the Florida Prompt Payment Act, CFX shall have the right to exercise any and all rights in law or equity.

9. **Dispute Resolution.** In the event a dispute arises between TWA and CFX related to any approvals required hereunder related to the Project Construction Budget or any Change Order, Change Order Costs or as to the interpretation, performance or enforcement of this Agreement, the Parties agree and understand that CFX's Chief of Infrastructure or his designee, and the TWA Executive Director or his designee, and each of their respective legal counsel (collectively, "Dispute Resolution Committee"), shall convene to hear and resolve the dispute within three business days of the dispute arising, or receipt of any notice invoking this section. In the event CFX's Chief of Infrastructure or his designee, and the TWA Executive Director or his designee, are unable to reach a resolution within ten business days, the Parties will mutually agree upon a third-party cost estimator to assist in the resolution of the dispute, who shall be deemed a member of the Dispute Resolution Committee. Any fees of the third-party cost estimator shall be borne equally by the Parties. The Parties agree to be bound by the final determination of the Dispute Resolution Committee. Such Dispute Resolution Committee shall make a good faith effort to resolve any such issues as expeditiously as possible and any such issues shall be resolved within three business days from the time the Dispute Resolution Committee first considers it, unless a majority of the Dispute Resolution Committee consisting of two-thirds (2/3) of the members agrees otherwise.

10. **Insurance; Bond.** CFX shall incorporate its standard insurance and Public Construction Bond requirements in the construction contract documents for the Project. The general liability insurance policy provided by the Design Build Firm shall name TWA and CFX as additional insureds. The Public Construction Bond shall remain in full force and effect until one year after substantial completion of the Project.

11. **Inspections.**

a. **During Construction.** During construction, TWA shall have the right to inspect the Project on a regular basis and at all significant events. Any deficiencies in the Project observed by TWA shall be reported in writing to CFX PM and the construction, engineering, and inspection consultant ("CEI") within forty-eight hours. All such identified deficiencies in the construction of the Project shall be corrected or otherwise resolved by the Design Build Firm as mutually agreed upon by TWA, CFX and the CEI. TWA reserves the right to (i) have the TWA PM or another representative of TWA present for any activities related to the Project by CFX, the Design Build Firm, CEI, or its contractors, employees and agents; and (ii) impose reasonable restrictions and requirements, subject to CFX's approval, to protect the Existing Lines or any connections to TWA's wastewater system or reclaimed water system, which must be followed by CFX agents and employees while working on the Project.

b. **Final Inspection.** Upon completion of the Project, CFX shall provide notice of such completion and final as-built plans to TWA ("Completion Notice"). Within thirty days after receipt by TWA of the Completion Notice, TWA and CFX shall jointly conduct a final inspection to ensure substantial compliance with the Construction Plans and any Change Orders and for acceptance into TWA's utility system. Any deficiencies in work shall be set forth on a "punch list." Upon completion or correction of all outstanding issues listed on the punch list to TWA's reasonable

satisfaction, TWA shall promptly notify CFX in writing of its acceptance of the Project. Upon acceptance of the Project, any and all Replacement FM and Replacement RWM shall be owned, operated and maintained by TWA, at its sole cost and expense, in accordance with the utility permit issued by CFX.

12. **Post Design Services.** In the event the Design Build Firm is engaged to perform any post-design services attributable to the Project, including, without limitation, shop drawing review, plan revision, site visits or any other tasks or activities reasonably required for the performance, operation or maintenance of the Project (collectively, the "Post Design Services"), TWA shall be solely responsible for any costs or expenses related to such services. In such event, TWA shall have the right to review the Post Design Services, assist in the negotiations of, and approve, any costs or expenses associated with the Post Design Services. TWA shall pay to CFX the cost and expenses associated with Post Design Services in accordance with the Florida Prompt Payment Act. The cost of Post Design Services that exceeds \$25,000.00 must be approved by amendment to this Agreement.

13. **Ownership Interest.** CFX will use its best efforts to present to the CFX Right-of-Way Committee at the August 2020 meeting of CFX Right-of-Way Committee for consideration an instrument mutually agreed upon by CFX and TWA, conveying to TWA either an easement interest or fee simple ownership interest in the real property upon which the Replacement FM and Replacement RWM will be located. If using its best efforts, CFX is unable to present the instrument mentioned herein to the CFX Right-of-Way Committee at its August 2020 meeting, then CFX shall present the instrument to the CFX Right-of-Way as soon as practicable thereafter but no later than the substantial completion date of the Project. TWA understands and acknowledges that CFX neither represents nor guarantees the approval of any such proposal by the CFX Right-of-Way Committee.

14. **General Provisions.** No failure of either Party to exercise any power given hereunder or to insist upon strict compliance with any obligation specified herein, and no custom or practice at variance with the terms hereof, shall constitute a waiver of either Party's right to demand exact compliance with the terms hereof. This Agreement contains the entire agreement of the parties hereto, and no representations, inducements, promises or agreements, oral or otherwise, between the parties not embodied herein shall be of any force or effect. Any amendment to this Agreement shall not be binding upon either Party unless such amendment is in writing and executed by TWA and CFX. The provisions of this Agreement shall inure to the benefit of and be binding upon the parties hereto and their successors. Nothing in this Agreement is intended to confer any rights, privileges, benefits, obligations or remedies upon any other person or entity except as expressly provided for herein. Whenever under the terms and provisions of this Agreement the time for performance falls upon a Saturday, Sunday, or Legal Holiday, such time for performance shall be extended to the next business day. This Agreement may be executed in multiple counterparts, including by electronic or digital signatures, each of which shall constitute an original, but all of which taken together shall constitute one and the same agreement. The headings inserted at the beginning of each paragraph of this Agreement are for convenience only, and do not add to or subtract from the meaning of the contents of each paragraph. This Agreement shall be interpreted under the laws of the State of Florida. TWA and CFX acknowledge that this Agreement was prepared after substantial negotiations between the Parties and this Agreement shall not be interpreted against either Party solely because such Party or its counsel drafted the Agreement. The Parties agree that venue for any legal action authorized hereunder shall be exclusively in the courts of Ninth Judicial Circuit of Florida. Unless otherwise specified herein, any references to "days" shall refer to calendar days.

15. **Public Records Law.**

a. The Parties acknowledge that by virtue of this Agreement all of their respective documents, records and materials of any kind, relating to the relationship created hereby, shall be open to the public for inspection in accordance with Florida law. If either Party will act on behalf of the other party, as provided under Section 119.011(2), Florida Statutes, acting party, subject to the terms of section 287.058(1)(c), Florida Statutes, and any other applicable legal and equitable remedies, shall:

i. Keep and maintain public records required by the other party to perform the service.

ii. Upon request from the other party's custodian of public records, provide the other party with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided by Florida law.

iii. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the other party.

iv. Upon completion of the Agreement and Project, transfer, at no cost, to the other Party all public records in possession of the acting Party or keep and maintain public records required by the other Party to perform the service. If the acting Party transfers all public records to the other party upon completion of the contract, the acting Party shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the acting Party keeps and maintains public records upon completion of the contract, the acting Party shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the other Party, upon request from the other Party's custodian of public records, in a format that is compatible with the information technology systems of the other party.

v. If the acting Party does not comply with a public records request, the other party shall enforce the contract provisions in accordance with the Agreement.

b. IF THE DESIGN BUILD FIRM HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE DESIGN BUILD FIRM'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT, AS FOLLOWS:

As to TWA:
Records Retention
951 Martin Luther King Blvd.
Kissimmee, Florida 34741
(407) 483-3822
publicrecordsrequests@tohowater.com

As to CFX:
Director of Records Management
Central Florida Expressway Authority
4974 ORL Tower Road
Orlando, FL 32807
407-690-5366
PublicRecords@cfxway.com

16. **Time is of the essence.** Time is of the essence of this agreement and each and every provision hereof.

17. **Waiver of Jury Trial.** TWA AND CFX VOLUNTARILY WAIVE A TRIAL BY JURY IN ANY LITIGATION OR ACTION ARISING FROM THIS AGREEMENT.

18. **Design, Location and Funding Disclosure; Termination.** In accordance with Section 5.2.5 of CFX's Property Acquisition, Disposition and Permitting Procedures Manual, TWA acknowledges that: (i) the design and location of any contemplated or proposed roadway systems or access scenarios are not guaranteed unless otherwise specified therein; and (ii) this Agreement may be subject to funding by a CFX bond issue or other applicable sources. This Agreement terminates on the fifth anniversary of its Effective Date unless terminated earlier by mutual agreement of the Parties.

19. **Inspector General.** The Parties agree to comply with Section 20.055(5), Florida Statutes, and agree to cooperate with the inspector general in any investigation, audit, inspection, review, or hearing pursuant to this section. The Parties agree to incorporate the obligation to comply with Section 20.055(5) in all subcontracts such Party enters into in connection with the Existing Lines or the Project contemplated herein.

20. **No Third-Party Benefits.** This Agreement is solely for the benefit of the Parties herein, and no right or cause of action shall accrue upon or by reason hereof, to or for the benefit of any third party that is not a party hereto.

21. **Formal Notice.** Any formal notice, consent, approval or rejection required or allowed in accordance with the terms of this Agreement shall be in writing and be deemed to be delivered (a) when hand delivered to the official hereinafter designated, (b) one (1) days after deposited with an overnight carrier; or (c) three (3) days from when such notice is deposited in the United States mail, postage prepaid, certified mail return receipt requested, addressed to a Party at the address set forth opposite the Party's name below, or at such other address as the Party shall have specified in written notice to the other Party in accordance herewith.

CFX: CENTRAL FLORIDA EXPRESSWAY AUTHORITY
4974 ORL Tower Road
Orlando, Florida 32807
Attn: Executive Director

Copy to: CENTRAL FLORIDA EXPRESSWAY AUTHORITY
4974 ORL Tower Road
Orlando, Florida 32807 Attn:
Chief of Infrastructure

Copy to: CENTRAL FLORIDA EXPRESSWAY AUTHORITY
4974 ORL Tower Road
Orlando, Florida 32807
Attn: General Counsel

TWA: TOHO WATER AUTHORITY
951 Martin Luther King Boulevard
Kissimmee, Florida 34741
Attention: Edwin Matos, Project Manager

Copy to: TOHOPEKALIGA WATER AUTHORITY
951 Martin Luther King Boulevard
Kissimmee, Florida 34741
Attention: General Counsel

Other notices may be delivered by email to the CFX Director of Construction or his designee and TWA's designated representative or designee.

22. **Defaults and Remedies.** Each of the Parties hereto shall give the other Party notice of any alleged default hereunder and shall allow the defaulting Party thirty days from the date of receipt to cure such default, provided; however, that if the default is not reasonably capable of being cured with commercially reasonable efforts within thirty days, the Party shall have such longer time to cure such default as may be reasonably necessary, not to exceed one hundred twenty days ("Cure Period"). In the event either of the Parties fails to cure such non-performance or breach within the Cure Period, the other Party, in its sole discretion, shall be entitled to (a) exercise the right of specific performance with respect to such non-performance or breach; (b) pursue all other rights and remedies available to said Party; or (c) terminate this Agreement and upon any such termination, this Agreement and all rights and obligations created hereunder shall be deemed null and void and of no further force or effect.

23. **Severability.** If any court finds part of this Agreement invalid or unenforceable, such invalidity or unenforceability shall not affect the other parts of the Agreement (a) if the rights and obligations of the Parties contained therein are not materially prejudiced and (b) if the intentions of the Parties can continue to be effective. To that end, this Agreement is declared severable.

24. **Sovereign Immunity.** Nothing herein is intended as a waiver of any Party's sovereign immunity under Section 768.28, Florida Statutes. Nothing hereby shall inure to the benefit of any third party for any purpose, which might allow claims otherwise barred by sovereign immunity or operation of law.

25. **Force Majeure.** The time for the performance of the Parties' obligations under this Agreement, including without limitation CFX's performance of the design, permitting and construction requirements set forth herein, will be extended for a period of time equal to any period of delay experienced by CFX, or the number of days lost, due to any of the following ("Force Majeure"): strikes, civil riots or commotion, war, invasion, acts of terrorism, explosion, fire or other casualty, pandemic, sabotage, theft, vandalism, Acts of God, labor disputes, unavailability of labor or materials, hurricane, tropical storm, tornado, or other adverse weather conditions, act or failure to act of governmental authorities, act or failure to act of third-party utility service providers, or

other causes beyond the reasonable control of CFX.

[SIGNATURE PAGES TO FOLLOW]

IN WITNESS WHEREOF the Parties hereto have executed this Agreement on the day and year first above written.

“TWA”

TOHOPEKALIGA WATER AUTHORITY

By: _____

Print Name: _____

Its: _____

(SEAL)

ATTEST:

Date: _____

By: _____

Print Name: _____

[ADDITIONAL SIGNATURE PAGE TO FOLLOW]

Two Witnesses as to CFX:

(Printed Name) _____

ATTEST: _____
Regla ("Mimi") Lamaute
Board Services Coordinator

"CFX"

**CENTRAL FLORIDA EXPRESSWAY
AUTHORITY**

By: _____
Brenda Carey, Chairman

Date: _____

Approved as to form and legality by legal counsel
to the Central Florida Expressway Authority on
this ____ day of _____, 2020 for its
exclusive use and reliance.

By: _____
Diego "Woody" Rodriguez
General Counsel

Exhibit "A"
Project

CONCEPT PLANS FOR SR-538 UTILITIES RELOCATION



APRIL, 2020

Clarence Thacker
Chairman

Domingo Sanchez
Vice-Chair

Jim Swann

Hector Lizasuain

William "Bill" Land
Board Members

Todd Swingle
Executive Director

Robert F. Pelham, P.E.
Director of Engineering

TELEPHONE LISTINGS

TOHOPEKALIGA WATER AUTHORITY.....	407-844-5200
CITY OF KISSIMMEE PUBLIC WORKS & ENGINEERING.....	407-518-2170
FLORIDA POWER CORPORATION.....	407-700-8744
SPRINT FLORIDA INC (EMBARQ).....	407-814-5244
TECO/PEOPLE'S GAS.....	407-425-4661
FLORIDA GAS TRANSMISSION.....	407-255-4341
TIME-WARNER CABLE (BRIGHTHOUSE).....	407-532-6509
SUNSHINE STATE ONE-CALL OF FLORIDA (NO-CUTS).....	800-432-4770



LOCATION MAP

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

Prepared by:

TOHOPEKALIGA WATER AUTHORITY

951 Martin Luther King Blvd.
Kissimmee, Florida 34741

INDEX OF DRAWINGS

1 OF 3.....	COVER SHEET
2 OF 3.....	PLAN
3 OF 3.....	DETAILS

Exhibit A



1 inch = 200 feet

Legend

- Reclaim Relocation
- 24" (Red line)
- 12" (Pink line)
- Force Main Relocation
- W Pipes
- all other valves
- RPE_TYPE
- Distribution Main
- Force Main
- Service Line
- 18" Open Force Main
- 18" Open Force Main
- R Pipes
- all other valves
- Distribution Main
- Force Main
- Service Line
- 18" Open Force Main
- 18" Open Force Main
- CONCRETE PARCELS

CYPRESS WEST WRF

RHODODENDRON AVE

POINCIANA PKWY

CYPRESS PKWY

999

PROVIDE A 24" DOUBLE LINE STOP WITH BYPASS. CONNECT DIRECTLY INTO 24" RM WITH 24" GATE VALVE.

DIRECTIONAL BORE 16" FM HDPE AND 30" HDPE RM UNDER EXIST. CULVERT

NEW 24" DIP RM

CONST. 12" PVC FM

DIRECTIONAL BORE 16" HDPE FM UNDER POINCIANA PARKWAY

DIRECTIONAL BORE 16" HDPE RM UNDER POINCIANA PARKWAY

NEW 12" PVC FM

EXIST. 12" DIP RM

NEW 12" DIP RM

PROVIDE A 12" TAPPING SLEEVE AND VALVE AT REUSE CONNECTION POINT. ADD A 12" LINE STOP AND CAP.

EXIST. 12" RM NOT ACTIVE

REDUCE FM TO 6" AND PROVIDE 6" TAPPING SLEEVE & VALVE.

EXIST. 12" PVC FM

EXIST. 12" PVC RM

EXIST. 10" PVC FM

PROVIDE 10" LINE STOP & CAP

PROVIDE A DOUBLE LINE STOP WITH BYPASS TO THE 10" AND 6" FORCE MAINS. ADD A 12"X6" WYE AND 12"X10" REDUCER AND 6" AND 10" GATE VALVES TO COMBINE 10" AND 6" FORCE MAINS TOGETHER

EXISTING 10" AND 6" FM TO BE COMBINED INTO A 12" FM AND BE RELOCATED ALONG NORTH SIDE OF CYPRESS PKWY AND NE SIDE OF ACCESS ROAD TO THE WRF

EXIST. 12" PVC FM

EXIST. 12" DIP RM

PROVIDE 12"X6" WYE, 6" GV, 12"X10" REDUCER, 10" TAPPING SLEEVE & VALVE. EXISTING 10" AND 6" FM TO BE COMBINED INTO A NEW 12" FM

EXISTING PIPES TO BE REMOVED

EXISTING 24" RM TO BE RELOCATED ALONG NORTH SIDE OF CYPRESS PKWY AND NE SIDE OF ACCESS ROAD TO CYPRESS PKWY WRF

PROVIDE 6" LINE STOP & CAP.

APRIL, 2020	
DESIGNED BY	CHKD BY
DRAWN BY	APP'D BY
DATE	REVISION

CONCEPT PLANS

TOHO WATER AUTHORITY

351 Martin Luther King Jr. Blvd
Kissimmee, Florida 34741
(407)-944-5000



SR-538 UTILITIES RELOCATION

KISSIMMEE FLORIDA

PLAN AND DETAILS

PROJECT NO.
ISSUE ACTION
SHEET NO.
SHEET 2 OF 3

Exhibit "B"
Preliminary Construction Schedule

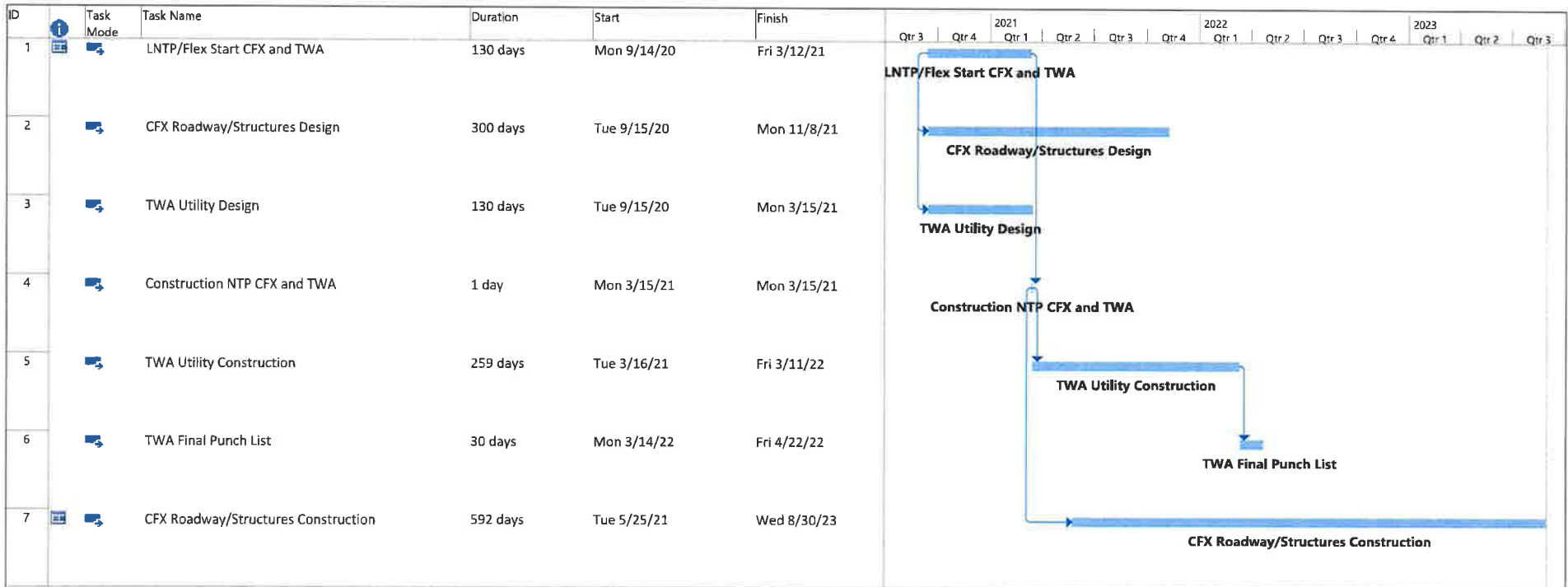


Exhibit B

Project: 417-429 Widening Pro Date: Tue 6/2/20	Task		Project Summary		Manual Task		Start-only		Deadline	
	Split		Inactive Task		Duration-only		Finish-only		Progress	
	Milestone		Inactive Milestone		Manual Summary Rollup		External Tasks		Manual Progress	
	Summary		Inactive Summary		Manual Summary		External Milestone			

Page 1

Exhibit "C"
Estimated Construction Budget

Bidder's Initials _____

*** EXHIBIT C - ESTIMATED CONSTRUCTION BUDGET *
 INTERLOCAL AGREEMENT REGARDING
 RELOCATION OF UTILITIES ALONG SR 538**

ITEM NO.	QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL
					\$0.00
	1,200	LF	24" DIP RECLAIM WATER MAIN	\$150.00	\$180,000.00
	1,800	LF	12" PVC FORCE MAIN	\$55.00	\$99,000.00
	600	LF	30" HDPE RECLAIM WATER MAIN (DIRECTIONAL BORE)	\$500.00	\$300,000.00
	1,200	LF	16" HDPE FORCE MAIN (DIRECTIONAL BORE)	\$155.00	\$186,000.00
	600	LF	16" HDPE RECLAIM WATER MAIN (DIRECTIONAL BORE)	\$155.00	\$93,000.00
	700	LF	12" DIP RECLAIM WATER MAIN	\$55.00	\$38,500.00
	250	LF	6" PVC RECLAIM WATER MAIN	\$66.00	\$16,500.00
	1	EA	6" DOUBLE LINE STOP WITH BYPASS	\$6,000.00	\$6,000.00
	1	EA	10" DOUBLE LINE STOP WITH BYPASS	\$11,000.00	\$11,000.00
	1	EA	24" DOUBLE LINE STOP WITH BYPASS	\$25,000.00	\$25,000.00
	1	EA	6" LINE STOP AND CAP (FORCE MAIN)	\$4,000.00	\$4,000.00
	1	EA	12" LINE STOP AND CAP (RECLAIM WATER MAIN)	\$7,000.00	\$7,000.00
	1	EA	6" TAPPING SLEEVE AND VALVE (FORCE MAIN)	\$4,000.00	\$4,000.00
	1	EA	10" TAPPING SLEEVE AND VALVE (FORCE MAIN)	\$8,000.00	\$8,000.00
	1	EA	12" TAPPING SLEEVE AND VALVE (RECLAIMED WATER MAIN)	\$10,000.00	\$10,000.00
	1	EA	24" TAPPING SLEEVE AND VALVE (RECLAIMED WATER MAIN)	\$36,000.00	\$36,000.00
	1	EA	6" GATE VALVE (FORCE MAIN)	\$2,000.00	\$2,000.00
	1	EA	10" GATE VALVE (FORCE MAIN)	\$3,500.00	\$3,500.00
	1	EA	12" GATE VALVE (RECLAIM WATER MAIN)	\$4,500.00	\$4,500.00
	1	EA	24" GATE VALVE (RECLAIM WATER MAIN)	\$20,000.00	\$20,000.00
	2	EA	12" X 6" WYE (FORCE MAIN)	\$700.00	\$1,400.00
	2	EA	12" X 10" REDUCER (FORCE MAIN)	\$1,000.00	\$2,000.00
	1	EA	24" X 12" TEE (RECLAIM WATER MAIN)	\$10,000.00	\$10,000.00
	1,200	LF	6" EXISTING FORCE MAIN PIPE REMOVAL	\$12.00	\$14,400.00
	1,500	LF	10" EXISTING FORCE MAIN PIPE REMOVAL	\$12.00	\$18,000.00
	1,900	LF	10" EXISTING RECLAIM WATER MAIN PIPE REMOVAL	\$12.00	\$22,800.00
	2,500	LF	24" EXISTING RECLAIM WATER MAIN PIPE REMOVAL	\$20.00	\$50,000.00
	1	LS	UTILITY DESIGN SERVICES	\$293,000.00	\$293,000.00
	1	LS	GENERAL REQUIREMENTS	\$129,000.00	\$129,000.00
	1	LS	CONTINGENCY	\$164,000.00	\$164,000.00
					\$0.00
					\$0.00
					\$0.00
					\$0.00
					\$0.00
TOTAL					\$1,758,600.00

Exhibit C

**CONSENT AGENDA ITEM
#13**

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

MEMORANDUM

TO: CFX Board Members

FROM: Laura Newlin Kelly, Associate General Counsel /LAK

DATE: June 2, 2020

RE: Joint Participation Agreement Between Osceola County ("County") and the Central Florida Expressway Authority ("CFX") for CR 532 (Osceola- Polk County Line Road) Widening from Old Lake Wilson Road to US 17/92 Project No. 538-235

BACKGROUND

As a part of the Poinciana Parkway Extension Project Development and Environment study approved by the Board in October 2019 ("PD&E Study"), CFX identified the need to widen a portion of County Road 532 ("CR 532") from two to four lanes for a one-mile segment ("CFX 532 Project"). The County has independently identified the need to widen CR 532 from Old Lake Wilson Road to US 17/92 for a total of three miles, which includes the CFX 532 Project ("Project"). A map of the Project is attached hereto for reference as **Exhibit "A"**.

In order to facilitate the design and engineering of CR 532 and to capitalize on the economies of scale, the County and CFX staff have negotiated a joint participation agreement, whereby CFX will undertake and manage the design and engineering of the Project as a part of the Poinciana Parkway Extension Project, subject to reimbursement from the County. A copy of the draft Joint Participation Agreement Between Osceola County and the Central Florida Expressway Authority for CR 532 (Osceola- Polk County Line Road) Widening from Old Lake Wilson Road to US 17/92 is attached hereto as **Exhibit "B"** ("Agreement"). The terms of the Agreement address the design and engineering of the Project only. Pursuant to the terms of the Agreement, each party would be responsible for their proportionate share of the costs of the design and engineering of the Project based on the number of miles of roadway improvements. CFX would be responsible for one-third of the costs of the design and engineering of the Project, and the County would be responsible for two-thirds of the costs of the design and engineering of the Project.

Staff is recommending that the CFX Board approve the Agreement, subject to any minor or clerical modifications or revisions approved by the General Counsel or his designee.

REQUEST

Board's approval of the following is requested:

Joint Participation Agreement Between Osceola County and the Central Florida Expressway Authority for CR 532 (Osceola- Polk County Line Road) Widening from Old Lake Wilson Road to US 17/92, subject to any minor or clerical modifications approved by the General Counsel or designee.

ATTACHMENTS

A. Map of Project

B. Joint Participation Agreement Between Osceola County and the Central Florida Expressway Authority for CR 532 (Osceola- Polk County Line Road) Widening from Old Lake Wilson Road to US 17/92

Reviewed by: Diego "Woody" Rodriguez Digitally signed by Diego "Woody" Rodriguez
Date: 2020.06.03 15:53:02 -04'00'



1/17/2020 10:11:17 AM W:\5008181\03\Proj\11518_2\11518_211A_10_14_212\11518_211A_10_14_212.dwg User: E:\12-26-2012\DESIGN\LAURENCE.BURATINO\11518_211A_10_14_212.dwg

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

CR 532 Widening Lake Wilson Rd. To US 17-92		CENTRAL FLORIDA AUTHORITY	<i>Attachment A Project Location</i>	SHEET NO.
ROAD NO.	PROJECT NO.			1
CR 532	538-235A			

1/22/2024 10:14:48 AM \\C:\COURTESY\GIS\Projects\GIS\336432B_72A.D\CR 532 Widening Lake Wilson to US 17-92_CFT\5325401\FINALS_B\PLANNS2.dwg

MATCHLINE SHEET 1



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

CR 532 Widening	
Lake Wilson Rd. To US 17-92	
ROAD NO	PROJECT NO
CR 532	538-235A



Attachment A
Project Location

SHEET NO.
2

5/12/2020 10:18:15 AM \\SR08P010\proj\proj\GIS\B053R_2154_P0_C0_532\WIDENING\LAH\MID\LAH_17-92\SR08P010\PROJECT_LOCATION_BURGHARDT.P01



DATE		DESCRIPTION		REVISIONS	
DATE	DESCRIPTION	DATE	DESCRIPTION	DATE	DESCRIPTION

CR 532 Widening Lake Wilson Rd. To US 17-92	
ROAD NO.	PROJECT NO.
CR 532	53B-235A



Attachment A
Project Location

SHEET NO.
3

**JOINT PARTICIPATION AGREEMENT
BETWEEN
OSCEOLA COUNTY AND THE CENTRAL FLORIDA EXPRESSWAY AUTHORITY
FOR CR 532 (OSCEOLA – POLK COUNTY LINE ROAD) WIDENING FROM OLD
LAKE WILSON ROAD TO US 17/92**

THIS JOINT PARTICIPATION AGREEMENT BETWEEN OSCEOLA COUNTY AND THE CENTRAL FLORIDA EXPRESSWAY AUTHORITY FOR CR 532 WIDENING FROM OLD LAKE WILSON ROAD TO US 17.92 (hereinafter referred to as "Agreement"), effective as of the latest date of execution (the "Effective Date"), is entered into by and between Osceola County, a charter County and political subdivision of the State of Florida (hereinafter called "County"), and the Central Florida Expressway Authority, an agency of the State of Florida (hereinafter called "CFX"). County and CFX shall be collectively referred to herein as the "Parties".

WITNESSETH

WHEREAS, CFX completed the State Road 538 ("SR 538") Poinciana Parkway Extension Project Development and Environment (PD&E) study in October 2019, which included widening a portion of County Road ("CR") 532; and

WHEREAS, CFX Board approved the SR 538 Poinciana Parkway Extension PD&E Study, the Preferred Alternative and approved staff to proceed into project production phases on October 10, 2019; and

WHEREAS, the SR 538 Poinciana Parkway Extension Preferred Alternative includes the widening of CR 532 from 2 to 4 lanes for a one-mile segment ("CFX 532 Project"); and

WHEREAS, the County desires to widen CR 532 from 2 to 4 lanes from Old Lake Wilson Road to US 17/92 a distance of approximately 3.0 miles which includes the areas within the CFX 532 Project (hereinafter referred to as "the Project") in accordance with the Design Engineer's (hereinafter defined) scope of services more specifically detailed in Exhibit "A" attached hereto and incorporated herein by reference ("Scope"); and

WHEREAS, the County has asked CFX to be the lead agency in the planning, design, and construction of the Project; and

WHEREAS, the County will acquire additional right-of-way required for the Project utilizing information obtained by CFX during the design process of the CFX 532 Project; and

WHEREAS, the County and CFX agree that each of the Parties shall be responsible for their proportionate share of the total costs, fees and expenses associated with the acquisition of right-of-way, planning, design, permitting, installation and construction of the Project ("Project Costs") in accordance with the number of miles of roadway improvements in the Project in relation to the CFX 532 Project; and,

WHEREAS, based upon the number of miles of roadway improvements, the Parties agree that the County shall be responsible for two-thirds (2/3) of the Project costs and CFX shall be responsible for one-third (CFX) of the Project Costs ("Proportionate Share"); and,

WHEREAS, the County will maintain CR 532 and all right-of-way associated with CR 532 once construction of the Project is complete; and

WHEREAS, CFX will maintain SR 538 and all right-of-way associated with SR 538 once construction of the Project is completed; and

WHEREAS, the Parties are seeking to move forward with the selection of a design consultant and have reached agreement regarding each of the Parties' participation and contributions in the design of the contemplated Project; and,

WHEREAS, the Parties are working and expect to reach an agreement regarding each of the Parties' participation and contributions as to the funding, permitting, right-of-way acquisition, construction, and maintenance of the contemplated Project;

NOW THEREFORE, in consideration of the mutual covenants and promises, covenants and agreements contained herein and other valuable consideration, receipt of which is hereby acknowledged, the Parties mutually undertake, promise and agree for themselves, their successors and assigns as follows:

SECTION 1. RECITALS. The County and CFX acknowledge and agree that the foregoing recitals are true and correct and by this reference incorporated and made a part of this Agreement.

SECTION 2. REPRESENTATIONS OF THE PARTIES.

(A) The County makes the following representations as the basis for the undertakings on the part of the CFX herein contained.

(1) The County is duly organized and validly existing as a political subdivision of the State.

(2) The County has full power to enter into the transactions contemplated by this Agreement and to carry out its obligations hereunder.

(3) The County is not in default under any provisions of the laws of the State of Florida (the "State") that are material to the performance of its obligations under this Agreement.

(4) The County has duly authorized the execution and delivery of this Agreement, and assuming the due authorization, execution and delivery by CFX, this Agreement constitutes a valid and legally binding obligation of the County, enforceable in accordance with its terms, except to the extent that the enforceability thereof may be limited by any applicable bankruptcy, insolvency, moratorium, reorganization or other similar

laws affecting creditors' rights generally, or by the exercise of judicial discretion in accordance with general principles of equity.

(5) To the County's knowledge, the authorization, execution and delivery of this Agreement and the compliance by the County with the provisions of this Agreement will not conflict with or constitute a material breach of, or default under, any existing law, court or administrative regulation, decree or order, or any provision of the Constitution or laws of the State relating to the County or its affairs, or any ordinance, resolution, agreement, mortgage, lease or other instrument to which the County is subject or by which it is bound.

(6) To the County's knowledge, there is no action, suit, proceeding or investigation at law or in equity before or by any court, public board or body pending or, to the best knowledge of the County, threatened against or affecting the County, wherein an unfavorable decision, ruling or finding would materially adversely affect the transactions contemplated hereby, or which, in any way, would materially adversely affect the validity of this Agreement or any agreement or instrument to which the County is a party and which is used or contemplated for use in the consummation of the transactions contemplated hereby.

(7) The County has sufficient lawfully available appropriated funds to satisfy its obligations under this Agreement.

(B) CFX makes the following representations as the basis for the undertakings on the part of the County herein contained.

(1) CFX is duly organized and validly existing as a public body corporate and politic.

(2) CFX has full power to enter into the transactions contemplated by this Agreement, and to carry out its obligations hereunder.

(3) CFX is not in default under any provisions of the laws of the State that are material to the performance of its obligations under this Agreement.

(4) CFX has duly authorized the execution and delivery of this Agreement, and assuming the due authorization, execution and delivery by the County, this Agreement constitutes a valid and legally binding obligation of CFX, enforceable in accordance with its terms, except to the extent that the enforceability thereof may be limited by any applicable bankruptcy, insolvency, moratorium, reorganization or other similar laws affecting creditors' rights generally, or by the exercise of judicial discretion in accordance with general principles of equity.

(5) To CFX's knowledge, the authorization, execution and delivery of this Agreement and the compliance by CFX with the provisions of this Agreement will not conflict with or constitute a material breach of, or default under, any existing law, court or administrative regulation, decree or order, or any provision of the Constitution or laws of

the State relating to CFX or its affairs, or any ordinance, resolution, agreement, mortgage, lease or other instrument to which CFX is subject or by which it is bound.

(6) To CFX's knowledge, there is no action, suit, proceeding or investigation at law or in equity before or by any court, public board or body pending or, to the best knowledge of CFX, threatened against or affecting CFX, wherein an unfavorable decision, ruling or finding would materially adversely affect the transactions contemplated hereby or which, in any way, would materially adversely affect the validity of this Agreement or any agreement or instrument to which CFX is a party and which is used or contemplated for use in the consummation of the transactions contemplated hereby.

(7) CFX has sufficient lawfully available appropriated funds to satisfy its obligations under this Agreement.

SECTION 3. AUTHORIZED REPRESENTATIVES. The parties will each designate a project manager to perform the duties of such party under this Agreement that are not expressly reserved to the governing body of such party (individually referred to herein as the "Project Manager," or collectively, the "Project Managers"). The initial Project Manager for the County is Tawny Olore ("County Project Manager") and the initial Project Manager for CFX is Glenn Pressimone ("CFX Project Manager"). Either party may designate a replacement Project Manager by written notice to the other party pursuant to Section 26 hereof. Notwithstanding the foregoing, the County Project Manager and CFX Project Manager may elect to delegate certain roles, rights and responsibilities of the County Project Manager and CFX Project Manager to individuals within the County or CFX, respectively, as more specifically set forth herein.

SECTION 4. DESIGN AND ENGINEERING.

(A) CFX shall procure design engineers for the planning, design and permitting of the Project (the "Design Engineers") pursuant to Section 287.055, Florida Statutes, and in accordance with its own procurement rules and procedures. The Parties hereby agree and acknowledge that Kimley-Horn & Associates, Inc. has been retained as the firm to serve as the Design Engineers, subject to confirmation from the Board of CFX. CFX reserves the right to replace or substitute the firm retained as the Design Engineers at any time with the written approval of the County Project Manager, which approval shall not unreasonably delayed, conditioned or withheld.

(B) CFX shall provide all SR 538 Project Development and Environment study reports addressing the CFX 532 Project and all Design Plans (hereinafter defined) prepared by Design Engineers to the County for review and comment. The Parties agree that, unless otherwise waived by the County in writing, the Project shall be designed and constructed to County standards for a county road, and permitted in the County's name, and such standards shall be incorporated into any and all Design Plans presented to CFX and the County for review and approval. The County shall submit any comments to CFX within ten (10) Business Days (hereinafter defined) from receipt of the Design Plans. The Project Managers, or their designees, shall both approve in writing each of the Design Plans. The County Project Manager's review and approval hereunder shall not be unreasonably delayed, conditioned or withheld. "Design Plans" shall mean any such plans, specifications or drawings or amendments thereto, and any other documentation reasonably

required to specify the size, character and design of the improvements required for the construction of the Project.

(C) CFX shall notify the County's Project Manager of all meetings with the Design Engineers. The County's Project Manager, or her designee, is entitled to attend all meetings with the Design Engineers.

(D) Upon the completion of the design of the Project by the Design Engineers and acceptable by the County and CFX of the final Design Plans, CFX shall provide to the County a written invoice of any and all costs and expenses incurred by the Design Engineers for the planning, design, engineering and permitting of the Project ("Design Costs"). Within forty-five (45) days of receipt of a written invoice from CFX, the County shall pay to CFX an amount equal to the County's Proportionate Share of the total Design Costs.

SECTION 5. INSURANCE. CFX shall require that all CFX consultants, subconsultants, contractors, and subcontractors working in connection with the Project, will possess insurance coverage as stated in the Florida Department of Transportation's Standard Specifications naming the County as additional insured and insuring the County against any and all claims for injury or damage to persons and property, and for the loss of life or property that may occur (directly or indirectly) by reason of the CFX consultants, subconsultants, contractors and/or subcontractors, as the case may be, accessing the Project Right-of-Way and such party's performance within the Project Right-of-Way. Any such insurance shall remain in effect until completion of construction and final acceptance by the County. Prior to commencement of the Project, and on such other occasions as the County may reasonably require, CFX shall provide the County with certificates documenting that the required insurance coverage with its CFX contractor and subcontractors is in place and effective.

SECTION 6. INDEMNIFICATION. CFX shall cause the CFX consultants, CEI, Design Engineers (collectively, "Consultants") to indemnify and hold harmless the County and CFX, and their officers and employees, from liability, damages, losses, and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the Consultants, as applicable, and other persons employed or utilized by the Consultants in the performance of this Agreement. Nothing provided for herein shall inure to the benefit of any third party for any purpose, which might allow claims otherwise barred by sovereign immunity or operation of law. The parties shall notify each other in writing immediately upon becoming aware of such liabilities. The indemnities given by the Consultants in connection with the Project shall survive the expiration or earlier termination of this Agreement. The insurance coverage and limits required in this Agreement may or may not be adequate to protect the County and such insurance coverage shall not be deemed a limitation of the indemnities to the County set forth in this Agreement. The provisions of this paragraph shall survive the expiration termination of this Agreement, in accordance with the laws of the State.

SECTION 7. SOVEREIGN IMMUNITY. Nothing in this Agreement shall be deemed or otherwise interpreted as waiving the parties' respective sovereign immunity protections, or as increasing the limits of liability as set forth in Section 768.28, F.S.

SECTION 8. JURISDICTION AND VENUE. This Agreement is accepted and entered into in Florida and any question regarding its validity, construction, enforcement, or performance shall be governed by Florida law. Venue for any and all actions arising out of or in any way related to the interpretation, validity, performance or breach of this Agreement shall lie within Osceola County, Florida

SECTION 9. PUBLIC RECORDS LAW.

(A) The parties acknowledge that by virtue of this Agreement all of their respective documents, records and materials of any kind, relating to the relationship created hereby, shall be open to the public for inspection in accordance with Florida law. If either party will act on behalf of the other party, as provided under Section 119.011(2), Florida Statutes, acting party, subject to the terms of section 287.058(1)(c), Florida Statutes, and any other applicable legal and equitable remedies, shall:

(1) Keep and maintain public records required by the other party to perform the service.

(2) Upon request from the other party's custodian of public records, provide the other party with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided by Florida law.

(3) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the other party.

(4) Upon completion of the contract, transfer, at no cost, to the other party all public records in possession of the acting party or keep and maintain public records required by the other party to perform the service. If the acting party transfers all public records to the other party upon completion of the contract, the acting party shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the acting party keeps and maintains public records upon completion of the contract, the acting party shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the other party, upon request from the other party's custodian of public records, in a format that is compatible with the information technology systems of the other party.

(5) If the acting party does not comply with a public records request, the other party shall enforce the contract provisions in accordance with the Agreement.

(B) IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT, AS FOLLOWS:

As to the County:
Public Information Office
1 Courthouse Square, Suite 3100
Kissimmee, FL 34741
407-742-0100
BCCPIO@osceola.org

As to CFX:
Director of Records Management
Central Florida Expressway Authority
4974 ORL Tower Road
Orlando, FL 32807
407-690-5366
PublicRecords@cfxway.com

SECTION 10. WAIVER. The failure of either party to insist on one or more occasions on the strict performance or compliance with any term or provision of this Agreement shall not be deemed a waiver or relinquished in the future of the enforcement thereof, and it shall continue in full force and effect unless waived or relinquished in writing by the party seeking to enforce the same. A modification or waiver of any of the provisions of this Agreement shall be effective only if made in writing and executed with the same formality as this Agreement.

SECTION 11. ASSIGNMENT. This Agreement may not be assigned without the written consent of the parties.

SECTION 12. BINDING EFFECT. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns but shall not take effect and may be null and void if it not approved by the governing bodies of the County and CFX by no later than June 16, 2020. Nothing in this Agreement is intended to confer any rights, privileges, benefits, obligations or remedies upon any other person or entity except as expressly provided for herein.

SECTION 13. NO CONTINGENT FEES. The parties warrant that they have not employed or obtained any company or person, other than their respective bona fide employees to solicit or to secure this Agreement and that they have not paid or agreed to pay any company, corporation, individual or firm, other than bona fide employees to solicit or secure this Agreement.

SECTION 14. INTERLOCAL AGREEMENT PROVISIONS. To the extent any provision of this Agreement constitutes a joint exercise of power, privilege or authority by and between the County and CFX, such provision shall be deemed to be an "interlocal agreement" within the meaning of the Florida Interlocal Cooperation Act of 1969. This Agreement shall be recorded with the Clerk of the Circuit Court of Osceola County and the Clerk of the Circuit Court of Orange County.

SECTION 15. DISPUTE RESOLUTION.

(A) The Parties agree to resolve any dispute related to the interpretation, performance or enforcement of this Agreement as outlined in this Section. Any Party may initiate the dispute resolution process by providing written notice to the other Party.

(B) After transmittal and receipt of a notice specifying the area or areas of disagreement, the Parties agree to meet at reasonable times and places, as mutually agreed upon, to discuss the issues.

(C) If the Parties fail to resolve the dispute within 60 days of notice, the Parties shall attempt to resolve the dispute pursuant to the Florida Governmental Conflict Resolution Act, Chapter 164, Florida Statutes, before filing suit related to the interpretation, performance or enforcement of this Agreement.

SECTION 16. SEVERABILITY. If any provision of this Agreement shall be held invalid or unenforceable by any court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provision hereof.

SECTION 17. AMENDMENTS, CHANGES AND MODIFICATIONS. No modification alteration or amendment to this Agreement shall be binding upon any Party until such modification, alteration or amendment is reduced to writing and executed by all Parties hereto and filed in the Official Records of Orange County, Florida and Osceola County, Florida.

SECTION 18. EXECUTION IN COUNTERPARTS; ELECTRONIC SIGNATURES. This Agreement may be simultaneously executed in several counterparts, including by digital or electronic signatures, each of which shall be an original and all of which shall constitute but one and the same instrument.

SECTION 19. APPLICABLE LAW. This Agreement is made pursuant to Section 163.01, et seq., Florida Statutes, and shall be governed by and construed in accordance with the law of the State of Florida.

SECTION 21. CAPTIONS. The captions or headings in this Agreement are for convenience only and are not intended to define, limit or describe the scope or intent of any provisions or sections of this Agreement.

SECTION 22. PUBLIC AGENCIES. At all times prior to and during the term of this Agreement, each of the Parties hereto shall constitute a "public agency" as that term is defined in Section 163.01(3)(b), Florida Statutes.

SECTION 23. ENTIRE AGREEMENT. This Agreement constitutes the entire agreement among the Parties pertaining to the subject matter hereof, and supersedes all prior and contemporaneous agreements, understandings, negotiations and discussions of the Parties, whether oral or written, and there are no warranties, representations or other agreements between the Parties in connection with the subject matter hereof, except as specifically set forth herein.

SECTION 24. NOTICES. All notices, certificates or other communications hereunder shall be sufficiently given and shall be deemed given when hand delivered or if mailed by registered or certified mail, postage prepaid, three (3) days from deposit with the postal service, to the Parties at the following addresses:

Osceola County, Florida:

Attn.: County Manager
County Attorney
1 Courthouse Square
Suite 4500
Kissimmee, FL 34741

Central Florida Expressway Authority:

Attn.: Executive Director
General Counsel
4974 Orl Tower Road
Orlando, Florida 32807

Either of the Parties may, by notice in writing given to the others, designate any further or different addresses to which subsequent notices, certificates or other communications shall be sent.

IN WITNESS WHEREOF, the Board of County Commissioners of Osceola, Florida, has caused this Agreement to be executed by its duly authorized officers as of the date written below.

OSCEOLA COUNTY, FLORIDA

By: _____
Chair/Vice Chair
Board of County Commissioners

(SEAL)

ATTEST:

Date: _____

Clerk/Deputy Clerk

As authorized for execution at the Board of
County Commissioners meeting of:

IN WITNESS WHEREOF, CFX has caused this Agreement to be executed and attested by its duly authorized officers as of the date written below.

“CFX”

Two Witnesses as to CFX:

**CENTRAL FLORIDA EXPRESSWAY
AUTHORITY**

(Printed Name) _____

By: _____
Brenda Carey, Chairman

Date: _____

ATTEST: _____
Regla (“Mimi”) Lamaute
Board Services Coordinator

Approved as to form and legality by legal
counsel to the Central Florida Expressway
Authority on this ____ day of _____,
2020 for its exclusive use and reliance.

By: _____
Diego “Woody” Rodriguez
General Counsel

EXHIBIT A

**SCOPE OF SERVICES
FOR
CR 532 (OSCEOLA POLK LINE ROAD) WIDENING
FROM LAKE WILLSON ROAD TO US 17 (S. ORANGE BLOSSOM TRAIL)**

CENTRAL FLORIDA EXPRESSWAY AUTHORITY (CFX) CONTRACT # 001649

OSCEOLA COUNTY

April 20, 2020

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**SCOPE OF SERVICES FOR CONSULTING ENGINEERING SERVICES
HIGHWAY AND BRIDGE/STRUCTURAL DESIGN**

This Exhibit forms an integral part of the agreement between the Central Florida Expressway Authority (herein referred to as CFX) and Kimley-Horn (hereinafter referred to as the CONSULTANT) relative to the transportation facility described as follows:

CFX CONTRACT #: 001649

Federal Aid Project No.: N/A

County Section No.: N/A

Description: CR 532 (Osceola Polk Line Road) from Lake Wilson Road to US 17 (S. Orange Blossom Trail)

Bridge No(s): N/A

Rail Road Crossing No: DOT 622956D

Context Classification: C3R – Suburban Residential (transitioning from rural, and corridor also contains public service and utility facilities and commercial properties)

1 PURPOSE

The purpose of this Exhibit is to describe the scope of work and the responsibilities of the CONSULTANT and CFX in connection with the design and preparation of a complete set of construction contract documents and incidental engineering services, as necessary, for improvements to the transportation facility described herein. Osceola County (herein after referred to as COUNTY) is participating in this project through CSX and will be included in all correspondence, meetings, design decisions, reviews of documents and plans, and associated concurrences / approvals.

Major work groups include:

3.2 Major Highway Design

Minor work groups include:

2.0 Project Development and Environmental Studies

4.1.1 Miscellaneous Structures

6.1 Traffic Engineering Studies

6.2 Traffic Signal Timing

6.3.1 Intelligent Transportation Systems Analysis and Design

6.3.2 Intelligent Transportation Systems Implementation

6.3.3 Intelligent Transportation Traffic Engineering Systems Communications

7.1 Signing, Pavement Marking & Channelization

7.2 Lighting

7.3 Signalization

8.1 Control Surveying

8.2 Design Right of Way, and Construction Surveying

8.4 Right of Way Mapping

1 PURPOSE

9.1 Soil Exploration
9.2 Geotechnical Lab Testing
9.4.1 Standard Foundation Studies

Known alternative construction contracting methods include: N/A

The general objective is for the CONSULTANT to prepare a set of contract documents including plans, specifications, supporting engineering analysis, calculations and other technical documents in accordance with Florida's Department of Transportation (herein after referred to as FDOT or the DEPARTMENT) policy, procedures and requirements. These Contract documents will be used by the contractor to build the project and test the project components. These Contract documents will be used by CFX or its Construction Engineering Inspection (CEI) representatives for inspection and final acceptance of the project. The CONSULTANT shall follow a systems engineering process to ensure that all required project components are included in the development of the Contract documents and the project can be built as designed and to specifications.

The Scope of Services establishes which items of work in the FDOT Design Manual and other pertinent manuals are specifically prescribed to accomplish the work included in this contract and indicate which items of work will be the responsibility of the CONSULTANT, CFX, and/or the COUNTY.

The CONSULTANT shall be aware that as a project is developed, certain modifications and/or improvements to the original concepts may be required. The CONSULTANT shall incorporate these refinements into the design and consider such refinements to be an anticipated and integral part of the work. This shall not be a basis for any supplemental fee request(s).

The CONSULTANT shall demonstrate good project management practices while working on this project. These include communication with CFX, COUNTY, and others as necessary, management of time and resources, and documentation. The CONSULTANT shall set up and maintain throughout the design of the project a contract file in accordance with CFX and COUNTY procedures. CONSULTANTs are expected to know the laws and rules governing their professions and are expected to provide services in accordance with current regulations, codes and ordinances and recognized standards applicable to such professional services. The Consultant shall provide qualified technical and professional personnel to perform to CFX and COUNTY standards and procedures, the duties and responsibilities assigned under the terms of this agreement. The Consultant shall minimize to the maximum extent possible CFX and the COUNTY need to apply its own resources to assignments authorized by CFX and the COUNTY.

CFX and the COUNTY will provide contract administration, management services, and

technical reviews of all work associated with the development and preparation of contract documents, including Construction documents. CFX and COUNTY technical reviews are for high-level conformance and are not meant to be comprehensive reviews. The CONSULTANT shall be fully responsible for all work performed and work products developed under this Scope of Services. CFX and the COUNTY may provide job-specific information and/or functions as outlined in this contract, if favorable.

2 PROJECT DESCRIPTION

The CONSULTANT shall investigate the status of the project and become familiar with concepts and commitments (typical sections, alignments, etc.) developed from prior studies and/or activities.

This project consists of a project development study (Part 'A' of this Scope) followed by development of a design plans for construction (Part 'B' of this Scope) of CR 532 (Osceola Polk Line Road) from Lake Wilson Road to US 17 (S. Orange Blossom Trail). The total project length is approximately 2.9 miles and extends from the existing four-lane section on the east side of the Lake Wilson Road intersection across the R.R. crossing west of US 17, whereupon the roadway will transition back to a two-lane section. The limits include the intersection for the extension of the Poinciana Parkway as identified in the separate PD&E study performed for CFX (CFX Project No. 599-224).

The project includes construction of a four-lane divided roadway with multimodal accommodations as determined in the project development study, associated drainage improvements and storm water ponds, upgrading the Intelligent Transportation System, improving a CSX R.R. crossing, street lighting, and landscaping considerations. The design shall adhere to all applicable Federal, State and FDOT regulations and be in accordance with the Florida Design Manual (FDM). The CONSULTANT shall review and summarize related studies/reports and incorporate their results in the design. The CONSULTANT shall coordinate work activities with any completed/ongoing/planned projects that may affect this project.

All electronic documents prepared by the CONSULTANT must be formatted in compliance with Section 508 of the Rehabilitation Act, so they can be accessed by people with disabilities if posted on the CFX and/or COUNTY websites.

PART 'A'

The CONSULTANT shall prepare a comprehensive Project Development Technical Memorandum and associated documents and conduct a public meeting in accordance to the following sections of Part 'A'. These items will be used to initiate the design phase in PART 'B' of this scope, upon written authorization by CFX and the COUNTY, and to support this Project's Right-of-Way acquisition phase as necessary. (Note: the activities and tasks within Part 'A' closely follow the numbering of the standard FDOT staff-hour format for PD&E Studies, with an "A" placed in front of the numbers.)

A.1 ENGINEERING ANALYSES AND CONSIDERATIONS

2 PROJECT DESCRIPTION

The CONSULTANT will gather and review existing data from CFX and the COUNTY, such as transportation planning data developed for long range plans or any previously completed technical studies within the project area and will collect additional data necessary to supplement existing data. The CONSULTANT will prepare the purpose and need statement for the Project based on the information obtained from the existing data, safety analysis, evaluation of existing conditions, evaluation of traffic projections, and input received through the public involvement process. The CONSULTANT shall develop and analyze conceptual design alternatives to address the Project needs and objectives. Based on engineering analysis, the public involvement process, and environmental analysis, CFX and the COUNTY will provide concurrence on a proposed design concept to advance to the design phase.

A.1.1 Existing Conditions Analysis

The CONSULTANT will conduct field observations to review existing field conditions, verify desktop data, and obtain additional data required to understand the Project area, assess Project needs, identify physical and environmental constraints, develop and analyze Project alternatives, and assess constructability issues. The CONSULTANT will collect data describing existing conditions and characteristics of the Project including roadway geometrics, typical section elements, signalization and other operational features, access features, and right of way requirements, and other data applicable to modes and sub-modes of transportation, including walking/pedestrians, bicyclists, public transit users (including transit vehicles and riders), paratransit users (carpools, vanpools, taxis, shuttles, jitneys, school buses, coach buses), and freight (including loading/unloading and parking, emergency response vehicles, service vehicles, and freight handler vehicles). The CONSULTANT will furnish necessary exhibits for use in this Project, such as a Project Location Map, Corridor Maps, and Concept Plans.

A.1.2 Planning Consistency - Transportation Plans

The CONSULTANT will coordinate with CFX and the COUNTY to obtain and review transportation plans throughout the life of the Project for all modes of transportation including freight, transit, and non-motorized. The following plans or studies should be reviewed as appropriate:

- MetroPlan Orlando adopted Long Range Transportation Plan (LRTP) Cost Feasible and Needs Plans
- Local Government Transportation Improvement Plan (TIP)
- State Transportation Improvement Program (STIP)
- Urban Area Transportation Study
- Local Government Comprehensive Plan (LGCP)
- Local Transit Development Plans (TDP) for bus, rail, or other services
- Non-motorized (bicycle and pedestrian) Plans

A.1.3 Traffic Analysis

Traffic data will be furnished by CFX. The CONSULTANT will review the Project Traffic Forecast and Traffic Analysis Report. This report will be a separate document that is summarized in the Project Development Technical Memorandum.

A.2 ENVIRONMENTAL ANALYSIS

A.1.3.1 Traffic Analysis Methodology

The CONSULTANT will review the traffic data and forecasts provided by CFX to determine intersection geometry for the corridor.

A.1.3.2 Traffic Counts

CFX will provide the following design traffic data:

1. Current year and design year AADT
2. Current year and design year DDHV
3. Turning movement counts at each intersection
4. K, D, and T factors
5. Design Speed
6. AVI percentages

A.1.3.3 Vehicle Classification Counts on Roadway Segments and Ramps – N/A (to be performed by CFX in-house traffic consultant)

A.1.3.4 Pedestrian, Bicycle and Other Multimodal Data

CFX will provide the following additional existing traffic data:

- Pedestrian counts
- Bicycle counts
- Freight movement

The CONSULTANT will collect the following additional existing traffic data:

- Transit data

A.1.3.5 Calibration and Validation Data – N/A (to be performed by CFX in-house traffic consultant)

A.1.3.6 Existing Traffic Operational Analysis – N/A (to be performed by CFX in-house traffic consultant)

A.1.3.7 Calibration and Validation – N/A (to be performed by CFX in-house traffic consultant)

A.1.3.8 Signalization Analysis

In coordination with CFX and the COUNTY, the CONSULTANT shall perform signalization analysis and/or signal warrant studies at the Project's intersections and propose a preliminary signal timing plan and signal operation plan for each intersection that requires signalization.

A.1.3.9 Project Traffic Analysis Report

The CFX in-house traffic consultant will prepare the Project Traffic Analysis Report (PTAR) to document development of design traffic volumes and results of the traffic analysis, which will incorporate the transit, bicycle, and pedestrian analysis performed by the Project's CONSULTANT (results must be shown on diagrams and discussed in the report).

A.1.3.10 Transportation Systems Management and Operations – N/A

A.1.4 Development of Alternatives

The CONSULTANT will identify, develop, assess, and screen preliminary potential Project alternatives, which will consist of alternative alignments, typical sections, and combinations thereof. By considering project goals and objectives, and purpose and need, the CONSULTANT in consultation with CFX and the COUNTY will identify and document alternatives to be eliminated from further detailed study.

A.1.4.1 Operational Evaluation

The CONSULTANT will analyze the operational performance of viable or feasible alternative(s) for opening and design years and any interim years as appropriate. The analysis must include multimodal evaluation for pedestrian, bicycle, and transit modes as appropriate. The analysis will also include evaluation of access management in relation to traffic safety and operational efficiency within the Study Area.

A.1.5 Signage

The CONSULTANT will evaluate existing signing and signage requirements for the Project.

A.1.6 Safety

A.1.6.1 Crash Data

The CONSULTANT will obtain the most recent five (5) years of available data from the COUNTY and other local sources for this Project. The crash data will include the number and type of crashes, crash locations, number of fatalities and injuries, and estimates of property damage and economic loss as available.

A.1.6.2 Safety Analysis

The CONSULTANT will perform safety analysis based on the information obtained from the crash data and identify project safety needs associated with the existing and future conditions. The CONSULTANT will use the Highway Safety Manual (HSM) procedures to estimate the safety performance of the Project alternatives.

A.1.6.3 Documentation of Safety Analysis

The CONSULTANT will document the results of the safety analysis in the Technical Memorandum.

A.2 ENVIRONMENTAL ANALYSIS

A.1.7 Utilities

It is anticipated that the following Utility Agency Owners (UAOs) are within or adjacent to the Project, but it is the responsibility of the CONSULTANT to determine the final list of UAOs within the project area: Charter Communications, Kinder Morgan / Central Florida Pipeline (fuel oil), Duke Energy (electric transmission, distribution and fiber), Florida Southeast Connection (gas), Toho Water Authority (Zone 1, water and wastewater), Gulfstream Natural Gas System, Frontier Communications, CenturyLink (fiber), Comcast, MCI (fiber), Summit Broadband (fiber), Osceola County Traffic (signals), Orlando Utilities Commission (lighting), TECO Peoples Gas, Polk County Utilities (water and wastewater), Spectra Energy – Sabal Trail (gas), Uniti Fiber, Transtate Industrial Pipeline Systems (gas). These utilities include a Sabal Trail gas compression station, a Toho Water Authority water treatment plant, and Duke Energy sub-station within the project limits.

The CONSULTANT will notify the UAOs within the Project and request existing and planned utility information for major above ground and subsurface facilities within the Project. The CONSULTANT will meet with each UAO as necessary, separately or together, to understand utility conflicts and project potential impacts on utilities. The CONSULTANT will evaluate and consider potentially significant utility conflicts as they may affect the chosen corridor and/or alignment. While evaluating potential impacts and recommending mitigation strategies, the CONSULTANT should refrain from making any compensability determinations in any of the documentation/assessments that they create.

A.1.8 Railroads

The CONSULTANT shall coordinate with CSX for necessary design and permit requirements to improve the existing R.R. crossing west of the US 17 intersection including minimum median width, type of crossing (e.g. concrete slab), and potential reuse and relocation of existing signal equipment.

A.1.9 Roadway Analysis

A.1.9.1 Design Controls and Criteria

The CONSULTANT will prepare design controls and criteria for developing Project alternatives and designing initial geometrics and other roadway elements according to FDOT standards.

A.1.9.2 Typical Section Analysis

The CONSULTANT will develop conceptual typical sections for the Project alternatives which address transportation needs.

A.1.9.3 Geometric Design

The CONSULTANT will perform geometric design using the established Project design controls and criteria. The CONSULTANT will also use Project traffic data and results of traffic analysis to design appropriate roadway elements. The CONSULTANT will establish both preliminary vertical profile and horizontal alignments of the mainline. The design of Project alternatives must consider environmental constraints, physical constraints, and any additional information, as required. For each alternative evaluated in detail, the

A.2 ENVIRONMENTAL ANALYSIS

CONSULTANT shall prepare sketches of plan, profile, and typical sections as appropriate to show existing features, proposed geometry, and location of any environmental and geometric design constraints.

A.1.9.4 Access Management

The CONSULTANT will recommend the proper access classification and standard to be applied to the Project. The proposed access management plan will be presented as part of the public involvement process.

A.1.9.5 Multimodal Accommodations

The CONSULTANT will review, evaluate, and document the location and condition of existing pedestrian, bicycle, and public transit accommodations and freight services in the study area. This activity includes reviewing existing plans, reports, and studies that outline strategies or define projects associated with alternative modes of travel. The CONSULTANT will consider freight, pedestrian, bicycle, and transit in the development and evaluation of Project alternatives with a goal of improving overall mobility, access, connectivity, safety and efficiency. Multimodal accommodation may include analysis of on-street parking and loading zone modifications and/or removal, park and ride needs, as necessary. The CONSULTANT will consider and evaluate the existing and anticipated future use of the Project by bicyclists and pedestrians, the potential impacts of the Project alternatives on bicycle and pedestrian travel and propose measures to avoid or reduce adverse impacts to bicyclists and pedestrians that would use the Project.

A.1.9.6 Maintenance of Traffic

The CONSULTANT will evaluate alternatives for constructability and the ability to maintain traffic during construction and will include the estimated cost to maintain traffic in the construction cost estimate for the Project alternative.

A.1.9.7 Lighting

The CONSULTANT will evaluate the need for lighting in accordance with applicable manuals, guidelines, standards and current design memorandums and will include the estimated cost for lighting in the construction cost estimate for the Project alternative.

A.1.10 Structures - Bridge Analysis – N/A

A.1.11 Drainage

A.1.11.1 Floodplain and Environmental Permit Data Collection

The CONSULTANT will gather floodplain data from FEMA Flood Insurance Rate Maps, and other drainage related data needed to obtain permits from relevant sources including local government, local agencies, and regulatory agencies.

A.1.11.2 Drainage Analysis

The CONSULTANT will perform drainage analysis by delineating the basin boundaries by using LiDAR information, existing survey data, and field observations. The CONSULTANT will analyze and determine high water elevations in each basin and use the information to establish the preliminary roadway profile. Drainage analysis will also include checking the capacity and structural adequacy of existing cross drains, preliminary design of potential cross drain and outfall structures and identifying the recommended conceptual drainage design for the Project.

A.1.11.3 Floodplain Compensation Analysis

For each roadway alternative, the CONSULTANT will determine base floodplain elevations and estimate encroachments and appropriate compensation provisions, including floodplain compensation site requirements.

A.1.11.4 Stormwater Management Analysis

The CONSULTANT will calculate the stormwater quality and attenuation requirements and estimate the stormwater management facility needs for each roadway alternative. The CONSULTANT will identify two practical pond sites in each basin for each project alternative, estimate construction cost, compare the sites, and identify in coordination with CFX and the COUNTY a preferred pond site for each basin. Additionally, the CONSULTANT will identify inflow or outfall easement requirements for each pond site. If additional pond sites are revealed, they will be used as a potential option.

A.1.11.5 Bridge Hydraulic Evaluation – N/A

A.1.12 Survey and Geotechnical Investigation

No survey or geotechnical services are identified for PART 'A'. However, if it's deemed necessary CFX can authorize the CONSULTANT in writing to advance certain survey and/or geotechnical services from PART 'B' to PART 'A' for this Project.

A.1.13 Landscaping Analysis

The CONSULTANT will coordinate with Osceola Co on selective clearing and grubbing approach.

A.1.14 Construction Cost Estimates

The CONSULTANT will develop construction cost estimates including traffic management.

A.1.15 Right of Way Cost Estimates

The CONSULTANT will establish construction limits and determine the minimum (proposed) right of way requirements throughout the limits of the Project. Establishment of construction limits will consider drainage features, the transportation management plan, utility relocations, stormwater pond requirements, and identified environmental issues, among other factors. The CONSULTANT will compare the existing right of way width with the proposed right of way requirements to estimate the amount of right of way that CFX and/or the COUNTY must acquire. CFX will estimate the cost for right of way acquisition and cost estimates for relocations and business damages, if any, and submit concept plans for the preferred alternative that include existing right of way lines, proposed right of way lines, and delineate individual parcels and associated acreage of property required.

A.1.16 Alternatives Evaluation

The CONSULTANT will prepare a matrix which compares the impacts, performance, and costs of the alternatives evaluated.

A.1.17 Concept Plans

The CONSULTANT will prepare concept plans for the preferred alternative overlaid on the base map at 50 scale. The base map will contain an aerial photography provided by CFX. The base map must show environmental issues that are specific to the Study Area such as cemeteries, wetlands, historic properties, high-risk contamination sites, public parks, and

A.2 ENVIRONMENTAL ANALYSIS

property lines. The CONSULTANT will prepare base maps for the following uses:

- Overall Project Location Map
- Overall Drainage Map
- Corridor Maps (Roll Plots)

A.1.18 Transportation Management Plan (TMP)

The CONSULTANT will prepare a Conceptual TMP with traffic control strategies for the Project. Items to consider among the Project's viable alternatives include traffic pacing, detour routes, paving approach and sequence, lane closure restrictions, and hauling routes / restrictions. The Conceptual TMP of the preferred alternative will be presented by the CONSULTANT on roll plots that include off-site and pavement drainage constraints, critical cross sections, typical sections for each proposed phase, and any traffic pacing, diversions, and/or detour routes.

A.1.19 Lighting Justification Report

The CONSULTANT shall prepare a Lighting Justification Report. The report shall provide analyses for mainlines, interchanges, and arterial roads and shall include all back-up data such that the report stands on its own. Back up data shall include current ADT's, general crash data average cost from the Florida Highway Safety Improvement Manual, crash details data from the last three years, and preliminary lighting calculations.

The report shall address warrants to determine if lighting warrants are met and shall include a benefit-cost analysis to determine if lighting is justified. The report shall include calculations for the night-to-day crash ratio as well as a table summarizing the day-time and the night-time crashes. The report shall follow the procedures outlined in the FDOT Manual on Uniform Traffic Studies (MUTS) manual which utilize ADT, Three Year Crash Data, night/day crash ratio, percentage of night ADT, etc.

A.2 ENVIRONMENTAL ANALYSIS

The CONSULTANT will collect pertinent environmental data, conduct analyses, and document the results of this analysis. This documentation can be by text and exhibit inserts into the Alternatives Technical Memorandum or by individual memorandums, e.g. for archaeological and historical features, potential contamination sites, and wetlands and endangered species, that are added as appendices and summarized in the memorandum. The CONSULTANT will analyze the Project's viable alternatives with respect to impacts to natural, cultural, social and physical resources and document all analyses. Wherever appropriate the CONSULTANT will describe proposed measures to avoid, minimize, or mitigate project impacts on the environmental issues. The consultant will also summarize the results of analysis of environmental resources that were completed as part of another study or performed by others concurrent with this project.

A.2.1 Sociocultural Effects

THE CONSULTANT will conduct and document a sociocultural effects evaluation to assess social, economic, land use changes, mobility, aesthetics and relocations on communities with special consideration for minority, low-income, and other potentially underrepresented populations. Refer to Florida Department of Transportation (FDOT)

A.2 ENVIRONMENTAL ANALYSIS

Project Development and Environment (PD&E) Manual, Part 2 Chapter 4.2, for definitions. The following table from the PD&E Manual provides a list of sociocultural effects to be evaluated:

<p>Social</p> <ul style="list-style-type: none"> • Demographics • Community Cohesion • Safety/Emergency Response • Community Goals • Quality of Life • Special Community Designations <p>Economic</p> <ul style="list-style-type: none"> • Business & Employment • Tax Base • Traffic Patterns • Business Access • Special Needs Patrons 	<p>Land Use Changes</p> <ul style="list-style-type: none"> • Land Use – Urban Form • Local Plan Consistency • Open Space • Sprawl • Focal Points <p>Mobility</p> <ul style="list-style-type: none"> • Modal Choices <ul style="list-style-type: none"> ○ Pedestrian ○ Bicyclists ○ Transit • Transportation Disadvantaged • Connectivity • Traffic Circulation • Public Parking 	<p>Aesthetic Effects</p> <ul style="list-style-type: none"> • Noise/Vibration • Viewshed • Compatibility <p>Relocation Potential</p> <ul style="list-style-type: none"> • Residential • Non-Residential • Public Facilities
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A.2.1.1 Community Cohesion

The CONSULTANT will identify and assess potential Project impacts on physical barriers, traffic pattern changes, social pattern changes, and loss of connectivity to community features and facilities.

A.2.1.2 Special Community Designation

The CONSULTANT will identify and assess potential Project impacts on schools, churches, parks, emergency facilities, social services, daycare facilities, retirement centers, community centers, and retail locations.

A.2.1.3 Safety / Emergency Response

The CONSULTANT will identify and assess potential Project impacts on the creation of isolated areas; emergency response time changes; and location of police, fire, emergency medical services, healthcare facilities, and government offices.

A.2.1.4 Demographics

The CONSULTANT will identify and assess potential Project impacts on minority, limited English proficient (LEP) persons, disabled persons, low-income populations, and/or special populations within the Project area.

A.2.1.5 Community Goals and Quality of Life

The CONSULTANT will identify and assess potential Project impacts on social value changes and compatibility with community goals and vision.

A.2.1.6 Business and Employment

The CONSULTANT will assess potential Project impacts to business and employment

A.2 ENVIRONMENTAL ANALYSIS

activity in the project area, including industries with special needs (e.g., freight distributor) or significance (e.g., regional employer), economic-oriented land use, economic development plans, special designations, and community development priorities. Assessment will also include identification of changes to routes, access, parking, or visibility that could benefit or impair businesses, employment centers, community facilities, or population.

A.2.1.7 Property Values and Tax Base

The CONSULTANT will assess potential Project impacts on the tax base, employment opportunities, and property values.

A.2.1.8 Land Use Changes

The CONSULTANT will evaluate the Project's consistency with the physical character of the area and applicable community plans.

A.2.1.9 Mobility

The CONSULTANT will evaluate potential Project impact on mobility and accessibility with regard to all transportation modes (i.e., pedestrian, bicycle, transit and vehicles) in the Study Area. The CONSULTANT will evaluate potential Project impact on mobility and accessibility on populations defined as transit dependent or zero to one car households.

A.2.1.10 Aesthetics

The CONSULTANT will evaluate and summarize the Project's effect on viewshed and vista, community focal points, historic structures, landmarks, and community character.

A.2.1.11 Relocation Potential

The CONSULTANT will identify residences, businesses, and institutional or community facilities that may require relocation to accommodate the Project, and obtain additional site-specific information needed to evaluate the effect of each Project alternative on the displacement of residences and businesses.

A.2.2 Cultural Resources

The CONSULTANT will prepare a Research Design and Survey Methodology for the project, to be submitted to CFX and the COUNTY for approval prior to the initiation of field work. The CONSULTANT shall identify and map out the zones of probability for the Project study area and identify any previously recorded resources. The Area of Potential Effect (APE) will be determined (including pond sites). The CONSULTANT will use a professional qualified under the provisions of 36 CFR 61 in compliance with the National Historic Preservation Act of 1966 (Public Law 89-665, as amended) and the implementing regulations (36 CFR 800), as well as with the provisions contained in Chapter 267, Florida Statutes, to perform all work in this task. The CONSULTANT will assess the direct and indirect effects and will document the severity of the following items:

- Identify and analyze impacts to archaeological sites and historic resources within the Project's Area of Potential Effects (APE). The APE must include potential pond sites.

- Review and address any resources issues or comments by the State Historic Preservation Office (SHPO) listed in the Programming Screen Summary Report.
- Prepare Cultural Resources Assessment Survey (CRAS) documentation detailing the results of the survey and assessments of resource significance, including a Florida Master Site File (FMSF) form. The Research Design and Survey Methodology and the Pond Site Technical Memo will be included in the CRAS appendix.

A.2.3 Natural Resources

The CONSULTANT will assess direct and indirect effects and document the severity of the following items.

A.2.3.1 Wetlands and Surface Waters

The CONSULTANT will identify the type, quality, and function of wetlands, or reference previously completed documentation relevant to the Project. The CONSULTANT will establish Uniform Mitigation Assessment Method (UMAM) for representative wetlands and evaluate alternatives that avoid wetland impacts and, where unavoidable, identify practicable measures to minimize impacts. Any impact to wetlands requires development of a Conceptual Mitigation Plan. The CONSULTANT will document all coordination activities with resource agencies, wetland impact assessment, and mitigation analysis.

A.2.3.2 Wildlife and Habitat Analysis

The CONSULTANT will perform research, field reviews, general wildlife surveys, and coordination necessary to determine potential impacts to federal and state protected, threatened or endangered species and their habitats. Additionally, the CONSULTANT will develop a study design (which will be approved by CFX and the COUNTY) to evaluate the magnitude of Project involvement with wildlife and their habitat and provide an analysis of wildlife and habitat conservation measures.

A.2.3.3 Special Designations – N/A

A.2.3.4 Identify Permit Needs

The CONSULTANT will review permits required, as defined by CFX, for the project including SFWMD and USACE.

A.2.4 Physical Effects - Contamination

The CONSULTANT will gather and review data and investigate contamination issues within the limits of the project and identify potentially contaminated sites. The CONSULTANT will document the data reviewed, findings, risk rating of potential contamination sites, and recommendation for additional assessment actions. A Level I Evaluation Report per FDOT's PD&E Manual, Part 2, Chapter 20.2.2 requirements shall also be prepared by the CONSULTANT for all parcels proposed for Project right-of-way acquisition.

A.2 ENVIRONMENTAL ANALYSIS

A.3 PUBLIC INVOLVEMENT

The following tasks are to be performed for the Project Development public meeting, and for an additional public meeting during the design phase in Part B of this scope for updating the public and officials.

A.3.1 Public Involvement Plan (PIP)

The CONSULTANT will review the Public Involvement Plan (PIP) provided by the PIC and GEC within twenty (20) working days following the Notice to Proceed meeting.

The purpose of the PIP is to establish and maintain a strategy for early, meaningful, and continuous public and stakeholder involvement throughout the PD&E process. Obtaining stakeholder public consensus throughout the PD&E phase is the desired outcome of the PIP. The CONSULTANT shall perform activities necessary to support the PIP that includes the identification of stakeholders and interested parties.

A.3.2 Public Involvement Data Collection

The CONSULTANT shall be responsible for developing, maintaining, and updating a project mailing list which will include:

- Affected residents, business tenants and property owners within the project area.
- Interested parties, including:
 - a. Residents/property owners within 300 feet of the alternative alignments.
 - b. Other informed parties who notify the CONSULTANT that they desire to be added to the mailing list.
 - c. Special interest groups

The CONSULTANT will maintain the mailing list in a computer file which is acceptable to the CFX. For each mailing, the CONSULTANT will provide the CFX and PIC a computer file of the mailing list certified by the CONSULTANT as true and correct. Additional groups and/or individuals may be included on the mailing list as requested.

A.3.3 Scheduled Public Meetings

The CFX has determined that multiple public meetings will be required to provide adequate opportunities for the public to participate in the PD&E Study. The CONSULTANT shall provide to the PIC all support necessary for the CFX to hold or participate in two (2) public meetings, as listed below:

- Public Kick-off Meeting (General study overview, area, schedule, issues, etc.)
- Alternatives Meeting (Preferred Alternative)
-

For each meeting, the CONSULTANT shall prepare and/or provide:

- Scripts or agenda for presentation.
- Graphics for presentation.
- Display Boards

A.3 PUBLIC INVOLVEMENT

- Meeting summaries
- Input to response to comments as requested by CFX or PIC

For each meeting, the PIC shall prepare and/or provide:

- Handouts
- Display advertisements (the CFX or PIC will pay the cost of publishing)
- Letters for notification of elected and appointed officials, property owners, and other interested parties (the CFX or PIC will pay the cost of first class postage)
- Preparation of response letters for CFX signature on public comments
- The CONSULTANT will attend the meetings with an appropriate number of personnel to assist the PIC and CFX staff.

The PIC will investigate potential meeting locations to advise CFX of their suitability. CFX will ultimately approve the meeting location. The CFX or PIC will pay all costs for meeting location rental and insurance (if required). The PIC will be responsible for logistics associated with setting up the meeting. The PIC will distribute all required notifications to all interested parties, public officials, affected property owners, special interest groups, etc. on the mailing list.

Presentations of the Project to the CFX Governing Board and Osceola County Board of County Commissioners will be performed when final Project documents are ready.

A.3.4 Comments and Coordination Report

The PIC will prepare Comments and Coordination Report containing transcript, errata, and signed certification, as well as documentation for all public involvement activities conducted throughout the project in accordance with Part 1, Chapter 11 of the PD&E Manual.

ADDITIONAL PUBLIC INVOLVEMENT REQUIREMENTS

Project Information Line/General Public Correspondence

The CONSULTANT shall make available knowledgeable staff which interested parties may call with questions concerning the project. The PIC will maintain this project information line and the CONSULTANT will provide support to the PIC to answer questions and respond to comments.

Project Newsletters

The PIC shall prepare and distribute project newsletters which will be designed to inform interested parties as to the status of the project. The CONSULTANT shall support the PIC by providing appropriate information to include in the newsletters. Newsletters shall have the quality of desktop publishing and be comparable to the previous work efforts of the CFX. Distribution of the newsletters will coincide with key project milestones as follows:

- Project Kick-off/Introductory Newsletter
- Alternatives Meeting Newsletter

A.3 PUBLIC INVOLVEMENT

The PIC will distribute newsletters to all interested parties, public officials, affected property owners, special interest groups, etc. as identified above.

Interested parties include those contained on the CONSULTANT's mailing list and other informed parties who request to be added to the mailing list. Distribution of the Newsletter may involve direct mail as well as distribution through various media such as public schools, churches, civic organizations, public libraries, etc.

The Introductory Newsletter may contain language to alert affected property owners and tenants of the possibility that certain environmental and/or engineering personnel may require access to their property. Prior to any actual property access, the CONSULTANT shall contact the owner or tenant by the use of a CFX standard right-of-entry letter via US Post Office mail delivery.

Project Webpage

The CONSULTANT shall provide information about the study to the PIC for inclusion in the CFX Webpage. After initial posting of the project information, the CONSULTANT shall provide updated information to the PIC four times during the study. These times will coincide with the newsletter mailings.

A.4 PROJECT DEVELOPMENT TECHNICAL MEMORANDUM

The CONSULTANT will prepare a comprehensive technical memorandum that documents the analyses and information gathered from the tasks described in Part 'A' Sections 1 and 2 of this scope. This technical memorandum will be submitted as a draft for CFX and COUNTY review and comment, revised as necessary by the CONSULTANT, and used in preparing for the Part A Public Meeting. Following the Part A Public Meeting the CONSULTANT will summarize and add the public meeting's results to the technical memorandum, and coordinate with CFX and the COUNTY to determine any necessary changes to the alternatives and to identify the preferred alternative for the Project. The CONSULTANT will update the technical memorandum to incorporate these changes and the preferred alternative recommendation and submit the updated memorandum for CFX and COUNTY review and comment. The CONSULTANT will provide a final signed-and-sealed document when CFX and the COUNTY approves the updated memorandum.

PART 'B'

(Note: the activities and tasks within PART 'B' closely follow the numbering of the standard FDOT staff-hour format for design beginning with Activity 3, with a "B" placed in front of the numbers. Activities / Tasks B.2.1 through B.2.22 are a continuation of Section 2 of this Scope.)

B.2.1 Project General and Roadway (Activities 3, 4, and 5)

- Public Involvement: One public meeting (included in Part A).
- Other Agency Presentations/Meetings: - N/A
- Joint Project Agreements: - N/A
- Specification Package Preparation: Standard FDOT style specifications
- Value Engineering: - N/A
- Risk Assessment Workshop: - N/A
- Plan Type: Plan and profile sheets
- Typical Section: three typical sections are anticipated
- Pavement Design: one pavement design is anticipated
- Pavement Type Selection Report(s): - N/A
- Cross Slope Correction: - N/A
- Access Management Classification: - N/A (determined in Part 'A').
- Transit Route Features: - N/A (determined in Part 'A')
- Major Intersections: - Old Lake Wilson Road and PPE Ramps
- Roadway Alternative Analysis: - N/A
- Level of TTCP: - Level III
- Temporary Lighting: - N/A
- Temporary Signals: - N/A
- Temporary Drainage: Temporary drainage design is anticipated to accommodate the temporary traffic phasing and other construction activities.
- Design Variations/Exceptions: Variation for no bike lanes and/or median width, if applicable.
- Back of Sidewalk Profiles: - N/A
- Selective Clearing and Grubbing: N/A

B.2.2 Drainage (Activities 6a and 6b)

System Type: This project will provide a closed drainage system along the proposed curb and gutter which will outfall to proposed pond sites identified during Part 'A'. There are 6 basins within the project limits. Wetland impacts are anticipated with this project.

B.2.3 Utilities Coordination (Activity 7)

The CONSULTANT is responsible to certify that all necessary arrangements for utility work on this project have been made and will not conflict with the physical construction schedule. The CONSULTANT should coordinate with CFX and COUNTY personnel to coordinate transmittals to Utility Companies and meet production schedules.

The CONSULTANT may employ more than one individual or utility engineering consultant to provide utility coordination and engineering design expertise. The CONSULTANT shall identify a dedicated person responsible for managing all utility coordination activities. This

B.2 CONTINUATION OF SECTION 2, PROJECT DESCRIPTION

person shall be contractually referred to as the Utility Coordination Manager and shall be identified in the CONSULTANT proposal.

The Utility Coordination Manager shall be responsible for managing all utility coordination, including the following:

- Assuring that Utility Coordination and accommodation is in accordance to the FDOT and AASHTO standards, policies, procedures, and design criteria.
- Assisting the engineer of record in identifying all existing utilities and coordinating any new installations. Assisting the Engineer of Record with resolving utility conflicts.
- Scheduling and performing utility coordination meetings, keeping and distribution of minutes/action items of all utility meetings, and ensuring expedient follow-up on all unresolved issues.
- Distributing all plans, conflict matrixes and changes to affected utility owners and making sure this information is properly coordinated and documented.
- Identifying and coordinating the completion of any COUNTY or utility owner agreement that is required for reimbursement, or accommodation of the utility facilities associated with the project.
- Review and certify that all Utility Work Schedules are correct and in accordance with CFX and COUNTY standards, policies, and procedures.
- Prepare, review and process all utility related reimbursable paperwork inclusive of betterment and salvage determination.

B.2.4 Environmental Permits and Environmental Clearances (Activity 8)

South Florida Water Management District and US Army Corps of Engineers permits are anticipated. CFX and/or the COUNTY will provide compensatory wetland mitigation in accordance with Section 373.4137, Florida Statutes, if necessary.

B.2.5 Structures (Activities 9 – 18)

There are no bridges or bridge culverts along the Osceola-Polk Line Road corridor, thus structural design and plans will be limited to miscellaneous structures. Type of Bridge Structure Work:

- BDR – N/A
- Temporary Bridge – N/A
- Short Span Concrete – N/A
- Medium Span Concrete
- Structural Steel – N/A
- Segmental Concrete – N/A
- Movable Span – N/A
- Retaining Walls: temporary critical retaining walls may be required for culvert extensions.
- Noise Barrier Walls: N/A
- Miscellaneous: for any miscellaneous structures, e.g. mast arms at new signalized intersection(s), retaining walls, or overhead signs, that are identified in Part 'A' of this scope (only mast arms are anticipated).

B.2.6 Signing and Pavement Markings (Activities 19 & 20)

Standard single-post signs and multi-post signs are required for this project.

B.2.7 Signalization (Activities 21 & 22)

Intersections: Lake Wilson Road is being improved by Polk County in a separate project and the Project's widening is not expected to impact the existing US 17 signal. Therefore, signal modifications are not anticipated at these two locations. Polk County is planning to construct a new signal at Old Lake Wilson Road. This existing signal will need to be modified as part of this project. In addition, a signal analysis is required to determine if signals are needed for the new ramp intersections of the Poinciana Parkway Extension. Signal designs will also be provided for these two locations if warranted.

- Traffic Data Collection
- Traffic Studies
- Count Stations
- Traffic Monitoring Sites

B.2.8 Lighting (Activities 23 & 24)

Conventional lighting will be considered along the entire corridor on both sides of Osceola Polk Line Road depending on the results of the Lighting Justification Report in Part 'A'. Lighting of the roadway and any signalized intersections shall be in conformance with FDOT FDM Section 231.

B.2.9 Landscape (Activities 25 & 26)

Include coordination with existing and/or proposed underground utilities including but not limited to lighting, drainage and ITS. Only irrigation sleeving is included in this project.

Planting Plans: N/A

Irrigation Plans: Include sleeves in the Project's design to accommodate future irrigation systems in conformance to the Landscape Opportunity Plan.

Hardscape Plans: - N/A

Outdoor Advertising: N/A

B.2.10 Survey (Activity 27)

Design Survey: horizontal and vertical control and 3D Digital Terrain Model for obscured areas and off site pond locations.

Subsurface Utility Exploration: SUE work is anticipated for this project.

Right of Way Survey: Right of Way Survey is needed for this project as right-of-way will be acquired by CFX and/or the COUNTY for proposed ponds.

Vegetation Survey: N/A

B.2 CONTINUATION OF SECTION 2, PROJECT DESCRIPTION

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B.2.11 Photogrammetry (Activity 28) – N/A

B.2.12 Mapping (Activity 29)

Control Survey Map: - Control survey map is anticipated for this project as right-of-way will be acquired by the CFX and/or the COUNTY for proposed ponds and roadway improvements.

Right of Way Map: Right of way mapping is anticipated for this project as right-of-way will be acquired by CFX and/or the COUNTY for proposed ponds and roadway improvements.

Legal Descriptions: Legal sketch and descriptions are anticipated for this project as right-of-way will be acquired by CFX and/or the COUNTY for proposed ponds and roadway improvements.

Maintenance Map: – N/A

Miscellaneous Items: – N/A

B.2.13 Terrestrial Mobile LiDAR (Activity 30) – N/A

B.2.14 Architecture (Activity 31) – N/A

B.2.15 Noise Barriers (Activity 32) – N/A

B.2.16 Intelligent Transportation Systems (Activities 33 & 34) – N/A

B.2.17 Geotechnical (Activity 35)

The following field and lab tests are anticipated: soil drilling with SPT sampling, auger borings, undisturbed sample, perc/infiltration testing, and resilient modulus.

B.2.18 3D Modeling (Activity 36) – N/A

B.2.19 Project Schedule

Within twenty (20) days after the Notice-To-Proceed, and prior to the CONSULTANT beginning work, the CONSULTANT shall provide a detailed project activity/event schedule for CFX and the COUNTY with scheduled calendar deadlines in a format prescribed by CFX. The schedule shall be based upon the 24 months for project development, design and right-of-way mapping. For the purpose of scheduling, the CONSULTANT shall allow for a three week review time for each phase submittal and any other submittals as appropriate

All fees and price proposals are to be based on the negotiated schedule of 24 months for final construction contract documents.

Periodically, throughout the life of the contract, the project schedule shall be reviewed and, with the approval of CFX and the COUNTY, adjusted as necessary to incorporate changes in the Scope of Services and progress to date.

B.2 CONTINUATION OF SECTION 2, PROJECT DESCRIPTION

B.2.20 Submittals

The CONSULTANT shall furnish construction contract documents as required by CFX to adequately control, coordinate, and approve the work concepts. The CONSULTANT shall distribute submittals as directed by CFX. CFX and the COUNTY will determine the specific number of copies required prior to each submittal.

B.2.21 Provisions for Work

All work shall be prepared with English units in accordance with the latest editions of standards and requirements utilized by CFX which include, but are not limited to, publications such as:

General

- Title 29, Part 1910, Standard 1910.1001, Code of Federal Regulations (29 C.F.R. 1910.1001) – Asbestos Standard for Industry, U.S. Occupational Safety and Health Administration (OSHA)
- 29 C.F.R. 1926.1101 – Asbestos Standard for Construction, OSHA
- 40 C.F.R. 61, Subpart M - National Emission Standard for Hazardous Air Pollutants (NESHAP), Environmental Protection Agency (EPA)
- 40 C.F.R. 763, Subpart E – Asbestos-Containing Materials in Schools, EPA
- 40 C.F.R. 763, Subpart G – Asbestos Worker Protection, EPA
- Americans with Disabilities Act (ADA) Standards for Accessible Design
- AASHTO – A Policy on Design Standards Interstate System
- AASHTO – Roadside Design Guide
- AASHTO – Roadway Lighting Design Guide
- AASHTO – A Policy for Geometric Design of Highways and Streets
- AASHTO – Highway Safety Manual
- Rule Chapter 5J-17, Florida Administrative Code (F.A.C.), Standards of Practice for Professional Surveyors and Mappers
- Chapter 469, Florida Statutes (F.S.) – Asbestos Abatement
- Rule Chapter 62-257, F.A.C., Asbestos Program
- Rule Chapter 62-302, F.A.C., Surface Water Quality Standards
- Code of Federal Regulations (C.F.R.)
- Florida Administrative Codes (F.A.C.)
- Chapters 20, 120, 215, 455, Florida Statutes (F.S.) – Florida Department of Business & Professional Regulations Rules
- Florida Department of Environmental Protection Rules
- FDOT Basis of Estimates Manual
- FDOT Computer Aided Design and Drafting (CADD) Manual
- FDOT Standard Plans
- FDOT Flexible Pavement Design Manual
- FDOT - Florida Roundabout Guide
- FDOT Handbook for Preparation of Specifications Package
- FDOT Standard Plans Instructions
- FDOT Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (“Florida Greenbook”)
- FDOT Materials Manual
- FDOT Pavement Type Selection Manual

- FDOT Design Manual
- FDOT Procedures and Policies
- FDOT Procurement Procedure 001-375-030, Compensation for Consultant Travel Time on Professional Services Agreements
- FDOT Project Development and Environment Manual
- FDOT Project Traffic Forecasting Handbook
- FDOT Public Involvement Handbook
- FDOT Rigid Pavement Design Manual
- FDOT Standard Specifications for Road and Bridge Construction
- FDOT Utility Accommodation Manual
- Manual on Speed Zoning for Highways, Roads, and Streets in Florida
- Federal Highway Administration (FHWA) - Manual on Uniform Traffic Control Devices (MUTCD)
- FHWA – National Cooperative Highway Research Program (NCHRP) Report 672, Roundabouts: An Informational Guide
- FHWA Roadway Construction Noise Model (RCNM) and Guideline Handbook
- Florida Fish and Wildlife Conservation Commission - Standard Manatee Construction Conditions 2005
- Florida Statutes (F.S.)
- Florida's Level of Service Standards and Guidelines Manual for Planning
- Model Guide Specifications – Asbestos Abatement and Management in Buildings, National Institute for Building Sciences (NIBS)
- Quality Assurance Guidelines
- Safety Standards
- Any special instructions from CFX

Roadway

- FDOT – Florida Intersection Design Guide
- FDOT - Project Traffic Forecasting Handbook
- FDOT - Quality/Level of Service Handbook
- Florida's Level of Service Standards and Highway Capacity Analysis for the SHS
- Transportation Research Board (TRB) - Highway Capacity Manual

Permits

- Chapter 373, F.S. – Water Resources
- US Fish and Wildlife Service Endangered Species Programs
- Florida Fish and Wildlife Conservation Commission Protected Wildlife Permits
- Bridge Permit Application Guide, COMDTPUB P16591.3C
- Building Permit

Drainage

- FDOT Bridge Hydraulics Handbook
- FDOT Culvert Handbook
- FDOT Drainage Manual

- FDOT Erosion and Sediment Control Manual
- FDOT Exfiltration Handbook
- FDOT Hydrology Handbook
- FDOT Open Channel Handbook
- FDOT Optional Pipe Materials Handbook
- FDOT Storm Drain Handbook
- FDOT Stormwater Management Facility Handbook
- FDOT Temporary Drainage Handbook
- FDOT Drainage Connection Permit Handbook
- FDOT Bridge Scour Manual

Survey and Mapping

- All applicable Florida Statutes and Administrative Codes
- Applicable Rules, Guidelines Codes and authorities of other Municipal, County, State and Federal Agencies.
- FDOT Aerial Surveying Standards for Transportation Projects Topic 550-020-002
- FDOT Right of Way Mapping Handbook
- FDOT Surveying Procedure Topic 550-030-101
- Florida Department of Transportation Right of Way Procedures Manual
- Florida Department of Transportation Surveying Handbook
- Right of Way Mapping Procedure 550-030-015

Traffic Engineering and Operations and ITS

- AASHTO - An Information Guide for Highway Lighting
- AASHTO - Guide for Development of Bicycle Facilities
- FHWA Standard Highway Signs Manual
- FDOT Manual on Uniform Traffic Studies (MUTS)
- FDOT Median Handbook
- FDOT Traffic Engineering Manual
- National Electric Safety Code
- National Electrical Code

Traffic Monitoring

- American Institute of Steel Construction (AISC) Manual of Steel Construction, referred to as "AISC Specifications"
- American National Standards Institute (ANSI) RP-8-00 Recommended Practice for Roadway Lighting
- AASHTO AWS D1.1/ANSI Structural Welding Code – Steel
- AASHTO D1.5/AWS D1.5 Bridge Welding Code
- FHWA Traffic Detector Handbook
- FDOT General Interest Roadway Data Procedure
- FHWA Traffic Monitoring Guide
- FDOT's Traffic/Polling Equipment Procedures

Structures

- AASHTO Load and Resistance Factor Design (LRFD) Bridge Design Specifications and Interims
- AASHTO LRFD Movable Highway Bridge Design Specifications and Interims
- AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, and Interims
- AASHTO/-AWS-D1. 5M/D1.5: An American National Standard Bridge Welding Code
- AASHTO Guide Specifications for Structural Design of Sound Barriers
- AASHTO Manual for Condition Evaluation and Load and Resistance Factor Rating (LRFR) of Highway Bridges
- FDOT Bridge Load Rating Manual
- FDOT Structures Manual
- FDOT Structures Design Bulletins (available on FDOT Structures web site only)

Geotechnical

- FHWA Checklist and Guidelines for Review of Geotechnical Reports and Preliminary Specifications
- Manual of Florida Sampling and Testing Methods
- Soils and Foundation Handbook

Landscape Architecture

- Florida Department of Agriculture and Consumer Services Grades and Standards for Nursery Plants
- Rule Chapter 62-600, F.A.C., Domestic Wastewater Facilities
- Rule Chapter 62-761, F.A.C., Underground Storage Tank Systems
- American Concrete Institute
- American Institute of Architects - Architect's Handbook of Professional Practice
- American Society for Testing and Materials - ASTM Standards
- Brick Institute of America
- DMS - Standards for Design of State Facilities
- Florida Concrete Products Association
- FDOT – ADA/Accessibility Procedure
- FDOT – Building Code Compliance Procedure
- FDOT – Design Build Procurement and Administration
- LEED (Leadership in Energy and Environmental Design) Green Building Rating System
- National Concrete Masonry Association
- National Electrical Code
- Portland Cement Association - Concrete Masonry Handbook
- United State Green Building Council (USGBC)

B.2.22 Services to be Performed by CFX and/or the COUNTY when appropriate and available, CFX and/or the COUNTY will provide project data including:

B.2 CONTINUATION OF SECTION 2, PROJECT DESCRIPTION

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- Numbers for field books
- Preliminary Horizontal Network Control
- Access for the CONSULTANT to utilize CFX and COUNTY Information Technology Resources
- All CFX and COUNTY agreements with Utility Agency Owner (UAO)
- All certifications necessary for project letting
- All information that may come to CFX and the COUNTY pertaining to future improvements
- All future information that may come to CFX and the COUNTY during the term of the CONSULTANT's Agreement, which in the opinion of CFX and the COUNTY is necessary for the prosecution of the work.
- Available traffic and planning data
- All approved utility relocations
- Project utility certification to CFX
- Any necessary title searches
- Engineering standards review services
- All available information in the possession of CFX and the COUNTY pertaining to utility companies whose facilities may be affected by the proposed construction.
- All future information that may come to CFX and the COUNTY pertaining to subdivision plans so that the CONSULTANT may take advantage of additional areas that can be utilized as part of the existing right of way.
- Systems traffic for Projected Design Year, with K, D, and T factors
- Previously constructed Highway Beautification or Landscape Construction Plans
- Landscape Opportunity Plan(s)
- Existing right of way maps
- Proposed right of way cost estimates
- Existing cross slope data for all RRR projects
- Existing pavement evaluation report for all RRR projects
- PD&E Documents
- Design Reports
- Letters of authorization designating the CONSULTANT as an agent of CFX and/or the COUNTY in accordance with F.S. 337.274.
- Phase reviews of plans and engineering documents
- Regarding Environmental Permitting Services:
 - Approved Permit Document when available
 - Approval of all contacts with environmental agencies
- General philosophies and guidelines of CFX and the COUNTY to be used in the fulfillment of this contract. Objectives, constraints, budgetary limitations, and time constraints will be completely defined by the CFX Project Manager.

B.3 PROJECT COMMON AND PROJECT GENERAL TASKS

Project Common Tasks

Project Common Tasks, as listed below, are work efforts that are applicable to many project activities, 4 (Roadway Analysis) through 35 (Geotechnical). These tasks are to be included in the project scope in each applicable activity when the described work is to be performed by the CONSULTANT.

Cost Estimates: The CONSULTANT is responsible for producing a construction cost estimate and reviewing and updating the cost estimate when scope changes occur and/or at milestones of the project. A Summary of Pay Items sheet shall be prepared with all required Plans submittals as required.

Technical Special Provisions: The CONSULTANT shall provide Technical Special Provisions for all items of work not covered by the Standard Specifications for Road and Bridge Construction and the workbook of implemented modifications.

A Technical Special Provision shall not modify the Standard Specifications and implemented modifications in any way.

The Technical Special Provisions shall provide a description of work, materials, equipment and specific requirements, method of measurement and basis of payment. Proposed Technical Special Provisions will be submitted to CFX and the COUNTY for initial review at the time of the Phase III plans review submission to CFX Project Manager. This timing will allow for adequate processing time prior to final submittal. The Technical Special Provisions will be reviewed for suitability in accordance with the Handbook for Preparation of Specification Packages. CFX and the COUNTY will review and comment. All comments will be returned to the CONSULTANT for correction and resolution. Final Technical Special Provisions shall be digitally signed and sealed in accordance with applicable Florida Statutes.

The CONSULTANT shall contact CFX for details of the current format to be used before starting preparations of Technical Special Provisions.

Modified Special Provisions: The CONSULTANT shall provide Modified Special Provisions as required by the project. Modified Special Provisions are defined in the Specifications Handbook.

A Modified Special Provision shall not modify the first nine sections of the Standard Specifications and implemented modifications in any way. All modifications to other sections must be justified to CFX and the COUNTY to be included in the project's specifications package.

Field Reviews: The CONSULTANT shall make as many trips to the project site as required to obtain necessary data for all elements of the project.

Technical Meetings: The CONSULTANT shall attend all technical meetings necessary to execute the Scope of Services of this contract. This includes meetings with CFX, COUNTY and/or Agency staff, between disciplines and subconsultants, such as access management meetings, pavement design meetings, local governments, railroads, airports, progress review meetings (phase review), and miscellaneous meetings. The CONSULTANT shall prepare, and submit to CFX and the COUNTY for review, the meeting minutes for all meetings attended by them. The meeting minutes are due within five (5) working days of attending the meeting.

Quality Assurance/Quality Control: It is the intention of CFX that design CONSULTANTS, including their subconsultant(s), are held responsible for their work, including plans review.

The purpose of CONSULTANT plan reviews is to ensure that CONSULTANT plans follow the plan preparation procedures outlined in the FDOT Design Manual, that state and federal design criteria are followed with the concept, and that the CONSULTANT submittals are complete. All subconsultant document submittals shall be submitted by the subconsultant directly to the CONSULTANT for their independent Quality Assurance/Quality Control review and subsequent submittal to CFX.

It is the CONSULTANT'S responsibility to independently and continually QC their plans and other deliverables. The CONSULTANT should regularly communicate with the CFX Project Manager to discuss and resolve issues or solicit opinions from those within designated areas of expertise.

The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of all surveys, designs, drawings, specifications and other services furnished by the CONSULTANT and their subconsultant(s) under this contract.

The CONSULTANT shall provide a Quality Control Plan that describes the procedures to be utilized to verify, independently check, and review all maps, design drawings, specifications, and other documentation prepared as a part of the contract. The CONSULTANT shall describe how the checking and review processes are to be documented to verify that the required procedures were followed. The Quality Control Plan shall be one specifically designed for this project. The CONSULTANT shall submit a Quality Control Plan for approval within twenty (20) business days of the written Notice to Proceed and it shall be signed by the CONSULTANT's Project Manager and the CONSULTANT QC Manager. The Quality Control Plan shall include the names of the CONSULTANT's staff that will perform the quality control reviews. The Quality Control reviewer shall be a Florida Licensed Professional Engineer fully prequalified under F.A.C. 14-75 in the work type being reviewed. A marked up set of prints from a Quality Control Review indicating the reviewers for each component (structures, roadway, drainage, signals, geotechnical, signing and marking, lighting, landscape, surveys, etc.) and a written resolution of comments on a point-by-point basis will be required, if requested by CFX and/or the COUNTY, with each phase submittal. The responsible Professional Engineer, Landscape Architect, or Professional Surveyor & Mapper that performed the Quality Control review will sign a statement certifying that the review was conducted and found to meet required specifications.

The CONSULTANT shall, without additional compensation, correct all errors or deficiencies in the designs, maps, drawings, specifications and/or other products and services.

Independent Peer Review: - N/A

A Constructability/Bidability Review for design Phase Plans document submittals are required on this project. These separate reviews shall be completed by someone who has not worked on the plan component that is being reviewed. These could include but are not limited to a separate office under the Prime's umbrella, a subconsultant that is qualified in the work group being reviewed, or a CEI. It does not include persons who have knowledge of the day to day design efforts. The Constructability/Bidability Review shall be performed by a person with experience working on CFX and/or COUNTY construction projects (CEI, Contractor, etc.).

The Constructability/Bidability Review shall ensure the project can be constructed and paid for as designed. Constructability/Bidability Reviews should be conducted prior to the Phase

III and Phase IV submittals, using the Phase Review Checklist (Guidance Document 1-1-A) from the FDOT Construction Project Administration Manual (CPAM) as a minimum guideline. The CONSULTANT shall submit this checklist, as well as the “marked-up” set of plans during this review, and review comments and comment responses from any previous Constructability/Bidability reviews. These items will be reviewed by CFX and COUNTY Design and Construction.

Supervision: The CONSULTANT shall supervise all technical design activities.

Coordination: The CONSULTANT shall coordinate with all disciplines of the project to produce a final set of construction documents.

Project General Tasks

Project General Tasks, described in Sections 3.1 through 3.7 below, represent work efforts that are applicable to the project as a whole and not to any one or more specific project activity. The work described in these tasks shall be performed by the CONSULTANT when included in the project scope.

B.3.1 Public Involvement – N/A (included in Part A)

B.3.2 Joint Project Agreements – N/A

B.3.3 Specifications Package Preparation

Standard CFX specifications will be provided to the Consultant. The Consultant shall review the specifications and modify them as necessary.

B.3.4 Contract Maintenance and Project Documentation

Contract maintenance includes project management effort for complete setup and maintenance of files, electronic folders and documents, developing technical monthly progress reports and schedule updates. Project documentation includes the compilation and delivery of final documents, and reports or calculations that support the development of the contract plans. Updating CFX and the COUNTY on public involvement activities, including providing Project information for CFX and COUNTY websites and responding to public and public official questions outside of the public meetings that are listed herein, are included in this task.

B.3.5 Value Engineering (Multi-Discipline Team) Review – N/A

B.3.6 Prime Consultant Project Manager Meetings

Includes only the Prime Consultant Project Manager's time for travel and attendance at Activity Technical Meetings and other meetings listed in the meeting summary for Task 3.6 on tab 3 Project General Task of the staff hour forms. Staff hours for other personnel attending Activity Technical Meetings are included in the meeting task for that specific Activity.

B.3.7 Plans Update – N/A

B.3.8 Post Design Services – N/A

B.3 PROJECT COMMON AND PROJECT GENERAL TASKS

B.3.9 Digital Delivery

The CONSULTANT shall deliver final contract plans and documents in digital format. The final contract plans and documents shall be digitally signed and sealed files delivered to CFX and the COUNTY on acceptable electronic media, as determined by CFX and the COUNTY.

B.3.10 Risk Assessment Workshop – N/A

B.3.11 Railroad, Transit and/or Airport Coordination – (Transit and Airport are N/A)

The CONSULTANT shall coordinate with CSX for necessary design and permit requirements to replace the existing R.R. crossing west of the US 17 intersection including minimum median width, type of crossing (e.g. concrete slab), and potential reuse and relocation of existing signal equipment.

B.3.12 Landscape and Existing Vegetation Coordination – N/A

B.3.13 Other Project General Tasks – N/A

B.4 ROADWAY ANALYSIS

The CONSULTANT shall analyze and document Roadway Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

B.4.1 Typical Section Package

A Typical Section Package will not be prepared for this project. Rather, typical sections will be prepared as part of the Alternatives Technical Memorandum and submitted to CFX and the COUNTY for review and approval.

B.4.2 Pavement Type Selection Report – N/A

B.4.3 Pavement Design Package

The CONSULTANT shall provide an approved Pavement Design Summary prior to the Phase II plans submittal date.

B.4.4 Cross-Slope Correction – N/A

B.4.5 Horizontal/Vertical Master Design Files (also see Activity 36)

The CONSULTANT shall design the geometrics using the FDOT Design Manual and Standard Plans that are most appropriate with proper consideration given to the design traffic volumes, design speed, capacity and levels of service, functional classification, adjacent land use, design consistency and driver expectancy, aesthetics, existing vegetation to be preserved, pedestrian and bicycle concerns, ADA requirements, Safe Mobility For Life Program, access management, PD&E documents and scope of work. The CONSULTANT shall also develop utility conflict information to be provided to project Utility Coordinator in the format requested by CFX and the COUNTY.

B.4.6 Access Management

The CONSULTANT shall incorporate access management standards in coordination with CFX and COUNTY staff. The CONSULTANT shall review adopted access management standards and the existing access conditions (interchange spacing, signalized intersection spacing, median opening spacing, and connection spacing). Median openings that will be closed, relocated, or substantially altered shall be shown on plan sheets and submitted with supporting documentation for review with the first plans submittal.

CFX and the COUNTY shall provide access management classification information and information derived from PD&E studies and public hearings to be used by the CONSULTANT.

B.4.7 Roundabout Evaluation – N/A

B.4.8 Roundabout Final Design Analysis – N/A

B.4.9 Cross Section Design Files

The CONSULTANT shall establish and develop cross section design files in accordance with the FDOT CADD manual and FDOT Design Manual. Includes all work required to establish and utilize intelligent/automated methods for creating cross sections including

determining the locations for which all cross sections will be shown, existing and proposed features, cross section refinement, placement of utilities and drainage, soil boxes, R/W lines, earthwork calculations, and other required labeling.

B.4.10 Temporary Traffic Control Plan (TTCP) Analysis

The CONSULTANT shall design a safe and effective TTCP to move vehicular and pedestrian traffic during all phases of construction. The design shall include construction phasing of roadways ingress and egress to existing property owners and businesses, routing, signing and pavement markings, and detour quantity tabulations, roadway pavement, drainage structures, ditches, front slopes, back slopes, drop offs within clear zone, transit stops, and traffic monitoring sites. Special consideration shall be given to the construction of the drainage system when developing the construction phases. Positive drainage must be maintained at all times. The design shall include construction phasing of roadways to accommodate the construction or relocation of utilities when the contract includes Joint Project Agreements (JPAs).

The CONSULTANT shall investigate the need for temporary traffic signals, detours, diversions, lane shifts, and the use of materials such as sheet piling in the analysis. The Traffic Control Plan shall be prepared by a certified designer who has completed training as required by the FDOT. Before proceeding with the TTCP, the CONSULTANT shall meet with the appropriate CFX and COUNTY personnel. The purpose of this meeting is to provide information to the CONSULTANT that will better coordinate the Preliminary and Final TTCP efforts.

The CONSULTANT shall consider the local impact of any lane closures or alternate routes. When the need to close a road is identified during this analysis, the CONSULTANT shall notify CFX and the COUNTY as soon as possible. Proposed road closings must be reviewed and approved by CFX and the COUNTY. Diligence shall be used to minimize negative impacts by appropriate specifications, recommendations or plans development. Local impacts to consider will be local events, holidays, peak seasons, detour route deterioration and other eventualities. CONSULTANT shall be responsible to obtain local authorities' permission for use of detour routes.

B.4.11 Master TTCP Design Files

The CONSULTANT shall develop master TTCP files showing each phase of the TTCP. This includes all work necessary for designing lane configurations, diversions, lane shifts, signing and pavement markings, temporary traffic control devices, and temporary pedestrian ways.

B.4.12 Selective Clearing and Grubbing – N/A

B.4.13 Tree Disposition Plans – N/A

B.4.14 Design Variations and Exceptions

There is potential for a design variation for median width just west of US 17/92,

B.4.15 Design Report – N/A

B.4.16 Quantities

The CONSULTANT shall develop accurate quantities and the supporting documentation, including construction days when required.

B.4.17 Cost Estimate

B.4.18 Technical Special Provisions and Modified Special Provisions

B.4.19 Other Roadway Analyses

B.4.20 Field Reviews

B.4.21 Monitor Existing Structures – N/A

B.4.22 Technical Meetings

B.4.23 Quality Assurance/Quality Control

B.4.24 Independent Peer Review – N/A

B.4.25 Supervision

B.4.26 Coordination

B.5 ROADWAY PLANS

The CONSULTANT shall prepare Roadway, TTCP, Utility Adjustment Sheets, plan sheets, notes, and details. The plans shall include the following sheets necessary to convey the intent and scope of the project for the purposes of construction.

B.5.1 Key Sheet

B.5.2 Summary of Pay Items Including Quantity Input

B.5.3 Typical Section Sheets

5.3.1 Typical Sections

5.3.2 Typical Section Details – N/A

B.5.4 General Notes/Pay Item Notes

B.5.5 Summary of Quantities Sheets

B.5.6 Project Layout

B.5.7 Plan/Profile Sheet

B.5.8 Profile Sheet – N/A

B.5.9 Plan Sheet – N/A

B.5.10 Special Profile– N/A

B.5.11 Back-of-Sidewalk Profile Sheet – N/A

B.5.12 Interchange Layout Sheet – N/A

B.5.13 Ramp Terminal Details (Plan View) – coordinate with CFX Project No. 538-235

B.5.14 Intersection Layout Details

B.5.15 Special Details– N/A

B.5.16 Cross-Section Pattern Sheets

B.5.17 Roadway Soil Survey Sheets

B.5.18 Cross Sections

B.5.19 Temporary Traffic Control Plan Sheets

B.5.20 Temporary Traffic Control Cross Section Sheets– N/A

B.5.21 Temporary Traffic Control Detail Sheets

B.5.22 Utility Adjustment Sheets

B.5.23 Selective Clearing and Grubbing Sheets – N/A

B.5.24 Tree Disposition Plan Sheets – N/A

B.5.25 Project Control Sheets

B.5.26 Environmental Detail Sheets

Coordination with CFX Permits/Environmental staff and preparing Dredge & Fill Detail sheets where applicable.

B.5.27 Utility Verification Sheets (SUE Data)

B.5.28 Quality Assurance/Quality Control

B.5.29 Supervision

B.5 ROADWAY PLANS

B.6a DRAINAGE ANALYSIS

The CONSULTANT shall analyze and document Drainage Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

The CONSULTANT shall be responsible for designing a drainage and stormwater management system. All design work shall comply with the requirements of the appropriate regulatory agencies and the FDOT Drainage Manual.

The CONSULTANT shall coordinate fully with the appropriate permitting agencies and CFX and COUNTY staff. All activities and submittals should be coordinated through the CFX and the COUNTY. The work will include the engineering analyses for any or all of the following:

B.6a.1 Drainage Map Hydrology

Create a (pre- and/or post-condition) working drainage basin map to be used in defining the system hydrology. This map shall incorporate drainage basin boundaries, existing survey and/or LiDAR and field observations, as necessary, to define the system. Basin delineations shall also include any existing collection systems in a logical manner to aid in the development of the hydraulic model. Include coordination hours needed to convey drainage hydrologic features onto produced drainage maps.

B.6a.2 Base Clearance Calculations

Analyze, determine, and document high water elevations per basin which will be used to set roadway profile grade and roadway materials. Determine surface water elevations at cross drains, floodplains, outfalls and adjacent stormwater ponds. Determine groundwater elevations at intervals between the above-mentioned surface waters. Document findings in a Base Clearance Report.

B.6a.3 Pond Siting Analysis and Report

Reevaluate recommended pond sites and the preliminary hydrologic analysis from Part 'A'.

B.6a.4 Design of Cross Drains

Analyze the hydraulic design and performance of cross drains. Check existing cross drains to determine if they are structurally sound and can be extended. Document the design as required. Determine and provide flood data as required.

B.6a.5 Design of Ditches

Design roadway conveyance and outfall ditches. This task includes capacity calculations, longitudinal grade adjustments, flow changes, additional adjustments for ditch convergences, selection of suitable channel lining, design of side drain pipes, and documentation. (Design of linear stormwater management facilities in separate task.)

B.6a.6 Design of Stormwater Management Facility (Offsite or Infield Pond)

Design stormwater management facilities to meet requirements for stormwater quality treatment, attenuation and aesthetics. Develop proposed pond layout (contributing drainage basin, shape, contours, slopes, volumes, tie-ins, aesthetics, etc.), perform routing, pollutant/nutrient loading calculations, recovery calculations, design the outlet control structure and buoyancy calculations for pond liners when necessary.

B.6a.7 Design of Stormwater Management Facility (Roadside Treatment Swales and Linear Ponds) – N/A

B.6a.8 Design of Floodplain Compensation

Determine floodplain encroachments, coordinate with regulatory agencies, and develop proposed compensation area layout (shape, contours, slopes, volumes, etc.). Document the design following the requirements of the regulatory agency.

B.6a.9 Design of Storm Drains

Delineate contributing drainage areas, determine runoff, inlet locations, and spread. Calculate hydraulic losses (friction, utility conflict and, if necessary, minor losses). Determine design tailwater and, if necessary, outlet scour protection.

B.6a.10 Optional Culvert Material – N/A (County preference is RCP)

B.6a.11 French Drain Systems – N/A

B.6a.11a Existing French Drain Systems – N/A

B.6a.12 Drainage Wells – N/A

B.6a.13 Drainage Design Documentation Report

Compile drainage design documentation into report format. Include documentation for all the drainage design tasks and associated meetings and decisions, except for stand-alone reports, such as the Pond Siting Analysis Report and Bridge Hydraulics Report.

B.6a.14 Bridge Hydraulic Report – N/A

B.6a.15 Temporary Drainage Analysis

Evaluate and address drainage to adequately drain the road and maintain existing offsite drainage during all construction phases. Provide documentation.

B.6a.16 Cost Estimate

Prepare cost estimates for the drainage components, except bridges and earthwork for stormwater management and flood compensation sites.

B.6a.17 Technical Special Provisions / Modified Special Provisions – N/A

B.6a.18 Hydroplaning Analysis – N/A

B.6a.19 Existing Permit Analysis – N/A

B.6a.20 Other Drainage Analysis

Includes all efforts for a drainage task not covered by an existing defined task.

B.6a.21 Noise Barrier Evaluation –N/A

B.6a.22 Field Reviews

B.6a.23 Technical Meetings

Meetings with CFX and COUNTY staff, regulatory agencies, local governments such as

B.6a DRAINAGE ANALYSIS

meetings with Osceola County, the Water Management District, FDEP, etc.

- B.6a.24 Environmental Look-Around Meetings – N/A**
- B.6a.25 Quality Assurance/Quality Control**
- B.6a.26 Independent Peer Review – N/A**
- B.6a.27 Supervision**
- B.6a.28 Coordination**

B.6b DRAINAGE PLANS

The CONSULTANT shall prepare Drainage plan sheets, notes, and details. The plans shall include the following sheets necessary to convey the intent and scope of the project for the purposes of construction.

- B.6b.1 Drainage Map**
- B.6b.2 Bridge Hydraulics Recommendation Sheets – N/A**
- B.6b.3 Summary of Drainage Structures**
- B.6b.4 Optional Pipe/Culvert Material – N/A**
- B.6b.5 Drainage Structure Sheet(s) (Per Structure)**
- B.6b.6 Miscellaneous Drainage Detail Sheets**
- B.6b.7 Lateral Ditch Plan/Profile– N/A**
- B.6b.8 Lateral Ditch Cross Sections– N/A**
- B.6b.9 Retention/Detention Pond Detail Sheet(s)**
- B.6b.10 Retention Pond Cross Sections**
- B.6b.11 Erosion Control Plan Sheet(s) – N/A**
- B.6b.12 SWPPP Sheet(s)**
- B.6b.13 Quality Assurance/Quality Control**
- B.6b.14 Supervision**

B.7 UTILITIES

The CONSULTANT shall identify utility facilities and secure agreements, utility work schedules, and plans from the Utility Agency Owners (UAO) ensuring all conflicts that exist between utility facilities and CFX construction project are addressed. The CONSULTANT shall certify all utility negotiations have been completed and that arrangements have been made for utility work to be undertaken.

B.7.1 Utility Kickoff Meeting

Before any contact with the UAO(s), the CONSULTANT shall meet with CFX and the COUNTY to receive guidance, as may be required, to assure that all necessary coordination will be accomplished in accordance with CFX and COUNTY procedures. CONSULTANT shall bring a copy of the design project work schedule reflecting utility activities.

B.7.2 Identify Existing Utility Agency Owner(s)

The Consultant shall identify all utilities within and adjacent to the project limits that may be impacted by the project.

B.7.3 Make Utility Contacts

First Contact: The CONSULTANT shall send letters and two sets of plans to each utility, one set for the utility office, and one set to CFX and the COUNTY. Includes contact by phone for meeting coordination. Request type, size, location, easements, and cost for relocation if reimbursement is claimed (note: review utility coordination from PD&E for necessity in this data gathering). Request the voltage level for power lines in the project area. Send UAO requests for reimbursement to CFX and the COUNTY for a legal opinion. Include the meeting schedule (if applicable) and the design schedule. Include typical meeting agenda. If scheduling a meeting, give 4 weeks advance notice.

Second Contact: At a minimum of 4 weeks prior to the meeting, the CONSULTANT shall transmit two complete sets of Phase II plans and the utility conflict information (when applicable and in the format requested by CFX and the COUNTY) to each UAO having facilities located within the project limits, and one set to CFX and the COUNTY.

Third Contact: Identify agreements and assemble packages. The CONSULTANT shall send agreements, letters, the utility conflict information (when applicable and in the format requested by CFX and the COUNTY) and two sets of plans to the UAO(s) including all component sets, one set for the utility office, one set to construction and maintenance if required. Include the design schedule.

B.7.4 Exception Processing – N/A

B.7.5 Preliminary Utility Meeting

The CONSULTANT shall schedule (time and place), notify participants, and conduct a preliminary utility meeting with all UAO(s) having facilities located within the project limits for the purpose of presenting the project, review the current design schedule, evaluate the utility information collected, provide follow-up information on compensable property rights from the CFX and COUNTY Legal Offices, discuss the utility work by highway contractor option with each utility, and discuss any future design issues that may impact utilities. This is also an opportunity for the UAO(s) to present proposed facilities. The CONSULTANT shall

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keep accurate minutes and distribute a copy to all attendees.

B.7.6 Individual/Field Meetings

The CONSULTANT shall meet with each UAO as necessary, separately or together, throughout the project design duration to provide guidance in the interpretation of plans, review changes to the plans and schedules, standard or selective clearing and grubbing work, and assist in the development of the UAO(s) plans and work schedules. The CONSULTANT is responsible for motivating the UAO to complete and return the necessary documents after each Utility Contact or Meeting.

B.7.7 Collect and Review Plans and Data from UAO(s)

The CONSULTANT shall review utility marked plans and data individually as they are received for content. Ensure information from the UAO (utility type, material and size) is sent to the designer for inclusion in the plans. Forward all requests for utility reimbursement and supporting documentation to the DUO.

B.7.8 Subordination of Easements Coordination

The CONSULTANT, if requested by CFX and the COUNTY, shall transmit to and secure from the UAO the executed subordination agreements prepared by the appropriate CFX and COUNTY offices. The CONSULTANT shall coordinate with the DUO the programming of the necessary work program funds to compensate the UAO.

B.7.9 Utility Design Meeting

The CONSULTANT shall schedule (time and place), notify participants, and conduct a Utility meeting with all affected UAO(s). The CONSULTANT shall be prepared to discuss impacts to existing trees/vegetation and proposed landscape, drainage, traffic signalization, temporary traffic control plans (TTCP) (construction phasing), review the current design schedule and letting date, evaluate the utility information collected, provide follow-up information on compensable property rights from CFX and COUNTY Legal Offices, discuss with each UAO the utility work by highway contractor option, discuss any future design issues that may impact utilities, etc., to the extent that they may have an effect on existing or proposed utility facilities with particular emphasis on drainage and TTCP with each UAO. The intent of this meeting shall be to assist the UAOs in identifying and resolving conflicts between utilities and proposed construction before completion of the plans, including utility adjustment details. Also, to work with the UAOs to recommend potential resolution between known utility conflicts with proposed construction plans as may be deemed practical by the UAO. The CONSULTANT shall keep accurate minutes of all meetings and distribute a copy to all attendees within 3 days. See Task 4.5 (Horizontal/Vertical Master Design File) and Task 36.5 (Cross Section Design Files) for utility conflict location identification and adjustments.

B.7.10 Review Utility Markups & Work Schedules and Processing of Schedules & Agreements

The CONSULTANT shall review utility marked up plans and work schedules as they are received for content and coordinate review with the designer. Send color markups and schedules to the appropriate CFX and COUNTY offices such as survey, geotechnical, drainage, structures, lighting, roadway, signals, utilities, landscape architecture, municipalities, maintaining agency, and Traffic Operations for review and comment if required by CFX and the COUNTY. Coordinate with the CFX and the COUNTY for

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execution. Distribute Executed Final Documents. Prepare Work Order for UAO(s). The CONSULTANT shall coordinate with the DUO the programming of necessary Work Program funds.

B.7.11 Utility Coordination/Follow-up

The CONSULTANT shall provide utility coordination and follow up. This includes follow-up, interpreting plans, and assisting the UAOs with completion of their work schedules and agreements. Includes phone calls, face-to-face meetings, etc., to motivate and ensure the UAO(s) complete and return the required documents in accordance with the project schedule. Ensure the resolution of all known conflicts. The CONSULTANT shall keep accurate minutes of all meetings and distribute a copy to all attendees. This task can be applied to all phases of the project

B.7.12 Utility Constructability Review

The CONSULTANT shall review utility schedules against construction contract time, and phasing for compatibility. Coordinate with and obtain written concurrence from the construction office. See Task 4.5 (Horizontal/Vertical Master Design File) and Task 36.5 (Cross Section Design Files) for utility conflict identification and adjustments.

B.7.13 Additional Utility Services – N/A

B.7.14 Processing Utility Work by Highway Contractor (UWHC)

This includes coordination of utility design effort between CFX, COUNTY, and the UAO(s). The CONSULTANT shall conduct additional coordination meetings, prepare and process the agreements, review tabulation of quantities, perform UWHC constructability and bidability review, review pay items, cost estimates and Technical Special Provisions (TSP) or Modified Special Provision (MSP) prepared by the UAO. This does not include utility the utility design effort. This item is not usually included in the scope at the time of negotiation. It is normally added as a supplemental agreement when the need is identified. Effort for the EOR is not included in this task, see Roadway Analysis Task Group 4.

B.7.15 Contract Plans to UAO(s)

If requested by CFX and/or the COUNTY, the CONSULTANT shall transmit the contract plans as processed for letting to the UAO(s). Transmittals to UAO(s) may be by certified mail, return receipt requested.

B.7.16 Certification/Close-Out

This includes hours for transmitting utility files to the DUO and preparation of the Utility Certification Letter. The CONSULTANT shall certify to the appropriate CFX and COUNTY representatives the following:

All utility negotiations (Full execution of each agreement, approved Utility Work Schedules, Technical Special Provisions or Modified Special Provisions written, etc.) have been completed with arrangements made for utility work to be undertaken and completed as required for proper coordination with the physical construction schedule.

OR

An on-site inspection was made and no utility work will be involved.

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OR

Plans were sent to the Utility Companies/Agencies and no utility work is required.

B.7.17 Other Utilities – N/A

B.8 ENVIRONMENTAL PERMITS and ENVIRONMENTAL CLEARANCES

CFX's Project Manager will review, coordinate and submit the applications for all environmental permits, including EPA's NPDES General Permits for Stormwater Discharges from Construction Sites. The CONSULTANT shall provide all information, permit applications and data relating to Stormwater Management and Floodplain Impacts required for the permits to CFX. (CFX will be responsible for preparing all of the Wetlands and Protected Species analysis and documentation required for the permits.) The CONSULTANT shall:

1. Attend the pre-application meetings and site visits with CFX and regulatory agencies.
2. Provide aerial maps at a 1"=400' scale which include SCS soils data, 100-year floodplain limits and proposed project.
3. Provide all plans, calculations, sketches and reports required for permits except as described above.
4. Provide copies of all drainage calculation, including pond routing nodal diagrams, for the project.
5. Assist CFX in responding to any requests for additional information made by regulatory agencies after the permit application is submitted.
6. Incorporate any changes required by changes in regulatory agency requirements during the course of the project. If this requires additional work by the Consultant a Supplemental Agreement will be prepared.
7. Prepare a list of adjacent landowners along with address and nine- digit zip code at all wetland encroachment sites.
8. The Consultant will create and review dredge and fill sketches as required by the permitting agencies if applicable. Mitigation plans, if required, may be added as a supplemental service.
9. Determine extent of floodplain impacts, if any, and provide compensatory flood stages as required
10. Preliminary field evaluation of general land use and wildlife habitat within existing ROW, pond sites, and bridges
11. Pre-application meeting with FDEP

B.8.1 Preliminary Project Research – N/A

B.8.2 Field Work

B.8.2.1 Pond Site Alternatives:

The CONSULTANT shall coordinate with CFX on alternative pond sites.

B.8.2.2 Establish Wetland Jurisdictional Lines and Assessments – N/A

B.8.2.3 Species Surveys: – N/A

B.8.3 Agency Verification of Wetland Data – N/A

B.8.4 Complete and Submit All Required Permit Applications

CFX to prepare and submit all required permit documents. CONSULTANT to provide support to CFX in applications and response to RAIs.

B.8 ENVIRONMENTAL PERMITS and ENVIRONMENTAL CLEARANCES

B.8.4.1 Complete and Submit all Required Wetland Permit Applications:

The CONSULTANT shall assist CFX in responses to agency Requests for Additional Information (RAIs), including necessary revisions to the application package. All responses and completed application packages must be approved by CFX and the COUNTY prior to submittal to the regulatory agencies.

B.8.4.2 Complete and Submit all Required Species Permit Applications: – N/A

B.8.5 Coordinate and Review Dredge and Fill Sketches

The CONSULTANT shall provide Dredge and Fill Detail sheets to ensure information on the sketch(es) meet the requirements of the regulatory agencies and are appropriate for environmental permit application submittal and acquisition. The CONSULTANT will also provide environmental data/information as needed to support the preparation of the Dredge and Fill sketches.

B.8.6 Prepare USCG Permit Application – N/A

B.8.7 Prepare Water Management District or Local Water Control District Right of Way Occupancy Permit Application – N/A

B.8.8 Prepare Coastal Construction Control Line (CCCL) Permit Application – N/A

B.8.9 Prepare USACE Section 408 Application to Alter a Civil Works Project – N/A

B.8.10 Compensatory Mitigation Plan – N/A

B.8.11 Mitigation Coordination and Meetings – N/A

B.8.12 Other Environmental Permits – N/A

B.8.13 Technical Support to CFX for Environmental Clearances and Reevaluations (use when CONSULTANT provides technical support only) – N/A

B.8.13.1 NEPA or SEIR Re-evaluation - N/A

B.8.13.2 Archaeological and Historical Resources - (Included in Part A)

B.8.13.3 Wetland Impact Analysis – N/A

B.8.13.4 Essential Fish Habitat Impact Analysis - N/A

B.8.13.5 Protected Species and Habitat Impact Analysis – N/A

B.8.14 Preparation of Environmental Clearances and Re-evaluations (use when CONSULTANT prepares all documents associated with a re-evaluation) – N/A

B.8.15 Contamination Impact Analysis – N/A

B.8.16 Asbestos Survey – N/A

B.8.17 Technical Meetings

B.8.18 Quality Assurance/Quality Control

B.8.19 Supervision

B.8.20 Coordination

B.9 STRUCTURES - SUMMARY AND MISCELLANEOUS TASKS AND DRAWINGS

The CONSULTANT shall analyze, design, and develop contract documents for all structures in accordance with applicable provisions as defined in Section 2.19, Provisions for Work. Individual tasks identified in Sections 9 through 18 are defined in the Staff Hour Estimation Handbook and within the provision defined in Section 2.20, Provisions for Work. Contract documents shall display economical solutions for the given conditions.

The CONSULTANT shall provide Design Documentation to CFX with each submittal consisting of structural design calculations and other supporting documentation developed during the development of the plans. The design calculations submitted shall adequately address the complete design of all structural elements. These calculations shall be neatly and logically presented on digital media or, at CFX and COUNTY request, on 8 ½"x11" paper and all sheets shall be numbered. The final design calculations shall be signed and sealed by a Florida-licensed professional engineer. A cover sheet indexing the contents of the calculations shall be included and the engineer shall sign and seal that sheet. All computer programs and parameters used in the design calculations shall include sufficient backup information to facilitate the review task.

- B.9.1 Key Sheet and Index of Drawings – N/A**
- B.9.2 Project Layout– N/A**
- B.9.3 General Notes and Bid Item Notes– N/A**
- B.9.4 Miscellaneous Common Details– N/A**
- B.9.5 Incorporate Report of Core Borings**
- B.9.6 Standard Plans- Bridges – N/A**
- B.9.7 Existing Bridge Plans – N/A**
- B.9.8 Assemble Plan Summary Boxes and Quantities – N/A**
- B.9.9 Cost Estimate – N/A**
- B.9.10 Technical Special Provisions and Modified Special Provisions – N/A**
- B.9.11 Field Reviews – N/A**
- B.9.12 Technical Meetings**
- B.9.13 Quality Assurance/Quality Control**
- B.9.14 Independent Peer Review – N/A**
- B.9.15 Supervision**
- B.9.16 Coordination**
- B.10 STRUCTURES - BRIDGE DEVELOPMENT REPORT – N/A**
- B.11 STRUCTURES - TEMPORARY BRIDGE – N/A**
- B.12 STRUCTURES - SHORT SPAN CONCRETE BRIDGE – N/A**
- B.13 STRUCTURES - MEDIUM SPAN CONCRETE BRIDGE – N/A**
- B.14 STRUCTURES - STRUCTURAL STEEL BRIDGE – N/A**
- B.15 STRUCTURES - SEGMENTAL CONCRETE BRIDGE – N/A**
- B.16 STRUCTURES - MOVABLE SPAN – N/A**
- B.17 STRUCTURES - RETAINING WALLS - N/A**

B.18 STRUCTURES - MISCELLANEOUS

The CONSULTANT shall prepare plans for Miscellaneous Structure(s) as specified in

B.9 – B.18 STRUCTURES

Section 2.5. If any miscellaneous structures, other than mast arms, are identified in the Part 'A' effort, e.g. permanent retaining walls, and/or overhead signs, then an appropriate level of effort and associated supplemental fee can be determined by CFX, COUNTY, and the CONSULTANT.

Concrete Box Culverts

- B.18.1 Concrete Box Culverts – N/A**
- B.18.2 Concrete Box Culverts Extensions – N/A**
- B.18.3 Concrete Box Culvert Data Table Plan Sheets – N/A**
- B.18.4 Concrete Box Culvert Special Details Plan Sheets – N/A**

Strain Poles

- B.18.5 Steel Strain Poles – N/A**
- B.18.6 Concrete Strain Poles – N/A**
- B.18.7 Strain Pole Data Table Plan Sheets – N/A**
- B.18.8 Strain Pole Special Details Plan Sheets – N/A**

Mast Arms

- B.18.9 Mast Arms**
- B.18.10 Mast Arms Data Table Plan Sheets**
- B.18.11 Mast Arms Special Details Plan Sheets**

Overhead/Cantilever Sign Structure

- B.18.12 Cantilever Sign Structures – N/A**
- B.18.13 Overhead Span Sign Structures – N/A**
- B.18.14 Special (Long Span) Overhead Sign Structures – N/A**
- B.18.15 Monotube Overhead Sign Structure – N/A**
- B.18.16 Bridge Mounted Signs (Attached to Superstructure) – N/A**
- B.18.17 Overhead/Cantilever Sign Structures Data Table Plan Sheets – N/A**
- B.18.18 Overhead/Cantilever Sign Structures Special Details Plan Sheets – N/A**

High Mast Lighting

- B.18.19 Non-Standard High Mast Lighting Structures – N/A**
- B.18.20 High Mast Lighting Special Details Plan Sheets – N/A**

Noise Barrier Walls (Ground Mount) – N/A

- B.18.21 Horizontal Wall Geometry – N/A**
- B.18.22 Vertical Wall Geometry – N/A**
- B.18.23 Summary of Quantities – Aesthetic Requirements – N/A**
- B.18.24 Control Drawings – N/A**
- B.18.25 Design of Noise Barrier Walls Covered by Standards – N/A**
- B.18.26 Design of Noise Barrier Walls not Covered by Standards – N/A**
- B.18.27 Aesthetic Details – N/A**

Special Structures

- B.18.28 Fender System – N/A**

B.9 – B.18 STRUCTURES

- B.18.29 Fender System Access – N/A**
- B.18.30 Special Structures – N/A**
- B.18.31 Other Structures – N/A**
- B.18.32 Condition Evaluation of Signal and Sign Structures, and High Mast Light Poles – N/A**
- B.18.33 Condition Evaluation of Signal and Sign Structures, and High Mast Light Poles (No As built or Design Plans Available) – N/A**
- B.18.34 Analytical Evaluation of Signal and Sign Structures, and High Mast Light Poles – N/A**
- B.18.35 Ancillary Structures Report – N/A**

B.19 SIGNING AND PAVEMENT MARKING ANALYSIS

The CONSULTANT shall analyze and document Signing and Pavement Markings Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

B.19.1 Traffic Data Analysis – N/A

B.19.2 No Passing Zone Study – N/A

B.19.3 Reference and Master Design File

The CONSULTANT shall prepare the Signing & Marking Design file to include all necessary design elements and all associated reference files.

Included in the design are three (3) signalized intersections (CR 532 & Poinciana Parkway off-ramp, CR 532 & Poinciana Parkway on-ramp, and CR 532 & Old Lake Wilson Road) and loop replacement at the intersection of CR 532 and Orange Blossom Trail.

B.19.4 Multi-Post Sign Support Calculations

The CONSULTANT will perform multi-post sign support calculations for six (6) signs and shall determine the appropriate column size from the FDOT's Multi-Post Sign Program(s).

The six signs include the replacement of the existing three destination sign in advance of the intersection of CR 532 with Orange Blossom Trail, three (3) proposed next signal signs in advance of the intersections of CR 532 with Lake Wilson Road, Old Lake Wilson Road, and Orange Blossom Trail, and two signs in advance (eastbound and westbound) of the PPE on-ramp.

B.19.5 Sign Panel Design Analysis

Establish sign layout, letter size and series for non-standard signs listed in B.19.4.

B.19.6 Sign Lighting/Electrical Calculations – N/A

B.19.7 Quantities

B.19.8 Cost Estimate

B.19.9 Technical Special Provisions and Modified Special Provisions

B.19.10 Other Signing and Pavement Marking Analysis

The CONSULTANT will develop a multipost sign report and a traffic signal signing report, in accordance with chapter 3.1.4 of the CFX Signing and Pavement Marking Standards. The traffic signal signing document will include an autoturn analysis and a summary of all the intersection signs. Both of the documents will be submitted at the 60% submittal.

B.19.11 Field Reviews

B.19.12 Technical Meetings

B.19.13 Quality Assurance/Quality Control

B.19.14 Independent Peer Review – N/A

B.19.15 Supervision

B.19.16 Coordination

B.19 SIGNING AND PAVEMENT MARKING ANALYSIS

B.20 SIGNING AND PAVEMENT MARKING PLANS

The CONSULTANT shall prepare a set of Signing and Pavement Marking Plans in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums that includes the following.

B.20.1 Key Sheet

B.20.2 Summary of Pay Items Including Quantity Input – N/A

B.20.3 Tabulation of Quantities

B.20.4 General Notes/Pay Item Notes

B.20.5 Project Layout – N/A

B.20.6 Plan Sheet

B.20.7 Typical Details – N/A

B.20.8 Guide Sign Work Sheet(s)

B.20.9 Traffic Monitoring Site

B.20.10 Cross Sections

B.20.11 Special Service Point Details – N/A

B.20.12 Special Details – N/A

B.20.13 Interim Standards – N/A

B.20.14 Quality Assurance/Quality Control

The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of traffic design drawings, specifications and other services furnished by the CONSULTANT under this contract.

The CONSULTANT shall provide a Quality Control Plan that describes the procedures to be utilized to verify, independently check, and review all design drawings, specifications and other services prepared as a part of the contract. The CONSULTANT shall describe how the checking and review processes are to be documented to verify that the required procedures were followed. The Quality Control Plan may be one utilized by the CONSULTANT as part of their normal operation or it may be one specifically designed for this project.

B.20.15 Supervision

B.21 SIGNALIZATION ANALYSIS

The CONSULTANT shall analyze and document Signalization Analysis Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

B.21.1 Traffic Data Collection

B.21.2 Traffic Data Analysis

The CONSULTANT shall determine signal operation plan, intersection geometry, local signal timings, and pre-emption phasing & timings for the intersections of CR 532 & Poinciana Parkway off-ramp, CR 532 & Poinciana Parkway on-ramp, and CR 532 & Old Lake Wilson Road as part of this scope.

B.21.3 Signal Warrant Study – Included in Part A

B.21.4 Systems Timings

The CONSULTANT shall determine proper coordination timing plans including splits, force offs, offsets, and preparation of Time Space Diagram.

B.21.5 Reference and Master Signalization Design File

B.21.6 Reference and Master Interconnect Communication Design File

The CONSULTANT shall prepare the Interconnect Communication Design file to include all necessary design elements and all associated reference files for 2.9 miles along CR 532. The design will include the 72 SM fiber optic trunk line along CR 532 with no splicing or drops to the controller cabinets.

B.21.7 Overhead Street Name Sign Design

The CONSULTANT shall design Signal Mounted Overhead Street Name signs for CR 532, Poinciana Parkway off-ramp, Poinciana Parkway on-ramp, and Old Lake Wilson Road.

B.21.8 Pole Elevation Analysis

B.21.9 Traffic Signal Operation Report

B.21.10 Quantities

B.21.11 Cost Estimate

B.21.12 Technical Special Provisions and Modified Special Provisions

B.21.13 Other Signalization Analysis – N/A

B.21.14 Field Reviews

B.21.15 Technical Meetings

B.21.16 Quality Assurance/Quality Control

B.21.17 Independent Peer Review – N/A

B.21.18 Supervision

B.21.19 Coordination

B.22 SIGNALIZATION PLANS

The CONSULTANT shall prepare a set of Signalization Plans in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums, which includes the following:

B.22.1 Key Sheet

B.22.2 Summary of Pay Items Including Designer Interface Quantity Input – N/A

B.22.3 Tabulation of Quantities

B.22.4 General Notes/Pay Item Notes

B.22.5 Plan Sheet

B.22.6 Interconnect Plans

B.22.7 Traffic Monitoring Site – N/A

B.22.8 Guide Sign Worksheet

B.22.9 Special Details

B.22.10 Special Service Point Details

B.22.11 Mast Arm/Monotube Tabulation Sheet

B.22.12 Strain Pole Schedule – N/A

B.22.13 TTCF Signal (Temporary) – N/A

B.22.14 Temporary Detection Sheet – N/A

B.22.15 Utility Conflict Sheet

B.22.16 Interim Standards – N/A

B.22.17 Quality Assurance/Quality Control

B.22.18 Supervision

B.23 LIGHTING ANALYSIS

Note: Lighting Analysis and Plans are dependent on the results of the Lighting Justification Report performed in Part 'A' of this Scope. The CONSULTANT shall analyze and document Lighting Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

B.23.1 Lighting Justification Report – (performed in Part 'A')

B.23.2 Lighting Design Analysis Report

The CONSULTANT shall prepare a Preliminary Lighting Design Analysis Report. The report shall be submitted under a separate cover with the Phase II plans submittal. The report shall provide analyses for each signalized intersection lighting design and each typical section of the mainline, typical section for the ramps (one and/or two lanes), interchanges, underdeck lighting, and arterial roads. Each lighting calculation shall be properly identified as to the area that it covers.

The report shall include the Lighting Design Criteria that will be used. For projects with corridor lighting, the report shall include the evaluation of at least three lighting design alternatives. The report shall provide a recommendation on the alternative to use. Each alternative shall be properly described; the alternatives shall consider different pole heights, lamp wattage, and arm lengths. Each alternative shall be provided with a cost estimate that includes initial cost in addition to operations and maintenance cost for one year.

The report shall also include the lighting calculations for each lighted sign.

After approval of the preliminary report, the CONSULTANT shall submit a revised report for each submittal. The Lighting Design Analysis Report shall include:

- Voltage drop calculations
- Load analysis calculations for each branch circuit

B.23.3 Voltage Drop Calculations

The CONSULTANT shall submit voltage drop calculations showing the equation or equations used along with the number of luminaries per circuit, the length of each circuit, the size conductor or conductors used and their ohm resistance values. The voltage drop incurred on each circuit (total volts and percentage of drop) shall be calculated, and all work necessary to calculate the voltage drop values for each circuit should be presented in such a manner as to be duplicated by CFX and the COUNTY.

The Voltage Drop Calculations shall be submitted as part of the Lighting Design Analysis Report.

B.23.4 FDEP Coordination and Report – N/A

B.23.5 Reference and Master Design Files

The CONSULTANT shall prepare the Lighting Design file to include all necessary design elements and all associated reference files.

B.23.6 Temporary Lighting – N/A

B.23.7 Design Documentation

The CONSULTANT shall submit a Design Documentation with each plans submittal under a separate cover and not part of the roadway documentation book. At a minimum, the design documentation shall include:

- Phase submittal checklist.
- Structural calculations for special conventional pole concrete foundations.
- Correspondence with the power company concerning new electrical service.

B.23.8 Quantities

B.23.9 Cost Estimate

B.23.10 Technical Special Provisions and Modified Special Provisions - N/A

B.23.11 Other Lighting Analysis - N/A

B.23.12 Field Reviews

The CONSULTANT shall collect information from the maintaining agencies and conduct a field review. The review should include but is not limited to the following:

- Existing Lighting Equipment
- Load Center, Capabilities and Condition/Age
- Condition of Lighting Structure(s)
- Verification of horizontal clearances
- Verification of breakaway requirements

B.23.13 Technical Meetings

B.23.14 Quality Assurance/Quality Control

B.23.15 Independent Peer Review – N/A

B.23.16 Supervision

B.23.17 Coordination

B.24 LIGHTING PLANS

Note: Lighting Analysis and Plans are dependent on the results of the Lighting Justification Report performed in Part 'A' of this Scope. The CONSULTANT shall prepare a set of Lighting Plans in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

B.24.1 Key Sheet

B.24.2 Summary of Pay Item Sheet Including Designer Interface Quantity Input – N/A

B.24.3 Tabulation of Quantities

B.24.4 General Notes/Pay Item Notes

B.24.5 Pole Data, Legend & Criteria

B.24.6 Service Point Details

B.24.7 Project Layout

B.24.8 Plan Sheet

B.24.9 Special Details – N/A

B.24.10 Temporary Lighting Data and Details

B.24.11 Temporary Traffic Control Plan Sheets – N/A

B.24.12 Interim Standards

B.24.13 Quality Assurance/Quality Control

The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of traffic design drawings, specifications and other services furnished by the CONSULTANT under this contract.

The CONSULTANT shall provide a Quality Control Plan that describes the procedures to be utilized to verify, independently check, and review all design drawings, specifications and other services prepared as a part of the contract. The CONSULTANT shall describe how the checking and review processes are to be documented to verify that the required procedures were followed. The Quality Control Plan may be one utilized by the CONSULTANT as part of their normal operation or it may be one specifically designed for this project.

B.24.14 Supervision

B.25 LANDSCAPE ANALYSIS

B.25.1 Data Collection

B.25.2 Site Inventory and Analysis for Proposed Landscape

CONSULTANT to analyze suitability for landscape areas and irrigation feasibility.

B.25.3 Planting Design – N/A

B.25.3a Conceptual Planting Design – N/A

B.25.3b Final Planting Design – N/A

B.25.4 Irrigation Design

B.25.4a Conceptual Irrigation Design

Conceptual Design: Includes determination of water and power sources. Phase I design level. Sleeves for the future irrigation systems, which are not include within this Project, will be incorporated in the design and construction plans.

B.25.4a1 Feasibility Report: Includes analysis of methods, materials and operation costs associated with proposed irrigation system design.

B.25.4a2 Mainline

B.25.4a3 Interchanges, Intersections, and Rest Areas - N/A

B.25.4a4 Toll Plazas - N/A

B.25.4b Final Irrigation Design – N/A

B.25.5 Hardscape Design - N/A

B.25.6 Roll Plots

Task includes any roll plots for the project to aid in developing final plans (landscape opportunity, disposition, site inventory and analysis, etc.)

B.25.7 Cost Estimates – N/A

B.25.8 Technical Special Provisions and Modified Special Provisions – N/A

B.25.9 Inspection Services – N/A

B.25.10 Other Landscape Services – N/A

B.25.11 Outdoor Advertising – N/A

B.25.12 Field Reviews

B.25.13 Technical Meetings / Public Meetings

B.25.14 Quality Assurance/Quality Control

B.25.15 Independent Peer Review - N/A

B.25.16 Supervision

B.25.17 Project Coordination

B.25.18 Interdisciplinary Coordination

B.26 LANDSCAPE PLANS

B.26.1 Key Sheet

B.26.2 Tabulation of Quantities and Plans Schedule

B.25 LANDSCAPE ANALYSIS

- B.26.3 General Notes**
- B.26.4 Tree and Vegetation Protection and Relocation Plans and Tree Disposition Plans – N/A**
- B.26.5 Planting Plans For Linear Roadway Projects – N/A**
- B.26.6 Planting Plans (Interchanges and Toll Plazas) – N/A**
- B.26.7 Planting Details and Notes – N/A**
- B.26.8 Irrigation Plans for Linear Roadway Project**
- B.26.9 Irrigation Plans for Interchange and Toll Plazas - N/A**
- B.26.10 Irrigation Details and Notes – N/A**
- B.26.11 Hardscape Plans – N/A**
- B.26.12 Hardscape Details and Notes – N/A**
- B.26.13 Maintenance Plan – N/A**
- B.26.14 Quality Assurance/Quality Control**
- B.26.15 Supervision**

B.27 SURVEY

The CONSULTANT shall perform survey tasks in accordance with all applicable statutes, manuals, guidelines, standards, handbooks, procedures, and current design memoranda. The CONSULTANT shall submit all survey notes and computations to document the surveys. All field survey work shall be recorded in approved media and submitted to CFX and the COUNTY. Field books submitted to CFX and the COUNTY must be of an approved type. The field books shall be certified by the surveyor in responsible charge of work being performed before the final product is submitted.

The survey notes shall include documentation of decisions reached from meetings, telephone conversations or site visits. All like work (such as bench lines, reference points, etc.) shall be recorded contiguously. CFX and the COUNTY may not accept field survey radial locations of section corners, platted subdivision lot and block corners, alignment control points, alignment control reference points and certified section corner references. CFX and the COUNTY may instead require that these points be surveyed by true line, traverse or parallel offset.

B.27.1 Horizontal Project Control (HPC)

Establish or recover HPC, for the purpose of establishing horizontal control on the Florida State Plane Coordinate System or datum; may include primary or secondary control points. Includes analysis and processing of all field collected data, and preparation of forms.

B.27.2 Vertical Project Control (VPC)

Establish or recover VPC, for the purpose of establishing vertical control on datum; may include primary or secondary vertical control points. Includes analysis and processing of all field collected data, and preparation of forms.

B.27.3 Alignment and/or Existing Right of Way (R/W) Lines

Establish, recover or re-establish project alignment. Also includes analysis and processing of all field collected data, existing maps, and/or reports for identifying mainline, ramp, offset, or secondary alignments. Depict alignment and/or existing R/W lines (in required format) per Osceola County R/W Maps, platted or dedicated rights of way.

B.27.4 Aerial Targets – N/A

B.27.5 Reference Points

Reference Horizontal Project Control (HPC) points, project alignment, vertical control points, section, ¼ section, center of section corners and General Land Office (G.L.O.) corners as required.

B.27.6 Topography/Digital Terrain Model (DTM) (3D)

Locate all above ground features and improvements for the limits of the project by collecting the required data for the purpose of creating a DTM with sufficient density. Shoot all break lines, high and low points. Effort includes field edits, analysis and processing of all field collected data, existing maps, and/or reports.

B.27.7 Planimetric (2D) – N/A

B.27.8 Roadway Cross Sections/Profiles

B.27 SURVEY

Perform cross sections or profiles. May include analysis and processing of all field-collected data for comparison with DTM.

B.27.9 Side Street Surveys

Refer to tasks of this document as applicable.

B.27.10 Underground Utilities

Designation includes 2-dimensional collection of existing utilities and selected 3-dimensional verification as needed for designation. Location includes non-destructive excavation to determine size, type and location of existing utility, as necessary for final 3-dimensional verification. Survey includes collection of data on points as needed for designates and locates. Includes analysis and processing of all field collected data, and delivery of all appropriate electronic files.

B.27.11 Outfall Survey

Locate all above ground features and improvements for the limits of the project by collecting the required data for the purpose of a DTM. Survey with sufficient density of shots. Shoot all break lines, high and low points. Includes field edits, analysis and processing of all field collected data, existing maps, and/or reports.

B.27.12 Drainage Survey

Locate underground data (XYZ, pipe size, type, condition and flow line) that relates to above ground data. Includes field edits, analysis and processing of all field collected data, existing maps, and/or reports.

B.27.13 Bridge Survey (Minor/Major)

Locate required above ground features and improvements for the limits of the bridge. Includes field edits, analysis and processing of all field collected data, existing maps, and/or reports.

B.27.14 Channel Survey

Locate all topographic features and improvements for the limits of the project by collecting the required data. Includes field edits, analysis and processing of all field collected data, maps, and/or reports.

B.27.15 Pond Site Survey

Refer to tasks of this document as applicable.

B.27.16 Mitigation Survey

Refer to tasks of this document as applicable.

B.27.17 Jurisdiction Line Survey

Perform field location (2-dimensional) of jurisdiction limits as defined by respective authorities, also includes field edits, analysis and processing of all field collected data, preparation of reports.

B.27.18 Geotechnical Support

Perform 3-dimensional (X,Y,Z) field location, or stakeout, of boring sites established by

geotechnical engineer. Includes field edits, analysis and processing of all field collected data and/or reports.

B.27.19 Sectional/Grant Survey

Perform field location/placement of section corners, 1/4 section corners, and fractional corners where pertinent. Includes analysis and processing of all field-collected data and/or reports.

B.27.20 Subdivision Location

Survey all existing recorded subdivision/condominium boundaries, tracts, units, phases, blocks, street R/W lines, common areas. Includes analysis and processing of all field collected data and/or reports. If unrecorded subdivision is on file in the public records of the subject county, tie existing monumentation of the beginning and end of unrecorded subdivision.

B.27.21 Maintained R/W

Perform field location (2-dimensional) of maintained R/W limits as defined by respective authorities, if needed. Also includes field edits, analysis and processing of all field collected data, preparation of reports.

B.27.22 Boundary Survey

Perform boundary survey as defined by CFX standards. Includes analysis and processing of all field-collected data, preparation of reports.

B.27.23 Water Boundary Survey

Perform Mean High Water, Ordinary High Water and Safe Upland Line surveys as required by CFX standards.

B.27.24 Right of Way Staking, Parcel / Right of Way Line

Perform field staking and calculations of existing/proposed R/W lines for on-site review purposes.

B.27.25 Right of Way Monumentation

Set R/W monumentation as depicted on final R/W maps for corridor and water retention areas.

B.27.26 Line Cutting

Perform all efforts required to clear vegetation from the line of sight.

B.27.27 Work Zone Safety

Provide work zone as required by CFX standards.

B.27.28 Vegetation Survey

Locate vegetation within the project limits.

B.27.29 Tree Survey

Locate individual trees or palms within the project limits.

B.27.30 Miscellaneous Surveys

Refer to tasks of this document, as applicable, to perform surveys not described herein. The percent for Supplemental will be determined at negotiations. This item can only be used if authorized in writing by CFX or their representative.

B.27.31 Supplemental Surveys

Supplemental survey days and hours are to be approved in advance by DS or DLS. Refer to tasks of this document, as applicable, to perform surveys not described herein.

B.27.32 Document Research

Perform research of documentation to support field and office efforts involving surveying and mapping.

B.27.33 Field Review

Perform verification of the field conditions as related to the collected survey data.

B.27.34 Technical Meetings

Attend meetings as required and negotiated by the Surveying and Mapping Department.

B.27.35 Quality Assurance/Quality Control (QA/QC)

Establish and implement a QA/QC plan. Also includes subconsultant review, response to comments and any resolution meetings if required, preparation of submittals for review, etc.

B.27.36 Supervision

Perform all activities required to supervise and coordinate project. These activities must be performed by the project supervisor, a Florida P.S.M. or their delegate as approved by CFX.

B.27.37 Coordination

Coordinate survey activities with other disciplines. These activities must be performed by the project supervisor, a Florida P.S.M. or their delegate as approved by CFX.

B.28 PHOTOGRAMMETRY – N/A

B.29 MAPPING

The CONSULTANT will be responsible for the preparation of control survey maps, right of way maps, maintenance maps, sketches, other miscellaneous survey maps, and legal descriptions as required for this project in accordance with all applicable FDOT Manuals, Procedures, Handbooks, and Florida Statutes. All maps, surveys and legal descriptions will be prepared under the direction of a Florida Professional Surveyor and Mapper (PSM) to CFX size and format requirements utilizing CFX approved software, and will be designed to provide a high degree of uniformity and maximum readability. The CONSULTANT will submit maps, legal descriptions, quality assurance check prints, checklists, electronic media files and any other documents as required for this project to CFX and the COUNTY for review at stages of completion as negotiated.

Master CADD File

B.29.1 Alignment

B.29.2 Section and 1/4 Section Lines

B.29.3 Subdivisions / Property Lines

B.29.4 Existing Right of Way

B.29.5 Topography

B.29.6 Parent Tract Properties and Existing Easements

B.29.7 Proposed Right of Way Requirements

The ENGINEER OF RECORD (EOR) will provide the proposed requirements. The PSM is responsible for calculating the final geometry. Notification of Final Right of Way Requirements along with the purpose and duration of all easements will be specified in writing.

B.29.8 Limits of Construction

The limits of construction DGN file as provided by the EOR will be imported or referenced to the master CADD file. Additional labeling will be added as required. The PSM is required to advise the EOR of any noted discrepancies between the limits of construction line and the existing/proposed right of way lines, and for making adjustments as needed when a resolution is determined.

B.29.9 Jurisdictional/Agency Lines

These lines may include, but are not limited to, jurisdictional, wetland, water boundaries, and city/county limit lines.

Sheet Files

B.29.10 Control Survey Cover Sheet

B.29.11 Control Survey Key Sheet

B.29.12 Control Survey Detail Sheet

B.29.13 Right of Way Map Cover Sheet

B.29.14 Right of Way Map Key Sheet

B.29.15 Right of Way Map Detail Sheet

B.29.16 Maintenance Map Cover Sheet

B.29.17 Maintenance Map Key Sheet

B.29.18 Maintenance Map Detail Sheet

B.29 MAPPING

B.29.19 Reference Point Sheet

This sheet(s) will be included with the Control Survey Map, Right of Way Map and Maintenance Map.

B.29.20 Project Control Sheet

This sheet depicts the baseline, the benchmarks, the primary and secondary control points and their reference points including the type of material used for each point, their XYZ coordinates, scale factors and convergence angles. This sheet(s) may be included with the Control Survey Map, Right of Way Map and Maintenance Map.

B.29.21 Table of Ownerships Sheet

Miscellaneous Surveys and Sketches

B.29.22 Parcel Sketches

B.29.23 TIITF Sketches

B.29.24 Other Specific Purpose Survey(s)

B.29.25 Boundary Survey(s) Map

B.29.26 Right of Way Monumentation Map

B.29.27 Title Search Map

B.29.28 Title Search Report

B.29.29 Legal Descriptions

B.29.30 Final Map/Plans Comparison

The PSM will perform a comparison of the final right of way maps with the available construction plans to review the correctness of the type of parcel to be acquired and the stations/offsets to the required right of way. The PSM will coordinate with the EOR to resolve any conflicts or discrepancies and provide documentation of the review.

B.29.31 Field Reviews

B.29.32 Technical Meetings

B.29.33 Quality Assurance/Quality Control

B.29.34 Supervision

B.29.35 Coordination

B.29.36 Supplemental Mapping

This task is to cover efforts resulting from major design and/or development changes after 60% map development that affect the right of way requirements/parent tract property lines and may include any number of tasks. Request and approval to utilize the Supplemental Mapping hours will be in writing and approved by CFX prior to any work being done under this task.

B.30 TERRESTRIAL MOBILE LiDAR – N/A

B.31 ARCHITECTURE DEVELOPMENT – N/A

B.32 NOISE BARRIERS IMPACT ASSESSMENT IN THE DESIGN PHASE – N/A

B.29 MAPPING

B.33 INTELLIGENT TRANSPORTATION SYSTEMS ANALYSIS – N/A

B.34 INTELLIGENT TRANSPORTATION SYSTEMS PLANS – N/A

B.35 GEOTECHNICAL

The CONSULTANT shall, for each project, be responsible for a complete geotechnical investigation. All work performed by the CONSULTANT shall be in accordance with FDOT standards, or as otherwise directed by CFX and the COUNTY. CFX and the COUNTY will make interpretations and changes regarding geotechnical standards, policies and procedures and provide guidance to the CONSULTANT.

Before beginning each phase of investigation and after the Notice to Proceed is given, the CONSULTANT shall submit an investigation plan for approval and meet with CFX and the COUNTY to review the project scope and CFX and COUNTY requirements. The investigation plan shall include, but not be limited to, the proposed boring locations and depths, and all existing geotechnical information from available sources to generally describe the surface and subsurface conditions of the project site. Additional meetings may be required to plan any additional field efforts, review plans, resolve plans/report comments, resolve responses to comments, and/or any other meetings necessary to facilitate the project. The CONSULTANT shall notify CFX and the COUNTY in adequate time to schedule a representative to attend all related meetings and field activities.

B.35.1 Document Collection and Review

CONSULTANT will review printed literature including topographic maps, county agricultural maps, aerial photography (including historic photos), ground water resources, geology bulletins, potentiometric maps, pile driving records, historic construction records and other geotechnical related resources. Prior to field reconnaissance, CONSULTANT shall review U.S.G.S., S.C.S. and potentiometric maps, and identify areas with problematic soil and groundwater conditions.

Roadway

The CONSULTANT shall be responsible for coordination of all geotechnical related field work activities. The CONSULTANT shall retain all samples until acceptance of Phase IV plans. Rock cores shall be retained as directed in writing by CFX and the COUNTY. Obtain pavement cores as directed in writing by CFX and the COUNTY.

If required by CFX and the COUNTY, a preliminary roadway exploration shall be performed before the Phase I plans submittal. The preliminary roadway exploration will be performed and results provided to the Engineer of Record to assist in setting roadway grades and locating potential problem areas. The preliminary roadway exploration shall be performed as directed in writing by CFX and the COUNTY.

CONSULTANT shall perform specialized field-testing as required by project needs and as directed in writing by CFX and the COUNTY.

All laboratory testing and classification will be performed in accordance with applicable FDOT standards, ASTM Standards or AASHTO Standards, unless otherwise specified in the Contract Documents.

B.35.2 Develop Detailed Boring Location Plan

Develop a detailed boring location plan. Meet with CFX and the COUNTY for boring plan approval. If the drilling program expects to encounter artesian conditions, the CONSULTANT shall submit a methodology(s) for plugging the borehole to CFX and the

COUNTY for approval prior to commencing with the boring program.

B.35.3 Stake Borings/Utility Clearance

Stake borings and obtain utility clearance.

B.35.4 Muck Probing

Probe standing water and surficial muck in a detailed pattern sufficient for determining removal limits to be shown in the Plans.

B.35.5 Coordinate and Develop TTCP for Field Investigation

Coordinate and develop Temporary Traffic Control Plan (TTCP). All work zone traffic control will be performed in accordance with the FDOT's Standard Plans Index 102 series.

B.35.6 Drilling Access Permits

Obtain all State, County, City, and Water Management District permits for performing geotechnical borings, as needed.

B.35.7 Property Clearances

Notify property tenants in person of drilling and field activities, if applicable. Written notification to property owners/tenants is the responsibility of CFX and the COUNTY.

B.35.8 Groundwater Monitoring

Monitor groundwater using piezometers.

B.35.9 LBR / Resilient Modulus Sampling

Collect appropriate samples for Limerock Bearing Ratio (LBR) testing.

B.35.10 Coordination of Field Work

Coordinate all field work required to provide geotechnical data for the project.

B.35.11 Soil and Rock Classification - Roadway

Refine soil profiles recorded in the field, based on results of laboratory testing.

B.35.12 Design LBR

Determine design LBR values from the 90% and mean methods when LBR testing is required by CFX.

B.35.13 Laboratory Data

Tabulate laboratory test results for inclusion in the geotechnical report, the report of tests sheet (Roadway Soil Survey Sheet), and for any necessary calculations and analyses.

B.35.14 Seasonal High-Water Table

Review the encountered ground water levels and estimate seasonal high ground water levels. Estimate seasonal low ground water levels, if requested.

B.35.15 Parameters for Water Retention Areas

Provide aquifer parameters to the project Drainage Engineer for use in stormwater modeling of water retention areas, exfiltration trenches, and/or swales.

B.35.16 Delineate Limits of Unsuitable Material

Delineate limits of unsuitable material(s) in both horizontal and vertical directions. Assist the Engineer of Record with detailing these limits on the cross-sections. If requested, prepare a plan view of the limits of unsuitable material.

B.35.17 Electronic Files for Cross-Sections

Create electronic files of boring data to include in the Roadway cross-sections.

B.35.18 Embankment Settlement and Stability

Estimate the total magnitude and time rate of embankment settlements. Calculate the factor of safety against slope stability failure.

B.35.19 Monitor Existing Structures

Provide Roadway EOR guidance on the radius to review existing structures for monitoring. Optional services (may be negotiated at a later date if needed): Identify existing structures in need of settlement, vibration and/or groundwater monitoring by the contractor during construction and coordinate with the EOR and structural engineer (when applicable) to develop mitigation strategies. When there is risk of damage to the structure or facility, provide recommendations in the geotechnical report addressing project specific needs and coordinate those locations with the EOR. See FDM Chapter 307 and Chapter 9 of the Soils and Foundations Handbook.

B.35.20 Stormwater Volume Recovery and/or Background Seepage Analysis – N/A

B.35.21 Geotechnical Recommendations

Provide geotechnical recommendations regarding the proposed roadway construction project including the following: description of the site/alignment, design recommendations and discussion of any special considerations (i.e. removal of unsuitable material, consolidation of weak soils, estimated settlement time/amount, groundwater control, high groundwater conditions relative to pavement base, etc.) Evaluate and recommend types of geosynthetics and properties for various applications, as required.

B.35.22 Pavement Condition Survey and Pavement Evaluation Report – N/A

B.35.23 Preliminary Roadway Report

If a preliminary roadway investigation is performed, submit a preliminary roadway report before the Phase I plans submittal. The purpose of the preliminary roadway report will be to assist in setting road grades and locating potential problems.

- Copies of U.S.G.S. and S.C.S. maps with project limits shown.
- A report of tests sheet that summarizes the laboratory test results, the soil stratification (i.e. soils grouped into layers of similar materials) and construction recommendations relative to Standard Plans Indices 120-001 and 120-002.
- The results of all tasks discussed in all previous sections regarding data interpretation and analysis.
- An appendix that contains stratified soil boring profiles, laboratory test data

sheets, sample embankment settlement and stability calculations, design LBR calculation/graphs, and other pertinent calculations.

- The CONSULTANT will respond in writing to any changes and/or comments from CFX and the COUNTY and submit any responses and revised reports.

B.35.24 Final Report

The Final Roadway Report shall include the following:

- Copies of U.S.G.S. and S.C.S. maps with project limits shown.
- A report of tests sheet that summarizes the laboratory test results, the soil stratification (i.e. soils grouped into layers of similar materials) and construction recommendations relative to Standard Plans Indices 120-001 and 120-002.
- The results of all tasks discussed in all previous sections regarding data interpretation and analysis.
- An appendix that contains stratified soil boring profiles, laboratory test data sheets, sample embankment settlement and stability calculations, design LBR calculation/graphs, and other pertinent calculations.
- The CONSULTANT will respond in writing to any changes and/or comments from CFX and the COUNTY and submit any responses and revised reports.

B.35.25 Auger Boring Drafting

Draft auger borings as directed by CFX and the COUNTY.

B.35.26 SPT Boring Drafting

Draft SPT borings as directed by CFX and the COUNTY.

Structures:

The CONSULTANT shall be responsible for coordination of all geotechnical related fieldwork activities. The CONSULTANT shall retain all samples until acceptance of Phase IV plans. Rock cores shall be retained as directed in writing by CFX and the COUNTY.

CONSULTANT shall perform specialized field-testing as required by needs of project and as directed in writing by CFX and the COUNTY.

All laboratory testing and classification will be performed in accordance with applicable FDOT standards, ASTM Standards or AASHTO Standards, unless otherwise specified in the Contract Documents.

The staff hour tasks for high embankment fills and structural foundations for bridges, box culverts, walls, high-mast lighting, overhead signs, mast arm signals, strain poles, buildings, and other structures include the following: box culvert extensions (refer to Section B.2.5 of this Scope).

B.35.27 Develop Detailed Boring Location Plan

Develop a detailed boring location plan. Meet with CFX and the COUNTY for boring plan approval. If the drilling program expects to encounter artesian conditions, the

CONSULTANT shall submit a methodology(s) for plugging the borehole to CFX and the COUNTY for approval prior to commencing with the boring program.

B.35.28 Stake Borings/Utility Clearance

Stake borings and obtain utility clearance.

B.35.29 Coordinate and Develop TTCP for Field Investigation

Coordinate and develop TTCP plan. All work zone traffic control will be performed in accordance with the FDOT's Standard Plans Index 102 series.

B.35.30 Drilling Access Permits

Obtain all State, County, City, and Water Management District permits for performing geotechnical borings, as needed.

B.35.31 Property Clearances

Notify property tenants in person of drilling and field activities, if applicable. Written notification to property owners/tenants is the responsibility of CFX and the COUNTY.

B.35.32 Collection of Corrosion Samples

Collect corrosion samples for determination of environmental classifications.

B.35.33 Coordination of Field Work

Coordinate all field work required to provide geotechnical data for the project.

B.35.34 Soil and Rock Classification – Structures

Soil profiles recorded in the field should be refined based on results of laboratory testing.

B.35.35 Tabulation of Laboratory Data

Laboratory test results should be tabulated for inclusion in the geotechnical report and for the necessary calculations and analyses.

B.35.36 Estimate Design Groundwater Level for Structures

Review encountered groundwater levels, estimate seasonal high groundwater levels, and evaluate groundwater levels for structure design.

B.35.37 Selection of Foundation Alternatives (BDR) – N/A

B.35.38 Detailed Analysis of Selected Foundation Alternate(s) – N/A

B.35.39 Bridge Construction and Testing Recommendations – N/A

B.35.40 Lateral Load Analysis (Optional) – N/A

B.35.41 Walls – N/A

B.35.42 Sheet Pile Wall Analysis (Optional) – N/A

B.35.43 Design Soil Parameters for Signs, Signals, High Mast Lights, and Strain Poles and Geotechnical Recommendations

Provide the design soil profile(s) that include the soil model/type of each layer and all soil properties required by the Engineer of Record for foundation design. Review design for geotechnical compatibility and constructability.

B.35.44 Box Culvert Analysis – If required

- Provide the design soil profile(s) that include the soil model/type of each layer and all soil properties required by the Engineer of Record for foundation design. Review design for geotechnical compatibility and constructability.
- Provide lateral earth pressure coefficients.
- Provide box culvert construction and design recommendations.
- Estimate differential and total (long term and short term) settlements.
- Evaluate wingwall stability.

B.35.45 Preliminary Report – BDR – N/A

B.35.46 Final Report - Bridge and Associated Walls – N/A

B.35.47 Final Reports - Signs, Signals, Box Culvert, Walls, and High Mast Lights

The final reports shall include the following:

- Copies of U.S.G.S. and S.C.S. maps with project limits shown.
- Summary of structure background data, S.C.S., U.S.G.S., geologic and potentiometric data.
- The results of all tasks discussed in all previous sections regarding data interpretation and analysis).
- Recommendations for foundation installation, or other site preparation soils-related construction considerations with plan sheets as necessary.
- Any special provisions required for construction that are not addressed in the DEPARTMENT's Standard specification.
- An Appendix which includes SPT and CPT boring/sounding profiles, data from any specialized field tests, engineering analysis, notes/sample calculations, sheets showing ultimate bearing capacity curves versus elevation for piles and drilled shafts, a complete FHWA check list, pile driving records (if available), and any other pertinent information.

Final reports will incorporate comments from CFX and the COUNTY and contain any additional field or laboratory test results, recommended foundation alternatives along with design parameters and special provisions for the contract plans. These reports will be submitted to CFX and the COUNTY for review prior to project completion. After review by CFX and the COUNTY, the reports will be submitted in final form and will include the following:

- All original plan sheets (11" x 17")
- One set of all plan and specification documents, in electronic format, according to CFX and COUNTY requirements
- Two sets of record prints
- Six sets of any special provisions
- All reference and support documentation used in preparation of contract plans package

Additional final reports (up to four), aside from stated above, may be needed and requested

for CFX, COUNTY, and other disciplines.

The final reports, special provisions, as well as record prints, will be signed and sealed by a Professional Engineer licensed in the State of Florida.

Draft the detailed boring/sounding standard sheet, including environmental classification, results of laboratory testing, and specialized construction requirements, for inclusion in final plans.

B.35.48 SPT Boring Drafting

Prepare a complete set of drawings to include all SPT borings, auger borings and other pertinent soils information in the plans. Include these drawings in the Final Geotechnical Report. Draft borings, location map, S.C.S. map and U.S.D.A. map as directed by CFX and the COUNTY. Soil symbols must be consistent with those presented in the latest Florida Department of Transportation Soils and Foundations Handbook.

B.35.49 Other Geotechnical – N/A

B.35.50 Technical Special Provisions and Modified Special Provisions

B.35.51 Field Reviews

Identify and note surface soil and rock conditions, surface water conditions and locations, and preliminary utility conflicts. Observe and note nearby structures and foundation types.

B.35.52 Technical Meetings

B.35.53 Quality Assurance/Quality Control

B.35.54 Supervision

B.35.55 Coordination

B.36 3D MODELING – N/A

B.37 PROJECT REQUIREMENTS

B.37.1 Liaison Office

CFX, COUNTY, and the CONSULTANT will designate a Liaison Office and a Project Manager who shall be the representative of their respective organizations for the Project. While it is expected the CONSULTANT shall seek and receive advice from various state, regional, and local agencies, the final direction on all matters of this project remain with CFX and the COUNTY.

B.37.2 Key Personnel

The CONSULTANT's work shall be performed and directed by the key personnel identified in the proposal presentations by the CONSULTANT. Any changes in the indicated personnel shall be subject to review and approval by CFX and the COUNTY.

B.37.3 Progress Reporting

The Consultant shall meet with CFX's Project Manager on a bi-weekly basis (or more often if necessary) and provide written progress reports which describe the work performed on each task. The dates and times of these meetings will be established by CFX. Two working days prior to each progress meeting, the Consultant shall provide CFX's Project Manager with a draft copy of the Progress Report and a typewritten agenda for the meeting. The Consultant shall prepare typewritten meeting minutes and submit them to CFX's Project Manager within five working days after the meeting. The minutes shall indicate issues discussed and the resolution or action required to resolve any issues.

B.37.4 Correspondence

Copies of all written correspondence between the CONSULTANT and any party pertaining specifically to this contract shall be provided to CFX and the COUNTY for their records within one (1) week of the receipt or mailing of said correspondence.

B.37.5 Professional Endorsement

The CONSULTANT shall have a Licensed Professional Engineer in the State of Florida sign and seal all reports, documents, Technical Special Provisions and Modified Special Provisions, and plans as required by FDOT standards.

B.37.6 Computer Automation

The project will be developed utilizing Computer Aided Drafting and Design (CADD) systems. It is the responsibility of the CONSULTANT to meet the requirements in the FDOT CADD Manual. The CONSULTANT shall submit final documents and files as described therein.

B.37.7 Coordination with Other Consultants

The CONSULTANT is to coordinate his work with any and all adjacent and integral consultants so as to effect complete and homogenous plans and specifications for the project(s) described herein.

B.37.8 Optional Services

At CFX option, the CONSULTANT may be requested to provide optional services. The fee for these services shall be negotiated in accordance with the terms detailed in Exhibit B,

B.37 PROJECT REQUIREMENTS

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Method of Compensation, for a fair, competitive and reasonable cost, considering the scope and complexity of the project(s). Additional services may be authorized by Letter of Authorization or supplemental amendment in accordance with paragraph 2.00 of the Standard Consultant Agreement. The additional services may include Construction Assistance, Review of Shop Drawings, Final Bridge Load Rating, update (Category II) bridge plans electronically (CADD) for the Final "As-Built" conditions, based on documents provided by CFX (CADD Services Only) or other Services as required.

B.37.9 Design Documentation

- The Consultant shall submit any design notes, sketches, worksheets, and computations to document the design conclusions reached during the development of the construction contract documents to CFX for review.
- The design notes and computations shall be recorded on 8-1/2" x 11" computation sheets, appropriately titled, numbered, dated, indexed and signed by the designer and checker. Computer output forms and other oversized sheets shall be folded or legibly reduced to 8-1/2" x 11" size. The data shall be bound in a hard-back folder for submittal to CFX.
- A CD/DVD with electronic (PDF Format) copies of the design notes and computations shall be submitted to CFX with each review submittal. When the plans are submitted for 90% review, the design notes and computations corrected for any CFX comments shall be resubmitted. At the project completion (bid set), one (1) hard copy of the final set of the design notes and computations, sealed by a Professional Engineer, registered in the State of Florida, shall be submitted with the record set of plans and tracings.
- Design notes and calculations shall include, but are not necessarily limited to, the following data:
 - Field survey notes and computations.
 - Design criteria used for the project.
 - Geometric design calculations for horizontal alignment.
 - Vertical geometry calculations.
 - Drainage calculations
 - Structural design calculations.
 - Geotechnical report.
 - Hydraulics Report for each bridged stream crossing.
 - Earthwork calculations not included in the quantity computation booklet.
 - Calculations showing cost comparisons of various alternatives considered, if applicable
 - Computations of quantities.
 - Documentation of decisions reached resulting from meetings, telephone conversations, or site visits.
 - Lighting and voltage drop calculations.
 - Lighting service letter from the power company stating the following: service voltage, type of service (overhead or underground), location of power company service point, and any other power company requirements.

B.37.10 Reviews and Submittals

- Review and coordination of the Consultant's work by CFX and the COUNTY shall continue through the project development process
- Formal submittals for review shall be made to CFX and the COUNTY when the plans have been developed to the following levels of completion:
 - Preliminary Engineering (Memorandum) (1 CD/DVD with all files in pdf format, and two (2) hard copy sets)
 - 30% Roadway Plans (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX project manager and COUNTY project manager and electronic submittal of PDF's to CFX GEC)
 - 30% Bridge and Structural Plans (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX project manager and COUNTY project manager and electronic submittal of PDF's to CFX GEC)
 - 60% Roadway and specifications, Geotechnical Report (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX project manager and COUNTY project manager and electronic submittal of PDF's to CFX GEC)
 - 60% Bridge Plans required only on Category 2 bridges.
 - 90% Bridge and Structural Plans (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX project manager and COUNTY project manager and electronic submittal of PDF's to CFX GEC)
 - 90% Roadway and specifications (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX project manager and COUNTY project manager and electronic submittal of PDF's to CFX GEC)
 - 100% Roadway, Bridge and specifications, Geotechnical Report (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX project manager and COUNTY project manager and electronic submittal of PDF's to CFX GEC)
 - Pre-Bid Plans (1 CD/DVD with PDF's of submittal package, one (1) hard copy of plans to CFX project manager and COUNTY project manager and electronic submittal of PDF's to CFX GEC)
 - Bid Set (1 set signed and sealed plans, 1 set "clean" plans, 1 set signed and sealed reports and one (1) CD/DVD with .PDF of all plans and reports)
- Formal review submittals shall include copies as listed above. 8-1/2" x 11" and 11" x 17" documents do not require reproducible copies.
- Preparation and distribution of roadway and ROW plans to other than CFX or CFX GEC will not be made until approved by CFX.
- The format of review submittal plans shall conform to the FDOT Design Manual, except as amended by CFX and the COUNTY.
- Due to the compact schedule of the design, review, and construction process, any modification to the agreed submittal dates will require a letter from the Consultant to CFX and the COUNTY giving:
 - The reason for the delay.

- The design components impacted.
- Proposed methods to maintain submittal dates.
- The Consultant shall submit all CADD files, including GEOPAK files, use in the preparation of the plans and right of way mapping on compact disk with the final submittal.

B.37.10.1 30% Roadway Plan Submittal

At the completion of this phase, design and plan development should be approximately 30 percent complete except stormwater pond designs. The designs of the stormwater ponds shall be at 90% complete. The following material shall be developed and submitted for review:

1. Key Map Prepared
 - a. Location map shown complete with destinations, ranges and townships.
 - b. Beginning and ending stations shown.
 - c. Any equations on project shown.
 - d. Project numbers and title shown.
 - e. Index shown.
2. Drainage Map Prepared
 - a. Existing culvert sizes and elevations.
 - b. Horizontal alignment shown.
 - c. Drainage areas and flow arrows shown.
 - d. High water information shown.
 - e. Beginning and end stations shown along with any equations on project.
 - f. Interchange supplemental maps prepared.
3. Typical Section Sheets
 - a. Ramp typical sections developed.
 - b. Pavement structure shown.
 - c. Special details developed.
 - d. General notes shown.
4. Plan and Profile Sheets
 - a. Centerline plotted.
 - b. Reference points and bench marks shown.
 - c. Existing topography.
 - d. Base line of surveys, curve data, bearings, etc. shown.
 - e. Beginning and end stations (project and construction).
 - f. Geometric dimensions.
 - g. Proposed and existing limited access right-of-way lines.
 - h. Existing ground line.
 - i. Proposed profile grade.
 - j. Type, size and horizontal location of existing utilities.
 - k. Drainage structures and numbers are shown
 - l. Drainage ponds are shown.
5. Cross Sections
 - a. Existing ground line.

- b. Preliminary templates at critical locations (not to exceed 500 feet).
 - c. Existing utilities shown.
- 6. Interchange Layout and Ramp Profiles
 - a. Geometric dimensions.
 - b. Proposed profile grades.
- 7. Right-of-Way Control Survey
- 8. Signing and Pavement Markings
 - a. Striping layout.
 - b. Sign structure locations.

B.37.10.2 30% Bridge and Structural Plan Submittal

At completion of this phase, design and plan development should be approximately 30 percent complete. The Consultant shall refer to FDOT Structural Design Guidelines for plan contents and submittal requirements. Preliminary geotechnical results and recommendations should also be included with this submittal.

B.37.10.3 60% Roadway Plan Submittal

At completion of this phase, design and plan development should be approximately 60 percent complete except stormwater pond designs. The designs of the stormwater ponds shall be at 100% complete. The following material shall be developed and submitted for review:

1. Key Map
 - a. Project description and number shown.
 - b. Equations, exceptions and bridge stations shown.
 - c. North arrow and scale included.
 - d. Consultant and CFX sign-off included.
 - e. Contract set index complete.
 - f. Index of sheets updated.
2. Drainage Maps
 - a. Flood data shown.
 - b. Cross drains and storm sewer shown.
 - c. Bridges shown with beginning and ending stations.
 - d. Interchange supplemental sheets updated.
3. Typical Section Sheets
 - a. All required typical sections are included.
 - b. Limited access right-of-way lines are shown.
 - c. Design speed and traffic are shown.
 - d. Special details have been completed.
 - e. Station limits of each typical section are shown.
4. Plan and Profile Sheets
 - a. Match lines shown.
 - b. Limited access right-of-way lines shown.
 - c. Stations and offset shown for all fence corners and angles.
 - d. All work shown should be within right-of-way or proposed easement.
 - e. Drainage structures and numbers are shown.

- f. Drainage ponds shown.
- g. Curve data and superelevation included.
- h. Pavement edges, shoulders and dimensions shown.
- i. Project and construction limits shown.
- j. Bridges shown with beginning and ending stations.
- k. General Notes.
- 5. Drainage Structures
 - a. Drainage structures plotted and numbered.
 - b. Station location and offsets identified.
- 6. Cross Sections
 - a. Templates are shown at all stations.
 - b. Limited access right-of-way lines are shown.
 - c. Cross section pattern sheet included.
 - d. Miscellaneous notes included.
 - e. Boring profiles.
- 7. Interchange Layouts, Ramp Profiles and Intersection Details
 - a. Geometric data shown.
 - b. Profiles finalized.
 - c. Coordinate data shown.
 - d. Limited access right-of-way lines shown.
 - e. Curve data shown.
 - f. Bearings and bridges shown.
 - g. Cross roads, frontage roads, and access roads shown.
 - h. Intersection details shown.
- 8. Traffic Control Plans
- 9. Utility Adjustments
- 10. Signing and Pavement Marking Plans
- 11. Intelligent Transportation System (ITS) Plans
- 12. Highway Lighting Plans
- 13. Selective Clearing and Grubbing (if required)

B.37.10.4 60% Bridge and Structure Plan Submittal

At completion of this phase, design and plan development should be approximately 90 percent complete. The Consultant shall refer to FDOT Structural Design Guidelines for plan contents and submittal requirements.

B.37.10.5 90% Roadway Plan Submittal

At completion of this phase, design and plan development should be approximately 90 percent complete. The following material shall be developed and submitted for review:

- 1. Key Map
 - a. Length of Project with exceptions shown.
 - b. Index of sheets updated.
- 2. Drainage Maps
 - a. Drainage divides, areas and flow arrows shown.
 - b. Elevation datum and design high water information shown.

- c. Disclaimer and other appropriate notes added.
- 3. Typical Section Sheets
- 4. Plan and Profile Sheets
 - a. Curve Control Points (P.C., P.I., P.T.) flagged and labeled.
 - b. Limits of side road construction.
 - c. Angle and stationing for intersections.
 - d. Treatment for non-standard superelevation transitions diagramed.
 - e. General notes shown.
 - f. Special ditches profiled.
- 5. Drainage Structures
 - a. Existing structures requiring modifications are shown.
 - b. Existing and proposed utilities are shown.
- 6. Soil Borings
 - a. Soils data and estimated high seasonal groundwater table shown.
- 7. Cross Section Sheets
 - a. Scale and special ditch grades shown.
 - b. Utilities plotted.
 - c. Sub-excavation shown.
 - d. Volumes computed and shown.
- 8. Utility Relocation Plans
 - a. Utility relocation plans prepared
- 9. Traffic Control Plans
- 10. Signing and Pavement Marking Plans
- 11. Signalization Plan
- 12. Intelligent Transportation System (ITS) Plans
- 13. Highway Lighting Plans
- 14. Selective Clearing and Grubbing (if required)

B.37.10.6 100% Roadway, Bridge, Structural and Right-of-Way Plans

At the completion of this phase, the design plans and special provisions shall be 100 percent complete.

B.37.10.6 Pre-Bid Plans

B.37.10.6 Bid Set

B.38 INVOICING LIMITS

Payment for the work accomplished shall be in accordance with Method of Compensation of this contract. Invoices shall be submitted to CFX, in a format prescribed by CFX. The CFX Project Manager and the CONSULTANT shall monitor the cumulative invoiced billings to ensure the reasonableness of the billings compared to the project schedule and the work accomplished and accepted by CFX.

The CONSULTANT shall provide a list of key events and the associated total percentage of work considered to be complete at each event. This list shall be used to control invoicing. Payments will not be made that exceed the percentage of work for any event until those events have actually occurred and the results are acceptable to CFX.

**CONSENT AGENDA ITEM
#14**

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

MEMORANDUM

TO: CFX Board Members

FROM: Aneth Williams
Director of Procurement *Aneth Williams*
Aneth Williams (Jun 2, 2020 19:31 EDT)

DATE: May 29, 2020

SUBJECT: Approval of First Contract Renewal with Ayres Associates, Inc.
For Systemwide Overhead Sign Inspection Services
Contract No. 001432

Board approval is requested for the first renewal of the referenced contract with Ayres Associates, Inc. for a not-to-exceed amount of \$320,000.00 for one year beginning August 7, 2020 and ending August 6, 2021. The original contract was two years with two one-year renewals.

The services to be provided under this renewal include overhead sign inspection services.

Original Contract	\$ 621,000.00
Supplemental Agreement No. 1	\$ 70,000.00
First Renewal	\$ 320,000.00
Total	<u>\$1,011,000.00</u>

This contract is budgeted in the OM&A Budget.

Reviewed by: *Don Budnovich*

Don Budnovich, PE
Director of Maintenance

Glenn Prossimone
Glenn Prossimone (Jun 3, 2020 11:09 EDT)

**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
CONTRACT RENEWAL NO. 1 AGREEMENT
CONTRACT NO. 001432**

THIS CONTRACT RENEWAL AGREEMENT (the "Renewal Agreement"), made and entered into this 11th day of June 2020, by and between Central Florida Expressway Authority, hereinafter called "CFX" and Ayres Associates, Inc., herein after called the "Contractor."

WITNESSETH

WHEREAS, CFX and the Contractor entered into a Contract Agreement (the "Original Agreement") dated June 29, 2018, whereby CFX retained the Contractor to provide overhead sign inspection services for the sign structures within CFX's Expressway System and

WHEREAS, pursuant to Article 2 of the Original Agreement, CFX and Contractor wish to renew the Original Agreement for a period of one (1) year;

NOW, THEREFORE, for and in consideration of the mutual benefits to flow each to the other, CFX and Contractor agree to the first renewal of said Original Agreement beginning the 7th day of August 2020 and ending the 6th day of August 2021 at the cost of \$320,000.00, which increases the total amount of the Original Agreement.

All terms and conditions of said Original Agreement and any supplements and amendments thereto shall remain in full force and effect during the full term of this Renewal Agreement.

IN WITNESS WHEREOF, the parties have executed this Renewal Agreement by their duly authorized officers on the day, month and year set forth above.

AYRES ASSOCIATES, INC.

CENTRAL FLORIDA EXPRESSWAY
AUTHORITY

BY: _____
Authorized Signature

BY: _____
Director of Procurement

Title: _____

ATTEST: _____ (SEAL)
Secretary or Notary

If Individual, furnish two witness:

Witness (1) _____

Witness (2) _____

Legal Approval as to Form

General Counsel for CFX

**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
SUPPLEMENTAL AGREEMENT NO. 1**

**Contract Name: Systemwide Overhead Sign Inspection Services
Contract No. 001432
Supplemental Agreement No. 1**

This Supplemental Agreement entered into this 10th day of October 2019, by and between CENTRAL FLORIDA EXPRESSWAY AUTHORITY herein referred to as "CFX", and AYRES ASSOCIATES, INC., herein referred to as the "Consultant", the same being supplementary to the Contract by and between the aforesaid, dated June 29, 2018, to provide overhead sign inspection services for the sign structures within CFX's Expressway System.

1. CFX has determined it necessary to increase the number of inspections to comply with Florida Department of Transportation requirement to perform a structural inspection of all Traffic Signal Mast Arms (TSMA) every 5 years in a lump sum amount of \$59,743.98, as per the proposal (attached) dated August 14, 2019 from Ayres Associates, Inc. Additionally, a contingency amount of \$10,256.02 will be added to the contract to provide for unanticipated inspections as approve by the Director of Maintenance.
2. The Consultant hereby agrees to the additional inspections and Contract amount, and
3. CFX and Consultant agree that this Supplemental Agreement No. 1 shall not alter or change in any manner the force and effect of the original Contract including any previous amendments thereto, except insofar as the same is altered and amended by this Supplemental Agreement No. 1; that acceptance of this Supplemental Agreement No. 1 signifies the Consultant's complete and total claim for the terms and conditions of the same and that the Consultant waives all future right of claim for additional compensation which is not already defined herein.

This Supplemental Agreement No. 1 is necessary to increase the compensation and the additional inspections of the TSMAs and add a contingency amount to the contract.

SUPPLEMENTAL AGREEMENT NO. 1

Contract Name: Systemwide Overhead Sign Inspection Services

Contract No.: 001432


Amount of Changes to this document: \$70,000.00

This Supplemental Agreement No. 1 entered as of the day and year first written above.

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

By: 
Director of Procurement


AYRES ASSOCIATES, INC.

By: 
Signature

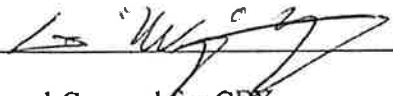
Print Name: Hisham N. Sunna

Title: Manager

Witness:  RICK MASLYN

Witness:  CHRIS MARTIN

Approved as to form and execution, only


General Counsel for CFX

**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
COOPERATIVE PURCHASE AGREEMENT
SYSTEMWIDE OVERHEAD SIGN INSPECTION SERVICES
CONTRACT NO. 001432**

This Contract is made this JUNE day of 29th 2018, between the CENTRAL FLORIDA EXPRESSWAY AUTHORITY, a body politic and agency of the State of Florida, hereinafter "CFX" and AYRES ASSOCIATES, INC., 8875 Hidden River Parkway, Suite 200 Tampa, Florida 33637-1035, hereinafter the "CONSULTANT."

WITNESSETH:

WHEREAS, CFX was created by statute and is charged with acquiring, constructing, operating and maintaining a system of limited access roadways known as the Central Florida Expressway System; and

WHEREAS, CFX has been granted the power under Section 348.754(2)(m) of Florida Statutes, "to do all acts and things necessary or convenient for the conduct of its business and the general welfare of CFX, in order to carry out the powers granted to it (by state law);" and,

WHEREAS, CFX has determined that it is necessary and convenient in the conduct of its business to retain the services of a CONSULTANT to provide overhead sign inspection services for the sign structures within CFX's Expressway System as listed in **Exhibit "1"**; and

WHEREAS, on or about June 22, 2017, the CONSULTANT entered into an agreement with the State of Florida Department of Transportation (hereinafter "FDOT" or "Department") identified as Contract No. C-9V13, hereinafter "FDOT Contract," consisting of the following parts:

Part 1: Standard Professional Services Agreement (2 pages),

Part 2: Standard Professional Services Agreement Terms (numbered as page A-1 through page A-11),

Part 3: Exhibit "A" entitled Scope of Services for District 5 Overhead Sign & High Mast Light Pole Inspections (numbered as page A-1 through page A-37, and

Part 4: Exhibit "B" entitled Method of Compensation (numbered as page B-1 through page B-4).

A true and correct copy of the FDOT Contract is attached as **Exhibit "3;"** and

WHEREAS, the contract between the CONSULTANT and FDOT was procured through a competitive bidding process, which process is substantially similar to what is required by CFX, and included a Request for Technical Proposals for District 5 Overhead Sign & High Mast Light Pole Inspections attached as **Exhibit "4;"** and

WHEREAS, since CFX desires to procure the same services from the CONSULTANT as those described in the competitively-procured FDOT Contract, CFX may piggyback the FDOT Contract provided the CONSULTANT extends substantially the same terms and conditions of the FDOT Contract to CFX; and

WHEREAS, the CONSULTANT agrees to provide the services under the same terms and conditions as included in the FDOT Contract, and such additional terms and conditions as detailed below.

NOW THEREFORE, in consideration of the mutual covenants and benefits set forth herein and other good and valuable consideration, the receipt and sufficiency of which being hereby acknowledged by each party to the other, the parties hereto agree as follows:

1. **RECITALS.** The recitals are true and incorporated as terms.

2. **ADOPTION OF TERMS IN THE FDOT CONTRACT; SERVICES TO BE PROVIDED.** The CONSULTANT shall, for the consideration herein stated and at its cost and expense, do all the work and furnish all equipment, supplies, labor and incidentals necessary to perform this Contract in the manner and to the full extent as required by CFX. The parties adopt all four parts of the FDOT Contract by reference as though set forth fully herein, subject to the following substitutions or revisions.

2.1 The term "State of Florida Department of Transportation" or "DEPARTMENT" in the FDOT Contract shall be replaced with the "Central Florida Expressway Authority" or "CFX."

2.2 The term "Director" or "Department's Project Manager" in the FDOT Contract will mean "CFX's Director of Maintenance."

2.3 The term "District 5" in the FDOT Contract shall be replaced with "CFX's Expressway System."

2.4 In Part 1 of the FDOT Contract, paragraph 1 entitled "Services and Performance" shall be amended by adding the underlined words and deleting the stricken words as follows:

1. SERVICES AND PERFORMANCE

A. CFX ~~The Department~~ does hereby retain the Consultant to furnish certain services as described in **Exhibit "A"**, attached hereto and made a part hereof, as modified herein, in connection with ~~District Five~~ Overhead Sign & High Mast Light Pole Inspections.

B. Unless changed by written agreement, the site for inspection of work referenced in Section 1.1 of the **Standard Professional Services Terms**, will be the entire CFX Expressway System including the portions of State Roads 408, 417, 429, 414, 528, 451, 453 within CFX's Expressway System and the Goldenrod Extension
~~4322 Hopkins Avenue, Titusville, FL 32780.~~

2.5 In Part 1 of the FDOT Contract, paragraph 2 entitled "Term" shall be deleted and replaced with the following:

The term of the Contract will be two (2) years from the date stated in the Notice to Proceed from CFX. There shall be two (2) renewal options of one (1) year each. The options to renew are at the sole discretion and election of CFX. Renewals will be based, in part, on a determination by CFX that the value and level of service provided by the CONSULTANT are satisfactory and adequate for CFX's needs. If a renewal option is exercised, CFX will provide the CONSULTANT with written notice of its intent at least 60 days prior to the expiration of the initial two-year Contract Term and any renewals.

2.6 Part 1 of the FDOT Contract, paragraph 5 entitled "Compensation" shall be amended by adding the underlined words and deleting the stricken words as follows:

5. COMPENSATION

CFX ~~The Department~~ agrees to pay the Consultant compensation as detailed in Exhibit 2 also referred to as CFX Exhibit "B", attached hereto and made a part hereof.

2.7 Part 1 of the FDOT Contract, paragraph 6 entitled "Miscellaneous," subparagraph C shall be amended by adding the underlined words and deleting the stricken words as follows:

C. The following attachments are hereby incorporated into this Agreement as part hereof as though fully set forth herein.

Page A-1 through Page A-37: Exhibit "A", Scope of Services as modified herein.

CFX Page B-1 through Page B-5 ~~Page B-4~~: CFX Exhibit "2" also called CFX Exhibit "B", Method of Compensation

2.8 Part 2 of the FDOT Contract, paragraph 1F relating to the use of computer facilities shall be deleted.

2.9 Part 2 of the FDOT Contract, paragraph 1G relating to value engineering shall be deleted.

2.10 Part 2 of the FDOT Contract, paragraph 3F under the main heading of "Compensation" shall be amended by adding the underlined words and deleting the stricken words as follows:

F. The Consultant should be aware of the following time frames. Upon receipt, CFX ~~the Department~~ has fifteen ~~five (5)~~ working days to inspect and approve the goods and services, unless the Agreement specifies otherwise. The CFX Maintenance Department has 20 days to deliver a request for payment (voucher) to the Finance and Accounting Department ~~of Financial Services~~. The 20 days are

measured from the latter of the date the invoice is received or the goods or services are received, inspected and approved.

2.11 Part 2 of the FDOT Contract, paragraph 3H relating to a vendor ombudsman shall be deleted.

2.12 Part 2 of the FDOT Contract, paragraph 3K shall be amended by adding the underlined words and deleting the stricken words as follows:

CFX ~~The Department~~, during any fiscal year, will not expend money, incur any liability, or enter into any contract which, by its terms, involves the expenditure of money in excess of the amounts budgeted as available for expenditure during such fiscal year. Any contract, verbal or written, made in violation of this subsection is null and void, and no money may be paid on such contract. ~~The Department will require a statement from the comptroller of the Department that funds are available prior to entering into any such contract or other binding commitment of funds.~~ Nothing herein contained will prevent the making of contracts for periods exceeding one year, but any contract so made shall be executory only for the value of the services to be rendered or agreed to be paid for in succeeding fiscal years. Accordingly, CFX's ~~the Department's~~ performance and obligation to pay under this Agreement is contingent upon an annual appropriation by its Governing Board. ~~the Legislature.~~

2.13 Part 2 of the FDOT Contract, paragraph 5E pertaining to public records shall be amended by deleting the FDOT contract information and adding the following:

IF THE CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONSULTANT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT Phone: 407-690-5000, e-mail: publicrecords@cfxway.com, and address: Central Florida Expressway Authority, 4974 ORL Tower Road, Orlando, FL. 32807.

Upon receipt of any request by a member of the public for any documents, papers, letters, or other material subject to the provisions of Chapter 119, Florida Statutes, made or received by CONSULTANT in conjunction with this Contract (including without limitation Contract Records and Proposal Records, if and as applicable), CONSULTANT shall immediately notify the CFX. In the event CONSULTANT has public records in its possession, CONSULTANT shall comply with the Public Records Act and CONSULTANT must provide the records to CFX or allow the records to be inspected or copied within a reasonable time. Failure by CONSULTANT to grant such public access shall be grounds for immediate unilateral termination of this Contract by CFX for cause. Failure to provide the public records to CFX within a reasonable time may subject the CONSULTANT to penalties under Section 119.10, Florida Statutes.

The obligations in this Section shall survive the expiration or termination of this Contract and continue in full force and effect as set forth above.

2.14 Part 2 of the FDOT Contract, paragraph 7B pertaining to Chapter 14-75, Florida Administrative Code shall be deleted.

2.15 Part 2 of the FDOT Contract, paragraph 7C referencing Chapter 946, Florida Statutes pertaining to PRIDE Enterprises shall be deleted.

2.16 Part 2 of the FDOT Contract, paragraph 9 involving terms for Federal Aid Contracts shall be deleted.

2.17 Part 3 of the FDOT Contract entitled "Scope of Services for District 5 Overhead Sign & High Mass Light Poll Inspections" shall be amended by adding the underlined words and deleting the stricken words as follows:

SCOPE OF SERVICES FOR CFX ~~DISTRICT-5~~ OVERHEAD SIGN & HIGH MASS LIGHT POLL INSPECTIONS

2.0 GENERAL DESCRIPTION

2.1 The consultant shall perform hands on overhead sign inspection services, as described in this scope of work, and present inspection findings in the (**BrM-AASHTOWare Bridge Management**) format. The Department will provide software and access to the BrM network. The consultant is responsible on their own expense for procuring training in BrM for its employees. The Sign structures and HMLP's to be inspected are located on CFX State maintained roadways within the limits of CFX's Expressway System. ~~District-5~~. The frequency of inspections shall comply with Florida Statutes and the Manual for Bridge Inspection and Other Structures Inspection and Reporting Procedures. All overhead sign structures will be inspected every two years and with the approval of the Department, more often when conditions dictate. All HMLP's will be inspected every five years and all WSHMLP's will be inspected every two years, with the approval of the Department, more often when conditions dictate.

2.2 The amount of signs and HMLP's under this contract is dynamic; therefore the contract quantities listed below are estimated.

2.2.1 Six hundred eighty (680) ~~Six hundred eighty six (686)~~ Sign Structures and HMLP's will require routine inspections during the initial 2-year term of this Contract. It is estimated that twenty-five (25) ~~two hundred fifty (250)~~ Initial/Post Construction Sign/HMLP inspections will be performed and will require issuance of overhead Sign/HMLP numbers, since prior inspection of these newly constructed or newly inventoried Signs/HMLP's have not been performed. An overhead Sign Structure and HMLP file will be established in the format designated in the Manual for Bridge Inspection and Other Structures Inspection and Reporting Procedures. Sign and Pavement Plans will be sent to the

Consultant. The structure numbers will be assigned to the project and all signs numbers will be displayed on the plans and the plans imported into EDMS for review by the Project Manager at the time of the inspection report submittal. Any Sign Structure or HMLP's that are identified as being removed or relocated in the plans will be updated at this time in the BrM inventory. On Initial/Post construction inspections a punch list will be generated with a listing of all deficiencies and forwarded for closeout of the construction project to the project manager.

2.2.2 Ten (10) ~~Twenty-five (25)~~ interim Sign Structures or HMLP's inspections will be expected for Sign Structure or HMLP's with: low condition and/or appraisal ratings; after substantial repair by the Department; or in the event of accidental damage to the structure. Overhead Sign Structure or HMLP's with an overall Structural Numerical BrM Condition State Rating of 4 or greater will require an interim inspection.

4.2 INSPECTION REPORTS

4.2.1 The consultant must develop, publish, and submit one (1) signed and sealed Sign or HMLP report to the FDOT and CFX. Each report will be generated in BRM ~~and stored in EDMS~~ and contain all documentation specified by this agreement.

4.2.2 Each report must be submitted to the Department for review no later than forty-five (45) calendar days after completion of the field inspection. The Department will submit comments via email within seven (7) calendar days on the reports that do not conform to the specifications of this contract agreement or have errors. The final report will be a signed and sealed hard copy and must be received by the Department within sixty (60) days after completion of the field inspection. The Consultant shall furnish the Department and CFX with an original of each report. A hard copy of the photo inventory, and any other inspection documents will be submitted with the report. After final acceptance all inspection documents and photo inventory will be submitted into BRM EDMS and published, then payment will be rendered.

9.0 LIST OF SIGN STRUCTURES (SEE PAGES ~~19-36~~)

See CFX EXHIBIT "1"

CFX'S STANDARD TERMS AND CONDITIONS

3. **COMPENSATION FOR SERVICES.** Compensation shall be in accordance with the pricing sheet included in the CONSULTANT's contract with the FDOT. The Contract amount shall not exceed **\$621,000.00** during the term of the Contract unless amended by mutual agreement of the parties.

4. **CONSULTANT INSURANCE.** CONSULTANT shall carry and keep in force during the period of this Contract, the required amount of coverage as stated in the FDOT Contract. Compliance with these insurance requirements shall not relieve or limit the CONSULTANT's liabilities and obligations under this Agreement. Failure of CFX to demand such certificate or evidence of full compliance with these insurance requirements or failure of CFX to identify a deficiency from evidence provided will not be construed as a waiver of the CONSULTANT's obligation to maintain such insurance. The acceptance of delivery by CFX of any certificate of insurance evidencing the required coverage and limits does not constitute approval or agreement by CFX that the insurance requirements have been met or the insurance policies shown in the certificates of insurance are in compliance with the requirements.

5. **INDEMNITY.** CONSULTANT shall indemnify and hold harmless CFX, and its officers and employees, from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of CONSULTANT and other persons employed or utilized by CONSULTANT in the performance of the contract.

Further, CONSULTANT shall indemnify, defend and hold harmless CFX, and its respective officers and employees, from actual suits, actions, claims, demands, costs as defined elsewhere herein, expenses (including reasonable attorneys' fees as defined elsewhere herein), judgments, liabilities of any nature whatsoever (collectively, "Claims") arising out of, because of, or due to breach of the Contract by the CONSULTANT, its subcontractors, officers, agents or employees, or due to any negligent or intentional act or occurrence of omission or commission of the CONSULTANT, its subcontractors, officers, agents or employees, including without limitation any misappropriation or violation of third party copyright, trademark, patent, trade secret, publicity, or other intellectual property rights or other third party rights of any kind, by or arising out of any one or more of the following:

5.1 violation of same by CONSULTANT, its subcontractors, officers, agents or employees,

5.2 CFX's use or possession of the CONSULTANT Property or CONSULTANT Intellectual Property (as defined herein below),

5.3 CFX's full exercise of its rights under any license conveyed to it by CONSULTANT,

5.4 CONSULTANT's violation of the confidentiality and security requirements associated with CFX Property and CFX Intellectual Property (as defined herein below),

5.5 CONSULTANT's failure to include terms in its subcontracts as required by this Contract,

5.6 CONSULTANT's failure to ensure compliance with the requirements of the Contract by its employees, agents, officers, or subcontractors, or

5.7 CONSULTANT's breach of any of the warranties or representations contained in this Contract.

CONSULTANT will not be liable for damages arising out of injury or damage to persons or property directly caused or resulting from the sole negligence of CFX or any of its officers, agents or employees. The parties agree that 1% of the total compensation to the CONSULTANT for performance of each task authorized under the Contract is the specific consideration from CFX to CONSULTANT for CONSULTANT's indemnity and the parties further agree that the 1% is included in the amount negotiated for each authorized task. The obligations in this Section shall survive the expiration or termination of this Contract and continue in full force and effect as set forth above.

6. **INTEGRATION.** It is understood and agreed that the entire agreement of the parties is contained in this Contract herein and that this Contract supersedes all oral agreements and negotiations between the parties relating to the subject matter hereof as well as any previous agreements presently in effect between the parties relating to the subject matter hereof. No waiver, amendment, or modification of these terms hereof will be valid unless in writing, signed by all parties and only to the extent therein set forth.

7. **PERMITS, LICENSES, ETC.** Throughout the term of the Contract, the CONSULTANT shall procure and maintain, at its sole expense, all permits and licenses that may be required in connection with the performance of Services by CONSULTANT; shall pay all charges, fees, royalties, and taxes; and shall give all notices necessary and incidental to the due and lawful prosecution of the Services. Copies of required permits and licenses shall be furnished to CFX upon request.

8. **CONFLICT OF INTEREST AND STANDARDS OF CONDUCT**

CONSULTANT acknowledges that CFX officials and employees are prohibited from soliciting and accepting funds or gifts from any person who has, maintains, or seeks business relations with CFX in accordance with CFX's Code of Ethics. CONSULTANT acknowledges that it has read the CFX's Code of Ethics and, to the extent applicable, CONSULTANT will comply with the aforesaid CFX's Code of Ethics in connection with performance of the Contract.

As required by Section 348.753, Florida Statutes, and CFX's Code of Ethics, CONSULTANT agrees to complete CFX's Potential Conflict Disclosure Form prior to the execution of the Contract, upon the occurrence of an event that requires disclosure, and annually, not later than July 1st. The Potential Conflict Disclosure Form is attached as **Exhibit "5"**.

In the performance of the Contract, CONSULTANT shall comply with all applicable local, state, and federal laws and regulations and obtain all permits necessary to provide the Contract services.

CONSULTANT covenants and agrees that it and its employees, officers, agents, and subcontractors shall be bound by the standards of conduct provided in Section 112.313, Florida Statutes, as it relates to work performed under this Contract, which standards will be reference be made a part of this Contract as though set forth in full.

CONSULTANT hereby certifies that no officer, agent or employee of CFX has any "material interest" (as defined in Section 112.312(15), Florida Statutes) either directly or indirectly, in the business of CONSULTANT, and that no such person shall have any such interest at any time during the term of this Agreement.

9. SUBLETTING AND ASSIGNMENT. CONSULTANT shall not sublet, sell, transfer, assign, delegate, subcontract, or otherwise dispose of this Contract or any portion thereof, or of the CONSULTANT's right, title, or interest therein without the written consent of CFX, which shall not be unreasonably withheld, denied or conditioned. Any attempt by CONSULTANT to dispose of this Contract as described above, in part or in whole, without CFX'S written consent shall be null and void and shall, at CFX's option, constitute a default under the Contract.

10. GOVERNING LAW; VENUE. This Contract shall be governed by and construed in accordance with the laws of Florida. Venue of any legal or administrative proceedings arising out of this Contract shall be exclusively in Orange County, Florida. The obligations in this Section shall survive the expiration or termination of this Contract and continue in full force and effect as set forth above.

11. RELATIONSHIPS. CONSULTANT acknowledges that no employment relationship exists between CFX and CONSULTANT or CONSULTANT's employees. CONSULTANT shall be responsible for all direction and control of its employees and payment of all wages and salaries and other amounts due its employees. CONSULTANT shall be responsible for all reports and obligations respecting such employees, including without limitation social security tax and income tax withholding, unemployment compensation, workers compensation, and employment benefits. Any approval by CFX of a subcontract or other matter herein requiring CFX approval for its occurrence shall not be deemed a warranty or endorsement of any kind by CFX of such subcontract, subcontractor, or matter.

12. SURVIVAL OF EXPIRATION OR TERMINATION. Any clause, sentence, paragraph, or section providing for, discussing, or relating to any of the following shall survive the expiration or earlier termination of the Contract:

12.1 Payment to CONSULTANT for satisfactory work performed or for termination expenses, if applicable; and

12.2 Any other term or terms of this Contract which by their nature or context necessarily survive the expiration or earlier termination of the Contract for their fulfillment.

13. OBLIGATIONS UPON EXPIRATION OR TERMINATION OF CONTRACT. CONSULTANT shall initiate settlement of all outstanding liabilities and claims arising out of the Contract and any subcontracts or vending agreements to be canceled. All settlements shall be subject to the approval of CFX.

14. **STANDARD OF CARE.** The standard of care applicable to CONSULTANT's services is the degree of skill and diligence normally employed by engineers or providers of technical services performing the same or similar services.

15. **WAIVER OF CONSEQUENTIAL DAMAGES.** Under no circumstances shall either CFX or CONSULTANT be liable to the other for any consequential damages, including but not limited to loss of use or rental, loss of profit or cost of any financing, however caused, including either party's fault or negligence

16. **FORCE MAJEURE.** In no event shall either CFX or CONSULTANT have any claim or right against the other for any failure of performance where such failure of performance is caused by or is the result of causes beyond the reasonable control of the party due to any occurrence commonly known as a "force majeure," including, but not limited to: acts of God; fire, flood, or other natural catastrophe; acts of any governmental body; labor dispute or shortage; national emergency; insurrection; riot; or war.

17. **INSPECTOR GENERAL.** CONSULTANT understands and shall comply with subsection 20.055(5), Florida Statutes, and to cooperate with the Inspector General in any investigation, audit, inspection, review, or hearing pursuant to this section. The undersigned further agrees that any subconsultants and subcontractors to the undersigned participating in the performance of this Contract shall also be bound contractually to this and all applicable Florida statutory requirements.

IN WITNESS WHEREOF, the authorized signatures named below have executed this Contract on behalf of the parties on the date first written above. This Contract was approved by CFX's Board of Directors at its meeting on June 29, 2018.

AYRES ASSOCIATES, INC.


2018 JUL 17 PM12:25

By:  _____

Print Name: JAGANT SAXENA

VICE PRESIDENT

Title

Attest:  (Seal)

Date: 7/16/2018

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

By: 
Director of Procurement

Approved as to form and execution, only.


General Counsel for CFX

EXHIBITS:

Exhibit "1": CFX's List of Sign Structures

Exhibit "2" (also referred to as CFX Exhibit "B"): Method of Compensation

Exhibit "3": FDOT Contract No. C-9V13

Exhibit "4": Request for Technical Proposals for District 5 Overhead Sign & High Mast Light Pole Inspections

Exhibit "5": CFX's Potential Conflict Disclosure Form

EXHIBIT 3: FDOT CONTRACT NO. C-9V13

STANDARD PROFESSIONAL SERVICES AGREEMENT

Contract No.: C-9V13

FDOT Financial ID No.(s) 412456-1-72-08

Appropriation Bill Number(s)/Line Item Number(s) for 1st year of contract, pursuant to s. 216.313, F.S. N/A
(required for contracts in excess of \$5 million)

F.A.P. No. TBD

THIS AGREEMENT, made and entered into this 22nd day of June 2017, by and between the STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION, an agency of the State of Florida, hereinafter called the Department and Ayres Associates Inc (FEID No. 39-0965082) of 4322 S. Hopkins Avenue, Titusville, FL 32780

authorized to conduct business in the State of Florida, hereinafter called the Consultant, agree as follows:

The Consultant and the Department mutually agree to abide by the Department's **Standard Professional Services Agreement, Terms**, dated September, 2016 which are available as an appendix to this form in the Department's Professional Services web site or from the Department's Office of Procurement. The **Standard Professional Services Agreement Terms**, with the exception of the following non-applicable sections:

N/A

are incorporated by reference and made a part of this Agreement.

1. SERVICES AND PERFORMANCE

- A. The Department does hereby retain the Consultant to furnish certain services as described in Exhibit "A", attached hereto and made a part hereof, in connection with District Five Overhead Sign & High Mast Light Pole Inspections
- B. Unless changed by written agreement, the site for inspection of work referenced in Section 1.1 of the **Standard Professional Services Terms**, will be 4322 S. Hopkins Avenue, Titusville, FL 32780.

2. TERM

- A. Unless otherwise provided herein or by Supplemental Agreement or Amendment, the provisions of this Agreement will remain in full force and effect through completion of all services required of the Consultant or a 10 year term from the date of execution of this Agreement, whichever occurs first.
- B. Check applicable terms
 - The scheduled project services to be rendered by the Consultant will commence, subsequent to execution of this Agreement, on the date specified in the written notice to proceed from the Department's Director or Designee which notice to proceed will become part of this Agreement. The Consultant will complete scheduled project services within 48 months of the commencement date specified in the notice to proceed or as modified by subsequent Amendment or Supplemental Agreement.
 - The project services to be rendered by the Consultant for each task assignment will commence, upon written notice from the Department's _____ and will be completed within the time period specified in each task assignment. All services performed under this contract will be completed within _____ months from the date of this Agreement. The total fee for all accumulated task assignments may not exceed \$ _____
 - The scheduled project services to be rendered by the Consultant will commence, subsequent to execution of this Agreement, on the date specified in the written notice to proceed from the Department's _____ which notice to proceed will become part of this Agreement. The Consultant will complete scheduled project services within _____ calendar days following completion of the construction contract(s) with which consultant services are associated. The anticipated length of the consultant services is _____ months.

STANDARD PROFESSIONAL SERVICES AGREEMENT

3. INSURANCE

The amount of liability insurance to be maintained by the Consultant in accordance with Section 4.B of the **Standard Professional Services Agreement Terms** is \$250,000.00.

4. SUBCONTRACTS

The following subconsultants are authorized under this Agreement in accordance with Section 7.A. of the **Standard Professional Services Agreement Terms**:

Kisinger Campo & Associates, Corp.; FIT Engineering LLC; Patel, Greene, and Associates, P.L.L.C.

5. COMPENSATION

The Department agrees to pay the Consultant compensation as detailed in Exhibit "B", attached hereto and made a part hereof.

6. MISCELLANEOUS

- A. Reference in this Agreement to Director will mean the Director of Transportation Operations.
- B. The services provided herein do do not involve the expenditure of federal funds. In the event federal funds are involved, Section 9 of the **Standard Professional Services Agreement Terms** is incorporated by reference.
- C. The following attachments are hereby incorporated into this Agreement as part hereof as though fully set forth herein.

Page A-1 through Page A-37 : Exhibit "A", Scope of Services

Page B-1 through Page B-4 : Exhibit "B", Method of Compensation

IN WITNESS WHEREOF, the parties have executed this Agreement by their duly authorized officers on the day, month and year set forth above.

AYRES ASSOCIATES INC

Name of Consultant

BY: Jayant Saxena

Authorized Signature

Jayant Saxena
(Print/Type)

Title: Vice-President

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

BY: Alan E. Hyman

Alan E. Hyman, P.E.
(Print/Type)

Title: Director of Transportation Operations

FOR DEPARTMENT USE ONLY

APPROVED:

Michelle Sloan

Professional Services Unit

LEGAL REVIEW

Ryan Madler

General Counsel Office

DS
MM

STANDARD PROFESSIONAL SERVICES AGREEMENT TERMS September, 2016

1. SERVICES AND PERFORMANCE

- A. Before making any additions or deletions to the work described in the Agreement, and before undertaking any changes or revisions to such work, the parties will negotiate any necessary cost changes and will enter into a Supplemental Agreement covering such work and compensation. Reference herein to the Agreement will be considered to include any Supplemental Agreement.
- B. In the performance of professional services, the Consultant will use that degree of care and skill ordinarily exercised by other similar professionals in the field under similar conditions in similar localities. The Consultant will use due care in performing its services and will have due regard for acceptable engineering standards and principles. Consultant's standard of care shall not be altered by the application, interpretation, or construction of any other provision of this Agreement.
- C. The Consultant agrees to provide project schedule progress reports in a format acceptable to the Department and at intervals established by the Department. The Department will be entitled at all times to be advised, at its request, as to the status of work being done by the Consultant and of the details thereof. Coordination will be maintained by the Consultant with representatives of the Department, or of other agencies interested in the project on behalf of the Department. Either party to the Agreement may request and be granted a conference.
- D. All services will be performed by the Consultant to the satisfaction of the Director who will decide all questions, difficulties and disputes of any nature whatsoever that may arise under or by reason of the Agreement, the prosecution and fulfillment of the services hereunder and the character, quality, amount and value thereof; and the decision upon all claims, questions and disputes will be final and binding upon the parties hereto. Adjustments of compensation and contract time because of any major changes in the work that may become necessary or desirable as the work progresses will be subject to mutual agreement of the parties, and Supplemental Agreement(s) of such a nature as required will be entered into by the parties in accordance herewith.

In the event that the Consultant and the Department are not able to reach an agreement as to the amount of compensation to be paid to the Consultant for supplemental work desired by the Department, the Consultant will be obligated to proceed with the supplemental work in a timely manner for the amount determined by the Department to be reasonable. In such event, the Consultant will have the right to file a claim with the Department for such additional amounts as the consultant deems reasonable; however, in no event will the filing of the claim or the resolution or litigation thereof through administrative procedures or the courts relieve the Consultant from the obligation to timely perform the supplemental work.

- E. In the event the work covered by this Agreement includes the preparation of construction plans, it is understood that the work may be divided into two or more construction projects by the Director and that, if this is done, the Consultant will supply construction plans for each project.
- F. The Consultant is authorized to use the Department's computer facilities utilizing Department programs required for the performance of the services herein. The Consultant will identify the programs required and submit a written request to the Department's Project Manager for approval.
- G. All design work performed by the Consultant for projects where anticipated construction cost is one million dollars (\$1,000,000) or more will be subject to Value Engineering. The Department further reserves the right to subject projects of lesser construction cost to Value Engineering should the Department deem circumstances are present that warrant such a decision. Value Engineering may be performed at any stage of the design process. Unless specifically identified in the Agreement, the Consultant will not be required to perform the Value Engineering analysis.
- H. The Consultant will not be liable for use by the Department of plans, documents, studies or other data for any purpose other than intended by the terms of this Consultant Agreement.
- I. All tracings, plans, specifications, maps, computer files and/or reports prepared or obtained under this Agreement, as well as all data collected, together with summaries and charts derived therefrom, will be

considered works made for hire and will become the property of the Department upon completion or termination without restriction or limitation on their use and will be made available, upon request, to the Department at any time during the performance of such services and/or upon completion or termination of this Agreement. Upon delivery to the Department of said document(s), the Department will become the custodian thereof in accordance with Chapter 119, Florida Statutes. The Consultant will not copyright any material and products or patent any invention developed under this agreement. The Department will have the right to visit the site for inspection of the work and the products of the Consultant at any time.

2. TERM:

- A. Services required after completion of scheduled project services, including, but not limited to, design assistance, construction assistance, and litigation assistance, will be completed within the term of this Agreement at written direction of the department. Supplemental Agreements may be negotiated for any post project schedule services needed by the Department after scheduled project services.

In the event it becomes impracticable or impossible for the Consultant to complete the expected services within the term of this Agreement due to delays on the part of the department or circumstances beyond the control of the Consultant, the Agreement may be extended. An extension of the Agreement must be in writing.

- B. In the event there are delays caused by the Department in approval of any of the materials submitted by the Consultant or if there are delays occasioned by circumstances beyond the control and without fault or negligence of the Consultant which delay the scheduled project completion date, the Department may grant an extension of time equal to the aforementioned project schedule delay, as a minimum and not to exceed the Agreement term, by issuance of a Time Extension Letter. This letter will be for time only and does not include any additional compensation.

It will be the responsibility of the Consultant to ensure at all times that sufficient time remains in the Project Schedule within which to complete the services on the project. In the event there have been delays which would affect the project completion date, the Consultant will submit a written request to the Department which identifies the reason(s) for the delay, the amount of time related to each reason and specific indication as to whether or not the delays were concurrent with one another. The Department will review the request and make a determination as to granting all or part of the requested extension.

In the event time for performance of the scheduled project services expires and the Consultant has not requested, or if the Department has denied, an extension of the Project Schedule completion date; partial progress payments will be stopped on the date time expires. No payment shall be made for work performed after the Project Schedule completion date until a time extension is granted or all work has been completed and accepted by the Department if the Agreement term has not expired.

3. COMPENSATION:

- A. Bills for fees or other compensation for services or expenses will be submitted to the Department in detail sufficient for a proper preaudit and postaudit thereof. The Department will render approval or disapproval of services within five working days of the receipt of a written progress report unless otherwise stated in the Agreement. The progress report will be accompanied by an appropriate invoice.
- B. The bills for any travel expenses, when authorized by terms of this Agreement and by the Department's Project Manager, will be submitted in accordance with Section 112.061, Florida Statutes. In addition, if compensation for travel is authorized under this Agreement and by the Department's Project Manager, then the Department shall not compensate the Consultant for lodging/hotel expenses in excess of \$150.00 per day (excluding taxes and fees). The Consultant may expend their own funds to the extent the lodging/hotel expense exceeds \$150.00 per day. The Department, in its sole discretion and pursuant to its internal policies and procedures, may approve compensation to the Consultant for lodging/hotel expenses in excess of \$150.00 per day.
- C. Records of costs incurred under terms of this Agreement will be maintained and made available upon request to the Department at all times during the period of this Agreement and for three years after final payment for the work pursuant to this Agreement is made. Copies of these documents and records will be furnished to the Department upon request.

- D. Records of costs incurred will include the Consultant's general accounting records and the project records, together with supporting documents and records, of the Consultant and all subconsultants performing work on the project, and all other records of the Consultant and subconsultants considered necessary by the Department for a proper audit of project costs.
- E. The general cost principles and procedures for the negotiation and administration, and the determination or allowance of costs under this Agreement will be as set forth in the Code of Federal Regulations, Titles 23, 48, 49, Rule Chapter 14-75, Florida Administrative Code, and other pertinent Federal and State Regulations, as applicable, with the understanding that there is no conflict between State regulations and Federal regulations in that the more restrictive of the applicable regulations will govern.
- F. The Consultant should be aware of the following time frames. Upon receipt, the Department has five (5) working days to inspect and approve the goods and services, unless the Agreement specifies otherwise. The Department has 20 days to deliver a request for payment (voucher) to the Department of Financial Services. The 20 days are measured from the latter of the date the invoice is received or the goods or services are received, inspected and approved.
- G. If a payment is not available within 40 days, a separate interest penalty at a rate established pursuant to Section 215.422, Florida Statutes, will be due and payable, in addition to the invoice amount, to the Consultant. Interest penalties of less than one dollar will not be paid unless the Consultant requests payment. Invoices which have to be returned to a Consultant because of Consultant preparation errors will result in a delay in the payment. The invoice payment requirements do not start until a properly completed invoice is provided to the Department.
- H. A Vendor Ombudsman has been established within the Department of Financial Services. The duties of this individual include acting as an advocate for vendors who may be experiencing problems in obtaining timely payment(s) from a state agency. The Vendor Ombudsman may be contacted at (850) 413-5516.
- I. Except for issues arising from contract indemnification provisions, the Department will have the right to retain out of any payment due the Consultant under this Agreement an amount sufficient to satisfy any amount due and owing to the Department by the Consultant on any other Agreement between the Consultant and the Department. The Department may withhold payment on any invoice in the event that the Consultant is in default under any provision of this Agreement or any other Agreement between the Consultant and the Department as of the time of processing the invoice or as of the time payment is made available on the invoice. This right to withhold will continue until such time as the default has been cured, and, upon cure, the Department will have the right to retain an amount equal to the damages suffered as a result of the default.
- J. It is mutually agreed and understood that the following provision will be applicable to this Agreement if the compensation to be paid to the Consultant, whether by lump sum or cost-plus-a-fixed-fee, will exceed the threshold amount provided in Section 287.017, Florida Statutes, for CATEGORY FOUR.

The Consultant hereby certifies, covenants and warrants that wage rates and other factual unit costs provided the Department to support the compensation are accurate, complete and current as of the date of this Agreement. It is further agreed that the Agreement price will be adjusted to exclude any significant sums by which the Department determines the Agreement price was increased due to inaccurate, incomplete or non-current wage rates and other factual unit costs. All such Agreement adjustments must be made within one year following the end of the Agreement. For this purpose, the end of the Agreement is the date of final billing or acceptance of the work by the Department, whichever is later.

- K. The Department, during any fiscal year, will not expend money, incur any liability, or enter into any contract which, by its terms, involves the expenditure of money in excess of the amounts budgeted as available for expenditure during such fiscal year. Any contract, verbal or written, made in violation of this subsection is null and void, and no money may be paid on such contract. The Department will require a statement from the comptroller of the Department that funds are available prior to entering into any such contract or other binding commitment of funds. Nothing herein contained will prevent the making of contracts for periods exceeding one year, but any contract so made shall be executory only for the value of the services to be rendered or agreed to be paid for in succeeding fiscal years. Accordingly, the Department's performance and obligation to pay under this Agreement is contingent upon an annual appropriation by the Legislature.

4. INDEMNITY AND INSURANCE:

- A. If the Consultant is an individual or entity licensed by the state of Florida who holds a current certificate of registration under Chapter 481, Florida Statutes, to practice architecture or landscape architecture, under Chapter 472, Florida Statutes, to practice land surveying and mapping, or under Chapter 471, Florida Statutes, to practice engineering, and who enters into a written agreement with the Department relating to the planning, design, construction, administration, study, evaluation, consulting, or other professional and technical support services furnished in connection with any actual or proposed construction improvement, alteration, repair, maintenance, operation, management, relocation, demolition, excavation, or other facility, land, air, water, or utility development or improvement, the Consultant will indemnify and hold harmless the Department, and its officers and employees, from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the Consultant and other persons employed or utilized by the Consultant in the performance of the contract.

The parties agree that 1% of the total compensation to the Consultant for performance of this Agreement is the specific consideration from the Department to the Consultant for the Consultant's indemnity agreement.

- B. The Consultant will have and maintain during the term of this Agreement, a professional liability insurance policy or policies, or an irrevocable letter of credit established pursuant to Chapter 675 and Section 337.106, Florida Statutes, with a company or companies authorized to do business in the State of Florida, affording professional liability coverage for the professional services to be rendered in accordance with this Agreement in the amount specified in the Agreement.
- C. Under the terms of this agreement, the plans, reports and recommendations of the Consultant will be reviewed by the Department for conformity with Department standards and agreement terms. However, review by the Department does not constitute detailed review or checking of design components and related details, or the accuracy with which designs are depicted on the plans.
- D. Acceptance of the work by the Department or Agreement termination does not constitute Department approval and will not relieve the Consultant of the responsibility for subsequent corrections of any errors and/or omissions and the clarification of any ambiguities. The Consultant shall make all necessary revisions or corrections resulting from errors and/or omissions on the part of the Consultant without additional compensation. If these errors and/or omissions are discovered during the construction of the project, they shall be corrected without additional compensation.

5. COMPLIANCE WITH LAWS:

- A. All final plans, documents, reports, studies and other data prepared by the Consultant shall bear the professional's seal/ signature, in accordance with the applicable Florida Statute that governs and Administrative Rules promulgated by the Department of Business and Professional Regulation, and guidelines published by the Department, in effect at the time of execution of this Agreement. In the event that changes in the Statute or Rules create a conflict with the requirements of the published guidelines, requirements of the Statute and/or Rules shall take precedence.
- B. Chapter 337.162 Florida Statutes applies as follows:
- (1) If the Department has knowledge or reason to believe that any person has violated the provisions of state professional licensing laws or rules, it will submit a complaint about the violations to the Department of Business and Professional Regulation. The complaint will be confidential.
 - (2) Any person who is employed by the Department and who is licensed by the Department of Business and Professional Regulation and who, through the course of his employment, has knowledge to believe that any person has violated the provisions of state professional licensing laws or rules will submit a complaint about the violations to the Department of Business and Professional Regulation. Failure to submit a complaint about the violations may be grounds for disciplinary action pursuant to Chapter 455 and the state licensing law applicable to that licensee. The complaint will be confidential.
 - (3) Any confidential information submitted to the Department of Business and Professional Regulation will remain confidential pursuant to Chapter 455 and applicable state law.

- C. The Consultant will comply with all federal, state and local laws and ordinances applicable to the work or payment for work thereof, and will not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the performance of work under this Agreement.
- D. The Consultant warrants that the Consultant has not employed or retained any company or person, other than a bona fide employee working solely for the Consultant, to solicit or secure this Agreement, and that he has not paid or agreed to pay any person, company, corporation, individual, or firm any fee, commission, percentage, gift or any other consideration, contingent upon or resulting from the award or making of this Agreement. It is understood and agreed that the term "fee" shall also include brokerage fee, however denoted. For the breach or violation of this Paragraph, the Department shall have the right to terminate this Agreement without liability, and, at its discretion, to deduct from the contract price, or otherwise recover, the full amount of such fee, commission, percentage, gift or consideration.
- E. The Consultant shall comply with Chapter 119, Florida Statutes. Specifically, the Consultant shall:
 - (1) Keep and maintain public records required by the Department to perform the service.
 - (2) Upon request from the Department's custodian of public records, provide the Department with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.
 - (3) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Agreement term and following completion of the Agreement if the Consultant does not transfer the records to the Department.
 - (4) Upon completion of the Agreement, transfer, at no cost, to the Department, all public records in possession of the Consultant or keep and maintain public records required by the Department to perform the service. If the Consultant transfers all public records to the Department upon completion of the Agreement, the Consultant shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Consultant keeps and maintains public records upon completion of the Agreement, the Consultant shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the Department, upon request from the Department's custodian of public records, in a format that is compatible with the information technology systems of the Department.

Failure by the Consultant to comply with Chapter 119, Florida Statutes, shall be grounds for immediate unilateral cancellation of this Agreement by the Department.

IF THE CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONSULTANT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:

District 5

386-943-5000

D5prcustodian@dot.state.fl.us

Florida Department of Transportation

District 5 - Office of General Counsel

719 South Woodland Boulevard

Deland, FL 32720

- F. The Consultant agrees that it will make no statements, press releases or publicity releases concerning this Agreement or its subject matter or otherwise disclose or permit to be disclosed any of the data or other information obtained or furnished in compliance with this Agreement, or any particulars thereof, during the period of the Agreement, without first notifying the Department and securing its consent in writing. The Consultant also agrees that it will not publish, copyright or patent any of the data developed under this Agreement, it being understood that such data or information is the property of the Department.
- G. Consultant covenants and agrees that it and its employees will be bound by the standards of conduct provided in applicable Florida Statutes and applicable rules of the Department of Business and Professional Regulation as they relate to work performed under this Agreement. Consultant further covenants and agrees that when a former state employee is employed by the Consultant, the Consultant will require that strict adherence by the former state employee to Florida Statutes 112.313(9) and 112.3185 is a condition of employment of said former state employee. These statutes will by reference be made a part of this Agreement as though set forth in full. Consultant agrees to incorporate the provisions of this paragraph in any subcontract into which it might enter with reference to the work performed pursuant to this Agreement.
- H. A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.
- I. The Department will consider the employment by any contractor of unauthorized aliens a violation of Section 274A(e) of the Immigration and Nationality Act. Such violation will be cause for unilateral cancellation of this Agreement, by the Department, if the Consultant knowingly employs unauthorized aliens.
- J. **DISCRIMINATION:** An entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid on a contract to provide goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not award or perform work as a contractor, supplier, subcontractor, or consultant under contract with any public entity, and may not transact business with any public entity.
- K. The Consultant agrees to comply with the Title VI Nondiscrimination Contract Provisions, Appendices A and E, available at <http://www.dot.state.fl.us/procurement/index.shtm>, incorporated herein by reference and made a part of this Agreement.
- L. The contractor/consultant/vendor agrees to comply with section 20.055(5), Florida Statutes, and to incorporate in all subcontracts the obligation to comply with section 20.055(5), Florida Statutes.

6. TERMINATION AND DEFAULT

- A. The Department may terminate this Agreement in whole or in part at any time the interest of the Department requires such termination, as follows:
- (1) If the Department determines that the performance of the Consultant is not satisfactory, the Department may notify the Consultant of the deficiency with the requirement that the deficiency be corrected within a specified time; but not less than 10 days. Otherwise the Agreement will be terminated at the end of such time or thirty (30) days whichever is sooner.
 - (2) If the Department requires termination of the Agreement for reasons other than unsatisfactory performance of the Consultant, the Department will notify the Consultant of such termination, with instructions as to the effective date of work stoppage or specify the stage of work at which the Agreement is to be terminated.

- (3) If the Agreement is terminated before performance is completed, the Consultant will be paid for the work satisfactorily performed. Payment is to be on the basis of substantiated costs, not to exceed an amount which is the same percentage of the contract price as the amount of work satisfactorily completed is a percentage of the total work called for by the Agreement.
- B. The Department reserves the right to cancel and terminate this Agreement in the event the Consultant or any employee or agent of the Consultant is convicted for any crime arising out of or in conjunction with any work being performed by the consultant for or on behalf of the Department, without penalty. It is understood and agreed that in the event of such termination, all tracings, plans specifications, computer files, maps, and data prepared or obtained under this Agreement will immediately be turned over to the Department . The Department reserves the right to terminate or cancel this Agreement in the event the Consultant will be placed in either voluntary or involuntary bankruptcy or an assignment be made for the benefit of creditors. The Department further reserves the right to suspend the qualifications of the Consultant to do business with the Department upon any such conviction.
- C. For Contracts \$1,000,000 and greater, if the Department determines the Consultant submitted a false certification under Section 287.135(5) of the Florida Statutes, or if the Consultant has been placed on the Scrutinized Companies with Activities in the Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or the Scrutinized Companies that Boycott Israel List, the Department shall either terminate the Contract after it has given the Consultant notice and an opportunity to demonstrate the Department's determination of false certification was in error pursuant to Section 287.135(5)(a) of the Florida Statutes, or maintain the Contract if the conditions of Section 287.135(4) of the Florida Statutes are met. This requirement is not applicable to federally funded contracts.

7. ASSIGNMENT AND SUBCONTRACTORS

- A. The Consultant will maintain an adequate and competent professional staff so as to enable Consultant to timely perform under this Agreement and must be authorized to do business within the State of Florida and may associate with it such subconsultants, for the purpose of its services hereunder, without additional cost to the Department, other than those costs negotiated within the limits and terms of this Agreement. The Consultant is fully responsible for satisfactory completion of all subcontracted work. The Consultant, however, will not sublet, assign or transfer any work under this Agreement to other than subconsultants specified in the Agreement without the written consent of the Department.
- B. The Consultant must state in all subcontracts that services performed by any such subconsultant will be subject to the Professional Consultant Work Performance Evaluation System as defined in Chapter 14-75, Florida Administrative Code.
- C. The following provision is hereby incorporated in and made a part of this Agreement when the services provided herein do not involve the expenditure of Federal funds:

It is expressly understood and agreed that any articles which are the subject of, or required to carry out this contract will be purchased from the Corporation identified under Chapter 946, Florida Statutes, in the same manner and under the same procedures set forth in Section 946.515(2) and (4), Florida Statutes; and for purposes of this contract the person, firm, or other business entity carrying out the provisions of this contract will be deemed to be substituted for this agency insofar as dealings with such Corporation.

The Corporation referred to in the above paragraph is Prison Rehabilitative Industries and Diversified Enterprises, Inc. Available pricing, products, and delivery schedules may be obtained by contacting:

PRIDE Enterprises
12425 28th Street North Suite 300
St Petersburg, Florida 33716

8. MISCELLANEOUS

- A. All words used herein in the singular form will extend to and include the plural. All words used in the plural form will extend to and include the singular. All words used in any gender will extend to and include all genders.

- B. In the event that a court of valid jurisdiction finally determines that any provision of this Agreement is illegal or unenforceable, this Agreement will be construed as not containing such provision, and all other provisions which are otherwise lawful will remain in full force and effect, and to this end the provisions of this Agreement are declared to be severable.
- C. There are no understandings or agreements except as herein expressly stated.
- D. This Agreement will be governed by and construed in accordance with the laws of the State of Florida.
- E. In any legal action related to this Agreement, instituted by either party, Consultant hereby waives any and all privileges and rights it may have under chapter 47 and Section 337.19, Florida Statutes, relating to venue, as it now exists or may hereafter be amended, and any and all such privileges and rights it may have under any other statute, rule or case law, including, but not limited to those grounded on convenience. Any such legal action may be brought in the appropriate Court in any county chosen by the Department and in the event that any such legal action is filed by Consultant, Consultant hereby consents to the transfer of venue to the county chosen by the Department upon the Department filing a motion requesting the same.
- F. Consultant:
 - 1. shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the Consultant during the term of the contract; and
 - 2. shall expressly require any subcontractors performing work or providing services pursuant to the state contract to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the contract term.
- G. The Department may grant the Consultant's employees or subconsultants access to the Department's secure networks as part of the project. In the event such employees' or subconsultants' participation in the project is terminated or will be terminated, the Consultant shall notify the Department's project manager no later than the employees' or subconsultants' separation date from participation in the project or immediately upon the Consultant acquiring knowledge of such termination of employees' or subconsultants' participation in the project, whichever occurs later.

9. TERMS FOR FEDERAL AID CONTRACTS (APPENDIX I):

The following terms apply to all contracts in which it is indicated in Section 6.B of the Standard Professional Services Agreement that the services involve the expenditure of federal funds: During the performance of this contract, the Consultant, for itself, its assignees and successors in interest agrees as follows:

- A. It is understood and agreed that all rights of the Department relating to inspection, review, approval, patents, copyrights, and audit of the work, tracing, plans, specifications, maps, data, and cost records relating to this Agreement shall also be reserved and held by authorized representatives of the United States of America.
- B. It is understood and agreed that, in order to permit federal participation, no supplemental agreement of any nature may be entered into by the parties hereto with regard to the work to be performed hereunder without the approval of the U.S. Department of Transportation, anything to the contrary in this Agreement notwithstanding.
- C. **Compliance with Regulations:** The Consultant shall comply with the Regulations relative to nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation (hereinafter, "USDOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this Agreement.
- D. **Nondiscrimination:** The Consultant, with regard to the work performed during the contract, shall not discriminate on the basis of race, color, national origin, sex, age, disability, religion or family status in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Consultant shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

- E. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations made by the Consultant, either by competitive bidding or negotiation for work to be performed under a subcontract, including procurements of materials and leases of equipment, each potential subcontractor or supplier shall be notified by the Consultant of the Consultant's obligations under this contract and the Regulations relative to nondiscrimination on the basis of race, color, national origin, sex, age, disability, religion or family status.
- F. **Information and Reports:** The Consultant will provide all information and reports required by the Regulations, or directives issued pursuant thereto, and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Florida Department of Transportation, Federal Highway Administration, Federal Transit Administration, Federal Aviation Administration, and/or Federal Motor Carrier Safety Administration to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of the Consultant is in the exclusive possession of another who fails or refuses to furnish this information, the Consultant shall so certify to the Florida Department of Transportation, Federal Highway Administration, Federal Transit Administration, Federal Aviation Administration, and/or the Federal Motor Carrier Safety Administrations appropriate, and shall set forth what efforts it has made to obtain the information.
- G. **Sanctions for Noncompliance:** In the event of the Consultant's noncompliance with the nondiscrimination provisions of this contract, the Florida Department of Transportation shall impose such contract sanctions as it or the Federal Highway Administration, Federal Transit Administration, Federal Aviation Administration, and/or Federal Motor Carrier Safety Administration may determine to be appropriate, including, but not limited to,
- (1) withholding of payments to the Consultant under the contract until the Consultant complies and/or
 - (2) cancellation, termination or suspension of the contract, in whole or in part.
- H. **Incorporation or Provisions:** The Consultant will include the provisions of Paragraph C through I in every subcontract, including procurements of materials and leases of equipment unless exempt by the Regulations, or directives issued pursuant thereto. The Consultant will take such action with respect to any subcontract or procurement as the Florida Department of Transportation, Federal Highway Administration, Federal Transit Administration, Federal Aviation Administration, and/or the Federal Motor Carrier Safety Administration may direct as a means of enforcing such provisions, including sanctions for noncompliance. In the event a Consultant becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the Consultant may request the Florida Department of Transportation to enter into such litigation to protect the interests of the Florida Department of Transportation, and, in addition, the Consultant may request the United States to enter into such litigation to protect the interests of the United States.
- I. **Compliance with Nondiscrimination Statutes and Authorities:** Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21; The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects); Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex); Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27; The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age); Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex); The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not); Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38; The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex); Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations; Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes

discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100); Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

- J. Interest of Members of Congress: No member of or delegate to the Congress of the United States will be admitted to any share or part of this contract or to any benefit arising therefrom.
- K. Interest of Public Officials: No member, officer, or employee of the public body or of a local public body during his tenure or for one year thereafter shall have any interest, direct or indirect, in this contract or the proceeds thereof. For purposes of this provision, public body shall include municipalities and other political subdivisions of States; and public corporations, boards, and commissions established under the laws of any State.
- L. Participation by Disadvantaged Business Enterprises: The Consultant shall agree to abide by the following statement from 49 CFR 26.13(b). This statements shall be included in all subsequent agreements between the Consultant and any subconsultant or contractor.

The Consultant, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the Consultant to carry out these requirements is a material breach of this contract, which may result in termination of this contract or other such remedy as the recipient deems appropriate.

- M. It is mutually understood and agreed that the willful falsification, distortion or misrepresentation with respect to any facts related to the project(s) described in this Agreement is a violation of the Federal Law. Accordingly, United States Code, Title 18, Section 1020, is hereby incorporated by reference and made a part of this Agreement.
- N. It is understood and agreed that if the Consultant at any time learns that the certification it provided the Department in compliance with 49 CFR, Section 26.51, was erroneous when submitted or has become erroneous by reason of changed circumstances, the Consultant shall provide immediate written notice to the Department. It is further agreed that the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction" as set forth in 49 CFR, Section 29.510, shall be included by the Consultant in all lower tier covered transactions and in all aforementioned federal regulation.
- O. The Department hereby certifies that neither the consultant nor the consultant's representative has been required by the Department, directly or indirectly as an express or implied condition in connection with obtaining or carrying out this contract, to

- (1) employ or retain, or agree to employ or retain, any firm or person, or
- (2) pay, or agree to pay, to any firm, person, or organization, any fee, contribution, donation, or consideration of any kind;

The Department further acknowledges that this agreement will be furnished to a federal agency, in connection with this contract involving participation of Federal-Aid funds, and is subject to applicable State and Federal Laws, both criminal and civil.

- P. The Consultant hereby certifies that it has not:
 - (1) employed or retained for a commission, percentage, brokerage, contingent fee, or other consideration, any firm or person (other than a bona fide employee working solely for the above contractor) to solicit or secure this contract;
 - (2) agreed, as an express or implied condition for obtaining this contract, to employ or retain the services of any firm or person in connection with carrying out this contract; or

- (3) paid, or agreed to pay, to any firm, organization or person (other than a bona fide employee working solely for the above contractor) any fee contribution, donation, or consideration of any kind for, or in connection with, procuring or carrying out the contract.

The consultant further acknowledges that this agreement will be furnished to the State of Florida Department of Transportation and a federal agency in connection with this contract involving participation of Federal-Aid funds, and is subject to applicable State and Federal Laws, both criminal and civil.

Fin No: 412456-1-72-08

EXHIBIT "A"

SCOPE OF SERVICES

FOR

**DISTRICT FIVE OVERHEAD SIGN
&
HIGH MAST LIGHT POLE INSPECTIONS**

PROJECT MANAGER: Julia Blackwelder

DISTRICT STRUCTURES MAINTENANCE ENGINEER: Ed Kestory, P.E.

Stage III

Prepared by Julia Blackwelder

Date 12.7.16

Revised 5.18.17

EXHIBIT "A"
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1.0 PROJECT OBJECTIVE

- 1.1 Overhead signs and HMLP's located within District 5 of the Florida Department of Transportation, hereinafter called the Department roadways are to be inspected in compliance with Federal and State regulations. For the purpose of this scope a structure is considered to be an overhead Sign or HMLP if it is located on government right-of-way and meets the criteria established in the AASHTO Transportation Glossary and State of Florida Statue 335.074, Safety Inspection of Bridges. National Bridge Inspection Standard Code of Federal Regulations 23-Highways, Part 650, Subpart C; for the inspection of bridges will be applied to all overhead sign and HMLP structures.

2.0 GENERAL DESCRIPTION

- 2.1 The consultant shall perform hands on overhead sign inspection services, as described in this scope of work, and present inspection findings in the **(BrM-AASHTOWare Bridge Management)** format. The Department will provide software and access to the **BrM** network. The consultant is responsible on their own expense for procuring training in **BrM** for its employees. The Sign structures and HMLP's to be inspected are located on State maintained roadways within the limits of District 5. The frequency of inspections shall comply with Florida Statutes and the Manual for Bridge Inspection and Other Structures Inspection and Reporting Procedures. All overhead sign structures will be inspected every two years and with the approval of the Department, more often when conditions dictate. All HMLP's will be inspected every five years and all WSHMLP's will be inspected every two years, with the approval of the Department, more often when conditions dictate.
- 2.2 The amount of signs and HMLP's under this contract is dynamic; therefore the contract quantities listed below are estimated.
- 2.2.1 Six hundred eighty six **(686)** Sign Structures and HMLP's will require routine inspections. It is estimated that two hundred fifty **(250)** Initial/Post Construction Sign/HMLP inspections will be performed and will require issuance of overhead Sign/HMLP numbers, since prior inspection of these newly constructed or newly inventoried

Signs/HMLP's have not been performed. An overhead Sign Structure and HMLP file will be established in the format designated in the Manual for Bridge Inspection and Other Structures Inspection and Reporting Procedures. Sign and Pavement Plans will be sent to the Consultant. The structure numbers will be assigned to the project and all signs numbers will be displayed on the plans and the plans imported into EDMS for review by the Project Manager at the time of the inspection report submittal. Any Sign Structure or HMLP's that are identified as being removed or relocated in the plans will be updated at this time in the BrM inventory. On Initial/Post construction inspections a punch list will be generated with a listing of all deficiencies and forwarded for closeout of the construction project to the project manager.

- 2.2.2** Twenty five **(25)** interim Sign Structures or HMLP's inspections will be expected for Sign Structure or HMLP's with: low condition and/or appraisal ratings; after substantial repair by the Department; or in the event of accidental damage to the structure. Overhead Sign Structure or HMLP's with an overall Structural Numerical BrM Condition State Rating of 4 or greater will require an interim inspection.
- 2.3** The contract period shall be forty-eight (48) months and shall begin from the date of the written notice to proceed issued by the Department.
- 2.4** For the purpose of this agreement a structure is considered to be an overhead sign or HMLP if it is located on government right-of-way and meets the criteria established in the AASHTO Transportation Glossary and Florida Statutes.
- 2.5** All services to be performed by the Consultant shall conform to the current version of the following state and national publications covering Bridge and Ancillary Highway Structures Inspection standards of practice:

National Bridge Inspection Standard Code of Federal Regulations 23 - Highways, Part 650, Subpart C;

State of Florida Statute 335.074, Safety Inspection of Bridges;

Manual for Condition Evaluation of Bridges American Association of State Highway & Transportation Officials (AASHTO);

Bridge Inspector Training Manual 90 U.S. Department of Transportation/Federal Highway Administration; (USDOT /FHWA)

Inspection of Fracture Critical Bridge Members FHWA-IP-86-26, U.S. Department of Transportation/Federal Highway Administration;

Bridge & Other Structures Inspection & Reporting Procedures, Manual (FDOT) Revised 8/17/2016

Bridge Management System Coding Guide (FDOT) Revised 8/11/2016

Manual on Uniform Traffic Control Devices (USDOT /FHWA)
Accident Prevention Procedures Manual, State of Florida Department of Transportation;

State of Florida Roadway and Traffic Design Standards State of Florida Department of Transportation.

F.D.O.T. Standard Specifications for Road & Bridge Construction.

FDOT Bridge Inspection Field Guide National Bridge, Bridge Management and Agency Defined Elements 11/1/16

Guidelines for the Installation, Inspection, Inspection, Maintenance & repair of Structural Supports for Highway Signs, Luminaires, and Traffic Signal U.S. Department of Transportation/Federal Highway Administration (USDOT/FHWA)

Any Subsequent revisions to the documents listed in **2.5** after the Notice to Proceed shall be evaluated by the Department and the consultant for impact on this Scope of Services.

3.0 PERSONNEL REQUIREMENTS

- 3.1** A qualified individual must be at the overhead sign site or HMLP site to supervise inspection activities at all times. To be qualified, an individual must have completed the following FHWA-NHI 130055

Safety Inspection of In-Service Bridges. Be registered as a Professional Engineer in Florida and experienced in the inspection of bridges (or similar structures) according to the National Bridge Inspection Standards or be confirmed officially by the Department as a Certified Bridge Inspector. Qualifications for certification as a bridge inspector are stated in the Rules of the Florida Department of Transportation, Chapter 14-48.07, F. A. C.

3.2 An organizational chart shall be submitted to the Department for approval. The organization chart shall include the number and names of key personnel, team size, and which individuals are assigned to the various work tasks. Any changes from the original organization chart must be submitted to the Department's Project Manager for approval. The notification must be in writing within seven (7) calendar days of the change.

3.3 Each final inspection report shall be sealed in accordance with Section 471.025, Florida Statute; by the Professional Engineer, who confirms the accuracy and completeness of all the report contents. The individual signing and sealing reports must have completed the following FHWA-NHI 130055 Safety Inspection of In-Service Bridges.

3.4 Due to the nature and scope of the required services, it may be desirable for the Consultant to subcontract portions of the work. The Consultant shall be authorized to subcontract these services under the provisions of this agreement.

3.5 Subcontracting firms and the work they will perform shall be identified in the Technical proposal. The subcontracting firms must be approved in writing and qualified by the Department prior to initiation of any work. Any changes in the subcontracting firms or the work they will perform as indicated in the Consultant's proposal shall be subject to review and approval by the Department.

4.0 WORK ITEMS

4.1 FIELD INSPECTIONS

4.1.1 Field inspections must be conducted in accordance with the publications listed in Section 2.5 of this document. The Professional Engineer or Certified Bridge Inspector on site shall be responsible for

the detection of all deficiencies and the determination, recording of the structure's condition which must include the personal hands on inspection of all significant deficiencies. The Professional Engineer or Certified Bridge Inspector is responsible for assuring the accuracy and completeness of all data and records compiled as a result of the Consultant's field activity. During the course of routine inspections any signs or HMLP's found not previously in the inventory and or without a reference number should be reported to the Project Manager immediately.

- 4.1.2** Every visible surface of all members of each Sign Structure or HMLP must be examined. HMLP's can be inspected with the use of Unmanned Aircraft System, Unmanned Aerial Vehicle, drone or similar system. However, with **"The use** of any Unmanned Aircraft System, Unmanned Aerial Vehicle, drone, or similar system you must comply with federal, state, and local laws and regulations.

"Members that cannot be examined because of debris, vegetation, etc., shall be cleaned if the effort involved is not excessive. Excessive effort is that which would require more than one hour for the inspection team to perform. The Department Project Manager shall be consulted to verify the condition or to schedule for the Maintenance Yard to perform the work and reschedule the inspection. Overhead Sign Structure members or HMLP's elements that cannot be inspected prior to report publication due to debris, vegetation, dirt, etc., must be documented in the report as such with the reason for not completing the inspection.

- 4.1.3** Where deficiency dimensions are documented, the actual width, length and location on the member should be recorded in English units. Element Condition states should be specified in the element inspection notes with the deficiency described.

- 4.1.4** The Consultant shall not permit any inspector to perform consecutive routine inspections on the same sign structure. If this occurs, the Consultant shall repeat the inspection using another inspector at no additional charge to the Department.

- 4.1.5** If by field observation, deficiencies are sufficiently critical to warrant immediate repair and/or substantial traffic restrictions, the

Department's Project Manager or designated representative must be verbally notified immediately (in person, no voicemail). Verbal notification must be confirmed with written notification within **24** hours.

4.1.6 Inspection of the base plate to pole welded connection will be performed on all the HMLP & WSHMLP. Inspection of both the *exterior and interior* weld is required. A borescope is recommended but alternatives may be used upon approval. Be specific when documenting the percent of section loss, give actual measurement when possible.

4.1.7 Mark area of deficiency with orange paint or ribbon. (Limit use of paint in highly visible areas.)

4.1.8 If there is a bolt deficiency, provide bolt diameter and bolt length.

4.1.9 Color photographs and sketches should be used to illustrate one typical example of a severe and/or common deficiency. When deficiencies are severe enough to warrant immediate repair, one photograph illustrating a typical example must be taken. When a photograph is taken, an object that provides a sense of scale such as a ruler should always be included in the photograph. The essential features of a deficiency shall be emphasized, by marking arrows or dimensions directly on the photograph. The captions for all photographs shall include a description of the photograph and the date the photograph was taken.

4.2 INSPECTION REPORTS

4.2.1 The consultant must develop, publish, and submit one (1) signed and sealed Sign or HMLP report to the FDOT. Each report will be generated in **BRM** and stored in EDMS and contain all documentation specified by this agreement.

4.2.2 Each report must be submitted to the Department for review no later than forty-five (45) calendar days after completion of the field inspection. The Department will submit comments via email within seven (7) calendar days on the reports that do not conform to the

specifications of this contract agreement or have errors. The final report will be a signed and sealed hard copy and must be received by the Department within sixty (60) days after completion of the field inspection. The Consultant shall furnish the Department with an original of each report. A hard copy of the photo inventory, and any other inspection documents will be submitted with the report. After final acceptance all inspection documents and photo inventory will be submitted into EDMS and published, then payment will be rendered.

4.2.3 The **BRM** element notes shall provide a comprehensive description of all Sign Structures and HMLP deficiencies and state probable causes of the deficiencies, specify required corrective action, and contain an evaluation of any previous corrective action performed since the last inspection. This serves two purposes; the most effective repair can only be determined if the source of the deficiency is documented repeatedly, a body of evidence becomes available to justify its elimination through a change in design.

4.2.4 The Consultant will identify all "California" overhead sign structures within the element inspection notes.

4.2.5 In addition to the information required by **BRM**, all reports shall contain, if needed, an addendum section, which will include the following:

- A. All element notes which cannot be written in the report due to space limitations.
- B. The consultant will provide new location maps for all structures. The location maps shall provide sufficient detail to allow a person not familiar with the area to find the structure. One printed copy showing the location of the structure will be included with each inspection report.
- B. Sign Panel and Deficiency Location Photograph

All additional addendum information will be stored as an addendum in the Media Section of **BrM**.

4.2.6 Standoff distance measurements are to be noted in the foundation section of the report.

4.2.7 PHOTOGRAPHIC INVENTORY

4.2.7.1 A minimum of four (4) inventory photos are required for each structure. All photos must be in color with a date stamp. Photo Inventory will include a photo of the front of the sign, back of the sign, foundation and the Sign Structure number.

The Consultant will be responsible to take a new photographic inventory for all initial inspections or whenever the structure is altered, and at a minimum every 10 years and it will also be entered into the Multimedia in **BrM** and EDMS.

4.3 COMPREHENSIVE INVENTORY DATABASE RECORDS (CIDR)

4.3.1 The Department must maintain a computer file referred to as the CIDR file, which contains data items pertaining to a structures identity, condition and description. It is of utmost importance that the CIDR data be accurate and complete.

4.3.2 When records are added to the computer file a report is generated for each structure and is referred to as CIDR sheets. The CIDR sheets must be verified by the Consultant for accuracy due to the possibility of computer processing errors.

4.3.3 Each Sign Structure report must contain a CIDR section sealed in accordance with Section 471.025, F. S., by the Professional Engineer, which confirms its accuracy and completeness. The CIDR section must follow the inspection report.

4.3.4 STRUCTURE'S TO BE UPDATED ON STRAIGHT LINE DIAGRAM'S

4.3.5 The Department will supply the Consultant with a CD with all straight-line diagrams for each structure to be located on. The Consultant will update the straight-line diagram as changes occur to show the addition of new structures or deletions of old structures and to correct errors found on the map. Two hard copies (11 x 17)

shall be delivered by the Consultant at the end of the contract. An updated disk will be returned to the Department as directed by the Department Project Manager.

4.4 ELECTRONIC DOCUMENT MANAGEMENT SYSTEM

4.4.1 The Consultant, at their own cost must maintain an active VPN connection which will be used to access **BRM** and import electronic documents into the Department's Electronic Document Management System (EDMS)

The Consultant shall provide personnel proficient in the use of computers to input Structures Inspection Documents into the Department's EDMS. This will require familiarity with the Structures Management EDMS. Document guidelines for the EDMS are posted on the Infonet. Duties will include printing the inspection report to a PDF file and then attributing (assigning information specific to the document), importing directly into EDMS folder) and retrieving documents that are to be archived electronically in the Department's EDMS. Documents imported into the EDMS will be in PDF format. Documents such as inspection reports, addendums and photo inventories that are created in **BrM** will be downloaded **BrM** using the print to PDF command. This effort should be included into the cost of scheduled inspections. Document names will follow the D5 Structure Maintenance Naming Conventions & Attribution Document.

The Department's EDMS system is Hummingbird Document Management Software (DM). The consultant must purchase a single named user Hummingbird license for each vendor site (physical location). This license must be purchased directly from Hummingbird. Instructions for purchasing the license(s) can be found on the department internet site:

4.5 WORK ORDERS

4.5.1 The consultant will be responsible for insuring that corrective action is requested through a work order. To accomplish this it will be

necessary to review the inspection reports & the District Five Policies and decide if corrective action is warranted for each deficiency reported. A Feasible Action Review Committee F.A.R.C. will be established containing no less than three management level engineers. The committee will meet on a weekly basis to review the week's inspection reports, and will present its findings to a representative of the Department for final approval. Work orders will be submitted with the final inspection reports. A copy of the Work orders will be generated through the Reports Applet, Work003-Work Order Maintenance (Wom Report). Upon approval a work order for each of the selected deficiencies generated in the **BRM** system will be uploaded into the MMS system.

4.6 DISTRICT FIVE POLICY

D5 has its own policy for inspecting and reporting specific items of the structure. D5 reserves the right to modify and add to the list shown below at any time. The Consultant will have to Comply with the current policy and or any changes that will happen in the future.

Structures Inspection District Five Policy			
Implementation Date	Structure Type	Topic	Policy
2/29/2012	Signs & TSMA	Moment Connection Gaps	For connection with two horizontal plates, most truss type bearing connections, as long as bolts are tight no work order is needed no matter what the gap measures. Continue to measure and note in report. For connection with two vertical plates, most mast arm type moment connections, continue to ask for work order or repair recommendation to eliminate gaps >1/8". If gaps are 1/8" or less and the bolts are tight, no work order is required.
3/1/2012	All	Stand-off distances	For truss/bridge type structures, do not issue a work order for stand-off distances within 2 anchor bolt diameters. If the stand-off distance exceeds 2 bolt diameters, issue a work order for a FARC review. For all other structures, if the stand-off distance exceeds one anchor bolt diameter by one inch, issue a work order for a FARC review.
3/1/2012	All	Grout pads/rings	If a grout pad is solid, has no cracking or corrosion bleed out; do not remove grout pad. Remove a grout pad/ring that has any of the following characteristics: hollow sounding, cracking, corrosion bleed out, efflorescence, standing water, missing column cap, holes in column, clogged weep hole, no weep hole or spalling. If the grout pad is too difficult to remove (refer to scope of contract), issue a work order or repair recommendation to remove grout pad.
3/1/2012	All	Missing anchor bolt jam nuts	If there is no jam nut on the anchor bolt and there is room for a full height jam nut issue a work order or repair recommendation to install a full height jam nut. If there is no jam nut on the anchor bolt and there isn't room to install a full height jam nut but there is room for a half height jam nut issue a work order or repair recommendation to install a half height jam nut. If there is no jam nut on the anchor bolt and there isn't room for a half height jam nut issue a work order or repair recommendation to replace the nut with a locking nut.

4.7

MAINTENANCE ITEMS TO BE HANDLED DURING INSPECTIONS

The Certified Bridge Inspector will be responsible to perform the following maintenance activities as part of the inspection.

Painting of Structural Components with Cold Galvanizing: The inspectors will clean and paint only primary structural elements. Electrical components will not be painted. The painting will be limited to a maximum of 2 square feet per sign or 4 separate areas (totaling less than 2 square feet per sign). Cold Galvanizing will be supplied by FDOT.

Loose Anchor Bolt Nuts: The inspectors with a pipe wrench and "cheater bar" will tighten loose anchor bolt nuts and jam nuts.

Missing Anchor Bolt Nuts: The required size will be measured and documented in the element inspection notes in the report.

Loose High Strength Bolts: Loose high strength bolts (at the moment connectors, box section connectors, and primary element connections) will be tightened to the extent possible by the inspector, but will not be tightened to a specified torque value. This information will be documented in the element inspection notes in the report.

Missing High Strength Bolts and Nuts: The inspectors will **not** replace missing high strength bolts and nuts, but the inspector will obtain the required size of the missing fasteners to be documented in the element inspection notes in the report.

Missing and Loose Sign Panel and Sign Backing Connection Bolts: The inspector will tighten loose sign panel and sign backing bolts. Inspector will replace all missing sign fasteners if accessible and not an excessive effort.

Grout Pads or rings: See District Five Policies on page 12 of the scope.

4.9

QUALITY CONTROL

5.0

GENERAL

The consultant shall institute quality assurance procedures, which shall be provided in written form to the Department for review and approval before the notice to proceed, is executed. Quality

assurance procedures are an integral part of this contract and are not a separate pay item.

5.1 The Department may perform additional quality assurance by inspecting Sign Structures and HMLP's that have been previously inspected by the Consultant and reviewing the inspection records for conformity with the Department's findings.

5.2 QUALITY REVIEWS

5.2.1 The Consultant shall conduct quality reviews to make certain their own organization is in compliance with the requirements cited in the scope of services. Quality reviews shall evaluate the adequacy of materials, documentation, processes, procedures, training, guidance, and staffing included in the execution of this contract.

5.2.2 The Quality Assurance Program shall also have a second peer review level. The peer review can be conducted internally by the consultant's organization or by subcontracting the review to another consulting firm.

5.3 QUALITY RECORDS

5.3.1 The Consultant shall maintain adequate records of the quality assurance actions performed by their organization (including subcontractors and vendors) in providing services and products under this contract. All records shall indicate the nature and number of observations made, the number and type of deficiencies found, and the corrective action taken. These records shall be kept at the primary office site for review if need be.

5.4 QUALITY ASSURANCE (QA) PLAN

5.4.1 The Consultant shall include a Quality Assurance Plan in the proposal. The Quality Assurance Plan shall detail the procedures, evaluation criteria, and instructions to his organization to assure conformance with the contract. Unless specifically waived, no payment shall be made until the Department approves the Consultant's Quality Assurance Plan. Significant changes to the work requirements may require the Consultant to revise his Quality

Assurance Plan to keep it current with the work requirements. The plan shall include, but not be limited to the following areas:

- 5.4.1.a** **Organization** - A description of the Consultant's quality control organization and its functional relationship to the part of the organization performing the work under the contract. The authority, autonomy and responsibilities of the quality assurance organization shall be detailed as well as the names and qualifications of the personnel in the quality control organization.

- 5.4.1.b** **Quality Reviews** - The Consultant's quality assurance methods used to monitor and assure compliance of their organization with the contract requirements for services and products shall be detailed in the Quality Assurance Plan.

- 5.4.1.c** **Quality Records** - The types of records, which will be generated and maintained by the Consultant during the execution of his quality assurance program, shall be outlined in the Quality Assurance Plan.

- 5.4.1.d** **Quality of Subcontractors and Vendors** - The methods used by the Consultant to control the quality of his subcontractors and vendors shall be detailed in the Quality Assurance Plan.

- 5.4.1.e** **Quality Assurance Certification** - An officer of the Consultant firm will be required to sign and seal a certification that will accompany each submittal stating that the overhead sign and HMLP reports have been prepared and checked in accordance with the Department's specifications for this contract.

- 5.4.1.f** The Department may hold short (1/2 day) training sessions for all inspection personnel biannually, informing them of changes that have been made in inspection and/or reporting procedures. The Consultant's inspectors are required to attend.

5.5 QUALITY REVIEWS BY THE DEPARTMENT

- 5.5.1** The Department may conduct quality reviews to make certain that the Consultant is in compliance with the requirements cited in the scope of services. These quality reviews shall be performed at different periods during the contract. The Consultant shall be

notified prior to any of these quality reviews and shall be required to present all records and certifications upon request.

5.5.2 Quality reviews shall evaluate the adequacy of materials, documentation process, procedures, training, guidance, and staffing included in the execution of this contract.

5.5.3 Any subcontractors or vendors may be included as part of the quality review.

6.0 REQUIRED MATERIALS

6.1 GENERAL (TO BE PROVIDED BY THE DEPARTMENT)

6.1.1 District 5 Straight Line Diagrams

6.1.2 BRM software and a means to access the Departments BRM database.

6.1.3 Examples of prior Inspection Reports if requested by the consultant.

6.1.4 Self-adhesive node numbers

6.1.5 EDMS Naming Conventions and Attributions Guidelines

6.2 MANUALS (TO BE OBTAINED BY THE CONSULTANT)

Manuals listed in this document may be purchased from the vendors listed below:

6.2.1 FDOT Manuals
Florida Department of Transportation
Maps and Publications Phone (850) 414-4050
On-Line <http://www.dot.state.fl.us/mapsandpublications/>
Haydon Burns Building-605 Suwannee Street,
Tallahassee, FL 32399-0450

6.2.2 AASHTO Publications
American Association of State Highway and
Transportation Officials
Online www.transportation.org

444 N. Capitol Street, NW, Suite 249
Washington, D.C. 20001 USA
Phone 1-800-231-3475

6.2.3 FHWA Manuals
U.S. Government Printing Office
Washington, D.C. 20402

7.0 WORK SCHEDULE AND PROGRESS REPORTS

7.1 MATERIALS TO BE FINISHED AFTER NOTICE TO PROCEED

7.1.1 The Consultant will provide the Department with its final written quality control procedure, a proposed work schedule and organizational chart.

7.2 WORK SCHEDULE

7.2.1 A proposed work schedule shall be submitted to the Department for approval. This schedule shall show how the Consultant anticipates the work will progress from day to day to completion of agreement. The work schedule shall be established in a manner that will insure that all inspections to overhead Sign Structures and HMLP's will not be delinquent.

7.2.2 At the Department's option, a cost flow graph shall be submitted that will show anticipated cost flow by monthly increments. The work schedule and cost flow graph shall be in a format acceptable to the Department's Project Manager.

7.2.3 Work that falls behind schedule must be reported to the Department's Project Manager on a Daily basis. The report shall contain a detailed explanation why the specific task was not performed according to schedule.

7.2.4 The proposed work schedule, cost flow graph, quality control procedure, organization chart, and a list of major equipment the Consultant will use during the overhead Sign Structures and HMLP inspections shall be included with the Consultant's proposal. The list

of major equipment shall indicate if the Consultant owns the equipment, and if not, his plans for obtaining the equipment.

7.3 PROGRESS REPORTS.

7.3.1 The Consultant shall submit on Monday morning, via email, weekly progress reports that show; 1. Work completed for the previous week as measured against the proposed scheduled; and the proposed work schedule for the upcoming week. Weekly progress reports shall describe the work performed on each task.

7.3.2 The Consultant shall meet with the Department on an as needed basis as deemed necessary by the Department Project Manager.

7.3.3 The Department Project Manager will make judgment on whether work of sufficient quantity has been accomplished by comparing the actual work accomplished against the approved proposed work schedule.

8.0 MISCELLANEOUS

8.1 LEGAL PROCEEDINGS

8.1.1 The Consultant shall serve as an expert witness in any legal proceedings if required by the Department. The fee for these services shall be established if, and when, they are needed.

8.2 ERRORS AND/OR OMISSIONS

8.2.1 The Consultant shall be responsible for the professional quality, technical accuracy and the coordination of all designs, drawings, specifications and other services furnished by the Consultant under this contract. The Consultant shall, without additional compensation, correct or revise any errors and /or omissions and (approved corrections of same) that result from said firm's substandard performance of the services described in this contract.

8.3 CONTRADICTIONS

8.3.1 In the event of a contradiction between the provisions of Exhibit "A" and the Consultant's technical proposal, the provisions of Exhibit "A" shall apply.


9.0 LIST OF SIGN STRUCTURES (SEE PAGES 19-36)

**CONSENT AGENDA ITEM
#15**

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

MEMORANDUM

TO: CFX Board Members

FROM: Aneth Williams
Director of Procurement 
Aneth Williams (Jun 2, 2020 19:36 EDT)

DATE: May 28, 2020

SUBJECT: Authorization to Execute a Maintenance Agreement with Vertiv Corporation
for Preventive Air Conditioning Services
Contract No. 001696

Board authorization is requested to execute an agreement with Vertiv Corporation in the amount of \$62,190.00 for preventative air conditioning services for CFX computer server room and Hiawasse Backup Data Center. This will be a single source procurement. This agreement is for three (3) years.

This amount is budgeted in the OM&A Budget.

Reviewed by: 
Don Budnovich, PE
Director of Maintenance


Glenn Pressimone (Jun 3, 2020 09:10 EDT)

Proposal for Service

Vertiv Corporation

Mar 3, 2020

CFX
Multisite
Orlando, FL 32835

Mar 3, 2020

CFX
Multisite
Orlando, FL 32835

Q03041921

Mike Bakidis
Phone:407-690-5053

Dear Mike,

Thank you for your interest in Vertiv Corporation. We are pleased to submit the following proposal for your review and consideration.

As the rate of change and complexity in your data center increases, Vertiv is the dedicated partner that you need to help you achieve your goals.

Please complete all required fields on the signature page and attach your Purchase Order to assist timely order processing. Should you have any questions regarding the proposal, feel free to contact me directly at (407) 682-7570. I look forward to your response and the opportunity to work together to improve your data center investment.

Sincerely,

Beccie Downey
Innovative Support Systems, Inc.
1030 Sunshine Lane, Suite 1000
Altamonte Springs, FL 32714

PHONE (407) 682-7570
FAX (407) 682-0024
EMAIL bdowney@issifl.com

Order Q03041921

001696

Cooling Services:

- Liebert Service is your only choice for factory direct services on your Liebert Precision Cooling products including; equipment start-ups, preventive maintenance, emergency service, legacy control upgrades, energy efficiency upgrades and site assessments.
- We have the ability to apply the latest technology with the required engineering depth and understanding of the systems and how they operate / integrate into your overall facility. Factory-trained service technicians are the best qualified to set-up, maintain and optimize these systems and controls.
- It is important to develop and adhere to a long-term service plan that includes preventive maintenance and optimization of the precision cooling system with regular maintenance plans.
- Service is part of a long-term service cost saving plan that can substantially decrease energy consumption. Providing and proving the savings is critical to overall cost control.

Standard Maintenance Contracts:

Site #: 171240 – 8306 East West Expressway

Tag #	Description	Model #	Annual PM Qty.	Coverage Type (Coverage Dates)
1853194	LIEBERT DSE	DA080DA1AD722A	4	ESSENTIAL (7/15/2020) - (7/14/2023)
1853195	LIEBERT DSE	DA080DA1AD722A	4	ESSENTIAL (7/15/2020) - (7/13/2023)

Item Sub Total Price: USD \$37,951.20

Standard Maintenance Contracts:

Site #: 107545 – 4974 ORL Tower Road

Tag #	Description	Model #	Annual PM Qty.	Coverage Type (Coverage Dates)
1853336	DELUXE AIR	DH380AUAAEIS441	4	ESSENTIAL (7/15/2020) - (7/14/2023)
1853337	DS AIR	DS105AUA	4	ESSENTIAL (7/15/2020) - (7/14/2023)

Item Sub Total Price: USD \$24,239.70

Total price not including tax: USD \$62,190.90

Billed Quarterly: \$5,182.58

any tax required must be included in customer purchase order

Payment Terms: Net 30 Days

SCOPE OF WORK

PRECISION COOLING SERVICES

(FLOORMOUNT, CEILING, WALLMOUNT & HEAT REJECTION)

ESSENTIAL SERVICE - 4 PM

SERVICE SUMMARY

Feature	Detail
On-Site Service	Includes 4 Preventive Maintenance Services, scheduled by the customer between 8am-5pm, Monday-Friday (excluding national holidays).
Response Time	Guaranteed 4-hour on-site emergency response, 7 days/week, 24 hours/day, within 150 miles of a Vertiv's Service City.
Customer Support	Includes access to the Customer Resolution Center (1-800-543-2378) and the Vertiv Customer Services Network Online Internet portal.
Parts	Includes parts coverage (limits may apply; see Assumptions and Clarifications, as applicable, for more details).
Labor & Travel	Includes 100% labor and travel coverage 7 days/week, 24 hours/day, within the 48 contiguous states.
Service Professional	Performed by Vertiv factory trained and authorized technician. Vertiv is the OEM service provider for Liebert products.

SERVICE PERFORMED

Filters

1. Check for restricted airflow.
2. Replace air filters as needed.
3. Examine filter switch.
4. Wipe entire section clean.

Blower Section

1. Verify that impellers are free of debris and move freely.
2. Check belt for condition and proper tension.
3. Replace belts as needed.
4. Verify that the bearings are in good condition.
5. Check the fan safety switch for proper operation.
6. Check the pulleys and motor mounts for tightness and proper alignment.

Air Cooled Condenser (If Applicable)¹

1. Verify condenser coil cleanliness.

¹Applies to Air Cooled units only

2. Brush clean and spray using hose and nozzle connected to local water source (if local water source is available).
3. Chemical cleaning of outdoor condensing unit is excluded from normal scheduled maintenance and can be performed on a time and material basis.
4. Examine motor mounts for tightness. Tighten if necessary.
5. Verify that the bearings are in good working order.
6. Confirm that the refrigerant lines are properly supported.

Water/Glycol Condenser (If Applicable)²

1. Check cleanliness of copper tubing.
2. Confirm that the water regulating valves are functioning properly.
3. Check the glycol solution level.
4. Check glycol freeze protection level.
5. Check for water/glycol leaks.

Glycol Pump³

1. Examine for any glycol leaks.
2. Determine proper pump operation.

Steam Generating Humidifier (If Applicable)

1. Check the canister for any deposits.
2. Check the condition of all steam hoses.
3. Examine the water make-up valve for any leaks.
4. Check and adjust potentiometers for optimal performance.

Infrared Humidifier (If Applicable)

1. Check the pan drain for any type of blockage.
2. Examine the humidifier lamps for proper operation.
3. Check the pan for any type of mineral deposits.

Refrigerant Cycle/Section⁴

1. Examine refrigerant lines for leaks or damage.
2. Using the sight glass, check lines for moisture.
3. Monitor suction pressure.
4. Monitor head pressure.
5. Monitor discharge pressure.
6. Check superheat.

Electric Panel, Controls, and Ancillary Items

1. Check fuses.
2. Check electrical connections.
3. Check contactors for pitting.
4. Using microprocessor controls, ensure proper operation of the unit components.

²Applies to Water Cooled, Glycol Cooled, and GlyCool units only

³Applies to Water Cooled, Glycol Cooled, and GlyCool units only

⁴Applies to Air Cooled, Water Cooled, Glycol Cooled, and GlyCool units only

5. Inspect leak detection cabling (if connected to unit).

Chilled water units - additional checks (if Applicable):⁵

1. Inspect chilled water valve and actuator for proper operation.
2. Adjust/ tighten linkage if necessary.
3. Inspect internal chilled water piping and coil for leaks.

ASSUMPTIONS AND CLARIFICATIONS

Parts coverage excludes: piping external from the unit, replacement of outdoor condensing unit, components showing physical damage, component failure due to irregular voltage conditions, pumps external to the unit, fire suppression system, unit control upgrades, network panels external to the unit, and leak detection panels. Rental of temporary spot coolers is also excluded.

Inspect Prior to Contract

CUSTOMER RESPONSIBILITIES

In order to provide timely, accurate and thorough execution of the services described herein, Vertiv requests the following:

- **Point of Contact:** Provide an authorized point of contact(s), specific for the scope of work, for scheduling and coordination purposes.
- **Scheduling:** Make dates available for scheduling service. All visits must be requested 10 business days in advance of need by contacting the Vertiv Customer Resolution Center at 1-800-543-2378.
- **Site Access:** Prior to time of scheduled work, provide site access including any customer required escort, security clearance, safety training and badging for Vertiv service personnel.
- **Equipment Access:** Convenient access to the equipment covered by the Scope of Work. Prior to scheduled time of work, notify Vertiv service personnel of any special requirements for equipment access including lifts, ladders, etc.
- **Shutdown:** Service may require shutdown of load to ensure electrical connection integrity.
- **Notification:** If for any reason the work cannot be performed during scheduled time, notify Vertiv service personnel 24-hours prior to scheduled event.

TERMS AND CONDITIONS

Subject to all Terms & Conditions as noted in the Vertiv Terms & Conditions or the terms of a Master Agreement between the parties, if any, shall apply.

⁵Applies to Chilled Water units and units with free cooling only.

Order Number: Q03041921

Purchase Order must be assigned to:
Vertiv Corporation
1050 Dearborn Dr.
Columbus, OH 43085

Payment remittance address:
Vertiv Corporation
PO Box 70474
Chicago, IL 60673

FID# 31-0715256

EXCITING NEWS: On Sept. 1, 2018, we transitioned to Vertiv Corporation as our legal entity.
Visit <http://vertivco.com/legalentityinfo> for changes you may need to make.

PO should be e-mailed or faxed with signed proposal to:
Vertiv Corporation c/o Beccie Downey
Attn: Beccie Downey
Email: bdowney@issifl.com
Fax: (407) 682-0024

Please complete the following information (All fields are required):

Purchase Order Number: _____ Purchase Order attached: Yes No

If PO **NOT** attached, please specify reason: _____

Invoice Delivery Method: Web Billing (Attach Instructions) Mail Other _____
 Accounts Payable Email _____@_____

Billing Contact Person: _____ Phone: _____

Email: _____ Fax #: _____

Bill-To Company Name: _____ Bill-To Address: _____

Federal Tax ID # _____ Bill-To City, ST Zip: _____

Tax Exempt: Yes (Attach tax exempt certificate) No

Site Services/IT Contact Person: _____ Phone: _____

**** COVERAGE DETAILS ****

For equipment not currently under a Service Agreement or for equipment for which the warranty has expired in excess of thirty (30) days, parts required to bring equipment back to manufacturers specifications are the responsibility of the Buyer and billable at the time of the first preventive maintenance visit or Service call. All pricing is valid only for Service coverage stated and is subject to change if this Proposal is modified in any way. This Proposal is valid for 30 days from the date of this Proposal unless otherwise noted. **INFORMATION TO BUYER:** This order between the Buyer and Seller is limited to Seller's Terms and Conditions located at termsconditions.vertivco.com unless a formal agreement governing this Purchase Order/transaction has been executed by the parties, in which case the Terms and Conditions of the signed agreement shall govern. Seller hereby objects to all Buyer's terms and conditions received by Seller and/or issued by Buyer.

Signature of this agreement authorizes Seller to invoice for Services mentioned herein and to utilize the provided purchase order number. If a purchase order number is not used, then the Buyer authorizes and guarantees Seller the payment of such invoices by authority of the signature below.

Thank you for your business.

Proposed By:

Accepted By:

Beccie Downey Date

Buyer Signature Required Date

Printed Name Title Phone

SERVICES TERMS AND CONDITIONS

Vertiv Corporation is herein referred to as the "Seller" and the customer or person or entity purchasing services ("Services") and parts required for Services ("Parts") from Seller is referred to as the "Buyer." These Services Terms and Conditions, any price list or schedule, quotation, acknowledgment, Seller's scope of work, or invoice from Seller relevant to the provision of Services and all documents incorporated by specific reference herein or therein, constitute the complete and exclusive statement of the terms of this agreement ("Agreement") governing the sale of Services and Parts by Seller to Buyer. Any discrepancies between the terms of the above referenced documents shall be resolved by Seller. Seller's acceptance of Buyer's purchase order is expressly conditional on Buyer's assent to all of the terms of this Agreement, including terms and conditions that are different from or additional to the terms and conditions of Buyer's purchase order. Buyer's acceptance of the Services and Parts will manifest Buyer's assent to the terms of this Agreement. Seller reserves the right in its sole discretion to refuse orders.

1. **PRICES:** Unless otherwise specified in writing by Seller, the price quoted or specified by Seller for the Services shall remain in effect for thirty (30) days after the date of Seller's quotation, Seller's scope of work or acknowledgment of Buyer's order for the Services, whichever occurs first, provided an unconditional authorization from Buyer for the performance of the Services is received and accepted by Seller within such time period. If authorization is not received by Seller within such thirty (30) day period, Seller shall have the right to change the price for the Services. All prices are exclusive of taxes, which are to be borne by Buyer. Unless otherwise specified by Seller, Parts will be furnished at Seller's then prevailing prices.

2. **TAXES:** If applicable, any current or future tax or governmental charge (or increase in same) affecting Seller's costs of Services or costs of production, sale, delivery or shipment of Parts, or which Seller is otherwise required to pay or collect in connection with the provision of Services and Parts, shall be for Buyer's account and shall be added to the price or billed to Buyer separately, at Seller's election.

3. **TERMS OF PAYMENT:** Unless otherwise specified by Seller, terms of payment are net 30 days from date of Seller's invoice. Seller shall have the right, among other remedies, either to terminate this Agreement or to suspend further performance under this Agreement and/or other agreements with Buyer in the event Buyer fails to make any payment when due, which other agreements Buyer and Seller hereby amend accordingly. All purchases paid by credit card shall be charged a 2.0% usage surcharge of the invoice total, for fees paid by Seller to accept credit card transactions.

4. **SHIPMENT AND DELIVERY:** While Seller will use all reasonable commercial efforts to maintain the performance dates acknowledged or quoted by Seller, all performance dates are approximate and not guaranteed. Seller, at its option, shall not be bound to tender delivery of any Parts for which Buyer has not provided shipping instructions and other required information. If the provision of Services or shipment of the Parts is postponed or delayed by Buyer for any reason, Buyer agrees to reimburse Seller for any and all storage costs and other additional expenses resulting therefrom. Unless otherwise specified by Seller, for sales of Parts in which the end destination of the Parts is outside of the United States, risk of loss and legal title to the Parts shall transfer to Buyer immediately after the Parts have passed beyond the territorial limits of the United States. For all other shipments, risk of loss and legal title shall pass from Seller to Buyer upon delivery to and receipt by carrier at Seller's shipping point. Notwithstanding the above, risk of loss and legal title to Parts shall transfer to Buyer (i) when delivered by the individual providing the Services, or (ii) at the time Parts are placed in storage due to Buyer's delay or postponement. Any claims for shortages or damages suffered in transit are the responsibility of Buyer and shall be submitted by Buyer directly to the carrier. Shortages or damages must be identified and signed for at the time of delivery.

5. **LIMITED WARRANTY:** Subject to the limitations of Section 6, Seller warrants that it will perform the Services as described in this Agreement and will exercise all reasonable skill, care and due diligence in the performance of the Services and shall perform the Services in accordance with professional practice. Seller warrants that all Services performed shall be free from faulty workmanship for a period of thirty (30) days from completion of Services. To the extent assignable, Seller assigns to Buyer any warranties that are made by manufacturers and suppliers of Parts, EXCEPT AS SPECIFIED ABOVE, PARTS FURNISHED HEREUNDER ARE FURNISHED AS-IS, WHERE-IS, WITH NO WARRANTY WHATSOEVER. THE WARRANTIES SET FORTH IN THIS SECTION 5 ARE THE SOLE AND EXCLUSIVE WARRANTIES GIVEN BY SELLER WITH RESPECT TO THE SERVICES AND PARTS AND ARE IN LIEU OF AND EXCLUDE ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARISING BY OPERATION OF LAW OR OTHERWISE, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHETHER OR NOT THE PURPOSE OR USE HAS BEEN DISCLOSED TO SELLER IN SPECIFICATIONS, DRAWINGS OR OTHERWISE.

This warranty does not extend to any losses or damages due to misuse, accident, abuse, neglect, normal wear and tear, negligence (other than Seller's), unauthorized modification or alteration, use beyond rated capacity, unsuitable power sources or environmental conditions, improper installation, repair, handling, maintenance or application or any other cause not the fault of Seller. To the extent that Buyer or its agents have supplied specifications, information, representation of operating

conditions or other data to Seller that is used in (i) the selection of the Services and/or Parts and (ii) the preparation of Seller's quotation and/or scope of work, and in the event that actual operating conditions or other conditions differ from those represented by Buyer, any warranties or other provisions contained herein that are affected by such conditions shall be null and void.

Buyer assumes all other responsibility for any loss, damage, or injury to persons or property arising out of, connected with, or resulting from the use of Services or Parts, either alone or in combination with other parts.

6. **LIMITATION OF REMEDY AND LIABILITY: THE SOLE AND EXCLUSIVE REMEDY FOR BREACH OF ANY WARRANTY HEREUNDER SHALL BE LIMITED TO, AT SELLER'S SOLE OPTION, EITHER CORRECT PERFORMANCE FOR THAT PORTION OF THE SERVICES FOUND BY SELLER TO BE DEFECTIVE OR REFUND OF THE PRICE PAID FOR SERVICES.**

SELLER SHALL NOT BE LIABLE FOR DAMAGES CAUSED BY DELAY IN PERFORMANCE AND THE REMEDIES OF BUYER SET FORTH IN THIS AGREEMENT ARE EXCLUSIVE. IN NO EVENT, REGARDLESS OF THE FORM OF THE CLAIM OR CAUSE OF ACTION (WHETHER BASED IN CONTRACT, INFRINGEMENT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE), SHALL SELLER'S LIABILITY TO BUYER AND/OR ITS CUSTOMERS EXCEED THE PRICE PAID BY BUYER FOR THE SPECIFIC SERVICES OR PARTS PROVIDED BY SELLER GIVING RISE TO THE CLAIM OR CAUSE OF ACTION.

BUYER AGREES THAT SELLER'S LIABILITY TO BUYER AND/OR ITS CUSTOMERS SHALL NOT EXTEND TO INCLUDE INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES. The term "consequential damages" shall include, but not be limited to, loss of anticipated profits, business interruption, loss of use, revenue, reputation and data, costs incurred, including without limitation, for capital, fuel, power and loss or damage to property or equipment.

It is expressly understood that any technical advice furnished by Seller with respect to the use of the Parts and/or Services is given without charge, and Seller assumes no obligation or liability for the advice given, or results obtained, all such advice being given and accepted at Buyer's risk.

7. **INSURANCE:** Seller shall maintain the following insurance or self-insurance coverage: **Worker's Compensation** in accordance with the statutory requirements of the state in which the work is performed. **Employer's Liability** with a limit of liability of \$2,000,000 per occurrence for bodily injury by accident or bodily injury by disease. **Commercial General Liability (CGL)** for bodily injury and property damage with a limit of \$2,000,000 per occurrence and aggregate. CGL includes Contractual Liability. CGL does not include Products and Completed Operations coverage, which is self-insured. **Automobile Liability** insurance that covers usage of all owned, non-owned and leased vehicles and which is subject to a combined single limit per occurrence of \$2,000,000. Automobile Liability insurance includes Contractual Liability, but no special endorsements. Provisions regarding waiver of subrogation, additional insured status, or the primary nature of Seller's insurance shall be limited to the extent of Seller's negligent acts or omissions.

Buyer expressly acknowledges and agrees that Seller has set its prices and entered into this Agreement in reliance upon the limitations of liability, insurance coverage, and other terms and conditions specified herein, which allocate the risk between Seller and Buyer and form a basis of this bargain between the parties.

8. **EXCUSE OF PERFORMANCE:** Seller shall not be liable for delays in performance or for non-performance due to acts of God; war; epidemic; fire; flood; weather; sabotage; strikes or labor disputes; civil disturbances or riots; governmental requests, restrictions, allocations, laws, regulations, orders or actions; unavailability of or delays in transportation; default of suppliers; or unforeseen circumstances; acts or omissions of Buyer, including, without limitation, those specified in Section 19; or any events or causes beyond Seller's reasonable control. Performance of Services and deliveries of Parts may be suspended for an appropriate period of time or canceled by Seller upon notice to Buyer in the event of any of the foregoing, but the balance of this Agreement shall otherwise remain unaffected as a result of the foregoing. If Seller determines that its ability to supply the total demand for the Services or Parts or to obtain material used directly or indirectly in the manufacture of the Parts is hindered, limited or made impracticable due to causes set forth in the preceding paragraph, Seller may delay performance of Services or allocate its available supply of the Parts among its purchasers on such basis as Seller determines to be equitable without liability for any failure of performance which may result therefrom.

9. **CANCELLATION:** Buyer may cancel orders only upon reasonable advance written notice and upon payment to Seller of Seller's cancellation charges which include, among other things, all costs and expenses incurred and to cover commitments made by the Seller, and a reasonable profit thereon. Seller's determination of such cancellation charges shall be conclusive.

10. **CHANGES:** Buyer may request changes or additions to the Services. In the event such changes or additions are accepted by Seller, Seller may revise the price and performance dates. Seller

reserves the right to change designs and specifications for the Parts without prior notice to Buyer, except with respect to Parts being made-to-order for Buyer. Seller shall have no obligation to install or make such change in any Parts manufactured prior to the date of such change.

11. **NUCLEAR/MEDICAL:** SERVICES AND PARTS SOLD HEREUNDER ARE NOT FOR USE IN CONNECTION WITH ANY NUCLEAR, MEDICAL, LIFE-SUPPORT AND RELATED APPLICATIONS. Buyer accepts Services and Parts with the foregoing understanding, agrees to communicate the same in writing to any subsequent purchasers or users.

12. **ASSIGNMENT:** Buyer shall not assign its rights or delegate its duties hereunder or any interest herein without the prior written consent of Seller, and any such assignment or delegation, without such consent, shall be void.

sound, video, image files, software or any other information ("Service Data") that is provided by, or on behalf of, Buyer, or collected or compiled by Seller, its affiliates, subsidiaries, or service providers through the Goods, Parts, and/or Software. Seller, its affiliates, subsidiaries, and service providers may collect, compile, retain, use, reproduce, and create derivative works of Service Data: (i) to provide services, support, and maintenance; (ii) to develop and improve products, software, and services; and (iii) for scientific and technical research and marketing purposes. Buyer is solely responsible for the Service Data, and Buyer will secure and maintain all rights necessary for Seller, its affiliates, subsidiaries, and service providers to process and use Service Data as described in this paragraph without violating the rights of any third party or otherwise obligating Seller, its affiliates, subsidiaries, and service providers to Buyer or any third party. The Service Data will be aggregated with other information, materials, or data collected or compiled by, or provided to, Seller, its affiliates, subsidiaries, or service providers and anonymized, such that the Service Data will not intentionally reveal Buyer's identity. In accordance with applicable law, Service Data may be transferred, transmitted, or distributed to, stored, and processed in, cloud computing environments in the United States or any other country in which Seller, its affiliates, subsidiaries, or service providers maintain operations. By using the Goods, Parts, and/or Software, Buyer agrees to such use, transfer, transmission, distribution, storage, and processing of the Service Data. Seller, its affiliates, subsidiaries, and service providers will retain Service Data for as long as is necessary for Seller and its affiliates and subsidiaries business purposes in accordance with applicable law. The rights and licenses granted herein to Seller's service providers shall only be granted to the extent service providers are providing goods and services on Seller's and its affiliates and subsidiaries behalf.

13. **INSPECTION:** Buyer shall have ten (10) days from the date of completion of each portion of the Services to inspect the Services, and in the event of any non-conformity, Buyer must give written notice to Seller within said period stating why the Services are not conforming. Failure by Buyer to give such notice constitutes unqualified acceptance of the Services.

14. **BILLABLE SERVICES:** Additional charges will be billed to Buyer at Seller's then prevailing labor rates for any of the following upon agreement between the parties: a) any Services not specified in Seller's quotation, Seller's order acknowledgement, Seller's scope of work, or other documents referenced herein and therein; b) any Services performed at times other than Seller's normal service hours; c) if timely and reasonable site and/or equipment access is denied the Seller service representative; d) if it is necessary, due to local circumstances, to use union labor or hire an outside contractor, Seller Service personnel will provide supervision only and the cost of such union or contract labor will be charged to Buyer; (e) if Service or repair is necessary to return equipment to proper operating condition as a result of other than Seller (i) maintenance, repair, or modification (including, without limitation, changes in specifications or incorporation of attachments or other features), (ii) misuse or neglect, (including, without limitation, failure to maintain facilities and equipment in a reasonable manner), (iii) failure to operate equipment in accordance with applicable specifications, and (iv) catastrophe, accident, or other causes external to equipment; (f) Seller's performance is made more burdensome or costly as a result of Buyer's failure to comply with its obligations herein, or (g) any additional obligations or requirements, including but not limited to those related to insurance requirements, service delivery, building entry or technical training.

15. **DRAWINGS:** Seller's documentation, prints, and drawings ("Documents") (including without limitation, the underlying technology) furnished by Seller to Buyer in connection with this Agreement are the property of Seller and Seller retains all rights, including without limitation, exclusive rights of use, licensing and sale. Notwithstanding the foregoing, Buyer may use the Documents in connection with the Services and Parts.

16. **EXPORT/IMPORT:** Buyer agrees that all applicable import and export control laws, regulations, orders and requirements, including without limitation those of the United States, and the jurisdictions in which the Seller and Buyer are established or from which Services and Parts may be supplied, will apply to their receipt and use. In no event shall Buyer use, transfer, release, import, or export Parts in violation of such applicable laws, regulations, orders or requirements.

17. **NON-SOLICITATION:** Buyer shall not solicit, directly or indirectly, or employ any employee of Seller during the period any Services are being provided to Buyer and for a period of one (1) year after the last provision of Services.

18. **GENERAL PROVISIONS:** These Services Terms and Conditions supersede all other communications, negotiations and prior oral or written statements regarding the subject matter of these Services Terms and Conditions. No change, modification, rescission, discharge, abandonment, or waiver of these Services Terms and Conditions shall be binding upon the Seller unless made in writing and signed on its behalf by a duly authorized representative of Seller. No conditions, usage of trade, course of dealing or performance, understanding or agreement purporting to modify, vary, explain, or supplement this Agreement shall be binding unless hereafter made in writing and signed by the party to be bound, and no modification or additional terms shall be applicable to this Agreement by Seller's receipt, acknowledgment, or acceptance of purchase orders, shipping instruction forms, or

other documentation containing terms at variance with or in addition to those set forth herein. Any such modifications or additional terms are specifically rejected and deemed a material alteration hereof. If this document shall be deemed an acceptance of a prior offer by Buyer, such acceptance is expressly conditional upon Buyer's assent to any additional or different terms set forth herein. Seller reserves the right to subcontract Services to others. No waiver by either party with respect to any breach or default or of any right or remedy, and no course of dealing, shall be deemed to constitute a continuing waiver of any other breach or default or of any other right or remedy, unless such waiver be expressed in writing and signed by the party to be bound. All typographical or clerical errors made by Seller in any quotation, acknowledgment or publication are subject to correction.

The validity, performance, and all other matters relating to the interpretation and effect of this Agreement shall be governed by the law of the state of Florida without regard to its conflict of laws principles. No action, regardless of form, arising out of transactions relating to this contract, may be brought by either party more than two (2) years after the cause of action has accrued. The U.N. Convention on Contracts for the International Sales of Goods shall not apply to this Agreement.

19. **ADDITIONAL SERVICE CONDITIONS:** The Buyer shall furnish to Seller, at no cost, suitable working space, storage space, adequate heat, telephone, light, ventilation, regulated electric power and outlets for testing purposes. The facilities shall be within a reasonable distance from where the Services are to be provided. Seller and its representatives shall have full and free access to the equipment in order to provide the necessary Services. Buyer authorizes Seller to send a service technician or an authorized agent to access any site requested by Buyer to perform Services, including services on different scopes of work and equipment as requested by Buyer. Buyer shall provide the means to shut-off and secure electric power to the equipment and provide safe working conditions. Seller is under no obligation to remove or dispose of Parts or equipment unless specifically agreed upon in Seller's scope of work. Buyer shall immediately inform Seller, in writing, at the time of order placement and thereafter, of any unsafe or hazardous substance or condition at the site, including, but not limited to, the presence of asbestos or asbestos-containing materials, and shall provide Seller with any applicable Material Data Safety Sheets regarding the same. Any losses, costs, damages, claims and expenses incurred by Seller as a result of Buyer's failure to so advise Seller shall be borne by Buyer. Seller, in its sole discretion and without cost or penalty, reserves the right to cancel its performance under this Agreement or any order immediately upon written notice to Buyer following Seller discovery of unsafe or hazardous site substance or condition or any other circumstance altering Seller performance of Services. Buyer shall appoint a representative familiar with the site and the nature of the Services to be performed by Seller to be accessible at all times that Seller personnel are at the site. Seller shall not be liable for any expenses incurred by Buyer in removing, replacing or refurbishing any Buyer equipment or any part of Buyer's building structure that restricts Seller access. Buyer personnel shall cooperate with and provide all necessary assistance to Seller. Seller shall not be liable or responsible for any work performed by Buyer.

20. **INDEMNITY:** Seller shall indemnify and hold the Buyer party harmless from loss, damage, liability or expense resulting from damage to personal property of a third party, or injuries, including death, to third parties to the extent caused by a negligent act or omission of the Seller or Seller's subcontractors, agents or employees during performance of Services hereunder. Such indemnification shall be reduced to the extent damage or injuries are attributable to others. The Seller party shall defend the Buyer in accordance with and to the extent of the above indemnification, provided that the Seller is: i) promptly notified by Buyer, in writing, of any claims, demands or suits for such damages or injuries; ii) given all reasonable information and assistance by the Buyer; iii) given full control over any resulting negotiation, arbitration or litigation, including the right to choose counsel and settle claims, or the Seller's obligations herein shall be deemed waived.

21. **DATA COLLECTION AND USE:** By using the Service, Parts and/or Software, Buyer grants Seller, its affiliates, subsidiaries, and service providers, a non-exclusive, irrevocable, royalty free, worldwide right and license to collect, compile, retain, use, reproduce, and create derivative works of, your non-personal information and data, which includes without limitation, all data, materials, reports, text, sound, video, image files, software or any other information ("Service Data") that is provided by, or on behalf of, Buyer, or collected or compiled by Seller, its affiliates, subsidiaries, or service providers through the Goods, Parts, and/or Software. Seller, its affiliates, subsidiaries, and service providers may collect, compile, retain, use, reproduce, and create derivative works of Service Data: (i) to provide services, support, and maintenance; (ii) to develop and improve products, software, and services; and (iii) for scientific and technical research and marketing purposes. Buyer is solely responsible for the Service Data, and Buyer will secure and maintain all rights necessary for Seller, its affiliates, subsidiaries, and service providers to process and use Service Data as described in this paragraph without violating the rights of any third party or otherwise obligating Seller, its affiliates, subsidiaries, and service providers to Buyer or any third party. The Service Data will be aggregated with other information, materials, or data collected or compiled by, or provided to, Seller, its affiliates, subsidiaries, or service providers and anonymized, such that the Service Data will not intentionally reveal Buyer's identity. In accordance with applicable law, Service Data may be transferred, transmitted, or distributed to, stored, and processed in, cloud computing environments in the United States or any other country in which Seller, its affiliates, subsidiaries, or service providers maintain operations. By using the Goods, Parts, and/or Software, Buyer agrees to such use, transfer, transmission, distribution, storage, and processing of the Service Data. Seller, its affiliates, subsidiaries, and service providers will retain Service Data for as long as is necessary for Seller and its affiliates and subsidiaries business purposes in accordance with applicable law. The rights and licenses granted herein to Seller's service providers shall only be granted to the extent service providers are providing goods and services on Seller's and its affiliates and subsidiaries behalf.

The parties hereto agree any orders placed by Buyer for Seller to provide Services, regardless of any terms and conditions on any quote, purchase order or other documents exchanged, the terms and conditions of this Agreement shall prevail.

IN WITNESS WHEREOF, the Parties have executed and delivered this Agreement as of the Effective Date.

ACCEPTED AND AGREED:

Central Florida Expressway Authority

By: _____

Name: _____

Title: _____ Date: _____

Vertiv Corporation

By: _____

Name: _____

Title: _____ Date: _____

CONSENT AGENDA ITEM

#16

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

MEMORANDUM

TO: Aneth Williams
Director of Procurement

FROM: Don Budnovich
Director of Maintenance

DATE: May 27, 2020

SUBJECT: Single Source Justification for Vertiv Corporation

Vertiv Corporation
1050 Dearborn Dr.
Columbus, OH 43085

The following is the reasoning to Single Source with this vendor.

CFX owns and maintains 4 Liebert Air Conditioning units to provide air conditioning to our 2 main computer server rooms (HQ and Hiawassee Backup Data Center). Both of these rooms and the specialized air conditioning units that cool them are considered mission critical to CFX. The Liebert Units are designed to operate continuously (24/7) as necessary to keep the server rooms cooled in the low to mid 70's. Regular preventative maintenance and if necessary, prompt repair is essential.

Advantages of contracting directly with Vertiv include:

- Only Liebert certified technicians perform work on the equipment
- Preventive maintenance to Liebert Specifications, 4 times per year
- 4-hour emergency response, 7 days/week, 24 hours/day
- Parts, labor and travel are included

To best ensure the units are properly serviced, maintained and repaired promptly, CFX wishes to have these services sole sourced to the Liebert Unit Manufacturer, Vertiv Corporation.

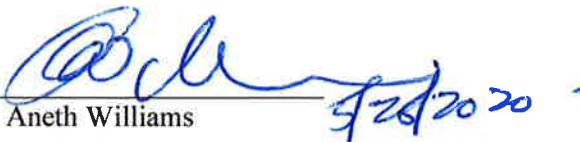
Sincerely,



Donald W. Budnovich, PE
Director of Maintenance

Approve: _____

Aneth Williams



4974 ORL TOWER RD. ORLANDO, FL 32807 | PHONE: (407) 690-5000 | FAX: (407) 690-5011


CONSENT AGENDA ITEM

#16

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

MEMORANDUM

TO: CFX Board Members

FROM: Aneth Williams
Director of Procurement 
Aneth Williams (Jun 2, 2020 16:35 EDT)

DATE: May 28, 2020

RE: Approval of Purchase Order to Avaya for CFX Voice Messaging and Call Center Telephone Maintenance and Support Service

Board approval is requested to issue a purchase order to Avaya in a not-to-exceed amount of \$60,562.98 for maintenance, support and updates to CFX telephony system for a six-month period.

This amount is budgeted in the OM&A Budget.

Reviewed by: 
Rafael Millan (Jun 3, 2020 09:44 EDT)
Rafael Millan
Director of IT



**CONSENT AGENDA ITEM
#17**

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

MEMORANDUM

AMENDED

TO: CFX Board Members

FROM: Aneth Williams *AW*
Director of Procurement

DATE: May 29, 2020

SUBJECT: Approval of Contract Award to AllianceOne Receivables Management, Inc., a wholly owned subsidiary of Teleperformance for CFX Customer Service Operations
Contract No. 001653

Request for Proposals (RFP) from qualified firms to provide Customer Service Operations for CFX was advertised on March 15, 2020. Responses were received from six (6) firms by the deadline. Those firms were AllianceOne Receivables Management, Inc. Atento, Egis, GC Services, Shimmick Construction Co. and WSP USA, Inc.

The Evaluation Committee shortlisted AllianceOne Receivables Management, Inc., Shimmick Construction Co. and WSP USA, Inc.

As part of the scoring process, the Evaluation Committee heard oral presentations from the firms on May 28 and 29, 2020. After the oral presentations were completed, the fee proposals were opened and scored. The combined scores for the technical proposals and fee proposals as submitted by each firm were calculated and the result is shown below:

<u>Ranking</u>	<u>Firm</u>	<u>Total Points</u>
1	AllianceOne Receivables Management, Inc.	648.36
2	Shimmick Construction Co.	557.24
3	WSP USA, Inc.	555.29

Board award of the contract to AllianceOne Receivables Management, Inc., a wholly owned subsidiary of Teleperformance in the amount of \$87,170,217.64 for a five (5) year term with five one-year renewals is requested.

This contract is budgeted in the OM&A Budget

Reviewed by: *D. Wynne*
David Wynne
Director of Toll Operations

JG

4974 ORL TOWER RD. ORLANDO, FL 32807 | PHONE: (407) 690-5000 | FAX: (407) 690-5011

RFP-001653 Technical Committee- May 29, 2020 Minutes

Technical Committee for CFX Customer Service Operations; RFP-001653 held a duly noticed meetings on Thursday and Friday, May 28- 29, 2020, commencing at 8:00 a.m. via teleconference

Committee Members:

Jim Greer, Chief Technology and Op. Officer
David Wynne, Director of Toll Operations
Fred Nieves, Manager E-PASS and Toll Operations
Evelyn Wilson, Director of HR
Leon Okopski, Manager of IT Infrastructure

Other Attendees:

Aneth Williams, Director of Procurement
Brad Osterhaus, Senior Procurement/QC Administrator
Todd Tierney, PPT Solutions
Scott Prater, PPT Solutions

Presentations / Q and A:

Brad began each demos with introduction of the firms and Committee members. This portion of the meeting is closed to the public and is being recorded in accordance with Florida Statute. The demos/QA were performed over two days – Thursday and Friday, May 28 & 29, 2020.

Teleperformance (May 28, 2020)	8:00 -11:30 a.m.
Shimmick Construction Co. (May 28, 2020)	1:00 – 4:30 p.m.
WSP USA, Inc. (May 29, 2020)	8:00 – 11:30 a.m.

Evaluation Portion:

After demo presentations, the committee members individually scored the demo presentations and submitted them for tallying. The score for the demo presentations is as shown:

<u>Proposer</u>	<u>Points</u>
Teleperformance	473
Shimmick Construction Co.	282
WSP USA, Inc.	417

Pricing

Upon completion of the evaluation of the demo presentation, Aneth opened the pricing proposals and scored the pricing proposals in accordance with the RFP requirements. The Committee recommended Option 1 for the pricing.

<u>Proposer</u>	<u>Total Price</u>	<u>Points</u>
Teleperformance	\$ 87,170,217.64	300.00
Shimmick Construction Co.	\$108,976,366.76	239.97
WSP USA, Inc.	\$116,408,858.08	224.65

Total Points and Rankings

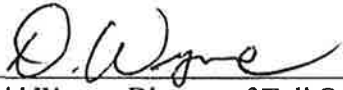
<u>Proposer</u>	<u>Avg. Tech. Points</u>	<u>Pricing Points</u>	<u>Total Points</u>	<u>Ranking</u>
Teleperformance	348.36	300.00	648.36	1
Shimmick Construction Co.	317.27	239.97	557.24	2
WSP USA, Inc.	330.64	224.65	555.29	3

The Committee members agreed that the highest ranked firm would be recommended to the Board for award.

There being no further business to come before the Committee, the meeting was adjourned at 3:32 p.m. These minutes are considered to be the official minutes of scoring the technical proposals demo presentations, opening of the Price Proposals and final evaluation by the Evaluation Committee at its meeting held Friday, May 29, 2020.

Submitted by: 
Aneth Williams, Director of Procurement

On behalf of the Evaluation Committee these minutes have been review and approved by:


David Wynne, Director of Toll Operations

CENTRAL FLORIDA EXPRESSWAY AUTHORITY
 TECHNICAL AND PRICE PROPOSAL SCORING SUMMARY
 CFX CUSTOMER SERVICE OPERATIONS; CONTRACT NO. 001653

EVALUATOR	TELEPERFORMANCE		SHIMMICK CONSTRUCTION CO.		WSP USA, Inc.					
	TECHNICAL	DEMO	TECHNICAL	DEMO	TECHNICAL	DEMO				
JIM GREER	580	95	485	40	510	85				
DAVID WYNNE	491	100	504	70	486	80				
FRED NIEVES	590	100	520	30	510	70				
MICHAEL CARLISLE	583		590		590					
EVELYN WILSON	580	95	540	80	533	90				
LEON OKOPSKI	605	83	588	62	579	92				
TOTAL	3359	473	3208	282	3220	417				
AVG. TECH. POINTS	348.36		317.27		330.64					

PRICE PROPOSAL SUMMARY		
PROPOSER	PROPOSAL AMOUNT	POINT VALUE
TELEPERFORMANCE	\$87,170,217.84	300.00
SHIMMICK CONSTRUCTION CO	\$108,978,388.78	239.97
WSP USA, Inc.	\$116,408,858.03	224.65

POINT TOTALS AND FINAL RANKING				
PROPOSER	TECHNICAL POINTS	PRICE POINTS	TOTAL POINTS	FINAL RANKING
TELEPERFORMANCE	348.36	300.00	648.36	1
SHIMMICK CONSTRUCTION CO.	317.27	239.97	557.24	2
WSP USA, Inc.	330.64	224.65	555.29	3

Evelyn Wilson Digitally signed by Evelyn Wilson
Date: 2020.05.29 15:57:01 -0400

Committee Members:

D. Wynne

Fred Nieves

5/29/2020
 5/29/2020
 5/29/2020
 5/29/2020
 5/29/2020

From: Jim Greer
To: Bradley Osterhaus; Leon Okopski; Evelyn Wilson
Subject: RE: Contract No. 1653 Final Score Summary
Date: Friday, May 29, 2020 4:06:55 PM
Attachments: [image002.png](#)
[image003.png](#)

I approve the scores

Jim Greer
Chief Technology & Operating Officer

CENTRAL FLORIDA EXPRESSWAY AUTHORITY
4974 ORL Tower Road • Orlando, FL 32807
407.690.5164
www.CFXway.com

PLEASE NOTE: Florida has a very broad public records law (F. S. 119).
All emails to and from CFX are kept as a public record. Your email communications,
including your email address may be disclosed to the public and media at any time.



From: Bradley Osterhaus <Bradley.Osterhaus@cfxway.com>
Sent: Friday, May 29, 2020 3:50 PM
To: Jim Greer <Jim.Greer@cfxway.com>; Leon Okopski <Leon.Okopski@cfxway.com>; Evelyn Wilson <Evelyn.Wilson@cfxway.com>
Subject: Contract No. 1653 Final Score Summary

Afternoon Committee Members,

Can you please reply to this email confirming Final Score Summary. Thanks.

Bradley Osterhaus
Sr Procurement/Quality Control Administrator

Central Florida Expressway Authority
4974 ORL Tower Road • Orlando, FL 32807
407.690.5374 (p) • 407-690-5011 (f)
www.cfxway.com

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communications, including your email address may be disclosed
to the public and media at any time.



From: Leon Okopski
To: Bradley Osterhaus
Subject: RE: Contract No. 1653 Final Score Summary
Date: Friday, May 29, 2020 3:58:06 PM
Attachments: [image002.png](#)
[image003.png](#)

Brad, my scores are correct.

Thanks

Leon Okopski
Manager of IT Infrastructure
Central Florida Expressway Authority
4974 ORL Tower Road • Orlando, FL 32807
407.690.5137 (p) • 407.690.5011 (f) • 407-342-4474 (m)

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communications, including your email address may be disclosed
to the public and media at any time.

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From: Bradley Osterhaus <Bradley.Osterhaus@cfxway.com>
Sent: Friday, May 29, 2020 3:50 PM
To: Jim Greer <Jim.Greer@cfxway.com>; Leon Okopski <Leon.Okopski@cfxway.com>; Evelyn Wilson <Evelyn.Wilson@cfxway.com>
Subject: Contract No. 1653 Final Score Summary

Afternoon Committee Members,

Can you please reply to this email confirming Final Score Summary. Thanks.

Bradley Osterhaus
Sr Procurement/Quality Control Administrator

Central Florida Expressway Authority
4974 ORL Tower Road • Orlando, FL 32807
407.690.5374 (p) • 407-690-5011 (f)
www.cfxway.com

RFP-001653 Evaluation Committee Meeting April 21, 2020 Minutes

Evaluation Committee for CFX Customer Service Operations; RFP-001653 held a duly noticed meeting on Thursday, April 21, 2020, commencing at 10:00 a.m. via teleconference

Committee Members:

Jim Greer, Chief Technology and Operations Officer
David Wynne, Director of Toll Operations
Fred Nieves, Manager of E-PASS & Plaza Operations
Mike Carlisle, Director of Finance and Accounting
Leon Okopski, Manager of IT Infrastructure
Evelyn Wilson, Director of Human Resources

Other Attendees:

Aneth Williams, Director of Procurement
Brad Osterhaus, Senior Procurement Administrator/QC
Wideline Dorvil, Supervisor of Audit & QC – Toll Operations
Todd Tierney, PPT Solutions
Scott Prater, PPT Solutions

Discussion and Motions:

Aneth explained that today's meeting was to evaluate the proposals and shortlist the top firms. The Evaluation Committee Members submitted their disclosure forms via e-mail . General discussion ensued about the submittals.

Evaluation Portion:

The committee members individually scored the technical proposals and submitted them for tallying. The score for the technical proposals is as shown:

<u>Proposer</u>	<u>Total Points</u>	<u>Ranking</u>
Teleperformance	3359	1
WSP	3220	2
Shimmick Construction Co.	3208	3
Atento	3050	4
Egis	3031	5
GC Services	2741	6

The Committee members agreed that Teleperformance, WSP and Shimmick Construction Co. be shortlisted and invited for oral presentations.

There being no further business to come before the Committee, the meeting was adjourned at 12:32 p.m. These minutes are considered to be the official minutes of scoring the technical proposals by the Evaluation Committee at its meeting held Thursday, May 21, 2020.

Submitted by: 
Aneth Williams, Director of Procurement

On behalf of the Evaluation Committee these minutes have been review and approved by:


David Wynne, Director of Toll Operations

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

EVALUATION COMMITTEE MEMBER FINAL SUMMARY RANKING

CFX CUSTOMER SERVICE CENTER
CONTRACT NO. 001653

CONSULTANT	JIM GREER SCORE	DAVID WYNNE Score	FRED NIEVES Score	MICHAEL CARLISLE Score	LEON OKOPSKI Score	EVELYN WILSON Score	SCORE	RANKING
Atento	570	465	405	473	582	555	3050	4
Egis	495	469	520	555	557	435	3031	5
GC Services	455	458	385	443	535	465	2741	6
Shimmick	485	504	520	590	569	540	3208	3
Teleperformance	580	491	560	563	605	560	3359	1
WSP	510	496	510	590	579	535	3220	2

EVALUATION COMMITTEE MEMBERS:



JIM GREER

DATE: Thursday, May 21, 2020



DAVID WYNNE

DATE: Thursday, May 21, 2020



FRED NIEVES

DATE: Thursday, May 21, 2020



MICHAEL CARLISLE

DATE: Thursday, May 21, 2020



LEON OKOPSKI

DATE: Thursday, May 21, 2020



EVELYN WILSON

CONTRACT

**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
AND
ALLIANCEONE RECEIVABLES MANAGEMENT, INC.**

CFX CUSTOMER SERVICE OPERATIONS

CONTRACT NO. 001653

**CONTRACT DATE: JUNE 11, 2020
CONTRACT AMOUNT: \$ 87,170,217.64**

**CONTRACT, SCOPE OF SERVICES REQUIREMENTS,
METHOD OF COMPENSATION, ADDENDA, TECHNICAL
PROPOSAL, PRICE PROPOSAL, PERFORMANCE AND
PAYMENT BOND, AND FORMS**

**CONTRACT, SCOPE OF SERVICES REQUIREMENTS, METHOD OF
COMPENSATION, ADDENDA, TECHNICAL PROPOSAL, PRICE
PROPOSAL, PERFORMANCE AND PAYMENT BOND, AND FORMS**

CFX CUSTOMER SERVICE OPERATIONS

CONTRACT NO. 001653

JUNE 2020

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

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CONTRACT 001653

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Contract No. 001653

This Contract is made this 11th day of June 2020, between the CENTRAL FLORIDA EXPRESSWAY AUTHORITY, a body politic and agency of the State of Florida, created by Chapter 2014-171, Laws of Florida, which is codified in Chapter 348, Part III of the Florida Statutes, hereinafter "CFX," and AllianceOne Receivables Management, Inc., a foreign profit corporation, registered and authorized to do business in the State of Florida, whose principal address is 4850 East Street Road, Ste. 300, Trevoze, PA. 19053, hereinafter "the CONTRACTOR."

WITNESSETH:

WHEREAS, CFX was created by statute and is charged with acquiring, constructing, operating and maintaining a system of limited access roadways known as the Central Florida Expressway System; **and**

WHEREAS, CFX has been granted the power under Section 348.754(2)(m) of Florida Statutes, "to do everything necessary or convenient for the conduct of its business and the general welfare of the authority in order to comply with this part or any other law;" **and**

WHEREAS, CFX has determined that it is necessary and convenient in the conduct of its business to retain the services of a CONTRACTOR to perform CFX Customer Service Operations under Contract No. 001653, and related tasks as may be assigned to the CONTRACTOR by CFX; **and**

WHEREAS, on or about March 16, 2020, CFX issued a Request for Proposals seeking qualified contractors to perform such tasks; **and**

WHEREAS, CONTRACTOR was the successful one of six qualified firms that responded to the Request for Proposals and was ultimately selected; **and**

NOW THEREFORE, in consideration of the mutual covenants and benefits set forth herein and other good and valuable consideration, the receipt and sufficiency of which being hereby acknowledged by each party to the other, the parties hereto agree as follows:

1. SERVICES TO BE PROVIDED

The CONTRACTOR shall, for the consideration herein stated and at its cost and expense, do all the work and furnish all the materials, equipment, supplies and labor necessary to perform this Contract in the manner and to the full extent as set forth in the Contract Documents all of which are hereby adopted and made part of this Contract as completely as if incorporated herein. The Contract shall be performed and services provided to the satisfaction of the duly authorized representatives of CFX, who shall have at all times full opportunity to evaluate the services provided under this Contract.

The services to be provided under this Contract include providing all of the personnel required to operate CFX's E-PASS® Customer Service Centers (CSC), the Violation Enforcement Section (VES), and the Visitor Toll Pass Operation (VTP), as detailed in the Contract Documents and any amendments, supplements, or modifications thereto.

CFX does not guarantee that all of the services described in the Scope of Services will be assigned during the term of the Contract. Further, the CONTRACTOR is providing these services on a non-exclusive basis. CFX, at its option, may elect to have any of the services set forth herein performed by other contractors or CFX staff.

The Contract Documents, in order of precedence, consist of:

- 1.1 The Contract,
- 1.2 The Addenda (if any), with those of later date having precedence over those of earlier date,
- 1.3 The Scope of Services Requirements,
- 1.4 The Method of Compensation,
- 1.5 The Technical Proposal submitted by CONTRACTOR, and
- 1.6 The Price Proposal submitted by CONTRACTOR,
- 1.7 The Potential Conflict Disclosure Form submitted by CONTRACTOR,

(collectively, the "Contract Documents").

2. TERM AND NOTICE

The initial term of the Contract will be five (5) years from the date indicated in the Notice to Proceed from CFX, hereinafter "Initial Contract Term." At the sole discretion and election of CFX, there may be five (5) one-year renewal options, or portions thereof. Renewals will be based, in part, on a determination by CFX that the value and level of service provided by CONTRACTOR are satisfactory and adequate for CFX's needs. If a renewal option is exercised, CFX will provide CONTRACTOR with written notice of its intent at least 90 days prior to the expiration of the term of the Contract.)

CFX shall have the right to terminate or suspend the Contract, in whole or part, at any time, for convenience or cause for Contractor's failure to perform the provisions of the Contract. In the event CFX elects to terminate the Contract for cause, CFX shall provide Contractor seven (7) calendar days prior written notice and opportunity to cure, unless such longer curative period is set forth in the notice of default. In the event CFX elects to terminate the Contract for convenience, CFX shall provide Contractor thirty (30) days prior written notice. Under no circumstances shall a properly noticed termination by CFX (with or without cause) constitute a default by CFX. In the event of a termination for convenience or without cause, CFX shall notify CONTRACTOR (in writing) of such action with instructions as to the effective date of termination or suspension, in accordance with the time frames set forth in said written notification. CONTRACTOR will be paid for all work properly performed prior to termination. CONTRACTOR will not be paid for special, indirect, consequential, or undocumented termination costs and expenses. Payment for work performed will be based on Contract prices, which prices are deemed to include profit and overhead. No profit or overhead will be allowed for work not performed, regardless of whether the termination is for convenience or for cause.

If CONTRACTOR: (i) fails to perform the Contract terms and conditions; (ii) fails to begin the work under the Contract within the time specified in the "Notice to Proceed"; (iii) fails to perform the work with sufficient, satisfactory, or suitable personnel or with sufficient, satisfactory, or suitable materials to assure the prompt performance of the work items covered or services required by the Contract; (iv) fails to comply with the Contract, or (v) performs unsuitably or unsatisfactorily in the opinion of CFX reasonably exercised, or for any other cause whatsoever, fails to carry on the work or services in an acceptable manner, CFX will give notice in writing to the CONTRACTOR of such delay, neglect or default. If the Contract is declared in default, CFX may take over the work covered by the Contract.

If CONTRACTOR (within the curative period, if any, described in the notice of default) does not correct the default, CFX will have the right to remove the work from CONTRACTOR and to declare the Contract in default and terminated.

Upon declaration of default and termination of the Contract, CFX will have the right to appropriate or use any or all materials as CFX determines and may retain others for the completion of the work under the Contract or may use other methods which in the opinion of CFX are required for Contract completion. All costs and charges incurred by CFX because of, or related to, the CONTRACTOR's default (including the costs of completing Contract performance) shall be charged against the CONTRACTOR. If the expense of Contract completion exceeds the sum which would have been payable under the Contract, the CONTRACTOR shall pay CFX the amount of the excess. If, after the default notice curative period has expired, but prior to any action by CFX to complete the work under the Contract, CONTRACTOR demonstrates an intent and ability to cure the default in accordance with CFX's requirements, CFX may, but is not obligated to, permit CONTRACTOR to resume work under the Contract. In such circumstances, any costs of CFX incurred by the delay (or from any reason attributable to the delay) will be deducted from any monies due or which may become due CONTRACTOR under the Contract. Any such costs incurred by CFX which exceed the remaining amount due on the Contract shall be reimbursed to CFX by CONTRACTOR. The financial obligations of this paragraph, as well as any other provision of the Contract which by its nature and context survives the expiration of earlier termination of the Contract, shall survive the expiration or earlier termination of the Contract.

CFX shall have no liability to CONTRACTOR for expenses or profits related to unfinished work on a Contract terminated for default.

CFX reserves the right to immediately cancel or immediately terminate this Contract in the event the CONTRACTOR or any employee, servant, or agent of the CONTRACTOR is indicted or has a direct information issued against him for any crime arising out of or in conjunction with any work being performed by the CONTRACTOR for on behalf of CFX, without penalty. Such termination shall be deemed a termination for default.

CFX reserves the right to immediately terminate or immediately cancel this Contract in the event the CONTRACTOR shall be placed in either voluntary or involuntary bankruptcy or an assignment is made for the benefit of creditors. Such termination shall be deemed a termination for default.

3. CONTRACT AMOUNT AND COMPENSATION FOR SERVICES

3.1 The Contract Amount for the Initial Contract Term is \$87,170,217.64

3.2 CFX agrees to pay CONTRACTOR for services performed in accordance with the Method of Compensation attached hereto and incorporated by reference as though set forth fully herein.

4. AUDIT AND EXAMINATION OF RECORDS

4.1 Definition of Records:

(i) "Contract Records" shall include, but not be limited to, all information, communications and data, whether in writing or stored on a computer, computer disks, microfilm, writings, working papers, drafts, computer printouts, field notes, charts or any other data compilations, books of account, photographs, videotapes and audiotapes supporting documents, any other papers or preserved data in whatever form, related to the Contract or the CONTRACTOR's performance of the Contract determined necessary or desirable by CFX for any purpose. Proposal Records shall include, but not be limited to, all information and data, whether in writing or stored on a computer, writings, working papers, computer printouts, charts or other data compilations that contain or reflect information, data or calculations used by CONTRACTOR in determining labor, unit price, or any other component of a bid submitted to CFX.

(ii) "Proposal Records" shall include, but not be limited to, any material relating to the determination or application of equipment rates, home and field overhead rates, related time schedules, labor rates, efficiency or productivity factors, arithmetic extensions, quotations from subcontractors, or material suppliers, profit contingencies and any manuals standard in the industry that may be used by CONTRACTOR in determining a price.

CFX reserves and is granted the right (at any time and from time to time, for any reason whatsoever) to review, audit, copy, examine and investigate in any manner, any Contract Records (as herein defined) or Proposal Records (as hereinafter defined) of the CONTRACTOR or any subcontractor. By submitting a response to the Request for Proposal, CONTRACTOR and any subcontractor submits to and agree to comply with the provisions of this section.

If CFX requests access to or review of any Contract Documents or Proposal Records and CONTRACTOR refuses such access or review, CONTRACTOR shall be in default under its Contract with CFX, and such refusal shall, without any other or additional actions or omissions,

constitute grounds for suspension or disqualification of CONTRACTOR. These provisions shall not be limited in any manner by the existence of any CONTRACTOR claims or pending litigation relating to the Contract. Disqualification or suspension of the CONTRACTOR for failure to comply with this section shall also preclude the CONTRACTOR from acting in the future as a subcontractor of another CONTRACTOR doing work for CFX during the period of disqualification or suspension. Disqualification shall mean the CONTRACTOR is not eligible for and shall be precluded from doing future work for CFX until reinstated by CFX.

Final Audit for Project Closeout: The CONTRACTOR shall permit CFX, at CFX'S option, to perform or have performed, an audit of the records of the CONTRACTOR and any or all subcontractors to support the compensation paid the CONTRACTOR. The audit will be performed as soon as practical after completion and acceptance of the contracted services. In the event funds paid to the CONTRACTOR under the Contract are subsequently determined to have been inadvertently paid by CFX because of accounting errors or charges not in conformity with the Contract, the CONTRACTOR agrees that such amounts are due to CFX upon demand. Final payment to the CONTRACTOR shall be adjusted for audit results.

CONTRACTOR shall preserve all Proposal Records and Contract Records for the entire term of the Contract and for a period of five (5) years after the later of: (i) final acceptance by CFX of the project or all work performed under the Contract, (ii) until all claims (if any) regarding the Contract are resolved, or (iii) expiration of the Proposal Records and Contract Records' status as public records, as and if applicable, under Chapter 119, Florida Statutes.

5. PUBLIC RECORDS

IF CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT 407-690-5000, publicrecords@CFXWay.com, and 4974 ORL Tower Road, Orlando, FL. 32807.

Notwithstanding the section on "Press Releases," CONTRACTOR acknowledges that CFX is a body politic and corporate, an agency of the State of Florida, and is subject to the Public Records Act codified in Chapter 119, Florida Statutes. To the extent that the CONTRACTOR is in the possession of documents that fall within the definition of public records subject to the Public

Records Act, which public records have not yet been delivered to CFX, CONTRACTOR agrees to comply with Section 119.0701, Florida Statutes, and to:

1. Keep and maintain public records required by the public agency to perform the service.
2. Upon request from the public agency's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in this chapter or as otherwise provided by law.
3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if CONTRACTOR does not transfer the records to the public agency.
4. Upon completion of the contract, transfer, at no cost, to the public agency all public records in possession of CONTRACTOR or keep and maintain public records required by the public agency to perform the service. If CONTRACTOR transfers all public records to the public agency upon completion of the contract, CONTRACTOR shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If CONTRACTOR keeps and maintains public records upon completion of the contract, CONTRACTOR shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the public agency, upon request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.

Upon receipt of any request by a member of the public for any documents, papers, letters, or other material subject to the provisions of Chapter 119, Florida Statutes, made or received by CONTRACTOR in conjunction with this Contract (including without limitation Contract Records and Proposal Records, if and as applicable), CONTRACTOR shall immediately notify the CFX. In the event CONTRACTOR has public records in its possession, CONTRACTOR shall comply with the Public Records Act and CONTRACTOR must provide the records to CFX or allow the records to be inspected or copied within a reasonable time. Failure by CONTRACTOR to grant such public access shall be grounds for immediate unilateral termination of this Contract by CFX for cause. Failure to provide the public records to CFX within a reasonable time may subject the CONTRACTOR to penalties under Section 119.10, Florida Statutes.

The obligations in this Section shall survive the expiration or termination of this Contract and continue in full force and effect as set forth above.

6. CONFLICT OF INTEREST AND STANDARDS OF CONDUCT

No Contingent Fees. CONTRACTOR warrants that it has not employed or retained any entity or person, other than a bona fide employee working solely for CONTRACTOR, to solicit or secure this Contract, and that CONTRACTOR has not paid or agreed to pay any person, company, corporation, individual or firm any fee, commission, percentage, gift or any other consideration, contingent upon or resulting from the award or making of this Contract. It is understood and agreed that the term "fee" shall also include brokerage fee, however denoted. For breach of this provision, CFX shall have the right to terminate this Contract without liability at its sole discretion.

CONTRACTOR acknowledges that CFX officials and employees are prohibited from soliciting and accepting funds or gifts from any person who has, maintains, or seeks business relations with CFX in accordance with CFX's Code of Ethics. CONTRACTOR acknowledges that it has read the CFX's Code of Ethics and, to the extent applicable, CONTRACTOR will comply with the aforesaid CFX's Code of Ethics in connection with performance of the Contract.

As required by Section 348.753, Florida Statutes, and CFX's Code of Ethics, CONTRACTOR agrees to complete CFX's Potential Conflict Disclosure Form prior to the execution of the Contract, upon the occurrence of an event that requires disclosure, and annually, not later than July 1st. The Potential Conflict Disclosure Form is attached hereto and incorporated by reference as though set forth fully herein.

In the performance of the Contract, CONTRACTOR shall comply with all applicable local, state, and federal laws and regulations and obtain all permits necessary to provide the Contract services.

CONTRACTOR covenants and agrees that it and its employees, officers, agents, and subcontractors shall be bound by the standards of conduct provided in Section 112.313, Florida Statutes, as it relates to work performed under this Contract, which standards will be reference be made a part of this Contract as though set forth in full.

CONTRACTOR hereby certifies that no officer, agent or employee of CFX has any "material interest" (as defined in Section 112.312(15), Florida Statutes) either directly or indirectly, in the

business of CONTRACTOR, and that no such person shall have any such interest at any time during the term of this Agreement.

7. DISADVANTAGED/MINORITY/WOMEN BUSINESS ENTERPRISES

CFX has adopted a program to provide opportunities for small business, including Disadvantaged/Minority Business Enterprises ("D/MBEs") and Women's Business Enterprises ("WBEs"). Under CFX's program, CONTRACTOR is encouraged to grant small businesses the opportunity to participate in CFX's contracts. CONTRACTOR shall provide information regarding its employment of such businesses and the percentage of payments made to such businesses and others. CONTRACTOR shall provide an annual report to CFX on or before each anniversary of the date indicated in the Notice to Proceed and throughout the Term, regarding use of small business D/MBEs and WBEs and the percentage of payments made to enterprises falling within such categories. Such report shall consolidate the information contained in CONTRACTOR's invoices and shall be in a form reasonably acceptable to CFX.

8. CONTRACTOR INSURANCE AND PERFORMANCE AND PAYMENT BOND

Anything contained herein to the contrary notwithstanding, during the term of the Contract and for such additional time as may be further required, the Contractor shall provide, pay for and maintain in full force and effect insurance outlined below for coverage at not less than the prescribed minimum limits of liability, covering the Contractor's activities and those of any and all subcontractors (including officers, directors, employees or agents of each and their successors).

Upon execution of the Contract, the Contractor shall furnish to CFX, Certificates of Insurance bearing an original manual signature of the authorized representative of the insurance company. No Work shall commence under the Contract unless and until the required Certificates of Insurance described herein are in effect and have been approved by CFX. The Certificate of Insurance shall be issued to CFX and shall reference the complete and correct Project number, as well as the full and complete name of each insurance company, including city and state of domicile, as listed by A.M. Best Company.

CONTRACTOR shall carry and keep in force during the period of this Contract, the required amount of coverage as stated below. All insurance must be underwritten by insurers that are qualified to transact business in the State of Florida and that have been in business and have a record of successful and continuous operations for at least five (5) years. Each shall carry a rating of "A-" (excellent) and a financial rating of Class XII, as defined by A.M. Best and

Company's Key Rating Guide and must be approved by CFX. CONTRACTOR shall carry and keep in force the following insurance coverage, and provide CFX with correct certificates of insurance (ACORD forms) upon Contract execution:

8.1 Commercial General Liability:

Insurance having a minimum coverage of One Million Dollars (\$1,000,000.00) per occurrence of bodily injury or property damage and a minimum of Two Million Dollars (\$2,000,000.00) annual aggregate for both General and Products and Completed Operations. Liability insurance shall be current ISO simplified form including products and completed operations coverage. The contractual liability insurance coverage shall include coverage for responsibilities and liabilities assumed by CONTRACTOR under this Agreement.

8.2 Business Automobile Liability:

(for bodily injury, death and property damage) having a minimum coverage of One Million Dollars (\$1,000,000.00) for each accident;

8.3 Workers' Compensation Insurance:

Coverage, including all coverage required under the laws of the state of Florida (as amended from time to time hereafter);

8.4 Unemployment Insurance:

Coverage in amounts and forms required by Florida law, as it may be amended from time to time hereafter;

8.5 Professional Liability:

Professional Liability Coverage shall have limits of not less than One Million Dollars (\$1,000,000) Combined Single Limit (CSL) or its equivalent, protecting the selected firm or individual against claims of CFX for negligence, errors, mistakes or omissions in the performance of services to be performed and furnished by the CONTRACTOR.

8.6 Information Security/Cyber Liability Insurance:

If a data breach is possible, the Contractor shall maintain information security/cyber liability insurance to include Internet Media Liability including cloud computing and mobile devices, for

protection of private or confidential information whether electronic or non-electronic, network security and privacy; privacy against liability for system attacks, digital asset loss, denial or loss of service, introduction, implantation or spread of malicious software code, security breach, unauthorized access and use; including regulatory action expenses; and notification and credit monitoring expenses with at least the minimum limits listed below.

- Each Occurrence – \$1,000,000
- Network Security / Privacy Liability –\$1,000,000
- Breach Response/ Notification Sublimit – A minimum limit of 50% of the policy aggregate
- Technology Products E&O – \$1,000,000 (Only applicable for Vendors supplying technology related services and or products)
- Coverage shall be maintained in effect during the period of the Agreement and for no less than two (2) years after termination/ completion of the Agreement.

Information Security/Cyber Liability Insurance written on a “claims-made” basis covering Supplier, its employees, subcontractors and agents for expenses, claims and losses resulting from wrongful acts committed in the performance of, or failure to perform, all services under this Agreement, including, without limitation, claims, demand and any other payments related to electronic or physical security, breaches of confidentiality and invasion of or breaches of privacy.

8.7 Commercial Crime Insurance:

If the scope of the contract includes involvement with monies and monetary instruments, the Contractor shall maintain commercial crime insurance having a minimum coverage of Ten Million Dollars (\$10,000,000.00) per occurrence and a minimum of Ten Million Dollars (\$10,000,000.00) annual aggregate.

8.8 Fiduciary Liability Insurance:

If the scope of the contract includes fiduciary duties, the Contractor shall maintain commercial crime insurance having a minimum coverage of Ten Million Dollars (\$10,000,000.00) per claim and a minimum of Ten Million Dollars (\$10,000,000.00) annual aggregate.

Such insurance policies shall be without co-insurance, and shall (a) include CFX, and such other applicable parties CFX shall designate, as additional insureds for commercial general liability and business automobile liability, (b) be primary and noncontributory insurance, (c) include contractual liability for commercial general liability, (d) provide that the policy may not be canceled or materially changed without at least thirty (30) days prior written notice to CFX from the company providing such insurance, and (e) provide that the insurer waives any right of subrogation against CFX, to the extent allowed by law and to the extent the same would not void primary coverage for applicable insurance policies. CONTRACTOR shall be responsible for any deductible it may carry. Renewal Certificates of Insurance for all policies shall be submitted by the Contractor so that they are received by CFX no later than thirty (30) calendar days prior to the expiration of existing insurance coverage. Failure by the Contractor to meet this required timeframe shall result in suspension of partial payments on monthly estimates until the certificates are received and accepted by CFX. Procurement of insurance shall not be construed to limit CONTRACTOR's obligations or liabilities under the Contract. The requirement of insurance shall not be deemed a waiver of sovereign immunity by CFX.

Any insurance carried by CFX in addition to CONTRACTOR's policies shall be excess insurance, not contributory.

Failure of CFX to demand such certificate or evidence of full compliance with these insurance requirements or failure of CFX to identify a deficiency from evidence provided will not be construed as a waiver of the CONTRACTOR's obligation to maintain such insurance.

The acceptance of delivery by CFX of any certificate of insurance evidencing the required coverage and limits does not constitute approval or agreement by CFX that the insurance requirements have been met or the insurance policies shown in the certificates of insurance are in compliance with the requirements.

If CONTRACTOR fails to obtain the proper insurance policies or coverages, or fails to provide CFX with certificates of same, CFX may obtain such policies and coverages at CONTRACTOR's expense and deduct such costs from CONTRACTOR payments. Alternately, CFX may declare CONTRACTOR in default for cause.

8.9 Performance and Payment Bond:

The CONTRACTOR shall furnish to CFX and shall maintain in effect throughout the term of the Contract, an acceptable surety bond in a sum equal to the amount of the Contract. This bond shall remain in effect until one year after the date when final payment becomes due, except as

provided otherwise by Laws or Regulations or by the Contract Documents. Such bond shall be executed on the form furnished by CFX. The surety shall meet all requirements of the laws of Florida and shall be approved and at all times acceptable to CFX. The surety agent's name, address and telephone number shall be clearly stated on the face of the Performance and Payment Bond.

In the event that the surety executing the bond (although acceptable to CFX at the time of execution of the Contract) subsequently becomes insolvent or bankrupt or becomes unreliable or otherwise unsatisfactory due to any cause which becomes apparent after CFX's initial approval of the company, then CFX may require that the CONTRACTOR immediately replace the surety bond with a similar bond drawn on a surety company which is reliable and acceptable to CFX. In such event, all costs of the premium for the new bond, after deducting any amounts that might be returned to the CONTRACTOR from its payment of premium on the defaulting bond, will be borne by CFX.

9. CONTRACTOR RESPONSIBILITY

9.1 CONTRACTOR shall take all reasonable precautions in the performance of the Services and shall cause its employees, agents and subcontractors to do the same. CONTRACTOR shall be solely responsible for the safety of, and shall provide protection to prevent damage, injury or loss to:

(i) all employees of CONTRACTOR and its subcontractors and other persons who are on or about the plazas or would reasonably be expected to be affected by the performance of the Services;

(ii) other property of CONTRACTOR and its employees, agents, officers and subcontractors and all other persons for whom CONTRACTOR may be legally or contractually responsible on or adjacent to the plazas or other areas upon which services are performed;

(iii) members of the public who may be traveling through the plazas and their vehicles.

9.2 CONTRACTOR shall comply, and shall cause its employees, agents, officers and subcontractors and all other persons for whom CONTRACTOR may be legally or contractually responsible, with the SOP, applicable laws, ordinances, rules, regulations, orders of public authorities, sound business practices, including without limitation:

- (i) those relating to the safety of persons and property and their protection from damage, injury or loss, and
- (ii) all workplace laws, regulations, and posting requirements, and
- (iii) implementation of a drug-free workplace policy at least of a standard comparable to, and in compliance with, CFX'S Drug-Free Workplace Policy; And
- (iv) compliance with the public records laws of Chapter 119, Florida Statutes.

9.3 CONTRACTOR shall be responsible for all damage and loss that may occur with respect to any and all property located on or about the plazas or in any way involved in the provision of services by CONTRACTOR, whether such property is owned by CONTRACTOR, CFX, or any other person, to the extent such damage or loss shall have been caused or brought about by the acts or omissions of CONTRACTOR or its employees, agents, officers or subcontractors or any other persons for whom CONTRACTOR may be legally or contractually responsible.

9.4 CONTRACTOR shall ensure that all of its activities and the activities of its employees, agents, officers and subcontractors and all other persons for whom CONTRACTOR may be legally or contractually responsible are undertaken in a manner that will minimize the effect on surrounding property and the public. CONTRACTOR shall be responsible for any shortage of tolls collected in accordance with the Scope and SOP Manual, and any theft or conversion of collected toll funds by employees of CONTRACTOR, or arising out of the negligence or willful misconduct of CONTRACTOR;

9.5 CONTRACTOR shall immediately notify CFX of any material adverse change in CONTRACTOR's financial condition, business, prospects, affairs, or operations, or of such change of any partner, or of such change of any shareholder holding greater than a 10% interest in CONTRACTOR, or of the existence of any material impairment of rights or ability of CONTRACTOR to carry on as its business and operations are currently conducted.

9.6 With respect to any employees of CONTRACTOR directly providing work to CFX, CONTRACTOR shall not make any requirement of any such employee or enter into a non-competition agreement with any such employee, whether oral or written, of any kind or nature, that would prohibit those employees from leaving CONTRACTOR's employ and taking

employment with any successor of CONTRACTOR for CFX's toll operations and management services.

10. INDEMNITY

CONTRACTOR shall indemnify and hold harmless CFX, and its officers and employees, from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of CONTRACTOR and other persons employed or utilized by CONTRACTOR in the performance of the contract.

10.1 Further, CONTRACTOR shall indemnify, defend and hold harmless CFX, and its respective officers and employees, from actual suits, actions, claims, demands, costs as defined elsewhere herein, expenses (including reasonable attorneys' fees as defined elsewhere herein), judgments, liabilities of any nature whatsoever (collectively, "Claims") arising out of, because of, or due to breach of the Contract by the CONTRACTOR, its subcontractors, officers, agents or employees, or due to any negligent or intentional act or occurrence of omission or commission of the CONTRACTOR, its subcontractors, officers, agents or employees, including without limitation any misappropriation or violation of third party copyright, trademark, patent, trade secret, publicity, or other intellectual property rights or other third party rights of any kind, by or arising out of any one or more of the following:

10.2 violation of same by CONTRACTOR, its subcontractors, officers, agents or employees,

10.3 CFX's use or possession of the CONTRACTOR Property or CONTRACTOR Intellectual Property (as defined herein below),

10.4 CFX's full exercise of its rights under any license conveyed to it by CONTRACTOR,

10.5 CONTRACTOR's violation of the confidentiality and security requirements associated with CFX Property and CFX Intellectual Property (as defined herein below),

10.6 CONTRACTOR's failure to include terms in its subcontracts as required by this Contract,

10.7 CONTRACTOR's failure to ensure compliance with the requirements of the Contract by its employees, agents, officers, or subcontractors, or

10.8 CONTRACTOR's breach of any of the warranties or representations contained in this Contract.

CONTRACTOR will not be liable for damages arising out of injury or damage to persons or property directly caused or resulting from the sole negligence of CFX or any of its officers, agents or employees. The parties agree that 1% of the total compensation to the CONTRACTOR for performance of each task authorized under the Contract is the specific consideration from CFX to CONTRACTOR for CONTRACTOR's indemnity and the parties further agree that the 1% is included in the amount negotiated for each authorized task.

11. PRESS RELEASES

CONTRACTOR shall make no statements, press releases or publicity releases concerning the Contract or its subject matter, or otherwise disclose or permit to be disclosed any of the data or other information obtained or furnished under the Contract, or any particulars thereof, including without limitation CFX Property and CFX Intellectual Property, without first notifying CFX and securing its consent in writing.

12. OWNERSHIP OF MATERIALS AND INTELLECTUAL PROPERTY RIGHTS

CFX is and shall be and remain the sole owner of all rights, title, and interest in, to, and associated with all plans, documents, software in all forms, hardware, programs, procedures, specifications, drawings, brochures pamphlets, manuals, flyers, models, photographic or design images, negatives, videos and film, tapes, work product, information, data and other items (all whether in preliminary, draft, master, final, paper, electronic, or other form), along with the media on which they reside and with which they interface for function or aesthetics, that are generated or developed solely and exclusively for CFX with respect to and in connection with this Contract and the performance thereof (collectively, the "CFX Property"). CFX's ownership of CFX Property includes without limitation all common law, statutory and other rights, title, and interest in, to, and associated with trademark, service mark, copyright, patent, trade secret, and publicity (collectively, the "CFX Intellectual Property"). CONTRACTOR, its employees, agents, officers, and subcontractors acknowledge that E-PASS® is CFX's registered trademark name for CFX's electronic toll collection system and comprises a portion of CFX Intellectual Property.

CONTRACTOR, its employees, agents, officers, and subcontractors may not use CFX Property or CFX Intellectual Property in any way, other than in performance of its services under the terms of this Contract, without the prior written consent of CFX, which may be granted or denied in CFX's sole discretion. CONTRACTOR, its employees, agents, officers, and subcontractors' access to and/or use of CFX Property and CFX Intellectual Property is without any warranty or representation by CFX regarding same.

Except as expressly set forth in this section, all rights in and to any and all material, information systems, technology, software and related documentation, tools, methods, forms, processes, procedures, workflows, data, data formats, data compilations, program names, designs, manuals, source code, object code and other material or information created by, owned, licensed to, or developed by CONTRACTOR, a CONTRACTOR Affiliate or their respective personnel, whether or not protected by patent, copyright, trademark, trade name or other intellectual property right as well as any development or any technology made available to CFX in the framework of the Contract, (a) prior to the Effective Date or (b) after the Effective Date but independent of this Contract, whether or not used by CONTRACTOR or a CONTRACTOR Affiliate in connection with the Services or incorporated into any CFX Property, (collectively, THE "CONTRACTOR Property") and the intellectual property rights associated therewith (collectively, the "CONTRACTOR Intellectual Property"), is, shall be, and shall remain, the exclusive property of CONTRACTOR and/or its third-party licensor(s). Subject to any limitations or restrictions set forth in agreements between CONTRACTOR or a CONTRACTOR Affiliate and any third-party licensors of CONTRACTOR Intellectual Property (which limitations or restrictions shall be disclosed to CFX at the time such CFX Property is delivered to CFX), CONTRACTOR hereby grants to CFX a non-exclusive, non-sublicensable, royalty-free, non-transferable, fully paid-up, worldwide license, during the Term, to use CONTRACTOR Intellectual Property, solely to the extent necessary for CFX to receive the Services. For all CONTRACTOR Property, and the intellectual property rights associated therewith (collectively, the "CONTRACTOR Intellectual Property"), CONTRACTOR (its employees, officers, agents, and subcontractors, which for purposes of this section shall collectively be referred to as "CONTRACTOR") warrants and represents the following:

12.1 CONTRACTOR was and is the sole owner of all right, title and interest in and to all CONTRACTOR Property and CONTRACTOR Intellectual Property; **OR**

12.2 CONTRACTOR has obtained, and was and is the sole holder of one or more freely assignable, transferable, non-exclusive licenses in and to the CONTRACTOR Property and CONTRACTOR Intellectual Property, as necessary to provide and install the CONTRACTOR Property and/or to assign or grant corresponding to CFX all licenses necessary

for the full performance of this Contract; and that the CONTRACTOR is current and will remain current on all royalty payments due and payable under any license where CONTRACTOR is licensee; **AND**

12.3 CONTRACTOR has not conveyed, and will not convey, any assignment, security interest, exclusive license, or other right, title, or interest that would interfere in any way with the CFX's use of the CONTRACTOR Property or any license granted to CFX for use of the CONTRACTOR Intellectual Property rights; **AND**

12.4 Subject to Chapter 119, Florida Statutes (Florida Public Records Act), CONTRACTOR shall maintain CFX Property and CFX Intellectual Property in strictest confidence and may not transfer, disclose, duplicate, or otherwise use CFX Property or CFX Intellectual Property in any way, other than in performance of its services under the terms of this Contract, without the prior written consent of CFX, which may be granted or denied in CFX's sole discretion. CONTRACTOR shall not publish, copyright, trademark, service mark, patent, or claim trade secret, publicity, or other rights of any kind in any of the Property. In ensuring the confidentiality and security of CFX Property and CFX Intellectual Property, CONTRACTOR shall utilize the same standards of protection and confidentiality that CONTRACTOR uses to protect its own property and confidential information, but in no instance less than reasonable care plus the standards set forth anywhere in this Contract.

CONTRACTOR further warrants and represents that there are no pending, threatened, or anticipated Claims against CONTRACTOR, its employees, officers, agents, or subcontractors with respect to the CONTRACTOR Property or CONTRACTOR Intellectual Property.

The provisions of this Section shall survive the term of this Contract for the longer of:

12.5 The statute of limitations on any action arising out of either party's conduct relating to this section, whether such action may be brought by CFX, CONTRACTOR, or a third party; **or**

12.6 CFX's continued use (notwithstanding any temporary suspension of use) of any CONTRACTOR Property or CONTRACTOR Intellectual Property; **and**

12.7 Notwithstanding sections 12.5 and 12.6, the confidentiality and security provisions contained herein shall survive the term of this Contract for ten (10) years beyond 12.5 and 12.6.

13. PERMITS, LICENSES, ETC.

Throughout the Term of the Contract, the CONTRACTOR shall procure and maintain, at its sole expense, all permits and licenses that may be required in connection with the performance of Services by CONTRACTOR; shall pay all charges, fees, royalties, and taxes; and shall give all notices necessary and incidental to the due and lawful prosecution of the Services. Copies of required permits and licenses shall be furnished to CFX upon request.

14. NONDISCRIMINATION

CONTRACTOR, its employees, officers, agents, and subcontractors shall not discriminate on the grounds of race, color, religion, sex, national origin, or other protected class, in the performance of work or selection of personnel under this Contract.

15. NOTIFICATION OF CONVICTION OF CRIMES

CONTRACTOR shall notify CFX if any of CONTRACTOR's Key Personnel shall be convicted of any crime, whether state or federal, or felony or misdemeanor of any degree. Such notification shall be made no later than thirty (30) days after the conviction, regardless of whether such conviction is appealed.

16. COMPLIANCE WITH LAWS; EQUAL EMPLOYMENT OPPORTUNITY

CONTRACTOR shall conform and comply with and take reasonable precaution to ensure that every one of their directors, officers and employees abides by and complies with all applicable laws of the United States and the State of Florida, and all local laws and ordinances. Furthermore, CONTRACTOR agrees to and shall comply with all federal, state and local laws and ordinances prohibiting discrimination with regard to race, color, national origin, ancestry, creed, religion, age, sex, marital status or the presence of any sensory, mental or physical handicap or other disability, and will take affirmative steps to insure that applicants are employed and employees are treated during employment without regard to race, color, religion, sex, age, disability or national origin. This provision shall include, but not be limited to, the following: employment; promotion; demotion; transfer; recruitment; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

17. ASSIGNMENT AND REMOVAL OF KEY PERSONNEL

A significant factor in the decision of CFX to award this Contract to the CONTRACTOR is the level of expertise, knowledge and experience possessed by employees of CONTRACTOR, particularly the Program Manager, Technical Manager and Project Administrator (the "Key Personnel") and CONTRACTOR's covenant to have employees possessing such expertise, knowledge and experience available at all times to assist in the provision of the services. Throughout the Term of this Contract, CONTRACTOR shall employ individuals having significant training, expertise, and experience in the areas or disciplines more particularly set forth in the Scope of Services, together with such other areas of expertise or experience, as may be designated from time to time during the Term of this Contract by CFX. When CFX designates an additional area for which expertise or experience shall be required, CONTRACTOR shall use all reasonable and diligent efforts to promptly hire and retain one or more individuals possessing such experience or expertise.

CONTRACTOR shall use commercially reasonable efforts to maintain Key Personnel as employees throughout the Term of the Contract. The identity of the individuals, initially assigned to each of such positions by CONTRACTOR, shall be submitted to CFX and CFX shall be notified in advance of any changes in the individuals. The Key Personnel shall be committed to performing services on this Contract to the extent required.

If prior to the second anniversary of the Effective Date of this Contract, CONTRACTOR removes, suspends, dismisses, fires, transfers, reassigns, lays off, discharges, or otherwise terminates any Key Personnel, CONTRACTOR will use commercially reasonable efforts to replace Key Personnel with employees of like expertise.

Promptly upon request of CFX, CONTRACTOR shall use commercially reasonable efforts to substitute any remove any employee whom CFX considers unsuitable for such work.

18. SUBLETTING AND ASSIGNMENT

CFX has selected CONTRACTOR to perform the Services based upon characteristics and qualifications of CONTRACTOR and its employees. Therefore, CONTRACTOR shall not further sublet, sell, transfer, assign, delegate, subcontract, or otherwise dispose of this Contract or any portion thereof, or of the CONTRACTOR's right, title, or interest therein without the written consent of CFX, which may be withheld in CFX'S sole and absolute discretion. Any attempt by CONTRACTOR to dispose of this Contract as described above, in part or in whole,

without CFX'S written consent shall be null and void and shall, at CFX's option, constitute a default under the Contract.

If, during the term of the Contract, CONTRACTOR desires to subcontract any portion(s) of the work to a subcontractor that was not disclosed by the CONTRACTOR to CFX at the time that the Contract was originally awarded, and such subcontract would, standing alone or aggregated with prior subcontracts awarded to the proposed subcontractor, equal or exceed twenty-five thousand dollars (\$25,000.00), the CONTRACTOR shall first submit a request to CFXs Director of Procurement for authorization to enter into such subcontract. Except in the case of an emergency, as determined by the Executive Director or his/her designee, no such subcontract shall be executed by the CONTRACTOR until it has been approved by CFX Board. In the event of a designated emergency, the CONTRACTOR may enter into such a subcontract with the prior written approval of the Executive Director or his/her designee, but such subcontract shall contain a provision that provides that it shall be automatically terminated if not approved by CFX Board at its next regularly scheduled meeting.

19. DISPUTES

All services shall be performed by the CONTRACTOR to the reasonable satisfaction of CFX's Executive Director (or his delegate), who shall decide all questions, difficulties and disputes of any nature whatsoever that may arise under or by reason of this Contract, the prosecution and fulfillment of the services described and the character, quality, amount and value thereof. The Executive Director's decision upon all claims, questions and disputes shall be final agency action. Adjustments of compensation and Contract time, because of any major changes in the work that may become necessary or desirable as the work progresses shall be left to the absolute discretion of the Executive Director (and CFX Board if amendments are required) and supplemental agreement(s) of such nature as required may be entered into by the parties in accordance herewith.

20. OTHER SEVERABILITY

If any section of this Contract be judged void, unenforceable or illegal, then the illegal provision shall be, if at all possible, interpreted or re-drafted into a valid, enforceable, legal provision as close to the parties' original intention, and the remaining portions of the Contract shall remain in full force and effect and shall be enforced and interpreted as closely as possible to the parties' intention for the whole of the Contract.

21. INTEGRATION

It is understood and agreed that the entire agreement of the parties is contained in this Contract herein and that this Contract supersedes all oral agreements and negotiations between the parties relating to the subject matter hereof as well as any previous agreements presently in effect between the parties relating to the subject matter hereof. No waiver, amendment, or modification of these terms hereof will be valid unless in writing, signed by all parties and only to the extent therein set forth.

22. PUBLIC ENTITY CRIME INFORMATION AND ANTI-DISCRIMINATION STATEMENT

CONTRACTOR hereby acknowledges that pursuant to Section 287.133(2)(a), Florida Statutes, “a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in s. 287.017 for CATEGORY TWO (\$35,000) for a period of 36 months following the date of being placed on the convicted vendor list.”

CONTRACTOR further acknowledges that pursuant to Section 287.134(2)(a), Florida Statutes, “an entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity.”

23. GOVERNING LAW AND VENUE

This Agreement, and all claims, controversies, and causes of action arising out of or relating to this Agreement, whether sounding in contract, tort, or statute, shall be governed by, and enforced in accordance with, the internal laws of the State of Florida, including its statutes of limitations, without giving effect to any conflict-of-laws or other rule that would result in the application of

the laws of a different jurisdiction. The United Nations Convention on Contracts for the International Sale of Goods shall not apply to this Agreement. The parties consent to the exclusive jurisdiction of the courts located in Orange County, Florida. The obligations in Section 23.0, Governing Law and Venue, shall survive the expiration or termination of this Agreement and continue in full force and effect.

24. RELATIONSHIPS

CONTRACTOR acknowledges that no employment relationship exists between CFX and CONTRACTOR or CONTRACTOR's employees. CONTRACTOR shall be responsible for all direction and control of its employees and payment of all wages and salaries and other amounts due its employees. CONTRACTOR shall be responsible for all reports and obligations respecting such employees, including without limitation social security tax and income tax withholding, unemployment compensation, workers compensation, and employment benefits.

CONTRACTOR shall conduct no act or omission that would lead CONTRACTOR's employees or any legal tribunal or regulatory agency to believe or conclude that CONTRACTOR's employees would be employees of CFX.

Any approval by CFX of a subcontract or other matter herein requiring CFX approval for its occurrence shall not be deemed a warranty or endorsement of any kind by CFX of such subcontract, subcontractor, or matter.

25. INTERPRETATION

For purposes of this Contract, the singular shall include the plural, and the plural shall include the singular, unless the context clearly requires otherwise. Except for reference to women's business enterprises and matters relating thereto, reference to one gender shall include all genders. Reference to statutes or regulations include all statutory or regulatory provisions consolidating, amending, or replacing the stated statute or regulation. Words not otherwise defined and that have well-known technical, industry, or legal meanings, are used in accordance with such recognized meanings, in the order stated. References to persons include their respective permitted successors and assigns and, in the case of governmental persons, persons succeeding to their respective functions and capacities. If CONTRACTOR discovers any material discrepancy, deficiency, or ambiguity in this Contract, or is otherwise in doubt as to the meaning of any provision of the Contract, CONTRACTOR may immediately notify CFX and request clarification of CFX's interpretation of the Contract.

26. WAGE RATES AND TRUTH-IN-NEGOTIATIONS CERTIFICATE

The CONTRACTOR hereby certifies, covenants and warrants that wage rates and other factual unit costs as shown in attached documentation supporting the compensation are accurate, complete and current as of the date of this Contract. It is further agreed that said price shall be adjusted to exclude any significant sums where CFX shall determine the price was increased due to inaccurate, incomplete or non-current wage rates and other factual unit costs. All such adjustments shall be made within one year following the date of final billing or acceptance of the work by CFX, whichever is later.

27. SURVIVAL OF EXPIRATION OR TERMINATION

Any clause, sentence, paragraph, or section providing for, discussing, or relating to any of the following shall survive the expiration or earlier termination of the Contract:

27.1 Trademarks, service marks, patents, trade secrets, copyrights, publicity, or other intellectual property rights, and terms relating to the ownership, security, protection, or confidentiality thereof; and

27.2 Payment to CONTRACTOR for satisfactory work performed or for termination expenses, if applicable; and

27.3 Prohibition on non-competition agreements of CONTRACTOR's employees with respect to any successor of CONTRACTOR; and

27.4 Obligations upon expiration or termination of the Contract; and

27.5 Any other term or terms of this Contract which by their nature or context necessarily survive the expiration or earlier termination of the Contract for their fulfillment.

28. OBLIGATIONS UPON EXPIRATION OR TERMINATION OF CONTRACT

28.1 Immediately upon expiration or termination of this Contract CONTRACTOR shall submit to CFX, upon request, a report containing the last known contact information for each subcontractor or employee of CONTRACTOR who performed work under the Contract; and

28.2 CONTRACTOR shall initiate settlement of all outstanding liabilities and claims, if any, arising out of the Contract and any subcontracts or vending agreements to be canceled. All settlements shall be subject to the approval of CFX.

29. INSPECTOR GENERAL

CONTRACTOR understands and shall comply with subsection 20.055(5), Florida Statutes, and to cooperate with the Inspector General in any investigation, audit, inspection, review, or hearing pursuant to this section. The undersigned further agrees that any subconsultants and subcontractors to the undersigned participating in the performance of this Contract shall also be bound contractually to this and all applicable Florida statutory requirements.

30. E-VERIFY

CONTRACTOR shall utilize the U.S. Department of Homeland Security's E-Verify System to verify the employment eligibility of all new employees hired by the CONTRACTOR during the term of the contract. CONTRACTOR shall require all of its subcontractors to verify the employment eligibility of all new employees hired by the subcontractors during the term of the Agreement.

31. APPROPRIATION OF FUNDS

CFX's performance and obligation to pay under this Agreement are contingent upon an annual budget appropriation by its Board. The parties agree that in the event funds are not appropriated, this Agreement may be terminated, which shall be effective upon CFX giving notice to the CONTRACTOR to that effect.

32. NOTICE TO THE PARTIES

Whenever either party desires to give notice unto the other, it must be given by written notice, sent by registered or certified United States mail, with return receipt requested, addressed to the party to whom it is intended, at the place last specified, and the place for giving of notice shall remain such until it shall have been changed by written notice in compliance with the provisions of this paragraph. For the present, the parties designate the following as the respective places for giving of notice, to wit:

CFX: CENTRAL FLORIDA EXPRESSWAY AUTHORITY
4974 ORL Tower Road
Orlando, Florida 32807
ATTN: Director of Traffic Operations

CENTRAL FLORIDA EXPRESSWAY AUTHORITY
4974 ORL Tower Road
Orlando, Florida 32807
ATTN: General Counsel

CONTRACTOR: AllianceOne Receivables Management, Inc.
4850 East Street Road, Ste. 300
Trevose, PA. 19053
ATTN: Timothy Casey, President

AllianceOne Receivables Management, Inc.
4850 East Street Road, Ste. 300
Trevose, PA. 19053
ATTN: Corporate Counsel

33. SECURITY ASSESMENT

CFX acknowledges and agrees that CONTRACTOR may conduct a Security Risk Assessment within ninety (90) days of the Agreement's Effective Date and at least once per calendar year thereafter. The Security Risk Assessment will be performed at CONTRACTOR's expense. During the Security Risk Assessment, CONTRACTOR will review how its systems and employees interact with the tools, programs, processes, data, infrastructure and applications provided by CFX (collectively "CFX Systems") to CONTRACTOR in connection with the Services to be provided to CFX. Once the Security Assessment is complete, CONTRACTOR will generate a Security Assessment Report with its findings and recommendations, and distribute that report to CFX, at no cost to CFX. The Security Risk Assessment is a nonintrusive "observation process" and at no time will tools, including but not limited to, application or network vulnerability scanning tools ever be used as part of the Security Risk Assessment. The intent of the Security Risk Assessment is to (i) proactively identify risks associated with excessive privileges, data, infrastructure, applications, security controls, or processes that could be easily manipulated or privacy risks associated with infrastructure and connectivity between CONTRACTOR and CFX, and (ii) document and endeavor to implement recommended risk

remediation measures. If CFX disagrees with, or wants to discuss, any of the findings or recommendations in the Security Assessment Report, CFX will provide any points of disagreement or discussion ("CFX Response") to CONTRACTOR within seven (7) business days after receipt of the Security Assessment Report. CFX and CONTRACTOR will discuss the CFX Response and work in good faith to resolve the points raise in the Client Response within a reasonable period of time. Thereafter, CONTRACTOR will incorporate mutually agreed upon revisions into a "Revised Security Assessment Report." Upon finalization of the Security Assessment Report, the parties will agree to a mitigation plan to implement the recommendations in the Security Assessment Report.

In no event shall CFX be obligated to expend any funds or incur any additional costs or expenses for the performance of the Security Risk Assessment or the implementation of the findings or recommendations associated with, or resulting from, the Security Risk Assessment, Security Risk Report, or the resulting mitigation plan. Contractor understands and acknowledges that no additional consideration shall be paid to the Contractor to perform the Security Risk Assessment, prepare the Security Risk Assessment, or implement any recommendations of the mitigation plan beyond the consideration otherwise required pursuant to the terms of this Agreement, and in no event shall the performance of the Security Risk Assessment impact or impair the Contractor's obligation to otherwise perform in accordance with the terms of the Contract.

CONTRACTOR shall not be obligated to expend any funds or incur any additional costs or expenses for the implementation of the findings or recommendations associated with, or resulting from, the Security Risk Assessment, Security Risk Report, or the resulting mitigation plan that is identified on CFX systems or processes. CONTRACTOR shall not be liable to CFX, nor shall CONTRACTOR's indemnification obligations under the Agreement apply, for any findings or recommendations associated with, or resulting from, the Security Risk Assessment, Security Risk Report, or the resulting mitigation plan that CFX elects not to remediate or implement.

[SIGNATURES TO FOLLOW]

IN WITNESS WHEREOF, the authorized signatures named below have executed this Contract on behalf of the parties as of the day and year first above written. This Contract was awarded by CFX’s Governing Board at its meeting on June 11, 2020.

ACCEPTED AND AGREED TO BY:

ALLIANCEONE RECEIVABLES MANAGEMENT, INC.

By: _____

Title

ATTEST: _____ (Seal)

DATE: _____

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

By: _____

Director of Procurement

Print Name: _____

Date: _____

CFX only. Approved as to form and execution for the use and reliance by

General Counsel for CFX

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

TO: All Planholders of Record
FROM: Aneth Williams, Director of Procurement
DATE: March 30, 2020
SUBJECT: CFX Customer Service Operations;
Contract No. 001653 – Addendum No. 2

This Addendum forms a part of the Contract Documents and modifies the original bidding documents dated March 2020, as noted below. Acknowledge receipt of this Addendum in the space provided on the Proposal form. Failure to do so may subject the bidder to disqualification. This Addendum consists of 6 pages and the following attachments: Zero-Dollar Lease Agreement, Staffing Information Sheets, Call Breakdown (electronic version only)

CHANGES TO THE SCOPE OF SERVICES

1. Scope of Services, Section V, Human Resource Plan, Subsection F. Security Policy, last paragraph (page A-23) is hereby **amended** by adding the text that is underlined and deleting the text that is stricken as follows:

“The Contractor shall establish and maintain a personnel file on each employee assigned to the project with a recent photograph. In the event cash is accepted at the service centers or remote locations a complete set of employee’s fingerprints taken either by a local law enforcement agency or a Contractor’s employee that has successfully been trained by a law enforcement agency ~~are~~ shall be required. CFX reserves the right to review personnel files from time to time at its discretion.”

RESPONSES TO QUESTIONS RECEIVED

2. The following questions were received from potential bidders of record. CFX’s response follows the questions. Additional questions have been received; however, responses have not been finalized. Those questions and responses will be included in a future addendum.

Q001: Section 2.2 Scope of Works – Please confirm if the Contractor can provide a USB for Exhibit D – Price Proposal in lieu of a CD.

R: Yes

Q002: Exhibit A – Scope of Services, pg. A-5, who is responsible for the drop box services?

R: Contractor’s management staff is responsible for collecting and depositing checks/money orders from the drop box which is an external mail slot attached to the walk-in service center.

Q003: As evident by the current COVID-19 pandemic, work-at-home agents provide a strong business continuity solution. Would CFX consider incorporating a work-at-home solution with certain restrictions in lieu of the tri-county requirement for a secondary location listed in Exhibit A - Section IX Miscellaneous Provisions?

R: Providing a second location is preferred however we are open to exploring your work at home capabilities.

Q004: Please confirm if CFX is open to a work to home solution to satisfy the secondary location requirement listed in Exhibit A – Section IX – Miscellaneous Provisions.

R: See response to Q003.

Q005: Please confirm which areas are currently being subcontracted to D/M/WBE?

R: Currently, DMWBE's subcontracts are in staffing

Q006: Is the current D/M/WBE objective being met?

: The current contract is ongoing, with a current objective of 7.24%

Q007: Please provide a copy of the zero-dollar lease agreement.

R: Please see attached.

Q008: In the event a second site is needed, what costs would be the responsibility of the Proposer?

R: 100% of cost for 2nd location to be borne by Proposer.

Q009: Will CFX accept D/M/WBE certification from the State of Florida Department of Management Services, Office of Supplier Diversity?

R: Central Florida Expressway Authority does not accept certifications from The Florida Department of Management Services, Office of Supplier Diversity. The Central Florida Expressway Authority currently accepts Disadvantaged, Minority and Women Business certifications from Orange County, City of Orlando and Florida Department of Transportation

Q010: I am writing in response to the RFP posted for CFX Customer Service Operations [001653]. My company iQor has registered as a prospective proposer. In regards to the RFP, you have requested a separate envelop to be delivered by deadline of our Audit Financial Statements. For this process, iQor currently sets up calls with our CFO to walk the controller through our financial systems, if this method is not acceptable on your end, would we be eliminated as prospective proposer?

R: Yes, Proposer would be considered non-responsive.

Q011: The key personnel are listed as Program Manager, Technical Manager and Project Administrator. This is the only mention of the Technical Manager and the Project Administrator positions in the RFP. Will CFX please provide specific activities and responsibilities for these positions? Are there other personnel that CFX considers as key for this project?

R: The key personnel are Project Manager, Human Resources Manager, Operations Manager, and Call Center Manager. CFX will update the contract accordingly.

Q012: Throughout the Scope of Work, Contractor responsibilities related to the Toll Enforcement Officer are listed as “support of Toll Enforcement Officer activities,” or “assisting the Toll Enforcement Officer.” The only mention of Toll Enforcement Officer activities or requirements is in Section G. Business Rule and Operations Requirements (pg. A-19). Additionally, the VES Classifications do not include the current headcount for Toll Enforcement Officers (TEO) (pg. A-18), but the minimum wage for the Toll Enforcement Officers is included in the table on p. A-22. Will CFX please clarify whether the Contractor is required to hire Toll Enforcement Officers or whether these are CFX employees?

R: No, Toll Enforcement Officers are CFX employees.

Q013: If the TEOs are Contractors responsibility, will CFX please clarify: 1) How many TEOs are required? 2) Specific job responsibilities for the position? 3) If court appearances are required, how often and at what locations?

R: See response to Q012.

Q014: For pricing purposes, will CFX please provide a list (no names) of current staff with hire dates?

R: See attached.

Q015: For pricing purposes, will CFX provide a list (no names) of current staff with current rates or an average rate by position?

R: See attached.

Q016: Section F last paragraph: “In the event cash is accepted at the service centers or remote locations a complete set of employee’s fingerprints....are required.” It is our understanding that cash is not currently accepted. Is that correct? If employee fingerprints are required, will CFX please change the requirement to allow fingerprints to be taken by an individual trained by a local law enforcement agency? Note: It is our experience that this is much more efficient, and local law enforcement is much more accommodating to train our personnel as opposed to taking fingerprints of all of our hires.

R: Yes to both, see Changes to Scope of Services.

Q017: Will CFX please provide the composition of the current staff for the CSC, VTP, and VES, i.e. incumbent direct hire vs. staffing agency employees?

R: See attached.

Q018: Who determines which employees are “eligible” for continued employment?

R: CFX will determine which employees are eligible for continued employment. The Contractor shall give first right of refusal to the current employees. Refer to section V. Human Resources Plan Section A. Providing Qualified Personnel on pages A-19 and A-20.

Q019: What are the criteria for being “eligible” for continued employment?

R: Employee in good standing.

Q020: Is the Contractor required to provide the right of first refusal to all current managers (Quality Manager, Human Resource Manager, Training Manager, Call Center Manager, Operations Manager, etc.) and continue their employment for a minimum of 90 days?

R: Yes

Q021: “CFX is requesting all Contractors to present their willingness to support a second locations within the 5 county area.....” Although not a requirement, can respondents propose a second location? If so, how should the second facility be priced?

R: Second location should be priced as option 2 in the pricing table.

Q022: Contractor will assume responsibility of PCs located at each workstation. Current PCs can be utilized until required refresh. Will CFX please confirm that any costs associated with PC or other equipment refresh will be considered a pass through expense? If that is not the case, additional information will be required including age of equipment, specifications, etc. in order to price appropriately. Is Contractor responsible for antivirus and firewall software for existing and refreshed system computers? If so, will CFX please provide specifications for their current software and current CFX policies regarding system software and network security?

R: This is considered a Contractor overhead expense. There are approximately 200 PC’s supporting VES Image Review and Contact Center today. Roughly 50% will need to be refreshed in the contract’s first year and the remaining in years 2-4 of the contract.

Our current desktop spec for refresh:

- HP ProDesk Mini 400 w/ VESA monitor mount

- 27" Monitor
- Intel i3 3Ghz CPU
- 8GB RAM
- 500 GB Drive

Q023: We are currently living in an unprecedented health pandemic in which nearly all travel to and from work has been ceased. Businesses have been shuttered other than public essentials. The current schedule for proposal delivery under normal conditions would be difficult, but the current government limitations imposed in nearly every state is already impacting delivery of office supplies, available print options, the ability to visit partner facilities or even have business meetings with potential partners, etc. In light of the current conditions, will CFX please consider extending the proposal due date 3 weeks to May 5, 2020?

R: Remains unchanged.

Q024: Will CFX please define what is considered an artifact and what is not an acceptable artifact?

R: Any attachment to justify the Proposers response.

Q025: May Proposers provide artifacts to support our responses at our sole discretion or are we limited to only providing when they are requested? For example, 1.0.1 'Attach any relevant artifacts as well'.

R: Proposers discretion.

Q026: Are artifacts considered "Other documents specifically identified" and not included in the overall page count?

R: Yes.

Q027: Will CFX please also provide the total calls received so Proposers can understand the current IVR take down percentages?

R: Approximately 25% of calls are completed through the IVR.

Q028: Will CFX please provide a breakdown of average call volumes for each day of the week Monday through Friday?

R: See attached.

Q029: Will CFX please provide a breakdown of average call volume for each day of the week based on the intervals CFX tracks, i.e. 15- or 30-minute intervals?

R: See attached.

Q030: “Contractor will establish a network environment with proper security protocols (i.e., firewall)” This is the only mention of this network throughout the document. Will CFX please clarify the intended use of the network? i.e. is this an administrative network external from the system or is the intention to have system data traveling over this network?

R: The contact center PC’s and the supporting network will be the responsibility of the Contractor. Access to CFX systems will be accomplished through standard networking solutions (ie. VPN, MPLS, Internet).

Q031: If the network is required for the system, will CFX please provide specifications regarding this network and required security software and protocols?

R: Access to CFX systems will be accomplished through standard networking solutions (ie. VPN, MPLS, Internet).

Q032: There is equipment required in the mailroom in order to complete any outgoing mailing and fulfillment requirements. 1) Will CFX please confirm that mailing equipment is a pass through expense? 2) If not, will CFX please describe the existing equipment and specifications and explain whether it is owned or leased? 3)If owned, will CFX please provide the date of purchase?

R: Yes, Postage meter equipment leased – Pitney Bowes DM475.

Q033: Will CFX please confirm that postage costs for outgoing mailings (transponder fulfillment and otherwise) will be a pass through expense to CFX?

R: Confirmed.

END OF ADDENDUM NO. 2

LEASE AGREEMENT

BASIC PROVISIONS

DATE OF LEASE: _____

EFFECTIVE DATE: The date that duplicate originals of this Lease have been executed in their final form by both parties and delivered to both parties.

LANDLORD: Central Florida Expressway Authority, a body politic and agency of the State of Florida.

TENANT: _____

PREMISES: Landlord does hereby lease to Tenant and Tenant hereby leases from Landlord, on the terms and conditions hereinafter set forth, that certain space (herein called "Premises"), the location and dimensions of which are delineated on Exhibit "A" attached hereto and incorporated by reference herein.

CONTENTS: The parties agree that the Premises have been delivered to the Tenant with the items set forth on Exhibit "B" attached hereto and incorporated by reference herein (the "Contents"). Tenant shall maintain the Contents in such condition, order and repair as the same are in at the commencement of this Lease, normal wear and tear excepted.

LEASE TERM: The term of this lease shall commence on _____, and end on _____, or unless sooner terminated in accordance with the terms and provisions of this Lease (the "Term"). Notwithstanding anything to the contrary contained herein, to the extent of any inconsistency between the terms of this Lease and the hereafter defined Contract, the Contract shall control and govern.

RENT DURING LEASE TERM: In consideration of the services to be provided by Tenant in connection with that certain Contract by and between Landlord and Tenant, dated _____ (the "Contract"), rent during the renewal period shall be zero dollars (\$0.00) per month. It being acknowledged by the parties that said services are being performed by Tenant at such prices fixed in said Contract, in part, based on Landlord providing office space to Tenant.

RENEWAL OPTION: Renewal options shall be in accordance with the Contract.

APPROXIMATE FLOOR AREA: _____ square feet (First Floor)
_____ square feet (Second Floor)

PERMITTED USES: Tenant shall use the Premises for professional office use in connection with the services to be provided under the Contract and shall not use or permit the Premises to be used for any other purposes without the prior written consent of Landlord. Tenant shall maintain the Premises in such condition, order and repair as the same are in at the commencement of this Lease, normal wear and tear excepted.

**MINIMUM GENERAL
LIABILITY INSURANCE
COVERAGE:**

Tenant shall be responsible for providing the following minimum general liability insurance coverage: \$1,000,000.00 for injury or death of one person in any one accident or occurrence and in the amount of not less than \$2,000,000.00 for injury or death of more than one person in any one accident or occurrence. Such insurance shall further insure Landlord and Tenant against liability for property damage of at least \$1,000,000.00. The requirement of insurance shall not be deemed a waiver of sovereign immunity by Landlord. Further, Tenant shall obtain from their insurer a waiver of subrogation and provide evidence of same to Landlord.

NOTICE ADDRESSES:

Notices to Landlord shall be sent to:

Central Florida Expressway Authority
Attn: Executive Director
4974 ORL Tower Road
Orlando, Florida 32807
Phone: (407) 690-5000
Fax: (407) 690-5011

With Copy To:

Central Florida Expressway Authority
Attn: General Counsel
4974 ORL Tower Road
Orlando, Florida 32807
Phone: (407) 690-5000
Fax: (407) 690-5011

Notices to Tenant shall be sent to:

With Copy To:

**CONDITION OF
PREMISES:**

The Tenant has fully examined the Premises, including the location and condition of all walls, air conditioning, heating and lighting facilities, and appliances, and Tenant is satisfied with the physical and mechanical condition thereof, and the taking of possession by Tenant is conclusive evidence of receipt of them in good order and repair, and with full knowledge of their condition. No representations as to the condition of the Premises nor their state of repair have been made except as are contained in this Lease. Tenant agrees that no promise to decorate, alter, repair or improve the Premises or in any way maintain the Premises has been made by Landlord, except as contained in this Lease.

This Lease consists of the foregoing Basic Provisions, the following General Provisions, and the exhibits attached hereto, all of which are incorporated herein by this reference. If there are any inconsistencies between the Basic Provisions and the General Provisions, the General Provisions shall prevail. If there are any inconsistencies between the exhibits and the Basic Provisions or General Provisions, then the Basic Provisions and General Provisions shall prevail.

THIS IS INTENDED TO BE A LEGALLY BINDING DOCUMENT. IF YOU DO NOT UNDERSTAND ANY OF THE TERMS OF THIS LEASE, SEEK LEGAL COUNSEL.

“LANDLORD”
CENTRAL FLORIDA
EXPRESSWAY AUTHORITY, a public
Corporation of the State of Florida

ATTEST:

By: _____
Laura Kelley, Executive Director

Date: _____

APPROVED AS TO FORM AND LEGALITY

By: _____
CFX General Counsel

Date: _____

Witnesses To Tenant

“TENANT”

Print Name: _____

Print Name: _____

By: _____

Print Name: _____

Its: _____

Date: _____

DRAFT

Exhibit A

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

SCOPE OF SERVICES REQUIREMENTS

CFX CUSTOMER SERVICE OPERATION SERVICES

I. General Requirements

The Contractor will operate and manage the Central Florida Expressway Authority's (CFX's) E-PASS Operations, Violation Enforcement Section (VES), and Visitor Toll Pass Operation (VTP). The Contractor will provide:

1. Efficient CSC, VES, and VTP operations,
2. Effective management and operations for E-PASS,
3. Sound audit and reporting processes, and
4. Responsive, courteous customer service.

A detailed Operations Plan will be submitted showing how the Provider intends to carry out these responsibilities. This Operations Plan will be updated on an annual basis.

The services required under this contract are to provide the personnel necessary to operate an efficient, responsive, and professional Customer Service Center (CSC), Violations Enforcement Section (VES), and Visitor Toll Pass Program (VTP). E-PASS is the registered trademark name for CFX's Automatic Vehicle Identification (AVI) System. The Provider is to provide trained and customer friendly personnel to operate the E-PASS Service Centers, Violation Enforcement Section, and Visitor Toll Pass Program. The types of operations will include servicing customers and processing account maintenance through a walk-in service center, assisting visitors at the Orlando airport, the phone center, mail, e-mail, fax, and the web site. Operations will also include all other back office activities. In addition, the Provider is to provide all the personnel required to perform all the Violation Enforcement activities including image review, noticing, correspondence, support of Toll Enforcement Officers, research for court cases, defending court cases and other back office support. The Provider's experience and knowledge in industry practices will be a plus. The Provider must be able to partner with CFX and provide not only excellent personnel but ensure ongoing excellence in operations by quality, training, testing, monitoring, evaluations and reporting. Employee compensation will be at a level to promote the hiring and retaining of quality personnel.

CFX will provide the primary software for processing customer accounts and transactions, the Interactive Voice Response system (IVR), the web site, System related data collection, and the primary software for the VES image review process, DMV files, Pay by Plate invoices, and Uniform Traffic Citation (UTCs). Any ancillary software the Contractor would use to enhance the processes, such as the phone center, should be explained thoroughly pointing out the capabilities and benefits of such applications. CFX is not responsible for the maintenance, upgrade, fees or cost associated to the ancillary software used or proposed by the Contractor.

CFX does not guarantee that all of the services described in this Scope of Services will be assigned during the term of the Contract. Further, the Contractor is providing these services on a non-exclusive basis. CFX at its option may elect to have any of the services set forth herein performed by other contractors or CFX staff.

In addition, CFX encourages the Contractor to provide members of the current work force with positions available under this contract.

New Hire Training, vacation and sick hours are not billable to CFX and should be factored as part of the overhead pricing. As part of training program, CFX requires that the Contractor provides its employees with Employee Ethics training and a means to allow employees to report any known fraud, theft, etc. affecting the work environment. Any known communication reported is to be conveyed to CFX immediately, no later than the next business day.

A set of approved Standard Operating Procedures (SOP) has been established and must be followed until change requests have been submitted and approved. The Contractor shall provide CFX within six (6) months of the start of the contract a complete up-to-date Standard Operating and Procedures (SOP) Manual. The Contractor shall also ensure that excellent customer service is provided. The SOP will be updated and maintained as new policies and procedures are set forth within all areas of Customer Service Center, the Violation Enforcement Section, and Visitor Toll Pass Operations. Failure to provide the SOP within the stated period will be cause for liquidated damages under section IX - Service Level Requirements, Reporting and Liquidated Damages; letter A. Performance Requirement. The SOP is to be made available to CFX and all staff members. CFX may take over ownership and upkeep of this document at its discretion at any time during this contract.

CFX is open to developing a viable contract incentive program with the successful Contractor to promote operational efficiencies and cost savings to CFX. When opportunities are identified they should be submitted in writing to CFX identifying the cause and effect of the proposed efficiency and cost benefit.

Subcontracting is acceptable when responding to this RFP. Use of subcontractors shall be disclosed clearly and the subcontractors will be treated, for the purpose of the response to this RFP, as employees of the Contractor. The Contractor shall supply the same information about subcontractor companies and their employees as is required about the Contractor and the Contractor's employees. Representatives of all subcontractors are encouraged to accompany the Contractor to the Scope of Services meeting, site visit and to the oral presentation

Mr. Fred Nieves, Manager of E-PASS and Plaza Operations, is the contact person and overall Project Manager who will preside over the CFX Customer Service contract.

II. E-PASS CUSTOMER SERVICE CENTER

A. General Requirements

The Contractor will be responsible for the efficient and effective operations of CFX's Customer Service Centers and will ensure that CFX's customers receive both high quality and courteous service. The Contractor will ensure that all performance requirements are met for both the Customer Service Centers, the Violations Enforcement Section, and Visitor Toll Pass Operations. In addition, the Contractor is responsible for all reporting requirements not provided by the System. The Proposal must show a thorough understanding of these requirements and how the Contractor intends to meet these obligations.

B. Background

CFX established the first toll related Customer Service Center in Florida in 1994. The original Customer Service Center is still located on the east side of Orlando in the Pinar Shopping Center, 762 South Goldenrod Road and provides front counter services, and transponder installation.

In May 2008, the E-PASS Phone Center, VES and all back-office support were relocated to CFX's Administrations and Operations Building located at 4974 ORL Tower Road.

C. Hours of Operations

The hours of operation for:

- Retail Service Center is 8:00 a.m. to 6:00 p.m., Monday through Friday and 9:00 a.m. to 1:00 p.m. on Saturdays.
- E-PASS Phone Center is currently open from 8:00 a.m. to 6:00 p.m., Monday through Friday.
 - Once the initial transition is completed, CFX will be expanding the hours of operation from 8:00 a.m. to 9:00 p.m. Monday through Friday.

The hours of operation may be modified by CFX at its sole discretion. The Service Center and E-PASS Phone Center are closed on major holidays (New Year's Day, Martin Luther King Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, Christmas Day). All other holidays will be determined by CFX with a 30-day notice to the Contractor. Current Service Centers may be relocated and or kiosks may be remotely stationed and staffed by the Contractor at the discretion of CFX during the contract period.

D. Training

The current training program for the Customer Service Center is 2 weeks. This initial training consists of product information, system utilization, basic customer service skills, and nesting. Evaluation of the new hire training program will be performed during the implementation period and modification to the length could be made at CFX's discretion. CFX must authorize any changes to the content or length of training.

The Provider will be responsible for maintaining a fully functional training organization to encompass new hire training, refresher training, and employee development training.

E. Drop Box Locations

A drop box is conveniently located at the front entrance of the Service Center. Customers may drop off an E-PASS payment by placing their payment securely inside the drop box. The drop box is checked at the opening of each business day, and then hourly throughout the day.

F. Operating System

The Service Center software is a component of the Electronic Toll Collection System known as TRIMS, which was developed and installed by CFX. This system provides for the processing and tracking of Accounts, Transponders, Transactions, Replenishments, Adjustments, Violations, etc.

CFX is in the process of replacing TRIMS with MS Dynamics and anticipates the deployment of Phase I during Q3 of 2020.

G. Telephone System

CFX utilizes Avaya Aura Call Center Elite to route calls within the Service Center. Each CSR must log into their phone system by entering a code plus their CSR number. Each CSR is issued a four-digit PIN by the System Administrator that allows them to log into the phone system to take inbound telephone calls.

Once the CSR is logged into the phone system they must press the 'Auto-In' button in order to take phone calls. There are certain times when a CSR may need to be off the telephone. These times include lunch, breaks, training and any other management approved time away from the phones. In order for an associate to indicate they have been authorized to take time off the phone they must place their phone in auxiliary mode.

CFX is exploring Call Center as a Service (CCaaS) technology to enhance digital capabilities.

H. Staffing

The hiring of part time and project-based staff should be used to assist with the peaks and valley of the call center volume. The Contractor should provide a Workforce Planning solution to forecast volumes, schedule staff, and manage real-time adherence. CFX will provide a locked forecast 30 days prior to each month. The current staff positions consist of the following:

Project Manager		1
CSC Classifications		
Managers		5
Accounting Assistant		6
Accounting Lead		1
CSC Supervisors		6
Trainer		1
Sr. CSR		2
Business Account CSR		3
Quality Specialists		5
CSC Lead		6
CSR	135	
Call Center		116
Front Counter		10
Internet CSR		2
Back Office CSR		3
Mailroom CSR		3
Scan Clerk		1
Sr. Installation Tech/Courier		2
Total CSC Staff		173

Visitor Toll Pass Operations

Project Manager		1
Supervisors		6
CSR's		38
Total VTP Staff		45

I. Current Operations

Current workload split between Account Maintenance and opening New Accounts is approximately 85% Account Maintenance and 15% New Accounts. Current Workload split between E-PASS Service Centers. Top work activity areas in general are:

Phone Center

- Credit Card Replenishment
- Replenishment Update Account Information
- Pay by Plate Invoices
- Open Account
- E-PASS Information
- PBP Payments/Hold Release
- Transponder Supplies/ UTC Information/Resolution

Front Counter

- Credit Card/Check
- Pay by Plate Invoices
- UTC Information/Resolution
- Update Account Information
- Open Account/Issue Transponders

CSC Service and Quality Standards

A. CONTACT CENTER – The Contact Center is one of the primary customer contact areas, and the largest component of the CSC. It is imperative that the Contractor’s proposal show its understanding of the importance of the Contact Center, and the processes of the Contact Center including forecasting, scheduling and appropriate staffing. The Contractor is responsible to track the listed performance measurements and issue daily, weekly, monthly, quarterly and annual reports on actual performance, compare them to the requirements and explain all areas of non- performance along with the required report. The Proposal must explain how the CSR contact center performance requirements will be tracked and reported.

The Contractor will be required to address non-performance issues, (i.e. wait time greater than one minute) by submitting a written plan within five (5) business days that explains the actions that will be taken to improve performance before the next monthly report.

1. PERFORMANCE MEASUREMENT

- a. **Service Level** **70% within 30 seconds**
This is measured from the point in time that the IVR passes the customer to the phone management system, to the point in time that a CSR answers the call. This measure is the percentage of calls answered with a specified amount of time.

Service Level is measured daily with an attainment objective of 90% of business days per month (i.e., 22 business days in month * 90% = 20 days).

CFX expects all callers to have a good experience and have developed a more aggressive Service Level than the Florida Transportation

Commission's standard of 80% within 60 seconds.

- b. **Average Abandoned Call Rate** **<5%**
These are measured from the point in time that the IVR passes the customer to the phone management system, to the point in time that the Customer disconnects prior to a CSR answering the call. This is the metric that will be used to evaluate the abandoned call category.

Average Abandoned Rate is measured daily with an attainment objective of 90% of business days per month (i.e., 22 business days in month * 90% = 20 days).
- c. **Average Handle Time** **300 seconds**
This is measured from the time the CSR answers the phone to the time the CSR disconnects (ACD + Hold = Talk Time) plus the amount of time required by the CSR to complete any work related to the finished call (ACW). This is an indicator of the efficiency of the CSRs. This is the average of all the CSR calls.
- d. **First Call Resolution** **95%**
This is the percentage of time that customer inquiries are handled completely on the first call, by the first CSR to answer. First Call Resolution is one of the main areas that customers use to evaluate the quality of service. The requirement is that 95% of all CSR calls will be resolved on the first call. This percentage is consistent with other industry data. The Proposal must explain how First Call Resolution will be tracked and reported.
- e. **CSAT – Customer Satisfaction** **TBD**
CSAT is a score that indicates how satisfied a customer is with the service provided by CFX. CFX is currently in the process of evaluating and selecting new technology (CCaaS and IVR) to support the collection of information.
- f. **Written Response Required –E-Mail and Written Correspondence**
 - 98% within 2 days; 100% within 4 days

CFX is in the process of implementing a new Customer Relationship Management (CRM) application, MS Dynamics, with an anticipated go live date in mid-July of 2020. Due to this implementation and change of environment, CFX will waive the performance metrics for the first 90 days of the contract. The Contractor should in good faith make every attempt to meet or exceed these performance metrics during this timeframe.

2. OTHER MEASURES

- a. **CSR Attrition** **<8%**
This tracks the rate at which associates leave the workforce over a monthly basis. Attrition should be tracked by function, role and either voluntary or involuntary.

New hire training attrition will be measured through the first 45 days of employment and will be reported separately from production attrition.

CSR Attrition = End of Month Associates – Beginning of Month Associates / End of Month Associates

- b. **CSR Availability** **97%**
This is the time a CSR is available to complete customer work, divided by the total time scheduled. This tracks the time the CSR is at the workstation and is ready to work. This includes waiting for calls, talking to the customers, and completing after-call work. The Proposal must explain how CSR availability will be tracked and reported.

CSR Availability = CSR Availability / Total Time Scheduled

- c. **Call Center CSR Utilization** **85%**
This is the time the CSR is on the phone with customers plus after-call work time, divided by the total time logged into the phone system. In conjunction with available industry data the CSR Utilization should be 85% and excludes any auxiliary time i.e. breaks, retraining, etc. The combination of looking at Availability and Utilization should help show the efficiency of the use of the CSRs. The Proposal must explain how CSR utilization will be tracked and reported.

CSR Utilization = (Talk Time + ACW) / Staffed Time

- d. **Contact Center/Back Office Work Activity Logs**
- Work Activity Logs must be maintained by each CSR for actual work performed.
 - Work activities and percentages must be tracked daily.
 - A monthly report, in a format acceptable to CFX, must be provided showing the breakdown of the total work by activities/categories and the percentage of each to the total.
 - The Contractor shall propose which data will be collected and the method for collection and recording to CFX for approval prior to implementation.
 - Continue the maintenance of existing operational reports.
 - Transponder orders must be shipped by next business day.

3. **CALL VOLUMES – 2018 and 2019**

2018 and 2019 call statistics are available in section 4 of the Scope of Services document.

4. QUALITY MANAGEMENT AND QUALITY ASSURANCE

The Contractor shall develop, implement, and maintain a Quality Management and Quality Assurance Plan for the overall E-PASS Operations and VES.

4.1 QUALITY MANAGEMENT

This policy shall reflect a commitment to achieve the highest standards of customer satisfaction and performance of the procedures necessary to provide optimum customer service, while maintaining good organizational relationships with CFX, vendors, and law enforcement personnel. This policy shall include an organizational mission statement and/or managerial philosophy, along with goals and objectives linked to the quality management and assurance.

4.1.1 Quality Assurance (QA)

QA shall include procedures to determine that quality control is being, or has been, performed effectively and appropriately. It shall include such activities as planned inspections necessary to ensure optimum customer service, image review, accounting verifications and audits, administration and operations office management. Frequency of QA activities shall be noted, along with any appropriate minimum standards, showing the need for additional action if these are not met. The Quality Assurance and Monitoring Plan should detail the contact center and back-office procedures. There should be a Section in the Quality Assurance and Monitoring Plan dedicated to the Contact Center and should include but not be limited to the following components:

- a. Work area monitoring process description
- b. Call monitoring process description – to include in-bound and out-bound calls. To be developed and approved during transition period.
- c. Monitoring Forms
- d. Frequency Minimum - 2% of all monthly incoming calls
- e. Reporting Methods
- f. Production Report Accuracy/Verification
- g. Evaluation Process
- h. Agent Feedback
- i. Customer Feedback
- j. Enabling Applications

4.1.2 Quality Control (QC)

QC shall include prescribed procedures by which work products are

reviewed and brought into compliance, where necessary, to conform with professional standards, contractual obligations, and commitments to CFX. This includes activities to identify and eliminate causes of unsatisfactory performance and meeting the goals and objectives of operational activities included as part of the Quality Policy.

B. FRONT COUNTER

1. Work Activity Log:

- a. Must be maintained by each CSR for actual work performed.
- b. The work activities and percentages must be tracked daily.
- c. Monthly reports must be provided in a format acceptable to CFX, showing the breakdown of the total work by activities/categories and the percentage of each to the total.

2. Performance Requirements:

- a. **Customers in Line** – Contractor should take steps to ensure that there are **not more than 10 customers in line.**
- b. **Wait Time**
 - On a daily average, Maintain wait time at **5 minutes or less**
- c. **Transactions** - 98 % should be resolved the same day at the counter, whether Opening New Account or Account Maintenance.
- d. **Transponders** issued will be properly programmed and activated upon issuance to customer.

3. Quality Assurance and Monitoring Plan – Front Counter: The Contractor will develop a detailed Quality Assurance and Monitoring Plan for the Front Counter to evaluate the CSRs personal interaction with the Customers, and the efficient performance of their job.

C. Interactive Web Site and E-Mail

1. Web Site Functionality –The interactive Web Site includes real-time account management capabilities providing access based on the customer’s account or username and PIN. The functions and areas available include:

- a. Create and or Update Customer Account
 - License Plate
 - Mailing Address
 - E-mail address (sign up for statements, and e-mail alerts)
 - Add/remove vehicles
 - Personalization (Language specific)
 - Report lost/stolen transponder
- b. Obtain Transaction Information
 - Statements
 - Recent Activity
- c. Payment Information, Update, and Apply payment
 - Credit Card (Scheduled or one time)
 - Checking (ACH with checking account number)

2. E-Mail

E-Mails are currently managed within Microsoft Outlook. CFX is exploring other tools to manage e-mail management.

Performance Requirements:

- a. All e-mails must be tracked showing their final disposition.
- b. All e-mail inquiries will be responded to within 24 hours and resolved in two (2) business days.
- c. Management must perform a daily check of e-mails received and pending work to be processed.
- d. Management must review letter templates bi-annually for consistency and revise if necessary.
- e. A weekly status report must be submitted on all pending and completed items.
- f. A weekly performance report must be submitted showing response time data and completion data with a comparison to requirements.
- g. CSRs handling e-mail inquiries must be qualified and tested to ensure correspondence is responded to accurately.
- h. Log all daily e-mails received, which include applications, changes, transponder add-on, inquiry forwards from statement server, and miscellaneous.
- i. Manager/supervisor to check e-mail log daily to confirm that the stated turnaround time is being met.
- j. Training on e-mail composition includes the CSR being provided with mock inquiries prior to responding to customers. Responses are reviewed for accuracy of information. Staff should be trained and certified prior to responding to customer inquiries.

3. **Quality Assurance and Monitoring Plan**– The Quality Assurance and Monitoring Plan will provide detail to evaluate the CSRs response with the customers, and the efficient performance of their job.

D. MAIL ROOM – PAYMENT ROOM & FAX

1. The Contractor will support mail operations including faxed correspondence. All mail including faxes must be tracked to its final disposition. The Contractor shall record the category of incoming correspondence and the amount of time required to respond to that correspondence. This information shall be provided to CFX in a monthly report.

Performance Requirements:

- a. All mail must be time stamped, dated, logged and batched for processing.
- b. All checks must be posted and processed no later than next business day.
- c. Mail Received - Application or Check Replenishment - If an account cannot be located or if there is a discrepancy on the check a call must be placed to the customer and/or the check is returned to the customer within one business day.
- d. Mail Received – Letters – The CSC receives general correspondence requesting accounts to be closed, requesting transponder tests, requesting transponder replacement, etc. Complaint letters are usually directed to CFX.
- e. Returned Mail and mail waiting to be metered should be stored in the designated mailroom.
- f. Process all incoming Faxes requesting account changes within one (1) business day and logged in a binder.

E. SCANNING

1. The following documents are required to be scanned:
 - a. Closed Account Correspondence
 - b. Account Adjustments
 - c. Corporate Applications
 - d. Standard returned transponder/close account form
 - e. Correspondence on returned defective transponder
 - f. Handicap correspondence for the issuance of a non-revenue transponder
 - g. Customer complaints and responses answered by E-PASS and or CFX staff
2. Scanning System information and procedures are available in the SOP.
 - a. The Scanning application is built into the TRIMS application, and the filing process is organized by Customer Account numbers or license plate numbers.
 - b. The scanning file created is similar to a PDF.
 - c. A scanning log function is included with the application and requires some operator input.
3. **Performance Requirements:**
 - a. All documents will be properly scanned on a daily basis.
 - b. Backlog is not to exceed three business days barring there is no equipment failure.
 - c. The Scanning log must be processed properly after each use and the “LOG SHEET” will be e-mailed to the Contractor’s on-site Manager on a weekly basis.
 - d. A report on the Scanning statistics will be provided to CFX on a monthly basis.

F. TRANSPONDER INVENTORY & SUPPLIES

- 1. TRANSPONDER INVENTORY** – CFX’s primary transponder is the EGO Plus mini window sticker transponder which is affixed to the windshield. Transponder inventory is currently tracked by CFX’s internal Transponder Inventory Control System (TICS). This is a barcode-based tracking system. The main Inventory storage area is located at CFX’s headquarters and managed by the Contractor. Each site must maintain Inventory control, take a physical count weekly, and provide a weekly report to CFX. The following are some of the processes that must be followed for tracking purposes.

The Contractor will assume full responsibility for tracking transponder inventory, transponder supplies, and marketing collateral. It will be the Contractor’s responsibility to communicate inventory levels on all items on a weekly basis to CFX to ensure inventory levels are maintained.

- a. The Contractor will maintain the Transponder Log showing transponders received from manufacturer, transferred to other CFX sites, issued to customers, date and balance. CFX’s Accounting Supervisor or designee conducts a monthly audit of the transponder inventory.
- b. On-site transponder inventory of approximately 1,000 transponders are to be maintained at each Service Center.
- c. The Contractor will be responsible for Inventory reconciliation every week and when inventory is received or transferred to and from locations.
- d. The Contractor is responsible for maintaining the Returned Transponder Log showing the number of returned transponders that are reprogrammable and reusable which are re-inventoried for distribution.
- e. The Contractor is responsible for maintaining the Defective Transponder Log showing its disposition which includes date received back from customer, date confirmed defective or disposed of, date sent to manufacturer, date received back from manufacturer and date re-entered into inventory.
- f. The Contractor is responsible for tracking and maintaining a log on Transponder Supplies (hook and loop, RF bags, fulfillment of print collateral, etc.) showing amount, date ordered and date shipment received. Purchase orders are procured through CFX.
- g. Transponder supplies are to be stored in a secure designated location at each Customer Service Center.
- h. The Contractor will manage the entire Transponder inventory, transponder supplies, and marketing collateral process. It will be the Contractor’s responsibility to communicate inventory levels on all items on a weekly basis to CFX to ensure inventory is maintained.

2. **Performance Requirements:**
- a. Transponders should be shipped with one (1) business day of order receipt
- G. **SPECIAL PROMOTIONS** – Periodically CFX has Special Promotions and the Contractor is expected to support these efforts. Peak days resulting from special promotions and unusual circumstances shall be excluded from the volume related performance standards for that period. The Contractor must supply the necessary personnel and support required to accomplish the task at hand. These special projects and promotions will include providing sign up activities at various shopping locations, going out to a business place of work, special sign-up promotions, etc. These special projects will require personnel and equipment.
- H. **E-PASS PACKETS** – These are provided to new customers either at the front counter or through the mail when they open a new account or add a new transponder to an account. The packets contain a Transponder, a Radio Frequency (RF) bag and the Expressway Map. The Contractor is responsible for tracking inventory and notifying CFX who is responsible for ordering and obtaining all components of the Packets when two months of material remains.

III. **CSC - ACCOUNTING AND RECONCILIATION**

A. **Closeout and Deposit Procedures – CSRs**

The Proposal will perform these responsibilities as they relate to:

1. Ensuring that all CSRs follow proper procedures in closing out their day and reconciling their deposits and Credit Card (CC) charges to the system reports.
2. Ensuring that all close out and reconciliation activities are documented and available for audit at any time.
3. **Misuse of Credit Card and Check data** - These will be the direct responsibility of the successful Contractor. The Contractor will bear full responsibility for the security of CC numbers and data as it relates to the Contractor's employees and sub- consultants.

B. Adjustment Processing Standards and Expectations:

Managers/Supervisors are to complete daily adjustments within two (2) business days and adjustments are scanned into the system upon completion.

1. Personal and Business Account Adjustments over \$500.00 are to be reviewed and initialed by the Project Manager and require CFX approval.
2. Adjustment description and number are to be written for each adjustment.
3. Adjustment approval and date are to be written on adjustment form.
4. All adjustments require backup documentation including customer signatures when requesting funds/transponders moved from one account to another.
5. Adjustments that affect two accounts are to have identical backup documentation for easy reference.
6. Staff is to write a clear and understandable adjustment explanation.
7. Adjustments are to be collected and processed no later than the next business day.

C. Reconciliation - CFX's Responsibilities

1. Transactions occurring in the Lane to Transactions being posted.
2. Bank Account – Customer Deposits Posted compared to total Credit Card and Check Deposits made.
 - Bank Fees & Interest
 - Total Transactions dollar amount (Tolls) transferred to Revenue Fund
3. Interoperability – Reconciliation
E-PASS Customer Transactions on SunPass – Posted SunPass
Customer Transactions on CFX's Roads

D. Performance Requirements

- a. Payments should be posted within one (1) business day from date or receipt

IV. VIOLATIONS ENFORCEMENT SECTION - OPERATIONS

A. General Requirements

The Contractor is to provide personnel for all Violation Enforcement activities including image review, correspondence, support of Toll Enforcement Officers' activities, research for court appearances, and other back office support.

B. Background

CFX's Toll Collection System (System) processed approximately 475M revenue transactions in FY 2019. During the same period CFX incurred 12M violations, for an average violation rate of 2.48%. The objective of the Violations Enforcement System is to deter violations and to penalize the most egregious offenders through the issuance of Uniform Traffic Citations (UTC). The VES system in 2019 processed approximately 87M images; the VES section archived 30.4M images, issued 1M Pay by Plate invoices (PBP), and 58,000 Uniform Traffic Citations (UTCs).

The Violation Enforcement process is utilized by various in-house systems which include iMARS/Q-FREE and TRIMS application. CFX has installed new lane equipment, which is providing for a much higher capture rate and sharper images. The latest installation of lane equipment was started in 2019 with a completion in Q4 2020. The vast majority of image review is performed through these workstations. CFX is also currently in the implementation process of a new violation enforcement back office system (Q-Free) as well as updated camera systems in all CFX lanes.

The processing of images and researching of data related to the issuance of UTCs and assisting the Toll Enforcement Officers in preparation for court appearances will be the responsibility of the Contractor. Another CFX contractor will do the actual printing out and mailing of the UTCs and Pay by Plate invoices.

C. Training

The current training program for the Image Review Process is 2 days. This initial training consists of process review, system utilization, and nesting. Evaluation of the new hire training program will be performed during the implementation period and modification to the length could be made at CFX's discretion. CFX must authorize any changes to the content or length of training.

The Provider will be responsible for maintaining a fully functional training organization (i.e., trainers, content development, etc.) to encompass new hire training, refresher training, and employee development training.

D. Current Business Rules regarding VES processing

1. An initial Pay by Plate (PBP) invoice is issued for the failure to pay a prescribed toll. (2 or more violations in a 30-day period)
2. A Final Notice is issued 15 days after the PBP due date if the amount goes unpaid

3. A DHSMV Registration Hold is placed on the registered owner after the Final Notice is unpaid.
4. The registered owner is subject to the issuance of a Uniform Traffic Citation (UTC), based on data obtained from CFX's Violator Counts report.
5. UTC shall be sent by First Class Mail.
6. Violations shall be cleared as provided by statute.

State Statutes: - Listed for reference and can be accessed on Florida's legislature web site.

1. Chapter 316 in general
2. Section 316.640(1)
3. Section 318.18(7)
4. Section 320.03(8)

E. Hours of Operations - The current hours of operation for the VES department are 8:00 a.m. to 6:00 p.m., Monday through Friday. CFX at its sole discretion may modify the hours of operation. The VES department is closed on Saturday and Sunday along with major holidays (New Year's Day, Martin Luther King Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, Christmas Day). All other holidays will be determined by CFX with a 30-day notice to the Contractor.

F. Current Staffing - The current staff positions consist of the following:

VES Classifications

Toll Enforcement Manager/Ops Support	1
VES Manager	1
Supervisor - VES Image Review	3
Lead - VES Image Review	3
Image Review Clerks*	64
Temp Pool - Image Review Clerks	10
Total VES Staff	82

G. Business Rule and Operational Requirements for the Manual Process to issue a UTC on a PBP:

1. A UTC will be issued on a selected PBP rather than on a selected Violation.
2. The amount of the UTC will be the entire un-waived/un-voided amount of the PBP (Tolls and Fees) plus a \$25.00 UTC Admin fee. Court costs will be added if the UTC goes to Court.

3. A single UTC will be issued for a single PBP.
4. Toll Enforcement Officer (TEO) will use TRIMS to manually select the PBP for which a UTC is to be issued.
5. If a UTC has been issued for a PBP, TRIMS makes that apparent to the user through an updated PBP status. This will be accomplished by updating the PBP status to "UTC".
6. Creating a UTC for a PBP does NOT resolve the PBP, but rather just updates its status to "UTC".
7. When the TEO indicates that a UTC is to be issued for a PBP, the UTC will go to the UTC printing vendor with the next data file. Data files will be sent daily. Violator name and address data to print on the UTC will be obtained from the VES_VIOLATOR table.
8. When the TEO selects a PBP for a UTC, they will be able to select the violation image that should appear on the UTC. The default will be the image that was on the PBP, but the TEO will be able to select a different one from the violations on the PBP.

H. Performance Measurements

1. Image Review Clerks are required to review:
Currently being accessed by CFX with the transition to a new system. CFX will communicate this objective once the integration is completed. The previous target was 500 images per hour on the old system. Based on the efficiencies of the new system, the target will be significantly increased.
2. Image Backlog not to exceed five (5) business days, barring any system or equipment failure. If the backlog exceeds five (5) business days, a corrective action plan needs to be submitted within one (1) business days.
3. Monthly Image Audit on Image Review Clerks
 - a. Audit no less than 120 reviewed images per Image Review Clerk to validate License Plate was entered correctly.
 - b. The current review accuracy rate 98%. CFX will establish a new review accuracy rate once the new system is fully integrated.

V. HUMAN RESOURCE PLAN

The primary component of this contract will be providing the personnel and management staff required to operate the CSC in a professional and customer friendly manner. The Contractor must provide a comprehensive

and reasonable Human Resource Plan. This plan shall be inclusive of but not limited to:

A. Providing Qualified Personnel – The Contractor shall provide qualified personnel to perform the duties and responsibilities assigned under the terms of the Contract. It is CFX's intent to minimize any adverse employment impacts to the current Contractor's full-time employees as a result of implementing this Contract. The Contractor shall give first right of refusal to the current Contractor's employees. It is not CFX's intent to require the Contractor to keep personnel indefinitely if they are not performing as expected. The Contractor will be required to keep employees who are eligible and have indicated a desire to continue working, for a minimum of 90 days.

- **Full Benefits will be made available to any current employee who transfers to the Contractor on the 1st day of the contract.**
- **Current employees who transfer will maintain their original hire date with supporting CFX. This hire date will be utilized to determine seniority and PTO calculations.**
- **As of August 1, 2020, all current employees will receive a cost of living increase of 3% or a rate adjustment to the minimum rate for that position whichever is higher. See section B. for minimum rates.**

In addition, the Contractor shall provide a **full time** Project Manager committed to the project 100% with credentials to oversee the contract policies and make sure that procedures and internal controls within the E-PASS, VES, and VTP operations are in adherence to CFX's requirements. The Project Manager is required to reside in one of the following counties: Lake, Orange, Osceola or Seminole. Residency outside the listed counties will require CFX's consent. CFX at its option may elect to expand, reduce, or delete the extent of each work element described in this Scope of Services document, provided such action does not alter the intent of the Contract. Smooth continuity of services is critical during the transition period from the current personnel services provider to the Contractor. The Contractor shall cooperate with the current contractor to ensure that disruption to the daily operation of the Service Centers is kept to a minimum.

The Contractor will provide qualified personnel to perform the duties and responsibilities assigned under the terms of the Contract. The Contractor will ensure that a stable workforce will be provided, which can include both full-time and part-time employees. Proposer policies and procedures to which the E-PASS/VES staff will be required to adhere shall be provided to CFX for review.

A staffing report will be required to be submitted on a weekly basis, providing the status of the work force, the percentage of required positions filled, the progress and efforts being made in filling the vacant positions, and attrition rates.

All reports must be submitted to CFX for review and approval. CFX is concerned about high turnover rates, which can affect the Contractor's ability to provide the required services to CFX. Additionally, CFX is concerned about positions that remain unfilled for greater than 10 business days. Both of these areas are considered critical by CFX, and will be used as major points of evaluation when CFX undergoes the Annual Contract Review provided for in the Contract and shall lead to liquidated damages for non-adherence.

- B. Benefits** - The Contractor shall provide full-time and part-time employees with competitive salaries and all normal privileges, benefits and guarantees of employment that are afforded to the firm's existing regular and part-time employees. This includes providing benefits such as medical coverage, retirement plans, sick leave, vacation pay and holiday pay. These benefits should be comparable to those provided to the current work force. Overtime, new hire training, vacation and sick is non billable to CFX, therefore pricing is to be reflective of staffed man hours worked that are required to support and operate the CSC, VES, and VTP departments. Employee Incentives and or Bonuses are to be factored into employee bill rate as well. Additional information related to wages is listed below.

The required minimum hourly starting rate for the following full time and part time positions are:

<u>POSITION</u>	<u>MINIMUM RATE</u>
Accounting Assistant	\$16.25
Accounting Assistant Lead	\$18.00
Accounting Manager	\$28.85
Business Intelligence Analyst	\$26.44
Call Center Manager	\$28.85
Customer Service Center Lead	\$18.00
Customer Service Center Supervisor	\$23.08
Customer Service Rep	\$15.00
Customer Service Rep (PT)	\$15.00
Customer Service Rep II	\$16.25
Customer Service Rep II (Internet)	\$16.25
Customer Service Rep Senior	\$18.00
Customer Service Rep Business Accts	\$18.00
Driver/Courier	\$12.00

Human Resource Coordinator	\$18.00
Human Resource Manager	\$28.85
Image Review Lead	\$15.00
Image Review Clerk	\$12.00
Image Review Supervisor	\$23.08
Image Review Manager	\$28.85
Inventory Control Clerk	\$16.00
Operations Manager	\$28.85
Quality Manager	\$28.85
Quality Specialist	\$18.00
Toll Enforcement Officer	\$22.00
Training Manager	\$26.44
Visitor Toll Pass CSR	\$18.00
Visitor Toll Pass Supervisor	\$22.82
Walk-In Center Manager	\$28.85
Workforce Analyst	\$24.39

All employees shall receive an annual cost of living adjustment or an annual increase based on their job performance being at a minimum "Satisfactory." Also, a personnel wage report shall be provided monthly with the names of the individuals, seniority hire date, date in current position, current hourly/salary rate. In addition, annually the report should include any annual adjustment rate percentage provided.

- C. **Fidelity Bonds** - All CSC, VES, and VTP personnel shall be bonded. All management and supervisory personnel must be bonded and approved by CFX. Contractor shall provide a commercial Fidelity Bond in the minimum amount of \$100,000 to protect CFX from property losses, including money, occasioned by theft, when such losses are identifiable to specific Contractor employees. The Contractor shall be responsible to file promptly any claims and upon recovery of funds shall reimburse CFX to the full extent of the loss. No "deductible amount" of the bond shall apply to reimbursement to CFX. The Fidelity Bond shall be completed and furnished to CFX along with the executed Contract. The Contractor must submit a report bi-annually that shows a list of employees and a certification that they are all bonded.

- D. **Background Checks** - All personnel must undergo an initial state and national background check before being hired and annually thereafter. This screening process is to ensure that the Contractor identifies individuals whose prior conduct and activities could jeopardize the Contractor's ability to properly provide the specified services. The safe and proper handling of CFX revenues and the personal information of CFX's customers by the Contractor's personnel shall be the focus of the screening process. The Contractor shall submit its written screening procedure as part of the H.R. Plan for approval by CFX prior to beginning work on the project.

- E. Drug Testing** - The Contractor shall certify that the personnel it provides are drug free upon initial assignment to the project. The Contractor shall re-certify, on an on-going basis, a minimum of 25% of its personnel every six months, based on random employee testing. This testing process will ensure that all employees are retested within a two-year time frame. The Contractor will provide a semi-annual report to the Manager of E-PASS and Plaza Operations showing employees tested, and the status of the employee population as it relates to re-certification. CFX reserves the right to request that an employee be tested regardless of certification status.
- F. Security Policy** - The Contractor must develop and submit a Security Policy for review and approval by CFX. CFX has in place an Internet Security Policy the Contractor will be required to adopt the policy and adhere to it. CFX maintains many data files that are considered highly confidential from which negative consequences would ensue should the information be published or otherwise divulged negligently or maliciously. Unauthorized access to these files is, in some cases, a violation of the law. Among these files are the E-PASS customer credit card numbers, demographical and transactional information, and violator demographic information. All customer information and files must be treated as confidential with access limited to those who work with them. The Contractor must ensure that all employees within their contract are aware of the policies and that they comply with them. The Contractor must provide each of their employees with a copy of the Security Policy Manual and obtain a signed copy of the acknowledgement and compliance document.

The Contractor shall establish and maintain a personnel file on each employee assigned to the project with a recent photograph. In the event cash is accepted at the service centers or remote locations a complete set of employee's fingerprints taken by a local law enforcement agency are required. CFX reserves the right to review personnel files from time to time at its discretion.

- G. Dress Code & Appearance** - The Contractor's employees shall present an overall neat, clean and professional appearance with no visible body piercing except for women, who are allowed two earrings per ear. Visible tattoos should be below the collar. All employees shall be properly attired in a professional manner to include acceptable shoes. The Contractor shall provide CFX with their dress code policy for review and approval before implementation. CFX reserves the right to remove items from list not suitable as proper office attire. If CFX deems that dress code is not being enforced by the Contractor, uniforms will be required for all of its employees (including part-time) assigned to all of the Service Centers. The uniforms must be approved by CFX before they are put into use. The Contractor shall maintain the uniforms in a presentable manner and ensure each person required to wear a uniform has a sufficient supply. Payment to provide and

maintain uniforms for CSC, VES, and VTP employees will be made at the Contract unit price per month as shown in the Price Proposal.

- H. Customer Services Representatives (CSR)** - The CSR personnel will be the individuals who are in contact with CFX's customers the most and therefore will have the greatest impact on CFX's image. It is of primary importance that these individuals be qualified for these positions and present a positive professional image to the customers. The CSR shall be capable of performing duties associated with customer service, including, but not limited to; account enrollment; transponder distribution; in-person payment processing and reconciliation; and telephone, Internet and mail inquiry processing. Personnel shall also be responsible for "exception" item processing, including credit card denials and expirations; account closures and refunds; lost, stolen, damaged, or defective transponders; and returned checks. It is preferred that representatives have inbound call service center experience, however it is required that candidates have a minimum of one year cash handling experience on a computerized cashiering system; possess a vehicle and valid Florida driver's license; possess a high school diploma or equivalent; be able to speak English fluently and clearly, understand and write the English language; be a U. S. citizen or possess an Alien Registration Card, Form I-151; and pass a standardized test, requiring a level 4 achievement, given by the Contractor including data entry, writing, math skills and language skills. It is desirable that at **least 10%** of the full-time CSRs speak, understand and write in **Spanish**.
- I. Vehicle** - The Contractor shall provide and is responsible for a cargo van or equivalent vehicle capable of transporting inventory, mail and other items to and from various facilities and locations. Contractor shall provide and maintain insurance coverage as detailed in the Contract. Cost of the vehicle is to be factored in the overhead pricing and not billable to CFX. It would be acceptable to sub-contract courier services to a third-party.
- J. Office Supplies and Miscellaneous/Incidental Items** - The Contractor shall provide and maintain required office supplies, appliances (refrigerator, microwave, coffee urn, etc.) and incidentals (water, coffee, paper towels, soap detergent, etc.) required to support their staff needs. Costs for Office Supplies and Miscellaneous/Incidental items are to be factored in the overhead pricing and not billable to CFX.
- K. Fraud, Theft and Misconduct** - CFX is committed to ensuring a safe and professional work environment for employees and to protecting personal information and belongings of staff and customers. Any employee found to have committed fraud; theft or misconduct will be subject to disciplinary action up to and including termination as well as criminal persecution.

- L. Employee (E-PASS) Account Audit** – The Contractor shall maintain a roster of all employees that establish or have an existing E-PASS account and perform a monthly audit to validate accounts are not inactive and with a negative balance. Employee accounts are to be made whole by the individual before closing of account. Contractor is liable for employee accounts that are closed with negative balances. Contractor is to develop a set procedure on the stated requirement and will be responsible for monitoring and the form in which reporting to CFX will be provided.
- M. Removal Rights** - CFX reserves the right, at any time and without incurring liability, to require removal or immediate removal from the project of any Contractor employee whom CFX identifies as a potential threat to the health, safety, security or general well-being of CFX's customers, employees, agents or assets or whom CFX determines does not meet the minimum performance requirements of the work. If such removal request of an employee occurs during the employee's regular shift, the Contractor, if directed by CFX, shall provide a replacement within ten business days. The replacement shall have been screened and drug tested before commencing employment.
- N. Reduction of Work Force** – CFX reserves the right, to adjust the level of employee workforce at any given period. Hiring, termination expense and employee severance packages will be the responsibility of the contractor and not invoiced to CFX.
- O. Time Keeping** - Provider shall prepare and submit a monthly invoice for CFX's review and approval with backup support to include a work spreadsheet and weekly summary of hours worked by employees.
- P. Breaks** - To ensure proper customer service, all employees who have direct interaction with customers must adhere to an established break schedule, including lunch. Employees are to consume their meals in the break room during their scheduled breaks and not consume the meal during their work shift or work space. Supervisor or manager will establish all work and meal breaks based on the needs of the operation.
- Q. Use of Contractor or Client Name, Address or Account Numbers** - Employee may not use Contractor or client name, logo, addresses or account numbers to conduct personal business. Any employee using company or client information directly or indirectly to procure supplies or services is subject to disciplinary action up to and including discharge.
- R. Workstations** - Employees should not keep personal items at the workstations, in cabinets or in drawers and utilize the lockers provided by the client. Additionally, due to the limited amount of space, and close

proximity of operational documents, employees are not allowed to eat food or snacks (cookies, crackers, etc.) at their workstations and are to utilize their scheduled breaks to do so. Drinks must be in closed spill proof containers.

- S. **Cell Phones/Texting** - To ensure proper service to customers and prevent disruptions to the operation, cell phones or text messages must be on silent or vibrate in all work areas. Employees may not answer a call, text message or be on social media while on company time unless on break. In case of an emergency a Supervisor or Manager is to be contacted. For emergency purposes, the work phone number of a Supervisor and/or Manager should be provided.
- T. **Music (Radio or Computer)** - Due to the nature of the operations and the close vicinity of other employees, the use of radios or PC's playing music is not permitted in the Call Center areas. If authorized by a Supervisor or Manger outside of the Call Center area, music must be played at a low personal level (with headphones). Mailroom and office areas are exempt from headphone use, but must adhere to the low personal volume level. Employees must be able to hear any communication in their area regardless if headphones are utilized. Infractions can lead to disciplinary action.
- U. **Personal Business** - Employees may not conduct personal business within any of the Service Centers and VES work areas. Employees may not receive personal calls through the customer service lines. If an employee needs to leave a contact number with a family member, they are to issue the supervisor or manager's phone number as a means of communication. Without specific management approval, employees may not request, receive or send personal USPS mail, including FedEx, UPS, etc. through any of the Service Centers. Any outgoing personal mail must have a stamp on it.

VI. TRAINING PLAN

The Contractor shall submit a Training Plan that will address all areas of the Customer Service Center including VES that is to include sections on Quality Assurance, Employee Development, and a Monitoring Plan. It is imperative that all employees are properly trained in customer service and all other aspects of the Service Center Operations. Special training should be provided for those employees who will be in direct and indirect contact with customers, including the Call Center, Front Counters, E- Mail, and mail. Employees are to be cross trained to allow for maximum flexibility. All CSRs should be proficient in the use of the CSC software. These individuals are not only the Contractor's employees, they are representing CFX to the public, and they are being entrusted with CFX's assets and CFX's Customers.

- Employee training is not billable. Except for CFX driven procedural, system, or marketing initiatives.
- Contractor shall provide employee development training throughout the course of each year. Minimum 8 hours annual training.
- Contractor shall be responsible for continuous training, whether on-site or off-site, of its employees assigned to the project and conduct biannual policy and procedure evaluations.

Each Contractor employee shall be required to successfully complete a formal and practical training program prior to being assigned to a Service Center. Contractor employees cannot work on CFX's Project until they have successfully completed training sessions. CFX must approve all training materials and provided a quarterly training evaluation of training delivered.

The Provider will be responsible for maintaining a fully functional training organization (i.e., trainers, content development, etc.) to encompass new hire training, refresher training, and employee development training.

VII. MOBILIZATION AND TRANSITION PLAN

Immediately upon receiving the Notice to Proceed, the Contractor shall finalize the Mobilization and Transition plan for resubmittal to CFX for review and approval.

MOBILIZATION

The Contractor shall transition with the current Contractor over 60 days covering June through July 31, 2020. The Contractor will also use this time for project mobilization and start-up activities. The Contractor shall provide a fully equipped office, a qualified staff, all necessary equipment and supplies, and maintain all documentation, forms and manuals necessary for the operation of CFX's E-PASS, VES, and VTP.

TRANSITION/STAFFING PLAN

Smooth continuity of services is critical during the transition period from the current Contractor's operations to the new Contractor's operations. A final Mobilization and Transition Plan must be submitted to CFX for review and approval immediately upon Notice to Proceed. The plan shall describe, in detail, the Contractor's methodology and approach to carrying out and coordinating the transition of personnel and equipment. The plan shall include a Staffing Plan for all Personnel. The plan shall address maintaining call flow, normal and peak hour staffing, audit and control of CSC operations, and coordination. The plan shall include procedures to ensure that responsibility for reports, documentation, records and operating procedures are properly transferred from the current Contractor to the Contractor without degradation or interruption of services.

Not later than fourteen (14) days before assumption of the CSC, the Contractor shall submit the following hiring plan documents, developed in accordance with the Contract, to CFX for review and approval:

1. Hiring Plan for Eligible Current Contractor and Sub Contractor Employees - After reviewing the list and files (provided by current Contractor) of employees eligible for first right of refusal, the Contractor shall submit its hiring plan for these employees, including the first date of employment.
2. Summary of Hiring Plan - The Contractor shall submit a hiring plan for the total number of full-time and part-time positions and the total number of personnel positions for each location.

END OF CONTRACT TRANSITION

1. The Contractor acknowledges that the services under the Contract are vital to CFX and must be continued without interruption and that, upon Contract expiration or termination, a successor (either CFX or another contractor) may continue them. The Contractor agrees to exercise its best efforts and cooperation to affect an orderly and efficient transition to a successor.
2. The Contractor shall, upon CFX's written notice, furnish transition services during the last 60-90 days of the Contract. The TOC shall also negotiate in good faith with the successor a plan describing the nature and extent of transition services required. The training program and a date for transferring responsibilities for each division of work shall be subject to CFX approval. The Contractor shall provide sufficient experienced personnel during the transition period to ensure that the services called for by the Contract are maintained at the required level of proficiency.
3. The Contractor shall allow as many personnel as necessary, in the judgment of CFX, to assist or remain on the job to help the successor maintain the continuity and consistency of the services required by the Contract. The Contractor shall also make available to CFX for use by the successor all necessary personnel records, as it pertains to performance and training, and shall allow the successor to conduct on-site interviews with these employees. The Contractor shall release those employees to be hired by the successor at a mutually agreeable date.

DOCUMENTATION REQUIREMENTS

The Contractor shall maintain current and accurate records for all operations work. The records shall be organized and managed by the Contractor. The Contractor must maintain records in an electronic form easily retrievable and transferable to CFX. All text documents and records created electronically shall be prepared on an CFX-approved software program (Microsoft Word) or e-mail program (using only

ASCII/unformatted text). Each page of text shall include page number, and issue date or latest revision date of the document. All drawings, figures, flowcharts, etc., prepared electronically shall use an CFX-approved version of Excel. All records are the property of CFX and, as such, CFX has the right to review and retrieve data and records at any time, electronic or hard copy. The Contractor must provide a full explanation of how records and documentation will be maintained and managed to fulfill this requirement. In addition, CFX must have direct access to the Contractor's project documentation and records.

Documentation and Tracking Data

Documentation is a crucial element to the long-term reliable operation of E-PASS and VES. The ultimate role of documentation is to capture the knowledge accumulated by individuals working for CFX, and to transmit that knowledge to the next generation of people responsible for on-going CFX operations. Within that context, all information that might be useful for training the next generation of people must be collected and reduced to a written form so that future expenses and operational difficulties are minimized. The current SOP is a prime example of implementation of this requirement.

VIII. SERVICE LEVEL REQUIREMENTS, REPORTING, and LIQUIDATED DAMAGES.

Throughout the CSC and VES Sections there are many performance requirements and reporting requirements that the Contractor is required to adhere to which are outlined below. CFX will use the Service Level Agreements (SLA) and related penalties as a mechanism to encourage vendor performance that is above the minimum thresholds established by CFX and the Contractor. Future developments may affect the terms to which the parties have agreed. For example, current terms may be

- too difficult to obtain
- insufficient in light of a change in standard practices or service expectations
- otherwise ineffective at achieving the underlying objectives of the parties

Accordingly, the parties will work together in good faith to reexamine and, if necessary, recalibrate the terms of the SLAs. In the event, CFX and the Contractor cannot agree, Contractor will be required to perform, and will be evaluated based upon, the SLAs established by CFX.

A. Performance Requirement – Liquidated Damages

If CFX determines that the Contractor is not meeting the performance requirements for any provision including staffing, CFX will notify the Contractor in writing, and the Contractor will have two weeks to correct the level of performance cited to the appropriate standard. The Contractor, in response to the written notification, must provide an explanation of why the problem is occurring, and a plan for correcting it. If the Contractor is unable to achieve the required level of performance, then CFX will have the right

to assess liquidated damages retroactively to the date of notification at the rate of \$500 per work-day, per criteria not achieved until the standard is met.

B. Reporting Requirements – Liquidated Damages

If CFX determines that the Contractor has failed to provide a required report, CFX will notify the Contractor in writing, and the Contractor will have two working days to provide the required report, containing the required information, in the fully completed, required, acceptable format. CFX will have the option of assessing liquidated damages at the rate of \$500 per day, per report from the date the report is due to the date it is received.

C. Reports (General Requirements for each report specified in the contract)

- The report format should be submitted by the Contractor for approval by CFX prior to being used on the Project. Examples of reports, with explanations should be submitted with the proposal.
- The report period will be established by CFX. For example, weekly reports will cover the period from Monday to Sunday. Monthly reports are to include from the first to last day of the month.
- The due date of the report will be specified.
- Reports are to be submitted in hard and/or soft copy format acceptable to CFX.
- The Contractor will be informed specifically who is to receive certain reports. Any report specified will automatically be addressed to the Manager of E-PASS and Plaza Operations. CFX may at any time add or delete individuals on the distribution list.

D. Liquidated Damages Not Penalty

It is expressly agreed and acknowledged that the assessment of liquidated damages as provided herein is not a penalty, but rather compensation to CFX for its damages that are difficult or impossible to ascertain.

IX. Miscellaneous Provisions

A. Facilities – CFX will supply the facilities currently under contract for the use of the Contractor. These include:

- **East CSC** - 3,000 sq. ft., includes Front Counter
- **Phone Center/VES** – approx. 10,000 sq. ft., includes back office processing
- **VTP** – dedicated space and displays have been installed in terminals A & B at Orlando's International airport

The Contractor will be required to execute a zero-dollar lease agreement with CFX specifically related to facilities provided in the CFX headquarters building.

- CFX will maintain all workstations, offices, and common areas
- Contractor will establish a network environment with proper security protocols (i.e., firewall)
- Contractor will assume responsibility of PC's located at each workstation. Current PC's can be utilized until required refresh.
- Contractor will provide desktop support for all users

CFX has experienced rapid year-over-year growth and is beginning to outgrow the current space. In order to assist with this growth, CFX is requesting all Contractors to present their willingness to support a second location within the 5-county area surrounding Orlando (Orange, Seminole, Lake, Osceola, Brevard). This location would not be required on the 1st day of the contract but operational within the 1st 9 months to support the CSC and VES operations and possibly another Walk-In Service Center. The initial staffing for the location would be approximately 100 associates.

- B. Surveillance, Fire and Security System** – The E-PASS Service Center is monitored 24/7 and protected with a surveillance, fire and burglar alarm system. Surveillance cameras installed at the front lobby are connected to a DVR. The East Service Center has a surveillance camera monitoring the back-door entrance of the facility. Once the supervisor/manager has gained access to the facility he/she must enter the assigned security code in order to disarm the security system.

The security system installed at the Service Center has back up dial capabilities and keypads. It includes smoke detectors, surface door contacts, safe shield pull station fire alarm and wireless panic buttons. The current contract is with Sonitrol to monitor both the fire alarm system and the security system. If Sonitrol receives any alarms, they will notify the call list of Contractor's Managers provided and law enforcement.

C. Current Projects

- CFX supports interoperability with other interoperable tolling programs both inside and outside the state. While these agencies have their own CSC, these customers may contact the E-PASS CSC with questions.
- CFX is evaluating the possibility of relocating the Walk-In Service Center to a downtown Orlando, Florida location within the next two (2) years.

X. MONTHLY INVOICING

The Contractor should provide CFX with a monthly invoice within 5 business days of completed monthly services. The invoice format and data requirements will be finalized between the Contractor and CFX during the transition period.

CFX should approve and pay the invoice based on the established payment terms.


CONSENT AGENDA ITEM

#18

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

MEMORANDUM

TO: CFX Board Members

FROM: Aneth Williams
Director of Procurement 
Aneth Williams (Jun 2, 2020 20:20 EDT)

DATE: May 27, 2020

SUBJECT: Approval of Contract Award to inContact, Inc dba NICE - inContact
for Contact Center as a Service (CCaaS) Platforms
Contract No. 001665

Request for Proposals (RFP) from qualified firms to provide Contact Center as a Service (CCaaS) Platforms for CFX was advertised on March 15, 2020. Responses were received from eight (8) firms by the deadline. Those firms were ConvergeOne, Nice-inContact, Pivot Technology Services, Voxai Solutions, Avtex Solutions, LLC, Egis, Netsync Network Solutions and Five9, Inc.

The Evaluation Committee shortlisted ConvergeOne, Nice-inContact and Pivot Technologies Services.

As part of the scoring process, the Evaluation Committee heard oral/demo presentations from the firms on April 29, 2020. After the oral/demo presentations were completed, the fee proposals were opened and scored. The combined scores for the technical proposals and fee proposals as submitted by each firm were calculated and the result is shown below:

<u>Ranking</u>	<u>Firm</u>	<u>Total Points</u>
1	NICE – inContact	266.10
2	Pivot Technology Services	259.92
3	ConvergeOne	251.56

Board award of the contract to NICE – inContact in the amount of \$593,900.00 for a one (1) year term with four one-year renewals is requested.

This contract is budgeted in the OM&A Budget and Five-Year Work Plan.

Reviewed by: 
David Wynne
Director of Toll Operations



4974 ORL TOWER RD. ORLANDO, FL 32807 | PHONE: (407) 690-5000 | FAX: (407) 690-5011

RFP-001665 Evaluation Committee- April 29, 2020 Minutes

Evaluation Committee for **Contact Center as a Service (CCaaS) Platforms; RFP-001665** held a duly noticed meeting on Wednesday, April 29, 2020, commencing at 8:15 a.m. via WebEx (teleconference) in the Sandpiper Conference Room at the CFX Administrative Bldg., Orlando, Florida.

Committee Members:

Jim Greer, Chief Technology and Op. Officer
David Wynne, Director of Toll Operations
Fred Nieves, Manager E-PASS and Toll Operations
Michael Carlisle, Director of Finance and Accounting
Leon Okopski, Manager of IT Infrastructure

Other Attendees:

Aneth Williams, Director of Procurement
Brad Osterhaus, Senior Procurement/QC Administrator
Todd Tierney, PPT Solutions
Scott Prater, PPT Solutions

Presentations / Q and A:

Brad began each demo with introduction of the firms and Committee members. This portion of the meeting is closed to the public and is being recorded in accordance with Florida Statute.

ConvergeOne	8:00 -10:00 a.m.
Nice –inContact	10:15 – 12:15 p.m.
Pivot Technology Services	1:15 – 3:15 p.m.

Evaluation Portion:

After demo presentations, the committee members individually scored the demo presentations and submitted them for tallying. The score for the demo presentations is as shown:

<u>Proposer</u>	<u>Points</u>
ConvergeOne	319
Nice - inContact	365
Pivot Technology Services	346

Pricing

Upon completion of the evaluation of the demo presentation, Aneth opened the pricing proposals and scored the pricing proposals in accordance with the RFP requirements.

<u>Proposer</u>	<u>Total Price</u>	<u>Points</u>
ConvergeOne	\$585,706.00	110.06
Nice - inContact	\$515,683.40	125.00
Pivot Technology Services	\$532,652.40	121.02

Total Points and Rankings

<u>Proposer</u>	<u>Avg. Tech. Points</u>	<u>Pricing Points</u>	<u>Total Points</u>	<u>Ranking</u>
ConvergeOne	141.50	110.06	251.56	3
Nice - inContact	141.10	125.00	266.10	1
Pivot Technology Services	138.90	121.02	259.92	2

The Committee members agreed that the highest ranked firm would be recommended to the Board for award.

There being no further business to come before the Committee, the meeting was adjourned at 4:20 p.m. These minutes are considered to be the official minutes of scoring the technical proposals demo presentations, opening of the Price Proposals and final evaluation by the Evaluation Committee at its meeting held Wednesday, April 29, 2020.

Submitted by: 
Aneth Williams, Director of Procurement

On behalf of the Evaluation Committee these minutes have been review and approved by:


David Wynne, Director of Toll Operations

**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
TECHNICAL AND PRICE PROPOSAL SCORING SUMMARY**

CONTACT CENTER as a SERVICE (CCaaS) PLATFORMS; CONTRACT NO. 001665

EVALUATOR	CONVERGEONE		NICE-INCONTACT		PIVOT TECHNOLOGY SVCS					
	TECHNICAL	DEMO	TECHNICAL	DEMO	TECHNICAL	DEMO				
JIM GREER	230	50	190	75	175	65				
DAVID WYNNE	205	65	212	75	203	65				
FRED NIEVES	245	70	250	75	225	75				
MICHAEL CARLISLE	225	64	232	72	227	68				
LEON OKOPSKI	191	70	162	68	213	73				
TOTAL	1096	319	1046	365	1043	346				
AVG. TECH. POINTS	141.50		141.10		138.90					

PRICE PROPOSAL SUMMARY		
PROPOSER	PROPOSAL AMOUNT	POINT VALUE
CONVERGEONE	\$585,706.00	110.06
NICE-INCONTACT	\$515,683.40	125.00
PIVOT TECHNOLOGY SVCS	\$532,652.40	121.02

POINT TOTALS AND FINAL RANKING				
PROPOSER	TECHNICAL POINTS	PRICE POINTS	TOTAL POINTS	FINAL RANKING
CONVERGEONE	141.50	110.06	251.56	3
NICE-INCONTACT	141.10	125.00	266.10	1
PIVOT TECHNOLOGY SVCS	138.90	121.02	259.92	2

Committee Members:

5/4/2020

5/4/2020

5/4/2020

5/4/2020

5/4/2020

Aneth Williams

From: Jim Greer
Sent: Wednesday, April 29, 2020 6:10 PM
To: Aneth Williams
Subject: RE: RFP 001665 Final Ranking.pdf

Final ranking approved

Jim Greer
Chief Technology & Operating Officer

CENTRAL FLORIDA EXPRESSWAY AUTHORITY
4974 ORL Tower Road • Orlando, FL 32807
407.690.5164
www.CFXway.com

PLEASE NOTE: Florida has a very broad public records law (F. S. 119).
All emails to and from CFX are kept as a public record. Your email communications,
including your email address may be disclosed to the public and media at any time.



From: Aneth Williams <Aneth.Williams@cfxway.com>
Sent: Wednesday, April 29, 2020 4:02 PM
To: Jim Greer <Jim.Greer@cfxway.com>; Leon Okopski <Leon.Okopski@cfxway.com>; Fred Nieves <Fred.Nieves@cfxway.com>; Michael Carlisle <Michael.Carlisle@cfxway.com>; David Wynne <David.Wynne@cfxway.com>
Cc: Todd Tierney <todd.tierney@pptsolutions.com>; Scott Prater <scott.prater@pptsolutions.com>
Subject: RFP 001665 Final Ranking.pdf

Committee:

Please review and if in agreement please respond with your approval. Thank you.

Aneth O. Williams, CPPO, CPPB, FCCM
Director of Procurement

Central Florida Expressway Authority
4974 ORL Tower Road • Orlando, FL 32807
407.690.5365 (p) • 407-690-5031 (f)
Aneth.Williams@CFXWay.com
CFXway.com

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Aneth Williams

From: David Wynne
Sent: Thursday, April 30, 2020 9:51 AM
To: Aneth Williams
Subject: RE: RFP 001665 Final Ranking.pdf

Yes, my scores are correct

From: Aneth Williams <Aneth.Williams@cfxway.com>
Sent: Wednesday, April 29, 2020 4:02 PM
To: Jim Greer <Jim.Greer@cfxway.com>; Leon Okopski <Leon.Okopski@cfxway.com>; Fred Nieves <Fred.Nieves@cfxway.com>; Michael Carlisle <Michael.Carlisle@cfxway.com>; David Wynne <David.Wynne@cfxway.com>
Cc: Todd Tierney <todd.tierney@pptsolutions.com>; Scott Prater <scott.prater@pptsolutions.com>
Subject: RFP 001665 Final Ranking.pdf

Committee:

Please review and if in agreement please respond with your approval. Thank you.

Aneth O. Williams, CPPO, CPPB, FCCM
Director of Procurement

Central Florida Expressway Authority
4974 ORL Tower Road • Orlando, FL 32807
407.690.5365 (p) • 407-690-5031 (f)
Aneth.Williams@CFXWay.com
CFXway.com

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Aneth Williams

From: Fred Nieves
Sent: Thursday, April 30, 2020 7:28 AM
To: Aneth Williams; Jim Greer; Leon Okopski; Michael Carlisle; David Wynne
Cc: Todd Tierney; Scott Prater
Subject: RE: RFP 001665 Final Ranking.pdf

Aneth,

My scores are reflected accurately.

Thank you.

From: Aneth Williams <Aneth.Williams@cfxway.com>
Sent: Wednesday, April 29, 2020 4:02 PM
To: Jim Greer <Jim.Greer@cfxway.com>; Leon Okopski <Leon.Okopski@cfxway.com>; Fred Nieves <Fred.Nieves@cfxway.com>; Michael Carlisle <Michael.Carlisle@cfxway.com>; David Wynne <David.Wynne@cfxway.com>
Cc: Todd Tierney <todd.tierney@pptsolutions.com>; Scott Prater <scott.prater@pptsolutions.com>
Subject: RFP 001665 Final Ranking.pdf

Committee:

Please review and if in agreement please respond with your approval. Thank you.

Aneth O. Williams, CPPO, CPPB, FCCM
Director of Procurement

Central Florida Expressway Authority
4974 ORL Tower Road • Orlando, FL 32807
407.690.5365 (p) • 407-690-5031 (f)
Aneth.Williams@CFXWay.com
CFXway.com

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Aneth Williams

From: Michael Carlisle
Sent: Thursday, April 30, 2020 7:49 AM
To: Aneth Williams; Jim Greer; Leon Okopski; Fred Nieves; David Wynne
Cc: Todd Tierney; Scott Prater
Subject: RE: RFP 001665 Final Ranking.pdf

My Scores look correct, but could we get a verification of the proposal \$ amounts, how the totals were added? When I went to try and check them I came up with the following:

Convergeone \$586,406.00
Nice \$519,377.40
Pivot \$509,339.40 (concurrent) or \$500,477.40 (Configured)

There could be parts of the calculation I am not understanding though, like maybe something we excluded because it was not applicable? I just want to understand the total calculations so I can verify them.

Thanks.

Mike Carlisle
Director of Accounting and Finance
Central Florida Expressway Authority
4974 ORL Tower Road • Orlando, FL 32807
407.690.5361 (p) • 407-690-5011 (f)
CFXway.com

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From: Aneth Williams <Aneth.Williams@cfxway.com>
Sent: Wednesday, April 29, 2020 4:02 PM
To: Jim Greer <Jim.Greer@cfxway.com>; Leon Okopski <Leon.Okopski@cfxway.com>; Fred Nieves <Fred.Nieves@cfxway.com>; Michael Carlisle <Michael.Carlisle@cfxway.com>; David Wynne <David.Wynne@cfxway.com>
Cc: Todd Tierney <todd.tierney@pptsolutions.com>; Scott Prater <scott.prater@pptsolutions.com>
Subject: RFP 001665 Final Ranking.pdf

Committee:

Please review and if in agreement please respond with your approval. Thank you.

Aneth O. Williams, CPPO, CPPB, FCCM

Aneth Williams

From: Leon Okopski
Sent: Wednesday, April 29, 2020 4:05 PM
To: Aneth Williams
Subject: RE: RFP 001665 Final Ranking.pdf

Approved.

Leon Okopski
Manager of IT Infrastructure
Central Florida Expressway Authority
4974 ORL Tower Road • Orlando, FL 32807
407.690.5137 (p) • 407.690.5011 (f) • 407-342-4474 (m)

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www.CFXway.com



From: Aneth Williams <Aneth.Williams@cfxway.com>
Sent: Wednesday, April 29, 2020 4:02 PM
To: Jim Greer <Jim.Greer@cfxway.com>; Leon Okopski <Leon.Okopski@cfxway.com>; Fred Nieves <Fred.Nieves@cfxway.com>; Michael Carlisle <Michael.Carlisle@cfxway.com>; David Wynne <David.Wynne@cfxway.com>
Cc: Todd Tierney <todd.tierney@pptsolutions.com>; Scott Prater <scott.prater@pptsolutions.com>
Subject: RFP 001665 Final Ranking.pdf

Committee:

Please review and if in agreement please respond with your approval. Thank you.

Aneth O. Williams, CPPO, CPPB, FCCM
Director of Procurement

Central Florida Expressway Authority
4974 ORL Tower Road • Orlando, FL 32807
407.690.5365 (p) • 407-690-5031 (f)
Aneth.Williams@CFXWay.com
CFXway.com

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

RFP-001665 Committee Meeting April 22, 2020 Minutes

Evaluation Committee for Contact Center as a Service (CCaaS) Platforms; RFP-001665, held a duly noticed meeting on Wednesday, April 22, 2020, commencing at 10:00 a.m. via teleconference.

Committee Members:

Jim Greer, Chief Technology and Op.. Officer
David Wynne, Director of Toll Operations
Fred Nieves, Manager of Toll Operations
Mike Carlisle, Director of Finance and Accounting
Leon Okopski, Manager of IT Infrastructure

Other Attendees:

Aneth Williams, Director of Procurement
Brad Osterhaus, Senior Procurement/QC Administrator
Todd Tierney, PPT Solutions
Scott Prater, PPT Solutions
Wideline Dorvil, Supervisor of Audit and QC- Toll Operations

Discussion and Motions:

Aneth explained that today's meeting was to evaluate and shortlist the top firms. The Evaluation Committee Members submitted their disclosure forms to Aneth via e-mail.

General discussion ensued about the project and the RFP submittals. Committee members then tallied up the individual evaluation sheets and submitted their scoring sheets to Aneth via e-mail. The scores were incorporation into the RFP shortlist summary sheet with the following results:

<u>Firms</u>	<u>Score</u>	<u>Ranking</u>
ConvergeOne	1096	1
Nice-in Contact	1046	2
Pivot Technology Services	1043	3
Voxai Solutions	1016	4
Avtex Solutions, LLC	1000	5
Egis	998	6
Netsync Network Solutions	970	7
Five9, Inc..	861	8

It was the consensus of the committee that ConvergeOne, Nice-inContact and Pivot Technologies Services be invited to submit demo presentations.

There being no further business to come before the Committee, the meeting was adjourned at 12:20 p.m. These minutes are considered to be the official minutes of the Evaluation Committee at its meeting held Wednesday, April 22, 2020.

Submitted by:


Aneth Williams, CFX Director of Procurement

On behalf of the Evaluation Committee these minutes have been review and approved by:


David Wynne, Director of Toll Operations

CENTRAL FLORIDA EXPRESSWAY AUTHORITY
EVALUATION COMMITTEE MEMBER FINAL SUMMARY RANKING
CONTACT CENTER as a SERVICE (CCaaS) PLATFORMS
CONTRACT NO. 001865

CONSULTANT	JIM GREER SCORE	DAVID WYNNE Score	FRED NIEVES Score	MICHAEL CARLISLE Score	LEON OKOPSKI Score	SCORE	RANKING
AVTEX SOLUTIONS, LLC	155	210	225	220	190	1000	5
CONVERGEONE	230	205	245	225	191	1098	1
EGIS	170	199	230	225	174	998	6
FIVE9, INC.	120	160	215	187	179	861	8
NETSYNC	125	194	215	216	220	970	7
NICE - InCONTACT	190	212	250	232	162	1046	2
PIVOT TECHNOLOGIES SERV	175	203	225	227	213	1043	3
VOXAI SOLUTIONS	155	201	240	221	199	1016	4

EVALUATION COMMITTEE MEMBERS:

JIM GREER

DATE: Wednesday, April 22, 2020

DAVID WYNNE

DATE: Wednesday, April 22, 2020

FRED NIEVES

DATE: Wednesday, April 22, 2020

MICHAEL CARLISLE

DATE: Wednesday, April 22, 2020

LEON OKOPSKI

DATE: Wednesday, April 22, 2020

Aneth Williams

From: Jim Greer
Sent: Wednesday, April 22, 2020 12:13 PM
To: Aneth Williams; Leon Okopski; Michael Carlisle; David Wynne; Fred Nieves; Todd Tierney; Scott Prater
Subject: RE: Aneth Williams shared "Final Shortlist Ranking" with you.

I approve – my scores are accurately represented

Jim Greer
Chief Technology & Operating Officer


CENTRAL FLORIDA EXPRESSWAY AUTHORITY
4974 ORL Tower Road • Orlando, FL 32807
407.690.5164
www.CFXway.com

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From: Aneth Williams <Aneth.Williams@cfxway.com>
Sent: Wednesday, April 22, 2020 12:11 PM
To: Jim Greer <Jim.Greer@cfxway.com>; Leon Okopski <Leon.Okopski@cfxway.com>; Michael Carlisle <Michael.Carlisle@cfxway.com>; David Wynne <David.Wynne@cfxway.com>; Fred Nieves <Fred.Nieves@cfxway.com>; Todd Tierney <todd.tierney@pptsolutions.com>; Scott Prater <scott.prater@pptsolutions.com>
Subject: Aneth Williams shared "Final Shortlist Ranking" with you.

Aneth Williams shared "Final Shortlist Ranking" with you.

 This link only works for the direct recipients of this message.



Final Shortlist Ranking

Open

Aneth Williams

From: David Wynne
Sent: Wednesday, April 22, 2020 1:32 PM
To: Aneth Williams; Jim Greer; Leon Okopski; Michael Carlisle; Fred Nieves; Todd Tierney; Scott Prater
Subject: RE: Aneth Williams shared "Final Shortlist Ranking" with you.

Aneth

My scores are accurate.

Dave W.

From: Aneth Williams <Aneth.Williams@cfxway.com>
Sent: Wednesday, April 22, 2020 12:11 PM
To: Jim Greer <Jim.Greer@cfxway.com>; Leon Okopski <Leon.Okopski@cfxway.com>; Michael Carlisle <Michael.Carlisle@cfxway.com>; David Wynne <David.Wynne@cfxway.com>; Fred Nieves <Fred.Nieves@cfxway.com>; Todd Tierney <todd.tierney@pptsolutions.com>; Scott Prater <scott.prater@pptsolutions.com>
Subject: Aneth Williams shared "Final Shortlist Ranking" with you.

Aneth Williams shared "Final Shortlist Ranking" with you.



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Final Shortlist Ranking

Open

 Microsoft OneDrive

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Microsoft Corporation, One Microsoft Way, Redmond, WA 98052

Aneth Williams

From: Fred Nieves
Sent: Wednesday, April 22, 2020 12:15 PM
To: Aneth Williams; Jim Greer; Leon Okopski; Michael Carlisle; David Wynne; Todd Tierney; Scott Prater
Subject: RE: Aneth Williams shared "Final Shortlist Ranking" with you.


Aneth,

My scores are reflected correctly and approved.

Thank you.

From: Aneth Williams <Aneth.Williams@cfxway.com>
Sent: Wednesday, April 22, 2020 12:11 PM
To: Jim Greer <Jim.Greer@cfxway.com>; Leon Okopski <Leon.Okopski@cfxway.com>; Michael Carlisle <Michael.Carlisle@cfxway.com>; David Wynne <David.Wynne@cfxway.com>; Fred Nieves <Fred.Nieves@cfxway.com>; Todd Tierney <todd.tierney@pptsolutions.com>; Scott Prater <scott.prater@pptsolutions.com>
Subject: Aneth Williams shared "Final Shortlist Ranking" with you.

Aneth Williams shared "Final Shortlist Ranking" with you.

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Final Shortlist Ranking

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 Microsoft OneDrive

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Microsoft Corporation, One Microsoft Way, Redmond, WA 98052

Aneth Williams

From: Michael Carlisle
Sent: Wednesday, April 22, 2020 12:14 PM
To: Aneth Williams
Subject: RE: Aneth Williams shared "Final Shortlist Ranking" with you.

I approve, my scores are correct.


Mike Carlisle
Director of Accounting and Finance
Central Florida Expressway Authority
4974 ORL Tower Road • Orlando, FL 32807
407.690.5361 (p) • 407-690-5011 (f)
CFXway.com

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From: Aneth Williams <Aneth.Williams@cfxway.com>
Sent: Wednesday, April 22, 2020 12:11 PM
To: Jim Greer <Jim.Greer@cfxway.com>; Leon Okopski <Leon.Okopski@cfxway.com>; Michael Carlisle <Michael.Carlisle@cfxway.com>; David Wynne <David.Wynne@cfxway.com>; Fred Nieves <Fred.Nieves@cfxway.com>; Todd Tierney <todd.tierney@pptsolutions.com>; Scott Prater <scott.prater@pptsolutions.com>
Subject: Aneth Williams shared "Final Shortlist Ranking" with you.

Aneth Williams shared "Final Shortlist Ranking" with you.

 This link only works for the direct recipients of this message.



Final Shortlist Ranking

Open


Aneth Williams

From: Leon Okopski
Sent: Wednesday, April 22, 2020 12:14 PM
To: Aneth Williams
Subject: RE: Aneth Williams shared "Final Shortlist Ranking" with you.

Approved.

From: Aneth Williams <Aneth.Williams@cfxway.com>
Sent: Wednesday, April 22, 2020 12:11 PM
To: Jim Greer <Jim.Greer@cfxway.com>; Leon Okopski <Leon.Okopski@cfxway.com>; Michael Carlisle <Michael.Carlisle@cfxway.com>; David Wynne <David.Wynne@cfxway.com>; Fred Nieves <Fred.Nieves@cfxway.com>; Todd Tierney <todd.tierney@pptsolutions.com>; Scott Prater <scott.prater@pptsolutions.com>
Subject: Aneth Williams shared "Final Shortlist Ranking" with you.

Aneth Williams shared "Final Shortlist Ranking" with you.

 This link only works for the direct recipients of this message.



Final Shortlist Ranking

Open

 Microsoft OneDrive

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Microsoft Corporation, One Microsoft Way, Redmond, WA 98052

Service Contract

Customer: CENTRAL FLORIDA EXPRESSWAY AUTHORITY **Address:** 4974 ORL TOWER RD **Quote Number:** Q-86094
Contact: Steven Vess **City:** ORLANDO **Term:** 12 months
Phone: 8017155340 **State:** FL **Payment Terms:** 45 days
Email: steven.vess@incontact.com **Zip:** 32807 **Currency:** U.S. Dollar

Software Subscriptions

NICE inContact CXone Subscriptions					
Product	Quantity	List Price	Disc. (%)	MRC	Total MRC
ACD / IVR (per Configured User)	140.00	\$150.00	39.00	\$91.50	\$12,810.00
Additional Configured Universal Port (beyond 1 port included)	20.00	\$75.00	35.00	\$48.75	\$975.00
Additional Active Storage (per GB)	1.00	\$7.50	70.00	\$2.25	\$2.25
Long Term Storage (per GB)	1.00	\$0.10	0.00	\$0.10	\$0.10
Long Term Storage Retrieval (per GB)	1.00	\$1.38	0.00	\$1.38	\$1.38
Workforce Optimization Pro (per Configured User)	140.00	\$70.00	35.00	\$45.50	\$6,370.00
Screen Recording Pro (per Configured User)	140.00	\$15.00	35.00	\$9.75	\$1,365.00
Automated Speech Recognition (per Minute)	1.00	\$0.05	25.00	\$0.04	\$0.04
Interaction Analytics Pro (per Configured User)	140.00	\$36.00	35.00	\$23.40	\$3,276.00
Email (per Configured User)	30.00	\$8.00	30.00	\$5.60	\$168.00
Feedback Mgt IVR Channel (per Agent)	140.00	\$5.00	25.00	\$3.75	\$525.00
Feedback Mgt VoC Platform Fee	1.00	\$500.00	25.00	\$375.00	\$375.00
Feedback Mgt VoC (per Agent)	140.00	\$25.00	25.00	\$18.75	\$2,625.00
CXsuccess Premier Package	1.00	\$3,000.00	0.00	\$3,000.00	\$3,000.00
Customer Dynamics Essentials (per Configured User)	140.00	\$15.00	30.00	\$10.50	\$1,470.00
NICE inContact CXone Subscriptions TOTAL:					\$32,962.77

Minimum Monthly Commitment:

USD 24,721

Professional Services

Implementation & Training					
Product	Quantity	List Price	Disc. (%)	Price	Total Price
CXone with User Hub	1.00	\$0.00	0.00	\$0.00	\$0.00
Workforce Optimization Pro Implementation	1.00	\$13,000.00	35.00	\$8,450.00	\$8,450.00
Screen Recording Pro Implementation	1.00	\$4,000.00	35.00	\$2,600.00	\$2,600.00
Workforce Management Pro Training	1.00	\$6,500.00	25.00	\$4,875.00	\$4,875.00
Quality Management Pro Training	1.00	\$6,500.00	25.00	\$4,875.00	\$4,875.00
Feedback Mgt VoC Implementation (Includes 1 Channel + 1 Survey)	1.00	\$25,000.00	58.00	\$10,500.00	\$10,500.00
Customer Dynamics Essentials Team Implementation	1.00	\$7,500.00	30.00	\$5,250.00	\$5,250.00
Automated Speech Recognition Implementation	1.00	\$5,000.00	30.00	\$3,500.00	\$3,500.00
Email Implementation	1.00	\$1,000.00	35.00	\$650.00	\$650.00
Interaction Analytics Pro: Implementation	1.00	\$2,500.00	35.00	\$1,625.00	\$1,625.00
Interaction Analytics Pro – Professional Services - Customer Success Program	1.00	\$5,500.00	35.00	\$3,575.00	\$3,575.00
Interaction Analytics Pro – Training	1.00	\$6,500.00	20.00	\$5,200.00	\$5,200.00
Corporate Professional Services Implementation	1.00	\$34,000.00	35.00	\$22,100.00	\$22,100.00
25 Menu Options DTMF Navigation	2.00	\$2,000.00	30.00	\$1,400.00	\$2,800.00
50 Point of Contact Based Routing	2.00	\$1,000.00	30.00	\$700.00	\$1,400.00
Corporate Onboarding Package	1.00	\$10,000.00	30.00	\$7,000.00	\$7,000.00
ACD Training: Core	1.00	\$6,500.00	20.00	\$5,200.00	\$5,200.00
Implementation & Training TOTAL:					\$89,600.00

Network Connectivity

Monthly Network Connectivity Subscriptions					
Product	Quantity	List Price	Disc. (%)	Price	Total Price
Local Number [US]	4.00	\$5.00	0.00	\$5.00	\$20.00
Domestic Toll Free Number [US]	3.00	\$1.00	0.00	\$1.00	\$3.00

MAX Integrated Softphone	140.00	\$0.00	0.00	\$0.00	\$0.00
Monthly Network Connectivity Subscriptions TOTAL:					\$23.00

Network Connectivity Setup & Activation					
Product	Quantity	List Price	Disc. (%)	Unit Price	Total Price
Local Number [US] - SETUP	4.00	\$1.00	0.00	\$1.00	\$4.00
Local Number Activation [US]	1.00	\$100.00	0.00	\$100.00	\$100.00
Domestic Toll Free Number [US] - SETUP	3.00	\$1.00	0.00	\$1.00	\$3.00
Domestic Toll-Free Activation	3.00	\$10.00	0.00	\$10.00	\$30.00
Telecom Porting Fee	4.00	\$20.00	0.00	\$20.00	\$80.00
Network Connectivity Setup & Activation TOTAL:					\$217.00

Monthly Loop Quote Subscriptions						
Product	Location	NPA-NXX	Carrier	Quantity	Unit Price	Total Price
ICLC MPLS Port	..	407-690	ATT	1	\$404.00	\$404.00
Monthly Loop Quote Subscriptions TOTAL:						\$404.00

Loop Quote Setup & Activation						
Product	Location	NPA-NXX	Carrier	Quantity	Unit Price	Total Price
ICLC MPLS Port - Setup	..	407-690	ATT	1	\$250.00	\$250.00
Loop Quote Setup & Activation TOTAL:						\$250.00

This Service Contract is governed by the NICE inContact Standard Terms of Use ("Terms") accessible at NICEinContact.com/Terms; additional terms or conditions included in a purchase order or similar document are not accepted. NICE inContact will perform the Services listed in this Service Contract, including all Schedules attached hereto, which are incorporated by reference. Corresponding product descriptions accessible at [NICEinContact.com/Terms/Product Descriptions](http://NICEinContact.com/Terms/Product%20Descriptions).

The Service Term will begin on the first day of the calendar month after the earlier of: (i) the Go-Live Date, or (ii) One Hundred Twenty (120) days after Customer signs below, and will automatically renew for up to two (2) additional one (1) year terms unless either Party gives written notice of non-renewal at least thirty (30) days before expiration of the then-current Service Term. At the expiration of the final Service Term renewal, the Parties will negotiate in good faith for renewal of a Service Term beginning three (3) months before expiration of a Service Term. If the Parties cannot reach agreement on the business terms for renewal of the Service Term, then, the Term shall renew on a month to month basis with an increase of Twenty-Five percent (25%) in Software Services rates at expiration of the Service Term until either Party gives thirty day (30) written notice of non-renewal of the Service Term. Notice of termination must be sent by Customer to inContact at Contract-Unsubscribe@inContact.com. Notice of termination via alternate methods shall not constitute notice. Notwithstanding the foregoing, any and all responsibilities and obligations of Customer to pay pursuant to the terms of this Service Contract are contingent upon an annual budget appropriation by the Board of Commissioners of Customer. The parties agree that in the event funds are not appropriated, this Service Contract may be terminated, which termination shall be deemed a termination for Cause and shall be effective upon Customer providing written notice to NICE InContact of such termination.

Either Party may terminate this Agreement for Cause by delivering written notice of such Cause to the other Party, with such termination being effective thirty (30) days after receipt of the notice of termination, unless cured within such thirty (30) day period. In the event Customer terminates this Service Contract or any Services for convenience, without Cause, prior to the end of the then-current Service Term, or in the event of termination for Cause by NICE inContact for Customer's failure to comply with any material obligation of this Agreement (including Customer's failure to make payments within the approved payment terms), Customer agrees to pay early termination charges including: (i) all MRC and NRC for Services provided; (ii) the Minimum Technology MRC, multiplied by the number of months remaining in the then-current Service Term; (iii) any early termination fees or costs incurred by NICE InContact related charges from underlying carriers or vendors for cancellation of the underlying Services; and (iv) any credits, discounts, or waived installation or expedition costs that had been applied to Customer's account (collectively "Early Termination Charges"). Such Early Termination Charges shall not apply in the event of Customer's termination for Cause or Notice of Service Term non-renewal. Notice of Service Term non-renewal or termination must be sent to Contract-Unsubscribe@NICEinContact.com; notice of non-renewal or termination via alternate methods shall not constitute notice.

MRC charges will be based on the quantities and rates herein but may vary according to actual usage of the Services, subject to the Minimum Technology MRC. Each billing period, Customer will pay the greater of: (i) charges for Services actually used; or (ii) the Minimum Technology MRC. NRC accrue and will be invoiced upon Customer's signature below or as otherwise provided herein. The Minimum Technology MRC begins on the first day of the Service Term and may not be postponed because of a delay in implementation of Services unless due solely to NICE inContact. Upon renewal of any Service Term, and upon written notice, rates for Services may be increased by a rate not to exceed five percent (5%), and rates for telephony/data connectivity may be increased or decreased per prevailing market rates. Unless otherwise indicated herein, charges for all Services, charges, surcharge fees, and taxes are due in U.S. Dollars before the Past Due Date. "Past Due Date" means payments shall be made in accordance with Prompt Payment Act, but in no event later than 60 days from the invoice date, provided any such invoice is addressed to CFX's Director of Procurement. Past Due balances are subject to a late charge equal to the lesser of: (a) one-and-one-half percent (1.5%) per month, compounded; or (b) the maximum rate allowed by applicable law. Payments will be applied first to late charges and related expenses, then to Past Due amounts, and then to the current invoice. Written notice of an invoice dispute must be received by the Past Due Date or such invoice will be deemed to be correct and binding. NICE inContact will make reasonable efforts to notify Customer verbally and in writing prior to such suspension or disconnection. Customer agrees to pay all reasonable costs and expenses associated with the collection of Past Due Balances, including attorneys' fees, expenses, court costs, and service charges. MRC begin at the Go-Live Date and will be pro-rated in the Go-Live month. Customer may assert exemption from taxes or fees by providing an exemption certificate to NICE inContact.

NICE inContact DOES NOT OFFER 911, E911, 999, OR OTHER EMERGENCY SERVICES. For more information, please see NICEinContact.com/terms/911.

Contract Terms

For clarity, mutually agreed negotiated terms in the Service Contract will take precedence of the Standard Terms of Use if there is a conflict.

Amendments to Service Contract.

No modification alteration or amendment to this Service Contract, or the Terms of Use shall be binding upon Customer or NICE InContact until such modification, alteration or amendment is reduced to writing and executed by all Parties hereto.

Payment Information on Account

Customer agrees to remit payments via ACH, wire transfer, check by phone or check.

Advance Payment

1. Within forty-five (45) days from Customer's signature, Customer shall remit USD 45,033.50 via wire transfer as advance payment toward future charges.

Public Records

Customer understands and acknowledges that Customer is a public agency required to comply with Chapter 119, Florida Statute governing the release of public records. To the extent a public record is not otherwise deemed exempt, Customer shall be required to disclose any such public records upon request.

IF NICE INCONTACT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE NICE INCONTACT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS SERVICE AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT, AS FOLLOWS:

Director of Records Management
Central Florida Expressway Authority
4974 ORL Tower Road
Orlando, FL 32807
407-690-5366
PublicRecords@cfxway.com

Governing Law. This Service Contract shall be governed by and construed in accordance with the law of the State of Florida. Jurisdiction and venue for any dispute arising under this Service Contract will be exclusive to the state and federal courts seated in Orange County, Florida.

Each of the undersigned represents that they are duly authorized to execute this Service Contract on behalf of the Party he or she represents.

My Agent of Record is:

Customer:

inContact, Inc.

:

**CENTRAL FLORIDA EXPRESSWAY
AUTHORITY**, a body politic and corporate,
and an agency of the state, under the laws of
the State of Florida,

Sign:

Name (Print):

Title:

Date:

Sign:

Name (Print):

Title:

Date:

Sign:

Name (Print):

Title:

Date:

NICE inContact CXone Subscriptions

ACD / IVR (per Configured User)

- 1 User License - Configured Users are billed based on the highest number of active users set up on the platform at any one time during the month. This includes Admin users.
- 1 Universal Port (\$75 value) – Used for IVR
- Call Monitoring
- Virtual queue
- Agent Scripting
- Text to Speech
- Call conferencing (long distance charges apply)
- Monitor, Coach, and Barge functionality

Additional features and services included with this contract:

- 1 GB of storage per BU for recordings, prompts, scripts, messages, and files. Additional charges may apply for more storage
- If Call Recording per User is selected, customer will get 1 GB of storage per seat
- Contact Center all-inclusive reporting
- IVR programming toolset
- Capability for CTI and Connectivity (Standard, Encrypted, VPN, FTP, SFTP, Web Service, and HTML Connector)
- 24 x 7 Network Operations Center monitoring
- Redundant servers in Software as a Service model
- Standard technical support
- Product maintenance and enhancement releases
- inContact University with the latest eLearning product courses
- Online documentation and help

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms and NICEinContact.com/terms/ACDIVR

Additional Configured Universal Port (beyond 1 port included)

- Universal Port in excess of port included with seat
- Used for IVR and Voice

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms

Additional Active Storage (per GB)

- Storage and management of recordings, prompts, scripts, messages, and files
- Billed per GB beyond the included 1GB of storage used
- Applies to storage from inContact platform recorder and inContact WFO recorder

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms

Long Term Storage (per GB)

- Provides cost-effective long-term storage for data archiving requirements
- Billed per GB stored
- Key product features & components:
 - Lower data storage costs by eliminating the need to implement and maintain a separate storage infrastructure for long-term storage requirements
 - Seamless data transfer from short-term to long-term storage
 - Auto purge data when it is no longer needed by defining 'time to live' based on the type of data stored
 - Scalable cloud infrastructure
 - State-of-the-art data encryption technology

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms

Long Term Storage Retrieval (per GB)

- Provides metadata-based search capabilities to locate and retrieve data from long-term storage
- Billed per GB retrieved
- Key product features & components:
 - Comprehensive metadata search capabilities for easy retrieval
 - Move files to active storage for analysis, audits, and other needs
 - Time for files to remain in active storage can be specified during retrieval

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms

Workforce Optimization Pro (per Configured User)

- Combines CXone Quality Management (which encompasses Audio Recording) and CXone Workforce Management. Identify the right agents and interactions for evaluation as well as capture feedback and share across peers and groups. Includes audio recording,

encryption, as well as search and playback of recorded interactions. Provides forecasting, scheduling, and schedule adherence management as well as shift bidding and time off management.

- Configured Users are billed based on the highest number of active users set up on the platform, associated with this product item, at any one time during the month.
- Key product features:
 - Form Designer
 - Evaluation
 - Calibration
 - Dispute
 - Coaching
 - Dashboards
 - Quality Planner
 - Audio Recording (total or %-based)
 - Search
 - Playback
 - Encryption
 - Forecasting and Scheduling
 - Shift Bidding
 - Time Off Management
 - Real-time adherence dashboard
 - Historical adherence report
 - 1 GB of storage included per user

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms and NICEinContact.com/terms/WFO

Screen Recording Pro (per Configured User)

- Provides capture of screen activity on the agent desktop while the agent handles a phone interaction. (Screen recording must be associated with voice recording.)
- Configured Users are billed based on the highest number of active users set up on the platform, associated with this product item, at any one time during the month.
- Key product features:
 - Screen Recording (total or %-based)
 - Search
 - Playback
 - Encryption

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms and NICEinContact.com/terms/WFO

Automated Speech Recognition (per Minute)

- Automated Speech Recognition (ASR) allows callers to use their voice to provide input to the IVR to determine routing and other information
- Billed at a per minute model
- Key product features & components:
 - Multiple languages
 - Direct speech recognition
 - Ability to recognize numbers, alpha numeric input, dates, and digits
 - Custom grammars for custom speech input

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms

Interaction Analytics Pro (per Configured User)

- A robust text analytics tool that automatically analyzes every voice, chat, and email interaction and gives customers detailed, quantifiable, actionable insights
- Configured Users are billed based on the highest number of active users set up on the platform at any one time during the month. This includes Admin users.
- Key product features & components:
 - Automatic analysis of every voice, email, and chat interaction
 - Automatic topic, category and trend discovery
 - Sentiment analysis
 - Integrated WAV Player and 100% call transcription
 - Keyword, phrase, and entity search
 - Powerful filtering capabilities
 - Multi-tenant, scalable cloud platform
 - Fully integrated with inContact ACD and SSO

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms and NICEinContact.com/terms/Analytics

Email (per Configured User)

- Email allows agents to be able to accept and respond to incoming and emails from customers.
- Configured Users are billed based on the highest number of users configured for an email skill in the platform at any one time during the month
- Key product features & components:
 - Email functionality can receive communications directly from the customer's email solution and send out responses using inContact's secure gateway
 - Email can be enhanced using custom scripting tools in inContact's Studio application

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms

Feedback Mgt IVR Channel (per Agent)

- Provides ability to survey via IVR
- Billed monthly per the contracted quantity and rate
- Key product features & components:
 - Ability to Survey Via IVR Channel
 - Ability to skip invitation based on touch rules

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms and NICEinContact.com/terms/Satmetrix

Feedback Mgt VoC Platform Fee

- Platform provides omnichannel customer surveys that deliver in-depth analytics and benchmarking capabilities
- Billed monthly per the contracted quantity and rate
- Key product features & components:
 - Ability to trigger Post Interaction Surveys Via (IVR, Email, SMS, Web Intercepts, Chat) depending on channel(s) purchased
 - For products outside of the inContact portfolio you will need to purchase or build a connector
 - Open API's allow for quick connections to existing solutions
 - Unlimited Named Users
 - 1 Power user is included
 - No Channels included. Channels must be purchased separately

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms and NICEinContact.com/terms/Satmetrix

Feedback Mgt VoC (per Agent)

- Provides omnichannel customer surveys that deliver in-depth analytics and benchmarking capabilities.
- Minimum 50 agent licenses must be purchased.
- Billed monthly per the contracted quantity and rate
- Key product features & components:
 - No channels included. Must purchase channel(s) separately
 - Ability to survey via the following channels: (IVR, Email, SMS, Web Intercepts, Chat) depending on channel(s) implemented
 - 30 responses per agent across all channels per month.
 - Overage rate of \$1.00 per response beyond 30 included.
 - Workflows to perform and measure follow-up actions
 - Ability to share dashboards and send PDF reports
 - Provides out-of-box advanced VoC analytics

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms and NICEinContact.com/terms/Satmetrix

CXsuccess Premier Package

- Self-service via online Customer Community
- 7x24x365 Technical Support via phone and online service site
- Priority case handling
- Up to five customer resources authorized to work with NICE inContact Services, and receive notifications to distribute to the organization
- Designated experienced Technical Account Manager provides guidance, advocacy, best practice sharing and assistance in achieving business objectives
- Up to 16 total engagement hours per month. Additional TAM available (for broader geography or time zone coverage) by purchasing another success package that includes the level of TAM desired.
- TAMs are available M-F during normal business hours for your primary time zone
- On-site TAM visits may be scheduled at \$2,500/day plus travel and expenses
- Project-driven professional services are available at a rate of \$250/hr. for large-scope projects requiring an extended services engagement
- Three on-demand hours per month with an option to purchase additional time at a rate of \$75 per 15 minutes (expire at the end of the month)
- Live webinars and NICE inContact University e-learning courses (free of charge)
- Training at NICE inContact locations or your location at standard rates

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms

Customer Dynamics Essentials (per Configured User)

- Environment for a call center integration with Microsoft Dynamics CRM
- Configured Users are billed based on the highest number of active users set up on the platform at any one time during the month. This includes Admin users.
- Features include:
 - Basic Screenpop
 - Click 2 Call
 - Call Memorialization functionality for supported version of Microsoft Dynamics CRM and Microsoft Dynamics 365

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms and NICEinContact.com/terms/CustomDynamics

Implementation & Training

CXone with User Hub

- Customer will be implemented on a "User Hub" cluster

Workforce Optimization Pro Implementation

- Implementation and setup of CXone Workforce Optimization
- Billed as a one time (non-recurring) charge
- Implementation includes:
 - Implementation manager who oversees the project from start to finish
 - Business requirements session and documentation
 - Initial System Configuration
 - User acceptance testing
 - Go live support
 - 2 weeks of Post Go Live Support

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms

Screen Recording Pro Implementation

- Implementation and overview of CXone Screen Recording
- Billed as a one time (non-recurring) charge
- Implementation includes:
 - Implementation manager who oversees the project from start to finish
 - Business requirements session
 - Initial System Configuration
 - Application Overview
 - User acceptance testing
 - Go live support
 - 2 weeks of Post Go Live Support

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms

Workforce Management Pro Training

- Remote: instructor led training
- Training on the CXone WFM Pro platform to create forecasts, create schedules, agent schedule management and system administration.
- Estimated training duration - 2 days
- Billed per course as a one time (non-recurring) charge
- Travel and accommodations are extra

Quality Management Pro Training

- Remote: instructor led training
- Training on the CXone QM Pro platform to create custom QM forms, search for and evaluate calls, pull data for analysis, and calibrate for consistency.
- Estimated training duration - 2 days
- Billed per course as a one time (non-recurring) charge
- Travel and accommodations are extra
- Maximum of 12 participants

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms

Feedback Mgt VoC Implementation (Includes 1 Channel + 1 Survey)

- Implementation of CXone Feedback Mgt for either of IVR, Email, SMS, Web Intercepts, Chat
- Billed as a one-time (non-recurring) charge
- Implementation includes:

- Setup of a single survey on one channel
- Configuring Alerts, Notifications & Escalation workflows
- Set up 2 dashboards
- Provide 3 hours of training for Power Users on how to use and navigate the system
- Power Users should complete the NPX platform training prior

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms

Customer Dynamics Essentials Team Implementation

- Team implementation package for the Essentials Integration
- Billed as a one time (non-recurring) charge
- Implementation includes:
 - Dedicated Project Lead
 - Click 2 Call default Accounts, Contacts, or Leads
 - Screen Pop default Accounts, Contacts, or Leads
 - CRM Multi-Entity search
 - 1 unique Screen Pop workflow
 - Activity logging for inbound and outbound calls
 - Chat activity created

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms

Automated Speech Recognition Implementation

- Implementation of Automated Speech Recognition (ASR) to enable callers to use their voice to provide input to the IVR to determine routing and other information
- Billed as a one time (non-recurring) charge
- Implementation includes:
 - Up to 10 ASR Actions/Utterances that captures voice responses
 - Recognition based on common phrases native to the platform or a custom grammar file provided by the customer
 - Natural Language speech recognition NOT supported
 - Phrases containing alpha and numeric characters should be 5 or less for optimal performance

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms

Email Implementation

- Package to configure and implement Email functionality within inContact platform
- Billed as a one time (non-recurring) charge
- Includes:
 - One email script to support one email skill.
 - Email scripts/skills includes:
 - Automated email received response
 - inContact dot-com email addresses provided to customer to be embedded into their existing website
 - Integration to a custom database or CRM not included

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms

Interaction Analytics Pro: Implementation

- Billed as a one time (non-recurring) charge
- 6-10 hours of Implementation services including:
 - initial survey designed to identify customer's primary business case
 - analytics platform and application implementation/turn-up
 - company profile config
 - initial training

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms

Interaction Analytics Pro – Professional Services - Customer Success Program

- Delayed 30 days from completion of training to allow clients exposure to the tool
- Up to 12 hours of remote, structured PPE assistance with categorization, company profile, dashboards, and other customizations designed to support the customer's defined business case
- 4 hours of Q&A with PPE
- 1 hour per month Customer Success check-in session with PPE for first three months - post engagement
- Additional PPE days are available at cost

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms

Interaction Analytics Pro – Training

- Required Functional eLearnings (3 hours)
- Two day instructor led training engagement building upon eLearning, designed to teach the customer how to use the application to support their business case (i.e., actually setting up a custom category designed to find a particular insight, setting up a topic designed to find certain data, etc.); training will be more consultative.

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms

Corporate Professional Services Implementation

INCLUDES

- **100 seats** (\$100 per additional seat)
- **Designated Implementation Manager** (SME)
- **Post go-live stabilization and support** of an estimated two weeks as agreed upon by project stakeholders.
- **Up to 120 Project Hours**** to customize business solution. Project hours may include, but are not limited to, collaboration and consultation to determine business needs and requirements; Implementation of documented solution; Completion of NICE inContact quality assurance and production deployment tests. ****Project hours expire if not used within 6 months.**

DOES NOT INCLUDE:

- Products outside of ACD (Chat/Email/ASR/SMS, etc...)
- Integration or CRM Driven Screenpop
- PS Onsite
- OnBoarding

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms

25 Menu Options DTMF Navigation

- For use with base ACD Implementation Packages, 1 is mandatory on every quote
- Base implementation packages are: Workgroup, Corporate, Enterprise, Enterprise Plus
- Adds 25 menu options for navigation in your call flow
- Billed as a one time (non-recurring) charge

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms

50 Point of Contact Based Routing

- For use with base ACD Implementation Packages, 1 is mandatory on every quote
- Base implementation packages are: Workgroup, Corporate, Enterprise, Enterprise Plus
- Adds 50 Point of Contacts
- A Point of Contact is an access point to route various channel types (voice, email, chat, SMS, social) in your contact routing
- Billed as a one time (non-recurring) charge

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms

Corporate Onboarding Package

- Billed per package as a one time (non-recurring) charge
- Package includes:
 - 3 days with the Onboarding Manager onsite during go-live
 - 4 weeks of remote support with the Onboarding Manager, averaging 4 hours per week
 - Partnering with managers, supervisors, administrators every step of the way during initial use of the inContact technology
 - Achieving objectives and success metrics throughout engagement
 - Ensure proficiency during real world use
 - Assisting you to build and analyze reports
 - Travel and accommodations are extra

The use of this product is governed by additional terms found online at NICEinContact.com/terms/GeneralSoftwareTerms

ACD Training: Core

- Classroom: instructor led training
- Learn how to manage the inContact ACD platform including individual courses on Central Administration, Agent functions, and Reporting.
- Estimated training duration - 2 days
- Billed per course as a one time (non-recurring) charge
- Travel and accommodations are extra

NICE INCONTACT STANDARD TERMS OF USE

These NICE inContact Standard Terms of Use (the “**Terms**”), together with any Product-Specific Terms, Service Contracts, and any Order Forms (collectively, the “**Agreement**”), contain the terms and conditions upon which inContact, Inc. dba NICE inContact and its Affiliates (“**NICE inContact**”, “**we**”, and “**us**”) provides Services to you the customer (“**Customer**”, “**you**”, and “**your**”) and govern your use of the NICE inContact Platform. In the event of a conflict between these Terms and any transaction-specific language found in a Service Contract, the Service Contract shall control.

- 1. Non-Exclusive Access Grant.** You are granted non-exclusive, non-transferrable, and revocable access to NICE inContact’s Platform solely for Your internal business purposes, subject to these Terms. This access is limited by the restrictions listed below, as well as user count, location, term, and other transaction-specific details that may be found in an Order Form.
- 2. Restrictions.** You may not reproduce, resell, assign, grant access to, license, sub-license, market, or otherwise distribute the Platform or any NICE inContact Intellectual Property. You also may not: (i) attempt to reverse engineer, decompile, disassemble, or otherwise translate or modify the Platform or any NICE inContact Intellectual Property; (ii) defeat, disable, or circumvent any protection mechanism related to the Platform, including network, application, or information systems scanning or performing penetration testing; (iii) allow any third-party, with the exception of our authorized maintenance providers, to maintain or repair the Platform; or (iv) allow or encourage any third-party to do any of the foregoing.
- 3. Disclaimer of Warranties. The Platform is provided as-is. We do not provide any warranty for the Platform, and specifically disclaim any warranties, express or implied, including warranties of merchantability, fitness for a particular purpose, title, or non-infringement.**
- 4. Suspension/Termination.** You are responsible for all activity that occurs via your account. Services may be suspended for Cause or use of the Platform in a manner that may be unlawful, may harm NICE inContact or a third party, or materially hinder performance of the Platform. The Agreement may be terminated for Cause by giving written notice of such Cause to the nonbreaching party. Termination for Cause will be effective thirty (30) days after receipt of such notice if such Cause is not cured in all material respects.
- 5. Compliance with Laws.** Both you and NICE inContact shall comply with applicable laws. You are solely responsible to monitor your account for illegal or fraudulent use. If either you or we become aware of a violation of applicable law by itself or the other party, or illegal or fraudulent use, that party must promptly notify the other party of the violation.
- 6. Content. You retain all rights in and title to your Content except as expressly granted herein.** We may access, view, display, or listen to your Content in the course of providing the Platform, for example, to (a) provide the Platform; (b) respond to support requests; (c) detect, prevent, or otherwise address fraud, security, unlawful, or technical issues; and (d) enforce the Agreement. When you upload Content to the Platform, you grant us a nonexclusive, worldwide, royalty-free, sublicensable, and transferable license during the Term to use, reproduce, display, distribute, modify (so as to better showcase your Content, for example), perform, and translate the Content as needed in response to user driven actions (such as when you choose to privately store or share your Content with others). Except to the extent granted herein, we disclaim any rights of title to your Content. You warrant that (a) you are the owner or authorized licensee of the Content and have all necessary licenses, consents, authorizations and waivers for the use of the Content; and (b) the Content and your use of the Platform at all times complies with the Agreement.
- 7. Intellectual Property.** We (and our licensors) remain the sole owner of all right, title, and interest in the Platform, Resulting Information, and all NICE inContact Intellectual Property rights, and any rights therein not granted in these Terms are reserved by us. You may not display or use the NICE inContact Intellectual Property without our express prior written approval.
- 8. Feedback.** In the event that you submit Feedback to us, you grant us a non-exclusive, worldwide, royalty-free, sublicensable, and transferable license to use your Feedback for any legal purpose, including incorporating it into our products and services.
- 9. Confidentiality.** During the term of an Agreement, you or we may disclose information to each other that the discloser believes to be confidential (“**Confidential Information**”). So long as this information is disclosed as being confidential, either orally or in writing, or should reasonably be believed to be confidential, the receiving party will treat the information with the same

degree of care as it treats its own Confidential Information, but never less than a reasonable degree of care. The receiving party will not disclose the Confidential Information to any third party, except for those that have a fiduciary duty to the receiving party (i.e. legal, financial, or insurance advisors, or auditors). If the receiving party is required to disclose the Confidential Information of the other party, it will promptly notify the discloser of the obligation, and allow them the opportunity to seek an injunction against disclosure. This provision supersedes any previous agreement between you and us related to Confidential Information. The terms of any Agreement will be the Confidential Information of each party.

- 10. Indemnification.** 12. Except as otherwise set forth in Section 768.28, Florida Statutes, Customer will indemnify us and our affiliates, officers, agents, employees, partners, and licensors from any claim, demand, loss, or damage, including reasonable attorneys' fees, arising out of or related to your Content, your use of the Platform, or your breach of Section 1 (Non-Exclusive Access Grant), Section 5 (Compliance with Laws), Section 7 (Intellectual Property), or Section 9 (Confidentiality) of these Terms.
- 11.** NICE InContact shall indemnify and hold harmless Customer, and its officers and employees, from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of NICE InContact and other persons employed or utilized by NICE InContact in the performance of this Service Contract.
- 12. Limitation of Liability.**
 - 12.1.** We are not liable for any loss of use, data, goodwill, or profits, whatsoever, and any special, incidental, indirect, consequential, or punitive damages whatsoever, regardless of cause (even if we have been advised of the possibility of the loss or damages), including losses and damages (a) resulting from loss of use, data, or profits, whether or not foreseeable; (b) based on any theory of liability, including breach of contract or warranty, negligence or other tortious action; or (c) arising from any other claim arising out of or in connection with your use of or access to the Platform.
 - 12.2.** Our total liability arising out of or related to an Agreement is limited to the aggregate amount paid by you for access to the Platform during the twelve- (12) month period preceding the event giving rise to the liability. This limitation will apply regardless of the form or source of claim or loss, whether the claim or loss was foreseeable, and whether a party has been advised of the possibility of the claim or loss.
 - 12.3.** We do not control the flow of information over the internet; accordingly, in no event will we be liable for any damages, liabilities, costs, or expenses resulting from or related to an internet disruption or the acts, omissions, or delays of Infrastructure Providers.
 - 12.4.** Remedies specified in these Terms or any Product-Specific Terms are exclusive and limited to those expressly described therein.
- 13. Product-Specific Terms.** Certain products or services that we provide may be subject to additional product-specific terms ("**Product-Specific Terms**"), found online at www.NICEinContact.com/Terms and associated sub-URLs, and as may be incorporated through corresponding product descriptions. In the event of a conflict between these Terms and any Product Specific Terms, the Product-Specific Terms will control in relation to that product or service.
- 14. Updates to the Terms and Product-Specific Terms.** We may modify these Terms and the Product-Specific Terms and post the modified version to NICEinContact.com/Terms. You should look at the Terms regularly. By continuing to use or access the Platform after the revisions are posted, you agree to be bound by the revised Terms or Product-Specific Terms. Any updates to the product specific terms will not materially effect the Customer in the negative or materially deteriorate Customer's use of the platform.
- 15. Non-Solicitation.** During the term of any Agreement and for twelve (12) months after any termination of any Agreement, , you won't, without our prior written approval, either directly or indirectly, solicit or attempt to solicit, divert, or hire away any of our employees. However, nothing shall prevent either party from hiring employees of the other party that respond to a general public solicitation of employment for that party.

16. Governing Law. If you reside in North America, your Agreement with us will be governed by the law of Delaware. If you reside outside of North America, your Agreement with us will be governed by the law of England and Wales. Jurisdiction and venue for any dispute arising under an Agreement will be exclusive to the state and federal courts seated in Salt Lake County, Utah. Any claim or cause of action must be brought within one (1) year following the date the claim or cause of action first arose.

17. Miscellaneous.

17.1. Assignment. You may not assign or otherwise transfer the Agreement or your rights and obligations under the Agreement, in whole or in part, without our written consent, and any such attempt will be void. We may transfer our rights under the Agreement to a third party.

17.2. Customer Information Errors. In order to use the Platform, you must provide us with a valid physical location where the Platform will be used. You are solely responsible for any costs resulting from an invalid or inaccurate physical location.

17.3. Force Majeure. Neither party will be liable to perform any obligations under an agreement, except for payment of monies owed, because of circumstances beyond its reasonable control, including but not limited to natural disaster, terrorism, sabotage, war, internet outages, infrastructure failure, power failures, or acts or omissions of government.

17.4. Headings. Headings used in the Agreement are provided for convenience only and will not be used to construe meaning or intent.

17.5. Integration. These Terms, together with any Order Forms, represent the full and complete Agreement between you and us, and revokes and supersedes all prior agreements, oral or written between you and us.

17.6. No Waiver. Our failure to enforce or exercise any provision of the Terms is not a waiver of that provision.

17.7. Notice. All notices, requests, or other communications between you and us must be in writing and shall be deemed to have been delivered when sent by registered or certified mail, return receipt requested, by reputable courier as evidenced by a delivery receipt to each party's respective address as listed on an Order Form, or by email to ContractUnsubscribe@NICEinContact.com; any other notice is invalid.

17.8. Publicity. By entering into an Agreement with us, you consent to the inclusion of your name and logo in a customer listing as part of our website and marketing materials. Subject to your prior approval, and after the Go-Live Date, we may issue a press release announcing your use of the Platform and containing a quote from one of your senior executives.

17.9. Severability. If any provision of the Agreement is held invalid or unenforceable for any reason, the remaining provisions of the Agreement will continue in full force and effect.

17.10. Survival. Those provisions that would, by their nature, survive termination of the Agreement, together with Sections 3 (Disclaimer of Warranties), 7 (Intellectual Property), 9 (Confidentiality), and 11 (Limitation of Liability), shall survive termination of the Agreement.

17.11. Additional Provisions. A digital copy of an Agreement, or a digital signature on an Agreement, will be treated the same as an original Agreement or signature. References to "include," "includes," or "including" shall mean "including without limitation," and references to "and" or "or" shall mean "and/or." In any legal action arising out of or related to this Agreement, the successful or prevailing party will be entitled to recover reasonable attorneys' fees and other costs incurred in that action, in addition to any other relief to which it may be entitled from the non-prevailing party. Nothing contained herein creates any third-party beneficiary rights in any party. Service Contracts you entered before May 01, 2016, are subject to additional terms found online at www.NICEinContact.com/Terms/Term, www.NICEinContact.com/Terms/Payment, and www.NICEinContact.com/Terms/911, which are incorporated by reference.

18. Definitions. Some of the terms defined below may not appear in these Terms, but instead in an Order Form governed by these Terms.

- 18.1. **"Affiliate(s)"** means a company owned by, controlled by, or under common control with either party.
- 18.2. **"Cause"** means any material breach of the Agreement, including your failure to pay undisputed amounts by the Past Due Date.
- 18.3. **"Cloud Services"** means all NICE inContact hosted software services and support packages. For clarity, Cloud Services does not include implementation of Cloud services, Network Connectivity, or professional services.
- 18.4. **"Content"** means any data you provide to us in order for you to use the Platform.
- 18.5. **"Documentation"** means materials concerning the Platform which we distribute generally to our customers, including manuals, descriptions, instructions, and training materials, but does not include software code.
- 18.6. **"Domestic"** means traffic originating and terminating within the forty-eight contiguous United States and Washington, D.C.
- 18.7. **"Feedback"** means suggestions, recommendations, enhancement requests, ideas, or other feedback related to the Platform.
- 18.8. **"Go-Live Date"** means the earlier of the date (1) the Platform is made available for your use, or (2) your first use of the Platform in a production environment.
- 18.9. **"Infrastructure Provider(s)"** means any underlying carrier, cloud services provider, data center, or other infrastructure provider of NICE inContact.
- 18.10. **"Minimum MRC"** means the minimum MRC you are required to pay each month for the Platform; for clarity, Minimum MRC does not include NRC, professional services fees, or Network Connectivity MRC.
- 18.11. **"MRC"** means monthly recurring charges.
- 18.12. **"Network Connectivity"** means those services that either: (i) enable or facilitate phone calls or other means of communication or data transmission; (ii) provide a connection to the internet; or (iii) colocation services. It may also include fixed, defined, or dedicated communications routes for voice or data transmission between the Platform and your data center, office, individual stations, phones, or other devices.
- 18.13. **"NRC"** means non-recurring charges.
- 18.14. **"NICE inContact" "us" or "we"** means inContact, Inc and its Affiliates.
- 18.15. **"NICE inContact Intellectual Property"** means all patents, copyrights, trademarks, service marks, trade dress, logos, product or service names, ideas, designs, concepts, object and source code, APIs, Resulting Information, know-how, and functionalities related to the Platform, including software, Documentation, solutions overviews, business requirements documents, statements of work, or the like.
- 18.16. **"Order Form(s)"** means any document accepted by NICE inContact for the ordering of products or services, including Service Contracts, purchase orders, statements of work, addenda, emails, regardless whether such document references these Terms.
- 18.17. **"our"** means belonging to or associated with inContact, Inc.
- 18.18. **"Past Due Date"** means the time period specified in a Service Contract after which point your account will be past due.
- 18.19. **"PHI"** means personal health information.
- 18.20. **"PII"** means sensitive personally identifiable information.
- 18.21. **"Platform" or "NICE inContact Platform"** means NICE inContact's products, services, hosting environment, and related documentation.

18.22. "Resulting Information" means data created by, or resulting from, the use of the Platform, including analyses, statistics, reports, and aggregations, which may include: (i) agent identifier; (ii) phone, text, chat, email, skills, and work performance metrics; (iii) information related to your registered devices; and (iv) technical, aggregate statistics and traffic patterns derived from the Content (but not including the Content), all of which shall be considered NICE inContact Confidential Information. For the avoidance of doubt, the term Resulting Information does not include personally identifiable information, such that there is no reasonable basis on which any individual, or Customer itself, could be identified by the Resulting Information.

18.23. "Service Term" or "Subscription Term" means the time period specified in a Service Contract for your use of the Platform. It also includes any renewal period after the initial Service Term.


18.24. "you" or "your" means the legal entity listed as **"Customer"** on an Order Form.

**CONSENT AGENDA ITEM
#19**

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

MEMORANDUM

TO: CFX Board Members

FROM: Aneth Williams 
Director of Procurement Aneth Williams (Jun 4, 2020 17:10 EDT)

DATE: June 3, 2020


SUBJECT: Approval of Supplemental Agreement No. 1 with ISF, Inc.
for Management Consulting Services
Contract No. 001627

Board approval is requested for Supplemental Agreement No. 1 with ISF, Inc. for a not-to-exceed amount of \$424,000.00. The original contract was for sixteen weeks.

The service includes management support for the implementation of the customer service operations and CCaaS contracts.

Original Contract	\$390,000.00
Supplemental Agreement No. 1	<u>\$424,000.00</u>
Total	\$814,000.00

This contract is budgeted in the OM&A Budget.

Reviewed by: 
David Wynne (Jun 5, 2020 07:04 EDT)
David Wynne
Director of Toll Operations



CENTRAL FLORIDA EXPRESSWAY AUTHORITY
SUPPLEMENTAL AGREEMENT NO. 1

Contract Name: Management Consulting Services

Contract No: 001627

This Supplemental Agreement No. 1 entered into this 11th day of June 2020, by and between CENTRAL FLORIDA EXPRESSWAY AUTHORITY (“CFX”), and ISF, INC. (the “Contractor”), the same being supplementary to the Contract between the aforesaid, dated November 20, 2019.

1. CFX desires to increase the Scope of Work in the amount of \$424,000.00 and additional six months contract time. This will allow for support in implementation of the new Customer Service Operations and CCaaS contracts as defined and described in the Contractor’s attached proposal.
2. The Contractor hereby agrees to the increase scope of work, amount and increase in the contract term.
3. CFX and Contractor agree that this Supplemental Agreement No.1 shall not alter or change in any manner the force and effect of the Contract except insofar as the same is altered and amended by this Supplemental Agreement No. 1; that acceptance of this Supplemental Agreement No. 1 signifies the Contractor’s waiver of all future rights for additional compensation, with respect to this Supplemental Agreement, which is not already defined herein or in the fee proposal.

SUPPLEMENTAL AGREEMENT NO. 1

Contract Name: Management Consulting Services

Contract No.: 001627

Cost of additional services: \$424,000.00

This Supplemental Agreement No. 1 entered as of the day and year first written above.

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

By: _____
Director of Procurement

ISF, INC.

By: _____

Print Name

Title: _____

Witness: _____

Date: _____

Approved as to form and execution, only.

General Counsel for CFX



Your Vision
Our Expertise

**Solving
the Future**

ISF – Jacksonville
4601 Touchton Rd E
Suite 3250
Jacksonville, FL 32246
Voice: 904-724-2277

ISF – Tallahassee
3800 Esplanade Way
Suite 220
Tallahassee, FL 32311
Voice: 850-671-1000

ISF – Austin
815A Brazos Street
#368
Austin, TX 78701
Voice: 850-671-1023

www.isf.com

June 2, 2020

Aneth Williams
Manager of Contract Compliance
Central Florida Expressway Authority
4974 ORL Tower Road
Orlando, FL 32807

Re: Call Center Assessment & RFP Phase 2 – BPO Vendor & CCaaS Migration

Dear Ms. Williams:

ISF, Inc. (Federal Tax ID #59-1961607) is pleased to provide our Phase 2 proposal in response to the Central Florida Expressway Authority's request for a change order to support the implementation of the new BPO vendor along with the technology change to the Nice InContact CCaaS platform. ISF is an approved provider under the Florida State Term Contract for Management Consulting (Contract No. 973-000-14-01).

The ISF team is currently completing the last portion of the original engagement culminating in the selection of the BPO vendor. Due to procurement requirements along with Covid-19, the duration of the initial engagement was extended by approximately 6 weeks. A Phase 2 proposal is presented to cover some of that expanded level of effort induced by the increased duration along with supporting the contract negotiations and providing critical services to ease CFX's transition to the new providers.

For this project engagement, ISF will maintain our partnership with PPT Solutions, a collaborative firm of skilled and experienced personnel focused on delivering high value to client organizations. PPT Solutions brings a depth of experience in public and private call centers, including close familiarity with relevant technologies, business processes, strategies, and implementations. Combined with our experience providing call center assessments for Hillsborough County and throughout the US, and our expertise in business process analysis, call center project work, and management consulting, the ISF team represents the best value to CPX for this call center assessment initiative. Simply put, we have the team, the knowledge, the experience, and the requisite skills necessary to complete this project and all deliverables.

The ISF team integrates real-world consulting and operational expertise in business process improvement and call center operations. We know the call center industry and have a track record of successful collaboration and delivery across several government entities. The ISF Team's collective certifications include Avaya, Cisco, Nice inContact, PMP, Six Sigma, and Continuous Improvement (Kaizen).



Your Vision
Our Expertise

**Solving
the Future**

ISF – Jacksonville
4601 Touchton Rd E
Suite 3250
Jacksonville, FL 32246
Voice: 904-724-2277

ISF – Tallahassee
3800 Esplanade Way
Suite 220
Tallahassee, FL 32311
Voice: 850-671-1000

ISF – Austin
815A Brazos Street
#368
Austin, TX 78701
Voice: 850-671-1023

www.isf.com

With a strong history of successful project work in both commercial and government call centers, our team brings deep expertise in the customer service process, call center technology and implementations, and program management. We have developed and refined tools, models, and implementation capabilities to support a rigorous and transparent assessment of call center operations that will fully address the needs of CFX and exceed its expectations.

Primary and alternate contact information is provided below.

Primary Contact	Alternate Contact
Mark Burk Client Partner 3800 Esplanade Way STE 220 Tallahassee, FL 32311 Phone: (850) 671-1017 Fax: (850) 656-1300 mburk@isf.com	Jonathan Conrad Chief Operating Officer 3800 Esplanade Way, STE 220 Tallahassee, FL 32311 Phone: (850) 671-1023 Fax: (850) 656-1300 jconrad@isf.com

ISF looks forward to continuing our work with CFX on this important endeavor. If I can provide any additional information, please do not hesitate to contact me.

Sincerely,

Mark Burk
Client Partner

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Your Vision | Our Expertise
Solving the Future

Call Center Support – Phase 2

1 Company Profile

iSF Background



100+
Team Resources

19
States



ISF Team Background



12 Certifications
Including Avaya, PMP,
Cisco, InContact,
Business Resilience
Planning, Agile,
Continuous
Improvement/Kaizen,
and Six Sigma Black and
Green Belts.



Global Call Center
Experience



Extensive Florida and
Public Sector
Experience

Public Sector Call Center Experience



State Benefits
Servicing, IVR Self-
Service Solution
(more than 36 states)



Call Center Overhaul
and Technology
Transformation
(Georgia)



Economic Self-
Sufficiency (ESS) Call
Center Assessment
(Florida)



10+ Years of Call Center
Assessment: Recruitment,
Training, Workforce
Management, QA, Coaching,
Customer Service, IVR, Call
Flow, and Forecasting

Project Team



Mark Burk | PMP
Client Partner



April Dietz
Project Manager



Scott Prater
Project Executive



Scott Casson
Project Executive



Todd Tierney
Lead Consultant



Mark White
Technology Consultant



Anne Mary Sutherland
Consultant

Call Center Assessment Clients



Hillsborough
County Florida



Clients in
36+ States





2 Executive Summary

2.1 Statement of Need

In service of the citizens and travelers in Central Florida, CFX is seeking a qualified vendor to assist them in migrating to a new cloud-based contact center platform (CCaaS) as well as transitioning to a new BPO provider. Given that the ISF team assisted in phase one of the project, it is requested that we continue supporting CFX through the transition for both CCaaS and BPO. It is anticipated that it will take 3 months to transition to the new BPO and CCaaS providers and 1 month of stabilization support and operational management assistance will be required.

2.2 Government and Call Center Experience

The ISF Team brings a strong combination of key skills and experience, including public sector call center and government project delivery experience.

- ✓ **Call Center Assessment & RFP for CFX.** The ISF team is just completing the initial project for CFX which evaluated current operations, identified future state needs, and developed RFPs for CCaaS, IVR, and BPO services culminating in contract awards for CCaaS (Nice InContact) and BPO (Alliance One – Teleperformance)
- ✓ **Call Center Assessment in Central Florida.** Most recently, the ISF Team has completed the Hillsborough County Call Center Assessment. ISF partnered with PPT Solutions to conduct a review of its nine call center locations, to evaluate intake software systems and overall operations, and then provide recommendations regarding the utilization of centralized intake and outsourcing as options to improve overall customer service and satisfaction. Based on our recommendations in Phase 1, the Hillsborough County Board of County Commissioners engaged with ISF to support implementation of the consolidation recommendations we had provided to the County under the original scope of work.
- ✓ **Call Center Experience.** Our call center experience is extensive, with our team bringing decades of combined experience including aspects such as technology and business process outsource vendor selection, hiring, training, retention, forecasting, call flow, and customer service. The ISF Team brings extensive expertise in call center technology and business process innovation and will leverage unique tools, models, and implementation capabilities for this project. CFX will benefit from our unique combination of government experience, commercial call center expertise, and strong focus on client satisfaction and customer service delivery.
- ✓ **Government Experience.** In addition to our call center work with Hillsborough County, the ISF Team has also completed work with state and local government entities in a variety of locations including the following:
 - Florida
 - Texas
 - California
 - New York
 - Georgia



- Washington
- North Dakota
- Massachusetts
- Hawaii

2.3 A Winning Team

The ISF Team includes proven experts in every aspect of project management and in-depth call center consolidation and ongoing assessment needs to implement the desired end-state for CFX.

	Public Sector Experience	Call Center Experience	Process Improvement Experience	Customer Service Improvement Experience
Mark Burk, PMP	✓	✓	✓	✓
April Dietz	✓	✓	✓	✓
Scott Prater	✓	✓	✓	✓
Scott Casson	✓	✓	✓	✓
Anne Mary Sutherland	✓	✓	✓	✓
Todd Tierney	✓	✓	✓	✓
Mark White	✓	✓	✓	✓

Team Member	Description
Mark Burk, PMP, Client Partner	A seasoned client partner with strong skills in facilitating communication among project team members, Mark is dedicated to client service delivery and ensuring every project stays on schedule, scope, and within budget. His extensive management consulting and government experience, including project experience with Hillsborough County and Fortune 500 call center operations position him as a leader to bring CFX forward for Phase 2 of the CFX project.
Scott Prater, PPT Vice President of Technology Solutions; Project Executive and Oversight	Scott brings 18 years of experience working with customer service technologies. With a strong background in both IT and customer service, Scott is positioned to provide input on strategic technology roadmap design and cloud-based call center solutions, with a focus on public sector call center transformation.
Scott Casson, Project Executive	Scott Casson is a 25-year veteran of the contact center/customer service industry and had held every possible position within the contact center from starting on the phone as an agent up to and including Senior Vice President. Throughout the past 15-years he has focused all his efforts on helping corporations, both large and small, on-shore and off-shore, improve their contact centers by delivering engagements that significantly enhanced productivity, reduced expenses, and improved their overall Customer Satisfaction. Scott has become a subject matter expert in the areas of productivity improvement through outlier management, workforce management, IVR and ACD redesign, outbound dialing, and knowledge management. Scott has also been heavily active on the mergers and acquisition side of the business directing both due diligence exercises, and the planning/execution of integration efforts between firms. Scott is a student of the contact center constantly looking to learn new processes, how to better implement and operate technology, and also how to improve the jobs of those who work in content centers.



April Dietz, MBA, Project Manager	With experience in government and healthcare including state government, April is experienced in strategic planning, communications campaign development, project and budget management, team management, problem solving, and business and analytical skills. April is also experienced in requirements gathering and documentation, and she has expertise in accommodating stakeholder priorities to deliver projects promptly and efficiently, on time and on budget.
Todd Tierney, Lead Consultant	Todd is a proven leader with over twenty-five years of experience delivering strategy, operations, digital / technology and outsourcing advisory services. His experience is focused on developing solutions to accomplish breakthrough performance while reducing costs, improving customer satisfaction, managing business relationships, and establishing high performing teams. Todd has become a subject matter expert in the areas of productivity improvement through outlier management, workforce management, process improvements and outsourcer management. Todd led phase 1 of the CFX engagement and will continue to lead in phase 2.
Anne Mary Sutherland, Consultant	Anne Mary brings 20+ years of experience in global contact center solutions and strategy as well as 10+ years in BPO experience. She is a subject matter expert in all areas of contact center operations including sales, solutions, and operational leadership. Anne Mary’s extensive experience in BPO operations coupled with her consulting experience allows her to be the ideal day to day leader when migrating between BPO vendors.
Mark White, Technology Consultant	Mark is a senior technology expert with 22 years of technology experience of which 7 years are working either for or with BPOs. Mark’s specialties are network, telecom, and information security. Mark is a certified Nice InContact implementation specialist and assisted Nice InContact with their largest ever one-time BPO deployment across 10 different BPO sites (in 10 countries) and 1600 call center agents.

2.4 Client Focus

ISF’s core values of client partnership, growth, stability, results, and operating with responsibility ensure that with ISF you are selecting a long-term partner who is with you from start to finish; your goals for the project are our goals, too. Of foremost importance to ISF is ensuring we have solid, quality, honest, and long-term partnerships with our clients. We value the client relationship above all else, and we do everything we can to ensure that your needs are being addressed during every phase of the project.

3 High Level Approach and Key Deliverables

ISF has developed a solution to deliver the results required by CFX. This solution is comprised of six key elements:

- Employ a combination of best practice transition methodology and vendor management to assist CFX as necessary through the transition by attending and/or leading meetings, assisting and advising on individual workstreams, and serving as an advocate for CFX to both the CCaaS and BPO vendors
- Develop & maintain transition program plan for BPO vendor and CCaaS migrations
- Develop a vendor management playbook to guide and enforce vendor performance
- Identify transition gaps and manage effort and prioritization for gap closure
- Support workshops to develop & align strategy and tools for vendor transition & management
- Provide training and supporting tools to manage workforce management



Below is a high-level summary of each deliverable or billing milestone.

3.1 Deliverable 1: Transition Project Plan

This deliverable will develop & document transition activities to on-board the new providers of CCaaS and BPO. Initiatives will be defined to deliver on the desired end-state model. A description of the deliverable is provided below:

- Prioritized list of activities and milestones
- Potential dependencies and sequencing of activities
- Identification and ownership of initiatives and tasks
- Risk mitigation and tracking

3.2 Deliverable 2: Workforce Management Playbook

This deliverable will define initiatives to deliver on workforce management activities. A description of the deliverable is provided below:

- Methodology and Assessments
- Command Center / Operating Model
- Workforce Management Data and Tools
- Capacity and Demand Planning
- Routing and Queues
- Staffing
- Forecasting (Long range, Short range, and Adjusting current approach)

3.3 Deliverable 3: Human Resources Roadmap

This deliverable outlines the roadmap to transition associates to the new BPO provider. It defines the initiatives to deliver the right number of associates as well as the best performing resources to support each operational group. A description of the deliverable is provided below:

- Associate transition schedule
- Develop change management plan
- Create communication plan
- Migration schedule
- Mitigation plan
- Hiring schedule
- New hire training

3.4 Deliverable/Milestone 4: CCaaS Cutover

This is a milestone associated with the migration to the new CCaaS platform. Once the cutover had been executed and initial stabilization punch list items have been completed, CFX will formally accept the



implementation as complete with Nice InContact. Once CFX has accepted the platform from Nice InContact this billing milestone will occur. This is anticipated to occur 2 to 3 weeks after the initial cutover.

3.5 Deliverable 5: Vendor Management Playbook

This deliverable will be a functional guide to assist CFX in successfully managing BPO vendor partnerships. It will define initiatives, processes, and operational cadences that meet the CFX desired ends state model. A description of the deliverable is provided below:

- Performance Management
 - KPI Management
 - Quality
 - Complaint Resolution
 - Workforce Management
 - Customer Satisfaction
- Relationship Management
 - Quarterly Business Reviews
 - Communications
 - Collaboration
- Financial Management
 - Invoice Structure and Reconciliation
 - Dispute Resolutions
- Process and Policy Management
 - Process Updates
 - Policy Updates
- New hire training

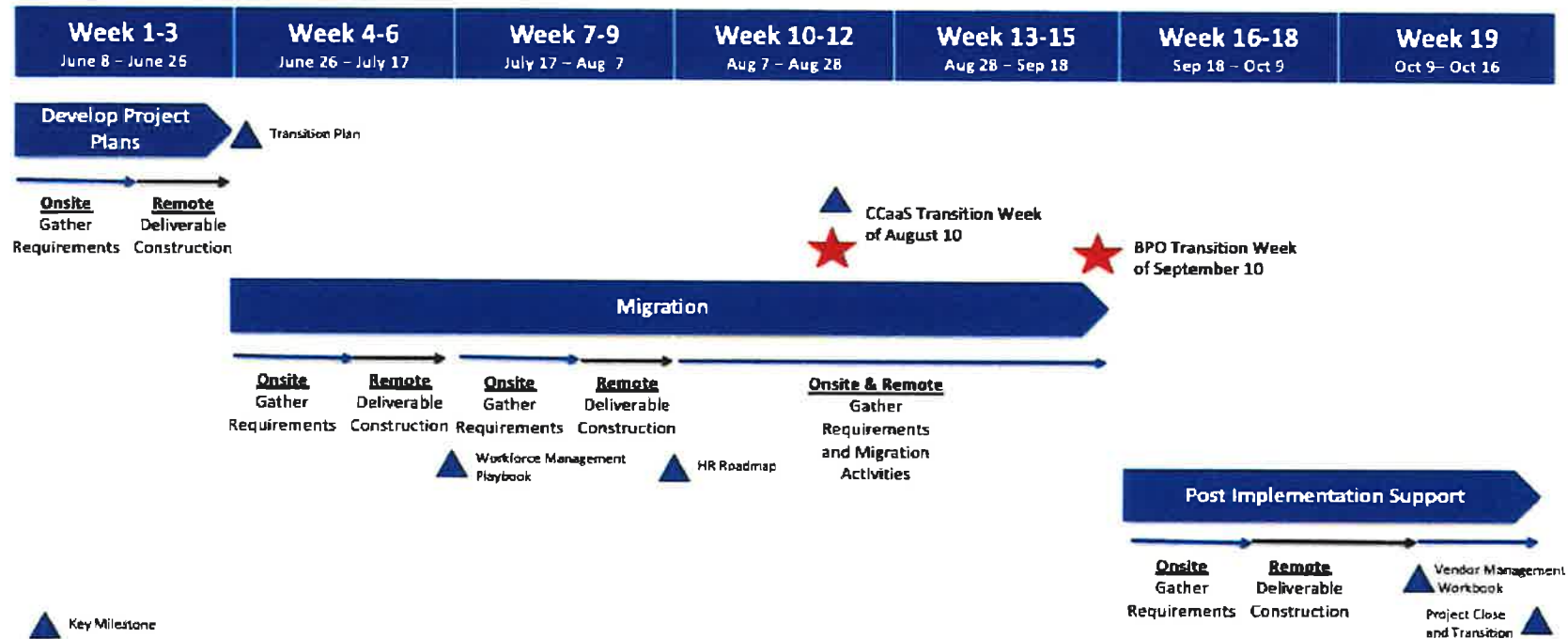
3.6 Deliverable/Milestone 6: Project Close Out and Transition

The final milestone is the completion of the project. Once CFX has transitioned to the new BPO provider and the approximately 4 weeks of operational and stabilization support is complete, there will be a project close out meeting to identify any current activities being performed by the ISF team that need to be transitioned to CFX. Additionally, there will be a lessons learned presentation identifying any opportunities for improvement in the project execution along with identifying things that went well.

4 Project Timeline

The ISF Team recommends a 19-week project from kickoff to full operational transition to CFX. The CCaaS migration and the BPO migration will run in parallel and there will be dependencies between them. The CCaaS should migrate approximately 30 days prior to the BPO transition to allow for stabilization and tuning on the new platform as well as allowing the agents to become comfortable with the new processes and procedures prior to introducing new processes driven by the new BPO provider. The high-level project timeline is outlined below. It is based upon a project start date of the week of June 8th and will run for 19 weeks. Due to Covid-19 some of the activities outlined in the project schedule below may be performed remotely especially in the early stages of the project.

FIGURE 1: HIGH-LEVEL PROJECT TIMELINE



5 Project Approach

This section provides the high-level framework for ISF's approach to the migration and implementation phase of the project. The figure below represents a description of the approach to move CFX from their current BPO & ACD vendor platforms to Alliance One BPO and Nice InContact. Further details are outlined in Sections 3 and 5.

Phase 2 – Migration and Implementation

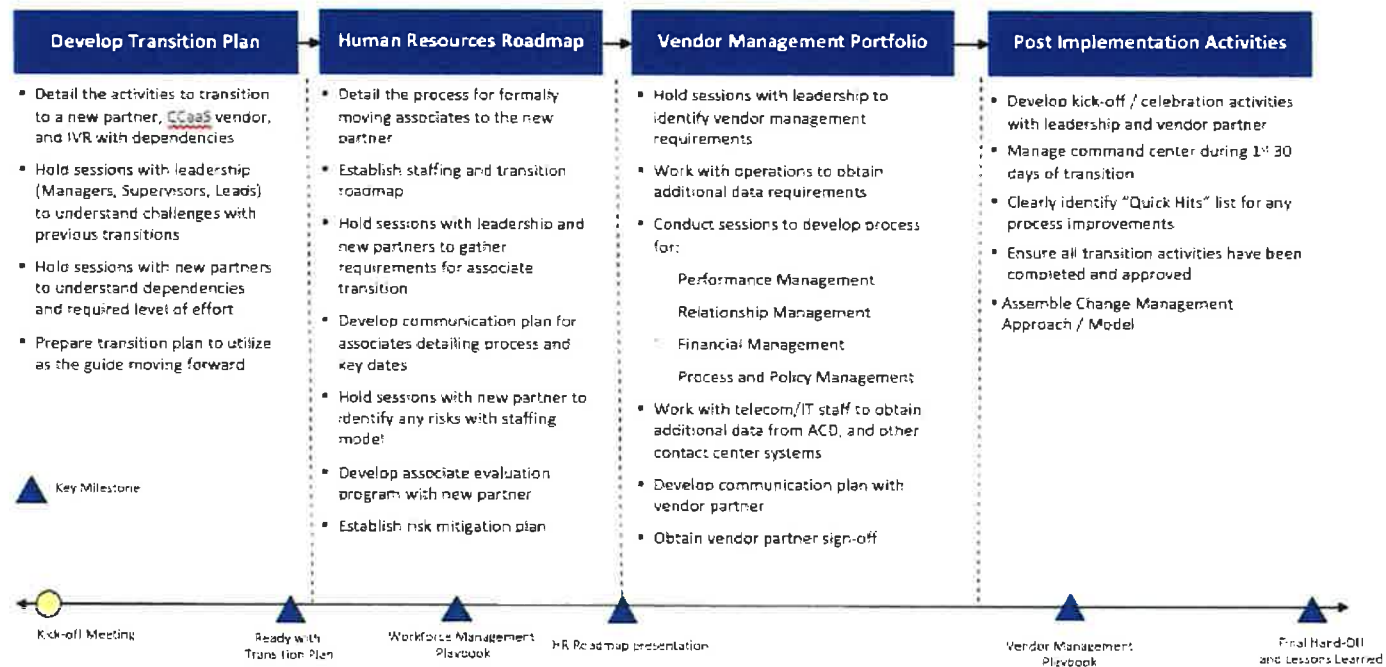


FIGURE 2: PHASE 2 APPROACH

6 Team Organization

6.1 Reporting Relationships

The organization of the ISF team is illustrated in the chart below:

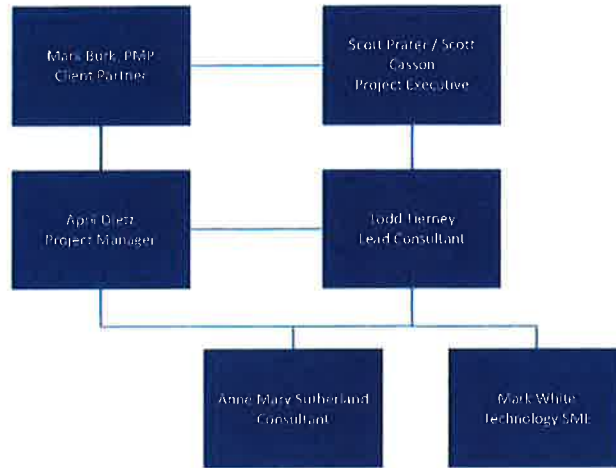


FIGURE 3: PROJECT REPORTING RELATIONSHIPS

Note: Staffing is subject to change based on issuance of purchase order and actual project start date.

6.2 Team Certifications

The ISF Team is fully qualified to perform the tasks outlined in this Statement of Work. In addition to our extensive institutional and individual knowledge and experience, our team members hold the following certifications:

Team Member	PMP Certified	Six Sigma (Green Belt)	Six Sigma (Black Belt)	Avaya	Cisco	Nice inContact	Continuous Improvement (Kaizen)
Mark Burk, Client Partner	✓	✓					✓
April Dietz, Project Manager							✓
Scott Prater, PPT Vice President, Project Executive				✓	✓	✓	
Scott Casson, Project Executive	✓		✓				
Todd Tierney, Lead Consultant		✓		✓		✓	
Anne Mary Sutherland, Consultant		✓		✓			
Mark White, Technology Consultant				✓	✓	✓	

FIGURE 4: TEAM CERTIFICATIONS



7 Respondent Pricing

The ISF Team's pricing information is provided in the table below:

Deliverable Number	Description	Target Completion Date	Total Cost
Deliverable 1	Transition Project Plan	6/29/2020	\$84,800
Deliverable 2	Workforce Management Playbook	7/20/2020	\$84,800
Deliverable 3	Human Resources Roadmap	8/17/2020	\$63,600
Deliverable/Milestone 4	CCaaS Cutover	8/24/2020	\$63,600
Deliverable 5	Vendor Management Playbook	10/9/2020	\$63,600
Deliverable/Milestone 6	Project Close Out and Transition	10/15/2020	\$63,600
Total Cost			\$424,000

9 Assumptions

9.1 General Assumptions

The ISF Team makes the following assumptions regarding the information provided in this proposal:

- ISF may require additional time post agreement to activate the project team; contract award date may not necessarily be the project start date. This may affect deliverable due dates.
- CFX will provide complete and up-to-date documentation for all existing systems and make it available for review on this project upon request by ISF.
- CFX will assign staff to work with ISF to answer questions, and to provide existing or additional documentation for business processes and systems they maintain.
- CFX will assign staff to work with ISF to answer questions and provide any required system access.
- CFX will assign staff to work with ISF to answer questions and to provide any existing documentation for business processes.
- CFX and ISF will resolve business issues and project plan-related issues within three business days if the issue does not have the potential to impact the project plan or schedule. For issues potentially impacting the forward progress of the project, ISF will work with the CFX project sponsor to immediately determine the potential impact and determine when the issue can be resolved. Should the resolution of the issue have potential impact on the forward progress of the project, either the ISF project manager or the CFX project sponsor will initiate the project change management process.
- Should the contract award date be substantially later than 6/8/2020, then CFX will work with the ISF Team to adjust project timeline accordingly.
- Engagement includes 1 physical site at the CFX corporate headquarters and call center as well as all physical facilities where BPO services will be transitioning to the new vendor.
- Access to all buildings, systems and data will be worked out during the Initiate phase of the project.
- Project duration shall not extend beyond 4 months (approximately 19 weeks) after project kickoff.



10 Appendix

10.1 Team Resumes

MARK BURK, PMP, CLIENT PARTNER	
<p>Mark Burk is the client partner for ISF’s management consulting practice. In this role, he provides executive oversight for management consulting and IV&V projects. With a strong project management background, for over 25 years, Mark’s focus has been on service delivery excellence. He has been involved in client engagements, focused on cost-saving initiatives or process improvement activities achieved by implementing best-in-class solutions (e.g. lean six sigma, data analytics, financial analysis, process modelling/software/supply/value chain mapping/software). He has worked on numerous projects ranging in size (\$100k–\$55MM) across many industries (banking/finance, state government, automotive and manufacturing, consumer packaged goods, retail, distribution). Mark has delivered solutions to project sponsors at all levels within the respective organizations. He has managed various-sized project teams including simultaneous multi-site projects at up to five locations at a time. Many projects under his supervision have directly resulted in total client savings in the \$10s of millions throughout the span of his career.</p>	
EXPERTISE AND KEY QUALIFICATIONS	
<ul style="list-style-type: none"> ✓ Call center assessment ✓ Florida public sector service delivery ✓ Business/management consulting ✓ Business process outsourcing ✓ Business transformation ✓ Business, process, and enterprise architecture ✓ Data and analytics 	<ul style="list-style-type: none"> ✓ Management and supervision ✓ Operations management P&L planning and analysis ✓ Process improvement/re-engineering ✓ Program and project management ✓ Strategic development ✓ Quality improvement tools and processes ✓ Risk management
EDUCATION AND CERTIFICATIONS	
<ul style="list-style-type: none"> • BA, Honors Economics, University of Windsor • PMP Certification • Six Sigma Green Belt • Continuous Improvement (Kaizen) 	
HIGHLIGHTED SIMILAR PROJECT EXPERIENCE	
<p>Hillsborough County, Florida, Call Center Assessment</p>	<p>Under Mark’s project leadership, the ISF team successfully delivered Phase I of the County’s Call Center Assessment, which included conduct a review of nine call center locations, completing an evaluation of intake software systems and overall operations, and providing Hillsborough County with recommendations regarding the utilization of centralized intake and outsourcing as options to improve overall customer service and satisfaction.</p> <p>Because of the success of Phase I, ISF is also engaged to deliver Phase I, supporting implementation of the consolidation recommendations we had provided to the County under the original scope of work.</p>
<p>Florida Department of Management Services, FirstNet Data Collection Project</p>	<p>Project Manager for the FirstNet Data Collection Project for Florida with an APV of \$1.9MM. This multifaceted project involves coordinating and collaborating with public safety entities in all 67 counties across the state, the 7 Regional Domestic Security Task Force communications manager, a sub-partner to ISF with technical knowledge and expertise with FirstNet; Key project tasks include: Weekly and monthly status reporting; Providing education and outreach via newsletter and workshops; Conducting workshops in all 7 regions three times each throughout the course of the project; Collecting information to develop wireless broadband maps – critical service areas, extended service areas; Provide weekly updates to a GIS system; Develop a detailed phased rollout plan; Develop a decision process for the Governor of Florida to review, assess and decide upon the FirstNet Plan.</p>
<p>Hillsborough County, Florida, Procurement Support Project</p>	<p>Provided review and analysis of vendor responses to Hillsborough County in their procurement process for a new version of their Next Generation 911 (NG911) system.</p>



<p>Florida Department of Management Services, NG911, Eg11 Board</p>	<p>Supported the Department of Management Services, Eg11 Board with the development of a survey to capture the wants and needs as it relates to Next Generation (NG911) 911. Analyzed and summarized survey responses and completed a summary of findings for review and presentation at the Eg11 Board meeting. Supported the development of a draft plan and ultimately the final draft plan that incorporated: Introduction of NG911, Current state of 911 System and Operations, Explanation of NG911, NG911 Initiatives and Analysis of stakeholder input that included – Strategic initiatives, statutory and regulatory, funding, governance, technology and standards, operations, outreach and engagement. Identified strategic goals for the implementation of NG911.</p>
<p>Building a Safer Florida (BASf), Disaster Contractor Network (DCN), Online Portal Development, Implementation, and Enhancement</p>	<p>Program Manager for Building a Safer Florida, Disaster Contractor Network (DCN) Online portal development, implementation and enhancement. DCN Online is a web portal that provides an online marketplace for Property Owners, Contractors and Suppliers throughout the State of Florida to match service needs. The web application was relaunched in June of 2016 and system enhancements continue through FY 2016-2017.</p>
<p>Florida Department of Health, Bureau of Preparedness and Response, Review and Analysis of Alabama Incident Management System (AIMS)</p>	<p>Program Manager for the Florida Department of Health (DOH) Bureau of Preparedness and Response review and analysis of the Alabama Incident Management System (AIMS). AIMS is currently utilized for incident management functions; including bed availability, facility status reporting, event management and alerting notification, patient tracking, and situational awareness reporting needs. ISF: Reviewed the AIMS source coding to determine the validity and stability of the application; Reviewed and validated the state, regional and county business requirements; Prepared a comparison between the AIMS data dictionary and Florida's current online database data dictionary to identify what fields will need to be revised or added to the application based on Florida's business requirements; Determined coding and other revisions needed to the web application to meet Florida's business requirements; Prepared an analysis report, including recommendations on whether the AIMS web application is valid, stable and can meet Florida's business requirements. The completion of these goals allowed DOH to operate more efficiently and accurately, and will enhance responsiveness to both internal and external data requests.</p>
<p>Additional Professional Experience</p>	<ul style="list-style-type: none"> • Engagement Lead for a major Automotive OEM, Program Management of the Contact Center PMO, P&L Management and Business Consulting: \$36MM+ annualized savings from team efforts while managing multiple programs through the sourcing process (APV ranged from \$5MM – \$25MM per year per contract); Created governance collateral and instilled Best-in-Class methods within the PMO while enabling strategic solutions and optimization for customer contact centers. • Program Manager/Business Analyst for a Fortune 100 provider of technical consulting services Consulting and Business Analytics, Program Management (PMO) of the Public Sector Risk Review Project: Lead global recommendation tracking and reporting through implementation for VP of Ethics and Compliance; Managed and coordinated global engagement activities and country specific work streams while performing business analysis with country counsel and business stakeholders. • Strategic Business Process Consultant for Financial Services Organization, Enterprise Architecture (Business Process Modeling, Enterprise Process Mapping), Strategic Planning and Development. Assisted with thought leadership and direction in deploying a global enterprise architecture repository to enable the reporting of a Bill of IT, CIO application scorecards and global reports; Documented test requirements for system deployment; Conducted strategic process work for the business CIO's to support IT transformation, convergence, cost savings and optimization of business processes and applications; Developed and deployed enterprise-wide strategies to map applications to business processes and vice-versa by creating a global functional taxonomy for client.



	<ul style="list-style-type: none"> • Consultant to Public Sector Department of Motor Vehicles, Business Operations, Process Optimization, Technology Assessment, Executive Summary Reporting: Conducted site assessments (people, process, technology, facilities) at various field locations and back office operations along with conducting extensive analysis of transactional data; Summarized findings and recommendations for Steering Committee review. • Consultant to Major CPG Distributor, Business Operations, Procurement, Sales and Operations Planning (S&OP), Supply Chain Management: Conducted a total business and operations performance assessment (sales, supply chain, warehouse, MIS, HR, marketing, and product design); Recommendations provided to the executive management team resulted in the following initiatives: S&OP process and tool creation, Business metrics and balanced scorecard planning and creation, Organizational optimization and redesign.
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SCOTT PRATER, PROJECT EXECUTIVE

Scott Prater brings over 30 years of experience in various roles, including 18 years working with customer service technologies. He began his career in the space and defense industry and has brought the same focus and precision required to launch a satellite with him to successive roles in customer service and IT. Scott has a broad background having held various leadership roles, including private and government sectors.

In 2014, serving as the Vice President of Information Technology at Center Partners (a wholly domestic US call center outsourcer), he defined a strategic technology road map & immediately redesigned operational processes in alignment with industry best practices. This drove a reduction in capital costs by 30% and operational costs by 25% which was instrumental in positioning the company for acquisition by Qualfon.

EXPERTISE AND KEY QUALIFICATIONS

✓ Large-scale project lead	✓ Call center transformation
✓ Call center strategic technology roadmap design	✓ Public-sector call center assessments
✓ Business process innovation	✓ Cloud-based call center solution implementation

EDUCATION AND CERTIFICATIONS

- U.S. Army
- Weber State University

HIGHLIGHTED SIMILAR PROJECT EXPERIENCE

Hillsborough County Board of County Commissioners	Client Partner / Project Manager supporting the evaluation of nine call centers leading to recommendations in the following areas: Consolidation, Outsourcing and Technology Strategy to support future state recommendations e.g. IVR and CRM
VoIP Contact Center Transformation	Scott led the industry's first ever large scale hosted VoIP contact center transformation, converting 8000 seats to a hosted data center model while at AOL in 2002. Efforts included a complete call center infrastructure replacement project of the ACD, IVR, and call recording platforms.
State of Georgia Call Center Migration	Led a 4-vendor team who had never partnered before to migrate a 1,500 seat contact center for the State of Georgia in 60 days from contract award to a cloud-based solution with flawless execution
State Government Benefits Overhaul	In 2010, led a team to overhaul 38 state government benefits services IVRs to a self-servicing IVR platform, allowing states to run more efficiently. These IVRs included SNAP, TANF, and WIC programs.
Self-Service and Technology Team Strategy	Led the self-service strategy and technology teams supporting Xerox Government Solutions. Efforts included the design and deployment of analytics, IVR personalization, and fraud solutions to dramatically differentiate Xerox's capabilities from their competitors. Also led the planning and development of Xerox's first ever mobile phone self-service application for prepaid debit cards.
Representative Clients Served	State of Florida, State of Georgia, State of Texas, Comcast, Visa, The Home Depot, Xerox, T-Mobile, AOL, Avaya, Zulily, TiVo, Liberty Mutual, MoneyGram TSYS



APRIL DIETZ, MBA, PROJECT MANAGER	
<p>With eight years of experience in government and healthcare including state government, April is experienced in strategic planning, communications campaign development, project and budget management, team management, problem solving, and business and analytical skills. April is experienced in requirements gathering and documentation, and she has expertise in accommodating stakeholder priorities to deliver projects promptly and efficiently.</p>	
EXPERTISE AND KEY QUALIFICATIONS	
<ul style="list-style-type: none"> ✓ Business analysis ✓ Requirements gathering and documentation 	<ul style="list-style-type: none"> ✓ Strategic planning ✓ Project and budget management
EDUCATION AND CERTIFICATIONS	
<ul style="list-style-type: none"> • MBA, Emphasis in Finance, Florida Gulf Coast University • BS, Marketing, Emphasis in Advertising, Minor in Management, Florida Gulf Coast University • Board Member, Challenger Learning Center • Membership Council, Economic Club of Florida • Leadership Tallahassee, Class 35 • Advisor, Hang Tough Foundation 	
HIGHLIGHTED SIMILAR PROJECT EXPERIENCE	
ISF, Consultant	<ul style="list-style-type: none"> • Responsibilities include providing business analysis, documentation, communications, and strategic planning project tasks, for a variety of projects with public sector clients.
Paul Consulting Group, Director of Accounts	<ul style="list-style-type: none"> • Responsible for the overall growth and development of existing accounts and new clients including, state governments, municipalities, county governments, higher education institutions, and private sector clients; providing counsel to leadership team to ensure quality solutions that meet the customer's needs. • Development and oversight of Marketing and Communications strategies to improve visibility and brand identity, including a complete re-brand and new website.
Florida Department of Economic Opportunity, Division of Strategic Business Development, Senior Incentives Analyst	<ul style="list-style-type: none"> • Ensure each private business pursuing economic business incentives in Florida meets statutory compliance and economic viability and identify reputation risk and substantial probability of non-performance (e.g., imminent insolvency). • Perform financial and economic analysis to quantify the viability and longevity of a business pursuing an incentive program. • Maintain project integrity through compliance of the deliverables as set forth in each contract. • Train new team members on investigatory techniques.
Tallahassee Orthopedic Clinic, EMR Implementation Manager	<ul style="list-style-type: none"> • Developed and implemented a strategic plan for a clinical software change that maintained the strategic, business, and information management needs of the organization. • Presented monthly status reports to senior management and Board of Directors. • Managed the project team – developing action plans and making recommendations regarding workflow changes, risks, system build testing, training, adoption, and vendor implementation activities. • Trained 40+ medical providers and 170 staff across multiple disciplines and locations on software. • Engaged and led the organization through a paradigm and workflow shift.



SCOTT CASSON, PROJECT EXECUTIVE

Scott M. Casson is a 25-year veteran of the Contact Center/Customer Service industry and had held every possible position within the contact center from starting on the phone as an agent up to and including Senior Vice President. Throughout the past 15-years he has focused all his efforts on helping corporations, both large and small, on-shore and off-shore, improve their contact centers by delivering engagements that significantly enhanced productivity, reduced expenses, and improved their overall Customer Satisfaction. While Scott is considered a contact center generalist, he has become a Subject Matter Expert in the areas of productivity improvement through Outlier Management, Workforce Management, IVR and ACD redesign, Outbound Dialing, and Knowledge Management. Scott has also been heavily active on the Mergers and Acquisition side of the business directing both due diligence exercises, and the planning/execution of integration efforts between firms. Scott is a student of the contact center constantly looking to learn new processes, how to better implement and operate technology, and also how to improve the jobs of those who work in our centers.

EXPERTISE AND KEY QUALIFICATIONS

- | | |
|------------------------|----------------------------|
| ✓ Process Management | ✓ Operations Consolidation |
| ✓ Knowledge Management | ✓ Workforce Planning |

EDUCATION AND CERTIFICATIONS

- Xavier University
- PMP
- Six Sigma Black Belt

HIGHLIGHTED SIMILAR PROJECT EXPERIENCE

E*TRADE	Subject Matter Expert in the areas of productivity improvement through Outlier Management, Workforce Management, IVR and ACD redesign, Outbound Dialing, and Knowledge Management. Scott has also been heavily active on the Mergers and Acquisition side of the business directing both due diligence exercises, and the planning/execution of integration efforts between firms.
Global Outsourcer	Improve their contact centers by delivering engagements that significantly enhanced productivity, reduced expenses, and improved their overall Customer Satisfaction. Focus on performance management, staffing, training, reporting, and skills assessments.

TODD TIERNEY, LEAD CONSULTANT

Todd is a proven leader with over twenty-five years of experience delivering strategy, operations, digital / technology and outsourcing advisory services. His experience is focused on developing solutions to accomplish breakthrough performance while reducing costs, improving customer satisfaction, managing business relationships, and establishing high performing teams. Todd has become a subject matter expert in the areas of productivity improvement through contact center management, workforce management, process improvements and outsourcer oversight. Most recently, Todd was Director of Business Development at Sutherland Healthcare, a leading business process outsourcing firm. Previously, Todd was a Customer Care Product Manager with Xerox and was a Manager at Deloitte Consulting in the contact center advisory practice.

EXPERTISE AND KEY QUALIFICATIONS

- | | |
|------------------------|----------------------------|
| ✓ Process Management | ✓ Operations Consolidation |
| ✓ Knowledge Management | ✓ Workforce Planning |
| ✓ Outsource Advisory | ✓ Business Development |

EDUCATION AND CERTIFICATIONS

- Northern Kentucky University

HIGHLIGHTED SIMILAR PROJECT EXPERIENCE

County Government	Led the assessment of 14 county departments to determine the feasibility of establishing a centralized contact center to support its citizens. Focused on operational structures, performance, staffing models, technologies, and budget considerations. Todd has been heavily active in directing these due diligence exercises, and the planning / integration efforts going forward.
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Veterinary Pharmacy	Provided leadership during the integration of an acquisition that significantly enhanced contact center productivity, reduced operating expense, maximized technology utilization, and improved overall Customer Satisfaction. Focus on performance management, workforce planning, training and skills assessments.
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ANNE MARY SUTHERLAND, SENIOR CONSULTANT

Anne Mary brings 20+ years of experience in global contact center solutions and strategy as well as 10+ years in BPO experience. She is a subject matter expert in all areas of contact center operations including sales, solutions, and operational leadership. Anne Mary’s extensive experience in BPO operations coupled with her consulting experience allows her to be the ideal day to day leader when migrating between BPO vendors.

EXPERTISE AND KEY QUALIFICATIONS

<ul style="list-style-type: none"> ✓ Contact center leadership ✓ Operational execution 	<ul style="list-style-type: none"> ✓ Customer experience improvement ✓ BPO Transition
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HIGHLIGHTED SIMILAR PROJECT EXPERIENCE

General Motors (GM)	Anne has supported several vendor transitions for General Motors. With extensive contact center experience, Anne as led several vendor transitions for General Motors contact centers globally. Using thoughtful planning and execution, she has a experience ensuring the right people and processes are in place for a seamless transition with minimal impact to the customer experience. As the lead consultant for a recent transition, Anne worked with two vendors to transition a large volume GM emergency services contact center over a three month period while ensuring all SLA’s were met.
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MARK WHITE, TECHNOLOGY CONSULTANT

Mark is a senior technology expert with 22 years of technology experience of which 7 years are working either for or with BPOs. Mark’s specialties are network, telecom, and information security. Mark led telecom and network Engineering at both Center Partners & Qualfon BPOs supporting 15 clients and onboarding multiple CCaaS and CRM platforms in support of those customers. He also led solution engineering for new clients designing all supporting IT systems required to support the client.

EXPERTISE AND KEY QUALIFICATIONS

<ul style="list-style-type: none"> ✓ Contact center technology ✓ BPO technology transitions 	<ul style="list-style-type: none"> ✓ Network Design & Support ✓ Information Security & PCI DSS
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HIGHLIGHTED SIMILAR PROJECT EXPERIENCE

MoneyGram Nice InContact Migration	Mark supported MoneyGram in their transition from Genesys to the Nice InContact platform. This was a complex 10-month project that spanned 10 countries, 10 physical call centers, and 3 BPO providers. Mark managed all elements of network connectivity, telecom routing, desktop management, and information security on the project ensuring that all unique MoneyGram and BPO provider requirements and needs were accounted for in this highly complex environment that had significant government regulatory requirements that had to be met.
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CONTRACT

**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
AND
ISF, INC**

MANAGEMENT CONSULTING SERVICES

CONTRACT NO. 001627

**CONTRACT DATE: NOVEMBER 14, 2019
CONTRACT AMOUNT: \$390,000.00**

**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
COOPERATIVE PURCHASE AGREEMENT
CONTRACT NO. 001627.**

This Agreement is made this 20th day of Nov 2019, between the CENTRAL FLORIDA EXPRESSWAY AUTHORITY, a body politic and agency of the State of Florida, hereinafter called CFX and ISF, Inc., a Florida corporation, whose address is 4601 Touchton Road East, Suite 3250, Jacksonville, FL 32246-4485, and who is registered and authorized to conduct business in the State of Florida hereinafter the CONTRACTOR:

WITNESSETH:

WHEREAS, CFX was created by statute and is charged with acquiring, constructing, operating and maintaining a system of limited access roadways known as the Central Florida Expressway System; and

WHEREAS, CFX has been granted the power under Section 348.754(2)(m) of Florida Statutes, "to do all acts and things necessary or convenient for the conduct of its business and the general welfare of CFX, in order to carry out the powers granted to it (by state law);" and

WHEREAS, CFX has determined that it is necessary and convenient in the conduct of its business to retain the services of a CONTRACTOR to provide management consulting services; and

WHEREAS, on or about July 15, 2014, the CONTRACTOR entered into an agreement with State of Florida, hereinafter "State," to provide the same services as required by CFX; and

WHEREAS, the contract between the CONTRACTOR and the State was procured through a competitive bidding process, which process is substantially similar to those required by CFX, and included an Invitation to Negotiate IFN 02-973-000-A for management consulting services and sealed bids from other contractors; and

WHEREAS, competitive bids seeking qualified contractors to perform such services for CFX was not required because the CONTRACTOR has an existing contract with the State, attached hereto as Exhibit "2", which was awarded through a competitive negotiation process, hereinafter "State Contract," for the same services to be provided hereunder and CFX has decided to contract with CONTRACTOR for the performance of the services described herein under the same conditions previously negotiated by the State; and

WHEREAS, the State Contract consists of the following: Part 1:

- The Contract (Page 1 to 3)
- Part 2: Exhibit A: Special Contract Conditions (Pages 4 to 18) Part 3:
- Exhibit B: General Contract Conditions (Pages 19 to 31)
- Part 4: Exhibit C: Scope of Services (Pages 32 to 34)

- Part 5: Exhibit D: Contractor Pricing (Page 35)
- Part 6: Exhibit E: Contract Forms (Page 36 to 42)
- Part 7: Amendment #1, Contract Renewal through January 15, 2020.

WHEREAS, the CONTRACTOR agrees to provide the services under substantially the same terms and conditions as included in its contract with the County subject to the additional terms and conditions detailed below.

NOW THEREFORE, in consideration of the mutual covenants and benefits set forth herein and other good and valuable consideration, the receipt and sufficiency of which being hereby acknowledged by each party to the other, the parties hereto agree as follows:

- 1. **RECITALS.** The recitals are true and incorporated as terms.
- 2. **ADOPTION OF TERMS IN THE STATE CONTRACT.** The parties adopt Parts 1, 2, 3 and Exhibit D to Part 7 of the State Contract by reference as though set forth fully herein, subject to the following substitutions or revisions.

21 The term "State of Florida, Department of Management Services (Department), Division of State Purchasing (Division) or "Department" or "Division" or "State" in the State Contract shall be replaced with the "Central Florida Expressway Authority" or "CFX."

22 **Part 1** consisting of the Contract shall be amended as follows.

2.2.1 Article I of the State Contract entitled "Scope of Services" shall be amended to adding the sentence that is underlined below:

I. Scope of Services

The services to be timely rendered by the Contractor pursuant to this Contract are defined and described in detail in Exhibit C, Scope of Services, at the hourly rates set forth in Exhibit D to Part 7 consisting of the following high-level deliverables set forth and detailed in CFX Exhibit 1.

Deliverable Number	Description	Total Cost
D.1	Steering Committee 1 Pre-Onsite Evaluation Review Presentation	\$78,000
D.2	Steering Committee 2 Initial Observations from Onsite Review Presentation	\$78,000
D.3	Final Recommendations, Strategy, and Roadmap Presentation	\$58,500

D.4	Sourcing and Technology RFPs	\$58,500
D.5	Vendor RFP Response Scoring Summary	\$58,500
D.6	Vendor Selection & Contract Recommendations	\$58,500
Total Cost		\$390,000

Payment for each deliverable will be made based on the deliverable amount set forth above, after the successful completion of all of the tasks in each high-level deliverable number and accepted/approved by CFX Project Manager.

- 2.2.2 Article II of the State Contract entitled “Initial Contract Term” shall be deleting and replaced with the following sentence:

II. Initial Contract Term

The Initial Contract Term of this Contract for Management Consulting Services will commence on the date of the Notice to Proceed. The project is anticipated to take sixteen (16) weeks plus negotiated gaps due to holidays, staff availability, scheduling, or resource issues. Upon project kickoff, the Contract Managers shall meet and agree upon a project plan, subject to modifications with the written approval of both Contract Managers.

- 2.2.3 Articles III and IV of the State Contract entitled “Renewal Terms” and “Contract” shall be deleted.

- 2.2.4 Article VII of the State Contract entitled “Contract Management” shall be amended by replacing the contact information with the information below and deleting the last sentence which states, “This Contract shall be effective on January 15, 2014 or on the last date upon which this Contract is signed by all parties, whichever date is later,” and by deleting the signature blocks.

Jim Greer, Chief of Technology and Operations Officer
 Central Florida Expressway Authority
 4974 ORL Tower Road
 Orlando, FL 32807
 Telephone: 407-690-000
 Email: Jim.Greer@CFXway.com;

David Wynne, Director, Toll Operations
 Central Florida Expressway Authority

4974 ORL Tower Road
Orlando, FL 32807
Telephone: 407-690-000
Email: David.Wynne@CFXway.com;

- 2.2.5 A new Article VIII entitled "Subcontracting" will be added to the end of the State Contract as follows:

VIII. Subcontracting. The approved subcontractor is:
PPT Solutions, Inc.,

- 23 Part 2 of the State Contract consisting of the Special Contract Conditions shall be amended as follows.

- 2.3.1 Paragraph 2 of the State Contract entitled "Subcontracting" shall be amended by deleting the text that is stricken as follows:

2. SUBCONTRACTING

~~The Contractor shall be fully responsible for all work performed under the Contract, including, but not limited to, planning, managing, implementing, operation, supporting, and warranties if applicable. The Contractor is solely responsible for ensuring that their subcontractor performs as specified in the Contract. The Contractor shall submit a copy of Form 1: Subcontracting (Exhibit E) to the Department for all subcontractors the Contractor wishes to partner with to provide services under the Contract. During the term of the Contract, subcontractors may be substituted or added by submitting Form 1 to the Department. Before any work is performed under a Statement of Work, the Customer must approve all subcontractors in writing.~~

~~Upon reasonable notice to the Contractor, the Department reserves the right to adjust and revise the fields and information collected in Form 1: Subcontracting (Exhibit E) at any time during the Contract.~~

- 2.3.2 The following paragraphs shall be deleted: 8 (Transaction Fee), 9 (MFMP Ordering Instructions), 10 (Electronic Invoice), 11 (Purchasing Card Program), 19A (Statement of Work Overview), 19B (In creating Statements of Work . . . Contract), and 26 (Reporting Requirements).
- 2.3.3 Article 16 of the State Contract entitled "PUBLIC RECORDS" in the State Contract shall be supplemented with the following:

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE

CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT Phone: 407-690-5000, e-mail: publicrecords@cfxway.com, and address: Central Florida Expressway Authority, 4974 ORL Tower Road, Orlando, FL. 32807.

CFX has the right to unilaterally cancel this Agreement if the CONTRACTOR refuses to allow public access as required by the Florida Statutes or at CFX's direction.

2.3.4 Project Completion Dates. The Contractor shall complete each project within the agreed cost and by the estimated completion date, unless the completion date is properly modified.

2.3.5 Review and Acceptance. CFX shall have ten (10) calendar days to review each deliverable. In the event that CFX finds errors or omissions or has other comments, Contractor shall address and correct those items within ten (10) calendar days. Upon confirmation of completeness and accuracy, CFX shall accept the deliverable. Payments are tied to the successful completion of each high-level deliverable.

24 Part 3 of the State Contract consisting of the General Contract Conditions shall be amended as follows.

2.4.1 The following paragraphs shall be deleted: 14 (Transaction Fee), 26 (Renewal), 27 (Purchase Order Duration), 39 (Leases and Installment Purchases), and 43 (Cooperative Purchasing).

2.4.2 In Paragraph 15 entitled "Invoicing and Payment," the second and third subparagraphs shall be deleted.

2.4.3 Paragraph 31 entitled "Dispute Resolution" shall be amended to replace "Leon County" with "Orange County."

2.4.4 Paragraph 45 entitled "Annual Appropriations" shall be amended to replace "Legislature" with "CFX Board."

3. ASSIGNMENT AND REMOVAL OF KEY PERSONNEL. A significant factor in the decision of CFX to award this Contract to the CONTRACTOR is the level of expertise, knowledge and experience possessed by employees of CONTRACTOR as identified in CFX Exhibit 1, (the "Key Personnel" namely; Scott Casson – Project Executive, Toddy Tierney – Lead Consultant and Scott Prater – Project Executive) and CONTRACTOR's covenant to have employees possessing such expertise, knowledge and experience available at all times to assist in the provision of the services. Throughout the Term of this Contract, CONTRACTOR shall employ individuals

having significant training, expertise, and experience in the areas or disciplines more particularly set forth in the Scope of Services, together with such other areas of expertise or experience, as may be designated from time to time during the Term of this Contract by CFX. CONTRACTOR shall hire and maintain Key Personnel as employees throughout the Term of the Contract. The identity of the individuals, initially assigned to each of such positions by CONTRACTOR, shall be submitted to CFX and CFX shall be notified in advance of any changes in the individuals. The Key Personnel shall be committed to performing services on this Contract to the extent required. Key Personnel may be dismissed for unsatisfactory performance or any reason set forth below. Promptly upon request of CFX, CONTRACTOR shall remove from activities associated with or related to the performance of this Contract any employee whom CFX considers unsuitable for such work. Such employee shall not be reassigned to perform any work relating to the services except with the express written consent of the CFX.

4. **CONTRACTOR'S RECORDS.** The CONTRACTOR shall maintain records in accordance with generally accepted accounting practices to document its costs and expenditures under this Agreement. The CONTRACTOR hereby grants CFX and its duly authorized representative's permission to audit and review any and all of the CONTRACTOR's records pertaining to the Agreement. The CONTRACTOR shall furnish CFX all invoices and statements for which it requests reimbursement.

5. **ENTIRE AGREEMENT.** It is agreed that neither party has made any statement, promise or agreement, nor taken upon itself any engagement whatsoever, verbally or in writing, in conflict with the terms of this Agreement, or in any way that modifies, carries, alters, enlarges or invalidates any provision hereof.

6. **PERMITS, LICENSES, ETC.** Throughout the term of the Contract, CONTRACTOR shall procure and maintain, at its sole expense, all permits and licenses that may be required in connection with the performance of Services by CONTRACTOR; shall pay all charges, fees, royalties, and taxes; and shall give all notices necessary and incidental to the due and lawful prosecution of the Services. Copies of required permits and licenses shall be furnished to CFX upon request.

7. **INSPECTOR GENERAL.** CONTRACTOR agrees to comply with Section 20.055(5), Florida Statutes, and agrees to cooperate with the inspector general in any investigation, audit, inspection, review, or hearing pursuant to this section. CONTRACTOR agree to incorporate in all subcontracts the obligation to comply with Section 20.055(5).

8. **ANTI-DISCRIMINATION STATEMENT.** Pursuant to Section 287.134(2)(a), Florida Statutes, "an entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier,

subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity.”

9. CONFLICT OF INTEREST AND STANDARDS OF CONDUCT.

CONTRACTOR warrants that it has not employed or retained any entity or person, other than a bona fide employee working solely for the CONTRACTOR, to solicit or secure this Contract, and that CONTRACTOR has not paid or agreed to pay any person, company, corporation, individual or firm any fee, commission, percentage, gift or any other consideration, contingent upon or resulting from the award or making of this Contract. It is understood and agreed that the term “fee” shall also include brokerage fee, however denoted.

CONTRACTOR acknowledges that CFX officials and employees are prohibited from soliciting and accepting funds or gifts from any person who has, maintains, or seeks business relations with CFX in accordance with CFX’s Ethics Policy. CONTRACTOR acknowledges that it has read the Ethics Policy and, to the extent applicable, CONTRACTOR will comply with the aforesaid Ethics Policy in connection with performance of the Contract.

In the performance of the Contract, CONTRACTOR shall comply with all applicable local, state, and federal laws and regulations and obtain all permits necessary to provide the Contract services.

CONTRACTOR covenants and agrees that it and its employees, officers, agents, and subcontractors shall be bound by the standards of conduct provided in Florida Statutes 112.313 as it relates to work performed under this Contract, which standards will be reference be made a part of this Contract as though set forth in full.

10. SUBLETTING AND ASSIGNMENT

CFX has selected CONTRACTOR to perform the Services based upon characteristics and qualifications of CONTRACTOR and its employees. Therefore, CONTRACTOR shall not sublet, sell, transfer, assign, delegate, subcontract, or otherwise dispose of this Contract or any portion thereof, or of the CONTRACTOR’s right, title, or interest therein without the written consent of CFX, which may be withheld in CFX’s sole and absolute discretion. Any attempt by CONTRACTOR to dispose of this Contract as described above, in part or in whole, without CFX’s written consent shall be null and void and shall, at CFX’s option, constitute a default under the Contract.

If, during the life of the Contract and any renewals hereof, CONTRACTOR desires to subcontract any portion(s) of the work to a subcontractor that was not disclosed by the CONTRACTOR to CFX at the time that the Contract was originally awarded, and such subcontract would, standing alone or aggregated with prior subcontracts awarded to the proposed subcontractor, equal or exceed twenty five thousand dollars (\$25,000.00), the CONTRACTOR

shall first submit a request to CFX's Director of Procurement for authorization to enter into such subcontract. Except in the case of an emergency, as determined by the Executive Director or her/his designee, no such subcontract shall be executed by the CONTRACTOR until it has been approved by CFX Board. In the event of a designated emergency, the CONTRACTOR may enter into such a subcontract with the prior written approval of the Executive Director or her/his designee, but such subcontract shall contain a provision that provides that it shall be automatically terminated if not approved by CFX Board at its next regularly scheduled meeting.

11. RELATIONSHIPS

CONTRACTOR acknowledges that no employment relationship exists between CFX and CONTRACTOR or CONTRACTOR's employees. CONTRACTOR shall be responsible for all direction and control of its employees and payment of all wages and salaries and other amounts due its employees. CONTRACTOR shall be responsible for all reports and obligations respecting such employees, including without limitation social security tax and income tax withholding, unemployment compensation, workers compensation, and employment benefits.

CONTRACTOR shall conduct no act or omission that would lead CONTRACTOR's employees or any legal tribunal or regulatory agency to believe or conclude that CONTRACTOR's employees would be employees of CFX.


12. NOTIFICATION of CONVICTION of CRIMES. CONTRACTOR shall notify CFX if any of CONTRACTOR's dedicated management team or other individuals assigned to CFX shall be convicted of any crime, whether state or federal, or felony or misdemeanor of any degree. Such notification shall be made no later than thirty (30) days after the conviction, regardless of whether such conviction is appealed. CFX reserves the right to require replacement of any individual for any reason with or without cause.

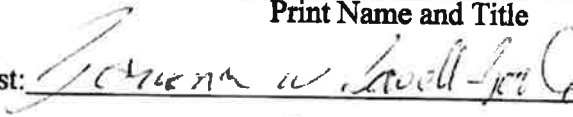
Contract No. 001627

IN WITNESS WHEREOF, the authorized signatures named below have executed this Contract on behalf of the parties on the date below. This Contract was awarded by CFX's Board at its meeting on November 12, 2019.

APPROVED BY: ISF, INC.

By:


Jonathan Conrad, COO
Print Name and Title

Attest:  (Seal)

Date: 11-20-19



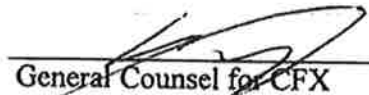
RAMONA W. POWELL-POOLE
MY COMMISSION # GG 007614
EXPIRES: June 30, 2020
Bonded Thru Budget Notary Services

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

By:


Director of Procurement

Approved as to form and execution, only.


General Counsel for CFX

Exhibits

1. CFX Price Proposal
2. State Contract Parts 1 through 7

CFX EXHIBIT 1



Your Vision
Our Expertise

**Solving
the Future**

ISF - Jacksonville
2600 Touchton Road
Suite 3250
Jacksonville, FL 32226
Voice: 904-724-1227

ISF - Tallahassee
3800 Diplomat Way
Suite 300
Tallahassee, FL 32302
Voice: 850-971-1000

ISF - Austin
6157 Alameda Street
#300
Austin, TX 78755
Voice: 855-676-1005

www.isf.com

October 16, 2019

Aneth Williams
Manager of Contract Compliance
Central Florida Expressway Authority
4974 ORL Tower Road
Orlando, FL 32807

Re: Call Center Assessment & RFP

Dear Ms. Williams:

ISF, Inc. (Federal Tax ID #59-1961607) is pleased to provide our proposal in response to the Central Florida Expressway Authority's request for a Contact Center Assessment, Benchmarking, and Cost Benefit Analysis along with conducting the RFP development process for both BPO and Technology vendors. ISF is an approved provider under the Florida State Term Contract for Management Consulting (Contract No. 973-000-14-01).

The ISF team most recently completed the Hillsborough County Call Center Assessment. For this project, ISF partnered with PPT Solutions to conduct a review of nine call center locations, to evaluate intake software systems and overall operations, and then provide recommendations regarding the utilization of centralized intake and outsourcing as options to improve overall customer service and satisfaction. Based on our recommendations in Phase 1, the Hillsborough County Board of County Commissioners engaged with ISF for Phase 2, to support the consolidation recommendations completed under the original scope of work.

We understand the importance of the work Central Florida Expressway Authority (CFX) provides in serving constituent needs through call center operations. CFX needs a reliable vendor to determine the best way to address challenges and position CFX to provide exceptional customer service. ISF will achieve this by providing direct support to CFX with a thorough assessment of call center operations, establishing a maturity model to baseline CFX call center operations against industry best practices, developing a cost benefit analysis for agent sourcing, conducting workshops to develop requirements for a sourcing and technology RFP, and then developing the RFP and assisting CFX throughout the vendor selection and contract negotiation process. Our ultimate goal will be to facilitate a process for which CFX provides improved customer service to constituents at the best possible cost.

For this project engagement, ISF will maintain our partnership with PPT Solutions, a collaborative firm of skilled and experienced personnel focused on delivering high value to client organizations. PPT Solutions brings a depth of experience in public



Your Vision
Our Expertise

**Solving
the Future**

ISF - Jacksonville
1601 Tolchester Road
Suite 3450
Jacksonville, FL 32218
Voice: 904-724-7177

ISF - Tallahassee
3800 Esplanade Way
Suite 220
Tallahassee, FL 32311
Voice: 850-671-1023

ISF - Austin
813 A B. Marcus Street
#308
Austin, TX 78701
Voice: 850-671-1023

www.isf.com

and private call centers, including close familiarity with relevant technologies, business processes, strategies, and implementations. Combined with our experience providing call center assessments for Hillsborough County and throughout the US, and our expertise in business process analysis, call center project work, and management consulting, the ISF team represents the best value to CPX for this call center assessment initiative. Simply put, we have the team, the knowledge, the experience, and the requisite skills necessary to complete this project and all deliverables.

The ISF team integrates real-world consulting and operational expertise in business process improvement and call center operations. We know the call center industry and have a track record of successful collaboration and delivery across a number of government entities. The ISF Team's collective certifications include Avaya, Cisco, Nice inContact, PMP, Six Sigma, and Continuous Improvement (Kaizen).

With a strong history of successful project work in both commercial and government call centers, our team brings deep expertise in the customer service process, call center technology and implementations, and program management. We have developed and refined tools, models, and implementation capabilities to support a rigorous and transparent assessment of call center operations that will fully address the needs of CFX and exceed its expectations.

Primary and alternate contact information is provided below.

Primary Contact	Alternate Contact
<p>Mark Burk Client Partner 3800 Esplanade Way STE 220 Tallahassee, FL 32311 Phone: (850) 671-1027 Fax: (850) 656-1300 mburk@isf.com</p>	<p>Jonathan Conrad Chief Operating Officer 3800 Esplanade Way, STE 220 Tallahassee, FL 32311 Phone: (850) 671-1023 Fax: (850) 656-1300 jconrad@isf.com</p>

ISF looks forward to continuing our work with CFX on this important endeavor. If I can provide any additional information, please do not hesitate to contact me.

Sincerely,

Mark Burk
Client Partner



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1 Company Profile

ISF Background



100+
Team Resources

19
States



ISF Team Background



12 Certifications
Including Avaya, PMP,
Cisco, InContact,
Business Resilience
Planning, Agile,
Continuous
Improvement/Kaizen,
and Six Sigma Black and
Green Belts.



Global Call Center
Experience



Extensive Florida and
Public Sector
Experience

Project Team

Mark Burk
Client Partner

Scott Jecko
Project Manager

Scott Prater
Project Executive

Scott Casson
Project Executive

Todd Tierney
Lead Consultant

Tbd
Technology Consultant

Regina Elom
Consultant

Public Sector Call Center Experience



State Benefits
Servicing, IVR Self-
Service Solution
(more than 36 states)



Call Center Overhaul
and Technology
Transformation
(Georgia)



Economic Self-
Sufficiency (ESS) Call
Center Assessment
(Florida)



30+ Years of Call Center
Assessment: Recruitment,
Training, Workforce
Management, QA, Coaching,
Customer Service, IVR, Call
Flow, and Forecasting

Call Center Assessment Clients



**Hillsborough
County Florida**





2 Executive Summary

2.1 Statement of Need

In service of the citizens and travelers in Central Florida, CFX is seeking a qualified vendor to assist them in developing a modernization plan for their call center which includes both technology and business process outsourcing RFP/procurement activities. CFX currently is on a legacy Avaya call center system and has a BPO contract that is expiring in the summer of 2020. CFX would like to improve their digital capabilities and customer experience while changing the current BPO cost model to better align with industry norms for both price and performance.

2.2 Government and Call Center Experience

The ISF Team brings a strong combination of key skills and experience, including public sector call center and government project delivery experience.

- ✓ **Call Center Assessment in Central Florida.** Most recently, the ISF Team has completed the Hillsborough County Call Center Assessment. ISF partnered with PPT Solutions to conduct a review of its nine call center locations, to evaluate intake software systems and overall operations, and then provide recommendations regarding the utilization of centralized intake and outsourcing as options to improve overall customer service and satisfaction. Based on our recommendations in Phase 1, the Hillsborough County Board of County Commissioners engaged with ISF to support implementation of the consolidation recommendations we had provided to the County under the original scope of work.
- ✓ **Call Center Experience.** Our call center experience is extensive, with our team bringing decades of combined experience including aspects such as technology and business process outsource vendor selection, hiring, training, retention, forecasting, call flow, and customer service. The ISF Team brings extensive expertise in call center technology and business process innovation and will leverage unique tools, models, and implementation capabilities for this project. CFX will benefit from our unique combination of government experience, commercial call center expertise, and strong focus on client satisfaction and customer service delivery.
- ✓ **Government Experience.** In addition to our call center work with Hillsborough County, the ISF Team has also completed work with state and local government entities in a variety of locations including the following:
 - Florida
 - Texas
 - California
 - New York
 - Georgia
 - Washington
 - North Dakota
 - Massachusetts
 - Hawaii



2.3 A Winning Team

The ISF Team includes proven experts in every aspect of project management and in-depth call center consolidation and ongoing assessment needs to implement the desired end-state for CFX.

	Public Sector Experience	Call Center Experience	Process Improvement Experience	Customer Service Improvement Experience
Mark Burk, PMP	✓	✓	✓	✓
Scott Jecko, PMP	✓	✓	✓	✓
Scott Prater	✓	✓	✓	✓
Scott Casson	✓	✓	✓	✓
Regina Elom	✓	✓	✓	✓
Todd Tierney	✓	✓	✓	✓

Team Member	Description
Mark Burk, PMP, Client Partner	A seasoned client partner with strong skills in facilitating communication among project team members, Mark is dedicated to client service delivery and ensuring every project stays on schedule, in scope, and in budget. His extensive management consulting and government experience, including project experience with Hillsborough County and Fortune 500 call center operations position him as a leader to bring CFX forward as a result of this assessment project.
Scott Prater, PPT Vice President of Technology Solutions; Project Executive and Oversight	Scott brings 18 years of experience working with customer service technologies. With a strong background in both IT and customer service, Scott is positioned to provide input on strategic technology roadmap design and cloud-based call center solutions, with a focus on public sector call center transformation.
Scott Jecko, PMP, Project Manager	An experienced professional with 20 years in planning, implementing, and maintaining solutions for public sector entities, Scott has managed teams of up to 30 staff members, ensuring completion of projects on time, in scope, and on budget. Scott has strategic planning and enterprise architecture experience that enables him to see the big picture of solution design and development. He is well versed in all aspects of the service development life cycle, including requirements gathering, comparative solution analysis, financial and transition planning, change management, and continuous process improvement.
Scott Casson, Project Executive	Scott Casson is a 25-year veteran of the contact center/customer service industry and had held every possible position within the contact center from starting on the phone as an agent up to and including Senior Vice President. Throughout the past 15-years he has focused all his efforts on helping corporations, both large and small, on-shore and off-shore, improve their contact centers by delivering engagements that significantly enhanced productivity, reduced expenses, and improved their overall Customer Satisfaction. Scott has become a subject matter expert in the areas of productivity improvement through outlier management, workforce management, IVR and ACD redesign, outbound dialing, and knowledge management. Scott has also been heavily active on the mergers and acquisition side of the business directing both due diligence exercises, and the planning/execution of integration efforts between firms. Scott is a student of the contact center constantly looking to learn new processes, how to better implement and operate technology, and also how to improve the jobs of those who work in content centers.



Regina Elom, Consultant	Regina Elom brings over twenty years of Contact Center leadership experience, leading teams that have consistently exceeded revenue targets and business objectives while delivering an exceptional customer experience. She has worked in the telecommunications, healthcare, high-tech, client membership, and industrial supplies industries. Instrumental to her success is her ability to effectively partner cross-functionally, with internal and external clients. She is a recipient of numerous industry awards that highlight her success in Contact Center sales and operations excellence.
Todd Tierney, Lead Consultant	Todd is a proven leader with over twenty-five years of experience delivering strategy, operations, digital / technology and outsourcing advisory services. His experience is focused on developing solutions to accomplish breakthrough performance while reducing costs, improving customer satisfaction, managing business relationships, and establishing high performing teams. Todd has become a subject matter expert in the areas of productivity improvement through outlier management, workforce management, process improvements and outsourcer management.

2.4 Proven Methodologies for Call Center Assessment

Our call center assessment practices have been developed and refined over the course of a decade of project work, resulting in a set of content management tools to handle process flow, asset, and task assessment, organization assessment, agent side-by-side observations, and call center metrics. We employ these tools to effectively manage the outgoing and incoming information necessary for the assessment and implementation of derived recommendations and future state needs. The future state needs are used to inform both business process outsourcer and contact center technology requirements to ensure all identified future state needs are met during the vendor selection process instead of just addressing the current needs.

A diagram representing our high-level assessment methodology is provided below:

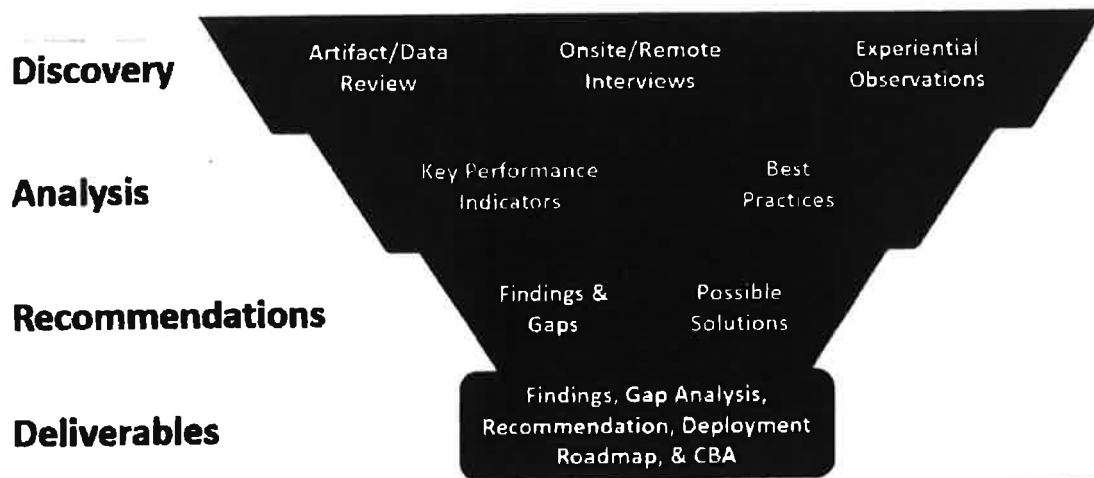


FIGURE 1: HIGH-LEVEL ASSESSMENT METHODOLOGY



Project Management - ISF's project management practices deliver projects that are highly successful by any measure. Scott Jecko, our PMP-certified project manager, will lead the team to deliver a successful assessment from kickoff to closeout. The methodologies and practices applied have been proven over 40 years of successful project completion. We continually refine our project management approach to keep it current with best practices. Project management and quality assurance activities are an ongoing function within every ISF project to ensure project success. The following diagram provides an overview of our project management and quality assurance activities.



FIGURE 2: PROJECT MANAGEMENT AND QUALITY ASSURANCE PROCESSES

2.5 Client Focus

ISF's core values of client partnership, growth, stability, results, and operating with responsibility ensure that with ISF you are selecting a long-term partner who is with you from start to finish; your goals for the project are our goals, too. Of foremost importance to ISF is ensuring we have solid, quality, honest, and long-term partnerships with our clients. We value the client relationship above all else, and we do everything we can to ensure that your needs are being addressed during every phase of the project.



3 High Level Approach and Key Deliverables

ISF has developed a solution to deliver the results required by CFX. This solution is comprised of two phases with the following deliverables by phase:

- Phase 1: Future State and Requirements Development
 - Deliverable 1: Steering Committee 1 Pre-Onsite Evaluation Review Presentation
 - Deliverable 2: Steering Committee 2 Initial Observations from Onsite Review Presentation
 - Deliverable 3: Final Recommendations, Strategy, and Roadmap Presentation
- Phase 2: Vendor Selection
 - Deliverable 4: Sourcing and Technology RFPs
 - Deliverable 5: Vendor RFP Response Scoring Summary
 - Deliverable 6: Vendor Selection and Contract Recommendations

Below is a high-level summary of each deliverable.

3.1 Deliverable 1: Steering Committee 1 Pre-Onsite Evaluation Review Presentation

This deliverable will provide a baseline information set showing information gathered through the data request process as well as present the maturity model that will be used to establish existing CFX benchmarks against industry norms. A description of the deliverable is provided below:

- Review, and understand all data, and artifacts provided back by client
- Identify data/artifact gaps to be obtained during onsite evaluations
- Prepare initial conclusions based upon data analysis, and PPT best practices
- Assemble relevant benchmark data for client's industry, media types handled, geographies, etc.
- Develop benchmarking model with available data, and placeholders for data to be collected
- Create evaluation model to be used during onsite evaluations
- Final preparation for onsite evaluations

3.2 Deliverable 2: Steering Committee 2 Initial Observations from Onsite Review Presentation

This deliverable will present initial findings and observations from both the call center and back office site visits and information gathering sessions. It will provide initial observations that were discovered and identify the initial gaps, quick wins, and provide guidance on the direction of the in-depth analysis that will be included in the formal readout at the end of Phase 1. A description of the deliverable is provided below:

- Initial interview summaries
- Initial observations for both technology and operations derived from site visit
- Initial gaps identified during site visits
- Quick wins found that could be acted upon while the project is going on to either improve operational performance or customer experience



- Initial maturity evaluation using the maturity model tool

3.3 Deliverable 3: Final Recommendations, Strategy, and Roadmap Presentation

This deliverable will contain 2 sections with the first providing a summarized and prioritized short-term items to reduce cost, optimize operations, improve customer service quality, and/or increase revenue. Based on the evaluation of existing performance, the ISF Team's recommendations will provide goals for the following:

- Improvement of the customer experience
- Optimization of technology and operations
- Enhancement of agent performance
- Optimization of workforce and management
- Enhancement of tools and automation
- Modification and enhancement of customer and operational key metrics
- Reduction of operating expenses
- Changing the operating model to positively impact organizational culture
- Outlining commercial changes and strategy
- Baselining the customer service, technology, commercial, and operations performance (maturity module)
- Cost Analysis of current outsource vs. insource vs. industry standard outsource costs

3.4 Deliverable 4: Sourcing and Technology RFPs

The third deliverable incorporates the future state aspirations and requirements developed in the two workshops into 2 RFP documents for issuance to selected vendors:

- Sourcing RFP:
 - Vendor landscape and candidate identification
 - Call/Contact center functional requirements
 - Call/Contact center operational requirement
 - Call/Contact center technical requirements
 - Back office functional requirements
 - Back office operational requirements
 - Back office technical requirements
 - Operational KPIs and SLAs
 - Build RFP scoring process
 - Issue RFP to candidate vendors
- Contact Center Technology RFP:
 - Vendor landscape and candidate identification
 - Call/Contact center functional requirements
 - Call/Contact center operational requirement
 - Call/Contact center technical requirements



- Operational KPIs and SLAs
- Build RFP scoring process
- Issue RFP to candidate vendors

3.5 Deliverable 5: Vendor RFP Response Scoring Summary

The fourth deliverable is the outcome of facilitating and summarizing the vendor scoring process for both the sourcing and technology RFPs culminating in the down selection of vendors for presentations and site visits.

Vendor will support the CFX Procurement team in the following:

- Sourcing RFP:
 - Facilitate review of vendor proposals
 - Facilitate scoring of vendor proposals
 - Vendor proposal & scoring workshop
 - Summary of vendor proposals and scores
 - Final candidate vendor selection & notification
 - Develop site visit agenda
 - Schedule site visits
- Contact Center Technology RFP:
 - Facilitate review of vendor proposals
 - Facilitate scoring of vendor proposals
 - Vendor proposal & scoring workshop
 - Summary of vendor proposals and scores
 - Final candidate vendor selection & notification
 - Develop vendor presentations agenda
 - Schedule vendor presentations

3.6 Deliverable 6: Vendor Selection and Contract Recommendations

The final deliverable is the outcome of facilitating and summarizing the vendor site visits (Sourcing) and presentations (Technology) culminating in selection of vendor(s) to enter negotiations and execute contracts for the work outlined in the RFP documents. **Vendor will support the CFX Procurement team in the following:**

- Sourcing RFP:
 - Conduct vendor site visits
 - Conduct post site visit wrap up meetings and summarize findings
 - Conduct vendor selection workshop at the conclusion of site visits
 - Identify vendor(s) to enter contract negotiations
 - Provide written input to vendor MSA & SOW to CFX procurement to assist with negotiations
- Contact Center Technology RFP:
 - Conduct vendor presentations at CFX or vendor facilities
 - Conduct post vendor presentation wrap up meetings and summarize findings



- Conduct vendor selection workshop at the conclusion of vendor presentations
- Identify vendor(s) to enter contract negotiations
- Provide written input to vendor MSA & SOW to CFX procurement to assist with negotiations

4 Project Timeline

The ISF Team recommends a six-week Assessment phase to deliver all final deliverables via a formal executive-level readout. Timing for the Workshops will be determined by the workshop schedule but is assumed to occur immediately after the deliverable readouts. The RFP & Vendor Selection phase will run for 8 weeks and conclude once vendors are selected and the ISF team has provided input to the proposed contracts with the selected vendors.

Proposed Engagement Timeline

PPT Solutions recommends a 6-week Assessment phase to deliver all final deliverables via a formal executive-level readout. Timing for Workshop will be determined by the workshop schedule but is assumed to occur in October.

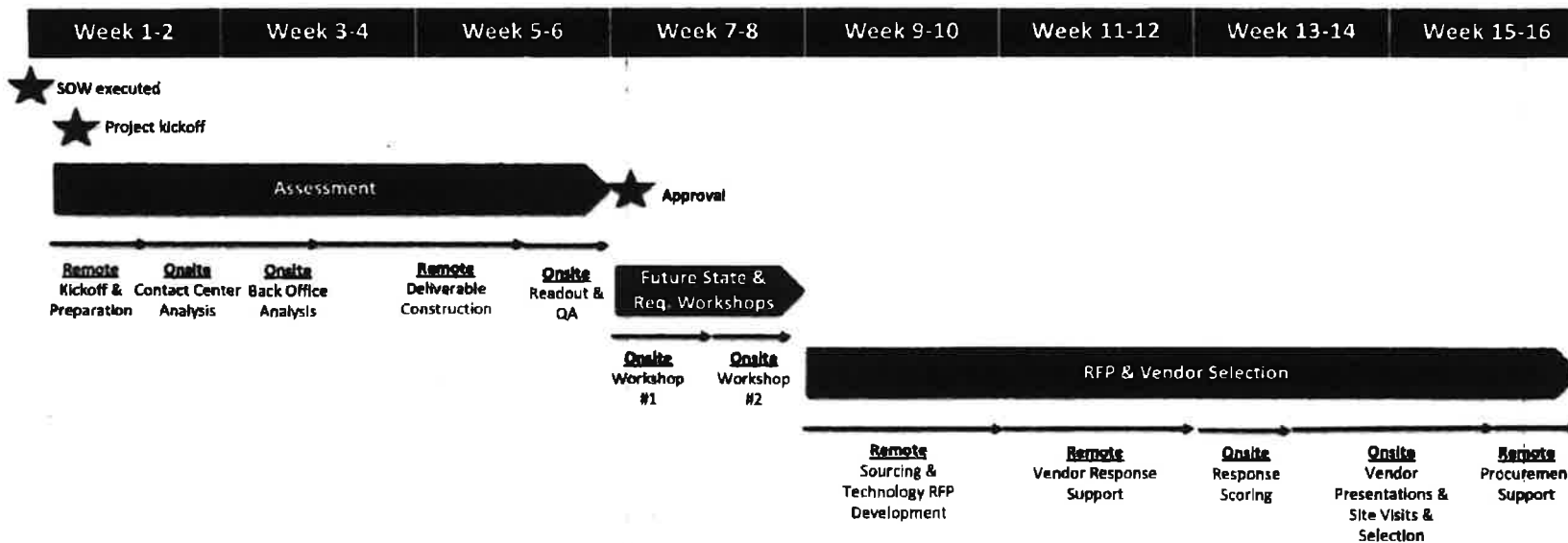


FIGURE 3: HIGH-LEVEL PROJECT TIMELINE

5 Project Approach

This section provides the general framework for ISF's approach to both phases of the project. The figure below represents a high-level description of the approach of the Future State & Requirements Phase. Each of the phases illustrated in Figure 4 is described in further detail below.

Phase 1 – Future State & Requirements Development

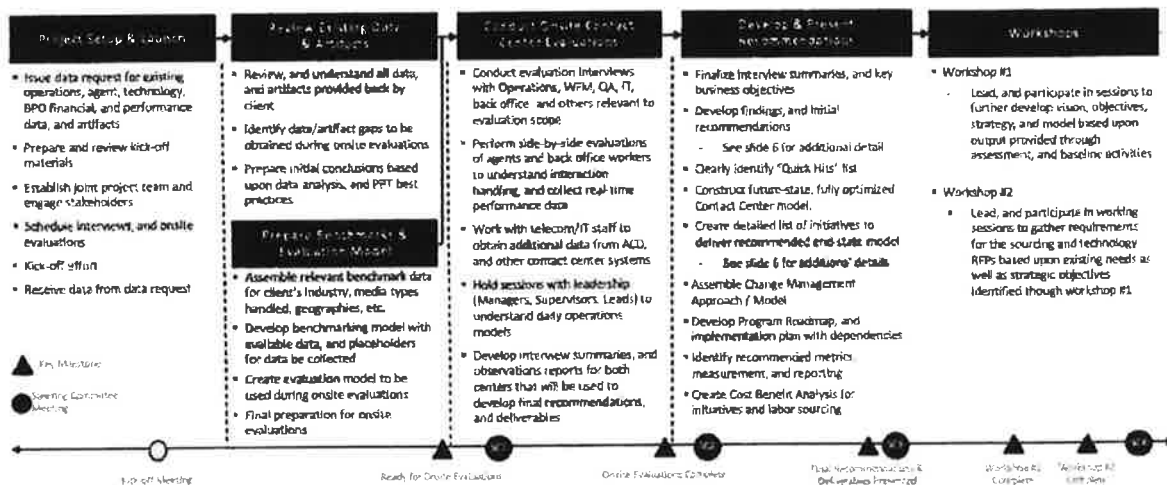


FIGURE 4: PHASE 1 APPROACH

5.1 Phase 1

A formal project kickoff meeting will be held between the ISF and CFX project teams within 15 business days of receipt of a purchase order. ISF will schedule and conduct an onsite kickoff meeting with executive sponsors, key call center leadership and other involved stakeholders. The purpose of this meeting will be to clearly articulate project goals, objectives, resource requirements, project schedule and desired future end state/vision for the finalized solution post assessment.

During the kickoff meeting, ISF will review and discuss the initial project management documents. The ISF team will seek input from CFX stakeholders to gain their insight on how the project should be executed and to confirm the expectations for final deliverables and any additional scope. Also during the kickoff, ISF will review and clarify any project assumptions. By the end of the kickoff meeting, all stakeholders will have a shared understanding of the project's scope, high-level tasks, and goals.

After kickoff, the ISF project manager will make any necessary changes to the project management documentation. In addition, the project schedule will be revised and approved by the CFX project manager before proceeding to the next phase of the work schedule.



Within the PM Plan, ISF will include a communications plan documenting the type, frequency, and recipient(s) for all project communication. A standard document repository such as SharePoint will also be identified within the project communication plan.

Milestone:

- ✓ **Kickoff Meeting Complete**

After the kickoff meeting, planning activities will commence. This phase involves the ISF team making formal requests for relevant project documentation and other project information regarding existing operations, agents, technology, BPO financial details and performance data, and artifacts.

ISF will use the planning phase to determine which stakeholders to include in the various work sessions, determine meeting logistics, and develop and distribute all meeting agendas. Requested materials will also be provided by CFX to ISF during this phase. Prior to commencing the site visits, there will be a review of the existing data & artifacts from the data request to provide the team a base level of knowledge of the environment prior to the site visits and preparation of the benchmark & evaluation model (Maturity Model) that will be used during the site visits.

Review of Existing Data & Artifacts

- Review, and understand all data, and artifacts provided by client
- Identify data/artifact gaps to be obtained during onsite evaluations
- Prepare initial conclusions based upon data analysis, and industry best practices

Preparation of Benchmarks & Evaluation Model

- Assemble relevant benchmark data for transportation industry, media types handled, geographies, etc.
- Develop benchmarking model with available data, and placeholders for data to be collected
- Create evaluation model to be used during onsite evaluations
- Final preparation for onsite evaluations

Milestone:

- ✓ **Deliverable 1: Steering Committee 1 Pre-Onsite Evaluation Review Presentation Complete**

Following the Pre-site Visit Steering Committee Meeting, the Onsite Contact Center Evaluations begin. Details of the subtasks that the ISF Team will perform during the site evaluations is outlined below. At the conclusion of the site interviews a steering committee meeting will be conducted to provide initial observations, hypothesis, and any identified quick wins.

- Conduct evaluation interviews with Operations, Work Force Management (WFM), Quality Assurance (QA), Information Technology (IT), back office, and others relevant to evaluation scope
- CFX operations to be reviewed in detail include the Contact Center and Image Review. The Walk-In Center and Visitor Toll Pass Program will be reviewed only for the purpose of inclusion to the Sourcing RFP
- Perform side-by-side evaluations of agents and back office workers to understand interaction handling, and collect real-time performance data

Work with telephony staff to obtain additional data from Automatic Call Distributor (ACD), and other contact center systems



- Facilitate sessions with leadership (Managers, Supervisors, Leads) to understand daily operations models
- Develop interview summaries, and observations reports for both centers that will be used to develop final recommendations, and deliverables

Milestone:

- ✓ **Deliverable 2: Steering Committee 2 Initial Observations from Onsite Review Presentation Complete**

At the conclusion of the site visit and post-site visit steering committee meeting, detailed analysis begins which will culminate in the current state assessment, gap analysis, and future state recommendations deliverable and onsite presentation. Details regarding this deliverable and presentation are outlined below:

Develop & Present Recommendations

- Finalize interview summaries, and key business objectives
- Develop findings, and initial recommendations
- Clearly identify "Quick Hits" list
- Construct a future state, fully optimized contact center model.
- Create detailed list of initiatives to deliver recommended end-state model
- Assemble change management approach/model
- Develop program roadmap and implementation plan with dependencies
- Identify recommended metrics, measurement, and reporting
- Create cost benefit analysis for initiatives and labor sourcing and will include basis for insource vs. outsource decision

Milestone:

- ✓ **Deliverable 3: Final Recommendations, Strategy, and Roadmap Presentation Complete**

The Strategy & Roadmap deliverable will be used as a foundation for the 2 workshops that should start the week i after the presentation. The workshops will assist CFX in confirming goals and aspirations to be incorporated in the development of RFPs for sourcing and technology of the desired solution. A description of the workshops is provided below:

Workshops

- Workshop 1: Lead and participate in sessions to further develop vision, objectives, strategy, and model based upon output provided through assessment, along with baseline activities
- Workshop 2: Lead and participate in working sessions to gather requirements for the sourcing and technology RFPs based upon existing needs and strategic objectives identified through Workshop 1

5.2 Phase 2

This purpose of phase 2 is to develop both a sourcing and technology RFPs which will allow CFX to evaluate new providers and make a quantifiable decision based upon a RFP scoring criteria coupled with onsite visits and/or vendor presentations and reference checks. This phase will run approximately 8 weeks and the technology and



sourcing RFPs will run in parallel to each other. Information gathered from phase 1 coupled with the 2 workshops will provide the requirements set for the RFP documents. This phase is broken in to 3 discreet steps as outlined below:

Step 1: Development and issuance of the Sourcing and Technology RFPs which will include the following components:

- **Sourcing RFP:**
 - Vendor landscape and candidate identification
 - Call/Contact center functional requirements
 - Call/Contact center operational requirement
 - Call/Contact center technical requirements
 - Back office functional requirements
 - Back office operational requirements
 - Back office technical requirements
 - Operational KPIs and SLAs
 - Build RFP scoring process
 - Issue RFP to candidate vendors
- **Contact Center Technology RFP:**
 - Vendor landscape and candidate identification
 - Call/Contact center functional requirements
 - Call/Contact center operational requirement
 - Call/Contact center technical requirements
 - Operational KPIs and SLAs
 - Build RFP scoring process
 - Issue RFP to candidate vendors
- **RFP requirements will be developed with purpose to Milestone transfer directly into final vendor contracts**

✓ **Deliverable 4: Sourcing and Technology RFP Complete**

Step 2: This step summarizes the outcomes of facilitating the vendor scoring process for both the sourcing and technology RFPs culminating in the down selection of vendors for presentations and site visits which are described below:

- **Sourcing RFP:**
 - Facilitate review of vendor proposals
 - Facilitate scoring of vendor proposals
 - Vendor proposal & scoring workshop
 - Summary of vendor proposals and scores
 - Final candidate vendor selection & notification
 - Develop site visit agenda
 - Schedule site visits
- **Contact Center Technology RFP:**
 - Facilitate review of vendor proposals



- Facilitate scoring of vendor proposals
- Vendor proposal & scoring workshop
- Summary of vendor proposals and scores
- Final candidate vendor selection & notification
- Develop vendor presentations agenda
- Schedule vendor presentations

Milestone:

✓ **Deliverable 5: Vendor RFP Response Scoring Summary Complete**

The final step is the outcome of facilitating and summarizing the vendor site visits (Sourcing) and presentations (Technology) culminating in selection of vendor(s) to enter negotiations and execute contracts for the work outlined in the RFP documents as described below:

- **Sourcing RFP:**
 - Conduct vendor site visits
 - Conduct post site visit wrap up meetings and summarize findings
 - Conduct vendor selection workshop at the conclusion of site visits
 - Identify vendor(s) to enter contract negotiations
 - Provide written input to vendor MSA & SOW to CFX procurement to assist with negotiations
- **Contact Center Technology RFP:**
 - Conduct vendor presentations at CFX or vendor facilities
 - Conduct post vendor presentation wrap up meetings and summarize findings
 - Conduct vendor selection workshop at the conclusion of vendor presentations
 - Identify vendor(s) to enter contract negotiations
 - Provide written input to vendor MSA & SOW to CFX procurement to assist with negotiations
- **Insource vs. Outsource comparison vs. vendor RFP**
 - Use insource costs modelled from Phase 1
 - Evaluate CFX's capabilities vs. RFP respondents

Milestone:

✓ **Deliverable 6: Vendor Selection and Contract Recommendations Complete**



6 Team Organization

6.1 Reporting Relationships

The organization of the ISF team is illustrated in the chart below:

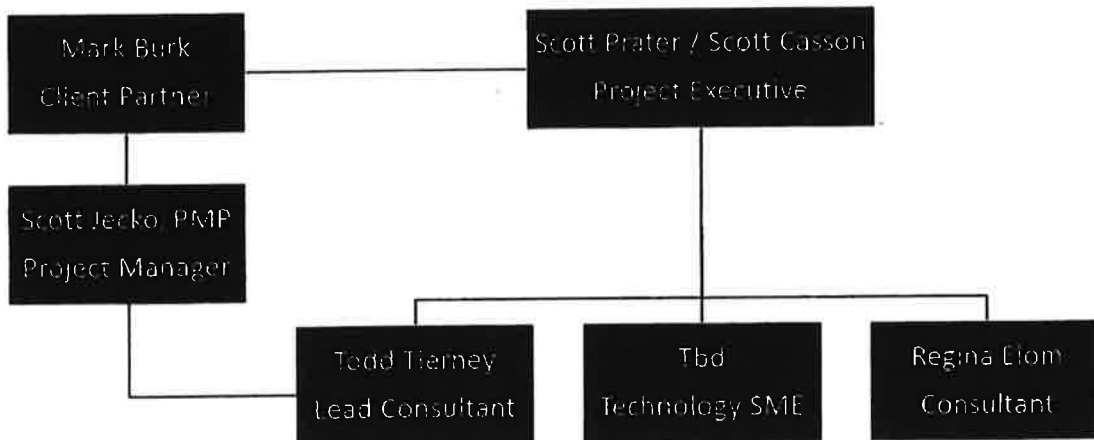


FIGURE 5: PROJECT REPORTING RELATIONSHIPS

Note: Staffing is subject to change based on issuance of purchase order and actual project start date.

6.2 Team Certifications

The ISF Team is fully qualified to perform the tasks outlined in this Statement of Work. In addition to our extensive institutional and individual knowledge and experience, our team members hold the following certifications:



Team Member	PMP Certified	Six Sigma (Green Belt)	Six Sigma (Black Belt)	Avaya	Cisco	Nice inContact	Continuous Improvement (Kaizen)
Mark Burk, Client Partner	✓	✓					✓
Scott Jecko, Project Manager	✓						
Scott Prater, PPT Vice President, Project Executive				✓	✓	✓	
Scott Casson, Project Executive	✓		✓				
Todd Tierney, Lead Consultant		✓		✓		✓	
Regina Elom, Consultant						✓	

FIGURE 6: TEAM CERTIFICATIONS



7 Respondent Pricing

The ISF Team's pricing information is provided in the table below:

Deliverable Number	Description	Total Cost
D.1	Steering Committee 1 Pre-Onsite Evaluation Review Presentation	\$78,000
D.2	Steering Committee 2 Initial Observations from Onsite Review Presentation	\$78,000
D.3	Final Recommendations, Strategy, and Roadmap Presentation	\$58,500
D.4	Sourcing and Technology RFPs	\$58,500
D.5	Vendor RFP Response Scoring Summary	\$58,500
D.6	Vendor Selection & Contract Recommendations	\$58,500
	Total Cost	\$390,000



8 Best Value Pricing Statement

ISF is providing the following information to support our best value proposition for the CFX Call Center Assessment. ISF is 1 of 11 vendors on the Management State Term Contract (STC). This information is publicly available at the following link hosted by the Florida Department of Management Services. The main site's link is provided below:

https://www.dms.myflorida.com/business_operations/state_purchasing/state_contracts_and_agreements/state_term_contracts/management_consulting_services/pricing

The Management Consulting STC pricing can be found at the following URL:

<https://www.dms.myflorida.com/content/download/98054/568134/file/Management%20Consulting%20Services%20-%20Pricing%20-%202010%2012%202015.xlsx>. Below is the table that is downloadable from this link.

Management Consulting Services - Pricing

Vendor Name	Principal	Senior Consultant	Consultant
Atkins North America, Inc.	\$225.00	\$150.00	\$135.00
Carr Riggs & Ingram, LLC	\$265.00	\$175.00	\$140.00
Ernst & Young LLP	\$430.00	\$320.00	\$250.00
Gartner, Inc.	\$390.00	\$345.00	\$255.00
Grant Thornton LLP	\$240.00	\$150.00	\$125.00
ISF, Inc.	\$170.00	\$145.00	\$110.00
KPMG LLP	\$285.00	\$210.00	\$150.00
MAXIMUS Consulting Services, Inc.	\$300.00	\$210.00	\$150.00
McGladrey LLP	\$260.00	\$180.00	\$140.00
The North Highland Company	\$220.00	\$180.00	\$150.00
Thomas Howell Ferguson P.A.	\$245.00	\$165.00	\$145.00

As identified in the table above from the highlighted row, ISF provides the best value to CFX for the three main roles we may consider leveraging for this project work. No other vendor competing on the Management



Consulting STC has lower rates than ISF in these top three positions/classifications. ISF based all pricing and estimates on the STC. As indicated above, the rate for a Principal, which is the role under which we typically provide our Project Managers and Subject Matter Experts, is \$170. The next closest rate from our competitors is \$220.

A buy decision from the Management Consulting State Term Contract provides CFX with the lowest price. Below are the State Term Contract Rates alongside our Standard Hourly Rates. As you can see, all State Term Hourly Rates are at least 15% lower than our Standard Hourly Rate.

Staffing Classification from the State Term Contract	Standard Hourly Rate	State Term Contract Hourly Rate
Principal	\$200.00	\$170.00
Senior Consultant	\$175.00	\$145.00

For this next phase of work, ISF has developed a pricing model that allows for a blended cost per resource of \$170 per hour. This includes project related expenses including travel and other project related expenses. Doing so has allowed ISF to leverage industry experts from our PPT partnership along with existing ISF staff.

9 Assumptions

9.1 General Assumptions

The ISF Team makes the following assumptions regarding the information provided in this proposal:

- ISF may require additional time post agreement to activate the project team; contract award date may not necessarily be the project start date. This may affect deliverable due dates.
- CFX will provide complete and up-to-date documentation for all existing systems and make it available for review on this project upon request by ISF.
- CFX will assign staff to work with ISF to answer questions, and to provide existing or additional documentation for business processes and systems they maintain.
- CFX will assign staff to work with ISF to answer questions and provide any required system access.
- CFX will assign staff to work with ISF to answer questions and to provide any existing documentation for business processes.
- CFX and ISF will resolve business issues and project plan-related issues within three business days if the issue does not have the potential to impact the project plan or schedule. For issues potentially impacting the forward progress of the project, ISF will work with the CFX project sponsor to immediately determine the potential impact and determine when the issue can be resolved. Should the resolution of the issue have potential impact on the forward progress of the project, either the ISF project manager or the CFX project sponsor will initiate the project change management process.
- Should the contract award date be substantially later than 11/1/2019, then CFX will work with the ISF Team to adjust project timeline accordingly.
- Engagement includes 1 physical site at the CFX corporate headquarters and call center.
- Access to all buildings, systems and data will be worked out during the Initiate phase of the project.
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10 Appendix

10.1 Team Resumes

MARK BURK, PMP, CLIENT PARTNER	
<p>Mark Burk is the client partner for ISF's management consulting practice. In this role, he provides executive oversight for management consulting and IV&V projects. With a strong project management background, for over 25 years, Mark's focus has been on service delivery excellence. He has been involved in client engagements, focused on cost-saving initiatives or process improvement activities achieved by implementing best-in-class solutions (e.g. lean six sigma, data analytics, financial analysis, process modelling/software/supply/value chain mapping/software). He has worked on numerous projects ranging in size (\$100k-\$55MM) across many industries (banking/finance, state government, automotive and manufacturing, consumer packaged goods, retail, distribution). Mark has delivered solutions to project sponsors at all levels within the respective organizations. He has managed various-sized project teams including simultaneous multi-site projects at up to five locations at a time. Many projects under his supervision have directly resulted in total client savings in the \$105 of millions throughout the span of his career.</p>	
EXPERTISE AND KEY QUALIFICATIONS	
<ul style="list-style-type: none"> ✓ Call center assessment ✓ Florida public sector service delivery ✓ Business/management consulting ✓ Business process outsourcing ✓ Business transformation ✓ Business, process, and enterprise architecture ✓ Data and analytics 	<ul style="list-style-type: none"> ✓ Management and supervision ✓ Operations management P&L planning and analysis ✓ Process improvement/re-engineering ✓ Program and project management ✓ Strategic development ✓ Quality improvement tools and processes ✓ Risk management
EDUCATION AND CERTIFICATIONS	
<ul style="list-style-type: none"> • BA, Honors Economics, University of Windsor • PMP Certification • Six Sigma Green Belt • Continuous Improvement (Kaizen) 	
HIGHLIGHTED SIMILAR PROJECT EXPERIENCE	
Hillsborough County, Florida, Call Center Assessment	<p>Under Mark's project leadership, the ISF team successfully delivered Phase I of the County's Call Center Assessment, which included conduct a review of nine call center locations, completing an evaluation of intake software systems and overall operations, and providing Hillsborough County with recommendations regarding the utilization of centralized intake and outsourcing as options to improve overall customer service and satisfaction.</p> <p>Because of the success of Phase I, ISF is also engaged to deliver Phase II, supporting implementation of the consolidation recommendations we had provided to the County under the original scope of work.</p>
Florida Department of Management Services, FirstNet Data Collection Project	<p>Project Manager for the FirstNet Data Collection Project for Florida with an APV of \$1.9MM. This multifaceted project involves coordinating and collaborating with public safety entities in all 67 counties across the state, the 7 Regional Domestic Security Task Force communications manager, a sub-partner to ISF with technical knowledge and expertise with FirstNet; Key project tasks include: Weekly and monthly status reporting; Providing education and outreach via newsletter and workshops; Conducting workshops in all 7 regions three times each throughout the course of the project; Collecting information to develop wireless broadband maps – critical service areas, extended service areas; Provide weekly updates to a GIS system; Develop a detailed phased rollout plan; Develop a decision process for the Governor of Florida to review, assess and decide upon the FirstNet Plan.</p>
Hillsborough County, Florida, Procurement Support Project	<p>Provided review and analysis of vendor responses to Hillsborough County in their procurement process for a new version of their Next Generation 911 (NG911) system.</p>



<p>Florida Department of Management Services, NG911, Eg11 Board</p>	<p>Supported the Department of Management Services, Eg11 Board with the development of a survey to capture the wants and needs as it relates to Next Generation (NG911) 911. Analyzed and summarized survey responses and completed a summary of findings for review and presentation at the Eg11 Board meeting. Supported the development of a draft plan and ultimately the final draft plan that incorporated: Introduction of NG911, Current state of 911 System and Operations, Explanation of NG911, NG911 Initiatives and Analysis of stakeholder input that included – Strategic initiatives, statutory and regulatory, funding, governance, technology and standards, operations, outreach and engagement. Identified strategic goals for the implementation of NG911.</p>
<p>Building a Safer Florida (BASF), Disaster Contractor Network (DCN), Online Portal Development, Implementation, and Enhancement</p>	<p>Program Manager for Building a Safer Florida, Disaster Contractor Network (DCN) Online portal development, implementation and enhancement. DCN Online is a web portal that provides an online marketplace for Property Owners, Contractors and Suppliers throughout the State of Florida to match service needs. The web application was relaunched in June of 2016 and system enhancements continue through FY 2016-2017.</p>
<p>Florida Department of Health, Bureau of Preparedness and Response, Review and Analysis of Alabama Incident Management System (AIMS)</p>	<p>Program Manager for the Florida Department of Health (DOH) Bureau of Preparedness and Response review and analysis of the Alabama Incident Management System (AIMS). AIMS is currently utilized for incident management functions; including bed availability, facility status reporting, event management and alerting notification, patient tracking, and situational awareness reporting needs. ISF: Reviewed the AIMS source coding to determine the validity and stability of the application; Reviewed and validated the state, regional and county business requirements; Prepared a comparison between the AIMS data dictionary and Florida's current online database data dictionary to identify what fields will need to be revised or added to the application based on Florida's business requirements; Determined coding and other revisions needed to the web application to meet Florida's business requirements; Prepared an analysis report, including recommendations on whether the AIMS web application is valid, stable and can meet Florida's business requirements. The completion of these goals allowed DOH to operate more efficiently and accurately, and will enhance responsiveness to both internal and external data requests.</p>
<p>Additional Professional Experience</p>	<ul style="list-style-type: none"> • Engagement Lead for a major Automotive OEM, Program Management of the Contact Center PMO, P&L Management and Business Consulting: \$36MM+ annualized savings from team efforts while managing multiple programs through the sourcing process (APV ranged from \$5MM – \$25MM per year per contract); Created governance collateral and instilled Best-in-Class methods within the PMO while enabling strategic solutions and optimization for customer contact centers. • Program Manager/Business Analyst for a Fortune 100 provider of technical consulting services Consulting and Business Analytics, Program Management (PMO) of the Public Sector Risk Review Project: Lead global recommendation tracking and reporting through implementation for VP of Ethics and Compliance; Managed and coordinated global engagement activities and country specific work streams while performing business analysis with country counsel and business stakeholders. • Strategic Business Process Consultant for Financial Services Organization, Enterprise Architecture (Business Process Modeling, Enterprise Process Mapping), Strategic Planning and Development. Assisted with thought leadership and direction in deploying a global enterprise architecture repository to enable the reporting of a Bill of IT, CIO application scorecards and global reports; Documented test requirements for system deployment; Conducted strategic process work for the business CIO's to support IT transformation, convergence, cost savings and optimization of business processes and applications; Developed and deployed enterprise-wide



	<p>strategies to map applications to business processes and vice-versa by creating a global functional taxonomy for client.</p> <ul style="list-style-type: none">• Consultant to Public Sector Department of Motor Vehicles, Business Operations, Process Optimization, Technology Assessment, Executive Summary Reporting: Conducted site assessments (people, process, technology, facilities) at various field locations and back office operations along with conducting extensive analysis of transactional data; Summarized findings and recommendations for Steering Committee review.• Consultant to Major CPG Distributor, Business Operations, Procurement, Sales and Operations Planning (S&OP), Supply Chain Management: Conducted a total business and operations performance assessment (sales, supply chain, warehouse, MIS, HR, marketing, and product design); Recommendations provided to the executive management team resulted in the following initiatives: S&OP process and tool creation, Business metrics and balanced scorecard planning and creation, Organizational optimization and redesign.
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SCOTT PRATER, PROJECT EXECUTIVE

Scott Prater brings over 30 years of experience in various roles, including 18 years working with customer service technologies. He began his career in the space and defense industry and has brought the same focus and precision required to launch a satellite with him to successive roles in customer service and IT. Scott has a broad background having held various leadership roles, including private and government sectors. In 2014 serving as the Vice President of Information Technology at Center Partners (a wholly domestic US call center outsourcer), he defined a strategic technology road map & immediately redesigned operational processes in alignment with industry best practices. This drove a reduction in capital costs by 30% and operational costs by 25% which was instrumental in positioning the company for acquisition by Qualfon.

EXPERTISE AND KEY QUALIFICATIONS

- | | |
|---|---|
| ✓ Large-scale project lead | ✓ Call center transformation |
| ✓ Call center strategic technology roadmap design | ✓ Public-sector call center assessments |
| ✓ Business process innovation | ✓ Cloud-based call center solution implementation |

EDUCATION AND CERTIFICATIONS

- U.S. Army
- Weber State University

HIGHLIGHTED SIMILAR PROJECT EXPERIENCE

Hillsborough County Board of County Commissioners	Client Partner / Project Manager supporting the evaluation of nine call centers leading to recommendations in the following areas: Consolidation, Outsourcing and Technology Strategy to support future state recommendations e.g. IVR and CRM
VoIP Contact Center Transformation	Scott led the industry's first ever large scale hosted VoIP contact center transformation, converting 8000 seats to a hosted data center model while at AOL in 2002. Efforts included a complete call center infrastructure replacement project of the ACD, IVR, and call recording platforms.
State of Georgia Call Center Migration	Led a 4-vendor team who had never partnered before to migrate a 1,500 seat contact center for the State of Georgia in 60 days from contract award to a cloud-based solution with flawless execution
State Government Benefits Overhaul	In 2010, led a team to overhaul 38 state government benefits services IVRs to a self-servicing IVR platform, allowing states to run more efficiently. These IVRs included SNAP, TANF, and WIC programs.
Self-Service and Technology Team Strategy	Led the self-service strategy and technology teams supporting Xerox Government Solutions. Efforts included the design and deployment of analytics, IVR personalization, and fraud solutions to dramatically differentiate Xerox's capabilities from their competitors. Also led the planning and development of Xerox's first ever mobile phone self-service application for prepaid debit cards.
Representative Clients Served	State of Florida, State of Georgia, State of Texas, Comcast, Visa, The Home Depot, Xerox, T-Mobile, AOL, Avaya, Zulily, TIVO, Liberty Mutual, MoneyGram TSYS



SCOTT JECKO, PMP, CCP, PROJECT MANAGER

A Florida resident since 1996, Scott has over 20 years' experience planning, implementing, maintaining, and managing business information systems and technology services in support of Florida agency and department mission and goals. As a Software and Project Manager for the State of Florida, Scott has managed teams of up to 30 employees and ensured the completion of projects on time and under budget. Scott has Strategic Planning and Enterprise Architecture experience that enables him to see the big picture and assist in all aspects of the service development lifecycle (requirements gathering, comparative solution analysis, financial and transition planning, change management, and continuous process improvement).

EXPERTISE AND KEY QUALIFICATIONS

- | | |
|---------------------------------|------------------------------------|
| ✓ Strategic Planning | ✓ Comparative Solution Analysis |
| ✓ Enterprise Architecture | ✓ Business Case Development |
| ✓ Project Management | ✓ Business Process Improvement |
| ✓ Software Lifecycle Management | ✓ Organizational Change Management |

EDUCATION AND CERTIFICATIONS

- Masters, Computer Systems Management, University of Maryland
- Bachelor of Arts, Economics, University of Maryland
- Certified Project Management Professional (PMP)
- Certified Cloud Professional (CCP)
- Certified ITIL Service Transition

HIGHLIGHTED SIMILAR PROJECT EXPERIENCE

<p>ISF, Inc. Senior Consultant</p>	<ul style="list-style-type: none"> • Florida Agency for Health Care Administration (AHCA) Discharge Data Collection Modernization Planning and Comparative Solution Analysis Project • Texas Department of State Health Services (DSHS) Organizational Change Management and Business Process Improvement Project • Florida Department of Transportation (DOT) Center for Transportation Disadvantaged Application Re-write and Data Migration Project
<p>Florida Agency for State Technology Strategic Planner and Enterprise Architect</p>	<ul style="list-style-type: none"> • Open Data Study; Partnered with IT Professional Services Provider to inventory data sources, assess open data applicability, and produce open data feasibility report • IT Service Recommendations Report; Developed IT Service priority rating tool and facilitated meetings with agency leadership to prioritize Enterprise IT Service needs • Data Center Market Analysis; Collaborated with AST Leadership, Florida Agency CIOs, NASCIO, and other states to catalog and assess state Data Center Services • IT Architecture Standards; Collaborated with state CIO and Agency CIOs & CTOs to draft and publish standards for Identity Management and Integration Services
<p>Florida Department of Highway Safety and Motor Vehicles Software Services Manager</p>	<ul style="list-style-type: none"> • Managed 4 Teams (Business Intelligence, Content Management, Web Services, & Mainframe) in support of public facing and backend Driver License and Motor Vehicle Systems and Projects for the Department • Documented existing Systems Development Lifecycle (SDLC); worked with Business and IT Leadership to create and implement enterprise wide SDLC. Aligned SDLC improvement needs with Professional Services Provider audit findings



SCOTT CASSON, PROJECT EXECUTIVE

Scott M. Casson is a 25-year veteran of the Contact Center/Customer Service industry and had held every possible position within the contact center from starting on the phone as an agent up to and including Senior Vice President. Throughout the past 15-years he has focused all his efforts on helping corporations, both large and small, on-shore and off-shore, improve their contact centers by delivering engagements that significantly enhanced productivity, reduced expenses, and improved their overall Customer Satisfaction. While Scott is considered a contact center generalist, he has become a Subject Matter Expert in the areas of productivity improvement through Outlier Management, Workforce Management, IVR and ACD redesign, Outbound Dialing, and Knowledge Management. Scott has also been heavily active on the Mergers and Acquisition side of the business directing both due diligence exercises, and the planning/execution of integration efforts between firms. Scott is a student of the contact center constantly looking to learn new processes, how to better implement and operate technology, and also how to improve the jobs of those who work in our centers.

EXPERTISE AND KEY QUALIFICATIONS

- | | |
|------------------------|----------------------------|
| ✓ Process Management | ✓ Operations Consolidation |
| ✓ Knowledge Management | ✓ Workforce Planning |

EDUCATION AND CERTIFICATIONS

- Xavier University
- PMP
- Six Sigma Black Belt

HIGHLIGHTED SIMILAR PROJECT EXPERIENCE

E*TRADE	Subject Matter Expert in the areas of productivity improvement through Outlier Management, Workforce Management, IVR and ACD redesign, Outbound Dialing, and Knowledge Management. Scott has also been heavily active on the Mergers and Acquisition side of the business directing both due diligence exercises, and the planning/execution of integration efforts between firms.
Global Outsourcer	Improve their contact centers by delivering engagements that significantly enhanced productivity, reduced expenses, and improved their overall Customer Satisfaction. Focus on performance management, staffing, training, reporting, and skills assessments.

TODD TIERNEY, LEAD CONSULTANT

Todd is a proven leader with over twenty-five years of experience delivering strategy, operations, digital / technology and outsourcing advisory services. His experience is focused on developing solutions to accomplish breakthrough performance while reducing costs, improving customer satisfaction, managing business relationships, and establishing high performing teams. Todd has become a subject matter expert in the areas of productivity improvement through contact center management, workforce management, process improvements and outsourcer oversight. Most recently, Todd was Director of Business Development at Sutherland Healthcare, a leading business process outsourcing firm. Previously, Todd was a Customer Care Product Manager with Xerox and was a Manager at Deloitte Consulting in the contact center advisory practice.

EXPERTISE AND KEY QUALIFICATIONS

- | | |
|------------------------|----------------------------|
| ✓ Process Management | ✓ Operations Consolidation |
| ✓ Knowledge Management | ✓ Workforce Planning |
| ✓ Outsource Advisory | ✓ Business Development |

EDUCATION AND CERTIFICATIONS

- Northern Kentucky University

HIGHLIGHTED SIMILAR PROJECT EXPERIENCE

County Government	Led the assessment of 14 county departments to determine the feasibility of establishing a centralized contact center to support its citizens. Focused on operational structures, performance, staffing models, technologies and budget considerations. Todd has been heavily active in directing these due diligence exercises, and the planning / integration efforts going forward.
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Veterinary Pharmacy	Provided leadership during the integration of an acquisition that significantly enhanced contact center productivity, reduced operating expense, maximized technology utilization, and improved overall Customer Satisfaction. Focus on performance management, workforce planning, training and skills assessments.
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REGINA ELOM, CONSULTANT

Regina Elom brings over twenty years of Contact Center leadership experience, leading teams that have consistently exceeded revenue targets and business objectives while delivering an exceptional customer experience. Regina's combined expertise in sales and operational execution efficiencies has resulted in the overachievement of sales revenue, profitability, customer acquisition and retention goals throughout her career. Instrumental to her success, is her ability to effectively partner cross-functionally, with internal and external clients. She has worked in the telecommunications, Healthcare, high-tech, client membership, and industrial supplies industries directing both Business to Consumer (B2C) and Business to Business (B2B) sales and customer service teams as a leader with several Fortune 100 company expansion, and others experiencing rapid growth and transformation. She is a recipient of numerous industry awards that highlight her success in Contact Center sales and operations excellence.

EXPERTISE AND KEY QUALIFICATIONS

- | | |
|--|--|
| <ul style="list-style-type: none"> ✓ Contact center leadership ✓ Operational execution | <ul style="list-style-type: none"> ✓ Customer experience improvement ✓ Business process redesign |
|--|--|

HIGHLIGHTED SIMILAR PROJECT EXPERIENCE

Sun/Microsystems/Oracle Rebadging Program	Regina's leadership of the rebadging program was instrumental in achieving operational, financial, and revenue goals utilizing outsourcers. The result was effective rebadging by maintaining and increasing the caliber of the customer and employee experience, as well as, maintaining high levels of employee retention and satisfaction. As an example, Regina and her manager led the re-badging of 90% of a very successful Telesales team. Through effective planning, communications, open leadership and the creation of a partnership-council, the organization overachieved its year-end revenue goal by 127%, while experiencing less than 15% unplanned attrition during the transition.
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**EXHIBIT A: SPECIAL CONTRACT CONDITIONS
FOR
STATE TERM CONTRACT
NO. 973-000-14-01
MANAGEMENT CONSULTING SERVICES**

1. BACKGROUND CHECK

If required by the Customer and in accordance with the Customer's instructions, the Contractor shall ensure that background checks, including criminal history checks, are conducted on current and newly-hired employees, including subcontractor employees, prior to the employee or subcontractor providing services under the Contract. Employees and subcontractors of the Contractor providing services per the Contract may be considered persons of special trust and therefore may be required to undergo a Level II background check. The Customer and Contractor may negotiate which party will pay the Florida Department of Law Enforcement and Justice Department fees for the background check. The Contractor shall not allow any employee or subcontractor employee to assist in the providing of services under the Contract if the background checks indicate that the employee fails to meet the qualification standards established for certain State employees pursuant to section 435.04(2), Florida Statutes.

The Contractor shall require its employees and subcontractor employees to report to the Department any criminal matter that the employee has been involved in, whether it is an arrest, charge, indictment, information, conviction, plea of guilty or plea of no contest, regardless of whether adjudication is withheld, as soon as reasonably possible, and in no event later than two business days of such incident.

The Department shall have the right to audit compliance with this section at any time, and the Contractor and its subcontractors shall cooperate with this audit process.

2. SUBCONTRACTING

The Contractor shall be fully responsible for all work performed under the Contract, including, but not limited to, planning, managing, implementing, operation, supporting, and warranties if applicable. The Contractor is solely responsible for ensuring that their subcontractor performs as specified in the Contract. The Contractor shall submit a copy of Form 1: Subcontracting (Exhibit E) to the Department for all subcontractors the Contractor wishes to partner with to provide services under the Contract. During the term of the Contract, subcontractors may be substituted or added by submitting Form 1 to the Department. Before any work is performed under a Statement of Work, the Customer must approve all subcontractors in writing.

Upon reasonable notice to the Contractor, the Department reserves the right to adjust and revise the fields and information collected in Form 1: Subcontracting (Exhibit E) at any time during the Contract.

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3. DEFAULT

Failure to adhere to Contract terms and conditions may be handled in accordance with Rule 60A-1.006, Florida Administrative Code. The Department may take any other actions deemed necessary and appropriate to make the State whole in the event of such default.

4. DATA SANITIZATION

At termination of the Contract, regardless of the reason for termination, the Contractor will return all data owned by the Customer in a standard electronic format of the Customer's choosing. This shall be done no later than 30 days after termination of the Contract. Once all data has been returned and accepted by the Customer, the Contractor shall erase, destroy, and render unrecoverable all Customer-owned data and certify in writing that these actions have been completed and that destruction has been performed according to National Institute of Standards and Technology, Special Publication 800-88, "Guidelines for Media Sanitization" (2006). This shall be done within 14 days of acceptance of the data by the Customer.

5. COMPLIANCE WITH LAWS

The Contractor shall comply with all laws, rules, codes, ordinances, and licensing requirements that are applicable to the conduct of its business, including those of Federal, State, and local agencies having jurisdiction and authority. By way of non-exhaustive example, Chapter 287, Florida Statutes, and Chapter 60A-1, of the Florida Administrative Code, govern the Contract. By way of further non-exhaustive example, the Contractor shall comply with section 274a of the Immigration and Nationalization Act, the Americans with Disabilities Act, and all prohibitions against discrimination on the basis of race, religion, sex, creed, national origin, handicap, marital status, or veteran's status. Violation of any applicable laws or rules shall be grounds for Contract termination.

6. INTELLECTUAL PROPERTY

Any intellectual property created as a result of the Contract is subject to following provisions:

- A.** Anything by whatsoever designation it may be known, that is produced by, or developed in connection with, the Contract shall become the exclusive property of the of the Customer and may be copyrighted, patented, or otherwise restricted as provided by Florida or Federal law. Neither the Contractor nor any individual employed under the Contract shall have any proprietary interest in the product.
- B.** With respect to each deliverable that constitutes a work of authorship within the subject matter and scope of U.S. Copyright Law, 17 U.S.C. sections 102-105, such work shall be a "work for hire" as defined in 17 U.S.C. Section 101 and all copyrights subsisting in such work for hire shall be owned exclusively by the Customer.

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- C.** The foregoing shall not apply to any preexisting software or other work of authorship used by the Contractor to create a deliverable that exists as a work independently of the deliverable, unless the preexisting software or work was developed by the Contractor pursuant to a previous Contract with the Customer or a purchase by the Customer under a State Term Contract.
- D.** The Customer shall have full and complete ownership of all software developed pursuant to the Contract including without limitation:
- The written source code;
 - The source code files;
 - The executable code;
 - The executable code files;
 - The data dictionary;
 - The data flow diagram;
 - The work flow diagram;
 - The entity relationship diagram; and
 - All other documentation needed to enable the Customer to support, recreate, revise, repair, or otherwise make use of the software.

This ownership interest will continue after the expiration or termination of the Contract.

7. SECURITY ACKNOWLEDGEMENT

The prospective Contract will include security provisions addressing the following:

- A.** Designating a primary point of contact that the Contractor will coordinate with relative to information security issues that may arise in any resulting Contract;
- ~~**B.** Prohibiting the exposure of any Customer data without prior approval from the Customer's primary contact;~~
- C.** Prohibiting the access of any Customer data without the prior approval from the Customer's primary contact;
- D.** Granting the Customer the ability to conduct or use a third party to conduct security assessments to verify compliance with security requirements;
- E.** Stating that ownership of Customer data will remain with the Customer;
- F.** Stating that the Respondent will not use or redistribute any Customer information processed, stored, or transmitted by the Contractor except as specified in the Contract;
- G.** Stating that at no time will Customer data be processed on or transferred to any portable or laptop computing device or any portable storage medium by the Contractor unless that device or storage medium is in use as part of the Contractor's designated backup and recovery processes;

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- H.** Stating that at Contract termination, all Customer data will be returned to the Customer in a usable format to be agreed upon by the Customer and the Contractor; and
- I.** Stating that at Contract termination, after all termination requirements have been met, the Contractor shall erase, destroy, and render unrecoverable all Customer data and certify in writing that these actions have been completed within specified Contract timeframes and that destruction will be performed according to National Institute of Standards and Technology, Special Publication 800-88, "Guidelines for Media Sanitization" (2006). See <http://csrc.nist.gov/>.
- J.** Section 7 (Security Acknowledgement) survives the termination of this contract.

8. TRANSACTION FEE

All payments made under the Contract will be assessed a transaction fee as provided in Section 14 of the PUR 1000. Please review this section for more information regarding the Transaction Fee.

9. MFMP ORDERING INSTRUCTIONS

- A.** The Contractor agrees to meet the following requirements:
 - 1. Provide appropriate contact information for customers to use for product and /or service inquiries and purchases, as well as the most up-to-date product/service offering the Contractor is authorized to provide in accordance with the statewide contract; and
 - 2. If orders are to be sent to resellers or distributors for fulfillment then the Contractor is responsible for providing this list of authorized resellers or distributors for use
 - 3. The accuracy of this information must be maintained by Contractor throughout the duration of the statewide contract; and
- B.** Contractor agrees that DMS controls which statewide contracts appear in MFMP and that DMS may elect at any time to remove any Contractor's offering from MFMP.
- C.** Contractor must be able to accept Purchase Orders via fax, e-mail, cXML or EDI INT AS 12.

10. ELECTRONIC INVOICE

The Contractor shall supply electronic invoices in lieu of paper-based invoices for those transactions processed through the MFMP. Contractor agrees, upon Department's request, to establish electronic invoicing within ninety (90) days of written request. Electronic invoices shall be submitted to the Customer through the Ariba Supplier Network (ASN) in one of three mechanisms as listed below.

SECTION 1. cXML (commerce eXtensible Markup Language)

This standard establishes the data contents required for invoicing via cXML within the context of an electronic environment. This transaction set can be used for invoicing via

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the ASN for catalog and non-catalog goods and services. The cXML format is the Ariba preferred method for invoicing.

SECTION 2. EDI (Electronic Data Interchange)

This standard establishes the data contents of the Invoice Transaction Set (810) for use within the context of an Electronic Data Interchange (EDI) environment. This transaction set can be used for invoicing via the ASN for catalog and non-catalog goods and services.

SECTION 3. PO Flip via ASN

The online process allows suppliers to submit invoices via the ASN for catalog and non-catalog goods and services. Contractors have the ability to create an invoice directly from their Inbox in their ASN account by simply "flipping" the PO into an invoice. This option does not require any special software or technical capabilities.

For the purposes of this section, the Contractor warrants and represents that it is authorized and empowered to and hereby grants the State and the third party provider of MFMP, a State Contractor, the right and license to use, reproduce, transmit, distribute, and publicly display within the system the information outlined above. In addition, the Contractor warrants and represents that it is authorized and empowered to and hereby grants the State and the third party provider the right and license to reproduce and display within the system the Contractor's trademarks, system marks, logos, trade dress, or other branding designation that identifies the products made available by the Contractor under the Contract.

The Contractor will work with the MFMP management team to obtain specific requirements for the Electronic Invoicing upon contract award.

11. PURCHASING CARD PROGRAM

Acceptance of Universal card format Purchasing Cards (e.g., American Express, MasterCard, and Visa) is encouraged, but is not the exclusive method of payment (e.g., Purchase Order). The method of ordering and payment (e.g., Purchase Order, Purchasing Card) shall be selected by the Customer.

12. PRICING

The Contractor shall adhere to the negotiated ceiling prices, which are incorporated by reference into the Contract. Negotiated prices are "not to exceed" prices and lower pricing may be negotiated by the Customer under this Contract.

13. PROJECT-BASED PRICING

A project-based pricing model may be used by the Customer instead of an hourly rate model to accomplish goals and tasks that include more complex requirements. Customers who choose to use a project-based pricing model shall adhere to the RFQ requirement in Section 18 and shall negotiate all pricing, fees, and related expenses associated with the completion of each task and deliverable with the selected Contractor. Project-based pricing should be fully detailed in the Customer's Statement of Work.

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14. DETAIL OF BILLS

Contractor shall submit bills for fees or other compensation for services or expenses in detail sufficient enough for a proper pre-audit and post-audit. The Department reserves the right to request additional documentation.

15. BILLS FOR TRAVEL

The Customer is not responsible for travel expenses unless he/she authorizes it in writing at the time of issuing the purchase order. If authorized by the Customer, bills for any travel expenses shall be submitted in accordance with s. 112.061, F.S.

16. PUBLIC RECORDS

- A.** The Contract shall allow public access to all documents, papers, letters, or other material made or received by the Contractor in conjunction with the Contract, unless the records are exempt from section 24(a) of Article I of the State Constitution or section 119.07(1), Florida Statutes. The Department may unilaterally terminate the Contract if the Contractor refuses to allow public access as required in this section.

In the event of a public records or other disclosure request pursuant to Chapter 119, Florida Statutes, the Florida Constitution or other authority, to which documents that are marked "Confidential" are responsive, the Department will provide the Contractor redacted copies to the requestor. If a requestor asserts a right to the Confidential Information, the Department will notify the Contractor such an assertion has been made. It is the Contractor's responsibility to assert that the information in question is exempt from disclosure under Chapter 119, Florida Statutes, or other applicable law. If the Department becomes subject to a demand for discovery or disclosure of the Confidential Information of the Contractor under legal process, the Department shall give the Contractor prompt notice of the demand prior to releasing the information labeled "confidential" (unless otherwise prohibited by applicable law). The Contractor also agrees, at no expense of the Department, to cooperate with the Department in seeking reasonable arrangements to protect the confidential and proprietary nature of the information labeled "Confidential."

- B.** If, under this contract, the Contractor is providing services and is acting on behalf of the Department as provided under section 119.011(2), Florida Statutes, the Contractor, subject to the terms of section 287.058(1)(c), Florida Statutes, and any other applicable legal and equitable remedies, shall:
1. Keep and maintain public records that ordinarily and necessarily would be required by the Department in order to perform the service.
 2. Provide the public with access to public records on the same terms and conditions that the Department would provide the records and at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.

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3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law.
4. Meet all requirements for retaining public records and transfer, at no cost, to the Department all public records in possession of the Contractor upon termination of the contract and destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. All records stored electronically must be provided to the Department in a format that is compatible with the information technology systems of the Department.

The Department may unilaterally cancel this Contract for refusal by the Service Provider to comply with this section by not allowing public access to all documents, papers, letters, or other material made or received by the contractor in conjunction with the contract, unless the records are exempt from s. 24(a) of Art. I of the State Constitution and section 119.07(1), Florida Statutes.

17. FINANCIAL CONSEQUENCES FOR NON-PERFORMANCE

The State reserves the right to withhold payment or implement other appropriate remedies when the Contractor has failed to perform/comply with provisions of this Contract. These consequences for non-performance shall not be considered penalties.

18. RFQ REQUIREMENT

Before issuing a Statement of Work under this Contract, the Customer shall issue Requests for Quote (RFQs) to all Contractors. When drafting an RFQ, the Customer must include the following information, but may also include additional information:

1. Statement of Purpose / Need
2. Scope of Work
3. Project Tasks and Deliverables
4. Project Timeline
5. List of Contractor Responsibilities
6. Qualifications / Certifications of the Consultant(s)
7. Method of Compensation
8. Financial Consequences for Non-Performance
9. Special Terms and Conditions

19. STATEMENT OF WORK

A. Statement of Work Overview

A Customer shall order services by issuing a Statement of Work. Statements of Work should establish the specific deliverables, costs, payment schedules, start/completion dates, etc. for specific projects. It is the responsibility of the Customer to determine the appropriate scope for a Statement of Work.

B. In creating Statements of Work, Customers are permitted to negotiate terms and conditions which supplement those contained in this Contract. Such additional terms shall not conflict with the terms and conditions established by this Contract (and

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any such conflicting terms shall be resolved in favor of terms most favorable to the Customer, as determined by the Department). Specific terms and conditions within a Statement of Work are only applicable to that specific Statement of Work and shall not be construed as an amendment to this Contract.

C. Statement of Work Requirements

The following items should be included in every Statement of Work issued by a Customer. All parties to a transaction are responsible for ensuring compliance with this section.

1. Contract Manager

Every Statement of Work should name a Customer Contract Manager, who will be the main Customer point of contact for all issues related to the Services performed under that Statement of Work. The Customer's Contract Manager is the person authorized to make or approve any changes in the requirements of a Statement of Work. In the event the Contractor(s) makes any changes at the direction of any person other than the Contract Manager, the change will be considered to have been without authority and no adjustment will be made in the Statement of Work price to cover any increase in costs occurred as a result thereof. The Customer's Contract Manager is a single point of contact for the Contractor, and has the authority to obtain decisions on behalf of the Customer. The Contract Manager may be responsible for, but not limited to, the performance of the following functions, some of which may be delegated to other Customer staff:

- a. Provide a liaison between the Customer and the Contractor
- b. Review, verify, and approve invoices from the Contractor
- c. Resolve any contractual problems
- d. Ensure the timely review by the Customer of all planning documents
- e. Report on project progress to Customer management
- f. Meet with the Contractor to convey information about schedule, timing, and content of upcoming Deliverables, as well as raising problems and issues
- g. Meet with the Contractor and inform Customer management on the Contractor's problems and issues
- h. Facilitate resolution of problems
- i. Functions as the source of all material sent to the Contractor
- j. Receive all Deliverables from the Contractor
- k. Archive all Deliverables received from the Contractor
- l. Review all Change Requests looking for communications issues during the problem's lifecycle and follow-up on unresolved issues regarding reproducibility, significance, etc.
- m. Review and approve all subcontractors that the Contractor intends to use

2. Project Completion Dates

Costs to the Customer for each Deliverable and the completion date must be agreed upon in the Statement of Work. The completion date shall be based on the Contractor's project plan and the Customer's needs. The Contractor shall complete each project within the agreed cost and by the estimated completion date, unless the completion date is properly modified.

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3. Statement of Work Termination for Cause

In addition to those reasons given in the Contract, the Customer may outline any additional actions or non-actions that may result in a "for cause" termination of the relevant Statement of Work.

4. Statement of Work Changes

Customer is responsible for ensuring that Statements of Work specify the process for change order requests.

5. Statement of Work Recommendations

Customers should consider the following items when creating a Statement of Work. The items here are not mandatory, but the Department strongly suggests that Customers (and Contractors) consider addressing these issues when relevant. This list is not intended to be an exhaustive list; other sections of this Contract contain Statement of Work-level permissions.

a. Inspection and Acceptance

Customers may add specific information related to inspection and acceptance of services, if they so desire.

b. Liability Insurance

If, in the sole discretion of the Customer, liability insurance greater than that required by this Contract is necessary to insure the project, scope of work, or other Deliverables, the additional required insurance amounts should be detailed in the Statement of Work.

c. Minority Participation

Certain State of Florida subdivisions, as well as other Customers, may choose to include participation measures at the time that they conduct Statement of Work RFQs. Therefore, Statements of Work awarded hereunder may include provisions for participation by certified minority and women-owned Contractors or subcontractors, pursuant to processes established by such Customers with respect to such measures.

d. Performance Bond

The Customer, in its sole discretion, may require the Contractor to furnish without additional cost a performance bond or negotiable irrevocable letter of credit or other form of security for the faithful performance of work under a particular Statement of Work. The appropriateness of this bond requirement and the amount of such bond, if deemed necessary, is the sole responsibility of the Customer.

e. Performance Management System

The Department recommends that the Customer require Contractor to have a performance management system to track project cost, schedule, deviations, and status.

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20. CONTRACTOR RESPONSIBILITIES

In accepting a Statement of Work, the Contractor recognizes its responsibility for all tasks and Deliverables contained therein, warrants that it has fully informed itself of all relevant factors affecting accomplishment of the tasks and Deliverables and agrees to be fully accountable for the performance thereof. In addition, the Contractor assumes full responsibility for the acts of all subcontractors.

The Contractor shall provide all management, administrative, clerical, and supervisory functions required for the effective and efficient performance of all Statements of Work it accepts, and shall have sole responsibility for the supervision, daily direction and control, payment of salary (including withholding of income taxes and social security), worker's compensation, disability benefits and the like for its personnel. The Contractor is accountable to the Customer for the actions of its personnel. Each Statement of Work should name a Customer Contract Manager; however, these Contract Managers may be working members of teams and should not be expected to perform supervisory functions.

Contractor's management responsibilities include, but are not limited to, the following:

1. Ensuring personnel understand the work to be performed on Statements of Work to which they are assigned
2. Ensuring personnel know their management chain and adhere to Contractor policies and exhibit professional conduct to perform in the best interest of the Customer
3. Ensuring personnel adhere to applicable laws, regulations, and Contract conditions governing Contractor performance and relationships with the Customer
4. Regularly assessing personnel performance and providing feedback to improve overall task performance
5. Ensuring high quality results are achieved through task performance

The Contractor shall not perform any inherently governmental actions under this Contract.

21. OTHER CONTRACTORS

A. Other Work

The Customer may undertake or award other contracts, Statements of Work, or other arrangements for additional or related work, and the Contractor shall reasonably cooperate with such other Contractors and pertinent Customer personnel. The Contractor shall not commit or permit any act that shall interfere with the performance of work by any other Contractors or by Customer personnel.

B. Transition of Work

The Contractor agrees to exercise its best efforts and cooperation to effect an orderly and efficient transition of any Statement of Work or other contract, project, or other agreement, if necessary.

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When appropriate, Statement of Work management personnel shall meet with a successor Contractor to coordinate Statement of Work transition. Discussions may include personnel transition to the successor Contractor or the transition of Statement of Work-specific items such as Customer or Contractor furnished supplies, materials, equipment, and services.

22. TREATMENT OF CUSTOMER ASSETS

Title to all property furnished by the Customer under this Contract or any Statement of Work shall remain with the Customer, and Contractor shall surrender to the Customer all property of the Customer prior to settlement upon completion, termination, or cancellation of any Statement of Work.

Any property of the Customer furnished to the Contractor shall, unless otherwise provided herein or approved by the Customer, be used only for the performance of the Services.

23. CONTRACTOR WARRANTIES

The Contractor agrees to the following representations and warranties:

1. **Repair of Damaged Data Warranty.** The Contractor represents that, should any defect or deficiency in any Deliverable, or the remedy of such defect or deficiency, cause incorrect data to be introduced into any Customer's database or cause data to be lost, the Contractor shall be required to correct and reconstruct, within the timeframe established by the Customer's Contracting Officer, all production, test, acceptance and training files or databases affected which are used in the provision of services, at no additional cost to the Customer.
2. **Quality Assurance Warranty.** ~~The Contractor represents that it will at all times use a formal Software development process when the Services or Deliverables involve software modification or development.~~
3. **Limitation of Warranty for Customer-Furnished Software.** In lieu of any other warranty expressed or implied herein, the Customer warrants that any programming aids and software packages supplied for Contractor use as Customer-furnished property shall be suitable for their intended use on the system(s) for which designed. In the case of programming aids and software packages acquired by the Customer from a commercial source, such warranty is limited to that set forth in the contractual document covering the product(s). Should Customer-furnished programming aids or software packages not be suitable for their intended use on the system(s) for which designed, except where such property is furnished "as is," the Contractor shall notify the Customer's Contracting Officer and supply documentation regarding any defects and their effect on progress on the Statement of Work. The Customer's Contracting Officer will consider equitably adjusting the delivery performance dates or Statement of Work price, or both, and any other contractual provision affected by the Customer-furnished property in accordance with the procedures provided for in the clause of this contract entitled "Changes".

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24. STATEMENT OF WORK TERMINATION

Upon the termination of any Statement of Work or a portion thereof, the Customer may require the Contractor to deliver to the Customer any Deliverables specifically produced or acquired for the performance of such part of any Statement of Work. Customer shall pay the Contractor for Deliverables received and accepted by the Customer, however, in no event shall the Customer pay to the Contractor an amount greater than the Contractor would have been entitled to if the Statement of Work were not terminated.

After receipt of a notice of termination, and except as otherwise directed by the Customer, the Contractor shall stop performing services on the date, and to the extent specified, in the notice.

The Contractor shall accept no further Statements of Work for additional or other services related to the affected Statement of Work, and shall, as soon as practicable, but in no event longer than thirty (30) calendar days after termination, terminate any orders and/or subcontracts related to the terminated Statement of Work and settle all outstanding liabilities and all claims arising out of such termination of orders and/or subcontracts, with the approval or ratification of the Customer to the extent required, which approval or ratification shall be final for the purpose of this section.

The parties shall also settle any transfers of property which may have been required to be furnished to Customer or which otherwise belongs to the Customer; and Contractor shall provide written certification to the Customer that the Contractor has surrendered to the Customer all said property.

The termination of a Statement of Work shall not affect the performance or quality of any other unrelated Statement of Work being performed by the Contractor for the same Customer or any other Customer.

25. INSURANCE REQUIREMENTS

Insurance Coverage

Commencing no later than five calendar days after execution of this Contract, the Contractor shall, at its own expense, secure and maintain the insurance coverage required by law and explicitly required by this section and shall provide proof to the Department for approval. Performance may not commence on this Contract until such time as insurance is secured by the Contractor and approved by the Department.

Commercial General Liability

The Contractor shall secure and maintain commercial general liability insurance in a face amount of \$5,000,000. The Department shall be named as an additional insured in the general liability coverage policy. Each policy shall include thirty (30) calendar days prior written notice to the Department of cancellation for any coverage.

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Workers' Compensation Insurance

The Contractor shall secure and maintain workers' compensation insurance as required for the State under the relevant workers' compensation law. The workers' compensation insurance shall cover all employees connected with the Services provided under this Contract. In case any work is sublet, the Contractor shall require the subcontractor similarly to provide workers' compensation insurance for all of the subcontractor's employees unless such employees are covered by the protection afforded by the Contractor. Such insurance shall comply fully with the Federal and Florida workers' compensation law. In case any class of employees engaged in hazardous work under this Contract at the site of the project is not protected under the workers' compensation statute, the Contractor shall provide, and cause each subcontractor to provide, adequate insurance, satisfactory to the Department, for the protection of employees not otherwise protected.

Professional Indemnity Insurance

The Contractor shall secure and maintain professional indemnity insurance that shall cover Professional Liability and Error and Omissions in the face amount of \$5,000,000.

Auto Insurance

The Contractor shall secure and maintain liability coverage in minimum limits of \$2,000,000 (with umbrella) on all automobiles used in performing the services under the Contract.

Subcontractor Provider Insurance Coverage

Before providing services to the Customer, any subcontractor of the Contractor shall provide insurance as follows:

General Liability - \$2,500,000;
Workers' Compensation -- statutorily required amount; and
Automobile Liability (with umbrella) - \$2,000,000.

The Contractor's major subcontractors shall provide the following additional insurance:
Errors and Omissions -- \$2,500,000.

Proof of Insurance

At the request of the Department, the Contractor shall provide all relevant certificates and endorsements as proof of such insurance or proof of its ability to self-insure, including renewal or replacement evidence of insurance at least 30 days prior to the expiration or termination of any insurance.

Deductible Amounts

The deductible amounts for any peril shall not exceed those determined by the Contractor to be customary in the industry. The Contractor shall be responsible for payment of its deductible.

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Self-Insurance

For any required insurance coverage, the Contractor may use a self-insurance program, provided such program has received prior written approval of the Department.

26. REPORTING REQUIREMENTS

Each Contractor shall submit a sales report on a quarterly basis using Form 2: Contract Quarterly Report. Reporting periods coincide with the State Fiscal Year:

- Quarter 1- (July-September)
- Quarter 2 - (October-December)
- Quarter 3 - (January-March)
- Quarter 4 - (April-June)

Each Contract Quarterly Report must be in Excel format and shall include:

- Contractor's Name and contact information
- Detail of time period covered by included data
- Total sales including detail of list price and contract price
- Transaction detail (See Form 2: Contract Quarterly Report)

Failure to provide quarterly and annual sales reports, including no sales, within thirty (30) calendar days following the end of each quarter (January, April, July and October) and/or contract year may result in the Contractor being found in default and cancellation of the contract by the Department. Upon request, the Contractor shall report to the Department, spend with certified and other minority business enterprises. Reports must include the period covered, the name, minority code and Federal Employer Identification Number of each minority vendor utilized during the period, commodities and services provided by the minority business enterprise, and the amount paid to each minority vendor on behalf of each purchasing agency ordering under the terms of this Contract. Initiation and submission of the Contract Sales Summaries are to be the responsibility of the Contractor without prompting or notification by the Contract Manager. The Contractor will submit the completed Contract Sales Summary forms by email to the Contract Manager.

Upon reasonable notice to the Contractor, the Department reserves the right to adjust and revise the fields and information collected in Form 2: Contract Quarterly Report (Exhibit E) at any time during the Contract.

27. PREFERRED PRICE AFFIDAVIT REQUIREMENT

The Department will provide the Preferred Pricing Affidavit, incorporated by reference, section 216.0113, Florida Statutes, for completion by an authorized representative of the Contractor attesting that the Contractor is in compliance with the best pricing provision in Section 4(b) of the PUR 1000 form. If awarded, the Contractor agrees to submit to the Department, at least annually, the completed signed Preferred Pricing Affidavit.

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28. E-VERIFY

Pursuant to State of Florida Executive Order No.: 11-116, the Contractor is required to utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment of all new employees hired by the Contractor during the Contract term. Also, the Contractor shall include in related subcontracts a requirement that subcontractors performing work or providing services pursuant to the State Term Contract utilize the E-Verify system to verify employment of all new employees hired by the subcontractor during the Contract term.

29. SCRUTINIZED COMPANIES LIST

The Contractor certifies that it is not listed on either the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, created pursuant to section 215.473, Florida Statutes. Pursuant to section 287.135(5), Florida Statutes, the Contractor agrees the Department may immediately terminate the Contract for cause if the Contractor is found to have submitted a false certification or if the Contractor is placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List during the term of the Contract.

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EXHIBIT B: GENERAL CONTRACT CONDITIONS

**State of Florida
PUR 1000
General Contract Conditions**

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1. Definitions. The definitions contained in s. 60A-1.001, F.A.C. shall apply to this agreement. The following additional terms are also defined:

(a) "Contract" means the legally enforceable agreement that results from a successful solicitation. The parties to the Contract will be the Customer and Contractor.

(b) "Customer" means the State agency or other entity identified in a contract as the party to receive commodities or contractual services pursuant to a contract or that orders commodities or contractual services via purchase order or other contractual instrument from the Contractor under the Contract. The "Customer" may also be the "Buyer" as defined in the PUR 1001 if it meets the definition of both terms.

(c) "Product" means any deliverable under the Contract, which may include commodities, services, technology or software.

(d) "Purchase order" means the form or format a Customer uses to make a purchase under the Contract (e.g., a formal written purchase order, electronic purchase order, procurement card, contract or other authorized means).

2. Purchase Orders. In contracts where commodities or services are ordered by the Customer via purchase order, Contractor shall not deliver or furnish products until a Customer transmits a purchase order. All purchase orders shall bear the Contract or solicitation number, shall be placed by the Customer directly with the Contractor, and shall be deemed to incorporate by reference the Contract and solicitation terms and conditions. Any discrepancy between the Contract terms and the terms stated on the Contractor's order form, confirmation, or acknowledgement shall be resolved in favor of terms most favorable to the Customer. A purchase order for services within the ambit of section 287.058(1) of the Florida Statutes shall be deemed to incorporate by reference the requirements of subparagraphs (a) through (f) thereof. Customers shall designate a contract manager and a contract administrator as required by subsections 287.057(15) and (16) of the Florida Statutes.

3. Product Version. Purchase orders shall be deemed to reference a manufacturer's most recently release model or version of the product at the time of the order, unless the Customer specifically requests in writing an earlier model or version and the contractor is willing to provide such model or version.

4. Price Changes Applicable only to Term Contracts. If this is a term contract for commodities or services, the following provisions apply.

(a) Quantity Discounts. Contractors are urged to offer additional discounts for one time delivery of large single orders. Customers should seek to negotiate additional price concessions on

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quantity purchases of any products offered under the Contract. State Customers shall document their files accordingly.

(b) Best Pricing Offer. During the Contract term, if the Customer becomes aware of better pricing offered by the Contractor for substantially the same or a smaller quantity of a product outside the Contract, but upon the same or similar terms of the Contract, then at the discretion of the Customer the price under the Contract shall be immediately reduced to the lower price.

(c) Sales Promotions. In addition to decreasing prices for the balance of the Contract term due to a change in market conditions, a Contractor may conduct sales promotions involving price reductions for a specified lesser period. A Contractor shall submit to the Contract Specialist documentation identifying the proposed (1) starting and ending dates of the promotion, (2) products involved, and (3) promotional prices compared to then-authorized prices. Promotional prices shall be available to all Customers. Upon approval, the Contractor shall provide conspicuous notice of the promotion.

(d) Trade-In. Customers may trade-in equipment when making purchases from the Contract. A trade-in shall be negotiated between the Customer and the Contractor. Customers are obligated to actively seek current fair market value when trading equipment, and to keep accurate records of the process. For State agencies, it may be necessary to provide documentation to the Department of Financial Services and to the agency property custodian pursuant to Chapter 273, F.S.

(e) Equitable Adjustment. The Customer may, in its sole discretion, make an equitable adjustment in the Contract terms or pricing if pricing or availability of supply is affected by extreme and unforeseen volatility in the marketplace, that is, by circumstances that satisfy all the following criteria: (1) the volatility is due to causes wholly beyond the Contractor's control, (2) the volatility affects the marketplace or industry, not just the particular Contract source of supply, (3) the effect on pricing or availability of supply is substantial, and (4) the volatility so affects the Contractor that continued performance of the Contract would result in a substantial loss.

5. Additional Quantities. For a period not exceeding ninety (90) days from the date of solicitation award, the Customer reserves the right to acquire additional quantities up to the amount shown on the solicitation but not to exceed the threshold for Category Two at the prices submitted in the response to the solicitation.

6. Packaging. Tangible product shall be securely and properly packed for shipment, storage, and stocking in appropriate, clearly labeled, shipping containers and according to accepted commercial practice, without extra charge for packing materials, cases, or other types of containers. All containers and packaging shall become and remain Customer's property.

7. Inspection at Contractor's Site. The Customer reserves the right to inspect, at any reasonable time with prior notice, the equipment or product or plant or other facilities of a Contractor to assess conformity with Contract requirements and to determine whether they are adequate and suitable for proper and effective Contract performance.

8. Safety Standards. All manufactured items and fabricated assemblies subject to operation under pressure, operation by connection to an electric source, or operation involving connection to a manufactured, natural, or LP gas source shall be constructed and approved in a manner

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acceptable to the appropriate State inspector. Acceptability customarily requires, at a minimum, identification marking of the appropriate safety standard organization, where such approvals of listings have been established for the type of device offered and furnished, for example: the American Society of Mechanical Engineers for pressure vessels; the Underwriters Laboratories and/or National Electrical Manufacturers' Association for electrically operated assemblies; and the American Gas Association for gas-operated assemblies. In addition, all items furnished shall meet all applicable requirements of the Occupational Safety and Health Act and state and federal requirements relating to clean air and water pollution.

9. Americans with Disabilities Act. Contractors should identify any products that may be used or adapted for use by visually, hearing, or other physically impaired individuals.

10. Literature. Upon request, the Contractor shall furnish literature reasonably related to the product offered, for example, user manuals, price schedules, catalogs, descriptive brochures, etc.

11. Transportation and Delivery. Prices shall include all charges for packing, handling, freight, distribution, and inside delivery. Transportation of goods shall be FOB Destination to any point within thirty (30) days after the Customer places an Order. A Contractor, within five (5) days after receiving a purchase order, shall notify the Customer of any potential delivery delays. Evidence of inability or intentional delays shall be cause for Contract cancellation and Contractor suspension.

12. Installation. Where installation is required, Contractor shall be responsible for placing and installing the product in the required locations at no additional charge, unless otherwise designated on the Contract or purchase order. Contractor's authorized product and price list shall clearly and separately identify any additional installation charges. All materials used in the installation shall be of good quality and shall be free of defects that would diminish the appearance of the product or render it structurally or operationally unsound. Installation includes the furnishing of any equipment, rigging, and materials required to install or replace the product in the proper location. Contractor shall protect the site from damage and shall repair damages or injury caused during installation by Contractor or its employees or agents. If any alteration, dismantling, excavation, etc., is required to achieve installation, the Contractor shall promptly restore the structure or site to its original condition. Contractor shall perform installation work so as to cause the least inconvenience and interference with Customers and with proper consideration of others on site. Upon completion of the installation, the location and surrounding area of work shall be left clean and in a neat and unobstructed condition, with everything in satisfactory repair and order.

13. Risk of Loss. Matters of inspection and acceptance are addressed in s. 215.422, F.S. Until acceptance, risk of loss or damage shall remain with the Contractor. The Contractor shall be responsible for filing, processing, and collecting all damage claims. To assist the Contractor with damage claims, the Customer shall: record any evidence of visible damage on all copies of the delivering carrier's Bill of Lading; report damages to the carrier and the Contractor; and provide the Contractor with a copy of the carrier's Bill of Lading and damage inspection report. When a Customer rejects a product, Contractor shall remove it from the premises within ten days after notification or rejection. Upon rejection notification, the risk of loss of rejected or non-conforming product shall remain with the Contractor. Rejected product not removed by the Contractor within ten days shall be deemed abandoned by the Contractor, and the Customer shall have the right to dispose of it as its own property. Contractor shall reimburse the

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Customer for costs and expenses incurred in storing or effecting removal or disposition of rejected product.

14. Transaction Fee. The State of Florida has instituted MyFloridaMarketPlace, a statewide eProcurement System ("System"). Pursuant to section 287.057(23), Florida Statutes (2002), all payments shall be assessed a Transaction Fee of one percent (1.0%), which the Contractor shall pay to the State, unless exempt pursuant to 60A-1.032, F.A.C.

For payments within the State accounting system (FLAIR or its successor), the Transaction Fee shall, when possible, be automatically deducted from payments to the Contractor. If automatic deduction is not possible, the Contractor shall pay the Transaction Fee pursuant to Rule 60A-1.031(2), F.A.C. By submission of these reports and corresponding payments, Contractor certifies their correctness. All such reports and payments shall be subject to audit by the State or its designee.

Contractor shall receive a credit for any Transaction Fee paid by the Contractor for the purchase of any item(s) if such item(s) are returned to the Contractor through no fault, act, or omission of the Contractor. Notwithstanding the foregoing, a Transaction Fee is non-refundable when an item is rejected or returned, or declined, due to the Contractor's failure to perform or comply with specifications or requirements of the agreement.

Failure to comply with these requirements shall constitute grounds for declaring the Contractor in default and recovering reprocurement costs from the Contractor in addition to all outstanding fees. **CONTRACTORS DELINQUENT IN PAYING TRANSACTION FEES MAY BE SUBJECT TO BEING REMOVED FROM THE DEPARTMENT OF MANAGEMENT SERVICES' VENDOR LIST AS PROVIDED IN RULE 60A-1.006, F.A.C.**

15. Invoicing and Payment. Invoices shall contain the Contract number, purchase order number if applicable, and the appropriate vendor identification number. The State may require any other information from the Contractor that the State deems necessary to verify any purchase order placed under the Contract.

~~At the State's option, Contractors may be required to invoice electronically pursuant to guidelines of the Department of Management Services. Current guidelines require that Contractor supply electronic invoices in lieu of paper-based invoices for those transactions processed through the system. Electronic invoices shall be submitted to the Customer through the Ariba Supplier Network (ASN) in one of the following mechanisms – EDI 810, cXML, or web-based invoice entry within the ASN.~~

Payment shall be made in accordance with sections 215.422 and 287.0585 of the Florida Statutes, which govern time limits for payment of invoices. Invoices that must be returned to a Contractor due to preparation errors will result in a delay in payment. Contractors may call (850) 413-7269 Monday through Friday to inquire about the status of payments by State Agencies. The Customer is responsible for all payments under the Contract. A Customer's failure to pay, or delay in payment, shall not constitute a breach of the Contract and shall not relieve the Contractor of its obligations to the Department or to other Customers.

16. Taxes. The State does not pay Federal excise or sales taxes on direct purchases of tangible personal property. The State will not pay for any personal property taxes levied on the Contractor or for any taxes levied on employees' wages. Any exceptions to this paragraph shall be explicitly noted by the Customer in the special contract conditions section of the solicitation or in the Contract or purchase order.

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17. Governmental Restrictions. If the Contractor believes that any governmental restrictions have been imposed that require alteration of the material, quality, workmanship or performance of the products offered under the Contract, the Contractor shall immediately notify the Customer in writing, indicating the specific restriction. The Customer reserves the right and the complete discretion to accept any such alteration or to cancel the Contract at no further expense to the Customer.

18. Lobbying and Integrity. Customers shall ensure compliance with Section 11.062, FS and Section 216.347, FS. The Contractor shall not, in connection with this or any other agreement with the State, directly or indirectly (1) offer, confer, or agree to confer any pecuniary benefit on anyone as consideration for any State officer or employee's decision, opinion, recommendation, vote, other exercise of discretion, or violation of a known legal duty, or (2) offer, give, or agree to give to anyone any gratuity for the benefit of, or at the direction or request of, any State officer or employee. For purposes of clause (2), "gratuity" means any payment of more than nominal monetary value in the form of cash, travel, entertainment, gifts, meals, lodging, loans, subscriptions, advances, deposits of money, services, employment, or contracts of any kind. Upon request of the Customer's Inspector General, or other authorized State official, the Contractor shall provide any type of information the Inspector General deems relevant to the Contractor's integrity or responsibility. Such information may include, but shall not be limited to, the Contractor's business or financial records, documents, or files of any type or form that refer to or relate to the Contract. The Contractor shall retain such records for the longer of (1) three years after the expiration of the Contract or (2) the period required by the General Records Schedules maintained by the Florida Department of State (available at: <http://dhis.dos.state.fl.us/barm/genschedules/gensched.htm>). The Contractor agrees to reimburse the State for the reasonable costs of investigation incurred by the Inspector General or other authorized State official for investigations of the Contractor's compliance with the terms of this or any other agreement between the Contractor and the State which results in the suspension or debarment of the Contractor. Such costs shall include, but shall not be limited to: salaries of investigators, including overtime; travel and lodging expenses; and expert witness and documentary fees. The Contractor shall not be responsible for any costs of investigations that do not result in the Contractor's suspension or debarment.

19. Indemnification. The Contractor shall be fully liable for the actions of its agents, employees, partners, or subcontractors and shall fully indemnify, defend, and hold harmless the State and Customers, and their officers, agents, and employees, from suits, actions, damages, and costs of every name and description, including attorneys' fees, arising from or relating to personal injury and damage to real or personal tangible property alleged to be caused in whole or in part by Contractor, its agents, employees, partners, or subcontractors, provided, however, that the Contractor shall not indemnify for that portion of any loss or damages proximately caused by the negligent act or omission of the State or a Customer.

Further, the Contractor shall fully indemnify, defend, and hold harmless the State and Customers from any suits, actions, damages, and costs of every name and description, including attorneys' fees, arising from or relating to violation or infringement of a trademark, copyright, patent, trade secret or intellectual property right, provided, however, that the foregoing obligation shall not apply to a Customer's misuse or modification of Contractor's products or a Customer's operation or use of Contractor's products in a manner not contemplated by the Contract or the purchase order. If any product is the subject of an infringement suit, or in the Contractor's opinion is likely to become the subject of such a suit, the Contractor may at its sole expense procure for the Customer the right to continue using the

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product or to modify it to become non-infringing. If the Contractor is not reasonably able to modify or otherwise secure the Customer the right to continue using the product, the Contractor shall remove the product and refund the Customer the amounts paid in excess of a reasonable rental for past use. The customer shall not be liable for any royalties.

The Contractor's obligations under the preceding two paragraphs with respect to any legal action are contingent upon the State or Customer giving the Contractor (1) written notice of any action or threatened action, (2) the opportunity to take over and settle or defend any such action at Contractor's sole expense, and (3) assistance in defending the action at Contractor's sole expense. The Contractor shall not be liable for any cost, expense, or compromise incurred or made by the State or Customer in any legal action without the Contractor's prior written consent, which shall not be unreasonably withheld.

20. Limitation of Liability. For all claims against the Contractor under any contract or purchase order, and regardless of the basis on which the claim is made, the Contractor's liability under a contract or purchase order for direct damages shall be limited to the greater of \$100,000, the dollar amount of the contract or purchase order, or two times the charges rendered by the Contractor under the purchase order. This limitation shall not apply to claims arising under the Indemnity paragraph contain in this agreement.

Unless otherwise specifically enumerated in the Contract or in the purchase order, no party shall be liable to another for special, indirect, punitive, or consequential damages, including lost data or records (unless the contract or purchase order requires the Contractor to back-up data or records), even if the party has been advised that such damages are possible. No party shall be liable for lost profits, lost revenue, or lost institutional operating savings. The State and Customer may, in addition to other remedies available to them at law or equity and upon notice to the Contractor, retain such monies from amounts due Contractor as may be necessary to satisfy any claim for damages, penalties, costs and the like asserted by or against them. The State may set off any liability or other obligation of the Contractor or its affiliates to the State against any payments due the Contractor under any contract with the State.

21. Suspension of Work. The Customer may in its sole discretion suspend any or all activities under the Contract or purchase order, at any time, when in the best interests of the State to do so. The Customer shall provide the Contractor written notice outlining the particulars of suspension. Examples of the reason for suspension include, but are not limited to, budgetary constraints, declaration of emergency, or other such circumstances. After receiving a suspension notice, the Contractor shall comply with the notice and shall not accept any purchase orders. Within ninety days, or any longer period agreed to by the Contractor, the Customer shall either (1) issue a notice authorizing resumption of work, at which time activity shall resume, or (2) terminate the Contract or purchase order. Suspension of work shall not entitle the Contractor to any additional compensation.

22. Termination for Convenience. The Customer, by written notice to the Contractor, may terminate the Contract in whole or in part when the Customer determines in its sole discretion that it is in the State's interest to do so. The Contractor shall not furnish any product after it receives the notice of termination, except as necessary to complete the continued portion of the Contract, if any. The Contractor shall not be entitled to recover any cancellation charges or lost profits.

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23. Termination for Cause. The Customer may terminate the Contract if the Contractor fails to (1) deliver the product within the time specified in the Contract or any extension, (2) maintain adequate progress, thus endangering performance of the Contract, (3) honor any term of the Contract, or (4) abide by any statutory, regulatory, or licensing requirement. Rule 60A-1.006(3), F.A.C., governs the procedure and consequences of default. The Contractor shall continue work on any work not terminated. Except for defaults of subcontractors at any tier, the Contractor shall not be liable for any excess costs if the failure to perform the Contract arises from events completely beyond the control, and without the fault or negligence, of the Contractor. If the failure to perform is caused by the default of a subcontractor at any tier, and if the cause of the default is completely beyond the control of both the Contractor and the subcontractor, and without the fault or negligence of either, the Contractor shall not be liable for any excess costs for failure to perform, unless the subcontracted products were obtainable from other sources in sufficient time for the Contractor to meet the required delivery schedule. If, after termination, it is determined that the Contractor was not in default, or that the default was excusable, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the Customer. The rights and remedies of the Customer in this clause are in addition to any other rights and remedies provided by law or under the Contract.

24. Force Majeure, Notice of Delay, and No Damages for Delay. The Contractor shall not be responsible for delay resulting from its failure to perform if neither the fault nor the negligence of the Contractor or its employees or agents contributed to the delay and the delay is due directly to acts of God, wars, acts of public enemies, strikes, fires, floods, or other similar cause wholly beyond the Contractor's control, or for any of the foregoing that affect subcontractors or suppliers if no alternate source of supply is available to the Contractor. In case of any delay the Contractor believes is excusable, the Contractor shall notify the Customer in writing of the delay or potential delay and describe the cause of the delay either (1) within ten (10) days after the cause that creates or will create the delay first arose, if the Contractor could reasonably foresee that a delay could occur as a result, or (2) if delay is not reasonably foreseeable, within five (5) days after the date the Contractor first had reason to believe that a delay could result. **THE FOREGOING SHALL CONSTITUTE THE CONTRACTOR'S SOLE REMEDY OR EXCUSE WITH RESPECT TO DELAY.** Providing notice in strict accordance with this paragraph is a condition precedent to such remedy. No claim for damages, other than for an extension of time, shall be asserted against the Customer. The Contractor shall not be entitled to an increase in the Contract price or payment of any kind from the Customer for direct, indirect, consequential, impact or other costs, expenses or damages, including but not limited to costs of acceleration or inefficiency, arising because of delay, disruption, interference, or hindrance from any cause whatsoever. If performance is suspended or delayed, in whole or in part, due to any of the causes described in this paragraph, after the causes have ceased to exist the Contractor shall perform at no increased cost, unless the Customer determines, in its sole discretion, that the delay will significantly impair the value of the Contract to the State or to Customers, in which case the Customer may (1) accept allocated performance or deliveries from the Contractor, provided that the Contractor grants preferential treatment to Customers with respect to products subjected to allocation, or (2) purchase from other sources (without recourse to and by the Contractor for the related costs and expenses) to replace all or part of the products that are the subject of the delay, which purchases may be deducted from the Contract quantity, or (3) terminate the Contract in whole or in part.

25. Changes. The Customer may unilaterally require, by written order, changes altering, adding to, or deducting from the Contract specifications, provided that such changes are within

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the general scope of the Contract. The Customer may make an equitable adjustment in the Contract price or delivery date if the change affects the cost or time of performance. Such equitable adjustments require the written consent of the Contractor, which shall not be unreasonably withheld. If unusual quantity requirements arise, the Customer may solicit separate bids to satisfy them.

26. Renewal. Upon mutual agreement, the Customer and the Contractor may renew the Contract, in whole or in part, for a period that may not exceed 3 years or the term of the contract, whichever period is longer. Any renewal shall specify the renewal price, as set forth in the solicitation response. The renewal must be in writing and signed by both parties, and is contingent upon satisfactory performance evaluations and subject to availability of funds.

27. Purchase Order Duration. Purchase orders issued pursuant to a state term or agency contract must be received by the Contractor no later than close of business on the last day of the contract's term to be considered timely. The Contractor is obliged to fill those orders in accordance with the contract's terms and conditions. Purchase orders received by the contractor after close of business on the last day of the state term or agency contract's term shall be considered void.

Purchase orders for a one-time delivery of commodities or performance of contractual services shall be valid through the performance by the Contractor, and all terms and conditions of the state term or agency contract shall apply to the single delivery/performance, and shall survive the termination of the Contract.

Contractors are required to accept purchase orders specifying delivery schedules exceeding the contracted schedule even when such extended delivery will occur after expiration of the state term or agency contract. For example, if a state term contract calls for delivery 30 days after receipt of order (ARO), and an order specifies delivery will occur both in excess of 30 days ARO and after expiration of the state term contract, the Contractor will accept the order. However, if the Contractor expressly and in writing notifies the ordering office within ten (10) calendar days of receipt of the purchase order that Contractor will not accept the extended delivery terms beyond the expiration of the state term contract, then the purchase order will either be amended in writing by the ordering entity within ten (10) calendar days of receipt of the contractor's notice to reflect the state term contract delivery schedule, or it shall be considered withdrawn.

The duration of purchase orders for recurring deliveries of commodities or performance of services shall not exceed the expiration of the state term or agency contract by more than twelve months. However, if an extended pricing plan offered in the state term or agency contract is selected by the ordering entity, the contract terms on pricing plans and renewals shall govern the maximum duration of purchase orders reflecting such pricing plans and renewals.

Timely purchase orders shall be valid through their specified term and performance by the Contractor, and all terms and conditions of the state term or agency contract shall apply to the recurring delivery/performance as provided herein, and shall survive the termination of the Contract.

Ordering offices shall not renew a purchase order issued pursuant to a state term or agency contract if the underlying contract expires prior to the effective date of the renewal.

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28. Advertising. Subject to Chapter 119, Florida Statutes, the Contractor shall not publicly disseminate any information concerning the Contract without prior written approval from the Customer, including, but not limited to mentioning the Contract in a press release or other promotional material, identifying the Customer or the State as a reference, or otherwise linking the Contractor's name and either a description of the Contract or the name of the State or the Customer in any material published, either in print or electronically, to any entity that is not a party to Contract, except potential or actual authorized distributors, dealers, resellers, or service representative.

29. Assignment. The Contractor shall not sell, assign or transfer any of its rights, duties or obligations under the Contract, or under any purchase order issued pursuant to the Contract, without the prior written consent of the Customer. In the event of any assignment, the Contractor remains secondarily liable for performance of the contract, unless the Customer expressly waives such secondary liability. The Customer may assign the Contract with prior written notice to Contractor of its intent to do so.

30. Antitrust Assignment. The Contractor and the State of Florida recognize that in actual economic practice, overcharges resulting from antitrust violations are in fact usually borne by the State of Florida. Therefore, the contractor hereby assigns to the State of Florida any and all claims for such overcharges as to goods, materials or services purchased in connection with the Contract.

31. Dispute Resolution. Any dispute concerning performance of the Contract shall be decided by the Customer's designated contract manager, who shall reduce the decision to writing and serve a copy on the Contractor. The decision shall be final and conclusive unless within twenty one (21) days from the date of receipt, the Contractor files with the Customer a petition for administrative hearing. The Customer's decision on the petition shall be final, subject to the Contractor's right to review pursuant to Chapter 120 of the Florida Statutes. Exhaustion of administrative remedies is an absolute condition precedent to the Contractor's ability to pursue any other form of dispute resolution; provided, however, that the parties may employ the alternative dispute resolution procedures outlined in Chapter 120.

Without limiting the foregoing, the exclusive venue of any legal or equitable action that arises out of or relates to the Contract shall be the appropriate state court in Leon County, Florida; in any such action, Florida law shall apply and the parties waive any right to jury trial.

32. Employees, Subcontractors, and Agents. All Contractor employees, subcontractors, or agents performing work under the Contract shall be properly trained technicians who meet or exceed any specified training qualifications. Upon request, Contractor shall furnish a copy of technical certification or other proof of qualification. All employees, subcontractors, or agents performing work under the Contract must comply with all security and administrative requirements of the Customer and shall comply with all controlling laws and regulations relevant to the services they are providing under the Contract. The State may conduct, and the Contractor shall cooperate in, a security background check or otherwise assess any employee, subcontractor, or agent furnished by the Contractor. The State may refuse access to, or require replacement of, any personnel for cause, including, but not limited to, technical or training qualifications, quality of work, change in security status, or non-compliance with a Customer's security or other requirements. Such approval shall not relieve the Contractor of its obligation to perform all work in compliance with the Contract. The State may reject and bar from any facility for cause any of the Contractor's employees, subcontractors, or agents.

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33. Security and Confidentiality. The Contractor shall comply fully with all security procedures of the United States, State of Florida and Customer in performance of the Contract. The Contractor shall not divulge to third parties any confidential information obtained by the Contractor or its agents, distributors, resellers, subcontractors, officers or employees in the course of performing Contract work, including, but not limited to, security procedures, business operations information, or commercial proprietary information in the possession of the State or Customer. The Contractor shall not be required to keep confidential information or material that is publicly available through no fault of the Contractor, material that the Contractor developed independently without relying on the State's or Customer's confidential information, or material that is otherwise obtainable under State law as a public record. To insure confidentiality, the Contractor shall take appropriate steps as to its personnel, agents, and subcontractors. The warranties of this paragraph shall survive the Contract.

34. Contractor Employees, Subcontractors, and Other Agents. The Customer and the State shall take all actions necessary to ensure that Contractor's employees, subcontractors and other agents are not employees of the State of Florida. Such actions include, but are not limited to, ensuring that Contractor's employees, subcontractors, and other agents receive benefits and necessary insurance (health, workers' compensations, and unemployment) from an employer other than the State of Florida.

35. Insurance Requirements. During the Contract term, the Contractor at its sole expense shall provide commercial insurance of such a type and with such terms and limits as may be reasonably associated with the Contract. Providing and maintaining adequate insurance coverage is a material obligation of the Contractor. Upon request, the Contractor shall provide certificate of insurance. The limits of coverage under each policy maintained by the Contractor shall not be interpreted as limiting the Contractor's liability and obligations under the Contract. All insurance policies shall be through insurers authorized or eligible to write policies in Florida.

36. Warranty of Authority. Each person signing the Contract warrants that he or she is duly authorized to do so and to bind the respective party to the Contract.

37. Warranty of Ability to Perform. The Contractor warrants that, to the best of its knowledge, there is no pending or threatened action, proceeding, or investigation, or any other legal or financial condition, that would in any way prohibit, restrain, or diminish the Contractor's ability to satisfy its Contract obligations. The Contractor warrants that neither it nor any affiliate is currently on the convicted vendor list maintained pursuant to section 287.133 of the Florida Statutes, or on any similar list maintained by any other state or the federal government. The Contractor shall immediately notify the Customer in writing if its ability to perform is compromised in any manner during the term of the Contract.

38. Notices. All notices required under the Contract shall be delivered by certified mail, return receipt requested, by reputable air courier service, or by personal delivery to the agency designee identified in the original solicitation, or as otherwise identified by the Customer. Notices to the Contractor shall be delivered to the person who signs the Contract. Either designated recipient may notify the other, in writing, if someone else is designated to receive notice.

39. Leases and Installment Purchases. Prior approval of the Chief Financial Officer (as defined in Section 17.001, F.S.) is required for State agencies to enter into or to extend any

State Term Contract No. 973-000-14-01
For
Management Consulting Services

lease or installment-purchase agreement in excess of the Category Two amount established by section 287.017 of the Florida Statutes.

40. Prison Rehabilitative Industries and Diversified Enterprises, Inc. (PRIDE). Section 946.515(2), F.S. requires the following statement to be included in the solicitation: "It is expressly understood and agreed that any articles which are the subject of, or required to carry out, the Contract shall be purchased from the corporation identified under Chapter 946 of the Florida Statutes (PRIDE) in the same manner and under the same procedures set forth in section 946.515(2) and (4) of the Florida Statutes; and for purposes of the Contract the person, firm, or other business entity carrying out the provisions of the Contract shall be deemed to be substituted for the agency insofar as dealings with such corporation are concerned." Additional information about PRIDE and the products it offers is available at <http://www.pridefl.com>.

41. Products Available from the Blind or Other Handicapped. Section 413.036(3), F.S. requires the following statement to be included in the solicitation: "It is expressly understood and agreed that any articles that are the subject of, or required to carry out, this contract shall be purchased from a nonprofit agency for the Blind or for the Severely Handicapped that is qualified pursuant to Chapter 413, Florida Statutes, in the same manner and under the same procedures set forth in section 413.036(1) and (2), Florida Statutes; and for purposes of this contract the person, firm, or other business entity carrying out the provisions of this contract shall be deemed to be substituted for the State agency insofar as dealings with such qualified nonprofit agency are concerned." Additional information about the designated nonprofit agency and the products it offers is available at <http://www.respectofflorida.org>.

42. Modification of Terms. The Contract contains all the terms and conditions agreed upon by the parties, which terms and conditions shall govern all transactions between the Customer and the Contractor. The Contract may only be modified or amended upon mutual written agreement of the Customer and the Contractor. No oral agreements or representations shall be valid or binding upon the Customer or the Contractor. No alteration or modification of the Contract terms, including substitution of product, shall be valid or binding against the Customer. The Contractor may not unilaterally modify the terms of the Contract by affixing additional terms to product upon delivery (e.g., attachment or inclusion of standard preprinted forms, product literature, "shrink wrap" terms accompanying or affixed to a product, whether written or electronic) or by incorporating such terms onto the Contractor's order or fiscal forms or other documents forwarded by the Contractor for payment. The Customer's acceptance of product or processing of documentation on forms furnished by the Contractor for approval or payment shall not constitute acceptance of the proposed modification to terms and conditions.

43. Cooperative Purchasing. Pursuant to their own governing laws, and subject to the agreement of the Contractor, other entities may be permitted to make purchases at the terms and conditions contained herein. Non-Customer purchases are independent of the agreement between Customer and Contractor, and Customer shall not be a party to any transaction between the Contractor and any other purchaser. State agencies wishing to make purchases from this agreement are required to follow the provisions of s. 287.042(16)(a), F.S. This statute requires the Department of Management Services to determine that the requestor's use of the contract is cost-effective and in the best interest of the State.

44. Waiver. The delay or failure by the Customer to exercise or enforce any of its rights under this Contract shall not constitute or be deemed a waiver of the Customer's right thereafter to

State Term Contract No. 973-000-14-01
For
Management Consulting Services

enforce those rights, nor shall any single or partial exercise of any such right preclude any other or further exercise thereof or the exercise of any other right.

45. Annual Appropriations. The State's performance and obligation to pay under this contract are contingent upon an annual appropriation by the Legislature.

46. Execution in Counterparts. The Contract may be executed in counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

47. Severability. If a court deems any provision of the Contract void or unenforceable, that provision shall be enforced only to the extent that it is not in violation of law or is not otherwise unenforceable and all other provisions shall remain in full force and effect.

State Term Contract No. 973-000-14-01
For
Management Consulting Services

**EXHIBIT C: SCOPE OF SERVICES
FOR
STATE TERM CONTRACT
NO. 973-000-14-01
MANAGEMENT CONSULTING SERVICES**

1. OVERVIEW

This exhibit contains Job Title and service descriptions. The Job Title descriptions contain the functional responsibilities of the personnel provided by the Contractor to provide services under the Contract. Section 3 contains a list of the types of services the Contractor will be required to provide under the Contract.

2. JOB TITLES

A. Principal

Functional Responsibilities:

- Providing executive level consultation services to the Customer
- Providing senior-level interface with the Customer and manages daily operations
- Ensuring the timely performance and completion of all contractual obligations
- Organizing and directing the overall performance of the contract
- Possessing the authority to make binding decisions on behalf of the Contractor
- Formulating organizational strategy and directing major strategic initiatives
- Ensuring that goals and objectives are accomplished within budgetary parameters
- Developing and maintaining Customer relationships
- Assisting on large, complex or multi-discipline engagements
- ~~Allocating financial and human resources, and material assets~~
- Formulating and enforcing work standards
- Participating in the design phase of tasks and ensuring their successful execution

B. Senior Consultant

Functional Responsibilities:

- Managing the day-to-day operations
- Ensuring the quality and timely completion of projects
- Providing technical and subject matter expertise in fulfillment of Statements of Work
- Participating as a senior team member providing high-level consulting services
- Planning, organizing, and executing project tasks in successful delivery of services
- Developing and defining strategic visions
- Planning, directing, controlling, scheduling, coordinating, and organizing management of tasks
- Providing Customer interface in fulfillment of Statements of Work
- Possessing authority and responsibility for the execution of Statements of Work

**State Term Contract No. 973-000-14-01
For
Management Consulting Services**

- **Planning, organizing, and overseeing all subordinate work efforts**
- **Ensuring quality standards and work performance on all Statements of Work and projects**
- **Organizing, directing, and managing support services**

C. Consultant

Functional Responsibilities:

- **Applying administrative, consultative, and technical expertise in fulfillment of Statements of Work**
- **Planning, organizing, executing, and controlling project tasks in successful delivery of services**
- **Interfacing with client on a day-to-day basis to ensure delivery of project status**
- **Applying a broad set of management skills and technical expertise as a project leader**
- **Providing solutions through analysis**
- **Directing subordinates in the completion of tasks orders**
- **Organizing, directing, and managing support services**
- **Assigning tasks and overseeing projects**
- **Directing project activities in fulfillment of contract deliverables and Statements of Work**
- **Training Customer personnel through formal classroom courses**

D. Junior Consultant

Functional Responsibilities:

- **Applying a broad set of subject matter and technical expertise**
- **Directing the completion of projects within estimated timeframes and budget constraints**
- **Organizing, directing, and managing support services**
- **Serving as a member of a team performing mid-level assignments**
- **Providing solutions through analysis**
- **Conducting Customer training through formal classroom courses, workshops, and seminars**

E. Program and Administrative Support

Functional Responsibilities:

- **Coordinating and providing administrative support services to project staff**
- **Supporting the production of project deliverables and performing administrative functions required to complete work related to the project**
- **Providing graphics and editorial support services and desktop publishing services**
- **Maintaining version control of project documents**
- **Providing direct support to consulting staff, including supporting the development of all Contract deliverables**

**State Term Contract No. 973-000-14-01
For
Management Consulting Services**

3. MANAGEMENT CONSULTING SERVICES

Contractors shall provide expert advice, assistance, guidance, or counseling in support of agencies' mission-oriented business functions. This may include studies, analyses, and reports documenting any proposed developmental, consultative or implementation efforts.

Management Consulting Services shall include, but are not limited to, the following:

- Management or strategy consulting
- Program planning and evaluations
- Studies, analyses, scenarios, and reports relating to an agency's mission-oriented business programs or initiatives
- Executive/management coaching services
- Customized business training as needed to successfully perform/complete a consulting engagement
- Policy and regulation development assistance
- Process and productivity improvement
- Expert Witness services in support of litigation, claims, or other formal cases
- Advisory and assistance services
- Systems alignment and consolidation

State Term Contract No. 973-000-14-01
For
Management Consulting Services

**EXHIBIT D: CONTRACTOR PRICING (EXAMPLE)
FOR
STATE TERM CONTRACT
NO. 973-000-14-01
MANAGEMENT CONSULTING SERVICES**

VENDOR PRICING

Job Title	Principal	Senior Consultant	Consultant	Junior Consultant	Program & Administrative Support
Hourly Rate	\$___	\$___	\$___	\$___	\$___

Pursuant to Section 12 of Exhibit A: Special Contract Conditions, hourly rates are ceiling prices.
Pursuant to Section 15 of Exhibit A: Special Contract Conditions, hourly rates do not include travel expenses.



FLORIDA DEPARTMENT OF MANAGEMENT SERVICES

state purchasing

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**Amendment #1
Contract Renewal
Contract Number 973-000-14-01
Management Consulting Services**

This Amendment ("Amendment"), to contract number 973-000-14-01 ("Contract") is between the State of Florida, Department of Management Services ("Department") and ISF, Inc., (Contractor). The Department and Contractor are collectively referred to herein as the "Parties." All capitalized terms used herein shall have the meaning assigned to them in the Contract, unless otherwise defined herein.

1.0 CONTRACT RENEWAL

The Department hereby executes its renewal option for a three year period pursuant to Section 287.057(13), Florida Statutes. The new contract expiration date is January 15, 2020.

2.0 PUBLIC RECORDS

Section 16., **PUBLIC RECORDS**, is hereby deleted in its entirety and replaced with the following:

If, under this Contract, the Contractor is providing services and is acting on behalf of a public agency as provided by section 119.0701(2)(b), F.S., the Contractor shall:

- (a) Keep and maintain public records required by the public agency to perform the service.
- (b) Upon request from the public agency's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, F.S., or as otherwise provided by law.
- (c) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the public agency.
- (d) Upon completion of the contract, transfer, at no cost, to the public agency all public records in possession of the Contractor or keep and maintain public records required by the public agency to perform the service. If the contractor transfers all public records to the public agency upon completion of the contract, the contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the contractor keeps and maintains public records upon completion of the contract, the contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the public agency, upon request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.
- (e) Public Records: IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CONTRACT MANAGER.



FLORIDA DEPARTMENT OF MANAGEMENT SERVICES

state purchasing

We serve those who serve Florida

**Amendment #1
Contract Renewal
Contract Number 973-000-14-01
Management Consulting Services**

3.0 RENEWAL PRICING

Effective January 15, 2017, Exhibit D, Contractor Pricing is hereby deleted in its entirety and replaced with Exhibit D, Contractor Renewal Pricing.

4.0 CONFLICT

To the extent any of the terms of this Amendment conflict with the terms of the Contract, the terms of this Amendment shall control. All other terms of the Contract remain in full force.

5.0 WARRANTY OF AUTHORITY

Each person signing this Amendment warrants that he or she is duly authorized to do so and to bind the respective party.

**State of Florida,
Department of Management Services**

ISF, Inc.

By: *Debra Forbess*

By: *Cynthia Loomis*

Name: Debra Forbess

Name: Cynthia Loomis

Title: Director of Finance and Administration

Title: CEO

Date: 9/8/16


Date: 8/22/2016

**CONSENT AGENDA ITEM
#20**

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

MEMORANDUM

TO: CFX Board Members

FROM: Aneth Williams 
Director of Procurement Aneth Williams (Jun 3, 2020 13:27 EDT)

DATE: May 27, 2020

SUBJECT: Approval of Contract Award to SICE, Inc.
for Wrong Way Driving Deployment
Project 599-526C, Contract No. 001683

An Invitation to Bid for the referenced project was advertised on April 19, 2020. Responses to the invitation were received from three (3) contractors by the May 21, 2020 deadline.

Bid results were as follows:

	<u>Bidder</u>	<u>Bid Amount</u>
1.	SICE, Inc	\$4,205,688.65
2.	United Signs and Signals, Inc.	\$4,666,547.69
3.	The New Florida Industrial Electric, Inc.	\$5,013,557.83


The engineer's estimate for this project is \$3,583,014.83 and \$4,500,000.00 is included in the Five-Year Work Plan.

The Engineer of Record for Project 599-526C reviewed the low bid submitted by SICE, Inc. and has determined that there were three unbalanced pay items. However, the EOR has deemed the low bidder's unit prices appropriate and that increase in prices are due to volatile market condition for wrong-way driving materials. Unit prices for these items were consistent across the three bids received.

This project consists of providing all labor, materials, equipment and incidentals necessary to transport, install, test, and successfully deploy Wrong Way Driving Counter Measure systems at 15 ramp locations and Wrong Way Driver Detection systems at ten (10) mainline locations along numerous corridors and includes signing and pavement markings.

The Procurement Department evaluated the bids and determined the bid from SICE, Inc. to be responsible and responsive to the bidding requirements. Board award of contract to SICE, Inc. in the amount of \$4,205,688.65 is requested.

This project is included in the Five-Year Work Plan.

Reviewed by: 
BRYAN HOMAYOUNI (Jun 3, 2020 13:35 EDT)
Bryan Homayouni, P.E.
Manager of Traffic Operations


Glenn Pressimone (Jun 3, 2020 13:33 EDT)

4974 ORL TOWER RD. ORLANDO, FL 32807 | PHONE: (407) 690-5000 | FAX: (407) 690-5011

CONTRACT

**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
AND
SICE, INC.**

WRONG WAY DRIVING DEPLOYMENT

**PROJECT 599-526C
CONTRACT NO. 001683**

**CONTRACT DATE: JUNE 11, 2020
CONTRACT AMOUNT: \$4,205,688.65**

**CENTRAL FLORIDA
EXPRESSWAY AUTHORITY**

**CONTRACT, MEMORANDUM OF AGREEMENT, GENERAL
SPECIFICATIONS, TECHNICAL SPECIFICATIONS, SPECIAL
PROVISIONS, PROPOSAL, ADDENDA, PUBLIC CONSTRUCTION
BOND AND FORMS**

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

**CONTRACT, MEMORANDUM OF AGREEMENT, GENERAL SPECIFICATIONS,
TECHNICAL SPECIFICATIONS, SPECIAL PROVISIONS, PROPOSAL, ADDENDA,
PUBLIC CONSTRUCTION BOND AND FORMS**

FOR

WRONG WAY DRIVING DEPLOYMENT

**PROJECT 599-526C
CONTRACT NO. 001683**

JUNE 2020

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TS	TECHNICAL SPECIFICATIONS	TS-1 to TS-3
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SP	SPECIAL PROVISIONS	SP-1 to SP-12
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Addendum No. 1		
P	PROPOSAL	P-1 to P-13
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Plans

CONTRACT

This Contract No. 001683 (the "Contract"), made this 11th day of June 2020, between CENTRAL FLORIDA EXPRESSWAY AUTHORITY, hereinafter called CFX and SICE, Inc., of 14350 NW 56th Court, Unit 105, Miami, Florida 33054, hereinafter the CONTRACTOR:

WITNESSETH: The CONTRACTOR shall, for the consideration herein mentioned and at its cost and expense, do all the work and furnish all the materials, equipment, supplies and labor necessary to perform this Contract in the manner and to the full extent as set forth in the Contract Documents (and under security as set forth in the attached Public Construction Bond) all of which are hereby adopted and made part of this Contract as completely as if incorporated herein. The Contract shall be performed to the satisfaction of the duly authorized representatives of CFX, who shall have at all times full opportunity to inspect the materials furnished and the work done under this Contract.

The work to be done under this Contract includes construction of all items associated with Project 599-526C, Wrong Way Driving Deployment, as detailed in the Contract Documents and any addenda or modifications thereto. Contract time for this project shall be 300 calendar days. The Contract Amount is \$4,205,688.65. This Contract was awarded by the Governing Board of CFX at its meeting on June 11, 2020.

The Contract Documents consist of:

1. The Contract,
2. The Memorandum of Agreement,
3. The Addenda (if any), modifying the General Specifications, Technical Specifications, Special Provisions, Plans or other Contract Documents,
4. The Plans,
5. The Special Provisions,
6. The Technical Specifications,
7. The General Specifications,
8. The Standard Specifications,
9. The Design Standards, and
10. The Proposal.

In consideration of the foregoing premises, CFX agrees to pay the CONTRACTOR for work performed and materials furnished at the unit and lump sum prices, and under the conditions set forth, in the Proposal.

IN WITNESS WHEREOF, the authorized signatures named below have executed this Contract on behalf of the parties on the date set forth below.

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

By: _____
Director of Procurement

DATE: _____

SICE, Inc.

By: _____
Signature

Print Name

Title

ATTEST: _____ (Seal)

DATE: _____

Approved as to form and execution, only.

General Counsel for CFX

MEMORANDUM OF AGREEMENT

PRE-AWARD MEETING TO REVIEW PLANS, SPECIFICATIONS AND DOCUMENTS
May 28, 2020

This Pre-Award Meeting Memorandum (“Memorandum”) for Wrong Way Driving Deployment, CFX Project No. 599-526C, is made and entered this 28th day of May 2020, by and between the CENTRAL FLORIDA EXPRESSWAY AUTHORITY a corporate body and agency of the State of Florida, created by Chapter 2014-171, Laws of Florida, which is codified in Chapter 348, Part III of the Florida Statutes, hereinafter “CFX,” and the apparent successful responsive and responsible bidder, SICE (“Contractor”), a Florida corporation with offices at 14350 NW 56th Ct, Unit 105, Miami, FL 33054, (Individually, Party and collectively, Parties)

WITNESSETH THAT:

WHEREAS, the CFX will enter into an agreement with Contractor to construct Project No. 599-526C Wrong Way Driving Deployment pursuant to the execution of this Memorandum;

WHEREAS, CFX has solicited the services of the Contractor to provide labor, equipment and materials (“Services”) to construct Project No. 599-526C and the Contractor has agreed to provide such Services in accordance with its bid of May 21, 2020;

WHEREAS, the Services generally consists of providing all labor, materials, equipment and incidentals necessary to transport, install, test, and successfully deploy Wrong Way Driving Counter Measure systems at 15 ramp locations and Wrong Way Driver Detection systems at 10 Mainline locations along numerous corridors and including Signing and Pavement Markings as shown on the Plans;

WHEREAS, the Contractor has demonstrated its qualification, capability and willingness to provide the Services;

NOW, THEREFORE, the Parties agree as follows:

1. PRE-AWARD MEETING TO REVIEW PLANS, SPECIFICATIONS AND DOCUMENTS

A meeting was held on May 28, 2020, between 10:00 a.m. and 11:00 a.m., in accordance with Article 3.4, Pre-Award Meeting, of the General Specifications. The purpose of the meeting was to address all questions or differences in interpretations of the documents, to disclose advantages that may have been gained through a strict and literal interpretation of the bid documents (i.e., if the Contractor suspects or believes, based on the Contractor’s prior experience or on the overall specifications, that a literal interpretation of one or more particular specifications does not accurately reflect what CFX wants or needs, then the Contractor should raise such issue at the pre-award meeting so the parties can reach agreement as to how the specification should be handled and whether any adjustments to the specification and/or bid price are appropriate), and to provide

clarifications. The Contractor's key personnel together with CFX's representatives, attended the meeting.

2. PROCEDURES

At the meeting, the Plans, Specifications and other Contract Documents which were used by the Contractor in preparing its bid were reviewed. Items that could be the cause of potential claims were identified and CFX will make such corrections and interpretations as CFX deems necessary to reflect the intent of the Plans and Specifications.

3. ITEMS DISCUSSED AND AGREED TO

- A. The Contractor acknowledged that they have reviewed the Bid Documents in detail. The Contractor stated that they have not identified any errors, omissions, or items of concern with the Bid Documents as it relates to their bid and has agreed to proceed with the work in accordance with all requirements outlined within these Bid Documents.
- B. The Contractor acknowledged and understands the requirements of bid item 603A-100 Continuous Operation of Existing ITS Devices requiring them to maintain any existing ITS devices determined by CFX to be impacted by their construction activities.
- C. The Contractor acknowledged and understands the requirements of bid item 612-100 Geolocation of ITS Equipment and Infrastructure requiring them to thoroughly document all proposed ITS infrastructure as outlined in CFX Technical Specification 612. CFX also clarified that pay item note on plan sheet IT-21 requiring the existing ITS infrastructure that is being tied into on this project to be inventoried according to the new naming convention shown in the plans.
- D. The Contractor acknowledged CFX's concern that the bid price for items 740-89-12H RFB WWDS Complete (Thermal) (A/C Power), Aluminum Finish (F&I) (Ramp), 740-89-12J RFB WWDS Complete (Thermal) (A/C Power), Aluminum Finish (F&I) (Mainline), and 740-89-SP RFB WWDS Spare Parts Kit (Furnish Only) are high as compared to historical costs and quotes obtained by the Engineer of Record for the materials. The Contractor agreed to confirm that the owner furnished materials listed on plan sheet IT-22 were accounted for in the bid price submitted.
- E. The Contractor acknowledged and understands that they will be held to the requirements of the FY 2018-19 FDOT Standard Plans 102-600 Series for all Maintenance of Traffic (MOT) operations for this project. The Contractor understands that a S&S Traffic Control Plan (Note 34 A on plan sheet IT-20) detailing all required ramp closures and non-typical lane closures will be required.
- F. The Contractor acknowledged and agreed to SP-2 requiring that the work reach Substantial Completion within 210 calendar days and that the work shall be completed and ready for Final Acceptance within 300 calendar days after the charging of Contract

Time begins. The Contractor understands that the 90-day period between Substantial Completion and Final Acceptance is reserved for ITS equipment burn-in and addressing of punch list items.

- G. The Contractor acknowledged and did not object to CFX plans to reduce the quantity for bid item 740-89-SP RFB WWDS Spare Parts Kit (Furnish Only). Specific direction regarding the quantity desired for this item will be provided to the Contract at a later date.
- H. The Contractor understands that all bid documents associated with their bid on this project must be placed in escrow, in accordance with SP-7, prior to the Contract becoming binding on CFX.
- I. The Contractor acknowledged and understands that they must obtain the necessary permits for any proposed work elements that are not on CFX's R/W in accordance with General Note 33 on plan sheet IT-19.
- J. The Contractor acknowledged and agreed to SP-4 requiring the Contractor to request the initial locate through the CEI and that CFX will provide an initial locate for CFX's ITS infrastructure and highway lighting on one occasion. The Contractor understands that they will be responsible to preserve, maintain, protect, and reestablish the location of the facility to verify that damage to the facilities will not occur after the initial locate is performed.
- K. CFX clarified that the shop drawing submittal process can proceed immediately. CFX agreed to issue a Letter of Intent to allow the Contractor to proceed with the shop drawing submittal process and procurement of materials while the contract is being executed.
- L. Contractor acknowledged and agreed to the requirements of SP-9 requiring the coordination with adjacent construction contracts. Specifically, the construction of the proposed infrastructure at SR 408 WB at Mills Ave. may be delayed by the proposed off-ramp improvements that will be performed under CFX Project 408-159.

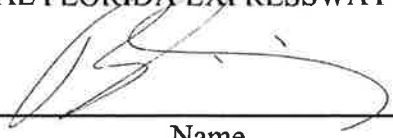
4. EXECUTION

It is agreed and understood by the Parties that the execution of this Memorandum and its effectiveness is contingent upon execution of the Contract by and between CFX and Contractor.

IN WITNESS WHEREOF, this agreement has been executed by CFX and the Contractor effective on the day and year first written above.

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

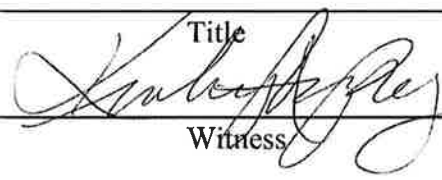
By:



Name

Director of Construction

Title



Witness

SICE, Inc.

By:

Rafael Casarus

Digitally signed by RAFAEL I CASASUS
ACEVEDO
Date: 2020.05.29 17:03:26 -04'00'

Name

Senior Vice President

Title

Witness

ATTACHMENT A

CENTRAL FLORIDA EXPRESSWAY AUTHORITY
 WRONG WAY DRIVING DEPLOYMENT
 PROJECT NO. 599-526C

PRE-AWARD MEETING TO REVIEW PLANS, SPECIFICATIONS AND DOCUMENTS

LIST OF ATTENDEES

May 28, 2020

NAME & COMPANY	ADDRESS	PHONE/FAX
1. Brent Dustin, P.E. Metric Engineering	525 Technology Park Ste. 153, Lake Mary, FL 32746	407-885-9120
2. Andrea McCorkindale, Metric Engineering	525 Technology Park Ste. 153, Lake Mary, FL 32746	407-575-2049
3. Bryan Homayouni, P.E. CFX	4974 ORL Tower Rd, Orlando, FL 32807	407-284-9376
4. Chirayu Amin, AECOM	150 N. Orange Ave., Ste. 200, Orlando, FL 32801	407-790-5667
5. Nick Devito, P.E. DRMP	941 Lake Baldwin Ln., Orlando, FL, 32814	407-896-0594
6. Pablo Lorient, SICE	2721 Forsyth Rd, Unit 400, Winter Park, FL 32792	305-772-8082
7. Rafael Casaus, SICE	2721 Forsyth Rd, Unit 400, Winter Park, FL 32792	305-222-7040
8. Fernando Nieto, SICE	2721 Forsyth Rd, Unit 400, Winter Park, FL 32792	305-222-7040
9. Luis Arroyo, SICE	2721 Forsyth Rd, Unit 400, Winter Park, FL 32792	305-222-7040
10. Lidia Regalado, SICE	2721 Forsyth Rd, Unit 400, Winter Park, FL 32792	305-222-7040

ATTACHMENT B
CENTRAL FLORIDA EXPRESSWAY AUTHORITY
WRONG WAY DRIVING DEPLOYMENT
PROJECT NO. 599-526C
PRE-AWARD MEETING TO REVIEW PLANS, SPECIFICATIONS AND DOCUMENTS
May 28, 2020

INTRODUCTIONS - *See Attachment A for attendance list*

SCOPE - *The work consists deployment of Wrong Way Driving Counter Measure systems at 15 ramp locations and Wrong Way Driver Detection systems at 10 Mainline locations along numerous corridors, including Signing and Paving Markings as shown on the Plans.*

PURPOSE – *Joint review of Contractor’s bid and the documents on which the bid is based to determine if the bid is consistent with the intent of the plans and specifications. Determination if there are any known errors or omissions and opportunity to provide clarifications on the bid documents prior to entering into a Contract.*

REVIEW TOPICS

1. General Specifications, Technical Specifications and Special Provisions
 - Governing Contract Documents include:
 - *CFX Special Provisions*
 - *CFX Technical Specifications*
 - *CFX General Specifications*
 - *July 2019 FDOT Standard Specifications (Division II & III only, as amended by CFX Technical Specifications)*
 - *FY 2018-19 FDOT Standard Plans*
2. Bid Tabulation
 - *Bid items were reviewed. Particular bid items discussed/clarified are outlined in Section 3 of the MOA above.*
3. Maintenance of Traffic
 - *FY 2018-19 FDOT Standard Plans – 102-600 Series*
 - *Maintenance of Traffic Note 34 A. – S&S Traffic Control Plan required prior to commencement of construction – To include MOT Plan for all necessary ramp closures and non-typical lane closures*
4. Plans (Bid Plans dated February 2020)
5. Addenda
 - *None*
6. Contract Time (SP-2)
 - *Substantial Completion – 210 calendar days*
 - *Final Acceptance – 300 calendar days*

- *Burn in – 90 calendar days following Substantial Completion*
- *Procurement*
 - *Owner furnished equipment (Sheet IT-22) – Contractor acknowledges items to be furnished by CFX*
 - *Lead times – Approximately 12 weeks for Tapco equipment*
 - *Pole design and discussion*
 - *Structural analysis has been conducted on the poles. Poles conform to the requirements in the plans.*
 - *20' pole requirement for primary RFB*
 - *Pole will have a more standardized design with 6" diameter*
 - *SICE expressed lead times with the poles and transformer bases. Contractor will follow up on the lead times and notify CEI*

OTHER BUSINESS

1. *Notice-to-Proceed (NTP) Date – TBD*
 - *June 11th Board Meeting – Contract will go to Board for approval*
 - *Contract requires NTP to be issued within 30-days of contract execution. SICE expressed concerns regarding being able to procure materials in this timeframe. All parties agreed that an acceptable NTP date will be determined at a later date once lead times are determined.*
2. *Schedule date for Pre-Construction Conference – TBD*
3. *Escrow of Bid Records (SP-7) –*
 - *Contractor and CEI will coordinate on a date to place bid records in safety deposit box*
4. *Permits –*
 - *Contractor responsible for procuring permits for infrastructure not on CFX R/W (General Note 33)*
5. *Concurrent Construction Contracts (SP-9) –*
 - *CFX Proj. 408-159 - SR 408 WB Off-Ramp Improvements at Mills Ave*

EXECUTION OF MEMORANDUM

1. *Discussion of MOA and Contract execution*
 - *Submittal of P-7 (D/M/WBE Utilization Form) – Contractor submitted P-7 form today*
 - *CFX requested the Contractor to make good faith effort to increase M/D/WBE Utilization and provide documentation if they do not believe they will reach the goal of 15% so this can be provided to the Director of Supplier Diversity. Contractor acknowledged and believes there is a potential opportunity to increase and will investigate accordingly*

CLOSING REMARKS

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CENTRAL FLORIDA EXPRESSWAY AUTHORITY

GENERAL SPECIFICATIONS

SECTION 1 - ABBREVIATIONS AND DEFINITIONS

1.1 General

These General Specifications are intended for use on all construction projects awarded by CFX. However, each Article, subarticle or paragraph of the General Specifications may not be relevant or applicable to every project. It is the responsibility of the Contractor to submit to the CEI any questions regarding relevance or applicability of any article or sub-article prior to the Pre-Construction conference. The CEI will respond with a determination which will be binding and final.

1.2 Abbreviations

Whenever in these General Specifications or in other documents pertaining to the Contract the following terms and abbreviations appear, their intent and meaning shall, unless specifically stated otherwise, be interpreted as shown in this Section.

AAN	American Association of Nurserymen, Inc.
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AGC	The Associated General Contractors of America, Inc.
AIA	American Institute of Architects
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute
AREA	American Railway Engineering Association
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWS	American Welding Society
AWPA	American Wood Preservers Association
AWWA	American Water Works Association
CRSI	Concrete Reinforcing Steel Institute
FDOT	Florida Department of Transportation
FNGA	Florida Nursery Growers Association
FSS	Federal Specifications and Standards
IEEE	Institute of Electrical and Electronics Engineers
IES	Illuminating Engineering Society
IPCEA	Insulated Power Cable Engineers Association
MUTCD	Manual on Uniform Traffic Control Devices
NEC	National Electrical Code (as recommended by the National Fire Protection Association)
NEMA	National Electrical Manufacturers Association

SSPC Steel Structures Painting Council

When any of the above abbreviations is followed by a number or letter designation, or combination of numbers or letters, it is understood to designate a specification, test method or other code or recommendation of the particular organization so shown.

1.3 Definitions

Wherever used in these General Specifications or in the other Contract Documents the following terms have the meanings indicated which are applicable to both the singular and plural thereof and all genders:

1.3.1 **Article** - The prime subdivision of a Section of the General and/or Technical Specifications.

1.3.2 **Bid** - The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work to be performed. All Bids will include a Bid Bond in the amount of 5% of the total bid as a surety to CFX that the Bidder will honor the Bid and enter into a Contract with CFX.

1.3.3 **Bridge** - A structure, including supports, erected over a depression or over an obstruction such as water, highway, railway, or for elevated roadway, for carrying traffic or other moving loads and having a length, measured along the center of the roadway, of more than 20 feet between the inside faces of bridge supports. A multi-span box culvert is considered a bridge when the length between the extreme ends of the openings exceeds 20 feet.

1.3.4 **Calendar Day** - Every day shown on the calendar, ending and beginning at midnight.

1.3.5 **CFX** - The Central Florida Expressway Authority. To avoid unnecessary repetition of expressions, whenever in the General Specifications, Technical Specifications or Special Provisions the term "CFX" is used, it is understood that "or designated representative" is a part of the term unless specifically indicated otherwise. Such designated representative may be the "Engineer", the "CEI", the "Resident Engineer" or other individual or entity identified by CFX and defined herein.

1.3.6 **Construction Engineering & Inspection (CEI) Consultant** - The firm employed by CFX to observe the progress and quality of the Work being performed by the Contractor.

1.3.7 **Consultant** - The Professional Engineer or engineering firm, registered in the State of Florida, under contract to CFX to perform professional services for CFX. The Consultant may be the Engineer of Record or may provide services through and be subcontracted to the Engineer of Record.

1.3.8 **Contract** - The written agreement between CFX and the Contractor setting forth the obligations of the parties thereto including but not limited to, the performance of the Work, the furnishing of labor and materials and the basis of payment.

1.3.9 **Contract Claim (Claim)** - A written demand submitted to CFX by the Contractor in compliance with Article 2.4 of these General Specifications seeking additional monetary

compensation, time and/or other adjustments to the Contract, the entitlement or impact of which is disputed by CFX.

1.3.10 **Contract Documents** - The Contract, addenda (which pertain to the Contract Documents), the Memorandum of Agreement, Contractor's Bid (including documentation accompanying the Bid and any post-bid documentation submitted prior to the Notice of Award), the Notice to Proceed, the Public Construction Bond, these General Specifications, the Technical Specifications, the Standard Specifications, the Contractor's certification required pursuant to Article 3.4 of these General Specifications, the Special Provisions, the Plans, any supplemental agreements required to complete the construction of the Project and elements incorporated by reference including, but not necessarily limited to, the FDOT Design Standards (January 2015 edition).

1.3.11 **Contract Price** - The money payable by CFX to the Contractor for completion of the Work in accordance with the Contract Documents.

1.3.12 **Contract Time** - The number of calendar days allowed for completion of the Work including authorized time extensions.

1.3.13 **Contractor** - The person, firm or corporation with whom CFX has entered into the Contract.

1.3.14 **Controlling Work Items** - The activity or work item on the critical path having the least amount of total float. The controlling item of work will also be referred to as a Critical Activity.

1.3.15 **Culverts** - Any structure not classified as a bridge, which provides an opening under the roadway.

1.3.16 **Delay** - With the exception of the items listed in Subarticle 6.7.3.1 of these General Specifications, any unanticipated event, action, force or factor which extends the Contractor's time of performance of any critical path activity under the Contract. The term delay is intended to cover all such events, actions, forces or factors, whether styled "delay", "disruption", "interference", "impedance", "hindrance" or otherwise, which are beyond the control of and not caused by the Contractor or Contractor's subcontractors, materialmen, suppliers or other agents. This term does not include Extra Work.

1.3.17 **Director of Construction** - Director of Construction, Central Florida Expressway Authority, acting directly or through an authorized representative.

1.3.18 **Engineer** - The term as may be used in various documents is understood to mean CFX or designated representative.

1.3.19 **Engineer of Record** - The professional engineer or engineering firm, contracted with by CFX and registered in the State of Florida, who develops criteria and concept for the Project, performs the analysis and is responsible for the preparation of the plans and specifications.

1.3.20 **Equipment** - The machinery and equipment, together with the necessary supplies for upkeep and maintenance thereof, the tools and all other apparatus necessary for the construction and

acceptable completion of the Work.

1.3.21 **Executive Director** - Executive Director, Central Florida Expressway Authority, acting directly or through an authorized representative.

1.3.22 **Extra Work** - Any Work which is required by CFX to be performed and which is not otherwise covered or included in the project by the existing Contract Documents, whether it be in the nature of additional work, altered work, deleted work, work due to differing site conditions or otherwise. This term does not include a “delay”.

1.3.23 **Force Account** – Work authorized by CFX and performed in addition to that set forth in the original Contract and is paid on an actual cost basis plus a fixed percent markup and stipulated rental rates for equipment. All costs paid under Force Account will be fully documented and signed by both parties not later than the following work day.

1.3.24 **Holidays** - Martin Luther King, Jr. Day; Memorial Day; the Saturday and Sunday immediately preceding Memorial Day; Independence Day; Labor Day; the Friday, Saturday, and Sunday immediately preceding Labor Day; Veterans Day; Thanksgiving Day; the Friday, Saturday and Sunday immediately following Thanksgiving Day; and December 24 through January 2, inclusive.

1.3.25 **Inspector** – Agent of CFX through the CEI that will record day-to-day activities of construction and advise the Contractor regarding compliance with the Plans and Specifications of the Contract.

1.3.24 **Invitation to Bid** - The invitation by which the Contractor submitted its Bid for the Work.

1.3.26 **Laboratory** – A Testing facility certified with the Florida Department of Transportation.

1.3.25 **Major Item of Work** - Any item of Work having an original Contract value in excess of 5% of the original Contract amount.

1.3.26 **Materials** - Any substances to be incorporated in the Work.

1.3.27 **Median** - The portion of a divided highway or street separating the traveled ways for traffic moving in opposite directions.

1.3.28 **Notice to Proceed** - A written notice given by CFX to the Contractor fixing the latest date on which the Contract Time will commence to run and on which the Contractor shall start to perform the Contractor’s obligations under the Contract Documents.

1.3.29 **Plans** - The drawings which show the scope, extent and character of the Work to be furnished and performed by the Contractor and which are referred to in the Contract Documents.

1.3.30 **Project** - The total construction of which the Work to be provided under the Contract Documents may be the whole or a part as indicated elsewhere in the Contract Documents.

1.3.31 **Public Construction Bond** - The security furnished by the Contractor and the surety as a guaranty that the Contractor will fulfill the terms of the Contract in accordance with the Contract Documents and pay all legal debts pertaining to the construction of the Project.

1.3.32 **Resident Project Representative** - The authorized representative of the CEI who may be assigned to the site or any part thereof.

1.3.33 **Right of Way** - The land to which CFX has title or right of use for the road and its structures and appurtenances and for material pits furnished or to be furnished by CFX.

1.3.34 **Roadbed** - That portion of the roadway occupied by the subgrade and shoulders.

1.3.35 **Roadway** - The portion of a highway within the limits of construction.

1.3.36 **Shop Drawings** - All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for the Contractor and submitted by the Contractor to illustrate some portion of the Work.

1.3.37 **Shoulder** - That portion of the roadbed outside the edges of the travel way (or back of curb) and extending to the top of front slopes. The shoulders may be either paved or unpaved.

1.3.38 **Special Provisions** - Specific requirements for the Project not otherwise addressed in the General Specifications, Technical Specifications or Standard Specifications.

1.3.39 **Specialty Engineer** - A Professional Engineer registered in the State of Florida (specifically other than the Engineer of Record or its subcontracted consultant) who undertakes the design and drawing preparation of components, systems or installation methods and equipment for specific portions of the Project Work. The Specialty Engineer may be an employee or officer of the Contractor or a fabricator, an employee or officer of an entity providing components to a fabricator or an independent consultant.

A Specialty Engineer shall be qualified in accordance with the Rules of the Florida Department of Transportation, Chapter 14-75, Florida Administrative Code. Any corporation or partnership, which offers engineering services, must hold a current Certification of Authorization from the Florida State Board of Professional Engineers. Prior approval by CFX is required if the Contractor wishes to use a Specialty Engineer not qualified in accordance with Chapter 14-75. Approval must be received prior to proceeding with the specialty design.

For items of Work not specifically covered by Chapter 14-75, a Specialty Engineer will be considered qualified if he/she has the following qualifications:

- 1) Registration as a Professional Engineer in the State of Florida
- 2) Education and experience necessary to perform the submitted design as required by the Florida Department of Professional Regulation.

1.3.40 **Specifications** - The directions, provisions and requirements contained in the General Specifications, Technical Specifications, Special Provisions and Standard Specifications.

1.3.41 **Standard Specifications** - The FDOT Standard Specifications for Road and Bridge Construction, 2015 edition, Divisions II and III, hereby incorporated by reference and as may be amended in the Technical Specifications and Plans. Division I of the FDOT Standard Specifications is specifically not included in this definition and is not a part of the Contract Documents.

1.3.42 **State** - State of Florida

1.3.43 **Subarticle** - Any headed subdivision of an Article of the General Specifications, Technical Specifications, or Standard Specifications.

1.3.44 **Subgrade** - That portion of the roadbed immediately below the base course or pavement (including below the curb and gutter, valley gutter, shoulder and driveway pavement), the limits of which will ordinarily include those portions of the roadway bed shown in the plans to be constructed to a design bearing value or to be otherwise specially treated. Where no limits are shown in the plans, the subgrade section shall be considered to extend to a depth of 12 inches below the bottom of the base or pavement and outward to 6 inches beyond the base, pavement or curb and gutter.

1.3.45 **Subcontractor** - An individual, firm or corporation having a direct contract with the Contractor or with any other subcontractor for performance of a part of the Work at the site.

1.3.46 **Substantial Completion** - The completion of all pay item Work in their entirety in conjunction with the performance of the inspection for Substantial Completion. As a minimum the following conditions apply;

1. All pay item work is installed and functioning including Supplemental Agreement Work, Force Account, or Extra Work.
2. All disturbed areas have been restored and vegetative growth is emerging including landscaping.
3. All erosion control measures have been taken up, and sediments removed from traps and drainage structures.
4. All pavement areas are complete and final signing and stripping in place.
5. All Signals, Lighting, ITS, and Tolling systems are tested, commissioned, and operating.
6. All roadway appurtenances are installed, intact and functioning such as signs, guardrail, stripping, rumble strips, curbing, sidewalk, etc.
7. All structures such as bridges, walls, barriers, attenuators, overhead trusses, toll buildings, tolling gantries, etc. are in place with their final coatings applied, and devoid of blemishes or graffiti.
8. All temporary traffic control devices are removed, and traffic is using the facility as designed.
9. All testing is complete, and documentation has been received.

The inspection for Substantial Completion may generate a punch list that will be provided to the Contractor within seven (7) calendar days following the conclusion of the inspection. Direction by CFX to open a bridge or roadway or portion thereof does not constitute an acceptance or Substantial Completion of the Project or portion or waive any part of the Contract provisions.

1.3.47 **Substructure** - All of that part of a bridge structure below the bridge seats including the parapets, backwalls and wingwalls of abutments.

1.3.48 **Superintendent** - The Contractor's authorized representative responsible and in charge of the Work.

1.3.49 **Superstructure** - The entire bridge structure above the substructure including anchorage and anchor bolts but excluding the parapets, backwalls, and wingwalls of abutments.

1.3.50 **Supplemental Agreement** - A written agreement between CFX and the Contractor modifying the Contract within the limitations set forth in these specifications.

1.3.51 **Surety** - The corporate body, bound by the Public Construction Bond with and for the Contractor, who agrees to be responsible for acceptable performance of the Work by the Contractor and for payment of all debts pertaining thereto.

1.3.52 **Supplier** - A manufacturer, fabricator, supplier, distributor, materialmen or vendor having a direct contract with the Contractor or with any subcontractor to furnish materials or equipment to be incorporated in the Work by the Contractor or any subcontractor.

1.3.53 **Technical Specifications** - Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work associated with road and bridge construction.

1.3.54 **Travel Way** - The portion of the roadway for the movement of vehicles, exclusive of shoulders and auxiliary lanes.

1.3.55 **Unilateral Adjustment**- A payment of money or granting of Contract time made to the Contractor by CFX for sums CFX determines to be due to the Contractor for work performed on the project, and whereby the Contractor by acceptance of such payment does not waive any rights the Contractor may otherwise have against CFX for payment of any additional sums the Contractor claims are due for the work.

1.3.56 **Work** - The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work includes and is the result of performing or furnishing labor and furnishings and incorporating materials and equipment into the construction and performing or furnishing services and furnishing documents all as required by the Contract Documents.

1.3.57 Work Order Allowance - A monetary amount established by CFX and included in the Contract Price to cover the cost of Work, that may or may not be anticipated, but is not otherwise defined by defined by the Drawings or Specifications. No Work paid for under the Work Order Allowance shall be performed until written authorization is given to the Contractor by CFX. Any amount remaining in the Allowance upon completion and acceptance of the project remains the property of CFX.

END OF SECTION 1

SECTION 2 - SCOPE OF WORK

2.1 Intent of Contract

It is the intent of the Contract Documents to provide for the construction and completion of every detail of the Work described in the Contract Documents. Any labor, documentation, services, Materials, or Equipment that may be reasonably inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result shall be provided whether or not specifically called for, at no additional cost to CFX.

2.2 Work Not Covered by the General Specifications

Proposed construction and any contractual requirements not covered by these General Specifications may be covered by notes shown on the Plans or by the Technical Specifications or Special Provisions for the Contract.

2.3 Alteration of Plans

2.3.1 General: CFX reserves the right to make, at any time prior to or during the progress of the Work, such increases or decreases in quantities, whether a significant change or not, and such alterations in the details of construction, whether a significant change or not, including but not limited to alteration in the grade or alignment of the road or structure or both, as may be found necessary or desirable by CFX. Such increases, decreases or alterations shall not constitute a breach of Contract, shall not invalidate the Contract, nor release the Surety from any liability arising out of this Contract or the Surety bond. The Contractor agrees to perform the Work, as altered, the same as if it had been part of the original Contract.

The term "significant change" applies only when:

- A) CFX determines that the Work as altered differs materially in kind or nature from that involved or included in the original proposed construction or
- B) A Major Item of Work, as defined in Section 1, is increased in excess of 125% or decreased below 75% of the original Contract quantity. CFX will apply any price adjustment for an increase in quantity only to that portion in excess of 125% of the original Contract item quantity, or in case of a decrease below 75% to the actual amount of work performed, such allowance to be determined in accordance with 2.3.2, below.

In the instance of A) above, the determination by CFX shall be final and shall not be subject to challenge by the Contractor except through the claims procedure as described herein.

- 2.3.2 Increase, Decrease or Alteration in the Work: CFX reserves the right to make alterations in the character of the Work which involve a substantial change in the nature of the design or in the type of construction or which materially increases or decreases the cost or time of performance. Such alteration shall not constitute a breach of Contract, shall not invalidate the Contract or release the Surety.

Notwithstanding that the Contractor shall have no formal right whatsoever to any extra compensation or time extension deemed due by the Contractor for any cause unless and until the Contractor follows the procedures set forth in 2.4.2 for preservation, presentation and resolution of the claim, the Contractor may at any time, after having otherwise timely provided a notice of intent to claim or preliminary time extension request pursuant to 2.4.2, submit to CFX a request for equitable adjustment of compensation or time or other dispute resolution proposal. The Contractor shall in any request for equitable adjustment of compensation, time, or other dispute resolution proposal certify under oath and in writing, in accordance with the formalities required by Florida law, that the request is made in good faith, that any supportive data provided are accurate and complete to the Contractor's best knowledge and belief, and that the amount of the request accurately reflects what the Contractor in good faith believes to be CFX's responsibility. Such certification must be made by an officer or director of the Contractor with the authority to bind the Contractor. Any such certified statements of entitlement and costs shall be subject to the audit provisions set forth in 2.4.14. While the submittal or review of a duly certified request for equitable adjustment shall neither create, modify, nor activate any legal rights or obligations as to the Contractor or CFX, CFX will review the content of any duly certified request for equitable adjustment or other dispute resolution proposal, with any further action or inaction by CFX thereafter being in its sole discretion. Any request for equitable adjustment that fails to fully comply with the certification requirements will not be reviewed by CFX.

The monetary compensation provided for below constitutes full and complete payment for such additional work and the Contractor shall have no right to any additional monetary compensation for any direct or indirect costs or profit for any such additional work beyond that expressly provided below. The Contractor shall be entitled to a time extension only to the extent that the performance of any portion of the additional work is a controlling work item and the performance of such controlling work item actually extends completion of the project due to no fault of the Contractor. All time related costs for actual performance of such additional work are included in the compensation already provided below and any time extension entitlement hereunder will be without additional monetary compensation. The Contractor shall have no right to any monetary

compensation or damages whatsoever for any direct or indirect delay to a controlling work item arising out of or in any way related to the circumstances leading up to or resulting from additional work (but not relating to the actual performance of the additional work, which is paid for as otherwise provided herein), except only as provided for under 2.4.5.3.

2.3.2.1 Allowable Costs for Extra Work: The CEI may direct in writing that extra work be done and, at the CEI's sole discretion, the Contractor will be paid pursuant to an agreed Supplemental Agreement or in the following manner:

- (a) Labor and Burden: The Contractor will receive payment for actual costs of direct labor and burden for the additional or unforeseen work. Labor includes foremen actually engaged in the work; and will not include project supervisory personnel nor necessary on-site clerical staff, except when the additional or unforeseen work is a controlling work item and the performance of such controlling work item actually extends completion of the project due to no fault of the Contractor. Compensation for project supervisory personnel, but in no case higher than a Project Manager's position, shall only be for the pro-rata time such supervisory personnel spent on the contract. In no case shall an officer or director of the Company, nor those persons who own more than 1 % of the Company, be considered as project supervisory personnel, direct labor or foremen hereunder.

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Payment for burden shall be limited solely to the following:

Table 2.3.2.1

Item	Rate
FICA	Rate established by Law
FUTA/SUTA	Rate established by Law
Medical Insurance	Actual
Holidays, Sick & Vacation benefits	Actual
Retirement benefits	Actual
Workers Compensation	Rates based on the National Council on Compensation Insurance basic rate tables adjusted by Contractor's actual experience modification factor in effect at the time of the additional work or unforeseen work.
Per Diem	Actual but not to exceed State of Florida's rate
Insurance*	Actual

*Compensation for Insurance is limited solely to General Liability Coverage and does not include any other insurance coverage (such as, but not limited to, Umbrella Coverage, Automobile Insurance, etc.).

At the pre-construction conference, certify to the CEI the following:

- (1) A listing of on-site clerical staff, supervisory personnel and their pro-rated time assigned to the Contract,
- (2) Actual Rate for items listed in Table 2.3.2.1,
- (3) Existence of employee benefit plan for Holiday, Sick and Vacation benefits and a Retirement Plan, and,
- (4) Payment of Per Diem is a company practice for instances when compensation for Per Diem is requested.

Such certification must be made by an officer or director of the Contractor with authority to bind the Contractor. Timely certification is a condition precedent to any right of the Contractor to recover compensations for such costs, and failure to timely submit the certification will constitute a full, complete, absolute and irrevocable waiver by the Contractor of any right to recover such costs. Any subsequent changes shall be certified to the CEI as part of the cost proposal or seven calendar days in advance of performing such extra work.

- (b) **Materials and Supplies:** For materials accepted by the CEI and used on the project, the Contractor will receive the actual cost of such materials incorporated into the work, including Contractor paid transportation charges (exclusive of equipment as hereinafter set forth). For supplies reasonably needed for performing the work, the Contractor will receive the actual cost of such supplies.

- (c) **Equipment:** For any machinery or special equipment (other than small tools), including fuel and lubricant, the Contractor will receive 100% of the "Rental Rate Blue Book" for the actual time that such equipment is in operation on the work, and 50% of the "Rental Rate Blue Book" for the time the equipment is directed to standby and remain on the project site, to be calculated as indicated below. The equipment rates will be based on the latest edition (as of the date the work to be performed begins) of the "Rental Rate Blue Book for Construction Equipment" or the "Rental Rate Blue Book for Older Construction Equipment," whichever is applicable, as published by Machinery Information Division of PRIMEDIA Information, Inc. (version current at the time of bid), using all instructions and adjustments contained therein and as modified below. On all projects, the CEI will adjust the rates using regional adjustments and Rate Adjustment Tables according to the instructions in the Blue Book.

Allowable Equipment Rates will be established as set out below:

(1) Allowable Hourly Equipment Rate = Monthly Rate/176 x Adjustment Factors x 100%.

(2) Allowable Hourly Operating Cost = Hourly Operating Cost x 100%.

(3) Allowable Rate Per Hour = Allowable Hourly Equipment Rate + Allowable Hourly Operating Cost.

(4) Standby Rate = Allowable Hourly Equipment Rate x 50%.

The Monthly Rate is The Basic Machine Rate Plus Any Attachments. Standby rates will apply when equipment is not in operation and is directed by the CEI to standby at the project site when needed again to complete work and the cost of moving the equipment will exceed the accumulated standby cost. Standby rates will not apply on any day the equipment operates for eight or more hours. Standby payment will be limited to only that number of hours which, when added to the operating time for that day equals eight hours. Standby payment will not be made on days that are not normally considered work days on the project.

CFX will allow for the cost of transporting the equipment to and from the location at which it will be used. If the equipment requires assembly or disassembly for transport, CFX will pay for the time to perform this work at the rate for standby equipment.

Equipment may include vehicles utilized only by Labor, as defined above.

- (d) Indirect Costs, Expenses, and Profit: Compensation for all indirect costs, expenses, and profit of the Contractor, including but not limited to overhead of any kind, whether jobsite, field office, division office, regional office, home office, or otherwise, is expressly limited to the greater of either (1) or (2) below:

(1) Solely a mark-up on the payments in (a) through (c), above in accordance with the corresponding portions of section 7.4.

(i) Bond: The Contractor will receive compensation for any premium for acquiring a bond for such additional or unforeseen work; provided, however, that such payment for additional bond will only be paid upon presentment to CFX of clear and convincing proof that the Contractor has actually provided and paid for separate bond premiums for such additional or unforeseen work in such amount. Should the Contractor elect to provide subguard coverage in lieu of requiring a bond from a sub, the Contractor shall be entitled to reimbursement for the subguard premium for the added work upon proof of said premium.

(ii) The Contractor will be allowed a markup of 10% on the first \$50,000 and a markup of 5% on any amount over \$50,000 on any subcontract directly related to the additional or unforeseen work. Any such subcontractor mark-up will be allowed only by the prime Contractor and a first tier subcontractor, and the Contractor must elect the markup for any eligible first tier subcontractor to do so.

(2) Solely the formula set forth below and only as applied solely as to such number of calendar days of entitlement that are in excess of ten cumulative calendar days as defined below.

$$D = \frac{A \times C}{B}$$

Where A = Original Contract Amount

B = Original Contract Time

C = 8%

D = Average Overhead Per Day

Cumulative Calendar Days is defined as the cumulative total number of calendar days granted for time extension due to delay of a controlling work item caused solely by CFX is, or the cumulative total number of calendar days for which entitlement to a time extension due to delay of a controlling work item caused solely by CFX is otherwise ultimately determined in favor of the Contractor to be.

Further, in the event there are concurrent delays to one or more controlling work items, one or more being caused by CFX and one or more being caused by the Contractor, the Contractor shall be entitled to a time extension for each day that a controlling work item is delayed by CFX but shall have no right to nor receive any monetary compensation for any indirect costs for any days of concurrent delay. No compensation will be paid to the Contractor for any jobsite overhead and other indirect impacts when the total number of calendar days granted for time extension due to delay of a controlling work item is equal to or less than ten calendar days and the Contractor also fully assumes all monetary risk of any and all partial or single calendar day delay periods, due to delay of a controlling work item that when cumulatively totaled together are equal to or less than ten calendar days. All calculations under this provision shall exclude days granted for performing additional work.

2.3.2.2 Subcontracted Work: For work performed by a subcontractor, compensation for the additional or unforeseen work shall be solely limited to as provided for in 2.3.2.1 (a), (b), (c) and (d)(1), with the exception of, in the instance of subcontractor performed work only, the subcontractor may receive compensation for any premium for acquiring a bond for the additional or unforeseen work; provided, however, that such payment for additional subcontractor bond will only be paid upon presentment to CFX of clear and convincing proof that the subcontractor has actually provided and paid for separate bond premiums for such additional or unforeseen work in such amount. The Contractor shall require the subcontractor to provide a certification, in accordance with 2.3.2.1(a), as part of the cost proposal and provide such to the CEI. Such certification must be made by an officer or director of the subcontractor with authority to bind the subcontractor. Timely certification is a condition precedent to any right of the Contractor to recover compensation for such subcontractor costs, and failure to timely submit the certification will constitute a full, complete, absolute and irrevocable waiver by the Contractor of any right to recover such subcontractor costs.

2.3.2.3 No Waiver of Contract: Changes made by CFX will not be considered to waive any of the provisions of the Contract, nor may the Contractor make any claim for loss of anticipated profits because of the changes or by reason of any variation between the approximate quantities and the quantities of Work actually performed.

All Work shall be performed as directed by CFX and in accordance with the Contract Documents.

2.3.2.4 Suspensions of Work Ordered by CFX: If the performance of all or any portion of the Work is suspended or delayed by CFX, in writing, for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry) and the Contractor believes additional compensation is due as a result of such suspension or delay, the Contractor shall submit to CFX in writing a request for adjustment within 7 calendar days of receipt of the notice to resume Work. The request shall be complete, set forth all the reasons and support for such adjustment.

CFX will evaluate the Contractor's request. If CFX agrees the cost and/or time required for the performance of the Contract has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the Contractor, its suppliers or subcontractors at any approved tier (and not caused by weather), CFX will make an adjustment (excluding profit) and modify the Contract in writing accordingly. CFX will notify the Contractor whether an adjustment of the Contract is warranted.

No Contract adjustment will be allowed unless the Contractor has submitted the complete request for adjustment within the time prescribed.

No Contract adjustment will be allowed under this clause to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided for, excluded under, or effectively precluded by any other term or condition of the Contract.

2.3.2.5 Conditions Requiring Supplemental Agreement: A Supplemental Agreement will be used to clarify the Plans and Specifications of the Contract; to document quantities that deviate from the original Contract amount; to provide for unforeseen Work, grade changes or alterations in Plans which could not reasonably have been contemplated or foreseen in the original Plans and Specifications; to change the limits of construction to meet field conditions; to provide a safe and functional connection to an existing pavement; to make the project functionally operational in accordance with the intent of the original Contract and subsequent amendments thereto; to settle Contract claims.

No Work covered by a Supplemental Agreement shall be performed before written authorization is given by CFX. Such written authorization will set forth the prices and other pertinent information and will be promptly reduced to written Contract document form.

2.3.2.6 Unilateral Payments: Unilateral Payments will be used to pay the Contractor

for Work performed on the Project when:

- a) The Contractor agrees to perform the Work at an agreed upon cost but refuses to timely execute a Supplemental Agreement so as to allow timely payment for the Work by CFX or,
- b) CFX and the Contractor cannot agree on the cost of the Work and the Contractor refuses to execute a Supplemental Agreement or,
- c) CFX determines it is in the best interest to make a Unilateral Payment for Work CFX directed to be performed in lieu of pursuing a Supplemental Agreement.

2.3.2.7 Extra Work: Alterations, changes, additional or unforeseen Work of the type already provided by the Contract for which there is a Contract Price will be paid for at such Contract price.

Alterations, changes, additional or unforeseen Work having no quantity or price provided in the Contract will be paid at a negotiated price. Where the cost is negotiated, the Contractor shall submit an estimate to CFX in terms of labor, Materials, Equipment, overhead with a time impact analysis and other expenses incurred solely as a result of the alteration, change, additional or unforeseen Work as stipulated in 2.3.2.

Where a price cannot be negotiated for alterations, changes, additional or unforeseen Work having no quantity or price provided in the Contract, payment will be made in accordance with 2.3.2.

- 2.3.3 Connections to Existing Pavements, Drives and Walks: Limits of construction at the beginning and end of the Project are detailed in the Plans and will generally be adhered to; however, where in the opinion of CFX it is necessary to extend the construction in order to make suitable connections to existing pavement, such change may be permitted upon written authorization.

For any connections to existing walks and drives which are necessary although not indicated on the Plans, proper connections shall be made at the direction of CFX in accordance with the FDOT's Design Standards identified in the Contract Documents.

- 2.3.4 Differing Site Conditions: During the progress of the Work, if subsurface or latent conditions are encountered at the site differing materially from those indicated on the Plans or in the Specifications or if unknown physical conditions of an unusual nature (differing materially from those ordinarily encountered and generally recognized as inherent in the Work) are encountered at the site, the party discovering such

conditions shall promptly notify the other party in writing of the specific differing conditions before they are disturbed and before the affected Work is performed.

Upon written notification from the Contractor, CFX will have the conditions investigated and if it is determined that the conditions differ materially and cause an increase or decrease in the cost or time required for the performance of any Work under the Contract, an adjustment (excluding loss of anticipated profits) will be made and the Contract modified in writing accordingly. CFX will notify the Contractor whether an adjustment of the Contract is warranted.

No Contract adjustment that results in a benefit to the Contractor will be allowed unless the Contractor has provided the required written notice.

No Contract adjustment will be allowed under this clause for any impacts caused to or by any other projects.

- 2.3.5 **Changes Affecting Utilities:** The Contractor shall be responsible for identifying and assessing any potential impacts to a utility that may be caused by the changes proposed by the Contractor and the Contractor shall, at the time of making the request for change, notify CFX in writing of any such potential impacts to utilities.

CFX approval of a Contractor proposed change does not relieve the Contractor of sole responsibility for all utility impacts, costs, delays or damages, whether direct or indirect, resulting from Contractor initiated changes in the design or construction activities from those in the original Contract, design plans (including traffic control plans) or other Contract Documents and which effect a change in utility work different from that shown in the utility plans, joint project agreements or utility relocation schedules.

- 2.3.6 **Cost Savings Initiative Proposal**

2.3.6.1 **Intent and Objective:** This subarticle applies to any Cost Savings Initiative Proposal (CSIP) that the Contractor initiates and develops for the purpose of refining the Contract to increase cost effectiveness or significantly improve the quality of the end result. Any potential CSIPs being considered by the Contractor shall NOT be discussed at the pre-award meeting, as this meeting is for the sole purpose of discussing the Contractor's bid and the documents on which the bid is based. Subsequent to Contract execution and prior to Contract Time beginning, a mandatory Cost Savings Initiative Workshop will be held for the Contractor and CFX to discuss potential Proposals.

This subarticle does not apply to any CSIP unless the Contractor identifies it at the

time of its submission to CFX as a CSIP submitted in accordance with this subarticle.

CFX will consider CSIPs that, in the sole opinion of CFX, will result in net savings to CFX by providing a decrease on the cost of the Contract. Additionally, the CSIP must result in savings without impairing essential functions and characteristics such as safety, service life, reliability, economy of operation, ease of maintenance, aesthetics and necessary standard design features. CFX will not recognize the Contractor's elimination of work, or correction of plan errors that result in a cost reduction as a CSIP.

CFX reserves the right to reject, at its sole discretion, any CSIP submitted that proposes a change in the design of the pavement system or that would require additional right-of-way. Pending CFX's execution of a formal supplemental agreement implementing an approved CSIP, the Contractor shall remain obligated to perform the Work in accordance with the terms of the Contract. CFX is under no obligation to grant time extensions to allow for the time required to develop and review a CSIP.

For potential CSIPs not discussed between Contract Execution and Contract Time beginning, a mandatory concept meeting will be held between CFX and the Contractor to discuss the potential CSIP prior to its development.

2.3.6.2 Data Requirements: As a minimum, the Contractor shall submit the following information with each CSIP:

1. a description of the differences between the existing Contract requirements, including any time extension request, and the proposed change, and the comparative advantages and disadvantages.
2. separate detailed (Labor, Equipment, Material and Subcontract) cost estimates for both the existing Contract requirement and the proposed change. Allocate the above detailed cost estimates by pay item numbers indicating quantity increases or decreases and deleted pay items. Identify additional proposed work not covered by pay items within the Contract, by using pay item numbers in the FDOT Basis of Estimates Manual. In preparing the estimates, include overhead, profit, and bond within pay items in the Contract. Separate pay item(s) for the cost of overhead, profit, and bond will not be allowed.
3. an itemization of the changes, deletions or additions to plan details, plan sheets, design standards and Specifications that are required to implement the CSIP if CFX adopts it. Provide preliminary plan drawings sufficient to describe the proposed changes.
4. engineering or other analysis in sufficient detail to identify and describe

specific features of the Contract that must be changed if CFX accepts the CSIP with a proposal as to how the changes can be accomplished and an assessment of their effect on other Project elements. CFX may require that engineering analyses be performed by a Specialty Engineer in the applicable class of work. Support all design changes that result from the CSIP with prints of drawings and computations signed and sealed by the Contractor's Specialty Engineer. Written documentation or drawings shall be provided that clearly delineate the responsibility of the Contractor's Specialty Engineer.

5. the date by which CFX must approve the CSIP to obtain the total estimated cost reduction during the remainder of the Contract, noting any effect on the Contract completion time or delivery schedule.

6. a revised Project schedule that would be followed upon approval of the CSIP. The schedule shall include submittal dates and review time for CFX review.

2.3.6.3 Processing Procedures: The Contractor shall submit five (5) copies of the CSIP to CFX. CFX will process the CSIP expeditiously; however, CFX is not liable for any delay in acting upon a CSIP submitted pursuant to this subarticle. The Contractor may withdraw, in whole or in part, a CSIP not accepted by CFX within the period specified in the CSIP. CFX is not liable for any CSIP development cost in the case where CFX rejects, or the Contractor withdraws, a CSIP.

CFX is the sole judge of the acceptability of a CSIP and of the estimated net savings in construction costs from the adoption of all or any part of the CSIP. In determining the estimated net savings, CFX reserves the right to disregard the Contract bid prices if, in the judgment of CFX, such prices do not represent a fair measure of the value of the Work to be performed or to be deleted.

Prior to approval, CFX may modify a CSIP, with the concurrence of the Contractor, to make it acceptable. If any modification increases or decreases the net savings resulting from the CSIP, CFX will determine the Contractor's fair share upon the basis of the CSIP as modified and upon final quantities. CFX will compute the net savings by subtracting the revised total cost of all bid items affected by the CSIP from the total cost of the same bid items as represented in the Contract, provided that in the sole judgment of CFX that such bid item prices represent fair measure of the value of the associated work.

Prior to approval of the CSIP that initiates the supplemental agreement, provide acceptable Contract-quality plan sheets revised to show all details consistent with the CSIP design.

2.3.6.4 Computation for Change in Contract Cost Performance: If the CSIP is

adopted, the Contractor's share of the net savings as defined hereinafter represents full compensation to the Contractor for the CSIP.

CFX will include its cost to process and implement a CSIP in the estimate.

2.3.6.5 Conditions of Acceptance for Major Design Modifications of Category 2 Bridges: A CSIP that proposes major design modifications of a category 2 bridge, as determined by CFX, shall have the following conditions of acceptance:

1. All bridge plans relating to the CSIP shall undergo an independent peer review conducted by a single independent engineering firm referred to for the purpose of this requirement as the Independent Review Engineer (IRE). The IRE shall not be the originator of the CSIP design and shall be pre-qualified by FDOT in accordance with Rule 14-75, Florida Administrative Code. The independent peer review is intended to be a comprehensive and thorough verification of the original Work, giving assurance that the design is in compliance with all CFX requirements. The IRE's comments, along with the resolution of each comment, shall be submitted to CFX. The IRE shall sign and seal the submittal cover letter stating that all comments have been adequately addressed and the design is in compliance with CFX's requirements. If there are any unresolved comments, the IRE shall specifically list all unresolved issues in the signed and sealed cover letter.
2. CFX reserves the right to require the Contractor's Specialty Engineer to assume responsibility for the design of the entire structure.
3. New designs and independent peer reviews shall be in compliance with all applicable CFX, FDOT and AASHTO criteria requirements including bridge loading ratings.

2.3.6.6 Sharing Arrangements: If CFX approves a CSIP, the Contractor will receive 50% of the net reduction in the cost of performance of the Contract as determined by the final negotiated agreement between the Contractor and CFX. The net reduction will be determined by subtracting from the savings of the construction costs the reasonable documented engineering costs incurred by the Contractor to design and develop a CSIP and CFX's direct costs for reviewing the CSIP. Contractor's engineering costs will be based on the Specialty Engineer's certified invoice and may include the costs of the IRE. The Contractor's total engineering costs to be subtracted from the savings to determine the net reduction will be limited to 25% of the construction savings and will not include any markup by the Contractor for the costs for engineering services performed by the Contractor.

2.3.6.7 Notice of Intellectual Property Interests and CFX's Future Rights to a CSIP:

The Contractor's CSIP submittal shall identify with specificity any and all forms of intellectual property rights that either the Contractor or any officer, shareholder, employee, consultant, or affiliate, of the Contractor, or any other entity who contributed in any measure to the substance of the Contractor's CSIP development, have or may have that are in whole or in part implicated in the CSIP. Such required intellectual property rights notice includes, but is not limited to, disclosure of any: issued patents, copyrights, or licenses; pending patent, copyright or license applications; and any intellectual property right that though not yet issued, applied for or intended to be pursued, could nevertheless otherwise be subsequently the subject of patent, copyright or license protection by the Contractor or others in the future. The notice requirement does not extend to intellectual property rights as to stand-alone or integral components of the CSIP that are already on the FDOT's APL or design standard indexes, or are otherwise generally known in the industry as being subject to patent or copyright protection.

Notwithstanding Article 5.3 of the General Specifications nor any provisions of the Standard Specifications, upon acceptance of the CSIP, the Contractor grants to CFX and its contractors (such grant being expressly limited solely to any and all existing or future CFX construction projects and any other CFX projects that are partially or wholly funded by or for CFX) a royalty-free and perpetual license under all forms of intellectual property rights to manufacture, to use, to design, to construct, to disclose, to reproduce, to prepare and fully utilize derivative works, to distribute, display and publish, in whole or in part, and to permit others to do any of the above, and to otherwise in any manner and for any purpose whatsoever do anything reasonably necessary to fully utilize any and all aspects of such CSIP on any and all existing and future construction projects and any other CFX projects.

The Contractor shall hold harmless and indemnify CFX and its contractors and others in privity therewith from and against any and all claims, liabilities, other obligations or losses, and reasonable expenses related thereto (including reasonable attorney's fees) which are incurred or are suffered by any breach of the foregoing grants, and regardless of whether such intellectual property rights were or were not disclosed by the Contractor pursuant to the language herein, unless CFX has by express written exception in the CSIP acceptance process specifically released the Contractor from such obligation to hold harmless and indemnify as to one or more disclosed intellectual property rights.

2.4 Claims by Contractor

2.4.1 General: When the Contractor deems that extra compensation, or a time extension is due beyond that agreed to by CFX, whether due to delay, additional Work, altered Work, differing site conditions, breach of Contract, or for any other cause, the Contractor shall follow the procedures set forth herein for preservation, presentation and resolution of the claim.

2.4.2 Notice of Claim:

2.4.2.1 Claims For Extra Work: Where the Contractor deems that additional compensation or a time extension is due for Work or Materials not expressly provided for in the Contract or which is by written directive expressly ordered by CFX pursuant to 2.3, the Contractor shall notify CFX in writing, including the words "NOTICE OF CLAIM" in the document heading of the intention to make a claim for additional compensation before beginning the Work on which the claim is based, and if seeking a time extension, the Contractor shall also submit a preliminary request for time extension pursuant to 6.7.3 within ten (10) calendar days after commencement of a delay. If such notification is not given and CFX is not afforded the opportunity for keeping strict account of actual labor, Materials, Equipment, and time, the Contractor waives the claim for additional compensation or a time extension. Such notice by the Contractor, and the fact that CFX has kept account of the labor, Materials and Equipment, and time, shall not in any way be construed as establishing the validity of the claim or method for computing any compensation or time extension for such claim. Notice of the amount of the claim with supporting data shall be delivered within sixty days after the start of such occurrence or event (unless CFX allows additional time for the Contractor to submit additional or more accurate data in support of the claim) and shall be accompanied by the Contractor's written statement that the adjustment claimed covers all known amounts to which the Contractor is entitled as a result of said occurrence or event. For any claim or part of a claim that pertains solely to final estimate quantity disputes the Contractor shall submit full and complete claim documentation as described in 2.4.3, as to such final estimate claim dispute issues, within 30 calendar days of the Contractor's receipt of CFX's Offer of Final Payment. Submission of timely notice of intent to file a claim, preliminary time extension request, time extension request, and the claim, together with full and complete claim documentation, are each a condition precedent to the Contractor bringing any arbitration or other formal claims resolution proceeding against CFX for the items and for the sums or time set forth in the Contractor's written claim, and the failure to provide such notice of intent, preliminary time extension request, time extension request, claim and full and complete claim documentation within the time required shall constitute a full, complete, absolute and irrevocable waiver by the Contractor of any right to additional compensation or a time extension for such claim.

2.4.2.2 Claims For Delay: Where the Contractor deems that additional compensation

or a time extension is due on account of delay, differing site conditions, breach of Contract, or any other cause other than for Work or Materials not expressly provided for in the Contract (Extra Work) or which is by written directive of CFX expressly ordered by CFX pursuant to 2.3, the Contractor shall submit a written notice of intent to CFX within 48 hours after commencement of a delay to a Work item on the critical path expressly notifying CFX that the Contractor intends to seek additional compensation, and if seeking a time extension, the Contractor shall also submit a preliminary request for time extension pursuant to 6.7.3 within 48 hours after commencement of a delay to a Work item on the critical path, as to such delay and providing a reasonably complete description as to the cause and nature of the delay and the possible impacts to the Contractor's Work by such delay. The timely providing of a written notice of intent or preliminary time extension request to CFX are each a condition precedent to any right on behalf of the Contractor to request additional compensation or an extension of Contract Time for that delay, and the failure of the Contractor to provide such written notice of intent or preliminary time extension request within the time required shall constitute a full, complete, absolute and irrevocable waiver by the Contractor of any right to additional compensation or a time extension for that delay. Notice of the amount of the claim with supporting data shall be delivered within sixty days after the start of such occurrence or event (unless CFX allows additional time for the Contractor to submit additional or more accurate data in support of the claim) and shall be accompanied by the Contractor's written statement that the adjustment claimed covers all known amounts to which the Contractor is entitled as a result of said occurrence or event. There shall be no Contractor entitlement to any monetary compensation or time extension for any delays or delay impacts, whatsoever, that are not related to a Work item on the critical path, and then as to any such delay to such item entitlement to any monetary compensation or time extension shall only be to the extent such is otherwise provided for expressly under 2.3 or 2.4, except that in the instance of delay to an item of Work not on the critical path the Contractor may be compensated for the direct costs of idle labor or Equipment only, at the rates set forth in 2.3, and then only to the extent the Contractor could not reasonably mitigate such idleness. The existence of an accepted schedule, including any required update(s), as stated in Article 6.3.3, is a condition precedent to the Contractor having any right to the granting of an extension of Contract Time arising out of any delay. Contractor failure to have an accepted schedule, including any required update(s), for the period of potential impact, or in the event the currently accepted schedule and applicable update(s) do not accurately reflect the actual status of the project or fail to accurately show the true controlling or non-controlling work activities for the period of potential impact, will result in any entitlement determination as to time or money for such period of potential impact being limited solely to CFX's analysis and identification of the actual controlling or non-controlling work activities. Further, in such instances, CFX's determination as to entitlement as to either time or compensability will be final, unless the Contractor can prove by clear and convincing evidence to a Disputes Review Board that the

CFX's determination was without any reasonable factual basis.

2.4.3 Content of Written Claim: As a condition precedent to the Contractor being entitled to additional compensation or a time extension under the Contract for any claim, the Contractor shall submit a written claim to CFX which will include for each individual claim, at a minimum, the following information:

- (a) A detailed factual statement of the claim providing all relevant dates, locations, and items of Work affected and included in each claim;
- (b) The date or dates on which actions or events resulting in the claim occurred or conditions resulting in the claim became evident;
- (c) Identification of all pertinent documents and the substance of any material oral communications relating to such claim and the name of the persons making such material oral communications;
- (d) Identification of the provisions of the Contract which support the claim and a statement of the reasons why such provisions support the claim, or alternatively, the provisions of the Contract which allegedly have been breached and the actions constituting such breach;
- (e) A detailed compilation of the amount of additional compensation sought and a breakdown of the amount sought as follows:
 - (1) documented additional job site labor expenses;
 - (2) documented additional cost of Materials and supplies;
 - (3) a list of additional Equipment costs claimed, including each piece of Equipment and the rental rate claimed for each;
 - (4) any other additional direct costs or damages and the documents in support thereof;
 - (5) any additional indirect costs or damages and all documentation in support thereof;
- (f) A detailed compilation of the specific dates and the exact number of calendar days sought for a time extension, the basis for entitlement to time for each day, all documentation of the delay, and a breakout of the number of days claimed for each identified event, circumstance or occurrence.

Further, the Contractor shall be prohibited from amending either the basis of entitlement or the amount of any compensation or time stated for any and all issues claimed in the Contractor's written claim submitted hereunder, and any arbitration or other formal claims resolution proceeding shall be limited solely to the basis of entitlement and the amount of any compensation or time stated for any and all issues claimed in the Contractor's written claim submitted hereunder. This shall not, however, preclude the Contractor from withdrawing or reducing any of the basis of entitlement and the amount of any compensation or time stated for any and all issues

claimed in the Contractor's written claim submitted hereunder at any time.

2.4.4 Action on Claim: CFX will respond within 30 calendar days of receipt of a complete claim submitted by Contractor in compliance with 2.4.3. Failure by CFX to respond to a claim within 30 calendar days after receipt of a complete claim in compliance with 2.4.3 constitutes a denial of the claim by CFX. If CFX finds the claim or any part thereof to be valid, such partial or whole claim will be allowed and paid for to the extent deemed valid and any time extension granted, if applicable, as provided in the Contract.

2.4.5 Compensation for Extra Work or Delay:

2.4.5.1 Compensation for Extra Work: Notwithstanding anything to the contrary contained in the Contract Documents, the Contractor shall not be entitled to any compensation beyond that provided for in 2.3.2.

2.4.5.2 Compensation for Delay: Notwithstanding anything to the contrary contained in the Contract Documents, the additional compensation set forth in 2.4.5.3 shall be the Contractor's sole monetary remedy for any delay other than to perform extra work caused by CFX unless the delay shall have been caused by acts constituting willful or intentional interference by CFX with the Contractor's performance of the work and then only where such acts continue after Contractor's written notice to CFX of such interference. The parties anticipate that delays may be caused by or arise from any number of events during the term of the Contract, including, but not limited to, work performed, work deleted, change orders, supplemental agreements, disruptions, differing site conditions, utility conflicts, design changes or defects, time extensions, extra work, right-of-way issues, permitting issues, actions of suppliers, subcontractors or other contractors, actions by third parties, suspensions of work by the CEI pursuant to Article 6.6 of the General Specifications, shop drawing approval process delays, expansion of the physical limits of the project to make it functional, weather, weekends, holidays, special events, suspension of Contract time, or other events, forces or factors sometimes experienced in construction work. Such delays or events and their potential impacts on the performance by the Contractor are specifically contemplated and acknowledged by the parties in entering into this Contract, and shall not be deemed to constitute willful or intentional interference with the Contractor's performance of the work without clear and convincing proof that they were the result of a deliberate act, without reasonable and good-faith basis, and specifically intended to disrupt the Contractor's performance.

2.4.5.3 Compensation for Direct Costs, Indirect Costs, Expenses, and Profit thereon, of or from Delay: For any delay claim, the Contractor shall only be entitled to monetary compensation for the actual idle labor and equipment, and indirect costs, expenses, and profit thereon, as provided for in 2.3.2.1(d) and solely for costs

incurred beyond what reasonable mitigation thereof the Contractor could have undertaken.

2.4.6 **Mandatory Claim Records:** After giving CFX notice of intent to file a claim for Extra Work or delay, the Contractor shall keep daily records of all labor, Materials and Equipment costs incurred for operations affected by the Extra Work or delay. These daily records shall identify each operation affected by the Extra Work or delay and the specific locations where Work is affected by the Extra Work or delay, as nearly as possible. CFX may also keep records of all labor, Materials and Equipment used on the operations affected by the Extra Work or delay. The Contractor shall, once a notice of intent to claim has been timely filed, and not less than weekly thereafter as long as appropriate, provide CFX with a copy of the Contractor's daily records and be likewise entitled to receive a copy of CFX's daily records. The copies of daily records to be provided hereunder shall be provided at no cost to the recipient.

2.4.7 **Claims For Acceleration:** CFX shall have no liability for any constructive acceleration of the Work, nor shall the Contractor have any right to make any claim for constructive acceleration nor include the same as an element of any claim the Contractor may otherwise submit under this Contract. If CFX gives express written direction for the Contractor to accelerate its efforts, such written direction will set forth the prices and other pertinent information and will be reduced to a written Contract Document promptly. No payment will be made on a Supplemental Agreement for acceleration prior to CFX's approval of the documents.

2.4.8 **Certificate of Claim:** When submitting any claim, the Contractor shall certify under oath and in writing, in accordance with the formalities required by Florida law, that the claim is made in good faith, that the supportive data are accurate and complete to the Contractor's best knowledge and belief, and that the amount of the claim accurately reflects what the Contractor in good faith believes to be CFX's liability. Such certification must be made by an officer or director of the Contractor with the authority to bind the Contractor.

2.4.9 **Non-Recoverable Items:** The parties agree that for any claim CFX will not have liability for the following items of damages or expense:

- a. Loss of profit, incentives, or bonuses;
- b. Any claim for other than Extra Work or delay;
- c. Consequential damages including, but not limited to, loss of bonding capacity, loss of bidding opportunities, loss of credit standing, cost of financing, interest paid, loss of other work or insolvency;
- d. Acceleration costs and expenses, except where CFX has expressly and specifically directed the Contractor in writing "to accelerate at CFX's expense";
- e. Attorney fees except in accordance with 3.12, claims preparation expenses

and costs of litigation.

2.4.10 Exclusive Remedies: Notwithstanding any other provision of the Contract, the parties agree that CFX shall have no liability to the Contractor for expenses, costs, or items of damages other than those which are specifically identified as payable under 2.4. In the event of any formal claims resolution process for additional compensation, whether on account of delay, acceleration, breach of Contract, or otherwise, the Contractor agrees that CFX's liability will be limited to those items which are specifically identified as payable in 2.4.

2.4.11 Settlement Discussions: The content of any discussions or meetings held between CFX and the Contractor to settle or resolve any claims submitted by the Contractor against CFX shall be inadmissible in any legal, equitable, arbitration or administrative proceedings, including the Disputes Review Board, brought by the Contractor against CFX for payment of such claim. Dispute Review Board proceedings are not settlement discussions, for purposes of this provision.

2.4.12 Personal Liability of Public Officials: In carrying out any of the provisions of the Contract or in exercising any power or authority granted to the Central Florida Expressway Authority, its employees, members, officers, agents, consultants and successors, there shall be no liability of any employee, officer, official agent or consultant of CFX either personally or as officials or representatives of CFX. It is understood that in all such matters such individuals act solely as agents and representatives of CFX.

2.4.13 Auditing of Claims: All claims filed against CFX shall be subject to audit at any time following the filing of the claim, whether or not such claim is part of a suit pending in the Courts of the State of Florida. The audit may be performed at CFX's sole discretion by employees of CFX or by any independent auditor appointed by CFX, or both. The audit may begin after ten days written notice to the Contractor, subcontractor, or supplier. The Contractor, subcontractor, or supplier shall make a good faith effort to cooperate with the auditors. As a condition precedent to recovery on any claim, the Contractor, subcontractor, or supplier must retain sufficient records, and provide full and reasonable access to such records to allow the CFX auditors to verify the claim. Failure to retain sufficient records of the claim or failure to provide full and reasonable access to such records shall constitute a waiver of that portion of such claim that cannot be verified and shall bar recovery thereunder. Further, and in addition to such audit access, upon the Contractor submitting a written claim, CFX shall have the right to request and receive, and the Contractor shall have the affirmative obligation to provide to CFX, copies of any and all documents in the possession of the Contractor or its subcontractors, materialmen or suppliers as may be deemed relevant by CFX in its review of the basis, validity or value of the Contractor's claim.

Without limiting the generality of the foregoing, the Contractor shall upon written request of CFX make available to CFX auditors, or upon CFX's written request for copies, provide copies at CFX's expense, any or all of the following documents:

1. Daily time sheets and superintendent's daily reports and diaries;
2. Insurance, welfare and benefits records;
3. Payroll registers;
4. Earnings records;
5. Payroll tax returns;
6. Materials invoices, purchase orders, and all Materials and supply acquisition contracts;
7. Materials cost distribution worksheets;
8. Equipment records (list of company owned, rented or other Equipment used)
9. Vendor rental agreements and subcontractor invoices;
10. Subcontractor payment certificates;
11. Canceled checks for the project, including payroll and vendors;
12. Job cost reports;
13. Job payroll ledgers;
14. General ledger, general journal, (if used) and all subsidiary ledgers and journals together with all supporting documentation pertinent to entries made in these ledgers and journals;
15. Cash disbursements journal;
16. Financial statements for all years reflecting the operations on the Project;
17. Income tax returns for all years reflecting the operations on the Project;
18. All documents which reflect the Contractor's actual profit and overhead during the years the Contract was being performed and for each of the five years prior to the commencement of the Contract;
19. All documents related to the preparation of the Contractor's bid including the final calculations on which the bid was based;
20. All documents that relate to each and every claim together with all documents which support the amount of damages as to each claim;
21. Worksheets used to prepare the claim establishing the cost components for items of the claim including, but not limited to, labor, benefits and insurance, Materials, Equipment, subcontractors, and all documents that establish which time periods and individuals were involved, and the hours and rates for such individuals.
22. Electronic Payment Transfers and like records

2.5 Unforeseeable Work

When Work is required which is not covered by a price in the Contract and such Work does not constitute a "significant change" as defined in 2.3.1, and such Work is found essential to the satisfactory completion of the Contract within its intended scope, an adjustment will be made to the Contract. The basis of payment for such adjustment will be in an amount as CFX may determine to be fair and equitable.

2.6 Right To and Use of Materials Found at the Site of the Work

- 2.6.1 Ownership and Disposal of Existing Materials: Except as might be stipulated or implied otherwise on the Plans or in the Specifications, all Materials which are not the property of other parties (in both roadway and structures) found on the right of way and all material in structures removed by the Contractor, shall become the property of the Contractor and shall be properly disposed of by the Contractor. Such Materials shall not include earth or other excavated material required for the construction of the Project. Materials from existing structures required to be removed and which are designated to remain the property of CFX may generally be used by the Contractor during construction. Such material shall not be cut or otherwise damaged during removal unless permission is given and shall subsequently be stored in an accessible location if so directed by CFX.
- 2.6.2 Ornamental Trees and Shrubs: Any ornamental trees or shrubs existing in the right-of-way (which are required to be removed for the construction operations and which are not specifically designated on the Plans to be reset or to be removed by others prior to the construction operations) shall remain the property of CFX, and shall be relocated by the Contractor as directed. The Contractor shall be fully responsible for maintaining in good condition all grass plots, trees and shrubs outside the limits of construction as shown on the Plans. Tree limbs that interfere with Equipment operation and are approved for pruning shall be neatly trimmed and the tree cut coated with tree paint.

2.7 Restoration of Right of Way

Areas outside the Project limits within CFX right of way used as a plant site be shaped and dressed so as not to present an objectionable appearance and grassed. The Work of grassing will not be paid for separately but will be considered incidental to the other items of Work for which payment is made. Property outside CFX's right of way that is damaged due to the activities of the Contractor shall be immediately restored, at Contractor's expense, to a condition similar or equal to that existing before such damage or injury was done by the Contractor.

Upon completion of the Work and before final acceptance and final payment will be made, the Contractor shall remove from the right of way and adjacent property all falsework, Equipment, surplus and discarded Materials, rubbish and temporary structures; shall restore in an acceptable manner all property, both public and private, which has been damaged during the prosecution of the Work, and shall leave the roadway in a neat and presentable condition throughout the entire length of the Work under the Contract. The placing of Materials of any character, rubbish or Equipment, on abutting property, with or without the consent of the property owners, shall not constitute satisfactory disposal. However, the Contractor will be allowed to temporarily store Equipment, surplus Materials, usable forms, etc., on a well-kept site owned or leased by the Contractor, adjacent to the Project, but no discarded Equipment or Materials or rubbish shall be placed on such site.

END OF SECTION 2

SECTION 3 - CONTROL OF WORK

3.1 Plans and Working Drawings

3.1.1 Plans and Contract Documents: The Contractor will be supplied, without charge, one (1) set of Plans and Contract Documents on electronic media and one (1) hard copy set of "Approved for Construction" documents including the Plans, General Specifications, Technical Specifications and Special Provisions and addenda, if any. Copies of the FDOT Standard Specifications and Design Standards are available from the FDOT.

3.1.2 CFX Plans: The Plans furnished by CFX consist of general drawings showing such details as are necessary to give a comprehensive idea of the construction contemplated. Roadway plans will show in general, alignment, profile grades, typical cross sections and general cross sections. Structure plans, in general, will show in detail all dimensions of the Work contemplated. When the structure plans do not show the dimensions in detail, they will show general features and such details as are necessary to give a comprehensive idea of the structure.

Grades shown are finished grades and B.M. Datum is National Geodetic Vertical Datum of 1929 (NGVD-1929), North American Vertical Datum 1988 (NAVD-1988), or other datum as noted in the Plans.

3.1.3 Alterations in the Plans: All authorized alterations affecting the requirements and information given on the approved Plans shall be in writing. No changes shall be made on any plan or drawing after its approval by CFX, except by direction of CFX.

3.1.4 Shop Drawings

3.1.4.1. Definitions:

(a) Shop Drawings include all working, shop and erection drawings, associated trade literature, calculations, schedules, manuals or similar documents submitted by the Contractor to define some portion of the Work. The type of Work includes both permanent and temporary Work.

(b) Permanent Work is the term deemed to include all the permanent structure and parts thereof required of the completed Contract.

(c) Temporary Work is the term deemed to include any temporary construction work necessary for the construction of the permanent Work. This includes falsework, formwork, scaffolding, shoring, temporary earthworks, sheeting, cofferdams, special erection Equipment and the like.

3.1.4.2. Work Items Requiring Shop Drawings: The requirement for submittals for

certain items may be waived by other provisions of these specifications; i.e. items constructed from standard drawings or those complying with alternate details for pre-stressed members under Section 450. Precast components that are not detailed in the Plans or Standard Drawings will require approved shop drawings. The Contractor shall review the Plans and Specifications to determine the submittals required. The CEI may request a submittal for any item the CEI considers necessary.

3.1.4.3 Schedule of Submittals: The Contractor shall prepare and submit to the CEI a schedule of submittals identifying the Work for which Contractor intends to submit shop drawings, the type, approximate number of drawings or other documents and approximate dates of anticipated submittals with due regard to processing requirements herein. The schedule of submittals shall be submitted to the CEI within 15 days of the start of the date of the Notice to Proceed, and prior to the submission of any shop drawings.

Subsequent submittals shall be coordinated with construction schedules to allow sufficient time for review, approval and re-submittal as necessary.

3.1.4.4 Style, Numbering and Material of Submittals:

3.1.4.4.1 Drawings: The Contractor shall furnish such shop drawings as may be required to complete the structure in compliance with the design shown on the Plans. Drawings shall be prepared or reproduced on permanent material made for the purpose, such as tracing cloth, plastic, mylar or xerographic bond paper, hereafter referred to as masters. The size of the sheets shall be no larger than 24 by 36 inches. Each sheet shall be numbered consecutively for the series and the sheet number shall indicate the total number in the series (e.g., 1 of 12, 2 of 12, ...12 of 12). Each shop drawing shall contain the following items as a minimum requirement: the CFX Project Number, drawing title and number, a title block showing the names of the fabricator or producer and the Contractor for which the Work is being done, the initials of the person(s) responsible for the drawing, the date on which the Work was performed, the location of the item(s) within the Project, the Contractor's approval stamp and initials and when applicable, the signature and embossed seal of the Contractor's Florida registered Specialty Engineer. The absence of any of this minimum information may be cause for a request for a re-submittal.

3.1.4.4.2 Other Documents: Documents other than drawings, such as trade literature, catalogue information, calculations and manuals shall be original copies or clearly legible photographic or xerographic copies. The size shall be no larger than 11 by 17 inches. Such information shall be clearly labeled and numbered and the sheet numbers shall indicate the total number of sheets

in the series (e.g., 1 of 12, 2 of 12, 12 of 12).

All documents shall be bound and submitted with a Table of Contents cover sheet. The cover sheet shall list the total number of pages and appendices and shall also include the CFX Project Number, a title to reference the item(s) for which it is submitted, the name of the firm and person(s) responsible for the preparation of the document, the Contractor's approval stamp and initials and, when applicable, the signature and embossed seal of the Contractor's Florida registered Specialty Engineer.

The calculations or manuals shall clearly outline the design criteria and shall be appropriately prepared and checked. The internal sheets shall include the complete CFX Project Number and initials of the persons responsible for preparing and checking the document.

Trade literature and catalogue information shall be clearly labeled with the title, CFX Project Number, date and name of the firm and person responsible for that document displayed on the front cover.

Documents other than drawings may be on xerographic paper or glossy paper material as appropriate. For the purpose of this specification, the term "shop drawings" shall be deemed to include these other documents.

3.1.4.5 Submittal Paths and Copies:

The Contractor shall submit one (1) set of prints along with one (1) set of reproducible copies of each series of shop drawings to the CEI with a copy of the letter of transmittal sent to the Consultant. For Work requiring other documentation (e.g. catalog data, material certifications, material tests, procedure manuals, fabrication / welding procedures, and maintenance and operating manuals) a minimum of eight (8) copies of each document shall be submitted with the prints. The mailing address of the Consultant will be furnished by CFX.

For other miscellaneous design and/or structural details furnished by the Contractor in compliance with the contract: The Contractor shall submit to the CEI one (1) set of prints along with one (1) reproducible copy of each series of shop drawings and four (4) copies of applicable calculations. Each print and the cover sheet of each copy of applicable calculations shall be signed and sealed by the Contractor's Specialty Engineer.

3.1.4.6 Processing of Shop Drawings:

3.1.4.6.1 Contractor Responsibility for Accuracy and Coordination of Shop Drawings: The Contractor shall coordinate, schedule and control all submittals including those of its various subcontractors, suppliers and engineers to provide for an orderly and balanced distribution of the Work.

All shop drawings prepared by the Contractor or its agents (subcontractor, fabricator, supplier and etc.) shall be coordinated, reviewed, dated, stamped, approved and signed by the Contractor prior to submission to the CEI for review. The Contractor's signed approval of drawings submitted shall confirm the Contractor has verified the Work requirements, field measurements, construction criteria, sequence of assembly and erection, access and clearances, catalog numbers and other similar data. Each series of drawings shall indicate the specification section and page or drawing number of the Contract plans to which the submission applies. The Contractor shall indicate on the shop drawings all deviations from the Contract drawings and shall itemize all deviations in the letter of transmittal. Likewise, whenever a submittal does not deviate from the Contract plans, the Contractor shall also clearly state so in the transmittal letter.

The Contractor shall schedule the submission of shop drawings to allow for a 15 calendar day review period by the CEI. The review period commences upon receipt of the Contractor's submittal by the CEI and terminates upon transmittal of the submittal back to the Contractor by the CEI. The Contractor shall adjust its schedules so that a 10 calendar day period is provided for each re-submittal.

It is incumbent upon the Contractor to submit shop drawings to facilitate expeditious review. Voluminous submittals of shop drawings at one time are discouraged and may result in increased review time. The submittal/re-submittal clock will start upon receipt of a valid submittal. A valid submittal shall include all the minimum requirements outlined in 3.1.4.4. CFX will not be liable to the Contractor for resulting delays, added costs and/or related damages when the actual time required for approval extends beyond the 45 and 30 day review periods shown above.

Only CEI approvals of miscellaneous submittals and red ink stamps on shop drawings are valid and any Work performed in advance of approval will be at the Contractor's risk.

3.1.4.6.2 Scope of Review by CEI: The review of the shop drawings by the CEI shall be for conformity to the Contract requirements and intent of design

and not for the adequacy of the means, methods, techniques, sequences and procedures proposed for construction. Review by the CEI does not relieve the Contractor of responsibility for dimensional accuracy to assure field fit and for conformity of the various components and details.

3.2 Coordination of Plans and Specifications

The Plans, Specifications and all supplementary documents are integral parts of the Contract and a requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete Work. In addition to the Work and Materials specifically identified as being included in any specific pay item, additional incidental Work not specifically mentioned will be included in such pay item when shown in the Plans or if indicated or obvious and apparent as being necessary for proper completion of the Work.

In case of discrepancy, the governing order of the documents shall be as follows:

1. The Contract,
2. The Memorandum of Agreement,
3. The Addenda (if any), modifying the General Specifications, Technical Specifications, Special Provisions, Technical Special Provisions (if any), Plans or other Contract Documents,
4. The Plans,
5. The Special Provisions,
6. The Technical Special Provisions (if any),
7. The Technical Specifications,
8. The General Specifications,
9. The Standard Specifications,
10. The Design Standards, and
11. The Proposal.

Computed dimensions shall govern over scaled dimensions.

3.3 Conformity of Work with Plans

All Work performed, and all Materials furnished shall be in reasonably close conformity with the lines, grades, cross sections, dimensions and material requirements, including tolerances, shown on the Plans or indicated in the Specifications.

In the event CFX finds that the Materials or the finished product in which the Materials are used are not within reasonable close conformity with the Plans and Specifications, but that reasonably acceptable Work has been produced, CFX will make a determination if the Work will be accepted and remain in place. In this event, CFX will document the basis of

acceptance by Contract modification which will provide for an appropriate adjustment in the Contract price for such Work or Materials as CFX deems necessary to conform to CFX's determination based on engineering judgment.

In the event CFX finds that the Materials or the finished product in which the Materials are used, or the Work performed are not in reasonable close conformity with the Plans and Specifications and have resulted in an inferior or unsatisfactory product, the Work or Materials shall be removed and replaced or otherwise corrected by and at the expense of the Contractor.

For base and surface courses, the finished grade may vary as much as 0.1 foot from the grade shown on the Plans, provided that all template and straightedge requirements are met and that suitable transitions are affected.

3.3.1 Record Drawings: During the entire construction operation, the Contractor shall maintain records of all deviations from the plans and specifications including Request for Information (RFI), field directives, sketches, etc., and shall submit those deviations to the CEI. The submittal shall also include cross-sections, prepared by a registered surveyor, of all retention ponds in the Project limits. A minimum submittal would be full-sized prints in good condition with all changes in red, accurately plotted. The print shall be in good condition as determined by the CEI. The marked up prints shall be submitted within 15 days of the Project acceptance or termination of Work. Preparation of the record drawings shall be the responsibility of CFX. Retainage will not be released by CFX until the marked up prints and records have been submitted and accepted by CFX.

3.4 Pre-Award Meeting

The Plans and Specifications will be reviewed in a joint pre-award meeting between the Contractor's key personnel and CFX representatives. The purpose of the meeting will be to address all questions or differences in interpretations of the documents and to provide clarifications. The meeting will also provide the opportunity for the Contractor to disclose advantages that may have been gained through a strict and literal interpretation of the bid documents. If the Contractor suspects or believes, based on its prior experience, or on the overall specifications, that a literal interpretation of one or more specifications may not reflect CFX's intentions or desires, the Contractor shall disclose such belief at this meeting. CFX will make a determination as to whether or not any adjustments to the Plans, Specifications and/or bid price are appropriate and desired and will make such corrections and interpretations as CFX deems necessary to reflect the intent of the Plans and Specifications.

A Memorandum of Agreement will be prepared by CFX summarizing the results of the meeting. Except as noted in the Memorandum of Agreement, the Contractor shall certify

there are no known errors or omissions in the Plans, Specifications and other Contract Documents before the Contract is executed. The memorandum will be signed by CFX and a representative of the Contractor authorized to act on behalf of the Contractor and will be made a part of the Contract Documents.

Notwithstanding that the pre-award meeting is mandatory as to the Contractor, and notwithstanding that the items to be agreed upon at the pre-award meeting shall become terms of the ultimate Contract, the Contractor expressly acknowledges and agrees that all of the essential terms of the ultimate Contract are contained in the Bid and Bidding Documents, and all issues addressed at the pre-award meeting are deemed non-essential to the existence of the Contract, unless (i) it is discovered that the Contractor misrepresented any item of the Bid, or (ii) CFX determines that the Bid does not conform to the specifications of the Bidding Documents.

3.5 Orders and Instructions

The supervision of the execution of the Contract is vested wholly in the Contractor. The orders, instructions, directions or requests of CFX may come directly from CFX or may be given through CFX's designated representative. The Contractor shall designate a representative to receive such instructions, directions or requests and failing to do so, will be held responsible for the execution of them.

CFX will have the right to suspend the Work wholly or in part for such period or periods as may be deemed necessary due to failure on the part of the Contractor to carry out orders given to perform any or all provisions of the Contract. The Contractor shall not suspend the Work and shall not remove any Equipment, tools, lumber or other Materials without the written permission of CFX.

3.5.1 Observation of the Work: CFX will have free access to the Materials and the Work at all times for measuring or observing the same, and the Contractor shall afford either or both all necessary facilities and assistance for so doing.

After written authorization to proceed with the Work, CFX or its designated representative will:

3.5.1.1 Make visits to the site at intervals appropriate to the various stages of construction to observe the progress and quality of the executed Work and to determine in general if the Work is proceeding in accordance with the Plans and Specifications. CFX will not be required to make exhaustive or continuous on-site observations to check the quality or quantity of the Work, will not be responsible for the construction means, methods, procedures, techniques and will not be responsible for the Contractor's failure to perform the construction Work in accordance with the Plans and Specifications. CFX will not be responsible for safety precautions and

procedures concerning the Work. During such visits and based on on-site observations, CFX may disapprove Work as failing to conform to the Plans and Specifications.

3.5.1.2 Check and approve samples, catalog data, schedules, shop drawings, laboratory, shop and mill tests of Materials and Equipment and other data which the Contractor is required to submit, only for conformance with the design concept of the Project and compliance with the information given by the Plans and Specifications.

3.5.1.3 Conduct, in company with the Contractor, a final inspection of the Project for conformance with the design concept of the Project and compliance with the information given by the Plans and Specifications.

3.5.1.4 Prepare final record drawings.

3.5.2 Examination of the Work: The authority and duties of the CEI, if one is so designated by CFX, are limited to examining the material furnished, observing the Work done and reporting its findings to CFX. Neither CFX nor the CEI underwrites, guarantees or ensures the Work done by the Contractor. It is the Contractor's responsibility to perform the Work in all details in accordance with the Plans and Specifications. Failure by any representative of CFX engaged in on-the-site observation to discover defects or deficiencies in the Work of the Contractor shall never, under any circumstances, relieve the Contractor from the Contractor's liability therefore.

The CEI will have no authority to permit deviation from or to modify any of the provisions of the Plans or Specifications without the written permission or instruction of CFX or to delay the Contractor by failure to observe the Materials and Work with reasonable promptness.

The CEI will not have authority to supervise, direct, expedite or otherwise control the Contractor's means, methods, techniques or sequences of construction. The CEI may only advise the Contractor when it appears that the Work and/or Materials do not conform to the requirements of the Contract Documents.

The payment of any compensation, irrespective of its character or form or the giving of any gratuity, or the granting of any valuable favor, directly or indirectly, by the Contractor to any project representative is strictly prohibited, and any such act on the part of the Contractor will constitute a violation of the Contract.

If the Plans, Specifications, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any Work to specifically be inspected, tested or approved by someone other than the Contractor, the Contractor shall give

CFX timely notice of readiness therefore. The Contractor shall furnish CFX the required certificates of inspection, testing or approval. All such tests will be in accordance with the methods prescribed by the American Society for Testing and Materials, and/or the American Association of State Highway and Transportation Officials, such other applicable organizations as may be required by law, or the Plans and Specifications. If any such Work required so to be inspected, tested or approved is covered without written approval of CFX, it must, if requested by CFX, be uncovered for observation at the Contractor's expense. The cost of all such inspections, tests and approvals shall be borne by the Contractor unless otherwise provided.

- 3.5.3 Communications: Prior to the start of the Work, CFX will advise the Contractor as to how communications between CFX and Contractor will be handled. Thereafter, whenever reference is made to required communication between the Contractor and CFX, such communication, to be given consideration, must be addressed in accordance with the approved procedure.

3.6 Engineering and Layout

3.6.1 Control Points Furnished by CFX

CFX will provide control points and benchmarks as identified in the Plans along the line of the Project to facilitate the proper layout of the Work. A walk-through of the Project by the Consultant's surveyor will be provided to the Contractor to facilitate field location of these points. The Contractor shall preserve all reference points and benchmarks furnished by CFX.

As an exception to the above, if the Plans do not show a centerline or other survey control line for construction of the Work (e.g., resurfacing, safety modifications, etc.) CFX will provide only points marking the beginning and ending of the Project and all exceptions.

3.6.2 Furnishing of Stake Material

The Contractor shall furnish all stakes, templates and other Materials necessary to establish and maintain the lines and grades necessary for control and construction of the Work.

3.6.3 Layout of Work

Using the control points furnished by CFX in accordance with 3.6.1 above, the Contractor shall establish all horizontal and vertical controls necessary to construct the Work in conformance with the Plans and Specifications. The horizontal and

vertical controls shall include performing all calculations required and setting all stakes needed such as grade stakes, offset stakes, reference point stakes, slope stakes and other reference points or marks necessary to provide lines and grades for construction of all roadway, bridge and miscellaneous items. The Contractor shall also establish all horizontal and vertical controls necessary to perform utility construction required to be performed by the Contractor. The Contractor shall maintain and protect the required station identification stakes in their correct and appropriate locations. Failure to comply with this provision will result in the withholding of the Contractor's partial payments.

The Contractor shall provide CFX with survey assistance for subsoil excavation quantities and other Project quantities as required by CFX.

3.6.4 Specific Staking Requirements

In circumstances involving new base construction, the Contractor shall set stakes to establish lines and grades for subgrade base, curb and related items at intervals along the line of Work no greater than 50 feet on tangents and 25 feet on curves. Grade stakes shall be set at locations directed by the CEI to facilitate checking of subgrade, base and pavement elevations in crossovers, intersections and irregular shaped areas. If Automated Machine Guidance (AMG) is utilized, set stakes as needed to document quantities. Use of AMG will require an approved Work Plan that describes portions of Work performed with AMG, system components including software, prior experience using this AMG system, site calibration procedures, and quality control procedures. Provide a man rover and a digital model for CEI verification.

For bridge construction stakes and other controls, the Contractor shall set references at intervals sufficient to assure that all components of the structure are constructed in accordance with the lines and grades shown on the Plans.

If the Plans do not show a centerline or other survey control line for construction of the Work (e.g., resurfacing, safety modifications, etc.), only such stakes as are necessary for horizontal and vertical control of Work items will be required.

For resurfacing and resurfacing/widening Work, the Contractor shall establish horizontal controls adequate to assure that the asphalt mix added coincides with the existing pavement. In tangent sections, horizontal control points shall be set at 100-foot intervals by an instrument survey. In curve sections, horizontal control points shall be set at 25-foot intervals by locating and referencing the centerline of the existing pavement.

The Contractor shall establish, by an instrument survey, and mark on the surface of

the finished pavement at 25-foot intervals, points necessary for striping of the finished roadway. For resurfacing and resurfacing/widening Work these points shall be established in the same manner as for horizontal control of paving operations. Marks shall be made in white paint. If striping is included in the Work to be done by the Contractor an alternate method of layout of striping may be approved by the CEI provided that the alignment achieved is equal to or better than that which would be achieved using an instrument survey.

A station identification stake shall be set at each right of way line at 100-foot intervals and at all locations where a change in right of way width occurs. Each stake shall be marked with painted numerals of sufficient size to be readable from the roadway and corresponding to the Project station at which it is located. Where Plans do not show right of way lines, station identification stakes shall be set at locations and intervals appropriate to the type of Work being done. For resurfacing and resurfacing/widening Work, station identification stakes shall be set at 200-foot intervals.

3.6.5 Personnel, Equipment, and Record Requirements

The Contractor shall employ only competent personnel and use only suitable equipment in performing layout Work. The Contractor shall not engage the services of any person or persons in the employ of CFX for performance of layout Work.

Adequate field notes and records shall be kept as layout Work is accomplished. These field notes and records shall be available for review by the CEI as the Work progresses and copies shall be furnished to the CEI at the time of completion of the Project. Any review of the Contractor's field notes or layout Work by CFX and the acceptance of all or any part thereof, shall not relieve the Contractor of responsibility to achieve the lines, grades, and dimensions shown in the plans and indicated in the specifications.

Prior to final acceptance of the Project, the Contractor shall mark in a permanent manner on the surface of the completed Work all horizontal control points originally furnished by CFX.

3.6.6 Payment

The cost of performing the layout Work as described above shall be included in the Contract unit prices for the various items of Work to which it is incidental.

3.7 Contractor's Supervision

3.7.1 Prosecution of Work

The Contractor shall give the Work the attention necessary to assure the scheduled progress is maintained. The Contractor shall cooperate with CFX and other contractors at Work in the vicinity of the Project.

3.7.2 Contractor's Superintendent

The Contractor shall have a competent superintendent on the Project at all times with the ability to speak and understand the English language. The superintendent shall be thoroughly experienced in the type of Work being performed and shall have full authority to execute the orders or directions of the CEI and to promptly supply or have supplied, any Materials, tools, equipment, labor and incidentals which may be required. The superintendent shall be provided regardless of the amount of Work sublet.

Prior to commencement of Work on the Project, the Contractor shall provide CFX with a written list of supervisory personnel that will be assigned to the Project. The Contractor shall not replace any of the listed personnel without written notice to CFX except under extraordinary circumstances. The Contractor shall not assign any supervisory personnel to the Project, whether initially or as a substitute, against whom CFX may have reasonable objection. CFX's acceptance of any supervisory personnel may be revoked based on reasonable objection after due investigation, in which case the Contractor shall submit an acceptable substitute. No acceptance by CFX of any such supervisory personnel shall constitute a waiver of any right of CFX to reject defective Work. The foregoing requirement shall also extend to Subcontractor's supervisory personnel.

3.7.3 Supervision for Emergencies

The Contractor shall have a responsible person available at or reasonably near the Work site on a 24-hour basis, 7 days per week. This individual shall be designated as the Contractor's contact in emergencies and in cases where immediate action must be taken to maintain traffic or to handle any other problem that might arise. The contact person shall have the ability to speak and understand the English language.

The Contractor shall submit by certified mail to the Florida Highway Patrol and other local law enforcement agencies, a description of the Project location and the name(s) and telephone number(s) of individual(s) designated to be contacted in cases of emergencies. A copy of these submittals shall also be provided to the CEI as part of the Contractor's Maintenance of Traffic Plan. Approval of the Maintenance of

Traffic Plan will be withheld until these submittals are provided.

3.7.4 Worksite Traffic Supervisor

The Contractor shall have a Worksite Traffic Supervisor who shall be responsible for initiating, installing and maintaining all traffic control devices required for maintenance of traffic. The Worksite Traffic Supervisor shall have at least 1 year of experience directly related to worksite traffic control in a supervisory or responsible capacity and shall be certified by the American Traffic Safety Services Association under its Worksite Traffic Supervisor Certification Program, or an FDOT-approved advanced training Provider. Approved advanced training Providers will be posted on the FDOT's web site at the following URL address: <http://www.dot.state.fl.us/rddesign/MOT/MOT.shtm>.

The Worksite Traffic Supervisor shall be available on a 24-hour per day basis and shall be present to direct the initial setup of the traffic control plan. The Worksite Traffic Supervisor shall review the Project daily, be involved in all changes to traffic control and have access to all equipment and Materials needed to maintain traffic control and handle traffic related situations.

The Worksite Traffic Supervisor shall ensure that safety deficiencies are corrected immediately. In no case shall minor deficiencies, which are not immediate safety hazards, remain uncorrected for more than 24 hours. The Worksite Traffic Supervisor shall be available on the site within 45 minutes after notification of an emergency and be prepared to positively respond to repair the Work zone traffic control or to provide alternate traffic arrangements.

Failure by the Contractor to maintain a designated Worksite Traffic Supervisor may result in temporary suspension by CFX of all activities except traffic and erosion control and such other activities deemed necessary for Project maintenance and safety.

3.8 General Inspection Requirements

3.8.1 Cooperation by Contractor

The Contractor shall provide CFX with every reasonable facility for ascertaining whether the Work performed and Materials used are in accordance with the requirements and intent of the Plans and Specifications. If CFX so requests, the Contractor shall, at any time before final acceptance of the Work, remove or uncover such portions of the finished Work as may be directed. After examination, the Contractor shall restore the uncovered portions of the Work to the standard required by the Specifications. If the exposed or examined Work is determined to be

unacceptable, the cost of uncovering and/or removal and replacement of the covering or making good of the parts removed, shall be at the Contractor's expense. The Contractor shall revise and upgrade both construction and testing procedures to prevent a recurrence of the conditions that contributed to the unacceptable Work. If the exposed or examined Work is determined to be acceptable, the cost of uncovering and/or removal and replacement of the covering or making good of the parts removed, shall be paid for as unforeseeable Work.

The Contractor shall give the CEI 24 hours advance notice whenever the Contractor intends to perform Work during other than normal daylight hours. On such occasions, the Contractor's supervisor and sufficient workmen shall be present to undertake the Work in a satisfactory manner. No additional compensation will be made to the Contractor for Work performed during such off periods.

The Contractor shall notify the CEI in writing prior to beginning pumping or dewatering activity in any new location on the project or the resumption of pumping after an interruption in any location. Pumping and discharge activities shall be discussed at each weekly progress meeting. Contractor will satisfy permit requirements at any pumping or dewatering activity.

3.8.2 Failure of CFX to Reject Work During Construction

If CFX should fail to reject defective Work or Materials, whether from lack of discovery of such defect or for any other reason, such failure to reject will not prevent CFX from subsequently rejecting defective Work when such defective Work is discovered or obligate CFX to final acceptance of the defective Work. The Contractor shall make no claim for losses suffered due to any necessary removals or repairs of such defects.

3.8.3 Failure to Remove and Renew Defective Materials and Work

If, within the time frame indicated in writing from CFX, the Contractor fails or refuses to remove and renew any defective Materials used or Work performed or fails or refuses to make necessary repairs in an acceptable manner, CFX shall have the right to repair or replace or have repaired or replaced, the unacceptable or defective Materials or Work. All costs incurred by CFX for repairs or replacements shall be paid for from moneys due, or which may become due, the Contractor, or may be charged against the Contractor's Public Construction Bond.

Continued failure or refusal by the Contractor to make necessary repairs promptly, fully and in an acceptable manner shall be sufficient cause for CFX, at its sole discretion and option, to perform the Work with its own forces or to contract with any individual, firm or corporation to perform the Work. Costs incurred by CFX

shall be paid for from moneys due or which may become due the Contractor or may be charged against the Contractor's Public Construction Bond.

3.9 Final Inspection and Acceptance

3.9.1 Maintenance Until Final Acceptance

Until final acceptance by CFX, the Work shall be under the charge and custody of the Contractor. The Contractor shall take every necessary precaution against injury or damage to the Work by the action of the elements or from any other cause whatsoever arising either from the execution or non-execution of the Work and shall rebuild, repair, restore and make good, without additional compensation, all injury or damage to any portion of the Work including extensive or catastrophic damages.

The Contractor shall provide, at Contractor's expense, all temporary electrical power and lighting necessary for Contractor's operations under the Contract.

On new alignments, the Contractor shall be responsible for all electric bills until Final Acceptance of the project or until such time as CFX takes beneficial use of the alignment or portion thereof, whichever occurs first. Once installed, the roadway lighting shall remain in use and be maintained by the Contractor until Final Acceptance. The Contractor shall be responsible for payment of the electric bills until Final Acceptance at which time payment will be the responsibility of CFX.

3.9.2 Inspection for Substantial Completion

The CEI will make a semi-final inspection within 7 days after written notice from the Contractor of completion of the Project in its entirety. If, at the semi-final inspection, it is determined that all pay item work has been installed and other conditions as defined in Section 1.3, the project will be deemed Substantially Complete. Further, if all construction provided for and contemplated by the Contract is complete and acceptable to the CEI, such inspection shall constitute the final inspection as described below.

If any Work is determined to be unsatisfactory by the CEI, in whole or in part, the CEI will give the Contractor the necessary instructions as to repair and/or replacement of material and the prerequisites to final completion and acceptance. Upon satisfactory completion of repairs and/or replacements, the Contractor shall notify the CEI and request another inspection for Substantial Completion. Such inspection will constitute the final inspection if the required material has been repaired and/or replaced and the Work is acceptable to the CEI.

Prior to the inspection for Substantial Completion, the CEI may provide the Contractor with various deficiency lists. These lists are intended to assist the Contractor in preparing for Substantial Completion and are not to be considered as punch lists.

3.9.3 Final Inspection

When, in the opinion of the Contractor, all Materials have been furnished, all Work has been performed and the construction contemplated by the Contract has been satisfactorily completed, the Contractor shall request that the CEI make the final inspection.

3.9.4 Final Acceptance

When the entire Work of the Project contemplated by the Contract has been completed acceptably, as determined by the CEI, the Contractor will be given a written notice of final acceptance.

3.9.5 Recovery Rights Subsequent to Final Payment

CFX reserves the right for a period of 60 months following Final Acceptance, if CFX or its agents discovers and error in the partial or final estimates, or discovers that the Contractor performed defective Work or used defective materials, after the final payment has been made, to claim and recover from the Contractor or Contractor's surety, or both, by process of law, such sums as may be sufficient to correct the error or make good the defects in the Work and materials.

3.10 Audit and Examination of Contract Records and Bid Records

CFX reserves and is granted the right (at any time and from time to time, for any reason whatsoever) to review, audit, copy, examine and investigate in any manner, any Contract Records (as herein defined) or Bid Records (as herein defined) of the Contractor or any subcontractor. By submitting a Bid, the Contractor or any first or second tier subcontractor submits to and agrees to comply with the provisions of this Article. In addition, the Contractor shall be entitled to enter into subcontracts with proper CFX approval provided that all subcontracts shall include the same or similar terms as are in this Contract with respect to subcontractors, providing CFX with equal or greater protections than herein.

If CFX requests access to (or review and copy of) any Contract Records or Bid Records and the Contractor refuses such access or review, the Contractor shall be in default under its Contract with CFX. Such refusal shall, without any other or additional actions, constitute grounds for disqualification of the Contractor. This provision shall not be limited in any manner by the existence of any Contractor claims or pending disputes resolution or

arbitration relating to the Contract. Disqualification or suspension of the Contractor for failure to comply with this section shall also preclude the Contractor from acting in the future as a subcontractor of another contractor doing work for CFX during the period of disqualification.

Disqualification shall mean the Contractor is not eligible for and shall be precluded from continuing current Work or doing future work for CFX until reinstated by CFX.

The Contractor shall preserve all Bid Records and Contract Records for the entire term of the Contract and for a period of three years after the later of: (i) final acceptance of the Project by CFX or (ii) until all claims (if any) regarding the Contract are resolved.

Contract Records shall include but not be limited to, all information, letters, communications and data, whether in writing or stored on a computer, computer disks, microfilm, writings, working papers, drafts, computer printouts, field notes, charts or any other data compilations, books of account, photographs, videotapes and audiotapes, agreements, supporting documents, any other papers or preserved data related to the Contract or the Contractor's performance of the Contract determined necessary by CFX for any purpose. Bid Records shall include but not be limited to, all information and data, whether in writing or stored on a computer, writings, working papers, computer printouts, charts or other data compilations that contain or reflect information, data or calculations used by the Contractor in determining labor, unit price, or any other component of a bid submitted to CFX. Bid Records shall also include but not be limited to, any material relating to the determination or application of equipment rates, home and field overhead rates, related time schedules, labor rates, efficiency or productivity factors, arithmetic extensions, quotations from subcontractors, truckers or material suppliers, profit contingencies and any manuals standard in the industry that may be used by the Contractor in determining its bid. These manuals shall be included in the Bid Records by reference and shall show the name and date of the publication and the publisher.

As a condition precedent to Contractor initially filing (and thereafter processing) any claim with CFX for additional compensation, damages, costs, time extensions or other matters in the nature of a Supplemental Agreement or which will have monetary consequences to CFX, Contractor shall (before and after filing a claim) fully comply with CFX's request to audit or examine the Contractor's Contract Records or Bid Records. Non-compliance shall be the basis for and result in dispute resolution being abated or the claim being dismissed until compliance occurs. Re-filing of the claim (and removal of disqualification) shall not occur unless the Contractor also reimburses CFX for costs and attorney's fees incurred in connection with the audit request and disqualification.

The purpose of this provision and requirement is to assure that CFX has full information with respect to any Contractor claims so as to expedite dispute resolution, processing and satisfying bona fide claims.

3.11 Escrow of Bid Records

Prior to the Contract becoming binding on CFX, the following procedure shall have been timely implemented to secure the Contractor's Bid Records to the satisfaction of CFX:

1. The Contractor, in the company of the CEI, shall rent a safe deposit box, at a bank in Orange or Seminole County, of adequate size to hold the original or a legible copy of the Bid Records used by the Contractor and all subcontractors to prepare its bid. The Bid Records, enclosed in a separate sealed container or containers, shall be deposited in the box at that time. The container(s) shall be clearly marked "Bid Records" with the face of the container(s) showing the Contractor's name, address, date of submittal and Project number.
2. Only the Contractor's representative(s) shall sign the signature card required by the bank to allow subsequent access to the box. The Contractor shall request a maximum of two keys to the box which shall be given to the CEI. The CEI will tag the keys, in the presence of the Contractor, with the name of the Contractor, the Project number, the name and location of the bank and the box number.
3. At the time the Bid Records are secured in the safe deposit box, the Contractor shall submit to the CEI an affidavit, signed under oath by the Contractor, listing each Bid Record submitted by author, date, nature and subject matter. By executing this affidavit, the Contractor waives the right to use, directly or indirectly, any Bid Record, other than the Bid Records placed in escrow in the sealed container(s), in any dispute arising out of the Contract. Failure by the Contractor to provide the affidavit will be sufficient cause for CFX to nullify the award of the Contract to the Contractor. The Contractor's Proposal Bond shall be forfeited, and the full amount of the bond shall be paid to CFX as stipulated for liquidated damages.
4. The CEI will transport the keys to CFX's office where the Director of Construction or his authorized representative will sign a receipt acknowledging acceptance of the keys on behalf of CFX. A copy of the receipt will be transmitted to the Contractor.

The keys will be stored in a secure location in CFX's office until such time as any of the following occurs: (i) the Contractor requests that the Bid Records be released to CFX in support of a claim by the Contractor for an adjustment in time or money under Article 2.4 of these General Specifications; (ii) the Contractor requests that the Bid Records be released to CFX as a result of the Contractor initiating arbitration against CFX; (iii) the Contractor requests that the Bid Records be released to CFX for any other reason; or (iv) the Contract has been satisfactorily completed and the Project accepted by CFX, in writing, and the Contractor has executed a binding release of all claims and potential causes of action related to the Contract. Under any of these circumstances, the CEI will obtain the keys from CFX's

office and, in the company of the Contractor's representative authorized by the bank signature card to access the safe deposit box, retrieve the Bid Records. The records will be transmitted by the CEI to the party requesting the release.

If the records are being returned as a result of acceptance of the Project by CFX, the Contractor shall sign a receipt acknowledging that the sealed container(s) has/have been returned to the Contractor unopened.

If the Bid Records are opened for any reason, CFX reserves the right to reveal the contents of the records to consultants, experts and legal counsel retained by CFX to assist with claims evaluation and arbitration preparation. Confidentiality of the Bid Records will be protected by CFX insofar as such protection does not conflict with the requirements of the Florida Public Records Act and Florida Sunshine laws.

All costs and fees associated with the rental and maintenance of the safe deposit box shall be paid by the Contractor.

3.12 Prevailing Party Attorney's Fees

If any dispute regarding Contractor claims arising hereunder or relating to the Contract (and the Contractor's Work hereunder) results in binding arbitration, the prevailing party in such arbitration shall be entitled to recover reasonable attorney's fees and costs including costs and expenses of expert witnesses.

In order for the Contractor to be the prevailing party, the Contractor must receive an adjusted judgment or adjusted award equal to at least eighty percent (80%) of its contested claims filed with CFX, failing which CFX will be deemed the prevailing party in such arbitration proceedings.

For purposes of determining whether the judgment or award is eighty percent (80%) or more of the contested claims, "adjusted award" or "adjusted judgment" shall mean the amount designated in the award or final judgment as compensation to the Contractor for its claims (exclusive of interest, cost or expenses), less: (i) any amount awarded to CFX (exclusive of interest, costs or expenses) on claims asserted by CFX against the Contractor in connection with the Contract, and (ii) any amount offered in settlement prior to initiation of Contractor arbitration claims (exclusive of interest, cost or expenses).

The term "contested claim" or "claims" shall mean the initial written claim(s) submitted to CFX by the Contractor (disputed by CFX) which have not otherwise been resolved prior to the initiation of binding arbitration. Contractor claims or portions thereof which CFX agreed to pay or offered to pay, in writing, prior to initiation of arbitration shall not be deemed contested claims for purposes of this provision. If the Contractor submits a modified, amended or substituted claim after its original claim and such modified, amended or substituted claim(s) is for an amount greater than the prior claim(s), the higher amount shall

be the claim(s) for purposes of determining whether the award is at least eighty percent (80%) of the Contractor's claim(s).

Attorney's fees and costs awarded to the prevailing party shall mean reasonable fees and costs incurred in connection with and measured from the date a claim is initially submitted through and including the arbitration hearing, appeal and collection. In the circumstance where an original claim is subsequently modified, amended or a substituted claim is filed therefore, fees and costs shall accrue from the date of the first written claim submitted, regardless of whether such original claim amount is ultimately used in determining if the judgment or award is at least eighty percent (80%) of the cumulative claims.

The term "costs" shall include any and all costs incurred, including without limitation consultant fees, expert witness fees, court reporter costs, photocopy costs, telephone charges and travel expenses, whether or not such costs are provided by statute or contained in the State-Wide Guidelines.

The purpose of this provision is to discourage frivolous or overstated claims and, as a result thereof, CFX and the Contractor agree that neither party shall avail itself of Section 768.79, Florida Statutes, or any other like statute or rule involving offers of settlement or offers of judgment, it being understood and agreed that the purpose of such statute or rule is being served by this provision.

Should this provision be judged unenforceable or illegal, in whole or in substantial part, by a court of competent jurisdiction, this provision shall be void in its entirety and each party shall bear its own attorney's fees and costs.

END OF SECTION 3

SECTION 4 - CONTROL OF MATERIALS

4.1 Acceptance Criteria

4.1.1 General: Acceptance of materials is based on the following criteria. All requirements may not apply to all materials. Use only materials in the work that meet the requirements of these Specifications. The CEI may inspect and test any material, at points of production, distribution and use.

4.1.2 Sampling and Testing: Use the CFX current sample identification and tracking system to provide related information and attach the information to each sample.

Restore immediately any site from which material has been removed for sampling purposes to the pre-sampled condition with materials and construction methods used in the initial construction, at no additional cost to CFX.

Ensure when a material is delivered to the location as described in the Contract Documents, there is enough material delivered to take samples, at no expense to CFX.

4.1.2.1 Pretest by Manufacturers: Submit certified manufacturer's test results to the CEI for qualification and use on CFX projects. Testing will be as specified in the Contract Documents. CFX may require that manufacturers submit samples of materials for independent verification purposes.

4.1.2.2 Point of Production Test: Test the material during production as specified in the Contract Documents.

4.1.2.3 Point of Distribution Test: Test the material at distribution facilities as specified in the Contract Documents.

4.1.2.4 Point of Use Test: Test the material immediately following placement as specified in the Specifications. After delivery to the project, CFX may require the retesting of materials that have been tested and accepted at the source of supply, or may require the testing of materials that are to be accepted by Producer Certification. CFX may reject all materials that, when retested, do not meet the requirements of these Specifications.

4.1.3 Certification:

4.1.3.1 Approved Products List: An Approved Products List (APL) is published and maintained by the FDOT and may be referenced in the Plans and Specifications. The items on the list have basic approval and are generally acceptable to CFX. However,

the Contractor is advised that products on the APL are still subject to final approval and acceptance by CFX. The Contractor shall make no claim for additional compensation or extension of Contract time to replace an item on the APL that is rejected by CFX subsequent to execution of the Contract.

4.1.3.2 Contractor Installation Certification: Provide installation certifications as required by the Contract Documents.

4.1.4 Warranty and Guaranty: CFX may require the Contractor to warrant and guaranty that certain Materials used in the construction of the Project meet all specification requirements for a specified time period. Warranty and guaranty requirements are specified in the appropriate Specifications sections governing the Materials.

4.2 Designation of a Specific Product as a Criterion (“Or Equal” Clause)

Reference in the Plans or Specifications to any proprietary article, device, product, material or fixture or any form or type of construction, by name, make or catalog number, with or without the words “or equal”, shall be interpreted as establishing a standard of quality and shall not be construed as limiting competition. The Contractor may use any article, device, product, material or fixture or any form or type of construction, which in the sole opinion of CFX (expressed in writing) is equal, for the purpose intended, to that named and compatible with existing equipment.

4.3 Source of Supply and Quality Requirements

4.3.1 Only Approved Materials to be Used: Only Materials conforming to the requirements of the Specifications, holding a current approval for manufacturing and/or fabrication by the FDOT and approved by CFX shall be used in the Work. Any Materials proposed for use by the Contractor may be inspected or tested by CFX at any time during preparation or use. No material shall be used in the Work that becomes unfit after approval. Materials containing asbestos will not be allowed.

4.3.2 Notification of Placing Order: The Contractor shall notify the CEI at least 15 days prior to ordering Materials to allow CFX time for sampling and testing.

4.3.2.1 Notification of Quality Assurance Inspection Arrangements for Fabrication of Critical Items: To facilitate quality assurance inspection of critical items, the Contractor shall submit a fabrication schedule for all items requiring commercial inspection. The fabrication schedule shall be submitted to the CEI before or at the pre-construction conference. Fabrication of critical items include, but is not limited to, steel bridge components, overhead cantilevered sign supports with cantilevered arms exceeding 45 feet, movable bridge components or any other item identified as a critical item in the Plans or Specifications.

- 4.3.3 Approval of Source of Supply: The source of supply for material proposed for use shall be submitted by the Contractor to the CEI for approval. Delivery of material shall not begin until approval of the CEI is received.

Representative preliminary samples of the character and quantity prescribed shall be submitted by the Contractor for examination and testing. If, after trial, the source of supply does not furnish a uniform product or if the product from any source proves unacceptable at any time, the Contractor shall furnish material from other approved sources.

The production of mineral aggregates shall be under a Producer Quality Control Program approved by the FDOT. Proof of such approval shall be submitted to the CEI. The program shall be in accordance with FDOT requirements and procedures for obtaining and maintaining FDOT approval of developed and operational mineral aggregate sources (mines and redistribution terminals) and the FDOT Mineral Aggregate Manual. Individual certification shall be furnished with each haul unit load of Materials shipped attesting that those specific Materials were produced under an FDOT-approved Producer Quality Control Program. Any haul unit load of mineral aggregates received by the Contractor without an individual certification being made available to the CEI will be considered defective.

4.4 Inspection and Tests at Source of Supply

- 4.4.1 General: If the volume, progress of Work and other considerations warrant, CFX may elect to inspect Materials at the source of supply. However, CFX assumes no obligation to inspect Materials at the source of supply. The responsibility for assuring that Materials are satisfactory rests entirely with the Contractor.
- 4.4.2 Cooperation by Contractor: The Contractor shall ensure that CFX has free entry and access at all times to the areas of the plant engaged in the manufacture or production of the Materials ordered. Contractor shall bear all costs incurred to provide all reasonable facilities to assist in determining whether the material furnished complies with the requirements of the Specifications.
- 4.4.3 Retest of Materials: CFX may retest or may require retesting of any Materials which have been tested and accepted at the source of supply after the same have been delivered to the job site. All Materials, which, when retested, do not comply with the requirements of the Specifications, will be rejected; in which case the cost of such retesting shall be at the expense of the Contractor.

4.5 Storage of Materials and Samples

4.5.1 Method of Storage: Store materials in such a manner as to preserve their quality and fitness for the work, to facilitate prompt inspection, and to minimize noise impacts on sensitive receivers. More detailed specifications concerning the storage of specific materials are prescribed under the applicable Specifications. CFX may reject improperly stored materials.

4.5.2 Use of Right-of-Way for Storage: If the CEI allows, the Contractor may use a portion of the right-of-way for storage purposes and for placing the Contractor's plant and equipment. Use only the portion of the right-of-way that is outside the clear zone, which is the portion not required for public vehicular or pedestrian travel. When used, restore the right-of-way to pre-construction condition at no additional cost to CFX or as specified in the Contract Documents. Provide any additional space required at no expense to CFX.

4.5.3 Responsibility for Stored Materials: Accept responsibility for the protection of stored materials. CFX is not liable for any loss of materials, by theft or otherwise, or for any damage to the stored materials.

4.5.4 Storage Facilities for Samples: Provide facilities for storage of samples as described in the Contract Documents and warranted by the test methods and Specifications.

4.6 Defective Materials

Materials not meeting the requirements of these Specifications will be considered defective. The CEI will reject all such materials, whether in place or not. Remove all rejected material immediately from the site of the work and from storage areas, at no expense to CFX.

Do not use material that has been rejected and the defects corrected, until the CEI has approved the material's use. Upon failure to comply promptly with any order of the CEI made under the provisions of this Article, the CEI will remove and replace defective material and deduct the cost of removal and replacement from any moneys due or to become due the Contractor.

As an exception to the above, the Contractor may submit, upon approval of the CEI, an engineering and/or laboratory analysis to evaluate the effect of defective in place materials. A Specialty Engineer, who is an independent consultant or the Contractor's Engineer of Record as stated within each individual Section, shall

perform any such analysis. The CEI will determine the final disposition of the material after review of the information submitted by the Contractor. No additional monetary compensation or time extension will be granted for the impact of any such analysis or review.

END OF SECTION 4

SECTION 5 - LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC

5.1 Laws to be Observed

5.1.1 General: The Contractor shall comply with all Federal, State, county and city laws, by-laws, ordinances and regulations which control the action or operation of those engaged or employed in the Work or which affect Materials used. CFX will acquire environmental permits required by federal, State, County, and local regulatory agencies for all final improvements. CFX will not provide permits for construction means and methods (burning, dewatering, etc.). The Contractor shall be responsible for these.

The Contractor shall indemnify and hold harmless CFX and all its officers, agents, consultants and employees, in the amount of the Contract, against any claims or liability arising from or based on the violation of any such laws, by-laws, ordinances, regulations, orders or degrees by the Contractor or its subcontractors and suppliers.

5.1.2 Plant Quarantine Regulations: The Contractor shall contact the local or other available representatives of the U.S. Department of Agriculture Animal and Plant Health Inspection Service and the Florida Department of Agriculture and Consumer Services to ascertain any current restrictions regarding plant pests which may be imposed by those agencies. Contractor shall remain current with regard to the latest quarantine boundary lines during the construction period. Any restrictions imposed by authorized agencies may affect Contractor's operations involving items such as clearing and grubbing, earthwork, grassing and mulching, sodding, landscaping and other items that may involve the movement of Materials containing plant pests across quarantine lines. Any infringement, damages, remedial activities and/or costs thereof associated with imposed agency restrictions will be borne by the Contractor.

5.1.3 Introduction or Release of Prohibited Aquatic Plants, Plant Pests or Noxious Weeds: The Contractor shall not introduce or release prohibited aquatic plants, plant pests or noxious weeds into the Project limits for any reason. The Contractor shall immediately notify the CEI upon discovery of any prohibited aquatic plants, plant pests or noxious weeds within the Project limits. The Contractor shall not move prohibited aquatic plants, plant pests or noxious weeds and their reproductive parts without a permit from the respective State and/or Federal agency. Prohibited aquatic plants, plant pests and noxious weeds are defined in Rule 16C-52 and Rule 5B-57, Florida Administrative Code. Furnish the CEI, prior to incorporation into the project, with a certification from the Florida Department of Agriculture and Consumer Services, Division of Plant Industry, stating that the sod, hay, straw, and mulch materials are free of noxious weeds, including Tropical Soda Apple.

5.1.4 Compliance with Federal Endangered Species Act: Prior to establishing any off-project activity in conjunction with the Project (e.g., borrow pits, concrete or asphalt

plant sites, material or Equipment storage sites), the Contractor shall certify to CFX that the Contractor has made, through the use of a qualified environmental scientist, such investigations as may be necessary to comply with the Federal Endangered Species Act. The Contractor shall immediately notify CFX if the Contractor's investigation reveals the need for a biological assessment to determine what measures, if any, are necessary to mitigate the impact on endangered species. The cost for any required biological assessment or subsequent measures required to mitigate the impact on endangered species shall be solely at the Contractor's expense.

No Work shall be performed on site preparation for any off-project activity until CFX receives the Contractor's certification.

- 5.1.5 Occupational Safety and Health Requirements: The Contractor shall take precautions necessary for the protection of life, health and general occupational welfare of all persons (including employees of both the Contractor, CFX and all of its officers, agents and consultants) until the Work has been completed and accepted by CFX.

The Contractor and all Subcontractors shall not allow any person employed in performance of the Work to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous to health or safety, as determined under the safety and health standards, set forth in Title 29, Code of Federal Regulations, Part 1518 published in the Federal Register on April 17, 1971, as promulgated by the United States Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act, (83 Stat. 96) including any subsequent revisions and updates.

- 5.1.6 Discovery of Unmarked Human Burial Site: The Contractor shall notify the CEI within two hours of the Contractor's or subcontractor's discovery of an unmarked human burial site. All Contractor or subcontractor activity that may disturb the site shall cease immediately upon discovery of the site. The Contractor shall not resume activity at the burial site until written authorization is received from the CEI.

- 5.1.7 Insecticides and Herbicides: Contractor shall contact the Local County Extension Office for a list of approved Insecticides or Herbicides. Contractor shall: adhere to all labeling instructions; exercise extreme caution to prevent damage to vegetation adjacent to the treated area; and replace any damage as the result of these Materials being applied outside the designated treatment area at no expense to CFX.

5.2 Permits and Licenses

- 5.2.1 General: Except as specifically provided for elsewhere in the Specifications, the Contractor shall secure all permits and licenses and give all notices necessary and

incidental to the due and lawful prosecution of the Work. The Contractor shall pay all charges and fees for any required licenses and permits.

- 5.2.2 Whenever the Work under or incidental to the Project requires structures and/or dredge/fill/construction activities within the Project limits in waters of the State, CFX will obtain the necessary permits. Any modifications or revisions to an original permit will also be obtained by CFX provided that it is shown that such modifications or revisions are required to complete the construction operations specifically called for in the Plans or Specifications and within the right-of-way limits.

The Contractor shall be responsible to obtain any permits that may be required for Work performed by the Contractor outside the right-of-way or easements for the Project.

In performing the Work, when under the jurisdiction of any environmental regulatory agency, the Contractor shall comply with all regulations issued by such agencies and with all general, special and particular conditions relating to construction activities of any kind and all permits issued to CFX as though such conditions were issued to the Contractor. The Contractor will be responsible for posting any permit placards in a protected location at the worksite.

In case of any discrepancy between any permit condition and a requirement of the Plans or Specifications, the permit condition shall prevail.

If the permit conditions require Work or the furnishing of Materials not specifically provided for in the basis of payment clause for a pay item, such Work or furnishing of Materials will be considered unforeseeable Work by CFX and the Contractor will be compensated in accordance with Article 2.5 of these General Specifications. Special sequencing or scheduling of operations that may be required by permit conditions will not be considered unforeseeable Work by CFX and no additional compensation will be made to the Contractor.

5.3 Patented Devices, Materials and Processes

Payments to the Contractor are understood to include all royalties and costs arising from patents, trademarks and copyrights in any way involved with the Work. Whenever the Contractor is required or desires to use any design, device, material or process covered by letters of patent, trademark, trade secret or copyright, CFX's and the Contractor's right for such use shall be provided by suitable legal agreement with the patentee or owner of the copyright. A copy of such agreement shall be submitted to CFX; however, whether or not such agreement is made or filed, the Contractor and its surety, in all cases, shall indemnify and hold harmless CFX and all of its officers, agents, consultants and employees, from any and all claims for infringement by reason of the use of any such patented design, device,

material or process, on the Work and shall indemnify CFX and all of its officers, agents, consultants and employees for any costs, expenses and damages which CFX may be obligated to pay by reason of any such infringement, at any time during the Work and for a period of three years after completion and acceptance of the Project by CFX.

5.4 Right-of-Way Furnished by CFX

Except as may be otherwise stipulated in the Specifications or as may be shown on the Plans, all right-of-way necessary for completion of the Project will be furnished by CFX without cost to the Contractor. If borrow material areas furnished by CFX contain limerock, such material shall not be removed from the pit without specific written approval from CFX.

5.5 Sanitary Provisions

The Contractor shall provide and maintain in a neat and sanitary condition such accommodations for the use of Contractor's employees as are necessary to comply with the requirements and regulations of the State and local boards of health. The Contractor shall not create any public nuisance.

5.6 Control of the Contractor's Equipment

5.6.1 Traffic Interference: Contractor shall not permit Equipment to unreasonably interfere with traffic while the Equipment is on or traversing a road or street.

5.6.2 Overloaded Equipment: Any hauling unit or Equipment loaded in excess of the maximum weights set out in the Florida Uniform Traffic Control Law (or lower weights that may be legally established for any section of road or bridge by the FDOT or local authorities) shall not be operated on any road or street except as provided in subarticle 5.6.3 below for crossings or as provided by a special permit issued by the governmental unit having jurisdiction over a particular road or bridge. This restriction applies to all roads and bridges inside and outside the Project limits as long as these roads and bridges are open for public use. Roads and bridges, which are to be demolished, may be overloaded after they are permanently closed to the public. All liability for loss or damages resulting from Equipment operated on a structure permanently closed to the public shall be the responsibility of the Contractor.

5.6.3 Crossings: Where it is necessary to cross an existing road, including specifically the existing travel lanes of a divided highway within the limits of the Project, the Contractor shall obtain the necessary permits from the governmental unit having jurisdiction. The Contractor shall comply with all permit conditions at no additional cost to CFX. The Contractor will be required to provide flagging and watchman service or approved signal devices, for the protection of traffic at all such crossings, in accordance with an approved written plan for that activity.

5.6.4 Protection from Damage by Tractor-Type Equipment: Positive measures shall be taken by the Contractor to assure that tractor-type Equipment does not cause damage to roads. If any such damage occurs, the Contractor shall immediately repair the damage to the satisfaction of the governmental unit having jurisdiction over the road and at no cost to CFX.

5.6.5 Contractor's Equipment on Bridge Structures: The Contractor, through its Specialty Engineer, shall analyze the effect of imposed loads on bridge structures, within the limits of the Project, resulting from the following operations:

- 1) Overloaded Equipment as defined in subarticle 5.6.2 above:
 - a) Operating on or crossing over completed bridge structures.
 - b) Operating on or crossing over partially completed bridge structures.
- 2) Equipment within legal load limits:
 - a) Operating on or crossing over partially completed bridge structures.
- 3) Construction cranes:
 - a) Operating on completed bridge structures.
 - b) Operating on partially completed bridge structures.

Any pipe culvert or box culvert qualifying as a bridge, as defined under subarticle 1.3.3 of these General Specifications is excluded from the above requirements.

A completed bridge structure is a structure in which all elemental components comprising the load carrying assembly have been completed, assembled and connected in their final position. The components to be considered shall also include any related mediums transferring load to any bridge structure.

The Contractor shall determine the effect the Equipment loads have on the bridge structure and the procedures by which the loaded Equipment can be used without exceeding the load capacity for which the structure was designed.

The Contractor shall submit to the CEI for approval eight (8) copies of design calculations, layout drawings and erection drawings showing how the Contractor's Equipment will be used so that the bridge structure will not be overstressed. One (1) of the eight (8) copies of the drawings and the cover sheet of one (1) of the eight (8) copies of the calculations shall be signed and sealed by the Contractor's Specialty Engineer as the CFX record set.

5.6.6 Posting of the Legal Gross Vehicular Weight: The maximum legal gross weight, as

set out in the Florida Uniform Traffic Code, shall be displayed in a permanent manner on each side of any dump truck or any dump type tractor-trailer unit hauling embankment material, construction aggregates, road base material or hot bituminous mixture to the Project over any public road. The weight shall be displayed in a location clearly visible to the scale operator, in numbers that contrast in color with the background and are readily visible and readable from a distance of 50 feet.

5.7 Structures Over Navigable Waters

5.7.1 Compliance with Jurisdictional Regulations: Where structures are erected in, adjacent to or over navigable waters, the Contractor shall observe all regulations and instructions of jurisdictions having control over such waters. The Contractor shall not obstruct navigation channels without permission from the proper authority and shall provide and maintain navigation lights and signals in accordance with jurisdictional requirements.

5.8 Use of Explosives

The use of explosives will not be allowed.

5.9 Preservation of Property

5.9.1 General: The Contractor shall preserve from damage all property along the line of Work or which is in the vicinity of or is any way affected by the Work, the removal or destruction of which is not called for by the Plans. This requirement shall apply to public and private property, public and private utilities (except as modified by subarticle 5.9.6 below), trees, shrubs, crops, signs, monuments, fences, guardrail, pipe, underground structures, public highways (except natural wear and tear of highway resulting from legitimate use thereof by the Contractor) and the like. Property damaged due to the activities of the Contractor shall be immediately restored, at Contractor's expense, to a condition similar or equal to that existing before such damage or injury was done by the Contractor.

The Contractor shall protect existing bridges from damage caused by Contractor's operations during the entire construction period. The Contractor will not be required to provide routine repairs or maintenance for such structures but will be required, at Contractor's expense, to make immediate repairs of any damage caused by the Contractor's operations.

The Contractor shall protect all geodetic monuments, horizontal or vertical, located within the limits of construction.

5.9.2 Failure to Restore Damaged Property: If the Contractor fails to restore such property, bridge or road CFX may, at its sole option and with 48 hours notice to the

Contractor, proceed to repair, rebuild or otherwise restore the damaged property, bridge or road at Contractor's cost or expense. The cost of such repairs will be deducted by CFX from any monies due or which may become due the Contractor.

5.9.3 Contractor's Use of Streets and Roads

5.9.3.1 On Systems Other than the CFX System: Where the Contractor hauls material or Equipment to the Project over roads and bridges on the state park road system, state highway system, county road system or city street system and such hauling causes damage, the Contractor, at Contractor's cost and expense, shall immediately repair such roads or bridges to as good a condition as existed before the hauling began.

5.9.3.2 On the CFX System: The Contractor shall also be responsible for repairing damage caused by hauling Materials to the Project along roads and bridges outside the limits of the Project which are on the CFX system (roads under the jurisdiction of CFX) or are specifically designated in the Plans as haul roads from CFX furnished Materials pits.

5.9.3.3 Within the Limits of the Project: The Contractor shall not operate Equipment or hauling units of such weight as to cause damage to previously constructed elements of the Project including but not necessarily limited to, bridges, drainage structures, base course and pavement. Equipment or hauling units loaded in excess of the maximum weights set out in subarticle 5.6.2 above shall not be operated on existing pavements that are to remain in place (including pavement being resurfaced), cement-treated subgrades and bases, concrete pavement, any course of asphalt pavement and bridges. Exceptions to these weight restrictions may be allowed for movement of necessary Equipment to and from its work site, for hauling of offsite fabricated components to be incorporated into the Project and for crossings as detailed in subarticle 5.6.3 above.

5.9.3.4 Cleaning and Maintenance of Streets and Roads: Whenever the Contractor utilizes any streets or roads, whether on the CFX system or otherwise, for cyclical material hauling operations, for example embankment, excavation, etc., the condition of all affected streets or roads will be assessed by the Contractor through an initial video survey with the CEI prior to hauling operations. Throughout the hauling operations or when changes to haul routes occur, the Contractor shall provide updated video surveys performed every two weeks to monitor the current street, road and/or facility conditions. The video survey will be submitted in duplicate to the CEI and narrated to identify the respective street, road or facility, with detail of specific features, condition, etc. Any deterioration, whatsoever, to the condition of the streets or roads from this initial video survey and subsequent two-week updates will be viewed as being a result of the Contractor's operations and shall be repaired to equal or better condition, at the Contractor's expense, within two weeks after

notification by the CEI. The Contractor will be responsible to prevent, clean and replace areas of the travel ways and appurtenances (including but not limited to bridge decks, drainage, roadway surface, striping) utilized by the Contractor where tracking and/or spillage of materials have occurred. Cleaning and preventive measures that will not deteriorate the existing facility conditions will be utilized and may include pressure washing, sanding etc.

- 5.9.4 Traffic Signs, Signal Equipment, Highway Lighting, and Guardrail: Contractor shall protect all existing roadside signs, signal equipment, highway lighting and guardrail, for which permanent removal is not indicated, against damage or displacement. Whenever such signs, signal equipment, highway lighting or guardrail lie within the limits of construction, or wherever so directed by the CEI due to urgency of construction operations, take up and properly store the existing roadside signs, signal equipment, highway lighting and guardrail and subsequently reset them at their original locations or, in the case of widened pavement or roadbed, at locations designated by the CEI.

If CFX determines that damage to such existing or permanent installations of traffic signs, signal equipment, highway lighting or guardrail is caused by a third party(ies), and is not otherwise due to any fault or activities of the Contractor, CFX will, except for any damage resulting from vandalism, compensate the Contractor for the costs associated with the repairs. Contractor shall repair damage caused by vandalism at no expense to CFX.

- 5.9.5 Operations Within Railroad Right of Way

5.9.5.1 Notification to the Railroad Company: The Contractor shall notify the CEI and the railroad company's division engineer or superintendent a minimum of 72 hours in advance of beginning any operations within the limits of the railroad right of way, any operations requiring movement of employees, trucks or other Equipment across the tracks of the railroad company at other than established public crossings, and any other Work which may affect railroad operations or property.

5.9.5.2 Contractor's Responsibilities: The Contractor shall comply with the requirements that the railroad company's division engineer or superintendent considers necessary to safeguard the railroad's property and operations. Any damage, delay or injury and any suits, actions or claims made because of damages or injuries resulting from the Contractor's operations within or adjacent to railroad right of way shall be the Contractor's responsibility.

5.9.5.3 Watchman or Flagging Services: When protective services are necessary during certain periods of the Project to provide safety for railroad operations, the railroad company will provide such services (watchman or flagging) and CFX will reimburse the railroad company for the cost thereof. The Contractor shall schedule

Work that affects railroad operations to minimize the need for protective services by the railroad company.

5.9.6 Utilities

5.9.6.1 Arrangements for Protection or Adjustment: Work shall not commence at points where the Contractor's operations adjacent to utility facilities may result in expense, loss or disruption of service to the public or owners of the utilities until the Contractor has made all arrangements necessary for the protection of the utilities. The Contractor shall be solely and directly responsible to the owners and operators of such utilities for any damage, injury, expense, loss, inconvenience, or delay caused by the Contractor's operations.

CFX will make the necessary arrangements with the utilities owners for removal or adjustment of utilities where such removal or adjustment is determined by CFX to be essential to the performance of the Work. Relocations or adjustments requested by the Contractor based on the Contractor's proposed use of a particular method of construction or type of Equipment will not be considered as being essential to the Work if other commonly used methods and Equipment could be used without the necessity of relocating or adjusting the utility. CFX will determine the responsibility for any such required adjustments of utilities. Relocations or adjustments requested because of delivery to the Project of Materials furnished by the Contractor shall be the responsibility and expense of the Contractor.

Circumstance under which CFX will consider utility relocations or adjustments essential include, but are not necessarily limited to, the following:

- 1) Utilities lying within the vertical and horizontal construction limits plus the reasonably required working room necessary for operation of Equipment normally used for the particular type of construction except as provide in subparagraph 4 below. In the case of overhead electrical conductors which carry more than 400 volts, a minimum of 10 feet clearance between the conductor and the nearest possible approach of any part of the Equipment will be required, except where the utility owner effects safeguards approved by the Florida Department of Labor and Employment Security.
- 2) Utilities lying within the horizontal limits of the Project and within 12 inches below the ground surface or the excavation surface on which the construction Equipment is to be operated or within 12 inches below the bottom of any stabilizing course called for on the Plans.
- 3) Utilities lying within the normal limits of excavation for underground drainage facilities or other structures (except as provided in subparagraph 4 below). Such normal limits shall extend to side slopes along the angle of

repose as established by sound engineering practice, unless the Plans or Specifications require the sides of the excavation to be supported by sheeting or the Contractor elects to sheet such excavation for the Contractor's convenience.

4) Where utilities cross pipe trenches transversely within the excavation area but not within positions from which relocation or removal is necessary, the utility owner will be responsible for providing and effecting all reasonable measures for their support and protection during construction operations. The Contractor shall cooperate with the utility owner in the owner's effecting such support and protective measures. The Contractor shall be responsible for any damage to the utility that is caused by neglect or failure on the Contractor's part to cooperate and to use proper precaution in performing the Work.

In the event that a temporary relocation of a utility or a particular sequence of timing in the relocation of a utility is necessary, such relocation shall be done only as directed by CFX. CFX will not be responsible for utility adjustments or temporary relocation work or for the conditions resulting therefrom, where such adjustments are: not necessitated by the construction of the Project; or done solely for the benefit or convenience of the utility owner or its contractor (or the Contractor where Contractor's construction procedures are considered by CFX to be other than normal); or not shown on the approved Plans for the utilities relocation or the construction.

5.9.6.2 Cooperation with Utility Owners: The Contractor shall cooperate with the utility owners in the removal and/or rearrangement of utilities. If utility service is interrupted due to construction operations, the Contractor shall immediately notify the owner of the utility and the CEI and cooperate in the prompt restoration of service. If water service is interrupted, the Contractor's repair work shall be continuous until the service is restored. No Work shall be undertaken around fire hydrants until the local fire authority has approved provisions for continued service.

5.9.6.3 Utility Adjustments: Utility adjustments and reconstruction Work may be underway during the Work. The Contractor shall effectively cooperate, coordinate, and schedule utility adjustments with utility construction crews in maintaining utility service. The Contractor shall use caution when working adjacent to utilities that have been relocated. The Contractor shall repair, at Contractor's expense, damages to relocated utilities resulting from Contractor's operations.

5.9.6.4 Weekly Meetings: Contractor shall conduct weekly meetings on the job site with all the affected utility companies and the CEI in attendance to coordinate Project construction and utility relocation, and shall submit a list of all attendees one

week in advance to the CEI for approval.

Provide the approved Work Progress Schedule and Work Plan for the project to document the schedule and plan for road construction and utility adjustments.

When utility relocations no longer affect construction activities, the Contractor may discontinue the meetings with the CEI's approval.

5.10 Responsibility for Damages, Claims, etc.

5.10.1 Contractor to Provide Defense Against Claims and Suits: To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless CFX (its officers, agents and employees) from and against claims, damages, losses and expenses (including but not limited to attorneys' fees), arising out of or resulting from performance of the Work, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including loss of use resulting therefrom. However, the indemnification herein provided is only to the extent caused in whole or in part by any act, omission or default of the Contractor, subcontractor, sub-subcontractor, materialman, agents of any tier, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described herein. The monetary limit on the indemnification provided herein to CFX or its officers, agents and employees shall be the total amount of the Agreement in aggregate or the insurance policy amount as required in article 5.11 herein, whichever is greater. The total amount of the Agreement in aggregate will be determined by the date the notice of claim was received by CFX.

In claims against any person or entity indemnified under this subarticle by an employee of the Contractor, a subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under this subarticle shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a subcontractor under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.

The obligations of the Contractor under this subarticle shall not extend to the liability of the Engineer of Record, the Engineer of Record's consultants and agents and employees of any of them arising out of (1) the preparation or approval of maps, drawings, opinions, reports, surveys, designs or specification, or (2) the giving of or the failure to give direction or instructions by the Engineer of Record, the Engineer of Record's consultants and agents and employees of any of them provided such giving or failure to give is the primary cause of the injury or damage.

The Contractor's obligation to indemnify and pay for the defense or, at CFX's option, to participate and associate with CFX in the defense and trial of any damage claim or suit and any related settlement negotiations, shall arise within seven (7) days of receipt by the Contractor of the CFX notice of claim for indemnification to the Contractor. The notice of claim for indemnification will be served by certified mail.

The Contractor's obligation to indemnify within seven (7) days of receipt of such notice will not be excused because of the Contractor's inability to evaluate liability or because the Contractor evaluates liability and determines the Contractor is not liable or determines CFX is solely negligent. The Contractor will pay all costs and fees related to this obligation and its enforcement by CFX.

This Contract shall not create in the public or any member thereof, a third party beneficiary hereunder or to authorize anyone not a party to this Contract to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of the Contract.

5.10.2 Guaranty of Payment for Claims: The Contractor guarantees the payment of all just claims for Materials, Equipment, supplies, tools or labor and other just claims against the Contractor or any subcontractor in connection with the Contract. Final acceptance and payment by CFX will not release the Contractor's bond until all such claims are paid or released.

5.11 Insurance

Anything contained herein to the contrary notwithstanding, during the term of the Contract and for such additional time as may be further required, the Contractor shall provide, pay for and maintain in full force and effect insurance outlined in subarticles 5.11.1 through 5.11.9 below for coverage at not less than the prescribed minimum limits of liability, covering the Contractor's activities and those of any and all subcontractors (including officers, directors, employees or agents of each and their successors). All insurance shall be provided through companies authorized to do business in the State of Florida and considered acceptable by CFX.

Upon execution of the Contract, the Contractor shall furnish to CFX, Certificates of Insurance bearing an original manual signature of the authorized representative of the insurance company. No Work shall commence under the Contract unless and until the required Certificates of Insurance described herein are in effect and have been approved by CFX. The Certificate of Insurance shall be issued to CFX and shall reference the complete and correct Project number, as well as the full and complete name of each insurance company, including city and state of domicile, as listed by A.M. Best Company. All insurance must be underwritten by insurers that are qualified to transact business in the State of Florida and that have been in business and have a record of successful and continuous operations for at least five (5) years. Each shall carry a rating of "A-" (excellent) and a

financial rating of Class XII, as defined by A.M. Best and Company's Key Rating Guide and must be approved by CFX. Such Certificates shall provide that in the event of cancellation, non-renewal or material reduction in coverage (including any material reduction of limits of Liability), the insurer will provide thirty (30) days prior notice of such cancellation, non-renewal or material reduction by certified mail to CFX. In addition, certified true copies of all policies shall be provided to CFX upon specific written request. Renewal Certificates of Insurance for all policies shall be submitted by the Contractor so that they are received by CFX no later than thirty (30) calendar days prior to the expiration of existing insurance coverage. Failure by the Contractor to meet this required timeframe will result in suspension of partial payments on monthly estimates until the certificates are received and accepted by CFX.

All insurance coverage required of the Contractor shall be primary and noncontributory over any insurance or self-insurance program carried by CFX.

Excluding Professional and Pollution liability insurance, no liability insurance required herein shall be written under a "claims made" form.

Contractor hereby agrees to waive rights of subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation.

Failure of CFX to demand such certificate or evidence of full compliance with these insurance requirements or failure of CFX to identify a deficiency from evidence provided will not be construed as a waiver of the CONTRACTOR's obligation to maintain such insurance.

The acceptance of delivery by CFX of any certificate of insurance and endorsement evidencing the required coverage and limits does not constitute approval or agreement by CFX that the insurance requirements have been met or the insurance policies shown in the certificates of insurance and endorsements are in compliance with the requirements.

Neither approval by CFX of insurance supplied by the Contractor nor disapproval of that insurance, shall release the Contractor of full responsibility for liability, damages and accidents as otherwise provided by the Contract. The requirement of insurance will not be deemed a waiver of sovereign immunity by CFX.

If CONTRACTOR fails to obtain the proper insurance policies or coverages, or fails to provide CFX with certificates of same, CFX may obtain such policies and coverages at CONTRACTOR's expense and deduct such costs from CONTRACTOR payments. Alternately, CFX may declare CONTRACTOR in default for cause.

5.11.1 Schedule of Required Limits for Workers' Compensation, General Liability and

Automobile Liability:

Contract Amount	Workers' Comp/ Employer's Liability	General Liability (per occurrence/ aggregate)	Automobile Liability
Up to \$3 million	Statutory / \$500,000	\$1,000,000 / \$2,000,000	\$1,000,000
\$3 million and Up	Statutory / \$1,000,000	\$5,000,000 / \$10,000,000	\$5,000,000

5.11.2 Worker's Compensation and Employer's Liability Insurance: The Contractor shall maintain coverage for its employees in accordance with the laws of the State of Florida. The amount of coverage shall not be less than the limits of insurance as required in subarticle 5.11.1.

The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of CFX for all work performed by the Contractor, its employees, agents and subcontractors.

5.11.3 Comprehensive General Liability Insurance: Coverage shall be maintained by the Contractor providing Comprehensive General Liability Insurance as provided on Insurance Services Office form GC 00 01 or an equivalent thereof. Limits of Liability for Bodily Injury Liability and/or Property Damage Liability shall not be less than the limits of insurance as required in Section 5.11.1.

The policy shall contain an endorsement providing for Aggregate Limits of Liability to be on a per Project basis. This endorsement shall state that Aggregate Limits as specified herein apply separately and specifically to this Project.

Products and Completed Operations coverage, evidenced by a Certificate of Insurance, shall be maintained for a period of not less than two (2) years following completion of the Work to which the Contract applies.

If watercrafts are to be used in the performance of any Work under the Contract, watercraft operations shall be covered under the Comprehensive General Liability policy providing limits in accordance with the General Liability requirements.

If the Project involves Work or operations by the Contractor within the limits of the railroad right-of-way, including any encroachments thereon from Work or operations in the vicinity of the railroad right-of-way, the railroad shall be named as an Additional Insured under this policy.

CFX, its employees, members, officers, agents, consultants, and successors shall be named as Additional Insured under this policy. Insurance Services Office endorsement CG 20 10 (11 85 edition date) or both CG 20 10 and CG 20 37(10 01 edition dates) forms (if later edition dates are used), shall be used to meet these

requirements and a photocopy of same shall be provided with the Certificate.

- 5.11.4 Comprehensive Automobile Liability Insurance: The Contractor shall maintain coverage applicable to the ownership, maintenance, use, loading and unloading of any owned, non-owned, leased or hired vehicle issued on Insurance Services Office form CA 00 01 or its equivalent. The amount of coverage shall not be less than the limits of insurance as required in subarticle 5.11.1.

This policy shall include coverage for liability assumed under contract (if not provided for under the Comprehensive General Liability policy). In the event the Contractor does not own automobiles, the Contractor shall maintain coverage for hired and non-owned auto liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or through a separate Business Auto Liability policy.

CFX, its employees, members, officers, agents, consultants, and successors shall be named as Additional Insured under this policy.

- 5.11.5 Umbrella/Excess Liability Insurance: If an Umbrella or Excess Liability Insurance policy is used to attain the required limits of liability, the sum of the limits provided by the Primary insurance and the Umbrella or Excess Liability insurance must at least equal the Limits of Liability as required by subarticle 5.11.1

The Umbrella/Excess Liability Insurance policy or Excess policy shall afford coverage equivalent to the required coverage as set forth in this Article 5.11. Policy inception date must also be concurrent with the inception dates of the underlying General Liability and Automobile Liability policies.

Umbrella or Excess policy Certificate of Insurance shall stipulate the underlying limits of liability applicable. A photocopy of the endorsement so evidencing shall be attached to the Certificate.

CFX, its employees, members, officers, agents, consultants, and successors shall be named as Additional Insured under this policy.

- 5.11.6 Builder's Risk: If this Contract includes: (1) construction of a new above-ground structure or structures, (2) any addition, improvement, alteration, or repair to an existing structure or structures, or (3) the installation of machinery or equipment into an existing structure or structures, the Contractor shall maintain builders' risk insurance providing coverage to equally protect the interests of CFX, the Contractor and subcontractors of any tier.

Coverage shall be written on a completed value form in an amount at least equal

to 100% of the estimated completed value of the project plus any subsequent modifications of that sum. The coverage shall be written on an "all-risk" basis and shall, at a minimum, cover the perils insured under the Insurance Services Office CP 10 30 Special Causes of Loss Form and shall include property in transit and property stored on or off premises that shall become part of the project.

The Contractor agrees not to maintain a wind or flood sub-limit less than 25% of the estimated completed value of the project. The Contractor agrees any flat deductible(s) shall not exceed \$25,000, and any windstorm percentage deductible (when applicable) shall not exceed five-percent (5%).

The coverage shall not be subject to automatic termination of coverage in the event the project/building is occupied in whole or in part, or put to its intended use, or partially accepted by CFX. If such restriction exists the Contractor shall request that the carrier endorse the policy to amend the automatic termination clause to only terminate coverage if the policy expires, is cancelled, CFX's interest in the project ceases, or the project is accepted and insured by CFX.

5.11.7 Railroad Insurance: When the Contractor performs Work on, adjacent to, over or under a railroad, railroad property or railroad right-of-way, the Contractor shall furnish CFX (for transmittal to the railroad company) an insurance certificate with the railroad named as the insured which (with respect to the operations the Contractor or any of its subcontractors perform) will provide for Railroad Protective Liability insurance providing coverage for bodily injury, death and property damage of a combined single limit of Five Million Dollars (\$5,000,000.00) per occurrence, with an aggregate limit of Ten Million Dollars (\$10,000,000.00) for the term of the policy. The policy shall be written on the ISO/RIMA (CG 00 3S 11 85) with Pollution Exclusions Amendment (CG 28 31 11 85) endorsement deleting Common Policy Conditions (CG 99 01) if Common Policy Conditions are included in the policy and Broad Form Nuclear Exclusion (IC 00 21). CFX, its employees, members, officers, agents, consultants, and successors shall be named as Additional Insured under this policy.

5.11.8 Pollution Legal/Environmental Legal Liability Insurance (CPL) - The Contractor agrees to maintain Contractor's Pollution Legal/Environmental Legal Liability Insurance on a per-project basis. Coverage shall be for pollution losses arising from all services performed to comply with this contract. Coverage shall apply to sudden and gradual pollution conditions including the discharge, dispersal, release or escape of smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, liquids or gases, waste materials or other irritants, contaminants, or pollutants into or upon land, the atmosphere or any watercourse or body of water, which results in Bodily Injury or Property Damage.

If policy is written on a Claims Made form, a retroactive date prior to or equal to the effective date of the Contract is required, and coverage must be maintained for 3 years after completion of contract or “tail coverage” must be purchased. In the event the policy is canceled, non-renewed, switched to occurrence form, or any other event which triggers the right to purchase a Supplemental Extended Reporting Period (SERP) during the life of this contract the Contractor agrees to purchase the SERP with a minimum reporting period of not less than three years. Purchase of the SERP shall not relieve the Contractor of the obligation to provide replacement coverage.

Coverage should include and be for the at least the minimum limits listed below:

- 1) Bodily injury, sickness, disease, mental anguish or shock sustained by any person, including death; property damage including physical injury to or destruction of tangible property including the resulting loss of use thereof, clean-up costs, and the loss of use of tangible property that has not been physically injured or destroyed;
- 2) Defense including costs, charges and expenses incurred in the investigation, adjustment or defense of claims for such compensation damages.
- 3) Cost of Cleanup/Remediation.

Limits

Each Occurrence - \$ 2,000,000

General Aggregate - \$ 4,000,000

For acceptance of Pollution Legal/Environmental Legal Liability coverage included within another policy coverage required herein, a statement notifying the certificate holder must be included on the certificate of insurance and the total amount of said coverage per occurrence must be greater than or equal to the amount of Pollution Legal/Environmental Legal Liability and other coverage combined.

If the CGL and CPL policy is issued by the same issuer, a total pollution exclusion shall be attached to the Contractor’s CGL policy and an appropriate premium credit provided from the issuer to the Contractor.

CFX, its employees, members, officers, agents, consultants and successors shall be named as Additional Insured under this policy.

5.11.9 Professional Liability- If the construction method is “design-build” the Contractor agrees to maintain Professional Liability on a per-project basis. The Contractor

agrees that the policy shall include a minimum three-year extended reporting period. The Contractor agrees that the Retroactive Date equals or precedes the execution date of this Contract or the performance of services specified hereunder. The Contractor agrees to provide coverage with limits and deductibles as prescribed below.

Contract Amount	Minimum Limit	Maximum Deductible
Up to \$1 million	50% of project cost, minimum of \$100,000 per occurrence	10% of project cost or \$25,000, whichever is smaller
\$1 million and Up	\$1,000,000	\$100,000

5.12 Contract Bond (Public Construction Bond) Required

5.12.1 **General Requirements of the Bond:** The Contractor shall furnish to CFX and shall maintain in effect throughout the term of the Contract, an acceptable surety bond in a sum equal to the amount of the Contract. This bond shall remain in effect until one year after the date when final payment becomes due, except as provided otherwise by Laws or Regulations or by the Contract Documents. Such bond shall be executed on the form furnished by CFX. The surety shall meet all requirements of the laws of Florida and shall be approved and at all times acceptable to CFX. The name, address and telephone number of the surety agent shall be clearly stated on the face of the Public Construction Bond.

5.12.2 **Continued Acceptability of Surety:** In the event that the surety executing the bond (although acceptable to CFX at the time of execution of the Contract) subsequently becomes insolvent or bankrupt or becomes unreliable or otherwise unsatisfactory due to any cause which becomes apparent after CFX’s initial approval of the company, then CFX may require that the Contractor immediately replace the surety bond with a similar bond drawn on a surety company which is reliable and acceptable to CFX. In such event, all costs of the premium for the new bond, after deducting any amounts that might be returned to the Contractor from its payment of premium on the defaulting bond, will be borne by CFX.

5.13 Contractor’s Responsibility for Work

Until final acceptance by CFX, the Work shall be under the charge and custody of the Contractor. The Contractor shall take every necessary precaution against injury or damage to the Work by the action of the elements or from any other cause whatsoever arising either from the execution or non-execution of the Work and shall rebuild, repair, restore and make good, without additional compensation, all injury or damage to any portion of the Work including extensive or catastrophic damages.

The Contractor will not be held responsible for damage to any landscape items caused by an officially declared hurricane that occurs after the final acceptance of the entire Work but during any remaining portion of the 90-day establishment period.

5.14 Opening Section of Highway to Traffic

When any bridge or section of roadway is, in the opinion of CFX, acceptable for travel, CFX may direct that the bridge or roadway be opened to traffic. Such opening shall not be considered, in any way, to be an acceptance of the bridge or roadway or any part thereof or as a waiver of any provision of the Contract. The Contractor shall make all repairs or renewals due to defective Work or Materials (or for any cause other than ordinary wear and tear) on such opened sections without additional compensation.

5.15 Scales for Weighing Materials

5.15.1 **Applicable Regulations:** Prior to the use of any scales, the Contractor shall submit to the CEI a copy of a certificate of accuracy for the scales that is not more than 1 year old. All scales which are used for the determination of the weight of Materials upon which compensation will be made by CFX shall conform to the requirements of Chapter 531, Florida Statutes, pertaining to specifications, tolerances and regulations as administered by the Bureau of Weights and Measures of the Florida Department of Agriculture. CFX reserves the right to perform scale checks/inspections at its sole discretion.

5.15.2 **Base for Scales:** Such scales shall be placed on a substantial horizontal base that will assure proper support, rigidity and maintenance of level of the scales.

5.15.3 **Protection and Maintenance:** All scale parts shall be in proper condition as to level and vertical alignment and shall be fully protected against contamination by dust, dirt and other matter which might affect operation of the parts.

5.16 Source of Forest Products

As required by Section 255.20, Florida Statutes, all timber, timber piling or other forest products which are used in the construction of the Project shall be produced and manufactured in the State of Florida, price and quality being equal and provided such Materials produced and manufactured in Florida are available.

5.17 Regulations of Air Pollution

5.17.1 General: All Work shall be done in accordance with all Federal, State and local laws and regulations regarding air pollution and burning.

5.17.2 Dust Control: The Contractor shall ensure that excessive dust is not transported beyond the limits of construction in populated areas. Dust control for embankment or other cleared or unsurfaced areas may be by application of water or calcium chloride, as directed by CFX. Any use of calcium chloride shall be in accordance with Section 102 of the Technical Specifications. When included in the Plans, mulch, seed, sod or temporary paving shall be installed as early as practical. Dust control for storage and handling of dusty materials may be made by wetting, covering or other means as approved by the CEI.

5.17.3 Asphalt Material: Any asphalt used shall be emulsified asphalt unless otherwise stated in the Plans and allowed by Chapter 17-2 of the Rules and Regulations of the Florida Department of Environmental Protection. Asphalt materials and components shall be stored and handled to minimize unnecessary release of hydrocarbon vapors.

5.17.4 Asphalt Plants: The operation and maintenance of asphalt plants shall be in accordance with Chapter 17-2 of the Rules and Regulations of the Florida Department of Environmental Protection. A valid permit as required under Chapter 17-2 shall be available at the plant site prior to the start of Work.

5.18 Dredging and Filling

If required by the Work, the Contractor shall comply with Section 370.033, Florida Statutes, regarding obtaining a certificate of registration from the Florida Department of Environmental Protection and keeping accurate records and logs of all dredge and fill activities.

5.19 Erosion Control

This Project will be constructed on properties that may be subject to environmental permits and regulation promulgated by city, county, state, federal, and regional authorities. Requirements for erosion control are included in the Technical Specifications.

5.20 Contractor's Motor Vehicle Registration

The Contractor shall provide proof to CFX that all motor vehicles operated or caused to be operated by the Contractor are registered in compliance with Chapter 320, Florida Statutes. Such proof of registration shall be submitted in the form of a notarized affidavit to CFX. No payment will be made to the Contractor until the required proof of registration is on file with CFX.

5.21 Internal Revenue Service Form W-9

The Contractor shall complete and return with the executed Contract, Internal Revenue Service Form W-9, Request for Taxpayer Identification Number and Certification.

5.22 Tolls and Access

The Contractor shall pay all tolls incurred from using CFX's Expressway System to transport personnel, equipment, or materials to and from the site of Work. Any costs incurred by the Contractor in payment of tolls shall be considered incidental and included in associated items. The term "equipment" in this context includes loaders, graders and similar self-propelled equipment, operating under their own power, passing through a toll plaza.

Contractor shall access the Project by existing expressway ramps. No access will be allowed through the right-of-way fence.

5.23 Requests for References or Performance Evaluations

In the event CFX at any time receives any direct or third party inquiry or request concerning the Contractor, its employees or sub-contractors, or the performance of the Contractor, its employees or sub-contractors under this Contract, CFX, at any time and in all cases, may, but shall not be obligated to respond to any such inquiry or request, with or without notice to the Contractor, its employees, or subcontractors, as the case may be, but, in all cases, such response shall be limited to: (1) acknowledging that the Contractor has, or in the past has had, a contract with CFX; (2) the date, term and type of such contract; (3) whether a specified employee or subcontractor worked on the Contract, and if so, in what capacity; (4) whether such contract was terminated early for any reason other than the convenience of CFX; (5) whether such contract was eligible for renewal or extension; and, (6) if such contract was eligible for renewal or extension, whether in fact such contract was renewed or extended. Should the Contractor, its employees, its agents or subcontractors request that any further information be provided in response to such an inquiry or request, such additional information may be provided by CFX, in its sole discretion. Contractor for itself, its employees, its agents and sub-contractors, hereby expressly waives any and all claims of whatever kind or nature that the Contractor, its employees, its agents or sub-contractors may have, or may hereafter acquire, against CFX relating to, or arising out of CFX's response to any and all requests or inquiries concerning the Contractor, its employees or subcontractors under this Contract, or the performance of the Contractor, its employees or subcontractors under this Contract.

5.24 Unauthorized Aliens

Contractor warrants that all persons performing work for CFX under this Contract, regardless of the nature or duration of such work, shall be United States citizens or properly authorized and documented aliens. Contractor shall comply with all federal, state and local

laws and regulations pertaining to the employment of unauthorized or undocumented aliens at all times during the performance of this Contract and shall indemnify and hold CFX harmless for any violations of the same. Furthermore, if CFX determines that Contractor has knowingly employed any unauthorized alien in the performance of the Contract, CFX may immediately and unilaterally terminate the Contract for cause.

5.25 Public Records

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT (407-690-5000, publicrecords@CFXWay.com, and 4974 ORL Tower Road, Orlando, FL. 32807).

CONTRACTOR acknowledges that CFX is a body politic and corporate, an agency of the State of Florida, and is subject to the Public Records Act codified in Chapter 119, Florida Statutes. To the extent that the CONTRACTOR is in the possession of documents fall within the definition of public records subject to the Public Records Act, which public records have not yet been delivered to CFX, CONTRACTOR agrees to comply with Section 119.0701, Florida Statutes, and to:

1. Keep and maintain public records required by the public agency to perform the service.
2. Upon request from the public agency's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in this chapter or as otherwise provided by law.
3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the CONTRACTOR does not transfer the records to the public agency.
4. Upon completion of the contract, transfer, at no cost, to the public agency all public records in possession of the CONTRACTOR or keep and maintain public records required by the public agency to perform the service. If the CONTRACTOR transfers all public records to the public agency upon completion of the contract, the CONTRACTOR shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the CONTRACTOR keeps and maintains public records upon completion of the contract, the CONTRACTOR shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the public

agency, upon request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.

Upon receipt of any request by a member of the public for any documents, papers, letters, or other material subject to the provisions of Chapter 119, Florida Statutes, made or received by CONTRACTOR in conjunction with this Contract (including without limitation CONTRACTOR Records and Proposal Records, if and as applicable), CONTRACTOR shall immediately notify the CFX. In the event the CONTRACTOR has public records in its possession, CONTRACTOR shall comply with the Public Records Act.

5.26 Inspector General

It is the duty of every CONTRACTOR and subcontractor to cooperate with the inspector general in any investigation, audit, inspection, review, or hearing pursuant to section 20.055, Florida Statutes. The corporation, partnership, or person entering into an Agreement with the Central Florida Expressway Authority understands and will comply with subsection. 20.055(5), Florida Statutes.

5.27 Convicted Vendor List

A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in s. 287.017 for CATEGORY TWO for a period of 36 months following the date of being placed on the convicted vendor list.

5.28 Discriminatory Vendor List

An entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity.

5.29 Severability

If any section of the Contract Documents that are incorporated into this Contract be judged

void, unenforceable or illegal, then the illegal provision will be, if at all possible, interpreted or re-drafted into a valid, enforceable, legal provision as close to the parties' original intention, and the remaining portions of the Contract will remain in full force and effect and will be enforced and interpreted as closely as possible to the parties' intention for the whole of the Contract.

5.30 Companies Pursuant to Florida Statute Section 287.135

Pursuant to Section 287.135(3)(a)4, if the company is found to have submitted a false certification as provided under subsection (5); been placed on the Scrutinized Companies with Activities in Sudan List; or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List; or been engaged in business operations in Cuba or Syria, the contract may be terminated for cause at the option of CFX.

Pursuant to Section 287.135(3)(b), if the company is found to have been placed on the Scrutinized Companies that Boycott Israel List or is engaged in a boycott of Israel, the contract may be terminated for cause at the option of CFX.

Submitting a false certification shall be deemed a material breach of contract or renewal. CFX shall provide notice, in writing, to the Contractor of CFX's determination concerning the false certification. The Contractor shall have ninety (90) days following receipt of the notice to respond in writing and demonstrate that the determination of false certification was made in error. If the Contractor does not demonstrate that the CFX's determination of false certification was made in error then CFX shall have the right to terminate the contract and seek civil remedies pursuant to Section 287.135, Florida Statutes and as allowed by law.

END OF SECTION 5

SECTION 6 - PROSECUTION AND PROGRESS OF THE WORK

6.1 Subletting or Assigning of Contract

- 6.1.1 The Contractor shall not sublet, sell, transfer, assign or otherwise dispose of the Contract or any portion thereof or of Contractor's right, title or interest therein, without written consent of CFX. With CFX written consent, the Contractor will be permitted to sublet a portion of the Work but shall perform, with its own organization, Work amounting to not less than 50% of the total Contract amount less the total amount for those Contract items specifically designated as "Specialty Work" below or as otherwise designated as Specialty Work by CFX. The granting or denying of consent under this provision is at CFX's sole discretion.

The total Contract amount shall include the cost of Materials, manufactured component products and their transportation to the Project site. Off-site commercial production of Materials and manufactured component products purchased by the Contractor and their transportation to the Project will not be considered subcontracted Work.

If a part of a Contract item is sublet, only its proportional cost will be used in determining the percentage of subcontracted normal Work.

All subcontracts entered into by the Contractor shall be in writing and shall contain all pertinent provisions and applicable requirements of the Contract. All subcontracts shall require subcontractor to indemnify and hold harmless CFX on the same terms as contained in the General Specifications and the Contract. The Contractor shall furnish CFX with a copy of any subcontract requested by CFX. Subletting of Work shall not relieve the Contractor or surety of their respective liabilities.

The Contractor shall ensure that all Subcontractors are competent, careful and reliable. The Contractor shall submit the names and qualifications of all first and second tier subcontractors to CFX for approval prior to their beginning Work on the Project. All first and second tier subcontractors shall have the skills and experience necessary to properly perform the Work assigned and as required by the plans and specifications.

If, in the opinion of CFX, any Subcontractor employed by the Contractor is not qualified to perform the Work or is insubordinate, disorderly, disrupts or is detrimental to the progress of the Work, such first or second tier subcontractor shall be immediately removed from the Project by the Contractor upon written direction from CFX. Such subcontractor shall not be employed again on the Project without the written permission of CFX. If the Contractor fails to immediately remove such subcontractor, CFX may, at its sole discretion, withhold payments due or which may become due, or may suspend the Work until the subcontractor is removed. The

Contractor shall indemnify and hold harmless CFX, its agents, consultants, officials and employees from any and all claims, actions or suits arising from such removal, discharge or suspension of a Subcontractor based on the direction of CFX. All subcontracts shall expressly include an acknowledgment of CFX's right to remove any Subcontractor in accordance with this paragraph.

A Subcontractor shall be recognized only in the capacity of an employee or agent of the Contractor.

If the aggregate total of the dollar amount of Work performed by a subcontractor, including equipment rental agreements, equals or exceeds \$20,000, a formal subcontract agreement shall be entered into between the Contractor and the Subcontractor.

6.1.2 Specialty Work: The following Work is designated as Specialty Work:

- Auxiliary Power Unit
- Cleaning, Coating, Injection, Grouting, Grinding, Grooving or Sealing Concrete Surfaces
- Deep Well Installation
- Electrical Work
- Fencing
- Highway Lighting
- Installing Pipe or Pipe Liner by Jacking and Boring
- Installing Structural Plate Pipe Structure
- Landscaping
- Painting
- Plugging Water Wells
- Pressure Grouting
- Pumping Equipment
- Roadway Signing and Pavement Marking
- Riprap
- Removal of Buildings
- Rumble Strips
- Sealing Wells by Injection
- Septic Tank and Disposal System
- Signalization
- Utility Works
- Vehicular Impact Attenuator
- Water and Sewage Treatment Systems

6.2 Work Performed by Equipment Rental Agreement

The limitations set forth in 6.1, regarding the amount of Work that may be subcontracted, do not apply to Work performed by Equipment rental agreements. The Contractor shall notify CFX, in writing, if the Contractor intends to perform any Work through an Equipment rental agreement. The notification shall be submitted to CFX before any rental Equipment is used on the Project. The notification shall include a list of the Equipment being rented, the Work to be performed by the Equipment and whether the rental includes an Equipment operator. Notification to CFX will not be required for Equipment being rented (without operators) from an Equipment dealer or from a firm whose principle business is renting or leasing Equipment.

6.3 Prosecution of Work

6.3.1 Sufficient Labor, Materials and Equipment: The Contractor shall provide sufficient labor, Materials and Equipment to ensure the completion of the Work no later than the Contract completion date.

6.3.2 Impacts by Adjacent Projects: When there is a potential impact between two or more projects due to close proximity or due to logistics in moving labor, Materials, and Equipment between projects, all authorized representatives of the parties performing the projects have a responsibility to communicate and coordinate their work so that impacts to either party are eliminated or mitigated and do not endanger, delay, or create additional work or costs to either party. The Contractor shall not be compensated for any additional costs or delays so incurred by either party.

6.3.3 Submission of Preliminary, Baseline, Updated Baseline, and Two-Week Look-Ahead Schedules:

6.3.3.1 Scheduling Terminology

Accepted Baseline Schedule: The Accepted Baseline Schedule is the Baseline Schedule submitted by the Contractor and accepted by CFX. Review and acceptance of the schedule by CFX will be for the sole purpose of determining if the schedule is in substantial compliance with the General Specifications and does not mean that CFX agrees or disagrees, approves or disapproves of the constructability, means and methods, validity and accuracy of the submitted baseline schedule. The Contractor is solely responsible for the constructability, means and methods, validity and accuracy of the submitted baseline schedule.

Acknowledged Receipt of the Updated Baseline Schedule: The Contractor is solely responsible for the constructability, means and methods, validity and accuracy of the updated baseline schedule. CFX does not accept or reject, agree or disagree, approve or disapprove of the constructability, means and methods, validity or accuracy of the Updated Baseline Schedule. Instead, CFX will transmit a letter acknowledging receipt of the Contractor's submittal of the Updated Baseline Schedule.

Baseline Schedule: The Baseline Schedule does not contain any progressed activities. Therefore, each activity's early and late dates are planned dates, not actual dates. The Baseline Schedule contains the necessary breakdown of activities to adequately track the progress of the project. Activities in the Baseline Schedule shall include, but not be limited to, activities for all work to be performed. In addition, the baseline schedule should include milestone activities, and activities for the procurement of significant equipment and materials, including activities for submittals and approvals, orders, fabrication, request for delivery and delivery. Procurement activities should be logically tied to their respective work activities.

Contract Completion Date: Also called the Approved Contract Completion Date or the Authorized Contract Completion Date or the Last Chargeable Contract Date.

The Contract Completion Date is calculated by adding the number of calendar days stated in the contract to complete all work, to the first chargeable day of the Contract, less one day.

For time extensions granted by CFX, the Contract Completion Date is calculated by adding the number of calendar days granted to the Contract Completion Date.

If a critical activity is delayed, the Contract Completion Date(s) may also be delayed if the durations on the remaining activities on the critical path are accurate. The Contractor acknowledges and agrees that actual delays to activities which, according to the CPM schedule, do not directly affect the main project critical path, do not have any effect on the Contract Completion Date(s) and shall not be the basis for a change therein.

CPM: Critical Path Method of scheduling.

Early Dates: The earliest scheduled start and/or finish date assigned to a CPM scheduled activity.

Excusable Delay: As defined in subarticle 6.7.3.1.

Adjustments to Contract Time.

Extra Work: Any Work which is required by CFX to be performed and which is not otherwise covered or included in the existing Contract Documents, whether it be additional Work, altered Work, deleted Work, Work due to differing site conditions, or otherwise. This term does not include a delay.

Lag: An undefined delay between two scheduled activities. For instance, a 5 day lag between activity A (the predecessor) and activity B (the successor) with a Finish to Start (FS) relationship would mean that activity B would not start until 5 days after

the finish of activity A.

Late Dates: The latest scheduled start and/or finish date assigned to a CPM scheduled activity.

Longest Path: In a Baseline Schedule, the Longest Path of the CPM schedule is a continuous series of activities starting from the first scheduled activity and ending with the last scheduled activity, that are linked in a logical sequence and where each activity in the sequence has the least value of total float in the schedule. If each of the longest path activities were assigned the same calendar, then each activity on the longest path would have the same value of total float. In an Updated Baseline Schedule (a baseline with actual progress recorded), the Longest Path will begin at the data date (also known as the cut-off date) and extend to the last activity scheduled in the Contract. The Contractor shall sequence work so that only one Longest Path is created in the Baseline or Updated Baseline schedule.

Negative Total Float: Also called Negative Float. The greatest number of days, stated as a negative number, that the Contract Completion Date is delayed. When an activity has negative total float, the activities with negative total float have early dates scheduled later than their late dates.

Planned Dates: Also called early and late dates.

P6: The scheduling software Primavera Project Planner, produced by Primavera Systems, Inc., which shall be used by the Contractor for all CPM scheduling tasks.

Preliminary Schedule: The Preliminary Schedule is a bar chart schedule submitted at the Pre-Construction Conference. Refer also to specification section 6.3.3.3.

Revised Baseline Schedule: The Baseline Schedule shall only be revised with the approval of CFX.

Total Float: Also called Float. The number of days an activity can be delayed without delaying the Contract completion date.

CFX and Contractor agree that float is not for the exclusive use or benefit of either the Contractor or CFX and must be used in the best interest of completing the Project on time. The Contractor agrees that: 1) float time may be used by CFX; and 2) there shall be no basis for a Project time extension as a result of any Project problem, change order or delay which only results in the loss of available positive float, or negative float that is greater than the most negative float in the CPM. The Contractor will not be permitted to alter float through such applications as extending duration estimates or to change sequence relationships, etc., to consume available positive float.

Time Impact Analysis: If the Contractor requests a time extension to any required milestone date for changes in the Work ordered by CFX, the Contractor shall furnish such justification and supporting evidence in the form of a Time Impact Analysis illustrating the influence of the change on the Contract time such that CFX can evaluate the request. This Time Impact Analysis shall include a network analysis demonstrating how the Contractor has incorporated the change in the schedule. Each such Time Impact Analysis shall demonstrate the time impact of the performance of the changed Work as the date upon which the change arose or was otherwise ordered, the status of the Work at that time based upon the CPM schedule update prevailing at that time and the duration or logic computations for all of the affected activities. The Time Impact Analysis shall be submitted within ten (10) calendar days following the commencement of the delay event. Failure to make notification in the time and manner required shall be considered a waiver of the Contractor's entitlement to any time extension resulting from such delay. No time extension will be considered unless it specifically contains at least the following detailed information:

1. Date delay began;
2. Date delay impact was resolved;
3. Detailed chronology of delay including the dates of all applicable notifications and submittals;
4. Specific critical activities affected and the dates of impact;
5. The activity durations used in the Time Impact Analysis shall be those reflected by the latest Project schedule update prevailing at the time of the initiation of the delay event.

Updated Baseline Schedule: Also called the Schedule Update, is a copy of the Baseline Schedule with activities updated for actual start and/or finish dates and percent completion.

Weather Event: As defined in 6.7.3

6.3.3.2 General Requirements for all Scheduling Tasks and Submittals:

Schedule Content: Failure to include any element of required Work in the schedule shall not relieve the Contractor from completing all Work necessary to complete the Project on time.

Scheduling Costs: All costs incurred by the Contractor to create and maintain the Preliminary and CPM schedules including, but not limited to, updates, revisions, time impact analyses, and any additional required scheduling data shall be borne by the Contractor and are part of the Contract requirements.

Utility Coordination, Permits and Licenses: Sufficient liaison shall be conducted and information obtained at the utility pre-construction conference to coordinate activities with utility owners having facilities within the Project limits. The schedule shall conform to the utility adjustments and Maintenance of Traffic sequencing included in the Contract Documents unless changed by mutual agreement of the utility company, the Contractor, and CFX. The schedule shall show any utility adjustments that start or continue after the Contract time has started. In addition, the Contractor shall show the acquisition of permits or licenses needed for the Project.

Required Labeling of all Correspondence and Associated Documents: All Schedule related correspondence, including transmittals and attachments, shall have the Schedule number and cut-off date (data date) entered in the document heading. A sample format to be used is as follows: "0303-25AUG15", where 0303 is the schedule update number and 25AUG15 is the cut-off date (data date).

6.3.3.3 Submission of the Preliminary Schedule:

The Contractor shall submit to CFX with the executed Contract the following documents:

The Preliminary Schedule shall cover the entire scope of the Contractor's responsibilities for the entire Contract time. The Preliminary Schedule is either a CPM or a NON-CPM generated bar chart schedule. The Preliminary Schedule shall present the Contractor's general approach to the Project and show adequate detail for Work, procurement, and submittal and approval activities covering the first 120 days of Work from the First Chargeable Contract day. The remainder of the Contract time shall be represented by summary activities.

Written Narrative: The written narrative shall explain the preliminary schedule's scope and approach to the Project in sufficient detail to demonstrate that the Contractor has a reasonable and workable plan to complete the Project within the Contract time allowed.

Geographical Layout of the Project: The geographical layout graphic of the project shall be suitable in size and content for presentation purposes. The Contractor shall also submit a copy of the geographical layout of the project in a legal landscape format.

Contractor's Oral Presentation: At the pre-construction conference, the Contractor shall show and refer to the geographical layout of the Project in an oral presentation of the Contractor's approach to performing the Work under the Contract. The Contractor's oral presentation shall conform to the format and content of the written narrative.

Within five (5) days after receipt of the Preliminary Schedule, CFX will either accept or reject the schedule. If the Preliminary Schedule is rejected, CFX and Contractor will meet within 3 days after notice of rejection at which time CFX will present the Contractor with a list of required changes to the Preliminary Schedule. The Contractor shall make the changes and submit a revised preliminary schedule acceptable to CFX within 3 days after receipt of the required changes.

Updating the Preliminary Schedule: The Contractor shall update each activity in the Preliminary Schedule with an actual start date, actual finish date, percent complete, and remaining duration each month until the accepted Baseline Schedule is updated and submitted to CFX. The cut-off date and submittal date for the Updated Preliminary Schedule shall be established by CFX and the Contractor shall submit the Updated Preliminary Schedule on that date. The Contractor shall include a written narrative with the Updated Preliminary Schedule explaining the progress made, any delays that have occurred, and work planned to be accomplished in the next month.

Retainage for Non-Submittal: If the Contractor fails to update the Preliminary Schedule and submit a written narrative, CFX may retain 10% of the Contractor's next Monthly Payment Request and 10% of each subsequent monthly payment request until the Contractor complies.

6.3.3.4 Submission of the CPM Baseline and Updated Baseline Schedules: The Contractor's CPM schedule shall be a detailed CPM schedule. The CPM schedule shall be generated by the latest version of Primavera Project Planner (P6) by Primavera Systems, Inc. The Contractor shall pay the scheduling software yearly maintenance fees and maintain scheduling software upgrades throughout the duration of the contract. The Contractor shall use all default settings in Primavera Project Planner for all schedule submittals. This includes using the "Retained Logic" setting for all calculations, unless CFX chooses to allow the use of the P6 "Progress Override" setting.

Each Baseline and Updated Baseline schedule submittal shall include all reports and graphics listed in specification section 6.3.3.4.9. All Baseline Schedule submittals shall also include the Logic Diagram required under Item number 4.

The Contractor shall submit to CFX two copies of each of the above schedules created using the P6 Backup feature.

Schedule Submittal Deadlines: The Contractor shall prepare and submit a detailed CPM construction schedule. The schedule shall be prepared according to the specifications and submitted no later than 45 calendar days after the Notice to Proceed date. The CEI shall have 30 calendar days from the Contractor's submittal date to review and notify the Contractor in writing of its findings. The Contractor shall have 15 calendar days from the date of the CEI's written notice to make all requested modifications to the schedule and re-submit the schedule.

Retainage for Non-Submittal: If the Contractor fails to submit a schedule that fully complies with the specifications within 90 calendar days from the Notice to Proceed date, CFX will automatically retain 10% of the Contractor's Current Period Monthly Payment Request amount in addition to other retainage.

CFX may retain an additional 10% of the Contractor's Period Monthly Payment Request amount for each successive month that the Contractor fails to submit any schedule on time in addition to other retainage. The Contractor must submit an Updated Baseline Schedule for each month of the Contract starting from the first chargeable day of the contract. The Due Date for the Updated Baseline Schedule shall be the Cut-Off Date established by CFX for submittal of the Contractor's Monthly Payment Request. The Due Date for the Updated Baseline Schedule may be changed from time to time by CFX. The Contractor's submitted schedule shall have a data date matching the cut-off date established by CFX.

Milestones: Construction and maintenance of traffic milestones, including completion of construction on roadway sections, building and removing temporary detours, bridges, traffic shifts, and road closures and openings shall be adequately shown in the schedule.

Measurement of Progress: As the contract work progresses and the baseline schedule is updated with progress, each subsequent schedule update shall become the schedule upon which all Work progress will be measured.

6.3.3.4.1 CPM Activity Creation: Each schedule activity shall include the following detail in P6:

A.) ID Number - The format followed shall be uniform throughout the schedule. The activity number shall not exceed 6 digits.

B.) Original Duration (Working Days): No activity shall have a duration greater than 20 working days unless approved by CFX. However, activities such as long-term procurement, certain approvals and submittals may have durations greater than 20 working days or have a 7-day calendar assignment.

At the minimum, the schedule shall include, but not be limited to the following activities:

Bridge Activities:

Test Pile installation per bent per structure.
Production Pile installation per bent per structure.
Drilled shaft installation per pier per structure.
Pile caps per bent per structure.
Footings per pier per structure.
Columns per pier per structure.
Caps per pier per structure.
End bents per structure.
Beam or girder erection-span by span per structure.
Diaphragms.
Deck placement-span by span per structure.
Parapets-span by span per structure.

Roadway Activities:

Internal access and haul roads (location and duration in-place).
Utility relocation work by utility and by stationing and roadway.
Clearing and grubbing by stationing and roadway.
Excavation by stationing and roadway.
Embankment for each abutment location.
Embankment placed for each roadway by stationing and roadway.
Drainage by run with stationing and roadway.
Box Culvert or other large Pre-cast structure with stationing and roadway.
Reinforced Earth Wall leveling pad per bent per structure.
Reinforced Earth Wall per bent per structure.
Reinforced Earth Wall Coping per bent per structure.
Retaining walls by stationing and roadway.
Stabilization/Subgrade by stationing and roadway.
Limerock Base by stationing and roadway.
Asphalt Base by stationing and roadway.
Curb and Gutter by stationing and roadway.
Structural Pavement (asphalt and/or concrete) by stationing and roadway.
Bridge approach slabs per bridge and roadway.
Guardrail by stationing and roadway.
Slope pavement or riprap by stationing and roadway.
Roadway lighting by stationing and roadway.
Signing for each sign structure by stationing and roadway.
Striping by stationing and roadway.
Traffic signals by stationing and roadway.
Topsoil, sodding, seeding and mulching by stationing and roadway.
Landscaping by stationing and roadway.

Architectural Treatments.
Sound Walls.
Fiber Optic.
Concrete Removal and Replacement.
Milling and Resurfacing.
Ponds.
Planter Walls.

Building Activities:

Sitework, including, but not limited to clearing, excavation, storm and sanitary drainage, utility work, fill, grading, curb & gutter, sidewalks, asphalt and concrete paving, striping, retention pond excavation and grading, sodding.

Foundation work, including, but not limited to, piling, building pads, column, stem wall, slab work, conduit and piping.

Concrete work, including, but not limited to, stairwells, stairs, elevator shafts, tunnels.

Exterior Structures, including, but not limited to structural steel bridges, walkways, railings.

Exterior Walls, including, but not limited to, block, brick, pre-cast, poured-in-place concrete, wood and metal stud, stucco.

Roof, including, but not limited to, structural steel framing, wood framing, pre-cast, parapet walls, metal, poured-in-place, sheathing, underlayment, built-up, roof drainage, and soffits.

Exterior doors, windows, and store-front framing.

Interior Build-out, including, but not limited to, wood and metal stud, interior doors and windows, cabinetry, specialty work, drywall, insulation, sound proofing, carpet, tile, painting, furnishings, and miscellaneous finishes.

Electrical, including, but not limited to conduit, power supply, fixtures, wiring, finishes, and testing.

Plumbing, including, but not limited to, piping, sanitary sewer, water supply, fixtures, finishes, and testing.

HVAC, including, but not limited to, air handlers, compressors, duct work, finishes, and testing.

Fire Systems, including, but not limited to piping, sprinkler heads, and testing.

Security Systems, including, but not limited to, control panels, wiring, sensors, alarms, communications, and testing.

Specialty Work, including, but not limited to, elevators, escalators, toll booth facilities, electronic toll equipment, conduit, wiring, voice and data communication systems, and testing.

The Contractor agrees to submit for acceptance a CPM baseline schedule showing Work commencing on the first chargeable Contract day and finishing on the last chargeable Contract day, thereby showing zero total float.

The Contractor shall sequence work so that only one Longest Path is created in the Baseline or Updated Baseline schedule.

The Contractor must submit evidence to CFX that any activity to be added or removed from the schedule is a logical and reasonable change. If CFX decides that the activity is not sufficiently supported and does not serve a useful purpose, CFX shall request that the Contractor remove the activity from the schedule, and the Contractor shall comply.

The schedule shall include a task activity for the first chargeable day of the Contract and a task activity for the last chargeable day of the Contract with a 1-day duration and a 7-day calendar assignment. The Contract Completion Date as defined in section 6.3.2.1 shall be entered into the Primavera Project Overview window under "Project must finish by".

Mobilization Activities: Activities representing Contract pay item 1-101-1, Mobilization, shall be divided into 1 work activity with a duration no greater than 20 work days and 4 mobilization payment milestones that are revenue loaded according to the specification payment schedule as follows: 5% of Contract earned = 25% payment, 10% of Contract earned = 50% payment, 25% of Contract earned = 75% payment and 50% of Contract earned = 100% payment. The payment milestones should not be tied to any activities, but constrained by a "start no earlier than" constraint. The dates they are constrained to should be based on the early dates shown in the schedule cash flow tabular report by day generated by P6.

6.3.3.4.2 Activity Codes: The following are the minimum required activity codes and their values that are to be assigned to each activity in P6:

Phase: Shall have a field length of 4 characters. If the Project has more than one maintenance of traffic (M.O.T.) phase, each phase shall be identified. Each activity shall show which M.O.T. Phase it belongs to as shown in the Plans and Specifications.

Area: Shall have a field length of 6 characters. The Contractor shall create Area activity code values for each of the following areas. Each schedule activity shall have an assigned Area activity code value

6.3.3.4.3 Activity Relationships: Relationships between activities shall be identified with the following information:

- A. Activity ID - Shall not exceed 6 characters in length.
- B. Predecessor and successor activity ID.
- C. Relationship types:
 - SS -Start to start
 - FF -Finish to finish
 - SF -Start to finish - This relationship is not allowed, unless authorized by CFX.
- D. Lag -Negative lag is not allowed, unless authorized by CFX.

6.3.3.4.4 Project Calendars: Calendars shall use day as the planning unit for the schedule. One of four calendars shall be used for each activity:

- A. Calendar 1: shall be used for 5-day workweek activities: Monday through Friday. All holidays and non-work days shall be assigned to this calendar. This calendar shall be used for all normal Work activities. Calendar 1 shall be the default calendar.
- B. Calendar 2: shall be used for 7-day workweek activities. No non-work days shall be entered into this calendar. Activities such as friction course curing shall use this calendar.
- C. Calendar 3: shall be used for 7-day workweek activities. All holidays shall be entered into this calendar.
- D. Calendar 4: shall be used for 6-day workweek activities. All holidays and non-work days shall be assigned to this calendar.

Global Calendar: The global P6 calendar shall have all holidays and non-work days assigned.

Additional calendars: May be assigned depending upon need. However, the Contractor shall consult with CFX before other calendars are entered and/or used in the Project schedule.

6.3.3.4.5 Revenue Loading the Schedule: Each Work activity in the

schedule shall be revenue loaded using all the Contract pay items amounts related to the Work activity. The Contractor shall verify that each pay item is represented in the schedule. The total of all revenue loading shall equal the Contract amount.

If the monthly payment requests do not reasonably agree with the monthly schedule updates/budgeted revenue of Work performed, CFX may request that the Contractor revise its revenue loading in the accepted baseline schedule and the most current updated baseline schedule. In addition, CFX may request that the Contractor revise its revenue loading in the accepted baseline and updated baseline schedules to incorporate all Supplemental Agreement changes affecting the Contract amount.

6.3.3.4.6 Updating the Baseline Schedule

Monthly Schedule Update Meetings: Monthly Schedule Update meetings shall be set by CFX and shall be transmitted to the Contractor by written notice.

CFX will establish a schedule cut-off date for each month of the Contract.

The updated baseline schedule, project progress, issues, delays, claims, planned Work, Contractor's monthly pay estimate, and baseline schedule revisions shall be among the priority items addressed in detail.

Schedule Update Process: The schedule update process shall include updating the activity actual start and finish dates, percent completion, remaining duration, and adjusting schedule logic to correct for activities being performed out of sequence, adjusting resource allocations for activities, and changing the calendar assignments to activities as needed. The Contractor shall not change an activity original duration for any reason.

6.3.3.4.7 Revisions to the Baseline Schedule

1. CFX will request in writing that the Contractor submit a proposed revision to the Accepted Baseline Schedule to incorporate a Board Approved Supplemental Agreement.
2. The Contractor shall have fifteen calendar days from receipt of CFX's request to submit a proposed revision to the Accepted Baseline Schedule.

3. The Contractor's proposed revision shall include all transmittals, reports, diagrams, and bar charts listed in specification section 6.3.2.4.9, unless CFX requests otherwise in writing.
4. The Contractor shall submit two Schedule Comparison reports. The first report shall be a comparison between the Accepted Baseline Schedule and the Revised Baseline Schedule. The second report shall be a comparison between the current updated baseline schedule and the proposed updated baseline schedule containing the proposed revision to the accepted baseline schedule.
5. In its required narrative report, the Contractor shall state whether or not the proposed changes affect the longest path of the accepted baseline schedule or the proposed updated baseline schedule, which contains progress.
6. CFX shall have 15 calendar days to review and transmit a written notice of acceptance or rejection of the Contractor's proposed revision. If CFX rejects the proposed revision, CFX shall state the reasons for rejection in the written notice. The Contractor shall have 5 calendar days to re-submit the proposed revision to CFX.
7. If the Contractor fails to submit a proposed revision that is accepted by CFX within 45 calendar days from CFX's original request date, CFX reserves the right to retain 10% of each of the Contractor's monthly payment requests until the Contractor submits a proposed revision that is accepted by CFX.
8. Upon acceptance of the proposed revision to the accepted baseline schedule, the proposed revision to the baseline schedule shall become the accepted baseline schedule. The Contractor shall incorporate the revision into the next scheduled updated baseline schedule.

6.3.3.4.8 Schedule Submittals: Each baseline, revised baseline, and updated baseline schedule submittal shall include the following documents, unless CFX sends and the Contractor receives a written request to limit the submittal to certain documents for a specific submittal.

1. Transmittal: Shall be signed by the Contractor's Schedule Engineer or Resident Engineer. Shall contain the following information:

Submittal date.

Contractor Name.

Complete CFX Contract Number.
Project Description.
Contract Resident Engineer.
Four character P6 Project Number - Data Date

2. Schedule Update Narrative Report: The Contractor shall prepare a written narrative to accompany the required reports and graphics for the schedule update submittal. The narrative shall have the following sections:

Schedule Status: The Schedule Status shall be a written narrative explaining the progress during the month in sufficient detail and referencing specific activities including longest path activities, milestones, design issues, means and methods issues, out of sequence activities, and actual production rates for various types of Work performed by the crews loaded as resources in the schedule.

Delays: If the Contractor has experienced any delay, the Contractor shall explain what activities in the current period were affected by the delay and what caused the delay and how the Contractor intends to address the delay.

Milestone Comparisons: Current period projected milestone dates versus previous period projected milestone dates, and current period projected contract completion date versus previous period projected contract completion date.

3. Schedule Comparison Report: The Contractor shall submit to CFX a detailed report showing all changes to the Project schedule since the previous monthly update, including, but not limited to the following information:

Activities worked out of sequence.

Changes in Total Float.

Changes in Early and Late Dates.

Changes in Original and Remaining Duration.

Changes in Activity Constraints.

Changes in Activity Predecessors, Successors, Relationship Type, and Lags.

Changes in Activity Resource Assignments.

Changes in Activity Cost Loading.

Changes in Activity percent completion.

Changes in Longest Path Activities.

Longest Path Bar chart: Bar chart shall be time scaled and filtered on the Longest Path activities and sorted by early start.

Area Code Bar chart: Bar chart shall be time scaled and sorted by area code. The bar chart shall include:

- A. Each activity on a single line containing ID number, activity description, and a bar representing activity original duration, early start dates, early finish dates, late start dates, late finish dates and total float.
 - B. Key to identify all components in the bar chart and CPM.
 - C. Key to identify all the abbreviations used.
4. Revenue Loading Report: The Contractor shall submit to CFX a report entitled "Revenue Loading Report". The report shall include the following information:
- A. Activity ID number
 - B. Description of activity
 - C. List of pay items included in activity including:
 - 1. Pay item number
 - 2. Pay item description
 - 3. Quantity of pay item to be applied
 - 4. Unit measure of pay item
 - 5. Unit-price of pay item
 - 6. Total price for pay item to be applied
 - D. Total revenue loading of activity (Sum of "C")
5. Revenue Flow Diagram: For any baseline Schedule, the Contractor shall submit to CFX a Revenue Flow Diagram by month. The Revenue Flow Diagram shall show the early and late curves representing the accumulated projected dollars to be earned for each month of the Contract.
6. Tabular Revenue Report: For any Baseline Schedule, the Contractor shall submit a Tabular Revenue Report by day. The tabular report shall show columns for the accumulated and incremental projected dollar amounts to be earned on the early and late curve for each Contract day.

7. P6 Schedule Backup: The Contractor shall submit to CFX two copies of each baseline, revised baseline, and updated baseline schedule using the P6 backup option. The backed up copies shall be compressed and without an access list. The backups shall be submitted on compact disk (cd). Each cd shall have a typed label showing the following information:

Contractor name

The complete CFX Project number

The four character P6 project number

Data Date in format -> "01JAN15"

Volume number _of_ total volume numbers (e.g., 1 of 5, 2 of 5)

8. Paper Sizes and Orientation: All printed reports shall be submitted on 8" x 11" portrait-bond paper. All printed bar charts and revenue flow diagrams shall be submitted on 8" x 11" landscape bond paper. All presentation layouts and logic diagrams shall be plotted in color with a color design jet plotter and submitted on ANSI E (34-inch x 44-inch) size coated paper.

6.3.3.4.9 Two Week Look Ahead Schedule: The Contractor shall submit a two-week look-ahead bar chart schedule produced in Microsoft Excel at the weekly project progress meeting. The bar chart shall show all major Work in progress.

The bar chart shall show at least one week behind for actual Work performed and two weeks ahead for planned Work.

The bar chart shall be date synchronized to the CEI's Weekly Summaries.

Changes and revisions that require the approval of CFX shall be brought forward for discussion.

6.3.3.4.10 Adjustments to Contract Time:

1. The Contract Completion Date shall not be changed in any schedule unless CFX approves a Supplemental Agreement granting an extension to the Contract Time.
2. The Contractor has the right to finish the Contract early; however, the Contractor agrees that any impact to the projected early completion date does not justify a request for a time extension because it would constitute changing the Contract completion date to match the

Contractor's projected early completion date.

3. The Contractor acknowledges and agrees that for purposes of considering a time extension request, a schedule activity shall not be considered to have been subject to a claimed delay unless all originally and presently scheduled predecessor activities have been completed so that no other restraints to the performance of that activity exist in the CPM schedule at the time claimed for the delay impact. The Contractor agrees that a Contract time extension request shall only be considered for one of the following reasons:
 - A. The Contractor performed Extra Work that met all of the following conditions:
 1. CFX stated that the Extra Work was not to be performed concurrently with other Contract Work.
 2. The Extra Work delayed the Contract Completion Date.
 3. The Extra Work impacted one or more activities on the current CPM schedule longest path.
 - B. The Contractor experienced an Excusable Delay, as defined in subarticle 6.7.3.1, that met all of the following conditions:
 1. The Contract Completion Date was delayed due to circumstances beyond the control of the Contractor.
 2. The Contractor took every reasonable action to prevent the delay.
 3. The delay impacted one or more activities on the current CPM schedule longest path.
 4. The Contractor agrees that there shall be no basis for a Contract Time extension as a result of any Contract problem, Supplemental Agreement, or delay, which only results in the loss of available positive float, or an increase of negative float belonging to activities that do not reside on the CPM schedule's Longest Path.

6.3.3.4.11 Supplemental Agreements: Supplemental Agreements shall include a time impact analysis from the Contractor as to the effect of the requested change on the detailed schedule. In cases where the requested change has no impact on the Project duration, the time impact analysis shall still be included. The time impact analysis shall include a listing of the activities that are affected by the requested changes and an analysis of the change on the longest path of the detailed schedule. The Contractor and the CEI shall agree upon the impact to the schedule before a Supplemental Agreement is approved.

The approved Supplemental Agreements shall be incorporated into the next monthly schedule update.

6.3.3.4.12 Adjustment to the Contract Time: Adjustments to the Contract time are detailed in subarticle 6.7.3.

6.3.3.4.13 CPM Recovery Schedule: Should any of the following conditions exist, the Contractor shall, at no extra cost to CFX, prepare a CPM Recovery Schedule:

1. Should the Contractor's monthly progress review indicate that a CPM Recovery Schedule is required;
2. Should the CPM schedule show the Contractor to be thirty (30) or more days behind schedule at any time during the construction period;
3. Should the Contractor request to make changes in the logic of the CPM schedule which, in the opinion of CFX, are of a major nature.

The same requirements and submittals for the CPM Recovery Schedule shall apply as the original baseline schedule.

6.3.4 Beginning Work: See Article 6.7 below.

6.3.5 Provisions for Convenience of the Public: The Contractor shall schedule operations to minimize any inconvenience to adjacent businesses, vehicular or pedestrian traffic or residences. CFX reserves the right to direct the Contractor as to the performance and scheduling of Work in any areas along the Project where restrictions caused by construction operations present significant hazards to the health and safety of the general public.

When working adjacent to or over travel lanes, the Contractor shall ensure that dust, mud and other debris from Contractor's operation does not interfere with normal

traffic operations or adjacent properties. All debris shall be removed from the Work area and clear zone of the Project before Work ends for the day. Trash shall be picked up and removed daily from the job by the Contractor.

- 6.3.6 Pre-Construction Conference: Prior to Contractor's commencement of Work on the Project, the CEI will schedule a pre-construction conference with the Contractor, utility companies and other affected parties to review the proposed Work activities and schedule of events.

6.4 Limitations of Operations

- 6.4.1 Night Work: In all areas where Work is being performed during the hours of dusk or darkness, the Contractor shall furnish, place and maintain lighting facilities capable of providing light of sufficient intensity (5 foot-candles minimum) to permit good workmanship and proper inspection at all times. The lighting shall be arranged so as not to interfere with or impede traffic approaching the Work site(s) from either direction or produce undue glare to property owners and traveling public.

Lighting of Work site(s) may be accomplished using any combination of portable floodlights, standard Equipment lights, existing street lights, temporary street lights, etc., that will provide the proper illumination. The Contractor shall provide a light meter to demonstrate that the minimum light intensity is being maintained. The Contractor shall provide sufficient fuel, spare lamps, generator, etc., to maintain lighting of the Work site.

The Contractor's lighting plan shall provide for and show the location of all lights necessary for every aspect of Work to be done at night. The plan shall be presented on standard size roadway plan sheets (no larger than 24" x 36") and on a scale of either 100' or 50' to the inch. The Contractor's lighting plan shall be submitted to the CEI for review and approval at least 10 days prior to beginning any night Work. The CEI may require that modifications be made to the lighting setup to fit field conditions.

The Contractor shall furnish and place variable message signs to alert approaching motorists of lighted construction area(s) ahead.

The Contractor's pickups and automobiles used on the Project shall be provided with amber flashing lights or flashing white strobe lights. These lights shall be in operation at all times while in the Project limits and/or Work area.

The Contractor's Equipment shall be provided with a minimum of four square feet of reflective sheeting or flashing lights that will be visible to approaching motorists.

The Contractor shall provide its personnel with reflective safety vests. The Contractor shall ensure that all Subcontractors are also provided with reflective

safety vests. Vests shall be worn at all times while workers are within the Work area.

The Contractor shall use padding, shielding or locate mechanical and electrical Equipment to minimize noise as directed by the CEI. Noise generated by portable generators shall comply with all applicable Federal, State and local environmental regulations.

The Contractor shall have a superintendent present to control all operations involved during night Work. The superintendent shall maintain contact with the CEI and ensure that all required actions are taken to correct any problem noted.

All required traffic control devices such as signs, stripes, etc., shall be in place before the Contractor commences Work for the night and before the Contractor leaves the Work site the next morning.

Work operations that result in traffic delays more than five minutes may be temporarily suspended by the CEI to minimize the impact on the traveling public.

No private vehicles shall be parked within the limited access right of way. The Contractor's Worksite Traffic Supervisor shall continually and adequately review traffic control devices to ensure proper installation and working order, including monitoring of lights.

Compensation for lighting for night Work shall be included in the Contract prices for the various items of the Contract. All lighting Equipment for night work shall remain the property of the Contractor.

- 6.4.2 Sequence of Operations: The Contractor shall not start new Work that will adversely impact Work in progress. Under such circumstances, CFX reserves the right to require the Contractor to finish a section on which Work is in progress before Work is started on any new section.
- 6.4.3 Interference with Traffic: The Contractor shall at all times conduct the Work in such a manner and such sequence as to ensure the least practicable interference with traffic. The Contractor's vehicles and other Equipment shall be operated in such a manner that they will not be a hazard or hindrance to the traveling public. Materials stored along the roadway shall be placed to minimize obstruction to the traveling public.

Where existing pavement is to be widened and stabilizing is not required, the Contractor shall schedule operations such that at the end of each workday the full thickness of the base for widening will be in place. Construction of the widening

strips will not be permitted simultaneously on both sides of the road except where separated by a distance of at least one-fourth of a mile along the road, where either the Work of excavation has not been started or the base has been completed.

- 6.4.4 **Coordination with Other Contractors:** The right is reserved by CFX to have other work performed by other contractors and to permit public utility companies and others to do work during the construction of and within the limits of or adjacent to the Project. The Contractor shall arrange the Work and dispose of Materials so as not to interfere with the operations of other contractors engaged upon adjacent work and shall perform the Work in the proper sequence in relation to that of other contractors and shall join with and connect to the work of others as required by the Plans and Specifications all as may be directed by the CEI.

Contractor shall be responsible for any damage done by Contractor's operations to the work performed by other contractors. Similarly, other contractors will be held responsible for damage caused their operations to the Contractor's Work. The Contractor agrees to make no claims against CFX for additional compensation due to delays or other conditions created by the operations of such other parties. Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of, or adjacent to, the Project, CFX will decide as to the relative priority of all concerned.

- 6.4.5 **Drainage:** The Contractor shall conduct operations and maintain the Work in such condition that adequate drainage will be in effect at all times. Existing functioning storm sewers, gutters, ditches and other runoff facilities shall not be obstructed.
- 6.4.6 **Fire Hydrants:** Fire hydrants on or adjacent to the roadway shall be kept accessible to fire apparatus at all times and no material or obstruction shall be placed within 15 feet of any such hydrant.
- 6.4.7 **Protection of Structures:** Heavy Equipment shall not be operated close enough to pipe headwalls or other structures to cause their displacement.
- 6.4.8 **Fencing:** The Contractor shall expedite the installation of fencing at those locations where, in the opinion of the CEI, such installation is necessary for the protection, health, and safety of the public. All fencing shall be maintained by the Contractor at all times. Fence cuts shall be immediately replaced. All fence removed during any one working day shall be replaced during that same day. While the fence is down, continuous security shall be provided by the Contractor to ensure that no pedestrians or vehicles enter or exit the roadway from the temporarily unfenced area. Specific attention shall be given to prevent any persons, animals, or vehicles moving from adjacent private property onto the roadway right-of-way.

6.4.9 Hazardous or Toxic Waste: When the Contractor's operations encounter or expose any abnormal condition which may indicate the presence of a hazardous substance, toxic waste or pollutants such operations shall be discontinued in the vicinity of the abnormal condition and the CEI shall be notified immediately. The presence of tanks or barrels; discolored earth, metal, wood, groundwater, etc.; visible fumes; abnormal odors; excessively hot earth; smoke; or other conditions which appear abnormal may be indicators of hazardous or toxic wastes or pollutants and shall be treated with extraordinary caution.

Every effort shall be made by the Contractor to minimize the spread of any hazardous substance, toxic waste or pollutant into uncontaminated areas.

The Contractor's operations in the affected area shall not resume until so directed by the CEI.

Disposition of the hazardous substance, toxic waste or pollutant shall be made in accordance with the laws, requirements and regulations of any local, state, or federal agency having jurisdiction. Where the Contractor performs Work necessary to dispose of hazardous substance, toxic waste or pollutant and the Contract does not include pay items for disposal, payment will be made, when approved in writing by a Supplemental Agreement, prior to the Work being performed.

6.4.10 Milling: The Contractor shall provide positive drainage of the remaining pavement after milling. This operation shall be done prior to opening to traffic.

The Contractor shall provide suitable transitions between milled areas of varying thickness in order to create a reasonably smooth longitudinal riding surface. In addition, the Contractor shall provide suitable transitions approaching all bridge ends at all times.

Wedges for Longitudinal and Transverse Joints: Asphalt Wedges for longitudinal and traverse joints shall be one foot wide or long, respectively, for each 1/4 inch of depth. The wedge must be installed prior to opening the lane to traffic.

The Contractor shall plan milling operations so that any lane milled will be repaved prior to opening to traffic.

6.5 Qualifications of Contractor's Personnel

The Contractor shall ensure that all of its employees are competent, careful, and reliable. All workers shall have the skills and experience necessary to properly perform the Work assigned and as required by the Plans and Specifications.

If, in the opinion of CFX, any person employed by the Contractor, or any Subcontractor, is not qualified to perform the Work or is insubordinate, disorderly, disrupts or is detrimental to the progress of the Work, such person shall be immediately removed from the Project by the Contractor upon written direction from CFX. Such person shall not be employed again on the Project without the written permission of CFX. If the Contractor fails to immediately remove such person, CFX may, at its sole discretion, withhold payments due or which may become due, or may suspend the Work until the person is removed. The Contractor shall indemnify and hold harmless CFX, its agents, consultants, officials and employees from any and all claims, actions or suits arising from such removal, discharge or suspension of a Contractor employee based on the direction of CFX.

6.6 Temporary Suspension of Contractor's Operations

6.6.1 Authority to Suspend Contractor's Operations: CFX, at its sole discretion, may suspend the Contractor's operations, wholly or in part, for such period(s) as CFX deems necessary. These periods of suspension may include adverse weather conditions, catastrophic occurrences and heavy traffic congestion caused by special events. Written notice, giving the particulars of the suspension, will be transmitted to the Contractor by CFX.

- 6.6.2 Prolonged Suspensions: If the suspension of operations is for an indefinite period of time, the Contractor shall store all Materials in such a manner that they will not become damaged or obstruct or impede the traveling public unnecessarily. The Contractor shall take reasonable precautions to prevent damage to or deterioration of the Work performed, shall provide suitable drainage of the roadway by opening ditches, shoulder drains, etc., and shall provide all temporary structures necessary for public travel and convenience.
- 6.6.3 Permission to Suspend Operations: The Contractor shall not suspend operations or remove Equipment or Materials necessary for the completion of the Work without the permission of CFX. All requests for suspension of the Contract time shall be in writing to CFX and shall identify specific dates to begin and end.
- 6.6.4 Suspension of Contractor's Operations - Holidays: Unless the Contractor submits a written request to work on a holiday at least ten days in advance of the requested date and receives written approval from the CEI, the Contractor shall not work on the following days: Martin Luther King, Jr. Day; Memorial Day; the Saturday and Sunday immediately preceding Memorial Day; Independence Day; Labor Day; the Friday, Saturday, and Sunday immediately preceding Labor Day; Veterans Day; Thanksgiving Day; the Friday, Saturday and Sunday immediately following Thanksgiving Day; and December 24 through January 2, inclusive. Contract Time will be charged during these holiday periods regardless of whether or not the Contractor's operations have been suspended. The Contractor is not entitled to any additional compensation for suspension of operations during such holiday periods.

During such suspensions, the Contractor shall remove all Equipment and Materials from the clear zone, except those required for the safety of the traveling public and retain sufficient personnel at the job site to properly meet the requirements of Sections 102 and 104 of the Technical Specifications. The Contractor is not entitled to any additional compensation for removal of Equipment from clear zones or for compliance with Section 102 and Section 104 during such holiday periods.

Any special events known to CFX that may impact Contractor operations are shown on the Plans.

6.7 Contract Time

- 6.7.1 General: The Contractor shall complete the Work in accordance with the Plans and Specifications and within the Contract Time specified in the Special Provisions including approved extensions.

For scheduling purposes, the Contractor shall take into consideration holidays and all

weather conditions (except those listed in subarticle 6.7.3) that may be encountered during the performance of the Work.

The effect on job progress of utility relocations and adjustments and scheduling of construction operations to maintain traffic shall also be considered by the Contractor in the scheduling of Contract time.

6.7.2 Date of Beginning of Contract Time: The date on which Contract time will begin shall be the date of notice to begin Work or as specified in the Notice to Proceed.

6.7.3 Adjusting Contract Time:

6.7.3.1 Contract Time Extension: CFX has established an allowable Contract duration, in terms of calendar days, sufficient to complete the Work covered by the Contract. By execution of the Contract, the Contractor agrees that the calendar days are sufficient to perform the Work and it has priced its bid considering the Contract duration. If the Contractor's Work (which Work is actually on the critical path) is impacted by one or more of the following events, CFX may (but is not obligated to) consider approving an extension of time:

1. War or other act of public enemies.
2. Riot that would endanger the well-being of Contractor's employees.
3. Earthquake.
4. Unpredictable acts of jurisdictional governmental authorities acting outside the scope of current laws and ordinances.
5. Hurricane (or other weather event) but only if the weather event results in the declaration of an emergency by the Governor of the State of Florida within the geographical area which includes the Work area.
6. Utility relocation and adjustment Work only if all the following criteria are met:
 - a. Utility work actually affected progress toward completion of Work on the critical path.
 - b. The Contractor took all reasonable measures to minimize the effect of utility work on critical path activities including

cooperative scheduling of his operations with the scheduled utility work.

7. Temperature restrictions that prohibit placement of friction course (FC-5 only) provided all other Work is completed.
8. Epidemics, quarantine restrictions, strikes (unless caused or provoked by actions of the Contractor, or its subcontractors, or its materialmen, or its suppliers or its agents), freight embargoes.
9. Impacts to the critical path caused by other contractors.

Time will not be granted for inclement weather other than as provided for in this section. In submitting a request for time extension, the Contractor shall comply with the following requirements:

1. Notify CFX in writing of the occurrence of a delay event within 48 hours of the beginning of the event.
2. Furnish a detailed written explanation of the impact of the delaying event on the scheduled Work with supporting documentation in the form of job records.
3. Provide proof that the Contractor has taken all necessary steps to protect the Work, the Contractor's employees, Materials and Equipment from the effects of the event.

CFX will consider the delays in delivery of materials or component equipment that affect progress on a controlling item of work as a basis for granting a time extension if such delays are beyond the control of the Contractor or supplier. Such delays may include an area-wide shortage, an industry-wide strike, or a natural disaster that affects all feasible sources of supply. In such cases, the Contractor shall furnish substantiating letters from a representative number of manufacturers of such materials or equipment clearly confirming that the delays in delivery were the result of an area-wide shortage, an industry-wide strike, etc. No additional compensation will be made for delays caused by delivery of materials or component equipment.

CFX will not consider requests for time extension due to delay in the delivery of custom manufactured equipment such as traffic signal equipment, highway lighting equipment, etc., unless the Contractor furnishes documentation that the Contractor placed the order for such equipment in a timely manner, the delay was caused by factors beyond the manufacturer's control, and the lack of such equipment caused a delay in progress on a controlling item of work. No additional compensation will be paid for delays caused by delivery of custom manufactured equipment.

6.7.3.2 An extension of time (rather than monetary compensation) will be the Contractor's sole and exclusive remedy in the event that an extension of time is justified under subarticle 6.7.3.1. The Contractor shall not be entitled to damages when an extension of time is permitted or granted under said subarticle.

6.8 Failure of Contractor to Maintain Satisfactory Progress

6.8.1 General: Time is of the essence of the Contract. Unsatisfactory progress will be deemed to have occurred when:

1. The allowed Contract time for performing the Work has expired and the Contract Work is not complete; or
2. The specified time or date for performing a special milestone stage of the Work (as may be set forth in the Special Provisions) has expired and the Work for that milestone stage is not complete; or
3. The allowed Contract time has not expired and the net dollar value of completed Work (gross earnings less payment for stockpiled Materials) is 15 percentage points or more below the dollar value of Work that should have been completed according to the accepted working schedule for the Project. The dollar value of Work, which should have been completed, is defined as the average between the early start and late start scheduled earnings according to the approved working schedule. After falling 15 percent behind, the delinquency continues until the dollar value of Work is within 5 percentage points of the dollar value of Work that should be completed according to the accepted working schedule for the Project.

In addition to the retainage specified in Article 7.6 of these General Specifications, retainage may also be withheld on partial payments at any time throughout the duration of the Contract due to unsatisfactory progress. The amount of retainage withheld will be one (1) percent of the gross amount earned for the month for every one (1) percent the project is below the dollar value of the Work that should have been completed according to the accepted working schedule for the Project. Retainage held due to unsatisfactory progress will be returned once the delinquency has been cured.

6.9 Default and Termination of Contract

6.9.1 Determination of Default: CFX will give notice in writing to the Contractor and Contractor's surety of such delay, neglect, or default for the following:

- a. If the Contractor fails to begin the Work under the Contract within the time specified in the Notice to Proceed or;
- b. fails to perform the Work with sufficient workmen and Equipment or with sufficient Materials to assure the prompt completion of the Contract as related to the schedule or;
- c. performs the Work unsuitably or neglects or refuses to remove Materials or;
- d. to perform anew such Work as may be rejected as unacceptable and unsuitable or;
- e. discontinues the prosecution of the Work or;
- f. fails to resume Work which has been discontinued within a reasonable time after notice to do so or;
- g. fails to pay timely its subcontractors, suppliers or laborers or;
- h. submits a false or fraudulent Certificate of Disbursement of Previous Payments form or;
- i. becomes insolvent or is declared bankrupt or;
- j. files for reorganization under the bankruptcy code or;
- k. commits any act of bankruptcy or insolvency, either voluntarily or involuntarily or;
- l. allows any final judgment to stand against it unsatisfied for a period of ten calendar days or;
- m. makes an assignment for the benefit of creditors or;
- n. for any other cause whatsoever, fails to carry on the Work in an acceptable manner or;
- o. if the surety executing the bond, for any reasonable cause, becomes unsatisfactory in the opinion of CFX.
- p. Failure to ensure that D/M/WBE firms have the maximum opportunity to participate in performance of the Contract shall constitute failing to prosecute the Work in an acceptable manner.

If the Contractor, within a period of 10 calendar days after the notice described above, does not proceed to correct the default, CFX may give notice of default in writing to the Contractor and the surety stating the nature of the default and providing the amount of time which will be allowed to correct the default.

If the Contractor (within the curative period described in the notice of default) does not correct the default, CFX will have full power and authority to remove the Work from the Contractor and to declare the Contract in default and terminated.

If the Contract is declared in default, CFX may require the Contractor's surety to take over and complete the Contract performance. Upon the failure or refusal of the surety to assume the Contract within the time demanded, CFX may take over the Work covered by the Contract.

CFX shall have no liability for profits related to unfinished Work on a Contract terminated for default.

- 6.9.2 Public Interest Termination of Contract: CFX may, by written notice, terminate the Contract or a portion thereof after determining that, for reasons beyond either CFX or Contractor control, the Contractor is prevented from proceeding with or completing the Work as originally contracted for, and that termination would therefore be in the public interest. Such reasons for termination may include but need not be necessarily limited to, executive orders of the President relating to prosecution of war or national defense, national emergency which creates a serious shortage of Materials, orders from duly constituted authorities relating to energy conservation and restraining order or injunctions obtained by third-party citizen action resulting from national or local environmental protection laws or where the issuance of such order or injunction is primarily caused by acts or omissions of persons or agencies other than the Contractor.

When the Contract or any portion thereof, is terminated (as aforesaid) before completion of all items of Work in the Contract, payment will be made for the actual number of units or items of Work completed, at the Contract unit price or as mutually agreed for items of Work partially completed. No claims for loss of anticipated profits will be considered.

Reimbursement for mobilization expenses (when not otherwise included in the Contract), including moving Equipment to the job, will be considered where the volume of Work completed is too small to compensate the Contractor for these expenses under the Contract unit prices; the intent being that an equitable settlement will be made with the Contractor.

Acceptable Materials procured by the Contractor for the Work, that have been inspected, tested, and approved by CFX and that are not incorporated in the Work, may be purchased from the Contractor at actual cost, as shown by receipted bills and actual cost records, at such points of delivery as may be designated by CFX.

Termination of the Contract or a portion thereof, under the provisions of this subarticle, shall not relieve the Contractor of Contractor's responsibilities for the completed portion nor shall it relieve Contractor's surety of its obligation for, and concerning any just claims arising out of, the Work performed.

CFX may also, upon seven days written notice to the Contractor, without cause and without prejudice to any other right or remedy of CFX, elect to terminate the Contract. In such case, the Contractor will be paid (without duplication of any items):

1. for completed and acceptable Work executed in accordance with the

Contract Documents prior to the effective date of termination, in accordance with existing pay items;

2. for expenses sustained prior to the effective date of termination in performing services and furnishing labor, Materials or Equipment as required by the Contract Documents in connection with uncompleted Work, plus mutually agreeable sums for overhead and profit on such expenses.

The Contractor shall not be paid because loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

- 6.9.3 Completion of Work by CFX: Upon declaration of default and termination of the Contract, CFX will have the right to appropriate or use any or all Materials and Equipment on the sites where Work is or was occurring which are suitable and acceptable and may enter into agreements with others for the completion of the Work under the Contract or may use other methods which in the opinion of CFX are required for Contract completion. All costs and charges incurred by CFX because of or related to the Contractor's default (including the costs of completing Contract performance) shall be charged against the Contractor. If the expense of Contract completion exceeds the sum which would have been payable under the Contract, the Contractor and the surety shall be jointly and severally liable and shall pay CFX the amount of the excess.

6.10 Liquidated Damages for Failure to Complete the Work

- 6.10.1 Liquidated Damages for Failure to Complete the Work: The Contractor shall pay to CFX liquidated damages in the amount specified in the Special Provisions per calendar day for failure of the Contractor to complete the Work within the Contract time stipulated or within such additional time as may have been granted by CFX.
- 6.10.2 Determination of Number of Days of Default: Default days shall be counted in calendar days.
- 6.10.3 Conditions Under Which Liquidated Damages are Imposed: If the Contractor (or in circumstance of the Contractor default, the surety) fails to complete the Work within the Contract time stipulated or within such extra time as may have been granted by CFX, the Contractor (or the surety) shall pay to CFX, not as a penalty but as liquidated damages, the amount due.
- 6.10.4 Right of Collection: CFX reserves the right, at its sole option, to apply as payment on liquidated damages due any money which is due the Contractor by CFX.
- 6.10.5 Allowing the Contractor to Finish Work: Allowing the Contractor to continue and to finish the Work or any part of it, after the expiration of the Contract time allowed,

including time extensions, shall in no way act as a waiver on the part of CFX of the liquidated damages due under the Contract.

6.10.6 Liability for Liquidated Damages: In the event of default of the Contract and the completion of the Work by CFX, the Contractor and the Contractor's surety shall be liable for the liquidated damages under the Contract. No liquidated damages shall be chargeable for any delay in the final completion of the Work due to any unreasonable action or delay on the part of CFX.

6.11 Release of Contractor's Responsibility

The Contract will be considered completed when all Work has been finally accepted, in writing, by CFX. The Contractor will then be released from further obligation except as set forth in the Public Construction Bond and as provided in subarticle 3.9.5, Recovery Rights Subsequent to Final Payment.

6.12 Recovery of Damages Suffered by Third Parties

In addition to liquidated damages, CFX may recover from the Contractor amounts paid by CFX for damages suffered by third parties unless the failure to timely complete the Work was caused by CFX acts or omissions.

6.13 Express Warranty

The Contractor warrants and guarantees the Work to the full extent provided for in and required by the Contract Documents. Without limiting the foregoing or any other liability or obligation with respect to the Work, the Contractor shall, at its expense and by reason of its express warranty, make good any faulty, defective, or improper parts of the Work discovered within one (1) year from the date of final acceptance of the Project, expressed in writing, by CFX. The Contractor also warrants that all materials furnished hereunder meet the requirements of the Contract Documents and expressly warrants that they are both merchantable and fit for the purpose for which they are to be used under the Contract Documents.

Should any subcontractor or material supplier of Contractor provide an express warranty for its work or materials to the Contractor which is thereafter assigned to CFX or provide a warranty for its work or materials directly to CFX, such warranty shall not preclude CFX from the exercise of any alternative means of relief against Contractor, whether contractual, extra-contractual, statutory, legal or equitable.

END OF SECTION 6

SECTION 7 - MEASUREMENT AND PAYMENT

7.1 Measurement of Quantities

7.1.1 Measurement Standards: Unless otherwise stipulated, all Work completed under the Contract shall be measured by CFX according to United States Standard Measures.

7.1.2 Method of Measurements: All measurements shall be taken horizontally or vertically unless otherwise stipulated in the Specifications.

7.1.3 Determination of Pay Areas:

7.1.3.1 Final Calculation: In measurement of items paid for on the basis of area of finished Work, where the pay quantity is determined by calculation, the lengths and/or widths used in the calculations shall be either 1) the station to station dimensions shown on the Plans, 2) the station to station dimensions actually constructed within the limits designated by CFX or 3) the final dimensions measured along the surface of the completed Work within the neat lines shown on the Plans or designated by CFX. The method or combination of methods of measurement shall be those that reflect, with reasonable accuracy, the actual plane surface area, irrespective of surface and texture details of the finished Work as determined by CFX.

7.1.3.2 Plan Quantity: In measurement of items paid for on the basis of area of finished Work, where the pay quantity is designated to be the plan quantity, the final pay quantity shall be the plan quantity subject to the provisions of subarticle 7.3.2. In general, the plan quantity shall be calculated using lengths based on station to station dimensions and widths based on neat lines shown on the Plans.

7.1.4 Construction Outside Authorized Limits: Except where such Work is performed upon written instruction of CFX, no payment will be made for surfaces constructed over a greater area than authorized or for material moved from outside of slope stakes and lines shown on the Plans.

7.1.5 Truck Requirements:

The Contractor shall certify that all trucks used have a manufacturer's certification or permanent decal showing the truck capacity rounded to the nearest tenth of a cubic yard placed on both sides of the truck. The capacity shall include the truck body only and any side boards added shall not be included in the certified truck body capacity.

7.1.6 Ladders and Instrument Stands for Bridge Construction: To facilitate necessary

measurements, the Contractor shall provide substantial ladders to the tops of piers and bents and shall place and move ladders as required by the CEI. For bridges crossing water or marshy areas, the Contractor shall provide fixed stands for instrument mounting and measurements.

7.2 Scope of Payments.

7.2.1 Items Included in Payment:

Accept the compensation as provided in the Contract as full payment for furnishing all materials and for performing all work contemplated and embraced under the Contract; also for all loss or damage arising out of the nature of the work or from the action of the elements, or from any unforeseen difficulties or obstructions which may arise or be encountered in the prosecution of the work until its final acceptance; also for all other costs incurred under the provisions of the General Specifications.

For any item of work contained in the proposal, except as might be specifically provided otherwise in the basis of payment clause for the item, include in the Contract unit price (or lump sum price) for the pay item or items the cost of all labor, equipment, materials, tools, and incidentals required for the complete item of work, including all requirements of the Section specifying such item of work, except as specifically excluded from such payments.

7.2.2 Non-Duplication of Payment: In cases where the basis of payment clause in these Specifications relating to any unit price in the bid schedule requires that the unit price cover and be considered compensation for certain work or material essential to the item, CFX will not measure or pay for this same work or material under any other pay item that may appear elsewhere in these Specifications.

7.3 Compensation for Altered Quantities

7.3.1 General: When a change or combination of changes in the Plans results in an increase or decrease in the original Contract quantities and the Work added or deleted is of the same general character as that shown on the original Plans, the Contractor shall accept payment in full at the original Contract unit prices for the actual quantities of Work done. No allowance will be made for any loss of anticipated profits because of increase or decreases in quantities provided, however, that increased or decreased Work covered by a Supplemental Agreement will be paid for as stipulated in the Supplemental Agreement.

Compensation for alterations in Plans or quantities of Work requiring Supplemental Agreements shall be stipulated in such agreement, except when the Contractor proceeds with the Work without change of price being agreed upon. The Contractor shall be paid for such increased or decreased quantities at the Contract unit prices bid

in the Proposal for the items of Work. If no Contract unit price is provided in the Contract, the Contractor agrees to do the Work in accordance with Subarticle 2.3.2 of these General Specifications.

7.3.2 Payment Based on Plan Quantity:

7.3.2.1 Error in Plan Quantity: When the pay quantity for an item is designated to be the original plan quantity, such quantity will be revised only in the event that the quantity increases or decreases by more than 5% of the original plan quantity or the amount due for the item increases or decreases by more than \$5,000, whichever is smaller. In general, such revisions will be determined by final measurement or plan calculations (or both) as additions to or deductions from plan quantities. Changes resulting in pay quantity increase or decrease in excess of 25% will be in accordance with the criteria for significant changes as defined in subarticle 2.3.1 of these General Specifications.

If the Contractor determines that the plan quantity for any item is in error and additional or less compensation is due, the Contractor shall submit evidence of such error to CFX in the form of acceptable and verifiable measurements and calculations.

Similarly, if CFX determines an error or errors exist, it will make its measurements and calculations available to the Contractor. The plan quantity will not be revised solely on the basis of the Contractor's method of construction.

For earthwork items, the claimant must note any differences in the original ground surfaces from that shown in the original plan cross-sections that would result in a substantial error to the plan quantity, and must be properly documented by appropriate verifiable level notes, acceptable to both the Contractor and CFX, and provide sufficient opportunity to verify the data prior to disturbance of the original ground surface by construction operations. The claimant shall support any claim based upon a substantial error for differences in the original ground surface by documentation as provided above.

7.3.2.2 Authorized Changes in Limits of Work: When the pay quantity for an item is designated to be the original plan quantity and a plan change is authorized resulting in an increase or decrease in the quantity of an item, the plan quantity will be revised accordingly provided that such change will increase or decrease the amount due for more than \$100. In general, such revisions will be determined by final measurement or plan calculations or both, subject to the provisions of Subarticle 2.3.2 of these General Specifications.

7.3.2.3 Specified Adjustments to Pay Quantities: The limitations detailed in Subarticles 7.3.2.1 and 7.3.2.2 do not apply when 1) the Specifications provide that the pay quantity for an item to be paid for on the basis of area of finished Work is to

be adjusted according to the ratio of measured thickness to nominal thickness, 2) the Specifications provide for a deduction due to test results falling outside of the allowable specification tolerance or 3) paying for extra length fence posts as detailed in the Standard Specifications Section 550, Fencing, sub article 550-6.3, Payment Rates for Extra-Length Posts.

7.3.3 Lump Sum Quantities:

7.3.3.1 Error in Plan Quantity: When the pay quantity for an item is designated to be a lump sum and the Plans show an estimated quantity, the lump sum compensation will be adjusted only in the event that either the Contractor submits satisfactory evidence or CFX determines and furnishes satisfactory evidence that the plan quantity shown is substantially in error as defined in 7.3.2.1.

7.3.3.2 Authorized Changes in the Work: When the pay quantity for an item is designated to be a lump sum and the Plans show an estimated plan quantity, compensation for that item will be adjusted proportionately when a plan change results in a significant increase or decrease in the quantity from the estimated plan quantity. When the Plans do not show an estimated plan quantity or the Specifications do not provide adjustments for contingencies, any authorized plan changes resulting in a significant increase or decrease in the cost of acceptably completing the item will be compensated for by establishing a new unit price through a Supplemental Agreement as provided in Subarticle 2.3.2. of these General Specifications.

7.3.4 Deviation from Plan Dimensions: If the Contractor fails to construct any item to plan or to authorized dimensions within the specified tolerances, the CEI, at his discretion will: require the Contractor to reconstruct the work to acceptable tolerances at no additional cost to CFX; accept the work and provide the Contractor no pay; or accept the work and provide the Contractor a reduced final pay quantity or reduced unit price. CFX will not make reductions to final pay quantities for those items designated to be paid on the basis of original plan quantity or a lump sum quantity under the provisions of this Article unless such reduction results in an aggregate monetary change per item of more than \$100, except that for earthwork items, the aggregate change must exceed \$5,000 or 5% of the original plan quantity, whichever is smaller. If, in the opinion of the CEI, the Contractor has made a deliberate attempt to take advantage of the construction tolerances as defined in Article 120-12.1 of the Standard Specifications to increase borrow excavation in fill sections or to decrease the required volume of roadway or lateral ditch excavation or embankment, CFX will take appropriate measurements and will apply reductions in pay quantities. CFX will not use the construction tolerance, as defined in Article 120-12.1, as a pay tolerance. The construction tolerance is not to be construed as defining a revised authorized template.

7.4 Force Account Work: Work performed in addition to that set forth in the original Contract and which is paid for on the basis of actual cost of the Materials and labor, plus a fixed percentage of such costs, and at agreed rental rates for major Equipment used.

7.4.1 Method of Payment: All Work done on a force account basis performed by such labor, tools and Equipment as necessary to accomplish the Work, and authorized by CFX, will be paid for in the following manner:

(a) Labor:

Payment for labor and burden shall be based on actual costs of alteration, change, additional or unforeseen Work, plus a markup of 25%, agreed upon in writing before starting such Work, for every hour that the labor is actually engaged in such Work. Such amount shall be considered as full compensation for general supervision and the furnishing and repairing of small tools used on the Work. Agreed wage rates shall not be in excess of the rates paid for comparable Work on the Project.

(b) Materials and Supplies:

Payment for Materials and supplies, directly related to the alteration, change, additional or unforeseen Work, accepted by CFX and used on the Project shall be based on actual costs of such Materials incorporated into the Work, including Contractor paid transportation charges (exclusive of Equipment as hereinafter set forth), plus a markup of 17.5%. Material is defined as any item used in the Work that remains a part of the Project. The cost of supplies may be the pro-rata portion caused by the alteration, change, additional or unforeseen Work.

(c) Equipment:

The use of each piece of such machinery or Equipment and rental rates must be agreed upon in writing before the force account Work is begun.

Payment for Contractor owned machinery or Equipment (other than small tools) shall be determined as described below, plus a markup of 7.5%. Payment for rented Equipment shall be based on invoice cost plus 7.5%.

The portion of the cost for machinery or Equipment shall be based on the lesser of actual cost or "Rental Rate Blue Book for Construction Equipment" (RRBB) or "Rental Rate Blue Book for Older Construction Equipment"

(RRBBOCE) as published by Machinery Information Division of PRIMEDIA Information, Inc. (version current at time of bid) using all instructions and adjustments contained therein and as modified below.

On all projects, CFX will adjust the rates using regional adjustments and Rate Adjustment Tables according to the instructions in the RRBB and/or RRBBOCE. Allowable Machinery and Equipment Rates will be established as set out below:

- 1.) Reimbursement for the Equipment being operated shall be at a rate of 100% of the RRBB and/or RRBBCOE ownership cost plus 100% of the RRBB and/or RRBBCOE operating costs.
- 2.) Reimbursement for Equipment directed to standby and remain on the project site shall be at 50% of the lesser of the actual rental rate or RRBB and/or RRBBCOE ownership cost only. No more than 8 hours of standby will be paid in a single day.
- 3.) Costs shall be provided on an hourly basis. Hourly rates, for Equipment being operated or on standby, shall be established by dividing the lesser of actual monthly rental rate or the RRBB and/or RRBBCOE monthly rates by 176. The columns, itemizing rates, labeled "Weekly", "Daily" and "Hourly" shall not be used.
- 4.) No additional overhead will be allowed on Equipment costs.

Allowable Hourly Equipment Rate = Monthly Rate/176 x Adjustment Factors x 100%

Allowable Hourly Operating Cost = Hourly Operating Cost x 100%

Allowable Rate Per Hour = Allowable Hourly Equipment Rate + Allowable Hourly Operating Cost

Standby Rate = Allowable Hourly Equipment Rate x 50%

The Monthly Rate is the Basic Machine Rate plus any Attachments. Standby rates will apply when machinery or Equipment is not in operation and is directed by CFX to stand by at the Project site when needed again to complete work and the cost of moving the Equipment will exceed the accumulated standby cost. Standby rates will not apply to any day the

Equipment operates for eight or more hours. Standby payment will be limited to only the number of hours which, when added to the operating time for that day, equals eight hours. Standby payment will not be made on days that are not normally considered workdays on the project.

Transportation to and from the location at which the Equipment will be used will be allowed. If the Equipment requires assembly or disassembly for transport, the time for this will be paid at the rate for standby Equipment.

The markups in 1) through 4) above include all direct and indirect costs, including but not limited to increased jobsite support costs, etc., and expenses of the Contractor, including but not limited to overhead of any kind and reasonable profit.

(d) Subcontractor Work

The Contractor will be allowed a markup of 10% on the first \$50,000 and a markup of 5% on any amount over \$50,000 on any subcontract directly related to the alteration, change, additional or unforeseen Work. A subcontractor mark-up will be allowed only by the prime Contractor and a first tier subcontractor.

(e) Insurance, Bond and Taxes:

A markup of 1.5% will be allowed on the overall total cost of the alteration, change, additional or unforeseen Work for insurance and bond on the prime Contractor's bond. The markup includes all direct and indirect costs, including but not limited to increased jobsite support costs, etc., and expenses of the Contractor, including but not limited to overhead of any kind and reasonable profit.

Subcontractors who actually perform the alterations, changes, additional or unforeseen Work will be allowed all markups specified herein.

7.4.2 Records: The compensation as herein provided shall be accepted by the Contractor as payment in full for extra Work done on a force account basis. The Contractor and CFX shall compare records of extra Work done on a force account basis at the end of each day. Copies of these records shall be duplicated by CFX and signed by both CFX and the Contractor.

All claims for extra Work done on a force account basis shall be submitted by the Contractor upon certified statements, to which shall be attached original receipted bills covering the costs of the transportation charges on all Materials used in such Work. However, if Materials used on the force account Work are not specifically

purchased for such Work but are taken from the Contractor's stock, then in lieu of the invoices, the Contractor shall furnish an affidavit certifying that such Materials were taken from Contractor's stock, that the quantity claimed was actually used and that the price and transportation claimed represent actual cost to the Contractor.

7.4.3 Preliminary Order-of-Magnitude Estimate: As a condition precedent to beginning work designated as Force Account, the CEI in coordination with the Contractor will prepare a Preliminary Order-of-Magnitude Estimate of the contemplated work. The purpose of this Preliminary Order-of-Magnitude Estimate is to establish the scope of work, the approach, applicable rates, the estimated duration, and the required documentation necessary to monitor the work for final payment.

7.5 Deleted Work

CFX shall have the right to cancel the portions of the Contract relating to the construction of any acceptable item therein by payment to the Contractor of a fair and equitable amount covering all items of cost incurred prior to the date of cancellation or suspension of the Work by CFX.

7.6 Partial Payments

7.6.1 General: The Contractor will receive partial payments on monthly estimates, based on the amount of Work done or completed (including delivery of certain Materials as specified below) and reflected in the Application for Payment. The monthly payments shall be approximate only and all partial estimates and payments will be subject to correction in the subsequent estimates and the final estimate and payment.

The amount of such payments shall be the total value of the Work done to the date of the estimate based on the quantities and the Contract unit prices less an amount retained and less payments previously made. In addition to other retainage held as may be described elsewhere, the amount retained shall be determined in accordance with the following schedule:

<u>% Contract Amount Completed</u>	<u>Amount Retained</u>
0 to 75	None
75 to 100	10% of value of Work completed exceeding 75% of Contract amount

Contract amount is defined as the original Contract amount as adjusted by approved

Supplemental Agreements.

Direct deposit of payments to the Contractor is available. If the Contractor elects to receive direct deposit of payments from CFX, CFX will provide the Contractor with the necessary Automatic Deposit Authorization Agreement form.

- 7.6.2 **Unsatisfactory Payment Record:** CFX reserves the right to disqualify the Contractor from bidding on future contracts by CFX if the Contractor's payment record relating to the Work becomes unsatisfactory. The Contractor's surety may also be disqualified from issuing bonds for future contracts by CFX should the surety similarly fail to perform under the terms of the bond.
- 7.6.3 **Withholding Payment for Defective Work:** Should any defective Work or Materials be discovered prior to final acceptance or should a reasonable doubt arise prior to final acceptance as to the integrity of any part of the completed Work, payment for such defective or questioned Work will not be allowed until the defect has been remedied and causes of doubt removed.
- 7.6.4 **Partial Payments for Delivery of Certain Materials:**

7.6.4.1 **General:** Partial payments will be allowed for certain Materials stockpiled in approved locations in the vicinity of the Project. For structural steel, precast drainage structures and precast/prestressed concrete elements, where off-site fabrication is required, the term "in the vicinity of the Project" will be interpreted to include a site remote from the Project provided that condition 1) listed below is satisfied.

The following conditions shall apply to all payments for stockpiled Materials:

- 1) There must be reasonable assurance that the stockpiled material will be incorporated into the specific project on which partial payment is made.
- 2) The stockpiled material must be approved as meeting applicable specifications.
- 3) The total quantity for which partial payment is made shall not exceed the estimated total quantity required to complete the project.
- 4) The Contractor shall furnish the CEI with copies of certified invoices to document the value of the materials received. The amount of the partial payment will be determined from invoices for the material up to the unit price in the Contract.
- 5) Delivery charges for materials delivered to the jobsite will be included in partial

payments if properly documented.

- 6) Partial payments will not be made for materials which were stockpiled prior to award of the Contract for a project.

7.6.4.2 Partial Payment Amounts: The following partial payment restrictions apply:

- 1) Partial payments less than \$5,000 for any one month will not be processed.
- 2) Partial payments for structural steel and precast/prestressed items will not exceed 85% of the bid price for the item. Partial payments for all other items will not exceed 75% of the bid price of the item in which the material is to be used.
- 3) Partial payment will not be made for aggregate and base course material received after paving or base construction operations begin except when a construction sequence designated by the CEI requires suspension of paving and base construction after the initial paving operations, partial payments will be reinstated until the paving and base construction resumes.

7.6.4.3 Off Site Storage: If the conditions of subarticle 7.6.4.1 are satisfied, partial payments will be allowed for materials stockpiled in approved in-state locations. Additionally, partial payments for materials stockpiled in approved out-of-state locations will be allowed if the conditions of subarticle 7.6.4.1 and the following conditions are met:

- 1) Furnish CFX a Materials Bond stating the supplier guarantees to furnish the material described in the Contract to the Contractor and CFX. Under this bond, the Obligor shall be the material supplier and the Obligees shall be the Contractor and the Central Florida Expressway Authority. The bond shall be in the full dollar amount of the bid price for the materials described in the Contract Documents.
- 2) The following clauses shall be added to the contract between the Contractor and the supplier of the stockpiled materials:

“Notwithstanding anything to the contrary, <supplier> will be liable to the Contractor and the Central Florida Expressway Authority should <supplier> default in the performance of this agreement.”

“Notwithstanding anything to the contrary, this agreement, and the performance bond issued pursuant to this agreement, does not alter, modify,

or otherwise change the Contractor's obligation to furnish the materials described in this agreement to the Central Florida Expressway Authority."

- 3) The agreement between the Contractor and the supplier of the stockpiled materials shall include provisions that the supplier will store the materials and that such materials are the property of the Contractor.

7.6.5 Certification of Payment to Subcontractors: Prior to receipt of any progress (partial) payment, the Contractor shall certify that all subcontractors having an interest in the Contract have received their pro rata share of previous progress payments from the Contractor for all work completed and Materials furnished the previous period. This certification shall be in the form designated by CFX. The term "subcontractor", as used herein, shall also include persons or firms furnishing Materials or Equipment incorporated into the Work or stockpiled in the vicinity of the Project for which partial payment has been made by CFX and Work done under Equipment-rental agreements.

On initial payment, the Contractor shall assure that all subcontractors and Materials suppliers having an interest in the Contract receive their share of the payments due. CFX will not make any progress payments after the initial partial payment until the Contractor certifies pro rata shares of the payment out of previous progress payments received by the Contractor have been disbursed to all subcontractors and suppliers having an interest in the Contract, unless the Contractor demonstrates good cause for not making any required payment and furnishes written notification of any such good cause to both CFX and the affected subcontractors and suppliers. Contractor shall execute and submit a Certification of Disbursement of Previous Payments form, supplied by CFX, with each payment request after the initial request. Submitting a false or fraudulent certification will result in a determination of default by the Contractor in accordance with Article 6.9.1 of these General Specifications.

7.6.6 Reduction of Payment for Unsatisfactory Services or Products

If any defined action, duty or service, part or product required by the Contract is not performed by the Contractor, the value of such action, duty or service or part thereof will be determined by CFX and deducted from any invoice or monthly billing period claiming such items for payment.

If the action, duty or service, part or product thereof has been completed and is determined to be unsatisfactory by CFX, the Contractor will be notified and given the opportunity to correct any deficiencies within a time certain. Payment (for the unsatisfactory Work) will be withheld by CFX from any invoice or monthly billing period until the Work is determined to be acceptable.

7.7 Record of Construction Materials

7.7.1 General: For all construction Materials used in the construction of the Project (except Materials exempted by Subarticle 7.7.2), the Contractor shall preserve for inspection by CFX all invoices and records of the Materials for a period of 3 years from the date of completion of the Project. This requirement shall also apply to Materials purchased by subcontractors. The Contractor shall obtain the invoices and other Materials records from the subcontractors.

Not later than 30 days after the date of final completion of the Project, the Contractor shall furnish to CFX a certification of construction Materials procured for the Project by the Contractor and all subcontractors. The certification shall consist of an affidavit completed on a form furnished by CFX.

7.7.2 Non-Commercial Materials: The requirement to preserve invoices and records of Materials shall not apply to Materials generally classed as non-commercial such as fill Materials local sand, sand-clay or local Materials used as stabilizer.

7.8 Disputed Amounts Due Contractor

CFX reserves the right to withhold from the final estimate any disputed amounts between the Contractor and CFX. Release of all other amounts due shall be made as provided in Article 7.9.

7.9 Acceptance and Final Payment

When the Work of the Contract has been completed by the Contractor and the final inspection and final acceptance have been given by CFX, a tentative final estimate showing the value of the Work will be prepared by CFX as soon as the necessary measurements and computations can be made, usually within 30 days of final acceptance. All prior estimates and payments will be subject to correction in the final estimate and payment. The Contractor and CFX will have 30 days from the date of the tentative final estimate to resolve any outstanding issues. At the end of the 30 days, CFX will make a written Offer of Final Payment. Provided that the requirements of A) through J) of this Article have been met, the amount of the Offer of Final Payment, less any sums that may have been deducted or retained under the provisions of the Contract will be paid to the Contractor as soon as practicable.

- A) The Contractor has submitted written acceptance of the balance due, as determined by CFX, as full settlement of the Contractor's account under the Contract and of all claims in connection therewith.

Or, the Contractor shall accept the balance due with the stipulation that acceptance of such payment will not constitute any bar, admission or estoppel or have any effect as to those payments in dispute or the subject of a pending claim between the Contractor and CFX. The Contractor shall define the dispute or pending claim in writing in the form of a qualified acceptance letter with full particulars of all items/issues in dispute including itemized amounts claimed. Failure by the Contractor to provide either a written acceptance letter or qualified acceptance letter within 60 calendar days of the Offer of Final Payment shall constitute full acceptance of the balance due without qualification.

If the Contractor provides a qualified acceptance letter, then the Contractor agrees that a complete claim package in accordance with Article 2.4 of the General Specifications, and limited to the particulars in the qualified acceptance letter, will be provided within 120 calendar days of the Offer of Final Payment. Additionally, the Contractor agrees that any pending or future arbitration must be limited to the particulars in the qualified acceptance letter and must begin within 210 calendar days from the date of the Offer of Final Payment.

- B) The Contractor has properly maintained the Project as specified hereinbefore.
- C) The Contractor has furnished a sworn affidavit to the effect that all bills are paid and no suits are pending (other than those exceptions listed if any) in connection with the Work of the Contract and that the Contractor has not offered or made any gift or gratuity to or made any financial transaction of any nature with, any employee of CFX. Tort liability exceptions, if any, shall be accompanied by evidence of adequate insurance as required in Article 5.11 of these General Specifications.
- D) The surety on the Public Construction Bond has consented (by completion of its portion of the affidavit and surety release) to final payment to the Contractor and agrees that the making of such payment shall not relieve the surety of any of its obligations under the bond.
- E) The Contractor has submitted all mill tests and analysis reports to CFX.
- F) The Contractor has submitted insurance certificates for extended coverage as

required by Article 5.11 of these General Specifications.

- G) The Contractor has previously submitted Record Drawings as required by Article 3.3.1 of these General Specifications.
- H) The Contractor has submitted the completed density log book as required by Article 120-10.4.2 of the Technical Specifications.
- I) The Contractor has submitted the final material testing certification as required by Article 105-6 of the Technical Specifications.
- J) The Contractor has submitted all warranties and operation and maintenance manuals required by various Articles and Subarticles of Specifications.

If the Contractor fails to furnish all required Contract Documents listed in B) through J) of this Article within 90 calendar days of the Offer of Final Payment, CFX may deduct from the retainage due the Contractor, \$1,000 for each calendar day beyond the 90 calendar days that the Contractor fails to provide the required Contract Documents.

7.10 Offsetting Payments

If payment of any amount due CFX after settlement or arbitration is not made by the Contractor within 60 days, CFX may, at its sole discretion, offset such amount from payments due the Contractor for Work performed under any other contract with CFX, excluding amounts owed to subcontractors, suppliers and laborers. Offsetting any amount in this manner shall not be considered a breach of the Contract by CFX.

END OF SECTION 7

SECTION 8 – DISADVANTAGED/MINORITY/WOMEN BUSINESS ENTERPRISE
(D/M/WBE) PARTICIPATION

- 8.1 General: The Contractor is encouraged to continue to meet or demonstrate the participation objectives could not be met. At any time, CFX's Executive Director may grant a partial or complete waiver of the D/M/WBE objective for the Project due to consideration of property, public safety, and health, including financial impact to CFX.

CFX has provided an exception for the Contractor's failure to meet the participation objective established for this project. The exception requires that the Contractor provide CFX with documentation supporting the Contractor's Good Faith Effort to meet the stated objective. CFX will have the sole and final determination of whether the support documentation provided by the Contractor does, in fact, meet CFX's standard for a Good Faith Effort as detailed in this Section 8. The Contractor shall demonstrate, through documentation, that every reasonable effort has been made to achieve CFX's participation objective. The Contractor shall be responsible for securing proof of the D/M/WBE certification(s) for the proposed subcontractors/suppliers and be able to provide copies of the certification(s) to the CFX's Supplier Diversity Office.

The Contractor shall meet or exceed the commitment stated in the Contractor's D/M/WBE Utilization Summary (page P-6 of the Proposal). Should the Contractor's D/M/WBE participation fall below the approved level for any reason whatsoever, or should the Contractor substitute or self-perform work identified for a D/M/WBE subcontractor/supplier without prior written approval of CFX, the Contractor will be considered by CFX to be in material breach of the Contract. If found in breach of the Contract, the Contractor may be suspended from bidding on and/or participating in any further CFX projects for up to one (1) year as provided in Section 15 of CFX's Supplier Diversity Policy.

Any change in the D/M/WBE Utilization Summary will require prior approval by the CFX Director of Supplier Diversity. Should the Contractor determine that a subcontractor/supplier named in the Utilization Summary is unavailable or cannot perform the work, the Contractor shall request approval of a revised D/M/WBE Utilization Summary. The revised summary shall be submitted, in writing, to the CFX Supplier Diversity Office at 4974 ORL Tower Road, Orlando, Florida 32807, or by facsimile to (407) 690-5011.

The Contractor will not be allowed to perform Work with its forces that has been identified on the Utilization Form to be performed by D/M/WBE firms. If a D/M/WBE subcontractor is unable to successfully perform the Work, the Contractor shall make a Good Faith Effort to replace that firm with another D/M/WBE firm. In evaluating a Contractor's Good Faith Efforts, CFX will consider:

- (1) Whether the Contractor, provided written notice to certified D/M/WBEs performing the type of Work that the Contractor intends to subcontract, advising

the D/M/WBEs (a) of the specific Work the Contractor intends to subcontract; and (b) that their interest in the Contract is being solicited;

- (2) Whether the Contractor provided interested D/M/WBEs assistance in reviewing the Contract Plans and Specifications;
- (3) Whether the Contractor assisted interested D/M/WBEs in obtaining any required bonding, lines of credit, or insurance;
- (4) Whether the Contractor's efforts were merely pro forma and given all relevant circumstances, could not reasonably be expected to produce sufficient D/M/WBE participation to meet the objective.

The above list is not intended to be exclusive or exhaustive and CFX will look not only at the different kinds of efforts that the Contractor has made but also the quality, quantity and intensity of these efforts.

8.2 Disadvantaged, Minority and Women Owned Businesses - Participation Objective

8.2.1 General: The Contractor shall ensure that D/M/WBE as defined herein will have the maximum opportunity to participate in the performance of subcontracts. In this regard, the Contractor shall take all necessary and reasonable steps to accomplish that result.

8.2.2 Definitions: The following words and phrases shall have the respective meanings set forth below unless a different meaning is plainly required by the context:

- (1) "Socially and economically disadvantaged individuals" means those individuals who are citizens of the United States or lawfully admitted permanent residents and who are women, Black Americans, Hispanic American, Native Americans, Asian-Pacific Americans, or Asian-Indian Americans. Individuals in the following groups are presumed to be socially and economically disadvantaged:
 - (a) "Black Americans", which includes persons having origins in any of the black racial groups of Africa;
 - (b) "Hispanic Americans", which includes persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish or Portuguese culture or origin, regardless of race;
 - (c) "Asian-Pacific Americans", which includes persons whose origins are from Japan, China, Taiwan, Korea, Vietnam, Laos, Cambodia, the Philippines, Samoa, Guam, the U.S. Trust Territories of the Pacific

and the Northern Marianas;

- (d) “Native Americans”, which includes persons who are American Indians, Eskimos, Aleuts, or Native Hawaiians;
 - (e) “Asian-Indian Americans”, which includes persons whose origins are from India, Pakistan, and Bangladesh; and
 - (f) “Women”.
- (2) “Joint Venture” means an association of two or more firms to carry out a single business enterprise for which purpose the firms combined their property, money, effects, skills or knowledge.
 - (3) “Certified” means a finding by Orange County, Florida, the City of Orlando, Florida, and Florida Department of Transportation that the business is a bona fide Minority, Women or Disadvantaged owned and operated business.
 - (4) “Independently Owned and Operated” means a business that is not affiliated or associated with the general contractor or prime contractor providing work or services on CFX project(s) or procurement in which the D/M/WBE seeks to participate. Affiliated status may be determined through common ownership, management, employees, facilities, inventory or any other factors, which would prevent or inhibit independent status
 - (5) “Women Business Enterprise” comprises all women. All women business owners will be classified as a Women Business Enterprise.

8.2.3 Specific Requirements: The Contractor shall, among other things, implement techniques to facilitate D/M/WBE participation in contracting activities including, but not limited to:

- 1. Soliciting price quotations and arranging a time for the review of plans, quantities, specifications, and delivery schedules, and for the preparation and presentation of quotations;
- 2. Providing assistance to D/M/WBEs in overcoming barriers such as the inability to obtain bonding, financing, or technical assistance;
- 3. Carrying out information and communication programs or workshops on contracting procedures and specific contracting opportunities in a timely manner, with such programs being bilingual where appropriate;

4. Contacting Minority Contractor Associations, city, and county agencies with programs for disadvantaged individuals for assistance in recruiting and encouraging eligible D/M/WBE contractors to apply for certification.
5. Meeting with appropriate officials of CFX, including its Supplier Diversity Office, to assist with the Contractor's efforts to locate D/M/WBEs and assist with developing joint ventures, partnering, and mentorship.

8.2.4 Qualified Participation: CFX will count D/M/WBE participation toward meeting D/M/WBE objective as follows:

1. The total dollar value of the contract to be awarded to the certified D/M/WBE will not be counted toward the applicable D/M/WBE objective unless approved by CFX.
2. A portion of the total dollar value of a contract, with an eligible joint venture, equal to the percentage of the ownership and control of the D/M/WBE partner in the joint venture may be counted toward the D/M/WBE objective.
3. Only expenditures to D/M/WBEs that perform a commercially useful function may be counted toward the D/M/WBE objective. A D/M/WBE is considered to perform a commercially useful function when it actually performs and manages at least 51 percent of the work subcontracted to it. To determine whether a D/M/WBE is performing a commercially useful function, CFX will evaluate all relevant factors such as the amount of Work subcontracted and industry practices.
4. Consistent with normal industry practices, a D/M/WBE may enter into subcontracts. If a D/M/WBE subcontracts 50 percent or more of the Work assigned to it, the D/M/WBE shall be presumed not to be performing a commercially useful function.
5. Expenditures for materials and supplies obtained from D/M/WBE suppliers and manufacturers may be counted toward the D/M/WBE objective, provided that the D/M/WBEs assume the actual and contractual responsibility for the provision of the materials and supplies. The percentage allowed toward the D/M/WBE objective is as follows:
 - (a) All expenditures to a D/M/WBE manufacturer (i.e., a supplier that produces goods from raw materials or substantially alters them before resale) may be counted toward the D/M/WBE objective.
 - (b) 1. A Contractor may count toward its D/M/WBE objective 60

percent of its expenditures for materials and supplies required under a contract and obtained from a D/M/WBE regular dealer, and 100 percent of such expenditures to a D/M/WBE manufacturer.

2. A manufacturer is a firm that operates or maintains a factory or establishment that produces on the premises the materials or supplies obtained by the Contractor.
3. A regular dealer is a firm that owns, operates, or maintains a store, warehouse or other establishment in which the materials or supplies required for the performance of the contract are bought, kept in stock, and regularly sold to the public in the usual course of business. To be a regular dealer, the firm must engage in, as its principal business, and in its own name, the purchase and sale of the products in question. A regular dealer in such bulk items as steel, cement, gravel, stone, and petroleum products need not keep such products in stock, if it owns or operates distribution equipment. Brokers and packagers shall not be regarded as manufacturers or regular dealers within the meaning of this Section.

(c) A Contractor may count toward the D/M/WBE objective for the following expenditures to D/M/WBE firm(s) that are not manufacturers or regular dealers:

1. The fees or commissions charged for providing a bona fide service, such as professional, technical, consultant or managerial services and assistance in the procurement of essential personnel, facilities, equipment, materials of supplies required for performance of the Contract, provided that the fee or commission is determined by the recipient to be reasonable and not excessive as compared with fees customarily allowed for similar services.
2. The fees charged for delivery of materials and supplies required on a job site (but not the cost of the materials and supplies themselves) when the hauler, trucker, or delivery service is not also the manufacturer of or a regular dealer in the materials and supplies, provided that the fee is determined to be reasonable and not excessive as compared with fees customarily allowed for similar services.
3. The fees or commissions charged for providing any bonds or

insurance specifically required for the performance of the Contract, provided that the fee or commission is determined to be reasonable and not excessive as compared with fees customarily allowed for similar services.

4. Those sums that, subsequent to the receipt of bids, CFX elects, under the provisions of the Direct Materials Purchase Option, to purchase materials originally proposed by the Contractor to CFX to have been an element of the Work of a certified D/M/WBE contractor/subcontractor/vendor.

8.2.5 Records and Reports: The Contractor shall develop a record keeping system to monitor its D/M/WBE participation and shall maintain the following records:

1. the procedures adopted to comply with these special provisions;
2. The number of subordinated contracts on CFX projects awarded to D/M/WBEs;
3. the dollar value of the contracts awarded to D/M/WBEs;
4. the percentage of the dollar value of all subordinate contracts awarded to D/M/WBEs as a percentage of the total contract amount;
5. a description of the general categories of contracts awarded to D/M/WBEs;
6. the specific efforts employed to identify and award contracts to D/M/WBEs;
7. maintenance of records of payments and monthly reports to CFX;
8. Subcontract Agreement between Contractor and D/M/WBE subcontractors; and
9. any other records required by CFX's Project Manager or Executive Director.

The records maintained by the Contractor in accordance with this Section shall be provided to CFX for review within 48 hours of the CFX request. The Contractor shall submit a properly executed D/M/WBE Payment Certification monthly during the life of the D/M/WBE subcontract whether payment is made or not.

8.3 Subletting of Contracts - Participation Objective

No request to sublet Work will be approved unless it is in compliance with the Contractor's approved D/M/WBE Utilization Form "Certification of Subcontract Amount to D/M/WBE

Contractor”, shall be completed and submitted with the Request For Authorization To Sublet Work. One copy of the certification will be attached to each copy of the Request For Authorization To Sublet Work.

END OF SECTION 8

SECTION 9 - BINDING ARBITRATION

9.1 CFX and the Contractor shall submit any and all unsettled claims, counterclaims, and disputes to the Disputes Review Board (DRB) prior to initiating a demand for arbitration pursuant to this Section.

9.2 No demand for arbitration of any claim, dispute or other matter referred to the DRB initially for decision will be made until after final acceptance, per Article 3.9, of all Contract Work by CFX. The filing party shall pay all applicable fees associated with requested arbitration proceedings.

The failure to demand arbitration within thirty (30) days after final acceptance will result in the DRB's decision being final and binding upon CFX and Contractor.

9.3 Notice of the demand for arbitration is satisfied when it is filed in writing with the other party to the Contract and with the American Arbitration Association (including required fees). A copy will be sent to the Board for information.

9.4 The arbitration shall occur in Orlando, Florida and shall be conducted by a three (3) member panel pursuant to and under the auspices of the Construction Industry Arbitration Rules of the American Arbitration Association.

9.5 Procedure for Binding Arbitration

Arbitration shall be conducted in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association then obtaining, subject to the limitations of this Section. The agreement to arbitrate (and any other agreement or consent to arbitrate entered into in accordance herewith) will be specifically enforceable under the laws of Florida.

Arbitration shall include by consolidation, joinder or in any other manner any person or entity who is not a party to the Contract in circumstances where:

- the inclusion of such other person or entity is necessary if complete relief is to be afforded among those who are already parties to the arbitration, and
- such other person or entity is substantially involved in a question of law or fact which is common to those who are already parties to the arbitration and which will arise in such proceedings, and
- the written consent of the other person or entity sought to be included and of CFX and Contractor has been obtained for such inclusion, which consent shall make specific reference to this paragraph.

In order to assure complete resolution of any claim or controversy, the Contractor shall provide and require (in the agreements with subcontractors and material suppliers) for joinder in such arbitration proceedings. Therefore, if a claim, dispute or other matter in question between CFX and Contractor involves the work of a Subcontractor, either CFX or Contractor may join such subcontractor as a party to the arbitration. Nothing in this paragraph or in the provision of such subcontract consenting to joinder shall create any claim, right or cause of action in favor of subcontractor or supplier, and against CFX, CEI, or any of their consultants that does not otherwise exist.

In connection with the arbitration proceedings all participants shall be afforded pre-hearing discovery in accordance with the rules of the American Arbitration Association.

END OF SECTION 9

SECTION 10- DISPUTES RESOLUTION

10.1 Disputes Resolution

10.1.1 Disputes Review Board

A Disputes Review Board (“Board”) will be established to assist in the resolution of disputes arising out of the Work on the Project. This document describes the purpose, procedure, function and features of the Board.

The Board will provide special expertise to assist and facilitate the timely and equitable resolution of disputes and controversies between CFX and the Contractor in an effort to avoid construction delays and future claims.

It is not intended for CFX or the Contractor to avoid the normal responsibility to cooperatively and fairly settle differences by indiscriminately requesting dispute resolution by the Board. It is intended the Board encourage CFX and the Contractor to first try resolving potential disputes without resorting to the procedure set forth herein.

The Board will be used only when the claims procedure detailed in the Contract has been followed and has been unsuccessful. It is a condition of the Contract that the parties use the Board. Adherence to the Contract claims procedure is a condition precedent to the submission of a dispute to the Board, and the submission of an unresolved dispute to the Board is, in turn, a condition precedent to arbitration of such issue.

The Board will fairly and impartially consider disputes referred to it. The Board will receive testimony and other relevant evidence regarding such disputes, will analyze the facts within the parameters of the Contract, and will then provide written recommendations (to CFX and Contractor) to assist in the resolution of the disputes. The recommendations of the Board will not be binding on either CFX or the Contractor; however, the Board’s recommendations and findings shall be admissible for all purposes in any subsequent arbitration proceedings or the judicial enforcement thereof.

10.1.2 Continuance of Work During Dispute

During the dispute resolution process the Contractor shall conform to the CEI’s decision or order and continue with the Work as directed by the CEI in a diligent manner and without delay. Such Work will be governed by all applicable provisions of the Contract. With respect to any protested Work, the Contractor will keep complete records of extra costs and time incurred. Except for sealed Bid Records, the Contractor will permit CEI and the Board access to any records needed for evaluating the dispute, without any claim of privilege or confidentiality.

10.1.3 Disputes Review Board Membership

The Board will consist of three Members, one Member selected by CFX and approved by the Contractor, and one Member selected by the Contractor and approved by CFX. The first two Members will mutually select and agree on the third Member, which third Member shall not be subject to approval by either the Contractor or CFX. Normally, the third Member will act as Chairman for all Board activities. If the third Member declines to act as Chairman, the Members shall select an alternative Chairman. Neither the Contractor nor CFX shall seek to influence the Chairman selection decision.

The Contractor and CFX shall each submit the name and credentials of their proposed Member to the other within ten (10) days of the Contract award. The two Members, upon acceptance, shall meet promptly and mutually agree on the third Member. A Notice to Proceed shall not be issued until the Board Members have been selected and have signed the Three-Party Agreement. All three Members shall attend the Pre-Construction Meeting.

All Board Members shall be experienced with major road and bridge construction and the associated construction methods involved in the Project, in the interpretation of contract documents and in contract dispute resolution. The goal in selecting the third Member is to complement the construction experience of the first two Members and to provide leadership of the Board's activities.

It is imperative that Board Members show no partiality to either the Contractor or CFX, or have any conflict of interest.

The criteria and limitations for membership will be as follows:

- a. The person selected will not have any direct or indirect ownership or financial interest in (i) the Contractor, (ii) CEI or the CFX General Engineering Consultant ("GEC"), (iii) any subcontractor or supplier of the Project, or (iv) the employer of other Board Members.
- b. Except for services as a Board Member on CFX projects, no Member shall have been an employee, contractor or consultant to the Contractor or CFX, CEI, the GEC or any subcontractor or supplier for the Project within a period of ten (10) years prior to the Contract award.
- c. No Member will have had a close personal, professional or business relationship with CFX or the Contractor (or an employee or officer of CFX or the Contractor).
- d. No Member will have had any prior involvement in the Project (other than as a dispute board member) of a nature which could be construed to compromise an ability to impartially resolve disputes.

- e. No Member will be employed by the Contractor, the CEI, the GEC or any subcontractor or supplier of the Project during the term of the Contract, except as a Board Member pursuant to the Three Party Agreement.
- f. During the term of the Contract no discussion or agreement will be made between a Board Member and CFX or Contractor regarding employment after the Contract is completed.
- g. During the term of the Contract, ex-parte communications between a Board Member and a party to the Three Party Agreement is prohibited.

Before appointments are final, the first two prospective Members will submit complete disclosure statements for the approval of both CFX and the Contractor. Each statement (in the form prepared by CFX) will include a statement of experience and a declaration describing all past, present and anticipated or planned future relationships to the Project and with the parties to the Contract. Disclosure of professional or personal relationships with parties to the Contract will be included. The third Board Member will supply a similar statement to the first two Board Members (and to CFX and the Contractor) before the third Member appointment is finalized.

CFX and the Contractor will each select a Member, execute the Three Party Agreement (described below) and assure the Members execute the Three-Party Agreement within the first three (3) weeks after Contract award. CFX and the Contractor will immediately notify the selected Members to begin selection of the third Member. The first two Members will ensure the third Member meets all of the criteria listed above. The third Member will be selected within two (2) weeks after the first two Members are notified to proceed with the selection of the third Member. If there is an impasse in the selection of the third Member, the third Member will be selected by CFX and the Contractor, with the first consideration to the nominees reviewed by the first two Members.

In the event of death, disability or resignation of a Member, such Member shall be replaced in the same manner as the Member being replaced was selected. If for whatever other reason a Member fails or is unable to serve, the Chairman (or failing the action of the Chairman, then either of the other Members) shall inform the parties and such non-serving Member shall be replaced in the same manner as the Member being replaced was selected. Any replacement made by the parties shall be completed within fifteen (15) days after the event giving rise to the vacancy on the Board, failing which the replacement shall be made by the two remaining Members of the Board. Replacement shall be considered completed when the new Member executes the Dispute Review Board Three Party Agreement.

10.1.4 Board Operations

The Board will formulate procedures of operation that shall be flexible with respect to the functioning of the Board. The Board may formulate new or revised procedures respecting its operation from time to time to accommodate the needs of the Board and the circumstances.

Each Board Member shall be provided a complete set of the Contract Documents. CFX and the Contractor shall keep the Board informed of construction activity and progress by submitting written progress reports and other relevant data at least monthly. The Board will visit the Project at regular intervals and/or at times of critical construction events and meet with CEI and the Contractor. In circumstances of unresolved disputes, the Board will meet at least monthly until the unresolved disputes are concluded. The frequency of visits will be agreed upon by CFX, the Contractor and the Board, depending upon the progress of the Work.

Regular meetings will be held at the job site. Each meeting will consist of an informal discussion and a field inspection of the Work. The informal discussion will be attended by selected personnel from CFX, the CEI and the Contractor. Agenda for regular meetings of the Board will generally include the following:

- a. Meeting opened by the Chairman of the Board.
- b. Remarks by the CEI.
- c. A description by the CEI and the Contractor of Work accomplished since the last meeting, current status of the Work schedule, schedule for the future, potential problems and proposed solutions to anticipated problems.
- d. Discussion by the CEI of Work schedule, potential new disputes or claims, status of past disputes and claims and other issues.
- e. Set a date for next meeting.

The CEI will prepare minutes of all Board meetings and circulate them for comments, revisions and/or approval by all concerned.

The field inspection will cover all active segments of the Work. The Board will be accompanied by representatives of both the CEI and the Contractor. Soliciting any Board Member's advice or consultation regarding the Work or the Contract is expressly prohibited.

10.1.5 Procedure for Disputes Resolution

Disputes will be considered as quickly as possible, taking into consideration the particular circumstances and the time required to prepare detailed documentation. Steps may be omitted as agreed by both parties and the time periods stated below may be shortened in order to hasten resolution.

- a. If either CFX or Contractor object to any decision of the CEI with respect to claims, change order requests, or other actions or orders of the CEI, the objecting party may file a written protest with the CEI within fifteen (15) days after the CEI's disputed decision, action or order. The written protest must clearly state in detail the basis for the objection.
- b. The CEI will consider the written protest to its decision or directive, and make a final decision on the basis of the pertinent Contract provisions, together with the facts and circumstances involved in the protest. The decision will be furnished to CFX and Contractor in writing within fifteen (15) days after receipt of the written protest.
- c. The CEI's decision with respect to the protest will be final, unless a written exception is filed by CFX or Contractor with the CEI within fifteen (15) days after receiving the protest decision. If either rejects the CEI's final decision, the disputed matter may be referred to the Board by either CFX or the Contractor.
- d. Upon receipt by the Board of a written dispute, the Board will first decide when to conduct the hearing. If the matter is not urgent, it may be heard at the next regularly scheduled Board meeting. For an urgent matter, the Board will meet at its earliest convenience.
- e. Either party furnishing written evidence or documentation to the Board will furnish copies of such information to the other party a minimum of fifteen (15) days prior to the date the Board sets to hear the dispute. If the Board requests additional documentation or evidence prior to, during or after the hearing, CFX and/or the Contractor will provide the requested information to the Board and to the other party. Because each side needs a reasonable opportunity to understand and rebut the opposing side's point of view, failure of either party to timely provide written documentation in accordance with this provision shall result in such written documentation being excluded from the hearing before the Board unless the other party consents to its admission or consents to a delay in the hearing.

- f. The Contractor and CFX will each be afforded an opportunity to be heard by the Board and to offer evidence. The Board will consider all relevant evidence presented and analyze the same solely within the parameters of the Contract. Hearsay evidence shall be admissible but shall not be the sole basis for any recommendation of the Board.
- g. The Board's recommendations for resolution of the dispute will be given in writing within fifteen (15) days of completion of the hearing(s). In cases of extreme complexity, both parties may agree to allow additional time for the Board to formulate its recommendations. Generally, the Board will initially focus its attention (in the written report) only to matters of entitlement, and allow the parties to thereafter determine the monetary relief. If both parties request, and sufficient documentation is available, the Board may also make a recommendation of monetary relief, but only after formulation of the entitlement recommendation and only after the parties have attempted to agree upon the monetary relief amount.
- h. If the Board's recommendation for resolution is not unanimous, the dissenting member shall prepare a separate written opinion.
- i. Within fifteen (15) days of receiving the Board's recommendations, both CFX and the Contractor will respond to the other and to the Board in writing, signifying either acceptance or rejection of the Board's recommendations. The failure of a party to respond within the fifteen (15) day period will be deemed an acceptance by such party of the Board's recommendations. If CFX and the Contractor are able to resolve the dispute (with or without the aid of the Board's recommendations), CFX will promptly process any required Contract changes.
- j. If the dispute remains unresolved because of a bona fide lack of clear understanding of the recommendation, either party may request the Board clarify specific portions of its recommendations. Further, if new evidence becomes available, either party may request the Board reconsider its prior recommendation. Only evidence which did not exist at the time of the hearing, or which existed but which could not be discovered with reasonable and normal diligence shall be considered new evidence.
- k. If the Board's recommendation is rejected, either party may thereafter initiate resolution of the dispute by binding arbitration conducted pursuant to the Contract.

Both CFX and the Contractor should carefully consider the Board's recommendations, as the recommendations are binding unless written notice is provided to the other party within 30

days of the recommendations stating the party's intent to bring the disputed issue to arbitration. However, if the Board's recommendations do not resolve the dispute, all records and written recommendations, including any minority reports, will be admissible for informational purposes in any subsequent dispute resolution procedures. Such informational purposes shall include but not be limited to establishing that the Board considered the dispute, the qualifications of the Board Members, and the Board's recommendation that resulted from the dispute resolution process.

10.1.6 Conduct of Disputes Hearings

Each party shall file three copies of its written arguments with the Board no less than seven days prior to the scheduled hearing and shall simultaneously deliver a copy of such written arguments to the opposing party. Each party shall also submit to the Board along with its written arguments copies of its written evidence and documentation which has been previously provided to the opposing party as provided above.

Normally, the hearing will be conducted at the job site. However, any location more convenient and which provides all required facilities and access to necessary documentation is satisfactory.

While the Board will keep a record of its sessions during consideration of a dispute, the Board will not be required to keep its record in any particular form. The nature and completeness of the record will depend upon the nature and magnitude of the dispute and the desires of the parties. If possible, the hearings shall be kept informal. Formal records of the Board meetings may be taken and transcribed by a court reporter if requested by a party (at the requesting party's cost). Audio and/or video recording of the meeting is discouraged and shall only be made with the prior agreement of all parties and a majority of the Board.

CFX and the Contractor will have representatives at all dispute resolution hearings. The party requesting Board review will first discuss the dispute, followed by the other party. Each party will then be allowed successive rebuttals until all aspects are fully covered to the Board's satisfaction. The Members and the parties may ask questions, request clarification or ask for additional data. In large or complex cases, additional hearings may be necessary in order to consider and fully understand all evidence presented by both parties.

During the hearings, no Member will express any opinion concerning the merit of any facet of the dispute.

After the hearings are concluded, the Board will meet in private to formulate recommendations supported by two or more Members. All Board deliberations will be conducted in private, with individual views kept strictly confidential. No minutes shall be prepared of the Board's private meetings. The Board's recommendations and discussions of

its reasoning will be submitted as a written report to both parties. The recommendations will be based on the pertinent Contract provisions and the facts and circumstances involved in the dispute.

The Board will make every effort to reach a unanimous decision. If a unanimous decision is not possible, the dissenting Member may (but is not required to) prepare a minority report.

10.1.7 Compensation

The Contractor shall pay the fees of all three Board Members for services rendered under the Three Party Agreement. An allowance pay item has been established in the Contract for the reimbursing the Contractor. Funds remaining in the pay item, if any, at the completion of the Project will belong to CFX. CFX and the Contractor shall agree on the procedures and method of processing payments made against the allowance. CFX or the CEI will mail minutes and progress reports, will provide administrative services, such as conference facilities and secretarial services. If the Board desires special services, such as legal consultation, accounting, data research, etc., both parties must agree and the costs will be paid from the allowance.

10.1.8 Three Party Agreement

The Contractor, CFX and the Members of the Board will execute the Dispute Review Board Three Party Agreement within four (4) weeks of the final selection of the third Member.

END OF SECTION 10

ATTACHMENT A

**DISPUTES REVIEW BOARD
THREE PARTY AGREEMENT**

THIS THREE PARTY AGREEMENT (“Agreement”) made and entered into this ____ day of _____, 20__, between the **CENTRAL FLORIDA EXPRESSWAY AUTHORITY (“CFX”)**, _____ (**“Contractor”**) and the **DISPUTES REVIEW BOARD (“Board”)**, consisting of three members: _____, _____ and _____ (**“Members”**).

WHEREAS, CFX is now engaged in the construction of the _____, and

WHEREAS, the _____ contract (“Contract”) provides for the establishment and operation of the Board to assist in resolving disputes and claims.

NOW, THEREFORE, in consideration of the terms, conditions, covenants and performance contained herein (or attached, incorporated and made a part hereof), the parties agree as set forth herein.

**I
DESCRIPTION OF PURPOSE**

To facilitate resolution of disputes between the Contractor and CFX, CFX has provided (in the Contract) for the establishment of the Board. The function of the Board is to fairly and impartially consider Contract disputes placed before it and provide written recommendations for resolution to both CFX and the Contractor. The Members of the Board shall perform the services designated in Section II, Scope of Work.

**II
SCOPE OF WORK**

The Scope of Work includes, but is not limited to, the following items:

A. Third Board Member Selection. The first duty of CFX and the Contractor selected Members of the Board is to select the third Member. The third Member shall not have any current financial or employment ties with either the Contractor or CFX. The selection goal is to obtain a third Board Member who will complement the first two by furnishing expertise, leadership and experience to facilitate the Board’s operations. The first two Board Members selected shall proceed with the selection of the third Board Member upon receiving their appointment. If the first two Members are unable to select a third Member within four (4) weeks, CFX and the Contractor will select the third Member.

B. Procedures. After selecting the third Board Member and prior to considering a dispute, the Board shall establish procedures to govern the conduct of its business and reporting procedures based on the Guidelines, attached as an Appendix to this Agreement. The Board recommendations (resulting from a consideration of a dispute) shall be furnished in writing to CFX and the Contractor. The recommendations shall be based solely on the pertinent Contract provisions and the facts as reasonably determined by the Board. The Board shall have no authority to disregard or unilaterally modify pertinent Contract provisions including, but not necessarily limited to, those provisions pertaining to notices and claims procedures.

C. Furnishing Documents. CFX shall, at the time of each Board Member's appointment, furnish such Member a copy of the Contract. Both CFX and the Contractor shall, no later than seven (7) days prior to the scheduled Board hearing, submit to the Board three copies of all written documents and arguments that such party wishes the Board to consider. Each party shall provide its written documentation to the other side no later than fifteen (15) days prior to the scheduled Board hearing and shall provide a copy of its written argument to the other side no later than seven (7) days before the hearing in order to afford the other side the opportunity to review such documents and prepare any necessary rebuttal for the hearing.

D. Site Visits. The Board shall visit the project site to: (i) keep abreast of construction activities, and (ii) develop a familiarity of the work in progress. The frequency, exact time and duration of visits shall be in accordance with the attached Guidelines or as mutually agreed between CFX, the Contractor and the Board.

In the circumstance of an alleged differing site condition (or specific construction problem), it will be advantageous for the Board to view any relevant conditions. If viewing by the Board would cause delay to the project, photographs and descriptions of conditions collected by either (or both) party will suffice.

E. Board Consideration of Disputes or Claims. Upon receipt by the Board of a written appeal of a dispute (from either the Contractor or CFX) the Board shall convene to review and consider the dispute. CFX, the Contractor and the Board shall determine the time and location of Board meetings. Both CFX and the Contractor shall be given the opportunity to present evidence and argument at such meetings. Absent good cause to the contrary, written evidence shall be limited to that evidence which was previously supplied to both the Board and the other party in accordance with the previous paragraph. Mere negligence in providing such written evidence shall not be considered good cause for its admission. Hearsay evidence shall be permitted but shall not be the sole basis for any recommendation by the Board. Additionally, Board Members may rely on their personal knowledge based on prior site visits, ongoing document reviews, and general project familiarity. Each party may,

but is not required to, submit its proposed recommendations for resolving the dispute to the Board for its consideration.

Board Members are to act impartially and independently in weighing the evidence and in considering the respective positions of the parties within the confines and literal interpretation of the Contract terms. The recommendations concerning any such dispute are advisory and not binding on either party. The Board shall make every effort to reach a unanimous recommendation. If a unanimous recommendation is not possible, the dissenting Member shall prepare a minority report.

The Board's recommendations, together with explanations of its reasoning, shall be submitted as a written report to both parties. The recommendation shall be based solely on the pertinent provisions of the Contract, applicable laws and regulations, and the relevant facts as determined by the Board based upon the evidence presented. It is important for the Board to express, clearly and completely, the logic and reasoning leading to the recommendation so that both parties fully understand the recommendation.

Either CFX or the Contractor may request the Board to reconsider its recommendation. However, reconsideration will only be allowed when there is new evidence to present, or a clarification is required.

F. Miscellaneous Board Responsibilities. In addition to the matters set forth above:

1. The Board Member shall become familiar with the Contract Documents, review periodic reports, and maintain a current file of the project.
2. Except for providing the services required in this Agreement, the Board and its individual Members shall refrain from giving any advice to either party concerning conduct of the work or the resolution of problems. Ex-parte communications between a party and a Board Member are prohibited.
3. The Board shall perform services not specifically listed herein to the extent necessary to achieve the purposes of this Agreement.

G. Board Member Replacement. If the need occurs to appoint a replacement Board Member, the replacement Board Member shall be appointed in the same manner as the original Board Members were appointed. The selection of a replacement Board Member

shall begin promptly upon notification of the necessity for a replacement. The Agreement will be supplemented to indicate change in Board membership.

III CONTRACTOR RESPONSIBILITY

A party shall furnish to each Board Member one copy of all pertinent documents that are or may become necessary for the Board to perform its function. Pertinent documents are any drawings or sketches, calculations, procedures, schedules, estimates or other documents that are used in the performance of the work or in justifying or substantiating the party's position. A copy of such pertinent documents must also be furnished to the other party.

IV CFX RESPONSIBILITIES

CFX shall furnish the following services and items:

A. Contract Related Documents. CFX shall furnish the Board copies of all Contract Documents, Supplemental Agreements, written instructions issued by the CEI or CFX to the Contractor, or other documents pertinent to the performance of the Contract and necessary for the Board to perform its function.

B. Coordination and Services. CFX (in cooperation with the Contractor) will coordinate the operations of the Board. CFX, through the CEI, will arrange or provide conference facilities at or near the site and provide secretarial and copying services.

V TIME FOR BEGINNING AND COMPLETION

The Board shall be in operation throughout the term of the Contract and, if needed, for a reasonable post-construction period.

The Board Members shall not begin any work under the terms of this Agreement until authorized by CFX in writing.

VI PAYMENT

The fees and expenses of all three Board Members for services rendered under this

Agreement will be an expense to the Contractor with reimbursement under the pay item allowance as provided below. Payment for services of the CFX-appointed, Contractor-appointed, and the third Board Members will be full compensation for work performed or services rendered, and for all expenses, such as food, lodging, travel, telephone, postage etc.

A. Payment.

Each Board Member will be paid One Thousand Dollars (\$1,000.00) per day for each day the Board meets. This daily rate includes fees and expenses related to membership on the Board. Subsequent changes in the rate must be authorized by a Supplemental Agreement to this Agreement.

B. Inspection of Costs Records. The Board Members shall keep available the cost records and accounts pertaining to this Agreement for inspection by representatives of CFX for a period of three (3) years after final payment. If any litigation, claim or audit arising out of, in connection with or related to this Agreement is initiated before the expiration of the three (3) year period, the cost records and accounts shall be retained until such litigation, claim or audit involving the records is completed.

VII ASSIGNMENT OF TASKS OF WORK

Neither the Board nor the Board Members may assign or delegate any of the work of this Agreement.

VIII TERMINATION OF AGREEMENT

With the mutual consent of CFX and the Contractor, this Agreement may be terminated at any time. However, individual Board Members may be terminated with or without cause, but only by their original appointer, i.e., CFX may terminate the CFX appointed Member, the Contractor may terminate the Contractor's appointed Member, and the first two Members must agree to terminate the third Member.

**IX
LEGAL RELATIONS**

A. Each Board Member in the performance of duties on the Board is acting in the capacity of an independent agent and not as an employee of either CFX or the Contractor.

B. CFX and the Contractor expressly acknowledge that each Board Member is acting in a capacity intended to facilitate resolution of disputes. Accordingly, to the fullest extent permitted by law, each Board Member shall be accorded quasi-judicial immunity for any actions or decisions associated with the consideration, hearing and recommendation of resolution for disputes referred to the Board.

C. Except for the negligent acts or omissions of a Board Member, or for activities outside of the scope of this Agreement, each Board Member shall be held harmless for any personal or professional liability arising from or related to Board activities. To the fullest extent permitted by law, CFX and the Contractor shall defend and indemnify all Board Members against claims, losses, demands, costs and damages (including reasonable attorney's fees) for bodily injury, property damage or economic loss arising out of or related to Board Members carrying out Board functions. The foregoing indemnity is a joint and several obligations of the Contractor and CFX.

**X
ARBITRATION, VENUE, APPLICABLE LAW**

Any dispute, claim or controversy between the parties hereto arising out of or related to this Agreement shall be resolved by arbitration. The American Arbitration Association pursuant to its Construction Industry Arbitration Rules shall conduct such arbitration, and the arbitration proceeding shall occur in Orange County, Florida. All questions and issues respecting this Agreement and the arbitration shall be resolved by application of Florida law and the judgment of the arbitration panel shall be enforceable in accordance with the provisions of the Florida Arbitration Code.

**XI
NO BONUS**

The Contractor and CFX shall not pay and the Members shall not receive any additional commission, percentage, bonus or consideration of any nature (other than the payment provided for in Section VI above) for performance and services under this Agreement.

**XII
NO CONFLICT**

The Members of the Board agree individually they do not now and during the term of this Agreement will not have any direct or indirect ownership or financial interest in the Contractor, the

Engineer of Record for the project, the CEI or any subcontractor or supplier of the project. The Members of the Board affirm they have not for a period of ten (10) years prior to this Agreement been an employee, Contractor or consultant to the Contractor, the Engineer of Record for this project, the CEI or any subcontractor or supplier of the project, and that during the term of this Agreement they shall not become so employed. During the term of the Agreement no discussion or Agreement will be made between any Board Member and any party to this Agreement for employment after the Contract is completed.

By executing this Agreement the parties mutually agree that the Members of the Board identified herein are qualified and desirable and that the criteria and limitations detailed in subarticles 10.2.3 b and 10.2.3 c of the project General Specifications are satisfied or are hereby waived.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

CFX:

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

By: _____
Print Name: _____
Title: _____

BOARD:

DISPUTES REVIEW BOARD

By: _____
Print Name: _____

By: _____
Print Name: _____

By: _____
Print Name: _____

CONTRACTOR:

By: _____
Print Name: _____
Title: _____

APPENDIX

PROCEDURE GUIDELINES

1. GENERAL MEETINGS

General Meetings are defined as those meetings required for the Board to develop a familiarity of the work in progress and keep abreast of construction activities such as progress, status and nature of items in the earlier stages of escalation, changes to personnel, etc. General Meetings shall occur 60days after Notice to Proceed for the Project and every 120days thereafter, or as determined by the parties to be in the best interest of the project. Site visits as described in Subarticle II D above shall be considered General Meetings. Site visits may be coordinated to coincide with, or be replaced by, Board meetings to review disputes brought to the Board by CFX or Contractor.

2. MONTHLY PROJECT DOCUMENT REVIEW

In an effort to keep the Board closely and concurrently apprised of the progress of the Project, each member of the Board will be provided with copies of Project related documents. These documents may include minutes from progress meetings, schedule updates, CEI's weekly summaries, monthly progress summaries, selected correspondence, Supplemental Agreements to the Contract, Project photos, and any other information that may be requested by the Board or required to answer questions by the Board.

3. REVIEW OF DISPUTES OR CLAIMS BY THE BOARD

Disputes review meetings shall be at the time and frequency mutually agreed to by CFX and Contractor.

CENTRAL FLORIDA EXPRESSWAY AUTHORITY
 TECHNICAL SPECIFICATIONS
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	2.14 ITS Electrical Systems	TS-2
	2.15 ITS Device Cabinets	TS-3
	2.16 Intelligent Transportation System (Auxiliaries)	TS-3
	2.17 Wrong Way Driving System	TS-3

ATTACHED SPECIFICATION SECTIONS

Section 101	Mobilization
Section 102	Maintenance of Traffic
Section 104	Prevention, Control and Abatement of Erosion and Water Pollution
Section 555	Directional Bore
Section 600	ITS Technician Certification Requirements
Section 603A	Continuous Operation of Existing ITS Devices
Section 611A	ITS Device Acceptance Procedures
Section 612	Geolocation and Documentation of Equipment and Infrastructure
Section 620A	ITS Equipment Grounding
Section 631	Fiber Optic Network System Recovery
Section 633	Fiber Optic Cable
Section 635	ITS Pull Boxes
Section 638	ITS Communications and Power Conduit Systems
Section 639A	ITS Electrical Systems
Section 668	ITS Device Cabinets

Section 683 Intelligent Transportation System (Auxiliaries)
Section 740 Wrong Way Driving System

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

TECHNICAL SPECIFICATIONS

SECTION 1 - GENERAL

Division II, Construction Details, and Division III, Materials, of the FDOT Standard Specifications for Road and Bridge Construction, latest edition (only as revised and as amended herein and as might be amended on the Plans) are incorporated by reference and made a part of these Technical Specifications. Division I of the FDOT Standard Specifications is not incorporated and is replaced by the General Specifications. The Florida Department of Transportation Standard Plans for Road and Bridge Construction, latest edition, and FHWA's MUTCD Part 6, Traffic Control for Highway Construction, Maintenance, and Utility Operations, are also incorporated by reference and made a part of these Technical Specifications. In case of conflict between the FDOT Standard Plans for Road and Bridge Construction and the MUTCD, the more stringent requirement(s) will prevail.

In Division III, all references to Section 6.3.3 in Division I of the FDOT Standard Specifications for Road and Bridge Construction are hereby changed to subarticle 4.3.3, Approval of Source of Supply, in the General Specifications.

The FDOT Safety and Loss Prevention Manual, Topic No. 500-000-015, latest revision, is incorporated by reference and made a part of these Technical Specifications and shall be a part of each subcontract entered into by the Contractor pursuant to the Contract. In case of conflict between the Procedures Handbook and the Federal Safety and Health Standards (when referenced in the Contract Documents), the more restrictive requirements will apply.

Whenever the FDOT-incorporated documents refer to the FDOT (the "Department") or any FDOT offices or personnel (e.g., "Engineer", "Estimates Engineer", "Project Engineer", "Inspector"), such words shall be taken to mean CFX's Executive Director, or duly authorized representative specifically authorized to act on behalf of the Executive Director.

Whenever the FDOT-incorporated documents indicate a mailing address for a State of Florida office or agency, the office or agency and the address shown shall be replaced by the following:

Central Florida Expressway Authority
4974 ORL Tower Road
Orlando, FL

SECTION 2 - AMENDMENTS TO FDOT STANDARD SPECIFICATIONS

- 2.1 Delete Section 101, Mobilization, in the Standard Specifications and insert new Section 101 attached at the end of these Technical Specifications.
- 2.2 Delete Section 102, Maintenance of Traffic, in the Standard Specifications and insert new Section 102 attached at the end of these Technical Specifications.
- 2.3 Delete Section 104, Prevention, Control, and Abatement of Erosion and Water Pollution, in the Standard Specification and insert new Section 104 attached at the end of these Technical Specifications.
- 2.4 Delete Section 555, Directional Bore, in the Standard Specifications and insert new Section 555 attached at the end of these Technical Specifications.
- 2.5 Insert new Section 600, ITS Technician Certification Requirements, attached at the end of these Technical Specifications.
- 2.6 Insert new Section 603A, Continuous Operation of Existing ITS Devices, attached at the end of these Technical Specifications.
- 2.7 Insert new Section 611A, ITS Device Acceptance Procedures, attached at the end of these Technical Specifications.
- 2.8 Insert new Section 612, Geolocation and Documentation of Equipment and Infrastructure, attached at the end of these Technical Specifications.
- 2.9 Insert new Section 620A, ITS Equipment Grounding, attached at the end of these Technical Specifications.
- 2.10 Insert new Section 631, Fiber Optic Network System Recovery, attached at the end of these Technical Specifications.
- 2.11 Delete Section 633, Communication Cable, in the Standard Specifications and insert new Section 633 attached at the end of these Technical Specifications.
- 2.12 Delete Section 635, Pull, Splice and Junction Boxes, in the Standard Specifications and insert new Section 635 attached at the end of these Technical Specifications.
- 2.13 Insert new Section 638, ITS Communications and Power Conduit Systems, at the end of these Technical Specifications.
- 2.14 Delete Section 639, Electric Power Service Assemblies and insert new Section 639A, ITS Power Service Assemblies, attached at the end of these Technical Specifications.

- 2.15 Insert new Section 668, ITS Device Cabinets, attached at the end of these Technical Specifications.
- 2.16 Insert new Section 683, ITS System (Auxiliaries), attached at the end of these Technical Specifications.
- 2.17 Insert new Section 740, Wrong Way Driving System, attached at the end of these Technical Specifications.

END OF AMENDMENTS

**SECTION 101
MOBILIZATION**

101-1 Description.

Perform preparatory work and operations in mobilizing for beginning work on the project, including, but not limited to, those operations necessary for the movement of personnel, equipment, supplies, and incidentals to the project site and for the establishment of temporary offices, buildings, safety equipment and first aid supplies, and sanitary and other facilities.

Include the costs of bonds and any required insurance and any other preconstruction expense necessary for the start of the work, excluding the cost of construction materials.

101-2 Basis of Payment.

101-2.1 When a Separate Item is Included in the Proposal: When the proposal includes a separate item of payment for this work, the work and incidental costs specified as being covered under this Section will be paid for at the Contract lump sum price for the item of Mobilization as shown on the bid form.

101-2.2 Partial Payments: When the proposal includes a separate pay item for Mobilization, partial payments will be made therefore in accordance with the following:

Percent of Original Contract Amount Earned	Allowable Percent of the Lump Sum Price for the Item*
5	25
10	50
25	75
50	100
*Partial payments for any project will be limited to 10% of the original Contract amount for that project. Any remaining amount will be paid upon completion of all work on the project.	

The standard retainage, as specified in Article 7.6 of the General Specifications, will be applied to these allowances. Partial payments made on this item will in no way act to preclude or limit any of the provisions for partial payments otherwise provided for by the Contract.

When more than one project or job (separate job number) is included in the Contract, the above percentages shall apply separately to each job which has a separate pay item for Mobilization.

As an exception to partial payments being made based on Percent of Original Contract Amount Earned, the Central Florida Expressway Authority (CFX) will pay the Contractor the invoice price of the Contract Bond when the CEI has been furnished with a certified copy of the invoice from the Bonding Company. No other work will be required to receive payment for the Contract Bond included in the bid price for Mobilization.

For the purposes of calculating the percent complete for mobilization payments, the following formula will be used:

$$\% \text{ Complete} = (\text{GETD} - \text{MTD}) / (\text{CCV} - \text{OMV})$$

Where: GETD = Gross earning to date
 MTD = Mobilization payment
 to date CCV = Current
 contract value
 OMV = Original mobilization value

101-2.3 When No Separate Item is Included in the Proposal: When the proposal does not include a separate item for Mobilization, all work and incidental costs specified as being covered under this Section will be included for payment under the several scheduled items of the overall Contract, and no separate payment will be made therefore.

END OF
SECTION 101

SECTION 102 MAINTENANCE OF TRAFFIC

102-1 General Provisions.

102-1.1 Description: Maintain traffic within the limits of the project for the duration of the construction period, including any temporary suspensions of the Work. Construct and maintain any necessary detour facilities. Provide necessary facilities for access to residences, businesses, etc., along the project. Furnish, install, and maintain traffic control and safety devices during construction. Furnish and install work zone pavement markings for maintenance of traffic in construction areas. Furnish and apply calcium chloride on the subgrade, unsurfaced base, or other unsurfaced traveled ways in order to control dust during construction operations. Provide any other special requirements for safe and expeditious movement of traffic as may be specified on the plans. The term, Maintenance of Traffic, includes all of such facilities, devices, and operations required for the safety and convenience of the public as well as for minimizing public nuisance.

102-1.2 Sections Not Requiring Traffic Maintenance: In general, do not maintain traffic over those portions of the Project where no work is to be accomplished or where construction operations will not affect existing roads. However, do not obstruct or create a hazard to any traffic during the performance of the Work, and repair any damage to existing pavement or facilities caused during the Work.

102-1.3 Detours Over Existing Roads and Streets: When the Central Florida Expressway Authority (CFX) specifies that traffic be detoured over roads or streets outside the project area, do not maintain such roads or streets. However, maintain all signs and other devices placed for the purpose of the detour.

102-1.4 Contractor's Responsibility: Maintain traffic starting the day Work begins on the Project or on the first day Contract Time is charged, whichever is earlier. Continually and adequately review traffic control devices to ensure proper installation and working order, including monitoring of lights. Provide an individual responsible for this review who is certified as an American Traffic Safety Services Association Certified Worksite Supervisor.

The Contractor shall remove all equipment and portable signs from the shoulder during non-construction operations. Such signs and equipment can be placed behind guardrail if available. Post-mounted signs shall be covered

102-2 Specific Requirements.

102-2.1 Maintenance of Roadway Surfaces: Maintain all lanes that are being used for the maintenance of traffic, including those on detours and temporary facilities on asphalt. Keep the lanes reasonably free of dust, and, when necessary to accomplish this, sprinkle them with water, or apply some other dust palliative. Provide the lanes with the drainage facilities necessary to

maintain a smooth riding surface under all weather conditions.

102-2.2 Number of Traffic Lanes: See the Traffic Control Plan.

102-2.3 Crossings and Intersections: Provide and maintain adequate accommodations for intersecting and crossing traffic. Do not block or unduly restrict any road or street crossing the project unless approved by the CEI. Maintain all existing actuated or traffic responsive mode signal operations for main and side street movements for the duration of the Contract. Restore any loss of detection within 12 hours. Use only detection technology listed in the FDOT's Approved Products List (APL) and approved by the CEI to restore detection capabilities.

Prior to interruption of traffic flow that will cause a temporary interruption to the local traffic flow, the Contractor shall submit to the CEI at least two (2) weeks prior to anticipated stoppage, a schedule of the proposed stoppages. Upon approval, the Contractor shall notify all emergency services (police, rescue and fire) of the stoppages five (5) days in advance.

102-2.4 Traffic Control Officer: A uniformed law enforcement officer and marked vehicle shall be provided during all lane closure operations, during all nighttime operations, and whenever temporary and/or new traffic signals are relocated and or adjusted.

Payment for traffic control officer shall be included in the lump sum price for Maintenance of Traffic and shall constitute full compensation for the services of the traffic control officer, including a marked law enforcement vehicle and all other direct and indirect costs.

102-3 Traffic Control.

102-3.1 Standards: FHWA's MUTCD Part 6 is the minimum standard for Traffic Control for Highway Construction, Maintenance, and Utility Operations. Follow the basic principles and minimum standards contained in this manual for the design, application, installation, maintenance, and removal of all traffic control devices and all warning devices and barriers which are necessary to protect the public and workers from hazards within the project limits. Understand that the standards established in the aforementioned manual constitute the minimum requirements for normal conditions. The CEI will require additional traffic control devices, warning devices, barriers, or other safety devices where unusual, complex, or particularly hazardous conditions exist. In case of conflict between MUTCD and Design Standards Index 600, the more stringent requirement shall prevail.

Reflectorize traffic cones used at night with cone collars meeting the following requirements:

(a) Use collars designed to properly fit the taper of the cone when installed. Place the upper 6 inch collar a uniform 3 1/2 inch distance from the top of the cone and the lower 4 inch collar a uniform 2 inch distance below the bottom of the upper 6 inch collar. Ensure that the collars are capable of being removed for temporary use or attached permanently to the cone in accordance with the manufacturer's recommendations. Provide white sheeting having a smooth outer surface and that essentially has the property of a retroreflector over its entire surface.

(b) For the retroreflective sheeting for the collars, meet the requirements of ASTM D 4956 Table 4, Type VI; excluding 0.1 degree observation angle and -4 degree, +30 degree entrance angles.

Provide three certified copies of test reports and certification from the manufacturer that the material furnished meets all requirements of (b) above. Use reflective collars for cones included on the Qualified Products List.

Reflective sheeting material for work zone barricades shall be Type III or IV (3M sheeting only or CFX approved equal), meeting requirements of Section 994. Reflective sheeting material for all work zone signs, both on and off CFX system, shall be fluorescent orange Type VII (3M Diamond Grade DG3 or CFX approved equal) meeting requirements of Section 994. Mesh signs shall not be used for work zone signs. Rollup sheeting (Type VI, 3M Diamond Grade Fluorescent Roll Up Sign Sheeting RS24 or CFX approved equal) may be used in day or night operations not to exceed 24 hours and approval is given by the CEI.

102-3.2 Traffic Control Devices, Warning Devices and Barriers:

102-3.2.1 Installation: Install and maintain adequate traffic control devices, warning devices and barriers to protect the traveling public and workers, and to safeguard the work area. Erect the required traffic control devices, warning devices and barriers to prevent any hazardous conditions and in conjunction with any necessary traffic re-routing. Use only those devices that are included on the Qualified Products List (QPL). Use construction signs meeting the requirements of Section 700-2.5 and 700-5.5. Specific requirements for Maintenance of Traffic devices, additional to the requirements of this Section, are contained in the 600 series of the FDOT Design Standards. Immediately remove, turn or cover any devices or barriers which do not apply to existing conditions.

All QPL approved safety devices must meet the requirements of National Cooperative Highway Research Report 350 (NCHRP 350) and current FHWA directives. Manufacturers seeking evaluation must furnish certified test reports showing that their product meets all test requirements set forth by NCHRP 350.

Notify the CEI of any scheduled operation which will affect traffic patterns or safety, sufficiently in advance of commencing such operation to permit his review of the plan for the proposed installation of traffic control devices, warning devices or barriers. Assign an employee the responsibility of maintaining the position and condition of all traffic control devices, warning devices and barriers throughout the duration of the Contract. Keep the CEI advised at all times of the identification and means of contacting this employee on a 24-hour basis.

102-3.2.2 Maintenance of Devices and Barriers: Keep traffic control devices, warning devices, and barriers in the correct position, properly directed, clearly visible and clean, at all times. Immediately repair, replace or clean damaged, defaced or dirty devices or barriers and have the CEI approve them for use.

102-3.2.3 Temporary Impact Attenuators: Furnish, install, maintain and subsequently remove temporary vehicular impact attenuators in accordance with the details and notes shown in the plans, and the FDOT Design Standards. Maintain the attenuators until their authorized removal. Repair all attachment scars to permanent structures and pavements after attenuator removal. The Contractor will be reimbursed by CFX for the cost to repair attenuators damaged through no fault of the Contractor or its forces or subcontractors at the actual cost of materials (documented by cost breakdown acceptable to the CEI) plus a 20% markup.

102-3.2.4 Flagger: Provide trained flaggers to direct traffic where one-way operation in a single lane is in effect and in other situations as required in 102-3.1. The Worksite Traffic Supervisor or others as approved by CFX will provide training for flaggers using FDOT-approved training materials.

102-3.2.5 Existing Pavement Markings: Where a detour changes the lane use or where normal vehicle paths are altered during construction, remove all existing pavement markings that will conflict with the adjusted vehicle paths. Do not overpaint. Remove existing pavement markings using a method that will not damage the surface texture of the pavement and which will eliminate the previous marking pattern regardless of weather and light conditions. Grinding will not be permitted. Remove all pavement markings that will be in conflict with "next phase of operation" vehicle paths as described above, prior to opening to traffic.

102-3.2.6 No Waiver of Liability: Conduct operations in such a manner that no undue hazard results due to the requirements of this Article. The procedures and policies described herein in no way acts as a waiver of any terms of the liability of the Contractor or its surety.

102-3.2.7 Portable Arrow Boards:

102-3.2.7.1 Scope: These Specifications expand the basic requirements that all portable arrow boards must meet the physical display and operational requirements as described in the MUTCD.

Manufacturers seeking approval of their arrow board shall provide CFX with a prototype unit to be evaluated in accordance with these Specifications and certify that the furnished unit meets all requirements specified herein.

102-3.2.7.2 Display Panel and Housing:

- (a) The display housing assembly shall be weather-tight to protect the panel from the elements.
- (b) All nuts, bolts, washers and other fasteners shall be of corrosion resistant material.
- (c) The display assembly shall be equipped with an automatic dimming operational mode capable of a minimum of 50% dimming and a separate manual dimmer switch.
- (d) The display panel background and frame for the display assembly shall be painted flat black and must meet Federal Specification TT-E-489.

(e) Display panel and housing shall be designed and constructed to allow the unit to be operated in the displayed position at speeds of 30 mph. In the down position it shall be designed for speeds of 65 mph.

(f) The display panel, when raised in the upright position, will have a minimum height of 7 feet from the bottom of the panel to the ground, in accordance with the MUTCD.

(g) The unit shall have an accessible mechanism to easily raise and lower the display assembly. A locking device shall also be provided to ensure the display panel will remain in the raised or lowered position.

102-3.2.7.3 Arrow Board Matrix:

(a) The minimum legibility distance for various traffic conditions are based on the decision-sight distance concept. The minimum legibility distance is the distance at which the arrow panel message can be comprehended by a driver on a sunny day or a clear night. The arrow panel size that is needed to meet the legibility distance is listed as follows:

Type	Minimum Size	Number of Panel Lamps	Minimum Legibility Distance
B	30 by 60 inches	13	3/4 mile
C	48 by 96 inches	15	1 mile

For use on the state highway system, the Types "B" or "C" advance warning arrow boards may be used for low to intermediate (0 to 50 mph) facilities and for maintenance or moving operations on high-speed roadways. Type "C" arrow boards shall be used on high-speed (50 mph and up).

(b) Devices shall meet all arrow board displays identified in the MUTCD.

(c) The lamp lens should be 5 3/4 inches in diameter. Smaller lamp lens diameters are permissible only if they provide an equivalent or greater brightness indication and meet the legibility criteria in Section (a) of this Specification.

(d) The color of the light emitted shall be in accordance with the MUTCD.

(e) There shall be a 360 degree hood for close-up glare reduction.

(f) For solar powered arrow boards the bulbs shall provide a 350 candle power intensity for day use and an automatic reduction or dimming capacity for night use. The dimmed night operation shall provide adequate indication without excessive glare.

(g) The flashing rate of the lamps shall not be less than 25 nor more than 40 flashes per minute as required in the MUTCD.

(h) The minimum lamp "on time" shall be 50% for the flashing arrow and 25% for the sequential chevron.

102-3.2.7.4 Electrical System: For diesel engines the following shall apply:

- (a) The power supply and electrical system shall be self-contained within the unit.
- (b) The engine shall have an electrical starting system.
- (c) The power source furnished shall be of sufficient size so as to provide the required maximum load energy plus 25%.
- (d) The electrical system shall meet the National Electrical Code where applicable.
- (e) A backup power system that shall operate the unit for a minimum of three hours automatically when the motor driven generator fails to operate.
- (f) The starting batteries and back-up power supply system batteries shall be automatically charged when the generator is operating.
- (g) The engine shall be supplied with an ammeter and the generator shall be supplied with a volt meter showing voltage to the sign assembly.

For solar powered units the following shall apply:

- (a) The unit shall provide automatic recharging of power supply batteries to normal operating levels.
- (b) Solar array recovery time shall be accomplished in a maximum of three hours.

102-3.2.7.5 Battery Life Test: The following shall apply to batteries:

- (a) The photovoltaic unit shall be able to operate from a full battery charge without sunlight for a period of not less than 21 days.
- (b) The battery shall be equipped with a controller to prevent overcharging and over-discharging. An external battery level indicator shall also be provided.
- (c) The battery, controller, and power panel shall be designed to be protected from the elements and vandalism.

102-3.2.7.6 Controller:

- (a) Controller and control panel shall be housed in a weather, dust, and vandal resistant lockable cabinet.

(b) The controller shall be solid-state in design and function.

102-3.2.7.7 Support Chassis: The following shall apply:

(a) The support chassis shall be self-contained and self-supporting without the use of additional equipment or tools.

(b) Both trailer and truck mounted units are allowed.

(1) Trailer mounted unit:

(a) The sign, power supply unit and all support systems shall be mounted on a steel, wheeled trailer with a minimum capacity of 2,600 pounds.

(b) The trailer shall be equipped with class-A lights, using a plug adaptor.

(c) The trailer shall be equipped with adjustable outrigger leveling pads (screw-type), one on each of the four frame corners.

(d) The trailer shall be designed to be set up at the site with its own chassis and outriggers, without being hitched to a vehicle.

(e) The trailer shall be equipped with fenders over the tires and shall be made from heavy duty metal sufficient to allow a person to stand and operate or perform maintenance on the unit.

(f) The trailer shall meet all equipment specifications set forth in Chapter 316 of the Florida Statutes, and by such rule, regulation or code that may be adopted by the Department of Highway Safety and Motor Vehicles.

(2) Truck mounted unit:

(a) The truck-mounted assembly shall be designed to fit on a 2 ton or greater duty truck.

(b) The unit shall be self-contained with its own power supply, controls, raising and lowering device and shall be capable of being operated by one person.

(c) The unit shall be secured in the vehicle for normal operation.

102-3.2.7.8 Other Requirements:

(a) The portable arrow board assembly shall be designed to function in dry, wet, hot or cold weather (ambient temperature ranges from -30 to 165 degrees F.

- (b) The controller shall not be affected by mobile radio, or any other radio transmissions.
- (c) An operator's manual shall be furnished with each unit.
- (d) The manufacturer's name and FDOT approval number shall be affixed on the equipment.
- (e) The arrow board shall be listed on the Qualified Products List (QPL).

102-3.2.8 Portable Changeable Message Signs:

102-3.2.8.1 Scope. These Specifications expand the basic requirement that all Portable Changeable Message Signs (PCMS's) must meet the physical display and operational requirements as described in the MUTCD.

Manufacturers seeking approval for their PCMS shall provide CFX with a prototype unit to be evaluated in accordance with these Specifications and certify that the unit meets all requirements specified herein.

Permanent installations can be used but will be evaluated for each specific project or installation. These standards shall include but not be limited to the following:

102-3.2.8.2 Display Panel and Housing:

- (a) The display housing assembly shall be weather-tight to protect the panel from the elements.
- (b) All nuts, bolts, washers and other fasteners shall be of a corrosive resistant material.
- (c) The message matrix panel background and frame for the changeable message assembly shall be painted flat black (must meet Federal Specification TT-E-489).
- (d) Servicing of all message matrix panel components shall be accomplished from the front of the message matrix panel.
- (e) Each message matrix panel shall provide a glare screen for each message line to aid against sun glare for non-reflecting type signs.
- (f) The display panel, when raised in the upright position, will have a minimum height of 7 feet from the bottom of the panel to the ground.
- (g) The unit shall have an accessible mechanism to easily raise and lower the display assembly. A locking device shall also be provided to ensure the display panel will remain

in the raised or lowered position.

102-3.2.8.3 Message Matrix:

- (a) The overall dimensions of the message matrix panel shall be a maximum height of 7 feet by a width of 10 feet.
- (b) The message matrix panel shall contain three separate lines. Each line shall consist of eight characters, equally spaced a minimum of 3 inches. Each character shall contain 35 pixels in a five by seven horizontal to vertical grid arrangement.
- (c) Each message line shall provide for a nominal 18 inch character height.
- (d) For flip disk matrix signs, the disk elements shall be coated on the display side with a highly reflective florescent yellow Mylar material, and on the back with a flat black to blend in with the flat black background.
- (e) Similar components shall be interchangeable.

102-3.2.8.4 Electrical System: For diesel engines the following shall apply:

- (a) The power supply and electrical system shall be self contained within the unit.
- (b) The power source furnished shall be of sufficient size so as to provide the required maximum load energy plus 25%.
- (c) The electrical system shall meet the National Electrical Code where applicable.
- (d) A lightning protection device shall be provided for stationary equipment.
- (e) The engine shall have an electrical starting system.
- (f) A backup power system shall be provided that will operate the unit for a minimum of three hours automatically when the motor driven generator fails to operate.
- (g) An automatic charging system to recharge the starting and backup power supply batteries, when the generator is operating.
- (h) The engine shall be supplied with an ammeter and the generator shall be supplied with a volt meter showing voltage to the sign assembly.

For solar powered units the following shall apply:

- (a) The photovoltaic unit shall be designed to provide 21 days of continuous operation without sunlight with a minimum of on site maintenance.

(b) Automatic recharging of power supply batteries shall be provided.

102-3.2.8.5 Battery Life Test:

(a) The battery shall be equipped with a battery controller to prevent overcharging and over-discharging. An external battery level indicator shall be provided.

(b) The battery, controller, and power panel shall be designed to be protected from the elements and vandalism.

102-3.2.8.6 Controller:

(a) Controller and control panel shall be housed in a weather, dust, and vandal proof lockable cabinet.

(b) The keyboard shall be equipped with a security lockout feature to prevent unauthorized use of the controller.

(c) The controller shall be solid state in design and function.

(d) The control panel shall display a representative message that will be displayed on the sign panel.

(e) The flash rate shall be adjustable in the sign controller from one to ten seconds.

102-3.2.8.7 Operation and Performance:

(a) The message shall be displayed in upper case except when lower case is project specific and is allowed by the MUTCD.

(b) The message matrix panel shall be visible from 2 mile and legible from a distance of 900 feet under both day and night conditions. Under variable light level conditions the sign shall automatically adjust it's light source so as to meet the 900 feet visibility requirement.

(c) The control panel shall have the capability to store a minimum 50 pre-programmed messages.

(d) The controller in the control panel shall be able to remember messages during non-powered conditions.

(e) The controller shall allow the operator to generate additional messages on site via the keyboard.

(f) For a PCMS using Flip-Disk technology, the controller shall have the capability to provide a stipulated default message upon loss of controller function.

(g) All messages shall be flashed or sequenced. In the sequence mode, the controller shall have the capability to sequence three line messages during one cycle.

102-3.2.8.8 Use of Orange Vests: Contractor shall provide its personnel with orange vests and require that these vests be worn whenever the workers are within 15 feet of the edge of the travelway. Workers operating machinery or equipment in which loose clothing could become entangled during operation are exempt from this requirement. Such exempt workers will be required to wear orange shirts or jackets. Contractor personnel shall wear reflective orange vest during nighttime operations. Replace faded vests.

102-3.3 Work Zone Pavement Markings:

102-3.3.1 Description: Furnish and install Work Zone Pavement Markings for maintenance of traffic in construction areas and in close conformity with the lines and details shown on the plans. Measure the reflectivity of white and yellow stripes using a MiroLux 12 retroreflectometer, Delta LTL-X or LTL 2000, Advanced Retro Technology AR Stripemaster, or equal approved by the State Materials Office. Reflectivity shall be at least 250 mcd/lx*m² for yellow and 300 mcd/lx*m² for white when installed. Re-stripe anytime the reflectivity falls below 150 mcd/lx*m². Compensation for re-stripping will be at the Contract unit price for the appropriate material when the material used appears on the Qualified Products List (QPL) and is properly installed. The pavement marking materials shall not contain any lead or chromium compounds. Manufacturers seeking product approval shall furnish certified test reports showing the Work Zone Pavement Marking material meets the requirements of this Section.

Centerlines, lane lines, edgelines, stop bars and turn arrows in work zones will be required in accordance with Section 6D of the MUTCD with the following additions:

- (a) Install edgelines when a paved shoulder 4 feet or greater in width exists along the edge of a lane.
- (b) Place edgelines on all detours where vehicle paths are altered from normal operations and where a lane is narrowed from its normal width for any reason.
- (c) Apply Work Zone Pavement Markings, including arrows and messages determined by the CEI to be required for safe operation of the facility, prior to the end of the day if the highway is open to traffic. Channelizing devices may be used to direct traffic during the day prior to placing the Work Zone Pavement Markings.
- (d) Work Zone Pavement Markings will be designated in the plans or by the CEI as removable or non-removable.

Work Zone Raised Pavement Markers (WZRPMs) may be used in lieu of Temporary Tape in accordance with 102-3.3.2.3.

Removable Work Zone Pavement Markings consists of materials that can be taken up by hand. An example of this category of markings is plastic film (Tape), or Work Zone Raised Pavement Markers (WZRPM's).

Non-Removable Work Zone Pavement Markings consists of markings that are not classified as removable.

Use of Removable or Non-Removable Work Zone Pavement Markings shall be as follows:

Application	Category
Finish Pavement*	
All stripes representing final pavement markings	Non-Removable
All stripes in an area where the traffic pattern will be altered prior to project acceptance	Removable
Intermediate Pavement Course	
All stripes in pavement areas that will be covered with a subsequent course of pavement prior to altering of the traffic pattern within such area.	Non-Removable
All stripes where the traffic pattern will be altered prior to placing of the subsequent paving course within such area.	Removable
Existing Pavement	
All stripes that will be removed or overlaid with new pavement prior to altering the traffic pattern within such area.	Non-Removable
All stripes where the traffic pattern will be altered prior to removal or overlaying of such area.	Removable
*Place striping representing final markings in the permanent location unless excepted in writing by the CEI.	

Removable Pavement Markings may be substituted for Non-Removable Pavement Markings. When substitution is made, payment will be made under the Bid Item, Non-Removable Pavement Marking.

102-3.3.2 Materials:

102-3.3.2.1 Paint and Glass Beads: Meet the application requirements of Section 710, and the material requirements of Section 971.

102-3.3.2.2 Preformed Non-Removable Pavement Marking Film (Tape): Conform to the application requirements of the Plans and the material requirements of Section 971.

102-3.3.2.3 Work Zone Raised Pavement Markers: Work Zone Raised Pavement Markers (WZRPMS) are RPMs intended for use in work zones as an alternate to other line markings. Use

tape in all transition areas in addition to the RPMs. WZRPMs shall be referred to as class "D" or class "E" Markers. Apply all markers in accordance with FDOT Design Standards, Index No. 600.

Class A, B, and flexible E markers may be used in lieu of Class D Markers. Class E markers will only be allowed for use in areas for five continuous days or less.

Use colorless reflectors to replace white lines and amber reflectors to replace yellow lines. Space markers at 30 inch centers for lane lines and 5 foot centers for edgelines.

To provide contrast, place five black Work Zone Raised Pavement Markers (WZRPMs) immediately after the five colorless reflective markers on asphalt pavement five years or older and all concrete pavement. Black Work Zone Raised Pavement Markers (WZRPMs) will not be required with amber markers.

Ensure that Work Zone Raised Pavement Markers (WZRPMs) are certified as meeting the following except for Class E markers as noted below:

(1) Composition: Use markers made of plastic, ceramic or other durable materials. Markers with studs or mechanical attachments will not be allowed.

(2) Dimensions: Marker minimum and maximum surface dimensions is based on an x and y axis where the y dimension is the axis parallel to the centerline and the x axis is 90 degrees to y. Class E markers shall be 4 inch (W) by 2 inch (H) by 1 inch (D).

The x and y dimension of Class D markers shall be a maximum of 5 inches. The x dimension shall be a minimum of 4 inches and the minimum y dimension will be 2.25 inches.

Ensure that the maximum installed height of Class D markers is 1 inch. Ensure that the maximum installed height of Class E markers is 2 inches. Use Class D markers having a minimum reflective face surface of 0.35 in². Use Class E markers having a minimum reflective surface area of 1 in².

Ensure that after installation, the marker's reflective face is completely visible and above the pavement surface measured from a line even with the pavement perpendicular to the face of the marker.

(3) Optical Performance: Ensure that the specific intensity of each white reflecting surface at 0.2 degrees observation angle is at least the following when the incident light is parallel to the base of the marker:

Horizontal Entrance Angle	Specific Intensity
0 degrees	3
20 degrees	1.2

For yellow reflectors, the specific intensity shall be 60% of the value for white. For red reflectors, the specific intensity shall be 25% of the value for white. Reflectivity of all (WZRPMS) shall not be less than 1.0 Specific Intensity (SI) any time after installation.

(4) Strength requirements: Markers shall support a load of 5,000 pounds. Three markers per lot or shipment will be randomly selected for a test.

Position the marker base down between the flat parallel platens of a compression testing machine. Place on top of the marker a flat piece of 65 durometer rubber 6 by 6 by 0.375 inch centered on the marker. Apply the compressive load through the rubber to the top of the marker at a rate of 0.2 in/s.

Either cracking or significant deformation of the marker at any load less than 5,000 pounds will constitute failure.

(5) Adhesion: Use bituminous or other adhesive materials recommended by the marker manufacturer for bonding the markers to the pavement. The adhesive used shall be one of the products included on the Qualified Products List.

(6) Removability: Ensure that the pavement marker is removable from asphalt pavement and portland cement concrete pavement intact or in substantially large pieces, either manually or by mechanical devices at temperatures above 40 degrees F, and without the use of heat, grinding or blasting.

(7) Replacement Requirements: Replace markers any time after installation when more than two markers in a skip, or more than three consecutive markers on an edgeline are missing at no expense to CFX. Replace all failed markers in a timely manner as directed by the CEI.

102-3.3.2.4 Preformed Wet Retroreflective Removable Pavement Markings:

The preformed markings shall consist of white or yellow retroreflective film on a conformable backing.

The quality of the material shall be such that the performance requirements for the marking shall be met.

The markings shall be precoated with a pressure sensitive adhesive and shall be capable of being adhered to asphalt concrete or Portland cement concrete at temperatures as low as 50 degrees F in accordance with the manufacturer's recommendations. A surface preparation adhesive shall be used for all applications to improve initial and long term adhesion.

When stored in a cool dry area indoors, the materials shall be suitable for use for one year after the date of purchase.

The removable retroreflective striping tape shall be designed and constructed in such a manner that it can be readily removed when the markings are no longer applicable. The tape shall be capable of performing for the duration of a normal construction season and shall then be capable of being removed intact or in large pieces.

The removable, preformed, retroreflective pavement markings shall consist of a highly reflective, enclosed lens white or yellow film with a thin, flexible, conformable backing which is precoated with a pressure sensitive adhesive.

The enclosed lens white and yellow films shall have the following initial minimum reflectance values under dry and wet conditions at 1.05° observation angle and 88.76° entrance angle. These angles represent a simulated driver viewing geometry at 30 meters distance. The photometric quantity to be measured shall be the coefficient of retroreflected luminance (R_L), and shall be expressed as millicandelas per square foot per foot candle $[(\text{mcd}/\text{ft}^2)/\text{fc}^{-1}]$. Values measured under dry conditions will be in accordance with the testing procedure of ASTM D 4061. Values measured under wet conditions will be in accordance with the testing procedure of ASTM E 1710 using a portable retroreflectometer capable of measuring at 30 meters geometry. As per CEN Standard EN 1436 Annex B.6, the wet test condition is created using clean water poured from a bucket of approximately 10 liters capacity from a height of approximately 0.5 m above the surface. Water is poured evenly along the test surface so that the measuring field and its surrounding area is momentarily flooded by a crest of water. The coefficient of retroreflected luminance (R_L) in condition of wetness shall be measured under the test condition one (1) minute after the water has been poured.

Visually, the reflective performance shall be similar whether the material is dry or wet.

The angular aperture of both the photoreceptor and light projector shall be 6 minutes of arc. The reference center shall be the geometric center of the sample and the reference axis shall be taken perpendicular to the test sample.

	White	Yellow
Entrance Angle	88.76°	88.76°
Observation Angle	1.05°	1.05°
Retroreflected Luminance $R_L[(\text{mcd}/\text{ft}^2)/\text{fc}^{-1}]$	750	450

The manufacturer shall be required to demonstrate that the properly applied pavement marking adheres to the roadway under climatic and traffic conditions normally encountered in the construction work zone.

The marking film shall be removable from asphalt concrete and Portland cement concrete intact or in large pieces, at temperatures above freezing without the use of heat, solvents, grinding or blasting without permanently scaring the roadway surface.

The surface of the markings when new provides an average skid resistance value of 50

BPN when tested according to ASTM E 303.

Pavement markings in construction work zones shall be placed in accordance with the following provisions:

At the end of each day's work, pavement markings shall be in place on each paving lift that is open to normal traffic flow. Materials requiring removal shall be specified above, and marking configurations shall be in accordance with the Manual on Uniform Traffic Control Devices.

The pavement markings shall be maintained and replaced by the Contractor without additional compensation until they have served their purpose, at which time the Contractor shall remove them.

Pavement markings shall be applied to clean, dry surfaces in accordance with the manufacturer's installation instructions or a method approved by the CEI.

102-3.3.3 Certification: Furnish the CEI certified test reports showing the work zone pavement marking material and adhesive supplied meets the applicable specification. Each certification shall cover only one type. Due to the wide range of application of the products within some types, the certification shall state that the product is recommended for that specific project location, and specific use.

102-3.4 Temporary Glare Screen:

102-3.4.1 General: Furnish, install, maintain, remove and relocate glare screen systems in conjunction with temporary barrier wall at locations identified in the Plans.

102-3.4.2 Design and Installation: Meet the following requirements:

(a) Glare screen units shall be manufactured in lengths such that when installed the joint between barrier sections will not be spanned by any one modular unit. Color shall be green, similar to Federal Color Standard 595-34227.

(b) Blades, rails and/or posts shall be manufactured from polyethylene, fiberglass, plastic, polyester or polystyrene, and be ultraviolet stabilized and inert to all normal atmospheric conditions and temperature ranges found in Florida.

(c) For paddle type designs, the blade width shall not be less than 6 inches, nor more than 9 inches. Blades or screen for individual or modular systems shall be 24 to 30 inches high and capable of being locked down at an angle and spacing to provide a cut-off angle not less than 20 degrees.

(d) For glare screen mounted on temporary barrier wall, a strip (6 by 12 inches) of reflective sheeting as specified in 994-2 shall be placed on a panel, centered in each barrier section (at a

spacing not to exceed 15 feet and positioned in such a manner as to permit total right angle observation by parallel traffic. When glare screen is utilized on temporary concrete barriers, warning lights will not be required.

(e) Anchorage of the glare screen to the concrete barrier shall be capable of safely resisting an equivalent tensile load of 600 lb/ft of glare screen, with a requirement to use a minimum of three fasteners per barrier section.

(f) Prior to approval an impact test shall be performed by the manufacturer to verify the safety performance of the proposed system. The minimum impact strength of the posts, blades, rail and the barrier attachment design shall be sufficient to prevent the unit from separating from the barrier when impacted by a 3 inch outside diameter steel pipe traveling at 30 mph and impacting mid-height on the glare screen assembly.

(g) All hardware shall be galvanized in accordance with ASTM A 123 or stainless steel in accordance with AISI 302/305.

102-3.4.3 Certification: Furnish certified test reports including all applicable test methods stating that the materials comply with the requirements of this specification.

102-3.4.4 Qualified Products List (QPL): Manufactured glare screen systems may be modular or individual units listed on the Qualified Products List. A field impact test may be required by the Manufacturer to verify continual compliance with these Specifications.

102-3.5 Work Zone Signs: Work Zone Sign Panels include all Warning and Temporary Regulatory Signs, as identified in the MUTCD and the FDOT Design Standards, Index 600. Obtain manufacturer certification that the Work Zone signs meet the requirements of the FDOT Design Standards, MUTCD, and this Section. Provide signing in accordance with the FDOT Design Standards, unless otherwise shown in the plans.

102-3.5.1 Temporary Regulatory Signs: Provide signs with dimensions of 4 foot by 4 foot. For all other facilities, provide signs having minimum dimensions of 2 foot by 2.5 foot.

102-3.6 Truck Mounted Attenuators: Use Truck Mounted Attenuators (TMA), when called for in the Design Standards. Use truck mounted attenuator systems designed and constructed to slow impacting vehicles, and dissipate the vehicle's kinetic energy and bring the errant vehicle to a safe and controlled stop. Use systems designed and constructed for installation at the rear of trucks with a Gross Vehicular Weight of 15,000 pounds (actual weight) or more meeting the requirements of the manufacturer of the TMA. If adding supplemental weight to the vehicles as ballast is necessary, use only dry loose sand.

The TMA will provide a safety device between approaching vehicular traffic and the work zone when properly attached. Use like new units that are in current production, or updates of existing models as approved by CFX.

Use truck mounted attenuators rated at 45 mph or 60 mph design speeds. Base utilization of

TMA on the posted speed limit. Restrict a TMA rated for 45 mph to use on roadways with posted speed limits of 45 mph or less and prohibit from use on freeways. A TMA rated for 60 mph may be utilized on all freeways or roadways with posted speed limits greater than 45 mph.

Equip the TMA cartridge with lights and reflectors in compliance with applicable Florida motor vehicle laws, including turn signals, dual tail lights, and brake lights. Ensure that lights are visible in both the raised and lowered positions if the unit is capable of being raised.

Ensure that the complete unit is painted DOT yellow (Fed. Std. 595 b, No. 13538). Stripe the rear facing of the cartridge in the operating position with the alternating 6 inch white and 6 inch safety orange 45 degree striping to form an inverted "V" at the center of the unit and slope down and toward the outside of the unit, in both directions from the center. The bottom of the cartridge shall have the same pattern, covering the entire bottom, with 6 inch white and 6 inch safety orange stripes. Use Type III reflectorized sheeting for striping.

Obtain certified test reports from the TMA manufacturer showing the attenuator meets all requirements set by the National Cooperative Highway Research Program, Report 350. Certification shall include drawings and calculations signed and sealed by a Professional Engineer registered in the State of Florida for each model. Limit TMAs to those items listed on the Qualified Products List.

The trucks and truck mounted impact attenuators will not be paid for separately, but will be included in the cost of Maintenance of Traffic. Payment includes all costs, including furnishing, maintaining and removal when no longer required, and all materials, labor, tools, equipment and incidentals required for attenuator maintenance.

102-4 Detours.

102-4.1 General: Construct and maintain detour facilities wherever it becomes necessary to divert traffic from any existing roadway or bridge, or wherever construction operations block the flow of traffic.

102-4.2 Standards of Construction: Plan, construct, and maintain detours for the safe passage of traffic in all conditions of weather. Provide the detour with all facilities necessary to meet this requirement.

Where the Plans call for CFX to furnish detour bridge components, construct the pile bents in accordance with the FDOT Structures Design Office Standard Drawings, Index No. 300 and 301, unless otherwise authorized by the CEI.

Submit a letter with the following: company name, phone number, office address, project contact person, project number, detour bridge type, bridge length, span length, location and usage time frames, to the CEI at least 30 calendar days prior to the intended pick-up date, to obtain the storage facility location and list of components for the project. Upon receipt of letter, the CEI will, within ten calendar days provide an approved material list to the Contractor and the appropriate CFX storage site. Provide a letter with an original company seal, identifying the

representative with authority to pick up components, to the CEI at least ten calendar days prior to the proposed pick-up date. CFX is not obligated to load the bridge components without this notice. At the time of issuance the Contractor's representative shall sign for each item loaded.

Provide timber dunnage, and transport the bridge components from the designated storage facility to the job site. Unload, erect, and maintain the bridge, then dismantle the bridge and load and return the components to the designated storage facility.

Notify the CEI in writing at least ten calendar days prior to returning the components. Include in this notice the name of the Contractor's representative authorized to sign for return of the bridge components.

The Contractor shall provide a crane and an operator at the storage facility to load and unload the bridge components and furnish all other labor and equipment required for loading and unloading the components.

The CEI will record all bridge components issued or returned on the Detour Bridge Issue and Credit Ticket. The Tickets must be signed by the CEI and Contractor representative, after loading or unloading each truck to document the quantity and type of bridging issued or returned.

Bind together all bridge components to be returned in accordance with the instructions given by the storage facility. Repack components that are not packed in compliance with these instructions.

Assume responsibility for any shortage or damage to the bridge components.

The skid resistance of open steel grid decking on the detour bridge may decrease gradually after opening the bridge to traffic. The Contractor shall furnish a pneumatic floor scabber machine for roughening the roadway surface of the detour bridge decking. Provide an air compressor at the job site with 200 ft³/minute capacity, 90 psi air pressure for the power supply of the machine, and an operator. Perform scabbling when determined necessary by the CEI. CFX will pay for the cost of scabbling as Unforeseeable Work.

Return the bridge components to the designated storage facility beginning no later than ten calendar days after the date the detour bridge is no longer needed, the date the new bridge is placed in service, or the date Contract Time expires, whichever is earliest. Return the detour bridging at an average of not less than 200 feet per week.

102-4.3 Materials: Provide all materials for the construction and maintenance of all detours, except that, where the plans call for CFX to provide borrow or other material pits, the CEI will allow the Contractor to obtain material from these pits for the detour. CFX will make no separate payment for materials used from these pits to construct detours.

102-4.4 Construction Methods: Do not apply the requirements of the Standard Specifications

pertaining to construction and material details to detour construction. Select and use construction methods and materials that shall provide a stable and safe detour facility. Construct the detour facility to have sufficient durability to remain in good condition, supplemented by maintenance, for the entire period that the detour is required.

102-4.5 Removal of Detours: Remove temporary detours when they are no longer needed and before the Contract is completed. Take ownership of all materials from the detour and dispose of them, except for materials which might be on loan from CFX with the stipulation that they be returned.

102-5 Calcium Chloride for Dust Control.

102-5.1 General: The CEI will direct the locations and the time of using calcium chloride for dust control. Regardless of the quantities which may be shown in the proposal, consider this work as being entirely contingent.

102-5.2 Equipment: Apply the calcium chloride using any spreader capable of such adjustment and control that the quantity of calcium chloride applied in any 25 foot length of road does not vary more than 10% from the quantity intended for that length. Do not use rotary-type spreaders, as they are not considered capable of proper control. Use equipment to apply water that is capable of applying the water uniformly within the limitations of moisture required.

102-5.3 Application:

102-5.3.1 Weather Limitations: Even if previously ordered by the CEI, do not treat surfaces when raining or when the moisture condition exceeds that for proper application of the calcium chloride as determined by the CEI.

102-5.3.2 Preparation for Treatment: Level the subgrade, base materials, or other surface to be treated to a smooth grade and crown or shape the surface to effect adequate drainage. When so directed, moisten the surface prior to application of the material.

102-5.3.3 Rate of Application: The CEI will specify the actual rate at which to uniformly spread the material. Apply the flakes at a rate between 1.0 and 1.25 lbs/sq.yd. of surface, and pellets at a rate between 0.80 and 1.0 lb/sq. yd.

102-5.3.4 Subsequent Applications: If subsequent applications are required over a previously treated area which has previously been treated, make such applications at a rate of approximately 0.75 lb/sq. yd. for flakes and 0.6 lb/sq. yd. for pellets.

102-5.3.5 Protection from Traffic: Do not allow traffic on the treated surface until two hours after application.

102-6 Materials for Driveway Maintenance.

102-6.1 General: Place material in driveways to residences and businesses to provide safe, stable, and reasonable access.

102-6.2 Materials: Provide material of the type typically used for base and having stability and drainage properties that will provide a firm surface under wet conditions.

102-6.3 Construction Methods: Place, level, manipulate, compact, and maintain the material, to the extent appropriate for the intended use.

As permanent driveway construction is accomplished at a particular location, the Contractor may salvage and reuse previously placed materials that are suitable for reuse on other driveways.

102-7 Method of Measurement.

102-7.1 Maintenance of Traffic: When an item for this Work is included in the proposal, the quantity to be paid for will be at the Contract lump sum price for Maintenance of Traffic.

102-8 Basis of Payment.

102-8.1 Maintenance of Traffic: When an item of Maintenance of Traffic is included in the proposal, price and payment will be full compensation for all work and costs specified under this Section except as may be specifically covered for payment under other items.

102-8.2 Payment Items: Payment will be made under the items shown on the bid sheets.

102-8.3 Variable Message Sign.

The number of Variable Message Signs in place on the project, as authorized by the CEI, on any calendar day or portion thereof within the original Contract Time including any approved extensions, will be paid for at the Contract unit price for Variable Message Signs. Each Variable Message Sign shall have a matrix of electrostatic elements, a portable, plug-in keyboard and a power generator system. Each Variable Message Sign shall be permanently mounted on a towable trailer. This item will remain the property of the Contractor upon completion of the project. Payment will be made only for Variable Message Signs that either have been certified or one for which a temporary permit has been issued by the FDOT. In either case, the Variable Message Signs must have been properly maintained since its approval by FDOT. Price and payment will constitute full compensation for furnishing, installing, operating, relocating, maintaining and removing Variable Message Signs. Payment will be made under the pay items shown in the bid form.

END OF SECTION 102

**SECTION 104
PREVENTION, CONTROL AND ABATEMENT OF
EROSION AND WATER POLLUTION**

104-1 Description

The Project will be constructed on properties which may be subject to environmental permits and regulation promulgated by city, county, state, federal, and regional authorities. Any permits which have been acquired by CFX will be made available to the Contractor.

104-2 Contractor Responsibilities

The Contractor shall be well-versed in the prevention, control and abatement of erosion and water pollution and will be exclusively responsible for abiding by such laws, regulations and permit conditions which relate to the Project with respect to erosion and water pollution. Any such devices and/or materials shown on the Plans are shown exclusively for permitting purposes and do not represent a design or method by which the Contractor can ensure compliance with such regulations and permits.

In the prosecution of the Work, the Contractor shall implement, maintain and replace as necessary all erosion and sediment control features required to retain sediment on site and prevent violations of water quality criteria. The Contractor may use any legal methods for temporary erosion and water pollution control. Temporary erosion and water pollution control features shall consist of, but not be limited to, temporary grassing, temporary sodding, temporary mulching, sandbagging, slope drains, sediment basins, flocculation, permanent grassing, permanent sodding, aggregate filters, sediment checks, artificial coverings, berms, baled hay or straw, floating turbidity barrier, staked turbidity barrier and silt fence.

The Contractor shall inspect all erosion control features at least every seven calendar days and within 24 hours of the end of a storm of 0.25 inch or greater. In addition, the Contractor shall make a daily review of the location of silt fences in areas where construction activities have changed the natural contour and drainage runoff to ensure that silt fences are properly located for effectiveness. The Contractor shall use a form acceptable to the CEI to report all inspection findings and corrective actions taken as a result of the inspection. The Contractor shall sign each report and submit it weekly to the CEI.

The Contractor shall be responsible for turbidity monitoring of run-off water leaving the site and shall, prior to work commencement, designate a representative/firm whose responsibility includes such monitoring. Turbidity monitoring reports shall be prepared by the Contractor and shall be made available to CFX or its designated representative. CFX may also have a representative/firm whose responsibility includes turbidity discharge testing and whose test results shall be made available to the Contractor.

The Contractor's Superintendent shall attend a workshop conducted by the FDEP on correct installation and implementation of erosion control structures and devices. The seminar will be at no cost to the Contractor and will be conducted prior to the start of construction activities.

104-3 Erosion Control Plan

The Contractor shall prepare and provide CFX, at the prework conference, a special plan for the prevention, control and abatement of erosion and water pollution. No construction activities shall commence until the erosion control plan has been reviewed and written acceptance received from CFX.

This plan shall be prepared in accordance with the general requirements and/or any special conditions of all permits which authorize the construction of the project. The Project erosion control plan shall be governed by the General Specifications and the Environmental Protection Agency Final National Pollutant Discharge Elimination System (NPDES) general permits for stormwater discharge from construction sites and FDEP Environmental Resource Permits.

The erosion control plan shall be prepared in accordance with the Contractor's proposed sequence of operations and shall describe, but not be limited to, the following items or activities:

1. For each phase of construction operations or activities, supply the following information:
 - a. Locations of all erosion control devices.
 - b. Types of all erosion control devices.
 - c. Estimated length of time erosion control devices will be in operation.
 - d. Monitoring schedules for maintenance of erosion control devices.
 - e. Methods of maintaining erosion control devices.
 - f. Methods of containment or removal of pollutants or hazardous wastes.
2. The name and telephone number of the person who will be responsible for monitoring and maintaining the erosion control devices.

The Contractor shall submit a copy of the erosion control plan to the Florida Department of Environmental Protection (FDEP) Central Office stated in the special conditions of the approved FDEP permit at least 30 days prior to the start of construction on any part of the Project. The Contractor shall be responsible for compliance with the approved erosion control plan.

When a National Pollutant Discharge Elimination System (NPDES) Permit has been issued or required for the project by the U.S. Environmental Protection Agency (EPA) pursuant to 40 CFR Part 122.26, the Contractor's plan shall be prepared as a part of CFX's Stormwater Pollution Prevention Plan (SWPPP). The Contractor's part of the SWPPP will include its erosion control plan and all additional measures the Contractor will employ to dispose of, control, or otherwise prevent the discharge of solid, hazardous, and sanitary wastes to waters of the United States. Procedures to control off-site tracking of soil by vehicles and construction equipment shall also be included. The Contractor shall include a procedure for cleanup and reporting of non-storm

water discharges such as contaminated groundwater and accidental spills of contaminants. The Contractor's part of SWPPP, including required signed certification statements, shall be furnished to and approved by CFX prior to initiating any soil disturbing activities.

Refusal by the Contractor to sign any required documents or certification statements will be considered as a default of the Contract. The U.S. Environmental Protection Agency may consider the Contractor in violation of the Clean Water Act if any earth disturbing activities are performed in the absence of any required signed documents or certification statements.

In addition, the Contractor, during the course of construction, shall limit the amount of exposed erodible earth prior to temporary or permanent grassing or sodding.

Turbidity shall be controlled during construction such that discharges will not exceed State water quality standards of 29 NTU above natural background per Chapter 62-302, F.A.C.

The Contractor shall indemnify CFX for any liability, fines, or penalties arising out of or relating to the failure of the Contractor to effectively control erosion or to prevent a violation of any applicable law.

The cost of all items necessary, as described above, shall be included in the item shown on the bid form.

END OF SECTION 104

SECTION 555 DIRECTIONAL BORE

555-1 Description.

555-1.1 Scope of Work: The work specified in this Section documents the approved construction methods, procedures and materials for Directional Boring, also commonly called Horizontal Directional Drilling (HDD).

555-1.2 General: HDD is a trenchless method for installing a product that serves as a conduit for liquids, gasses, or as a duct for pipe, cable, or wire line products. It is a multi-stage process consisting of site preparation and restoration, equipment setup, and drilling a pilot bore along a predetermined path and then pulling the product back through the drilled space. When necessary, enlargement of the pilot bore hole may be necessary to accommodate a product larger than the pilot bore hole size. This process is referred to as back reaming and is done at the same time the product is being pulled back through the pilot bore hole.

Accomplish alignment of the bore by proper orientation of the drill bit head as it is being pushed into the ground by a hydraulic jack. Determine orientation and tracking of the drill bit by an above ground radio detection device which picks up a radio signal generated from a transmitter located within the drill bit head. Then electronically translate the radio signal into depth and alignment. In order to minimize friction and prevent collapse of the bore hole, introduce a soil stabilizing agent (drilling fluid) into the annular bore space from the trailing end of the drill bit. The rotation of the bit in the soil wetted by the drilling fluid creates a slurry. The slurry acts to stabilize the surrounding soil and prevent collapse of the bore hole as well as provides lubrication.

Select or design drilling fluids for the site specific soil and ground water conditions. Confine free flowing (escaping) slurry or drilling fluids at the ground surface during pull back or drilling. Accomplish this by creating sump areas or vacuum operations to prevent damage or hazardous conditions in surrounding areas. Remove all residual slurry from the surface and restore the site to preconstruction conditions.

555-2 Materials.

555-2.1 General: Materials are defined as pipe or conduit that becomes the installed product. Incidental materials that may or may not be used to install the product depending on field requirements are not paid for separately and will be included in the cost of the installed product.

555-2.2 Material Type: The following material standards are to be interpreted as the minimum in place standards. Use materials that are appropriate for the stresses generated by the selected equipment and field conditions. It is not intended to portray that the use of materials with these minimum material standards will retain their required properties if the stress limits are exceeded for which they were designed during

installation. Ensure that the appropriate material is used to retain compliance once it is installed.

Material Standards for HDD Installation		
Material Type	Non-Pressure	Pressure
Polyethylene (PE)	ASTM D 2447	ASTM 2513 ASTM D 2447
High Density Polyethylene (HDPE)	ASTM D 2447 ASTM D 3350 ASTM F714	ASTM D 2447 ASTM D 3350 ASTM F714 ASTM 2513
Polyvinyl-Chloride (PVC)	ASTM F 789	N/A
Steel	ASTM A139 Grade B ⁽¹⁾	AWWA C200 API 2B ⁽²⁾
⁽¹⁾ No hydrostatic test required		
⁽²⁾ Dimensional tolerances only		

555-3 Construction Site Requirements.

555-3.1 Legal Provisions: Comply with the following site condition provisions:

(a) Chapter 556, FS for Sunshine State One Call. Use methods for marking utilities that minimize impact on other construction or maintenance activities, including mowing operations, which may be conducted throughout the project on a cyclic basis. Limit marking to painting unless approved by the CEI. When and where flagging of existing utilities is required, limit flagging to an area for which construction can be accomplished in no more than 14 consecutive days, unless approved by the CEI.

(b) The Americans With Disabilities Act. When and where product lines are temporarily allowed to be exposed through sidewalk areas for periods exceeding two consecutive work days, ensure that an alternate route is provided that meets ADA requirements.

555-3.2 Site Conditions:

(a) Carry out excavation for entry, exit, recovery pits, slurry sump pits, or any other excavation as specified in Section 120. Sump pits are required to contain drilling fluids if vacuum devices are not operated throughout the drilling operation, unless approved by the CEI.

(b) Within 48 hours of completing installation of the boring product, clean the work site of all excess slurry or spoils. Take responsibility for the removal and final disposition of excess slurry or spoils. Ensure that the work site is restored to pre-construction conditions or as identified on the plans.

(c) Provide MOT in accordance with the FDOT Design Standards and the MUTCD when and where the former is silent.

(d) Exposure of product shall be limited to 3 feet and 14 consecutive days unless approved by the CEI.

555-3.3 Damage Restoration: Take responsibility for restoration for any damage caused by heaving, settlement, separation of pavement, escaping drilling fluid (frac-out), or the directional drilling operation, at no cost to CFX.

555-3.3.1 Remediation Plans: When required by the CEI, provide detailed plans which show how damage to any roadway facility will be remedied. These details will become part of the "as-built" plans package. Remediation plans must follow the same guidelines for development and presentation of the "as-built" plans. When remediation plans are required, prior approval by the CEI shall be secured before any work proceeds.

555-4 Quality Control.

555-4.1 General: Take control of the operation at all times. Have a representative who is thoroughly knowledgeable of the equipment, boring and CFX procedures present at the job site during the entire installation and available to address immediate concerns and emergency operations. Notify the CEI 48 hours in advance of starting work. Do not begin installation until the CEI is present at the job site and agrees that proper preparations have been made.

555-4.1.1 Product Testing: When there is any indication that the installed product has sustained damage and may leak, stop all work, notify the CEI and investigate damage. The CEI may require a pressure test and reserves the right to be present during the test. Perform pressure test within 24 hours unless otherwise approved by the CEI. Furnish a copy of test results to the CEI for review and approval. The CEI is allowed up to 72 hours to approve or determine if the product installation is not in compliance with the specifications. The CEI may require non-compliant installations to be filled with excavatable flowable fill.

555-4.1.2 Testing Methods: Testing may consist of one of the following methods and must always meet or exceed CFX testing requirements:

(a) Follow the product manufacturer's pressure testing recommendations.

(b) Ensure that product carrier pipes installed without a casing meet the pressure requirements set by the owner. If the owner does not require pressure testing, the CEI may require at least one test.

(c) A water tight pipe and joint configuration where the product is installed beneath any pavement (including sidewalk) and front shoulders is required. The CEI will determine when and where water tight joint requirements will be applied to the ultimate roadway section for future widening. When a product is located elsewhere, the

pipe and joint configuration must meet or exceed soil tight joint requirements. Conduct tests for joint integrity for one hour. The test for a soil tight joint allows up to 0.1 gallon of water leakage at a sustained pressure of 2 PSI. The water tight joint criteria allows no leakage at all for a sustained pressure of 5 PSI.

555-4.1.3 Failed Bore Path: If conditions warrant removal of any materials installed in a failed bore path, as determined by the CEI, it will be at no cost to CFX. Promptly fill all voids by injecting all taken out of service products that have any annular space with excavatable flowable fill.

555-4.2 Product Locating and Tracking: The method of locating and tracking the drill head during the pilot bore will be shown in the Plans. CFX recognizes walkover, wire line, and wire line with surface grid verification, or any other system as approved by the CEI, as the accepted methods of tracking directional bores. Use a locating and tracking system capable of ensuring that the proposed installation is installed as intended. If an area of radio signal interference is expected to exceed 5 feet, the CEI may specify the use of a suitable tracking system. The locating and tracking system must provide information on:

- (a) Clock and pitch information
- (b) Depth
- (c) Transmitter temperature
- (d) Battery status
- (e) Position (x,y)
- (f) Azimuth, where direct overhead readings (walkover) are not possible (i.e. subaqueous or limited access transportation facility)
- (g) Ensure proper calibration of all equipment before commencing directional drilling operation.
- (h) Take and record alignment readings or plot points such that elevations on top of and offset dimensions from the center of the product to a permanent fixed feature are provided. Such permanent fixed feature must have prior approval of the CEI. Provide elevations and dimensions at all bore alignment corrections (vertical and horizontal) with a minimum distance between points of 100 feet. Provide a sufficient number of elevations and offset distances to accurately plot the vertical and horizontal alignment of the installed product. A minimum of three elevation and plot points are required.

Install all facilities such that their location can be readily determined by electronic designation after installation. For non-conductive installations, attach a

minimum of two separate and continuous conductive tracking (tone wire) materials, either externally, internally or integral with the product. Use either a continuous green sheathed stranded conductor copper wire line (minimum #12 AWG for external placement or minimum #14 AWG for internal placement in the conduit/casing) or a coated conductive tape. Conductors must be located on opposite sides when installed externally. Connect any break in the conductor line before construction with an electrical clamp, or solder, and coat the connection with a rubber or plastic insulator to maintain the integrity of the connection from corrosion. Clamp connections must be made of brass or copper and of the butt end type with wires secured by compression. Soldered connections must be made by tight spiral winding of each wire around the other with a finished length minimum of 3 inches overlap. Tracking conductors must extend 2 feet beyond bore termini. Test conductors for continuity. Each conductor that passes must be identified as such by removing the last 6 inches of the sheath. No deductions are allowed for failed tracking conductors. Failed conductor ends must be wound into a small coil and left attached for future use.

555-4.3 Product Bore Hole Diameter: Minimize potential damage from soil displacement/settlement by limiting the ratio of the bore hole to the product size. The size of the back reamer bit or pilot bit, if no back reaming is required, will be limited relative to the product diameter to be installed as follows:

Maximum Pilot or Back-Reamer Bit Diameter When Rotated 360 Degrees	
Nominal Inside Pipe Diameter Inches	Bit Diameter Inches
2	4
3	6
4	8
6	10
8	12
10	14
12 and greater	Maximum Product OD plus 6

555-4.4 Drilling Fluids: Use a mixture of bentonite clay or other approved stabilizing agent mixed with potable water with a minimum pH of 6.0 to create the drilling fluid for lubrication and soil stabilization. Vary the fluid viscosity to best fit the soil conditions encountered. Do not use any other chemicals or polymer surfactants in the drilling fluid without written consent from the CEI. Certify to the CEI in writing that any chemicals to be added are environmentally safe and not harmful or corrosive to the facility. Identify the source of water for mixing the drilling fluid. Approvals and permits are required for obtaining water from such sources as streams, rivers, ponds or fire hydrants. Any water source used other than a potable water may require a pH test.

555-4.5 Equipment Requirements: Ensure that appropriate equipment is provided to facilitate the installation as follows:

HDD Equipment				
System Description	Pipe ⁽¹⁾ Diameter Inches	Bore Length Feet	Torque Ft-Lbs	Trust/Pullback Lbs
Maxi-HDD	18 and greater	>1,000	>10,000	>70,000
Midi-HDD	Up to 16	Up to 1,000	1,900 to 9,999	20,001 to 69,999
Mini-HDD	Up to 6	Up to 600	Up to 1,899	Up to 20,000

⁽¹⁾ For the above, multiple pipe or conduit installations must not exceed the total outside pipe diameters stated above.

Match equipment to the size of pipe being installed. Obtain the CEI's approval for installations differing from the above chart. Ensure that the drill rod can meet the bend radius required for the proposed installation.

555-4.6 Thrust/Pullback Requirements: Unless approved by the CEI, limit use of HDD equipment to installing the following product sizes and lengths based on the following product size, force and length relationships.

HDD Bore Equipment Thrust/Pullback Capacity						
Lbs	5,000 to 7,000	7,001 to 12,000	12,001 to 16,000	16,001 to 25,000	25,001 to 40,000	>40,000
Product Size ⁽¹⁾	Maximum Pullback Distance In Feet					
4 or <	400 or <					
6 or <		600 or <				
8 or <			800 or <			
10 or <				1,000 or <		
12 or <					2,000 or <	
> 12						CEI's Discretion

⁽¹⁾ for the above, where a single pull of multiple conduits is to be attempted, the applicable product size must be determined by the diameter of a circle that will circumscribe the individual conduits as a group.

555-5 Drilling Operations:

555-5.1 Installation Process: Ensure adequate removal of soil cuttings and stability of the bore hole by monitoring the drilling fluids such as the pumping rate, pressures, viscosity and density during the pilot bore, back reaming and pipe installation. Relief holes can be used as necessary to relieve excess pressure down hole. Obtain the CEI's approval of the location and all conditions necessary to construct relief holes to

ensure the proper disposition of drilling fluids is maintained and unnecessary inconvenience is minimized to other facility users.

To minimize heaving during pull back, the pull back rate is determined in order to maximize the removal of soil cuttings without building excess down hole pressure. Contain excess drilling fluids at entry and exit points until they are recycled or removed from the site or vacuumed during drilling operations. Ensure that entry and exit pits are of sufficient size to contain the expected return of drilling fluids and soil cuttings.

Ensure that all drilling fluids are disposed of or recycled in a manner acceptable to the appropriate local, state, or federal regulatory agencies. When drilling in suspected contaminated ground, test the drilling fluid for contamination and appropriately dispose of it. Remove any excess material upon completion of the bore. If in the drilling process it becomes evident that the soil is contaminated, contact the CEI immediately. Do not continue drilling without the CEI's approval.

The timing of all boring processes is critical. Install a product into a bore hole within the same day that the pre-bore is completed to ensure necessary support exists.

555-5.2 Boring Failure: If an obstruction is encountered during boring which prevents completion of the installation in accordance with the design location and specification, the pipe may be taken out of service and left in place at the discretion of the CEI. Immediately fill the product left in place with excavatable flowable fill. Submit a new installation procedure and revised plans to the CEI for approval before resuming work at another location. If, during construction, damage is observed to the facility, cease all work until resolution to minimize further damage and a plan of action for restoration is obtained and approved by the CEI.

555-6 Documentation Requirements.

555-6.1 Boring Path Report: Furnish a Bore Path Report to the CEI within seven days of the completion of each bore path. Include the following in the report:

(a) Location of project and financial project number including the Permit Number when assigned

(b) Name of person collecting data, including title, position and company name

(c) Investigation site location (Contract plans station number or reference to a permanent structure within the project right-of-way)

(d) Identification of the detection method used

(e) Elevations and offset dimensions as required in 555-4.3.

555-6.2 "As-Built" Plans: Provide the CEI a complete set of "as-built" plans showing all bores (successful and failed) within 30 calendar days of completing the work. Ensure that the plans are dimensionally correct copies of the Contract plans and include roadway plan and profile, cross-section, boring location and subsurface conditions as directed by the CEI. The plans shall show appropriate elevations and be referenced to a CFX bench, otherwise to a USGS grid system and datum, or a specific location on top of an existing head wall. Plans shall be same scale in black ink on white paper, of the same size and weight as the Contract plans. Submittal of electronic plans data in lieu of hard copy plans is preferred and may be approved by the CEI if compatible with the CFX software. Specific plans content requirements include but may not be limited to the following:

(a) The Contract plan view shows the center line location of each facility installed, or installed and placed out of service, to an accuracy of 1 inch at the ends and other points physically observed in accordance with the bore path report.

(b) As directed by the CEI, provide either a profile plan for each bore path, or a cross-section of the roadway at a station specified by the CEI, or a roadway centerline profile. Show the ground or pavement surface and crown elevation of each facility installed, or installed and placed out of service, to an accuracy within 1 inch at the ends and other exposed locations. On profile plans for bore paths crossing the roadway show stationing of the crossing on the Contract plans. On the profile plans for the bore paths paralleling the roadway, show the Contract plans stationing. If the profile plan for the bore path is not made on a copy of one of the Contract profile or cross-section sheets, use a 10 to 1 vertical exaggeration.

(c) If, during boring, an obstruction is encountered which prevents completion of the installation in accordance with the design location and specification, and the product is left in place and taken out of service, show the failed bore path along with the final bore path on the plans. Note the failed bore path as "Failed Bore Path - Taken Out of Service". Also show the name of the Utility owner, location and length of the drill head and any drill stems not removed from the bore path.

(d) Show the top elevation, diameter and material type of all utilities encountered and physically observed during the subsoil investigation. For all other obstructions encountered during a subsoil investigation or the installation, show the type of material, horizontal and vertical location, top and lowest elevation observed, and note if the obstruction continues below the lowest point observed.

(e) Include bore notes on each plan stating the final bore path diameter, product diameter, drilling fluid composition, composition of any other materials used to fill the annular void between the bore path and the product, or facility placed out of service. Note if the product is a casing as well as the size and type of carrier pipe placed within the casing as part of the Contract work.

555-7 Basis of Payment.

Payment will be full compensation for all work specified in this Section, including all installations, from plan point of beginning to plan point of ending (i.e. pull box) at plan depth, product, tracking conductor, removal of excavated materials and spoils, removal and disposal of drilling fluids, backfilling, and complete restoration of the site. Bundled product in a single bore will be paid for as a single bore based on the required drill bit head or back reamer head size. Separate payment shall not be made for individual products in a bundle. Note that a single pay item is utilized for all back reamer sizes.

The installation and attachment of tracking conductors (wire or tape) will be included in the cost of the bore and will not be paid for separately.

No payment will be made for failed bore paths, injection of flowable fill, products taken out of service or incomplete installations.

No payment will be made for directional boring until a Bore Path Report has been delivered to the CEI.

Payment is incidental as stated in Section 638-3.2.1.1 Directional Bore and Section 638-5 Measurement of Payment.

END OF SECTION 555

SECTION 600
INTELLIGENT TRANSPORTATION SYSTEM (ITS)
TECHNICIAN CERTIFICATION REQUIREMENTS

600 DESCRIPTION

It is the intention of the Central Florida Expressway Authority (CFX) to have the most qualified individuals working on CFX owned facilities at all times. Therefore, the Contractor shall provide certified qualifications of all personnel working in and around CFX ITS facilities for maintenance, repair, troubleshooting, testing and any other condition in which a Contractor shall come into contact with existing or proposed CFX ITS components and infrastructure within the project limits. This requirement shall be anytime the Contractor or its subcontractors work near or within the CFX right of way. Devices and components covered by this specification shall include but are not limited to: CCTV Cameras, Dynamic Message Signs, Data Collection Sensors, Traffic Monitoring Stations, Fiber Optic Cable, Locate Equipment and all network devices.

600-1 CERTIFICATION OF INDIVIDUAL TECHNICIANS

600-1.1 *Individual Technician Responsibility*

In order to facilitate CFX's intent of quality work on a consistent basis during all phases of construction, individual technician certifications shall be required. CFX places emphasis on individual technical accountability and on sending qualified personnel instead of delegating a non-certified technician to complete the task. Training shall be scheduled within thirty (30) days of receiving the approved shop drawings for the ITS devices and prior to any ITS related work discipline taking place. After the completion of the training the Contractor shall submit certifications received from the training for every technician that attended the class. All certifications shall be current and if set to expire within the Contract period arrangements shall be made to be re-certified thirty (30) days prior to expiration. Only certified technicians will be regarded as qualified and be able to work on the ITS activity they have been certified in.

600-2 INTELLIGENT TRANSPORTATION CERTIFIED TRAINING

600-2.1 *Contractor Provided Education, Training and Testing Requirements*

It is the intent of CFX to have the most qualified and trained technical staff available working on any ITS discipline throughout its system. Therefore, all required technician certifications shall be the responsibility of the Contractor to acquire prior to beginning any ITS work. All education and training that is needed to fulfill the requirements as defined in this specification shall be administered through a CFX approved vendor or nationally recognized training facility approved in writing by CFX. CFX has established training seminars to be available from all equipment vendors to cover major ITS equipment and the fiber optic network. Any future equipment assigned to the system that is not contained in this specification does not relieve the Contractor from prior training and certification. The

Contractor shall in all cases be qualified through proper training to install, troubleshoot, test and maintain all ITS equipment successfully as it was intended to operate. The training shall be designed to familiarize the technicians with the design, installation, operation, troubleshooting and maintenance of the ITS equipment and the overall system. The training shall also cover functionality, theory of operation, calibration, testing, performance and operating parameters. Training shall consist of classroom time, field training, hands on training and a skill assessment test administered by the vendor. A passing grade shall be required in order to receive an industry approved certification recognized by CFX. If for any reason the technician does not pass the skill assessment, CFX shall not be liable for any additional costs incurred for the re-certification. All training shall be provided at CFX Headquarters and/or field locations within the CFX system.

600-2.2 *ITS Specialized Training Certification Requirements*

The following ITS devices used on the system are required to have individual technician certifications prior to any work being performed as outlined in 600-1; Certifications of Individual Technicians. It shall be mandatory that each technician assigned to a specific ITS discipline shall be certified and provide proof of that certification as stated in 600.1.1.

- a) Traffic Monitoring Station (TMS) – *Wavetronix Smart Sensor HD, Click! 201 and 202 units*; Wavetronix or its certified vendor provides training to enable technicians to become skilled during installation, configuration, testing and troubleshooting. CFX measures speed, volume and classification and uses this data to help manage the system to its highest level of efficiency. This certification is valid 2 years from date of issue. All technicians shall hold a valid sensor certification at all times while working on this project.
- b) Data Collection Sensor (DCS) – *Neology model 6204* and all incidental equipment. *Yagi directional antenna*; 3M or its certified vendor provides training to enable technicians to become skilled during installation, configuration, testing and troubleshooting. CFX uses data provided by the DCS to help manage the system to its highest level of efficiency. This certification is valid 2 years from date of issue. All technicians shall hold a valid sensor certification at all times while working on this project.
- c) Close Circuit Television (CCTV) - *TKH HSD820H3-E CCTV* and *[MG]² Camera Lowering System*. TKH and [MG]² or their certified vendors provide training to enable technicians to become skilled during installation, configuration, testing and troubleshooting. CFX uses CCTV to help manage the system utilizing streaming pan, tilt and zoom capabilities in its video feeds. This certification is valid 1 year from date of issue. All technicians shall hold a valid sensor CCTV certification and valid [MG]² certification at all times while working on this project. It shall be noted [MG]² as part of their training shall conduct a field hands-on demonstration once the first pole containing a lowering device has been installed on all applicable projects. The Contractor shall adjust their CPM schedule accordingly to account for this portion of the training.
- d) Dynamic Message Boards (DMS) – *Daktronics 1, 2 and 3-line full matrix DMS, ADMS, Front access and walk in, amber and full color*. Daktronics provides training to enable

technicians to become skilled during installation, configuration, testing and troubleshooting. CFX uses DMS to provide information to motorists so they can make informed decisions during their travel. This certification is valid 2 years from date of issue. All technicians shall hold a valid DMS certification at all times while working on this project.

- e) Fiber Optic Training; The Contractor shall be industry trained and certified in the installation, testing and troubleshooting of the fiber optic cable system and network system including Layer II field switch knowledge and basic integration and configuration concepts. This shall include any incidental materials needed for a full and successful deployment. The technician shall be able to test, read, record, analyze and troubleshoot a fiber optic cable using an optical time domain reflectometer (OTDR) or light source. The technicians shall understand fiber optic cable theory and all components of the cable. The technician shall be proficient at splicing, repairing and having certified calibrated equipment on hand at all times. The technician shall understand budget loss and CFX minimum acceptable splice loss requirements. See Specification Section 633 Fiber Optic Specification for additional requirements. A certification by “Light Brigade”, “Corning Lan 200, 300 or 400” or other CFX approved training vendor shall be required and held at all times while working on the CFX system.
- f) Locate System and Equipment – *Radiodetection RD8100 Locator*; Staking University provides training on the Radiodetection Locate Equipment. This training enables the technician to become skilled on the use of locate equipment and the LMS system used by CFX. This certification is valid for 2 years from the date of issue. All technicians providing locates for their respective projects shall hold a valid certification at all times while working on the project.

600-2.3 ITS Training Certification Syllabus

Traffic Monitoring Station (TMS) – *Wavetronix Smart Sensor HD*

Sensor Installation Certification	Sensor Configuration Testing	Onsite HD Setup
Lesson 1: Installation	Lesson 1: Sensor Settings	HD Set up and Configuration
<ul style="list-style-type: none"> • Installing the Sensor • Knowledge Review 1 	<ul style="list-style-type: none"> • Installing and Connecting to Sensor • Communication Settings • Advanced Settings • Knowledge Review 1 	<ul style="list-style-type: none"> • Each student walks thru set and configuration. • Walk thru testing procedure. • Q & A
Lesson 2: Connecting Surge Power and Protection	Lesson 2: Lane Setup: Sensor Alignment	

<ul style="list-style-type: none"> • Connecting Surge Protection • Installing the Power Plant • Knowledge Review 2 	<ul style="list-style-type: none"> • Sensor Alignment • Knowledge Review 2
Lesson 3: Sensor Software	Lesson 3: Lane Setup: Lane Configuration
<ul style="list-style-type: none"> • Installing Sensor Software • Knowledge Review 3 	<ul style="list-style-type: none"> • Icons • Sidebars • Edit Area • Knowledge Review 3
Lesson 4: Communication	Lesson 4: Lane Setup: Lane Verification
<ul style="list-style-type: none"> • General Communication • Serial Communication • Modem Communication • Internet Communication • Virtual Communication • Sensor Alignment • Knowledge Review 4 	<ul style="list-style-type: none"> • Icons • Sidebars • Edit Area • Knowledge Review 4
Skill Assessment	Lesson 5: Data Setup and Collection
	<ul style="list-style-type: none"> • Interval and Event Logging • Approaches • Loop Emulation • Bin Definitions • Date and Time • Data Push • Data Storage and Download • Knowledge Review 5
	Lesson 6: Tools
	<ul style="list-style-type: none"> • Backup/Restore and Licensed Features • Knowledge Review 6
	Skill Assessment

Dynamic Message Boards - Daktronics

Dynamic Message Boards (DMS) – Daktronics, ADMSDMS Theory of Operation	DMS Configuration and Testing	DMS Maintenance
Lesson 1: Product Introduction	Lesson 1: Controller functionality	Lesson 1: Service & Diagnostics

<ul style="list-style-type: none"> • Product overview • Site expectations 	<ul style="list-style-type: none"> • Comm ports • Power, reset, local/remote switches 	<ul style="list-style-type: none"> • Accessing the DMS • Safety
Lesson 2: Component description	Lesson 2: Logging in	Lesson 2: Preventative Maintenance
<ul style="list-style-type: none"> • Traffic cabinet equipment • DMS equipment 	<ul style="list-style-type: none"> • Password • Local/remote access 	<ul style="list-style-type: none"> • Cleaning • Power /ground checks
Lesson 3: Power requirements	Lesson 2: Controller configuration	Lesson 3: Troubleshooting
<ul style="list-style-type: none"> • Wire connections • First time fire up 	<ul style="list-style-type: none"> • Navigating the Menu • Peripheral configuration 	<ul style="list-style-type: none"> • Identifying issues • Thought process
Lesson 4: Grounding requirements	Lesson 4: Vanguard V4 Software	Lesson 4: Component Replacement
<ul style="list-style-type: none"> • Requirements • Grounding meter functions 	<ul style="list-style-type: none"> • System setup • Diagnostics • Content creation 	<ul style="list-style-type: none"> • Part number identification • Part addressing • 7-segment error codes
Skill Assessment	Lesson 5: Testing	Skill Assessment
	Field Test Procedure	
	Skill Assessment	

DCS Readers - Neology 6204 Reader Training

6204 Overview	Reader/Antenna Installation	Reader Operation
Lesson 1: Reader overview	Lesson 1: AVI Antennas overview	Lesson 1: Basic Operation with RST
<ul style="list-style-type: none"> • Reader Hardware • Reader software 	<ul style="list-style-type: none"> • Antenna Specifications • Technical Description • Typical Applications • Electrical Installation • Mechanical Installation • Radiation Pattern • Mechanical Specifications • Environmental Specifications • Antenna Installation 	
Lesson 2: Reader Equipment Installation	Lesson 2: 6204 Reader Installation	Lesson 2: Deploy Reader Operation RCT

<ul style="list-style-type: none"> • Mechanical Installation • Electrical Installation • Connecting the Serial Port • Connecting and Configuring the Ethernet Port • Connecting Digital Inputs/Outputs • Connecting the Power 	<ul style="list-style-type: none"> • Reader Installation Scenarios • Reader Attenuation 	
Lesson 3: Reader Startup Tool	Lesson 3: Cable Termination	Lesson 3: Error Handling
<ul style="list-style-type: none"> • Installing RST Software • Windows 7 setup • RST • Initial Reader Setup • Basic Operation • RCT • Reader Specification • Environmental Specification • AC/DC Power Adapter Specification • RS-232 Specification • Digital Input/Output • Ethernet LAN Specifications • 3M Toll Antenna Specification • Bulkhead Connector Pinout 	<ul style="list-style-type: none"> • How to Terminate N Connectors • Best Practice on Cable Termination • RF cable Specifications • LMR 400 • LMR 600 • LMR 900 • Cable length recommended 	
Lesson 4: Safety Instructions		Lesson 4: Information Messages
<ul style="list-style-type: none"> • Power Disconnect Device • RF Safety • Electrostatic Discharge • Regulatory Compliance 		
<ul style="list-style-type: none"> • Reader Troubleshooting 	<ul style="list-style-type: none"> • Reader Protocols 	Questions
Lesson 1: Different Error Messages	Lesson 1: Reader Protocols	

<ul style="list-style-type: none"> • Error Handling • Critical Errors • Major Errors • Warnings • Informational Messages 	<ul style="list-style-type: none"> • Reader Different Interfaces • Reader Commands • Reader Behavior • Embedded Reader Applications • Tag Protocol Support • interpreting Reader Logs 	
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Notes:

This course was made to train people with experience in the field of radio frequency or electronic tolls. People without this education will have to take core curriculum in RFID. Skill assessment to be conducted at the conclusion of the course. A pass or fail will result based on the individual's performance.

CCTV CAMERA – TKH IP PTZ Camera

CCTV Camera – TKH IP PTZ Dome Series Certification Syllabus		
Camera Installation Certification	Camera Configuration	Trouble-Shooting Certification
Lesson 1: Installation	Lesson 1: Network Settings	Lesson 1: Theory of Operation
<ul style="list-style-type: none"> • Installing the Camera, Mounting and Cabling • Knowledge Review 1 	<ul style="list-style-type: none"> • Configuring network settings • Knowledge Review 1 	<ul style="list-style-type: none"> • Theory of Operation • Knowledge Review 1
Lesson 2: Connecting Power, Audio, Alarms and Network Cabling	Lesson 2: Basic Camera Settings	Lesson 2: Testing Video, Power and Network Connection
<ul style="list-style-type: none"> • Connecting Power cables • Connecting Audio cables • Connecting I/O cables • Connecting Ethernet cables • ECO Plug SFP Basics • Knowledge Review 2 	<ul style="list-style-type: none"> • Camera Block Settings • Pan/Tilt/Zoom Settings • Presets and Preset Titles • On-Screen Text Display Settings • Zones Settings • Image Stabilization Setting • General Video Settings • Knowledge Review 2 	<ul style="list-style-type: none"> • Local Video Testing • Main Cabinet Testing • Remote Communication Testing • Knowledge Review 2
Lesson 3: Camera Software	Lesson 3: Advanced Camera Settings	Lesson 3: Identifying Issues Using Camera Software
<ul style="list-style-type: none"> • Installing TKH Device Manager • Knowledge Review 3 	<ul style="list-style-type: none"> • Device Management • Video Encoding Settings • Unicast and Multicast configuration • Audio Settings • Contact Closure settings • PTZ Settings • Edge Recording configuration • Knowledge Review 3 	<ul style="list-style-type: none"> • TKH Device Manager Software troubleshooting • Check Network Settings • Check Video Stream Settings • Check PTZ Control • Verify Video Quality • Knowledge Review 3

Lesson 4: Video Streaming	Lesson 4: VCA Settings	Lesson 4: Maintenance Check
<ul style="list-style-type: none"> • Video Compressions Basics • Unicast vs Multicast • Knowledge Review 4 	<ul style="list-style-type: none"> • Video Motion Detection • Image Quality Monitor • Tampering Detection • Events Management • Knowledge Review 4 	<ul style="list-style-type: none"> • Dome cover installation • Rubber boot installation • Mounting Seals Installation • Camera Block Calibration • Knowledge Review 4

CCTV CAMERA – Cohu IP PTZ Dome Camera

CCTV Camera – CohuHD Costar HD25-5000 Certification Syllabus		<i>CohuHD Costar</i>
Camera Installation Certification	Camera Configuration	Trouble-Shooting Certification
Lesson 1: Installation	Lesson 1: Software Settings	Lesson 1: Theory of Operation
<ul style="list-style-type: none"> • Installing the Camera • Knowledge Review 1 	<ul style="list-style-type: none"> • Communication Settings • Knowledge Review 1 	<ul style="list-style-type: none"> • Theory of Operation • Knowledge Review 1
Lesson 2: Connecting to Surge Protection	Lesson 2: Basic Camera Settings	Lesson 2: Testing Video, Data, and Power
<ul style="list-style-type: none"> • Connecting Surge Protection for Video, Power, and Data • Knowledge Review 2 	<ul style="list-style-type: none"> • Communication Settings • Pan/Tilt Settings • Presets and Preset Titles • On-Screen Text Display Settings • Sectors and Zones Settings • Knowledge Review 2 	<ul style="list-style-type: none"> • Local Testing • Main Cabinet Testing • Remote Communication Testing • Knowledge Review 2
Lesson 3: Camera Software	Lesson 3: Advanced Camera Settings	Lesson 3: Identifying Issues Using Camera Software
<ul style="list-style-type: none"> • Installing Camera Software • Knowledge Review 3 	<ul style="list-style-type: none"> • Camera DSP Settings • Knowledge Review 3 	<ul style="list-style-type: none"> • Software • Knowledge Review 3
Lesson 4: Video	Skill Assessment	Lesson 4: Maintenance Check
<ul style="list-style-type: none"> • IP-Based Video Basic • Analog NTSC Video Basics • Knowledge Review 4 		<ul style="list-style-type: none"> • Pressure Check • Knowledge Review 4
Lesson 5: Communication		Skill Assessment
<ul style="list-style-type: none"> • Ethernet Communications Basics • RS422 Data Communications 		

<ul style="list-style-type: none"> • RS232/RS422 Data • Converter USB/RS232 Converter Knowledge Review 5 		
Skill Assessment		

Camera Lowering Systems – MG Squared Camera Lowering Systems (MG2 or [MG]²)

Lowering Device Basics	New Installation Overview	Operation, Maintenance & Troubleshooting
Introduction of Lowering Device	Overview of typical installations of CLD onto Steel or Concrete Poles and what is expected by the original installation contractor	Overview of Operation of CLD, Maintaining CLD, and Troubleshooting CLD
<ul style="list-style-type: none"> • Basic Components • 5 Operation Stages • Integral System • External System • Outdoor Field Observation of first Lowering Device Installation during construction 	<ul style="list-style-type: none"> • Preparing for Installation • Review of Installation Manual and installation procedure • Installation Tips/Tricks not covered in the manual • Review Operation & Safety (Winch/Lowering Tool) • Review of common mistakes made by installation contractors which will impact a maintenance contractor 	<ul style="list-style-type: none"> • 5 Operation Stages • How to Attach Winch properly and safely • Raising and Lowering of CLD • Inspection of key components • Maintenance of key components • Cleaning and Lubricating of key components • Troubleshooting of most common issues/scenarios
		Field Observation by MG Squared of Maintenance Contractor Operating CLD
		<ul style="list-style-type: none"> • MG2 Factory Representative to observe maintenance contractor safely/properly: attach winch to pole, attach winch cable to lowering cable, disconnect (lower) and reconnect (raise) CLD with the winch. Observe proper removal of winch from pole.

Fiber Optic Training Course – Precision Contracting Services, Inc. (PCS)

CONTENTS

Legend: L = Lecture D = Demonstration H = Hands-On

Day One (1) Overview		
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B. Safety Precautions		L
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D. Placement Techniques		L
E. Theory and Principals of Splicing		L, D
F. Splicing Methods		H
<i>Question & Answer Session</i>		
G. Fiber Optic Terminations and Splicing Review		L, D
H. Fiber Optic Cable System Testing and Documentation		L, D,
I. Fiber Optic Loss and Distance Measurements		H
		H
<i>Question & Answer Session</i>		
Day (1)		
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D. Placement Techniques		
1. General Considerations		
2. Aerial – Lashed		
3. Aerial – Figure “8”		
4. Underground – In-Duct		
E. Theory and Principles of Splicing		

<ol style="list-style-type: none"> 1. Definition of Splicing – Fusion 2. Definition of Splicing – Mechanical
<p>F. Splicing Methods – Pigtails or Through</p> <ol style="list-style-type: none"> 1. Splicing – Fusion <ul style="list-style-type: none"> - Heatshrink 2. Splicing – Mechanical 3. Splicing - Mass
<i>Question and Answer Session</i>
Fiber Optic Terminations and Splicing Review
<p>G. Fiber Optic System Testing and Documentation</p> <ol style="list-style-type: none"> 1. Systemwide Splice Diagrams 2. Systemwide Attenuation Calculations – Budget, Actual 3. Optical Time Domain Reflectometer (OTDR) Traces
<p>H. Fiber Optic Loss and Distance Measurements</p> <ol style="list-style-type: none"> 1. OTDR Testing <ul style="list-style-type: none"> - Reel Testing - OTDR Bi-Directional Testing
<i>Question and Answer Session</i>
<p><i>Certifications will be issued to all attendees after the training class</i></p> <p><i>Certifications will be valid for 12 months (1 year) from the date of the training class</i></p>

Locate System and Equipment – Staking University

Locate Device Basics	How to Use Locating Instruments	Conclusion
Lesson 1: Introduction of Locate Devices	Lesson 2: Use of Current	Lesson 4: Current – Shape - Endpoint
<ul style="list-style-type: none"> • Methods to Energize Target Line • Methods to Receive Transmitter’s Energy • Review Locate Energy flow basics 	<ul style="list-style-type: none"> • Theory of Current Flow Basics • 4 Factors the influence Current Flow • Assessing Current Level along cable 	<ul style="list-style-type: none"> • Review of Basic Operation of Locate Devices • Review Current Flow Theory • Review AC Frequencies that can be used • Depth estimation • Passive Signals • Field Endpoints
	Lesson 3: Use of Receiver and Transmitter	
	<ul style="list-style-type: none"> • Receiver: 5 ways Transmitter energy leaves cable 	

	<ul style="list-style-type: none"> • Transmitter: 4 ways to change tracing results • Practical Use for both Devices 	
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600-2.4 *Certification Validity and Expiration*

All ITS technicians' work efforts shall demonstrate proficiency in the following work types in order to be certified as meeting the qualifications to work on this project. All certifications shall be applicable to each ITS component or its specialized discipline and shall require re-certification per the vendor's recommendation. If an individual's certification is about to expire it is the responsibility of the individual technician to coordinate a renewal prior to the expiration date. Once a certification expires that technician shall not be permitted to work in or around CFX facilities until a time they have renewed or acquired their certification for the applicable specialized discipline has been issued.

600-3 MEASUREMENT AND PAYMENT:

The training classes shall be measured for payment for each class authorized by CFX and furnished by the Contractor. Each class shall support up to twenty (20) people of which up to ten (10) shall be CFX designated representatives.

600-4 BASIS OF PAYMENT:

The unit price bid for all training classes shall include the cost of furnishing all labor, vendor coordination, training materials, handouts, tools, field visits/training and any other incidental materials to complete a fully certified training class as described in this specification. Payment for all training documentation as specified herein shall be included under the following items:

- 600-100 Inspector Training for Traffic Monitoring Station (EA)
- 600-101 Inspector Training for Data Collection Sensors (EA)
- 600-102 Inspector Training for Closed Circuit Television System and Camera Lowering Device (EA)
- 600-103 Inspector Training for Dynamic Message Signs (EA)
- 600-104 Inspector Training for Fiber Optic Network (EA)
- 600-106 Inspector Training for Locate System and Equipment (EA)

END OF SECTION 600

SECTION 603A
CONTINUOUS OPERATION OF EXISTING ITS DEVICES

603A-1 DESCRIPTION

All existing CFX Intelligent Transportation Systems (ITS) components and infrastructure (including power circuits and fiber optic cable) within the project limits shall be protected by the Contractor and kept in full operating condition from Project Notice to Proceed until Project Final Acceptance, unless otherwise noted in the plans or specifications. Devices and components covered by this specification shall include but not limited to; CCTV Cameras, Dynamic Message Signs, Data Collection Sensors, Traffic Monitoring Stations, Wrong Way Driving systems and all network devices.

603A-2 CONTINUOUS OPERATION OF EXISTING SYSTEM

603A-2.1 Minimizing ITS System Down-Time

The Contractor shall schedule all work such that operational impacts to the CFX ITS System are minimized. The Contractor shall schedule all work to minimize the time that any existing fiber optic communication circuit, power circuit, or ITS device is out of service. All construction and troubleshooting activities shall be coordinated through CFX or their designated representative prior to commencing work. An existing ITS device or circuit shall only be disconnected or disrupted in order to perform work specifically related to upgrading or relocating the ITS device or communication system as described in the plans. The Contractor shall not disconnect any system or device without advance approval from CFX. The Contractor shall not relocate, disrupt, or disturb any ITS infrastructure within the project limits, including power and fiber optic communication circuits, without advance approval from CFX. The Contractor shall note that power and fiber optic infrastructure and communication circuits within the project limits may affect the operation of devices outside the project limits.

The Contractor shall submit a written plan outlining the Contractor's proposed method to protect and preserve the operation of the existing ITS system to CFX for approval. This plan shall be identified as the Method of Procedure (MOP). The MOP plan shall be submitted for CFX approval four weeks prior to system-affecting or device-affecting work. This plan shall be consistent with the construction phasing of the overall project. The Contractor's MOP Plan shall demonstrate an absolute minimum of downtime or disruption to existing system operations. Whenever possible, disruptions to existing devices shall be planned to affect one device at a time and not disrupt multiple devices simultaneously. The Contractor shall verify the entire Locate Management System (LMS) within the project limits prior to the beginning of construction. Any discrepancy in LMS performance shall be noted in a report and promptly turned over to CFX for remedial action. The entire LMS shall be preserved and operate with no disruption. The contractor shall perform a check of the LMS system on a monthly basis within the project limits and provide a report to CFX.

The Contractor shall conduct a pre-work meeting with CFX and its representatives to discuss the MOP Plan to protect and preserve operation of existing devices and to coordinate their work with CFX. A pre-work meeting shall be required prior to any affecting work and shall be conducted two weeks prior to beginning work. After written approval of the MOP Plan by CFX, the Contractor shall notify CFX 48 hours in advance of the system-affecting work. No more than one ring from fiber optic network (FON) shall be taken out of service for repair or upgrade at any given time.

603A-2.2 Troubleshooting and Repair of Existing ITS Devices

If an existing ITS device within the Project construction limits malfunctions, the Contractor shall troubleshoot the device and provide a full report consisting of troubleshooting methods and root cause of the malfunction. The contractor shall notify the CEI prior to beginning troubleshooting activities to allow for the CEI to witness and document all steps taken during the troubleshooting process. If the malfunction of the device is due to the malfunction of equipment installed, relocated, or modified by the Contractor or due to the Contractor's actions, the Contractor shall replace or repair the equipment with new equipment, not refurbished at no cost to CFX. If an existing ITS device malfunctions, the construction Contractor shall coordinate with the CFX ITS Maintenance contractor to obtain spare parts and replace the faulty equipment. All faulty equipment shall be turned over to the ITS Maintenance Contractor.

Any existing or new equipment damaged by the Contractor during the course of Project shall be repaired or replaced with like new equipment to the satisfaction of CFX at the Contractor's expense.

To the extent that the cause of an issue is unable to be determined by the Contractor, CFX reserves the right to dispatch the CFX ITS Maintenance Contractor to troubleshoot the problem. The Contractor shall be held responsible for all costs associated with troubleshooting the issue.

Upon notification to repair or replace ITS devices, the Contractor shall complete repairs within forty-eight (48) hours of notification. The Contractor shall utilize pre-qualified personnel, that have been certified per CFX Technical Special Provision 600; ITS Technical Certification Requirements to respond to all trouble calls and repair any malfunctions. A permanent telephone number where trouble calls can be received on a 24-hour basis shall be provided to CFX. In the event the Contractor does not complete repairs within forty-eight (48) hours of notification, CFX reserves the right to repair the equipment with their designated agent and hold the Contractor responsible for all costs related to the repair of the site.

603A-2.3 Preventive Maintenance by ITS Maintenance Contractor

During project construction, CFX reserves the right to perform preventive maintenance on all existing ITS devices within the project limits. CFX will provide advance notice of preventive maintenance activities to the Contractor. The Contractor shall assign a qualified technician to be on-site to witness each preventive maintenance activity.

603A-2.4 Continuous Operations of Traffic Monitoring Stations during Construction

During project construction, the Contractor shall be responsible for ensuring that project construction activities do not interfere with or affect the continuous collection and transmission of real time system data to CFX. This data shall include vehicle volume, spot speeds, and classification statistics. Proper planning, including a Method of Procedure (MOP) Plan, shall be provided two-weeks prior to any planned construction activity defining any changes to the existing detection zones due to any construction activities. A forty-eight (48) hour notice shall be provided to CFX prior to commencement of construction and any lane shift that will affect the traffic monitoring station detection zones. Any lane shifts lasting more than forty-eight (48) hours shall require the TMS to be re-calibrated to compensate for any change in lane geometrics in a way that a seamless transition in real time data is maintained. The re-calibration of the TMS shall be completed within 48 hours of any lane shifts. In the event the Contractor does not properly calibrate real time data collecting equipment after the forty-eight (48) hour deadline, CFX reserves the right to calibrate the equipment with their designated agent and hold the Contractor responsible for all costs related to the calibration of the site. Prior to final acceptance, any temporary detection set up shall be replaced in its entirety and properly re-calibrated with the permanent system that meets the minimum Specifications of Section 664, as shown in the plans.

603A-2.5 Continuous Operations of Data Collection Sensors during Construction

During project construction, the Contractor shall be responsible for ensuring that project construction activities do not interfere with or affect the continuous collection and transmission of real time vehicle travel time data to CFX. This data shall include automated vehicle identification (AVI) tag read data from the CFX system of data collection sensors (DCS). Proper planning, including a MOP Plan, shall be provided two-weeks prior to any planned construction activity defining any changes to the existing DCS detection zones due to any construction activities. A forty-eight (48) hour notice shall be provided to CFX prior to commencement of construction and any lane shift that will affect the DCS detection zones, including the removal or relocation of existing sites. Any lane shifts lasting more than forty-eight (48) hours shall require the DCS antennas to be re-aimed to compensate for any change in lane geometrics in a way that a seamless transition in real time data is maintained. The re-aiming of the DCS shall be completed within 48 hours of any lane shifts. In the event the Contractor does not properly re-aim DCS antennas after the forty-eight (48) hour deadline, CFX reserves the right to re-aim the antennas with their designated agent and hold the Contractor responsible for all costs related to the live data accuracy of the site. Prior to final acceptance, any temporary detection set up shall be replaced in its entirety with the permanent system and calibrated that it meets the minimum Specifications of Section 663, as shown in the plans.

603A-2.6 Continuous Operations of Wrong Way Driving systems during Construction

During project construction, the Contractor shall be responsible for ensuring that project construction activities do not interfere with or affect the continuous monitoring for wrong way

drivers entering the expressway system and transmission of alerts and video data to CFX. This data shall include detection alerts, pictures and activation events. Proper planning, including a Method of Procedure (MOP) Plan, shall be provided two-weeks prior to any planned construction activity defining any changes to the existing wrong way detection zones due to any construction activities. A forty-eight (48) hour notice shall be provided to CFX prior to commencement of construction and any ramp work that will affect the wrong way driving system operation. Any construction work affecting the wrong way driving system operations shall require the WWD detection to be analyzed and re-calibrated or replaced using a focused detection method, similar to the laser detection to compensate for geometric changes in order to maintain the WWD system operations. At no time during construction shall there be an interruption in service. Any work required to adjust, calibrate or replace the detection of the WWD system shall be performed by a TAPCO representative at the Contractor's expense. Once repairs and/or adjustment to the calibration have been completed, TAPCO and a CFX designated agent shall sign-off on acceptance of the system as 100% operational. The re-calibration of the WWD detection shall be completed within 48 hours of any work negatively affecting the operations. Prior to final acceptance, any temporary detection set up shall be replaced in its entirety with the permanent system that meets the minimum Specifications of Section 740, as shown in the plans. The contractor shall coordinate forty-eight (48) hours in advance, with CFX representatives, any work or construction that will cause false alarms in the wrong way driving system.

603A-3 BASIS OF PAYMENT

The lump sum price shall include the cost of furnishing all labor, materials, tools, and equipment necessary for the Contractor to protect, safeguard, and sustain the operation of existing ITS devices from Project Notice to Proceed to Project Final Acceptance.

603A-100 Continuous Operation of Existing ITS Devices (LS)

END OF SECTION 603A

SECTION 611A
ITS DEVICE ACCEPTANCE PROCEDURES

611A-1 DESCRIPTION

All equipment and materials furnished and/or installed by the Contractor shall be subjected to monitoring and testing to determine conformance with all applicable requirements, and to ensure the orderly implementation and maintenance of the system. Prior to the start of any test activities, the Contractor shall furnish a Test Plan based on the equipment manufacturers recommendations with procedures that shall demonstrate the system and component operations are in conformance with the Technical Specifications. The Test Plan shall be subject to the review and approval of CFX. The Test Plan submittal shall, unless otherwise specified by CFX, shall include the following test procedures based on the requirements of this specification and the applicable Technical Specifications:

1. Stand-Alone Test Plan
2. System Test Plan

The Contractor shall furnish all necessary test equipment. The costs of testing shall be incidental to the individual pay items; no additional compensation will be made. This shall include the on-site presence of equipment manufacturers to ensure an acceptable set-up, integration, configuration, testing and deployment of any system or subsystem as necessary. The times and dates of these tests shall be approved by CFX or its designated representative and at least seven (7) calendar days' notice shall be provided prior to all testing. CFX reserves the right to observe any testing at its discretion. It is the responsibility of the Contractor to coordinate with equipment manufacturers and other CFX Contractors to resolve integration issues in a timely manner that does not delay the project schedule. No additional compensation will be made for coordination activities between the Contractor and equipment manufacturers or other CFX Contractors during integration.

CFX reserves the right to examine and test any and all equipment and material furnished and/or installed by the Contractor for this project to determine if they are in conformance with these Technical Specifications.

Acceptance procedures may include:

1. Factory Tests
2. Stand-Alone Tests
3. System Tests
4. 90-day Burn-In
5. Final Acceptance

611A-2 QUALITY ASSURANCE AND CONTROL

All equipment and material incorporated in the systems shall be production models and shall be new and of prime quality. They shall reflect the highest standards of design, engineering, manufacturing and workmanship. The design / expected life of the systems and components furnished shall exceed ten (10) years.

Prior to project final acceptance, the Contractor shall provide complete sets of operation and maintenance manuals for all equipment provided under this contract. The manuals shall include complete and accurate details on:

- Equipment description
- Equipment operation and configuration
- Installation procedures
- Performance specifications
- Maintenance, diagnostic and troubleshooting procedures

The Maintenance Manuals shall provide both Mean-Time-Between Failures (MTBF) and Mean-Time-to-Repair (MTTR) information.

All manufacturing operations shall be subjected to a quality assurance and control (QA/QC) program. The Contractor shall be responsible for the work of all sub-Contractors and suppliers and shall replace any equipment that is found to be inconsistent with current standards and practices.

The Contractor's QA/QC program shall be subject to approval by CFX. The Contractor's QA/QC program shall contain the following at a minimum:

- Documentation equivalent to that required for ISO certification
- Equivalent Quality Assurance/Quality Control as defined by ISO 9000 and 9001 as related to procurement, incoming inspection, document, installation and testing.
- Formal QA/QC organization as required by ISO-9000/9001.
- Contractor shall verify that equipment provided under this project is manufactured and tested by the supplier in accordance with ISO 9000/9001 (or equivalent).
- Factory test results and records shall be made available at the request of CFX. Installed equipment will not be accepted until requested manufacturer's factory test data on the delivered product is provided to CFX as may be requested.
- Contractor informal inspection and test records related to the construction shall be provided upon request of CFX. Installed equipment will not be accepted until requested Contractor's inspection and test data on the delivered product is provided to CFX as may be requested.
- All test equipment utilized by the Contractor to test installed equipment shall be in current calibration and calibration shall be managed by the Contractor's QA/QC organization. All test equipment shall have been factory calibrated within one year by the manufacturer and the Contractor shall provide current calibration documentation to CFX or its representatives prior to any testing taking place. If testing has taken place prior to providing

proper and valid calibration documentation to CFX, the testing results shall be invalid and new testing shall be conducted at the expense of the Contractor.

611A-3 INSPECTION

All equipment and material furnished and all work performed in connection with the project shall be subject to inspection by CFX. CFX or its representatives shall have free access to any local facility or area in which work associated with the project is conducted. The Contractor shall ensure that full and sufficient information concerning the quality, specifications of materials, and workmanship to be used on this project are made available to CFX or its representatives.

Inspection by CFX or its representatives shall not relieve the Contractor of their obligation to comply with the requirements of the Plans and Technical Specifications. Any equipment or labor that is found by CFX to be defective or unsuitable prior to Final Acceptance shall be repaired or replaced at the Contractor's expense.

611A-4 TESTS

The Contractor shall demonstrate in the presence of CFX or its representatives that all equipment furnished and installed as part of this project functions in full compliance with the Specifications and Plans. The testing requirements contained within these specifications shall also apply to equipment relocated by the contractor. CFX reserves the right not to witness tests. Such refusal does not relieve the Contractor of the requirement to perform the test.

To demonstrate compliance, a program of testing at the unit, sub-system, and system level is required, as described herein. The tests are separated into factory tests, subsystem tests, a burn-in period, and final acceptance. All test procedures and equipment shall be furnished and maintained by the Contractor.

The Contractor shall submit documentation containing the stand-alone and system Test Plan to CFX for review and approval at least twenty-one (21) calendar days prior to Testing. The Test Plan shall contain test procedures, descriptions of test equipment, report forms, requirements, and expected results. Tests shall not be conducted without prior CFX approval of the Test Plans. Tests shall be performed on approved equipment using approved test procedures. The Contractor shall notify CFX of the test time and location at least seven (7) calendar days in advance of the tests. A copy of each test report shall be submitted to CFX within ten (10) calendar days following the completion of a test.

If requested by CFX, the Contractor shall postpone testing up to seven (7) calendar days. Such requests for postponements shall be expected by the Contractor and shall not be grounds for extensions of completion time.

The Contractor shall not be required to pay any CFX or its representative's expenses for the original witnessing of any test. If, in the judgment of CFX, the system or portions thereof failed to satisfy the requirements of these Technical Specifications and Plans, CFX shall recover from

the Contractor the actual costs incurred for up to two (2) people for each such additional inspection or witnessing of tests.

For material that may not require formal testing, CFX reserves the right to require certifications from the manufacturer of such equipment, software, and material to the effect that it meets all specification requirements.

CFX reserves the right to withhold any payments that may be due should a discovery be made that equipment, software, or material does not meet the requirements of the Technical Specifications and Plans. This includes the expense of up to two (2) CFX representatives to attend additional inspection or witnessing of tests due to failure of these Technical Specifications and Plans testing requirements

CFX approval of test procedures and witnessing of tests shall not relieve the Contractor of the responsibility to provide a completely acceptable and operating system that meets the intent of the Technical Specifications and Plans.

611A-4.1 Factory Tests

No equipment shall be shipped from the factory without certification that it has been tested and meets all requirements of the Technical Specifications, Plans, and the requirements of its own catalog specification sheet. Certification signed by the manufacturer for each item shall be sent to CFX or its representative.

611A-4.2 Stand-Alone Tests for ITS Devices

Stand-alone testing is required for all ITS devices and ancillary equipment installed on this Contract. The test shall, at minimum, demonstrate all stand-alone (non-network) capabilities, proper configuration, calibration and performance of the equipment installed and/or configured by the Contractor. Testing shall demonstrate the equipment is operating to the performance requirements specified in their respective specifications.

The Contractor shall prepare and submit a stand-alone test plan, in consultation with the equipment vendors, for CFX approval prior to testing. The Contractor shall provide all personnel required to conduct testing. The use of CFX personnel to conduct testing (other than witnessing testing) must be requested in writing by the Contractor to CFX. CFX makes no guarantee that support personnel will be made available. Requests shall state why CFX personnel are needed and the schedule for support. If deemed necessary, CFX shall charge the Contractor by withholding payment for consulting services and CFX provided resources that exceed the scope of the contract.

611A-4.3 Stand-Alone Tests for Wrong Way Driving Detection Systems

The following tests shall be performed based on the approved CPM Project Schedule. Testing will be performed to demonstrate the safe and proper construction, configuration, calibration and

performance of the equipment installed and/or configured by the Contractor. Testing shall demonstrate the system is operating to the performance requirements specified in Section 740.

The Contractor shall prepare a test plan in consultation with TAPCO to demonstrate stand-alone performance in accordance with the requirements of this specification. The Contractor shall submit this test plan for CFX approval prior to testing. The Contractor shall provide all personnel required to conduct testing. The Contractor shall be responsible to ensure that TAPCO is on-site and have a primary role in the set-up, integration, configuration, testing and deployment of the system. In addition, TAPCO along with the Contractor and CEI shall sign off on acceptance of the system passing the test plan procedure. A failure of any component or testing requirement during the stand-alone test shall constitute a failure and that portion of the testing shall be re-tested until no exceptions are observed. Use of CFX personnel to conduct testing (other than witnessing testing) must be requested in writing by the Contractor to CFX. CFX makes no guarantee that support personnel will be made available. Requests shall state why CFX personnel are needed and the schedule for support. If deemed necessary, CFX shall charge the Contractor by withholding payment for consulting services and CFX provided resources that exceed the scope of the contract.

611A-4.4 Stand-Alone Tests for Dynamic Message Signs

The following tests shall be performed based on the approved CPM Project Schedule. Testing will be performed to demonstrate the proper configuration, messaging functions and overall performance of the equipment installed and/or configured by the Contractor to ensure the DMS meets the minimum requirements of the manufacturer. The following required guidelines shall demonstrate the DMS is operating to the performance requirements; project specific applicable Section 724, 733 & 734 TSP and Daktronics Field Test Procedure– 2016 edition or later.

The Contractor shall prepare a test plan in consultation with the DMS vendor to demonstrate stand-alone performance in accordance with the requirements of this specification. The Contractor shall submit this test plan for CFX approval prior to testing. The Contractor shall provide all personnel required to conduct testing. Use of CFX personnel to conduct testing (other than witnessing testing) must be requested in writing by the Contractor to CFX. CFX makes no guarantee that support personnel will be made available. Requests shall state why CFX personnel are needed and the schedule for support. If deemed necessary, CFX shall charge the Contractor by withholding payment for consulting services and CFX provided resources that exceed the scope of the contract.

611A-4.5 System Tests

The following tests shall be performed based on the approved CPM Project Schedule. Testing will be performed to demonstrate the capabilities of the equipment furnished by the Contractor in the areas of video communication, data communications, data collection, and camera command and control. These tests require the integration, assembly, and connection of equipment at their permanent field locations by the Contractor. All stand-alone testing must be completed prior to system testing.

The Contractor shall verify that test equipment conforms to interface standards prior to starting the test. The Contractor shall provide all personnel required to conduct testing. Use of CFX personnel

to conduct testing (other than witnessing testing) must be requested in writing by the Contractor to CFX. CFX makes no guarantee that support personnel will be made available. Request shall state why CFX personnel are needed and the schedule for support.

611A-4.5.1 CCTV Video Communications

The video communications test shall demonstrate the capability of the equipment being furnished by the Contractor to transmit video from the cameras to the CFX Headquarters, and the FDOT RTMC using H.264 1080p HD stream (all new deployments) and IP-Video standards. This test shall include the display of switched video in full-screen and quad format on workstations and the ability of the communications to be managed by the latest SunGuide software platform. All streams shall contain the “E-PASS” logo embedded in the image as well as a compass and two lines of characters with information as approved by CFX

611A-4.5.2 CCTV Data Communications

The data communications test shall demonstrate valid communications of digital pan, tilt, zoom, and camera control information from the CFX Headquarters, and the FDOT RTMC to the cameras. Demonstration shall include the use of the latest SunGuide software platform installed on CFX workstations. In addition, the test shall demonstrate MIB communications related to Network Management Software (What’s Up Gold) and associated device monitoring and management.

611A-4.5.3 Data Collection Sensors

The data communications test shall demonstrate valid communications of the DCS system. The tests shall demonstrate that all requirements of Section 663 have been met. The sensors shall communicate to the CFX Data Server. Testing shall demonstrate that tags are being read and time synced with the Data Server.

611A-4.5.4 Traffic Monitoring Stations

The System tests for the traffic monitoring system shall consist of two parts, performed in the following order. Part two of the test shall not begin without successful completion of part one of the test, unless otherwise approved by CFX.

- Part 1: The Contractor shall demonstrate that all TMS sites installed in the field can communicate with and be remotely configured from CFX Headquarters using Wavetronix configuration software. The Contractor shall demonstrate that live traffic data from every site can be viewed remotely at CFX Headquarters using the Wavetronix configuration software.
- Part 2: The Contractor shall demonstrate that all TMS sites installed in the field can communicate with and provide live data to the CFX SunGuide system.

611A-4.5.5 Wrong Way Driving Systems

The data communications test shall demonstrate valid communications of the BlinkLink data communications system/software and the Blinker Beam Radio communications for the operation of the Wrong Way Driving system. The tests shall demonstrate that all requirements of Section 740 have been met. The Contractor shall provide all personnel required to conduct testing. The Contractor is responsible to ensure that TAPCO be on-site and have a primary role in the set-up, integration, configuration, testing and deployment of the system. In addition, TAPCO along with the Contractor and CEI shall sign off on acceptance of the system passing the test plan procedure. A failure of any component or testing requirement during the data communication test shall constitute a failure and that portion of the testing shall be re-tested until no exceptions are observed. Use of CFX personnel to conduct testing (other than witnessing testing) must be requested in writing by the Contractor to CFX. CFX makes no guarantee that support personnel will be made available. Requests shall state why CFX personnel are needed and the schedule for support. If deemed necessary, CFX shall charge the Contractor by withholding payment for consulting services and CFX provided resources that exceed the scope of the contract. The following tasks shall be successfully completed:

- Verification will be confirmed during the communication test that the Florida Department of Transportation (FDOT) Regional Traffic Management Center (RTMC) receives event notifications within the test plan communication threshold.
- Applicable stakeholders receive email alerts of WWD events within the test plan time notification threshold.
- In the event of a power failure, Network Management Software (NMS) receives instant notification through the FON that the system is running in DC backup and emails are pushed out to maintenance.

611A-4.5.6 Dynamic Message Signs

The data communications test shall demonstrate valid communications of the of the Daktronics Vanguard data communications system/software and SunGuide for the operation of the Dynamic Message Sign. The tests shall demonstrate that all requirements of contract plan(s) specific Section 700 series TSP have been met. The Contractor shall provide all personnel required to conduct testing. The Contractor is responsible to ensure that Daktronics representatives or their designated staff be on-site and have a primary role in the set-up, integration, configuration, testing and deployment of the system. In addition, Daktronics or their designated staff along with the Contractor and CEI shall sign off on acceptance of the system passing the test plan procedure. A failure of any component or testing requirement during the data communication test shall constitute a failure and that portion of the testing shall be re-tested until no exceptions are observed. Use of CFX personnel or their designated representative to conduct testing (other than witnessing testing) must be requested in writing by the Contractor to CFX. CFX makes no guarantee that support personnel will be made available. Requests shall state why CFX personnel are needed and the schedule for support. If deemed necessary, CFX shall charge the Contractor by withholding payment for consulting services and CFX provided resources that exceed the scope of the contract.

The following tasks shall be successfully completed:

- Verification will be confirmed during the communication test that the Florida Department of Transportation (FDOT) Regional Traffic Management Center (RTMC) receives DMS event notifications via SunGuide within the test plan communication threshold.
- DMS location is properly mapped on the SunGuide end user interface
- Network Management Software (NMS) talks to the DMS location, receives instant trap notifications through the FON.

611A-4.6 Burn-In Period

A 90-day Burn-In Period shall be required for all equipment furnished and installed as part of this Contract after the successful completion of the System Acceptance Test. All equipment and materials furnished and installed shall function and operate in full compliance with these Technical Specifications and Plans.

If a service-affecting failure occurs which involves loss of video/PTZ signal, DCS site functionality, TMS sensor / data functionality, WWD sensor/radio communications functionality or loss of data communications or DMS communication loss or messaging functionality, the Contractor shall repair or replace the equipment within 24 hours. Any occurrence of inaccurate data as a result of lost or corrupted TMS configuration shall be resolved within 24 hours. Any occurrence of inaccurate detection of the WWD sensors shall be resolved within 24 hours. A single incidence of a lost or corrupted configuration/detection shall not constitute an equipment failure. A second incidence involving the same device shall constitute an equipment failure. Pattern malfunctions (more than one at any given device over a 48 hour period) shall be evaluated for root cause problem and be properly resolved. During the 90-day burn-in period, the downtime due to mechanical, electrical or other malfunctions shall be limited to a maximum total of five (5) calendar days. If the equipment fails to operate for a total of five (5) or more calendar days, the burn-in period shall be restarted. CFX may elect to pause and extend the 90-day burn-in period by the number of days lost by failure and repair time in lieu of restarting the full 90-day burn-in period. CFX, at its sole discretion, may or may not elect to extend contract time to account for extensions of the 90-day burn-in period.

During the Burn-In Period, the final inspection shall be performed. CFX or its representative and the Contractor's representative shall make the final inspection of the system installation.

Corrective action for a failure shall be a part of the burn-in documentation process. CFX will decide the final disposition of the corrective action. If the corrective action requires a reconfiguration of a failed device, the quality assurance representative shall provide the serial number as tracking documentation to prove that all units have been successfully reconfigured or updated. Re-testing will be performed to ensure the adequacy of the corrective action shall be a part of the quality assurance activities. The Contractor shall continue warranty, operation, and present proof of operation worthy of final acceptance. The Contractor shall present the Failure Report Log in demonstration that error rates are within requirements.

611A-4.7 Final Acceptance

Final acceptance of the project will be made after satisfactory completion of the following:

- Stand-alone, system
- 90-Day Burn-In Period
- CFX approval of all test reports and results
- Approval of all delivered project submittals, including documentation
- Comprehensive final field inspection
- Assignment of all warranties to CFX and delivery of warranty documentation
- Approval and delivery of all documentation required under this contract including as-built documentation.
- Demonstration that the system is stable and any failures are within predicted mean time between failures and no intermittent operational conditions.
- All spares ordered under this contract have been turned over to the CFX representative.

Final acceptance notification shall be provided in writing from CFX.

611A-5 WARRANTY

The Contractor shall certify that all equipment furnished and installed performs according to the manufacturer's published specifications. The equipment shall be warranted against defects and/or failure in design, materials and workmanship in accordance with the manufacturer's standard warranty. The Contractor shall assign to CFX all manufacturers' normal warranties and guarantees on all such electronic, electrical and mechanical equipment, materials, technical data, and products furnished for and installed on the project.

The Contractor shall be responsible to repair, replace, and maintain all equipment "on-site" until Project Final Acceptance at no cost to CFX. The Contractor shall be responsible for all on-site repair and replacement costs. This will include all parts, labor, lane closures, equipment, and off-duty law enforcement.

The Contractor shall keep possession of all spare parts furnished under this Contract until Final Acceptance of the Project, at which time they shall be provided to CFX. The Contractor shall utilize any spare parts furnished under this Contract to maintain operation of devices furnished and installed by the Contractor. The Contractor shall restock any spares used in a timely manner with new product.

END OF SECTION 611A

SECTION 612
GEOLOCATION AND DOCUMENTATION OF EQUIPMENT AND
INFRASTRUCTURE

612-1 DESCRIPTION

Contractor shall geo-locate all Intelligent Transportation System (ITS) equipment and supporting infrastructure installed or relocated in accordance with this specification. Documentation as described in the following sections shall be provided for integration into the CFX's OSPInSight Geographic Information System (GIS). ITS equipment and supporting infrastructure shall include but is not limited to the following:

- Closed-Circuit Television (CCTV) Camera Poles
- Traffic Monitoring Station (TMS) Poles
- Poles and/or Structures equipped with Data Collection Sensors (DCS)
- Dynamic Message Sign (DMS) structures
- Wrong Way Driving Equipment and RRFB signs (WWD)
- Equipment cabinets (pole-mounted and base mounted)
- Pull boxes (power and fiber optic)
- Fiber Optic Manholes (FOMH)
- Conduit (power, fiber optic, and data)
- Power meters and power service locations

612-2 GEOLOCATION AND DOCUMENTATION GENERAL

Contractor shall utilize equipment to geo-locate the ITS and provide documentation that meets the following requirements:

- Accuracy for locations of surface-visible features, material, and equipment shall be within 2 feet or better. GPS coordinate data shall be corrected in the unit using real-time correction (coast guard beacon, Virtual Reference Station, or equivalent) or through post-processing (Continually Operation Reference Station or equivalent).
- Data shall be collected using a Position Dilution of Position (PDOP) mask of four (4) or less. Mission planning to verify estimated PDOP for data collection days is recommended. Data for each point shall be collected using 30-point data averaging. Each data point shall be collected using a minimum of four (4) acquired satellites.
- The GPS datum used shall be approved in advance by CFX and clearly indicated in the documentation summary.

- Capture of asset information directly into the GIS unit (using TerraSync (Trimble) or equivalent) is recommended. The GIS unit should utilize a dropdown system as shown in the following Drop-Down List:

<i>GPS Drop-Down List</i>	
Location	Aerial Splice
	Cabinet Base Mounted
	Cabinet on Camera Pole
	Cabinet on DMS Structure
	Cabinet Pole Mounted
	DMS Structure
	Electric Disconnect
	Electric Breaker
	Electric Meter
	Electrical Pull Box
	Fiber Locate
	Fiber Locate Drop Cable
	Fiber Pull Box
	Fiber Pull Box w/splice
	FOMH
	FOMH w/splice
	Other
	Pole
	Power Locate
Type	336 ITS Cabinet
	336S ITS Cabinet
	334 ITS Cabinet
	Southern Mfg. #3 24 inch
	EPB 14" x 23"
	EPB 18" x 18"
	FPB 12" x 18"
	FPB 24" x 36"
	36" round Metal
	39" round Composite
	More Info
Page Reference	Data Collection Form Serial Number
Date	collected by default

- GPS data shall include Latitude, Longitude, Elevation, in decimal degrees to the 6th place.
- Geo-locate data shall be compiled and submitted to CFX in a Map.Info compatible format.
- “Locations” shall be defined as those points required to be tagged with GPS coordinates and will consist of: pull boxes; manholes; splice vaults; ITS device cabinets; enclosures; mainline toll plaza buildings; ramp plaza buildings; ITS power services, ITS power conduit, and ITS power pull boxes; any other location where the conduit is broken or makes a change in direction greater than 45°.

612-3 FIBER OPTIC NETWORK (FON) DOCUMENTATION

Contractor shall provide a written documentation and accompanying diagrams indicating used and available conduit in each “Location” as defined above. Diagrams shall indicate size/type of location, direction of egress, conduit size and whether occupied or empty. Utilized conduit shall indicate the ID of the cable/cables occupying the conduit. Backbone manholes under the paved shoulder should have an existing stub out for future use. The location and orientation of these stub outs shall be included in the “location” detail diagrams.

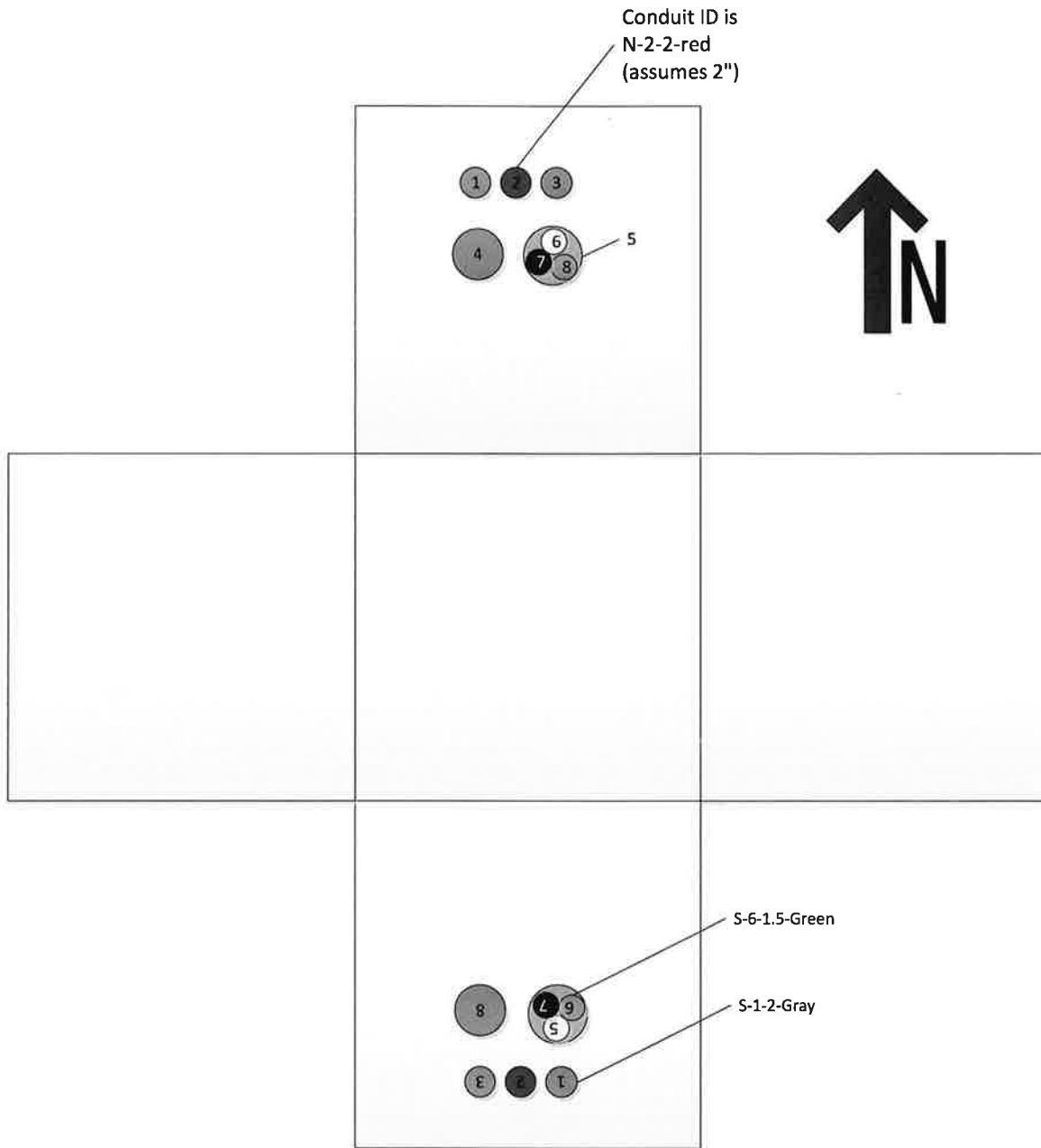
When collecting coordinate data for installed underground conduit, the contractor shall collect coordinate data shots at each manhole, pull box, and conduit bend along the conduit route. The distance between GPS points shall not exceed 100’. If a bend exists within the 100’ spacing, an intermediate GPS point shall be collected at the location of the bend to accurately dimension the conduit path. The coordinate data shots shall include the depth of the conduit at each data point location (manhole, pull box, and conduit bend along the conduit route).

Contractor shall submit a sample diagram and worksheet for approval by CFX prior to commencing “location” reviews. A butterfly type diagram, as shown in Figure 1, is recommended, but others will be considered. The “location” detail diagrams shall include a north arrow indicator and show conduit ingress/egress with labeling using a format of:

- Side of “location” – Conduit # counting from left to right and top to bottom – conduit size – conduit color.

The worksheets on the following pages should be used to collect all the necessary information for entry into the OSPInsight database.

Figure 1: Sample Butterfly Diagram



Pull Box / Manhole Information Worksheet										
Tech:					Date:			Time:		
Pre-Entry Test Results:		Oxygen: 20.8			LEL/LFL: 0			Toxic Vapor: 0		
Note any deficiencies and general condition of Tone Wire, Ground Rod and Wire Nut: No tone wire.										
Ducts										
Dir.	No.	Size	Color	Tone		Dir.	No.	Size	Color	Tone
N	1	1"	Wh			S	1	1"	Sl	
N	2	1"	Rd			S	2	1"	Wh	
N	3	1"	Yl			S	3	1"	Gr	
N	4	1"	Gr			S	4	1"	Yl	
N	5	1"	Or			S	5	1"	Gr	
N	6	1"	Br			S	6	1"	Or	
N	7	1"	Bl			S	7	1"	Bk	
Cables										
Manufacturer		Strands	Date	Footage at Duct	Duct	Footage at Enclosure	Duct or Enclosure			
Siecor		72	07-99	16640'	N51Or	16722'	S61Or			
Corning		72	05-06	18466'	N71Bl	18562'	Enc.			
Corning		72	05-06	18674'	S81Bl	18578'	Enc.			
Corning		12	07-11	009722'	N91Or	009810'	Enc.			

Duct Bank Depth Worksheet				
Duct ID No.	Direction	No. of Conduits	Installation Method	Depth from Grade (Inches)
XXXX	NB	3	Trench	36
XXXX	SB	9	Directional Bore	48

612-4 SPLICE ENCLOSURE DOCUMENTATION

Splice enclosure shall be defined as and include:

- Manhole/Pull Box splice enclosure shall include any splice enclosures that are designed for outside plant use.
- Rack splice enclosures and associated patch panels shall be considered a single entity and include splice trays, pigtails, bulk heads and all terminations/splices.
- Any fiber termination point located inside of a DMS housing.

Required documentation of splice enclosures shall consist of:

- Splice enclosure ID in a format to be provided by CFX at a kick off meeting.
- "Location" of splice enclosure.
- Manufacturer of enclosure and type of splices or terminations used.
- Number of splice trays present.
- Number of splices present.
- Splice configuration including both written summation and diagram.
- Splice detail sheets for the splice housing showing every existing splice or termination present in the splice housing and every existing fiber optic cable and buffer tube present in the splice housing, whether terminated or un-terminated.
- The documentation shall include the date and time of the inventory, location identification number, splice housing identification number, and the name, company, and contact information of the technician performing each inventory. Contractor shall coordinate with CFX for an approved naming convention for these ID numbers.
- All digital photos with date and timestamp shall be clear, properly exposed, and in focus. Identification tags and labels shown in each photo shall be legible. Photographs shall be taken at a minimum resolution of 5 megapixels (2592x1944). All digital photos shall be provided on disk (either CD or data DVD) to CFX. Each file name shall be logical, unique, and descriptive, allowing CFX staff to identify the location and content of the photo from the file name. Image files shall be sorted into electronic folders to allow CFX staff to easily locate photos by location. Each digital photo shall also be electronically geotagged with embedded latitude and longitude information by using a camera equipped with a built-in GPS receiver. The latitude and longitude of each photo shall be added to each photo's EXIF data to allow the photos to be used with mapping services such as Google Earth. Commercial grade cameras with built-in GPS receivers (such as the Casio Exilim EX-H20G, Panasonic Lumix DMC-ZS20, Sony Cyber-shot DSC-HX100V, Canon PowerShot SX260 HS, or CFX-approved equivalent) are acceptable for taking photographs of fiber optic inventory components. However, the GPS data obtained from these photographs shall not be used as geolocation information for features in the OSP Insight software.

- The following Splice Information Worksheet has been included to assist with documenting any splices between fiber optic cables.

Splice Information Worksheet			Enclosure Mfg: Corning		GPS Reference	3468
			Model: SCF-6C22			
Comments: Bl, Or, Br, Sl, & Wh tubes uncut (mid-entry splice)						
From Cable:			To Cable:			Tray
Mfg: Date:	Fiber Numbers	Buffer (Fibers)	Mfg: Date:	Fiber Numbers	Buffer(Fibers)	T R A Y
Footage: Strands			Footage: Strands			
Corning 07-11 009722' 12	1-4	Bl(Bl-Br)	Corning 05-06 18562' 72	25-28	Gr(Bl-Br)	1
Corning 07-11 009722' 12	7-10	Bl(Rd-Vi)	Corning 05-06 18578' 72	25-28	Gr(Bl-Br)	1
Corning 05-06 18562' 72	29-36	Gr(Sl-Aq)	Corning 05-06 18562' 72	29-36	Gr(Sl-Aq)	1

612-5 IN-PLANT DOCUMENTATION

Contractor shall document all In-Plant Equipment including the following:

- Patch Panels
- Communication Equipment
- Power Equipment
- Communication Connections between Equipment
- Cable Terminations
- Fiber and Power Entry

The worksheets on the following pages have been included to assist with the collection of data for In-Plant Documentation.

Patch Panels Worksheet												
A	Manufacturer: Corning							Model CCH-01U				
	Columns: 2				Rows: 1			Orientation: H				
	A:	B:	C:	D:	E:	F:	G:	H:	J:	K:	L:	M:
	12 SC	0										
B	Manufacturer:							Model				
	Columns:				Rows:			Orientation:				
	A:	B:	C:	D:	E:	F:	G:	H:	J:	K:	L:	M:

Equipment Worksheet					
Name/Mfg.	Model	Serial Number	Optical Pairs	Ethernet Ports	Serial Ports
Digi	TSHMEI	E22265016		1	4
Internet Power Mgmt	1601	ED15110500163		1	
SuperGoose II	SuperGoose II	GU12050054		1	
Rugged Com	RS900G	R900G-1206-1050	2 pair	8	
MinuteMan	ED2000RM2U	DJ5111090021		1	
Zone Barrier	24540			2	

Note any fiber connected directly to equipment or the front of patch panels.							
Mfg/Date/Footage	Strands	Tubes	Fiber		Equipment		
					Ports	Device	
			Numbers	Buffer(Fiber)	Module	Positions	Panel

Fiber and Power Entry			
Use	Conduit	Size	Direction
Fiber	Rigid	1"	to UG
Electric	Rigid	2"	To UG

Cross Connects (fiber patches)				
Patch Panel	Jack		Equipment or Panel / Module	Port or Jack
	Module	Position		
A	A	1,2	RS900G	9
A	A	7,8	RS900G	10

Cable Termination Information: Note where Pigtails and Fanout Kits are used									
Mfg/Type/Date	Strands/tube	Tubes	Direction/Footage	F.O./Pigtail	Fiber		Jack		Panel
					Fiber number	Color	module	Positions	
Corning/12sm/07-11	12	1	Drop 009556'	FO	1-12	Bl(BI-Wh)	A	1-12	A

Patches between Equipment (Serial and Ethernet)				
Equipment	Port	Equipment	Port	Ethernet Optical
RS900G	1	Minuteman	1	E
RS900G	2	Internet Pwr Mgmt	1	E
RS900G	4	Digi	1	E
RS900G	7	SuperGoose II	1	E
RS900G	6	Zone Barrier	1	E

612-6 OSPInsight Reference Tables

The following tables detail the different components of OSPInsight and the standard fields involved with the program.

- Access Point (e.g. pull box, cabinet, manhole)
- Building (e.g. toll plaza, CFX headquarters)
- Cable Span (e.g. fiber optic, power, data, locate)
- Ducts
- Equipment (e.g. switch, UPS, media converter)
- Equipment Hardware (ports, modules, jacks)
- Innerduct
- Patch Hardware (e.g. patch cord)
- Pole Attachments (e.g. CCTV camera, DCS, TMS)
- Poles (e.g. DMS, CCTV camera, TMS)
- Rack (e.g. server, communication, electrical)
- Splice Hardware (e.g. splice enclosure, splice tray)
- Splice (e.g. fiber splice diagram)
- Superduct
- Termination Point Hardware (e.g. connector panel)
- Termination Point (e.g. patch panel, load center)

<u>ACCESS POINT</u>		
		<u>Description</u>
1	Name	The name of the access point.
2	Street	The main roadway the access point is located along
3	County	The county the access point is located
4	Address_Notes	Use this field to include any notes about access point location
5	Placement	The placement of the access point - underground, aboveground, etc
6	Type	The type of access point - manhole, handhole, vault, pole box, cabinet, etc
7	Type_Size	The size of the access point. (Example 5' x 5' x 8')
8	Owner	Select the owner of the access point from the drop-down selection list
9	Audit_Date	Enter the audit date of the access point
10	GPS_Reference	Reference number to Collection Data
11	GPS_Latitude	Enter the Latitude (or X) coordinate of the access point
12	GPS_Longitude	Enter the Longitude (or Y) coordinate of the access point
13	Comments	Use this field to make any comments about the object. (Example: manhole flooded, bring pump, etc.)
14	Platemarking	This is the mark used to identify the company's equipment. If don't know, type unk or none if no marking exist.
15	Update_time	Enter the date and time of update
16	Update_user	Enter the user conducting the update
17	Stage	Designate the status or stage of the work order, e.g., pre-post, existing, complete, etc. from the drop down selection list

18	Install_Company	Select the company that installed the access point from the drop-down selection list
19	Work_Order_ID	Select the work order number from the drop down selection list
20	Install_Date	Select the date from the calendar or enter the year, month, and day

<u>BUILDING</u>		
		<u>Description</u>
1	Name	The name of the building
2	Street	The main roadway the access point is located along
3	City	The county the access point is located
4	State	Use this field to include any notes about access point location
5	Address_Notes	Use this field to include any notes about building point location.
6	Typ	This field indicates the type of service to the building, i.e. on-net or off-net, hub, etc.
7	GPS_Latitude	Enter the Latitude (or X) coordinate of the building.
8	GPS_Longitude	Enter the Longitude (or Y) coordinate of the building.
9	Comments	Use this field to make any comments about this building. (Example: Contact name, telephone numbers, etc.)
10	Owner	Select the owner of the building from the drop-down selection list.
11	Update_Time	Enter the date and time of update.
12	Update_User	Enter the user conducting the update.
13	Key Type	The type of key used to unlock the building
14	Audit_Date	Enter the audit date of the building.
15	GPS_Reference	Reference number to Collection Data
16	CFX_Prior_Name	Prior building name if it has changed
17	Station	Enter the station of the building
18	Stage	Designate the status or stage of the work order, i.e., pre-post, existing, complete, etc. from the drop down selection list.
19	Basements	Use the Basements field to record the number of basements in the building.
20	Diverse_Entries	This field indicates the number of diverse cable entries entering the building.

21	Install_Company	Select the company of the building from the drop-down selection list.
22	Work_Order_ID	Select the work order number from the drop down selection list.
23	Floors	Use the Floors field to record the number of floors in the building.
24	Install_Date	year, month, and day.

<u>CABLE</u>		
		<u>Description</u>
1	Length	Length is calculated by OSPInSight utilizing conduit length. Slack should be noted for inclusion in calculations
2	Span_Type_ID	Type of cable (e.g. Corning 72 SM, #2 AWG XHHW Copper)
3	Locate_ID	Use this field to type a specific identifier about this cable span. (Example: MH 100 to MH 101)
4	Units	Units are the "unit of measurement" use to measure this span. (Example: feet (ft) and meters (m) are available units.)
5	Owner	Select the owner of the cable from the drop-down selection list.
6	Mfg_Date	Enter the manufacturer date.
7	Designated	Use the Designated field to indicate if this cable span has been designated as part of the primary ring (backbone), feeder or a drop.
8	Comments	Enter any applicable comments about the cable span.
9	Install_Comments	Use the Install Comments field to record any additional important information about the installation of the cable span.
10	Stage	Select the stage from the selection list, i.e., pre-post, existing, complete, etc.
11	Update_Time	Enter the date and time of update.
12	Medium	Type of cable (e.g. fiber, power, communication)
13	Reel_ID	Enter the Reel ID number from the reel this cable came from. Values for Reel ID are entered in the Materials/Hardware Editor. Once you have selected a span type, the selection list will be limited to only those reels that are that specific type. If a Reel ID has already been defined, choose the correct Reel ID for this cable. You can enter a new reel into the materials database by clicking the Edit Item option in the Reel selection list.
14	Install_Company	Select the company that installed the cable from the drop-down selection list.

15	Work_Order_ID	Select the work order number from the drop down selection list.
16	Update_User	Enter the user conducting the update.
17	Install_Date	Select the date from the calendar or enter the year, month, and day.

<u>PATCH HARDWARE</u>		
		<u>Description</u>
1	Patch_Type_ID	
2	Description	Enter a description or name of the patch cord.
3	Manufacturer	Enter the name of the manufacturer of the patch cord.
4	Model_Number	Enter the model number of the patch cord.

<u>DUCTS</u>		
		<u>Description</u>
1	Name	Enter the duct bank identification number or name in the Name field.
2	Owner	Enter the owner name of the duct bank.
3	Placement	Select the placement of the duct bank, i.e., underground, aboveground, aerial, from the drop-down selection list.
4	Install_Company	Select the company that installed the duct bank from the drop-down selection list.
5	Stage	You can designate a stage or status of the work order, i.e., pre posted, existing, etc. from the drop-down selection list.
6	Start_Dir	Select from the selection list the direction or side of the location where the duct bank begins. (Example: select "E" if the duct bank begins or exits at the East side of the building.)
7	Start_Depth	Depth displays how deep the duct bank is at the start point, i.e., 3 ft, 4 ft, etc.
8	Start_Depth_Units	Enter the Units for the depth of the start point (i.e. feet or meters)
9	Start_Comments	Enter any comments regarding start point.
10	End_Dir	Select from the selection list the direction or side of the location where the duct bank ends. (Example: select "E" if the duct bank ends at the East side of the building.)
11	End_Depth	Depth displays how deep the duct bank is at the end point, i.e., 3 ft, 4 ft, etc.
12	End_Depth_Units	Enter the Units for the depth of the end point (i.e. feet or meters)
13	End_Comments	Enter any comments regarding end point.
14	Work_Order_ID	Select the work order associated to the installation of this duct bank from the selection list.

15	Tot_Length	Total Length will be calculated by OSPInSight from the points collected using GPS
16	Length_Units	OSPInSight will calculate the total length of the duct bank from the object dimensions on the map. Select the units that the length is to be displayed in, i.e., inches, feet, meters, etc.
17	N_Superducts	This field displays the number of superducts that exist in this duct bank. You can define the number of superducts and innerducts in the Cross-Section tab of this editor.
18	N_InnerDucts	This field displays the number of innerducts that exist in this duct bank. You can define the number of innerducts and superducts in the Cross-Section tab of this editor.
19	Update_Time	Enter the date and time of update.
20	Update_User	Enter the user conducting the update.
<u>DUCTS (CONTINUED)</u>		
21	Start_Place_Type	Select the type of object where the duct bank begins, i.e., access point, building, etc. OSPInSight will automatically populate this field if you begin drawing the duct bank by clicking on this object. You can change it if you desire.
22	Start_Place	Enter the starting place for the duct (e.g. MH 101, FOPB-417-23.2 SB)
23	End_Place_Type	Select the type of object where the duct bank ends, i.e., access point, building, etc. OSPInSight will automatically populate this field if you end drawing the duct bank by clicking on this object. You can change it if you desire.
24	End_Place	Enter the ending place for the duct (e.g. MH 101, FOPB-417-23.2 SB)
25	Install_Date	Select the date from the calendar or enter the year, month, and day.

<u>SUPERDUCT</u>		
		<u>Description</u>
1	SuperDuct_ID	This is the ID of the superduct within the duct bank being displayed, both for the "A" or "B" sides.
2	Name	Type the name of or identifying information of the superduct.
3	DuctBank_ID	The Ductbank ID is a unique identifier created and assigned to the duct bank or trench object by OPSInSight. This is the number that MapInfo uses to relate the duct bank object in the map to the OSOPM database.
4	Owner	Enter the name of the owner of the superduct.
5	Lessee	Enter the name of the lessee of the superduct. (Optional)
6	Diameter	Enter the diameter of the superduct.

7	Diameter_Units	Enter the unit of measurement of the superduct.
8	Gauge	Enter the gauge of the superduct, i.e., 40 gauge.
9	Material	Enter the material the superduct is made of, i.e., pipe, concrete, PVC, etc.
10	Update_Time	Enter the date and time of update.
11	Update_User	Enter the user conducting the update.

<u>INNERDUCT</u>		
		<u>Description</u>
1	DuctBank_ID	The Ductbank ID is a unique identifier created and assigned to the duct bank or trench object by OPSInSight. This is the number that MapInfo uses to relate the duct bank object in the map to the OSOPM database.
2	SuperDuct_ID	This is the ID of the superduct within the duct bank being displayed, both for the "A" or "B" sides.
3	Color	Enter the color of the innerduct. (It does not have to be a color; it can be some other identifier.)
4	Diameter	Enter the diameter of the innerduct, 1 in., 2 in., 3 in., etc.
5	Diameter_Units	Enter the diameter units - inches or centimeters.
6	Gauge	Enter the gauge of the innerduct, i.e., 10 gauge.
7	Comments	Enter any comments that apply to this innerduct.
8	Span_ID	Enter the SpanID of the span that is associated to the innerduct within the superduct. This is optional, but is a good way to track what spans are associated to particular innerducts.
9	Owner	Enter the name of the owner of the innerduct.
10	Lessee	Enter the name of the lessee of the innerduct. (Optional)
11	Used	Check the option to designate whether or not the innerduct is used.
12	Typ	Enter the type of material the innerduct is made of, i.e., PVC, pipe, etc.
13	Update_Time	Enter the date and time of update.
14	Update_User	Enter the user conducting the update.

EQUIPMENT

		<u>Description</u>
2	Name	Type the name of the equipment as you want to identify it in your network. You can name is anything you want but it should reflect the ring that the equipment is on. A generic name is generated by OSPInSight.
3	X_Table	Select the x_table - this is the type place object - building, access point, or pole.
5	X_ID	Select the place object - building, access point, or pole. The x_id is the unique identifier created and assigned to the place object by OSPInSight. In the example above, building is the object type selected, and the x_id is the specific building (Johnson Plaza) is now related to the equipment.
6	Product_Description	A description of the equipment.
7	Part_Number	The part number of the equipment.
8	Manufacturer	The name of the manufacturer of the equipment.
9	Product_Number	The product number of the equipment.
10	Voltage	The voltage required to power the equipment.
11	Current_Amps	AC/DC to power the equipment.
12	Heat	The amount of heat dissipation, i.e., 290 BTU/hr at 85 Watt.
13	Weight	The weight of the device.
14	Height	The dimensions of the equipment
15	Type_Designation	The Designation field allows you to designate the type of equipment.
16	Suffix	The suffix is used to further identify the equipment. You can use anything you like such as A and B, 1 and 2, TX and RX.
17	Asset_Number	The assigned asset number of the equipment.

18	Serial_Number	The product serial number of the equipment.
19	Room_ID	The room where the equipment is installed.
20	Rack_ID	The rack where the equipment is installed.
21	Rack_Unit	The position in the rack where the equipment is installed measured in "U's."
22	Orientation	The orientation of the equipment, i.e., vertical, horizontal, etc.
23	Slot	The slot in the rack where the equipment is installed.
24	Install_Company	Select the name of the company who installed the equipment from the drop-down selection list.
<u>EQUIPMENT (CONTINUED)</u>		
25	Maint_Span	The Maint Span/Circuit ID number is a number used to identify the particular maintenance span or ring where equipment for a customer resides. It is the identifier used to identify the route of the network from hub to hub. For example, you can have a maintenance span with three different customers on the same span. The equipment that is associated with each of those customers is part of that circuit or maintenance span.
26	Work_Order_ID	Select the Work Order Number related to the installed equipment from the drop-down selection list.
27	Stage	Select the status or stage of the Work Order, i.e., pre-posted, existing, etc. from the drop-down selection list.
28	IP_Address	The IP address assigned to the equipment.
29	Update_Time	Enter the date and time of update.
30	Update_User	Enter the user conducting the update.
32	Purchase_Date	Date equipment was purchased.
33	Warranty	Description of the warranty.
34	Warrenty_Experiation_Date	Date the warranty expires.
35	Service_Contract	The entity that this service contract is through.
36	SNMP_Managed	"Yes" or "No" if this is managed over SNMP.
37	Operational_Gain	The difference between input and output provided by an amplifier.
38	Power	The power source, i.e., UPS, battery pack, protected circuit, generator, etc. Circuit type.
39	Elec_Circuit_ID	A designated circuit id - part of the physical facility.
40	Cost	Cost of the equipment.
41	Install_Date	Select the date from the calendar or enter the year, month, and day.

POLES

		<u>Description</u>
1	Name	This field contains the pole identification name or number that your company uses to identify the pole. You can use the default name assigned by OSPInSight, or you can assign another name.
2	Typ	This field contains the type of material the pole is made of (wood, metal, etc.).
3	Owner	Select the owner of the pole from the drop-down selection list.
4	Owner_ID	The Owner ID field is used to record the owner's identification information for the pole, such as the identification number on the metal plate attached to the pole.
5	Lat	Enter the Latitude (or X) coordinate of the pole.
6	Lon	Enter the Longitude (or Y) coordinate of the pole.
7	Street	Enter the street address of the pole.
8	City	Enter the city of the pole.
12	Comments	This is a comments field for any comments that pertain to the pole.
13	Anchor	Select Yes or No to indicate if the pole is anchored to the ground with a cable, etc.
14	Height_Units	Enter the units of measurement in the Units field (feet, meters, etc.).
15	Height	Enter the pole height in the height field.
16	Class	The class field contains the class of the pole, i.e. Class 4.
17	Update_Time	Enter the date and time of update.
18	Update_User	Enter the user conducting the update.
19	Designation	Select the designation category from the drop-down selection list. Categories may be joint ownership, telco, power, etc.
20	Address_Notes	Enter any address notes in this field.
21	Install_Date	Select the date from the calendar or enter the year, month, and day.

<u>POLE ATTACHMENTS</u>		
		<u>Description</u>
1	Pole Name	This field contains the pole identification name or number that your company uses to identify the pole.
2	Attach_Height	Enter the height of the attachment on this pole.
3	Update_User	Enter the user conducting the update.
4	Update_Time	Enter the date and time of update.
5	Category	Enter the category of the attachment, (i.e., DCS, TMS, telco, catv, traffic, etc.).
6	Description	Enter the use of the cable attached to this pole. For example, cable, power, street light, etc.
7	Company	Enter the company name in the Company field.
8	Height_Units	the units of the height (feet or meters) of the attachment on this pole.

<u>TERMINATION POINTS - (PATCH PANEL)</u>		
		<u>Description</u>
1	Name	This is the Name of the termination point. OSPInSight will suggest a default name. You can change the name at anytime.
2	Room_ID	Enter a room number or a description of where the termination is located in the building.
3	Fiber_Mng_Grid	The FiberMngGrid field contains the OSPInSight object number for the termination point. This is the unique identifier created by OSPInSight and links the termination point object in the map to the termination point data in OSPInSight database.
4	Install_Company	Select from the drop-down list the name of the company performing the installation.
5	Work_Order_ID	Enter the work order number for the termination point being installed.
6	Comments	Enter any comments that pertain to the termination point.
7	Update_Time	Enter the date and time of update.
8	Update_User	Enter the user conducting the update.
9	X_Table	This is the place object table where the termination point is located. For example, if you place the termination point inside of a building, the x_table field will be populated with "building" or if you place the termination point in an access point, then it will be populated with "access point," and if you have attached it to a pole, it will be populated with "pole."

10	X_ID	This is the place objectid table where the termination point is located. For example, if you place the termination point inside of a building, the x_id field will be populated with the place objectid of the building, or if you place the termination point in an access point, then it will be populated with place objectid of the access point, or if it was attached to a pole, it will be populated with the x_id of the pole.
11	Stage	You can designate the stage of the work order, i.e., pre-post, posted, etc. in the stage field.
12	Designation	The Designation field allows you to designate the type of termination point (i.e., node, fiber distribution panel, frame, pre-term panel, fiber manager, wall outlet, etc.) Populating this field allows you to group termination points in Data View by designation.
13	Rack_ID	This is the unique identifier assigned by OSPIInSight.
14	Rack_Unit	The position in the rack where the equipment is installed measured in "U's".
15	Install_Date	Select the date from the calendar or enter the year, month, and day.

TERMINATION POINTS - (PATCH PANEL HARDWARE)

		<u>Description</u>
1	Name	This is the Name of the termination point. OSPIInSight will suggest a default name. For example, Corning 24 Port. This is a termination type manufactured by Corning and has 24 ports.
2	Manufacturer	Enter the name of the manufacturer of the termination point type.
3	Model	Enter the model number of the termination point type.
4	Capacity	This field is automatically populated with the number of ports when you define the columns, rows, and positions.
5	Comments	Enter any additional comments about the termination point type.
6	Cols	The columns field defines how the fame will be displayed in the termination point.
7	Rows	The rows field defines how the fame will be displayed in the termination point.
8	Pos	The positions field defines how the fame will be displayed in the termination point.
9	Update_Time	Enter the date and time of update.
10	Update_User	Enter the user conducting the update.

SPLICE HARDWARE

		<u>Description</u>
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1	Name	Enter the name of the splice point type in the Name field. Make the name as descriptive as possible so that the splice point type will be easily identifiable. For example, 3M 2176. This is a splice point type manufactured by 3M model number 2178.
2	Manufacturer	Enter the name of the manufacturer of the splice point type.
3	Casepn	Enter the Case or Part Number of the splice point type.
4	Otherpn	Enter any additional part number information for this splice point type.
5	Capacity	Enter the number of splices this splice point type can accommodate.
6	Number_Ports	Enter the number of ports where the cable comes into this splice point type.
7	Comments	This field contains additional comments about the splice point type.
8	Update_Time	Enter the date and time of update.
9	Update_User	Enter the user conducting the update.

<u>SPLICE</u>		
		<u>Description</u>
1	Enclosure_Name	The name of the splice enclosure that the splice is contained within
2	Name	The Name field is the name of the splice point. OSPInSight suggest a default name.
3	Splice_Comments	Use this field to make any comments about this splice point.
4	Enclosure_Comments	
5	Install_Company	Select the name of the company that installed the enclosure from the drop-down selection list.
6	Work_Order_ID	Select the Work Order number from the drop-down selection list.
7	Ports_Avail	Enter the number of ports still available in this splice point.
8	Trays_Used	Enter the number of trays used in this splice point.
9	Update_Time	Enter the date and time of update.
10	Update_User	Enter the user conducting the update.
11	X_Table	This field designates what type of place the splice point was installed in, i.e. building, access point, or pole.
12	X_ID	This is the objectid of the place object where the splice point is installed.
13	Stage	Select the stage of the work order, i.e., pre-post, post, complete, etc.
14	Install_Date	Select the date from the calendar or enter the year, month, and day.

612-7 Deliverables

The Contractor shall provide documentation that includes all necessary data in a format suitable for viewing. The Contractor shall deliver the documents electronically on CD-ROM or DVD-ROM so they can be incorporated by others into an existing OSPI Insight database maintained by CFX. This documentation shall be provided 30 days prior to final acceptance to allow for review and acceptance by a designated CFX representative. The contractor shall respond with updated information within 14 days addressing comments provided by the CFX designated representative.

612-8 MEASUREMENT OF PAYMENT

The GIS Inventory will be measured for payment upon final acceptance of the GIS inventory by CFX.

612-9 BASIS OF PAYMENT

Payment for the geolocation and documentation of all items specified herein shall be included under this item.

612-100 Geolocation of ITS Equipment and Infrastructure (LS)

END OF SECTION 612

SECTION 620A

ITS EQUIPMENT GROUNDING

620A-1 DESCRIPTION

Under this Section, the Contractor shall furnish a grounding system to mitigate possible damage to the ITS Field Equipment installed or relocated by the Contractor under separate contract items. The Contractor shall meet all local electrical codes, National Electrical Code (NEC), and these Specifications. If conflict arises between the aforementioned codes or specifications, the Contractor shall implement the requirement that provides the highest level of human safety.

The Grounding Electrode System shall provide protection to the Field Equipment using three specific techniques:

1. Providing a Grounding System for the Field Equipment and associated field enclosures and cabinets.
2. Employing surge and lightning protection for the Field Equipment.
3. Compliance with the National Electrical Code.

620A-2 FUNCTIONAL REQUIREMENTS

620A-2.1 ITS Field Equipment

The Contractor shall furnish and install a grounding system for all ITS Field Equipment, cabinets, poles and structures. The grounding system shall consist of a grounding electrode array driven into the earth surrounding the ITS Field Equipment. Sufficient grounding electrodes shall be used to attain a grounding resistance of 5 ohms or less. If the 5-ohm requirement is not met, the contractor shall drive additional ground rods until a 5-ohm or less reading is obtained at no additional cost to CFX.

620A-2.2 ITS Power Service Locations

Sufficient grounding electrodes shall be used to attain a grounding resistance of 5 ohms or less. If 5 ohms cannot be achieved from a single electrode assembly, the ground system shall be installed in a direction diverting away from the ITS Field Equipment grounding array.

For fiber optic pull boxes that contain tone wire materials for Line Management System (LMS) verification testing, the Contractor shall install one grounding electrode assembly meeting the requirements of Section 620A-3.2.

620A-3 MATERIALS

Use only new materials meeting the requirements of this section. Use equipment or materials that have been tested and approved for the specific use intended. All materials shall be approved by CFX.

620A-3.1 Grounding Electrodes

Use ground electrodes meeting the requirements of UL 467 that are listed by an OSHA Nationally Recognized Testing Laboratory (NRTL). Ground electrodes must be made of copper-clad steel with a nominal diameter of 5/8 inches. Ground electrode sections must be a minimum of ten feet in length and manufactured for the sole purpose of providing electrical grounding.

Grounding electrodes shall be configured in Grounding Electrode Assemblies and Ground Electrode Arrays as specified below to provide the required resistance to ground.

620A-3.2 Grounding Electrode Assemblies

Provide a ground electrode assembly consisting of one or more ground electrodes coupled together, such that the total length of the assembly is a minimum of 20 feet, driven into the earth at a single point, without disrupting the electrical continuity of the assembly.

620A-3.3 Grounding Electrode Arrays

The Contractor shall install an array in accordance with the plans for all ITS field equipment, poles and structures to attain the minimum required resistance. The Contractor shall provide grounding electrode arrays consisting of two or more grounding electrode assemblies, bonded together, separated by twice the length of the longer grounding electrode assembly, or 40ft., whichever is greater.

620A-3.4 Grounding Conductors

Use at a minimum or as shown on the plans No. 6 AWG XHHW solid or stranded copper insulated (green) conductor for grounding electrode conductor from the ITS cabinet or ITS enclosure ground bus bar to the main ground electrode assembly.

Use at a minimum or as shown on the plans solid No. 2 AWG tinned copper conductor for lightning protection ground from ITS Field Equipment pole or structure to the main grounding electrode, and between grounding electrodes.

Use at a minimum or as shown on the plans either solid or stranded No. 6 AWG XHHW copper insulated (green) conductor for all other applications.

620A-3.5 Exothermic Grounding Bond

Make all bonds between grounding conductors and grounding electrodes with an exothermic bond with the following exception: do not exothermically bond sections of ground rods to create the ground electrode assembly and do not exothermically bond connections within a cabinet. The contractor shall use exothermic weld molds recommended by the manufacturer specific to each weld application. All exothermic materials shall be from the same source to make all the exothermic bonds, meeting the requirements of the IEEE Standards 80 and 837.

620A-4 INSTALLATION

620A-4.1 General

Construct a single-point grounding system. Install the primary ground electrode assembly in a grounding pull box so that the top four inches are accessible for inspection, resistance testing, and maintenance. The primary ground electrode assembly and electrical pull box shall be installed between 12 inches to 36 inches from the element being grounded. The top of all other ground electrode assemblies connected to the primary ground electrode assembly in an array must be buried a minimum of 18 inches below grade. Direct bury grounding conductors used to connect ground electrode assemblies a minimum of 18 inches below finished grade.

Bond all ground electrode assemblies and ground electrode arrays together. Install grounding conductors in a straight path. Place electrode assemblies and arrays together in a location that minimizes the length of the grounding conductor between the assembly or array and the element being grounded.

At locations where an existing grounding array is crossed or lies within 10 ft. of the new grounding array, the two arrays shall be exothermically welded together.

620A-4.2 Grounding Poles and Structures

The Contractor shall mechanically bond ITS field equipment poles to the grounding array as shown on the plans.

The Contractor shall exothermically bond ITS field equipment structures to the grounding array as shown on the plans. The Contractor shall grind away paint or galvanizing from poles or structures where ground conductor will be exothermically welded. This grinded area must be heated prior to welding conductor to structure. After weld is completed, the weld shall be coated with galvanizing spray while the weld is still warm. For painted poles or structures, once galvanizing spray has dried, the weld shall be painted to match the pole and structure.

When erecting new metal poles within 10 feet of existing metal poles or structures, the existing poles or structures shall be bonded to the existing array.

620A-4.3 Grounding Cabinets and Enclosures

The Contractor shall bond the cabinet ground bus bar to the main grounding electrode. The grounding electrode conductor shall be enclosed in galvanized rigid metal conduit.

620A-4.4 Grounding Electric Power Service

The grounding electrode conductor shall be enclosed in galvanized rigid metal conduit. The power service ground shall be separate from the ITS cabinet and pole ground array. The power service shall meet a maximum grounding reading of 5 ohms.

620A-4.5 Inspection

Do not backfill below-grade grounding installations and grounding connections until inspected and approved. The Engineer will inspect the installation for proper connection types, tightness, workmanship, and conformance to Plans. Replace any exothermic bonds that are deemed unsatisfactory with new exothermic bonds. Repair or replace any mechanical connections that are deemed unsatisfactory.

For grounding system inspections, notify the Engineer at least five days prior to completion of the installation. Record all test results in CFX standardized grounding form. All recorded test report data shall be dated, witnessed, and signed by at least one representative of the Contractor. Remedy all deficiencies at no cost to CFX.

620A-4.6 Ground Resistance Test

The Contractor shall measure the resistance to ground for each grounding system using a three-point ground resistance tester and submit completed CFX ground testing form for each grounding system.

620A-4.7 Neutral-to-Ground Bonds

A neutral-to-ground bond shall be made inside the first panel containing the secondary circuit from the utility transformer. No neutral-to-ground bond shall be made before this panel.

If a step-up or a step-down transformer is installed, a neutral-to-ground bond shall be made inside the first panel that contains the secondary circuit of the transformer.

If a step-up and step-down transformer are installed in series, a neutral-to-ground bond shall be made inside the step up-transformer. A neutral-to-ground bond must also be made inside of the first panel that utilizes the secondary circuit of the step-down transformer.

No neutral-to-ground bonds, other than the ones described above, shall be made throughout the electrical system

620A-5 MEASUREMENT OF PAYMENT

The Grounding Electrode System will be measured for payment as the number of complete systems furnished, warranted, installed, test, and made fully operational and tested.

620A-6 BASIS OF PAYMENT

All costs associated with the grounding system shall be a part of each individual component's pay item numbers and shall be considered incidental to the cost of that item.

END OF SECTION 620A

SECTION 631
FIBER OPTIC NETWORK SYSTEM RECOVERY

631-1 GENERAL

This Section establishes the general requirements for the protection and locating of CFX's existing fiber optic network (FON) system throughout the project duration. This Section also establishes general requirements for creating inventories of existing fiber optic circuits.

631-1.1 Description of Work

The Work includes initial proofing of the unoccupied (spare) high-density polyethylene (HDPE) communication conduits, checking the Radiodetection™ Line Management System (LMS) readings for tone wire continuity, and locating the FON within the project limits within fifteen (15) days of the notice to proceed (NTP). The Contractor shall submit a written report to CFX documenting the results of the conduit proofing and the readings for LMS continuity testing within five (5) days of the completion of testing.

Any damage to the FON system found during the initial proofing shall be reported to CFX for resolution. The Contractor shall not be held responsible for any pre-existing conditions included in the report..

Any damage to the FON system found after the initial proofing will be the responsibility of the Contractor to repair. If occupied conduits are damaged during construction, CFX shall be notified immediately for inspection and/or repair and the Contractor shall be responsible for the costs of repair. Additionally, if the Contractor does not complete conduit proofing and tone wire continuity testing within fifteen (15) days of the NTP, the Contractor will take full responsibility for the FON and any damage found during construction will be the responsibility of the Contractor.

If CFX suspects any damage has occurred to the FON at any time during the project, the Contractor and a CFX representative shall immediately inspect the suspect area via conduit proofing, tone wire testing, fiber optic cable testing or excavation of the conduit system via hand digging as directed by CFX. At the discretion of CFX, the Contractor shall either repair any damage found within five (5) days of the inspection or the Contractor shall be responsible for the costs of repair. After the Contractor completes the requested repairs, the Contractor shall proof test and/or check tone wire continuity in all problem areas. The Contractor shall retain responsibility for the integrity of the FON system throughout the project duration whether or not Contractor is used to repair damage to the FON system.

Additionally, the Work includes final proofing of the unoccupied (spare) high-density polyethylene (HDPE) communication conduits and checking the Radiodetection™ Line Management System (LMS) readings for tone wire continuity within the project limits within five (5) days of the semi-final inspection. The Contractor shall submit a written report to CFX documenting the results of the conduit proofing and the readings for LMS continuity testing within five (5) days of the completion of testing.

Any damage to the system found as part of final proofing and tone wire continuity testing shall be repaired within five (5) days of the final inspection.

The work also includes the preservation of existing FON tubular route markers along the fiber optic system.

The Contractor shall be responsible for all FON system locates as required by Contractor's work for the duration of the project.

Work performed by the Contractor shall not interrupt or disrupt CFX's Electronic Toll Collection System. This type of work includes, but is not limited to, fiber optic splicing and disconnecting or reconnecting of optical fiber connections located at fiber optic patch panels.

631-1.2 Description of the Fiber Optic Network System

The FON backbone conduit system includes 9 – 1" HDPE SDR 11 conduits with tone wire located in a black with red stripe 1-inch HDPE SDR 11 conduit. In areas where there are only 8 – 1" conduits, the tone wire is located in the yellow 1-inch HDPE SDR 11 conduit. Fiber optic warning tape is placed generally along both sides of the roadway mainline under the outside paved shoulder or near the right-of-way line in dirt. The backbone conduit system is generally NOT placed on the median side of the roadway. The conduit system is accessible via manholes generally spaced approximately 1500 to 4000 feet apart. Nine one-inch conduits have also been placed between the two sides of the road at various locations throughout CFX's system. These trans-lateral conduits are normally found near the mainline toll plazas.

All new tone wire shall be installed in 1-inch HDPE SDR 11 conduit as described above and shall not be direct buried.

The lateral conduit system consists of four, 1-inch HDPE SDR 11 conduits with tone wire and fiber optic warning tape placed at intervals along the backbone to connect the main backbone conduit system to the toll plaza facilities. The device drop conduit system consists of two, 1-inch HDPE SDR 11 conduits with tone wire and fiber optic warning tape placed at intervals along the backbone to connect the main backbone conduit system to various roadside devices.

Occupied conduits within the backbone, trans-lateral, lateral, and device drop conduit systems contain one or more fiber optic cables or tone wires.

The tone wire system consists of a #12 AWG insulated stranded or single conductor copper core, 45 mil high-density polyethylene insulated underground tone wire, manufactured by Burton Wire & Cable or CFX approved equivalent, description "12 AWG stranded or solid soft annealed bare copper, .045 nominal high density polyethylene, weather resistant polyolefin". The tone wire high-density polyethylene sheath shall be yellow in color and UV stabilized. The tone wire shall be manufactured in accordance with ASTM B-3 Soft or Annealed Copper Wire and ASTM D 1248 Type III, Class A, Category 4, Grades E8 & E9 Specifications for Weather Resistant Polyethylene Covered Wire Cable. The tone wire shall be installed as stated above in an extra 1" conduit that accompanies the fiber optic duct bank.

The fiber optic warning tape consists of a 3-inch wide orange tape with the words "CAUTION CFX FIBER OPTIC CABLE BURIED BELOW" in black and is typically installed

18 inches below grade.

631-2 PRODUCTS AND INSTALLATION REQUIREMENTS

This sub-section establishes the products and installation requirements necessary for restoration of the existing Fiber Optic Network System.

631-2.1 Standards

The material used by and workmanship completed by the Contractor shall be in accordance with best industry standards. All material, equipment and supplies used shall comply with the latest applicable standards and regulations of the following:

- Underwriters Laboratories, Inc. (UL),
- National Board of Fire Underwriters,
- National Fire Protection Association (NFPA),
- National Electrical Manufacturers Association (NEMA),
- American National Standards Institute (ANSI),
- American Society of Testing & Materials (ASTM),
- Institute of Electrical and Electronics Engineers (IEEE) and
- Any requirements as they apply to the State of Florida.

All materials, fixtures, equipment, appliances, accessories and components that are not in accordance with the specific standards and requirements shall require approval by CFX.

All conduit systems shall be repaired in accordance with the FDOT Utilities Accommodation Manual. Such methods, specifications and instructions are intended as minimum specifications since each installation will be influenced by local project conditions. Any changes to these methods, specifications and instructions shall be submitted to CFX for approval prior to their implementation. CFX retains the right to approve or disapprove any changes at its sole discretion. Before beginning any construction, all personnel shall be thoroughly familiar with and shall comply with Occupational Safety and Hazard Act (OSHA) regulations and CFX safety practices and policies.

All trenching and backfilling operations shall be completed in accordance with the Specifications, FDOT Utilities Accommodation Manual, the Occupational Safety and Hazard Act (OSHA) regulations and CFX safety practices and policies.

631-2.3 Conduit Dimensions

The conduit dimensions used here shall represent the nominal trade sizes. The inside diameter shall be no less than the conduit dimension specified.

631-2.3 Useful Life

All products used for the fiber optic network system shall be designed, manufactured and installed to facilitate a minimum useful life of 20 years.

631-2.4 Material and Installation Requirements

631-2.4.1 High-Density Polyethylene (HDPE) Conduit and Appurtenances

631-2.4.1.1 Conduit: The Contractor shall provide High-Density Polyethylene (HDPE) conduit where necessary to restore damaged conduit. The Contractor shall provide nominal 1-inch, HDPE SDR 11 conduit manufactured by CSR/Polypipe, or CFX approved equivalent to match existing system. This conduit shall be manufactured in accordance with the ASTM specifications F2160 and meet the allowable ASTM 3350 Cell Classification as called out in Section 638: Communications Conduit Systems and shall have smooth walls inside and outside. HDPE conduits will be direct buried or encased in an outer duct (i.e., PVC, Black Steel Pipe, or Bullet Resistant Fiberglass), based on the original conduit installation. Conduit field cuts shall be made square and the Contractor shall remove all burred edges.

631-2.4.1.2 Conduit Color Code System: All HDPE conduit systems are color-coded. The Contractor must match the conduit color during restoration. The color code format shall be orange, blue, brown, green, white, red/gray, black and yellow. A ninth conduit of black with a red stripe shall be designated for tone wire. The color code format for lateral conduit shall be orange, blue, brown, and green. The conduit shall retain its original color throughout the useful life of the conduit system. The conduit color shall be uniform throughout the conduit material. The conduit color shall be stable and colorfast so as not to fade, bleed, smear, run or otherwise react or blend with other materials which may come in contact with the HDPE conduit.

631-2.4.1.3 Conduit Couplers: HDPE: The Contractor shall provide 1-inch Electrofusion Couplers manufactured by Central Plastics Company, or CFX approved equivalent, for the connecting of two HDPE conduits together at restoration locations. HDPE butt fusing shall not be allowed. Conduit couplings may be placed side by side horizontally, but staggered at least 6 inches longitudinally.

631-2.4.2 Tone Wire for Location of Underground Ducts and Conduits

The Contractor shall install the tone wire in a manner to facilitate the complete and proper use of the Radiodetection™ LMS. The Contractor shall install the tone wire buried directly above the centerline of the backbone and lateral conduit system to provide for future locating without damage to its insulated sheath. The tone wire shall be run continuously through or spliced inside the manholes. When tone wire installed in a conduit is damaged, the Contractor shall replace the damaged tone wire with a new tone wire that runs between the nearest upstream and downstream manholes. Splices in the tone wire will not be permitted between pull boxes or manholes.

The Contractor shall provide a #12 AWG, stranded or solid copper core, single conductor 45 mil high-density polyethylene insulated underground tone wire, manufactured by Burton Wire and Cable, description "12 AWG soft annealed bare copper, 0.045 nominal high density polyethylene, weather resistant polyolefin" or CFX approved equivalent for tone wire restoration areas. The tone wire high-density polyethylene sheath shall be yellow in color and UV stabilized. The tone wire shall be manufactured in accordance with ASTM B-3 Soft or Annealed Copper Wire and ASTM D1248 Type III, Class A, Category 4,

Grades E8 and E9 Specifications for Weather Resistant Polyethyl-ene Covered Wire Cable. If splicing of the tone wire is necessary, splices shall be environmentally protected in accordance with the manufacturer's recommendations with a 3M Electrical Products Division DBR-6 or DBY-6 encapsulated splice enclosure, or CFX approved equal. The DBR-6 splice enclosures are necessary when connecting 3 tone wires and the DBY-6 splice enclosures are necessary when connecting 2 tone wires.

631-2.4.3 Fiber Optic Warning Tape

The Contractor shall provide and install fiber optic warning tape, as specified herein, placed 18 inches below the finished grade where necessary. Damaged fiber optic warning tape shall be repaired prior to backfill of the damaged area.

The Contractor shall provide 6" wide orange fiber optic warning tape with a minimum thickness of 6 mil. The warning tape shall have the words "CAUTION CFX FIBER OPTIC CABLE BURIED BELOW" in black permanently printed on the tape media at regular intervals not to exceed 1 foot. This warning tape shall be manufactured in accordance with AWPA color code specification.

631-2.4.4 Fiber Optic Cable and Appurtenances

The Contractor shall replace in kind any damaged Corning® 12 count Single-Mode Altos® stranded loose tube fiber optic cable (PN: 012EU4-T4700D20), Corning® 24 count Single-Mode Altos® stranded loose tube fiber optic cable (PN: 024EU4- T4700D20), Corning® 72 count Single-Mode Altos® stranded loose tube fiber optic cable (PN: 072EU4-T4700D20) or Corning® 144 count Single-Mode Altos® stranded loose tube fiber optic cable (PN: 144EU4- T4700D20). The replacement fiber cable shall match the strand count of the damaged fiber optic cable. The fiber optic cable's jacket or sheath shall be labeled with the manufacturer's name, the words "CFX 12 SM", "CFX 24 SM", "CFX 72 SM" or "CFX 144 SM" accordingly, date of manufacture, type of cable, fiber count and sequential measurement markings every 2 feet. Corning 12 count fiber optic cables shall consist of two (2) buffer tubes with six (6) fibers per buffer tube, all other outside plant fiber optic cables shall be manufactured with twelve (12) fibers per buffer tube. The number of buffer tubes varies depending on the total number of fibers present in the cable.

Corning splice closures (Corning PN: SCF-6C22-01, SCF-6C28-01, or SCF-6C28-02) shall be used to house all field splices. Only fusion type splices shall be permitted. The splices shall be protected using heat shrinks, Corning PN 2806031-01 or CFX approved equivalent, and stored in a Corning 12-position splice organizer/tray specifically designed for the protection of the device. Corning splice trays (Corning PN: SCF-ST-099 or SCF-ST-112) shall be used with the splice closures. The Contractor shall be required to furnish all accessories associated with the splice closures. All accessories shall be manufactured by Corning.

631-2.4.5 Tubular Route Marker

The Contractor shall be responsible for replacing any U-channel posts or tubular route markers that are damaged during construction, removal, storage or reinstallation. Route markers that cannot be reinstalled due to new surface conditions shall be delivered to a

CFX storage facility. The Contractor shall coordinate with the designated CFX representative when deciding if a route marker should not be reinstalled.

The Contractor shall provide Vulcan H-41-RF tubular route markers manufactured by Vulcan Utility Signs and Products, or CFX approved equivalent to replace any damaged route markers. The tubular route markers shall consist of a 3-½ inch (outside diameter) white HDPE post, 6-foot length with a minimum wall thickness of 0.125 inches. The marker post shall have an orange HDPE cap and an orange wrap decal with the words "CAUTION CFX FIBER OPTIC CABLE BURIED BELOW" in black and shall also have the logos of CFX and Sunshine State One Call of Florida with contact numbers permanently printed on it in black polyvinyl film (Avery™ XL1000 Series S-652/78B). Each marker shall be installed over an 8-foot long #2 green channel post.

The Contractor shall provide additional labeling on all route markers located at FON manholes. The labeling shall consist of a pre-printed label with one (1) inch characters permanently printed with the manhole identification number as provided by a CFX representative. The labels shall have a self-adhesive backing, be suitable for outdoor applications including UV stabilization, and have a twenty-year life. The Contractor shall submit proposed products for review and approval by CFX.

631-3 TESTING REQUIREMENTS

631-3.1 HDPE Conduits

The Contractor shall complete an initial proofing test of the spare HDPE conduit system within the project construction limits within fifteen (15) days of the NTP. This includes the conduit system to the nearest manhole beyond the construction limits. The Contractor shall submit a written report to CFX documenting the results of the conduit proofing within five (5) days of the completion of the proofing test. Any damage within the system found before construction will be addressed by CFX and, if necessary, retested with the Contractor present. The Contractor will then take responsibility for the conduit system to ensure that no damage occurs during the construction phase. If damage does occur, the contractor shall repair the system at no additional cost to CFX using the methods and materials described in this specification. If the Contractor does not complete proofing within fifteen (15) days of the NTP, the Contractor will take responsibility for the conduit system and any damage found during construction will be the responsibility of the Contractor.

Within five (5) days of the semi-final inspection, the Contractor shall complete a final proofing test of the spare HDPE conduit system within the project construction limits to ensure that the conduit still makes an airtight seal so that a future cable can be installed using the Cable Blowing Installation Method. The Contractor shall submit a written report to CFX documenting the results of the conduit proofing within five (5) days of the completion of the proofing test. Any problems with the system found during the final proofing shall be repaired by the Contractor at no additional cost to CFX. After the repairs have been completed, the Contractor shall re-proof test all problem areas. The Contractor shall submit a written report to CFX documenting the results of the conduit proofing of all problem areas within five (5) days of the completion of repairs.

The proof test method to be applied throughout the project shall be submitted for approval

to CFX before any proofing activities can commence. The Contractor will not be permitted to blow ball bearings in empty conduits. The Contractor shall coordinate with CFX's designated representative to witness the proof test of the entire HDPE conduit system for final acceptance after the completion of all (guard rail, fencing, etc.) work. The Contractor shall provide a minimum of 48 hours advance notification prior to the proof testing activity.

The Contractor shall protect the inner walls of the manhole, personnel, and all contents of the manhole from impact damage caused by the proofing dart emerging from the conduit at high speed.

631-3.2 Tone Wire System and Radiodetection™ LMS Monitoring and Maintenance

For all construction projects within the CFX right of way, the Contractor shall be responsible for maintaining the FON tone wire and LMS system from NTP until final acceptance. The area of responsibility shall be within the project limits and is required regardless of or in addition to any tone wire and/or LMS installation or maintenance.

The Contractor shall coordinate with a CFX representative to test the tone wire system and document the Radiodetection™ LMS voltage and current (milliamps) readings within fifteen (15) days from the NTP. The Contractor shall submit a written report to CFX documenting the voltage and current (milliamps) readings from the LMS system test within five (5) days of the completion of LMS testing. Any anomalies encountered within the system during this initial tone wire and LMS system test shall be immediately reported to CFX.

This test shall include a meeting with a CFX representative and visit to the Radiodetection™ LMS site(s) that cover the fiber optic network system within the project construction limits to document the voltage and current (milliamps) readings of the device(s). The next step will be to accompany the CFX representative to the end of each Radiodetection™ LMS leg within the project limits to obtain a current (milliamps) reading.

During the length of the project until final acceptance, the Contractor shall designate a qualified technician and submit the make and model of the equipment to be used for testing to CFX for approval. The Contractor shall verify the integrity of the LMS system within the project limits on a weekly basis and submit a written report to CFX documenting the voltage and current (milliamps) readings from the LMS system test within one business day of the completion of each LMS system test. If the readings are not within 10% of the original readings, the Contractor shall be responsible for all costs associated with locating and repairing damage to the tone wire system within the project construction limits.

Within ten (10) days of the final project acceptance, the Contractor shall revisit the above locations with a CFX representative to recheck the voltage and current (milliamps) readings of the Radiodetection™ LMS. The Contractor shall submit a written report to CFX documenting the voltage and current (milliamps) readings from the LMS system test within five (5) days of the completion of LMS testing. If the readings are not within 10% of the original readings, the Contractor shall be responsible for all costs associated with locating and repairing damage to the tone wire system. After the repairs have been completed, the Contractor shall again accompany a

CFX representative during retesting of the system. The Contractor shall submit a written report to CFX documenting the voltage and current (milliamps) readings from the retesting of the LMS system within five (5) days of the completion of LMS retesting.

In addition to checking the Radiodetection™ LMS readings, manual checks of lateral and device drop tone wire runs may be necessary. This will be conducted and verified in the presence of a CFX representative at their discretion.

The Contractor shall notify CFX a minimum of 48 hours in advance of any testing to schedule a CFX representative to be present.

631-3.3 Tubular Route Markers

Within fifteen (15) days of the notice to proceed, the Contractor shall verify the condition of all route markers in the project limits and report any deficiencies. The Contractor shall remove all tubular route markers and U-channel posts within the project limits that will be affected by construction. The Contractor shall be responsible for storing this material for the duration of the project.

Within five (5) days of the semi-final inspection, the Contractor shall reinstall the U-channel posts and route markers in their original locations. The tubular route markers shall be installed in accordance with the manufacturer's recommendations and shall be installed at locations and at depths so as not to damage any part of the conduit system including, but not limited to, the conduits and tone wire system.

631-4 EXECUTION OF RESTORATION AND REPAIR

This sub-section shall only apply if damage occurs to the existing FON system during construction.

If the Contractor damages any portion of the FON including the tone wire, any conduit, or fiber optic cable, the Contractor shall notify the CEI. The Contractor shall stop all work in the vicinity of the fiber optic network on both sides of the roadway until the damage can be assessed by the CEI.

The maintenance of CFX's FON is performed under a separate maintenance agreement with a FON maintenance contractor. CFX's FON maintenance contractor monitors CFX's FON for interruptions to the communication system. In the event an alarm is detected, the FON maintenance contractor notifies CFX. The Contractor shall coordinate with the FON maintenance contractor as necessary to isolate the cause of an alarm suspected to be due the Contractor's damage to the FON. The following two scenarios describe the required procedure depending upon the type of damage:

631-4.1 Un-occupied conduit or tone wire is damaged

The Contractor may resume work after the CEI verifies that no occupied conduits were damaged and that no alarms were detected by the FON maintenance contractor. The Contractor shall submit a plan to repair the damaged tone wire/conduit to the CEI for approval. Once the repair plan is approved, the Contractor shall perform the repair at its expense within 48 hours of receiving approval. Upon completion of any tone wire repair, the Contractor shall test and

document the Line Management System (LMS) circuit(s) in the presence of the CEI to ensure the same or better readings are observed in accordance with Section 631-3.2 (Tone Wire System and Radio detection LMS) of the FON Preservation Specification.

631-4.2 Occupied conduit is damaged

This sub-section shall apply only when an occupied conduit in the existing FON system is damaged as part of Contractor's work. Should the Contractor damage a conduit occupied by a third party leasing a CFX conduit, the Contractor may be required to provide for additional reimbursement costs to the third party.

631-4.2.1 If there is a suspected fiber cable cut within the construction limits of a roadway project, the CEI will investigate the damage and check with the FON maintenance contractor for any network alarms. The FON maintenance contractor will troubleshoot suspected fiber damage and determine whether the issue is related to maintenance or due to the Contractor. If the issue is due to the Contractor, the Contractor will be responsible for the FON maintenance contractor's troubleshooting costs in addition to the repair costs.

631-4.2.2 The Contractor shall stop all excavation in the vicinity of the fiber optic network on both sides of the roadway until the damaged fiber optic cable is repaired and the CEI has verified that all alarms have cleared. The CEI will coordinate with adjacent projects to stop any excavation near the FON until the restoration is complete.

631-4.2.3 If the active fiber is suspected to be damaged, the Contractor will have the opportunity to repair the damage. The Contractor shall provide a qualified fiber optic splice technician on-site within 4 hours to begin a Primary Service Restoration. Primary Service Restoration is intended to provide a temporary repair that restores damaged fiber optic cable with minimal time impacts to CFX's communication system. A Primary Service Restoration may include (without limitation) optical fiber, conduit and encasement, and other appurtenances required for the repair. Primary Service Restoration repairs generally use a buried fiber optic splice enclosure to repair a cut fiber optic cable. The Contractor will be required to test the fiber optic cable at test points upstream and downstream of the Primary Service Restoration repair area as designated by CFX. The test points will be determined based upon the nearest available testing locations (typically mainline toll plazas), which may fall outside of the construction project limits. The Contractor shall perform bi-directional, end-to-end Optical Time Domain Reflectometer (OTDR) tests on every fiber of the installed single mode fiber optic cable in accordance with Section 633-3 (Testing Requirements) of the Fiber Optic Cable Specification.

631-4.2.4 If the Contractor cannot provide a qualified technician within the 4 hour response window, CFX's FON maintenance contractor will investigate the site as an emergency call out and will conduct a Primary Service Restoration if the fiber cable is damaged. The FON maintenance contractor is contractually bound to repair the damage or at least be on-site conducting the repair within 4 hours notification that there is a potential fiber cut. As such, the Contractor shall provide complete cooperation to allow the FON maintenance contractor to conduct the repair without delay. If CFX's FON maintenance contractor performs a Primary Service Restoration repair, the Contractor shall be

responsible for reimbursing CFX for these repair costs. The FON maintenance contractor performs Primary Service Restoration repair for a lump sum value of \$5,000 per repair.

631-4.2.5 The CEI will inspect the Primary Service Restoration repair work and verify all alarms detected by the FON maintenance contractor have cleared. If CFX determines that the Primary Service Restoration performed by the Contractor did not repair the damage, the Contractor shall perform the Primary Service Restoration again or CFX may elect to have the FON maintenance contractor perform the repair. If CFX's FON maintenance contractor performs a Primary Service Restoration repair, the Contractor shall be responsible for reimbursing CFX for these repair costs at the standard lump sum rate of \$5,000 per repair.

631-4.2.6 Fiber Optic Cable strands that have been damaged require additional splicing to be introduced as part of Primary Service Restoration repairs. The splicing of all fiber optic cable strands in one cable to all strands in another cable is defined as a Butt-End-Splice (BES). With each splice, additional attenuation is introduced that impedes the performance of the fiber optic cable. Also, each BES requires the opening of the fiber optic cable jacket, thereby providing additional exposure to the integrity of the fiber optic cable. Primary Service Restoration repairs that include a buried splice closure also prevent the restoration the conduit system. Further, Primary Service Restoration repairs typically require the use of slack fiber optic cable in adjacent manholes.

631-4.2.7 CFX and Contractor recognize that attenuation impacts the performance of the FON system and that CFX will suffer financial loss if the FON system performance is degraded. As such, CFX will determine if Secondary Restoration repairs are required. Secondary Restoration repairs will be required when fiber optic cable is damaged and will not be replaced as part of the Contractor's work. Secondary Restoration repairs are those follow-up repairs intended to provide long-term restoration to the Fiber Optic Network where previous Primary Service Restoration repairs have been made for an interim period. Secondary Restoration Repairs are intended to restore the fiber optic network to an acceptable condition, as defined by CFX, with the addition of at most one new BES in the originally installed fiber optic cable reel length. The Contractor will not be allowed to introduce a new BES if a BES was previously added to the original fiber optic cable reel length. The additional BES shall be located in a fiber optic manhole or mainline toll plaza.

631-4.2.8 The Contractor will have the opportunity to perform the Secondary Restoration repairs. If the Contractor cannot provide qualified technicians to provide the Secondary Restoration repairs within a timeframe determined by CFX, CFX's FON maintenance contractor will provide these repairs. The Contractor shall be responsible for reimbursing CFX for Secondary Restoration repairs performed by the FON maintenance contractor.

631-4.2.9 If CFX authorizes Secondary Restoration repairs, the Contractor shall stop all excavation in the vicinity of the fiber optic conduits on both sides of the roadway until the repair is complete. The Contractor shall provide complete cooperation to allow the FON maintenance contractor to conduct the repair without delay. The CEI will coordinate with

adjacent projects to stop any excavation near the FON until Secondary Restoration repairs are complete.

631-4.2.10 If the Contractor performs the Secondary Restoration repairs, all work is subject to CFX's inspection and approval. The Contractor shall perform pre-installation on-site on-the-reel Optical Time Domain Reflectometer (OTDR) tests as well as post-installation OTDR tests of each fiber optic cable strand in accordance with Section 633-3 (Testing Requirements) of the Fiber Optic Cable Specification. The Contractor will be required to test the installed fiber optic cable at test points upstream and downstream of the Secondary Restoration repair area as designated by CFX. The test points will be determined based upon the nearest available testing locations (typically mainline toll plazas), which may fall outside of the construction project limits.

631-4.2.11 The Contractor shall provide to CFX and the CEI documentation of all OTDR bi-directional repaired fiber traces for additional analysis. Any fiber deemed unacceptable per Section 633-3 fiber optic testing shall be repaired at no cost to CFX until acceptable results are achieved

631-5 EXECUTION OF FON LOCATES

This sub-section establishes FON system locates required in connection with Contractor's work.

631-5.1 FON Locate Responsibility

See the Special Provisions for details of FON Locate responsibility.

631-5.3 FON Locate System

As part of the initial tone wire continuity testing, a CFX representative will provide information on accessing the Radiodetection™ Line Management System and tone wire circuits. The Contractor shall provide, at Contractor's own cost, all equipment required to locate the FON system in conjunction with CFX's Radiodetection™ Line Management System. The Contractor will not be permitted to cut the tone wire for FON system locates. Use of portable tone wire transmitters will be required where the Radiodetection™ Line Management System cannot be used for locating tone wire runs, generally along device drop conduit runs. All FON locate system equipment procured as part of the project shall be turned over to CFX if requested at final acceptance.

631-5.3.1 On projects that include the 631-102 and 631-103 pay items, the Contractor shall provide the Radiodetection™ equipment as specified. This material may be used by the Contractor during the duration of the construction project for purposes of locating the CFX FON system within the project limits and shall be handed over to CFX upon Final Acceptance of the project. Pay item 631-102 Radiodetection™ location device (EA) shall be Radiodetection™ model RD8100 PDLG receiver. Pay item 631-103 Radiodetection™ transmitter unit (EA) shall be Radiodetection™ model RD8100 TX-10 transmitter. All material provided shall include the standard manufacturer's warranty, transferable to CFX upon delivery.

631-6 FIBER OPTIC SPLICE AND CABLE INVENTORY

In locations specified in the plans, the Contractor shall provide a written inventory of all existing fiber optic splices and cables in existing fiber optic manholes, pull boxes, and patch panel assignments in cabinets and toll plazas.

631-6.1 Definitions

The term “location” shall refer to a pull box, manhole, device cabinet, or toll plaza. The term “splice housing” shall refer to a splice enclosure, fiber optic patch panel, closet connector housing, or any other housing that contains spliced or terminated fibers.

631-6.2 Execution of Work

The Contractor shall conduct each inventory and submit the required documentation to CFX prior to conducting splice work at each location. The Contractor shall not conduct splice housing or cable inventories at a location earlier than 45 calendar days in advance of the splice work scheduled to be performed at that location. Splice housing and cable inventories shall be completed and submitted to CFX for approval two weeks prior to scheduled splice work at a location. CFX-approved splice housing and cable inventories shall be required prior to the Contractor beginning splice work.

For splice housing inventories, the Contractor shall open existing splice housings and document all existing fiber optic splices inside. The Contractor shall provide 48 hours notice to CFX prior to performing each splice housing inventory and open a ticket with CFX’s FON maintenance contractor following the procedure noted in the plans. The Contractor shall document each fiber optic cable entering and exiting the location, even if those cables are not shown on the plans.

The technician performing the splice housing inventory shall have all equipment on-hand to perform an immediate splice repair in the event fiber optic cable, splices, connectors, patch panel bulk heads, or other components are damaged during the inventory.

631-6.3 Documentation Requirements

For each inventory, the documentation requirements shall consist of the following.

631-6.3.1 Fiber Optic Cable Inventory

- Redlined splice detail sheets for the location showing:
 - Every existing fiber optic cable present at the location.
 - All deviations between the cables and quantity of splice enclosures shown on the splice detail sheet and what is physically observed at the location.
- Digital photographs of the front of any patch panels showing usage of jumpers and ports on the front of the panel.
- Digital photograph of the interior of the location showing the placement of any enclosures and any cables entering the location. The photographs shall be taken such that the color of occupied and unoccupied conduits can be easily identified.
- Digital photograph of the location exterior.

- The documentation shall include the date and time of the inventory, location identification number, and the name, company, and contact information of the technician performing each inventory.

631-6.3.2 *Fiber Optic Splice Housing Inventory*

- Redlined splice detail sheets for the splice housing showing:
 - Every existing splice or termination present in the splice housing.
 - Every existing fiber optic cable and buffer tube present in the splice housing, whether terminated or unterminated.
 - All deviations between the cables and splices shown on the splice detail sheet and what is physically observed in the splice housing.
- Digital photographs of each splice housing showing its exterior.
- Digital photographs of each splice housing showing its interior and any splice trays inside.
- Digital photographs of the patch panel showing which fibers are terminated on the patch panel or in the splice housing.
- The documentation shall include the date and time of the inventory, location identification number, splice housing identification number, and the name, company, and contact information of the technician performing each inventory.

All digital photos shall be clear, properly exposed, and in focus. Identification tags and labels shown in each photo shall be legible. Each digital photo shall be printed in color on 8½”x11” paper, scaled to fill the paper, one photo per page.

Upon completion of each inventory, the Contractor shall provide copies of the documentation to CFX.

631-7 BASIS OF PAYMENT

The unit bid prices for the fiber optic splice housing and cable inventories shall include the cost for furnishing all labor, materials, tools, equipment, and testing equipment necessary to complete the work at each location.

631-100	Fiber Optic Cable Inventory (EA)
631-101	Fiber Optic Splice Housing Inventory (EA)
631-102	Radiodetection™ location device (EA)
631-103	Radiodetection™ transmitter unit (EA)

All other work required by this Section will not be measured separately for payment but will be considered incidental to Item No. 101-1, Mobilization.

Payment will be made as described in the Measurement and Payment specifications for this Contract.

END OF SECTION 631

SECTION 633 FIBER OPTIC CABLE

633-1 DESCRIPTION

The Contractor shall provide Corning® 12 count Single-Mode Altos® stranded loose tube fiber optic cable (PN: 012ZU4- T4F22D20), Corning® 24 count Single-Mode Altos® stranded loose tube fiber optic cable (PN: 024ZU4- T4F22D20) or Corning® 72 count Single-Mode Altos® stranded loose tube fiber optic cable (PN: 072ZU4- T4F22D20) in accordance with the Plans. The fiber optic cable's jacket or sheath shall be labeled with the manufacturer's name, the words "CFX 12 SM", "CFX 24 SM" or "CFX 72 SM" accordingly, date of manufacture, type of cable, fiber count and sequential measurement markings every 2 feet.

Corning splice closures with splice tray SCF-6C22-01 (72 count) or SCF-6C28-01 (144 count) shall be used at all locations as noted per plans. Corning splice trays PN: SCF-ST-099 for 72 splice closures or PN: SCF-ST-112 for 144 to 288 splice closures shall be used. The Contractor shall be required to furnish all accessories associated with the splice closures. All fibers shall be terminated into their respective fiber optic patch panel and port as indicated in the plans. Corning Loose Tube Furcation Kits shall be used to protect the drop cables from the environment in the cabinets. All accessories shall be manufactured by Corning.

Corning 12 count fiber optic cables shall consist of one (1) blue buffer tube containing twelve (12) fibers, all outside plant fiber optic cables shall be manufactured with twelve (12) fibers per buffer tube. The fibers shall be colored as stated: blue, orange, green, brown, slate, white, red, black, yellow, violet, rose and aqua. The number of buffer tubes varies depending on the total number of fibers present in the cable.

633-1.1 Aboveground Materials

633-1.1.1 Cable Support Wire: Provide utilities grade zinc-coated support wire meeting the requirements of ASTM A475, whether separate or integral to signal cable; having a minimum nominal diameter of ¼ inches.

633-1.1.2 Cable Attachment Hardware: Ensure that all bolts and nuts less than 5/8 inches in diameter are passivated stainless steel, Type 316 or Type 304 and meet the requirements of ASTM F593 and ASTM F594 for corrosion resistance. Ensure that all bolts and nuts 5/8 inch hardware with sufficient tensile strength for the application. Use stainless steel lashing wire, galvanized or stainless steel lashing rod, cable rings or self-locking cable ties of UV stabilized black plastic having a minimum tensile strength of 100 pounds.

633-2 CONSTRUCTION DETAILS

The Contractor shall install the Fiber Optic Cable and Optical Fiber Splice Closures at locations indicated in the Plans. For locations with existing Optical Fiber Splice Closures, the Contractor shall re-enter the Splice Closures to perform fiber splicing. For locations where splice closures are

existing and are to be replaced, the cost for removing the existing splice closure shall be included in the installation pay item. Only fusion type splices shall be permitted. The splices shall be protected using heat shrinks, Corning PN 2806031-01 or CFX approved equivalent, and stored in a Corning 12-position splice organizer/tray specifically designed for the protection of the device.

In locations where new patch panels are being installed in the toll plazas, the Contractor shall be required to note the buffer and fiber color for all existing connections and corresponding spares that are not being transferred to the Gigabit Ethernet Distribution fibers. At no time shall the Contractor use a fiber optic patch cord as a "pigtail". Once the new patch panels have been installed and the existing connections terminated in their respective ports, the Contractor shall reconnect the associated equipment and confirm that the equipment is functioning correctly. In addition, the Contractor shall label every fiber patch cord, buffer tube, and individual fiber that appears in the patch panel. The new ports shall be noted on the as-builts. This work shall be incidental to the patch panel installation.

All incidental equipment which is necessary to complete the installation, but are not specified herein or on the Plans, shall be provided as necessary to provide a complete and functional installation.

The Contractor shall coordinate the change-over of patch panels in the toll plazas with CFX to ensure that no individual device is down for more than two (2) hours. The Contractor shall further ensure that the existing Ethernet backbone systems are maintained at all times with no loss in connectivity. At no time will both sides of the Ethernet Rings be permitted to be down simultaneously. In order to ensure that the down-time for the equipment is minimal, the Contractor shall anticipate a number of trips to each toll plaza and that the change-over will need to be done incrementally. No additional time or compensation will be provided. A Method of Procedure (MOP) shall be submitted to CFX for review and approval by the CEI prior to beginning any work in the toll plazas. A mandatory pre-splice meeting shall be held with all parties involved to review the MOP and possible restoration procedures when change-over is not successful.

633-3 INSTALLATION DETAILS

633-3.1 Fiber Optic Cable Installation: Install all materials and equipment according to the latest version of the manufacturer's installation procedures. Ensure that all materials and installation practices are in accordance with the applicable OSHA requirements as found in 29 CFR Part 1926, Safety and Health Standards for Construction. In addition, perform the following:

1. Ensure conduit and inner-duct is clean and free from damage prior to installing fiber optic cable.
2. Document the sequential cable length markings at each splice box and pull box wall that the cable passes through, and include the information with the as-built documentation.

Provide all incidental parts needed to complete the installation, but not specified in the Plans, as necessary for a complete and properly operating system.

633-3.1.1 Cable Identification: Develop a nomenclature plan for identification of fiber optic cable. Submit the nomenclature plan to the Engineer for approval. Use approved cable nomenclature to create cable tags for the identification of fiber optic cable. Provide cable tag identification on all test results or fiber related documents submitted to the Engineer. Install cable tags within 1 foot of each splice and/or termination point indicating the cable type, fiber count, and each fiber optic cable origination and termination points. Ensure that the cable tags are permanent labels suitable for outside plant applications and are affixed to all fiber optic cables. Ensure that lettering is in permanent ink and displays the phrase “CFX FIBER OPTIC CABLE”.

633-3.1.2 Pulling: Install the fiber optic cable by hand or by using a mechanical pulling machine. If a mechanical pulling machine is used, equip the machine with a monitored or recording tension meter. Ensure that at no time the manufacturer’s recommended maximum pulling tension is exceeded. Ensure that the central strength member and aramid yarn are attached directly to the pulling eye during cable pulling. Use pulling attachments, such as “basket grip” or “Chinese finger” type, to ensure that the optical and mechanical characteristics are not degraded during the fiber optic cable installation.

Ensure that excess cable is coiled in a figure eight and fed manually when pulling through pull boxes and splice boxes by hand. If pulleys and sheaves will be used to mechanically pull through pull boxes and splice boxes, submit a drawing of the proposed layout showing that the cable will never be pulled through a radius less than the manufacturer’s minimum bend radius. Use large diameter wheels, pulling sheaves, and cable guides to maintain the appropriate bend radius. Provide tension monitoring at all times during the pulling operation. Ensure that cable pulling lubricant used during installation is recommended by the optical fiber cable manufacturer.

633-3.1.3 Blowing: Use either the high airspeed blowing (HASB) method or the piston method. When using the HASB method, ensure that the volume of air passing through the conduit does not exceed 600 cubic feet per minute or the conduit manufacturer’s recommended air volume, whichever is more restrictive. When using the piston method, ensure that the volume of air passing through the conduit does not exceed 300 cubic feet per minute or the conduit manufacturer’s recommended air volume, whichever is more restrictive.

633-3.1.4 Withdrawing: The Contractor shall withdraw the fiber optic cable by hand. The cable shall be withdrawn systematically between each manhole or pull box along the conduit line to pull the cable back. A pull box or manhole may not be skipped as a pulling point. The Contractor shall lay the cable in a figure eight formation at each manhole or pull box. The contractor shall not leave the cable coiled outside of the conduit system overnight. Prior to performing any work in this section, the contractor shall reference and follow the requirements outlined in CFX specification 603A.

633-3.1.5 Slack Cable Storage: As note in plans.

633-3 TESTING REQUIREMENTS

Prior to beginning any formal testing using an Optical Time Domain Reflectometer (OTDR), the Contractor shall certify that each tester has received complete training in the proper use of the OTDR by a factory representative from the OTDR manufacturer. In addition, all OTDR shall have had a factory calibration within one year of testing. The OTDR settings used shall be consistent between different test personnel and shall be optimized to the test being performed. For example, the vertical scale and distance range settings on the OTDR shall be set such that the trace fills most of the window. The Contractor shall submit the names of the trainees, dates trained, and the name(s) and contact number for the instructor(s).

The Contractor shall test every installed fiber optic cable link using an Optical Time Domain Reflectometer (OTDR). Prior to OTDR testing, the Contractor shall submit to CFX for approval setup parameters, data forms for the tests, and a detailed test procedure that shall be based on the Corning Standard Recommended Procedures. The Contractor shall also submit calculated estimates of the total attenuation loss expected for each completed link based on optical cable loss, connector loss and splice loss for approval. Once calculated and approved, the fiber loss for each fiber link will be the minimal acceptance benchmark for OTDR acceptance testing.

The Contractor shall perform on-the-reel OTDR testing as well as OTDR testing on the installed fiber optic cable. The Contractor shall perform OTDR testing for all fibers within each single mode fiber optic cable at 1310 and 1550nm.

Prior to the installation, the Contractor shall first perform on-site on-the-reel OTDR testing at 1310nm and 1550nm to demonstrate continuity and measure the attenuation. The Contractor shall test all fibers on each reel of cable. On-the-reel testing shall be done in one direction only. The resultant OTDR trace(s) shall reflect overall length and attenuation expressed in dB/km. The results of the on-site tests and the manufacturers on the reel tests that were performed at the factory shall be compared. If the on-site test results are not within $\pm 3.0\%$ of factory data, then the reel shall be rejected. The Contractor shall supply hard copy and disk-based (with applicable software) OTDR traces of the testing to CFX for approval prior to installation of cables.

Prior to withdrawing existing cable for re-installation, the Contractor shall first perform OTDR testing at 1310nm and 1550nm to demonstrate continuity and measure the attenuation. The Contractor shall test all fibers in the cable. The resultant OTDR traces shall reflect overall length and attenuation expressed in dB/km. The Contractor shall supply hard copy and disk based OTDR traces of the testing to CFX. After re-installation of the cable, the contractor shall perform the same OTDR tests on the cable and provide the results to CFX in a hard copy and disk based. CFX representatives will then compare the test results and if the test results are not within $\pm 3.0\%$ of the original tests, then the cable shall be deemed damaged and shall be replaced at the contractor's expense.

The Contractor shall perform bi-directional end-to-end OTDR tests at 1310nm and 1550nm on every fiber of the installed single mode fiber optic cable. A launch cable with a length of at least 500 feet shall be used. The specific make, model, and length of the launch cable will be noted in the OTDR documentation. Splice losses shall not exceed 0.08 dB at the splice and shall be OTDR tested bi-directionally. Each OTDR event shall not exceed 0.10 dB, measured at 1310nm.

The Contractor shall provide the final and passing result of the tests for all links including those extra fibers, which the Contractor elects to include above those invoiced, in order to meet the requirements in accordance with these Plans and Specifications in the test results documentation.

Final inspection and acceptance of the fiber optic cable shall be made after the completion of the installation, testing and CFX's approval in accordance with the Plans and Specifications.

The Contractor shall furnish data forms containing all of the data taken, as well as quantitative results for all tests. The Contractor shall supply hard copy and disk-based (with applicable viewing software) OTDR traces for CFX approval.

633-4.1 Testing Equipment Certification Requirements

All Optical Time Domain Reflectometers (OTDR) shall have a current notarized certificate of accuracy and calibration including the model type and serial number of the device stated on the certification. Current is defined as not exceeding one (1) year since calibration. If a devices calibration certification has expired, CFX reserves the right to request the device be re-certified and all fibers previously tested by the device in question re-tested at the Contractors own cost. All fusion splicing devices shall be calibrated on a yearly basis. The Contractor shall provide a current notarized certificate of accuracy and calibration including the model type and serial number of the device stated on the certification.

CFX shall not be held liable for any retesting due to equipment not possessing a current notarized certificate of accuracy and calibration.

633-4 MEASUREMENT OF PAYMENT

The Fiber Optic Cable will be measured for payment as linear foot installed, warranted, made fully operational, and tested. Optical Fiber Splice Closures will be included in the payment for Fiber Optic Cable at locations shown in the Plans.

633-5 BASIS OF PAYMENT

The unit price bid for all cable, closures, and equipment shall include the cost for furnishing all labor, materials, tools, equipment, and testing equipment necessary to complete the work. All items of work required by these specifications that do not have a separate pay item number shall be considered incidental to 633-121-X. No additional compensation will be given.

633-121-2	Fiber Optic Cable (12 SM Fiber) (F&I) (LF)
633-121-3	Fiber Optic Cable (24 SM Fiber) (F&I) (LF)
633-121-4	Fiber Optic Cable (72 SM Fiber) (F&I) (LF)
633-121-5	Fiber Optic Cable (12 SM Fiber) (F&I)(Aboveground Installation) (LF)
633-121-6	Fiber Optic Cable (Existing) (Withdraw and Relocate) (LF)
633-141-4	Fiber Optic Splice Enclosure (72 Splice) (F&I) (EA)
633-141-5	Fiber Optic Splice Enclosure (144 Splice) (F&I) (EA)
633-141-6	Fiber Optic Splice Enclosure (288 Splice) (F&I) (EA)

633-141-7 Fiber Optic Fusion Splice (EA)

633-141-8 Existing Fiber Optic Splice Enclosure Re-entry (EA)

Payment will be made as described in the Measurement and Payment specifications for this Contract.

END OF SECTION 633

SECTION 635 ITS PULL BOXES

635-1 DESCRIPTION

Under this Section, the Contractor shall furnish and install pull boxes for power and fiber optic cable. The Contractor shall furnish and install large fiber optic pull boxes that can simultaneously accommodate up to 100 feet of fiber optic cable slack - The Contractor shall also furnish and install small fiber optic pull boxes capable of simultaneously housing 50 feet of fiber optic slack.

All fiber cable referenced in this specification shall meet the requirements of Technical Specification Section 633.

635-2 MATERIALS

All Pull and Junction Boxes used for power and fiber optic applications shall be listed on the Florida Department of Transportation's Approved Product List (APL). Ensure that all Pull Boxes and Junction Boxes are marked in accordance with CFX Standards and the markings are visible after installation. All Pull and Junction Boxes shall be submitted to CFX for approval.

All materials furnished, assembled, fabricated or installed shall be new, corrosion resistant and in strict accordance with all of the details shown in the Plans and described in the Technical Special Provisions.

635-2.1 Specific Requirements

The Contractor shall provide large fiber optic pull boxes where the 12-fiber cable from the ITS Device Location or Cabinets ties into the existing FON backbone duct bank. The Contractor shall provide small fiber optic pull boxes at the base of each ITS Device Location or Cabinets, or as shown on the plans.

635-2.2 Large Fiber Optic Pull Box

Each large fiber optic pull box shall be round with a minimum opening diameter of 36 inches. The bottom of the box shall have a minimum diameter of 43 1/8 inches. The box shall be a minimum of 36 inches tall. The box shall be capable of accommodating 100 feet of slack in each direction of 72 or 144-fiber cable, 50 feet of slack of 24-fiber cable, and 50 feet of slack of 12-fiber cable simultaneously without exceeding the cable's minimum bend radius.

The large fiber optic pull box cover shall have a minimum diameter of 39 inches, and have a recessed label "CFX FIBER" stamped on it. The large fiber optic pull box shall include four (4) galvanized steel "L" shaped brackets and galvanized steel incidental hardware capable of securely hanging slack cable in a wound up organized horizontal manner within the pull box. The cover shall be able to support loading in compliance with requirements of the Florida Department of Transportation's APL. The Contractor shall furnish shop drawings and design load calculations of the large fiber optic pull box for review and approval by CFX.

635-2.3 Small Fiber Optic Pull Box

Each small fiber optic pull box shall be round with a minimum opening diameter of 24 inches. The bottom of the box shall have a minimum diameter of 33 1/4 inches. The box shall be a minimum of 36 inches tall. The box shall be capable of housing 50 feet of slack 12-fiber cable and 50 feet of slack 24-fiber cable simultaneously without exceeding the cable's minimum bend radius.

The small fiber optic pull box cover shall be a minimum of 27 3/8 inches in diameter and be able to support loading in compliance with requirements the Florida Department of Transportation's Specifications, and have a recessed label "CFX FIBER" stamped on it.

The Contractor shall furnish shop drawings and design load calculations of the small fiber optic pull box for review and approval by CFX.

635-2.4 Electrical Pull Box

The Electrical Pull Box shall be 13" x 24"x12" and shall meet all requirements of the Minimum Specifications for Traffic Control Signal Devices. The covers shall be stamped "CFX POWER"

635-2.5 Grounding Pull Box

The Grounding Pull Box shall be 13" x 24"x12" and shall meet all requirements of the Minimum Specifications for Traffic Control Signal Devices. The covers shall be stamped "CFX GROUNDING".

635-2.6 Junction Box

The Junction Box shall be a minimum of 16" x 12" x 6" and shall meet all requirements of the Minimum Specifications for Traffic Control Signal Devices.

635-2.7 Concrete Mow Pads

All Small Fiber Optic Pull Boxes, Large Fiber Optic Pull Boxes, Grounding Pull Boxes and Electrical Pull Boxes installed in unpaved areas shall be protected with CFX-approved concrete mow pads. The concrete mow pads shall conform to the CFX ITS Design Standards to meet the size requirements and protect the pull boxes from mowing blades and other roadside machinery. Cost to furnish and install Concrete Mow Pads shall be incidental to the Pull Box furnish and install pay item.

635-2.8 Grounding of Pull Boxes

If metallic pull boxes are called for, they shall be grounded according to Section 620A of the CFX Technical Specifications and as shown in the Plans. Pull boxes that do not contain any conductive metal do not need to be grounded.

635-3 PULL BOX INSTALLATION

Install pull boxes in accordance with CFX ITS Design Standards. Ensure that the pull box cover is flush with the finished grade, sidewalk or concrete apron. Do not install pull boxes in roadways, driveways, parking areas, ditches or public sidewalk curb ramps.

635-4 MEASUREMENT OF PAYMENT

The pull boxes will be measured for payment as the number of complete units furnished and installed including all materials specified herein.

636-4.1 Pay Item No. 635-60 – Pull Box (Remove – All Types) –EA

Payment shall include the complete removal and responsible disposal of one complete pull box assembly. This will include all for all labor, equipment, materials, material handling and incidentals necessary to remove the pull box, cover and any associated racking, duct plugs and grouting as specified, including dewatering, shoring, backfilling, compaction tamping and restoration to match surrounding area. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original type turf grass or mulch.

635-5 BASIS OF PAYMENT

The unit price bid for the large and small fiber optic pull boxes shall include the cost of furnishing all labor, materials, tools and equipment necessary to complete the work.

Payment for all documentation and testing specified herein shall be included under the following items:

- 635-1-11 Pull Box (F&I) EA
- 635-1-12 Small Fiber Optic Pull Box, 24” Dia, (F&I) EA
- 635-1-13 Large Fiber Optic Pull Box, 36” Dia, (F&I) EA
- 636-1-14 Junction Box (Surface Mounted) (F&I) EA
- 635-1-30 Pull Box (Adjust – All Types) EA
- 635-1-60 Pull Box (Remove – All Types) EA

Progress payments will be made as described in the Measurement and Payment section for this Contract.

END OF SECTION 635

SECTION 638

ITS COMMUNICATIONS AND POWER CONDUIT SYSTEMS

638-1 GENERAL

This Section establishes the general requirements for the construction of underground communication and power conduit systems.

638-1.1 Description

The work includes direct buried unsheathed bundles of high-density polyethylene (HDPE) for communication conduits. The power conduit system runs shall consist of two (2) direct buried unsheathed two-inch grey high-density polyethylene (HDPE) conduits and completed with polyvinyl chloride (PVC) at the power termination point with a 90-degree sweep into the power pull box. All connections between conduits of different materials, e.g.; HDPE and PVC, PVC and RGS shall be completed by CFX approved conduit couplers prior to construction. Hot dipped rigid galvanized steel (RGS) shall be used in electrical above ground applications. Above ground shall be defined as at and above the line of grade, see CFX ITS Design Standards, Section J. Work shall also include sections of HDPE conduit bundles encased with PVC, HDPE, bullet-resistive fiberglass, rigid steel pipe, or cast-in-place concrete for extra mechanical protection as required in the plans. Encasement may be required for extra mechanical protection at locations such as bridge crossings, drainage structure crossings, and other locations where the communications conduit require protection from potential damage from exposure to the elements, vandalism, collision or dig-ups. The work also includes the provision of grey color HDPE SDR 11 outer duct for future installation of HDPE conduit.

The main backbone communications conduit system shall include a minimum of nine, 1-inch HDPE conduits placed generally along both sides of the roadway mainline under the outside paved shoulder. The backbone conduit system generally will NOT be placed on the median side of the roadway. The ninth conduit shall be a black w/red stripe 1-inch HDPE conduit and be placed on top of the eight 1-inch fiber optic HDPE conduits to house the LMS tone wire in all locations. This tone wire will be used to locate the installed optical cable after construction is complete.

Lateral communications conduit systems consisting of a minimum of four, 1-inch HDPE conduits shall be placed at intervals along the backbone to connect the main backbone conduit system to the mainline toll plaza facilities and ramp toll plaza facilities.

Drop communications conduit systems shall consist of a minimum of three 1-inch HDPE conduits, which includes a HDPE conduit for the tone wire that is black with a red stripe.

All conduits shall be placed in accordance with these Plans and Specifications.

638-2 PRODUCTS

638-2.1 *Acceptable Manufacturers*

All component parts common to the conduit system shall be the product of the same manufacturer unless otherwise approved by CFX.

638-2.2 Standards

The material used by and workmanship completed by Contractor shall be in accordance with best industry standards. All material, equipment and supplies used shall comply with the latest applicable standards and regulations of the following:

- Underwriters Laboratories, Inc. (UL),
- National Board of Fire Underwriters,
- National Fire Protection Association (NFPA),
- National Electrical Manufacturers Association (NEMA),
- American National Standards Institute (ANSI),
- American Society of Testing & Materials (ASTM),
- Institute of Electrical and Electronics Engineers (IEEE) and
- Any requirements as they apply to the State of Florida.

All materials, fixtures, equipment, appliances, accessories and components that are not in accordance with the specific standards and requirements shall require approval by CFX.

638-2.3 Conduit Dimensions

The conduit dimensions used here shall represent the nominal trade sizes. The inside diameter shall be no less than the conduit dimension specified.

638-2.4 Useful Life

All products used for the communications conduit system shall be designed, manufactured and installed to facilitate a minimum useful life of 20 years.

638-2.5 Governing Specifications

If multiple requirements or standards are specified for any single item or component of the communication conduit system, the more stringent requirement or standard shall govern.

638-2.6 Material and Fabrications

638-2.6.1 High-Density Polyethylene (HDPE) Conduit and Appurtenances

638-2.6.1.1 Conduit

The Contractor shall provide High-Density Polyethylene (HDPE) conduit where the Plans specify. For communications, the Contractor shall provide nominal 1-inch, HDPE SDR 11 conduit manufactured in accordance with ASTM specification F2160, which shall have smooth walls inside and outside. For underground power and composite cable applications (installed separately), the Contractor shall provide nominal 2-inch, HDPE SDR 11 conduit, grey in color manufactured in accordance with ASTM specification F2160, which shall have smooth walls inside and outside. In order to conform to ASTM F2160, the conduit shall meet the following ASTM D3350 Cell Classification:

Allowable ASTM D3350 Cell Classification Values

	#	#	#	#	#	#	X
	↑	↑	↑	↑	↑	↑	↑
Allowed values	3	2	4	4	3	0	E
	4	3	5	5	4	1	
		4			7	2	
						3	
						4	
Property	Density	Melt Index	Flexural Modulus	Tensile Strength	Slow Crack Growth Resistance	Hydrostatic Strength Classification	Color and UV Resistance
ASTM Test Method	D1505, D792, or D4883	D1238	D790	D638	D1693 or F1473	D2837	D3350

For example, ASTM D3350 Cell Classification 335434E would meet this specification, as would 335440E. All HDPE conduit submitted for approval shall meet Color and UV Resistance Property “E” as defined by ASTM D3350.

In addition to HDPE conduit material cut sheets, the Contractor shall submit a Letter of Certification from the conduit manufacturer documenting that the conduit submitted for CFX approval meets all requirements of ASTM F2160.

638-2.6.1.2 Conduit Color Code System

All HDPE conduit systems shall be color-coded. The color code format shall be orange, blue, brown, green, white, black, yellow, red w/gray stripe and black w/red stripe. The color code format for lateral conduit shall be orange, blue, brown, and green. The conduit shall retain its original color throughout the useful life of the conduit system. The conduit color shall be uniform throughout the conduit material. The conduit color shall be stable and colorfast so as not to fade, bleed, smear, run or otherwise react or blend with other materials which may come in contact with the HDPE conduit.

638-2.6.1.3 Conduit Couplers

HDPE: The Contractor shall provide 1-inch electrofusion conduit couplers for the connecting of two HDPE conduits together such as end of reel locations or any location where HDPE conduits join. HDPE electrofusion process shall be used provided the interior wall diameter remains smooth. Conduit couplings may be placed side by side horizontally, but staggered at least 6 inches vertically. All conduit couplers shall meet the requirements of ASTM Standard F2176.

638-2.6.1.4 Conduit Plugs

The Contractor shall provide and install duct plugs as manufactured by Carlon; Duct Plugs model number(s); MAEPG2 through MAEPG7 as needed TM, or CFX approved

equivalent, to completely seal all HDPE conduit openings.

638-2.6.2 Polyvinyl Chloride (PVC) Conduit and Appurtenances

638-2.6.2.1 *Direct Burial (Outer Duct) Conduit*

The Contractor shall provide 6-inch or 4-inch PVC conduit, to encase the HDPE conduits as shown on the Plans, manufactured by OMNI™, or CFX approved equivalent, for placement in underground applications. This conduit shall be Schedule 40. U.L. listed Schedule 40 PVC is not required. The Contractor shall provide 4-inch PVC 90° 6-foot radius bends as manufactured by OMNI™, or CFX approved equivalent, for placement in manhole stub-outs, as shown on the Plans.

638-2.6.2.2 *Direct Burial Power Run and Grounding Conduit*

The Contractor shall provide 3/4 inch, 1 inch or 2-inch PVC conduit, as shown on the Plans, manufactured by OMNI™, or CFX approved equivalent, for placement in underground applications. This conduit shall be Schedule 40 or 80 Polyvinyl Chloride (PVC) U.L. listed 641. The Contractor shall use conduit with solvent type slip-fit plastic couplings unless approved by the Engineer. Provide 3/4 inch, 1 inch or 2-inch PVC 90° 6-foot radius bends as manufactured by OMNI™, or CFX approved equivalent, for placement in manhole stub-outs, as shown on the Plans.

638-2.6.2.3 *Joining System*

The Contractor shall provide OMNI™, or CFX approved equivalent PVC conduit with either an integral bell on one end, or a bonded-on coupling and a machine end spigot on the other end. Plastic solvent cement adhesive shall be liberally applied to the spigot end before joining the conduit together in accordance with the manufacturer's recommendations.

638-2.6.2.4 *Fittings and Accessories*

All fittings, elbows and accessories shall be as recommended by OMNI™, or CFX approved equivalent PVC conduit manufacturer, manufactured from the same process, using the same methods and chemicals as the pipe.

638-2.6.2.4.1 *Conduit Couplers: PVC*

The Contractor shall provide conduit couplers manufactured by OMNI™, or CFX approved equivalent, for the connecting of two PVC conduits together.

638-2.6.2.5 *Conduit Color Code*

All PVC conduit shall be grey in color.

638-2.6.3 Bullet-Resistive Fiberglass Conduit (BRFG) and Appurtenances

638-2.6.3.1 *Conduit*

The Contractor shall provide 6-inch BRFG conduit manufactured by OMNI™, or CFX approved equivalent, for placement in bridge crossing applications, as shown on the

Plans. This conduit shall be manufactured in accordance with the following specifications.

638-2.6.3.2 All fiberglass conduit used for this project shall meet or exceed the following:

Color	Grey only
Nominal size	6 inches
Outside Diameter	6.50 inches, average
Inside Diameter	6.0 inches, minimum
Wall Thickness	0.25 inches, minimum
Length	20 feet
Bell Depth	6 inches + or - ½”.

638-2.6.3.3 *Fiberglass Winding*

The fiberglass conduit shall have a winding angle as close as possible to 54.75 degrees. All 6-inch pipe shall be manufactured by applying single circuit winding. The resin system shall be epoxy based using an anhydride-curing agent. The fiberglass shall consist of continuous E-glass roving.

638-2.6.3.4 *Fiberglass Curing*

Curing shall take place in two steps. The first curing zone shall bring the pipe slowly to the gel temperature. The second zone shall post-cure the pipe at no less than 350 degrees F and the pipe has to be properly cured, i.e. when measuring the glass transition temperature with a differential calorimeter, the difference between the first measured and the second shall not exceed 5 degrees F. The glass transition temperature shall exceed 115 degrees C.

638-2.6.3.5 *Electrical Characteristics*

Dielectric strength shall exceed 450 volts/mil when tested in accordance with ASTM 0-149.

638-2.6.3.6 *Mechanical Characteristics*

The conduit shall have following mechanical strength when tested in accordance with referenced test method:

Tensile strength, ultimate	11,000	ASTM D2105
Coefficient of thermal expansion	1.0x10 ⁻⁵ in/in/degree F	ASTM D696
Glass content	65-70%	API 15LR
Water absorption	1% max	ASTM D570
Glass transition temperature	215 degree F	API 15LR
Impact resistance	Size 6”	>600 lbf

638-2.6.3.7 *Joining System*

The Contractor shall provide conduit with either an integral wound bell on one end, or a bonded-on coupling and a machine end spigot on the other end. A two-component epoxy adhesive shall be applied to the spigot end before joining the conduit together.

The adhesive shall be supplied in 50ml 2-part cartridges, using a plastic tip mixer attached to the cartridges. The adhesive will be applied by using an adhesive gun.

638-2.6.3.8 *Fittings and Accessories*

All fittings, elbows and accessories shall be as recommended by the *BRFG* manufacturer, manufactured from the same process, using the same methods and chemicals as the pipe.

638-2.6.3.9 *Expansion Joints for BRFG*

The Contractor shall provide 6-inch expansion joints suitable for use with BRFG conduit manufactured by OMNI™ or CFX approved equivalent, for the connecting of two BRFG conduits together. The Contractor shall install expansion joints on all bridge-attached BRFG conduits at intervals not to exceed 100 feet

638-2.6.3.10 *Bridge Hangers*

The Contractor shall provide bridge hangers to support the BRFG conduits. The bridge hanger spacing shall not exceed 10 feet. The bridge hangers shall be made of hot-dipped galvanized steel and have fiberglass coated Unistrut™ above and below the BRFG conduit and fiberglass sleeves around the all-thread vertical members on either side. The bridge hangers shall be as manufactured by OMNI™ or CFX approved equivalent.

638-2.6.3.11 *Conduit Seals (Between Outer Duct Openings and Inner Duct Conduits)*

The Contractor shall seal the openings between the 1-inch HDPE conduits and the 6-inch outer conduit with a non-shrink grout or expandable foam sealant listed on the FDOT Qualified Products List (Specification 934, Non-Shrink Grout), in accordance with the Specifications.

638-2.6.4 *Black Steel Pipe (BSP) and Split Black Steel Pipe (SBSP) – Encasement Conduit*

The Contractor shall provide 6-inch or 8-inch Schedule 80 BSP or SBSP conduit manufactured by Pittsburgh Pipe, or CFX approved equivalent, for placement in underground applications, as shown on the Plans. This conduit shall have a minimum wall thickness of 0.432 inches for a 6-inch pipe and a minimum wall thickness of 0.500 inches for a 8-inch pipe and shall meet the basic materials and dimensions in accordance with ASTM A53, Type S, Grade A for Schedule 80 pipe. SBSP pipe shall be split with two seams for the purpose of encasing existing conduit. BSP shall be used for construction in all new proposed locations. SBSP shall be used to protect existing infrastructure and in areas where BSP installation would not be practical.

638-2.6.4.1 *BSP and SBSP Installation Beneath Shoulder Guardrails*

The Contractor shall install 6-inch or 8-inch Schedule 80 BSP or SBSP as applicable a minimum of 10 feet in length beneath shoulder guardrails or in and around obstructions or existing or proposed utility duct banks, per ITS Design Standards, Section A; Typical Utility Corridor and/or as shown in the plans. BSP and SBSP securely joined meeting section 638-2.6.4.2 shall be accepted.

638-2.6.4.2 *BSP and SBSP Material Requirements*

BSP and SBSP material requirement rating shall meet ASTM A53 and A106 pressure rating and ANSI B31.1. SBSP shall be securely fastened and water tight to prevent moisture and other environmental hazards out of the assembly.

638-2.6.5 **Rigid Galvanized Steel (RGS)**

638-2.6.5.1 *Above Ground RGS Installation and Material Requirements*

Use conduit designed and manufactured for use in long-term above-ground applications to prevent material deterioration. RGS shall be UL 6 rated and built to ASTM A53. Use conduit that is hot-dipped galvanized steel, with both ends reamed and threaded. Securely attach above-ground conduit installations to the surface of the supporting structure using conduit straps. As a minimum, use conduit straps located on 5 foot centers. Use galvanized metal conduit straps when installing rigid galvanized conduit above ground. Sizes shall be as called out in the plans.

638-2.6.5.1.1 *Conduit Straps*

The material used in conduit strap installation shall be of the same type of material as the conduit that it is attached to prevent corrosion.

638-2.6.6 **Tone Wire for Location of Underground Ducts and Conduits**

The Contractor shall provide a #12 AWG, stranded or single conductor copper core, 45 mil high-density polyethylene insulated underground tone wire, manufactured by Burton Wire & Cable or CFX approved equivalent, description "12 AWG stranded or solid soft annealed bare copper, 0.045 nominal high density polyethylene, weather resistant polyolefin". The tone wire high-density polyethylene sheath shall be orange in color and UV stabilized. The tone wire shall be manufactured in accordance with ASTM B-3 Soft or Annealed Copper Wire and ASTM D 1248 Type III, Class A, Category 4, Grades E8 & E9 Specifications for Weather Resistant Polyethylene Covered Wire Cable.

For duct bank and drop conduit configurations other than nine (9) 1-inch HDPE conduits, follow section 638-3.2.15.

638-2.6.6.1 *Outside Plant Line Management System*

The Contractor shall install the proper materials (equipment, grounding, junction box, etc.) to ensure that the tone wire system continues to support the existing Outside Plant Line Management System. Each lateral tone wire shall end at a junction box outside the ramp toll plaza and be grounded in the designated manhole per plan. The Contractor shall test the tone wire for continuity per CFX specification 631.

638-2.6.7 **Fiber Optic Warning Tape**

The Contractor shall provide 6" wide, 6 mil thick, orange fiber optic warning tape. The warning tape shall have the words "CFX FIBER OPTIC CABLE BURIED BELOW" or similar wording as approved by the CEI permanently printed on the tape media at regular intervals not to exceed 1 foot. This warning tape shall be manufactured in accordance with AWWA color code specification.

638-2.6.8 Tubular Route Marker

The Contractor shall provide Vulcan H-41 tubular route markers (Fiber Part No. 0303381 & Power Part No. 0303382) manufactured by Vulcan Utility Signs and Products, or CFX approved equivalent. The tubular route markers shall consist of a 3-½ inch (outside diameter) white HDPE post, 6-foot length with a minimum wall thickness of 0.125 inches. For designations of fiber conduits, the marker post shall have an orange HDPE cap and a black-on-orange wrap decal with the words “WARNING BURIED FIBER OPTIC CABLE” or similar wording as approved by the CEI, and shall also have the logos of CFX and Sunshine State One Call of Florida with contract numbers permanently printed on it in black polyvinyl film (Avery™ XL1000 Series S-652/78B). The fiber wrap decal shall be Vulcan Utility Signs and Products Part No. 0906529 or CFX approved equivalent. For designations of power conduits, the marker post shall have a red HDPE cap and a black-on-red wrap decal with the words “WARNING HIGH VOLTAGE POWER” or similar wording as approved by the CEI, and shall also have the logos of CFX and Sunshine State One Call of Florida with contract numbers permanently printed on it in black polyvinyl film (Avery™ XL1000 Series S-652/78B). The power wrap decal shall be Vulcan Utility Signs and Products Part No. 0906530 or CFX approved equivalent. Each marker shall be installed over an 8-foot long 2#/ft green channel post (Vulcan Utility Signs and Products Part No. 0550145 or CFX approved equivalent).

The Contractor shall provide additional labeling on all route markers located at FON manholes. The labeling shall consist of a pre-printed label with one (1) inch characters permanently printed with the manhole identification number as found in the FON Outside Plant plans. The labels shall have a self-adhesive backing, be suitable for outdoor applications including UV stabilization, and have a twenty-year life. The Contractor shall submit proposed products for review and approval by CFX.

638-2.6.9 Fiber Optic Manholes

Fiber optic manholes shall be as specified in Section 636 and shown in the Plans.

638-3 EXECUTION

638-3.1 Use

638-3.1.1 High-Density Polyethylene (HDPE) Conduit

The Contractor shall use 1” (nominal size) High-Density Polyethylene (HDPE) conduit where specified. As shown on the Plans, HDPE conduits will be direct buried or encased in an outer duct (i.e., PVC, SBSP, or BRFG).

638-3.1.2 Polyvinyl Chloride (PVC) Conduit

638-3.1.2.1 Main Backbone Conduit System

In areas, as shown on the Plans, where the main backbone HDPE conduit system requires a PVC outer conduit, the conduit shall be a minimum of one, 6-inch PVC conduit equipped with a minimum of nine, 1-inch HDPE conduits installed as inner ducts.

638-3.1.2.2 Lateral Conduits

The placement of lateral conduits from the main backbone conduit system to Mainline Toll Plaza facilities shall utilize one, 6-inch PVC conduit equipped with a minimum of nine, 1-inch HDPE conduits installed as inner ducts, unless otherwise specified on the Plans.

The placement of lateral conduits from the main backbone conduit system to Ramp Toll Plaza facilities shall utilize one, 4-inch PVC conduit equipped with a minimum of four, 1-inch HDPE conduits installed as inner ducts, unless otherwise specified on the Plans.

638-3.1.3 HDPE SDR 11 Outer Duct Conduit

638-3.1.3.1 Main Backbone Conduit System

As shown on the Plans and in areas where the main HDPE backbone conduit system requires a mechanically protected outer conduit, a grey 6" HDPE SDR 11 conduit shall be utilized. The HDPE SDR 11 conduit shall be a minimum of one, 6-inch HDPE conduit equipped with a minimum of nine, 1-inch HDPE conduits installed as inner ducts.

638-3.1.3.2 Utility Obstructions

In utility obstruction areas, a Schedule 80 PVC split conduit or appropriate Schedule 80 BSP or Schedule 80 SBSP shall be installed around the HDPE conduits in lieu of HDPE SDR 11 for mechanical protection. Proper sealing techniques shall be used to securely adhere the conduit together.

638-3.1.3.3 Sleeves for Future Use

One, 8-inch grey HDPE SDR 11 conduit sleeve shall be placed for future use at strategic locations as shown on the Plans and within CFX's right-of-way.

638-3.2 Installation Requirements

638-3.2.1 Construction Standards and Compliance

All conduit systems shall be constructed in accordance with the FDOT Utilities Accommodation Manual. Such methods, specifications and instructions are intended as minimum specifications since each installation will be influenced by local project conditions. Any changes to these methods, specifications and instructions shall be submitted to the CEI for approval prior to their implementation. CFX retains the right to approve or disapprove any changes at its sole discretion. Before beginning any construction, all personnel shall be thoroughly familiar with and shall comply with Occupational Safety and Hazard Act (OSHA) regulations and CFX safety practices and policies.

638-3.2.1.1 Directional Bore

Directional Bore when needed in conjunction with any conduit installation shall be incidental to Section 638-5, Measurement of Payment. Refer to Section 555, Directional Bore for approved construction methods, procedures and materials for

Directional Boring.

638-3.2.2 Construction Location

The conduit system shall be constructed parallel to the roadway under the outside paved shoulder on each side of the roadway except as otherwise indicated on the Plans. When burying a conduit across ditches, the Contractor shall avoid locations that might interfere with natural drainage or be subject to soil erosion and exposure of the conduit. Trench bottoms shall be graded in a manner to facilitate drainage. Trench backfill shall be compacted to 100% of the maximum density as per AASHTO T-99.

638-3.2.3 Multiple Conduit Configurations

When plowing or trenching multiple conduits, the Contractor shall place conduit in a uniform bundle and maintain that configuration throughout the section. Plowing techniques shall be implemented so as to prevent any necking or deformation of the conduits. Conduit installation techniques shall prevent any twisting or other non-linear configuration of the conduit when installed. The Contractor shall be required to demonstrate and test the airtight integrity of the entire conduit bank.

638-3.2.4 Minimum Conduit Bends

638-3.2.4.1 Conduit runs between manholes shall have no more than cumulative 270 degrees of bends or offsets. Also, individual conduit bends shall not exceed the minimum bend radius of a 72-strand single-mode fiber optic cable. All conduit curves shall have a minimum bending radius of 20 feet unless otherwise specified on the Plans and Specifications.

638-3.2.5 Conduit Field Cuts

Make conduit field cuts square and remove all burred edges.

638-3.2.6 Conduit Joints

The Contractor shall make joints in accordance with the manufacturer's recommendations. In the absence of specific recommendations, make the joints as follows:

- Brush plastic solvent cement on the inside of the coupling and on the outside of the conduit ends.
- Slip conduit and fitting together with a quick one-quarter turn to set the joints.

638-3.2.7 Minimum Cover

638-3.2.7.1 HDPE & PVC

The minimum depth of cover for HDPE and PVC conduit shall be 36 inches cover over top of the conduit. If the minimum depth of cover cannot be provided due to soil conditions or obstructions, additional mechanical protection such as concrete encasement shall be provided as directed by the CEI.

638-3.2.7.2 HDPE (for mechanical protection)

The desirable depth of cover for HDPE SDR 11 shall be 36 inches over top of the

conduit. If a minimum 24-inch depth of cover cannot be provided due to soil conditions or obstructions and the conduit cannot be routed under the obstruction, additional mechanical protection such as concrete encasement shall be provided as directed by the CEI.

638-3.2.7.3 *HDPE Sleeves (empty for future use)*

The minimum depth of cover for HDPE SDR 11 shall be 36 inches over top of the conduit. If the minimum depth of cover cannot be provided due to soil conditions or obstructions, the HDPE conduit shall be relocated or buried deeper, as directed by the CEI.

638-3.2.7.4 *Black Steel Pipe and Split Black Steel Pipe (for protection of conduit under guardrail)*

BSP and SBSP shall meet section 638-2.6.4. The minimum depth of cover for BSP or SBSP shall be 36 inches over top of the conduit. If the minimum depth of cover cannot be provided due to soil conditions or obstructions, the BSP or SBSP shall be relocated or buried deeper, as directed by the CEI.

638-3.2.8 *Trenching and Backfilling*

All trenching and backfilling operations shall be completed in accordance with the Specifications, FDOT Utilities Accommodation Manual, the Occupational Safety and Hazard Act (OSHA) regulations and CFX safety practices and policies.

638-3.2.9 *Foreign Utility Crossing*

The conduit facilities may be located under, above or around other buried foreign utilities. Where the conduit facilities cross over or under buried foreign utilities, the conduit facilities shall have a vertical separation of at least 12 inches. Where this 12" separation cannot be met, conduit facilities shall be mechanically protected for a minimum of 36" on either side of the foreign utility. The Contractor shall make appropriate and complete notations on the record drawings where conduit facilities are buried across other foreign structures.

638-3.2.10 *Culvert and Drainage Structure Crossings*

638-3.2.10.1 *Unprotected Conduit*

The conduit may be placed over top of a culvert without protection in areas where 36 inches minimum cover and 12-inches minimum separation from the culvert can be maintained. Excavation to expose the top of the culvert shall be made in advance of the conduit placement operation to ensure that minimum cover and separation can be maintained.

Where the earth cover is less than 36 inches, the conduit shall be placed under the culvert and the minimum 12-inch separation from the culvert shall be maintained.

When the minimum cover cannot be maintained, and the conduit cannot be placed under the culvert, the conduit shall be placed over the culvert with a 24-inch minimum cover and 12-inch separation and protected by encasement as specified below.

638-3.2.10.2 *PVC or Split Black Steel Pipe (SBSP) Protection of Conduit*

When the minimum available cover is between 36 and 24 inches, and the conduit cannot be placed under the culvert, the conduit shall be encased by an PVC Schedule 80 or SBSP Schedule 80 and placed over the culvert with a 24-inch minimum cover and 12-inch minimum separation. The PVC or SBSP outer duct shall extend a minimum of 36 inches beyond the culvert on either side. The PVC or SBSP outer duct may be in the form of a 6-inch outer conduit for 1-inch HDPE conduits or an 8-inch sleeve when an outer conduit of HDPE, PVC or BRFG is already present. A 6-inch PVC or SBSP outer conduit around 1-inch HDPE conduits will not require additional mechanical protection in the form of an additional PVC or SBSP sleeve.

638-3.2.10.3 *Concrete Encasement Protection of Conduit*

When the minimum available cover is less than 24 inches and the conduit cannot be placed under the culvert, the conduit shall be encased by an PVC Schedule 80 or SBSP Schedule 80 and placed over the culvert with a 12-inch minimum separation and encased with concrete.

638-3.2.11 *Bridge Crossings*

The Contractor shall use BRFG conduit to encase the 1-inch HDPE conduits at bridge crossings as indicated on the Plans. The BRFG conduit shall be supported with bridge hangers, as specified herein, at intervals not to exceed 10 feet. Where the BRFG penetrates the sleeve through the bridge end wall, the Contractor shall seal the annular space between the 6-inch BRFG and the 8-inch sleeve with a suitable material and method approved by the CEI.

638-3.2.12 *Conduit Terminations*

638-3.2.12.1 *Manhole Terminations*

Where the conduit terminates into a manhole, the Contractor shall extend the conduit into the manhole beyond the inside face of the manhole wall by a minimum of 6 inches and a maximum of 12 inches before cutting. The wall opening shall be properly sealed as specified in Section 636. The conduit shall be properly capped as specified.

638-3.2.12.2 *Conduit Termination*

Where a termination manhole is not specified, the Contractor shall properly cap and seal the end to prevent damage by intrusion of deleterious material, per Specification 636.

638-3.2.13 *Coordination and Interface with Adjacent Conduit System Projects*

It is CFX's intent that the Communication Conduit System to be constructed under this Contract is to be part of an overall Communication Conduit System, parts of which are constructed by others. Where the conduit system in an adjacent roadway section is complete and existing at the time of this construction, the Contractor shall extend the conduit system to the existing fiber optic manhole at the limits of the adjacent project. If there is not an existing manhole available, the Contractor will be required to add one in accordance with the Fiber Optic Manhole Specifications found in Section 636.

638-3.2.14 Conduit Seal

The Contractor shall thoroughly seal all conduit systems such that they are airtight and do not allow the ingress of water, dirt, sand and other foreign materials into the conduit prior to, during and after construction. Conduits containing communications or power conductors shall be sealed with an oil based RoHS compliant duct seal. All spare conduits shall be sealed with Carlon Duct Plugs model number(s); MAEPG2 through MAEPG7 as needed. Spare six (6) inch and eight (8) inch conduits shall use P258RT 6-inch and HVAC express FC8 -8-inch or CFX approved alternate.

638-3.2.14.1 Conduit Stub-Out Terminations

The Contractor shall provide and install conduit caps or duct plugs as specified for a watertight seal on the conduit.

638-3.2.14.2 Manhole Conduit Terminations

The Contractor shall provide and install duct plugs as described in this specification to seal all 1-inch HDPE conduit openings.

638-3.2.14.3 Sealing of Encasement / Outer Duct Around 1-Inch HDPE Inner Duct Conduits)

The Contractor shall seal the openings between the 1-inch HDPE conduits and the outer duct with a non-shrink grout or expandable foam sealant listed on the FDOT Qualified Products List (Specification 934, Non-Shrink Grout), in accordance with the Specifications.

638-3.2.15 Tone Wire for Location of Underground Conduits

638-3.2.15.1 The Contractor shall install the tone wire in a manner to facilitate the complete and proper use of the Outside Plant line management system. It is the intention of CFX to adhere to best practices by requiring that all tone wire is protected and installed within a 1" conduit with the exceptions as stated in 638-3.2.15.3 and 638-3.2.15.4..

638-3.2.15.2 The Contractor shall install the tone wire in the black w/red stripe conduit above the centerline of the entire backbone and lateral conduit system as indicated in the Plans and run continuously through or spliced inside the manholes to provide for future locating without damage to its insulated sheath. In the case of eight (8) existing 1-inch HDPE conduits, the contractor shall install the tone wire in the yellow conduit.

638-3.2.15.3 For device drop locations, the following procedures shall be followed. In the case where an outer conduit is used to house four (4) 1-inch HDPE inner duct conduits such as in a directional bore, the tone wire shall run inside the outer conduit with the four (4) 1-inch inner conduits. In the case where four (4) 1-inch HDPE conduits are trenched or direct buried as for a device drop, the tone wire shall be encased in the black with red stripe 1-inch HDPE inner duct. In the case where three (3) 1-inch HDPE conduits are trenched or direct buried as for a device drop, the tone wire shall be encased in the black with red stripe 1-inch HDPE inner duct.

638-3.2.15.4 The Contractor shall install the tone wire system in a continuous circuit. Lateral locations (i.e., to ramp toll plazas) shall have a separate tone wire installed between the manhole and the ramp plaza building. The lateral tone wire shall be installed inside the 4-inch lateral PVC conduit. All splices shall be environmentally protected in accordance with the manufacturer's recommendations with a 3M Electrical Products Division DBR-6 or DBY-6 encapsulated splice enclosure.

638-3.2.15.5 The Contractor shall splice the tone wire to the existing tone wire system installed in adjacent project sections at each end of the backbone for a continuous circuit.

638-3.2.16 Fiber Optic Warning Tape

The Contractor shall provide and install 6-inch wide continuous orange fiber optic warning tape, as specified herein, placed 18 inches below the finished grade.

638-3.2.17 Tubular Route Markers

The Contractor shall install tubular route markers at intervals not to exceed 4000 feet (for fiber), 500 feet (for power) installed 2'-0" behind (toward the right-of-way) the centerline of the conduit where it is not installed under pavement or structure and along the centerline of all lateral conduit systems. Tubular route markers shall also be installed at all locations along the conduit route where the conduit changes direction, at each end of a directional bore, and at all manholes not installed in pavement. The tubular route markers shall be installed in accordance with the manufacturer's recommendations and shall be installed at locations and at depths so as not to damage any part of the conduit system including, but not limited to, the conduits and tone wire system.

638-3.2.18 Fiber Optic Manholes

The Contractor shall install fiber optic manholes as specified in Section 636, and shown on the Plans.

638-3.2.19 Conduit Cable System Anti-Theft Device

The Contractor shall provide a Copper Keeper™ Cable Security System part number as shown in the plans (See Figure 1 on page 638-16) on all electrical conduit installations at each pull box, device or point of conductor entry into conduit and on all electrical installations where conductors extend greater than 100 feet. The location of installation shall be at or below the ground level for conduits extending above ground (prior to switching to rigid conduit) and below the bottom of the pull box for conduits terminating in pull boxes (not above grade). The cost of cable security system shall be incidental to the cost of electrical conduit. The Contractor shall use CFX's approved vendor, Rainbow Distributors USA, Inc. at 407-330-6363 for product procurement.

Figure 1. Copper Keeper Part Numbers and Description

Part No.	Description
100-100	1" Copper Keeper Assy - for 1" Sched 40 PVC
100-125	1.25" Copper Keeper Assy - for 1.25" Sched 40 PVC
100-150	1.5" Copper Keeper Assy - for 1.5" Sched 40 PVC
150-150	1.5" Copper Keeper Assy - for 1.5" Sched 80 PVC
100-200	2" Copper Keeper Assy - for 2" Sched 40 PVC
200-100	1" Copper Keeper Assy - for 1" EMT & GRC
200-125	1.25" Copper Keeper Assy - for 1.25" EMT & GRC
200-150	1.5" Copper Keeper Assy - for 1.5" EMT & GRC
200-200	2" Copper Keeper Assy - for 2" EMT & GRC
100-000106-001	Socket - 1" to 1.25"
100-000102-001	Socket - 1.5" to 2"

638-3.2.19.1 Procurement Requirements

The Contractor shall procure the Copper Keeper™ Cable Security System part number as shown the plans (See Figure 1); and shall provide to the distributor a Central Florida Expressway Authority (CFX) project number when procuring. In order to maintain a secure system environment, the Copper Keeper™ security keyed socket tool shall be sent directly to CFX from the manufacturer. Under no circumstances shall the Contractor have the security keyed socket tool sent to them directly or have access to any CFX keyed socket tool without expressed written authorization from CFX or their designated representative. The Copper Keeper™ security keyed socket tool shall be managed by CFX and shall be distributed pursuant to a security deposit placed on each key during the contract.

638-3.2.19.2 Copper Keeper™ Security Keyed Socket Tool

As outlined in **638-3.2.19.1**, the Copper Keeper™ security keyed socket tool is the property of CFX and shall be distributed to the Contractor as follows;

1. The Contractor shall be assigned a Copper Keeper™ security keyed socket tool.
2. A deposit of two thousand five hundred dollars (\$2500.00) shall be required for each keyed socket tool. This deposit shall be held handed over to CFX at the initial project kickoff meeting. This deposit shall not accrue interest.
3. The Contractor shall be responsible for the administration and security of each keyed socket tool.
4. Once all work has been performed and accepted by CFX, the Contractor will receive a complete return of the deposit contingent upon returning the original keyed socket tools loaned to the Contractor.
5. If for any reason a keyed socket tool is lost or misplaced, two thousand five hundred dollars (\$2500.00) per keyed socket tool shall be deducted from the deposit and retained by CFX.

638-4 TESTING REQUIREMENTS

638-4.1 HDPE Conduits

The Contractor shall proof test the entire HDPE conduit system to ensure that no damage

occurred during the construction phase and that the conduit makes an airtight seal so that a future cable can be installed using the Cable Blowing Method. The proof test method to be applied throughout the project shall consist of blowing a proofing dart through the conduit system in both directions. The proofing dart shall be an Innerduct Cup Projectile for 1” Nominal Tube Size, Part Number 2120-010, manufactured by Cal Am Manufacturing. The proofing dart shall be furnished with rope tie loop nuts on both ends. The proofing dart shall have a minimum length of 3”. The ability to successfully blow the proofing dart in the conduit shall satisfy the requirement for testing an airtight seal. The Contractor will not be permitted to blow ball bearings in conduits. The Contractor shall coordinate with the CEI to witness the proof test of all portions of the HDPE conduit system installed under pavement prior to paving operations. The Contractor shall also coordinate with the CEI to witness the proof test of the entire HDPE conduit system for final acceptance after the completion of all (guard rail, fencing, paving, etc.) work that could damage the conduit. The Contractor shall provide a minimum of 48 hours advance notification prior to the proof testing activity. If the test is unsuccessful, the entire section of conduit that fails shall be replaced at the Contractors expense. No additional time shall be granted for removal and replacement or testing required to produce satisfactory results. The Contractor shall protect the inner walls of the manhole, personnel, and all contents of the manhole from impact damage caused by the proofing dart emerging from the conduit at high speed.

638-4.2 Tone Wire

The Contractor shall test the entire tone wire system after the construction and splicing phases to ensure that the tone wire has complete continuity, is in good working order, fully functional for complete and proper use by the Outside Plant line management system, and has not been damaged. The Contractor will attach an electronic transmitter, if required, to one end of the tone wire and then locate the signal along the wire route using a receiver. Tone wire continuity is required from beginning to end of the Project Limits. Tone wire shall not be pulled into the ITS cabinets. Tone wire shall be terminated in the closest communications pull box adjacent to the ITS cabinet.

638-4.3 Fiber Optic Manhole Grounding System

The contractor shall test fiber optic manholes as described in Section 636 and shown on the Plans.

638-5 MEASUREMENT OF PAYMENT

No payment shall be made for power or communication conduit until a Bore Path Report has been delivered to the CEI. After the CEI’s acceptance of the Bore Path Report, payment will be made in the amount of 70% of the unit price bid for the item. The remaining 30% of the unit price bid will be made after submittal of "as-built" plans, in accordance with Section 555-6.2. Directional Bore shall be incidental to the pay-items shown as stated in Section 638-3.2.1.1 Directional Bore. See Technical Special Provision 555 – Directional Bore for procedural

information.

Pay item numbers are structured as follows:

638-abcc-ddef

a	Outer Duct Material	0	None
		1	HDPE SDR 11
		2	Schedule 40 PVC
		3	PVC
		4	BRFG
		5	Black Steel Pipe Schedule 80 (Split or Whole – Shall be called out in Plans)
		6	Rigid Galvanized Steel
b	Outer Duct Size Code	0	None
		4	4"
		6	6"
		8	8"
cc	Direct Bury or Above Ground Conduit Size /Material	00	None
		01	1" HDPE
		02	2" HDPE
		03	1" and 2" HDPE
		04	2" and 3" HDPE
		05	3/4" Grey PVC
		06	1" Grey PVC
		07	2" Grey PVC
		08	3" Grey PVC
		09	1/2" Rigid Galvanized Steel
		10	1" Rigid Galvanized Steel
		11	2" Rigid Galvanized Steel
dd	Number of Inner Conduits	00	None
		01	1
		02	2
		03	3
		04	4
		09	9
		10	10
e	Operation	1	Furnish and Install
		2	Furnish
		3	Install
f	Installation	1	Trench or Plow
		2	Trench under asphalt
		3	Directional Bore
		4	Bridge Mounted
		5	Wall Mounted
		6	90 degree sweep, trench
		7	Above Ground

638-5.1 Pay Item No. 638-0001-0111 – Fiber Optic Conduit, 1-1” HDPE SDR 11, Trench or Plow - (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration. This pay item shall include the placement of buried cable warning marker tape and HDPE connectors as specified. This pay item shall include any fence work, including temporary removal and restoration, tunneling under, cutting through and repairing or replacing any culvert as necessary to properly install conduit, right-of-way clearing, removal of debris, empty reels, etc., and the disposal of at a recognized dump facility. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original type turf grass or mulch.

638-5.2 Pay Item No. 638-0001-0211 – Fiber Optic Conduit, 2-1” HDPE SDR 11, Trench or Plow - (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration. This pay item shall include the placement of buried cable warning marker tape and HDPE connectors as specified. This pay item shall include any fence work, including temporary removal and restoration, tunneling under, cutting through and repairing or replacing any culvert as necessary to properly install conduit, right-of-way clearing, removal of debris, empty reels, etc., and the disposal of at a recognized dump facility. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original type turf grass or mulch.

638-5.3 Pay Item No. 638-0001-0411 –Fiber Optic Conduit, 4-1” HDPE SDR 11, Trench or Plow - (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling and incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration. This pay item shall include the placement of buried cable warning marker tape and tone wire in 1” conduit and HDPE connectors as specified. This pay item shall include any fence work, including temporary removal and restoration, tunneling under, cutting through and repairing or replacing any culvert as necessary to properly install conduit, right-of-way clearing, removal of debris, empty reels, etc., and the disposal of at a recognized dump facility. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original type turf grass or mulch.

638-5.6 Pay Item No. 638-0001-0911 – Fiber Optic Conduit, 9-1” HDPE SDR 11, Trench or Plow - (LF)

Payment for this item shall be full compensation for all labor, equipment, materials,

material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration. This pay item shall include the placement of buried cable warning marker tape and tone wire in 1" conduit and HDPE connectors as specified. This pay item shall include any fence work, including temporary removal and restoration, tunneling under, cutting through and repairing or replacing any culvert as necessary to properly install conduit, right-of-way clearing, removal of debris, empty reels, etc., and the disposal of at a recognized dump facility. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original type turf grass or mulch.

638-5.7 Pay Item No. 638-0002-0111 – Electrical Conduit, 1-2" HDPE SDR 11, Trench or Plow - (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration. This pay item shall include the placement of buried electrical conductor warning marker tape and HDPE connectors as specified. This pay item shall include any fence work, including temporary removal and restoration, tunneling under, cutting through and repairing or replacing any culvert as necessary to properly install conduit, right-of-way clearing, removal of debris, empty reels, etc., and the disposal of at a recognized dump facility. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original type turf grass or mulch.

638-5.8 Pay Item No. 638-0002-0211 – Electrical Conduit, 2-2" HDPE SDR 11, Trench or Plow - (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration. This pay item shall include the placement of buried electrical conductor warning marker tape and HDPE connectors as specified. This pay item shall include any fence work, including temporary removal and restoration, tunneling under, cutting through and repairing or replacing any culvert as necessary to properly install conduit, right-of-way clearing, removal of debris, empty reels, etc., and the disposal of at a recognized dump facility. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original type turf grass or mulch.

638-5.9 Pay Item No. 638-0002-0213 – Electrical Conduit, 2-2" HDPE SDR 11, Directional Bore - (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration as defined in Specifications Section 555. This pay item shall include the placement of tone wire and HDPE connectors as specified.

638-5.10 Pay Item No. 638-0003-0911 – Fiber Optic Conduit, 9-1” HDPE SDR 11 and 1-2” HDPE SDR 11, Trench or Plow - (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration. This pay item shall include the placement of buried cable warning marker tape and tone wire in 1” conduit and HDPE connectors as specified. This pay item shall include any fence work, including temporary removal and restoration, tunneling under, cutting through and repairing or replacing any culvert as necessary to properly install conduit, right-of-way clearing, removal of debris, empty reels, etc., and the disposal of at a recognized dump facility. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original type turf grass or mulch.

- 638-5.11 Pay Item No. 638-0006-0116 -Conduit (F&I) (Underground) (1” SCH 40 PVC) - (LF)**
Pay Item No. 638-0007-0116 -Conduit (F&I) (Underground) (2” SCH 40 PVC) - (LF)
Pay Item No. 638-0008-0116 -Conduit (F&I) (Underground) (3” SCH 40 PVC) - (LF)

Payment for these items will be full compensation for all labor, equipment, materials, handling, incidentals and costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration. This pay item shall include the placement of buried cable warning marker tape, tone wire, and if applicable PVC conduits conduit adapters as specified. This pay item shall include any fence work, including temporary removal and restoration, tunneling under, cutting through and repairing or replacing any culvert as necessary to properly install conduit, right-of-way clearing, removal of debris, etc., and the disposal of at a recognized dump facility. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original type turf grass or mulch. In addition, if conduit is to be used as part of an electrical power service system and is greater than 100 linear feet, a Copper Keeper™ Anti-Theft Device System shall be implemented as outlined in section 638-3.2.19 and the cost of cable security system shall be incidental to the cost of electrical conduit.

- 638-5.12 Pay Item No. 638-0009-0117 - Conduit (F&I) (Aboveground) (1/2” RGS) – (LF)**
Pay Item No. 638-0010-0117 - Conduit (F&I) (Aboveground) (1” RGS) – (LF)
Pay Item No. 638-0011-0117 - Conduit (F&I) (Aboveground) (2” RGS) – (LF)

Payment for these items will be full compensation for all labor, equipment, materials, handling, incidentals and costs necessary to furnish and install conduit as specified, including conduit straps and all attachment incidentals needed for a secured and complete installation. Payment shall include clearing, dewatering, shoring, backfilling, compaction tamping and restoration. Payment shall include the placement of applicable PVC or HDPE conduit adapters as specified. If called for in the plans, this conduit and attachment hardware shall be powder coated or painted with a CFX approved process and colors as part of this pay item. This pay item shall include any fence work, including temporary

removal and restoration, tunneling under, cutting through and repairing or replacing any culvert as necessary to properly install conduit, right-of-way clearing, removal of debris, etc., and the disposal of at a recognized dump facility. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original type turf grass or mulch.

638-5.13 Pay Item No. 638-1400-0011 – Fiber Optic Conduit, 4” HDPE SDR 11 Sleeve, Trench or Plow - (LF)

Payment for this item will be full compensation for all labor, equipment, materials, material handling and incidentals necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration. This pay item shall include the placement of buried cable warning marker tape, tone wire, and HDPE inner duct conduits and inner duct conduit adapters as specified. This pay item shall include any fence work, including temporary removal and restoration, tunneling under, cutting through and repairing or replacing any culvert as necessary to properly install conduit, right-of-way clearing, removal of debris, empty reels, etc., and the disposal of at a recognized dump facility. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original type turf grass or mulch.

638-5.14 Pay Item No. 638-1401-0213 – Fiber Optic Conduit, 4” HDPE SDR 11 Outer Duct w/2-1” HDPE SDR 11, Directional Bore - (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration as defined in Specifications Section 555. This pay item shall include the placement of tone wire in the outer duct and HDPE connectors as specified.

638-5.15 Pay Item No. 638-1402-0113 – Fiber Optic Conduit, 4” HDPE SDR 11 Outer Duct w/1-2” HDPE SDR 11, Directional Bore - (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration as defined in Specifications Section 555. This pay item shall include the placement of tone wire in the outer duct and HDPE connectors as specified.

638-5.16 Pay Item No. 638-1403-0213 – Fiber Optic Conduit, 4” HDPE SDR 11 Outer Duct w/1-1” and 1-2” HDPE SDR 11, Directional Bore - (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration as defined in Specifications Section 555. This pay item shall include the placement of tone wire in the outer duct and HDPE connectors as specified.

638-5.17 Pay Item No. 638-1600-0011 - Fiber Optic Conduit, 6" HDPE SDR 11 Sleeve, Trench or Plow - (LF)

Payment for this item will be full compensation for all labor, equipment, materials, material handling and incidentals necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration. This pay item shall include the placement of buried cable warning marker tape, tone wire, and HDPE SDR 11 as specified. This pay item shall include any fence work, including temporary removal and restoration, tunneling under, cutting through and repairing or replacing any culvert as necessary to properly install conduit, right-of-way clearing, removal of debris, empty reels, etc., and the disposal of at a recognized dump facility. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original type turf grass or mulch.

638-5.18 Pay Item No. 638-1601-0413 - Fiber Optic Conduit, 6" HDPE SDR 11 Outer Duct w/4-1" HDPE SDR 11, Directional Bore - (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration as defined in Specifications Section 555. This pay item shall include the placement of tone wire in the outer duct and HDPE connectors as specified.

638-5.19 Pay Item No. 638-1601-0811 - Fiber Optic Conduit, 6" HDPE SDR 11 Outer Duct w/9-1" HDPE SDR 11, Trench or Plow - (LF)

Payment for this item will be full compensation for all labor, equipment, materials, material handling, incidentals and costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration. This pay item shall include the placement of buried cable warning marker tape, tone wire, and HDPE inner duct conduits and inner duct conduit adapters as specified. This pay item shall include any fence work, including temporary removal and restoration, tunneling under, cutting through and repairing or replacing any culvert as necessary to properly install conduit, right-of-way clearing, removal of debris, empty reels, etc., and the disposal of at a recognized dump facility. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original type turf grass or mulch.

638-5.20 Pay Item No. 638-1601-0813 – Fiber Optic Conduit, 6" HDPE SDR 11 Outer Duct w/9-1" HDPE SDR 11, Directional Bore - (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration as defined in Specifications Section 555. This pay item shall include the placement of tone wire in the outer duct and HDPE connectors as specified.

638-5.21 Pay Item No. 638-1601-0913 – Fiber Optic Conduit, 6” HDPE SDR 11 Outer Duct w/9-1” HDPE SDR 11, Directional Bore - (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration as defined in Specifications Section 555. This pay item shall include the placement of tone wire in the outer duct and HDPE connectors as specified.

638-5.22 Pay Item No. 638-1601-1013 – Fiber Optic Conduit, 6” HDPE SDR 11 Outer Duct w/10-1” HDPE SDR 11, Directional Bore - (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration as defined in Specifications Section 555. This pay item shall include the placement of tone wire in the outer duct and HDPE connectors as specified.

638-5.23 Pay Item No. 638-1602-0213 – Fiber Optic Conduit, 6” HDPE SDR 11 Outer Duct w/2-2” HDPE SDR 11, Directional Bore – (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration as defined in Specifications Section 555. This pay item shall include the placement of tone wire in the outer duct and HDPE connectors as specified.

638-5.24 Pay Item No. 638-1603-0213 – Fiber Optic Conduit, 6” HDPE SDR 11 Outer Duct w/1-1” and 1-2” HDPE SDR 11, Directional Bore – (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration as defined in Specifications Section 555. This pay item shall include the placement of tone wire in the outer duct and HDPE connectors as specified.

638-5.25 Pay Item No. 638-1603-0313 – Fiber Optic Conduit, 6” HDPE SDR 11 Outer Duct w/2-1” and 1-2” HDPE SDR 11, Directional Bore – (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration as defined in Specifications Section 555. This pay item shall include the placement of tone wire in the outer duct and HDPE connectors as specified.

638-5.26 Pay Item No. 638-1603-0911 – Fiber Optic Conduit, 6” HDPE SDR 11 Outer Duct

w/8-1" and 1-2" HDPE SDR 11, Trench or Plow – (LF)

Payment for this item will be full compensation for all labor, equipment, materials, material handling, incidentals and costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration. This pay item shall include the placement of buried cable warning marker tape, tone wire, and HDPE inner duct conduits and inner duct conduit adapters as specified. This pay item shall include any fence work, including temporary removal and restoration, tunneling under, cutting through and repairing or replacing any culvert as necessary to properly install conduit, right-of-way clearing, removal of debris, empty reels, etc., and the disposal of at a recognized dump facility. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original type turf grass or mulch.

638-5.27 Pay Item No. 638-1603-1011 – Fiber Optic Conduit, 6" HDPE SDR 11 Outer Duct w/9-1" and 1-2" HDPE SDR 11, Trench or Plow – (LF)

Payment for this item will be full compensation for all labor, equipment, materials, material handling, incidentals and costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration. This pay item shall include the placement of buried cable warning marker tape, tone wire, and HDPE inner duct conduits and inner duct conduit adapters as specified. This pay item shall include any fence work, including temporary removal and restoration, tunneling under, cutting through and repairing or replacing any culvert as necessary to properly install conduit, right-of-way clearing, removal of debris, empty reels, etc., and the disposal of at a recognized dump facility. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original type turf grass or mulch.

638-5.28 Pay Item No. 638-1603-0913 – Fiber Optic Conduit, 6" HDPE SDR 11 Outer Duct w/8-1" and 1-2" HDPE SDR 11, Directional Bore – (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration as defined in Specifications Section 555. This pay item shall include the placement of tone wire in the outer duct and HDPE connectors as specified.

638-5.29 Pay Item No. 638-1800-0011 – Fiber Optic Conduit, 8" HDPE SDR 11 Sleeve, Trench or Plow - (LF)

Payment for this item will be full compensation for all labor, equipment, materials, material handling and incidentals necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration. This pay item shall include the placement of buried cable warning marker tape, tone wire, and empty HDPE SDR 11 sleeve as specified. This pay item shall include any fence work, including temporary removal and restoration, tunneling under, cutting through and repairing or

replacing any culvert as necessary to properly install conduit, right-of-way clearing, removal of debris, empty reels, etc., and the disposal of at a recognized dump facility. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original type turf grass or mulch.

638-5.30 Pay Item No. 638-1801-0913 – Fiber Optic Conduit, 8” HDPE SDR 11 Outer Duct w/9-1” HDPE SDR 11, Directional Bore - (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration as defined in Specifications Section 555. This pay item shall include the placement of tone wire in the outer duct and HDPE connectors as specified.

638-5.31 Pay Item No. 638-1803-0413 – Fiber Optic Conduit, 8” HDPE SDR 11 Outer Duct w/2-1” and 2-2” HDPE SDR 11, Directional Bore - (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration as defined in Specifications Section 555. This pay item shall include the placement of tone wire in the outer duct and HDPE connectors as specified.

638-5.32 Pay Item No. 638-1803-1013 – Fiber Optic Conduit, 8” HDPE SDR 11 Outer Duct w/9-1” and 1-2” HDPE SDR 11, Directional Bore - (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration as defined in Specifications Section 555. This pay item shall include the placement of tone wire in the outer duct and HDPE connectors as specified.

638-5.33 Pay Item No. 638-1804-0213 - Fiber Optic Conduit, 8” HDPE SDR 11 Outer Duct w/1-2” and 1-3” HDPE SDR 11, Directional Bore - (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration as defined in Specifications Section 555. This pay item shall include the placement of tone wire in the outer duct and HDPE connectors as specified.

638-5.34 Pay Item No. 638-2401-0211 – Conduit, 4” Schedule 40 PVC Split Outer Duct w/2-1” HDPE SDR 11, Trench or Plow – (LF)

Payment for this item will be full compensation for all labor, equipment, materials, material handling and incidentals necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration. This pay

item shall include the placement of buried cable warning marker tape, tone wire, and HDPE inner duct conduits and inner duct conduit adapters as specified. This pay item shall include any fence work, including temporary removal and restoration, tunneling under, cutting through and repairing or replacing any culvert as necessary to properly install conduit, right-of-way clearing, removal of debris, empty reels, etc., and the disposal of at a recognized dump facility. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original type turf grass or mulch.

638-5.35 Pay Item No. 638-2600-0011 – Conduit 6” Schedule 40 PVC Split Sleeve, Trench or Plow - (LF)

Payment for this item will be full compensation for all labor, equipment, materials, material handling and incidentals necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration. This pay item shall include the placement of buried cable warning marker tape, tone wire, and Schedule 40 PVC split sleeve as specified. This pay item shall include any fence work, including temporary removal and restoration, tunneling under, cutting through and repairing or replacing any culvert as necessary to properly install conduit, right-of-way clearing, removal of debris, empty reels, etc., and the disposal of at a recognized dump facility. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original type turf grass or mulch.

638-5.36 Pay Item No. 638-2601-0911 – Conduit, 6” Schedule 40 PVC Split Outer Duct w/9-1” HDPE SDR 11, Trench or Plow - (LF)

Payment for this item will be full compensation for all labor, equipment, materials, material handling and incidentals necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration. This pay item shall include the placement of buried cable warning marker tape, tone wire, and HDPE inner duct conduits and inner duct conduit adapters as specified. This pay item shall include any fence work, including temporary removal and restoration, tunneling under, cutting through and repairing or replacing any culvert as necessary to properly install conduit, right-of-way clearing, removal of debris, empty reels, etc., and the disposal of at a recognized dump facility. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original type turf grass or mulch.

638-5.37 Pay Item No. 638-2801-0911 – Conduit, 8” Schedule 40 PVC Split Outer Duct w/9-1” HDPE SDR 11, Trench or Plow - (LF)

Payment for this item will be full compensation for all labor, equipment, materials, material handling and incidentals necessary to furnish and install conduit as specified, including dewatering, shoring, backfilling, compaction tamping and restoration. This pay item shall include the placement of buried cable warning marker tape, tone wire, and HDPE inner duct conduits and inner duct conduit adapters as specified. This pay item shall include any fence work, including temporary removal and restoration, tunneling under, cutting through

and repairing or replacing any culvert as necessary to properly install conduit, right-of-way clearing, removal of debris, empty reels, etc., and the disposal of at a recognized dump facility. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original type turf grass or mulch.

638-5.38 Pay Item No. 638-2801-1011 – Conduit, 8” Schedule 40 PVC Split Outer Duct w/10-1” HDPE SDR 11, Trench or Plow - (LF)

Payment for this item will be full compensation for all labor, equipment, materials, material handling and incidentals necessary to furnish and install conduit as specified, including dewatering, shoring, backfilling, compaction tamping and restoration. This pay item shall include the placement of buried cable warning marker tape, tone wire, and HDPE inner duct conduits and inner duct conduit adapters as specified. This pay item shall include any fence work, including temporary removal and restoration, tunneling under, cutting through and repairing or replacing any culvert as necessary to properly install conduit, right-of-way clearing, removal of debris, empty reels, etc., and the disposal of at a recognized dump facility. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original type turf grass or mulch.

638-5.39 Pay Item No. 638-2803-1011 – Conduit, 8” Schedule 40 PVC Split Sleeve Outer Duct w/9-1” and 1-2” HDPE SDR 11, Trench or Plow – (LF)

Payment for this item will be full compensation for all labor, equipment, materials, material handling, incidentals and costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration. This pay item shall include the placement of buried cable warning marker tape, tone wire, and HDPE inner duct conduits and inner duct conduit adapters as specified. This pay item shall include any fence work, including temporary removal and restoration, tunneling under, cutting through and repairing or replacing any culvert as necessary to properly install conduit, right-of-way clearing, removal of debris, empty reels, etc., and the disposal of at a recognized dump facility. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original type turf grass or mulch.

638-5.40 Pay Item No. 638-3401-0211 – Conduit, 4” PVC Outer Duct w/2-1” HDPE SDR 11, Trench or Plow – (LF)

Payment for this item will be full compensation for all labor, equipment, materials, material handling and incidentals necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration. This pay item shall include the placement of buried cable warning marker tape, tone wire, and HDPE inner duct conduits and inner duct conduit adapters as specified. This pay item shall include any fence work, including temporary removal and restoration, tunneling under, cutting through and repairing or replacing any culvert as necessary to properly install conduit, right-of-way clearing, removal of debris, empty reels, etc., and the disposal of at a recognized dump facility. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original

type turf grass or mulch.

638-5.41 Pay Item No. 638-3401-0411 – Conduit, 4” PVC Outer Duct w/4-1” HDPE SDR 11, Trench or Plow - (LF)

Payment for this item will be full compensation for all labor, equipment, materials, handling, incidentals and costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration. This pay item shall include the placement of buried cable warning marker tape, tone wire, and HDPE inner duct conduits and inner duct conduit adapters as specified. This pay item shall include any fence work, including temporary removal and restoration, tunneling under, cutting through and repairing or replacing any culvert as necessary to properly install conduit, right-of-way clearing, removal of debris, empty reels, etc., and the disposal of at a recognized dump facility. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original type turf grass or mulch.

638-5.42 Pay Item No. 638-3401-0416 – Conduit, 4” PVC Outer Duct, 90 degrees, 6-Foot Radius Bend Stub Out w/4-1” HDPE SDR 11, Trench or Plow - (EA)

Payment for this item will be full compensation for all labor, equipment, materials, material handling and incidentals necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration. This pay item shall include the placement of buried cable warning marker tape, tone wire, and HDPE inner duct conduits and inner duct conduit adapters as specified. This pay item shall include removal of debris, empty reels, etc., and the disposal of at a recognized dump facility. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original type turf grass or mulch.

638-5.43 Pay Item No. 638-3601-0213 – Conduit, 6” PVC Outer Duct w/2-1” HDPE SDR 11, Directional Bore - (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration as defined in Specifications Section 555. This pay item shall include the placement of tone wire in the outer duct and HDPE connectors as specified.

638-5.44 Pay Item No. 638-3601-0811 – Conduit, 6” PVC Outer Duct w/8-1” HDPE SDR 11, Trench or Plow - (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration. This pay item shall include the placement of buried cable warning marker tape, tone wire, and HDPE inner duct conduits and inner duct conduit adapters as specified. This pay item shall include removal of empty reels and the disposal of at a recognized dump

facility.

638-5.45 Pay Item No. 638-3601-0813 – Conduit, 6” PVC Outer Duct w/8-1” HDPE SDR 11, Directional Bore - (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration as defined in Specifications Section 555. This pay item shall include the placement of tone wire in the outer duct and HDPE connectors as specified.

638-5.46 Pay Item No. 638-3601-0911 – Conduit, 6” PVC Outer Duct w/9-1” HDPE SDR 11, Trench or Plow - (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration. This pay item shall include the placement of buried cable warning marker tape, tone wire, and HDPE inner duct conduits and inner duct conduit adapters as specified. This pay item shall include removal of empty reels and the disposal of at a recognized dump facility.

638-5.47 Pay Item No. 638-3603-0911 – Conduit, 6” PVC Outer Duct w/8-1” and 1-2” HDPE SDR 11, Directional Bore - (LF)

Payment for this item shall be full compensation for all labor, equipment, materials, material handling, incidentals and all costs necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration as defined in Specifications Section 555. This pay item shall include the placement of tone wire in the outer duct and HDPE connectors as specified.

638-5.48 Pay Item No. 638-4601-0814 – Conduit, 6” Bullet-Resistive Fiberglass Outer Duct w/8-1” HDPE SDR 11, Install on Bridge - (LF)

Payment for this item will be full compensation for all labor, equipment, materials, material handling and incidentals necessary to furnish and install conduit to a bridge as specified including all inner duct conduits, attachment hardware and attachment clamps placed at maximum intervals of 10 feet. This pay item shall include all expansion joints with a minimum 8-inch travel, placed intervals of 100 feet and all sweeps, adapters and conduit necessary to return to grade will be included in this pay item. This pay item shall include all concrete cutting, core boring and any other concrete work necessary for the conduit bridge installation as specified.

638-5.49 Pay Item No. 638-4601-0815 – Conduit, 6” Bullet-Resistive Fiberglass Outer Duct w/8-1” HDPE SDR 11, Wall Mounted - (LF)

Payment for this item will be full compensation for all labor, equipment, materials, material

handling and incidentals necessary to furnish and install conduit to a wall as specified including all inner duct conduits, attachment hardware and attachment clamps and other materials in a manner as described in the plans.

638-5.50 Pay Item No. 638-4601-0914 – Conduit, 6” Bullet-Resistive Fiberglass Outer Duct w/9-1” HDPE SDR 11, Install on Bridge - (LF)

Payment for this item will be full compensation for all labor, equipment, materials, material handling and incidentals necessary to furnish and install conduit to a bridge as specified including all inner duct conduits, attachment hardware and attachment clamps placed at maximum intervals of 10 feet. This pay item shall include all expansion joints with a minimum 8-inch travel, placed intervals of 100 feet and all sweeps, adapters and conduit necessary to return to grade will be included in this pay item. This pay item shall include all concrete cutting, core boring and any other concrete work necessary for the conduit bridge installation as specified.

638-5.51 Pay Item No. 638-4603-0914 – Conduit, 6” Bullet-Resistive Fiberglass Outer Duct w/8-1” and 1-2” HDPE SDR 11, Install on Bridge - (LF)

Payment for this item will be full compensation for all labor, equipment, materials, material handling and incidentals necessary to furnish and install conduit to a bridge as specified including all inner duct conduits, attachment hardware and attachment clamps placed at maximum intervals of 10 feet. This pay item shall include all expansion joints with a minimum 8-inch travel, placed intervals of 100 feet and all sweeps, adapters and conduit necessary to return to grade will be included in this pay item. This pay item shall include all concrete cutting, core boring and any other concrete work necessary for the conduit bridge installation as specified.

638-5.52 Pay Item No. 638-5XXX-XXXX – BSP or SBSP Outer Duct w/XX HDPE and/or XX PVC inner ducts – (LF) (Use 683-5 Measurement of Payment Table to determine XX) Contact plans to call out type.

Payment for this item will be full compensation for all labor, equipment, materials, material handling and incidentals necessary to furnish and install conduit as specified, including clearing, dewatering, shoring, backfilling, compaction tamping and restoration. This pay item shall include the cost of the split black steel pipe, placement of buried cable and/or electrical warning marker tape, tone wire, and HDPE and/or PVC inner duct conduits and inner duct conduit adapters as specified. This pay item shall include any fence work, including temporary removal and restoration, tunneling under, cutting through and repairing or replacing any culvert as necessary to properly install conduit, right-of-way clearing, removal of debris, empty reels, etc., and the disposal of at a recognized dump facility. This pay item shall include any removal and restoration of concrete/asphalt that may be required and the restoration of the ground with the original type turf grass or mulch.

638-5.53 Pay Item No. 638-1A – Tubular Route Marker (Fiber) – (EA)

Payment for this item will be full compensation for all labor, equipment, materials, material handling and incidentals necessary to furnish and install a Tubular Route Marker for fiber.

638-5.54 Pay Item No. 638-1B – Tubular Route Marker (Power) – (EA)

Payment for this item will be full compensation for all labor, equipment, materials, material handling and incidentals necessary to furnish and install a Tubular Route Marker for power.

638-5.55 Pay Item No. 638-2A – Radiodetection Side Leg Terminator (SLT) PN 10/444150322) – (EA)

Payment for this item will be full compensation for all labor, equipment, materials, material handling and incidentals necessary to furnish and install a Radiodetection Side Leg Terminator.

638-5.56 Pay Item No. 638-200 – Tone Wire (Underground) (In Conduit) (F&I) – (LF)

This pay item shall apply only at installation where conduit already exists and shall not be used with new conduit installations. This pay-item shall include furnishing and installing tone wire as called out in section 638-2.6.6 and 638-3.2.15; Tone Wire for Location of Underground Ducts and Conduits in these specifications. Payment for this item will be full compensation for all labor, equipment, materials, handling, incidentals and costs necessary to furnish and install tone wire as specified in the plan set and as directed by CFX. Tone wire shall not be direct buried and shall be installed in the eighth or ninth one (1) inch SDR 11 or thicker HDPE conduit or as shown on the plans. The tone wire conduit shall be installed to run continuously between adjacent manholes and/or pull boxes. The tone wire conduit shall be sealed and terminated per the same requirements as fiber optic conduit as shown in the plans. Tone wire shall never be run into ITS cabinets but terminate at the closest pull box as described in ITS Design Standard Sheet A2 and A3, General Notes. All new tone wire installed by the Contractor shall not be considered accepted until it is tested by CEI and found to be of point to point continuity.

END OF SECTION 638

SECTION 639A

ITS Electrical Systems

639A-1 Description:

Install electrical power service assemblies for either overhead or underground services in accordance with the details shown in CFX's ITS Design Standards, National Electrical Code (NEC), National Electrical Safety Code (NESC) and the local power company's requirements. Final project acceptance of electrical work shall be approved by the Contractor's Florida licensed master electrician/electrical engineer and CFX.

Prior to installation, coordinate with the power company to provide electrical service to the locations as shown in the approved Plans. Plan, consult, cooperate with the power company, and field verify to facilitate power to the service point.

639A-2 Definitions:

1. Underground service: A service assembly which is supplied electrical power from an underground power company source. Include with an underground electrical power service assembly the following components:
 - a. Conduit
 - b. Electrical conductor
 - c. Meter base (when required)
 - d. Non-fused line-side disconnects (when required)
 - e. Step up/step down transformers (when required)
 - f. Breaker panel
 - Surge protection device
2. Overhead service: A service assembly which is supplied electrical power from an overhead power company source. Include with an overhead electrical power service assembly the following components:
 - a. Weatherhead
 - b. Conduit
 - c. Electrical conductor
 - d. Meter base (when required)
 - e. Line-side disconnects (when required)
 - f. Step up/step down transformers (when required)
 - g. Breaker panel
 - h. Surge protection device

639A-3 Materials:

639A-3.1 Weatherhead: Use a weatherhead that is made from the same material as the conduit connected. The weatherhead shall have at a minimum, three electrical conductor entrance holes. The weatherhead shall conform to the National Electrical Code (NEC) requirements.

639A-3.2 Conduit: Use conduit meeting the requirements of Technical Special Provision Section 638. Use only hot-dipped galvanized steel conduit and liquid-tight flexible metal conduit for above-ground applications.

639A-3.3 All electrical conductor (includes conductors used for electrical grounding): Use stranded copper wire with XHHW (cross-linked polyethylene (XLPE) high heat-resistant, water-resistant) insulation, with a 45 mil thickness or greater, rated at 600V in dry and wet conditions. No conductor shall be smaller than #6 AWG. All wire splices made within a pull boxes shall utilize the NSI Industries Easy-Splice Gel Splicing Kit Part #ESSLK-2/0.

639A-3.4 Meter base: Use meter bases approved by the electrical power company. A permanent label shall be riveted on the meter base with the street address.

639A-3.5 Non-fused line-side disconnects: Use a Square D enclosure that conforms to the National Electrical Manufacturers Association (NEMA) Standards for Type 3R. The enclosure shall be made of galvanized hot-dipped steel, aluminum or stainless steel. Ensure that the enclosure has a hinged door which can be locked with a padlock. Ensure that the inside dimensions meet NEC and the local electrical power company's requirements. The disconnect shall be sized accordingly to the application. Include with all disconnects a ground bussbar that is copper coated and has a minimum rating of 100 AMPS. Ensure that the ground bussbar has a minimum of eight spots and can facilitate the size of wires as shown in the plans.

639A-3.6 Step up/step down transformers: Use dry-type transformers conforming to National Electrical Manufacturers Association (NEMA) Standards for Type 3R, made of galvanized hot-dipped steel, aluminum or stainless steel. Utilize the appropriate step up/step down transformer for the application intended. The use of reverse-fed transformers will not be permitted. Use clear insulated multi-tap connectors for splicing of wires within the transformers. The use of wire-nuts will not be permitted.

639A-3.7 Breaker panels: Use only enclosures conforming to National Electrical Manufacturers Association (NEMA) Standards for Type 3R, made of galvanized hot-dipped steel, aluminum or stainless steel. Ensure that the enclosure has a hinged door which can be locked with a padlock. Ensure that the inside dimensions meet NEC and the local electrical power company's requirements. Include with all breaker panels a separate ground and neutral bussbar that are copper coated and have a minimum rating of 100 AMPS. Ensure that the ground and neutral bussbars have a minimum of eight spots and can facilitate the size of wires as shown in the plans. Neutral bussbars shall always be isolated from the chassis by use of isolator.

639A-3.7.1 Main circuit breaker panels: Use Square D Model Number

Q0112M100RB for 120/240 VAC circuit breaker panels. For a 240/480 VAC circuit breaker panels the Contractor shall use Square D and submit shop drawings for an "I-Line" or "NF" panelboard to CFX for approval.

639A-3.7.2 Safety circuit breaker panels: Use Square D Model Number Q0612L100RB.

639A-3.7.3 Circuit breakers: Use a Square D manually resettable clamp-on type circuit breaker at locations as shown in the plans.

639A-3.8 Surge protection device: Use ASCO Model 420, Part Number 420120NP05AWAJ10 for 120V applications, use ASCO Model 420, Part Number 420120SP05AWAJ10 for 120/240V applications, and use ASCO Model 420, Part Number 420277SP05AWAJ10 for 240/480V applications.

639A-3.9 Attachment hardware: All attachment hardware that is used in the installation of power service assemblies shall be made of hot dipped galvanized steel.

639A-3.9.1 H-frame assemblies: No corrosive metals shall be used to construct H-frame assemblies. Use hot-dipped galvanized steel conduit clamps for securing conduits to uni-strut on H-frame assemblies.

639A-3.10 Concrete service and pedestal poles: All concrete poles shall be Type P-IIA or Type P-IIB and in accordance with the FDOT Standard Plan 641-010. All poles shall have a concrete foundation of a minimum two feet in diameter and full depth of pole footing.

639A-3.11 External Power Source Generator: If directed in the contract documents, provisions for the connection of an external power source, such as a portable generator, through a weatherproof, water-resistant and secure interface shall be incorporated. External power connection shall allow authorized personnel to access, connect, and secure an external power source to the cabinet in order to restore power. The cabinet connection shall be a connector as shown in the plans and shall be a universal type connector capable of easy and quick connection. Cabinet shall be provided with either a manual or automatic transfer switch that is rated equal to or higher than the design load of the cabinet's main breaker and the generator input twist-lock connector rating. Transfer switch shall provide a means of switching between normal utility power and auxiliary backup generator power; switching time between sources is no longer than 250 milliseconds. Transfer switch shall meet UL Standard 1008, and shall not allow simultaneous active power from two sources and does not allow generator backflow into normal utility AC circuits.

639A-3.11.1 Manual Transfer Switch: Transfer Switch shall be a two-position switch and is labeled as "Generator Power" and "Utility Power". Transfer switch shall be equipped with a "Utility-on" indicator, which illuminates when normal utility power service is available and the switch is in the "Generator Power" position, and turns off when the transfer switch is moved to the "Utility Power" position; the Utility-on indicator shall be clearly visible outside the cabinet and the indicator's on/off state shall be visually determined from a distance of 30 feet. Use only enclosures conforming to National Electrical Manufacturers Association (NEMA) Standards for Type 3R, made of galvanized hot-dipped steel, aluminum or stainless steel. Ensure that the

enclosure has a hinged door which can be locked with a padlock. Ensure that the inside dimensions meet NEC and the local electrical power company's requirements. The manual transfer switch shall be rated for 100 AMPs.

639A.11.2 Automatic Transfer Switch: Transfer Switch shall have indicators that display the status of connected power sources and indicates which power source is actively energizing the cabinet. If a relay circuit is used to provide switching, the normally closed circuits shall be connected to normal utility power. Relay shall be energized only by the generator, not by the electric utility service and when energized, the relay shall break the connection to normal utility power and makes connection to the generator power input. Any automatic transfer switch or relay operated switch shall include a bypass switch that disables automatic switching and permits manual selection of the power sources connected to the cabinet.

639A-4 Installation Requirements:

639A-4.1 General: Meet the following requirements for the installation of individual components of the electrical power service assembly:

- CFX power services shall not exceed 480VAC, unless otherwise shown in plans.
- Use extreme care and caution in the installation of all components of the electrical power service assembly.
- Follow installation procedures recommended by NEC and National Electrical Safety Code (NESC).
- Consider the location of electrical power service assemblies as shown in the Plans to be approximate, and coordinate with the appropriate electrical power company authority to determine the exact locations of each assembly.
- Provide a continuous green insulated, #6 AWG stranded copper conductor that connects between the non-fused line-side disconnect, meter, transformer (ground splice), and circuit breaker panel's ground bussbars.

639A-4.2 Weatherhead: Securely attach the weatherhead to the upper end of the conduit which extends upward from the conduit on the concrete service pole to a minimum height of twenty feet above grade. The weatherhead material shall match the metal to which it is attached.

639A-4.3 Conduit: Securely attach all conduit to the concrete service pole or H-frame assembly with a maximum distance of 5 feet between conduit attachment hardware. At locations where more than one conduit will be attached directly to a concrete service pole, offset the attachment hardware by a few inches to ensure the conduit can be correctly installed.

Gray liquid-tight flexible metal conduit will be permitted when connecting breaker panels/disconnects to meters and/or transformers if the equipment is mounted on the same concrete service pole or H-frame assembly.

Fit the terminating ends of all metal conduit with an appropriate bushing. Ensure that the bushings are equipped with a ground lug for grounding purposes.

Ensure that the ends of all conduits are sealed with electrical duct sealant. This includes any conduit between disconnects, meters, transformers and breaker panels.

639A-4.4 Electrical conductor: Install the electrical conductor in a manner which will ensure that damage to the insulation or wire will not occur.

639A-4.4.1 120/240 VAC: Only install electrical conductors (includes ground wiring) that are either green, white, black, red or blue in color. Green wires shall only be used to identify ground wires. White wires shall only be used to identify neutral wires. Black wires shall be used to identify one phase of a power source, black is to be used as the default color when only one phase is being utilized. Red wires may only be used to identify one phase in either single phase or three phase applications where two or more phases are being utilized. Blue wires may only be used to identify one phase in three phase applications where three phases are being utilized. The use of any other color is strictly prohibited. Do not re-identify or “phase” any wire #6 or smaller. For electrical conductors that are larger than #6 AWG, re-identification or “phasing” will be permissible only on black conductors, the “phasing” tape used must be either green, white, red or blue. The phasing tape shall be of the highest quality flame retardant and shall meet all the following specifications: UL Listed, UL 510, CSA Certified, RoHS 2002/95/EC, ASTM D1000.

639A-4.4.2 240/480 VAC: Only install electrical conductors (includes ground wiring) that are either green, grey, brown, orange or yellow in color. Green wires shall only be used to identify ground wires. Grey wires shall only be used to identify neutral wires. Brown wires shall be used to identify one phase of a power source, brown is to be used as the default color when only one phase is being utilized. Orange wires may only be used to identify one phase in either single phase or three phase applications where two or more phases are being utilized. Yellow wires may only be used to identify one phase in three phase applications where three phases are being utilized. The use of any other color is strictly prohibited. Do not re-identify or “phase” any wire #6 or smaller. For electrical conductors that are larger than #6 AWG, re-identification or “phasing” will be permissible only on black conductors, the “phasing” tape used must be either green, grey, brown, orange or yellow. The phasing tape shall be of the highest quality flame retardant and shall meet all the following specifications: UL Listed, UL 510, CSA Certified, RoHS 2002/95/EC, ASTM D1000.

639A-4.4.3 When re-identifying or “phasing” conductors larger than #6, ensure that the phasing tape encompasses the entire wire that is visible within pull boxes, LHUBs (includes NEMA cabinets), disconnects, meters, breaker panels and transformers is fully and completely “phased” correctly.

Do not compromise the termination strands of a conductor in any way. If an existing terminal block or grounding bussbar termination diameter is less than the conductor that is being installed, the contractor shall switch out the terminal block and/or ground bussbar so that it will accommodate the diameter of the conductor as shown in the plans. The cost of the terminal block and/or ground bussbar shall be incidental to the cost of the electrical conductors. Ensure the wire insulation is only stripped-back to an amount that facilitates wire terminations and that the wire is securely seated at the termination point.

Per NEC requirement 110.14 (A), only one conductor will be permitted in each terminal lug unless the terminal lug is identified (in clear writing) for such.

Electrical wire splices (includes butt-splices) shall be made within a pull box and readily accessible for inspection. All wire splices made within a pull box shall utilize the NSI Industries Easy-Splice Gel Splicing Kit Part #ESSLK-2/0. Wire splices will not be permitted within the cabinets (includes NEMA enclosures), conduit, disconnects or breaker panels. Wire splices will be permitted within the step up/step down transformers utilizing the clear insulated multi-tap connectors. The use of wire-nuts will not be permitted.

639A-4.5 Meter base: Securely fasten the meter base to the concrete service pole or H-frame assembly. Install meter bases at a height specified by the local electrical power company. To prevent the ingress of water, seal the tops and sides off all meters at their connection points and any holes smaller than 1/8 of inch in diameter with outdoor rated clear silicone sealant. Do not place silicone sealant around the bottom of meters.

639A-4.6 Non-fused line-side disconnects: Securely fasten the disconnect to the concrete service pole or H-frame assembly. Install disconnects at a height specified in the Design Standards and in conformance with NEC. To prevent the ingress of water, seal the tops and sides off all disconnects at their connection points and any holes smaller than 1/8 of inch in diameter with outdoor rated clear silicone sealant. Do not place silicone sealant around the bottom of disconnects.

Securely affix the ground bussbar to the inside of the disconnect. Tie all conduit ground lugs together to the ground bussbar within the disconnect, utilizing a single, green insulated, #6 AWG stranded copper conductor.

639A-4.7 Step up/step down transformers: When step up/step down transformers are required, securely fasten the transformers to the concrete service pole or H-frame assembly. Install transformers at a height specified in the Design Standards and in conformance with NEC.

639A-4.8 Main circuit breaker panels: Securely fasten the breaker panel to the concrete service pole or H-frame assembly. Install breaker panel at a height specified in the Design Standards and in conformance with NEC. To prevent the ingress of water, seal the tops and sides off all breaker panels at their connection points and any holes smaller than 1/8 of inch in diameter with outdoor rated clear silicone sealant. Do not place silicone sealant around the bottom of breaker panels.

Securely affix the ground bussbar to the inside of the panel. Tie all conduit ground lugs together to the ground bussbar within the disconnect, utilizing a single, green insulated, #6 AWG stranded copper conductor.

Clearly and permanently mark the schedule within the breaker panel to which device each breaker powers. Include the LHUB's mile post and direction of travel at a minimum.

639A-4.9 Safety circuit breaker panels: Safety circuit breaker panels are required at all ITS device locations and shall be located no more than ten feet from the ITS LHUB (includes NEMA enclosures).

Securely fasten the breaker panel to the concrete service pole or H-frame assembly. Install the breaker panel at a height specified in the Design Standards and in conformance with NEC. To prevent the ingress of water, seal the tops and sides off all disconnects at their connection points and any holes smaller than 1/8 of inch in diameter with outdoor rated clear silicone sealant. Do not place silicone sealant around the bottom of the disconnects.

Securely affix the ground bussbar to the inside of the breaker panel. Tie all conduit ground lugs together to the ground bussbar within the disconnect, utilizing a single, green insulated, #6 AWG stranded copper conductor.

639A-4.10 Circuit breakers: When 120/240VAC or 240/480VAC applications are employed, ensure that the breakers installed are balanced out across both "hot" legs to ensure that the amperage is split up as equally as possible. Ensure that the breakers installed within the breaker panel are equal to or higher than the circuit breakers located within the LHUB.

639A-4.11 Surge protection device: Separately breaker all surge protection devices with a dedicated 20 AMP breaker. Silicone seal around the inside and outside of the surge protection device after installation to prevent water intrusion. Correctly and properly wire all surge protection devices to ensure that all LED indicators are on and in working order.

639A-4.12 Manual Transfer Switch: Manual Transfer Switches are required at all ITS DMS cabinet locations and shall be located no more than ten feet from the ITS LHUB (includes NEMA enclosures).

Securely fasten the transfer switch panel to the concrete service pole or H-frame assembly. Install the transfer switch panel at a height specified in the Design Standards and in conformance with NEC. To prevent the ingress of water, seal the tops and sides off all disconnects at their connection points and any holes smaller than 1/8 of inch in diameter with outdoor rated clear silicone sealant. Do not place silicone sealant around the bottom of the disconnects.

Securely affix the ground bussbar to the inside of the breaker panel. Tie all conduit ground lugs together to the ground bussbar within the disconnect, utilizing a single, green insulated, #6 AWG stranded copper conductor.

639A-5 Energizing Electrical Assemblies:

Prior to energizing any disconnect, breaker panel or LHUB (temporary or new), the contractor shall request, in writing, an electrical inspection from CFX or its designee. This request shall be made through the CEI's Project Administrator as well as the CFX Project Manager. The written request shall be received no later than five business days in advance.

639A-5.1 Process: The contractor's certified electrician or electrical engineer must be onsite during any scheduled electrical inspections.

639A-5.1.1 Quality control: The contractor shall perform a self-inspection and accurately and fully complete CFX's electrical inspection form prior to CFX's inspection. The form shall be submitted to the CEI's Project Administrator upon completion and signed by a certified electrician or electrical engineer.

639A-5.1.2 CEI inspection: The contractor shall provide access to all electrical components (including pull boxes) and the completed electrical inspection form for the project's CEI inspection staff. The CEI and the contractor shall review all the items and note any deficiencies found.

639-5.1.3 CFX inspection: The contractor shall provide access to all electrical components (including pull boxes) and the completed electrical inspection form with any CEI notes for the CFX inspector. The contractor shall also have the project's approved for construction plans (and any revisions) and the local electrical power company's manuals onsite and readily available during inspection. The CFX inspector along with the CEI and contractor shall review all the items and verify that all deficiencies have been corrected prior to energizing.

639A-5.1.4 Electrical power company request for energizing: After all previous steps have been performed, the contractor can submit their signed electrical inspection form to the electrical power company and request that the meter be energized. The project's Project Administrator shall be cross-copied in all correspondence.

639A-6 MEASUREMENT OF PAYMENT

These pay items shall cover items or assemblies necessary to build, repair and maintain a safe and NEC/NESC compliant ITS power service. All grounding shall be incidental to the power service pay-item and follow TSP Section 620A and contract design documents.

639-X-XX shall include payment for the Contractor to verify required disconnects and all other equipment necessary for an acceptable installation meet CFX design standards, this specification and the latest Duke Energy or OUC Standards.

This specification and the contract design documents should be considered the minimum requirements and does not relieve the Contractor of the responsibility to meet all local requirements for a fully functionally installation (I.E.; circuit breakers, breaker panel, photo cells, etc.) and should be considered incidental to the cost of this pay-item. For electrical conductors, payment is per length of each conductor wire.

639A-7 BASIS OF PAYMENT

In addition to Section 639A-6 above, the unit price bid will include all coordination with the utility power provider including all permits. All items of work required by these specifications that do not have a separate pay item number shall be considered incidental to 639-X-XX. No additional compensation will be given.

- 639-1-11 Electrical Power Service Assembly (Furnish and Install) (Underground) (AS)
- 639-1-12 Electrical Power Service Assembly (Furnish and Install) (Overhead) (AS)
- 639-1-13 Electrical Power Service Assembly (Adjust) (AS)
- 639-1-14 Electrical Power Service Assembly (Remove) (AS)

- 639-2-11 Electrical Service Disconnect (Furnish and Install) (EA)
- 639-2-12 Electrical Service Disconnect (Adjust) (EA)
- 639-2-13 Electrical Service Disconnect (Remove) (EA)
- 639-2-14 Electrical Power Transformer (Furnish and Install) (EA)
- 639-2-15 Electrical Power Transformer (Remove) (EA)

- 639-3-01 Electrical Conductors (Furnish and Install) (Insulated) (No. 1) (LF)
- 639-3-02 Electrical Conductors (Furnish and Install) (Insulated) (No. 2) (LF)
- 639-3-04 Electrical Conductors (Furnish and Install) (Insulated) (No. 4) (LF)
- 639-3-06 Electrical Conductors (Furnish and Install) (Insulated) (No. 6) (LF)
- 639-3-08 Electrical Conductors (Furnish and Install) (Insulated) (No. 8) (LF)
- 639-3-10 Electrical Conductors (Furnish and Install) (Insulated) (No. 10) (LF)
- 639-3-12 Electrical Conductors (Furnish and Install) (Insulated) (No. 12) (LF)

- 639-3-100 Electrical Conductors (Furnish and Install) (Insulated) (No. 1/0) (LF)
- 639-3-200 Electrical Conductors (Furnish and Install) (Insulated) (No. 2/0) (LF)
- 639-3-300 Electrical Conductors (Furnish and Install) (Insulated) (No. 3/0) (LF)
- 639-3-301 639-3-400 Electrical Conductors (Remove) (LF)

Payment will be made as described in the Method of Measurement and Basis of Payment specifications for this Contract.

END SECTION 639A

SECTION 668 ITS DEVICE CABINETS

668-1 DESCRIPTION

Under this Section, the Contractor shall furnish and install ITS Device Cabinets to house ITS Field Equipment furnished by the Contractor under separate contract items. The ITS Device Cabinets shall provide protection to the ITS Field Equipment by providing a NEMA 3R rated weather tight enclosure in which to house this equipment. It shall also provide for electrical surge protection and provide proper ventilation. All surge equipment on the din rail shall be properly grounded to the bus bar with a properly sized ground wire. Proper size buss bar and terminal blocks shall be installed to accommodate the plan size electrical conductors without compromising the conductor in any way.

668-2 MATERIALS

All materials furnished, assembled, fabricated or installed shall be new, corrosion resistant and in strict accordance with all the details shown in the Plans and described in the Specifications.

668-2.1 Specific Requirements

The Contractor shall furnish and install an ITS Device Pole Mounted or Base Mounted Cabinet for all standalone ITS Field Equipment as shown in the Plans. The cabinet shall either be a model 336S or 334. NEMA intermediate as noted in the plans, and shall meet the functional requirements provided below. The cabinets shall include all surge protection device (SPD) items as shown in the plans.

All ground mounted ITS cabinets shall have a monolithic concrete base made from FDOT Class I non-structural concrete with WWF 4x4-W4.0xW4.0 that is 18" thick and will raise the cabinet 6" above grade. A maintenance pad shall be poured flush with grade and will accommodate all pull boxes at the cabinet location.

Electrical service wire (including wire used for electrical grounding) installed from the main circuit breaker panel to the safety circuit breaker panel (including from step-up transformer to step-down transformer) and from the safety circuit breaker panel to the LHUB or NEMA cabinet shall be XHHW (cross-linked polyethylene (XLPE) high heat-resistant, water-resistant) insulation, with a 45 mil thickness or greater, rated at 600V in dry and wet conditions. For this application, no service wire shall be smaller than 6 AWG. The neutral ground bond shall not be established in the ITS cabinets.

336S and 334 cabinets shall have a front and rear door and both shall be equipped with a lock and handle unless otherwise stated in the plans. All cabinet doors, including NEMA Enclosures, shall be provided with a CFX approved CyberLock. CyberLock keys shall be included as part of the CyberLock assembly (model # CL-TC1 or CFX approved equivalent). One Cyber key will be required for every 10 locks installed on the project, rounded up to the nearest whole value. The CyberLock and keys shall be provided to a designated CFX representative for configuration and

installation. Cabinet doors shall be full-size, matching the height and width dimensions of the cabinet enclosure and have no fewer than three stainless steel hinges, or alternately, one full-length “piano” hinge. Hinges shall be made of 14-gauge stainless steel and the hinge pins spot-welded at the top. Hinges shall be mounted so that they cannot be removed from the door or cabinet without first opening the door. Door and hinges shall be braced to withstand a 100-pound-per-vertical-foot of door height load applied vertically to the outer edge of the door when standing open. There shall be no permanent deformation or impairment of any part of the door or cabinet body when the load is removed. Both door openings shall be double flanged on all four sides, and include a closed-cell, neoprene gasket seal that is permanently bonded to the inside of each door forming a weather-tight seal when the door is closed.

The 336S and 334 cabinets shall be furnished with a three-point latching system for the doors. Latching points are: 1) center of the cabinet (lock); 2) top of the cabinet – controlled by the door handle; and, 3) bottom of the cabinet – controlled by the door handle. Latching points 2 and 3 remain in the locked position until the main cabinet door lock is unlocked. The locking mechanism shall be equipped with nylon rollers to secure the top and bottom of the door. The cabinet shall be furnished with a door stop that holds the main door open in a 90-degree and 120-degree position.

336S and 334 Cabinets shall include a standard 19-in EIA/TIA equipment rack centered in the cabinet for mounting devices. Clearance in the rack between the rails shall be 17.75 inches. Adhesive-backed or metal stamped rack unit labels shall be installed on the rack rails for easy and accurate device placement.

The Contractor shall furnish and install a one rack unit (RU), rollout internal shelf with a minimum work area measuring 10 inches by 10 inches and capable of sustaining a constant 20-pound load. Shelf position shall be level and adjustable. This shelf shall serve as a drawer and the shelf top as a laptop maintenance pad. The top shelf shall lift open and the inside shall serve as a storage unit for shop drawings, plans and maintenance documents. The cabinet shall be mounted so as the pull out shelf is approximately 48” to 54” from final grade for ease of maintenance. The NEMA 3R intermediate cabinet shall be equipped with a fold down shelf, that is properly secured when in the up and down positions.

Cabinet shall provide ventilation through the use of a louvered vent, not exceeding 0.25 inch depth, at the bottom of the main door. The intake vent shall be made rain tight through the use of a water-deflecting ventilation panel on the inside of the main door securing the filter to the door and forming a shell over the filter to give it mechanical support, and is louvered to direct the incoming air downward. Filter shall be easily removable, reusable, measures no less than 16 inches by 12 inches and 7/8 inch thick, held in place with a bottom trough and a spring-loaded upper clamp and no incoming air can bypass the filter. The NEMA 3R intermediate cabinet shall have a filter installed as shown in the plans. The bottom trough holding the filter shall drain any accumulated moisture to the outside of the field cabinet.

All cabinets shall be equipped with a removeable top cover with dual, UL-listed, thermostatically controlled fans to improve performance with the air flow design, located inside at the top of the cabinet, with a minimum air flow rating of 100 cubic feet per minute. The electric fan motors shall have ball or roller bearings, and the fans shall be rated for continuous duty and have a service life

of at least three years. The exhaust air shall be vented from openings in the roof of the field cabinet. The fan thermostats shall be mounted on the inside top of the cabinet; user adjustable to allow temperature settings ranging from a minimum of 70° Fahrenheit (F) to a maximum of 160° F; and accurate within ± 3 degrees of the set temperature.

336S and 334 cabinets power panels shall be recessed, located on the bottom of the cabinet and shall not take more than five units space. For additional information, refer to the CFX ITS Design Standards. All equipment furnished shall conform to applicable UL, NEC, EIA, ASTM, ANSI and IEEE requirements. Surge Protective Device (SPD) shall be accessible from the front of any panel used in the cabinet. Cabinet wiring shall conform to NEC requirements. In the event of a conflict between NEC requirement and other requirements in this specification, the stricter requirement shall govern. All conductors shall be stranded copper and all wiring shall be laced. Service panel assembly functions as the entry point for AC power to the cabinet and the location for power filtering, transient suppression and equipment grounding. Branch circuits, SPDs, and grounding shall be provided as required for the load served by the cabinet, including ventilation fans, internal lights, electrical receptacles, etc. Electrical inputs and outputs shall be terminated on terminal blocks where the voltage and current rating of the terminal block is greater than the voltage and current rating of the wire fastened to it. Conductors shall terminate on terminal blocks using insulated terminal lugs large enough to accommodate the conductor to be terminated and when two or more conductors are terminated on field wiring terminal block screws, a terminal ring lug shall be used for termination of those conductors. No terminal block shall accept a conductor larger than the terminal termination diameter size. No conductor shall be reduced at termination point to fit into an existing terminal block. In the case of oversize conductors, the terminal block shall be replaced with a conforming approved NEC terminal block capable of accommodating the conductor cable size. All terminal block circuits shall be numbered and blocks shall be covered with a clear insulating material to prevent inadvertent contact. Ground bus bars shall be fabricated from a copper alloy material compatible with copper wire and have at least two positions where a #6 AWG stranded copper wire can be attached. Square D model number PK12GTA 2 POS cabinet ground bus bar shall be used in all ITS cabinets. Ground bus bar shall be mounted on the side of the cabinet wall adjacent to the service panel assembly for the connection of AC neutral wires and chassis ground wires; if more than one ground bus bar is used, a minimum of a #10 AWG copper wire shall interconnect them. Equipment rack shall be connected to the ground bus bar within the cabinet maintaining electrical continuity throughout the cabinet. A power distribution assembly that fits in the EIA 19-inch rack and provides for protection and distribution of 120 VAC power shall be furnished.

All 336S and 334 cabinets shall be provided with two 20-watt fluorescent lamps or approved LED alternative and clear shatter-proof shield assemblies which are mounted on the inside front top and rear top of the cabinet. Lamps shall be unobstructed and able to cast light on the equipment. Cabinet shall be equipped with door-actuated switches so that the lamps automatically turn on when the cabinet door is opened and turn off when the doors are closed.

All cabinets shall be fabricated using high quality 5052-H32 Aluminum and will have a minimum thickness of .125”.

Cabinet shall be provided with the necessary base or pole-mounting hardware. Pole and structure-mounted cabinets shall have mounting brackets on the side so the cabinet doors are fully functional. Ground-mounted cabinets shall be supplied with a removable base plate. Cabinet shall have two aluminum plates welded inside for anchoring the cabinet. Plates shall be aluminum alloy 5052-H32 and a minimum of 4 inches wide by 0.125 inch thick. Cabinet shall include four 1-inch diameter holes for anchoring. Cabinet manufacturer's name and APL certification number (once approved), along with the year and month of manufacture, shall appear only on the inside of the main cabinet door and are attached to the door by a water resistant method. Cabinet shall be provided with a unique serial number that is engraved on a metallic plate epoxied to the inside of the cabinet on the upper right-hand side wall. A heavy-duty resealable plastic bag shall be mounted on the backside of the main cabinet door for storing cabinet prints, a list of terminal block connections, and other documentation that may be subject to damage when exposed to sunlight or moisture.

All exterior cabinet and door seams shall be continuously welded and the welds shall be smooth, neatly formed and free of cracks, blow holes and/or other irregularities. All inside and outside edges of the cabinet shall be free of burrs and all edges are filled to a radius of 0.03125 inch minimum. Welders and welding operators shall conform to American Welding Society (AWS) requirements as contained in AWS B3.0 and C5.6 for aluminum and use ER5356 aluminum alloy bare welding electrodes conforming to standard AWS A5.10 requirements for welding on aluminum. Cabinet shall be furnished with two lifting eye plates on either side of the top for lifting the cabinet and positioning it. Each lifting eye opening shall have a minimum diameter of 0.75 inch and be able to support the weight load of 1,000 lbs. All external bolt heads shall be tamperproof.

668-2.1.1 Heat Shield

All cabinets shall come equipped with a heat shield installed by the cabinet manufacturer that is securely attached and made from aluminum. Heat shields must be mounted on standoffs that provide an air gap of at least one inch between the exterior cabinet walls and the heat shield. Construct heat shields out of 0.125 inch thick 5052-H32 aluminum sheet with corners that are rounded and smoothed for safety. The attachment points shall be water and environmental proof and attachment hardware shall be made from aluminum or non-corrosive metals that meet all specifications of the manufacturer, NEMA 3R standards and CFX.

668-2.3 Cabinets

All cabinet shells shall conform to NEMA 3R Standards. All ITS Device Pole Mounted Cabinets shall be Model 336S (Stretch) and all ITS Device Base Mounted Cabinets shall be Model 334. All cabinets shall meet the following dimensional requirements:

Type 336S - Height is between 46 and 48 inches, Width is between 24 and 28 inches and Depth is between 22 and 26 inches;

Type 334 - Height is between 66 and 68 inches, Width is between 24 and 28 inches and Depth is between 30 and 32 inches.

NEMA 3R Cabinets – Height is between 30 and 32 inches, Width is between 24 and 26 inches and Depth is between 12 and 14 inches.

The Contractor shall furnish wiring diagrams of the Cabinets for review and approval by CFX.

The Contractor shall inspect wiring and workmanship in existing device cabinets where equipment is added or modified under this project. If the existing wiring or workmanship is not in compliance with the current versions of NEC, NESC, or other applicable codes or standards, as stated above the Contractor shall bring the deficient wiring or workmanship into compliance with the applicable codes. Payment for this work shall be considered incidental to the mobilization pay item.

668-2.4 Panduit Cable Management System

All CFX ITS Cabinets and Hubs except the NEMA 3R intermediate cabinet shall be outfitted with Panduit brand Cable Management System Type G Wide Slot Wiring Duct model G1X1LG6-A or approved alternate. The Wiring duct shall be cut to fit and shall organize all ITS Cabinet and Hub cables. The Panduit shall be grey in color and shall have the wide finger slotted wiring duct, base and covers included with the system. An acceptable alternate would be “L” shaped fingers in lieu of a separate cover which properly harnesses communications and power cables within the cable management system. Panduit shall be included on the right and left on both sides of the cabinet as shown in the CFX Design Standard Details. The Panduit Cable Management System shall be incidental and inclusive to the cost of the cabinet. The Panduit Management System or CFX approved equal shall not make contact with the cabinet door or their handles, locks and hinges.

668-3 CONSTRUCTION DETAILS

The cabinets shall be installed and connected as shown on the Plans.

668-4 MEASUREMENT OF PAYMENT

The cabinets will be measured for payment as the number of complete assemblies furnished, warranted, installed, and made fully operational and tested. CyberLock assemblies shall include one CyberLock key per ten units and at least a minimum of one key per one unit.

668-5 BASIS OF PAYMENT

Payment for all documentation and testing specified herein shall be included under this item.

668-11	ITS Device Cabinet (Pole Mounted) (Heat Shield) (F&I) EA
668-12	ITS Device Cabinet (Base Mounted) (Heat Shield) (F&I) EA
668-13	ITS NEMA 3R Intermediate / Remote Cabinet (Pole Mounted) (F&I) EA
668-13A	ITS NEMA 3R DCS Reader Cabinet (Pole Mounted) (F&I) EA

- 668-21 Fully Operable CyberLock Assembly (per cabinet door) (Furnish Only) EA
- 668-22 Corbin Locks (per cabinet) (Remove) EA

- 668-40 ITS Device Cabinet (Relocate – All Types) EA
- 668-50 ITS Device Cabinet (Adjust – All Types) EA
- 668-60 ITS Device Cabinet (Remove – All Types) EA

END OF SECTION 668

SECTION 683
INTELLIGENT TRANSPORTATION SYSTEM (AUXILIARIES)

683-1 DESCRIPTION

This Section identifies communications, power and system auxiliaries including supporting equipment materials and specifications.

683-2 MATERIALS – COMMUNICATION AND SUPPORT EQUIPMENT

All materials furnished, assembled, fabricated or installed shall be new, corrosion resistant and in strict accordance with all the details shown in the Plans and described in the Specifications.

All equipment furnished under this Section shall be compatible with each other and with other equipment furnished under other Sections of the Specifications.

683-2.1 Gigabit Ethernet Field Switch

This specification applies to the communications interface device to be installed in existing and new cabinets as shown on the Plans. This controller cabinet communications interface device is called the Gigabit Ethernet Field Switch (GEFS). The GEFS shall be the RuggedCom RSG2300 (Part number 6GK23-OAS23-0DC0-Z A00+B00+C07+D07) fully managed Layer 2 hardened Ethernet switch that meets the following functional requirements:

- Twenty-Four (24)10/100/1000BaseTX copper ports: RJ-45 Female, Auto-negotiating, Full Duplex; IEEE 802.3x,u
- Four (4) 1000BaseX fiber ports supporting the following options:
 - 20 km @ 1310 nm
 - 40 km @ 1550 nm
 - 70 km @ 1550 nm
- User swappable mini-GBIC (SFP) with LC connectors allowing long haul optics up to 90 km
- Minimum switching bandwidth of 5 Gbps
- 4 port modules for flexibility
- Internet Group Multicast Protocol (IGMP) v2 Snooping
 - Support 256 IGMP Multicast groups
- Multilevel user passwords, SSH/SSL (128-bit encryption)
- RADIUS Centralized password management
- Tagged VLANS (IEEE 802.1q)
- Layer 2 Quality of Service (IEEE 802.1p tagged frames per port)
- Multiple Spanning Tree Protocol (MSTP) (802.1Q-2005)
- Rapid Spanning Tree Protocol (RSTP) (IEEE 802.1w)
- Port-Based Network Access Control (IEEE 802.1X)
- Link Layer Discovery Protocol (LLDP) (IEEE 802.1AB)

- Link Aggregation (IEEE802.3ad)

- Network Management: SNMP v3, MIB II and 56-bit encryption
- Secure Shell (SSH) Version 2
- Latency: 7 μ sec plus packet time, maximum
- All ports shall be full speed non-blocking, store and forward switching

The GEFS shall support both Unicast and Multicast. A minimum of 64 VLANS and IP Multicast sessions shall be supported. It shall support VLAN classification, blocking, learning, filtering and forwarding. The GEFS shall be capable of automatic rerouting of data in case of an edge ring fiber cut or loss of an interconnected GEFS.

683-2.1.1 Other Standards:

The GEFS shall comply with the following standards:

Organization	Standard	Applicability
Deutsches Institut fur Normung (DIN)	Electronic Packaging	EIA or DIN Standard Required
Electronic Industries Alliance (EIA) 310D	Electronic Packaging	EIA or DIN Standard Required
Electronic Industries Alliance/Telecommunications Industries Association	EIA/TIA 568B; Commercial Building Telecommunications Wiring	Cable Standards for Network Interface (i.e. Ethernet)
Federal Communications Commission (FCC)	Radiated Emissions and Electromagnetic Susceptibility	Compliant
National Electrical Manufacturers Association TS-2	Traffic Controller Standards	Environmental and Electrical Power Specifications Apply
National Fire Prevention Association	National Electric Code	Latest Version is Applicable to Grounding and Electrical Safety
Underwriters Laboratory (UL)	UL60950 and UL 508	Electrical Safety Shall be Met

683-2.1.2 Applicable Request for Coordination (RFC):

RFC	Title	Applicability
1155/1157, 1901-1907, 1908	Management Information Structure	Standards to be Used
1212, 1213, 1215, 1354, 1493, 2233	Management Information Base (MIBs)	Standards to be Used
1757, 2021	RMON-I	Standards to be Used
1112, 2236	IGMP v2	Standards to be Used

683-2.1.3 Power:

The GEFS shall be provided with a 85-265 VAC screw terminal block. The power converter shall perform to specifications with a 10 percent variation in utility power. The power converter shall include power filtering and regulation as well as protection against power surges. Power variations as specified in NEMA TS-2 Standards shall be met.

683-2.1.4 Physical

The GEFS shall occupy a 1 RU rack mounted space within the Controller Cabinets. The case shall be constructed from 18 AWG galvanized steel, treated to prevent corrosion. The design shall protect integrated circuits from radio frequency interference and electromagnetic interference. The front panel shall include, as a minimum, indicators for power failure, communications faults, and port active status. The GEFS shall be provided with mounting provisions. Rack mounting provisions shall be used and the switch placed in the cabinet per the ITS Design Standard cabinet layout

683-2.1.5 Environmental

The GEFS shall comply with Environmental Requirements specified for NEMA TS-2 controllers. The device and all of its components, including the GBICs and power supply, shall support a minimum operating temperature range of -40 to +85°C.

683-2.1.6 Configuration and Integration

The Contractor shall be responsible for configuration and integration of the GEFS into the ITS system (see Appendix). Configuration shall include, but not be limited to, the following:

- IP address, subnet, and gateway (information supplied by CFX)
- System Identification Information (Location, ID #)
- Simple Network Time Protocol (SNTP)
- Simple Network Management Protocol version 3 (SNMP v3)
- IEEE 802.1q VLANs and tags (information supplied by CFX)
- Assign ports to appropriate VLANs
- RADIUS (IEEE 802.1x) Port Security (information supplied by CFX)
- Enable LLDP on trunked ports
- Enable IGMP Snooping on VLANs as necessary
- Integrate GEFS into CFX's network monitoring system (NMS)
- Enable SSHv2
- Enable MAC filtering on all active fast Ethernet ports (information supplied by CFX)
- Disable all unused switch ports
- Latest firmware installed

683-2.1.7 Markings

The GEFS shall have a permanent tag with manufacturer's name, address, model number, and part number. All ports and indicators shall be permanently labeled as to function and related interfaces. Power interface shall be labeled with voltage and maximum current. Reference CFX labeling standards for additional information.

683-2.1.8 Furnish-Only Gigabit Ethernet Field Switches

All spare GEFS quantified in the plans shall be furnished by the Contractor with two (2) LX mini-GBICs (10km @ 1310nm). The Contractor shall furnish mini-GBICs for the spare units that are of the identical make and model as those furnished for the units installed by the Contractor.

683-2.2 Terminal Server

The low speed serial data shall be routed through a terminal server, which shall consist of a minimum of four (4) data ports that are individually user selectable for RS-232, RS-422 or RS-485. The terminal server shall be the i55COM model iD6SP-S (slim version) and shall meet the following functional requirements:

- Data channels shall be independently configurable for bit rate up to 115,200 bps, asynchronous and full/half duplex
- TCP/IP shall serve the terminal server operation
- All data ports shall be Female RJ-45
- Network Management: SNMP v1 or v3
- Ethernet ports shall be 10/100 Base-T
- Ethernet port supporting PoE IEEE 802.3af
- Environmentally hardened with operating temperature: $\geq 74^{\circ}\text{C}$
- Secure Shell (SSH) Version 2
- Supports Dual Input Power Supplies
- Secure Management by HTTPS and SSH
- Produce event alarms via Syslog, Email and SNMP trap
- Redundant facility to stream data to 5 host devices

683-2.2.1 Configuration and Integration

The Contractor shall be responsible for configuration and integration of the Terminal Servers into the ITS system (see Appendix). Configuration shall include, but not be limited to, the following:

- IP address, subnet, and gateway (information supplied by CFX)
- System Identification Information (Location, ID #)
- Simple Network Time Protocol (SNTP)
- Simple Network Management Protocol (SNMP v1 or v3)

The Contractor shall furnish and install a terminal server in existing and proposed field cabinets as shown per the plans. Installation shall include configuration of SNMP to interface with CFX's existing network management system.

683-2.3 Ethernet Media Converter

The Ethernet Media Converter shall be the Control- RocketLinx Model: ES8105F-S-XT Part Number: 32028-9 (Single-Mode). The Contractor shall utilize an Ethernet Media Converter

when twisted pair cabling extends over 250' to ensure signal integrity between GEFS and end point equipment. The media converter must allow the transition from twisted pair and optical fiber providing a fully functional system. The media converter shall meet the following functional requirements:

- UL 1604 Class 1, Division 2 (CID2) certified for use in hazardous locations
- Alarms for power and port link failure by relay output
- Utilize single mode SC connectors for optical and RJ-45 for Cat5e connection
- Ethernet ports shall be a minimum of four (4) RJ-45- 10/100 Base-TX and Fiber port shall be one (1) - 100 Base-FX (supports SM or MM), Auto-negotiation, Auto-MDI/MDIX
- Meets standards IEEE 802.3 10Base-T and IEEE 802.3U 100Base-TX/FX
- 3.2Gbs Switch Fabric
- Environmentally hardened with operating temperature: $\geq 75^{\circ}\text{C}$ (167°F)
- AC or DC power input (18 to 32VDC or 18 to 27VAC)

The Contractor shall furnish and install an Ethernet Media Converter in existing and proposed field cabinets as shown per the plans. Installation shall include all work necessary to integrate the media converter into the CFX ITS System.

683-2.4 Gigabit Interface Converter (GBIC)

The Contractor shall supply all Gigabit Interface Converters (GBIC) as necessary to connect all Gigabit Ethernet Field Switches (GEFS) installed as part of this project.

GBICs shall meet the following minimum requirements:

- Fully compliant with the IEEE 802.3z 1000 Base-LX standard
- Operating temperature range of -34 to $+85^{\circ}\text{C}$
- Standard LX GBIC
 - Minimum distance of 20km (15.5mi) at 1310nm over single mode fiber
 - Transmit optical power budget of -7 to $+3$ dBm
 - Receive optical power budget of -3 to -26 dBm
- Long Haul GBIC Type A

NOTE: When using long haul GBICs, the contractor shall supply attenuators, as necessary, to avoid saturating the receiver.

 - Minimum distance of 40km (24.8mi) at 1550 nm over single mode fiber.
 - Transmit optical power budget of -6 to 0 dBm
 - Receive optical power budget of 0 to -23 dBm
- Long Haul GBIC Type B

NOTE: When using long haul GBICs, the contractor shall supply attenuators, as necessary, to avoid saturating the receiver.

 - Minimum distance of 70km (43.5mi) at 1550 nm over single mode fiber.
 - Transmit optical power budget of 0 to 5 dBm
 - Receive optical power budget of 0 to -23 dBm

It is the Contractors responsibility to provide the correct size GBIC (SFP mini-GBIC) along with the correct distance GBIC (LX or ZX) for each GEFS installed. The GBICs Shall be considered a necessary component of the GEFS and shall be provided with each GEFS to provide a fully functional unit.

683-2.5 Fiber Optic Patch Panel – 12 Port

683-2.5.1 Closet Connector and Splice Housing

The 12 port closet connector and splice housing is used to terminate 6 or 12 strand fiber optic drop cables located in field cabinets or mounted on a wall. The 12 port closet connector and splice housing shall incorporate two (2) splice trays and connector panels, and fiber optic pigtails. The closet connector and splice housing shall be Corning CCS-01U (cabinet mount) and Corning SPH-01P (wall mount) and shall meet the following functional requirements:

- 1 RU (1.75”) rack mountable housing
- Support at least two (2) splice trays
- Minimum capacity of 12 single mode type SC connectors

683-2.6 Fiber Optic Patch Panel – 72 Port

The 72 port fiber optic patch panel is inclusive of the closet connector housing and factory terminated pigtail modules.

683-2.6.1 Closet Connector Housing

The closet connector housing is used to terminate the 72 strand fiber optic backbone and feeder cables located in Mainline and Ramp toll plazas. The patch panel shall be Corning part number PCH-04U and shall meet the following functional requirements:

- 4 RU (7.0”) rack mountable connector housing
- Twelve (12) slots that can be populated with factory terminated pigtails outlined in Section 683-2.6.2
- Include a minimum of six (6) SCF-ST-116 Splice Trays
- Include PC4 SPLC-12SR splice kit

683-2.6.2 Factory Terminated Pigtails

The 12 port factory terminated pigtails are used to populate up to six (6) slots on the Closet Connector Housing. Each 12-strand pigtail bundle shall be spliced to only one buffer tube of the 72-count fiber optic cable. The factory terminated pigtails shall consist of a Corning closet connector housing panel, Corning part number CCH-CP12-59 and 12 color coded factory terminated pigtails. The factory terminated pigtails shall meet the following requirements:

- 12-port SC duplex connectors

- Single mode fiber pigtails
- Factory installed and tested

683-2.6.3 Fiber Optic Jumper

Use duplex fiber optic jumper shall be cut to length shall include ST, SC, or LC connectors as need to connect the equipment. All fiber jumpers shall meet the following requirements:

- Single Mode
- Factory terminated connector
- Preradiused Ceramic Ferrule
- Insertion loss maximum of ≤ 0.3 dB
- Reflectance typical ≤ -58 dB
- Connector tip polish UPC
- Cable outer diameter 2.8 mm
- Minimum pull out strength of 50 pounds
- Meet TIA/EIA-568-A and TIA/EIA-604 connector standards

683-2.7 Spare Parts Kit

Spare Parts Kits for Communications Systems Auxiliary shall be required where this pay-item is shown on the plans and shall be paid as shown in Section **683-11, BASIS OF PAYMENT**. All parts shall be new.

683-3 CONSTRUCTION REQUIREMENTS

The Contractor shall install a GEFS unit in each ITS cabinet as designated on the plans. The GEFS shall be physically installed in designated cabinets and interconnected to ITS cabinet power as indicated on plans. Local communications interconnect cables, in accordance with interface standards and associated cable standards (see EIA/TIA 568B) shall be provided and installed by the Contractor. Fiber drop cables, installed by the Contractor shall be interconnected to the GEFS in accordance with plans.

683-4 INSTALLATION, INTEGRATION, AND TESTING

The Contractor shall provide a detailed installation plan to CFX for review and approval to include installation of the following:

- Outside plant fiber optic cable
- Duplex Fiber optic jumper cables
- Category 5(e) / Category 6 cabling
- Power cabling

Also included shall be rack elevation diagrams depicting the location of overhead ladder rack and non-metallic cable tray systems, where applicable, and field cabinets.

Fiber optic patch panels furnished and installed under this specification shall conform to the requirements of Section 633.

683-4.1 Fiber Optic Patch Jumpers

All patch jumpers that span more than a single equipment rack shall be installed in a non-metallic fiber optic cable tray. Fiber optic patch jumpers shall be placed neatly in the cable tray, and may only be bundled using Velcro strips. All fiber optic slack loops present in the cable tray shall maintain the minimum bend radius per manufacturer specification. The Contractor shall submit cut-sheets of the fiber optic cable tray to CFX for review and approval prior to installation.

All fiber optic patch jumpers shall be labeled using the connection list as provided in the plan set. The Contractor shall submit a label type and manufacturer to CFX for review and approval. Reference CFX cable labeling standard for additional details.

683-4.2 Interconnect Cabling

Field Cabinet cable management shall also be submitted for review and approval by CFX. All cabling in the cabinet shall be secured using tie-wraps, wax coated string, or Velcro strips. Cables shall not be permitted to hang loosely and unsecured.

All cabling between communication ports of interconnected electronic devices and 10/100BaseT ports of the GEFS shall be supplied by the Contractor. Cable standards in accordance with EIA/TIA 568B and IEEE 802.3 standards shall be utilized. This includes CAT 5(e) cable for copper interconnections. The 10/100BaseT interconnect cables shall be terminated on each end with RJ-45 (male) connectors. Each cable shall be permanently marked as to function and mating connector. Interconnect cables shall include a minimum 1 meter of slack cable to facilitate rearrangement of equipment within the cabinet, should it be required. Cables shall be neatly arranged in the cabinet and shall be installed to prevent stress on the connectors.

All 1000 BaseT copper Ethernet connections shall be installed using Category 6 (Cat 6) cable. Cat 5e or Cat 6 is acceptable for 10/100 speeds.

683-4.3 Integration

Contractor shall submit to CFX an Integration Plan for approval that details how the Contractor will integrate equipment into existing field cabinets. The Integration Plan shall contain detailed downtime estimates to install the terminal servers, patch panels, and Gigabit Ethernet Field Switches. Plan shall minimize downtime for individual field devices (not to exceed 4 hours without CFX approval). Plan shall also provide ability to return the field

device to normal operating conditions in the event a particular field device is not operational after a pre-determined period of downtime.

Costs for all integration work shall be incidental to the pay item.

683-4.4 Testing

Prior to installation in the field cabinet the GEFS shall be pre-tested and inspected. The Contractor shall not install defective equipment. Records of pre-installation testing shall be provided to CFX, upon completion of testing, if requested by CFX. Test shall be performed using a test procedure pre-approved by CFX. Test procedure shall verify that GEFS communications functions are properly working per specification and that there is no evidence of poor workmanship or damaged materials. CFX or its designated representative shall witness and verify via signature that the tests were successfully performed. Testing shall verify that required documentation for the GEFS is delivered including product operations and maintenance manuals and the required product Certificate of Compliance. The Contractor's quality assurance supervisor shall notify CFX when the installation has been pre-tested and the installation is ready for formal testing for measurement. Records of pre-testing in accordance with the approved test procedure shall be made available to CFX upon request. Should evidence of successful pre-testing not exist and the test fails, the Contractor shall be responsible for additional testing cost encountered by CFX. All testing plans shall be submitted to CFX for approval 21 days prior to beginning and testing of the devices installed as part of this project.

683-5 MATERIALS – POWER AND SUPPORT EQUIPMENT

683-5.1 Uninterruptible Power Supply System

The Contractor shall furnish and install an Uninterruptible Power Supply (UPS) System, including a power transfer switch in each field cabinet. The Alpha FXM 650 shall be furnished and installed by the Contractor.

The UPS shall be equipped with enough battery life with sufficient capacity to hold the local hub's electrical load for four (4) hours (not including hub GFCI outlet). The UPS shall meet the following requirements:

- Input Voltage Range: 85 to 175 VAC (for 120 VAC) 150 to 328 VAC (for 230 VAC)
- Output Voltage Regulation: +/- 10% over full input voltage range
- Transfer Time: <5ms
- Pure sine wave output
- Operating temperature range of -40 to 74°C (-40 to 165°F)
- Total equipment space utilization shall not exceed 8 Rack RUs
- The depth of the UPS shall not exceed the maximum allowable depth for equipment in the field cabinet
- The unit shall communicate via an Ethernet port
- The unit shall support SNMP protocol

- The UPS shall be controllable by Ethernet SNMP cards
- Batteries shall be the AlphaCell 150 XTV AGM or CFX approved equivalent valve regulated lead acid battery.

683-5.2 Remote Power Manager (RPM)

The Contractor shall furnish and install an Ethernet Power Controller 7 item number EPCR7 remote power management panel or ITS Commander. These units shall include their own environmental sensor system. These units shall be fully compatible and interoperable with the UPS unit the power manager system is integrated to. These units shall have the following features:

- The outlet panel must be remote controllable, per outlet, to allow operators to turn off/on individual power ports via manufacturer provided software or web interface
- The unit shall support SNMP protocol. SNMP traps shall be repeatable on a user defined basis.
- Ethernet Interface, 10/100 autosensing, Static IP, port selectable, RJ-45 with FCC
- Each outlet shall be labeled in the user interface to reflect the proper device is connected to the appropriate outlet.
- The outlet port for the local switch shall be configured to Safe Reboot mode

683-5.3 Remote Power Manager (RPM) - Remote

The Contractor shall furnish and install a Web Power Switch 7 item number LPC7 remote power management panel which supplies eight (8) 120 VAC outlets and two (2) 120 VAC un-switched outlets. This unit shall include its own environmental sensor system. The unit shall be fully compatible and interoperable with the UPS unit the power manager system is integrated to. The unit shall have the following features:

- The outlet panel must be remote controllable, per outlet, to allow operators to turn off/on individual power ports via manufacturer provided software or web interface
- The unit shall support SNMP protocol. SNMP traps shall be repeatable on a user defined basis.
- Ethernet Interface, 10/100 autosensing, Static IP, port selectable, RJ-45 with FCC
- Each outlet shall be labeled in the user interface to reflect the proper device is connected to the appropriate outlet.
- The outlet port for the local switch shall be configured to Safe Reboot mode
- Security, HTTPS, SSL, SSH, SNMP3
- Temperature: -30 to 170 °F (-34 to 77 °C), +/- 0.5 °C
- Surge Suppression, Dual MOV, 3600J rating

683-5.4 Spare Parts Kit

Spare Parts Kits for Power Systems Auxiliary shall be required where this pay-item is shown on the plans and shall be paid as shown in Section **683-11, BASIS OF PAYMENT**. All parts shall be new.

683-6 COMMUNICATION RACK INSTALLTION

The Contractor shall furnish and install a standard 19 inch Communications Rack whenever a new Mainline or Ramp Plaza is constructed or in accordance with the Plans. The communications rack shall be manufactured by Chatsworth Products Inc. (CPI-55053-703) or CFX approved equal.

- The rack shall have a 20.3"W x 15"D footprint.
- The rack shall have a total capacity of 45 Rack Units (RU) with 1 RU hole spacing.
- The communications rack shall be capable of holding 1,000 lb of equipment and shall be UL Listed.
- Two-post racks must be secured to the building structure. If a raised floor is used the communication rack shall be bolted to the structural floor of the building, not the raised floor tiles. The communications rack shall have pre-punched base angles so that the contractor can attach the rack to the floor using an installation kit for wood (Part #: CPI-40604-001), slab (Part #: CPI-40607-001) or raised floors (Part #: CPI-10629-119).

For Mainline toll plazas, the Contractor shall furnish and install a total of two (2) vertical, and two (2) horizontal cable management systems in the communications rack. The Contractor shall furnish and install two (2) Rack Mounted Power Strips in the communications rack (Part #: CPI-12816-707) or CFX approved equal.

For Ramp toll plazas, the contractor shall furnish and install a total of two (2) vertical, and one (1) horizontal cable management systems in the communications rack. The contractor shall furnish and install one (1) Rack Mounted Power Strips in the communications rack (Part #: CPI-12816-707) or CFX approved equal.

The power strip shall meet the following requirements:

- 19" Rack-Mount Power Strips will attach to the 19" wide EIA Rack
- The rack mounted power strip shall contain a minimum of 8 electrical outlets
- 19" Rack-Mount Power Strips shall use only one RU vertical space to allow multiple pieces of equipment to share a single power connection.
- The Power strips shall be equipped with optional circuit breakers and surge-protection.

The cable management and power strip(s) shall be considered incidental to the rack installation pay item.

683-7 CONFIGURATION AND INTEGRATION

The Contractor shall be responsible for configuration and integration of the UPS and RPM into the ITS system. Configuration shall include, but not be limited to, the following:

- IP address, subnet, and gateway (information supplied by CFX)
- System Identification Information (Location, ID #)
- Simple Network Time Protocol (SNTP)
- Simple Network Management Protocol version 3 (SNMP v1 or v3)

683-8 MEASUREMENT OF PAYMENT

The ITS System Auxiliary Devices shall be measured for payment as each unit is furnished, installed, warranted, made fully operational and tested.

683-9 BASIS OF PAYMENT

The unit price bid for each unit shall include the cost of furnishing all labor, materials and tools and equipment necessary to complete the work. Miscellaneous hardware required at any location shall be included under these Bid Items and shall not be paid for separately. Payment for splicing of pigtails within the Patch Panel shall be included within the Patch Panel pay item number. Payment for warranty, documentation and testing specified herein shall be included under the following items:

683-101	Gigabit Ethernet Field Switch (F&I) (EA)
683-102	Hardened Terminal Server (F&I) (EA)
683-103	Ethernet Media Converter (F&I) (EA)
683-104	Fiber Optic Patch Panel – 12 Port (F&I) (EA)
683-105	Fiber Optic Patch Panel – 72 Port (F&I) (EA)
683-106	Cut-To-Length Duplex Fiber Optic Jumper (F&I) (EA)
683-201	Uninterruptible Power Supply (F&I) EA
683-202	Remote Power Manager/Environmental Sensor (F&I) EA
683-202A	Remote Power Manager/Environmental Sensor - Remote (F&I) EA
683-203	Communication Rack Installation (F&I) EA

Payment for spare parts shall be full compensation for the spare parts listed below for the Communications Systems Auxiliary. The components shall be approved by CFX.

683-101 SP	Gigabit Ethernet Field Switch (Furnish Only) (EA)
683-102 SP	Hardened Terminal Server (Furnish Only) (EA)
683-103 SP	Ethernet Media Converter (Furnish Only) (EA)

Payment for spare parts shall be full compensation for the spare parts below for the Power Systems Auxiliary. The components shall be approved by CFX.

683-201 SP	Uninterruptible Power Supply with two (2) Batteries (Furnish Only) (EA)
683-202 SP	Remote Power Manager/Environmental Sensor (Furnish Only) (EA)

END OF SECTION 683

SECTION 740

WRONG WAY DRIVING SYSTEM

740-1 DESCRIPTION

Under this Section, the Contractor shall furnish and install a TAPCO Traffic and Parking Control (hereafter referred to as "TAPCO") Wrong Way Detection System with the following model number(s):

- Radar, Aluminum finish; 2180-02600
- Radar, Black Powder Coat finish; 2180-02650
- Laser, Aluminum finish; 2180-02610
- Laser, Black Powder Coat finish; 2180-02660
- Thermal Video Detection, 600584
- Thermal Video Detection, Mainline Detection; 600583
- Spare Parts Thermal Detection: 600585

Model numbers are to be verified by TAPCO representative and to be provided as part of the shop drawing.

The system shall be configured to perform the following tasks:

- Collect data on the number of light bar occurrences at the planned test interchanges
- Collect data on the number of wrong way driving occurrences at the planned test interchanges
- Photograph incoming and outgoing detection events. The outgoing detection event shall trigger photographs from both an outgoing camera and overview camera. There will be three total cameras on the system providing images of the wrong way event.
- Provide a visible flashing alert to drivers to supplement the WRONG WAY static signage.
- Provide real-time alerts to the TAPCO Blink Link server.
- Communicate real-time alerts with pictures to the Florida Department of Transportation (FDOT) District Five Regional Traffic Management Center (RTMC) in Orlando, Florida

740-2 MATERIALS

Each system shall contain at a minimum the TAPCO Wrong Way Driving System with the model numbers as specified in section 740-1. Additional items to be furnished and installed by the Contractor are as follows:

The Contractor shall also furnish and install items including but not limited to: R5-1A sign panels (sizes specified in plans), 3M Brand DG³ reflective tape and any necessary NEMA enclosures and general infrastructure.

The proposed R5-1A signs shall meet the following requirements:

- Sign shall include mechanical fasteners to attach sign panels to wind beams, brackets and splice plates shall be countersunk screws
- Sign shall include patches or paint to cover screws and/or rivets which match the sheeting color at the screw/rivet location

- Sign shall include new mounting hardware and brackets
- Sign shall include a decal on the back of the panel. Letters shall be black for a bar aluminum finish and white when the back of the panel has been painted black. The decal shall include the following information:
 - CFX Project Number
 - Fabricators initials/Date of fabrication
 - Sheeting manufacturer /Name of sheeting
 - Date of installation

All materials provided by the Contractor shall be new. All steel poles shall be powder coated or hot dipped galvanized steel or aluminum as defined in the plans and FDOT Specifications Section 649; Galvanized Steel Strain Poles, Mast Arms and Monotube Assemblies and Specification Section 965; General Provisions for Aluminum Items. Contractor shall store equipment in a cooled indoor environment until deployment.

It is the responsibility of the Contractor to coordinate with TAPCO or their partners to determine all incidental parts required for a complete and fully functional installation.

740-2.1 Spare Parts Kit

Spare Parts Kits for Wrong Way Driving System (WWDS) shall be required where this pay-item is shown on the plans and shall be paid as shown in Section 740-7, **BASIS OF PAYMENT**. All parts shall be new.

740-3 CONSTRUCTION

740-3.1 Installation

Before installing any equipment, the Contractor shall perform a site survey of the proposed locations, with a TAPCO representative, to determine the optimal positioning of the signs and detection units to achieve proper operation based on the manufacturer's recommendations. The Contractor and TAPCO representative shall test wireless and radio links to assure they provide optimal communication between transmitters and receivers including BlinkLink cellular communication to the FDOT D5 Regional Traffic Management Center (RTMC). Ensure the mechanical execution of work complies with all NEC, NESC, IEEE and UL requirements. Equipment must be installed in a neat and organized manner. Provide all mounting hardware and cabling necessary to install and make operational all equipment. Provide only new and corrosion resistant materials. All site survey, testing, equipment, mounting hardware and cables are considered incidental to the cost of pay items 740-89-12A, 740-89-12B, 740-89-12C, 740-89-12D, 740-89-12E, 740-89-12F, 740-89-12H and 740-89-12J.

740-3.2 Mandatory Coordination with TAPCO Traffic and Parking Control

The Contractor shall arrange for on-site support by qualified TAPCO personnel during site survey, installation and testing of each site. The cost of TAPCO and their partner company's on-site support shall be considered incidental to pay items 740-89-12A, 740-89-12B, 740-89-12C, 740-89-12D, 740-89-12E, 740-89-12F, 740-89-12H and 740-89-12J. All arrangements shall be included as a task in the project schedule.

740-3.3 Adjustments

Adjustments and/or addition of sign attachment hardware, support brackets and appurtenances, such as conduit, etc., shall be necessary for compatibility with specified positioning recommended by the manufacturer, as shown on the plans, or as directed by CFX. All adjustments and/or additional materials not covered by a separate pay item shall be incidental to pay items 740-89-12A, 740-89-12B, 740-89-12C, 740-89-12D, 740-89-12E, 740-89-12F, 740-89-12H and 740-89-12J.

740-4 TESTING

740-4.1 Description and Acceptance Procedures

All equipment and materials furnished and installed by the Contractor shall be subject to monitoring and testing to determine conformance with all applicable requirements. Prior to the start of any test activities, the Contractor shall furnish a test plan developed by TAPCO with procedures that shall demonstrate the system and components operate in conformance with the Technical Specifications. In addition to section 740-3.2 stated above, TAPCO shall be required to take part in the set-up, integration, configuration, testing and deployment of the system or subsystems. The Contractor is responsible to ensure that TAPCO have a primary role and shall be on-site to sign off on acceptance of the system. The Contractor shall submit a test plan in accordance with section 611A which shall be subject to the review and approval of CFX. The Contractor shall furnish all necessary test equipment and provide for the maintenance of traffic. The costs of testing shall be incidental to the individual pay items; no additional compensation will be made. It is the responsibility of the Contractor to coordinate with equipment manufacturers and other CFX contractors to resolve integration issues in a timely manner that does not delay the project schedule, including on-site visits by equipment manufacturers as necessary. No additional compensation will be made for coordination activities between the Contractor and equipment manufacturers or other CFX contractors during integration. CFX reserves the right to examine and test any and all equipment and material furnished and installed by the Contractor for this project to determine if they are in conformance with this Technical Specification. The times and dates of these tests shall be approved by CFX.

Acceptance procedures/milestones include:

1. System Tests
2. Substantial Completion
3. Burn-In
4. Final Acceptance

Testing procedures shall be in accordance with specification section 611A.

If during the burn-in period any anomalies or exceptions as defined by CFX are observed, the Contractor shall at their cost shall contact TAPCO and troubleshoot on-site to determine the root

cause of the problem and resolve. Depending on the severity of the problem, CFX reserves the right to restart the Burn-in period from day one to verify the issue has been resolved.

740-4.2 Inspection

All equipment and material furnished and all work performed in connection with the project shall be subject to inspection by CFX. CFX or its authorized representatives shall have free access to any local facility or area in which work associated with the project is conducted. The Contractor shall ensure that full and sufficient information concerning the quality, specifications of materials, and workmanship to be used on this project are made available to CFX or its representatives.

Inspection by CFX or its representatives shall not relieve the Contractor of its obligation to comply with the requirements of the Plans and Technical Specifications. Any equipment or labor that is found by CFX to be defective or unsuitable prior to Final Acceptance shall be repaired or replaced at the Contractor's expense.

The Contractor shall demonstrate in the presence of CFX and/or its representatives that all equipment furnished and installed as part of this project functions in full compliance with the Specifications and Plans. The testing requirements contained within these specifications shall also apply to equipment relocated or removed by the Contractor.

740-4.3 Testing and Traffic Control Compliance Requirements

To demonstrate compliance, a program of testing at the unit, sub-system, and system level is required, as described herein. The tests are separated into, system tests, conditional acceptance tests, a burn-in period, and final acceptance. All test procedures and equipment shall be furnished and maintained by the Contractor through coordination with TAPCO. It shall be the responsibility of the Contractor to coordinate through TAPCO to obtain certified tests and fulfill the requirements of this specification. All testing shall occur at night within the specified ramp closure restrictions. All testing involving vehicles traveling the wrong way on the ramp or shoulder shall be conducted with Florida Highway Patrol officers (provided by the Contractor) present at all times. All maintenance of traffic (MOT) set up and take down shall be the responsibility of the Contractor and shall follow applicable FDOT 600 Series Design Standards. The Contractor shall submit a MOT plan to CFX fourteen (14) days in advance of a planned ramp closure for review. During the overnight testing period, the entire ramp shall be shut down anytime wrong way detection testing takes place.

In general, all testing shall be submitted in the CPM project or construction schedule and may be adjusted during the project as needed. In the event an approved CPM schedule is not submitted, the Contractor forfeits the right to file a claim. The Contractor shall submit documentation containing the test plan to CFX for review and approval at least twenty-one (21) calendar days prior to testing. The test plan shall contain test procedures, descriptions of test equipment, report forms, requirements, and expected results. Tests shall not be conducted without prior CFX approval of the test plans. Tests shall be performed on approved equipment using approved test procedures. The Contractor shall notify CFX of the test time and location at least seven (7) calendar days in advance of the tests. A copy of each test report shall be submitted to CFX within ten (10) calendar days following the completion of a test.

740-4.4 Additional Compliance Requirements

For material that may not require formal testing, CFX reserves the right to require certifications from the manufacturer of such equipment, software, and material to the effect that it meets all specification requirements.

CFX reserves the right to withhold any payments that may be due should a discovery be made that equipment, software, or material does not meet the requirements of the technical specifications and plans.

CFX's approval of test procedures and witnessing of tests shall not relieve the Contractor of the responsibility to provide a completely acceptable and operating system that meets the intent of the technical specifications and plans.

740-4.5 System Tests

The Contractor shall prepare a test plan in consultation with the TAPCO to demonstrate system integration ready sub-units capable of the performance requirement of this specification. The Contractor shall submit this test plan for CFX approval prior to testing. The Contractor shall provide all personnel required to conduct testing including TAPCO representatives.

Testing will be performed to demonstrate the proper configuration, calibration and performance of the equipment installed and/or configured by the Contractor. Testing shall demonstrate the system is operating to the performance requirements specified by the manufacturer TAPCO and/or Ace Avant, the approved test plan and the requirements of the contract plans and documents. Testing will be performed to demonstrate the capabilities of the equipment furnished by the Contractor and CFX in the areas of radar and laser detection, camera detection, radio detection, data communications, distribution of images from all three cameras (incoming, outgoing and overview), data collection, command and control of all components. These tests require the integration, assembly, and connection of equipment at their permanent field locations by the Contractor. The Contractor shall make arrangements to have a qualified TAPCO representative on site during the stand alone test procedures.

740-4.5.1 BlinkLink Data Communications

It shall be the responsibility of the Contractor working with TAPCO to verify by use of the approved test plan that communication is established between each unit and the locations of each unit are capable of being programmed into the BlinkLink software using GPS coordinates. Each unit and location communicates and records data at a rate of 95% or greater. Different types of vehicles such a motorcycles, cars, trucks and larger vehicles shall be run through each system at different speeds per the test plan and all vehicles shall be photographed and logged as either a "light bar event" or a "wrong way event" whichever is applicable per the testing plans. All data is to undergo analysis to determine its validity and data collection accuracy. During this test the FDOT D5 RTMC shall be notified and each vehicle pass documented by phone on a log to determine system lag time. This data is an important metric needed to determine system reaction time via cellular service but its results will not be a determining factor in passing the acceptance test.

740-4.5.2 Blinker Beam Radio Communications

It shall be the responsibility of the Contractor working with TAPCO to verify by use of the approved test plan successful communication links between each main controller unit and secondary upstream wrong way pole assembly controller via a 900 MHz Radio signal. Additionally it shall be the responsibility of the Contractor working with TAPCO and/or Ace Avant to verify by use of the approved test plan successful communication links between the overview camera equipment and the main controller unit. A communications rate of 85% or higher shall be achieved. This performance measure shall be included and verified by the test plan procedures preapproved by CFX. The TAPCO radio signal shall not interfere with any existing toll plaza electronic toll collection operations. A TAPCO site survey kit for testing shall be used to test the radio signals in or around any CFX toll plaza or ramp plaza. Different types of vehicles such a motorcycles, cars, trucks and larger vehicles shall be run through each system at different speeds per the test plan and all vehicles shall be photographed and logged as either a “light bar event” or a “wrong way event” whichever is applicable per the testing plans. All data is to undergo analysis to determine its validity and data collection accuracy by a CFX Representative.

740-4.6 Burn-In Period

A thirty (30) calendar day burn-in period shall be required for all equipment furnished and installed as part of this Contract after the the work has reached Substantial Completion. All equipment and materials furnished and installed shall function and operate in full compliance with these technical specifications and plans.

If a service-affecting failure occurs which involves loss of any functionality of the system, the Contractor with the guidance of TAPCO shall repair or replace the equipment within 24 hours. Any occurrence of inaccurate data as a result of lost or corrupted configuration shall be resolved within 24 hours. A single incidence of a lost or corrupted configuration shall not constitute an equipment failure. A second incidence involving the same device shall constitute an equipment failure. During the burn-in period, the downtime due to mechanical, electrical or other malfunctions shall be limited to a maximum total of five (5) calendar days. If the equipment fails to operate for a total of five (5) or more calendar days, the burn-in period shall be restarted. CFX may elect to pause and extend the burn-in period by the number of days lost by failure and repair time in lieu of restarting the full burn-in period. CFX, at its sole discretion, may or may not elect to extend contract time to account for extensions of the burn-in period.

During the burn-in period, the final inspection shall be performed. CFX and/or its representative and the Contractor’s representative shall make the final inspection of the system installation.

Corrective action for a failure shall be a part of the burn-in documentation process. CFX will decide the final disposition of the corrective action. If the corrective action requires a reconfiguration of a failed device, the Contractor’s quality assurance representative shall provide the serial number as tracking documentation to prove that all units have been successfully reconfigured or updated. Re-testing to ensure the adequacy of the corrective action shall be a part of the quality assurance activities. The Contractor shall continue warranty, operation, and present proof of operation worthy of final acceptance. The Contractor shall present the failure report log in demonstration that error rates are within requirements.

740-4.7 Final Acceptance

Final acceptance of the project as determined by CFX will be made after satisfactory completion of the following:

- System and conditional acceptance tests
- burn-in period
- CFX approval of all test reports and results
- Approval of all delivered project submittals, including documentation final field inspection
- Assignment of all warranties to CFX and delivery of warranty documentation
- Sign-off acceptance of TAPCO, Contactor and CEI
- Approval and delivery of all documentation required under this contract including as-built documentation.
- Demonstration that the system is stable and any failures are within predicted mean time between failures and no intermittent operational conditions.
- All spares ordered by CFX under this contract shall be turned over to CFX's representative.

Upon completion of successful final acceptance testing, document the acceptance date and project identification information and provide two (2) copies to CFX. Final acceptance notification shall be provided in writing from CFX.

740-5 WARRANTY

The Contractor shall certify that all equipment furnished and installed performs according to the manufacturer's published specifications. The equipment shall be warranted against defects and/or failure in design, materials and workmanship in accordance with the manufacturer's standard warranty. The Contractor shall provide CFX with a five (5) year warranty for all wrong way driving devices and equipment listed herein. This includes providing TAPCO on-site service if necessary to repair, replace, troubleshoot, integrate, configure, re-aim, re-test and re-certify. This warranty shall also include the cost to set up MOT, procure State certified traffic control officers and remove MOT when the system has been certified 100% operational. The Contractor shall assign to CFX all manufacturers' normal warranties and guarantees on all such electronic, electrical and mechanical equipment, materials, technical data, and products furnished for and installed on the project.

The Contractor shall provide CFX with a one (1) year BlinkLink web service as part of the warranty package.

The Contractor shall be responsible to repair, replace, and maintain all equipment "on-site" until project final acceptance at no cost to CFX. This includes coordinating and providing onsite support from TAPCO. The Contractor shall be responsible for all on-site repair and replacement costs. During the warranty period, the Contractor shall respond and resolve any operational or communication issues within 12 hours. This will include all parts, labor, lane closures, equipment, and off-duty law enforcement.

740-6 MEASUREMENT OF PAYMENT

Per ramp site location; Install or Furnish and install a complete Rectangular Flash Beacon assembly (RFB) including all preferals and communication devices to provide a fully functioning

system.

A relocation of a CFX Wrong Way Driving Detection System shall consist of all time, labor, materials, traffic control, TAPCO assistance and all other incidentals necessary to relocate any CFX Wrong Way Driving Detection System from one location to another location on CFX's system as identified in the plans. The relocated system shall be installed and tested as if it were a new installation as outlined in Section 740-3 and will operate per the testing plan and the manufacturers specifications.

740-7 BASIS OF PAYMENT

The unit price bid for each unit shall include the cost of furnishing all labor, materials, tools and equipment necessary to complete the work. Miscellaneous hardware required at any location shall be included under these Bid Items and will not be paid for separately.

Payment for all training, warranty, documentation and testing specified herein shall be included under the following items:

740-89-12A	RFB WWDS Complete (Radar) (A/C Power) (Install) (EA)
740-89-12B	RFB WWDS Complete (Laser) (A/C Power) (Install) (EA)
740-89-12C	RFB WWDS Complete (Radar) (A/C Power), Black Powder Coat Finish Model No. 2180-02650 (F&I) (EA)
740-89-12D	RFB WWDS Complete (Laser) (A/C Power), Black Powder Coat Finish Model No. 2180-02660 (F&I) (EA)
740-89-12E	RFB WWDS Complete (Radar) (A/C Power), Aluminum Finish Model No. 2180-02600 (F&I) (EA)
740-89-12F	RFB WWDS Complete (Laser) (A/C Power), Aluminum Finish Model No. 2180-02610 (F&I) (EA)
740-89-12G	RFB WWDS Complete (Relocate) (EA)
740-89-12H	RFB WWDS Complete (THERMAL) (A/C Power), Aluminum Finish (F&I) (RAMP) (EA)
740-89-12J	RFB WWDS Complete (THERMAL) (A/C Power), Aluminum Finish (F&I) (MAINLINE) (EA)

Payment for WWDS spare parts kit shall be included under the following item:

740-89- SP	RFB WWDS (Spare Parts Kit) (Furnish Only) (EA)
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Payment for spare parts shall be full compensation for the spare parts kit for the WWDS. The components shall be approved by CFX and coordinated with TAPCO, new and contain all of the following items in the quantities listed below:

- 1 EA TAPCO Recessed WWD Panel Assemblies (Panels C, D, & E per plans)– fully assembled with power supply, Ethernet switch, media converter
- 1 EA 110VAC RFB control cabinet – fully assembled with power supply and media converter
- 8 EA red rectangular flash beacons (RFB) light bars – RFB-XL; DC powered
- 1 EA wrong way signs; 36”H X 48”W (12 SF) with 3M DG³ high-intensity reflective material
- 2 EA TAPCO-Thermal vehicle detectors
- 2 EA TAPCO wide angle cameras
- 1 EA TAPCO overview camera assembly with associated contact closure.
- 1 EA LED lighting system for cameras
- 5 EA Flashing RFB relays

The work performed and materials furnished in accordance with pay items 740-89-12A, and 740-89-12B shall include installing: the wrong way sign, 6” minimum 3-M Brand DG3 high reflective red panel, RFB(s), wrong way driving radar detectors, wrong way driving laser detectors, wireless modem transmitter kit, wireless modem receiver kit, HD radar vehicle sensing device (RVSD) vehicle alert module, AC HD radar vehicle sensing device (RVSD), contact closure radio link, serial radio link, and any other incidental equipment necessary for a complete installation. This price is full compensation for furnishing and installing any required mounting hardware, connectors, storing the equipment when required; testing the equipment; replacement/repair of damaged components; disposal of unsalvageable material, and for all manipulations, labor, tools, working drawings, equipment and incidentals.

The work performed and materials furnished and installing in accordance with pay items 740-89-12C, 740-89-12D, 740-89-12E, 740-89-12F, 740-89-12H and 740-89-12J shall include furnishing and installing: the wrong way sign, ” minimum 3-M Brand DG3 high reflective red panel, RFB(s), wrong way driving radar detectors, wrong way driving laser detectors, wrong way driving thermal detectors, wireless modem transmitter kit, wireless modem receiver kit, HD radar vehicle sensing device (RVSD) vehicle alert module, AC HD radar vehicle sensing device (RVSD), contact closure radio link, serial radio link, media converter and any other incidental equipment necessary for a complete installation. This price is full compensation for furnishing and installing any required mounting hardware, connectors, storing the equipment when required; testing the equipment; replacement/repair of damaged components; disposal of unsalvageable material, and for all manipulations, labor, tools, working drawings, equipment and incidentals.

END OF SECTION 740

**WRONG WAY DRIVING DEPLOYMENT
PROJECT NO. 599-526C; CONTRACT 001683**

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**WRONG WAY DRIVING DEPLOYMENT
CONTRACT NO. 001683; PROJECT NO. 599-526C
SPECIAL PROVISIONS**

SP-1 PROJECT OVERVIEW

The work of this Systemwide Project consists of providing all labor, materials, equipment and incidentals necessary to transport, install, test, and successfully deploy Wrong Way Vehicle Detection system as shown on the Plans.

The Contractor shall install Wrong Way Detection cameras, equipment cabinets, new UPS and batteries, ethernet switches, remote power managers, grounding assemblies, all underground and above ground communication/ electrical infrastructure including attachment to existing overhead/ bridge structures, electrical conductors, power service load centers including modifications/ adjustments/ replacements, fiber optic drop cable, pull boxes, and directional bores as needed and required. The Contractor shall integrate into the existing fiber optic network capable of communications with the Florida Department of Transportation (FDOT) District Five (D5) Regional Transportation Management Center (RTMC).

SP-2 CONTRACT TIME, SUBSTANTIAL COMPLETION AND LIQUIDATED DAMAGES

After the charging of Contract Time begins, the Work shall reach Substantial Completion within 210 calendar days (or within such additional time as may have been granted by CFX). The Work shall be completed and ready for Final Acceptance by CFX within 300 calendar days (or within such additional time as may have been granted by CFX) after the charging of Contract Time begins. Substantial completion shall only be granted after all devices installed under the project have entered the conditional acceptance testing period. The 90 calendar days following substantial completion are designated for conditional acceptance and burn-in testing.

The Contractor shall have the option of working over the Holiday periods. A request in writing shall be submitted to the CEI seven (7) days in advance of the Holiday periods during which the Contractor will be working. The Contractor shall also have the option of working on Saturday. A request in writing shall be submitted to the CEI seven (7) days in advance of work occurring during any Saturday(s).

CFX and the Contractor recognize time is of the essence and CFX will suffer financial loss if the Work is not completed within the times specified above or within such additional time as may be granted by CFX. They also recognize the delays, expense and difficulties involved in proving the actual loss suffered by CFX if the Work is not completed on time. Accordingly, instead of requiring such proof, CFX and the Contractor agree that as liquidated damages for delay (but not as a penalty), the Contractor shall pay CFX Five Hundred Dollars (\$500) for each calendar day that expires after the time specified above for Substantial Completion until the n above for Final Completion, CFX and the Contractor agree that as liquidated damages for delay (but not as a penalty), the Contractor shall pay CFX Two Hundred Fifty Dollars

(\$250) for each calendar day that expires after the time specified above for Final Completion.

SP-3 LANE AND RAMP CLOSURE RESTRICTIONS

The number, type and frequency of lane and ramp closure restrictions on CFX's system are detailed as follows:

The Contractor is advised lane closures are not permitted from 5:00 A.M. to 11 P.M. (Monday through Sunday) on the ramps only.

If the Contractor requires additional lane or ramp closure time, this request shall be submitted to the CEI in writing for approval and be approved by CFX prior to work.

Furthermore, no more than one (1) lane and/or ramp will be closed at one time.

If, in the opinion of the CEI, any lane closure(s) causes extended traffic congestion, the Contractor shall, at the direction of the CEI, open any temporary lane closure(s) until traffic is returned to acceptable flow as determined by the CEI.

Delay costs to the public will result if all lanes and ramps are not open to traffic during the times shown on the Plans. The Contractor shall plan its operations such that all equipment and materials, except those required for the safety of the traveling public, are removed from the clear zone and lanes/ramps are reopened for traffic by the times noted. For lane/ramp closures that occur outside the allowable time periods shown in the Plans, a lane rental fee will be assessed on the Contractor in the amount of \$1,000 per lane/ramp for each minute that any lane/ramp is not open to traffic.

Lane rental fees will be assessed and will continue to accrue until subject lanes/ramps are open and traffic flow is restored as recorded by the CEI. CFX shall have the right to apply as payment on such fees any money that is due to the Contractor by CFX. At the discretion of the CEI, lane rental fees will not be charged for failure to open traffic lanes/ramps if such cause is beyond the control of the Contractor i.e., catastrophic events, accidents not related or caused by the Contractor's operations.

Lane closures on all local roads shall be coordinated with and approved by appropriate local agency (Lake County, Orange County, City of Orlando, FDOT etc.).

SP-4 INITIAL CFX LOCATES OF ITS INFRASTRUCTURE AND HIGHWAY LIGHTING AND CONTRACTOR RESPONSIBILITY FOR MAINTENANCE AND PROTECTION (MISCELLANEOUS PROJECTS)

CFX will provide the location of the ITS infrastructure and Highway Lighting (underground infrastructure) on a single occasion. The Contractor shall request this initial and only locate for CFX ITS Infrastructure and highway lighting through the CEI. CFX will schedule the location of the facilities with the Contractor through an on-site meeting at the Project site prior to the start of construction wherein the Contractor will accompany CFX and the CEI and record and

document the location of the respective facilities. The Contractor will be responsible to preserve, maintain, protect and reestablish the location of the facility to verify that damage to the facilities will not occur. Subsequent requests for location of the facilities will be performed at a cost of \$2,000 per request. CFX owned underground infrastructure will not be located by CFX through notification to "Sunshine 811" by the Prime Contractor or any tier Subcontractor.

The facilities will be marked in accordance with the guidelines for uniform temporary marking of underground facilities as approved by the Utility Location and Coordinating Council of the American Public Works Association (APWA) when marking the horizontal route of any facility. CFX will mark only the horizontal location of the facilities as the depths may vary due to installation practices, changes in the grade, soil erosion and other variables. After the initial locate performed CFX reserves the right to perform a Quality Assurance check of the Contractor's locates of the CFX ITS and Lighting underground facility at any time during the project. These checks of the Contractor's locate in no way relieves the Contractor's responsibility to locate and preserve all CFX owned ITS and Lighting underground facilities.

The Contractor shall maintain a minimum horizontal clearance of five (5) feet between the cutting edge or point of mechanized excavating or earth moving equipment and a marked, unexposed facility. A tolerance zone is the area five (5) feet from the outer edge of either side of the exterior surface of a marked facility. When working within the tolerance zone the Contractor shall use increased caution to protect the facility. Hand digging, pot holing, soft digging, vacuum excavation or similar procedures shall be used within the tolerance zone to identify the facility. The use of mechanized equipment within the tolerance zone will require prior approval by the CEI.

Whenever the Contractor's activities damage existing CFX infrastructure, the Contractor shall restore it to a condition equal to or better than (to include attenuation) the condition when such damage occurred. This repair/replacement will be at the expense of the Contractor and not of CFX. Should the Contractor come in contact with the facility during the performance of the Work, even if there is no noticeable damage, CFX shall be notified. If any contact with or damage to any pipe, cable or its protective covering or any other underground facilities occurs, the Contractor shall immediately notify CFX. Within 24 hours of the contact or damage, the Contractor shall restore the service. The Contractor will be assessed a penalty of \$250 per hour for each hour or fraction thereof that the contact or damage is not repaired in excess of the first 24 hours. Until such time as the service is restored, the Contractor shall cease activities that may cause further damage to the ITS infrastructure. If the Contractor fails to meet the required repair times CFX reserves the right to repair the FON through the CFX maintenance contract. If CFX's FON maintenance contractor performs a Primary Service Restoration repair, the Contractor shall be responsible for reimbursing CFX for these repair costs.

"Damage" means any impact upon or contact with, including, without limitation, penetrating, striking, scraping, displacing or denting, however slight, the protective coating, housing or other protective devices of any underground facility or the removal or weakening of any lateral or vertical support from any underground facility or the severance, partial or complete, of any underground facility.

RECOVERY)

SP-5 NOISE ORDINANCE

The Contractor's acknowledges that the limits of the Project traverse residential and business areas and that the Contractor shall adhere to all Federal, State, County and City laws, bylaws, ordinances and regulations which control the action or operation of those engaged or employed in the Work or which affect materials used. The cost of compliance with these existing laws, by-laws, ordinances and regulations or as may be amended and/or modified thereto will be considered incidental to the Work.

SP-6 CLAIMS BY THIRD PARTIES

The Contractor shall maintain during the term of this Contract, and for as long as reasonably is necessary after the expiration of the Contract, procedures for addressing third party claims arising out of Contractor's work or conduct on this Contract, which procedures shall include the following:

Within one (1) business day of the Contractor's receipt of written or oral notification of a third party claim alleging damage as a result of Contractor's work or conduct, Contractor shall provide CFX with written acknowledgment of receipt of the claim and as many details as are available to Contractor at the time. Within two (2) business days after its receipt of a claim, Contractor shall advise CFX of its proposed course of action to investigate and resolve the claim along with a timeline for such course of action. In no event shall the timeline exceed thirty (30) days unless the Contractor has requested, and CFX has granted, additional time due to the nature or complexity of the claim.

The Contractor shall, at its sole expense, conduct such investigation of each claim as a reasonable and prudent person would be expected to conduct in similar circumstances. If the original claim was made orally, the Contractor shall obtain a written statement of the claim from the claimant. The Contractor shall also reasonably return claimant's telephone calls and reasonably keep the claimant apprised of the status of the claim. The Contractor shall at all times act in good faith.

On or before the deadline for resolving a claim, the Contractor shall notify CFX of its resolution. The Contractor's resolution may involve, but not necessarily be limited to, the following: (1) repair or replacement of damaged property at the Contractor's expense; (2) payment by the Contractor of monetary compensation for damaged property; or, (3) notification to the third party claimant that the Contractor's investigation has determined that the claim is not a valid claim against Contractor or that it is a valid claim but of less value than that demanded by the claimant. In the event that Contractor determines that the claim is not valid, or is of less value than that demanded by the claimant, then Contractor shall provide a detailed written statement of its reasons for such finding to CFX.

Upon expiration of the resolution period, including any extension thereof, in the event that either:

(1) Contractor fails to timely resolve a third party claim; or, (2) Contractor has determined a claim is either invalid or of less value than demanded by the claimant and

the claimant has demonstrated to CFX a reasonable basis to contest such determination, then, in either such event, CFX may, but shall not be required to, retain a properly qualified independent public adjuster or other expert such as a licensed engineer (hereafter simply referred to as the "Adjustor") to evaluate the claim. The Adjustor shall investigate the claim and recommend a fair and appropriate resolution to CFX. The Adjustor's determination as to the validity and value of a claim shall be binding on Contractor and CFX.

The costs of the Adjustor shall be paid as follows:

1. In all cases where the Adjustor has been employed due to Contractor's failure to timely resolve a claim, Contractor shall bear the expense of the Adjustor.
2. In the event that the Adjustor has been employed to investigate a disputed determination of the validity of a claim and the Adjustor finds the claim valid, the Contractor shall bear the expense of the Adjustor.
3. In the event the Adjustor has been employed to investigate a disputed determination of the validity of a claim and the Adjustor concurs with Contractor's determination that a claim is not valid, then CFX shall bear the expense of the Adjustor.
4. In the event that the Adjustor has been employed to investigate the value of an admittedly valid claim and the Adjustor finds the actual value is 110% or more of the value ascribed by Contractor then the Contractor shall bear the expense of the Adjustor.
5. In the event that the Adjustor has been employed to investigate the value of an admittedly valid claim and the Adjustor finds the value is less than 110% of the value ascribed by Contractor then CFX shall bear the expense of the Adjustor.

CFX may withhold such costs for which Contractor is liable under this provision from future payments to Contractor.

Any settlement agreement or satisfaction of claim entered into with third party claimants shall provide (i) that such settlement or satisfaction is made expressly subject to CFX's approval, and (ii) a general release from claimant in favor of CFX.

To the fullest extent allowed by Florida law, Contractor shall indemnify and hold harmless CFX for all costs, expenses, attorneys' fees, and other fees or charges that CFX incurs as a result of third party claims against Contractor or arising out of Contractor's work or conduct under this Contract. Except as specifically provided above, such costs, expenses, attorneys' fees and other fees include but are not limited to investigation fees, expert fees, expert witness fees, costs and expenses of litigation in all proceedings and at all levels, attorneys'

fees whether for consultation or litigation, and any other expenses incurred by CFX as a result of such third party claims.

SP-7 ESCROW OF BID RECORDS

Prior to the Contract becoming binding on CFX, the following procedure shall have been timely implemented to secure the Contractor's Bid Records to the satisfaction of CFX:

The Contractor, in the company of the CEI, shall rent a safe deposit box, at a bank in Orange or Seminole County, of adequate size to hold the original or a legible copy of the Bid Records used by the Contractor and all subcontractors to prepare its bid. The Bid Records, enclosed in a separate sealed container or containers, shall be deposited in the box at that time. The container(s) shall be clearly marked "Bid Records" with the face of the container(s) showing the Contractor's name, address, date of submittal and Project number.

Only the Contractor's representative(s) shall sign the signature card required by the bank to allow subsequent access to the box. The Contractor shall request a maximum of two keys to the box which shall be given to the CEI. The CEI will tag the keys, in the presence of the Contractor, with the name of the Contractor, the Project number, the name and location of the bank and the box number.

At the time the Bid Records are secured in the safe deposit box, the Contractor shall submit to the CEI an affidavit, signed under oath by the Contractor, listing each Bid Record submitted by author, date, nature and subject matter. By executing this affidavit, the Contractor waives the right to use, directly or indirectly, any Bid Record, other than the Bid Records placed in escrow in the sealed container(s), in any dispute arising out of the Contract. Failure by the Contractor to provide the affidavit will be sufficient cause for CFX to nullify the award of the Contract to the Contractor. The Contractor's Proposal Bond shall be forfeited and the full amount of the bond shall be paid to CFX as stipulated for liquidated damages.

The CEI will transport the keys to CFX's office where the Director of Construction or his authorized representative will sign a receipt acknowledging acceptance of the keys on behalf of CFX. A copy of the receipt will be transmitted to the Contractor.

The keys will be stored in a secure location in CFX's office until such time as any of the following occurs: (i) the Contractor requests that the Bid Records be released to CFX in support of a claim by the Contractor for an adjustment in time or money under Article 2.4 of the General Specifications; (ii) the Contractor requests that the Bid Records be released to CFX as a result of the Contractor initiating arbitration against CFX; (iii) the Contractor requests that the Bid Records be released to CFX for any other reason; or (iv) the Contract has been satisfactorily completed and the Project accepted by CFX, in writing, and the Contractor has executed a binding release of all claims and potential causes of action related to the Contract. Under any of these circumstances, the CEI will obtain the keys from CFX office and, in the company of the Contractor's representative authorized by the bank signature card to access the safe deposit box, retrieve the Bid Records. The records will be transmitted by the CEI to the party requesting the release.

If the records are being returned as a result of acceptance of the Project by CFX, the Contractor shall sign a receipt acknowledging that the sealed container(s) has/have been returned to the Contractor unopened.

If the Bid Records are opened for any reason, CFX reserves the right to reveal the contents of the records to consultants, experts and legal counsel retained by CFX to assist with claims evaluation and arbitration preparation. Confidentiality of the Bid Records will be protected by CFX insofar as such protection does not conflict with the requirements of the Florida Public Records Act and Florida Sunshine laws.

All costs and fees associated with the rental and maintenance of the safe deposit box shall be paid by the Contractor.

SP-8 INTELLIGENT TRANSPORTATION SYSTEMS WORK

The following Work shall be performed by a contractor prequalified by the Florida Department of Transportation under Administrative Rule 14-22, Florida Administrative Code, in Intelligent Transportation Systems (ITS):

1. Installation, testing and integration of vehicle detection and surveillance components such as inductive loops and closed-circuit television.
2. Installation, testing and integration of traveler information devices such as dynamic or changeable message signs.
3. Installation, testing and integration of communications infrastructure, including twisted copper wire, coaxial cable, fiber optic and wireless networks.
4. Installation, testing and integration of software necessary to operate ITS field components and communication infrastructure.

A copy of the current Certificate of Qualification for the subcontractor shall be submitted to the CEI at least 30 days prior to the start of any Work identified above. Failure to submit the certificate will result in rejection of the subcontractor.

Splicing of fiber backbones shall be performed during non-peak traffic hours, i.e., nights or weekends. The Contractor shall locate existing splices on the Project prior to performing the splice over to document the actual field configuration of the FON splices. The CEI shall be given a copy of the Plans showing the existing splice locations.

SP-9 CONCURRENT CONSTRUCTION CONTRACTS

Construction by others may be underway within the project limits during the term of the Contract. The Contractor shall coordinate construction operations with the operations of the other contractors as necessary.

SP-10 CONTRACTOR SECURITY GUIDELINES HANDBOOK

See Attached Contractor Security Guidelines Handbook

SP-11 CFX SECURITY POLICY

See Attached CFX Security Policy

SP-12 SIGN INSTALLATIONS

In addition to the requirements of Section 700 of the Standard Specifications, installation and handling of all signs shall conform to the "Reflectorized Sign Installation and Handling Guide" prepared by the 3M Traffic Control Materials Division. A copy of these guidelines will be furnished to the Contractor with the Notice to Proceed.

SP-13 GROUND MOUNT SIGNS - ATTACHMENT DETAILS

All ground mount signs, except where noted on the plans, shall utilize 3M VHB (Very High Bond) Acrylic Foam Tape Number 4950, or CFX approved equal in combination with mechanical fasteners to fasten the sign panel to wind beams/ brackets and also to fasten sign panels together at vertical splice joints. One mechanical fastener shall be installed at each end of each wind beam on multi-post sign panels and at each end of each horizontal bracket on single post signs. One mechanical fastener shall be installed one inch (1") from the edge of each vertical splice at each wind beam. In addition, one mechanical fastener shall be used at the top and bottom of the vertical splice to attach the backing strips (Index Nos. 11200 and 11860) to the panel. See attached Typical Three Panel Sign sketch. Other mechanical fasteners per Index Nos. 11200 and 11860 shall remain.

- A. The following procedure shall be used to determine the minimum amount of tape necessary for each sign for the attachment of the panel to the wind beams (z-bars):

1. Sign Surface Area: Multiply the dimensions of the sign face, in feet, to determine the sign's surface area.

$$\begin{array}{ccc} \underline{\hspace{1cm}} & \text{ft.} \times & \underline{\hspace{1cm}} & \text{ft.} = & \underline{\hspace{1cm}} & \text{ft}^2 & \text{of sign surface area.} \\ \text{length} & & \text{width} & & \text{(a)} & & \end{array}$$

2. Sign Weight: Multiply the surface area (a) by the appropriate weight per square foot (from Table below) for the particular thickness of aluminum being used to determine the static load of the sign face.

Thickness (in.)	Weight (lb/ft ²)	
.080	1.15	
.100	1.44	From Table 7.4 of the
.125	1.80	ASTM Chart for sheet
		and plate weights

$$\begin{array}{ccc} \underline{\hspace{1cm}} & \text{ft}^2 \times & \underline{\hspace{1cm}} & \text{lb/ft}^2 = & \underline{\hspace{1cm}} & \text{lbs. of static load.} \\ \text{(a) from Table} & & \text{(b)} & & & \end{array}$$

3. Square Inches of Tape: Multiply pounds of load (b) by 4 in² of tape per

pound to determine amount of tape required to support the load.

$$\underline{\hspace{2cm}} \text{ lbs.} \times 4 \text{ in}^2 / \text{lb.} = \underline{\hspace{2cm}} \text{ in}^2 \text{ of tape.}$$

(b) (c)

4. Lineal Feet of Tape: To convert the required square inches of tape into lineal feet of 1-inch wide tape to be applied to stiffeners, divide the required square inches (c) by 12 in./lineal foot.

$$\underline{\hspace{2cm}} \text{ in}^2 \div 12 \text{ in./ft.} = \underline{\hspace{2cm}} \text{ lineal foot of 1-inch wide}$$

(c) (d) tape required to support the weight of the sign face

5. Area of Tape Per Z-Bar: Divide the lineal feet of 1-inch tape (d) by the number of z-bars.

Additional, or larger, z-bars in excess of the standard number or size per Index 11200, may be required to achieve the square area of tape required per the above calculations. Payment shall be included in the unit price for the sign as bid.

The above calculations identify the minimum tape required. However, the entire length of all z-bars in all signs shall be covered with tape.

More tape may be necessary to fully cover all the stiffeners used to prevent wind deflection for a particular sign design. The Contractor shall submit calculations to the CEI for review by the manufacturer.

- B. For connection of sign panel pieces at butt joints, the following procedure shall be used to determine the amount of VHB tape necessary. Backing strips 2 inches to 3 inches wide shall be used along the length of all sign panel butt joints. A 1 inch strip of VHB tape shall be placed along each edge of the backing strip (i.e., two 1 inch strips along the length). The center of the backing strip shall be placed at the center of the butt joint.

C. Installation Procedures

Required Surface Preparation for All Applications

1. Application Temperature: The tape application temperature range shall be 70 degrees Fahrenheit to 100 degrees Fahrenheit.
2. Cleaning: All surfaces to be bonded shall be cleaned with a solvent such as a 50:50 mixture of isopropyl alcohol (rubbing alcohol) and water, then wipe the surface with a clean, dry cloth to remove solvent. Oil based solvents that inhibit adhesion, such as turpentine, shall not be used. Contractor shall follow solvent manufacturer's directions and precautions for handling solvent.
3. Abrading: Metal surfaces shall be lightly abraded with isopropyl alcohol saturated abrasive pad prior to applying tape. Metal with corrosion or other surface debris on any reclaimed metal shall be abraded before taping. Surface shall be re-cleaned with solvent after abrading. Conversion coated aluminum that is free of surface debris will not require abrading.

4. Rub Down Pressure: Firm application pressure shall be applied to ensure bond strength through adequate adhesive-to-surface contact.
5. Dwell Time: After proper application, the bond strength should increase as the adhesive flows onto the surface. At room temperature, approximately 50% of the ultimate strength should be achieved after 20 minutes, 90% after 24 hours, and 100% after 72 hours. In some cases, bond strength can be increased and ultimate bond strength can be achieved more quickly by exposing the bond to elevated temperatures e.g., 150 degrees Fahrenheit for 1 hour.

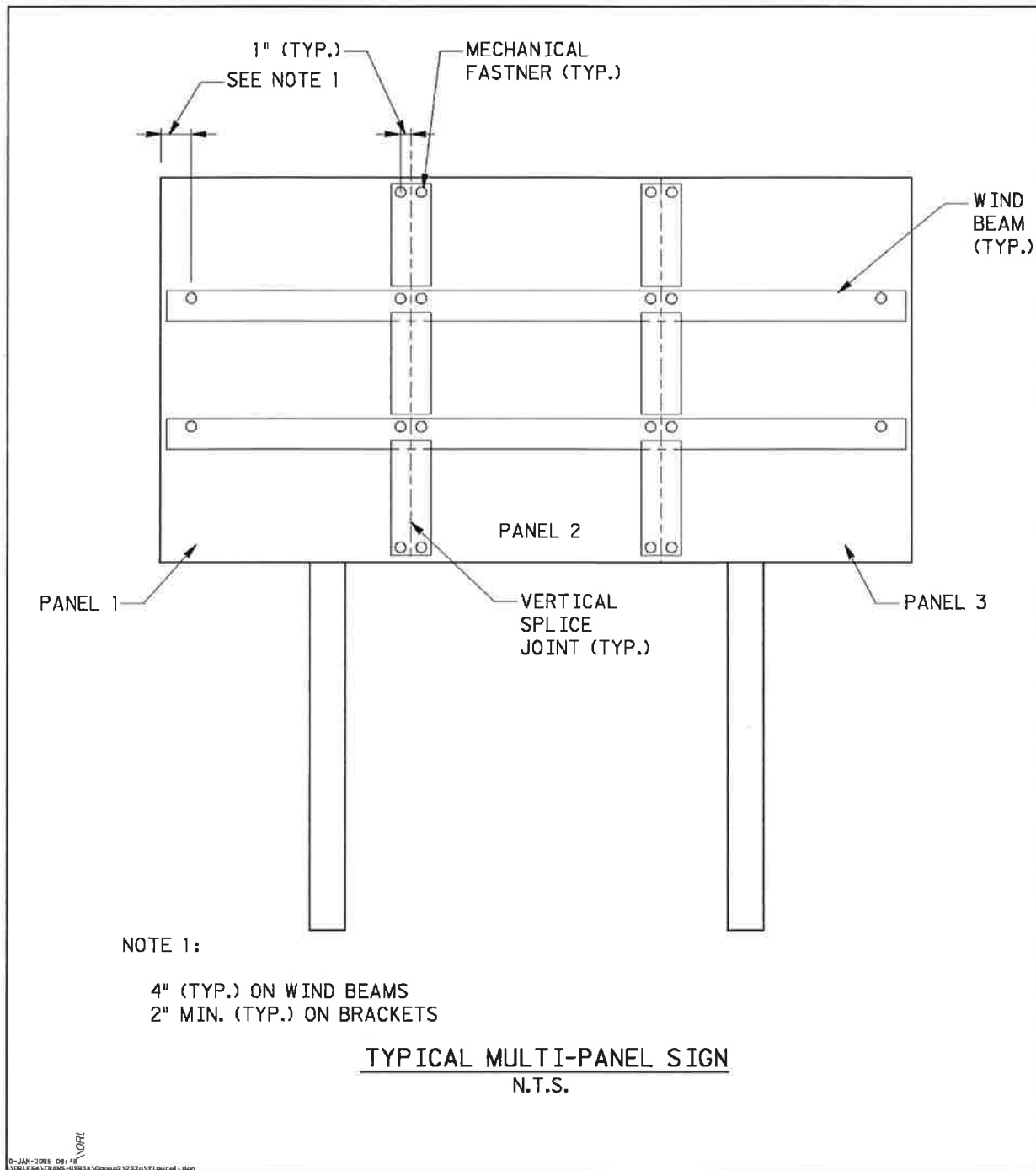
Assembly Steps for Bonding Stiffeners

1. Determine the amount of tape to be used from the procedures detailed above.
2. All surfaces to be bonded shall be cleaned with a 50:50 mixture of isopropyl alcohol and water. Metal surfaces shall be lightly abraded to improve initial bond strength. Re-cleaning shall be performed after abrading (see Required Surface Preparation for All Applications).
3. VHB tape shall be applied to a clean, dry, well unified surface of the stiffener with a hand held roller or tape applicator.
4. Laminated panels shall be aligned in the desired position and the stiffeners placed in the proper location for bonding to the panel.
5. The sign surface where the stiffener is to be bonded shall be clean and dry.
6. The stiffener shall be aligned in position and the release liner shall be removed. The stiffener shall be pressed in place on the panel and a hand held roller used to aid in laminating the stiffeners to the panel. A flat firm surface shall be used to support the sign panels while pressure is being applied. Repeat steps 2-6 until all the stiffeners are bonded to the panels.

Bonding Backing Strips on Multi-Panel Signs

1. All surfaces to be bonded shall be cleaned with a 50:50 mixture of isopropyl alcohol and water (see Required Surface Preparation for All Applications).
2. A strip of VHB tape shall be applied along both longitudinal edges of the backing strip.
3. The backing strip shall be aligned on the panel seam so that both edges of the two panels are covered with tape.
4. The release liner shall be removed and the backing strip applied to panel seams. A hand roller shall be used to aid in laminating the batten strip to the panels.

Technical assistance and pricing information for this product may be obtained from 3M Industrial Tape and Specialties at 800-362-3550.



The following Work shall be performed by a subcontractor prequalified by the Florida Department of Transportation under Administrative Rule 14-22, Florida Administrative Code, in Intelligent Transportation Systems (ITS):

1. Installation, testing and integration of vehicle detection and surveillance components such as inductive loops and closed-circuit television.
2. Installation, testing and integration of traveler information devices such as dynamic

or changeable message signs.

3. Installation, testing and integration of communications infrastructure, including twisted copper wire, coaxial cable, fiber optic and wireless networks.
4. Installation, testing and integration of software necessary to operate ITS field components and communication infrastructure.

A copy of the current Certificate of Qualification for the subcontractor shall be submitted to the CEI at least 30 days prior to the start of any Work identified above. Failure to submit the certificate will result in rejection of the subcontractor.

Splicing of fiber backbones shall be performed during non-peak traffic hours, i.e., nights or weekends. The Contractor shall locate existing splices on the Project prior to performing the splice over to document the actual field configuration of the FON splices. The CEI shall be given a copy of the Plans showing the existing splice locations.

TO: All Planholders of Record
FROM: Aneth O. Williams, Director of Procurement
DATE: May 14, 2020
SUBJECT: Wrong Way Driving Deployment;
Contract No. 001683, Project 599-526C – Addendum No. 1

This Addendum forms a part of the Contract Documents and modifies the original bidding documents dated April 2020, as noted below. Acknowledge receipt of this Addendum in the space provided on the Proposal form. Failure to do so may subject the bidder to disqualification. This Addendum consists of 1 page and the following attachment: Revised Bid Form.

CHANGES TO THE PROPOSAL

1. **Discard** the original electronic copy of the Bid Form and **replace** it with the revised electronic copy of the Bid Form (Bid Form 599-526C Bid Form A1.xls) included with this Addendum. Bidders are reminded of the language in Article 9.10 of the Instruction to Bidders which states that if the Bidder discovers a conflict between any item numbers, quantities, units or descriptions in the summary of the pay items sheets shown in the Plans and the Proposal (Bid Form), or between any item numbers, quantities, units or descriptions in any other document and the Proposal, the item numbers, quantities, units and descriptions in the Proposal shall prevail.

RESPONSES TO QUESTIONS RECEIVED

2. The following question was received from a potential bidder of record. CFX’s response follows the question.

Q001: Sheet IT-17, pay item, calls for a 6” outer duct with 4-1” conduit and 4-2” conduit. The specified size and number of conduit will not fit within a 6” casing. Please advise.

R: Pay item 638-1603-0813 shall include an 8” outer duct. “638-1603-0813 CONDUIT, 6” HDPE OUTER DUCT W/ 4- 1” HDPE AND 4- 2” PVC (DIRECTIONAL BORE) (F&I)” is **replaced** with “638-1603-0813 CONDUIT, 8” HDPE OUTER DUCT W/ 4- 1” HDPE AND 4- 2” PVC (DIRECTIONAL BORE) (F&I)”. See attached Revised Bid Form.

END OF ADDENDUM NO. 1

Bidder's Initial: _____

BID FORM
CFX PROJECT NO. 599-526C; CONTRACT NO. 001683, ADDENDUM NO. 1
SYSTEMWIDE WRONG WAY DETECTION

ITEM NO.	QUANTITY	UNIT	PAY ITEM DESCRIPTION	UNIT PRICE	AMOUNT
101 - 1	1	LS	MOBILIZATION		
102 - 1	1	LS	MAINTENANCE OF TRAFFIC		
600-104	1	EA	TRAINING FOR FIBER OPTIC NETWORK		
603A-100	1	LS	CONTINUOUS OPERATION OF EXISTING ITS DEVICES		
612-100	1	LS	GEOLOCATION OF ITS EQUIPMENT AND INFRASTRUCTURE		
633-121-2	24689	LF	FIBER OPTIC CABLE (12 SM FIBER) (F&I)		
633-121-7	985	LF	FIBER OPTIC CABLE (EXISTING-REMOVE)		
635-1-11	226	EA	PULL BOX (F&I)		
635-1-12	40	EA	SMALL FIBER OPTIC PULL BOX, 24" DIA, (F&I)		
635-1-60	1	EA	PULL BOX (REMOVE - ALL TYPES)		
638-0001-0211	160	LF	CONDUIT, 2- 1" HDPE (TRENCH OR PLOW) (F&I)		
638-0001-0311	310	LF	CONDUIT, 3- 1" HDPE (TRENCH OR PLOW) (F&I)		
638-0001-0313	651	LF	CONDUIT, 3- 1" HDPE (DIRECTIONAL BORE) (F&I)		
638-0002-0113	56	LF	CONDUIT, 1- 2" HDPE (DIRECTIONAL BORE) (F&I)		
638-0003-0213	3207	LF	CONDUIT, 1- 1" HDPE AND 1- 2" PVC (DIRECTIONAL BORE) (F&I)		
638-0003-0311	170	LF	CONDUIT, 1- 1" HDPE AND 2- 2" PVC (TRENCH OR PLOW) (F&I)		
638-0003-0313	896	LF	CONDUIT, 1- 1" HDPE AND 2- 2" PVC (DIRECTIONAL BORE) (F&I)		
638-0003-0413	5125	LF	CONDUIT, 3- 1" HDPE AND 1- 2" PVC (DIRECTIONAL BORE) (F&I)		
638-0003-0513	60	LF	CONDUIT, 3- 1" HDPE AND 2- 2" PVC (DIRECTIONAL BORE) (F&I)		
638-0003-0613	828	LF	CONDUIT, 4- 1" HDPE AND 2- 2" PVC (DIRECTIONAL BORE) (F&I)		
638-0007-0111	190	LF	CONDUIT, 1- 2" PVC (TRENCH OR PLOW) (F&I)		
638-0007-0113	1050	LF	CONDUIT, 1- 2" PVC (DIRECTIONAL BORE) (F&I)		
638-0007-0211	175	LF	CONDUIT, 2- 2" PVC (TRENCH OR PLOW) (F&I)		
638-0007-0213	85	LF	CONDUIT, 2- 2" PVC (DIRECTIONAL BORE) (F&I)		
638-0007-0311	848	LF	CONDUIT, 3- 2" PVC (TRENCH OR PLOW) (F&I)		
638-0009-0117	130	LF	CONDUIT, 1- 0.5" RGS (ABOVEGROUND) (F&I)		
638-0010-0117	50	LF	CONDUIT, 1- 1" RGS (ABOVEGROUND) (F&I)		
638-0011-0117	260	LF	CONDUIT, 1- 2" RGS (ABOVEGROUND) (F&I)		
638-0011-0217	361	LF	CONDUIT, 2- 2" RGS (ABOVEGROUND) (F&I)		

Contract No. 001683
Project 599-526C

Addendum No.1
May 14 2020

CENTRAL FLORIDA EXPRESSWAY AUTHORITY
WRONG WAY DRIVING DEPLOYMENT
PROJECT 599-526C; CONTRACT NO. 001683

PROPOSAL OF

SICE, Inc.

(NAME)

14350 NW 56th CT, #105, MIAMI, FL-33054

(ADDRESS)

305 222 7040

(TELEPHONE NO.)

Submitted 05/21/20

Central Florida Expressway Authority
4974 ORL Tower Road
Orlando, FL 32807

We, the undersigned, hereby declare that no person or persons, firm or corporation, other than the undersigned, are interested in this Proposal as principals, and that this Proposal is made without collusion with any person, firm or corporation. We have carefully and to our full satisfaction examined the approved project plans, General Specifications, Technical Specifications, Special Provisions, the form of Contract, and the Bond. We have made a full examination of the location of the proposed work and the sources of supply of materials. The examination of the Contract Documents and Site was conducted in accordance with Item 4., Examination of Contract Documents and Site of the Solicitation's Instructions to Bidders hereby incorporated herein by reference with the same force and effect as though fully set forth herein.

We hereby agree to furnish all necessary labor, equipment, and materials, fully understanding that the quantities shown herewith are approximate only, and that we will fully complete all necessary work in accordance with the Plans, General Specifications, Technical Specifications, Special Provisions, Standard Specifications and addenda, if any; and the requirements under them for the prices shown on the Bid Form.

We, the undersigned, further declare that we fully agree and shall comply with Item 8., Substitute and "Or-Equal" Items of the Solicitation's Instructions to Bidders hereby incorporated herein by reference with the same force and effect as though fully set forth herein.

We, the undersigned, further understand and shall comply with subsection 20.055(5), Florida Statutes.

I (we) hereby acknowledge receipt of the following Addenda issued during the bidding period:

Addendum No. 1 Dated 5/14/20 Bidder and/or Representative Initial SDH

Addendum No. _____ Dated _____ Bidder and/or Representative Initial _____

Addendum No. _____ Dated _____ Bidder and/or Representative Initial _____

Addendum No. _____ Dated _____ Bidder and/or Representative Initial _____

SICE, Inc.

Name of Bidder and/or Representative

If awarded the Contract, the undersigned further agrees to: perform all necessary force account work, as provided for in the General Specifications; execute the Contract within 15 calendar days after the date on which the notice of award has been given; and fully complete all work within 300 calendar days (plus such additional time as may have been granted by CFX).

The undersigned states that it is prequalified by the Florida Department of Transportation under Administrative Rule 14-22, Florida Administrative Code, in Electrical Work and Intelligent Transportation Systems.

Copies of all required current Certificates of Qualification in the specified classes of work are attached to the Bid. The undersigned acknowledges that failure to submit the certificates may result in rejection of the Bid and that prequalification is required irrespective of the contract amount.

The undersigned further agrees to furnish a sufficient and satisfactory Public Construction Bond in the sum of not less than 100 percent of the Contract price of the work, as indicated by the approximate quantities shown here, on a bonding company authorized to do business in Florida and acceptable to CFX.

The undersigned acknowledges that the Central Florida Expressway Authority officials and employees are prohibited from soliciting and accepting funds or gifts from any person who has, maintains, or seeks business relations with the CFX.

Accompanying this Proposal is a Proposal Guaranty, made payable to the Central Florida Expressway Authority, of not less than five percent (5%) of the total actual bid which guaranty is to be forfeited as liquidated damages if, in case this Proposal is accepted, the undersigned shall fail to execute the attached Contract under the conditions of this proposal; otherwise, said guaranty will be returned to the undersigned upon the delivery of a satisfactory Public Construction Bond.

*

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*

SICE, Inc.
Name of Bidder and/or Representative

I (We), the undersigned, hereby certify that I (we) have carefully examined this proposal after the same was completed, and have verified each item placed thereon; and I (we) agree to indemnify, defend, and hold harmless CFX against any cost, damage, or expense which it may incur or be caused by any error or omission in my (our) preparation of same.

CORPORATION:

SICE, Inc.
Principal (Bidder)

By: [Signature]
President or Vice President

Attest: [Signature]
Secretary (or Assistant Secretary)

(Affix
Corporate
Seal)



INDIVIDUAL OR FIRM TRADING AS:

Principal (Bidder)

Signature: _____
Individual or Owner

Witness: _____

Witness: _____

JOINT VENTURE:

Principal (Bidder)

By: _____
Attorney-in-Fact

PARTNERSHIP:

Principal (Bidder)

Signature: (1) _____
Co-Partner or General Partner

Signature: (2) _____
Co-Partner or General Partner

Witness: (1) _____

Witness: (1) _____

Witness: (2) _____

Witness: (2) _____

(If Partnership, list names and address of each partner on a separate sheet)

BIDDER MUST EXECUTE THE ATTACHED AFFIDAVIT

CENTRAL FLORIDA EXPRESSWAY AUTHORITY
WRONG WAY DRIVING DEPLOYMENT
PROJECT 599-526C; CONTRACT NO. 001683

AFFIDAVIT

This Affidavit, executed by, or on behalf of the person, firm, association, corporation or joint venture submitting the Proposal, shall be sworn to before a person who is authorized by law to administer oaths.

STATE OF Florida COUNTY OF Miami Dade

Before me, the undersigned authority, personally appeared Juan de la Haza, who being

duly sworn, deposes and says he is CFO / VP

of SICE, Inc of Miami, Florida
(Firm) (City and State)

the bidder submitting the attached Proposal for the work covered by CFX Project 599-526C in Orange County, Florida.

The affiant further states that no more than one proposal for the above referenced project will be submitted from the individual, his firm, corporation, or joint venture under the same or different name, and that such bidder has no financial interest in the firm of another bidder for the same work. That he, his firm, association, corporation, or joint venture has neither directly, nor indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this firm's bid on the above-named project. Furthermore, neither he, his firm, corporation, joint venture, nor any officers are debarred from participating in public contract lettings in any other state.

Corporation Must
affix Seal



SICE, Inc.
(Bidder)
By: [Signature]
Title: CFO / VP

STATE OF Florida

COUNTY OF Miami-Dade

The foregoing instrument was acknowledged before me this May 15th, 2020
(Date)

by Juan de la Hara
(Name of Officer or agent, title of officer or agent)

of SICE, Inc.
(Name of Corporation acknowledging)

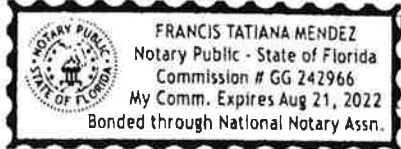
a DELAWARE corporation, on behalf of the corporation. He/she is
(State or place of incorporation)

personally known to me or has produced _____
(Type of identification)

as identification and did (did not) take an oath.

Francis T. Mendez Notary Public, Commission No. 60 242966

Francis T. Mendez (Name of Notary typed, printed or stamped)



Title or Type of Document _____ (Optional)

Number of Pages ____ Date of Document _____ (Optional)

Signer(s) Other than Named Above _____ (Optional)

(SEAL ABOVE)

NOTICE: Any evidence of collusion among participating bidders will preclude their recognition as bidders on such job and subjects them to penalties under applicable State and Federal Law, both civil and criminal. CFX will also disqualify such bidders on any work of CFX until such participant shall have been reinstated as a qualified bidder.

THE ABOVE FORM OF AFFIDAVIT IS REQUIRED TO BE EXECUTED AND ATTACHED TO EACH BID PROPOSAL FOR THE PROPOSAL TO BE CONSIDERED.

E.1.


Chairman's Report

**THERE ARE NO
BACKUP MATERIALS
FOR THIS ITEM**

E.2.

Treasurer's Report

MEMORANDUM

TO: CFX Board Members
FROM: Michael Carlisle, Director of Accounting and Finance
DATE: May 27, 2020 
RE: April 2020 Financial Reports

Attached please find the April 2020 Financial Reports. Please feel free to contact me if you have any questions or comments with regard to any of these reports.

**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
CALCULATION OF NET REVENUES AS DEFINED BY THE BOND RESOLUTIONS
AND RELATED DOCUMENTS
FOR THE MONTH ENDING APRIL 30, 2020 AND YEAR-TO-DATE**

	FY 20 MONTH ACTUAL	FY 20 MONTH BUDGET	FY 20 YEAR-TO-DATE ACTUAL	FY 20 YEAR-TO-DATE BUDGET	FY 20 YEAR-TO-DATE VARIANCE	FY 20 YEAR-TO-DATE % VARIANCE	FY 19 - 20 YEAR-TO-DATE COMPARISON
REVENUES							
TOLLS*	\$ 19,613,851	\$ 41,659,599	\$ 388,903,268	\$ 400,540,728	\$ (11,637,460)	-2.9%	-1.1%
FEES COLLECTED VIA UTN/UTC'S AND PBP'S	\$ 1,286,188	1,008,272	\$ 10,273,309	8,508,325	1,764,984	20.7%	31.3%
TRANSPONDER SALES	\$ 42,422	64,041	\$ 704,469	623,010	81,460	13.1%	140.2%
OTHER OPERATING	\$ 180,187	106,785	\$ 1,696,470	744,329	952,141	127.9%	46.9%
INTEREST	\$ 1,060,356	370,630	\$ 8,670,904	5,334,463	3,336,440	62.5%	93.1%
MISCELLANEOUS	\$ 62,094	60,845	\$ 618,373	608,450	9,924	1.6%	-27.1%
TOTAL REVENUES	\$ 22,245,099	43,270,172	\$ 410,866,794	416,359,305	(5,492,511)	-1.3%	0.8%
O M & A EXPENSES							
OPERATIONS	\$ 5,928,917	5,852,208	\$ 50,947,964	52,576,063	1,628,099	3.1%	9.3%
MAINTENANCE	\$ 293,159	1,256,773	\$ 11,232,997	13,313,674	2,080,677	15.6%	-10.8%
ADMINISTRATION	\$ 747,697	715,192	\$ 6,306,157	7,047,483	741,326	10.5%	4.0%
OTHER OPERATING	\$ 86,432	228,483	\$ 1,499,841	1,999,229	499,388	25.0%	-24.2%
TOTAL O M & A EXPENSES	\$ 7,056,205	8,052,656	\$ 69,986,959	74,936,449	4,949,490	6.6%	4.1%
NET REVENUES BEFORE DEBT SERVICE	\$ 15,188,894	35,217,516	\$ 340,879,835	341,422,856	(543,021)	-0.2%	0.1%
COMBINED NET DEBT SERVICE	\$ 18,744,089	18,731,876	\$ 165,184,324	166,417,686	1,233,361	0.7%	14.0%
NET REVENUES AFTER DEBT SERVICE	<u>\$ (3,555,196)</u>	<u>\$ 16,485,640</u>	<u>\$ 175,695,511</u>	<u>\$ 175,005,170</u>	<u>\$ 690,341</u>	<u>0.4%</u>	<u>-10.2%</u>

* All Plazas had tolls suspended in FY 20 due to Hurricane Dorian from the afternoon of 9/1/19 through 9/5/19

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**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
SUMMARY OF OPERATIONS, MAINTENANCE AND ADMINISTRATION
COMPARISON OF ACTUAL TO BUDGET FOR FISCAL YEAR 2019
FOR THE MONTH ENDING APRIL 30, 2020 AND YEAR-TO-DATE**

	<u>FY 2020 ACTUAL</u>	<u>FY 2020 BUDGET</u>	<u>VARIANCE</u>	<u>FY 20 YEAR-TO-DATE % VARIANCE</u>
Operations	\$ 50,947,964	\$ 52,576,063	\$ 1,628,099	3.1%
Maintenance	11,232,997	13,313,674	2,080,677	15.6%
Administration	6,306,157	7,047,483	741,326	10.5%
Other Operating	<u>1,499,841</u>	<u>1,999,229</u>	<u>499,388</u>	<u>25.0%</u>
Total O M & A	\$ 69,986,959	\$ 74,936,449	\$ 4,949,490	6.6%
 Capital Expenditures				
Operations	\$ -	\$ -	-	0.0%
Maintenance	30,086	112,000	81,914	73.1%
Administration	<u>18,516</u>	<u>25,000</u>	<u>6,485</u>	<u>25.9%</u>
Total Capital Expenditures	\$ 48,602	\$ 137,000	\$ 88,398	64.5%

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**Central Florida Expressway Authority
Operations - Comparison of Actual to Budget
For the Ten Months Ending April 30, 2020**

	<u>YTD Actual</u>	<u>YTD Budget</u>	<u>Budget Variance</u>	<u>Variance Percentage</u>
Toll Operations	480,795	485,466	4,671	0.96%
Image Review	10,311,067	8,850,169	(1,460,898)	-16.51%
Special Projects	61,997	141,578	79,581	56.21%
Information Technology	3,939,310	4,430,900	491,590	11.09%
E-PASS Service Center	17,317,420	18,372,680	1,055,260	5.74%
E-PASS Business Services	113,401	130,935	17,534	13.39%
Public Outreach/Education	1,676,645	2,062,408	385,763	18.70%
Subtotal CFX	<u>33,900,635</u>	<u>34,474,137</u>	<u>573,502</u>	<u>1.66%</u>
Plazas	17,047,329	18,101,927	1,054,598	5.83%
Subtotal Toll Facilities	<u>17,047,329</u>	<u>18,101,927</u>	<u>1,054,598</u>	<u>5.83%</u>
Total Operations Expenses	<u><u>50,947,964</u></u>	<u><u>52,576,063</u></u>	<u><u>1,628,100</u></u>	<u><u>3.10%</u></u>

**Central Florida Expressway Authority
Maintenance - Comparison of Actual to Budget
For the Ten Months Ending April 30, 2020**

	<u>YTD Actual</u>	<u>YTD Budget</u>	<u>Budget Variance</u>	<u>Variance Percentage</u>
Maintenance Administration	1,989,578	2,385,714	396,136	16.60%
Traffic Operations	2,629,214	3,349,972	720,758	21.52%
Routine Maintenance	6,644,291	7,689,988	1,045,697	13.60%
Total Maintenance Expenses	<u>11,263,083</u>	<u>13,425,674</u>	<u>2,162,591</u>	<u>16.11%</u>



**Central Florida Expressway Authority
Administration - Actual to Budget by Cost Center
For the Ten Months Ending April 30, 2020**

	<u>YTD Actual</u>	<u>YTD Budget</u>	<u>Budget Variance</u>	<u>Variance Percentage</u>
General	675,921	759,922	84,001	11.05%
Administrative Services	1,710,618	1,813,840	103,223	5.69%
Communications	502,229	611,103	108,873	17.82%
Human Resources	182,235	280,904	98,669	35.13%
Supplier Diversity	207,649	277,631	69,983	25.21%
Accounting	1,306,964	1,378,417	71,453	5.18%
Construction Administration	48,246	49,856	1,610	3.23%
Risk Management	0	0	0	0.00%
Procurement	434,504	508,593	74,089	14.57%
Legal	570,697	669,444	98,747	14.75%
Internal Audit	341,843	329,000	(12,843)	-3.90%
525 Magnolia	26,045	21,338	(4,707)	-22.06%
Engineering	52,820	60,285	7,466	12.38%
Records Management	264,902	312,149	47,246	15.14%
Grand Total Expenses	<u><u>6,324,673</u></u>	<u><u>7,072,483</u></u>	<u><u>747,810</u></u>	<u><u>10.57%</u></u>

**CENTRAL FLORIDA EXPRESSWAY AUTHORITY
CALCULATION OF NET REVENUES AS DEFINED BY THE BOND RESOLUTIONS
PREVIOUS YEAR BUDGET TO ACTUAL COMPARISON
FOR THE MONTH ENDING APRIL 30, 2020 AND YEAR-TO-DATE**

	FY 20 YEAR-TO-DATE ACTUAL	FY 20 YEAR-TO-DATE BUDGET	FY 20 YEAR-TO-DATE VARIANCE	FY 19 YEAR-TO-DATE ACTUAL	FY 19 YEAR-TO-DATE BUDGET	FY 19 YEAR-TO-DATE VARIANCE	YEAR-TO-DATE VARIANCE COMPARISON
REVENUES							
TOLLS*	\$ 388,903,268	\$ 400,540,728	\$ (11,637,460)	\$ 393,151,020	\$ 383,520,658	\$ 9,630,362	\$ (21,267,822)
FEES COLLECTED VIA UTN/UTC'S AND PBP'S	10,273,309	8,508,325	1,764,984	7,826,953	5,906,637	1,920,316	(155,332)
TRANSPONDER SALES	704,469	623,010	81,460	293,248	233,240	60,008	21,452
OTHER OPERATING	1,696,470	744,329	952,141	1,154,482	1,021,734	132,748	819,393
INTEREST	8,670,904	5,334,463	3,336,440	4,491,143	2,800,000	1,691,143	1,645,297
MISCELLANEOUS	618,373	608,450	9,924	848,447	876,251	(27,804)	37,728
TOTAL REVENUES	410,866,794	416,359,305	(5,492,511)	407,765,293	394,358,520	13,406,773	(18,899,284)
O M & A EXPENSES							
OPERATIONS	50,947,964	52,576,063	1,628,099	46,607,631	47,758,456	1,150,825	477,274
MAINTENANCE	11,232,997	13,313,674	2,080,677	12,587,197	13,737,080	1,149,883	930,794
ADMINISTRATION	6,306,157	7,047,483	741,326	6,061,560	6,745,601	684,041	57,285
OTHER OPERATING	1,499,841	1,999,229	499,388	1,979,662	1,738,073	(241,589)	740,977
TOTAL O M & A EXPENSES	69,986,959	74,936,449	4,949,490	67,236,050	69,979,210	2,743,160	2,206,330
NET REVENUES BEFORE DEBT SERVICE	340,879,835	341,422,856	(543,021)	340,529,243	324,379,310	16,149,933	(16,692,954)
COMBINED NET DEBT SERVICE	165,184,324	166,417,686	1,233,361	144,911,560	146,462,329	(1,550,769)	2,784,130
NET REVENUES AFTER DEBT SERVICE	<u>\$ 175,695,511</u>	<u>\$ 175,005,170</u>	<u>\$ 690,341</u>	<u>\$ 195,617,683</u>	<u>\$ 177,916,981</u>	<u>\$ 17,700,702</u>	<u>\$ (17,010,361)</u>

* All Plazas had tolls suspended in FY 20 due to Hurricane Dorian from the afternoon of 9/1/19 through 9/5/19

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CENTRAL FLORIDA EXPRESSWAY AUTHORITY
CALCULATION OF NET REVENUES AS DEFINED BY THE BOND RESOLUTIONS
PREVIOUS YEAR COMPARISON
FOR THE MONTH ENDING APRIL 30, 2020 AND YEAR-TO-DATE

	<u>FY 20 MONTH ACTUAL</u>	<u>FY 19 MONTH ACTUAL</u>	<u>FY 19 - 20 SAME MONTH COMPARISON</u>	<u>FY 20 YEAR-TO-DATE ACTUAL</u>	<u>FY 19 YEAR-TO-DATE ACTUAL</u>	<u>FY 19 - 20 YEAR-TO-DATE COMPARISON</u>
REVENUES						
TOLLS*	\$ 19,613,851	\$ 41,923,309	\$ (22,309,458)	\$ 388,903,268	\$ 393,151,020	\$ (4,247,752)
FEES COLLECTED VIA UTN/UTC'S AND PBP'S	1,286,188	1,021,240	264,948	10,273,309	7,826,953	2,446,356
TRANSPONDER SALES	42,422	30,952	11,470	704,469	293,248	411,221
OTHER OPERATING	180,187	164,715	15,472	1,696,470	1,154,482	541,988
INTEREST	1,060,356	835,368	224,988	8,670,904	4,491,143	4,179,761
MISCELLANEOUS	62,094	79,946	(17,852)	618,373	848,447	(230,074)
TOTAL REVENUES	22,245,099	44,055,530	(21,810,431)	410,866,794	407,765,293	3,101,501
O M & A EXPENSES						
OPERATIONS	5,928,917	6,010,317	(81,400)	50,947,964	46,607,631	4,340,333
MAINTENANCE	293,159	2,139,620	(1,846,461)	11,232,997	12,587,197	(1,354,200)
ADMINISTRATION	747,697	654,648	93,049	6,306,157	6,061,560	244,597
OTHER OPERATING	86,432	145,840	(59,408)	1,499,841	1,979,662	(479,821)
TOTAL O M & A EXPENSES	7,056,205	8,950,425	(1,894,220)	69,986,959	67,236,050	2,750,909
NET REVENUES BEFORE DEBT SERVICE	15,188,894	35,105,105	(19,916,212)	340,879,835	340,529,243	350,592
COMBINED NET DEBT SERVICE	18,744,089	15,072,143	3,671,946	165,184,324	144,911,560	20,272,764
NET REVENUES AFTER DEBT SERVICE	<u>\$ (3,555,196)</u>	<u>\$ 20,032,962</u>	<u>\$ (23,588,158)</u>	<u>\$ 175,695,511</u>	<u>\$ 195,617,683</u>	<u>\$ (19,922,172)</u>

* All Plazas had tolls suspended in FY 20 due to Hurricane Dorian from the afternoon of 9/1/19 through 9/5/19

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E.3.

Executive Director's Report

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

Executive Director Report June 2020

DASHBOARD

Wrong Way Driving Program

In April there were 8 detections system wide with 7 of the 8 detections resulting in documented turn arounds. Details of the remaining event is listed below:

SR 451 NB at US 441-Vick Road; Sunday, 4/19/2020 12:11 AM

A red truck was observed traveling down the ramp in the wrong direction. The Regional Traffic Management Center notified FHP of the event. The dynamic message sign was updated to warn drivers in the area. There were no citations or crashes associated with this event.

As of April, CFX has had 669 wrong way driving detections with 569 documented turn arounds since the initial deployments.

Financial Indicators

The COVID-19 traffic and revenue impacts were the most severe in April with average daily traffic and revenue down approximately 53% from 2019 levels. May and June traffic and revenue indicate a slow recovery at -38% and -29% over 2019 levels respectively, as of Sunday, June 7.

Reload Service Lanes

Reload service lanes and manned cash lanes were closed in April and May and were reopened on June 1, 2020.

CUSTOMER SERVICE

Customer Call Center

CFX has been pursuing the objective of modernizing our customer service operations and systems. Contracts on today's consent agenda continue our progress. The most consequential change will be for our contact center operations. CFX hopes to award Alliance One, a subsidiary of Teleperformance and a leader in the contact center industry, with the new five-year contract. We would like to thank our current operator, Egis Group, who has served CFX well for the last five years.

CFX is also awarding a new contract to Nice InContact for their cloud-based telecom platform. Nice is also a recognized industry leader within their market space. CFX is excited at the opportunity of joining these two leaders with the CFX team. We know they will help us raise our customer service to the next level.

SAFETY

CFX Dedicated Law Enforcement

A request for an additional FHP troop, which would be a pass through for funding, was supported by the Governor and the House, however the Florida Department of Highway Safety and Motor Vehicles (FHSMV) ultimately did not support the request

due to ongoing hiring and retention challenges over many years. CFX is exploring alternatives for dedicated law enforcement support over the summer and will provide recommendations to the Board this fall.

CFX Covid-19 Update

Toll attendants began collecting cash and operating Reload lanes on the CFX system on June 1, 2020 with recommended safety protocols in place. Pay By Plate transactions will continue at the cash rate with no fees until July 1, 2020. On July 1, Pay By Plate rates will be posted and activated.

The CFX headquarters building continues to follow CDC guidelines and protocols. A thermal scanner is being ordered for the lobby. The headquarters building will open at half capacity later this summer while continuing work from home options. The CFX August board meeting is currently planned to take place in the CFX board room.

TRANSPORTATION PARTNERSHIPS

International Bridge Tunnel and Turnpike Association (IBTTA)

IBTTA held virtual board meetings on May 15 and 29, 2020. IBTTA's Women in Tolling provided two sold out webinars in May and June. IBTTA's 88th Annual Meeting and Exhibition in Austin, Texas will take place September 13 – 15, 2020.

Transportation and Expressway Authority Membership of Florida (TEAM FL)

TEAM FL has cancelled their July joint meeting with Floridians for Better Transportation. Their fall meeting is scheduled for November 5-6 in Jacksonville, Florida.

ENVIRONMENTAL STEWARDSHIP

Environmental Stewardship Committee

The first CFX Environmental Stewardship Committee meeting will take place this summer to discuss a proposed wildlife/pedestrian bridge over SR 528 and the Osceola/Brevard County Connector Concept, Feasibility and Mobility Study.

The Florida Greenways and Trails Foundation asked CFX to provide cost estimates for a few wildlife/pedestrian bridge options over the Beachline so that the Foundation could pursue federal and local funding for the project.

The Osceola/Brevard County Connector is a potential project identified by the East Central Florida Corridor Task Force that connects central Florida to I-95 in Brevard County. The Concept, Feasibility and Mobility Study began a few months ago.

PERFORMANCE DASHBOARD

APRIL 2020

Fiscal year runs from July 1-June 30

CUSTOMER SERVICE

Service Center	Activity		Monthly Avg. Wait Time	
	Actual	6 mo. Avg	Actual	Target
Service Center	0	8,376	0:00	<5m

SERVICE CENTER: MINUTE INTERVALS <5 5-6 6-7 7-8 8-9 9+

Call Center	Actual	6 mo. Avg	Monthly Avg. Wait Time	Target
Call Center	79,065	103,365	0:58	<1m

CALL CENTER: % MINUTE INTERVALS <1 1-3 3-5 5+



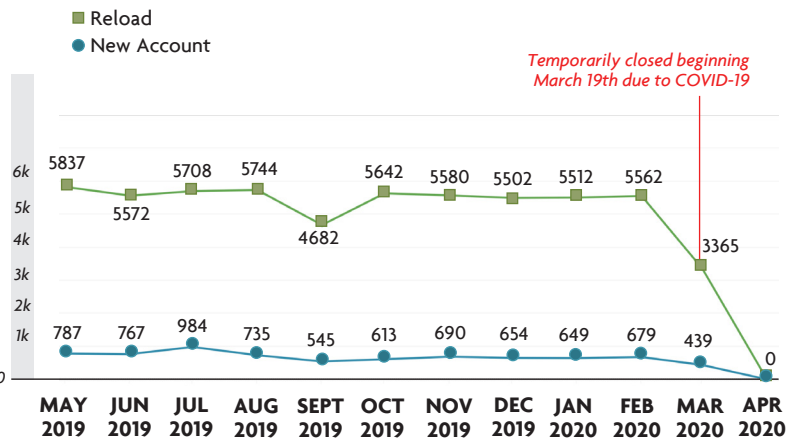
FTC TARGET: 80% <1m

WRONG WAY DRIVING (WWD)

Month	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
Total Vehicles Detected	14	18	19	9	16	9	15	8
Documented Turn Arouds	13	16	15	7	14	9	15	7

RELOAD CUSTOMER SERVICE LANE ACTIVITY

Monthly averages: 629 E-PASS sales and 4,892 E-PASS account reloads



PROGRESS OF MAJOR CONSTRUCTION PROJECTS

Project	Contract (millions)	Spent (millions)	% Time	% Spent	VAR	Contract Completion Date
SR 429 Stoneybrook West Interchange	\$10.8	\$1.8	16%	21%	Green	Nov. 2020
SR 528 / SR 436 Interchange Improvements	\$106.5	\$0	0%	0%	Green	Dec. 2022
SR 417 Widening from Econlockhatchee to Seminole Co.	\$44.9	\$38.4	88%	86%	Green	Aug 2020
Toll System Replacement	\$54.4	\$32.7	80%	60%	Yellow	July 2021

LEGEND: % Time - % Spent ≤ 10 Green 11-20 Yellow ≥ 21 Red

FINANCIALS

FINANCIALS

FY to Date	Actual	Budget	VAR
Total Revenue	\$410.9	\$416.4	-1%
OM&A Expenses	\$70.0	\$74.9	7%
Net Revenue	\$175.7	\$175.0	0%

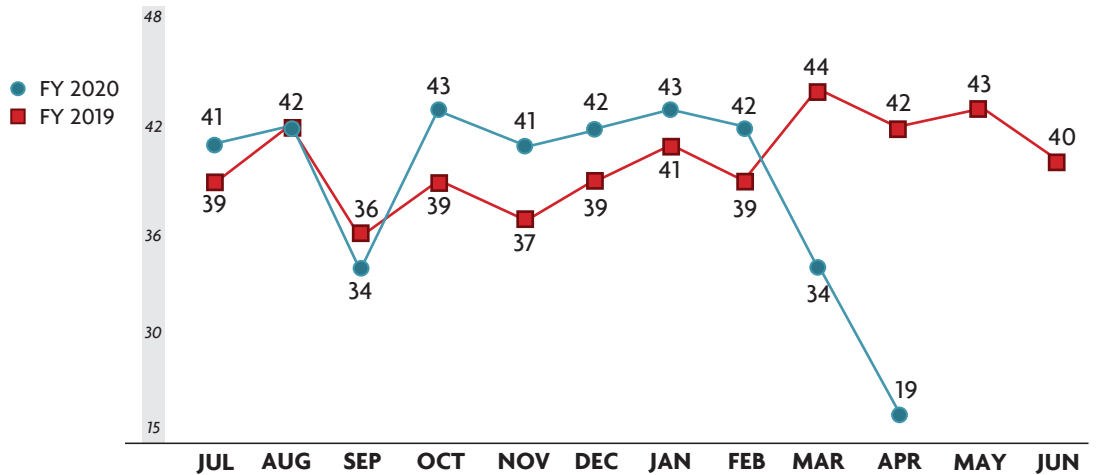
LEGEND: >/= 0 Green -0.1 to -10 Yellow </- -10 Red

DEBT SERVICE

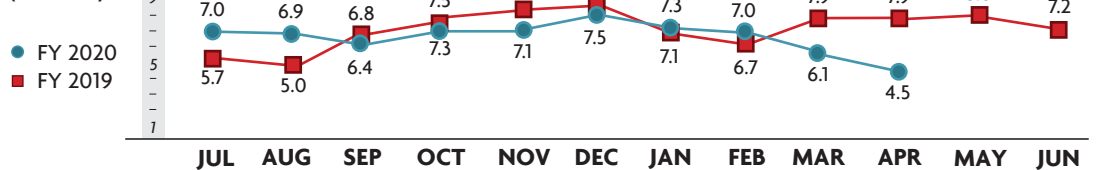
FY to Date	Actual	Budget
Senior Lien	1.80	2.07
Subordinate Lien	1.73	2.00

LEGEND: >1.45 Green >1.21 to 1.44 Yellow </= 1.2 Red

TOTAL REVENUE TRANSACTIONS ON CFX SYSTEM (millions)



UNPAID IN LANE TRANSACTIONS (millions)



*All Plazas had tolls suspended in FY20 due to Hurricane Dorian from the afternoon of 9/1/19 through 9/5/19.

SUMMARY OF THE “INVESTING IN A NEW VISION FOR THE ENVIRONMENT AND SURFACE TRANSPORTATION IN AMERICA” ACT (INVEST in America Act) - June 3, 2020

The 5-year reauthorization package released by the House Transportation & Infrastructure Committee would provide \$494 billion, \$411 billion of it out of the Highway Trust Fund (HTF) for highway, transit, safety, and research programs, a 46 percent increase over current funding levels.

This breaks down to:

\$319 billion for the Federal-aid highway program under the Federal Highway Administration, \$105 billion for transit programs under the Federal Transit Administration, \$5.3 billion for highway safety under the National Highway Traffic Safety Administration, \$4.6 billion for motor carrier safety under the Federal Motor Carrier Safety Administration, and \$60 billion for rail programs.

Major programmatic proposals cover a wide range of topics:

Bridge Investment - Requires States to spend 20 percent of their NHPP and Surface Transportation Program (STP) any area dollars on bridge repair and rehabilitation projects, supporting approximately \$28 billion in fix-it-first bridge investments in FY 2022-2025. Increases the off-system bridge set-aside to over \$1 billion per year from approximately \$770 million in current law.

Electric Vehicle Charging and Hydrogen Fueling Infrastructure Grants. Provides \$350 million per year for grants for electric vehicle charging and hydrogen fueling infrastructure

Gridlock Reduction Grants. Provides \$250 million (half for freight grants). Grants to be awarded for reducing congestion in large metro areas, with an emphasis on operational, technological, and mode shift strategies.

Increased Accountability - Requires FHWA to develop a website that shows all active Federal-aid highway projects over \$5 million in the country.

Tolling “Reform”

- Repeals the Interstate System Reconstruction and Rehabilitation Pilot Program (ISRRPP)
- Sunsets the Value Pricing Pilot Program – which may curtail any future progress on such projects.
- Reestablishes the requirement that FHWA enter into a toll agreement before allowing tolling on a Federal-aid highway.
- Establishes additional “guardrails” around tolling to ensure that any adverse impacts both on and off the facility are evaluated and addressed.

Public Transportation - Substantially increases transit funding out of the Highway Trust Fund over current investment levels. Funding for buses and zero emission buses see significant funding increases to make up for cuts to bus funding in the last two reauthorization cycles.

Supporting All Riders

- Doubles the set-aside of the low-income factor in the urban formula and uses a measure of deep poverty by census tract to target the poorest urban neighborhoods.
- Establishes a reduced fare pilot project to enable transit agencies to experiment with reduced fares for low-income riders.

Vehicle-Miles Traveled (VMT) Pilots

- Nearly doubles funding for VMT pilots across the country, encouraging States to begin implementing successful VMT programs.
- Establishes a national VMT pilot program, including both passenger and commercial vehicles in all 50 States, to invest in developing a sustainable funding mechanism for the surface transportation system.

Transportation Infrastructure Finance and Innovation Act

- Streamlines the program by raising the threshold above which projects are required to secure multiple credit rating agency opinions.
- Further clarifies that the proceeds of a secured loan under TIFIA shall be considered part of the non-Federal share of a project under title 23 or chapter 53 of title 49 if the loan is repayable from non-Federal funds.
- Allows territories to use funds made available under this section for the non-Federal match under the TIFIA program.
- Clarifies the criteria under which projects are eligible for the streamlined application process.
- Provides additional funding to allow the Department to waive fees for small projects.

The House package is being characterized as a partisan Democrat sponsored product generated without input from the Republican minority of the Committee. Earlier in the year the minority issued the following 6 principals indicating their goals for an eventual reauthorization measure:

- Addressing the long-term sustainability of the Highway Trust Fund.
- Incorporating innovative developments in technology to improve our infrastructure.
- Streamlining the project delivery process to maximize available funding.
- Addressing the infrastructure needs of America's rural communities.
- Prioritizing core programs and functions of our existing federal surface transportation programs.
- Ensuring state flexibility.

How these conflicts are reconciled is still to be determined, and similarly the 2-year funding package approved by the Senate Environment & Public Works Committee in July 2019 offers a much more traditional extension of existing programs that differs significantly from the House package. None of these proposals address how the extended or expanded programs would be paid for even though they all increase current program funding levels. The current highway program, authorized by the FAST Act, expires on September 30, 2020.

F. 1.



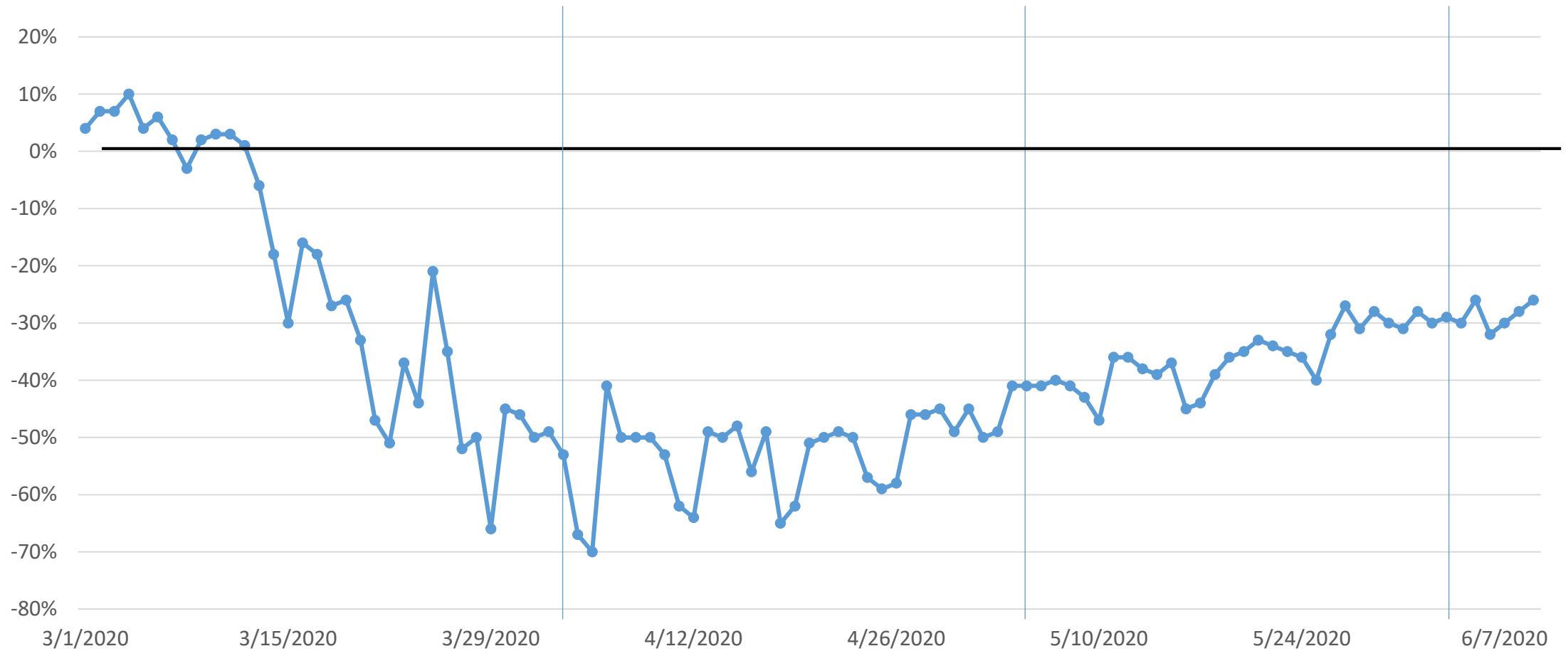
CENTRAL
FLORIDA
EXPRESSWAY
AUTHORITY



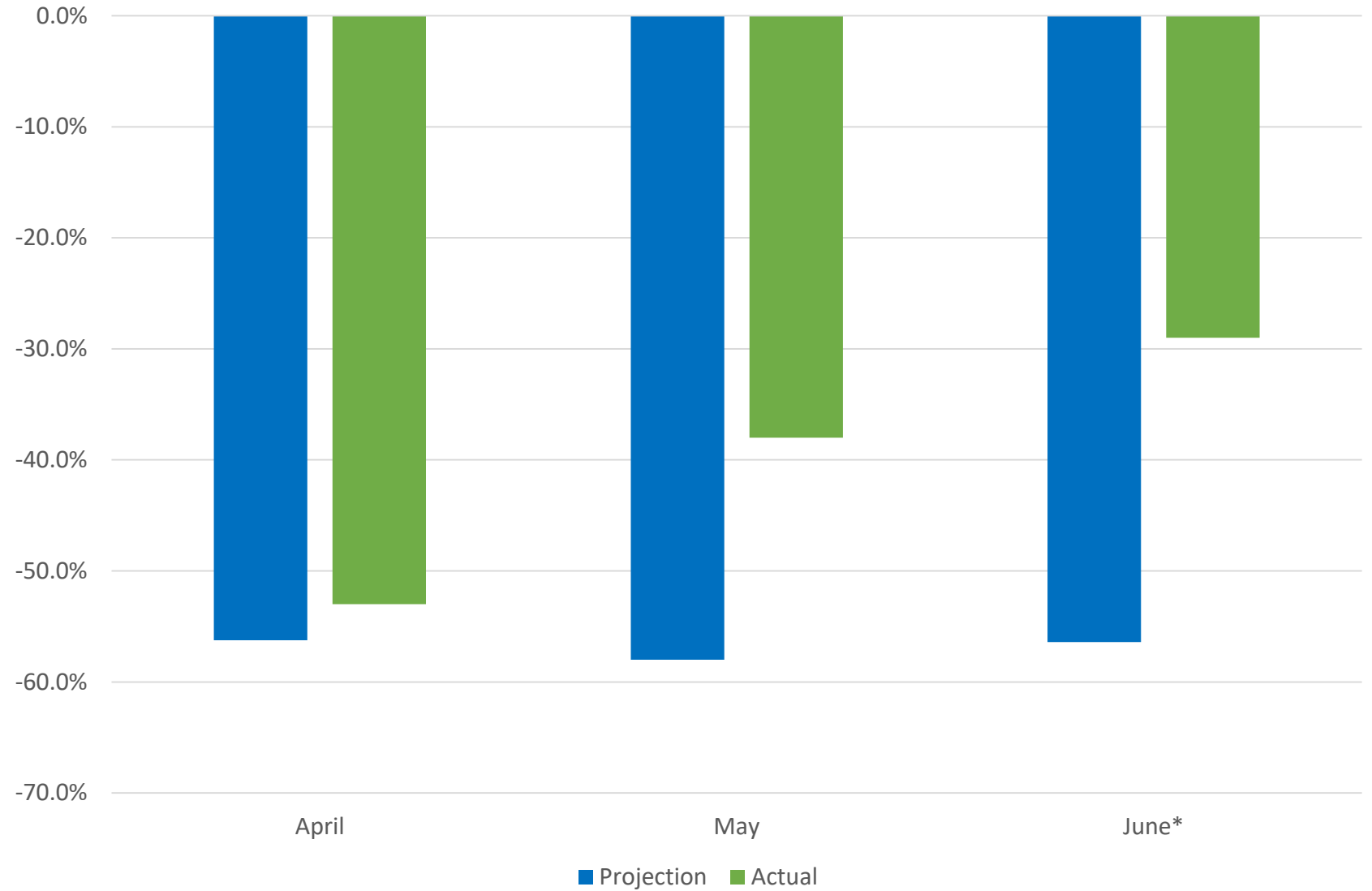
MONTHLY COVID-19 FINANCIAL ASSESSMENT

— June 11, 2020 —

Revenue Variance Over Prior Year



COVID Impact by Month



*Through 06.08.2020

Strengths

765 days cash on hand

*as of 06-05-2020

Reserve balance of
\$168,818,217

*as of 06.05.2020

Construction fund cash
balance is \$457,922,942

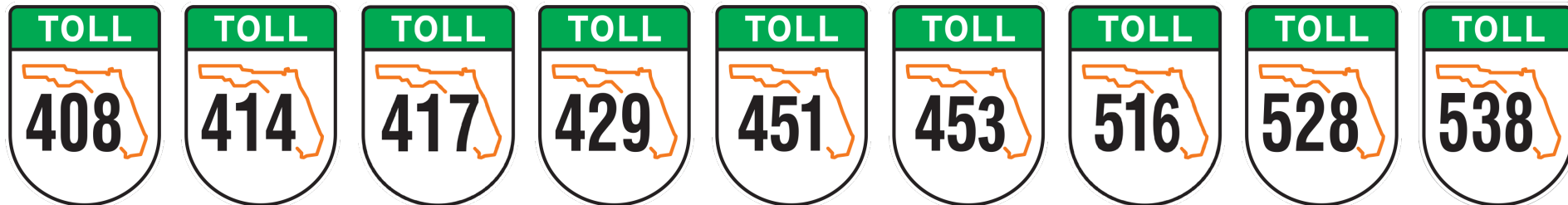
- Amount available for
Construction Projects
\$293,676,091

*as of 06.10.2020

Construction Fund Allocation

As of June 2020

- Dynamic Message Sign Replacements
- Renovation of E-PASS Service Center
- SR 408 Aesthetic Coatings
- SR 429 Pavement Repair
- SR 408 Widening – SR 417 to Alafaya Trail
- SR 408/SR 417 Interchange Improvements
- SR 417 Widening – Econlockhatchee Trail to Seminole County Line
- Guide Sign Replacement
- Supplemental Data Collection Sensor and CCTV Deployment
- SR 414 and SR 528 Milling and Resurfacing
- Systemwide Pay By Plate Signage
- SR 429/New Independence Parkway Interchange Improvements
- SR 528/SR 436 Interchange Improvements
- SR 429/Stoneybrook West Parkway Interchange
- SR 408/Mills Avenue Exit Ramp Improvements



**Estimated
Budget vs
Actual**

	<u>FY 2020 Year-to- Date Budget</u>	<u>FY 2020 Year- to-Date Actual</u>	<u>FY 2020 Year-to- Date % Variance</u>
Total Revenues	\$460,533,665	\$438,354,791	-4.8%
Total OM&A Expenses	83,325,515	76,592,525	8.1%
Net Revenues After Debt Service	192,051,413	177,826,673	-7.4%
Work Plan Expenses	307,128,000	204,307,595	66.5%

*As of 05.31.2020



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MONTHLY COVID-19 FINANCIAL ASSESSMENT

— June 11, 2020 —

F. 2.

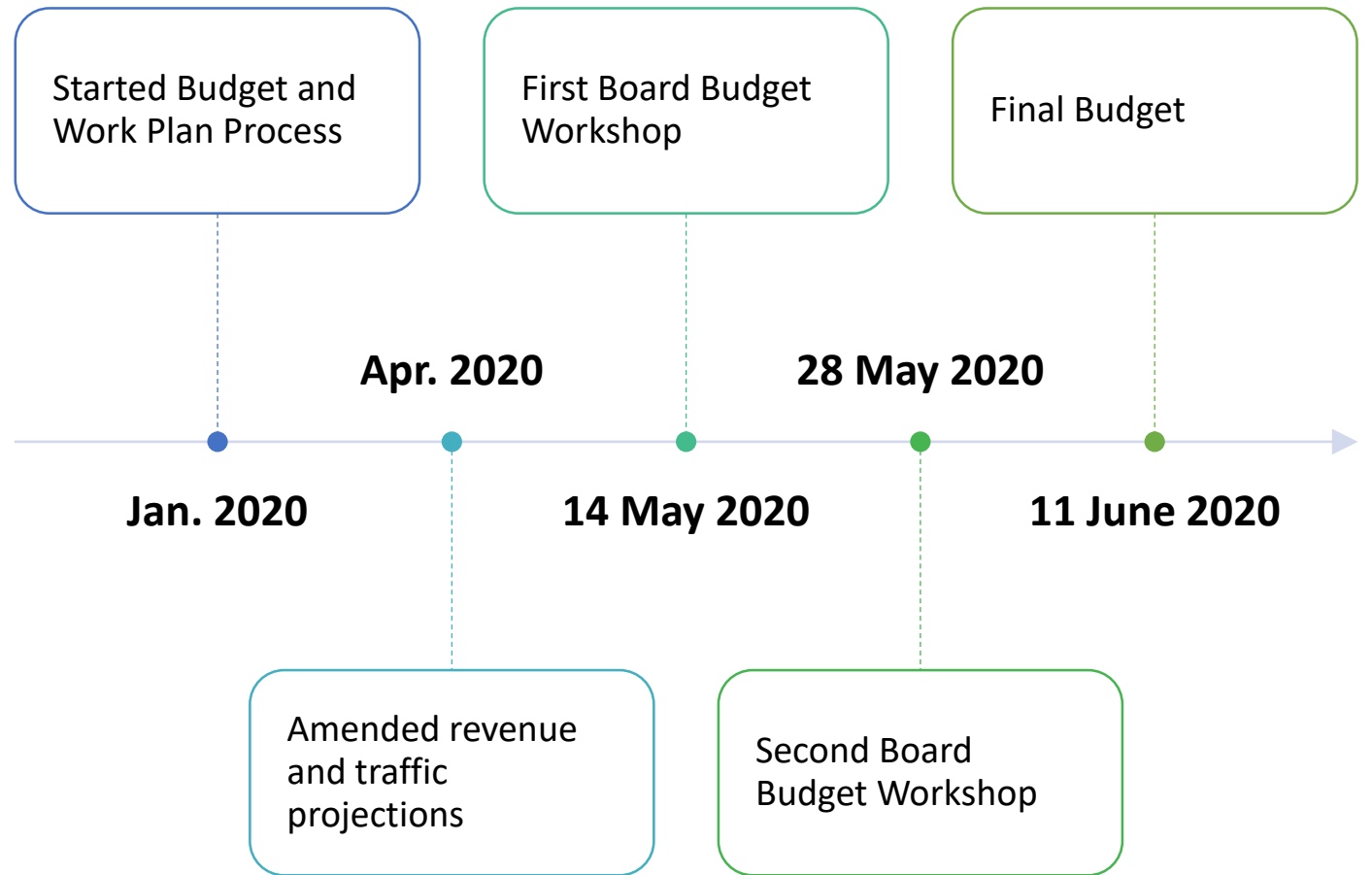


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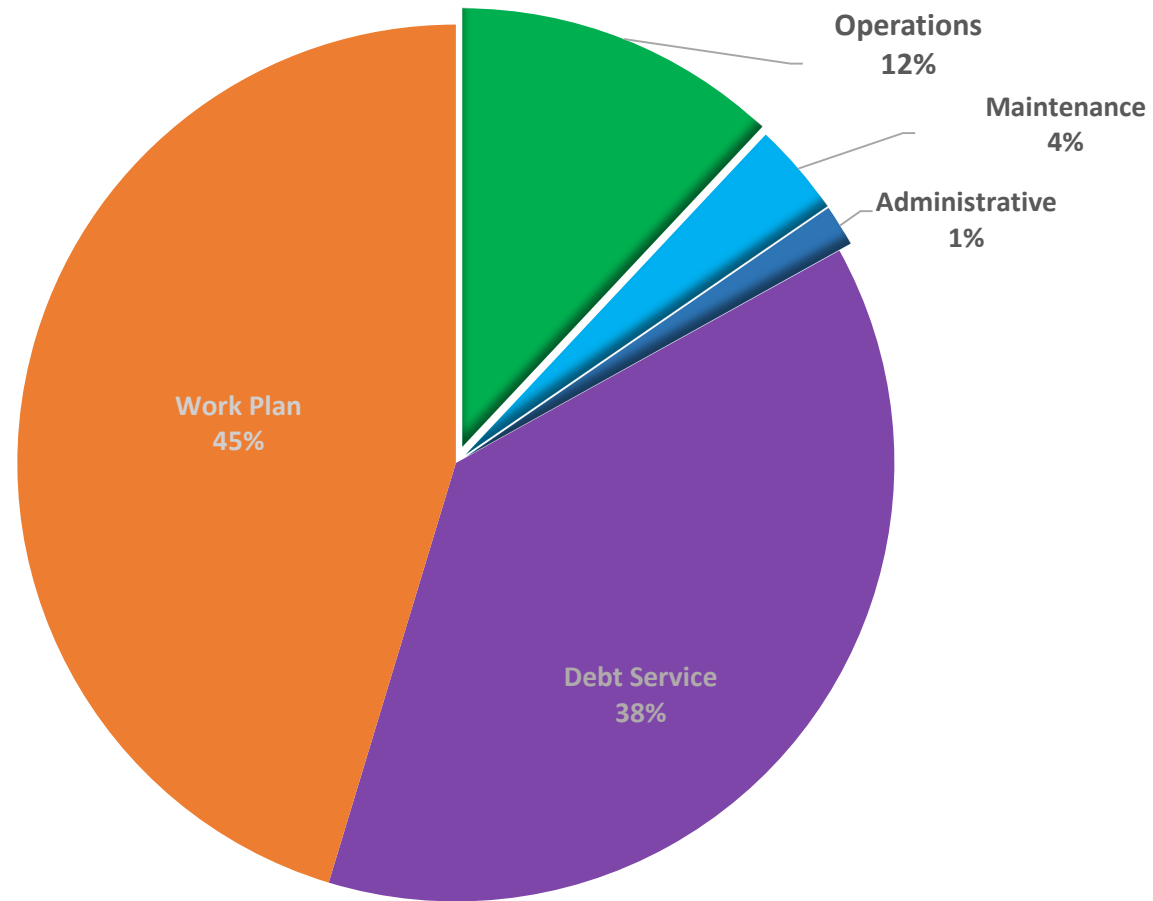


BUDGET
FY 2021 Operations, Maintenance & Administration
And
FY 2021 – FY 2025 Five-Year Work Plan
— June 11, 2020 —

Timeline



Fiscal Year 2021 Spend



Revenues

	<u>FY 2020 Budget</u>	<u>FY 2020 Year End Projected</u>	<u>FY 2021 Budget</u>	<u>% Change Over FY 2020 Budget</u>	<u>% Change Over Year End Projected</u>
Tolls	\$441,400,000	\$356,500,000	\$377,775,692	-14%	6%
Tolls – Pay By Plate	38,000,000	59,100,000	50,124,308	32%	-15%
Fees	10,815,000	11,160,200	7,858,000	-27%	-30%
Transponder Sales	748,202	870,015	921,530	23%	6%
Other Operating	962,088	1,871,934	1,848,762	92%	-1%
Interest	5,971,846	7,510,117	6,067,454	2%	-19%
Miscellaneous	731,471	731,609	744,221	2%	2%
Total Revenues	\$498,628,607	\$437,743,875	\$445,339,967	-11%	2%

Operations, Maintenance & Administration

	<u>FY 2020 Budget</u>	<u>FY 2020 Year End Projected</u>	<u>FY 2021 Budget</u>	<u>% Change Over FY 2020 Budget</u>	<u>% Change Over Year End Projected</u>
Operations	\$68,790,186	\$68,908,278	\$66,046,188	-4%	-4%
Maintenance	20,591,837	18,219,170	19,911,335	-3%	9%
Administration	8,982,398	8,554,361	8,848,562	-1%	3%
Other Operating	2,741,800	2,802,306	2,741,800	0%	-2%
Total Expenses	\$101,106,221	\$98,484,115	\$97,547,885	-4%	-1%

Debt Service Ratio

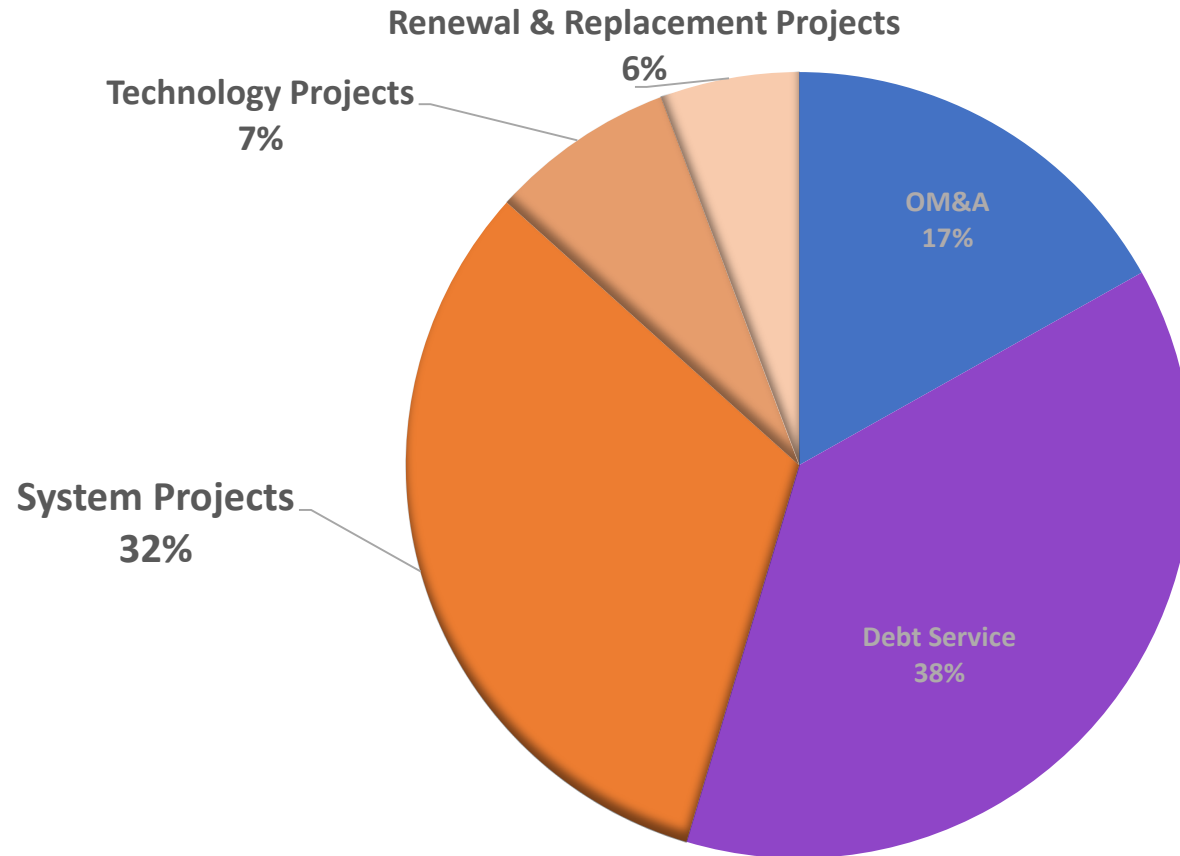
	<u>FY 2020 Budget</u>	<u>FY 2020 Year End Projected</u>	<u>FY 2021 Budget</u>
Total Revenues	\$498,628,607	\$437,743,875	\$445,339,967
Total Expenses	101,106,221	98,484,115	97,547,885
OM&A Reserve Deposits	756,244	756,244	0
FDOT Advances	(7,519,332)	(7,600,837)	(7,233,937)
Net Revenues	<u>\$404,285,474</u>	<u>\$346,104,353</u>	<u>\$355,026,019</u>
Senior Debt Service Payments	<u>\$196,473,591</u>	<u>\$196,473,591</u>	<u>\$210,806,372</u>
Senior Debt Service Ratio	<u>2.06</u>	<u>1.76</u>	<u>1.68</u>

Goldenrod Road Extension

- Toll revenue budget - \$2,200,000
- Total operations and maintenance expense budget - \$459,332



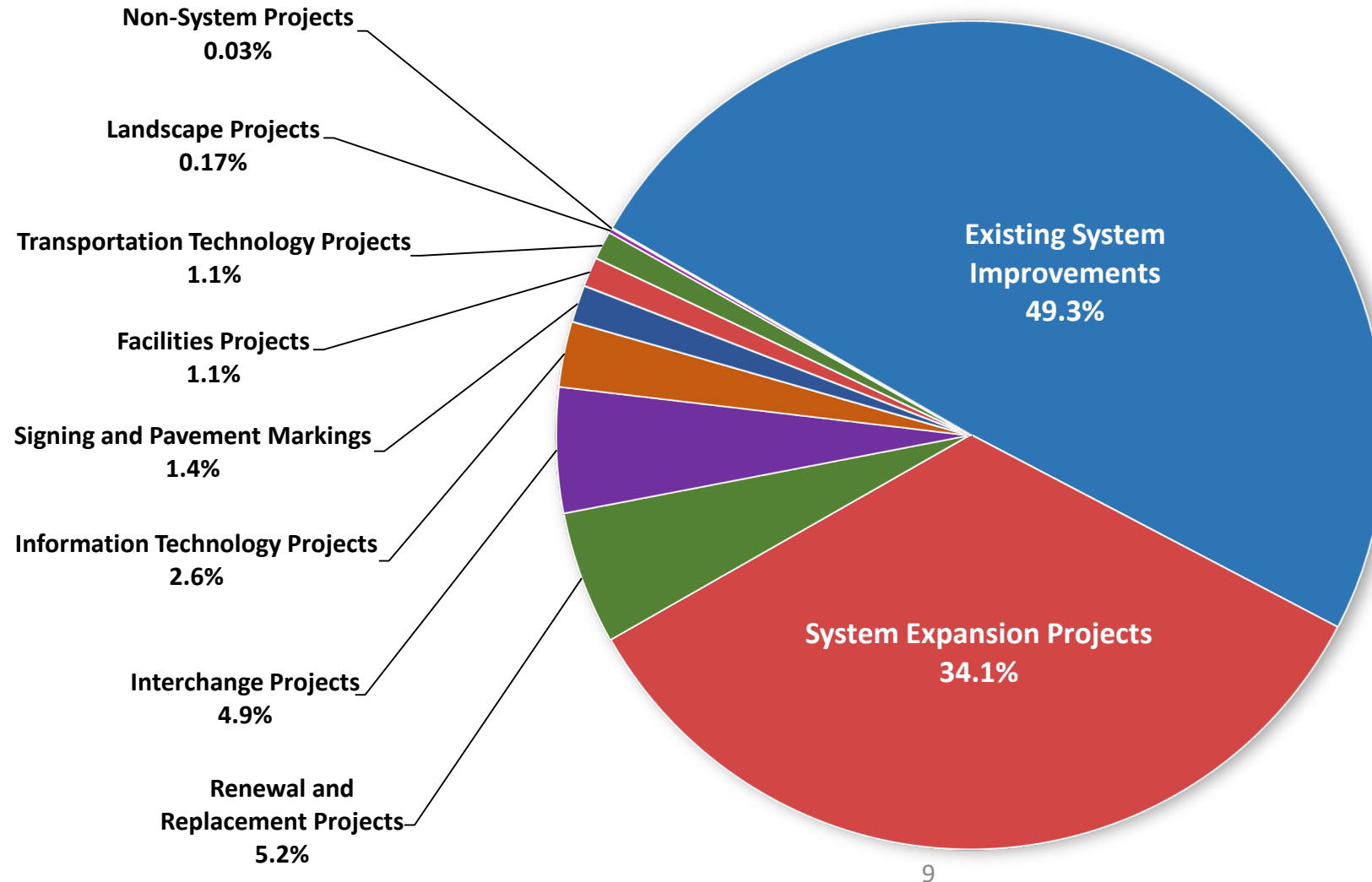
Fiscal Year 2021 Spend



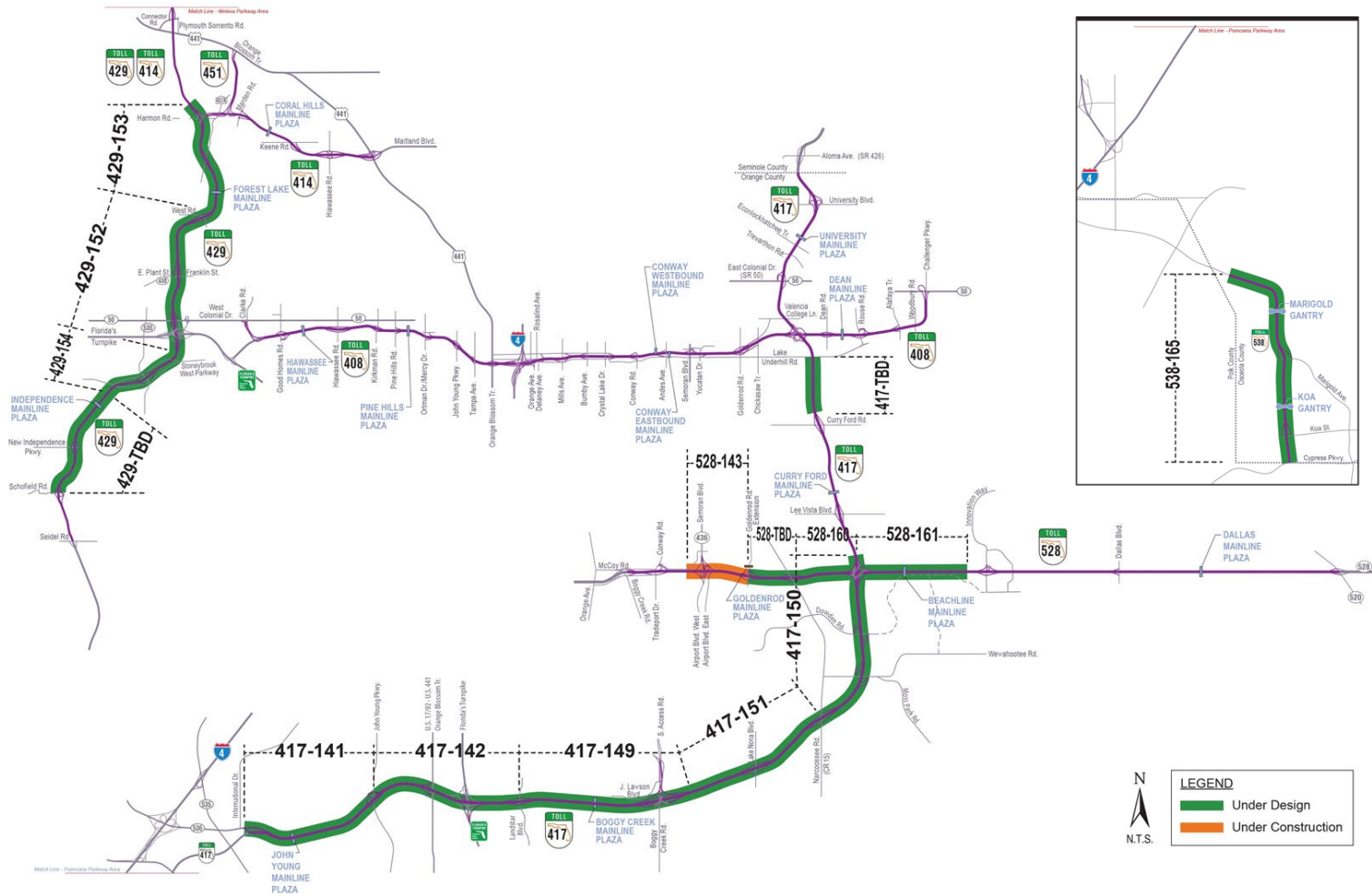
FY 2021-2025 Work Plan

Project Cost Summary (\$000's) Category	Fiscal Year					Totals
	2020/21	2021/22	2022/23	2023/24	2024/25	
Existing System Improvements	136,210	510,001	499,440	165,309	31,234	1,342,194
System Expansion Projects	23,134	81,155	246,823	337,947	238,739	927,798
Interchange Projects	15,340	3,086	31,432	39,439	43,772	133,069
Facilities Projects	6,397	7,323	6,127	6,508	4,787	31,142
Transportation Technology Projects	15,136	6,214	5,634	698	2,894	30,576
Information Technology Projects	29,094	24,294	11,535	2,260	2,260	69,443
Signing and Pavement Markings	3,495	19,703	5,585	8,134	2,299	39,216
Renewal and Replacement Projects	33,064	71,473	9,151	19,937	7,528	141,153
Landscape Projects	769	787	1,413	799	794	4,562
Non-System Projects	19	580	0	0	144	743
TOTALS	262,658	724,616	817,140	581,031	334,451	2,719,896

Work Plan Funding Distribution



Location of Major Widening Projects



Capacity Improvements:

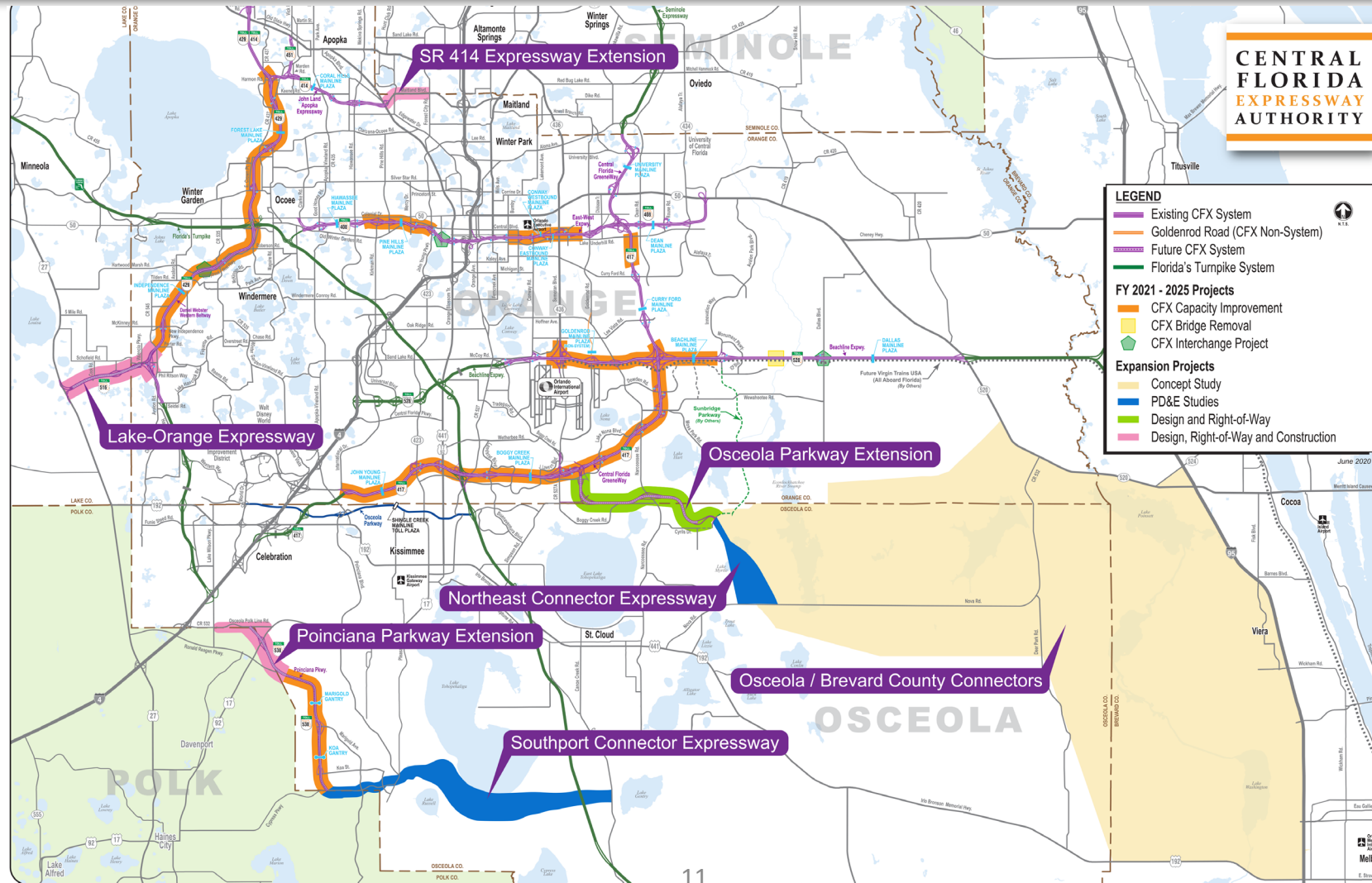
- \$1.27 Billion Total

54 Miles of Widening

- SR 417 = 22 miles
- SR 429 = 18 miles
- SR 528 = 8 miles
- SR 538 = 6 miles



Location of Major Projects



**CENTRAL
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LEGEND

- Existing CFX System
- Goldenrod Road (CFX Non-System)
- Future CFX System
- Florida's Turnpike System

FY 2021 - 2025 Projects

- CFX Capacity Improvement
- CFX Bridge Removal
- CFX Interchange Project

Expansion Projects

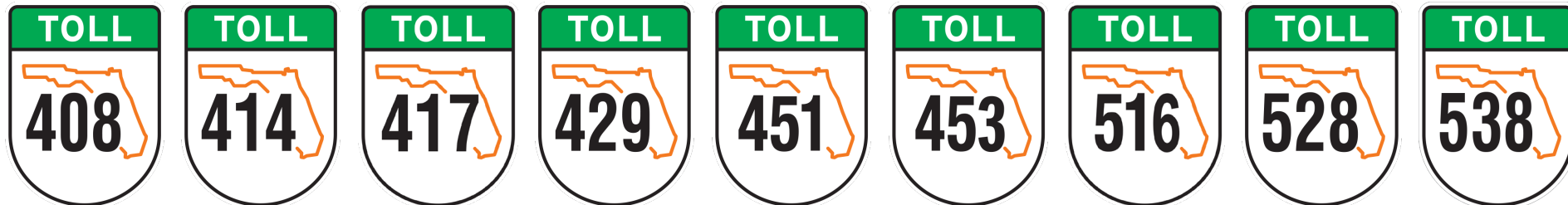
- Concept Study
- PD&E Studies
- Design and Right-of-Way
- Design, Right-of-Way and Construction

June 2020

**CENTRAL
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EXPRESSWAY
AUTHORITY**

Other Notable Projects

- Milling & Resurfacing – \$77.3 M
- Toll Collection System Upgrade – \$31.5 M
- Systemwide Concrete Coatings - \$13.9 M
- Sustainability Program – \$8.5 M



Capital Planning Model Results

Requires additional debt

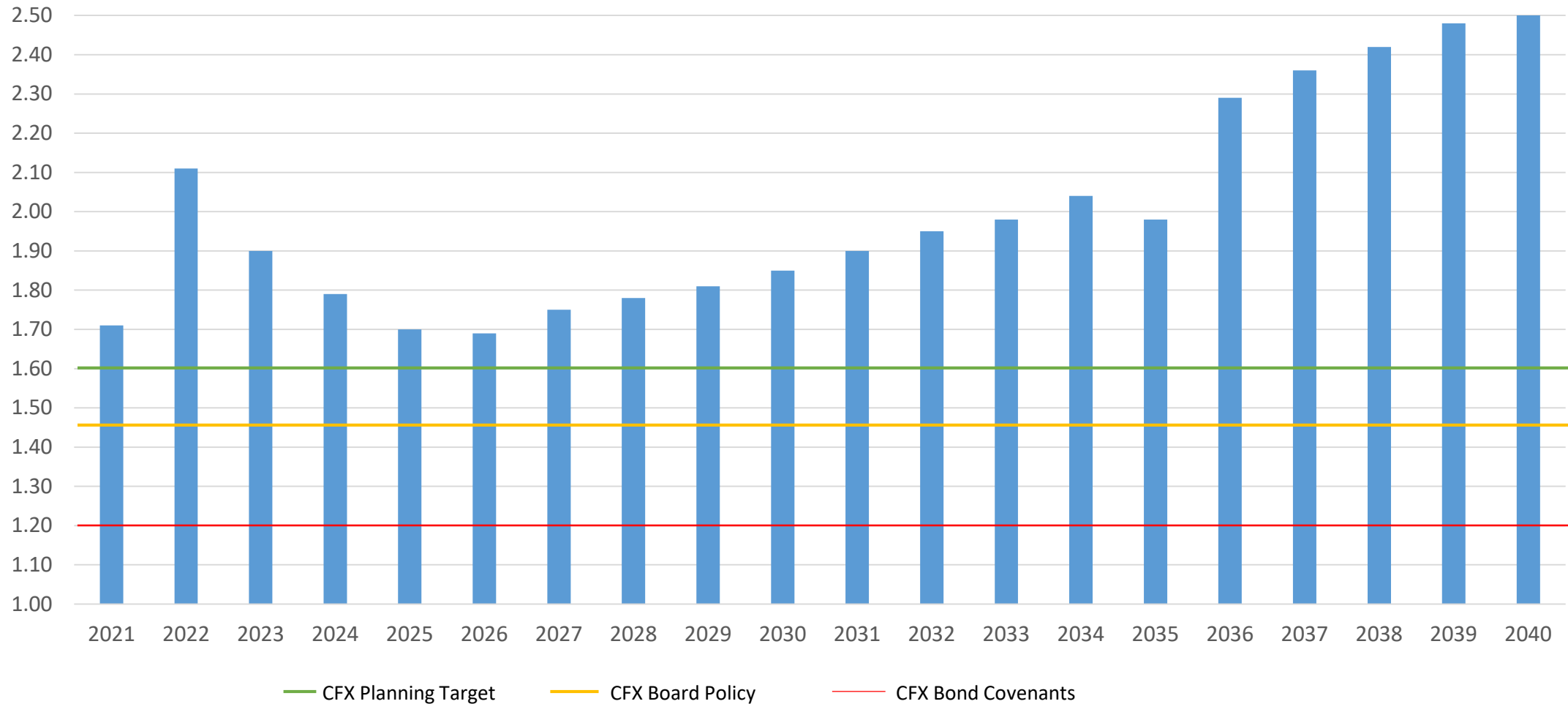
- Approximately \$1.2 billion (FY22, FY23, FY24, FY25)
- Approximately 44% of project expenditures over the 5 year period

Modeling updated

- New bonds are issued
- New major assumptions

Debt coverage ratio meets 1.60 planning target

Projected Senior Lien Coverage Ratio



Moving Forward



CFO Approval of All Construction Project Procurements



Monthly Board Financial Status Presentation



Periodic Update of Traffic and Revenue Projections

Recommended Motion

Approval of Budget for Fiscal Year 2021 Operations, Maintenance and Administration and Fiscal Years 2021-2025 Five-Year Work Plan.

Central Florida Expressway Authority
Calculation of the Composite Debt Service Ratio, as Defined
by the Bond Resolutions and Related Documents - Including Subordinate Coverage

	Budget 2020	Projected 2020	Budget 2021	\$ Inc (Decr) Over Budget	% Inc (Decr) Over Proj	% Ince (Decr) Over Budget
Revenues:						
Tolls	\$441,400,000	356,500,000	377,775,692	(\$63,624,308)	6%	-14%
Tolls - Pay By Plate	38,000,000	59,100,000	50,124,308	12,124,308	-15%	32%
Fees Collected via Pay by Plate and UTC's	10,815,000	11,160,200	7,858,000	(2,957,000)	-30%	-27%
Transponder sales	748,202	870,015	921,530	173,328	6%	23%
Other Operating	962,088	1,871,934	1,848,762	886,674	-1%	92%
Interest	5,971,846	7,510,117	6,067,454	95,608	-19%	2%
Miscellaneous	731,471	731,609	744,221	12,750	2%	2%
Total revenues	498,628,607	437,743,875	445,339,967	(53,288,640)	2%	-11%
Expenses:						
Operations	68,790,186	68,908,278	66,046,188	(2,743,998)	-4%	-4%
Maintenance	20,591,837	18,219,170	19,911,335	(680,502)	9%	-3%
Administrative	8,982,398	8,554,361	8,848,562	(133,836)	3%	-1%
Other Operating	2,741,800	2,802,306	2,741,800	-	-2%	0%
Total expenses	101,106,221	98,484,115	97,547,885	(3,558,336)	-1%	-4%
Add deposits into OMA reserve	756,244	756,244	-	(756,244)	-100%	-100%
Less advances for operations and maintenance expenses received from the FDOT	(7,519,332)	(7,600,837)	(7,233,937)	285,395	-5%	-4%
Total Expenses and Deposits	94,343,133	91,639,522	90,313,948	(4,029,185)	-1%	-4%
Net revenues, as defined, plus payments received from the FDOT	404,285,474	346,104,353	355,026,019	(49,259,455)	3%	-12%
Senior debt service payments*	196,473,591	196,473,591	210,806,372	14,332,781	7%	7%
SunTrust Bank Loan Payment	7,415,022	7,415,022	7,895,779	480,757	6%	6%
Total debt payments plus FDOT repayments	203,888,613	203,888,613	218,702,151	14,813,538	7%	7%
Subordinate debt service ratio of net revenues to total debt paymen	1.98	1.70	1.62	-0.36	-4%	-18%
Senior debt service ratio of net revenues to debt service	2.06	1.76	1.68	-0.37	-4%	-18%

* Per Bond Resolution Calculation.

Central Florida Expressway Authority
Budgeted Flow of Funds - Including Subordinate Payments
On a Cash Flow Basis

	Budget 2020	Projected 2020	Budget 2021	\$ Inc (Decr) Over Budget	% Inc (Decr) Over Proj	% Ince (Decr) Over Budget
Revenues:						
Tolls	\$441,400,000	\$356,500,000	\$377,775,692	(\$63,624,308)	6%	-14%
Tolls - Pay By Plate	38,000,000	59,100,000	50,124,308	12,124,308	-15%	32%
Fees Collected via Pay by Plate and UTC's	10,815,000	11,160,200	7,858,000	(2,957,000)	-30%	-27%
Transponder sales	748,202	870,015	921,530	173,328	6%	23%
Other Operating	962,088	1,871,934	1,848,762	886,674	-1%	92%
Interest	5,971,846	7,510,117	6,067,454	95,608	-19%	2%
Miscellaneous	731,471	731,609	744,221	12,750	2%	2%
Total revenues	498,628,607	437,743,875	445,339,967	(53,288,640)	2%	-11%
Expenses:						
Operations	68,790,186	68,908,278	66,046,188	(2,743,998)	-4%	-4%
Maintenance	20,591,837	18,219,170	19,911,335	(680,502)	9%	-3%
Administrative	8,982,398	8,554,361	8,848,562	(133,836)	3%	-1%
Other Operating	2,741,800	2,802,306	2,741,800	-	-2%	0%
Total expenses	101,106,221	98,484,115	97,547,885	(3,558,336)	-1%	-4%
Debt service payments	187,208,591	187,208,591	205,423,926	18,215,335	10%	10%
SunTrust Bank Loan Payment	7,415,022	7,415,022	7,445,625	30,603	0%	0%
Renewal and Replacement Reserve	54,000,000	15,000,000	25,000,000	(29,000,000)	67%	-54%
OM&A Capital Expenditures & Projects	252,000	174,553	166,000	(86,000)	-5%	-34%
Net Available for System Projects	\$148,646,773	\$129,461,594	\$109,756,531	(\$38,890,242)	-15%	-26%

Central Florida Expressway Authority
All Activities - Total By Line Item

Description	2020 Annual Budget	Projected Year-end Actual	2021 Annual Budget	\$ Inc (Decr) over 2020 Budget	% Inc (Decr) over Proj. 2020 Actual	% Inc (Decr) over 2020 Budget
SALARIES & BENEFITS						
Salaries & Wages	\$ 6,729,792	\$ 6,384,320	\$ 6,729,792	\$ -	5%	0%
Social Security and Medicare	480,151	445,550	480,151	-	8%	0%
Retirement Contributions -FRS	825,711	784,817	825,711	-	5%	0%
Life and Health Insurance	1,608,294	1,377,800	1,608,294	-	17%	0%
State Assessment	15,401	13,620	15,401	-	13%	0%
Workers' Compensation	60,007	54,370	60,007	-	10%	0%
Total Salaries & Benefits	9,719,357	9,060,477	9,719,357	-	7%	0%
OTHER						
Cost Of Transponders Sold - Sticker	1,272,191	1,327,474	1,272,191	-	-4%	0%
Cost Of Transponders Sold - Hardcase	603,369	682,590	603,369	-	-12%	0%
Cost Of Transponders Sold - Bumper	4,903	7,526	4,903	-	-35%	0%
Cost Of Transponders Sold - Dual Protocol	378,762	490,000	378,762	-	-23%	0%
Cost Of Transponders Sold - Hang Tag	1,120	9,125	1,120	-	-88%	0%
Professional Services	1,806,850	1,638,750	1,806,850	-	10%	0%
Legal Fees	200,000	125,000	100,000	(100,000)	-20%	-50%
Consultant Fees	338,250	286,336	278,686	(59,564)	-3%	-18%
Consultant Fees - Surveys	20,000	20,000	20,000	-	0%	0%
Maintenance Program Support	300,000	175,000	175,000	(125,000)	0%	-42%
Maintenance Program Support - ITS	775,000	575,000	575,000	(200,000)	0%	-26%
FON Program Support	200,000	200,000	200,000	-	0%	0%
Pavement Management System	35,000	35,000	31,000	(4,000)	-11%	-11%
Auditing Fees	79,500	79,500	79,500	-	0%	0%
Contract Personnel	15,488,008	15,769,544	13,968,008	(1,520,000)	-11%	-10%
Toll Plazas Salaries/Wages	10,571,324	10,242,421	10,860,899	289,575	6%	3%
Toll Plazas Other Direct Expenses	443,311	443,311	454,406	11,095	3%	3%
Toll Collection Management Fees	939,148	939,148	970,450	31,302	3%	3%
Toll Plazas Administration Salaries	1,790,968	1,790,968	1,840,129	49,161	3%	3%
Toll Plazas Office Expenses	314,254	314,254	322,122	7,868	3%	3%
Toll Plazas Insurance and Bond	50,952	50,952	52,229	1,277	3%	3%
Florida Highway Patrol Services	1,036,459	950,000	973,513	(62,946)	2%	-6%
Motorist Service Patrol Agreement	1,760,812	1,375,824	1,811,500	50,688	32%	3%
Rapid Incident Scene Clearance	50,000	25,000	25,000	(25,000)	0%	-50%
Toll Plazas Janitorial	325,914	330,552	338,239	12,325	2%	4%
Travel	79,800	55,268	78,300	(1,500)	42%	-2%
Reimbursed Local Travel	15,995	11,595	14,095	(1,900)	22%	-12%
Gasoline	20,300	21,505	21,495	1,195	0%	6%
Telephone Service	382,150	364,600	397,450	15,300	9%	4%
Internet Service	72,000	75,000	72,000	-	-4%	0%
Postage and Delivery	2,212,200	3,380,250	2,211,450	(750)	-35%	0%
Printing	544,500	752,710	544,000	(500)	-28%	0%
Service Center Printing and Mailing	72,600	69,500	72,600	-	4%	0%
CAFR	17,500	17,500	17,500	-	0%	0%
Utilities	2,577,535	2,568,244	2,618,994	41,459	2%	2%
Lease - Buildings	56,500	56,500	56,500	-	0%	0%
Leases - Equipment	60,250	66,554	63,750	3,500	-4%	6%
Records Management	40,284	37,283	40,284	-	8%	0%
Insurance	923,779	925,939	948,538	24,759	2%	3%
Repairs & Maint. - Equipment	531,300	575,300	573,750	42,450	0%	8%
Maintenance FON Locates	12,000	12,000	12,000	-	0%	0%
Maintenance - ITS Infrastructure	2,137,000	1,900,000	2,495,000	358,000	31%	17%
Support & Maint. - Software	112,000	112,000	112,000	-	0%	0%

Description	2020 Annual Budget	Projected Year-end Actual	2021 Annual Budget	\$ Inc (Decr) over 2020 Budget	% Inc (Decr) over Proj. 2020 Actual	% Inc (Decr) over 2020 Budget
Repairs & Maint. - Software and Hardware	666,000	843,300	643,900	(22,100)	-24%	-3%
Maintenance - Toll Collection Software	890,000	1,200,000	890,000	-	-26%	0%
Maintenance - Toll System Replacement	930,000	750,000	930,000	-	24%	0%
Repairs & Maint. - Fiber Optic Network	225,000	175,000	175,000	(50,000)	0%	-22%
Facilities Maintenance	1,891,417	1,933,106	1,980,676	89,259	2%	5%
Repairs and Maint. - Toll Equipment	2,589,704	2,663,392	1,921,855	(667,849)	-28%	-26%
Repairs and Maint. - Toll Equipment Parts	414,296	396,750	506,500	92,204	28%	22%
Repairs & Maint. - VES Equipment	404,860	428,860	333,061	(71,799)	-22%	-18%
Repairs & Maint. - Vehicles	11,150	14,700	14,400	3,250	-2%	29%
System Modifications Maintenance -Website	5,400	17,000	5,400	-	-68%	0%
Roadway and Bridges Maintenance	6,703,464	6,799,987	7,123,772	420,308	5%	6%
Landscape Maintenance Service	4,021,452	3,068,064	2,953,720	(1,067,732)	-4%	-27%
Bridge Inspection	347,892	390,500	500,000	152,108	28%	44%
Sign Maintenance/Inspection	306,280	334,000	312,000	5,720	-7%	2%
Traffic Signals and Lights	164,000	230,000	230,000	66,000	0%	40%
Aquatics	275,075	102,401	175,000	(100,075)	71%	-36%
Board Meeting Broadcasting	8,700	8,700	8,700	-	0%	0%
Promotion	2,300,000	2,304,000	2,300,000	-	0%	0%
Newsletter	3,600	3,600	3,600	-	0%	0%
Photography	2,000	2,000	2,000	-	0%	0%
Displays	3,500	4,500	3,500	-	-22%	0%
Graphic Production Services	70,000	80,000	70,000	-	-13%	0%
Promotional Items	27,500	29,000	27,500	-	-5%	0%
Advertising and Legal Notices	7,500	5,750	6,750	(750)	17%	-10%
Bank Fees	1,461,150	1,290,250	1,300,650	(160,500)	1%	-11%
Credit Card Fees	8,550,000	8,675,000	8,550,000	-	-1%	0%
Security	6,561	6,060	6,061	(500)	0%	-8%
Special Events	35,000	40,000	35,000	-	-13%	0%
Employee Support Services	8,000	7,500	8,000	-	7%	0%
Miscellaneous Expense	22,150	14,675	17,150	(5,000)	17%	-23%
Office Supplies	94,150	81,058	93,950	(200)	16%	0%
Office Expense - Other	138,950	130,670	128,000	(10,950)	-2%	-8%
Operating Supplies	46,950	23,725	46,950	-	98%	0%
Transponder Supplies	10,000	20,000	10,000	-	-50%	0%
Software Expense	3,100	1,500	2,900	(200)	93%	-6%
Dues and Subscriptions	517,706	516,286	523,281	5,575	1%	1%
Books and Publications	600	550	550	(50)	0%	-8%
Seminars and Conferences	43,030	26,250	44,680	1,650	70%	4%
Staff Training and Education	68,550	77,450	61,170	(7,380)	-21%	-11%
Contingency (Projects)	181,089	8,000	116,000	(65,089)	1350%	-36%
Furniture	35,500	32,725	32,470	(3,030)	-1%	-9%
Total Other:	82,145,064	81,621,332	79,586,728	(2,558,336)	-2%	-3%
Interoperability Transaction Fee	6,500,000	5,000,000	5,500,000	(1,000,000)	10%	-15%
Other Operating Expenses	2,741,800	2,802,306	2,741,800	-	-2%	0%
TOTAL	101,106,221	98,484,115	97,547,885	(3,558,336)	-1%	-4%
CAPITAL EXPENDITURES						
General Equipment	75,000	56,000	41,000	(34,000)	-27%	-45%
Vehicle Purchases	32,000	28,553	-	(32,000)	-100%	-100%
Software	145,000	90,000	125,000	(20,000)	39%	-14%
Total Capital Expenditures:	252,000	174,553	166,000	(86,000)	-5%	-34%

**Central Florida Expressway Authority
Operations Activity - Summary**

	2020 Budget	Projected Year-end Actual	2021 Annual Budget	\$ Inc (Decr) over 2020 Budget	% Inc (Decr) over Proj. 2020 Actual	% Inc (Decr) over 2020 Budget
Toll Operations (710)	\$ 588,215	\$ 566,050	\$ 588,215	\$ -	4%	0%
IT (720)	5,859,594	5,709,600	5,859,594	-	3%	0%
Special Projects (725)	152,358	143,425	145,483	(6,875)	1%	-5%
Service Center (740 & 750)	28,640,219	30,830,317	27,140,219	(1,500,000)	-12%	-5%
E-PASS Business Services (743)	158,185	146,560	158,185	-	8%	0%
Public Outreach/Education (745)	3,017,100	3,067,600	3,017,100	-	-2%	0%
Toll Facilities	23,874,515	23,444,726	23,637,392	(237,123)	1%	-1%
Subtotal	62,290,186	63,908,278	60,546,188	(1,743,998)	-5%	-3%
Interoperability Transaction Fee	6,500,000	5,000,000	5,500,000	(1,000,000)	10%	-15%
Total Operating Costs	68,790,186	68,908,278	66,046,188	(2,743,998)	-4%	-4%

Capital Expenditures and Projects

Capital Expenditures

IT (720)	50,000	50,000	50,000	-	0%	0%
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**Central Florida Expressway Authority
Operations Activity - Total By Line Item**

Description	2020 Annual Budget	Projected Year-end Actual	2021 Annual Budget	\$ Inc (Decr) over 2020 Budget	% Inc (Decr) over Proj. 2020 Actual	% Inc (Decr) over 2020 Budget
SALARIES & BENEFITS						
Salaries & Wages	\$ 1,842,980	\$ 1,766,000	\$ 1,842,980	\$ -	4%	0%
Social Security and Medicare	139,517	131,100	139,517	-	6%	0%
Retirement Contributions -FRS	200,185	189,000	200,185	-	6%	0%
Life and Health Insurance	454,121	388,500	454,121	-	17%	0%
State Assessment	4,310	3,690	4,310	-	17%	0%
Workers' Compensation	5,819	4,640	5,819	-	25%	0%
Total Salaries & Benefits	2,646,932	2,482,930	2,646,932	-	7%	0%
OTHER						
Cost Of Transponders Sold - Sticker	1,272,191	1,327,474	1,272,191	-	-4%	0%
Cost Of Transponders Sold - Hardcase	603,369	682,590	603,369	-	-12%	0%
Cost Of Transponders Sold - Bumper	4,903	7,526	4,903	-	-35%	0%
Cost Of Transponders Sold - Dual Protocol	378,762	490,000	378,762	-	-23%	0%
Cost Of Transponders Sold - E-PASS Hang Tag	1,120	9,125	1,120	-	-88%	0%
Professional Services	1,050,000	904,000	1,050,000	-	16%	0%
Consultant Fees- Surveys	20,000	20,000	20,000	-	0%	0%
Contract Personnel	14,720,008	15,000,000	13,220,008	(1,500,000)	-12%	-10%
Toll Plazas Salaries/Wages	10,571,324	10,242,421	10,860,899	289,575	6%	3%
Toll Plazas Other Direct Expenses	443,311	443,311	454,406	11,095	3%	3%
Toll Collection Management Fees	939,148	939,148	970,450	31,302	3%	3%
Toll Plazas Administration Salaries	1,790,968	1,790,968	1,840,129	49,161	3%	3%
Toll Plazas Office Expenses	314,254	314,254	322,122	7,868	3%	3%
Toll Plazas Insurance and Bond	50,952	50,952	52,229	1,277	3%	3%
Toll Plazas Janitorial	325,914	330,552	338,239	12,325	2%	4%
Travel	14,700	8,100	13,200	(1,500)	63%	-10%
Reimbursed Local Travel	2,950	1,700	2,150	(800)	26%	-27%
Gasoline	2,150	1,850	1,850	(300)	0%	-14%
Telephone Service	382,150	364,600	397,450	15,300	9%	4%
Internet Service	72,000	75,000	72,000	-	-4%	0%
Postage and Delivery	2,206,000	3,375,000	2,206,000	-	-35%	0%
Printing	538,500	737,710	538,500	-	-27%	0%
Service Center Printing and Mailing	72,600	69,500	72,600	-	4%	0%
Utilities	2,107,535	2,075,000	2,125,750	18,215	2%	1%
Lease - Buildings	56,500	56,500	56,500	-	0%	0%
Leases - Equipment	15,250	18,054	15,250	-	-16%	0%
Records Management	2,180	2,283	2,180	-	-5%	0%
Insurance	775,298	772,002	794,601	19,303	3%	2%
Repairs & Maint. - Equipment	521,300	545,300	543,750	22,450	0%	4%
Repairs & Maint. - Software and Hardware	626,000	831,300	631,900	5,900	-24%	1%
Maintenance - Toll Collection Software	890,000	1,200,000	890,000	-	-26%	0%
Maintenance - Toll System Replacement	930,000	750,000	930,000	-	24%	0%
Facilities Maintenance	1,645,917	1,684,380	1,732,076	86,159	3%	5%
Repairs and Maint. - Toll Equipment	2,589,704	2,663,392	1,921,855	(667,849)	-28%	-26%
Repairs and Maint. - Toll Equipment Parts	414,296	396,750	506,500	92,204	28%	22%
Repairs & Maint. - VES Equipment	404,860	428,860	333,061	(71,799)	-22%	-18%
Repairs & Maint. - Vehicles	2,000	2,300	2,000	-	-13%	0%
Promotion	2,300,000	2,304,000	2,300,000	-	0%	0%
Newsletter	3,600	3,600	3,600	-	0%	0%
Displays	3,500	4,500	3,500	-	-22%	0%
Graphic Production Services	60,000	60,000	60,000	-	0%	0%
Promotional Items	25,000	26,500	25,000	-	-6%	0%
Bank Fees	1,414,800	1,238,700	1,254,300	(160,500)	1%	-11%
Credit Card Fees	8,550,000	8,675,000	8,550,000	-	-1%	0%
Security	5,061	5,060	5,061	-	0%	0%
Miscellaneous Expense	3,650	2,475	3,650	-	47%	0%
Office Supplies	45,900	39,656	45,800	(100)	15%	0%
Office Expense - Other	98,750	104,086	98,100	(650)	-6%	-1%
Operating Supplies	46,950	23,725	46,950	-	98%	0%
Transponder Supplies	10,000	20,000	10,000	-	-50%	0%
Software Expense	600	500	400	(200)	-20%	-33%
Dues and Subscriptions	256,270	260,089	256,145	(125)	-2%	0%
Books and Publications	600	550	550	(50)	0%	-8%

Description	2020 Annual Budget	Projected Year-end Actual	2021 Annual Budget	\$ Inc (Decr) over 2020 Budget	% Inc (Decr) over Proj. 2020 Actual	% Inc (Decr) over 2020 Budget
Seminars and Conferences	5,300	3,650	4,850	(450)	33%	-8%
Staff Training and Education	25,000	20,000	23,000	(2,000)	15%	-8%
Contingency Project(s)	15,759	8,000	16,000	241	100%	2%
Furniture	14,400	13,355	14,350	(50)	7%	0%
Total Other:	59,643,254	61,425,348	57,899,256	(1,743,998)	-6%	-3%
SUBTOTAL	62,290,186	63,908,278	60,546,188	(1,743,998)	-5%	-3%
Interoperability Transaction Fee	6,500,000	5,000,000	5,500,000	(1,000,000)	10%	-15%
TOTAL	68,790,186	68,908,278	66,046,188	(2,743,998)	-4%	-4%
CAPITAL EXPENDITURES						
General Equipment	30,000	30,000	30,000	-	0%	0%
Software	20,000	20,000	20,000	-	0%	0%
Total Capital Expenditures:	50,000	50,000	50,000	-	0%	0%

**Central Florida Expressway Authority
Maintenance Activity - Summary**

	2020 Annual Budget	Projected Year-end Actual	2021 Annual Budget	\$ Inc (Decr) over 2020 Budget	% Inc (Decr) over Proj. 2020 Actual	% Inc (Decr) over 2020 Budget
Maintenance Administration (810)	\$ 3,491,027	\$ 2,853,818	\$ 3,393,115	\$ (97,912)	19%	-3%
Traffic Operations (820)	5,179,174	4,495,400	5,178,728	(446)	15%	0%
Routine Maintenance (408, 414, 417, 429, 451, 453, 528)	11,921,636	10,869,952	11,339,492	(582,144)	4%	-5%
Total Maintenance Costs	20,591,837	18,219,170	19,911,335	(680,502)	9%	-3%

Capital Expenditures and Projects

Capital Expenditures						
Maintenance Administration (810)	62,000	34,553	6,000	(56,000)	-83%	-90%
Traffic Operations (820)	80,000	60,000	60,000	(20,000)	0%	-25%
Total Capital Expenditures	142,000	94,553	66,000	(76,000)	-30%	-54%

Central Florida Expressway Authority
Maintenance Activity - Total By Line Item

Description	2020 Annual Budget	Projected Year-end Actual	2021 Annual Budget	\$ Inc (Decr) over 2020 Budget	% Inc (Decr) over Proj. 2020 Actual	% Inc (Decr) over 2020 Budget
SALARIES & BENEFITS						
Salaries & Wages	\$ 1,103,876	\$ 1,020,000	\$ 1,103,876	\$ -	8%	0%
Social Security and Medicare	82,295	76,000	82,295	-	8%	0%
Retirement Contributions -FRS	93,446	86,500	93,446	-	8%	0%
Life and Health Insurance	281,076	213,000	281,076	-	32%	0%
State Assessment	2,669	2,300	2,669	-	16%	0%
Workers' Compensation	39,368	37,600	39,368	-	5%	0%
Total Salaries & Benefits	1,602,730	1,435,400	1,602,730	-	12%	0%
OTHER						
Consultant Fees	125,000	115,850	115,000	(10,000)	-1%	-8%
Maintenance Program Support	300,000	175,000	175,000	(125,000)	0%	-42%
Maintenance Program Support - ITS	775,000	575,000	575,000	(200,000)	0%	-26%
FON Program Support	200,000	200,000	200,000	-	0%	0%
Pavement Management System	35,000	35,000	31,000	(4,000)	-11%	-11%
Contract Personnel	200,000	179,044	180,000	(20,000)	1%	-10%
Florida Highway Patrol Services	1,036,459	950,000	973,513	(62,946)	2%	-6%
Motorist Service Patrol Agreement	1,760,812	1,375,824	1,811,500	50,688	32%	3%
Rapid Incident Scene Clearance	50,000	25,000	25,000	(25,000)	0%	-50%
Travel	9,500	4,150	9,500	-	129%	0%
Reimbursed Local Travel	1,700	600	600	(1,100)	0%	-65%
Gasoline	16,000	18,000	18,000	2,000	0%	13%
Postage and Delivery	1,000	250	250	(750)	0%	-75%
Utilities	145,000	145,000	145,000	-	0%	0%
Maintenance FON Locates	12,000	12,000	12,000	-	0%	0%
Maintenance - ITS Infrastructure	2,137,000	1,900,000	2,495,000	358,000	31%	17%
Repairs & Maint. - Fiber Optic Network	225,000	175,000	175,000	(50,000)	0%	-22%
Repairs & Maint. - Vehicles	7,000	8,000	8,000	1,000	0%	14%
Roadway and Bridges Maintenance	6,703,464	6,799,987	7,123,772	420,308	5%	6%
Landscape Maintenance Service	3,959,595	3,013,064	2,898,720	(1,060,875)	-4%	-27%
Bridge Inspection	347,892	390,500	500,000	152,108	28%	44%
Sign Maintenance/Inspection	306,280	334,000	312,000	5,720	-7%	2%
Traffic Signals and Lights	164,000	230,000	230,000	66,000	0%	40%
Aquatics	275,075	102,401	175,000	(100,075)	71%	-36%
Advertising and Legal Notices	1,000	250	250	(750)	0%	-75%
Office Supplies	4,100	4,000	4,000	(100)	0%	-2%
Office Expense - Other	4,500	3,250	3,250	(1,250)	0%	-28%
Dues and Subscriptions	2,900	1,650	1,650	(1,250)	0%	-43%
Seminars and Conferences	5,000	3,050	5,000	-	64%	0%
Staff Training and Education	8,500	3,100	3,100	(5,400)	0%	-64%
Contingency Project(s)	165,330	-	100,000	(65,330)	-	-40%
Furniture	5,000	4,800	2,500	(2,500)	-48%	-50%
Total Other:	18,989,107	16,783,770	18,308,605	(680,502)	9%	-4%
TOTAL	20,591,837	18,219,170	19,911,335	(680,502)	9%	-3%
CAPITAL EXPENDITURES						
General Equipment	30,000	6,000	6,000	(24,000)	0%	-80%
Vehicle Purchases	32,000	28,553	-	(32,000)	-100%	-100%
Software	80,000	60,000	60,000	(20,000)	0%	-25%
Total Capital Expenditures:	142,000	94,553	66,000	(76,000)	-30%	-54%

**Central Florida Expressway Authority
Administration Activity - Summary**

	2020 Budget	Projected Year-end Actual	2021 Annual Budget	\$ Inc (Decr) over 2020 Budget	% Inc (Decr) over Proj. 2020 Actual	% Inc (Decr) over 2020 Budget
General (610)	\$ 930,375	\$ 910,871	\$ 911,245	\$ (19,130)	0%	-2%
525 Magnolia (615)	24,463	49,967	49,967	25,504	0%	104%
Administrative Services (620)	2,194,757	2,233,994	2,194,757	-	-2%	0%
Engineering (623)	77,225	65,375	77,225	-	18%	0%
Legal (625)	805,439	707,250	717,439	(88,000)	1%	-11%
Accounting (630)	1,661,288	1,617,400	1,661,288	-	3%	0%
Procurement (640)	622,224	583,630	621,324	(900)	6%	0%
Risk Management (645)	164,461	18,200	164,461	-	804%	0%
Records Management (655)	387,493	366,464	387,493	-	6%	0%
Human Resources (660)	344,693	320,375	344,693	-	8%	0%
Supplier Diversity (665)	371,189	315,005	319,939	(51,250)	2%	-14%
Communications (670)	770,237	741,500	770,237	-	4%	0%
Construction Administration (685)	64,554	60,330	64,494	(60)	7%	0%
Internal Audit (690)	564,000	564,000	564,000	-	0%	0%
Total Administration Costs	8,982,398	8,554,361	8,848,562	(133,836)	3%	-1%

Capital Expenditures and Projects

Capital Expenditures						
General (610)	15,000	20,000	5,000	(10,000)	-75%	-67%
Communications (670)	45,000	10,000	45,000	-	350%	0%
Total Capital Expenditures	60,000	30,000	50,000	(10,000)	67%	-17%

**Central Florida Expressway Authority
Administration Activity - Total By Line Item**

Description	2020 Annual Budget	Projected Year-end Actual	2021 Annual Budget	\$ Inc (Decr) over 2020 Budget	% Inc (Decr) over Proj. 2020 Actual	% Inc (Decr) over 2020 Budget
SALARIES & BENEFITS						
Salaries & Wages	\$ 3,782,936	\$ 3,598,320	\$ 3,782,936	\$ -	5%	0%
Social Security and Medicare	258,339	238,450	258,339	-	8%	0%
Retirement Contributions -FRS	532,080	509,317	532,080	-	4%	0%
Life and Health Insurance	873,097	776,300	873,097	-	12%	0%
State Assessment	8,422	7,630	8,422	-	10%	0%
Workers' Compensation	14,820	12,130	14,820	-	22%	0%
Total Salaries & Benefits	5,469,695	5,142,147	5,469,695	-	6%	0%
OTHER						
Professional Services	756,850	734,750	756,850	-	3%	0%
Legal Fees	200,000	125,000	100,000	(100,000)	-20%	-50%
Consultant Fees	213,250	170,486	163,686	(49,564)	-4%	-23%
Auditing Fees	79,500	79,500	79,500	-	0%	0%
Contract Personnel	568,000	590,500	568,000	-	-4%	0%
Travel	55,600	43,018	55,600	-	29%	0%
Reimbursed Local Travel	11,345	9,295	11,345	-	22%	0%
Gasoline	2,150	1,655	1,645	(505)	-1%	-23%
Postage and Delivery	5,200	5,000	5,200	-	4%	0%
Printing	6,000	15,000	5,500	(500)	-63%	-8%
CAFR	17,500	17,500	17,500	-	0%	0%
Utilities	325,000	348,244	348,244	23,244	0%	7%
Leases - Equipment	45,000	48,500	48,500	3,500	0%	8%
Records Management	38,104	35,000	38,104	-	9%	0%
Insurance	148,481	153,937	153,937	5,456	0%	4%
Repairs & Maint. - Equipment	10,000	30,000	30,000	20,000	0%	200%
Support & Maint. - Software	112,000	112,000	112,000	-	0%	0%
Repairs & Maint. - Software and Hardware	40,000	12,000	12,000	(28,000)	0%	-70%
Facilities Maintenance	245,500	248,726	248,600	3,100	0%	1%
Repairs & Maint. - Vehicles	2,150	4,400	4,400	2,250	0%	105%
System Modifications Maintenance - Website	5,400	17,000	5,400	-	-68%	0%
Landscape Maintenance Service	61,857	55,000	55,000	(6,857)	0%	-11%
Board Meeting Broadcasting	8,700	8,700	8,700	-	0%	0%
Photography	2,000	2,000	2,000	-	0%	0%
Graphic Production Services	10,000	20,000	10,000	-	-50%	0%
Promotional Items	2,500	2,500	2,500	-	0%	0%
Advertising and Legal Notices	6,500	5,500	6,500	-	18%	0%
Bank Fees	46,350	51,550	46,350	-	-10%	0%
Security	1,500	1,000	1,000	(500)	0%	-33%
Special Events	35,000	40,000	35,000	-	-13%	0%
Employee Support Services	8,000	7,500	8,000	-	7%	0%
Miscellaneous Expense	18,500	12,200	13,500	(5,000)	11%	-27%
Office Supplies	44,150	37,402	44,150	-	18%	0%
Office Expense - Other	35,700	23,334	26,650	(9,050)	14%	-25%
Software Expense	2,500	1,000	2,500	-	150%	0%
Dues and Subscriptions	258,536	254,547	265,486	6,950	4%	3%
Seminars and Conferences	32,730	19,550	34,830	2,100	78%	6%
Staff Training and Education	35,050	54,350	35,070	20	-35%	0%
Furniture	16,100	14,570	15,620	(480)	7%	-3%
Total Other:	3,512,703	3,412,214	3,378,867	(133,836)	-1%	-4%
TOTAL	8,982,398	8,554,361	8,848,562	(133,836)	3%	-1%
CAPITAL EXPENDITURES						
General Equipment	15,000	20,000	5,000	(10,000)	-75%	-67%
Software	45,000	10,000	45,000	-	350%	0%
Total Capital Expenditures:	60,000	30,000	50,000	(10,000)	67%	-17%

**Central Florida Expressway Authority
Other Operating**

	2020 Annual Budget	Projected Year-end Actual	2021 Annual Budget	\$ Inc (Decr) over 2020 Budget	% Inc (Decr) over Proj. 2020 Actual	% Inc (Decr) over 2020 Budget
Traffic & Engineering Consultant	\$ 496,800	\$ 450,000	\$ 496,800	\$ -	10%	0%
General Systems Consultant	400,000	300,000	400,000	-	33%	0%
General Engineering Consultant	1,845,000	2,052,306	1,845,000	-	-10%	0%
Total Other Operating Expenses	<u>2,741,800</u>	<u>2,802,306</u>	<u>2,741,800</u>	-	-2%	0%

**Central Florida Expressway Authority
Goldenrod Road - Summary**

	2020 Annual Budget	Projected Year-end Actual	2021 Annual Budget	\$ Inc (Decr) over 2020 Budget	% Inc (Decr) over Proj. 2020 Actual	% Inc (Decr) over 2020 Budget
Maintenance	\$ 127,702	\$ 124,948	\$ 127,702	-	2%	0%
Operations	331,630	334,471	331,630	-	-1%	0%
TOTAL	459,332	459,419	459,332	-	0%	0%
TOLL REVENUE	(2,200,000)	(2,100,000)	(2,200,000)	-	5%	0%
NET RESULT OF ACTIVITY	(1,740,668)	(1,640,581)	(1,740,668)	-	6%	0%

Central Florida Expressway Authority
Five-Year Work Plan
Category Summary

Category	Project Cost (thousand \$) *							
	Fiscal Year							Total
	20/21		21/22		22/23	23/24	24/25	
	E	U	E	U	U	U	U	
Existing System Improvements	67,069	69,141	48,116	461,885	499,440	165,309	31,234	1,342,194
System Expansion Projects	14,027	9,107	8,764	72,391	246,823	337,947	238,739	927,798
Interchange Projects	12,698	2,642	2,313	773	31,432	39,439	43,772	133,069
Facilities Projects	3,052	3,345	0	7,323	6,127	6,508	4,787	31,142
Transportation Technology Projects	5,800	9,336	0	6,214	5,634	698	2,894	30,576
Information Technology Projects	13,016	16,078	12,916	11,378	11,535	2,260	2,260	69,443
Signing and Pavement Markings	968	2,527	0	19,703	5,585	8,134	2,299	39,216
Renewal and Replacement Projects	11,469	21,595	0	71,473	9,151	19,937	7,528	141,153
Landscape Projects	0	769	0	787	1,413	799	794	4,562
SUB-TOTALS	128,099	134,540	72,109	651,927	817,140	581,031	334,307	
TOTALS		262,639		724,036	817,140	581,031	334,307	2,719,153
Non-System Projects	0	19	0	580	0	0	144	743
GRAND TOTALS		262,658		724,616	817,140	581,031	334,451	2,719,896

* Construction Costs Escalated at 2.6% for FY 2021, 2.7% for FY 2022, 2.8% for 2023, 2.9% for FY 2024, and 3.0% for FY 2025. In general, all other costs escalated at an average of 2.7% per year.
E = Encumbered costs from projects under contracts from previous fiscal years
U = Unencumbered costs

Existing System Improvements Summary (1 of 4)

Page	Project Number	Project Name	Project Description				Project Cost (thousand \$) by Fiscal Year *						Total	Fund Source	Project Phases Funded	
			From	To	Length (miles)	Work Description	20/21		21/22		22/23	23/24				24/25
							E	U	E	U	U	U				U
1	-	SR 408 Eastbound - Operational Improvements	Kirkman Road	I-4	4.4	Operational Improvements	0	0	0	0	162	2,374	4,728	7,264	SP	Study & Partial Design
2	-	SR 408 Westbound - Operational Improvements	I-4	SR 417	5.7	Operational Improvements	0	0	0	0	81	1,782	6,764	8,627	SP	Study & Partial Design
3	417-141	SR 417 Widening from International Drive to John Young Parkway	International Drive	John Young Parkway	4.1	Add Lanes, Mill & Resurface	0	17,465	0	50,280	34,360	0	0	102,105	CF	Bidding & Construction
4	417-142	SR 417 Widening from John Young Parkway to Landstar Boulevard	John Young Parkway	Landstar Boulevard	3.7	Add Lanes, Mill & Resurface	1,010	13,490	0	51,084	51,084	12,771	0	129,439	CF	Design & Construction
5	417-149	SR 417 Widening from Landstar Boulevard to Boggy Creek Road	Landstar Boulevard	Boggy Creek Road	3.7	Add Lanes, Mill & Resurface	1,370	8,167	0	46,020	39,190	0	0	94,747	CF	Design & Construction
6	417-151	SR 417 Widening from Boggy Creek Road to Narcoossee Road	Boggy Creek Road	Narcoossee Road	4.5	Add Lanes, Mill & Resurface	2,893	642	0	37,490	49,980	0	0	91,005	CF	Design & Construction
7	417-150	SR 417 Widening from Narcoossee Road to SR 528	Narcoossee Road	SR 528	4.7	Add Lanes, Mill & Resurface	2,040	2,042	0	52,356	52,356	26,178	0	134,972	CF	Design & Construction
8	-	SR 417 Widening from Curry Ford Road to SR 408	Curry Ford Road	SR 408	1.4	Add Lanes, Mill & Resurface	0	0	0	0	1,148	4,974	14,031	20,153	SP	Design & Construction
9	-	SR 429 / Florida's Turnpike Interchange	-	-	-	Interchange Improvements	0	0	0	0	10,000	0	0	10,000	SP	Agency Partnership
10	-	SR 429 Widening from Schofield Road to Tilden Road	Schofield Road	Tilden Road	4.2	Add Lanes, Mill & Resurface	0	0	0	0	0	0	2,216	2,216	SP	Partial Design
11	429-154	SR 429 Widening from Tilden Road to Florida's Turnpike	Tilden Road	Florida's Turnpike	3.5	Add Lanes, Mill & Resurface	2,740	41	0	46,717	29,729	0	0	79,227	CF	Design & Construction
12	429-152	SR 429 Widening from Florida's Turnpike to West Road	Florida's Turnpike	West Road	6.1	Add Lanes, Mill & Resurface	4,000	745	0	54,820	65,784	44,486	0	169,835	CF	Design & Construction
Encumbered Total							14,053		0							
Unencumbered Total								42,592		338,767	333,874	92,565	27,739			
SUB-TOTALS (Page 1)							56,645			338,767	333,874	92,565	27,739			

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Existing System Improvements Summary (2 of 4)

Page	Project Number	Project Name	Project Description				Project Cost (thousand \$) by Fiscal Year *						Total	Fund Source	Project Phases Funded		
			From	To	Length (miles)	Work Description	20/21		21/22		22/23	23/24				24/25	
							E	U	E	U	U	U				U	
13	429-153	SR 429 Widening from West Road to SR 414	West Road	SR 414	3.4	Add Lanes, Mill & Resurface	2,270	1,418	0	38,228	41,704	3,476	0	87,096	CF	Design & Construction	
14	528-143	SR 528 / SR 436 Interchange & Widening	SR 436	Goldenrod Road	3.4	Ramps, Add Lanes, Mill & Resurface	47,720	0	47,720	0	23,860	0	0	119,300	CF	Construction	
15	-	SR 528 Widening from Goldenrod to Narcoossee Road	Goldenrod Road	Narcoossee Road	1.8	Add Lanes, Mill & Resurface	0	0	0	1,340	4,716	17,484	0	23,540	SP	Design & Construction	
16	528-160	SR 528 Widening from Narcoossee Road to SR 417	Narcoossee Road	SR 417	1.8	Add Lanes, Mill & Resurface	972	5	0	15,746	5,247	0	0	21,970	SP	Design & Construction	
17	528-161	SR 528 Widening from SR 417 to Innovation Way	SR 417	Innovation Way	3.2	Add Lanes, Mill & Resurface	0	1,779	0	1,784	23,363	23,778	0	50,704	SP	Design & Construction	
18	538-165	SR 538 Widening from Ronald Reagan Parkway to Cypress Parkway	Ronald Reagan Parkway	Cypress Parkway	7.2	Add Lanes, Mill & Resurface	5	18,136	0	57,082	51,928	14,242	0	141,393	SP	Design-Build	
19	408-828	SR 408 Landscaping from Good Homes to East of Hiawassee	Good Homes Road	Hiawassee Road	1.8	Landscaping	96	0	96	0	0	0	0	192	CF	Maintenance	
20	408-830	SR 408 Landscaping from SR 417 to Alafaya Trail	SR 417	Alafaya Trail	4.1	Landscaping	0	1,696	0	196	147	0	0	2,039	SP	Installation & Maintenance	
21	-	SR 417 Landscaping from Econ Trail to County Line	Econlockhatchee Trail	County Line	2.3	Landscaping	0	407	0	382	28	7	0	824	SP	Design, Installation & Maintenance	
22	-	SR 417 Landscaping from International Drive to John Young Parkway	International Drive	John Young Parkway	4.1	Landscaping	0	0	0	148	1,492	60	60	1,760	SP	Design, Installation & Maintenance	
23	-	SR 417 Landscaping from John Young Parkway to Landstar Boulevard	John Young Parkway	Landstar Boulevard	3.7	Landscaping	0	0	0	0	246	2,412	96	2,754	SP	Design, Installation & Partial Maintenance	
24	-	SR 417 Landscaping from Landstar Boulevard to Boggy Creek Road	Landstar Boulevard	Boggy Creek Road	3.7	Landscaping	0	0	0	68	756	720	56	1,600	SP	Design, Installation & Partial Maintenance	
Encumbered Total							51,063		47,816								
Unencumbered Total								23,441		114,974	153,487	62,179	212				
SUB-TOTALS (Page 2)							74,504		162,790		153,487	62,179	212				

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Existing System Improvements Summary (3 of 4)

Page	Project Number	Project Name	Project Description				Project Cost (thousand \$) by Fiscal Year *					Total	Fund Source	Project Phases Funded		
			From	To	Length (miles)	Work Description	20/21		21/22		22/23				23/24	24/25
							E	U	E	U	U				U	U
25	-	SR 417 Landscaping from Boggy Creek Road to Narcoossee Road	Boggy Creek Road	Narcoossee Road	4.5	Landscaping	0	0	0	79	883	842	64	1,868	SP	Design, Installation & Partial Maintenance
26	-	SR 417 Landscaping from Narcoossee Road to SR 528	Narcoossee Road	SR 528	4.7	Landscaping	0	0	0	0	247	2,455	104	2,806	SP	Design, Installation & Partial Maintenance
27	-	SR 429 Landscaping from Tilden Road to Florida's Turnpike	Tilden Road	Florida's Turnpike	3.5	Landscaping	0	0	0	177	1,745	72	54	2,048	SP	Design, Installation & Maintenance
28	-	SR 429 Landscaping from Florida's Turnpike to West Road	Florida's Turnpike	West Road	6.1	Landscaping	0	0	0	0	246	2,460	104	2,810	SP	Design, Installation & Partial Maintenance
29	-	SR 429 Landscaping from West Road to SR 414	West Road	SR 414	3.4	Landscaping	0	0	0	0	134	1,250	52	1,436	SP	Design, Installation & Partial Maintenance
30	-	SR 528 Landscaping - SR 436 to Goldenrod Rd.	SR 436	Goldenrod Road	1.4	Landscaping	0	0	0	278	2,806	116	116	3,316	SP	Design, Installation & Maintenance
31	-	SR 528 Landscaping from Goldenrod Road to Narcoossee Road	Goldenrod Road	Narcoossee Road	1.8	Landscaping	0	0	0	0	0	42	642	684	SP	Design, Installation & Partial Maintenance
32	-	SR 528 Landscaping from Narcoossee Road to SR 417	Narcoossee Road	SR 417	1.8	Landscaping	0	0	0	37	616	12	9	674	SP	Design, Installation & Maintenance
33	-	SR 528 Landscaping from SR 417 to Innovation Way	SR 417	Innovation Way	3.2	Landscaping	0	0	0	0	34	381	358	773	SP	Design, Installation & Partial Maintenance
34	-	SR 538 Landscaping from Ronald Reagan Parkway to Cypress Parkway	Ronald Reagan Parkway	Cypress Parkway	5.8	Landscaping	0	0	0	119	1,324	1,270	100	2,813	SP	Design, Installation & Partial Maintenance
35	528-915	Owner's Authorized Rep. for the Brightline Const. along SR 528	OIA	SR 520	-	Roadway Construction CEI	600	0	300	0	150	0	0	1,050	CF	Construction Liaison
36	408-159	SR 408 EB Mills Avenue Exit Ramp Improvements	-	-	-	Minor Roadway Projects	1,344	0	0	0	0	0	0	1,344	CF	Construction
Encumbered Total							1,944		300							
Unencumbered Total								0		690	8,185	8,900	1,603			
SUB-TOTALS (Page 3)							1,944		990		8,185	8,900	1,603			

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Existing System Improvements Summary (4 of 4)

Page	Project Number	Project Name	Project Description				Project Cost (thousand \$) by Fiscal Year *					Total	Fund Source	Project Phases Funded		
			From	To	Length (miles)	Work Description	20/21		21/22		22/23				23/24	24/25
							E	U	E	U	U				U	U
37	-	Systemwide Median Protection Improvements	-	-	-	Guardrail	0	164	0	2,538	2,364	0	0	5,066	SP	Design & Construction
38	-	Systemwide Safety and Operational Improvement Projects	-	-	-	Minor Roadway Projects	0	340	0	340	615	615	570	2,480	SP	Design & Construction
39	-	Systemwide Guardrail Upgrade	-	-	-	Guardrail Improvements	0	90	0	90	155	155	150	640	SP	Design & Construction
40	417-162	SR 417 Pond Mods North of Berry Dease	-	-	-	Drainage Improvements	5	1,078	0	0	0	0	0	1,083	SP	Bidding & Construction
41	-	Systemwide Drainage Improvements	-	-	-	Drainage Improvements	0	10	0	150	90	90	155	495	SP	Design & Construction
42	-	SR 408 Lighting from I-4 to SR 417	I-4	SR 417	-	Lighting Replacement	0	766	0	2,895	0	0	0	3,661	SP	Design & Construction
43	528-163	SR 528 / SR 520 Interchange Lighting	-	-	-	Lighting Replacement	4	10	0	791	0	0	0	805	SP	Partial Design & Construction
44	-	Systemwide Lighting	-	-	-	Lighting Rehabilitation	0	0	0	0	20	155	155	330	CF	Design & Construction
45	-	Multimodal/Intermodal Opportunity Study	-	-	-	Multimodal/Intermodal Study	0	300	0	300	300	300	300	1,500	SP	Multimodal/Intermodal Study
46	599-157	Construction Safety Campaign	-	-	-	Safety Pilot	0	350	0	350	350	350	350	1,750	SP	Communications
Encumbered Total							9		0							
Unencumbered Total								3,108		7,454	3,894	1,665	1,680			
SUB-TOTALS (Page 4)							3,117		7,454	3,894	1,665	1,680				
TOTALS							136,210		510,001	499,440	165,309	31,234				

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System Expansion Projects Summary (1 of 3)

Page	Project Number	Project Name	Project Description				Project Cost (thousand \$) by Fiscal Year *						Total	Fund Source	Project Phases Funded	
			From	To	Length (miles)	Work Description	20/21		21/22		22/23	23/24				24/25
							E	U	E	U	U	U				U
47	599-228	Northeast Connector Expressway Phase 1 PD&E Study	Cyrils Drive	Nova Road	-	New Expressway	1,008	0	252	0	0	0	0	1,260	CF	PD&E Study
48	414-227	SR 414 Expressway Extension PD&E Study	US 441	SR 434	-	New Expressway	1,452	0	0	0	0	0	0	1,452	SP	PD&E Study
49	599-229	Osceola-Brevard County Connector C, F & M Study	-	-	-	New Expressway	1,480	0	0	247	0	0	0	1,727	SP	Concept, Feasibility & Mobility Study
50	599-233	Southport Connector Expressway PD&E Study	-	-	-	New Expressway	1,840	0	460	0	0	0	0	2,300	CF	PD&E Study
51	-	Future Corridor Planning Studies (Potential)	-	-	-	New Expressway	0	0	0	1,500	0	1,500	0	3,000	SP	Planning Studies
52	-	SR 414 Expressway Extension (Potential)	US 441	SR 434	2.3	New Expressway	0	0	0	1,548	3,096	3,096	20,882	28,622	SP	Design & Partial Construction
53	516-236	SR 516 from US 27 to Cook Road	US 27	Cook Road	1.2	New Expressway	0	2,430	0	3,240	14,676	38,312	38,523	97,181	CF	Design, Construction, & Partial Landscaping
54	516-237	SR 516 from Cook Road to Lake/Orange County Line	Cook Road	Lake/Orange County Line	1.8	New Expressway	0	2,496	0	3,328	16,199	44,418	35,211	101,652	CF	Design, Construction, & Partial Landscaping
55	516-238	SR 516 from Lake/Orange County Line to SR 429	Lake/Orange County Line	SR 429	0.8	New Expressway	0	2,976	0	3,968	14,634	52,937	43,480	117,995	CF	Design, Construction, & Partial Landscaping
56	-	SR 516 Right of Way	US 27	SR 429	3.8	New Expressway	0	0	0	22,640	57,543	26,412	6,603	113,198	CF	Right-of-Way
57	538-235A-20	CR 532 Widening from Lake Wilson Road to US 17/92	Lake Wilson Road	US 17/92	2.9	Add Lanes, Mill & Resurface	516	0	732	556	3,818	6,520	3,016	15,158	SP	Design, Right-of-Way, & Construction
58	538-235	SR 538 from CR 532 to South of US 17/92	CR 532	South of US 17/92	0.9	New Expressway	3,100	0	3,100	0	17,352	32,710	18,627	74,889	CF	Design, Construction, & Partial Landscaping
Encumbered Total							9,396		4,544							
Unencumbered Total								7,902		37,027	127,318	205,905	166,342			
SUB-TOTALS (Page 1)							17,298		41,571		127,318	205,905	166,342			

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System Expansion Projects Summary (2 of 3)

Page	Project Number	Project Name	Project Description				Project Cost (thousand \$) by Fiscal Year *						Total	Fund Source	Project Phases Funded	
			From	To	Length (miles)	Work Description	20/21		21/22		22/23	23/24				24/25
							E	U	E	U	U	U				U
59	538-234	SR 538 from South of US 17/92 to Ronald Reagan Parkway	South of US 17/92	Ronald Reagan Parkway	2.0	New Expressway	4,140	0	4,140	0	39,966	55,476	28,998	132,720	CF	Design & Construction
60	-	SR 538 Right of Way	CR 532	Ronald Reagan Parkway	2.9	New Expressway	0	0	0	7,064	8,376	4,680	0	20,120	CF	Right-of-Way
61	-	SR 538 Utility Corridor	CR 532	US 17/92	2.9	Utility Relocations	0	1,159	0	3,497	31,604	10,528	0	46,788	CF	Design & Construction
62	-	Osceola Parkway Extension - Segment 1	SR 417	Laureate Boulevard	0.1	New Expressway	0	0	0	11,028	11,028	0	0	22,056	CF	Design
63	-	Osceola Parkway Extension - Segment 2	Laureate Boulevard	Narcoossee Road	4.0	New Expressway	0	0	0	7,212	7,212	0	0	14,424	CF	Design
64	-	Osceola Parkway Extension - Segment 3	Narcoossee Road	Sunbridge Parkway	4.9	New Expressway	0	0	0	6,004	6,004	0	0	12,008	CF	Design
65	-	Osceola Parkway Extension - Right-of-Way	SR 417	Sunbridge Parkway	9.0	Right-of-Way	0	0	0	0	14,375	60,894	43,353	118,622	CF	Right-of-Way
66	599-231	2045 CFX Master Plan	-	-	-	Master Plan	375	0	0	0	0	0	0	375	SP	Planning
67	429-825	Wekiva Parkway (206) Landscape	Coronado Somerset Dr.	SR 46	1.8	Landscaping	3	0	0	0	0	0	0	3	CF	Partial Maintenance
68	429-826	Wekiva Parkway (205) Landscape	Plymouth Sorrento Rd.	S. of Orange/Lake Co. Line	1.8	Landscaping	33	0	0	0	0	0	0	33	CF	Partial Maintenance
69	429-827	Wekiva Parkway / SR 453 Interchange (204) Landscape	South of Ondich Rd.	Plymouth Sorrento Rd.	1.8	Landscaping	80	0	80	0	0	0	0	160	CF	Maintenance
70	-	Wekiva Parkway (203) Kelly Park Rd. Interchange Landscape	Kelly Park Rd. Interchange	-	-	Landscaping	0	46	0	519	493	40	10	1,108	SP	Design, Installation & Maintenance
Encumbered Total							4,631		4,220							
Unencumbered Total								1,205		35,324	119,058	131,618	72,361			
SUB-TOTALS (Page 2)							5,836		39,544		119,058	131,618	72,361			

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System Expansion Projects Summary (3 of 3)

Page	Project Number	Project Name	Project Description				Project Cost (thousand \$) by Fiscal Year *					Total	Fund Source	Project Phases Funded		
			From	To	Length (miles)	Work Description	20/21		21/22		22/23				23/24	24/25
							E	U	E	U	U				U	U
71	-	SR 453 Buffer Plantings	SR 429	SR 46	-	Landscaping	0	0	0	40	447	424	36	947	SP	Design, Installation & Partial Maintenance
Encumbered Total							0		0							
Unencumbered Total								0		40	447	424	36			
SUB-TOTALS (Page 3)							0		40		447	424	36			
TOTALS							23,134		81,155		246,823	337,947	238,739			

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Interchange Projects Summary

Page	Project Number	Project Name	Project Description				Project Cost (thousand \$) by Fiscal Year *						Total	Fund Source	Project Phases Funded		
			From	To	Length (miles)	Work Description	20/21		21/22		22/23	23/24				24/25	
							E	U	E	U	U	U				U	
72	408-312b	SR 408 at I-4 Ultimate	-	-	-	Interchange Reconstruction	600	0	300	0	150	0	0	1,050	CF	Corridor Consultant & Const. Liaison	
73	408-315	SR 408 Tampa Avenue Interchange	Tampa Avenue	Orange Blossom Trail	-	Operational Improvements	4,016	0	2,013	552	26,772	27,612	0	60,965	SP	Design & Construction	
74	429-316A	SR 429 / Stoneybrook West Parkway Interchange	-	-	-	Interchange Design	8,082	840	0	0	0	0	0	8,922	CF	Partial Construction	
75	-	SR 528 - Dallas Boulevard Interchange	East of Econ River Bridge	East of Dallas Blvd.	-	Interchange Reconstruction	0	0	0	5	3,110	11,771	43,744	58,630	SP	Design & Construction	
76	-	SR 408 / SR 417 Interchange Landscaping	SR 408/SR 417	Lake Underhill Road	-	Landscaping	0	1,802	0	76	76	0	0	1,954	SP	Installation & Maintenance	
77	-	SR 528 / Innovation Way Landscaping	-	-	-	Landscaping	0	0	0	140	1,324	56	28	1,548	SP	Design, Installation & Maintenance	
Encumbered Total							12,698		2,313								
Unencumbered Total								2,642		773	31,432	39,439	43,772				
TOTALS							15,340		3,086		31,432	39,439	43,772				

* Construction Costs Escalated at 2.6% for FY 2021, 2.7% for FY 2022, 2.8% for 2023, 2.9% for FY 2024, and 3.0% for FY 2025. In general, all other costs escalated at an average of 2.7% per year.

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Facilities Projects Summary (1 of 2)

Page	Project Number	Project Name	Project Description				Project Cost (thousand \$) by Fiscal Year *						Total	Fund Source	Project Phases Funded	
			From	To	Length (miles)	Work Description	20/21		21/22		22/23	23/24				24/25
							E	U	E	U	U	U				U
78	-	CFX Parking Lot Expansion	-	-	-	Parking Lot	0	0	0	114	594	0	0	708	SP	Design & Construction
79	-	Miscellaneous CFX Headquarters Improvements	-	-	-	Miscellaneous Projects	0	315	0	315	315	315	315	1,575	SP	Design & Construction
80	599-421	E-PASS Magnolia Avenue Service Center	-	-	-	Renovation for Walk-Up Center	0	618	0	340	0	0	0	958	SP	Design & Construction
81	599-416A	CFX East District Facility Utilities Phase I	-	-	-	District Facility Water	5	160	0	0	0	0	0	165	CF	Bidding & Construction
82	599-416B	CFX East District Facility Utilities Phase II	-	-	-	District Facility Sewer	40	240	0	0	0	0	0	280	CF	Design & Construction
83	-	CFX East District Facility Renovation	-	-	-	District Facility Renovation	520	0	0	2,044	1,017	0	0	3,581	CF	Design & Construction
84	599-415A	CFX West District Facility	-	-	-	District Facility	0	0	0	0	194	3,726	1,858	5,778	CF	Design & Construction
85	-	CFX HQ Sustainability Program	-	-	-	HQ Building Power Improvements	0	200	0	192	55	248	0	695	SP	Design & Construction
86	408-422	Hiawassee Toll Plaza and Data Center - PVs	-	-	-	Building Power Improvements	2,487	0	0	0	0	0	0	2,487	SP	Design & Construction
87	-	Coral Hills and John Young Toll Plazas - PVs	-	-	-	Building Power Improvements	0	93	0	977	0	0	0	1,070	SP	Design & Construction
88	-	Independence, Forest Lake and University Toll Plazas - PVs	-	-	-	Building Power Improvements	0	0	0	111	1,145	0	0	1,256	SP	Design & Construction
89	-	Conway West Toll Plaza - PVs	-	-	-	Building Power Improvements	0	0	0	0	71	1,286	0	1,357	SP	Design & Construction
Encumbered Total							3,052		0							
Unencumbered Total								1,626		4,093	3,391	5,575	2,173			
SUB-TOTALS (Page 1)							4,678		4,093	3,391	5,575	2,173				

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Facilities Projects Summary (2 of 2)

Page	Project Number	Project Name	Project Description				Project Cost (thousand \$) by Fiscal Year *					Total	Fund Source	Project Phases Funded		
			From	To	Length (miles)	Work Description	20/21		21/22		22/23				23/24	24/25
							E	U	E	U	U				U	U
90	-	Pine Hills and Boggy Creek Toll Plaza - PVs	-	-	-	Building Power Improvements	0	0	0	0	0	135	1,448	1,583	SP	Design & Construction
91	-	Systemwide Generator Replacement (SR 417 / 408 / 429 / 528)	-	-	-	Generator Replacement	0	15	0	858	1,666	0	0	2,539	SP	Design & Construction
92	-	SR 429 Plazas - Generator Replacement	-	-	-	Generator Replacement	0	35	0	471	0	0	0	506	SP	Design & Construction
93	-	Systemwide Generator Replacements and Upgrades	-	-	-	Generator Replacements	0	0	0	16	346	26	352	740	SP	Design & Construction
94	599-419	Systemwide Air Conditioner Unit Replacement 408 / 429 / 414	-	-	-	Air Conditioner Replacements	0	41	0	296	0	0	0	337	CF	Design & Construction
95	-	Systemwide Air Conditioner Replacements and Upgrades	-	-	-	Air Conditioner Replacements	0	0	0	28	144	64	108	344	SP	Design & Construction
96	-	SR 408 Ramp Plazas Roof Replacements	-	-	-	Roof Replacements	0	25	0	694	0	0	0	719	SP	Design & Construction
97	-	Systemwide Roof Replacements	-	-	-	Roof Replacements	0	40	0	550	550	550	550	2,240	SP	Design & Construction
98	-	Systemwide Toll Plaza Projects	-	-	-	Dumb Waiters & Elevators	0	33	0	317	30	158	156	694	SP	Design & Construction
99	-	ACM Improvement Projects	-	-	-	ACM Improvements	0	1,530	0	0	0	0	0	1,530	SP	Design & Construction
Encumbered Total							0		0							
Unencumbered Total								1,719		3,230	2,736	933	2,614			
SUB-TOTALS (Page 2)							1,719		3,230		2,736	933	2,614			
TOTALS							6,397		7,323		6,127	6,508	4,787			

* Construction Costs Escalated at 2.6% for FY 2021, 2.7% for FY 2022, 2.8% for 2023, 2.9% for FY 2024, and 3.0% for FY 2025. In general, all other costs escalated at an average of 2.7% per year.
E = Encumbered costs from projects under contracts from previous fiscal years
U = Unencumbered costs

Central Florida Expressway Authority
Five-Year Work Plan

Tranportation Technology Projects Summary (1 of 2)

Page	Project Number	Project Name	Project Description				Project Cost (thousand \$) by Fiscal Year *						Total	Fund Source	Project Phases Funded	
			From	To	Length (miles)	Work Description	20/21		21/22		22/23	23/24				24/25
							E	U	E	U	U	U				U
100	-	Fiber Optic Network (FON) Utility Adjustments	-	-	-	Utility Adjustments	0	100	0	50	50	50	50	300	SP	Utility Adjustments
101	599-536	Regional ITS Partnership Projects	-	-	-	Regional ITS Partnership Projects	0	180	0	180	180	180	180	900	CF	Partnership Contributions
102	-	Advanced Expressway Operations Performance Measures	-	-	-	Enhancements to ITS Data Analysis Systems	0	246	0	904	226	0	0	1,376	SP	Implementation
103	599-537	Supplemental DCS and CCTV Deployment	-	-	-	Deploy DCS and CCTV Cameras	825	0	0	0	0	0	0	825	CF	Installation
104	599-526C	Wrong-Way Driving Countermeasures	-	-	-	Wrong-Way Driving Countermeasures	4,825	0	0	0	0	0	0	4,825	CF	Construction
105	-	Wrong-Way Driving Countermeasures	-	-	-	Wrong-Way Driving Countermeasures	0	204	0	2,630	1,310	0	0	4,144	CF	Design & Construction
106	599-545	Three-Line DMS Upgrade Program	-	-	-	New Full-Color DMS roadway signs	0	7,448	0	0	0	0	0	7,448	SP	Construction
107	-	Three-Line DMS Upgrade Program	-	-	-	New Full-Color DMS roadway signs	0	0	0	907	2,691	0	0	3,598	SP	Construction
108	599-542	Field Ethernet Switch Replacement	-	-	-	IT Network Switches	0	253	0	260	267	275	0	1,055	SP	Implementation
109	599-558	ITS Master Plan	-	-	-	Plan Development	150	0	0	0	0	0	0	150	SP	Plan Development
110	599-539	Connected Vehicle Pilot Project	-	-	-	Pilot Project	0	61	0	351	181	0	0	593	SP	Design & Installation
111	-	Connected Vehicle Technology Deployment	-	-	-	Deployment of Connected Vehicle Technology	0	0	0	0	0	143	2,464	2,607	SP	Design & Implementation
Encumbered Total							5,800		0							
Unencumbered Total								8,492		5,282	4,905	648	2,694			
SUB-TOTALS (Page 1)							14,292		5,282	4,905	648	2,694				

* Construction Costs Escalated at 2.6% for FY 2021, 2.7% for FY 2022, 2.8% for 2023, 2.9% for FY 2024, and 3.0% for FY 2025. In general, all other costs escalated at an average of 2.7% per year.
E = Encumbered costs from projects under contracts from previous fiscal years
U = Unencumbered costs

Transportation Technology Projects Summary (2 of 2)

Page	Project Number	Project Name	Project Description				Project Cost (thousand \$) by Fiscal Year *					Total	Fund Source	Project Phases Funded		
			From	To	Length (miles)	Work Description	20/21		21/22		22/23				23/24	24/25
							E	U	E	U	U				U	U
112	-	MG2 Lower Arm Replacement	-	-	-	Replacement of Lowering Arms for HD Cameras	0	122	0	0	0	0	0	122	CF	Installation
113	-	Video Wall Controller	-	-	-	Replacement of Video Wall Controller	0	72	0	72	0	0	0	144	SP	Installation
114	-	Extreme Networks Switch Replacement	-	-	-	Replacement of Extreme Networks Switches	0	0	0	0	379	0	0	379	SP	Installation
115	-	Data Collection Sensor Replacement	-	-	-	Equipment Data Collection Sensors	0	150	0	260	50	50	200	710	SP	Installation
116	-	UPS Battery Replacement	-	-	-	Equipment Batteries	0	500	0	100	0	0	0	600	SP	Installation
117	-	Lane Control Operations Software	-	-	-	Operations Software	0	0	0	0	300	0	0	300	SP	Installation
118	-	Hiawassee to HQ Direct Connection	-	-	-	Fiber Optic Cable	0	0	0	500	0	0	0	500	SP	Installation
Encumbered Total							0		0							
Unencumbered Total								844		932	729	50	200			
SUB-TOTALS (Page 2)								844		932	729	50	200			
TOTALS								15,136		6,214	5,634	698	2,894			

* Construction Costs Escalated at 2.6% for FY 2021, 2.7% for FY 2022, 2.8% for 2023, 2.9% for FY 2024, and 3.0% for FY 2025. In general, all other costs escalated at an average of 2.7% per year.

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Central Florida Expressway Authority
Five-Year Work Plan

Information Technology Projects Summary

Page	Project Number	Project Name	Project Description				Project Cost (thousand \$) by Fiscal Year *						Total	Fund Source	Project Phases Funded		
			From	To	Length (miles)	Work Description	20/21		21/22		22/23	23/24				24/25	
							E	U	E	U	U	U				U	
119	599-902	Toll Collection System Upgrade	-	-	-	Hardware & Software	13,016	0	12,916	0	5,549	0	0	31,481	CF	Implementation & Testing	
120	599-533	IT Infrastructure Upgrade	-	-	-	Hardware & Software	0	1,400	0	1,400	1,200	1,200	1,200	6,400	SP	Design & Implementation	
121	599-532	CFX Operations Software Update	-	-	-	Hardware & Software	0	9,202	0	6,958	3,482	0	0	19,642	SP	Design & Implementation	
122	599-531	Software Development	-	-	-	Software	0	1,383	0	1,548	1,304	1,060	1,060	6,355	SP	Design & Implementation	
123	-	Financial / Accounting Software Replacement	-	-	-	Software	0	808	0	0	0	0	0	808	SP	Design	
124	-	E-PASS Parking Initiatives	-	-	-	E-PASS at Offsite Garages	0	1,032	0	1,034	0	0	0	2,066	SP	Design & Implementation	
125	-	Toll Plaza Security Cameras	-	-	-	Hardware & Software	0	2,253	0	438	0	0	0	2,691	SP	Implementation & Testing	
Encumbered Total							13,016		12,916								
Unencumbered Total								16,078		11,378	11,535	2,260	2,260				
TOTAL							29,094		24,294		11,535	2,260	2,260				

* Construction Costs Escalated at 2.6% for FY 2021, 2.7% for FY 2022, 2.8% for 2023, 2.9% for FY 2024, and 3.0% for FY 2025. In general, all other costs escalated at an average of 2.7% per year.
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Central Florida Expressway Authority
Five-Year Work Plan

Signing and Pavement Markings Summary

Page	Project Number	Project Name	Project Description				Project Cost (thousand \$) by Fiscal Year *					Total	Fund Source	Project Phases Funded		
			From	To	Length (miles)	Work Description	20/21		21/22		22/23				23/24	24/25
							E	U	E	U	U				U	U
126	408-628B	SR 408 Guide Sign Replacement East of I-4	I-4	SR 417	2.0	Signing	268	10	0	2,895	0	0	0	3,173	CF	Design & Construction
127	-	SR 417/528 Interchange Guide Sign Replacement	-	-	-	Signing	0	162	0	1,737	0	0	0	1,899	SP	Design & Construction
128	414-640	SR 414 Guide Sign Replacement	SR 429	US 441	-	Signing & Lighting Replacement	700	10	0	8,109	0	0	0	8,819	SP	Design & Construction
129	-	SR 429 Guide Sign & Lighting Replacement	Seidel Road	Schofield Road	-	Signing & Lighting Replacement	0	0	0	396	2,430	4,048	0	6,874	SP	Design & Construction
130	-	SR 528 Guide Sign & Lighting Replacment	East of Innovation Way	SR 520	-	Signing & Lighting Replacement	0	460	0	2,358	1,174	0	0	3,992	SP	Design & Construction
131	-	SR 528 Signing and Pavement Marking Improvements	West of Boggy Creek Rd.	Tradeport Drive	-	Signing and Pavement Markings	0	22	0	230	0	0	0	252	SP	Design & Construction
132	-	SR 538 Pavement Markings	-	-	-	Pavement Markings	0	352	0	0	0	0	0	352	SP	Construction
133	-	Systemwide Annual Toll Rate Signing Updates	-	-	-	Signing	0	180	0	180	180	180	180	900	SP	Design & Construction
134	-	Systemwide Trailblazer Upgrades	-	-	-	Signing	0	620	0	615	1,085	620	615	3,555	SP	Design & Construction
135	-	Systemwide Signing Replacement Projects	-	-	-	Signing	0	221	0	2,693	226	2,796	1,014	6,950	SP	Design & Construction
136	-	Systemwide Miscellaneous Signing and Pavement Markings	-	-	-	Signing and Pavement Markings	0	490	0	490	490	490	490	2,450	SP	Design & Construction
Encumbered Total							968		0							
Unencumbered Total								2,527		19,703	5,585	8,134	2,299			
TOTAL							3,495		19,703	5,585	8,134	2,299				

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Central Florida Expressway Authority
Five-Year Work Plan

Renewal and Replacement Projects Summary (1 of 3)

Page	Project Number	Project Name	Project Description				Project Cost (thousand \$) by Fiscal Year *						Total	Fund Source	Project Phases Funded		
			From	To	Length (miles)	Work Description	20/21		21/22		22/23	23/24				24/25	
							E	U	E	U	U	U				U	
137	408-763	SR 408 Resurfacing	Yucatan Drive	SR 417	2.6	Mill & Resurface	660	10	0	12,741	0	0	0	13,411	RR	Design & Construction	
138	408-764	SR 408 Resurfacing	East of Woodbury Rd.	North of SR 50 (East)	1.3	Mill & Resurface	210	10	0	4,054	0	0	0	4,274	RR	Design & Construction	
139	414-754	SR 414 Resurfacing	West of SR 451	West of Keene Rd.	2.1	Mill & Resurface	3,650	0	0	0	0	0	0	3,650	RR	Construction	
140	414-755	SR 414 Resurfacing	West of Keene Rd.	US 441 (East)	3.2	Mill & Resurface	5,952	0	0	0	0	0	0	5,952	RR	Construction	
141	417-760	SR 417 Resurfacing	SR 528	North of Berry Dease Road	4.4	Mill & Resurface	405	5,188	0	10,356	0	0	0	15,949	RR	Partial Design & Construction	
142	417-761	SR 417 Resurfacing	SR 408	Canal E-4 Bridge	2.1	Mill & Resurface	225	4,324	0	4,314	0	0	0	8,863	RR	Partial Design & Construction	
143	599-759	SR 417 South Access Road Slope Repair	-	-	-	Slope Repair	73	1,046	0	1,036	0	0	0	2,155	RR	Partial Design & Construction	
144	417-751	SR 417 Bridge over SR 528 Preservation	SR 417 / SR 528	-	-	Bridge Repair	40	1,811	0	3,602	0	0	0	5,453	RR	Partial Design & Construction	
145	-	SR 429/414 Resurfacing	SR 414	US 441	3.0	Mill & Resurface	0	0	0	0	646	12,400	0	13,046	RR	Design & Construction	
146	429-758	SR 429 Pavement Improvements	CR 535	CR 437A	-	Mill & Resurface	10	2,628	0	0	0	0	0	2,638	RR	Construction	
147	-	SR 451 Resurfacing	SR 414	US 441	1.7	Mill & Resurface	0	276	0	5,292	0	0	0	5,568	RR	Design & Construction	
148	-	SR 528 Resurfacing	McCoy / Boggy Creek Rd.	SR 436	-	Mill & Resurface	0	0	0	0	0	0	340	340	RR	Design	
Encumbered Total							11,225		0								
Unencumbered Total								15,293		41,395	646	12,400	340				
SUB-TOTALS (Page 1)							26,518		41,395	646	12,400	340					

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Central Florida Expressway Authority
Five-Year Work Plan

Renewal and Replacement Projects Summary (2 of 3)

Page	Project Number	Project Name	Project Description				Project Cost (thousand \$) by Fiscal Year *					Total	Fund Source	Project Phases Funded		
			From	To	Length (miles)	Work Description	20/21		21/22		22/23				23/24	24/25
							E	U	E	U	U				U	U
149	-	Miscellaneous Resurfacing Projects	-	-	-	Mill & Resurface	0	55	0	895	895	895	880	3,620	RR	Design & Construction
150	-	Miscellaneous Drainage and Stormwater Projects	-	-	-	Drainage and Stormwater	0	60	0	310	310	310	310	1,300	RR	Design & Construction
151	528-757	SR 528 Farm Access Road 1 Bridge Removal	Farm Access Road 1	-	-	Bridge Removal	234	10	0	10,812	5,406	0	0	16,462	RR	Partial Design & Construction
152	-	Systemwide Bridge Projects	-	-	-	Misc. Structural Projects	0	52	0	429	429	392	243	1,545	RR	Design & Construction
153	599-756	Systemwide Coatings SR 408 I-4 to Chickasaw	I-4	Chickasaw Trail	-	Painting & Inspections	10	4,572	0	4,572	0	0	0	9,154	RR	Partial Design & Construction
154	-	Systemwide Coatings Bridges	-	-	-	Painting & Inspections	0	259	0	7,001	0	0	0	7,260	RR	Design & Construction
155	-	Systemwide Coatings Ramp Plaza Butterfly Structures	-	-	-	Painting & Inspections	0	87	0	309	0	0	0	396	RR	Design & Construction
156	-	Systemwide Coatings	-	-	-	Painting & Inspections	0	150	0	4,490	160	4,630	4,490	13,920	RR	Design & Construction
157	-	Systemwide Fence Projects	-	-	-	Fencing Replacement	0	275	0	275	275	275	275	1,375	RR	Design & Construction
158	-	Systemwide Bridge Joint & Approach Slab Projects	-	-	-	Structural	0	17	0	110	110	110	110	457	RR	Design & Construction
159	-	Systemwide Reflective Pavement Markers & Thermo Striping	-	-	-	RPM & Striping	0	25	0	135	180	185	140	665	RR	Design & Construction
160	-	Systemwide Traffic Signal Replacement Projects	-	-	-	Signalization	0	580	0	580	580	580	580	2,900	RR	Design & Construction
Encumbered Total							244		0							
Unencumbered Total								6,142		29,918	8,345	7,377	7,028			
SUB-TOTALS (Page 2)							6,386		29,918	8,345	7,377	7,028				
TOTALS							32,904		71,313	8,991	19,777	7,368				

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Renewal and Replacement Projects Summary (3 of 3)

Page	Project Number	Project Name	Project Description				Project Cost (thousand \$) by Fiscal Year *					Total	Fund Source	Project Phases Funded		
			From	To	Length (miles)	Work Description	20/21		21/22		22/23				23/24	24/25
							E	U	E	U	U				U	U
161	599-762	Systemwide Uninterrupted Power Supply (UPS) Replacements	-	-	-	UPS Replacements	0	160	0	160	160	160	160	800	RR	Installation
Encumbered Total							0		0							
Unencumbered Total								160		160	160	160	160			
SUB-TOTALS (Page 3)								160		160	160	160	160			
TOTALS								33,064		71,473	9,151	19,937	7,528			

* Construction Costs Escalated at 2.6% for FY 2021, 2.7% for FY 2022, 2.8% for 2023, 2.9% for FY 2024, and 3.0% for FY 2025. In general, all other costs escalated at an average of 2.7% per year.
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Central Florida Expressway Authority
Five-Year Work Plan

Landscape Projects Summary

Page	Project Number	Project Name	Project Description				Project Cost (thousand \$) by Fiscal Year *					Total	Fund Source	Project Phases Funded			
			From	To	Length (miles)	Work Description	20/21		21/22		22/23				23/24	24/25	
							E	U	E	U	U				U	U	
162	-	Systemwide Discretionary Landscape Projects	-	-	-	Landscaping	0	769	0	787	1,413	799	794	4,562	SP	Design, Installation & Maintenance	
							Encumbered Total	0		0							
							Unencumbered Total		769		787	1,413	799	794			
							TOTAL		769		787	1,413	799	794			

* Construction Costs Escalated at 2.6% for FY 2021, 2.7% for FY 2022, 2.8% for 2023, 2.9% for FY 2024, and 3.0% for FY 2025. In general, all other costs escalated at an average of 2.7% per year.

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U = Unencumbered costs

Central Florida Expressway Authority
Five-Year Work Plan
Non-System Projects Summary

Page	Project Number	Project Name	Project Description				Project Cost (thousand \$) by Fiscal Year *					Total	Fund Source	Project Phases Funded			
			From	To	Length (miles)	Work Description	20/21		21/22		22/23				23/24	24/25	
							E	U	E	U	U				U	U	
163	-	Goldenrod Road (SR 551) Thermo & RPMs	SR 528	Lee Vista Blvd.	-	Pavement Markings - Thermo & RPMs	0	19	0	580	0	0	0	599	NSP	Design & Construction	
164	-	Goldenrod Road (SR 551) Resurfacing	SR 528	Lee Vista Blvd.	-	Mill & Resurface	0	0	0	0	0	0	144	144	NSP	Design	
Encumbered Total							0		0								
Unencumbered Total								19		580	0	0	144				
TOTALS								19		580	0	0	144				

* Construction Costs Escalated at 2.6% for FY 2021, 2.7% for FY 2022, 2.8% for 2023, 2.9% for FY 2024, and 3.0% for FY 2025. In general, all other costs escalated at an average of 2.7% per year.

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F. 3.

Environmental Stewardship Committee Appointments

Commissioner Sean Parks
Lake County

Tim Sallin, Lake County Resident

Andria Herr
Governor Appointee

*Charles Lee, ~~Orlando Resident~~ Sumter County Resident

* Corrected 6/12/20

F. 4.



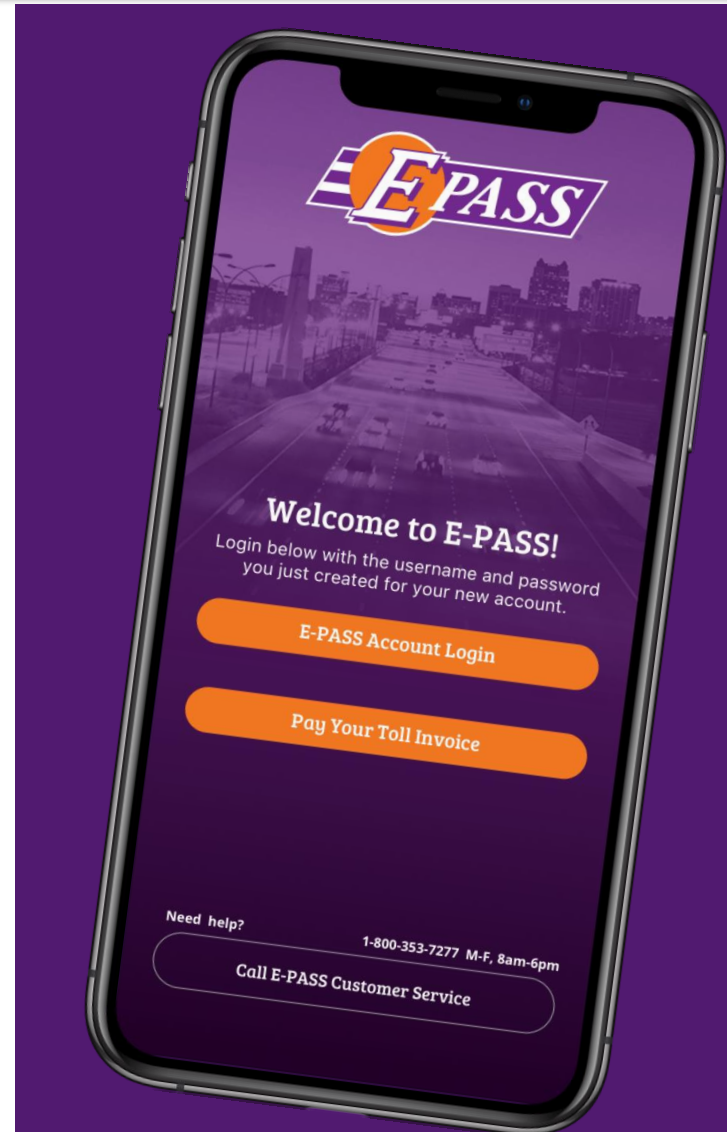
E-PASS App Enhancements: Pay By Plate Feature

Jim Greer, Chief of Technology/Operations

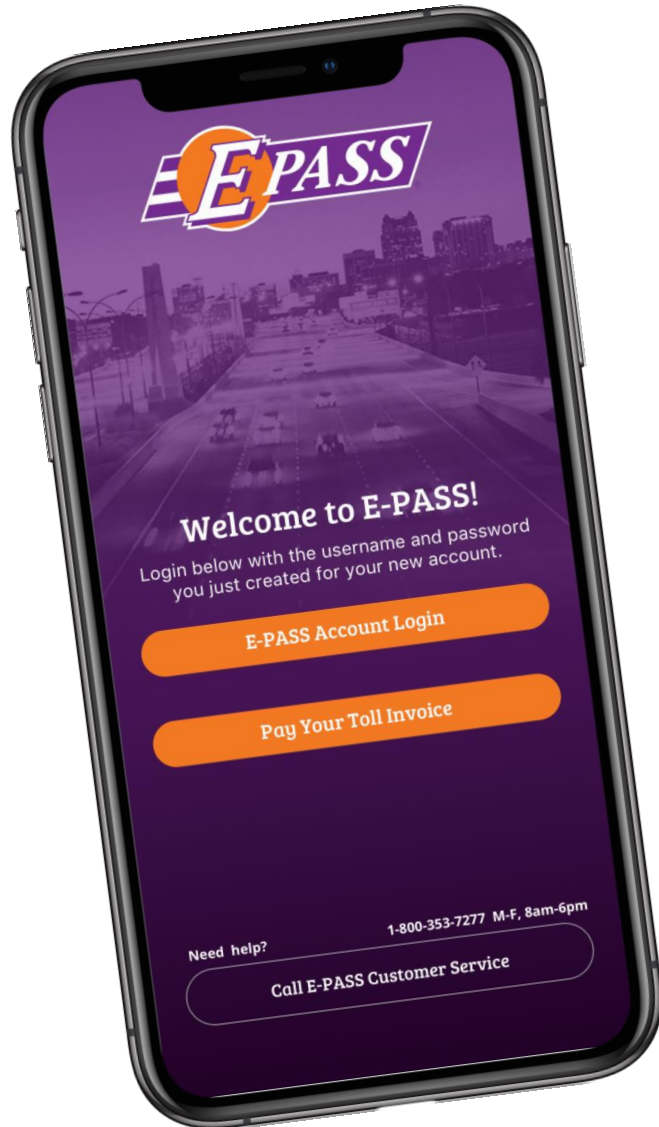
- June 11, 2020 -

E-PASS App Launched

- Mobile app released July 2019
- Approximately 50,000 total users
- 4.3 out of 5.0 stars Android
- 4.3 out of 5.0 stars Apple



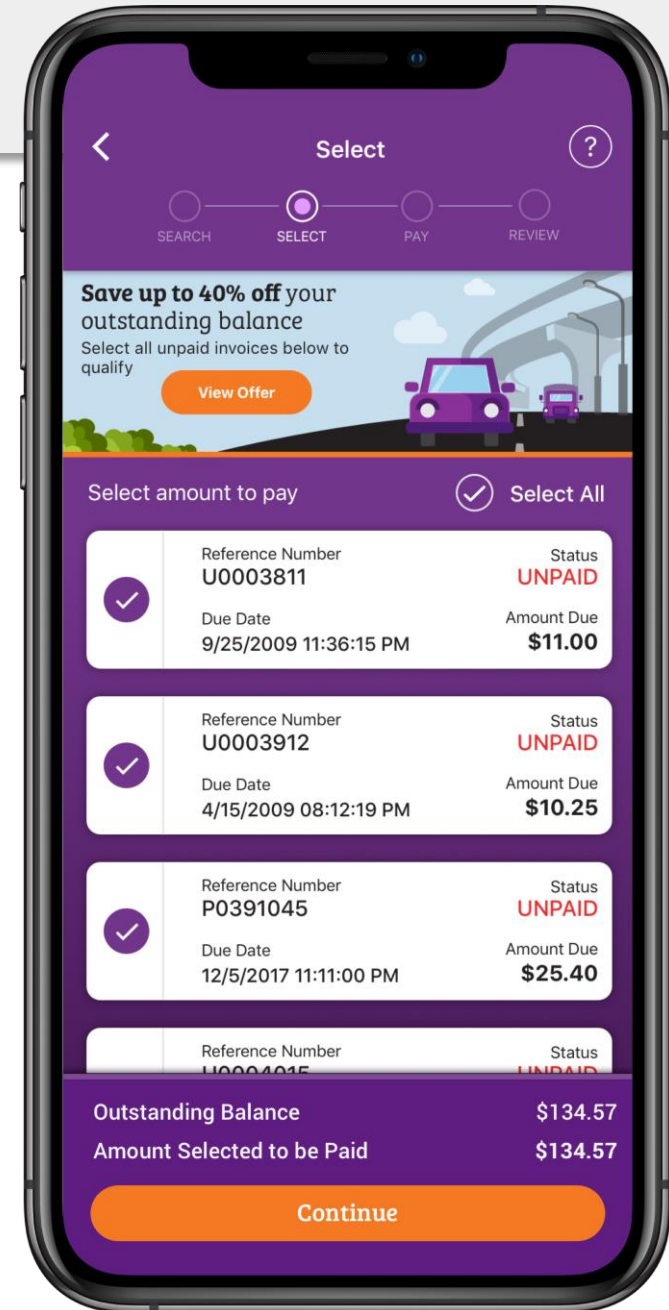
App Designed To Evolve With Customer Needs



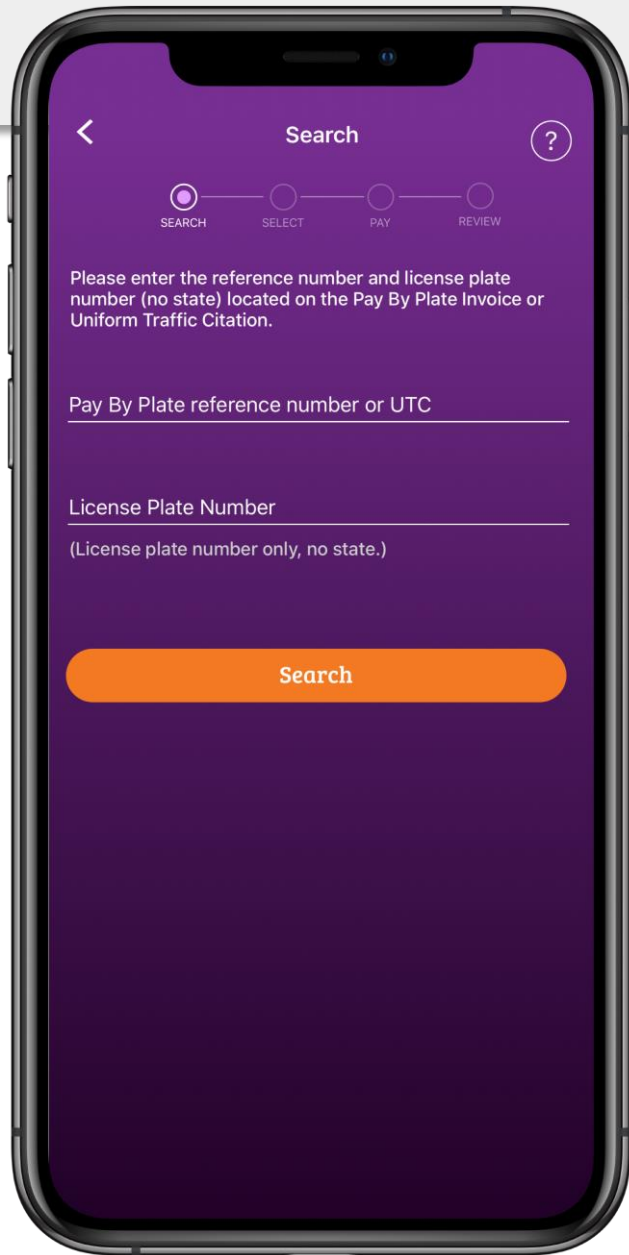
- First major feature release... Pay By Plate feature
- Pay By Plate customers will be able to pay toll invoices directly from their smartphone

Pay By Plate Feature

- Key app features include:
 - Single look-up to view all invoices associated with a license plate
 - Select any or all unpaid invoices for payment
 - Choose to pay with credit card, Apple Pay, Google Pay
 - Push notifications
 - Receive detailed summary of transactions

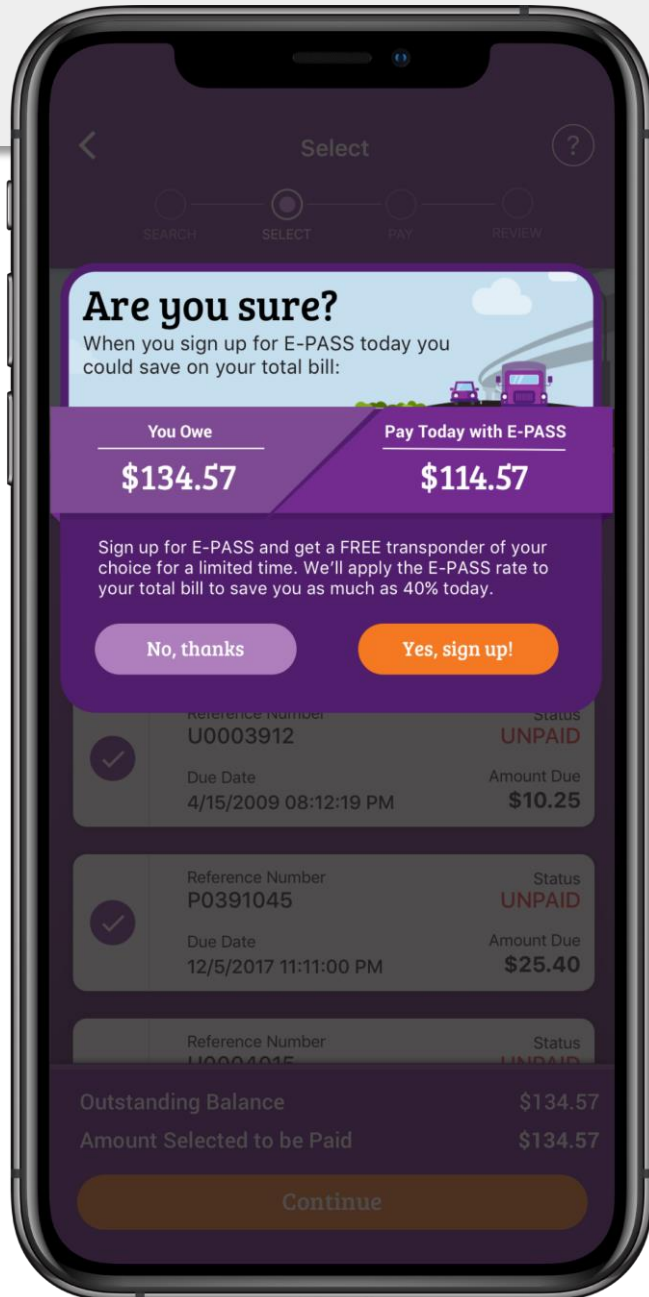


Search for Pay by Plate Invoice



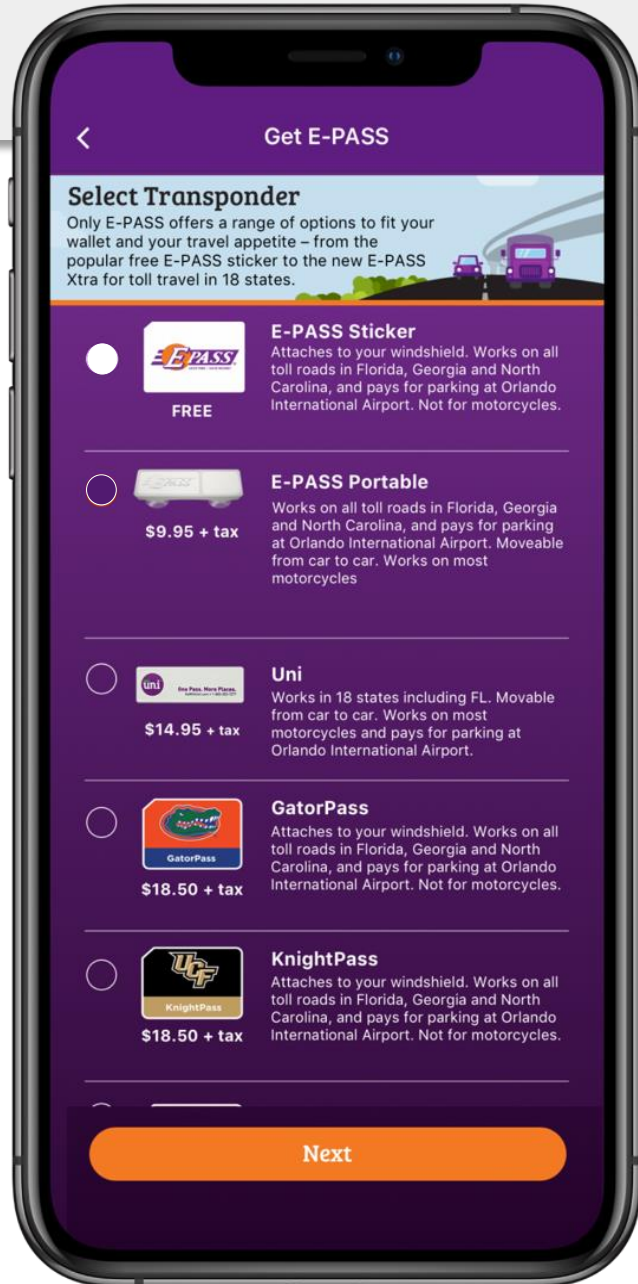
- Search for the invoice in the app
- Visual Help sections with easy instruction

Special offer to convert to E-PASS



- Pay By Plate customers who download the app will be eligible to **save up to 40%** off their total outstanding balance by signing up for E-PASS
- If a customer bypasses the offer, they will receive one additional prompt before proceeding with their transaction

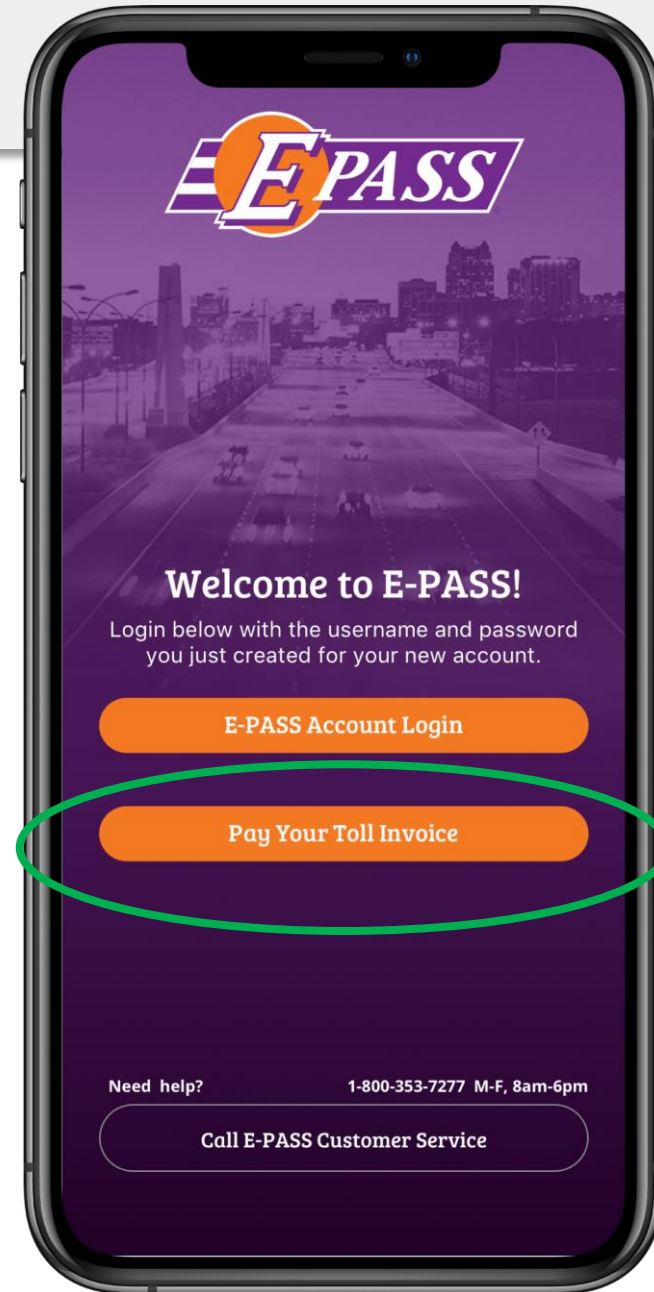
Choose Transponder



- Customers who take advantage of the offer will:
 - Receive a **free E-PASS Sticker**
 - Seamlessly sign up for an E-PASS account without leaving the app



Live NOW!



F. 5.

**THERE ARE NO BACKUP MATERIALS
FOR THIS ITEM
AT THIS TIME**