MEMORANDUM

TO:

Authority Board Members

FROM:

Claude Miller

Director of Procurement

DATE:

October 28, 2014

RE:

Approval of Supplemental Agreement No. 3

URS Corporation Southern for

S.R. 408/S.R. 417 Ultimate Interchange Improvements

Project No. 253F; Contract No. 000818

Board approval is requested for the referenced supplemental agreement with URS Corporation Southern in the amount of \$259,048.79.

In June 2013, the design effort for Project No. 253F (S.R. 408/S.R. 417 Ultimate Interchange Improvements) was put on hold at the 100% plans stage awaiting funding to move forward into the construction phase. The FY 2015 to FY 2019 Five-Year Work Plan (adopted in September 2014) includes funding for a phased construction approach for this project.

The scope of work contemplated in this supplemental agreement consists of preparation of a Phase 1 bid set of design documents from the previous 100% set of design plans. The Phase 1 project will include median widening of S.R. 417 from south of Lake Underhill Road to S.R. 408. Phase 1 will also include widening of the S.R. 417 bridges over Lake Underhill Road and Econlockhatchee Trail, construction of the necessary noise walls and stormwater ponds. The Consultant will also review changes in design standards and criteria that have been enacted since the project was put on hold and update the Phase 1 plans accordingly.

This Supplemental Agreement will be a continuation of an agreement previously approved by the Authority for this project.

Original Contract Amount	\$5,000,000.00
Supplemental Agreement No. 1	550,000.00
Supplemental Agreement No. 2	0.00
Amount of Requested Authorized Adjustment	\$ 259,048.79
Total Revised Contract Amount	\$5,809,048.79

cc: Joe Berenis, Deputy Executive Director, Engineering, Operations, Construction and Maintenance Laura Kelley, Deputy Executive Director, Finance and Administration Glenn Pressimone, Director of Engineering Contract File

SUPPLEMENTAL AGREEMENT NO. 3

TO

AGREEMENT FOR PROFESSIONAL SERVICES FINAL DESIGN

SR 408 / SR 417 ULTIMATE INTERCHANGE IMPROVEMENTS

TH	HIS SUPPLEMENTAL AGREEMENT is made and entered into this	lay
of	, 2014, by and between the CENTRAL FLORIDA EXPRESSWA	Y
AUTHORIT	TY (F/K/A ORLANDO-ORANGE COUNTY EXPRESSWAY AUTHORITY), an	
agency of th	he State of Florida, hereinafter called the "AUTHORITY" and the consulting firm of	of
URS CORP	PORATION SOUTHERN. of Orlando, Florida, hereinafter called the	
"CONSULT	ΓΑΝΤ".	

WHEREAS, Articles 2.00 and 12.0 of the Agreement for Professional Services between the AUTHORITY and the CONSULTANT, dated the 14th Day of November 2011, provides that in the event that the AUTHORITY 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:

- The AUTHORITY hereby authorizes the CONSULTANT to proceed with additional services as outlined in the CONSULTANT'S October 20, 2014 correspondence to the AUTHORITY, 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 \$180,162.66 to \$3,525,929.59.
 - b. Direct Expenses are adjusted upwards by \$1,572.25 to \$108,894.65.
 - c. The Field Survey costs remain unchanged at \$189,434.80.
 - d. The Subcontract Items are adjusted upward by \$77,313.88 to \$1,954,040.83.
 - WBO \$77,313.88
 - e. The Allowance remains unchanged at \$30,748.92.
 - f. The total Maximum Limiting Amount is increased by \$259,048.79 to \$5,809,048.79.
- 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 Agreement for Professional Services, 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

Attest:	By: Director of Procurement
Assistant Secretary	Director of Procurement
URS C	ORPORATION SOUTHERN
Attest:	By:
Print Name:	Title:
Approved as to form and execution or	
General Counsel for the AUTHORIT	

P:\253F\Supplemental Agreements\URS-253F - SA3.docx



October 20, 2014

Mr. Glenn Pressimone, P.E. CFX Project Manager Central Florida Expressway Authority 4974 ORL Tower Road Orlando, FL 32807

RE: SR 417/SR 408 Ultimate Interchange Improvements

CFX Project # 253F Contract # 000818

Contract Amendment No. 3 Request - Additional Information

Dear Glenn:

Per your request, I am providing additional information pertaining to the Contract Amendment No. 3 request.

A summary of the remaining fees on this contract and those being requested for CA No. 3 can be found on the attached CA No. 3 Fee Estimate. In review of the remaining fees to complete the Phase 1 Final plans, URS and WBQ will require addition funds. All other subs will have minor to no additional effort. RS&H does have a moderate amount of work to produce these plans. I have attached their fee estimate to produce the Phase 1 plans which is within their remaining fee.

I have also attached a revised request for Contract Amendment No. 3 Fee estimate which deducts the remaining labor fees for URS and WBQ.

Should you have any questions, please do not hesitate to contact me at (407) 422-0353.

Sincerely,

URS Corporation

Stephen Noppinger, P.E.

Project Manager

Enclosures

Project Number: 253F

DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 3)

Orange County

Summary of Remaining Fees and Contract Amendment Fee

Firm	Contract Fee	Invoiced	Fee Remaining	Phase 1 Cost	CA #3 Request	Comment
URS (Labor only wihtout survey)	\$3,376,515.85	\$3,333,940.09	\$42,575.76	\$222,738.42	\$180,162.66	
WBQ	\$685,768.16	\$678,379.36	\$7,388.80	\$84,702.68	\$77,313.88	
RS&H	\$279,304.38	\$252,592.73	\$26,711.65	\$18,322.75		Phase 1 Effort to be completed within remaining fee.
Stantec (C3TS)	\$455,002.80	\$429,247.75	\$25,755.05		\$0.00	Phase 1 Effort to be completed within remaining fee.
Nadic	\$221,049.39	\$208,824.13	\$12,225.26		\$0.00	Phase 1 Effort to be completed within remaining fee.
Southeastern	\$56,963.26	\$50,749.01	\$6,214.25		\$0.00	Phase 1 Effort to be completed within remaining fee.
Ardaman	\$178,638.96	\$177,168.32	\$1,470.64		\$0.00	Phase 1 Effort to be completed within remaining fee.
				Subtotal	\$257,476.54	
Expenses (URS)				'	\$1,572.25	

=xpenses (URS)

\$259,048.79

URS Corporation CFX Contract No.: 000818

TOTAL

Project Number: 253F

DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 3)

URS Corporation
CFX Contract No.: 000818

					SUMMARY FEE	SHEET								
CONTRACT		Project	Deputy	Senior	Engineer	Sr. Roadway	Roadway		Sr. Surveyor	Surveyor &	Survey	Total	Total	Avg.
SECTION		Manager	PM	Engineer	Engineer	Technician	Technician	Clerical	& Mapper	Mapper	Technician	Manhours	Cost	Rate
	Governmental Agencies & Public Meetings	4	3	3	3	1	0	0	0	0	0	14	\$850.69	\$60.76
	Preliminary Design Report-Review	0	0	0	0	0	0	0	0	o	0	o	\$0.00	1
	Surveys and Mapping	0	0	0	0	0	o	0	0	o	ō	o l	\$0.00	11
	Geotechnical Investigation	0	0	0	0	0	اه	0	0	0	0	0	\$0.00	
	Contamination Impact Analysis	0	0	0	0	0	٥	0	0	o	0	o	\$0.00	
407	Pavement Design	0	0	0	0	0	اه	0	0	o	0	0	\$0.00	
408	Borrow Pits	0	0	0	0	0	اه	0	0	0	0	0	\$0.00	
410	Environmental Permits	2	4	9	19	12	12	3	0	0	o	61	\$2,636.06	\$43.21
411	Utilities	0	0	0	0	0	0	0	0	0	ol	o l	\$0.00	1
412	Roadway Design	16	24	60	121	80	80	21	0	0	0	402	\$17,449.20	\$43,41
413	Structures Design	11	71	71	88	106	o l	6	0	0	0	353	\$16,266.76	\$46.08
414	Drainage Design	18	27	68	136	90	90	23	0	0	0	452	\$19,633.20	\$43.46
415	Roadway Lighting	11	17	42	83	55	55	14	0	0	0	277	\$12,050.45	\$43.50
416	Traffic Engineering	0	0	0	0	ol	o	0	0	0	o l	0	\$0.00	1
417 & 418	Signal & Pav't Marking Plans	0	0	0	0	ol	ō	0	o	ň	o l	٥	\$0.00	d
419	Right-of-Way Surveys	0	0	0	0	اه	اة	0	ŏ	ŏ	o l	اة	\$0.00	
420	Cost Estimates	0	0	0	0	o l	ő	0	ő	اَّهُ	o l	اة	\$0.00	
	Speical Provisions and Specifications	1	2	4	5	3	2	1	ŏ	ŏ	٥	18	\$844.97	\$46.94
422	Fiber Optic Network (FON)	17	26	65	129	86	86	22	٥	0	ŏ	431	\$18,722.16	И
423	Toli Plazas	ol	0	0	0	ا ا	0	0	ام	ň	هُ ا	731	\$0.00	1
424	Post Design Services	ol	0	o	0	اة	ŏ	o	ا م	ň	ا م	ان	\$0.00	1
700	Administration	0	0	o	0	ا م	ŏ	0	اَهُ	0	ŏ	اَهُ	\$0.00	
	TOTAL MANHOURS	80	174	322	584	433	325	90	0	0	0	2,008	\$0.00	B
	WAGE RATES	\$86.24	\$55.36	\$61.78	\$41.40	\$30,11	\$37.92	\$27.72	\$52.16	\$30.80	\$30.80	N/A		
	TOTAL DIRECT COSTS	\$6,899.20	\$9,632.64	\$19,893.16	\$24,177.60	\$13,037.63	\$12,324.00	\$2,494.80	\$0.00	\$0.00	\$0.00	N/A	\$88,459.03	

Salary	Related	Costs
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Total Activity Salary Costs		\$88,459.03
Overhead Activities	124.82%	\$110,414.56
Subtotal Salary Related Costs (L	\$198,873.59	
Operating Margin (Fixed Fee)	12.00%	\$23,864.83
Expenses		
Direct Reimbursables (Out-of-Pocket)		\$1,572.25
Permit Fees		\$0.00
Subtotal Expenses (Lump Sum)		\$1,572.25
Subconsultants		
WBQ		\$84,702.68
Subtotal Subconsultants (Limiting	Amount)	\$84,702.68
Fee Estimate to Complete Phase 1 Pla	ıns	\$309,013.35
Remaining Fees		
URS		\$42,575.76
WBQ		\$7,388.80
		\$49,964.56
GRAND TOTAL (Maximum Limiting	Amount)	\$259,048.79

CENTRAL FLORIDA EXPRESSWAY AUTHORITY **URS** Corporation Project Number: 253F CFX Contract No.: 000818 DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 3) **Orange County** HIGHWAY TASK LIST Governmental Agencies & Public Meetings Section 402 & 409 CADD Basis Number Hours Number Total Task of of of Hours Hours Remarks Estimate | Units Unit Sheets % 1. Coordination w/ FDOT LS N/A 0 2. Coordination w/ City of Orlando 0 LS N/A New improvements along Econ and 3. Coordination w/ Orange County LS N/A 6 Lake Underhill 4. Coordination w/ SJWMD LS N/A 0 5. FDEP LS N/A 0 6. Public Meetings EA N/A 0

N/A

N/A

N/A

N/A

N/A

N/A

0

0

0

0

0

8

Stantec

TOTAL 14

EA

EA

EA

EA

EA

7. Neighborhood Assoc. Meetings

11. Preparation of Rdway/Bridge Exhibits

12. Other Agency Coordination & Meeting

8. Authority Meetings

9. City of Orlando Meetings

10. Orange County Meetings

	Basis	Number	Hours	Number	Total	CADD	
Task	of	of	per	of	Hours	Hours	Remarks
	Estimate	Units	Unit	Sheets		%	
1. Pre-App Coord with CFX & RS&H	LS	1	16	N/A	16		Pre-app meeting and misc coordination
2. Prepare ERP Application	LS	1	40	N/A	40		Permit Modification
3. RAI Response	LS	1	0	N/A	0		
4. Aerial Map	EA			0	0		
5. Prepare Local Permits	LS			N/A	0		
6. Landowner Addresses	LS			N/A	0		
7. Mitigation Plans	Sheet				0		
SUBTOTAL					::::56	:::::a	
8. Quality Control	5%	1	N/A	N/A	3		
9. Supervision	5%	1	N/A	N/A	3		
10. Preliminary Field Review	EA	1	0	N/A	0		
11. Agency Field Review	EA	1	0	N/A	0		
12. Agency Pre-App Meeting	EA	1	0	N/A	0		
TOTAL				0	62	0	

URS Corporation CFX Contract No.: 000818

Project Number: 253F
DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 3) Orange County

HIGHWAY TASK LIST

Roadway Design Section 412

Section 412							
	Basis	Number	Hours	Number	Total	CADD	
Task	of	of	per	of	Hours	Hours	Remarks
	Estimate	Units	Unit	Sheets		%	
Typical Section Package	LS			N/A	0		
2. Access Management	LS			N/A	0		
3. Horizontal /Vertical Master Design Files	LS	1	42	N/A	42		Temporary Ramp D1X. Revise to reflect Phase 1 only.
4. Design Variations and Exceptions	LS			N/A	0		
5. Key Map	Sheet	1.	2	ī	2		Revisions, legend, board members
6. Typical Sections	Sheet	22	1	22	22		Edit, delete, and renumber, new Tem Ramp Section
7. General Notes	Sheet				0		
8. Summary of Quantities	Sheet	9	0.5	9	5		Revise, delete and renumber
9. Project Layout	Sheet	3	2.5	3	8		Edit and renumber, add new temp ran
10. Roadway Plans	Sheet	43	1.75	43	75		Edit, delete and renumber, new temp ramp to reflect Phase I construction only. Update Econ Trail topo to refle latest improvements.
11. Roadway Profiles	Sheet	1	8	1	8		New temporary ramp
12. Cross Street Plan-Profile	Sheet				0		
13. Special Profiles	Sheet				0		
14. Interchange Layout	Sheet	3	6	3	18		Revise and renumber, add new temp
15. Intersection Detail	Sheet				0		
16. Ramp Terminal Details	Sheet	10	1.5	10	15		9 edit,delete and renumber @ .5 hrs, new ramp terminal
17. Misc. Construction Details	Sheet	3	0.25	3	1		Non Std Shounder Transisition-edit &
18. Cross Section Design Files	LS	1	42	N/A	42		new temporary ramp, modify slopes f phase construction. Update for Phase
19. Cross Section Pattern	Sheet	2	2	2	4		edit, add new temporary ramp
20. Roadway Soil Survey	Sheet				0		yyp
21. Roadway Cross Sections	EA	176	0.2	176	35		edit, renumber, add new temp ramp.
22. Baseline Control/Curve Data	Sheet	7	2.5	7	18		Edit, delete an renumbeer
23. Computation Book & Quantities	LS	1	40	N/A	40		Recalculate for phase construction. Revise comp book.
24. Summary of Pay Items	LS	1	8	N/A	8		Revise and delete
SUBTOTAL				280	: :::343	0	
23. Quality Control	5%	1	N/A	N/A	17		
26. Supervision	5%	1	N/A	N/A	18		
27. Field Reviews	EA	1	8	N/A	8		2 people x 4 hrs
28. Technical Meetings	EA	8	2	N/A	16		Bi weekly meetings

URS Corporation

Project Number: 253F

CFX Contract No.: 000818

DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 3)

Orange County

HIGHWAY TASK LIST

Drainage Design Section 414

Decitor 414							
	Basis	Number	Hours	Number	Total	CADD	
Task	of	of	per	of	Hours	Hours	Remarks
	Estimate	Units	Unit	Sheets		%	L.
Determine Base Clearance Elev	Per Loc.	0	0	N/A	0		
2. Pond Siting Analysis & Report	Per Basin			N/A	0		
3. Design of Cross Drains	EA	2	16	N/A	32		Re-evaluate for phase 1 construction
4. Design of Roadway Ditches	Ditch/Mile	0.5	24	N/A	12		Estimate 1/2 mile of new ditches for re- routing of phase 1 condition (Infield areas and SR 417 median).
5. Design of Outfalls	EA	0	12	N/A	0		
6. Design of Pond	EA	1	30	N/A	30		Redefine Pond 13 Basin area based on Phase 1 Concept and refine pond design for interim condition.
7. Design of Ditch Treatment	Per System	0	0	N/A	0		
8. Design of Flood Plain Comp Area	EA	0	0	N/A	0		
9. Design of Storm Drains	EA	24	3	N/A	72		Modify 14 previoulsy designed structures and estimate 10 new structures or modify existing structures based on Phase 1 concept
10. Optional Culvert Material	LS	0	0	N/A	0		
11. French Drain Systems	Per 1K Ft	0	0	N/A	0		
12. Drainage Wells	EA	0	0	N/A	0		
13. Drainage Design Doc Report	LS	1	40	N/A	40		Updated drainage report to only include phase 1 documents. This includes renumbering and adjustments to the report.
14. Bridge Hydraulic Report	EA	0	0	N/A	0		

CENTRAL FLORIDA EXPRESSW Project Number: 253F	AY AUT	HORITY				URS Corporation CFX Contract No.: 000818						
DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 3) Orange County												
Orange County		HIGHWA	VTASKII	CT								
15. Drainage Map	Sheet	4	27.25	4	109	DM(1) Flood data table to be revised @ 1 hr, DM(2) Ramp D1 Rework Required @ 8 hrs, DM(3) Remove, DM(4) Remove, DM(5) Rework Required @ 24 hrs, DM(6) Rework Required @ 24 hrs, DM (7) Rework Required @ 16 hrs, Existing Drainage Structure Sheets 1-6 Rework Required @ 36 hrs total [28 hrs per sheet						
		-				previously used]						
16. Interchange Drainage Map	Sheet	0	0	N/A	0							
17. Summary of Drainage Structures	Sheet	3	6	3	18	Revise all sheets, remove structures no being used.						
18. Optional Pipe/Culvert Material	Sheet	0	0	N/A	0							
19. Drainage Structure Sheet	EA	24	3	N/A	72	Assume 24 drainage structures (14 previously designed to be modified and 10 new structures or modifications to existing structures)						
20. Misc Drainage Details	Sheet	0	0	N/A	0							
21. Lateral Ditch Plan-Profile	Sheet	0	0	N/A	0							
22. Lateral Ditch Cross Sections	EA	0	0	N/A	0							
23. Retention/Det Pond Details	Sheet	4	0.2	4	1	Re-number sheets						
24. Pond Cross Sections	EA	7	0.2	7	i	Re-number sheets						
25. Erosion Control Plan	Sheet	0	0	0	0							
26. SWPPP	Sheet	0	0	0	0							
27. Summary of Pipe Desilting	Sheet	1	2	1	2	Update Sheet with Phase 1 quantities						
28. Bridge Deck Spread and Downspout De	LS	0	0	0	0							
SUBTOTAL			2 12 2 2 3 3 3 4 3	19	389							
29. Quality Control	5%	1	N/A	N/A	19							
30. Supervision	5%	1	N/A	N/A	20							
31. Field Reviews	EA	i	8	N/A	8							
32. Technical Meetings	EA	8	2	N/A	16	Bi-weekly meetings						
TOTAL				19	452	0						

URS Corporation CFX Contract No.: 000818

Project Number: 253F

DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 3)
Orange County

HIGHWAY TASK LIST

Roadway Lighting

Section 415

	Basis	Number	Hours	Number	Total	CADD	
Task	of	of	per	of	Hours	Hours	Remarks
	Estimate	Units	Unit	Sheets		%	
Lighting Justification Report	EA	0	0	N/A	θ		
2. Voltage Drop Calculations	LS	1	48	N/A	48		Analysis and Voltage drop calculations for both feeder and branch circuits for Phase I.
3. Reference & Master Design Files	LS	1	90	N/A	90	1	Updating master Lighting design file to reflect Phase I design.
4. Temporary Lighting Analysis	LS	1		N/A	0		
5. Design Documentation	LS	1	8	N/A	8		documentation on a CD ROM and providing with all Cad files for final submittal package. Includes hours for new lighting photometrics and printouts
6. Key Sheet	Sheet	1	2	1	2		Revise Key with new sheet numbers remove OOCEA reference, update CFX board members.
7. Summary of Pay Items	Sheet			0	0		
8. Tabulation of Quantities	Sheet	5	4	5	20		Revise and edit
9. General Notes/Pay Item Notes	Sheet	1	4	1	4		Revise and edit
10. Pole Data	Sheet	4	3	4	12		Phase I design
11. Service Point Details	Sheet	1	4	1	4		Revise per Phase I design plus new detail
12. Project Layout	Sheet			0	0		NA
13. Plan Sheet	Sheet	23	2	23	46		Revise per Phase I design.
14. Special Details	Sheet	1	8	1	8		Ramp Flashing Beacon modification
15. Temporary Lighting Data & Detail	Sheet			0	0		NA
SUBTOTAL				36	742	:::::: 0	
16. Quality Control	5%	1	N/A	N/A	12		
17. Supervision	5%	1	N/A	N/A	13		
18. Field Review	EA	1	8	N/A	8		1 Field Visit - 1 person/8hrs.
19. Coordination with Utility Company	LS	1	2	N/A	2		

TOTAL 36 277

CENTRAL FLORIDA EXPRESSY	VAY AUT	HORITY					URS Corporation
Project Number: 253F							CFX Contract No.: 000818
DESCRIPTION: SR 408/SR 417 Ultima	te Intercha	nge (CO	NTRACT A	AMENDME	ENT NO. 3)		
Orange County					•		
		HIGHWA	Y TASK LI	ST			
Cost Estimates							
Section 420							
	Basis	Number	Hours	Number	Total	CADD	
Task	of	of	per	of	Hours	Hours	Remarks
	Estimate	Units	Unit	Sheets		%	
1. Initial Setup	LS	ACCUPACION NO. 1 ST. 115 LL.		N/A	0		
2. 30% Construction Cost Est.	LS			N/A	0		
3. 60% Construction Cost Est.	LS			N/A	0		
4. 90% Construction Cost Est.	LS			N/A	0		
5. 100% Construction Cost Est.	LS	1	16	N/A	16		
Pre-Bid Construction Cost Est.	LS	1	16	N/A	16		
7. Final Construction Cost Est.	LS	1	16	N/A	16		
SUBTOTAL				0	::::48	q	
6. Quality Control	5%	_ 1	N/A		2		
7 Supervision	5%	1	N/A	N/A	3		
TOTAL				0	53	0	

	Basis	Number	Hours	Number	Total	CADD	
Task	of	of	per	of	Hours	Hours	Remarks
	Estimate	Units	Unit	Sheets		%	
1. Roadway	LS			N/A	0		
2. Drainage	LS			N/A	0		
3. Structures	LS			N/A	0		
4. Signing & Pavement Marking	LS			N/A	0		
5. Signalization/FON	LS	1	16	N/A	16		
SUBTOTAL;				0	16	:::::::0	
6. Quality Control	5%	1	N/A	N/A			
7. Supervision	5%	1	N/A	N/A	1		

Orange County

Project Number: 253F
DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 3)

URS Corporation

CFX Contract No.: 000818

HIGHWAY TASK LIST

	Basis	Number	Hours	Number	Total	CADD	
Task	of Estimate	of Units	per Unit	of Sheets	Hours	Hours %	Remarks
1. ITS Analysis	LS	1	8	N/A	8		Review 599-511 TMS site details for new camera location to view under Ramp E and SR 417 bridge.
2. Communications Plan Analysis	LS	1	24	N/A	24		Coordination needed to accommodate additional camera and unexpected roadway impacts.
3. Lightning Protection Analysis	LS			N/A			NA
Power Subsystem	LS	1	4	N/A	4		Revise for Phase 1
5. Voltage Drop Calculations	LS	1	3	N/A	3		Add an additional CCTV to existing TMS pole (408-17.7EB).
6. Design Documentation	LS	1	4	N/A	4		Update for Phase 1
7. Existing ITS System	LS	1	8	N/A	8		2 new detail sheets x 4hrs. Per sheet - one sheet for conduit routing and one for new camera to TMS pole
8. Queue Analysis	LS			N/A	0		NA
9. Reference and Master ITS Design File	LS	1	16	N/A	16		All efforts required to revise master IT design file to reflect Phase I work.
 Reference and Master Communications Design File 	LS	1	8	N/A	8		Edit and revise for Phase 1
11. Pole Elevation Analysis	LS	1	24	N/A	24		Per CFX request provide bucket truck analysis for all camera sites to ensure 100% camera coverage. 3 sites using one bucket truck. Lane closure will be paid for under CFX maintenance contract. 2 people at 12hrs
12. Sign Panel Design Analysis	LS			N/A	0		NA
13. Quantities	LS	23	4	23	92		1 sheet x 4hr + 22 Sheets x 4 hr = 92 hrs. Incorporate new pay items
14. Cost Estimate		1	4	N/A	4		1 Engineer's Cost Estimate
15. Technical Special Provisions		1	8	N/A	8		Revise specs and update per new CFX standards.
16. Other ITS Analysis				N/A	0		
17. Key Sheet	Sheet	1	2	1	2		Revise Key with new sheet numbers remove OOCEA reference, update CF board members.
19. Tabulation of Quantities	Sheet	4	5	4	20		1 sheet @ 8 hrs plus 3 sheets @ 4 hrs 20 hours
20. General Notes	Sheet	1	3	1	3		3 hrs. to Review / Modify Standard existing general notes and pay item notes
21. Project Layout	Sheet	2	4	2	8		2 Sheets * 4 hrs./sheet
22. Typical and Special Details	Sheet	31	1	31	31		Revise 31 current details to reflect new CFX standard details. Project Specific Details include: Plan/Elevation Details for CCTV, TMS, & DCS mounting, Typical Cabinet Layout Details & Wiring Diagrams

CENTRAL FLORIDA EXPRESSW Project Number: 253F							URS Corporation CFX Contract No.: 000818					
DESCRIPTION: SR 408/SR 417 Ultima Orange County												
	HIGHWAY TASK LIST											
23. Plan Sheet	Sheet	23	1	23	23		23 Plan Sheets Phase 1 revisions					
24. ITS Communications Plans	Sheet	1	8	1	8		Diagram					
25. Fiber Optic Splice Diagrams	EA	10	2	10	· 20		10 Splice Diagrams					
26. Lightning Protection Plans	EA			0	0		NA					
27. Cross Sections	EA	3	2	3	6		3 CCTV cross sections at new locations					
28. Guide Sign Work Sheet	EA			0	0		NA					
29. Speical Service Point Details	EA			0	0		NA					
30. Strain Pole Schedule	PI			0	0		NA					
31.Overhead / Cantilever Sign Structures	EA			0	0		NA					
32. Other Overhead Sign Structures (Long Span, Monotube, etc.)	EA	1	24	1	24		Modify existing TMS pole structure for new CCTV mount.					
33. Temporary FON	EA			. 0	0		NA					
34. Interim Standards	LS			0			NA					
SUBTOTAL				: : : : : 100	:-:: 348							
35. Quality Control	5%	1	N/A	N/A	17							
36. Supervision	5%	1	N/A	N/A	18							
37. Power Company Coord.	LS	1	4	N/A	4							
38. Technical Meetings	EA	4	2	N/A	8							
39. Field Review	EA	3	12	N/A	36		TMC, Bucket truck (2 days)					
TOTAL		<u> </u>		100	431	1						

URS Corporation

Project Number: 253F CFX Contract No.: 000818

DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 3)

Orange County

Structure Design Section 413

Section 41	13						
			Desig	-C.41(1442)-2341-2340-2	roduction	Suff	
100					urs.		
Lask No.	Task:	Units 7	No. of	Hours	Novot		Gomments
			Units	per.	Sheets	Total	
				Wnit.			
	GeneralDrawings	Factor of the same			D0412420		
1	Index of Drawings	Sheet	9	4	9	36	Edit and update for Phase I
2	Project Layout	Sheet	1	4	1	4	Edit and update for Phase 1
				1		}	
3	General Notes and Bid Item Notes	Sheet	3	4	3	12	Edit and update for Phase I
,	General Notes and Bid Rem Notes	Silect	ا ا	1			Dan and apasso for these t
			i				
3a	U-Beam General Notes and Bid Item Notes	Sheet				0	
4	Incorporate FDOT Standards	Sheet				0	
4a	Develop U-Beam Standards & Drawings	Sheet				0	
5	Incorporate Report of Core Borings	Sheet	1	4		4	Edit and update for Phase 1
6	Existing Bridge Plans	LS				0	
				40	27/4	40	Edit and undete for Dhage 1
7	Computation Book and Quantities	LS	1	40	N/A	40	Edit and update for Phase 1
					T	_	7
8	Cost Estimates	LS	1	8	N/A	8	Edit and update for Phase 1
							E. P
9	Miscellaneous Structure Details	Sheet	5	1	5	5	Edit and update for Phase 1
10	Technical Special Provisions	LS	1		N/A	0	
THE SECOND SECOND						强烈	
	riigtiires=Mikcellancons Darks & Drawing	Subtotals		75.5	118	109	
			000	47876	5.00	2 (A) (A) (A) (A)	
Daskeno	Tale : .	Total	Task 10	Taskill	Task 12	Taske18	Teskus (Taskus (Taskus (Taskus (Taskus
10.1	Bridge 1: SR 417 NB over Lake Underhill	12				12	
10.1	Bridge 2: SR 417 NB over Lake Underhill	12		 		12	
10.2	Bridge 3: SR 417 NB over Econ Trail	12			<u> </u>	12	
10.3	Bridge 4: SR 417 NB over Econ Trail		<u> </u>				
10.4	Bridge 5: Ramp C over Econ Trail			 			
	Bridge 6: Ramp E over SR 408	0		 		0	
10.7	Bridge 7: Ramp C Flyover (Concrete)	0				0	
	Bridge 8: Ramp A Flyover (Concrete)	2.70				0.00	
10.8	Bridge 9: Ramp D (Concrete)	38-X0		<u> </u>		00/01	
	Bridge 10: Ramp D1/A (Concrete)	0				0	
	Bridge 11:	0					
	Bridge 12:	0					
	Retaining Walls @ Bridges	17:46					1.86
	Retaining Walls along Roadway	28	No. of Parts	1000	26.0	200	28
				GEZ A SE			ACT TO SELECT THE PROPERTY OF
	Miscellaneous Structures	84			No.		84
10.15	Conceptual Analysis/Study Phase	0		5.5 9.5			
	Structures Dechnical Subtotals	202	0	Ô	0	- 24	0 0 0 0 94 84
			No. of.	Hours			
Dask No.	Task T	Units	Units .	per	Logi		Comments
		Detect Strill		Unit	in the same		
11	Field Reviews	LS					
12	Technical Meetings Ouality Assurance / Quality Control	LS	0/	50/	14		
	Independent Peer Review	LS	<u>%</u>	5% 0%	16 0		
		LS LS	% %	5%	16		· · · · · · · · · · · · · · · · · · ·
LO CI	Supervison Structures Non-Lechnica		% 345%	2%	32	William School	
14	Coordination	LS	**************************************	3%	10	HE STATE OF THE STATE	
	Coordination es=Miscellaneous llasks & Diawings Non-		70 #4486258	3% 3%	G GEGRESSES	AND POST OFFICE	
Stramar	es - wiscenqueous rasis & Drawings, stone & Coordinat	A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Sec. 19.	353		
	RUIDIOGEN	CIRIO TENOS	於西灣語言教	市政会課	後がいいがい	25000000000000000000000000000000000000	MARKET AND A STATE OF THE STATE

URS Corporation

Project Number: 253F CFX Contract No.: 000818

DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 3)

Orange County
Structure Design
Section 413

Bridge 1: SR 417 NB over Lake Underhill

Section	413	Bridge 1:	SR 417 1	Substitution of the same	CONTRACTOR OF THE	- Commercial Commercia	
Tarke Sko	Asse	Unit	No or Dnits	thit	No. of Sheets	Total Hours	Comments
			General L	ayout De	sign and	Plans	
13.1	Overall Bridge Final Geometry	LS	1			0	
13.2	Expansion/Contraction Analysis	EA Unit	1			0	
13.3	General Plan and Elevation	Sheet	1			0	
13.4	Construction Staging	Sheet	1			0	
13.5	Approach Slab Plan and Details	Sheet	4			0	
13.6	Miscellaneous Details	Sheet	23	0.5	n and Pla	12	Revise, edit, renumber all sheets
							
13.7	End Bent Geometry	EA	2			0	
13.8	Wingwall Design and Geometry	EA Bent				0	
13.9	End Bent Structural Design	EA	2			0	
13.10	End Bent Plan and Elevation	Sheet	4			0	
13.11	End Bent Details	Sheet	3			0	
		In	termedia	te Bent D	esign an	d Plans	
13.12	Bent Geometry	EA Bent	0	0		0	
13.13	Bent Stability Analysis	EA Design	0	0		0	
	Bent Structural Design	EA Design	0	0		0	
13.15	Bent Plan and Elevation	Sheet	0	0	0	0	
13.16	Bent Details	Sheet	0	0	0	0	
			Pier	Design a	and Plans		_
13.17	Pier Geometry	EA Pier	0	0		0	
13.18	Pier Stability Analysis	EA Design	0	0		0	
13.19	Pier Structural Design	EA Design	0	0		0	
13.20	Pier Plan and Elevation	Sheet	0	0	0	0	
13.21	Pier Details	Sheet	0	0	0	0	
		Mi	isc. Subst	ructure l	Design an	d Plans	
13.22	Foundation Layout	Sheet	1			0	
13.23	Fender System	LS				0	
		Sup	erstructi	ure Deck	Design a	nd Plans	
13.24	Finish Grade Elevation (FGE) Calculation	LS	1			0	
13.25	Finish Grade Elevations	Sheet	ı			0	
13.26	Bridge Deck Design	EA section	1			0	
13.27	Bridge Deck Reinforcing and Concrete Quantities	EA Unit	2			0	
13.28	Superstructure Plan	Sheet	1			0	
13.29	Superstructure Section	Sheet	1			0	
	Miscellaneous Bridge Deck Details	Sheet	1			0	

URS Corporation

Project Number: 253F CFX Contract No.: 000818

DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 3)
Orange County
Structure Design

Section 413 Bridge 1: SR 417 NB over Lake Underhill

Section 413		Bridge 1:			CONTRACTOR CONTRACTOR	ernili	
Task No.	Task	Unit	units.	Hours/ Calt	Name? Success	Total Hours	(Comments)
				nforcing	Bar Lists		
13.31 Rein	nforcing Bar List	Sheet	3			0	
		Co			e Girder		
			Lon		Analysis		
	tion Properties	LS	1	0		0	
	erial Properties	LS	1	0		0	
13.35 Con	struction Sequence	EA Unit	0	0		0	
13.36 Ten	don Layouts	EA Unit	0	0		0	
13.37 Live	e Load Analysis	EA Unit	0	0		0	
13.38 Tem	perature Gradient	EA Unit	0	0		0	
13.39 Tim	e Dependent Analysis	EA Unit	0	0		0	
13.40 Stre	ss Summary	EA Unit	0	0		0	
13.41 Ulti	mate Moments	EA Unit	0	0		0	
13.42 Ulti	mate Shear	EA Unit	0	0		0	
13.43 Con	struction Loading	EA Unit	0	0		0	
13.44 Fran	ning Plan	Sheet	0	0	0	0	
	der Elevation, including	Sheet	0	0	0	0	
	ler Details	Sheet	0	0	0	0	
13.47 Spli	ce Details	Sheet	0	0	0	0	
13.48 Gird	der Deflections and Camber	Sheet	0	0	0	0	
			Simple S	Span Cor	icrete De	sign	
13.49 Pres	stressed Beam	EA Beam	3			0	
13.50 Pres	stressed Beam Schedules	Sheet	1			0	
13.51 Fran	ning Plan	Sheet	1			0	
				Load Ra	ting		
13.52 Loa		EA Unit	5			0	
	18, Stricture	Mid Spar	(Concre	te Totals	23	12	

URS Corporation

Project Number: 253F CFX Contract No.: 000818

DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 3)

Orange County
Structure Design
Section 413

Bridge 2: SR 417 SB over Lake Underhill

Section	413	Bridge 2:	SK 417 5	D Over L	ake Unde		
Talk No.	Tak	Unit	Zic.of Units	Hours/ Unit	Zo of Suecis	Total Hours	Connerts:
Genera	l Layout Design and Plans						
13.1	Overall Bridge Final Geometry	LS	1			0	
13.2	Expansion/Contraction Analysis	EA Unit	1			0	
13.3	General Plan and Elevation	Sheet				0	
13.4	Construction Staging	Sheet	1			0	
13.5	Approach Slab Plan and Details	Sheet	2			0	
13.6	Miscellaneous Details	Sheet	24	0.5	24	12	Revise, edit, renumber all sheets
End Be	nt Design and Plans						
13.7	End Bent Geometry	EA	2			0	
13.8	Wingwall Design and Geometry	EA Bent				0	
13.9	End Bent Structural Design	EA	2			0	
13.10	End Bent Plan and Elevation	Sheet	2			0	
13.11	End Bent Details	Sheet	2			0	
Interm	ediate Bent Design and Plans						
13.12	Bent Geometry	EA Bent	0	0		0	
13.13	Bent Stability Analysis	EA Design	0	0		0	
13.14	Bent Structural Design	EA Design	0	0		0	
13.15	Bent Plan and Elevation	Sheet	0	0	0	0	
13.16	Bent Details	Sheet	0	0	0	0	
Pier De	sign and Plans						
13.17	Pier Geometry	EA Pier	0	0		0	
13.18	Pier Stability Analysis	EA Design	0	0		0	
13.19	Pier Structural Design	EA Design	0	0		0	
13.20	Pier Plan and Elevation	Sheet	0	0	0	0	
13.21	Pier Details	Sheet	0	0	0	0	
Misc. S	ubstructure Design and Plans						
13.22	Foundation Layout	Sheet	0		0	0	
13.23	Fender System	LS				0	
Supers	ructure Deck Design and Plans						
13.24	Finish Grade Elevation (FGE) Calculation	LS	1			0	
13.25	Finish Grade Elevations	Sheet	1			0	
13.26	Bridge Deck Design	EA section	l			0	
13.27	Bridge Deck Reinforcing and Concrete Quantities	EA Unit	l			0	
			L				

CENT	RAL FLORIDA EXPRESSV	VAY AU	THORI	TY			URS Corporation
	Number: 253F						CFX Contract No.: 000818
•	IPTION: SR 408/SR 417 Ultimate I	nterchange	(CON	TRACT A	MENDM	ENT NO.	. 3)
	ge County						
	e Design						
Section		Bridge 2:		B over L	ake Unde		
13.28	Superstructure Plan	Sheet	1			0	
13.29	Superstructure Section	Sheet	1			0	
13.30	Miscellaneous Bridge Deck Details	Sheet				0	
Reinfor	cing Bar Lists						
13.31	Reinforcing Bar List	Sheet	0		0	0	
Contin	uous Concrete Girder Design						
Longitu	idinal Analysis						
13.33	Section Properties	LS	1	0		0	
13.34	Material Properties	LS	1	0		0	
13.35	Construction Sequence	EA Unit	0	0		0	
13.36	Tendon Layouts	EA Unit	0	0		0	
13.37	Live Load Analysis	EA Unit	0	0		0	
13.38	Temperature Gradient	EA Unit	0	0		0	
13.39	Time Dependent Analysis	EA Unit	0	0		0	
13.40	Stress Summary	EA Unit	0	0		0	
13.41	Ultimate Moments	EA Unit	0	0		0	
13.42	Ultimate Shear	EA Unit	0	0		0	
13.43	Construction Loading	EA Unit	0	0		0	
13.44	Framing Plan	Sheet	0	0	0	0	
13.45	Girder Elevation, including Grouting Plan and Vent Locations	Sheet	0	0	0	0	
13.46	Girder Details	Sheet	0	0	0	0	
13.47	Splice Details	Sheet	0	0	0	0	
13.48	Girder Deflections and Camber	Sheet	0	0	0	0	
			Simple	Span Co	ncrete De	sign	
13.49	Prestressed Beam	EA Beam	2			0	
13.50	Prestressed Beam Schedules	Sheet			0	0	
13.51	Framing Plan	Sheet	0	16	0	0	
				Load Ra	nting		
13.52	Load Rating	EA Unit	6			0	
	15) Structure	MidSpar	ı Concre	te Totals	24	12	

URS Corporation CFX Contract No.: 000818

CENTRAL FLORIDA EXPRESSWAY AUTHORITY
Project Number: 253F
DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 3)

Orange County Structure Design

17.1 Ke 17.2 Ho Permanent 17.3 Ve 17.4 Ser	ayout Design and Plans by Sheet brizontal Wall Geometry t Proprietary Walls ertical Wall Geometry mi-Standard Drawings all Plan and Elevations (Control Drawings)	Sheet EA Wall Sheet	1 41	Hourd Units	No. of	Total Hours	«Comments: 192
17.1 Ke 17.2 Ho Permanent 17.3 Ve 17.4 Ser	cy Sheet Drizontal Wall Geometry t Proprietary Walls Dritical Wall Geometry mi-Standard Drawings all Plan and Elevations (Control Drawings)	EA Wall	41				
17.2 Ho Permanent 17.3 Ve 17.4 Sei	orizontal Wall Geometry t Proprietary Walls crtical Wall Geometry mi-Standard Drawings all Plan and Elevations (Control Drawings)	EA Wall	41				
17.3 Ve 17.4 Ser	t Proprietary Walls extical Wall Geometry mi-Standard Drawings all Plan and Elevations (Control Drawings)	EA Wall			l I	_	
17.3 Ve 17.4 Ser	ertical Wall Geometry mi-Standard Drawings all Plan and Elevations (Control Drawings)	-				0	
17.4 Se	mi-Standard Drawings all Plan and Elevations (Control Drawings)	-					
	all Plan and Elevations (Control Drawings)	Sheet	9			0	
17.5		I	3			0	
17.5 Wa		Sheet	37			0	
17.6 De	etails	Sheet	2			0	
emporar	y Proprietary Walls						
17.7 Ve	ertical Wall Geometry	EA Wall	32			0	
17.8 Se	mi-Standard Drawings	Sheet	0			0	
17.9 Wa	all Plan and Elevations (Control Drawings)	Sheet	7			0	
17.10 De	etails	Sheet	3			0	
Cast in Pla	ace Retaining Walls						
17.11 De	esign	EA Design	0	0		0	
17.12 Ve	ertical Wall Geometry	EA Wall	0	0		0	
17.13 Ge	eneral Notes	Sheet	0	0	0	0	
17.14 Wa	all Plan and Elevations (Control Drawings)	Sheet	0	0	0	0	
17.15 Se	ctions and Details	Sheet	0	0	0	0	
17.16 Re	einforcing Bar List	Sheet	0	0	0	0	
Other Reta	aining Walls						
17.17 De	esign	EA Design	12			0	
17.18 Ve	ertical Wall Geometry	EA Wall				0	
17.19 Ge	eneral Notes, Tables & Misc. Details	Sheet	5	4	5	20	Revise and update for Phase 1
17.20 W	all Plan and Elevations	Sheet	46	1	46	46	Revise and update for Phase 1
17.21 De	etails	Sheet		<u> </u>	0	0	<u> </u>
Credit		,		r	,		<u></u>
			_				
			1	0		0	
		LS uctures-Reta	no striction	STATE OF THE STATE OF			

URS Corporation

Project Number: 253F
DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 3)

CFX Contract No.: 000818

Orange County Structure Design

Section	413	Walls @ Ro	adway S	ections			
Talk Ko	Tuck	, Oate	No et Units	Hours. Units	No. of Sheets	Total Hours	Comments # 15, 10.
Genera	l Layout Design and Plans						
17.1	Key Sheet	Sheet	0	0	0	0	
17.2	Horizontal Wall Geometry	EA Wall	0	12		0	
Perman	ent Proprietary Walls						
17.3	Vertical Wall Geometry	EA Wall	0	16		0	
17.4	Semi-Standard Drawings	Sheet	0	0	0	0	
17.5	Wall Plan and Elevations (Control Drawings)	Sheet	0	10	0	0	
17.6	Details	Sheet	0	0	0	0	
Tempo	rary Proprietary Walls						
17.7	Vertical Wall Geometry	EA Wall	0	4		0	
17.8	Semi-Standard Drawings	Sheet	0	0	0	0	
17.9	Wall Plan and Elevations (Control Drawings)	Sheet	0	12	0	0	
17.10	Details	Sheet	7	4	7	28	Revise, edit and renumber Temp Critical Wall Shts
Cast in	Place Retaining Walls						
17.11	Design	EA Design	0	48		0	
17.12	Vertical Wall Geometry	EA Wall	0	0		0	
17.13	General Notes	Sheet	0	0	0	0	
17.14	Wall Plan and Elevations (Control Drawings)	Sheet		0	0	0	
17.15	Sections and Details	Sheet	0	16	0	0	
17.16	Reinforcing Bar List	Sheet	0	0	0	0	
Other 1	Retaining Walls						
17.17	Design	EA Design	0	12	0	0	
17.18	Vertical Wall Geometry	EA Wall				0	
17.19	General Notes, Tables & Misc. Details	Sheet			0	0	
17.20	Wall Plan and Elevations	Sheet			0	0	
	Details	Sheet			0	0	
	K. T. C. S.	badway-Ren	ining W	ill Totals	= 77	28	

URS Corporation CFX Contract No.: 000818

Project Number: 253F
DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 3)

Orange County
Structure Design

Sectio	n 413						
Task		Gir	Na. of Units	Hours/Oak	No. of	Hours	Genments
	rete Box Culvert						
18.1	Concrete Box Culverts	EA	0	0		0	
18.2	Concrete Box Culverts Extensions	EA	1)	0		0	
Strain	Poles						
	a. 10. : D.	Initial Config	0	0		0	
18.3	Steel Strain Poles	EA Add'l Config	0	0		0	
18.4	Concrete Strain Poles	Initial Config	()	()		0	
		EA Add'l Config	0	0		0	
Mast	Arms						
18.5	Mast Arms	EA Pole	0	0		0	
Overl	nead & Cantilever Sign Structures						
18.6	Cantilever Sign Structures	EA				0	
18.7	Overhead Span Sign Structures	EA				0	
18.8	Special (longspan) Overhead Span Sign Structures	EA	0	0		0	
18.9	Monotube Overhead Sign Structure	EA	0	0		0	
18.10	(Superstr.)	EA	0	0		0	
	Mast Lighting Fixtures		,				
18.11	High Mast Lighting Structures	EA	0	0	L	0	
Sound	Barrier Walls (Ground Mount)			,			
18.12	Horizontal Wall Geometry	EA Wall	1	40		40	Special Sound Wall Design
	Vertical Wall Geometry	EA 500 feet of	0	16		0	
	Semi-Standard Drawings	Sheet	0	0	0	0	
18.15	Control Drawings	Sheet	22	2	22	44	Revise, edit and renumber sheets
18.16	IStandards	EA Design	0	12		0	
18.17	Standards	EA Design	0	0		0	
	Aesthetic Details	LS		12	<u> </u>	0	
<u> </u>	al Structures					·····	
	Special Structures	LS	Û	Ü		0	
	10	Miscellan	eous Struc	ures Lotals	22	F84	

Project Number: 253F

Report Tabs Covers (Laminated)

Raster Color Plots

DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 3) MISCELLANEOUS & OUT-OF-POCKET EXPENSES \$0.00 0 sheets @ \$6.00 /sheet MATERIAL (Xerographic Bond) \$0.00 \$14.00 /sheet MATERIAL (Mylar) 0 sheets @ REPRODUCTION COST: Vellum Copies Copies Blueline 11 x 17 8.5 x 11 0 0 sheets sheets n sheets sheets Phase I sheets sheets 0 sheets Phase II sheets 0 n sheets sheets Phase III sheets 0 sheets 0 sheets 0 Phase IV n cheets 0 sheets sheets 0 sheets 0 sheets Final sheets 0 sheets 0 sheets **TOTALS** 0 sheets 0 sheets 0 sheets @ \$0.00 Blueline Cost **CADD Color Plots** 0 SF @ \$4.00 = \$0.00 \$0.11 0 sheets @ \$0.00 11 x 17 0 sheets @ \$0.07 \$0.00 8.5 x 11 Color Copies \$0.99 0 sheets @ \$0.00 8.5"x11" 0 sheets @ \$0.55 \$0.00 11"x17" 0 bindings @ \$0.20 **GBC** Binding \$0.00 \$5.00 0 each @ \$0.00 Display Boards 0 each @ \$1.00 \$0.00 CD 3 Ring Binders 0 each @ \$6.58 \$0.00 0 each @ \$2.00 Screw Posts \$0.00

\$1.75

\$2.70

\$0.00

\$0.00

\$0.00

\$0.00

TOTAL REPRODU	JCTION	COS	STS										\$0.
TRAVEL F	rom.	C	rlando		<u> </u>								
Per Diem		0	trips x	0	people x	0	days/trip @	\$0.00	/diem			\$0.00	
Comm		0	trips x	0	people @:	\$0.00	/trip					\$0.00	
POV		5	trips x	10	mı @	\$0.445	/mi					\$22.25	
Rental		0	trips x (0	days/trip @	\$0.00	/day +		mi @	\$0.55	/mi)	\$0.00	
To CFX:													
Per Diem		0	trips x	0	people x	0	days/trip @	\$0.00	/diem			\$0.00	
Comm		0	trips x	0	beoble @	\$0.00	/trip					\$0.00	
POV		0	trips x	5	mi (A	\$0.445	/mi					\$0.00	
Rental		0	trips x (0	days/trip @	\$0.00	Aday +		mi @	\$0.55	/mi)	\$0.00	
To Project From Ta	mpa:												
Per Diem		0	trips x	0	people x	2	days/trip @	\$0.00	/diem			\$0.00	
Comm		0	trips x	0	people a	\$0.00	/trip					\$0.00	
POV		0	trips x	100	mı 🥳	\$0.445	/mı					\$0.00	
Rental		0	trips x (0	days/trip ⟨û⟩	\$0.00	/day					\$0.00	
TOTAL TRAVEL (COSTS				-								\$22

0 each @

0 each @

SF@

MISCELLANEOUS COSTS			
Postage & Telephone	0 months @	\$70.00 /month	\$0.00
Overnight Delivery	0 each @	\$22.31 /each	\$0.00
Same Day Delivery	o each @	\$17.00 /each	\$0.00
Film & Processing	rolls @	/roll	\$0.00
Bucket Truck	ı week @	\$1,550.00 /week	\$1,550.00

TOTAL EXPENSES (Lump Sum) January 24, 2001

\$1,572.25

URS Corporation

CFX Contract No.: 000818

ORLANDO-ORANGE COUNTY EXPRESSWAY AUTHORITY

Project Number: 253F

DESCRIPTION: SR 408/SR 417 Ultimate Interchange - Phase I

WBQ Design & Engineering OOCEA Contract No.: 000818

					SUMMARY FEE SI	HEET (SUBCONS	ULTANT - WBQ							
CONTRACT	ACTIVITY	Project Manager	Chief Engineer	Senior Engineer	Project Engineer	Engineer		Clerical	Sr. Surveyor	Surveyor &	Survey	Total	Total	Avg.
SECTION	MANHOURS				Troject Engineer	26		Cicriciii	& Mapper	Mapper	Technician	Manhours	Cost	Rate
402 & 409	Governmental Agencies & Public Meetings	0	0	0	0	0	0	0	l 0	0	0	0	\$0.00	
403	Preliminary Design Report-Review	0	0	0	0	0	0	0	0	0	0	0	\$0.00	
404	Surveys and Mapping	0	0	0	0	0	0	0	0	0	0	0	\$0.00	1 11
405	Geotechnical Investigation	0	0	0	0	0	0	0	0	0	0	0	\$0.00	1 1
406	Contamination Impact Analysis	0	0	0	0	0	0	0	0	0	0	0	\$0.00	
407	Pavement Design	0	0	0	0	0	0	0	0	0	0	0	\$0.00	
408	Borrow Pits	0	0	0	0	0	0	0	0	0	0	0	\$0.00	1 11
410	Environmental Permits	0	0] 0	0	0	0	0	0	0	0	ol	\$0.00	1 11
411	Utilities	0	6	40	12	3	0	1	0	0	0	62	\$2,805.76	\$45.25
412	Roadway Design	0	0	0	0	0	0	0	0	0	0	0	\$0.00	1)
413	Structures Design	0	0	0	0	0	0	0	j 0	0	0	ol	\$0.00	
414	Drainage Design	0	0	0	0	0	0	0		0	0	0	\$0.00	
415	Roadway Lighting	0	0	0	0	0	0	0	0	0	0	0	\$0.00	
416	Traffic Engineering	22	60	163	136	151	0	11	0	0	0	543	\$22,513.39	\$41.46
417 & 418	Signal & Pav't Marking Plans	0	0	0	0	0	0	0			0	ol	\$0.00	1 H J
419	Right-of-Way Surveys	0	0	0	0	0	l o	0	l 0	1 0	0	l ol	\$0.00	1 11
420	Cost Estimates	0	0	0	0	0	٥ ا	۰ ا	1 0	1 0	0	0	\$0.00	H
421	Speical Provisions and Specifications	0	0	0	0	0	l 0	0		1 0		l ol	\$0.00	
422	Fiber Optic Network (FON)	0	0	0	0	0	۱ ،	Ó	1 0	1 6	0	ol	\$0.00	
423	Toll Plazas	0	0	0	0	0		o	1 0	0		ol	\$0,00	1
424	Post Design Services	0	0	1 0	0	0	۰ ا	0	1 0		0	Ö	\$0.00	
700	Administration	0	0	0	0	0	0	l o	l 0	1 0	ا ا	ol	\$0.00	1 1
	TOTAL MANHOURS	22	66	203	148	154	0	12	0	0	. 0	605	\$25,319.15	\$41.85
	WAGE RATES	\$86,99	\$63.13	\$48.05	\$33.17	\$27.90	\$0.00	\$23.24	\$0.00	\$0.00	\$0.00	N/A	N/A	
	TOTAL DIRECT COSTS	\$1,913.78	\$4,166.58	\$9,754.15	\$4,909.16	\$4,296.60	\$0.00	\$278.88	\$0.00	\$0.00	\$0.00	N/A	\$25,319.15	

Salary Related Costs		#26.210.15
Total Activity Salary Costs		\$25,319.15
Overhead Activities	209.04%	\$52,927.15
Subtotal Salary Related Costs (I	Limiting Amount)	\$78,246.30
Operating Margin (Fixed Fee)	25.50% **	\$6,456.38
**(Equivalent Lump Sum for Operating	g Margin 8.26%)	
Expenses		
Direct Reimbursables (Out-of-Pocket)		\$0.00
Permit Fees		\$0.00
Subtotal Expenses (Lump Sum)		\$0.00
Subconsultants		
		\$0.00
Subtotal Subconsultants (Limiting	(Amount)	\$0.00
WBQ TOTAL (Maximum Limiting A	maunt)	\$84,702.68

Utilities Section 411							
	Basis	Number	Hours	Number	Total	CADD	
Task	of	of	per	of	Hours	Hours	Remarks
	Estimate	Units	Unit	Sheets		%	
Additional Contact	EA	1	8	N/A	8		"8 UAO's @ 2 hrs. each x 1 contact"
2. Data Collection	LS	0	0	N/A	0		
3. Utility Adjustment Sheets	Sheet	20	2	20	40		
4. Prepare Utility Reloc. Agreements	EA	0	0		0		
SUBTOTAL				20	: : : : 48	0	
Quality Control	5%	0	N/A	N/A	2		
6. Supervision	5%	0	N/A	N/A	3		
7. Utility Meetings - 1 Additional	EA	1	9	N/A	9		
8. Coordination with Utility Companies	EA	0	0	N/A	0		
TOTAL				20	62	0	

	Basis	Number	Hours	Number	Total	CADD	
Task	of Estimate	of Units	per Unit	of Sheets	Hours	Hours %	Remarks
I. Traffic Data Collection	LS	0	0	N/A	0		
2. TCP Design Analysis	LS	1	40	N/A	40		Traffic Control Analysis for the revise ramps and includes Ramp D1 Temp for 3 phases
2.T. D.:							
3. Temp Drainage Analysis	LS	1	20	N/A	20		***************************************
Master TCP Design Files	LS	1	68	N/A	68		Updated Master TCP Design for 3 phases and remove ramps not within Phase I. Also includes Ramp D1 Tem
4. TCP Cross Sections (x-sections)	Sheet	52	0.25	26	13		Update TCP Cross Sections for Phase Ramp D1 Temp and remove ramps n currently in Phase I
5. General Notes/Const. Sequence	Sheet	3	4	3	12		Concept Notes, Phasing Notes, and General Notes
6. MOT Details	Sheet	10	3	10	30		SR 408, SR 417, Ramp A, Ramp C, Ramp D1, Ramp E, and Existing Ramps, Econ, Underhill, Bridges, & under Bridges
7. Tabulation of Quantities & Cost Est.	Sheet	0	0	0	0		
8. TCP Plan Sheets	Sheet	76	3.5	76	266		Revised all 3 phase of TCP. Also includes Ramp D1 Temp design and removal of all ramps, callouts, phasing/work zones not in Phase I. Includes a section of Ramp C.
Phase Layout Detail	Chast	9	3	0	27		Hardened Laurent Com Physics Lauren
10. Temporary Signal	Sheet Sheet	9	3	9	27 0		Updated Layout for Phase I only
11. Detour Routing	LS	2	8	2	16		Update Detours
SUBTOTAL	50/		N/A	126		:::::::0	
13. Quality Control 14. Supervision	5% 5%	1	N/A N/A	N/A N/A	25 26	 	
15. Bi-Weekly OOCEA meetings	LS	0	1N/A 0	N/A N/A	0		
16. Field Review	LS	0			0		
17. Coordination w/ City & County	LS	0			0		

18. Design Documentation	ΓS	0	0	N/A	0		
TOTAL				126	543	0	

Project 253F Contract 000818

JUL 11 AM 11:16

SUPPLEMENTAL AGREEMENT NO. 2

TO

AGREEMENT FOR PROFESSIONAL SERVICES

FINAL DESIGN

S.R. 408/S.R. 417 ULTIMATE INTERCHANGE IMPROVEMENTS

THIS SUPPLEMENTAL AGREEMENT is made and entered into this 3rd day of July, 2014, by and between the CENTRAL FLORIDA EXPRESSWAY AUTHORITY, a corporate body and agency of the State of Florida, hereinafter called the "AUTHORITY" and the consulting firm of URS CORPORATION SOUTHERN, of Orlando, Florida, hereinafter called the "CONSULTANT".

WHEREAS, the AUTHORITY desires to make changes to Article 3.0 of the Agreement for Professional Services between the AUTHORITY and the CONSULTANT dated the 14th of November, 2011, and;

WHEREAS, the CONSULTANT agrees to the changes with no increase in the contract amount:

NOW THEREFORE BE IT RESOLVED THAT:

- 1. The title of Article 3.0 is changed to "TERM OF AGREEMENT".
- 2. The first paragraph of Article 3.0 is deleted and replaced with the following new language:

 "Unless otherwise provided herein or by Supplemental Agreement, the provisions of this Agreement will remain in full force and effect for a five-year term from the date of the Notice to Proceed for the required project services as detailed in Exhibit "A". An extension of the five-year term may be approved by the AUTHORITY at its sole discretion."
- 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

Director of Procurement

URS CORPORATION SOUTHERN

Attest: Harnet & Storms
Secretary or Notary

HARRIET H. STORMS MY COMMISSION # EE 180075 EXPIRES: June 8, 2016
Bonded Thru Notary Public Underwriters

3

Project 253F Contract No. 000818

SUPPLEMENTAL AGREEMENT NO. 1

x 12 2 0 6

TO

AGREEMENT FOR PROFESSIONAL SERVICES

FINAL DESIGN

SR 408 / SR 417 ULTIMATE INTERCHANGE IMPROVEMENTS

THIS SUPPLEMENTAL AGREEMENT is made and entered into this da	y
of, 2013, by and between the ORLANDO-ORANGE COUNTY	
EXPRESSWAY AUTHORITY, an agency of the State of Florida, hereinafter called the	
"AUTHORITY" and the consulting firm of URS CORPORATION SOUTHERN. of Orlando,	
Florida, hereinafter called the "CONSULTANT".	

WHEREAS, Articles 2.00 and 12.0 of the Agreement for Professional Services between the AUTHORITY and the CONSULTANT, dated the 14th Day of November 2011, provides that in the event that the AUTHORITY 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:

CO 5/23/13

1

NOW, THEREFORE, BE IT RESOLVED THAT:

- The AUTHORITY hereby authorizes the CONSULTANT to proceed with additional services as outlined in the CONSULTANT'S March 6, 2013 correspondence to the AUTHORITY, 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 \$461,007.72 to \$3,345,766.93.
 - b. Direct Expenses remain unchanged at \$107,322.40.
 - c. The Field Survey costs remain unchanged at \$189,434.80.
 - d. The Subcontract Items are adjusted upward by \$88,330.86 to \$1,876,726.95.

•	Ardaman & Associates	\$16,825.00
•	Nadic Engineering Sciences	\$22,451.87
•	RS&H	\$29,724.74
•	WBO	\$19 329 25

- e. The Allowance is adjusted upwards by \$661.42 to \$30,748.92.
- f. The total Maximum Limiting Amount is increased by \$550,000.00 to \$5,500,000.00: \$5,550,000.00.
- 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 Agreement for Professional Services, 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.

> ORLANDO-ORANGE COUNTY **EXPRESSWAY AUTHORITY**

URS CORPORATION SOUTHERN

Print Name: Beverly Munoz

Approved as to form and execution, only.

General Counsel for the AUTHORITY

Exhibit A

ORLANDO-ORANGE COUNTY EXPRESSWAY AUTHORITY SCOPE OF SERVICES

FOR

S.R. 408/ S.R. 417 ULTIMATE INTERCHANGE IMPROVEMENTS

CONTRACT AMENDMENT NO. 1

PROJECT NO. 253F

IN ORANGE COUNTY, FLORIDA

February 11, 2013

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	Descri	ption	Page No.
4.0	WORK	C PERFORMED BY CONSULTANT	
	4.01 4.05 4.10 4.12 4.13 4.14 4.16 4.17 4.18 4.19 4.22	Design Features Governmental Geotechnical Investigation Environmental Permits Roadway Design Structures Design Drainage Design Traffic Engineering Signing Plans Pavement Marking Plans Right-of-Way Surveys Fiber Optic Network (FON)	A-3 A-3 A-4 A-4 A-4 A-4 A-4 A-5 A-5 A-5
7.0	ADMI	NISTRATION	
	7.06 7.13	Schedule Reviews and Submittals	A-5 A-5

1.0 GENERAL

1.02 Description

The services to be provided under this contract will include final design and preparation of construction drawings for the S.R. 408 / S.R. 417 ultimate interchange. This Amendment includes: the extension of the projects limits along SR 417 south to station 403+35, the elimination of the embankment section and extension of the bridge structure D1/A over the existing loop ramp, design of drainage ponds, environmental permit modifications, addition of one soundwall, and additional geotechnical investigation to support the above additions.

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.

4.01 Design Features

A. Major elements of the work include the following:

The work to be performed under this Amendment will include final design and preparation of construction drawings for the S.R. 408/S.R. 417 ultimate interchange including the addition of: the extension of the projects limits along SR 417 south to station 403+35, the elimination of the embankment section and extension of the bridge structure D1/A over the existing loop ramp, design of drainage ponds, environmental permit modifications, addition of one soundwall, and additional geotechnical investigation to support the above additions.

Additional elements include: surveying, drainage evaluation and design, permitting, signing and pavement markings, maintenance of traffic, fiber optic network, walls, and geotechnical analysis.

4.05 Geotechnical Investigation

- A. The Consultant shall perform the following additional geotechnical investigations:
 - 1. Geotechnical borings within the expanded Pond 15.
 - 2. Geotechnical borings within the modified Ponds 11 and 16
 - 3. Geotechnical borings along the additional soundwall located south of Lake Underhill Road and east of SR 417.
- B. This Amendment includes the additional cost of MOT associated with obtaining bridge borings within the median of SR 408.

4.10 Environmental Permits

A. A permit has been issued for Project 253F, however due to required modifications to Ponds 11, 12, 13, 15 and 16, a permit modification will b3 required. RS&H shall be responsible for all design and permit documents associated with the modification for Ponds 12 and 13. The Consultant will coordinate all permit modifications proposed by RS&H and incorporate these changes into the permit modification permit.

4.12 Roadway Design

A. The Consultant shall extend the project limits along SR 417 southerly to station 403+35. All design and drawings shall be revised to reflect this change in project limits.

4.13 Structures Design

- A. The Consultant shall remove the embankment section along Ramps A and D1 within the existing loop ramp and extend the bridge structure through this section.
- B. The Consultant shall design and develop drawings for an additional sound wall located south of Lake Underhill Road and east of SR 417.

4.14 Drainage Design

- A. As part of the drainage design requirements, the Consultant shall:
 - 1. Design an expanded Pond 15.
 - 2. Design modifications to Ponds 11 and 16.
 - 3. Coordinate drainage design with RS&H who will modify Ponds 12 and 13.

4.16 Traffic Engineering

A. Maintenance of Traffic Plans

1. The Consultant shall prepare additional maintenance of traffic plans which reflect the change in project limits along SR 417 and phasing for the change in Ramp D1/A from embankment to bridge structure.

4.17 Signing Plans

A. The CONSULTANT shall include shall include the following signs and sign Project 253F A-4

structures:

- 1. 1 new sign panel design and Guide-Sign worksheet for sign at sta. 387+00
- 2. 1 new sign panel design and Guide-Sign worksheet for sign at sta. 416+00.
- 3. 1 new sign structure design for truss at station 416+00.

4.18 Pavement Marking Plans

- A. The Consultant shall include the following changes to the Pavement Marking Plans:
 - 1. Add 4 Plan Sheets to cover restriping from approximate STA 376+00 to approximate STA 400+60.
 - 2. Revise 3 Plan Sheets SP00, SP01 and SP02
- 4.19 Right-of-Way Surveys
 - A. A right of way survey will be performed for the expansion of Pond 15.
- 4.22 Fiber Optic Network (FON)
 - A. Fiber Optic Infrastructure Plans
 - 1. Addition of one TMS site 408-17.3 EB.
 - 2. The FO shall be replaced from Curry Ford Road to SR 408 to eliminate all splices.

7.0 ADMINISTRATION

7.06 Schedule

A.

7.13 Reviews and Submittals

- A. Formal submittals for review shall be made to the Authority when the plans have been developed. The following review will be included:
 - 1. Bridge Structures Peer Review A peer review of the 60% plans for the concrete post-tensioned curved girder bridge structures will be performed by others. The Consultant shall provide plans and other documents as may be necessary for the peer review. The Consultant shall respond to questions during the peer review period.

Project Number: 253F

DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT No.

URS Corporation
OOCEA Contract No.: 000818

					SUMMARY FEE	SHEET								
CONTRACT		Project	Deputy	Senior	Engineer	Sr. Roadway	Roadway	Clerical	Sr. Surveyor	Surveyor &	Survey	Total	Total	Avg.
SECTION	MANHOURS	Manager	PM	Engineer	Engineer	Technician	Technician	Clerical	& Mapper	Mapper	Technician	Manhours	Cost	Rate
402 & 409	Governmental Agencies & Public Meetings	14	10	12	9	2	0	1	0	0	0	48	\$2,962.86	\$61,73
403	Preliminary Design Report-Review	0	0	0	0	0	0	0	o	0	0	ol	\$0.00	1
404	Surveys and Mapping	0	0	0	0	0	0	0	0	0	0	0	\$0.00	i '
405	Geotechnical Investigation	0	0	0	0	0	0	0	0	0		o	\$0.00	B I
406	Contamination Impact Analysis	0	0	0	0	0	0	0	0	0	0	o	\$0.00	1
407	Pavement Design	0	0	0	0	0	0	0	0	0	0	o	\$0.00	i '
408	Borrow Pits	0	0	0	0	0	0	0	0	0	0	o	\$0.00	1
410	Environmental Permits	5	8	20	40	26	26	7	0	0	0	132	\$5,728.50	\$43.40
411	Utilities	0	0	0	0	0	0	0	0	0	0	0	\$0.00	
412	Roadway Design	4	5	13	26	18	18	4	0	0	0	88	\$3,836,72	\$43,60
413	Structures Design	95	632	632	790	947	0	62	0	0	اه	3,158	\$145,164.09	\$45.97
414	Drainage Design	21	32	80	160	107	107	27	0	0	l o	534	\$23,176.61	\$43.40
415	Roadway Lighting	ol	0	0	0	0	0	0	0	0	اه	o	\$0.00	1
416	Traffic Engineering	0	0	0	0	0	0	0	0		اه	0	\$0.00	1
417 & 418	Signal & Pav't Marking Plans	0	0	0	0	0	0	0	0		0	o	\$0.00	1 '
419	Right-of-Way Surveys	0	0	0	0	0	0	0	0	0	o	o	\$0.00	1 '
420	Cost Estimates	o	o	0	0	0	0	0	0	0		o	\$0.00	1
421	Speical Provisions and Specifications	0	o	0	0	0	0	0	0	0	0	o	\$0.00	a i
422	Fiber Optic Network (FON)	2	3	8	15	10	10	3	0	0	0	51	\$2,217.26	\$43,48
423	Toll Plazas	0	0	0	0	0	0	o	0	o	0	0	\$0.00	1
424	Post Design Services	o	0	ol	0	o	ō	o	0	ا ا	ا	0	\$0.00	1
700	Administration	o	0	0	0	0	0	0	0	0	0	0	\$0.00	1
	TOTAL MANHOURS	141	690	765	1,040	1,110	161	104	0	0	0	4,011	\$183,086.04	\$45.65
	WAGE RATES	\$86.24	\$55.36	\$61.78	\$41.40	\$30.11	\$37.92	\$27.72	\$52.16	\$30.80	\$30.80	N/A	N/A	
	TOTAL DIRECT COSTS	\$12,159.84	\$38,198.40	\$47,261.70	\$43,056,00	\$33,422,10	\$6,105,12	\$2,882.88	\$0.00	\$0.00	\$0.00	N/A	\$183,086,04	

Total Activity Salary Costs		\$183,086.04
Overhead Activities	124.82%	\$228,528.00
Subtotal Salary Related Costs (L	imiting Amount)	\$411,614.04
Operating Margin (Fixed Fee)	12.00%	\$49,393.68
Expenses		
Direct Reimbursables (Out-of-Pocket)		\$0.00
Permit Fees		\$0.00
Subtotal Expenses (Lump Sum)		\$0.00
Subconsultants		
Design Survey (URS)		\$0.00
Ardaman & Associates		\$16,825.00
Nadic Engineering Services		\$22,451.87
RS&H		\$29,724.74
C3TS		\$0.00
WBQ		\$19,329.25
Southeastern Survey		\$0.00
Subtotal Subconsultants (Limiting	Amount)	\$88,330.86

URS Corporation

Project Number: 253F

DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 1)

OOCEA Contract No.: 000818

URS Project #: V100000414.00

Orange County

HIGHWAY TASK LIST

Governmental Agencies & Public Meetings

Section 402 & 409

	Basis	Number	Hours	Number	Total	CADD	
Task	of	of	per	of	Hours	Hours	Remarks
	Estimate	Units	Unit	Sheets		%	
1. Coordination w/ FDOT	LS			N/A	0		
2. Coordination w/ City of Orlando	LS			N/A	0		
3. Coordination w/ Orange County	LS			N/A	0		
4. Coordination w/ SJWMD	LS	1	40	N/A	40		
5. FDEP	LS			N/A	0		
6. Public Meetings	EA			N/A	0		
7. Neighborhood Assoc. Meetings	EA			N/A	0		
8. Authority Meetings	EA			N/A	0		
9. City of Orlando Meetings	EA			N/A	0		
10. Orange County Meetings	EA			N/A	0		
11. Preparation of Rdway/Bridge Exhibits	EA			N/A	0		
12. Other Agency Coordination & Meetings	LS	1	8	N/A	8		ACOE

TOTAL

48

URS Corporation

OOCEA Contract No.: 000818

URS Project #: V100000414.00

Project Number: 253F

DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 1)

Orange County

HIGHWAY TASK LIST

Environmental Permits Section 410

	Basis	Number	Hours	Number	Total	CADD	
Task	of	of	per	of	Hours	Hours	Remarks
	Estimate	Units	Unit	Sheets		%	
1. Pre-App Coord with OOCEA & RS&H	LS	1	32	N/A	32		Includd in Coordination efforts
2. Prepare ERP Application	LS	1	72	N/A	72		
3. RAI Response	LS	1	0	N/A	0		No RAI's
4. Aerial Map	EA			0	0		
5. Prepare Local Permits	LS			N/A	0		
6. Landowner Addresses	LS			N/A	0		
7. Mitigation Plans	Sheet				0		
SUBTOTAL				0	104	0	
8. Quality Control	5%	1	N/A	N/A			
9. Supervision	5%	1	N/A	N/A	5		
10. Preliminary Field Review	EA	1	6	N/A	6		
11. Agency Field Review	EA	1	6	N/A	6		
12. Agency Pre-App Meeting	EA	1	6	N/A	6		
TOTAL				^	122		

TOTAL 0 132 0

Project Number: 253F

DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 1)

URS Corporation

OOCEA Contract No.: 000818

URS Project #: V100000414.00

Orange County

HIGHWAY TASK LIST

Roadway Design Section 412

	Basis	Number	Hours	Number	Total	CADD	
Task	of	of	per	of	Hours	Hours	Remarks
	Estimate	Units	Unit	Sheets		%	
Typical Section Package	LS			N/A	0		
2. Access Management	LS			N/A	0		
3. Horizontal /Vertical Master Design Files	LS	1	20	N/A	20		Project extension to south
4. Design Variations and Exceptions	LS			N/A	0		
5. Key Map	Sheet				0		
6. Typical Sections	Sheet	1	4	1	4		modification due to project extension
7. General Notes	Sheet				0		
8. Summary of Quantities	Sheet				0		
9. Project Layout	Sheet	1	2	1	2		modification
10. Roadway Plans	Sheet	3	6	3	18		additional sheets due to proj extension
11. Roadway Profiles	Sheet	3	6	2	12		additional sheets due to proj extension
12. Cross Street Plan-Profile	Sheet				0		
13. Special Profiles	Sheet				0		
14. Interchange Layout	Sheet	1	3	1	3		modification
15. Intersection Detail	Sheet				0		
16. Ramp Terminal Details	Sheet				0	7 112	
17. Misc. Construction Details	Sheet				0		
18. Cross Section Design Files	LS	1	14	N/A	14		project extension
19. Cross Section Pattern	Sheet	1	3	1	3		modification
20. Roadway Soil Survey	Sheet				0		
21. Roadway Cross Sections	EA	5	0.5	4	3		project extension
22. Baseline Control/Curve Data	Sheet	1	1	1	1	_	modification
23. Computation Book & Quantities	LS			N/A	0		
24. Summary of Pay Items	LS			N/A	0		

ORLANDO-ORANGE COUNTY EXPRESSWAY AUTHORITY **URS** Corporation Project Number: 253F OOCEA Contract No.: 000818 DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 1) **Orange County HIGHWAY TASK LIST** SUBTOTAL 14 80 0 25. Quality Control 5% N/A N/A 26. Supervision 5% N/A N/A 4

N/A

N/A

0

0

URS Project #: V100000414.00

TOTAL 14 88 0

EA

EA

27. Field Reviews

28. Technical Meetings

Project Number: 253F

DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 1)

Orange County

HIGHWAY TASK LIST

Drainage Design

Section 414

	Basis	Number	Hours	Number	Total	CADD	
Task	of	of	per	of	Hours	Hours	Remarks
	Estimate	Units	Unit	Sheets		%	
Determine Base Clearance Elev	Per Loc.	0	0	N/A	0		
2. Pond Siting Analysis & Report	Per Basin	0	0	N/A	0		
3. Design of Cross Drains	EA	2	18	N/A	36		and CD 7 (RS&H). Originally anticipated only 6 cross drain
4. Design of Roadway Ditches	Ditch/Mile	0	0	N/A	0		
5. Design of Outfalls	EA	1	12	N/A	12		Pond 11 will require an updated analysis of the outfall due to the modification. Originally anticipated only 2 outfall designs per Pond(s) 15 and 16.
6. Design of Pond	EA	6	30	N/A	180		Pond 11 was originally anticipated as a partial design at 21 hr. Per the 60% Drainage design, Pond 11 was a full redesign. There have also been 5 pond design alternatives analyzed for Pond 15 (1) and Pond 16 (4). Includes additional checking of Ponds 12 & 13 (RS&H) at 24 hours
7. Design of Ditch Treatment	Per System	0	0	N/A	0		
8. Design of Flood Plain Comp Area	EA	0	0	N/A	0		
9. Design of Storm Drains	EA	15	3	N/A	45		Originally anticipated 125 structures.
10. Optional Culvert Material	LS	0	0	N/A	0		
11. French Drain Systems	Per 1K Ft	0	0	N/A	0		
12. Drainage Wells	EA	0	0	N/A	0		
13. Drainage Design Doc Report	LS	0	0	N/A	0		
14. Bridge Hydraulic Report	EA	0	0	N/A	0		

URS Project #: V100000414.00

URS Corporation

OOCEA Contract No.: 000818

ORLANDO-ORANGE COUNTY EXPRESSWAY AUTHORITY Project Number: 253F OCEA Contract No.: 000818

DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 1)

Orange County

HIGHWAY TASK LIST

		MGHWA	I IASK LI	.51		
15. Drainage Map	Sheet	2	28	2	56	drainage maps. Currently, we have 7 drainage maps per 60% Drainage
16. Interchange Drainage Map	Sheet	1	0	N/A	0	
17. Summary of Drainage Structures	Sheet	1	30	1	30	
18. Optional Pipe/Culvert Material	Sheet	0	0	N/A	0	
19. Drainage Structure Sheet	EA	15	3	N/A	45	Currently, we have 140 structures per 60% Drainage design.
20. Misc Drainage Details	Sheet	0	0	N/A	0	
21. Lateral Ditch Plan-Profile	Sheet	0	0	N/A	0	
22. Lateral Ditch Cross Sections	EA	0	0	N/A	0	
23. Retention/Det Pond Details	Sheet	2	32	2	64	Originally anticipated 4 detail
24. Pond Cross Sections	EA	7	0.5	14	4	
25. Erosion Control Plan	Sheet	0	0	0	0	
26. SWPPP	Sheet	0	0	0	0	
27. Bridge Deck Spread and Downspout Des	LS	0	0	0	0	
SUBTOTAL				19	472	
27. Quality Control	5%	1	N/A	N/A	24	
28. Supervision	5%	1	N/A	N/A	25	
29. Field Reviews	EA	1	8	N/A	8	
30. Technical Meetings	EA	2	2	N/A	4	RS&H

TOTAL 19 533 0

URS Project #: V100000414.00

Project Number: 253F

DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 1)

Orange County

HIGHWAY TASK LIST

Fiber Optic Network (FON)

Section 422

	Basis	Number	Hours	Number	Total	CADD	
Task	of	of	per	of	Hours	Hours	Remarks
	Estimate	Units	Unit	Sheets		%	
1. ITS Analysis	LS	1	5	N/A	5		Relocate an additional TMS (408-17.3EB).
2. Communications Plan Analysis	LS	2	6	N/A	12		Additional coordination needed to accommodate added soundwall and unexpected drainage impacts.
3. Lightning Protection Analysis	LS			N/A			
4. Power Subsystem	LS	1	3	N/A	3		Relocate an additional TMS (408-17.3EB).
5. Voltage Drop Calculations	LS	1	3	N/A	3		Relocate an additional TMS (408-17.3EB).
6. Design Documentation	LS			N/A	0		
7. Existing ITS System	LS	1	3	N/A	3		Relocate an additional TMS (408-17.3EB).
8. Queue Analysis	LS			N/A	0		
9. Reference and Master ITS Design File	LS			N/A	0		
10. Rference and Master Communications							
Design File	LS			N/A	0		
11. Pole Elevation Analysis	LS	1	1	N/A	1		Relocate an additional TMS (408-17.3EB).
12. Sign Panel Design Analysis	LS			N/A	0		
13. Quantities	LS			N/A	0		
14. Cost Estimate							
15. Technical Special Provisions							
16. Other ITS Analysis							
17. Key Sheet	Sheet				0		
19. Tabulation of Quantities	Sheet				0		
20. General Notes	Sheet				0		
21. Project Layout	Sheet						
22. Typical and Special Details	Sheet				0		
23. Plan Sheet	Sheet	2	6	2	12		Two additional sheets to accommodate extension of the project limits at the south end.
24::\U\\$669pmuninationstillareContract Ame	idmSheat. 1	3-6-13	January 24.	2001	0		URS Project #: V100000414.00

URS Corporation

OOCEA Contract No.: 000818

ORLANDO-ORANGE COUNTY EXPRESSWAY AUTHORITY **URS** Corporation Project Number: 253F OOCEA Contract No.: 000818 DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 1) **Orange County HIGHWAY TASK LIST** Additional diagrams along SR 408 to EA accommodate the additional fiber work due 25. Fiber Optic Spice Diagrams 6 6 to drainage impacts. 26. Lightning Protection Plans EA 0 27. Cross Sections EA 2 Relocate an additional TMS (408-17.3EB). 28. Guide Sign Work Sheet EA 0 29. Speical Service Point Details EA 0 30. Strain Pole Schedule PΙ 0 31. Overhead / Cantilever Sign Structures EA 0 32. Other Overhead Sign Structures (Long EA Span, Monotube, etc.) 0 33. Temporary FON EA 0 34. Interim Standards LS SUBTOTAL 47 35. Quality Control 5% N/A N/A 2 36. Supervision 5% N/A N/A 2 37. Power Company Coord. N/A LS 0 38. Technical Meetings EA N/A 0 39. Field Review EA N/A 0

TOTAL 4 51

URS Project #: V100000414.00

ORLANDO-ORANGE COUNTY EXPRESSWAY AUTHORITY **URS** Corporation OOCEA Contract No.: 000818 Project Number: 253F (CONTRACT AMENDMENT NO. 1) DESCRIPTION: SR 408/SR 417 Ultimate Interchange **Orange County** Structure Design Section 413 Despendioureduction Staff
House 5 and
No. of Floates No. of Units Sheets 2. per dinte General Deiwings Sheet Index of Drawings 0 Project Layout Sheet 2 0 3 General Notes and Bid Item Notes Sheet 0 U-Beam General Notes and Bid Item Notes Sheet 3a 0 Incorporate FDOT Standards Sheet 4 0 Develop U-Beam Standards & Drawings Sheet 4a 0 Incorporate Report of Core Borings Sheet 0 LS 6 Existing Bridge Plans Revised from 6 simple-2complicated to 4 12 N/A 12 Computation Book and Quantities LS 1 7 simple-3 complicated Revised from 6 simple-2complicated to 4 8 N/A LS 1 8 8 Cost Estimates simple-3 complicated LS N/A 0 Technical Special Provisions 9 rencibres -Wiscellaneous Tasks& Deawings Subtotal Bridge 1: SR 417 NB over Lake Underhill 0 Bridge 2: SR 417 SB over Lake Underhill 0 0 10.2 Bridge 3: SR 417 NB over Econ Trail 10.3 Bridge 4: SR 417 SB over Econ Trail 10.4 10.5 Bridge 5: Ramp C over Econ Trail 0 n Bridge 6: Ramp E over SR 408 10.6 0 0 Bridge 7: Ramp C Flyover (Concrete) 10.7 Bridge 8: Ramp A Flyover (Concrete) 120 10.8 0 Bridge 9: Ramp D (Concrete) 2,196 2,196 10.10 Bridge 10: Ramp D1/A (Concrete) 0 Bridge 11: 10.11 0 Bridge 12: 10.12 200 Retaining Walls @ Bridges 10.13a 546 546 10.13b Retaining Walls along Roadway 376 10.14 Miscellaneous Structures 10.15 Conceptual Analysis/Study Phase O Structures Technical Subjetals Hour Comments Tasicho Units Units LS Field Reviews LS 12 Technical Meetings Quality Assurance / Quality Control % 5% 139 LS 13 % 0% 0 LS Independent Peer Review LS % 5% 139 15 Supervison 278 LS Coordination tructures: Miscellaneous Tasks & Drawings, Non-Technical

URS Corporation

Project Number: 253F

OOCEA Contract No.: 000818

DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 1)

Orange County Structure Design Section 413

Bridge 8: Ramp A Flyover (Concrete)

Section	413	Bridge 8:	Ramp A	Flyover	(Concre	e)						
Tack Tack	Test Mag at	2 1601		Hoore Coll	No. of Streets	Total House	Gonmeas 3. 1.					
202511905300000	Paragraphic Court of Contracts Secure 2015 1915 Contract Secure 2 Company of Contract Secure 2015 Secure 2015		General	Layout De	sign and Pl	ans						
13.1	Overall Bridge Final Geometry	LS	1	-120		-120	Credit for overal bridge length reduction.					
13.2	Expansion/Contraction Analysis	EA Unit	3			0						
13.3	General Plan and Elevation	Sheet	1			0						
13.4	Construction Staging	Sheet	4			0						
13.5	Approach Slab Plan and Details	Sheet	1			0						
	Miscellaneous Details	Sheet	0			0						
End Bent Design and Plans												
12.7	End Boot Goometry	EA	1	Γ	1	0						
13.7	End Bent Geometry Wingwall Design and Geometry	EA Bent				0						
13.8	End Bent Structural Design	EA	1			0						
	End Bent Plan and Elevation	Sheet	1			0						
	End Bent Details	Sheet	2			0						
		In	termedi	ate Bent I	Design an							
13.12	Bent Geometry	EA Bent	0	0	ļ	0						
13.13	Bent Stability Analysis	EA Design	0	0		0						
13.14	Bent Structural Design	EA Design	0	0		0						
13.15	Bent Plan and Elevation	Sheet	0	0	0	0						
13.16	Bent Details	Sheet	0	0	0	0						
		F = : =:		r Design	and Plan	s 0						
13.17	Pier Geometry	EA Pier	8	 	 	 						
13.18	Pier Stability Analysis	EA Design	8			0						
13.19	Pier Structural Design	EA Design	8			0						
13.20	Pier Plan and Elevation	Sheet	3	<u> </u>		0						
13.21	Pier Details	Sheet	8	structure	Design o							
	In	Sheet	isc. Sub	I	Design a	0						
	Foundation Layout	LS	 		1	1 0						
13.23	Fender System		perstruc	ture Decl	k Design	and Plan	s					
13.24	Finish Grade Elevation (FGE) Calculation	LS	1			0						
13.25	Finish Grade Elevations	Sheet	6			0						
	Bridge Deck Design	EA Section	1			0						
13.27	Bridge Deck Reinforcing and Concrete Quantities	EA Unit	3			0						
13.28		Sheet	5			0						
13.29	Superstructure Section	Sheet	1			0						
13.30	Miscellaneous Bridge Deck Detail	s Sheet	0		<u> </u>							
		1 0:		einforcing	g Bar Lis	ts 0						
13.31	Reinforcing Bar List	Sheet	8	us Concr	ote Cind							
1		(JOHNINUO,	us Concr	CIE GII U	. Design						

	Longitudinal Analysis											
13.33	Section Properties	LS	1			0						
13.34	Material Properties	LS	ì			0						
13.35	Construction Sequence	EA Unit	3			0						
13.36	Tendon Layouts	EA Unit	3			0						
13.37	Live Load Analysis	EA Unit	3			0						
13.38	Temperature Gradient	EA Unit	3			0						
13.39	Time Dependent Analysis	EA Unit	3			0						
13.40	Stress Summary	EA Unit	3			0						
13.41	Ultimate Moments	EA Unit	3			0						
13.42	Ultimate Shear	EA Unit	3			0						
13.43	Construction Loading	EA Unit	3			0						
13.44	Framing Plan	Sheet	4			0						
13.45	Girder Elevation, including Grouting Plan and Vent Locations	Sheet	6			0						
13.46	Girder Details	Sheet	6			0						
13.47	Splice Details	Sheet	3			0						
13.48	Girder Deflections and Camber	Sheet	6			0						
			Simple	Span Con	crete Desig	gn_						
13.49	Prestressed Beam	EA Beam	0	0		0						
13.50	Prestressed Beam Schedules	Sheet	0	0	0	0						
13.51	Framing Plan	Sheet	0	0	0	0						
ļ	Load Rating											
13.52	Load Rating	EA Unit	3			0						
	P 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	nemæMid	SpaniCoju	refe Total	0.0	150						

URS Corporation

Project Number: 253F

OOCEA Contract No.: 000818

DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 1)

Orange County Structure Design Section 413

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Bridge 9: Ramp A/D1 (Concrete)

Section	.413	Briage 9:	Ramp A	ADI (CO	acrete)		
000 800	Take 1	time	Vision Units	Hours Anns	50 at	1600 1100	6 Comment " 2
			General	Layout De	sign and P	ans	
13.1	Overall Bridge Final Geometry	LS	1	110		110	Curved - spiral - no BDR effort
13.2	Expansion/Contraction Analysis	EA Unit	2	8		16	
13.3	General Plan and Elevation	Sheet	3	40	3	120	
13.4	Construction Staging	Sheet	2	40	2	80	
13.5	Approach Slab Plan and Details	Sheet	1	0	1	0	
13.6	Miscellaneous Details	Sheet	1	450	1	450	Box Girder lighting for 3 Ramps (A, C, D1)
			End B	ent Desig	n and Pla	ıns	
13.7	End Bent Geometry	EA	2	12		24	2 units - different widths
13.8	Wingwall Design and Geometry	EA Bent				0	
13.9	End Bent Structural Design	EA				0	
13.10	End Bent Plan and Elevation	Sheet				0	
13.11	End Bent Details	Sheet				0	
		In	termedia	te Bent I	esign an	d Plans	
13.12	Bent Geometry	EA Bent	0	0		0	
13.13	Bent Stability Analysis	Darian	0	0		0	
13.14	Bent Structural Design	Design	0	0		0	
13.15	Bent Plan and Elevation	Sheet	0	0	0	0	
13.16	Bent Details	Sheet	0	0	0	0	
			Pier	Design 2	nd Plans		
13.17	Pier Geometry	EA Pier	5	24		120	Piers 2-4 similar, 5 - 8 vary
13.18	Pier Stability Analysis	EA	5	12		60	
	Pier Structural Design	Dex	5	60		300	
	Pier Plan and Elevation	Sheet	3	32	3	96	combine some of the variables on to same sheet
13.21	Pier Details	Sheet	6	24	6	144	
		M	isc. Subst	ructure l	Design an	d Plans	
13.22	Foundation Layout	Sheet	2	28	2	56	
	Fender System	LS				0	
		Sur	perstructi	ure Deck	Design a	nd Plans	<u> </u>
13.24	r mish Grade Elevation (FGE)	LS	1	72		72	
13.25	Finish Grade Elevations	Sheet	3	12	3	36	
		CA	3	16		48	
13.27	Bridge Deck Design	EA Unit	4	12		48	
	Superstructure Plan	Sheet	6	20	6	120	
13.29	Superstructure Section	Sheet	5	20	5	100	
	Miscellaneous Bridge Deck Details	Sheet	2	20	2	40	FDOT U-Beam applicable details
			Rei	nforcing	Bar Lists		
13.31	Reinforcing Bar List	Sheet	8	12	8	96	
	t	C	ontinuou	s Concre	e Girder	Design	
			Lon	gitudinal	Analysis		
13.33	Section Properties	LS	1	16		16	
13.34	Material Properties	LS	1	20		20	
	Construction Sequence	EA Unit	2	36		72	One Continous Unit and 1 Simple Span Unit (with Straight
	Tendon Layouts	EA Unit	2	40		80	& Curved)
13.36	i ciidoii Layouts						
	Live Load Analysis	EA Unit	2	32		64	

ORLANDO-ORANGE COUNTY EXPRESSWAY AUTHORITY URS Corporation

Project Number: 253F OOCEA Contract No.: 000818

DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 1)

Orange County
Structure Design
Section 413

Bridge 9: Ramp A/D1 (Concrete)

Section	413	Bridge 9:	Ramp A	JD1 (Co	ncrete)		
Disk No	oracle and the second s	Unit:	Para dist	e House Limb	Sheet Sheet	e tobile House	Guinent 2 6
13.39	Time Dependent Analysis	EA Unit	2	150		300	
13.40	Stress Summary	EA Unit	2	60		120	
13.41	Ultimate Moments	EA Unit	2	40		80	
13.42	Ultimate Shear	EA Unit	2	40		80	
13.43	Construction Loading	EA Unit	2	40		80	
13.44	Framing Plan	Sheet	3	24	3	72	
13.45	Girder Elevation, including Grouting Plan and Vent Locations	Sheet	1	20	1	20	
13.46	Girder Details	Sheet	3	28	3	84	
13.47	Splice Details	Sheet	2	24	2	48	
13.48	Girder Deflections and Camber	Sheet	2	20	2	40	
			Simple	e Span Con	crete Desig	ç n	
13.49	Prestressed Beam	EA Beam	16	10		160	
13.50	Prestressed Beam Schedules	Sheet	1	24	1	24	
13.51	Framing Plan	Sheet	3	20	3	60	
				Load Ra	ting		
13.52	Load Rating	EA Unit	16	10		160	1 @ 32, 2 @ 16 & 16 @ 6 = 160
				Credi	it		
	Ramp D	LS	1	-1600		-1600	Simple Span Bridge combined with Ramp A/D1. Simple span bridge converted to to 3 span contginous, 1 simple span post-tensioned and 4 simple spans to eliminate earth plug and MSE wall on approach.
	A COLOR	octores (VII d	Span Con	relemojai	57.2	2 106	

ORLANDO-ORANGE COUNTY EXPRESSWAY AUTHORITY **URS** Corporation OOCEA Contract No.: 000818 Project Number: 253F DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 1) **Orange County** Structure Design Walls @ Bridge Ends Section 413 General Layout Design and Plans 0 Sheet 17.1 Key Sheet 41 0 17.2 Horizontal Wall Geometry EA Wall Permanent Proprietary Walls 0 EA Wall 9 17.3 Vertical Wall Geometry 0 3 Sheet 17.4 Semi-Standard Drawings 0 37 Sheet 17.5 Wall Plan and Elevations (Control Drawings) 2 0 Sheet 17.6 Details Temporary Proprietary Walls 32 0 EA Wall 17.7 Vertical Wall Geometry 0 0 Sheet 17.8 Semi-Standard Drawings 0 7 Sheet 17.9 Wall Plan and Elevations (Control Drawings) 3 0 17.10 Details Sheet Cast in Place Retaining Walls 0 0 0 17.11 Design EA Design 0 0 0 EA Wall 17.12 Vertical Wall Geometry 0 0 0 0 Sheet 17.13 General Notes 0 0 0 0 Sheet 17.14 Wall Plan and Elevations (Control Drawings) 0 0 0 0 17.15 Sections and Details Sheet 0 0 0 0 Sheet 17.16 Reinforcing Bar List Other Retaining Walls 0 EA Design 12 17.17 Design 0 17.18 Vertical Wall Geometry EA Wall 0 0 17.19 General Notes, Tables & Misc. Details Sheet 0 0 Sheet 17.20 Wall Plan and Elevations 0 0 Sheet 17.21 Details Credit Reduced for earth plug and approach modificatgions. Revised some of the bridge wall -230 -230 limits to be consistent with addition of new roadway wall limits. LS

157 Structures Pretaining Ayall Totals

URS Corporation OOCEA Contract No.: 000818

Project Number: 253F

DESCRIPTION: SR 408/SR 417 Ultimate Interchange (CONTRACT AMENDMENT NO. 1)
Orange County

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	ge County						
N .	e Design						
Section	413	Walls @ Ro	and the second second	STORY SEAR PROPERTY.		CONTRACTOR AND ADDRESS OF THE PARTY OF THE P	
		Britis I	Neat	10.50	Nesite	Total*,	Comments Comments
						11000	
Genera	l Layout Design and Plans						
17.1	Key Sheet	Sheet	0	0	0	0	
17.2	Horizontal Wall Geometry	EA Wall	7	12		84	
Permar	ent Proprietary Walls						
17.3	Vertical Wall Geometry	EA Wall	7	16		112	
17.4	Semi-Standard Drawings	Sheet	0	0	0	0	
17.5	Wall Plan and Elevations (Control Drawings)	Sheet	35	10	35	350	
17.6	Details	Sheet	0	0	0	0	
Tempo	rary Proprietary Walls						
17.7	Vertical Wall Geometry	EA Wall	0	4		0	
17.8	Semi-Standard Drawings	Sheet	0	0	0	0	
17.9	Wall Plan and Elevations (Control Drawings)	Sheet	0	12	0	0	
17.10	Details	Sheet	0	24	0	0	
Cast in	Place Retaining Walls						
17.11	Design	EA Design	0	0		0	
17.12	Vertical Wall Geometry	EA Wall	0	0		0	
17.13	General Notes	Sheet	0	0	0	0	
17.14	Wall Plan and Elevations (Control Drawings)	Sheet	0	0	0	0	
17.15	Sections and Details	Sheet	0	0	0	0	
17.16	Reinforcing Bar List	Sheet	0	0	0	0	
Other I	Retaining Walls						
17.17	Design	EA Design	0	12	0	0	
17.18	Vertical Wall Geometry	EA Wall				0	
17.19	General Notes, Tables & Misc. Details	Sheet			0	0	
17.20	Wall Plan and Elevations	Sheet			0	0	
	Details	Sheet			0	0	
		ordway Reh	jeing V	il Words	35 %	5.J6	

ORLANDO-ORANGE COUNTY EXPRESSWAY AUTHORITY **URS** Corporation Project Number: 253F OOCEA Contract No.: 000818 DESCRIPTION: SR 408/SR 417 Ultimate Interchange Orange County Structure Design Section 413 Concrete Box Culvert 0 18.1 Concrete Box Culverts EΑ 0 0 18.2 Concrete Box Culverts Extensions 0 0 0 Strain Poles Initial 0 0 0 Config 18.3 Steel Strain Poles EA Add'l 0 0 0 Config Initial 0 0 0 Config 18.4 | Concrete Strain Poles EA Add'1 0 0 0 Config Mast Arms EA Polc 0 0 18.5 Mast Arms 0 Overhead & Cantilever Sign Structures 0 EA 18.6 Cantilever Sign Structures 18.7 Overhead Span Sign Structures EA 0 Special (longspan) Overhead Span Sign 0 0 0 EA Structures EA 0 0 18.9 Monotube Overhead Sign Structure 0 18.10 Bridge Mounted Signs (Attached to 0 0 EA 0 Superstr.) High Mast Lighting Fixtures EA 0 0 0 18.11 High Mast Lighting Structures Sound Barrier Walls (Ground Mount) 18.12 Horizontal Wall Geometry EA Wall 2 16 32 EA 500 160 18.13 Vertical Wall Geometry 8 20 feet of 18.14 Semi-Standard Drawings Sheet 0 0 0 0 8 20 8 160 500' per sheet max Sheet 18.15 Control Drawings 18.16 Design for Wall Height Covered by Standards EA 12 12 1 Design Design for Wall Height Not Covered by EA 0 0 0 Design Standards 18.18 Aesthetic Details LS 1 12 6 12 Special Structures 0 0 18.19 Special Structures 18 Miccelancous Structures Totals : 314 2 376

Computation of Geotechnical Cost - Ardaman & Associates, Inc. Bridges

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	R 417 Interchange				Date:	2/8/13
Supplemen	tal					
Component/	Unit Description		Unit of Measure	Unit Price	Unit Quantity	Component Cost
I. FIELD EX	PLORATION:					
1. Crew & Ec	quipment Mobilization:					
	Truck-Mounted Equipment		Ea.	\$300.00	0.0	\$0.00
b	Track/Bombadier		Ea.	\$5,000.00	0.0	\$0.00
c	Mudbug		Ea.	\$350.00	0.0	\$0.00
d	Barge		Ea.	\$7,500.00	0.0	\$0.00
2. Standard P	enetration Test Borings(ASTM I	D-1586):				
Land:	0 Borings to	0 ft.		Borings to	0.0	
	Borings to	0 ft.		Borings to	0.0	
	0 Borings to	0 ft.	0	Borings to	0.0	ft.
a	0 to 50 ft. depths		LF	\$12.00	0.0	\$0.00
b	50 to 100 ft. depths		LF	\$14.00	25.0	\$350.00
c	100 to 150 ft. depths		LF	\$17.00	175.0	\$2, 975.00
d	150 to 200 ft. depths		LF	\$17.00	0.0	\$0.00
e	200 to 250 ft. depths		LF	\$0.00	0.0	\$0.00
f	250 to 300 ft. depths		LF	\$0.00	0.0	\$0.00
g	300 to 350 ft. depths		LF	\$0.00	0.0	\$0.00
h	350 to 400 ft. depths		LF	\$0.00	0.0	\$0.00
i	400 to 450 ft. depths		LF	\$0.00	0.0	\$0.00
j. -	450 to 500 ft. depths		LF	\$0.00	0.0	\$0.00
Barge/	0 Borings to	O ft.	0	Borings to	0.0	ft.
Track:	0 Borings to	0 ft.	0	Borings to	0.0	ft.
	0 Borings to	0 ft.	0	Borings to	0.0	ft.
k	0 to 50 ft. depths		LF	\$18.00	0.0	\$0.00
1	50 to 100 ft. depths		LF	\$21.00	0.0	\$0.00
m	100 to 150 ft. depths		LF	\$25.50	0.0	\$0.00
n	150 to 200 ft. depths		LF	\$25.50	0.0	\$0.00
o	200 to 250 ft. depths		LF	\$0.00	0.0	\$0.00
p	250 to 300 ft. depths		LF	\$0.00	0.0	\$0.00
q	300 to 350 ft. depths		LF	\$0.00	0.0	\$0.00
r	350 to 400 ft. depths		LF	\$0.00	0.0	\$0.00
s	400 to 450 ft. depths		LF	\$0.00	0.0	\$0.00
t	450 to 500 ft. depths		LF	\$0.00	0.0	\$0.00
-	ng - HW Barrel(ASTM D-2113):					
Land:	Oto FO # desthe		LF	\$35.00	0.0	\$0.00
	0 to 50 ft. depths		LF	\$38.00	0.0	\$0.00
	50 to 100 ft. depths		LF LF	\$38.00 \$43.00	0.0	\$0.00 \$0.00
	100 to 150 ft. depths		LF	\$49.00	0.0	\$0.00
	150 to 200 ft. depths		LF LF	\$49.00 \$55.00	0.0	\$0.00
	200 to 250 ft. depths 250 to 300 ft. depths		LF	\$0.00	0.0	\$0.00
	•		LF LF	\$0.00	0.0	\$0.00
•	300 to 350 ft. depths 350 to 400 ft. depths		LF	\$0.00	0.0	\$0.00
	· ·		LF	\$0.00	0.0	\$0.00
	400 to 450 ft. depths		LF	\$0.00	0.0	\$0.00
•	450 to 500 ft. depths		u	Ψ0.00	0.0	Ψ0.00
Barge/						

Track:						
	to 50 ft. depths		LF	\$52.50	0.0	\$0.00
	to 100 ft. depths		LF	\$57.00	0.0	\$0.00
	0 to 150 ft. depths		LF	\$64.50	0.0	\$0.00
	0 to 200 ft. depths		LF	\$73.50	0.0	\$0.00
	0 to 250 ft. depths		LF	\$82.50	0.0	\$0.00
	0 to 300 ft. depths		LF	\$0.00	0.0	\$0.00
•	0 to 350 ft. depths		LF	\$0.00	0.0	\$0.00
-	to 400 ft. depths		LF	\$0.00	0.0	\$0.00
	0 to 450 ft. depths		LF	\$0.00	0.0	\$0.00
	0 to 500 ft. depths		LF	\$0.00	0.0	\$0.00
1 450	7 to 200 it. dopuis			Ψ0.00	0.0	Ψ0.00
4. Grout Seal Box	reholes:					
Land:	0 Borings to	O ft.	0	Borings to	0.0 ft.	
	0 Borings to	O ft.	0	~	0.0 ft.	
	0 Borings to	0 ft.	0		0.0 ft.	
	_			_		
	to 50 ft. depths		LF	\$3.00	0.0	\$0.00
	to 100 ft. depths		LF	\$3.50	0.0	\$0.00
	to 150 ft. depths		LF	\$4.00	0.0	\$0.00
d 150	to 200 ft. depths		LF	\$5.00	0.0	\$0.00
e 200	to 250 ft. depths		LF	\$6.00	0.0	\$0.00
f 250	to 300 ft. depths		LF	\$0.00	0.0	\$0.00
g 300	to 350 ft. depths		LF	\$0.00	0.0	\$0.00
h 350	to 400 ft. depths		LF	\$0.00	0.0	\$0.00
i 400	to 450 ft. depths		LF	\$0.00	0.0	\$0.00
j. - 4 50	to 500 ft. depths		LF	\$0.00	0.0	\$0.00
			•	.		
Barge/	0 Borings to	0 ft.	_	Borings to	0.0 ft.	
Track:	Borings to	() 37		Honnae to	0.0 ft.	
	_	0 ft.	0	Borings to		
	0 Borings to	0 ft.	_	Borings to	0.0 ft.	
k - 0:	0 Borings to		0	Borings to	0.0 ft.	\$0.00
	0 Borings to to 50 ft. depths		0 LF	Borings to \$4.50	0.0 ft. 0.0	\$0.00 \$0.00
1 50	0 Borings to to 50 ft. depths to 100 ft. depths		O LF LF	\$4.50 \$5.25	0.0 ft. 0.0 0.0	\$0.00
1 50 m 100	0 Borings to to 50 ft. depths to 100 ft. depths 0 to 150 ft. depths		0 LF LF LF	\$4.50 \$5.25 \$6.00	0.0 ft. 0.0 0.0 0.0	\$0.00 \$0.00
l 50 m 100 n 150	0 Borings to to 50 ft. depths to 100 ft. depths to 150 ft. depths 0 to 200 ft. depths		0 LF LF LF LF	\$4.50 \$5.25 \$6.00 \$7.50	0.0 ft. 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00
l 50 m 100 n 150 o 200	0 Borings to to 50 ft. depths to 100 ft. depths 0 to 150 ft. depths 0 to 200 ft. depths 0 to 250 ft. depths		LF LF LF LF LF	\$4.50 \$5.25 \$6.00 \$7.50 \$9.00	0.0 ft. 0.0 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00
1 50 m 100 n 150 o 200 p 250	0 Borings to to 50 ft. depths to 100 ft. depths 0 to 150 ft. depths 0 to 200 ft. depths 0 to 250 ft. depths 0 to 300 ft. depths		O LF LF LF LF LF	\$4.50 \$5.25 \$6.00 \$7.50 \$9.00 \$0.00	0.0 ft. 0.0 0.0 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00
1 50 m 100 n 150 o 200 p 250 q 300	0 Borings to to 50 ft. depths to 100 ft. depths 0 to 150 ft. depths 0 to 200 ft. depths 0 to 250 ft. depths 0 to 300 ft. depths		O LF LF LF LF LF LF	\$4.50 \$5.25 \$6.00 \$7.50 \$9.00 \$0.00	0.0 ft. 0.0 0.0 0.0 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
1 50 m 100 n 150 o 200 p 250 q 300 r 350	0 Borings to to 50 ft. depths to 100 ft. depths 0 to 150 ft. depths 0 to 250 ft. depths 0 to 300 ft. depths 0 to 350 ft. depths 0 to 400 ft. depths		UF LF LF LF LF LF LF	\$4.50 \$5.25 \$6.00 \$7.50 \$9.00 \$0.00 \$0.00	0.0 ft. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
1 50 m 100 n 150 o 200 p 250 q 300 r 350 s 400	0 Borings to to 50 ft. depths to 100 ft. depths 0 to 150 ft. depths 0 to 200 ft. depths 0 to 250 ft. depths 0 to 300 ft. depths 0 to 350 ft. depths 0 to 450 ft. depths		LF LF LF LF LF LF LF	\$4.50 \$5.25 \$6.00 \$7.50 \$9.00 \$0.00 \$0.00 \$0.00	0.0 ft. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
1 50 m 100 n 150 o 200 p 250 q 300 r 350 s 400	0 Borings to to 50 ft. depths to 100 ft. depths 0 to 150 ft. depths 0 to 250 ft. depths 0 to 300 ft. depths 0 to 350 ft. depths 0 to 400 ft. depths		UF LF LF LF LF LF LF	\$4.50 \$5.25 \$6.00 \$7.50 \$9.00 \$0.00 \$0.00	0.0 ft. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
1 50 m 100 n 150 o 200 p 250 q 300 r 350 s 400	0 Borings to to 50 ft. depths to 100 ft. depths 0 to 150 ft. depths 0 to 250 ft. depths 0 to 300 ft. depths 0 to 350 ft. depths 0 to 400 ft. depths 0 to 450 ft. depths		LF LF LF LF LF LF LF	\$4.50 \$5.25 \$6.00 \$7.50 \$9.00 \$0.00 \$0.00 \$0.00	0.0 ft. 0.0 0.0 0.0 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
1 50 m 100 n 150 o 200 p 250 q 300 r 350 s 400 t 450	0 Borings to to 50 ft. depths to 100 ft. depths 0 to 150 ft. depths 0 to 250 ft. depths 0 to 300 ft. depths 0 to 350 ft. depths 0 to 400 ft. depths 0 to 450 ft. depths		LF LF LF LF LF LF LF	\$4.50 \$5.25 \$6.00 \$7.50 \$9.00 \$0.00 \$0.00 \$0.00	0.0 ft. 0.0 0.0 0.0 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
1 50 m 100 n 150 o 200 p 250 q 300 r 350 s 400 t 450 5. Casing Alloward	0 Borings to to 50 ft. depths to 100 ft. depths 0 to 150 ft. depths 0 to 250 ft. depths 0 to 300 ft. depths 0 to 350 ft. depths 0 to 400 ft. depths 0 to 450 ft. depths		LF LF LF LF LF LF LF	\$4.50 \$5.25 \$6.00 \$7.50 \$9.00 \$0.00 \$0.00 \$0.00	0.0 ft. 0.0 0.0 0.0 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
1 50 m 100 n 150 o 200 p 250 q 300 r 350 s 400 t 450 5. Casing Allowa Land: a 01	0 Borings to to 50 ft. depths to 100 ft. depths 0 to 150 ft. depths 0 to 250 ft. depths 0 to 350 ft. depths 0 to 350 ft. depths 0 to 400 ft. depths 0 to 450 ft. depths 0 to 550 ft. depths		UF LF LF LF LF LF LF	\$4.50 \$5.25 \$6.00 \$7.50 \$9.00 \$0.00 \$0.00 \$0.00	0.0 ft. 0.0 0.0 0.0 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
1 50 m 100 n 150 o 200 p 250 q 300 r 350 s 400 t 450 5. Casing Allowa Land: a 00 b 50	0 Borings to to 50 ft. depths to 100 ft. depths 0 to 150 ft. depths 0 to 250 ft. depths 0 to 350 ft. depths 0 to 350 ft. depths 0 to 400 ft. depths 0 to 450 ft. depths 0 to 50 ft. depths		UF LF LF LF LF LF LF	\$4.50 \$5.25 \$6.00 \$7.50 \$9.00 \$0.00 \$0.00 \$0.00 \$0.00	0.0 ft. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
1 50 m 100 n 150 o 200 p 250 q 300 r 350 s 400 t 450 5. Casing Allowa Land: a 01 b 50 c 100	0 Borings to to 50 ft. depths to 100 ft. depths 0 to 150 ft. depths 0 to 250 ft. depths 0 to 350 ft. depths 0 to 350 ft. depths 0 to 450 ft. depths 0 to 450 ft. depths 0 to 500 ft. depths 0 to 500 ft. depths 0 to 500 ft. depths		O LF LF LF LF LF LF LF	\$4.50 \$5.25 \$6.00 \$7.50 \$9.00 \$0.00 \$0.00 \$0.00 \$0.00	0.0 ft. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
1 50 m 100 n 150 o 200 p 250 q 300 r 350 s 400 t 450 5. Casing Allowa Land: a 01 b 50 c 100 d 150	0 Borings to to 50 ft. depths to 100 ft. depths 0 to 150 ft. depths 0 to 250 ft. depths 0 to 300 ft. depths 0 to 350 ft. depths 0 to 450 ft. depths 0 to 450 ft. depths 0 to 500 ft. depths 0 to 500 ft. depths		O LF LF LF LF LF LF LF LF	\$4.50 \$5.25 \$6.00 \$7.50 \$9.00 \$0.00 \$0.00 \$0.00 \$0.00 \$1.00	0.0 ft. 0.0 0.0 0.0 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
1 50 m 100 n 150 o 200 p 250 q 300 r 350 s 400 t 450 5. Casing Allowa Land: a 01 b 50 c 100 d 150 e 200	0 Borings to to 50 ft. depths to 100 ft. depths 0 to 150 ft. depths 0 to 250 ft. depths 0 to 300 ft. depths 0 to 350 ft. depths 0 to 450 ft. depths 0 to 450 ft. depths 0 to 500 ft. depths 0 to 500 ft. depths 0 to 50 ft. depths		0 	\$4.50 \$5.25 \$6.00 \$7.50 \$9.00 \$0.00 \$0.00 \$0.00 \$7.50 \$9.20 \$11.00 \$0.00	0.0 ft. 0.0 0.0 0.0 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
1 50 m 100 n 150 o 200 p 250 q 300 r 350 s 400 t 450 5. Casing Allowa Land: a 01 b 50 c 100 d 150 e 200 f 250	0 Borings to to 50 ft. depths to 100 ft. depths 0 to 150 ft. depths 0 to 250 ft. depths 0 to 350 ft. depths 0 to 350 ft. depths 0 to 450 ft. depths 0 to 450 ft. depths 0 to 500 ft. depths 0 to 500 ft. depths 0 to 500 ft. depths 1 to 500 ft. depths 1 to 100 ft. depths 1 to 100 ft. depths 1 to 150 ft. depths 1 to 250 ft. depths 1 to 250 ft. depths		0 	\$4.50 \$5.25 \$6.00 \$7.50 \$9.00 \$0.00 \$0.00 \$0.00 \$7.50 \$9.20 \$11.00 \$0.00	0.0 ft. 0.0 0.0 0.0 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
1 50 m 100 n 150 o 200 p 250 q 300 r 350 s 400 t 450 5. Casing Allowa Land: a 01 b 50 c 100 d 150 e 200 f 250 g 300	0 Borings to to 50 ft. depths to 100 ft. depths 0 to 250 ft. depths 0 to 250 ft. depths 0 to 350 ft. depths 0 to 350 ft. depths 0 to 450 ft. depths 0 to 450 ft. depths 0 to 500 ft. depths 0 to 500 ft. depths 0 to 50 ft. depths 10 100 ft. depths		0 	\$4.50 \$5.25 \$6.00 \$7.50 \$9.00 \$0.00 \$0.00 \$0.00 \$7.50 \$9.20 \$11.00 \$0.00 \$0.00	0.0 ft. 0.0 0.0 0.0 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
1 50 m 100 n 150 o 200 p 250 q 300 r 350 s 400 t 450 5. Casing Allowa Land: a 01 b 50 c 100 d 150 e 200 f 250 g 300 h 350	0 Borings to to 50 ft. depths to 100 ft. depths 0 to 150 ft. depths 0 to 250 ft. depths 0 to 350 ft. depths 0 to 350 ft. depths 0 to 450 ft. depths 0 to 450 ft. depths 0 to 500 ft. depths 0 to 500 ft. depths 0 to 50 ft. depths 10 50 ft. depths 10 50 ft. depths 10 50 ft. depths 10 100 ft. depths		0 	\$4.50 \$5.25 \$6.00 \$7.50 \$9.00 \$0.00 \$0.00 \$0.00 \$7.50 \$9.20 \$11.00 \$0.00 \$0.00	0.0 ft. 0.0 0.0 0.0 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
1 50 m 100 n 150 o 200 p 250 q 300 r 350 s 400 t 450 5. Casing Allowa Land: a 01 b 50 c 100 d 150 e 200 f 250 g 300 h 350 i 400	0 Borings to to 50 ft. depths to 100 ft. depths 0 to 150 ft. depths 0 to 250 ft. depths 0 to 350 ft. depths 0 to 350 ft. depths 0 to 450 ft. depths 0 to 450 ft. depths 0 to 500 ft. depths 0 to 500 ft. depths 0 to 50 ft. depths 1 to 500 ft. depths 1 to 50 ft. depths 1 to 100 ft. depths 1 to 250 ft. depths 1 to 250 ft. depths 1 to 350 ft. depths 1 to 400 ft. depths		0	\$4.50 \$5.25 \$6.00 \$7.50 \$9.00 \$0.00 \$0.00 \$0.00 \$0.00 \$7.50 \$9.20 \$11.00 \$0.00 \$0.00 \$0.00	0.0 ft. 0.0 0.0 0.0 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
1 50 m 100 n 150 o 200 p 250 q 300 r 350 s 400 t 450 5. Casing Allowa Land: a 01 b 50 c 100 d 150 e 200 f 250 g 300 h 350 i 400	0 Borings to to 50 ft. depths to 100 ft. depths 0 to 150 ft. depths 0 to 250 ft. depths 0 to 350 ft. depths 0 to 350 ft. depths 0 to 450 ft. depths 0 to 450 ft. depths 0 to 500 ft. depths 0 to 500 ft. depths 0 to 50 ft. depths 1 to 500 ft. depths 1 to 50 ft. depths 1 to 50 ft. depths 1 to 250 ft. depths 1 to 250 ft. depths 1 to 350 ft. depths 1 to 350 ft. depths 1 to 350 ft. depths 1 to 450 ft. depths 1 to 450 ft. depths 1 to 450 ft. depths		0	\$4.50 \$5.25 \$6.00 \$7.50 \$9.00 \$0.00 \$0.00 \$0.00 \$0.00 \$11.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	0.0 ft. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
1 50 m 100 n 150 o 200 p 250 q 300 r 350 s 400 t 450 5. Casing Allowa Land: a 01 b 50 c 100 d 150 e 200 f 250 g 300 h 350 i 400 j 450 Barge/ Track:	to 50 ft. depths to 100 ft. depths to 100 ft. depths to 150 ft. depths to 200 ft. depths to 250 ft. depths to 350 ft. depths to 400 ft. depths to 400 ft. depths to 450 ft. depths to 50 ft. depths to 50 ft. depths to 100 ft. depths to 250 ft. depths to 300 ft. depths to 350 ft. depths to 450 ft. depths to 450 ft. depths to 450 ft. depths to 450 ft. depths		0	\$4.50 \$5.25 \$6.00 \$7.50 \$9.00 \$0.00 \$0.00 \$0.00 \$0.00 \$11.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	0.0 ft. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
1 50 m 100 n 150 o 200 p 250 q 300 r 350 s 400 t 450 5. Casing Allowa Land: a 01 b 50 c 100 d 150 e 200 f 250 g 300 h 350 i 400 j 450 Barge/ Track: k 0 t	O Borings to to 50 ft. depths to 100 ft. depths 0 to 150 ft. depths 0 to 250 ft. depths 0 to 350 ft. depths 0 to 350 ft. depths 0 to 450 ft. depths 0 to 450 ft. depths 0 to 500 ft. depths 0 to 50 ft. depths 0 to 50 ft. depths 10 50 ft. depths 10 50 ft. depths 10 50 ft. depths 10 150 ft. depths 10 250 ft. depths 10 250 ft. depths 10 350 ft. depths 10 350 ft. depths 10 450 ft. depths 10 450 ft. depths 10 500 ft. depths		0	\$4.50 \$5.25 \$6.00 \$7.50 \$9.00 \$0.00 \$0.00 \$0.00 \$0.00 \$11.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	0.0 ft. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
1 50 m 100 n 150 o 200 p 250 q 300 r 350 s 400 t 450 5. Casing Allowa Land: a 01 b 50 c 100 d 150 e 200 f 250 g 300 h 350 i 400 j 450 Barge/ Track: k 0 t	to 50 ft. depths to 100 ft. depths to 100 ft. depths to 150 ft. depths to 200 ft. depths to 250 ft. depths to 350 ft. depths to 400 ft. depths to 400 ft. depths to 450 ft. depths to 50 ft. depths to 50 ft. depths to 100 ft. depths to 250 ft. depths to 300 ft. depths to 350 ft. depths to 450 ft. depths to 450 ft. depths to 450 ft. depths to 450 ft. depths		0	\$4.50 \$5.25 \$6.00 \$7.50 \$9.00 \$0.00 \$0.00 \$0.00 \$0.00 \$11.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	0.0 ft. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00

m 100 to	150 ft. depths		LF	\$16.50	0.0	\$0.00
n 150 to	200 ft. depths		LF	\$0.00	0.0	\$0.00
o 200 to	250 ft. depths		LF	\$0.00	0.0	\$0.00
	300 ft. depths		LF	\$0.00	0.0	\$0.00
•	350 ft. depths		LF	\$0.00	0.0	\$0.00
	400 ft. depths		LF	\$0.00	0.0	\$0.00
						· ·
	450 ft. depths		LF	\$0.00	0.0	\$0.00
t 450 to	500 ft. depths		LF	\$0.00	0.0	\$0.00
6. Cone Penetration T	Test Soundings(ASTM D)-3441):				
Land:	0 Borings to	0 ft.		Borings to	0.0	ft.
	Borings to	0 ft.		0 Borings to	0.0	ft.
	0 Borings to	0 ft.		0 Borings to	0.0	ft.
a - 0 to 5	50 ft. depths		LF	\$13.00	0.0	\$0.00
	100 ft. depths		LF	\$13.00	0.0	\$0.00
			LF			
	150 ft. depths			\$13.00	0.0	\$0.00
	200 ft. depths		LF	\$13.00	0.0	\$0.00
e 200 to	250 ft. depths		LF	\$0.00	0.0	\$0.00
f 250 to	300 ft. depths		LF	\$0.00	0.0	\$0.00
g 300 to	350 ft. depths		LF	\$0.00	0.0	\$0.00
h 350 to	400 ft. depths		LF	\$0.00	0.0	\$0.00
	450 ft. depths		LF	\$0.00	0.0	\$0.00
	500 ft. depths		LF	\$0.00	0.0	\$0.00
j. 400 to	ooo ii. dopaio			ψο.σσ	0.0	Ψ0.00
Dames!						
Barge/	O. Doringo An	0.4		0. Darings 45	0.0	4
Track:	0 Borings to	0 ft		0 Borings to	0.0	
	0 Borings to	0 ft		0 Borings to	0.0	
	Borings to	O ft		0 Borings to	0.0	ft
k 0 to 5	50 ft. depths		LF	\$0.00	0.0	\$0.00
I 50 to 1	100 ft. depths		LF	\$0.00	0.0	\$0.00
m 100 to	150 ft. depths		LF	\$0.00	0.0	\$0.00
n 150 to 2	200 ft. depths		LF	\$0.00	0.0	\$0.00
	250 ft. depths		LF	\$0.00	0.0	\$0.00
	300 ft. depths		LF	\$0.00	0.0	\$0.00
-	350 ft. depths		LF	\$0.00	0.0	\$0.00
•	•		LF			-
	400 ft. depths			\$0.00	0.0	\$0.00
	450 ft. depths		LF	\$0.00	0.0	\$0.00
t 450 to	500 ft. depths		LF	\$0.00	0.0	\$0.00
7. Auger Borings(AS)	TM D-1452):					•
	Borings to	O ft				
	0 Borings to	0 ft				
	0 Borings to	o ft				
	0 Borings to	O ft				
a - 0 to 5	60 ft. depths	V	LF	\$9.50	0.0	\$0.00
a 0 to 5	o it. dopuis		Li	Ψ3.50	0.0	Ψ0.00
0 Dail Dia 2 C	. Lond		Lia	¢100.00	0.0	\$0.00
8. Drill Rig and Crew:			Hr	\$180.00	0.0	•
	Amphibious/Bar	ge	Hr	\$270.00	0.0	\$0.00
			_			
9. Field Permeability	Tests:		Ea.	\$275.00	0.0	\$0.00
10. MOT (5 boring	s @ 1.5 days/boring)		Hr.	\$225.00	60.0	\$13,500.00
11. Hand Probing/Wa	sh Borings:					
a 2 perso	_		Hr.	\$110.00	0.0	\$0.00
b 3 perso			Hr.	\$160.00	0.0	\$0.00
5. 0 poido				Ţ		*****

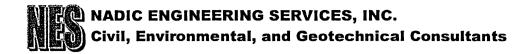
12. Per Diem for Drill Crew:				
a 2 person crew .	Days	\$100.00	0.0	\$0.00
b 3 person crew	Days	\$150.00	0.0	\$0.00
13. Thin-Walled Tube Samples(ASTM D-1587):				
Land:	_			
a 0 to 50 ft. depths	Ea.	\$140.00	0.0	\$0.00
b 50 to 100 ft. depths	Ea.	\$155.00	0.0	\$0.00
c 100 to 150 ft. depths	Ea.	\$260.00	0.0	\$0.00
d 150 to 200 ft. depths	Ea.	\$340.00	0.0	\$0.00
Barge/				
Track:				
a 0 to 50 ft. depths	Ea.	\$210.00	0.0	\$0.00
b 50 to 100 ft. depths	Ea.	\$232.50	0.0	\$0.00
c 100 to 150 ft. depths	Ea.	\$390.00	0.0	\$0.00
d 150 to 200 ft. depths	Ea.	\$510.00	0.0	\$0.00
14. Site Reconnaissance/Utility Coordination:				
a Project Engineer	hrs.	\$106.71	0.0	\$0.00
b Engineering Tech.	hrs.	\$62.65	0.0	\$0.00
o. Linguistaning Footi		402.00	•••	40.00
15. Extra Split Spoon Samples:				
Land:	•			
a 0 to 50 ft. depths	Ea.	\$29.00	0.0	\$0.00
b 50 to 100 ft. depths	Ea.	\$32.00	0.0	\$0.00
c 100 to 150 ft. depths	Ea.	\$41.50	0.0	\$0.00
d 150 to 200 ft. depths	Ea.	\$45.00	0.0	\$0.00
e 200 to 250 ft. depths	Ea.	\$50.00	0.0	\$0.00
f 250 to 300 ft. depths	Ea.	\$0.00	0.0	\$0.00
g 300 to 350 ft. depths	Ea.	\$0.00	0.0	\$0.00
h 350 to 400 ft. depths	Ea.	\$0.00	0.0	\$0.00
i 400 to 450 ft. depths	Ea.	\$0.00	0.0	\$0.00
j 450 to 500 ft. depths	Ea.	\$0.00	0.0	\$0.00
Barge/		7-1		*****
Track:				
k 0 to 50 ft. depths	Ea.	\$43.50	0.0	\$0.00
I 50 to 100 ft. depths	Ea.	\$48.00	0.0	\$0.00
m 100 to 150 ft. depths	Ea.	\$62.25	0.0	\$0.00
n 150 to 200 ft. depths	Ea.	\$67.50	0.0	\$0.00
o 200 to 250 ft. depths	Ea.	\$75.00	0.0	\$0.00
p 250 to 300 ft. depths	Ea.	\$0.00	0.0	\$0.00
g 300 to 350 ft. depths	Ea.	\$0.00	0.0	\$0.00
r 350 to 400 ft. depths	Ea.	\$0.00	0.0	\$0.00
s 400 to 450 ft. depths	Ea.	\$0.00	0.0	\$0.00
t 450 to 500 ft. depths	Ea.	\$0.00	0.0	\$0.00
		• • • • •		• • • • • •
16. Pavement Cores:	Hr.	\$120.00	0.0	\$0.00
17. Double Ring Infil.(ASTM D-3385)	Ea.	\$525.00	0.0	\$0.00
18. Subcontract Earthwork Services:				
a Clay Stabilization Matt.	CY	\$0.00	0.0	\$0.00
b Clean Sand Fill Material	CY	\$0.00	0.0	\$0.00
c Geogrid (Tensar SS2)	SY	\$0.00	0.0	\$0.00
d Removal Wetlands Fill	CY	\$0.00	0.0	\$0.00
e Silt Barrier	LF	\$0.00	0.0	\$0.00
10 Water Sampling	Ea.	\$80.00	0.0	\$0.00
19. Water Sampling:	Eä.	φου.υυ	0.0	φυ.υυ

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20. Field Vane Test(ASTM D-2573):	Ea.	\$450.00	0.0	\$0.00
21. Dilatometer Sounding:	Hr.	\$160.00	0.0	\$0.00
22. Monitor Wells - 2 inch (50mm): 0				•
a 0 to 50 ft. depths	LF	\$35.00	0.0	\$0.00
23. Concrete Pad and Cover:	Ea.	\$275.00	0.0	\$0.00
24. Deco/Development Time:	Hr	\$110.00	0.0	\$0.00
25. OVA Headspace Analysis, Senior Engineering Technician:	Hr	\$80.00	0.0	\$0.00
26. OVA Equipment Charge:	Days	\$0.00	0.0	\$0.00
27. Riser:	LF	\$10.00	0.0	\$0.00
28. Screen:	LF	\$15.00	0.0	\$0.00
29. Water Sampling for Analytical Lab Work (PCA):	Ea.	\$80.00	0.0	\$0.00
Total for Field Exp	oloration		\$	16,825.00
II. LABORATORY TESTING:				
1. Visual Exam/Stratify(ASTM D-2488): - Project Engineer - Engineering Intern	hrs. hrs.	\$106.71 \$76.24	0.0 0.0	\$0.00 \$0.00
Visual Exam/Stratify(ASTM D-2488): Project Engineer		· .		
1. Visual Exam/Stratify(ASTM D-2488): - Project Engineer - Engineering Intern 2. Grain Size Analysis: a Full Grad.(FM 1-T 88)	hrs. Ea.	\$76.24 \$40.00	0.0	\$0.00 \$0.00
1. Visual Exam/Stratify(ASTM D-2488): - Project Engineer - Engineering Intern 2. Grain Size Analysis: a Full Grad.(FM 1-T 88) b Single Sieve(FM 1-T 88)	hrs. Ea. Ea.	\$76.24 \$40.00 \$25.00	0.0 0.0 0.0	\$0.00 \$0.00 \$0.00
1. Visual Exam/Stratify(ASTM D-2488): - Project Engineer - Engineering Intern 2. Grain Size Analysis: a Full Grad.(FM 1-T 88) b Single Sieve(FM 1-T 88) 3. Hydrometer(FM 1-T 88):	hrs. Ea. Ea.	\$76.24 \$40.00 \$25.00 \$100.00	0.0 0.0 0.0	\$0.00 \$0.00 \$0.00
1. Visual Exam/Stratify(ASTM D-2488): - Project Engineer - Engineering Intern 2. Grain Size Analysis: a Full Grad.(FM 1-T 88) b Single Sieve(FM 1-T 88) 3. Hydrometer(FM 1-T 88): 4. Organic Content(FM 1-T 267): 5. Atterberg Limits(FM 1-T 89/90): a Plastic Limit	hrs. Ea. Ea. Ea.	\$76.24 \$40.00 \$25.00 \$100.00 \$28.00	0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00
1. Visual Exam/Stratify(ASTM D-2488): - Project Engineer - Engineering Intern 2. Grain Size Analysis: a Full Grad.(FM 1-T 88) b Single Sieve(FM 1-T 88) 3. Hydrometer(FM 1-T 88): 4. Organic Content(FM 1-T 267): 5. Atterberg Limits(FM 1-T 89/90): a Plastic Limit b Liquid Limit	hrs. Ea. Ea. Ea. Ea.	\$76.24 \$40.00 \$25.00 \$100.00 \$28.00 \$45.00	0.0 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
1. Visual Exam/Stratify(ASTM D-2488): - Project Engineer - Engineering Intern 2. Grain Size Analysis: a Full Grad.(FM 1-T 88) b Single Sieve(FM 1-T 88) 3. Hydrometer(FM 1-T 88): 4. Organic Content(FM 1-T 267): 5. Atterberg Limits(FM 1-T 89/90): a Plastic Limit b Liquid Limit 6. Natural Moisture (FM 1-T 265):	hrs. Ea. Ea. Ea. Ea.	\$76.24 \$40.00 \$25.00 \$100.00 \$28.00 \$45.00 \$45.00 \$12.00	0.0 0.0 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
1. Visual Exam/Stratify(ASTM D-2488): - Project Engineer - Engineering Intern 2. Grain Size Analysis: a Full Grad.(FM 1-T 88) b Single Sieve(FM 1-T 88) 3. Hydrometer(FM 1-T 88): 4. Organic Content(FM 1-T 267): 5. Atterberg Limits(FM 1-T 89/90): a Plastic Limit b Liquid Limit 6. Natural Moisture (FM 1-T 265): 7. Unit Weight Determination:	hrs. Ea. Ea. Ea. Ea. Ea.	\$76.24 \$40.00 \$25.00 \$100.00 \$28.00 \$45.00 \$45.00 \$12.00 \$55.00	0.0 0.0 0.0 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
1. Visual Exam/Stratify(ASTM D-2488): - Project Engineer - Engineering Intern 2. Grain Size Analysis: a Full Grad.(FM 1-T 88) b Single Sieve(FM 1-T 88) 3. Hydrometer(FM 1-T 88): 4. Organic Content(FM 1-T 267): 5. Atterberg Limits(FM 1-T 89/90): a Plastic Limit b Liquid Limit 6. Natural Moisture (FM 1-T 265): 7. Unit Weight Determination: 8. Consolidation Test(FM 1-T 216):	hrs. Ea. Ea. Ea. Ea. Ea. Ea.	\$76.24 \$40.00 \$25.00 \$100.00 \$28.00 \$45.00 \$45.00 \$12.00 \$55.00	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
1. Visual Exam/Stratify(ASTM D-2488): - Project Engineer - Engineering Intern 2. Grain Size Analysis: a Full Grad.(FM 1-T 88) b Single Sieve(FM 1-T 88) 3. Hydrometer(FM 1-T 88): 4. Organic Content(FM 1-T 267): 5. Atterberg Limits(FM 1-T 89/90): a Plastic Limit b Liquid Limit 6. Natural Moisture (FM 1-T 265): 7. Unit Weight Determination: 8. Consolidation Test(FM 1-T 216): 9. Permeability(FM 1-T 215/5-513): 10. Corrosion Series:	hrs. Ea. Ea. Ea. Ea. Ea. Ea.	\$76.24 \$40.00 \$25.00 \$100.00 \$28.00 \$45.00 \$45.00 \$12.00 \$55.00 \$550.00	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00

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13. Limerock Bearing Ratio(FM5-515):	Ea.	\$280.00	0.0	\$0.00
14. Specific Gravity(FM 1-T 100):	Ea.	\$75.00	0.0	\$0.00
15. Bitumen Extraction(FM 1-T 164):	Ea.	\$70.00	0.0	\$0.00
16. Bitumen Gradation(FM 1-T 30):	Ea.	\$40.00	0.0	\$0.00
17. Direct Shear(ASTM D-3080):	Ea.	\$180.00	0.0	\$0.00
18. Shrinkage Factor(FM 1-T 092):	E a .	\$60.00	0.0	\$0.00
19. Swell Potential(ASTM D-4546):	Ea.	\$60.00	0.0	\$0.00
20. Compaction(FM 5-525/521):	Ea.	\$90.00	0.0	\$0.00
21. Min./Max. Den.(ASTM D-4254/53):	Ea.	\$90.00	0.0	\$0.00
22. Unconfined - Rock(ASTM D-2938):	Ea.	\$90.00	0.0	\$0.00
23. Splitting Tensile(ASTM D-3967):	Ea.	\$120.00	0.0	\$0.00
24. Kerosene Analysis Group:	Ea.	\$450.00	0.0	\$0.00
	Total for Laboratory Testing			\$0.00
III. ENGINEERING AND TECHNICAL SERVICES 1. Chief Engineer	<u>:</u> hrs.	\$152.43	0.0	\$0.00
2. Senior Engineer:	hrs.		0.0	\$0.00
3. Project Engineer:	hrs.	\$103.04	0.0	\$0.00
4. Engineering Intern:	hrs.		0.0	\$0.00
5. CADD / Computer Technician	hrs.		0.0	\$0.00
6. Secretary/Clerical:	hrs.	\$48.98	0.0	\$0.00
o. consum j. canada.		Ţ.5. 00	2.0	40.30
	Total for Engineering and Te	chnical Services	5	\$0.00
	Grand Total this Proposal			\$16,825.00
	Grand Total this Proposal			\$16,825.00



January 17, 2013

URS Corporation
315 E. Robinson St, Suite 245
Orlando, FL 32801-1949

Attention:

Mr. Stephen N. Noppinger, P.E.

Vice President

Re:

Proposal for Geotechnical Engineering Services - Additional Sound Wall

SR 417 and SR 408 Interchange Improvements

Orange County, Florida OOCEA Project# 253F NES Project No.: R11043

Dear Mr. Noppinger:

NES is pleased to submit this Fee Proposal for additional geotechnical engineering services for the additional sound wall requested by OOCEA for the referenced proposed improvements. We understand that this improvement is for the ultimate design of the interchange. We have also included the cost of geotechnical exploration for Ponds 15 and 16 which were included the Roadway Soil Survey report submitted for this project.

Our services for this project will consist of providing geotechnical engineering services in general accordance with the Florida Department of Transportation (FDOT) "Soils and Foundation Manual" and within our understanding of the project. Based on discussions with you and URS, NES will provide the following additional geotechnical services:

- Two Standard Penetration Test borings to a depth of 20 feet for Pond 15 extension (task completed)
- Two Standard Penetration Test borings to a depth of 15 feet at the existing Pond 16 site (task completed)
- Additional 1800 linear foot for sound wall (to be provided).

Field Testing Program

We anticipate the testing program will generally consist of the following services:

- 1. Perform site reconnaissance and utility clearance coordination
- 2. Perform a total of 9 SPT borings to a depth of 40 feet for sound walls, and two (2) SPT borings to a depth of 15 feet and 20 feet for Pond 15 and 16, respectively.

NES 601 N. Hart Boulevard Orlando, FL. 32818 Phone: 407 521 4771

Fax: 407 521 4772

E-Mail: nadic@nadicinc.com

SR 417 and SR 408 Ultimate Interchange Improvements NES Project No. R11043

Page 2 of 2

- 3. Visually examine all recovered soil samples in the laboratory using the Unified Soil Classification System. Perform laboratory tests on selected representative soil samples. The laboratory testing will include grain-size analyses, Atterberg limits, organic content, natural moisture content and corrosion series testing, as appropriate
- 4. Collect groundwater level measurements and estimate normal wet seasonal high groundwater tables.

The results of the field exploration and laboratory tests will be used in performing engineering evaluations and developing recommendations for design and construction of the proposed roadway improvements. Final reports will incorporate results of the geotechnical information provided by OOCEA on preliminary reports prepared for this project as well as any additional field or laboratory test results and any special provisions for the contract plans.

Fee Estimates

In accordance with the proposed scope of services, we estimate the total cost of our services to be \$22,451.87.

We sincerely appreciate the opportunity of submitting this fee proposal, and look forward to working with you, RS&H and OOCEA once again. Please do not hesitate to contact the undersigned if you have any questions or if you need additional information.

Sincerely,

NADIC ENGINEERING SERVICES, INC.

Godwin N. Nnadi, Ph.D., P.E.

Principal Engineer

GNN: R11043 (SR417_SR 408). (January 172013) pro

Attachment:

FDOT Spreadsheet – Estimate of Work Effort and Cost – Sub consultant

FDOT Spreadsheet - Staff Hours - Geotechnical

Attachment A - Computation of Geotechnical Field and Laboratory Cost

ESTIMATE OF WORK EFFORT AND COST - SUBCONSULTANT

Name of Project:

SR 408/SR417 SYSTEMS INTERCHANGE CONSTRUCTION

County: OOCEA Project Number:

Orange 253F

Consultant Name: URS/NADIC ENGINEERING SVCS

Consultant No.: R11033

Date: 1/17/2013

OOCEA Contract Number:	000818				** *** ******* ***********************			******		•		-		Godwin Nna	di	
Staff Classification	*SH Summary	Project Manager	Chief Engineer	Senior Engineer	Project Engineer	Staff Engineer	uter Tech	Sr. Engineer Tech.	Secretary	fication 9	Staff Classi- fication 10	fication 11	fication 12	SH By	Salary Cost By	Average Rate Per
). Project General Tasks	Firm"	\$55.71	\$0.00	\$52,08	\$45,19	\$28,94	\$24,42	\$22,15	\$16,58	\$0.00	\$0.00	\$0.00	\$0.00	Activity	Activity	Task
J. Project General Lasks 4. Roadway Analysis	0	_	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/01
5. Roadway Plans	0	0	°	0	0	0	0	0	0	0	0	0	°	. 0	\$0	#DIV/01
S. Drainage Analysis	_	0	0	0	0	0	!	0	0	0	0	0	•	0	\$0	#DIV/0!
7. Utilities	0	0	0	0	0	0		0	0	0	0	0	0	0	\$0	#DIV/01
8. Environmental Permits	•	0	0	0	0	0		0	0	0	0	0	0	0	\$0	#D1V/01
o. Environmental Permas 9. Structures - Misc. Tasks, Dwgs, Non-Tech	0	0	0	0	0	0		l °	0	0	0	P •		0	\$0	#DIV/0!
e. Structures - Misc. Tasks, Dwgs, Non-Tecr 10. Structures - BDR	0	0	0	0	0	0		0	0	0	0	۰ ا	0	0	\$0	#DIV/0!
		0	°	0	0	0	•	0	0	0	0	0	0	0	\$0	#DIV/0!
11. Structures - Temporary Bridge	0	0	0	0	0	0	0	0 1	0	0	0	0	0	0	\$0	#DIV/0!
12. Structures - Short Span Concrete	0	0	٥	0	0	0	, °	0	0	0	0	0	0	0	\$0	#DIV/0I
13. Structures - Medium Span Concrete	0	. 0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
14. Structures - Structural Steel	0	. 0	٥	0	0	0	0	0	0	D	0	0	•	0	\$0	#DIV/01
15. Structures - Segmental Concrete	0	0	°	0	0	0	0	0	0	D	0	0	0	0	\$0	#DIV/0!
16. Structures - Movable Span	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/01
17. Structures - Retaining Walls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#D1V/0!
16. Structures - Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/01
19. Signing & Marking Analysis	0	0	0	0	0	0	0	0	0	D	0	0	0	0	\$0	#D1V/0!
20. Signing & Marking Plans	0	0	0	0	0	٥	0	0	0	0	0	0	0	0	\$0	#DIV/01
21. Signalization Analysis	0	0	0	0	0	0		0	0	0	0	0	0	0	\$0	#DIV/01
22. Signalization Plans	0	0	0	0	0	0	0	0	a	0	0	0	0	0	\$0	#D1V/01
23. Lighting Analysis	0		0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/01
24. Lighting Plans	0	0	0	0	0	0	0	0	o	0	0	0	0	0	\$0	#D1V/01
25. Landscape Architecture Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	. 0	\$0	#DIV/0!
26. Landscape Architecture Plans	D	0	0	0	0	0		0	0	0	0	0	0	0	\$0	#D1V/01
27. Survey (Field & Office Support)	0	0	0	٥	0	0		0	0	0	o	o	0	0	\$0	#DIV/01
26. Photogrammetry	0	0	0	0	0	0		0	0		0	0	0	0	\$0	#DIV/0!
29. Mapping	0	0	0	0	0	0		0	0	0	0	o		0	so	#DIV/0!
30. Geotechnical	79	9	0	0	23	26	10	8	4			0	0	80	\$2,781	\$34,76
31. Architecture Development	0	0	o	0	٥	0			0			0		0	\$0	#DIV/01
32. Noise Wall Analysis	0	0	0	a	0	٥		0	0	0		0			\$0	#DIV/0!
Total Staff Hours	79	9	0	0	23	26	10	В	4	0	0	0	0	80		
Total Staff Cost		\$501.39	\$0.00	\$0.00	\$1,039.37	\$752.44	\$244.20	\$177.20	\$66.32	\$0.00	\$0.00	\$0.00	\$0.00		\$2,780.92	\$34.76

Salary Related Costs		
Total Activity Salary Costs		\$2,780.92
Overhead Activities	234.34%	\$6,516.81
Subtotal Salary Related Costs	(Limiting Amount)	\$9,297.73
Operating Margin (Fixed Fee)	15.00% **	\$417.14
**(Equivalent Lump Sum for Operating Ma	rgin 4.49%)	
Expenses		
Direct Reimbursables (Out-of-Pocket)	0.00%	\$0.00
Survey (Field) 0	4-man crew d. S - /	day \$0.00
Geotechnical Field and Lab Testing		\$12,737.00
Subtotal Expenses (Lump S	ium)	\$12,737.00
NADIC TOTAL (Maximum Limi		\$22,451.87

NES Project No. R11-033

4.5

Computation of Geotechnical Cost Sound Walls

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SR 408/SR 417 System Interchange Construction

Compone	Component/Unit Description				Unit of Measure	Unit Price	Unit Quantity	Component Cost	
i fifi D	EXPLORATION:								
	Equipment Mobilization:								
1. 010 11 00	a Truck-Mounted Equipment				Ea.	\$450.00	2.0	\$900.00	
	b Track/Bombadier				Ea.	\$2,400.00	0.0	\$0.00	
	c Mudbug				Ea.	\$600.00	0.0	\$0.00	
	d Barge				Ea.	\$16,000.00	0.0	\$0.00	
2. Standar	d Penetration Test Borings(ASTM D)-1586):							
Land:	9 Borings to	40	ft.	Soundwall	2	Borings to	15.0	ft. Pond 16	
	0 Borings to	0	ft.			Borings to	20.0	ft. Pond 15	
	0 Borings to	0	ft.		0	Borings to	0.0	ft.	
	a 0 to 50 ft. depths				LF	\$12.40	430.0	\$5,332.00	
	b 50 to 100 ft. depths				LF	\$15.00	0.0	\$0.00	
	c 100 to 150 ft. depths				LF	\$19.50	0.0	\$0.00	
	d 150 to 200 ft. depths				LF	\$24.00	0.0	\$0.00	
	e 200 to 250 ft. depths				LF	\$30.00	0.0	\$0.00	
Barge/	0 Borings to	0	ft.		0	Borings to	0.0	ft.	
Track:	0 Borings to	0	ft.		0	Borings to	0.0	ft.	
	0 Borings to	0	ft.		0	Borings to	0.0	ft.	
	k 0 to 50 ft. depths				LF	\$18.60	0.0	\$0.00	
	l 50 to 100 ft. depths				LF	\$22.50	0.0	\$0.00	
	m 100 to 150 ft. depths				LF	\$28.50	0.0	\$0.00	
	n 150 to 200 ft. depths				LF	\$36.00	0.0	\$0.00	
	o 200 to 250 ft. depths				LF	\$45.00	0.0	\$0.00	
3. Rock Co	oring - HW Barrel(ASTM D-2113):								
La	nd:								
	a 0 to 50 ft. depths				LF	\$30.00	0.0	\$0.00	
	b 50 to 100 ft. depths				LF	\$35.00	0.0	\$0.00	
	c 100 to 150 ft. depths				LF	\$40.00	0.0	\$0.00	
	d 150 to 200 ft. depths				LF . –	\$50.00	0.0	\$0.00	
	c 200 to 250 ft. depths				LF	\$60.00	0.0	\$0.00	
Bar Tra	_								
	k 0 to 50 ft. depths				LF	\$45.00	0.0	\$0.00	
	l 50 to 100 ft. depths				LF	\$52.50	0.0	\$0.00	
	m 100 to 150 ft. depths				LF	\$60.00	0.0	\$0.00	
	n 150 to 200 ft. depths				LF	\$75.00	0.0	\$0.00	
	o 200 to 250 ft. depths				LF	\$90.00	0.0	\$0.00	
4. Grout Se	eal Boreholes:								
La	nd: 0 Borings to	0			0	Borings to	0.0		
	0 Borings to	0			0	•	0.0	ft.	
	0 Borings to	0	ft.		0	Borings to	0.0	ft.	
	a 0 to 50 ft. depths				LF	\$5.00	0.0	\$0.00	
	b 50 to 100 ft. depths				LF	\$6.00	0.0	\$0.00	
	c 100 to 150 ft. depths				LF	\$8.00	0.0	\$0.00	
	d 150 to 200 ft. depths				LF	\$10.00	0.0	\$0.00	
	e 200 to 250 ft. depths				LF	\$12.00	0.0	\$0.00	
							Nadic Engin	eering Service,	In

Nadic Engineering Service, Inc. 601 N. Hart Blvd., Orlando, FL. 32818

NES Project No. R11-033 Computation of Geotechnical Cost Sound Walls SR 408/SR 417 System Interchange Construction									1/17/2013 Page 10	
			3K 408/3K	417 System inter	rchange v	CON	Struction			
Barg	ze/ 0	Borings to	0	ft.		0	Borings to	0.0	ft.	
Trac	•	Borings to	0	ft.			Borings to	0.0		
		Borings to	0	ft.			Borings to	0.0		
		-								
	k 0 to 50	•			LF		\$7.50	0.0		\$0.00
		00 ft. depths			LF		\$9.00	0.0		\$0.00
		50 ft. depths			LF		\$12.00	0.0		\$0.00
		200 ft. depths			LF		\$15.00	0.0		\$0.00
	o 200 to 2	50 ft. depths			LF		\$18.00	0.0		\$0.00
5. Casing A	llowance:									
Lar										
24.	a 0 to 50	Off depths			LF		\$8.00	0.0		\$0.00
		00 ft. depths			LF		\$10.00	0.0		\$0.00
		50 ft. depths			LF		\$11.00	0.0		\$0.00
		200 ft. depths			LF		\$12.50	0.0		\$0.00
		250 ft. depths			LF		\$15.00	0.0		\$0.00
Barge/	c 200 to 2	.50 it. deptilis			L1		Ψ10.00	0.0		ψ0.00
Track:										
	k 0 to 5	0 ft. depths			LF		\$12.00	0.0		\$0.00
		00 ft. depths			LF		\$15.00	0.0		\$0.00
,		50 ft. depths			LF		\$16.50	0.0		\$0.00
•		200 ft. depths			LF		\$18.75	0.0		\$0.00
		250 ft. depths			LF		\$22.50	0.0		\$0.00
	0 200 10 2	.oo it. deptilo					Ψ22.00	0.0		Ψ0.00
6. Cone Per	netration Test	Soundings(AST	M D-3441):							
Lar		Borings to	-	ft		0	Borings to	0.0	ft	
		Borings to	0	ft		0	Borings to	0.0	ft	
		Borings to	0	ft		0	Borings to	0.0	ft	
	a 0 to 50	•			LF		\$9.00	0.0		\$0.00
		00 ft. depths			LF		\$11.00	0.0		\$0.00
		50 ft. depths			LF		\$13.00	0.0		\$0.00
		200 ft. depths			LF		\$15.00	0.0		\$0.00
	e 200 to 2	250 ft. depths			LF		\$17.00	0.0		\$0.00
Dorge/										
Barge/ Track:	0	Borings to	n	ft		0	Borings to	0.0	ft	
Hack.		Borings to		ft			Borings to	0.0		
		Borings to		ft			Borings to	0.0		
		. Bornigo to	•			Ů	20.11.go to	0.0	••	
	k 0 to 50	Off depths			LF		\$13.50	0.0		\$0.00
		00 ft. depths			LF		\$16.50	0.0		\$0.00
,		50 ft. depths			LF		\$19.50	0.0		\$0.00
		200 ft. depths			LF		\$22.50	0.0		\$0.00
		250 ft. depths			LF		\$25.50	0.0		\$0.00
	U 200 IU 2	.oo it. deptiis			LI		Ψ20.00	0.0		ψ0.00
7. Auger Bo	orings(ASTM	D-1452):								
	•	Borings to	0	ft						
		Borings to		ft						
		Borings to		ft						
		Borings to		ft						
		Oft. depths	·		LF		\$10.00	0.0		\$0.00
	2.0 0.	F			- -		,			v - · - · ·
8. Drill Rig	and Crew:	Land (creatin	g access to	ooring locations)	Hr		\$150.00	3.0		\$450.00

NES Project No. R11-033 Computation of G		ost		1/17/2013 Page 10
SR 408/SR 417 System Ir Amphibious/Barge	nterchange Coi Hr	nstruction \$250.00	0.0	\$0.00
9. Field Permeability Tests:	Ea.	\$275.00	0.0	\$0.00
10a. MOT -Signs	Hr.	\$180.00	8.0	\$1,440.00
10b. MOT - Flashing Arrow Board/Advance Warning Vehicle	Days	\$120.00	1.0	\$120.00
10c. MOT - Crash Attenutor Truck/Energy Absorption Vehicle	Days	\$1,400.00	1.0	\$1,400.00
10d. MOT - Law office/Trooper	Hr.	\$55.00	8.0	\$440.00
11. Hand Probing/Wash Borings:				
a 2 person crew	Hr.	\$950.00	0.0	\$0.00
b 3 person crew	Hr.	\$1,300.00	0.0	\$0.00
12. Per Diem for Drill Crew:				
a 2 person crew	Days	\$150.00	0.0	\$0.00
b 3 person crew	Days	\$200.00	0.0	\$0.00
13. Thin-Walled Tube Samples(ASTM D-1587): Land:				
a 0 to 50 ft. depths	Ea.	\$150.00	0.0	\$0.00
b 50 to 100 ft. depths	Ea.	\$200.00	0.0	\$0.00
c 100 to 150 ft. depths	Ea.	\$250.00	0.0	\$0.00
d 150 to 200 ft. depths	Ea.	\$300.00	0.0	\$0.00
Barge/		4 000.00	0.0	40.00
Track:				
a 0 to 50 ft. depths	Ea.	\$225.00	0.0	\$0.00
b 50 to 100 ft. depths	Ea.	\$300.00	0.0	\$0.00
c 100 to 150 ft. depths	Ea.	\$375.00	0.0	\$0.00
d 150 to 200 ft. depths	Ea.	\$450.00	0.0	\$0.00
u 100 to 200 it. deptilo	Lu.	Ψ100.00	0.0	Ψ0.00
14. Site Reconnaissance/Utility Coordination:				
a Project Engineer	hrs.	\$0.00	1.0	\$0.00
b Engineering Tech.	hrs.	\$0.00	5.0	\$0.00
•		40.00	0.0	40.00
15. Extra Split Spoon Samples:				
Land:	- -	#0F 00	0.0	* 0.00
a 0 to 50 ft. depths	Ea.	\$25.00	0.0	\$0.00
b 50 to 100 ft. depths c 100 to 150 ft. depths	Ea. Ea.	\$28.00	0.0	\$0.00 \$0.00
•	Ea. Ea.	\$32.00 \$36.00	0.0 0.0	\$0.00 \$0.00
d 150 to 200 ft. depths		•		
e 200 to 250 ft. depths	Ea.	\$40.00	0.0	\$0.00
Barge/ Track:				
k 0 to 50 ft. depths	Ea.	\$37.50	0.0	\$0.00
I 50 to 100 ft. depths	Ea.	\$42.00	0.0	\$0.00
m 100 to 150 ft. depths	Ea.	\$48.00	0.0	\$0.00
n 150 to 200 ft. depths	Ea.	\$54.00	0.0	\$0.00
o 200 to 250 ft. depths	Ea.	\$60.00	0.0	\$0.00
16. Pavement Cores:	Hr.	\$300.00	0.0	\$0.00
17. Double Ring Infil.(ASTM D-3385)	Ea.	\$500.00	0.0	\$0.00
18. GPS Rental	Days	\$80.00	1.0 Nadic Engine	\$80.00 eering Service, Inc.

Nadic Engineering Service, Inc. 601 N. Hart Blvd., Orlando, FL. 32818

NES Project No. R11-033	Computation of G Sound	1/17/2013 Page 10			
SR 40	08/SR 417 System Ir	nterchange Con	struction		
19. Water Sampling:		Ea.	\$80.00	0.0	\$0.00
20. Field Vane Test(ASTM D-2573):		Ea.	\$400.00	0.0	\$0.00
21. Dilatometer Sounding:		Hr.	\$160.00	0.0	\$0.00
22. Monitor Wells - 2 inch (50mm): 0 Wells to 0 Wells to 0 Wells to 0 Wells to 50 ft. depths	0 ft 0 ft 0 ft 0 ft	LF	\$35.09	0.0	\$0.00
23. Concrete Pad and Cover:		Ea.	\$350.00	0.0	\$0.00
24. Deco/Development Time:		Hr	\$180.00	0.0	\$0.00
25. OVA Headspace Analysis, Senior Engineerin	ng Technician:	Hr	\$0.00	0.0	\$0.00
26. OVA Equipment Charge:		Days	\$184.60	0.0	\$0.00
27. Riser:		LF	\$25.00	0.0	\$0.00
28. Screen:		LF	\$30.00	0.0	\$0.00
29. Water Sampling for Analytical Lab Work (Po	CA):	Ea.	\$80.00	0.0	\$0.00
	Total for Field	d Exploration		:	\$10,162.00
II. LABORATORY TESTING: 1. Visual Exam./Stratify(ASTM D-2488): - Project Engineer - Engineering Intern		hrs. hrs.	\$0.00 \$0.00	0.0 4.0	\$0.00 \$0.00
2. Grain Size Analysis: a Full Grad.(FM 1-T 88) b Single Sieve(FM 1-T 88)		Ea. Ea.	\$75.00 \$40.00	2.0 14.0	\$150.00 \$560.00
3. Hydrometer(FM 1-T 88):		Ea.	\$120.00	0.0	\$0.00
4. Organic Content(FM 1-T 267):		Ea.	\$40.00	. 5.0	\$200.00
5. Atterberg Limits(FM 1-T 89/90): a Plastic Limit b Liquid Limit		Ea. Ea.	\$45.00 \$45.00	6.0 6.0	\$270.00 \$270.00
6. Natural Moisture (FM 1-T 265):		Ea.	\$15.00	11.0	\$165.00
7. Unit Weight Determination:		Ea.	\$42.00	0.0	\$0.00
8. Consolidation Test(FM 1-T 216):		Ea.	\$650.00	0.0	\$0.00
9. Permeability(FM 1-T 215/5-513):		Ea.	\$250.00	0.0	\$0.00
10. Corrosion Series:		Ea.	\$160.00	6.0	\$960.00

Nadic Engineering Service, Inc. 601 N. Hart Blvd., Orlando, FL. 32818

•	mputation of Geotechnical Co Sound Walls	1/17/2013 Page 10		
SR 408/S (pH, Sulfate, Chloride, Resistivity)	R 417 System Interchange Con	struction		
11. Triaxial/point(FM 1-T 234):	Ea.	\$375.00	0.0	\$0.00
12. Unconfined Comp.(ASTM D-2166):	Ea.	\$250.00	0.0	\$0.00
13. Limerock Bearing Ratio(FM5-515):	Ea.	\$300.00	0.0	\$0.00
14. Specific Gravity(FM 1-T 100):	Ea.	\$300.00	0.0	\$0.00
15. Bitumen Extraction(FM 1-T 164):	Ea.	\$75.00	0.0	\$0.00
16. Bitumen Gradation(FM 1-T 30):	Ea.	\$80.00	0.0	\$0.00
17. Direct Shear(ASTM D-3080):	Ea.	\$300.00	0.0	\$0.00
18. Shrinkage Factor(FM 1-T 092):	Ea.	\$75.00	0.0	\$0.00
19. Swell Potential(ASTM D-4546):	Ea.	\$75.00	0.0	\$0.00
20. Compaction(FM 5-525/521):	Ea.	\$130.00	0.0	\$0.00
21. Min./Max. Den.(ASTM D-4254/53):	Ea.	\$200.00	0.0	\$0.00
22. Unconfined - Rock(ASTM D-2938):	Ea.	\$120.00	0.0	\$0.00
23. Splitting Tensile(ASTM D-3967):	Ea.	\$175.00	0.0	\$0.00
24. Kerosene Analysis Group:	Ea.	\$475.00	0.0	\$0.00
	Total for Laboratory Testing		\$	2,575.00
III. ENGINEERING AND TECHNICAL SERVICES 1. Chief Engineer/Project Manager	; hrs.	\$55.71	0.0	\$0.00
2. Senior Engineer:	hrs.	\$52.08	0.0	\$0.00
3. Project Engineer:	hrs.	\$45.19	0.0	\$0.00
4. Engineer:	hrs.	\$28.94	0.0	\$0.00
5. CADD / Computer Technician	hrs.	\$24.42	0.0	\$0.00
6. Secretary/Clerical:	hrs.	\$16.58	0.0	\$0.00
	Total for Engineering and Tech	nical Services		\$0.00
	Grand Total this Proposal	\$ 1	12,737.00	

Project Number: 253F (SA #1)

DESCRIPTION: SR 408/SR 417 Ultimate Interchange

RS&H OOCEA Contract No.: 000818

					SUMMARY FEE	SHEET								
CONTRACT	ACTIVITY	Project	Chief	Senior		Engineering	Roadway		Sr. Surveyor	Surveyor &	Survey	Total	7-1-1	
SECTION		Manager	Engineer	Engineer	Engineer	Intern	Technician	Clerical	& Mapper	Mapper	Technician	Manhours	Total Çost	Avg.
	Governmental Agencies & Public Meetings	3	1	2	2	0	0	0	0	A TABLE	1 echilician	Minningura		Rate
403	Preliminary Design Report-Review	0	0	0	ō	ا ه	0	1 6	,	, ,	٥	8	\$468.87	\$58.61
404	Surveys and Mapping	0	ol	اه	0	ا م		1 0		١	١		\$0.00	
405	Geotechnical Investigation	l ol	0	ó	ō	o o	ň	1 0	1 ,	١	0	0	\$0.00	
406	Contamination Impact Analysis	0	ol	اه	ō	ŏ	۱	1 .	,	١	0	0	\$0,00	
407	Pavement Design	0	0	o l	ō	ا م		,	, ,	١	0	0	\$0.00	
408	Borrow Pits	ا ا	o	اه	ň	ا م					0	0	\$0.00	
410	Environmental Permits	اه	اة	اة	0	١			1	0	0	0	\$0.00	
411	Utilities	ا ا	a l	اهٔ	0	٥				0	0	0	\$0.00	
412	Roadway Design	اه	اه	اة	0	ام	•			0	0	0	\$0.00	
413	Structures Design	1 3	6	20		١	0	0	0	0	0	0	\$0.00	
414	Drainage Design	آ آ	١	- 2	32	0	0		0	0	0	87	\$3,938.38	\$45.27
415	Roadway Lighting	ا م	١	۱		0	0	0	0	0	0	0	\$0.00	
416	Traffic Engineering	ا م	١	, ,	0	0	0	0	0	0	0	0	\$0.00	
417 & 418	Signal & Pav't Marking Plans	ا ،	"			0	0	0	0	0	0	0	\$0.00	
419	Right-of-Way Surveys	ام	اء	18	34	52	0	6	0	0	0	124	\$4,962.10	\$40.02
420	Cost Estimates	, ,	١	١	0	0	0	0	0	0	0	0	\$0.00	1
421	Speical Provisions and Specifications	ا ۱	0	91	0	0	0	0	0	0	0	0	\$0.00	ł
422	Fiber Optic Network (FON)	١	0	0	0	0	0	0	0	0	0	o	\$0.00	l l
423	Toll Plazas	0 1	0	0	0	0	0	0	0	0	0	0	\$0.00	ł
424		0 1	0	0	0	0	0	0	0	0	0	o	\$0.00	
8	Post Design Services	0∤	0	0	0	0	0	0	0	0	0	ol	\$0.00	
700	Administration	0	0	0	0		0	0	0	0	0	اه	\$0.00	
	TOTAL MANHOURS	12	15	40	88	52	0	12	0	0	0	219	\$9,369,35	\$42.78
	WAGE RATES	\$69.32	\$67.37	\$57.44	\$39.33	\$28.92	\$0.00	\$22.04	\$0.00	00.02	\$0.00		27,007.00	2.2.70
	TOTAL DIRECT COSTS	5 831.84	\$1,010.55	\$2,297.60	\$3,461.04	\$1,503,84	\$0.00	\$264.48	\$0.00	\$0,00	\$0.00		\$9,369,35	

Salary Related Costs		
Total Activity Salary Costs		\$9,369.35
Overhead Activities	\$17,608.76	
Subtotal Salary Related Costs (Li	\$26,978.11	
Operating Margin (Fixed Fee)	28.00%	\$2,623.42
Expenses		
Direct Reimbursables (Out-of-Pocket)		\$123.21
Permit Fees		\$0.00
Subtotal Expenses (Lump Sum)		\$123.21

\$29,724.74

GRAND TOTAL (Maximum Limiting Amount)

	KS&H	OOCEA Contract No.: 000818					al CADD				0	0	0	0	0	0	0	0	0	0	S Additional Countries of the State of the S
							Number Total	of Hours	Sheets	NA	N/A	¥N.	Y.X	Y.X	Y.Z	Y.V	N/A	N/A	A/A	N/A	N/A
FECORITY	I IIIOUII			HIGHWAY TASK LIST			Hours	ber	Unit												«
VAV ATT	7	96		HIGHWA			Number	of	Units												
YPDECCN		e Interchan					Basis	Jo	Estimate	ST	LS	LS	2.3	LS	EA	EA	EA	EA	EA	EA	LS
ORLANDO-ORANGE COUNTY EXPRESSMAY ATTEMORITY	Project Number: 253F (SA #1)	DESCRIPTION: SR 408/SR 417 Ultimate Interchange	Orange County		Governmental Agencies & Public Meetings	Section 402 & 409		Task		1. Coordination w/ FDOT	2. Coordination w/ City of Orlando	3. Coordination w/ Orange County	4. Coordination w/ SJWMD	5. FDEP	6. Public Meetings	7. Neighborhood Assoc. Meetings	8. Authority Meetings	9. City of Orlando Meetings	10. Orange County Meetings	11. Preparation of Rdway/Bridge Exhibits	12. Other Agency Coordination & Meetings

OTAL

RS&H

Project Number: 253F (SA #1)
DESCRIPTION: SR 408/SR 417 Ultimate Interchange
Orange County

OOCEA Contract No.: 000818

HIGHWAY TASK LIST

Signing & Pavement Marking Plans Section 417 & 418

	Basis	Number	Hours	Number	Total	CADD	
Task	of	of	per	of	Hours	Hours	Remarks
	Estimate	Units	Unit	Sheets		%	TO THE PERSON NAMED IN COLUMN 1
Traffic Data Analysis	LS						
				}			
2. Reference & Master Design Files	LS	1	45	N/A	45	ļ	90 hrs/mile x 1/2 miles
3. Multi Post Sign Support Calc.	EA						
4. Sign Panel Design Analsysis	EA	2	3	N/A	6		
5. Sign Lighting/Electrical Calc.	EA	1	2	N/A	2	İ	
6. Key Sheet	Sheet						
7. Summary of Pay Items	Sheet				0		
8. Tabulation of Quantities	Sheet]	2	ī	2	 	
9. General Notes/Pay Item Notes	Sheet			<u> </u>	-		
10. Project Layout	Sheet	1	6	1	6	 	Added Coverage
11. Plan Sheet	Sheet	7	4	7	28	İ	4 New and 3 Revised
							VIVON tailed 3 feetinger
12. Typical Details	EA						
13. Guide Sign Work Sheet	EA	2	2	1	4		Arrow per Lane + New Overlay
14. Traffic Monitoring Site	EA	******			0		The state of the s
15. Cross Sections	EA	1	8	1	8		1 New Overhead Sign Structure
16. Special Service Point Detail	EA	1	4	1	4		New Sign Structure Location
17. Special Details	LS						The state of the s
SUBTOTAL				12	105	0	
18. Quality Control	5%	1	N/A	N/A	5		
19. Supervision	5%	1	N/A	N/A	6		7
20. Field Review	EA	1	4	N/A	4		2 People x 2 hours
21. Technical Meeting	EA	1	4	N/A	4		2 People x 2 hours

ORLANDO-ORANGE COUNTY EXPRESSWAY AUTHORITY RS&H Project Number: 253F (SA #1) OOCEA Contract No.: 000818 DESCRIPTION: SR 408/SR 417 Ultimate Interchange **Orange County** Structure Design Section 413 Design and Production Staff Hours Task No. Task Units Hours Comments No. of No. of Total per Units Sheets Unit General Drawings Index of Drawings Sheet 0 0 Project Layout Sheet 0 0 General Notes and Bid Item Notes Sheet 0 0 Incorporate FDOT Standards Sheet 0 0 Incorporate Report of Core Borings Sheet 0 0 Existing Bridge Plans LS N/A 0 Computation Book and Quantities LS N/A 0 Structures - Miscellaneous Tasks & Drawings Subtotals 0. 0 Task 10 Task 11 Task 12 Task 13 Task 14 Task 15 Task 16 Task 17 Task 18 Task No. Task Total Bridge 1: SR 417 NB over Lake Underhill 10.1 0 Bridge 2: SR 417 SB over Lake Underhill 0 Bridge 3: SR 417 NB over Econ Trail 0 10.4 Bridge 4: SR 417 SB over Econ Trail 0 Bridge 5: Ramp C over Econ Trail 10.5 0 10.6 Bridge 6: Ramp E over SR 408 0 Bridge 7: Ramp C Flyover (Steel) 10.7 0 Bridge 8: Ramp A Flyover (Steel) 10.8 0 Bridge 9: Ramp D (Steel) 10.9 0 Bridge 10: 10.10 0 10.11 Bridge 11: 0 10.12 Bridge 12: 0 10.13a Retaining Walls @ Bridges 0 10.13b Retaining Walls along Roadway 0 10.14 Miscellaneous Structures 76 76 10.15 Conceptual Analysis 0 Structures Technical Subtotals 76 0 0 0 76 Hours No. of Task No. Task Units per Total Comments Units Unit 11 Field Reviews 0 LS 0 0 12 Technical Meetings LS 0 0 0 13 Quality Assurance / Quality Control LS % 5% 4 14 Independent Peer Review LS % 0% 0 15 % Supervison LS 5% 4 Structures Non-Technical Subtotals 8 16 Coordination 3% % 3

87

Structures - Miscellaneous Tasks & Drawings, Non-Technical,

& Coordination Totals

RS&H

Project Number: 253F

DESCRIPTION: SR 408/SR 417 Ultimate Interchange

Orange County Structure Design Section 413

OOCEA Contract No.: 000818

Sectio	n 413		·	····			
Task No.	Task	Unit	No. of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
Concr	ete Box Culvert						
18.1	Concrete Box Culverts	EA	0	0		0	
18.2	Concrete Box Culverts Extensions	EA	0	0		0	
Strain	Poles						
		Initial Config	0	0		0	
18.3	Steel Strain Poles	EA Add'l Config	0	0		0	
18.4	Concrete Strain Poles	Initial Config EA Add'l	0	0		0	
		Config	0	0		0	
Mast	Arms						
18.5	Mast Arms	EA Pole	0	0		0	
Overh	ead & Cantilever Sign Structures	J					
18.6	Cantilever Sign Structures	EA	0	0	0	0	
18.7	Overhead Span Sign Structures	EA	0	0	0	0	
18.8	Special Overhead Span Sign Structures and Analysis of Existing Structures	EA	1	100	3	76	Special designs for span sign structure with large panel sizes which exceeds the standard sign program capacity. Credit of 24 hrs included from prior overhead cantilever.
18.8.1	Analyze Existing Sign Structures	EA	0	0		0	
18.9	Monotube Overhead Sign Structure	EA	0	0		0	
	Special Mount Signs (Attached to Superstructure or Wall.)	EA	0	0		0	Special single post sign design and details, for non-standard locations.
High N	Aast Lighting Fixtures						
18.11	High Mast Lighting Structures	EA	0	0		0	
Sound	Barrier Walls (Ground Mount)						
18.12	Horizontal Wall Geometry	EA Wall	0	0		0	
18.13	Vertical Wall Geometry	feet of	0	0		0	
18.14	Semi-Standard Drawings	Sheet	0	0	0	0	
18.15	Control Drawings	Sheet	0	0	0	0	
	Design for Wall Height Covered by Standards	EA Design	0	0		0	
	Design for Wall Height Not Covered by Standards	EA Design	0	0		0	
18.18	Aesthetic Details	EA	0	0		0	
Special	Structures						
18.19	Special Structures	LS	0	0		0	
	11	8. Miscellan	eous Struct	ures Totals	3	76	

Project Number: 253F
DESCRIPTION: SR 408/SR 417 Ultimate Interchange
MISCELLANEOUS & OUT-OF-POCKET EXPENSES

RS&H

OOCEA Contract No.: 000818

MATERIAL (Xero MATERIAL (Myl REPRODUCTION	lar)	Bond)			sheets @ sheets @		\$0.00 \$0.00						\$0.00 \$0.00
REPRODUCTION	N COST:												
		Blue	eline		Vellum		Copies 11 x 17		Copies 8.5 x 11				
Phase I				sheets		sheets		sheets		sheets			
Phase II				sheets	_	sheets		sheets		sheets		-	
Phase III			0	sheets	0		300	sheets	200	sheets		1	
Phase IV			0	sheets	0		300 300	sheets sheets	200 200	sheets sheets		i	
Final TOTALS			0	sheets sheets	0	-	900	sheets	600	sheets			
Blueline Cost					ō	sheets @				\$0.00	····		
CADD Color Plots						SF@		\$0.28	=	\$0.00			
11 x 17					720	sheets @		\$0.09	=	\$64.80			
8.5 x 11					600	sheets @		\$0.05	=	\$30,00		l	
Color Copies					_			# 0.40	_	** **			
8.5"x11"						sheets @		\$0.18	=	\$0.00			
11"x17"						sheets @ bindings @	a	\$0.36 \$0.00	=	\$9.72 \$0.00			
GBC Binding Display Boards						each @	5	\$0.00	_	\$0.00			
CD/DVD						each @		\$1.75	=	\$0.00			
3 Ring Binders						each @		\$24.50	=	\$0.00			
Screw Posts						each @		\$0.00	=	\$0.00		-	
Report Tabs						each @		\$0.00	=	\$0.00			
Covers (Laminated))					each @		\$0.00	=	\$0.00			
Raster Color Plots						SF @		\$0.00	=	\$0.00			
TOTAL REPRODU	JCTION C	COSTS	<u> </u>							rage _vv.avvyvanse			\$104.5
	From:	Orla	ındo					****					
To Project:				0	•	0	daumbria (6)	\$0.00	/diem			\$0.00	
Per Diem Comm			ips x ips x	0	people x people @	\$0.00	days/trip @ /trip	\$0.00	/GEBI			\$0.00	
POV			ips x	30	mi@)	\$0,445	/mi					\$13.35	
Rental			ps x (2	days/trip @	\$0.00	/day +	15	mi@	\$0.00	/mi)	\$0.00	
To URS:		0 tri		0		0	days/trip @	\$0.00	/diem			\$0.00	
Per Diem Comm			ips x ips x	0	people x people @	\$0.00	Atrip	\$0.00	Adicin			\$0.00	
POV			ips x	12	mi@	\$0.445	/mi					\$5.34	
Rental	1	_	ps x (0	days/trip @	\$0.00	/day +	0	mi@	\$0.00	/mi)	\$0.00	
To Project From Ta	mpa:												
Per Diem			ips x	2	people x		days/trip @	\$21.00	/diem			\$0.00	
Comm			ips x	2	people @	\$0.00	/trip					\$0.00 \$0.00	
POV			ips x	100	mi@	\$0.445 \$43.50	/mi					\$0.00	
Rental		O trip	ps x (1	days/trip @	\$43.59	/day					\$0.00	
TOTAL TRAVEL	COSTS												\$18.6
MISCELLANEOU													\$0.0
	Postage &	•				months @		\$10.00 \$10.00	/month				\$0.0 \$0.0
	Overnight		-			each @ each @		\$10.00 \$25.00					\$0.0 \$0.0
	Same Day Film & Pro					rolls @		∌ ∠3,00	/roll				\$0.0
,		,3311	1 5			.010 (69							

WBQ Design & Engineering OOCEA Contract No.: 000818

Project Number: 253F

DESCRIPTION: SR 408/SR 417 Ultimate Interchange

	DESCRIPTION: SR 408/SR 417 Ultimate	Interchange			SUMMARY FEES	UPPT (SUBCONS	EUI TANT . WRO	1						
					SUMMARI FEES	HEET (SUBCOM			Sr. Surveyor	Surveyor &	Survey	Total	Total	Avg.
CONTRACT	ACTIVITY	Project Manager	Chief Engineer	Senior Engineer	Project Engineer	Engineer		Clerical	& Mapper	Mapper	Technician	Manhours	Cost	Rate
SECTION	MANHOURS	110jeet manager					^	0	0	0	0	0	\$0.00	4 1
402 & 409	Governmental Agencies & Public Meetings	0	0	0	"	١	,	ا ا	1 0		. 0	0	\$0.00	1 1
403	Preliminary Design Report-Review	0	0	0	0	1 ,	1 %	,	0	0	0	0	\$0.00	1 1
404	Surveys and Mapping	0	0	0	١	1 0	,		0		0	0	\$0.00	1 1
405	Geotechnical Investigation	0	0	0	0	1 0	, o	ا م	0	1 0	0	0	\$0.00	
406	Contamination Impact Analysis	0	0	0	"	1 0	1 0	ا ،	0	0	0	0	\$0.00	
407	Pavement Design	0	0	0	0	1 0	1 0	ا ه	0	1 0	0	0	\$0.00	
408	Borrow Pits	0	0	0	0	"	,	l ő	١	1 0	0	0	\$0.00	1
410	Environmental Permits	0	0	0	0	1 %	1 0	1 0	ا	0	0	0	\$0.00	1 1
411	Utilities	0	0	0	0	1 0	1 ,	هٔ ا	1 0	. 0	0	0	\$0.00	
412	Roadway Design	0	0	0	0		ا ا	ا ،	0		. 0	0	\$0.00	
413	Structures Design	0	0	0	,	.1	il š	ا ،	1 0	0	0	0	\$0.00	
414	Drainage Design	0	0	0			il ő	0	0	0	. 0	0	\$0,00.	
415	Roadway Lighting	0	0	0	35	20	١] 3	1 0	0	0	139		
416	Traffic Engineering	6	15	42	33		ة ا	0	0	0	0	0	\$0.00	
417 & 418	Signal & Pav't Marking Plans	0	0	"	1 2			1 0	0	0	. 0	0	\$0.00	
419	Right-of-Way Surveys	0	0	0	1	()	هٔ ا			0	0	0	\$0.00	
420	Cost Estimates	0	0	1 0	1 2		il o	1 0	l o	. 0	. 0	0	\$0.00	
421	Speical Provisions and Specifications	0	0	1 0	1 ;	()	ه ا	i			0	0	\$0.00	
422	Fiber Optic Network (FON)	0	0		1 7		أ أ	1 0	. l o		. 0	0	\$0.00	
423	Toli Piazas	0	0		1	(1	()	٥) 0	0	\$0.00	
424	Post Design Services	0	١		1 7	31 3	هٔ ۱		·	o	0	0	\$0.00	
700	Administration	9	<u> </u>	<u>' </u>	<u> </u>	31		3			0	139	\$5,777.86	\$41.57
	TOTAL MANHOURS		6 15	, 42		_			\$0.00	\$0.00	00.02	N/A	N/A	
	WAGE RATES	\$86.99	\$63.13	S48.05									\$5,777.86	j
	TOTAL DIRECT COSTS	\$521.94	\$946.95	\$2,018.10	\$1,160.9	5 \$1,060.20	\$0.00	\$69.72	; 50.00	, 30.00	, 30,00			

Salary Related Costs		\$5,777.86
Total Activity Salary Costs	000.048/	\$12,078.04
Overhead Activities	209.04%	
Subtotal Salary Related Costs	(Limiting Amount)	\$17,855.90
Operating Margin (Fixed Fee)	25.50% **	\$1,473.35
**(Equivalent Lump Sum for Operati	ing Margin-8.26%)	
Expenses	8.25133	343%
Direct Reimbursables (Out-of-Pocket)	\$0.00
Permit Fees	,	\$0.00
Subtotal Expenses (Lump Sum)		\$0.00
Subconsultants		
		\$0.00
Subtotal Subconsultants (Limitia	ng Amount)	\$0.00
WBQ TOTAL (Maximum Limiting	Amount)	\$19,329.25

WBQ Design & Engineering ORLANDO-ORANGE COUNTY EXPRESSWAY AUTHORITY OOCEA Contract No.: 000818 Project Number: 253F DESCRIPTION: SR 408/SR 417 Ultimate Interchange Orange County HIGHWAY TASK LIST Governmental Agencies & Public Meetings Section 402 & 409 CADD Total Basis Number Hours Number Hours Remarks of of of Hours per Task Unit Sheets % Units Estimate 0 N/A 1. Coordination w/ OOCEA LS 0 N/A 0 2. Coordination w/ City of Orlando LS By URS N/A LS 3. Coordination w/ Orange County LS N/A 0 4. Coordination w/ SJWMD 0 LS N/A 5. FDEP 0 EA N/A 6. Public Meetings 0 EA 7. Neighborhood Assoc. Meetings N/A N/A EA 8. Authority Meetings By URS EΑ N/A 9. Orange County Permits/Permit Package N/A 0 10. Orange County Meetings EA 0 By URS N/A 11. Preparation of Rdway/Bridge Exhibits EA 0 12. Other Agency Coordination & Meetings LS

ORLANDO-ORANGE COUNTY EX	PRESSW	'AY AUTI	HORITY				WBQ Design & Engineering
Project Number: 253F							OOCEA Contract No.: 000818
DESCRIPTION: SR 408/SR 417 Ultimate	Interchang	çe.					
Orange County	_						
		HIGHWAY	TASK LIS	T			
Preliminary Design Report-Review	·						
Section 403							
	Basis	Number	Hours	Number	Total	CADD	
Task	of	of	per	of	Hours	Hours	Remarks
	Estimate	Units	Unit	Sheets		%	
Review PD&E Reevaluation	LS			N/A	0		
2. Design Criteria	LS	0	0	N/A	0		0
3. Preliminary Roadway Geometry	LS			N/A	0		
4. Alternative Evaluations	EA	0	0	N/A	0		
5. Technical Memorandum	LS			N/A	0		
6. 15% MOT Concept Constructability	LS	0	0	N/A	0		
7. Technical Memorandum	LS	0	0	N/A	0		
8. 15% Signing/Marking Plans - for MOT	LS	0	0	N/A	0		
SUBTOTAL:		:::::::::		0:	::::::::::::::::::::::::::::::::::::::	0::::::	
9. Quality Control	5%	1	N/A	N/A	. 0		
10. Supervision	5%	1	N/A	N/A	0		
11. Technical Meetings	EA			N/A	0		
TOTAL		· · · · · · · · · · · · · · · · · · ·		0	0	0	

WBQ Design & Engineering ORLANDO-ORANGE COUNTY EXPRESSWAY AUTHORITY OOCEA Contract No.: 000818 Project Number: 253F DESCRIPTION: SR 408/SR 417 Ultimate Interchange Orange County HIGHWAY TASK LIST Pavement Design Section 407 Total CADD Number Basis Number Hours Hours Remarks Task of of per of Hours % Units Unit Sheets Estimate N/A 0 1. Review Flexible Pav't Design LS N/A 0 2. Data Collection LS 0 LS N/A 3. ESALS LS N/A 0 4. Cross Road Pavement Design LS N/A 5. Pavement Design Summary SUBTOTAL: N/A 0 N/A 6. Quality Control 5% 5% 0 N/A N/A 7. Supervision 0 8. Technical Meetings N/A EA

ORLANDO-ORANGE COUNTY EXPRESSWAY AUTHORITY WBQ Design & Engineering OOCEA Contract No.: 000818 Project Number: 253F DESCRIPTION: SR 408/SR 417 Ultimate Interchange Orange County HIGHWAY TASK LIST **Environmental Permits** Section 410 CADD Number Total Basis Number Hours Hours Remarks of Hours of of per Task % Estimate Units Unit Sheets N/A 0 1. Pre-App Coord with OOCEA LS 0 N/A 2. Prepare ERP Application LS 0 N/A LS 3. RAl Response 0 EA 4. Aerial Map N/A 0 LS 5. Prepare Local Permits LS N/A 0 6. Landowner Addresses 7. Mitigation Plans Sheet 0 N/A N/A 5% 8. Quality Control 5% N/A N/A 0 9. Supervision 0 N/A EA 10. Preliminary Field Review N/A 0 11. Agency Field Review EA 0 N/A 12. Agency Pre-App Meeting EA

TOTAL

0

0

3/6/2013

WBQ Design & Engineering ORLANDO-ORANGE COUNTY EXPRESSWAY AUTHORITY OOCEA Contract No.: 000818 Project Number: 253F DESCRIPTION: SR 408/SR 417 Ultimate Interchange **Orange County** HIGHWAY TASK LIST Utilities Section 411 Number Total CADD Hours Number Basis Hours Hours Remarks Task of of per of % Estimate Units Unit Sheets N/A 1. Initial Contact ĒΑ 0 0 0 2. Data Collection LS 0 N/A 0 3. Utility Adjustment Sheets Sheet N/A N/A 5% 5. Quality Control N/A 5% N/A 0 0 6. Supervision 7. Utility Meetings EA N/A 0 N/A 0 8. Coordination with Utility Companies EA TOTAL 0 0

WBQ Design & Engineering OOCEA Contract No.: 000818

Project Number: 253F
DESCRIPTION: SR 408/SR 417 Ultimate Interchange

Orange County

HIGHWAY TASK LIST

Roadway Design Section 412

	Basis	Number	Hours	Number	Total	CADD	
Task	of	of	per	of	Hours	Hours	Remarks
	Estimate	Units	Unit	Sheets		%	
Typical Section Package	LS			N/A	0		
Access Management	LS			N/A	0		
3. Horizontal /Vertical Master Design Files	LS			N/A	0		
4. Design Variations and Exceptions	LS			N/A	0		
5. Key Map	Sheet				0		
6. Typical Sections	Sheet				0		
7. General Notes	Sheet				0		
8. Summary of Quantities	Sheet				0		
9. Project Layout	Sheet				0		
10. Roadway Plans	Sheet				0		
11. Roadway Profiles	Sheet				0		
12. Cross Street Plan-Profile	Sheet				0		
13. Special Profiles	Sheet				0		
14. Interchange Layout	Sheet				0		
15. Intersection Detail	Sheet				0		
16. Ramp Terminal Details	Sheet				0		
17. Misc. Construction Details	Sheet				0		
18. Cross Section Design Files	LS			N/A	0		
19. Cross Section Pattern	Sheet				0		
20. Roadway Soil Survey	Sheet				0		
21. Roadway Cross Sections	EA				0		
22. Baseline Control/Curve Data	Sheet				0		
23. Computation Book & Quantities	LS			N/A	0		
24. Summary of Pay Items	LS	ļ	 	N/A	0		
::::::::::::::::::::::::::::::::::::::		1		::::::0	: : : : : 0		
25. Quality Control	5%	1	. N/A	. N/A	0		
26. Supervision	5%	1	N/A				
27. Field Reviews	EA			N/A			
28. Technical Meetings	EA			N/A	0		
TOTAL				0	0	0	

WBQ Design & Engineering OOCEA Contract No.: 000818

Project Number: 253F

DESCRIPTION: SR 408/SR 417 Ultimate Interchange

Orange County

HIGHWAY TASK LIST

Drainage Design Section 414

	Basis	Number	Hours	Number	Total	CADD	
Task	of	of	per	of	Hours	Hours	Remarks
	Estimate	Units	Unit	Sheets		%	
1. Determine Base Clearance Elev	Per Loc.			N/A	0		
2. Pond Siting Analysis & Report	Per Basin			N/A	0		
3. Design of Cross Drains	EA			N/A	0		
4. Design of Roadway Ditches	Ditch/Mile			N/A	0		
5. Design of Outfalls	EA			N/A	0		
6. Design of Pond	EA			N/A	0		
7. Design of Ditch Treatment	Per System			N/A	0		
8. Design of Flood Plain Comp Area	ĖA			N/A	0		
9. Design of Storm Drains	EA			N/A	0		
10. Optional Culvert Material	LS			N/A	0		
11. French Drain Systems	Per 1K Ft			N/A	0		
12. Drainage Wells	EA			N/A	0		
13. Drainage Design Doc Report	LS			N/A	0		
14. Bridge Hydraulic Report	EA			N/A	0		
15. Drainage Map	Sheet				0		
16. Interchange Drainage Map	Sheet				0		
17. Summary of Drainage Structures	Sheet				0		
18. Optional Pipe/Culvert Material	Sheet				0		
19. Drainage Structure Sheet	EA				0		
20. Misc Drainage Details	Sheet				0		
21. Lateral Ditch Plan-Profile	Sheet				0		
22. Lateral Ditch Cross Sections	EA				0		
23. Retention/Det Pond Details	Sheet				0		
24. Pond Cross Sections	EA				0		
25. Erosion Control Plan	Sheet	0					
26. SWPPP	Sheet	0	0		0	<u> </u>	
::::::::::::::::::::::::::::::::::::::	<u> :::::::</u>	::::::::		0	::::::0:	::::::::	
27. Quality Control	5%	1	N/A	N/A	0		
28. Supervision	5%	1	N/A		0		
29. Field Reviews	EA			N/A	0		
30. Technical Meetings	EA	ļ		N/A	0		
					<u> </u>		
TOTAL				0	a	0	

TOTAL

3/6/2013

ORLANDO-ORANGE COUNTY EXPRESSWAY AUTHORITY WBQ Design & Engineering OOCEA Contract No.: 000818 Project Number: 253F DESCRIPTION: SR 408/SR 417 Ultimate Interchange **Orange County** HIGHWAY TASK LIST Roadway Lighting Section 415 CADD Number Hours Number Total Basis Hours Hours Remarks of Task of of рег % Sheets Estimate Units Unit 1. Lighting Justification Report N/A 0 EA N/A LS 2. Voltage Drop Calculations 0 LS N/A 3. Reference & Master Design Files N/A 0 LS 4. Temporary Lighting Analysis N/A 0 LS 5. Design Documentation 0 Sheet 6. Key Sheet 0 7. Summary of Pay Items Sheet 0 8. Tabulation of Quantities Sheet 0 Sheet 9. General Notes/Pay Item Notes 0 Sheet 10. Pole Data 0 Sheet 11. Service Point Details 0 Sheet 12. Project Layout 0 Sheet 13. Plan Sheet 14. Special Details Sheet 15. Temporary Lighting Data & Detail Sheet SUBTOTAL N/A N/A 16. Quality Control 5% N/A 0 N/A 5% 17. Supervision 0 EA N/A 18. Field Review

TOTAL 0 0 0

LS

19. Coordination with Utility Company

N/A

0

Project Number: 253F

DESCRIPTION: SR 408/SR 417 Ultimate Interchange

Orange County

HIGHWAY TASK LIST

WBQ Design & Engineering

OOCEA Contract No.: 000818

Section 416	T 20	[\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \					
Task	Basis of	Number of	Hours per	Number of	Total Hours	CADD Hours	Remarks
	Estimate	Units	Unit	Sheets		%	
1. Traffic Data Collection	LS	0	0	N/A	0		
2. TCP Design Analysis	LS	1	26	N/A	26		(Per FDOT 4.6) Traffic Control Analysis - 8 hours + Cross Section Analysis and Development - 20 hrs per mile per phase x (9 main/sub phases) x 0.1 miles = 18 hours = 8 + 18 = 38
3. Temp Drainage Analysis	7.0		,	27/4	4		
5. Temp Dramage Analysis	LS	1	4	N/A	4	: 	
4. Master TCP Design Files	LS	1	18	N/A	18		(Per FDOT 4.7) Master TCP Design - 20 hrs per mile per phase x (9 main/sub phases) x 0.1 miles = 18 hours
4. TCP Cross Sections (x-sections)	Sheet	6	0.25	6	2		
5. General Notes/Const. Sequence	Sheet	0	0	0	0		
Typical Details Tabulation of Quantities & Cost Est.	Sheet Sheet	2	2	2	4	*************	
7. Tabulation of Quantities & Cost Est.	Sheet	- 0	- 0		- 0		
8. TCP Plan Sheets	Sheet	36	1	36	36	***	4 TCP Plan Sheets x (9 main/sub phases) = 36 Sheets
9. Pavement Marking/Signing Detail	Sheet	9	4	9	36		SPM MOT Roll Plans for each Main and Sub Phases
10. Temporary Signal	Sheet			0	0		By URS
11. Detour Routing SUBTOTAL	LS	0	0	0	0		

3/6/2013

Project Number: 253F DESCRIPTION: SR 408/SR 417 Ultimate Interchance	w by Design & Engineering
DESCRIPTION: SR 408/SR 417 Ultimate Interchange	OOCEA Contract No.: 000818
Orange County	
HIGHWAY TASK LIST	
13. Quality Control 5% 1 N/A N/A N/A	9
14. Supervision 5% 1 N/A N/A	7
15. Bi-Weekly OOCEA meetings LS 0 0 N/A	0
16. Field Review LS 0 0 N/A	0
17. Coordination w/ City & County LS 0 0 N/A	0
18. Design Documentation LS 0 0 N/A	0
TOTAL	

WBQ Design & Engineering OOCEA Contract No.: 000818

Project Number: 253F
DESCRIPTION: SR 408/SR 417 Ultimate Interchange

Orange County

HIGHWAY TASK LIST

Signing & Pavement Marking Plans

Section 417 & 418

	Basis	Number	Hours	Number	Total	CADD	
Task	of	of	per	of	Hours	Hours	Remarks
	Estimate	Units	Unit	Sheets		%	
Traffic Data Analysis	LS			N/A	0		
2. Reference & Master Design Files	LS			N/A	0		
3. Multi Post Sign Support Calc.	EA			N/A	0		
4. Sign Panel Design Analsysis	EA			N/A	0		
5. Sign Lighting/Electrical Calc.	EA			N/A	0		
6. Key Sheet	Sheet				0		
7. Summary of Pay Items	Sheet				0		
8. Tabulation of Quantities	Sheet				0		
9. General Notes/Pay Item Notes	Sheet				0		
10. Project Layout	Sheet				0		
11. Plan Sheet	Sheet				0		
12. Typical Details	EA				0		
13. Guide Sign Work Sheet	EA				0		
14. Traffic Monitoring Site	EA				0		
15. Cross Sections	EA				0		
16. Special Service Point Detail	EA				0		
17. Special Details	LS				0		
SUBTOTAL				0.	::::::θ:	0:::::0	
18. Quality Control	5%	1	N/A	N/A	0		
19. Supervision	5%	1	N/A	N/A	0		
20. Field Review	EA			N/A	0		
21. Technical Meeting	EA			N/A	0		

WBQ Design & Engineering OUNTY EXPRESSWAY AUTHORITY OOCEA Contract No.: 000818 R 417 Ultimate Interchange	IGHWAY TASK LIST	Basis Number Hours Number 10tal CACO Remarks Of Hours % 1 Infits Unit Sheets %	LS LS	Est. LS : 5: 5: 5: 5: 5: 5: 5: 5: 5: 5: 5: 5: 5	
ORLANDO-ORANGE COUNTY EXPRESSWAY AUTHORITY Project Number: 253F DESCRIPTION: SR 408/SR 417 Ultimate Interchange	Orange County Cost Estimates	Section 420 Basi	1. Initial Setup 2. 30% Construction Cost Est. 3. 60% Construction Cost Est. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		TOTAL

ORLANDO-ORANGE COUNTY EXPRESSWAY AUTHORITY 00CEA Contract No.: 000818	408/SR 417 Ultimate Interchange	Orange County HIGHWAY TASK LIST		CADD Total CADD	Hours of Hours F	Fetimate Units Unit	0 A/A		3 -			10 10 10 10 10 10 10 10 10 10 10 10 10 1		5% 1	5% 1 N/A C	0 0		FAL
ORLANDO-ORANGE COUNTY EX	Project Number: 253F DESCRIPTION: SR 408/SR 417 Ultimate Interchange	Orange County	Special Provisions and Specifications	Section 421		Task	1. Roadway	2. Drainage	3. Structures	4. Signing & Pavement Marking	5. Signalization/FON		SUBTOTAL	Ontrol	6. Quanty Comes	/. Supervision	The second secon	TOTAL

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ORLANDO-ORANGE COUNTY EXPRESSWAY AUTHORITY OOCEA Contract No.: 000818 Project Number: 253F DESCRIPTION: SR 408/SR 417 Ultimate Interchange Orange County HIGHWAY TASK LIST	Vetwork (FON)	Basis Number Hours P	ate Units Unit Sheets 0	LS NA	TS		Sheet	Sheet	177	Sheet	Sheet	N Phasing Detail/Plan	TOTAL:	I N/A	1 81	Ora. EA	EA	ela Keview	TOTAL
ORLANDO-ORANG Project Number: 253F DESCRIPTION: SR 4	Fiber Optic Network (FON)	Section 422		1 Data Collection	2 FON Concept	3 Key Sheet	4. Tabulation of Quantities	5. General Notes	6. FON Plan	7. Conduit Installat	8. Koute Market Octain	10 FON Phasing De	SUB	11. Quality Control	12. Supervision	13. Power Compan	14. Technical Meetings	15. Field Keview	

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