

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

MEMORANDUM

TO: Members of the Board
Central Florida Expressway Authority
4974 ORL Tower Road
Orlando, Florida 32807

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

DATE: March 24, 2015

RE: Consent Agenda Item
Construction Contract Modifications

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

| Contract No. | Name | Contract Description | Original Contract Amount (\$) | Previous Authorized Adjustments (\$) | Requested (\$) April 2015 | Total Amount (\$) to Date* | Time Increase or Decrease |
|--------------|--------------------------------|---|-------------------------------|--------------------------------------|---------------------------|----------------------------|---------------------------|
| 417-304 | Southland Construction, Inc. | SR 417/Turnpike Interchange | 30,876,393.69 | 458,189.58 | (429,589.02) | 30,904,994.25 | + 50 |
| 417-110 | Masci General Contractor, Inc. | SR 417 Widening, Curry Ford Rd. to Lake Underhill Rd. | 10,109,586.09 | 158,743.23 | 13,841.82 | 10,282,171.14 | 0 |
| TOTAL | | | | | (\$415,747.20) | | |

* Includes Requested Amount for current month.

BD/ek/cb

cc: Joe Berenis, P.E.

The following is a proposed Construction Contract Modification along with the detailed information:

Contract 417-304: SR 417 / Turnpike Interchange
Southland Construction, Inc.
SA 417-304-0415-005

Adjust Pavement Structure over MSE Wall Moment Slabs (FTE Maintenance Areas)

This change is as requested by the Authority. The plans depicted limerock base for pavement structure in areas of MSE Wall moment slabs. Although that is consistent with CFX practices, the FTE prefers asphaltic concrete over moment slabs.

ADD THE FOLLOWING ITEM:

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|---|-------------|
| Asphalt Base over Moment Slabs – FTE Maint. Areas | \$51,549.55 |
|---|-------------|

DECREASE THE FOLLOWING ITEM:

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| Base Group 01 (4" Limerock LBR 100) w/ Prime | <u>(\$16,466.76)</u> |
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| Sub-Total: Adjust Pavement Structure over MSE Wall Moment Slabs | \$35,082.79 |
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Adjust Limits of Friction

This change is as requested by the Authority. The plan friction limits provided friction course at locations of future ramp lanes and gores. Those areas were not subject to traffic, and therefore friction wasn't necessary.

DECREASE THE FOLLOWING ITEMS:

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|---|----------------------|
| Asphalt Concrete FC (PI 22)(3/4")(FC-5)(PG 76-22)(0.75") | (\$17,577.83) |
| Asphalt Concrete FC (PI 22T)(3/4")(FC-5)(PG 76-22)(0.75") | <u>(\$29,889.04)</u> |
| | (\$47,466.87) |

Existing Piling at Orange Ave.

This change is as requested by the Authority. The plans depict splicing to existing piling for portions of the substructure of Ramp C1 and Ramp C2 bridge structures over Orange Ave. Upon exposing the top of the existing pile, it became apparent the pile conditions required review to mark location of cutoff. Portions of the pile were damaged and required removal, to then be replaced by a new pile splice. This is for settlement of costs for the unforeseen additional and out of sequence work to expose the existing pile for the Engineer's review.

ADD THE FOLLOWING ITEM:

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|--------------------------------|-------------|
| Existing Piling at Orange Ave. | \$25,058.20 |
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Tentative Final Quantities for Pay Items of Work to Date

This is as requested by the Authority. This adjusts pay items contract quantities to reflect the actual authorized quantities to date under the contract.

ADD THE FOLLOWING ITEMS:

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| Base Group 01 (4" Limerock LBR 100) (105% Thick Adj.) | \$4,294.44 |
| Base Group 09 (10" Limerock LBR 100) (105% Thick Adj.) | \$11,409.42 |
| Base Group 11 (12" Limerock LBR 100) (105% Thick Adj.) | \$4,000.20 |
| SP Asphalt Concrete (A) (1.5" Thick) – CPF Adjustment | (\$109.03) |
| SP Asphalt Concrete (B) (1.5" Thick) – CPF Adjustment | (\$459.34) |
| SP Asphalt Concrete (C) (1.5" Thick) – CPF Adjustment | \$1,589.94 |
| SP Asphalt (B) (PG 76-22) (1", 2.5" & 3.0" Thick) – CPF Adj. | \$8,893.85 |
| SP Asphalt (C) (PG 76-22) (1.5", 5.0" Thick) – CPF Adj. | \$6,987.70 |
| SP Asphalt Concrete (D) (PG 76-22) (6" Thick) – CPF Adj. | (\$1,430.93) |

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|---|----------------------|
| Asphalt Concrete FC (3/4") (FC-5) (PG 76-22) – CPF Adj. | <u>(\$11,968.53)</u> |
| | \$23,207.72 |

INCREASE THE FOLLOWING ITEMS:

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|---|-----------------|
| Barrier Wall (Temporary) (F&I) (Type K) | \$250.83 |
| Removal of Existing Concrete Pavement | \$1,602.41 |
| Embankment | \$16,456.44 |
| Base Group 09 (10" Limerock LBR 100) w/ Prime | \$33,384.56 |
| Superpave Asphaltic Concrete (B) (1.5" Thick) | \$31,441.16 |
| Superpave Asphaltic Concrete (C) (1.5" Thick) | \$66,751.25 |
| Superpave Asphaltic Concrete (B) (PG 76-22) (1", 2.5" & 3.0") | \$25,956.87 |
| Class II Concrete (Culverts) | \$3,928.26 |
| Cleaning & Coating Concrete Surfaces | \$9,334.00 |
| Reinforcing Steel (Superstructure) | \$1,678.35 |
| Reinforcing Steel (Miscellaneous) | \$1,648.36 |
| Desilt Pipe (0" to 24") | \$159.75 |
| Desilt Pipe (25" to 36") | \$2,620.80 |
| Desilting Concrete Box Culvert | \$140.68 |
| Prestressed Concrete Piling (18" Sq) | \$11,149.08 |
| Shoulder Gutter, Concrete | \$446.59 |
| Guardrail Anchorage – Concrete Barrier Assembly | \$3,634.30 |
| Fence Gate, Type B, Double, 18.1-20.0' Opening | \$2,915.96 |
| Jack and Bore (24" to <36") | \$2,648.64 |
| Temporary Fiber Optic Cable (72-Strand Fiber) (F&I) | \$2,106.72 |
| Existing Fiber Optic Splice Enclosure Re-Entry | \$554.65 |
| Temporary Fiber Optic Fusion Splice | \$6,014.88 |
| Fiber Optic Conduit (2~1" HDPE/SDR 11) (Trench or Plow) | \$1,508.70 |
| Temp FO Conduit, 4" BSP w/ 2~1" HDPE/SDR II (Direct Bore) | \$279.84 |
| Fiber Optic Conduit, 6" PVC w/ 9~1" HDPE/SDR II (Direct Bore) | \$551.33 |
| Electrical Power (F&I) (Service Wire) (#6 AWG) | \$750.78 |
| Multi-Post Sign, Relocate | \$1,894.69 |
| Multi-Post Sign, Remove | \$2,034.96 |
| Delineator, Flexible Tubular | \$223.80 |
| 3M Linear Delineation System, Series 340 | \$609.62 |
| Preformed Tape, High Performance, White, Solid, 12" | \$108.03 |
| Preformed Tape, High Performance, White, Solid, 18" | \$1,766.60 |
| Lighting Conductors (F&I) (#8 to #6) | \$6,578.82 |
| Conductors (F&I) (Insulated) (#6) | \$201.39 |
| Lighting Conduit (F&I) (Underground) | \$6,603.99 |
| Conduit (F&I) (Underground) (2" Sch 40 PVC) | \$503.36 |
| Pole Cable Distribution System (Conventional) | \$1,614.02 |
| Light Pole, Special, F&I, Single, Wall Mount, Alum., 45' | \$2,527.68 |
| ITS FO Cable (F&I) (UG) (12 Strand) (Single Mode) | \$126.28 |
| ITS Conduit (F&I) (Above Ground) | \$67.20 |
| ITS Conduit (F&I) (Underground) | \$14,131.25 |
| ITS Pull & Junction Box (F&I) (Electric) | \$1,060.43 |
| ITS Multi-Conductor Com. Cable (Relocate) | \$401.50 |
| Tubular Route Markers | <u>\$180.68</u> |
| | \$268,549.49 |

DECREASE THE FOLLOWING ITEMS:

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| MOT for Roadway Repair Contingency | (\$3,903.50) |
| Type B Stabilization, LBR 40 (12" Thick) | (\$7,204.40) |
| Subsoil Excavation | (\$15,869.05) |
| Base Group 01 (4" Limerock LBR 100) w/ Prime | (\$1,485.99) |
| Base Group 06 (8" Limerock LBR 100) w/ Prime | (\$6,424.05) |
| Base Group 11 (12" Limerock LBR 100) w/ Prime | (\$31,374.45) |
| Milling Existing Asphalt Pavement (1 ½" Avg Depth) | (\$9,484.62) |
| Milling Existing Asphalt Pavement (2 ¼" Avg Depth) | (\$23,627.71) |
| Superpave Asphalt Concrete (A) (1.5" Thick) | (\$7,064.82) |
| SP Asphalt Concrete (C) (PG 76-22) (1.5", 5.0" & Overbuild) | (\$239,027.60) |
| SP Asphalt Concrete (D) (PG 76-22) (6" Thick) | (\$49,532.05) |
| Roadway Repair Contingency | (\$7,379.00) |
| Desilt Pipe (37" to 48") | (\$1,643.28) |
| Video Tape Existing Drainage Structures | (\$4,435.47) |
| Shoulder Concrete Barrier Wall, Rigid Shoulder | (\$60,832.10) |
| Rip Rap Rubble (Bank and Shore) | (\$141,484.77) |
| Guardrail – Roadway | (\$23,530.56) |
| Guardrail Roadway, Double Face | (\$1,618.50) |
| Guardrail Rub Rail, Double Sided | (\$1,003.50) |
| Guardrail Removal | (\$366.36) |
| Guardrail End Anchorage Assembly (Type II) | (\$1,087.08) |
| Fencing (Type B) (0.5-5.0') w/ Vinyl Coating | (\$408.54) |
| Directional Bore (<6") | (\$6,618.99) |
| Directional Bore (6" to <12") | (\$12,778.60) |
| Jack and Bore (36" to <48") | (\$3,672.08) |
| Fence Gate (Type B) (Slide/Cant.) (18-20' Opening) | (\$8,099.88) |
| Fiber Optic Cable (12 Strand Fiber) (F&I) | (\$1,555.02) |
| Fiber Optic Cable (72 Strand Fiber) (F&I) | (\$8,757.10) |
| Fiber Optic Splice Enclosure (72 Splice) (F&I) | (\$835.25) |
| Fiber Optic Fusion Splice | (\$3,842.84) |
| Pull Box (F&I) | (\$1,519.02) |
| Small Fiber Optic Pull Box (F&I) | (\$5,193.21) |
| Fiber Optic (9-1" HDPE/SDR 11) (Trench or Plow) | (\$1,960.98) |
| Fiber Optic Conduit 6" BSP w/ 9~1" HDPE/SDR II (Direct Bore) | (\$1,158.62) |
| Fiber Optic 6" Split BSP Sleeve (Trench or Plow) | (\$244.70) |
| Fiber Optic Conduit, 6" PVC 2~1" HDPE/SDR 11 (Direct Bore) | (\$11,225.95) |
| Single Post Sign, F&I, 12-20 SF | (\$1,113.95) |
| Preformed Tape, High Performance, White, Solid, 8" | (\$52.42) |
| Preformed Tape, High Performance, White, Skip, 12" | (\$217.44) |
| Preformed Tape, High Performance, Yellow, Solid, 6" | (\$1,465.23) |
| Preformed Tape, High Performance, White/Black Contrast, Solid, 9" | (\$3,487.74) |
| Preformed Tape, High Performance, White/Black Contrast, Skip, 9" | (\$128.04) |
| Lighting Conductors (F&I) (#8 to #6) | (\$2,821.63) |
| Conductors (F&I) (Insulated) (#2) | (\$587.25) |
| Lighting Conduit (F&I) (Surface Mount) | (\$1,210.55) |
| Lighting – Pull Box (F&I) (Roadside-Moulded) | (\$1,498.26) |
| Pole Cable Distribution System (Wall Mount) | (\$254.77) |
| Light Pole Comp., Sp., Des., F&I, Pole Top Mount, Alum., 45' | (\$5,691.52) |
| ITS Fiber Cable (F&I) (UG) (96 Strand) (Single Mode) | (\$1,055.64) |
| ITS Fiber Optic Conduit (Install) (Splice) | (\$167.08) |
| ITS Fiber Optic Conduit (Install) (Termination) | (\$1,252.80) |

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| ITS Fiber Optic Conduit Hardware (F&I) (Splice Tray) | (\$705.00) |
| ITS Fiber Optic Conduit Hardware (F&I) (Buffer Tube Fan Out Kit) | (\$61.39) |
| Allowance for Disputes Review Board | <u>(\$6,000.00)</u> |
| | (\$734,020.35) |

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| Sub-Total: Tentative Final Quantities for Pay Items of Work | (\$442,263.14) |
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Time Increase

This change is as requested by the Authority. A substantial portion of the 417-304 Project is on right-of-way owned by the Florida Turnpike Enterprise; and as such CFX is allowed to construct those portions by permit with FTE. The FTE advanced their Phase 2 portion of the interchange and began construction October 27, 2014. Prior to that project beginning, the Authority anticipated the need to extend project time to accommodate the additional coordination necessary due to the overlap of the two projects for this interchange. At this time, the Authority considers the 50 day non-compensable time extension; and zero lag between Substantial and Final Completion to be sufficient to complete the work required of the Project.

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| Increase Contract Time by 50 Non-Compensable Calendar Days | \$0.00 |
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| <u>TOTAL AMOUNT FOR PROJECT 417-304</u> | <u>(\$429,589.02)</u> |
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**Contract 417-110: SR 417 Widening, Curry Ford Rd. to Lake Underhill Rd.
Masci General Contractor, Inc.
SA 417-110-0415-004**

Quantity Adjustments for Completed Pay Items

The Authority wishes to adjust quantities for completed pay items in the Contract. This will adjust these Contract quantities to reflect the actual authorized quantities under the Contract.

INCREASE THE FOLLOWING ITEMS:

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| Milling Existing Asphalt Pavement 3 ¾" Average Depth | \$3,359.73 |
| Miscellaneous Asphalt Pavement | \$3,523.95 |
| Concrete Class IV, Substructure | \$13,141.20 |
| Reinforcing Steel, Substructure | \$2,994.80 |
| Concrete Traffic Railing Barrier | \$6,730.50 |
| Guardrail Removal | \$1,199.40 |
| Light Pole Complete, Remove | <u>\$2,375.00</u> |
| | \$33,324.58 |

FC-12.5 on Ramp A and Ramp H

The Authority wishes to utilize close graded friction course (FC-12.5) on the NB on-ramp (Ramp A) from Curry Ford Rd. to SR 417 and the SB off-ramp (Ramp H) from SR 417 to Curry Ford Rd. in lieu of the open graded friction course (FC-5) that is called for in the plans. These ramps experience heavy traffic loads and open graded friction course does not perform well under the forces caused by the stop-and-go nature of the traffic flow on these ramps. The current FC-5 friction course on these ramps (Ramp H in particular) has deteriorated over time in several locations and has been patched or repaired multiple times. Utilizing closed graded friction course in lieu of open graded friction course on ramps is consistent with best construction practice implemented by the Authority system-wide.

ADD THE FOLLOWING ITEM:

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| Asphaltic Friction Course, FC-12.5 | \$61,794.30 |
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DECREASE THE FOLLOWING ITEMS:

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| Superpave Asphaltic Concrete, Traffic C | (\$43,646.07) |
| Asphaltic Friction Course, FC-5 | <u>(\$26,753.74)</u> |
| | (\$70,399.81) |

Sub-Total: FC-12.5 on Ramp A and Ramp H (\$8,605.51)

Fuel and Bituminous Price Index Adjustments

The Contract contains provisions for Fuel and Bituminous Price Index adjustments. In accordance with the contract specifications, the Engineer has calculated adjustments for the period of March 2014 through January 2015. During this period of time \$8,413,636.97 of construction was performed/produced. Adjustments were made only if current month Fuel/Bituminous Price is greater or less than 5% of Bid/Base Fuel/Bituminous Price.

ADD THE FOLLOWING ITEMS:

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| <u>Fuel Price Adj. 10/13 Gas Base Price = 2.6418; Diesel Base Price = 3.0811</u> | |
| April 2014 (Gas Price = 2.9960; Diesel Price = 3.2251) | \$401.81 |
| May 2014 (Gas Price = 2.9228; Diesel Price = 3.1818) | \$188.73 |
| June 2014 (Gas Price = 2.8927; Diesel Price = 3.0632) | \$117.99 |
| July 2014 (Gas Price = 2.8739; Diesel Price = 3.052) | \$55.00 |
| Oct. 2014 (Gas Price = 2.5318; Diesel Price = 2.7833) | (\$1,886.06) |
| Nov. 2014 (Gas Price = 2.1706; Diesel Price = 2.6474) | (\$2,904.93) |

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|---|----------------------|
| Dec. 2014 (Gas Price = 1.9837; Diesel Price = 2.4271) | (\$2,887.19) |
| Jan. 2015 (Gas Price = 1.5127; Diesel Price = 1.9318) | <u>(\$12,833.36)</u> |
| | (\$19,748.01) |

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| <u>Bit. Price Adj. 10/13 Asphalt Cement Base Price = 2.3595; Polymer Base Price = 3.0709</u> | |
| Sept. 2014 (AC Price = 2.6021; Polymer Price = 3.2718) | \$8,273.15 |
| Oct. 2014 (AC Price = 2.5888; Polymer Price = 3.2575) | \$546.90 |
| Nov. 2014 (AC Price = 2.4871; Polymer Price = 3.1579) | <u>\$50.71</u> |
| | \$8,870.76 |

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| Sub-Total: Fuel and Bituminous Price Index Adjustments | (\$10,877.25) |
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| <u>TOTAL AMOUNT FOR PROJECT 417-110</u> | <u>\$13,841.82</u> |
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