



CENTRAL TEXAS REGIONAL
MOBILITY AUTHORITY

July 25, 2018
AGENDA ITEM #20

Approve Supplemental No. 1 to Work
Authorization No. 7 for WSP USA, Inc. for
general engineering consultant
related to MoPac

Strategic Plan Relevance: Regional Mobility
Department: Engineering
Contact: Justin Word, P.E., Director of Engineering
Associated Costs: \$1,270,780.32
Funding Source: Project Funds (Previously Allocated)
Action Requested: Consider and act on draft resolution

Summary:

During the July 2017 Board meeting, the Board authorized Work Authorization No. 7 with WSP USA, Inc. for completion of design/build oversight on the MoPac Improvement Project contract being completed by CH2M Hill. At that time, the project schedule anticipated completion of the construction efforts in July 2018.

During the March 2018 Board meeting, the Board authorized the Executive Director to negotiate and execute a construction contract with McCarthy Building Companies, Inc. to perform additional work on MoPac (referred to as the MoPac Miscellaneous Improvements Project). The project schedule for this work anticipates completion in January 2019.

To continue GEC services to close out the MoPac Improvement Project and to provide oversight for the MoPac Miscellaneous Improvements Project, Mobility Authority staff recommends that additional fee in the amount of \$1,270,780.32 be authorized under Supplemental Work Authorization No. 1 to Work Authorization No. 7 with WSP USA, Inc. (formerly known as Parsons Brinckerhoff, Inc.).

This additional fee is composed of a Base Amount of \$1,058,983.60 and a Contingency Amount of \$211,796.72. This additional fee will increase the not to exceed amount for Work Authorization No. 7 from \$4,948,829.57 to \$6,219,609.89. The use of any portion of

the Contingency Amount by WSP USA, Inc. will be upon written authorization from the Executive Director or Director of Engineering.

Backup provided: Draft Resolution
Draft Work Authorization

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 18-0XX

**APPROVAL OF SUPPLEMENT NO. 1 TO WORK AUTHORIZATION NO. 7 WITH WSP USA,
INC. FOR GENERAL ENGINEERING CONSULTANT SERVICES RELATED TO THE MOPAC
IMPROVEMENT PROJECT**

WHEREAS, by Resolution No. 17-043 dated July 26, 2017, the Board Authorized the Executive Director to negotiate Work Authorization No. 7 with WSP USA, Inc. (formerly Parsons Brinckerhoff, Inc.) for general engineering consultant services for the MoPac Improvement Project; and

WHEREAS, by Resolution No. 18-009 dated March 28, 2018, the Board authorized the Executive Director to negotiate and execute a construction contract with McCarthy Building Companies, Inc. for additional enhancements to the MoPac Improvement Project; and

WHEREAS, the Executive Director and WSP USA, Inc. have negotiated proposed Supplement No. 1 to Work Authorization No. 7 to continue general engineering consultant services and oversight of McCarthy Building Companies, Inc. for additional work benefitting the Mopac Improvement Project and the Mopac corridor; and

WHEREAS, the Executive Director estimates the reasonable fees associated with the services to be provided under Supplement No. 1 to Work Authorization No. 7 to be in an amount not to exceed \$1,270,780.32; and

WHEREAS, the services to be provided under Supplement No. 1 to Work Authorization No. 7 are anticipated to be substantially complete by early 2019; and

WHEREAS, the Executive Director recommends that the Board approve proposed Supplement No. 1 to Work Authorization No. 7 in the form or substantially the same form as attached hereto as Exhibit A.

NOW THEREFORE, BE IT RESOLVED, that the Board approves an amount not to exceed \$1,270,780.32 for the services described in Supplement No. 1 to Work Authorization No. 7; and

BE IT FURTHER RESOLVED, that the Board authorizes the Executive Director to finalize and execute proposed Supplement No.1 to Work Authorization No. 7 with WSP USA, Inc. in an amount not to exceed \$1,270,780.32 and in the form or substantially the same form as Exhibit A.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 25th day of July 2018.

Submitted and reviewed by:

Approved:

Geoffrey Petrov, General Counsel

Ray A. Wilkerson
Chairman, Board of Directors

Exhibit A

APPENDIX D

SUPPLEMENTAL WORK AUTHORIZATION

SUPPLEMENTAL WORK AUTHORIZATION NO. 1 to WORK AUTHORIZATION NO. 7

This Work Authorization is made as of this 25th day of July, 2018, under the terms and conditions established in the AGREEMENT FOR GENERAL CONSULTING ENGINEERING SERVICES, dated as of June 30, 2016 (the "Agreement"), between the Central Texas Regional Mobility Authority ("Authority") and **Parsons Brinckerhoff, Inc.** ("GEC"). This Work Authorization is made for the following purpose, consistent with the services defined in the Agreement:

MoPac Improvement Projects – Completion of Design/Build & Construction Oversight

Section A. - Scope of Services

A.1. GEC shall perform the following Services:

Please reference "Scope of Work" attached hereto as Attachment A which replaces the Scope of Work included in Work Authorization No. 7 in its entirety.

Section B. - Schedule

GEC shall perform the Services and deliver the related Documents (if any) according to the following schedule:

Services defined herein are anticipated to be substantially complete on June 30, 2019.

This Work Authorization will not expire until all tasks associated with the Scope of Services are complete as defined by the Mobility Authority.

Section C. - Compensation

C. 1. In return for the performance of the foregoing obligations, the Authority authorizes an amount not to exceed \$1,270,780.32 based on Attachment B - Fee Estimate which is composed of a Base Amount of \$1,058,983.60 and a Contingency Amount of \$211,796.72. This will increase the not to exceed amount for Work Authorization No. 7 from \$4,948,829.57 to \$6,219,609.89. Compensation shall be in accordance with the Agreement.

The Authority and the GEC agree that the budget amounts contained in Attachment B - Fee Estimate for the GEC are estimates and that these individual figures may be redistributed and/or adjusted as necessary over the duration of this Work Authorization. The GEC may alter the compensation distribution between tasks or work assignments to be consistent with the Services actually rendered within the total Work Authorization amount. The GEC shall not exceed the maximum amount payable without prior written permission by the Authority.

C.2. Compensation for Additional Services (if any) shall be paid by the Authority to the GEC according to the terms of a future Work Authorization or a Supplement to this Work Authorization.

Section D. - Authority's Responsibilities

The Authority shall perform and/or provide the following in a timely manner so as not to delay the Services of the GEC. Unless otherwise provided in this Work Authorization, the Authority shall bear all costs incident to compliance with the following:

Not applicable

Section E. - Other Provisions

Except to the extent expressly modified herein, all terms and conditions of the Agreement shall continue in full force and effect.

Authority:

**CENTRAL TEXAS REGIONAL
MOBILITY AUTHORITY**

GEC:

Parsons Brinckerhoff, Inc.

By: _____

By: _____

Name: Mike Heiligenstein

Name: _____

Title: Executive Director

Title: _____

Date: _____

Date: _____

ATTACHMENT A – SCOPE OF WORK
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
WSP USA GENERAL ENGINEERING CONSULTANT CONTRACT
SUPPLEMENTAL WORK AUTHORIZATION NO. 1 TO
WORK AUTHORIZATION NO. 7
SERVICES TO BE PROVIDED BY THE
GENERAL ENGINEERING CONSULTANT (GEC)

General

The services to be performed by the GEC will include, but not be limited to, project management services necessary to oversee 1) the remaining construction of the MoPac Improvement Project through the use of a Design/Build Contract and 2) the construction of the MoPac Miscellaneous Improvements Project through the use of Traditional Construction Contract (hereinafter referred to as the Projects). The terms “Projects”, “Contracts”, and or “Contractors” will be used hereinafter to collectively reference both Projects. The services to be performed by the GEC will entail those professional services and associated deliverables required to complete the oversight activities associated with the management of the Contractors on the Projects.

The GEC will assist with communications between the Mobility Authority and Contractors, acting as an extension of Mobility Authority staff by providing technical and professional personnel to perform the duties and responsibilities assigned under the terms of this Agreement. The GEC shall not control or direct construction under the Contracts. Oversight reviews by the GEC will not relieve the Contractors of sole responsibility for the means and methods of construction, or for health or safety precautions in connection with the work under the Contracts. The GEC will maintain core Oversight staff at the Contractor-provided Project field office(s) to manage and administer the planning, execution, and construction; including invoicing and administrative support, for activities required to complete the overall oversight efforts. This staff will represent the Mobility Authority's interests as defined in the Contracts.

1. PROJECT MANAGEMENT (Code 13730)

The GEC will provide staff to manage, review and coordinate the Project. The GEC will develop and maintain a staffing plan for consistency and appropriate level of Project staffing. Activities included in this task:

1.1 Project Administration

- Review and report on the Contractors' submittals of records and reports including:
 - Weekly payroll
 - Statement of wage compliance
 - Requests for payment of materials on hand and DBE compliance
 - Reports and records as required for the Project by TxDOT and/or FHWA and/or City of Austin and/or UPRR and/or Capital Metro
- Report Project progress and issues in a timely manner
- Review, monitor, and report on Contractors' Project Schedule
- Update records of the cost involved in potential new change order work. These records will include labor and equipment times and materials installed (temporary or permanent).
- Assist in the surveillance of the Contractors' compliance with contract requirements that are remaining on the project. The GEC will review, based on available information, the Contract compliance and maintaining the appropriate files thereof. Typical areas of compliance responsibility include LGPP requirements, EEO Affirmative Action, DBE, OJT positions and number of hours, and payroll and subcontracts.
- Provide compliance oversight of third party agreements for remaining work including:
 - Dewatering permits
 - NPDES permits
 - Demolition permits
 - Noise permits
 - Corps of Engineer permits
 - Utility agreements
 - UPRR | Capital Metro agreements

1.2 Sub-Consultants

- Coordinate, contract and provide oversight for any required sub-consultants to the GEC.

1.3 Program Reporting

- Provide a monthly update to the Mobility Authority on key milestones accomplished during the preceding month, meetings and key activities for the upcoming month. and identify outstanding issues requiring resolution.
- Track, monitor, and report on contracts and budgets for the GEC and subconsultants, and the Contractors.
- Track, monitor, and prepare reports on DBE utilization for the Contractors' program and GEC team.

1.4 Project Schedule

The GEC will provide staff to coordinate the Project scheduling efforts. Specific activities include:

- Evaluate, monitor, and verify according to contractual requirements, the Contractors' Project Schedule; Baseline and Updates, and Recovery Schedules.
- Report and verify the Contractors' progress and upcoming milestones on a monthly basis to the Mobility Authority.
- Identify, catalog, and archive Baseline Schedules and schedule revisions and Updates, and Recovery Schedules. Evaluate time impacts and report recommendations to the Mobility Authority.

1.5 Change Order Processing & Management

- Provide review of new potential Change Orders on the Project and process in accordance with the Contract and coordinate with external agencies as required.
- Review Change Order cost estimates prepared by the Contractors. Evaluate Contractors claims for extension of time, and provide comments and recommendations to the Mobility Authority.
- Update log and retain all documents associated with new potential Change Orders.

1.6 Project Meetings & Documentation

The GEC will facilitate the following internal GEC Project meetings to assess progress, schedule, and quality of services being provided as well as identify issues:

- Project Progress Meetings - Weekly
- Mobility Authority Construction Status Update Meetings - Monthly

The GEC will prepare agendas and meeting minutes.

In addition, the GEC will participate in the Contractors' Project meetings, including but not limited to:

Construction Phase

- Utilities - Weekly
- Rail - Weekly
- Quality Assurance - Bi-weekly
- Maintenance of Traffic - Weekly
- Public information - Weekly
- Environmental Compliance — Weekly

Oversight, Scheduling, and Coordination

- 4-Week Rolling Schedule Review - Weekly
- Comprehensive Schedule — Monthly
- Staffing Meeting - Monthly
- Steering Committee - Bi-weekly
- Executive Management - Quarterly

1.7 Tracking Database

Update the tracking database for correspondence, transmittals, requests for information, meeting minutes, action items, submittals, Inspector daily reports, project diary, project schedule, change orders, pay estimates, lien waivers, Shop drawings, working drawings, erection drawings, catalog cut sheets, mix designs, non-conformance reports, payment certifications, Insurance and Bonds, material test data, schedules, audits, related technical data, and issues associated with the Project that occur after the start date of this GEC work authorization.

2. CONSTRUCTION OVERSIGHT (Code 13620)

The GEC will provide professional services associated with construction oversight including the construction engineering and inspection in accordance with the PDA, Contracts, and SI Contract for the remainder of construction. The GEC will provide qualified technical and professional personnel to perform this task. In performance of this task, the GEC shall not direct, manage, or control the Contractors' construction work activities. Construction Oversight by the GEC, including field inspections, testing, and oversight reviews, will not relieve the Contractors of sole responsibility for the means and methods of the construction, or for health or safety precautions in connection with the work. The Engineer(s) of Record will remain responsible for design related services.

The GEC will establish and maintain the Project Field Office operation within the Contractor-provided facility; including leasing and maintenance of project vehicles; and any additional expenses required by the Project and not provided by the Contractors.

Construction oversight efforts will focus on coordination with the Contractors' and SI's construction processes to provide monitoring and oversight of reasonable compliance obligations, sound engineering practices, and regulatory requirements. The GEC will utilize the previously developed Quality Assurance Plan (QAP) which will be incorporated by reference into the Contractors' Construction Quality Management Plan (CQMP). The following activities are included:

2.1 Construction Oversight Inspections

- Perform and report construction inspections for remaining construction items.
- Review and report final documentation of schedule of values in support of Contractors' draw requests.
- Develop diaries and logs for remaining construction items.
- Provide a digital photo and/or video log of the Project area for the remainder of construction, with heavy emphasis on areas with potential claim items/issues and on areas of real/potential public controversy.

2.2 Traffic Control

- Review, monitor, and recommend modification to the Contractors' maintenance of traffic/traffic control operations according to applicable specifications and standards.
- Document and issue deficiency reports to the Contractors on any noncompliance of traffic control devices or layouts.
- Coordinate with the Contractors and the Mobility Authority regarding major traffic disruptions.
- Attend meetings pertaining to the traffic control and maintenance of traffic that are held by the Contractors, designers or interested parties.

2.3 Requests for Information (RFI) and Non-Conformance Report Processing and Management

- Review and facilitate responses on Project RFIs for newly submitted RFIs.
- Prepare new Non-Compliance Reports (NCRs) for non-compliant work issued.
- Update log, and retain all documents associated with RFIs and NCRs.

2.4 Shop Drawing I Submittals Processing and Management

- Review new shop drawings, erection drawings, working drawings, Samples, material and product certifications, and catalog cuts and brochure submittal for general conformance with the design plans and specifications submitted by the Contractors. Check that the Engineer(s) of Record have provided required approvals. The Engineer(s) of Record will be responsible for final approval.
- Update log and retain all new documents associated with shop drawings.
- Coordinate with the Contractors on processing, submittal documentation, follow-up activities, and clarifications.

2.5 D/B Contractor Draw Requests

- Review completeness of the Contractors' submittal in accordance with the requirements of the Contracts, including:
 - Cover Sheet
 - Monthly Progress Report
 - Certification by Construction Quality Control Manager
 - Report of personnel hours
 - Progressed schedule of values
 - DBE utilization report
 - Cash flow and payment curves
 - Updated Project schedule
 - Waiver of liens from previous draw requests
 - Material on hand invoices

- Lane/shoulder/ramp/cross street rental and/or Liquidated Damages fee report
- Evaluate that the request accurately reflects monies due for acceptable work completed.
- Review and provide required certifications to the Mobility Authority for processing of the D/B Contractors' partial and final pay requests.

2.6 Utility and Rail Oversight

The GEC will provide coordination, support, and assistance for utility related activities. GEC support activities do not relieve the Contractors of sole responsibility for performance of all utility-related activities. Specific activities include:

- Review new (if any) utility plans for compliance with the TxDOT Utility Accommodation Policy, compatibility with the Project features. Betterment inclusion, and constructability.
- Provide oversight review of location, materials, and backfilling of trenches associated with utility adjustments; the GEC is not responsible for actual location of utilities.
- Participate in meetings as necessary to support effective management of the utility and rail coordination process.
- If necessary, provide support to Contractors in scheduling periodic meetings with utility and rail owner's representatives for coordination purposes.
- Support Contractors with negotiating the details of new utility agreements with the utility companies, as requested. Details will include any necessary betterment percentages, indirect costs, plans, estimates, and schedules for the utility companies' activities.
- Review of new utility adjustment agreements including plans, estimates, and property interest.
- Monitor payments from the Contractors to utility owners for utility adjustments and rail owners for flagging operations.
- Provide utility construction monitoring and verification to the extent possible.

2.7 Survey Support

- Perform remaining survey verifications needed to complete verification.

2.8 Final Punch List, Final Inspection, Notice of Completion, Close Out

The GEC will:

- Coordinate with the Contractors, CTRMA and TxDOT in the generation of a final punch list.
- Monitor the resolution of outstanding construction items.
- Inspection of punch list completion.
- Verify there are no outstanding claims related to the Contractors' work.

- Provide Notification of Completion to the Mobility Authority.
- Complete all necessary activities to formally close-out the project.

3. MATERIAL ACCEPTANCE TESTING (Code 13620)

The GEC will provide Quality Acceptance testing of remaining materials incorporated into the project. coordinate materials testing operations, and review Material Test Reports. Material Testing procedures will include:

3.1 Quality Acceptance

- Utilize the previously prepared Qualification Program for materials utilized by the project for the construction of the Project in accordance with the Quality Acceptance Program (QAP).
- Submit construction Quality Acceptance Material Certification letter monthly to the Mobility Authority.
- All material test results will be reviewed by the Construction Manager or Resident Engineer.

3.2 Verification

- Utilize the previously prepared testing plan in compliance with TxDOT's Guide Schedule of Sampling and Testing for the Project.
- Perform the testing of construction materials utilized on the Project.
- Prepare and manage new Non-Compliance Reports (NCRs) for failing tests as appropriate.
- Update the material testing database.
- Review mill and shop inspection and laboratory tests and field test of construction materials performed by the testing engineer and the off-site materials testing agency.

3.3 Independent Assurance Program

- Continue the Independent Assurance (IA) Program which evaluates all sampling and testing procedures, personnel, and equipment used as part of an acceptance decision.
- Update documentation of all qualified individuals who perform required tests for acceptance of materials, as needed.
- Verify that laboratories are qualified to perform testing.

4. ENVIRONMENTAL COMPLIANCE (Code 13620)

The GEC will provide staff to review and report on the Contractors' environmental compliance efforts. Specific activities include:

- Oversight review and audits of the Contractors' Comprehensive Environmental Protection Program (CEPP).
- Monitor the Contractors' compliance with the SWPPP plans and permit requirements.

- Issue new Non-Compliance Reports (NCRs) for instances which fall below permit requirements.
- Update database to track and verify new environmental commitments documented in the Environmental Documents and for permit compliance.
- Monitor the Contractors' activities to determine if environmental encounters are being promptly reported and managed in accordance with the CEPP, and applicable laws and regulations.

5. ADDITIONAL SERVICES

5.1 General

The services listed above are anticipated to cover the range of activities for the oversight of remainder of construction of the Project. However, change can occur at any time during the project term and may involve changed scope, schedule or staffing. Changes to the scope and/or schedule of the work, whether at the request of the Mobility Authority or resulting from changes to the project initiated by the D/B Contractor. may require additional services outside of this scope, or the provision of identified services for an additional period of time.

6. LIST OF ASSUMPTIONS

6.1 Project Scope

The services provided by the GEC as described in this Work Authorization are based upon the Project scope as defined in the Contracts scopes of work and technical provisions. The GEC will be responsible only for those items, as outlined in the scope of services, from the time of the notice to proceed until project completion.

6.2 Project Schedule

The services provided by the GEC as described in this Work Authorization are based upon the current project schedules. Any change to the project schedule dates as noted below may require a supplement to this Work Authorization.

**ATTACHMENT B - FEE ESTIMATE
CTRMA // WSP USA GEC CONTRACT
SUPPLEMENTAL WORK AUTHORIZATION NO. 1 TO WORK AUTHORIZATION NO. 7**

FEE ESTIMATE

CTRMA: MoPac Improvement Project & MoPac Miscellaneous Improvements Project
Consultant: Parsons Brinckerhoff, Inc. [WSP USA Inc.]
Construction Level Of Effort Estimate: May 2018 thru June 2019

	2018										2019						Reg. Hours (165/mo)	OT Hours (15%)	Total Hours	Rate	OH	Profit	Multiplier	Burdened Hourly Rate	Total Labor
	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun									
TASK 1 - Construction Phase Services																									
Construction Engineering & Inspection																									
OFFICE																									
Senior CM Advisor																	0	0	0	\$ -	1.5382	0.1	2.792	\$ -	\$ -
Sr. Construction Manager																	0	0	0	\$ -	1.5382	0.1	2.792	\$ -	\$ -
Project Manager																	0	0	0	\$ 76.00	1.6944	0.1	2.964	\$ 225.25	\$ -
Office Engineer																	0	0	0	\$ 40.00	1.6944	0.1	2.964	\$ 118.55	\$ -
Administrative Assistant			0.10	0.10	0.10	0.10	0.10										83	0	83	\$ 27.00	1.6944	0.1	2.964	\$ 80.02	\$ 6,601.95
GEC Program Manager			0.12	0.12	0.12	0.07	0.07	0.02	0.02	0.02	0.02						96	0	96	\$ 95.00	1.5382	0.1	2.792	\$ 265.24	\$ 25,383.65
Project Accountant			0.25	0.25	0.25	0.15	0.15	0.05	0.05	0.05	0.05						206	0	206	\$ 40.00	1.5382	0.1	2.792	\$ 111.68	\$ 23,034.17
Construction Phased Services			0.25	0.25	0.25	0.25	0.25	0.10	0.10	0.10	0.10						272	0	272	\$ 50.00	1.5382	0.1	2.792	\$ 139.60	\$ 38,006.37
Construction Phased Services			0.20	0.20	0.20	0.20	0.20										165	0	165	\$ 80.00	1.5382	0.1	2.792	\$ 223.36	\$ 36,854.66
Construction Phased Services			0.10	0.10	0.10	0.10	0.10										83	0	83	\$ 60.00	1.6944	0.1	2.964	\$ 177.83	\$ 14,671.01
Construction Services Engineer			0.75	0.75	0.50	0.25	0.25										413	0	413	\$ 30.00	1.6944	0.1	2.964	\$ 88.92	\$ 36,677.52
Information Coordinator			0.10	0.10	0.10	0.10	0.10										83	0	83	\$ 40.00	1.5382	0.1	2.792	\$ 111.68	\$ 9,213.67
Graphic Design			0.05	0.05	0.05	0.05	0.05										41	0	41	\$ 35.00	1.5382	0.1	2.792	\$ 97.72	\$ 4,030.98
FIELD																									
Construction Mgr.			1.00	1.00	1.00	1.00	1.00										825	0	825	\$ 200.00	0.0000	0	1.000	\$ 200.00	\$ 165,000.00
Field Engineer			1.00	1.00	1.00	1.00	1.00										825	0	825	\$ 61.00	1.1117	0.1	2.323	\$ 141.70	\$ 116,898.43
Auditor/Recordkeeper			0.40	0.40	0.40	0.50	0.50	0.25	0.25	0.25	0.25						528	0	528	\$ 52.00	1.1975	0.1	2.417	\$ 125.70	\$ 66,368.02
Chief Inspector																	0	0	0	\$ 50.00	1.1975	0.1	2.417	\$ 120.86	\$ -
Sr. Inspector																	0	0	0	\$ 42.00	1.1975	0.1	2.417	\$ 101.52	\$ -
Sr. Inspector/Office Eng.			1.00	1.00													330	50	380	\$ 31.00	1.1975	0.1	2.417	\$ 74.93	\$ 28,437.74
Inspector			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						1485	223	1,708	\$ 35.00	1.1975	0.1	2.417	\$ 84.60	\$ 144,482.05
Inspector			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00							1320	198	1,518	\$ 28.00	1.1975	0.1	2.417	\$ 67.68	\$ 102,742.79
Inspector			1.00	1.00	1.00	1.00	0.50										743	111	854	\$ 34.00	1.1117	0.1	2.323	\$ 78.98	\$ 67,436.98
Sr. Inspector/Office Eng.																	0	0	0	\$ -	1.1975	0.1	2.417	\$ -	\$ -
Sr. Inspector			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						1485	223	1,708	\$ 44.00	1.1117	0.1	2.323	\$ 102.21	\$ 174,542.77
Inspector			1.00	1.00	1.00	1.00											660	99	759	\$ 25.00	1.1975	0.1	2.417	\$ 60.43	\$ 45,867.32
Sr. Construction Manager			0.05	0.05	0.05	0.05	0.05										41	0	41	\$ 100.00	1.1117	0.1	2.323	\$ 232.29	\$ 9,581.84
Senior CM Advisor																	0	0	0	\$ 125.00	1.5382	0.1	2.792	\$ 349.00	\$ -
Senior Project Manager			0.85	0.85	0.85	0.90	0.90	0.25	0.25	0.25	0.50						924	0	924	\$ 80.00	1.1975	0.1	2.417	\$ 193.38	\$ 178,683.12
Office Engineer			0.25	0.25	0.15	0.15	0.15										157	0	157	\$ 40.00	1.1975	0.1	2.417	\$ 96.69	\$ 15,156.16
Project Engineer			0.15	0.15	0.15	0.50	0.50	0.50	0.50	0.50	0.50						569	0	569	\$ 67.00	1.1975	0.1	2.417	\$ 161.96	\$ 92,193.31
Scheduler			0.15	0.15	0.15	0.18	0.18	0.10	0.10	0.10	0.10						200	0	200	\$ 183.24	0.0000	0	1.000	\$ 183.24	\$ 36,583.87
TOTAL LABOR TASK 1																						\$	1,438,448.38		
TASK 2 - Material Testing, Surveying, Inspection and Toll Operations																									
Material Testing																									\$ 135,000.00
Toll Operations																									\$ -
Public Involvement																									\$ 36,000.00
Survey Verification																									\$ 60,000.00
Toll Operations			0.10	0.10	0.10	0.10											66		66	\$ 80.00	1.6944	0.1	2.964	\$ 237.11	\$ 15,649.08
Toll Operations																	0		0	\$ 80.00	1.6944	0.1	2.964	\$ 237.11	\$ -
TOTAL LABOR TASK 2																						\$	246,649.08		

**ATTACHMENT B - FEE ESTIMATE
CTRMA // WSP USA GEC CONTRACT
SUPPLEMENTAL WORK AUTHORIZATION NO. 1 TO WORK AUTHORIZATION NO. 7**

TASK 3 - Project Closeout																										
Construction Engineering & Inspection																										
OFFICE																										
Senior CM Advisor																		0	0	0	\$ -	0.0000	0.1	1.100	\$ -	\$ -
Sr. Construction Manager																		0	0	0	\$ -	0.0000	0.1	1.100	\$ -	\$ -
Project Manager																		0	0	0	\$ 76.00	1.6944	0.1	2.964	\$ 225.25	\$ -
Office Engineer																		0	0	0	\$ 40.00	1.6944	0.1	2.964	\$ 118.55	\$ -
Administrative Assistant								0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	371	0	371	\$ 27.00	1.6944	0.1	2.964	\$ 80.02	\$ 29,708.79
GEC Program Manager																		17	0	17	\$ 95.00	1.5382	0.1	2.792	\$ 265.24	\$ 4,376.49
Project Accountant (WSP)																		17	0	17	\$ 40.00	1.5382	0.1	2.792	\$ 111.68	\$ 1,842.73
Construction Phased Services																		0	0	0	\$ 50.00	1.5382	0.1	2.792	\$ 139.60	\$ -
Construction Services Engineer																		0	0	0	\$ 30.00	1.6944	0.1	2.964	\$ 88.92	\$ -
Information Coordinator																		0	0	0	\$ 40.00	1.5382	0.1	2.792	\$ 111.68	\$ -
Graphic Design																		0	0	0	\$ 35.00	1.5382	0.1	2.792	\$ 97.72	\$ -
FIELD																										
Construction Mgr.																		0	0	0	\$ 200.00	0.0000	0	1.000	\$ 200.00	\$ -
Field Engineer																		0	0	0	\$ 67.00	1.1975	0.1	2.417	\$ 161.96	\$ -
Auditor								0.25	0.25	0.25	0.25	0.75	0.75	0.25	0.25	0.25	0.25	536	0	536	\$ 52.00	1.1975	0.1	2.417	\$ 125.70	\$ 67,405.02
Project Manager								0.75	0.75	0.75	0.75	1.25	1.25	0.75	0.75	0.75	1279	0	1,279	\$ 80.00	1.1975	0.1	2.417	\$ 193.38	\$ 247,284.68	
Office Engineer								0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	223	0	223	\$ 40.00	1.1975	0.1	2.417	\$ 96.69	\$ 21,537.70	
Sr. Inspector												0.50	0.50				165	0	165	\$ 44.00	1.1117	0.1	2.323	\$ 102.21	\$ 16,864.04	
Scheduler																	0	0	0	\$ 183.24	0.0000	0	1.000	\$ 183.24	\$ -	
TOTAL LABOR TASK 3																							\$	389,019.44		

TASK 4 - GEC Support (Breakout Project, Fence Extensions, General Support)																										
OFFICE																										
Program Manager																		0	0	0	\$ -	0.0000	0.1	1.100	\$ -	\$ -
Senior Engineer																		0	0	0	\$ -	0.0000	0.1	1.100	\$ -	\$ -
Engineer																		0	0	0	\$ -	0.0000	0.1	1.100	\$ -	\$ -
CADD																		0	0	0	\$ -	0.0000	0.1	1.100	\$ -	\$ -
Administrative Assistant																		0	0	0	\$ -	0.0000	0.1	1.100	\$ -	\$ -
Scheduler																		0	0	0	\$ -	0.0000	0	1.000	\$ -	\$ -
Water Resources																		0	0	0	\$ -	0.0000	0	1.000	\$ -	\$ -
TOTAL LABOR TASK 4																							\$	-		

TASK 5 - Dispute Support Resources																										
Dispute Analysis & Resolution																										
OFFICE																										
Jr. Claims Analyst																		0	0	0	\$ 58.00	1.6944	0.1	2.964	\$ 171.90	\$ -
Sr. Construction Engineer																		0	0	0	\$ 65.00	1.6944	0.1	2.964	\$ 192.65	\$ -
TOTAL LABOR TASK 5																							\$	-		

FTE (Full Time Equivalent)			12	12	11	11	9	6	6	6	5	3	3	1	1	1
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TOTAL LABOR [Beginning May 2018]	\$	2,074,116.90
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Field Direct Expense	
Field Man Hours	13,198
Man Hours / Month	165
Field Man Months	79.99
TOTAL DIRECT EXPENSE @ \$3,500/Field Man Month	\$ 279,947.50

TOTAL FEE ESTIMATE [From May 1, 2018 to June 30, 2019]	\$	2,354,064.40
TOTAL EXPENDED TO DATE [From August 1, 2017 to April 30, 2018]	\$	3,653,748.77

TOTAL FEE ESTIMATE [From August 1, 2017 to June 30, 2019]	\$	6,007,813.17
PREVIOUSLY APPROVED FEE ESTIMATE (WA 7)	\$	(4,948,829.57)

BASE AMOUNT TOTAL ESTIMATE	\$	1,058,983.60
CONTINGENCY AMOUNT TOTAL ESTIMATE (20%)	\$	211,796.72
NOT TO EXCEED TOTAL (SWA 1 TO WA 7)	\$	1,270,780.32