



Travis County Commissioners Court Agenda Request

Meeting Date: March 25, 2014, 9:00 A.M., Voting Session

Prepared By/Phone Number: John Pena, CTPM; Marvin Brice, CPPB, Purchasing Office, 512-854-9700

Elected/Appointed Official/Dept. Head: Cyd Grimes, Purchasing Agent

Commissioners Court Sponsor: Judge, Samuel T. Biscoe

Agenda Language: APPROVE MODIFICATION NO. 4 TO CONTRACT NO. 4400000072 (HTE CONTRACT NO. 10AE0198JE), AECOM TECHNICAL SERVICES, INC. FOR DESIGN SERVICES, ARTERIAL "A".

- **Purchasing Recommendation and Comments:** Purchasing concurs with department and recommends approval of requested action. This procurement action meets the compliance requirements as outlined by the statutes.

On August 3, 2010, the Court approved a Professional Services Agreement (PSA) in the amount of \$463,759.64 with the engineering firm AECOM Technical Services, Inc. for Work Product (WP1) of this project. WP1 included developing schematics of alignment-alternates to determine the most cost effective alignment between US 290 and Parmer Lane in Precinct 1. On March 13, 2012, the Court approved Modification No. 1 for WP2 in the amount of \$286,232.77 for the 30% Professional Services and Engineering phase (PS&E). On February 12, 2013, the Court approved Modification No. 2 for WP3 in the amount of \$499,938.72 for the 60% PS&E.

The 60% PS&E is now complete and AECOM has since submitted a scope and fee proposal for 90% PS&E (WP4) and 100% Complete PS&E (WP5). TNR has completed its negotiations for the scope and negotiated fee with the consultant and recommends approval of Modification No. 4 for WP4 and WP5 in the amount of \$391,010.08

- **Contract Expenditures:** Within the last 12 months \$1,071,970.66 has been spent against this contract.

➤ **Contract-Related Information:**

Award Amount: \$463,759.64
Contract Type: Professional Services
Contract Period: 15 Months

➤ **Contract Modification Information:**

Modification Amount: \$391,010.08 (WP4 & WP5)
Modification Type: Professional Services
Modification Period: 65 Calendar Days

➤ **Solicitation-Related Information:** N/A

Solicitations Sent: Responses Received:
HUB Information: % HUB Subcontractor:

➤ **Special Contract Considerations:** N/A

- Award has been protested; interested parties have been notified.
- Award is not to the lowest bidder; interested parties have been notified.
- Comments:

➤ **Funding Information:**

- SAP Shopping Cart #:
- Funding Account(s):

Funds Reservation: 0300001056
WBS Element: RDCN.149.000007

<u>Fund</u>	<u>Fund Center</u>	<u>GL</u>	<u>Amount</u>
4074	1490190000	522040	\$25,583.00
4083	1490190000	522040	\$364,428.00

- Comments:



TRANSPORTATION AND NATURAL RESOURCES DEPARTMENT
STEVEN M. MANILLA, P.E., COUNTY EXECUTIVE

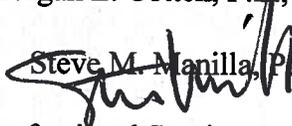
700 Lavaca Street-5th Floor
Travis County Administration Building
P.O. Box 1748
Austin, Texas 78767
Phone: (512) 854-9383
FAX (512) 854-4697

RECEIVED
TRAVIS COUNTY
PURCHASING
OFFICE
2014 FEB 27 AM 8:23

Date: February 11, 2014

TO: Marvin Brice, Assistant Purchasing Agent

FROM: Morgan L. Cotten, P.E., Public Works Director

THROUGH:  Steve M. Manilla, P.E., County Executive - TNR

Subject: Professional Services Agreement for Arterial A project, Contract #10AE0198JE

The following information is for your use in preparing a Professional Services Agreement* and agenda item for Commissioners' Court action. Please contact Mo Mortazavi at 47589 if you have any questions.

Proposed Motion:

Consider and take appropriate action on TNR's request to approve a Professional Services Agreement with AECOM Technical Services, Inc. for 90% & 100% Design (WP 4&5) for the Arterial A project in Precinct One.

Summary and Staff Recommendations:

The PSA for the first phase of the project was initially awarded to the engineering firm of AECOM on August 3, 2010. To date, AECOM has completed all work products through the 60% design, and has submitted a scope and fee proposal for 90% and 100% design (WP4&5). TNR has completed its negotiations with the consultant for the scope and fee for the completion of the design, and recommends approval of the contract.

Budgetary and Fiscal Impact:

AECOM's fee for WP1 and WP2 of this project came from FY'09 Certificates of Obligation (CO). The total available budget from the FY'09 CO was \$750,000.

In the November 2011 bond referendum, Travis County voters approved 1.7 million dollars for the remainder of the design for the County's portion. AECOM's fee for WP3 (60%) was \$499,938.72. To complete the design, AECOM has requested a fee of \$391,010.08. This modification will increase the contract from \$1,249,931.13 to \$1,640,941.21.

Upon completion of the 100% design, any remaining funds will be used to acquire right-of-way for the new roadway. It is expected that additional funds will be needed to complete the ROW acquisition

* Refer to attached email with clarification that request is for a Modification not a PSA.

Financial Information:**Funds Reservation: 0300001056****WBS Element: RDCN.149.000007**

Fund	Fund Center	GL	Amount
4074	1490190000	522040	\$ 26,583.00
4083	1490190000	522040	\$ 364,428.00
Total Funds Reservation			\$391,011.00

Required Authorizations:

Cyd Grimes, Purchasing

Jessica Rio, PBO

Attachments: Scope & Fee for WP4&5

CC: Cyd Grimes, Purchasing Agent

John Pena, Purchasing Buyer

Steve Sun, Mo Mortazavi

Cynthia McDonald, Donna Williams-Jones, Isabelle Lopez, Tawana Gardner

DESIGN SERVICES FOR ARTERIAL "A"

ISSUED BY: Purchasing Office 700 Lavaca Street, Suite 800 Austin, Texas 78701	PURCHASING AGENT ASST: John E. Pena, CTPM TEL. NO: (512) 854-9700 FAX NO: (512) 854-9185	DATE PREPARED: March 4, 2014
ISSUED TO: AECOM Attn: Fernando Gaytan, P.E. 400 West 15 th Street, Suite 500 Austin, Texas 78701	MODIFICATION NO.: 4 (Four)	EXECUTED DATE OF ORIGINAL CONTRACT: August 3, 2010

ORIGINAL CONTRACT TERM: January 4, 2011 – Through Completion	CURRENT CONTRACT TERM: January 4, 2011 – Through Completion
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FOR TRAVIS COUNTY INTERNAL USE ONLY:	
Original Contract Amount: <u>\$463,759.64</u>	Current Modified Amount: <u>\$1,640,941.21</u>

DESCRIPTION OF CHANGES: The above referenced contract is modified to reflect the changes as set forth below:

A. Reference Exhibit 1, Section 1-Compensation for Basic Services, Par. 1.1: The Fixed Fee Total for the performance of Basic Services is changed from \$1,126,611.11 (as amended by Modification No. 2, February 12, 2013) to \$1,479,355.61, an increase of \$352,744.50.

B. Reference Exhibit 1, Section 1-Compensation for Basic Services, Par. 1.1, Sub-paragraph 1.1.1: Sub-section (iv) Work Product 4-Phase III: 90% PS&E, in the amount of \$296,437.00, is hereby added.

(Continue Items C. thru H., Page 2 of 25)

Except as provided herein, all terms, conditions, and provisions of the document referenced above as heretofore modified, remain unchanged and in full force and effect.

Note to Vendor:
 Complete and execute (sign) your portion of the signature block section below for all copies and return all signed copies to Travis County.
 DO NOT execute and return to Travis County. Retain for your records.

LEGAL BUSINESS NAME: <u>AECOM TECHNICAL SERVICES INC.</u> BY: <u>[Signature]</u> SIGNATURE BY: <u>Don D'Adery, P.E.</u> PRINT NAME TITLE: <u>Vice President</u> ITS DULY AUTHORIZED AGENT	<input type="checkbox"/> DBA <input checked="" type="checkbox"/> CORPORATION <input type="checkbox"/> OTHER DATE: <u>3/10/2014</u>
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TRAVIS COUNTY, TEXAS BY: <u>[Signature]</u> CYD V. GRIMES, C.P.M., CPPO, TRAVIS COUNTY PURCHASING AGENT	DATE: <u>3.11.14</u>
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TRAVIS COUNTY, TEXAS BY: _____ SAMUEL T. BISCOE, TRAVIS COUNTY JUDGE	DATE: _____
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DESIGN SERVICES FOR ARTERIAL "A"

- C. Reference Exhibit 1, Section 1-Compensation for Basic Services, Par. 1.1, Sub-paragraph 1.1.1:
Sub-section (v) Work Product 5-Phase III: 100% PS&E Complete, in the amount of \$56,307.50, is hereby added.
- D. Reference Exhibit 1, Section 4-Reimbursable Expenses, Paragraph 4.1, Non-Labor Reimbursable Expenses:
The NTE amount is changed from \$68,689.20 (as amended by Modification No. 2, February 12, 2013) to \$77,939.60, an increase of \$9,250.40 (\$8,259.40 for WP-4 and \$991.00 for WP-5).
- E. Reference Exhibit 1, Section 4-Reimbursable Expenses, Paragraph 4.1, Sub-Consultant Management Fees:
The NTE amount (as amended by Modification No. 2, February 12, 2013) is changed from \$54,630.82 to \$83,646.00, an increase of \$29,015.18 (\$25,352.72 for WP-4 and \$3,662.46 for WP-5).
- F. The Reimbursable Total, Not-to-Exceed (NTE) amount for Non-Labor Reimbursable Expenses and the Sub-Consultant Management Fees is changed from \$123,320.02 (as amended by Modification No. 2, February 12, 2013) to the NTE amount of \$161,585.60, an increase of \$38,265.58.
- G. Reference Exhibit 1, Section 5-Total Agreement Sum, is updated as follows:
- The Total PSA sum is changed from a NTE amount of \$1,249,931.13:
- Consisting of (as amended by Modification No. 2, February 12, 2013) Work Product 1 @ \$421,125.64, Non-Labor Reimbursable Expense @ \$28,226.00, Sub-Consultant Management Fees @ \$14,408.00; Work Product 2 @ \$266,200.37, Non-Labor Reimbursable Expense @ \$6,542.40, Sub-Consultant Management Fees @ \$13,490.00; and Work Product 3 @ \$439,285.10, Non-Labor Reimbursable Expense @ \$33,920.80, Sub-Consultant Management Fees @ \$26,732.82*
- to a Total PSA sum, NTE amount of \$1,640,941.21:
- Consisting of Work Products 1, 2, 3, plus Non-Labor Reimbursable Expense and Sub-Consultant Management Fees as shown above.*
- and;
- Work Product 4 @ \$296,437.00, Non-Labor Reimbursable Expense @ \$8,259.40, Sub Consultant Management Fees @ \$25,352.72; and
- Work Product 5 @ \$56,307.50, Non-Labor Reimbursable Expense @ \$991.00, Sub-Consultant Management Fees @ \$3,662.46
- for an increase amount of \$391,010.08.
- H. The attached Scope of Work is hereby made a part of the contract and is added to Appendix A, Scope of Services as: Work Product 4 and 5, Phase III: 90% and 100% PS&E.

<<<Last Item>>>

Travis County Precinct 1
 Arterial "A"
 100% PS&E
 Limits: From US 290E To City Limit Line

Contract No. 10AE0198JE

**SCOPE OF WORK
 SERVICES TO BE PROVIDED BY THE ENGINEER
 ARTERIAL "A" PROJECT**

**WORK PRODUCT 4 and 5
 PHASE III: 90% and 100% PS&E**

Arterial "A" is a proposed MAD4 arterial with a raised grassy median, bike lanes, curb & gutter, sidewalks, and drainage and water quality management infrastructures. The length of the project is approximately 3.5-miles, with 12,330 feet located within Travis County jurisdiction and the remaining inside the City of Austin jurisdiction. The design speed is 45-mph.

The work to be performed under this contract will consist of providing engineering services and context sensitive solutions (CSS) to develop 100% PS&E for the portion located within Travis County. The previous work Work Product 3 (80% PS&E phase) will be used to prepare the subsequent design phases. The work will be performed by AECOM, Inc. (AECOM), Adisa Communications (AC), Cox|McLain (CML), Crespo Consulting Services (CCS), InTEC (INT), Surveying and Mapping, Inc. (SAM) and Unintech (UNI).

All engineering documents will include submittals at the 90% and 100% stage of completion, in accordance with the format stipulated by Travis County.

The project will be developed using generally recognized engineering methodology and standards of care. The project will be developed in English units.

PROJECT INVENTORY	
Project Length within Travis County jurisdiction = 12,330 feet	
ROADWAY	RETAINING WALL
Total Roadway Length = 10,166 feet	Number of Retaining Walls = 11 Total Retaining Wall Length = 3083 feet
BRIDGE	DRAINAGE
Number of Bridge Crossings = 3 Total Bridge Length = 2,164 feet	Number of Bridge Class Culverts = 2 Number of Non-Bridge Class Culverts = 8 Number of Water-Quality Ponds ≤ 10 Number of Detention Ponds ≤ 10

Travis County Precinct 1
Arterial "A"
100% PS&E
Limits: From US 290E To City Limit Line

Contract No. 10AE0198JE

SECTION 1: SERVICES TO BE PROVIDED BY AECOM, INC. (AECOM)

At the completion of Work Product 3 (60% PS&E), the following Work Product will be developed under this contract:

- Work Product 4: 90% PS&E / Context Sensitive Solutions (CSS)/ROW Survey
- Work Product 5: 100% PS&E

Plans will be developed in 11"x17" (half-size) sheet format.

ROADWAY DESIGN

1. Update and finalize typical section sheets for both existing and proposed Arterial "A", Springdale Road, Barr Lane, Taebaek Drive, Rundberg Lane, Braker Lane, and Cameron Road.
2. Update and finalize independent vertical profiles for northbound and southbound Arterial "A" lanes. This will provide flexibility in reducing retaining wall needs, slope easements, and earthwork quantities for the project.
3. Update and finalize existing and proposed cross street profiles for Rundberg Lane, Springdale Road, Barr Lane, Cameron Road, and Taebaek Drive.
4. Update and finalize roadway plan and profile sheets (1"=100'H/1"=10'V) for Arterial "A". Coordinates, superelevation data, stations, elevations of key alignment features and bench marks will be noted. Roadway P&P sheets will be developed only for the portion of the project that is located within Travis County, approximately 13,073 feet.
5. Update and finalize profile sheets for cross streets including Rundberg Lane, Springdale Road, Barr Lane, Cameron Road, and Taebaek Drive (1"=100'H/1"=10'V).
6. Update and finalize intersection layouts for the intersections of US290 E, Springdale Road, Rundberg Lane, and Cameron Road (1"=50').
7. Develop miscellaneous roadway detail sheet for items such as curb types, standard driveways, traffic barrier modifications, sidewalk details, curb ramp details, etc.
8. Identify limits of necessary right-of-way or easements to be acquired.
9. Update and finalize design cross sections at 100-ft increments and prepare cross section sheets (1"=20').
10. Update and finalize quantities of cut and fill for each cross section.
11. Update and finalize quantities for roadway items for the project. Summary sheets will be prepared and roadway items tabulated on sheets.
12. Determine applicable County, City, and State roadway standards and download from website and include in plans.

RETAINING WALLS

1. Develop horizontal alignments and vertical profiles for approximately 11 retaining walls.
2. Develop retaining wall plan and profile sheets layouts (1" = 100'). All permanent retaining walls will be mechanically stabilized earth (MSE) retaining walls. Approximate lengths and locations of retaining walls identified during 60% PS&E will be used as a basis for 100% retaining wall sheet details. Retaining wall plan and profiles sheets will show:
 - a. Plan View
 - Designation of reference line
 - Beginning and ending retaining wall stations
 - Offset from reference line
 - Horizontal curve data
 - Total length of wall
 - Indicate face of wall
 - All wall dimensions and alignment relations
 - Soil boring locations
 - Drainage, signing, etc. that is mounted on or passing through the wall
 - Subsurface drainage structures or utilities which could be impacted by wall construction
 - b. Profile View
 - Top of wall elevations
 - Existing and finished ground line elevations
 - Vertical limits of measurement for payment
 - Type, limits and anchorage details of railing (only if traffic railing foundation standard is not being used on this project)
 - Top and bottom of wall profiles plotted at correct station and elevation
 - Underdrains
 - Drainage, signing, etc. as noted above

Travis County Precinct 1
 Arterial "A"
 100% PS&E
 Limits: From US 290E To City Limit Line

Contract No. 10AE0198JE

- Drainage structures and utilities as noted above
 - c. Typical Section
 - Reinforced volume
 - Underdrain location
3. Coordinate with the County to determine if additional soil borings are to be drilled along retaining wall alignments.

DRAINAGE

1. Update final drainage area maps for inclusion in the plans.
2. Perform final storm sewer analysis and design.
3. Update hydraulic computation sheets to provide all calculations to the County in the form of a printed output file as well as showing the necessary information in the final plan set for the project.
4. Develop final storm sewer plan and profile sheets (1"=100').
5. Develop storm sewer lateral sheets (1"=100').
6. Develop miscellaneous drainage detail sheet.
7. Update and finalize quantities for drainage items for the project at 90% and 100% submittals. Summary sheets will be prepared and pay items tabulated on sheets.
8. Determine applicable County, City, and State drainage standards and download from website.
9. Prepare and develop erosion control layouts (1"=100'). The Engineer will obtain County standards to develop layouts consistent with the project construction phases that will minimize sediment discharge from the project site through runoff. SW3P standards will be provided by the County and filed in by the Engineer.
10. Calculate quantities for erosion control items for the project at 90% and 100% submittals. Summary sheets will be prepared and erosion control items tabulated on sheets.

UTILITIES

1. Determine utility conflicts and coordinate with utility agencies for relocation.
2. Develop final existing utility layouts (1"=100'). The ENGINEER will furnish 90% and 100% plans to each serving utility company for coordination. The actual design and relocation of existing utilities will be done by others.
3. Attend one (1) utility coordination meeting. The Engineer will provide technical support when meeting with utility companies.
4. Assist the County with obtaining verification letters from utility companies.

SIGNING, MARKINGS, AND SIGNALIZATION

1. Prepare signing and pavement marking layouts (1"=100'). The signing and pavement marking layouts will identify the various types of pavement markings, proposed signing, and delineation. Pavement markings will be in accordance with County, City or State standards and noted on the drawings.
2. Prepare a small sign summary sheet.
3. Detail all non-standard signs or marking details required for the project. Standards will be utilized whenever possible.
4. Calculate quantities for signing and pavement marking items for the project. Summary sheets will be prepared and pavement marking items tabulated on sheets.
5. Determine applicable signing and pavement marking standards and download from website.
6. Perform a site visit to obtain existing sign inventory and determine existing signs to be removed and/or relocated.
7. Develop plans for traffic signal installation at future Rundberg Lane intersection. Coordinate with adjacent project at the US290E intersection to revise plans. The traffic signal will be designed using City of Austin specifications. The latest version of the TMUTCD, *Traffic Signal Manual*, and TxDOT roadway and traffic standards will be referenced. The traffic signal layouts will show the proposed location of signal poles, signal controller, electrical service pole and source, vehicle and pedestrian signals, supplementary signs, vehicle detectors, pedestrian push buttons, conduit runs, ground boxes, and any other relevant signal features. A separate plan will contain the proposed phase sequence diagram, signal head schedule, electrical chart, vehicle detector chart, emergency flash operations chart and any other applicable details or notes. Complete signal plans will include:
 - a. Signal phase sequence diagram/quantity sheet
 - b. Existing signal layout plan sheet (1"=40')
 - c. Proposed signal layout plan sheet (1"=40')
 - d. Signal wiring details
 - e. Modified signal standards
 - f. Signal quantities

Travis County Precinct 1
 Arterial "A"
 100% PS&E
 Limits: From US 290E To City Limit Line

Contract No. 10AE0198JE

TRAFFIC CONTROL PLAN

1. Update and finalize TCP narrative sheet outlining the general sequence of construction plan.
2. Prepare a TCP with a sequence of construction plan (1"=100'). The plan will identify work areas, temporary paving, temporary shoring, signing, detour alignment, barricades, and other TCP related items. Intersection reconstruction activity shall be identified by separate details where necessary.
3. Prepare a construction working days schedule developed in Microsoft Project 2000, which will identify major items of work for the construction project. The working days calculated will be used with the applicable accelerated construction method determined by the County. The Engineer will prepare a detailed schedule to determine the approximate time (working days), required for construction of the project. The Engineer will provide the County with digital and hard copies of the schedule and all the computations. The schedule will be prepared for the project at the 90% and 100% submittals the final schedule will be signed and dated.
4. Calculate quantities utilized for traffic handling for the project. Summary sheets will be prepared and TCP items tabulated on sheets.
5. Determine applicable TCP County, City, or State standards and download from website.

MISCELLANEOUS ROADWAY

1. Miscellaneous
 - a. Project Title Sheet – update and finalize title sheet formatted to County guidelines to be used for the construction plans. Index of sheets will be included on the title sheet.
 - b. Project Layout – update site layout for the project.
 - c. Horizontal Alignment Data Sheet – finalize horizontal alignment data sheets.
 - d. Summary Sheets – update and finalize summary sheets to tabulate roadway, drainage, and structural items on the project.
2. Project Estimate - prepare a construction estimate of the engineer's opinion of probable costs. The estimate will be prepared for the project at the 90% and 100% submittals.
3. General Notes and Specifications - The Engineer will prepare the general notes, specification data, and Basis of Estimate. Master list of general notes will be provided by the County and modified by the Engineer to identify general notes applicable to the project. Whenever possible, County, City or State standard drawings, standard specifications, or previously approved special provisions and/or special specifications will be used.
4. Submittals and Design Review Meetings – 90% and 100% submittals will be required. Two (2) copies will be submitted for County review. Comments and revisions requested from County review will be addressed and/or incorporated into the final deliverable under this contract.
 - a. 90% Submittal and Review. Submittal will include addressing 60% review comments, final utility conflict identification and resolution, final P&P, final typical sections, final drainage calculations, final bridge design and details, final retaining wall layouts, final utility exhibits, final traffic control plans, final SW3P, final signing and pavement marking layouts, final traffic signal plans, preliminary construction working days schedule, update cross sections, estimates, and project schedule.
 - b. 100% (Mylar) Submittal. Address the 90% review comments, update quantities, update general notes, specifications and estimate. Provide one set of 11' x 17" mylar originals for bidding, with a registered Professional Engineer's seal on each sheet, and all the applicable standards.
 - c. Attend 90% review meeting.
 - d. Provide an electronic deliverable (CD-ROM) of all design documents for the project to the County.

PUBLIC INVOLVEMENT AND CSS

The detailed design is to be developed using principles of CSS— a collaborative, interdisciplinary approach that involves all stakeholders in providing a transportation facility that fits its setting. It is an approach that leads to preserving and enhancing aesthetic, historic, community, and environmental resources, while improving or maintaining safety, mobility, and infrastructure conditions.

1. Public information materials: The project team will develop the necessary materials to be used to communicate what the role of the community is in shaping the decision-making process, how to become involved in the project, and what occurs during the detailed design phase.
 - a. Provide support and assist in the development of one (1) Fact Sheet
 - b. Provide support and assist in the development one (1) FAQs Sheet
 - c. Develop project PowerPoint presentations for stakeholder meetings

Travis County Precinct 1
Arterial "A"
100% PS&E
Limits: From US 290E To City Limit Line

Contract No. 10AE0198JE

- d. Provide support with the development of meeting notices
2. One-On-Ones: The project team will schedule, prepare for, and attend up to two (2) meetings with key officials whose input is needed. The County will participate in these meetings, as well as the preparation process.
 - a. Develop meeting agendas
 - b. Prepare maps, exhibits, and display boards
3. Community Working Group (CWG) - Consensus on CSS: A small representative working group between 8-12 people composed of community representatives in the project area will be formed that includes County staff. This group will meet once during the detailed 60% design phase to provide review comments on the CSS for the roadway. The project team will coordinate venue arrangements, prepare an invitation for the first meeting for the County to send out and prepare meeting summaries for each meeting. Our objective is to deliver consensus on the roadway design to the County and to the community through the CSS process.
 - a. Identify CWG members - work with County staff and elected officials to identify participants in the CWG and invite them to participate in the CSS process
 - b. Assist with the development of invitation letter - Invite neighborhood groups to participate, sent out on County letterhead
 - c. Develop agenda for each meeting
 - d. Develop up to two (2) renderings/sketches to provide additional visual aid
 - e. Provide meeting materials - PowerPoint, maps and other materials

LANDSCAPING AND AESTHETICS

1. Coordinate with Community Working Group, design team, County and City of Austin to develop a landscape and aesthetic program for the project. General consideration will be given to the potential opportunities for creating aesthetic public amenities, such as developing cost-effective alternatives to more conventional pond structures. Examples include rain gardens which would effectively minimize the water quality and detention volume requirements, vegetated filter strips, and wet ponds. Aesthetic elements will be proposed and incorporated into the design details. Design development shall include:
 - a. Identify locations for pedestrian and bike route access
 - b. Develop Xeriscape Plant Palette
 - c. Determine irrigation methods to be implemented
 - d. Hardscape Plan
 - e. Landscape Planting Plan
 - f. Irrigation Plan
 - g. Details and specifications

SURVEY AND ROW

Manage the survey sub-consultant as per the attached survey scope.

PROJECT MANAGEMENT

1. Provide overall project management services including project coordination, subconsultant management, and preparation of invoices. Ensure timely delivery of the PS&E submittals, GEOPAK files, electronic files, and hard copies of all pertinent information, all in American Standard System of Measure format.
2. Monitor and update design project schedule as needed throughout development of the project.
3. Design Notebook - Compile a notebook containing the project design calculations and associated data.
4. Project Meetings
 - a. Attend project related meetings with the County, as directed, to discuss the progress of the project and design issues.
 - b. Record and distribute meeting minutes. The Engineer will compile and provide the minutes of all meetings to the County within ten (10) working days of such meetings.
5. Quality Management
 - a. Quality Control/ Quality Assurance Reviews - Perform QA/QC and assure that all work performed, including subconsultant work, goes through a QA/QC process before County receives deliverables.
 - b. Prepare Comment Log Files for documenting, coordinating, and addressing review comments received by the County personnel throughout the development of the PS&E.

Travis County Precinct 1
Arterial "A"
100% PS&E
Limits: From US 290E To City Limit Line

Contract No. 10AE0198JE

SECTION 2: SERVICES TO BE PROVIDED BY ADISA COMMUNICATIONS (AC)

PUBLIC INVOLVEMENT AND CSS

1. **Public Information Materials:** The project team will develop the necessary materials to be used to communicate what the role of the community is in shaping the decision-making process, how to become involved in the project, and what occurs during the detailed design phase.
 - a. Develop one (1) Fact Sheet
 - b. Develop one (1) FAQs Sheets
 - c. Develop meeting notice template
2. **Stakeholder Database and Public Input Log:** The project team will utilize the comprehensive database of key stakeholders that need to be informed about the project. The stakeholder database will continue to be updated after each meeting and provided in electronic format at the end of the project.
 - a. Log of questions and comments from public will be included as part of the stakeholder database
3. **One-On-Ones:** The project team will schedule, prepare for, and attend up to two (2) meetings with key officials whose input is needed. The County will participate in these meetings, as well as the preparation process.
 - a. Print out meeting materials (agenda, sign-in sheets, Fact Sheets, FAQ sheets, other meeting handouts)
 - b. Prepare summary meeting minutes
4. **Community Working Group (CWG) - Consensus on CSS:** A small representative working group between 8 -12 people composed of community representatives in the project area will be formed that includes County staff. This group will meet once during the detailed 60% design phase to provide review comments on the CSS for the roadway. The project team will coordinate venue arrangements, prepare an invitation for the first meeting for the County to send out and prepare meeting summaries for each meeting. Our objective is to deliver consensus on the roadway design details to the County and to the community through the CSS process.
 - a. Assist with identification of CWG members - work with project team, County staff and elected officials to identify participants in the CWG and invite them to participate in the CSS process
 - b. Update database for CWG and update throughout project
 - c. Develop invitation letter – invite neighborhood groups to participate, sent out on County letterhead
 - d. Print out meeting materials (agenda, sign-in sheets, Fact Sheets, FAQ sheets, Spanish translation, other meeting handouts)
 - e. Prepare summary meeting minutes
 - f. Follow up
5. **Project Management and Team Coordination:** Regular coordination and communication is a necessity for this CSS process to be successful.

SECTION 3: SERVICES TO BE PROVIDED BY COXIMcLAIN (CML)

ENVIRONMENTAL STUDIES

1. Assist in project management and communications.
2. Attend CSS workshop.
3. Provide mapped constraints for CSS workshop.
4. Preparation of PCN, Individual Permit, or mitigation plan is not included in this task. If this work is deemed necessary, it shall be negotiation as a Supplemental Agreement to this Work Authorization.

Travis County Precinct 1
 Arterial "A"
 100% PS&E
 Limits: From US 290E To City Limit Line

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SECTION 4: SERVICES TO BE PROVIDED BY CRESPO CONSULTING SERVICES, INC. (CCS)

DRAINAGE

1. Hydrologic Studies - Update drainage area maps for culverts for inclusion in the plans. Refine HEC-HMS model to finalize flows at key design points. Other hydrologic calculations will be updated for small culverts and swales using the Rational Method.
2. Hydraulic Computations - Perform necessary hydraulic computations for the design of this project. Hydraulic design calculations will be performed for the following: bridges, culverts, swales, and water quality / detention ponds. Results will include projected water surface elevations and velocities at key locations for various design storms, primarily for the fully developed 25- and 100-Yr storms. The bridge scour analysis will be performed with this task. Layouts and sizing for swales will be performed with simple spreadsheet using the Manning's formula, and depicted on plan sheets with stations, slopes, flows, and generalized channel type. This work will include the use of hydraulic computer program HEC-RAS and culvert/channel spreadsheet models. Floodplain analyses will evaluate measures to prevent or reduce floodplain modifications. The scope includes developing and submission of a CLOMR. All modeling and design will be conducted in conformance with FEMA and County Floodplain Administrator's requirements, and will provide the basis for final design modeling, and CLOMR. Modeling specifically for the CLOMR will utilize FEMA flows for existing conditions. LOMR development is not included since it would be required after near completion of the project element associated with the CLOMR.
3. Culvert Layout - Updated culvert Layout Sheets will be shown at a scale of 1"=40' and prepared for two (2) bridge class culverts. Culvert Profile Sheets will be shown at a scale of 1"=20' and prepared for seven (7) non bridge class culverts. Plan view will show the location of culvert, roadway alignment, utilities, and channel improvements, as required. Profile view information will include size, slope, proposed and existing ground lines above the culvert, and hydraulic data. Culvert layouts, sizes and flowlines are assumed to be fixed on completion of the 60% plan.
4. Water Quality and Detention Ponds - Water quality and detention ponds will be evaluated at 10 sites, with a water quality and detention pond at each site, for a total of 20 ponds. Measures to reduce the size and number of ponds will be further evaluated, including evaluation of the City of Austin's Regional Stormwater Management Program (RSMP), use of alternative water quality controls, and combining structures. Pond design sheets will be developed and will include pond layouts with splitter configurations, spillways and outfalls. Typical pond cross sections will be developed for a representative water quality pond and detention pond with associated splitter, along with typical details. Pond layouts are assumed to be fixed on completion of the 60% plans, unless ponds are eliminated through participation in the RSMP or through additional modeling and analysis.
5. Hydraulic Report - Provide summary hydraulic calculations to the County in the form of a drainage report as well as well as showing the necessary information in the 90% and 100% plans. The report will be signed and sealed by a Texas registered Professional Engineer. Results of the bridge scour evaluation will be presented here.
6. Hydraulic Data Sheet - Update a Hydraulic Data Sheet for inclusion in the plans for two (2) bridge crossings. A Hydraulic Data Sheet for two (2) bridge class culverts will also be prepared to only include the inputs/outputs of the computer software analyses. Hydraulic data for seven (7) non-bridge class culverts will be displayed alongside the corresponding culvert in the Culvert Profile Sheet.
7. Drainage Easements - Verify the locations and size of any necessary drainage easements previously identified based on the detailed layout design of culverts, swales and ponds.
8. Summary of quantities - Update quantities for drainage items quantified under Work Product 4 and 5 for the 90% and 100% submittals. Summary sheets will be provided by AECOM and drainage items tabulated on sheets.
9. Conduct site visit and field work to support design and scour observations.

SECTION 5: SERVICES TO BE PROVIDED BY INTEC, INC. (INT)

GEOTECHNICAL ENGINEERING

1. Complete work previously contracted under Work Product 3.
2. Address any comments received from the County and AECOM.
3. Attend up to one project meeting with AECOM and/or the County to coordinate both field work and design analyses.
4. Prepare and submit a final engineering report for review by AECOM as well as the County. Upon receipt of review comments, prepare a final engineering report. The following items will be included in the report:
 - a. Vicinity Map
 - b. Geology Map of the Project Site
 - c. Plan of Borings

Travis County Precinct 1
Arterial "A"
100% PS&E
Limits: From US 290E To City Limit Line

Contract No. 10AE0198JE

- d. Boring Logs including laboratory test results
- e. Bridge Foundation Recommendations with Wincore
- f. Pavement designs recommendations
- g. Retaining wall design recommendations
- h. General discussion of construction recommendations

SECTION 6: SERVICES TO BE PROVIDED BY SURVEYING & MAPPING, INC. (SAM)

SURVEY AND ROW

1. **Project Survey Control**
Establish additional horizontal control (5/8" iron rods with SAM Control plastic caps) as needed to be utilized for Boundary and Right of Way Location Survey. Survey control for this project will be placed on the following horizontal and vertical datums: NAD83/93/NAVD88 values (Texas State Plane, Central Zone) (US 290 2008 CTRMA/HNTB Control).
2. **Design Survey to Support 60% PS&E**
 - a. Supplemental design surveying in areas previously not accessible due to thick vegetation, high water flow in creek crossings and access restrictions. This includes areas along the proposed 2.3-mile corridor of Arterial A from the north right-of-way (ROW) of US 290 to the Austin City Limit Line.
3. **Right of Way Survey**
 - a. Survey location will be performed by the survey field crews to locate existing ROW and adjacent tract monumentation. The surveyor will analyze and calculate the ROW lines and adjacent tract boundary lines for the final base map. Monumentation marking the existing front boundary corners will be recovered and tied to the project control. SAM, Inc. will recover the corners or angle point monuments nearest to the proposed ROW lines for each of the subject properties and run a traverse to tie these corners to the project control. SAM, Inc. will locate the visible improvements that are within the properties from which ROW is to be obtained. Visible above ground utilities within the proposed ROW will be located.
 - b. SAM, Inc. will research the Travis County Public Records and obtain copies of the current deeds of record with descriptions and subdivision plats for the tracts adjacent to the proposed right of way. A Deed Plot Map will be prepared utilizing the deed information plotted in Microstation for the ROW mapping documents. The Deed Plot Map will contain all current ownership information and record ROW lines.
 - c. Utilizing the Deed Plot Map and the data from the field survey, the Registered Surveyor will analyze the results of the survey with assistance from the senior survey technician in performing computations related to the analysis. Location of the existing right-of-way lines and the side property lines of each of the subject properties will be determined by the surveyor as well as any recorded easements cited in current deeds and plats that lie within the proposed ROW as listed and provided on the title searches provided by Travis County. Proposed right-of-way (ROW) and drainage easements will be calculated in accordance with the final alignment and ROW location to be provided by AECOM. A ROW Base File will be prepared and provided to in Microstation format to AECOM. A parcel count provided by AECOM indicates that the project will require up to 20 ROW and 20 Drainage Easement Parcels. Changes to the number of parcels and or ROW configuration after calculations begin will be submitted to SAM, Inc. These revisions will be handled as an additional service. An estimate will be prepared for these revisions and provided to AECOM and Travis County.
4. **Right of Way Documents**
 - a. SAM, Inc. will prepare metes and bounds descriptions and parcel plats for right-of-way and drainage easement acquisition documents in accordance with the T.B.P.L.S. standards of practice.
 - b. AECOM will provide the approved ROW configuration for the project one time. After receiving that information, SAM, Inc. will start the ROW parcel calculations and prepare a base file to be provided to the engineer. Preparation of ROW map sheets in accordance with TxDOT requirements is not included in these scope of services. Changes to the number of parcels and or ROW configuration after calculations begin will be submitted to SAM, Inc. These revisions will be handled as an additional service. An estimate will be prepared for these revisions and provided to AECOM and Travis County.
 - c. Utilizing the base file, boundary surveys performed by SAM, Inc. and the proposed right-of-way and drainage easement lines location provided by AECOM, SAM, Inc. will compute the boundaries of the right-of-way and drainage easement parcels for each of the subject properties.
 - d. SAM, Inc. will prepare a metes and bounds description and parcel plat (on 8 1/2" x 11" sheet size) for each of the

Travis County Precinct 1
 Arterial "A"
 100% PS&E
 Limits: From US 290E To City Limit Line

Contract No. 10AE0198JE

- 20 right-of-way parcels and 20 drainage easements. A closure computation will be prepared for each of the descriptions and each of the parcel plats.
- e. To assure quality of the documents, the Registered Surveyor, with the assistance of a survey technician, will read the descriptions while all details are compared to the parcel plats and closure computations (bearings, distances, deed references, etc.). Partial dimensions will be checked versus overall dimensions. Final mark-ups will be made and corrections completed.
 - f. Right of Way Survey deliverables including the above described survey documents (plats, descriptions, and closure computations) will be submitted to AECOM and to Travis County for review one time. Upon the completion of review of all right-of-way survey documents, SAM, Inc. will make corrections, address concerns and submit the final signed and sealed documents (2 sets) to AECOM in final format.
5. Right of Way Monumentation
 - a. Right of Way Monumentation (1/2 inch iron rods with red plastic SAM, Inc. caps) will be set at property line intersections with the new right of way and at PCs, PTs, an e points and at 1,500 foot intervals along the proposed ROW line.
 6. Survey Staking and Location for Geotechnical Soil Borings
 - a. Horizontal staking for approximately 35 soil borings. The locations will be selected and provided by the geotechnical sub-consultant prior to staking. After the borings are completed the x, y and z values of the actual ground surface location of each soil boring will surveyed and provided to the geotechnical sub-consultant.
 7. Right of Entry and Title Search
 - a. Travis County will acquire the required right of entries in a timely manner for properties that must be accessed for the on-the-ground surveying that will be performed.
 - b. Travis County will provide a title search for each ROW parcel.
 8. Additional Services Not Included in Scope
 - a. Right of Entry coordination
 - b. Title abstracting.
 - c. Preparation of descriptions for construction easements, access denial lines or other needs will be additional services.
 - d. SUE services.
 - e. Staking of alignment and ROW lines other than as specifically stated herein.
 - f. ROW Map Sheets meeting TxDOT specifications.
 - g. Additional design survey due to changes in the alignment.

SECTION 7: SERVICES TO BE PROVIDED BY UNINTECH (UNI)

BRIDGE DESIGN

1. Coordinate with AECOM on overall design.
2. Prepare specifications and estimates
3. Address comments and issues (by email)
4. General project management, including QA, Invoicing, etc.
5. Attend two meetings, as needed by AECOM or the County.
6. Provide proposed bridge typical sections (three sheets total)
7. Develop one design of three (3) bridge layouts (7 sheets total) in accordance with the most recent edition of the TxDOT's Bridge Project Development Manual, and Bridge Detailing Manual.
 - a. Provide the following information on each bridge layout plan view, as applicable:
 - Horizontal curve information (provided by others)
 - Horizontal, vertical, and template information for all roadways or railroads crossed (provided by others)
 - Bearing of centerline or reference line (provided by others)
 - Skew angle(s)
 - Slope for header banks and approach fills
 - Control stations and deck elevations at beginning and ending of bridge and at all intersections
 - Approach pavement and crown width
 - Width of bridge roadway, curbs, face of rails, shoulders, and sidewalks
 - Bridge end treatments including cement stabilized backfill details
 - Limits and type of riprap
 - Proposed features beneath structure

Travis County Precinct 1
Arterial "A"
100% PS&E
Limits: From US 290E To City Limit Line

Contract No. 10AE0198JE

- Location of profile grade line
 - North arrow and scale bar
 - Typical bridge roadway section including preliminary proposed beam types and spacing
 - Cross-slope and superelevation data
 - Location and calculated values of minimum vertical clearances. Dimension minimum vertical clearance to controlling features
 - Location of soil core holes, including station and offset (data provided by others)
 - Bent stations and bearings
 - Traffic flow directional arrows
 - Railing type(s)
 - Joint type and seal size, if used
 - Beam line numbers consistent with span details
 - Critical horizontal clearances, including distances to railroad tracks, nearby structures, and utilities
 - Bearings of utilities
- b. Provide the following information on each bridge layout elevation view, as applicable:
- Foundation type
 - Finished grade elevations at beginning and end of bridge (provided by others)
 - Overall length of structure
 - Lengths and types of spans and units
 - Railing type(s)
 - Locations of minimum vertical clearances. Dimension minimum vertical clearance to controlling features
 - Existing and proposed ground lines
 - Grid elevations and stations
 - Bent numbers
 - Bridge stationing compatible with grid stations
 - Standard title
 - Profile grade data
 - Type of riprap
 - Soil bore holes information with penetrometer test data shown at the correct stations, elevations, and scale
 - Dowel locations at all bents
 - Column "H" heights
 - Number, size, and length of foundations
 - Design and 100-yr peak discharges (discharge provided by others)
 - Design and 100-yr high water (elevation provided by others)
 - Natural and through-bridge velocities for design and 100-yr floods (velocities provided by others)
 - Calculated backwater for design and 100-yr floods (elevation provided by others)
 - Direction of flow at waterway crossings
 - Existing and Proposed Contours at waterway crossings (contours provided by others)
8. Prepare boring log sheets for three bridges, with provided boring logs from others (13 sheets)
 9. Prepare abutment layouts and details for three bridges (10 sheets)
 10. Prepare bent layouts and details for three bridges (26 sheets)
 11. Prepare beam layouts for three bridges (8 sheets)
 12. Prepare span details, plan & section, for three bridges (23 sheets)
 13. Prepare miscellaneous bridge details for 3 bridges (3 sheets)
 14. Prepare deck drain details for 3 bridges (3 sheets). Based on standard designs for deck drains.
 15. Prepare aesthetic designs and details for three bridges (2 sheets), structural modifications only. Based on minimal aesthetic features, to include paint, standard modifications for forms with patterns. Design to be the same for all three bridges. Paint, patterns, etc., to be selected by others.
 16. Prepare project standards
 17. Prepare cost estimate for bridges at 90% and 100% submittals.
 18. Perform internal QA/QC on all deliverables before submitting to AECOM.
 19. Provide final mylar plans at 100% submittal, including applicable special provisions, general notes, and special specifications and details and cost estimates.
 20. Additional services not included in the scope;

Travis County Precinct 1

Arterial "A"

100% PS&E

Limits: From US 280E To City Limit Line

Contract No. 10AE0198JE

- a. Foundation design, other than standard design
- b. Aesthetic designs
- c. Modifications to standard sheets or details.
- d.
- e. Design alternatives. Design provided will be based on needs to meet projected profile, alignment and freeboard and/or other vertical requirements. One design will be provided based on the approved horizontal and vertical alignments. Alternative designs for cost comparisons may require additional scope and fee.
- f. Site visits, unless otherwise included under the provided meetings in Item 5.

Travis County Precinct 1
Arterial "A"
100% PS&E
Limits: From US 290E To City Limit Line

Contract No. 10AE0188JE

SECTION 8: PROJECT SUBMITTALS

Each Work Product will be provided with a separate agreement, fee, and Notice to Proceed (NTP) under the same contract. The Work Product will be submitted for review, and written NTP must be issued by the County before proceeding to the next Work Product. Each submittal will include a certification letter from the Engineer stating who performed a Quality Assurance/Quality Control check. TNR will review and provide written comments and/or approval after submittal.

WORK PRODUCT 4 (90% Design Submittal)

1. Update plans from 60% submittal.
2. Final title sheet and index (All standard list)
3. Final identification and resolution of conflicts with existing utilities
4. Final signing, pavement markings and delineation layouts
5. Final Miscellaneous Roadway details
6. Final CSS designs (aesthetic and landscaping)
7. Final bridge design and details
8. Final traffic control plans and sequence of work
9. Final storm water pollution prevention plans (SW3P)
10. Final Quantities (complete summary sheets)
11. Final cost estimate
12. Update project schedule
13. Final construction timeline schedule
14. Plan details to supplement standard sheets.
15. General notes, specifications and special provisions
16. List of permits secured if needed
17. Final ROW survey
18. Final cross-sections
19. Final geotechnical report
20. Final drainage calculations and draft drainage report
21. Final environmental Report (EA)
22. Final engineering calculations
23. Certification letter for QA/QC check
24. Submit plans (paper plots), specifications, special provisions, estimate and all supporting paperwork for TNR review

Timeline: 40 calendar days

WORK PRODUCT 5 (100% Design Submittal)

1. Incorporate 90% submittal review comments into plans
2. Final quantities
3. Final sheet index
4. Final general notes, specifications, special provisions and estimates
5. Final Permits as needed
6. Certification letter for QA/QC check
7. Submit 2 hard copies of the final plans (11" x 17") in addition to the mylar set, electronic PDF copy of the plan set, general notes, specifications, special provisions and estimates for bidding process.
8. Upon completion of the project, submit a CD containing the design files in Microstation V8 and the survey files.

Timeline: 25 calendar days

**SUMMARY
Fee Schedule**
90% 100% Plans, Specifications, and Estimates
Arterial 'A' Project

Travis County
Project 1
Contract No. 10AE0198JE

Task Description	ABDOM	Asian Communications (AC)	Confocal (CF)	Esposito (ES)	GITEC (GT)	Survey and Mapping (SM)	Utterbach (UT)	TOTAL
roadway Design	\$10,000.00							\$10,000.00
Public Involvement/COS	\$4,473.00	\$4,578.50						\$9,051.50
Utilities	\$500.00							\$500.00
Drainage	\$8,300.00			\$31,500.00				\$39,800.00
Signals, Marking, and Signification	\$4,411.00							\$4,411.00
Traffic Control Plan	\$1,705.00							\$1,705.00
Stops							\$38,430.00	\$38,430.00
Retaining Walls	\$1,887.00							\$1,887.00
Lighting and Acoustics	\$2,778.00							\$2,778.00
Maintenance Roadway	\$2,885.00							\$2,885.00
Environment								
Geotechnical Engineering								
ROW Mapping						\$127,400.00		\$127,400.00
Total Labor	\$34,416.00	\$4,578.50	\$0.00	\$31,500.00	\$0.00	\$127,400.00	\$38,430.00	\$206,324.50
Total Non-Labor Retainable	\$500.00	\$277.50	\$0.00	\$174.00	\$0.00	\$7,291.50	\$131.00	\$9,373.00
Total Labor Retainable (Sub Grant Pool)	\$5,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$5,000.00
TOTAL WORK PRODUCT A	\$39,416.00	\$4,797.50	\$0.00	\$31,700.00	\$0.00	\$134,691.50	\$38,561.00	\$209,165.00
WORK PRODUCT B (100% PS&E)								
roadway Design	\$1,644.00							\$1,644.00
Public Involvement/COS	\$0.00							\$0.00
Utilities	\$500.00							\$500.00
Drainage	\$8,300.00			\$8,500.00				\$16,800.00
Signals, Marking, and Signification	\$1,348.00							\$1,348.00
Traffic Control Plan	\$827.00							\$827.00
Stops							\$38,430.00	\$38,430.00
Retaining Walls	\$721.00							\$721.00
Lighting and Acoustics	\$2,778.00							\$2,778.00
Maintenance Roadway	\$2,885.00							\$2,885.00
Environment								
Geotechnical Engineering								
ROW Mapping								
Total Labor	\$14,616.00	\$0.00	\$0.00	\$8,500.00	\$0.00	\$0.00	\$38,430.00	\$61,546.00
Total Non-Labor Retainable	\$500.00	\$0.00	\$0.00	\$11.00	\$0.00	\$0.00	\$0.00	\$511.00
Total Labor Retainable (Sub Grant Pool)	\$5,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$5,000.00
TOTAL WORK PRODUCT B	\$19,616.00	\$0.00	\$0.00	\$8,511.00	\$0.00	\$0.00	\$38,430.00	\$65,557.00
TOTAL PROJECT	\$59,032.00	\$4,797.50	\$0.00	\$40,211.00	\$0.00	\$134,691.50	\$76,991.00	\$274,722.00

Contract Goal	WBE 15.0%	WBE 15.0%	Hispanic 8.0%	Asian American 4.0%	African American 4.0%	Asian American 4.0%
%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TOTALS WORK PRODUCT A (WORK PRODUCT C + WORK PRODUCT B) = WORK PRODUCT A						

Cost Method
Fee Schedule
60% Plans, Specifications, and Estimates
Aerial "A" Project

Trends County
Project 1
Contract No. 10AE0198JE

Task Description	Senior Environmental Scientist \$128.00	Environmental Scientist \$111.00	Environmental Professional \$78.00	Environmental Staff #1 \$70.00	Environmental Staff #2 \$65.00	Environmental Staff #3 \$58.00	Environmental Staff #4 \$52.00	Environmental Staff #5 \$47.00	Hours	Cost
Total Labor	0	0	0	0	0	0	0	0	0	\$0.00
Professional Fee										
Travel										
Per Diem										
Equipment										
Materials										
Subcontract										
Other										
Direct Costs										\$0.00
TOTAL WORK PRODUCT 4										\$0.00

**Excludes any COA EA or CEV identifying BCCP identifying Geologic Assessment/WPAP. Assume no historic survey required.
The rates shown are the average rates for each classification of employee.
Expenses will be based on actual worked and actual salaries for the individuals who worked on the project.
Non-exempt employees will be included at time and a half for overtime hours based on actual costs.

Crape
Fee Schedule
90%, 100% Plans, Specifications, and Estimates
Arterial "A" Project

Thurs County
Project 1
Contract No. 10AB0198JE

Task Description	Task	Task	Hydrologist	Engineer	Planner	Water	Hours	Cost
		Number	Equivalent	Equivalent	Equivalent	Resources		
		\$142.00	\$97.00	\$77.00	\$54.00	\$28.00		
1. Hydrologic Studies								
Update drainage area map	2		2				2	\$282.00
Perform Hydrologic Modeling with HEC-RAS for Design Flows	2		2				2	\$374.00
Perform hydrologic calculation for small culvert openings and manholes	1						7	\$163.00
2. Hydraulic Computation (2 bridges, 10 culverts, and 9 manholes)								
Update water surface and velocities based on bridge design using HEC-RAS	2		2				2	\$282.00
Update bridge cross-culvert hydraulic design using HEC-RAS results	2		2				2	\$282.00
Update small culvert also using HEC-RAS based on roadway design	2		2				2	\$282.00
Update manhole calculations and layout	2		2				2	\$282.00
CAD/CAM Development	2		2				2	\$282.00
3. Culvert Layout								
	4		4				4	\$568.00
4. Water quality & detention ponds (20)								
Regional Stormwater Detention Program (RSMP) & alternative water quality controls analysis to reduce pond number and size	2		2				2	\$282.00
Develop pond layout and outlet layout	10		10				10	\$1,410.00
Develop pond design sheets, details and specifications	24		24				24	\$3,312.00
5. Hydraulic Report								
	1		1				1	\$142.00
6. Hydraulic Data Sheets								
	2		2				2	\$282.00
7. Drainage Memoranda								
	1		1				1	\$142.00
8. Summary of Quantities								
	1		1				1	\$142.00
9. Site Visits and Field Work								
	2		2				2	\$282.00
Total Labor	64	64	147	26	6	21	224	\$31,498.00
Material Quantities								
Asphalt				4	3	6.00	asphalt	\$30.00
12" x 12" BW Culvert				20	1	2.00	steel	\$20.00
18" x 12" Culvert				10	1	2.00	steel	\$20.00
11" x 12" BW Culvert				10	1	2.00	steel	\$20.00
11" x 12" Culvert				20	1	2.00	steel	\$20.00
Overhead Sign - Letter Size				1	1	10.00	signage	\$10.00
Overhead Sign - Overlay Sign				2	1	35.00	signage	\$70.00
Other Expenses								\$174.00
TOTAL WORK PRODUCT 4								\$31,672.00
1. Hydrologic Studies								
Update drainage area map	2		2				2	\$282.00
Perform Hydrologic Modeling with HEC-RAS for Design Flows	2		2				2	\$374.00
Perform hydrologic calculation for small culvert openings and manholes	1						7	\$163.00
2. Hydraulic Computation (2 bridges, 10 culverts, and 9 manholes)								
Update water surface and velocities based on bridge design using HEC-RAS	2		2				2	\$282.00
Update bridge cross-culvert hydraulic design using HEC-RAS results	2		2				2	\$282.00
Update small culvert also using HEC-RAS based on roadway design	2		2				2	\$282.00
Update manhole calculations and layout	2		2				2	\$282.00
CAD/CAM Development	2		2				2	\$282.00
3. Culvert Layout								
	4		4				4	\$568.00
4. Water quality & detention ponds (20)								
Regional Stormwater Detention Program (RSMP) & alternative water quality controls analysis to reduce pond number and size	2		2				2	\$282.00
Develop pond layout and outlet layout	10		10				10	\$1,410.00
Develop pond design sheets, details and specifications	24		24				24	\$3,312.00
5. Hydraulic Report								
	1		1				1	\$142.00
6. Hydraulic Data Sheets								
	2		2				2	\$282.00
7. Drainage Memoranda								
	1		1				1	\$142.00
8. Summary of Quantities								
	1		1				1	\$142.00
9. Site Visits and Field Work								
	2		2				2	\$282.00

**Creage
Fee Schedule**
**90%, 100% Plans, Specifications, and Estimates
Arterial "A" Project**

Trawls County
/ Prefinal 1
Contract No. 10AE0198JE

Task Description	Year Labor	Task Leader/ Senior Engineer					Hydrologist/ Environmental Scientist		Engineer Associate		Planner		Water Resources/CIS Specialist		Hours	Total
		01	02	03	04	05	06	07	08	09	10	11	12			
Direct Expenses																
Travel Expense																
11% of 11% Other Costs																
11% of 11% Other Costs																
11% of 11% Other Costs																
11% of 11% Other Costs																
11% of 11% Other Costs																
11% of 11% Other Costs																
Overhead Fee - Letter Size																
Overhead Fee - Operating Fee																
Direct Expenses																
TOTAL BIDDING PROPOSAL 4 and 5																

The rates shown are the average rate for each classification of employees. Invoices will be based on hours worked and actual salaries for the individuals who worked on the project. Non-exempt employees will be invoiced at time and a half for overtime hours based on actual costs.

**SAM
Fee Schedule
60% / 100% Plans, Specifications, and Estimates
Aerial 'W' Project**

Twin County
Project 1
Contract No. 10AE0198JE

Task Description	Principal	Survey Project Manager	RPLS	Master Survey York	Survey Technician	GPS Coordinate	Clerical	3 Person Survey Field Crew	3 Person Survey Field Crew	Field Construction	Hours	Rate
1: Project Survey Control		\$175.00	\$185.00	\$110.00	\$80.00	\$90.00	\$45.00	\$150.00	\$180.00	\$80.00		
Additional Survey Control for Accessory A ROW	1	8	8	15		3					37	\$140.00
2: Design Survey												
a. Supplemental Survey for 3.0-mile corridor	1	8	10	25						48	3	\$11,025.00
3: Right of Way Survey												
a. Survey Lot/Block	3	8	10	20		10				80	6	\$16,700.00
b. Research and Detail Plot Base Map	1	2	8	20	20					80	6	\$4,170.00
c. Boundary Adjoints & Proposed ROW State File	2	2	10	45	25					60	6	\$6,170.00
4: Right of Way Documents												
A. Right of Way Measurement	4	8	20	30	30	12				120	12	\$14,400.00
B. Outstanding BM Damage Rating & Location	1	1	5	5	5	1				27	1	\$1,400.00
Utilities and Obstacles (Field Check & Record)												
Utilities and Obstacles	2	8	10	30	30					120	10	\$8,000.00
Total Labor	67	80	141	291	180	28	0	0	400	51	1110	\$127,400.00
Material Expenses												
Reprint Bindings (4 copies)												
B.10 1/2" x 11" Color Copies								100	\$0.10	sheet		\$10.00
B.10 1/2" x 11" Color Copies									\$0.05	sheet		\$5.00
11" x 17" BW Copies									\$0.20	sheet		\$0.00
11" x 17" Color Copies									\$1.00	sheet		\$0.00
11" x 17" Paper									\$1.00	sheet		\$0.00
Overnight Mail - Letter Size									\$15.00	postage		\$0.00
Overnight Mail - Overnight Box									\$20.00	postage		\$0.00
Dial Copies								50	\$1.00	sheet		\$50.00
Map Records									\$0.00	sheet		\$0.00
Miscellaneous								1000	\$0.000	mile-		\$70.00
GPS Receiver								254	\$25.00	hour		\$6,350.00
ATV or Utility Vehicle								12	\$70.00	day		\$840.00
Other Expenses												
Total												\$7,590.00
TOTAL WORK PRODUCT												\$134,990.00

The rates shown are the average rate for each classification of employee.
 Invoicing will be based on hours worked and actual estimates for the individuals who worked on the project.
 Non-union employees will be invoiced at rates and a list for overtime hours based on actual costs.

Unitech
Pac Schedule
90%, 100% Plans, Specifications, and Estimate
April '14 Project

Travis County
Project 1
Contract No. 10A09198JE

Task Description	Quantity	Unit Price			Unit Price	Qty	Rate	Cost	Cost	Hours	Total
		\$198.00	\$198.00	\$198.00							
SECTION 01000											
1. Project Management											
1.1. Consultant with specifications	1									7	\$1,191.00
1.2. Specifications and Estimates	1									14	\$2,182.00
1.3. Contract Administration	1									13	\$1,971.00
1.4. Project Management and Inspections	1									17	\$2,571.00
1.5. Meetings (8 hour)	1									40	\$5,940.00
2. District											
A. Bridge 1 (1982) Inbar Arch											
1. Review and update Bridge Layout	1									20	\$2,970.00
2. Review and update bridge layout sections	1									3	\$435.00
3. Review and update bridge specifications and hardware and details	1									3	\$435.00
4. Complete Bridge List Sheets	10									10	\$1,485.00
5. Complete foundation design and layout	1									0	\$0.00
6. Complete abutment design	1									7	\$1,036.50
7. Complete pier design	1									2	\$297.00
8. Complete interior and exterior details & details	10									10	\$1,485.00
9. Complete beam layout	1									22	\$3,231.00
10. Complete span details (interior)	1									11	\$1,588.50
11. Complete span details (exterior)	12									24	\$3,564.00
12. Complete miscellaneous bridge design and details	1									3	\$435.00
13. Complete steel deck and rail design and details	1									3	\$435.00
14. Complete and modify TRBGT drawings, if needed	27									27	\$3,982.50
15. Coordinate and develop bridge aesthetic design and details	2									4	\$594.00
B. Bridge 2 (1982) Inbar Arch											
1. Review and update Bridge Layout	1									20	\$2,970.00
2. Review and update bridge layout sections	1									3	\$435.00
3. Review and update bridge specifications and hardware and details	1									3	\$435.00
4. Complete Bridge List Sheets	10									10	\$1,485.00
5. Complete foundation design and layout	1									0	\$0.00
6. Complete abutment design	1									7	\$1,036.50
7. Complete pier design	1									2	\$297.00
8. Complete interior and exterior details & details	10									10	\$1,485.00
9. Complete beam layout	1									22	\$3,231.00
10. Complete span details (interior)	1									11	\$1,588.50
11. Complete span details (exterior)	12									24	\$3,564.00
12. Complete miscellaneous bridge design and details	1									3	\$435.00
13. Complete steel deck and rail design and details	1									3	\$435.00
14. Complete and modify TRBGT drawings, if needed	27									27	\$3,982.50
15. Coordinate and develop bridge aesthetic design and details	2									4	\$594.00
C. Bridge 3 (1977) Inbar Arch											
1. Review and update Bridge Layout	1									20	\$2,970.00
2. Review and update bridge layout sections	1									3	\$435.00
3. Review and update bridge specifications and hardware and details	1									3	\$435.00
4. Complete Bridge List Sheets	10									10	\$1,485.00
5. Complete foundation design and layout	1									0	\$0.00
6. Complete abutment design	1									7	\$1,036.50
7. Complete pier design	1									2	\$297.00
8. Complete interior and exterior details & details	10									10	\$1,485.00
9. Complete beam layout	1									22	\$3,231.00
10. Complete span details (interior)	1									11	\$1,588.50
11. Complete span details (exterior)	12									24	\$3,564.00
12. Complete miscellaneous bridge design and details	1									3	\$435.00
13. Complete steel deck and rail design and details	1									3	\$435.00
14. Complete and modify TRBGT drawings, if needed	27									27	\$3,982.50
15. Coordinate and develop bridge aesthetic design and details	2									4	\$594.00
WP-4 Total Labor											
	114	63	191	174	389	0	360	0	0	638	\$99,237.00
Material Requirements											
8" MC 110 B/W Coarse						0	25.00	sheet			\$0.00
8" MC 110 B/W Coarse						100	15.00	sheet			\$1,500.00
8" MC 110 B/W Coarse						0	22.00	sheet			\$0.00
11" x 17" B/W Coarse						100	30.00	sheet			\$3,000.00
11" x 17" B/W Coarse						0	33.00	sheet			\$0.00
11" x 17" B/W						0	12.00	sheet			\$0.00
Concrete 4000 - Color Run						3	150.00	cubic yds			\$450.00
Concrete 4000 - Color Run						1	150.00	cubic yds			\$150.00
Grand Equipment Total											
											\$650.00
WP-4 PROJECT TOTAL											
											\$100,887.00
SECTION 01000											
1. Project Management											
1.1. Consultant with specifications	1									7	\$1,191.00
1.2. Specifications and Estimates	1									14	\$2,182.00
1.3. Contract Administration	1									13	\$1,971.00
1.4. Project Management and Inspections	1									17	\$2,571.00
1.5. Meetings (8 hour)	1									40	\$5,940.00
2. District											
A. Bridge 1 (1982) Inbar Arch											
1. Review and update Bridge Layout	1									20	\$2,970.00
2. Review and update bridge layout sections	1									3	\$435.00
3. Review and update bridge specifications and hardware and details	1									3	\$435.00
4. Complete Bridge List Sheets	10									10	\$1,485.00
5. Complete foundation design and layout	1									0	\$0.00
6. Complete abutment design	1									7	\$1,036.50
7. Complete pier design	1									2	\$297.00
8. Complete interior and exterior details & details	10									10	\$1,485.00
9. Complete beam layout	1									22	\$3,231.00

Unitech
Poe Schools

Treble County
Project 1
Contract No. 10AE0198JE

60%, 100% Plans, Specifications, and Estimates
April 21, 2014

Task Description	Quantity	Unit Price				Total Price	Labor Cost	Material Cost	Hours	Total
		\$ 125.00	\$ 155.00	\$ 130.00	\$ 150.00					
10. Remove main details (detail)	8	1	2	4	8	0	0	16	\$1,600.00	
11. Remove main details (section)	12	3	6	7	6	0	0	25	\$2,500.00	
12. Remove miscellaneous brickwork details and details	1	0	1	0	1	0	0	2	\$200.00	
13. Remove brickwork above window details and details	1	0	0	0	1	0	0	1	\$100.00	
14. Remove and install T&G/T materials, if required	27	0	1	0	1	0	0	27	\$2,700.00	
15. Coordinate and remove brickwork details and details	2	1	1	1	2	0	0	2	\$200.00	
B. Bid Item 2 (100 Hour Item)										
1. Remove and install brickwork	1	0	0	1	1	0	0	4	\$400.00	
2. Remove and install brickwork details	1	0	1	0	1	0	0	3	\$300.00	
3. Remove and install brickwork details and mortar joint details	1	0	1	0	1	0	0	3	\$300.00	
4. Remove brickwork	2	0	0	0	0	0	0	1	\$100.00	
5. Remove brickwork details and mortar	0	0	0	0	0	0	0	0	\$0.00	
6. Remove structural masonry	1	0	1	1	2	0	0	4	\$400.00	
7. Remove structural masonry	2	1	1	1	2	0	0	7	\$700.00	
8. Remove brickwork and mortar A details	2	0	1	1	2	0	0	6	\$600.00	
9. Remove brickwork	1	0	1	0	1	0	0	3	\$300.00	
10. Remove main details (detail)	1	0	0	1	1	0	0	3	\$300.00	
11. Remove main details (section)	2	1	1	1	2	0	0	7	\$700.00	
12. Remove miscellaneous brickwork details and details	1	0	0	0	1	0	0	1	\$100.00	
13. Remove brickwork above window details and details	1	0	0	0	1	0	0	1	\$100.00	
14. Coordinate and remove brickwork details and details	0	0	0	0	0	0	0	0	\$0.00	
C. Bid Item 3 (217 Hour Item)										
1. Remove and install brickwork	1	0	0	1	1	0	0	4	\$400.00	
2. Remove and install brickwork details	1	0	1	0	1	0	0	3	\$300.00	
3. Remove and install brickwork details and mortar joint details	1	0	1	0	1	0	0	3	\$300.00	
4. Remove brickwork	1	0	0	0	0	0	0	0	\$0.00	
5. Remove brickwork details and mortar	0	0	0	0	0	0	0	0	\$0.00	
6. Remove structural masonry	1	0	0	1	1	0	0	4	\$400.00	
7. Remove structural masonry	1	0	1	1	2	0	0	5	\$500.00	
8. Remove brickwork and mortar A details	2	0	1	1	2	0	0	6	\$600.00	
9. Remove brickwork	1	0	1	0	1	0	0	3	\$300.00	
10. Remove main details (detail)	1	0	1	0	1	0	0	3	\$300.00	
11. Remove main details (section)	1	0	1	0	1	0	0	3	\$300.00	
12. Remove brickwork intersection details and details	1	0	1	0	1	0	0	3	\$300.00	
13. Remove miscellaneous brickwork details and details	1	0	0	0	1	0	0	1	\$100.00	
14. Remove brickwork above window details and details	1	0	0	0	1	0	0	1	\$100.00	
15. Coordinate and remove brickwork details and details	0	0	0	0	0	0	0	0	\$0.00	
WOPS Total Labor										
	118	19	25	41	72	0	0	277	\$27,700.00	
ESTIMATE EQUIPMENT										
Remove Brickwork (1 section)						1	1		\$1.00	
8 1/2" x 11" MW Curb						20	20		\$400.00	
8 1/2" x 11" Color Curb						0	0		\$0.00	
11" x 17" MW Curb						205	205		\$4,100.00	
11" x 17" Color Curb						0	0		\$0.00	
11" x 17" Meter						12	12		\$240.00	
Concrete Wall - Letter Sign						1	1		\$100.00	
Concrete Wall - Concrete Box						0	0		\$0.00	
Street Equipment Total										
						1	1		\$100.00	
UNITECH Total Labor										
	118	19	25	41	72	0	0	277	\$27,700.00	
Street Equipment Total										
									\$100.00	

The rates shown are the average rate for each classification of employees.
Non-union employees will be included at time and a half for overtime hours based on actual costs.

RECEIVED
 10/23/14
 10/23/14