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August 11, 2023

Edwin Santillan, P.E. Engineer IV / Engineering Services City of Corpus Christi, TX 1201 Leopard Street, 3rd Floor PO Box 9277 Corpus Christi, TX 78469-9277

Re: Proposal for Professional Engineering and Testing Services for RFQ No. 4413

Dear Mr. Santillan,

Thank you for the opportunity to work with City of Corpus Christi. Previously, Garver(F-5713) was selected as a qualified partner regarding the upcoming capital improvement Sand Dollar Connection Line 16" (Coral Vine) and completed the process of scope definition. Garver will provide professional services associated with the services listed in Exhibit A. The fee breakdown for the services provided is summarized below:

Description	Fee	Payment
Task 1 –Preliminary Engineering	\$94,248.00	Lump Sum
Task 2– Hydraulic Capacity Technical Memo	\$50,184.00	Lump Sum
Task 3A– 60% Detailed Design	\$144,499.00	Lump Sum
Task 3B– 90% Detailed Design	\$108,879.00	Lump Sum
Task 3C- 100% and Bid Ready Design	\$70,844.00	Lump Sum
Task 4 –Bid Phase.	\$12,706.00	Lump Sum
Basic Services Total	\$481,360.00	Lump Sum
Additional Services Total Allowance	\$202,600.00	T&M
Total Authorized Fee	\$683,960.00	

Garver proposed to complete the Basic Service tasks on a lump sum basis in an amount of \$481,360.00. The total project cost, including Additional Services, is estimated to be \$683,960.00. Garver understands contract terms including insurance requirements will be defined prior to notice to proceed. Garver appreciates the opportunity and is willing to sign a Service Agreement as written and as modified through any addenda issued. We are ready to partner with Corpus Christi to deliver effective solutions and move your city forward. If you have any questions, please contact me at HHasan@ GarverUSA.com or 701-317-2942.

Sincerely,

GARVER, LLC

Hasibul Hasan, PE *Project Manager*

Hasibel Vasan

Dan Olson, PE (Signing Authority)

Vice President

DNOlson@GarverUSA.com

713-395-4277

EXHIBIT A

SCOPE OF SERVICES

CITY OF CORPUS CHRISTI, TEXAS

PROJECT 23021

SAND DOLLAR CONNECTION LINE 16" (CORAL VINE)

PROJECT BACKGROUND

The City of Corpus Christi (City) operates the Padre Island system on a separate pressure zone from the mainland using the Sand Dollar Pump Station and Coral Vine elevated storage tank to supply water. A proposed 16-inch water line will be designed to convey water between the pump station and elevated storage tank. Interconnections will be made to the existing distribution system to improve the pressure within the system. It is assumed the proposed 16-inch water line will be installed within the City's ROW via open cut or trenchless construction. Appurtenances will be placed along the alignment to allow readily available maintenance for the City's operations.

The Scope of Services included in this contract are Preliminary Design, Design Phase, Bidding and Construction Phase Services plus the Additional Services indicated below.

2. SCOPE OF SERVICES

A. Basic Services.

Task 1: Preliminary Engineering:

It is the intent of the Preliminary Phase to provide a study and report of project scope with economic and technical evaluation of alternatives, and upon approval, proceed in a **design memorandum** which includes Preliminary designs, drawings, and written description of the project. This phase shall include:

- a. Kick-off Meeting and site visit— Conduct one (1) meeting with the City to confirm the goals, schedule, and deliverables for the Project. A site visit will follow the kick-off meeting. Meeting minutes will be prepared and distributed by the Engineer.
- b. Project Management and Document Control Manage all efforts of the project team, individual team members, and sub-consultants and maintain appropriate records and documentation of project decisions, modifications, activities, communication, correspondence, and

schedules.

- i.Prepare and submit up to Four (4) monthly status reports with action items.
- c. Develop a Project management plan and a Quality control plan.
- d. Review of the Project with the respective Operating Department(s) and discussions including clarification and definition of intent and execution of the Project; The Engineer will meet with City staff to collect data, discuss materials and methods of construction, and identify design and construction requirements.
- e. Review and investigation of available records, archives, and pertinent data related to the Project including taking photographs of the Project site, list of potential problems and possible conflicts, intent of design, and improvements required, and conformance to relevant Master Plan(s).
- f. Document the field data collection.
- g. Coordinate with the City's Operations team to develop connection alternatives at the storage tank and booster pump station.
- h. Develop up to two (2) route alternatives for consideration.
 - Provide Design for PVC pipe materials only in the Design Memorandum. Lead time, cost and constructability will be reviewed within the memorandum.
 - ii. Develop preliminary placement for water line appurtenances including isolation valves, air valves and interconnections.
- i. Provide notification letter to TIRZ 2 for planned projects to avoid impacting the community in multiple phases.
- j. Submit one (1) copy in an approved electronic format **Draft Design Memorandum** (up to 10 pages), AACE Class 4 opinion of probable construction costs with life cycle analysis, defined technical evaluations of identified feasible alternatives, and review with City staff to produce an acceptable format which contains common municipal elements. Design Memorandum will include the following items:
 - Identify results of site field investigation including site findings, existing conditions, potential right of way/easements, and probable Project design solutions.
 - ii. Provide sketches, designs, cross-sections, and parameters which will or may impact the design, including engineering design basis, preliminary layout sketches, identification of needed additional services, preliminary details of construction of critical elements, identification of needed permits, identification of specifications to be used, identification of quality and quantity of materials of construction, and other factors required for a professional design.
 - iii. Provide SWOT analysis of the alternatives.
 - iv. Advise of environmental site evaluations and archeology reports that are needed for the Project (Environmental issues and archeological services to be an Additional Service).

- v. Identify and analyze requirements of governmental authorities having jurisdiction to approve design of the Project and permitting, environmental, historical, construction, and geotechnical issues; and meet with pertinent authorities.
- k. Fill-in the design and project submittal checklist.
- I. Two (2) one-hour virtual progress meetings with the City staff and operations will be held through the design phase.
- m. Prepare an estimate of construction quantities and develop an AACE class 4 opinion of probable construction cost (OPCC).
- n. Preliminary Engineering Phase Review Meeting: Conduct one (1) 1-hour Virtual meeting with the City to present and review the Design Memorandum, discuss review comments, and confirm design path forward. Meeting minutes will be prepared and distributed by Garver.
 - i. Respond to all City review comments on the Draft Design Memorandum and provide a PDF of the Final Design Memorandum.
- o. Provide Quality Assurance/Quality Control (QA/QC) measures to ensure that submittal of plans and complete bid documents with specifications accurately reflect the percent completion designated and do not necessitate an excessive amount of revision and correction by City staff.

City staff will provide one set only of the following information (as applicable):

- a. Record drawings, record information of existing facilities, and utilities as available from City Engineering files.
- b. The preliminary budget, specifying the funds available for construction.
- c. Aerial photography for the Project area.
- d. Through separate contract, related GIS mapping for existing facilities.
- e. A copy of existing studies and plans.
- f. Field location of existing city utilities.
- g. Provide applicable Master Plans.

Task 2: Hydraulic Capacity Technical Memorandum

Consultant shall develop a separate Memorandum with Hydraulic capacity of the pump station. During this task the Engineer shall:

a. Attend one site visit of Sand Dollar Pump Station with City pump station operators and other applicable staff. Support deployment of up to four (4) hydrant pressure loggers for up to a 24-hour period. Data collected will be utilized to validate the existing hydraulic model and for transient model development.

- b. Review the hydraulic model, facility record drawings, and available SCADA data for the Sand Dollar Pump Station, Coral Vine Elevated Storage Tank, and any associated infrastructure.
- c. Update existing and future demand scenarios based on input from the City.
- d. Identify current operating conditions for the pumps at the Sand Dollar Pump Station and existing pumping capacity.
- e. Complete hydraulic model evaluations of existing and future conditions for up to two (2) proposed 16-inch water line extension alignments. For each alignment, Garver will model up to two (2) sub-alternatives with interconnections at different locations.
- f. Identify hydraulic conditions associated with each of the potential alternatives, consisting of pump operating conditions for the Sand Dollar Pump Station, pump station capacity, maximum pipe velocities, changes in pressure from current conditions, and Coral Vine Elevated Storage Tank levels and cycling.
- g. Complete data analysis on available SCADA and pressure logger data to evaluate existing system operations that initiate hydraulic transients.
- h. Complete transient model evaluations with up to two (2) scenarios to identify the transient response of the existing system.
- i. Complete transient model evaluations for the proposed 16-inch water line extension alignments to assess the proposed pipeline pressure capacity and (if necessary) the need for transient mitigation equipment. Garver will model up to three (3) scenarios.
- j. Document the evaluations and pertinent results in a Hydraulic Modeling Technical Memorandum.
- k. Conduct quality control review per project management plan.

Task 3: Detailed <u>Design Phase</u>.

Upon approval of the preliminary phase, designated by receiving authorization to proceed, the Engineer will:

Task 3-A 60% Design:

- a. Implement the Preliminary Engineering Phase recommendations including construction sequencing, connections to the existing facilities, interconnections and restoration of property and incorporate these plans into the construction plans. Development of the construction sequencing will be coordinated with the City Operating Department(s) and Engineering Services staff.
- b. Garver will furnish plans to all known utility owners potentially affected by the Project at each stage of development. Garver shall conduct coordination meetings among all known affected utility owners to enable them to coordinate efforts for any necessary utility relocations. Garver will include the surveyed locations of the observable and marked utilities in the construction plans. Garver will also include proposed and/or relocated utility information in the construction plans as provided by the utility companies.

- c. Prepare **one** sets of 60% Design Plan set in City format (using City Standards as applicable):
 - i. The 60% design set is anticipated to have a total of 58 drawings and supplement standard specifications as necessary for the proposed water line.
 - ii.**Provide** a "<u>Plan Executive Summary</u>" which will identify and summarize the project by distinguishing key elements such as:
 - Approximately 11,000 linear feet of 16-inch diameter water line
 - Recommended pipe material and supporting documentation
 - ROW requirements and supporting documentation
 - Permit requirements and supporting documentation
 - Easement requirements and supporting documentation
 - TIRZ letter notification
 - Embedment type and why
 - Constructability, etc.
 - Specific requirements of the City
 - Standard specifications
 - Non-standard specifications
 - Any unique requirements
 - Cost, alternatives, etc.
 - Owner permit requirements and status
- d. Prepare **one** set of 60% Specification set with the Draft Table of Content in City format using City Standards as applicable.
- e. Develop AACE Class 3 OPCC.
- f. Provide Quality Assurance/Quality Control (QA/QC) measures to ensure that submittal of plans and complete bid documents with specifications accurately reflect the percent completion designated and do not necessitate an excessive amount of revision and correction by City staff.
- g. Prepare and submit up to Four (4) monthly status reports with action items. Two (2) one-hour virtual progress meetings with the City staff and operations will be held through the design phase.
- h. A one-hour virtual meeting for 60% design review with City's engineering team.

Task 3-B: 90% Detailed Design:

Upon completion of 60% design, and designated by receiving authorization to proceed 90% design, the Engineer will:

- a. Provide assistance identify testing, handling and disposal of any hazardous materials and/or contaminated soils that may be discovered during construction (to be included under additional services).
- b. Provide a recommended construction schedule. The construction schedule will provide a phased approach to better track progress and payments.

- c. Furnish one (1) copy of the 90% plans (plans only-identify needed specifications) to the City staff for review and approval purposes with estimates of probable construction costs. Identify distribution list for plans and bid documents to all affected utilities including City and all other affected entities. Update and submit the previously developed "Executive Summary".
- d. Develop Technical specifications and front end documents.
- e. Prepare an estimate of construction quantities and develop an AACE class 2 opinion of probable construction cost (OPCC) at the 90% design.
- f. Provide traffic controls including a Traffic Control Plan according to TMUTCD and the City Traffic Engineering Department standards.
- g. Provide Quality Assurance/Quality Control (QA/QC) measures to ensure that submittal of plans and complete bid documents with specifications accurately reflect the percent completion designated and do not necessitate an excessive amount of revision and correction by City staff.
- h. Two (2) one-hour virtual progress meetings with the City staff and operations will be held through the design phase. Prepare and submit up to Four (4) monthly status reports with action items
- i. 90% Submittal Review Meeting: Conduct one (1) 1-hour virtual review meeting with the City to present and review the Interim Submittal deliverable, discuss review comments, and confirm design path forward. Meeting minutes will be prepared and distributed by Garver.
 - Assimilate all 90% Submittal review comments, modifications, additions/deletions and proceed to the Pre-Final phase, upon Notice to Proceed.
 - ii. The Engineer and Sub-consultants shall follow the city provided checklist.

The City staff will:

- a. Designate an individual to have responsibility, authority, and control for coordinating activities for the construction contract awarded.
- b. Provide the budget for the Project specifying the funds available for the construction contract.
- c. Provide the City's standard specifications, standard detail sheets, standard and special provisions, and forms for required bid documents.

Task 3-C: 100% and Bid-Ready Design Deliverable:

Upon completion of 90% design, and designated by receiving authorization to proceed 100% design, the Engineer will:

a. Garver will address all resolved comments from 90% submittal, prepare 100% submittal for City's review, and submit 100% documents (design drawings and specs) for City's final review. Furnish one (1) copy of bid documents to the City staff for review with revised AACE Class II estimates of probable costs. Compile comments and incorporate any requirements into the plans and specifications, and advise City of responding and non-responding participants. Provide an executive summary.

- i. This submittal is assumed to be last review by the City prior to finalizing bid-ready documents.
- b. Garver will review and resolve all 100% comments from the City and proceed with the bid-ready deliverable.
- c. Garver will furnish final plans to all known utility owners potentially affected by the Project. Garver shall conduct coordination meetings among all known affected utility owners to enable them to coordinate efforts for any necessary utility relocations. Garver will include the surveyed locations of the observable and marked utilities in the construction plans. Garver will also include proposed and/or relocated utility information in the construction plans as provided by the utility companies.
- d. Prepare final quantities and estimates with revised AACE Class II estimates of probable costs with the recommended construction schedule. The construction schedule will provide a phased approach to track progress and payments.
- e. Provide Quality Assurance/Quality Control (QA/QC) measures to ensure that submittal of the final complete plans and complete bid documents with specifications accurately reflect the percent completion designated and do not necessitate an excessive amount of revision and correction by City staff. The Engineer and Sub-consultants shall submit the completed checklist provided by the city.
- f. Develop the project manual per city's code and standards.
- g. Upon approval by the Director of Engineering Services, provide one (1) set (electronic) of final plans and contract documents suitable for reproduction (In City Format) and said bid documents henceforth become the sole property and ownership of the City of Corpus Christi.
 - i. The City agrees that any modifications of the submitted final plans (for other uses by the City) will be evidenced on the plans and be signed and sealed by a professional engineer prior to re-use of modified plans.
 - ii. The Storm Water Pollution Prevention Details will be provided. Permitting to be provided by the contractor.
 - Conduct up to one (1) meeting with the City to review and coordinate design items. Meeting minutes will be provided by Garver.

The City staff will:

- a. Designate an individual to have responsibility, authority, and control for coordinating activities for the construction contract awarded.
- b. Provide the budget for the Project specifying the funds available for the construction contract.
- c. Provide the City's standard specifications, standard detail sheets, standard and special provisions, and forms for required bid documents.

Task 4: Bid Phase.

The Engineer will:

- a. Participate in the pre-bid conference and provide a recommended agenda for critical construction activities and elements impacted the project.
- b. Assist the City in solicitation of bids by identification of prospective bidders, and review of bids by solicited interests.
- c. Review all pre-bid questions and submissions concerning the bid documents and prepare, in the City's format, for the Engineering Services' approval, up to one addendum or other revisions necessary to inform contractors of approved changes prior to bidding.
- d. Attend bid opening, analyze bids, evaluate, prepare bid tabulation, and make recommendation concerning award of the contract.

The City staff will:

- a. Arrange and pay for printing of all documents and addenda to be distributed to prospective bidders.
- b. Advertise the Project for bidding, maintain the list of prospective bidders, receive and process deposits for all bid documents, issue (with the assistance of the Engineer) any addenda, prepare and supply bid tabulation forms, and conduct bid opening.
- c. Receive the Engineer's recommendation concerning bid evaluation and recommendation and prepare agenda materials for the City Council concerning bid awards.
- d. Prepare, review and provide copies of the contract for execution between the City and the contractor.

B. Additional Services (ALLOWANCE)

This section defines the scope and ALLOWANCE for compensation for additional services that may be included as part of this contract, but the A/E will not begin work on this section without specific written approval by the Director of Engineering Services. Fees for Additional Services are an allowance for potential services to be provided and will be **negotiated** by the Director of Engineering Services as required. The A/E will, with written authorization by the Director of Engineering Services, do the following:

- 1. **Permitting.** Furnish the City all engineering data and documentation necessary for all required permits. The A/E will prepare this documentation for all required signatures. The A/E will prepare and submit all permits **as applicable** to the appropriate local, state, and federal authorities, including:
 - a. TxDOT Permits/Amendments

- b. Wetland delineation and Permit
- c. Texas Commission of Environmental Quality (TCEQ)
 Permits/Amendments
- d. Nueces County
- e. Texas Historical Commission (THC)
- f. United States Environmental Protection Agency (USEPA)
- 2. Right-of-Way (ROW) Acquisition Survey. The A/E will review existing ROW and easements to ascertain any conflicts and provide field ROW surveys and submit ROW plats and descriptions for the City's use in the acquisition process. All work must comply with Category 1-A, Condition I specifications of the Texas Society of Professional Surveyors' Manual of Practice for Land Surveying in the State of Texas, Ninth Edition. All work must be tied to and conform with the City's Global Positioning System (GPS) control network and comply with all TxDOT requirements as applicable. A/E Consultant will be required to perform all necessary deed research.
- 3. <u>Topographic Survey.</u> Provide field surveys, as required for design including the necessary control points, coordinates and elevations of points (as required for the aerial mapping of the Project area aerial photography to be provided by City). Establish base survey controls for line and elevation staking (not detailed setting of lines and grades for specific structures or facilities). All work must be tied to and conform with the City's Global Positioning System (GPS) control network and comply with Category 6, Condition I specifications of the Texas Society of Professional Surveyors' Manual of Practice for Land Surveying in the State of Texas, Ninth Edition. Include reference to a minimum of two (2) found boundary monuments from the project area.

4. Environmental Site Assessment – Phase I

- a. Provide environmental site evaluations and Archeology Reports that are needed for the Project.
- b. Identify and develop a scope of work for any testing, handling and disposal of hazardous materials and/or contaminated soils that may be discovered during construction.

5. Geotechnical Investigation

Drill, classify, and perform pertinent tests on soils at Ten (10) locations. All borings will be to a minimum depth of 15 feet below existing grade. Geotechnical testing will be performed to provide design data and recommendations for excavation techniques, structural elements, and any bores associated with the project. Observe groundwater seepage during drilling and at completion of drilling and obtain a 24-hour water level reading.

Prepare a geotechnical report containing general recommendations regarding surface conditions, pavement reconstruction, soil and geologic conditions along proposed pipeline alignment, excavation considerations, trenchless

considerations and anticipated settlement, compaction, fill, and trench protection requirements.

6. Subsurface Utility Engineering

Perform up to Three (3) subsurface utility engineering (SUE) quality level A test holes in general accordance with the recommended practices and procedures described in American Society of Civil Engineers (ASCE) Publication CI/ASCE 38-02 (Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data). The quality level A field findings will be surveyed and delivered in the form of a CAD base file.

- 7. Warranty Phase. Provide a maintenance guaranty inspection toward the end of the one-year period after acceptance of the Project. Note defects requiring contractor action to maintain, repair, fix, restore, patch, or replace improvement under the maintenance guaranty terms of the contract. Document the condition and prepare a report for the City staff of the locations and conditions requiring action, with its recommendation for the method or action to best correct defective conditions and submit to City Staff. Complete the inspection and prepare the report no later than sixty (60) days prior to the end of the maintenance guaranty period.
- 8. Construction Phase (Time and Material).

The Engineer will perform contract administration to include the following:

- a. Participate in pre-construction meeting conference and provide a recommended agenda for critical construction activities and elements impacted the project.
- b. Review up submittals for conformance to contract documents including shop and working drawings, materials and other submittals.
- c. Review field and laboratory tests.
- d. Provide interpretations and clarifications of the contract documents for the contractor and authorize required changes, which do not affect the contractor's price and are not contrary to the general interest of the City under the contract. RFIs to be reviewed throughout the construction phase.
- e. Site visits to the site of the Project to confer with the City project inspector and contractor to observe the general progress and quality of work, and to determine, in general, if the work is being done in accordance with the contract documents. This will not be confused with the project representative observation or continuous monitoring of the progress of construction.
- f. Prepare up to change orders as authorized by the City (coordinate with the City's construction division); provide interpretations and clarifications of the plans and specifications for the contractor and authorize minor changes which do not affect the contractor's price and are not contrary to the general interest of the City under the contract.
- g. Attend up progress meetings held by the contractor.

- h. Make final inspection with City staff and provide the City with a Certificate of Completion for the project.
- h. Review construction "red-line" drawings, prepare record drawings of the Project as constructed (from the "red-line" drawings, inspection, and the contractor provided plans) and deliver to the Engineering Services a reproducible set and electronic file (AutoCAD r.14 or later) of the record drawings. All drawings will be CADD drawn using dwg format in AutoCAD, and graphics data will be in dxf format with each layer being provided in a separate file. Attribute data will be provided in ASCII format in tabular form. All electronic data will be compatible with the City GIS system.

The City staff will:

- a. Prepare applications/estimates for payments to contractor.
- b. Conduct the final acceptance inspection with the Engineer.

2. SCHEDULE

PROPOSED PROJECT SCHEDULE

DURATION	ACTIVITY
90 Days after NTP is issued	Begin Preliminary Engineering and Hydraulic Capacity Technical Memorandum
75 Days upon approval of Preliminary Engineering and Hydraulic Capacity Technical Memorandum	Submit 60% Detailed Design
60 Days upon receiving 60% Detailed Design Comments	Submit 90% Detailed Design
45 Days upon receiving 90% Detailed Design Comments	Submit 100% Detailed Design
30 Days upon receiving 100% Detailed Design Submittal Comments	Submit Bid Ready Design Deliverable
7 Days upon approval of Bid Ready Design Deliverable	Advertise for Bids
2 weeks after advertisement posted	Pre-Bid Conference
3 weeks after Pre-Bid Conference	Receive Bids
60 Days after receipt of bids	Begin Construction Phase Services
400 Days after Construction NTP is issued	Construction Completion

1. FEES

- A. Fee for Basic Services. The City will pay the A/E a fixed fee for providing for all "Basic Services" authorized as per the table below. The fees for Basic Services will not exceed those identified and will be full and total compensation for all services outlined in Section I.A.1-4 above, and for all expenses incurred in performing these services. For services provided in Section I.A.1-4, A/E will submit monthly statements for basic services rendered. In Section I.A.1-3, the statement will be based upon A/E's estimate (and City Concurrence) of the proportion of the total services actually completed at the time of billing. For services provided in Section I.A.4, the statement will be based upon the percent of completion of the construction contract. City will make prompt monthly payments in response to A/E's monthly statements.
- **B.** Fee for Additional Services (ALLOWANCE). For services authorized by the Director of Engineering Services under Section I.B. "Additional Services" the City will pay the A/E a not-to-exceed fee as per the table below:

C. Summary of Fees

Summary of Fees			
Fee for Basic Services			
Preliminary Engineering	\$94,248.00		
Hydraulic Capacity Technical Memorandum	\$50,184.00		
3. 60% Design Phase	\$144,499.00		
4. 90% Detailed Design	\$108,879.00		
5. 100% and Bid Ready Design	\$70,844.00		
6. Bid Phase	\$12,706.00		
Subtotal Basic Services Fees	\$481,360.00		
FEES FOR ADDITIONAL SERVICES (ALLOWANCE)			
Permit Preparation (as applicable) a. TxDOT Permits/Amendments b. Wetland delineation and Permit c. Texas Commission of Environmental Quality (TCEQ) Permits/Amendments d. Nueces County e. Texas Historical Commission (THC) f. United States Environmental Protection Agency (USEPA) Total Permitting	\$20,000.00		
2. ROW Acquisition Survey (AUTHORIZED)	\$20,000.00		
3. Topographic Survey (AUTHORIZED)	\$20,600.00		
4. Environmental Issues	\$7,500.00		
5. Geotechnical Investigation	\$30,000.00		
Subsurface Utility Engineering	\$20,000.00		
7. Warranty Phase	\$4,500.00		
8. Construction Phase (Time & Material)	\$80,000.00		
Sub-Total Additional Services Fees Authorized	\$202,600.00		
Total Authorized Fee	\$683,960.00		

b. EXTRA WORK

The following items are not included under this agreement but will be considered as extra work:

- A. Redesign for the Owner's convenience or due to changed conditions after previous alternate direction and/or approval.
- B. Submittals or deliverables in addition to those listed herein.
- C. 30% Drawings Development
- D. Pavement Design beyond replacement of water line trench impact.
- E. Pavement rehabilitation along the project limits.
- F. Design of any utilities relocation other than water.
- G. Street lighting or other electrical design beyond that required for construction within the ROW.
- H. Preparation of a Storm Water Pollution Prevention Plan (SWPPP). The Contractor shall prepare, maintain, and submit a SWPPP permit to TCEQ and NPDES.
- I. Construction materials testing.
- J. Coordination with FEMA and preparation/submittal of a CLOMR and/or LOMR.
- K. Services after construction, such as warranty follow-up, operations support, etc.
- L. Drainage study or storm sewer design within the project alignment.
- M. Construction management services
- N. Field data collection in addition to that listed herein.
- O. Hydraulic model calibration.
- P. Hydropneumatic tank design.

Extra Work will be as directed by the Owner in writing for an addition fee as agreed upon by the Owner and Garver.