



December 18, 2023

Mr. Kevin Padgett
Public Works Director
City of Seabrook
1100 Red Bluff
Seabrook, Texas 77586

Re: Proposal for Engineering and Surveying Services
Seabrook – Pine Gully and Lower Todville Force Main Replacement
CobbFendley Project No. _____

Dear Mr. Padgett:

Cobb, Fendley & Associates, Inc. (CobbFendley) is pleased to submit this proposal to provide Engineering and Surveying Services for the Pine Gully and Lower Todville Force Main Replacement Project in Seabrook, Texas. CobbFendley proposes to provide the Scope of Services for the Compensation as outlined in Attachments A and B, respectively.

Thank you for the opportunity to submit this proposal. Please advise if you have any questions or require additional information.

Sincerely,

COBB, FENDLEY & ASSOCIATES, INC.

Amber Hurd, P.E.
Vice President, Department Manager

Attachments

This proposal accepted by:

CITY OF SEABROOK, TEXAS

Signature

Print Name

Title

Date of Authorization

ATTACHMENT A
SCOPE OF SERVICES

Cobb, Fendley & Associates, Inc.
Proposal for Professional Engineering & Surveying Services
Pine Gully and Lower Todville Force Main Replacement

PROJECT DESCRIPTION AND LIMITS

The project will provide force main replacement at two separate locations as follows:

Lower Todville Road from Lift Station No. 5 to 2nd Street (WW14)

This portion of the project is to replace the existing 4-inch force main from Lift Station No. 5 at Waterfront Drive to 2nd Street along Todville Road. This includes replacing the aerial crossing attached to the bridge crossing Channel A200-00-00 that is subject to corrosion and storm damage. A new HDPE force main will be directionally drilled under A200-00-00. Replacement of the crossing will provide a more secure location to a section of force main that is difficult to maintain.

Todville Road at Pine Gully from Lift Station No. 2 to Surf Oaks Drive (WW21)

This portion of the project is to replace the aerial crossing attached to the Pine Gully Bridge along Todville Road that is subject to corrosion and storm damage. This project will replace the existing 8-inch force main by directional drilling a new HDPE force main under Pine Gully and connect at Lift Station No. 2 on the north side of the bridge and to the existing manhole across from Surf Oaks Drive on the south side. Replacement of the crossing will provide a more secure location to a section of force main that is difficult to maintain.

List of Exhibits:

- Exhibit A – Lower Todville Force Main Replacement
- Exhibit B – Pine Gully Force Main Replacement
- Exhibit C – Opinion of Probable Construction Cost

SUBCONSULTANTS

CobbFendley shall subcontract the environmental and geotechnical services. Below is a list of the consultants that we anticipate on using for this project:

- Geotechnical Services – Geotest Engineering, Inc.
- Environmental Services – Compass Environmental Solutions, LLC

Proposals for the services listed above are attached to this document.

GENERAL REQUIREMENTS

CobbFendley shall prepare all work in accordance with the latest version of applicable City of Seabrook's (City) procedures, specifications, manuals, guidelines, standard drawings, and standard specifications or previously approved special provisions and special specifications. When design criteria are not identified in City manuals, CobbFendley shall notify the City and refer to State approved manuals, which include: *Texas Manual on Uniform Traffic Control Devices (TMUTCD)*, *Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges (latest Edition)*, and other State approved manuals.

CobbFendley shall notify the client and secure permission to enter private property to perform any surveying, environmental, engineering, or geotechnical activities needed outside of current right-of-way. CobbFendley shall contact each property owner prior to any entry onto the owner's property and shall request concurrence from the client prior to each entry.

The Engineer shall coordinate with the City throughout the PS&E development and with local entities having jurisdiction or interest in the project (e.g. County, TxDOT, HCFCD, etc.).

The Engineer shall invoice according to Descriptions shown in Attachment A. The Engineer shall submit each invoice in a format acceptable to the City.

A. BASIC SERVICES

DESIGN

I. FORCE MAIN DESIGN

CobbFendley will provide construction plan and profile drawings using CADD standards as required by the City. The drawings will consist of a plan and profile view of existing and proposed features. The construction drawings will contain line work that depicts existing surface features and surface utilities obtained from survey, existing visible subsurface utilities, and existing and proposed right-of-way lines. Plan and Profile sheets will be prepared on 22"x34" format sheets.

Plan view will include:

1. Roadway centerline alignments
2. Existing pavement edges
3. Right-of-way dimensions
4. Existing utilities and structures
5. Benchmark information
6. Proposed force main alignments as they relate to the project centerlines, approx. 3,250 ft of relocated force main
7. Starting and ending locations as well as the connection to the existing sanitary sewer system

Profile view will include:

1. Existing and grade lines for pavement and natural ground along the project centerline and edge of apparent right-of-ways
2. Visible existing utilities and structures
3. Proposed utilities and structures

II. TRAFFIC CONTROL PLAN

CobbFendley will prepare Traffic Control detail sheets in accordance with the Texas Manual on Uniform Traffic Control Devices (TMUTCD) for Streets and Highways (latest edition).

III. STORMWATER POLLUTION PREVENTION PLAN (SW3P)

CobbFendley will prepare SW3P detail sheets based on the latest NPDES, and City of Seabrook Stormwater Quality Standards to minimize the potential impact to receiving waterways.

IV. UTILITY COORDINATION

CobbFendley will perform the utility and investigation work involving the research and identification of private and public utilities within the project limits. This will include:

1. Researching the existence of public utilities such as sanitary, storm sewer, and water lines within the project limits
2. Request any additional information from private (CenterPoint Energy, AT&T and Others within the project corridor) and pipeline utilities, regarding locations of facilities within the proposed project limits
3. Coordinate with other governmental entities, specifically Harris County, which are impacted by the project(s) and obtain necessary approvals, signatures or letters of no objection.
4. Identify potential conflicts between the existing utilities and the proposed project improvements
5. Communicate with utility companies on plans for relocations and provide updated project design information

V. SUMMARY

The full plan set will include at a minimum:

1. Cover Sheet
2. General Construction Notes
3. Overall Project Layout
4. Survey Control
5. Plan and Profiles
6. Traffic Control Plan Details
7. Storm Water Pollution Prevention Plan Details
8. Detail Sheets

9. Harris County Review Sheets

VI. MILESTONE SUBMITTALS

CobbFendley shall prepare plans and submit for approval from the City. CobbFendley shall provide the following information at each submittal:

a. 60% Milestone Submittal:

Digital Copy of the following items in .pdf format:

- Set of 22"x34" Plans for review
- Contract Front End Documents and Technical Specifications
- Opinion of Probable Construction Cost

b. 90% Milestone Submittal:

Digital Copy of the following items in .pdf format:

- Set of 22"x34" Plans for review
- Contract Front End Documents and Technical Specifications
- Revised supporting documents from 60% review comments
- Opinion of Probable Construction Cost

c. Final Submittal:

Digital Copy of the following items in .pdf format:

- Set of 22"x34" Plans for review
- Contract Front End Documents and Technical Specifications – Bid Ready
- Revised supporting documents from 90% review comments
- Opinion of Probable Construction Cost
- Construction Schedule

VII. PROJECT MANUAL, SPECIFICATIONS AND GENERAL NOTES

CobbFendley will prepare a Project Manual including the City of Seabrook's standard front-end documents, standard specifications, special specifications, special provisions and the general note items for inclusion in the plans and bidding documents.

VIII. PROJECT MANAGEMENT

This task is to provide the overall management of the contract which includes:

1. Project scheduling
2. Project invoicing
3. Monthly progress reports
4. Progress review meetings (limited to once a month)
5. Coordination with sub-consultants

BID PHASE

CobbFendley shall provide Bid Phase services. These services shall include:

1. Provide the Client with signed and sealed construction plans and specifications bid documents
2. Distribute digital plans and specifications for contractors on CivCast, an internet-based bidding system, and maintain a planholder's list.
3. Attend Pre-Bid meeting and attend the Bid Opening.
4. Respond in writing to questions from Bidders and prepare Addenda as necessary
5. Prepare Engineer's Recommendation of Award Letter that includes the following required content:
 - a. Check for math errors and reconcile any mathematical discrepancies
 - b. Review for unbalanced bid items and determine responsiveness and responsibility of low bidders.
 - c. Provide Bid Tabulation
 - d. Review of bidder's financial standing and references provided
 - e. Explanation of discrepancies between the Opinion of Probable Construction Cost and bids
 - f. Recommendation to award
6. Produce and transmit for execution with the Notice of Intent to Award (NOI).

Note: The Client will advertise the bid within one local newspaper. Upon Award of Contract by City Council the Client will route and obtain all necessary signatures for execution of the contract and will notify all parties.

CONSTRUCTION ADMINISTRATION AND MANAGEMENT

CobbFendley shall provide Construction Administration and Management services. These services shall include:

1. Attend and conduct pre-construction meeting
2. Prepare and submit monthly progress reports for monthly meetings, as required
3. Consultant shall visit the site at intervals appropriate to the stage of construction to become generally familiar with the progress and quality of the portion of Work completed, and to determine, in general, if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, Consultant shall not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work.

4. Review Contractors Pay Applications and submit to the Client for approval
5. Coordinate with City Staff, Contractor, and Inspector on a weekly basis to communicate construction progress and schedule.
6. Calculate quantities and assist in preparing change orders
7. Review and approval of submittals and shop drawings
8. Responding to requests for information (RFIs)
9. Attend Substantial Completion Inspection and Prepare Punchlist
10. Attend Final Completion Inspection
11. Prepare Record Drawings (Based on Contractor Mark-Ups) and submit to the Client

B. ADDITIONAL SERVICES

I. SURVEY

CobbFendley, as the project surveyor shall:

1. Establish Project Control
 - a. Establish horizontal and vertical control points for both locations.
 - b. Horizontal and Vertical control will be tied to TSARP datum.
 - c. Re-establish project control prior to Construction
2. Topographic Survey - Obtain or collect data to create cross-sections and digital terrain models for the limits provided in *Exhibits A & B*.
 - a. Provide cross sections every 50-ft for both locations
 - b. Conduct a hydrographic survey to provide data necessary to create a profile of the bottom of A200-00-00 and Pine Gully within the project limits.
 - c. Locate City of Seabrook Lift Stations No. 2 and No. 5 and provide size and elevation of wet wells.
 - d. Contact One-Call to mark existing utilities prior to conducting field survey.
 - e. Locate visible pipelines. Provide the following Information for each line (Company Name, Contact Number, Pipe Material (if provided), Depth, and Product Type), Verify with Texas Railroad Commission GIS Online.
 - f. Locate existing overhead and above ground visible utilities.

- g. Locate topographical features and existing improvements.
- h. Locate Trees Larger than 8" in diameter. Provide Tree Type and Size
- i. Determine existing pavements and surface material type.
- j. Provide details of existing drainage features (e.g., pipe, boxes, culverts, manholes, swales, ditches, ponds, etc.) including top/grate elevations, flowline elevations, type/size, direction of flow, etc.
- k. Provide Engineer with AutoCAD file with all survey and point file data.
- l. Provide .pdf file of Topographical features obtained from survey field work. (Scale to be provided by Engineer)

II. RIGHT-OF-WAY MAPPING

- a. Surveyor shall determine the actual boundary of the existing rights-of-way and fee ownership within the corridor limits.
- b. Surveyor will add boundary line work and ownership annotation in topographic base file.

III. GEOTECHNICAL SERVICES

The geotechnical investigation will be performed by Geotest Engineering, Inc. in accordance with the attached proposal.

IV. ENVIRONMENTAL SERVICES

The environmental investigation will be performed by Compass Environmental Solutions, LLC in accordance with the attached proposal.

EXCLUSIONS FROM THE SCOPE OF SERVICES:

The services described above are the identified Basic and Additional Services for this assignment. Other items that may arise during the course of the project that the Client may wish to add to the scope of services shall be deemed as SUPPLEMENTAL SERVICES. CobbFendley shall undertake such additional services as assigned by the Client upon written direction from the Client. Examples of such items are as follows:

1. Bidding Project more than once
2. Splitting Project into multiple bid packages
3. Attending and conducting Public Meetings
4. Fees associated with Agency Permitting and Review
5. Construction Materials Testing (CMT)
6. Construction Inspection
7. Any other services not specifically included within the description of the Basic Services or Additional Services as described above.

ATTACHMENT B
BASIS OF COMPENSATION

Cobb, Fendley & Associates, Inc.
Proposal for Professional Engineering Services
Pine Gully and Lower Todville Force Main Replacement

A. BASIC SERVICES

The Compensation to be paid to CobbFendley for providing the BASIC SERVICES rendered under this agreement shall be based on Lump sum fees for overall phases of the work as shown below. Reimbursable items and subconsultants will be subject to a 10% administration charge.

1. DESIGN PHASE (<i>Lump Sum</i>)	\$61,300
2. BID PHASE SERVICES (<i>Lump Sum</i>)	\$4,600
3. CONSTRUCTION ADMINISTRATION (<i>Lump Sum</i>)	\$19,200
Subtotal (<i>Lump Sum</i>)	\$85,100

Reimbursable Expenses

1. Reproduction, mileage, delivery charges, etc. (<i>Not to Exceed</i>)	\$1,500
---	---------

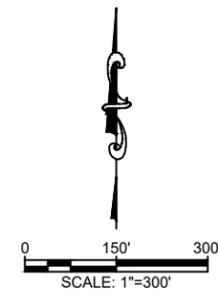
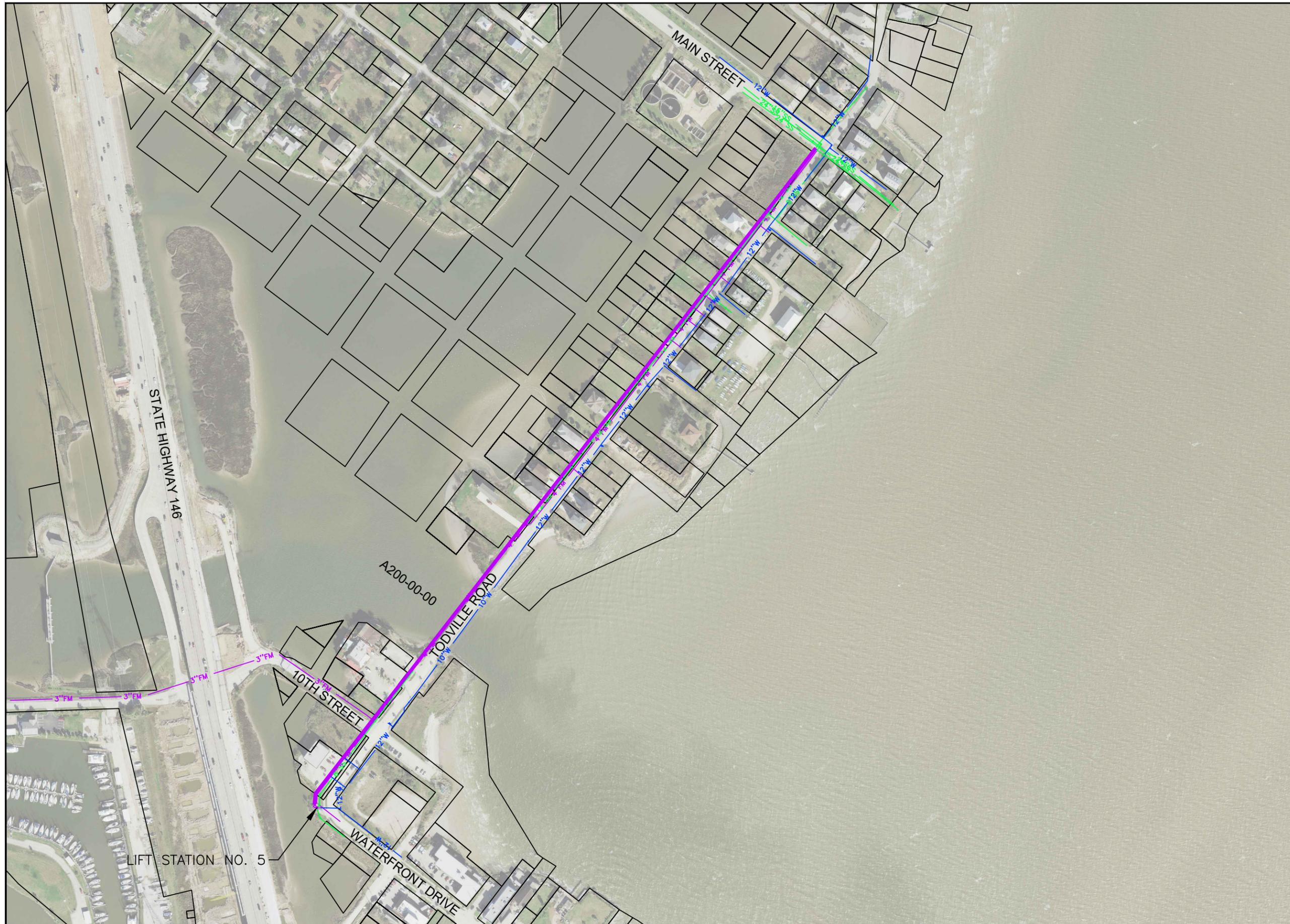
B. ADDITIONAL SERVICES

1. Survey by CobbFendley (<i>Lump Sum</i>)	\$44,800
2. Right-of-Way Mapping by CobbFendley (<i>Lump Sum</i>)	\$7,300
3. Geotechnical Services by Geotest - (incl 10% markup)	\$22,000
4. Environmental Services by Compass Environmental Solutions - (incl 10% markup)	\$20,900
Subtotal, Additional Services	\$95,000

TOTAL, Basic & Additional Services, Including Reimbursables **\$181,600**

The Compensation for any other Supplemental Services which the City desires to be added to the Scope of Services of the project shall be negotiated. Reimbursable items are included. Subconsultant invoices will be subject to a 10% administration charge. Services will be charged according to those personnel directly involved in providing the service and will be rounded to the nearest half hour.

This proposal/supplement is in accordance with the Terms and Conditions outlined in the Professional Services Agreement executed on October 11, 2004 between the City of Seabrook and CobbFendley.



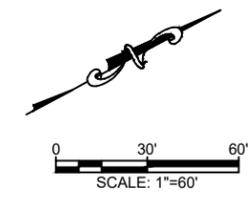
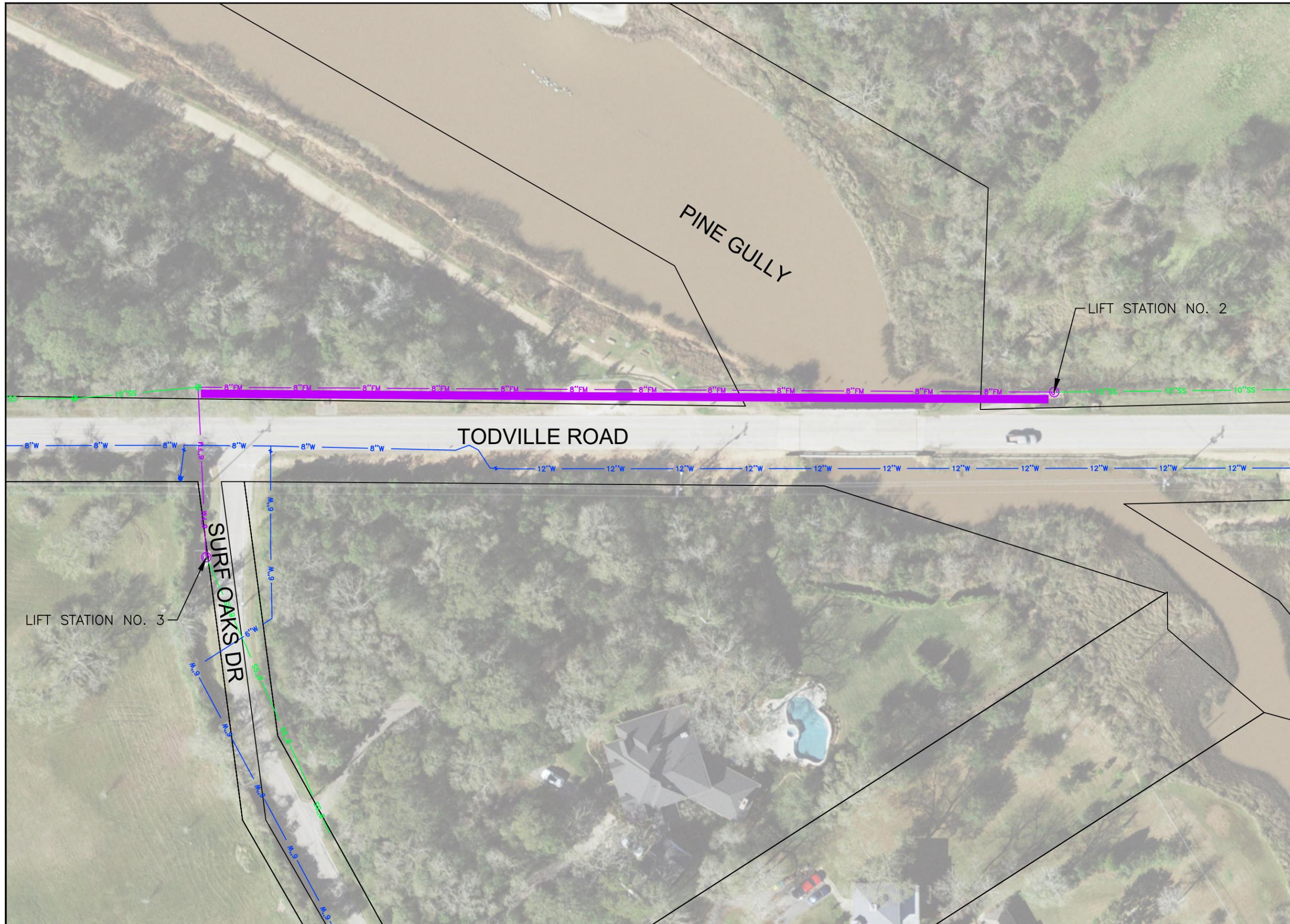
LEGEND

- PARCELS
- PROP. 8" FORCE MAIN
- EXIST. FORCE MAIN
- EXIST. GRAVITY SEWER
- EXIST. WATER MAIN



CobbFendley
 Texas Registration No. 274
 1920 Country Place Parkway, Suite 400
 Pearland, Texas 77584
 281.993.4952 | fax 281.993.8086
 www.cobbhendley.com

EXHIBIT A
 LOWER TODVILLE FORCE
 MAIN REPLACEMENT



LEGEND

- PARCELS
- PROP. 8" FORCE MAIN
- EXIST. FORCE MAIN
- EXIST. GRAVITY SEWER
- EXIST. WATER MAIN



CobbFendley
 Texas Registration No. 274
 1920 Country Place Parkway, Suite 400
 Pearland, Texas 77584
 281.993.4952 | fax 281.993.8086
 www.cobbfendley.com

EXHIBIT B
 PINE GULLY FORCE MAIN
 REPLACEMENT

EXHIBIT C

Client: City of Seabrook

Project Name: Pine Gully and Lower Todville Force Main Replacement

Opinion of Probable Construction Cost

Item No.	Item Description	Unit	Quantity	Unit Price	Extended Price
Lower Todville Force Main Replacement					
1	Mobilization (No Greater Than 5% of Total Bid)	LS	1	\$ 21,000.00	\$ 21,000.00
2	Traffic Control and Regulation, in Accordance with Drawings and Specifications	LS	1	\$ 25,000.00	\$ 25,000.00
3	Remove and Dispose of Existing Force Main on Bridge	LS	1	\$ 5,000.00	\$ 5,000.00
4	SWPPP Measures, in Accordance with Drawings and Specifications	LS	1	\$ 5,000.00	\$ 5,000.00
5	8-Inch HDPE Force Main by HDD Construction (Under A200-00-00), Complete in Place	LF	550	\$ 170.00	\$ 93,500.00
6	8-Inch HDPE Force Main by Trenchless Construction, Complete in Place	LF	2,150	\$ 85.00	\$ 182,750.00
7	8-Inch Force Main Connection, Complete in Place	EA	1	\$ 3,500.00	\$ 3,500.00
8	8-Inch Force Main Tie-in to Existing Manhole, Complete in Place	EA	1	\$ 5,000.00	\$ 5,000.00
9	Air/Vacuum Release Valve w/ Sealed Manhole & Vent Pole, Complete in Place	EA	2	\$ 15,000.00	\$ 30,000.00
10	Dewatering, as Necessary	LS	1	\$ 50,000.00	\$ 50,000.00
Subtotal Lower Todville Force Main Improvements					\$ 420,750.00
Pine Gully Force Main Replacement					
11	Mobilization (No Greater Than 5% of Total Bid)	LS	1	\$ 6,500.00	\$ 6,500.00
12	Traffic Control and Regulation, in Accordance with Drawings and Specifications	LS	1	\$ 5,000.00	\$ 5,000.00
13	Remove and Dispose of Existing Force Main on Bridge	LS	1	\$ 5,000.00	\$ 5,000.00
14	SWPPP Measures, in Accordance with Drawings and Specifications	LS	1	\$ 3,000.00	\$ 3,000.00
15	10-Inch HDPE Force Main by HDD Construction (Under Pine Gully), Complete in Place	LF	550	\$ 135.00	\$ 74,250.00
16	10-Inch Force Main Connection, Complete in Place	EA	1	\$ 4,000.00	\$ 4,000.00
17	10-Inch Force Main Tie-in to Existing Manhole, Complete in Place	EA	1	\$ 5,500.00	\$ 5,500.00
18	Air/Vacuum Release Valve w/ Sealed Manhole & Vent Pole, Complete in Place	EA	1	\$ 15,000.00	\$ 15,000.00
19	Dewatering, as Necessary	LS	1	\$ 15,000.00	\$ 15,000.00
Subtotal Pine Gully Force Main Improvements					\$ 133,250.00
SUBTOTAL					\$ 554,000.00
20% CONTINGENCY					\$ 110,800.00
TOTAL PRICE					\$ 664,800.00



GEOTEST ENGINEERING, INC.

Geotechnical Engineers & Materials Testing

5600 Bintliff Drive

Houston, Texas 77036

Telephone: (713) 266-0588

Fax: (713) 266-2977

Proposal No. 1140644899

November 13, 2023

Ms. KIMBERLY WADDELL, P.E.
Project Manager; Associate
1920 Country Place Parkway, Suite 400
Pearland, TX 77584

**Re: Proposal for Geotechnical Services
Proposed Force Main Crossings
City of Seabrook, Texas**

Dear Ms. Wadell:

In accordance with your request, Geotest Engineering, Inc. is pleased to submit this proposal for the referenced project. Based on the provided information the project consists of reconstruction of the existing force main at two channel crossing locations along Todville Road in City of Seabrook, Texas.

- Todville Road at Pine Gully from Lift Station No. 2 to Surf Oaks Drive:
- Lower Todville Road from Lift Station No. 5 (Waterfront Drive) to 2nd Street:

Based on the provided information, it is our understanding that at both locations, the existing force main will be detached from the existing bridge and reconstructed under the channel using directional drilling. The existing channel at each location is about 15 feet deep. Further, the proposed force main near 2nd Street intersection is about 9 feet deep.

Further, a previous geotechnical investigation was performed for the Pine Gully location by others and the boring information will be utilized for this study.

Purpose and Scope

The purpose of this investigation is to explore subsurface soil and water level conditions for the proposed force main improvements in Seabrook, Texas. The scope of this investigation is based on the information provided to us on November 8, 2023, and conversation on November 9, 2023, and will include the following tasks:

- Calling Texas 811 and Coordinate with utility locators to get areas for the proposed boring locations cleared.
- Perform concrete coring at boring locations (where required) for boring access.
- Utilize the borings from previous study by others at the Pine Gully Crossing.
- Drilling and sampling
 - a. One (1) soil boring to a depth of 35 feet at the Pine Gully crossing.
 - b. Two (2) soil borings each to a depth of 35 feet at the lower Todville Road crossing and one (1) boring to a depth of 20 feet at the intersection of 2nd Street and Todville Road.

The Proposed Boring Program is shown on Attachment No. 1.

- Grouting all boreholes using non-shrink cement bentonite grout after completion of drilling and water level measurements. The use of cement bentonite grout will eliminate the potential problems and safety hazards associated with surface settlements that might occur if boreholes are backfilled with soil cuttings.
- Performing appropriate laboratory tests on selected representative soil samples to develop the engineering properties of the soil.
- Perform engineering analyses to develop geotechnical recommendations for the open cut and trenchless (directional drilling) method of construction for both channel crossings. the recommendations will include a minimum of sub surface conditions for backfill and bedding, groundwater control (dewatering), trenchless installation, open trench excavations and repair of subgrade (i.e. cement stabilized subgrade) due to construction activity
- Prepare a geotechnical investigation report including field and laboratory data and geotechnical recommendations.

It is our understanding that your surveyors will tie-in our borings after completion of the drilling.

Project Schedule

We should be able to start the fieldwork within one (1) week after receiving your written authorization. It is estimated that the fieldwork will be completed in about two (2) weeks barring bad weather. The laboratory tests will be completed in about three (3) weeks. A geotechnical report, which will include field and laboratory data and geotechnical recommendations, will be submitted in about nine (9) weeks after receiving the written authorization.

Cost

Based on the scope of work outlined above, the cost of the field investigation, laboratory testing, engineering analyses and geotechnical report will be a lump sum amount of \$19,997.00. The cost breakdown given in Attachment No. 1 is for additional information only. The invoices will be billed on Lump Sum basis based on percent completion. This cost is based on the assumption that no site clearance will be required.

We appreciate the opportunity to propose on this project. We hope that this proposal meets your approval. If you have any questions, please call us at (713) 266-0588.

Sincerely,
GEOTEST ENGINEERING, INC.
TBPE Registration No. F-410



Naresh Kolli, P.E.
Sr. Project Manager

NK\ego
Copies Submitted: (1-PDF)
Enclosure: Attachment No. 1 – Proposed Boring Program
Attachment No. 2 – Cost Breakdown
PC38\Geotechnical\Proposals\40624899.DOC

Attachment No. 1
PROPOSED BORING PROGRAM

Lift Station Facility Name	Proposed Boring		
	Number	Boring Depth, (feet)	Total Boring Footage (feet)
Pine Gully Lift Station No. 2	1	35	35
Lower Todville Road, Lift Station No. 5	2	35	70
	1	20	20
Total			125

**Attachment No. 1
COST BREAKDOWN**

	<u>QUANTITY</u>	<u>UNIT RATE</u>	<u>COST</u>
Engineering Services			
Principle Engineer	4.00 hrs.	\$250.00	\$1,000.00
Sr Engineer	8.00 hrs.	\$185.00	\$1,480.00
Project Engineer	48.00 hrs.	\$135.00	\$6,480.00
Support Personnel (Drafting, Word Processing)	8.00 hrs.	\$70.00	\$560.00
		Subtotal	\$9,520.00
Subsurface Field Investigation			
Mobilization/Demobilization of Truck Mounted Drill Rig and Crew	1 ea.	\$1,000.00	\$1,000.00
Drilling and Continuous Sampling, Truck Mounted Rig, from 0 to 50 feet	125 ft.	\$24.00	\$3,000.00
Grouting of Completed Bore Holes	125 ft.	\$10.00	\$1,250.00
Concrete Coring	1 Min	\$600.00	\$600.00
Traffic Control	1 day	\$900.00	\$900.00
Marking Borings, Utilities Clearance, amd Field Coordination	10 hrs.	\$65.00	\$650.00
Vehicle Charge	10 hrs.	\$12.00	\$120.00
		Subtotal	\$7,520.00
Laboratory Tests			
Liquid and Plastic Limits	13 ea.	\$68.00	\$884.00
Moisture Content	50 ea.	\$10.00	\$500.00
Percent Passing No. 200 Sieve	13 ea.	\$52.00	\$676.00
Unconsolidated-Undrained Triaxial Compressive Strength, per Specimen or Stage	13 ea.	\$69.00	\$897.00
		Subtotal	\$2,957.00
		Total	\$19,997.00

November 28, 2023

Kimberly Waddle, P.E.
Cobb, Fendley, & Associates, Inc.
1920 Country Place Parkway, Suite 400
Pearland, TX 77584

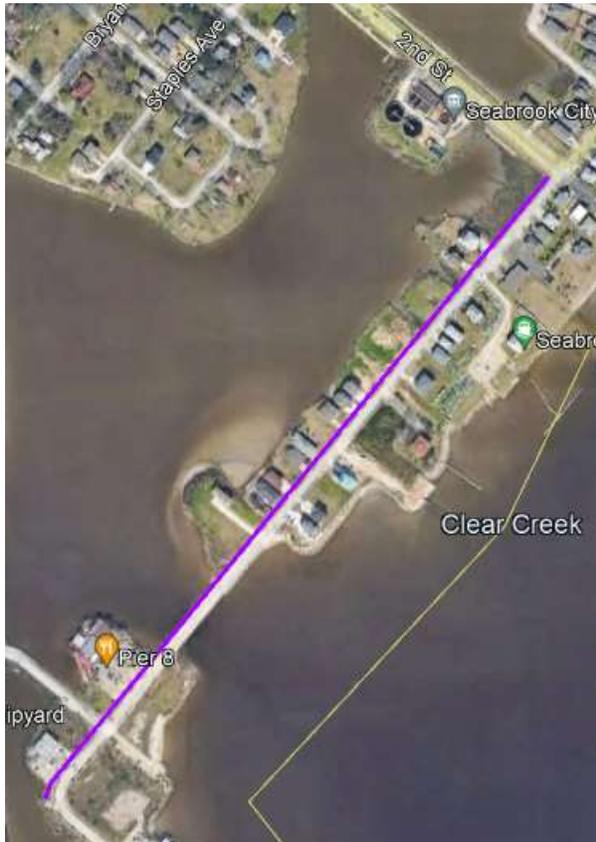
**Re: Proposal for Environmental Services
Pine Gully & Lift Station #5 Improvements**

Dear Mrs. Waddle:

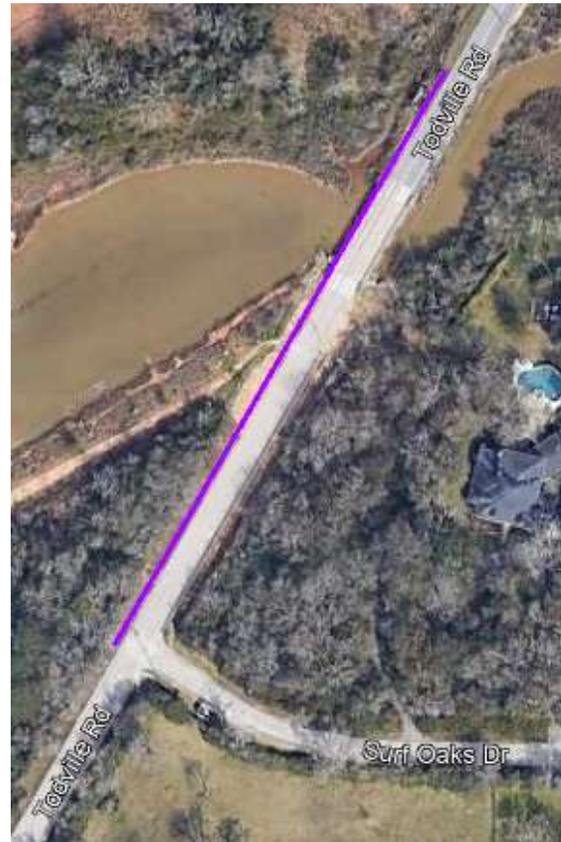
Thank you for allowing Compass Environmental Solutions, LLC (COMPASS) the opportunity to provide Cobb, Fendley, & Associates, Inc. (Cobb-Fendley) with a cost estimate for the following environmental services: a waters of the U.S. delineation, threatened and endangered species assessment, desktop cultural resources review, and Section 10/404 Clean Water Act (CWA) Permit. As discussed between COMPASS and Cobb-Fendley, the project consists of the removal of the existing water force main from the underside of Toddville Road at two bridge crossings; Location A crossing Clear Creek/Clear Lake and Location B crossing Pine Gully, and the replacement of the Force Mains via Horizontal Directional Drilling (HDD) under the ground and water bodies. The proposed project locations are shown below as purple lines. This proposal outlines each of these environmental services as tasks below.

PROJECT SITE EXHIBIT

Location A



Location B



Scope of Work

Task 1 – Waters of the U.S Delineation

COMPASS will assess the project site to map onsite aquatic features potentially regulated by the United States Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act (RHA). Field efforts will be designed to identify and delineate the boundaries of potentially jurisdictional waters of the U.S. at the project site. Our methods would include:

- Review of available data, such as topographic maps, aerial photographs, hydric soils lists, public databases, etc.
- Field reconnaissance of the project site for identification of wetlands and other waterbodies
- Use of a Trimble® Global Positioning System (GPS) device with sub-meter accuracy to mark each sampling location and the extent of any wetlands or waterbodies within the project site boundaries per USACE standards

This effort will identify and document the presence of waters of the U.S., including wetlands, within the project site and include a delineation of these resources as specified in the 1987 USACE Wetlands Delineation Manual, the 2010 Regional Supplement to the USACE of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region – Version 2.0, Regulatory Guidance Letter 05-05 – Ordinary High Water Mark (OHWM) Identification, and other applicable industry guidance and standards. All aquatic features will be classified in the field by either simplified United States Fish and Wildlife Department's (USFWS) Cowardin System of Wetland Classification for wetlands, or observable or recorded flow regime per current United States Geologic Survey (USGS) and USACE definitions.

Our delineation report will include documentation required for a standard submittal to the USACE, including, but not limited to (where available):

- Project Introduction, Background Research, and Methodology
- Results and findings, including aquatic feature classification information
- COMPASS's professional recommendation on the jurisdictionality of all on-site aquatic features
- A vicinity map
- A waters of the U.S., including wetlands, delineation map
- A USGS topographic map
- A Federal Emergency Management Agency (FEMA) map
- A USFWS National Wetland Inventory (NWI) map
- A Natural Resource Conservation Service (NRCS) soils map
- Electronic, geo-referenced shapefiles or CAD files of delineated boundaries
- Project site photographs documenting site conditions
- USACE Wetland Delineation Data Forms for each sampling point taken during field surveys

This scope of work only proposes to identify and delineate aquatic features within the project site and provide a written report documenting those findings to the client for their records and to assist in determining a development strategy for the property. The findings will document the potential presence or absence of Section 404/10 waterbodies within the project site; this is a critical first step in any regulatory process. If Section 404 permits or other regulatory approvals are required, COMPASS can perform this service under a separate scope at the request of the client. All field data and recommendations would be valid for a period of five years from the date of each report.

Threatened and Endangered Species Assessments

In conjunction with the fieldwork in Task 1, COMPASS will evaluate each assessment area for state and federally protected threatened and endangered (T&E) species and their potential habitat, with particular emphasis on freshwater mussels. COMPASS will provide effects determinations for both state and federally-listed species based on background research, including but not limited to, the USFWS Information for Planning and Conservation (IPaC) tool, USFWS Environmental Conservation Online System (ECOS) mapper, and TPWD Natural Diversity Database (NDD). Representative photographs, stream and wetland characteristics, and other pertinent data will be collected to document existing habitats within each area.

Cultural Resource Desktop Assessment

COMPASS and our qualified subcontractor, Gray & Pape, Inc., will conduct a cultural resources background research and prepare documentation for compliance with Section 106 of the National Historic Preservation Act (NRHP) and Texas State Historic Preservation Office (SPHO) standards. All phases of this work will be supervised by an archaeologist that meets Secretary of the Interior's Professional Qualification Standards for Archeology as set forth in 36 CFR 61. Background research will include a file search at the THC and review of historic references, documents, and maps.

Reporting and Deliverables

Waters of the U.S. Delineation, Threatened and Endangered Species, and Cultural Review Reporting

Following on-site investigations, an environmental overview report (EOR) will be prepared for the project. This report will include documentation required by the USACE, including, but not limited to: project introduction, background research, methodology, results, findings, COMPASS's professional recommendation on the jurisdictionality of all on-site aquatic features, site maps, a waters of the U.S., including wetlands delineation map, project site photographs documenting site conditions, and USACE Wetland Delineation Data Forms for each sampling point taken during field surveys. No coordination with the USACE is proposed as part of this scope. All findings presented in this letter report would be preliminary and based on COMPASS's professional experience with similar projects under similar circumstances. Only the USACE and EPA can make the final jurisdictional determination.

Mapping and GIS

All geographic information data (USACE Routine Data points for waters of the U.S. and uplands, position lines, photo-points, ordinary high water mark points, etc.) from the delineation will be compiled by field crews, downloaded, and corrected via Pathfinder into ArcGIS. Data will be recorded in accordance with the USACE Galveston District's Standard GPS Protocol. COMPASS's GIS analysts will input this data into a master map file for CobbFendley.

Task 2: Clean Water Act Section 10/404 Permitting

It is COMPASS's understanding that this project will be able to be processed under a Programmatic General Permit (PGP) or Regional General Permit (RGP) for crossings under Section 10 Navigable Waters.

COMPASS will draft and submit the appropriate documentation which will include all data collected and presented in the EOR. COMPASS will act as the Agent of Record for the duration of the permitting process and will conduct all coordination with the USACE and other agencies necessary to complete this permitting task. At this time, COMPASS does not believe that mitigation of any type will be necessary, however that is subject to change based on the findings of the field surveys and communication with the USACE once the permitting process begins.

COMPASS will be required to submit construction project plans for the proposed project, and will need

approximately 60% complete drawings for these two locations in order to provide the necessary information to the USACE.

Estimated Costs

The cost associated with this investigation is noted below. **This project is proposed to be conducted on a lump sum basis.**

Table 1 - Cost Detail for Environmental Support

Task	Effort	Cost
1	Waters of the U.S. Delineation, T&E Assessment, & Cultural Resources Review	\$8,500
2	Section 10/404 Clean Water Act Permit Preparation, Submission, and Coordination	\$10,500

Summary

To accept this cost estimate, please supply your company's preferred contracting mechanism. COMPASS will begin the work immediately after receiving the notice to proceed. All field work and the EOR will be completed and submitted to Cobb, Fendley, & Associates, Inc. within 45 calendar days from proposal approval.

CWA Permitting will be ready for review within 21 days after the EOR is completed AND COMPASS has received appropriate engineering construction drawings necessary for permit submission.

COMPASS greatly appreciates the opportunity to provide this scope of services and cost estimate. If you have any questions or would like any additional information, please feel free to contact me at (832) 595-9064 or ABoswell@CompassENVS.com.

Sincerely,



Andy Boswell
Principal/Sr. Scientist
Compass Environmental Solutions, LLC