



# AGENDA ITEM SUMMARY FORM

**MEETING DATE:** June 25, 2024  
**PREPARED BY:** Chris Whittaker  
**AGENDA CONTENT:** Texian Trail Subdivision Drainage Improvements

**AGENDA ITEM SECTION:** Regular Agenda

**BUDGETED AMOUNT:** \$350,000.00                      **FUNDS REQUESTED:**  
\$79,950.00

**FUND:** 40-506-625.50

## EXECUTIVE SUMMARY:

The City and Angleton Better Living Corporation (ABLC) has been working with City staff to identify potential drainage projects that would be eligible for funding from ABLC. Staff has been given direction to prepare a proposal for engineering service for the design, bid, and construction phase for the above mentioned project.

Texian Trail’s drainage system is showing signs of distress and recently required routine cleaning to maintain the system’s performance. The existing 30-inch High Density Polyethylene (HDPE) storm sewer is located in backyard drainage easements between Lots 4 & 5 on Texian Trail North and between Lots 20 & 21 and Lots 26 & 27 on Texian Trail South. The City requested that HDR provide a proposal for professional engineering services for the removal and abandonment of the existing storm sewer and the installation of a new storm sewer inside the existing drainage easement.

This proposal is for HDR to perform Design, Bid, and Construction Phase Services for these Improvements.

**RECOMMENDATION:** Council to approve HDR for an amount of \$79,950.00 to perform Texian Trail Subdivision Drainage Improvements.



June 18, 2024

Mr. Chris Whittaker  
City Manager  
City of Angleton  
121 S. Velasco  
Angleton, Texas 77515

Re: Proposal for Professional Engineering Services for  
Texian Trail Subdivision Drainage Improvements  
City of Angleton, Texas

Dear Mr. Whittaker:

HDR Engineering, Inc. (HDR) is pleased to submit this proposal for engineering services for the above referenced project. For your convenience, this proposal consists of Project Understanding, Scope of Services, Additional Services, Terms and Conditions, Fee Summary, Schedule, and Invoices.

### **PROJECT UNDERSTANDING**

Texian Trail's drainage system is showing signs of distress and recently required routine cleaning to maintain the system's performance. The existing 30-inch High Density Polyethylene (HDPE) storm sewer is located in backyard drainage easements between Lots 4 & 5 on Texian Trail North and between Lots 20 & 21 and Lots 26 & 27 on Texian Trail South. The City requested that HDR provide a proposal for professional engineering services for the removal and abandonment of the existing storm sewer and the installation of a new storm sewer inside the existing drainage easement.

This proposal will be for those improvements will consist of the following:

1. Remove and replace existing storm sewer located in existing backyard drainage easements.
2. Grout fill and abandon existing storm sewer where removal is not possible due to close proximity to an existing house.
3. Perform two (2) street concrete point repairs.
4. Remove, salvage, and reset existing wood fences.
5. New outfall at Angleton Drainage District facility.

## **SCOPE OF SERVICES**

### **I. DESIGN ENGINEERING PHASE**

- Contact private utility companies and other entities that may be involved in obtaining information on their existing facilities and requirements, which may impact the project.
- Process survey data of the project area and create background drawings.
- Conduct a site visit to verify the survey to identify any surface features and other information that could potentially impact design and construction.
- Delineate drainage area and create a drainage area map.
- Perform hydraulic calculation to size the proposed drainage system to City standard storm event.
- Examine geotechnical information to determine required potential soil conditions and potential impact on construction methodology and costs.
- Prepare 75% design plans (plan and profile view) and details for the proposed drainage improvements.
- Include project specific details including Angleton Drainage District standard outfall design.
- Prepare project specifications and contract documents.
- Prepare the engineer's opinion of probable construction costs (OPCC).
  - Any opinions of probable construction cost provided are made on the basis of information available to HDR and on the basis of HDR's experience and qualifications and represents its judgment as an experienced and qualified professional engineer. However, since HDR has no control over the cost of labor, materials, equipment or services furnished by others, or over the construction contractor(s') methods of determining prices, or over competitive bidding or market conditions, HDR does not guarantee that proposals, bids or actual construction costs will not vary from HDR's OPCCs
- Submit 75% design plans, specifications, and OPCC for review by the City.
- Incorporate City's comments into the plans and specifications.

- Prepare 100% design drawings, specifications, and contract documents suitable for bidding.
- Prepare final engineer's opinion of probable construction cost.
- Assist the City in obtaining and/or securing typical approvals required for public and private utilities affected by this project. Any requirements beyond standard application efforts, such as: special submittals, additional designs, appearances at special meetings, coordination of utility/pipeline excavation efforts, permitting applications, etc., will be performed and invoiced per Section II. Additional Services below. All permit fees will be the responsibility of the City of Angleton.
- Provide a set of Contract Documents to the City.

## **II. SPECIAL SERVICES**

### **A. Traffic Control**

- Prepare traffic control plans for the project. This plan will include phasing, detours, and required signs and lane closures to complete the proposed improvements.

### **B. Storm Water Pollution Prevention Plan**

- Prepare drawings for the required Storm Water Pollution Prevention Plan (SWPPP), in accordance with the Texas National Pollutant Discharge Elimination System (TPDES) General Permit for Storm Water Discharge from construction sites.

### **C. Topographical Survey Services**

- Utilize a subcontract survey firm to perform the surveying services.
- Obtain topographic survey approximately 550 linear feet along an existing backyard easement and ditch outfall.

### **D. Geotechnical Investigation Services**

- Utilize a subcontract geotechnical firm to perform the geotechnical investigation.

- Provide an engineering report describing soil stratigraphy, groundwater conditions, and bedding design requirements.

### **III. BID PHASE SERVICES**

This phase will be entered into after the acceptance of the Design Phase documents by the City.

- Assist the City in obtaining bids for the project. The City will advertise the project and will absorb all related advertising costs. HDR will coordinate with the City and will assist in developing the wording of the advertisement.
- HDR will post project plans and specifications on CivCast to generate interest for the project during the bidding process, provide information to and answer questions from potential bidders concerning the Project's construction documents and prepare addendums as necessary. The City will absorb costs associated to posting on CivCast.
- Conduct a pre-bid conference for potential bidders, including the preparation of the meeting agenda and preparing a meeting minutes summary.
- Respond to RFI's from potential bidders and issue any addendum to the bid contract documents that are required.
- Evaluate the bids and the qualifications of the apparent low bidder and advise the City as to the acceptability of the apparent low bidder.
- Prepare a letter of recommendation and advise the City as to the acceptability of the apparent low bidder.
- Attend a City Council Meeting to award construction project.

### **IV. CONSTRUCTION ADMINISTRATION SERVICES**

HDR will enter into this phase after the City accepts the bids and awards the contract to a contractor. Construction Administration Phase Services shall include the following:

- Prepare agenda, hold a pre-construction meeting, document meeting, and issue meeting minutes.
- Review and approve submittals for project materials.

- Review, process, and make recommendation of contractor's pay estimates.
- Act as the City's Project Representative during the construction phase.
- Review and respond accordingly to all request for information (RFI) as required by the contract specifications.
- Prepare change orders necessitated by field conditions for review and approval by the City prior to issuing to contractor.
- Visit the site at various stages of construction to observe the progress and quality of executed work and to determine in general if such work is proceeding in accordance with the Contract Documents. Full- or part- time site representation is not included as part of the Construction Administration phase tasks.
- HDR will not be responsible for the means, methods, techniques, sequences or procedures of construction selected by the Contractor(s). HDR's effort will be directed toward providing a greater degree of confidence for the City that the completed work of Contractor(s) will conform to the Contract Documents, but HDR will not be responsible for the failure of Contractor(s) to perform the work in accordance with the Contract Documents. During site visits HDR will keep the City informed of the progress of the work, will endeavor to guard the City against defects and deficiencies in such work and may disapprove or reject work failing to conform to the Contract Documents.
- Conduct a final inspection of the Project and create a punch list to close out construction.
- Make a recommendation for final payment on the Project.
- HDR will prepare record drawings utilizing the as-built drawings provided by the Contractor.
- One (1) electronic copy of the record drawings, scanned in PDF format, and placed on a disk will be provided to the City.

#### **ADDITIONAL SERVICES**

- Additional Services shall only be performed when directed by the City to HDR. These services are not considered normal or customary engineering services.

- Services resulting from significant changes in the extent of the project or its design including but not limited to changes in size, complexity, the City’s schedule, or character of construction or method of financing; and revising previously accepted studies, reports design documents or Contract Documents when such revisions are due to causes beyond HDR’s control.
- Preparing documents for alternate bids outside of the original scope requested by the City or documents for out of sequence work.
- Preparing to serve or serving as a consultant or witness for the City in any litigation, public hearing or other legal or administrative proceeding involving the Project.
- HDR will endeavor to appraise the City of any potential additional or extended services that may result from the above listed items, prior to HDR’s expenditure of time on such services. As previously noted, any such extended or additional services shall only be performed when directed by the City to HDR.

**TERMS AND CONDITIONS**

This project will be performed under the current on-going services contract with the City of Angleton, and its terms and conditions will apply.

**FEE SUMMARY**

**Design Phase Services**

Basic Design Services (Lump Sum):	\$ 44,450
Traffic Control (Lump Sum):	\$ 2,500
Storm Water Pollution Prevention Plan (Lump Sum):	\$ 2,300
Topographical Survey Services (Cost +10%):	\$ 2,850
<u>Geotechnical Investigation Services (Cost +10%)</u>	<u>\$ 6,000</u>
<b>Total Design Fee:</b>	<b>\$ 58,100</b>

**Bid Phase Services (Lump Sum):** **\$ 8,150**

**Construction Administration Phase Services (Lump Sum):** **\$ 13,700**

**TOTAL FEE:** **\$ 79,950**

**SCHEDULE**

It is estimated that the schedule to accomplish the complete design phase is approximately three (3) months from the date of authorization to proceed. Bid phase will be four (4) weeks, execution of the contract documents will be one (1) month and construction will take approximately three (3) months to complete.

**INVOICES**

HDR will submit monthly invoices for all engineering work completed to invoice date. The invoices for lump sum work will be based on a percentage of completion of each phase applied to the lump sum fee and based on the appropriate fee cost for work from our subconsultants. Time and materials charges and additional services beyond those described in the Scope of Services will be invoiced on the basis of direct labor costs times a factor of 3.18 and direct cost plus 10%. Mileage will be charged at prevailing IRS rates.

HDR appreciates the opportunity to submit this proposal and we look forward to continuing our work with the City.

Sincerely,

HDR ENGINEERING, INC.



David Weston  
Vice President/Area Manager

Approved:

Authorized signature on behalf of the City of Angleton: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_





PROP. 35 L.F.  
24" RCP

10-FEET WIDE  
POINT REPAIR

REMOVE AND REPLACE  
50 S.F. SIDEWALK

REMOVE EXISTING  
STORM SEWER

PROP. 255 L.F.  
30" RCP

PROP. PLUG

GROUT FILL 85 L.F. OF  
EXISTING 30" HDPE

PROP. 10 L.F.  
30" RCP

PROP. PLUG

PROP. STORM  
SEWER  
MANHOLE

REMOVE EXISTING STORM SEWER

REMOVE EXISTING  
STORM SEWER

PROP. STORM SEWER MANHOLE

PROP. 10 L.F.  
30" RCP

REMOVE AND REPLACE  
50 S.F. SIDEWALK

10-FEET WIDE  
POINT REPAIR

PROP. 45 L.F.  
30" RCP

REMOVE AND REPLACE  
50 S.F. SIDEWALK

REMOVE EXISTING  
STORM SEWER

PROP. 170 L.F.  
30" RCP

REMOVE EXISTING OUTFALL

PROP.  
OUTFALL

CR 428

TX 35

35

Buchta Rd  
CR 428

Buchta Rd  
CR 428

35

TX 35

E Mulberry St  
E Mulberry St

South Buchta Rd

E Mulberry St  
East Mulberry Street

E Mulberry St  
East Mulberry Street

Knicht St  
Knicht Street

BUDGETARY COST FOR TEXIAN TRAIL					
CITY OF ANGLETON					
JANUARY, 2024					
ITEM NO.	ITEM DESCRIPTION	UNIT	QUAN.	UNIT PRICE	TOTAL AMOUNT
1	Remove Storm Sewer Pipe Less Than or Equal to 30" Diameter, all depths	L.F.	430	\$ 20.00	\$ 8,600.00
2	Storm Sewer Brick Plug, per detail, more than 24" Diameter, 2 Rows, including Mortar and Grout, all depths	E.A.	2	\$ 1,330.00	\$ 2,660.00
3	Abandon and Grout-fill of existing Storm Sewer, including plugs, complete in place, the sum of:	L.F.	85	\$ 450.00	\$ 38,250.00
4	24" Diameter Reinforced Concrete Pipe, ASTM C76, Class III storm sewer, rubber gasket joints, all depths, cement stabilized sand bedding and backfill, complete in place the sum of:	L.F.	35	\$ 130.00	\$ 4,550.00
5	30" Diameter Reinforced Concrete Pipe, ASTM C76, Class III storm sewer, rubber gasket joints, all depths, cement stabilized sand bedding and backfill, complete in place the sum of:	L.F.	490	\$ 160.00	\$ 78,400.00
6	Connect proposed storm sewer to existing Inlet with concrete collar, complete in place, the sum of:	E.A.	7	\$ 1,500.00	\$ 10,500.00
7	6' Diameter Precast Storm Sewer Manhole, complete in place,the sum of:	E.A.	2	\$ 9,000.00	\$ 18,000.00
8	Move Utility telecommunication facility,complete in place the sum of:	E.A.	2	\$ 800.00	\$ 1,600.00
9	Remove existing outfall, complete in place,the sum of:	S.F.	200	\$ 8.00	\$ 1,600.00
10	4" thick reinforced concrete paving including all toe walls per detail, complete in place,the sum of:	S.F	510	\$ 20.00	\$ 10,200.00
11	18" thick class B Riprap, complete in place,the sum of:	S.Y	35	\$ 165.00	\$ 5,775.00
12	Full rough 2x12x16 pressure treated timbers, complete in place,the sum of:	L.F.	28	\$ 108.00	\$ 3,024.00
13	Remove and replace 6-inch concrete curb, complete in place, the sum of:	LF	40	\$ 10.00	\$ 400.00
14	Remove existing sidewalk and replace with 4"-thick sidewalk, complete in place, the sum of:	S.F	150	\$ 15.00	\$ 2,250.00
15	Remove and replace full-depth concrete point repair, complete in place, the sum of:	SY	80	\$ 175.00	\$ 14,000.00
16	Trench safety for all storm sewer greater than 5' deep, including installation, operation and removal, complete in place, the sum of:	L.F.	525	\$ 2.00	\$ 1,050.00
17	Inlet Protection Barrier Type III (at Existing & Proposed Stage II Inlets), including maintenance and removal, complete in place the sum of:	E.A.	8	\$ 135.00	\$ 1,080.00
18	Remove and reset wooden split rail fence,cocomplete in place the sum of:	L.F.	350	\$ 50.00	\$ 17,500.00
19	Tree Removal,complete in place the sum of:	L.S	1	\$ 20,000.00	\$ 20,000.00
<b>SUB-TOTAL ITEMS</b>					<b>\$ 239,439.00</b>
<b>20% CONTINGENCY</b>					<b>\$ 47,900.00</b>
<b>5% MARKET VOLATILITY</b>					<b>\$ 12,000.00</b>
<b>TOTAL OPINION OF PROBABLE CONSTRUCTION COST</b>					<b>\$ 299,339.00</b>
<b>DESIGN, BID PHASE, CONSTRUCTION PHASE</b>					<b>\$ 59,867.80</b>
<b>TOPOGRAPHIC SURVEY SERVICES</b>					<b>\$ 4,500.00</b>
<b>GEOTECHNICAL SERVICES</b>					<b>\$ 2,600.00</b>
<b>STORMWATER POLLUTION PREVENTION SERVICES</b>					<b>\$ 5,000.00</b>
<b>TRAFFIC CONTROL SERVICES</b>					<b>\$ 8,000.00</b>
<b>TOTAL ENGINEERING FEES</b>					<b>\$ 79,967.80</b>
<b>TOTAL PROJECT COST</b>					<b>\$ 379,306.80</b>

\*This estimate includes a 5% Market Volatility.

\*\*Any opinion of construction costs prepared by HDR is supplied for the general guidance of the Client only. Since HDR has no control over competitive bidding or market conditions, HDR cannot guarantee the accuracy of such opinions as compared to contract bids or actual costs to