

## **AGREEMENT FOR ENGINEERING & DESIGN SERVICES**

**For:**

### **Drainage Improvements for Norwood Street**

This Agreement is made and entered into in Deer Park, Harris County, Texas on:

January 19, 2021, by and between

**The City of Deer Park**, a Municipal Corporation in the State of Texas

**AND**

**Cobb Fendley and Associates. (Cobb Fendley)** ENGINEER(s) duly licensed, and practicing under the laws of the State of Texas.

Said Agreement being executed by the City pursuant to the City Charter, Ordinances, and Resolutions of the City Council, and by the Engineer for engineering services hereinafter set forth in connection with the above-designated Project for the City of Deer Park.

DEER PARK retains **Cobb Fendley** to perform professional engineering services related to:

**Proposal for Professional Engineering Services for Drainage Improvements for Norwood Street (Proposal dated: June 02, 2020, and attached hereto as: Exhibit A)**

in return for consideration to be paid by DEER PARK under terms and conditions set forth below.

### **ARTICLE 1. SCOPE OF WORK**

- 1.1 ENGINEER will provide engineering, design, consultation, project management, and other services as required to perform and complete the Scope of Work & Services specifically identified in **Exhibit A** of this Agreement. The Services Scope of Work (the "Work") and the time schedules set forth in **Exhibit A** are based on information provided by DEER PARK and ENGINEER. The schedule of milestones and deliverables are essential terms of this Agreement.
- 1.2 If this information is incomplete or inaccurate, or if site conditions are encountered which materially vary from those indicated by DEER PARK, or if DEER PARK directs ENGINEER to change the original Scope of Work shown in Attachment A, a written amendment equitably adjusting the costs, performance time and/or terms and conditions, shall be executed by DEER PARK and ENGINEER.

## **ARTICLE 2. COMPENSATION**

- 2.1 ENGINEER bills for its services on a time and materials basis using the Schedule of Rates and Terms entitled Estimated Level of Effort (“Schedule of Rates”) attached as Exhibit A of this Agreement. As requested, ENGINEER has provided an estimate of the fees for the Work amounting **\$68,720.00 (sixty-eight thousand, seven-hundred and twenty dollars)**. ENGINEER will not exceed that estimate without prior approval from DEER PARK. ENGINEER will notify DEER PARK, for approval, of any proposed revisions to the Schedule of Rates and effective date thereof which shall not be less than thirty (30) days after such notice.
- 2.2 ENGINEER will submit monthly invoices for Services rendered, and DEER PARK will make payment within thirty (30) days of receipt of ENGINEER’S invoices. If DEER PARK objects to all or any portion of an invoice, it will notify ENGINEER of the same within fifteen (15) days from the date of receipt of the invoice and will pay that portion of the invoice not in dispute, and the parties shall immediately make every effort to settle the disputed portion of the invoice. Prices or rates quoted do not include state or local taxes.

## **ARTICLE 3. DEER PARK’S RESPONSIBILITIES**

- 3.1 DEER PARK will designate in writing the person or persons with authority to act on DEER PARK’S behalf on all matters concerning the work to be performed.
- 3.2 DEER PARK will furnish to ENGINEER all existing studies, reports, data and other information available to DEER PARK necessary for performance of the Work, authorize ENGINEER to obtain additional data as required, and furnish the services of others where necessary for the performance of the Work. ENGINEER will be entitled to use and rely upon all such information and services.
- 3.3 Where necessary to performance of the Work, DEER PARK shall arrange for ENGINEER to have access to any site or property.

## **ARTICLE 4. PERFORMANCE OF SERVICE**

- 4.1 ENGINEER’S services will be performed within the schedule and time period set forth in Schedule A.
- 4.2 ENGINEER shall perform the Work, and any additional services as may be required, for the development of the Project to completion.
- 4.3 If required, additional services will be performed and completed within the time period agreed to in writing by the parties at the time such services are authorized.

- 4.4 If any time period within or date by which any of ENGINEER's services are to be performed is exceeded for reasons outside of ENGINEER's reasonable control, all rates, measures and amounts of compensation and the time for completion of performance shall be subject to equitable adjustment.

## **ARTICLE 5. CONFIDENTIALITY**

- 5.1 ENGINEER will hold confidential all information obtained from DEER PARK, not previously known by ENGINEER or in the public domain.

## **ARTICLE 6. STANDARD OF CARE & WARRANTY**

- 6.1 Standard of Care. In performing services, ENGINEER agrees to exercise professional judgment, made on the basis of the information available to ENGINEER, and to perform its engineering services with the professional skill and care of competent design professionals practicing in the same or similar locale and under the same or similar circumstances and professional license. ENGINEER also agrees to perform its engineering services as expeditiously as is prudent considering this standard of care. This standard of care shall be judged as of the time and place the services are rendered, and not according to later standards.
- 6.2 Warranty. If any failure to meet the foregoing standard of care Warranty appears during one year from the date of completion of the service and ENGINEER is promptly notified thereof in writing, ENGINEER will at its expense re-perform the nonconforming work.
- 6.3 The foregoing Warranty is the sole and express warranty obligation of ENGINEER and is provided in lieu of all other warranties, whether written, oral, implied or statutory, including any warranty of merchantability. Engineer does not warrant any products or services of others. ENGINEER, however, expressly acknowledges that these warranty obligations do not eliminate the applicability of the standard of care to all of its work and that the OWNER may still retain remedies against ENGINEER following the expiration of the warranty period in contract, tort, or otherwise as the law allows.

## **ARTICLE 7. INSURANCE**

- 7.1 ENGINEER will procure and maintain insurance as required by law. At a minimum, ENGINEER will have the following coverage:
- (1) Workers compensation and occupational disease insurance in statutory amounts.
  - (2) Employer's liability insurance in the amount of \$1,000,000.

- (3) Automobile liability in the amount of \$1,000,000.
- (4) Commercial General Liability insurance for bodily injury, death or loss of or damage to property of third persons in the amount of \$1,000,000 per occurrence, \$2,000,000 in the aggregate.
- (5) Professional errors and omissions insurance in the amount of \$1,000,000.

7.2 ENGINEER has provided a Statement of Insurance to DEER PARK demonstrating and reflecting that ENGINEER has procured and maintains insurance coverage in accordance with the requirements stated above. That Statement of Insurance is Attachment C of this Agreement.

## **ARTICLE 8. INDEMNITY**

8.1 THE ENGINEER SHALL INDEMNIFY AND HOLD HARMLESS THE CITY, ITS OFFICERS, OFFICIALS, AGENTS AND EMPLOYEES FROM AND AGAINST ALL CLAIMS, CAUSES OF ACTION, LOSSES, LAWSUITS, JUDGMENTS, FINES, PENALTIES, COSTS, DAMAGES, OR LIABILITY OF ANY CHARACTER, TYPE OR DESCRIPTION INCLUDING WITHOUT LIMITATION, ALL EXPENSES OF LITIGATION, INCLUDING EXPERT OR CONSULTANT FEES, COURT COSTS, AND ATTORNEY'S FEES, RESULTING FROM PERSONAL INJURY (INCLUDING DEATH), PROPERTY DAMAGE OR OTHER HARM, BUT ONLY TO THE EXTENT THAT SUCH PERSONAL INJURY, PROPERTY DAMAGE OR HARM IS CAUSED BY OR RESULTS FROM AN ACT OF NEGLIGENCE, INTENTIONAL TORT, INTELLECTUAL PROPERTY INFRINGEMENT, OR FAILURE TO PAY A SUBCONTRACTOR OR SUPPLIER COMMITTED BY THE ENGINEER OR THE ENGINEER'S AGENT, CONSULTANT UNDER CONTRACT, OR ANOTHER ENTITY OVER WHICH THE ENGINEER EXERCISES CONTROL.

IF THE CITY DEFENDS AN ACTION, CLAIM, AND LAWSUIT OR OTHERWISE INCURS ATTORNEY'S FEES AS A RESULT OF AN INDENMIFIED CLAIM AS STATED ABOVE, ENGINEER AGREES TO REIMBURSE THE CITY IN PROPORTION TO THE ENGINEERS LAIBILITY.

8.2 ENGINEER agrees to and shall contractually require its consultants and subcontractors of any tier to assume the same indemnification obligations to Indemnities as stated herein.

## **ARTICLE 9. OWNERSHIP OF DOCUMENTS**

9.1 As long as DEER PARK is current in the payment of all undisputed invoices, all work product prepared by the ENGINEER pursuant to this Agreement, including, but not limited to, all Contract Documents, Plans and Specifications and any computer aided design, shall be the sole and exclusive property of DEER PARK, subject to the ENGINEER's reserved rights.

- 9.2 ENGINEER's technology, including without limitation customary techniques and details, skill, processes, knowledge, and computer software developed or acquired by ENGINEER or its Consultants to prepare and manipulate the data which comprises the instruments of services shall all be and remain the property of the ENGINEER.

#### **ARTICLE 10. INDEPENDENT CONTRACTOR**

- 10.1 The ENGINEER is an independent contractor and shall not be regarded as an employee or agent of the DEER PARK.

#### **ARTICLE 11. COMPLIANCE WITH FEDERAL, STATE AND LOCAL LAWS**

- 11.1 The ENGINEER shall observe all applicable provisions of the federal, state and local laws and regulations, including those relating to equal opportunity employment.

#### **ARTICLE 12. SAFETY**

- 12.1 DEER PARK shall inform the ENGINEER and its employees of any applicable site safety procedures and regulations known to DEER PARK as well as any special safety concerns or dangerous conditions at the site. The ENGINEER and its employees will be obligated to adhere to such procedures and regulations once notice has been given.
- 12.2 ENGINEER shall not have any responsibility for overall job safety at the site. If in ENGINEER's opinion, its field personnel are unable to access required locations or perform required services in conformance with applicable safety standards, ENGINEER may immediately suspend performance until such safety standards can be attained. If within a reasonable time site operations or conditions are not brought into compliance with such safety standards, ENGINEER may in its discretion terminate its performance, in which event, DEER PARK shall pay for services and termination expenses as provided in Article 18.

#### **ARTICLE 13. LITIGATION**

- 13.1 At the request of DEER PARK, ENGINEER agrees to provide testimony and other evidence in any litigation, hearings or proceedings to which DEER PARK is or becomes a party in connection with the work performed under this Agreement, unless DEER PARK and the ENGINEER are adverse to one-another in any such litigation.
- 13.2 Any litigation arising out of this Agreement between DEER PARK and ENGINEER shall be heard by the state district courts of Harris County.

#### **ARTICLE 14. NOTICE**

- 14.1 All notices to either party by the other shall be deemed to have been sufficiently given when made in writing and delivered in person, by electronic mail, facsimile, certified mail or courier to the address of the respective party or to such other address as such party may designate.

#### **ARTICLE 15. TERMINATION**

- 15.1 The performance of work may be terminated or suspended by DEER PARK, for any reason. Such suspension or termination shall be subject to notice of DEER PARK's election to either suspend or terminate the Agreement fifteen (15) days' prior to the effective suspension or termination date. The Notice shall specify the extent to which performance of work is suspended or terminated and the date upon which such action shall become effective. In the event work is terminated or suspended by DEER PARK prior to the completion of services contemplated hereunder, ENGINEER shall be paid for (i) the services rendered to the date of termination or suspension and reasonable services provided to effectuate a professional and timely project termination or suspension.

#### **ARTICLE 16. SEVERABILITY**

- 16.1 If any term, covenant, condition or provision of this Agreement is found by a court of competent jurisdiction to be invalid, void or unenforceable, the remainder of this Agreement shall remain in full force and effect, and shall in no way be affected, impaired or invalidated thereby.

#### **ARTICLE 17. WAIVER**

- 17.1 Any waiver by either party or any provision or condition of this Agreement shall not be construed or deemed to be a waiver of a subsequent breach of the same provision or condition, unless such waiver is so expressed in writing and signed by the party to be bound.

#### **ARTICLE 18. GOVERNING LAW**

- 18.1 This Agreement will be governed by and construed and interpreted in accordance with the laws of the State of Texas.

#### **ARTICLE 19. CAPTIONS**

- 19.1 The captions contained herein are intended solely for the convenience of reference and shall not define, limit or affect in any way the provisions, terms and conditions hereof or their interpretation.

## **ARTICLE 20. ENTIRE AGREEMENT**

20.1 This Agreement, its articles, provision, terms, and attached Schedules represent the entire understanding and agreement between DEER PARK and ENGINEER and supersede any and all prior agreements, whether written or oral, and may be amended or modified only by a written amendment signed by both parties.

This Agreement is effective on the last day signed.

**Cobb Fendley**

By\_\_\_\_\_

Name\_\_\_\_\_

Title\_\_\_\_\_

Date\_\_\_\_\_

**The City of Deer Park**

By\_\_\_\_\_

Name\_\_\_\_\_

Title\_\_\_\_\_

Date\_\_\_\_\_

# EXHIBIT A



June 2, 2020

Mr. Bill Pedersen, P.E.  
Public Works Director  
City of Deer Park  
710 E San Augustine  
Deer Park, Texas 77536

Re: Proposal for Professional Engineering Services for  
Drainage Improvements for Norwood Street

Dear Mr. Pedersen:

Cobb, Fendley & Associates, Inc. (CobbFendley) is pleased to submit this proposal to provide Professional Engineering Services for the above-mentioned drainage improvement projects in Deer Park, Texas. CobbFendley proposes to provide the Scope of Services and Compensation as outlined in the attached Exhibit A and B.

If this proposal is agreeable to you, please indicate your acceptance by signing in the space provided below and return one copy to us for our file. The opportunity to propose professional survey and engineering service to the City of Deer Park is appreciated and we look forward to serving you on this project. Please advise if you have any questions or require additional information.

Sincerely,

COBB, FENDLEY & ASSOCIATES, INC.

A handwritten signature in blue ink, appearing to read "C. Eastland", written over a horizontal line.

Charles M. Eastland, P.E.  
Executive Vice President  
Regional Manager

Attachments

This proposal accepted by:

CITY OF DEER PARK, TEXAS

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date of Authorization



**EXHIBIT A**  
**SCOPE OF SERVICES & COMPENSATION**  
Cobb, Fendley & Associates, Inc.  
Proposal for Professional Engineering Services for  
Norwood Street Drainage Improvements

**Project/Limits**

***Norwood Street Drainage Improvements***

The Norwood Street Drainage Improvements project provides for the construction of drainage improvements to alleviate excessive street ponding on Norwood Street. The project area is a small subset of the overall Deer Park Gardens Neighborhood Drainage Project which has previously been studied. This project will include updating the existing drainage models for the project area, determining drainage impacts and creating a mitigated solution. It is anticipated that the project will consist of replacing inlets on Norwood Street and upsizing storm sewer on 8<sup>th</sup> Street and Norwood Street. The project may also include adding additional inlets to capture overland sheet flow occurring from offsite properties.

See *Exhibit C - Project Limits*

**General**

Cobb, Fendley & Associates, Inc. (CobbFendley) will perform professional engineering services as follows: topographic survey, design phase services, bid phase services, and construction phase services.

**Sub Consultants**

No subconsultant tasks are anticipated on this project.

**Construction Estimate**

The preliminary Opinion of Probable Construction Costs for these projects are attached as Exhibit D.

**BASIC SERVICES**

CobbFendley will provide the following engineering services as part of its basic services. The specific items of service include:

***Design Phase Services:***

1. Data collection, including “as-built plans”, existing schematics, right-of-way maps, floodplain information, special specifications, and standard drawings.
2. Conduct field reconnaissance and collect data including a photographic record of notable existing features.
3. Prepare topographic drawings from survey data of the proposed alignment.

4. Perform the utility and investigation work involving the research and identification of all private and public utilities within the project limits.
  - a. Research the existence of public utilities such as sanitary, storm sewer and waterlines.
  - b. Request any additional information from private utilities (CenterPoint Gas, CenterPoint Electric, AT&T and Others) and pipeline.
  - c. Identify potential conflicts between the existing utilities and the proposed project improvements.
  - d. Coordinate with utility companies on plans for relocations and provide updated project design information.
5. Provide construction plan drawings. The plans will include, at a minimum, the following.

• Cover Sheet	• Drainage Area Map
• Overall Project Layout	• Storm Sewer Layout
• Typical Cross Sections	• Survey Control Map
• SWPP Plan	• Plan and Profiles Sheets
• Demolition Plan	• Traffic Control Plan
• General Notes and Details	
6. CobbFendley will provide roadway plan and profile drawings using CADD standards as required by the City. The drawings will consist of a plan and profile view of existing features and proposed improvements.

Plan view will include:

- a. Roadway centerlines and baselines
- b. Pavement edges for all improvements
- c. Lane and pavement width dimensions
- d. Sidewalks
- e. Proposed structure locations
- f. Direction of traffic flow on all roadway, and arrows indicating the number of lanes
- g. Existing utilities and structures
- h. Benchmark information
- i. Pavement Details

Profile view will include:

- a. Existing and proposed profiles along the proposed centerline
- b. Existing and Proposed Grade Lines for pavement and natural ground along the project centerline.

7. Prepare Survey Control Sheets based on information provided by Project Surveyor.
8. Update drainage area boundaries, hydrologic runoff rates and resultant flows for the systems included in the project area as necessary based on survey data.

9. Size proposed storm sewer to meet City's 2-year rainfall event.
10. Coordinate with Harris County Flood Control (HCFCD) for work performed within HCFCD facilities and obtain approvals.
11. CobbFendley will prepare Storm Water Pollution Prevention Plan (SW3P) sheets and details based on the latest NPDES, Harris County Stormwater Quality Standards and City standards to minimize the potential impact to receiving waterways.
12. CobbFendley will prepare Traffic Control Plan (TCP) sheets in accordance with the Texas Manual on Uniform Traffic Control Devices (TMUTCD) for Streets and Highways (latest edition).
13. Prepare contract bidding documents consisting of technical specifications and contract documents outlining the construction contract requirements.
14. CobbFendley will provide construction documents based on the milestone submittals below:
  - a. 60% Milestone Submittal:
    - i. 2 set of 22"x34" plan sheets for City review.
    - ii. Opinion of Probable Construction Cost
    - iii. Digital Copy of the previous items in .pdf format
  - b. 90% Milestone Submittal:
    - i. 2 sets of 22"x34" plan sheets for City review.
    - ii. 1 project manual with specifications for City Review.
    - iii. Opinion of Probable Construction Cost
    - iv. Digital Copy of the previous items in .pdf format
  - c. Final Milestone Submittal:
    - i. 2 sets of 22"x34" plan sheets for City review.
    - ii. 1 project manual with specifications for City Review.
    - iii. Opinion of Probable Construction Cost
    - iv. Construction schedule.
    - v. Digital Copy of the previous items in .pdf format
15. Once all comments are received by all entities involved, CobbFendley will finalize the construction documents for bidding.

***Bid Phase Services:***

1. Upload digital plans and specifications to CivCast.
2. Respond in writing to questions from Bidders and prepare Addenda as necessary.
3. Conduct Pre-Bid and attend the Bid Opening.

4. 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 unbalance bid items and determine responsiveness and responsibility of low bidders.
  - c. Certify Bid Tabulation including Engineer's estimate
  - d. Review of Bidder's financial standing and references provided
  - e. Recommendation to award
5. Prepare and provide the City with three (3) sets of hard copy award documents and plans.

***Construction Administration Services:***

1. Attend and conduct preconstruction conference.
2. Calculate quantities and assist in preparing change orders as necessary.
3. Review and approval of submittals and shop drawings.
4. Respond to request for information (RFI's) regarding the project improvements.
5. Make a site visit during 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.
6. Prepare Pay Applications for Approval.
7. Attend a Substantial Completion Inspection and prepare one Punch List.
8. Attend and conduct Final Acceptance Inspection of the project and prepare punch list as necessary.
9. Prepare Record Drawings based on Contractor Mark-up.
10. Provide City with necessary close out documents, including certificate of completion, record drawings, and contractor warranty documents on the project.

**ADDITIONAL SERVICES**

**Surveying**

CobbFendley, as the project surveyor shall:

1. Establish horizontal and vertical project control throughout the site. Vertical control will be tied to current TSARP datum.
2. Perform a Category 6, Condition II topographical survey of the project area in accordance with the requirements of the Texas Society of Professional

Surveyors to locate existing utilities, appurtenances and pavement providing cross sections of the following existing features: natural ground, concrete curbs and pavement. Elevations will be obtained at a maximum of 50-ft intervals, right-of-way to right-of-way.

3. Prepare a survey drawing on a plan style sheet at a scale of 1"=20' horizontally or at the direction of the engineer. The drawing will depict the obtained field information and any record information provided by outside sources.

### **Drainage Analysis Services**

The purpose of performing a hydrologic and hydraulic analysis is to determine if any negative impacts will occur to water surface elevations associated with improving the storm sewer and inlets near the intersection of Norwood Street and E. 8<sup>th</sup> Street in Deer Park, Texas. The storm sewer improvements associated with this analysis are a small subset of the overall Deer Park Gardens Neighborhood Drainage Project. It has become necessary to perform these improvements to alleviate repetitive street ponding during the more frequent rainfall events.

The following tasks will be performed and the recommended improvements will be described in a letter report and included in the associated plan set:

1. Modify the previously prepared existing condition to include the improvements recommended for the project location from the overall neighborhood drainage study
2. Add additional nearby areas which are in close proximity that could potentially benefit from this small project and add to models
3. Determine what impacts occur, if any, and create a mitigated solution
4. Create maps tables and exhibits
5. Write letter memo report

### **Exclusions for 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 City may wish to add to the scope of services shall be deemed as **SUPPLEMENTAL ADDITIONAL SERVICES**. CobbFendley shall undertake such supplemental additional services as assigned by the City upon written direction from the City. Examples of such items are as follows:

1. Quality Control (QC) inspections, full or part time, during the construction phase of the project.
2. Geotechnical Engineering Services
3. Sidewalk Inspection
4. Environmental Engineering Services
5. Materials Testing Services
6. Public Meetings

7. Obtaining Construction Permits
8. Platting
9. Preparation of Easements
10. Right-of-way Acquisition
11. Bidding project more than once
12. Urban Forestry Services – Tree Preservation Plan
13. Any other services not specifically included within the description of the Basic Services and Additional Services as described above.

If supplemental services are requested by the City, CobbFendley will provide the City with a separate proposal for the supplemental work.

**EXHIBIT B**

**BASIS OF COMPENSATION**

**NORWOOD STREET DRAINAGE IMPROVEMENTS**

**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 subconsultant invoices will be subject to a 10% administration charge.

1. Design Phase Services (Lump Sum) ..... \$34,950
2. Bid Phase Services (Lump Sum) ..... \$4,380
3. Construction Administration Services (Lump Sum)..... \$8,160

**ADDITIONAL SERVICES**

4. Surveying (Lump Sum)..... \$11,300
5. Drainage Study..... \$8,930

**Reimbursable Expenses**

1. Reproduction, mileage, delivery charges, etc. .... \$1,000

**TOTAL, Basic & Additional Services incl. Reimbursables..... \$68,720**

### **ADDITIONAL SERVICES**

The Compensation to be paid to CobbFendley for providing any ADDITIONAL SERVICES under this agreement shall be based on the rate schedule included in the Agreement. Reimbursable items and 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.

Lump sum fees will be negotiated for particular, defined assignments at the request of the City. When an occasion arises which the City desires to be covered by a lump sum fee, CobbFendley will negotiate an acceptable fee with the City and prepare an addendum to this Agreement which describes the scope of services to be provided and the fee. The addendum will be effective only after its signature by both parties.

Direct Personnel Expense means salaries and wages paid to CobbFendley's employees plus payroll related costs and benefits such as payroll taxes, worker's compensation, health and retirement benefits, bonuses, sick leave, vacation, and holiday pay applicable hereto. Reimbursable Direct Expenses shall be those costs incurred on or directly for the CLIENT'S project, including but not limited to necessary transportation costs including mileage at the current IRS rate, meals and lodging, laboratory tests and analyses, and printing and binding charges.





EXHIBIT C  
PROJECT LOCATION

TASK DESCRIPTION	PRINCIPAL	PROJECT MANAGER	SR HYDROLOGIST	PROJECT ENGINEER II	PROJECT ENGINEER I	SR TECH I	ADMIN		TOTAL LABOR HRS. & COSTS	TOTAL COST PER TASK
<b>CONTRACT LABOR RATE PER HOUR</b>	\$290.00	\$195.00	\$220.00	\$150.00	\$125.00	\$125.00	\$105.00			
<b>A. BASIC SERVICES</b>										
<b>1. DESIGN PHASE SERVICES:</b>										
<b>I. DATA COLLECTION AND FIELD RECONNAISSANCE</b>										
a. Obtain and Request Existing As-builts, ROW Maps, Drainage Data, Etc.		1				6			7	\$945.00
b. Conduct Field Reconnaissance and Collect Data, Take Pictures		4							4	\$780.00
<b>II. UTILITY COORDINATION</b>										
a. Request Info from Public & Private Utilities and Pipelines		1		2	6				9	\$1,245.00
b. Prepare and Update Utility Sheet(s)		1			8				9	\$1,195.00
c. Obtain Utility Signatures					6				6	\$750.00
d. Coordinate with Utilities (Public and Private) on Relocations		1			4				5	\$695.00
<b>III. ROADWAY AND DRAINAGE DESIGN</b>										
a. Create Title Sheet		1				4			5	\$695.00
b. Create Index Sheet, General Notes and Details		1		6		8			15	\$2,095.00
c. Prepare Drainage Area Map		2		8		8			18	\$2,590.00
d. Prepare Typical Sections Sheet(s)		1		2		4			7	\$995.00
e. Prepare Removal (Demo) Sheets				1		6			7	\$900.00
f. Prepare Plan and Profiles Sheets, incl. Paving and Drainage Replacement		2		4	14	24			44	\$5,740.00
<b>IV. STORMWATER POLLUTION PREVENTION PLAN (SW3P)</b>										
a. Prepare SW3P Sheet(s) and Detail Sheet(s)				2		6			8	\$1,050.00
<b>V. TRAFFIC CONTROL PLAN (TCP)</b>										
a. Prepare Traffic Control Plan Phase Sheet(s) with Typical Sections		2		4		12			18	\$2,490.00
b. Prepare Detour Plan Sheet(s)		1				8			9	\$1,195.00
<b>VI. MISCELLANEOUS</b>										
a. Prepare 60% Milestone Submittal		2				6			8	\$1,140.00
b. Prepare 90% Milestone Submittal		2				6			8	\$1,140.00
c. Prepare Final Milestone Submittal		2				4			6	\$890.00
d. QA / QC Reviews	2	6							8	\$1,750.00
<b>VII. PROJECT MANUAL, SPECIFICATIONS AND GENERAL NOTES</b>										
a. Standard Front End Document Preparation		2					6		8	\$1,020.00
b. Prepare Specifications, Special Specifications and Special Provisions		4		4	8		8		24	\$3,220.00
<b>VIII. PROJECT MANAGEMENT</b>										
a. Project Invoicing		2					4		6	\$810.00
b. Progress Meetings (60% and 90%)		6		3					9	\$1,620.00
<b>HOURS SUB-TOTALS</b>	2	44	0	36	46	102	18		248	
<b>TOTAL LABOR COSTS</b>	\$580.00	\$8,580.00	\$0.00	\$5,400.00	\$5,750.00	\$12,750.00	\$1,890.00		<b>\$34,950.00</b>	
<b>% DISTRIBUTION OF STAFFING</b>	0.8%	17.7%	0.0%	14.5%	18.5%	41.1%	7.3%			

TASK DESCRIPTION	PRINCIPAL	PROJECT MANAGER	SR HYDROLOGIST	PROJECT ENGINEER II	PROJECT ENGINEER I	SR TECH I	ADMIN		TOTAL LABOR HRS. & COSTS	TOTAL COST PER TASK
<b>CONTRACT LABOR RATE PER HOUR</b>	\$290.00	\$195.00	\$220.00	\$150.00	\$125.00	\$125.00	\$105.00			
<b>2. BID PHASE</b>										
a. Conduct Pre-Bid and Bid Opening		6		2					8	\$1,470.00
b. Respond to Bidder Questions and Prepare Addenda(s)		2		4			2		8	\$1,200.00
c. Review Bids and Prepare Bid Tabulation		1					4		5	\$615.00
d. Prepare Recommendation of Award Letter		2		4			1		7	\$1,095.00
HOURS SUB-TOTALS	0	11	0	10	0	0	7		28	
TOTAL LABOR COSTS	\$0.00	\$2,145.00	\$0.00	\$1,500.00	\$0.00	\$0.00	\$735.00		<b>\$4,380.00</b>	
% DISTRIBUTION OF STAFFING	0.0%	39.3%	0.0%	35.7%	0.0%	0.0%	25.0%			
<b>3. CONSTRUCTION ADMINISTRATION</b>										
a. Attend Preconstruction Meeting		4							4	\$780.00
b. Attend Field Meetings and Periodic Site Visits				4					4	\$600.00
c. Calculate Quantities and Assist in Preparing Change Orders		1		4					5	\$795.00
d. Review and Approve Submittals and Shop Drawings		1		6					7	\$1,095.00
e. Respond to Request for Information (RFI's)		3							3	\$585.00
f. Attend Substantial Completion Inspection and prepare Punchlist		4					2		6	\$990.00
g. Attend Final Completion Inspection		4					2		6	\$990.00
h. Prepare Pay Applications for Approval		6					2		8	\$1,380.00
i. Prepare Record Drawings		1			6				7	\$945.00
HOURS SUB-TOTALS	0	24	0	14	6	0	6		50	
TOTAL LABOR COSTS	\$0.00	\$4,680.00	\$0.00	\$2,100.00	\$750.00	\$0.00	\$630.00		<b>\$8,160.00</b>	
% DISTRIBUTION OF STAFFING	0.0%	48.0%	0.0%	28.0%	12.0%	0.0%	12.0%			

TASK DESCRIPTION	PRINCIPAL	PROJECT MANAGER	SR HYDROLOGIST	PROJECT ENGINEER II	PROJECT ENGINEER I	SR TECH I	ADMIN		TOTAL LABOR HRS. & COSTS	TOTAL COST PER TASK
<b>CONTRACT LABOR RATE PER HOUR</b>	\$290.00	\$195.00	\$220.00	\$150.00	\$125.00	\$125.00	\$105.00			
<b>B. ADDITIONAL SERVICES</b>										
<b>4. SURVEY SERVICES</b>	<b>SEE ATTACHED PROPOSAL</b>								<b>\$11,300.00</b>	
<b>5. DRAINAGE ANALYSIS SERVICES</b>										
TASK DESCRIPTION	PRINCIPAL	SR PROJECT MANAGER	SR HYDROLOGIST	PROJECT ENGINEER II	PROJECT ENGINEER I	SR TECH I	ADMIN		TOTAL LABOR HRS. & COSTS	TOTAL COST PER TASK
<b>CONTRACT LABOR RATE PER HOUR</b>	\$290.00	\$235.00	\$220.00	\$150.00	\$125.00	\$125.00	\$105.00			
a. Update drainage models, determine impacts, provide mitigated solutions and prepare letter memo report	2	10		40					52	\$8,930.00
HOURS SUB-TOTALS	2	10	0	40					52	
TOTAL LABOR COSTS	\$580.00	\$2,350.00	\$0.00	\$6,000.00					<b>\$8,930.00</b>	
% DISTRIBUTION OF STAFFING	3.8%	19.2%	0.0%	76.9%						
<b>6. TDLR SIDEWALK REVIEW SERVICES</b>	<b>NOT NEEDED FOR PED ELEMENTS TALLING LESS THAN \$50,000</b>								<b>\$0.00</b>	

<b>SUMMARY</b>	
<b>A. BASIC SERVICES</b>	
1. DESIGN PHASE SERVICES	\$34,950.00
2. BID PHASE	\$4,380.00
3. CONSTRUCTION ADMINISTRATION	\$8,160.00
<b>B. ADDITIONAL SERVICES</b>	
4. SURVEY SERVICES	\$11,300.00
5. DRAINAGE ANALYSIS SERVICES	\$8,930.00
6. TDLR REVIEW SERVICES	\$0.00
REIMBURSABLE EXPENSE	\$1,000.00
<b>GRAND TOTAL</b>	<b>\$68,720.00</b>



**EXHIBIT E - PRELIMINARY COST ESTIMATE**  
**DEER PARK - NORWOOD STREET DRAINAGE IMPROVEMENTS**

Item No.	Item Description	Unit Measure	Unit Quantity	Unit Price	Total
<b>BASE BID - NORWOOD STREET DRAINAGE IMPROVEMENTS</b>					
<b>GENERAL BID ITEMS</b>					
1	Mobilization (5% Max of Base Bid)	LS	1	\$15,000.00	\$15,000.00
2	Traffic Control and Flagmen	LS	1	\$10,000.00	\$10,000.00
3	SWPPP Inspection and Maintenance, in Accordance to EPA and TCEQ Regulations and as Defined by the TPDES General Permit	Month(s)	3	\$500.00	\$1,500.00
4	Reinforced Filter Fabric Fence	LF	100	\$2.00	\$200.00
5	Inlet Protection Barrier	EA	4	\$250.00	\$1,000.00
6	Block Sodding	SY	250	\$6.00	\$1,500.00
7	Thermoplastic Pavement Markings, 12-inch White, Solid (Pedestrian Crossing at Lambuth & Jefferson)	LF	112	\$4.00	\$448.00
8	Thermoplastic Pavement Markings, 24-inch White, Solid, (Stop Bars at Lambuth and Jefferson, Speed Bumps)	LF	28	\$6.00	\$168.00
9	Remove Old Concrete, Pavement (w/ or w/o Curb, All Thicknesses)	SY	286	\$10.00	\$2,860.00
10	Remove Old Concrete, Driveways and Sidewalks (All Thicknesses)	SY	207	\$10.00	\$2,070.00
<b>GENERAL BID ITEMS SUBTOTAL</b>					<b>\$34,746.00</b>
<b>WATER BID ITEMS</b>					
11	Water Line Offset	LS	1	\$7,500.00	\$7,500.00
12	1-Inch Diameter Water Tap and Service Line with Meter Box, 200 PSI Polyethylene, Short Side	EA	3	\$750.00	\$2,250.00
<b>WATER BID ITEMS SUBTOTAL</b>					<b>\$9,750.00</b>

**EXHIBIT E - PRELIMINARY COST ESTIMATE**  
**DEER PARK - NORWOOD STREET DRAINAGE IMPROVEMENTS**

Item No.	Item Description	Unit Measure	Unit Quantity	Unit Price	Total
<b>PAVING BID ITEMS</b>					
13	Concrete Driveways, 6-inch Thick and Including Excavation	SY	76	\$80.00	\$6,080.00
14	Concrete Sidewalks, 4-inch Think	SY	131	\$55.00	\$7,205.00
15	Curb Ramps	EA	3	\$1,500.00	\$4,500.00
16	6-inch Thick Reinforced Concrete Pavement	SY	286	\$60.00	\$17,160.00
17	6-Inch Lime Stabilized Subgrade	SY	300	\$6.00	\$1,800.00
18	Hydrated Lime (6% estimated)	TON	6	\$240.00	\$1,440.00
19	6-inch Concrete Curb	LF	170	\$5.00	\$850.00
<b>PAVING BID ITEMS SUBTOTAL</b>					<b>\$39,035.00</b>
<b>STORM SEWER BID ITEMS</b>					
20	Remove and Dispose of Storm Sewer Manhole	EA	5	\$600.00	\$3,000.00
21	Remove and Dispose of Storm Sewer Inlets, All Types and Depths	EA	2	\$500.00	\$1,000.00
22	Remove and Dispose of Existing 18" RCP	LF	28	\$15.00	\$420.00
23	Remove and Dispose of Existing 24" RCP	LF	125	\$20.00	\$2,500.00
24	Remove and Dispose of Existing 42" RCP	LF	290	\$25.00	\$7,250.00
25	Type C Manhole	EA	1	\$3,500.00	\$3,500.00
26	Junction Box	EA	4	\$7,500.00	\$30,000.00
27	Type C-1 Inlet	EA	2	\$3,500.00	\$7,000.00
28	27"x27" Catch Basin	EA	2	\$2,500.00	\$5,000.00
29	24-inch Reinforced Concrete Pipe	LF	48	\$120.00	\$5,760.00
30	36-inch Reinforced Concrete Pipe	LF	125	\$180.00	\$22,500.00
31	54-inch Reinforced Concrete Pipe	LF	290	\$320.00	\$92,800.00
32	Trench Safety System (5 to 10 foot Depth)	LF	415	\$5.00	\$2,075.00
<b>STORM SEWER BID ITEMS SUBTOTAL</b>					<b>\$182,805.00</b>
<b>TOTAL BASE UNIT PRICE</b>					<b>\$266,336.00</b>
<b>15% CONTINGENCY</b>					<b>\$39,950.40</b>
<b>TOTAL ESTIMATE PROJECT COST</b>					<b>\$306,286.40</b>

**EXHIBIT E - PRELIMINARY COST ESTIMATE**  
**DEER PARK - NORWOOD STREET DRAINAGE IMPROVEMENTS**

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<b>WATER BID ITEMS SUBTOTAL</b>					<b>\$9,750.00</b>

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<b>TOTAL BASE UNIT PRICE</b>					<b>\$266,336.00</b>
<b>15% CONTINGENCY</b>					<b>\$39,950.40</b>
<b>TOTAL ESTIMATE PROJECT COST</b>					<b>\$306,286.40</b>



## Anticipated Project Schedule

		2021							
Project	Task	Feb	Mar	Apr	May	Jun	July	Aug	Sept
Norwood Drainage Improvements	Survey, Design & Utility Signatures								
	Bidding & Award								
	Construction (Est. 3 Months)								