



October 11, 2024

Mayor and City Council  
City of Hilshire Village  
8301 Westview Drive  
Houston, Texas 77055

Re: Proposal for Engineering Services for Hickory Shadows Paving, Drainage & Water Line Improvements Project

Dear Mayor and City Council Members:

HDR Engineering, Inc. (HDR) is pleased to submit this proposal for Professional Engineering Services for the above referenced project. The proposal is based on our understanding of the project as discussed in our previous meetings and conversations. For your convenience this proposal consists of General Overview, Scope of Services, Fee Schedule, and Terms and Conditions.

### **GENERAL OVERVIEW**

HDR (previously Claunch & Miller, Inc.) developed a Street Condition Survey & Overall Paving Improvement Plan, and a Comprehensive Underground Utility Assessment for the City of Hilshire Village in 2003 and 2004, respectively. The utility assessment report recommended the replacement of existing 6-inch and 8-inch water lines within the Hickory Shadows Subdivision. These water lines are cast iron and are approximately 44-years old, exceeding their normal lifespan, therefore, they shall be replaced.

The Street Condition Survey & Overall Paving Improvement Plan identified the concrete curb and gutter roadway along Hickory Shadows as a Priority 3 Project (5 – 10 Years). The deterioration level reported back in 2003 was 2B (based on the Pavement Condition Rating System), or rigid pavement in fair condition with slight to moderate faulting at cracks and joints; rideability is fair to good and surface is intermittently slightly rough and uneven; surface slightly polished.

As part of the City's 2023-2024 Capital Improvement Plan (CIP), the City has identified and prioritized the replacement of the water lines, and the reconstruction of Hickory Shadows Drive, as the next CIP Project to be designed and constructed. The City requested HDR to submit a proposal for the replacement of the aging water utility infrastructure, as well as the reconstruction of the concrete curb and gutter roadway and associated drainage system within the Hickory Shadows Subdivision. The sanitary sewer collection system within this Subdivision was previously rehabilitated as part of the Archley Drive Paving, Drainage & Utility Improvements Project.

The proposed Hickory Shadows Subdivision improvements include the abandonment of the existing 6-inch and 8-inch water lines and valves, installation of approximately 1,400 LF of 8-inch water line, installation of fire hydrants and valves, transfer and reconnection of approximately twenty-four (24) water services to the new lines, associated appurtenances; and reconstruction of approximately 1,000 LF of 29-ft wide concrete curb and gutter roadway and associated drainage system.

Trenchless methods of construction are recommended for this project area, similar to the methods used in the Archley, Pine Creek, Bridle Spur, Friarcreek, Pine Chase, Glourie, Guinea, and Ridgeley project areas, in order to minimize the impact to residents and traffic. In general, the water lines will be constructed by auger method whenever possible, while some portions may be open cut, when necessary.

The preliminary engineer's opinion of probable construction cost (OPCC) for this project is \$1,088,000 as reflected in the City's 2023-2024 CIP. Please note that this is an estimate of probable construction cost based on preliminary and limited information available at this time, as well as current market conditions. Changes in the market conditions could potentially increase or decrease this cost. Once the design is completed, HDR will furnish a more accurate OPCC.

This proposal addresses the engineering services HDR will provide the City during the Design, Bidding and Construction Phases, as well as other services necessary to support the project. The proposal is separated into Basic Services (expected normal engineering services) and Special/Additional Services. Special/Additional services are those services that are beyond the Basic Services provided for in the scope portion of this proposal.

Due to the nature of this project there are certain Special/Additional Services that will be needed and others that may or may not be required. In the fee schedule portion of this proposal the Special/Additional Services that are anticipated are listed and a budgetary amount included. Other Special/Additional Services may be required and may be identified as the project progresses but will only be performed when authorized by the City.

## **SCOPE OF SERVICES**

### **I. DESIGN PHASE SERVICES**

#### **A. Basic Services**

- Attend two (2) Public Hearing/Workshop Meetings with City Council and residents to address project progress and obtain feedback from City and residents, as necessary.
- Obtain utility information/record drawings on water lines designated for replacement.
- Coordinate with private utility entities (i.e. gas, electric, cable, telephone, etc.), incorporate appropriate comments from pertinent entities into the final documents, and secure signatures.

- Water improvements will be replaced as identified in the City's 2004 Comprehensive Underground Utility Assessment Report. This includes approximately 1,000 LF of water line along Hickory Shadows Drive and 400 LF of water line in the water line easement connecting to Ridgeley Drive.
- Proposed roadways will be completely reconstructed with 29-ft wide concrete curb and gutter within the Hickory Shadows Drive right-of-way, unless otherwise requested by the City. The storm sewer system will be designed to handle a City of Houston 2-year storm frequency.
- Prepare bidding/construction drawings and specifications for the project based on planned improvements, as described in the General Overview section of this proposal.
- Prepare an Opinion of Probable Construction Cost (OPCC) for the project.
- Complete design services within five (5) months of the City's authorization to proceed with these engineering services.
- Furnish two (2) sets of 70% Submittal documents (Plans and Specifications) to the City.
- Furnish two (2) sets of Bid/Construction documents to the City.

**B. Special/Additional Services**

**1. Topographical Survey**

- Perform topographical survey services of the project areas to produce background information for design effort.

**2. Geotechnical Investigation**

- Obtain soil borings and perform laboratory work to determine geotechnical characteristics of soils and pavement within the project areas, and make design and construction recommendations for paving, drainage and water line improvements.

**3. Tree Protection Plan**

- Obtain urban forestry consulting services to evaluate the impact of proposed improvements to existing trees and landscape within the project area and develop a tree protection/preservation plan that will minimize impact to existing trees and landscape within the project areas.

#### **4. Traffic Control Plan**

- Preparation of traffic control plans and specifications, including construction sequence, and traffic control/detour plan phases required for the construction of the project.

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

- Preparation of storm water pollution prevention plans and specifications for the project, in accordance with the Texas Pollutant Discharge Elimination System (TPDES) requirements.

#### **6. Miscellaneous Expenses**

- Reproduction for review sets, submittals to Hilshire Village, TCEQ, and private utility companies.
- Travel (mileage) and Courier/delivery services cost.

## **II. BIDDING PHASE SERVICES**

### **A. Basic Services**

#### **1. Bidding Services:**

- 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.
- Post and manage bid documents in CIVCASTUSA.com for potential bidders. The City will be responsible for the associated cost to post the notice to bidders on Civcast.
- During the bidding process, provide information to and answer questions from potential bidders concerning the Project's construction documents and prepare addendums as necessary.
- Conduct a pre-bid conference for potential bidders.
- Attend Bid Opening and evaluate the bids and the qualifications of the apparent low bidders and advise the City as to the acceptability of the apparent low bidder.

### III. CONSTRUCTION PHASE SERVICES

#### A. Basic Services

##### 1. Construction Administration:

- Conduct a pre-construction conference for the project.
- Conduct monthly construction progress meetings (5 maximum), prepare and distribute agendas and meeting notes.
- Act as the City's Project Representative during the construction phase.
- Address questions and provide clarifications regarding plans, design details and related items during construction.
- Review and respond accordingly to all submittals (30 maximum) and RFIs (2 maximum) as required by the contract specifications.
- Prepare change orders (2 maximum) necessitated by field conditions.
- Review and process the contractor's pay estimates (5 maximum), evaluate the completed work, and make payment recommendations to the City.
- Visit the site at intervals appropriate to the 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-time site representation is not included as part of the Construction Administration tasks.
- Monitor Contractor in maintaining a set of as-built drawings.
- HDR will not be responsible for the means, methods, techniques, sequences or procedures of construction selected by the Contractor(s) or the safety precautions and programs incident to the work of 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 and on the basis of on-site observations HDR shall keep the City informed of the progress of the work, shall 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 substantial completion and final inspections of the Project, prepare punch list(s), and make a recommendation for Final Payment and closeout of the Project.

## **B. Special/Additional Services**

### **1. Construction Observation Services:**

- Provide one full-time construction observer (on-site representative) to observe the daily progress of construction activities and to assist in the interpretation of plans and specifications. The estimated construction time for this project is 165 calendar days.
- HDR will provide support to the on-site representative(s) through supervisory and administrative services.
- The on-site representative(s) will be on-site daily during construction activity.
- In the event of rain days where construction may be hindered or stopped, the representative will be on-site long enough to verify that inclement weather has occurred and the associated impact on the contractor and construction.
- The on-site representative shall maintain daily reports.
- The on-site representative will attend meetings with the Contractor and the City such as pre-construction conference, progress meetings, and other project related meetings.
- The on-site representative will take periodic photographs of the construction progress and of key items of concern.
- The on-site representative will estimate quantities installed for use in reviewing monthly pay estimates. The on-site representative will review the Contractor's quantity measurements, the Contractor's payment request and make recommendation of payment of the periodic pay request to HDR's project manager.
- The on-site representative will aid in the coordination of activities of the testing laboratory.
- The on-site representative will coordinate with the City and the Contractor for construction scheduling, resident notification and complaints.
- The on-site representative will assist in the performance of the substantial completion and final inspections, the preparation of punch list(s) and subsequent follow up inspections.
- The on-site representative will assemble and maintain notes, comments, sketches, and supporting data related to the project in order to assist in the preparation of record drawings.

- The on-site representative will be provided in an effort to aid in the process of observing performance of work of the Contractor(s). Through more extensive on-site observations of the work in progress, HDR shall endeavor to provide further protection for the City against defects and deficiencies in the work of the contractor(s); but the furnishing of such on-site representative will not make HDR responsible for construction means, methods, techniques, sequences or procedures or safety precautions or programs, or for Contractor(s) failure to perform their work in accordance with the Contract Documents.

**2. Record Drawing Services**

- After construction is completed, HDR will prepare the record drawings for the project based on as-built information furnished by Contractor.

**3. Miscellaneous Expenses**

- Reproduction cost (i.e. pay estimates, meeting notes, submittals, etc.)
- Travel (mileage) and Courier/delivery services cost.

**FEE SCHEDULE**

The Basic Services Fee for the above-described scope of services are proposed to be on a lump sum basis, calculated on the basis of level of effort (LOE) estimates to complete each of the tasks required to fulfill the design, bidding and construction phase services of this project (refer to Exhibit A – Level of Effort for Hickory Shadows Paving, Drainage & Water Line Improvements).

The fee schedule is separated into: Design, Bidding, and Construction Phases, as outlined below:

**Basic Services:**

a) Design Phase Services – Lump Sum Level of Effort (See Exhibit A)	= \$136,201
b) Bidding Phase Services – Lump Sum Level of Effort (See Exhibit A)	= \$13,688
c) Construction Administration – Lump Sum Level of Effort (See Exhibit A)	= \$48,235
<b>Total – Basic Services (Exhibit A)</b>	<b>= \$198,124</b>

**Design Phase & Bidding Phase Additional Services:**

a) Topographical Survey – Subcontract Cost (See Exhibit A) - \$22,600 + 10%	= \$24,860
b) Geotechnical Investigation – Subcontract Cost (See Exhibit A) - \$9,566 + 10%	= \$10,522
c) Tree Protection Plan – Subcontract Cost (See Exhibit A) - \$7,630 + 10%	= \$8,393
d) Traffic Control Plan – Lump Sum Level of Effort (See Exhibit A)	= \$22,210
e) Storm Water Pollution Prevention Plan – Lump Sum Level of Effort (See Exhibit A)	= \$5,388
f) *Miscellaneous Expenses (Reproduction, Travel & Courier Services) – Subcontractor Cost (See Exhibit A) – Cost plus 10%	= \$500
<b>Total – Design &amp; Bidding Additional Services (Exhibit A)</b>	<b>= \$71,873</b>

**Construction Phase Additional Services:**

a) *Construction Observation – Hourly (Based on average 40 hours/week)(See Exhibit A)	= \$184,159
b) Record Drawings – Lump Sum Level of Effort (See Exhibit A)	= \$5,047
c) * Miscellaneous Expenses (Reproduction, Travel & Courier Services) – Subcontractor Cost (See Exhibit A) – Cost plus 10%	= \$2,000
<b>Total – Construction Additional Services (Exhibit A)</b>	<b>= \$191,206</b>

**Grand Total = \$461,203**

\* At this time the magnitude of these tasks is not known. Therefore, budgetary amounts are provided. These figures may increase or decrease depending upon actual work required. If an increase becomes necessary it can be accomplished by utilizing available funds from other line items that have under run, or by contract amendment.

The anticipated construction duration required for the project is estimated to be 165 calendar days. The budget fee for construction observation includes hourly costs for a full-time site representative (based on average 40 hours/week), supervisory and administrative services, and reimbursable items. Reimbursable items will be:



- Vehicle Expenses (Mileage at the prevailing Federal rate)
- Reproduction (Documents pertaining to the project, special requests by the client, miscellaneous photocopies not pertaining to normal duties and responsibilities)

### **TERMS AND CONDITIONS**

This project will be performed as a Project Engineering Design Service under the current on-going engineering services contract with the City of Hilshire Village, and its terms and conditions will apply.

Invoices will be submitted on a monthly basis, reflecting charges to date on the basis specified in this proposal. Lump sum project tasks will be billed as a percentage of completion, based on the estimated progress of the work to date. Outstanding invoices will accrue interest charges at the current maximum allowable rate after 30 days.

For all services billed on an hourly basis, the fee includes hourly costs for all personnel based on actual raw labor rates times a multiplier of 3.05 for all employees. Hourly rates are subject to revision on an annual basis due to raises and personnel changes, however, the multiplier will not change without authorization from the City.

Overtime for site representative personnel and hourly employees will be charged at 1.5 times the normal rate. Overtime is defined as time over 40 hours within a one-week period (Sunday to Saturday).

Subconsultant and subcontractor costs will be billed at the subcontract invoice cost plus 10%. Reimbursable expenses will be charged at cost plus 10%.

Mileage will be charged at the prevailing Federal rate.

HDR Engineering, Inc. appreciates the opportunity to submit this proposal and we look forward to working with the City of Hilshire Village on this very important project.

Sincerely,

HDR Engineering, Inc.



David Weston  
Vice President/Area Manager

cc: Marketing Files

Attachments:

1. Exhibit A – Level of Effort (LOE) for Hickory Shadows Paving, Drainage & Utility Improvements.
2. MBCO Engineering, LLC Survey Proposal dated 10/4/2024.
3. Geotest Engineering, Inc. Geotechnical Proposal dated 9/19/2024.
4. C.N. Koehl Urban Forestry, Inc. Proposal dated 9/27/2024.

Accepted by City of Hilshire Village this \_\_\_\_\_ day of \_\_\_\_\_, 2024

By \_\_\_\_\_  
Name and Title

**CITY OF HILSHIRE VILLAGE  
EXHIBIT A - LEVEL OF EFFORT (LOE) FOR HICKORY SHADOWS PAVING, DRAINAGE & WATER LINE IMPROVEMENTS**

Item	Description / Task	Basic Services (HDR) - Estimated Manhours									Subtotal (hrs)	Subtotal (cost \$)	Additional Services - HDR	Basic Services - Subconsultants (cost+10%)	Additional Services - Subconsultants (cost+10%)	Other Costs/Allowances	Total Fee
		Principal (hrs)	Sr. Project Manager (hrs)	Project Manager (hrs)	Project Engineer (hrs)	Sr. Designer (hrs)	CAD Operator (hrs)	Clerical (hrs)	Constr. Manager (hrs)	Constr. Inspector (hrs)							
	Raw Salary	\$116	\$108	\$84	\$65	\$60	\$59	\$48	\$85	\$60							
	Raw Salary Multiplier	2.99	2.99	2.99	2.99	2.99	2.99	2.99	3.05	3.05							
<b>I</b>	<b>Phase II - Final Design :</b>																
<b>A</b>	<b>Project Management and Document Submission</b>																
	1. Data Collection				8.0	1.0	1.0	12.0			22.0	\$3,633					\$3,633
	2. Geotechnical Investigation										0.0			\$10,523			\$10,523
	3. Site / Coordination / Workshop Meetings		8.0	16.0	16.0	8.0	8.0	8.0			64.0	\$13,706					\$13,706
	4. Progress Submittals QA/QC (70% & 100%/Mylars)	12.0	8.0	8.0	8.0				10.0		46.0	\$12,902					\$12,902
	5. Specifications, Preparation & Review		8.0	8.0	24.0			24.0			64.0	\$12,702					\$12,702
	6. Construction Cost Estimate, Preparation & Review		4.0	8.0	16.0			12.0			40.0	\$8,133					\$8,133
	7. Interagency Coordination & Private Utility Signatures	4.0	8.0	8.0	12.0			8.0			40.0	\$9,460					\$9,460
	8. Misc. Expenses (Reproduction, Travel & Courier Services)										0.0		\$0		\$500		\$500
	<b>Subtotal Project Management &amp; Document Subm.</b>	<b>16.0</b>	<b>36.0</b>	<b>48.0</b>	<b>84.0</b>	<b>9.0</b>	<b>9.0</b>	<b>64.0</b>	<b>10.0</b>	<b>0.0</b>	<b>276.0</b>	<b>\$60,536</b>	<b>\$0</b>	<b>\$0</b>	<b>\$10,523</b>	<b>\$500</b>	<b>\$71,558</b>
<b>B</b>	<b>Drawings</b>																
	G-1 Cover Sheet		1.0		1.0		4.0				6.0	\$1,223					\$1,223
	G-2 General Notes / Legend & Abbreviations		1.0	2.0	4.0		4.0				11.0	\$2,308					\$2,308
	G-3 Overall Layout Plan (1"=60')		1.0		1.0		4.0				6.0	\$1,223					\$1,223
	S-1 thru S-2 Survey & Control Maps										0.0			\$24,860			\$24,860
	PP-1 Plan & Profile 1"=20' H / 1"=2' V (Hickory Shadow)		2.0	8.0	10.0	4.0	24.0				48.0	\$9,550					\$9,550
	PP-2 Plan & Profile 1"=20' H / 1"=2' V (Hickory Shadow)		2.0	8.0	10.0	4.0	24.0				48.0	\$9,550					\$9,550
	PP-3 Plan & Profile 1"=20' H / 1"=2' V (Hickory Shadow)		2.0	8.0	10.0	4.0	24.0				48.0	\$9,550					\$9,550
	PP-4 Plan & Profile 1"=20' H / 1"=2' V (Hickory Shadow Easement)		2.0	8.0	10.0	4.0	24.0				48.0	\$9,550					\$9,550
	PP-5 Plan & Profile 1"=20' H / 1"=2' V (Hickory Shadow Easement)		2.0	8.0	10.0	4.0	24.0				48.0	\$9,550					\$9,550
	DA-1 Drainage Area Map 1"=100' (Hickory Shadow)		1.0	2.0	4.0		8.0				15.0	\$3,014					\$3,014
	DA-2 Drainage Calculations 1"=100' (Hickory Shadow)		1.0	4.0	8.0		2.0				15.0	\$3,235					\$3,235
	SWP-1 SWPPP (1"=60')(Hickory Shadow)		1.0	2.0	4.0		12.0				19.0		\$3,720				\$3,720
	SWP-2 SWPPP Details 1 (NTS)		1.0	1.0	2.0		4.0				8.0		\$1,668				\$1,668
	TCP-1 Construction Sequence Plan 1"=100' (Hickory Shadow)		1.0	2.0	6.0	2.0	10.0				21.0		\$4,114				\$4,114
	TCP-2 Construction Sequence Plan 1"=100' (Hickory Shadow)		1.0	2.0	6.0	2.0	10.0				21.0		\$4,114				\$4,114
	TCP-3 Traffic Control Plans 1"=100' (Hickory Shadow)		1.0	4.0	6.0	2.0	12.0				25.0		\$4,969				\$4,969
	TCP-4 Traffic Control Plans 1"=100' (Hickory Shadow)		1.0	4.0	6.0	2.0	12.0				25.0		\$4,969				\$4,969
	TCP-5 Typical Traffic Control Intersection Details		1.0	1.0	2.0		8.0				12.0		\$2,374				\$2,374
	TCP-6 Typical Traffic Control Details		1.0	1.0	2.0		4.0				8.0		\$1,668				\$1,668
	D-1 Paving Details 1		1.0	2.0	3.0		4.0				10.0	\$2,114					\$2,114
	D-2 Paving Details 2		1.0	2.0	3.0		4.0				10.0	\$2,114					\$2,114
	D-3 Paving Details 3		1.0	2.0	3.0		4.0				10.0	\$2,114					\$2,114
	D-4 Water Details 1		1.0	2.0	3.0		4.0				10.0	\$2,114					\$2,114
	D-5 Water Details 2		1.0	2.0	3.0		4.0				10.0	\$2,114					\$2,114
	D-6 Water Details 3		1.0	2.0	3.0		4.0				10.0	\$2,114					\$2,114
	D-7 Water Details 4		1.0	2.0	3.0		4.0				10.0	\$2,114					\$2,114
	D-8 Storm Sewer Details		1.0	2.0	3.0		4.0				10.0	\$2,114					\$2,114
	TP-1 thru TP-3 Tree Protection Plans & Details										0.0			\$8,393			\$8,393
	<b>Subtotal Drawings</b>	<b>0.0</b>	<b>31.0</b>	<b>81.0</b>	<b>126.0</b>	<b>28.0</b>	<b>246.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>512.0</b>	<b>\$75,665</b>	<b>\$27,598</b>	<b>\$0</b>	<b>\$33,253</b>	<b>\$0</b>	<b>\$136,516</b>
<b>C</b>	<b>Bidding Phase</b>																
	1. Attend Pre-Bid Meeting		2.0		2.0						4.0	\$1,035					\$1,035
	2. Prepare & Issue Addenda		2.0	4.0	8.0		8.0	4.0			26.0	\$5,191					\$5,191
	3. Respond to Bidder Questions		2.0	2.0	8.0						12.0	\$2,703					\$2,703
	4. Bid Evaluation / Bid Tabulation		1.0	1.0	2.0			6.0			10.0	\$1,824					\$1,824
	5. Recommendation of Award		1.0	2.0	2.0			8.0			13.0	\$2,362					\$2,362
	6. Construction Contract Preparation							4.0			4.0	\$574					\$574
	<b>Subtotal Bidding Phase</b>	<b>0.0</b>	<b>8.0</b>	<b>9.0</b>	<b>22.0</b>	<b>0.0</b>	<b>8.0</b>	<b>22.0</b>	<b>0.0</b>	<b>0.0</b>	<b>69.0</b>	<b>\$13,688</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$13,688</b>

\$10,523 Geotechnical

\$500 Expenses

\$24,860 Survey

\$5,388 SWPPP

\$22,210 Traffic Control Plan

\$8,393 Tree Protection

Item	Description / Task	Basic Services (HDR) - Estimated Manhours									Subtotal (hrs)	Subtotal (cost \$)	Additional Services - HDR	Basic Services - Subconsultants (cost+10%)	Additional Services - Subconsultants (cost+10%)	Other Costs/Allowances	Total Fee
		Principal (hrs)	Sr. Project Manager (hrs)	Project Manager (hrs)	Project Engineer (hrs)	Sr. Designer (hrs)	CAD Operator (hrs)	Clerical (hrs)	Constr. Manager (hrs)	Constr. Inspector (hrs)							
	Raw Salary	\$116	\$108	\$84	\$65	\$60	\$59	\$48	\$85	\$60							
	Raw Salary Multiplier	2.99	2.99	2.99	2.99	2.99	2.99	2.99	3.05	3.05							
<b>II</b>	<b>Phase III - Construction Phase Services:</b>																
	1. Attend Pre-Construction Meeting		2.0	2.0	2.0						6.0	\$1,537					\$1,537
	2. Attend Scheduled Construction Progress Meetings (Assume 5)		10.0		30.0						40.0	\$9,060					\$9,060
	3. Submittals (Assume 30)		8.0	15.0	30.0			18.0			71.0	\$14,765					\$14,765
	4. RFI's/Change Orders (assume 2)		2.0	8.0	8.0		4.0	2.0			24.0	\$5,203					\$5,203
	5. Review Contractor Monthly Pay Estimates (assume 5)		2.0	5.0	20.0			15.0			42.0	\$7,941					\$7,941
	6. Substantial/Final Completion Walk-Thru/Punch Lists		3.0	6.0	10.0						19.0	\$4,419					\$4,419
	7. As-Built Drawings		2.0	4.0			16.0	4.0			26.0	\$5,047					\$5,047
	8. Project Closeout		8.0	4.0				12.0			24.0	\$5,310					\$5,310
	9. Construction Observation								44.0	944.0	988.0	\$184,159					\$184,159
	10. Misc. Expenses (Reproduction, Travel & Courier Services)										0.0	\$0				\$2,000	\$2,000
	<b>Subtotal Phase III - Construction Phase Services</b>	<b>0.0</b>	<b>37.0</b>	<b>44.0</b>	<b>100.0</b>	<b>0.0</b>	<b>20.0</b>	<b>51.0</b>	<b>44.0</b>	<b>944.0</b>	<b>1,240.0</b>	<b>\$48,235</b>	<b>\$189,206</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,000</b>	<b>\$239,441</b>
SUBTOTAL PHASE II - BASIC SERVICES HOURS		16.0	67.0	121.0	198.0	29.0	191.0	86.0	10.0	0.0	718.0						
SUBTOTAL PHASE II - BASIC SERVICES COST		\$5,549	\$21,636	\$30,390	\$38,481	\$5,203	\$33,694	\$12,343	\$2,593	\$0		\$149,889					\$149,889
SUBTOTAL PHASE II - ADDITIONAL SERVICES HOURS (HDR)		0.0	8.0	17.0	34.0	8.0	72.0	0.0	0.0	0.0	139.0						
SUBTOTAL PHASE II - ADDITIONAL SERVICES COST (HDR)		\$0	\$2,583	\$4,270	\$6,608	\$1,435	\$12,702	\$0	\$0	\$0		\$27,598			\$500		\$28,098
SUBTOTAL PHASE II - ADDITIONAL SERVICES COST (SUBS)														\$43,776			\$43,776
<b>TOTAL PHASE II - BASIC &amp; ADDITIONAL SERVICES</b>												<b>\$149,889</b>	<b>\$27,598</b>	<b>\$0</b>	<b>\$43,776</b>	<b>\$500</b>	<b>\$221,762</b>
SUBTOTAL PHASE III - BASIC SERVICES HOURS		0.0	35.0	40.0	100.0	0.0	4.0	47.0	0.0	0.0	226.0						
SUBTOTAL PHASE III - BASIC SERVICES COST		\$0	\$11,302	\$10,046	\$19,435	\$0	\$706	\$6,745	\$0	\$0		\$48,235					\$48,235
SUBTOTAL PHASE III - ADDITIONAL SERVICES HOURS (HDR)		0.0	2.0	4.0	0.0	0.0	16.0	4.0	44.0	944.0	1,014.0						
SUBTOTAL PHASE III - ADDITIONAL SERVICES COST (HDR)		\$0	\$646	\$1,005	\$0	\$0	\$2,823	\$574	\$11,407	\$172,752		\$189,206			\$2,000		\$191,206
SUBTOTAL PHASE III - ADDITIONAL SERVICES COST (SUBS)														\$0			\$0
<b>TOTAL PHASE III - BASIC &amp; ADDITIONAL SERVICES</b>		<b>\$0</b>	<b>\$11,302</b>	<b>\$10,046</b>	<b>\$19,435</b>	<b>\$0</b>	<b>\$706</b>	<b>\$6,745</b>	<b>\$0</b>	<b>\$0</b>		<b>\$48,235</b>	<b>\$189,206</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,000</b>	<b>\$239,441</b>
<b>TOTAL PHASES II &amp; III - BASIC AND ADD. SERVICES HOURS</b>		<b>16.0</b>	<b>112.0</b>	<b>182.0</b>	<b>332.0</b>	<b>37.0</b>	<b>283.0</b>	<b>137.0</b>	<b>54.0</b>	<b>944.0</b>	<b>2,097.0</b>						
<b>TOTAL PHASES II &amp; III - BASIC SERVICES</b>																	<b>\$198,124</b>
<b>TOTAL PHASES II &amp; III - ADDITIONAL SERVICES</b>																	<b>\$263,079</b>
<b>TOTAL PHASES II &amp; III - BASIC AND ADDITIONAL SERVICES</b>																	<b>\$461,203</b>

\$5,047 Record Drawings  
\$184,159 Construction Observation  
\$2,000 Expenses

## PROPOSAL FOR LAND SURVEYING SERVICES

October 4, 2024

Pablo Ortuno  
HDR Engineering Company  
4828 Loop Central Drive, Suite 800  
Houston, TX 77081

Ref: Proposal request for a topographic survey of Hickory Shadows Dr.

MBCO Engineering, LLC. (MBCO) is pleased to submit this proposal for Professional Surveying Services for the scope provided by HDR on September 13<sup>th</sup>, 2024 and for the limits shown in Exhibit "A" and "B".

### **SCOPE OF SERVICES:**

#### **Control**

- MBCO will establish horizontal control based on the Texas Coordinate System of 1983, South Central Zone No. 4204, and utilize the vertical datum NAVD88 and Geoid 18.
- Vertical control will be tied to the nearest Harris County Flood Control District monumentation.

#### **Boundary Services**

- MBCO will research and recover sufficient boundary/right-of-way information necessary to show on the drawing the existing utility easement within the affected properties at 1025 and 1027 Ridgeley Dr, and 10 and 12 Hickory Shadows Dr. as shown on Exhibit "B".
- MBCO will not be certifying to the boundaries of the mentioned lots, this service is only to place the requested utility easement.
- Setting missing, damaged, or destroyed boundary corners is specifically excluded from this proposal.
- MBCO will provide the necessary line work for the easement to be shown in the CAD drawing.

#### **Category 6 Condition I Topographic Survey**

- MBCO will provide a full topographic survey with the limits being ROW to ROW plus an additional 15 feet each side of the ROW of Hickory Shadows Dr. and from 15 feet outside of the ROW to approximately the center line of Wert Rd, as shown on Exhibit "A".
- MBCO will survey all visible above-ground improvements, including but not limited to natural ground elevations, all drainage and detention structures, edge of paving, paint striping, storm or sanitary manholes, inlets, fences, gates, culverts, curb and gutter, driveways, pvc curb drains, planters and landscaped areas, including prominent shrubs and hedges, above ground utility appurtenances and the location of any aerial utility lines, etc.



- The Texas 811 system will be utilized to mark utilities within the existing rights-of-way and easements. MBCO will survey any underground utility paint markings or flags provided by 811 utility designators during our field work. MBCO will make requests 48 hours before commencing field work, return trips to survey utilities after our initial field work is complete will be at an additional charge. MBCO will not guarantee that utility companies will mark their lines for a Texas One Call request for a Design/Survey request. (MBCO cannot be held liable for the completeness or accuracy of marks provided by others).
- Locate Ornamental trees or Landscape trees with a diameter of 4" and larger shall be located. Wooded/brushed areas shall be limited to an outlined area only. No Individual Trees shall be located on natural vegetation areas.
- MBCO will identify all crossing storm and sanitary sewer pipes, locate all manholes and inlets, and provide inverts.
- MBCO will locate all water valves and provide top of nut elevations within the project Limits.
- MBCO will request utility record drawings from AT&T and CenterPoint as well as the City of Hilshire Village and or MUD in the area. These record drawings will be provided to HDR to be placed in the drawing.
- MBCO will provide field work only for the topographic survey services, HDR will provide all CAD drafting work.

#### **ASSUMPTIONS and EXCLUSIONS:**

- MBCO will be given right-of-entry on the day of survey. No provisions have been made for return visits due to lack of access in this proposal.
- MBCO will be able to freely access all areas of the project limits.
- MBCO will not enter yards/properties over or through locked gates.
- MBCO will not enter yards/properties with animals whether they are restrained or not.
- MBCO cannot control the weather and cannot be held responsible for delays in schedule due to inclement weather.

#### **BASIC DELIVERABLES:**

- Basic field linework with minimal cleanup AutoCAD Civil3D .dwg file in grid coordinates.
- Field notes in .pdf format
- Point File (P, N, E, Z, D) in excel format.

#### **SCHEDULE:**

MBCO will complete the above-described scope of services within thirty-five (35) business days from receiving the signed Notice to Proceed.

**COMPENSATION:**

BASIC SERVICE FEES: **\$ 22,600.00**

The above-mentioned Surveying Services is a *Lump Sum Fee*, which will be billed at project completion or percent completion at the end of every month for the duration of the project, to be paid in full within 30 days of invoice date.

This cost proposal is valid for 30 days from the date of the proposal and may be re-evaluated after such time to account for any changes with the project scope, environmental factors and/or the general rate schedule. If this proposal is acceptable, please sign and return a copy. If you have any questions, you may reach me at [jeff.ketchum@mbcoengineering.com](mailto:jeff.ketchum@mbcoengineering.com).

Thank you for the opportunity and we appreciate doing business with you.

Sincerely,

A handwritten signature in black ink that reads "Jeff Ketchum". The signature is written in a cursive, flowing style.

Jeff Ketchum  
Survey Project Coordinator

EXHIBIT "A"

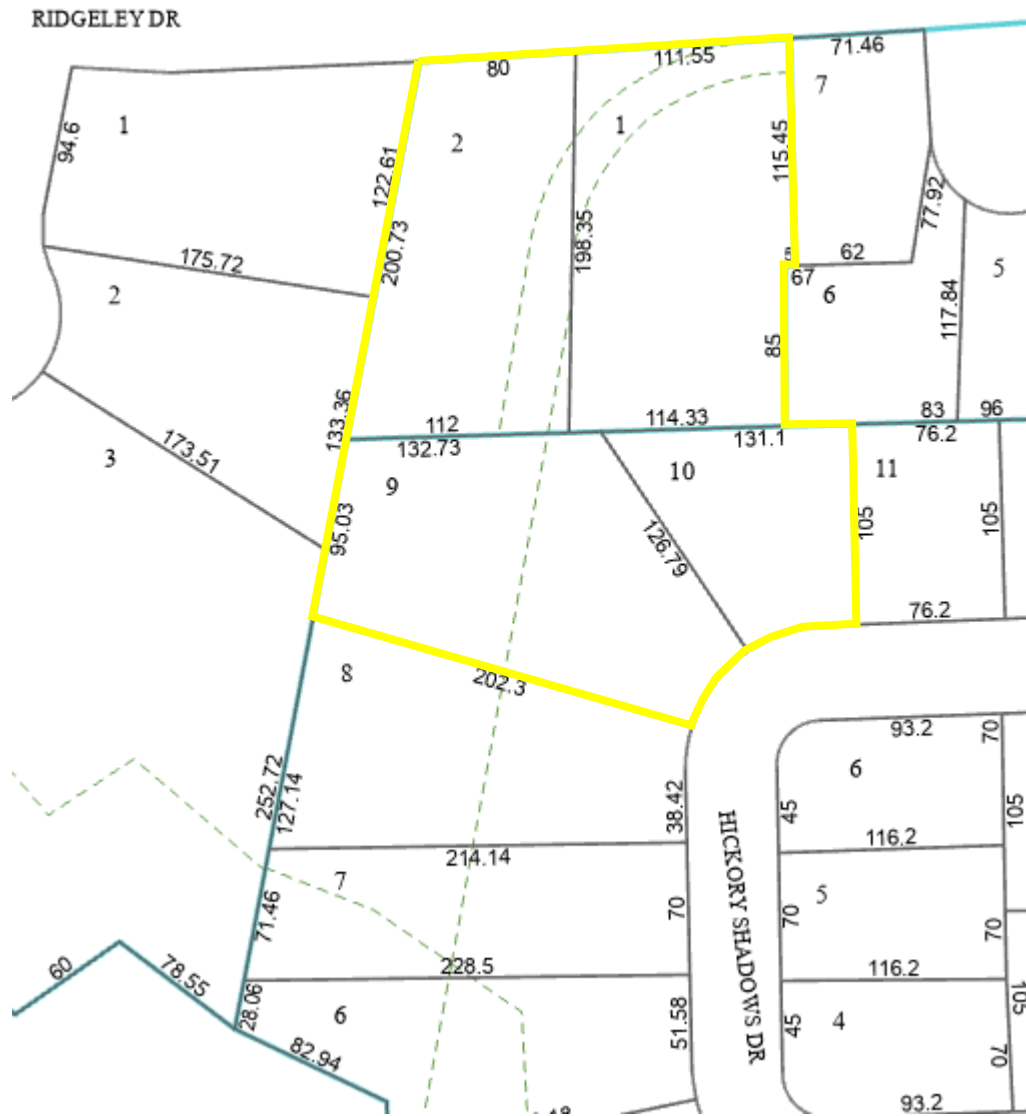
Red = Topographic Survey Limits

Yellow = Area of Boundary verification for Easement Placement





EXHIBIT "B"





# GEOTEST ENGINEERING, INC.

Geotechnical Engineers & Materials Testing

5600 Bintliff Drive

Houston, Texas 77036

Telephone: (713) 266-0588

Fax: (713) 266-2977

**Proposal No. 1140673299**

September 19, 2024

Mr. Pablo Ortuno  
Municipal/Civil CoordinatorHDR  
4828 Loop Central Drive, Suite 800  
Houston, Texas 77081

**Re: Proposal for Geotechnical Investigation  
Hickory Shadows Drive  
City of Hillshire Village, Texas**

Dear Mr. Ortuno,

As per your request, Geotest Engineering, Inc. (Geotest) is pleased to submit this proposal for providing geotechnical investigation for the proposed drainage and paving improvements along Hickory Shadows in City of Hillshire Village, Texas. Based on the information provided, we understand that the proposed improvements include pavement reconstruction and drainage improvements. The pavement will be either new asphalt pavement or concrete pavement. The propose storm sewer will be placed at a maximum depth of 10 feet and will be installed by open cut and trenchless methods of construction.

The scope of the study include drill and continuously sample three (3) borings each to a depth of 20 feet, perform laboratory tests to select design soil parameters and perform engineering analysis to develop geotechnical recommendations including pavement section thicknesses with subgrade stabilization recommendations, bedding and backfill, groundwater control and trench safety requirements, and general construction considerations. Further the recommendations will include reclamation and reuse of the existing base material. The soil boring will be backfilled with cement bentonite grout. The completed report, which includes field, laboratory data, and geotechnical recommendations, will be submitted in about eight (8) weeks after completion of field work. The cost of drilling and sampling, performing laboratory tests and preparing an engineering report will be a lumpsum of \$9,566.00. A cost breakdown is presented on Attachment No. 1. The proposed boring locations are shown on Figure 1.

We appreciate the opportunity to propose on this project. If you have any questions, please call us. Please indicate your formal acceptance by signing one copy of this letter in the space below and return one original to us.

Very truly yours,  
**GEOTEST ENGINEERING, INC.**

Naresh Kolli, P.E.  
Sr. Project Manager

NK/ego  
Copies Submitted: (1)  
Enclosure: Attachment No. 1- Cost Breakdown  
Figure 1 - Plan of Borings  
Scans\Geotechnical\2024\1140673299.DOC

ACCEPTED BY: \_\_\_\_\_

PRINTED NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_


**ATTACHMENT NO. 1**

**COST BREAKDOWN**

<u>DESCRIPTION</u>	<u>QUANTITY</u>	<u>UNIT RATE</u>	<u>COST</u>
<b>Engineering Services</b>			
Project Manager	2 hrs.	\$170.00	\$340.00
Graduate Engineer	24 hrs.	\$123.00	\$2,952.00
Administrative Personnel/Engineering Assistant	4 hrs.	\$70.00	\$280.00
		Subtotal	<b>\$3,572.00</b>
<b>Subsurface Field Investigation</b>			
Mobilization/Dembilization	1 LS	\$500.00	\$500.00
Drilling and Continuous Sampling	60 ft	\$27.00	\$1,620.00
Grouting	60 ft.	\$10.00	\$600.00
Field Coordination and Utility Clearance for Boring Location and Logging	9 hrs.	\$65.00	\$585.00
Pavement Coring	1 min	\$600.00	\$600.00
Traffic Control	1 day	\$1,000.00	\$1,000.00
Vehicle Charge	9 hrs.	\$13.00	\$117.00
		Subtotal	<b>\$5,022.00</b>
<b>Laboratory Tests</b>			
Liquid and Plastic Limits	6 ea.	\$70.00	\$420.00
Moisture Content	24 ea.	\$10.00	\$240.00
Percent Passing No. 200 Sieve	6 ea.	\$52.00	\$312.00
Unconsolidated Undrained Triaxial	6 ea.	\$70.00	\$420.00
		Subtotal	<b>\$972.00</b>
		<b>Total</b>	<b>\$9,566.00</b>



**PROPOSED PLAN OF BORINGS**

<b>Boring Legend</b>	<b>GEOTEST ENGINEERING, INC.</b>
 <b>BORING</b>	<b>HICKORY SHADOWS DRIVE CITY OF HILLSHIRE VILLAGE</b>

September 27, 2024

Mr. Efrain A. Him., P.E.  
Senior Project Manager  
HDR  
4828 Loop Central Drive, Suite 800  
Houston, Texas 77081

Re: Proposal for Urban Forestry Consulting Services on the City of Hilshire Village,  
Hickory Shadows Drive Water Line, Sanitary & Paving Improvements Project.

Dear Mr. Him,

As per your request, C.N. Koehl Urban Forestry, Inc proposes to provide Urban Forestry Consulting services for the design phase of the Hickory Shadows Drive Water Line, Sanitary & Paving Improvements Project. Approximately 2,000 linear feet of project right of way and utility easement will be evaluated for proposed water line, sanitary & paving improvements construction. Based on your request for proposal, and our most recent experience on similar projects, we propose to provide the following Urban Forestry services:

Field Evaluation/Site Visit

We will walk each side of every street and utility easement on which construction is proposed and evaluate the species, size, condition, and preservation feasibility of each tree. We will confirm the surveyed location of each tree and approximately locate any trees that may be impacted that were not picked up by surveyor. Proposed construction activity adjacent to each tree will be evaluated to determine impacts on long-term tree survival. The data collected and used in the preliminary evaluation will also be used for the final evaluation and tree preservation plan.

Fee for Field Evaluation/Site Visit

7.0 hours @ \$140.00/hour.....\$980.00

Preliminary Evaluation/Tree Preservation Plan

The plan and profile drawings, provided by the engineer, will be reviewed prior to 90% submittals, to determine treatment for each tree. Each tree will be numbered on the drawings. A tree treatment schedule will list each tree by number, species, diameter, condition, and anticipated treatment. Each tree (public and private) adjacent to construction activity will be evaluated to ensure that construction activity will not destroy too much of the structural root system. Should we find any conflicts with proposed construction we will make recommendations for minor design changes or for removal of the tree. Recommendations for minor design changes, such as shifting bends, a ts&v,

vertical offset, inlets, or a fire hydrant, will be redlined on plan and profile drawings copied to our Tree Submittal Form with a brief description of recommended changes and emailed to your office. Design change recommendations can then be reviewed by engineer and client to determine feasibility.

After we receive your comments on our design change recommendations we will develop an Autocad drawn tree protection plan which will identify the mitigative and protective treatments needed to ensure long term tree survival and compliance with the City's Tree Ordinance. Plan and profile drawings, provided by the engineer, will be used to indicate each tree by number, and exact location of preservation treatments (protection fencing, root pruning trench, etc.). A specification addressing tree protection will be provided to address all recommendations made in the treatment schedule and on the plans. Details for tree treatments will be included in the tree protection plan. Quantity totals and cost estimates for each tree treatment will be provided. The preliminary tree protection plan, specifications, and quantity totals and cost estimates will be emailed to you so that your staff may use the specs and quantity estimates as needed and plot the tree protection plan as it is needed. The AutoCad drawn tree protection plan would include our logo with a signature line, which we provide a signed PDF at final submittal. The preliminary tree protection plan, specifications and quantity/cost estimate can be included in your 70% and/or 90% submittal so that the City's staff can review our plan and provide comments prior to the final submittal. We will need 10-14 business days to complete the field evaluation and preliminary tree protection plan.

Fee for Preliminary Evaluation/Plan  
18.0 hours @ \$140.00/hour.....\$2,520.00

Tree Protection Plan for Final submittal

We will review the construction design between the 90% and final submittal, following comments from the City on recommendations made in the 90% submittal, to ensure that any design changes that may have been made are incorporated into the tree protection plan. Changes necessary to the tree protection plan will be completed in the DWG drawings and resubmitted to engineer for submittal. Quantity/Cost estimates will be updated and forwarded to engineer. We will provide a signed PDF set of the Tree Protection Plans prior to final submittal. We will need 7-10 business days to schedule and complete the Final Tree Protection Plan.

Fee for Final Tree Protection Plan  
7.0 hours @ \$140.00/hour.....\$980.00

Drafting AutoCAD (DWG) files of Tree Preservation Plan

We do have AutoCAD capabilities and will provide a CAD drawn document. We will need the electronic files of proposed construction in DWG format. We will use the project title block and insert plan drawings at a 1:40 scale, double banked on each sheet, similar to most traffic control plans. Tree treatment schedule will be included on each sheet which will call out treatments for each specific tree. This format typically allows us to fit approximately 1,200-1,500 l.f. per plan sheet, which would give us 2-3 sheets on

this project. Two sheets with project details will also be included, which would give us a total of 4 to 5 sheets. The drawings will be emailed or uploaded to your cloud, so that you may plot the files as you need them. CAD drafting will be completed in conjunction with the Preliminary and Final Plans. No additional time required.

Drafting Services Fee for DWG files of the Tree Preservation Plan  
10.0 hours @ \$65.00/hour.....\$650.00

**Total CAD drawn Tree Protection Plan Fees**  
**Urban Forestry Services for development of Tree Protection Plan.....\$4,480.00**  
**Drafting Services Fee for DWG files.....\$650.00**  
**Total Fee for CAD drawn Tree Protection Plan.....\$5,130.00**

**PHASE III – CONSTRUCTION PHASE SERVICES**

We can be available on an as needed basis to respond to RFIs or any tree related issues that may arise during the construction process. We propose providing this service on an hourly basis at our hourly rate of \$140.00/hour.

Proposed Not To Exceed Limit.....**\$2,500.00**

**TOTAL FEES INCLUDED IN THIS PROPOSAL**

**Phase 2        \$5,130.00**  
**Phase 3        \$2,500.00**

We have utilized the services contained in this proposal on similar projects for The City of West University Place Infrastructure Replacement Program, City of Houston Neighborhood Street Reconstruction Program, City of Houston Surface Water Transmission Program, City of Missouri City Street Reconstruction, City of Friendswood Street Reconstruction, City of Piney Point Street Reconstruction, City of Baytown Street Reconstruction, and numerous City of Houston waterline and sewer projects in the past. It is our goal to provide you the most effective, efficient, and value added services we can provide. We are willing to provide services in whatever capacity you deem appropriate.

If this proposal meets with your approval and you would like to retain our services, please forward your standard agreement or a notice to proceed, and we will schedule the work as soon as we receive the plan and profile sheets. We greatly appreciate the opportunity to present this proposal and look forward to working with you on this project. If you have any questions or would like to make any changes, please do not hesitate to call me or Craig at 281-391-0022.

Respectfully submitted,



Sarah Koehl  
President