214.740.6200 main

June 10, 2025

Mr. Sean Johnson, CPM, CPRP
Director of Parks and Recreation
City of University Park
4420 Worcola Street
Peek Municipal Service Center
Dallas, TX 75206

Re: Proposal for Professional Services
Curtis Park Retaining Wall Failure Repair Project
Walter P Moore Proposal No. 24936-00

Dear Sean:

Walter P Moore is pleased to submit this proposal to provide professional services to design the repairs for the failed section of retaining wall along Turtle Creek in Curtis Park. Walter P Moore's expertise in civil structures, especially creekbank and slope stabilization projects makes us the perfect fit for this opportunity. We greatly appreciate you choosing Walter P Moore and we look forward to working with you to complete this project as quickly as possible.

This proposal, in conjunction with our previously submitted comments to the City's Professional Services Agreement is presented in order to establish a basis for the commencement of our scope of services for the Project.

Basis of Proposal

This proposal is based on our review of various utility record drawings provided along with survey information and geotechnical reports performed for nearby improvements within Curtis Park, and as further discussed in our initial site visit on May 26, 2025.

Agreement

If this proposal is acceptable, we will fill out the City's revised professional services agreement to include our Firm information and this proposal and await Council authorization to return it signed for final signature by the City. This proposal is valid for 60 days.

We very much appreciate the opportunity to provide these services and look forward to working with you on this Project.

Sincerely,

WALTER P. MOORE AND ASSOCIATES, INC.

James C. Dulac, P.E.
Team Director

Attachments:
Exhibit A: Scope of Work
Attachments A-C

500 North Akard, Suite 2300 · Dallas, Texas 75201

Design Proposal for
The City of University Park
Curtis Park Retaining Wall Repair Project

Prepared by:

Walter P Moore and Associates, Inc.
500 North Akard Street, Suite 2300
Dallas, Texas 75201
TBPE Firm Registration No. 1856
214.740.6200

Exhibit A: Scope of Work

Date: June 10, 2025

Mr. Sean Johnson
Director of Parks and Recreation
City of University Park
4420 Worcola Street
Peek Municipal Service Center
Dallas, TX 75206

Dear Mr. Johnson:

Scope of Services – City of University Park – Curtis Park Retaining Wall Repair

Project Understanding and Description:

This project consists of repairs for an approximately 65' long section of failed 5' tall masonry retaining wall along the west side of Curtis Park just south of Lovers Lane. The retaining wall is also part of a shoreline edge treatment around a small, on channel pond on Turtle Creek. This project will consist of full replacement of the failed section of retaining wall to provide a safe and functional new wall that closely matches the existing wall aesthetics. The proposed repaired wall will follow the same alignment and grading as the original wall to eliminate the need to perform a hydraulic study to verify no adverse impacts will be caused by the new wall.

Basic Services:

1. **Project Management and Client Coordination**

   Conduct kickoff meeting; manage efforts of internal design team and sub-consultants; quality assurance and control; prepare agendas, attend agreed upon meetings, prepare minutes; monthly status reports including updated schedule; agreed upon check-in coordination calls.

2. **Construction Documents Preparation**
   - **a. Design**
     - **i.** General: Prepare Cover Sheet, Index, General Notes, Quantities Table and Technical Specifications
     - **ii.** Demolition Plans: Prepare demolition plan that includes Recommended Staging and Access Plan and Temporary Storm Water Pollution Prevention Measures in accordance with the City of University Park.
     - **iii.** Retaining Wall Plans: Prepare site survey and control sheet, retaining wall plan and profile layout sheet, retaining wall sections and standard details sheet.
     - **iv.** Front End documents to be prepared by the engineer. The City will furnish a boilerplate that the engineer shall be responsible for filling out. Engineer shall prepare the bid form and any special specifications for items that are not addressed in the City of University Park's Standard Specifications, NCTCOG Specifications or that need to be revised to accommodate project specific constraints.
   - **b. 60% Design Phase (Preliminary Design)**

     Deliverables for the 60% design: plan set and temporary erosion control plan; opinion of probable cost; and schedule.

i. Review reports, utility plans, as-builts, plats, existing easement information, and other features within the project area. Perform data collection to assess existing structure conditions.

ii. Establish the Engineer's recommendations for extent of remediation.

iii. Establish preliminary horizontal and vertical retaining wall alignment.

iv. Establish design concepts for drainage and erosion prevention.

v. Submit one set of plans to the City for review.

vi. Attend one meeting at the City to review and discuss the preliminary plan drawings and review comments.

vii. Submit geotechnical report to the City once it's completed.

c. 95% Design Phase (Pre-final Design)

Deliverables for the 95% design: plan set including profile, temporary erosion control plan; front end and technical specs; comment log from 60% submittal; updated opinion of probable cost; updated schedule.

i. Provide standard details into the plans and prepare additional details or profiles as required.

ii. Prepare technical specifications and bid forms to be incorporated into the project manual for the proposed retaining wall repairs. Prepare the contract documents using the City of University Park's standard documents and incorporating project specific "Proposal and Bid Schedules," "Notice to Contractors," and "Special Conditions."

iii. Submit one set of plans and bid book to the City for review.

iv. Attend one meeting with the City to review and discuss the 95% plan drawings and the City's review comments.

d. 100% Design Phase (Final Design)

Prior to submitting sealed plans and bid book, submit check-set for City to review.

Deliverables for the 100% design: sealed plan set and bid book; comment log from 95% submittal; updated opinion of probable cost; updated schedule; CAD drawings.

i. Revise the 95% bid documents to incorporate review comments provided by the City and submit Bid Ready plans and bid book to the City for final review and approval.

Deliverables shall be electronic format, unless otherwise requested.

3. Bid Phase

During the design phase, Engineer will assist the City with considering the use of a cooperative purchasing contract to help expedite the contractor procurement process. Engineer will help find and review existing contracts for similar services available to use through an interlocal agreement to speed up the pricing and contract award process. Should a cooperative purchasing opportunity not be available for the desired solution, the project will be advertised and bid through the normal University Park Construction Contract Bidding Process. It is our understanding the City will prepare invitation to bid and coordinate bidding process through bid opening including posting advertisement and issuing of addenda. Engineer shall:

a. Assist the City with locating and a construction contract for similar services through a cooperative purchasing process.

b. Otherwise, Engineer will assist with the pre-bid meeting. Meeting shall be led by the City with agenda, sign-in sheet and paperwork prepared and provided by either WPM or the City.

c. Assist the City with the preparation of addenda and provide answers to bidders questions and interpreting bid documents.

d. Bid opening, tabulation of the bids, and evaluation of bidder references will be performed by the City.

e. Prepare and issue Conformed Documents, incorporating all addenda, to be used for contract execution.

Deliverables shall be electronic format, unless otherwise requested.

4. Construction Phase

Engineer shall:

a. At a date and time selected by the City, attend the pre-construction conference and assist the City during the conference. The City shall prepare an agenda for the conference, sign-in sheet, and prepare and distribute minutes.

b. Review requests for information, submittals, and change orders when requested by the City. Submittals will be reviewed by City first and when additional review is necessary will forward to Engineer. It is not expected that standard item submittals will be reviewed by Engineer.

c. Assist City with unforeseen site issues during construction regarding the plans/specifications. Perform up to three site visits and provide observation reports, including final punch walk and list.

d. Prepare construction 'record drawings' based upon markups and information provided by the construction contractor.

e. Submit record drawings in PDF electronic format and in CAD format.

Special Services:

1. Topographic Survey

a. Engineer will contract with PJB Surveying for these services. Proposal attached.

b. Perform a detailed topographic survey of the project area.

c. Establish horizontal and vertical survey control points referencing a minimum of two monuments from the City of University Park monument system and include in the construction plans.

d. Tie right-of-way- lines and property lines to the site.

e. Verify horizontal and vertical locations of existing city facilities on the site.

f. Locate utility crossings, adjacent utilities, and other improvements within a limit of one hundred feet beyond the proposed improvements.

i. Submit a utility locate request to the City of University Park and to Texas811. Marks set by the City or Texas811 will be located and mapped. Identify which utilities must be protected or relocated.

ii. Tie locations of exposed utilities to the local control network. When underground utilities are uncovered, tie locations to the local control network.

iii. Locate, tie, and map visible improvements including but not limited to:

1. Top of bank, existing walls, structures, slabs, buildings, pavements, fences, trees 6" diameter and larger, sidewalks, and utility appurtenances such as water valves, fire hydrants, manholes, etc., (within construction area) on the site.

iv. Provide digital plans for City to distribute to local utility companies to obtain information regarding impacts to their facilities.

v. Prepare AutoCAD survey file, submit to City if requested.

2. Geotechnical Engineering

a. Engineer will contract with HVJ Associates for these services. HVJ performed the previous study for University Park within the same park and has experience and familiarity with the site. Proposal attached.

b. Proposed boring will be marked and coordinated with the Engineer and Owner will be notified and bore hole locations will be approved by the owner prior to commencing drilling.

c. Perform truck-mounted borings and hand borings to collect necessary soil samples. The engineer will only be responsible for damages at the site caused by their negligent acts.

d. Do the laboratory testing required for the design of the retaining wall structure.

e. Provide a technical report to characterize the observations, report testing data, interpret the data, and supply design parameters and loads for the project.

Reimbursable expenses

1. For project-related travel expenses (such as mileage for site visits or meetings with the City), fees, and out-of-pocket material expenses such as printing, postage, courier costs, etc., the charges will be billed as a direct expense and paid at cost. Mileage will be charged at the prevailing federal rate of reimbursement. No expenses will be charged for interoffice travel undertaken at the Engineer's discretion. Prior City approval required.

Exclusions:

1. Additional services to be performed by the Engineer, if authorized by the City of University Park, which are not included in the above-described basic or special services, are described as follows:

- Additional design for erosion repair sites not included in the above Scope of Work
- Hydrologic & Hydraulic Modeling is not included in the above Scope of Work since the new wall will follow the old wall alignment based on prior survey data. Should a different alignment be requested, Hydrologic and Hydraulic Modeling of the floodplain may be necessary and will require additional services.
- Additional construction site visits or inspection services not included in the above Scope of Work
- Design or analyses of existing structures, utilities, or proposed structures not previously identified herein or directly related to the proposed solution
- Investigation involving detailed consideration of operation, maintenance and overhead expenses, and the preparation of rate schedules, earnings and expense statements, feasibility studies, appraisals, evaluations, assessment schedules, traffic engineering reports and studies, flood plain reclamation plans, and material audits or inventories required for construction performed by the City
- Preparation of a design or analysis reports.
- Performing designs for trench safety and other structures, etc. which are not included in the above Scope of Work (we assume the contractor will provide trench safety details for review during construction)
- Preparation of plans and/or specifications related to the relocation of utilities not included in the above Scope of Work
- Revisions to the plans as a result of revisions after completion of the original final design (unless to correct error on final plans or bid documents).
- Preparing applications and supporting documents for government grants, loans, or planning advances and providing data for detailed applications.
- Fees for permits and advertising.
- Providing full time site inspection during construction of the project unless to correct errors or omissions in the engineering design that are revealed during construction.
- Quality control and testing services during construction.

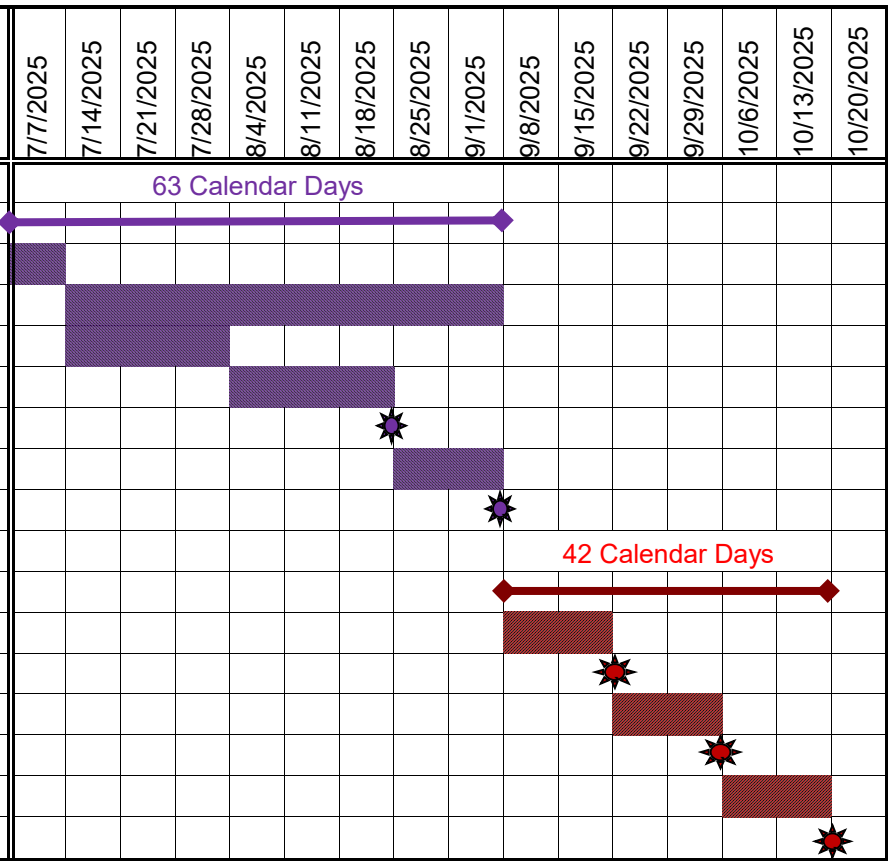
- Preparation and processing monthly or final construction pay estimates
- Assisting the City with public meetings or hearings to inform residents beyond that contained in the above Scope of Work
- Attending homeowners and/or council meetings including preparation of all displays, reports, or other data for use at such meetings. Assisting the City of University Park with any aspect regarding homeowner meetings
- Appearing before regulatory agencies or courts as an expert witness in any litigation with third parties or condemnation proceedings arising from the development or construction of the Project, including preparation of engineering data and reports for assistance to the City of University Park
- Assisting the City of University Park in claims disputes with the Contractor(s)
- Consulting services by others not included in proposal.

Attachment A: Project Schedule

The City of University Park
Curtis Park Retaining Wall Repair Project

Attachment A: Project Schedule

Task ID and Description	Duration Calendar Days
Preliminary Design	**63**
Mobilization	7
Geotechnical Study	56
Topographic Surveying	21
Schematic Design and Drafting (60%)	21
Submit to City	1
City Review	14
Meet with City	1
Final Design	**43**
95% Design, Drafting, & Specifications	14
Submit 95% Design and Estimate to City	1
City Review	14
Meet with City	1
Final Design (100% Unsealed), Drafting, & Specifications	14
Submit Final CD's to City	1



Attachment B: Fee Breakdown

Attachment B
Curtis Park Retaining Wall Repair Project
Fee Breakdown

Basic Services	TOTAL
Project Management and Client Coordination	$4,000
60% Design (Preliminary Design)	$13,000
95% &100% (Pre-Final & Final Design)	$14,500
Bid Phase	$4,000
Construction Phase	$7,500
Basic Services Sub-Total	**$43,000**
Special Services	
Topographical Survey (PJB)	$12,500
Geotechnical Topographical Survey (HVJ)	$14,828
Special Services Sub-Total	**$27,328**
Sub-Total Basic Services + Special Services	**$70,328**

Additional Services - 60LF Additional Wall Replacement Design	TOTAL
Project Management and Client Coordination	$0
60% Design (Preliminary Design Additional Section/Details)	$1,000
95% &100% (Pre-Final & Final Design (Additional Section/Details)	$1,500
Bid Phase	$0
Construction Phase	$0
Additional Services - 60LF Additional Wall Replacement Design	**$2,500**

Attachment C: List of Information to be Provided to Consultant

Provide list of information expected to be provided to consultant by City.

1. *As-Builts of existing public improvements including, culvert wing walls, sanitary sewer, waterlines, storm sewer and landscaping and irrigation plans if available*

PJB Surveying

200 W. Belmont Drive, Suite D - Allen, Texas 75013 - (972) 649-6669

June 9, 2025

Mr. Jim Dulac, PE, Senior Associate
Walter P. Moore
500 N. Akard Street, Ste. 2300
Dallas, Texas 75201

RE: Curtis Park
Turtle Creek Retaining Wall Repair Project
City of University Park, Dallas County, Texas

Mr. Dulac,

Thank you for the opportunity to provide our proposal for professional land survey services for the retaining wall repair project along the east bank of Turtle Creek adjacent to Curtis Park. The survey shall include mapping the location of the existing retaining wall beginning at the culvert headwall at Lovers Lane and extending southward (downstream) along Curtis Park approximately 250 feet. The survey shall also include topographic mapping of an approximate one (1) acre area of the northwest corner of Curtis Park as depicted on the survey request exhibit provided by Walter P. Moore. Our fee proposal is as follows:

Proposed Services

All survey services will be based on NAD-83 Texas State Plane Coordinate System with data derived from the Allterra VRS Network. Data shall be provided in surface coordinates obtained by using a Dallas County grid to surface adjustment factor.

Proposed services shall include the following:

A. Establish a minimum of three (3) control points/temporary benchmarks at stable locations and outside of anticipated construction areas. Control points shall reflect horizontal coordinates and vertical elevations.

B. Topography survey of the area depicted within the red polygon shown in the attached map exhibit.

1. Map the location of improvements including buildings, driveways, sidewalks, curbs, gutters, landscape areas, and fences.
2. Map the location of visible utilities including overhead power lines, wastewater manholes, storm manholes, water manholes, water valves, curb inlets, headwalls, irrigation control valves, gas valves. Measure flow line elevations of downstream culverts under Lovers Lane, wastewater manholes, storm drain manholes, storm drain inlets, storm pipes discharging into Turtle Creek east of the weir south of the project area, and the abandoned pipes east of the weir south of the project area. Measure top of nut elevations of water valves. **Subsurface Utility Engineering (SUE)**

investigation Level "A" (locating) and Level "B" (designating) are excluded from the scope of this survey and will be considered additional scope of work for additional fees.

3. Map the location of the retaining wall along the east bank of Turtle Creek. Information shall include elevations of top of wall, elevations of bottom of wall, elevations of top bank of creek, edge of water elevations, and elevations of toe of slope of the creek bank adjacent to the retaining wall.
4. Map the locations of all trees within the scope area. Provide the tree caliper size and the common name of tree species, if known by the survey crew. **Tree assessment services beyond common species name and caliper size or services requiring an arborist are excluded from the scope of this survey and will be considered additional scope of work for additional fees.**
5. Generate at tin and map contours at 5-foot intervals.

Deliverables

The following data shall be provided:

A. Survey control point/temporary benchmark data in Word format
B. All topographic data in MicroStation V8i 3d format
C. GeoPak tin files and ASCII point list

Files may be converted to Autocad dwg format and/or Adobe pdf format at the direction of Walter P. Moore at no additional expense.

Time of Performance

Proposed services for the topography survey shall be completed in 15 working days from notice to proceed. Time of performance does not include working days lost due to inclement weather.

Proposed Fees

We propose to provide these survey services for the following lump sum fee.

Survey Control Points and Topography Survey	**$8,000.00**

Optional Services

The topography survey will not contain property boundary lines or property boundary information. Optional boundary surveying services to designate boundary lines shall include the following:

Boundary Survey: Research and obtain property records necessary to establish current ownership of the subject tract(s), adjacent boundaries, and any other documents deemed necessary by surveyor. Field locate and measure boundary monuments at the corners of subject tract. The subject boundaries shall be verified, reconstructed and/or delineated using evidence obtained from both field and office services.

Optional Boundary Survey lump sum fee	**$4,500.00**

Closing

We trust that the above proposal will meet the needs of Walter P. Moore. However, please let us know if any adjustments are needed to meet your needs.

Sincerely,

Christopher Maman

Christopher Maman, RPLS
Project Manager
TBPELS Firm No. 10194303

_____
Accepted

_____
Name, Title and Date


rs Ln
Lovers Ln
Lovers Ln
Turtle Creek Ln
7078
7070
Curtis Park
7056
urtle Creek Ln
7048

8701 John Carpenter Freeway, Suite 250
Dallas, Texas 75247-4640
214.678.0227 Ph
214.678.0228 Fax
www.hvj.com

June 9, 2025

Jim Dulac
Walter P Moore
500 N. Akard St, Suite 2300
Dallas, Texas 75201

Re: Geotechnical Investigation
Curtis Park Retaining Wall Failure
City of University Park, Texas
Owner: City of University Park
HVJ Associates® Opportunity No. DGT-25-0281

Dear Mr. Dulac:

HVJ Associates® is pleased to submit this proposal for providing a geotechnical study for the above referenced project. This proposal outlines our understanding of the scope of the project and presents our approach and our fees for providing the study.

Project Background

Based on the information provided by the client, the existing wall surrounding the pond location within the Curtis Park has failed along a section approximately 65 to 70 feet in length with estimated wall heights ranging up to 5 feet. The existing wall is a masonry wall constructed of a combination of CMU blocks and concrete rubble.

Wall distress has been observed since 2008 based on the aerial images obtained by the client. Wall failure could be attributed to various factors, however, visual observation suggests shear and flexural failure modes characterized by tilting and bending of the wall segment.

A geotechnical study is planned that will include a geotechnical field investigation, laboratory testing, assessment of the existing wall failure and recommended options for reconstruction of retaining wall both upstream and downstream approximately 125 LF in length to match with the existing wall system. Approximate site vicinity and retaining wall location are presented in the Figure 1.

Jim Dulac
DGT-25-0281
June 9, 2025

Figure 1 - Approximate Site and Wall Location

Scope of Work

We propose drilling and sampling one boring in vicinity of the distressed masonry wall. Following summarize the boring details.

No. of Boring	Anticipated Depth	Purpose
1	30 feet	The boring will be drilled to a minimum penetration of 10 feet into intact bedrock (gray limestone) or termination depth, whichever occurs first.

We anticipate that the boring will be accessible by a truck mounted drill rig. Continuous samples will be obtained within the upper 15 feet, and at 5-feet intervals thereafter to the boring termination depth. Shelby tube samplers will be used to collect cohesive soils (clays) and split spoon samplers will be used to collect non-cohesive soils (sand and gravel) in accordance with Standard Penetration Test (SPT) procedures. Bedrock encountered in the boring will Augered followed by Texas Cone Penetrometer (TCP) to be performed at every 5-feet intervals to the boring termination depth. Bedrock will not be cored.

Groundwater readings will be obtained during drilling and upon completion of drilling of each boring. Upon completion of drilling of boring, the bore location will be backfilled with bentonite chips.

The borings will be used to determine site stratigraphy and to obtain samples for laboratory testing. Laboratory testing will be conducted on Selected samples that are representative of the materials obtained during the field exploration. The tests will be used to evaluate and classify the soils, identify subsurface site characteristics, and provide data for analysis.

All the field and laboratory tests will be performed according to ASTM standards, where applicable, or with other established procedures. Results of the field and laboratory data will be used to provide geotechnical recommendations for the proposed remediation measures. The following tests will be performed.

- Moisture Content
- Atterberg Limits
- Unconfined Compressive Strength in Soil
- Passing Number 200 Sieve
- Direct Shear

A geotechnical report of our study will be prepared by an engineer specializing in soil mechanics and foundation engineering after reviewing available structural, geological, borings, and laboratory data. In general, the following items will be included in our report:

- Site vicinity map,
- Plan of borings,
- Table of laboratory results,
- Boring logs,
- Site Geology,
- Generalized subsurface conditions,
- Groundwater level observations,
- Observation of distressed masonry retaining wall,
- Recommended design and construction options to repair the retaining wall.

The following details are requested.

- As-built retaining wall drawings, if available
- If as-built drawings are not available, survey elevation showing the approximate bottom of the wall.

Schedule

HVJ Associates® expects to complete this assignment in approximately 7 to 10 weeks' time frame following receipt of a written notice to proceed and all the right of entries required to complete the field work, as per the following estimated schedule:

- Field Work (Marking boring locations, clearing utilities, obtaining city permits, coordinating and completing drilling): 3-4 weeks
- Laboratory Testing: 2-3 weeks
- Engineering & Report Preparation: 2-3 weeks

A draft report will be submitted for review to Walter P Moore. After approval of HVJ Associates® draft report, a final report of the study will be submitted. Additional revisions and/or supplements to the report following approval may be considered additional services.

Fee and Conditions

Based on the scope of work outlined, the fee for our services is **$14,828.00**. A breakdown for the cost estimate for is included with this letter. Our accounting procedures call for the submittal of invoices on a month-end basis or at the conclusion of the project should its duration last less than a month. Our credit terms are net 30 days.

- Completion of Field Work: up to 60% Fees
- Completion of Lab Work: up to 80% Fees
- Submitted Draft Report: up to 95% Fees

- Final Signed and Sealed & Report Preparation: up to 100% Fees

The following assumptions were made in preparing this proposal:

- No known contamination exists at the site and standard geotechnical drilling and sampling is appropriate for the site. If contaminated soils are encountered in the borings, we will inform Walter P Moore immediately. Drilling of borings will be terminated, and the boring will be backfilled with bentonite chips.
- Boring locations are accessible using ATV-mounted/Track drilling equipment.
- Field survey of the boring locations and elevation is not part of our scope.
- Right of Entry to the property will be obtained by Walter P Moore.
- Site Clearing will not be required to access borings.
- Laboratory samples will be held for no more than a period of 60 days following completion of the final report or 120 days following completion of the draft report, whichever is less.

The scope of services described is appropriate for the project configuration presented to us. If anomalous conditions are encountered, or if the project configuration changes significantly, a change in work scope may be required. HVJ Associates® will recommend such changes when and if it is deemed necessary. No changes will be implemented without prior authorization from Walter P Moore.

HVJ Associates® will contact the Texas811 One Call System, to locate buried utilities. We will take care to minimize damage to existing facilities; however, our activities may result in some damage to vegetation or unidentified existing utilities. This proposal specifically excludes any costs associated with restoration of vegetation or repair of utilities damaged by our operations that were not previously identified by Texas811 One Call or Walter P Moore and/or City of University Park.

If this proposal meets with your approval, please issue a work authorization and agreement of services along with a copy of the proposal to us. HVJ Associates® is pleased to be of service on this project. Please call us if you have any questions or require additional information.

Sincerely,

HVJ NORTH TEXAS - CHELLIAH CONSULTANTS, INC.

Thusha P. Thushanthan, PE
Department Manager

SS/PT

Attachments:

- Fee Estimate

Estimate for Geotechnical Investigation
Curtis Park Retaining Wall Failure
Walter P Moore
University Park, Texas
HVJ Project No.: DGT-25-0281
June 9, 2025

Geotechnical Fee Estimate Breakdown

Field Investigation:
One (1) boring to a depth of 30 feet along the failed section of the masonry wall (~70 feet in length)

Mobilization of ATV Drill Rig	1	@	$800.00	LS	$800.00
Daily ATV Drill Rig Rate for Drilling and Sampling of Soil/Rock	1	@	$2,600.00	per day	$2,600.00
Backfilll borings with bentonite chips	30	@	$15.00	per ft	$450.00
Staff Engineer/Geologist (Marking Borings, Coordination)	6	@	$115.00	per hour	$690.00
Staff Engineer/Geologist (Logging)	10	@	$115.00	per hour	$1,150.00
Vehicle Trips	3	@	$75.00	per trip	$225.00
				Subtotal	**$5,915.00**
Laboratory Testing:					
Moisture Content - ASTM D 2216	9	ea @	$12.00	each	$108.00
Atterberg Limits - ASTM D 4318	4	ea @	$75.00	each	$300.00
Percent Passing No. 200 Sieve - ASTM D 1140	4	ea @	$55.00	each	$220.00
Sieve Analysis - ASTM D6913	1	ea @	$70.00	each	$70.00
Unconsolidated Undrained Triaxial - ASTM D2850	1	ea @	$150.00	each	$150.00
Unconfined Compressive Strength - ASTM D2166	2	ea @	$70.00	each	$140.00
Direct Shear - ASTM D3080	1	ea @	$1,000.00	each	$1,000.00
				Subtotal	**$1,988.00**
Engineering Analyses and Project Management					
Senior Engineer, P.E.	5	hr @	$225.00	per hour	$1,125.00
Project Manager, P.E.	18	hr @	$180.00	per hour	$3,240.00
Staff Engineer	20	hr @	$115.00	per hour	$2,300.00
Engineering Assistant	4	hr @	$65.00	per hour	$260.00
				Subtotal	**$6,925.00**

Total **$14,828.00**