

COUNCIL MEETING DATE: JULY 21, 2020



CITY COUNCIL AGENDA ITEM #8

STAFF PREPARER/CONTACT INFORMATION: Sylvia Carrillo, City Administrator
scarrillo@sunsetvalley.org

COUNCIL SPONSOR: Mayor Cardona rcardona@sunsetvalley.org / Administration
scarrillo@sunsetvalley.org

SUBJECT: Public Works – Infrastructure

DESCRIPTION: Report on Sunset Trail and Jones Road Intersection drainage issue with deliberation and possible action. (Mayor Cardona/Administration)

BACKGROUND: Continued drainage issues at the intersection of Jones Road and Sunset Trail have plagued the property owner and other residents in this area.

Prior project planning included only a waterline replacement to bring the existing 4" water line to 8" fire suppression standards. Replacement of the water line would also involve street repair. After repeated requests by the property owner for assistance in resolution, I met onsite with the property owner and was joined by staff and our city engineer.

Staff requested the engineer review the project holistically and address drainage as well.

The attached proposal covers proposed design costs and potential construction costs by impacted fund. As stated, previous project planning included water line upgrades and road mill and overlay. Upon further inspection, Sunset Trail requires complete reconstruction in some areas. Staff has asked the engineer for Alternative/Additions cost scenarios to allow the Council to make a more informed decision.

This project ranked high on the Public Works project list.

SUPPORTING MATERIALS PROVIDED:

- Design Proposal
- Estimated Construction costs.
- Affected property map

June 10, 2020

Ms. Sylvia Carrillo, CPM, ICMA-CM
City Administrator
City of Sunset Valley
3205 Jones Road
Sunset Valley, TX 78745

Delivered via email scarrillo@sunsetvalley.org

**Re: Proposal for Professional Engineering Services
Master Contract - Work Order 014
Jones Road / Sunset Trail Drainage Improvements Project**

Dear Ms. Carrillo:

Miller Gray ("MG") is pleased to present this proposal to the City of Sunset Valley ("Client") to provide professional engineering services related to the proposed Jones Road / Sunset Trail Drainage Improvements Project near the intersection of Jones Road and Sunset Trail in Sunset Valley, Travis County, Texas. Based on recent discussions, it is our understanding that runoff from Jones Road overtops the recently retrofitted driveway along Jones Road for the property at 2 Sunset Trail. It is also our understanding that local flooding / ponding has occurred at 2 Sunset Trail, 4 Sunset Trail, 2905 Jones Road and 2907 Jones Road.

The scope of work generally includes the following elements:

- Retrofitting the Jones Road Trail to include additional drainage infrastructure along Jones Road;
- Retrofitting the 4 Sunset Trail driveway to include additional drainage infrastructure;
- Adding storm drain piping and an area inlet in the vicinity of 2 Sunset Trail, 4 Sunset Trail, 2905 Jones Road, and 2907 Jones Road to provide for positive drainage to outfall to the Sunset Valley Tributary;
- Relocating the existing water line along the west side of Sunset Trail as necessary to allow sufficient space for the proposed storm drain piping; and
- Street repairs along Sunset Trail.

The scope of work is based on our discussions and our most recent experience with similar projects. The tasks to complete this work are described below.

SCOPE OF WORK

Task 001 Hydrologic and Hydraulic Analysis and Preliminary Engineering Report

MG will perform a hydrologic and hydraulic analysis to determine the peak flow rates for the 4% and 1% annual chance (25- and 100-year, respectively) storm events along Jones Road, Sunset Trail, and the three properties near the southwest corner of the intersection of these two streets.

- MG will size one or more curb inlets to install along the south curb line of Jones Road upslope of the driveway at 2 Sunset Trail to intercept as much of the runoff as practical. These curb inlets will connect to the existing storm drain system underneath the Jones Road Trail.

- MG will also size a storm drain system to alleviate local flooding and ponding and to provide positive drainage for 2 Sunset Trail, 4 Sunset Trail, 2905 Jones Road, and 2907 Jones Road. We anticipate this storm drain system may include one or more area inlets between these properties and the storm drain pipe will drain along Sunset Trail and outfall into Sunset Valley Tributary.
- MG will prepare a preliminary engineering report (PER) to document technical merits of the hydrologic and hydraulic analysis and present the schematic of the proposed storm drain improvements. The PER will also include an engineer's estimate of probable cost of the proposed improvements. The PER may also identify potential on-site improvements to individual private properties; however, we have assumed that the private property owners will be responsible for any necessary on-site improvements to drain to the proposed public storm drain system (i.e., on-site grading, roof drain repairs, fencing/landscaping adjustments, etc.).

Deliverable: Preliminary Engineering Report

Task 002 Construction Drawings and Engineering Report

Based on the hydrologic and hydraulic analysis described in Task 001, MG will prepare construction drawings and a final design engineering report for the recommended improvements in accordance with City of Sunset Valley criteria. We anticipate the proposed storm drain improvements along Sunset Trail will require the relocation of the existing 4-inch waterline along Sunset Trail; we have assumed that this waterline will be relocated between Jones Road and Sunset Valley Tributary and upsized to an 8-inch waterline. The engineering report will document the technical merits of the final design. The construction drawings will generally consist of the following.

- Cover and General Notes Sheets
- Existing Conditions (Tree & Topo Survey) and Demolition Plan
- Erosion & Sedimentation Control and Tree Protection Plans
- Site / Dimension Control Plan
- Drainage Area Maps
- Grading and Drainage Plan
- Storm Drain Plan & Profile
- Water Line Improvement Plan
- Roadway Curbing and Paving Plan**
- Various Detail Sheets

** We have assumed the Base Project Roadway Curbing and Paving Plan will include a mill and overlay improvement approach that will extend along Sunset Trail from Jones Road to the Sunset Valley Tributary. Construction Add-Alternate No. 1 will include a full-depth reconstruction of Sunset Trail from Jones Road to the Sunset Valley Tributary.

The City may elect to proceed with additional design services for the southern portion of Sunset Trail as described in Task 004 below such that the construction documents will be prepared to include additional construction add-alternates.

Deliverable: Construction Plans and Engineering Report to include Base Project and Construction Add-Alternate No. 1

Task 003 Project Manual

MG will prepare a Project Manual including all bid documents and the Stormwater Pollution Prevention Plan (SWPPP). The Project Manual will include detailed construction specifications using the City of Austin Standard Specifications as well as all remaining documents needed for the bid process using the City of Sunset Valley Standard Construction Contract Bid Documents. MG will prepare special provisions to the specifications and/or standalone special specifications as necessary. The contract documents, technical specifications, geotechnical data report (provided by the City via Terracon), and the SWPPP will be bound as part of the Project Manual.

Deliverable: Project Manual

Task 004 Add'l Design for Add Alternate Nos. 2 and 3; Sunset Trail (southern portion)

As described in Task 002 above, the Base Project and Construction Add-Alternate No. 1 include roadway improvements that will extend along Sunset Trail from Jones Road to the Sunset Valley Tributary. However, the City may elect to extend the roadway and waterline improvements along Sunset Trail south of the Tributary. The construction documents will be prepared to include the following Construction Add-Alternates:

- Add-Alternate 2:
 - a. Mill and overlay Sunset Trail from Jones Road to Reese Drive; and
 - b. Upgrade an additional 300 feet of waterline from 4-inch to 8-inch between Sunset Valley Tributary and the existing fire hydrant along Sunset Trail.
- Add-Alternate 3:
 - a. Full-depth reconstruction of Sunset Trail from Jones Road to Reese Drive.
 - b. Upgrade an additional 300 feet of waterline from 4-inch to 8-inch between Sunset Valley Tributary and the existing fire hydrant along Sunset Trail.

Deliverable: Construction Plans and associated Project Manual to include Construction Add-Alternate Nos. 2 and 3

Task 005 Sunset Valley Coordination and Review

MG will coordinate with the City for review and approval of the construction drawings and Project Manual. We have assumed that a formal site development permit is not required. MG will coordinate with City staff periodically throughout the project design process. Towards the end of the design process, MG will attend up to two meetings with the Public Works Committee to present the project and solicit feedback. Following meeting with the Public Works Committee, MG will attend up to three meetings with City Council present the project and solicit feedback.

Task 006 TCEQ Edwards Aquifer Protection Plan (EAPP) Exception Request

The proposed development is located over the Edwards Aquifer Recharge Zone. The installation of the stormdrain pipe is considered a Regulated Activity by the Texas Administrative Code, Title 30, Chapter 213; however, there is no proposed impervious cover and no permanent water quality controls. Therefore, the project may be eligible for an EAPP Exception. MG will prepare and submit an exceptions application to the TCEQ. The exception application package will consist of the items identified in the EAPP exception checklist.

MG will address and provide written responses to administrative and technical review comments from TCEQ staff and incorporate changes resulting from comments and resubmit the exception request as necessary. The estimated budget anticipates one update submittal.

Task 007 Bid Phase Services

MG will assist the City in the advertisement and bidding of the project. It is anticipated that the City will advertise and distribute the plans and specifications to prospective bidders. MG will provide the City with reproducible sets of the plans and contract documents. In addition, MG will provide the following specific services for this task:

- 1) Attend a Pre-Bid Meeting: MG shall attend a mandatory pre-bid meeting planned and hosted by the City.
- 2) Issue Addenda: MG shall respond to questions from prospective bidders as well as prepare and issue addenda as appropriate to clarify the plans and specifications. MG will coordinate the issuance of addenda with the City. It is anticipated that only one addendum will be required for the Project.
- 3) Review Bids Received: MG shall review the bids received for the project and make a formal recommendation to the City concerning the award of the project based on the amounts bid, a check of the contractor's references, an assessment of the contractor's capabilities, and the ability to meet the contract schedule.

SUBCONSULTANT SERVICES

The nature of this project may require professional or consulting services from outside subconsultants. MG has included the following subconsultants under our contract to simplify the design and permitting process. Anticipated subconsultants and their respective fees are as follows:

Surveying Services (Delta Survey Group)

SUR.1 – Design-level survey along Jones Road and the northern portion of Sunset Trail

SUR.2 – Design-level survey for the southern portion of Sunset Trail (for design of Construction Add-Alternate Nos. 2 and 3)

Geotechnical Engineering Services (Terracon)

GT.1 – Geotechnical Report

Land Title Services (Heritage Title Company)

LTS.1 – Title Report to identify easements, etc., for 2 Sunset Trail, 4 Sunset Trail, 2905 Jones Road, and 2907 Jones Road

Additional subconsultants identified through the execution of the tasks described above will be provided under a separate Additional Service Request.

SPECIAL CONDITIONS

In preparing this proposal, MG has made the following assumptions:

1. Improvements along Jones Road are intended to address stormwater runoff from Jones Road.

2. Storm drain improvements between 2 Sunset Trail, 4 Sunset Trail, 2905 Jones Road, and 2907 Jones Road are intended to alleviate local flooding and ponding and provide positive drainage; however, it does not include site-specific improvements on individual lots (i.e., on-site grading, roof drain repairs, fencing/landscaping adjustments, etc.). We have assumed that the individual private property owners will perform any necessary on-site improvements to drain to the proposed public storm drain system.
3. The geotechnical engineering subconsultant proposal includes providing a paving recommendation for 1) mill and overlay and 2) full-depth reconstruction. These options may be incorporated into the construction documents as construction add-alternates as described in Task 004.
4. There are no proposed hydraulic structure improvements to the Sunset Trail stream crossing at the Sunset Valley Tributary.
5. The full-depth reconstruction design will maintain the existing vertical and horizontal alignment of the roadway to the best extent practical.
6. There are no wastewater improvements planned along Sunset Trail.
7. There are no sidewalk improvements planned along Sunset Trail.
8. There are no dry utility improvements planned along Sunset Trail.
9. Client will negotiate any right-of-entry with the private property owners as required for the analysis and design of the proposed improvements.
10. Client will provide as-built drawings for the Jones Road Trail Project and the 4 Sunset Trail Driveway Project for MG's use.
11. No variances or waivers are required other than described above.
12. The project will not require a license agreement.
13. The project will not encounter significant opposition from the City, County, State or Federal review agencies; neighborhood groups; environmental groups; etc.
14. Governmental and quasi-governmental agency review fees and fees associated with permitting, review and approval of this development will be paid directly by the Client.

The following items are not included in this proposal:

1. Preparation of unified development agreements, restrictive covenants, easement dedication documents or other legal services.
2. Federal permitting: Section 404 Permitting for Waters of the US or FEMA permitting services (CLOMR, LOMR, etc.)
3. Environmental site assessments, including Phase 1; Geological studies; or endangered species studies.
4. Other professional services: Land Surveying, Architectural, Landscape Architectural, MEP, or Licensed Irrigator.
5. Structural designs, including retaining walls.
6. Construction phase services.
7. Governmental review fees.

The preceding items may be provided under a separate Additional Service Request, if found to be necessary or are requested by the Client.

FEE SUMMARY

The services will be provided for the estimated fees shown in the attached Budget Estimate Worksheet in accordance with the Sunset Valley Billing Rates and General Agreement for Engineering Services and Consulting ("Agreement").

Fees for the above services will be invoiced monthly for the services performed that month. All tasks shown in the Budget Estimate Worksheet will be billed on a time-and-materials basis. MG will not exceed the estimated budget without prior approval from the Client.

Any additional or out-of-scope services will be provided on an hourly basis or be described and authorized in an Additional Services Request. The Client will be notified prior to the initiation of any such services.

If the terms of this proposal meet with your approval, please sign in the space provided below and return copies for our records. The terms and conditions of our existing General Agreement for Engineering Services and Consulting dated November 27, 2017, will apply.

Miller Gray thanks you for this opportunity to provide this proposal and we look forward to working with you on this project. If you have any questions, please call us at (512) 861-5300 or email Travis Wilson at travis.wilson@miller-gray.com.

Sincerely,

MillerGRAY

TBPE Firm Reg. No. F-16302



Rachel Gray, MA
President/CEO

Attachments:

- Budget Estimate Worksheet
- Survey Subconsultant Proposal from Delta Survey Group
- Geotechnical Subconsultant Proposal from Terracon
- Title Company Subconsultant Email Proposal from Heritage Title Company
- MG Sunset Valley Billing Rate Schedule

Cc: J. Travis Wilson, P.E., CFM, *Principal* – Miller Gray LLC

Initial the services the City would like to include in this work order:

_____ Base Project including Construction Add-Alternate No. 1;

_____ Additional Design Services for Construction Add-Alternate Nos. 2 and 3

Accepted By:

Client

Signature

Date

Printed Name / Title

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BUDGET ESTIMATE WORKSHEET

I LABOR COST DETAIL (Base Project and Construction Add-Alternate No. 1)

Task	Description	Man-Hour Estimate by Labor Classification							Subtotals	
		Principal /	Proj. Man. /	Eng. Staff	Sr. CAD	CAD	CAD	Admin	Time (hrs)	Cost (\$)
		Sr. Eng.	Engineer	(EIT)	Designer	Designer	Technician			
001	H&H Analysis and PER	1	8	80	6	40		2	137	\$ 14,350
002	Const. Dwg Rev. & Eng. Report	2	40	150	24	80		2	298	\$ 32,300
003	Project Manual	2	20	40				6	68	\$ 7,910
005	Sunset Valley Coordination & Review	6	20	40		8			74	\$ 8,940
006	TCEQ EAPP Exception Request	1	10	20		2			33	\$ 3,920
007	Bid Phase Services	1	6	12				2	21	\$ 2,460
subtotals:		13	104	342	30	130	0	12	631	\$ 69,880
average billing rate:		\$ 180.00	\$ 145.00	\$ 105.00	\$ 110.00	\$ 95.00	\$ 85.00	\$ 75.00		
subtotal by labor classification:		\$ 2,340	\$ 15,080	\$ 35,910	\$ 3,300	\$ 12,350	\$ -	\$ 900		

II COST SUMMARY (Base Project and Construction Add-Alternate No. 1)

Labor:	Miller Gray	\$ 69,880
Expenses (mileage, reproduction, etc.):	Miller Gray	\$ 1,000
Subconsultants:	Delta Survey Group (design level survey for base project)	\$ 11,600
	Terracon (geotech borings along Sunset Trail and report)	\$ 9,500
	Heritage Title Company (Title Reports for 4 parcels)	\$ 750
	Subconsultant Markup (10%)	\$ 2,185
TOTAL (Base Project and Construction Add-Alternate No. 1):		\$94,915

I LABOR COST DETAIL (Additional Design Services for Construction Add-Alternate Nos. 2 and 3)

Task	Description	Man-Hour Estimate by Labor Classification							Subtotals	
		Principal /	Proj. Man. /	Eng. Staff	Sr. CAD	CAD	CAD	Admin	Time (hrs)	Cost (\$)
		Sr. Eng.	Engineer	(EIT)	Designer	Designer	Technician			
004	Add'l Design for Add Alternate Nos. 2 and 3	2	20	50		60		4	136	\$ 14,510
subtotals:		2	20	50	0	60	0	4	136	\$ 14,510
average billing rate:		\$ 180.00	\$ 145.00	\$ 105.00	\$ 110.00	\$ 95.00	\$ 85.00	\$ 75.00		
subtotal by labor classification:		\$ 360	\$ 2,900	\$ 5,250	\$ -	\$ 5,700	\$ -	\$ 300		

II COST SUMMARY (Additional Design Services for Construction Add-Alternate Nos. 2 and 3)

Labor:	Miller Gray	\$ 14,510
Expenses (mileage, reproduction, etc.):	Miller Gray	\$ -
Subconsultants:	Delta Survey Group (design level survey for Construction Add-Alternate Nos. 2 and 3)	\$ 7,500
	Subconsultant Markup (10%)	\$ 750
TOTAL (Additional Design Services for Construction Add-Alternate Nos. 2 and 3):		\$22,760



8213 Brodie Lane - Suite 102 - Austin Tx. 78745

Phone (512) 282-5200

WWW.DELTASURVEYGROUP.COM

TBPLS Firm No. 10004700

6/10/2020

Travis Wilson, PE, CFM
Miller Gray
7320 N. MoPac Ste 203
Austin TX 78731

Dear Travis,

Listed below are the survey services for the Sunset Trail / Jones Rd. project and as shown on the attached exhibit. Thank you for the opportunity to provide this proposal. We are looking forward to working with you on this project.

SCOPE OF SERVICES:

Requested Scope:

Design-level (boundary, tree, topo) along the Jones Road between S. Sunset Trail and N. Sunset Trail. Capture the entire Jones ROW plus 10 feet outside of the ROW.

Design-level survey of the entirety of four single-family lots: 2 Sunset Trail, 4 Sunset Trail, 2907 Jones Rd. and 2905 Jones Road.

Design-level survey along Sunset Trail between Jones Road and Sunset Valley Tributary. We need to capture the entire ROW plus 10 feet outside of the ROW. I also need to capture the entire bridge / culvert system where Sunset Trail crosses Sunset Valley Tributary.

Additional option – extend Sunset Trail design surveys to the intersection with Reese Rd.

Right-of-Entry (ROE) to private property to be provided by client and is not a part of this scope of services.

Survey for design (Boundary, Tree and Topographic Survey)

Review and analyze all current subject deeds, adjoining deeds or plats and right-of-way information

Locate all needed property corners, fences, and/or other items that will allow us to address apparent conflicts and discrepancies that might exist with the current adjoining deeds and plats

Locate visible improvements within the project areas and along the perimeter that encroach onto or off of the subject property

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topo\ADMIN\PROPOSALS\2020 Jones Rd Pedestrian Trail Survey.docx

Review all easements as listed in the Client supplied title commitment and address all easements and show them on the final plat to the extent there is a sufficient description. This proposal includes no research by Delta Survey Group, Inc. of any record easement information. ***We would request that DSGI be provided the commitment and schedule B documents as soon as possible.***

The survey will graphically show the 100-year flood zone as shown on the F.E.M.A. flood maps, or note that it does not lie within a said zone per the F.E.M.A. map.

Delta Survey Group Inc. field survey personnel (as differentiated from a qualified arborist) will tag and locate all trees 4 inch (diameter breast high) and greater.

A tree list with tag numbers, tree diameter and species (common name) will be provided in an ASCII file and will be plotted.

Using the formula of 1 foot of crown radius for each inch of trunk diameter, the calculated canopy for all located trees will be shown.

Delta Survey Group Inc. will obtain elevations at sufficient intervals and major grade breaks to prepare a one-foot contour interval map..

The topographic map will show the location of all visible utilities in the immediate vicinity of the project with flowlines of manholes.

DSGI will set two TBM's within or close to the site

Utilizing AutoCAD and Carlson digital terrain modeling programs, a one foot interval contour map and digital terrain model will be prepared for the project area.

All planimetric features of the topographic map will be depicted on one elevation (as a plane surface)

Deliverables:

Working drawing with boundary, contours, improvements, utilities and trees.

AutoCAD 2013 drawing file in digital format.

**THIS SCOPE OF SERVICES AND FEE AGREEMENT IS VALID FOR 90 DAYS
FROM THE DATE OF THE PROPOSAL**

**FEE AGREEMENT (2 PAGES):
Jones Rd. Pedestrian Trail**

LUMP SUM FEES

Delta Survey Group Inc. will provide the services outlined herein for the following lump sum fees:

Site Design Survey	\$ 11,600.00
Additional Sunset Trail extension	\$ 7500.00

NOTE: THE ABOVE FEES ARE VALID ONLY FOR AN ALL-INCLUSIVE SURVEY PROJECT – ALL BOUNDARY WORK AND ALL TOPO WORK APPROVED AND CONDUCTED IN A SIMULTANEOUS OR SEQUENTIAL MANNER.

Sincerely,



John E Brautigam, RPLS
President

Approved:

Signature _____

Name _____

Title _____

**PLEASE COMPLETE THE
FOLLOWING SHEET**

Job: Jones Rd Pedestrian Trail

Client reference/job number: _____

Billing Information

Business Name: _____

Address: _____

Address _____

Phone: _____

Contact Person _____

Email: _____

Do you prefer mailed invoices or emailed invoices?

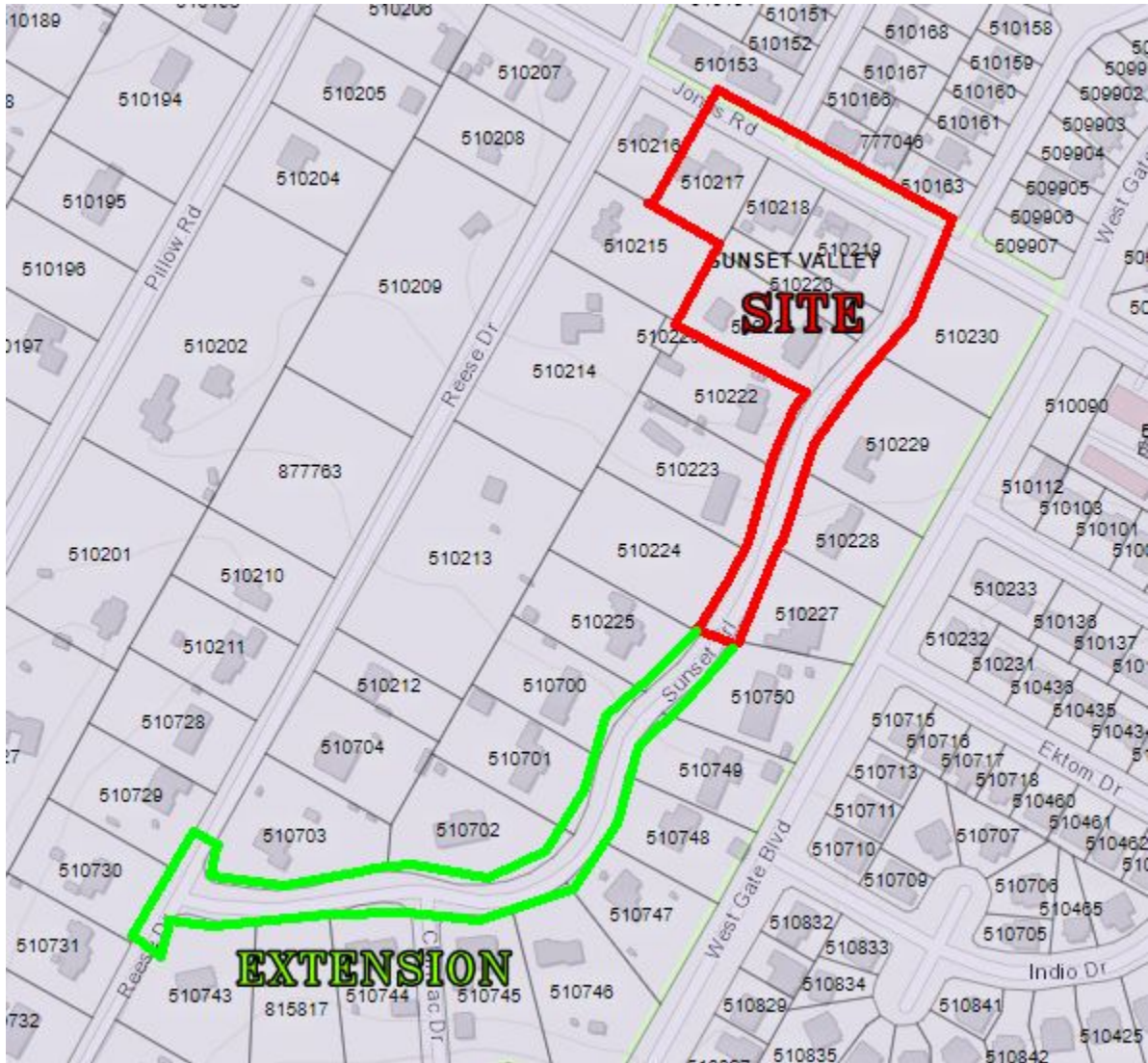
Mail ____ **Emailed** ____

Professional Services - All surveying services are regulated under the Texas Board of Professional Land Surveying. They can be contacted at 12100 Park 35 Circle, Bldg. A, Ste 156, Austin, Texas, 78753.

Invoices - Invoices for fees and all other charges will be submitted monthly for all services rendered as the work progresses, or upon completion of the project, and the net amount shall be due and payable within thirty (30) days of the date of billing at Delta Survey Group Inc.'s office in Austin, Travis County, Texas.

Client's obligation to pay - Client's obligation to pay is solely that of Client, and the acts or omissions of any third party shall not affect that obligation. All sums due and not received within thirty (30) days of the original date of invoice shall be construed as past-due.

EXHIBIT



February 14, 2020



Miller Gray LLC
7320 N. MoPac Expy, Suite 203
Austin, Texas 78731

Attn: Mr. Travis Wilson
P: (512) 861-5300
E: travis.wilson@miller-gray.com

Re: Proposal for Geotechnical Engineering Services
Sunset Trail Improvements
Sunset Trail
Sunset Valley, Texas
Terracon Proposal No. P96205052

Dear Mr. Wilson:

We appreciate the opportunity to submit this proposal to Miller Gray, LLC to provide Geotechnical Engineering services for the above referenced publicly-funded project. The following are exhibits to the attached Agreement for Services.

Exhibit A	Project Understanding
Exhibit B	Scope of Services
Exhibit C	Compensation and Project Schedule
Exhibit D	Site Location and Nearby Geotechnical Data
Exhibit E	Anticipated Exploration Plan

Our estimated base fee to perform the scope of services described in this proposal is \$7,500 (plus traffic control if necessary), with an anticipated report delivery date of up to 6 weeks after signed authorization. See Exhibit C for more details of our fees and consideration of additional services.

Your authorization for Terracon to proceed in accordance with this proposal can be issued by signing and returning a copy of the attached Agreement for Services to our office.

Sincerely,

Terracon Consultants, Inc.

Larson M. Snyder, P.E.
Senior Staff Geotechnical Engineer

Bryan S. Moulin, P.E.
Senior Principal, Geotechnical Department Manager

AGREEMENT FOR SERVICES

This **AGREEMENT** is between Miller Gray LLC ("Client") and Terracon Consultants, Inc. ("Consultant") for Services to be provided by Consultant for Client on the Sunset Trail Improvements project ("Project"), as described in Consultant's Proposal dated 02/14/2020 ("Proposal"), including but not limited to the Project Information section, unless the Project is otherwise described in Exhibit A to this Agreement (which section or Exhibit is incorporated into this Agreement).

- 1. Scope of Services.** The scope of Consultant's services is described in the Proposal, including but not limited to the Scope of Services section ("Services"), unless Services are otherwise described in Exhibit B to this Agreement (which section or exhibit is incorporated into this Agreement). Portions of the Services may be subcontracted. When Consultant subcontracts to other individuals or companies, then consultant will collect from Client on the Subcontractors' behalf. Consultant's Services do not include the investigation or detection of, nor do recommendations in Consultant's reports address the presence or prevention of biological pollutants (e.g., mold, fungi, bacteria, viruses, or their byproducts) or occupant safety issues, such as vulnerability to natural disasters, terrorism, or violence. If Services include purchase of software, Client will execute a separate software license agreement. Consultant's findings, opinions, and recommendations are based solely upon data and information obtained by and furnished to Consultant at the time of the Services.
- 2. Acceptance/ Termination.** Client agrees that execution of this Agreement is a material element of the consideration Consultant requires to execute the Services, and if Services are initiated by Consultant prior to execution of this Agreement as an accommodation for Client at Client's request, both parties shall consider that commencement of Services constitutes formal acceptance of all terms and conditions of this Agreement. Additional terms and conditions may be added or changed only by written amendment to this Agreement signed by both parties. In the event Client uses a purchase order or other form to administer this Agreement, the use of such form shall be for convenience purposes only and any additional or conflicting terms it contains are stricken. This Agreement shall not be assigned by either party without prior written consent of the other party. Either party may terminate this Agreement or the Services upon written notice to the other. In such case, Consultant shall be paid costs incurred and fees earned to the date of termination plus reasonable costs of closing the Project.
- 3. Change Orders.** Client may request changes to the scope of Services by altering or adding to the Services to be performed. If Client so requests, Consultant will return to Client a statement (or supplemental proposal) of the change setting forth an adjustment to the Services and fees for the requested changes. Following Client's review, Client shall provide written acceptance. If Client does not follow these procedures, but instead directs, authorizes, or permits Consultant to perform changed or additional work, the Services are changed accordingly and Consultant will be paid for this work according to the fees stated or its current fee schedule. If project conditions change materially from those observed at the site or described to Consultant at the time of proposal, Consultant is entitled to a change order equitably adjusting its Services and fee.
- 4. Compensation and Terms of Payment.** Client shall pay compensation for the Services performed at the fees stated in the Proposal, including but not limited to the Compensation section, unless fees are otherwise stated in Exhibit C to this Agreement (which section or Exhibit is incorporated into this Agreement). If not stated in either, fees will be according to Consultant's current fee schedule. Fee schedules are valid for the calendar year in which they are issued. Fees do not include sales tax. Client will pay applicable sales tax as required by law. Consultant may invoice Client at least monthly and payment is due upon receipt of invoice. Client shall notify Consultant in writing, at the address below, within 15 days of the date of the invoice if Client objects to any portion of the charges on the invoice, and shall promptly pay the undisputed portion. Client shall pay a finance fee of 1.5% per month, but not exceeding the maximum rate allowed by law, for all unpaid amounts 30 days or older. Client agrees to pay all collection-related costs that Consultant incurs, including attorney fees. Consultant may suspend Services for lack of timely payment. It is the responsibility of Client to determine whether federal, state, or local prevailing wage requirements apply and to notify Consultant if prevailing wages apply. If it is later determined that prevailing wages apply, and Consultant was not previously notified by Client, Client agrees to pay the prevailing wage from that point forward, as well as a retroactive payment adjustment to bring previously paid amounts in line with prevailing wages. Client also agrees to defend, indemnify, and hold harmless Consultant from any alleged violations made by any governmental agency regulating prevailing wage activity for failing to pay prevailing wages, including the payment of any fines or penalties.
- 5. Third Party Reliance.** This Agreement and the Services provided are for Consultant and Client's sole benefit and exclusive use with no third party beneficiaries intended. Reliance upon the Services and any work product is limited to Client, and is not intended for third parties other than those who have executed Consultant's reliance agreement, subject to the prior approval of Consultant and Client.
- 6. LIMITATION OF LIABILITY. CLIENT AND CONSULTANT HAVE EVALUATED THE RISKS AND REWARDS ASSOCIATED WITH THIS PROJECT, INCLUDING CONSULTANT'S FEE RELATIVE TO THE RISKS ASSUMED, AND AGREE TO ALLOCATE CERTAIN OF THE ASSOCIATED RISKS. TO THE FULLEST EXTENT PERMITTED BY LAW, THE TOTAL AGGREGATE LIABILITY OF CONSULTANT (AND ITS RELATED CORPORATIONS AND EMPLOYEES) TO CLIENT AND THIRD PARTIES GRANTED RELIANCE IS LIMITED TO THE GREATER OF \$50,000 OR CONSULTANT'S FEE, FOR ANY AND ALL INJURIES, DAMAGES, CLAIMS, LOSSES, OR EXPENSES (INCLUDING ATTORNEY AND EXPERT FEES) ARISING OUT OF CONSULTANT'S SERVICES OR THIS AGREEMENT. PRIOR TO ACCEPTANCE OF THIS AGREEMENT AND UPON WRITTEN REQUEST FROM CLIENT, CONSULTANT MAY NEGOTIATE A HIGHER LIMITATION FOR ADDITIONAL CONSIDERATION IN THE FORM OF A SURCHARGE TO BE ADDED TO THE AMOUNT STATED IN THE COMPENSATION SECTION OF THE PROPOSAL. THIS LIMITATION SHALL APPLY REGARDLESS OF AVAILABLE PROFESSIONAL LIABILITY INSURANCE COVERAGE, CAUSE(S), OR THE THEORY OF LIABILITY, INCLUDING NEGLIGENCE, INDEMNITY, OR OTHER RECOVERY. THIS LIMITATION SHALL NOT APPLY TO THE EXTENT THE DAMAGE IS PAID UNDER CONSULTANT'S COMMERCIAL GENERAL LIABILITY POLICY.**
- 7. Indemnity/Statute of Limitations.** Consultant and Client shall indemnify and hold harmless the other and their respective employees from and against legal liability for claims, losses, damages, and expenses to the extent such claims, losses, damages, or expenses are legally determined to be caused by their negligent acts, errors, or omissions. In the event such claims, losses, damages, or expenses are legally determined to be caused by the joint or concurrent negligence of Consultant and Client, they shall be borne by each party in proportion to its own negligence under comparative fault principles. Neither party shall have a duty to defend the other party, and no duty to defend is hereby created by this indemnity provision and such duty is explicitly waived under this Agreement. Causes of action arising out of Consultant's Services or this Agreement regardless of cause(s) or the theory of liability, including negligence, indemnity or other recovery shall be deemed to have accrued and the applicable statute of limitations shall commence to run not later than the date of Consultant's substantial completion of Services on the project.
- 8. Warranty.** Consultant will perform the Services in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. **EXCEPT FOR THE STANDARD OF CARE PREVIOUSLY STATED, CONSULTANT MAKES NO WARRANTIES OR GUARANTEES, EXPRESS OR IMPLIED, RELATING TO CONSULTANT'S SERVICES AND CONSULTANT DISCLAIMS ANY IMPLIED WARRANTIES OR WARRANTIES IMPOSED BY LAW, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

- 9. Insurance.** Consultant represents that it now carries, and will continue to carry: (i) workers' compensation insurance in accordance with the laws of the states having jurisdiction over Consultant's employees who are engaged in the Services, and employer's liability insurance (\$1,000,000); (ii) commercial general liability insurance (\$1,000,000 occ / \$2,000,000 agg); (iii) automobile liability insurance (\$1,000,000 B.I. and P.D. combined single limit); and (iv) professional liability insurance (\$1,000,000 claim / agg). Certificates of insurance will be provided upon request. Client and Consultant shall waive subrogation against the other party on all general liability and property coverage.
- 10. CONSEQUENTIAL DAMAGES. NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR LOSS OF PROFITS OR REVENUE; LOSS OF USE OR OPPORTUNITY; LOSS OF GOOD WILL; COST OF SUBSTITUTE FACILITIES, GOODS, OR SERVICES; COST OF CAPITAL; OR FOR ANY SPECIAL, CONSEQUENTIAL, INDIRECT, PUNITIVE, OR EXEMPLARY DAMAGES.**
- 11. Dispute Resolution.** Client shall not be entitled to assert a Claim against Consultant based on any theory of professional negligence unless and until Client has obtained the written opinion from a registered, independent, and reputable engineer, architect, or geologist that Consultant has violated the standard of care applicable to Consultant's performance of the Services. Client shall provide this opinion to Consultant and the parties shall endeavor to resolve the dispute within 30 days, after which Client may pursue its remedies at law. This Agreement shall be governed by and construed according to Kansas law.
- 12. Subsurface Explorations.** Subsurface conditions throughout the site may vary from those depicted on logs of discrete borings, test pits, or other exploratory services. Client understands Consultant's layout of boring and test locations is approximate and that Consultant may deviate a reasonable distance from those locations. Consultant will take reasonable precautions to reduce damage to the site when performing Services; however, Client accepts that invasive services such as drilling or sampling may damage or alter the site. Site restoration is not provided unless specifically included in the Services.
- 13. Testing and Observations.** Client understands that testing and observation are discrete sampling procedures, and that such procedures indicate conditions only at the depths, locations, and times the procedures were performed. Consultant will provide test results and opinions based on tests and field observations only for the work tested. Client understands that testing and observation are not continuous or exhaustive, and are conducted to reduce - not eliminate - project risk. Client shall cause all tests and inspections of the site, materials, and Services performed by Consultant to be timely and properly scheduled in order for the Services to be performed in accordance with the plans, specifications, contract documents, and Consultant's recommendations. No claims for loss or damage or injury shall be brought against Consultant by Client or any third party unless all tests and inspections have been so performed and Consultant's recommendations have been followed. Unless otherwise stated in the Proposal, Client assumes sole responsibility for determining whether the quantity and the nature of Services ordered by Client is adequate and sufficient for Client's intended purpose. Client is responsible (even if delegated to contractor) for requesting services, and notifying and scheduling Consultant so Consultant can perform these Services. Consultant is not responsible for damages caused by Services not performed due to a failure to request or schedule Consultant's Services. Consultant shall not be responsible for the quality and completeness of Client's contractor's work or their adherence to the project documents, and Consultant's performance of testing and observation services shall not relieve Client's contractor in any way from its responsibility for defects discovered in its work, or create a warranty or guarantee. Consultant will not supervise or direct the work performed by Client's contractor or its subcontractors and is not responsible for their means and methods. The extension of unit prices with quantities to establish a total estimated cost does not guarantee a maximum cost to complete the Services. The quantities, when given, are estimates based on contract documents and schedules made available at the time of the Proposal. Since schedule, performance, production, and charges are directed and/or controlled by others, any quantity extensions must be considered as estimated and not a guarantee of maximum cost.
- 14. Sample Disposition, Affected Materials, and Indemnity.** Samples are consumed in testing or disposed of upon completion of the testing procedures (unless stated otherwise in the Services). Client shall furnish or cause to be furnished to Consultant all documents and information known or available to Client that relate to the identity, location, quantity, nature, or characteristic of any hazardous waste, toxic, radioactive, or contaminated materials ("Affected Materials") at or near the site, and shall immediately transmit new, updated, or revised information as it becomes available. Client agrees that Consultant is not responsible for the disposition of Affected Materials unless specifically provided in the Services, and that Client is responsible for directing such disposition. In no event shall Consultant be required to sign a hazardous waste manifest or take title to any Affected Materials. Client shall have the obligation to make all spill or release notifications to appropriate governmental agencies. The Client agrees that Consultant neither created nor contributed to the creation or existence of any Affected Materials conditions at the site and Consultant shall not be responsible for any claims, losses, or damages allegedly arising out of Consultant's performance of Services hereunder, or for any claims against Consultant as a generator, disposer, or arranger of Affected Materials under federal, state, or local law or ordinance.
- 15. Ownership of Documents.** Work product, such as reports, logs, data, notes, or calculations, prepared by Consultant shall remain Consultant's property. Proprietary concepts, systems, and ideas developed during performance of the Services shall remain the sole property of Consultant. Files shall be maintained in general accordance with Consultant's document retention policies and practices.
- 16. Utilities.** Unless otherwise stated in the Proposal, Client shall provide the location and/or arrange for the marking of private utilities and subterranean structures. Consultant shall take reasonable precautions to avoid damage or injury to subterranean structures or utilities. Consultant shall not be responsible for damage to subterranean structures or utilities that are not called to Consultant's attention, are not correctly marked, including by a utility locate service, or are incorrectly shown on the plans furnished to Consultant.
- 17. Site Access and Safety.** Client shall secure all necessary site related approvals, permits, licenses, and consents necessary to commence and complete the Services and will execute any necessary site access agreement. Consultant will be responsible for supervision and site safety measures for its own employees, but shall not be responsible for the supervision or health and safety precautions for any other parties, including Client, Client's contractors, subcontractors, or other parties present at the site.

Consultant: **Terracon Consultants, Inc.**
By:  Date: **2/14/2020**
Name/Title: **Bryan S Moulin, P.E. / Senior Principal,
Geotechnical Manager**
Address: **5307 Industrial Oaks Blvd Ste 160
Austin, TX 78735-8821**
Phone: **(512) 442-1122** Fax: **(512) 442-1181**
Email: **Bryan.Moulin@terracon.com**

Client: **Miller Gray LLC**
By: _____ Date: _____
Name/Title: **Travis Wilson**
Address: **7320 N Mopac Expy Ste 203 PO Box 303130
Austin, TX 78731**
Phone: **(512) 861-5300** Fax: _____
Email: **travis.wilson@miller-gray.com**

EXHIBIT A - PROJECT UNDERSTANDING

Our Scope of Services is based on our understanding of the project as described by Miller Gray, LLC and the expected subsurface conditions as described below. We have visited the project site to confirm the information provided. Aspects of the project, undefined or assumed, are highlighted as shown below. We request the design team verify all information prior to our initiation of field exploration activities.

Site Location and Anticipated Conditions

Item	Description
Parcel Information	The project is located along the existing Sunset Trail roadway in Sunset Valley, Texas.
Existing Improvements	Existing asphaltic pavement.
Current Ground Cover	Asphalt.
Existing Topography	Unknown at this time. (Please provide a topographic survey, if available)
Site Access	We expect the site, and all exploration locations, are accessible with our truck-mounted drilling equipment.
Expected Subsurface Conditions	Our experience near the vicinity of the proposed development and geologic maps indicates subsurface conditions consist of clay and sand deposits overlying Georgetown Formation limestone.

Planned Construction

Item	Description
Information Provided	The project information and site plan were provided via e-mail on February 11, 2020 from Mr. Travis Miller of Miller-Gray.
Proposed Structure	The project includes the addition of a storm drain along Sunset Trail and potentially re-paving/re-construction of Sunset Trail.
Grading/Slopes	Up to 10 feet of cut will be required to develop final grade of the storm water drain.
Below-Grade Structures	Utility Vaults up to 10 feet below existing grades.
Pavements	We assume flexible (asphalt) pavement sections should only be considered.

EXHIBIT B - SCOPE OF SERVICES

Our proposed Scope of Services consists of field exploration, laboratory testing, and engineering/project delivery. These services are described in the following sections.

Field Exploration

Miller Gray, LLC prescribed the following boring locations and depths for the storm drain improvements, while additional borings are proposed for the re-construction of the Sunset Valley roadway:

Planned Location	Number of Borings	Planned Boring Depth (feet) ¹
Storm Drain Improvement Area	2	15
Roadway Alignment	3	15
TOTAL	5	Maximum Footage of 75 feet

1. Below ground surface.

Boring Layout and Elevations: We will use handheld GPS equipment to locate borings with an estimated horizontal accuracy of +/-10 feet. Field measurements from existing site features may be utilized. If available, approximate elevations will be obtained by interpolation from a site specific, surveyed topographic map or Google Earth.

Subsurface Exploration Procedures: We will advance soil borings with a truck-mounted rig using continuous flight augers. Four to five samples will be obtained in the upper 10 feet of each boring and at intervals of 5 feet thereafter (unless bedrock is encountered). Soil sampling is typically performed using thin-wall tube and/or split-barrel sampling procedures. The split-barrel samplers are driven in accordance with the standard test method for standard penetration test (SPT) and split-barrel sampling of soils (ASTM D1586/D1586M-18). Bedrock is sampled with either split-barrel-sampling spoons or continuously cored using NX wireline rock coring equipment. When sufficient bedrock is sampled, the borings are shallowed at the geotechnical engineer's discretion. The samples will be placed in appropriate containers, taken to our soil laboratory for testing, and classified by a Geotechnical Engineer. In addition, we will observe and record groundwater levels during drilling and sampling.

Our exploration team will prepare field boring logs as part of standard drilling operations including sampling depths, penetration distances, and other relevant sampling information. Field logs include visual classifications of materials encountered during drilling, and our interpretation of subsurface conditions between samples. Final boring logs, prepared from field logs, represent the Geotechnical Engineer's interpretation, and include modifications based on observations and laboratory tests.

Property Disturbance: We will backfill borings with auger cuttings and/or bentonite upon completion. Pavements will be patched with cold-mix asphalt and/or ready mixed concrete, as appropriate. Our services do not include repair of the site beyond backfilling our boreholes and patching existing pavements. Excess auger cuttings will be dispersed in the general vicinity of the borehole. Because backfill material often settles below the surface after a period, we recommend boreholes to be periodically checked and backfilled, if necessary. We can provide this service, or grout the boreholes for additional fees, at your request.

Safety

Terracon is not aware of environmental concerns at this project site that would create health or safety hazards associated with our exploration program; thus, our Scope considers standard OSHA Level D Personal Protection Equipment (PPE) appropriate. Our Scope of Services does not include environmental site assessment services, but identification of unusual or unnatural materials encountered while drilling will be noted on our logs and discussed in our report.

Exploration efforts require borings into the subsurface, therefore Terracon complies with local regulations to request a utility location service Texas 811 (aka One-Call). We consult with the owner/client regarding potential utilities, or other unmarked underground hazards. Based upon the results of this consultation, we consider the need for alternative subsurface exploration methods, as the safety of our field crew is a priority.

Private utilities should be marked by the owner/client prior to commencement of field exploration. Terracon will not be responsible for damage to private utilities not disclosed to us. If the owner/client is unable to accurately locate private utilities, Terracon can assist the owner/client by coordinating or subcontracting with a private utility locating services. Fees associated with the additional services are not included in our current Scope of Services and will be forwarded to our client for approval prior to initiating. The detection of underground utilities is dependent upon the composition and construction of the utility line; some utilities are comprised of non-electrically conductive materials and may not be readily detected. The use of a private utility locate service would not relieve the owner of their responsibilities in identifying private underground utilities.

Site Access: Terracon must be granted access to the site by the property owner. By acceptance of this proposal, without information to the contrary, we consider this as authorization to access the property for conducting field exploration in accordance with the Scope of Services.

Traffic Control: If necessary, Terracon will subcontract with a firm to provide traffic control as needed for this project. We anticipate that traffic control may be required for all boring locations.

Laboratory Testing

The project engineer will review field data and assign laboratory tests to understand the engineering properties of various soil and rock strata. Exact types and number of tests cannot be defined until completion of field work. The anticipated laboratory testing may include the following:

- Water content
- Unit dry weight
- Atterberg limits
- Grain size analysis
- Unconfined compressive strength

Our laboratory testing program often includes examination of soil samples by an engineer. Based on the material's texture and plasticity, we will describe and classify soil samples in accordance with the Unified Soil Classification System (USCS).

If bedrock samples are obtained, rock classification will be conducted using locally accepted practices for engineering purposes; petrographic analysis (if performed) may reveal other rock types. Rock core samples typically provide an improved specimen for this classification. Boring log rock classification is determined using the Description of Rock Properties.

Engineering and Project Delivery

Results of our field and laboratory programs will be evaluated by a professional engineer. The engineer will develop a geotechnical site characterization, perform the engineering calculations necessary to evaluate foundation alternatives, and develop appropriate geotechnical engineering design criteria for earth-related phases of the project.

Your project will be delivered using our [GeoReport®](#) system. Upon initiation, we provide you and your design team the necessary link and password to access the website (if not previously registered). Each project includes a calendar to track the schedule, an interactive site map, a listing of team members, access to the project documents as they are uploaded to the site, and a collaboration portal. The typical delivery process includes the following:

- Project Planning – Proposal information, schedule and anticipated exploration plan will be posted for review and verification
- Site Characterization – Findings of the site exploration
- Geotechnical Engineering – Recommendations and geotechnical engineering report

When utilized, our collaboration portal documents communication, eliminating the need for long email threads. This collaborative effort allows prompt evaluation and discussion of options related to the design and associated benefits and risks of each option. With the ability to inform all parties as the work progresses, decisions and consensus can be reached faster. In some cases, only minimal uploads and collaboration will be required, because options for design and construction are limited or unnecessary. This is typically the case for uncomplicated projects with no anomalies found at the site.

When services are complete, we upload a printable version of our completed geotechnical engineering report, including the professional engineer's seal and signature, which documents our services. Previous submittals, collaboration and the report are maintained in our system. This allows future reference and integration into subsequent aspects of our services as the project goes through final design and construction.

The geotechnical engineering report will provide the following:

- Boring logs with field and laboratory data
- Stratification based on visual soil and rock classification
- Groundwater levels observed during and after the completion of drilling
- Site Location and Exploration Plans
- Subsurface exploration procedures
- Description of subsurface conditions
- Subgrade preparation/earthwork recommendations
- Recommended pavement options and design parameters
- Discussion of open trench excavation methods and OSHA guidelines
- Backfill material and compaction recommendations for open trench excavations
- Lateral earth pressure recommendations for below-grade construction
- Drainage/Groundwater control considerations for below-grade construction

Additional Services

In addition to the services noted above, the following are often associated with geotechnical engineering services. Fees for services noted above **do not** include the following:

Review of Plans and Specifications: Our geotechnical report and associated verbal and written communications will be used by others in the design team to develop plans and specifications for construction. Review of project plans and specifications is a vital part of our geotechnical engineering services. This consists of review of project plans and specifications related to site preparation, foundation, and pavement construction. Our review will include a written statement conveying our opinions relating to the plans and specifications' consistency with our geotechnical engineering recommendations.

Observation and Testing of Pertinent Construction Materials: Development of our geotechnical engineering recommendations and report relies on an interpretation of soil conditions. This is based on widely spaced exploration locations, and assuming construction methods will be performed in a manner sufficient to meet our expectations, and is consistent with recommendations made at the time the geotechnical engineering report is issued. We should be retained to conduct construction observations, and perform/document associated materials testing, for site preparation, foundation, and pavement construction. This allows a more comprehensive understanding of subsurface conditions and necessary documentation of construction, to confirm and/or modify (when necessary) the assumptions and recommendations made by our engineers.

EXHIBIT C - COMPENSATION AND PROJECT SCHEDULE

Compensation

Based upon our understanding of the site, the project as summarized in Exhibit A, and our planned Scope of Services outlined in Exhibit B, our base fee is shown in the following table:

Task	Unit Rate Fee
Subsurface Exploration, Laboratory Testing, Geotechnical Consulting & Reporting	\$7,500
Traffic Control (if necessary)	\$2,000

Additional services not part of the base fee include the following:

Additional Services (see Exhibit B)	Lump Sum Fee	Initial for Authorization
Private Utility Locate Service ¹	\$750	
Plans and Specifications Review	\$750	
Construction Materials Testing Services	TBD	
Reliance Agreement for Third Parties	\$250 per Entity	

1. If the owner/client is unable to accurately locate private utilities, we can subcontract a private utility locating firm to utilize geophysical equipment, if necessary. The detection of underground utilities is dependent upon the composition and construction of utility lines. Some utilities are comprised of non-electrically conductive materials and may not be readily detected. The use of a private locate service does not relieve the owner of their responsibilities in identifying private underground utilities.

Our Scope of Services does not include services associated drilling outside normal business hours (07:00 AM through 06:00 PM on weekdays), site clearing, wet ground conditions, the use of ATV or track-mounted drilling equipment, tree or shrub clearing, or repair of/damage to existing landscape. If such services are desired by the owner/client, we should be notified so we can adjust our Scope of Services.

Unless instructed otherwise, we will submit our invoice(s) to the address shown at the beginning of this proposal. If conditions are encountered that require Scope of Services revisions and/or result in higher fees, we will contact you for approval, prior to initiating services. A supplemental proposal stating the modified Scope of Services as well as its effect on our fee will be prepared. We will not proceed without your authorization.

Project Schedule

We developed a schedule to complete the Scope of Services based upon our existing availability and understanding of your project schedule. However, this does not account for delays in field exploration beyond our control, such as weather conditions, permit delays, or lack of permission to access the boring locations. In the event the schedule provided is inconsistent with your needs, please contact us so we may consider alternatives.

GeoReport® Delivery	Total Duration from Notice to Proceed ^{1, 2}
Project Planning	3 days
Site Characterization	3 to 4 weeks
Geotechnical Engineering	5½ to 6 weeks

1. Upon receipt of your notice to proceed we will activate the schedule component of our **GeoReport®** website with specific, anticipated calendar days for the three delivery points noted above as well as other pertinent events such as field exploration crews on-site, etc.
2. We will maintain a current calendar of activities within our **GeoReport®** website. In the event of a need to modify the schedule, the schedule will be updated to maintain a current awareness of our plans for delivery.

EXHIBIT D – SITE LOCATION

Sunset Trail Improvements ■ Sunset Valley, Texas
February 14, 2020 ■ Terracon Proposal No. P96205052

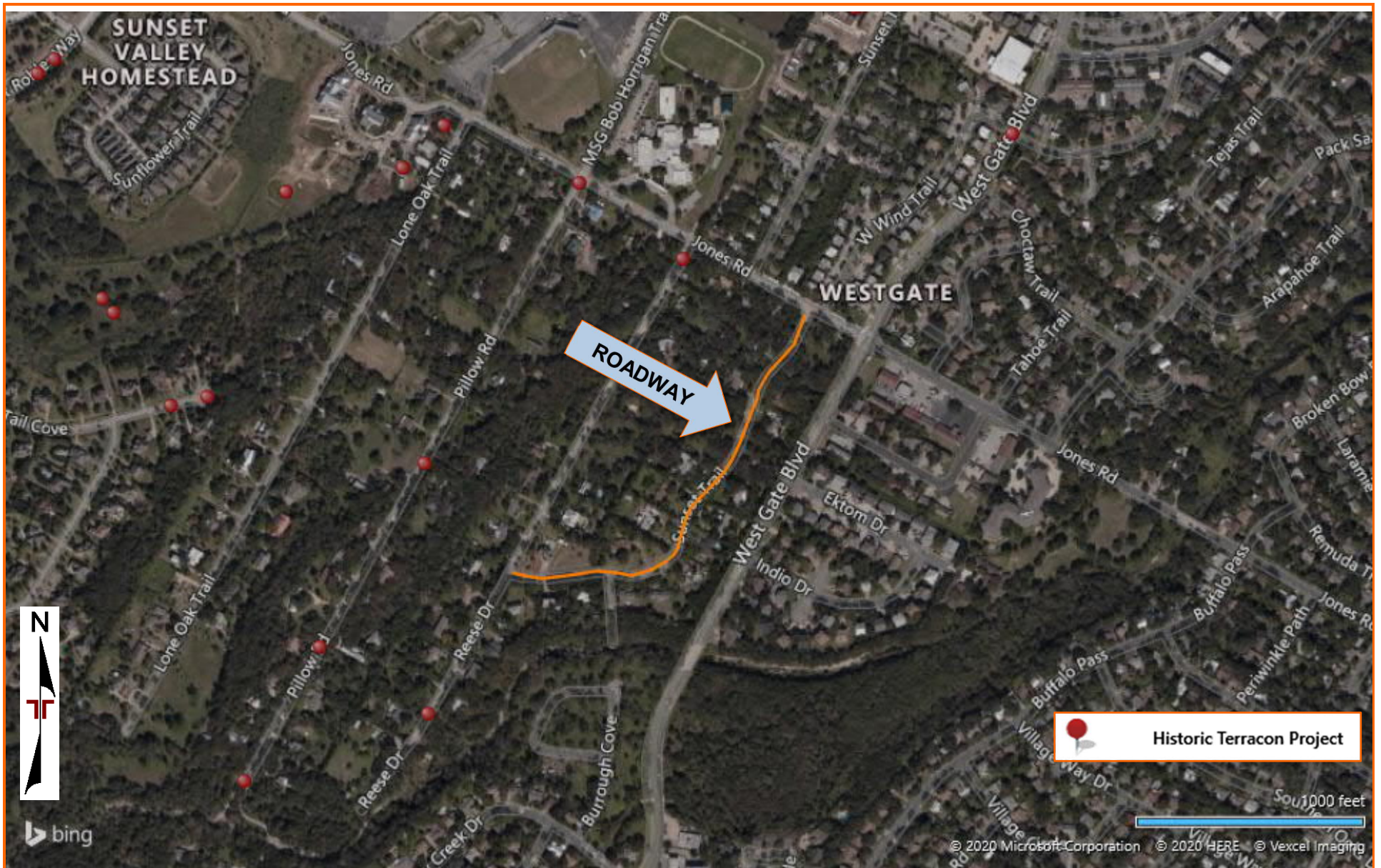


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

EXHIBIT E – ANTICIPATED EXPLORATION PLAN

Sunset Trail Improvements ■ Sunset Valley, Texas
February 14, 2020 ■ Terracon Proposal No. P96205052

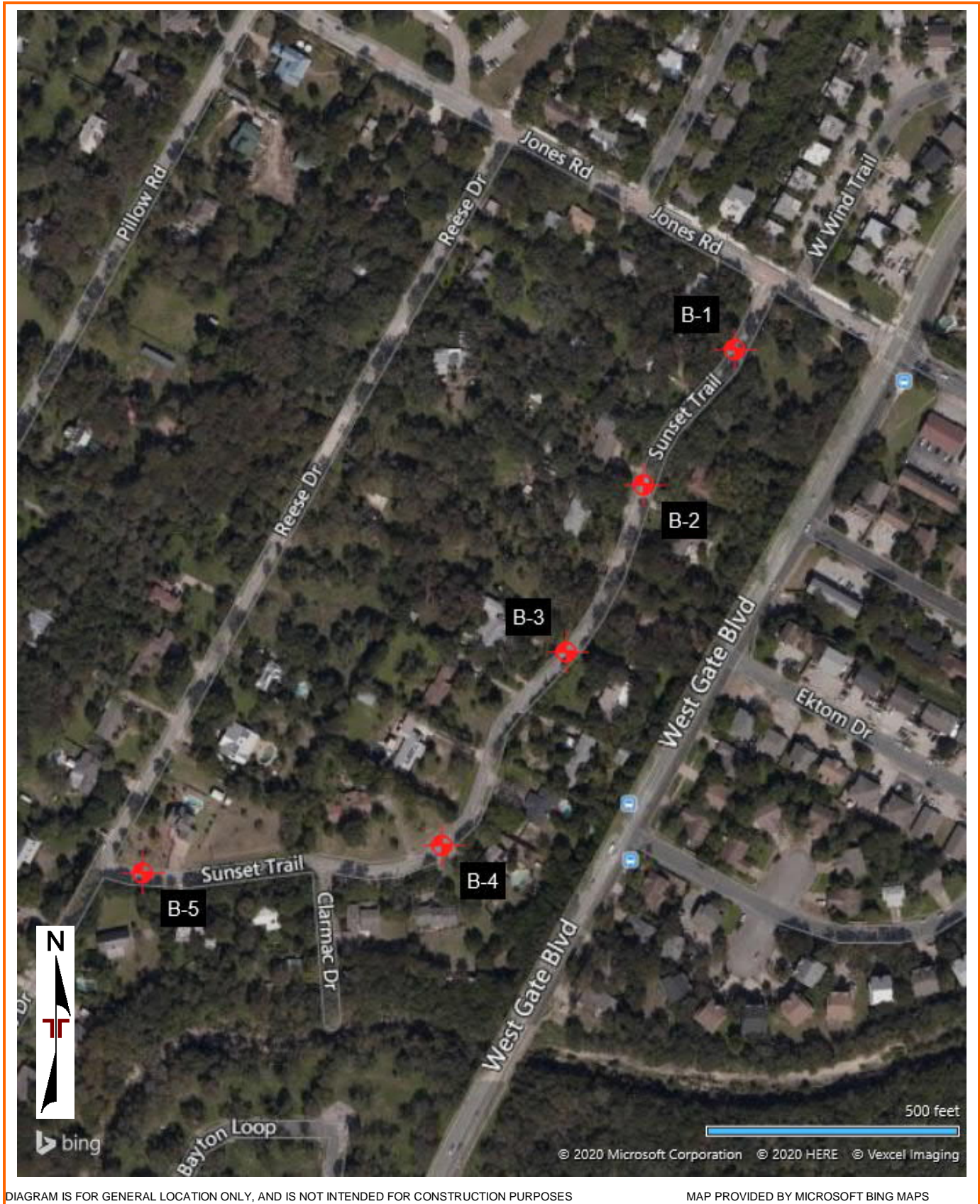


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

Travis Wilson

From: Rosie Albritton <RALbritton@heritage-title.com>
Sent: Tuesday, January 7, 2020 6:50 AM
To: Travis Wilson
Subject: RE: [Jones Rd Drainage] title report for three lots in Sunset Valley

Good morning Travis, normal cost is \$300 plus but since you have multiple properties, we would charge full price for the 1st one and \$150 plus tax per certificate for the remaining 2. Normal turnaround is about 7-10 business days. Please let me know if you have any other questions.

Rosie Albritton
Customer Service/Examiner
512 505-5000 ph.
512 380-8805 fax
ralbritton@heritage-title.com



CONFIDENTIALITY NOTICE: This transmission contains confidential information. The information is intended only for the use of the recipient named above. If you have received this email in error, please immediately reply or notify sender by telephone at 512.505.5000. You are cautioned that any disclosure, copying, distribution or other use of the transmitted information is strictly prohibited.

From: Travis Wilson <travis.wilson@miller-gray.com>
Sent: Monday, January 6, 2020 3:29 PM
To: Rosie Albritton <RALbritton@heritage-title.com>
Subject: [Jones Rd Drainage] title report for three lots in Sunset Valley

Rosie:

I am a civil engineer working on a drainage improvement project near the intersection of Jones Road and Sunset Trail in Sunset Valley. As part of this project, I need to have a title report run on three residential properties to identify all easements and/or restrictive covenants on the following three parcels:

1. 2 Sunset Trail,
2. 4 Sunset Trail, and
3. 2905 Jones Road

Could you let me know the cost for you to run a title report on each of these three lots. Thanks!

J. Travis Wilson, PE, CFM
Principal

MillerGRAY TBPE Firm Reg. No. F-16302
P.O. Box 303130 • Austin, Texas 78703
7320 N MoPac Expy, Suite 203 • Austin, Texas 78731

www.miller-gray.com

Office: (512) 861-5300

Cell: (512) 796-8171

travis.wilson@miller-gray.com

SUNSET VALLEY BILLING RATES

Standard Hourly Rates

Principal/Sr. Engineer	\$150 - \$180
Project Manager/Engineer	\$105 - \$145
Engineering Staff (EIT)	\$90 - \$110
Sr. CAD Designer	\$95 - \$120
CAD Designer	\$85 - \$100
CAD Technician	\$75 - \$95
Administrative	\$50 - \$75

Reimbursables/Reproductions

Miscellaneous expenses including printing, courier, etc. will be invoiced at cost to MG plus a 10% administrative and handling charge. Mileage will be invoiced at the federal standard mileage rate for the current period.

Subconsultants

All subconsultant services will be invoiced at cost to MG plus a 10% administrative and handling charge.

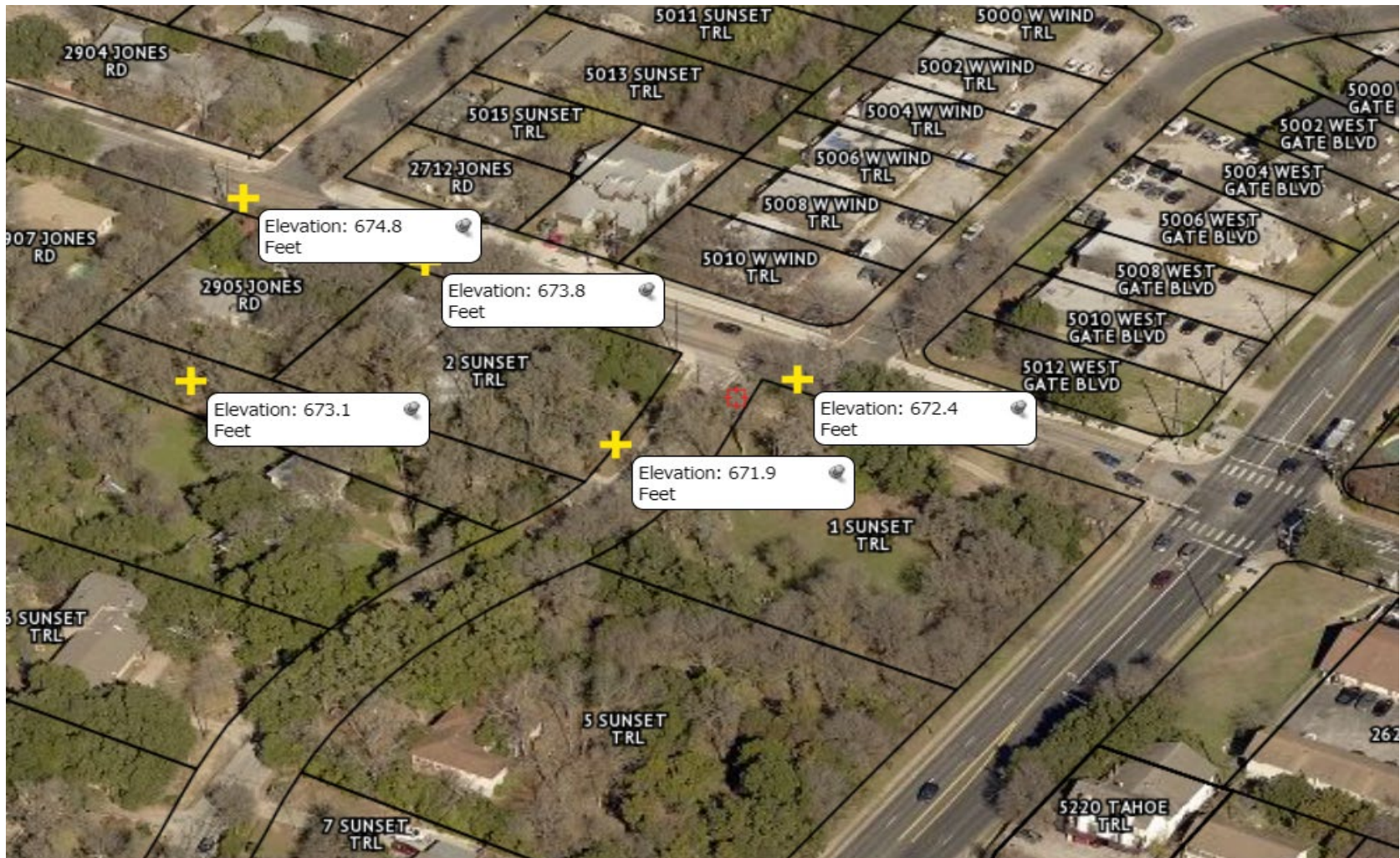
SUNSET VALLEY - JONES RD/ SUNSET TRAIL DRAINAGE IMPROVEMENTSOpinion of Probable Construction Cost
MG Project No. 01100-014

Date: 6/11/2020

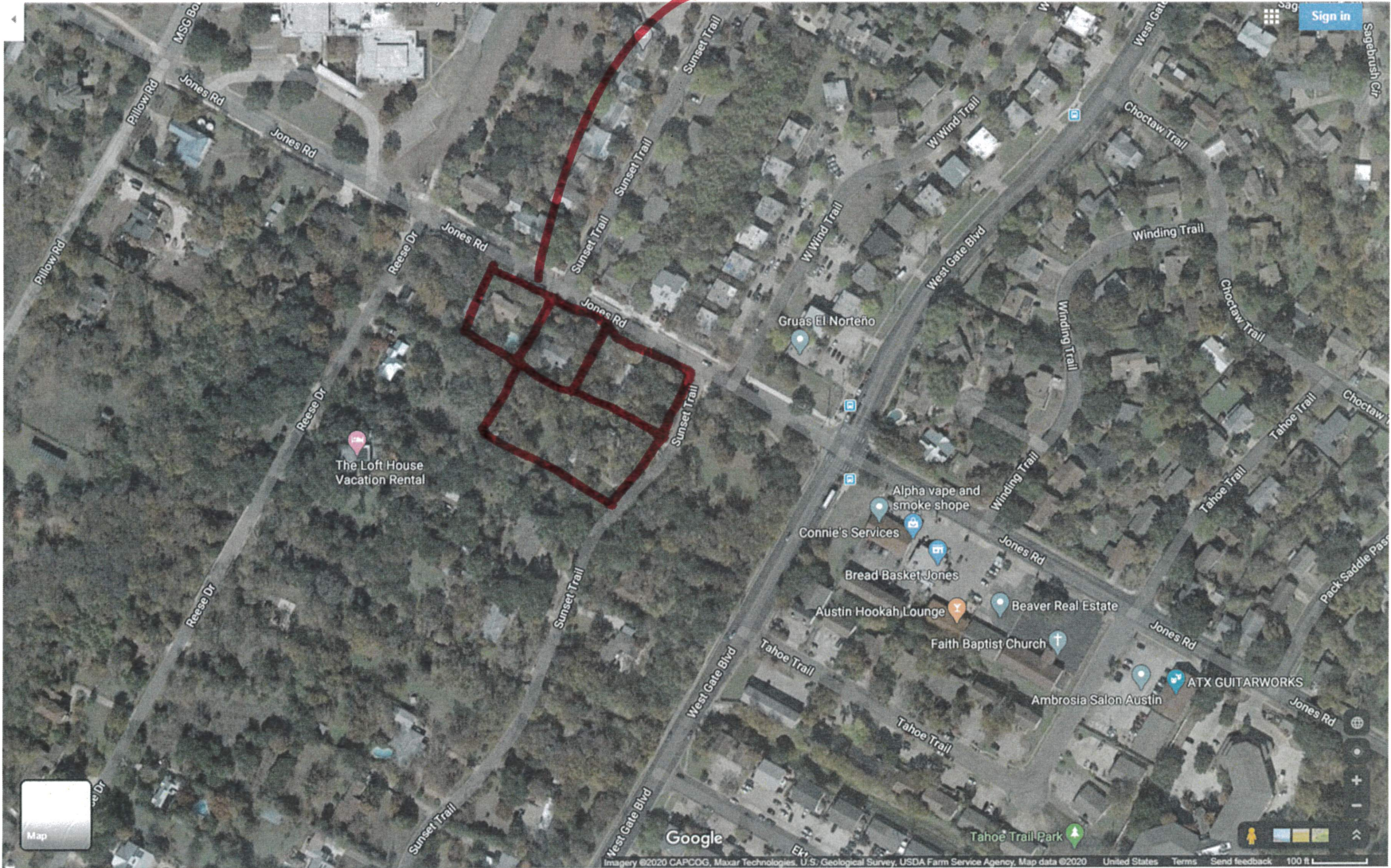
Design Completeness: n/a; scoping level

By: GVQ/TW

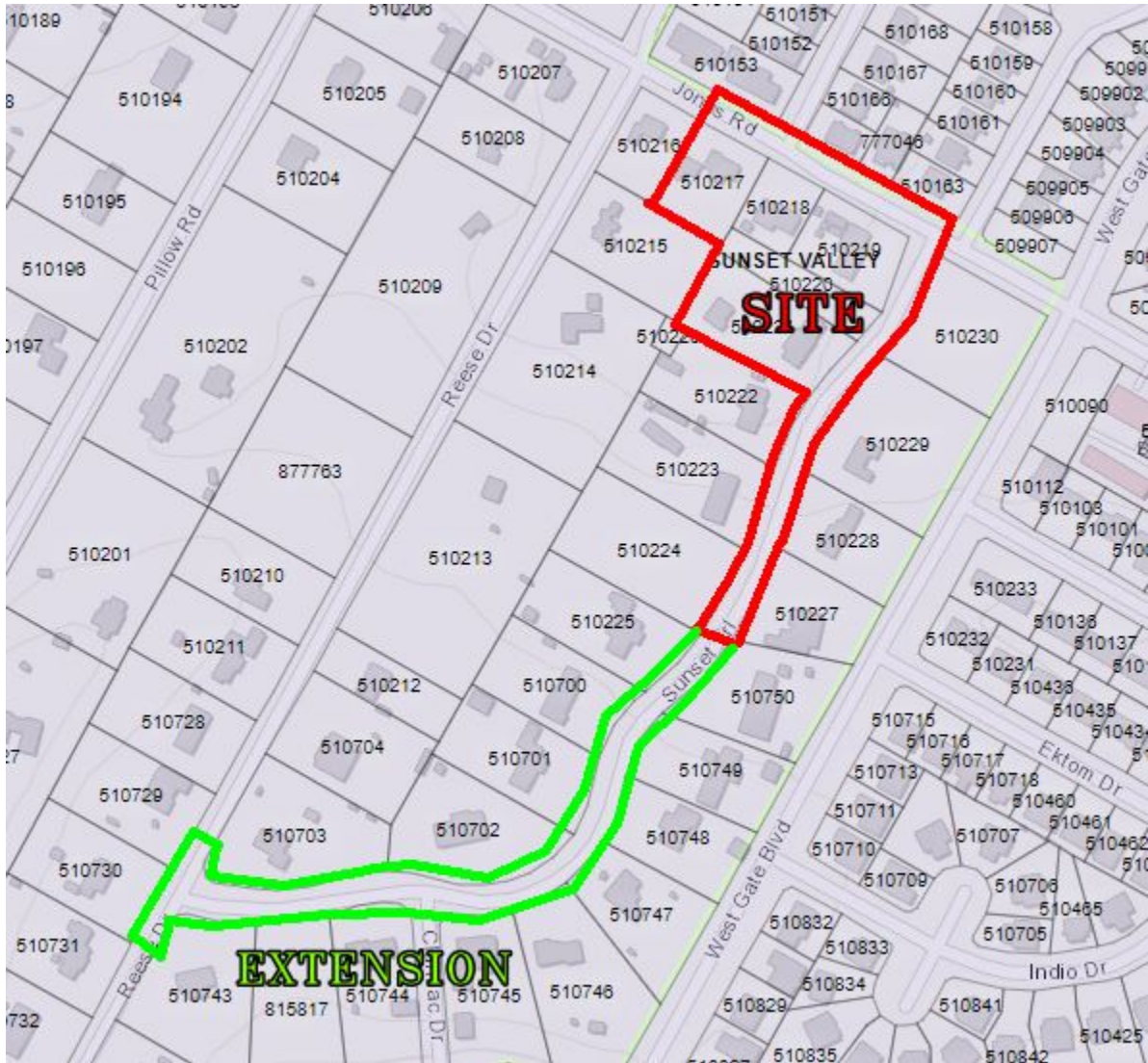
Item No.	Description	Qty	Unit	Unit Price	Total
Base Bid					
1	Storm Drain - RCP	690	LF	\$ 140.00	\$ 96,600.00
2	Storm Drain - 10' Inlet	2	EA	\$ 3,000.00	\$ 6,000.00
4	Storm Drain - 4'x4' Area inlet	1	EA	\$ 3,500.00	\$ 3,500.00
5	Roadway - Mill and Overlay	1,400	SY	\$ 22.00	\$ 30,800.00
6	Water - 8" PVC w/ connections, etc.	665	LF	\$ 125.00	\$ 83,125.00
7	Erosion & Sedimentation Controls	1	LS	N/A	\$ 5,000.00
Base Bid Total					\$225,025
Preliminary Design Level Contingency (35%)					\$78,759
Drainage and E&S Control Subtotal with Contingency					\$149,985
Roadway Subtotal with Contingency					\$41,580
Water Subtotal with Contingency					\$112,219
Construction Total for Base Bid					\$303,784
Construction Add-Alternate 1 (Full Depth Reconstruction north of SSV Tributary)					
1	Roadway - Flex Base (assumed 18" depth)	918	CY	\$ 80.00	\$ 73,400.00
2	Roadway - Asphalt (assumed 2" HMA)	1,400	SY	\$ 15.00	\$ 21,000.00
3	Roadway - Ribbon Curb Replacement	1,265	LF	\$ 11.00	\$ 13,915.00
4	Deduct - Roadway Mill and Overall (Base Bid)	1,400	SY	\$ 22.00	\$ (30,800.00)
5	Erosion & Sedimentation Controls	1	LS	N/A	\$ 2,000.00
Add-Alternate 1 Subtotal					\$79,515
Preliminary Design Level Contingency (35%)					\$27,830
Drainage and E&S Control Subtotal with Contingency					\$2,700
Roadway Subtotal with Contingency					\$104,645
Water Subtotal with Contingency					N/A
Construction Total for Add-Alternate 1					\$107,345
Construction Add-Alternate 2 (Mill and Overlay south of SSV Tributary)					
1	Roadway - Mill and Overlay	2,990	SY	\$ 22.00	\$ 65,780.00
2	Water - 8" PVC w/ connections, etc.	300	LF	\$ 125.00	\$ 37,500.00
3	Erosion & Sedimentation Controls	1	LS	N/A	\$ 2,000.00
Add-Alternate 2 Subtotal					\$105,280
Preliminary Design Level Contingency (35%)					\$36,848
Drainage and E&S Control Subtotal with Contingency					\$2,700
Roadway Subtotal with Contingency					\$88,803
Water Subtotal with Contingency					\$50,625
Construction Total for Add-Alternate 2					\$142,128
Construction Add-Alternate 3 (Full Depth Reconstruction of all of Sunset Trail)					
1	Roadway - Flex Base (assumed 18" depth)	2,868	CY	\$ 80.00	\$ 229,400.00
2	Roadway - Asphalt (assumed 2" HMA)	4,400	SY	\$ 15.00	\$ 66,000.00
3	Water - 8" PVC w/ connections, etc.	300	LF	\$ 125.00	\$ 37,500.00
4	Roadway - Ribbon Curb Replacement	3,970	LF	\$ 11.00	\$ 43,670.00
5	Deduct - Roadway Mill and Overall (Base Bid)	1,400	SY	\$ 22.00	\$ (30,800.00)
6	Erosion & Sedimentation Controls	1	LS	N/A	\$ 7,000.00
Add-Alternate 3 Subtotal					\$352,770
Preliminary Design Level Contingency (35%)					\$123,470
Drainage and E&S Control Subtotal with Contingency					\$9,450
Roadway Subtotal with Contingency					\$416,165
Water Subtotal with Contingency					\$50,625
Construction Total for Add-Alternate 3					\$476,240



AFFECTED PROPERTIES



EXHIBIT



AFFECTED PROPERTIES

