

June 12, 2018

Mr. Craig Light, PE Chief Engineer City of Jonesboro 300 South Church Jonesboro, AR 72401

Re: Professional Services related to South Caraway Widening from South of East Parker Road to Fox Meadow Lane Jonesboro, Arkansas

Mr. Light:

Pickering Firm, Inc., herein known as Pickering (the "Consultant"), is pleased to submit this Scope of Work and Fee Proposal to the City of Jonesboro, herein known as the City (the "Client"), for providing Professional Engineering services for the development of the referenced project. The project is more specifically defined as the survey and design of construction documents for the widening of South Caraway Road from south of East Parker Road at the end of the existing five (5) lane section to Fox Meadow Lane. Improvements will consist typically of a five lane (5) roadway with sidewalks on both sides from south of East Parker (3) lane roadway with sidewalks on both sides to the end of the project at Fox Meadow Lane. Our detailed scope of services, schedule, and fee are shown below.

SCOPE OF SERVICES

Topo & Boundary Surveys

- All topography and cross-sections will be obtained using ground, not aerial, mapping methods. Locations, topography, and cross-sections will be performed along project corridor and all adjoining roadways within the project limits. Surveys along the mainline will be a width of approximately 75 feet on each side of the existing centerline, for a total width of 150 feet minimum. Distances from centerline might vary depending on the existing right-of-way
- 2. In addition to the topographic survey, sufficient boundary ties will be established to determine the existing right-of-way, boundary lines, and easements along South Caraway Road and all side roads within the project limits.
- 3. A property strip map will be created to identify all property owners, parcel information, existing right-of-ways, and easements within the limits of the project. Any proposed takes will be reflected on the property strip map as well.
- 4. Legal descriptions for required takes will be provided to the City of Jonesboro for acquisition purposes on up to ten (10) properties. Providing acquisition documents for properties exceeding ten (10) will be considered additional services.

5. One Call will be contacted for field locations of underground utilities. These locations will be field located and shown on our plans. Arkansas One Call fees are included in the fees shown.

Geotechnical Investigation

- 1. Geotechnology will perform a site reconnaissance in order to determine the boring locations and will call Arkansas One Call to locate public utilities prior to boring
- 2. Due to traffic volumes, field work will be performed when school is not is session and will be limited to the hours of 8:30 am to 4:00 pm. All work involving lane closures will be coordinated with City staff. Traffic control will be provided in accordance with the Manual for Uniform Traffic Control (MUTCD).
- 3. Field testing will include 13 borings to an approximate depth of 10 foot deep. In each boring, soil samples will be obtained by split-spoon sampling methods at regular intervals. Occasionally, Shelby tube samples will be recovered to obtain a relatively undisturbed soil sample for laboratory testing. In addition to the borings, existing pavement cores will be taken at 10 locations along the pavement route. All boreholes will be backfilled with auger cuttings and plastic plugs. In paved areas, the boreholes will be patched with asphalt.
- 4. Laboratory testing will be performed on select soil samples to evaluate index and strength properties. Testing will include various combinations of the following tests: moisture content, Atterberg limits, gradation analyses, unconsolidated-undrained triaxial compression, standard Proctor and California Bearing Ratio (CBR). CBR values will be correlated to resilient modulus or R-values as needed.
- 5. Perform a pavement design based on vehicle configurations and projected traffic loadings. The pavement design will be performed using the 1993 AASHTO flexible pavement design method. Three pavement section alternatives will be presented along with the standard City pavement section for comparison purposes.
- Preparation of a geotechnical exploration report that will include the results of the field exploration and laboratory testing, analysis, pavement design and recommendations. Recommendations will include general guidelines for site preparation, depth and extent of undercutting and backfilling as required.
- 7. Participation in conference calls and project meetings as required.

Roadway Designs

- 1. Pickering will prepare construction plans in accordance with AASHTO's A Policy on Geometric Design of Highways and Streets and Roadway Design Guide, the Americans with Disabilities Act Accessibility Guidelines, ArDOT's Standard Specifications for Highway Construction, and City of Jonesboro Standards.
- 2. Improvements will consist typically of a five lane (5) roadway with sidewalks on both sides from East Parker Road to Links Circle. From Links Circle, the roadway will transition to a three (3) lane roadway with sidewalks on both sides to the end of the project at Fox Meadow Lane. Specific intersection improvements will be determined and included as detailed in the traffic analysis phase. The total distance of the section is approximately 1.11 miles.

- 3. Roadway plans will be standard plan and profile, one inch equals 50 feet (horizontal) and 5 feet (vertical) scale, or larger, and will conform to all City drafting and construction standards. The roadway plans will contain sufficient and required notes, details and designs required for the bidding process and to be in conformance with standard City practice. Roadway plans will include some or all of the following sheets: title, index, standard drawings, estimated roadway quantities, typical sections, general notes, special notes, details, standard plan and profile sheets, private drive profiles, culvert sections, EPSC, traffic control, signing and pavement marking, and roadway cross sections.
- 4. Pickering will prepare designs for all affected drainage within the project limits in accordance with current City design criteria. This includes the design of curb inlets, required storm drainage systems, and required cross drains to adequately drain the project.
- 5. Pickering will submit plans for review at the following milestones: horizontal and vertical alignment review and concurrence, 30% plan submittal, 60% plan submittal, 90% plan submittal, and final construction plans. A revised and updated cost will be provided at each milestone.
- 6. If the analysis shows a signal is warranted at the intersection of Latourette Drive and Caraway, signal plans will be considered additional services.
- 7. The existing structure located at the Higginbottom Creek crossing is eighty (80) feet in length. It is anticipated that the structure will accommodate the Caraway Road widening. There are no alterations or adjustments anticipated to be made to the structure. if changes are required, those adjustments will be considered additional services.
- 8. Pickering will provide the City with the information to apply for and receive the construction permits as required Storm Water Pollution Prevention Plan (SWPPP) and the Short Term Activity Authorization (STAA) permit if required.
- All designs, plans, details and specifications for relocations of any utility or the addition of new utilities (other than street lighting) will be prepared by the utility owner or negotiated as additional services.

Traffic Designs

- 1. Pickering will prepare traffic control plans including construction sequencing, temporary markings and signage, lane closures, and all applicable notes and details.
- 2. Pickering will prepare permanent roadside public signage plans.
- 3. Pickering will prepare permanent pavement marking plans.

Bid Phase

- 1. Printing of plans and specification for bidding purposes is not included and will be considered a reimbursable expense.
- 2. Bid phase services are not included.

Construction Phase

1. Construction phase services are not included.

OPTIONAL SERVICES

If the City requires services beyond what is provided in the scope of services listed above, said services can be performed based upon a negotiated lump sum fee agreed to by both parties. Additional services will only be performed after written authorization is received.

PROPOSED PROJECT SCHEDULE

Based on the attached work schedule, Pickering anticipates approximately 46 weeks to complete the project inclusive of review times by the City. Every reasonable effort will be made to expedite the schedule to accommodate the City's anticipated construction schedules.

FAILURE TO COMPLETE WORK ON TIME

Time is an essential element of the Agreement and it is important that the work be pressed vigorously to completion in accordance with the proposed project schedule. The cost to the Owner (City of Jonesboro) of the administration of this Agreement will be increased as the time occupied in the work is lengthened. Loss will accrue to the public due to delayed completion of the design and construction documents.

This being the case the Owner reserves the right to withhold payment from the Consultant for failure to perform services in a timely manner as per the mutually agreed upon schedule for factors within the Consultant's control. Payment will be withheld from the Consultant until the Owner is satisfied that the Consultant is progressing towards meeting the agreed upon schedule or upon completion of the project.

The Owner and consultant are aware that many factors outside the Consultant's control may affect the Consultant's ability to complete the services to be provided under this Agreement. The Consultant will perform these services with reasonable diligence and expediency consistent with sound professional practices.

If the Consultant becomes aware of delays due to time allowances for review and approval being exceeded, delay by the Owner, the Owner's consultants, reviews by governing agencies, or any other cause beyond the control of the Consultant, which will result in the schedule for performance of the Consultant's not being met, the Consultant shall promptly notify the Owner. If the Owner becomes aware of delays or other caused that will affect the Consultant's schedule, the Owner shall promptly notify the Consultant. In either event, the Consultant's schedule for performance of its services shall be equitably adjusted.

SUMMARY OF PROJECT FEES (TITLE I)

Design (Labor, Overhead, and Fee)	\$1	88,295.52					
Direct Expenses							
Miscellaneous Expense	\$	570.00					
Ridge Surveying	\$	29,980.00					
Geotechnology, Inc.	<u>\$</u>	19,850.00					
Subtotal Direct Costs	\$	50,400.00					
Total Title I (Not to Exceed)	\$238,695.52						

See Appendix A for a detailed man-hour estimates for each of the required tasks.

TERMS AND CONDITIONS

The obligation to provide further services under this Agreement may be terminated by either party upon written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party. In the event of termination, Pickering Firm, Inc. will be paid for services rendered to the date of termination.

The fees shown in this proposal are based on the Owner agreeing to limit the Professional's liability for all planning, engineering and analytical services to the Owner due to the Professional's negligent acts, errors, or omissions, such that the total aggregate liability of the Professional to all those named shall not exceed the Professional's total fee for services rendered on this project.

This proposal represents the entire understanding between you and us in respect to the "Project" and may only be modified in writing signed by both of us. If it satisfactorily sets for your understanding of the arrangement between us, please sign the acceptance of this proposed Letter Agreement in the space provided below and return it to us.

Please advise if further information is desired.

Sincerely,

PICKERING FIRM INCORPORATED

Michael L. Foster, P.E. Project Manager

Accepted by:

Date:

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Justification of Fees and Costs and Scope of Work FOR South Caraway Road Widening City of Jonesboro, Arkansas

12-Jun-18

Appendix A

Northside Park Access Road City of Jonesboro, Arkansas

TITLE I

Plans Total Labor, Overhead, and Fee	\$ 188,295.52
Direct Expenses	\$50,400.00
Grand Total TITLE I	\$ 238,695.52

TITLE II

Plans Total Labor, Overhead, and Fee	Not Included
Direct Expenses	Not Included
Grand Total TITLE II	Not Included

Appendix A Justification of Fees and Costs South Caraway Road Widening City of Jonesboro, Arkansas TITLE I

				Estima												
	Project	Senior		Engineer												
Plan Preparation	Manager	Engineer	Engineer	Intern	Clerical			Total Hours								
Roadway Design																
1. Project Administration	40	16						56								
2. Perform Site Visit to Verify Survey	4	8	16	16				44								
3. Title Sheet			2	4				6								
4. Typical Sections	4	8	8	16				36								
5. Index, General Notes, Standard Drawings		4	4	8				16								
6. Horizontal Alignment	4	8	16	16				44								
7. Vertical Alignment	4	8	16	16				44								
8. Summary of Quantities		8	16	24				48								
9. Mainline Plan & Profile Sheets (6 Sheets)	4	16	40	60				120								
10. Side Road Plan & Profile Sheets (3 Sheets)		8	20	30				58								
11. Property Acquisitions Strip Maps (6 Sheets)		16	16	24				56								
12. Drainage Design	8	24	80	40				152								
13. Driveway Profiles (5 Sheets)		4	16	24				44								
14. Culvert Sections (2 Sheets)		4	8	16				28								
15. Utility Coordination	8	24	24	24				80								
16. Maintenance of Traffic Plans	8	24	40	40				112								
17. Permanent Pavement Markings and Signs	4	8	16	16				44								
18. EPSC Plans		4	16	24				44								
19. Cross Sections	4	8	24	40				76								
20. Permits (SWPPP, STAA, etc.)		4	16	24				44								
21. QA/QC	40	40	40					120								
22. Plan Review Meetings (5 Meetings)	16	16	16					48								
23. Address Comments from Review Meetings	8	16	40	40				104								
Totals	156	276	490	502	0	0	0	1424								

Labor Rates

\$ 62.00 \$ 50.00 \$ 42.00 \$ 35.00 \$ 17.00

Labor Cost \$ 9,672.00 \$ 13,800.00 \$ 20,580.00 \$ 17,570.00 \$ - \$ - \$ 61,622.00

Overhead % 172.67% **\$ 106,402.71**

Total Labor and Overhead \$ 168,024.71

Fixed Fee %

FCCM Overhead 0.175% \$ 107.84

Total Labor, Overhead, and Fee: \$ 188,295.52

12.00% **\$ 20,162.97**

Direct Costs:	Qty.	Unit Price	
Vileage	0	\$ 0.535	\$0.00
Meals	0	\$ 41.00	\$0.00
_odging	0	\$ 96.00	\$0.00
Postage	0	\$ 100.00	\$0.00
Reproductions: 8 1/2" x 11"	100	\$ 0.10	\$10.00
Reproductions: 11" x 17"	400	\$ 0.15	\$60.00
Reproductions: Full Size	250	\$ 2.00	\$500.00
Ridge Surveying	1	\$ 29,980.00	\$29,980.00
Geotechnology, Inc.	1	\$ 19,850.00	\$19,850.00

Total Direct Costs: \$50,400.00

Project Total \$ 238,695.52



311 South Church Suite H Jonesboro, Arkansas May 16, 2018

Pickering Engineering, Mike Foster RE: Proposal for Surveying Services-Caraway Rd, Jonesboro, AR

Thank you for the opportunity to offer you our Professional Surveying Services. Ridge Surveying & Consulting PLLC will perform the following scope of work for a fee of **\$29,980.00**

- Research & Setup.
- Establish & Verify Site Survey Control.
- Topographical Survey along Caraway Rd (from Parker to Fox Meadow, 150' Corridor).
- Boundary Ties (sufficient to determine existing R/W & Boundary Lines).
- Arkansas One Call Fees.
- Easement/Right of way descriptions as needed (Maximum # of 10).
- CAD Drawing.
- Professional Surveyor Computations & Calculations.
- Professional Surveyor Supervision.

Please note that we anticipate being able to complete this task as outlined above in approximately 35 working days from the time we have received a notice to proceed (depending on weather). If you find this proposal acceptable, please sign & return this document via email.



Via email: mfoster@pickeringfirm.com

© 2018 Geotechnology, Inc. May 17, 2018

Mr. Mike foster, P.E. Pickering, Inc. 100 E. Huntington, Suite B Jonesboro, Arkansas 72401

Re: Revised Proposal for Geotechnical Exploration South Caraway road Widening Jonesboro, Arkansas Geotechnology Proposal No. P031972.01

Dear Mr. Foster:

In response to your request, Geotechnology, Inc. (Geotechnology) is pleased to submit this revised proposal to perform a geotechnical exploration for the proposed South Caraway Road widening in Jonesboro, Arkansas. We have prepared this proposal based on our review of your April 24, 2018, request for proposal (RFP), a review of our archival geotechnical data, a site visit, and our experience as geotechnical engineers in the greater Jonesboro area. The proposal was revised to reduce the number of borings as instructed by the client.

1.0 PROJECT INFORMATION

The City of Jonesboro is proposing to make improvements to South Caraway Road from East Parker Road to Fox Meadow Lane in Jonesboro, Arkansas. The project length is approximately 6,000 feet. The planned improvements will include roadway widening and drainage improvement. The widening will include adding a turn lane along the entire project route and plus to additional travel lanes between East Parker Road and Links circle. There are overhead utility lines and several existing drainage features on both sides of the roadway.

2.0 KEY GEOTECHNICAL ISSUES AND CONSIDERATIONS

We anticipate the planned development will have the following key issues the geotechnical exploration will address:

- Thickness of existing asphalt and base courses
- The presence of highly plastic (swelling) clay or unsuitable materials
- Quality and strength of near-surface soils to serve as road subgrade
- Grading and reuse of on-site soils



3.0 SCOPE OF SERVICES

The purposes of our services are to explore the subsurface conditions and provide geotechnical recommendations for the design and construction of the project. Geotechnology proposes the following scope of services for the geotechnical exploration:

- Perform a site reconnaissance.
- Marking boring locations in the field for subsequent surveying to be performed by the project surveyor.
- Calling Arkansas One to locate public utilities; locating private utilities are not included in this scope of work.
- Coordinating the fieldwork and lane closures with the city of Jonesboro transportation personnel. Due to the traffic volume currently using South Caraway Road, the fieldwork will have to be performed during summer time or school holidays, and will be limited to the period of 8:30 am to 4:00 pm.
- Mobilization of equipment and personnel.
- Providing traffic control in accordance with the Manual for Uniform Traffic Control Devices (MUTCD). Due to the presence of the overhead utility lines and the lack of sufficient shoulder width, the drilling operation may necessitate closing one traffic lane during the period of fieldwork.
- Coring the existing pavement at 10 locations along the project route.
- Drill 13 borings to an approximate depth of 10 feet. In each boring, soil samples will be
 obtained by split-spoon sampling methods at regular intervals. Occasionally, Shelby tube
 samples of the soils will be recovered to obtain a relatively undisturbed soil sample for
 laboratory testing. A maximum of 130 linear feet of auger drilling and split-spoon
 sampling is budgeted. Proposed boring locations are shown on the attached plan.
- Providing site supervision and coordination during the fieldwork.
- Backfilling the boreholes with auger cuttings and plastic plugs. In paved areas, the boreholes will be patched with asphalt.
- Perform laboratory tests on select soil samples to evaluate index and strength properties. Laboratory testing will include various combinations of the following tests: moisture content, Atterberg limits, gradation (particle-size) analyses, unconsolidatedundrained triaxial compression, standard Proctor and California Bearing Ratio (CBR). CBR values will be correlated to resilient modulus or R-values as needed.
- Performing pavement design based on provided vehicle configurations and projected traffic load and volume that will be provided by the project consultant. The following information will be required to perform the pavement design:



- Average Daily Traffic (ADT)
- Number of lanes per direction
- Design period, in years
- Anticipated traffic annual growth rate
- Percent trucks and truck configurations, in terms of axle type and loads

The pavement design will be performed using the 1993 AASHTO flexible pavement design method. Three different pavement section alternatives will be presented using the spreadsheet developed by ARDOT. In addition, the standard City of Jonesboro pavement section will be presented for comparison purposes.

- Producing a geotechnical exploration report that will include the results of the field exploration and laboratory testing, analysis, pavement design and recommendations. The recommendations will include general guidelines for site preparation, depth and extent of undercutting and backfilling as required and recommendations for other methods of ground improvement if deemed necessary.
- Distribute the report in pdf and paper (two copies) format to Pickering, Inc.
- Participating in post-exploration conference calls or meetings in Jonesboro as directed by the project team.

Our scope of services does not include any structural evaluation, environmental assessment, investigation, or study for the presence or absence of wetlands or hazardous or toxic materials in the soil, bedrock, surface water, groundwater, or air, on or below or around the site. However, we can provide environmental services if needed for this project. Please advise if you prefer that we either revise this proposal or prepare a separate proposal to include environmental services.

Geotechnology owns and operates drilling equipment, which reduces the client's risk by eliminating subcontract work. Our drilling staff are trained and focused on obtaining quality samples in a safe manner. Please consider this if comparing our proposal to firms that rely on subcontracted drilling services.

A copy of "Important Information about This Geotechnical Engineering Proposal" that is published by the Geoprofessional Business Association (GBA) is enclosed for your review.

3.1 Site Access and Restoration

Any restrictions or requirements imposed by governmental agencies or others regarding site clearing, access limitation, utility clearance, or restoration are considered beyond our scope of services. Drill rig access to boring locations in unpaved areas may leave ruts in the soil or grass. Our scope does not include restoration of ruts or other disturbance caused by the drill rig.

3.2 Anticipated Subsurface Conditions

The budgeted linear footage of drilling and sampling is based on an anticipated subsurface profile of clay and sand. If unusual or erratic subsurface conditions are encountered, we will contact you to discuss our recommended changes prior to expanding the scope of services.



4.0 SCHEDULE AND FEE

With our present work schedule, drilling could commence within three to four weeks after receipt of authorization to proceed and after the boring locations are marked in the field, weather and site conditions permitting. Normally an allowance of three to four weeks following completion of fieldwork is allotted for submittal of the geotechnical exploration report.

Our services are offered in accordance with the accompanying Terms for Geotechnology's Geotechnical Services (Terms). The cost of our services will be lump sum fees as follows:

Item	Estimated Cost
Mobilization, Site Supervision, Drilling, Sampling and Field Testing	\$8,260.00
Traffic Control (to be provided by a specialty traffic control firm)	\$4,000.00
Laboratory Testing	\$3,400.00
Site supervision, Engineering Analysis and Report	\$4,190.00
Total Estimated Cost	\$19,850.00

This sum includes drilling, sampling, laboratory testing, boring log preparation, engineering analyses, and report preparation.

This proposal and fee estimate have been prepared using Geotechnology's standard fee schedule. Geotechnology reserves the right to revise this proposal and fee estimate, at any time, if any flow down and/or contract provisions are required by the Client or the Owner to conform with any local, state, or federal wage act requirements, including, but not limited to, the Davis-Bacon Act, as Amended, the McNamara-O'Hara Service Contract Act, etc., the required use of union labor, or for any required safety, security, vehicle, drug and alcohol testing, or for any third party payment fees, or for other requirements not specified in the Client's request for proposal or not defined in Geotechnology's scope of services.

5.0 ACCEPTANCE

If this proposal, including the contractual terms, is acceptable, please sign in the space provided on the following Terms and return one executed copy of the Terms and this proposal to our office as your authorization for us to proceed.

* * * * *



We appreciate the opportunity to submit this proposal for the referenced project and look forward to hearing from you soon. If you have any questions or comments concerning this proposal, or if we may be of any other service to you, please do not hesitate to contact us.

Very truly yours

GEOTECHNOLOGY, INC.

Ashraf S. Elsayed, Ph.D., P.E., D.GE Chief engineer – South Region

ASE/DMS:ase

Enclosures: GBA's Important Information about This Geotechnical Engineering Proposal Terms for Geotechnology's Services

Important Information about This Geotechnical Engineering Proposal

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

Participate in Development of the Subsurface Exploration Plan

Geotechnical engineering begins with the creation of an effective subsurface exploration plan. This proposal starts the process by presenting an initial plan. While that plan may consider the unique physical attributes of the site and the improvements you have in mind, it probably does not consider your unique goals, objectives, and risk management preferences. Subsurface exploration plans that are finalized without considering such factors presuppose that clients' needs are unimportant, or that all clients have the same needs. Avoid the problems that can stem from such assumptions by finalizing the plan and other scope elements directly with the geotechnical engineer you feel is best qualified for the project, along with the other project professionals whose plans are affected by the geotechnical engineer's findings and recommendations. If you have been told that this step is unnecessary; that client preferences do not influence the scope of geotechnical engineering service or that someone else can articulate your needs as well as you, you have been told wrong. No one else can discuss your geotechnical options better than an experienced geotechnical engineer, and no one else can provide the input you can. Thus, while you certainly are at liberty to accept a proposed scope "as is," recognize that it could be a unilateral scope developed without direct client/engineer discussion; that authorizing a unilateral scope will force the geotechnical engineer to accept all assumptions it contains; that assumptions create risk. Manage your risk. Get involved.

Expect the Unexpected

The nature of geotechnical engineering is such that planning needs to anticipate the unexpected. During the design phase of a project, more or deeper borings may be required, additional tests may become necessary, or someone associated with your organization may request a service that was not included in the final scope. During the construction phase, additional services may be needed to respond quickly to unanticipated conditions. In the past, geotechnical engineers commonly did whatever was required to oblige their clients' representatives and safeguard their clients' interests, taking it on faith that their clients wanted them to do so. But some, evidently, did not, and refused to pay for legitimate extras on the ground that the engineer proceeded without proper authorization, or failed to submit notice in a timely manner, or failed to provide proper documentation. What are your preferences? Who is permitted to authorize additional geotechnical services on your project? What type of documentation do you require? To whom should it be sent? When? How? By addressing these and similar issues sooner rather than later, you and your geotechnical engineer will be prepared for the unexpected, to help prevent molehills from growing into mountains.

Have Realistic Expectations; Apply Appropriate Preventives

The recommendations included in a geotechnical engineering report are *not final*, because they are based on opinions that can be verified only during construction. For that reason, most geotechnical engineering proposals offer the construction observation services that permit the geotechnical engineer of record to confirm that subsurface conditions are what they were expected to be, or to modify recommendations when actual conditions were not anticipated. *An offer to provide construction observation* is an offer to better manage your risk. Clients who do not take advantage of such an offer; clients who retain a second firm to observe construction, can create a high-risk "Catch-22" situation for themselves. The geotechnical engineer of record cannot assume responsibility or liability for a report's recommendations when another firm performs the services needed to evaluate the recommendations' adequacy. The second firm is also likely to disavow liability for the recommendations, because of the substantial and possibly uninsurable risk of assuming responsibility for services it did not perform. Recognize, too, that no firm other than the geotechnical engineer of record can possibly have as intimate an understanding of your project's geotechnical issues. As such, reliance on a second firm to perform construction observation can elevate risk still more, because its personnel may not have the wherewithal to recognize subtle, but sometimes critically important unanticipated conditions, or to respond to them in a manner consistent with your goals, objectives, and risk management preferences.

Realize That Geoenvironmental Issues Have Not Been Covered

The equipment, techniques, and personnel used to perform a geoenvironmental study differ significantly from those used to perform a geotechnical study. *Geoenvironmental services are not being offered in this proposal. The report that results will not relate any geoenvironmental findings, conclusions, or recommendations.* Unanticipated environmental problems have led to numerous project failures. If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. Do not rely on *an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the express purpose of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may be addressed as part of the geotechnical engineering study described in this proposal, the geotechnical engineer who would lead this project *is not* a mold prevention consultant; none of the services being offered have been designed or proposed for the purpose of mold prevention.

Have the Geotechnical Engineer Work with Other Design Professionals and Constructors

Other design team members' misinterpretation of a geotechnical engineering report has resulted in costly problems. Manage that risk by having your geotechnical engineer confer with appropriate members of the design team before finalizing the scope of geotechnical service (as suggested above), and, again, after submitting the report. *Also retain your geotechnical engineer to review pertinent elements of the design team members' plans and specifications.*

Reduce the risk of unanticipated conditions claims that can occur when constructors misinterpret or misunderstand the purposes of a geotechnical engineering report. Use appropriate language in your contract documents. Retain your geotechnical engineer to participate in prebid and preconstruction conferences, and to perform construction observation.

Read Responsibility Provisions Closely

Clients, design professionals, and constructors who do not recognize that geotechnical engineering is far less exact than other engineering disciplines can develop unrealistic expectations. Unrealistic expectations can lead to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their proposals. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks, thus to encourage more effective scopes of service. *Read this proposal's provisions closely*. Ask questions. Your geotechnical engineer should respond fully and frankly.

Rely on Your Geotechnical Engineer for Additional Assistance

Membership in the Geoprofessional Business Association (GBA) exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit to everyone involved with a construction project. Confer with a GBA-member geotechnical engineer for more information. Confirm a firm's membership in GBA by contacting GBA directly or at its website.



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TERMS FOR GEOTECHNOLOGY'S SERVICES

1- THE AGREEMENT

- a. This AGREEMENT is made by and between: Geotechnology, Inc., hereinafter referred to as GEOTECHNOLOGY, and Pickering, Inc., hereinafter referred to as CLIENT.
- b. The AGREEMENT between the parties consists of these TERMS, the attached PROPOSAL identified as Proposal No. P031972.01, dated May 17, 2018, and any exhibits or attachments noted in the PROPOSAL. In the event of a conflict between the TERMS and the PROPOSAL, the provisions of the TERMS shall govern unless the PROPOSAL specifically indicates that it is to govern. Together, these elements will constitute the entire AGREEMENT superseding any and all prior negotiations, correspondence, or agreements either written or oral. Any changes to this AGREEMENT must be mutually agreed to in writing.
- c. This proposal is valid for 90 days from May 17, 2018.
- d. The technical pricing information contained in this PROPOSAL submitted by GEOTECHNOLOGY is to be considered confidential and proprietary and shall not be released or otherwise made available to any third party without the express written consent of GEOTECHNOLOGY.
- e. It is intended by the parties to this AGREEMENT that GEOTECHNOLOGY'S services in connection with the project shall not subject GEOTECHNOLOGY'S individual employees, officers or directors to any personal legal exposure for the risks associated with this project. Therefore, and notwithstanding anything to the contrary contained herein, CLIENT agrees that as the CLIENT'S sole and exclusive remedy, any claim, demand or suit shall be directed and/or asserted only against GEOTECHNOLOGY, a Missouri corporation, and CLIENT expressly waives CLIENT's rights against any of GEOTECHNOLOGY'S employees, officers or directors.

2 - STANDARD OF CARE

- a. CLIENT recognizes that conditions may vary from those observed at locations where borings, surveys, observations, or explorations are made, and that site conditions may change with time. Data, interpretations, and recommendations by GEOTECHNOLOGY will be based solely on information available to GEOTECHNOLOGY. GEOTECHNOLOGY is responsible for those data, interpretations, and recommendations, but will not be responsible for other parties' interpretations or use of the information developed.
- b. GEOTECHNOLOGY offers different levels of services to suit the desires and needs of different clients. Although the possibility of error can never be eliminated, more detailed and extensive services yield more information and reduce the probability of error, but at increased cost. CLIENT has reviewed the scope of services and has determined that it does not need or want a greater level of service than that being provided.
- c. The standard of care for all professional engineering and related services performed under this AGREEMENT will be the care and skill ordinarily used by members of the subject profession practicing under similar circumstances at the same time and in the same locality. GEOTECHNOLOGY makes no warranties, express or implied, under this AGREEMENT or otherwise, in connection with any services performed or furnished by GEOTECHNOLOGY.

3 - SITE ACCESS AND SITE CONDITIONS

- a. CLIENT will grant or obtain free access to the site for all equipment and personnel necessary for GEOTECHNOLOGY to perform the services set forth in this AGREEMENT. CLIENT will notify any and all possessors of the project site that CLIENT has granted GEOTECHNOLOGY free access to the site. GEOTECHNOLOGY will take reasonable precautions to reduce damage to the site, but it is understood by CLIENT that, in the normal course of the services, some damage may occur and the correction of such damage is not part of this AGREEMENT unless so specified in the PROPOSAL.
- b. Unless indicated otherwise in the PROPOSAL, CLIENT is responsible for accurately delineating the locations of all subterranean structures and utilities. GEOTECHNOLOGY will take reasonable precautions to avoid known subterranean structures, and CLIENT waives any claim against GEOTECHNOLOGY arising from damage done to subterranean structures and utilities not identified or accurately located.

4 - CHANGED CONDITIONS

a. If, during the course of performance of this AGREEMENT, conditions or circumstances are discovered which were not contemplated by GEOTECHNOLOGY at the commencement of this AGREEMENT, GEOTECHNOLOGY shall notify CLIENT in writing of the newly discovered conditions or circumstances, and CLIENT and GEOTECHNOLOGY shall renegotiate, in good faith, the terms and conditions of this AGREEMENT.

5 - SAMPLES AND CUTTINGS

- a. GEOTECHNOLOGY will dispose of soil and rock samples ninety (90) days after submittal of the report covering those samples. Further storage or transfer of samples can be made at CLIENT'S expense upon CLIENT'S prior written request.
- b. Cuttings, rinse water, well development and other wastes will be left on site and are CLIENT's responsibility to dispose unless specifically addressed in the PROPOSAL.
- c. Client shall take custody of all monitoring wells, probe holes and borings installed by GEOTECHNOLOGY and shall take any and all necessary steps for the proper maintenance, repair or closure for such wells, probes, or borings at CLIENT'S expense.

6 - OBSERVATION

a. CLIENT recognizes that unanticipated or changed conditions may be encountered during construction and, principally for this reason, CLIENT shall retain GEOTECHNOLOGY to observe construction when GEOTECHNOLOGY has provided engineering services. CLIENT understands that construction observation is conducted to reduce – not eliminate – the risk of problems arising during construction and that provision of the service does not create a warranty or guarantee of any type. In all cases, contractors shall retain responsibility for the quality and completeness of their work and for adhering to the plans, specifications, and recommendations on which their work is based. Should GEOTECHNOLOGY for any reason not provide construction observation during the implementation of GEOTECHNOLOGY's plans, specifications, and recommendations, or should CLIENT restrict GEOTECHNOLOGY's assignment of observation personnel, CLIENT shall,

to the fullest extent permitted by law, waive any claim against GEOTECHNOLOGY, and indemnify, defend, and hold GEOTECHNOLOGY harmless from any claim or liability for injury or loss arising from field problems allegedly caused by findings, conclusions, recommendations, plans, or specifications developed by GEOTECHNOLOGY.

- b. If GEOTECHNOLOGY is retained by CLIENT to provide a site representative for the purpose of monitoring specific portions of construction work or other field activities as set forth in the PROPOSAL, then this paragraph applies. For the specified assignment, GEOTECHNOLOGY will report observations and professional opinions to CLIENT. No action of GEOTECHNOLOGY's site representative can be construed as altering any AGREEMENT between CLIENT and others. GEOTECHNOLOGY will report to CLIENT observed conditions related to services for which GEOTECHNOLOGY has been retained to perform which, in GEOTECHNOLOGY's professional opinion, do not conform with plans and specifications. GEOTECHNOLOGY has no right to reject or stop work of any agent of the CLIENT. Such rights are reserved solely for CLIENT. Furthermore, GEOTECHNOLOGY's presence on site does not in any way guarantee the completion or quality of the work of any party retained by CLIENT to provide field or construction-related services.
- c. GEOTECHNOLOGY shall not be required to sign any document, no matter by whom requested, that would result in GEOTECHNOLOGY having to certify, guarantee, or warrant the existence of conditions whose existence GEOTECHNOLOGY cannot ascertain. CLIENT agrees not to make resolution of any dispute with GEOTECHNOLOGY or payment of any amount due to GEOTECHNOLOGY in any way contingent upon GEOTECHNOLOGY signing any such document.
- d. The use of the word "certify" or "certification" by a registered professional engineer in the practice of professional engineering constitutes an expression of professional opinion regarding those facts or findings which are the subject of the certification, and does not constitute a warranty or guarantee, either express or implied. The definition and legal effect of any and all certifications shall be limited as stated herein.
- e. GEOTECHNOLOGY will strive to perform its construction materials testing services under this AGREEMENT in accordance with generally accepted testing procedures unless other procedures are specifically referenced in the text of the Project plans and/or specifications.
- f. GEOTECHNOLOGY will provide materials testing for samples specified by CLIENT or at a frequency specified by CLIENT and/or will collect samples for materials testing or conduct materials testing when contacted by the CLIENT. GEOTECHNOLOGY will provide foundation testing and/or television camera inspections on drilled shafts or piles constructed by and at a frequency specified by CLIENT. Engineering evaluation of the suitability of the number or types of samples is not provided by GEOTECHNOLOGY.
- g. Construction materials tests performed by GEOTECHNOLOGY on site are taken intermittently and indicate the general acceptability of materials on a statistical basis. GEOTECHNOLOGY'S tests and observation of materials are not a guarantee of the quality of other parties' work and do not relieve other parties from the responsibility to perform their work in accordance with applicable plans, specifications and requirements.

7 - JOBSITE

- a. Unless specifically set forth in the PROPOSAL, GEOTECHNOLOGY will not be responsible for and will not have control or charge of specific means, methods, techniques, sequences or procedures of construction or other field activities selected by any other person or entity, or safety precautions and programs incident thereto. GEOTECHNOLOGY shall be responsible only for its activities and that of its employees on any site. Neither the professional activities nor the presence of GEOTECHNOLOGY or its employees or its subcontractors on a site shall imply that GEOTECHNOLOGY controls the operations of others, nor shall this be construed to be acceptance by GEOTECHNOLOGY of any responsibility for jobsite safety.
- b. Unless indicated otherwise in the PROPOSAL, GEOTECHNOLOGY'S services under this AGREEMENT are limited to geotechnical engineering, geophysical surveying, drilling, construction materials testing or deep foundation testing and GEOTECHNOLOGY shall have no responsibility to locate, identify, evaluate, treat or otherwise consider or deal with hazardous materials.
- c. CLIENT represents that CLIENT has made a reasonable effort to evaluate if hazardous materials are on or near the project site, and that CLIENT has informed GEOTECHNOLOGY of CLIENT's findings relative to the possible presence of such materials.
- d. Hazardous materials may exist at a site where there is no reason to believe they could or should be present. GEOTECHNOLOGY and CLIENT agree that the discovery of unanticipated hazardous materials constitutes a changed condition mandating a renegotiation of the scope of work or termination of services. GEOTECHNOLOGY and CLIENT also agree that the discovery of unanticipated hazardous materials may make it necessary for GEOTECHNOLOGY to take immediate measures to protect health and safety. CLIENT agrees to compensate GEOTECHNOLOGY for measures taken to protect health and safety and/or any equipment decontamination or other costs incidental to the discovery of unanticipated hazardous materials.
- e. GEOTECHNOLOGY agrees to notify CLIENT when unanticipated hazardous materials or suspected hazardous materials are encountered. CLIENT agrees to make any disclosures required by law to the appropriate governing agencies. CLIENT also agrees to hold GEOTECHNOLOGY harmless for any and all consequences of disclosures made by GEOTECHNOLOGY, which are required by governing law. In the event the project site is not owned by CLIENT, CLIENT recognizes that it is CLIENT's responsibility to inform the property owner of the discovery of unanticipated hazardous materials or suspected hazardous materials.
- f. CLIENT will be responsible for ultimate disposal of any samples secured by GEOTECHNOLOGY, which are found to be contaminated.

8 - BILLING AND PAYMENT

- a. CLIENT will pay GEOTECHNOLOGY in accordance with the procedures indicated in the PROPOSAL and its attachments. Invoices will be submitted to CLIENT by GEOTECHNOLOGY, and will be due and payable upon presentation. If CLIENT objects to all or any portion of any invoice, CLIENT will so notify GEOTECHNOLOGY in writing within fourteen (14) calendar days of the invoice date, identify the cause of disagreement, and pay when due that portion of the invoice not in dispute. The absence of written notification described above, shall constitute an unqualified acceptance of the invoice amount due and payable, and waiver by CLIENT of all claims with respect thereto.
- b. CLIENT recognizes that late payment of invoices results in extra expenses for GEOTECHNOLOGY. GEOTECHNOLOGY retains the right to assess CLIENT interest at the rate of one percent (1%) per month, but not to exceed the maximum rate allowed by law, on invoices which are not paid within thirty (30) days from the date of the invoice. In the event undisputed portions of GEOTECHNOLOGY'S invoices are not paid when due, GEOTECHNOLOGY reserves the right, after seven (7) days prior written notice, to suspend the performance of its services under this AGREEMENT until all past due amounts have been paid in full.

- c. If test results that indicate failure of a material to meet the intended specification require retesting of the material after additional work by parties responsible for that material, the cost of retesting will be invoiced to the CLIENT.
- d. GEOTECHNOLOGY may elect to adjust its rates under this AGREEMENT to account for changes in overhead rates and salary adjustments no sooner than one year from the date of this AGREEMENT, and no more often than once per year at the end of each subsequent year.

9 - TERMINATION

a. This AGREEMENT may be terminated by either party seven (7) days after written notice in the event of any breach of any provision of this AGREEMENT or in the event of substantial failure of performance by the other party, or if CLIENT suspends the work for more than three (3) months. Both parties shall have the opportunity to initiate a mutually agreeable remedy for failure of performance within fifteen (15) days after notice of termination. In the event of termination, GEOTECHNOLOGY will be paid for services performed prior to the date of termination plus reasonable termination expenses, including, but not limited to the cost of cleanup, demobilization, completing analyses, records, and reports necessary to document job status at the time of termination.

10 - ALLOCATION OF RISK

10.1 LIMITATION OF LIABILITY

- a. GEOTECHNOLOGY and CLIENT have evaluated the risks and rewards associated with this project, including GEOTECHNOLOGY'S fee relative to the risks assumed, and agree to allocate certain of the risks, so, to the fullest extent permitted by law, the total aggregate liability of GEOTECHNOLOGY to CLIENT and third parties granted reliance is limited to the greater of \$50,000 or GEOTECHNOLOGY'S fee, for any and all injuries, damages, claims, losses, expenses, or claim expenses (including attorney's fees) arising out of GEOTECHNOLOGY'S services or this agreement regardless of cause or causes. Such causes include, but are not limited to, GEOTECHNOLOGY'S negligence, errors, omissions, strict liability, statutory liability, negligent misrepresentation, breach of contract, breach of warranty, or other acts giving rise to liability based on contract, tort or statute. If CLIENT prefers to have higher limits of liability coverage, GEOTECHNOLOGY agrees, upon receipt of CLIENT'S written request at the time of accepting our PROPOSAL, to increase the limits of liability up to a maximum of \$1,000,000.00 at an additional cost of 5 percent of our total fee or \$1,000.00, whichever is greater.
- b. Neither party shall have any liability to the other party for loss of product, loss of profit, loss of use, or any other indirect, incidental, special or consequential damages incurred by the other party.

10.2 INDEMNIFICATION

- a. Subject to the provisions of the Limitation of Liability described in 10.1a. above, CLIENT and GEOTECHNOLOGY each agree to indemnify and hold harmless the other party and the other party's officers, directors, partners, employees, and representatives, from and against losses, damages, and judgments, including reasonable attorneys' fees and expenses recoverable under applicable law, but only to the extent they are legally determined to be caused by a negligent act, error, or omission of the indemnifying party or any of the indemnifying party's officers, directors, members, partners, agents, employees, or subconsultants in the performance of services under this AGREEMENT. If claims, losses, damages, and judgments are legally determined to be caused by the joint or concurrent negligence of CLIENT and GEOTECHNOLOGY, they shall be borne by each party in proportion to its negligence.
- b. CLIENT shall indemnify and hold harmless GEOTECHNOLOGY, its agents, subcontractors, directors, officers, and employees, from and against any and all claims, suits, liability, damages, injunctive or equitable relief, expenses, including reasonable attorney's fees or other loss arising from damage to subterranean structures or utilities which were not identified or located by CLIENT to GEOTECHNOLOGY in advance of our work or the discovery of unanticipated hazardous materials or suspected hazardous materials, including, but not limited to, any costs created by delay of the project and any costs associated with possible reduction of the property's value.
- c. For the purposes of this AGREEMENT only, and except as provided under Paragraph 10.2 (a) above regarding the negligent performance of GEOTECHNOLOGY, CLIENT shall reimburse GEOTECHNOLOGY for or otherwise indemnify, defend, and save GEOTECHNOLOGY, its agents, subcontractors, directors, officers and employees harmless from any and all demands, suits, judgment, expenses, attorney's fees, and losses arising out of or in connection with bodily injury (including death) to persons or damage to property which may arise from the presence or origination of hazardous substances, pollutants, or contaminants on CLIENT'S property, irrespective of whether such materials were generated or introduced before or after execution of this AGREEMENT; provided, however, that nothing hereinabove set forth is intended to shift any responsibility for employee claims that the parties may bear under the Worker's Compensation laws of the state in which the work is to be performed.
- d. GEOTECHNOLOGY shall under no circumstances be considered the generator of any hazardous substances, pollutants, or contaminants encountered or handled in the performance of the work. Without contradiction of any assertion by CLIENT or third party liability as described in Paragraph 10.2 (b) above and for the purposes of this AGREEMENT only, it is agreed that any hazardous materials, pollutants, or contaminants generated or encountered in the performance of the work shall be the responsibility of CLIENT.

11 - CONTINUING AGREEMENT

a. The indemnity obligations and limitations of liabilities established throughout this AGREEMENT, regardless of paragraph number, shall survive the assignment, transfer, expiration or termination of this AGREEMENT.

12 - PREVAILING WAGE AND UNION MEMBERSHIP

a. Unless CLIENT specifically informs GEOTECHNOLOGY in writing or it is specifically identified in our PROPOSAL and/or WORK AUTHORIZATION that prevailing wage regulations or union membership are required for the Project and the Scope of Services identifies it as covered, CLIENT will reimburse, defend, indemnify and hold harmless GEOTECHNOLOGY from and against any liability resulting from a subsequent determination that prevailing wage regulations or union membership cover the Project, including all additional costs, fines and attorneys' fees.

13 - THIRD PARTY RELIANCE UPON REPORTS

a. All Documents are prepared solely for use by CLIENT (and Owner, if applicable) and shall not be provided to any other person or entity without GEOTECHNOLOGY'S written consent. CLIENT shall defend, indemnify and hold harmless GEOTECHNOLOGY, its officers, shareholders and employees, from and against any action or proceeding brought by any person or entity claiming to rely upon information or opinions contained in reports or other documents provided to such person or entity, published, disclosed or referred to without GEOTECHNOLOGY'S written consent.

14 - NON-SOLICITATION OF EMPLOYEES

a. CLIENT recognizes that GEOTECHNOLOGY, as a part of the services covered by this AGREEMENT, may provide one or more of its employees to work with members of CLIENT'S project staff or specifically on a CLIENT'S project. For purposes of this AGREEMENT, an employee of GEOTECHNOLOGY may be a permanent or temporary employee assigned to provide services to CLIENT. CLIENT hereby agrees that CLIENT will not hire, either directly or indirectly, or provide inducement to hire an employee of GEOTECHNOLOGY either as an employee of CLIENT or as an employee of a subcontractor or supplier to CLIENT, such suppliers to include providers of contract labor, during the term of this AGREEMENT and for a period of six months after the termination of this AGREEMENT. Any hiring or inducement to hire any GEOTECHNOLOGY employee during the term of this AGREEMENT and for a period of six months after the to this address and the subject to a fee equal to 25% of the total fee for services generated by that employee during a nominal 12-month period.

15 - DISPUTES RESOLUTION

- a. All claims, disputes, and other matters in controversy between GEOTECHNOLOGY and CLIENT arising out of or in any way related to this AGREEMENT will be submitted to mediation as a condition precedent to litigation. Notwithstanding any other provision of the Agreement, unless prohibited by law, GEOTECHNOLOGY shall have, in addition to any other right or option set forth herein, the right to proceed in creating a lien upon the building or other improvements and upon the real estate on which the building or improvements are situated for the work and labor done and the labor and materials furnished on and to said real estate and to enforce its mechanic's lien pursuant to all rights and remedies available to it under law.
- b. If a dispute at law arises from matters related to the services provided under this AGREEMENT and that dispute requires litigation, then:
 - (1) the claim will be brought and tried in St. Louis County, Missouri and CLIENT waives the right to move the action to any other county or judicial jurisdiction, and

(2) the prevailing party in any arbitration or litigation between GEOTECHNOLOGY and CLIENT shall be entitled to recovery of all reasonable costs incurred, including staff time, court costs, attorneys' fees, expert witness costs, and other claim related expenses. For purposes of this paragraph, a party prevails if (i) the judgment is equal to or in excess of the Plaintiff's last written demand for settlement, the Plaintiff shall also be entitled to recover its costs, expenses and reasonable attorney's fees from Defendant; (ii) the judgment is equal to or less than the Defendant's last written offer of settlement, the Defendant shall be entitled to recover its costs, expenses and reasonable attorney's fees from the Plaintiff; (iii) the judgment is in between the Plaintiff's last written demand for settlement and the Defendant's last offer of settlement, then neither party shall recover any of its costs, expenses or attorney's fees from the other.

16 - GOVERNING LAW AND SURVIVAL

- a. The law of the State of Missouri will govern the validity of these TERMS, their interpretation and performance.
- b. If any of the provisions contained in this AGREEMENT are held illegal, invalid, or unenforceable, the enforceability of the remaining provisions will not be impaired.

17 - SUCCESSORS AND ASSIGNS

a. This AGREEMENT shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns. Neither party may assign its interests herein (unless assignee assumes in writing assignor's obligations hereunder) without the prior written consent of the other party, which consent will not be unreasonably withheld. No assignment shall operate to relieve the assignor of its obligations under the AGREEMENT.

18 - OTHER PROVISIONS

- a. It is agreed that this AGREEMENT is entered into by the parties for the sole benefit of the parties to the AGREEMENT, and that nothing in the AGREEMENT shall be construed to create a right or benefit for any third party.
- b. Neither party shall hold the other responsible for damages or delay in performance caused by weather and other acts of God, strikes, lockouts, accidents, or other events beyond the reasonable control of the other or the other's employees and agents.
- c. The titles used in this AGREEMENT are for general reference only and are not part of the AGREEMENT.

19 - FUTURE SERVICES

a. All future services rendered by GEOTECHNOLOGY at CLIENT'S request for the project described in the PROPOSAL and/or WORK AUTHORIZATION shall be conducted under the terms of this AGREEMENT.

20 - SIGNATURES

a. The parties have read the foregoing, including any attachments thereto, understand completely the terms, and willingly enter into this AGREEMENT that will become effective on the date signed below by CLIENT.

DETAILED WORK SCHEDULE - PICKERING TEAM CITY OF JONESBORO - SOUTH CARAWAY WIDENING PROJECT JONESBORO, ARKANSAS										Pickering																																			
PROJECT TASKS	1	2	3	4	56	5 7	8	9 10) 11	12	13	14	15	16	17	18 1	19	20 2	21 2	22 2	3 24	WEE 1 25	=кs 5 26	6 27	7 28	29	30	31	32	33 3	34 3	35 3	36 3	7 3	8 3	39 4	0 41	42	43	44	45	46	47	48	49
RECEIVE NOTICE TO PROCEED																																						-	-						
KICKOFF MEETING																																													
CONDUCT FIELD SURVEYS (DESIGN, UTILITY, & PARCEL)																																													
TRAFFIC ANALYSIS & PRILIMINARY REPORT																																													
JONESBORO STAFF REVIEW																																													
SUBMIT FINAL REPORT																																													
DEVELOP 30% PLANS & ESTIMATE																																													
JONESBORO STAFF REVIEW																																													
DEVELOP 60% PLANS & ESTIMATE																																													
GEOTECHNICAL INVESTIGATIONS & REPORT																																													
JONESBORO STAFF REVIEW																																													
RIGHT OF WAY PLANS & ACQUISITION DOCUMENTS																																													
DEVELOP 90% PLANS & ESTIMATE																																													
JONESBORO STAFF REVIEW																																													
FINAL PLANS, ESTIMATE, & BID DOCUMENTS																																													
FINAL APPROVAL																																													