GEOHYDRO ENGINEERS

Proposal to Perform Subsurface Exploration and Geotechnical Engineering Evaluation

Cartersville Fire Station #5 Old Cartersville Road Cartersville, Georgia Proposal Number 232086.P0

Prepared for City of Cartersville July 17, 2023

July 17, 2023

Mr. Freddy Morgan City of Cartersville P.O. Box 1390 1 North Erwin Street Cartersville, Georgia 30120

> Proposal to Perform Subsurface Exploration and Geotechnical Engineering Evaluation Cartersville Fire Station #5 Old Cartersville Road Cartersville, Georgia Proposal Number 232086.P0

Dear Mr. Morgan:

Geo-Hydro Engineers, Inc. appreciates the opportunity to present this proposal to provide geotechnical services for the above referenced project. Our understanding of the project is based on our email correspondence with you, and our review of project documents provided to us.

The project consists of a new fire station building with living quarters, apparatus bay, parking areas, and a 3,600-square foot storage building. At the time of this proposal the project is in a conceptual phase and site grading and utility plans were not available. Based on our experience with similar projects, we have assumed that the building will have masonry load-bearing walls and a concrete slab-on-grade floor. We expect column loads to not exceed 50 kips and wall loads to be no greater than 5 kips per lineal foot.

The site is currently wooded. The site has been pregraded and is bound by several large mechanically stabilized earth (MSE) retaining walls. The annotated aerial photograph to the right shows the approximate project area and general site conditions.





SCOPE OF SERVICES

- 1. We will contact Georgia 811 for location of underground utilities. This is required by law. We also ask that the current property owner provide any available information regarding existing underground utilities in the work areas. Geo-Hydro will not be responsible for damage to unmarked underground utilities. Please see the attached *Underground Utilities Fact Sheet* for more information.
- 2. We will perform ten machine-drilled test borings at the approximate locations shown on the annotated site plan excerpt below. The boring locations will be adjusted based on topography, potential utility conflicts, and other access considerations. The borings will be extended to planned depths of 25 feet in the building footprints and 15 feet in parking/access drive areas. Standard penetration testing will be performed in accordance with ASTM D1586 in each boring at select depth intervals extending to the planned depth or to the depth of auger refusal, whichever occurs first. Our lump sum fee allows for a total of **220** feet of soil test boring only.



3. The project site is currently wooded. We will engage a loader and operator to clear access trails for our drilling equipment.



- 4. We will obtain groundwater readings at the time of drilling. The borings will be left open overnight to obtain stabilized 24-hour groundwater measurements. However, if safety concerns dictate otherwise, the borings may be backfilled with soil cuttings upon completion.
- **5.** For the purpose of evaluating stormwater infiltration, we will advance two test boreholes in the existing detention pond. In each borehole, we will perform infiltration testing using an Aardvark constant head permeameter. The boreholes will be advanced using hand equipment to a depth of about 1 to 2 feet. If equipment refusal is encountered above the target depth, we will perform the infiltration test at the depth of auger refusal. We will report the infiltration rates in units of inches per hour.
- **6.** Samples from the field operation will be physically examined, and a visual classification will be assigned in accordance with the Unified Soil Classification System.
- 7. Test boring records will be prepared which provide standard penetration resistances, detailed soil descriptions, and groundwater conditions. Significant soil strata will be delineated, and partially weathered rock or auger refusal will be identified where encountered.

Engineering Report

We will prepare an engineering report outlining the results of the exploration. We will present evaluations and recommendations concerning the following: site preparation, general foundation recommendations, groundwater elevations and their effect on the proposed construction, and remedial measures necessary to deal with soft or loose soils if they are encountered. More specifically, the report will present the following major sections:

- 1) <u>Project Information</u>: Our understanding of the proposed construction will be presented.
- 2) <u>Exploratory Procedures</u>: The report will describe the methods of subsurface exploration and laboratory testing.
- 3) <u>Site and Subsurface Description</u>: An overview of site conditions will be presented, general geologic conditions for the site will be discussed, and a detailed discussion of the subsurface soil and groundwater conditions will be presented.
- 4) <u>Evaluations and Recommendations</u>: Based upon the field exploration, laboratory testing, and our experience with similar site and subsoil conditions, we will present recommendations for several geotechnical aspects of the project as follows:
 - <u>Site Preparation</u>: We will present recommendations for methods of site preparation and any remedial measures that may be necessary. These remedial measures may include methods of dewatering the site, densification of soft and loose surficial soils, etc.



- <u>Groundwater</u>: We will provide recommendations for control of groundwater during construction and on a permanent basis, if necessary.
- <u>Excavation Characteristics</u>: We will discuss the anticipated methods necessary to achieve excavation of subsurface materials based on the results of the borings.
- <u>Reuse of Excavated Materials as Structural Fill</u>: We will discuss the suitability of excavated materials for reuse as structural fill based on visual soil classifications.
- <u>Structural Fill</u>: We will provide recommendations for achieving high density structural fill.
- <u>Earth Slopes</u>: We will present general recommendations for temporary construction slopes and permanent earth slopes.
- <u>Earth Pressure</u>: We will provide recommendations for the calculation of design earth pressure on foundation/retaining walls. Recommendations will include equivalent fluid pressures for design purposes.
- <u>Foundation Design</u>: We will provide recommendations for foundation design, including our evaluation of the suitability of shallow foundation support, and the allowable soil bearing pressure for support of shallow foundations. Estimates of settlement and lateral capacity will be provided. If an intermediate foundation system (aggregate piers or helical piers) appears necessary, we will provide design recommendations for those foundation options. Additional exploration will be necessary to allow full development of design recommendations for deep foundation systems.
- <u>Seismic Design</u>: We will provide a *Site Class* (International Building Code), mapped spectral response accelerations (S_S, S_1) , and design spectral response accelerations (S_{DS}, S_{D1}) .
- <u>Slab-on-Grade Design</u>: We will provide design recommendations for slab-on-grade construction, including a suggested modulus of subgrade reaction.
- <u>Pavement Design</u>: We will provide recommendations for pavement design based on estimated subgrade CBR values, and traffic loading information to be provided by the project team.
- <u>Construction Materials Testing</u>: We will recommend construction materials testing methods for site preparation, foundation excavations, structural fill, etc.
- 5) <u>Appendix</u>: The Appendix will contain test boring records, a test boring plan, laboratory test results, etc.



SITE-SPECIFIC SEISMIC ANALYSIS

As described above, we will provide IBC compliant seismic design parameters based on the subsurface exploration and the mapped spectral response accelerations. Depending on those values and the details of the proposed construction, it may be economically justified to perform more detailed site-specific seismic analysis as described in the following sections.

SHEAR WAVE VELOCITY PROFILE ANALYSIS (SWVPA)

Shear Wave Velocity Profile Analysis (SWVPA) can often yield a more favorable seismic *Site Class* than would be obtained from standard penetration test (SPT) data. Based on the results of the soil test borings, we will advise you of the potential for obtaining a more favorable *Site Class* using SWVPA. If necessary and authorized, Geo-Hydro will use multi-channel analysis of surface waves (MASW) to develop a profile of shear wave velocity for the site to a depth of 100 feet. Geo-Hydro will select the *Site Class* in accordance with the criteria in the IBC. Shear wave velocity is the preferred parameter for determining the site class in accordance with the IBC.

PROBABILISTIC SEISMIC HAZARD ANALYSIS (PSHA)

PSHA is a method allowed by the International Building Code (IBC) to determine S_S and S_1 values in lieu of using published map values provided in IBC (ASCE-7). Quite often the values resulting from PSHA are lower than the IBC map values. Lower values of S_S and S_1 result in reduced seismic base shear, which can result in structural cost savings.

If authorized, our site specific probabilistic seismic hazard analysis work will include the following:

- We will evaluate the existing seismicity record in the area of the site. We will examine regional geology as it relates to seismic hazard analysis.
- We will perform a probabilistic seismic hazard analysis to estimate the site-specific ground motion response in accordance with IBC 2018 and ASCE 7-16.
- We will report applicable site-specific seismic design parameters based on IBC 2018 including the most recent Georgia Amendments.

COST INFORMATION

Based on the Scope of Services outlined above, we will charge the following fees:

Task	Lump Sum Fee
Geotechnical Exploration and Report	\$10,400

Optional Services	Lump Sum Fee
Shear Wave Velocity Profile Analysis	\$1,200
Probabilistic Seismic Hazard Assessment	\$1,500



In the event that additional work is required beyond the outlined scope of services, we will notify you prior to commencing any additional work. A fee for additional work will be negotiated.

We will backfill the borings with soil cuttings after completion and clean up the work areas. Our work may result in some rutting of the ground surface or damage to landscaping. Additionally, our backfilled boreholes may present a tripping hazard after completion. We will make reasonable efforts to reduce the ground disturbance caused by the subsurface exploration, but periodic maintenance by the owner to relevel the ground may be necessary after completion of our work. Geo-Hydro will not be responsible for damage to persons or property related to ongoing settlement of the boreholes after completion of our work.

If landscape repairs or ground stabilization with straw or other erosion control are necessary, we will hire a landscaping or erosion control subcontractor. Landscape repair or stabilization work will be charged at our cost plus 15 percent.

COMMENTARY ON EXISTING MECHANICALLY STABILIZED EARTH (MSE) WALLS

* * * * *

The project site contains two relatively tall and long MSE walls. The current configuration of the planned fire station layout, as depicted on the preliminary site plan excerpt to the right, shows the buildings and pavements sited well away from the existing walls. As a matter of design, this is a favorable approach.

We understand that there is no information available regarding the design and construction of the MSE walls. Publicly available aerial photos (Google Earth) show that the MSE walls were constructed between 2007 and 2009. Considering the City will own these walls as part of the fire station project, we suggest performing a limited evaluation of the MSE walls including visual observations and limited sampling to discern the materials forming the reinforced zone of the walls, and possibly identify the spatial distribution (length and vertical spacing) of the reinforcing geogrid. We can discuss this task with you and its scope, and provide a scope of services and cost under separate cover.





We are pleased to submit this proposal and look forward to working with you on this project. If this proposal is acceptable, we ask that you execute the attached agreement and return the original to us. If you have any questions concerning this proposal or any of our services, please call us.

Sincerely,

GEO-HYDRO ENGINEERS, INC.

John T. Redding, P

Geotechnical Engineer jredding@geohydro.com

 $JTR/LEB/_{232086.P0}$ - Cartersville Fire Station #5 leb

Luis E. Babler, P.E.

Chief Engineer luis@geohydro.com



AGREEMENT

Project Name: <u>C</u>	artersville Fire Station #5			
Project Location:	Cartersville, Georgia			
Proposal Number:	232086.P0	Date:	July 17, 20	23
on the Project as de incorporated herein	fied and defined below, engetailed in the proposal pre- and made a part of this a likewise incorporated here	viously provided to the Cl Agreement. The general	lient, the term terms and con	ns of which are nditions on the
This Agreement is e	ntered into this	day of	,	between
Geo-Hydro Enginee ("Client").	rs, Inc. ("Consultant") and			
GEO-HYDRO EN	GINEERS, INC.	Client Firm Name		
Signature of Authorized Agent		Signature of Authorized Agent		
Print Name		Print Name and title		
Title		Signature of City Cle	rk	
		Name of City Clerk (attesting to Mayor's Signature)		
	Please com	plete information in box		
Billing Entity N	ame			
Individual to Re	eceive Invoices			
Email address		Phone No.		
Street Address_				
City and State:				
			G	

A. STANDARD OF CARE.

Services under this contract will be performed by Consultant in accordance with that degree of care and skill ordinarily exercised under similar conditions by members of Consultant's profession practicing in the same locality.

B. CERTIFICATION.

Consultant may employ sampling procedures during the course of the work. Client acknowledges that such procedures indicate actual conditions only at the precise locations and elevations from which samples were taken. Client further acknowledges that, in accordance with the generally accepted construction practice, Consultant shall make certain inferences based on the results of sampling and any related testing to form a professional opinion of conditions in areas beyond those from which samples were taken. Client acknowledges that despite proper implementation of sampling and testing procedures, and despite proper interpretation of their results, Consultant cannot guarantee the existence or absence of conditions which it may infer to exist. Client further acknowledges and agrees that Client shall not cause any resolution of a dispute, including, but not limited to, payment or settlement, contingent upon Consultant's certification of certain conditions, without first receiving Consultant's written certification regarding those conditions.

C. WARRANTIES.

EXCEPT AS OTHERWISE EXPRESSLY SET FORTH HEREIN, CONSULTANT MAKES NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND, EXPRESS OR IMPLIED, WITH RESPECT TO CONSULTANT'S WRITTEN REPORTS, FINDINGS, OPINIONS, OR SERVICES PROVIDED HEREUNDER, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

D. EXISTING CONDITIONS.

Client agrees that subsurface explorations and geotechnical or environmental engineering evaluations are subject to naturally occurring and/or man-made soil and other conditions which cannot always be discovered or anticipated and that a potential exists for such phenomena to impact the Project in ways for which Consultant cannot be responsible. Client shall disclose, at least 7 days before any scheduled inspections by Consultant, the presence and location of all known man-made or naturally occurring objects which could be affected by or affect field tests or borings to be performed by Consultant.

Client acknowledges and agrees that Consultant has neither created nor contributed to the creation or existence of any irritant, pollutant, or hazardous, radioactive, toxic, otherwise dangerous or harmful substance that may exist at the site, or dangerous conditions resulting therefrom. Client further acknowledges that Consultant's sole role is to provide a service intended to benefit Client and that Consultant is performing no function at or association with the site that would classify Consultant as a generator, disposer, treater, storer, coordinator, handler, or transporter of hazardous materials.

(i) SAMPLING OR TEST LOCATION.

Unless otherwise stated, the fees in this proposal do not include costs associated with surveying of the site for the accurate horizontal and vertical locations of tests. Field tests described in a report or shown on sketches are based upon information furnished by others or estimates made in the field by Consultant's representatives. Such dimensions, depths or elevations should be considered as approximations unless otherwise stated.

(ii) HAZARDOUS SUBSTANCES.

Client agrees to advise Consultant, in writing, of any hazardous substances on or near the site within 24 hours after Client learns about the presence of such hazardous substances. In the event that test samples obtained contain substances hazardous to health, safety, or the environment, these samples shall remain the property of the Client. Likewise, any equipment which becomes contaminated and cannot be reasonably decontaminated shall become the property and responsibility of Client. Such samples or equipment will be delivered to Client. Client agrees to pay transportation costs for samples and equipment and the fair market value of such contaminated equipment upon request. Exploratory activities may expose soil and/or ground water considered to be hazardous by local and/or state and/or federal agencies. Consultant agrees to contain such materials in a manner approved by Consultant both during and at the completion of Consultant's field activities. Client understands and agrees that Client, and not Consultant, is responsible for the storage or disposal of hazardous materials or suspected hazardous materials brought to the surface during Consultant's exploratory activities.

(iii) **DISCOVERY OF UNANTICIPATED HAZARDOUS MATERIALS.**

Hazardous materials may exist at a site where there is no reason to believe they could or should be present. Client agrees that the discovery of unanticipated hazardous materials constitutes a changed condition mandating a renegotiation of the scope of work or termination of services. Client also agrees that the discovery of unanticipated hazardous materials could make it necessary for Consultant to take immediate measures to protect human health, safety, or the environment. Consultant agrees to notify Client as soon as practically possible should unanticipated hazardous materials or suspected hazardous materials be encountered. Client encourages Consultant to take any and all measures that in Consultant's professional opinion are justified to preserve and protect the health and safety of Consultant's personnel, and Client agrees to compensate Consultant for the additional cost of such work. In addition, Client waives any claim against Consultant, and agrees to indemnify, defend, and hold Consultant harmless from any claim or liability for injury, loss or perceived loss arising from Consultant's encountering of unanticipated hazardous materials or suspected hazardous materials. Client acknowledges that discovery of hazardous materials or suspected hazardous materials may lead to a temporary or permanent diminution of property value, and/or may cause delays in or otherwise affect completion of the real estate transaction Client now contemplates.

E. AQUIFER CONTAMINATION.

Subsurface sampling may result in unavoidable contamination of certain subsurface areas, as when a probe or boring device moves through a contaminated area, linking it to an aquifer, underground stream, or other hydrous body not previously contaminated and capable of spreading hazardous materials off-site. Because nothing can be done to eliminate the risk of such an occurrence, and when subsurface sampling is a part of the work which Consultant will perform on Client's behalf, Client hereby waives any claim against Company, and agrees to defend, indemnify and hold Consultant harmless from any claim or liability for injury or loss which may arise as a result of alleged cross-contamination caused by sampling. Client further agrees to compensate Consultant for any time spent or expenses incurred by Consultant in defense of such claim, including, but not limited to, any attorneys' fees and expenses incurred by Consultant, in accordance with Consultant's prevailing fee schedule and expense reimbursement policy.

F. SAMPLES, DATA AND RECORDS.

Consultant shall be the sole owner of any and all data gathered by Consultants or reports prepared by Consultant. No entity or individual, other than Consultant, its representatives, or Client, may use or rely upon any data collected by Consultant or reports prepared by Consultant. Except as expressly set forth in this Agreement, Consultant and Client do not intend the benefits of this Agreement, including, but not limited to, the samples, data, and records created by Consultant, to inure to any third party, and nothing contained herein shall be construed as creating any right, claim or cause of action in favor of any such third party, against either Consultant or Client. Samples, data and records are subject to Georgia Open Records Law.

Routine test specimens will be discarded immediately upon completion of tests. Consultant shall retain drilling samples of soil or rock for a period of ninety (90) days following submission of Consultant's report to Client. If Client requests a longer period of storage, Consultant will retain test specimens or drilling samples for an agreed upon time period and fee. Records relating to services hereunder shall be maintained by Consultant for at least three (3) years following completion of Consultant's services.

G. ENTRY.

Client shall provide Consultant, its representatives, and equipment with right of entry on to the Project site. Consultant will endeavor to minimize damage to the land upon which the project is located, however Consultant shall not be under any duty or responsibility whatsoever to restore the Project site to its condition prior to performance of any tests or borings unless a separate agreement to do so is acknowledged in writing with Client. Unless otherwise indicated, Consultant's scope of service contains no provision for backfilling boreholes, test pits, or other exploration holes created to facilitate testing. Client hereby acknowledges that, unless some other arrangement is made in writing between Client and Consultant, Consultant cannot be held liable for any injuries or damages that may occur for Consultant's failure to perform services not included in the Proposal or this Agreement. Client further acknowledges that testing operations may result in damage to certain landscaping or improvements, due to the tests themselves, disposal of cuttings or ground water, movement of equipment, or due to other cause(s) that can commonly occur and are outside Consultant's control. Consultant will attempt to avoid causing damage, but Client understands and acknowledges that Consultant cannot guarantee damage will not occur and, accordingly, Client agrees to waive any claim against Consultant and to hold harmless, indemnify, and defend Consultant for any claim alleging injury or damage as a consequence of unfilled exploration holes on the site or any other disturbance to natural conditions of or any improvements on the site. Any costs of such restoration shall be added to our compensation pursuant to an agreed-upon price and terms set forth in a separate written agreement entered into between Consultant and Client.

H. FIELD MONITORING AND TESTING.

Whenever Consultant's personnel make on-site observations of materials and/or services provided by a contractor engaged by Client (the "Contractor"), Client agrees that Consultant is not responsible for the Contractor's means, methods, techniques, sequences or procedures of construction. Client acknowledges and agrees that the field services provided by Consultant shall not relieve the Contractor of his responsibilities for performing the work in accordance with the plans and specifications. The words "monitoring," "supervision," "inspection," or "control" mean the periodic observation of the work and the conducting of tests by Consultant to verify substantial compliance with the plans, specifications, and design concepts for the Project. Continuous or full-time monitoring does not mean that our personnel are observing placement of all materials or that we assume any responsibility or liability for placing or directing placement of materials.

I. SAFETY.

During the provision of observations or monitoring services at the job site during construction, Client agrees that in accordance with the generally accepted construction practice, the contractor will be solely and completely responsible for working conditions on the job site, including safety of all persons and property during the performance of the work and compliance with OSHA regulations. These requirements will apply continuously and are not limited to normal working hours. Any monitoring of the contractor's procedures conducted by Consultant does not include review of the adequacy of the contractor's safety measures in, on, adjacent to, or near the construction site.

J. FREEDOM TO REPORT.

It is contemplated that, during the course of this engagement, Consultant may be required to report on the past or current performance of others engaged or being considered for engagement directly or indirectly by Client and to render opinions and advice in that regard. Those about whom reports and opinions are rendered may, as a consequence, initiate claims of libel or slander against Consultant and its present or former principals, officers, shareholders, directors, agents, representatives, consultants, successors, insurers, and attorneys (the "Consultant Representatives"). To help create an atmosphere in which Consultant's personnel feel free to express themselves candidly, Client agrees (1) to waive any claim against the Consultant Representatives and (2) to defend, indemnify, and hold harmless the Consultant Representatives from any claim or liability for injury or loss allegedly arising from professional opinions rendered by Consultant to Client or Client's agents, including, but not limited to, claims for slander or libel. Client further agrees to compensate the Consultant Representatives for any time spent or expenses incurred by the Consultant Representatives in defense of any such claim, in accordance with Consultant prevailing fee schedule and expense reimbursement policy. Client acknowledges that Client and/or Consultant may be required by local, state, and/or federal statute and/or regulations to report the discovery of hazardous materials to a government agency, and that Consultant, when practical, will do so only after notifying Client. Client waives any cause of action, claim, suit, or demand associated with Consultant's compliance with its duties to report as required by local, state, and/or federal laws and regulations.

K. PAYMENT.

Client agrees to pay Consultant in full for all services provided by Consultant to Client. Time is of the essence regarding payment of Consultant's invoices. Client's obligation to pay Consultant is not dependent upon Client's ability to obtain financing, approval of any governmental or regulatory agency, or upon Client's successful completion of the Project. Consultant reserves the right to submit progress invoices to Client on a monthly basis and a final invoice upon completion of Consultant's work. Each invoice is due and payable to Consultant, by Client, immediately upon presentation. All amounts due to Consultant and not paid within thirty (30) days of the presentation of the invoice shall bear interest at the rate of eighteen percent (18%) per annum (or the maximum permissible rate allowed by law) until paid in full.

If any obligation of Client hereunder is collected by legal proceeding, including, but not limited to, a demand letter, lawsuit, arbitration, and/or mediation, Client shall pay to Consultant, in addition to the amount due, all Costs of Collection (as defined below), including, but not limited to, fifteen percent (15%) of the total amount due by Client to Consultant as reasonable attorney's fees as well as all costs incurred by Consultant if the legal proceeding does not result in a lawsuit or arbitration proceeding, and thirty percent (30%) of the total amount due by Client to Consultant as reasonable attorneys' fees as well as all court costs incurred by Consultant if the legal proceeding results in a lawsuit or arbitration proceeding. "Costs of collection" shall include, but are not limited to, the hourly cost to Consultant for employee's time expended in collection efforts.

L. TERMINATION.

In the event that Client requests termination of the work prior to completion, Consultant reserves the right to complete such analysis and records as are necessary to place Consultant's files in order and to complete a report on the work performed to date. Client acknowledges and agrees that the amount of damages that Consultant will sustain in the event Client terminates this Agreement prior to Consultant's completion of its work required by the proposal and this Agreement will be uncertain or difficult to ascertain. As such, Client agrees that in the event Client terminates this Agreement prior to Consultant's completion of the work required by the proposal and this Agreement, Client shall be liable to Consultant for liquidated damages in the amount equal to thirty percent (30%) of all charges incurred as of the date of Client's termination of the Agreement (the "Liquidated Damages"). Client acknowledges and agrees that the foregoing Liquidated Damages do not represent a penalty, but rather, represent a good faith preestimation by the parties of the damages that would be incurred by Consultant.

M. PROFESSIONAL LIABILITY.

Client agrees that the liability of Consultant and its principals, officers, shareholders, directors, agents, representatives, consultants, successors, insurers, and attorneys, to Client due to any negligent professional acts, errors or omissions, or breach of contract will be limited to an aggregate of \$500,000.00.

Consultant does not assume any responsibilities, duties, or obligations of Client or any other entity or individual. Consultant's performance shall not be considered to reduce, eliminate, abridge, or abrogate, any responsibilities, duties, or obligations of any other party. Consultant is not responsible for the design or construction of the project or the failure of any party to perform in accordance with the plans and specifications for the Projects or any of Consultant's recommendations or instructions.

N. INDEMNIFICATION.

The Consultant agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Client, its officers, directors and employees (collectively, Client) against all damages, liabilities, or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Consultant's negligent performance of professional services under this Agreement and that of its subconsultants or anyone for whom the Consultant is legally liable.

O. CONFIDENTIALITY.

Consultant agrees to keep confidential and not to disclose to any person or entity, other than Consultant's principals and employees, any data or information not previously known to and generated by Consultant or furnished to Consultant and marked CONFIDENTIAL by Client ("Confidential Information"). These provisions shall not apply to information in whatever form that is in the public domain, nor shall it restrict Consultant from giving notices required by law or complying with an order to provide information or data when such order is issued by a court, administrative agency, arbitrator, or other legitimate authority, or if disclosure is reasonably necessary for Consultant to defend itself from any legal action or claim. City of Cartersville agreements are subject to Georgia Open Records Law.

P. NON-CIRCUMVENTION. (DELETED)

Q. GOVERNING LAW; VENUE.

The validity of this Agreement and any of its terms or provisions, as well as the rights and duties of the parties to this Agreement, shall be governed and construed by the laws of the State of Georgia, and Venue shall lie in the State of Georgia, Bartow County, for all causes of action under this Agreement.

R. SEVERANCE; SURVIVAL.

If any provision of this Agreement is held to be illegal, invalid or unenforceable under any present or future law, and if the rights or obligations of any party hereto under this Agreement will not be materially and adversely affected thereby, (a) such provision will be fully severable, (b) this Agreement will be construed and enforced as if such illegal, invalid, or unenforceable provision had never comprised a part hereof, (c) the remaining provisions of this Agreement will remain in full force and effect and will not be affected by the illegal, invalid, or unenforceable provision or by its severance here from and (d) in lieu of such illegal, invalid or unenforceable provision, there will be added automatically as a part of this Agreement a legal, valid, and enforceable provision as similar in terms to such illegal, invalid, or unenforceable provision as may be possible.

S. EXECUTION.

Page 4 of 4 Standard Agreement This Agreement may be executed in counterparts, each of which shall be an original, but all of which shall together constitute one document. In the event one or more of the parties intends to sign and deliver this Agreement by facsimile transmission, ".pdf", or "jpeg," each party agrees that the delivery of the Agreement by facsimile, ".pdf", or "jpeg" shall have the same force and effect as delivery of original signatures, and each party may use such facsimile, ".pdf", or "jpeg" signatures as evidence of the execution and delivery of the Agreement by all parties to the same extent that an original signature could be used.

T. REPRESENTATIONS.

Client represents and warrants that it has full authority to enter into this Agreement and to consummate the transactions contemplated herein, and that this Agreement is not in conflict with any other Agreement to which Client is a party or by which it may be bound.

U. MISCELLANEOUS.

This instrument constitutes the entire agreement of the parties. There are no terms or conditions except those set forth herein. This Agreement may not be modified, altered, or amended except in a subsequent written instrument executed by each of the parties which refers to this Agreement and specifies the amendment made. No waiver of any breach of this Agreement shall be deemed or considered a waiver of any other or subsequent breach. Paragraph headings are used to facilitate reference to the various provisions and do not affect the meaning or construction of any provision. This Agreement is governed by the laws of the State of Georgia.

Underground Utilities Fact Sheet

Geo-Hydro's work often includes drilling below the ground surface to evaluate subsurface materials. One of our biggest concerns is that we may accidentally encounter underground utilities which may create a safety hazard for our personnel and others or result in a loss of service. Location of underground utilities prior to our work is important to all parties. Unfortunately, location of underground utilities is a difficult task, and accurate location of underground utilities is often not possible.

Geo-Hydro is required by Georgia law to contact the Utilities Protection Center (UPC) prior to drilling. The UPC requires at least 72 hours prior notification. The UPC contacts member utilities, and the member utilities dispatch utility locators. Normally the utility locators will not locate underground utilities on private property, and will only locate utilities from the main service line to the property owner's meter. It is not uncommon for utility locators to improperly locate underground utilities for a variety of reasons.

Geo-Hydro requires that the property owner provide clearly marked locations on the ground of any underground utilities in the work area. If necessary, Geo-Hydro can refer the owner to companies that provide underground utility location services. Alternatively, Geo-Hydro can hire the utility location company and pass this cost through to our client.

Private underground utility location companies do not guarantee that they have located all underground utilities or that underground utilities have been accurately located. In fact, some underground utilities (e.g., irrigation lines, non-metallic lines, etc.) simply cannot be located using non-destructive techniques.

Geo-Hydro will make reasonable efforts to avoid damaging underground utilities that are clearly marked in the field. Due to the uncertainties of locating underground utilities, Geo-Hydro cannot be responsible for damage to unmarked underground utilities. Since Geo-Hydro's work is being performed for the benefit of its client, the client must accept the risk that Geo-Hydro's work could result in damage to underground utilities. As such, it is ordinarily the responsibility of Geo-Hydro's client to accept the responsibility for repairing damage to unmarked underground utilities unless that responsibility has clearly been transferred to another party.

