CITY OF DUNWOODY

Invitation to Bid
ITB 15-01

The City of Dunwoody is soliciting competitive sealed bids from qualified contractors for **Dunwoody Trailway Phase 3 and Pernoshal Park Construction** for the Department of Public Works.

Bids should be typed or submitted in ink and returned in a sealed container marked on the outside with the ITB 15-01 and Company Name. Bids will be received until 2:00 P.M. local time on 3/31/2015, 2015 at the City of Dunwoody, 41 Perimeter Center East, Suite 250, Dunwoody, Georgia 30346. Any bid received after this date and time will not be accepted. Bids will be publicly opened and read at 2:05 P.M. Apparent bid results will be available the following business day on our website *www.dunwoodyga.gov*.

A **Pre-Bid Conference will be held at 11:00 a.m., 3/12/2015** at the City of Dunwoody, Courtroom, 41 Perimeter Center East, First Floor, Dunwoody, GA 30346. The conference will include a review of the Bid Documents, and a question and answer period. Attendance at the Pre-Bid Conference is strongly encouraged, but it is not required. Bidders are expected to be familiar with the Bid Documents and the property to be developed and to provide the City with any questions regarding the Bid Documents at the Pre-Bid conference or by the deadline for questions to be submitted.

Questions regarding bids should be directed to John Gates, Purchasing Manager, at *purchasing@dunwoodyga.gov* or by calling 678-382-6750, no later than 2:00 p.m., 3/13/2015. Bids are legal and binding upon the bidder when submitted. All bids should be submitted in duplicate.

The written bid documents supersede any verbal or written prior communications between the parties.

Award will be made to the supplier submitting the lowest responsive and responsible bid. The City reserves the right to reject any or all bids to waive technicalities and to make an award deemed in its best interest. Bids may be split or awarded in entirety. The City reserves the option to negotiate terms, conditions and pricing with the lowest responsive, responsible bidder(s) at its discretion.

All companies submitting a bid will be notified in writing of award.

The selected contractor must be able to start work within 10 calendar days after the "Notice to Proceed" is issued. The time of completion for the project is as follows: 180 available days from the "Notice to Proceed" for substantial completion and an additional 60 days for final acceptance.

A 100' Construction Easement and 30' Permanent Easement has been obtained for the Dunwoody Trailway Phase 3. Contractor will be required to begin construction on the Trailway in order to complete that phase of the project prior to August 26, 2015 and provide a survey of the trail centerline and the 30' permanent easement.

BID FORM

TO: PURCHASING MANAGER
CITY OF DUNWOODY
DUNWOODY, GEORGIA 30346

Ladies and Gentlemen:

In compliance with your Invitation To Bid, the undersigned, hereinafter termed the Bidder, proposes to enter into a Contract with the City of Dunwoody, Georgia, to provide the necessary machinery, tools, apparatus, other means of construction, and all materials and labor specified in the Contract Documents or as necessary to complete the Work in the manner therein specified within the time specified, as therein set forth, for:

Dunwoody Trailway Phase 3 and Pernoshal Park Construction

The Bidder has carefully examined and fully understands the Contract, Specifications, and other documents hereto attached, has made a personal examination of the Site of the proposed Work, has satisfied himself as to the actual conditions and requirements of the Work, and hereby proposes and agrees that if his bid is accepted, he/she will contract with the City of Dunwoody in full conformance with the Contract Documents.

Unless otherwise directed, all work performed shall be in accordance with the construction drawings prepared by Kimley-Horn and Associates Inc.(Pernoshal Park Drawings) and Lose & Associates Inc. (Dunwoody Trailway Ph.3 Drawings), the documents included in the Invitation to Bid and applicable requirements of the Americans with Disability Act..

It is the intent of this Bid to include all items of construction and all Work called for in the Plans and Specifications, or otherwise a part of the Contract Documents.

In accordance with the foregoing, the undersigned proposes to furnish and construct the items listed in the attached Bid Schedule (Exhibit A) for the unit prices except where “lump sum” quantities are stated.

The Bidder agrees that the cost of any work performed, materials furnished, services provided or expenses incurred, which are not specifically delineated in the Contract Documents but which are incidental to the scope, intent, and completion of the Contract, shall be deemed to have been included in the prices bid for the various items scheduled.

The Bidder further proposes and agrees hereby to promptly commence the Work with adequate force and equipment within 10 calendar days from receipt of “Notice to Proceed” and to complete all work within 180 available days from the “Notice to Proceed” for substantial completion and an additional 60 days for final acceptance.

Attached hereto is an executed Bid Bond or certified check on the _____(bank) of _____(City)_____(State) in the amount of _____ Dollars ($_____ -- Five Percent of Amount Bid).

If this bid shall be accepted by the City of Dunwoody and the undersigned shall fail to execute a satisfactory contract in the form of said proposed Contract, and give satisfactory Performance and Payment Bonds, or furnish satisfactory proof of carriage of the insurance required within 10 days from the date of Notice of

Award of the Contract, then the City of Dunwoody may, at its option, determine that the undersigned abandoned the Contract and there upon this bid shall be null and void, and the sum stipulated in the attached Bid Bond or certified check shall be forfeited to the City of Dunwoody as liquidated damages.

BIDDER ACKNOWLEDGES RECEIPT OF THE FOLLOWING ADDENDA:

Addendum No.	**Date Received**
_____	_____
_____	_____
_____	_____
_____	_____

Bidder further declares that the full name and resident address of Bidder's Principal is as follows:

Signed, sealed, and dated this _____ day of _____, 2015.

Bidder _____ (Seal)
Company Name

Bidder Mailing Address:

_____
_____
_____
_____

By:_____

Title:_____

By:_____

Title:_____

INSURANCE REQUIREMENTS

Within 10 days of Notice of Award, and at all times that this Contract is in force, the Contractor shall obtain, maintain and furnish the City Certificates of Insurance from licensed companies doing business in the State of Georgia with an A.M. Best Rating A-6 or higher and acceptable to the City covering:

1. Statutory Workers' Compensation Insurance

   (a) Employers Liability:

   Bodily Injury by Accident - $100,000 each accident
   Bodily Injury by Disease - $500,000 policy limit
   Bodily Injury by Disease - $100,000 each employee

2. Comprehensive General Liability Insurance

   (a) $1,000,000 limit of liability per occurrence for bodily injury and property damage Owner's and Contractor's Protective
   (b) Blanket Contractual Liability
   (c) I Blanket "X", "C", and "U"
   (d) Products/Completed Operations Insurance
   (e) Broad Form Property Damage
   (f) Personal Injury Coverage

3. Automobile Liability

   (a) $1,000,000 limit of liability
   (b) Comprehensive form covering all owned, non-owned and hired vehicles

4. Umbrella Liability Insurance

   (a) $1,000,000 limit of liability
   (b) Coverage at least as broad as primary coverage as outlined under Items 1, 2 and 3 above

INSURANCE REQUIREMENTS (continued)

5. The City of Dunwoody, Georgia, and its subcontractors and affiliated companies, their officers, directors, employees shall be named on the Certificates of Insurance as additional insured and endorsed onto the policies for Comprehensive General Liability, Automobile Liability and Umbrella Liability. Insurance must be maintained pursuant to this Contract in connection with liability of the City of Dunwoody and their affiliated companies and their officers, directors and employees arising out of Contractor's operations. Copies of the endorsements shall be furnished to the City prior to execution of the contract. Such insurance is primary insurance and shall contain a Severability of Interest clause with respect to each insured. Such policies shall be non-cancelable except upon 30 days written notice to the City. Any separate insurance maintained in force by the additional insured named above shall not contribute to the insurance extended by Contractor's insurer(s) under this additional insured provision.

Certificate Holder should read:

The City of Dunwoody
41 Perimeter Center East, Suite 250
Dunwoody, Georgia 30346

BONDING REQUIREMENTS

Each bid must be accompanied with a BID BOND (bond only: certified checks or other forms are not acceptable) in an amount equal to five percent of the base bid, payable to the City of Dunwoody. Said Bid Bond guarantees the bidder will enter into a contract to construct the project strictly within the terms and conditions stated in this bid and in the bidding and contract documents, should the construction contract be awarded.

The Successful Bidder shall be required to furnish a bond for the faithful performance (PERFORMANCE BOND) on the contract and a bond to secure payment (PAYMENT BOND) of all claims for materials furnished and/or labor performed in performance of the project, both in amounts equal to 100 percent of the contract price.

The Successful Bidder shall also be required to furnish a MAINTENANCE BOND, in the amount of one-third of the contract price, guaranteeing the repair or replacement caused by defective workmanship or materials for a period of one year from the completion of construction.

Bonds shall be issued by a corporate surety that appears on the Treasury Department's most current list (Circular 570 as amended) and be authorized to do business in the State of Georgia.

Date of Bond must not be prior to date of Contract. If Contractor is a Partnership, all partners shall execute Bond.

BID BOND

KNOW ALL MEN BY THESE PRESENTS, THAT

Name of Contractor: _____

Address of Contractor: _____

(Corporation, Partnership and or Individual) hereinafter called Principal, and _____
_____
(Name of Surety)

_____
(Address of Surety)

A corporation of the State of _____, and a surety authorized by law to do business in the State of Georgia, hereinafter called Surety, are held and firmly bound unto:

City of Dunwoody Georgia
(Name of Obligee)
41 Perimeter Center East, Suite 250
Dunwoody, Georgia 30346
(Address of Obligee)

herein after referred to as Obligee, in the penal sum of_____ Dollars ($ _____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to submit, or has submitted, to the City of Dunwoody, Georgia, a proposal for furnishing materials, labor and equipment for:

Dunwoody Trailway Phase 3 and Pernoshal Park Construction

WHEREAS, the Principal desires to file this Bond in accordance with law in lieu of a certified Bidder's check otherwise required to accompany this Proposal.

NOW, THEREFORE, the conditions of this obligation are such that if the bid is accepted, the Principal shall within 10 days after receipt of notification of the acceptance execute a Contract in accordance with the Bid and upon the terms, conditions, and prices set forth in the form and manner required by the City of Dunwoody, Georgia, and execute a sufficient and satisfactory Performance Bond and Payment Bond payable to the City of Dunwoody, Georgia, each in an amount of 100 percent of the total Contract Price, in form and with security satisfactory to said the City of Dunwoody, Georgia, and otherwise, to be and remain in full force and virtue in law; and The Surety shall, upon failure of the Principal to comply with any or all of the foregoing requirements within the time specified above, immediately pay to the City of Dunwoody, Georgia, upon demand, the amount hereof in good and lawful money of the United States of America, not as a penalty, but as liquidated damages.

PROVIDED FURTHER, that Principal and Surety agree and represent that this bond is executed pursuant, to and in accordance with the applicable provisions of the Official Code of Georgia Annotated, as Amended, including, but not limited to, O.C.G.A. SS 13-10-1, et. Seg. and SS 36-86-101, et. Seg., and is intended to be and shall be constructed as a bond in compliance with the requirements thereof.

Signed, sealed, and dated this _____ day of _____, 2015

ATTEST:

_____ _____
(Principal Secretary) (Principal)
(Seal)

BY: _____

_____ _____
(Witness to Principal) (Address)

_____
_____
(Address)

_____
(Surety)

ATTEST:

_____
(Attorney-in-Fact) and Resident Agent

_____
(Attorney-in-Fact)
(Seal)

_____
(Address)

_____
(Witness as to Surety)

_____
(Address)
_____

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: THAT

_____
(Name of Contractor)

_____
(Address of Contractor)

_____
(Corporation, Partnership or Individual)

_____

Hereinafter called Principal, and

_____
(Name of Surety)

_____
(Address of Surety)

A Corporation of the State of _____ and a surety authorized by law to do business in the State of Georgia, hereinafter called Surety, are held and firmly bound unto

The City of Dunwoody, Georgia
(Name of Obligee)
41 Perimeter Center East, Suite 250
Dunwoody, Georgia 30346
(Address of Obligee)

hereinafter referred to as Obligee; are held firmly bound unto said Obligee and all persons doing work or furnishing skill, tools, machinery, supplies, or material under or for the purpose of the Contract hereinafter referred to, in the penal sum of: _____Dollars ($ _____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

The condition of this obligation is such, as whereas the Principal entered into a certain contract, hereto attached, with the Obligee, dated _____for: _____

NOW THEREFORE, the conditions of this obligation are such that if the above bound Principal shall well, truly, fully and faithfully perform said contract according to its terms, covenants, conditions, and agreements of said contract during the original term of said contract and any extensions thereof that may be granted by the oblige, with or without notice to the Surety, and during the life of any guaranty required under the contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreement of any and all duly authorized modifications of said contract that may hereafter be made, then his obligation shall be void, otherwise to remain in full force and effect.
PROVIDED FURTHER, that said Surety to this Bond, for value received, hereby stipulates and agrees that no change, extension of time, alterations, or additions to the terms of the Contract or to the Work to be performed there under shall in any way affect its obligation on this bond, and it does hereby waive notice of

any such change, extension of time, alterations, or additions to the terms of the Contract or to the work to be performed there under.

PROVIDED FURTHER, that Principal and Surety agree and represent that this bond is executed pursuant to and in accordance with the applicable provisions of the Official Code of Georgia Annotated, as Amended, including but not limited to, O.C.G.A. SS 13-10-1 et. Eq. and SS 36-86-101, et. Seg., and is intended to be and shall be construed as a bond in compliance with the requirements thereof.

Signed, sealed, and dated this _____ day of _____, 2015

ATTEST:

_____ _____

(Principal Secretary) (Principal)

(SEAL)

BY: _____

_____

(Witness to Principal)

_____

(Address)

_____

(Surety)

ATTEST:

_____

Attorney-in-Fact) and Resident Agent

_____

(Attorney-in-Fact)
(Seal)

_____

(Address)

_____

(Witness as to Surety)

_____

(Address)

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: THAT

_____
(Name of Contractor)

_____
(Address of Contractor)

_____
(Corporation, Partnership or Individual)

_____
Hereinafter called Principal, and

_____
(Name of Surety)

_____
(Address of Surety)

A Corporation of the State of _____ and a surety authorized by law to do business in the State of Georgia, hereinafter called Surety, are held and firmly bound unto

The City of Dunwoody Georgia
(Name of Obligee)
41 Perimeter Center East, Suite 250
Dunwoody, Georgia 30346
(Address of Obligee)

hereinafter referred to as Obligee; for the use and protection of all subcontractors and all persons supplying labor, services, skill, tools, machinery, materials and/or equipment in the prosecution of the work provided for in the contract herein after referred to in the full and just sum of _____Dollars ($_____) in lawful money of the United States, for the payment of which sum well and truly to be made, the Principal and Surety bind themselves, their, and each of their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

The condition of this obligation is such, as whereas the Principal entered into a certain contract. hereto attached, with the Obligee, dated _____ for _____.

NOW, THEREFORE, the conditions of this obligation are such that if the Principal shall well, truly, and faithfully perform said Contract in accordance to its terms, covenants, and conditions, and shall promptly pay all persons furnishing labor, materials, services, skill, tools, machinery and/or equipment for use in the performance of said Contract, then this obligation shall be void; otherwise, it shall remain in full force and effect.

All persons who have furnished labor, materials, services, skill, tools, machinery and/or equipment for use in the performance of said Contract shall have a direct right of action on this Bond, provided payment has not been made in full within ninety (90) days after the last day on which labor was performed, materials, services, skill, tools, machinery, and equipment furnished or the subcontract completed.

PROVIDED FURTHER, that said Surety to this Bond, for value received, hereby stipulates and agrees that no change, extension of time, alterations, or additions to the terms of the Contract or to the Work to be

performed there under shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alterations, or additions to the terms of the Contract or to the work to be performed there under.

PROVIDED HOWEVER, that no suit or action shall be commenced hereunder by any person furnishing labor, materials, services, skill, tools, machinery, and/or equipment having a direct contractual relationship with a subcontractor, but no contractual relationship express or implied with the Principal:

Unless such person shall have given notice to the Principal within 120 days after such person did, or performed the last of the work or labor, or furnished the last of the materials, services, skill, tools, machinery and/or equipment for which claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials, services, skill, tools, machinery and/or equipment were furnished, or for whom the work or labor was done or performed. Such a notice shall be served by mailing the same by registered mail, postage prepaid, in an envelope addressed to the Principal, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the State in which the aforesaid project is located, save that such service need not be made by a public officer, and a copy of such notice shall be delivered to the Obligee, to the person and at the address provided for in the Contract, within five days of the mailing of the notice to the Principal.

PROVIDED FURTHER, that any suit under this bond must be instituted before the expiration of one year after the acceptance of the public works covered by the Contract by the proper authorities.

PROVIDED FURTHER, that Principal and Surety agree and represent that this bond is executed pursuant to and in accordance with the applicable provisions of the Official Code of Georgia Annotated, as Amended, including, but not limited to, O.C.G.A. SS 13-10-1, et. Eq. and SS 36-86-101, et. Seg., and is intended to be and shall be construed as a bond in compliance with the requirements thereof.

Signed, sealed, and dated this _____ day of _____, 2015

ATTEST:

_____ _____

(Principal Secretary) (Principal)
(Seal)

BY: _____

_____ _____

(Witness to Principal) (Address)

_____

(Address) _____

(Surety)

ATTEST BY: _____

(Attorney-in-Fact) and Resident Agent

_____
(Attorney-in-Fact)

(Seal)

_____
(Address)

_____
(Witness as to Surety)

_____
(Address)

MAINTENANCE BOND

CITY OF DUNWOODY, GEORGIA
PROJECT NO: _____ DEKALB COUNTY, GEORGIA
BOND NO: _____

KNOW ALL MEN BY THESE PRESENTS that we,_____ as Principal, and _____ as Surety, are held and firmly bound unto the CITY OF DUNWOODY, GEORGIA, as Obligee in the sum of one-third of the contract bid for the payment of which said Principal and Surety bind themselves, their heirs, administrators, executors, successors and assigns jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into an agreement with the City of Dunwoody for the FY 2013 Project Renaissance Park Construction. Said work has now been completed and the Obligee desires a maintenance bond guarantee said streets and improvements for a period of one year beginning _____ and ending _____.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the Principal shall fully indemnify and save harmless the City of Dunwoody from any and all loss, costs, expenses or damages, for any repairs or replacements required because of defective workmanship or materials in said construction, then this obligation shall be null and void; otherwise to be and remain in full force and effect as to any such claim arising within one year from the completion of said construction as set forth in said agreement.

Signed, sealed and dated this_____ day of _____2015

Witness:

_____
(Principal)

_____
(Name of Surety Company)

_____
(Attorney-in-fact)

QUALIFICATIONS SIGNATURE AND CERTIFICATION

(Bidder to sign and return)

I certify that this offer is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a proposal for the same materials, supplies, equipment, or services and is in all respects fair and without collusion or fraud. I understand collusive bidding is a violation of State and Federal Law and can result in fines, prison sentences, and civil damage awards. I agree to abide by all conditions of the proposal and certify that I am authorized to sign this proposal for the proposer. I further certify that the provisions of the Official Code of Georgia Annotated, Sections 45-10-20 et. Seq. have not been violated and will not be violated in any respect.

Authorized Signature_____Date_____

Print/Type Name_____

Print/Type Company Name Here_____

CORPORATE CERTIFICATE

I, _____, certify that I am the Secretary of the Corporation named as Contractor in the foregoing bid; that _____ who signed said bid in behalf of the Contractor, was then (title)_____ of said Corporation; that said bid was duly signed for and in behalf of said Corporation by authority of its Board of Directors, and is within the scope of its corporate powers; that said Corporation is organized under the laws of the State of _____.

This _____ day of _____, 20_____

_____(Seal)
(Signature)

LIST OF SUBCONTRACTORS

I do _____, do not _____, propose to subcontract some of the work on this project. I propose to Subcontract work to the following subcontractors:

Company Name:_____

Dunwoody Trailway Phase 3 and Pernoshal Park Construction

SCOPE: The contractor shall furnish all materials, equipment, and labor to complete the required construction as described in its entirety to the specifications as directed and the terms of this contract including all incidentals as directed by the City of Dunwoody Public Works Director or his representative. The project locations are as follows:

4770 North Peachtree Rd., Dunwoody, GA (Trailway)
1595 Pernoshal Court Dunwoody, GA (Park)

Unless otherwise specified all work shall be completed in accordance with the Construction Drawings prepared by Kimley-Horn and Associates Inc.(Pernoshal Park Drawings) and Lose & Associates Inc. (Dunwoody Trailway Ph.3 Drawings), other documents included in the Invitation to Bid and all pertinent Americans with Disabilities Act standards. In the case of conflicts, the most stringent requirements will apply. Any variations to the above specified details and specifications will be approved by the Public Works Director or his representative. A Report of Subsurface Exploration and Geotechnical Engineering Evaluation is attached to this bid document as Exhibit B.

Design plans can be retrieved from: *https://dunwoodyga.sharefile.com/d/sb3e9b0201534ec2a*

and are available for viewing at City Hall..

General Notes:

1. The contractor is responsible for calling for utility locations prior to the start of the project. It shall be the contractor's responsibility to coordinate his work with any utility owner who may be in conflict with his work. No claims will be considered for extra compensation.
2. Any item which must be removed during the construction work and is not specially called for shall be removed by the contractor. The cost shall be included in the bid. No claims will be considered for extra compensation.
3. All traffic control shall be provided by the contractor. The contractor will be responsible for coordinating with adjacent property owners to maintain adequate access.
4. The contractor will be responsible for protecting the hardscape from weather, traffic and vandalism during concrete curing. Any defects or defacement resulting from failure to protect the concrete will be repaired at the contractor's expense.
5. It is the intent of this contract for the bid to include all labor, materials, equipment, tools, transportation, and supplies as required as necessary to complete the work in accordance with the plans, specifications as directed, and the terms of this contract.
6. Upon the completion of each project, any excess items which might be left over from the construction related work shall be removed and disposed of properly by the contractor. The cost for such removal and disposal of such items will be included in other unit price bid. No claims will be considered for extra compensation.

7. Under this scope, “Department”, “Engineer”, and “Resident Engineer” shall mean the “City of Dunwoody, Georgia, Public Works Director or City of Dunwoody, Georgia, Public Works Designee”.
8. Working hours are limited to Monday through Friday, between 7:30 A.M. and 8:30 P.M. Weekend work is permissible with prior approval from the City. . No work is permitted on city-observed holidays.
9. Contractor shall have all vehicles marked with their company name.
10. The contractor will conduct one contract pre-construction meeting at City Hall and monthly progress meetings on-site and other meetings as required.
11. The City of Dunwoody will not provide restroom facilities.
12. The Contract shall perform project housekeeping/clean-up on a daily basis. A 24-hour contact must be provided to the City of Dunwoody Public Works for all issues as needed in regards to the project for any safety, signage, erosion control, or other emergency as needed.

EXHIBIT A

BID SCHEDULE

Dunwoody Trailway Phase 3 and Pernoshal Park Construction

Construction of Dunwoody Trailway Phase 3

Bid:_____

Bid in words: _____

Construction of Pernoshal Park Facilities

Bid:_____

Bid in words: _____

Combined Total Bid of Pernoshal Park Facilities and Dunwoody Trailway Phase 3

Total Bid:_____

Total Bid in words: _____

Unit Prices
The following unit prices will be used for the purposes of all change order, additions and deletions from the Scope of Work.

1.	Concrete Trail	_____/SQYD
2.	Graded Aggregate Base	_____/Ton
3.	Boardwalk with Railing	_____/LF
4.	Additional Clearing	_____/SF or Acre
5.	Type “C” Silt Fence	_____/LF
6.	Type “A” Silt Fence	_____/LF
7.	No. 34 stone	_____/Ton
8.	Rock (Open Excavation)	_____/CY
9.	Rock (Trench Excavation)	_____/CY
10.	Excavation of unsatisfactory materials and replacement w/suitable soil material	_____/CY
11.	Excavation of unsatisfactory materials and replacement w/ #57 crushed stone	_____/CY
12.	Excavation of unsatisfactory materials and replacement with surge stone.	_____/CY
13.	Hay Bale Silt Barrier,	_____/LF
14.	Pipe Bollards,	_____/EA

15.	8” PVC pipe under trail	_____/EA
16.	Underdrain pipe	_____/LF
17.	Drop Inlet/Yard Drain	_____/EA
18.	Curb Gutter	_____/LF
19.	Sidewalk	_____/SQYD
20.	Sod	_____/SQYD

Attach ALL Material Substitutions with Cost Increase or Reduction (Please include specifications)

CITY OF DUNWOODY

DEPARTMENT OF FINANCE AND ADMINISTRATION – PURCHASING DIVISION

GENERAL INSTRUCTIONS FOR BIDDERS

These Instructions will apply unless a particular item is specifically addressed in the solicitation document.

1. PREPARATION OF BIDS:

A. Each bidder shall examine the drawings, specifications, schedule and all instructions. Failure to do so will be at the bidder's risk, as the bidder will be held accountable for their bid response.

B. Each bidder shall furnish all information required by the bid form or document. Each bidder shall sign the bid and print or type his or her name on the schedule. The person signing the bid must initial erasures or other changes. An authorized agent of the company must sign bids.

C. Individuals, firms and businesses seeking an award of a City of Dunwoody contract may not initiate or continue any verbal or written communications regarding a solicitation with any City officer, elected official, employee or other City representative without the permission of Purchasing between the date of the issuance of the solicitation and the date of the final contract award. Violations will be reviewed by the Purchasing Manager. If determined that such communication has compromised the competitive process, the offer submitted by the individual, firm or business may be disqualified from consideration for award.

2. DELIVERY:

A. Each bidder should state time of proposed delivery of goods or services.

B. Words such as "immediate," "as soon as possible," etc. shall not be used. The known earliest date or the minimum number of calendar days required after receipt of order (delivery A.R.O.) shall be stated (if calendar days are used, include Saturday, Sunday and holidays in the number).

3. EXPLANATION TO BIDDERS:

Any explanation desired by a bidder regarding the meaning or interpretation of the invitation for bids, drawings, specifications, etc. must be requested by the question cutoff deadline stated in the solicitation in order for a reply to reach all bidders before the close of bid. Any information given to a prospective bidder concerning an invitation for bid will be furnished to all prospective bidders as an addendum to the invitation if such information is necessary or if the lack of such information would be prejudicial to uninformed bidders. The written bid

documents supersede any verbal or written communications between parties. Receipt of addendum should be acknowledged in the bid. Although Purchasing will make every effort to send any addendum to known bidders, it is the bidder's ultimate responsibility to ensure that they have all applicable addenda prior to bid submittal. This may be accomplished via contact with Purchasing prior to bid submittal.

4. SUBMISSION OF BIDS:

A. Bids shall be enclosed in sealed envelopes, addressed to the City of Dunwoody Purchasing Office with the name of the bidder, the date and hour of opening and the invitation to bid number on the face of the envelope. Telegraphic/faxed bids will not be considered. Any addenda should be enclosed in the sealed envelopes as well.

B. ADD/DEDUCT: Add or deduct amounts indicated on the outside of the envelope are allowed and will be applied to the lump sum amount. Amount shall be clearly stated and should be initialed by an authorized company representative.

C. Samples of items, when required, must be submitted within the time specified and, unless otherwise specified by the City, at no expense to the City. Unless otherwise specified, samples will be returned at the bidder's request and expense if items are not destroyed by testing.

D. Items offered must meet required specifications and must be of a quality, which will adequately serve the use and purpose for which intended.

E. Full identification of each item bid upon, including brand name, model, catalog number, etc. must be furnished to identify exactly what the bidder is offering. Manufacturer's literature may be furnished.

F. The bidder must certify that items to be furnished are new and that the quality has not deteriorated so as to impair its usefulness.

G. Unsigned bids will not be considered except in cases where bid is enclosed with other documents, which have been signed. The City will determine this.

H. The City of Dunwoody is exempt from federal excise tax and Georgia sales tax with regard to goods and services purchased directly by the City. Suppliers and contractors are responsible for federal excise tax and sales tax, including taxes for materials incorporated in City construction projects. Suppliers and contractors should contact the State of Georgia Sales Tax Division for additional information.

I. Information submitted by a bidder in the bidding process shall be subject to disclosure after the public opening in accordance with the Georgia Open Records Act. Each page of proprietary information must be identified. Entire bid may not be deemed proprietary.

5. WITHDRAWAL OF BID DUE TO ERRORS:

A. The bidder shall give notice in writing of his claim of right to withdraw his bid without penalty due to an error within two (2) business days after the conclusion of the bid opening procedure. Bids may be withdrawn from consideration if the price was substantially lower than the other bids due solely to a mistake therein, provided the bid was submitted in good faith, and the mistake was a clerical mistake as opposed to a judgment mistake, and was actually due to an unintentional arithmetic error or an unintentional omission of a quantity of work, labor or material made directly in the compilation of the bid, which unintentional arithmetic error or unintentional omission can be clearly shown by objective evidence drawn from inspection of original work papers, documents and material used in the preparation of the bid sought to be withdrawn. The bidder's original work papers shall be the sole acceptable evidence of error and mistake if he elects to withdraw his bid. If a bid is withdrawn under the authority of this provision, the lowest remaining responsive bid shall be deemed to be low bid.

B. No bidder who is permitted to withdraw a bid shall, for compensation, supply any material or labor or perform any subcontract or other work agreement for the person or firm to whom the contract is awarded or otherwise benefit, directly or indirectly, from the performance of the project for which the withdrawn bid was submitted.

C. Supplier has up to forty-eight (48) hours to notify Purchasing of an obvious clerical error made in calculation of bid in order to withdraw a bid after bid opening. Withdrawal of bid for this reason <u>must</u> be done in writing within the forty-eight (48) hour period. Suppliers who fail to request withdrawal of bid by the required forty-eight (48) hours shall automatically forfeit bid bond. Bid may not be withdrawn otherwise.

D. Bid withdrawal is not automatically granted and will be allowed solely at the City of Dunwoody's discretion.

6. TESTING AND INSPECTION:

Since tests may require several days for completion, the City reserves the right to use a portion of any supplies before the results of the tests are determined. Cost of inspections and tests of any item, which fails to meet the specifications, shall be borne by the bidder.

7. F.O.B. POINT:

Unless otherwise stated in the invitation to bid and any resulting contract, or unless qualified by the bidder, items shall be shipped F.O.B. Destination. The seller shall retain title for the risk of transportation, including the filing for loss or damages. The invoice covering the items is not payable until items are delivered and the contract of carriage has been completed. Unless the F.O.B. clause states otherwise, the seller assumes transportation and related charges either by payment or allowance.

8. PATENT INDEMNITY:

The contractor guarantees to hold the City, its agents, officers or employees harmless from liability of any nature or kind for use of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, articles or appliances furnished or used in the performance of the contract, for which the contractor is not the patentee, assignee or licensee.

9. BID BONDS AND PAYMENT AND PERFORMANCE BONDS (IF REQUIRED):

A five percent (5%) bid bond, a one hundred percent (100%) performance bond, and a one hundred percent (100%) payment bond shall be furnished to the City of Dunwoody for any bid as required in bid package or document. Failure to submit appropriate bonding will result in automatic rejection of bid. Bonding company must be authorized to do business in Georgia by the Georgia Insurance Commission, listed in the Department of the Treasury's publication of companies holding certificates of authority as acceptable surety on Federal bonds and as acceptable reinsuring companies, and have an A.M. Best rating as stated in the insurance requirement of the solicitation. Standard bond forms are to be used.

10. DISCOUNTS:

In connection with any discount offered, time will be computed from the date of delivery and acceptance at destination, or from the date correct invoice or voucher is received, whichever is the later date. Payment is deemed to be made for the purpose of earning the discount, on the date of the City check.

11. AWARD:

A. Award will be made to the lowest responsive and responsible bidder. The quality of the articles to be supplied, their conformity with the specifications, their suitability to the requirements of the City, and the delivery terms will be taken into consideration in making the award. The City may make such investigations as it deems necessary to determine the ability of the bidder to perform, and the bidder shall furnish to the City all such information and data for this purpose as the City may request. The City reserves the right to reject any bid if the evidence submitted by, or investigation of such bidder fails to satisfy the City that such bidder is properly qualified to carry out the obligations of the contract.

B. The City reserves the right to reject or accept any or all bids and to waive technicalities, informalities and minor irregularities in bids received.

C. The City reserves the right to make an award as deemed in its best interest, which may include awarding a bid to a single bidder or multiple bidders; or to award the whole bid, only part of the bid, or none of the bid to single or multiple bidders, based on its sole discretion of its best interest.

12. DELIVERY FAILURES:

Failure of a contractor to deliver within the time specified or within reasonable time as interpreted by the Purchasing Manager, or failure to make replacement of rejected articles/services when so requested, immediately or as directed by the Purchasing Manager, shall constitute authority for the Purchasing Manager to purchase in the

open market articles/services of comparable grade to replace the articles/services rejected or not delivered. On all such purchases, the contractor shall reimburse the City within a reasonable time specified by the Purchasing Manager for any expense incurred in excess of contract prices, or the City shall have the right to deduct such amount from monies owed the defaulting contractor. Alternatively, the City may penalize the contractor one percent (1%) per day for a period of up to ten (10) days for each day that delivery or replacement is late. Should public necessity demand it, the City reserves the right to use or consume articles delivered which are substandard in quality, subject to an adjustment in price to be determined by the Purchasing Manager.

13. CITY FURNISHED PROPERTY:

No material, labor or facilities will be furnished by the City unless so provided in the invitation to bid.

14. REJECTION AND WITHDRAWAL OF BIDS:

Failure to observe any of the instructions or conditions in this invitation to bid may constitute grounds for rejection of bid.

15. CONTRACT:

A. Each bid is received with the understanding that the acceptance in writing by the City of the offer to furnish any or all of the commodities or services described therein shall constitute a contract between the bidder and the City which shall bind the bidder on his part to furnish and deliver the articles quoted at the prices stated in accordance with the conditions of said accepted bid. The City, on its part, may order from such contractor, except for cause beyond reasonable control, and to pay for, at the agreed prices, all articles specified and delivered.

B. It is understood that the bidder has reviewed the contract documents with the understanding that the City of Dunwoody requires that all agreements between the parties must be entered into via this document. If any exceptions are taken to any part, each must be stated in detail and submitted as part of the bid. If no exceptions are stated, it is assumed that the bidder fully agrees to the provisions contained in the "Sample Contract" in its entirety. Examples of the City's Standard Contracts and General Conditions are available on the City website.

C. When the contractor has performed in accordance with the provisions of this agreement, the City of Dunwoody shall pay to the contractor, within thirty (30) days of receipt of any department approved payment request and based upon work completed or service provided pursuant to the contract, the sum so requested, less the retainage stated in this agreement, if any.

16. NON-COLLUSION:

Bidder declares that the bid is not made in connection with any other bidder submitting a bid for the same commodity or commodities, and that the bid is bona fide and is in all respects fair and without collusion or fraud.

An affidavit of non-collusion shall be executed by each bidder. Collusion and fraud in bid preparation shall be reported to the State of Georgia Attorney General and the United States Justice Department.

17. DEFAULT:

The contract may be canceled or annulled by the Purchasing Manager in whole or in part by written notice of default to the contractor upon non-performance or violation of contract terms. An award may be made to the next low responsive and responsible bidder, or articles specified may be purchased on the open market similar to those so terminated. In either event, the defaulting contractor (or his surety) shall be liable to the City for costs to the City in excess of the defaulted contract prices; provided, however, that the contractor shall continue the performance of this contract to the extent not terminated under the provisions of this clause. Failure of the contractor to deliver materials or services within the time stipulated on his bid, unless extended in writing by the Purchasing Manager, shall constitute contract default.

18. TERMINATION FOR CAUSE:

The City may terminate this agreement for cause upon ten days prior written notice to the contractor of the contractor's default in the performance of any term of this agreement. Such termination shall be without prejudice to any of the City's rights or remedies by law.

19. TERMINATION FOR CONVENIENCE:

The City may terminate this agreement for its convenience at any time upon 30 days written notice to the contractor. In the event of the City's termination of this agreement for convenience, the contractor will be paid for those services actually performed. Partially completed performance of the agreement will be compensated based upon a signed statement of completion to be submitted by the contractor, which shall itemize each element of performance.

20. DISPUTES:

Except as otherwise provided in the contract documents, any dispute concerning a question of fact arising under the contract which is not disposed of shall be decided after a hearing by the Purchasing Manager, who shall reduce his/her decision to writing and mail or otherwise furnish a copy thereof to the contractor. The decision of the Purchasing Manager shall be final and binding; however, the contractor shall have the right to appeal said decision to a court of competent jurisdiction.

21. SUBSTITUTIONS:

Bidders offering and quoting on substitutions or who are deviating from the attached specifications shall list such deviations on a separate sheet to be submitted with their bid. The absence of such a substitution list shall indicate that the bidder has taken no exception to the specifications contained herein.

22. INELIGIBLE BIDDERS:

The City may choose not to accept the bid of a bidder who is in default on the payment of taxes, licenses or other monies due to the City. Failure to respond to three (3) consecutive times for any given commodity/service may result in removal from the supplier list under that commodity/service.

23. BUSINESS LICENSE:

Each successful bidder shall provide evidence of a valid City of Dunwoody business license if the bidder maintains an office within the City of Dunwoody. Unincorporated, out of City, and out of State bidders are required to provide evidence of a certificate to do business in any town, County or municipality in the State of Georgia, or as otherwise required by City ordinance or resolution.

24. ALTERATIONS OF SOLICITATION AND ASSOCIATED DOCUMENTS:

Alterations of City documents are strictly prohibited and will result in automatic disqualification of the firm's solicitation response. If there are "exceptions" or comments to any of the solicitation requirements or other language, then the firm may make notes to those areas, but may not materially alter any document language.

25. TAX LIABILITY:

Local and state governmental entities must notify contractors of their use tax liability on public works projects. Under Georgia law, private contractors are responsible for paying a use tax equal to the sales tax rate on material and equipment purchased under a governmental exemption that is incorporated into a government construction project: excluding material and equipment provided for the installation, repair, or expansion of a public water, gas or sewer system when the property is installed for general distribution purposes. To the extent the tangible personal property maintains its character (for example the installation of a kitchen stove), it remains tax-exempt. However, if the installation incorporates the tangible personal property into realty, e.g., the installation of sheetrock, it becomes taxable to the private contractor.

See O.C.G.A. 48-8-3(2) and O.C.G.A. 48-8-63

26. GENERAL CONTRACTORS LICENSE:

All General Contractors must have a current valid license from the State Licensing Board for Residential and General Contractors, unless specifically exempted from holding such license pursuant to Georgia law (O.C.G.A. Section 43-41-17).

27. INDEMNIFICATION:

To the fullest extent permitted by law, the Contractor shall, at his sole cost and expense, indemnify, defend, satisfy all judgments, and hold harmless the City, the engineer, and their agents and employees from and against all

claims, damages, actions, judgments, costs, penalties, liabilities, losses and expenses, including, but not limited to, attorney's fees arising out of or resulting from the performance of the work, provided that any such claim, damage, action, judgment, cost, penalty, liability, loss or expense (1) is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the work itself) including the loss of use resulting therefrom, and (2) is caused in whole or in part by any act or omission of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless whether such claim is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge or otherwise reduce any of the rights or obligations of indemnity which would otherwise exist as to any party or person described in this agreement. In any and all claims against the City, the engineer, or any of their agents or employees by any employee of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation contained herein shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the Contractor or any subcontractor under Worker's Compensation Acts, disability benefit acts, or other employee benefit acts.

28. ENVIRONMENTAL SUSTAINABILITY

The City of Dunwoody is committed to environmental sustainability. The City believes we have a unique opportunity to further expand our leadership in the area of environmentally preferable purchasing, and through our actions, elicit changes in the marketplace. By further incorporating environmental considerations into public purchasing, the City of Dunwoody will positively impact human health and the environment, remove unnecessary hazards from its operations, reduce costs and liabilities, and improve the environmental quality of the region. As such the City encourages the incorporation of environmental sustainability into proposals.

29. AFFIDAVIT AND AGREEMENT FOR PHYSICAL PERFORMANCE OF SERVICES AS DEFINED BY O.C.G.A. 13-10-90

When applicable, awarded vendor will be required to submit a City supplied Affidavit and Agreement (sample on City website) in accordance with O.C.G.A. 13-10-90 as part of the contract execution process.

30. AFFIDAVIT VERIFYING STATUS FOR CITY PUBLIC BENEFIT APPLICATION

Awarded vendor will be required to submit an Affidavit Verifying Status for City Public Benefit Application (sample on City website) in accordance with O.C.G.A. 50-36-1 as part of the contract execution process.

DIRECTIONS TO DUNWOODY CITY HALL

From I-285 take Exit 29 (Ashford-Dunwoody Rd.) and turn North. At fourth traffic light, turn right onto Perimeter Center East. The entrance to the parking lot for 41 Perimeter East will be on the right. The City of Dunwoody offices are on the second floor of 41 Perimeter Center East.

Mr. Brent Walker
Parks and Recreation Manager
City of Dunwoody
41 Perimeter Center East
Dunwoody, Georgia 30346

October 3, 2014

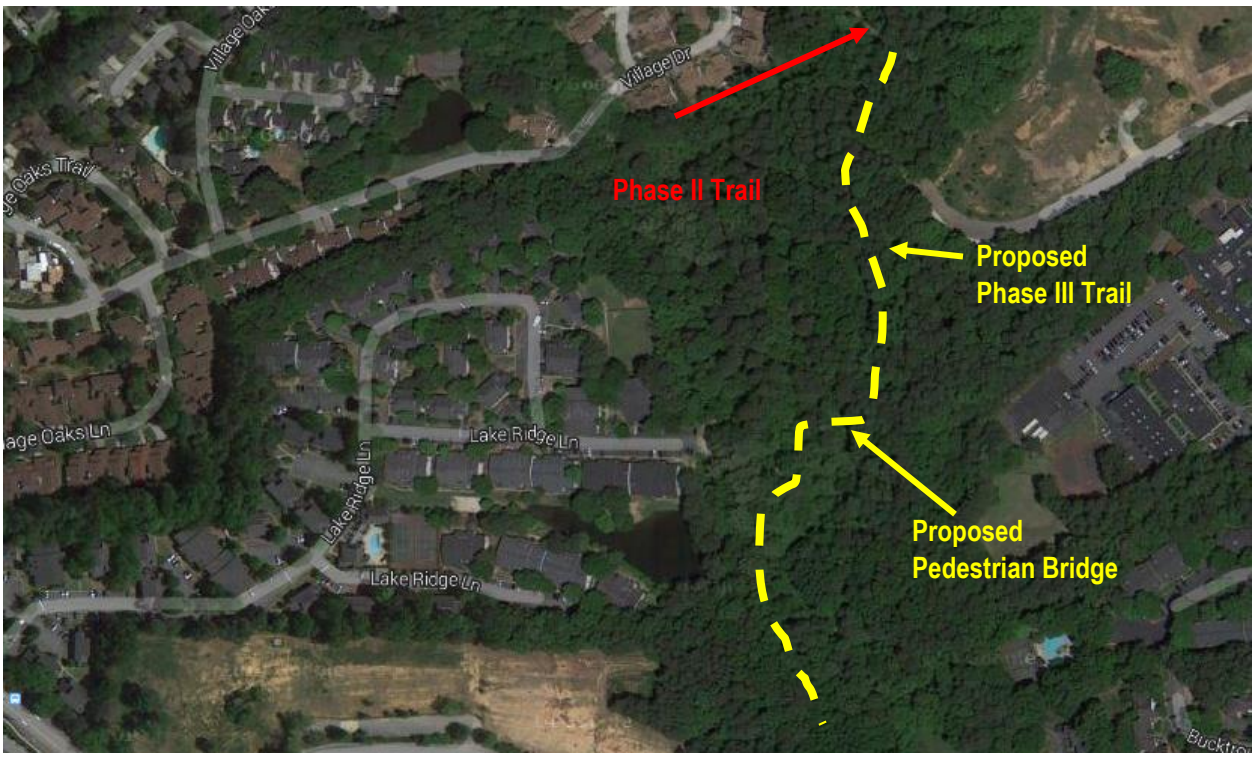
Report of Subsurface Exploration and Geotechnical Engineering Evaluation
Brook Run Park Multi-Use Trail Phase III
Dunwoody, Georgia
Geo-Hydro Project Number 140545.20

Dear Mr. Walker:

Geo-Hydro Engineers, Inc. has completed the authorized subsurface exploration for the above referenced project. The scope of services for this project was discussed during our site meeting on September 11, 2014.

PROJECT INFORMATION

We understand that Phase III of the Brook Run Park Multi-Use Trail will be constructed along the creek to the east of the Columns at Lake Ridge apartment complex. The Phase III Multi-Use Trail will consist of a concrete walking trail, wooden boardwalks, and a steel pedestrian bridge with cast-in-place concrete abutments. The approximate Phase III trail alignment is depicted on the aerial map below.



1000 Cobb Place Boulevard, Suite 290 • Kennesaw, Georgia 30144
o: 770.426.7100 • *f*: 770.426.5209 • *www.geohydro.com*

EXPLORATORY PROCEDURES

Due to access restrictions, the subsurface exploration was limited to hand auger borings performed at the approximate locations shown on Figures 2 in the Appendix.

Dynamic cone penetrometer testing (ASTM STP-399) was performed at select depths in the hand auger boring. Soil samples obtained during hand augering were examined and classified in general accordance with ASTM D2488 (Visual-Manual Procedure for Description of Soils). Soil classifications include the use of the Unified Soil Classification System described in ASTM D2487 (Classification of Soils for Engineering Purposes). The soil classifications also include our evaluation of the geologic origin of the soils. Evaluations of geologic origin are based on our experience and interpretation and may be subject to some degree of error.

Descriptions of the soils encountered in the boring are provided in the hand auger log included in the Appendix. Groundwater conditions, dynamic cone penetration resistances, and other pertinent information are also included.

REGIONAL GEOLOGY

The project site is located in the Southern Piedmont Geologic Province of Georgia. Soils in this area have been formed by the in-place weathering of the underlying crystalline rock, which accounts for their classification as "residual" soils. Residual soils near the ground surface, which have experienced advanced weathering, frequently consist of red brown clayey silt (ML) or silty clay (CL). The thickness of this surficial clayey zone may range up to roughly 6 feet. For various reasons, such as erosion or local variation of mineralization, the upper clayey zone is not always present.

With increased depth, the soil becomes less weathered, coarser grained, and the structural character of the underlying parent rock becomes more evident. These residual soils are typically classified as sandy micaceous silt (ML) or silty micaceous sand (SM). With a further increase in depth, the soils eventually become quite hard and take on an increasing resemblance to the underlying parent rock. When these materials have a standard penetration resistance of l00 blows per foot or greater, they are referred to as partially weathered rock. The transition from soil to partially weathered rock is usually a gradual one, and may occur at a wide range of depths. Lenses or layers of partially weathered rock are not unusual in the soil profile.

Partially weathered rock represents the zone of transition between the soil and the indurated metamorphic rocks from which the soils are derived. The subsurface profile is, in fact, a history of the weathering process which the crystalline rock has undergone. The degree of weathering is most advanced at the ground surface, where fine grained soil may be present. And, the weathering process is in its early stages immediately above the surface of relatively sound rock, where partially weathered rock may be found.

The thickness of the zone of partially weathered rock and the depth to the rock surface have both been found to vary considerably over relatively short distances. The depth to the rock surface may frequently range from the ground surface to 80 feet or more. The thickness of partially weathered rock, which overlies the rock surface, may vary from only a few inches to as much as 40 feet or more.

Overall geologic conditions at the site have been modified by previous grading and construction activities.

HAND AUGER BORING SUMMARY

Hand auger borings were performed at the locations of the proposed bridge abutments and boardwalks. Hand auger borings were also performed at select locations along the trail alignment where the trail is to be cast against existing subgrade soils. A summary of the subsurface conditions encountered in the hand auger borings is provided below. For more detailed descriptions of subsurface soil and groundwater conditions, please refer to the hand auger logs included in the Appendix.

Bridge Abutments

Hand auger boring B-1 encountered approximately 12 inches of topsoil/rootmat material. Below the topsoil, boring B-1 encountered alluvial soils extending to a depth approximately 7 feet below the existing ground surface. Materials causing hand auger refusal (alluvial soil with rock fragments) were encountered at a depth of 7 feet. The alluvial materials consisted of silty sand with dynamic cone penetration resistances ranging from 4 to 18 blows per increment.

Hand auger boring B-2 encountered approximately 18 inches of topsoil/rootmat material. Below the topsoil, fill materials extended to a depth of about 3 feet. The fill materials consisted of silty sand with clay, and dynamic cone penetration resistances ranged from 5 to 8 blows per increment. Beneath the fill materials, hand auger boring B-2 encountered residual soils consisting of clayey silt. Dynamic cone penetration resistances of 8 to 22 blows per increment were recorded in the residuum.

Groundwater was encountered in hand auger boring B-1 at a depth of 4½ feet at the time of exploration. Boring B-2 did not encounter groundwater. The borings were backfilled with soil cuttings after completion.

Boardwalks

Hand auger borings B-3 and B-4 encountered approximately 12 inches of topsoil/rootmat material. Below the topsoil, each boring encountered alluvial soils extending to the termination depth of 5 feet below the existing ground surface. The alluvial soils consisted of sandy clay and silty sand with dynamic cone penetration resistances ranging from 2 to 15 blows per increment. Groundwater was encountered at a depth of 4 feet in each boring.

Hand auger boring B-6 encountered approximately 6 inches of topsoil/rootmat material. Below the topsoil, fill materials extended to a depth of 3 feet. The fill materials consisted of sandy silt and clayey silt with dynamic cone penetration resistances ranging from 10 to 11 blows per increment. Beneath the fill materials, hand auger boring B-6 encountered residual soils consisting of sandy silt. Dynamic cone penetration resistances ranging from 13 to greater than 25 blows per increment were recorded in the residuum.

General Trail Alignment

Hand auger boring B-5 encountered fill materials extending to a depth of about 3½ feet below the existing ground surface. Materials causing hand auger refusal were encountered at 3½ feet. The fill materials consisted of sandy silt and clayey silt with dynamic cone penetration resistances ranging from 9 to greater than 25 blows per increment.

Hand auger boring B-10 encountered fill material extending to a depth of about 3 feet below the existing ground surface. Materials causing hand auger refusal were encountered at about 3 feet. The fill materials consisted of silty sand with dynamic cone penetration resistances ranging from 7 to greater than 25 blows per increment.

Hand auger borings B-7, B-8, and B-9 encountered approximately 12 inches of topsoil/rootmat material. Below the topsoil, fill materials extended to depths ranging from 3 to 4 feet below the existing ground surface. The fill materials consisted of sandy silt and silty sand with dynamic cone penetration resistances ranging from 5 to greater than 25 blows per increment. Beneath the fill materials, the hand auger borings encountered alluvial soils consisting of silty sand. Dynamic cone penetration resistances of 8 to greater than 25 blows per increment were recorded in the alluvium.

Groundwater was encountered in hand auger borings B-8 and B-9 at a depth of 5 feet at the time of exploration. Borings B-5, B-7, and B-10 did not encounter groundwater. The borings were backfilled with soil cuttings after completion.

EVALUATIONS AND RECOMMENDATIONS

The following recommendations are based on the information available on the proposed construction, the data obtained from the soil test borings, and our experience with soils and subsurface conditions similar to those encountered at this site. Because the soil test borings represent a small statistical sampling of subsurface conditions, it is possible that conditions may be encountered during rehabilitation that are substantially different from those indicated by the test borings. In these instances, adjustments to the design and construction may be necessary.

Geotechnical Considerations

- Abutments: Based on the results of the borings, we do not expect difficult excavation conditions to be encountered during excavation for the planned abutments. Fill materials, alluvial soils, and residual soils should be readily removable using conventional earth moving equipment such as backhoes.

  Based on the results of boring B-1 and our review of the pedestrian bridge submittal, it is our opinion that abutment #1 cannot be supported directly on the alluvial soils encountered in the boring without great risk of excessive and damaging settlement. We recommend an intermediate foundation system such as helical piers for support of abutment #1.

  Abutment #2 is designed to be a cast-in-place reinforced concrete retaining wall. Based on the results of boring B-2, we do not anticipate any undercutting for the wall foundation assuming bearing elevation is below the topsoil layer. Although groundwater was not encountered during our exploration, depending on seasonal changes and the actual depth of the excavation, groundwater may be encountered at the time of construction. Contingencies should be in place for stabilization within the wall foundation excavation.

- Boardwalks: Based on the results of the borings, we do not expect difficult excavation conditions to be encountered during excavation for the planned boardwalk piers. Fill materials, alluvial soils, and residual soils should be readily removable using conventional earth moving equipment such as backhoes.

Based on the results of the borings, the boardwalk piers east of the creek will likely require overexcavtion of compressible alluvial soils and backfill with open-graded stone to provide adequate foundation support and control settlement.

- General Trail Alignment: Based on the results of the borings, we do not expect difficult excavation conditions to be encountered during excavation for the trail. Fill materials, alluvial soils, and residual soils should be readily removable using conventional earth moving equipment such as backhoes.

  Based on the results of the borings, removal of approximately 12 inches of topsoil/rootmat will be required in order to expose subgrade soils suitable for conditioning to support the concrete trail.

The following sections provide recommendations regarding these issues and other geotechnical aspects of the project.

GENERAL TRAIL CONSTRUCTION

Site Preparation

Grass, topsoil, pavement, gravel, and other deleterious materials should be removed from the proposed construction areas. Based on our findings, we anticipate removal of approximately 12 inches of topsoil/rootmat material. Demolition and site grubbing and stripping should be performed only during dry weather conditions. Operation of heavy equipment on the site during wet conditions could result in excessive rutting of the ground surface.

Excavation Characteristics and Reuse as Structural Fill

In general, fill materials, alluvial soils, and residual soils at the site should be readily removable with conventional earth moving equipment such as loaders, backhoes, etc. Nevertheless, it is important to note that the depth to rock or partially weathered rock may vary drastically over relatively short distances, and large boulders or other materials that may be difficult to handle during excavation may be present.

For construction bidding and field verification purposes it is common to provide a verifiable definition of rock in the project specifications. The following is a typical definition mass rock:

- Mass Rock: Material that cannot be excavated with a single-tooth ripper drawn by a crawler tractor having a minimum draw bar pull rated at 56,000 pounds (Caterpillar D-8K or equivalent), and occupying an original volume of at least one cubic yard.

It is important to establish as part of the construction contract whether soils having elevated moisture content will be considered suitable for reuse. We often find this issue to be a point of contention and a source of delays and change orders. From a technical standpoint, soils with moisture contents wet of optimum as determined by the standard Proctor test (ASTM D698) can be reused provided that the moisture is properly adjusted to within the workable range. From a practical standpoint, wet soils can be very difficult to dry in small or congested sites and such difficulties should be considered during planning and budgeting. A clear understanding by the general contractor and grading subcontractor regarding the reuse of excavated soils will be important to avoid delays and unexpected cost overruns.

The existing soils at the project site appear suitable for reuse as structural fill material. Routine adjustment of moisture content will be necessary to allow proper placement and compaction.

Structural Fill

Materials selected for use as structural fill should be free of organic matter, waste construction debris, and other deleterious materials. The material should not contain rocks having a diameter over 3 inches. It is our opinion that the following soils represented by their USCS group symbols will typically be suitable for use as structural fill and are usually found in abundance in the Piedmont Region: (SM), (ML), and (CL). The following soil types are typically suitable but are not abundant in the Piedmont Region: (SW), (SP), (SC), (SP-SM), and (SP-SC). The following soil types are considered unsuitable: (MH), (CH), (OL), (OH), and (PT).

Laboratory Proctor compaction tests and classification tests should be performed on representative samples obtained from the proposed borrow material to provide data necessary to determine acceptability and for quality control. Soils having a standard Proctor maximum dry density of less than 95 pcf should be considered unsuitable, unless laboratory evaluations of their stress-strain characteristics indicate that they will perform acceptably. The moisture content of suitable borrow soils should generally not be more than 3 percentage points above or below optimum at the time of compaction. Tighter moisture limits may be necessary with certain soils.

It is possible that highly micaceous soils could be utilized for structural fill material. The use of such materials will require very close attention to quality control of moisture content and density.

Suitable fill material should be placed in thin lifts. Lift thickness depends on type of compaction equipment, but in general, lifts of 8 inches loose measurement are recommended. The soil should be compacted by heavy compaction equipment such as a self-propelled sheepsfoot roller. Behind retaining walls, we recommend the use of “wacker packers” or “Rammax” compactors to achieve the specified compaction. Loose lift thicknesses of 4 to 6 inches are recommended in small area fills.

We recommend that structural fill be compacted to at least 95 percent of the standard Proctor maximum dry density (ASTM D698). Geo-Hydro should perform density tests during fill placement.

Earth Slopes

Temporary construction slopes should be designed in strict compliance with OSHA regulations. The exploratory borings indicate that most soils at the site are Type C as defined in 29 CFR 1926.650 (1994 Edition). This dictates that temporary construction slopes be no steeper than 1.5H:1V for excavation depths of 20 feet or less. Temporary construction slopes should be closely observed on a daily basis by the contractor’s “competent person” for signs of mass movement: tension cracks near the crest, bulging at the toe of the slope, etc. The responsibility for excavation safety and stability of construction slopes should lie solely with the contractor.

We recommend that extreme caution be observed in trench excavations. Several cases of loss of life due to trench collapses in Georgia point out the lack of attention given to excavation safety on some projects. We recommend that applicable local and federal regulations regarding temporary slopes, and shoring and bracing of trench excavations be closely followed.

Formal analysis of slope stability was beyond the scope of work for this project. Based on our experience, permanent cut or fill slopes should be no steeper than 2H:1V to maintain long term stability and to provide ease of maintenance. The crest or toe of cut or fill slopes should be no closer than 10 feet to any foundation. Erosion protection of slopes during construction and during establishment of vegetation should be considered an essential part of construction.

BRIDGE ABUTMENTS

Abutment #1

Based on the results of the test boring B-1, abutment #1 cannot be supported conventionally at grade without the risk of excessive, damaging foundation settlement. Based on our experience, we suggest using helical piers for support of abutment #1.

Helical piers consist of round or square shafts with helically shaped steel plates. Typically, a lead section having one or more helical plates is installed by rotating the section into the ground to the desired bearing depth. Extension shafts are used as necessary to reach a predetermined installation depth or a sufficient installation torque to develop the minimum load capacity required. A bearing plate is then installed connecting the pier to the foundation.

There are many helical pier brands in the marketplace. The following are Chance® product designations that may be used for the project. Chance products are used as an example and to facilitate review. Other helical pier manufacturers can provide similar products and this recommendation should not be construed as requiring the use of piers from a specific manufacturer.

Element	Chance® Designation
Pier Type	RS2875.203 – 2⅞-inch diameter 0.203” thick wall pipe shaft
Lead Section Helix Configuration	8”, 10”, 12” (C278-4514)
Plain Extension Sections	5’, 7’, and 10’ lengths available
Bearing Plate	New Construction Pile Cap (C1500607)

For this project, we recommend a maximum allowable compressive pier capacity of 30 kips. Since the hand auger borings encountered refusal at relatively shallow depths, the helical pier lengths are essentially unpredictable. However, based on our experience, we suggest for budgeting purposes an average helical pier length of 20 feet. Once below creek elevation, the helical piers may encounter partially weathered rock during installation. We recommend that care be taken during installation to limit over-torqueing the piers.

Because the actual subsurface conditions are unknown at the creek elevation, we recommend a trial installation program before fully committing to a helical pier solution. Trial installation would involve engaging a helical pier installer to attempt to install a helical pier in the abutment #1 area. Geo-Hydro should observe the trial installation to determine whether helical piers are viable.

The actual length of each helical pier will vary depending on installation conditions. Installation torque is typically used as a field guide for helical pier installation. We recommend that Geo-Hydro observe the helical pier installation.

It is possible that obstructions such as rock fragments, wood debris, etc., could be encountered that can impede the proper installation of helical piers. Depending on installation conditions, it may be necessary to excavate and remove any shallow obstructions. Relocation of piers may also be necessary. Installation difficulties should be evaluated on an individual basis.

Abutment #2 (Cast-in-Place Reinforced Concrete Retaining Wall)

Earth Pressure and Soil Parameters

The following design earth pressure coefficients and soil parameters are for the materials encountered in the soil test borings and are based on general correlations and Geo-Hydro's experience. These are unfactored values. Appropriate factors of safety should be used in design.

Design Parameter	Value
At-rest pressure coefficient (K_0)	0.53
Passive pressure coefficient (K_p)	2.77
Active pressure coefficient (K_a)	0.36
Angle of internal friction (ϕ)	28 degrees
Coefficient of friction (μ) between mass concrete and soil	0.4
Dry unit weight (partially saturated)	120 pcf

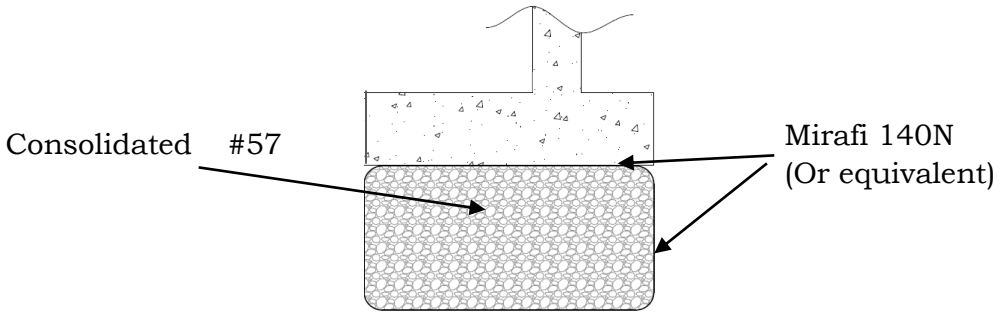
Foundation Support

The proposed reinforced concrete wall can be supported using conventional shallow foundations. Based on information provided to us, planned site grading, and the results of the soil test borings, the wall foundations are expected to bear on relatively firm, undisturbed residual soils and relatively firm existing fill materials. A maximum allowable bearing pressure of 2,500 psf is recommended for design purposes.

Because of variation in the existing fill materials and residual soils, it is possible that some of the soils at the project site will have an allowable bearing pressure less than the recommended design value. Therefore, foundation bearing surface evaluations will be critical to aid in the identification and remediation of these situations.

Foundation bearing surface evaluations should be performed in the footing excavation prior to placement of reinforcing steel. These evaluations should be performed by Geo-Hydro to confirm that the design allowable soil bearing pressure is available. The foundation bearing surface evaluations should be performed using a combination of visual observation, hand rod probing, and dynamic cone penetrometer testing (ASTM STP-399).

Remedial measures may be necessary for a portion of the wall depending on the results of foundation bearing surface evaluations, the bearing elevation in relation to the creek, and the actual site conditions at the time of construction. A typical stabilization approach to handle unstable bearing materials is shown on the following page.



Seismic Design

Based on the results of the test borings and following the calculation procedure in the 2012 International Building Code (Chapter 20, ASCE 7-10), the *Site Class* for the site is *D*. The mapped and design spectral response accelerations are as follows: S_s=0.198, S_1=0.092, S_{Ds} = 0.211, S_{D1} = 0.148

Based on the information obtained from the soil test borings, it is our opinion that the potential for liquefaction of the residual soils at the site due to earthquake activity is relatively low.

Groundwater

Temporary groundwater control may be a concern for foundation construction. Typically, temporary control of groundwater can be achieved by direct pumping from trenches and sumps. However, groundwater control is part of the contractor's means and methods.

We recommend that the project specifications require the use of dewatering as necessary, and dictate the result of the dewatering operation. The contractor may then implement a technique or combination of techniques appropriate to manage the actual field conditions encountered. Exhibit A in the Appendix represents a minimum guide specification for dewatering.

* * * * * *

We appreciate the opportunity to work with you on this project, and are prepared to provide any additional services you may require. If you have any questions concerning this report or any of our services, please call us.
Sincerely,

GEO-HYDRO ENGINEERS, INC.

Thomas M. Baglivo, P.E.
Senior Project Manager
tbaglivo@geohydro.com

Luis E. Babler, P.E.
Chief Engineer
luis@geohydro.com

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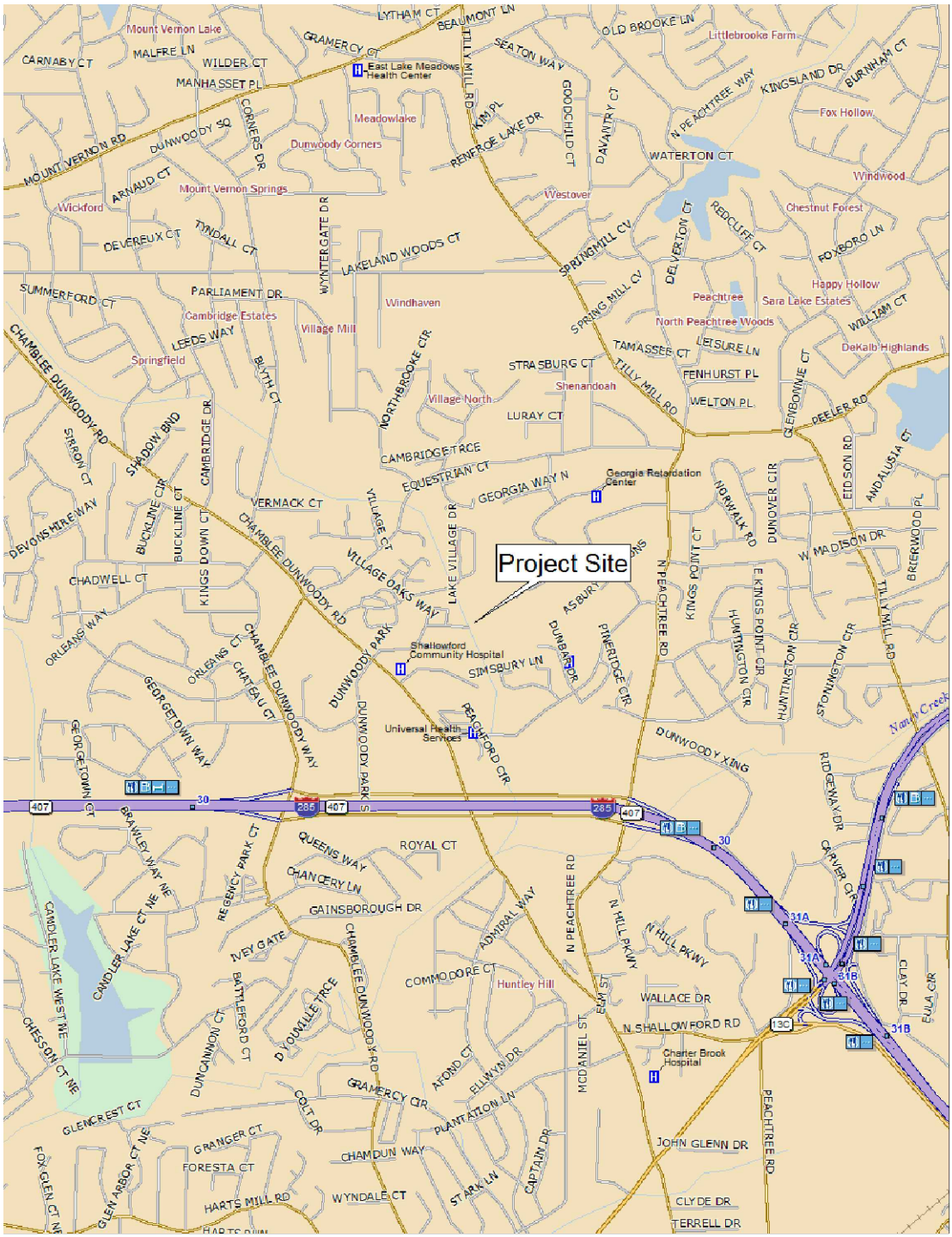
APPENDIX

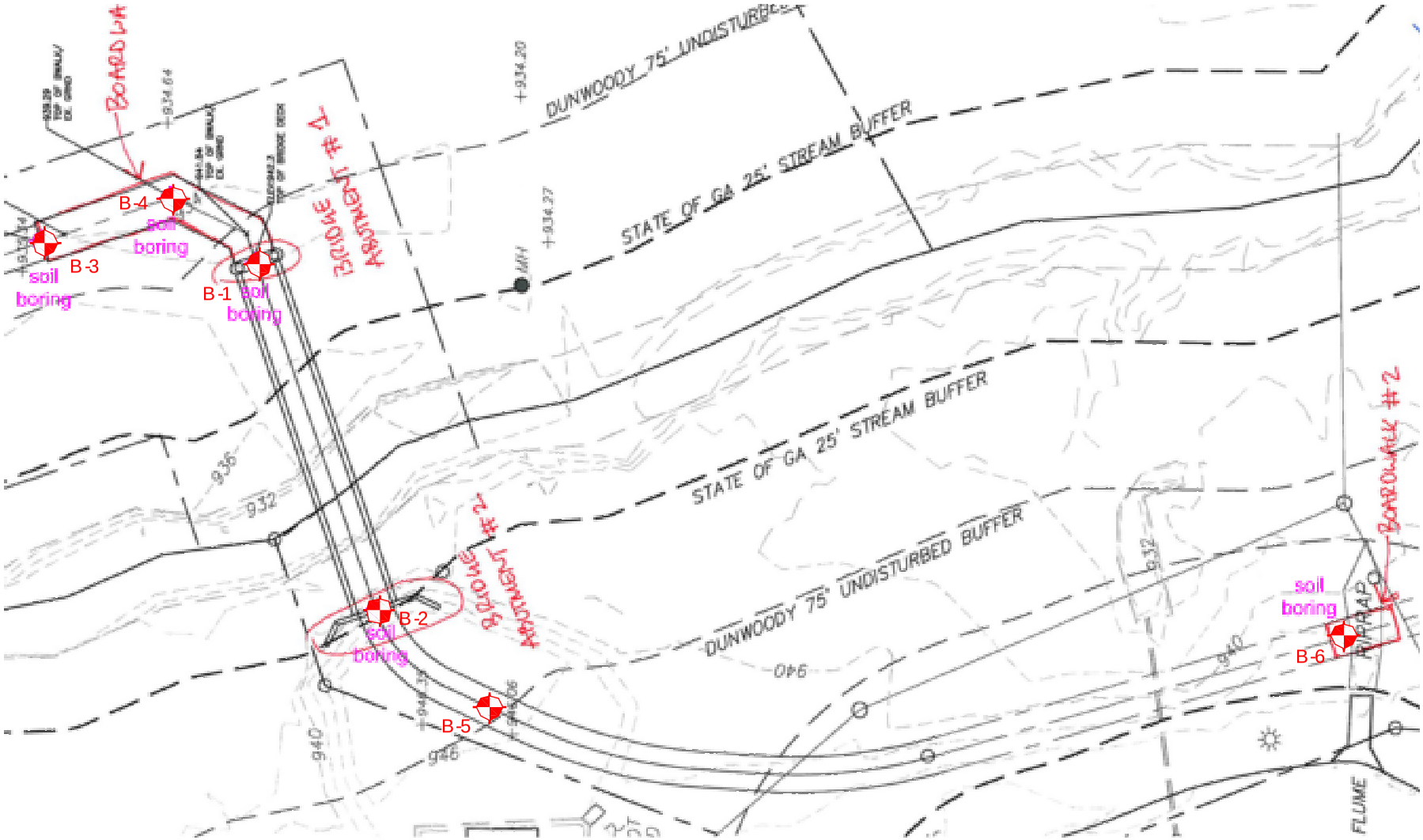


0 0.25 0.5 1 1.5

Approximate Scale, Miles

Figure 1: Site Location Plan

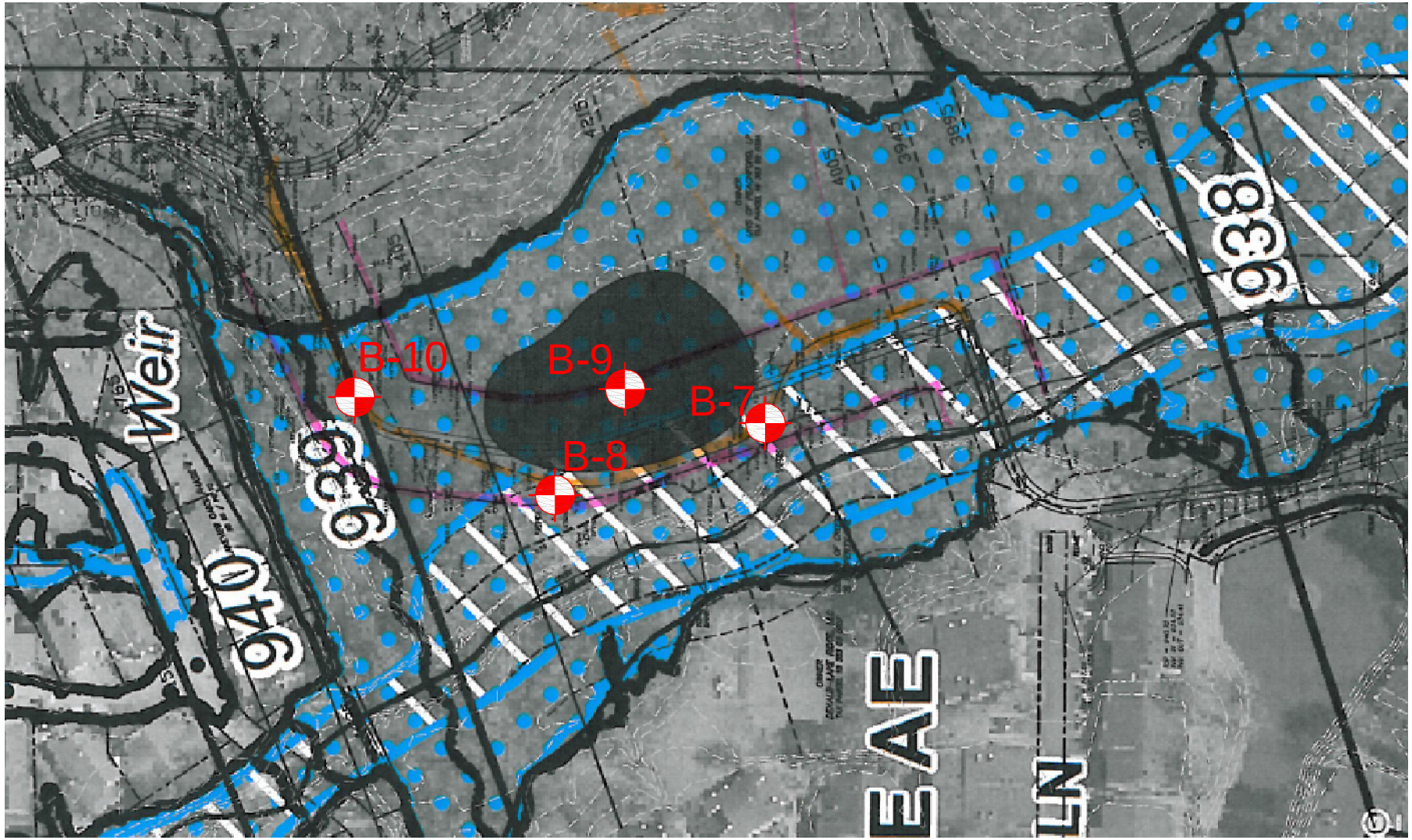
Brook Run Phase III
Dunwoody, Georgia
Geo-Hydro Project Number 140545.20



NOT TO SCALE

LEGEND: Hand Auger Boring	Figure 2: Boring Location Plan	Brook Run Phase III Dunwoody, Georgia Geo-Hydro Project Number140545.20

GEO HYDRO ENGINEERS



NOT TO SCALE

LEGEND: Hand Auger Boring	Figure 2: Boring Location Plan	Brook Run Phase III Dunwoody, Georgia Geo-Hydro Project Number140545.20

HAND AUGER LOG B-1

Date Performed: 9/16/14 Logged by: KKS

Equipment: Hand Auger and Penetrometer Elevation(ft): _____

DEPTH (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE	PEN. RESIST	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	LAB TESTS
		Topsoil (Approximately 1 foot)		6			
1		Brown silty fine sand (SM) (ALLUVIUM)		12			
2				18			
3		Gray to brown silty fine sand (SM) (ALLUVIUM)		7			
4		Gray fine to medium sand (SM) (ALLUVIUM)		6			
5				4			
6		Gray fine to coarse sand (SM) with rock fragments (ALLUVIUM)		7			
7		Auger refusal at 7 feet					
8		Groundwater encountered at 4-1/2 feet					
9							

HAND AUGER LOG B-2

Date Performed: 9/17/14 Logged by: KKS

Equipment: Hand Auger and Penetrometer Elevation(ft): _____

DEPTH (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE	PEN. RESIST	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	LAB TESTS
		Topsoil/Mulch (Approximately 1-1/2 feet)		1			
1				5			
2		Brown silty fine sand (SM) with clay (FILL)		8			
3		Tan clayey silt (ML) (RESIDUUM)		8			
4		Auger refusal at 4 feet		22			
5		No groundwater encountered					
6							
7							
8							
9							

Penetration resistance was evaluated in accordance with ASTM STP-399. The penetration resistance is the number of blows of a hammer weighing 15 lbs. falling 20 inches to drive a 1.5 inch diameter cone 1.75 inches.

Brook Run Trail Phase III
Dunwoody, Georgia
140545.20

HAND AUGER LOG B-3

Date Performed: 9/16/14 Logged by: KKS

Equipment: Hand Auger and Penetrometer Elevation(ft): _____

DEPTH (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE	PEN. RESIST	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	LAB TESTS
		Topsoil (Approximately 1 foot)		1			
1		Gray-brown fine sandy clay (CL) (ALLUVIUM)		2			
2				3			
3		Gray silty fine sand (SM) with rounded rock (ALLUVIUM)		12			
4				15			
5		Boring terminated at 5 feet		7			
6		Groundwater encountered at 4 feet					
7							
8							
9							

HAND AUGER LOG B-4

Date Performed: 9/16/14 Logged by: KKS

Equipment: Hand Auger and Penetrometer Elevation(ft): _____

DEPTH (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE	PEN. RESIST	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	LAB TESTS
		Topsoil (Approximately 1 foot)		0			
1		Gray-brown fine sandy clay (CL) (ALLUVIUM)		3			
2		Gray silty clay (CL) (ALLUVIUM)		2			
3				2			
4		Gray fine to medium sand (SP) (ALLUVIUM)		7			
5		Boring terminated at 5 feet		5			
6		Groundwater encountered at 4 feet					
7							
8							
9							

Penetration resistance was evaluated in accordance with ASTM STP-399. The penetration resistance is the number of blows of a hammer weighing 15 lbs. falling 20 inches to drive a 1.5 inch diameter cone 1.75 inches.

Brook Run Trail Phase III
Dunwoody, Georgia
140545.20

HAND AUGER LOG B-5

Date Performed: 9/16/14 Logged by: KKS

Equipment: Hand Auger and Penetrometer Elevation(ft): _____

DEPTH (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE	PEN. RESIST	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	LAB TESTS
		Light brown micaceous fine sandy silt (ML) with rock fragments (FILL)		9			
1				8			
2				>25			
3		Brown to gray slightly micaceous clayey silt (ML) with sand and roots (FILL)		>25			
4		Auger refusal at 3.5 feet					
5		No groundwater encountered					
6							
7							
8							
9							

HAND AUGER LOG B-6

Date Performed: 9/16/14 Logged by: KKS

Equipment: Hand Auger and Penetrometer Elevation(ft): _____

DEPTH (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE	PEN. RESIST	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	LAB TESTS
		Topsoil (Approximately 6 inches)		10			
1		Light brown fine sandy silt (ML) (FILL)					
		Light brown clayey silt (ML) (FILL)		10			
2				11			
3		Light brown clayey fine sand (SC) (RESIDUUM)		13			
4		Light brown fine sandy silt (ML) with clay		>25			
5		Boring terminated at 5 feet		>25			
6		No groundwater encountered					
7							
8							
9							

Penetration resistance was evaluated in accordance with ASTM STP-399. The penetration resistance is the number of blows of a hammer weighing 15 lbs. falling 20 inches to drive a 1.5 inch diameter cone 1.75 inches.

Brook Run Trail Phase III
Dunwoody, Georgia
140545.20

HAND AUGER LOG B-7

Date Performed: 9/17/14 Logged by: KKS

Equipment: Hand Auger and Penetrometer Elevation(ft): _____

DEPTH (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE	PEN. RESIST	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	LAB TESTS
		Topsoil (Approximately 1 foot)		2			
1		Light brown fine sandy silt (ML) (FILL)		5			
2		Dark tan to white silty fine to medium sand (SM) (FILL)		12			
3				7			
4		Grey-white coarse sand (SM) with rounded rocks (ALLUVIUM)		8			
5		Boring terminated at 5 feet		7			
6		No groundwater encountered					
7							
8							
9							

HAND AUGER LOG B-8

Date Performed: 9/17/14 Logged by: KKS

Equipment: Hand Auger and Penetrometer Elevation(ft): _____

DEPTH (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE	PEN. RESIST	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	LAB TESTS
		Topsoil (Approximately 1 foot)		3			
1		Light brown fine sandy silt (ML) (FILL)		15			
2		Gray to tan silty fine sand (SM) (FILL)		20			
3		Bluish-gray silty fine to coarse sand (SM) with rounded rocks (ALLUVIUM)		12			
4				12			
5		Boring terminated at 5 feet		17			
6		Groundwater encountered at 5 feet					
7							
8							
9							

Penetration resistance was evaluated in accordance with ASTM STP-399. The penetration resistance is the number of blows of a hammer weighing 15 lbs. falling 20 inches to drive a 1.5 inch diameter cone 1.75 inches.

Brook Run Trail Phase III
Dunwoody, Georgia
140545.20

HAND AUGER LOG B-09

Date Performed: 9/17/14 Logged by: KKS

Equipment: Hand Auger and Penetrometer Elevation(ft): _____

DEPTH (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE	PEN. RESIST	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	LAB TESTS
		Topsoil (Approximately 1 foot)		3			
1		Light brown to tan fine sandy silt (ML) (FILL)		15			
2		Grayish-tan silty fine sand (SM) (FILL		>25			
3		Bluish-gray silty coarse sand (SM) (ALLUVIUM)		>25			
4				21			
5		Boring terminated at 5 feet		12			
6		Groundwater encountered at 5 feet					
7							
8							
9							

HAND AUGER LOG B-10

Date Performed: 9/17/14 Logged by: KKS

Equipment: Hand Auger and Penetrometer Elevation(ft): _____

DEPTH (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE	PEN. RESIST	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	LAB TESTS
		Topsoil (Approximately 1 foot)		7			
1		Light brown silty fine sand (SM) (FILL)		22			
2				25			
3		Auger refusal at 3 feet		>25			
4		No groundwater encountered					
5							
6							
7							
8							
9							

Penetration resistance was evaluated in accordance with ASTM STP-399. The penetration resistance is the number of blows of a hammer weighing 15 lbs. falling 20 inches to drive a 1.5 inch diameter cone 1.75 inches.

Brook Run Trail Phase III
Dunwoody, Georgia
140545.20

EXHIBIT "A"

Minimum Guide Specification for Dewatering

****

NOTE: The following specifications are for use as a guide for development of actual specifications. The guide is not intended for direct use as a construction specification without modifications to reflect specific project conditions.

****

Control of groundwater shall be accomplished in a manner that will preserve the strength of the foundation soils, will not cause instability of the excavation slopes, and will not result in damage to existing structures. Where necessary to these purposes, the water level shall be lowered in advance of excavation, utilizing trenches, sumps, wells, well points or similar methods. The water level, as measured in piezometers, shall be maintained a minimum of 3 feet below the prevailing excavation level. Open pumping from sumps and ditches, if it results in boils, loss of soil fines, softening of the ground or instability of slopes, will not be permitted. Wells and well points shall be installed with suitable screens and filters so that continuous pumping of soil fines does not occur. The discharge shall be arranged to facilitate collection of samples by the Engineer.

Adapted from Construction Dewatering - A Guide to Theory and Practice, John Wiley and Sons.

PIONEER BRIDGES
A division of Bailey Bridges, Inc.

Date: August 28, 2014
Company: Lose & Associates
Attention: John Nicol
Phone:
Fax:
Email:
Re: Dunwoody Multi-Use Trail Bridge

We are pleased to quote you a price on the prefabricated Pioneer Bridge(s) described below.
This bridge(s) will be fabricated from atmospheric corrosion resistant weathering steel.
The floor will be a galvanized composite floor deck (concrete & rebar by others).
Shop drawings stamped by a professional engineer registered in the state of GA will be provided.

Location: Dunwoody, Georgia

Style:	Crossbow
Width:	12'-0"
Span:	122'-0"
Finish:	Weathering
Floor:	5" LW Concrete
Number of pieces:	2
Design Criteria:	AASHTO
Live Load (psf):	85
Dead Load (psf):	75
Vehicle Load (kips):	20
Lifting Weight (lbs):	50,459
Vert. Reaction (kips):	117.1
Horiz. Reaction (kips):	15.4
Truss Height (feet):	10.00
Railing Height:	54"
Safety Rails:	Horizontal
Rail Opening:	4"

Bridge cost delivered $93,862

Delivery: 12 to 14 weeks (delivery schedule subject to backlog at time of drawing approval).
Bridge(s) will be delivered to the nearest site easily accessible to over-the-road trucks.
Not included: Sales tax, unloading, erection, supports, anchor bolts and abutment designs.
Terms: 1/3 down, net 30 days after delivery (pending credit approval) This quote is per our standard terms and conditions and is good for 30 days. Please call if you have any questions.

Skip Wilson
VP Sales

119 40th Street NE Fort Payne, AL 35967 800-477-7320 256-845-7775 fax www.pioneerbridges.com