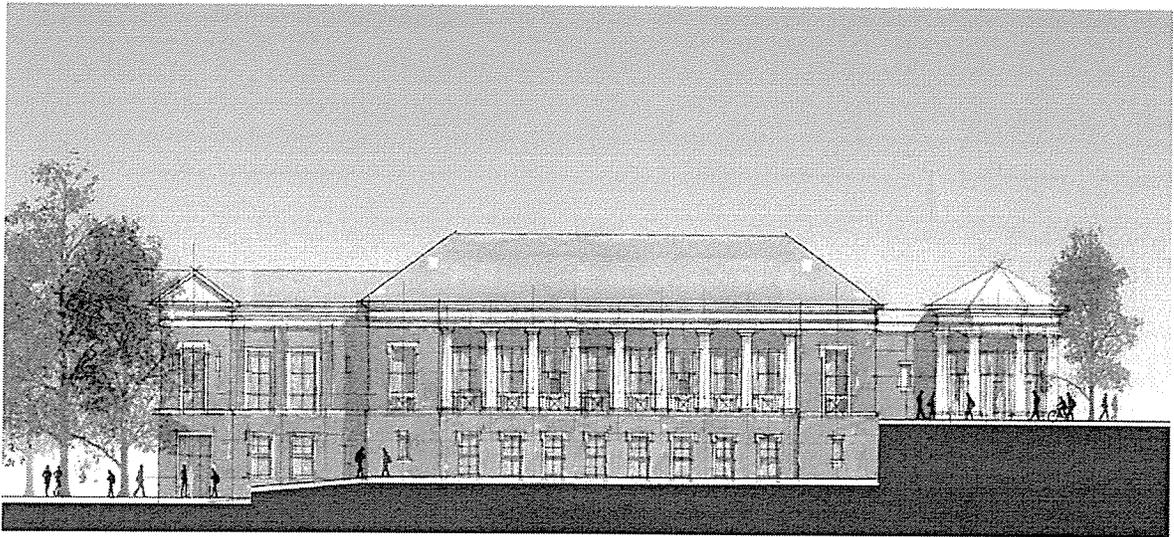




Atlanta Fulton County Public Library System  
Alpharetta Public Branch  
Street E  
Alpharetta, GA



## Bid Package



COOPER CARRY



atlanta-fulton public library system  
*Take your dreams off the shelf.™*



Atlanta Fulton County Public Library System  
Alpharetta Public Branch  
Street E  
Alpharetta, GA

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- VII. Project Schedule
- VIII. Sample Subcontract
- IX. Exhibit/Forms



Atlanta Fulton County Public Library System  
Alpharetta Public Branch  
Street E  
Alpharetta, GA

I. Invitation to Bid



## Atlanta Fulton County Public Library System Alpharetta Public Branch

### Invitation to Bid

CM Contact Info: Peter Brown Construction  
1600 Riveredge Parkway; Suite 600  
Atlanta, Georgia 30328

Project Contact: Alf Watlington  
Office: 678-581-3512  
[awatlington@mossemail.com](mailto:awatlington@mossemail.com)

You have been invited to bid on the following Early Release Packages:

31A – Site work & Utilities  
31B – Paving and Curb & Gutter  
3A – Concrete  
5A – Structural Steel  
14A- Elevator

Project Name: Alpharetta Public Library

Project Address: 70 Brooke Street  
Alpharetta, Georgia 30009

Project Description: The Alpharetta Public Library project is a 25,000sf structural steel frame with masonry inlay and will include all site improvements.

Bid Due Date: 10/10/13 @ 2:00 PM Eastern Standard Time

Pre-bid Meeting: Alpharetta City Hall  
2 Main Street  
Alpharetta, GA 30009

10/03/13 @ 10:30 AM

Project Start Date: Anticipated start date is 11/08/13



Atlanta Fulton County Public Library System  
Alpharetta Public Branch  
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## II. Instructions to Bidders



## Atlanta Fulton County Public Library System Alpharetta Public Branch

### Instructions to Bidders

The Alpharetta Library will be prominently located next to the new City Hall as a part of the Alpharetta City Center master redevelopment project on the Southeast corner of Main Street and Academy Street. The 25,000sf building is a structural steel frame with masonry inlay. The new library will provide innovative learning spaces along with a discovery center, children's program area, knowledge center, community theater, café, conference rooms, and private study spaces. The building will be surrounded by several acres of new parks and green spaces for the local residents to enjoy.

#### General

1. The bid dates & times for this project shall be as follows:

<b>Bid Package</b>	<b>Bid Date &amp; Time</b>
<b>31A Site work &amp; Utilities</b>	<b>October 10, 2013 @ 2:00 PM</b>
<b>31B Paving &amp; Curb &amp; Gutter</b>	<b>October 10, 2013 @ 2:00 PM</b>
<b>3A Concrete</b>	<b>October 10, 2013 @ 2:00 PM</b>
<b>5A Structural Steel</b>	<b>October 10, 2013 @ 2:00 PM</b>
<b>14A Elevator</b>	<b>October 10, 2013 @ 2:00 PM</b>

All other Bid Package submission dates are to be determined (TBD).

2. All Bids shall be **Hand Delivered or Mailed** to:

**Fulton County Department of Purchasing & Contract Compliance**  
130 Peachtree Street, SW  
Suite 1168  
Atlanta, Georgia 30303-3459

#### **Email**

**[Mark.hawks@fultoncountyga.gov](mailto:Mark.hawks@fultoncountyga.gov)**

#### **Fax**

Bids are not to be faxed. Bids that are faxed will not be considered.



3. Peter Brown reserves the right to reject any or all bids, accept bids in any order or combination, make any modifications to the work after bidding, and waive any informalities or irregularities in bids if it is deemed appropriate by Peter Brown Construction.
4. All Communication, verbal, written, or otherwise, shall be directed to Peter Brown Construction. Contact person is Alf Watlington at [watlingtona@peterbrownconst.com](mailto:watlingtona@peterbrownconst.com) office 678-581-3512. Questions shall be in email format. Deadline for questions is **October 3, 2013** at 2:00 PM. **DO NOT contact the Owner or Architect.**
5. **A pre-bid meeting will be held on October 03, 2013 @ 10:30 AM.** This pre-bid meeting is not mandatory but it is highly recommended that you attend. The pre-bid meeting will be held in the Peter Brown Construction office located at:

Alpharetta City Hall  
2 South Main Street  
Alpharetta, Georgia 30009

5. **All bids must be submitted on the Bid Forms supplied by Peter Brown Construction**, and shall be subject to all requirements of the Contract Documents. All bids must conform in every respect to the Bid Documents and Bid Packages. **All applicable spaces shall be filled in.**

a. **ITEMS INCLUDED:**

Bids shall include all Labor, Supervision, Detailing, Tools, Materials, Equipment and all Sales, Use or Similar Taxes applicable to and necessary to accomplish the Work outlined in the Bid Package except as otherwise stated. It is the intent of the Contract Documents to include all items necessary for the proper execution and completion of the Work, the Contract Documents are complementary, and what is required by any one shall be as binding as if required by all. Work not covered in the Contract Documents will not be required unless it is consistent therewith and is reasonably inferable therefore as being necessary to produce the intended results.



All Bidders shall, prior to submitting a bid, shall examine the bid documents thoroughly with respect to work by others and shall have familiarized themselves with the interfacing required of them as it pertains to all aspects of the work. A listing of the bid documents is also enclosed as part of this section. All other bid packages are available for coordination of your work. It is this trade contractor's responsibility to request the bid packages for other trades from Peter Brown Construction to check these against the coverage of what your firm is proposing and identify any potential gaps in the work.

- b. The Subcontract Form which will be utilized for this work is included in the bid package (Sample Subcontract). The successful bidder will be required to execute this agreement. Any modifications which will be requested must be submitted with bid.

Post Bid Meetings: Trade Contractors shall be available to meet for post bid meetings between **October 14, 2013 and October 18, 2013**

The dates above are identified above to notify each trade contractor to be prepared to meet on these days. An exact time will be identified upon receipt of bids from each trade contractor. Not all trade contractors will be required to meet for a post-bid meeting.

- c. Payment and Performance Bond
  - i. All bonds shall be issued by a Surety holding a current valid Certificate of Authority issued by the United States Department of Treasury under Sections 9304 to 9308 of Title 31 of the United States Code.
  - ii. Bid bonds are not required.
  - iii. The successful Bidder shall be required to demonstrate ability to provide and pay for a Payment Bond and a Performance Bond, each in the amount of 100% of the Contract Amount if their contract is in excess of \$50,000. Bonds must be written on Peter Brown Construction forms and shall name the Owner as dual obligees.
  - iv. All Bonds shall be issued by a Surety Licensed to conduct business in the State of Georgia. The work will be conducted and shall be in full compliance with the States Insurance Code.



- d. Insurance – The successful bidder must provide insurance coverage in accordance with Exhibit F of Sample Contract.
- e. A draft of the project schedule is included. Each bidder is responsible for reviewing this schedule thoroughly and confirming that their company can achieve the dates as required by this schedule. Should this bidder not be able to achieve the dates identified in the schedule it is their responsibility to make note of this on the scope sheet.
- f. All bidders are required to submit the Subcontractor Information Form.

**End of Instructions to Bidders**



Atlanta Fulton County Public Library System  
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### III. Bid Form



Atlanta Fulton County Public Library System  
Alpharetta Public Branch

**Bid Form**

Bid Package: \_\_\_\_\_ Work Category: \_\_\_\_\_

Work Description \_\_\_\_\_

Proposal of \_\_\_\_\_  
(Bidder) (Date)

TO: Peter Brown Construction  
1600 Riveredge Parkway; Suite 600  
Atlanta, Georgia 30328

Telephone: (770) 933-3512

Attn: Alf Watlington

**BASE BID**

1. Total Bid Price for all Work, complete, in accordance with the Contract Documents including Allowances (if applicable):

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

Add for Cost of Payment and Performance Bond:

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

Total Base Bid including Payment and Performance Bonds:

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

2. Deduct for Owner Controlled Insurance Program (OCIP)

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_)



3. ACKNOWLEDGEMENTS:

A. Bids may not be withdrawn for Ninety (90) days after the time and date of receipt thereof by Fulton County Department of Purchasing & Contract Compliance.

B. Bidder hereby acknowledges receipt of the following addenda & Supplemental Information:

Addenda \_\_\_\_\_ Date \_\_\_\_\_

Addenda \_\_\_\_\_ Date \_\_\_\_\_

Addenda \_\_\_\_\_ Date \_\_\_\_\_

Addenda \_\_\_\_\_ Date \_\_\_\_\_

Drawing Log for all Bid Documents Initial \_\_\_\_\_

C. Acceptance of all terms and conditions as outlined in the bid package including but not limited to the scope of work, schedule and sample contract.

Initial \_\_\_\_\_

3. QUANTITY AND UNIT RATES:

Included in this proposal are the following quantities and unit rates. Unit Rates will be used for additions and deletions during the course of the project. These unit rates are outlined at the bottom of the scope of work checklist. Unit rates pricing is inclusive of all overhead, bonds, insurance, etc. Pricing for all unit rates are required.

Unit Rate Description

1. \_\_\_\_\_ Dollars \$ \_\_\_\_\_

2. \_\_\_\_\_ Dollars \$ \_\_\_\_\_

3. \_\_\_\_\_ Dollars \$ \_\_\_\_\_

4. \_\_\_\_\_ Dollars \$ \_\_\_\_\_

5. \_\_\_\_\_ Dollars \$ \_\_\_\_\_

6. \_\_\_\_\_ Dollars \$ \_\_\_\_\_



4. ALTERNATES

- A. Bidder will provide pricing for all alternates included in your Scope of Work. Additional voluntary alternates offered by subcontractor should be noted below and may be considered.

BID ALTERNATES

1) Description of Alternate

---

---

Add / Deduct / No Change Dollars \$ \_\_\_\_\_

2) Description of Alternate

---

---

Add / Deduct / No Change Dollars \$ \_\_\_\_\_

3) Description of Alternate

---

---

Add / Deduct / No Change Dollars \$ \_\_\_\_\_

4) Description of Alternate

---

---

Add / Deduct / No Change Dollars \$ \_\_\_\_\_



VOLUNTARY ALTERNATES

1) Description of Alternate

---

---

Add / Deduct / No Change Dollars \$ \_\_\_\_\_

2) Description of Alternate

---

---

Add / Deduct / No Change Dollars \$ \_\_\_\_\_

3) Description of Alternate

---

---

Add / Deduct / No Change Dollars \$ \_\_\_\_\_

4) Description of Alternate

---

---

Add / Deduct / No Change Dollars \$ \_\_\_\_\_

5. We further certify that we have familiarized ourselves with the local labor market and are satisfied that adequate labor resources will be available to allow for timely completion of project.



Trade Contractor herein acknowledges that this Bid shall constitute an offer by Contractor to contract with Peter Brown Construction for the lump sum contract price as set forth herein above. I/We, the undersigned, do hereby declare that I/We have carefully examined the site of the proposed Work; also the Contract Documents, and do hereby agree to furnish all Materials, Transportation, Equipment, Labor and Supervision, Tools and other items to do all Work in strict accordance with the Contract Documents for the following Base Bid Price:

BY: (Member of Firm Authorized to Sign Bid)

\_\_\_\_\_  
(Signature) (Title)

\_\_\_\_\_  
(Print Name) (Print Title)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Telephone) (email)

Seal required for Corporation

\_\_\_\_\_ State License Number \_\_\_\_\_ (if applicable)

**End of Bid Form**



Atlanta Fulton County Public Library System  
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#### IV. Subcontractor Information Form



Atlanta Fulton County Public Library System  
Alpharetta Public Branch

## Subcontractor Information Form

### Organization Information

Company Name: \_\_\_\_\_

Street: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Email: \_\_\_\_\_

Point of Contact: \_\_\_\_\_

Title: \_\_\_\_\_

Phone: \_\_\_\_\_

*(Direct)*

*(Cell)*

Email: \_\_\_\_\_

**List Names of Owners, Officers and Key Personnel (Project Executives):**

First Name	Last Name	Position	Stock Holder (yes/no)



This firm is a (check box):

<input type="checkbox"/>	Corporation	<input type="checkbox"/>	Partnership	<input type="checkbox"/>	Sole Proprietor	<input type="checkbox"/>	Limited Liability
Other (explain):							

Organization Certifications (check those that apply):

Classification	<input type="checkbox"/>	Certification Number
MBE	<input type="checkbox"/>	
WBE	<input type="checkbox"/>	
SBE	<input type="checkbox"/>	
VBE	<input type="checkbox"/>	
DBE	<input type="checkbox"/>	
Others:	<input type="checkbox"/>	

- a) How many years has your organization been in **business** under its present name? \_\_\_\_\_
- b) Under what other former names has your organization operated? \_\_\_\_\_
- c) List Parent Company (if applicable) \_\_\_\_\_
- d) List Affiliated Companies (if applicable) \_\_\_\_\_

### Work Experience

List your last five (5) projects with dollar amount:

	Name of Project	Contract Value	CM/GC on	Bonded	Date Completed
1.					
2.					
3.					
4.					
5.					

Information for the last five (5) years:

Item/Year	Current Year	Past (1) Year	Past (2) Years	Past (3) Years	Past (4) Years	Past (5) Years
Annual volume						
Contract value of largest job						
Volume of work under contract						





Atlanta Fulton County Public Library System  
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## V. Scope of Work



## Atlanta Fulton County Public Library System Alpharetta Public Branch

<b>Scope of Work - Bid Package Summary</b>			
<b>Bid Package</b>	<b>Work Category</b>	<b>Work Description</b>	<b>Bid Date</b>
1	3A	Concrete	10-Oct-13
2	3B	Hardscape Concrete	10-Oct-13
3	4A	Masonry	21-Nov-13
4	5A	Structural Steel	21-Nov-13
5	5B	Misc. Steel	21-Nov-13
6	6A	Rough Carpentry	21-Nov-13
7	6B	Casework	21-Nov-13
8	7A	Waterproofing & Caulking	21-Nov-13
9	7B	Roofing	21-Nov-13
10	8A	Doors, Frames & Hardware	21-Nov-13
11	8B	Glass & Glazing	21-Nov-13
12	9A	Drywall & ACT	21-Nov-13
13	9B	Carpet & VCT	21-Nov-13
14	9C	Tile	21-Nov-13
15	9D	Painting	21-Nov-13
16	10A	Misc. Specialties	21-Nov-13
17	11A	Residential Kitchen Equipment	21-Nov-13
18	12A	Manufactured Casework	21-Nov-13
19	14A	Elevators	10-Oct-13
20	21A	Fire Protection	21-Nov-13
21	22A	Plumbing	21-Nov-13
22	23A	HVAC	21-Nov-13
23	26A	Electrical	21-Nov-13
24	31A	Site work & Utilities	10-Oct-13
25	31B	Paving & Curb & Gutter	10-Oct-13
26	31C	Landscaping	21-Nov-13

### End of Scope of Work – Bid Package Summary



# Atlanta Fulton County Public Library System Alpharetta Public Branch

## Contract Documents

**The following contract documents are all dated September 16, 2013**

### **Specifications Table of Contents**

#### **Division 01- General Requirements**

011000 Summary  
012600 Contract Modification Procedures  
012900 Payment Procedures  
012978 Interim Contractor's Affidavit and Waiver of Liens  
012979 Final Contractor's Affidavit and Waiver of Liens  
013119 Project Meetings  
013300 Submittal Procedures  
014200 References  
014500 Quality Control  
014529 Testing Laboratory Services  
015000 Temporary Facilities and Controls  
017123 Field Engineering  
017419 Construction Waste Management and Disposal  
018113 Sustainable Design Requirements

#### **Division 02– Existing Conditions (Not Applicable)**

#### **Division 03- Concrete**

031100 Concrete Forming  
032000 Concrete Reinforcing  
033000 Cast-In-Place Concrete

#### **Division 04- Masonry (Not Applicable)**

#### **Division 05- Metals (Not Applicable)**

051200 Structural Steel Framing  
052100 Steel Joist Framing  
053100 Steel Decking

#### **Division 06– Wood, Plastics, and Composites (Not Applicable)**

#### **Division 07- Thermal and Moisture Protection**

071326 Self-Adhering Sheet Waterproofing  
071616 Crystalline Waterproofing

#### **Division 08 to Division 13 (Not Applicable)**



**Division 14- Conveying Equipment**

142400 Hydraulic Elevators

**Division 15 to Division 21** (Not Applicable)

**Division 22- Plumbing**

221113 Water Distribution System

221313 Facility Sanitary Sewers

**Division 23 to Division 30** (Not Applicable)

**Division 31- Earthwork**

311000 Site Clearing

312000 Earthmoving

**Division 32- Exterior Improvements**

321216 Asphalt Paving

321313 Concrete Paving

323113 Chain Link Fences and Gates

**Division 33- Utilities**

334100 Storm Utility Drainage Piping

**DRAWINGS TITLED: Early Release Packages. Dated 9-16-13**

G0.00 Cover Sheet

G0.01 Drawing Index

**CIVIL**

C001 General Notes

C100 Existing Conditions

C200 Demolition Plan

C300 Site Plan

C400 Grading & Drainage Plan

C500 Utility Plan

C700 Erosion & Sediment Control Notes

C701 Erosion & Sediment Control Plan - Initial

C702 Erosion & Sediment Control Plan - Intermediate

C703 Erosion & Sediment Control Plan - Final

C800 Erosion & Sediment Control Details

C801 Erosion & Sediment Control Details

C802 Erosion & Sediment Control Details

C803 Erosion & Sediment Control Details

C900 Construction Details

C901 Construction Details

C902 Construction Details

C903 Construction Details

C904 Construction Details

C905 Construction Details



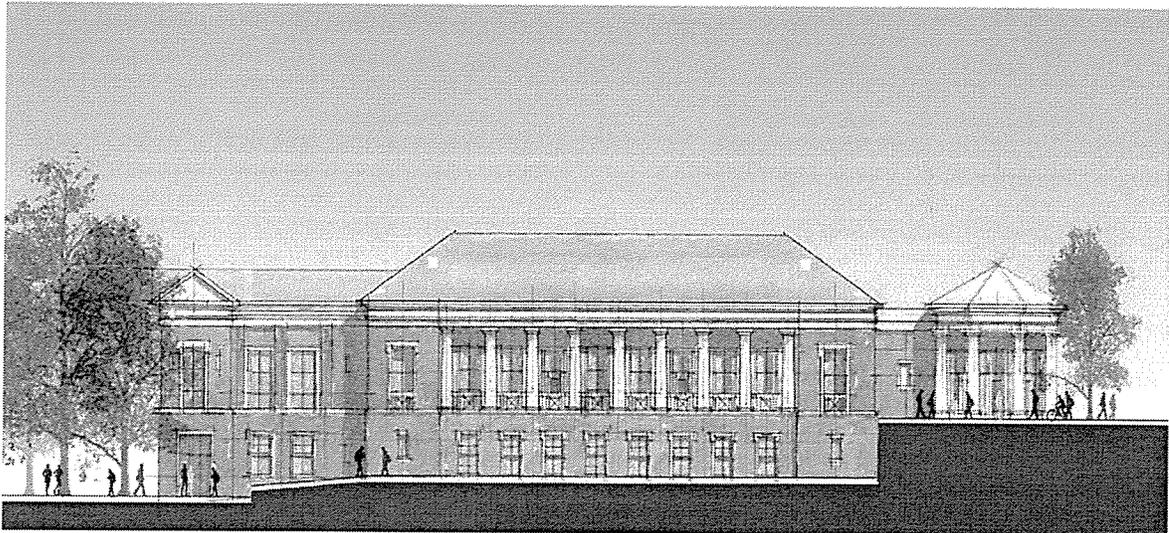
## **STRUCTURAL**

S0.01 Structural General Notes  
S0.02 Structural General Notes  
S0.03 Wind Load Diagram  
S0.11 Isometric Views  
S1.01 Floor Plan - Level 1  
S1.02 Floor Plan - Level 2  
S1.03 Roof Plan  
S1.04 High Roof Plan  
S1.05 Enlarged Plans  
S3.01 Typical Foundation Details  
S3.02 Typical Foundation Details  
S3.03 Typical Foundation Details  
S3.04 Typical Foundation Details  
S3.06 Foundation Details  
S3.07 Foundation Details  
S4.01 Masonry Details  
S5.01 Typical Steel Details  
S5.02 Typical Steel Details  
S5.03 Typical Steel Details  
S5.04 Steel Details  
S5.05 Steel Details  
S6.01 Concrete Framing Detail  
S7.01 Braced Frame  
S7.02 Braced Frame and Details

## **ARCHITECTURE**

A1.01 Floor Plan - Level 1  
A1.02 Floor Plan - Level 2  
A1.03 Roof Plan  
A3.01 Exterior Elevations and Building Sections  
A3.02 Exterior Elevations and Building Sections

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**Bid Package 1**  
**3A – Concrete**



**COOPER CARRY**



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## **Cast In Place Concrete – Scope of Work**

This subcontractor shall provide all labor, material, equipment, overhead, etc. to provide a complete cast in place concrete package to include, but not limited to; foundations, piers, walls, slab on grade, thickened slabs, slab turndowns, slab on decking, podium slabs, stage slabs, pits, vapor barrier, termite protection, reinforcing, ready-mix and place and finish of all materials.

1. Subcontract to perform work as outlined in the Construction Manager's schedule. All required mobilizations are included.
2. All required submittals for this scope of work are required to be submitted no later than two weeks after the Construction Manager (CM) has provided a Notice to Proceed.
3. All specified warranties and close out documents will be submitted prior to release of any retainage.
4. The subcontractor will provide all lay-out for this scope of work. A set benchmark will be provided and all lay-out will be taken from this point. This includes all columns, anchor bolts and embeds.
5. Subcontractor is responsible for all casual dewatering of surface and ground water as required to perform this scope of work.
6. Subcontractor will schedule all applicable inspections and tests for his work with the Owner's testing agent and the CM. All tests shall be witnessed by the Owner's agent when required.
7. Subcontractor is responsible for all of his own flagmen, hoisting, rigging, scaffolding, and staging, material handling equipment, manpower, personnel safety protection, and small tools necessary to perform his work. All equipment shall meet OSHA standards.
8. Subcontractor is responsible for any required trade permits or temporary facility permits. CM will hold the overall construction permit
9. All existing conditions, utilities and temporary construction facilities/controls shall be protected from damage due to the subcontractor's construction activities. Any damage will be repaired immediately as directed by the CM.
10. The subcontractor will coordinate all deliveries with the CM and will be responsible for all off-loading and handling of deliveries.

## **Cast In Place Concrete – Scope of Work**

### **Page 2 of 4**

11. The subcontractor will provide any required dust control, mud control and wash down required for this scope of work. Any clean-up of adjacent streets due to mud or debris from delivery vehicles will be the subcontractor's responsibility.
12. The subcontractor will maintain a set of as-built in the CM's field office showing any approved modifications from the contract documents and submittals.
13. Excavation for this scope including but not limit to; foundation excavation, foundation backfill, gravel back fill at walls, granular fill below slabs.
14. Excavation spoils will be consolidated onsite as directed by the CM and disposed of by the CM.
15. The properly prepared and compacted sub-grade will be turned over to this Subcontractor at plus or minus ( $\pm$ ) 1/10 of a foot (underside of gravel elevation). Final adjustment of sub-grade during fine grading to within plus or minus ( $\pm$ ) .05 foot prior to placement of the slabs on grade will be the responsibility of this Subcontractor.
16. Hand excavation is included as required.
17. The subcontractor will be responsible for design, installation and removal of all required formwork and temporary shoring for this scope.
18. Form all block outs and depressed slabs as required.
19. Install anchor bolts, sleeves and embeds provided by other trades.
20. Provide and install all ready-mix concrete.
21. Excess concrete will be disposed of off-site. Truck wash down area will be provided and as directed by the CM.
22. Water will only be added as directed by the Owner's testing agent.
23. The subcontractor will be responsible for clean-up of the truck wash area.
24. Concrete curing and temporary weather protection is included in this scope.
25. All curing compounds/methods will be indicated in the submittals. These will be provided to the flooring manufacturers to insure they are appropriate for the application.



**Cast In Place Concrete – Scope of Work**  
**Page 3 of 4**

26. All saw cutting of expansion joints is included. Provide joint filler as indicated.
27. Any slab on grade perimeter insulation is included.
28. Provide and install all rebar, dowels, and welded wire mesh.
29. An Allowance of 5% of the rebar tonnage is included to be used as directed by the engineer.  
This allowance includes all material, labor, delivery, taxes and mark-ups.
30. Steps on engineered fill at the east side of the porch are included.
31. The podium slab at the "Centrum" is included.
32. Provide 200 sf of 6" thick equipment/housekeeping pads to be placed as directed by the CM.

**ALTERNATE PRICING AND UNIT RATES**

**See required Alternate pricing and unit rates on the following page.**



**Cast In Place Concrete – Scope of Work**  
**Page 4 of 4**

**The following unit rates must be provided with your completed bid form.**

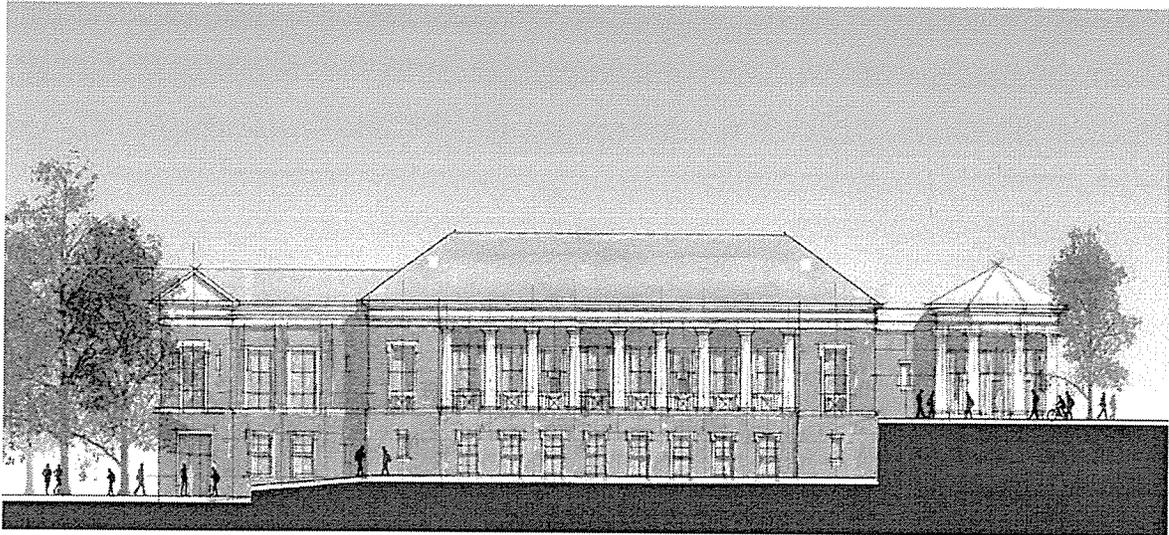
1. Add Alternate

Provide cast in place site retaining wall at Loading/Mechanical Yard. This add alternate is to provide all labor, material, equipment, layout, etc. to provide the concrete foundation and wall complete including site wall permit as required by the contract documents and the City of Alpharetta.

ADD \$ \_\_\_\_\_

2. UNIT RATE : Rebar \$/ton     \$ \_\_\_\_\_ /ton

Atlanta Fulton County Public Library System  
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**Bid Package 4**  
**5A – Structural Steel**



**COOPER CARRY**



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### **Structural Steel – Scope of Work**

This subcontractor shall provide all labor, material, equipment, overhead, etc. to provide a complete structural & Miscellaneous steel package to include, but not limited to structural steel frame, joists, connections, brace framing, metal decking, floor and roof openings, steel stairs, welded/bolted lintels, overhead wall support, embed plates, ladders, sump pits, elevator sills & beams, anchor bolts and loose lintels.

1. Subcontract to perform work per the CM's schedule and include all required mobilizations.
2. All required submittals for this scope of work will be submitted no later than two weeks after the Construction Manager (CM) has provided a notice to proceed.
3. All specified warranties and close out documents will be submitted prior to release of any retainage.
4. The subcontractor will provide all lay-out for this scope of work. A set benchmark will be provided by the CM and all lay-out will be taken from this point.
5. Subcontractor is responsible for all casual dewatering of surface and ground water as required to perform this scope of work.
6. Subcontractor will schedule all applicable inspections and tests for his work with the Owner's testing agent and the CM. All tests shall be witnessed by the Owner's agent when required.
7. Subcontractor is responsible for all of his own flagmen, hoisting, rigging, scaffolding, and staging, material handling equipment, manpower, personnel safety protection, and small tools necessary to perform his work. All equipment shall meet OSHA standards.
8. Subcontractor is responsible for any required trade permits or temporary facility permits. CM will hold the overall construction permit
9. All existing conditions, utilities and temporary construction facilities/controls shall be protected from damage due to the subcontractor's construction activities. Any damage will be repaired immediately as directed by the CM.
10. The subcontractor will coordinate all deliveries with the CM and will be responsible for all off-loading and handling of deliveries.
11. The subcontractor will provide any required dust control, mud control and wash down required for this scope of work. Any clean-up of adjacent streets due to mud or debris from delivery vehicles will be the subcontractor's responsibility.



## **Structural Steel – Scope of Work**

### **Page 2 of 3**

12. The subcontractor will maintain a set of as-built in the CM's field office showing any modifications from the submittals.
13. Loose lintels, bollards and anchor bolts will be provided only. Installation will be by others.
14. Anchor bolt templates will be provided to others for anchor bolt installation.
15. Lintels that are welded or bolted to the structure are to be provided and installed.
16. An Allowance of 3% of the steel tonnage is included to be used as directed by the engineer. This allowance includes all material, labor, delivery, taxes and mark-ups.
17. Subcontractor shall be responsible for coordinating delivery, setting drawings, and verifying all field dimensions to ensure proper fit to the fullest extent possible before delivery to site.
18. Subcontractor is responsible for coordinating weight limits of material with allowable lifting capabilities of crane.
19. All special finishes for metals (galvanizing, sandblasting, etc.) are provided by this subcontractor.
20. All touch-up painting required from welding and connections will be provided by this subcontractor.
21. Subcontractor to provide all scaffolding, bracing, shoring, etc. to perform your work.
22. Provide full time on-site supervision for your work whether or not the steel erection is subcontracted.
23. Provide & install monumental stair stringers, risers, tread & tube steel post supports. Provide unit pricing for this assembly below (no railing).
24. Provide overhead structural support for operable partitions.
25. Provide support for architectural pre-cast cornices. Details to be issued via addendum.

#### **ALTERNATE PRICING AND UNIT RATES**

**See required Alternate pricing and unit rates on the following page.**



**Structural Steel – Scope of Work**

**Page 2 of 3**

**ALTERNATE PRICING AND UNIT RATES**

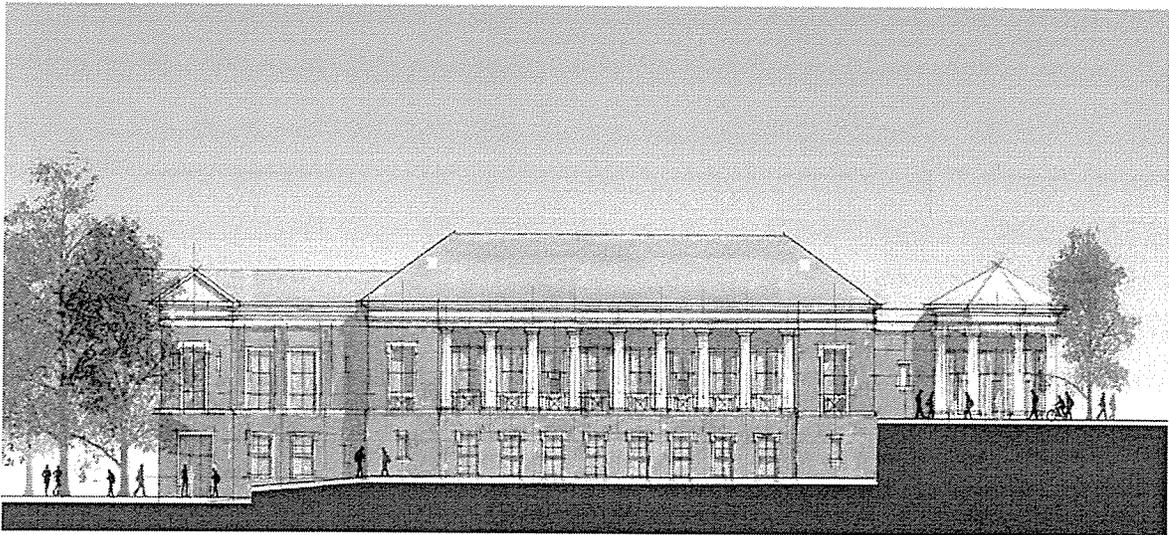
**The following unit rates must be provided with your completed bid form.**

UNIT RATE: Monumental Stair \$ \_\_\_\_\_/ea

UNIT RATE: 5/S5.05(and Similar) Cornice w/ Gutter Support Steel\$ \_\_\_\_\_/lf

UNIT RATE: 8/S5.04(and Similar) Cornice w/ Gutter Support Steel\$ \_\_\_\_\_/lf

Atlanta Fulton County Public Library System  
Alpharetta Public Branch  
Street E  
Alpharetta, GA



**Bid Package 19**  
**14A – Elevator**





## **Elevator – Scope of Work**

This subcontractor shall provide all labor, material, equipment, overhead, etc. to provide a complete elevator package to include, but not limited to; providing and installing the hydraulic elevator, shop drawings, and complete operation permit.

1. Subcontractor to perform work per the CM's schedule and include all required mobilizations.
2. All required submittals for this scope of work will be submitted no later than two weeks after the Construction Manager (CM) has provided a notice to proceed.
3. All specified warranties, close out documents and operation permits will be submitted prior to release of any retainage.
4. The subcontractor will provide all lay-out for this scope of work.
5. In addition to the warranty, this subcontract includes the specified "Initial Maintenance Period".
6. Subcontractor will schedule all applicable inspections and tests for his work with the Owner's testing agent and the CM. All tests shall be witnessed by the Owner's agent when required.
7. Subcontractor is responsible for his own flagmen, hoisting, rigging, scaffolding, and staging, material handling equipment, manpower, personnel safety protection, and small tools necessary to perform his work. All equipment shall meet OSHA standards.
8. Subcontractor is responsible for any required trade permits or temporary facility permits. CM will hold the overall construction permit.
9. All existing conditions, utilities and temporary construction facilities/controls shall be protected from damage due to the subcontractor's construction activities. Any damage will be repaired immediately as directed by the CM.
10. The subcontractor will coordinate all deliveries with the CM and will be responsible for all off-loading and handling of deliveries.
11. The subcontractor will maintain a set of as-built in the CM's field office showing any modifications from the submittals.



**Elevator – Scope of Work**  
**Page 2 of 3**

12. The basis of design is Thyssen Krupp, Endura Twin Post Above Ground 2 Stage Holeless Hydraulic Elevator or equal from Otis or Kone.
13. Cab walls and ceiling finishes are included. Floor will be linoleum provided by others.
14. Provide temporary cab finish protection blankets.

**ALTERNATE PRICING AND UNIT RATES**

**See required Alternate pricing and unit rates on the following page.**



**Elevator – Scope of Work**  
**Page 2 of 3**

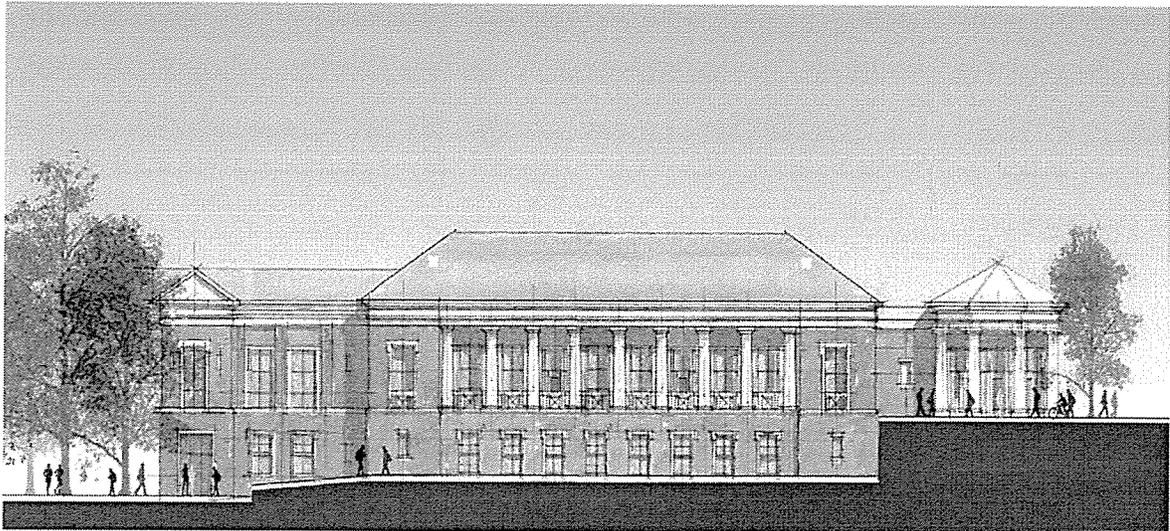
**ALTERNATE PRICING AND UNIT RATES**

1. UNIT RATE: Temporary Use For Construction \$ \_\_\_\_\_/week



## Atlanta Fulton County Public Library System

Alpharetta Public Branch  
Street E  
Alpharetta, GA



### **Bid Package 24 31A – Site-work & Utilities**



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Atlanta Fulton County Public Library System



## Site-work & Utilities – Scope of Work

This subcontractor shall provide all labor, material, equipment, overhead, etc. to provide a complete site-work & utilities package to include, but not limited to; site surveying/building layout, site demolition, erosion control, tree save, temporary fencing, site clearing, grading & excavation, site utilities, and temporary shoring.

1. Subcontract shall perform all work as outlined in the Construction Manager's schedule. All required mobilizations are included.
2. All required submittals for this scope of work will be submitted no later than two weeks after the Construction Manager (CM) has provided a notice to proceed.
3. All specified warranties and close out documents will be submitted prior to release of any retainage.
4. The subcontractor will provide all lay-out for this scope of work. Subcontractor is responsible for all casual dewatering of surface and ground water as required to perform this scope of work.
5. Subcontractor will schedule all applicable inspections and tests for his work with the Owner's testing agent and the CM. All tests shall be witnessed by the Owner's agent when required.
6. Subcontractor is responsible for all of his own flagmen, hoisting, rigging, scaffolding, and staging, material handling equipment, manpower, personnel safety protection, and small tools necessary to perform his work. All equipment shall meet OSHA standards.
7. Subcontractor is responsible for any required trade permits or temporary facility permits. CM will hold the overall construction permit.
8. All existing conditions, utilities and temporary construction facilities/controls shall be protected from damage due to the subcontractor's construction activities. Any damage will be repaired immediately as directed by the CM.
9. The subcontractor will coordinate all deliveries with the CM and will be responsible for all off-loading and handling of deliveries.
10. The subcontractor will provide any required dust control, mud control and wash down required for this scope of work. Any clean-up of adjacent streets due to mud or debris from delivery vehicles will be the subcontractor's responsibility.
11. The subcontractor will maintain a set of as-built in the CM's field office showing any modifications from the submittals.

**Site-work & Utilities – Scope of Work**

**Page 2 of 5**

12. In addition to layout for this trade the site work subcontractor shall provide a licensed surveyor setting a benchmark to be used for the duration of construction and laying out the building corners.
13. Erosion control and tree save are included and should conform to the plans, specifications and City of Alpharetta standards. The installation and inspection of this erosion control will be required prior to receiving a land disturbance permit. As outlined by the erosion control documents, or other contract documents, any required maintenance bonds are included in this subcontract.
14. Maintain erosion control services throughout the project duration. Refer to and follow the practices of the Storm Water Pollution Prevention Plan, located in the Site & Utility Design Analysis & Specifications (SWPPP) document. Any silt fence damages or additional maintenance required to the silt fence due to another subcontractors' negligence will be the responsibility of the subcontractor at fault.
15. Provide permanent soil stabilization control measures at the end of the project as specified, shown on drawings and per the SWPPP.
16. This contract includes all temporary seeding/straw valued at an amount of \$3,000.00.
17. Include 8' high temporary chain link site fence around the entire perimeter of the construction site. Fencing shall include two each, 24' drive gates and one each, walk gate. (See "Temporary Fence" drawing for layout). This fence is to be removed from site at the end of construction or as directed by the CM.
18. Site Demolition includes; removal of existing asphalt paving, concrete curbs, cap and remove utilities as indicated.
19. Disposal of any concrete or asphalt materials must go to a recycling center and be properly documented. Coordinate these activities with the Project Superintendent before removal and provide copies of all disposal documentation to the Project Superintendent.
20. Grading and excavation of site including all tree and undergrowth removal, stripping of topsoil, cut and fill, compaction, grading of building pad, fine grading, any required export/import of topsoil, any required export/import of soils and backfilling of curbs.
21. Grind trees into mulch for use on premises as ground cover and store on site as directed by the superintendent.



## Site-work & Utilities – Scope of Work

### Page 3 of 5

22. Fine grade sidewalks, slabs, pads, paving, and landscaped areas in accordance with contract documents.
23. Any unsuitable soils and excess soils will be removed from the site.
24. A geotechnical soils report is included in the contract documents. This report is to be used to highlight some of the soils characteristics under the building pads, parking lots, roadways/driveways, and sidewalks, which might need to be remediated. All the remediation in accordance with this geotechnical report and all other remediation required to make the soils suitable to build the above mentioned structures on is included in this scope of work. It is expressly understood this scope of work includes unclassified excavation to subgrade, and all the cost to bring the site in full compliance with the specifications and perform all grading, undercutting, backfilling, removal of unsuitable soils from the site and hauling in suitable materials to bring grades to required elevations in accordance with the drawings is included as part of this scope of work and no additional compensation will be made to this subcontractor on the account of above mentioned work.
25. Subcontractor has included 480 CY of size 3 limestone gravel to be used as temporary roads and placed as directed by the CM. (See list of Unit Rates).
26. This Subcontract will include an allowance of 800 cy, haul-off of spoils generated by other trades. These spoils will be stockpiled centrally on site by other trades as directed by the CM.
27. Backfill of basement and site walls is included. This includes aggregate fill as indicated in the documents.
28. Domestic Water Service includes, but is not limited to all excavation, pipe, water meter, meter fees, check valve, backflow preventor, vaults, and backfill. A complete system shall be provided to 5' from the outside of the building.
29. Fire Water Service includes, but is not limited to all excavation, pipe, water meter, meter fees, check valve, backflow preventor, vaults, hydrants, FDC outside of the building footprint and backfill. A complete system shall be provided to 1' above the slab on grade.
30. All testing and chlorination shall be performed by subcontractor.

## Site-work & Utilities – Scope of Work

### Page 4 of 5

31. Sanitary Sewer work includes, but isn't limited to all excavation, pipe, cleanouts, tap/tie to existing sewer and backfill. A complete system shall be provided to 5' from the outside of the building.
32. Storm Drainage work includes, but is not limited to all excavation, pipe, cleanouts, head walls, curb drains, grate drains, area drains, tap/tie to existing storm drainage and backfill. A complete system shall be provided. Subcontractor shall clean site drainage system as required to obtain final site approvals after the building is complete and final ground cover is installed.
33. Storm drainage specifically includes foundation drain piping, piping to downspouts, downspout boots, and area drainage.
34. Subcontractor will provide temporary barricades or cover plates for any excavation/trenching left open at the end of each work day.
35. The Modular Site Wall at the loading/mechanical equipment yard is included in this scope. It includes but is not limited to material, installation, shop drawings/design, site wall permitting and the cost of such permits, excavation, backfill, granular backfill, geogrid, pinning, and drainage/weepers.
36. The subcontractor shall provide certified site as-builts as required by the contract documents and the City of Alpharetta. As-builts shall be provided to the CM in hard copy and electronic form.
37. Pricing shall include 80 hours of bobcat rental with operator to be used at the discretion of the superintendent.

#### **ALTERNATE PRICING AND UNIT RATES**

See required Alternate pricing and unit rates on the following page.



## Site-work & Utilities – Scope of Work

Page 5 of 5

### ALTERNATE PRICING AND UNIT RATES

The following unit rates must be provided with your completed bid form.

1. DEDUCTIVE ALTERNATE:

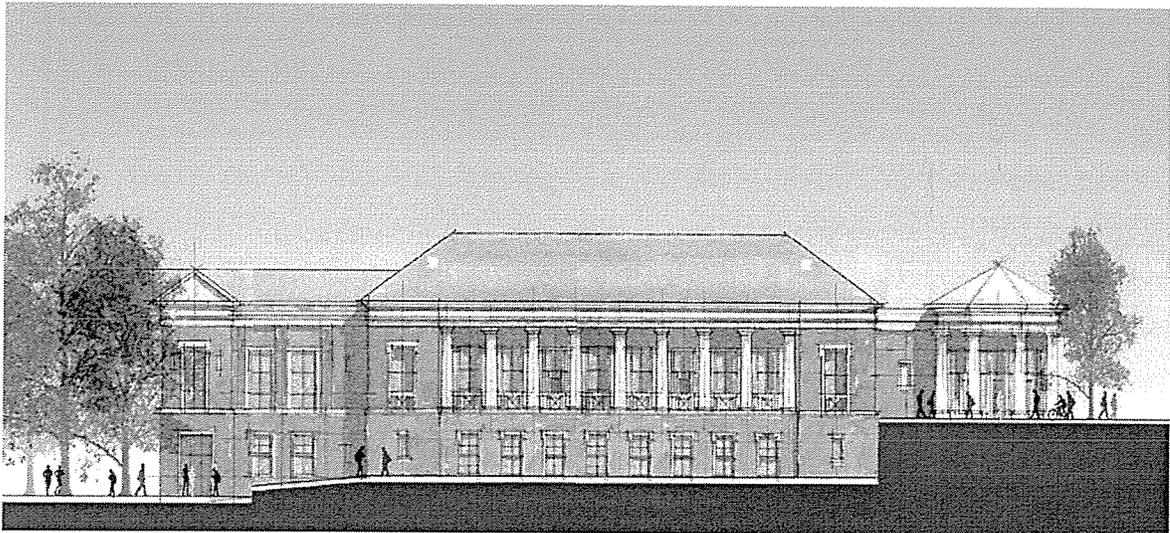
The Modular Site Wall at the loading/mechanical equipment yard is included in this scope. It includes but is not limited to material, installation, shop drawings/design, site wall permits, excavation, backfill, granular backfill, geogrid, pinning, and drainage/weeps.

DEDUCT \$ \_\_\_\_\_

The following unit rates shall include delivery, and placement of material unit noted.

2. UNIT RATE: Remove and Dispose Unsuitable Soil offsite \$ \_\_\_\_\_/cy
3. UNIT RATE: Haul in, place and compact fill material \$ \_\_\_\_\_/cy
4. UNIT RATE: 33C Gravel (place and spread) \$ \_\_\_\_\_/cy
5. UNIT RATE: Size 3 Limestone (place and spread) \$ \_\_\_\_\_/cy
6. UNIT RATE: Mass Rock Excavation \$ \_\_\_\_\_/cy
7. UNIT RATE: Trench Rock Excavation \$ \_\_\_\_\_/cy
8. UNIT RATE: Remove and dispose excavated rock \$ \_\_\_\_\_/cy
9. UNIT RATE: 6" PVC Roof Drains \$ \_\_\_\_\_/lf

Alpharetta Public Branch  
Street E  
Alpharetta, GA



**Bid Package 25**  
**31B – Paving and Curb & Gutter**



**COOPER CARRY**



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## **Paving and Curb & Gutter – Scope of Work**

This subcontractor shall provide all labor, material, equipment, overhead, etc. to provide a complete paving and curb & gutter package to include, but not limited to; all required surveying and layout to perform this work, placement of GAB and asphalt paving, curbs & gutters, parking accessories, paint striping and all traffic signage.

1. Subcontract to perform work per the CM's schedule and include all required mobilizations.
2. All required submittals for this scope of work will be submitted no later than two weeks after the Construction Manager (CM) has provided a notice to proceed.
3. All specified warranties and close out documents will be submitted prior to release of any retainage.
4. The subcontractor will provide all layout for this scope of work.
5. Subcontractor is responsible for all casual dewatering of surface and ground water as required to perform this scope of work.
6. Subcontractor will schedule all applicable inspections and testing for his work with the Owner's testing agent and the CM. All tests shall be witnessed by the Owner's agent when required.
7. Subcontractor is responsible for all of his own flagmen, hoisting, rigging, scaffolding, and staging, material handling equipment, manpower, personnel safety protection, and small tools necessary to perform his work. All equipment shall meet OSHA standards.
8. Subcontractor is responsible for any required trade permits or temporary facility permits. CM will hold the overall construction permit.
9. All existing conditions, utilities and temporary construction facilities/controls shall be protected from damage due to the subcontractor's construction activities. Any damage will be repaired immediately as directed by the CM.
10. The subcontractor will coordinate all deliveries with the CM and will be responsible for all off-loading and handling of deliveries.
11. The subcontractor will provide any required dust control, mud control and wash down required for this scope of work. Any clean-up of adjacent streets due to mud or debris from delivery vehicles will be the subcontractor's responsibility.



**Paving and Curb & Gutter – Scope of Work**  
**Page 2 of 3**

12. The subcontractor will maintain a set of as-built in the CM's field office showing any modifications from the submittals.
13. Asphalt paving including but not limited to standard and heavy duty paving, surface course, binder course, tack coat and base course.
14. Concrete curbs including aggregate base.
15. Directional and ADA signage installed including any foundations.
16. Paint Striping and Directional Arrows are included.
17. Wheel stops provided and installed are included
18. All pricing will be valid for the duration of the project.
19. This subcontractor shall verify grades associated with the placement of paving and installation of curb & gutter. Commencement of this work shall constitute acceptance of existing conditions.
20. Subcontractor shall include appropriate mobilizations to install base and binder course early in the project and topping course toward the end of the project. Curb & gutter will also require additional mobilizations.

**See required Alternate pricing and unit rates on the following page.**



**Paving and Curb & Gutter – Scope of Work**  
**Page 3 of 3**

**ALTERNATE PRICING AND UNIT RATES**

**The following unit rates must be provided with your completed bid form.**

1. UNIT RATE : Heavy Duty Asphalt Paving      \$ \_\_\_\_\_/sy
  
2. UNIT RATE : Standard Duty Asphalt Paving      \$ \_\_\_\_\_/sy



Atlanta Fulton County Public Library System  
Alpharetta Public Branch  
Street E  
Alpharetta, GA

## V. Request for Information



**SUBSURFACE EXPLORATION AND  
GEOTECHNICAL ENGINEERING EVALUATION**  
**Alpharetta Branch Library**  
Alpharetta, Fulton County, Georgia

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**WILLMER ENGINEERING INC.**  
Willmer Project No. 71.3875

Prepared for

**Fulton County Facilities and Transportation Department**  
**Building Construction Division**

Prepared By

**WILLMER ENGINEERING INC.**  
3772 Pleasantdale Road  
Suite 165  
Atlanta, Georgia 30340

770.939.0089

May 24, 2013

VIA EMAIL / U.S. MAIL

Gerhardt D. Gerard, AIA, LEED AP  
Fulton County Facilities and Transportation Department  
Building Construction Division  
3977 Aviation Circle  
Atlanta, Georgia 30336

**SUBJECT: Subsurface Exploration and Geotechnical Engineering Evaluation  
Alpharetta Branch Library**  
Alpharetta, Fulton County, Georgia  
Willmer Project No. 71.3875

Dear Mr. Gerard:

Willmer Engineering Inc. (Willmer) is pleased to provide this report of subsurface exploration and geotechnical engineering evaluation for the proposed Alpharetta Branch Library in Alpharetta, Fulton County, Georgia. This work was performed for Fulton County Facilities and Transportation Department in general accordance with our Contract No. 11RFP77841K-MH with Fulton County.

This report presents our understanding of the proposed development, the results of our geotechnical exploration, analyses, and evaluation, and our recommendations for the design and construction of the proposed library.

We greatly appreciate the opportunity to be of service to you on this project. Please contact us if you have any questions concerning this report or require further assistance.

Sincerely,

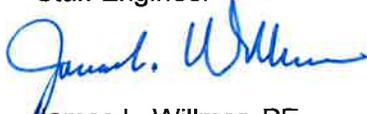
**WILLMER ENGINEERING INC.**



Bradford Drew, EIT  
Staff Engineer



Sujit K. Bhowmik, PhD, PE  
Chief Engineer



James L. Willmer, PE  
Executive Vice President/Principal Consultant

BD/SKB/JLW:vd

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This original document was signed and sealed by James L. Willmer, PE Registration No. 10780 on May 24, 2013,  
**THIS REPRODUCTION IS NOT A CERTIFIED DOCUMENT**

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## Executive Summary

The following summary highlights significant aspects of the project and our conclusions and recommendations. The reader is referred to the report text for detailed descriptions of our geotechnical investigation, analyses, and recommendations.

- The proposed library building is a two-story “L”-shaped steel frame building with a footprint area of about 20,000 square feet. The estimated maximum column load for the library building is 330 kips.
- The existing ground surface elevation within the footprint area of the building ranges from approximately 1,122 feet near the northwest corner to about 1,108 feet near the south and east ends. The anticipated finished floor elevation (FFE) of the lower level of the library is 1106.5 feet. Thus, up to about 16 feet of cut will be required to achieve the proposed grade.
- We understand that a portion of the west wall of the library will be a basement wall, and a retaining wall will also be required to accommodate a loading dock near the southern portion of the west wall.
- The geotechnical exploration consisted of nine Standard Penetration Test (SPT) borings, soil sampling, and laboratory tests. The subsurface profile at the site consists of a layer of fill underlain by residual soils, partially weathered rock (PWR), and parent bedrock. Groundwater was encountered at elevations ranging between 1,097 feet and 1,093 feet, which corresponds to about 10 to 13 feet below the lowest floor grade.
- All new fill should be compacted to at least 95 percent of the Standard Proctor maximum dry density, and the upper 12 inches of subgrade in all slab-on-grade, foundations, and pavements should be compacted to at least 98 percent of the Standard Proctor maximum dry density at a moisture content within  $\pm 3$  percent of the optimum moisture content.
- The proposed library building can be supported on spread footings bearing on residual soils. We recommend an allowable bearing pressure of 2,000 pounds per square foot (psf) for use in footing design. Assuming a 13-foot by 13-foot spread footing, the maximum settlement under a bearing pressure of 2,000 psf is estimated to be one inch. The maximum differential settlement is estimated to be  $\frac{1}{2}$  inch.
- It should be noted that the proposed building footprint was moved significantly to the east after completion of our field exploration. We recommend that additional borings be performed to confirm that the soil conditions under the eastern part of the building are consistent with our recommendations.
- Based on measured shear wave velocity versus depth profiles, the seismic classification for the site is Site Class ‘D’.
- We recommend using a CBR value of 3 and subgrade reaction modulus (k) value of 100 pci for pavement design.
- Willmer Engineering Inc. will provide geotechnical engineering oversight during construction of the facilities to confirm that the subsurface conditions encountered during construction are consistent with our interpretation based on the results of our geotechnical investigation and that the recommendations provided herein are properly interpreted and implemented.

## **1.0 Introduction**

### **1.1 Site Location and Project Description**

A new public library is planned to be constructed in Alpharetta, Fulton County, Georgia. The site for the proposed library is located about 500 feet north of the intersection of realigned Haynes Bridge Road and Thompson Street and immediately southeast of old Haynes Bridge Road and Brook Street (to be removed). A site location map is presented in Figure 1 (sheets 1 and 2), a drawing showing the location of the proposed building relative to the existing site features is presented in Figure 2, and photographs showing the current site conditions are presented in Appendix III.

### **1.2 Description of Proposed Development**

The proposed library building will be a two-story “L”-shaped steel frame building with cross braced frames for lateral support. Based on information provided to us by Fulton County, the estimated maximum column load for the library building is 330 kips. The building has a footprint area of approximately 20,000 square feet.

### **1.3 Existing Site Conditions and Proposed Grading**

Currently, the footprint area of the proposed library building is located on and immediately southeast of an existing intersection that is to be removed (old Haynes Bridge Road and Brook Street). The northern end of the site lies over old Brook Street, the middle part of the site is mostly wooded with moderate undergrowth, and the south end of the site is grassed and was previously used for a residence. No remaining concrete slabs or construction debris was observed during the field exploration.

The existing ground surface elevation within the footprint area of the building ranges from approximately 1,122 feet near the northwest corner to about 1,108 feet near the south and east ends. The ground surface elevation decreases to about 1,100 feet near the east end of the proposed parking area adjacent to realigned Haynes Bridge Road (see Figure 2).

The anticipated finished floor elevation (FFE) of the lower level of the library is 1106.5 feet. Thus, up to about 16 feet of cut will be required to achieve the proposed grade. The southeast corner of the site will be used for parking and will require about 4 feet of cut and about 6 feet of fill to achieve final grade.

### **1.4 Existing Geotechnical Information**

A preliminary subsurface exploration was performed for this site by S&ME, Inc. in 2011. The objective of that study was to obtain general site information to assess depth to rock and groundwater, possible type of foundation and floor slab support, general earthwork procedures, and excavation conditions. The results of that study are documented in an S&ME report titled *Preliminary Subsurface Exploration, Proposed Alpharetta Branch Library, Haynes Bridge Road at Brook Street, Alpharetta, Georgia*, dated November 2, 2011. Relevant subsurface information obtained from the S&ME report was used in conjunction with the information gathered from the present subsurface exploration to develop recommendations for the proposed library facility.

### **1.5 Objectives and Scope of Present Work**

The primary objectives of the study reported herein were to obtain geotechnical information and provide recommendations for pavements, foundations, retaining walls, and other design elements associated with the proposed library facility. To achieve these objectives, Willmer performed the following major tasks:

- Review and compilation of available geotechnical data, topographic maps, aerial photographs, and geologic literature pertaining to the subject site.
- Planning and performance of a field exploration program consisting of: (i) visual inspection of the site to document topography and land use, above-ground utilities, accessibility for drilling equipment, and other features relevant to the field exploration work, (ii) coordination with Georgia Utilities Protection Center for subsurface utility clearance at boring locations, (iii) drilling nine Standard Penetration Test (SPT) borings within the proposed facility limits, (iv) obtaining undisturbed and bulk samples from selected soil layers for use in laboratory testing, and (v) obtaining 24-hour groundwater level measurements at the boring locations.
- Performance of a laboratory testing program consisting of classification and engineering property tests on representative soil samples.
- Compilation and evaluation of the collected field and laboratory test data and selection of engineering properties for use in geotechnical analyses.
- Performance of geotechnical analyses including determination of allowable bearing pressure, estimation of settlement due to shallow foundation loading, seismic site classification, and determination of the seismic design response spectrum.
- Preparation of this report summarizing all relevant field and laboratory test data, the results of our analyses and evaluation, and our recommendations for the design of pavements, foundations, and retaining walls.

This engineering report is divided into five sections. The present section (Section 1) contains the project background information and provides a summary of the objectives and scope of our work. Summaries of the field exploration and laboratory testing programs are provided in Sections 2 and 3, respectively. Section 4 presents a description of the site and regional geologic conditions based on available geologic literature, and a description of the subsurface conditions based on the results of the field exploration and laboratory testing programs. The results of our geotechnical engineering evaluations and our recommendations are provided in Section 5.

## 2.0 Field Exploration Program

### 2.1 General

A field exploration program was conducted by Willmer to determine the type, strength, and deformation characteristics of *in situ* soils and to assess the depth to rock and groundwater conditions at the site of the proposed development. The field exploration consisted of SPT borings, bulk soil sampling, undisturbed soil sampling, and groundwater table measurements.

The boring locations were provided to us on a drawing by Fulton County and were staked at the site by Willmer using existing site features. Subsurface utility clearance at the boring locations was provided by the subscribers of Georgia Utilities Protection Center. Upon completion of drilling and 24-hour groundwater table measurements, the boreholes were backfilled using soil cuttings from the drilling operation.

### 2.2 Standard Penetration Test Boring

To explore the subsurface soil conditions, seven Standard Penetration Test (SPT) borings (B-1 through B-7) were drilled within/near the building footprint. Two additional SPT borings (B-8 and B-9) were drilled in the proposed parking area. Borings B-1, B-2, B-4, B-6, and B-7 were extended to a depth of 35 feet, boring B-5 was extended to a depth of 40 feet, boring B-3 was extended to auger refusal at 92 feet, and borings B-8 and B-9 were extended to a depth of 15 feet. The boring locations and drilling depths were provided to us by Fulton County. The approximate boring locations are shown in Figure 2.

The borings were drilled using an all-terrain vehicle (ATV)-mounted rotary drill rig to advance continuous hollow-stem augers. All work was performed under the observation of our geotechnical engineer. The SPT borings were performed in general accordance with ASTM Standard D 1586. The Standard Penetration Test is a widely accepted method for *in situ* testing of soils. A 2-foot long, 2-inch outside-diameter split-barrel sampler attached to the end of a string of drilling rods is driven 18 inches into the ground by successive blows of a 140-pound hammer freely dropping 30 inches. The number of blows needed for each 6 inches of penetration is recorded. The blows required for the first 6 inches of penetration are allowed for seating the sampler into any loose cuttings, and the sum of the blows required for penetration of the second and third 6-inch increments constitutes the penetration resistance or N-value. After the test, the sampler is extracted from the ground and opened to allow visual examination and classification of the retained soil sample. The N-value has been empirically correlated with various soil properties including consistency, relative density, strength, compressibility, and potential for difficult excavation. Correlations between the N-value and the relative density of cohesionless soils (sands) and consistency of cohesive soils (clays/silts) are included in Appendix I.

Classification of the soil samples collected was performed in general accordance with ASTM D 2487/D 2488 procedures. Detailed descriptions of the materials encountered in each soil test boring, along with graphic representations of the standard penetration test blow counts (N-values), are presented on the Soil Boring Logs included in Appendix I.

### **2.3 Soil Sampling**

Soil samples (split-spoon and bulk samples) obtained during the field exploration program were classified by our geotechnical engineer. The split-spoon samples were obtained from all borings and placed in plastic jars. A bulk sample (approximately 50 pounds) was obtained from a depth of 3 to 5 feet at boring B-8 drilled in the proposed parking area. The samples were transported to our laboratory for further classification and characterization. Soil classification was performed in general accordance with ASTM D 2487/D 2488 classification system.

During SPT boring, an undisturbed Shelby tube sample was obtained at boring location B-7 from a potential compressible soil layer for use in laboratory consolidation testing. The depth of the undisturbed sample is shown on the individual boring log in Appendix I.

### **2.4 Groundwater Level Measurement**

Depth to groundwater was recorded where encountered during drilling and at 24 hours after drilling completion. The groundwater and cave-in levels are shown on the individual boring logs in Appendix I. The bore holes were backfilled with soil cuttings after 24-hour groundwater measurements were obtained.

### **2.5 Shear Wave Velocity Measurement**

Shear wave velocity measurements were performed using an 'L-shaped' array located within/adjacent to the footprint area of the proposed library for determination of seismic site class. The location of the array is shown in Figure 2. Shear wave velocities were measured using a combination of active multi-channel analysis of surface waves and passive (micro-tremor) methods. A description of the method and a shear wave velocity profile (i.e., plot of shear wave velocity versus depth) are included in Appendix IV. As shown on the profile, the weighted-average shear wave velocity at the array location was determined to be 1,077.8 ft/sec, in accordance with the averaging procedure outlined in Section 1613.5.5 of the International Building Code (IBC).

### **3.0 Laboratory Testing**

#### **3.1 General**

A laboratory testing program was conducted by Willmer to determine the engineering properties of soils for use in our analyses and recommendations for the proposed library. The laboratory testing program consisted of: (i) classification and index tests on undisturbed soil samples, (ii) one-dimensional consolidation test on an undisturbed soil sample, and (iii) Standard Proctor compaction and California Bearing Ratio (CBR) tests on a remolded bulk soil sample. All laboratory tests were performed in general accordance with appropriate ASTM standards.

#### **3.2 Classification and Index Tests**

Classification and index tests were performed to aid in the characterization of soil samples obtained from the bulk sample and undisturbed sample. The tests included visual classification in the laboratory, fines content (i.e., percent by dry weight of materials passing the US #200 sieve) determination (ASTM D 1140), moisture content determination (ASTM D 2216), and liquid limit, plastic limit, and plasticity index (Atterberg limits) determination (ASTM D4318). Results of these tests are summarized in Tables 1 and 2, and individual test results are included in Appendix II.

#### **3.3 Standard Proctor Compaction and CBR Tests**

The bulk sample obtained from boring B-8 was used in a Standard Proctor Compaction test to determine the compaction characteristics of on-site soils. Results of this test are summarized in Table 1, and the individual test results are included in Appendix II. The Standard Proctor maximum dry density for the sample was 104.0 pcf, and the optimum moisture content was 18.0 percent. The natural moisture content for the sample was about 11 percent above optimum at 29.0 percent.

A CBR test was also performed on the same soil to determine the subgrade-support characteristics of the soil. The CBR test was performed on a specimen molded to 98 percent of the Standard Proctor maximum dry density at a moisture content approximately equal to the optimum moisture content. As shown in Table 1, a CBR value of 3 was obtained.

#### **3.4 Consolidation Tests**

A one-dimensional consolidation test (ASTM D 2435) was performed on an undisturbed soil sample obtained at boring B-7 from a potential compressible soil layer to assess the compressibility characteristics of the soil and estimate settlement under stresses from shallow foundations. Results of the consolidation tests are summarized in Table 2, and the individual test results are presented in the form of void ratio and coefficient of consolidation versus effective vertical stress plots in Appendix II. As shown in Table 2, the compression index was about 0.17, the recompression index was about 0.02, and the pre-consolidation pressure was about 10,000 pounds per square foot (psf). The coefficient of consolidation for the applicable stress level was about 4 ft<sup>2</sup>/day. The measured preconsolidation pressure is unusually high and could be due to sample disturbance.

## **4.0 Area Geology and Subsurface Conditions**

### **4.1 Area Geology**

Based on the USGS Database for the 'Geologic Units of Georgia', the project site is within the Gainesville Ridges Group and is underlain by the Biotitic Gneiss / Mica Schist / Amphibolite Formation, located within the Piedmont Physiographic Province of Georgia.

The Piedmont is composed of metamorphic rocks with localized igneous intrusions. The residual overburden soils encountered in the Piedmont are the product of in-situ chemical and physical weathering of the underlying parent rock. Typically, weathering is most advanced near the surface and decreases with depth. Below the residual soils, partially weathered rock is usually encountered as a transition zone to the underlying bedrock. Partially weathered rock (PWR) is locally defined as a material with a Standard Penetration Resistance in excess of 50 blows per 6 inches of penetration.

An important aspect of the Piedmont subsurface profile is that highly variable conditions may exist over relatively short horizontal distances. This is caused by variation in mineral composition of the parent rock and the intensity of fractures and joints within the rock. Zones of PWR may be encountered within residual soils, and lenses of soil may occur in the rock mass. The subsurface profile may be altered by man, by excavating or filling, or by effects of water through the process of erosion or alluvial deposition.

### **4.2 Subsurface Conditions**

Results of the SPT borings are presented in the form of individual boring logs in Appendix I and subsurface profiles obtained from the boring logs are presented in Figures 3A through 3F. The stratification lines shown on the boring logs represent our interpretation of the field logs and laboratory test results, in accordance with generally accepted geotechnical engineering practice.

The stratification lines represent approximate boundaries between soil types; actual transitions between soil types are expected to be gradual. Although individual test borings are representative of the subsurface conditions at the precise boring locations on the dates shown, they are not necessarily indicative of the subsurface conditions at other locations or at other times. Also, in the absence of foreign substances, it is difficult to distinguish between virgin (undisturbed) residual soils and clean soil fill; the soil was classified as fill only at locations and depths where the fill material was visually distinguishable from residual soils.

The subsurface profile at the site can be generally characterized as a surficial layer of topsoil/ asphalt pavement underlain by fill, residual soils, PWR, and parent bedrock. A generalized discussion of the soil types encountered at the site is presented in the following paragraphs. For the purpose of this discussion, PWR is characterized for engineering purposes as residual soils exhibiting N-values in excess of 50 blows for 6 inches of penetration. Auger refusal is indicative of the top of parent bedrock.

#### **4.2.1 Fill Soil**

Fill soil consisting of silty sand (SM) or clayey sand (SC) with rock fragments was encountered at five of the nine boring locations (B-1 through B-5). The thickness of the fill soil ranged from about 3 to 12 feet. The relative density of the fill material varied from very loose to medium dense with SPT N-values ranging from 4 to 18 blows per foot (bpf). A very dense layer was encountered at boring B-1 consisting of silty sand (SM) with rock fragments. The SPT N-value for this layer was 54 bpf. This high N-Value is likely due to the presence of rock fragments.

Fill soil consisting of sandy clay (CL) was encountered at borings B-6 and B-8. The thickness ranged from 3 to 5 feet and the SPT N-values ranged from 7 to 9 bpf.

#### **4.2.2 Residuum**

Residual soils were encountered at all nine borings, consisting mostly of silty sand (SM) with variable mica content. Relic banding/structure from the parent rock material was clearly visible in many of the soil samples. The relative density of residual soils ranged from very loose to very dense with SPT N-values ranging from 4 to 54 blows per foot.

#### **4.2.3 Partially Weathered Rock**

PWR directly overlying parent bedrock was encountered at boring locations B-3 and B-5 at depths of about 82 feet and 37 feet, respectively, corresponding to elevations of 1,038 feet and 1,077 feet. The total thickness of PWR at boring B-3 was about 10 feet. The SPT N-value in the PWR ranged from 50 blows for 6 inches of penetration to 50 blows for 3 inches of penetration.

#### **4.2.4 Auger Refusal Material**

Boring B-3 was extended to auger refusal. Auger refusal is generally indicative of the top of bedrock. The depth to auger refusal at this boring was about 92 feet below the existing ground surface, corresponding to an elevation of 1,028 feet.

#### **4.2.5 Groundwater**

Groundwater could only be recorded at borings B-3, B-5, B-7, and B-9. At the other locations, the bore holes caved-in before a groundwater elevation could be measured. The groundwater elevation and cave-in elevations at the boring locations are shown on the individual boring logs in Appendix I and on the subsurface profiles in Figures 3A through 3F. The recorded 24-hour groundwater depths below the existing ground surface ranged from 7 feet to 27 feet, corresponding to elevations of 1,097 feet and 1,093 feet, respectively. It should be noted that groundwater levels are expected to fluctuate with seasonal variations.

## **5.0 Geotechnical Engineering Evaluations and Recommendations**

### **5.1 General**

The geotechnical engineering evaluations and recommendations presented herein are based on the soil boring and laboratory test data gathered during this investigation, our understanding of the proposed design, and our experience with similar site and subsurface conditions. These recommendations were prepared in accordance with generally accepted geotechnical engineering practice for the exclusive use of Fulton County and their designated consultants for use in the design of the proposed Alpharetta Branch Library in Alpharetta, Fulton County, Georgia. No other warranty, expressed or implied, is made.

We request that we be advised of any significant changes in the proposed development from that described in this report so that we may amend our recommendations accordingly. In addition, we request the opportunity to review the portions of the project specifications that relate to geotechnical engineering to ensure that our recommendations are properly incorporated.

### **5.2 Site and Subgrade Preparation**

As indicated earlier, up to about 16 feet of excavation will be required at the northeast and north sides of the building to establish the proposed FFE of 1106.5 feet. No rock was encountered within the proposed depth of excavation. Based on the results of the soil test borings, it appears that the general excavation for footings and utilities will be in fill and residual soils. We anticipate that these soils can be excavated using pans, scrapers, backhoes, and front-end loaders.

Site and subgrade preparation should begin with the removal of all trees, surface vegetation, organic-laden soils, topsoil, and any other deleterious materials within the proposed construction area. Any old foundations, walls, slabs, above-grade utilities, etc. must be removed from the new construction area to expose subgrade soils. The removal of old foundations and walls must extend 10 feet outside the new area of structural fill on all sides or for a distance equal to the height of the fill, whichever is greater. Any underground structures (e.g., septic tank and fields, basements, etc.) must be removed or filled with granular material under engineering control.

After stripping, site preparation, and any necessary excavation, the newly exposed subgrade should be evaluated by the project geotechnical engineer. This evaluation will confirm that all soft, unstable, or undesirable materials have been removed. During this evaluation, we recommend that all proposed pavement, foundations and slab-on-grade areas, and areas that are to receive structural fill be proof-rolled using a loaded tandem-axle dump truck (20-ton minimum) or similar rubber-tired vehicle. Proof-rolling will help identify areas of low-strength soils.

If areas exhibiting excessive deflection or pumping are detected during proof-rolling, an appropriate remedial measure would be recommended by the project geotechnical engineer. Remedial measures may include undercutting of the soft soil to firm material and replacement with structural fill or stone, in-place stabilization of the soil by mechanical manipulation and compaction, and in-situ stabilization using lime or cement. Proof-rolling should not be attempted within several days after a heavy rain as the equipment will rut and damage the subgrade. For all cut and at-grade areas, the upper 12 inches of subgrade for all slab-on-grade, foundations,

and pavements should be compacted to at least 98 percent of the Standard Proctor maximum dry density at a moisture content equal to the optimum moisture content plus or minus 3 percent.

Based on the boring data, we do not anticipate that undercutting of unsuitable or low strength soils will be required. If localized undercutting and backfilling becomes necessary during construction, structural fill must be used for backfilling.

### **5.3 Drainage and Groundwater Management**

The proposed construction areas must be provided with adequate drainage measures to maintain the integrity of the subgrade soils, especially during wet-weather conditions. When free water is allowed to stand on a stable subgrade, the soils can absorb water, soften, swell and experience a reduction in their support capability. Without adequate drainage provisions, site preparation activities during wet-weather periods may result in subgrade conditions that will necessitate undercutting or other subgrade stabilization measures. Therefore, we recommend that the site be graded to provide positive drainage away from the proposed pavement, slab, and foundation subgrade areas, and toward suitable drainage handling areas such as a perimeter ditch, french drain, or culvert.

Proper drainage of the finished pavements, parking areas, and ground surfaces is also important to maintain the integrity of the subgrade soils after construction is completed. When free water is allowed to infiltrate into a stable subgrade, the soils will absorb water, swell, and experience a reduction in their support capability. Therefore, all finished grades must be sloped to prevent any ponding of surface water adjacent to structures and pavements.

Groundwater was not encountered above the proposed grade at the boring locations. Although groundwater elevations fluctuate with seasonal and climatic variations, we do not anticipate any significant dewatering problems during construction. However, some seepage into excavations may be experienced during foundation construction depending on seasonal conditions. It is anticipated that this seepage can be handled by pumping from sumps.

### **5.4 Engineered Soil Fill**

Engineered soil fill will be required for site grading at the southeast corner of the proposed parking area. Engineered fill must be placed on a subgrade that has been properly prepared and evaluated by the project geotechnical engineer, as previously discussed.

#### **5.4.1 Acceptable Soil Fill Materials**

The engineered fill should be free of significant organic matter or debris, have a low to moderate plasticity, uniform composition, and be free of rock fragments greater than three inches in diameter. Soils selected for use as structural fill material should also have a Plasticity Index (PI) less than 30 percent and a Standard Proctor (ASTM D698) maximum dry density of at least 90 pounds per cubic foot (pcf). Based on our boring data, the fill soils (clayey/silty sand) and residual soils (silty sand) that will be excavated to achieve final grade appear suitable for use as structural fill. Any on-site soil not meeting the criteria above should only be used as fill material in non-structural areas.

#### **5.4.2 Placement Procedures**

Structural fill must be brought to the proposed subgrade elevation by placing and compacting approved fill materials upon a subgrade approved by the geotechnical engineer. Fill material must not be placed over frozen or saturated materials, either natural or filled. All new fill material must be placed in horizontal lifts. If engineered fill is compacted on slopes steeper than 5H to 1V, extra care must be taken to bench the compacted fill into the existing natural soil slope so that a potential sliding surface is not left between the new engineered fill and the existing natural soil subgrade. The benching procedure should be in accordance with the benching detail presented in Figure 5.

The maximum allowable lift thickness for engineered fill depends upon the soil type, moisture content, specified compaction, and compaction equipment. It is recommended that uniform lifts with a maximum loose thickness of 8 inches be used for engineered fill placement. In confined areas, such as utility trenches and behind retaining walls where large compaction equipment cannot be used, a thinner lift (i.e., 4 inches of loose thickness) may be required to achieve the specified level of compaction.

#### **5.4.3 Compaction Requirements**

The engineered fill must be placed by mechanically compacting each horizontal lift of fill material to a minimum dry density corresponding to 95 percent of the Standard Proctor (ASTM D 698) maximum dry density. The upper 12 inches of fill beneath the pavement areas should be compacted to at least 98 percent of the Standard Proctor maximum dry density. Scarification and re-compaction of the upper fill soils immediately prior to pavement construction should be specified to account for disturbance due to inclement weather and/or construction traffic since fill completion. The backfill placed in excavations for new or removed utility lines should also be considered as engineered fill, and be uniformly compacted to at least 95 percent of the Standard Proctor maximum dry density.

In addition to meeting the minimum dry density requirements specified above, engineered fill must be placed at a moisture content equal to the Standard Proctor optimum moisture content plus or minus 3 percent. In general, during wet/rainy periods, aeration may be necessary to adjust the fill materials to the required moisture condition. During dry periods, water may need to be added to achieve the required moisture content for compaction. Consideration should be given to creating a staging area for 'wet' soils to be moisture conditioned, i.e., 'dried' prior to their placement. Depending on the time of year when construction operations are performed, discing the 'wet' soils and allowing them to air-dry may be all that is needed to achieve the required moisture content. Other options that can be used for 'drying' and stabilizing 'wet' fill soils include mixing the soils with dryer soil, or with cement or lime. The effectiveness of lime or cement in drying and stabilizing wet soils should be evaluated prior to their use. Generally, lime-stabilization is not effective for highly micaceous soils, but may work for soils with little or no mica.

Care must be exercised by the contractor after fill soils have been placed and compacted. If water is allowed to stand on the surface, these soils will become saturated. Movement of construction traffic on saturated subgrades causes rutting that can destroy the compaction integrity of the fill. Once the integrity of the subgrade is affected, mobility of construction traffic becomes difficult or impossible. Therefore, the fill surface should be sloped to achieve positive drainage and to minimize water from ponding on the fill surface. If the surface of the fill becomes

excessively wet, filling operations should be halted and the project geotechnical engineer consulted for guidance.

Construction traffic should not be allowed on prepared subgrade. It is recommended that temporary roads surfaced with compacted crusher run material be constructed alongside the prepared subgrade for use by construction traffic.

#### **5.4.4 Monitoring**

Engineered fill placement and compaction operations must be monitored by the project geotechnical engineer or his representative. We strongly recommend that the placement and compaction of engineered fill be monitored on a full-time basis by a NICET-certified Soil Technician working under the supervision of the project geotechnical engineer. The technician should observe each lift of engineered fill placed and compacted to confirm the project specifications are met.

#### **5.5 Temporary Excavation Slopes**

Sloped excavations will be required to obtain a safe working environment. Excavations should be sloped in accordance with local, state and federal regulations, including OSHA (29 CFR Part 1926) excavation safety standards. Excavated slopes will be in very loose to medium dense silty/clayey sand and should be designed in accordance with OSHA guidelines. We recommend that all excavated soils be placed away from the top edges of the excavation, at a distance equaling or exceeding the depth of the excavation. The contractor shall be solely responsible for designing safe excavation slopes for prevailing site conditions.

#### **5.6 Permanent Slopes**

We understand that cut and fill slopes will be required to achieve the proposed grade. For a slope equal to or flatter than 2.5H to 1V, the minimum acceptable safety factor of 1.5 can typically be achieved with silty sand soils having a minimum friction angle of 31 degrees. During construction, the cut slopes should be inspected by a geotechnical engineer to confirm that the cut material is suitable for the designed slope. As stated in Section 5.4.2 'Placement Procedures', if engineered fill is compacted on slopes steeper than 5H to 1V, extra care must be taken to bench the compacted fill into the existing natural soil slope so that a potential sliding surface is not left between the new engineered fill and the existing natural soil subgrade. The benching procedure should be in accordance with the benching detail presented in Figure 5.

#### **5.7 Foundation Recommendations**

Based on the subsurface conditions encountered in the seven SPT borings performed within the footprint area of the proposed library building, a shallow foundation system comprised of spread footings can be used for supporting the building.

The proposed grading plan indicates that the bottom of spread footings will bear on residual soils. An allowable bearing pressure of 2,000 psf is recommended for the design of spread footings and wall footings. It is recommended that a minimum width of 2 feet be used for all footings. All footings should be embedded a minimum of 1.5 feet below exterior grade to protect against frost penetration.

The sizes of spread footings are not known at this time. We understand that the maximum anticipated column load is about 330 kips. For a column load of 330 kips and a 13-foot by 13-foot spread footing, the maximum settlement under a bearing pressure of 2,000 psf is estimated to be one inch. The maximum differential settlement is estimated to be ½ inch.

It should be noted that the proposed building footprint was moved significantly to the east after completion of our field exploration. We recommend that additional borings be performed to confirm that the soil conditions under the eastern part of the building are consistent with our recommendations.

### **5.8 Pavement Recommendations**

As indicated earlier, both cut and fill will be required to achieve the proposed grade in the parking areas. The soils encountered in the cut/at-grade areas are suitable for support of the pavement. However, these soils are weather-sensitive and may experience loss of strength and density when subjected to freeze-thaw action, wetting, or drying. Therefore, immediately prior to construction of the base, all pavement subgrades must be properly prepared and evaluated by the project geotechnical engineer as discussed in the 'Site and Subgrade Preparation' section, including a proofroll of the subgrade to document its stability. All pavement subgrade surfaces must be uniformly sloped to facilitate drainage. As recommended in the 'Site and Subgrade Preparation', all fill materials used for site grading should be compacted to at least 95 percent of the Standard Proctor maximum dry density, and the upper 12 inches of subgrade in both cut and fill areas should be compacted to at least 98 percent of the Standard Proctor maximum dry density. The compaction moisture content should be maintained at Standard Proctor optimum moisture content plus or minus 3 percent.

The design of a pavement is dependent on the traffic volume of cars and trucks, and the soil strength which is usually related to the Soil Support Value (determined using CBR tests). The default CBR and subgrade reaction modulus values (for pavement on compacted subgrade) recommended by Georgia Department of Transportation for Fulton County are about 3.5 and 110 pounds per cubic inch (pci), respectively. However, a CBR value of 3 was obtained from a sample obtained from boring B-8 at 3 to 5 feet below the existing ground surface (near the proposed parking grade) and compacted to 98 percent of the Standard Proctor maximum dry density. Therefore, we recommend using a CBR value of 3 and subgrade reaction modulus (k) value of 100 pci for pavement design.

### **5.9 Slab-on-Grade Recommendations**

The subgrade material for slab-on-grade will consist of excavated soil surface. The upper 12 inches of soil subgrade should be compacted to at least 98 percent of the Standard Proctor maximum dry density. The compaction moisture content should be maintained at Standard Proctor optimum moisture content plus or minus 3 percent.

We recommend that all slabs-on-grade be underlain by a 6-inch thick layer of graded aggregate base (GAB) to provide uniform support throughout. The GAB should be compacted to 100 percent of the Standard Proctor maximum dry density. A subgrade reaction modulus (k) value of 100 pci is recommended for use in design of the slabs.

## 5.10 Retaining Walls

As indicated earlier, retaining walls will be required to achieve the proposed final grade. We understand that a portion of the west wall of the library will be a basement wall, and a retaining wall will also be required to accommodate a loading dock near the southern portion of the west wall.

The wall footings may be designed using a net allowable bearing pressure of 2,000 psf. The following soil design parameters may be used for retaining wall evaluation/design:

• Friction Angle for Backfill	28 degrees
• Cohesion Intercept	0 psf
• Active Earth Pressure Coefficient ( $K_a$ )	0.36
• At-rest Pressure Coefficient ( $K_0$ )	0.53
• Passive Earth Pressure Coefficient ( $K_p$ )	2.75*
• Unit Weight of Soil as Placed	125 pcf
• Equivalent Active Fluid Pressure	45 pcf
• Equivalent At-rest Fluid Pressure	67 pcf
• Equivalent Passive Fluid Pressure	340 pcf*
• Coefficient of Sliding Friction	0.35*

\* In the design calculations, the resisting forces computed using the above recommended passive earth pressure coefficient, equivalent passive fluid pressure, and coefficient of sliding friction should be reduced using a safety factor of 1.5.

The most common conditions assumed for earth retaining structure design are the active and at-rest conditions. Active conditions apply to relatively flexible earth retention structures, such as freestanding walls, where some movement and rotation is expected. At-rest conditions apply to walls that are restrained, resulting in minimal or no lateral movement or rotation. We recommend that active pressures be used in design of the freestanding walls and at-rest pressures be used in design of the basement walls.

Proper drainage measures should be provided to minimize any water pressure build-up (from ground water and seeping rain water) behind the retaining walls. Adequate drainage can be accomplished if select granular backfill, such as No. 57 stone, is used as backfill behind the walls. Otherwise, a granular or geocomposite drainage blanket should be provided behind the walls with an adequate foundation drain.

## 5.11 Seismic Site Classification and Design Response Spectrum

The seismic site class for the proposed library was determined in accordance with the procedures outlined in Section 1613 of the 2009 International Building Code (IBC). The seismic site class was determined using shear wave velocities measured along an array located within/adjacent to the footprint area of the proposed library. The location of the array is shown in Figure 2. Shear wave velocities were measured using a combination of active multi-channel analysis of surface waves and passive (micro-tremor) methods. A description of the method and a shear wave velocity profile (i.e., plot of shear wave velocity versus depth) for the array location are included Appendix IV.

### 5.11.1 Seismic Site Class

As shown on the shear wave velocity profile presented in Appendix IV, the weighted-average shear wave velocity at the array location was determined to be 1,077.8 ft/sec, in accordance with the averaging procedure outlined in Section 1613.5.5 of IBC. In accordance with the site class definitions outlined in Table 1613.5.2 of IBC, a site with a weighted-average shear wave velocity ranging from 600 to 1,200 ft/sec is classified as Site Class 'D'. Thus, based on the measured shear wave velocities at the array location, the seismic classification for the proposed Alpharetta Library site is Site Class 'D'.

### 5.11.2 Design Response Spectrum

As outlined in Section 1613.5.1 of IBC, the design spectral response acceleration parameters for short periods and 1-second period were determined based on the site class described above, the contour maps of maximum considered earthquake ground motion in Figures 1613.5(1) and 1613.5(2), and the procedures outlined in Sections 1613.5.3 and 1613.5.4 of IBC. Based on Site Class 'D', the design spectral response accelerations were computed as follows:

$$\begin{array}{ll} \text{Short Periods Acceleration, } S_{DS} & = 0.285 \text{ g} \\ \text{1-second Period Acceleration, } S_{D1} & = 0.149 \text{ g} \end{array}$$

A design response spectrum curve constructed using the above acceleration values is presented in Figure 4 for use in seismic design of the proposed library.

### 5.12 Geotechnical Engineering Oversight during Construction

The recommendations provided herein are based on the geotechnical information gathered for the site, our interpretation of the available data, and our experience with similar soils and similar projects in Fulton County. Geotechnical recommendations cannot be considered complete until the geotechnical engineer has the opportunity to confirm the subsurface conditions by performing actual field observations during construction. It is critical that our engineering staff provide inspection during fill placement/compaction and footing installation. Willmer will provide geotechnical engineering oversight during construction to confirm that the recommendations provided herein are properly interpreted and implemented. We look forward to providing these services as well as special inspection, monitoring, and material testing during construction of the project.

## TABLES

**Table 1**

**Summary of Standard Proctor and CBR Test Results  
Alpharetta Branch Library  
Alpharetta, Fulton County, Georgia  
Willmer Project No. 71.3875**

Sample Number	Sample Depth (feet)	Soil Description	Natural Moisture Content (%)	Liquid Limit (%)	Plasticity Index (%)	Fines Content (%)	Standard Proctor Compaction Test		CBR (%)
							Maximum Dry Density (pcf)	Optimum Moisture Content (%)	
B-8	3 – 5	Reddish brown medium to fine sandy SILT	29.0	50	14	55.0	104.0	18.0	3

Abbreviation: CBR - California Bearing Ratio

**Table 2**

**Summary of Consolidation Test Results  
Alpharetta Branch Library  
Alpharetta, Fulton County, Georgia  
Willmer Project No. 71.3875**

Sample Number	Sample Depth (feet)	Soil Description	Fines Content (%)	Natural Moisture Content (%)	Liquid Limit (%)	Plasticity Index (%)	Void Ratio	$\sigma_p'$ (psf)	$C_c$	$C_r$	$C_v$ (ft <sup>2</sup> /day)
B-7	5-7	Reddish brown clayey medium to fine SAND	44.9	18.7	46	25	0.56	10,000 (?)	0.17	0.02	4

Abbreviations:  $\sigma_p'$  - Preconsolidation Pressure  
 $C_c$  - Compression Index  
 $C_r$  - Recompression Index  
 $C_v$  - Coefficient of Consolidation

## FIGURES



SCALE: 1" = 1500'

DATE: 4/25/2013

DRAWN BY: ZMH

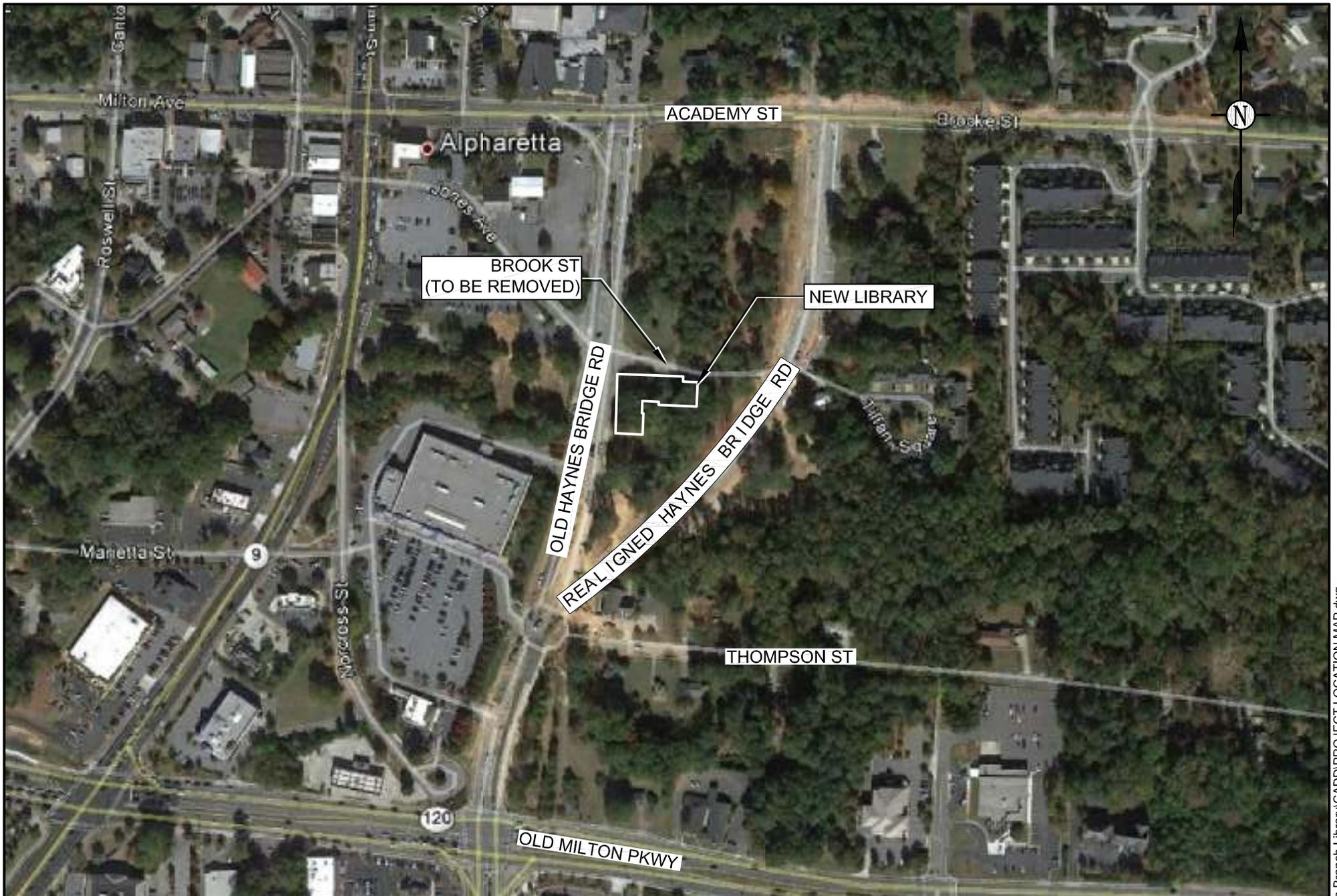
REVIEWED BY: BD

WILLMER ENGINEERING INC.



GEOTECHNICAL ENGINEERING  
CONSTRUCTION SERVICES  
ENVIRONMENTAL SERVICES AND ENGINEERING  
3772 PLEASANTDALE ROAD - SUITE 165  
ATLANTA, GA 30340-4270

FIGURE 1  
SHEET 1 OF 2  
PROJECT LOCATION MAP  
ALPHARETTA BRANCH LIBRARY  
ALPHARETTA, FULTON COUNTY, GEORGIA  
WILLMER PROJECT No. 71.3875



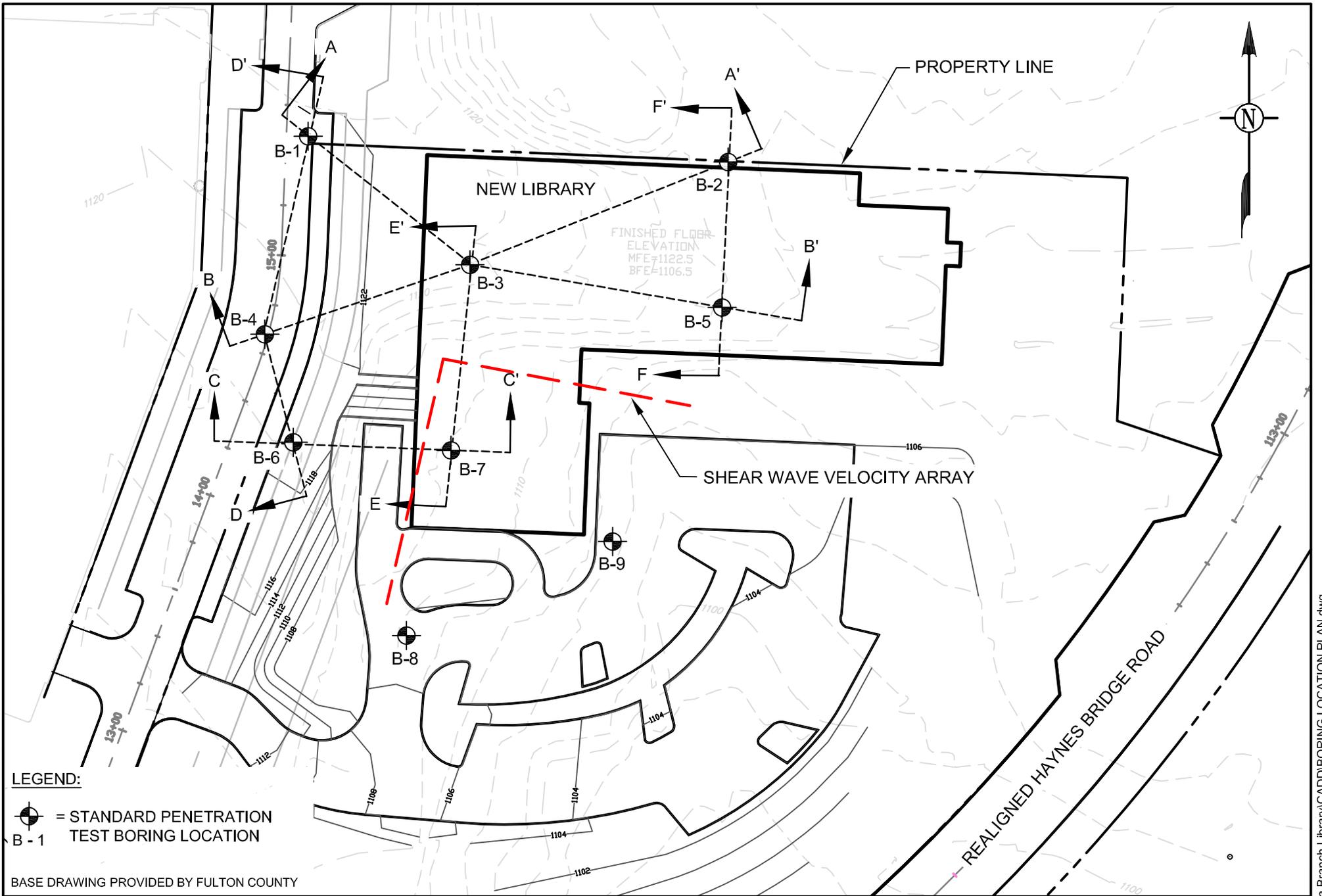
SCALE: 1" = 300'  
 DATE: 5/22/2013  
 DRAWN BY: ZMH  
 REVIEWED BY: BD

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 ENVIRONMENTAL SERVICES AND ENGINEERING  
 3772 PLEASANTDALE ROAD - SUITE 165  
 ATLANTA, GA 30340-4270

FIGURE 1  
 SHEET 2 OF 2  
 PROJECT LOCATION MAP  
 ALPHARETTA BRANCH LIBRARY  
 ALPHARETTA, FULTON COUNTY, GEORGIA  
 WILLMER PROJECT No. 71.3875



**LEGEND:**  
 = STANDARD PENETRATION TEST BORING LOCATION

BASE DRAWING PROVIDED BY FULTON COUNTY

SCALE: 1" = 50'  
 DATE: 5/22/2013  
 DRAWN BY: ZMH  
 REVIEWED BY: BD

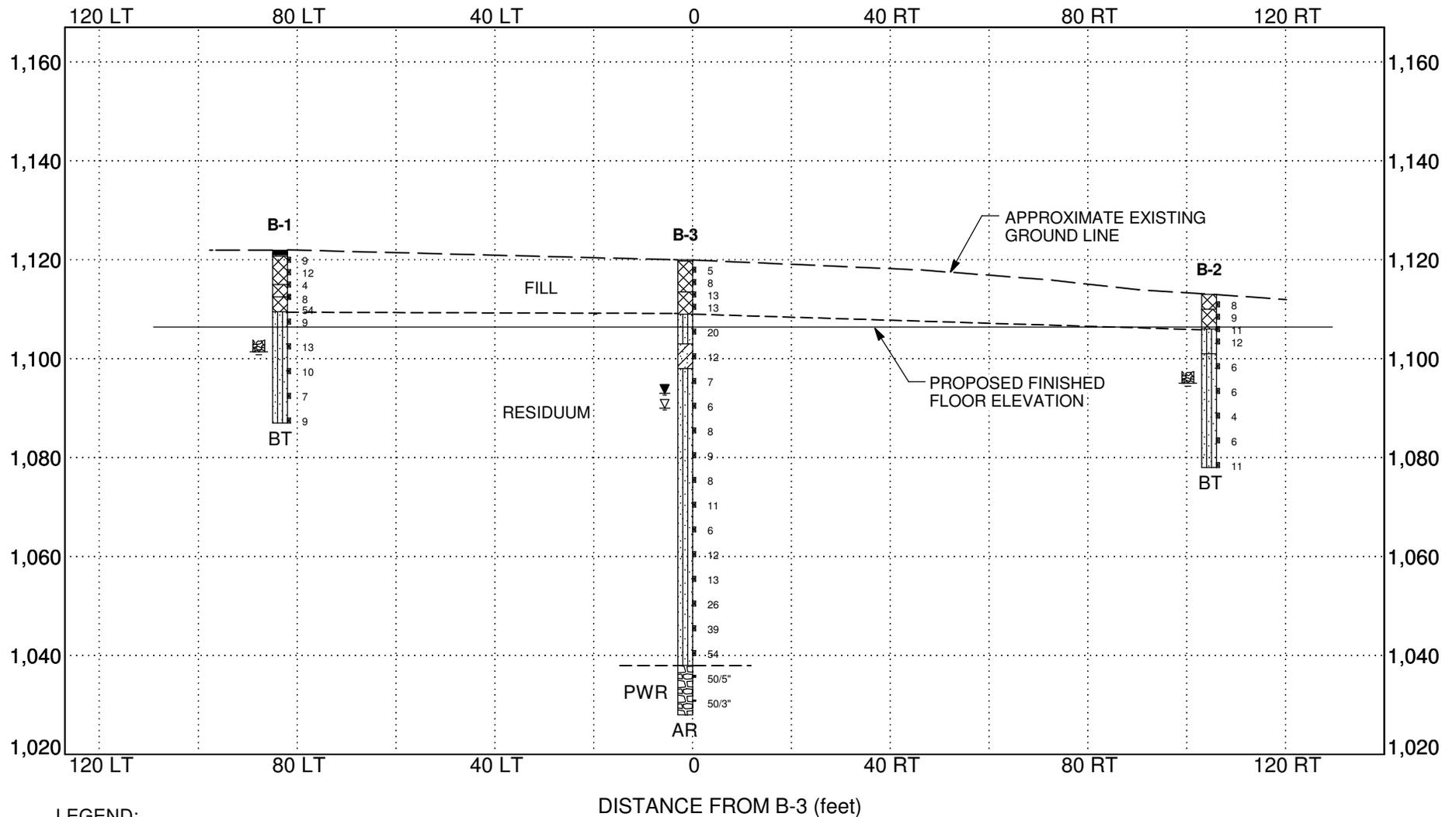
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FIGURE 2  
 BORING LOCATION MAP  
 ALPHARETTA BRANCH LIBRARY  
 ALPHARETTA, FULTON COUNTY, GEORGIA  
 WILLMER PROJECT No. 71.3875

P:\3875 Alphaletta Branch Library\CADD\BORING LOCATION PLAN.dwg



**LEGEND:**

- ☒ - Caved Level @ 24 Hours
- ▽ - Groundwater Table @ Time of Boring
- ▼ - Groundwater Table @ 24 Hours
- PWR - Partially Weathered Rock
- BT - Boring Terminated
- AR - Auger Refusal

SCALE: 1" = 30'

DATE: 03/07/2013

DRAWN BY: BD

REVIEWED BY: SKB

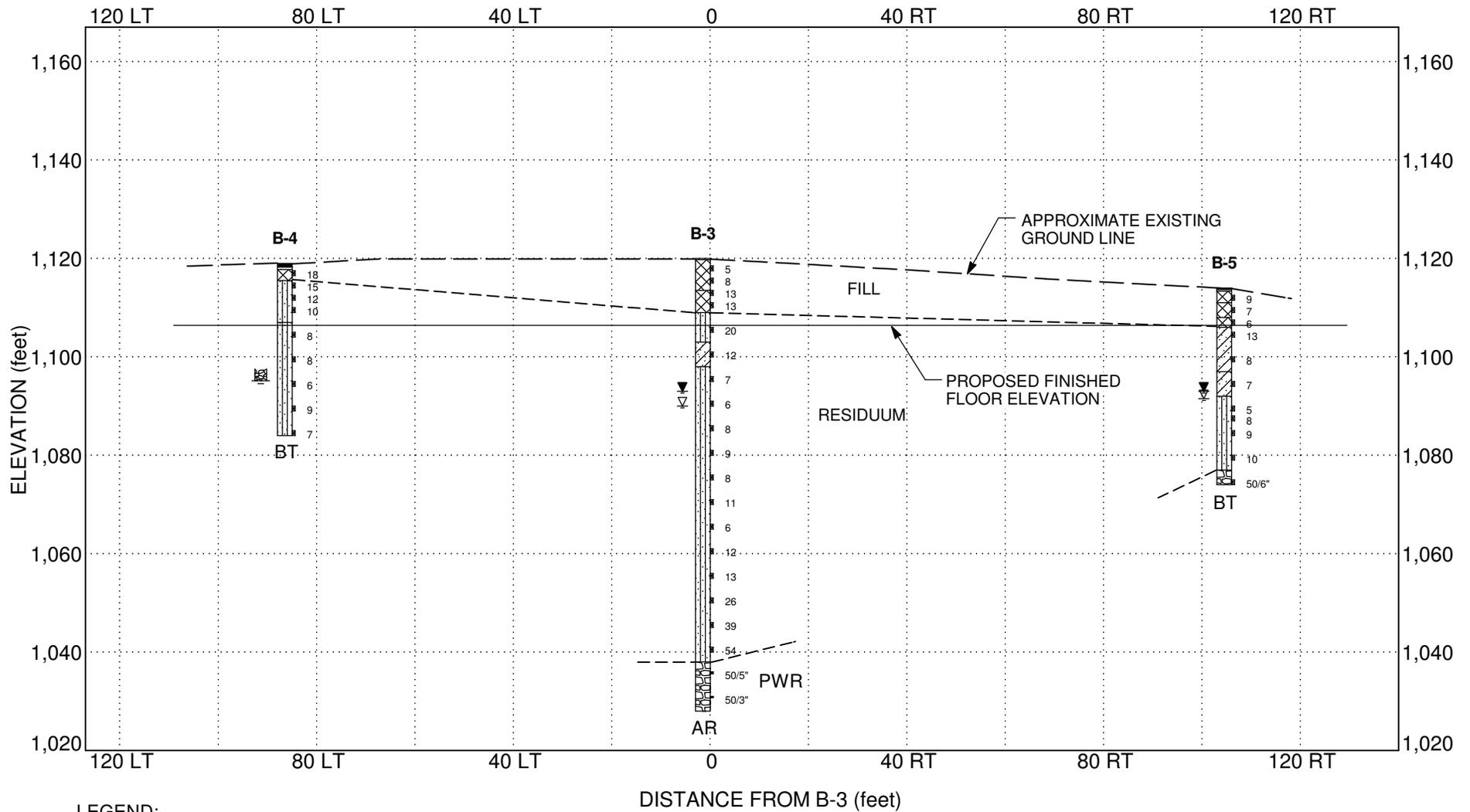
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FIGURE 3A

SUBSURFACE PROFILE A-A  
 ALPHARETTA BRANCH LIBRARY  
 ALPHARETTA, FULTON COUNTY, GEORGIA  
 WILLMER PROJECT No. 71.3875



SCALE: 1" = 30'

DATE: 03/07/2013

DRAWN BY: BD

REVIEWED BY: SKB

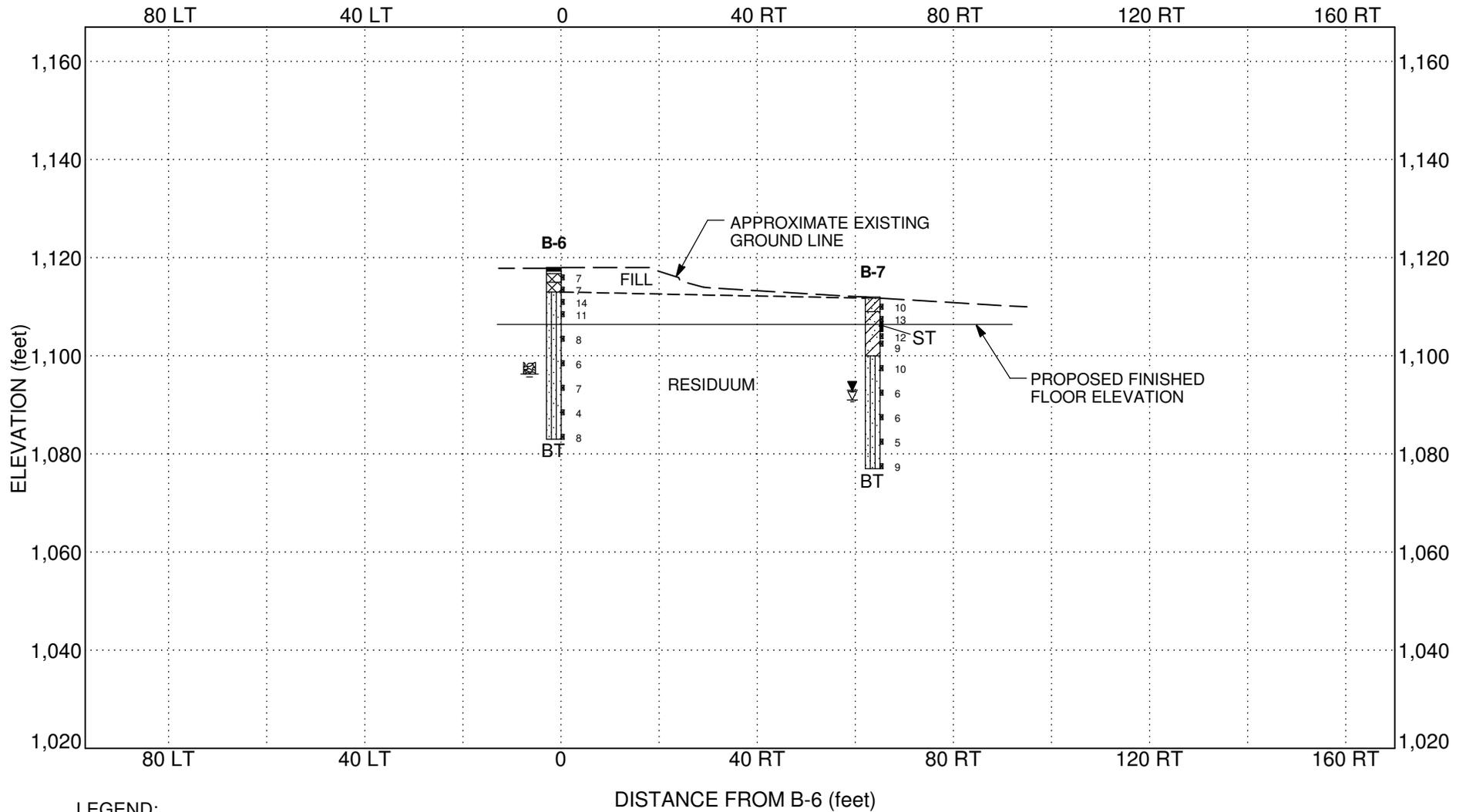
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FIGURE 3B

SUBSURFACE PROFILE B-B  
 ALPHARETTA BRANCH LIBRARY  
 ALPHARETTA, FULTON COUNTY, GEORGIA  
 WILLMER PROJECT No. 71.3875



**LEGEND:**

- Caved Level @ 24 Hours
- Groundwater Table @ Time of Boring
- Groundwater Table @ 24 Hours
- ST - Shelby Tube
- BT - Boring Terminated

SCALE: 1" = 30'

DATE: 03/07/2013

DRAWN BY: BD

REVIEWED BY: SKB

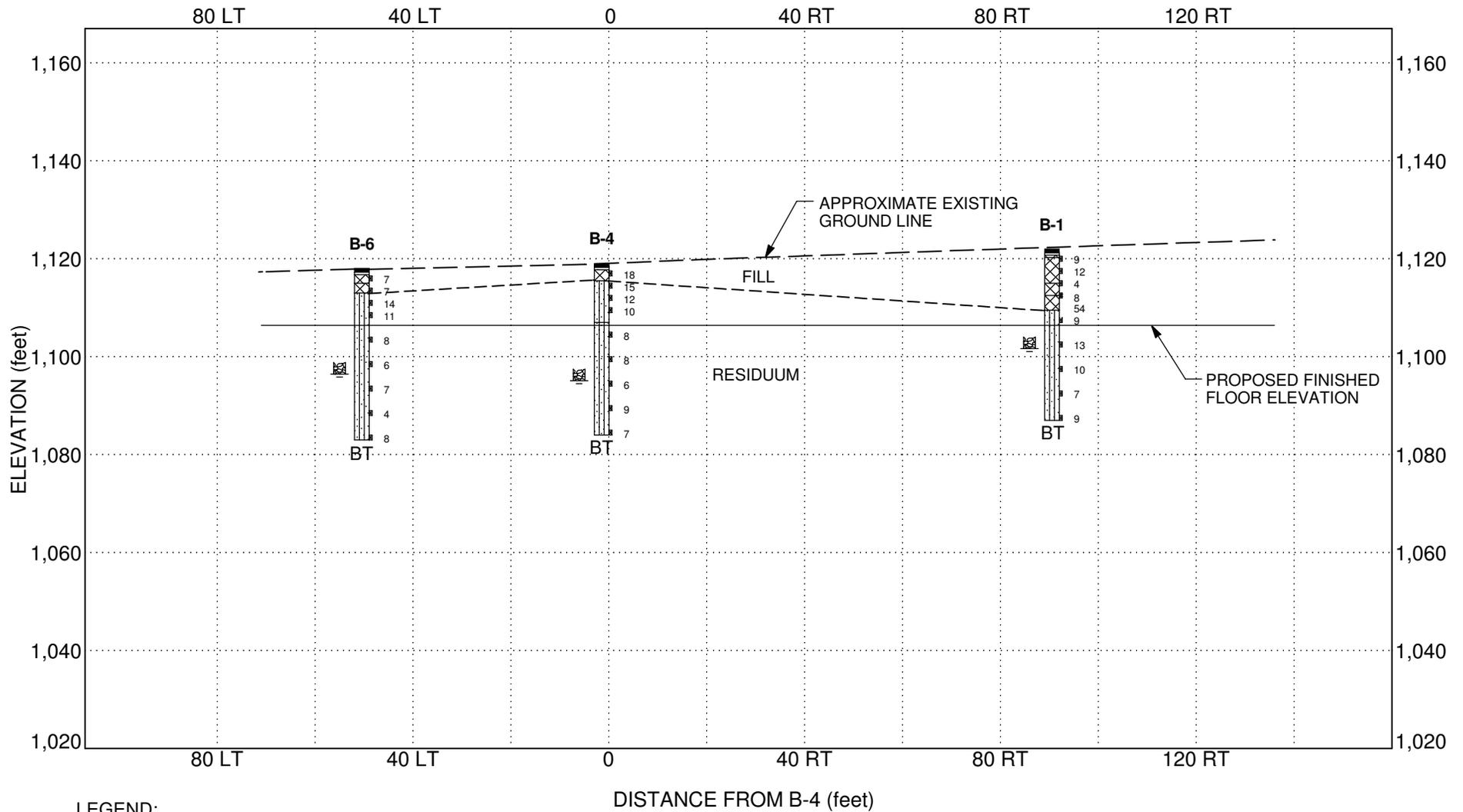
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FIGURE 3C

SUBSURFACE PROFILE C-C  
 ALPHARETTA BRANCH LIBRARY  
 ALPHARETTA, FULTON COUNTY, GEORGIA  
 WILLMER PROJECT No. 71.3875



**LEGEND:**  
 - Caved Level @ 24 Hours  
 BT - Boring Terminated

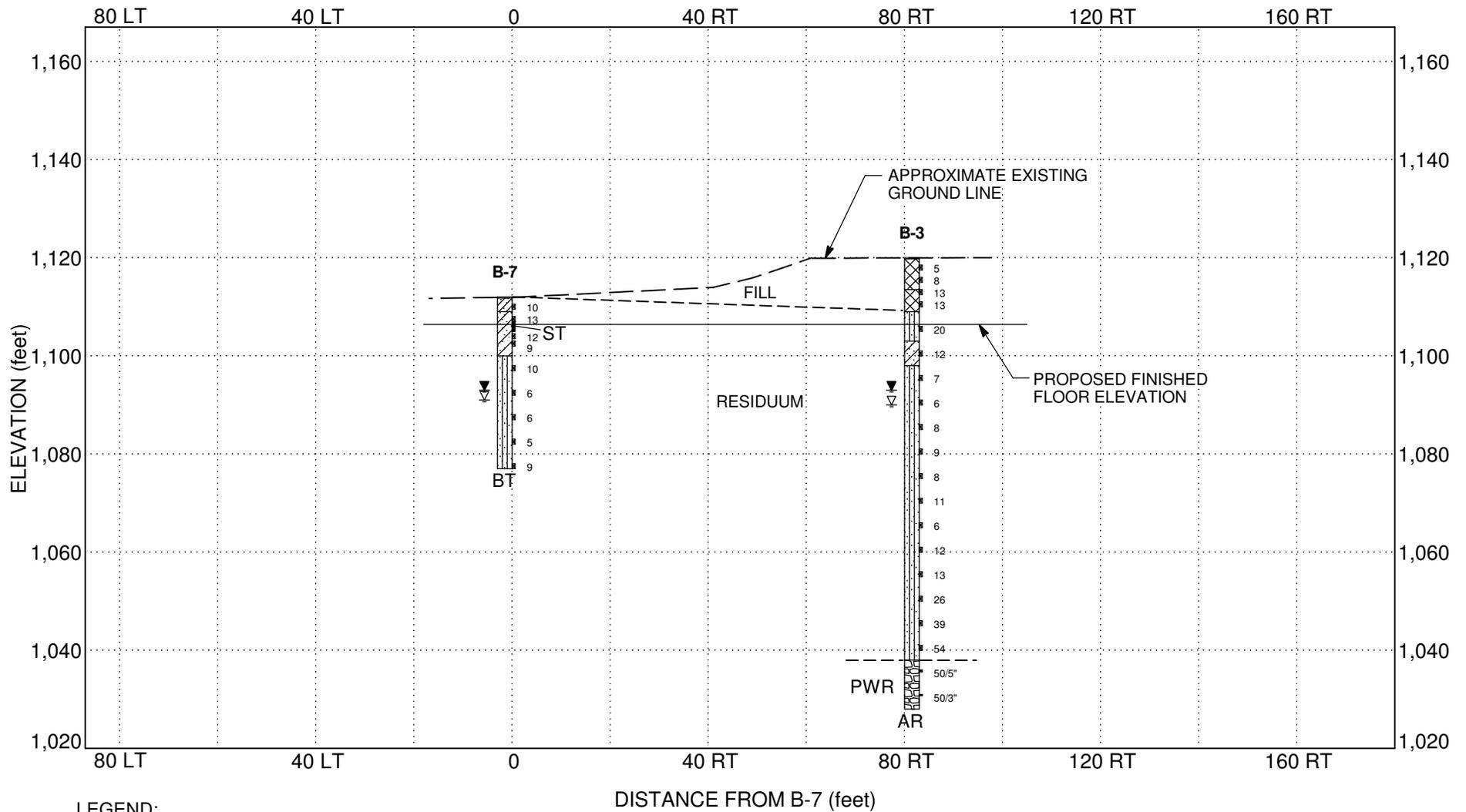
SCALE: 1" = 30'  
 DATE: 03/07/2013  
 DRAWN BY: BD  
 REVIEWED BY: SKB

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FIGURE 3D  
 SUBSURFACE PROFILE D-D  
 ALPHARETTA BRANCH LIBRARY  
 ALPHARETTA, FULTON COUNTY, GEORGIA  
 WILLMER PROJECT No. 71.3875



**LEGEND:**

- ▽ - Groundwater Table @ Time of Boring
- ▼ - Groundwater Table @ 24 Hours
- ST - Shelby Tube
- PWR - Partially Weathered Rock
- BT - Boring Terminated
- AR - Auger Refusal

SCALE: 1" = 30'

DATE: 03/07/2013

DRAWN BY: BD

REVIEWED BY: SKB

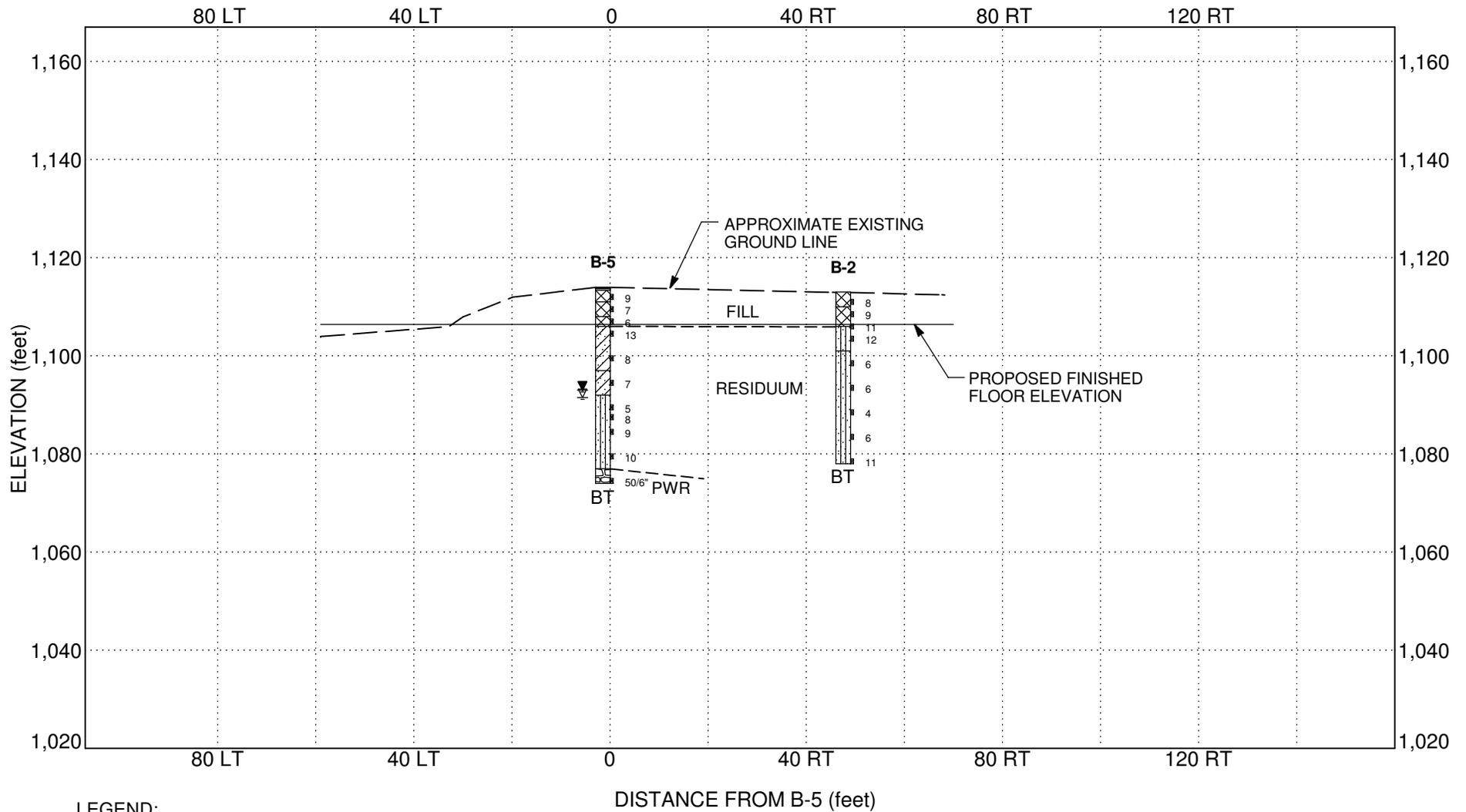
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FIGURE 3E

SUBSURFACE PROFILE E-E  
 ALPHARETTA BRANCH LIBRARY  
 ALPHARETTA, FULTON COUNTY, GEORGIA  
 WILLMER PROJECT No. 71.3875



**LEGEND:**

- ▽ - Groundwater Table @ Time of Boring
- ▼ - Groundwater Table @ 24 Hours
- PWR - Partially Weathered Rock
- BT - Boring Terminated

SCALE: 1" = 30'

DATE: 03/07/2013

DRAWN BY: BD

REVIEWED BY: SKB

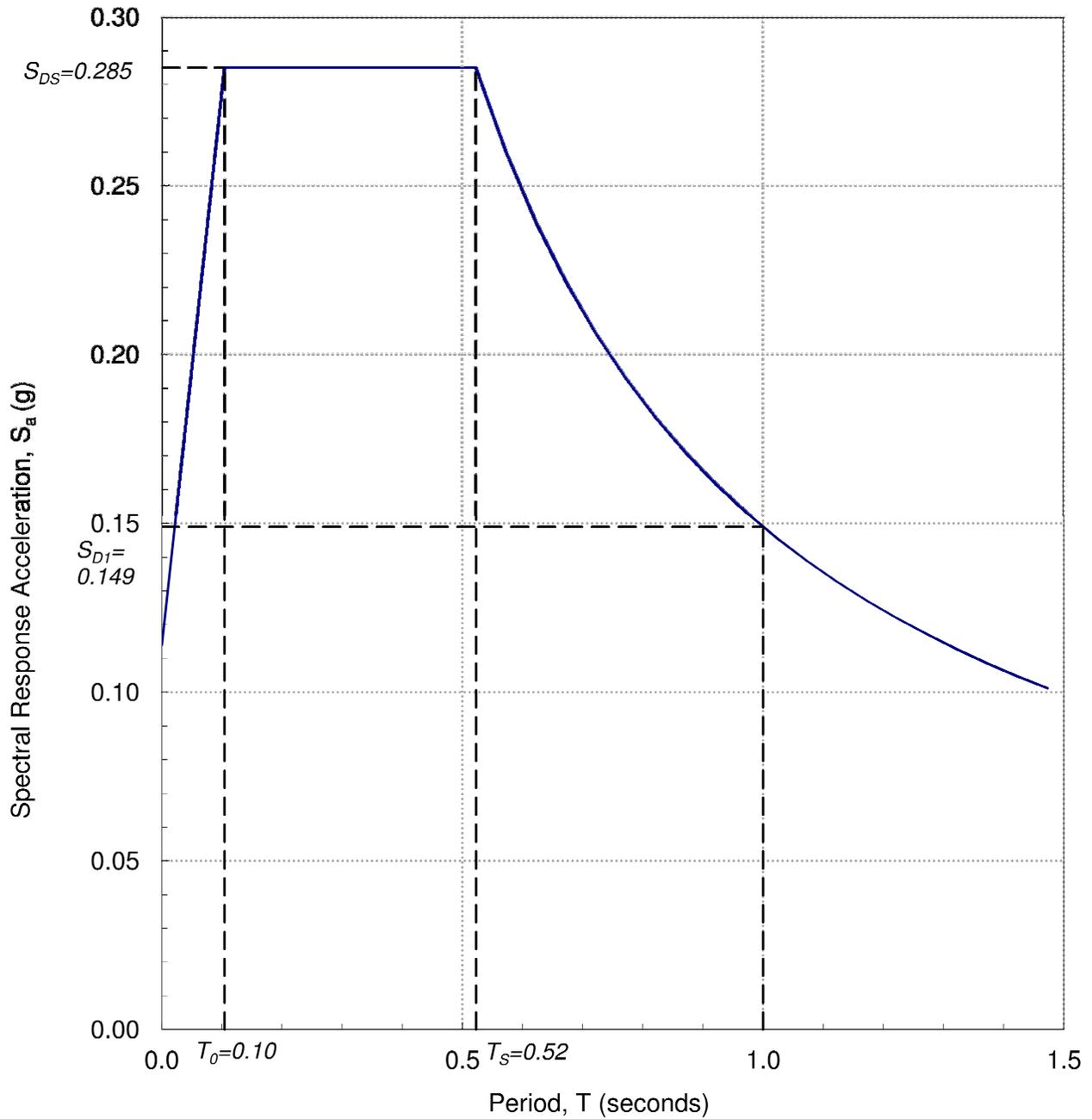
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 ATLANTA, GA 30340-4270

FIGURE 3F

SUBSURFACE PROFILE F-F  
 ALPHARETTA BRANCH LIBRARY  
 ALPHARETTA, FULTON COUNTY, GEORGIA  
 WILLMER PROJECT No. 71.3875



**Design Response Spectrum - Site Class 'D'**

SCALE: N/A

DATE: 4/10/2013

DRAWN BY: ZMH

REVIEWED BY: BD

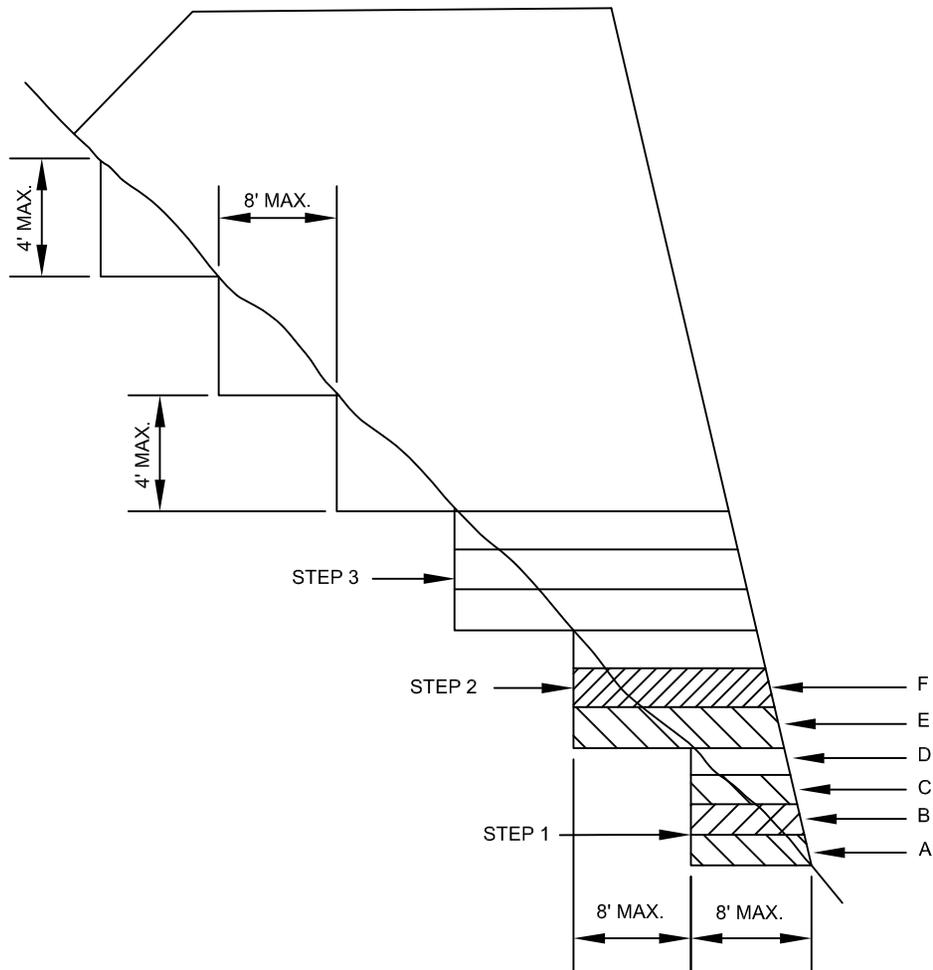
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CONSTRUCTION SERVICES  
ENVIRONMENTAL SERVICES AND ENGINEERING  
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ATLANTA, GA 30340-4270

FIGURE 4

DESIGN RESPONSE SPECTRUM  
ALPHARETTA BRANCH LIBRARY  
ALPHARETTA, FULTON COUNTY, GEORGIA  
WILLMER PROJECT No. 71.3875



1. WHERE THE EMBANKMENT IS TO BE PLACED ON A HILLSIDE OR ANOTHER EXISTING EMBANKMENT HAVING A SLOPE OF 5 TO 1 OR STEEPER, THE FOUNDATION MUST BE BENCHED WHILE THE EMBANKMENT IS BEING CONSTRUCTED. (SEE DIAGRAM AT LEFT)
2. THE DIAGRAM SHOWS THAT BEFORE LAYER "A" IS PLACED, THE FIRST STEP (1) IS TO CUT INTO THE SLOPE A MAXIMUM DISTANCE OF ABOUT 8' (ABOUT 3/4 THE WIDTH OF THE TYPICAL D-8 BULLDOZER BLADE). SUCCESSIVE LAYERS B, C, AND D ARE THEN PLACED. BEFORE LAYER "E" IS PLACED, THE SECOND STEP IS TO CUT 8 FEET INTO THE SLOPE AND SUCCESSIVE LAYERS ARE AGAIN PLACED. IF IT IS ANTICIPATED THAT THE VERTICAL PART OF THE STEP WILL EXCEED 4' IF AN 8' HORIZONTAL CUT IS MADE, THEN THE ACTUAL CUT STOPS WHEN THE VERTICAL PART REACHES A MAXIMUM OF 4' ALLOWING THE HORIZONTAL DISTANCE TO VARY.
3. THE PROCESS OF BENCHING IS CONSIDERED INCIDENTAL TO THE ITEM OF UNCLASSIFIED EXCAVATION AND BORROW OR GRADING COMPLETE IN CONSTRUCTION OF THE EMBANKMENT AND NO ADDITIONAL MEASUREMENT OF QUANTITY OR PAYMENT WILL BE MADE FOR BENCHING.

## BENCHING DETAIL

SCALE: NTS

DATE: 4/10/2013

DRAWN BY: ZMH

REVIEWED BY: BD

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ENVIRONMENTAL SERVICES AND ENGINEERING  
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ATLANTA, GA 30340-4270

FIGURE 5

BENCHING DETAIL  
ALPHARETTA BRANCH LIBRARY  
ALPHARETTA, FULTON COUNTY, GEORGIA  
WILLMER PROJECT No. 71.3875

## **APPENDIX I**

# BORING RECORD LEGEND

SM, CL, etc: - GROUP SYMBOL based on Unified Soil Classification System.  
(Refer to ASTM D-2488 and Table 1 of D-2487)

N-VALUE: BLOWS PER FOOT- Standard Penetration Resistance (SPT) blow count ,  
the sum of the second and third 6-inch increments of the SPT test.  
(Refer to ASTM D-1586)

CONSISTENCY / RELATIVE DENSITY Correlated with SPT Blow Count, N:

<u>SILTS AND CLAYS</u>		<u>SANDS</u>	
<u>N</u> (blows per foot)	<u>Consistency</u>	<u>N</u> (blows per foot)	<u>Relative Density</u>
0 - 2	Very Soft	0 - 4	Very Loose
3 - 4	Soft	5 - 10	Loose
5 - 8	Firm	11 - 30	Medium Dense
9 - 15	Stiff	31 - 50	Dense
16 - 30	Very Stiff	> 50	Very Dense
31 - 50	Hard		
> 50	Very Hard		

NOTES:

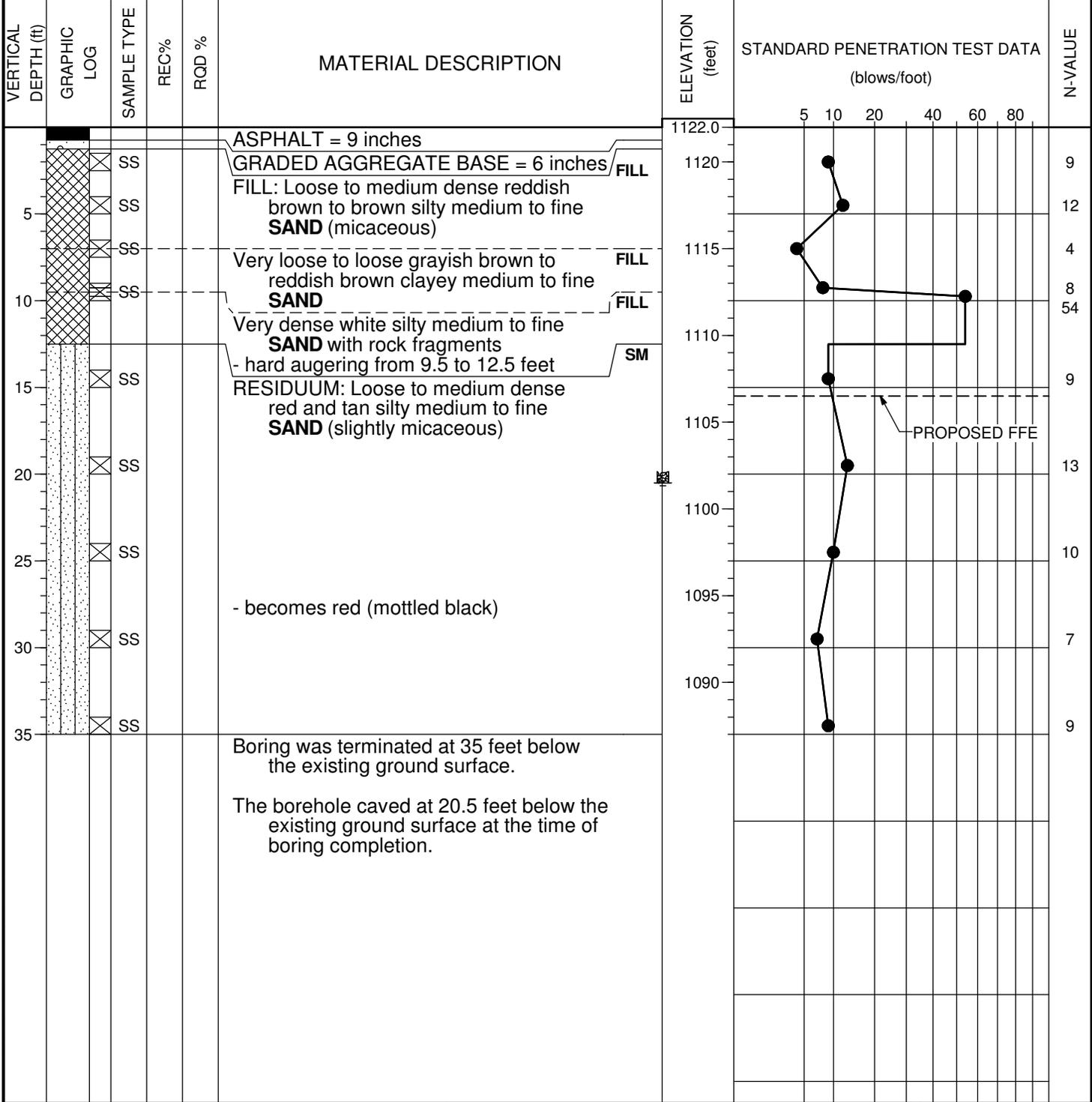
- Groundwater Measurements:
- Water level at 24 hours
  - Water level at time of boring
  - Caved level at 24 hours

<b>ASPHALT</b> 	<b>CONCRETE</b> 	<b>TOPSOIL</b> 	<b>FILL</b> 	<b>GW</b> 	<b>GP</b> 	<b>GM</b> 
<b>GC</b> 	<b>SW</b> 	<b>SP</b> 	<b>SM</b> 	<b>SC</b> 	<b>SANDY SILT</b> 	<b>SANDY CLAY</b> 
<b>ML</b> 	<b>MH</b> 	<b>CL-ML</b> 	<b>CL</b> 	<b>CH</b> 	<b>OL</b> 	<b>OH</b> 
<b>PEAT</b> 	<b>PWR</b> 	<b>ROCK</b> 	<b>LIMESTONE</b> 	<b>SHALE</b> 	<b>SANDSTONE</b> 	

## UNIFIED SOIL CLASSIFICATION SYSTEM REFERENCE SHEET

MAJOR DIVISIONS		LETTER SYMBOL	TYPICAL DESCRIPTIONS
<b>COARSE GRAINED SOILS</b>  MORE THAN 50% OF MATERIAL IS <u>LARGER</u> THAN #200 SIEVE SIZE	<b>GRAVEL AND GRAVELLY SOILS</b>  MORE THAN 50% OF COARSE FRACTION <u>RETAINED</u> #4 SIEVE	CLEAN GRAVELS LITTLE OR NO FINES	<b>(GW)</b> WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
			<b>(GP)</b> POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES APPRECIABLE AMOUNT OF FINES	<b>(GM)</b> SILTY GRAVELS and GRAVEL-SAND-SILT MIXTURES
			<b>(GC)</b> CLAYEY GRAVELS and GRAVEL-SAND-CLAY MIXTURES
	<b>SAND AND SANDY SOILS</b>  MORE THAN 50% OF COARSE FRACTION <u>PASSING</u> #4 SIEVE	CLEAN SAND LITTLE OR NO FINES	<b>(SW)</b> WELL GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			<b>(SP)</b> POORLY GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES APPRECIABLE AMOUNT OF FINES	<b>(SM)</b> SILTY SANDS and SAND-SILT MIXTURES
			<b>(SC)</b> CLAYEY SANDS and SAND-CLAY MIXTURES
<b>FINE GRAINED SOILS</b>  MORE THAN 50% OF MATERIAL IS <u>SMALLER</u> THAN #200 SIEVE SIZE	<b>SILTS AND CLAYS</b>  LIQUID LIMIT <u>LESS</u> THAN 50	<b>(ML)</b>	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR VERY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
		<b>(CL)</b>	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, □ SILTY CLAYS, LEAN CLAYS
		<b>(OL)</b>	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	<b>SILTS AND CLAYS</b>  LIQUID LIMIT <u>GREATER</u> THAN 50	<b>(MH)</b>	INORGANIC ELASTIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS
		<b>(CH)</b>	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
		<b>(OH)</b>	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
<b>HIGHLY ORGANIC SOILS</b>		<b>(PT)</b>	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

Project: <b>Alpharetta Branch Library</b>		<b>HOLE No. B-1</b>	
Location: <b>Alpharetta, Fulton County, Georgia</b>		Sheet 1 of 1	
Project Number: <b>71.3875</b>		Location: <b>See Figure 2</b>	
Azimuth: <b>--</b>	Angle from Horizontal: <b>90</b>	Surface Elevation (ft): <b>1122.00</b>	Station: <b>NA</b>
Drilling Equipment: <b>CME-45 ATV</b>		Drilling Method: <b>HSA Automatic Hammer</b>	
Core Boxes: <b>NA</b>	Samples: <b>9</b>	Overburden (ft): <b>NA</b>	Rock (ft): <b>NA</b>
Logged By: <b>BD</b>		Date Drilled: <b>2/28/13</b>	
Total Depth (ft): <b>35.0</b>			



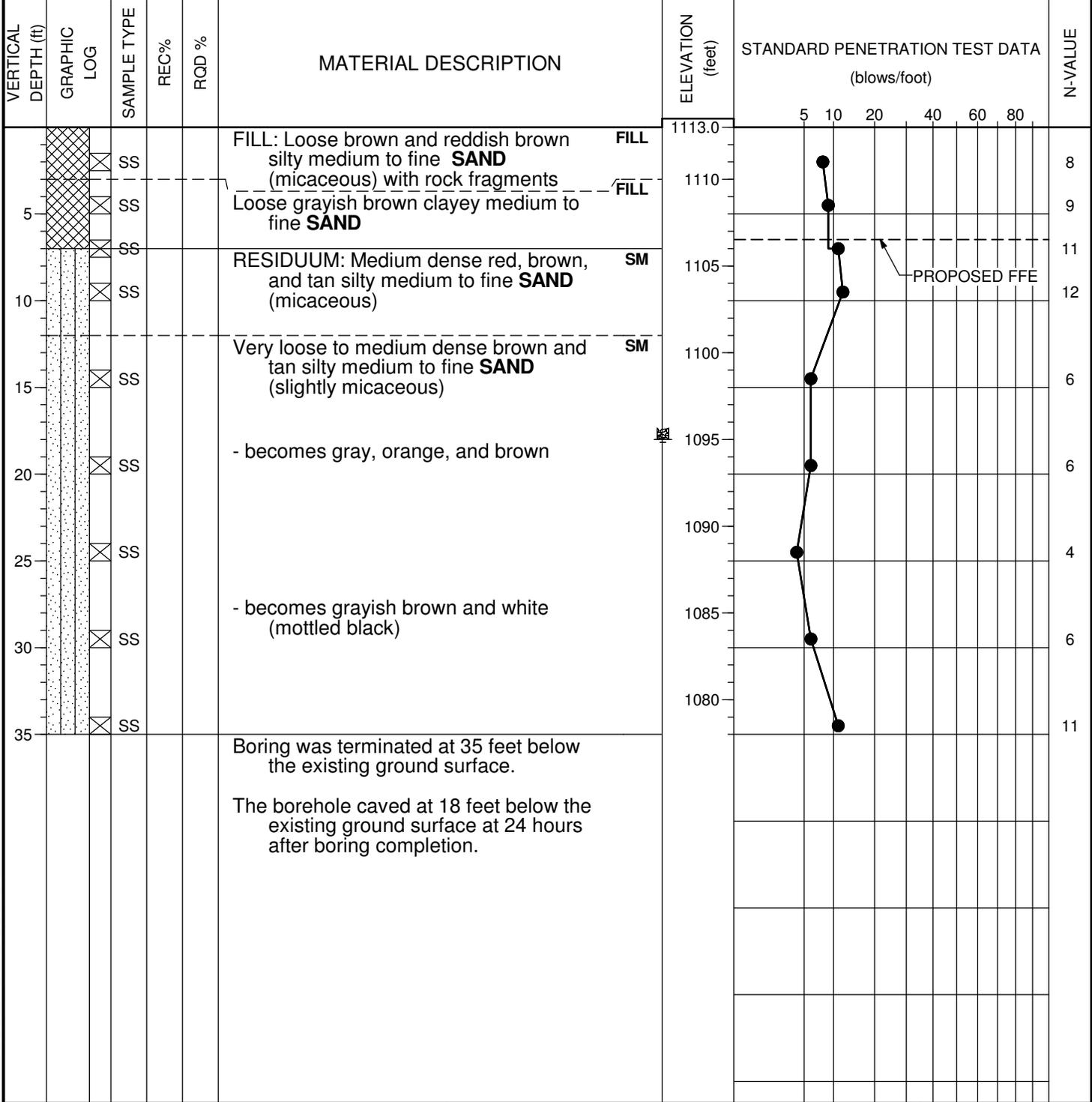
Boring was terminated at 35 feet below the existing ground surface.

The borehole caved at 20.5 feet below the existing ground surface at the time of boring completion.

SPTN ALPHARETTA BRANCH LIBRARY.GPJ 3/14/13

<b>SAMPLER TYPE</b> SS - Split Spoon ST - Shelby Tube NQ - Rock Core, 1-7/8"	NX - Rock Core, 2-1/8" CU - Cuttings CT - Continuous Tube	<b>DRILLING METHOD</b> HSA - Hollow Stem Auger CFA - Continuous Flight Augers DC - Driving Casing	RW - Rotary Wash RC - Rock Core Hole No. <div style="text-align: center; font-weight: bold; font-size: 1.2em;">B-1</div>
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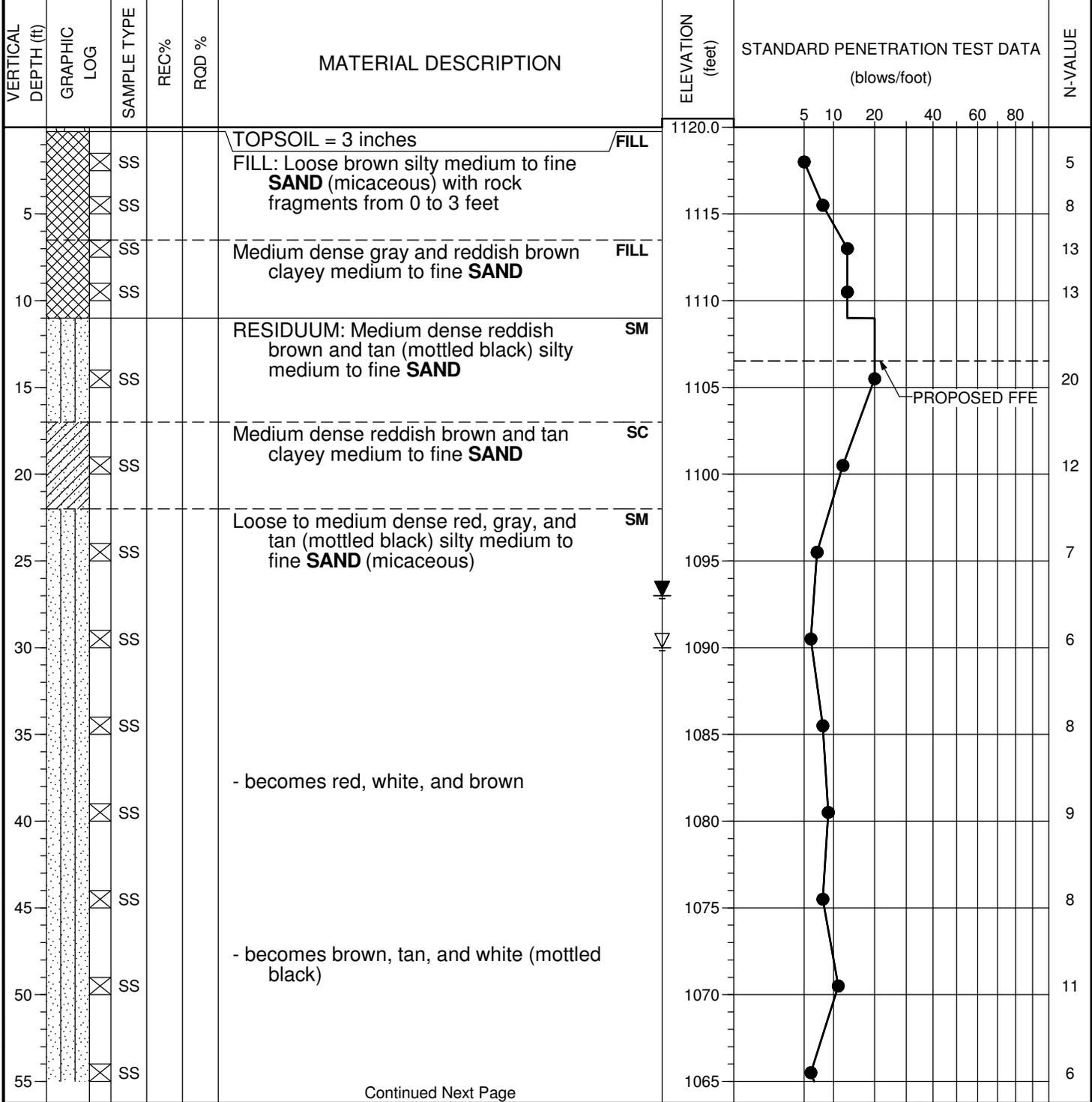
Project: <b>Alpharetta Branch Library</b>		<b>HOLE No. B-2</b>	
Location: <b>Alpharetta, Fulton County, Georgia</b>		Sheet 1 of 1	
Project Number: <b>71.3875</b>		Location: <b>See Figure 2</b>	
Azimuth: <b>--</b>	Angle from Horizontal: <b>90</b>	Surface Elevation (ft): <b>1113.00</b>	Station: <b>NA</b>
Drilling Equipment: <b>CME-45 ATV</b>		Drilling Method: <b>HSA Automatic Hammer</b>	
Core Boxes: <b>NA</b>	Samples: <b>9</b>	Overburden (ft): <b>NA</b>	Rock (ft): <b>NA</b>
Logged By: <b>BD</b>		Date Drilled: <b>2/25/13</b>	
Total Depth (ft): <b>35.0</b>			



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<b>SAMPLER TYPE</b> SS - Split Spoon ST - Shelby Tube NQ - Rock Core, 1-7/8"	NX - Rock Core, 2-1/8" CU - Cuttings CT - Continuous Tube	<b>DRILLING METHOD</b> HSA - Hollow Stem Auger CFA - Continuous Flight Augers DC - Driving Casing	RW - Rotary Wash RC - Rock Core Hole No. <div style="text-align: center; font-weight: bold; font-size: 1.2em;">B-2</div>
---------------------------------------------------------------------------------------	-----------------------------------------------------------------	------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------

Project: <b>Alpharetta Branch Library</b>		<b>HOLE No. B-3</b>	
Location: <b>Alpharetta, Fulton County, Georgia</b>		Sheet 1 of 2	
Project Number: <b>71.3875</b>		Location: <b>See Figure 2</b>	
Azimuth: <b>--</b>	Angle from Horizontal: <b>90</b>	Surface Elevation (ft): <b>1120.00</b>	Station: <b>NA</b>
Drilling Equipment: <b>CME-45 ATV</b>		Drilling Method: <b>HSA Automatic Hammer</b>	
Core Boxes: <b>NA</b>	Samples: <b>20</b>	Overburden (ft): <b>NA</b>	Rock (ft): <b>NA</b>
Logged By: <b>BD</b>		Date Drilled: <b>2/28/13</b>	
Total Depth (ft): <b>92.0</b>			



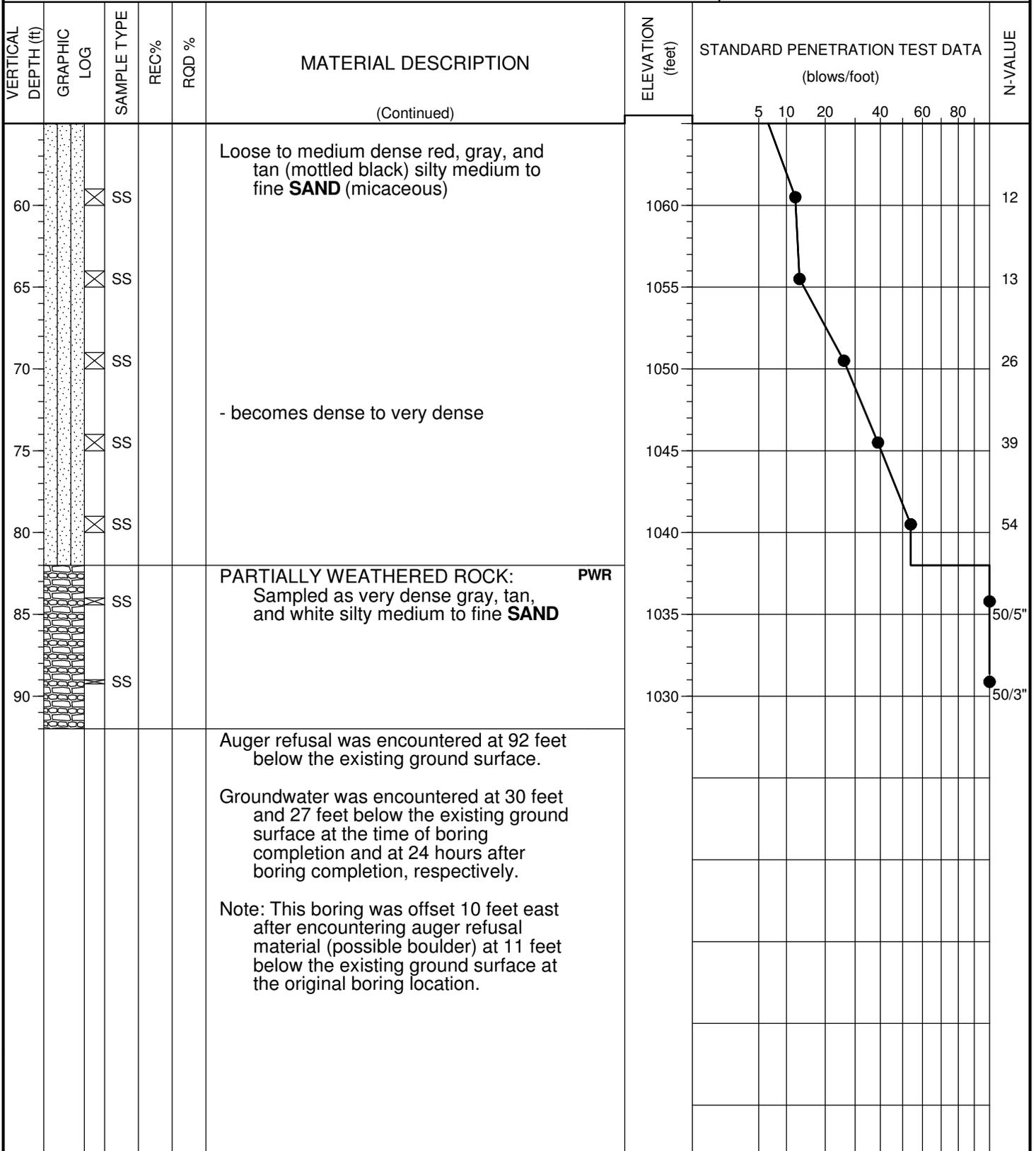
Continued Next Page

SPTN ALPHARETTA BRANCH LIBRARY.GPJ 3/14/13

<b>SAMPLER TYPE</b> SS - Split Spoon ST - Shelby Tube NQ - Rock Core, 1-7/8"	NX - Rock Core, 2-1/8" CU - Cuttings CT - Continuous Tube	<b>DRILLING METHOD</b> HSA - Hollow Stem Auger CFA - Continuous Flight Augers DC - Driving Casing	RW - Rotary Wash RC - Rock Core Hole No. <div style="text-align: right; font-weight: bold; font-size: 1.2em;">B-3</div>
---------------------------------------------------------------------------------------	-----------------------------------------------------------------	------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------

Project: **Alpharetta Branch Library**  
 Location: **Alpharetta, Fulton County, Georgia**  
 Project Number: **71.3875**

**HOLE No. B-3**  
 Sheet 2 of 2  
 Location: **See Figure 2**



Auger refusal was encountered at 92 feet below the existing ground surface.

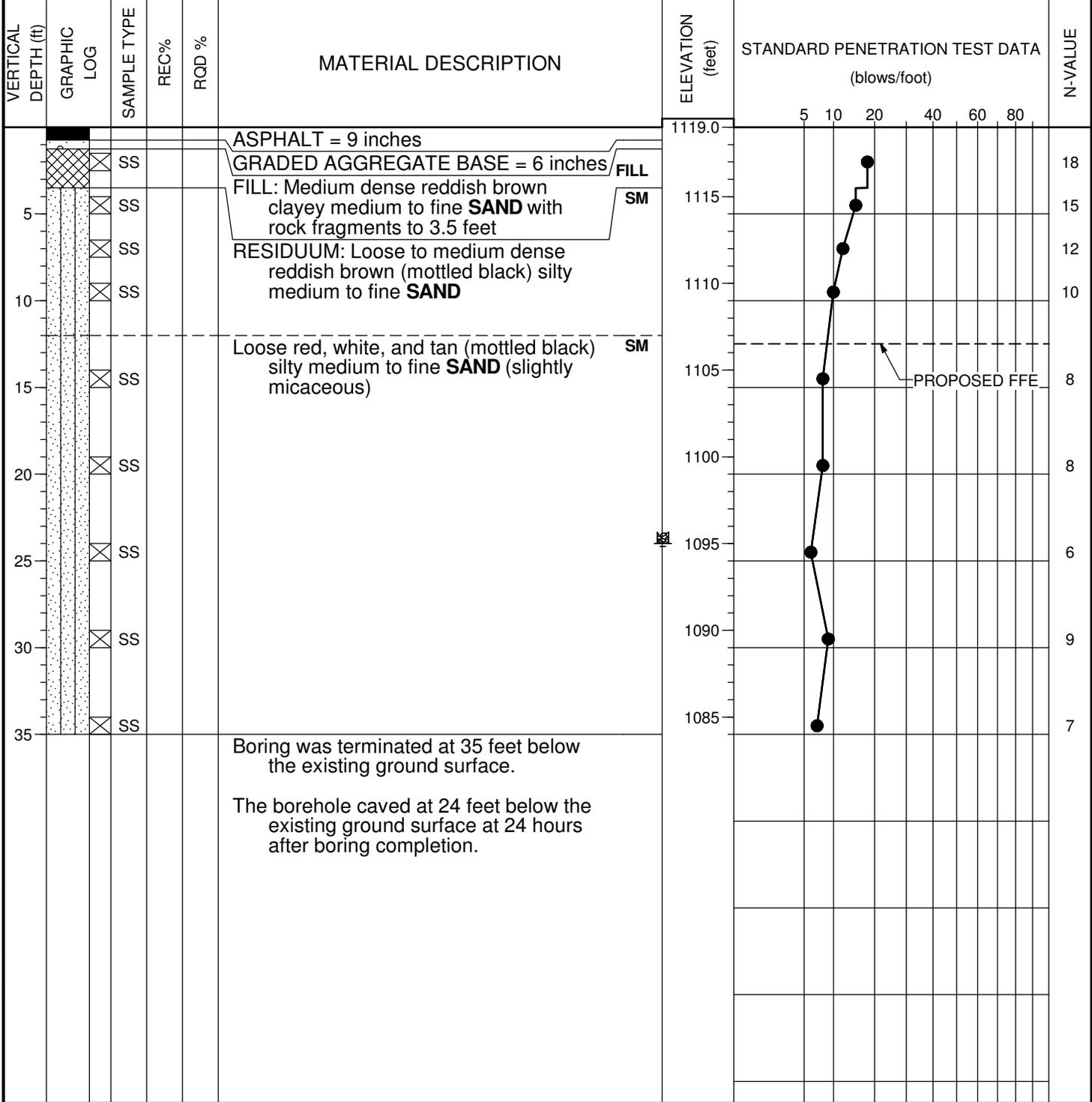
Groundwater was encountered at 30 feet and 27 feet below the existing ground surface at the time of boring completion and at 24 hours after boring completion, respectively.

Note: This boring was offset 10 feet east after encountering auger refusal material (possible boulder) at 11 feet below the existing ground surface at the original boring location.

SPTN ALPHARETTA BRANCH LIBRARY.GPJ 3/14/13

<b>SAMPLER TYPE</b> SS - Split Spoon ST - Shelby Tube NQ - Rock Core, 1-7/8"		NX - Rock Core, 2-1/8" CU - Cuttings CT - Continuous Tube		<b>DRILLING METHOD</b> HSA - Hollow Stem Auger CFA - Continuous Flight Augers DC - Driving Casing		RW - Rotary Wash RC - Rock Core		Hole No. <b>B-3</b>
---------------------------------------------------------------------------------------	--	-----------------------------------------------------------------	--	------------------------------------------------------------------------------------------------------------	--	------------------------------------	--	------------------------

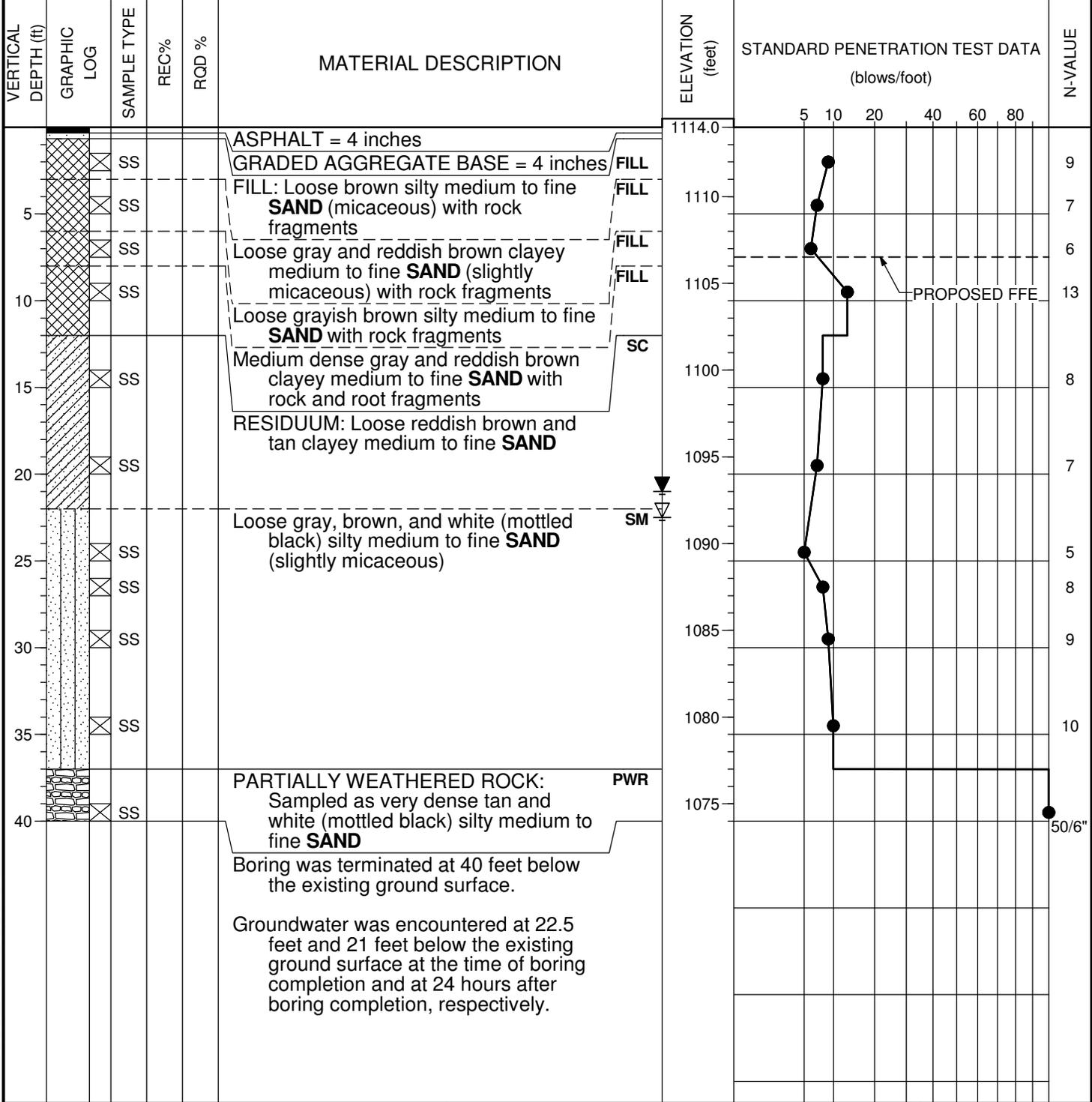
Project: <b>Alpharetta Branch Library</b>		<b>HOLE No. B-4</b>	
Location: <b>Alpharetta, Fulton County, Georgia</b>		Sheet 1 of 1	
Project Number: <b>71.3875</b>		Location: <b>See Figure 2</b>	
Azimuth: <b>--</b>	Angle from Horizontal: <b>90</b>	Surface Elevation (ft): <b>1119.00</b>	Station: <b>NA</b>
Drilling Equipment: <b>CME-45 ATV</b>		Drilling Method: <b>HSA Automatic Hammer</b>	
Core Boxes: <b>NA</b>	Samples: <b>9</b>	Overburden (ft): <b>NA</b>	Rock (ft): <b>NA</b>
Logged By: <b>BD</b>		Date Drilled: <b>2/27/13</b>	
Total Depth (ft): <b>35.0</b>			



SPTN ALPHARETTA BRANCH LIBRARY.GPJ 3/14/13

<b>SAMPLER TYPE</b> SS - Split Spoon ST - Shelby Tube NQ - Rock Core, 1-7/8"	NX - Rock Core, 2-1/8" CU - Cuttings CT - Continuous Tube	<b>DRILLING METHOD</b> HSA - Hollow Stem Auger CFA - Continuous Flight Augers DC - Driving Casing	RW - Rotary Wash RC - Rock Core Hole No. <div style="text-align: right; font-weight: bold; font-size: 1.2em;">B-4</div>
---------------------------------------------------------------------------------------	-----------------------------------------------------------------	------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------

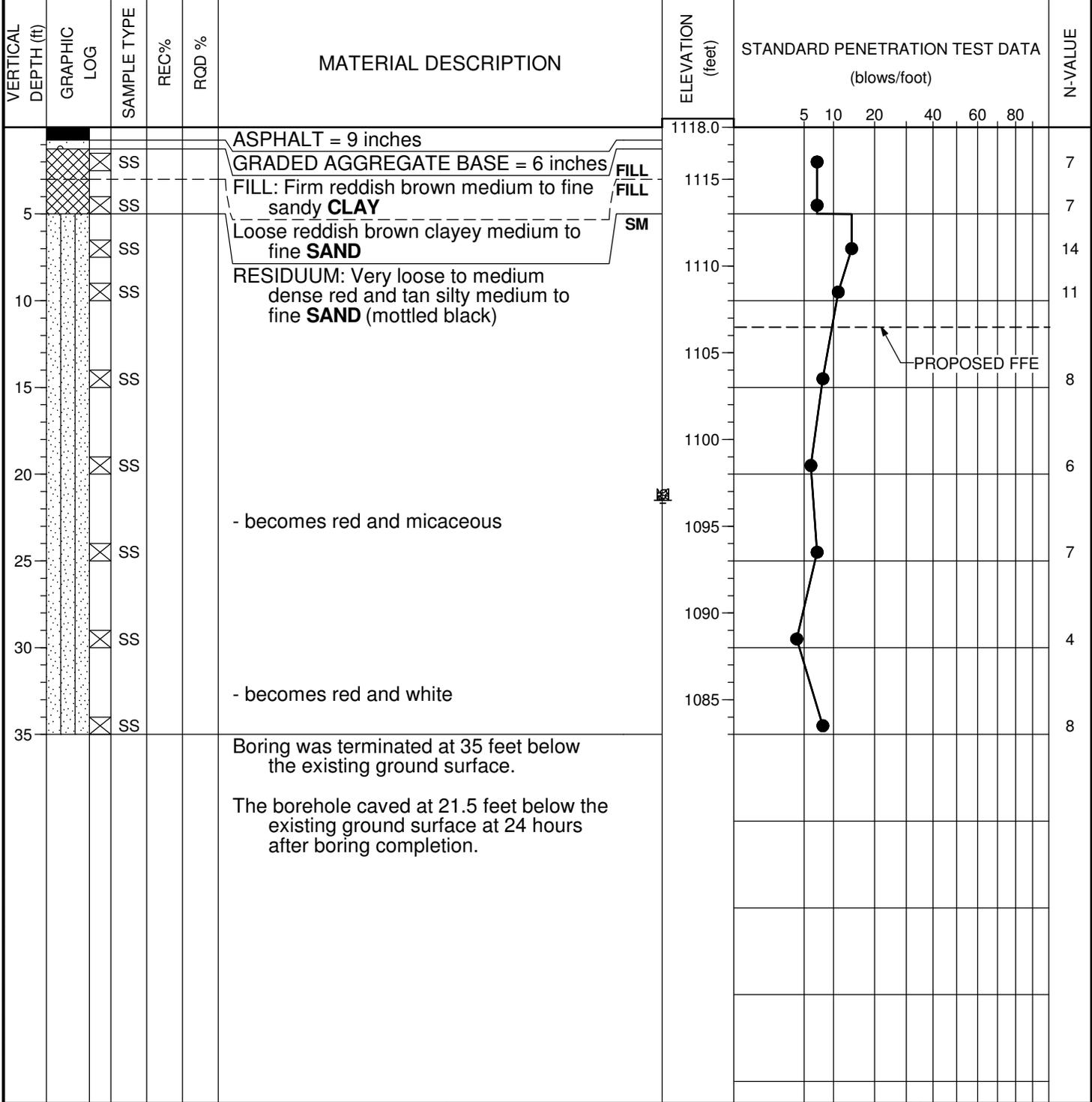
Project: <b>Alpharetta Branch Library</b>		<b>HOLE No. B-5</b>	
Location: <b>Alpharetta, Fulton County, Georgia</b>		Sheet 1 of 1	
Project Number: <b>71.3875</b>		Location: <b>See Figure 2</b>	
Azimuth: <b>--</b>	Angle from Horizontal: <b>90</b>	Surface Elevation (ft): <b>1114.00</b>	Station: <b>NA</b>
Drilling Equipment: <b>CME-45 ATV</b>		Drilling Method: <b>HSA Automatic Hammer</b>	
Core Boxes: <b>NA</b>	Samples: <b>10</b>	Overburden (ft): <b>NA</b>	Rock (ft): <b>NA</b>
Logged By: <b>BD</b>		Date Drilled: <b>2/27/13</b>	
Total Depth (ft): <b>40.0</b>			



SPTN ALPHARETTA BRANCH LIBRARY.GPJ 3/14/13

<b>SAMPLER TYPE</b> SS - Split Spoon      NX - Rock Core, 2-1/8" ST - Shelby Tube      CU - Cuttings NQ - Rock Core, 1-7/8"      CT - Continuous Tube		<b>DRILLING METHOD</b> HSA - Hollow Stem Auger      RW - Rotary Wash CFA - Continuous Flight Augers      RC - Rock Core DC - Driving Casing		Hole No. <p style="text-align: center; font-size: 1.2em;"><b>B-5</b></p>
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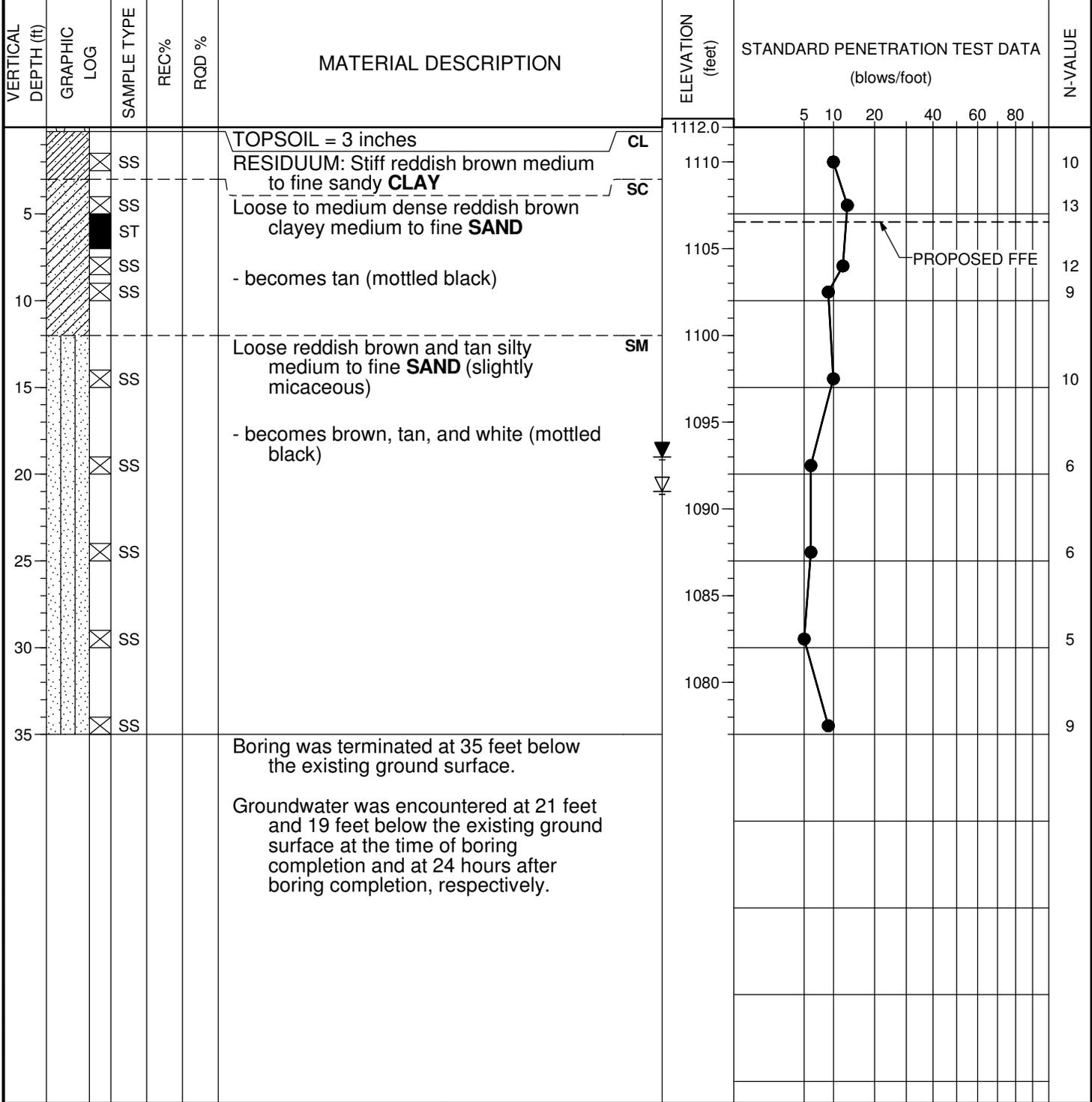
Project: <b>Alpharetta Branch Library</b>	<b>HOLE No. B-6</b>		
Location: <b>Alpharetta, Fulton County, Georgia</b>	Sheet 1 of 1		
Project Number: <b>71.3875</b>	Location: <b>See Figure 2</b>		
Azimuth: <b>--</b>	Angle from Horizontal: <b>90</b>	Surface Elevation (ft): <b>1118.00</b>	Station: <b>NA</b>
Drilling Equipment: <b>CME-45 ATV</b>	Drilling Method: <b>HSA Automatic Hammer</b>		
Core Boxes: <b>NA</b>	Samples: <b>9</b>	Overburden (ft): <b>NA</b>	Rock (ft): <b>NA</b>
Logged By: <b>BD</b>		Date Drilled: <b>2/25/13</b>	
Total Depth (ft): <b>35.0</b>			



SPTN ALPHARETTA BRANCH LIBRARY.GPJ 3/14/13

<b>SAMPLER TYPE</b> SS - Split Spoon ST - Shelby Tube NQ - Rock Core, 1-7/8"		NX - Rock Core, 2-1/8" CU - Cuttings CT - Continuous Tube		<b>DRILLING METHOD</b> HSA - Hollow Stem Auger CFA - Continuous Flight Augers DC - Driving Casing		RW - Rotary Wash RC - Rock Core		Hole No. <b>B-6</b>
---------------------------------------------------------------------------------------	--	-----------------------------------------------------------------	--	------------------------------------------------------------------------------------------------------------	--	------------------------------------	--	------------------------

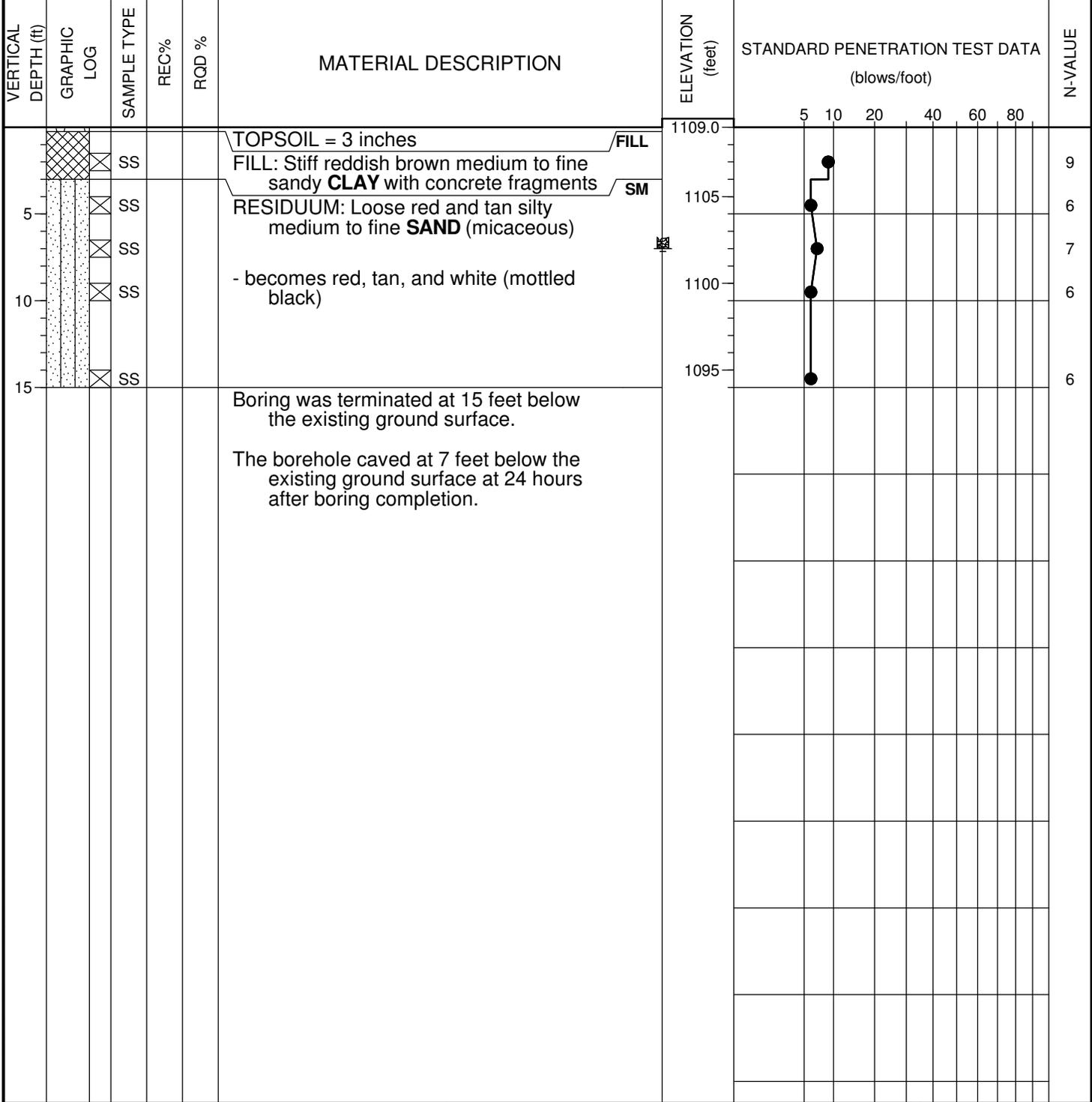
Project: <b>Alpharetta Branch Library</b>		<b>HOLE No. B-7</b>	
Location: <b>Alpharetta, Fulton County, Georgia</b>		Sheet 1 of 1	
Project Number: <b>71.3875</b>		Location: <b>See Figure 2</b>	
Azimuth: <b>--</b>	Angle from Horizontal: <b>90</b>	Surface Elevation (ft): <b>1112.00</b>	Station: <b>NA</b>
Drilling Equipment: <b>CME-45 ATV</b>		Drilling Method: <b>HSA Automatic Hammer</b>	
Core Boxes: <b>NA</b>	Samples: <b>10</b>	Overburden (ft): <b>NA</b>	Rock (ft): <b>NA</b>
Logged By: <b>BD</b>		Date Drilled: <b>2/27/13</b>	
Total Depth (ft): <b>35.0</b>			



SPTN ALPHARETTA BRANCH LIBRARY.GPJ 3/14/13

<b>SAMPLER TYPE</b> SS - Split Spoon ST - Shelby Tube NQ - Rock Core, 1-7/8"	NX - Rock Core, 2-1/8" CU - Cuttings CT - Continuous Tube	<b>DRILLING METHOD</b> HSA - Hollow Stem Auger CFA - Continuous Flight Augers DC - Driving Casing	RW - Rotary Wash RC - Rock Core Hole No. <b>B-7</b>
---------------------------------------------------------------------------------------	-----------------------------------------------------------------	------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------

Project: <b>Alpharetta Branch Library</b>	<b>HOLE No. B-8</b>
Location: <b>Alpharetta, Fulton County, Georgia</b>	Sheet 1 of 1
Project Number: <b>71.3875</b>	Location: <b>See Figure 2</b>
Azimuth: --    Angle from Horizontal: <b>90</b> Surface Elevation (ft): <b>1109.00</b> Station: <b>NA</b>	
Drilling Equipment: <b>CME-45 ATV</b> Drilling Method: <b>HSA Automatic Hammer</b>	
Core Boxes: <b>NA</b> Samples: <b>5</b> Overburden (ft): <b>NA</b> Rock (ft): <b>NA</b> Total Depth (ft): <b>15.0</b>	
Logged By: <b>BD</b> Date Drilled: <b>2/25/13</b>	



SPTN ALPHARETTA BRANCH LIBRARY.GPJ 3/14/13

<b>SAMPLER TYPE</b> SS - Split Spoon ST - Shelby Tube NQ - Rock Core, 1-7/8"	NX - Rock Core, 2-1/8" CU - Cuttings CT - Continuous Tube	<b>DRILLING METHOD</b> HSA - Hollow Stem Auger CFA - Continuous Flight Augers DC - Driving Casing	RW - Rotary Wash RC - Rock Core Hole No. <div style="text-align: right; font-weight: bold; font-size: 1.2em;">B-8</div>
---------------------------------------------------------------------------------------	-----------------------------------------------------------------	------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------

Project: <b>Alpharetta Branch Library</b>	<b>HOLE No. B-9</b>
Location: <b>Alpharetta, Fulton County, Georgia</b>	Sheet 1 of 1
Project Number: <b>71.3875</b>	Location: <b>See Figure 2</b>
Azimuth: --    Angle from Horizontal: <b>90</b> Surface Elevation (ft): <b>1104.00</b> Station: <b>NA</b>	
Drilling Equipment: <b>CME-45 ATV</b> Drilling Method: <b>HSA Automatic Hammer</b>	
Core Boxes: <b>NA</b> Samples: <b>5</b> Overburden (ft): <b>NA</b> Rock (ft): <b>NA</b> Total Depth (ft): <b>15.0</b>	
Logged By: <b>BD</b> Date Drilled: <b>2/25/13</b>	

VERTICAL DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE	REC%	ROD %	MATERIAL DESCRIPTION	ELEVATION (feet)	STANDARD PENETRATION TEST DATA (blows/foot)	N-VALUE
					TOPSOIL = 3 inches	1104.0		
	SC				RESIDUUM: Loose to medium dense reddish brown clayey medium to fine SAND			
5	X	SS			- becomes tan and white			7
	X	SS						13
	X	SS						5
10	X	SS			Very loose to loose red, tan, and white silty medium to fine SAND	1095		3
	X	SS						
15	X	SS			- rock fragments encountered	1090		8
					Boring was terminated at 15 feet below the existing ground surface.			
					Groundwater was encountered at 7 feet below the existing ground surface at 24 hours after boring completion.			

<b>SAMPLER TYPE</b> SS - Split Spoon ST - Shelby Tube NQ - Rock Core, 1-7/8"	<b>DRILLING METHOD</b> NX - Rock Core, 2-1/8" CU - Cuttings CT - Continuous Tube	HSA - Hollow Stem Auger CFA - Continuous Flight Augers DC - Driving Casing	RW - Rotary Wash RC - Rock Core Hole No. <b>B-9</b>
---------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------	-----------------------------------------------------------

SPTN ALPHARETTA BRANCH LIBRARY.GPJ 3/14/13

## APPENDIX II



Client:	Willmer Engineering, Inc.		
Project:	Alpharetta Library		
Location:	Alpharetta, GA	Project No:	GTX-300328
Boring ID:	---	Sample Type:	---
Sample ID:	---	Test Date:	04/08/13
Depth :	---	Test Id:	225005
		Tested By:	jm
		Checked By:	MCM

## Moisture Content of Soil and Rock - ASTM D2216

Boring ID	Sample ID	Depth	Description	Moisture Content, %
B-7	---	5-7'	Moist, reddish brown clayey sand	18.7
B-8	---	3-5'	Moist, red sandy silt	29.0

Notes: Temperature of Drying : 110° Celsius



Client:	Willmer Engineering, Inc.				
Project:	Alpharetta Library				
Location:	Alpharetta, GA	Project No:	GTX-300328		
Boring ID:	---	Sample Type:	---	Tested By:	jm
Sample ID:	---	Test Date:	04/08/13	Checked By:	MCM
Depth :	---	Test Id:	225006		

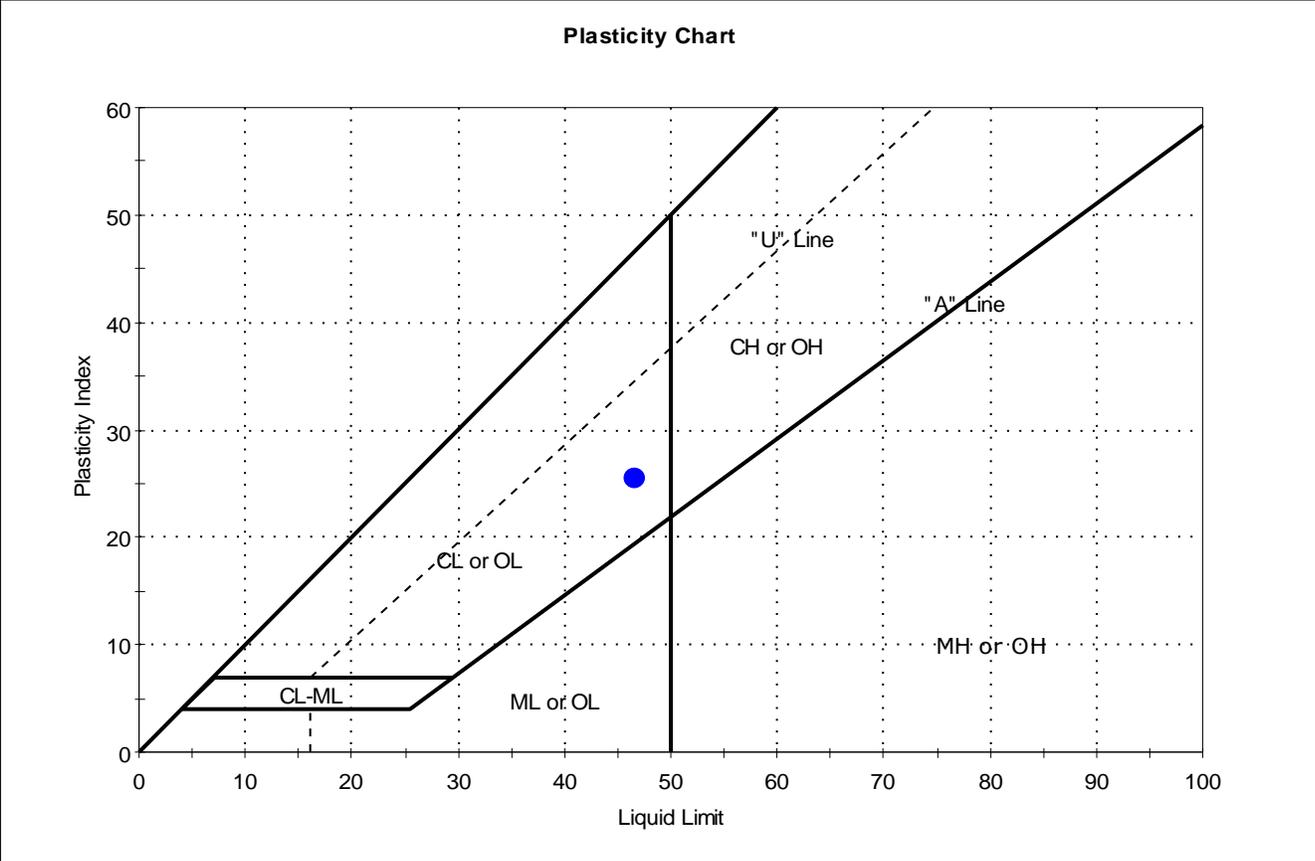
## Particle Size Analysis - ASTM D1140

Boring ID	Sample ID	Depth	Visual Description	Fines, %
B-7	---	5-7'	Moist, reddish brown clayey sand	44.9
B-8	---	3-5'	Moist, red sandy silt	55.0



Client: Willmer Engineering, Inc.	Project No: GTX-300328
Project: Alpharetta Library	
Location: Alpharetta, GA	
Boring ID: B-7	Sample Type: tube
Sample ID: ---	Test Date: 03/12/13
Depth: 5-7 ft	Test Id: 225000
Test Comment: ---	Tested By: jm
Sample Description: Moist, reddish brown clayey sand	Checked By: MCM
Sample Comment: ---	

## Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
●	---	B-7	5-7 ft	19	46	21	25	0	

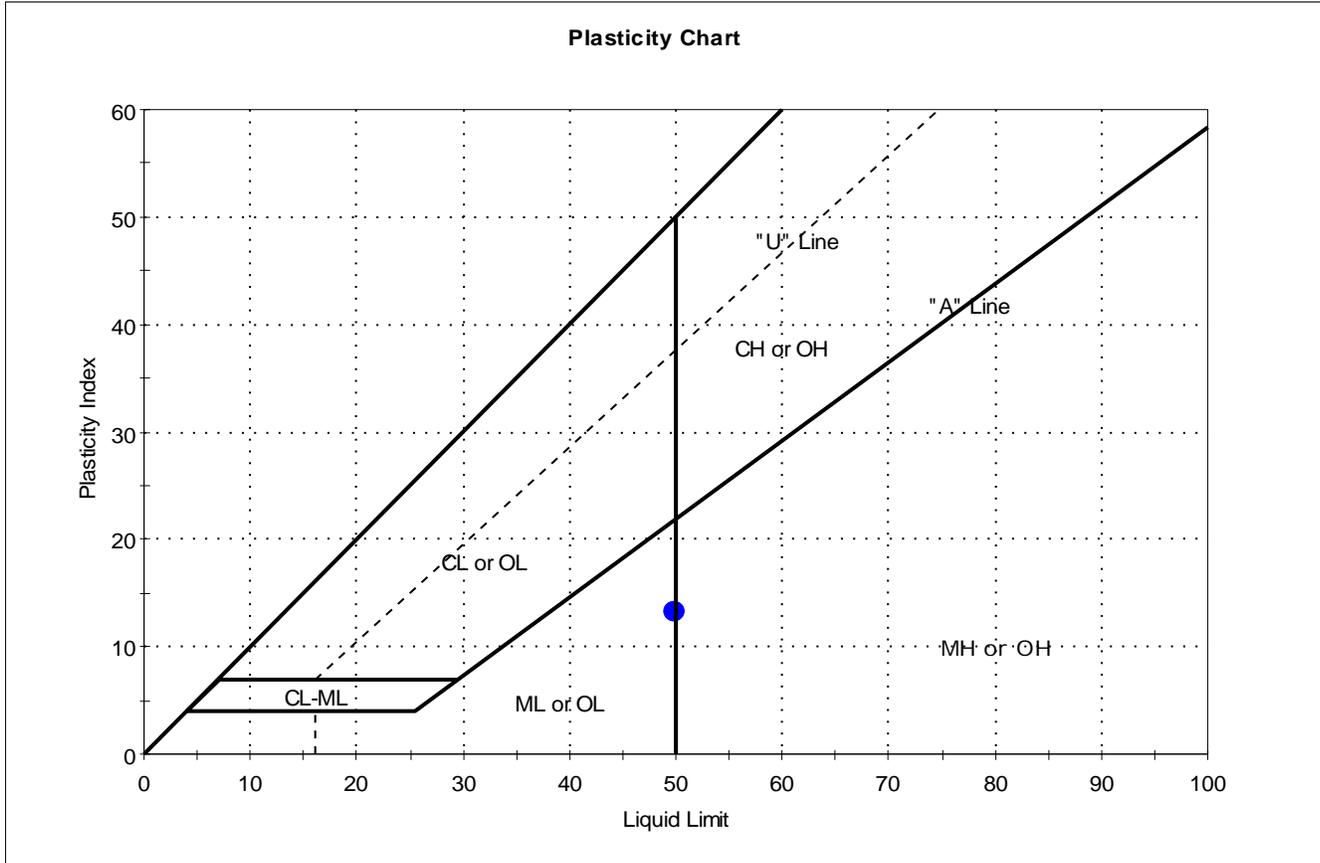
Sample Prepared using the WET method

Dry Strength: MEDIUM  
 Dilatancy: NONE  
 Toughness: MEDIUM



Client: Willmer Engineering, Inc.	Project No: GTX-300328
Project: Alpharetta Library	
Location: Alpharetta, GA	
Boring ID: B-8	Sample Type: bag
Sample ID: ---	Test Date: 04/08/13
Depth: 3-5 ft	Test Id: 225004
Test Comment: ---	Tested By: bhe
Sample Description: Moist, red sandy silt	Checked By: MCM
Sample Comment: ---	

## Atterberg Limits - ASTM D4318



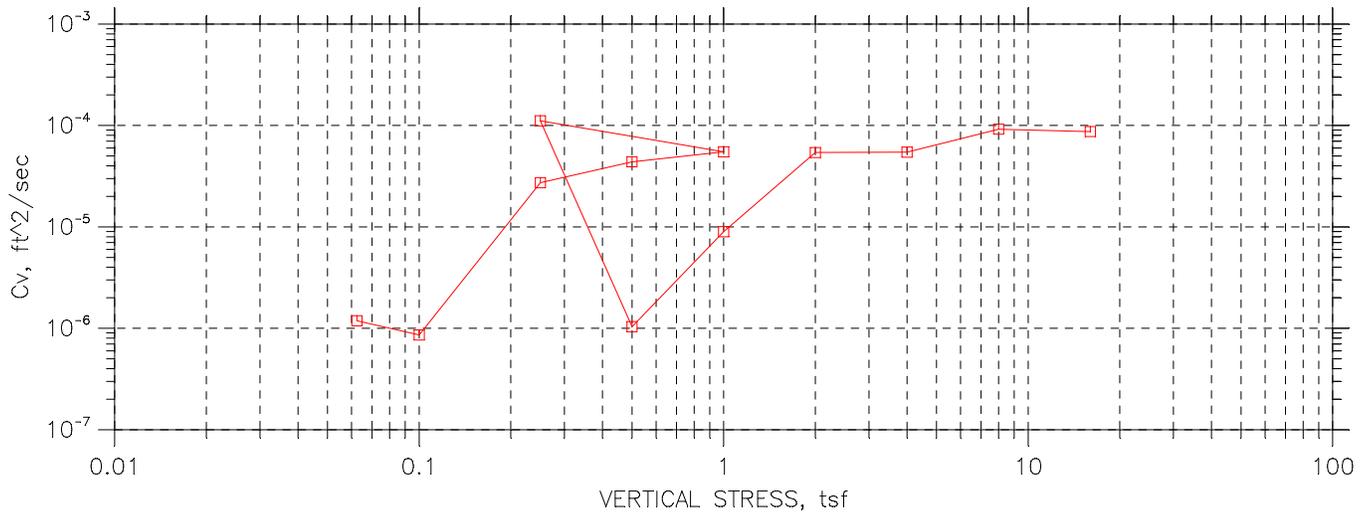
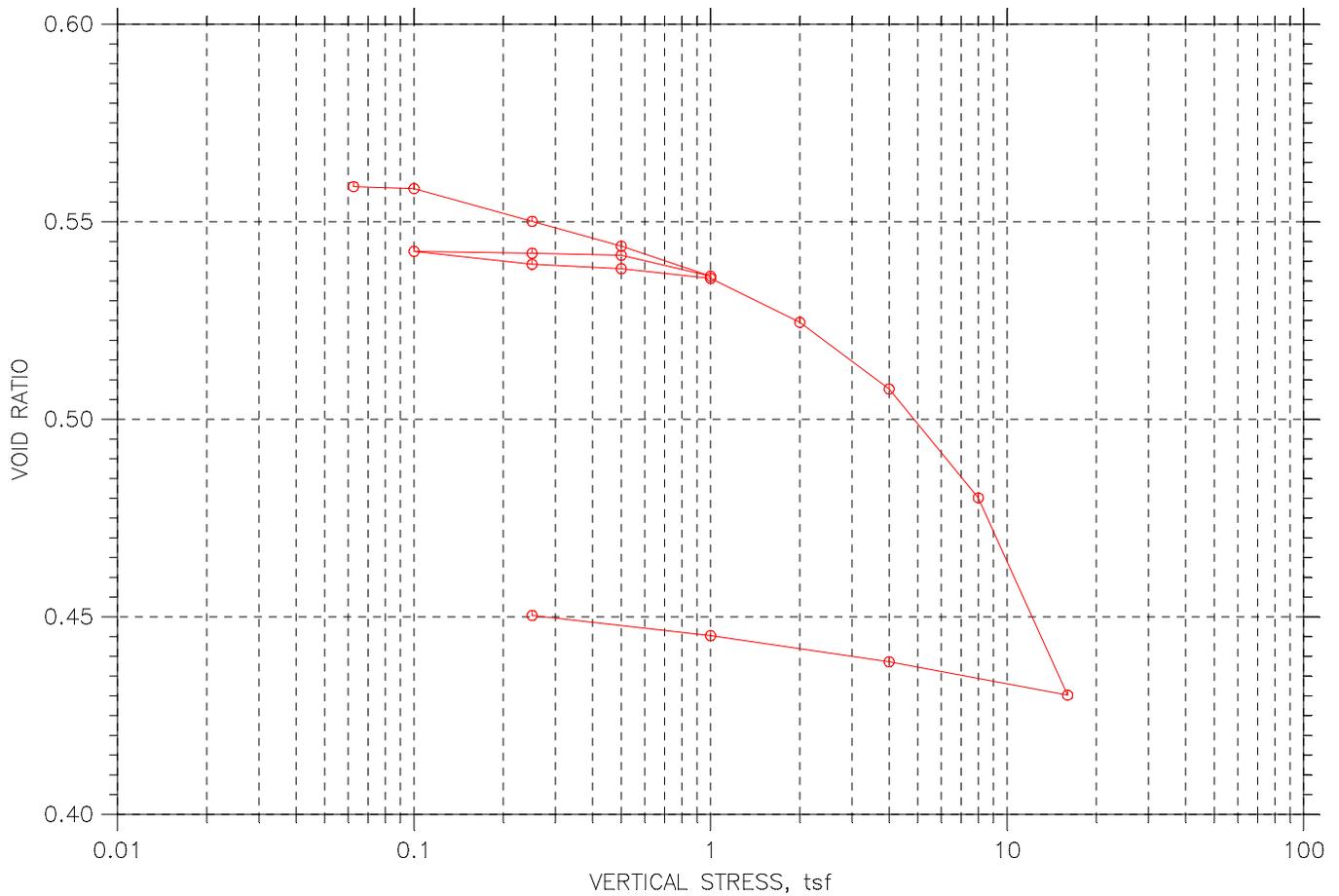
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
●	---	B-8	3-5 ft	29	50	36	14	-1	

Sample Prepared using the WET method

Dry Strength: MEDIUM  
 Dilatancy: SLOW  
 Toughness: LOW

# One-Dimensional Consolidation by ASTM D 2435 - Method B

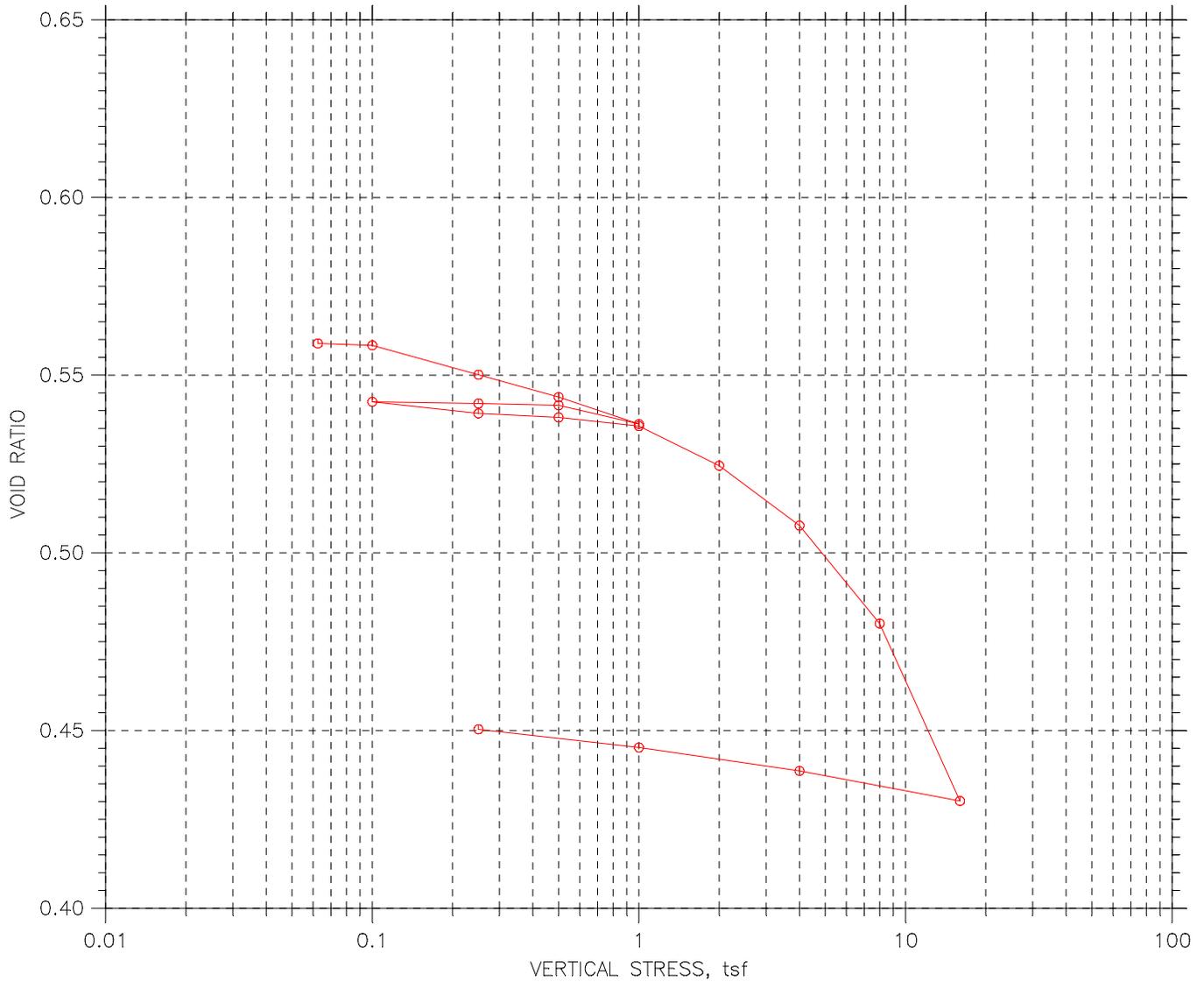
## SUMMARY REPORT



	Project: Alpharetta Library	Location: Alpharetta, GA	Project No.: GTX-300328
	Boring No.: B-7	Tested By: jm	Checked By: mcm
	Sample No.: ---	Test Date: 3/9/13	Test No.: C-1.2
	Depth: 5-7 ft	Sample Type: Intact	Elevation: ---
	Description: Moist, reddish brown clayey sand		
	Remarks: 2054		
	Displacement at End of Increment		

# One-Dimensional Consolidation by ASTM D 2435 - Method B

## SUMMARY REPORT



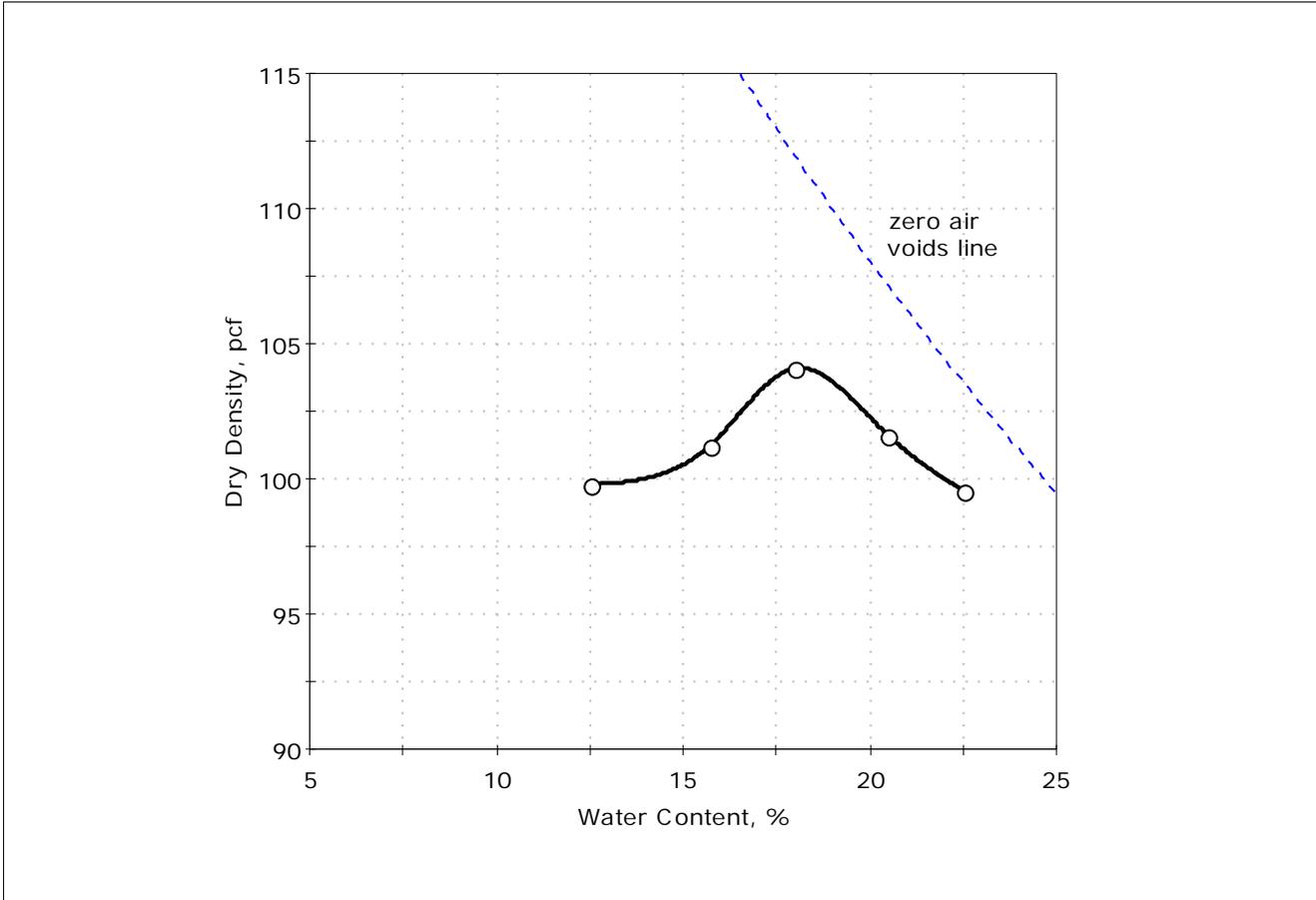
		Before Test	After Test
Overburden Pressure: ---		17.82	16.98
Preconsolidation Pressure: ---		106.18	114.17
Compression Index: ---		84.48	100.00
Diameter: 2.5 in	Height: 0.9975 in	Void Ratio	0.56      0.45
LL: 46	PL: 21	PI: 25	GS: 2.65

	Project: Alpharetta Library	Location: Alpharetta, GA	Project No.: GTX-300328
	Boring No.: B-7	Tested By: jm	Checked By: mcm
	Sample No.: ---	Test Date: 3/9/13	Test No.: C-1.2
	Depth: 5-7 ft	Sample Type: Intact	Elevation: ---
	Description: Moist, reddish brown clayey sand		
	Remarks: 2054		
	Displacement at End of Increment		



Client:	Willmer Engineering, Inc.		Project No:	GTX-300328	
Project:	Alpharetta Library		Tested By:	jm	
Location:	Alpharetta, GA	Sample Type:	bag	Checked By:	MCM
Boring ID:	B-8	Test Date:	04/08/13	Test Id:	225007
Sample ID:	---				
Depth :	3-5'				
Test Comment:	---				
Sample Description:	Moist, red sandy silt				
Sample Comment:	---				

## Compaction Report - ASTM D698

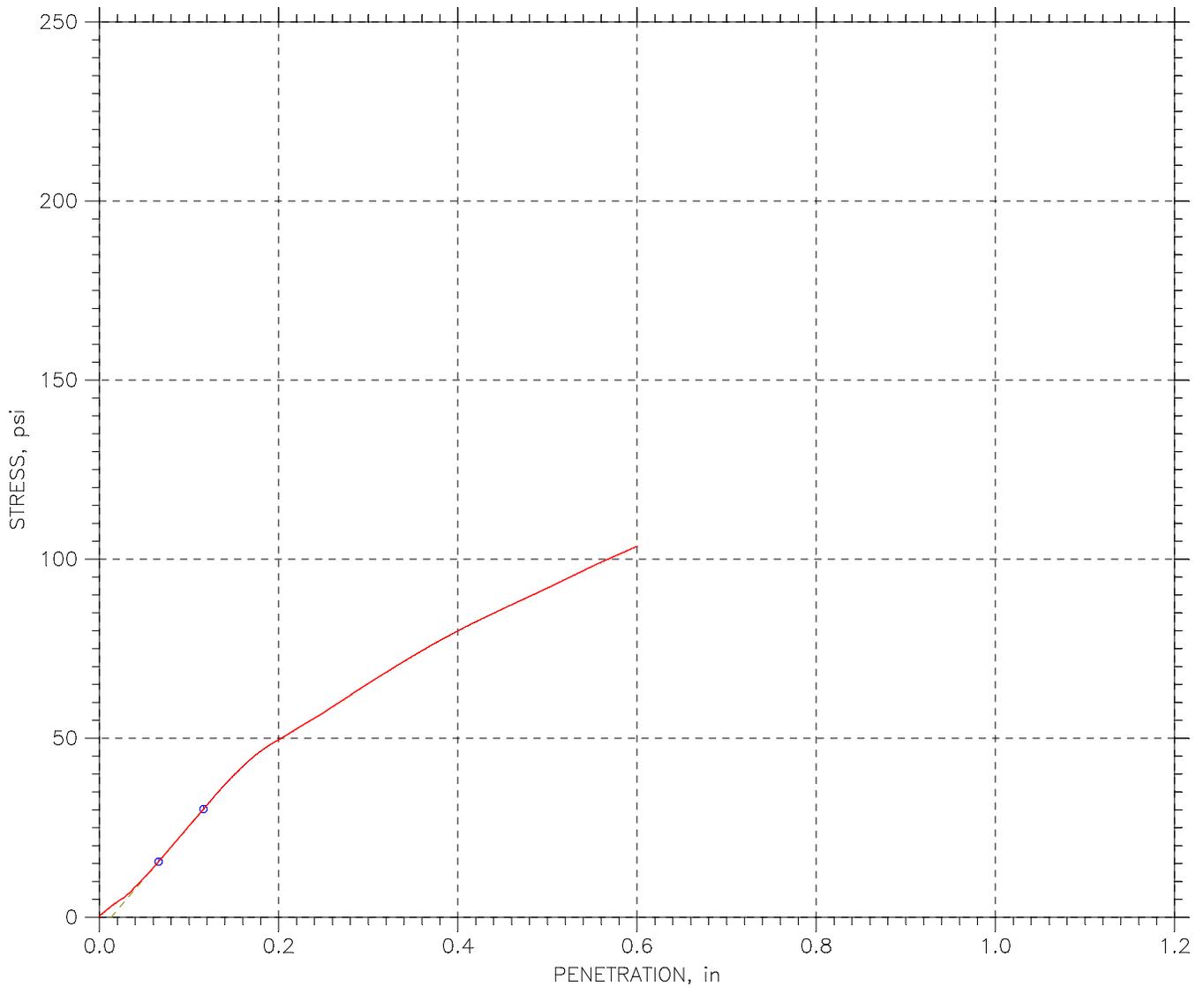


Data Points	Point 1	Point 2	Point 3	Point 4	Point 5
Dry density, pcf	99.8	101.2	104.1	101.6	99.6
Moisture Content, %	12.5	15.7	18.0	20.5	22.5

Method : A  
 Preparation : WET  
 As received Moisture : 29 %  
 Rammer : Manual  
 Zero voids line based on assumed specific gravity of 2.65

**Maximum Dry Density= 104.0 pcf**  
**Optimum Moisture= 18.0 %**

# CALIFORNIA BEARING RATIO TEST REPORT



Sample Height: 4.5826 in	California Bearing Ratio			
Sample Area: 28.237 in <sup>2</sup>	at 0.1 in: 3	at 0.3 in: 4	at 0.5 in: 4	
Sample Volume: 2120.4 cc	at 0.2 in: 3	at 0.4 in: 4		
Sample Mass: 4139 gm				
Sample Condition: Soaked	Water Content	Before	Top	Average
Swell: 1.92 %	Tare ID	B12	b26	b3
Surcharge: 11356 gm	Tare Mass, gm	59.04	57.72	57.6
Void Ratio: 0.64	Mass Tare + Wet Soil, gm	556.71	467.9	629.78
Wet Unit Weight: 121.86 pcf	Mass Tare + Dry Soil, gm	472.07	367.69	511.57
Dry Unit Weight: 101.13 pcf	Water Content, %	20.49	32.33	26.04

Project: Alpharetta Library	Location: Alpharetta, GA	Project No.: GTX-300328
Boring No.: B-8	Tested By: jm	Checked By: mcm
Sample No.: ---	Test Date: 3/19/13	Depth: 3-5 ft
Test No.: CBR-2.1	Sample Type: Reconst.	Elevation: ---
Description: Moist, red sandy silt		
Remarks: Target compaction: 98% of (104.0 pcf) at optimum moisture content (18.0%) +2% moisture		

## **APPENDIX III**



Vicinity of B-1 and B-3; Looking Southeast



Vicinity of B-2; Looking West



Vicinity of B-3; Looking South



Vicinity of B-4 and B-6; Looking South



Vicinity of B-5; Looking West



Vicinity of B-6; Looking South



Vicinity of B-7; Looking North



Vicinity of B-8 and B-7; Looking Northeast



Vicinity of B-9; Looking West

## **APPENDIX IV**



May 15, 2013

Mr. Bradford Drew, EIT  
Willmer Engineering, Inc.  
3772 Pleasantdale Road, Suite 165  
Atlanta, Georgia 30340

Subject: Results of Seismic Shear-Wave Investigation  
Alpharetta Tract  
Alpharetta, Georgia

Dear Mr. Drew:

As requested, GeoWave Solutions, Inc. has completed the seismic shear-wave velocity investigation using a combination of passive and active SASW methods at the above referenced site. This testing was performed to establish the IBC seismic soil site classification for the land parcel scheduled for development. This report describes the site conditions during the time of fieldwork, accounts the methods utilized for this study, and presents shear-wave velocity data produced from one test array.

The Alpharetta Tract is a small parcel of undeveloped woodland off the intersection of Haynes Bridge Road and Brook Street located just to the southeast of downtown Alpharetta, Georgia. As requested, we conducted a shear-wave array wrapping around the northwest edge of the parcel with the 'L-shaped' array positioned along the toes of fill slopes supporting the adjacent roadways. Refer to the attached aerial site plan for a perspective of the shear-wave array placement.

Seismic data were collected with passive and active arrays using a 24-channel Geometrics Geode seismograph with 4.5-Hz geophones. An L-shaped, two-dimensional array consisting of 10-foot geophone receiver spacings was used for passive data acquisition. The instrument was configured to sample ambient background noise with a sample rate of 2 milliseconds and a record length of 30 seconds. Twenty-five passive recordings were made with this configuration. Given the relative proximity to Haynes Bridge Road and other thoroughfares in the Alpharetta business district, we found passive ambient sources provided a high quality level of both low and high frequency data.

One linear active array was also performed along the north-south leg of the aforementioned passive array. Using a 5-foot geophone spacing, a sampling of hammer blows were conducted at various lengths off the array ends with a sample rate of 0.5 milliseconds and a record length of 2 seconds for each source point.

Data records from both the passive and active acquisition modes were combined for processing in a computed velocity spectrum to create Rayleigh wave dispersion trends. Through inversion routines, curve-matching of these dispersion trends were used to develop one-dimensional subsurface shear-wave velocity profile that represent the average velocities below the surface arrays. The attached seismic velocity model displays the shear-wave velocity profile for the upper 100 feet. Also included, is a table displaying the shear-wave velocities and depths used to create the seismic velocity model.

The results of our analysis produced a  $V_{s100}$  value of 1077.8 ft/sec. This value places the area of the site tested in the D range for the IBC seismic soil site classification.

The results of this testing reflect subsurface shear-wave velocity data calculated below the test arrays selected for this site. Because abrupt changes in the subsurface are common in this geologic province, the attached velocity profile may not be representative of subsurface conditions across other areas of the parcel. Additional testing may be desired in areas not covered by this study.

If you have any questions about the findings of this study or the data contained in this report or if you require any further services, please feel free to call us. We appreciate the opportunity to offer these consulting services and look forward to working with you again on future projects.

Sincerely,

A handwritten signature in black ink that reads "Michael C. Stone". The signature is written in a cursive, flowing style.

Michael C. Stone, P.G.  
GeoWave Solutions, Inc.



**GeoWave Solutions, Inc.**  
[www.geowavesolutions.com](http://www.geowavesolutions.com)

**Alpharetta Tract**  
Seismic Shear-Wave Investigation  
**Willmer Engineering, Inc.**

Project Manager: M. Stone

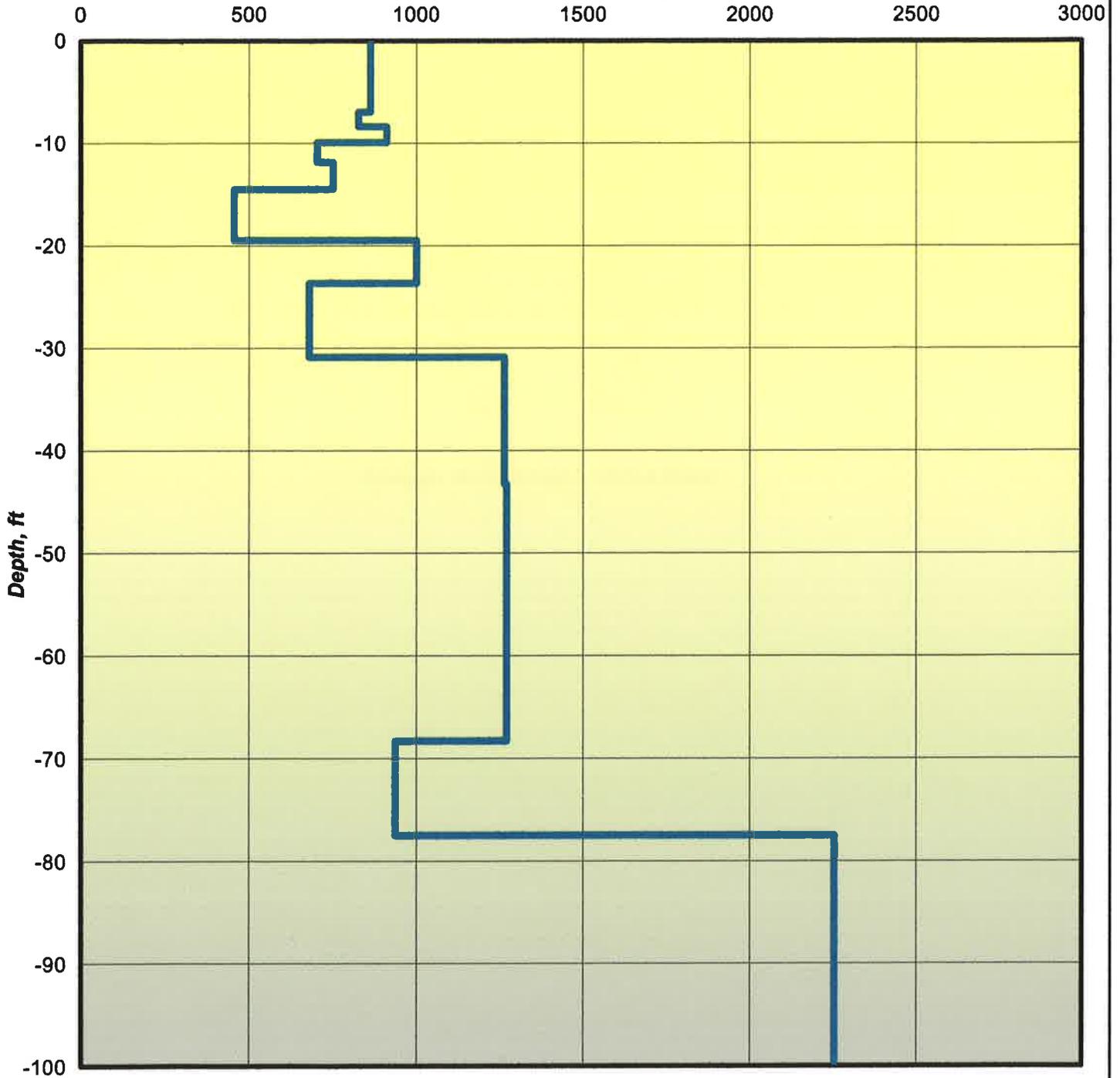
Date: May 13, 2013



# SW-1

84°17' 33"W 34°04'26"N

Shear-Wave Velocity, ft/sec



Average Vs (100 feet) = 1077.8 ft/sec



**GeoWave Solutions, Inc.**  
4575 Ansley Lane  
Cumming, Georgia 30040  
Tel: 770-886-3776  
Fax: 770-886-7212  
www.geowavesolutions.com

**Alpharetta Tract**  
**Willmer Engineering, Inc.**  
Seismic Shear-Wave Investigation

Project Manager: M. Stone

May 13, 2013



**Standard Form Subcontract**

THIS SUBCONTRACT is entered into and effective on \_\_\_\_\_ by and between **Contractor** ("Contractor"), with its principal place of business at 1600 Riveredge Parkway NW, Ste 600, Atlanta, Georgia 30328 and **Subcontractor** ("Subcontractor"), with its principal place of business at Address Inserted.

**RECITALS**

Contractor entered into a Prime Contract on March 7, 2012, with Owner whose address is address inserted, to perform work on the following project:

**Alpharetta Branch Library  
E Street,  
Alpharetta, GA 30009**

**WORK**

Subcontractor agrees to furnish all labor, materials, hoisting, supplies, insurance, equipment, scaffolding, tools, services, installation and other facilities of every kind and description required for the efficient execution of all \_\_\_\_\_ described herein all in strict accordance with the Contract Documents.

**CONTRACT PRICE**

Contractor agrees to pay Subcontractor for the satisfactory performance of its work the sum of:

**[Value\$\$\$]**

in current funds, which includes all Federal, State, Local Fees and Taxes and, if required, 100% Payment and Performance Bonds as set forth more fully in Exhibit J hereto, as described herein subject to additions or deductions as herein provided (the "Subcontract Price");

**CONTRACT DOCUMENTS**

As set forth more fully in Article 2, the "Contract Documents" include the Prime Contract between Contractor and Owner, this Standard Form Subcontract, including the General Conditions, Special Provisions, Scope of Work and the following Exhibits attached hereto: A. Drawing and Specification Log; B. Request for Payment; C. Release Forms; D. Stored Materials; E. Bonds; F. Insurance Certificates; G. Builder's Risk; H. EEO; I. Safety Plan; J. Project Schedule. This Subcontract, including the documents incorporated herein by reference, embodies the entire agreement of the parties and supersedes all prior negotiations, agreements and understandings related to the subject matter hereof. This Subcontract shall not be valid until signed by Contractor.

**SUBCONTRACTOR shall not make any change to this Subcontract without the prior written consent of Contractor's duly authorized officer or agent. Any change otherwise made shall be null and void.**

	<b>Peter Brown Construction</b>
Print Name:	Print Name:
Title:	Title:
Signature:	Signature:
Date Signed:	Date Signed:
State Contractor's License No.	State Contractor's License No.
Sales Tax License No.	Taxpayer I.D. No.

PROJECT # 4014 SUBCONTRACT # 000000001

# GENERAL CONDITIONS (PRIVATE PROJECT)

## ARTICLE I, WORK

The term "Work" means: (i) the furnishing and performance of all labor and materials by Subcontractor, at or for the benefit of the Project that is within the general scope of this Subcontract and the Contract Documents or that can be reasonably inferred from the general scope of this Subcontract or the Contract Documents; (ii) unless specifically expressly excepted, the furnishing by Subcontractor of all labor, material, equipment, supplies, plant, tools, scaffolding, hoisting, temporary facilities, transportation, superintendence, inspections and temporary construction of every nature; (iii) that which is to be produced and supplied pursuant to this Subcontract; and (iv) the obligation of Subcontractor to visit the Project site, and to fully acquaint and familiarize itself with the Project site, surrounding and subsurface conditions and the character of the operations to be carried on at the site, and make such investigations as Subcontractor may deem fit or as may be prudent for Subcontractor to fully understand the facilities, physical conditions and restrictions attending the Work. All Work shall be completed strictly in accordance with the requirements of this Subcontract and the Contract Documents.

## ARTICLE 2, CONTRACT DOCUMENTS; INVESTIGATION

The Contract Documents include the Prime Contract between Owner and Contractor, this Subcontract, all Documents listed in Exhibit A, and all other Exhibits attached to this Subcontract. Subcontractor shall be bound to Contractor by the terms and conditions of the Contract Documents, as the same shall be applicable to the Work and this Subcontract, and hereby assumes toward Contractor all of the duties, obligations and responsibilities that Contractor has by the Contract Documents assumed toward the Owner; except for the Provisions dealing with the terms for payment that are specifically described in Article 5. Subject only to the terms of Article 25, nothing herein shall be construed to be a binding agreement to arbitrate any dispute arising hereunder, notwithstanding any provisions to the contrary contained in the Contract Documents.

The Contract Documents are available for examination by Subcontractor at all reasonable times at the office of Contractor. Subcontractor represents and agrees that it has carefully examined and understands the Contract Documents relevant to the Work; has familiarized itself with conditions affecting the difficulty of the Work; and has entered into this Subcontract based on its own examination, investigation and evaluation and not in reliance upon any opinions or representations of Contractor.

The Contract Documents are to be treated by Subcontractor as "scope" documents that indicate the general scope of the Work in terms of the architectural design concept, the overall dimensions, the type of structural, mechanical, electrical, utility, and other systems, and an outline of major architectural elements. As "scope" documents, the Contract Documents do not necessarily indicate or describe all items required for the full performance and proper completion of the Work. It is the intent of this Subcontract that Subcontractor is to furnish for the Subcontract Price all items required for proper completion of the Work. Subsequently issued documents may more completely detail certain requirements of the Work, at the option of the Architect, for the purpose of further defining the Work, but there is no obligation to issue such additional documents.

Subcontractor represents and warrants to Contractor that it (1) is experienced and skilled in the construction of structures and improvements of the type described in this Subcontract, and (2) has, by careful examination, satisfied itself as to and has taken into account (a) the nature, location and character of the Project site, including, without limitation, the surface and subsurface (by review of available reports and information) condition of the land and all structure and obstructions thereon, both natural and man-made, and all surface and subsurface (the extent reasonably identified by review of available reports and information) water condition of the Project site and the surrounding area; (b) the nature and location and character of the general area in which the Project site is located; and (c) all other matter or things which, based on Subcontractor's experience with the Work contemplated by this Subcontract, could in any manner affect the performance of the Work. Subcontractor further warrants that it has carefully reviewed, and is thoroughly familiar with, all of the terms of this Subcontract and the Contract Documents, the plans and specifications as they pertain to the Work, and all laws, ordinances, or regulations that in any way relate to the Work to be performed under this Subcontract. Subcontractor is not relying on any opinions or representations of Contractor or any person purporting to act on Contractor's behalf. If Subcontractor discovers any apparent or actual error, omission, code compliance issue, or deficiency in such documents, location or conditions (any of the foregoing, a "Deficiency"), Subcontractor shall, within five (5) days after Subcontractor first becomes aware of a Deficiency, notify Contractor in writing of the existence or possible existence of each Deficiency in detail and take any other actions otherwise required

of Contractor under the Prime Contract. If Subcontractor believes that additional cost or time is involved because of modifications to the Work as a result of one or more Deficiencies as to which Subcontractor has given notice to Contractor pursuant to this paragraph then, subject to the provisions of the Prime Contract, Subcontractor may request a Change Order. If Contractor has any obligation under the Prime Contract regarding any investigation, testing or inspection of the site and the conditions under which the Work is to be performed, Subcontractor assumes those obligations and shall be solely responsible for all costs, expenses and damages that may result from Subcontractor's failure to perform or properly perform such investigation, testing or inspection.

### **ARTICLE 3, SUPERVISION**

Prior to the commencement of any Work, Subcontractor shall designate a responsible representative at the Project site. The representative shall be authorized to represent Subcontractor as to all phases of the Work, and to act on behalf of the Subcontractor. In the event of any proposed change of representative, Subcontractor shall notify Contractor of the new representative at least twenty-four (24) hours prior to the change becoming effective. Subcontractor represents that the responsible representative or its designee is a competent person as defined by the Occupational Safety and Health Administration ("OSHA"). Subcontractor's failure to designate a responsible representative at the Project site prior to commencement of any Work shall be a material breach of this Subcontract, entitling Contractor to its remedies under Article 24 herein.

As part of its obligation to provide and perform the Work, Subcontractor shall: (1) furnish a competent and adequate staff and use its best skill and attention for the proper administration, coordination, supervision and superintendence of the Work; (2) organize the procurement of all materials and equipment so that they will be available at the time they are needed for the Work; (3) keep an adequate force of skilled workers on the job to complete the Work in strict accordance with all requirements of this Subcontract and the Contract Documents; (4) maintain throughout the duration of the Work any necessary assistants, all of whom shall be acceptable to Contractor and shall not be changed without the consent of Contractor; (5) enforce discipline and order among Subcontractor's employees and not to employ at the Project site any unfit person or anyone not skilled in the task assigned; and (6) provide supervision by experts in all aspects of the application of the materials, equipment or system being fabricated and installed.

### **ARTICLE 4, PRICE**

Contractor shall pay to Subcontractor for the satisfactory performance and completion of the Work and performance of all the duties, obligations and responsibilities of Subcontractor under this Subcontract, the sum set forth above as the Subcontract Price, subject only to additions and deductions as expressly provided in this Subcontract. To the extent that the Work is to be performed on a unit price basis, the Subcontract Price shall be computed in accordance with the unit prices set forth in this Subcontract based on actual quantities determined in accordance with the Contract Documents and this Subcontract. The Subcontract Price and all unit prices shown in the Scope of Work shall be deemed to include all costs of Subcontractor's performance of the Work, including, but not limited to, the costs of labor, supervision, services, materials, equipment, tools, scaffolds, hoisting, transportation, storage, insurance, bonds, taxes, and all overhead and profit.

### **ARTICLE 5, PAYMENTS TO SUBCONTRACTOR**

#### **A. Progress Payments**

Within ten (10) days after the date of transmission of the Subcontract to Subcontractor, Subcontractor shall submit to Contractor for Contractor's approval a detailed schedule of values showing a proper cost breakdown (with a proper share of associated overhead and profit) of the Subcontract Price according to the various line items, or parts, of the Work, for use only as a basis for verifying Subcontractor's applications for payment or supporting Contractor's applications for payments under the Contract Documents.

At intervals specified in the Contract Documents and as modified by Contractor in such form and supported by such data (including bills of sale and applicable insurance) as Contractor may require, Subcontractor shall provide a progress payment Application for Payment showing the value of the Work installed ("Completed Work"), plus the value of the material and equipment for incorporation in the Work suitably stored and insured (to the satisfaction of the Contractor, Architect and Owner) at the Project site or other approved location ("Stored Work"), as of such date if, and only if, the Contract Documents provide for payments to Contractor on that basis. Subcontractor shall also furnish to Contractor, with Subcontractor's first Application for Payment, a list of all companies, entities, and individuals supplying labor or materials for the performance of the Work ("Furnisher Information Schedule"). Such Furnisher Information Schedule shall be updated with every Application for Payment. Within ten (10) days after receiving a progress payment from Owner under the Contract Documents, Contractor shall make a progress payment to Subcontractor equal to the

value of the Approved Completed Work and Stored Work as of the corresponding Monthly Billing Date, to the extent approved by Contractor and allowed and paid by Owner on account of the Work, and so long as all other conditions of payment are met under Article 5 below, and after deducting (a) all previous payments, (b) current retainage (meaning a reserve equal to the Retained Percentage multiplied by the allowed value of the Completed Work and Stored Work, plus any additional reserve provided for herein) and (c) all charges or backcharges for services, materials, equipment or other items furnished or otherwise chargeable to Subcontractor. To the fullest extent provided by law, Contractor shall have no liability or responsibility for any amount due or claimed to be due Subcontractor for any reason whatsoever except to the extent that Contractor has actually received funds from owner specifically designated for disbursement to Subcontractor. Receipt of these funds by Contractor shall be an absolute condition precedent to Subcontractor's right to receive payment. In the event of any conflict between the Contract Documents and this provision, this provision shall govern. With regard to the foregoing, Subcontractor (i) agrees that the price shall be a non-recourse obligation; and (ii) waives Subcontractor's right to assert any claim, demand, right, or cause of action against Contractor for any portion of the Subcontract Price (unless and to the extent that Contractor actually receives funds from the Owner attributable to the Work).

Contractor shall review each Application for Payment together with such supporting documents as required under this Subcontract and as otherwise requested by Owner or Contractor. Contractor shall then approve, modify or reject, in whole or in part, such Application for Payment. Subcontractor shall, in turn and in the same manner, make partial payments to its suppliers and subcontractors. All material and work incorporated in the Project or for which partial payment has been made shall become the property of Contractor, or, if the Contract Documents so provide, the property of the Owner; however, this provision shall not relieve Subcontractor from the sole responsibility and liability for all work and materials upon which payments have been made. The payment of partial estimates by Contractor shall not be construed as acceptance of the Work or materials in whole or in part.

Subcontractor shall not be entitled to any payment until this Subcontract has been properly executed and all documents and information; including Performance and Payment Bonds (if required) and Insurance to be furnished by Subcontractor have been supplied to and approved by Contractor.

#### **B. Final Payment**

A final payment, consisting of the unpaid balance of the Subcontract Price, shall be made within thirty (30) days after the last of the following to occur: (a) satisfactory completion of the Work by Subcontractor, (b) unqualified acceptance thereof by the Architect and Owner, (c) full final payment by Owner to Contractor under the Contract Documents on account of the Work, (d) furnishing of evidence satisfactory to Contractor that there are no claims, obligations, or liens outstanding or unsatisfied for labor, services, materials, equipment, taxes, or other items performed, furnished or incurred in connection with the Work, (e) delivery of all guaranties, warranties, bonds, instruction manuals, performance charts, diagrams, as-built drawings and similar items required of Subcontractor or its suppliers or subcontractors and (f) delivery of a general release, in a form satisfactory to Contractor, executed by Subcontractor running to and in favor of Contractor and Owner, and such other parties as Contractor may require. To the fullest extent permitted by law, Contractor shall have no liability or responsibility for any amounts due or claimed to be due for any reason whatsoever except to the extent that Contractor has actually received funds from Owner specifically designated for disbursement to Subcontractor. Receipt of these funds by Contractor shall be an absolute condition precedent to Subcontractor's right to receive payment. In the event of any conflict between the Contract Documents and this provision, this provision shall govern. With regard to the foregoing, Subcontractor: (i) agrees that the Subcontract Price shall be a non-recourse obligation; and (ii) waives Subcontractor's right to assert any claim, demand, right, or cause of action against Contractor for any portion of the Subcontract Price (unless and to the extent that Contractor actually receives funds from the Owner attributable to the Work).

Acceptance by Subcontractor of Final Payment shall constitute a release of Owner, Contractor, Contractor's payment bond surety (if any), and Contractor's insurers of and from all liability for all things done or not done or furnished or not furnished by Owner or Contractor in connection with the Work, and for every act, omission, or neglect, if any, relating to or arising out of the Project. No partial or final payment to Subcontractor will be considered as approval or acceptance of work performed or materials furnished. Subcontractor acknowledges and agrees that if Owner makes direct payment to Subcontractor, it shall not be deemed in privity with Owner.

#### **C. Payment Conditions applying to all Progress Payments and to Final Payment**

All Payments due under this Subcontract will not be paid until all of the following conditions have been met:

- (1) Subcontract has been executed by both parties;
- (2) Insurance Certificates satisfying the requirements of the Subcontract have been provided;

- (3) Acceptable Performance and Payment Bonds have been received, unless deleted in accordance with Subcontract;
- (4) A schedule of values in accordance with Subcontract has been received;
- (5) Subcontractor has prepared and presented to Contractor, for its approval, an Application for Payment and other documents required by this Subcontract;
- (6) Subcontractor has delivered to Contractor its written Injury and Illness Prevention Program and its Employer's Code of Safe Work Practices in compliance with the requirements of this Subcontract;
- (7) If required by the Contractor, proper Documentation on stored material has been provided;
- (8) Current Release of Lien thru date of work from all Subcontractors and lower tier Subcontractors and materialmen;
- (9) Current Release of Claims from the Subcontractor (See Exhibit "C");
- (10) Acceptable certified payrolls, if requested by Contractor or if applicable to the Project, have been received by Contractor. Subcontractor agrees to provide Contractor with satisfactory evidence showing payment by Subcontractor of any and all contributions made by Subcontractor for health and welfare payments as shown on the certified payroll as well as payment of payroll taxes and other contributions which may be required by law;
- (11) Contractor has actually received funds from Owner specifically designated for disbursement to Subcontractor; and
- (12) Subcontractor is not in breach of its obligations under this Subcontract.

**D. Retention**

Notwithstanding any other provision of this Subcontract or the Prime Contract, it is agreed that Contractor may retain up to and including 10% of the amount due Subcontractor as progress payments or under partial payment estimates for Work performed by Subcontractor until final completion and acceptance of Subcontractor's Work by Owner.

**E. Grounds for Withholding Payment/Notification**

In its sole and absolute discretion, Contractor may withhold approval of Application for Payment and/or monthly progress payments in an amount sufficient to protect Contractor because:

- (1) It is alleged that Subcontractor has failed to make payments properly to its subcontractors or for labor (including fringe benefits), materials or equipment, transportation or shipping costs, taxes, fees or any other claims arising out of Subcontractor's Work or Subcontractor fails or refuses to produce proof requested by Contractor that such payments have been made;
- (2) There exists reasonable doubt that Subcontractor's Work can be completed for the unpaid balance of the Subcontract Price;
- (3) There exists reasonable doubt that Subcontractor's Work will be completed in compliance with the schedule;
- (4) Defective Work has not been remedied; materials have not been furnished; off-site fabrication of materials is not meeting production quotas or quality standards; clean-up has not been performed;
- (5) Subcontractor has damaged and not corrected any portion of the Work of others;
- (6) Subcontractor has failed to deliver current insurance certificates, bonds, "as built" drawings, written guarantees or warranties or the approvals required of Subcontractor's Work by any authority having jurisdiction;
- (7) Claims, levies, attachments, stop notices or court orders have been filed or reasonable evidence indicates probable filing of such, including claims covered by insurance until such claims are accepted by the insurance carrier;
- (8) Subcontractor is not satisfactorily prosecuting the Work of this Subcontract;

- (9) Subcontractor fails to provide workmanship of the quality approved by the Owner in a mock up or Subcontractor fails to produce a mock up of its work acceptable to Owner (if required);
- (10) Subcontractor persistently disregards laws, ordinances, or rules, regulations or orders of a public authority having jurisdiction related to performance of its Work; or
- (11) Any other material breach of this Subcontract by Subcontractor, which has not been cured.

Amounts as are then due shall be paid or credited to Subcontractor when Subcontractor removes the above grounds for withholding payment. As set forth more fully in Article 27, Contractor may set off amounts otherwise due under this Subcontract or any other agreement (including those agreements unrelated to this project, if any) between Contractor (including its joint venture partners, members, affiliates, predecessors, successors or assigns) and Subcontractor to cover Contractor's reasonable estimate of any costs or liability Contractor has incurred or may incur for which Subcontractor may be responsible under this Subcontract or any other agreement.

#### **F. Joint or Direct Payment**

Contractor reserves the right to issue joint checks to Subcontractor and its material suppliers, sub-subcontractors, labor unions, equipment suppliers, etc; or to pay such entities directly upon notice to Subcontractor.

### **ARTICLE 6, TIME**

#### **A. Project Schedule; Coordination**

Time is of the essence in all aspects of this Subcontract, including, without limitation, the Subcontractor's commencement, prosecution and construction of the Work. Unless another date is required by Contractor, within ten (10) days of the Contractor's execution of this Subcontract and prior to performing any Work, Subcontractor, upon Contractor's and/or Owner's request, shall provide Contractor with scheduling information and a proposed schedule for performance of the Work, which shall include a projection of man hours and crew sizes, all in forms acceptable to Contractor. Subcontractor's schedule shall conform to the Project Schedule and all revisions or changes made to it from time to time. Should this Subcontract be executed prior to the completion of the Project Schedule, then in such event, Subcontractor's scheduling information and proposed schedule for the Work will be considered by Contractor in preparing an overall progress schedule for all Work contemplated by the Prime Contract. Subcontractor shall begin the Work promptly upon Contractor's order to do so and shall coordinate and perform the Work diligently and promptly and in such order and sequence as Contractor may from time to time direct that will insure its efficient and timely prosecution. Subcontractor shall furnish at all times, sufficient, qualified, and competent forces and supervision, and adequate, conforming and usable materials, equipment, plants, tools and other necessary things, to achieve progress according to Contractor's current progress schedule. Notwithstanding anything in the Contract Documents to the contrary, it shall be Subcontractor's responsibility to coordinate the Work with Contractor and all other contractors and subcontractors, in a manner that will facilitate the efficient and proper completion of the entire Project. Contractor shall have the right to decide the relative priority of the Work compared to the work of other subcontractors on the Project and the time and order in which various portions of the Work shall be performed by Subcontractor all without a change in the Subcontract Price or time. Subcontractor must attend all coordination and other required meetings as Contractor may schedule from time to time.

#### **B. Contractor's Right to Accelerate**

Contractor may direct acceleration of the Work in order that it may be performed in advance of the schedules, time requirements and Project requirements. If so directed, Subcontractor shall increase its staff or work overtime, or both. Subcontractor will not be entitled to additional compensation for work performed outside of regular working hours, except as authorized and accepted in writing by Contractor. Provided only that Subcontractor is not in default under the Subcontract, and Contractor has issued the aforesaid authorization, there shall be added to the Subcontract Price an actual out-of-pocket amount equal to: (i) additional wages actually paid, at rates which have been approved in advance in writing by Contractor; (ii) taxes imposed by law on such additional wages; and (iii) premiums for worker's compensation and liability insurance if required to be paid on such additional wages. In no event shall Subcontractor be entitled to inefficiency or other indirect costs. If Subcontractor fails to maintain progress in accordance with the current schedule, it shall, without additional compensation, accelerate the Work as Contractor may direct until the Work is in accordance with such schedule.

#### **C. Contractor's Right to Modify Project Schedule and Sequence**

Subcontractor acknowledges that it may be necessary for Contractor to change the order and duration of the various activities, including those contemplated by this Subcontract to account for unanticipated delays, occurrences

and other factors that act to alter Contractor's original schedule. Contractor may require Subcontractor, at no additional cost to Contractor, to prosecute Subcontractor's Work in such sequence as the progress of other subcontractors and the Project schedule reasonably dictates. It is expressly understood and agreed that the scheduling and sequencing of the Work is an exclusive right of Contractor and that Contractor reserves such right to reasonably reschedule and resequence Subcontractor's Work from time to time as the demands of the Project require without any additional cost or expense to be paid to Subcontractor.

Subcontractor will not cause delay in the progress of Contractor's work or work of other subcontractors. If, in the opinion of Contractor, Subcontractor falls behind in the progress of the Work, Contractor may direct Subcontractor to take such steps necessary to improve the rate of progress, including without limitation, requiring Subcontractor to increase the number of shifts, personnel, overtime operations, days of Work, equipment, plant, or other remedies.

#### **D. Delays and Extensions of Time**

The time fixed for the completion of the Work shall only be extended by the number of days Subcontractor can demonstrate to Contractor that it has been delayed, through no fault of Subcontractor, in its performance or completion of the Work by one or more of the following events: (1) the act, neglect or default of Owner, Architect, or Contractor; (2) delays directly resulting from any fire or other casualty for which Subcontractor is not responsible; (3) a lock-out by Contractor for which Subcontractor has no responsibility; or (4) other causes that Contractor determines may justify delay; provided, however, no extension shall be made unless Subcontractor presents to Contractor a written claim for an extension within seventy-two (72) hours of the commencement of a delay or sooner as may be required by the Prime Contract, and under no circumstances shall the time of completion be extended to a date which will prevent Contractor from completing the entire Project within the time allowed Contractor by Owner for that completion. Any such time extension shall be limited to the days that Subcontractor's overall duration of performance is extended by the foregoing events. No such request for an extension of time shall be valid unless written notice is given as required herein. However, consideration of a notice beyond this time period by Contractor shall be at Contractor's sole discretion and shall not operate as a waiver of this provision. After delivering timely written notice to Contractor of a cause of delay, Subcontractor shall proceed to execute the Work, even if the Contractor has not accepted the Subcontractor's request for a time extension.

#### **E. Damages for Delays**

Should Subcontractor be obstructed or delayed in the commencement, prosecution or completion of the Work without fault on its part, and by reason of causes that would entitle the Contractor to an extension of time under the Prime Contract, then Subcontractor shall only be entitled to an extension of time to perform the affected Work, which shall be equal to the extension of time to which Contractor is entitled and granted by Owner. If Owner grants Contractor an equitable price adjustment to the Prime Contract for any obstruction or delays to the commencement, prosecution or completion of the Work without fault on the Subcontractor's part, then in that event only shall Subcontractor be entitled to an equitable adjustment to the Subcontract Price in an amount not to exceed the equitable price adjustment granted by Owner. Subcontractor agrees and acknowledges that no claim for an extension of time or an equitable adjustment to the Subcontract Price on account of delay shall be allowed unless a claim in writing therefore is presented to Contractor in and accordance with the Contract Documents, but in any event not later than seventy-two (72) hours after the commencement of such claimed delay.

Nothing herein shall obligate Contractor to bring a claim against Owner or other responsible party for an extension of time or equitable price adjustment under the Prime Contract.

### **ARTICLE 7, CHANGES TO THE WORK**

Owner has reserved the right under the Contract Documents to require Contractor to make changes in the Work, including additions thereto and deletions therefrom. Additionally, Contractor reserves the right to require Subcontractor to make changes in the Work, including additions thereto and deletions therefrom. Without notice to any surety and without invalidating this Subcontract, Contractor may from time to time, by written order to Subcontractor, make changes in the Work to the same extent and in the same manner as may be required of Contractor by Owner under the Contract Documents. Subcontractor shall thereupon perform the changed Work in accordance with the terms of this Subcontract and the Change Order. In the event that Subcontractor is obligated hereunder to provide a Payment or a Performance Bond, or both, under this Subcontract, the penal sum of such bonds shall be increased by any increase in the Subcontract Price. No change, alteration, modification, or deviation (including, without limitation, material alterations) to the Work contemplated by this Subcontract or the Contract Documents, whether made in the manner provided herein or not, shall release or exonerate, in whole or in part, any Payment or Performance Bond or any surety on said bonds given in connection with this Subcontract, and no notice is required to be given to such surety of any such change, cardinal change, alteration, material alteration, modification or deviation.

Upon request of Contractor, and in time and manner sufficient to permit Contractor to comply with its obligations under the Contract Documents, Subcontractor shall submit a written proposal for any applicable Subcontract Price and time adjustment attributable to the changed Work, detailed as Contractor or Owner may require, supported by and conforming to the requirements of the Contract Documents.

Where a Change Order is issued pursuant to a change required by the Owner, the Subcontract Price shall be equitably adjusted as set forth herein.

As used in this Subcontract, Subcontractor's direct savings and direct cost shall mean and be limited to the amount of the following: cost of materials, including sales tax and cost of delivery; cost of labor, including social security, old age and unemployment insurance, and fringe benefits required by agreement or custom; worker's compensation insurance; bond premiums if and to the extent actually increased; and actual rent not greater than the rent charged in the locale of the Project.

If the parties are able to agree upon the amount of the Subcontract Price adjustment and the extent of any time adjustment, such adjustments shall be set forth in the Change Order, which shall be accepted by Subcontractor. If the parties are unable to agree upon such adjustments, Contractor may elect to issue the Change Order to Subcontractor directing such work to be performed by Subcontractor and any adjustments to Subcontract Price or time shall be subject to ultimate determination in accordance with this Subcontract, and Subcontractor shall nonetheless proceed immediately with the changed Work. Subcontractor shall keep a detailed account of the direct savings and direct cost due to the changed Work separately from its other accounting records and shall make such records available to the Contractor at Contractor's request. Failure to keep adequate and separate cost records of the changed Work, and Subcontractor's failure to furnish same to Contractor upon its request, shall constitute an acceptance on Subcontractor's part of the Contractor's determination of the direct savings and direct cost of such changed Work. In no event shall Subcontractor proceed with changed Work without a written directive issued pursuant to this Article 7 and Contractor shall not be liable for any additional costs incurred or delays encountered in the performance of such changed Work without such a written directive.

#### **ARTICLE 8, NOTICES**

All written notices provided for in this Subcontract or in the Contract Documents shall be deemed given if delivered personally to the party, sent by regular mail, messenger, overnight mail, or as provided by section 713.18, Georgia Statutes, to the other party at its address and to the attention of the representative specified herein. Either party may from time to time, by notice to the other as herein provided, designate a different address and/or representative to which notices should be sent. Any notice delivered via electronic mail, or other means not specifically enumerated herein shall be defective.

Any notice required under this Subcontract shall be in the time(s) required by this Subcontract or Prime Contract, whichever is earlier. In either event, Subcontractor shall give Contractor notice sufficiently in advance so that Contractor may comply with its notice provisions of the Prime Contract.

#### **ARTICLE 9, BONDS AND SUBGUARD®**

See Exhibit J for Project specific requirements.

#### **ARTICLE 10, INSURANCE**

Before commencing the Work and until completion and final acceptance thereof by Owner, Subcontractor shall obtain and maintain, at its expense, the insurance coverage specified in Exhibit F attached hereto, all from companies and in form and substance acceptable to Contractor.

As a condition to any payment for the Work, Subcontractor shall furnish a certificate, satisfactory to Contractor, from each insurance company showing the required insurance to be in force and stating that the insurance will not be canceled or changed except upon at least thirty (30) days' written notice thereof to Contractor. The certificate shall name Contractor, Owner and any other parties required by the Contract Documents as additional insureds under the policies required in Exhibit F. The terms and conditions of insurance to be provided by Subcontractor are described in Exhibit F. Neither Owner nor Contractor nor any other additional insureds, nor their agents, employees or assigns, shall be liable to Subcontractor or its agents, employees or assigns for any loss or damage covered by the insurance policies described in Exhibit F.

Subcontractor hereby acknowledges its obligation for any loss to its Work, including stored materials, paid for or not.

Subcontractor waives all rights against the Owner, Contractor, Architect and any separate contractors for damages caused by fire or other perils except such rights as Subcontractor may have against applicable insurance. Subcontractor shall require similar waivers from its Subcontractor's suppliers, sub-subcontractors, agents and employees of any of them, by appropriate agreements, each in favor of the other parties enumerated herein.

## **ARTICLE 11, INDEMNITY**

Subcontractor agrees to defend, indemnify and save harmless Contractor and Owner, as well as any other parties that Contractor is required under the Contract Documents to defend, indemnify and hold harmless, and their agents, servants and employees, from and against any claim, cost, expense, or liability (including attorneys' fees, and including costs and attorneys' fees incurred in enforcing this indemnity), attributable to bodily injury, sickness, disease, or death, or to damage to or destruction of property (including loss of use thereof), caused by, arising out of, resulting from, or occurring in connection with the performance of the Work by Subcontractor, its subcontractors and suppliers, or their agents, servants, or employees. Subcontractor's obligation hereunder shall not be limited by the provisions of any worker's compensation or similar act. It is the intent of the parties that Subcontractor's obligation to indemnify and hold harmless Contractor shall be interpreted as consistent with Georgia Statutes, and any amendments thereto. Subcontractor's duty to defend is a separate obligation in addition to Subcontractor's express duties to indemnify and save harmless Contractor. Subcontractor's limitation of indemnity shall be Ten Million and 00/100 Dollars (\$10,000,000.00) or the amount of indemnity owed to Owner by Contractor in the Prime Contract, whichever is greater. If the Subcontract Price is less than One Hundred Thousand and 00/100 Dollars (\$100,000.00), then Subcontractor's indemnity shall be limited to Two Million and 00/100 Dollars (\$2,000,000.00) or the amount of indemnity owed by Contractor to Owner in the Prime Contract, whichever is greater. Subcontractor specifically agrees and acknowledges that the indemnity required herein bears a reasonable commercial relationship to this Subcontract.

Should Owner or any other person or entity assert a claim or institute a suit, action, or proceeding against Contractor involving the manner or sufficiency of the performance of the Work, Subcontractor shall, upon Contractor's demand, promptly assume the defense of such claim, suit, action or proceeding, at Subcontractor's expense. To the fullest extent permitted by law, Subcontractor shall defend, indemnify, and save harmless Contractor, its agents, servants and employees, officers, directors, successors, and assigns from and against any liability, loss, damage, or expense (including attorneys' fees' costs and expenses, and including attorneys' fees, costs, and expenses incurred in enforcing this Subcontractor's indemnity obligations herein) arising out of or related to such claim, suit, action or proceeding. If for any reason the indemnity obligations set forth herein are deemed to be in violation of law or against public policy, then in such event this paragraph is deemed automatically amended to require indemnity to the maximum amount permitted by law.

Subcontractor's indemnity obligations and limitations as set forth in this Article 11 shall apply to all other indemnity provisions of this Subcontract.

## **ARTICLE 12, ASSIGNMENT**

Subcontractor shall not assign this Subcontract, or any monies due or to become due hereunder, or subcontract any substantial part of the Work, without the prior written consent of Contractor. If Contractor gives written consent to an assignment of this Subcontract, in whole or in part, Subcontractor shall not be relieved of its duties and obligations hereunder and shall be and remain fully responsible and liable for the acts and omissions of its assignees. Nothing herein shall prevent Subcontractor from engaging subcontractors to perform a portion of the Work hereunder provided Contractor has given its prior written consent. However, Subcontractor shall be and remain as fully responsible for all persons directly or indirectly employed by such subcontractors as Subcontractor is for its own acts and omissions and those of its agents, servants and employees.

Subcontractor (and its successors and assigns) hereby assigns to Contractor all its interest in any subcontracts and purchase orders now existing or hereinafter entered into by Subcontractor for performance of any part of the Work, which assignment will be effective upon acceptance by Contractor in writing and only as to those subcontracts and purchase orders that Contractor designates in writing. It is agreed and understood that Contractor may accept said assignment at any time during the course of construction prior to final completion. It is further agreed that all subcontracts and purchase orders shall provide that they are freely assignable by Subcontractor to Contractor and Contractor's assigns. Contractor may assign this Subcontract at any time without the consent of Subcontractor, or Subcontractor's payment and performance sureties or guarantors, if any.

Nothing herein shall be deemed to create any privity of contract between Contractor and Subcontractor's subcontractors, suppliers, and/or laborers.

### **ARTICLE 13, COMPLIANCE**

Subcontractor shall, at its own expense, obtain all necessary licenses and permits pertaining to the Work and comply with all statutes, ordinances, rules, regulations and orders of any governmental or quasi-governmental authority having jurisdiction over the Work or the performance thereof. Subcontractor shall promptly correct any violations of such statutes, ordinances, rules, regulations and orders committed by Subcontractor, its agents, servants and employees. Subcontractor shall receive and respond to, and shall defend, indemnify and save harmless Contractor and Owner, as well as anyone to whom Contractor is obligated, including, without limitation, its agents, servants, employees, officers, directors, successors and assigns from and against any loss, liability, or expense arising from any such violations and any citations, assessments, fines, or penalties resulting therefrom. Without limiting the foregoing, Subcontractor will appear at hearings, proceedings and/or in court and consent to its substitution as a party defendant in respect of all legal proceedings and/or claimed violations arising out of or relating to the Work.

By executing this Subcontract, Subcontractor represents and warrants to Contractor that the Work when completed, will comply fully with all applicable building and safety codes, regulations and construction requirements imposed or enforced by any government agencies and in existence on the date of execution of this Subcontract, without regard to any errors, omissions or deficiencies in the drawings and specifications; and Subcontractor shall furnish samples of all materials and component parts to be used as test specimens. Subcontractor shall furnish labor and facilities at the Project site as necessary in connection with testing and inspection services.

The observations of, or participation by Owner, Architect, or Contractor in inspections or tests by persons other than Subcontractor shall not relieve Subcontractor from its obligations to perform the Work in accordance with the Contract Documents. Owner, Architect and Contractor, upon request, promptly shall have access to the Work, whether at the Project, in storage or in manufacture or preparation. Subcontractor shall provide proper and safe facilities for such access and for inspection at the Project site, at the place of storage or elsewhere. If the specifications or any legal requirements require any portion of the Work to be tested or reviewed, Subcontractor shall give Contractor timely written notice of such test or review.

### **ARTICLE 14, SAFETY**

Subcontractor agrees that the prevention of accidents to workers engaged upon or in the vicinity of the Work is its responsibility, even if Contractor establishes a safety program for the entire Project. Subcontractor shall establish and implement safety measures, policies and standards conforming to those required or recommended by governmental or quasi-governmental authorities having jurisdiction and by Contractor and Owner, including, but not limited to, any requirements imposed by the Contract Documents. Contractor's failure to stop Subcontractor's unsafe practices shall not relieve Subcontractor of its responsibility therefor.

Subcontractor shall enforce Contractor's instructions regarding signs, advertisements, fires, smoking, alcoholic beverages, and the possession of firearms by any person at the Project site. Subcontractor, as necessary for the Work, shall provide flagmen, erect proper barricades and other safeguards, and post danger signs and other warnings as warranted by hazardous and existing conditions.

Subcontractor shall promptly report in writing to Contractor and Subcontractor's insurance carriers all accidents arising out of, or in connection with, the performance of the Work, whether on or off the Project site, which caused death, bodily injury or property damage, giving full details and statements of witnesses. In addition, if death or serious injury or serious property damage occurs, the incident shall be reported to Contractor immediately by telephone or in person.

Subcontractor must comply in full with all applicable environmental, health and safety ("EH&S") local and national legislation, including all OSHA regulations. In circumstances where there is a conflict between local or national legislation and this Article 14, the higher (more protective) requirement shall govern.

### **ARTICLE 15, CLEAN UP**

Subcontractor shall, at its own expense: (a) keep the premises at all times free of waste materials, packaging and other debris accumulated in connection with the Work by collecting and moving such debris to a Contractor designated location on a daily basis requested by the Contractor; Subcontractor shall remove and dispose from the site excess paint materials and other hazardous waste in accordance with all government regulations; (b) at the completion of the Work in each area, sweep and otherwise make the Work and its immediate vicinity "broom-clean";

(c) remove all of its tools, equipment, scaffolds, temporary structures and surplus materials as directed by Contractor at the completion of the Work; and (d) at final inspection clean and prepare the Work for acceptance by Owner. Subcontractor agrees to provide all cleaning and cleanup required under the Contract Documents pertaining to its Work to the extent such requirements are in excess of those contained in this paragraph.

## **ARTICLE 16, QUALITY**

Subcontractor shall at all times provide first-quality, new materials (unless otherwise specified in the Contract Documents) and workmanship conforming to the Contract Documents requirements and be in accordance with the best standards of the construction industry where the Project is located. Subcontractor shall, within twenty-four (24) hours after receiving written notice from Contractor or Architect, proceed to take down and remove all portions of the Work that Contractor or Architect shall have condemned as unsound, improper or in any way failing to conform to the Contract Documents or this Subcontract and shall replace the same with proper and satisfactory Work and make good all other work damaged or destroyed thereby. Contractor's failure to discover or notify Subcontractor of defective or nonconforming Work (or any portion thereof) at the time the Work is performed or completed shall not relieve Subcontractor of full responsibility for replacement of the defective or nonconforming Work and all damages resulting therefrom. If the Owner elects to accept defective or nonconforming Work, Contractor may require an appropriate adjustment in the Subcontract Price to the extent required of Contractor.

## **ARTICLE 17, GUARANTEES AND WARRANTIES**

Subcontractor warrants and guarantees the Work to the full extent provided for in and required by the Contract Documents. Without limiting the foregoing or any other liability or obligation with respect to the Work, Subcontractor shall, at its expense make good any faulty, defective or improper parts of the Work discovered within one (1) year from the date of final acceptance of the Project by Architect and Owner or within such longer period as may be provided in the Contract Documents or applicable law. Subcontractor warrants that all materials furnished hereunder meet the requirements of the Contract Documents and Warrants that they are both merchantable and fit for the purposes for which they are intended to be used under the Contract Documents. All Work not conforming to these requirements, including substitutions not properly approved and authorized, shall be considered defective. Subcontractor specifically agrees that in no event shall the Subcontractor's substantial completion date be earlier than Contractor's substantial completion date under the Prime Contract.

Where Subcontractor corrects any faulty, defective or improper parts of the Work during the initial one (1) year period from the date of final acceptance, if defects in the corrected Work are discovered within one (1) year after the repairs are made, then Subcontractor shall be obligated, upon written notice, to correct such defects within one (1) year from the date the repairs were made.

Performance of the aforementioned guarantee obligations shall be in addition to and not in limitation of any other warranty or remedy required by law or by this Subcontract or Contract Documents. The Subcontractor's guarantee obligations are a material component of Subcontractor's contractual obligation to perform the Work. This Subcontract shall not be considered completely performed until all guarantee obligations hereunder are fully satisfied, which obligations shall survive the termination or completion of the Subcontract and final payment. Performance bonds required of Subcontractor shall include the performance of guarantee obligations and warranty obligations and shall not contain clauses limiting the time to sue upon said bonds for breach of the guarantee or warranty.

Nothing in this Article 17 shall increase Contractor's guaranty and warranty obligations under the Prime Contract to Owner.

## **ARTICLE 18, SUBMITTALS**

Subcontractor shall immediately prepare or obtain and promptly submit to Contractor shop and erection drawings, samples, product data, catalogue cuts, laboratory and inspection reports and engineering calculations, all as may be required by the Contract Documents or as may be necessary or appropriate to describe the details of the Work so as to cause no delay in the Work or the progress of the Project. Approval of drawings or other submittals by Contractor or Architect shall not relieve Subcontractor of its obligation to perform the Work in strict accordance with the Contract Documents or of its responsibility for the proper matching of the Work to contiguous work.

Subcontractor shall submit all shop drawings and samples through the Contractor to the Owner for the Architect's review. By submitting shop drawings and samples, Subcontractor represents and warrants that it has determined and verified all materials, field measurements, and field construction criteria pertaining thereto, has verified and coordinated this information with the Work and the Contract Documents, and that the Subcontractor shall fully guarantee and warrant the Work in accordance with this Subcontract and the Contract Documents. Any submission

that, in Contractor's opinion, is incomplete, contains errors or has not been fully and properly verified may be returned by Contractor for revision and resubmission.

## **ARTICLE 19, PERFORMANCE**

The Work shall be performed and furnished under the direction of the Contractor and to the satisfaction of the Owner, Architect and Contractor, but Subcontractor shall not thereby be relieved of its obligation to supervise the Work, using its best skill and attention, or its obligations to perform the Work as provided for herein. Subcontractor shall be bound by the interpretations and decisions of Architect and Owner to the same extent as Contractor may be bound thereby under the Contract Documents.

Should the proper and accurate performance of the Work included in this Subcontract depend upon the proper and accurate performance of other work not included in this Subcontract, Subcontractor shall use all reasonable means to discover any defects in such other work and shall report the said defects, in writing, to Contractor before proceeding with the Work, in which case Contractor shall be afforded a reasonable time to remedy such defects. Failure of Subcontractor to detect and report to Contractor, in writing, any errors, defects or deficiencies in related or contiguous work detected or which could have been detected through the exercise of reasonable care prior to proceeding with Subcontractor's Work shall relieve Contractor and its other subcontractors of responsibility for any costs, damages and/or expenses incurred by Subcontractor as a result of such errors, defects and/or deficiencies.

If the Work includes installation of materials or equipment furnished by others or work to be performed in areas to be constructed or prepared by others, Subcontractor shall immediately examine the items or areas to ensure they are of acceptable quality or condition for the Work. If Subcontractor reasonably concludes the items or areas are so acceptable, Subcontractor shall secure, handle, store and install the items with that skill and care as to ensure completion of the Work in accordance with this Subcontract. The use of these items or commencement of any Work by Subcontractor in those areas shall constitute Subcontractor's acceptance of them.

Subcontractor shall be liable for any loss or damage caused by the acts of Subcontractor, or those for whom Subcontractor is responsible, and Contractor may deduct any such amount from monies otherwise due Subcontractor under this Subcontract for any such loss or damage.

## **ARTICLE 20, PROTECTION OF WORK**

Subcontractor shall continuously protect the Work, other work and the property of the Contractor, Owner and others from damage, injury or loss arising in connection with the Subcontractor's performance of the Work. Neither Owner nor Contractor shall be responsible for any loss or damage to the Work or the property of Subcontractor, however caused, until after final acceptance thereof by Owner and final payment therefor. Likewise, neither Owner nor Contractor shall be responsible for loss of or damage (however caused) to materials, tools, equipment, appliances and other personal property of Subcontractor used in the performance of the Work. Subcontractor shall provide and maintain adequate protection against weather so as to protect the Work from injury or damage.

## **ARTICLE 21, LIENS**

To the extent not expressly prohibited by law, Subcontractor shall not suffer or permit any lien or other encumbrance to be filed or to remain of record as a claim against the building or the Project site or against any monies due or to become due for any Work performed or materials furnished by, to or on behalf of Subcontractor, or any of its subcontractors or suppliers; nor shall Subcontractor suffer or permit any such lien or encumbrance to be so filed because of any claim or demand against, or any action or non-action of, Subcontractor or any of its subcontractors or suppliers. Subcontractor shall defend, indemnify and save harmless Contractor, Contractor's sureties and Owner from any lien or claim of lien filed or maintained by any laborer, materialman, subcontractor, or other person or entity directly or indirectly acting for, through, or under Subcontractor, against the Project or any part thereof or any interest therein or against any monies due or to become due from Owner to Contractor or from Contractor to Subcontractor. Without limiting the foregoing, Subcontractor shall forthwith cause any such lien or claim of lien to be satisfied, removed or discharged by bond in accordance with section 713.24, Georgia Statutes. If Subcontractor fails to do so, Contractor may take whatever steps it may deem in its sole and absolute discretion to cause said lien to be removed or dismissed, including posting a bond for removal of the lien. All costs incurred by Contractor relating to the foregoing, together with the actual attorneys' fees and costs, plus markup of fifteen (15%) overhead, shall be immediately due and payable to Contractor by Subcontractor. After removing the lien from the improved real property (by bonding or otherwise), Subcontractor may litigate the lien, provided that it causes the effects of the lien to be promptly removed from the Project or any portion thereof to the satisfaction of Contractor and Owner. Subcontractor shall also take whatever steps that may be necessary to cause Owner not to withhold any monies due to Contractor from Owner by the reason of the lien.

The full and faithful performance of this Subcontract on the part of the Subcontractor (including the payment of any obligations due from Subcontractor to Contractor, and any amounts due to labor or materialmen, subcontractors, or laborers for Subcontractor's Work) is a condition precedent to Subcontractor's right to receive payment for the Work. Any monies paid by Contractor to Subcontractor under the terms of this Subcontract shall be held in trust by Subcontractor in favor of third parties furnishing labor and material to Subcontractor with respect to the Work.

## **ARTICLE 22, PATENTS, COPYRIGHTS AND OTHER INTELLECTUAL PROPERTY**

Subcontractor shall pay all royalties and license fees applicable to the Work. Subcontractor shall defend, indemnify and hold Owner, Architect and Contractor harmless of, from and against any and all suits, demands and claims for infringement of any patent rights, copyrights or other intellectual property rights except to the extent that Owner may have assumed responsibility therefore under the Contract Documents. The foregoing exception shall be inapplicable if Subcontractor had or should have had reason to believe the design, process, or product infringed upon a patent copyright or other intellectual property right, and failed to give written notification to Contractor of same.

## **ARTICLE 23, LABOR RELATIONS**

At all times, Subcontractor shall employ labor that is compatible with the labor of other subcontractors; shall take all steps necessary to avoid labor disputes; and shall be responsible for any delays and damages to Contractor and Owner caused by such disputes. Subcontractor agrees that where the Work is stopped, delayed, or interfered with by strikes, slow-downs, or similar interruptions or disturbances (including cases where Subcontractor's employees are engaged in a work-stoppage solely as a result of a labor dispute involving Contractor or others and not in any manner involving Subcontractor), Contractor shall have the rights and remedies provided for in Article 24. Subcontractor shall maintain and exercise control over all employees engaged in the performance of the Work, and Subcontractor shall, to the extent permitted by law, remove or cause to be removed from the Project any employee whose presence is detrimental to the orderly prosecution of the Work. Subcontractor shall not permit anyone under the age of 18 to perform the Work or to have access to the Project site. Subcontractor shall comply with all instructions by Contractor relating to the ingress and egress of its employees, material, men and suppliers to the Project and shall take all necessary steps to restrain and enjoin any illegal picketing, demonstrating, violence, or similar activity against Subcontractor at the Project. Subcontractor agrees that if any provision of the Contract Documents conflicts with any agreement among members of a trade association or with a union or labor council that regulates the work to be performed by a particular trade, Subcontractor shall reconcile such conflict without delay or damage to Owner or Contractor. Nothing herein shall be deemed to limit Contractor's rights under Article 24 hereof.

## **ARTICLE 24, DEFAULT**

Should Subcontractor at any time:

- (1) abandon the Work;
- (2) assign or attempt to assign its rights or obligations under this Subcontract or any part thereof to any third-party without the prior written consent of Contractor;
- (3) fail to supply the labor, materials, equipment, supervision and other things required of it in sufficient quantities and of required quality to perform the Work with the skill, conformity, promptness and diligence required hereunder;
- (4) cause interference, stoppage, or delay to the Project or any activity necessary to complete the Project;
- (5) become insolvent or is adjudged bankrupt, make a general assignment for the benefit of creditors, has a trustee or receiver appointed for its property, or file a petition to take advantage of any debtor's act;
- (6) fail to properly and promptly make payment for all materials and services provided in the performance of the Work;
- (7) fail in the Contractor's opinion in the performance or observance of any of the covenants, conditions, or other terms of this Subcontract;

- (8) fail to remove any lien or claim of lien against the Project by any subcontractor, materialman, or laborer;
- (9) fail to comply with any applicable laws and fail to remedy such nonperformance; or
- (10) otherwise is guilty of substantial breach of this Subcontract or the Contract Documents.

then in any such event, each of which shall constitute a default hereunder by Subcontractor, Contractor shall, after giving Subcontractor written notice of default and forty-eight (48) hours within which to cure said default, have the right to exercise any one or more of the following remedies:

- (1) require that Subcontractor utilize, at its own expense, overtime labor (including Saturday and Sunday Work) and additional shifts as necessary to overcome the consequences of any delay attributable to Subcontractor's default;
- (2) attempt to remedy the default by whatever means Contractor may deem necessary or appropriate, including, but not limited to, correcting, furnishing, performing, or otherwise completing the Work, or any part thereof, by itself or through others (utilizing where appropriate any materials and equipment previously purchased for that purpose by Subcontractor) and deducting the cost thereof (plus an allowance for administrative burden equal to fifteen percent (15%) of such costs) from the Subcontract Price. Subcontractor is responsible for such costs regardless of whether monies are due or to become due at the time of the default;
- (3) after giving Subcontractor an additional forty-eight (48) hours written notice (at any time following the expiration of the initial forty-eight (48) hours notice and curative period), terminate this Subcontract, without thereby waiving or releasing any rights or remedies against Subcontractor or its sureties, and by itself or through others take possession of the Work, and all materials, equipment, facilities, plants, tools, scaffolds and appliances of Subcontractor relating to the Work, for the purposes of completing the Work and securing to Contractor the payment of its costs (plus an allowance for administrative burden equal to fifteen percent (15%) of such costs) and other damages under the Subcontract and for the breach thereof, it being intended that the Contractor, shall, for the stated purposes, be the assignee of and have a security interest in the property described above to the extent located on the Project site (and Contractor may at any time file this Subcontract as a financing statement under applicable law); and/or
- (4) recover from Subcontractor all losses, damages, penalties and fines, whether actual or liquidated, direct or consequential (including without limitation any increase in Contractor's cost of insurance resulting from Subcontractor's failure to maintain insurance coverage's required hereunder), and all reasonable attorneys' fees suffered or incurred by Contractor by reason of or as a result of Subcontractor's default.

The foregoing remedies shall be considered separate and cumulative and shall be in addition to every other remedy given hereunder or under the Contract Documents, or now or hereafter existing at law or in equity. Subcontractor's guarantors, surety, or sureties agree to be bound to Contractor with respect to such remedies notwithstanding any provision of the bonds provided pursuant to Article 9 hereof.

Should Contractor give Subcontractor more than two (2) written notices of default, then Subcontractor shall be in breach of this Subcontract thereby entitling Contractor to the remedies as set forth in this Article 24, without any further written notice or opportunity to cure.

Should any termination for default under this Article 24 be determined to be invalid, improper or wrongful, such termination shall be deemed to have been a termination for convenience as provided in Article 26 below.

Subcontractor shall not be entitled to receive any further payment until the Work shall be wholly completed to the satisfaction of Contractor and shall have been accepted by Contractor and Owner, at which time, if the unpaid balance, if any, of the Subcontract Price at the time of Subcontractor's default shall exceed the costs and expenses incurred in completing the Work and curing Subcontractor's default, such excess shall be paid to Subcontractor; but if such costs and expenses shall exceed such unpaid balance, then Subcontractor shall pay the difference to Contractor within fifteen (15) days of written demand by the Contractor. Such costs and expenses shall include not only the cost

of completing the Work to the satisfaction of Contractor and Owner and of performing and furnishing all labor, services, materials, equipment and other items required therefore, but also all losses, damages, costs and expenses, whether direct or consequential, including, without limitation, attorneys' and legal fees and disbursements, sustained, incurred or suffered or to be sustained, incurred or suffered by Owner or Contractor by reason of or resulting from any default of Subcontractor.

Should this Subcontract be terminated for default, Subcontractor shall assign some or all purchase orders and subcontracts to Contractor if Contractor, in its sole and absolute discretion, requests such assignments, and Subcontractor agrees to incorporate such provisions in its agreements with suppliers and subcontractors. Such assignment shall be effective upon notice of Contractor's intent to accept the assignment of any purchase order or subcontract. Nothing herein shall create any duty on the part of Contractor to accept the assignment of Subcontractor's purchase orders or subcontracts.

## **ARTICLE 25, DISPUTES**

In the event of any dispute between Subcontractor and Contractor arising out of or relating to this Subcontract, or breach thereof, which involves the Contract Documents or the correlative rights and duties of the Owner, including, without limitation, any act or omission of the Owner, Subcontractor and Subcontractor's surety, if any, agree to be bound to Contractor to the same extent the Contractor is bound to the Owner by the terms of the Contract Documents, and by any and all preliminary and final decisions or determinations made thereunder. In the event of such dispute, Subcontractor shall keep in any claims involving such dispute in abeyance pending such preliminary and/or final determination.

In case of such dispute, Subcontractor shall comply with the provisions of the Contract Documents, allowing a reasonable time for Contractor to analyze and forward to the Owner any required communications or documentation. Contractor will, at its option, present to the Owner in Contractor's name or authorize Subcontractor to present to the Owner in Contractor's name all of Subcontractor's claims, and answer the Owner's claims involving Subcontractor's Work, whenever Contractor is permitted to do so by the terms of the Contract Documents.

If such dispute is prosecuted or defended by Contractor, Subcontractor shall, at its own expense, furnish all documents, reports of any experts, sworn statements, witnesses, and other information as required by Contractor, and forthwith pay or reimburse Contractor for all costs incurred by Contractor in connection with the dispute, including attorneys' fees, expert consulting fees, and costs.

If a dispute should arise between Contractor and Subcontractor under or relating to the Subcontract, or the breach thereof, which does not involve the correlative rights and duties of Owner and is not, therefore, controlled by the foregoing provision, then either party may seek redress of its grievances as to such disputes at law or in equity in a court of competent jurisdiction located in the State in which the Project is located. **DUE TO THE SPECIALIZED NATURE OF CONSTRUCTION LITIGATION, IN THE EVENT OF ANY LITIGATION RELATED TO THIS SUBCONTRACT, EACH PARTY HEREBY WAIVES ITS RIGHT TO A TRIAL BY JURY INCLUDING ANY CLAIM BETWEEN CONTRACTOR AND SUBCONTRACTOR AND ANY CLAIM BETWEEN OR INVOLVING CONTRACTOR, SUBCONTRACTOR OR SURETY THAT ARISES OUT OF THE WORK.**

In the event of any dispute as to whether any item or portion of the Work is within the scope of the Work to be performed by Subcontractor or any dispute as to whether Subcontractor is entitled to an extra payment, Subcontractor shall continue to proceed diligently with the performance of the Work, this Subcontract, and any disputed Work, pending any resolution. The existence of a dispute shall not be grounds for any failure to perform by Subcontractor nor limit the right of Contractor to proceed to remedy any default by Subcontractor. Subcontractor and Subcontractor's surety, if any, agree that all claims, disputes and other matters in controversy between Contractor and Subcontractor arising out of or relating to the Subcontract or the breach thereof, except as provided in the Contract Documents with respect to the Architect's decisions or matters relating to artistic effect for claims which have been waived by the acceptance of final payment, shall be resolved through litigation.

## **ARTICLE 26, EARLY TERMINATION; TERMINATION FOR CONTRACTOR'S CONVENIENCE**

If Owner terminates the Contract or stops the Work for any reason other than the sole default of Contractor, Contractor may terminate this Subcontract, in whole or in part, or stop the Work for the same reason, and Subcontractor's rights and remedies, including the basis for payment of any unpaid portion of the Subcontract Price, shall be limited to the corresponding rights and remedies available to Contractor under the Contract Documents.

Further, notwithstanding anything else contained in this Subcontract or the Contract Documents to the contrary, Contractor shall, in its sole and absolute discretion and without notice to any guarantors, surety, or sureties,

have the right to terminate, in whole or in part, the Subcontract without cause and solely for Contractor's convenience by giving Subcontractor written notice that the Subcontract is terminated. Subcontractor shall immediately stop work as directed and, within thirty (30) days of receiving notice of termination under Article 26, submit to Contractor its statement of costs incurred by Subcontractor in the performance of the Work terminated, which shall only include Subcontractor's reasonable termination costs, which shall only include:

- (1) Cancellation fees in regard to equipment and materials stored;
- (2) Costs of all materials and equipment ordered that cannot be cancelled, less actual proceeds received upon the disposition thereof;
- (3) Restocking fees incurred in returning ordered materials; and
- (4) Reasonable demobilization costs.

Subcontractor expressly waives any costs not included in such statement. Contractor shall, within ninety (90) days after receipt of such statement, pay Subcontractor all amounts it determines are properly included thereon, and only after each of the Article 5(C) conditions precedent to payment have been satisfied. Subcontractor shall not be entitled to, and expressly waives any profit or fee on Work not performed. Upon payment by Contractor of the sums owed under Article 26, title to all materials, equipment, and other property included or ordered for the terminated Work shall pass to Owner. Payment by Contractor to Subcontractor of the amounts specified in Article 26 shall constitute a waiver by the Subcontractor of any other claims of any type arising out of the performance or termination of the Work, including any claims for consequential or indirect damages of any type, kind, or description. If no work has been performed by Subcontractor at the time of termination, Subcontractor shall be paid, and agrees to accept, the sum of \$100.00 for its undertaking and obligation to perform.

Without limitation, the following obligations, among others, of Subcontractor shall survive the termination of the Subcontract: (1) warranties and guaranties of Work performed; (2) indemnity; (3) payment of taxes, damages, losses and expenses; (4) certifications; delivery of manuals, data on electronic media and as-built drawings; (5) correction of Work performed; (6) removal of liens; and (7) cooperation with the construction lender.

#### **ARTICLE 27, SETOFF**

If Subcontractor is, or hereafter begins, performing any work for Contractor (including without limitation, Contractor's joint venture partners, members, affiliates, predecessors, successors or assigns), other than the Work under this Subcontract and the unpaid balance of the Subcontract Price becomes insufficient to complete such Work or compensate Contractor for any damages or deficiencies by the Subcontractor in the performance of the Work, Subcontractor hereby consents and agrees to allow Contractor, in its sole discretion and judgment, to setoff any of Contractor's claims against any funds due, or which may become due, to Subcontractor under any other agreement with Contractor, its joint venture partners, members, affiliates, predecessors, successors or assigns, or any subcontract on any other project. No refusal or failure of Contractor to exercise its rights hereunder shall constitute the basis of any right or claim against Contractor.

#### **ARTICLE 27, EEO/SEXUAL HARASSMENT**

Subcontractor shall, at its own expense, comply with Contractor's equal employment opportunity policies and policies pertaining to the avoidance and correction of sexual harassment, and in addition shall comply with all such policies of any governmental authority with jurisdiction.

#### **ARTICLE 28, ACCESS TO BOOKS AND RECORDS**

Subcontractor shall permit access to its books, records, and accounts by representative of Contractor or the Owner for audit purposes.

#### **ARTICLE 29, HAZARDOUS MATERIALS**

It is expressly understood and agreed that Subcontractor will comply with Contractor's "Hazard Communication Program," as outlined in Contractor's Subcontractor Safety Program. Subcontractor shall furnish to Contractor a copy of the applicable Material Safety Data Sheets (MSDS) for all hazardous materials or chemicals used in connection with or consumed or incorporated into this Project as required by the Hazard Communication Standard of the Occupational Safety and Health Administration (OSHA).

Subcontractor recognizes hazards related to asbestos, PCB's, VOC's, and hazardous waste materials, and agrees to exercise its best skill and judgment in prevention of such hazards. Subcontractor acknowledges and accepts the requirements related to those materials in the Contract Documents. Subcontractor agrees not to dispose of any hazardous waste, asbestos, PCB's or VOC's, including but not limited to paints, solvents, cleaning compounds, degreasers, paint thinners, or any other associated products and their respective containers in any dumpster(s) unless specifically designated for such purpose. If Subcontractor, or any of its subcontractors, suppliers, materialmen, or laborers of any tier, or any person or entity under the control of Subcontractor, is responsible for (1) introducing and discharging hazardous materials onto the Project site that was not otherwise specified by the plans and specifications; and/or (2) disturbing hazardous materials identified in the Contract Documents, the Subcontractor shall forthwith hire a qualified remediation company at Subcontractor's sole cost to eliminate the condition. Under no circumstances shall the Subcontractor perform Work for which it is not qualified. Contractor, in its sole and absolute discretion, may require Subcontractor to retain at its cost an independent testing laboratory and/or remediation company to eliminate the hazardous condition.

### **ARTICLE 30, LIQUIDATED DAMAGES**

This Subcontract is subject to liquidated damages as contained in the Prime Contract. In addition to any other damages allowed under this Subcontract, the Subcontractor shall be liable for those damages proximately caused by the Subcontractor's action, inaction, or failure to perform the Work in a timely manner or as required by this Subcontract.

### **ARTICLE 31, MISCELLANEOUS**

Contractor and Subcontractor have reviewed and negotiated this Subcontract. Accordingly, the normal rule of construction that provides that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of this Subcontract. If any term, provision, or portion of this Subcontract is held by a court of competent jurisdiction to be unreasonable, arbitrary, or against public policy for any reason, the court shall have the authority to modify the invalid portion of this Subcontract so as to render this Subcontract enforceable.

Subcontractor acknowledges that it has been afforded an opportunity to consult with an attorney regarding this Subcontract prior to signing and accepting its terms. Subcontractor further represents and agrees that it has carefully read and fully understands all the provisions of this Subcontract and that it is voluntarily entering into this Subcontract.

All matters relating to the validity, performance, or interpretation of this Subcontract shall be governed by the laws of Georgia. Subcontractor hereby consents to personal jurisdiction and venue for any action arising out of a breach or threatened breach of this Subcontract exclusively in the United States District Courts of Georgia, or in the Circuit Courts of Georgia, in the County where the project is located. For projects outside the State of Georgia the venue shall be the County where the project is located.

Where the text requires, neuter terms used herein shall include the masculine and feminine, and singular terms shall include the plural, and vice versa.

There shall be no incidental, intended, or third-party beneficiaries to this Subcontract, and the rights and obligations of the Contractor and Subcontractor, as provided in this Subcontract, including, without limitation, the right to enforce this Subcontract, shall only inure to the Contractor and Subcontractor, their successors and authorized assigns.

Subcontractor hereby generally waives any and all claims against Contractor for consequential damages arising out of or relating to this Subcontract, including, without limitation, damages incurred by Subcontractor for principal offices expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit from the Work.

This Subcontract, including the documents incorporated herein by reference, embodies the entire agreement of the parties and supersedes all prior negotiations, agreements and understandings related to the subject matter hereof. Subcontractor agrees that any claims against Contractor, irrespective of an alleged breach by Contractor of the Contract Documents, shall be based, nonetheless, upon this Subcontract and the Subcontract Price, and shall in no event be based upon an asserted fair and reasonable value of the Work performed.

Subcontractor hereby acknowledges and agrees that the Contractor's failure to insist upon strict compliance with each and every term, covenant or condition hereof shall, in no respect, constitute a waiver of Contractor's right or rights to subsequently insist on full and complete performance of this Subcontract and may not act or serve to create an estoppel against Contractor in any manner whatsoever.

The provisions of this Subcontract and the Contract Documents are intended to supplement and complement each other. If, however, any provision of this Subcontract irreconcilably conflicts with a provision of the Contract Documents, the provision imposing the greater duty on the Subcontractor shall govern.

In the event a dispute between Contractor and Subcontractor arises out of, results from this Subcontract, the Work, or payment therefore, the prevailing party shall be entitled to recover the prevailing party's reasonable attorneys' fees, paralegal fees, expert fees, and court costs incurred during litigation, trial, or appeal.

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## SPECIAL PROVISIONS

### 1. SHOP DRAWINGS

In accordance with Article 18 of the General Conditions Subcontractor must comply with paragraphs A through C below:

#### A. General Requirements

1. Begin submittal of shop drawings, certificates, and test reports no later than 7 days after issuance of Subcontract.
2. Complete submittal of shop drawings, certificates, and test reports by no later than 28 days after issuance of Subcontract.
3. Resubmit any items within a maximum of 10 calendar days after being returned for correction (or as required to maintain schedule).
4. Furnish from suppliers, written evidence of confirmed shipping dates for major materials and equipment.
5. The schedule of values will include a line item for submittals in the sum **\$2,500.00** and line items for as-built and manuals in the sum of **\$800.00**. This dollar amount will be released when all submittals are complete and approved with confirmed shipping dates. In addition, a line item for clean-up in the sum of **\$6,500.00** will be included. Including Shop Drawings, Product Data, Brochures, etc., shall be submitted in a quantity of (12) twelve each.

#### B. Deviations and Substitutions

Subcontractor shall not deviate from the plans and specifications without the written consent of Contractor, and no changes shall be taken up with Owner except through Contractor. Subcontractor shall identify any variations from the plans and/or specifications on any specific items. Failure to identify any variations, in accordance with the Contract Documents, shall be interpreted to mean that the equipment, fixture or material meets all of the requirements of the specifications. Any changes in plans or specifications, or substitutions of materials as an "or equal" proposed by Subcontractor, which are approved by Owner or its authorized representative, shall be Subcontractor's full responsibility. Any additional costs caused Contractor or others as a result of such changes or substitutions or the selection of options or alternates shall be borne by Subcontractor. In selecting options or alternates, Subcontractor shall assume total responsibility to indemnify, defend, protect and hold Contractor harmless from claims for additional costs incurred by Contractor and other subcontractors, or for losses or damages suffered as a result of the option or alternate subject to the limitations set forth in this Subcontract. Contractor's review of shop drawings, cuts, samples, material lists and other submissions shall not be construed as approval nor shall it relieve the Subcontractor from responsibility for errors of any sort therein, or from the necessity of furnishing any work required by the Contract Documents which may have been omitted from the shop drawings, cuts, samples, material lists or other submissions.

#### C. License

Subcontractor hereby irrevocably grants Contractor a license to use all shop drawings, designs, and deliverables provided by Subcontractor on the Project for Contractor's purposes on the Project. Such license extends, without limitation to all shop drawings, CAD drawings, submittals to governmental or quasi-governmental authorities, product approvals, fabrication processes and the like, which are in any way necessary or desirable for the performance of the Work ("Granted Licenses"). This Subcontract shall constitute conclusive evidence of the granting to Contractor of the Granted Licenses by Subcontractor.

### 2. SCHEDULE

Subcontractor is cognizant of the aggressive project schedule and has factored all required overtime and manpower loading to complete the work within Contractor's Project Schedule. This Subcontractors staff shall work in harmony with the Contractors staff.

### **3. METHOD OF CALCULATING PAYMENT FOR EXTRA WORK**

The cost or credit to Contractor resulting from a change in the Work shall be determined in one or more of the following ways, at Contractor's option.

**A. Time and Materials** - A change order cost or credit may be determined on a time and material basis, using hourly labor, equipment rates, material costs and applicable markups. Work done on a Time & Material shall be signed for by Contractor's Representative on a daily basis and invoiced no later than 2 weeks following the week the work was performed. Failure to comply with these requirements will cause the Subcontractor's claim to be waived.

**B. Lump Sum** - A change order cost or credit may be determined by mutual acceptance of a lump sum proposal properly itemized and supported by sufficient data to permit evaluation.

**C. Unit Price** - A change order cost or credit may be determined by the use of the unit prices stated in the Contract Documents or subsequently agreed upon.

No change order work will be undertaken by Subcontractor without prior acknowledgment and approval of Contractor.

Overhead and Fee on all change order work shall be limited to a flat rate of 10 % for Overhead and Fee combined, or as otherwise stipulated in the Contract Documents.

### **4. WORKING HOURS**

Unless changed by Contractor and posted at the job site, standard working hours are from 7:00 a.m. to 5:00 p.m. Monday through Sunday (7 day work week). All Subcontractors shall observe these hours unless otherwise directed. It is understood that workdays in excess of 8 hours will be required as a normal course of executing the work of this Subcontract. Subcontractor is responsible for the scheduling of make-up work due to inclement weather.

### **5. MOBILIZATIONS, CONCURRENT WORK, PHASED TURNOVER**

Subcontractor acknowledges that the sequencing and scheduling of the work may require multiple mobilizations and has included all mobilization costs in the Subcontract Price.

### **6. COORDINATION**

Subcontractor shall coordinate his Work with all of the other Work which must be performed in the Project. To facilitate this coordination, there may at Contractor's option be coordination meetings, the attendance at which shall be mandatory for Subcontractor's coordination responsibility. Daily coordination meetings with Contractor's Superintendents shall be held workday at Contractor's on-site office trailer until such time as Contractor waives or reinstates this requirement. All Subcontractors shall have their respective Superintendents attend this meeting. All Subcontractors shall provide daily force reports to Contractor by 9:00 a.m. every day.

### **7. WEEKLY MEETINGS**

Weekly jobsite meetings are essential to job progress. Therefore, the attendance of each Subcontractor's Superintendent and Project Manager each week is mandatory.

### **8. PRE-JOB CONFERENCE**

Subcontractor shall attend a pre-job conference conducted by Contractor which will be attended by Architect/Engineer (at their option), Owner's representative and Contractor's staff.

### **9. PROJECT SAFETY TEAM**

Subcontractor will cooperate and participate in establishing a Project Safety Plan. The plan will include the formation of a Project Safety Team which will meet regularly to review the status of overall Project Safety. Subcontractor will provide written notice of who their on-site Safety Competent Person will be and forward any and all MSDS sheets related to their Work to Contractor prior to start of any work.

### **10. DOCUMENTS**

Subcontractor shall procure and pay for all required plans and specifications which shall be on file and available at a local blueprint company designated by Contractor.

### **11. UTILITIES VERIFICATION**

Subcontractor shall verify locations of all existing utilities within the Construction Areas prior to commencing the Work. Subcontractor shall abide by the "Underground Facility Damage and Safety Act" which requires anyone doing any type of excavating, tunneling or demolition to call all agencies having jurisdiction. An excavator must call the local utility companies not less than two or more than five business days before beginning any excavation. Any damage to existing utilities during construction will be repaired immediately as required to minimize disruption of the adjacent businesses and residences at the expense of the Subcontractor that caused the damage.

#### **12. "NO CHANGE" AGREEMENT**

It is the intent of this Agreement and consistent with the prior negotiations of this Agreement for Subcontractor to perform the Work under this Agreement without Change Orders to the Contract unless specifically requested by Owner, Architect or Contractor. Subcontractor agrees and understands that the Contract Documents as defined in "Exhibit A" of this Agreement may be incomplete in detail or contain inconsistencies. Subcontractor understands that the scope of this agreement is based on providing a complete system, installation, etc. that will function as the Owner and Architect intended and will comply with applicable codes. It is further understood and agreed that Contractor has entered into a contract with Owner to complete this project based on the Contract Documents identified and described in Exhibit "A". Accordingly, claims for additional cost for inconsistencies in the Contract Documents will not be recognized if the items in question should have been reasonably inferred or are required to provide the Owner with a complete system or installation.

#### **13. FIREPROOFING AND INSULATION**

Subcontractor shall be responsible for the patching of all fireproofing and insulation materials damaged by the execution of the work of this Subcontract.

#### **14. EXCAVATION**

All excavations must be in compliance with OSHA standards.

#### **15. DEWATERING**

All Subcontractors are responsible for dewatering required to install their Work.

#### **16. FUEL STORAGE**

On-site storage of fuel will not be permitted without prior written approval of Contractor. If allowed, storage facility shall also meet or exceed OSHA mandated requirements.

#### **17. REPLACE GUARDRAILS**

Subcontractor shall maintain and replace all required guardrails in accordance with OSHA standards.

#### **18. SCAFFOLDING**

Subcontractor shall provide all scaffolding required for the performance of this Subcontract. All scaffolding shall be erected in complete accordance with the latest OSHA standards.

#### **19. OSHA VIOLATIONS**

In the event Subcontractor is cited for violations of the Occupational Safety and Health Act, Subcontractor shall be responsible for all penalties assessed against Subcontractor. In the event Contractor is penalized due to Subcontractor's actions or failures to comply with the Occupational Safety and Health Act, Subcontractor shall hold Contractor harmless. Any penalties assessed against Contractor for violations of Subcontractor shall be deducted from amounts due under this Subcontractor Agreement.

#### **20. FEES**

Subcontractor shall obtain and pay for all Federal, State and County Permit Fees, License Fees and Inspection Fees, including all Re-Inspection Fees, unless specifically excluded in the Scope of Work.

#### **21. ANTI-TWO-BLOCKING DEVICES**

All cranes shall have anti-two-block devices which shall make two-blocking impossible. This device shall be an approved device which shall interrupt the crane function because two-blocking occurs (i.e., it will disable hoisting or boom motion) and shall not simply be a warning device. All cranes shall be operated in complete compliance with all regulatory requirements, including all O.S.H.A. Requirements.

#### **22. GUARANTEE PROVISIONS**

Guarantee provisions as mentioned in Article 17 of the Subcontract General Conditions are enhanced as described below (the words Guarantee and/or Warranty are synonymous):

**A.** Subcontractor warrants to Owner and Contractor that all materials and equipment furnished under this Subcontract will be new, unless otherwise specified, and that all Work will be of good quality, free from faults and defects and in conformance with the Contract Documents. For all Work not conforming to these requirements, including substitutions not properly approved by Architect or Contractor, Subcontractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. All warranties and guarantees shall be in writing on Warrantor's/Guarantor's stationery or official forms as designated by Contractor and signed by an authorized official of the Warrantor's/Guarantor's Company. Three (3) original complete copies of the warranties, guarantees, certificates, etc. shall be submitted to Contractor. Warranty or guarantee time period shall not commence until all of the following conditions have been satisfied.

1. Formal acceptance of the Work by Owner, Architect and Contractor.
2. Subcontractor has provided all the specified warranty/guarantee documentation to Contractor.
3. Subcontractor has provided specified training (including video taping) for the operation and maintenance of the system and/or equipment.
4. Subcontractor has provided maintenance manuals for the operation and maintenance of the system and/or equipment.
5. Certificate of Occupancy for the building areas, or its equivalent.
6. Satisfactory completion of the Work or system by Subcontractor.

**B.** Subcontractor's failure to respond to warranty/guarantee Work within forty-eight hours of written notice and/or diligently pursue corrective measures shall be considered a Subcontractor breach of warranty/guarantee. Subcontractor and his Surety shall be liable for all expenses incurred from such failure to respond.

**C.** If within any warranty/guarantee period, repairs or changes are required in connection with the warranty/guarantee Work, which in the opinion of Contractor and/or Owner is rendered necessary as a result of the normal use of material, equipment, or workmanship which are defective, or not in accordance with the terms of the Contract Documents, Subcontractor and/or its Surety shall, promptly upon receipt of notice and at Subcontractor's or Surety's own expense, proceed to:

1. Place in satisfactory condition (in every particular) all such warranted or guaranteed Work, and correct all defects therein.
2. Make good all damages to the structure or site, or equipment or contents which, in the opinion of Contractor or Owner, are the result of the use of workmanship, materials or equipment which is defective or not in accordance with the terms of the Contract Documents.
3. Make good any Work, materials, equipment, contents of structures or site disturbed in fulfilling any such warranty/guarantee.
4. In addition to the foregoing warranty, if any more-stringent terms exist in the Prime Contract, then those terms shall apply.

### **23. PUBLIC SAFETY**

Subcontractor shall provide for the safety and convenience of the general public, residences and/or businesses located near the Project.

Subcontractor understands that the Work is to be constructed near businesses and residences and Subcontractor shall use its best efforts, applicable standards of care, to perform its Work hereunder in a manner which will not interfere with the business operations and residents including, without limitation:

- A. Controlling dust, insects, vermin, noise and pests.
- B. Requiring appropriate attire and conduct for Subcontractor's workers and the workers of lower tier Subcontractors.
- C. Working in accordance with the applicable State, County or City laws, regulations and ordinances or any other governing agencies and Contractor's requests.

- D. Communication and/or fraternization between Subcontractor's personnel and the general public is strictly prohibited.
- E. Subcontractor shall not block off any public or private street nor use any part thereof for storage of materials unless approved by all applicable governing agencies and Contractor in accordance with the instructions of Contractor.

#### **24. STREET CLEANING**

Subcontractor shall provide prompt and continuous cleaning and maintenance of street and sidewalk areas which might pose potential danger to the public in the vicinity of the Work.

#### **25. BARRICADES AND DANGER/WARNING SIGNS**

Subcontractor shall provide and maintain suitable danger and warning signals, lights, signs, signal devices, barricades, flagmen and/or watchmen and take all necessary precautions that the barricades are appropriately located so as to give proper warning of hazards.

#### **26. SIGNAGE**

No signs will be permitted to be displayed at the jobsite or on trailers without written approval of Contractor.

#### **27. RADIOS**

Subcontractor agrees to furnish all required two-way radios with multiple channels to be used to communicate with Contractor and other Subcontractors on site. Radio use and frequencies shall be coordinated with Contractor. No radios (music radios, disc man, headset radios) will be allowed on the jobsite. All subcontractor superintendents and foremen are to have mobile phones, and phone numbers are to be given to the Contractor to be used in case of emergency and daily coordination.

#### **28. FIRES**

No fires for hand warming, trash disposal, etc. will be permitted.

#### **29. JOBSITE STORAGE**

Subcontractor is aware of the existing Site Conditions and limited space availability. On-site storage of materials and equipment will not be allowed except as specifically approved by Contractor's Project Superintendent or Project Manager. Unless specifically approved in writing, Subcontractor shall not assume any space available. All deliveries of Subcontractor shall be coordinated through Contractor. If scheduled deliveries are not ready at the appointed time, Contractor may refuse acceptance of materials and require deliveries to be rescheduled. All cost and/or delays associated with the refusal of deliveries will be the responsibility of Subcontractor. Subcontractor has included in his Subcontract Price all off-site storage as may be required.

#### **30. CONSTRUCTION PARKING**

Subcontractor shall inform their employees that on-site parking (if available) is permitted only in areas designated by Contractor's Superintendent. Parking in unauthorized parking areas will result in vehicles being towed at Subcontractor's and/or vehicle owner's expense.

#### **31. ACCESS PANELS / ACCESS DOORS / COVERS**

Subcontractor shall furnish and install all access panels, access doors, and covers necessary to provide access to the Work of Subcontractor in walls, soffits, floors, and ceilings. All proposed locations to be submitted for acceptance prior to installation. Subcontractor shall be responsible for coordinating the location and sizes of the required framed openings with respective trades during construction of walls, soffits, ceilings, and floors.

#### **32. BLOCKING AND BACKING**

Subcontractor shall furnish and install blocking and backing as required for installation of this Work.

#### **33. HANGERS/FASTENERS**

All fasteners, miscellaneous metal hangers, rods, etc. required to fulfill this scope of work are included. All exposed fasteners shall be of security type "Torx" or approved equivalent.

#### **34. TOUCH-UP PAINTING & CLEANING OF EQUIPMENT**

Subcontractor shall provide all equipment touch-up painting and cleaning as required for the Work of this Subcontract.

**35. PRECONSTRUCTION ACTIVITY:** Subcontractor shall resolve and include the cost of all preconstruction activities required.

### **36. STRUCTURAL SUPPORT FRAMING (MISCELLANEOUS)**

Subcontractor shall furnish and install all miscellaneous structural support framing not indicated on the Contract Documents required for this Work. The required support for this Work includes, but is not limited to, anchor bolts, hangers, isolators, channels, angles, embeds, etc.

### **37. SAW CUTS/CORE DRILLING**

Concrete saw cuts, removal and concrete replacement as required to install work within this Agreement is included. No saw cuts or core drilling are to be performed without written approval from Contractor, which may require written authorization from the owner.

### **38. FLOOR AND ROOF OPENINGS**

Subcontractor is responsible for covering (including maintaining covers) and labeling all floor/roof penetrations related to this Scope of Work.

### **39. WELDING MACHINES**

Electrically powered welding machines shall not be allowed for use on this site except as approved by Contractor. If electric welding machines are used, the necessary power service and power consumed shall be provided by Subcontractor.

### **40. TEMPORARY CONSTRUCTION FACILITIES AND UTILITIES:**

#### **Furnished By Subcontractor:**

Subcontractor shall provide his own field office (if allowed) including toilets, electrical power and charges, telephones, etc.

Subcontractor shall, as part of the Scope of Work, supply, install, properly maintain, permit and remove all temporary construction facilities and utilities necessary for the complete performance of its Work. Such items shall include, but not necessarily be limited to those listed below.

1. Rigging, Scaffolding and all equipment for erection.
2. All Small Tools.
3. All standard expendable or consumable construction items and supplies.
4. All utilities including installation and monthly consumption cost as may be required for Subcontractor's jobsite office and/or trailers.
5. First Aid Supplies.
6. All Storage compounds, security measures, fencing, lighting, etc. as may be required by Subcontractor to protect tools, equipment and materials.
7. Maintenance of Subcontractor's lay down, storage and Work area and roads within such areas. Repair costs to existing sod damaged by Subcontractor outside construction limits are also included.
8. Containers, ice and cups for drinking water

#### **Furnished by Contractor:**

Contractor shall supply or cause to be supplied the following temporary construction facilities and utilities to Subcontractor, without cost to Subcontractor, for or in connection with performance of the Work:

1. Sanitary facilities and portable chemical toilets located at various areas of the jobsite as designated by Contractor.
2. Water for construction shall be furnished at points on jobsite as designated by Contractor.
3. Temporary Lighting in accordance with OSHA Standards. However it shall be the responsibility of Subcontractor to ensure that each craftsman on this project has adequate lighting in each room to do a "first class" job. Subcontractor shall provide all such supplemental lighting

4. Temporary Power- 110 volts, single phased, 60-cycle power shall be available throughout the building for small tools only. Power will not be available for electric welding machines or heavy-duty saws. Portable panels will be located on each floor. This Subcontractor shall provide all OSHA approved extension cords as required for the execution of this Subcontract Agreement. All power cords and tools shall be protected by ground fault circuit interrupters (GFCI). Where GFCI outlets are not available, in-line GFCI protection shall be supplied by each Subcontractor.
5. Any equipment requiring temporary 220-volt (or above) power will not be provided by Contractor. It will be Subcontractor's responsibility to coordinate, provide, and pay for 220-volt service with on-site electrician.
6. Centrally located dumpster for collection of debris, including hauling off site.

#### **41. NOTICE TO PROCEED.**

It is understood and agreed that the award of this Subcontract is contingent upon the Contractor executing a Contractor Agreement with the Owner. Subcontractor shall not proceed with the work of this Subcontract without a written notice to proceed from the Contractor. The Contractor will not be liable for any costs or obligations resulting from the Subcontractor's actions prior to receipt of a written notice to Proceed.

#### **42. MOCK-UPS / PROTOTYPES**

Subcontractor shall provide mock-ups as required by the Contract Documents and as required by the Contractor's field staff, all in accordance with the project schedule. This Subcontract includes all costs associated with preparation, inspection, approval and removal of mock-ups, including mock-ups prepared or tested off-site.

#### **43. ENVIRONMENTAL PROTECTION**

Subcontractor is aware that the adjacent wetlands, ocean, lakes and/or canals, are a very sensitive subject as it relates to Owner's development order. Subcontractor agrees not to deposit and/or store any liquids, solids, or gases on or near any area that is not designated as "Staging Area" by Contractor & Owner. Failure to comply with this provision shall result in severe damages to Owner for which Subcontractor will be held responsible.

#### **44. ENVIRONMENTAL CONTROLS**

Federal and State regulations require that construction projects obtain various permits so that storm water, dewatering, and other forms of potential pollution can be controlled and regulated. Subcontractor agrees to protect those controls that are put in place and to be responsible for the cost of correcting any damage he may cause to those controls.

#### **45. MONTHLY SUBCONTRACTOR INJURY / ILLNESS REPORT**

This document is in Exhibit "I" and must be updated and supplied to Contractor on a monthly basis. Pay requisitions will not be processed unless the updated document is attached.

#### **46. PERSONNEL SCREENING**

Each employee that will enter the facility will be required to complete a personnel screening form that will be reviewed by the facility in order to gain access. Valid photo ID must be carried by all personnel at all times while on the project site. ID may be required to be surrendered to facility while working inside secure areas.

#### **47. FLOOR PROTECTION**

Subcontractor is aware that the majority of exposed concrete floors on this project will be the finished and will make every effort necessary to properly protect these floor, including the following:

- A. All lifts shall have non-marking tires.
- B. All material brought into the building shall be stored, at a minimum, on wood dunnage.
- C. No cutting or threading of pipe will be allowed in the buildings.
- D. During welding operations welding blankets will be required.
- E. Floors will be left in a broom swept condition at the end of each day and prior to wet weather conditions.
- F. All scaffold legs shall not be in direct contact with floors.

#### **48. WEEKEND / OVERTIME WORK**

Subcontractor is aware that time is of the essence and weekend/overtime work may be necessary. During weekend/overtime work a full working crew shall be present under full time supervision of the Subcontractor's superintendent and foreman. In the case of weekend work, the subcontractor shall give a 72 hours written notice.

#### **49. INSPECTIONS / PUNCHOUT**

Subcontractor is aware of the importance of inspections and Architect/Engineer punch-out. Prior to inspections and/or punch-out the subcontractor shall thoroughly self inspect, clean, and make in pristine condition the product in accordance with the Contract Documents.

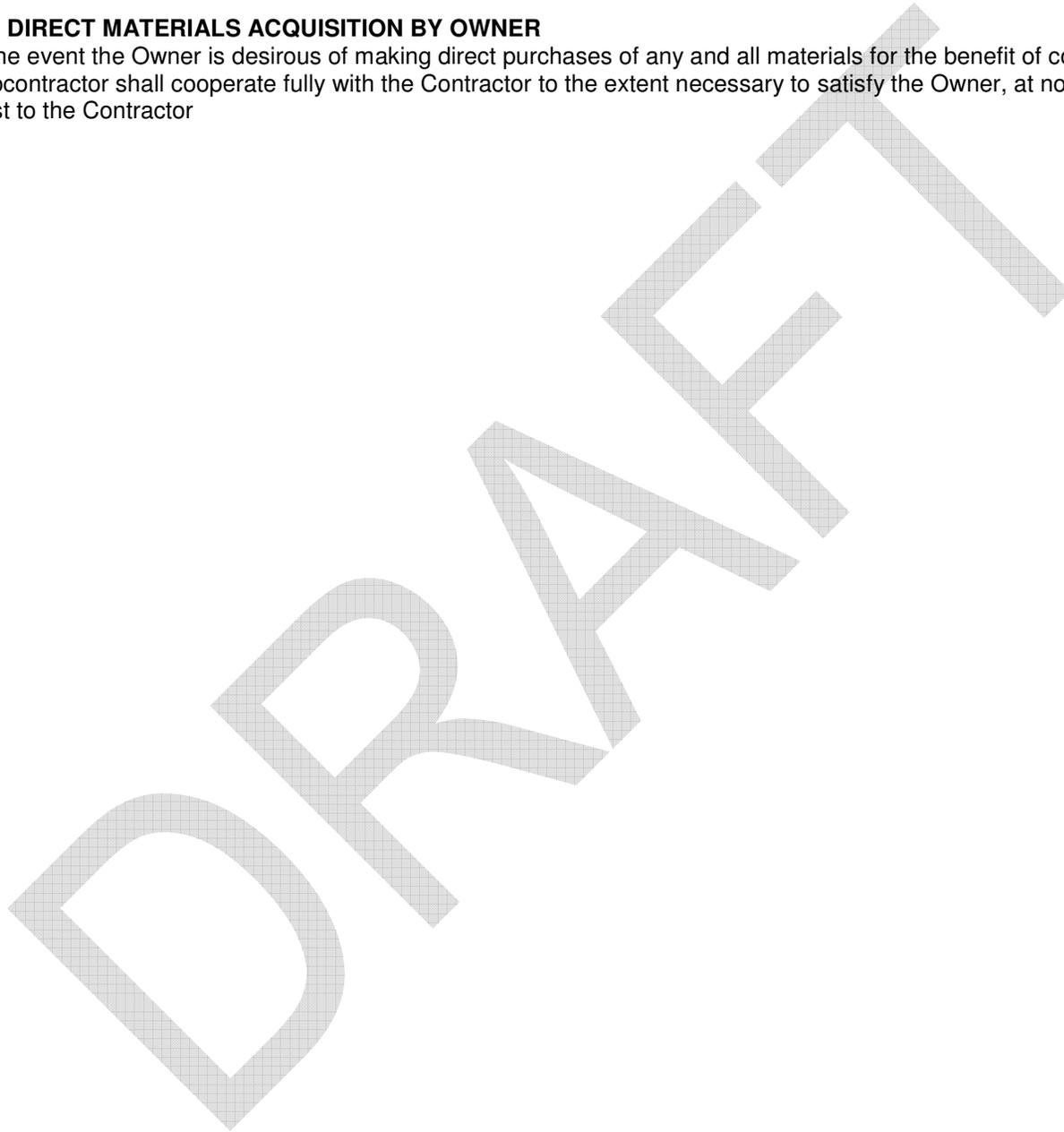
Subcontractor shall also coordinate all required tests and inspections with the appropriate agencies. All tests and inspections shall be logged in the Contractor's office on the inspection set of drawings and logs.

**50. MODIFICATIONS**

Subcontractors shall coordinate any required cutting, fitting, and modification of work that integrates with the work with others to assure proper fit and function as intended by the Contract Documents.

**51. DIRECT MATERIALS ACQUISITION BY OWNER**

In the event the Owner is desirous of making direct purchases of any and all materials for the benefit of cost savings, Subcontractor shall cooperate fully with the Contractor to the extent necessary to satisfy the Owner, at no additional Cost to the Contractor

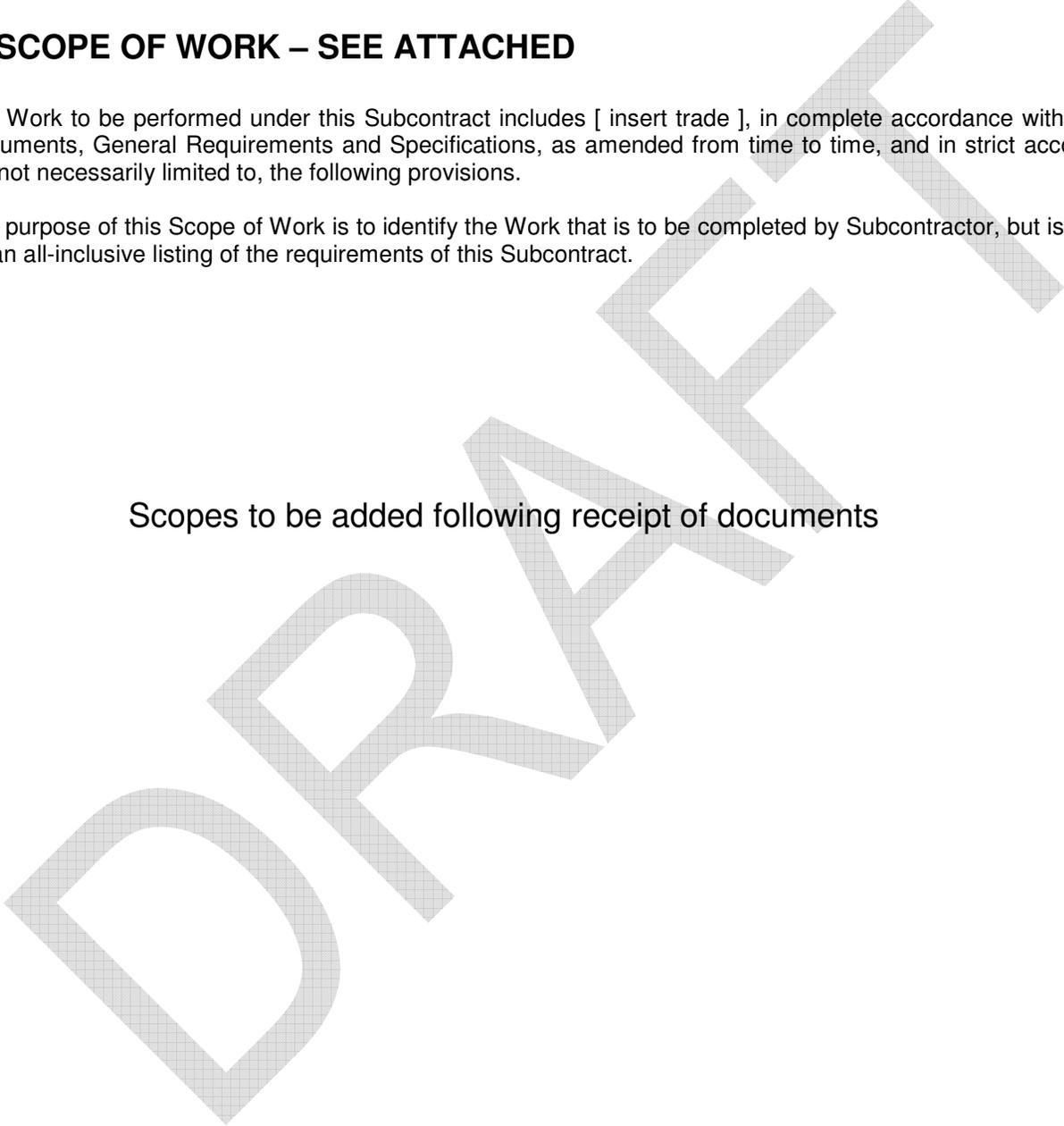


## **I. SCOPE OF WORK – SEE ATTACHED**

The Work to be performed under this Subcontract includes [ insert trade ], in complete accordance with the Contract Documents, General Requirements and Specifications, as amended from time to time, and in strict accordance with, but not necessarily limited to, the following provisions.

The purpose of this Scope of Work is to identify the Work that is to be completed by Subcontractor, but is not meant to be an all-inclusive listing of the requirements of this Subcontract.

Scopes to be added following receipt of documents



**I. GENERAL SCOPE REQUIREMENTS:**

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**EXHIBIT "A"**



**List of Bid Documents**

Drawing / Spec. Sect.	Description	Design Date	Current Sheet Date	Contract Docs Peter Brown Received Date	ASI 01 Peter Brown Receive d	ASI 02 Peter Brown Receive d
<b>1</b>	<b>PLANS</b>					
	<b>ARCHITECTURAL</b>					
	COVER SHEET					
CS-1	INDEX OF DRAWINGS					
CS-1.1	INDEX OF DRAWINGS					
A-0.0.0	NOTES, ABBREVIATIONS, TABULATIONS & CODE RESEARCH					
SP-1	SITE PLAN					
A-0.1.1A	BLDG. I: LIFE SAFETY GROUND FLOOR PLAN SECTOR "A"					
A-0.1.1B	BLDG. I: LIFE SAFETY GROUND FLOOR PLAN SECTOR "B"					
A-0.1.1C	BLDG. I: LIFE SAFETY GROUND FLOOR PLAN SECTOR "C"					
A-0.1.2A	BLDG. I: LIFE SAFETY SECOND FLOOR PLAN SECTOR "A"					
A-0.1.2C	BLDG. I: LIFE SAFETY SECOND FLOOR PLAN SECTOR "C"					
A-0.1.3A	BLDG. I: LIFE SAFETY TYPICAL FLOOR PLAN SECTOR "A"					
A-0.1.3B	BLDG. I: LIFE SAFETY TYPICAL FLOOR PLAN SECTOR "B"					
A-0.1.3C	BLDG. I: LIFE SAFETY TYPICAL FLOOR PLAN SECTOR "C"					
A-2.1.0A	BLDG. I: EXTERIOR BLDG. ACCESS GROUND FLR. PLAN SECTOR "A"					
A-2.1.0B	BLDG. I: EXTERIOR BLDG. ACCESS GROUND FLR. PLAN SECTOR "B"					
A-2.1.0C	BLDG. I: EXTERIOR BLDG. ACCESS GROUND FLR. PLAN SECTOR "C"					
A-2.1.1A	BLDG. I: GROUND FLOOR PLAN SECTOR "A"					
A-2.1.1B	BLDG. I: GROUND FLOOR PLAN SECTOR "B"					
A-2.1.1C	BLDG. I: GROUND FLOOR PLAN SECTOR "C"					

A-2.1.2A	BLDG. I: 2ND FLOOR PLAN SECTOR "A"					
A-2.1.2B	BLDG. I: 2ND FLOOR PLAN SECTOR "B"					
A-2.1.2C	BLDG. I: 2ND FLOOR PLAN SECTOR "C"					
A-2.1.3A	BLDG. I: 3RD THRU 6TH FLOOR PLAN SECTOR "A"					
A-2.1.3B	BLDG. I: 3RD THRU 6TH FLOOR PLAN SECTOR "B"					
A-2.1.3C	BLDG. I: 3RD FLOOR PLAN SECTOR "C"					
A-2.1.4C	BLDG. I: 4TH FLOOR PLAN SECTOR "C"					
A-2.1.5C	BLDG. I: 5TH & 6TH FLOOR PLAN SECTOR "C"					
A-2.1.6A	BLDG. I: 7TH & 8TH FLOOR PLAN SECTOR "A"					
A-2.1.6B	BLDG. I: 7TH & 8TH FLOOR PLAN SECTOR "B"					
A-2.1.6C	BLDG. I: 7TH & 8TH FLOOR PLAN SECTOR "C"					
A-2.1.7A	BLDG. I: ROOF PLAN SECTOR "A"					
A-2.1.7B	BLDG. I: ROOF PLAN SECTOR "B"					
A-2.1.7C	BLDG. I: ROOF PLAN SECTOR "C"					
A-2.2.0	EXTERIOR BUILDING ACCESS GROUND FLOOR PLAN					
A-0.2.1	BLDG. II: LIFE SAFETY GROUND FLOOR PLAN					
A-0.2.2	BLDG. II: LIFE SAFETY TYPICAL FLOOR PLAN					
A-2.2	BLDG. II: SCHEMATIC FLOOR PLANS					
A-2.2.1	BLDG. II: GROUND FLOOR PLAN					
A-2.2.2	BLDG. II: 2ND FLOOR PLAN					
A-2.2.3	BLDG. II: 3RD FLOOR PLAN					
A-2.2.4	BLDG. II: 4TH FLOOR PLAN					
A-2.2.5	BLDG. II: 5TH FLOOR PLAN					
A-2.2.6	BLDG. II: 6TH FLOOR PLAN					
A-2.2.7	BLDG. II: 7TH FLOOR PLAN					
A-2.2.8	BLDG. II: 8TH FLOOR PLAN					
A-2.2.9	BLDG. II: ROOF PLAN					
A-2.2.10	PARKING GARAGE, BLDG I & BLDG II GROUND FLOOR PLAN					
A-0.3.1	BLDG. III: LIFE SAFETY GROUND FLOOR PLAN					
A-0.3.2	BLDG. III: LIFE SAFETY TYPICAL FLOOR PLAN					
A-2.3.0	BLDG. III: EXTERIOR BLDG. ACCESS GROUND FLR. PLAN					
A-2.3.1	BLDG. III: GROUND FLOOR PLAN					
A-2.3.2	BLDG. III: 2ND FLOOR PLAN					
A-2.3.3	BLDG. III: 3RD FLOOR PLAN					
A-2.3.4	BLDG. III: 4TH FLOOR PLAN					
A-2.3.5	BLDG. III: 5TH FLOOR PLAN					
A-2.3.6	BLDG. III: 6TH FLOOR PLAN					
A-2.3.7	BLDG. III: 7TH FLOOR PLAN					
A-2.3.8	BLDG. III: 8TH FLOOR PLAN					
A-2.3.9	BLDG. III: ROOF PLAN					
A-0.G.1.A	GARAGE: LIFE SAFETY GROUND FLOOR PLAN & SOUTHSIDE FLOOR PLAN					

A-0.G.1	GARAGE: LIFE SAFETY FIRST FLOOR PLAN					
A-0.G.2	GARAGE: LIFE SAFETY SECOND FLOOR PLAN					
A-0.G.3	GARAGE: LIFE SAFETY TYPICAL FLOOR PLAN 3rd - 8th					
A-G.1A	GARAGE: GROUND FLOOR / SOUTHSIDE FLOOR PLAN					
A-G.1	GARAGE: FIRST FLOOR PLAN					
A-G.2	GARAGE: SECOND FLOOR PLAN					
A-G.3	GARAGE: THIRD FLOOR PLAN					
A-G.4	GARAGE: FOURTH FLOOR PLAN					
A-G.5	GARAGE: FIFTH FLOOR PLAN					
A-G.6	GARAGE: SIXTH & SEVENTH FLOORS					
A-G.7	GARAGE: EIGHT FLOOR					
A-G.8	GARAGE: ROOF DECK					
A-3.0.0	PARKING GARAGE, BLDG IA & BLDG. II					
A-3.1.1	BLDG. I: EAST ELEVATION & SOUTH EAST ELEVATION					
A-3.1.2	BLDG. I: NORTH ELEVATION & NORTH WEST ELEVATION					
A-3.1.3	BLDG. I: SOUTH WEST & NORTH ELEVATION					
A-3.1.4	BLDG. I: BUILDING SECTIONS					
A-3.1.5	BLDG. I: BUILDING SECTIONS					
A-3.2.0	BLDG. IA, II & GARAGE: SOUTH ELEVATION & NORTH ELEVATION					
A-3.2.1	BLDG. II & GARAGE: NORTH ELEVATION					
A-3.2.2	BLDG. II & GARAGE: SOUTH & WEST ELEVATION					
A-3.2.3	BLDG. II: CROSS SECTIONS					
A-3.2.4	GARAGE: CROSS SECTIONS					
A-3.2.5	GARAGE: TRASH COMPACTOR ROOM					
A-3.2.6	GARAGE: WALL SECTIONS					
A-3.3.1	BLDG. III: NORTH ELEVATION & SOUTH ELEVATION					
A-3.3.2	BLDG. III: EAST ELEVATION & WEST ELEVATION					
A-3.3.3	BLDG. III: BUILDING SECTIONS					
A-3.4	APARTMENT ENTRY ELEVATIONS					
A-3.4A	ELEVATION DETAILS					
A-3.4B	PARKING GARAGE ELEVATION DETAILS					
A-3.4C	BRIDGE #1 ELEVATION / SECTION #8					
A-3.4D	BRIDGE #2 ELEVATIONS					
A-3.5	WINDOW ELEVATIONS, SCHEDULE AND NOTES					
A-4.1	UNIT PLANS					
A-4.1.1	UNIT PLANS					
A-4.1.2	UNIT PLANS					
A-4.1.3	UNIT PLANS					
A-4.2	UNIT PLANS					
A-4.2.1	UNIT PLANS					
A-4.3	UNIT PLANS					
A-4.3.1	UNIT PLANS					
A-4.3.2	UNIT PLANS					

A-4.3.3	UNIT PLANS					
A-4.3.4	UNIT PLANS					
A-4.3.5	UNIT PLANS					
A-4.3.6	UNIT PLANS					
A-4.3.7	UNIT PLANS					
A-4.4	UNIT PLANS					
A-4.4.1	UNIT PLANS					
A-4.5	INTERIOR ELEVATIONS					
A-4.6	INTERIOR ELEVATIONS					
A-4.7	UNIT WINDOW & DOOR ELEVATIONS, SCHEDULES AND NOTES					
A-5.1	ROOM FINISH SCHEDULE PUBLIC AREAS & NOTES					
A-5.2	ROOM FINISH SCHEDULE PUBLIC AREAS					
A-5.2.0	DOOR SCHEDULE PUBLIC AREAS					
A-5.2.1	DOOR SCHEDULE PUBLIC AREAS					
A-5.3	ELEVATION DETAILS					
A-5.4	ELEVATION DETAILS					
A-5.5	ELEVATION DETAILS					
A-5.6	BRIDGE #1					
A-5.7	BRIDGE #2					
A-5.8	INTERIOR ELEVATIONS BLDG. I SECTOR C					
A-6.1.1	BLDG. I: WALL SECTIONS					
A-6.1.2	BLDG. I: WALL SECTIONS					
A-6.2.1	BLDG. II: WALL SECTIONS					
A-6.3.1	BLDG. III: WALL SECTIONS					
A-6.3.2	BLDG. III: WALL SECTIONS					
A-6.4.1	GARAGE: WALL SECTIONS					
A-7.1.1	BLDG. I: STAIR #1					
A-7.1.2	BLDG. I: STAIR #2					
A-7.1.3	BLDG. I: STAIR #3 & ELEVATOR #3					
A-7.1.4	BLDG. I: STAIR #4					
A-7.1.5	BLDG. I: ELEVATOR #1 & #2					
A-7.2.1	BLDG II: STAIR #7					
A-7.2.2	BLDG II: ELEVATOR #4 & #5					
A-7.3.1	BLDG. III: STAIR #8					
A-7.3.2	BLDG. III: STAIR #9					
A-7.3.3	BLDG. III: ELEVATORS #6 & #7					
A-7.4.1	GARAGE: STAIR #5					
A-7.4.2	GARAGE: STAIR #6					
A-8.1	DETAILS					
A-8.1.2	SECTIONS AND DETAILS					
A-8.2	DETAILS					
A-8.3	DETAILS					
A-8.4	DETAILS					
A-8.5	DETAILS					
A-8.6	DETAILS					
A-8.7	DETAILS					
A-8.8	DETAILS					
A-8.9	DETAILS					
A-8.10	ACCESSIBLE PUBLIC AREAS DETAILS					
A-8.11	TRELLIS AT BUILDING 1C					

A-10.1	ACCESSIBILITY UNIT PLANS: A1, A2, A3, A4				
A-10.2	ACCESSIBILITY UNIT PLANS: ST-1, ST-2, ST-2(HYB), A5, A6				
A-10.3	ACCESSIBILITY UNIT PLANS: B1, B3, B5				
A-10.4	ACCESSIBILITY UNIT PLANS: C1-A, C1-B, C2				
A-10.5	FAIR HOUSING ACT. ACCESSIBILITY STANDARDS - NOTES AND DETAILS WITHIN DWELLING UNITS				
GZ-1	GAZEBO BLDG. III				
HD-1	TRELLIS PLAN BLDG. II				
HD-2	TRELLIS PLAN BLDG. I				
	<b>STRUCTURAL</b>				
S-1.1A	BLDG. I: PILING & GROUND FLOOR FRAMING PLAN - SECTOR A				
S-1.1B	BLDG. I: PILING & GROUND FLOOR FRAMING PLAN - SECTOR B				
S-1.1C	BLDG. I: PILING & GROUND FLOOR FRAMING PLAN - SECTOR C				
S-1.1A	BLDG. I: FOUNDATION & GROUND FLOOR FRAMING PLAN - SECTOR A				
S-1.1B	BLDG. I: FOUNDATION & GROUND FLOOR FRAMING PLAN - SECTOR B				
S-1.1C	BLDG. I: FOUNDATION & GROUND FLOOR FRAMING PLAN - SECTOR C				
S-1.2A	BLDG. I: 2ND FLOOR FRAMING PLAN - SECTOR A				
S-1.2B	BLDG. I: 2ND FLOOR FRAMING PLAN - SECTOR B				
S-1.2C	BLDG. I: 2ND FLOOR FRAMING PLAN - SECTOR C				
S-1.3A	BLDG. I: 3RD THRU 6TH FLOOR FRAMING PLAN - SECTOR A				
S-1.3B	BLDG. I: 3RD THRU 6TH FLOOR FRAMING PLAN - SECTOR B				
S-1.3C	BLDG. I: 3RD FLOOR FRAMING PLAN - SECTOR C				
S-1.4C	BLDG. I: 4TH FLOOR FRAMING PLAN - SECTOR C				
S-1.5C	BLDG. I: 5TH & 6TH FLOOR FRAMING PLAN - SECTOR C				
S-1.6A	BLDG. I: 7TH & 8TH FLOOR FRAMING PLAN - SECTOR A				
S-1.6B	BLDG. I: 7TH & 8TH FLOOR FRAMING PLAN - SECTOR B				
S-1.6C	BLDG. I: 7TH & 8TH FLOOR FRAMING PLAN - SECTOR C				
S-1.7A	BLDG. I: ROOF FRAMING PLAN (SLAB) SECTOR A				
S-1.7B	BLDG. I: ROOF FRAMING PLAN (SLAB) BLDG. I SECTOR B				
S-1.7C	BLDG. I: ROOF FRAMING PLAN (SLAB) BLDG. I SECTOR C				
S-1.8A	BLDG. I: ROOF FRAMING PLAN (TRUSSES) BLDG. I SECTOR A				
S-1.8B	BLDG. I: ROOF FRAMING PLAN				

	(TRUSSES) BLDG. I SECTOR B				
S-1.8C	BLDG. I: ROOF FRAMING PLAN (TRUSSES) BLDG. I SECTOR C				
S-1.9C	BLDG. I: NOTES AND REINFORCING CHART				
S-2.1	BLDG. II: PILING & GROUND FLOOR FRAMING PLAN				
S-2.1	BLDG. II: FOUNDATION & GROUND FLOOR FRAMING PLAN				
S-2.2	BLDG. II: 2ND FLOOR FRAMING PLAN				
S-2.3	BLDG. II: 3RD FLOOR FRAMING PLAN				
S-2.4	BLDG. II: 4TH & 5TH FLOOR FRAMING PLAN				
S-2.5	BLDG. II: 6TH FLOOR FRAMING PLAN				
S-2.6	BLDG. II: 7TH FLOOR FRAMING PLAN				
S-2.7	BLDG. II: 8TH FLOOR FRAMING PLAN				
S-2.8	BLDG. II: ROOF FRAMING PLAN SLAB				
S-2.9	BLDG. II: ROOF FRAMING PLAN TRUSSES				
S-3.1	BLDG. III: PILING & GROUND FLOOR FRAMING PLAN				
S-3.1	BLDG. III: FOUNDATION & GROUND FLOOR FRAMING PLAN				
S-3.2	BLDG. III: 2ND FLOOR FRAMING PLAN				
S-3.3	BLDG. III: 3RD FLOOR FRAMING PLAN				
S-3.4	BLDG. III: 4TH FLOOR FRAMING PLAN				
S-3.5	BLDG. III: 5TH FLOOR FRAMING PLAN				
S-3.6	BLDG. III: 6TH FLOOR FRAMING PLAN				
S-3.7	BLDG. III: 7TH FLOOR FRAMING PLAN				
S-3.8	BLDG. III: 8TH FLOOR FRAMING PLAN				
S-3.9	BLDG. III: ROOF FRAMING PLAN (SLAB)				
S-3.10	BLDG. III: ROOF FRAMING PLAN (TRUSSES)				
S-4.1	SECTIONS				
S-4.1	SECTIONS				
S-4.1A	SECTIONS (GRADE BEAM, RETAINING WALL, SLAB DETAILS)				
S-4.1A	SECTIONS (GRADE BEAM, RETAINING WALL, SLAB DETAILS)				
S-4.2	SECTIONS				
S-4.3	STAIR #2 SECTIONS				
S-4.3	STAIR #2 SECTIONS				
S-4.4	SECTIONS				
S-4.5	SECTIONS				
S-4.6	GARAGE SECTIONS				
S-4.7	STAIR #2, #4 AND #5 SECTIONS				
S-4.8	STAIR #6, #7 AND #8 SECTIONS				
S-4.9	STAIR #3 AND #9 SECTIONS				
S-4.10	ELEVATOR #3, #4, #5, #6 AND #7 SECTIONS				
S-4.11	SECTIONS				
S-5.0	PILE CAP DETAILS				
S-5.0	FOOTING DETAILS AND SCHEDULE				
S-5.0	FOOTING DETAILS AND SCHEDULE				
S-5.1	PILE CAP DETAILS				
S-5.2	TYPICAL DETAILS				
S-5.2	TYPICAL DETAILS				
S-5.3	SHEAR WALL DETAILS				
S-5.4	SHEAR WALL DETAILS				

S-5.5	SHEAR WALL DETAILS				
S-5.6	BEAM AND COLUMN SCHEDULE				
S-5.6	BEAM AND COLUMN SCHEDULE				
S-5.6A	BEAM SCHEDULE AND DETAILS				
S-B1.1	BRIDGE #1 FLOOR PLANS				
S-B1.2	BRIDGE #1 FLOOR PLANS				
S-B1.3	BRIDGE #1 SECTIONS, SCHEDULES AND TYPICAL DETAILS				
S-B2.1	BRIDGE #2 FLOOR PLANS				
S-B2.2	BRIDGE #2 SECTIONS, SCHEDULES AND TYPICAL DETAILS				
S-G.1A	GARAGE: PARTIAL PILING AND GROUND FLOOR FRAMING PLAN				
S-G.1A	GARAGE: PARTIAL FOUNDATION & GROUND FLOOR FRAMING PLAN				
S-G.1	GARAGE: FOUNDATION & GROUND FLOOR FRAMING PLAN				
S-G.2	GARAGE: 2ND FLOOR FRAMING PLAN				
S-G.3	GARAGE: 3RD FLOOR FRAMING PLAN				
S-G.4	GARAGE: 4TH FLOOR FRAMING PLAN				
S-G.5	GARAGE: 5TH FLOOR FRAMING PLAN				
S-G.6	GARAGE: 6TH & 7TH FLOOR FRAMING PLAN				
S-G.7	GARAGE: 8TH FLOOR FRAMING PLAN				
S-G.8	GARAGE: ROOF FRAMING PLAN				
S-G.9	GARAGE: PILE CAP DETAILS				
S-G.10	GARAGE: COLUMN DETAILS AND SCHEDULE				
S-G.10	GARAGE: COLUMN DETAILS AND SCHEDULE				
S-G.11	GARAGE: TYPICAL DETAILS				
S-G.11	GARAGE: TYPICAL DETAILS				
S-G.12	GARAGE: NOTES, TYPICAL DETAILS AND BEAM SCHEDULE				
S-G.12	GARAGE: NOTES, TYPICAL DETAILS AND BEAM SCHEDULE				
S-G.13	GARAGE: SHEAR WALL DETAILS				
S-G.14	GARAGE: SHEAR WALL DETAILS				
S-G.15	GARAGE: SHEAR WALL DETAILS				
SGZ-1	BUILDING III GAZEBO				
	<b>ELECTRICAL</b>				
E-100	ELECTRICAL SITE PLAN				
E-101	LANDSCAPE LIGHTING PARTIAL SITE PLAN				
E-102	LANDSCAPE LIGHTING PARTIAL SITE PLAN				
E-211A	BLDG. I: GROUND FLOOR PLAN SECTOR "A"				
E-211B	BLDG. I: GROUND FLOOR PLAN SECTOR "B"				
E-211C	BLDG. I: GROUND FLOOR PLAN SECTOR "C"				
E-211L	BLDG. I: GROUND FLOOR PLAN SECTOR "C" LIGHTING				
E-212A	BLDG. I: 2ND FLOOR PLAN SECTOR "A"				
E-212B	BLDG. I: 2ND FLOOR PLAN SECTOR "B"				
E-212C	BLDG. I: 2ND FLOOR PLAN SECTOR "C"				

E-212L	BLDG. I: 2ND FLOOR PLAN SECTOR "C" LIGHTING					
E-213A	BLDG. I: 3RD THRU 6TH FLOOR PLAN SECTOR "A"					
E-213B	BLDG. I: 3RD THRU 6TH FLOOR PLAN SECTOR "B"					
E-213C	BLDG. I: 3RD THRU 6TH FLOOR PLAN SECTOR "C"					
E-214A	BLDG. I: 7TH & 8TH FLOOR PLAN SECTOR "A"					
E-214B	BLDG. I: 7TH & 8TH FLOOR PLAN SECTOR "B"					
E-214C	BLDG. I: 7TH & 8TH FLOOR PLAN SECTOR "C"					
E-215A	BLDG. I: ROOF PLAN SECTOR "A"					
E-215B	BLDG. I: ROOF PLAN SECTOR "B"					
E-215C	BLDG. I: ROOF PLAN SECTOR "C"					
E-221	BLDG. II: GROUND FLOOR PLAN					
E-222	BLDG. II: 2ND FLOOR PLAN					
E-223	BLDG. II: 3RD FLOOR PLAN					
E-224	BLDG. II: 4TH & 5TH FLOOR PLAN					
E-225	BLDG. II: 6TH FLOOR PLAN					
E-226	BLDG. II: 7TH & 8TH FLOOR PLAN					
E-227	BLDG. II: ROOF PLAN					
E-231	BLDG. III: GROUND FLOOR PLAN					
E-232	BLDG. III: 2ND FLOOR PLAN					
E-233	BLDG. III: 3RD FLOOR PLAN					
E-234	BLDG. III: 4TH FLOOR LOBBY & 4TH & 5TH FLOOR PLAN					
E-235	BLDG. III: 6TH FLOOR PLAN					
E-236	BLDG. III: 7TH FLOOR & ELECTRICAL ROOM PLAN					
E-237	BLDG. III: 8TH FLOOR PLAN					
E-238	BLDG. III: ROOF PLAN & ELEVATOR MACHINE ROOM					
E-3.0	ELECTRICAL NOTES AND UNIT PANEL SCHEDULES					
E-4.1	UNIT PLANS					
E-4.2	UNIT PLANS					
E-4.3	UNIT PLANS					
E-6.1	BLDG 1 ELECTRICAL RISER DIAGRAM					
E-6.1G	GARAGE AND BUILDING 1 GARAGE LINER ELECTRICAL RISER DIAGRAM					
E-6.2	BUILDING 2 ELECTRICAL RISER DIAGRAM					
E-6.3	BUILDING 3 ELECTRICAL RISER DIAGRAM					
E-7.1	BLDG. 1, 2 AND 3 TEL/TV RISER DIAGRAMS					
E-8.1AB	BLDG 1 SECTOR A & B PANEL SCHEDULES					
E-8.1C	BLDG 1 SECTOR C PANEL SCHEDULES					
E-8.1G	GARAGE PANEL SCHEDULES					
E-8.2	BUILDING 2 PANEL SCHEDULES					
E-8.3	BUILDING 3 PANEL SCHEDULES					
E-9.1	LIGHT FIXTURE SCHEDULES					

E-9.2	GENERAL ELECTRICAL NOTES AND LEGEND					
E-G1A	GARAGE BASEMENT					
E-2G1	GARAGE FIRST FLOOR					
E-2G2	GARAGE SECOND FLOOR					
E-2G3	GARAGE THIRD FLOOR					
E-2G4	GARAGE FOURTH AND FIFTH FLOOR					
E-2G5	GARAGE SIXTH AND SEVENTH FLOOR					
E-2G6	GARAGE EIGHTH FLOOR					
E-2G7	GARAGE ROOF DECK					
SP-1	SECURITY PLAN AND INSTRUCTIONS					
	<b>MECHANICAL</b>					
M-211A	BLDG. I: GROUND FLOOR PLAN SECTOR A					
M-211B	BLDG. I: GROUND FLOOR PLAN SECTOR B					
M-211C	BLDG. I: GROUND FLOOR PLAN SECTOR C					
M-212A	BLDG. I: 2ND FLOOR PLAN SECTOR A					
M-212B	BLDG. I: 2ND FLOOR PLAN SECTOR B					
M-212C	BLDG. I: 2ND FLOOR PLAN SECTOR C					
M-213A	BLDG. I: 3RD - 6TH FLOOR PLAN SECTOR A					
M-213B	BLDG. I: 3RD - 6TH FLOOR PLAN SECTOR B					
M-213C	BLDG. I: 3RD - 6TH FLOOR PLAN SECTOR C					
M-214A	BLDG. I: 7TH & 8TH FLOOR PLAN SECTOR A					
M-214B	BLDG. I: 7TH & 8TH FLOOR PLAN SECTOR B					
M-214C	BLDG. I: 7TH & 8TH FLOOR PLAN SECTOR C					
M-215A	BLDG. I: ROOF PLAN SECTOR A					
M-215B	BLDG. I: ROOF PLAN SECTOR B					
M-215C	BLDG. I: ROOF PLAN SECTOR C					
M-221	BLDG II: GROUND FLOOR PLAN					
M-222	BLDG II: 2ND FLOOR PLAN					
M-223	BLDG II: 3RD FLOOR PLAN					
M-224	BLDG II: 4TH & 5TH FLOOR PLAN					
M-225	BLDG II: 6TH FLOOR PLAN					
M-226	BLDG II: 7TH & 8TH FLOOR PLAN					
M-227	BLDG II: ROOF PLAN					
M-231	BLDG III: GROUND FLOOR PLAN					
M-232	BLDG III: 2ND FLOOR PLAN					
M-233	BLDG III: 3RD FLOOR PLAN					
M-234	BLDG III: 4TH & 5TH FLOOR PLAN					
M-235	BLDG III: 6TH FLOOR PLAN					
M-236	BLDG III: 7TH FLOOR PLAN					
M-237	BLDG III: 8TH FLOOR PLAN					
M-238	BLDG III: ROOF PLAN					
M-4.1	UNIT PLANS					
M-4.2	UNIT PLANS					
M-4.3	UNIT PLANS					
M-4.4	PUBLIC AREA PLANS					

M-4.5	PUBLIC AREA PLANS				
M-5.1	DETAILS				
M-5.2	DETAILS				
M-6.1	EQUIPMENT SCHEDULES				
M-6.2	EQUIPMENT SCHEDULES				
M-G1A	GARAGE BASEMENT				
M-G1	GARAGE FIRST FLOOR				
M-G2	GARAGE SECOND FLOOR				
M-G3	GARAGE TYPICAL FLOOR (3-8)				
	<b>PLUMBING</b>				
P-100	SITE PLAN				
P-211A	BLDG. I: GROUND FLOOR PLAN SECTOR A				
P-211B	BLDG. I: GROUND FLOOR PLAN SECTOR B				
P-211C	BLDG. I: GROUND FLOOR PLAN SECTOR C				
P-212A	BLDG. I: SECOND FLOOR PLAN SECTOR A				
P-212B	BLDG. I: SECOND FLOOR PLAN SECTOR B				
P-212C	BLDG. I: SECOND FLOOR PLAN SECTOR C				
P-213A	BLDG. I: 3RD - 6TH FLOOR PLAN SECTOR A				
P-213B	BLDG. I: 3RD - 6TH FLOOR PLAN SECTOR B				
P-213C	BLDG. I: 3RD - 6TH FLOOR PLAN SECTOR C				
P-214A	BLDG. I: 7TH & 8TH FLOOR PLAN SECTOR A				
P-214B	BLDG. I: 7TH & 8TH FLOOR PLAN SECTOR B				
P-214C	BLDG. I: 7TH & 8TH FLOOR PLAN SECTOR C				
P-215A	BLDG. I: ROOF PLAN SECTOR A				
P-215B	BLDG. I: ROOF PLAN SECTOR B				
P-215C	BLDG. I: ROOF PLAN SECTOR C				
P-221	BLDG II: GROUND FLOOR PLAN				
P-222	BLDG II: 2ND FLOOR PLAN				
P-223	BLDG II: 3RD FLOOR PLAN				
P-224	BLDG II: 4TH & 5TH FLOOR PLAN				
P-225	BLDG II: 6TH FLOOR PLAN				
P-226	BLDG II: 7TH & 8TH FLOOR PLAN				
P-227	BLDG II: ROOF PLAN				
P-231	BLDG III: GROUND FLOOR PLAN				
P-232	BLDG III: 2ND FLOOR PLAN				
P-233	BLDG III: 3RD FLOOR PLAN				
P-234	BLDG III: 4TH & 5TH FLOOR PLAN				
P-235	BLDG III: 6TH FLOOR PLAN				
P-236	BLDG III: 7TH FLOOR PLAN				
P-237	BLDG III: 8TH FLOOR PLAN				
P-238	BLDG III: ROOF PLAN				
P-4.1	UNIT PLANS				
P-4.2	UNIT PLANS				
P-4.3	UNIT PLANS				
P-5.1	BLDG I WATER RISER DIAGRAM				
P-5.2	BLDG II & III WATER RISER DIAGRAM,				

	AC CONDENSATE RISER AND TYP. EWH DRAIN RISER					
P-5.3	BLDG. I: SANITARY RISER DIAGRAM					
P-5.4	BLDG. I: SANITARY RISER DIAGRAM CONT.					
P-5.5	BLDG. II: SANITARY RISER DIAGRAM					
P-5.6	BLDG. III: SANITARY RISER DIAGRAM					
P-5.7	COLD & HOT WATER UNIT ISOMETRICS					
P-5.8	BLDG. I RAIN WATER ISOMETRIC					
P-5.9	BLDG. II RAIN WATER ISOMETRIC					
P-5.10	BLDG. III: RAIN WATER ISOMETRIC					
P-7.1	PLUMBING NOTES & DETAILS					
P-7.2	PLUMBING SCHEDULES					
P-G1A	GARAGE BASEMENT					
P-G1	GARAGE FIRST FLOOR					
P-G2	GARAGE SECOND FLOOR					
P-G3	GARAGE THIRD FLOOR					
P-G4	GARAGE FOURTH AND FIFTH FLOORS					
P-G5	GARAGE SIXTH AND SEVENTH FLOORS					
P-G6	GARAGE EIGHT FLOOR					
P-G7	GARAGE ROOF DECK					
	<b>FIRE SPRINKLER</b>					
FS-211A	BLDG. I: GROUND FLOOR PLAN SECTOR "A"					
FS-211B	BLDG. I: GROUND FLOOR PLAN SECTOR "B"					
FS-211C	BLDG. I: GROUND FLOOR PLAN SECTOR "C"					
FS-212A	BLDG. I: SECOND FLOOR PLAN SECTOR "A"					
FS-212B	BLDG. I: SECOND FLOOR PLAN SECTOR "B"					
FS-212C	BLDG. I: SECOND FLOOR PLAN SECTOR "C"					
FS-213A	BLDG. I: 3RD THRU 6TH FLOOR PLAN SECTOR "A"					
FS-213B	BLDG. I: 3RD THRU 6TH FLOOR PLAN SECTOR "B"					
FS-213C	BLDG. I: 3RD THRU 6TH FLOOR PLAN SECTOR "C"					
FS-214A	BLDG. I: 7TH & 8TH FLOOR PLAN SECTOR "A"					
FS-214B	BLDG. I: 7TH & 8TH FLOOR PLAN SECTOR "B"					
FS-214C	BLDG. I: 7TH & 8TH FLOOR PLAN SECTOR "C"					
FS-215A	BLDG. I: ROOF PLAN SECTOR "A"					
FS-215B	BLDG. I: ROOF PLAN SECTOR "B"					
FS-215C	BLDG. I: ROOF PLAN SECTOR "C"					
FS-221	BLDG. II: GROUND FLOOR PLAN					
FS-222	BLDG. II: 2ND FLOOR PLAN					
FS-223	BLDG. II: 3RD FLOOR PLAN					
FS-224	BLDG. II: 4TH & 5TH FLOOR PLAN					
FS-225	BLDG. II: 6TH FLOOR PLAN					
FS-226	BLDG. II: 7TH & 8TH FLOOR PLAN					
FS-227	BLDG. II: 7TH & 8TH FLOOR PLAN					
FS-231	BLDG. III: GROUND FLOOR PLAN					

FS-232	BLDG. III: 2ND FLOOR PLAN					
FS-233	BLDG. III: 3RD FLOOR PLAN					
FS-234	BLDG. III: 4TH & 5TH FLOOR PLAN					
FS-235	BLDG. III: 6TH FLOOR PLAN					
FS-236	BLDG. III: 7TH FLOOR PLAN					
FS-237	BLDG. III: 8TH FLOOR PLAN					
FS-238	BLDG. III: ROOF PLAN					
FS-238	BLDG. III: ROOF PLAN					
FS-4.1	UNIT PLANS: A1, A2, A3, A4, A5 & A6					
FS-4.2	UNIT PLANS: ST-1, ST-2, B1, B3 & B5					
FS-4.3	UNIT PLANS: C1-A, C1-B & C2					
FS-501	FIRE SPRINKLER NOTES, LEGEND, DETAILS & SCHEDULE					
FS-502	PUMP ROOM PLANS, PUMP SCHEDULE AND SPRINKLER RISER DIAGRAMS					
FS-G1A	GARAGE: BASEMENT FLOOR PLAN					
FS-G1	GARAGE: GROUND FLOOR PLAN					
FS-G2	GARAGE: 2ND FLOOR PLAN					
FS-G3	GARAGE: 3RD FLOOR PLAN					
FS-G4	GARAGE: 4TH & 5TH FLOOR PLAN					
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## Exhibit "B"

### SUBCONTRACTOR REQUEST FOR PAYMENT

Peter Brown Construction, Inc.  
 1600 Riveredge Pkwy NW  
 Suite 600  
 Atlanta, GA 30328

**FROM** \_\_\_\_\_  
 \_\_\_\_\_  
Subcontractor  
 \_\_\_\_\_  
Address  
 \_\_\_\_\_  
City, State, Zip

**REQUEST FOR PAYMENT #** \_\_\_\_\_

**PROJECT NAME:** Alpharetta Branch Library

**PROJECT NUMBER:** #4014

**PAYMENT PERIOD** \_\_\_\_\_ / **01** / \_\_\_\_\_ **TO** \_\_\_\_\_ / **31** / \_\_\_\_\_

	Sub-Request	MOSS Changes	Accounting Only		
			DO NOT WRITE IN THIS SPACE		
1. Original Contract Amount	\$ _____	\$ _____		Period/Journal	
2. Approved Change Order(s)	\$ _____	\$ _____	Vendor # _____	Contract # _____	
3. TOTAL ADJUSTED CONTRACT AMOUNT <small>(Line 1 + Line 2)</small>	\$ _____	\$ _____	Invoice # _____	Date ____/____/____	
4. Value of Work Completed To Date <small>(From schedule of values worksheet)</small>	\$ _____	\$ _____	Due Date ____/____/____	Dist. ____/____/____	
5. Value of Materials Stored on Jobsite <small>(From schedule of values worksheet)</small>	\$ _____	\$ _____			
6. TOTAL COMPLETED TO DATE <small>(Line 4 + Line 5)</small>	\$ _____	\$ _____	Total Payable	\$ _____	
7. RETAINAGE			Retain. Payable	\$ _____	
Less 10% Retainage Completed to Date	\$ _____	\$ _____	Net Amount Payable	\$ _____	
8. Total Earned Less Retainage <small>(Line 6 + Line 7)</small>	\$ _____	\$ _____	<b>TOTAL PAYABLE</b>	<b>JOB #</b>	<b>COST CODE</b>
9. Less Previous Requests for Payment <small>(Line 8 from prior request)</small>	\$ _____	\$ _____	\$ _____	_____	_____
10. Current Payment Due <small>(Line 8 less Line 9)</small>	\$ _____	\$ _____	\$ _____	_____	_____
11. Balance to Finish Incl. Retainage <small>(Line 3 less Line 8)</small>	\$ _____	\$ _____	\$ _____	_____	_____
			Approved _____	Date _____	

Record Hold Items Below:

- Owner Contract or LOI
- Subcontract Change Orders Executed
- Performance and Payment Bond/Surety Letter (Subguard)/Non-Bonded Plan Received
- Insurance per Contract and/or CCIP/OCIP
- Subcontract or Letter of Intent Executed

Lower Tier Release Needed:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Subcontractor:**

By Signing below, I represent that I am authorized to bind the company providing this request for payment.

**Exhibit "C"**

**WAIVER AND RELEASE OF LIEN  
UPON PARTIAL PAYMENT**

The undersigned lienor, in consideration of the sum of \_\_\_\_\_ hereby waives and releases its lien and right to claim a lien for labor, services or materials furnished through \_\_\_\_\_ to Peter Brown Construction, Inc. on the job of \_\_\_\_\_ to the following described property: #4014 Alpharetta Branch Library

This waiver and release does not cover any retention or labor, services, or materials furnished after the date specified.

DATED on \_\_\_\_\_, 20\_\_\_\_\_.

Lienor's Name: \_\_\_\_\_  
Company Name  
By \_\_\_\_\_  
Signature and Title

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

Personally appeared before me, this \_\_\_ day of \_\_\_\_\_, 20\_\_\_\_  
\_\_\_\_\_ who being duly sworn on oath says that he/she is  
of \_\_\_\_\_  
and that he/she hereby acknowledges the execution of the foregoing instrument for and on special instance and request.

\_\_\_\_\_  
Notary Public, State of Georgia at Large

**Exhibit C**

**WAIVER AND RELEASE OF LIEN  
UPON FINAL PAYMENT**

The undersigned lienor, in consideration of the final payment in the amount of \_\_\_\_\_, hereby waives and releases its lien and right to claim a lien for labor, services or materials furnished to:  
Peter Brown Construction, Inc.

on the job of: \_\_\_\_\_  
to the following described property:  
#4014 Alpharetta Branch Library \_\_\_\_\_

DATED on \_\_\_\_\_, 20\_\_\_\_.

Lienor's Name: \_\_\_\_\_  
Company Name

By \_\_\_\_\_  
Signature and Title

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

Personally appeared before me, this \_\_\_ day of \_\_\_\_\_, 20\_\_\_\_,  
\_\_\_\_\_ who being duly sworn on oath says that he/she  
is \_\_\_\_\_ of \_\_\_\_\_  
and that he/she hereby acknowledges the execution of the foregoing instrument for  
and on special instance and request.

\_\_\_\_\_  
Notary Public, State of Georgia at Large

**Exhibit "C"**

**PARTIAL RELEASE OF CLAIMS**

KNOW ALL MEN BY THESE PRESENTS: That the undersigned, for and in consideration of the payment of \_\_\_\_\_ paid by or on behalf of Peter Brown Construction, Inc. (hereinafter referred to as "Contractor"), the receipt and sufficiency of which is hereby acknowledged and confessed, hereby releases, remises and quitclaims unto said Contractor, its parent companies, affiliated companies, Sureties, and their agents, servants and employees, successors and assigns of and from any and all claims, demands of every kind or character, causes of action, including any claims for extra work, extended or additional job cost and overhead, lost profits, impact costs and the like, including claims and demands arising from any claimed delays, disruptions or changes to the work (all collectively referred to as Claims"), which the Undersigned has or could have as of (Date) against Contractor or Owner or Contractor's parent companies, affiliates, sureties or any person, firm or corporation that may in any way be liable or responsible for the acts or omission of Contractor in connection with this project, save and except as noted in Exhibit A, which must be attached hereto. If there is an Exhibit A, place an asterisk ("\*") by your signature, otherwise no claims (or Exhibit A) will be deemed to exist.

This Release of Claims is given pursuant to the terms of the Subcontract or Purchase Order, as applicable, by and between Contractor and the Undersigned on #4014 Alpharetta Branch Library  
Project Name

IN WITNESS WHEREOF, the Undersigned has signed this RELEASE OF CLAIMS on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Company Name (Seal)

By \_\_\_\_\_  
Signature

Title \_\_\_\_\_

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_  
by \_\_\_\_\_ a s \_\_\_\_\_  
of \_\_\_\_\_  
on behalf of \_\_\_\_\_

\_\_\_\_\_  
Notary Public, State of Georgia at Large

ERROR: stackunderflow  
OFFENDING COMMAND: ~

STACK: