

ADDENDUM NO. ONE (1)

Date: 2/11/19 Architect's Project No. A18-221

Project: IFB 19-002 Sugar Hill Veterans Memorial Plaza

Client: City of Sugar Hill

Contract for: General Contracting

This Addendum forms a part of the Contract Documents and Construction Drawings and modifies the original Bid Documents for the above referenced project.

CHANGES TO THE CONTRACT DOCUMENTS

A. CHANGES TO THE SPECIFICATIONS

1. Refer to attached Division 1 Specifications as listed on the table of contents.
2. Replace Specification Section 00 30 00 Bid Form with attached revised Specification Section 00 30 00 Bid Form.

B. CHANGES TO THE DRAWINGS

- CS Drawing Index revised to remove C5.1 from list, as this sheet is not part of the set. Project address added per Gwinnett County assignment. Refer to attached revised CS.
- C2.1 Drawing scale revised to 1" = 20 FT. See question #1 under Bidder Questions. Water tap size reduced from 1 1/2" to 1". Meter size reduced from 1" to 3/4". 20' sanitary easement added at MH 7. Refer to attached revised C2.1.
- C3.1 Note added to SSMH 4 and SSMH 7 requiring Gwinnett County inspector to be onsite at time existing line is cut. Refer to attached revised C3.1.
- C4.1 Drawing scale revised to 1" = 20 FT. Refer to attached revised C4.1.
- P1.1 Cold water supply line reduced from 1 - 1/2" to 1". Refer to attached revised P1.1.

C. BIDDER QUESTIONS

1. On Sheet C2.1 (using the 1 inch = 30 ft scale), it shows the dimensions of the tree grates at 6'x6'. However, on sheets L1.1 and A1.1 (using the 1/8" = 1'-0 scale) it shows the dimensions of the tree grates at 4'x4'. Could you please provide us with the correct dimensions for proper scaling?
ANSWER: Sheet C2.1 scale is 1 inch = 20 ft. Please refer to detail 4 on sheet A1.5 for tree grate detail.
2. Is sheet C1.1 at the correct scale?
ANSWER: Yes.

3. Could you provide scale for sheet S2.1?
ANSWER: 1/8" = 1'-0"
4. Could you please confirm that the scales on each of these projects' sheets are correct?
ANSWER: C2.1 and C4.1 have been corrected. Other scales shown on drawings are accurate.
5. Is the 5% Construction Contingency required to be included as a separate allowance line item on the Bid Form?
ANSWER: Yes, refer to attached revised Specification Section 00 30 00 Bid Form.
6. Please advise as to where I can find the Soils/Geo report. Also the Load capacities (KIPS) and the "Bid Depth" for the Helical Piers are not shown.
ANSWER: A Geotechnical Soils Report has not been provide by the Owner. Bid depth for helical piers shall be 20'-0" for each pile.
7. On sheet C1.1 it shows an area stating, "Portion of existing sanitary sewer line to be abandoned in place- grout fill abandoned line solid." How much fill or how much linear footage of this pipe needs to be filled?
ANSWER: Approximately 122 linear feet of pipe will be abandoned.
8. Is the Owner or awarded General Contractor responsible for supplying and installing the Water, Gas and Irrigation Meters shown on sheet C2.1?
ANSWER: The Owner shall purchase the gas and water meters and provide them to the Contractor for installation. There is not a meter required on the irrigation line. Refer to C2.1.
9. On page 20 of the Project Manual pdf, section 00 30 00 "Bid Form", it states under Contract Time, "(see section 01-27-00 unit prices and allowances for additional information." I cannot find this General Requirements section anywhere on your Project Manual. Could you please provide this section?
ANSWER: Refer to attached Division 1 Specifications.
10. Are the Bronze Boot Statues supposed to be embedded into the water system? If so, what is the section cut plan and details for these?
ANSWER: The bronze boots will be set in the water feature similar to the monument using stainless steel anchors. Refer to detail 1 on sheet S3.1.
11. Where are the details for what goes in between the pillars shown on sheet A5.1? It looks like American flags but what are the details for items shown on plan sheet A5.1?
ANSWER: Refer to the attached Division 1 Specifications Section 01 27 00 Unit Prices and Allowances, and Specification Section 10 14 00 Signage.
12. On sheet A1.3, detail 1, it states, "Aquatic LED Light Fixture Refer to Aquatics Drawings" but there were no Aquatic Drawings with this bid package. Could you provide those or are they not to be included in our bid proposals?
ANSWER: Refer to "Fountain Drawings" listed in the Drawing Index on the cover sheet.

D. ATTACHMENTS

Prebid Conference Sign in Sheet dated 02-07-19 (1 page)
Revised Specification Section 00 30 00 Bid Form (4 pages)
Division 1 Specifications (96 pages)
CS – Cover Sheet
C2.1 – Site and Utility Plan
C3.1 – Sanitary Sewer Profiles
C4.1 – Erosion Control Plan, Notes and Details
P1.1 – Plumbing Notes, Details, Specifications and Overall Plan

PLEASE NOTE: Contractors should acknowledge receipt of this Addendum on Page 00 30 00-1 of the BID FORM. Failure to do so may result in rejection of bid.

END OF ADDENDUM NO. ONE (1)

Sugar Hill Veterans Memorial Plaza - A18-221

Owner/Architect/Contractors Meeting - Thursday, February 7, 2019 @ 2:00 pm

SIGN IN SHEET

Initial Here	Representative Name	Company Name	Phone Number	Fax # or E-mail address
1. <u>CS</u>	<u>Carl Sharp</u>	<u>TriScapes</u>	<u>9906632</u>	<u>Carl@TRIScapes.com</u>
2. <u>BH</u>	<u>Bryan Had</u>	<u>Fountain People</u>	<u>770-366-3302</u>	<u>bryan.had@fountainpeople.com</u>
3. <u>ZZ</u>	<u>Keith Schlicht</u>	<u>Blue FA06 LLC</u>	<u>770 831-4158</u>	<u>101214@BFR06.NET</u>
4. <u>NBA</u>	<u>Nathan Heaton</u>	<u>Diversified Construction</u>	<u>705-4373</u>	<u>Bids@dcofgeorgia.com</u>
5. <u>TK</u>	<u>Clarke Keith</u>	<u>Multiplex LLC</u>	<u>678-312-2040</u>	<u>Admin@multiplexllc.com</u>
6. <u>PB</u>	<u>Paul Brooks</u>	<u>Surfaces Group</u>	<u>678-998-4843</u>	<u>paul@surfacesgrp.com</u>
7. <u>JZ</u>	<u>Janet Zibung</u>	<u>Agua Undergr. and</u>	<u>7-424-4402</u>	<u>janetz@aguaundersg.com</u>
8. _____	_____	_____	_____	_____
9. _____	_____	_____	_____	_____
10. _____	_____	_____	_____	_____
11. _____	_____	_____	_____	_____
12. _____	_____	_____	_____	_____
13. _____	_____	_____	_____	_____
14. _____	_____	_____	_____	_____
15. _____	_____	_____	_____	_____
16. _____	_____	_____	_____	_____

(more names on reverse side)

SECTION 00 30 00

BID FORM

Bid for General Contracting for the **IFB 19-002 Veterans Memorial Plaza**

Bid submitted by:

(Name of Contractor) *(Hereinafter referred to as "BIDDER")*

City of Sugar Hill *(Hereinafter referred to as "OWNER")*
5039 West Broad Street
Sugar Hill, GA 30518

Ladies and Gentlemen:

The BIDDER by making a bid represents that the following have taken place:

- The BIDDER has read and understands the bidding documents and the bid is made in accordance therewith.
- The BIDDER has read and understands the bidding or contract documents to the extent that such documentation relates to the work for which the bid is submitted and to other portions of the project, if any, being bid concurrently or presently under construction.
- The BIDDER has visited the site, become familiar with local conditions under which the work is to be performed, and has correlated the BIDDER'S personal observations with the requirements of the proposed contract documents.
- The BID is based upon the materials, equipment, and systems required by the bidding documents without exception.
- The BIDDER has studied and compared the bidding documents with each other and has reported to the architect in writing any errors, inconsistencies, or ambiguities discovered.
- The BIDDER hereby agrees to commence work under this contract on or before a date to be specified in a written "Notice to Proceed" of OWNER and to fully complete the project within the time frame as described in Section 00 03 00, Advertisement for Bids.
- The BIDDER acknowledges receipt of the following addenda:

ADDENDUM NO.	DATE RECEIVED

- The BIDDER understands that the OWNER reserves the right to reject any or all bids and to waive any informalities in the bidding.

- The BIDDER agrees that his bid shall be binding and may not be withdrawn for a period of sixty (60) calendar days after the scheduled closing time for receiving bids.
- The BIDDER agrees that the bid security attached in the sum of five (5%) percent of the total bid is to become the property of the OWNER in the event the Contract and bonds are not executed within the time set forth, as liquidated damages for the delay and additional expense to the OWNER caused thereby.
- The BIDDER proposed to furnish all services, labor and materials required by them for the entire work and to ~~include a Construction Contingency amount equal to five (5%) percent of the Lump Sum Base Bid Amount indicated below within the Lump Sum Base Bid~~ in accordance with said documents for the sum of:

LUMP SUM BASE BID

\$ _____
 _____ (Dollars) (\$ _____)

Which sum is hereinafter called the "Base Bid".

▪ **CONTRACT TIME: 120 DAYS**

The following Extensions are submitted as part of this Lump Sum Proposal (see Section 01 27 00 – Unit Prices and Allowances for additional information). These estimated unit price quantities are included in the scope of the work upon which the Contract Sum is based. All cubic yard (CY) volumes for unit prices shall be measured as ‘in place’ compacted volume. The Proposer declares that he understands that the quantities work shown, for the Unit Prices items, are approximate only and are subject to either increase or decrease, and that should the quantities of any of the items of the work be increased, the Proposer proposed to do the additional work at the unit prices listed herein; and should the quantities be decreased, the Proposer also understands that payment will be made on the basis of actual quantities at the unit price proposal and will make no claim for anticipated profits for any decrease in quantities and that the actual quantities will be determined upon completion of the work; at which time adjustment will be made to the Contract Sum direct increase or decrease.

SCHEDULE OF UNIT PRICES AND ALLOWANCES

Unit Prices shall be included for the following items:

ITEM	QUANTITY/ UNIT	UNIT PRICE	ALLOWANCE
1. <u>Unsuitable Material:</u>			
a. Removal and disposal off-site of unsuitable materials.	50 CY	\$ _____/CY	\$ _____
2. <u>Suitable Soil:</u>			
a. Provide suitable soil from off-site and compact in-place to replace excavated rock or unsuitable soil.	50 CY	\$ _____/CY	\$ _____
3. <u>Stone and Sand Base:</u>			
a. Haul in and placement of sand base.	25 TONS	\$ _____/TON	\$ _____
b. Haul in and placement of #57 stone.	25 TONS	\$ _____/TON	\$ _____

ITEM	QUANTITY/ UNIT	UNIT PRICE	ALLOWANCE
4. <u>Public Art Allowance:</u>			
a. Bronze eagle statue to be mounted on concrete pedestal in the fountain pool as shown on Sheet A1.2 of the Contract Documents. <u>Basis of Design for the Statue:</u> Bronze Bald Eagle Sitting on Tree Branch <u>SKU:</u> TK-81138 <u>Dimensions:</u> 34x38x77 inches <u>Manufacturer:</u> All Classics Ltd., 66 Albe Drive, Newark, DE 19702 <u>Contact:</u> Jason M. Sphon, VP, 302-738-2190; www.allclassics.com	N/A	N/A	\$18,000.00
b. Bronze military boots (12 pair) to be mounted on concrete fountain bed as shown on Sheet A1.2 of the Contract Documents. Boots shall be cast in bronze at 1:1 scale with bracket for mounting. Each pair of boots will consist of a left boot sitting flat and a right boot with the toe down, heel up. <u>Basis of Design</u> is a Custom Product from All Classics Ltd. Note: Public Art Allowance includes purchase cost, shipping, equipment, labor and materials to unload, store and install art work. Contractor shall provide art work submittal for Owner approval.			
5. <u>Signage Allowance</u>			
a. Refer to Specification Section 10 14 00: 1. Six (6) 24" diameter Bronze Military Seals 2. Bronze Lettering 3. City Dedication Plaque 4. American Legion Plaque 5. Bronze American Flag	N/A	N/A	\$55,000.00
6. <u>Construction Contingency Allowance</u>			
a. Provide a Contingency Allowance in the amount of 5% of the Lump Sum Base Bid amount. Refer to specification section 01 27 00 Unit Prices and Allowances.	N/A	5%	\$_____

Failure to return this page as part of bid document may result in rejection of bid.

- * Unsuitable soils are defined as those containing deleterious matter (such as organics, alluvium, debris and/or trash).
- * Subgrade is defined as the material located directly below the granular base beneath slabs-on-grade, footings or pavement. It shall consist of suitable soil material (whether existing or structurally placed by the contractor) able to meet compaction requirements as. Under no circumstances will the Contractor receive payment for undercut of fill materials placed by the Contractor.

Respectfully Submitted:

(Contractor Name)

By: _____
(Signature)

Title: _____

Business Address: _____

Federal I.D. or Social Security No.: _____

ATTEST: _____
(Signature)

Name: _____
(Please Type)

NOTE: Attest for a Corporation must be by the corporate secretary; for a Partnership by another partner; for an Individual by a Notary.

END OF SECTION 00 30 00

SECTION 01 01 00

SUMMARY OF WORK

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specifications Sections apply to this Section.

1.02 SUMMARY

- A. Section Includes:
 - 1. Project description
 - 2. Summary by reference
 - 3. Other contracts

1.03 PROJECT DESCRIPTION

- A. Briefly and without force and effect on other requirements of the Contract Documents, the Project of the Contract can be described in summary as follows:

The scope of this Project includes, but is not limited to, the removal of the existing trees and soil on the lot. Existing overhead power lines are to be relocated underground. Existing sanitary line to be abandoned and rerouted. New fountain and monument to be constructed with surrounding plaza. Relocation and setting of existing monument will also be included.

- B. Work Included: The intent and meaning of the Contract Documents is that the Contractor, under the General Conditions and other terms of the Contract, shall take all actions necessary and required to provide all labor, materials, supplies, equipment, transportation, facilities, and appurtenances which are indicated or implied by each drawing within the Drawings and each section of the Specifications, all of which are collectively necessary and required for the construction of the described Project.

1.04 SUMMARY BY REFERENCE

- A. The Work can be summarized by reference to the requirements of all of the various elements of the Contract Documents, which in turn make references to the requirements of other applicable provisions which control or influence the Work; and these references can be summarized by but are not necessarily limited to the following:
 - 1. Executed Owner & Contractor Agreement
 - 2. General Conditions
 - 3. Drawings as listed on the Index of Drawings located on the first sheet of Drawings prepared by Precision Planning, Inc.
 - 4. Specifications in Project Manual.
 - 5. All Addenda to the Contract Documents issued prior to bid.
 - 6. All Modifications to the Contract Documents made in accordance with the General Conditions and Specifications.
 - 7. Statutory requirements and governing regulations which have a bearing on the performance of the Work.
 - 8. Contractor submittals required by the Contract Documents.

1.05 OTHER CONTRACTS

- A. Separate prime contracts are not anticipated on this project, but may be awarded for other work on the Project or the Owner may undertake such work directly. The Contractor should be prepared to coordinate with the Owner if such work does occur. Work expected to run concurrently with the Owner & Contractor Agreement for general construction.

1.06 QUANTITY OF CONTRACT DOCUMENTS

- A. Upon or about the time of the Notice to Proceed to the Contractor, the Owner shall provide the Contractor five (5) sets of the Drawings and Technical Specifications as approved for permitting the Work, if requested. Obtaining any opaque copies beyond this limit, or any reproducible sets shall be the responsibility of the Contractor, and at their expense.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 01 00

SECTION 01 01 10

PROJECT PHASING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Work phases.
 - 2. Maintaining Active Permits.
 - 3. Use of Premises.
 - 4. Owners Occupancy Requirements.
- B. Related Sections include the following:
 - 1. Division 1 Section "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

1.3 WORK PHASES

- A. Project shall be constructed in one single phase which shall include all site and building construction as required by the Contract Documents.
- B. Before commencing Work, submit a detailed schedule showing the sequence, commencement date, completion date, and move-in date of Owner's personnel for the building.

1.4 MAINTAINING ACTIVE PERMITS

- A. **General Contractor shall maintain active permits throughout the duration of the entire project. Any permits that expire will be the responsibility of the Contractor to re-activate and any costs associate with re-activation requiring Architect or Engineer participation shall be compensated by the Contractor through the Contract with the Owner by Change Order.**

1.5 USE OF PREMISES

- A. Drives and Entrances: Keep drives and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - 1. Schedule deliveries to minimize use of drives and entrances.
 - 2. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

1.6 OWNER'S OCCUPANCY REQUIREMENTS

- A. Owner Occupancy of Completed Areas of Construction: Owner reserves the right to occupy and to place and install equipment in completed areas of the site and completed building, after area or building has obtained Substantial Completion, provided such occupancy does not interfere with completion of the Work. Such placement of equipment and partial occupancy shall not constitute acceptance of the total Work.
1. Architect will prepare a Certificate of Substantial Completion for the project prior Owner occupancy.
 2. Obtain a Certificate of Occupancy from authorities having jurisdiction before Owner occupancy of a building.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 01 10

SECTION 01 05 10
SPECIAL INSPECTIONS

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.
- B. **Statement of Special Inspections.**
- C. **Schedule of Special Inspections as indicated on the Drawings.**

1.02 SUMMARY

- A. This Section includes administrative and procedural requirements for International Building Code 2012 edition, Chapter 17 Special Inspection Requirements.
- B. Special Inspection services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with Contract Document requirements.
- C. Special Inspections Services shall be in accordance with Chapter 17 Structural Tests and Special Inspections of the 2012 International Building Code.

1.03 RESPONSIBILITIES

- A. Contractor: Contractor shall not be responsible for engaging, selecting or procuring the Special Inspections Services Agency. Contractor shall be required to coordinate the following items with the Special Inspections Agency:
 - 1. Maintain a certified written report of each test, inspection, and similar quality-control service provided by Special Inspections Agent.
 - 2. Coordinate the sequence of activities to accommodate required services with a minimum of delay. Coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests.
- B. Special Inspections Agency: Conducted by a qualified Special Inspections Agent as required by Chapter 17 of the 2012 International Building Code as indicated in attached Statement of Special Inspections, and as follows:
 - 1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviewing the completeness and adequacy of those procedures to perform the Work.
 - 2. Notifying Architect and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
 - 3. Submitting a certified written report of each test, inspection, and similar quality-control service to Architect with copy to Contractor.
 - 4. Submitting a final report of special inspections at Substantial Completion, which includes a list of unresolved deficiencies.
 - 5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
 - 6. Retesting and re-inspecting corrected work.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.01 TEST AND INSPECTION LOG

- A. Prepare a record of tests and inspections. Include the following:
 - 1. Date test or inspection was conducted.
 - 2. Description of the Work tested or inspected.
 - 3. Date test or inspection results were transmitted to Architect.
 - 4. Identification of testing agency or special inspector conducting test or inspection.
- B. Maintain log at Project site. Post changes and modifications as they occur. Provide access to test and inspection log for Architect's and Contractor's reference during normal working hours.

3.02 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
- B. Comply with the Contract Document requirements for Division 1 Section "Cutting and Patching."
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

STATEMENT OF SPECIAL INSPECTIONS

PROJECT: City of Sugar Hill Veterans Memorial Plaza
LOCATION: 5039 West Broad Street
PERMIT APPLICANT: City of Sugar Hill
APPLICANT'S ADDRESS: 5029 West Broad Street
ARCHITECT OF RECORD: B. Kent Snyder II / Precision Planning, Inc.
STRUCTURAL ENGINEER OF RECORD: William J. Peltier, P.E. / William J. Peltier & Associates, Inc.
MECHANICAL ENGINEER OF RECORD: Tim North, P.E. / Johnson Spellman & Associates, Inc.
ELECTRICAL ENGINEER OF RECORD: Chris Phillips, P.E. / Phillips Consulting Engineers, Inc.
REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE: B. Kent Snyder II

This Statement of Special Inspections is submitted in accordance with Section 1704.3 of the 2012 International Building Code. It includes a *Schedule of Special Inspection Services* applicable to the above-referenced Project as well as the identity of the individuals, agencies, or firms intended to be retained for conducting these inspections. If applicable, it includes *Requirements for Seismic Resistance* and/or *Requirements for Wind Resistance*.

Are *Requirements for Seismic Resistance* included in the *Statement of Special Inspections*? ☐ Yes ☒ No

Are *Requirements for Wind Resistance* included in the *Statement of Special Inspections*? ☐ Yes ☒ No

The Special Inspector(s) shall keep records of all inspections and shall furnish interim inspection reports to the Building Official and to the Registered Design Professional in Responsible Charge at a frequency agreed upon by the Design Professional and the Building Official prior to the start of work. Discrepancies shall be brought to the immediate attention of the Contractor for correction. If the discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official and the Registered Design Professional in Responsible Charge prior to completion of that phase of work. A *Final Report of Special Inspections* documenting required special inspections and corrections of any discrepancies noted in the inspections shall be submitted to the Building Official and the Registered Design Professional in Responsible Charge at the conclusion of the project.

Frequency of interim report submittals to the Registered Design Professional in Responsible Charge:

☐ Weekly ☐ Bi-Weekly ☒ Monthly Other; specify: _____

The Special Inspection program does not relieve the Contractor of the responsibility to comply with the Contract Documents. Jobsite safety and means and methods of construction are solely the responsibility of the Contractor.

Statement of Special Inspections Prepared by:

B. Kent Snyder II
Type or print name

Signature Date

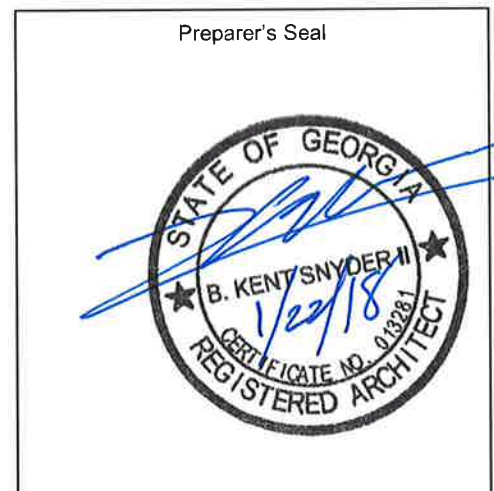
Building Official's Acceptance:

Signature Date

Permit Number: _____

Frequency of interim report submittals to the Building Official:

☒ Monthly ☐ Bi-Monthly ☐ Upon Completion Other; specify: _____



SECTION 01 12 00

CONTRACT RESPONSIBILITIES

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division Specification Sections apply to this Section.

1.02 SUMMARY

- A. Exclude from Contract Sum items specifically identified in the following schedule as purchased/provided by Owner or purchased/provided and installed by Owner. Where Contractor has responsibility for installation of an Owner purchased/provided item, include in Contract Sum all costs associated with complete installation of the item and necessary coordination with the Owner.
- B. Items provided to Contractor by the Owner are in good repair and working order.
1. Inspect items at time of delivery; immediately notify Owner of any damage.
 2. Items not identified as “damaged” at the time of delivery or pick-up are the complete responsibility of the Contractor and shall be maintained without damage through Substantial Completion.
 3. Repair or replace immediately items not identified as “damaged” at time of delivery and damaged prior to Date of Substantial Completion.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.01 SCHEDULES

Construction Item	Contractor Responsibilities	Owner Responsibilities
A. Permits and Fees	<ul style="list-style-type: none">• Pay all fees not paid by Owner.• Obtain Building Permit (fee waived by City of Sugar Hill). Contractor is not responsible for payment.	<ul style="list-style-type: none">• Owner paid for water meter and impact fee.• Development Permit card shall be picked up by the General Contractor from the City once plan review and permitting are complete.
B. Utilities	All utilities and utility installation costs not paid by the Owner until occupancy such as, water, gas, electric, internet, etc.	<ul style="list-style-type: none">• None

END OF SECTION 01 12 00

SECTION 01 25 00

PROCEDURES FOR CONTRACT MODIFICATIONS

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. Change Proposal Request
- B. Change Proposal
- C. Change Order/Supplemental Agreement
- D. Time and Materials Work
- E. Architect's Field Directives

1.03 DEFINITIONS

- A. Change Proposal Request: Any written request from the Owner or Architect to the Contractor for a quotation, price or cost breakdown on a change that is proposed but not yet ordered.
- B. Change Proposal: Any written proposal from the Contractor to the Owner or Architect setting forth a change in the Scope of Work and the effect of such change on Contract Time and/or Contract Sum.
- C. Change Order: A written order to the Contractor, prepared by the Architect and issued by the Owner for directing changes in the Scope of Work of the Contract, adjustments in the Contract Sum or extensions of Contract Time. When executed by all parties, this item, also referred to herein as a Supplemental Agreement to the Contract, is an amendment to the Contract.
- D. Modifications: Include Change Orders (Supplemental Agreements to the Contract) prepared by the Architect and signed by the Owner and Contractor; written field directives issued by the Architect to the Contractor, which change the Scope of Work and may affect Contract Sum, but are necessary because of situations described elsewhere in this section; and written orders issued by the Architect for minor changes in the Work with no cost or schedule implications.
- E. Time and Material Work: Work which will be paid for on the basis of the actual costs, including materials, labor, equipment and other expenses defined elsewhere herein; and documented by detailed records.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.01 CHANGE PROPOSAL REQUEST

- A. The Change Proposal Request is the method by which Owner directed changes in the Scope of work are initiated. These requested changes may originate with the Owner or Architect, may be responses to unexpected site conditions, or may be responses to issues raised by the Contractor through its requests for information or document clarifications.
- B. Change Proposal Requests are not directions to change the Work.
- C. **Proposal Requests shall be submitted using the standard AIA Document G709 for Change Order Proposal Requests.**
- D. Unless specified differently on the Change Proposal Request, the Contractor will be expected to respond to all requests within 14 days of receipt.

3.02 CHANGE PROPOSAL

- A. The Contractor will submit Change Proposals in response to Change Proposal Requests, in response to Architect's field directives as applicable, in accompaniment of substitution requests, and as follow up to previously filed claims for extra cost or time.
- B. Every Change Proposal shall include the following information as applicable:
 - 1. The amount of change in the Contract Sum, if any.
 - 2. The amount of change in the Contract Time, if any. The change in Contract Time shall be explained relative to the approved Construction Schedule and shall be justified in terms of the critical path of the Work and the requirements of the Contract.
 - 3. Cost breakdowns detailing the applicable work items and inclusive of quantities and unit prices for labor, materials, products, equipment usage, expenses for bonds, insurance and taxes; and overhead and profit. Subcontractor and second tier subcontractor expenses shall be presented at the same level of detail.
 - 4. The period of time within which the proposed changes in Contract Sum or Time will be valid.
 - 5. A statement describing the effect the change may have on the work of other prime contractors or the Owner.
- C. Fees for administration shall be based upon the General Conditions of the contract Subparagraph 7.3.11.
- D. The Contractor shall not place a reservation on a Change Proposal that holds open the Contractor's right to claim additional costs for indirect or impact damages related to the change such as alleged costs for disruption, interference, delay, acceleration or remobilization.
- E. If the Change Proposal is related to a claim for additional cost or time, Contractor shall indicate the origin and date of the initial claim notice and detail the basis of the claim and the associated costs.

3.03 CHANGE ORDER/SUPPLEMENTAL AGREEMENT

- A. A Change Order or Supplemental Agreement is the only instrument by which the Contract can be modified to increase or decrease the Contract Sum or Contract Time. For a Change Order to be effective it must be executed by the Owner and Contractor. The cost basis of a Change Order may be a lump sum, unit prices, or time and materials, also referred to as force account. Lump sum changes must be supported by the cost breakdowns required by the Change Proposal.

3.04 TIME AND MATERIALS WORK

- A. When no agreement is reached for extra work to be done at lump sum or unit prices, such work may be authorized by the Owner to be done on a Time and Material basis. A Time and Materials estimate that identifies all anticipated costs shall be prepared by the Contractor on forms provided by the Architect. Work shall not begin until the Time and Materials account is approved by the Architect. Payment for Time and Materials work will be in accordance with the following:
1. Labor: For all labor, equipment operators and supervisors, excluding superintendents, in direct charge of the specific operations; the Contractor shall receive the rate of wage agreed to for all hours the designated labor, equipment operators and supervisors are actually engaged in the work. The Contractor shall receive the actual costs paid to the workers inclusive of wages, allowances, health and welfare benefits and pension fund benefits.
 2. Bond, Insurance and Tax: For property damage, liability, and worker's compensation insurance premiums, unemployment, insurance contributions, and social security taxes on the Time and Materials work, the Contractor shall receive the actual cost.
 3. Materials: For materials and products incorporated in the Work and accepted by the Architect, including Contractor paid freight or shipping expenses; the Contractor shall receive the actual cost.
 4. Equipment: For any machinery or special equipment (other than small tools), the use of which is essential to the work and approved by the Architect, the Contractor shall receive fair market rental rates for the actual time that such equipment is in operation on the Work or required to stand by.
 5. Overhead and Profit: On the total of all costs described above, the Contractor will be allowed to add **7.5%** of that value as compensation for administration, overhead and profit.
 6. Miscellaneous: No additional allowance will be made for general requirements costs, superintendence, use of small tools or other costs for which no specific allowance is herein provided.
 7. Subcontract Time and Material Work: For work performed by a subcontractor or second-tier subcontractor, all provisions of this section that apply to the Contractor in respect to labor, materials and equipment shall govern. The prime Contractor shall coordinate the work of its subcontractors and will be allowed an amount to cover administrative costs and profit equal to **5%** of the subcontractor's amount earned. Mark-up for second-tier subcontractor work will be limited to **2.5%** of the amount earned.
 8. Compensation: The Contractor shall maintain records on the cost of all work done each day as ordered on a Time and Material basis and shall provide such records to the Architect.
 9. Statements: No payment will be made on work performed on a Time and Material basis until the Contractor has furnished the Architect with itemized statements of the cost of such Time and Materials work detailed as follows:
 - a. Name, classification, date, daily hours, rate and extension for each laborer, equipment operator and supervisor.
 - b. Cost of property damage, liability and worker's compensation insurance premiums, unemployment insurance contributions and social security tax.
 - c. Quantity of materials, prices and extensions.

- d. Designation, dates, daily hours, total hours, rental rate and extension for each unit of machinery and equipment.

Statements shall be accompanied and supported by invoices for all materials used, including evidence of transportation charges and taxes. However, if materials used on Time and Materials work are not specifically purchased for such work but are taken from the Contractor's stock, then in lieu of the invoices, the Contractor shall furnish an affidavit certifying that such materials were taken from stock, that quantity claimed was actually used and price claimed represents actual cost to the Contractor.

3.05 ARCHITECT'S FIELD DIRECTIVES

- A. The Architect may issue written field directives to the Contractor, which may change the Scope of Work and may affect Contract Sum but are necessary because of any of the following reasons: 1) situations that threaten life and safety, 2) the need to address unknown conditions at the site of the Work, or 3) the need to maintain the timely and orderly sequencing of the Work.
- B. The Contractor shall proceed with the work requested in such field directives and if there is a cost associated with such work, Contractor shall submit a Change Proposal as described herein. These costs, when mutually acceptable to the Owner and Contractor, shall be incorporated into the Contract by Change Order.

3.06 CHANGE ORDER EXECUTION

- A. **Upon the Owner's written approval of a Proposal Request, the Architect will issue a Change Order for signatures of the Owner and the Contractor on AIA Form G701.**

END OF SECTION 01 25 00

SECTION 01 27 00

UNIT PRICES AND ALLOWANCES

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. Section includes:
 - 1. Definition
 - 2. Administrative and procedural requirements for unit prices.
 - 3. Schedule of Unit Prices, at the end of this Section.

1.03 DEFINITION

- A. A unit price is an amount calculated and proposed by the Contractor in the Bidding Form as a price per unit of measurement for materials or services that will be added to or deducted from the Contract Sum by Change Order in the event certain unexpected work items are encountered or certain estimated quantities of work required by the Contract Documents are increased or decreased.

1.04 ADMINISTRATIVE AND PROCEDURAL REQUIREMENTS

- A. Unit prices as included in the Contract Documents shall include all expenses related to the unit price work items, that is materials, labor, equipment, transportation, general requirements, overhead, profit, taxes and any other costs incidental to the work items.
- B. The individual Specification Sections for the construction activities requiring the establishment of unit prices provide for the conditions under which said unit prices will be authorized and the methods of determining payment-quantities. The Contractor will be compensated only for the quantities of unit price work completed.
- C. The Schedule of Unit Prices is included with the Bid Form. Any Specification Sections referenced in that Schedule contain the requirements for materials and/or methods described for each unit price.
- D. The Schedule of Unit Prices may be used to determine changes to the Contract Sum. Where quantities of items for which unit prices are provided, they are estimates; and are included in the scope of the Work upon which the Contract Sum is based. The Contractor will be compensated for the actual quantities of unit price items completed at the established unit price rates. These actual extensions of unit prices for work completed, whether requiring a decrease or an increase in the Contract Sum, will be incorporated into the Contract Sum through a modification to the Contract by Change Order. Procedures for such modifications are included in Specification Section 01 25 00.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

SCHEDULE OF UNIT PRICES AND ALLOWANCES:

Unit Prices shall be included for the following items and **must** be listed on the Bid Form, section 00 30 00.

SCHEDULE OF UNIT PRICES AND ALLOWANCES

<u>ITEM</u>	<u>QUANTITY/ UNIT</u>	<u>UNIT PRICE</u>	<u>ALLOWANCE</u>
1. <u>Unsuitable Material:</u>			
a. Removal and disposal off-site of unsuitable materials.	50 CY	_____/CY	\$ _____
2. <u>Suitable Soil:</u>			
a. Provide suitable soil from off-site and compact in-place to replace excavated rock or unsuitable soil.	50 CY	_____/CY	\$ _____
3. <u>Stone and Sand Base:</u>			
a. Haul in and placement of sand base.	25 TONS	_____/TON	\$ _____
b. Haul in and placement of #57 stone.	25 TONS	_____/TON	\$ _____
4. <u>Public Art Allowance:</u>			
a. Bronze eagle statue to be mounted on concrete pedestal in the fountain pool as shown on Sheet A1.2 of the Contract Documents.	N/A	N/A	\$18,000.00
<u>Basis of Design for the Statue:</u> Bronze Bald Eagle Sitting on Tree Branch <u>SKU:</u> TK-81138 <u>Dimensions:</u> 34x38x77 inches <u>Manufacturer:</u> All Classics Ltd., 66 Albe Drive, Newark, DE 19702 <u>Contact:</u> Jason M. Sphon, VP, 302-738-2190; www.allclassics.com			
b. Bronze military boots (12 pair) to be mounted on concrete fountain bed as shown on Sheet A1.2 of the Contract Documents. Boots shall be cast in bronze at 1:1 scale with bracket for mounting. Each pair of boots will consist of a left boot sitting flat and a right boot with the toe down, heel up.			
<u>Basis of Design</u> is a Custom Product from All Classics Ltd. Note: Public Art Allowance includes purchase cost, shipping, equipment, labor and materials to unload, store and install art work. Contractor shall provide art work submittal for Owner approval.			

<u>ITEM</u>	<u>QUANTITY/ UNIT</u>	<u>UNIT PRICE</u>	<u>ALLOWANCE</u>
5. <u>Signage Allowance</u>			
a. Refer to Specification Section 10 14 00:	N/A	N/A	\$55,000.00
1. Six (6) 24" diameter Bronze Military Seals			
2. Bronze Lettering			
3. City Dedication Plaque			
4. American Legion Plaque			
5. Bronze American Flag			
6. <u>Construction Contingency Allowance</u>			
a. Provide a Contingency Allowance in the amount of 5% of the Lump Sum Base Bid amount. Refer to specification section 01 27 00 Unit Prices and Allowances.	N/A	5%	\$_____

END OF SECTION 01 27 00

SECTION 01 29 00

APPLICATIONS FOR PAYMENT

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements governing the Contractor's Applications for Payment.
 - 1. Coordinate the Schedule of Values and Applications for Payment with the Contractor's Construction Schedule, Submittal Schedule, and List of Subcontracts.
- B. Related Sections: The following Sections contain requirements that relate to this Section.
 - 1. Schedules: The Contractor's Construction Schedule and Submittal Schedule are specified in Division 1 Section "Submittals."

1.3 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the Schedule of Values with preparation of the Contractor's Construction Schedule.
 - 1. Correlate line items in the Schedule of Values with other required administrative schedules and forms, including:
 - a. Contractor's Construction Schedule.
 - b. Application for Payment forms, including Continuation Sheets.
 - c. List of subcontractors.
 - d. Schedule of allowances.
 - e. Schedule of alternates.
 - f. List of products.
 - g. List of principal suppliers and fabricators.
 - h. Schedule of submittals.
 - 2. Submit the Schedule of Values to the Architect at the earliest possible date but no later than 7 days before the date scheduled for submittal of the initial Applications for Payment.
- B. Format and Content: Use the Project Manual table of contents as a guide to establish the format for the Schedule of Values. Provide at least one line item for each Specification Section.
 - 1. Identification: Include the following Project identification on the Schedule of Values:
 - a. Project name and location.
 - b. Name of the Architect.
 - c. Architect's project number.
 - d. Contractor's name and address.
 - e. Date of submittal.
 - 2. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:
 - a. Related Specification Section or Division.
 - b. Description of Work.
 - c. Dollar value.
 - 1) Percentage of Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.

3. Provide a breakdown of the Contract Sum in sufficient detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Break principal subcontract amounts down into several line items.
4. Round amounts to nearest whole dollar; the total shall equal the Contract Sum.
5. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include materials or equipment, purchased or fabricated and stored, but not yet installed.
 - a. Only items stored on-site will be allowed to bill.
6. Provide separate line items on the Schedule of Values for initial cost of the materials, for each subsequent stage of completion, and for total installed value of that part of the Work.

1.4 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by the Architect and paid for by the Owner.
 1. The initial Application for Payment, the Application for Payment at time of Substantial Completion, and the final Application for Payment involve additional requirements.
- B. Payment-Application Times: Each progress-payment date is indicated in the Agreement. The period of construction Work covered by each Application for Payment is the period indicated in the Agreement.
- C. **Payment-Application Forms: Use AIA Document G702 and Continuation Sheets G703 as the form for Applications for Payment.**
- D. Application Preparation: Complete every entry on the form. Include notarization and execution by a person authorized to sign legal documents on behalf of the Contractor. The Architect will return incomplete applications without action. Corrections shall be made in original form prior to certification.
 1. Entries shall match data on the Schedule of Values and the Contractor's Construction Schedule. Use updated schedules if revisions were made.
 2. Include amounts of Change Orders and Construction Change Directives issued prior to the last day of the construction period covered by the application.
- E. Transmittal: Submit one (1) signed and notarized digital copy of each Application for Payment to the Architect. All copies shall be complete, including waivers of lien and similar attachments.
 1. Transmit with a transmittal form listing attachments and recording appropriate information related to the application.
- F. Waivers of Mechanics Lien: With each Application for Payment, submit waivers of mechanics liens from subcontractors, sub-subcontractors and suppliers for the construction period covered by the previous application.
 1. Submit partial waivers on each item for the amount requested, prior to deduction for retainage, on each item.
 2. When an application shows completion of an item, submit final or full waivers.
 3. The Owner reserves the right to designate which entities involved in the Work must submit waivers.
 4. Waiver Forms: Submit waivers of lien on forms, and executed in a manner, acceptable to the Owner.
- G. Initial Application for Payment: Administrative actions and submittals, that must precede or coincide with submittal of the first Application for Payment, include the following:
 1. List of subcontractors.
 2. List of principal suppliers and fabricators.
 3. Schedule of Values.

4. Contractor's Construction Schedule.
 5. Submittal Schedule.
 6. List of Contractor's staff assignments.
 7. List of Contractor's principal consultants.
 8. Copies of building permits.
 9. Copies of authorizations and licenses from governing authorities for performance of the Work.
 10. Initial progress report.
- H. Application for Payment at Substantial Completion: Following issuance of the Certificate of Substantial Completion, submit an Application for Payment.
1. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
 2. Administrative actions and submittals that shall precede or coincide with this application include:
 - a. Occupancy permits and similar approvals.
 - b. Warranties (guarantees) and maintenance agreements.
 - c. Test/adjust/balance records.
 - d. Maintenance instructions.
 - e. Meter readings.
 - f. Startup performance reports.
 - g. Changeover information related to Owner's occupancy, use, operation, and maintenance.
 - h. Final cleaning.
 - i. Application for reduction of retainage and consent of surety.
 - j. Advice on shifting insurance coverages.
 - k. List of incomplete Work, recognized as exceptions to Architect's Certificate of Substantial Completion.
- I. Final Payment Application: Administrative actions and submittals that must precede or coincide with submittal of the final Application for Payment include the following:
1. Completion of Project closeout requirements.
 2. Completion of items specified for completion after Substantial Completion.
 3. Ensure that unsettled claims will be settled.
 4. Certified property survey.
 5. Proof that taxes, fees, and similar obligations were paid.
 6. Removal of temporary facilities and services.
 7. Removal of surplus materials, rubbish, and similar elements.
 8. Change of door locks to Owner's access.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION 01 29 00

SECTION 01 31 00

PROJECT COORDINATION

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and other general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. This section specifies administrative and supervisory requirements necessary for coordination of the Work but not necessarily limited to:
 - 1. General project coordination procedures
 - 2. Conservation
 - 3. Coordination Drawings
 - 4. Administrative and supervisory personnel
 - 5. General installation provisions
 - 6. Cleaning and protection
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Division 1 Section “Submittals” for preparing and submitting the Contractor’s Construction Schedule.
 - 2. Division 1 Section “Product Substitutions” for coordinating general installation.
 - 3. Division 1 Section “Contract Closeout” for coordinating contract closeout.

1.03 COORDINATION

- A. Coordination Among Trades: Contractor shall coordinate construction activities included under the Drawings and various sections of these Specifications to insure efficient and orderly construction operations included under different sections of the Specifications that are dependent upon each other for proper installation, connection, and operation.
 - 1. If necessary, inform each party involved, in writing, of procedures required for coordination; including requirements for giving notice, submitting reports, and attending meetings.
 - 2. Where installation of one part of the Work is dependent on installation of other components, either before or after its own installation, schedule construction activities in the sequence required to obtain the best results.
 - 3. Where availability of space is limited, coordinate installation of different components to insure maximum accessibility for later installations and for required maintenance, service and repair.
 - a. Where limited available space may cause conflicts in the locations of installed products, and where required to coordinate installation of products and materials, prepare coordination drawings. Said coordination drawings shall show plan and cross-section dimensions of the available space and include obstructions caused by structural and systems elements.
 - b. Coordinate shop drawings and other submittals prepared by subcontractors, suppliers and other entities to facilitate installation of products and systems and avoid field conflicts in the Work.
 - c. Prepare plans or schedules describing installation sequences and provide said documents to affected parties.
 - 4. Make adequate provisions to accommodate items scheduled for later installation.

5. Inform the Owner when coordination of Owner's work under separate contracts is required. Inform the Owner when Owner's work under separate contracts is incomplete, in non-compliance or prohibits efficient and orderly completion of work under this Contract.
 6. Coordinate dissemination of information between subcontractors or suppliers when information from one is needed by or is of assistance to the other. Distribute interrelated shop drawings between subcontractors or suppliers prior to shop drawing submittal to Architect.
- B. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
1. Preparation of schedules
 2. Installation and removal of temporary facilities.
 3. Delivery and processing of submittals.
 4. Progress meetings.
 5. Project close-out activities.
- C. Conservation: Coordinate construction operations to assure that operations are carried out with consideration given to conservation of energy, water, and materials.
- D. Continue coordination procedures by actively controlling Project conditions as follows:
1. Verify and insure that products and materials of all trades are stored in an orderly fashion, under conditions complying with manufacturers' instructions and at planned locations.
 2. Verify and insure execution of the Work is in compliance with environmental conditions established by manufacturers' instructions and specific requirements of relevant Sections of these Specifications.
 3. Verify and insure adherence to tolerances required by these Specifications as the Work progresses.
 4. Inspect job conditions before one trade follows another in compliance with these requirements:
 - a. Plan and conduct joint inspections involving the affected trades.
 - b. Notify Architect at least one week in advance of such inspections and provide opportunity for Architect's participation in the inspection.
 - c. While the Architect may confine his observations and inspections to only limited areas, the Contractor shall be responsible for similar inspections in all involved areas.
 - d. Review of job conditions, in whole or in part, by Architect in no way relieves Contractor of his obligation to provide various stages of the Work as well as finished Work complying with Contract Documents.
 - e. Allow no work to proceed over unsatisfactory conditions that would prevent execution of new work as specified.

1.04 ADMINISTRATIVE AND SUPERVISORY PERSONNEL

- A. Contractor shall designate a Project Manager for the Project who shall be the primary point of contact and communication for the Owner and Architect. The Project Manager shall be assigned full time to the Project until completion of **Final** Contract Close-Out. All written communications to the Architect shall be by or through the Project Manager. Architect shall address all his written communications to the Contractor to the Project Manager, unless authorized by Project Manager to communicate directly to others.

- B. Contractor shall provide adequate supervision at the Project site at all times. At a minimum, the Contractor shall designate and assign at least one (1) Superintendent that shall direct and oversee the Work under the Contract for the project. The Superintendent shall be assigned full time to the Project until **Final** Completion of Contract Closeout.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 GENERAL INSTALLATION PROCEDURES

- A. Inspection of Conditions: Require the installer of each component to inspect both the substrate and conditions under which work is to be performed. Do not proceed until unsatisfactory conditions have been corrected in an acceptable manner.
- B. Manufacturers' Instructions: Comply with manufacturers' installation instructions and recommendations, to the extent that those instructions and recommendations are more explicit or stringent than requirements contained in Contract Documents.
- C. Connection: Provide attachment and connection devices and methods necessary for securing work. Secure work true to line and level. Allow for expansion and building movement.
- D. Visual Effects: Provide uniform joints widths in exposed work. Arrange joints in exposed work to obtain the best possible results. Isolate each part of the completed construction from incompatible material as necessary to prevent deterioration.
- E. Temporary Enclosures: Provide and coordinate placement of temporary enclosures with required inspections and tests, to minimize the necessity of uncovering completed construction for that purpose.
- F. Mounting Height: Where mounting heights are not indicated, contact the Architect for direction prior to proceeding with the work.
- G. Access panels: Where access panels are required in any wall or ceiling, and the panel is not specifically located on a drawing, contact the Architect prior to proceeding with the work.
- H. Joints: Plan and coordinate work to provide caulk joints at all junctions of dissimilar materials, even if such joints are not called for on Drawings or elsewhere in these Specifications.
- I. Costs for Adherence to all specified installation procedures are included in the Contract Sum.

3.02 CLEANING & PROTECTION

- A. During handling and installation, clean and protect construction in progress and adjoining materials in place. Apply protective coverings where required to insure protection from damage or deterioration prior to Substantial Completion.
- B. Clean and maintain completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to insure operability without damaging effects.

- C. Supervise construction activities to insure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging or otherwise deleterious exposure during the construction period. Where applicable, such exposures include, but are not limited to the following:
1. Excessive static or dynamic loading.
 2. Excessive internal or external pressures.
 3. Excessive high or low temperatures.
 4. Excessive high or low humidity.
 5. Water or ice.
 6. Solvents.
 7. Chemicals.
 8. Light.
 9. Puncture.
 10. Abrasion.
 11. Heavy traffic.
 12. Soiling, staining, and corrosion.
 13. Rodent and insect infestation.
 14. Combustion.
 15. Unusual wear or other misuse.
 16. Contact between incompatible materials.
 17. Destructive testing.
 18. Misalignment.
 19. Excessive weathering.
 20. Unprotected storage.
 21. Improper shipping or handling.
 22. Vandalism.

END OF SECTION 01 31 00

SECTION 01 31 20

PROJECT MEETINGS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and other general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. Section Includes:
 - 1. Contractor's duties
 - 2. Preconstruction conference
 - 3. Progress and coordination meetings
 - 4. Pre-installation conferences

1.03 CONTRACTOR'S DUTIES

- A. Scheduling and Notification: Contractor will notify Owner, Architect and other invited parties of meeting time and place at least five (5) days prior to the date of every progress and coordination meeting or special called meeting. The progress and coordination meetings shall be conducted once every week.
- B. Administration: The Contractor will prepare a meeting agenda for the progress and coordination meetings, record and promptly distribute copies of minutes of significant proceedings and decisions of the meetings to each participant no later than five (5) days after each meeting. The Contractor shall update construction schedule after each progress meeting to show current progress and documentation of any revisions that have been made or recognized; issue revised schedule, two week look-ahead with a list of the planned activities, submittal list and RFI list concurrently with report of each meeting.

1.04 PRE-CONSTRUCTION CONFERENCE

- A. A pre-construction meeting will be held prior to the start of construction at a time and place designated by the Owner for the purpose of identifying responsibilities of the Contractor, Owner and Architect and explaining administrative procedures.
- B. Attendance:
 - 1. Owner's representatives.
 - 2. Architect and key sub-consultants.
 - 3. Contractor represented by Project Manager and Superintendent
 - 4. Major subcontractors if requested by Owner, Architect or Contractor
- C. Minimum Agenda:
 - 1. Identification and designation of responsible personnel from all parties.
 - 2. Tentative construction progress schedule (to be distributed by Contractor), with discussion of critical work sequencing and staging.
 - 3. Procedures for correspondence and other communications, field decisions, requests for information, design bulletins, requests for changes in the work and claims.
 - 4. Procedures for submittals, including shop drawings, samples and product data.
 - 5. Procedures for preparing and maintaining required Record Documents and Operations & Maintenance Manuals.

6. List of major subcontractors and material suppliers.
7. Use of Project Site, including temporary offices, project staging, storage areas, parking, site use limitations or restrictions, and erosion control.
8. Material and equipment deliveries, storage, protection and priorities.
9. Safety procedures and responsibilities.
10. Security procedures and methods.
11. Housekeeping procedures and methods.
12. Special project requirements or conditions.

1.05 OWNER, ARCHITECT AND CONTRACTOR MEETINGS (OAC Meetings)

- A. Scheduling: Unless otherwise requested by Owner or Architect, a progress and coordination meeting shall be held once every month at the Project Site.
- B. Attendance:
 1. Owner (once a month)
 2. Architect and consultants if determined necessary by progress of the Work.
 3. Contractor as represented by Project Manager and Superintendent.
 4. Sub-contractors and material suppliers as requested by Owner or Architect or as applicable to progress of the Work.
- C. Minimum Agenda (topics to be covered as applicable):
 1. Review minutes of previous meeting.
 2. Status of submittals and impending submittals.
 3. Off-site fabrication and delivery schedules; subcontractor schedules.
 4. Actual progress of activities in relation to the schedule. Submit schedule updates as required.
 5. Actual and anticipated delays, their impact on the schedule, and corrective actions taken or proposed.
 6. Field observations; actual and potential problems affecting construction or job progress; status of RFI's (Requests for Interpretation).
 7. Site Utilization; housekeeping, temporary facilities/services.
 8. Safety; hazards or risks.
 9. Status of corrective work ordered by the Architect; quality and work standards.
 10. Change Orders and change order proposals.
 11. Documentation of information for payment application (as applicable).
- D. Contractor to provide a table for layout of Drawings and chairs for each attendee.

1.06 PROGRESS AND COORDINATION SITE VISITS

- A. Scheduling: Unless otherwise requested by Owner or Architect, a progress and coordination site visit shall be held once every two weeks at the Project Site.
- B. Attendance:
 1. Architect and consultants if determined necessary by progress of the Work.
 2. Contractor as represented by Project Manager and Superintendent.

1.07 PREINSTALLATION CONFERENCES

- A. Scheduling: Conduct a pre-installation conference at the project site before each construction activity that requires coordination with other construction or existing conditions. Comply with particular requirements elsewhere in the Specifications that describe specific pre-installation or pre-demolition meetings and associated notifications to the Architect and Owner.

- B. Attendance: The installer and representatives of manufacturers and fabricators involved in or affected by the installation, and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Notify the Architect and Owner of the scheduled meeting dates as required elsewhere in the Specifications.
- C. Prior to the work or installations of, at a minimum, the components listed below, hold a pre-installation meeting for review and observation attended by each entity involved or affected by planned work. Schedule these meetings with Architect at least five (5) working days prior to meeting.
 - 1. Concrete Slab-on Grade and Exterior Concrete and Brick Paving
 - a. Attendees: All subcontractors with in-slab or under-slab installation, concrete supplier, concrete finisher, Owner's Testing Agency.
 - 2. Masonry (Mockup shall be completed and cleaned prior to this meeting)
 - a. Attendees: Masonry subcontractor, masonry supplier, insulation subcontractor, insulation supplier, and all subcontractors affected by masonry construction.
 - 3. Additional components as required by the specification sections.
- D. Agenda
 - 1. Review the progress of other construction activities and preparations for the particular activity under consideration at each pre-installation conference, including requirements for the following:
 - a. Contract Document requirements
 - b. Purchases
 - c. Deliveries
 - d. Shop drawings, product data and samples
 - e. Review of mockups
 - f. Possible conflicts
 - g. Compatibility of materials
 - h. Acceptability of substrates
 - i. Schedule
 - j. Weather limitations
 - k. Space and access limitations
 - l. Temporary facilities
 - m. Safety
 - n. Manufacturer's recommendations
 - o. Warranty requirements
 - p. Inspecting and testing requirements
 - q. Required performance results
 - r. Recording requirements
 - s. Protection
 - 2. The Contractor will record significant discussions and agreements and disagreements of each conference and the agreed to schedule for the work. The Contractor will promptly distribute the record to everyone concerned, including the subconsultants as required.
 - 3. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene conference at earliest feasible date.
 - 4. Regardless of whether the Specifications explicitly require a particular pre-installation conference, the Contractor is responsible for said conferences as an element of his coordination of the Work. Information that can be obtained through a consideration of the items in Paragraph C. of this sub-section is the responsibility of the Contractor and must be included in implementation of the Work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 31 20

SECTION 01 32 00

CONSTRUCTION SCHEDULES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and other general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. Section Includes:
 - 1. General description
 - 2. Form and content of schedules
 - 3. Updating of schedules

1.03 GENERAL DESCRIPTION

- A. The Construction Schedule is a required submittal, which is subject to the approval of the Architect and which shall be revised periodically as specified herein. The Construction Schedule shall be in a bar-chart or network type form that shall provide complete sequence of construction by activity and allow for up-dating and revisions. Schedule shall be based on critical path method (CPM), and shall be prepared with input and cooperation of all subcontractors.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 FORM AND CONTENT OF SCHEDULES

- A. Submit Construction Schedule as described above within 10 days after Notice to Proceed.
- B. Provide Construction Schedule with the following format and content:
 - 1. Provide schedule in the form of a bar chart with individual horizontal lines representing the duration of each major activity. Use vertical lines to scale the schedule at one week intervals.
 - 2. Use the same items of work as shown on schedule of values or in accordance with Section numbers of Specifications.
 - 3. Where related activities must be performed in sequence, show relationship graphically.
 - 4. Incorporate the submittal schedule specified elsewhere.
 - 5. In developing the schedule, take into account administrative reviews.
 - 6. Show dates for the following:
 - a. Each major activity that influences the construction time (critical path items).
 - b. Specified pre-installation meetings and progress review meetings.
 - c. Procurements and delivery dates for products requiring long lead time.
 - d. Start and completion dates of all major work elements.
 - e. Time frame for substantial and final completion procedures, including inspections, reviews and punch list activities.
 - 7. Use the same terminology as that used in Contract Documents and provide legend of symbols or abbreviations used.

8. Submit Construction Schedule in clear, legible, reproducible format and with a minimum of three (3) opaque copies.
- C. Architect will advise Contractor if originally submitted Construction Schedule is not satisfactory. If so, Contractor shall revise and resubmit within five (5) days.
- D. Prepare and distribute copies of approved Schedule to Architect, Owner, subcontractors and other entities whose work will be influenced by schedule dates. Maintain a copy of approved Construction Schedule at Project site office.

3.02 UPDATING OF CONSTRUCTION SCHEDULES

- A. Update the Construction Schedule whenever changes occur or are made, or when new information is received, but not less often than at the same intervals at which progress meetings are conducted.
- B. In revising the Schedule show all changes **by saving the original schedule as a base line**. Indicate the actual progress or delay of each activity and show revised completion dates. Highlight the activities modified since previous submittal and indicate major changes in scope or revised projections due to changes in the Work (if applicable).

3.03 SCHEDULE AND CONTRACTOR'S REQUESTS FOR CHANGES TO CONTRACT SUM OR TIME

- A. The Contractor shall indicate in his Change Proposals for all Contract modifications, if the durations of activities are affected, or if activities are added or activities deleted. The effect shall be indicated for each activity in cost and time as applicable. The Change Proposal shall indicate all additional costs and time impacts of whatever nature; reservations for future determination of impacts will not be allowed or considered. The Contractor shall submit a diagram of that portion of the Construction Schedule affected by the change showing the activities and their costs, man loading, durations and subcontractor or trade responsibility. While changes of a minor nature may require little or no documentation of schedule impact, the Contractor shall be aware that in cases where time is involved, failure to submit such a diagram with the Change Proposal shall constitute a waiver of any claims for time extensions associated with the subject of that Change Proposal. When modifications in the Work are necessitated by Field Directives or other Architect's authorizations prior to Change Proposal submissions to avoid delay, the Contractor shall furnish the Architect within ten (10) days of receipt of the authorizations which changed the Work the same information required for Change proposals. Failure to do so shall constitute a waiver of any claims for time extensions associated with the subject of the work authorization or directive.
- B. As applicable, the Contractor shall adjust the Schedule monthly to reflect any adjustments in time related to negotiated or approved Contract modifications. The updated Schedule shall provide revised completion dates by incorporation of approved change order work and excusable delays, and re computation of all dates, durations and float in accordance with the newly incorporated dates. Such revised completion dates shall be the sole basis for time extensions and adjustments to the Contract completion date. Modified activity times to be used to determine the revised Project completion dates shall be agreed to by the Contractor, Architect and Owner.

END OF SECTION 01 32 00

SECTION 01 32 20

CONTRACT REPORTING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions and other Division-1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. General: This Section specifies administrative and procedural requirements for reports required for proper performance of the Work.
- B. Reports required include:
 - 1. Daily construction reports.
 - 2. Field correction reports.
 - 3. Special reports.

1.03 REPORTS

- A. Daily Construction Reports: Prepare a daily construction report, recording the following information concerning events at the site; and submit duplicate copies to the Architect at weekly intervals:
 - 1. List of subcontractors at the site.
 - 2. List of separate contractors at the site.
 - 3. Approximate count of personnel by trade at the site.
 - 4. High and low temperatures, precipitation, and general weather conditions.
 - 5. Accidents (refer to Special Reports).
 - 6. Meetings and significant decisions.
 - 7. Unusual events (refer to Special Reports).
 - 8. Stoppages, delays, shortages, losses.
 - 9. Emergency procedures.
 - 10. Orders and requests of governing authorities.
 - 11. Field Directives, or Change Proposal Requests received; Change Proposals implemented.
 - 12. Services connected, disconnected.
 - 13. Equipment or system tests and start-ups.
- B. Field Correction Report: When the need to take corrective action that requires a departure from the Contract Documents arises, prepare a detailed report including a statement describing the problem and recommended changes. Indicate reasons the Contract Documents cannot be followed. Submit a copy to the Architect immediately.
- C. Special Reports: When an event of an unusual and significant nature occurs at the Project site, prepare and submit a special report. List the chain of events, persons participating, response by the Contractor's personnel, an evaluation of the results or effects and similar pertinent information. Advise the Owner in advance when such events are known or predictable.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01 32 20

SECTION 01 33 00

SUBMITTALS

PART 1 – GENERAL

1.01 GENERAL REQUIREMENTS

- A. Requirements herein supplement provisions of the General Conditions, and establish minimum standards for preparation, certification and submission of Shop Drawings, Product Data and Samples and Schedules.
- B. Terms "submittal" and "submittal data" as used herein and in required certification statements, mean Shop Drawings, Product Data and Samples, either individually or any combination thereof.
- C. Detailed requirements for content and scope of particular Shop Drawings, Product Data and Samples are part of requirements of those individual Sections requiring submittal data.
- D. Prepare and submit to Architect, minimum five (5) calendar days prior to preconstruction meeting, complete and comprehensive schedule, in form and substance acceptable to Architect, listing all submittals anticipated to be made during progress of Work.
 - 1. Indicate timing for submission, and resubmission, of required submittals and relation to construction sequence.
 - 2. Include listing of each type item for which submittal data, warranties, maintenance manuals, operating instructions and other types of submittals is required. Indicate specification section.
 - 3. During course of Work, maintain updated submittal schedule showing status of all submittals. Provide copies for Architect's information at project meetings and at other times when requested.
- E. Provide Shop Drawings prepared by persons highly skilled in preparation of architectural and engineering-type drawings, charts, schedules and other graphic illustrations and representations. **Contract Documents prepared by Architect and their consultants will not be acceptable as Shop Drawing submittals.**
- F. Collect Product Data and Samples as prepared by manufacturers, suppliers, and distributors to fully illustrate that portion of Work so represented, including complete engineering and dimensional information when applicable. Contractor, subcontractor and material supplier shall be fully responsible for ensuring that product data is the most current information available from manufacturer at time of submittal.
- G. Contractor shall maintain file of approved submittals for duration of Project, which shall be delivered to Owner as part of Project closeout documents, marked and stamped as "Project Record Documents." This set is in addition to set transmitted through normal distribution during construction.

1.02 SUBMISSION REQUIREMENTS

- A. Submittals shall be prepared and submitted either in digital format or in hard copy format. Contractor and Architect shall agree upon submittal method during Pre-Construction Conference prior to first submittal.

1. **Digital Format Submittal Requirements:** All submittals will be submitted digitally through the Architects FTP system and shall be in Adobe PDF format unless otherwise agreed upon by the Owner.
 - i. Contractor shall be responsible for combining all documents required for submittal into a single digital Adobe PDF format file for each specification section requiring submittal including a transmittal coversheet.
 - ii. Contractor shall upload digital submittal to Architects FTP server using project specific username and password provided by Architect.
 - iii. Contractor shall notify Architect in writing once submittal has been uploaded to FTP site and is ready for review.
 - iv. Upon completing review of submittal Architect shall make all comments in digital format and upload reviewed submittal with comments to FTP site.
 - v. Architect shall notify Contractor in writing once reviewed submittal has been uploaded to FTP site.
 - vi. For material samples Contractor shall submit two (2) sets to the Architect for review and submit a digital Adobe PDF format file transmittal coversheet as indicated in items i-iii above.
- B. Accompany each submittal with an appropriate transmittal bearing Contractor's name, address and telephone number. Address all transmittal letters to Architect's business office. Include following information:
 1. Project name and location.
 2. Name of subcontractor, manufacturer, supplier or distributor, as applicable.
 3. Number of copies included.
 4. Brief description of submittal data.
 5. Notification of deviations from Contract Documents.
 6. Date of submittal data.
 7. Whether initial submittal or resubmittal.
 8. Whether for review, distribution or information only.
- C. Submittals shall include:
 1. Project name and location.
 2. Date and revision dates.
 3. Names of:
 - a. Owner
 - b. Architect
 - c. Contractor
 - d. Consulting Engineer, when applicable
 - e. Subcontractor, supplier, manufacturer, when applicable.
 4. Identification of product or material.
 5. Relation to adjacent structure or materials.
 6. Field dimensions, clearly identified as such.
 7. Specification Section and Paragraph Numbers.
 8. Applicable reference standards.
 9. A blank space, for Architect's stamp.
 10. Identification of deviations from Contract Documents.
 11. Contractor's stamp, initialed or signed, certifying to review of submittal, verification of field measurements and compliance with Contract Documents.
- D. Clearly mark all deviations from Contract Documents, at time of submittal, using only green pencil or ink.

1. Submittals bearing Contractor-noted deviations will be review by Architect provided required written notice of such deviations is given.
 2. After review, submittals bearing Contractor-noted deviations will be returned for revision and resubmittal.
 3. Incomplete submittals and submittals containing excessive errors will not be reviewed by Architect and will be returned for correction and resubmittal.
- E. Certifications: Submittals not properly certified by Contractor, and by Manufacturer when so required, will not be reviewed by Architect and will be returned unchecked to Contractor for certification and resubmission.
1. Certification for Samples may be on tags or labels attached to Samples.

1.03 CONTRACTOR CERTIFICATION

- A. Upon completion of review and prior to submission to Architect, hand letter, type or stamp each submittal with certification statement reading:

"I hereby certify this submittal data has been reviewed and approved prior to submission to the Architect and the information contained within this submittal has been checked and coordinated with the requirements of the Work and the Contract Documents.

(Contractor's Name)

Signed

Position

Date

1.04 MANUFACTURER'S CERTIFICATION

- A. Submittals for particular items of equipment listed in sections, as indicated, require certification by manufacturer as to performance and compliance with requirements of Contract Documents.
- B. Manufacturer's certification shall be signed only by Owner, Partner, Corporate Officer, or person duly authorized to sign for Owner, Partner, or Corporate Officer.

1. Include in submittal data, notarized letter from manufacturer naming person duly authorized to sign for manufacturer, if it is someone other than Owner, Partner, or Corporate Officer.

- C. Prior to submission to Contractor, manufacturer shall hand letter, type or stamp each submittal with certification statement reading:

"I hereby certify equipment illustrated by this submittal data complies in all respects with requirements of Contract Documents for this Project. I further certify all data shown herein as to performance, dimensions, construction, materials and other pertinent items, is true and correct.

(Manufacturer's Name)

Signed

Position

Date

1.05 SHOP DRAWINGS

- A. For initial submittal, and any required resubmittals, provide a minimum of four (4) copies of each Sheet. Provide one (1) copy for Architect's file, one (1) copy for work designed by engineers or consultants, one (1) copy for the job site trailer and one (1) copy for the Owner at the end of the project.
- B. Prepare to largest scale practicable to be clearly legible with sufficient plans, elevations, sections, details, isometrics and schedules to fully illustrate that portion of Work so presented.
 - 1. Cross-reference Shop Drawings to applicable Drawings sheet numbers, detail numbers and Specification Sections insofar as possible. Number sheets consecutively.
 - 2. Do not submit manufacturers' and suppliers' standard forms requiring filling-in of blank spaces unless:
 - a. all non-applicable information is eradicated completely or marked out, or
 - b. all relevant information is clearly marked, and
 - c. standard forms are modified to indicate exact requirements and conditions unique to Project.
- C. Properly identify Shop Drawings, as specified in Paragraph 1.02.B herein, by means of title block in lower right-hand corner of each sheet.
 - 1. Provide adequate space above title block on each sheet for certification stamps and Architect's review stamps.
 - a. Allow space, either vertically or horizontally, for four 3-inch by 3-inch stamps.

1.06 PRODUCT DATA

- A. For initial submittal, and any required resubmittals, provide not less than five (5) copies of each brochure or other bound volume. Two (2) copies will be retained by Architect.
 - 1. Qualities of submittals are minimum required and may be increased as necessary for Contractor's office use, field use and distribution.
- B. Assemble into brochures or other bound volumes. Prepare separate volumes for each separate manufacturer, supplier or distributor. Number pages consecutively.
 - 1. Cross reference to applicable Drawings sheet numbers, detail numbers and Specification Sections insofar as possible.
 - 2. Do not submit manufacturers' and suppliers' catalogs which describe several different items in addition to those items of Work to be provided unless:
 - a. all nonapplicable information is eradicated or completely marked out, or
 - b. all relevant information, including any accepted option, is clearly marked.
 - 3. Do not submit photocopies of materials and equipment illustrations unless photocopies are true and accurate reproductions or original illustrations.
- C. Properly identify submittals on front cover, as specified in Paragraph 1.02.B herein.
 - 1. Provide separate sheet within submittal for required certification stamps and Architect's review stamps.

1.07 SAMPLES

- A. For initial submittal, and any required resubmittals of Samples, provide not less than three representatives physical examples of such size to illustrate standards by which Work will be judged. One sample will be retained by Architect, unless otherwise indicated.
 - 1. Where Samples are required for initial color, texture or pattern selection by Architect, submittal quantity may be reduced to one complete Sample of manufacturer's full range of standard and special colors, textures and patterns.
 - a. Upon notification of Architect of selections, submit selected Samples as required for initial submittal.
- B. Assemble into easily handled packages where size permits.
 - 1. Where field fabricated Samples are required, construct on Project site in locations directed by Architect.
- C. Properly identify Samples as specified in Paragraph 1.02.B herein, except identification may be on tags or labels attached to Samples.

1.08 CONSTRUCTION SCHEDULE

- A. Submit initial construction schedule minimum five (5) calendar days prior to preconstruction meeting. Upon request, resubmit revised and updated schedules accurately depicting progress to first day of each month.
 - 1. Submit three (3) full size color originals for Architect's information.
 - 2. Distribute reviewed schedules to:
 - a. Owner
 - b. Architect
 - c. Job site file
 - d. Subcontractors
- B. Prepare complete and comprehensive Critical Path Method (CPM) schedule for all portions of Work.
 - 1. Provide separate horizontal breakdown of each trade or operation in chronological order of beginning of each item of Work.
 - 2. Identify each item of Work by specification section number and by logically grouped activities.
 - 3. Provide early start and late finish durations to account for normal construction delays, such as rain or late material delivery.
 - 4. Identify first work day of each week on horizontal time scale. Provide adequate spacing on schedule for updating.
 - 5. Provide complete sequence of construction by activity:
 - a. Shop Drawings, Product Data and Samples submittal data and status of each submittal relative to Contractor's submittal schedule.
 - b. Decision dates for selection of finishes.
 - c. Produce procurement and delivery dates, including products furnished by Owner.
 - d. Dates for beginning and completion of each element of construction.
 - 6. Indicate project percentage of completion for each item of Work.
 - 7. Provide subschedules to define critical portions of Work, upon requested.
- C. Updating:

1. Show all changes since previous submittal by saving a baseline and show updated schedule in new color or graphic representation.
2. Indicate progress of each activity, show completion dates. Include:
 - a. Major changes in scope.
 - b. Activities modified since previous updating.
 - c. Revised projections due to changes.
 - d. Other identifiable changes.
3. Provide narrative report, including:
 - a. Discussion of problem areas, including current and anticipated delay factors and their impact.
 - b. Corrective action taken, or proposed, and its effect.
 - c. Description of revisions:
 - 1) Effect on schedule to change of scope.
 - 2) Revisions in duration of activities.
 - 3) Other changes that may affect schedule.

1.09 SCHEDULE OF VALUES

- A. Submit typed schedule on the Application and Certificate for Payment Continuation Sheet (AIA G703 form).
- B. Include line item for each major item of Work and each subcontracted item of Work indicated on Construction Schedule.

1.10 MATERIALS LIST

- A. Submit list of proposed materials and equipment within 30 days after signing Agreement. Architect will promptly reply in writing to Contractor stating whether Owner or Architect, after due investigation, has reasonable objection to any proposal. If adequate data on any proposed manufacturer or installer is not available, Architect will defer action until Contractor provides required data. Failure of Owner or Architect to reply promptly shall constitute notice of no reasonable objection. Failure to object to a manufacturer shall not constitute a waiver of any requirement of Contract Documents and products furnished by listed manufacturer shall conform to such requirements.
- B. Architect will only consider written requests for substitution of specified products in compliance with provisions of Section 01 63 00 PRODUCT SUBSTITUTIONS.

1.11 RESUBMISSION

- A. Architect will review submittals for conformance with design concept of Work and information given in contract Documents only. If required, Architect will note submittal with corrections and comments necessary for compliance with Contract Documents.
 1. Submittals bearing Architect's notes, comments and corrections required for compliance with Contract Documents automatically require resubmittal and will be so noted as "Resubmit."
 2. Submittals will be marked as follows:
 - a. "Reviewed" indicates Submittals have been reviewed for compliance with design and no apparent exceptions are taken. Proceed with Work.
 - b. "Make Corrections as Noted" indicates Contractor may proceed with Work as noted.
 - c. "Amend and Resubmit" or "Rejected" indicates Submittal to be revised and resubmitted for review prior to proceeding with Work or that Submittal does not comply with Contract Documents.

B. Shop Drawings:

1. Clearly mark revisions to the original submittal and resubmit, identify revisions by cloud or other easily recognizable symbols, identify revision number and revision date in title block. Make resubmittals in same manner and quantities specified for initial submittals.

C. Product Data:

1. Remove all nonconforming information and replace with correct information. Identify revision number and revision date on front cover. Make resubmittals in same manner and quantity specified for initial submittal.
2. If resubmittal is not required, Architect will retain two copies and return additional copies to Contractor.

1.12 REVIEW TIME AND CHANGES

A. Review: Transmit submittals to Architect sufficiently in advance of time needed to allow reasonable time, exclusive of transmittal time, for review of initial submittal. If resubmittal is required, allow additional reasonable time for each resubmittal.

1. Delays caused by improperly prepared and incomplete submittal data shall not be an acceptable basis for extension of Contract Time.
2. For large submittals, such as steel shop drawings, allow 14 days for review
3. For all submittals requiring engineering consultant review, allow 14 days for review.
4. Smaller submittals, such as fire extinguisher cabinet or toilet accessories, allow 7 days for review.

B. Changes: If any revisions required by Architect are considered by Contractor to be a change in the Work exceeding that permitted in the General Conditions.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01 33 00

SECTION 01 41 00

REGULATORY REQUIREMENTS

PART 1 – GENERAL

1.0 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. Section Includes:
 - 1. Regulatory Requirements

1.03 REGULATORY REQUIREMENTS

- A. The following regulations are applicable to the Work:
 - 1. The Gwinnett County Construction Code (GCCC) as adopted on October 1, 1991, including revisions, amendments, and appendices to the following codes:
 - a. Gwinnett County Ordinance for Fire Protection and Life Safety
 - b. International Building Code – 2012 Edition with 2014 & 2015 Georgia State Amendments
 - c. International Mechanical Code – 2012 Edition with 2014 & 2015 Georgia State Amendments
 - d. International Plumbing Code – 2012 Edition with 2014 & 2015 Georgia State Amendments
 - e. International Fuel Gas Code – 2012 Edition with 2014 & 2015 Georgia State Amendments
 - f. NFPA National Electrical Code – 2014 Edition
 - g. International Energy Conservation Code – 2009 Edition with 2011 & 2012 Georgia State Supplements and Amendments
 - h. NFPA 101 Life Safety Code, 2012 Edition
 - i. International Fire Code – 2012 Edition with 2014 Georgia State Amendments
 - j. 2010 ADA Standards for Accessible Design, Department of Justice, September 15, 2010
- B. The Contractor shall have copies of these above referenced regulations at the Project site and said documents shall be readily available to all parties involved in the Project.
- C. Other statutory requirements and regulations may affect the Work and the performance of the Contractor. Many of these requirements are referenced or described elsewhere in the Contract Documents, but their absence from the Contract Documents does not relieve the Contractor of the responsibility to perform in accordance with said requirements.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01 41 00

SECTION 01 42 00

DEFINITIONS AND EXPLANATIONS

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. Section Includes:
 - 1. Definitions
 - 2. Specifications format and content explanation
 - 3. Drawing symbols
 - 4. Industry standards

1.03 DEFINITIONS

- A. Certain terms used repetitiously in these Specifications and elsewhere in the Contract Documents are defined generally in this section. The definitions and explanations of this section are not necessarily either complete or inclusive, but are general for the Work to the extent such definitions or explanations are not stated more explicitly in another provision of the Contract Documents.
- B. Approve: The terms "approve," "review," "inspect" and their variations, where used in conjunction with the Architect's actions on the Contractor's submittals, applications and requests, are limited to the responsibilities and duties of the Architect stated in the General Conditions and elsewhere in these Specifications. Such approvals shall not release the Contractor from his responsibility to fulfill the requirements of the Contract Documents, unless otherwise provided in the Contract Documents.
- C. Directed, Requested, etc: Where not otherwise explained, terms such as "directed," "requested," "authorized," "selected," "required," and "permitted," mean directed by the Architect, requested by the Architect, and similar phrases. However, no such implied meaning shall be interpreted to extend the Architect's responsibility into the Contractor's area of construction supervision.
- D. Indicated: The term "indicated" is a cross reference to details, notes or schedules on the Drawings, other paragraphs or schedules in the Specifications, and similar means of recording requirements in the Contract Documents. Where other terms such as "shown," "noted," "scheduled," and "specified" are used, it is to help locate the reference; no limitation on location is intended except as specifically noted.
- E. Refer: Used to indicate that the subject is defined or specified in further detail at another location in the Contract Documents, or elsewhere as indicated.
- F. Furnish: The term "furnish" is used to mean supply and deliver to the Project site, ready for unloading, unpacking, assembly, installation, and similar operations, as applicable in each instance.

- G. Install: Except as otherwise defined in greater detail, the term "install" is used to describe operations at Project site including the unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations, as applicable to a material, product or system in each instance.
- H. Provide: Except as otherwise defined in greater detail, the term "provide" means to furnish and install, complete and ready for the intended use as applicable in each instance.

1.04 SPECIFICATION FORMAT AND CONTENT EXPLANATION

- A. General: This section is provided to help the user of the Specifications understand the format, language, implied requirements, and similar conventions. None of the explanations shall be interpreted to modify the substance of the Contract.
- B. Specifications Production: Portions of these Specifications have been edited by the Owner and Architect and may contain minor deviations from traditional formats. Such deviations are a normal result of the production technique, and no other meaning will be implied or permitted. References to Specifications or Technical Specification, shall mean the same.
- C. Specification Format: Although not all portions may fully comply, the format of these Specifications is principally as described below. No meaning or significance is attached to such compliance or non-compliance.
 - 1. Sections and Divisions: For convenience, the basic unit of the Specifications is a "section," each unit of which is named and numbered. These sections are organized into related families of sections which are categorized as "divisions." These divisions are recognized as present construction industry practice on uniform organization and sequencing of specifications. Section titles are not intended to limit the meaning or content of a section, to be fully descriptive of the requirements therein, or to be an integral part of the text.
 - 2. Section Numbering: Sections are given a numeric sequence to assist in cross referencing information in the Contract Documents. The numbering sequence, however, is not complete.
 - 3. Parts: Each section has been divided into three or fewer "parts" (Part 1 - General, Part 2 - Products, and Part 3 - Execution). These titles do not limit the meaning of and are not an integral part of the text of the Specification requirements.
- D. Specifications Content: The Specifications have been produced employing conventions in the use of language and in the intended meaning of certain words, terms and phrase when used in particular situations or circumstances. These conventions are explained as follows:
 - 1. Language used in the Specifications is the abbreviated type. Implied words and meanings will be appropriately interpreted. Singular words will be interpreted as plural and plural words interpreted as singular where applicable and where the full context of the Contract Documents so indicates.
 - 2. Specifying Methods: The techniques or methods of specifying requirements vary throughout the Specifications text, and may include "prescriptive," "open generic-descriptive," "compliance with standards," "performance," "proprietary," or a combination of these. The method used for specifying one unit of work has no bearing on requirements for another unit of work. Except for cases of overlapping or conflicting requirements as described in the following paragraph 3, where more than one set of requirements are specified for a

particular unit of work, the option is intended to be Contractor's regardless of whether specifically indicated as such.

3. **Overlapping and Conflicting Requirements:** Where compliance with two (2) or more industry standards or sets of requirements is specified, and overlapping of those different standards or requirements is specified, and overlapping of those different standards or requirements establishes two (2) different or conflicting levels of quality, the most stringent requirement is intended and will be enforced, unless specifically detailed language written into the Contract Documents clearly indicates that the less stringent requirement is to be fulfilled. Refer uncertainties as to which of the two (2) levels of quality is more stringent to the Architect for a decision before proceeding.
 4. **Imperative Language** is generally used throughout the Specifications. Requirements expressed imperatively are to be performed by the Contractor. At certain locations in the text, for clarity, subjective language is used to describe responsibilities that must be fulfilled indirectly by the Contractor, or by others when so noted.
- E. **Minimum Quality/Quantity:** In every instance, the quality level or quantity shown or specified is intended as the minimum for work to be performed or provided. Except as otherwise specifically indicated, the actual work may either comply exactly with that minimum (within specified tolerances), or may exceed that minimum within reasonable limits. In complying with requirements, the indicated numeric values are either minimum or maximums as noted or as appropriate for the context of the requirements. Refer instances of uncertainty to the Architect for decision before proceeding.
- F. **Assignment of Specialists:** The Specifications require (or at least imply) that certain specific construction activities shall be performed by specialist or expert entities who must be engaged for the performance of those units of work. These must be recognized as special requirements over which the Contractor has no choice or option. Nevertheless, the ultimate responsibility for fulfilling Contract requirements remains with the Contractor.
1. This requirement shall not be interpreted to conflict with enforcement of building codes and similar regulations governing the Work. It is also not intended to interfere with local trade union jurisdictional settlements and similar conventions.
 2. **Trade Names:** Use of titles such as "carpentry" is not intended to imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to trades persons of the corresponding generic name.

1.05 DRAWING SYMBOLS

- A. **Graphic symbols used on the Drawings are those recognized in the construction industry for purposes indicated. Where not otherwise noted, symbols are defined by "Architectural Graphic Standards", published by John Wiley & Sons, Inc., Tenth edition. Any symbol or graphic hatch pattern shown on the drawings not specifically labeled as to the material indicated shall be interpreted as follows:**
- a. **Written Clarification by the Architect**
 - b. **Industry Standards**
 - c. **Drawing Symbol and Hatch Legends**
- B. **Clarifications shall be requested in writing by the proposer where written direction and clarification will be provided by the Architect in the Addenda issued.**

- C. **Under no circumstances will additional compensation be considered for uncertainty and lack of clarification on the part of the Contractor regarding drawing symbols and hatch patterns.**
- D. Mechanical/Electrical Drawings: Graphic symbols used on mechanical and electrical Drawings are generally aligned with symbols recommended by ASHRAE. They are supplemented by more specific symbols indicated in legends and, where appropriate, are further supplemented by technical associations including ASME, ASPE, IEEE and similar organizations. Refer instances of uncertainty to the Architect for clarification before proceeding.

1.06 INDUSTRY STANDARDS

- A. Applicability of Standards: Except where Contract Documents include explicit and more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents. Such standards are made a part of the Contract Documents by reference. Individual sections indicate which codes and standards apply and which the Contractor must keep available at the Project Site for reference.
 - 1. Referenced standards (referenced directly in Contract Documents or by governing regulations) have precedence over non-referenced standards.
 - 2. Non-referenced Standards: Except as otherwise limited by the Contract Documents, standards not referenced but recognized in the construction industry as applicable will be enforced for performance of the Work. The Architect shall decide whether a code or standards is applicable or which of several are applicable.
- B. Publication Dates: Where compliance with an industry standard is required, comply with standard in effect as of the date of the Contract Documents.
- C. Copies of Standards: Each entity engaged in construction on the Project is required to be familiar with industry standards applicable to that entity's construction activity. Copies of applicable standards are not bound with the Contract Documents.
 - 1. Where copies of standards are needed for performance of a required construction activity, the Contractor shall obtain copies directly from the publication source.
 - 2. Although copies of standards needed for enforcement of requirements may be part of required submittals, the Architect reserves the right to require the Contractor to submit additional copies as necessary for enforcement of requirements.
- D. Abbreviations and Names: Trade association names and titles of general standards are frequently abbreviated. Where acronyms or abbreviations are used in the Specifications or other Contract Documents, they mean the recognized name of the trade association, standards generating organization, authority having jurisdiction, or other entity applicable to the context of the publication provision. Refer to the "Encyclopedia of Associations," published by Gale Research Co., available in most libraries.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 42 00

SECTION 01 45 00

QUALITY CONTROL PROCEDURES

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. Section Includes:
 - 1. Contract conditions.
 - 2. Reference standards.
 - 3. Procedures for submittal of quality control documentation.
 - 4. Quality assurance provisions.
 - 5. Coordination, sequencing and scheduling.
 - 6. General quality control activities and requirements.
 - 7. Procedures for specific quality control activities:
 - a. Testing
 - b. Inspecting
 - c. Pre-installation review and inspection
 - d. Manufacturers' field services
 - 8. Repair and Protection.

1.03 CONTRACT CONDITIONS

- A. Certifications and inspections and testing services are required to verify compliance with requirements specified or indicated. These services whether provided by the Contractor or the Owner do not relieve the Contractor of responsibility for compliance with requirements of the Contract Documents.
 - 1. Certifications, inspections, tests and related requirements specified are not intended to limit the Contractor's other quality control procedures that facilitate compliance with Contract Document requirements.
 - 2. Requirements for the Contractor to provide certifications, inspections, testing and related services by the Architect, Owner and other authorities having jurisdiction are not limited by the provisions of this section.
- B. Testing Agencies, whether employed by the Owner or Contractor, shall not approve any portion of the Work and shall not change requirements of the Contract Documents.
- C. The Owner is responsible for geotechnical and materials testing services required by the Contract Documents and will employ and compensate a Testing Agency for that purpose. Cost of these services shall not be included in the Contract Sum.

1.04 DEFINITIONS

- A. Certificate: A written statement that a particular product or a portion of the Work as accomplished conforms to the requirements of the Contract Documents.
- B. Installer: Any entity that performs a construction activity, whether an employee, subcontractor, or sub-subcontractor of the Contractor.

- C. Testing Agency: Any independent testing and inspection agency employed by the Owner or Contractor to perform certain quality control activities.
- D. Reference Standard: Any document incorporated unto the Specifications by reference rather than inclusion of text; including, but not limited to, voluntary specifications prepared by standards and industry organizations.
- E. Reports: Certified written documentation of inspections, tests or similar services.

1.05 REFERENCE STANDARDS

- A. General: Comply with edition of standards indicated; if date is not indicated, comply with edition in effect as of date of Contract Documents. Compliance with standards that are revised or reissued after that date will not be required unless incorporated into the Contract Documents by modification. When applicable codes, laws or regulations require editions of different dates, obtain instructions from the governing authorities as to which edition is required.
- B. The requirements of reference standards are binding on Contractor, just as if they were copied into the Contract Documents, but no provisions of reference standards shall alter the contractual relationship of the parties to the Contract.
- C. Maintain at the Project site each reference standard that is indicated elsewhere as to be kept at the site.

1.06 SUBMITTALS

- A. Reports: The Owner's Testing Agency shall submit certified written reports of each inspection, test or similar service to the Owner, Architect and Contractor as applicable. If the Contractor is responsible for an inspection, test or similar services and has employed a Testing Agency for such, his reports shall comply with the following:
 - 1. Reports shall be submitted for informational purposes through the Contractor under cover to the Architect.
 - 2. Submit other copies of reports to governing or regulatory authorities if so directed.
 - 3. Submit the report within three (3) working days after date of inspection or test if practicable.
 - 4. Reports of inspections, tests or similar services shall include, but not limited to the following data:
 - a. Date of issue.
 - b. Project name.
 - c. Name, address and telephone number of testing agency.
 - d. Dates and locations of samples and tests or inspections.
 - e. Names of individuals making inspections or tests.
 - f. Name and signature of reviewing registered engineer and laboratory inspector if applicable.
 - g. Related Specifications section(s).
 - h. Test method or basis of evaluation.
 - i. Ambient conditions at time of sample-taking and testing.
 - j. Observations, comments or professional opinions regarding compliance with requirements of Contract Documents.
 - k. Recommendations on re-testing if required.
- B. Certificates: Submit for information only unless otherwise directed.
 - 1. Certificates should be signed by the product manufacturer, unless otherwise specified or not applicable.

2. Include the following information:
 - a. Date of certificate.
 - b. Project name.
 - c. Description of the product or system certified.
 - d. Specification section(s) involved.
 - e. When actual materials to be used are to be certified, include lot identification markings, destination or shipment, and quantity in shipment.
 - f. Title, name, and signature of person authorized to make certification.
- C. Qualifications Statements: Submit for information only unless otherwise directed.
- D. Manufacturers' Instructions: Submit for information only unless otherwise directed. Contractor shall identify to Architect any conflicts between manufacturers' instructions and Contract Documents prior to proceeding with affected work.

1.07 QUALITY ASSURANCE.

- A. Qualifications of manufacturers and installers shall be as indicated in individual sections of the Specifications.
- B. Manufacturer's field personnel shall be employed directly by the manufacturers and normally perform the activities specified.
- C. Qualifications of a Testing Agency, if utilized by Contractor, shall include the following criteria:
 1. Testing Agency shall meet "Recommended Requirements for Independent Laboratory Qualification" latest edition, published by The American Council of Independent Laboratories.
 2. Testing Agency shall be acceptable to Architect and shall have been regularly engaged in services specializing in types of inspections and tests to be performed for a minimum of five years. If requested by Engineer, submit evidence of satisfactory completion of services performed on projects of similar type and scope within specified period.
 3. Testing Agency shall be authorized to perform services by authorities having jurisdiction in State of Georgia.
 4. Testing Agency's on-site personnel shall be qualified and certified in the fields of testing required for the Project.
- D. Testing Equipment shall be calibrated at reasonable intervals with devices of an accuracy traceable to the National Bureau of Standards (NBS) standards or to accepted values of actual physical constants.

1.08 COORDINATION, SEQUENCING AND SCHEDULING

- A. Contractor shall coordinate its sequence of activities with any Testing Agency engaged to perform inspections, tests and similar services to accommodate required work with a minimum delay. Contractor shall schedule and coordinate activities to avoid removing and replacing construction to accommodate inspections and tests. Other responsibilities of Contractor for testing are indicated elsewhere in this section.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.01 GENERAL

- A. Provide work of the specified quality level; where quality level is not indicated, provide work of quality customary in similar types of work.
 - 1. Where codes, laws, or regulations require work of higher quality or performance, provide work complying with those codes, laws, and regulations.
 - 2. Where two or more quality provisions of the Contract Documents conflict, comply with the most stringent requirement; where requirements are different but apparently equal, and where it is uncertain which requirement is most stringent, obtain clarification from the Architect before proceeding.
 - 3. Actual quality may exceed the specified quality; verify that such differences are acceptable to the County (other criteria may make excessive quality undesirable).
- B. Manage and control products, subcontractors, suppliers, manufacturers, site conditions, installers, and workmanship in such a manner as to produce work of the specified quality. Use installers who are capable of producing work of specified quality.
- C. Perform all quality control activities specified unless indicated to be performed by other entities.

3.02 TESTING

- A. The requirements indicated below in this section are the Contractor's responsibilities relative to testing performed by the Owner and his Testing Agency as well as testing under the direct supervision of the Contractor.
- B. Cooperate with Testing Agency personnel. Provide access to the Work and to material supplier's plant and operations.
- C. Provide representative samples of materials proposed for use in the Work, in quantities sufficient for accurate testing and as specified.
- D. As necessary for performance of the testing, furnish incidental labor and facilities including but not limited to the following:
 - 1. Providing access to the Work to facilitate inspections and tests.
 - 2. Obtaining and handling samples at the Project site under the direction of the Testing Agency or assisting the Testing Agency in taking samples.
 - 3. Provide facilities for storage and caring of test samples on-site and security and protection of samples and test equipment at site.
 - 4. Provide preliminary design mixes for materials mixes that require control by Testing Agency.
- E. Notify Testing Agency sufficiently in advance of operations to allow for assignment of personnel and scheduling of tests. Notify Owner's Testing Agency three (3) working days prior to the date of inspection or testing.
- F. Where the Owner has engaged a Testing Agency or other entity for testing and inspection of a part of the Work, and the Contractor is also required to engage an entity for the same or related element, the Contractor shall not employ the entity engaged by the Owner, unless otherwise agreed in writing with the Owner.

- G. Contractor shall notify the Architect in writing and receive a written reply prior to proceeding with additional testing beyond that specified in the Contract Documents.
 - H. Re-testing and Cancellation of Testing:
 - 1. Contractor shall be responsible for re-testing where results of required inspections, test or similar services are unsatisfactory and do not comply with requirements of Contract Documents, regardless of whether the original test was the Contractor's responsibility.
 - 2. Costs for correction of deficient work or construction and re-testing shall be borne by the Contractor.
 - 3. If the Testing Agency is scheduled by the Contractor to perform tests or monitor activities on-site and testing or work to be monitored gets cancelled by the Contractor after the on-site arrival of the Testing Agency, the cost of the Testing Agency from arrival on-site until they are sent back or utilized for another activity including the cost for travel time shall be borne by the Contractor.
 - I. Materials and work covered without testing and approval, if required, shall be uncovered and subsequently recovered at the Contractor's expense.
- 3.03 INSPECTING
- A. Perform inspections specified. When inspections reveal unsatisfactory work, make whatever changes or repairs are necessary and reinspect. Submit a report of each original inspection and each reinspection.
- 3.04 MANUFACTURERS' FIELD SERVICES
- A. Manufacturers' field services are specified in other sections of the Specifications.
 - B. If Architect should be present, provide Architect with a timely notice of site visit so Architect may be present. After site visit, submit a report that records 1) site conditions, installer procedures, and related activities that are not as recommended by the manufacturer; and 2) instructions and recommendations provided by the representative that differ from manufacturer's standard printed instructions.
- 3.05 REPAIR AND PROTECTION
- A. Upon completion of inspection, testing, sample-taking and similar services, repair damaged construction and restore substrates and finishes to eliminate deficiencies, including deficiencies in visual qualities or exposed finishes. Comply with requirements of any references to cutting and patching in other divisions of the Specifications.
 - B. Contractor shall be responsible for repair and protection of Work regardless of assignment of responsibility for inspection, testing or similar services.

END OF SECTION 01 45 00

SECTION 01 50 00

TEMPORARY FACILITIES, CONTROLS AND SERVICES

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 and 0 Specifications, apply to this Section.

1.02 SUMMARY

- A. Section Includes:
 - 1. Definitions
 - 2. Project conditions and scheduling
 - 3. Temporary construction support facilities
 - 4. Temporary utilities and services
 - 5. Special protection requirements
 - 6. Security – Also refer to Division 0 for detailed requirements
 - 7. Vehicular access and parking
 - 8. Termination and removal

1.03 DEFINITIONS

- A. Temporary Construction Support Facilities--Construction, structures, fixtures and other built items required to accomplish the Work but which are not incorporated into the finished Work. Included are field offices, storage sheds, temporary roads and paving, temporary enclosures, hoists, dewatering facilities, temporary signs, construction aids and miscellaneous facilities.
- B. Temporary Utilities--Sources of electric power, water, natural gas, etc. obtained from public utilities, other main distribution systems or temporary sources that support the Contractor's activities but are not a part of the permanent construction or are not yet incorporated into the permanent construction.
- C. Temporary Services--Activities and services required during construction that do not directly accomplish the Work. Included are waste disposal services, rodent and pest control, security and miscellaneous services.

1.04 PROJECT CONDITIONS AND SCHEDULING

- A. Comply with requirements of regulations, governing authorities and public utilities as to type, quantity, location and use of temporary facilities, utilities and services. Secure and maintain copies of permits, inspection reports or approvals for installation and use of temporary facilities and utilities.
- B. Use of permanent facilities prior to date of Substantial Completion is subject to Owner's conditions. During said approved use, Contractor shall maintain and protect completed work. Specific warranties shall not be reduced or voided by Contractor's use of permanent facilities and systems.
- C. Maintain required temporary facilities until not needed or until Substantial Completion. Exceptions to this requirement may be made by Owner as indicated in above paragraph.

1.05 QUALITY ASSURANCE

- A. Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction including, but not limited to, the following:
 - 1. Building code requirements.
 - 2. Health and safety regulations.
 - 3. Utility company regulations.
 - 4. Police, fire department, and rescue squad rules.
 - 5. Environmental protection regulations.
- B. Standards: Comply with NFPA 241 “Standard for Safeguarding Construction, Alterations, and Demolition Operations,” ANSI A10 Series standards for “Safety Requirements for Construction and Demolition,” and NECA Electrical Design Library “Temporary Electrical Facilities.”
 - 1. Electrical Service: Comply with NEMA, NECA, and UL standards and regulations for temporary electric service. Install service in compliance with NFPA 70 “National Electric Code.”
- C. Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

PART 2 – PRODUCTS

2.01 TEMPORARY CONSTRUCTION FACILITIES*

- A. Provide a minimum of one (1) construction trailer at the project site. Construction trailer shall be capable of holding project meetings in a conditioned space with table, chairs, toilet, sink, and internet connectivity. ***Area to be provided by Owner directly across West Broad Street for the duration of the project.**
- B. Temporary Toilet Units: Provide self-contained, single-occupant toilet units of the chemical or aerated recirculation. Provide units properly vented and fully enclosed with a glass-fiber-reinforced polyester shell or similar nonabsorbent material.
- C. Lamps and Light Fixtures: Provide general service incandescent lamps of wattage required for adequate illumination. Provide guard cages or tempered-glass enclosures where exposed to breakage. Provide exterior fixtures where exposed to moisture.
- D. Electrical Power Cords: Provide grounded extension cords. Use hard-service cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords if single lengths will not reach areas where construction activities are in progress. Do not exceed safe length-voltage ratio.
- E. Electrical Outlets: Provide properly configured, NEMA-polarized outlets to prevent insertion of 110- to 120-Volt plugs into higher voltage outlets. Provide receptacle outlets equipped with ground-fault circuit interrupters, reset button, pilot light for connection of power tools and equipment.
- F. Tarpaulins: Provide waterproof fire-resistant UL labeled tarpaulins with flame spread rating of 15 or less.
- G. Fire Extinguishers: Provide hand-carried portable UL-rated Class A fire extinguishers for temporary offices and similar spaces. In other locations, provide hand-carried, portable, UL-rated Class ABC, dry chemical extinguishers or a combination of extinguishers of NFPA recommended classes for the exposures. Comply with NFPA 10 and NFPA 241 for classification, extinguishing agent, and size required by location and class of fire exposure.

PART 3 – EXECUTION

3.01 GENERAL INSTALLATION

- A. Use qualified personnel or services for installation of temporary facilities. Provide each facility ready to use when needed to avoid delay. Locate facilities where they will serve the Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as needed. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.02 CONSTRUCTION SUPPORT FACILITIES

- A. Temporary Storage Facilities – Provide weather tight storage facilities with raised floors and of types and sizes required by storage demands at the project site. Locations of temporary storage facilities shall be subject to Owner's acceptance. All material storage and staging shall be within the designated limits of the Project site. Contractor is responsible for identifying Project site boundaries and insuring that staging and material storage does not occur outside of the site.
- B. Provide a dedicated area for the storage of tools and equipment within each phased work area. The Contractor will be required to secure all tools at the conclusion of each work day and maintain a log of equipment and tools located on site. Combustibles and hazardous materials shall not be stored inside the building overnight or at any time when construction personnel are not present. The Contractor shall notify the Owner and all such materials shall be approved prior to bringing items into the building.
- C. Temporary Enclosures – As required by the progress and sequencing of the Work, provide temporary enclosures for protection of construction in progress or completed, from exposure to foul weather or other construction operations.
 - 1. Maintain protective barriers, vehicular barriers, temporary fencing, dust control barriers and sound control devices as needed for all phases of construction until final completion of the Project. Barriers and devices shall be as required by Division 1, Section 02 40 00 Demolition, and shall be coordinated with the staging and sequencing of the Work. Contractor shall be responsible for replacing established protective barriers and devices damaged or removed during construction and shall install any additional protection devices as required to perform the Work under this Contract.
 - 2. Provide temporary signs as required. Install signs where needed to inform personnel, vendors and public seeking entrance to the Project.
 - 3. Security, access and working requirements will be discussed at length during the preconstruction meeting and are outlined in Division 0 of these specifications.
 - 4. The Contractor is responsible for all temporary construction, phasing, scheduling, material deliveries, and other items that affect the sequence of construction or scheduling of the project.
- D. Sanitary Facilities: Sanitary facilities include temporary toilets, wash facilities, and drinking-water fixtures. Comply with regulations and health codes for the type, number, location, operation, and maintenance of fixtures and facilities. Install where facilities will best serve the Project's needs. Provide applicable paper goods in support of each facility. Provide covered waste containers for used materials.
 - 1. Toilets: Provide and maintain temporarily sited and self-contained toilet units until Substantial Completion on all Work. Do not allow employees to use permanent toilet facilities of the new construction.
 - 2. Wash Facilities: Provide and maintain a safety shower/eye wash facility with potable water at a location convenient for personnel.

3. Drinking Water Facilities: Provide drinking water canisters or fixtures at convenient locations on the Project site. Include cup supply.

3.03 TEMPORARY UTILITIES AND SERVICES

- A. General: Engage the appropriate local utility companies to install temporary services or connect to existing services. Where company will not be responsible for full operation of service, Contractor shall provide remainder with matching, compatible materials and equipment and comply with company recommendations. Contractor shall provide adequate capacity at each stage of construction. Costs for temporary utility connection are borne by the Contractor. **The utility usage cost for all utilities shall be included in the Bid Price.**
- B. Telecommunications Services: Maintain cell phones for Superintendent.
- C. Water Services: Temporary water shall be provided and paid for by the Contractor.
- D. Collection and Disposal of Waste: Collect waste from construction areas and elsewhere on Project site **DAILY. Dedicated dumpsters for construction debris shall be provided.** Comply with requirements of NFPA 241 for removal of combustible waste material and debris. Enforce requirements strictly. Do not hold waste materials more than 7 days during normal weather or 3 days when the temperature is expected to rise above 80 deg F (27 deg C). Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material lawfully.

3.04 VEHICULAR ACCESS AND PARKING

- A. Haul Routes: The Contractor shall be responsible for insuring that trucks providing delivery and/or hauling services to or from the Project site shall properly cover loads. Contractor shall keep the roads to the Project site and the project site clear, free of mud, dirt, debris, or other materials that are deposited as a result of Contractor's hauling and delivery services. The Contractor is responsible for coordinating and scheduling hauling activities so that the traffic flow on the access road to the project site is not disrupted at any time.
- B. Parking Areas: All parking for Contractor's employees, subcontractors' employees, and for vendors, delivery men, and visitors shall be on the Project site and in designated areas of the phasing construction documents.
- C. Traffic Control: The Contractor shall provide all traffic control on streets or drives adjacent to or on the Project site that is needed to facilitate the Contractor's Work and protect the public from activities associated with such work. These controls shall include signs, signals, barricades and flagmen, as necessary. The Contractor shall comply with all local, state, federal rules and regulations concerning the placement and use of traffic control devices

3.05 TEMPORARY PROTECTION AND CONTROL

- A. Environmental Protection: Provide protection, operate temporary facilities and conduct construction in ways and by methods that comply with environmental regulations, and minimize the possibility that air, waterways, and subsoil might be contaminated or polluted or that other undesirable effects might result. Maintain protective barriers, tree protection and erosion control devices until Final Completion of the Project. Contractor shall be responsible for replacing established protective barriers, tree protection and erosion control devices damaged or removed during construction and shall install any additional protection devices as required to perform the Work under the Contract.

3.06 MAINTENANCE, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.
- B. Maintenance: Maintain facilities in good operating condition until project completion.
- C. Termination and Removal: Unless the Architect requests that it be maintained longer, remove each temporary facility when the need has ended, when replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference from the temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
 - 1. Materials and facilities that constitute temporary facilities are the Contractor's property. The Owner reserves the right to take possession of project identification signs.
 - 2. Remove all trash and debris and restore areas to conditions required by the Contract.

END OF SECTION 01 50 00

SECTION 01 60 00

PRODUCT REQUIREMENTS AND SELECTION

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this section.

1.02 SUMMARY

- A. Section Includes:
 - 1. Administrative and procedural requirements for Contractor's selection of products.
- B. Related Sections: The following sections contain requirements that relate to this Section:
 - 1. Division 1 Section; Explanations and Definitions, specifies the applicability of industry standards to products specified.
 - 2. Division 1 Section; Product Substitutions, specifics administrative procedures for handling requests for substitutions made after award of the Contract.

1.03 DEFINITIONS

- A. Definitions used in this section are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties," "systems," "structure," "finishes," "accessories," and similar terms. Such terms are self-explanatory and have well-recognized meanings in the construction industry.
 - 1. "Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent. "Named Products" are item identified by manufacturer's product name, including make or model number or other designation, shown or listed in the manufacturer's published product literature, that is current as of the date of the Contract Documents.
 - 2. "Materials" are products substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.
 - 3. "Equipment" is a product with operational parts, whether motorized or manually operated, that requires service connections, such as wiring or piping.

1.04 QUALITY ASSURANCE

- A. Source Limitations: To the fullest extent possible, provide products of the same kind from a single source.
 - 1. When specified products are available only from sources that do not, or cannot, produce a quantity adequate to complete project requirements in a timely manner, consult with the Architect to determine the most important product qualities before proceeding. Qualities may include attributes, such as visual appearance, strength, durability, or compatibility. When a determination has been made, select products from sources producing products that possess these qualities, to the fullest extent possible.
- B. Compatibility of Options: When the Contractor is given the option of selecting between 2 or more products for use on the Project, the product selected shall be compatible with products previously selected, even if previously selected products were also options.

- C. Name Plates: Except for required labels and operating date, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products that will be exposed to view in occupied spaces or on the exterior.
 - 1. Labels: Locate required product labels and stamps on concealed surfaces or, where required for observation after installation, on accessible surfaces that are not conspicuous.
 - 2. Equipment Nameplates: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate on an easily accessible surface that is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data:
 - a. Name of product and manufacturer.
 - b. Model and serial number.
 - c. Capacity.
 - d. Speed.
 - e. Ratings.

PART 2 – PRODUCTS

2.01 PRODUCT SELECTION

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, new at the time of installation.
 - 1. Provide products complete with accessories, trim, finish, safety guards, and other devices and details needed for a complete installation and the intended use and effect.
 - 2. Standard Products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 - 3. Product Selection Procedures: The Contract Documents and standards, codes and regulations govern product selection. Procedures governing product selection include the following:
 - a. Proprietary Specification Requirements: Where Specifications name only a single product or manufacturer, provide the product indicated. No substitutions will be permitted, except when the product is unavailable, and then the substitution must be under the terms provided in Section 01 63 00, Product Substitution Procedures.
 - b. Descriptive Specification Requirements: Where Specifications described a product or assembly, listing exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides the characteristics and otherwise complies with Contract requirements.
 - c. Performance Specification Requirements: Where Specifications require compliance with performance requirements, provide products that comply with these requirements and that are recommended by the manufacturer for the application indicated.
 - d. Manufacturer's recommendation may be contained in published product literature or by the manufacturer's certification of performance.
 - 4. Compliance with Standards, Codes, and Regulations: Where Specifications only require compliance with an imposed code, standard, or regulation, select a product that complies with the standards, codes, or regulations specified.
 - 5. Visual Matching: Where Specifications require matching an established sample, the Architect's decision will be final on whether a proposed product matches satisfactorily.
 - a. Where no product available within the specified category matches satisfactorily and complies with other specified requirements, comply with provisions of the Contract Documents concerning "Substitutions" for selection of a matching product in another product category.

6. Visual Selection: Where specified product requirements include the phrase "...as selected from manufacturer's standard colors, patterns, textures..." or a similar phrase, select a product and manufacturer that complies with other specified requirements. The Architect will select the color, pattern, and texture from the product line selected.
7. Contractor Option: Where several products or manufacturers are specified as being acceptable, Contractor has the option of choosing among these named.
8. Comparable or Equal: Where one or more products or manufacturers are specified by name and accompanied by the term "or approved equal," or "or equal", "equal to", or "comparable to", the Contractor may submit a request for substitution in accordance with Section 01 63 00, Product Substitution Procedures for any equivalent product or manufacturer that is not specifically named.

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01 60 00

SECTION 01 63 00

PRODUCT SUBSTITUTION PROCEDURES

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this section.

1.02 SUMMARY

- A. Section Includes:
 - 1. Procedures for substitution requests.
 - 2. Product evaluations.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.01 PROCEDURES FOR SUBSTITUTION REQUESTS

- A. If Contractor wishes to use products different from those indicated in the Contract Documents, the Contractor shall make a written application as described herein. The burden of proving equality of proposed substitutions shall rest with the Contractor. **Substitution requests submitted directly by subcontractors or suppliers will NOT be considered.** Substitutions will not be considered for acceptance when acceptance will require substantial revision of Contract Documents.
- B. **Except as described elsewhere herein, requests for substitution will be considered only during the Subcontractor Procurement / Buyout period. Requests for substitutions must reach the office of the Architect by the deadline established in the procurement schedule.** Requests received by the Architect after this date will not be considered. Acceptable substitutions will be added to the Contract Documents by addendum; no verbal approvals will be valid.

NOTE: SUBSTITUTION REQUESTS, OR APPROVED MANUFACTURER REQUESTS SENT DIRECTLY TO THE OWNER WILL NOT BE CONSIDERED. ALL REQUESTS MUST BE SUBMITTED COMPLETE TO THE ARCHITECT.

- C. Contractor shall submit written request with complete data substantiating compliance of the proposed product with requirements of Contract Documents. Submit request to Architect on a standard form, with three (3) copies of each request and supporting data. Only one request for each product will be considered. Include the following data with the request:
 - 1. Project name.
 - 2. Contractor name.
 - 3. Date of request.
 - 4. Identification of product by Specification reference.
 - 5. Complete data substantiating compliance of proposed substitution with requirements stated in Contract Documents:
 - a. Product identification, including manufacturer's name and address.
 - b. Manufacturer's literature; identify:

- 1) Product description.
- 2) Reference standards.
- 3) Performance and test data.
- 4) Manufacturer's recommendations for use and installation.
- 5) Dimensions and space requirements.
- c. Samples, as applicable.
- d. Drawings, as applicable.
- e. Name and address of similar projects on which product has been used, and date of each installation.
- f. Reports from independent testing laboratories, verified experience records from previous users and other printed or written information valid in the circumstances will be considered.
6. **Provide an itemized comparison between proposed substitution and product specified; list all variations AND a detailed explanation of how the proposed product meets or exceeds the requirements of the specifications. Website addresses are NOT and acceptable means of compliance with this requirement. Neither the Owner nor the Architect will perform ANY research in connection with product substitutions. It is the responsibility of the proposer to demonstrate full compliance with these specifications and basis of design products.**
7. Net amount of change in Contract Sum (if applicable)
8. Information on any changes caused in construction schedule.
9. Description of any changes that will be required in other work or products if substitute product is accepted.
10. Designation of availability of maintenance services and sources of replacement materials.

NOTE: SUBMISSIONS THAT DO NOT INCLUDE ALL INFORMATION WILL BE DEEMED INCOMPLETE AND NOT CONSIDERED.

- D. Architect's determination of acceptability of proposed submissions will be made based only on data submitted. In accepting a substitution, the Architect does not warrant that the product meets all express requirements of the Contract Documents. The approved substitution is subject to the same subsequent review and approval procedures as the products originally specified.
- E. Contractor shall coordinate all required components and accessories required to make any substitution complete and operable as intended by the basis of design product indicated in the contract documents including all work required for installation of accepted substitutions with interfacing work. The contractor shall bear any and all design costs required to make approved changes in the Work to properly incorporate substitutions. The contractor shall waive all claims for time and additional costs related to use of acceptable substitutions which become apparent following acceptance, including electrical, structural, mechanical, and plumbing requirements associated with the proposed substitution.
- F. Substitute products shall not be ordered or installed without written acceptance by the Architect. Unless substitutions are received and approved as described above, the Contractor shall be responsible for furnishing materials or products in accordance with the Contract Documents.

3.03 PRODUCT EVALUATIONS

- A. In making a formal request for a substitution the Contractor represents that:
 1. He has investigated the proposed product and has determined that it is equal to or superior in all respects to that specified.

2. He shall provide the same warranties for substitutions as for product specified.
3. He shall be responsible for determining that materials requested for substitution are free of known hazardous substances.
4. He shall coordinate installation of accepted substitution into the Work, and will make such changes as may be required for the Work to be completed in all respects.

END OF SECTION 01 63 00

SECTION 01 65 00

MATERIAL AND EQUIPMENT HANDLING AND STORAGE

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this section.

1.02 SUMMARY

- A. Section Includes:
 - 1. Procedures for transportation and handling.
 - 2. Procedures for delivery and receiving.
 - 3. Procedures for storage.

1.03 DESCRIPTION

- A. Requirements of this Section are general in nature. Refer to individual sections of the Specifications for additional, specific requirements.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.01 PROCEDURES FOR TRANSPORTATION AND HANDLING

- A. Require suppliers to deliver manufactured Products to project site in manufacturers' original packaging with labels and seals intact. Labels shall indicate manufacturer, product name, application instructions and fire resistive classifications.
- B. Require suppliers to package products and materials in a manner that will protect them from damage during shipping, handling and storage. Arrange to transport products and materials by methods that avoid damage.

3.02 PROCEDURES FOR DELIVERY AND RECEIVING

- A. Provide labor and equipment adequate to handle delivery of products and materials by methods that prevent damage. Provide additional protection as necessary during handling to prevent damage to products and packaging. Lift large and heavy components at designated lift points only.
- B. Schedule deliveries to minimize long-term storage at the Project site and prevent overcrowding of construction spaces. Coordinate deliveries with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged or sensitive to deterioration, theft and other losses.
- C. Promptly inspect all materials and products upon delivery to ensure proper material, color, type and quantity, and to ensure that materials are undamaged and properly protected. Verify compliance with requirements of Contract Documents and approved submittals.
- D. Clearly mark partial deliveries to identify contents, permit easy accumulation of entire delivery and facilitate assembly.

3.03 PROCEDURES FOR STORAGE

- A. Store materials and equipment in a safe and protected manner. Observe manufacturer's recommendations for positioning, separation and ventilation, as applicable.
- B. Store materials at the Project site in a manner that will facilitate inspection, measurement, or counting of units. Store unpacked or loose products on shelves, in bins, or in neat groupings of like items.
- C. Where materials are required to be stored in protected conditioned environments, maintain temperatures and humidity within ranges required by manufacturer's instructions unless otherwise specified.
- D. Store heavy materials in manner that will not endanger supporting construction.
- E. Prevent corrosion, soiling, damage, deterioration, or breakage of materials or contact with deleterious materials.
- F. Deliver finish materials only to enclosed and conditioned spaces and where adequate indoor storage facilities are available.
- G. Store and handle paints and similar products subject to spillage in areas where spills will not deface finished surfaces or other work.
- H. Flammable or Hazardous Materials:
 - 1. Store minimum quantities in protected areas.
 - 2. Provide appropriate type fire extinguisher near said storage areas.
 - 3. Observe manufacturer's precautions and applicable ordinances and regulations.
 - 4. Flammable and Hazardous Materials shall not be stored inside the building.
- I. Comply with manufacturer's product data in all aspects of basic material storage, usage, handling, and installation, except where more stringent requirements are specified.
- J. Provide Material Safety and Data (MSDS) Sheets for all items, materials and products as required by laws, rules, regulations, ordinances or codes.

END OF SECTION 01 65 00

SECTION 01 72 00

FIELD ENGINEERING

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. General: This Section specifies administrative and procedural requirements for field-engineering services including, but not limited to, land survey work.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Section 01 31 00, Project Coordination, for procedures for coordinating field engineering with other construction activities.
 - 2. Section 01 81 00, Project Record Documents, for submitting Project record surveys.

1.03 SUBMITTALS

- A. Certificates: Submit a certificate signed by the land surveyor or professional engineer certifying the location and elevation of improvements.
- B. Project Record Documents: Submit a record of Work performed and record survey data as required under provisions of Project Record Documents and Project Closeout Sections and as required to obtain Certificates of Occupancy.

1.04 QUALITY ASSURANCE

- A. Surveyor Qualifications: Engage a land surveyor registered in the state of Georgia to perform required land-surveying services as required.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION

3.01 EXAMINATION

- A. Identification: The Owner will furnish a survey of the Project site that identifies existing control points.
- B. Verify layout information shown on the Drawings, in relation to the property survey and existing benchmarks, before proceeding to lay out the Work. Locate and protect existing benchmarks and control points. Preserve permanent reference points during construction.
 - 1. Do not change or relocate benchmarks or control points without prior written approval. Promptly report lost or destroyed reference points or requirements to relocate reference points because of necessary changes in grades or locations.
 - 2. Promptly replace lost or destroyed Project control points. Base replacements on the original survey control points.
- C. Establish and maintain a minimum of two (2) permanent benchmarks on the site, referenced to data established by survey control points.

1. Record benchmark locations, with horizontal and vertical data, on Project Record Drawings.
- D. Existing Utilities and Equipment: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning site work, investigate and verify the existence and location of underground utilities and other construction.
 1. Prior to construction, verify the locations and invert elevations at points of connection of storm sewer piping.
 2. Owner will not be responsible for costs of rework incurred because of Contractor's failure to verify said points.

3.02 PERFORMANCE

- A. Work from lines and levels established by the property survey. Establish benchmarks and markers to set lines and levels at each stage of construction and elsewhere as needed to locate each element of the Project. Calculate and measure required dimensions within indicated or recognized tolerances. Do not scale Drawings to determine dimensions.
 1. Advise all entities engaged in construction activities of marked lines and levels provided for their use.
 2. As construction proceeds, check every major element for line, level, and plumb.
- B. Surveyor's Log: Maintain a surveyor's log of control and other survey work. Make this log available for reference.
 1. Record deviations from required lines and levels, and advise the Architect when deviations that exceed indicated or recognized tolerances are detected. On Project Record Drawings, record deviations that are accepted and not corrected.
- C. Site Improvements: Locate and lay out site improvements, including pavements, stakes for grading, detention pond construction, fill and topsoil placement, utility slopes, invert elevations, and exterior lighting locations.
- D. Building Lines and Levels: Locate and lay out batter boards for structures, building foundations, column grids and locations, floor levels, and control lines and levels required for mechanical and electrical work.
- E. Existing Utilities: Furnish information necessary to adjust, move, or relocate existing structures, utility poles, utility lines, utility services, or other appurtenances located in or affected by construction. Coordinate with local authorities having jurisdiction.

END OF SECTION 01 72 00

SECTION 01 73 00

CONSTRUCTION EXECUTION

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. Section Includes:
 - 1. General examination requirements.
 - 2. General installation procedures and requirements
 - 3. Installation requirements for building components.
 - 4. Hot work permit and Safety Requirements
 - 5. Safety precautions and requirements
 - 6. Phasing Requirements

1.03 DEFINITIONS

- A. Concealed Spaces: Spaces not accessible after completion of construction.
- B. Damage: Any sort of deterioration whether due to weather, normal wear and tear, accident, or abuse; resulting in soiling, marring, breakage, corrosion, rotting or impairment of function.
- C. Debris: Rubbish, waste materials, litter, volatile wastes, and similar materials.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.01 GENERAL EXAMINATION REQUIREMENTS

- A. Prior to performing work, examine the applicable substrates and the conditions under which the work is to be performed. If unsafe or otherwise unsatisfactory conditions are encountered, take corrective action before proceeding.
- B. Contractor shall be responsible for verifying and obtaining proper substrate conditions, tolerances and material alignments to receive applied or attached materials and construction.
- C. Conditions that could have been discovered by examination of Project site and Drawings will not be allowed as cause for claims for extra work. In particular these conditions include:
 - 1. Underground utilities.
 - 2. Existing structures and appurtenances, on the site of the Project with which the Contractor must coordinate during construction and that can be reasonably discerned.
 - 3. Space requirements of items shown diagrammatically on Drawings.
 - 4. Limitations on transport and storage of materials and equipment.
 - 5. Locations of points of connections to utilities.

3.02 GENERAL PREPARATION REQUIREMENTS

- A. Take field measurements as required to fit work properly and recheck measurements prior to installing each product. Notify Architect promptly of any discrepancy in dimensions between Drawings and field measurements that will affect a current or anticipated installation.

3.03 WORKING TIMES

- A. The basic hours of work for the Contractor shall be 7:30 a.m. through 5:00 p.m., Monday through Friday. No work will be allowed outside of these hours unless scheduled in advance. The Contractor shall notify the Owner in advance for scheduling off-hours work.

3.03 GENERAL INSTALLATION PROCEDURES

- A. All construction shall be in accordance with all applicable federal, state, and local codes and regulations.
- B. Accurately locate the work and components of the work; make vertical work plumb; make horizontal work level. Align materials to give smooth uniform surface planes within specified tolerances.
- C. The Contractor is responsible for all temporary construction, phasing, scheduling, material deliveries, and other items that affect the sequence of construction or scheduling of the project and shall coordinate with the Owner's facility operations.
- D. Shut down of some utilities will be required in order to construct this project. These shut down activities may need to be performed after business hours and are to be coordinated with the Owner in advance.
- E. All mechanical, electrical and plumbing sub-contractors shall submit affidavits for each building permit to the building permits section at least two (2) days before requesting inspections. Affidavit forms are available at building permits department.
- F. The Contractor shall verify location of existing utilities before commencing work, and care shall be taken to protect all utilities which are to remain.
- G. Where space is limited, install components to maximize space available for maintenance and to maximize ease of removal for replacement.
- H. Install work in such manner and sequence as to preclude cutting and patching wherever possible.
- I. Install products only at the time and sequence, and under the environmental conditions that will insure best possible results.
- J. In finished areas, conceal pipes, ducts, and wiring within construction, unless otherwise indicated.

3.04 INSTALLATION OF COMPONENTS

- A. Install all products in accordance with manufacturer's instructions and recommendations, whether conveyed in the Contract Documents or not.
- B. Where mounting heights are not indicated, and there is no guidance for mounting, obtain Architect's instructions before proceeding.
- C. Separate incompatible materials with suitable materials or spacing. Prevent cathodic corrosion.
- D. Provide all anchors and fasteners required and use methods necessary to securely fasten work. In assemblies and installation, allow for thermal expansion and contraction, and for building movement.
- E. After installation, adjust operating components to provide for proper operation.
- F. The site shall remain secured for the duration of the project.

3.05 CLEANING AND PROTECTION OF INSTALLATIONS

- A. Keep the work site free of waste materials and debris; remove such waste periodically. Maintain level of cleanliness necessary for proper execution of the work. Where dust would impair execution of work, broom clean the entire area and keep clean.
- B. Remove debris from concealed space prior to enclosing space.
- C. Keep installed work clean, and clean again when soiled by other operations. Protect installed work from damage.
 - 1. Provide protective coverings for work that may be damaged by subsequent operations. Where heavy abuse is expected, use minimum of plywood for protection.
 - 2. Maintain protective coverings until Date of Substantial Completion.

3.06 SAFETY PRECAUTIONS AND REQUIREMENTS

- A. Take precautions to prevent fires and to facilitate fire-fighting operations.
 - 1. Store flammable materials in non-combustible containers, store away from potential fire sources; remove flammable waste regularly; provide adequate ventilation when using flammable or explosive substances.
 - 2. Carefully supervise the operation of potential fire sources including on-site welding and cutting.
 - 3. Keep temporary and permanent fire fighting facilities readily accessible; keep fire fighting routes open.
- B. Take precautions to prevent accidents due to physical hazards.
 - 1. Provide barricades, signs and warning lights as required to protect personnel and public from hazards and inform them thereof. Barricades and temporary safety railings shall comply with applicable safety regulations.
 - 2. Provide and require use of safety equipment, clothing and accessories as required by the construction activity and applicable safety regulations. This is a hard hat job; protective headgear must be worn at all times in the construction period.

- C. Take precautions to prevent pollution of air, water and soil.
 - 1. Comply with government regulatory requirements for disposal of waste.
 - 2. Do not dispose of volatile wastes such as petroleum products or other chemicals in storm or sanitary drains or on the grounds surrounding the Project site.
 - 3. Do not handle or dispose of waste materials, debris, cleaning compounds or other chemicals in a manner that will be harmful to plant life on grounds adjacent to the Project site.
 - 4. Comply with regulations and authorities having jurisdiction over safety and environmental standards affecting the Project.
 - 5. Special care shall be taken to prevent newly constructed building phases from dust, mud or other material that may soil or stain the finished building materials.
- D. Take precautions not to allow noxious fumes, gases, or excessive amounts of dust to leave the work area. Notify the Owner at least 24 hours in advance of any scheduled activities that might lead to such emissions.
- E. Provide temporary supports and construction as required to prevent movement, collapse, or structural failure of the building, site work or any elements thereof.

END OF SECTION 01 73 00

SECTION 01 73 50

CUTTING AND PATCHING

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and other general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. Section Includes:
 - 1. Description
 - 2. Submittals
 - 3. Materials
 - 4. Examination prior to implementation
 - 5. Preparation
 - 6. Workmanship
 - 7. Cutting
 - 8. Patching
 - 9. Cleaning

1.03 DESCRIPTION

- A. Contractor shall be responsible for cutting, fitting and patching required to complete the Work including the following:
 - 1. Making parts fit together properly.
 - 2. Uncovering portions of the Work to provide for installation of ill-timed work or to accommodate inspections as required.
 - 3. Removing and replacing defective work or work not conforming to requirements of Contract Documents.
 - 4. Removing samples of installed work as specified for testing.
- B. Costs incurred for ill-timed work or uncovering of work shall include costs for services of Owner's consultants.

1.04 SUBMITTALS

- A. Prior to cutting and patching of work in place, the Contractor shall submit a written proposal to the Architect. This proposal shall be submitted at least three days in advance of performing any cutting or alterations and shall meet the requirements set forth in this section.
 - 1. The written proposal must be submitted in advance of any cutting that affects the following:
 - a. Work of Owner or any separate contract.
 - b. Structural elements of the Project.
 - c. Integrity or effectiveness of weather-exposed or waterproofed or moisture-resistant elements and systems.
 - d. Life expectancy, maintenance, efficiency or safety of operational elements.
 - e. Aesthetic qualities of visually exposed elements.

2. The Contractor shall include the following information in the proposal:
 - a. Identification of Project.
 - b. Description of affected work.
 - c. Extent of cutting and patching and how it is to be performed; indication of why it cannot be avoided.
 - d. Anticipated results in terms of changes to construction; including changes to other significant visual elements.
 - e. Products proposed for use.
 - f. Firms or entities that will perform the work.
 - g. Utilities that will be disturbed or affected, including those that will be relocated and those that will be temporarily out-of-service. Indicate how long service will be disrupted.
 - h. Alternate methods, if applicable.
 - i. Dates and times when cutting and patching work is to be performed.
 3. Should conditions of the work or the schedule indicate a change of products from the original installation, Contractor shall submit a request for substitution as specified in Product Options and Substitutions Section.
- B. Approval by the Architect to proceed with cutting and patching does not waive the Architect's right to later require complete removal and replacement of a part of the Work found to be unsatisfactory.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Materials for patching and replacement of work removed: Comply with Specification Sections for type of work to be performed. Use materials identical to original installed materials. If identical materials cannot be used where exposed surfaces are involved, use materials that match original adjacent surfaces to the fullest extent possible with regard to visual effect. Use materials whose installed performance will equal or surpass that of original materials installed.

PART 3 – EXECUTION

3.01 EXAMINATION

- A. Prior to proceeding with work, examine Project conditions and surfaces to receive work including elements subject to damage or movement during cutting and patching operations. Take corrective action if unsafe or unsatisfactory conditions are encountered or anticipated.
- B. After cutting, uncovering or removing, inspect conditions affecting installation of products or performance of further work. If unsatisfactory or questionable conditions are encountered, report such conditions in writing to Architect and do not proceed with work until Architect has provided further instructions.

3.02 PREPARATION

- A. Temporary Supports: Provide adequate temporary supports for work to be cut and as necessary to insure the structural integrity of the affected portion of the work.

- B. Protection:
 - 1. Protect adjacent construction during cutting and patching work to prevent damage. Provide all materials, devices and methods as required to protect work and adjacent surfaces.
 - 2. Take precautions necessary to avoid cutting operable pipes, conduits or ductwork serving the building including those scheduled to be removed or relocated until provisions have been made to bypass them.
 - 3. Protect portions of the work that may be exposed to the elements by cutting and patching.

3.03 WORKMANSHIP

- A. Employ skilled workers to perform cutting and patching work. To the greatest extent possible, retain installers or fabricators to perform cutting and patching work, especially for visually exposed finished surfaces and weather-exposed, waterproofed or moisture resistant elements.
- B. Perform demolition and cutting work by methods that will not damage adjacent construction and will provide proper surfaces for patching work.
- C. Execute work, by methods which will prevent settlement or damage to other work.
- D. Elements of a structural or supporting nature, including those which are concealed and exposed after removal of work for repairs or patching, shall be inspected and the Architect notified should additional work be indicated due to loss of structural integrity, rot, rust, corrosion or other similar conditions.
- E. Restore work that has been cut and removed so that completed Work is in accordance with requirements of Contract Documents. Perform all installations, fittings, and adjustments of materials or products to comply with manufacturers' product data, its intended functions, specified tolerances and finishes.
- F. Fit restored work airtight around pipes, sleeves, ducts, conduit and other penetrations through surfaces.
- G. Refinish surfaces to provide an even, uniform finish to match adjacent finishes. For continuous surfaces, refinish to nearest intersection. For an assembly, refinish entire unit.

3.04 CUTTING

- A. Perform cutting using methods least likely to damage adjoining construction or elements to be retained. Where possible, review proposed procedures with original installer; comply with original installer's recommendations.
- B. Where cutting is required, use tools designed for sawing, cutting and grinding, not hammering or chopping. Cut openings neat to sizes required with minimum disturbances to adjacent surfaces. Cut or drill from exposed or finished side into concealed surfaces to avoid marring finished surfaces.
- C. Perform cutting through concrete or masonry using cutting machines designed for this purpose such as carborundum saws or diamond core drills.

- D. Where operable utility services are required to be removed, relocated or abandoned, bypass services such as pipes or conduits before cutting. Cut off pipes or conduits in walls or partitions to be removed; and cap, plug and seal remaining portions of pipe after by-passing.
- 3.05 PATCHING
- A. Patch with methods and materials that are the least obvious. Restore exposed finishes of patched areas and adjacent areas in a manner that will be indistinguishable in the finished Work.
 - B. Where possible, inspect and test patched areas to demonstrate integrity of installation.
- 3.06 CLEANING
- A. Clean areas and spaces where cutting and patching has been performed or where such work areas were accessed.
 - B. Remove excess paint, mortar, oils, putty or other items of similar nature from patched work and adjoining surfaces.
 - C. Restore any and all damaged or displaced insulation or coverings on pipe, ductwork or in walls or ceiling spaces.

END OF SECTION 01 73 50

SECTION 01 74 00

CLEANING

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. This Section includes administrative and procedural requirements for cleaning during construction and final cleaning prior to Substantial Completion.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Section 01 73 00 Construction Execution.
 - 2. Special cleaning requirements for specific construction elements are included in appropriate Sections of Divisions 2 through 33.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by the manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 – EXECUTION

3.01 CLEANING DURING CONSTRUCTION

- A. During construction period, Contractor shall keep the building, Project site, and adjacent properties free from accumulation of debris and waste materials at all times. The Contractor shall execute all cleaning procedures necessary to maintain these conditions.
- B. Provide adequate on-site containers for waste collection. Place all waste materials and debris in said containers in an expeditious manner to prevent accumulation. Remove waste from Project site when containers become full. Legally dispose of all such waste and debris off Project site. Dispose of no materials in adjacent waterways.
- C. Control windblown dust and materials subject to blowing. Wet down materials as necessary to prevent such occurrences.
- D. Allow no accumulation of food scraps or organic debris that may contribute to spread of rats, roaches, and other vermin. Contractor shall be responsible for securing services of any pest extermination during construction through Substantial Completion.
- E. Allow no graffiti or similar distasteful comments or illustrations to be authored on building materials or on any temporary or permanent construction on the Project site. Contractor shall monitor the Project for violations of this item, and shall take action to clean, cover, or replace subject materials as necessary.

3.02 FINAL CLEANING

- A. Prior to Date of Substantial Completion, clean all finished surfaces in accordance with manufacturers' product data and requirements of applicable sections of Specifications. All said cleaning shall be performed prior to Contractor's request that the Project or portion thereof be inspected for Substantial Completion. For the "final cleaning" employ experienced workers or professional cleaners. Quality of cleaning work shall be as expected in standard commercial building cleaning and maintenance programs.
- B. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for the entire Project or a portion of the Project.
 - 1. Clean the Project Site, yard and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and foreign substances.
 - 2. Sweep paved areas and concrete surfaces broom clean. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - 3. Remove petrochemical spills, stains, and other foreign deposits.
 - 4. Remove tools, construction equipment, machinery, and surplus material from the site.
 - 5. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - 6. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - 7. Broom clean concrete floors in unoccupied spaces.
 - 8. Vacuum clean carpet and similar soft surfaces, removing debris and excess nap. Shampoo, if required to remove all stains.
 - 9. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
 - 10. Remove labels that are not permanent labels.
 - 11. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 - a. Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
 - 12. Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 - 13. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
 - 14. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
 - 15. Clean ducts, blowers, and coils if units were operated without filters during construction.
 - 16. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs and defective and noisy starters in fluorescent and mercury vapor fixtures.
 - 17. Leave the Project clean and ready for occupancy.

- C. Pest Control: Engage an experienced, licensed exterminator to make a final inspection and treatment rid the Project of rodents, insects, and other pests. Comply with regulations of local authorities.
- D. Removal of Protection: Remove temporary protection and facilities installed during construction to protect previously completed installations during the remainder of the construction period.
- E. Compliances: Comply with governing regulations and safety standards for cleaning operations. Make Material Safety Data Sheets (MSDS) available as required by applicable legal requirements for all cleaning agents used on the Project site. Remove waste materials from the site and dispose of lawfully. Comply fully with federal, state and local environmental and antipollution regulations.

3.03 GENERAL SITE MAINTENANCE

- A. Take precautions to prevent pollution of air, water and soil.
 - 1. Do not burn or bury waste materials or debris on Project site. Comply with government regulatory and legal requirements for disposal of waste.
 - 2. Do not dispose of volatile wastes such as paint, mineral spirits, oils or paint thinner in storm or sanitary drains, on pavements or in gutters of Project site.
 - 3. Do not handle or dispose of waste materials, debris, cleaning compounds or other chemicals in a manner that will contaminate the soil or be harmful to plant life on the Project site.
 - 4. Comply with laws, rules regulations, ordinances, codes and authorities having jurisdiction over safety and environmental standards affecting the Project.
- B. Minimize discharge of rainwater and effluent into sewer and adjacent waterways.
 - 1. Provide temporary means of drainage to prevent flooding and ponding on the Project site.
 - 2. Prevent site erosion due to stormwater runoff.
 - 3. Control sediment discharges; filter out soil, debris and contaminants.
 - 4. Comply with all laws, rules, regulations, ordinances, codes and other legal requirements governing erosion control and stormwater runoff both on the Project site and leaving the Project site.
- C. Keep adjacent public ways free of debris, hazardous and unsanitary conditions and nuisances. Provide adequate traffic control by means of signs, signals and flagmen, as necessary.

END OF SECTION 01 74 00

SECTION 01 77 00
CONTRACT CLOSE-OUT

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. Section Includes:
 - 1. Substantial Completion Procedures
 - 2. Final Completion Procedures

1.03 DEFINITIONS

- A. Substantial Completion: The time at which the Work is sufficiently complete in accordance with the Contract Documents so that the City of Sugar Hill can occupy or use the Work for its intended purpose.
- B. Final Completion: The stage at which all the Work has been satisfactorily completed in accordance with the Contract Documents.
- C. List of Incomplete Work: A comprehensive list of items to be completed or corrected, prepared by the Contractor for the purpose of obtaining certification of Substantial Completion. This list is also referred to as a "punch list."

1.04 SUBSTANTIAL COMPLETION PROCEDURES

- A. The Architect will perform one inspection for Substantial Completion upon the request of the Contractor.
One Certificate of Substantial Completion will be issued for the maintenance building; this certificate will include all of the Work and not a portion or portions.
If the Architect is unable to issue the Certificate of Substantial Completion because the Work is not considered to be substantially complete, the Contractor shall pay all subsequent inspection costs, including compensation for the Architect's services.
- B. Prior to requesting Architect's inspection for Certificate of Substantial Completion, complete the following activities and list all known exceptions in the request:
 - 1. Obtain and submit the Certificate of Occupancy and any applicable operating permits from authorities having jurisdiction. Said certificates and permits (if applicable) shall enable County to have full and unrestricted use of the Work, and unrestricted access to services and utilities.
 - 2. Touch up and otherwise repair and restore marred exposed finishes and conduct the final cleaning of the Project as directed elsewhere in these Specifications.
 - 3. Inform Owner of necessary procedures for changing over utilities and services and other operational and maintenance responsibilities.
 - 4. Conduct for the Owner's personnel the demonstrations of equipment and systems and provide the operations and maintenance training required by the Contract Documents.
 - 5. Complete all graphics and signage, paving marking, and traffic control signage.
 - 6. Remove all temporary facilities from the Project site.

7. Deliver to the Owner all tools, spare parts, extra stocks of materials, and similar physical items as required by the Contract Documents.
 8. Place fire extinguishers charged and ready to use. Extinguishers shall bear tags showing the date tested and by whom.
 9. Make changeover to permanent locking system, transmit keys to Owner, and advise Owner's personnel of changeover in security. Accompany keys with Finish Hardware Schedule and tag each key to indicate which lock it operates.
 10. Complete all other activities specified by the Contract Documents to be completed before Substantial Completion.
- C. Prior to requesting Architect's inspections for Substantial Completion, complete the following submittals (in triplicate unless specified otherwise):
1. List of incomplete work.
 2. Reports on operations and maintenance training for Owner's personnel.
 3. Final report on testing, adjusting, and balancing of the mechanical equipment.
 4. All submittals specified in the Contract Documents to be completed before Substantial Completion.
- D. On receipt of a request for inspection, the Architect will either proceed with inspection or advise the Contractor of unfilled requirements. The Architect will prepare the Certificate of Substantial Completion following the inspection or advise the Contractor of construction that must be completed or corrected before the Certificate will be issued. In the latter case, any follow-up inspections that must occur prior to granting Substantial Completion will be considered additional services by the Architect and will be compensated by the Contractor. The Certificate of Substantial Completion will be accompanied as necessary by a list of deficient work items (a Punch list) that must be completed or corrected by the Contractor prior to his requesting an inspection by the Architect for final acceptance and final completion of the Project.
- E. Upon completion of the inspection and determination that the Work is substantially complete; the Architect's shall prepare a Certificate of Substantial Completion (on AIA Form No. G704, 2000 edition, or its equivalent) establishing a date when the Project is sufficiently complete and suitable for the use it is intended, and identifying a Punch list. The Architect and County shall execute said Certificate.

1.05 FINAL COMPLETION PROCEDURES

- A. The Contractor's request for final inspection and final application for payment may coincide. The Architect will perform only one inspection for Final Completion, upon the request of the Contractor. The Contractor should take care that all requirements for Final Completion as indicated in the paragraphs below have been completed prior to submitting their request. If the Architect is unable to issue the certificate for final payment because the Work is not complete, the Contractor shall pay all subsequent inspection costs, including compensation for the Architect's services.
- B. Prior to requesting Architect's final inspection for certificate of Final Completion and Final Payment, complete the following items and list any known exceptions in the request:
1. Submit a copy of the Punch list of itemized work to be completed or corrected, stating that each item has been completed, corrected or otherwise resolved for acceptance.
 2. Submit final pay application accounting for all changes in Contract Sum, with final releases and support not previously submitted and accepted, including Consent of Surety to Final Payment.
 3. Submit special warranties, workmanship bonds, maintenance agreements, final certifications and similar documents required by Contract Documents or related to installed equipment and materials. Submit required closeout submittals listed herein.

C. Closeout Submittals:

1. Warranties: In accordance with Contract Documents, Contractor shall furnish his one-year warranty in writing, on the form bound hereinafter. Warranties for a longer period of time may be required by the Specifications. These warranties of a longer period also shall be assembled and submitted. Unless otherwise specified, all warranties shall commence on the Date of Substantial Completion. The warranties shall state the date on which they expire.
2. Statutory Affidavit: Before final closeout of the Work, the Contractor and Subcontractors shall furnish a Statutory Affidavit in the form attached to this section.
3. Inspection Reports: Secure and submit to the Owner, through the Architect, a certification from the local government agency or agencies having jurisdiction that the construction has been inspected as required by laws or ordinances, and that the Project is acceptable to the following authorities:

Local Building Inspector
Local HVAC Inspector
Local Plumbing Inspector
Local Electrical Inspector
Local Dept. of Public Utilities
Local Development Inspector
Local Fire Marshal

4. Certificate of Substantial Completion and Certificate of Final Completion: A Certificate of Substantial Completion including an accompanying Punch list for the Project will be prepared by the Architect for the purpose of establishing a date when the Project is sufficiently complete and suitable for the use it is intended. On final inspection of the Project, submit a Certificate of Final Completion verifying that Punch list items are complete and that all closing documents and payments are in order (as shown by the accompanying project close-out check list), and establishing a Date of Final Acceptance.
5. Project Record Documents: Submit to the Owner through the Architect the Project Record Documents (Drawings and Project Manual) specified elsewhere in these Specifications.
6. Maintenance & Operations Manuals: Submit to the Owner through the Architect the Operations and Maintenance Manuals specified elsewhere in these Specifications.
7. Materials and Services List: In addition to the Maintenance and Operations Manuals, prepare and submit to the Owner through Architect a list of all subcontractors and major suppliers who provided products, materials and services for the Project. Indicate company names, addresses, phone numbers, and personnel to contact for information or in case of problems. The list shall be typed in legible and organized format.
8. Close Out Documents
 1. Special Warranties in excess of one (1) year sections 2 to 33.
 2. Attic Stock.
 3. Operations and maintenance data.
 4. Project Record documents

PROJECT CLOSE-OUT

CHECK OFF LIST

<u>DOCUMENTS</u>	<u>NO. OF COPIES</u>	<u>DATE RECEIVED</u>
Contractor's Warranty	_____	_____
Statutory Affidavit (Contractor's)	_____	_____
Statutory Affidavit (Sub-contractors')	_____	_____
Inspection Reports:		
County Building Inspector	_____	_____
County Plumbing Inspector	_____	_____
County HVAC Inspector	_____	_____
County Electrical Inspector	_____	_____
County Dept. of Public Utilities	_____	_____
County Development Inspector	_____	_____
Fire Marshal Occupancy Certificate	_____	_____
Planning & Development Occupancy Certificate	_____	_____
Record Drawings and Specifications	_____	_____
Operations and Maintenance Manuals & related Submittals	_____	_____
Certificate of Receipt of Keys and Schedule	_____	_____

[illegible]

PROJECT CLOSE-OUT

CHECK OFF LIST
(Continued)

	<u>NO. OF COPIES</u>	<u>DATE RECEIVED</u>
<u>DOCUMENTS</u>		
Punchlist Items Completed	_____	_____
Certificate of Substantial Completion	_____	_____
Certificate of Final Completion	_____	_____
Consent of Surety of Final Payment	_____	_____

I certify that, being familiar with the Contract Documents for this Project, to the best of my knowledge, the items checked off hereinabove constitute all that are applicable to this Project.

Date Submitted to the Architect: _____

Date Submitted to the Owner: _____

Contractor:

Architect: Precision Planning, Inc.

STATUTORY AFFIDAVIT

STATE OF _____, COUNTY OF _____

FROM: _____

TO: _____

RE: Contract entered into the _____ day of _____ 20 ___, between the above mentioned parties for the construction of _____ at _____

KNOW ALL MEN BY THESE PRESENTS:

1. The Undersigned hereby certifies that all work required under the above contract has been performed in accordance with the terms thereof, that all material, men, subcontractors, mechanics, and laborers have been paid and satisfied in full, and that there are no outstanding claims of any character arising out of the performance of the contract which have not been paid and satisfied in full.
2. The undersigned further certifies that to the best of his knowledge and belief there are no unsatisfied claims for damages resulting from injury or death to any employees, subcontractors, or the public at large arising out of the performance of the contract, or any suits or claims for any other damage of any kind, nature, or description which might constitute a lien upon the property of the County.

The undersigned makes this affidavit as provided by law and for the purpose of receiving final payment in full settlement of all claims arising under or by virtue of the contract, and acceptance of such payment is acknowledged as a release of the County from any and all claims under or by virtue of the contract.

IN WITNESS WHEREOF, the undersigned has signed and sealed this instrument this day of _____, 20 ____.

Personally appeared before the undersigned, _____ who, after being duly sworn, depose(s) and say(s) that the facts stated in the above affidavit are true.

Notary Public

This _____ date of _____, 20____.

My commission expires _____

CERTIFICATE OF FINAL COMPLETION

OWNER: _____ CONTRACTOR: _____

ARCHITECT: _____ BONDING CO.: _____

PROJECT NAME: _____

CONTRACTOR: _____

(Name, Address) _____

TO (OWNER):

THIS CERTIFICATE COVERS THE ENTIRE PROJECT

By execution of this document, the Contractor and Architect each certify that the work performed under this Contract has been reviewed at a final inspection on _____, and found to be complete as verified by the attached project Close-Out Check-Off list, and the County accepts the Project as complete on the last date of this Certificate. Final payment to the Contractor is authorized. Execution and acceptance of this Certificate by the County, shall in no way waive or void any conditions of the Contract Documents.

A certificate of Substantial Completion has been issued establishing _____, as the date of beneficial use and the commencement of all Warranties and Guarantees required by the Contract Documents.

ARCHITECT BY DATE

CONTRACTOR BY DATE

OWNER BY DATE

END OF SECTION 01 77 00

SECTION 01 78 20

OPERATIONS AND MAINTENANCE DATA

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. This Section includes administrative and procedural requirements for operation and maintenance manuals, including the following:
 - 1. Preparing and submitting operation and maintenance manuals for building operating systems and equipment.
 - 2. Preparing and submitting instruction manuals covering the care, preservation, and maintenance of architectural products and finishes.
 - 3. Instruction of the Owner's operating personnel in the operation and maintenance of building systems and equipment.
- B. Related Sections: The following sections contain requirements that relate to this section:
 - 1. Division 1 Section, Submittals, specifies preparation of Shop Drawings and Product Data.
 - 2. Division 1 Section, Contract Closeout, specifies general closeout requirements.
 - 3. Division 1 Section, Project Record Documents, specifies record document requirements.
 - 4. Appropriate Sections of Divisions 2 through 33 specify special operation and maintenance data requirements for specific pieces of equipment or building operating systems.

1.03 QUALITY ASSURANCE

- A. Maintenance Manual Preparation: In preparation of maintenance manuals, use personnel thoroughly trained and experienced in operation and maintenance of equipment or system involved.
 - 1. Where maintenance manuals require written instructions, use personnel skilled in technical writing where necessary for communication of essential data.
 - 2. Where maintenance manuals require drawings or diagrams, use draftsmen capable of preparing drawings clearly in an understandable format.
- B. Instructions for the Owner's Personnel: Use experienced instructors thoroughly trained and experienced in operation and maintenance of equipment or system involved to instruct the Owner's operation and maintenance personnel.

1.04 SUBMITTALS

- A. Submittal Schedule: Comply with the following schedule for submitting operation and maintenance manuals:
 - 1. Before Substantial Completion, when each installation that requires operation and maintenance manuals is nominally complete, submit a draft copy of each manual to the Architect for review. Include a complete index or table of contents of each manual. The Architect will return the draft with comments within 15 days of receipt.

2. Contractor must incorporate all of Architect's revisions and comments and submit final acceptable operations and maintenance manuals to Architect prior to requesting Final Completion on the Project.
- B. Form of Submittal: Prepare operation and maintenance manuals in the form of an instructional manual for use by the Owner's operating personnel. Organize into suitable sets of manageable size. Where possible, assemble instructions for similar equipment into a single binder.
1. Binders: For each manual, provide heavy-duty, commercial-quality, 3-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to receive 8-1/2-by-11- inch paper. Provide a clear plastic sleeve on the spine to hold labels describing contents. Provide pockets in the covers to receive folded sheets.
 - a. Where 2 or more binders are necessary to accommodate data, correlate data in each binder into related groupings according to the Project Manual table of contents. Cross-reference other binders where necessary to provide essential information for proper operation or maintenance of the piece of equipment or system.
 - b. Identify each binder on front and spine, with the printed title "Operation and Maintenance Manual," Project title or name, and subject matter covered. Indicate volume number for multiple volume sets of manuals.
 2. Dividers: Provide heavy paper dividers with celluloid-covered tabs for each separate Section. Mark each tab to indicate contents. Provide a typed description of the product and major parts of equipment included in the section on each divider.
 3. Text Material: Where maintenance manuals require written material, use the manufacturer's standard printed material. If manufacturer's standard printed material is not available, provide specially prepared data, neatly typewritten, on 8-1/2-by-11-inch white bond paper.
 4. Drawings: Where maintenance manuals require drawings or diagrams, provide reinforced, punched binder tabs on drawings and bind in with text.
 - a. Where oversize drawings are necessary, fold drawings to the same size as text pages and use as a foldout.
 - b. If drawings are too large to be used practically as a foldout, place the drawing, neatly folded, in front or rear pocket of binder. Insert a typewritten page indicating drawing title, description of contents, and drawing location at the appropriate location in the manual.

1.05 MANUAL CONTENT

- A. In each manual include information specified in the individual Specification Section and the following information for each major component of building equipment and its controls:
1. General system or equipment description.
 2. Design factors and assumptions.
 3. Copies of applicable shop drawings and product data.
 4. System or equipment identification, including:
 - a. Name of manufacturer.
 - b. Model number.
 - c. Serial number of each component.
 5. Operating instructions.
 6. Emergency instructions.
 7. Wiring diagrams.
 8. Inspection and test procedures.
 9. Maintenance procedures and schedules.

10. Precautions against improper use and maintenance.
 11. Copies of warranties.
 12. Repair instructions including spare parts listing.
 13. Sources of required maintenance materials and related services.
 14. Manual index.
- B. Organize each manual into separate sections for each piece of related equipment. As a minimum, each manual shall contain a title page; a table of contents; copies of product data, supplemented by drawings and written text; and copies of each warranty, bond, and service contract issued.
1. Title Page: Provide a title page in a transparent, plastic envelope as the first sheet of each manual. Provide the following information:
 - a. Subject matter covered by the manual.
 - b. Name and address of the Project.
 - c. Date of submittal.
 - d. Name, address, and telephone number of the Contractor.
 - e. Name and address of the Architect.
 - f. Cross-reference to related systems in other operation and maintenance manuals.
 2. Table of Contents: After title page, include a typewritten table of contents for each volume, arranged systematically according to the Project Manual format. Include a list of each product included, identified by product name or other appropriate identifying symbol and indexed to the content of the volume.
 - a. Where a system requires more than one volume to accommodate data, provide a comprehensive table of contents for all volumes in each volume of the set.
 3. General Information: Provide a general information section immediately following table of contents, listing each product included in the manual, identified by product name. Under each product, list the name, address, and telephone number of the subcontractor or installer and the maintenance contractor. Clearly delineate the extent of responsibility of each of these entities. Include a local source for replacement parts and equipment.
 4. Product Data: Where the manuals include manufacturer's standard printed data, include only sheets that are pertinent to the part or product installed. Mark each sheet to identify each part or product included in the installation. Where the Project includes more than one item in a tabular format, identify each item, using appropriate references from the Contract Documents. Identify data that is applicable to the installation, and delete references to information that is not applicable.
 5. Written Text: Prepare written text to provide necessary information where manufacturer's standard printed data is not available, and the information is necessary for proper operation and maintenance of equipment or systems. Prepare written text where it is necessary to provide additional information or to supplement data included in the manual. Organize text in a consistent format under separate headings for different procedures. Where necessary, provide a logical sequence of instruction for each operation or maintenance procedure.
 6. Drawings: Provide specially prepared drawings where necessary to supplement manufacturer's printed data to illustrate the relationship of component parts of equipment or systems or to provide control or flow diagrams. Coordinate these drawings with information contained in Project Record Drawings to assure correct illustration of the completed installation.
 - a. Do not use original Project Record Documents as part of operation and maintenance manuals.
 7. Warranties, Bonds, and Service Contracts: Provide a copy of each warranty, bond, or service contract in the appropriate manual for the information of the Owner's operating personnel. Provide written data outlining procedures to

follow in the event of product failure. List circumstances and conditions that would affect validity of warranty or bond.

1.06 MATERIAL AND FINISHES MAINTENANCE MANUAL

- A. Submit two (2) copies of each manual, in final form, on material and finishes to the Architect for distribution. Provide one section for architectural products, including applied materials and finishes. Provide a second section for products designed for moisture protection and products exposed to the weather.
 - 1. Refer to individual Specification Sections for additional requirements on care and maintenance of materials and finishes.
- B. Architectural Products: Provide manufacturer's data and instructions on care and maintenance of architectural products, including applied materials and finishes.
 - 1. Manufacturer's Data: Provide complete information on architectural products, including the following, as applicable:
 - a. Manufacturer's catalog number.
 - b. Size.
 - c. Material composition.
 - d. Color.
 - e. Texture.
 - f. Reordering information for specially manufactured products.
 - 2. Care and Maintenance Instructions: Provide information on care and maintenance, including manufacturer's recommendations for types of cleaning agents to be used and methods of cleaning. Provide information on cleaning agents and methods that could prove detrimental to the product. Include manufacturer's recommended schedule for cleaning and maintenance.
- C. Moisture Protection and Products Exposed to the Weather: Provide complete manufacturer's data with instructions on inspection, maintenance, and repair of products exposed to the weather or designed for moisture-protection purposes.
 - 1. Manufacturer's Data: Provide manufacturer's data giving detailed information, including the following, as applicable:
 - a. Applicable standards.
 - b. Chemical composition.
 - c. Installation details.
 - d. Inspection procedures.
 - e. Maintenance information.
 - f. Repair procedures.
- D. Schedule: Provide complete information in the materials and finishes manual on products specified in the following sections:

1.07 EQUIPMENT AND SYSTEMS MAINTENANCE MANUAL

- A. Submit two (2) copies of each manual, in final form, on equipment and systems to the Architect for distribution. Provide separate manuals for each unit of equipment, each operating system, and each electric and electronic system.
 - 1. Refer to individual Specification Sections for additional requirements on operation and maintenance of the various pieces of equipment and operating systems.
- B. Equipment and Systems: Provide the following information for each piece of equipment, each building operating system, and each electric or electronic system.
 - 1. Description: Provide a complete description of each unit and related component parts, including the following:

- a. Equipment or system function.
- b. Operating characteristics.
- c. Limiting conditions.
- d. Performance curves.
- e. Engineering data and tests.
- f. Complete nomenclature and number of replacement parts.
2. Manufacturer's Information: For each manufacturer of a component part or piece of equipment, provide the following:
 - a. Printed operation and maintenance instructions.
 - b. Assembly drawings and diagrams required for maintenance.
 - c. List of items recommended to be stocked as spare parts.
3. Maintenance Procedures: Provide information detailing essential maintenance procedures, including the following:
 - a. Routine operations.
 - b. Troubleshooting guide.
 - c. Disassembly, repair, and reassembly.
 - d. Alignment, adjusting, and checking.
4. Operating Procedures: Provide information on equipment and system operating procedures, including the following:
 - a. Startup procedures.
 - b. Equipment or system break-in.
 - c. Routine and normal operating instructions.
 - d. Regulation and control procedures.
 - e. Instructions on stopping.
 - f. Shutdown and emergency instructions.
 - g. Summer and winter operating instructions.
 - h. Required sequences for electric or electronic systems.
 - i. Special operating instructions.
5. Servicing Schedule: Provide a schedule of routine servicing and lubrication requirements, including a list of required lubricants for equipment with moving parts.
6. Controls: Provide a description of the sequence of operation and as-installed control diagrams by the control manufacturer for systems requiring controls.
7. Coordination Drawings: Provide Contractor's coordination drawings.
 - a. Provide as-installed, color-coded, piping diagrams, where required for identification.
8. Valve Tags: Provide charts of valve-tag numbers, with the location and function of each valve.
9. Circuit Directories: For electric and electronic systems, provide complete circuit directories of panelboards, including the following:
 - a. Electric service.
 - b. Controls.
 - c. Communication.

- C. Schedule: Provide complete information in the equipment and systems manual on products specified in the following sections:

1.08 INSTRUCTIONS FOR THE OWNER'S PERSONNEL

- A. Refer to Section 01 81 50 System Demonstration and Training for additional requirements.
- B. Prior to the Date of Substantial Completion, instruct personnel designated by the Owner in the operation and maintenance of equipment and systems.
 1. Systems shall include but not necessarily be limited to:
 - a. Mechanical/ Heating equipment

- b. Electrical power and lighting
 - c. Plumbing/ Air Admittance Valves
 - d. Jib Crane
 - 2. For equipment and operable systems, explain all modes of operation. Demonstrate all functions, including startup, operation, control, adjustment, shutdown, servicing, and maintenance.
 - 3. For other building elements and systems describe the installation and indicate manufacturer's directed or otherwise preferred means of cleaning, servicing, maintaining or repairing.
 - 4. Review terms of warranties and procedures for obtaining warranty service.
 - 5. Have operating and maintenance data available for use during instruction. Review contents with Owner's personnel. Prepare and insert additional data when need becomes apparent during instruction.
- C. Arrange times and places for instruction with Owner. Provide instruction by qualified personnel of Contractor, their subcontractor, or applicable manufacturer's representative.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION 01 78 20

SECTION 01 78 40

WARRANTIES

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. This Section includes administrative and procedural requirements for warranties required by the Contract Documents, including manufacturers' standard warranties on products and special warranties.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Division 1 Section, Contract Closeout, specifies contract closeout procedures.
 - 2. Divisions 2 through 33 Sections for specific requirements for warranties on products and installations specified to be warranted.
 - 3. Certifications and other commitments and agreements for continuing services to Owner are specified elsewhere in the Contract Documents.
- C. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products. Manufacturer's disclaimers and limitations on product warranties do not relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

1.03 DEFINITIONS

- A. Contractor's Warranty: Contractor shall provide a warranty on the Project that warrants that all labor and materials furnished and work performed are in accordance with the Contract Documents and will be free from defects due to defective materials and/or workmanship for a period of one year from the Date of Substantial Completion. Warranty shall be provided on the form provided in this Specification Section.
- B. Standard product warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.
- C. Special warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the Owner.

1.04 WARRANTY REQUIREMENTS

- A. Related Damages and Losses: When correcting failed or damaged warranted construction, remove and replace construction that has been damaged as a result of such failure or must be removed and replaced to provide access for correction of warranted construction.
- B. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement.

The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.

- C. Replacement Cost: Upon determination that work covered by a warranty has failed, replace or rebuild the work to an acceptable condition complying with requirements of the Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective work regardless of whether the Owner has benefited from use of the work through a portion of its anticipated useful service life.
- D. Owner's Recourse: Expressed warranties made to the Owner are in addition to implied warranties and shall not limit the duties, obligations, rights, and remedies otherwise available under the law. Expressed warranty periods shall not be interpreted as limitations on the time in which the Owner can enforce such other duties, obligations, rights, or remedies.
 - 1. Rejection of Warranties: The Owner reserves the right to reject warranties and to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
- E. Where the Contract Documents require a special warranty, or similar commitment on the work or part of the work, the Owner reserves the right to refuse to accept the work, until the Contractor presents evidence that entities required to countersign such commitments are willing to do so.

1.05 SUBMITTALS

- A. Submit written warranties to the Architect effective on the date certified for Substantial Completion. If the Architect's Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the Work, or a designated portion of the Work, submit written warranties upon request of the Architect.
- B. When the Contract Documents require the Contractor, or the Contractor and a subcontractor, supplier or manufacturer to execute a special warranty, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the Owner, through the Architect, for approval prior to final execution. Refer to Specifications Divisions 2 through 33 for specific Contract requirements and particular requirements for submitting special warranties.
- C. Form of Submittal: Compile two (2) copies of each required warranty properly executed by the Contractor, subcontractor, supplier, or manufacturer. Organize the warranty documents into an orderly sequence based on the table of contents of the Project Manual.
- D. Bind warranties and bonds in heavy-duty, commercial-quality, durable 3-ring, vinyl-covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
 - 1. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product, and the name, address, and telephone number of the installer.
 - 2. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project title or name, and name of the Contractor.
 - 3. Provide additional copies of each required warranty, as necessary, for inclusion in each required Operations and Maintenance Manual.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION

3.01 LIST OF WARRANTIES

- A. Schedule: Provide warranties on products and installations as specified in the following Sections:

All utilized Sections 1 through 33 as indicated.

3.02 CONTRACTOR’S WARRANTY

- A. The format of submission of the Contractor’s Warranty is included on the subsequent page in this Specification Section.

CONTRACTOR WARRANTY FORM

PROJECT:

LOCATION:

OWNER:

We, _____, Contractor
(Contractor's Name)

for the above referenced project, do hereby warrant that all labor and materials furnished and work performed are in accordance with the Contract Documents and authorized modifications thereto, and will be free from defects due to defective materials and/or workmanship for a period of one year from the Date of Substantial Completion. This Warranty commences on:

(Date of Substantial Completion)

and expires on:

(One Year from Commencement Date)

Should any defect develop during the warranty period due to improper materials, workmanship or arrangement; the same, including adjacent work displaced, shall be made good by the undersigned at no expense to the Owner.

The Owner will give the Contractor written notice of defective work. Should Contractor fail to correct defective work within sixty (60) days after receiving notice, the Owner may at its option, correct defects and charge Contractor costs for such correction. Contractor agrees to pay such charges upon demand.

Nothing in the above shall be deemed to apply to work that has been abused or neglected by the Owner or that was installed by another contractor.

For: _____
(Company Name)

By: _____

Title: _____

Date: _____

END OF SECTION 01 78 40

SECTION 01 81 00

PROJECT RECORD DOCUMENTS

PART 1 – GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Maintenance of project record documents
 - 2. Record drawings or "as-builts".
 - 3. Record specifications
 - 4. Operations and Maintenance manuals.

1.02 SUBMITTALS

- A. Project Record Documents: Project record documents consist of three (3) submittals--Record Drawings, Record Specifications and Operations and Maintenance Manuals. These submittals shall be provided to the Owner through the Architect after the Date of Substantial Completion inspection.
 - 1. For Record Drawings, submit one (1) set to the Architect in form of opaque prints, marked and altered as required in this Section. Submit all drawings, whether or not they have been modified.
 - 2. For Record Specifications, submit to Architect one (1) legible set marked or altered as required in this Section.
 - 3. For Operations and Maintenance Manuals, submit to Architect three (3) complete sets prepared in the manner described herein.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.01 MAINTENANCE OF PRODUCT RECORD DOCUMENTS

- A. Assign a person responsible for preparing and maintaining all record documents. Maintain the record documents in a secure location at the Project site but insure that they are accessible to Contractor and Architect during normal working hours. Do not use the record documents for any type of construction purposes in the field.
- B. Record information on record documents as soon as possible after it is obtained. Mark Drawings and Specifications with a red pencil; make certain all notations are clearly legible. Incorporate into existing sets all new Drawings or Specifications issued by Architect. Mark shop drawings if better suited to show the actual work.

3.02 RECORD DRAWINGS

- A. Maintain a complete set of opaque prints of the Drawings, including all sheets issued by Architect for addenda, clarifications or modifications. Record all information that indicates how the actual work differs from the Drawings and shows the details of installation that will not be obvious upon completion of construction, including:
 - 1. Existing conditions in variance with Contract Documents.
 - 2. Locations and depths of underground utilities.
 - 3. Actual equipment locations.
 - 4. Actual duct size and routing.
 - 5. Changes made by Change Order.

6. Changes made following the Architect's written order or directives.
 7. Details not on original Contract Drawings.
 8. Dimensional or location changes.
 9. Finish changes.
 10. New and revised details for assemblies, attachments, fittings, adjacencies, etc.
 11. Actual routings of plumbing piping and electrical conduits.
 12. Revisions to electrical circuits.
 13. Sizes and routings of mechanical equipment.
 14. Locations particular on other critical system elements concealed in construction.
 15. Changes made by Contract modifications, cross-referenced to applicable modification.
 16. New information that may be useful to the Owner, which was not shown in Contract Documents or subsequent product submittals, including details or clarifications issued by Architect as responses to Contractor's requests.
- B. Where a record drawing also is required as part of Operations and Maintenance Manuals, copy notations and marks to another copy of applicable drawings for said purpose. Also mark shop drawings as may be necessary for use in such manuals.
- C. Responsibility for Markup: The individual or entity who obtained record data, whether the individual or entity is the installer, subcontractor, or similar entity, shall prepare the markup on Record Drawings. Contractor has responsibility to insure that this record is maintained.
1. Accurately record information in an understandable drawing technique.
 2. Record data as soon as possible after obtaining it. Record and check the markup prior to enclosing concealed installations.
 3. At time of Final Completion, submit Record Drawings to the Architect for the Owner's records.

3.03 RECORD SPECIFICATIONS

- A. Maintain a complete set of Specifications, including all pages issued by Architect for addenda, clarifications, and modifications. Record all information that indicates how the actual work differs from the Specifications, including:
1. Product substitutions.
 2. Changes made by Contract modifications, cross-referenced to applicable modifications.
 3. New information that may be useful to the Owner, which was not shown in Contract Documents or subsequent product submittals, including details or clarifications issued by Architect as responses to Contractor's requests.

3.04 RECORD PRODUCT DATA

- A. During the construction period, maintain one (1) copy of each Product Data submittal for Project Record Document purposes.
1. Mark Product Data to indicate the actual product installation where the installation varies substantially from that indicated in Product Data submitted. Include significant changes in the product delivered to the site and changes in manufacturer's instructions and recommendations for installation.
 2. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 3. Note related Change Orders and markup of Record Drawings, where applicable.
 4. Upon Final Completion, submit a complete set of Record product Data to the Architect for the Owner's records.
 5. Where Record Product Data is required as part of maintenance manual, submit marked-up Product Data as an insert in the manual instead of submitting as Record Product Data.

3.05 MISCELLANEOUS RECORD SUBMITTALS

- A. Refer to other Specification Sections for miscellaneous record-keeping requirements and submittals in connection with various construction activities. Immediately prior to Final Completion, complete miscellaneous records and place in good order, properly identified and bound or filed, ready for use and reference. Submit to the Architect for the Owner's records.
 - 1. Categories of requirements resulting miscellaneous records include, but are not limited to, the following:
 - a. Field records on excavations and foundations.
 - b. Field records on underground construction in similar work.
 - c. Survey showing locations and elevations of underground lines.
 - d. Survey showing invert elevations of drainage piping.
 - e. Surveys establishing building lines and levels.
 - f. Ambient and substrate condition tests.
 - g. Certifications received in lieu of labels on bulk products.
 - h. Batch mixing and bulk delivery records.
 - i. Testing and qualification of tradesmen.
 - j. Documented qualification of installation firms.
 - k. Load and performance testing.
 - l. Inspections and certifications by governing authorities.
 - m. Leakage and water-penetration tests.
 - n. Fire-resistance and flame-spread test results.
 - o. Final inspection and correction procedures.

3.06 OPERATIONS AND MAINTENANCE MANUALS

- A. Assemble and submit three (3) sets of hard bound, loose-leaf operations and maintenance manuals for the systems, equipment, finishes and other building components listed below in this section and otherwise provided for in the Specifications. Bind in individual heavy-duty, two -inch, three-ring binders, with pocket folders for folded sheet information and dividers with labeled index tabs. Label each manual on front and spine, indicating the project name and the nature of the information included in the manual. All text, drawings and diagrams shall be legible and presented in an organized and coherent fashion.
- B. The Operations and Maintenance Manuals shall include information on the following building components:
 - 1. Mechanical equipment, distribution and controls.
 - 2. Electrical power system, including equipment, distribution, receptacles and connections.
 - 3. Electrical lighting.
 - 4. Electrical powered equipment purchased and installed by Contractor.
 - 5. Plumbing system and fixtures.
 - 6. Miscellaneous equipment purchased and installed by Contractor.
 - 7. Building accessories.
 - 8. Interior finishes, including floor coverings, ceiling tile, paints and wallcoverings and any other finishes requiring special treatment.
 - 9. Finish hardware.
 - 10. Doors.
 - 11. Jib Crane.
- C. For each of these components provide the following information as applicable to the component:
 - 1. Responsible subcontractor with address and phone number.
 - 2. Local supplier(s) with address and phone number.
 - 3. Nearest service organization (if applicable) with address and phone number.
 - 4. Operating instructions.
 - 5. Emergency instructions.

6. Spare parts/stock list.
7. Warranties
8. Preventive maintenance requirements.
9. Cleaning requirements and instructions.
10. Product data and shop drawings (referenced if maintained elsewhere.)
11. Wiring diagrams.
12. Fixture schedule.

END OF SECTION 01 81 00

SECTION 01 81 50

SYSTEM DEMONSTRATION AND TRAINING

PART 1 – GENERAL

- 1.1 The work of this section consists of demonstrating systems and equipment to operating personnel. It also includes training of personnel.

1.2 COORDINATION

- A. Schedule demonstrations and training periods with Owner. Conduct training sessions after the equipment or system has been fully completed and operational, approved by inspections of manufacturer and/or authorities having jurisdiction as required. Schedule and provide training by manufacturer's representatives where required and as requested at no additional cost to the Owner.
- B. Training Schedule: This schedule lists the minimum system requirements for training and demonstration.
1. Fountain Equipment and Controls Systems
 2. Electrical and Lighting equipment and Controls Systems
 3. Gas Fired External Flame Controls
 4. Irrigation Equipment Controls

1.3 CLOSEOUT SUBMITTALS

- A. As specified in Section 01 77 00.
- B. For each training session, the Contractor shall submit for approval a proposed outline of the subjects to be covered. The training shall not be conducted until the outline is approved.
- C. Recordings of demonstrations and training sessions:
1. Provide original and one copy of each DVD.
 2. Label each DVD with the date of demonstration or training, the instructor's name, and provide an index of the contents. The index shall list the start and end time of each subject covered during the training session. The sequence of the training subjects shall follow the sequence listed in the approved training outline or as actually conducted.
 3. Provide a separate DVD for each separate training session.

PART 2 – PRODUCTS

2.1 MEDIA REQUIREMENTS

- A. DVD format.

PART 3 – EXECUTION

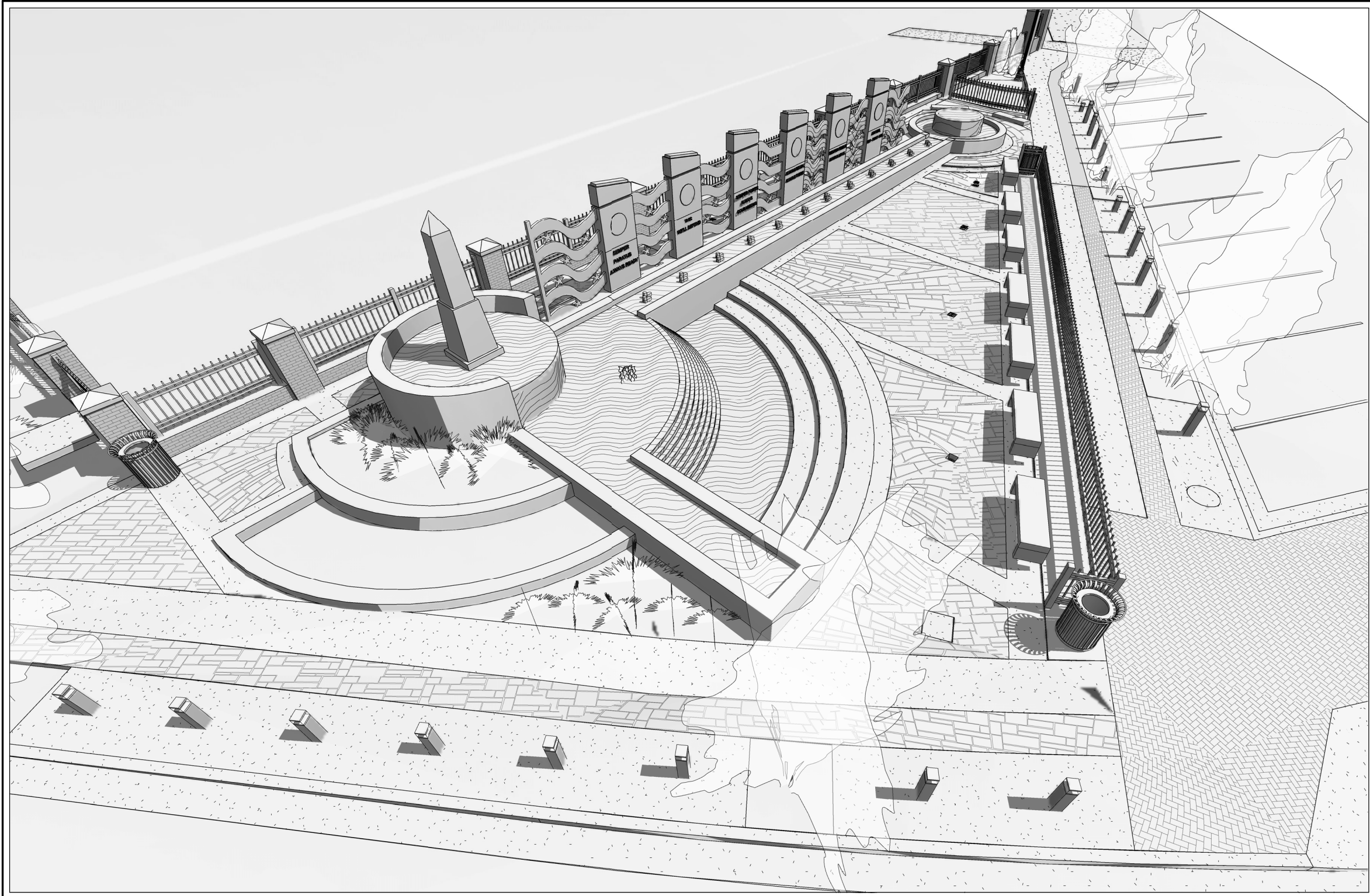
3.1 TRAINING

- A. As specified herein and in individual sections, furnish the services of instructors to train designated personnel in adjustment, operation, including seasonal and emergency operations, if applicable, maintenance, and safety requirements of equipment and systems. Instructors shall be thoroughly trained in operating theory as well as practical operation and maintenance work for each type of equipment or system. The sequence of the training shall follow the approved training outline.
- B. Individual sections specify the duration of training required. If no duration is listed, provide training of sufficient duration to adequately cover the subjects. When more than four days of instruction are specified, use approximately one-half of the time for classroom and the other half for hands-on instruction with the equipment or system.
- C. Use Operating and Maintenance Data as a training guide.

3.2 TAPING/RECORDING

- A. Document all of the above sessions at the recording speed which produces the highest resolution picture. The instructor's voice shall be clearly audible and understandable on the recording. Utilize a supplemental microphone worn by the instructor.
- B. DVD's with poor video or audio quality will be rejected and the training Re-recorded.

END OF SECTION 01 81 50



CONSTRUCTION DOCUMENTS FOR THE THE SUGAR HILL VETERANS MEMORIAL

5050 WEST BROAD STREET SUGAR HILL, GA 30518 LL291 7th DISTRICT PARCEL 056

Project Directory

OWNER:	CITY OF SUGAR HILL 5039 WEST BROAD STREET SUGAR HILL, GA 30518
CIVIL ENGINEER:	PRECISION PLANNING INC. P.O. BOX 2210 400 PIKE BOULEVARD LAWRENCEVILLE, GA 30046 (770) 338-8000
ARCHITECT:	PRECISION PLANNING INC. P.O. BOX 2210 400 PIKE BOULEVARD LAWRENCEVILLE, GA 30046 (770) 338-8000 CONTACT: KENT SNYDER, AIA
STRUCTURAL ENGINEER:	WILLIAM J. PELTIER & ASSOCIATES INC. 521 SCENIC HIGHWAY LAWRENCEVILLE, GA 30046 (770) 963-0654
MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER:	JOHNSON SPELLMAN & ASSOCIATES INC. SUITE 130 350 RESEARCH COURT PEACHTREE CORNERS, GA 30092 (770) 447-4555
AQUATICS ENGINEER:	FOUNTAIN PEOPLE 4800 HIGHWAY 123 SAN MARCOS, TX 78667 (512) 392 - 1155

Project Information

PROJECT NAME:	SUGAR HILL VETERANS MEMORIAL
PROJECT ADDRESS:	5050 WEST BROAD STREET SUGAR HILL, GA 30518 LL291 7th DISTRICT PARCEL 056
GWINNETT COUNTY BLD#:	BLD#2019-0000
GWINNETT COUNTY CDP#:	CDP2019-00012
ZONING DISTRICT:	COMMERCIAL (C-2)
OCCUPANCY GROUP:	IBC GROUP B
TOTAL PROJECT AREA:	0.17 ACRES
TOTAL DISTURBED AREA:	0.17 ACRES
CALCULATED OCCUPANCY LOAD:	TBD
TYPE OF CONSTRUCTION:	VB
BUILDING CODE AREA LIMIT:	18,000 SQ. FT.
NEW CONSTRUCTION AREA:	TOTAL: 5,460 SQ. FT.
NEW CONSTRUCTION HEIGHT:	15' - 10"
CODE HEIGHT LIMIT:	40'-0"

General Notes

- CONTRACTOR SHALL VERIFY THAT THESE DRAWINGS CORRESPOND TO EXISTING FIELD CONDITIONS AND NOTIFY THE ARCHITECT IMMEDIATELY OF ANY INCONSISTENCIES BEFORE PROCEEDING WITH CONSTRUCTION. THE CONTRACTOR SHALL ALSO NOTIFY THE ARCHITECT IMMEDIATELY OF ANY WORK INDICATED IN THE CONTRACT DOCUMENTS THAT CANNOT BE PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS DUE TO EXISTING FIELD CONDITIONS.
- THE GENERAL CONTRACTOR SHALL VERIFY ALL CLEARANCES, DIMENSIONS AND SIZES PRIOR TO ORDERING OR PURCHASING ASSEMBLIES OR FIXTURES FOR CONSTRUCTION.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL CODES AND REGULATIONS.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY CONSTRUCTION AND ALL STAGING, SCHEDULING, MATERIAL DELIVERIES AND OTHER ITEMS THAT AFFECT THE SEQUENCE OF CONSTRUCTION OR SCHEDULING THE CONSTRUCTION PROJECT.
- DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING WRITTEN CLARIFICATION FROM THE ARCHITECT BEFORE CONTINUING WITH CONSTRUCTION.
- THE BUILDING AND SITE SHALL BE KEPT IN A CLEAN AND ORDERLY MANNER AT ALL TIMES. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR DISPOSING OF DEBRIS IN A CONSISTENT AND LEGAL MANNER. REFER TO SPECIFICATIONS FOR WASTE MANAGEMENT PLAN REQUIREMENTS.
- CONTRACTORS ARE REQUIRED TO HAVE A VALID GEORGIA STATE GENERAL CONTRACTING LICENSE FOR COMMERCIAL PROJECTS. THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS ARE REQUIRED TO PROVIDE THE GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT AFFIDAVIT AND THE RESIDENCY STATUS AFFIDAVIT. REFER TO DIVISION 0 OF THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- THE ARCHITECT DOES NOT GUARANTEE THE PERFORMANCE OF THE PROJECT IN ANY RESPECT OTHER THAN THE ARCHITECTURAL WORK PERFORMED WHICH MEETS THE STANDARDS OF PROFESSIONAL CARE.
- THE GENERAL CONTRACTOR SHALL PROVIDE ADEQUATE BRACING AND SHORING FOR ALL WORK DURING THE CONSTRUCTION PERIOD.
- PROVIDE SEPARATION BETWEEN ALL DISSIMILAR METALS.
- FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION AND INSTALLATION.
- ALL CONSTRUCTION OFFICES SHALL BE PERMITTED SEPARATELY.
- THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL CONSTRUCTION WASTE AND DEBRIS.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PROVIDING NECESSARY FENCING AND ALL SAFETY MEASURES REQUIRED TO PROTECT THE GENERAL PUBLIC FROM DEMOLITION AND CONSTRUCTION WORK FOR THE DURATION OF THE PROJECT.
- IN THE EVENT THE OWNER, THE OWNER'S CONTRACTORS OR SUBCONTRACTORS, OR ANYONE FOR WHOM THE OWNER IS LEGALLY LIABLE MAKES OR PERMITS TO BE MADE ANY CHANGES TO THE CONSTRUCTION DOCUMENTS PREPARED BY PRECISION PLANNING, INC. RELATING TO THIS PROJECT WITHOUT OBTAINING PRECISION PLANNING, INC.'S PRIOR WRITTEN CONSENT, THE OWNER SHALL ASSUME FULL RESPONSIBILITY FOR THE RESULTS OF SUCH CHANGES. THEREFORE, THE OWNER AGREES TO WAIVE ANY CLAIM AGAINST PRECISION PLANNING, INC. AND TO RELEASE PRECISION PLANNING, INC. FROM ANY LIABILITY ARISING DIRECTLY OR INDIRECTLY FROM SUCH CHANGES.

Site Development Notes:

- PUBLIC NOTICE:** THE CITY OF SUGAR HILL AND/OR GWINNETT COUNTY ASSUME NO RESPONSIBILITY FOR OVERFLOW OR EROSION OF NATURAL OR ARTIFICIAL DRAINS BEYOND THE EXTEND OF THE STREET RIGHT-OF-WAY, OR FOR THE EXTENSION OF CULVERTS BEYOND THE POINT SHOWN ON THE APPROVED AND RECORDED PLAN. THE CITY OF SUGAR HILL AND/OR GWINNETT COUNTY DOES NOT ASSUME THE RESPONSIBILITY FOR THE MAINTENANCE OF PIPES IN DRAINAGE EASEMENTS BEYOND THE CITY/COUNTY RIGHT-OF-WAY.
- UTILITY DISCLAIMER:** EXISTING UTILITY LINES SHOWN ARE APPROXIMATE LOCATIONS ONLY. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LINE LOCATIONS PRIOR TO ANY CONSTRUCTION. ANY DEVIATIONS FROM THE DESIGN LOCATIONS SHALL BE REPORTED TO THE PROJECT ENGINEER PRIOR TO CONSTRUCTION. DAMAGE TO EXISTING UTILITY LINES RESULTING FROM CONTRACTOR NEGLIGENCE SHALL BE REPAIRED AT CONTRACTOR EXPENSE.
- OBSTRUCTIONS ENCOUNTERED:** IN ADDITION TO SHOWING THE STRUCTURES TO BE BUILT FOR THIS PROJECT, THE DRAWINGS SHOW CERTAIN INFORMATION OBTAINED BY THE ENGINEER REGARDING THE PIPES, POLE LINES, CONDUITS AND OTHER STRUCTURES WHICH EXIST ALONG THE LINE OF THE OWNER EXPRESSLY DISCLAIM ANY RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE CONTRACTOR WILL BE ENTITLED TO ANY EXTRA COMPENSATION ON ACCOUNT OF INACCURACY OR INCOMPLETENESS OF SUCH INFORMATION, SAID STRUCTURES BEING INDICATED ONLY FOR THE CONVENIENCE OF THE CONTRACTOR, WHO MUST VERIFY THE INFORMATION TO HIS OWN SATISFACTION. THE GIVING OF THE INFORMATION UPON THE CONTRACT DRAWINGS WILL NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATION TO SUPPORT AND PROTECT ALL PIPES, CONDUITS, AND OTHER STRUCTURES WHICH MAY BE ENCOUNTERED DURING THE CONSTRUCTION OF WORK, AND TO MAKE GOOD ALL DAMAGES DONE TO SUCH PIPES, CONDUITS, AND OTHER STRUCTURES, AS PROVIDED IN THESE SPECIFICATIONS. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND OBSTRUCTIONS PRIOR TO EXCAVATION SO AS TO PREVENT DAMAGE TO THOSE SERVICES OR OTHER UTILITIES. ANY SUCH DAMAGES MUST BE REPAIRED WITHOUT DELAY AND THE COST OF SUCH REPAIRS SHALL BE PAID FOR BY THE CONTRACTOR.
- WETLANDS CERTIFICATION:** THE DESIGN PROFESSIONAL WHOSE SEAL APPEARS HEREON, CERTIFIES THE FOLLOWING: 1) THE NATIONAL WETLAND INVENTORY MAPS HAVE BEEN CONSULTED; AND, 2) THE APPROPRIATE PLAN SHEET DOES () / DOES NOT (X) INDICATE AREAS OF THE UNITED STATES ARMY CORPS OF ENGINEERS JURISDICTIONAL WETLANDS AS SHOWN ON THE MAPS; AND, 3) IF WETLANDS ARE INDICATED, THE LAND OWNER OR DEVELOPER HAS BEEN ADVISED THAT LAND DISTURBANCE OF PROTECTED WETLANDS SHALL NOT OCCUR UNLESS THE APPROPRIATE FEDERAL WETLANDS ALTERATION (SECTION "404") PERMIT HAS BEEN OBTAINED.
- THERE IS NO FLOODPLAIN ON THIS PROPERTY FROM A WATER COURSE WITH A DRAINAGE AREA EXCEEDING 100 ACRES PER FIRM PANEL 13135C0014G, EFFECTIVE MARCH 4, 2013.
- WETLANDS DO NOT EXIST ON OR WITHIN 200' OF THE PROJECT SITE. PER NATIONAL INVENTORY MAP.
- STATE WATERS DO NOT EXIST ON OR WITHIN 200 FEET OF THE PROJECT SITE.

Sheet Index

ADDENDUM	
CS	COVER SHEET
CIVIL	
C0.1	GENERAL NOTES
C1.1	EXISTING CONDITIONS
C2.1	SITE AND UTILITY PLAN
C3.1	SANITARY SEWER PROFILES, DETAILS
C4.1	EROSION CONTROL PLAN NOTES AND DETAILS
L1.1	LANDSCAPE PLAN AND NOTES
ARCHITECTURAL	
D1.1	DEMOLITION PLAZA PLAN
ARCHITECTURAL	
A1.1	PLAZA DIMENSION PLAN, NOTES AND DETAILS
A1.2	PLAZA REFERENCE PLAN, NOTES AND DETAILS
A1.3	WATER FEATURE SECTION DETAILS
A1.4	SITE SECTION DETAILS
A1.5	SITE FURNISHING DETAILS
A5.1	EXTERIOR MONUMENT ELEVATIONS
STRUCTURAL	
S1.1	GENERAL NOTES
S2.1	FOUNDATION PLAN
S3.1	SECTIONS AND DETAILS
S3.2	SECTIONS AND DETAILS
PLUMBING	
P1.1	PLUMBING NOTES, DETAILS, SPECIFICATIONS AND OVERALL PLAN
ELECTRICAL	
E0.0	SYMBOL LEGEND, FIXTURE SCHEDULE AND NOTES
E0.1	SPECIFICATIONS
E1.0	ONE-LINE DIAGRAM PANEL SCHEDULES AND DETAILS
E2.0	POWER PLAN
E3.0	LIGHTING PLAN
FOUNTAIN	
F1.0	GENERAL NOTES AND EQUIPMENT LIST
F1.1	FOUNTAIN SITE PLAN
F1.2	ENLARGED FOUNTAIN PLAN
F1.3	ENLARGED FOUNTAIN PLAN
F1.4	'G' VAULT PUMP STATION PENETRATIONS

City of Sugar Hill Development Notes

CITY OF SUGAR HILL DEVELOPMENT NOTES:
All requirements of the City of Sugar Hill Development Regulations relative to the preparation and submission of a development permit application having been fulfilled, and said application and all supporting plans and data having been reviewed and approved by all affected County Departments as required under their respective and applicable regulations, approval is hereby granted of this Site plan and all other development plans associated with this project subject to all further provisions of said Development and other County Regulations.

City Manager _____ Date _____
City of Sugar Hill

(THIS CERTIFICATE EXPIRES TWELVE MONTHS FROM THE DATE OF APPROVAL UNLESS A DEVELOPMENT PERMIT IS ISSUED.)

Symbol Legend

	View Name 1/8" = 1'-0"		DIMENSION LINE TO FACE OF STUD, MASONRY OR CONCRETE
	ROOM NAME & NUMBER		DIMENSION LINE TO COLUMN CENTERLINE
	ENLARGED DETAIL REFERENCE		DIMENSION LINE TO FINISH ASSEMBLIES
	SECTION REFERENCE		PLAN NORTH
	INTERIOR ELEVATION MARK		NORTH ARROW
	EXTERIOR ELEVATION MARK		TRUE NORTH
	COLUMN REFERENCE		ELEVATION MARKER
	INTERIOR FINISH TAG		WINDOW REFERENCE TYPE
	BREAK LINE		DOOR REFERENCE NUMBER
			PARTITION TYPE
			PLAN KEYNOTE
			CEILING TYPE TAG
			EXTERIOR FINISH TYPE
			REVISION NUMBER

Applicable Codes

THE FOLLOWING CODES SHALL GOVERN THE CONSTRUCTION OF THIS PROJECT:

INTERNATIONAL BUILDING CODE (IBC):
2012 EDITION WITH 2014, 2015, 2017 AND 2018 GEORGIA AMENDMENTS

INTERNATIONAL FIRE CODE (IFC):
2012 EDITION WITH 2014 GEORGIA AMENDMENTS

INTERNATIONAL PLUMBING CODE (IPC):
2012 EDITION WITH 2014 AND 2015 GEORGIA AMENDMENTS

INTERNATIONAL MECHANICAL CODE (IMC):
2012 EDITION WITH 2014 AND 2015 GEORGIA AMENDMENTS

INTERNATIONAL FUEL AND GAS CODE:
2012 EDITION WITH 2014 AND 2015 GEORGIA AMENDMENTS

NATIONAL ELECTRIC CODE (NEC):
2017 EDITION WITH NO GEORGIA AMENDMENTS

INTERNATIONAL ENERGY CONSERVATION CODE (IECC):
2009 EDITION WITH 2014 AND 2012 GEORGIA AMENDMENTS

DEPARTMENT OF JUSTICE ADA STANDARDS FOR ACCESSIBLE DESIGN:
2010 EDITION WITH NO GEORGIA AMENDMENTS

NFPA 101 LIFE SAFETY CODE:
2012 EDITION

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STAMP

PRECISION
Planning Inc.
planners • engineers • architects • surveyors

400 Pike Boulevard, Lawrenceville, Ga 30046
770-338-8000 • www.pp.us

SUGAR HILL VETERANS MEMORIAL
5050 WEST BROAD STREET SUGAR HILL, GA 30518 - LL291 7th DISTRICT PARCEL 056

COVER SHEET

CHECKED BKS
DRAWN MEF
DESIGN PPI

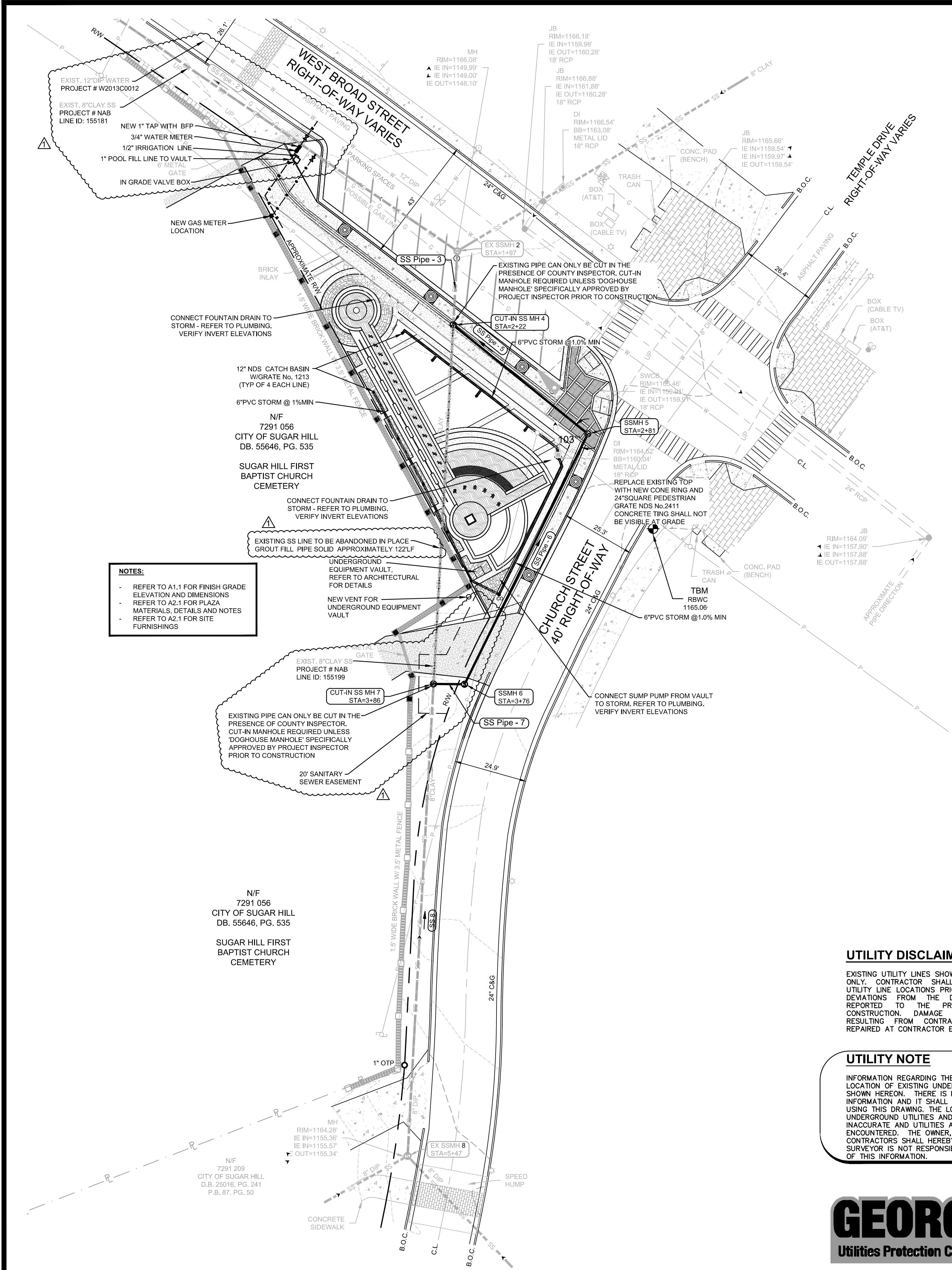
No.	Description
01-04-19	RELEASED FOR PLAN REVIEW
01-23-19	RELEASED FOR BIDDING
02-10-19	1 COUNTY COMMENT REVISIONS

RELEASE

DATE 01/04/19
PROJ. NUMBER A18-221
FILE NAME XXX-101

FILE NUMBER

CS



PUBLIC NOTICE:

THE CITY OF SUGAR HILL AND/OR GWINNETT COUNTY ASSUMES NO RESPONSIBILITY FOR OVERFLOW OR EROSION OF NATURAL OR ARTIFICIAL DRAINS BEYOND THE EXTENT OF THE STREET RIGHT-OF-WAY, OR FOR EXTENSION OF CULVERT BEYOND THE POINT SHOWN ON THE APPROVED AND RECORDED PLAN. THE CITY OF SUGAR HILL AND/OR GWINNETT COUNTY DOES NOT ASSUME THE RESPONSIBILITY FOR THE MAINTENANCE OF PIPES IN DRAINAGE EASEMENTS BEYOND THE CITY/COUNTY RIGHT-OF-WAY.

- SANITARY SEWER NOTES:**
- Use of pre-cast invert manholes is acceptable provided inverts are not modified.
 - All new pipe tie-ins require new inverts in manholes.
 - The designer and developer acknowledge that all work represented in these construction documents has been designed to fully comply with the current Gwinnett County Water Main and Sanitary Sewer Design and Construction Standards and Specifications. Actual field conditions could dictate more stringent requirements, if deemed necessary by the County Inspector. In case of conflict between the permitted documents and the current Gwinnett County Water Main and a Sanitary Sewer Design and Construction Standards and Specifications, the County specifications shall govern the rights and obligations of the parties.
 - A sewer construction permit is to be acquired by a GCDWR approved contractor prior to installation. Call 678-518-6174 for information and copy of approved contractor's list. A mandatory pre-construction conference with inspector, by appointment only, is required 48 hours prior to any utility construction. Any utility design changes must be approved by the Water and Sewer review section of P&D prior to installation. (3.1)
 - As-built/record drawings for water system required prior to requesting final plat approval. Temporary certificate of occupancy or issuance of certificate of occupancy allow min. 10 business days for initial review & additional time for re-review(s). Drawings to be submitted & approved by department of water resources.
 - All work to be performed according to Gwinnett County Department of Water Resources - Water Main and Sanitary Sewer Design and Construction Standards and specifications (April 5, 2016). Actual field conditions could dictate more stringent requirements, if deemed necessary by inspector.
 - GCDWR does not authorize any pavement cuts - if cut is necessary permission must be obtained from the owner of the street.
 - Maintain 10' separation between water and sewer lines.
 - No trees or permanent structures allowed in sanitary sewer easements.
 - Sewer laterals must be installed to extend to 5 feet outside right of way and include a 6" clean out.
 - Per the Fee Resolution there is a "Penalty Fee" of 100% of the permit fee for site activity prior to issuance of appropriate permits (Land Disturbance, Development, Utility Construction, or Grease Trap installations).
 - All water, sanitary sewer to be inspected by Department of Water Resources.
 - In the first newly installed manhole upstream of the existing tie-in manhole, contractor shall install temporary mechanical plugs on the inflow and outflow inverts. Said mechanical plugs shall be tied to manhole step with steel cable and padlocked to prevent tampering and GCDWR shall install a locking cover. (see Detail S15)
 - Sewer provided by Gwinnett County.
 - The designer and developer acknowledge that all work represented in these construction documents has been designed to fully comply with the current Gwinnett County Water Main and Sanitary Sewer Design and Construction Standards and Specifications. Actual field conditions could dictate more stringent requirements, if deemed necessary by the County Inspector. In case of conflict between the permitted documents and the current Gwinnett County Water Main and Sanitary Sewer Design and Construction Standards and Specification, the county specifications shall govern the rights and obligations of the parties.

- NOTES:**
- "TOPPING TREES IS NOT ALLOWED. TREES REMOVED OR HAVING THEIR TOPS CUT AFTER COMPLIANCE WITH THIS ORDINANCE SHALL BE REPLACED WITH THE EQUIVALENT INCHES OF REMOVED TREES."
 - * ALL STREET ARE PUBLIC RIGHT-OF-WAY
 - PERMANENT STRUCTURES AND TREES NOT ALLOWED IN SANITARY SEWER EASEMENTS ACCORDING TO CURRENT GWINNETT COUNTY POLICY.
 - CLEANOUTS ARE TO BE MAINTAINED AT GRADE, AND ARE THE PROPERTY OWNER'S RESPONSIBILITY TO ENSURE ACCESSIBILITY AT ALL TIMES."
 - REFER TO M.E.P. FOR CONTINUATION OF PROPOSED UTILITIES INSIDE BUILDING.
 - PROPOSED USE: OUTDOOR AMPHITHEATER.
 - DOUBLE CHECK BACKFLOW PREVENTION DEVICES FOR ALL METERS AND/OR FIRE LINES MUST BE TESTED AND APPROVED BEFORE ISSUANCE OF FINAL CERTIFICATE OF OCCUPANCY.
 - ACCOUNT # 11180024, 8" DCDA.

WATER FEATURE NOTES:

WATER FEATURE DESIGN AND SHOP DRAWINGS SHALL BE PERMITTED SEPARATELY BY WATER FEATURE INSTALLER. WATER FEATURE SHALL BE RECIRCULATING SYSTEM WITH PUMPS AND FILTRATION SYSTEM.

UTILITY DISCLAIMER

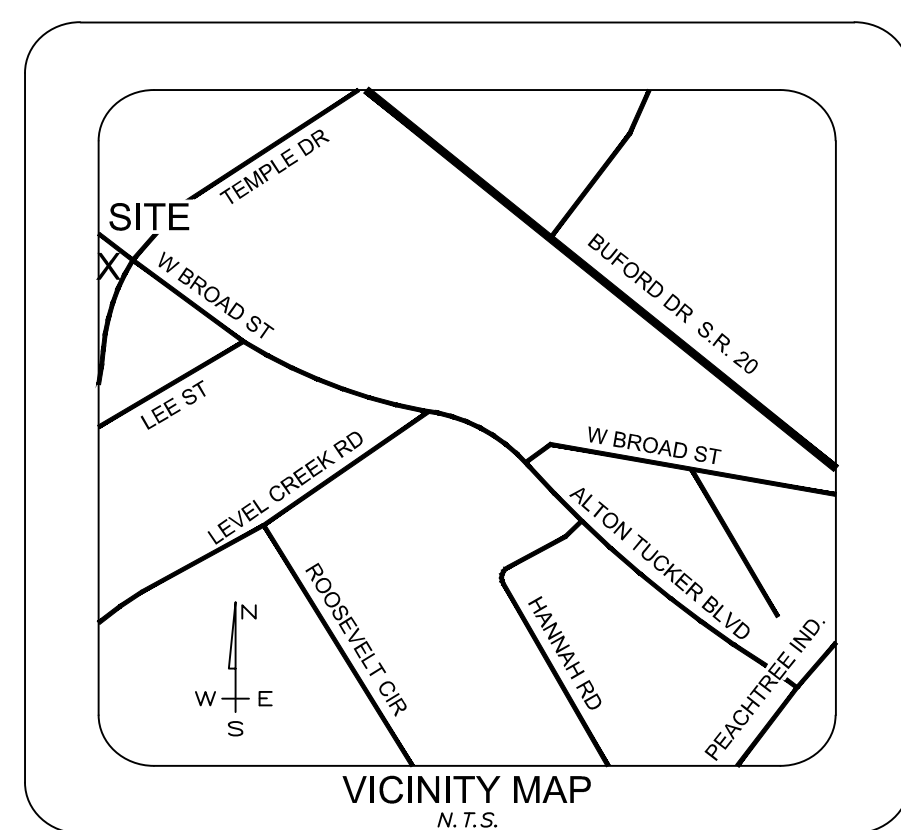
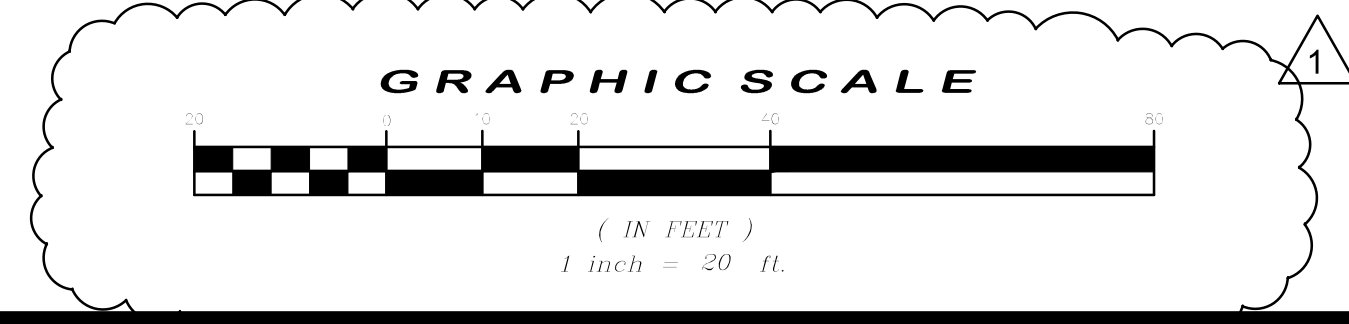
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UTILITY NOTE

INFORMATION REGARDING THE REPUTED PRESENCE, SIZE, CHARACTER AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES IS SHOWN HEREON. THERE IS NO CERTAINTY OF THE ACCURACY OF THIS INFORMATION AND IT SHALL BE CONSIDERED IN THAT LIGHT BY THOSE USING THIS DRAWING. THE LOCATION AND ARRANGEMENT OF UNDERGROUND UTILITIES AND STRUCTURES SHOWN HEREON MAY BE INACCURATE AND UTILITIES AND STRUCTURES NOT SHOWN MAY BE ENCOUNTERED. THE OWNER, HIS EMPLOYEES, HIS CONSULTANTS AND HIS CONTRACTORS SHALL HEREBY DISTINCTLY UNDERSTAND THAT THE SURVEYOR IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THIS INFORMATION.



Know what's below.
Call before you dig.



NOTE:

REFER TO D1.1 FOR SITE RELATED ITEMS TO BE DEMOLISHED

UTILITY OWNERS:

GWINNETT COUNTY WATER & SEWER
MIKE ROWAN
678-376-7127

GEORGIA POWER
LENNY PARISH
770-497-5826

PRIMARY PERMITTEE
TROY BESSECHE
770-945-6734

24-HOUR EMERGENCY CONTACT:
TROY BESSECHE
770-945-6734

OWNER / DEVELOPER

CITY OF SUGAR HILL
5039 WEST BROAD STREET
SUGAR HILL, GA 30518
CONTACT: TROY BESSECHE
PHONE: 770-945-6734
EMAIL: tbesseche@cityofsugarhill.com

ENGINEER

PRECISION PLANNING, INC.
400 PIKE BOULEVARD
LAWRENCEVILLE, GA 30046
CONTACT: DAVID LEONARD
PHONE: 770.338.8138
EMAIL: 063DL@PPI.US

CDP 2019-00012

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DATE: 01/04/19
FILE NUMBER: A18-221
PROJECT NUMBER: 1
FILE NAME: C2.1

STAMP

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400 Pike Boulevard, Lawrenceville, Ga 30046
770.338.8000 • www.ppi.us

SUGAR HILL
VETERANS
MEMORIAL

5050 WEST BROAD STREET
SUGAR HILL, GA 30518
LL 291 7th DISTRICT PARCEL 056

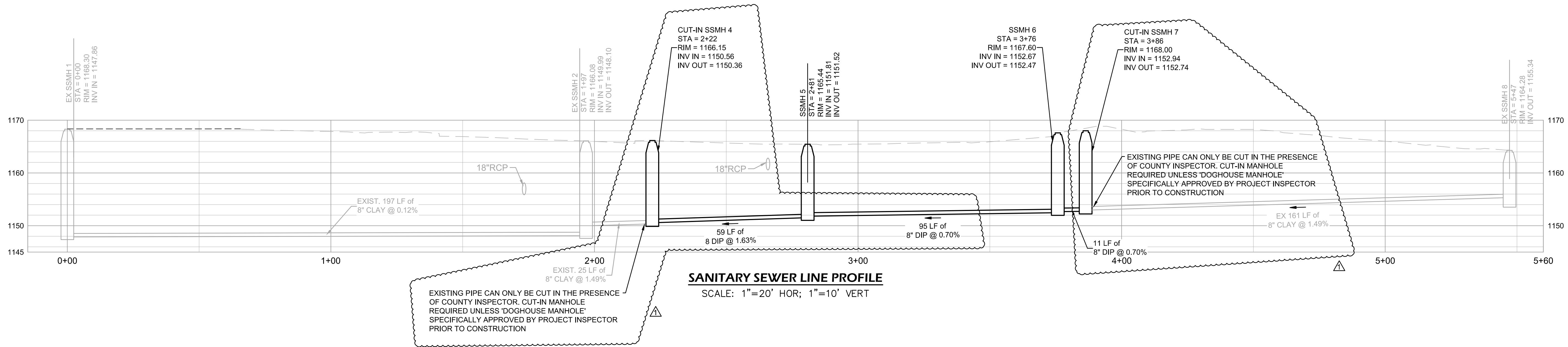
SITE AND
UTILITY PLAN

CHECKED: DL
DRAWN: GW
DESIGN: PPI

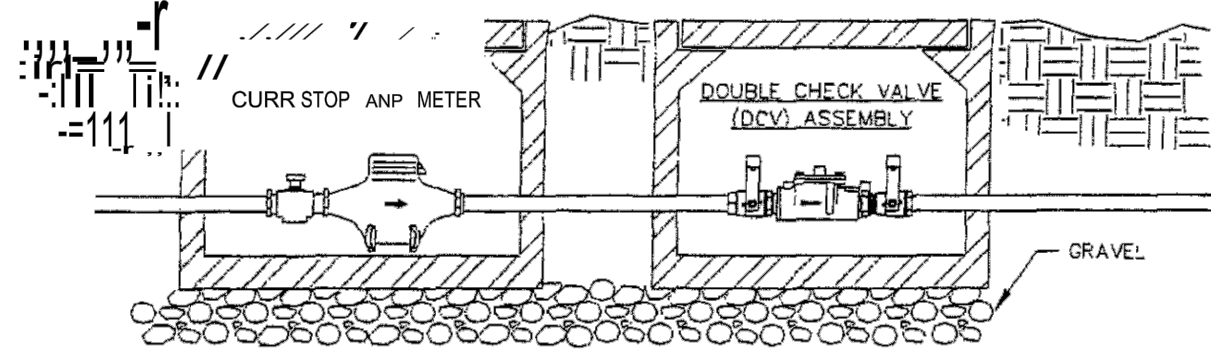
PROJECT

SHEET TITLE

RELEASE



WINNETT COUNTY DEPARTMENT OF
WATER RESOURCES Backflow
Prevention
Protecting Water Protecting People

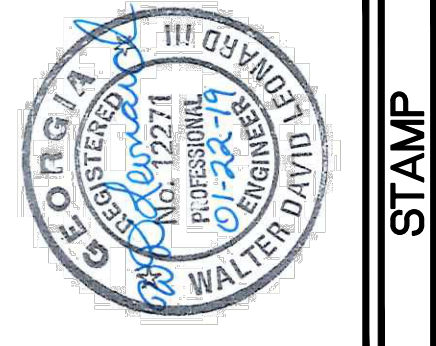


NOTE: For final approval, assembly **MUST** be centered in enclosure.

- *No bricks allowed to adjust backflow box to grade.
 - *Backflow box must be minimum 24"x18"x12" on 3/4" thru 2" backflow.
 - *Any opening on backflow box must be sealed with appropriate material.
 - *Unions or swivel nuts must be integral with the device or valve.
- If you have any questions, please call Gwinnett County Department of Water Resources Backflow at 678-376-4213.

CDP 2019-00012

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RESPONSIBLE FOR OBTAINING ALL
NECESSARY PERMITS AND COORDINATION TO
THE PROJECT AND FOR OBTAINING ALL
NECESSARY INFORMATION FROM THE
PROJECT OWNER AND ALL OTHER
CONCERNED PARTIES.



PRECISION
Planning Inc.
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400 Pike Boulevard, Lawrenceville, Ga 30046
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**SUGAR HILL
VETERANS
MEMORIAL**
5050 WEST BROAD STREET
SUGAR HILL, GA 30518
LL 291 7th DISTRICT PARCEL 056

**SANITARY SEWER
PROFILE,
DETAILS**

DESIGN	PPI	DRAWN	GV	CHECKED	DL
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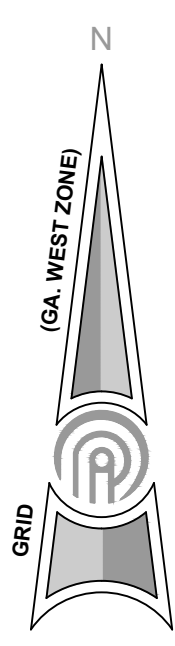
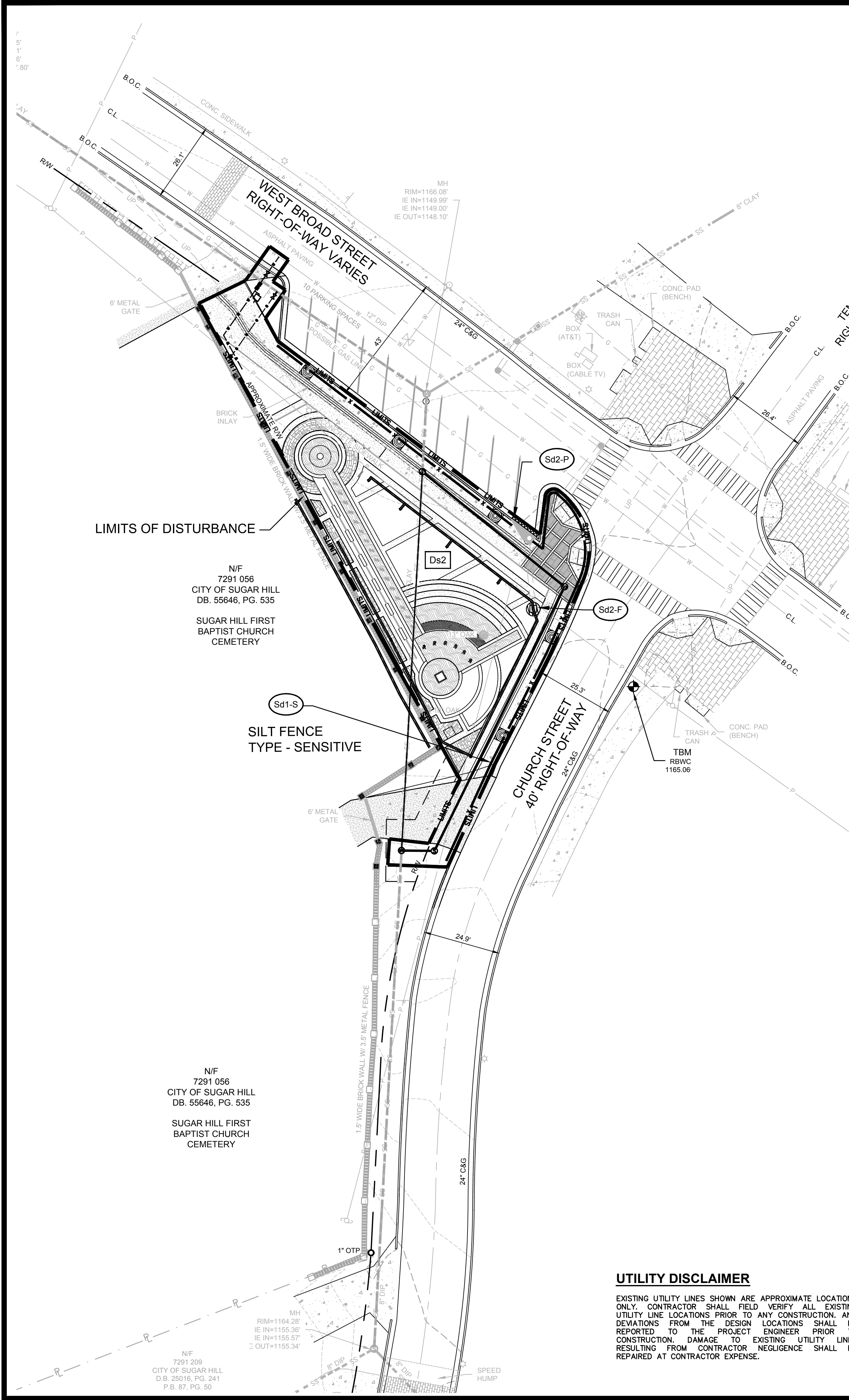
PROJECT

DATE	NO.	DESCRIPTION
01/04/19		RELEASED FOR PLAN REVIEW
01/23/19		RELEASED FOR BIDDING
02/10/19	1	COUNTY COMMENT REVISIONS

RELEASE

01-04-19
DATE
AB-221
PROJ. NUMBER
FILE NAME
FILE NUMBER

C3.1

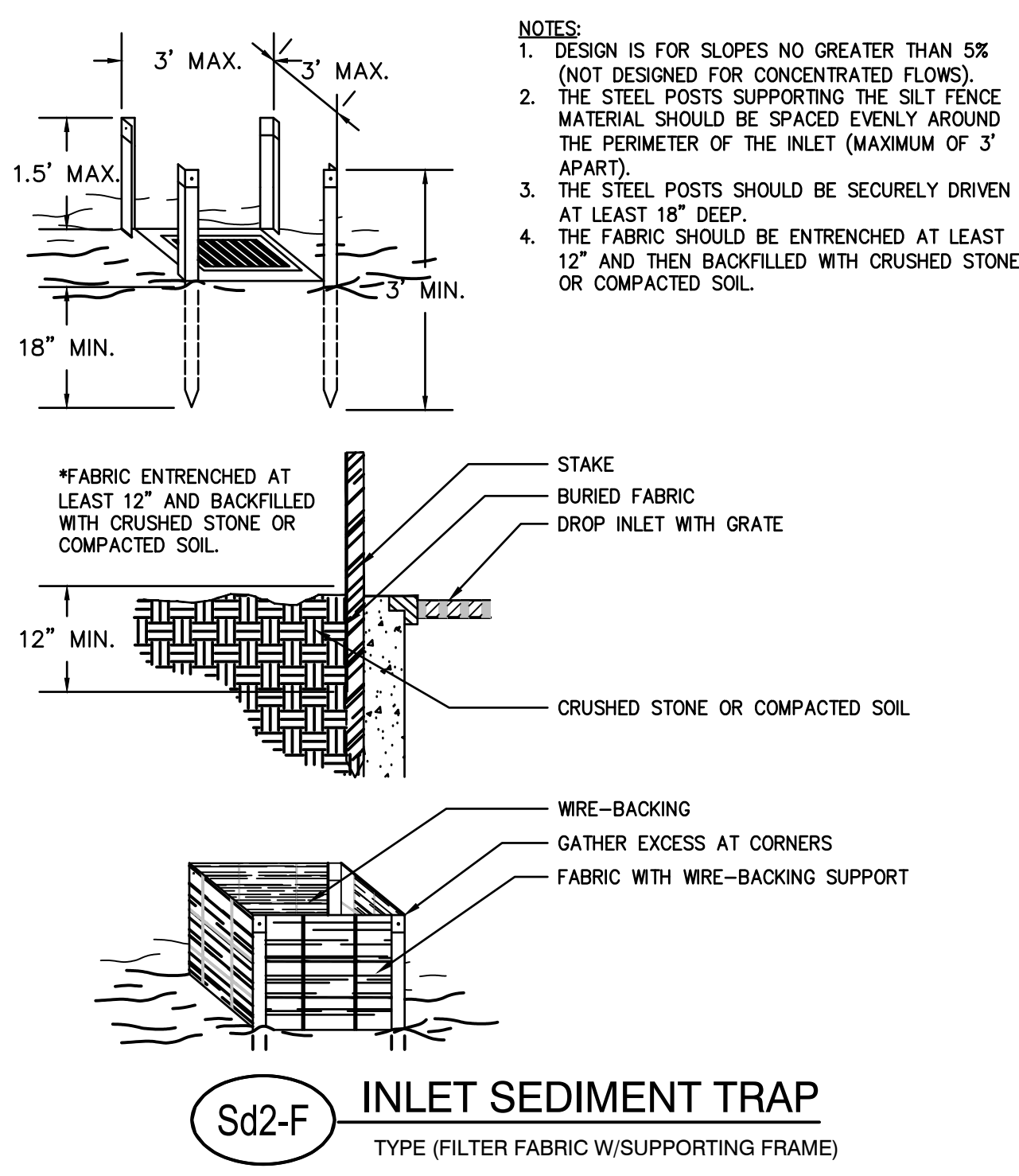


NOTE:
REFER TO LANDSCAPE PLAN FOR PERMANENT GRASSING AND PLANTING LOCATIONS

NOTE:
PROJECT LAND DISTURBANCE IS LESS THAN 1 ACRE AND AN EROSION CONTROL PERMIT IS NOT REQUIRED

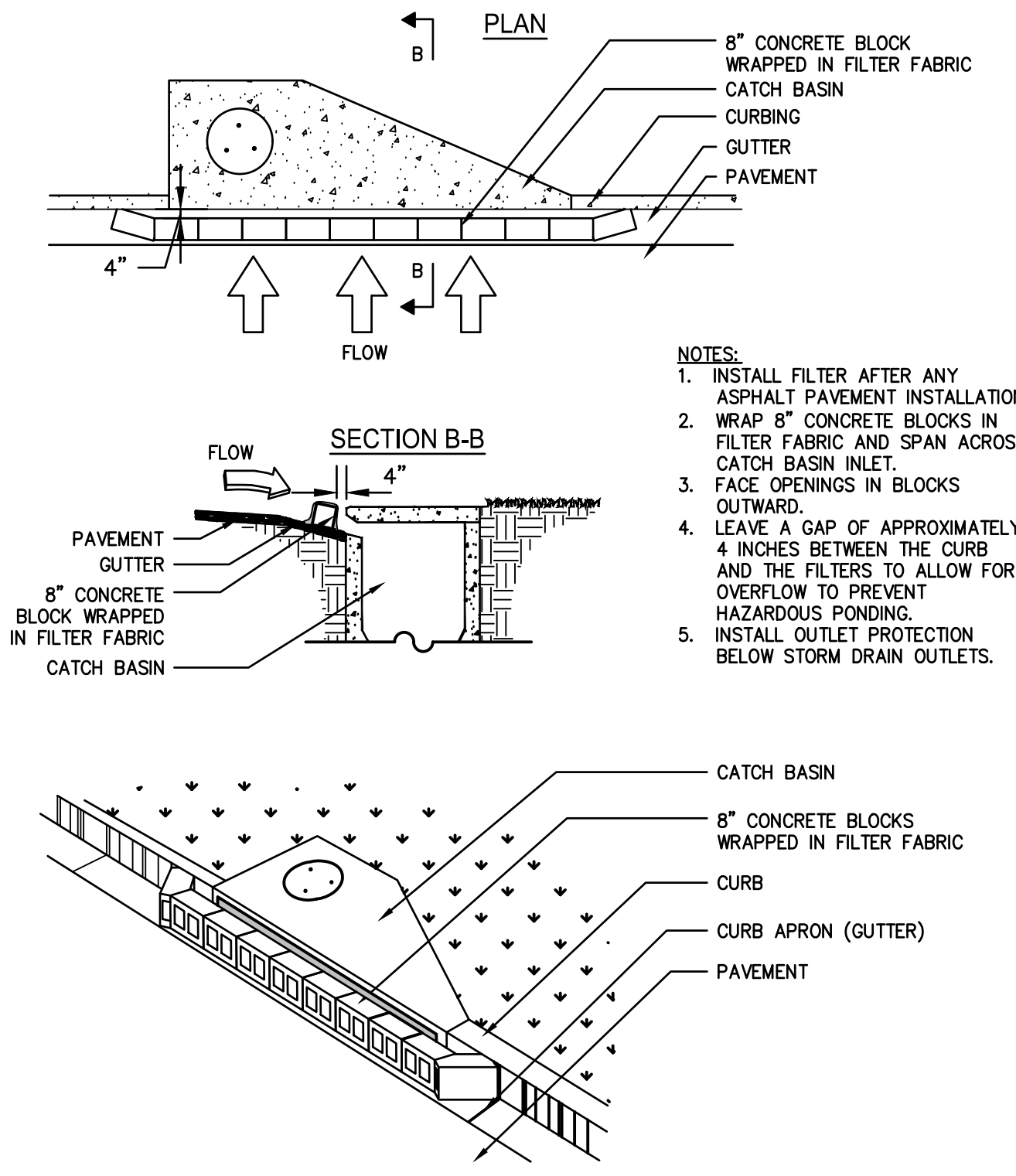
UTILITY DISCLAIMER
EXISTING UTILITY LINES SHOWN ARE APPROXIMATE LOCATIONS ONLY. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LINE LOCATIONS PRIOR TO ANY CONSTRUCTION. ANY DEVIATIONS FROM THE DESIGN LOCATIONS SHALL BE REPORTED TO THE PROJECT ENGINEER PRIOR TO CONSTRUCTION. DAMAGE TO EXISTING UTILITY LINES RESULTING FROM CONTRACTOR NEGLIGENCE SHALL BE REPAIRED AT CONTRACTOR EXPENSE.

STEEL FRAME AND SILT FENCE INSTALLATION



Sd2-F INLET SEDIMENT TRAP
TYPE (FILTER FABRIC W/SUPPORTING FRAME)

Sd2-P INLET SEDIMENT TRAP
TYPE (PIG-IN-BLANKET)



- NOTES:**
1. INSTALL FILTER AFTER ANY ASPHALT PAVEMENT INSTALLATION.
 2. WRAP 8" CONCRETE BLOCKS IN FILTER FABRIC AND SPAN ACROSS CATCH BASIN INLET.
 3. FACE OPENINGS IN BLOCKS OUTWARD.
 4. LEAVE A GAP OF APPROXIMATELY 4 INCHES BETWEEN THE CURB AND THE FILTERS TO ALLOW FOR OVERFLOW TO PREVENT HAZARDOUS PONDING.
 5. INSTALL OUTLET PROTECTION BELOW STORM DRAIN OUTLETS.

EROSION CONTROL LEGEND

Sd1-S	SILT FENCE (TYPE "S")	Ds2	DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)
Sd2-P	CURB INLET FILTER "PIGS-IN-A-BLANKET"		
Sd2-F	INLET SEDIMENT TRAP "SILT-SAVER"		

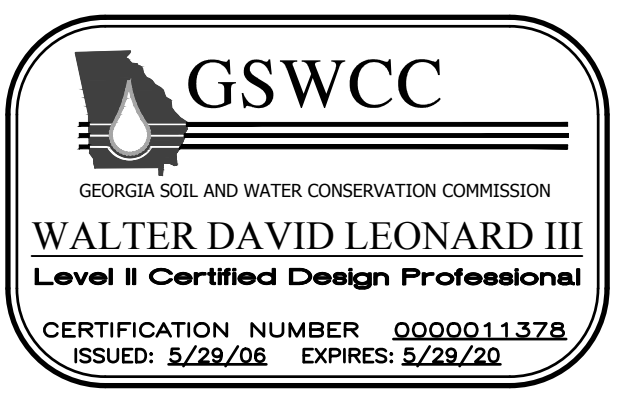
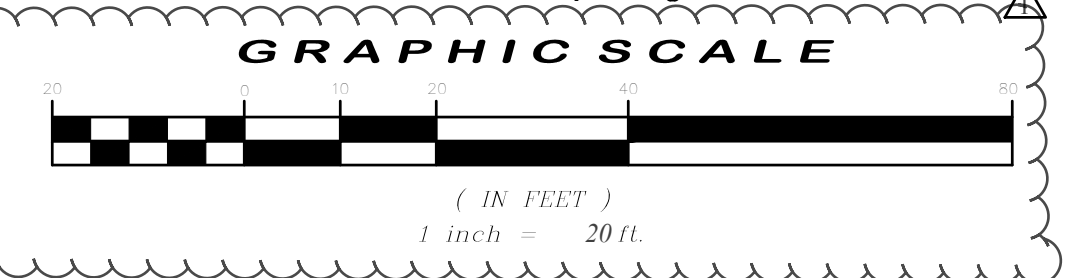
WETLAND NOTE:
THERE ARE NO WETLANDS LOCATED ON OR WITHIN 200 FEET OF THIS SITE PER THE NATIONAL WETLAND INVENTORY MAPS.

STATE WATER NOTE:
THERE ARE NOT STATE WATERS ARE LOCATED ON OR WITHIN 200 FEET OF THIS SITE.

TOTAL PROJECT AREA 0.17 AC
DISTURBED AREA 0.17 ACRES



Know what's below.
Call before you dig.



OWNER / DEVELOPER
CITY OF SUGAR HILL
5039 WEST BROAD STREET
SUGAR HILL, GA 30518
CONTACT: TROY BESSECHE
PHONE: 770-945-6734
EMAIL: tbesseche@cityofsugarhill.com

ENGINEER
PRECISION PLANNING, INC.
400 PIKE BOULEVARD
LAWRENCEVILLE, GA 30046
CONTACT: DAVID LEONARD
PHONE: 770.338.8138
EMAIL: 063DL@PPI.US

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REGISTERED PROFESSIONAL ENGINEER
NO. 12234
EXPIRATION DATE 01-23-24
WALTER DAVID LEONARD III

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LL 291 7th DISTRICT PARCEL 056

EROSION CONTROL PLAN, NOTES AND DETAILS

NO.	DESCRIPTION	DATE
01	DESCRIPTION	01/04/19
02	RELEASED FOR PLAN REVIEW	01/04/19
03	RELEASED FOR BIDDING	01/23/19
04	COUNTY COMMENT REVISIONS	02/10/19
05		
06		

DESIGN	PPI	GV	DL
DRAWN			
CHECKED			

PROJECT

RELEASE

FILE NUMBER

DATE

01-04-19

AB-221

PROJ. NUMBER

FILE NAME

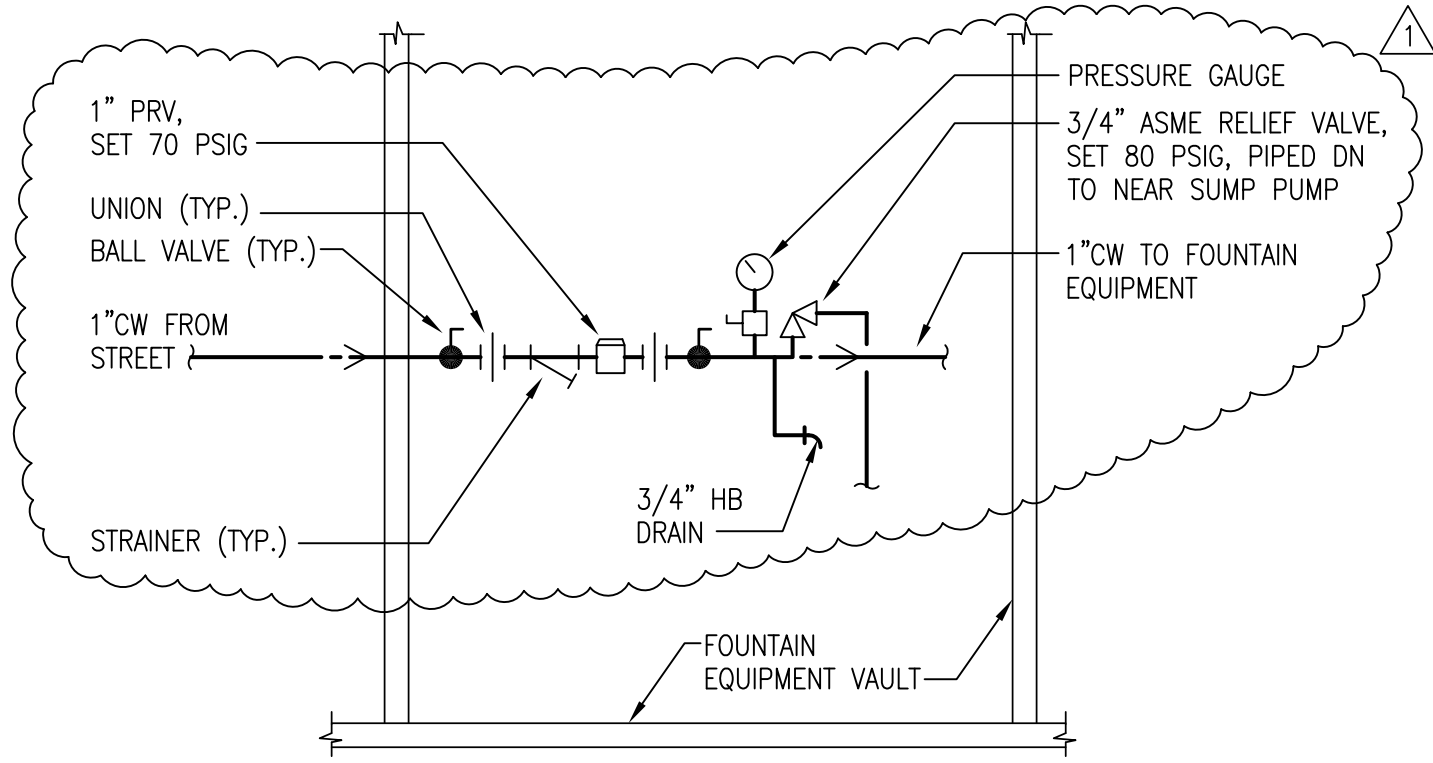
FILE NUMBER

C4.1

PLUMBING SPECIFICATIONS

- SECTION 15100
PLUMBING GENERAL
- 1.01 DESCRIPTION: This section describes the general plumbing requirements and applies to all plumbing work.
- 1.02 WORK INCLUDED: Provide all materials, labor and services as specified and shown on the drawings.
- 1.03 CODES:
- A. The latest amended editions of the codes applicable to the work of the municipality having jurisdiction.
- B. The following shall apply:
1. International Building Code, 2012 Edition, with all Georgia Amendments.
2. International Plumbing Code, 2012 Edition, with all Georgia Amendments.
3. International Fuel Gas Code, 2012 Edition, with all Georgia Amendments.
4. International Mechanical Code, 2012 Edition, with all Georgia Amendments.
5. International Energy Conservation Code, 2009 Edition, with all Georgia Supplements and Amendments.
6. All City, County, State, Regional, and other ordinances applicable to the work shall apply.
- 1.04 SPACE CONDITIONS:
- A. All work shall fit the spaces available. Verify all dimensions of the work before commencing fabrication and/or installation.
- B. Minor deviations from the drawings required to conform to space conditions and to provide the required operation, service, or maintenance accessibility shall be made at no additional cost, and subject to approval.
- 1.05 RECORD DRAWINGS: Upon completion of the Project, the Contractor shall submit one set of contract prints with red marks indicating as-built conditions of all piping, ductwork, and equipment, and incorporating changes made during construction. A record of as-built conditions shall be kept throughout the project, and shall be used in the preparation of the final record drawings.
- 1.06 SUBMITTALS:
- A. Procedure: Refer to the GENERAL CONDITIONS and SUPPLEMENTS thereto for submittal procedure of items called for in the Contract Documents.
- B. Data to be submitted prior to request for final inspection:
1. Prior to final inspection, deliver three bound sets of the following documents for approval:
- a. Record Drawings.
- C. Shop Drawings:
1. Shop drawings and other such submittal data covering the work of this Division will be reviewed only after such items have been reviewed in detail and approved by the Contractor, such approval being indicated by suitable notations or stamp on the submittal data.
2. Each submittal shall be clearly marked indicating Section, Paragraph for which it is intended.
- 1.07 PERMITS: Pay for all permits, fees and inspections required by this work.

- SECTION 15400
PLUMBING SYSTEMS
- 1.01 DESCRIPTION: This section describes the requirements for the plumbing work.
- 1.02 CODES: Plumbing work shall be installed in accordance with codes as specified in Section 15100.
- 1.03 EXISTING CONDITIONS: Confirm existing conditions, including location of existing utilities prior to beginning work.
- 1.04 QUALITY ASSURANCE: All valves and fittings serving potable water systems shall be of Lead Free construction. Lead Free refers to less than 0.25% weighted average lead content in relation to wetted surface of pipe, fittings and fixtures in systems delivering water for human consumption. Any product designed for dispensing potable water shall meet both the NSF/ANSI 61 and NSF/ANSI 372 test standards via third party testing and certification.
- 1.05 PIPING MATERIALS:
- A. SOIL, WASTE AND VENT: Underground piping shall be Schedule 40 PVC and ABS conforming to ASTM D-2661 and D-1784 respectively. Fittings shall be DWV ABS and PVC fittings conforming to ASTM D-2161 and ASTM D-2665 respectively. Underground piping shall be tested with 10' head of water column for 15 minutes with no noticeable loss of pressure.
- B. WATER and SUMP PUMP DISCHARGE PIPING shall be copper, Type K, hard drawn pipe meeting ASTM B88. Fittings shall be wrought copper type pressure fittings. Solder Joints: Solder shall be 95/5 (95% tin, 5% antimony). NO LEAD SOLDER SHALL BE PERMITTED. Solder flux shall be the type recommended by the manufacturer of the 95/5 solder used, meeting ANSI/NSF Standard 61. Test pipe for one hour at 100 psig with no noticeable loss of pressure.
- C. GAS PIPING shall be schedule 40 black steel pipe, ASTM A-53, with threaded joints. Fittings shall be 150-lb. malleable iron conforming to ANSI B 16.3. Gas piping below grade shall be shot blasted, primed, and factory coated with 90 mil thickness minimum. Fully plasticized coat for enamel and wrapped with glass, felt, and kraft paper coating. Joints shall be cleaned, primed, and covered with Manville Engarde joint wrap tape 50% lapped to provide same thickness coating as pipe. Holiday test all joints. All gas pipe shall be tested to hold 30 lbs. of pressure for two hours without noticeable loss of pressure. Gastite Multi-port manifold and Flash Shield CSST piping can be provided at access panel due to space limitations. CSST pipe shall be sized to match design constraints noted on this sheet (length, load and pressure).
- D. 1.06 CLEANOUTS AND FLOOR DRAINS:
- E. CLEANOUTS outside the building shall be cast iron trap screw ferrule with heavy countersunk brass or bronze plug set flush with grade in 12" x 12" x 8" concrete pad; Smith 4400.
- F. Comparable cleanouts by Josam, Zurn, or Wade are acceptable.
- 1.07 VALVES:
- A. WATER VALVES shall be full port, lead free bronze ball valve rated for 150 psi saturated steam and 600 psi non shock cold working pressure conforming to MSS SP-110 and NSF/ANSI 61 with bronze body, chrome plated vented ball, reinforced PTFE seat ring, stainless steel stem, and coated steel handle with vinyl handle hand grip, and soldered connections. Ball valves shall be Apollo, Hammond, Milwaukee, Nibco, Powell or Stockham/Crane.
- B. GAS VALVES shall include brass body, chrome plated brass ball, brass stem, glass reinforced PTFE seat with aluminum handle and threaded connections. Valves shall be CSA certified to ½ PSI for indoor appliance connections per ANSI Z21.15/CSA 9. Valves shall meet CGA CR91-002 and ASME B16.44 for 5 PSI indoor shutoff and rated for 600 PSI CWP. Design basis Nibco GB1A series.
- 1.08 HOSE BIBBS: Furnished with integral vacuum breaker, ¾" hose thread, removable handle, polished chrome finish, Chicago #952.
- 1.09 PIPING OUTDOORS:
- A. Do all trenching, excavating and backfilling required for the work. Include all necessary repairing, shoring, bracing, pumping and protection for safety of persons and property. Slope sides of trenches to comply with OSHA requirements. Shore and brace where sloping is not possible either because of space restrictions or stability of materials excavated. Maintain sides and slopes of excavations in a safe condition of backfilling. Excavate rock to depth of 6" below bottom of pipe. Space between rock and pipe shall be filled with sand.
- B. Bottom of trenches shall be graded to secure the required fall. Size of bell holes for soil and sewer pipe shall be held to a minimum so that the entire pipe length rests on compacted fill or undisturbed earth.
- C. Backfill shall be placed completely under pipe haunches and in bell holes and uniformly tamped in 6"0 layers. Backfill over top of pipe with select materials free of clods, stones, boulders, and foreign materials.
- D. Backfill shall be compacted to 95% of maximum dry density as determined by a Standard Proctor Test, ASTM- D698, except where under areas to be paved, top 12 to 24 inches of fill shall be compacted to 97% dry density by above standard.



1 WATER ENTRY DETAIL
P1.1 SCALE: NONE

PLUMBING SYMBOLS	
	SOIL OR WASTE PIPING BELOW GRADE
	COLD WATER PIPING
	CHECK VALVE
	UNION
	BALL VALVE
	FLOOR CLEANOUT
	GAS REGULATOR
	GAS VALVE
	GAS PIPING
	PIPE RISE
	PIPE DROP

ABBREVIATIONS	
CW	COLD WATER
W	WASTE
CO	FLOOR CLEANOUT
ABV.	ABOVE
BEL.	BELOW
I.E.	INVERT ELEVATION
BFP	BACKFLOW PREVENTER
TYP.	TYPICAL
GA.	GAUGE
GALV.	GALVANIZED
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
VA.	VALVE
O.C.	ON CENTER
MAX.	MAXIMUM
MIN.	MINIMUM
PRV	PRESSURE REDUCING VALVE

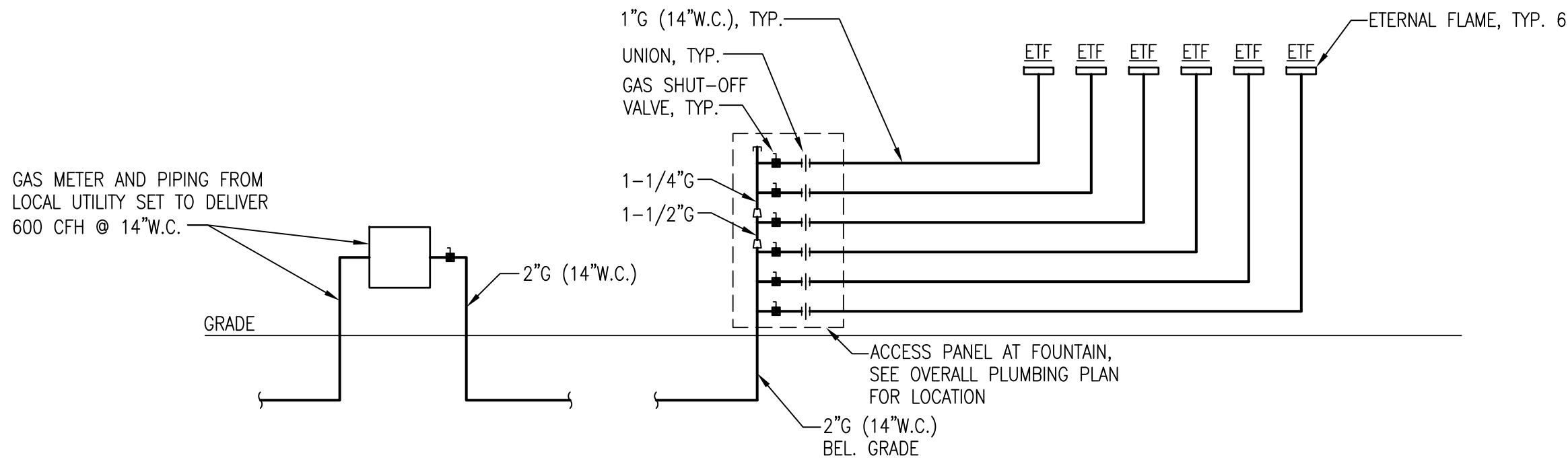
GENERAL NOTES

1. MAKE FINAL CONNECTIONS TO ALL FIXTURES AND EQUIPMENT, INCLUDING EQUIPMENT PROVIDED UNDER OTHER DIVISIONS.
2. CAP ALL PIPING ENDS DURING CONSTRUCTION TO PREVENT ENTRY OF DEBRIS.
3. ALL FIXTURES WITH A HOSE CONNECTION OUTLET SHALL BE PROVIDED WITH AN INTEGRAL VACUUM BREAKER.
4. PAINT ALL EXTERIOR NATURAL GAS PIPING TO MATCH BUILDING COLOR.
5. VERIFY EXACT LOCATIONS AND REQUIREMENTS OF FOUNTAIN EQUIPMENT PRIOR TO PROCEEDING WITH THE WORK.
6. DRAWINGS ARE DIAGRAMMATIC ONLY. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING DIMENSIONS AND EXACT LOCATIONS AND ELEVATIONS OF ALL FIXTURES AND EQUIPMENT.
7. VERIFY ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK.
8. SCOPE OF WORK ON PLUMBING DRAWINGS DEFINE LIMIT OF ARCHITECTURAL WORK. PLUMBING WORK WILL EXTEND BEYOND THESE LIMITS FOR POINTS OF CONNECTION.
9. CONNECTIONS BETWEEN TWO DISSIMILAR METALS SHALL BE MADE WITH DIELECTRIC UNIONS.
10. PROVIDE AND INSTALL NEW TEES, WYES, OR ELLS AT EACH WATER AND SEWER POINT OF CONNECTION.
11. WHERE STRUCTURE IS DAMAGED DURING CONSTRUCTION AND INSTALLATION OF EQUIPMENT OR FIXTURES, THE CONTRACTOR SHALL REPAIR THE DAMAGED AREA TO MATCH THE PROPOSED CONDITION.
12. ALL FIXTURE CONNECTIONS SHALL BE MADE WITH NEW FITTINGS.
13. THE COMPLETE WASTE SYSTEM SHALL BE RODDED-OUT AND FLUSHED CLEAN PRIOR TO FINAL INSPECTION OR TURNING THE BUILDING OVER TO THE OWNER.
14. FLUSH, CLEAN, AND DISINFECT THE ENTIRE DOMESTIC WATER PIPING SYSTEM AS SPECIFIED.
15. WHERE PIPING VISIBLY PENETRATES THE WALLS, INSTALL ESCUTCHEONS TO COVER SLEEVES AND/OR CAULKING THROUGHOUT FINISHED AREAS.
16. ALL FIXTURES AND EQUIPMENT SHALL BE KEPT CLEAN DURING ALL CONSTRUCTION AND NOT USED DURING CONSTRUCTION.

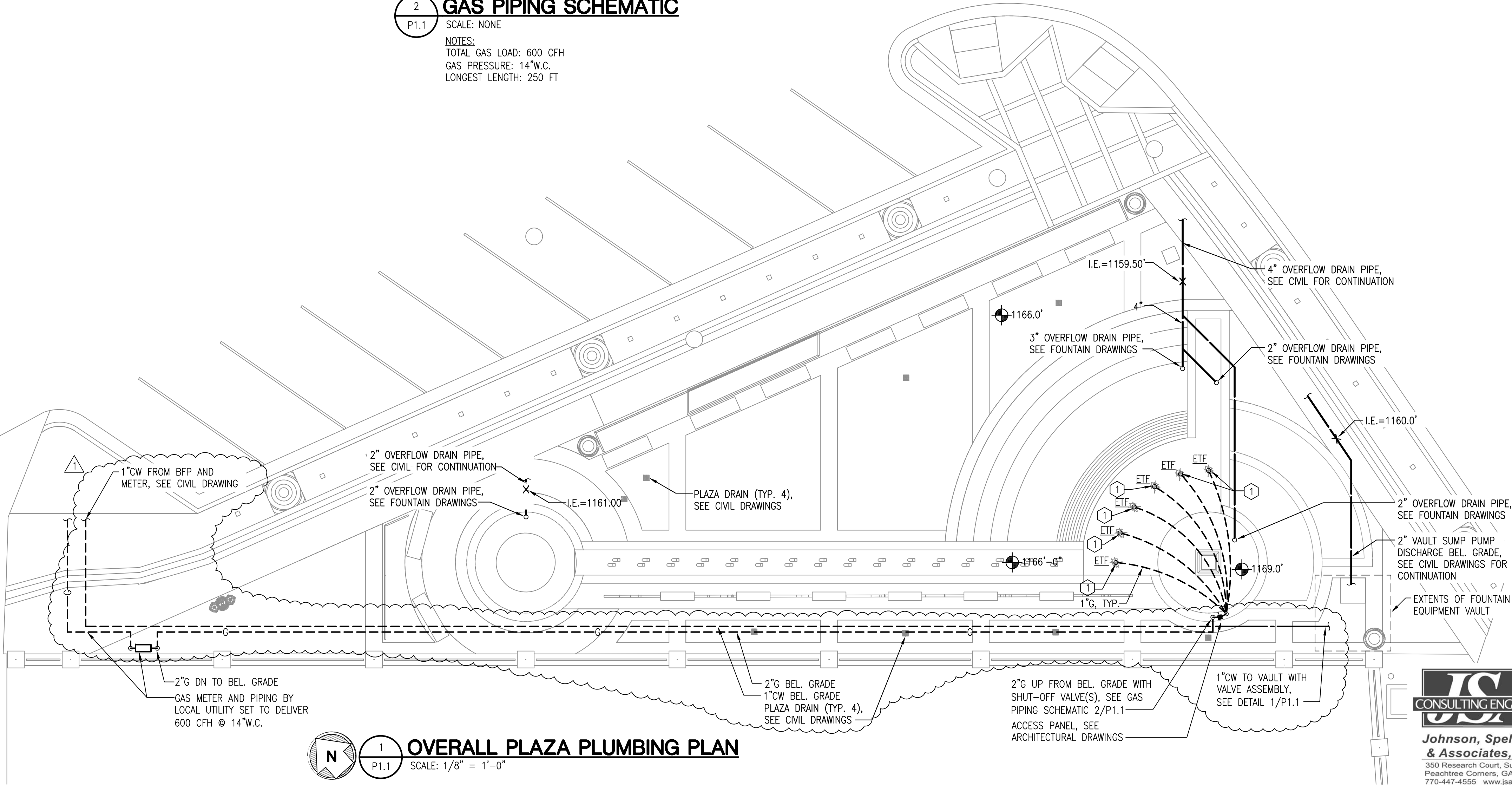
KEY NOTES

- 1 GAS PIPING TO EQUIPMENT WITH DIRT LEG AND UNION. SIZE AS NOTED. CONNECT GAS PIPING TO EQUIPMENT.

GAS EQUIPMENT SCHEDULE		
MARK	DESCRIPTION	MBTU/H
ETF	ETERNAL FLAME (100 CFH EA; 6 TOTAL)	600
TOTAL		600



2 GAS PIPING SCHEMATIC
P1.1 SCALE: NONE
NOTES:
TOTAL GAS LOAD: 600 CFH
GAS PRESSURE: 14"W.C.
LONGEST LENGTH: 250 FT



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REGISTERED
PROFESSIONAL ENGINEER
MICHAEL L. VERNI
02.10.19

STAMP

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SUGAR HILL, GA 30518

PROJECT

PLUMBING NOTES,
DETAILS,
SPECIFICATIONS &
OVERALL PLAN

DESIGN
DRAWN
CHECKED

LD8
LD8
MLW

NO DESCRIPTION
DATE

01/04/19
02/10/19

RELEASED FOR PLAN REVIEW
COUNTY COMMENT REVISIONS

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PROJ. NUMBER

FILE NAME

FILE NUMBER

RELEASE

SHEET TITLE

P1.1