



State of West Virginia  
 Department of Administration  
 Purchasing Division  
 2019 Washington Street East  
 Post Office Box 50130  
 Charleston, WV 25305-0130

# Solicitation

NUMBER
GSD136417

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
KRISTA FERRELL 304-558-2596

RFQ COPY  
 TYPE NAME/ADDRESS HERE

VENDOR

SHIP TO

DEPARTMENT OF ADMINISTRATION  
 GENERAL SERVICES DIVISION  
 JOBSITE  
 SEE SPECIFICATIONS

304-558-2317

DATE PRINTED
06/11/2013

BID OPENING DATE: 06/26/2013 BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
ADDENDUM NO. 2						
THIS ADDENDUM IS ISSUED TO AMEND THE ORIGINAL SOLICITATION (GSD136417) AND ALL ISSUED ADDENDA PER THE ATTACHED DOCUMENTATION.						
0001	1	LS	968-20	NEW FAIRMONT OFFICE BUILDING CONSTRUCTION		
***** THIS IS THE END OF RFQ GSD136417 ***** TOTAL:						

SIGNATURE		TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE	

WHEN RESPONDING TO SOLICITATION, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

SOLICITATION NUMBER: GSD136417

Addendum Number: 2

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The purpose of this addendum is to modify the solicitation identified as ("Solicitation") to reflect the change(s) identified and described below.

**Applicable Addendum Category:**

- Modify bid opening date and time
- Modify specifications of product or service being sought
- Attachment of vendor questions and responses
- Attachment of pre-bid sign-in sheet
- Correction of error
- Other

**Description of Modification to Solicitation:**

To add a copy of the mandatory pre-bid attendee list, to answer all technical questions submitted in accordance with the provisions of the original solicitation and all issued addenda, and to extend the bid opening date. Bid opening date is extended to 06/26/2013 at 1:30 PM EST.

**Additional Documentation:** Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

**Terms and Conditions:**

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.
2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

# ATTACHMENT A

**ADDENDUM ACKNOWLEDGEMENT FORM**  
**SOLICITATION NO.: GSD136417**

**Instructions:** Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

**Acknowledgment:** I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

**Addendum Numbers Received:**

(Check the box next to each addendum received)

- |   |  |
|---|--|
| <input type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6  |
| <input type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7  |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8  |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9  |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

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Company

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Authorized Signature

---

Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.  
 Revised 6/8/2012

To: ALL BIDDERS

Ref: **New State Office Building-Fairmont**

Subj.: **ADDENDUM BULLETIN NO. 2**

This Addendum Bulletin shall be incorporated in the Construction Documents including the Drawings and Specifications for the Project referenced above. All work amended as listed herein shall be included in your Bid Proposal and the bidder shall acknowledge this addendum bulletin on the Bid Form.

**Printed copies of Addendum No. 2 may be obtained from the Architect. Contains 30" x 42" sheets.**

The work shall be amended as follows:

## **SPECIFICATIONS**

### **Addendum 2 – ITEM 01, DIVISION 0 PROCUREMENT & CONTRACTING REQUIREMENTS**

- A. DELETE Proposal Form in its entirety and SUBSTITUTE new Proposal Form per **Attachment B**.

### **Addendum 2 – ITEM 02, DIVISION 1 GENERAL REQUIREMENTS**

- A. DELETE Section 012200 UNIT PRICES in its entirety and SUBSTITUTE new Section 012200 UNIT PRICES per **Attachment A**.
- B. ADD Specification Section 013233 PHOTOGRAPHIC DOCUMENTATION in its entirety per **Attachment C**.

### **Addendum 2 – ITEM 03 SECTION 074216 INSULATED-CORE METAL WALL PANELS**

- A. At Subparagraph 2.1.A.3 Surface, DELETE Embossed finish and SUBSTITUTE Smooth Finish.
- B. At Subparagraph 2.5.B.2.d Exterior Surface, DELETE Embossed Finish and SUBSTITUTE Smooth Finish.

### **Addendum 2 – ITEM 04 SECTION 078123 INTUMESCENT FIREPROOFING**

- A. At Subparagraph 1.2.B Scope, Add the following room to the list of rooms where intumescent fireproofing is to be used: SECOND FLOOR 201

### **Addendum 2 – ITEM 05 SECTION 095113 ACOUSTICAL PANEL CEILINGS**

- A. At Subparagraph 2.3.A DELETE 1912HRC and SUBSTITUTE 1911HRC.
- B. At Subparagraph 2.6.A DELETE 1912HRC and SUBSTITUTE 1911HRC.

### **Addendum 2 – ITEM 06 DIVISION 10 SPECIALITIES**

- A. Delete Specification Section 105626 Mobile Storage Shelving in its entirety. This unit has been deleted from Room 327 HIGH DENSITY. The State will provide this unit.

### **Addendum 2 – ITEM 07 SECTION 101416 PLAQUES**

- A. At Subparagraph 2.3.A ADD the following subparagraph: "10. Relief: Flat"
- B. At Subparagraph 2.4.A ADD the following subparagraph: "11. Relief: Bas"

**Addendum 2 – ITEM 08 DIVISION 31 EARTHWORK**

- A. DELETE Specification Section 316329 Drilled Concrete Piers and Shafts in its entirety and substitute new specification Section 316329 Drilled Concrete Piers and Shafts per **Attachment D**.

**Addendum 2 – ITEM 09, SECTION 237413 OUTDOOR, CENTRAL-STATION AIR-HANDLING UNITS**

- A. In Article 2.1 “Outdoor Air Handling Unit RTU-1,” Paragraph G. Filter/Mixing Box Module,” DELETE subparagraph 6d and SUBSTITUTE the following: “Unit shall include 4 inch thick, pleated panel filters with an ASHRAE efficiency of 80% and a MERV rating of 13 upstream of the cooling coil.”

**DRAWINGS**

**Addendum 2 – ITEM 10, SHEET C-8 CAISSON AND ESTIMATED BEDROCK ELEVATION PLAN**

- A. ADD this sheet in its entirety per **Attachment U**. This sheet provides the following information pertaining to bedrock elevations and caisson depths at the site.
  - a. Location of Soil Borings at the site which encountered bedrock.
  - b. Estimated bedrock surface elevation contours based upon soil borings.
  - c. Table providing boring numbers, surface elevations, depth to rock and top of bedrock elevations.
  - d. Caisson listing with estimated bedrock elevation at each caisson location.
  - e. In addition to the depth to bedrock at each caisson location add the socket depth into rock in order to calculate the estimated total depth of each caisson.

**Addendum 2 – ITEM 11, SHEET A-1.2A SECOND FLOOR PLAN – AREA A**

- A. ADD CW-13 as shown on SK-01 PARTIAL SECOND FLOOR PLAN – AREA A – STAIR NO.1 per **Attachment E**.

**Addendum 2 – ITEM 12, SHEET A-1.3A THIRD FLOOR PLAN - AREA A**

- A. REMOVE AND REPLACE CW-13 as shown on SK-02 PARTIAL THIRD FLOOR PLAN – AREA A – STAIR NO.1 per **Attachment F**.

**Addendum 2 – ITEM 13, SHEET A-1.4A FOURTH FLOOR PLAN - AREA A**

- A. REMOVE AND REPLACE CW-13 as shown on SK-03 PARTIAL FOURTH FLOOR PLAN – AREA A – STAIR NO.1 per **Attachment G**.

**Addendum 2 – ITEM 14, SHEET A-1.5A FIFTH FLOOR PLAN - AREA A**

- A. REMOVE AND REPLACE CW-13 as shown on SK-04 PARTIAL FIFTH FLOOR PLAN – AREA A – STAIR NO.1 per **Attachment H**.

**Addendum 2 – ITEM 15, SHEET A-1.5A FIFTH FLOOR PLAN – AREA A**

- A. At Office 511, West Wall, mark the transom shown as Type SF01 and provide dimensions per **Attachment L**.

**Addendum 2 – ITEM 16, SHEET A-2.1A PARTIAL NORTH ELEVATION**

- A. DELETE this sheet in its entirety and REPLACE with A-2.1A PARTIAL NORTH ELEVATION clouded with revision Delta 2 per **Attachment V**.

**Addendum 2 – ITEM 17, SHEET A-2.2 WEST ELEVATION**

- A. DELETE this sheet in its entirety and REPLACE with A-2.2 WEST ELEVATION clouded with revision Delta 2 per **Attachment W**.

**Addendum 2 – ITEM 18, SHEET A-3.9 BUILDING SECTION**

- A. DELETE this sheet in its entirety and REPLACE with A-3.9 BUILDING SECTIONS clouded with revision Delta 2 per **Attachment X**.

**Addendum 2 – ITEM 19, SHEET A-5.4 CURTAINWALL & STOREFRONT ELEVATIONS**

- A. DELETE this sheet in its entirety and REPLACE with A-5.4 CURTAINWALL & STOREFRONT ELEVATIONS clouded with revision Delta 2 per **Attachment Y**.

**Addendum 2 – ITEM 20, SHEET A-7.2A SECOND FLOOR CEILING PLAN – AREA A**

- A. ADD the following note at Room 201 SECOND FLOOR A: “INTUMESCENT FIREPROOFING ON ALL STEEL REQUIRED TO RECEIVE FIREPROOFING IN THIS ROOM”.

**Addendum 2 – ITEM 21, SHEET S-1.0 CAISSON PLAN**

- A. ADD Sheet S-1.0 CAISSON PLAN in its entirety per **Attachment CC**. This drawing provides the top elevation of the Drilled Concrete Piers.

**Addendum 2 – ITEM 22, SHEET S-1.1 FOUNDATION PLAN**

- A. ADD SK-5 CAISSON DESIGNATION with clouded revision Delta 2 per **Attachment Q**.

**Addendum 2 – ITEM 23, SHEET S-1.2 FOUNDATION DETAILS**

- A. DELETE Detail 13 / S-1.2 TYPICAL CAISSON REINFORCING LAYOUT and SUBSTITUTE new Detail 13/S-1.2 per **Attachment R**.

**Addendum 2 – ITEM 24, SHEET S-2.1 FIRST FLOOR PLAN**

- A. ADD Note 3 per the following: “ALL INTERIOR NON-LOAD BEARING CMU PARTITIONS (SHOWN HALFTONED) SHALL EXTEND TO THE METAL DECK AND ATTACH PER DETAIL 13/S-5.3 TYPICAL CMU PARTITION TO METAL DECK DETAIL” (this detail added per this Addendum.)

**Addendum 2 – ITEM 25, SHEET S-2.4 FOURTH FLOOR FRAMING PLAN**

- A. ADD SK-1 PARTIAL FOURTH FLOOR PLAN per **Attachment J**

**Addendum 2 – ITEM 26, SHEET S-2.5 FIFTH FLOOR FRAMING PLAN**

- A. ADD SK-2 PARTIAL FIFTH FLOOR PLAN per **Attachment K**.

**Addendum 2 – ITEM 27, SHEET S-3.4 BUILDING SECTIONS**

- A. DELETE this sheet in its entirety and REPLACE with S-3.4 BUILDING SECTIONS clouded with revision Delta 2 per Attachment Z.

**Addendum 2 – ITEM 28, SHEET S-5.2 STEEL DETAILS**

- A. DELETE Detail 7/S5.2 TYPICAL COLUMN BASE DETAIL and SUBSTITUTE new Detail 7/S-5.2 per Attachment M.

**Addendum 2 – ITEM 29, SHEET S-5.3 STEEL DETAILS**

- A. DELETE Detail 4/S5.3 TYPICAL SECTION AT ROOF and SUBSTITUTE new Detail 4/S-5.3 per Attachment N.
- B. ADD Detail 13/S5-5.3 TYPICAL CMU PARTITION TO METAL DECK DETAIL per Attachment ~~XP~~

**Addendum 2 – ITEM 30, SHEET H-5.1 HVAC SCHEDULES**

- A. DELETE this sheet in its entirety and substitute new sheet with clouded revisions per Attachment BB.

**Addendum 2 – ITEM 31, SHEET E-1.1 FIRST FLOOR LIGHTING PLAN**

- A. REVISE four (4) Type G06 light fixtures located in canopy outside Lobby 100 to be Type S01 per Attachment S.

**Addendum 2 – ITEM 32, SHEET E-5.2 LIGHTING FIXTURE SCHEDULE AND DETAILS**

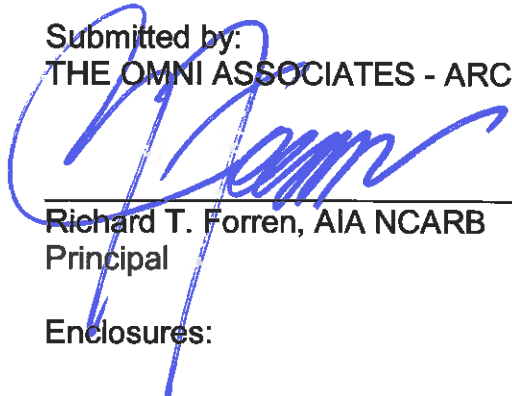
- A. DELETE this sheet in its entirety and substitute new sheet with clouded revisions per Attachment AA.

**Addendum 2 – ITEM 33, SHEET ES-0.1 ELECTRICAL SITE PLAN AND DETAILS**

- A. DELETE Type S03 light fixture located at site sign to be Type S07 and revise two (2) Type S07 light fixtures located at flag pole to be Type S09 per Attachment T.

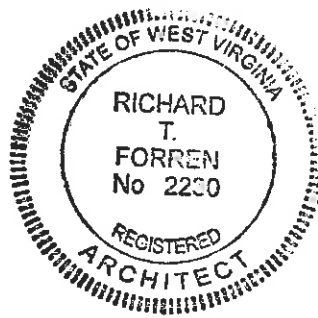
**END OF ADDENDUM NO. 2**

Submitted by:  
THE OMNI ASSOCIATES - ARCHITECTS




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Richard T. Forren, AIA NCARB  
Principal



Enclosures:

**TECHNICAL QUESTIONS AND ANSWERS**

- Attachment A: 012200 UNIT PRICES
- Attachment B: Div 0 PROPOSAL FORM
- Attachment C: 013233 PHOTOGRAPHIC DOCUMENTATION
- Attachment D: 316329 DRILLED CONCRETE PIERS AND SHAFTS
- Attachment E: SK-01 PARTIAL SECOND FLOOR PLAN – AREA A – STAIR NO.1
- Attachment F: SK-02 PARTIAL THIRD FLOOR PLAN – AREA A – STAIR NO.1



Attachment G:	SK-03	PARTIAL FOURTH FLOOR PLAN – AREA A – STAIR NO. 1
Attachment H:	SK-04	PARTIAL FIFTH FLOOR PLAN – AREA A – STAIR NO.1
Attachment I:		NOT USED
Attachment J:	SK-1	PARTIAL FOURTH FLOOR PLAN
Attachment K:	SK-2	PARTIAL FIFTH FLOOR PLAN
Attachment L:	SK-05	TRANSOM AT OFFICE 511
Attachment M:	SK-3	DETAIL 7/S5.2 TYPICAL COLUMN BASE DETAIL
Attachment N:	SK-4	DETAIL 4/S5.3 TYPICAL SECTION AT ROOF
Attachment O:		NOT USED
Attachment P:	SK-6	DETAIL 13/S5-5.3 TYPICAL CMU PARTITION TO METAL DECK
Attachment Q:	SK-5	CAISSON DESIGNATION
Attachment R:	SK-7	CAISSON DETAIL 13/S-1.2
Attachment S:	SK-E1	PARTIAL FIRST FLOOR LIGHTING PLAN
Attachment T:	ES-0.1	ELECTRICAL SITE PLAN AND DETAILS
Attachment U:	C-8	CAISSON AND ESTIMATED BEDROCK ELEVATION PLAN
Attachment V:	A-2.1A	PARTIAL NORTH ELEVATION
Attachment W:	A-2.2	WEST ELEVATION
Attachment X:	A-3.9	BUILDING SECTION
Attachment Y:	A-5.4	CURTAINWALL & STOREFRONT ELEVATION
Attachment Z:	S-3.4	BUILDING SECTIONS
Attachment AA:	E-5.2	LIGHTING FIXTURE SCHEDULE AND DETAILS
Attachment BB:	H-5.1	HVAC SCHEDULES
Attachment CC:	S-1.0	CAISSON PLAN

SECTION 012200 - UNIT PRICES

PART 1 - GENERAL

# ATTACHMENT A

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for unit prices.
- B. Related Requirements:
  - 1. Section 012600 "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
  - 2. Section 014000 "Quality Requirements" for general testing and inspecting requirements.

1.3 DEFINITIONS

- A. Unit price is an amount incorporated in the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.
- B. Measurement and Payment: See individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.
- C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- D. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

A. Unit Price 1: Linear foot comparison of Drilled Concrete Piers and Shafts .

1. Description: The difference between the Total Design Length of Drilled Concrete Piers (Caissons) and Shafts established in the Contract Documents and the Total Actual Length of Drilled Concrete Piers and Shafts (Caissons) measured by the Geotechnical Engineer of Record will establish the unit quantity, either plus or minus. This will be multiplied by the unit price provided on the Form of Proposal to establish an Additive or Deductive dollar amount to the contract.
2. Unit of Measurement: Linear foot of Drilled Concrete Piers.

END OF SECTION 012200

**Proposal Form**

**ATTACHMENT B**

State of West Virginia – General Services Division  
New State Office Building - Fairmont  
416 Adams Street

Project No. GSD 136417

Name of Bidder: \_\_\_\_\_

The undersigned, hereinafter called Bidder, being familiar with and understanding the Bidding Documents and also having examined the site and being familiar with all local conditions affecting the project hereby proposes to furnish all labor, material, equipment, supplies and transportation and to perform all Work in accordance with the Bidding Documents within the time set forth for the sum of:

New State Office Building Base Bid:

\_\_\_\_\_

\_\_\_\_\_ (\$ \_\_\_\_\_)  
(Show amount in both words and numbers)

(In the event of a difference between the written amount and the number amount, the written amount shall govern.)

**UNIT PRICE:**

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Unit Price No. 1:	Additive or deductive price per linear foot of Drilled Piers and Shafts.	\$ _____	Per Linear Foot
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Definition: A Unit Price is an amount stated in the Bid as a price per unit of measurement for materials, equipment or services or a portion of the Work as described in the Bidding Documents. Unit prices shall be used solely for the formulation of any change orders subsequently requested for the awarded contract.

**References:**

Reference #1 Name: \_\_\_\_\_

Position: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Project Name: \_\_\_\_\_

Project Description: \_\_\_\_\_

Reference #2 Name: \_\_\_\_\_

Position: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Project Name: \_\_\_\_\_

Project Description: \_\_\_\_\_

Reference #3 Name: \_\_\_\_\_

Position: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Project Name: \_\_\_\_\_

Project Description: \_\_\_\_\_

SECTION 013233 - PHOTOGRAPHIC DOCUMENTATION

ATTACHMENT C

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
  - 1. Web-based construction photographic documentation.

1.3 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Web-based photographic documentation service provider].

1.4 USAGE RIGHTS

- A. Obtain and transfer copyright usage rights from web cam service provider to Owner for unlimited reproduction.

PART 2 - PRODUCTS

2.1 WEB-BASED PHOTOGRAPHIC DOCUMENTATION

- A. Project Camera: Provide fixed exterior camera installation, mounted to provide unobstructed view of construction site from location approved by Architect.
  - 1. Provide two fixed-location camera(s), with the following characteristics:
    - a. Static view
    - b. Capable of producing minimum 6.0 megapixel pictures.
    - c. Provide power supply, active high-speed data connection to service provider's network, and static public IP address for each camera.
  - 2. Location
    - a. Provide one camera location off-site at an elevation at least equal to the highest point of the structure. Secure permission for the property owner. Initial suggestion is the Parking garage owned by the City of Fairmont.
- B. Wireless Hand-Held Camera: Provide portable camera system capable of producing images complying with requirements in this Section, with wireless transmission to service provider's network enabling a live image stream viewable by multiple parties.

1. Provide battery charger, spare battery pack, base station hub, and base station connections in a number and distribution adequate to enable wireless camera operation throughout Project site.
  2. Provide power supply, active high-speed data connection to service provider's network, and static public IP address at base station hub. Provide power supply, conduit, and data wiring between base station hub and base station connections.
- C. Web-Based Image Access: Password-protected access for Project team administered by Contractor, providing current image access and archival image access by date and time, with images downloadable to viewer's device.
1. Provide public viewer open access to most recent project camera image.

### PART 3 - EXECUTION

#### 3.1 WEB-BASED CONSTRUCTION PHOTOGRAPHIC DOCUMENTATION

- A. Live Streaming Construction Site Images: Provide Web-accessible image of current site image from two fixed location camera(s), updated at 15 minute intervals during daytime operation.
- B. Maintain cameras and Web-based access in good working order according to Web-based construction photographic documentation service provider's written instructions until final completion. Provide for service of cameras and related networking devices and software.

END OF SECTION 013233

**SECTION 316329  
DRILLED CONCRETE PIERS AND SHAFTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Machine drilled shaft and rock sockets.
- B. Concrete and reinforcement.
- C. Shaft liner, if required.

**1.02 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General and Supplemental Conditions of the Construction Contract, and Division I Specification Sections (General Requirements), apply to this Section.

**1.03 SCOPE**

- A. The work covered by this Section shall include all labor, material, equipment, permits, and services necessary for the installation of caissons for building and related work, complete, in accordance with the Contract Drawings and as specified herein. Work shall include the following:
  - 1. Installation of temporary steel casing.
  - 2. Excavating for caissons.
  - 3. Cleaning of caisson excavations.
  - 4. Placement of reinforcing, dowels, and tremie or pumping placement of concrete.

**1.04 RELATED REQUIREMENTS**

- A. Section 032000 - Concrete Reinforcing: Requirements for concrete reinforcement.
- B. Section 033000 - Cast-in-Place Concrete: Requirements for concrete.
- C. Section 02100 — Site Preparation
- D. Section 02300 - Earthwork

**1.05 UNIT PRICE**

- A. Unit prices are included in Section 012200 "Unit Prices".
- B. Drilled Piers: Actual net length of 36" diameter drilled piers in place and approved. Actual length may vary to coincide with elevations where satisfactory bearing strata are encountered. Adjustments will be made for the net variation of total length, based on the estimated rock elevations found on the Civil Drawings and the design top elevation from the structural drawings and the depth of the rock socket.
- C. The base bid shall include the indicated number of drilled piers, the design length from top elevation to bottom of shaft including the specified rock socket.
- D. The unit price will be used to compensate for aggregate variations from the final total lineal footage of all piers installed. This payment will be determined from the actual total length installed and subtracting the total design length as determined from the contract documents.
- E. Unit prices shall include labor, materials, tools, equipment and incidentals required for excavation, trimming, shoring, casings, dewatering, reinforcement, concrete fill, testing and inspecting and other items for complete drilled pier installation.
- F. No additional payment will be made for casings or cut-offs. If casings or cutoffs are anticipated this cost shall be included in the bid price.

**1.06 REFERENCE STANDARDS**

- A. Association of Drilled Shaft Contractors (ADSC)
- B. American Institute of Steel Construction (AISC)
- C. American Concrete Institute (ACI)



- D. American Society for Testing and Materials (ASTM)
- E. APPLICABLE CODES
  - 1. Caissons required by Contract shall be constructed in accordance with the 2000 IBC International Building Code and all applicable OSHA requirements.
- F. AASHTO M 36 - Standard Specification for Corrugated Steel Pipe, Metallic-Coated, for Sewers and Drains; American Association of State Highway and Transportation Officials; 2003.
- G. ACI 336.1 - Standard Specification for the Construction of Drilled Piers; American Concrete Institute International; 2001.
- H. ASTM A36/A36M - Standard Specification for Carbon Structural Steel; 2008.
- I. ASTM A252 - Standard Specification for Welded and Seamless Steel Pipe Piles; 2010.
- J. ASTM A283/A283M - Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates; 2012.
- K. ASTM A929/A929M - Standard Specification for Steel Sheet, Metallic-Coated by the Hot-Dip Process for Corrugated Steel Pipe; 2001 (Reapproved 2007).

#### **1.07 ADMINISTRATIVE REQUIREMENTS**

- A. Preinstallation Meeting: Conduct a preinstallation meeting one week prior to the start of the work of this section; require attendance by all affected installers.

#### **1.08 SUBMITTALS**

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. A signed statement that the Contractor has inspected both the Project site and all the subsurface information available to him.
- C. No later than 30 days prior to constructing drilled shafts, the Contractor shall submit a Site Specific Work Plan (SSWP), as specified in Division I of the Technical Provisions, for review by the General Contractor. This SSWP shall include information on the following:
  - 1. All pertinent calculations.
  - 2. Installation procedures.
  - 3. Name and experience record of the drilled shaft superintendent in charge of drilled shaft operations for this Project.
  - 4. List of proposed equipment to be used including cranes, drills, augers, final cleaning equipment, core sampling equipment, tremies or concrete pumps, casing, and equipment for installing steel casing. The Contractor shall also list the quantities of each piece of equipment proposed and delivery methods.
  - 5. Details of overall construction operation sequence and the sequence of shaft construction in groups. Details and procedure for casing installation.
  - 6. Details of shaft excavation methods, including details for rock coring.
  - 7. Details of methods to clean the bottom and sides of the caisson socket and method for Owner's Geotechnical Engineer to inspect the caisson bottom and sides of sockets.
  - 8. Details of reinforcement placement including support and centralization methods.
  - 9. Details of concrete placement including proposed operational procedures for tremie or pumping methods.
  - 10. Details of method to install grade beams that key into the caissons. Include methods for excavation, and sheeting and bracing of excavation as necessary.
- D. The General Contractor and the Owner's Geotechnical Engineer will evaluate the drilled shaft installation plan for conformance with the Plans, Specifications and Special Provisions.
- E. The General Contractor and the Owner's Geotechnical Engineer will notify the Pier Contractor of any additional information required and/or changes necessary to meet the contract requirements. All procedural approvals given by the Owner's Geotechnical Engineer shall be subject to trial in the field and shall not relieve the Contractor of the responsibility to satisfactorily complete the work as detailed in the Plans and Specifications.

- F. Shop Drawings: Shall include a layout showing the location of each foundation; foundation details; reinforcement steel schedule; bills of material; details; pertinent dimensions; spacing for each foundation; and casing diameter and wall thickness.
- G. Detailed description of the procedures to be used for placement of reinforcing cages and concrete using tremie techniques.
- H. Concrete mix designs as per Section 033000.
- I. Certified mill test reports for reinforcing steel and shell steel.
- J. Certification by a land surveyor licensed in the State of West Virginia that each foundation conforms to the tolerances specified and the dimensions and elevations shown. The certification shall include "as-built" reports of field established dimensions, locations, plumbness, and top and bottom elevations.
- K. Project Record Documents: Record actual locations of piers, pier diameter, and pier length. Accurately record the following:
  - 1. Sizes, lengths, and locations of piers .
  - 2. Sequence of placement.
  - 3. Final base and top elevations.
  - 4. Deviation from indicated locations.

#### **1.09 QUALITY ASSURANCE**

- A. The foundation system contractor shall be a caisson specialist and shall furnish evidence that he has comparable experience in installations of similar drilled foundation Caissons, and a record of successful completion, and shall employ labor and supervisory personnel familiar with this type of installation. The foundation system contractor shall also be qualified to provide safe entry into caissons for cleaning and inspection.
- B. The Pier Contractor's caisson construction work shall be subject to quality assurance review by the Owner's geotechnical engineer.
- C. The Contractor shall have the sole responsibility for coordinating his work with the testing and inspection laboratory and Geotechnical Engineer to assure that all tests and inspection procedures required by the Contract Documents are properly provided. The Contractor shall cooperate fully with the testing and inspection laboratory in the performance of their work.
  - 1. The Owner's Geotechnical Engineer will be present on-site at all times during excavation of caissons to determine when the socket depth is adequate to resist the loading indicated on the Contract Documents based on sideshear and end bearing in soil or rock. The contractor shall clean all loose material from the socket sidewalls and caisson bottom. The contractor shall also provide a means of safe entry into each caisson to permit inspection of the socket, sidewalls, and caisson bottom by the Geotechnical Engineer when required. Where conditions do not permit safe entry into caisson excavations for direct down-hole inspections, alternative methods acceptable to the Geotechnical Engineer will be used to determine the suitability of the bottom and the socket. The costs for any alternatives to direct down-hole inspection shall be the responsibility of the contractor,
  - 2. The Contractor shall keep a record independent of that made by the Owner's Geotechnical Engineer, including items completed each day, job and weather conditions, a log of each caisson drilled with soil or rock strata encountered, water entry and flow, drilling difficulties, obstructions, casing size and location, bottom cleanout and water removal, description of bearing material, depth and size of shaft, plumbness, location of caisson center with respect to design location, top of caisson elevation, reinforcing cage placement, concreting, and other pertinent construction details. These records shall be forwarded in triplicate each day during caisson operations to the General Contractor.
- D. Concrete Testing Service: The Owner shall employ a testing laboratory to perform concrete testing and a Geotechnical Engineer to perform evaluation procedures with respect to the caisson installation.

- E. Materials and installed work may require testing at any time during progress of work. Allow free access to material stockpiles and facilities.

#### **1.10 PRE-INSTALLATION MEETING**

- A. Convene one week prior to commencing work of this section.

### **PART 2 PRODUCTS**

#### **2.01 MATERIALS**

- A. Casing: Casings of steel conforming to ASTM A283, Grade C; ASTM A36; or ASTM A929; of sufficient strength to withstand handling and drilling stresses, concrete pressures, and surrounding earth and water pressures.
- B. Shaft Liner: ASTM A252, Grade 1; single length steel pipe, with plain ends .
- C. Reinforcement: Specified in Section 032000; spiral wound.
- D. Equipment: Appropriate for dewatering excavated shaft.

### **PART 3 EXECUTION**

#### **3.01 PREPARATION**

- A. Verify that field measurements and survey bench marks are as indicated on Drawings.
- B. The shaft dimensions, bottom elevation, location and plumbness shall be determined by a land surveyor licensed in the State of West Virginia retained by the Contractor. These measurements shall be taken in the presence of the General Contractor and are to be verified and approved by the Geotechnical Engineer.
- C. Use placement method which will not cause damage to nearby structures.
- D. Notify adjacent and affected land owners and building occupants with 90 days notice before proceeding with the work.
- E. Protect structures near the work from damage.
- F. Prepare to place piles from existing site elevations.

#### **3.02 SITE CONDITIONS**

- A. Examine the site, drawings, utility records, test boring records, subsurface exploration reports and soil samples available at the Geotechnical Engineer's office to determine all conditions under which caissons are to be installed.
- B. Existing utilities which pass through the work area must remain and be maintained or rerouted, or extended as a part of the work under other sections. Utility lines scheduled to remain in service shall be protected from damage or movement caused by the work under this section.
  - 1. Should uncharted piping or other utilities be encountered during the work of this Section, consult the General Contractor immediately for directions as to procedure.
  - 2. Do not interrupt existing utilities except when permitted in writing by the General Contractor and after acceptable temporary utility services have been provided.
- C. Consult public and utility company records, other available sources to determine location and extent of underground utility lines. Work performed in the removal or rerouting of the line shall conform to applicable rules and regulations of authorities having jurisdiction.
- D. Caissons within 3'-0" of any permanent underground obstruction indicated on the Drawings shall be excavated by hand to first uncover the obstruction. Examine available drawings to determine affected caissons. After proper protection of the permanent obstruction has been installed, remainder of caisson may be excavated by machine.
- E. Caissons at or near underground utility locations shall be drilled to 1'-0" above, and then hand dug to 1'-0" below, elevation of utility lines shown.
- F. Abandoned utilities encountered during excavation shall be removed from areas of construction as required to install new work. Cap, plug, or otherwise properly seal all such lines.

- G. If underground utilities are damaged during installation of caissons, the Contractor shall notify the utility owners, who may cause the damage to be repaired at the Contractor's expense.
- H. Record accurate locations of abandoned and active lines encountered as well as the routes of active utility line rerouted or extended.
  - 1. The Contractor shall investigate the conditions of public thoroughfares and roads as to availability, clearances, loads, limits, restrictions, and other limitations affecting transportation to, access into and out of the site of the work. The Contractor shall conform to all West Virginia State and Federal regulations in regard to the transportation of materials to and from and at the job site and shall secure in advance such permits as may be required.

### **3.03 EQUIPMENT**

- A. Drilled foundation excavations shall be made by auger or rotary drill. Provide ample standby equipment so that work may be carried on without interruption.
- B. Provide hoisting equipment of sufficient capacity to handle reinforcing cages, sleeves, lagging and other materials.
- C. Provide air sludge type pumps in sufficient quantity to adequately handle water infiltration in caisson wells. Maintain adequate air compressor plant to handle required air pumps for pumping of water. This requirement shall apply for the dry-hole construction method only.

### **3.04 MATERIALS**

- A. Steel Casing: Shall be commercially available welded steel pipe or approved equal. Wall thickness shall be sufficient to prevent crushing or deformation of the casing by earth or water pressure. Steel pipe shall have wall thickness and yield stress conforming to the industry standards of the AISC.
  - 1. Tolerances on the outside diameter and other dimensions of the steel casing shall be the standard API tolerances applicable to regular steel pipe.
- B. Casing Splices:
  - 1. Temporary casing splices are subject to inspection and approval by the on-site Geotechnical Engineer.
- C. Concrete:
  - 1. Building Foundation Caissons: Minimum compressive strength of 3,000 psi in 28 days, with 7 to 9 inch slump using superplasticizing agents, furnished in accordance with Section 033000, except as otherwise specified herein or on contract documents. Maximum slump prior to addition of superplasticizer shall be 3".
- D. Reinforcement: Shall conform to ASTM A 615, Grade 60 and shall meet the requirements specified.
- E. Controlled Low Strength Materials (Flowable Fill): Shall conform to guidelines presented in ACI 229R-94. Minimum compressive strength of 500 psi in 28 days.

### **3.05 INSTALLATION**

- A. Drill shafts with a drilling machine capable of developing sufficient downward pressure and torque and using methods as approved by the Geotechnical Engineer. Maintain sidewall stability during construction. All material removed from drilled shafts shall be disposed of as per Specifications.
- B. The Contractor shall be solely responsible for the adequacy and performance of all operations. The Contractor shall use proven methods and caisson drilling equipment having the torque capacity and downward drill force capacity suitable for the site conditions. Only labor and supervisory personnel experienced in this type of work shall be employed.
- C. Temporary steel casings shall be provided for the purpose of keeping soil from intruding into the shaft during construction and shall be removed during concrete placement. Compensation shall not be made if casings cannot be removed.

- D. Socket lengths indicated on the plans are estimates. Actual socket lengths will depend on conditions encountered at each caisson location and will be determined by the Geotechnical Engineer during construction.
  - 1. The rock sockets shall be advanced into rock as required by the contract documents and shall be subject to acceptance of the Geotechnical Engineer. Suitable rock boring equipment shall be used to advance the rock sockets.
  - 2. Remove and dispose of all excavated rock material.
  - 3. If bottom of socket slopes steeper than 20 degrees, it shall be excavated to no steeper than 20 degrees, or stepped with one vertical step whose height is less than one-quarter of the diameter of the drilled shaft.
- E. Slurry is prohibited from being used for caisson excavation.
- F. As soon as rock socket has reached the required depth, as accepted by the Geotechnical Engineer, the caisson bearing surface shall be cleaned of all loose or soft materials, such as mud and unsuitable disintegrated rock within crevices and seams, and leveled, and caisson socket sides shall be cleaned. The Licensed Surveyor shall be responsible for measuring the final depth to the caisson bottom. Inspection and approval by the Owner's Geotechnical Engineer will be done using the inspection means outlined herein and as indicated in the Contractor's approved caisson installation plan.
- G. During excavation of caissons, all openings shall be properly protected and covered when work is not in progress. A steel casing consisting of the specified casing steel material shall be placed in the full depth of the excavation at the end of each work shift.
- H. In no case shall the diameter of caisson socket exceed the diameter indicated on the Drawings or as specified herein except by express permission of the Structural and Geotechnical Engineer. When larger diameter caisson socket is permitted upon the Contractor's request, payment will be made on diameter shown on the Drawings. Drilling of caissons or driving of casings shall not be within six caisson diameters center to center of a caisson filled with concrete that is less than 24 hours old and has not achieved 3000 psi, unless otherwise directed.
- I. If safe entry into shaft excavations cannot be maintained because groundwater cannot be adequately controlled by pumping and/or because of unstable sidewalls, the Geotechnical Engineer may recommend stabilization of the excavation using flowable fill. Flowable fill shall be placed in the open shaft excavation as recommended by the Geotechnical Engineer. After the flowable fill has cured for a minimum of 72 hours, the shaft shall be redrilled. Concreting of the caisson shall be completed within 8 hours after redrilling. Under no circumstances shall a redrilled caisson be permitted to remain open overnight.
- J. Construct piers in accordance with ACI 336.1.
- K. Drill vertical pier shafts and rock sockets to diameters and depths indicated.
- L. Place steel casings during drilling operations. Set firmly in place. If casing is to be temporary, install shaft liner with sufficient strength to withstand concrete pressures.
  - 1. Withdrawal of casings is at option of Contractor.
- M. Clean shaft and bottom of loose material. Maintain shafts free of water.
- N. Allow inspection of shaft and liner prior to placement of reinforcement and concrete.
- O. Place reinforcing steel in accordance with Section 03200 and Section 3.06

### **3.06 CONCRETE PLACEMENT FOR CAISSON FOUNDATIONS**

- A. Except as otherwise specified or directed, the concrete shall be placed continuously for the entire length of the foundation. Install all embedded structural steel items.
- B. After socket bottom has been inspected, tested and shown to comply with the Contract Documents, reinforcing steel shall be installed as shown on the Contract Drawings and concrete shall be poured immediately. Provisions shall be made to ensure that reinforcing cage is straight and will remain in place throughout concrete placement with the specified concrete cover

maintained. Concrete placement for dry holes (defined as those where infiltration of ground water from a source at or near the bottom occurs at a rate of less than 1/2 inch rise per minute at the bottom of the hole) shall be by flexible drop chute, tremie pipe or "elephant trunks" so that concrete does not hit the sides of the shaft or the reinforcement cage and minimizes aggregate segregation. The Contractor shall make provisions to maintain the discharger at the center of the caisson so that the concrete drops vertically without hitting the casing, avoid any displacement of the caisson reinforcing, prevent segregation of the concrete aggregate and loss of concrete strength by the free-fall placement method of concrete into caisson. The free-fall placement method shall not be used when water is in the hole, and only with the approval by the Geotechnical Engineer at the time of concrete placement for "dry holes." Concrete placement for wet holes (defined as those where infiltration of groundwater exceeds % inch rise per minute) shall be by an approved tremie method. Carefully place concrete to ensure against segregation and dislodging of excavation sidewalls and to completely fill the shaft. The tremie pipe shall be plugged at the end when first inserted into the water filled shaft, and shall be kept a minimum of 5 feet below the fresh concrete surface during placement.

- C. Concrete shall be brought to a true level surface inside the shaft and a full width cross key formed or dowels installed should it become necessary to interrupt placing concrete in any caisson. If concrete placement is interrupted, level, clean and roughen surface before continuing concrete placement. The joint shall be approved by the Geotechnical Engineer before proceeding with concrete placement.
- D. Temporary steel casing used for supporting the sides of the drilled shaft during excavation and filling shall be withdrawn as the concrete is placed, if feasible. The top of the concrete being placed shall be kept at least ten (10) feet above the bottom end of the lowest steel cylinder being withdrawn, to prevent the soil from caving in and mixing with the fresh concrete.
- E. Protection: Provide protection around top of the excavation to prevent debris from being dislodged into the excavation and concrete.
- F. Non-conforming Work: Caissons found to be out of tolerance or to contain shaft discontinuities that will affect the structural integrity of the foundation, in the opinion of the Geotechnical Engineer, will require replacement by the Contractor at his own expense.
- G. Test cylinders shall be taken and testing shall be performed in accordance with Sections 033000 but not less than one set per day, to assure conformance to the specified compressive strength of the concrete.
- H. Place concrete in single pour, in accordance with Section 033000 with equipment designed for vertical placement of concrete.
- I. Extend reinforcement for connection of grade beams.
- J. Set tops of piles to elevations indicated.

### **3.07 REINFORCEMENT**

- A. Reinforcement steel shall be installed as shown on the approved Shop Drawings, and in conformance with Sections 033000. All steel shall be free of rust, mud, or any deleterious material which would hinder bonding of concrete and steel. Reinforcement cages shall be straight and shall conform to the design dimensions. Shaftspacer and Barboot alignment devices, or approved equal should be used to ensure that the reinforcement steel will remain in place and aligned throughout placement of concrete and that specified concrete cover for the reinforcement steel is attained and maintained.

### **3.08 TOLERANCES**

- A. Bottom elevation of foundation shall be at design depth unless subgrade conditions require a design modification that shall be approved by the Owner's Geotechnical Engineer. If the bottom of the drilled shaft is in sloping rock, it shall be excavated to no steeper than twenty degrees, or stepped with one vertical step whose height is less than one-quarter of the diameter of the drilled shaft.

- B. Center of each foundation at the top shall not vary radially from the design center by more than 3 inches.
- C. Shafts shall be bored plumb to a tolerance of not more than 1.0 percent of the length.
- D. The top of concrete in each drilled shaft, upon completion, shall be within one inch of its cut-off elevation as shown on the contract drawings, carefully leveled and smoothed off.
- E. Install piers with maximum variation from location, plumbness, bottom area, diameter, and anchorage locations as specified in ACI 336.1.

### **3.09 FIELD QUALITY CONTROL**

- A. All shafts will be inspected by the Owner's Geotechnical Engineer :
  - 1. At the time of excavation, to evaluate whether sockets have achieved adequate depth; and
  - 2. Prior to the placement of concrete, to make sure the shaft is in proper condition for concreting.
- B. Sufficient time shall be provided to permit inspection of the shaft and to check all dimensions and reinforcement.
- C. The location, dimensions and elevations of the shaft as drilled and its plumbness shall be determined by a surveyor licensed in the State of West Virginia retained by the Contractor before concrete is placed.
- D. Sufficient equipment and personnel shall be supplied by the Contractor to permit safe inspection of all shafts by the Geotechnical Engineer. Each drilled shaft shall be checked for toxic and explosive gases as well as oxygen levels, prior to personnel entering and while personnel are in hole. If gas is found, or oxygen level is not within acceptable limits, forced air shall be used to ventilate the drilled shaft, or alternate procedures, acceptable to the Geotechnical Engineer shall be used.
- E. Suitable lighting shall be provided as required.
- F. The Contractor shall furnish corrective design and construction required to rectify deviations exceeding any of the specified tolerances, including replacement of caissons, if necessary, at no additional cost to the Owner.
- G. Shaft discontinuities found that will affect the structural integrity of the foundation, in the opinion of the Geotechnical Engineer, will require replacement of the foundation by the Contractor at his own expense.
- H. The contractor shall perform load test piles according to ASTM D1143 (Quick Load Procedure).
  - 1. The maximum test load shall be at least twice the design load as prescribed by the Engineer. Apply the load in increments equal to 10% of the maximum test load, with a constant time interval between increments of 5 minutes. Maintain the maximum test load for not less than 15 minutes, unless the shaft has failed as determined by the Engineer. Remove the test load in increments equal to 25% of the maximum test load, with a constant time interval between increments of 5 minutes.
  - 2. Tension tests are not required.
  - 3. Lateral tests are not required.
- I. Test Piers: Same diameter and type as specified for other piers, placed in same manner.
- J. Accepted test piers may be used in the Work.

### **3.10 REMEDIAL ACTION**

- A. Rejected or questionable piles may be replaced. Questionable piles may also be subjected to further testing, e.g., static load testing, dynamic load testing, core drilling, ultra-sonic logging, etc. Remedial action may include pressure grouting through core holes. If the pile top appears questionable, further pile top cut-off and retesting may be advisable. If a majority of piles diagnose as "inconclusive", partial or even complete pile excavation or another test method may be necessary for pile acceptance. Cost of additional testing shall be borne by Contractor.

### **3.11 CLEAN-UP**

- A. Rubbish, debris, and material excavated from the caisson shafts resulting from work-under-this Section shall be collected regularly, removed from the site, and legally disposed of.

### **3.12 UNACCEPTABLE PIERS**

- A. Unacceptable Piers: Piers that fail, are placed out of position, are below elevations, or are damaged.
- B. Provide additional piers or replace piers failing to conform to specified requirements.

### **3.13 DESCRIPTIONS**

#### **A. CAISSON LENGTHS**

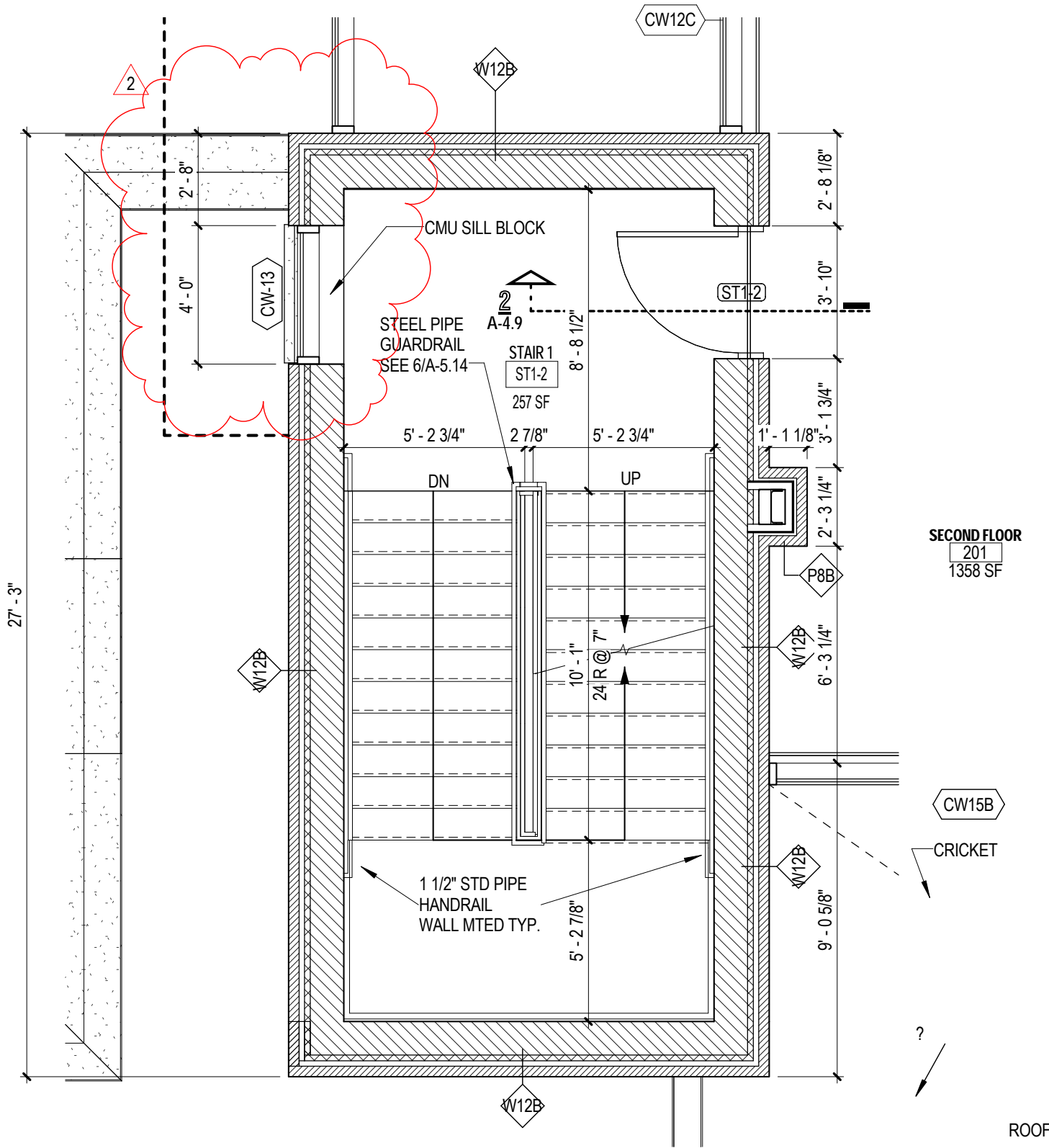
- 1. Deep foundations shall be extended to the competent sandstone. Bedrock consists of competent sandstone with an allowable bearing capacity of 50 tsf. Follow all recommendations made in the Terradon Geotech Report dated August 6, 2010.

#### **B. WORK GUIDELINES**

- 1. Bid shall include all costs for augering and excavating soil, disintegrated rock performed using earth excavation techniques above rock auger refusal, and soil at locations where mud seams are encountered in which excavation can advance using rock auger alone (without core barrel); disposing of the excavated material; furnishing and installing and removing the temporary steel casing; reinforcing steel; concrete; and grout; all labor, materials, tools and equipment and all else necessary therefor and incidental thereto.
- 2. Bid shall include all costs for coring the sockets; cleaning and leveling the sockets; disposing of all materials removed from the sockets; reinforcing steel; concrete; all labor, materials, tools and equipment and all else necessary therefore and incidental thereto. The surface of rock shall be defined by refusal of specified diameter rock auger with bullet-shaped carbide steel teeth under a downward pressure of 30,000 pounds and a torque of 80,000 ft-lb. Refusal shall be defined as an auger penetration rate of less than 0.5 inch per minute. Veering of the rock auger should also be considered practical refusal if, in the judgement of the Geotechnical Engineer's field representative, the shaft cannot be advanced vertically without the use of a rock core barrel.
- 3. No additional payment will be made for Casings or Casing Cutoffs. This cost will be included in the price bid for the appropriate caisson item.

**END OF SECTION**





ATTACHMENT E

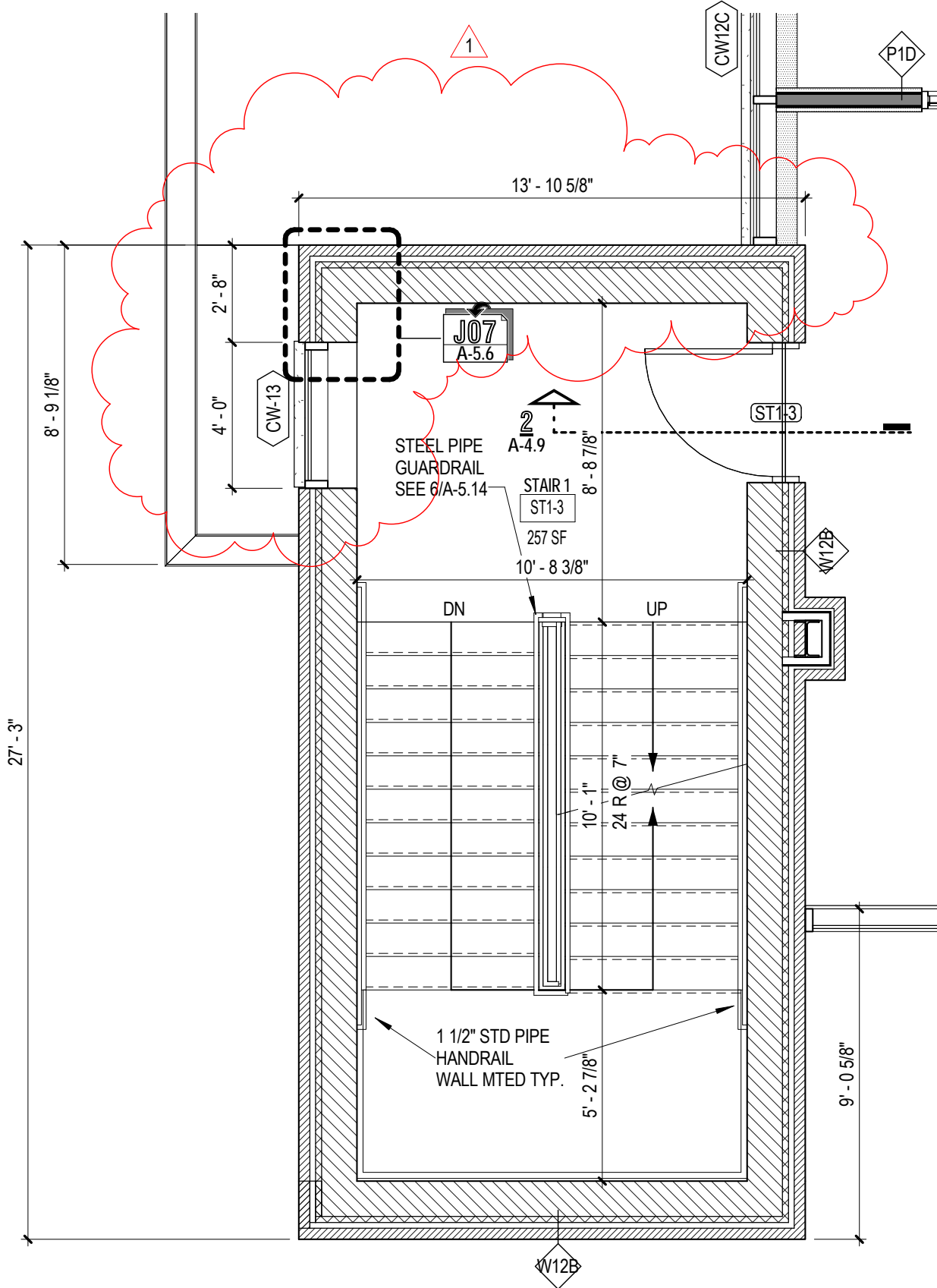


NEW STATE OFFICE BUILDING - FAIRMONT  
 PARTIAL SECOND FLOOR PLAN - AREA A - STAIR NO.1

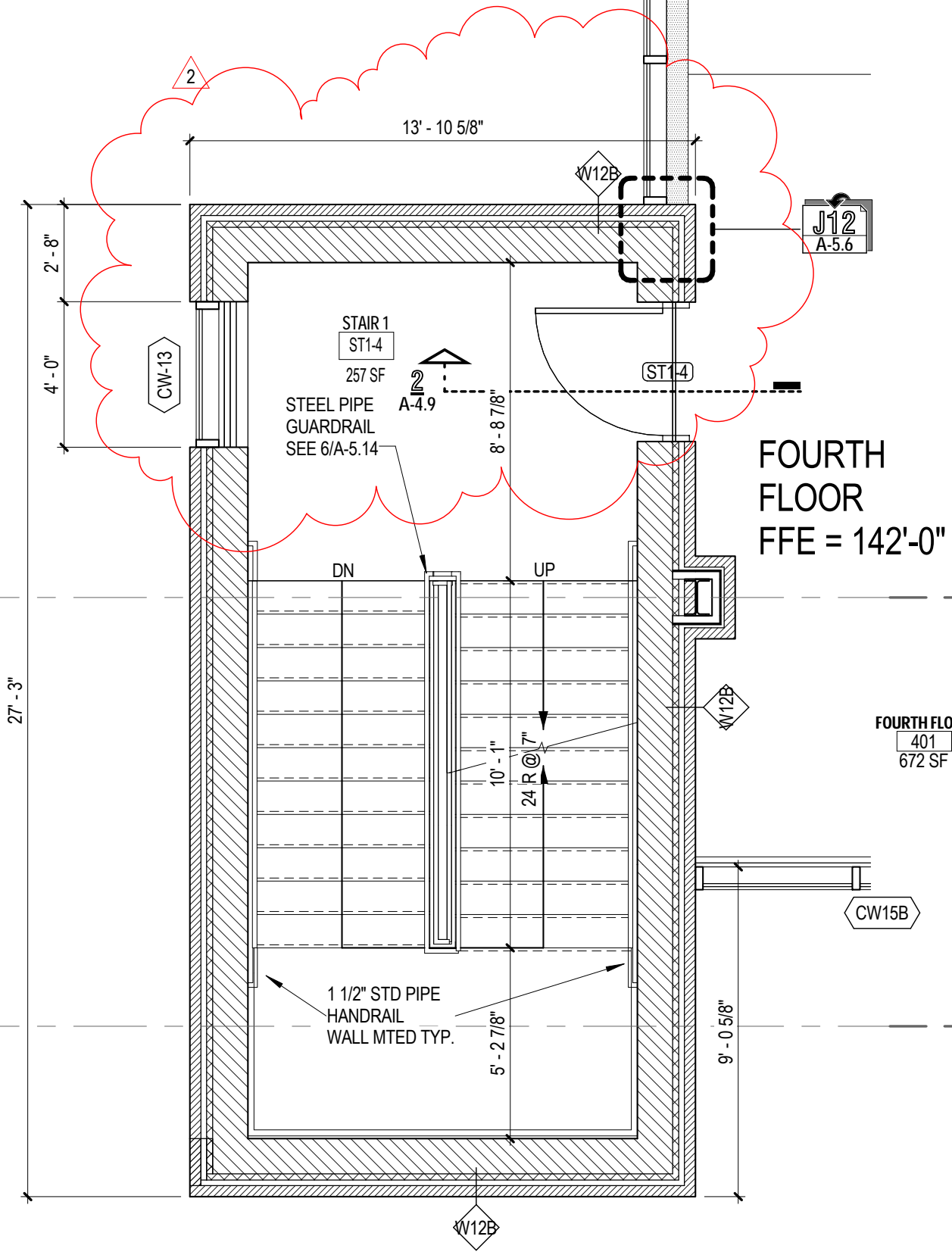
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SK-01



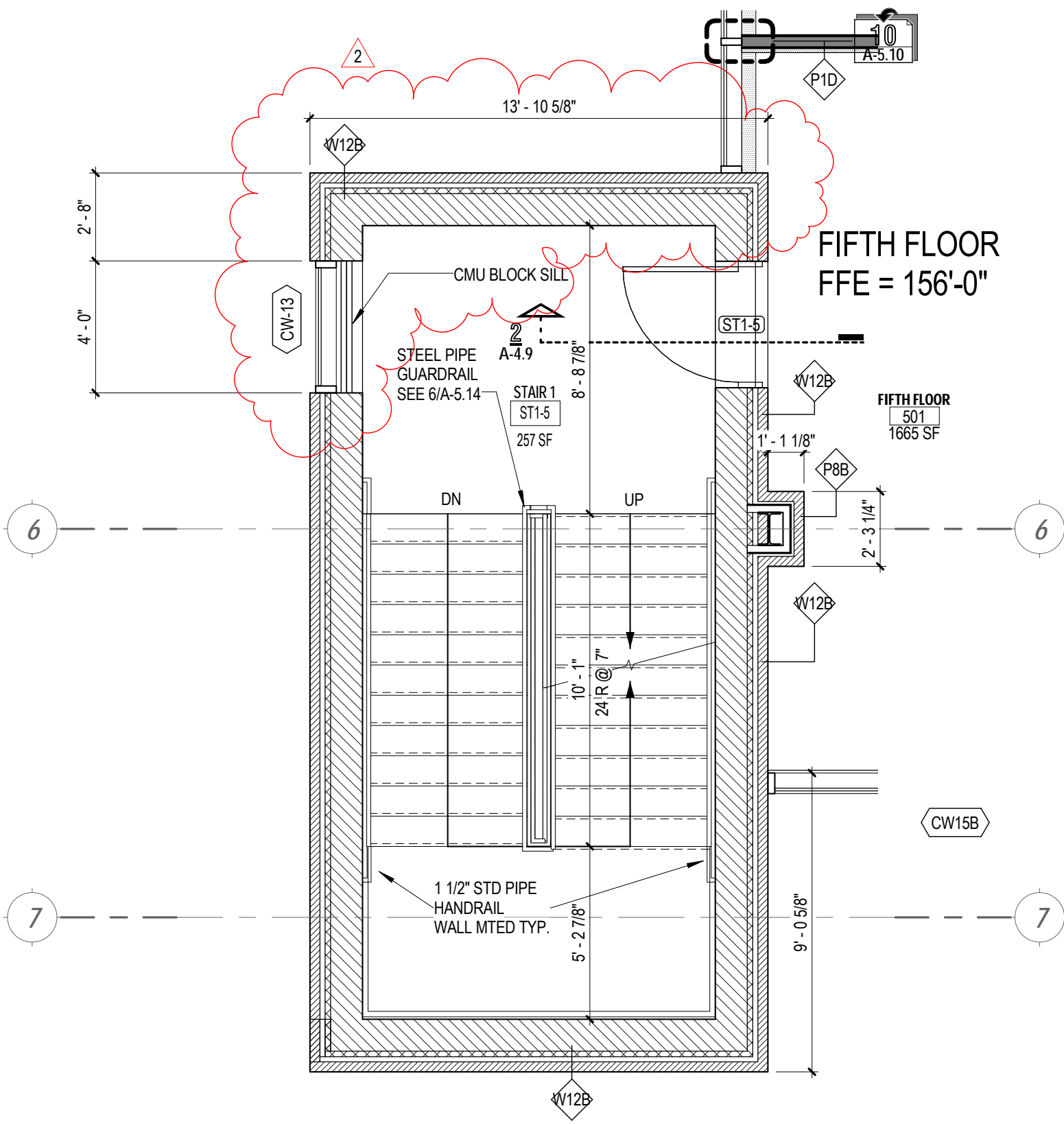
## ATTACHMENT F



**FOURTH FLOOR**  
FFE = 142'-0"

**FOURTH FLOOR**  
401  
672 SF

## ATTACHMENT G



FIFTH FLOOR  
FFE = 156'-0"

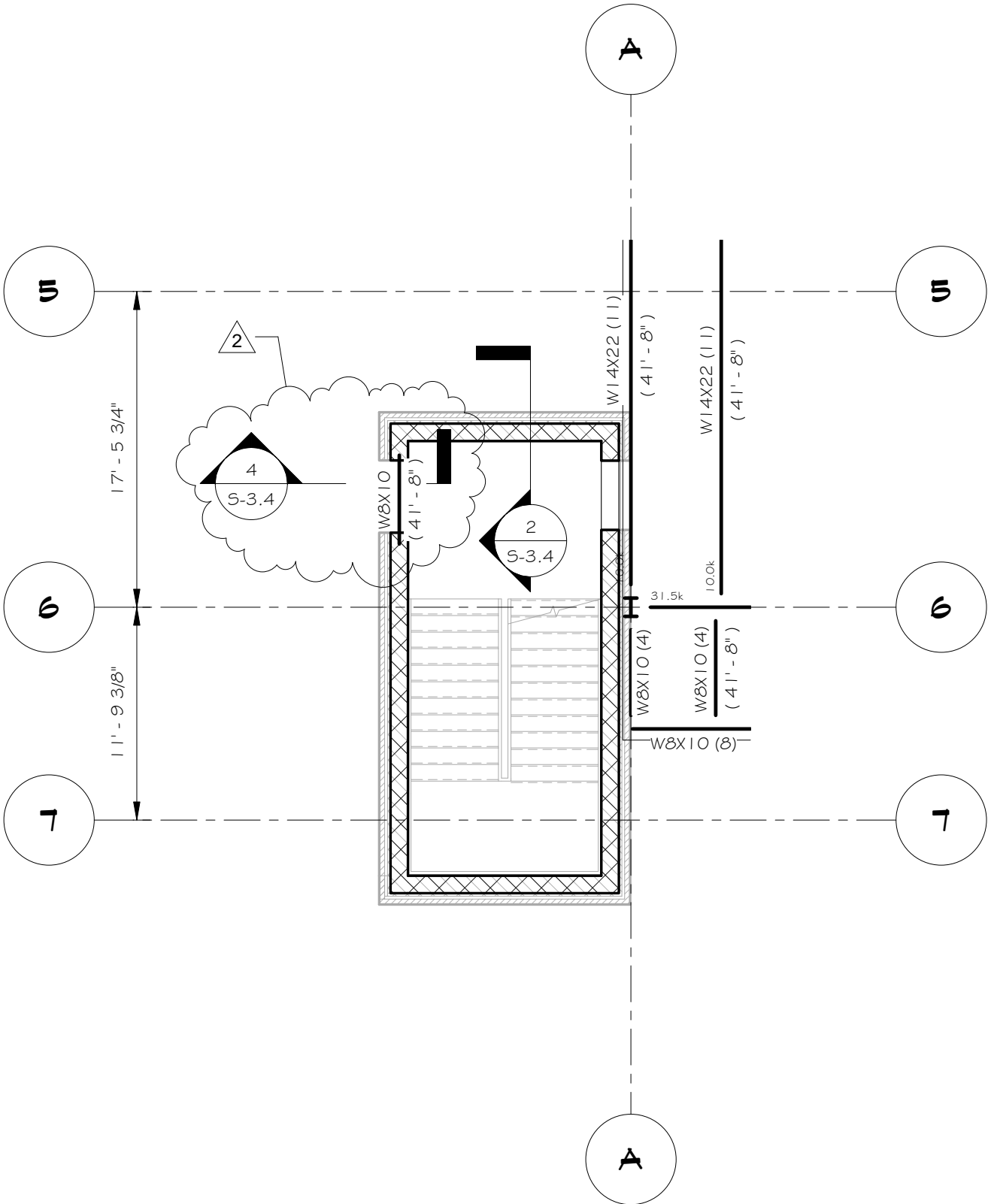
FIFTH FLOOR  
501  
1665 SF

ATTACHMENT H



NEW STATE OFFICE BUILDING - FAIRMONT  
PARTIAL FIFTH FLOOR PLAN - AREA - STAIR NO.1  
A

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SK-04



ATTACHMENT J

05/16/13

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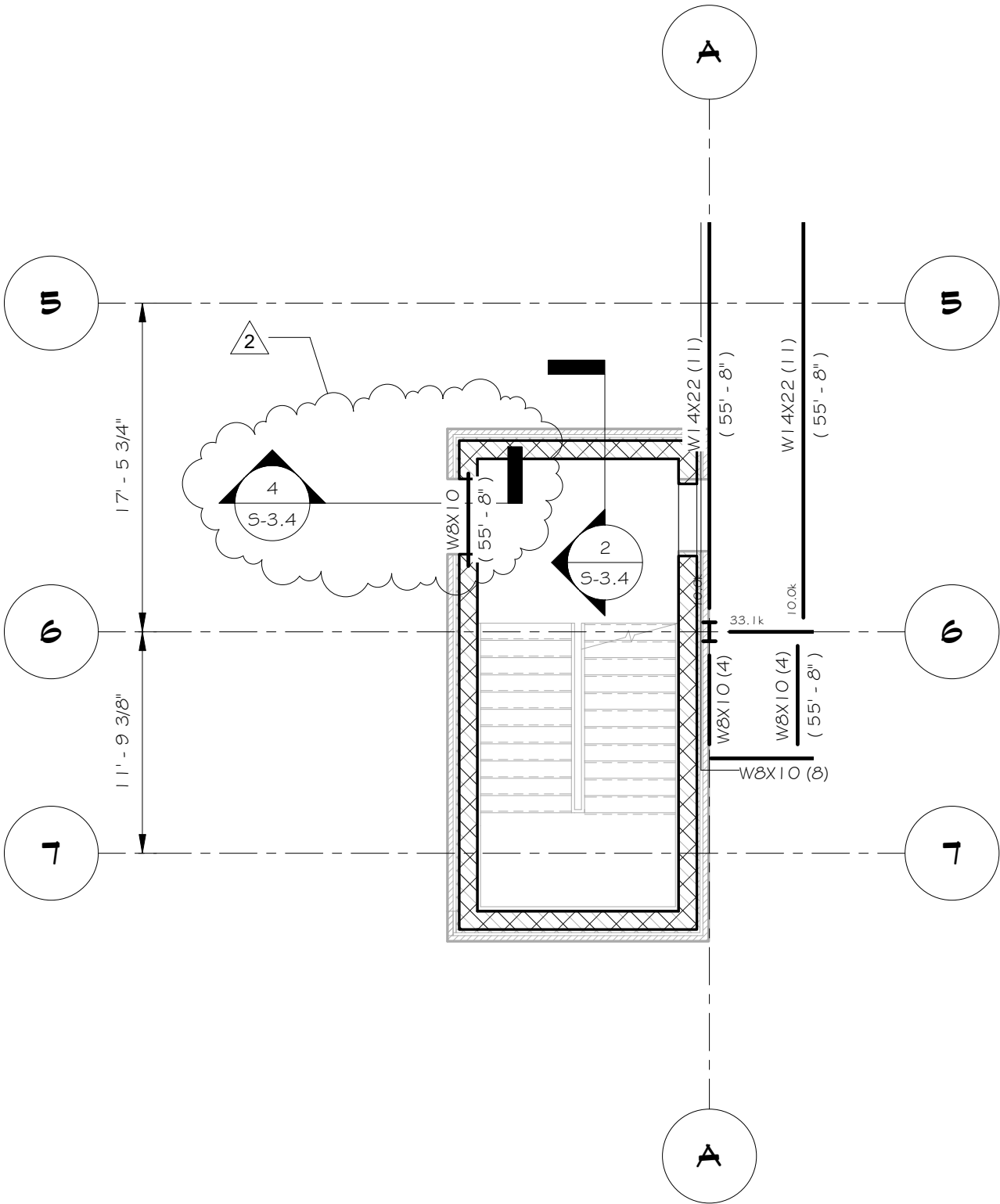
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SK-1



NEW STATE OFFICE BUILDING - FAIRMONT

PARTIAL FOURTH FLOOR PLAN



# ATTACHMENT K



NEW STATE OFFICE BUILDING - FAIRMONT  
PARTIAL FIFTH FLOOR PLAN

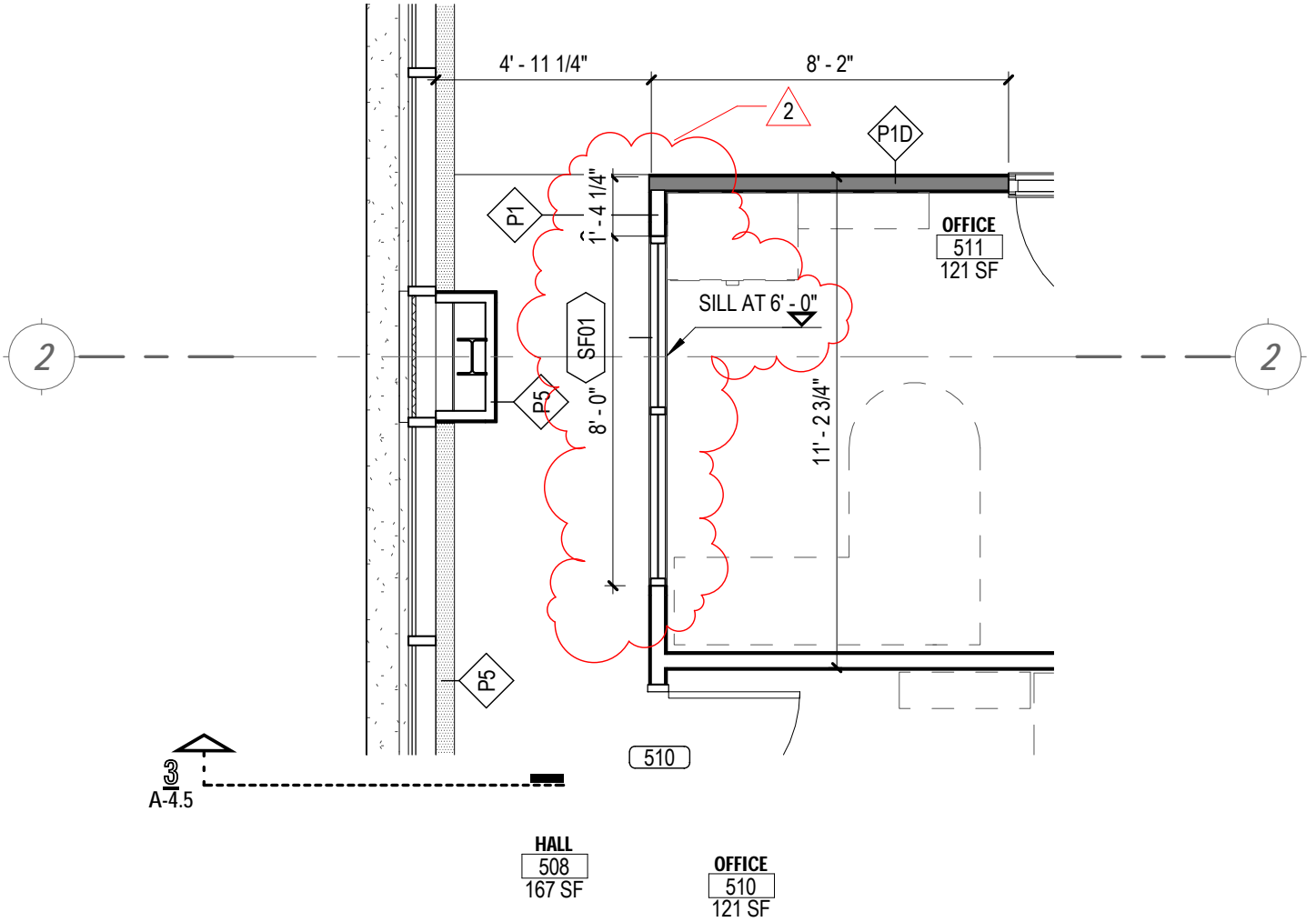
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SK-2



# ATTACHMENT L



**omni**  
**associates**  
architects  
(toll free) 855.367.1417  
omni411.com

NEW STATE OFFICE BUILDING - FAIRMONT  
TRANSOM AT OFFICE 511

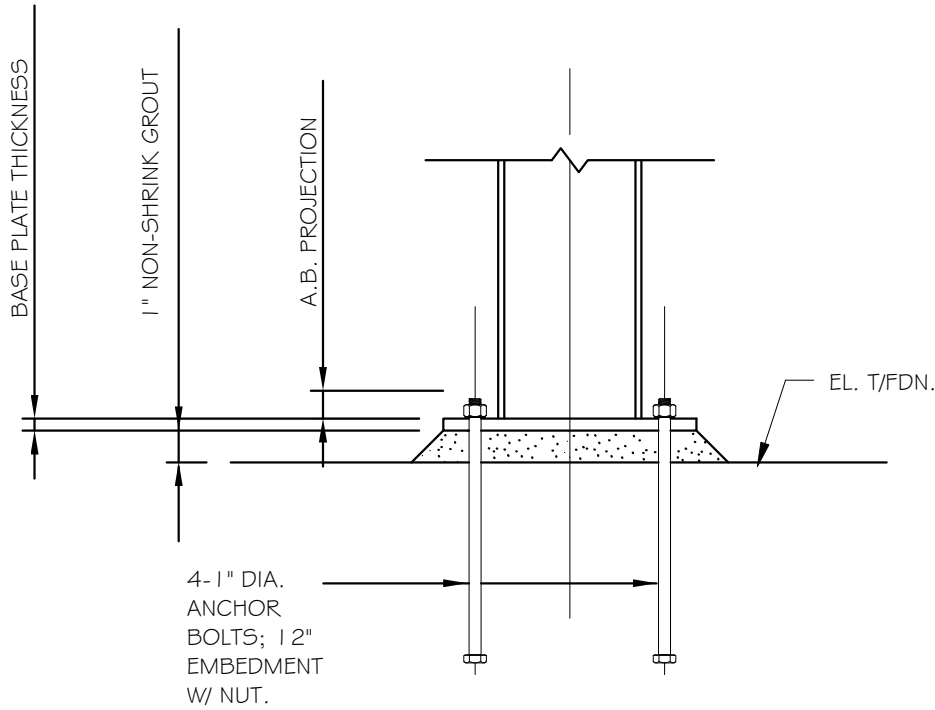
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PROJECT No: 20856

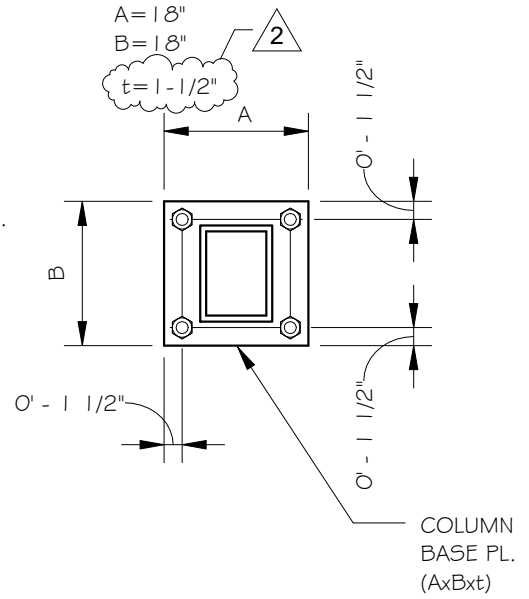
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# SK-05

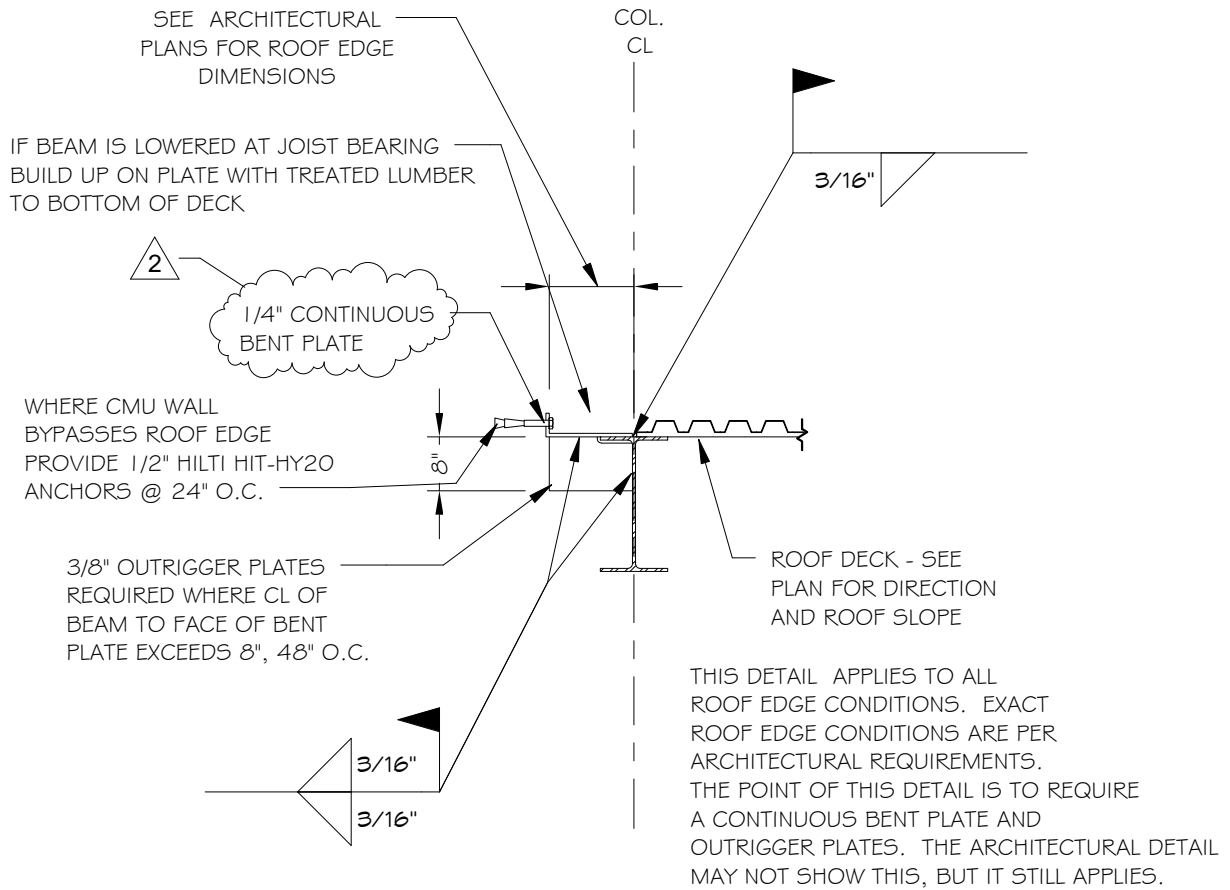


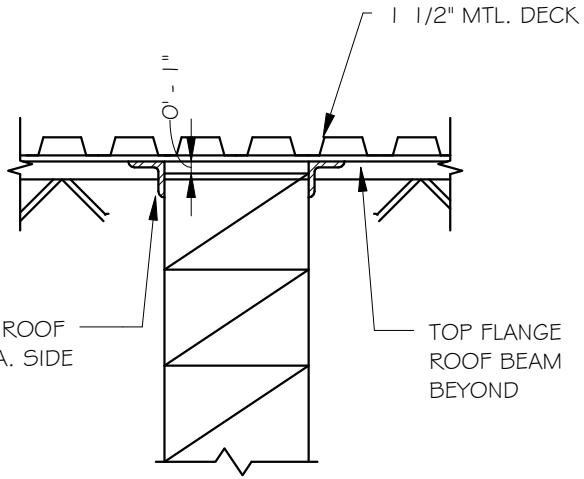
ELEVATION



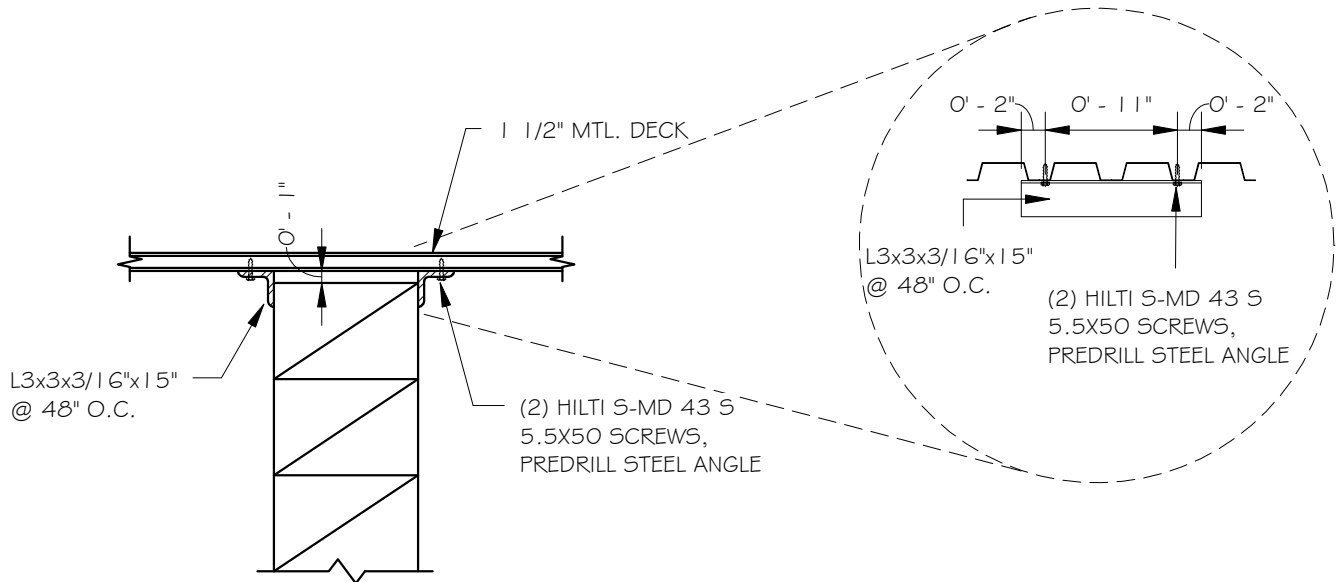
PLAN VIEW







PERPENDICULAR TO BEAM



PARALLEL TO BEAM

## ATTACHMENT P



NEW STATE OFFICE BUILDING -  
FAIRMONT  
TYPICAL CMU PARTITION TO METAL  
DECK DETAIL

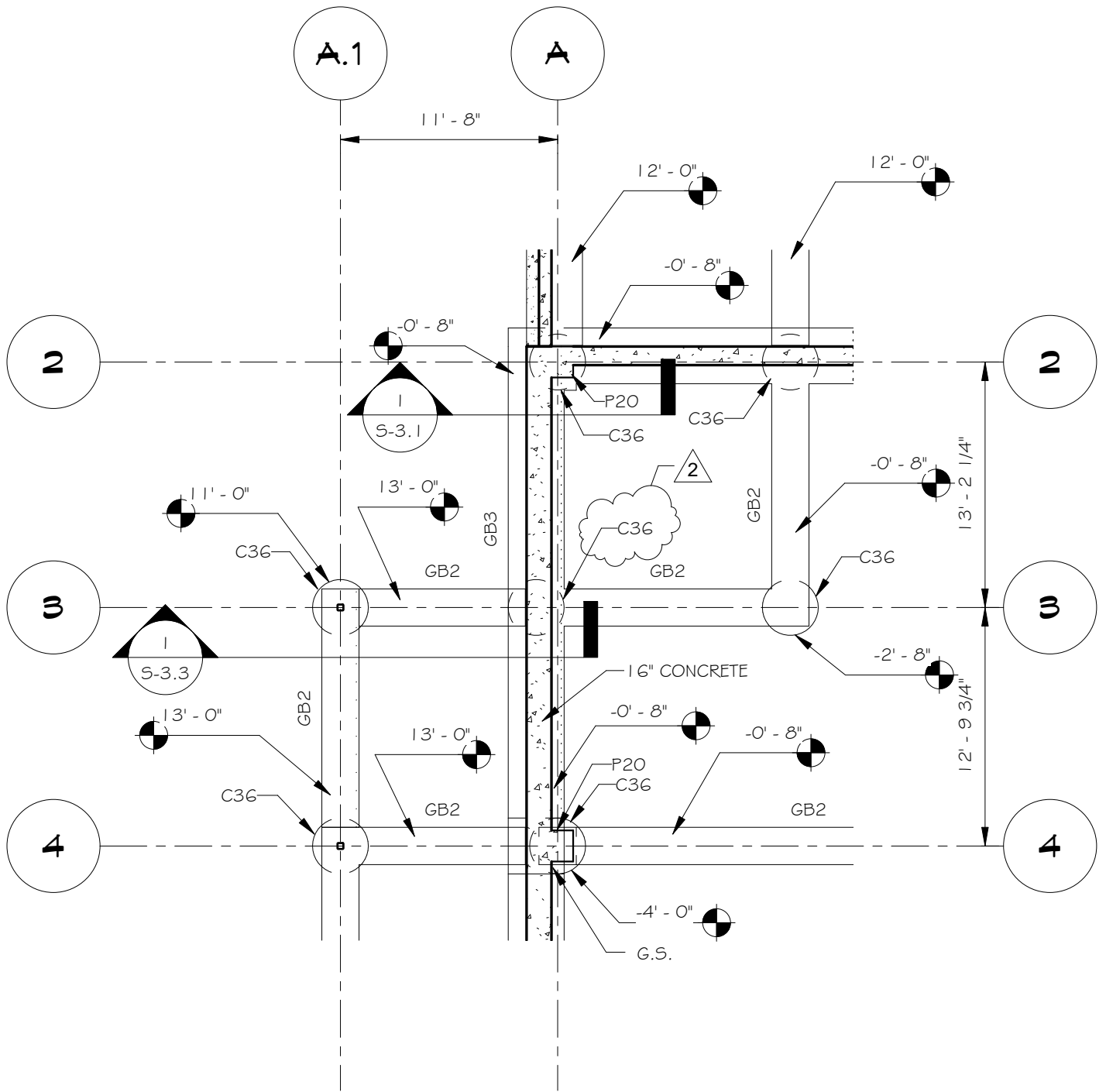
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# SK-6



ATTACHMENT Q

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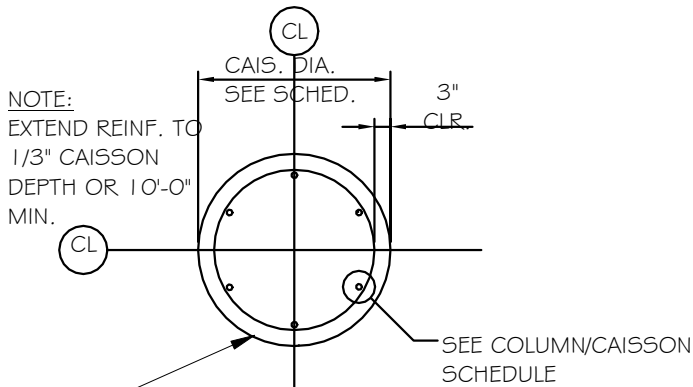
SK-5

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NEW STATE OFFICE BUILDING -  
 FAIRMONT

CAISSON DESIGNATION



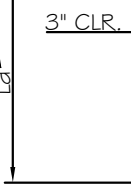
NOTE:  
EXTEND REINF. TO  
1/3" CAISSON  
DEPTH OR 10'-0"  
MIN.

- FOR #3 DOWEL  $L_d = 15"$
- FOR #4 DOWEL  $L_d = 19"$
- FOR #5 DOWEL  $L_d = 24"$
- FOR #6 DOWEL  $L_d = 29"$
- FOR #7 DOWEL  $L_d = 42"$
- FOR #8 DOWEL  $L_d = 48"$
- FOR #9 DOWEL  $L_d = 54"$
- FOR #10 DOWEL  $L_d = 61"$
- FOR #11 DOWEL  $L_d = 68"$

SEE COLUMN/CAISSON SCHEDULE

CAISSON DOWELS (MATCH PIER VERT. BARS)

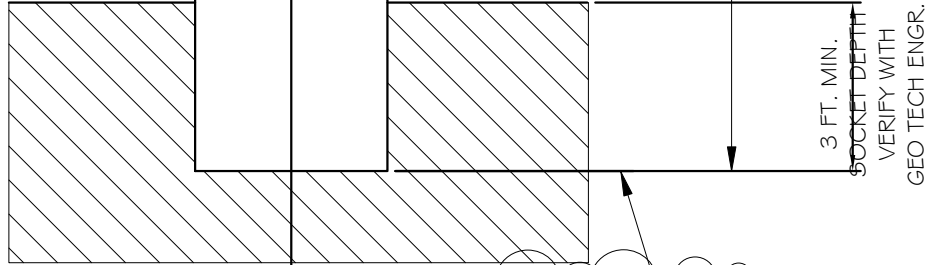
LENGTH  $\phi$  3d OR LENGTH  $\phi$  10'-0"



TIE DIA. =  $d$

LENGTH

FOR SIZES, ELEVATIONS AND DIMENSIONS SEE APPROPRIATE SCHEDULES



SEE GEOTECH INFO FOR ROCK ELEVATIONS

REVISED DETAIL 13/S-1.2



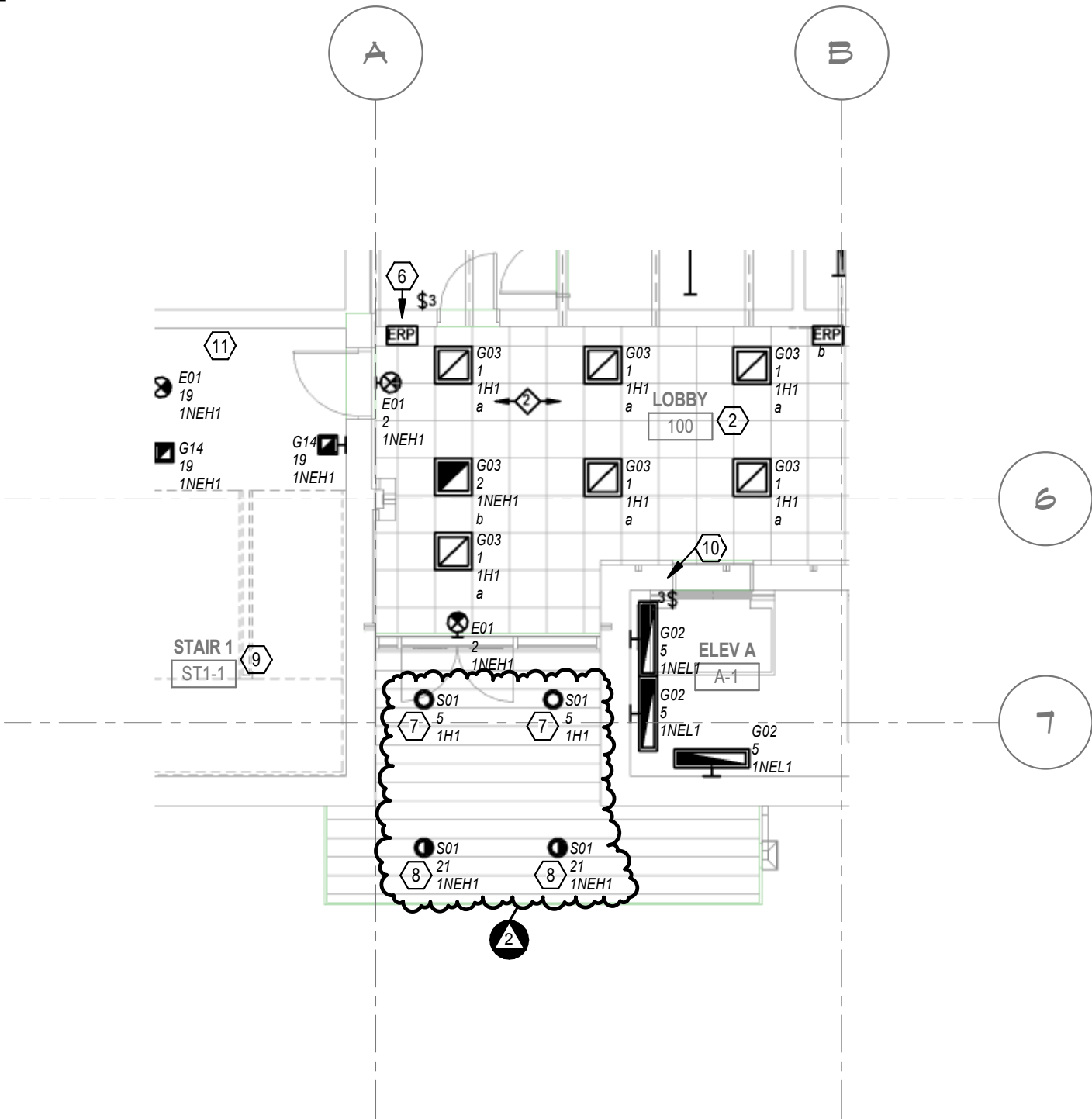
NEW STATE OFFICE BUILDING - FAIRMONT

Addendum #2

ATTACHMENT R  
06/04/13

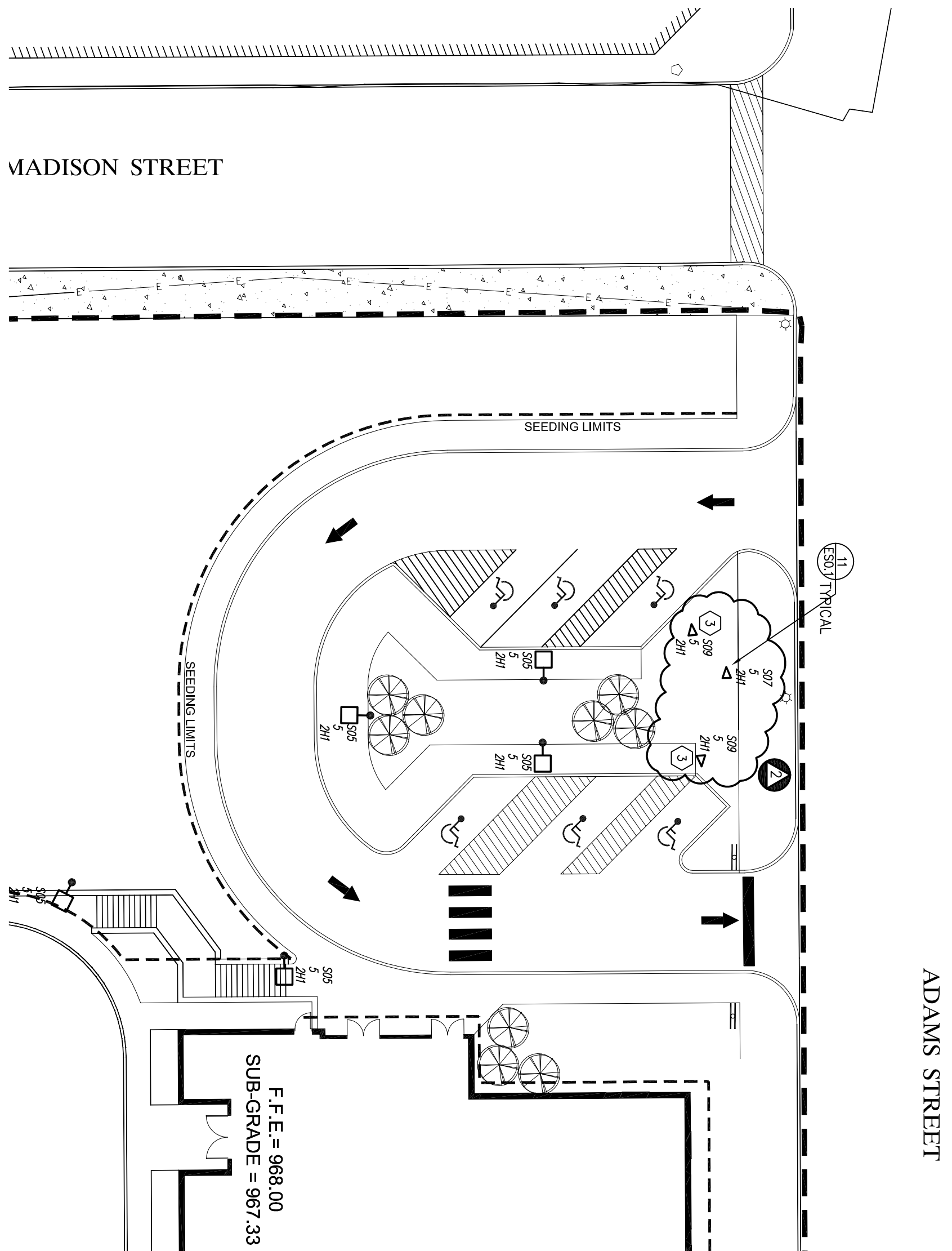
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SK-7

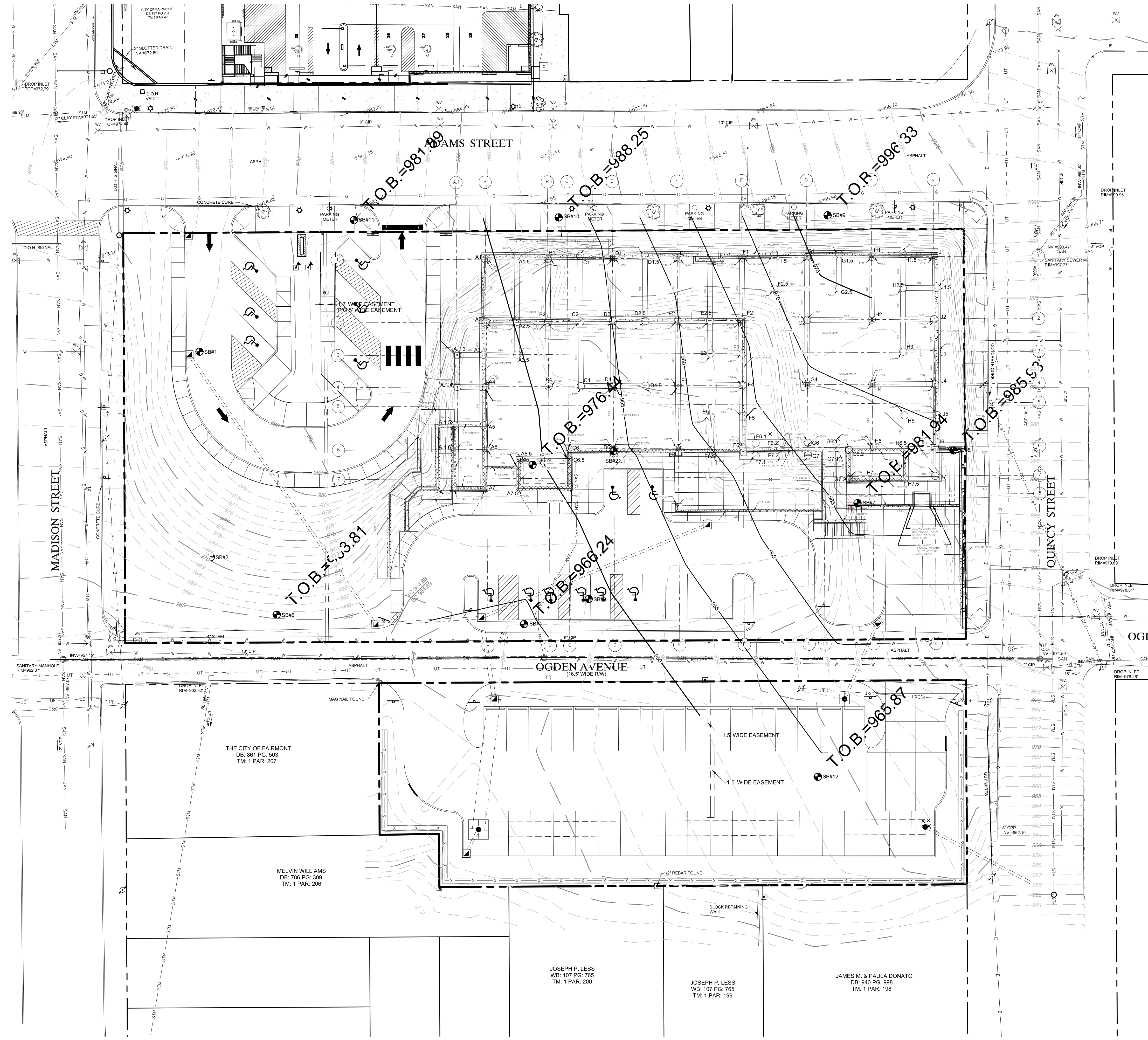


① PARTIAL FIRST FLOOR LIGHTING PLAN  
1/8" = 1'-0"

1  
ES-0.1  
**ELECTRICAL SITE PLAN - PARTIAL**  
SCALE: 1" = 20'-0"  
REF. VIEW:

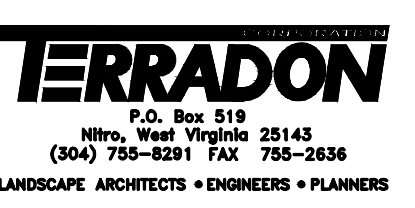


ATTACHMENT T



BORING #	SURFACE ELEVATION	DEPTH TO ROCK	ROCK ELEVATION
SB-4	966.2	22	944.2
SB-5	976.4	27	949.4
SB-6	963.8	17.5	946.3
SB-7	981.9	15.5	966.4
SB-8	985.9	17	968.9
SB-9	996.3	18	978.3
SB-10	988.2	36.1	952.1
SB-11	981.9	35.5	946.4
SB-12	965.9	12	953.9
SB-21.1	975.81	22	953.81

CAISSON	ESTIMATED TOP OF ROCK SOCKET ELEV.	CAISSON	ESTIMATED TOP OF ROCK SOCKET ELEV.	CAISSON	ESTIMATED TOP OF ROCK SOCKET ELEV.
A.1.3	948.18	E2.5	965.23	H6	968.06
A.1.4	948.19	E3	964.45	H6.5	968.36
A.1.5	948.25	E4	960.93	H7	967.20
A.1.6	948.31	E5	961.46	H7.5	967.56
A.1.7	948.40	E6	957.96	J1	±977.75
A1	949.73	E6.5	959.87	J1.5	±976.25
A1.5	950.62	F1	969.31	J2	±975.00
A2	949.24	F1.5	972.51	J3	±973.25
A2.5	950.11	F2	968.02	J4	±971.95
A3	948.91	F2.5	971.51	J5	±970.30
A3.5	949.85	F3	966.46	J6	968.79
A4	948.74	F4	964.95	J7	967.71
A5	948.64	F5	963.47		
A6	948.74	F6	961.98		
A6.5	949.21	F6.1	962.97		
A7	948.79	F6.2	964.59		
A7.5	948.74	F7.1	962.38		
B1	951.46	F7.2	964.00		
B2	950.99	G1	975.01		
B4	950.67	G1.5	976.53		
C1	953.59	G2	972.04		
C2	952.72	G2.5	974.74		
C4	952.41	G4	968.97		
C6	951.41	G6	966.21		
C6.5	951.33	G6.1	967.76		
C7	950.52	G6.2	967.71		
D1	956.71	G7	965.62		
D1.5	959.90	G7.1	967.40		
D2	955.77	G7.2	966.94		
D2.5	958.92	H1	±977.00		
D4	954.80	H1.5	±977.50		
D4.5	957.96	H2	973.86		
D6	953.87	H2.5	±976.00		
E1	963.01	H3	±972.95		
E1.5	966.13	H4	970.48		
E2	962.08	H5	969.60		

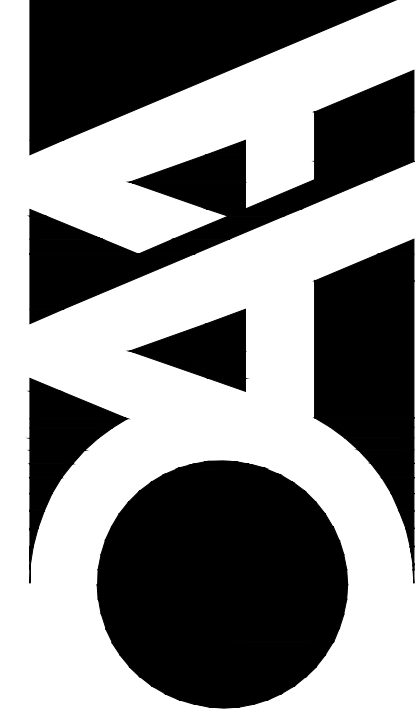


ATTACHMENT U

REVISIONS  
 STATE OF WEST VIRGINIA OFFICE BUILDING  
 STATE OF WEST VIRGINIA  
 416 ADAMS STREET  
 FAIRMONT, WV

PROJECT STATUS 05/09/2013  
 BID DOCUMENTS

omni associates architects  
 1543 FAIRMONT AVENUE  
 FAIRMONT, WV 26554  
 (toll free) 855.367.1417  
 omni411.com

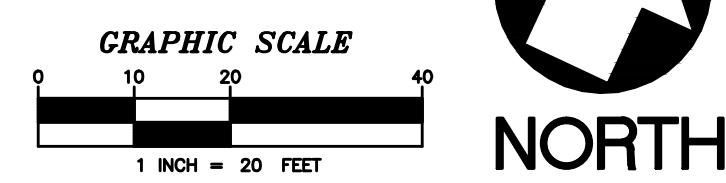


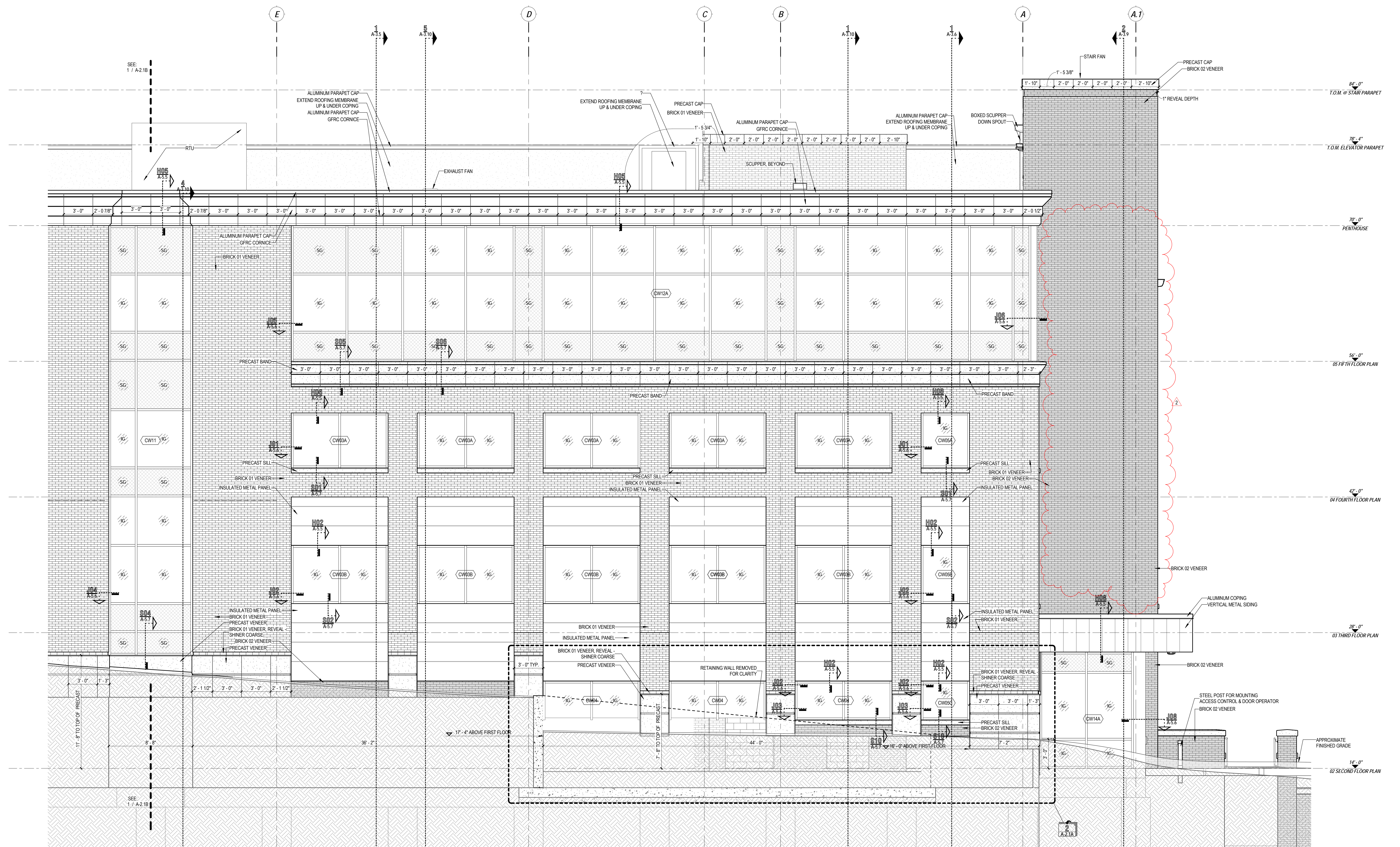
CAISSON & ESTIMATED BEDROCK ELEVATION PLAN

C-8

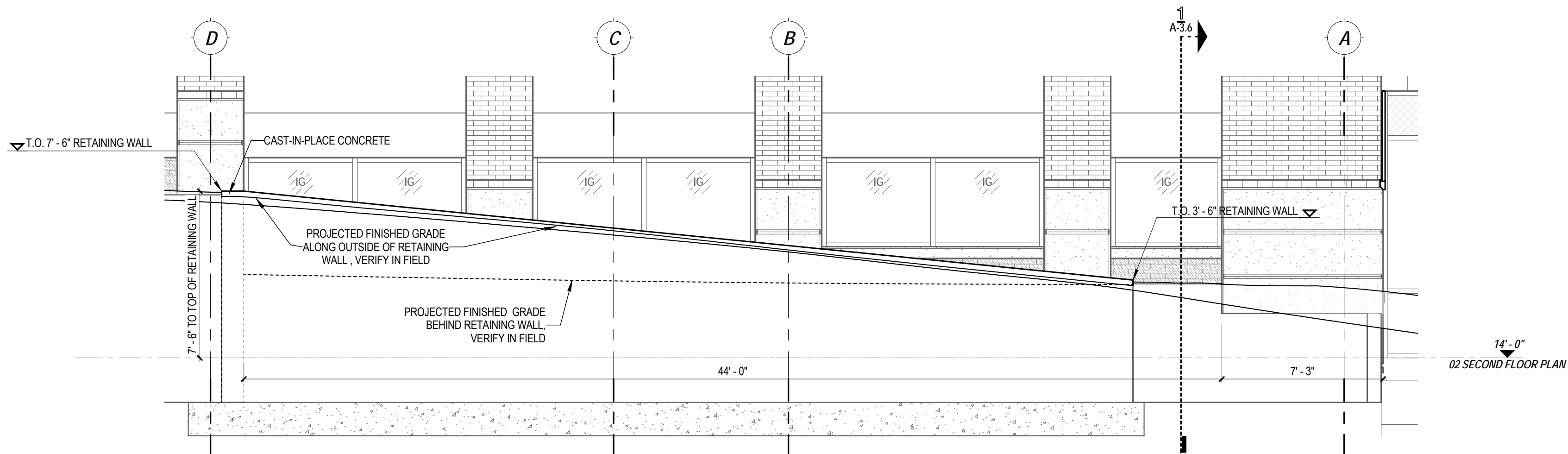
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 PROJECT No. 21034 DRAWN BY: SAG

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 1-800-245-4848





**1 PARTIAL NORTH ELEVATION (AREA A)**  
 SCALE: 1/4" = 1'-0"  
 SHEET: A2.1A



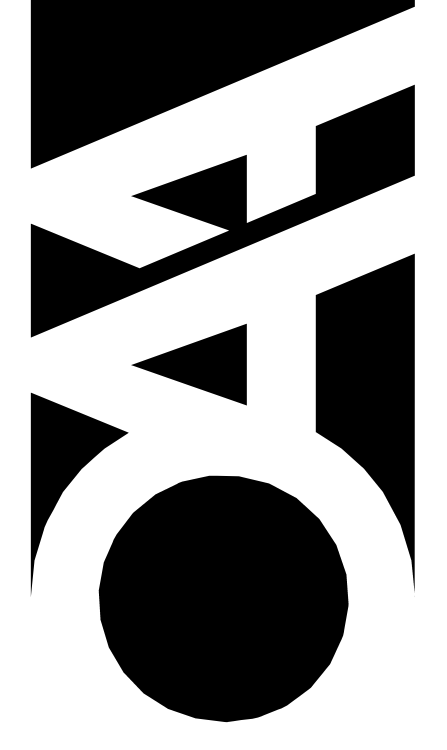
**2 PARTIAL NORTH ELEVATION (AREA A - RETAINING WALL)**  
 SCALE: 1/4" = 1'-0"  
 SHEET: A2.1A

**ATTACHMENT V**  
 2 5/10/13 Addendum 2  
 REVISIONS

**NEW STATE OFFICE BUILDING - FAIRMONT**  
 STATE OF WEST VIRGINIA  
 416 ADAMS STREET  
 FAIRMONT, WV

**BID DOCUMENTS**  
 3/6/2013

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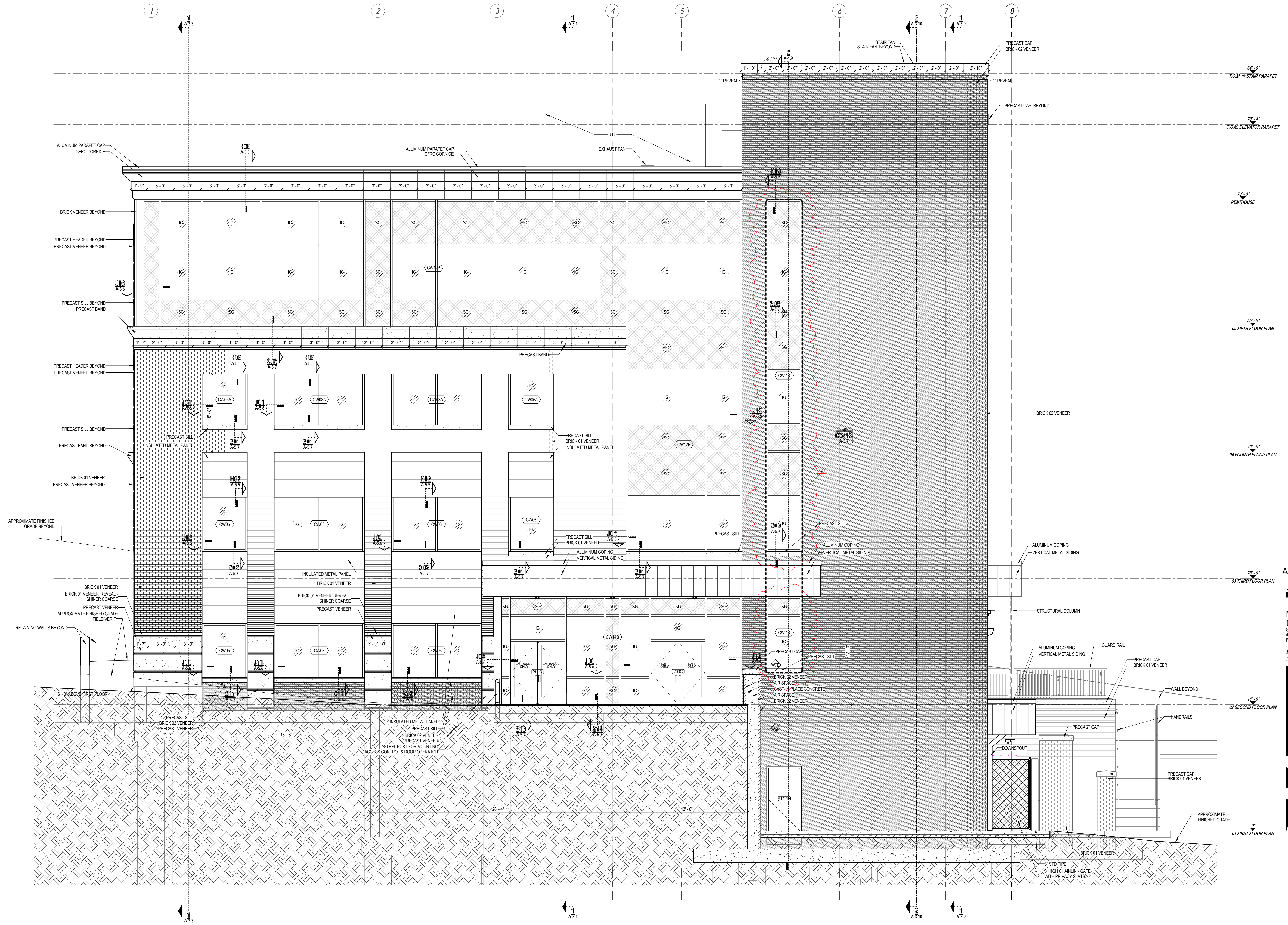


PARTIAL NORTH ELEVATION

**A-2.1A**

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 PROJECT No. 2086 DRAWN BY: N. CAM





**1 WEST ELEVATION**  
 SCALE: 1/4" = 1'-0"  
 SHEET: A-2.2

**ATTACHMENT W**

2 5/10/13 Addendum 2  
 REVISIONS

**NEW STATE OFFICE BUILDING - FAIRMONT**  
 STATE OF WEST VIRGINIA  
 416 ADAMS STREET  
 FAIRMONT, WV

BID DOCUMENTS  
 3/8/2013

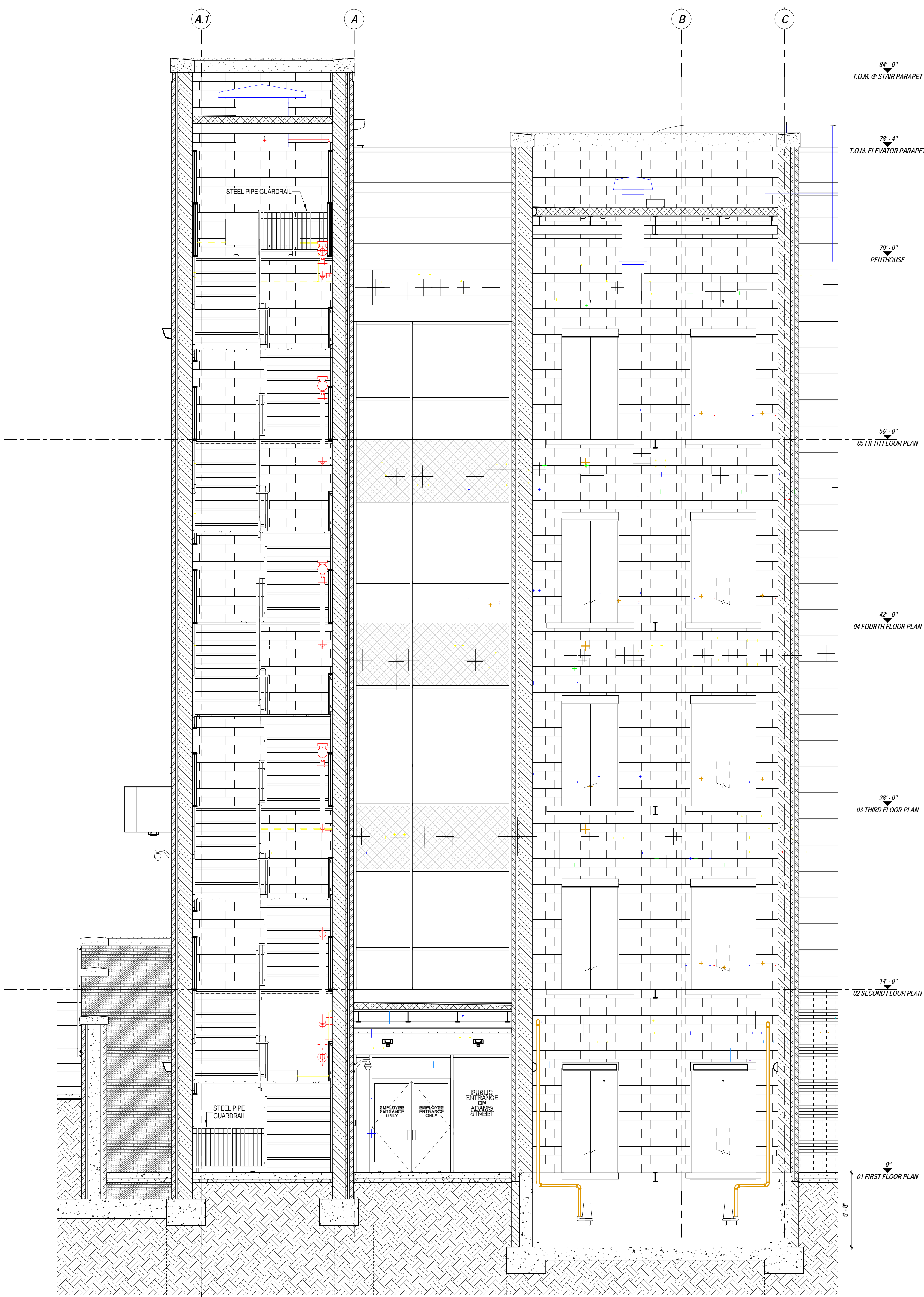
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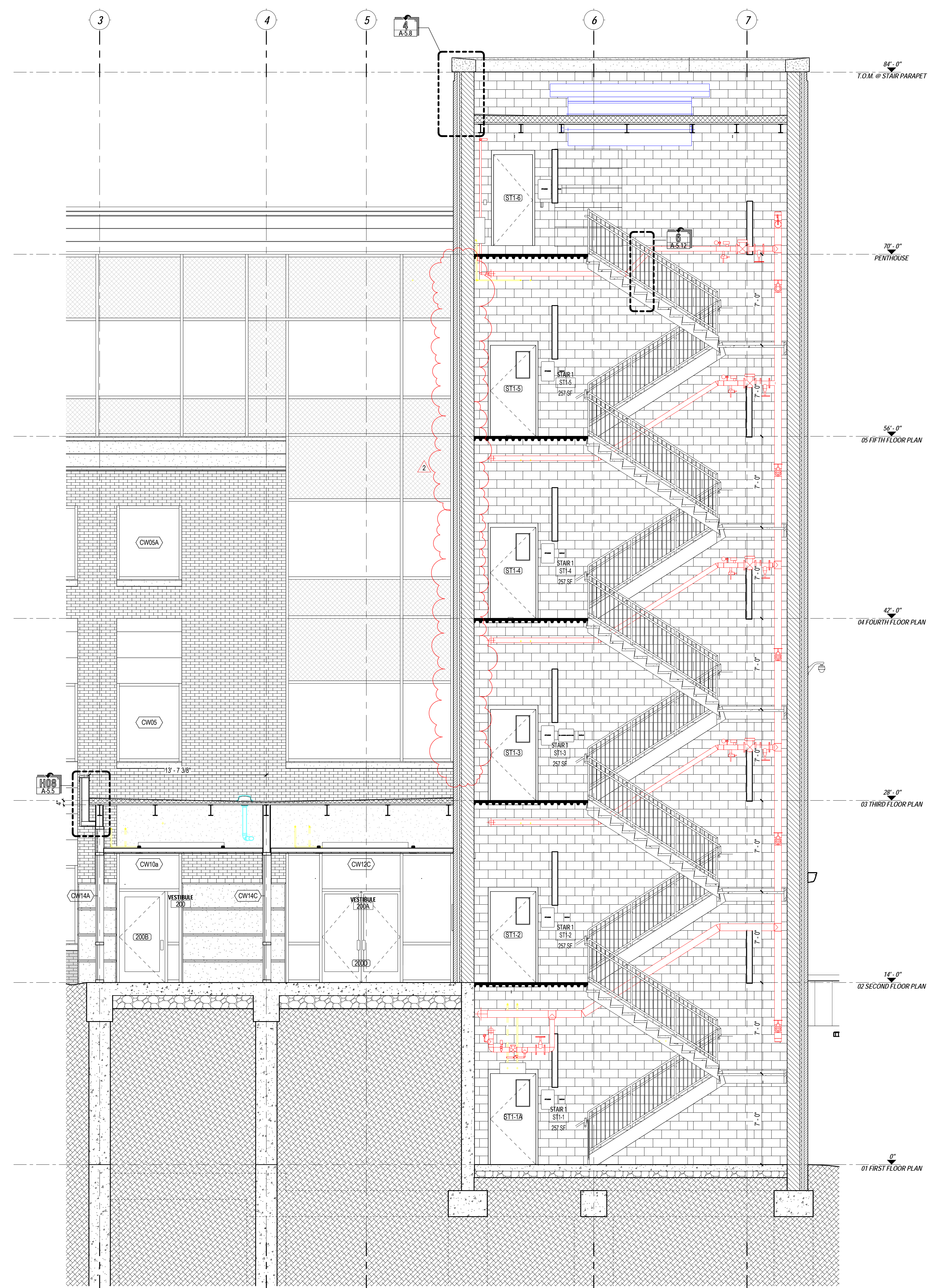
WEST ELEVATION

**A-2.2**

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 PROJECT NO. 20866 DRAWN BY: N. CAM



**BUILDING SECTION 9.1**  
SCALE: 1/4" = 1'-0"  
SHEET: A-3.9

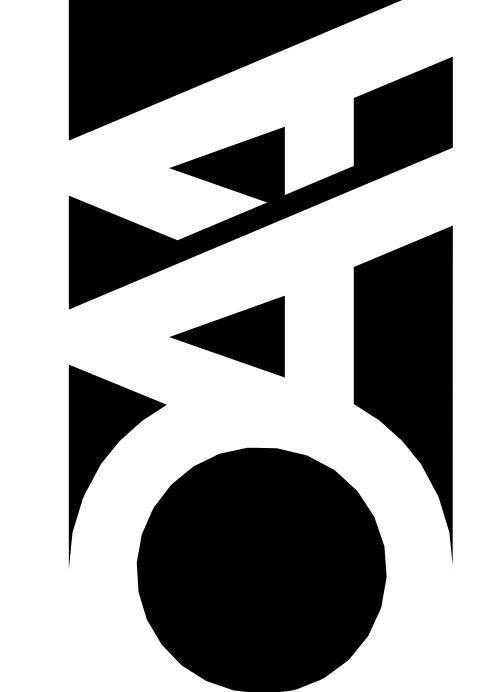


**BUILDING SECTION 9.2**  
SCALE: 1/4" = 1'-0"  
SHEET: A-3.9

ATTACHMENT X  
2 5/10/13 Addendum 2  
REVISIONS

NEW STATE OFFICE  
BUILDING - FAIRMONT  
STATE OF WEST VIRGINIA  
416 ADAMS STREET  
FAIRMONT, WV  
BID DOCUMENTS  
3/8/2013

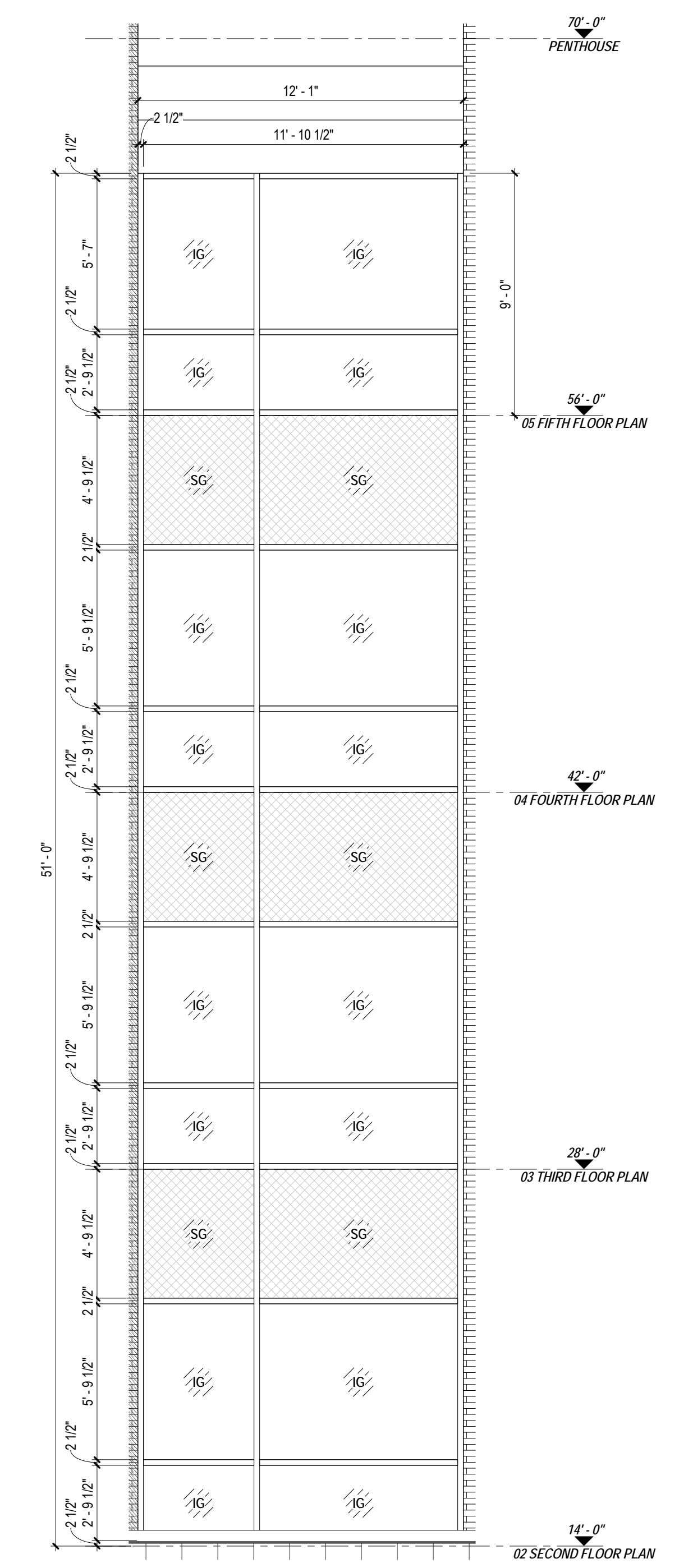
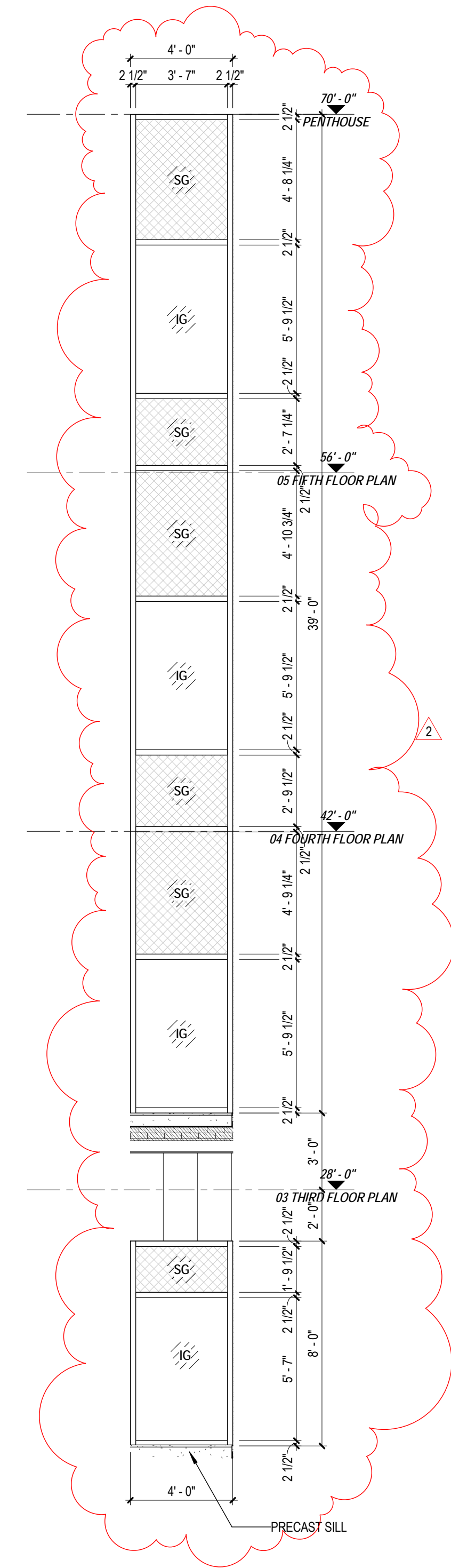
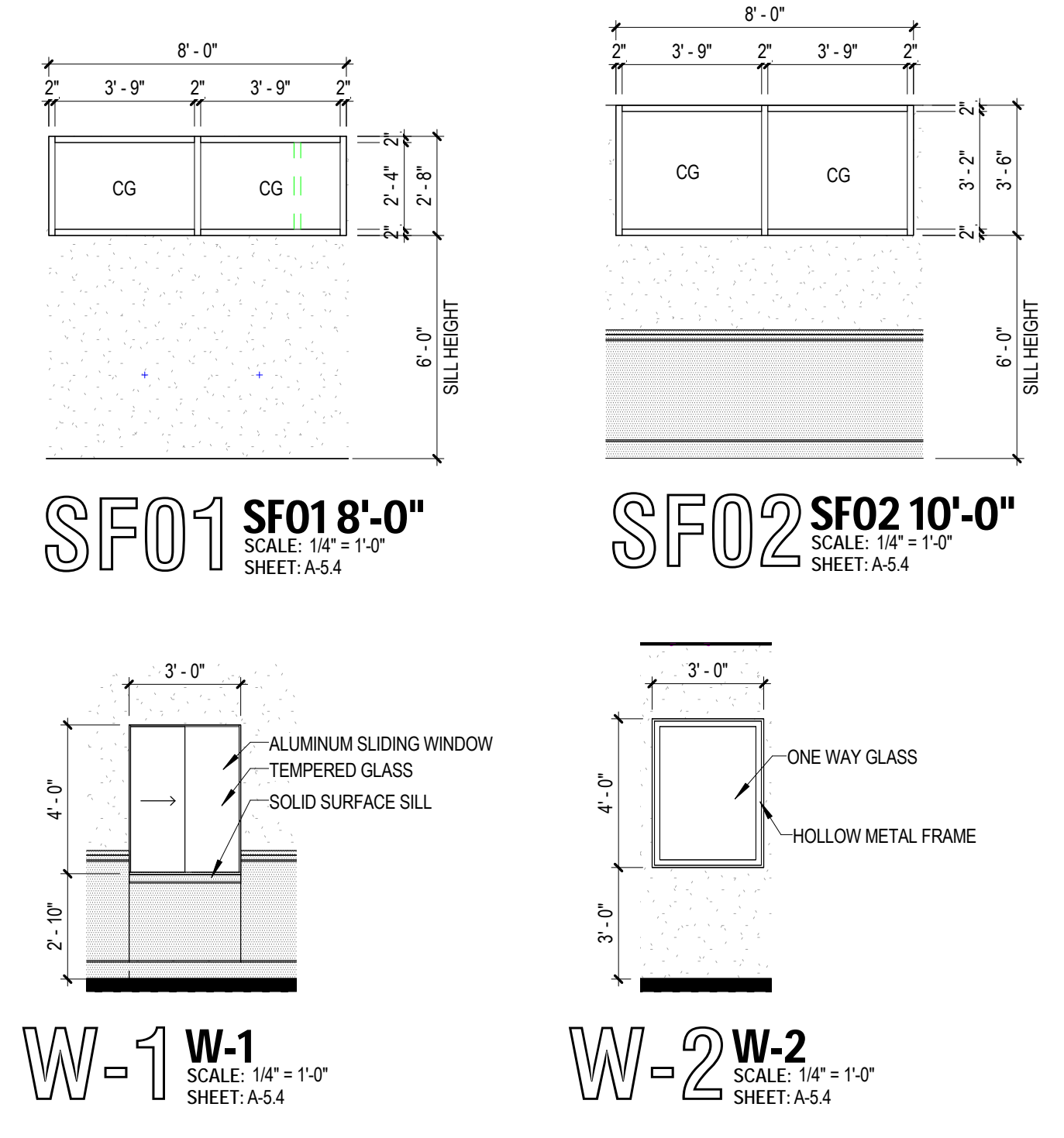
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architects  
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BUILDING SECTION

**A-3.9**

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**CW13 CW13 ELEV**  
SCALE: 1/4" = 1'-0"  
SHEET: A-5.4

**CW14A CW14A - ELEV**  
SCALE: 1/4" = 1'-0"  
SHEET: A-5.4

**CW14B CW14B - ELEV**  
SCALE: 1/4" = 1'-0"  
SHEET: A-5.4

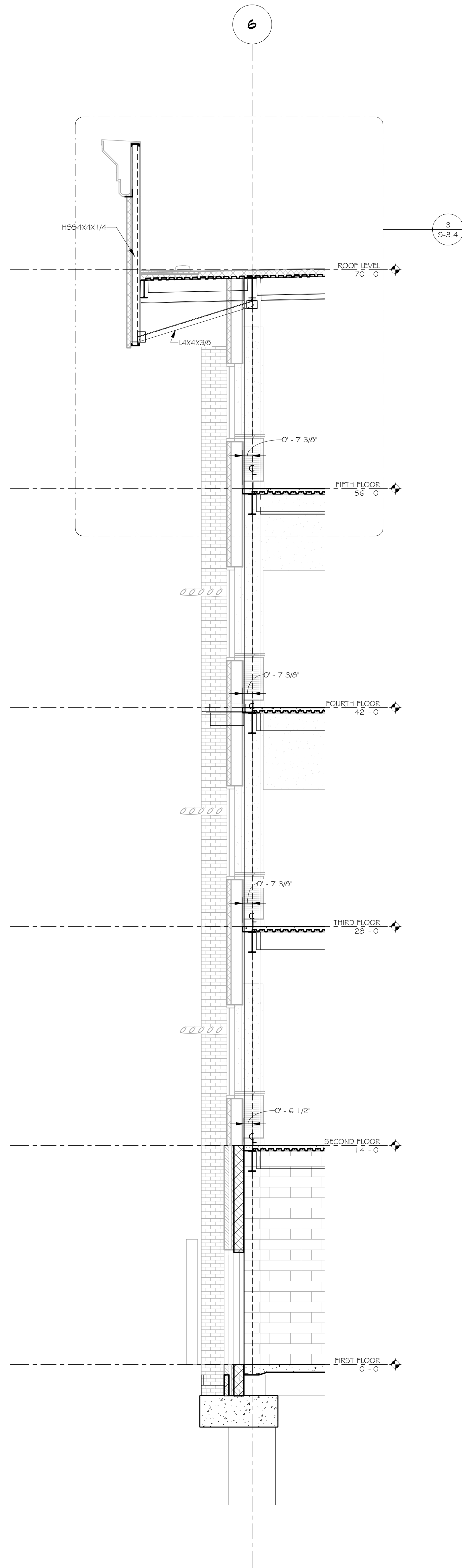
**CW14C CW14C - ELEV**  
SCALE: 1/4" = 1'-0"  
SHEET: A-5.4

**CW15A CW15A - ELEV**  
SCALE: 1/4" = 1'-0"  
SHEET: A-5.4

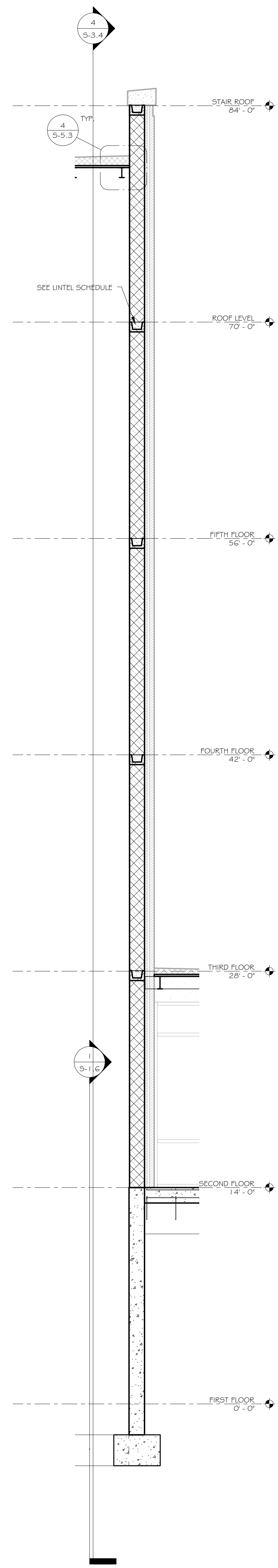
**ATTACHMENT Y**  
2 5/2013 Addendum 2  
REVISIONS  
**NEW STATE OFFICE BUILDING - FAIRMONT**  
STATE OF WEST VIRGINIA  
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FAIRMONT, WV  
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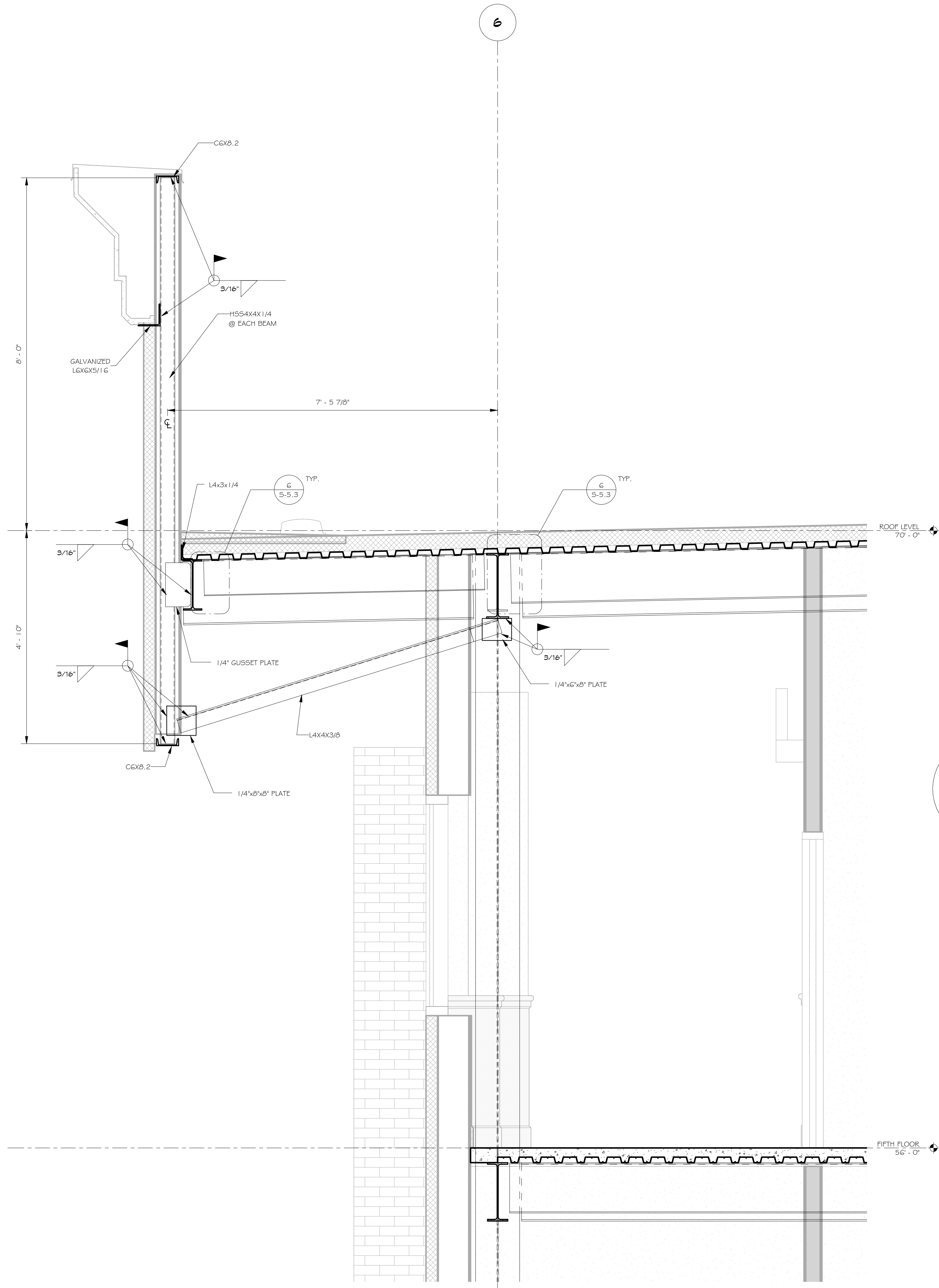
**FAA**  
CURTAINWALL & STOREFRONT ELEVATIONS  
**A-5.4**  
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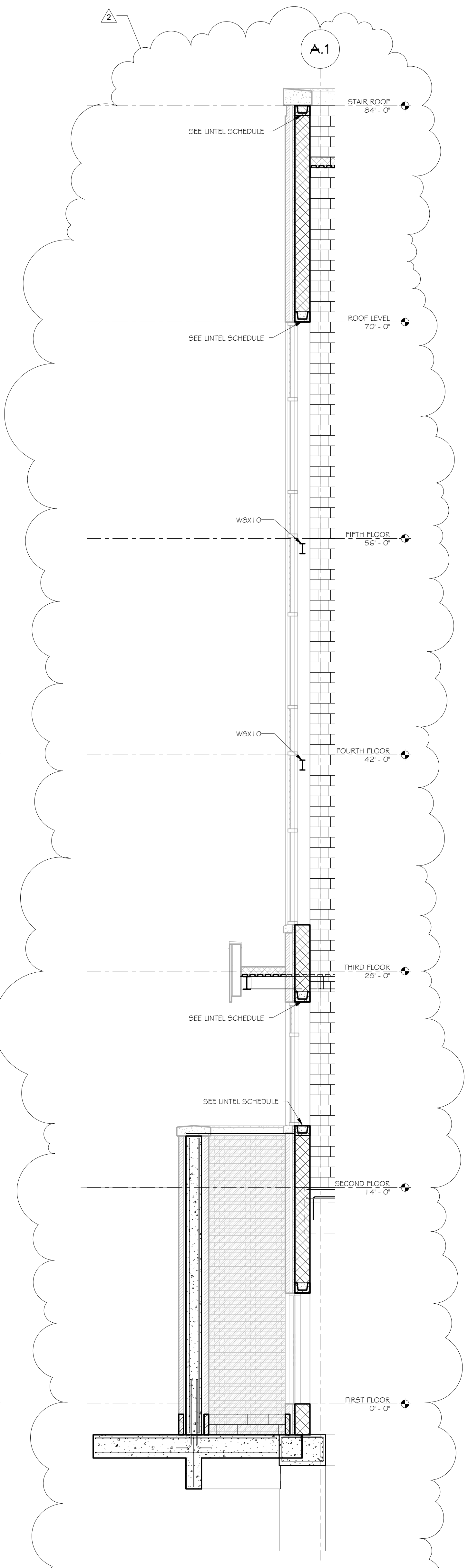
1 BUILDING SECTION  
S-S, 4 SCALE: 1/4" = 1'-0"



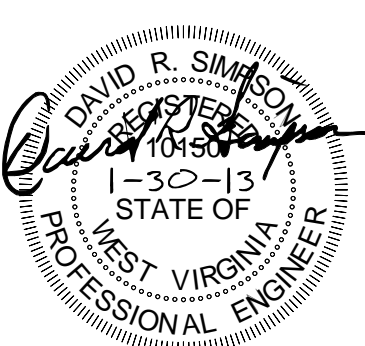
2 STAIR TOWER SECTION  
S-S, 4 SCALE: 1/4" = 1'-0"



3 ROOF EDGE SECTION  
S-S, 4 SCALE: 3/4" = 1'-0"



4 STAIR TOWER SECTION  
S-S, 4 SCALE: 1/4" = 1'-0"



ATTACHMENT Z  
2 5/16/13 Addendum 2  
REVISIONS

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BUILDING - FAIRMONT  
FAIRMONT, WV  
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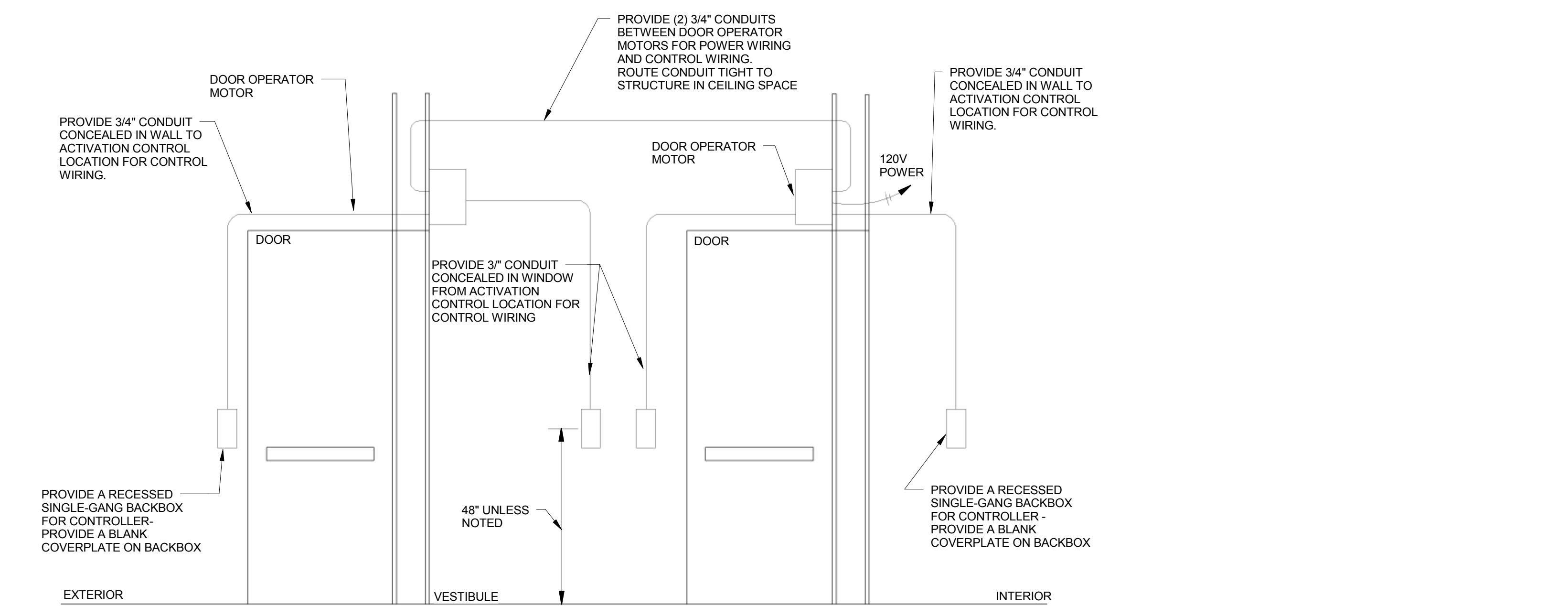
BUILDING SECTIONS

S-3.4

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Morgantown, WV 26505  
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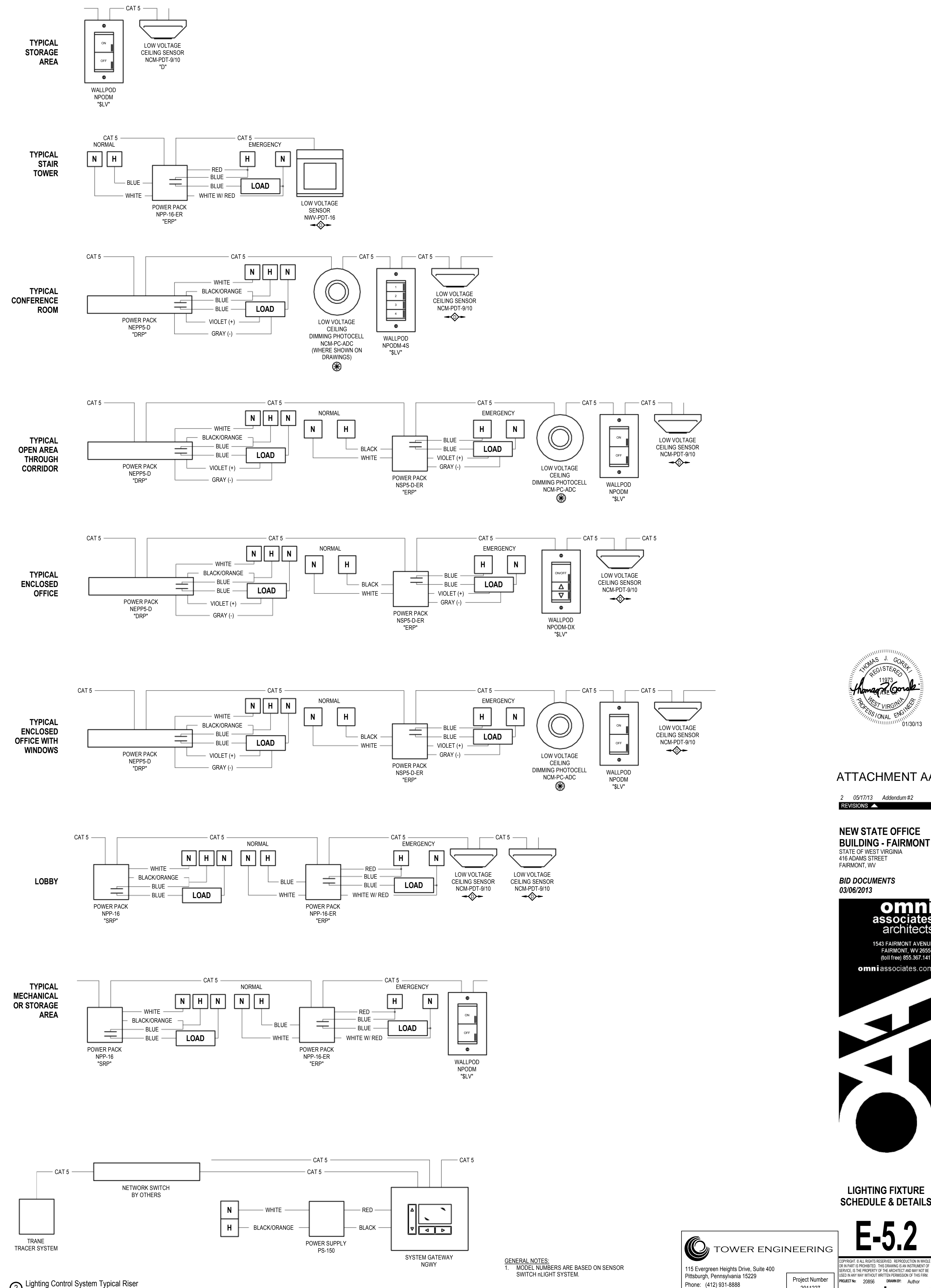
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PROJECT No. 2086 DRAWN BY: JDR

LIGHTING FIXTURE SCHEDULE												
TAG	DESCRIPTION	COLOR	MOUNTING	MANUFACTURER	SERIES	LAMP		WATTAGE	VOLTAGE	LOCATION	REMARKS	
						NO.	TYPE					
<b>EMERGENCY LIGHTING FIXTURES</b>												
E01	UNIVERSAL MOUNTED SINGLE OR DOUBLE FACE EXIT SIGN, DIECAST HOUSING, STENCIL CUT FACERPLATE, AC ONLY	BRUSHED ALUMINUM FACE WITH BLACK HOUSING	UNIVERSAL	CHLORIDE EXITRONIX LIGHTOLIER LITHONIA SURELITES	CX SERIES 400U SERIES L2S SERIES LE SERIES CAX SERIES	1	LED	N/A	5W	277 V	EGRESS	PROVIDE ARROWS AS SHOWN ON PLANS
E02	DUAL LAMP THERMOPLASTIC BATTERY UNIT, SELF DIAGNOSTICS, 8 VOLT NICAD BATTERY, TEST SWITCH WITH INDICATOR LIGHT	WHITE	WALL	CHLORIDE EXITRONIX LIGHTOLIER LITHONIA SURELITES	GM4 SERIES L2S SERIES E8 SERIES ELM SERIES CC SERIES	2	LED	N/A	60W	277 V	ATS ROOM	
E03	UNIVERSAL MOUNTED SINGLE FACE EXIT SIGN, POLYCARBONATE HOUSING, STENCIL CUT FACERPLATE, AC ONLY, UL LISTED FOR WET LOCATIONS	WHITE	UNIVERSAL	LITHONIA	WLTE SERIES	1	LED	N/A	5W	277 V	ROOF	PROVIDE ARROWS AS SHOWN ON PLANS
<b>GENERAL LIGHTING FIXTURES</b>												
G01	4" LED LENSED STRIP LIGHTING	WHITE	RECESSED	LITHONIA DAYBRITE LIGHTEDGE	ZL2 SERIES V2 SERIES WRAP1-LED SERIES	1	LED	4600 LUMENS	75W		MECHANICAL	PROVIDE CHAIN HANGING KIT
G02	4" VANDAL RESISTANT FIXTURE WITH 0.156" OPAL POLYCARBONATE LENS, ROUND END CAPS AND 8" WIDE ALUMINUM HOUSING, UL LISTED FOR WET LOCATIONS	WHITE	RECESSED	FAISAFE KENALL LUMINAIRE	HVL8 SERIES MLH48 SERIES VPF84 SERIES	1	LED		50W	120 V	ELEVATOR PIT, STAIRWELL	
G03	RECESSED STATIC HIGH PERFORMANCE 2X2 FIXTURE WITH CENTER FLAT DIFFUSE ACRYLIC SHIELD	WHITE	RECESSED	CORELITE FINELITE LIGHTOLIER PINNACLE	Z3 SERIES HPR SERIES SKYWAY SERIES LUCEN SERIES	1	LED	3100 LUMENS	37W	277 V	OFFICE, CONFERENCE ROOMS	
G04	RECESSED STATIC HIGH PERFORMANCE 2X4 FIXTURE WITH CENTER FLAT DIFFUSE ACRYLIC SHIELD	WHITE	RECESSED	CORELITE FINELITE LIGHTOLIER PINNACLE	Z3 SERIES HPR SERIES SKYWAY SERIES LUCEN SERIES	1	LED	5000 LUMENS	56W	277 V	OFFICES, CONFERENCE ROOMS	
G05	2X4 PRISMATIC, 0.125" LENS, PUSH STEEL DOOR	WHITE	RECESSED	HE WILLIAMS LIGHTOLIER LITHONIA METALLUX	LPT SERIES XP SERIES TLED4 SERIES CC SERIES	1	LED	4800 LUMENS	47W	277 V	STORAGE ROOMS	
G06	6" DIAMETER LED DOWNLIGHT WITH HAZE ALZAK REFLECTOR AND BAR HANGERS, SELF FLANGED	WHITE	RECESSED	CALCULITE GOTHAM HE WILLIAMS PORTFOLIO	C6L SERIES ALED SERIES LED980 SERIES LD6 SERIES	1	LED	1500 LUMENS	25W	277 V	TOILET ROOMS, CORRIDOR	
G07A	5" WIDE, 4" LONG, DIRECT FIXTURE WITH SCULPTED END CAPS, SPLASH PERF EXTRUDED ALUMINUM HOUSING AND RIBBED LENS	WHITE	PENDANT STEM AT 10" AFF	LEDALITE FINELITE STYLE LIGHTING	JUMP SERIES HP4 V/D SERIES SLCO SERIES	1	LED	2400 LUMENS	38W	277 V	OPEN OFFICE	FIXTURE SHALL BE MOUNTED 24" BELOW STRUCTURE UNLESS NOTED OTHERWISE. REFER TO DRAWINGS FOR OVERALL FIXTURE LENGTHS.
G07B	5" WIDE, 8" LONG, DIRECT FIXTURE WITH SCULPTED END CAPS, SPLASH PERF EXTRUDED ALUMINUM HOUSING AND RIBBED LENS	WHITE	PENDANT STEM AT 10" AFF	LEDALITE FINELITE STYLE LIGHTING	JUMP SERIES HP4 V/D SERIES SLCO SERIES	1	LED	4800 LUMENS	76W	277 V	OPEN OFFICE	FIXTURE SHALL BE MOUNTED 24" BELOW STRUCTURE UNLESS NOTED OTHERWISE. REFER TO DRAWINGS FOR OVERALL FIXTURE LENGTHS.
G08	4" LINEAR DECORATIVE FIXTURE WITH 3" ROUND DIFFUSER AND RECESSED INTEGRAL POWER SUPPLY	WHITE	SURFACE	VISA LIGHTING EUREKA ADVENT LIGHTING	VOILA SERIES MOONRISE PLUS SERIES CUSTOM	1	LED		40W	277 V	TOILET ROOMS	
G09	6" DIAMETER PENDANT MOUNTED LED DOWNLIGHT WITH COGNAC REFLECTOR	GRAPHITE	PENDANT	PORTFOLIO GOTHAM OMEGA	LD6 SERIES ALED SERIES OR2LED SERIES	1	LED	1500 LUMENS	36W	277 V	LOBBY	BOTTOM OF FIXTURE TO BE EVEN WITH BOTTOM OF SUSPENDED CEILING
G10	25" SQUARE PENDANT MOUNTED DECORATIVE FIXTURE WITH FROSTED GLASS LENS	DARK BRONZE	PENDANT	ADVENT BETA CALCO	GOLETA SERIES LPU5Q SERIES	1	LED	3700 LUMENS	52W	277 V	LOBBY, CONFERENCE ROOM	PROVIDE LENGTHS AS SHOWN ON DRAWINGS
G11	LED COVE LIGHT	ALUMINUM	SURFACE	ECOSENSE LIGHTING COLOR KINETICS TRAXON	04LC SERIES EW COVE SERIES COVE LIGHT AC HE SERIES	1	LED		12.5W/FOOT	277 V	LOBBY, CONFERENCE ROOM	PROVIDE LENGTHS AS SHOWN ON DRAWINGS
G12	DECORATIVE PENDANT	WHITE	PENDANT	TECH LIGHTING BRUCK LIGHTING	700 FJ STR SERIES ZARA SERIES	1	LED		6W	277 V	BREAK ROOM	PROVIDE MOUNTING CANOPY, LED DRIVER, CABLE AND ALL ACCESSORIES REQUIRED FOR A COMPLETE INSTALLATION.
G13	2" LONG LED UNDERCABINET LIGHT	WHITE	SURFACE	KENALL HEALTHCARE LIGHTING HALO	AUCLED SERIES HUCLED SERIES HU10 LED SERIES	1	LED	3100 LUMENS	13W	120 V	BREAK ROOM	
G14	4" VANDAL RESISTANT FIXTURE WITH TRIANGULAR OPAL POLYCARBONATE LENS, 5" WIDTH, MOUNTED VERTICALLY ON WALL WITH TWO HORIZONTAL DECORATIVE BARS	BLACK	SURFACE	KENALL	FS548T-2TB SERIES	1	LED		36W	277 V	STAIRWELLS	
G15	29" VANDAL RESISTANT FIXTURE WITH TRIANGULAR OPAL POLYCARBONATE LENS, 5" WIDTH, MOUNTED HORIZONTALLY ON WALL WITH TWO VERTICAL DECORATIVE BARS	BLACK	SURFACE	KENALL	FS524T-2TB SERIES	1	LED		18W	277 V	TOILET ROOMS	
<b>SITE BUILDING MOUNTED LIGHTING FIXTURES</b>												
S01	6" DIAMETER LED DOWNLIGHT WITH PRISMATIC LENS, UL LISTED FOR WET LOCATIONS	WHITE	RECESSED	LITHONIA	VRALED SERIES	1	LED	2000 LUMENS	59W	277 V	CANOPIES	
S02	BUILDING WALL MOUNT LED FIXTURE WITH DIECAST ALUMINUM HOUSING AND MEDIUM THROW DISTRIBUTION WITH DIFFUSE GLASS LENS	COLOR SELECTED BY ARCHITECT	RECESSED	LITHONIA LSI LIGHTING MCGRAW EDISON	WST LED SERIES XCHW3 SERIES IMT LED SERIES	1	LED	2000 LUMENS	24W	277 V	EGRESS DOORS	
S03	BUILDING WALL MOUNT LED FIXTURE WITH DIECAST ALUMINUM HOUSING AND MEDIUM THROW DISTRIBUTION WITH DIFFUSE GLASS LENS	COLOR SELECTED BY ARCHITECT	RECESSED	LITHONIA LSI LIGHTING MCGRAW EDISON	WST LED SERIES XCHW3 SERIES IMT LED SERIES	1	LED	4000 LUMENS	47W	277 V	BUILDING MOUNTED	
S04	POLE MOUNTED DECORATIVE SHOEBOX FIXTURE WITH TYPE 4 DISTRIBUTION	DARK BRONZE	POLE MOUNTED ON 20" ROUND STRAIGHT ALUMINUM POLE	LITHONIA LSI LIGHTING MCGRAW EDISON HADCO	OMERO M1 SERIES ARIES SERIES CHALLENGER II SERIES GALLEON SERIES PROFILE SERIES	1	LED	8000 LUMENS	108W	277 V	SITE	PROVIDE HOUSE-SIDE SHIELD
S05	POLE MOUNTED DECORATIVE SHOEBOX FIXTURE WITH TYPE 3 DISTRIBUTION	DARK BRONZE	POLE MOUNTED ON 20" ROUND STRAIGHT ALUMINUM POLE	LITHONIA LSI LIGHTING MCGRAW EDISON HADCO	OMERO M1 SERIES ARIES SERIES CHALLENGER II SERIES GALLEON SERIES PROFILE SERIES	1	LED	8000 LUMENS	74W	277 V	SITE	PROVIDE HOUSE-SIDE SHIELD
S06	6" DIAMETER LENSED WALL WASH FIXTURE WITH HAZE ALZAK REFLECTOR AND BAR HANGERS	WHITE	RECESSED	GOTHAM	DLWLED SERIES	1	LED	1500 LUMENS	32W	277 V	CANOPY	
S07	GROUND MOUNTED FLOODLIGHT WITH DIE-CAST ALUMINUM HOUSING AND CUT-OFF HOOD ON 18" STANCHION MOUNTED IN GROUND	DARK BRONZE	GROUND MOUNTED	LITHONIA GARDCO	D SIZE 1 SERIES DF7 SERIES	1	LED	1200 LUMENS	41W	277 V	SITE SIGN	PROVIDE HORIZONTAL FLOOD DISTRIBUTION
S08	BUILDING WALL MOUNT LED WALL WASH FIXTURE, 65" IN LENGTH WITH INTEGRAL DRIVER, LISTED FOR EXTERIOR	DARK BRONZE	BUILDING MOUNTED ON 18" ARM	STILE LIGHTING	SEWS-063-FT-LBI SERIES	1	LED	400 LUMENS/FOOT	5W/FOOT	277 V	BUILDING SIGN	MOUNT FIXTURES END TO END. PROVIDE ALL ACCESSORIES REQUIRED FOR COMPLETE INSTALLATION.
S09	GROUND MOUNTED FLOODLIGHT WITH DIE-CAST ALUMINUM HOUSING AND CUT-OFF HOOD ON 18" STANCHION MOUNTED IN GROUND	DARK BRONZE	GROUND MOUNTED	LITHONIA GARDCO	D SIZE 1 SERIES DF7 SERIES	1	LED	3000 LUMENS	41W	277 V	FLAGPOLE	PROVIDE SPOT DISTRIBUTION



NOTES:  
 1. COORDINATE ALL INSTALLATION REQUIREMENTS WITH OTHERS PRIOR TO ROUGH-IN  
 2. PROVIDE PULLWIRE IN ALL CONTROL CONDUITS.

1 AUTOMATIC DOOR OPERATOR  
 Not to Scale



2 Lighting Control System Typical Riser  
 Not to Scale

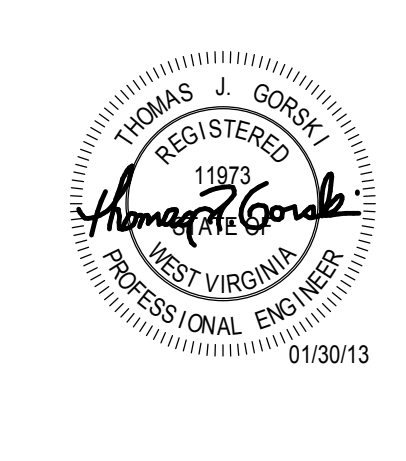
GENERAL NOTES:  
 1. MODEL NUMBERS ARE BASED ON SENSOR SWITCH LIGHT SYSTEM

**TOWER ENGINEERING**  
 115 Evergreen Heights Drive, Suite 400  
 Pittsburgh, Pennsylvania 15229  
 Phone: (412) 931-9888 Fax: (412) 939-2525

**omni associates architects**  
 1545 Fairmont Avenue  
 Fairmont, WV 26564  
 (toll free) 855.387.1417  
 omniassociates.com

**E-5.2**

PROJECT NUMBER: 2011227



ATTACHMENT AA  
 2 05/17/13 Addendum #2  
 REVISIONS

NEW STATE OFFICE  
 BUILDING - FAIRMONT  
 STATE OF WEST VIRGINIA  
 416 ADAMS STREET  
 FAIRMONT, WV

BID DOCUMENTS  
 03/06/2013

**AIR COOLED CHILLER SCHEDULE**

UNIT NO.	NOMINAL CAPACITY (TONS)	REFRIG. TYPE	SAT-COND. TEMP. (°F)	COOLING MODE								ICE MAKING/STORAGE MODE								COMPRESSOR		ELECTRICAL DATA								SOUND PRESSURE LEVEL DATA								BASED ON			REMARKS
				TOTAL CAP. (TONS)	EVAPORATOR EWT (°F)	LWT (°F)	FLOW (GPM)	MAX. P. D. (FT. W.G.)	EER	NPLV	TOTAL CAP. (TONS)	EVAPORATOR EWT (°F)	LWT (°F)	FLOW (GPM)	MAX. P. D. (FT. W.G.)	EER	NPLV	NO.	TYPE	TOTAL KW	UNIT MCA	UNIT MOCP	VOLTS/PHASE	63	125	250	500	1000	2000	4000	8000	TOTAL db(A)	OPERATING WEIGHT (LBS)	MANUF.	MODEL						
C-1	100	R-410a	95	96.95	54	44	246	18.1	9.54	14.07	68.10	31.9	24.8	246	24.3	6.82	10.07	4	SL	122.0	245	300	460 / 3	37	42	52	59	61	59	54	48	65	6300	DUNHAM-BUSH	ACDS100	1, 2, 3, 4					

REMARKS:  
 1. UNIT SHALL BE SELECTED FOR A WATER SIDE FOULING FACTOR OF 0.00010.  
 2. PERFORMANCE DATA LISTED INCLUDES ADJUSTMENT FOR USE OF A 30% PROPYLENE GLYCOL CHILLED WATER SOLUTION.  
 3. SOUND PRESSURE LEVEL IS RATED AT 32.8 FEET (FREE FIELD).  
 4. THE UNIT SHALL BE PROVIDED WITH LOW AMBIENT CONTROL TO PERMIT STABLE OPERATION AT 0° AMBIENT TEMPERATURE.

COMPRESSOR TYPES:  
 SL - SCROLL

**FAN COIL UNIT SCHEDULE**

UNIT NO.	AREA SERVED	TOTAL AIRFLOW (CFM)	SUPPLY FAN NO. OF FANS	E.S.P. (IN WG)	MOTOR HP	CHILLED WATER COIL				HOT WATER COIL				ELECTRICAL DATA								BASED ON			REMARKS								
						EAT (°F db)	(°F wb)	LAT (°F db)	(°F wb)	EWT (°F)	LWT (°F)	TOTAL MBH	SENS. MBH	NO. OF ROWS	WATER FLOW (GPM)	W.P.D. (FT HEAD)	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	TOTAL MBH	NO. OF ROWS	WATER FLOW (GPM)	W.P.D. (FT HEAD)		UNIT MCA	UNIT MOCP	VOLTS/PHASE	MANUF.	MODEL	CABINET SIZE		
FCU-1	ELEV ED 102	715	4	0.3	1/12, 1/12	80	67	62.3	59.9	38	48	16.4	13.6	3	3.0	0.6	---	---	---	---	---	---	---	---	---	---	2	5	115/1	IEC	CPY	10	1, 2, 3, 4, 5, 6
FCU-2	ATS ROOM 107	495	2	0.3	1/12	80	67	61.3	59.9	38	48	12.8	10.1	3	2.6	3.9	---	---	---	---	---	---	---	---	---	---	2	5	115/1	IEC	CPY	08	1, 2, 3, 4, 5, 6
FCU-3	ELEC 108	495	2	0.3	1/12	80	67	61.3	59.9	38	48	12.8	10.1	3	2.6	3.9	70	92.7	140	131.4	12.3	3	3.0	9.7	2	5	115/1	IEC	CPY	08	1, 2, 3, 4, 5, 6		
FCU-4	ELEC 206	495	2	0.3	1/12	80	67	61.3	59.9	38	48	12.8	10.1	3	2.6	3.9	---	---	---	---	---	---	---	---	---	---	2	5	115/1	IEC	CPY	08	1, 2, 3, 4, 5, 6
FCU-5	ELEC 306	495	2	0.3	1/12	80	67	61.3	59.9	38	48	12.8	10.1	3	2.6	3.9	---	---	---	---	---	---	---	---	---	---	2	5	115/1	IEC	CPY	08	1, 2, 3, 4, 5, 6
FCU-6	ELEC 406	495	2	0.3	1/12	80	67	61.3	59.9	38	48	12.8	10.1	3	2.6	3.9	---	---	---	---	---	---	---	---	---	---	2	5	115/1	IEC	CPY	08	1, 2, 3, 4, 5, 6
FCU-7	ELEC 506	495	2	0.3	1/12	80	67	61.3	59.9	38	48	12.8	10.1	3	2.6	3.9	---	---	---	---	---	---	---	---	---	---	2	5	115/1	IEC	CPY	08	1, 2, 3, 4, 5, 6

REMARKS:  
 1. PROVIDE A SINGLE POINT POWER CONNECTION.  
 2. PROVIDE AN INTEGRAL DISCONNECT.  
 3. FURNISH 2" THICK MERV-13 FILTERS.  
 4. FURNISH AN INTEGRAL COIL CONDENSATE DRAIN PUMP.  
 5. PROVIDE REAR RETURN PLENUM.  
 6. CHILLED WATER AND HOT WATER CAPACITIES ARE BASED ON 30% PROPYLENE GLYCOL.

**FAN SCHEDULE**

UNIT NO.	AREA SERVED	TYPE	TOTAL AIRFLOW (CFM)	E.S.P. (IN WG)	FAN RPM	MOTOR RPM	HP	V/PH	SONES	CONTROL	BASED ON		REMARKS
											MANUF.	MODEL	
EF-1	MEN'S AND WOMEN'S	CRE-B	2030	0.75	862	1725	0.75	115/1	8.3	DDC	GREENHECK	GB-180-7	1, 3, 4
EF-2	MEN'S AND WOMEN'S	CRE-B	1855	0.65	775	1725	0.50	115/1	7.0	DDC	GREENHECK	GB-180-5	1, 3, 4
EF-3	JANITOR'S CLOSETS	CRE-D	270	0.40	1491	1550	1/20	115/1	7.0	CONTINUOUS	GREENHECK	G-080-D	1, 2, 3, 4
SF-1	STAIR 1	AF-B	55000	0.65	479	1725	20	460/3	40	EMERGENCY	GREENHECK	60-AFSW-41	4, 5, 6
SF-2	STAIR 2	AF-B	55000	0.65	479	1725	20	460/3	40	EMERGENCY	GREENHECK	60-AFSW-41	4, 5, 6

TYPE:  
 CRE-D: CENTRIFUGAL ROOF EXHAUST - DIRECT DRIVE  
 CRE-B: CENTRIFUGAL ROOF EXHAUST - BELT DRIVE  
 AF-B: AIRFLOW BELT DRIVE

REMARKS:  
 1. FURNISH INTEGRAL DISCONNECT.  
 2. FURNISH INTEGRAL SPEED CONTROL.  
 3. FURNISH A 24-INCH HIGH ROOF CURB.  
 4. FURNISH A MOTORIZED DAMPER. ATC SHALL PROVIDE POWER TO THE DAMPER.  
 5. FURNISH A VARIABLE FREQUENCY DRIVE.  
 6. FURNISH A WEATHERHOOD.

**COMPUTER ROOM AIR CONDITIONING UNIT SCHEDULE**

UNIT NO.	AREA SERVED	INDOOR EVAPORATOR & COMPRESSOR SECTION										OUTDOOR CONDENSER										REMARKS
		AIRFLOW (CFM)	TOTAL COOLING (MBH)	REHEAT CAPACITY (KW)	EXT. STATIC (WOG)	FAN MOTOR HP	UNIT MCA	UNIT MOCP	V/PH	WEIGHT (LBS)	MANUF.	MODEL	UNIT NO.	UNIT MCA	UNIT MOCP	V/PH	WEIGHT (LBS)	MANUF.	MODEL			
CRAC-1	205 DATA	2500	61.2	11.5	0.5	1.5	15.4	20	460/3	500	LIEBERT	MMD60E	ACC-1	11.7	20	460/3	350	LIEBERT	PFH	1, 2, 3, 4		
CRAC-2	305 DATA	2500	61.2	11.5	0.5	1.5	15.4	20	460/3	500	LIEBERT	MMD60E	ACC-2	11.7	20	460/3	350	LIEBERT	PFH	1, 2, 3, 4		
CRAC-3	405 DATA	2500	61.2	11.5	0.5	1.5	15.4	20	460/3	500	LIEBERT	MMD60E	ACC-3	11.7	20	460/3	350	LIEBERT	PFH	1, 2, 3, 4		
CRAC-4	505 DATA	2500	61.2	11.5	0.5	1.5	15.4	20	460/3	500	LIEBERT	MMD60E	ACC-4	11.7	20	460/3	350	LIEBERT	PFH	1, 2, 3, 4		
CRAC-5	110 DATA	2500	61.2	11.5	0.5	1.5	15.4	20	460/3	500	LIEBERT	MMD60E	ACC-5	11.7	20	460/3	350	LIEBERT	PFH	1, 2, 3, 4		
CRAC-6	102 UPS	2500	61.2	11.5	0.5	1.5	15.4	20	460/3	500	LIEBERT	MMD60E	ACC-6	11.7	20	460/3	350	LIEBERT	PFH	1, 2, 3, 4		

REMARKS:  
 1. CAPACITY BASED UPON 72 FDB / 60FMB ENTERING AIR, 95FDB AMBIENT.  
 2. INTEGRAL CONDENSATE PUMP.  
 3. INTEGRAL DISCONNECT.  
 4. FURNISH WITH FILTER BOX.

**HOT WATER RADIANT CEILING PANEL SCHEDULE**

TAG	W (in)	L (in)	MIN CAP. (MBH)	ENTERING TEMPS		WATER FLOW (GPM)	WTD (F)	BASED ON		REMARKS
				AIR (F)	WATER (F)			MANUF.	MODEL	
RCP-A	24	24	0.4	70	140	0.5	20	FRENGER	MODULAR	1, 2
RCP-B	24	48	0.68	70	140	0.5	30	FRENGER	MODULAR	1, 2

REMARKS:  
 1. PERFORMANCE IS CORRECTED FOR USE OF A 30% PROPYLENE GLYCOL SOLUTION.  
 2. COORDINATE PANEL MOUNTING WITH CEILING TYPE.

**HOT WATER BOILER SCHEDULE**

UNIT NO.	FUEL	GROSS INPUT (MBH)	GROSS OUTPUT (MBH)	EWT (°F)	LWT (°F)	WATER FLOW RATE (GPM)	WATER PRESSURE (FT.)	RELIEF VALVE (PSI)	ELECTRICAL		BASED ON			REMARKS
									VOLTS	PHASE	MANUF.	SERIES	MODEL	
B-1	NATURAL GAS	1000.0	910.0	108.6	140.0	58	23.00	100	120	1	RBI	FUTERA FUSION	CB 1000	1, 2, 3
B-2	NATURAL GAS	1000.0	910.0	108.6	140.0	58	23.00	100	120	1	RBI	FUTERA FUSION	CB 1000	1, 2, 3
B-3	NATURAL GAS	1000.0	910.0	108.6	140.0	58	23.00	100	120	1	RBI	FUTERA FUSION	CB 1000	1, 2, 3

REMARKS:  
 1. FURNISH AN ACID NEUTRALIZATION BOX.  
 2. CAPACITY SHOWN SHALL BE ADJUSTED FOR A 30% PROPYLENE GLYCOL SOLUTION.  
 3. THE BOILER SHALL BE FURNISHED WITH AN INTEGRAL IN-LINE PUMP. SEE PUMP SCHEDULE AND PROJECT MANUAL FOR REQUIREMENTS.

**ICE STORAGE TANK**

GLYCOL EWT (°F)	GLYCOL LWT (°F)	DISCHARGE FLOW (GPM)	P.D. (PSI)	USABLE STORAGE MAX (TON-HOURS)	CHARGING TIME (HOURS)	FLOW (GPM)	P.D. (PSI)	WEIGHT PER TANK (LBS)	BASED ON		REMARKS
									MANUF.	MODEL	
44	38	82	8.80	190	8	82	9.50	19,300	DUNHAM-BUSH	ICE CELL	1, 2

REMARKS:  
 1. PERFORMANCE DATA IS BASED ON A 30% PROPYLENE GLYCOL-WATER SOLUTION.  
 2. PERFORMANCE DATA IS TYPICAL FOR EACH TANK. TOTAL OF 3 TANKS.

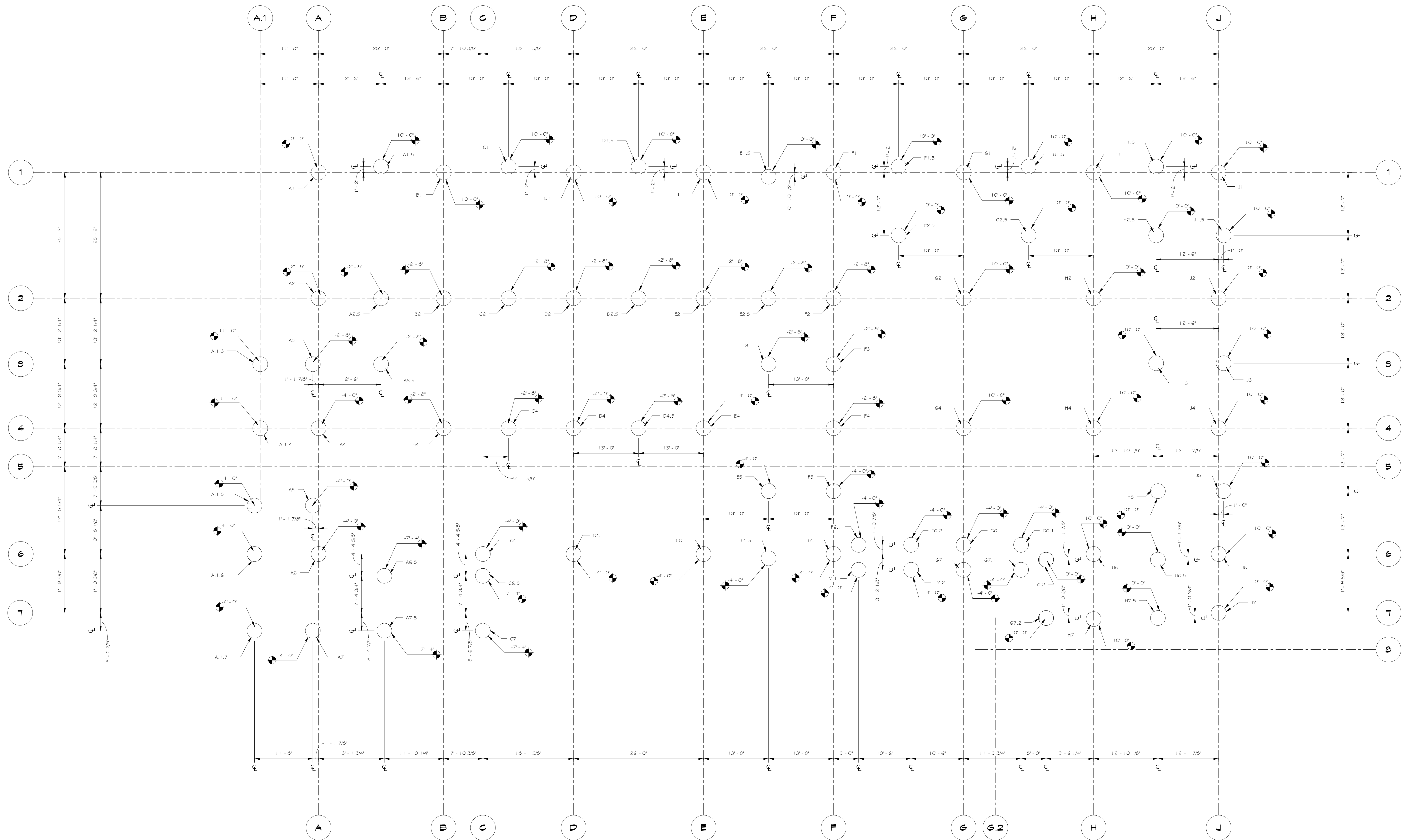
**PUMP SCHEDULE**

UNIT NO.	SERVES	TYPE	FLOW RATE (GPM)	TOTAL HEAD (FT)	PUMPING/MOTOR DATA			BASED ON			REMARKS	
					TEMP. (°F)	HP	RPM	MANUF.	SERIES	MODEL		
P-1	BOILER B-1	IN-LINE	58	19	140	1/2	3450	115/1	---	---	---	1, 2, 5, 6
P-2	BOILER B-2	IN-LINE	58	19	140	1/2	3450	115/1	---	---	---	1, 2, 5, 6
P-3	BOILER B-3	IN-LINE	58	19	140	1/2	3450	115/1	---	---	---	1, 2, 5, 6
P-4	BUILDING HOT WATER SYSTEM	BASE MOUNTED	274	70	140	10	1750	480/3	BELL & GOSSETT	1510	2-1/2 BB	1, 2, 4
P-5	BUILDING HOT WATER SYSTEM	BASE MOUNTED	274	70	140	10	1750	480/3	BELL & GOSSETT	1510	2-1/2 BB	1, 3, 4
P-6	CHILLER	BASE MOUNTED	246	95	22	15	1750	480/3	BELL & GOSSETT	1510	2E	1, 2, 5
P-7	CHILLER	BASE MOUNTED	246	95	22	15	1750	480/3	BELL & GOSSETT	1510	2E	1, 3, 5
P-8	BUILDING CHILLED WATER SYSTEM	BASE MOUNTED	246	70	54	7-1/2	1750	480/3	BELL & GOSSETT	1510	2-1/2 BB	1, 2, 4
P-9	BUILDING CHILLED WATER SYSTEM	BASE MOUNTED	246	70	54	7-1/2	1750	480/3	BELL & GOSSETT	1510	2-1/2 BB	1, 2, 4

REMARKS:  
 1. HIGH EFFICIENCY MOTOR.  
 2. PRIMARY OPERATION PURPOSES ONLY. THE PUMP SHALL NORMALLY OPERATE AT CONSTANT SPEED.  
 3. STAND-BY OPERATION.  
 4. VARIABLE FREQUENCY (VF) DRIVE BY H.C.  
 5. VF DRIVE BY H.C. VF DRIVE SHALL BE USED FOR BALANCING PURPOSES ONLY. THE PUMP SHALL NORMALLY OPERATE AT CONSTANT SPEED.  
 6. PUMP SHALL BE FURNISHED INTEGRAL WITH THE BOILER BY THE BOILER MANUFACTURER.

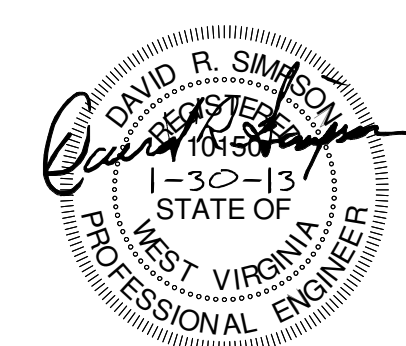
**ICE STORAGE SYSTEM DESIGN DAY ANALYSIS**

HOUR	MODE	CAPACITY		SYSTEM STORAGE (TONS)	PER TANK STORAGE (TONS)	TOTAL TON HOURS (HRS)	TON HOURS PER TANK (HRS)	% CHARGE	CHILLER TEMP (°F)	RETURN TEMP (°F)
		BUILDING LOAD (TONS)	CHILLER (TONS)							
1	I	0	68.1	68.1	22.7	299.0	99.7	52.5	24.8	31.9
2	I	0	68.1	68.1	22.7	367.1	122.4	64.4	24.8	31.9
3	I	0	68.1	68.1	22.7	435.2	145.1	76.4	24.8	31.9
4	I	0	68.1	68.1	22.7	503.3	167.8	88.3	24.8	31.9
5	I	0	66.7	66.7	22.2	570.0	190.0	100.0	24.8	31.9
6	N	0	0.0	0.0	0.0	570.0	190.0	100.0	---	---
7	M	4	0.0	-4.0	-1.3	566.0	188.7	99.3	44	54
8	M	36.7	0.0	-36.7	-12.2	529.3	176.4	92.9	44	54
9	MC	117.4	97.0	-20.5	-6.8	508.9	169.6	89.3	44	54
10	MC	101.2	97.0	-4.3	-1.4	504.6	168.2	88.5	44	54
11	MC	105	97.0	-8.1	-2.7	496.6	165.5	87.1	44	54
12	MC	116	97.0	-19.1	-6.4	477.5	159.2	83.8	44	54
13	MC	123.8	97.0	-26.9	-9.0	450.7	150.2	79.1	44	54
14	MC	130.8	97.0	-33.9	-11.3	416.8	138.9	73.1	44	54
15	MC	145.1	97.0	-48.2	-16.1	368.7	122.9	64.7	44	54
16	MC	150.6	97.0	-53.7	-17.9	318.0	105.0	55.3	44	54
17	MC	148.7	97.0	-51.8	-17.3	263.3	87.8	46.2	44	54
18	M	96.8	0.0	-96.8						



PLAN  
**CAISSON PLAN**  
 SCALE: 1/8" = 1'-0"  
 NORTH

- NOTES:
- 1) REFERENCE ELEVATION = 0'-0" (TSLAB FIRST FLOOR ELEVATION) FIRST FLOOR ELEVATION REFERENCE ELEVATION=96.0' VERIFY WITH SITE SURVEY DATA
  - 2) ALL CAISSONS SHALL HAVE A DIAMETER OF 3'-0" U.N.O.
  - 3) CAISSON DESIGNATIONS TO MATCH TERRAZZO DESIGNATIONS.
  - 4) TOPS OF CAISSONS MAY EXTEND ABOVE EXISTING GRADE. PROVIDE FOR FORMING OF THESE CAISSONS ABOVE GRADE. IF TWO POURS ARE REQUIRED PROVIDE PLAN FOR APPROVAL INCLUDING GAGE PLACEMENT AND SPICES IF NECESSARY.



ATTACHMENT CC

REVISIONS

**NEW STATE OFFICE  
 BUILDING - FAIRMONT**  
 FAIRMONT, WV  
 ADAMS AND MADISON STREETS

03/06/13

**omni**  
 associates  
 architects

1543 FAIRMONT AVENUE  
 FAIRMONT, WV 26534  
 (toll free) 855.367.1417  
 omniassociates.com



CAISSON PLAN

**S-1.0**

**Alegheny**  
 Design Service  
 Structural & MEP Engineering

102 Leeway Street  
 Morgantown, WV 26505  
 Phone: 304.599.0771

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PROJECT No. 2086 DRAWN BY: AUBRY

**RFQ#GSD136417: NEW FAIRMONT OFFICE BUILDING  
TECHNICAL QUESTIONS & ANSWERS**

**Question#1:** Please provide 3D model from Allegheny Design Services

**Answer#1:** This item is not a part of the Bidding Documents and it will not be provided to bidders.

**Question#2:** I was told by the people at Omni Architects, that you are the person to address questions to on the new state building in Fairmont. As a representative of Borroughs and Spacesaver High Density Shelving systems, I am interested in bidding on the system in this project. I have reviewed all the information that I could locate at the Pittsburgh Builders Exchange and could not find any information on the height of the shelving, number of shelves etc. I am not sure if I could not locate that information or if it is not available at this time. Could you please advise on this matter. (Framed, in question form as) What are the specified characteristics (height, quantity, etc) of the high density shelving systems included in this bid package?

**Answer#2:** Specification Section 105626 Mobile Storage Shelving will be deleted in its entirety per Addendum No. 2. Owner will provide this unit.

**Question#3:** I was wondering if the communications section was included in this bid? In one section of the specs it says just conduit and pull string and in another section it mentions Cat6. I would like to bid on the low voltage wiring just wanted to confirm that is was part of the initial bid.

**Answer#3:** Communications section is to be included in the electrical bid. All division 26, 27 and 28 sections are to be included and all work shown on the 'E' series drawings, specifically work shown on Sheets E-6.1 through E-6.5 and E-7.1 pertaining to communications work.

**Question#4:** Specification Section 102226 Operable Partitions. Please confirm if Kwikwall is an acceptable manufacturer for operable panel partitions (submitted by Garage Door Operators – no documentation attached – but see Question#26)

**Question#4:** Kwik-Wall Moveable Wall Systems – Model 2030 is approved for use on this project.

**Question#5:** We have received this project and are not listed as an Approved Lightning Protection Manufacturer... (attached documentation from Robbins Lighting Inc. – this is interpreted as a request for substitution).

**Answer#5:** Robbins Lightning is approved for use on this project.

**Question#6:** Can the Pre-Bid sign in sheets be issued prior the first technical addendum?

**Answer#6:** Sign In Sheet was added by Addendum #1.

**Question#7:** Multiple, redundant requests for Technical Questions submission deadline extension: (From Massaro Corporation) Can the deadline for RFI's be extended?

(from PJ Dick): Please provide an extended period of time for submitting questions. Many of the subcontractors have not had sufficient time to review the Bid Documents.

(from March Westin): Would you please consider extending the question and answer deadline?

(from City Construction): The estimators are asking if there will be an extension of time for asking questions.

**Answer#7:** Deadline was extended to 5/17/13 by Addendum #1.



**Question#8:** Multiple, redundant requests for Bid Opening Date extension:

(From Massaro Corporation) Due to the fact that the bids are due after a holiday, Massaro Corporation requests a couple of day bid extension?

(from PJ Dick): Please consider extending the Bid Due Date. The current Bid Due Date is the day after Memorial Day. By extending the Bid Due Date, there will be better subcontractor participation.

(from March Westin): Would you please consider moving the bid due date so that it does not immediately follow the day after a holiday? (Monday being Memorial Day)

(from City Construction Company): Since we didn't get answers to our last set of questions submitted on 5/7 and 5/14 I assume this project bid date will be postponed again?

**Answer#8:** Bid Opening Date was extended to June 12, 2013 by Addendum #1 and to June 26, 2013 by Addendum #2.

**Question#9:** I am sending you this e-mail in an effort to get Firestone Metal Products approved on the above referenced project on behalf of our certified installers. I have attached technical information sheets for each of the metal wall panels I am submitting for. Please let me know if you would like a list of local projects to see the products I have submitted to you so that you can review. I have listed below each metal panel I am submitting and their spec section.

Spec section 074213 – Formed Metal Wall and Soffit Panels

Basis of design = Profile Series IW Concealed Fastener Profile IW10-A

Submitting = Firestone UC-500 Flush Wall (TIS.2012.UC-500.3-15-2012.pdf)

Spec section 074216 – Insulated-core Metal Wall Panels

Basis of design = Centria Architectural Systems: Formawall Dimension Series 3.00

Submitting = Firestone Una-Foam Flat Series Insulated Wall Panel System (UNA-FOAM Flat TIS.pdf)

**Answer#9:** Both requests are rejected because insufficient information was provided for both. Formed Metal wall system is to be a complete system with all closures, plates and clips and sealants and the two page summary was insufficient. The insulated metal system data sheet only provided K values for thermal resistance. No R values were given or reference to ASTM 1363 for testing. Could not determine if the vertical or horizontal joints provided pressure equalization.

**Question#10:** Jeter Systems, a TAB Company is interested in bidding to the Contractor's on any High Density mobile systems and /or any Storage Shelving, File Shelving. From a preliminary viewing of the drawings, I see potential needs in the following rooms:

2nd Floor / Work Room 225, Storage 212A, Fenced Storage Area w/ Wire Mesh Partitions, Storage 224

3rd Floor / High Density 327

4th Floor / Evidence 424, Storage 423, Storage 451

5th Floor / Files 536, Storage 540, Storage 569, Work 515, Storage 514, Storage 537

Can you confirm that the above rooms include all for (sic) any storage needs, confirm the type of shelving (what media is to be stored, # of openings per unit, etc.) in the High Density Mobile system, and provide a list of Contractor bidders for me? If the purchase of any shelving, high density is to be ran directly through you, please let me know.

**Answer#10:** See Answer#2. Plus, eligible contractors/bidders list included as "Pre Bid Sign In Sheet" in Addendum #1. Specification Section 105626 Mobile Storage Shelving will be deleted in its entirety per Addendum No. 2. Owner will provide this unit.

**Question#11:** Specification 078123 Intumescent Paint lists rooms the steel is to receive this coating in. Room 201 is not listed and on the RCP this area is to have some exposed structure. Is this room to be added to the list?

**Answer#11:** Room SECOND FLOOR 201 is to have intumescent fireproofing and is added in Addendum 2.

**Question#12:** Specification 051200 1.05H requires the steel fabrication company to be AISC Certified. Will contractors be required to comply with this provision?

**Answer#12:** Yes, for quality control purposes of the steel fabrication, an AISC certification warrants a better probability that the steel fabricator is qualified for this project therefore contractors will be required to comply with this provision.

**Question#13:** Please help locate projection screens. They are specified in section 115213, however I am unable to locate on the drawings. Looked in floor plans, interior elevations, ceiling plans, finish plans. Also indicate which type go where and size(s).

**Answer#13:** The project has (1) electrically operated projection screen located in Conference Room 213. The screen is noted on the Ceiling Plan. The specification notes the type and size of the one screen.

**Question#14:** Drawing S5.2 detail 7 indicates that the column base plates are to be 1" thick, Note 8 on drawing S1.1 indicates that the column base plates are to be 1 ½" thick. Which is correct ?

**Answer#14:** The correct detail is shown on S-1.1 with a thickness of 1 ½". Detail 7/S-5.2 will be corrected by Addendum.

**Question#15:** Drawing S5.3 detail 4 indicates that the bent plate is to be 1 ¼" thick, Is this correct ?

**Answer#15:** Detail 4/s-5.3 is incorrect and is corrected in Addendum No. 2. The thickness is to be ¾".

**Question#16:** At the partition to the underside of the metal deck, please indicate if required a typical detail for this condition.

**Answer#16:** The Partition Wall Types shown on the Orientation Plan for each floor, A-1.1, A-1.2, A-1.3, A-1.4 and A-1.5 note a deflection track for all partitions that extend to deck.

**Question#17:** Can an ISC fabricator certification be waived if fabricator has successful track record completing equal or greater total structural steel scope of this project size?

**Answer#17:** We will require AISC Certification of the Steel Fabricator for this project. See Answer to Question 12.

**Question#18:** Will temporary fence supplied by site contractor remain on site for use by building contractor?

**Answer#18:** Temporary fence will be the responsibility of building contractor. Site contractor will be continuing to supply fence until such time that their contract with the Owner ends, at which time the Owner will maintain until contract award/issuance of the Notice to Proceed. See later Question#24 regarding contact information for site prep contractor (who could provide the name/information of temporary fence supplier currently being used onsite).

**Question#19:** Drawing S5.2 detail 7 indicates that the column base plates are to be 1" thick, Note 8 on drawing S1.1 indicates that the column base plates are to be 1 ½" thick. Which is correct ?

**Answer#19:** Reiteration of Question #14, See Answer #14

**Question#20:** Drawing S5.3 detail 4 indicates that the bent plate is to be 1 ¼" thick, Is this correct ?

**Answer#20:** Reiteration of Question#15, See Answer #15.

**Question#21:** At the CMU partition to the underside of the metal deck, please indicate if required a typical detail for this condition.

**Answer#21:** Detail will be added per Addendum No. 2

**Question#22:** Reference drawing A-1.5A Hall Rm. 508, Please identify whether this interior storefront is an SF01 or SF02.

**Answer#22:** This transom is to be Type SF01. This will issued in Addendum 2.

**Question#23:** Please provide the following information in regards to the High Density Storage System:

1. Height of the Shelving Units
2. Clear Opening per Shelf
3. Number of File Dividers per Shelf

**Answer#23:** Specification Section 105626 Mobile Storage Shelving will be deleted in its entirety per Addendum No. 2. Owner will provide this unit.

**Question#24:** Can you provide a list of the currently doing the site prep work for this project?

**Answer#24:** The Owner is currently under contract with Reclaim Company LLC, Fairmont, WV.

**Question#25:** I have attached a substitution request form, with supporting documents. My proposal is to add Polyisocyanurate Wall Insulation as an alternate to the Extruded Polystyrene Insulation being used. It is a more energy efficient product and will give the contractor an opportunity to choose a wall assembly that has a better fire-rating than those using extruded. (Carlisle Coatings & Waterproofing documentation attached to substitution request).

**Answer#25:** Polyisocyanurate Wall Insulation is an approved alternate for the specified cavity wall insulation. Thickness of insulation shall be the same as specified for the extruded polystyrene board.

**Question#26:** Attached is a request to substitute Kwik-Wall for the Fairmont Office Building project. Please let me know if you need any other information for the request (submitted by City Construction, documentation attached to question).

**Answer#26:** Kwik-Wall is approved for use on this project. See question #4.

**Question#27:** The basis of design Acoustical panels, specialty panels and trims for the above project would be considered high-end and higher-cost finishes. USG can provide straightforward, apples to apples, comparable crossover options for the basis of design specified materials. As the specification is written USG is not an approved manufacturer nor has any approved products. As this specification reads, USG is not in a position to provide project competitive bidding. Outlined below is the side by side, Basis of Design vs. USG crossover for this project. As you'll see, USG products are comparable to the basis of design products. Addendum approval for the below USG products, by product name and item number, allows USG to provide project competitive bidding for these higher-end finishes. (Request for Substitution submitted by USG, with attached documentation).

**Answer#27:**

ACT-1: Mars ClimaPlus 8678HRC by USG is approved.

ACT-2: Radar Ceramic ClimaPlus 56645 by USG is approved.

ACT-3: Halcyon Sound Shapes with ClimaPlus and Compasso Trim System by USG is approved.

ACT-4: Mars ClimaPlus 8678HRC with Compositions Decorative Cloud components by USG is approved.

ACT-5: Not approved, insufficient information on trim options and fiberglass infill.

**Question#28:** Multiple questions regarding High Density Storage system:

- 1) What is being stored? Should we assume letter size files?
- 2) How many shelf openings are required?
- 3) Will tops be needed on each shelving section?
- 4) Will the sides of each shelving section need to be "closed" or can the sides be open?
- 5) Would all shelving parts be "steel" or will wood shelves be acceptable?
- 6) Does the mobile equipment and the shelving have to be by the same manufacturer?
- 7) Will the floor covering for this equipment be by the equipment supplier or by the flooring contractor.

**Answer#28:** Specification Section 105626 Mobile Storage Shelving will be deleted in its entirety per Addendum No. 2. Owner will provide this unit.

**Question#29:** Questions all relate to mobile storage shelving on 3rd floor room 327, also spec section 105626:

1. What is being stored? Should we assume letter size files?
2. How many shelf openings are required?
3. Will tops be needed on each shelving section?
4. Will the sides of each shelving section need to be "closed" or can the sides be open?
5. Would all shelving parts be "steel" or will wood shelves be acceptable?
6. Are shelf dividers required? If so, how many are needed per opening?
7. Spacesaver does manufacture both Mobile components and shelving. Several of the other bidders use a separate shelving manufacturer, is this acceptable?
8. Spaceaver does not include carpet. However, it can be provide. Does the "floor covering" need to be included?

**Answer#29:** Specification Section 105626 Mobile Storage Shelving will be deleted in its entirety per Addendum No. 2. Owner will provide this unit.

**Question#30:** Will there be a specification issued for the remaining AV equipment such as projectors, audio equipment, control units, or VCT's?

**Answer#30:** This contract does not contain any projectors, audio equipment, control units or VCT's. there is (1) projection screen in Conference 213.

**Question#31:** Please confirm that there is only one projection screen and that it is located in room 213.

**Answer#31:** Yes, there is only (1) electric projection screen in the project in Conference 213.

**Question#32:** (Submitted under the subject, "Audio Visual") What type of relief do the plaques require, flat or bas?

**Answer#32:** The dedication plaque will be Flat Relief Plaque and the West Virginia State Seals will be Bas Relief plaques. This will be addressed in Addendum 2.

**Question#33:** Your ceiling tile/grid spec (095113) calls for Armstrong's #1912HRC Ultima tile for both ACT-1 and ACT-4, with 15/16" grid. The 1912 tile is a 9/16" tile. Armstrong's #1911 is the 15/16" equivalent. Could you please clarify if you want a 9/16" tile or a 15/16" tile?

**Answer#33:** The specification will be revised so that ACT 1 and 4 are for the 1911HRC by Armstrong.

**Question#34:** There seems to be a discrepancy in the winning bidder turning in their subcontractor and supplier list in one item it states one business day and in another it states ten days. Item #19 and item #24. Which is correct?

**Answer#34:** The subcontractor's list (RFQ Pages 18-19, Item#4) required within 24 hours of the bid opening by the apparent lowest bidder includes ONLY subcontractors proposed by the prime bidder to perform more than \$25,000.00 in work on the project. Section 1.06.A of the Instruction to Bidders seems to answer this question, stating "In addition to..." However, to clarify, the list required ten (10) days following award of contract is a complete list of ALL subcontractors (regardless of the amount of work intended) and ALL suppliers.

**Question#35:** The builders risk is not clearly outlined. It only states if applicable (sic). Unless otherwise noted I will assume that there is no builder's risk required on this project. Acord form not indicated.

**Answer#35:** Builders Risk insurance IS REQUIRED.

**Question#36:** At the prebid it was noted that the site is not accurate to the drawings due to the slides. It was thought this would be addressed in an addendum. Is this coming?

**Answer#36:** This issue will be addressed in Addendum #3.

**Question#37:** I cannot find anywhere in the documents how long the bid is to be held. 60 days, 90 days?

**Answer#37:**

**Question#38:** Will there be a building permit required? State owned property usually does not need a local permit.

**Answer#38:** A building permit is required by the local authorities, though it is at no cost.

**Question#39:** The unit prices on the bid form are not accurate with the spec section 012200 Unit Prices. Will there be a new bid form issued?

**Answer#39:** A new Proposal Form and a revised Sections 012200 and 361329 are provided with this Addendum to replace those originally issued.

**END OF TECHNICAL QUESTIONS AND ANSWERS**