

ABERDEEN MIDDLE SCHOOL
HVAC SYSTEMIC RENOVATION

ADDENDUM NO. 5

DATE: April 3, 2024

ENGINEER: Gipe Associates
1220 East Joppa Road, Suite 223
Baltimore, Maryland 21286
Phone: (410) 832-2420

OWNER: Harford County Public Schools

PROJECT: Aberdeen Middle School
HVAC Systemic Renovation
111 Mt. Royal Avenue
Aberdeen, Maryland 21001
Gipe Project No. 23043

TO: All Prospective Bidders

The following revisions and responses to questions are made to the original bid documents, dated February 26, 2024. This addendum forms a part of the Contract Documents and modifies the Original Solicitation Documents accordingly and as noted below. Acknowledge receipt of this Addendum in the space provided on the "Addenda" form within the Form of Proposal.

A. CHANGES TO SPECIFICATIONS

1. 00 03 00 - FORM OF PROPOSAL
BASE BID, Paragraph 2., Allowance No.2: add the following amount: \$65,000.
2. 01 21 00 – ALLOWANCES
**Paragraph 3.3.B:
Add the following amount: \$65,000.00.**
3. 08 33 33 – OVERHEAD COILING DOORS
See attached revised specification
4. 23 05 05 – HVAC PIPING, FITTINGS, VALVES
Paragraph 2.2.C.2.I. Coil Hook-up Connections: Add the following manufacturer: Griswold.
5. 23 06 00 – HEATING, VENTILATING & AIR CONDITIONING EQUIPMENT
Paragraph 2.7.A.6.: Add the following: Patterson.
6. 23 06 00 – HEATING, VENTILATING & AIR CONDITIONING EQUIPMENT
Paragraph 2.7.B.4.: Add the following: Patterson.
7. 27 51 23 – EDUCATIONAL INTERCOMMUNICATIONS AND PROGRAM SYSTEMS
ADD specification section, attached, in it's entirety.

B. CHANGES TO DRAWINGS

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1. AD101 – LOWER LEVEL DEMOLITION PLAN
See attached revised drawing AD101.
2. A104 – LOWER LEVEL REFLECTED CEILING PLAN
See attached revised drawing A104.
3. A601 – DOOR SCHEDULE AND FRAME DETAILS
See attached revised drawing A601.
4. S101 – UPPER LEVEL FRAMING PLAN-AREA F AND CHILLER PADS PLAN
Add project key plan at the bottom left of sheet.
5. S103 – ROOF FRAMING PLANS – AREA F
See attached revised drawing indicating some existing sizes.
6. S104 – ROOF FRAMING PLANS – AREA C
See attached revised drawing indicating some existing sizes.
7. S108 – ROOF FRAMING PLANS
Platform Framing at AHU-4 (New Work): Provide grating on the plan right side of the steel framing, similar to that on plan left.
8. S301 – TYPICAL DETAILS AND SECTIONS
See attached revised drawing S301.
9. MS001 – MECHANICAL SITE PLAN
Change the CW pipe size from the fire hydrant to the Modular Pre-Engineered Building from 2-1/2" to 6".
10. M203 – LOWER LEVEL AREA E – NEW WORK
See attached revised drawing.
11. **M206 – UPPER LEVEL AREA B – NEW WORK**
See attached revised drawing.
12. **M207 – UPPER LEVEL AREA C – NEW WORK**
Provide 4'X8' expansion loop in the HS/HR piping main just outside the Teachers Planning Room 22. Provide anchors and guides in accordance with ASHRAE.
13. **M211, M212, M213, M215, M216 – Miscellaneous Roof Plans.**
Add the following General Note:
Where there are 4 or more duct supports in a row, the two duct supports between the two end supports (of a four support group) shall be a non-penetrating hot-dipped galvanized Unistrut type support with polycarbonate bases. The non-penetrating supports shall not be used at locations in change of direction. The manufacturer shall provide two rubber pads and they shall be used on the roof between the polycarbonate base and the existing roof membrane. Do not adhere to the existing roof membrane. Support shall be equal to Unistrut Service Company.
14. **M211 thru M216 – Miscellaneous Roof Plans**
Add the following General Note:
If the gypsum deck is not suitable to attached to then provide (2) 1/8-inch thick galvanized steel plates and through bolt the deck for the ductwork supports, equipment rails, pipe supports and portals, etc. One plate shall be on the upper

surface of the gypsum deck and the other shall be on the bottom of the gypsum deck, hence sandwiching the gypsum deck. Mount the components to the upper galvanized steel plate. Provide a plate at each end of the component and 12-inches on-center.

15. **M212 – ROOF PLAN – AREA B – NEW WORK**

See attached revised drawing.

16. **M801 – CONTROLS**

Add the following General Note:

11. Where air handling units and DOAS units are provided with fan arrays, the contractor may provide a single air flow measuring station, in the associated ductwork, serving the individual fans.

17. **M901 – SCHEDULES**

AIR HANDLING UNIT/DOAS SCHEDULE

Change Supply Fan ESP to the following:

DOAS-1	2.00
DOAS-2	1.75
DOAS-3	2.00
DOAS-4	2.00
DOAS-5	1.75
AHU-1	1.25
AHU-2	1.5
AHU-3	1.5
AHU-4	1.25
AHU-5	1.25
AHU-6	1.25

18. **M901 – SCHEDULES**

AIR HANDLING UNIT/DOAS SCHEDULE

Change Return/Exhaust Fan ESP to the following:

DOAS-1	1.5
DOAS-2	1.25
DOAS-3	1.5
DOAS-4	1.5
DOAS-5	1.25
AHU-1	1.0
AHU-2	1.25
AHU-3	1.25
AHU-4	1.0
AHU-5	1.0
AHU-6	1.0

19. **M901 – SCHEDULES**

AIR HANDLING UNIT/DOAS SCHEDULE

Change the following Supply Air Fan Motor HP to the following

DOAS-2	15
DOAS-3	15

20. **M901 – SCHEDULES**

AIR HANDLING UNIT/DOAS SCHEDULE

Change the following Return/Exhaust Air Fan Motor HP to the following

DOAS-2	7.5
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DOAS-4 7.5

21. **M902 – SCHEDULES**
FAN SCHEDULE: Add the following:
No.: Fan-4
Service: Equipment Room Ventilation
Interlock: Tstat
Location: Equipment Room
Std Air CFM: 4,000
ESP: 0.60
HP: 1-1/2
RPM: 1145
Elect Char: 460/3/60
Fan Type: In-Line
Based on: BSQ-180 @ Min 70% Eff
22. **M902 – SCHEDULES**
FAN SCHEDULE: Add the following:
No.: Fan-5
Service: Equipment Room Exhaust
Interlock: Tstat
Location: Equipment Room
Std Air CFM: 4,000
ESP: 0.50
HP: 1-1/2
RPM: 1115
Elect Char: 460/3/60
Fan Type: In-Line
Based on: BSQ-180 @ Min 70%
23. **E101 THROUGH E110 – DEMOLITION DRAWINGS**
Add the following to General Note 4: "...Reterminate Wireless Access Point Cable to CAT 6e jack biscuits above ceiling and provide patch cables to equipment as required."

Revise General Note 16 to read: "Remove all existing PA speakers."
24. **E101, E102, E103, E105, E106, E107– DEMOLITION DRAWINGS**
Revise "RR Local Surface Mtd Speaker at Ceiling (Typ)" to "RX Local Surface Mtd Speaker at Ceiling (Typ)"
25. **E109 – UPPER LEVEL AREA E – DEMOLITION**
Add "RX Local Surface Mtd Speaker at Ceiling (Typ)" to wall mounted speakers in Gen. Shop 237.
26. **E301 – LOWER LEVEL AREA B – POWER**
Add a second PA speaker in Biology 133, Science 134, Science 130, Student Activity 3 138, Science 138, Biology 142.

Add patch panel(s) in ex IDF rack in Biology Work Room 135 for terminating speaker cabling.

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27. **E302 – UPPER LEVEL AREA C – POWER**
Add a PA speaker in Classroom 120. Biology 133, Science 134, Science 130, Student Activity 3 138, Science 138, Biology 142.
28. **E303 – UPPER LEVEL AREA C – POWER**
Add a second PA speaker in Band 147, Cooking 150, and Sewing 152.
29. **E305 – UPPER LEVEL AREA A – POWER**
Add a PA speaker at curve in stairway adjacent to Classroom 207.
30. **E306 – UPPER LEVEL AREA B – POWER**
Add a projector high and projector low drop in Media center 231 on south wall on opposite side from Microfilm 231C.

Add patch panel(s) in ex IDF rack in TV Control TV for terminating speaker cabling.
31. **E307 – UPPER LEVEL AREA C – POWER**
Add PA speakers at curve in stairways adjacent to Classroom 220 and near Teachers Planning TP-22.
32. **E309 – UPPER LEVEL AREA E – POWER**
Add patch panel(s) in ex IDF rack in Office 236B for terminating speaker cabling.
33. **E310 – UPPER LEVEL AREA F – POWER**
Add PA speakers at curve in stairways on either side of Gymnasium S-29.

Add horn type speakers in Gym & Mech Equipment S-35 and S-36 adjacent door at column 29.
34. **E608 – SCHEDULES**
Revise Mechanical Equipment Connection Schedule DOAS-2 and DOAS-3 SAF's from "20HP" to "15HP" and RAF's from "10HP" to "7.5HP. "
35. **E702 – DETAILS**
Revise per attached Drawing

C. RFI QUESTIONS, ANSWERS AND CLARIFICATIONS

1. Is the new system an IP based PA system or analog? There is a significant difference in the wiring requirements.

An IP based PA system is to be provided. Refer to addendum for additional information.
2. Are call switches or new phones required for the new PA system?

No. Owner will provide phone equipment. No call switches are required.
3. Is there a preferred vendor and manufacturer that HCPS will be utilizing? We will need to procure the speakers from this vendor and coordinate the installation with them.

Aaron Fegely, Symtech Solutions at 703-819-4948.

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4. Addendum #4 states that the existing system is Rauland but we believe it is Dukane. Which is correct? This information is needed for the renovation work and the added wiring in the portable trailers.

An IP based PA system is to be provided. Refer to addendum for additional information.

D. ATTACHMENTS

1. 08 33 00 – OVERHEAD COILING DOORS
2. 27 51 23 – EDUCATIONAL INTERCOMMUNICATIONS AND PROGRAM SYSTEMS
3. AD101 – LOWER LEVEL DEMOLITION PLAN
4. A104 – LOWER LEVEL REFLECTED CEILING PLAN
5. A601 – DOOR SCHEDULE AND FRAME DETAILS
6. S103 – ROOF FRAMING PLANS – AREA A
7. S104 - ROOF FRAMING PLANS – AREA C
8. S301 – TYPICAL DETAILS AND SECTIONS
9. M206 – UPPER LEVEL – AREA B – NEW WORK
10. M203- LOWER LEVEL AREA E-NEW WORK
11. M212 – ROOF PLAN – AREA B – NEW WORK
12. E702 - DETAILS

END OF ADDENDUM NO. 5

SECTION 275123 - EDUCATIONAL INTERCOMMUNICATIONS AND PROGRAM SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes the installation of new speakers for connection to the HCPS furnished public address system. The system shall operate in dual mode for connection to analog and digital IP speakers to accommodate the project phasing. Provide all components as required for full system integration, including but not limited to:
 - 1. Loudspeakers/speaker.
 - 2. Gateways
 - 3. Conductors and cables.
 - 4. Raceways.
 - 5. Local Area Network (LAN): Expansion of existing system with new 48-port CAT 6 patch panel in each IDF rack with patch cables.
- B. Related Requirements:
 - 1. Section 271500 "Data, Voice, and Video Systems" for cabling used for voice and data circuits.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: For educational intercommunications and program systems.
 - 1. Include plans, elevations, sections, and mounting/attachment details.
 - 2. Include details of equipment assemblies. Indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
 - 3. Include diagrams for power, signal, and control wiring.
 - a. Identify terminals to facilitate installation, operation, and maintenance.
 - b. Single-line diagram showing interconnection of components.
 - c. Cabling diagram showing cable routing.

1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For **Installer**.
- B. Field quality-control reports.

1.5 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For educational intercommunications and program systems to include in operation and maintenance manuals. In addition to items specified in Section 017823 "Operation and Maintenance Data," include the following:
 - 1. A record of final matching transformer-tap settings and signal ground-resistance measurement certified by Installer.
 - 2. Plans, drawn to scale, indicating location, designation, and connection of intercommunications system components.
- B. Software and Firmware Operational Documentation:
 - 1. Device address list.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: An authorized representative who is trained and approved by manufacturer.
- B. Testing Agency Qualifications: Qualified agency, with the experience and capability to conduct testing indicated.
 - 1. Testing Agency's Field Supervisor: Certified by NICET as Audio Systems Level II Technician.

1.7 COORDINATION

- A. Coordinate layout and installation of ceiling-mounted speaker microphones and suspension system with other construction that penetrates ceilings or is supported by them, including light fixtures, HVAC equipment, fire-suppression system, and partition assemblies.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Provide solution compatible with PA system headend to be provided by owner.

2.2 SYSTEM DESCRIPTION

- A. Equipment: Modular type using solid-state components, fully rated for continuous duty unless otherwise indicated. Select equipment for normal operation on input power usually supplied at 110 to 130 V, 60 Hz in a satisfactory manner without the requirement of any external power conditioning equipment. Comply with UL 813.
- B. Integration: Coordinate features and select components to form an integrated system. Match components and interconnections for optimum performance of specified functions.
- C. Local Area Network: The system will utilize a LAN for the connectivity of all devices and components within the facility for the transmission of electronic data. The LAN will be an expansion to the existing in support of the intercommunication system as dictated by the project design documents.
- D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for location and application.
- E. Weather-Resistant Equipment: Listed and labeled by an NRTL for duty outdoors or in damp locations.

2.3 SPEAKERS

- A. Provide two-way IP lay-in 2'x 2' ceiling speakers with microphone throughout in Classrooms, Offices, Conference Rooms, Resource Rooms, etc. unless otherwise noted. Provide Three-Sixty TQIP-40TB.
- B. Provide Three-Sixty TQS12/8 5oz, 5W, 8 ohm supplemental 2'x2' ceiling speakers where more than one speaker is indicated in classrooms, etc. Provide in corridors, lobby, and public restrooms with one IP-AMP1 SIP/Multi-cast interface for every four speakers.
- C. Wall mount speakers shall be Three-Sixty TQS6IP with backbox, grill with IP-AMO SIP/Multi-cast interface.
- D. Provide Atlas GA-15T horn type speaker for HP type speakers, with IP-AMP1 SIP/Multi-cast interface.

2.4 IP ADDRESSABLE MODULES

- A. Modules utilized for the operation of the intercommunication and paging functions.
 - 1. POE 802.3af compliant.
 - 2. Support DHCP.
 - 3. RJ45 connectivity.
- B. Speaker Modules:

1. Provide Three-Sixty IP-AMP1 SIP/Multi-cast interface where required.
2. Interface with speaker and multiple call switches.
3. Capable of providing privacy function for speaker/microphone when activated.
4. Rated for installation within air plenum spaces.

2.5 CONDUCTORS AND CABLES

- A. Conductors: Jacketed, twisted pair and twisted multipair, untinned solid copper. Sizes as recommended by system manufacturer, but no smaller than No. 22 AWG.
- B. Insulation: Thermoplastic, not less than 1/32 inch (0.8 mm) thick.
- C. Shielding: For speaker-microphone leads and elsewhere where recommended by manufacturer; No. 34 AWG, tinned, soft-copper strands formed into a braid or equivalent foil.
 1. Minimum Shielding Coverage on Conductors: 60 percent.
- D. Plenum Cable: Listed and labeled for plenum installation.

2.6 RACEWAYS

- A. Educational Intercommunication and Program System Raceways and Boxes: Comply with requirements in Section 260533 "Raceways and Boxes for Electrical Systems."
- B. Educational Intercommunication and Program System Raceways and Boxes:
 1. Raceways: Surface metal raceways, Legrand Wiremold series 2400 or approved equal.
 2. Boxes:
 - a. Galvanized steel.
 3. Faceplates:
 - a. Provide compatible faceplates, configuration as required to accommodate outlets indicated.
 4. Outlet boxes shall Legrand Wiremold V2444-2 2444-2FW extra deep device box (2 3/4"), or approved equal.
- C. Flexible metal conduit is prohibited.

PART 3 - EXECUTION

3.1 WIRING METHODS

- A. Wiring Method: Install cables in raceways and cable trays except within consoles, cabinets, desks, and counters, and except in accessible ceiling spaces and in gypsum board partitions where unenclosed wiring method may be used. Conceal raceway and cables except in unfinished spaces.
 - 1. Install plenum cable in environmental air spaces, including plenum ceilings.
 - 2. Comply with requirements for raceways and boxes specified herein and in Section 260533 "Raceways and Boxes for Electrical Systems."
- B. Wiring within Enclosures: Bundle, lace, and train cables to terminal points with no excess and without exceeding manufacturer's limitations on bending radii. Install lacing bars and distribution spools.

3.2 INSTALLATION OF RACEWAYS

- A. Comply with requirements in Section 260533 "Raceways and Boxes for Electrical Systems" for installation of conduits and wireways.
- B. Install manufactured conduit sweeps and long-radius elbows whenever possible.

3.3 INSTALLATION OF CABLES

- A. Comply with NECA 1.
- B. General Requirements:
 - 1. Terminate conductors; no cable shall contain unterminated elements. Make terminations only at outlets and terminals.
 - 2. Splices, Taps, and Terminations: Arrange on numbered terminal strips in junction, pull, and outlet boxes; terminal cabinets; and equipment enclosures. Cables may not be spliced.
 - 3. Secure and support cables at intervals not exceeding 30 inches (760 mm) and not more than 6 inches (150 mm) from cabinets, boxes, fittings, outlets, racks, frames, and terminals.
 - 4. Bundle, lace, and train conductors to terminal points without exceeding manufacturer's limitations on bending radii. Install lacing bars and distribution spools.
 - 5. Do not install bruised, kinked, scored, deformed, or abraded cable. Do not splice cable between termination, tap, or junction points. Remove and discard cable if damaged during installation and replace it with new cable.
 - 6. Cold-Weather Installation: Bring cable to room temperature before dereeling. Heat lamps shall not be used.

C. Open-Cable Installation:

1. Install cabling with horizontal and vertical cable guides in telecommunication spaces with terminating hardware and interconnection equipment.
2. Suspend cable not in a wireway or pathway a minimum of 8 inches (200 mm) above ceiling by cable supports not more than 60 inches (1524 mm) apart.
3. Cable shall not be run through structural members or be in contact with pipes, ducts, or other potentially damaging items.

- D. Separation of Wires: Separate speaker-microphone, line-level, speaker-level, and power wiring runs. Install in separate raceways or, where exposed or in same enclosure, separate conductors at least 12 inches (300 mm) apart for speaker microphones and adjacent parallel power and telephone wiring. Separate other intercommunication equipment conductors as recommended by equipment manufacturer.

3.4 INSTALLATION

- A. Match input and output impedances and signal levels at signal interfaces. Provide matching networks where required.
- B. Identification of Conductors and Cables: Color-code conductors and apply wire and cable marking tape to designate wires and cables so they identify media in coordination with system wiring diagrams.
- C. Weatherproof Equipment: For units that are mounted outdoors, in damp locations, or where exposed to weather, install consistent with requirements of weatherproof rating.
- D. Connect wiring according to Section 260519 "Low-Voltage Electrical Power Conductors and Cables."

3.5 GROUNDING

- A. Ground cable shields and equipment to eliminate shock hazard and to minimize ground loops, common-mode returns, noise pickup, cross talk, and other impairments.
- B. Signal Ground Terminal: Locate at main equipment cabinet. Isolate from power system and equipment grounding.

3.6 FIELD QUALITY CONTROL

- A. Perform tests and inspections with the assistance of a factory-authorized service representative:
- B. Tests and Inspections:
 1. Schedule tests at least seven days' advance notice of test performance at the end of each phase of construction.

2. After installing educational intercommunications and program systems and after electrical circuitry has been energized, test for compliance with requirements.
- C. Inspection: Verify that units and controls are properly labeled and interconnecting wires and terminals are identified. Prepare a list of final tap settings of paging and independent room speaker-line matching transformers.
- D. Prepare test and inspection reports.

END OF SECTION

1. UNLESS NOTED OTHERWISE, GYPSUM BULKHEADS TO BE 3 5/8" METAL STUDS AT 16" O/C WITH 8" GWS EACH SIDE, EXTENDING MIN 2" BELOW ADJACENT CEILING.
2. CEILING GRID SHALL BE COORDINATED WITH MEP EQUIPMENT AND DEVICES.
3. ALL EXISTING INTERIOR BULKHEADS TO BE PAINTED PRIOR TO THE INSTALLATION OF NEW CEILING SYSTEM.
4. ALL CEILINGS SHALL BE INSTALLED AT THE EXISTING HEIGHT OF 9' - 4" +/- UNLESS NOTED OTHERWISE
5. PAINT EXISTING INTERIOR BULKHEADS, TYPICAL.

2' X 4' SUSPENDED CEILING SYSTEM

EXISTING GYPSUM SOFFIT

GYPSUM CEILING SYSTEM

2' X 4' SUSPENDED CEILING SYSTEM - KITCHEN ZONE

LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS

DIFFUSER, SEE MEP DRAWINGS

ROLLER SHADE - MANUAL

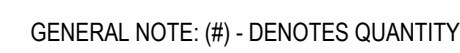
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WO# 23043	
PROJECT MANAGER	S. WENTZ
DESIGNER	C. LIMBERT
DATE	2/26/2024

BID DOCUMENTS

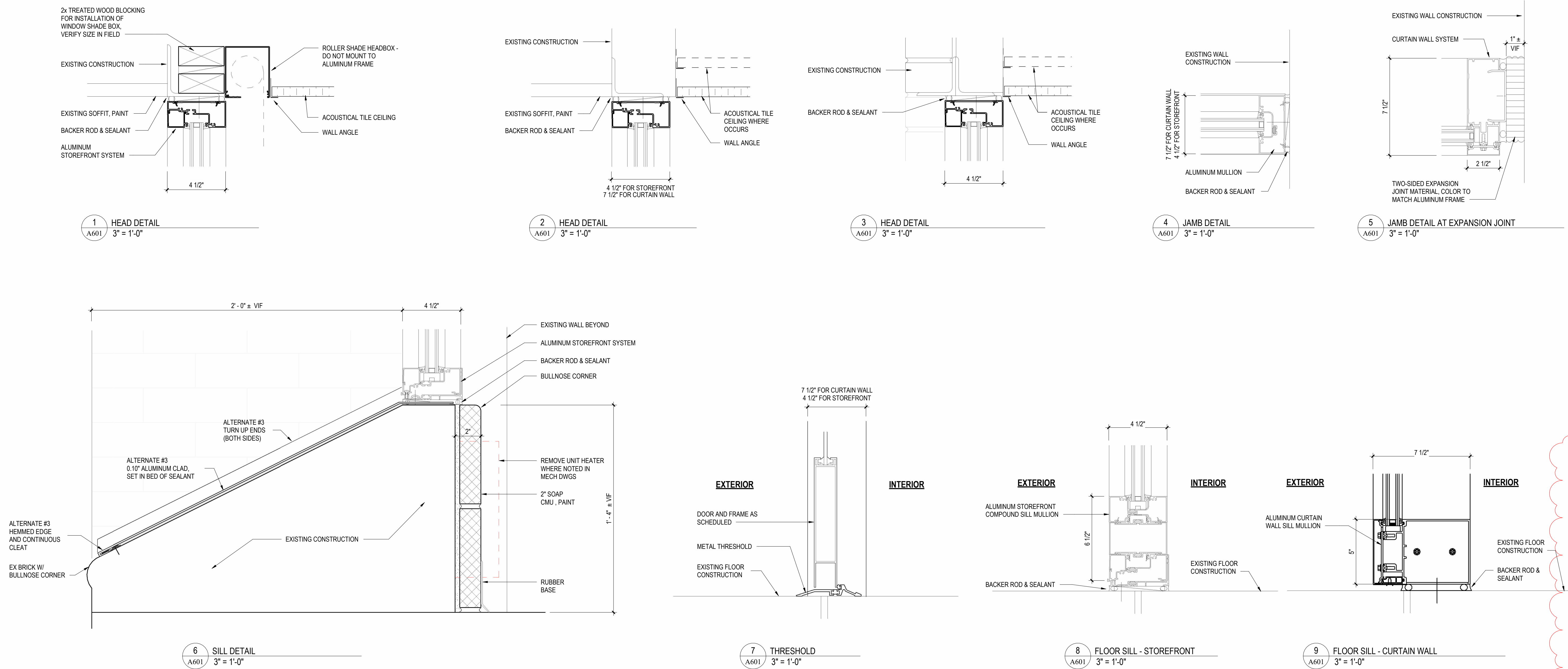
PSC-12.006

3 OVERALL MECHANICAL ROOM CEILING PLAN
A104 1/16" = 1'-0"

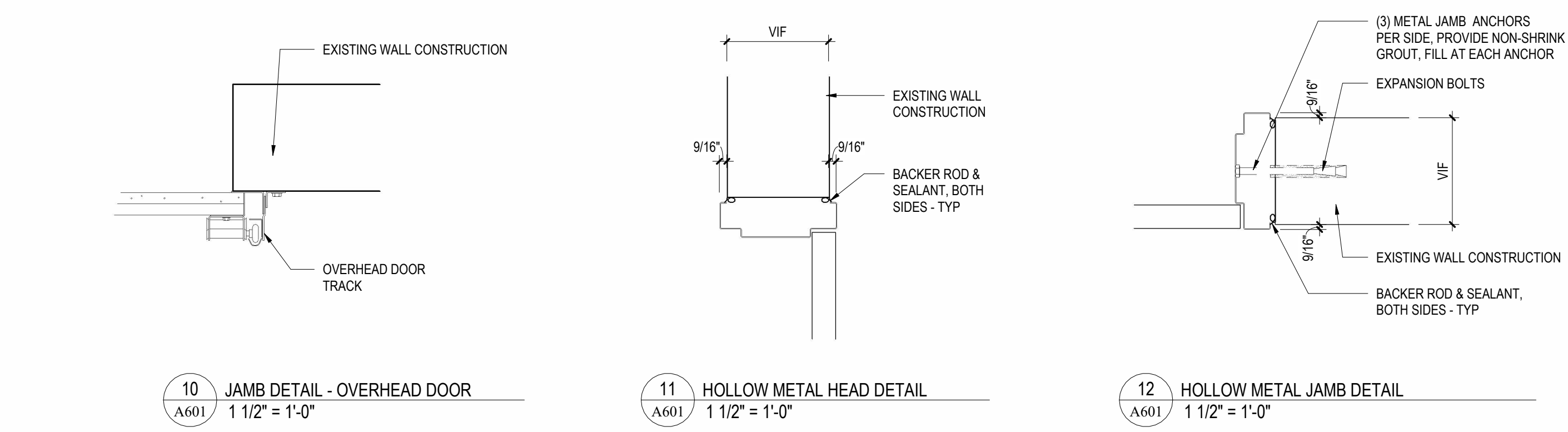


1 LOWER LEVEL REFLECTED CEILING PLAN
A104 1/16" = 1'-0"

ALUMINUM FRAME DETAILS

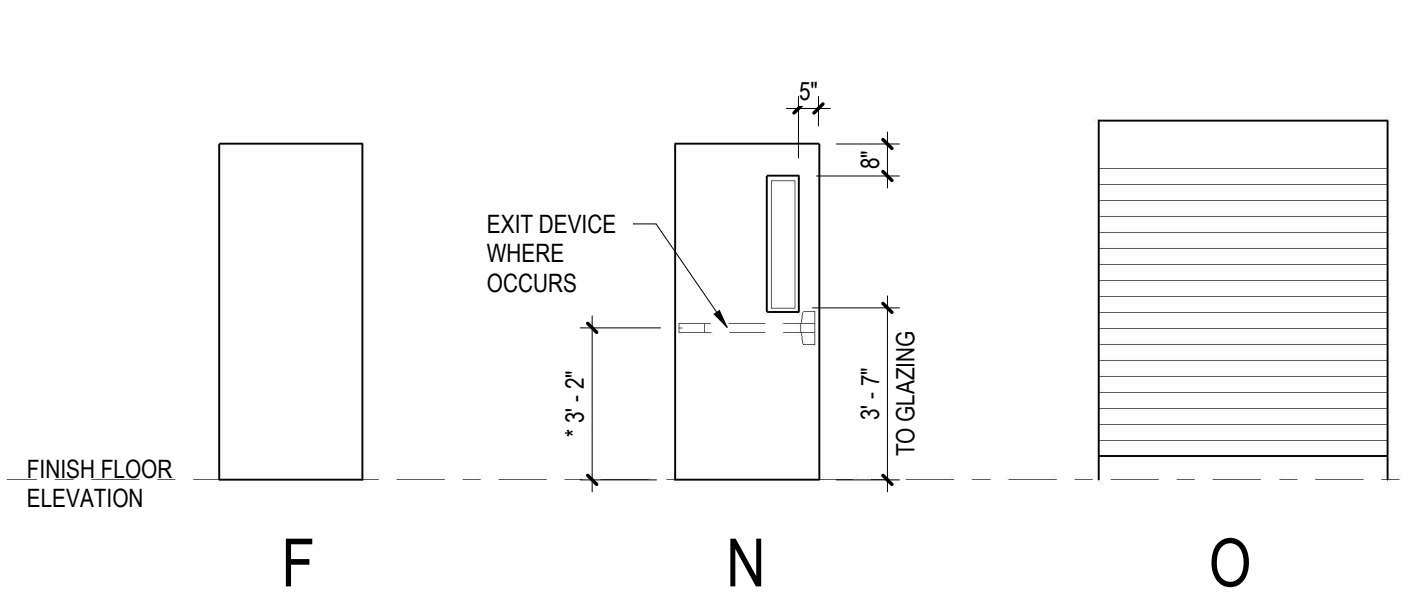


OTHER METAL FRAME DETAILS

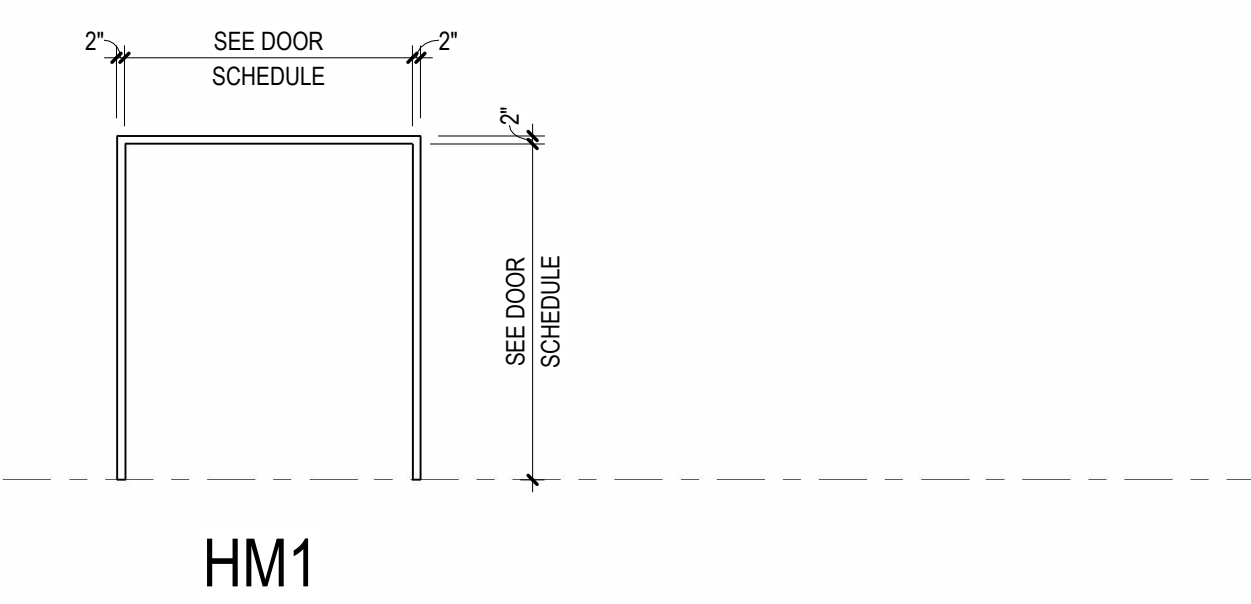


DOOR TYPES

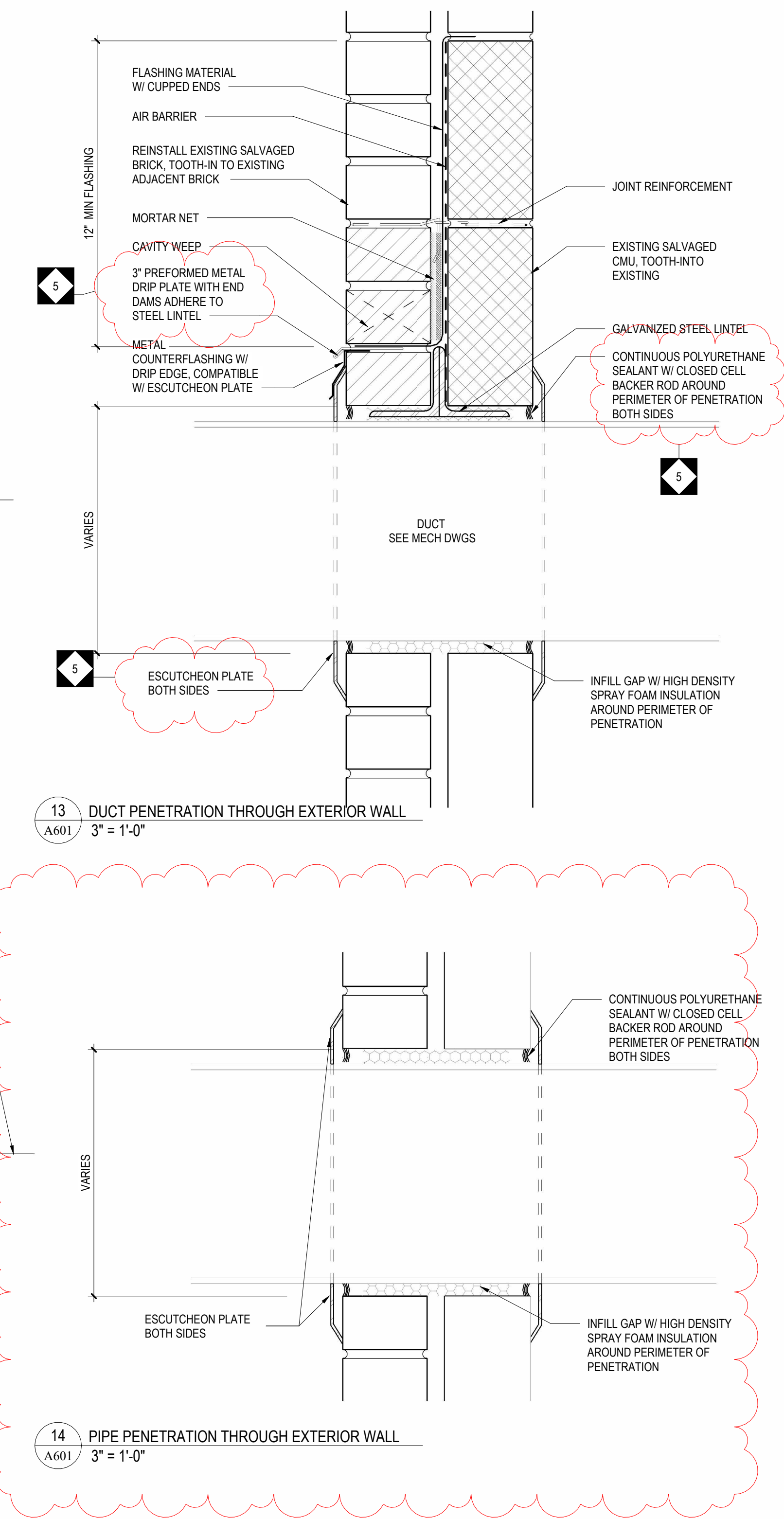
* - RECOMMENDED MOUNTING HEIGHT FROM FINISHED FLOOR TO CENTER LINE OF FIRE EXIT DEVICE
** - COORDINATE WITH DOOR MANUFACTURE REQUIREMENTS




HOLLOW METAL FRAME TYPES



DUCT PENETRATION DETAIL



DOOR SCHEDULE													
OPENING NUMBER	DOOR TYPE	DOOR MATERIAL	GLAZING TYPE	DOOR				FRAME		FRAME		HARDWARE SET	REMARKS
				DIMENSIONS				FRAME TYPE	FRAME MATERIAL	DETAILS			
				LEAF 1	LEAF 2	HEIGHT	THICKNESS			HEAD	JAMB		
LOWER LEVEL													
102B	F	IM	-	3'-0"	3'-0"	7'-2"	1 3/4"	A2	ALUM	SEE FRAME ELEV	SEE FRAME ELEV	EXT-01	
102C	F	IM	-	3'-0"	3'-0"	7'-2"	1 3/4"	A2	ALUM	SEE FRAME ELEV	SEE FRAME ELEV	EXT-01	
102CD	F	IM	-	3'-0"	3'-0"	7'-0"	1 3/4"	W4	ALUM	SEE FRAME ELEV	SEE FRAME ELEV	EXT-02	CARD READER
106A	F	IM	-	3'-0"	2'-4"	7'-0"	1 3/4"	W2	ALUM	3/A602	4/A602	EXT-03	
106B	F	IM	-	3'-0"	2'-4"	7'-0"	1 3/4"	W2	ALUM	3/A602	4/A602	EXT-03	
113	F	IM	-	3'-0"		7'-0"	1 3/4"	W2	ALUM	3/A602	4/A602	EXT-04	
114	F	IM	-	3'-0"		7'-0"	1 3/4"	W2	ALUM	3/A602	4/A602	EXT-04	
123	F	IM	-	3'-0"		7'-0"	1 3/4"	W2	ALUM	3/A602	4/A602	EXT-04	
124	F	IM	-	3'-0"		7'-0"	1 3/4"	W2	ALUM	3/A602	4/A602	EXT-04	
130	F	IM	-	3'-0"	3'-0"	7'-2"	1 3/4"	A1	ALUM	SEE FRAME ELEV	SEE FRAME ELEV	EXT-02	CARD READER
137	F	IM	-	3'-0"	3'-0"	7'-2"	1 3/4"	A1A	ALUM	SEE FRAME ELEV	SEE FRAME ELEV	EXT-01	CARD READER
155	F	IM	-	3'-0"	2'-4"	7'-0"	1 3/4"	W2	ALUM	3/A602	4/A602	EXT-06	
165	O	STL	-	10'-0"		9'-4"		-	-	10/A602	--	EXT-05	
166A	F	IM	-	3'-0"	2'-4"	7'-0"	1 3/4"	W2	ALUM	3/A602	4/A602	EXT-06	
166B	F	IM	-	3'-0"	2'-4"	7'-0"	1 3/4"	W2	ALUM	3/A602	4/A602	EXT-06	
170	F	HM	-	3'-0"	3'-0"	7'-0"	1 3/4"	HM1	HM	11/A602	12/A602	EXT-07	
B-14B	F	IM	-	3'-0"		7'-0"	1 3/4"	W2	ALUM	3/A602	4/A602	EXT-09	
G-14B	F	IM	-	3'-0"		7'-0"	1 3/4"	W2	ALUM	3/A602	4/A602	EXT-09	
M-4A	F	IM	-	3'-0"	3'-0"	7'-0"	1 3/4"	W8	ALUM	SEE FRAME ELEV	SEE FRAME ELEV	EXT-01	
M-4B	F	IM	-	3'-4"		7'-0"	1 3/4"	W3	ALUM	3/A602	4/A602	EXT-04	
M-4C	F	IM	-	3'-0"		7'-0"	1 3/4"	W2	ALUM	3/A602	4/A602	INT-01	
S-24	O	STL	-	10'-0"		9'-4"		-	-	10/A602	--	EXT-05	
													
UPPER LEVEL													
201BA	F	IM	-	3'-0"	3'-0"	7'-0"	1 3/4"	W6	ALUM	SEE FRAME ELEV	SEE FRAME ELEV	EXT-02	CARD READER AND A-PHONE
201BB	F	IM	-	3'-0"	3'-0"	7'-0"	1 3/4"	W6	ALUM	SEE FRAME ELEV	SEE FRAME ELEV	EXT-01.1	
201BC	F	IM	-	3'-0"	3'-0"	7'-0"	1 3/4"	W6	ALUM	SEE FRAME ELEV	SEE FRAME ELEV	EXT-01.1	
201C	F	IM	-	3'-0"	3'-0"	7'-0"	1 3/4"	W4	ALUM	SEE FRAME ELEV	SEE FRAME ELEV	EXT-02	CARD READER
202	F	IM	-	3'-0"	3'-0"	7'-0"	1 3/4"	W4	ALUM	SEE FRAME ELEV	SEE FRAME ELEV	EXT-01	
203	F	IM	-	3'-0"		7'-0"	1 3/4"	W2	ALUM	3/A602	4/A602	EXT-04	
204	F	IM	-	3'-0"		7'-0"	1 3/4"	W2	ALUM	3/A602	4/A602	EXT-04	
235	F	IM	-	3'-0"	3'-0"	7'-0"	1 3/4"	W2	ALUM	2/A602	4/A602	EXT-06	
236	F	IM	-	3'-0"	3'-0"	7'-0"	1 3/4"	W2	ALUM	2/A602	4/A602	EXT-06	
237	F	IM	-	3'-0"	3'-0"	7'-0"	1 3/4"	W2	ALUM	2/A602	4/A602	EXT-06	
241	F	IM	-	3'-0"	3'-0"	7'-0"	1 3/4"	W6	ALUM	SEE FRAME ELEV	SEE FRAME ELEV	EXT-01	
243D	N	IM	IG	3'-0"	2'-4"	7'-0"	1 3/4"	W2	ALUM	2/A602	4/A602	EXT-03	DOORBELL
245	F	IM	-	2'-8"		7'-0"	1 3/4"	W2	ALUM	2/A602	4/A602	EXT-08	LOUVER @ TRANSOM

DOOR SCHEDULE NOTES:
1. ALL DIMENSIONS TO BE VERIFIED IN FIELD.
2. REFER TO SHEET A602 FOR ALUMINUM FRAME TYPES

REVISIONS

NO.	DATE	DESCRIPTION
1	9/5/2024	
2	4/3/2024	

PROFESSIONAL CERTIFICATION:

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE No. 8490, EXPIRATION DATE: 03/04/2025.

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WO# 23043

PROJECT MANAGER

S. WENTZ

DESIGNER

C. LIMBERT

DATE

2/26/2024

DOOR SCHEDULE AND FRAME DETAILS

HARFORD COUNTY PUBLIC SCHOOLS - ABERDEEN MIDDLE SCHOOL
HVAC SYSTEMIC RENOVATIONS
111 MT ROYAL AVE, ABERDEEN, MARYLAND 21001.

BID DOCUMENTS

A601

PS-C.1006

ALTERATION LEGEND	
TAG	REMARK
1	REMOVE UNIT HEATER SILL AT WINDOW SILL. SEE MECHANICAL DEMOLITION NOTES
2	REMOVE EXTERIOR FRAME SYSTEM (STOREFRONT, CURTAIN WALL, ETC), DOOR AND/ OR WINDOW, ALL ASSOCIATED GLAZING, HARDWARE IN THEIR ENTIRETY. PREPARE EXISTING OPENING FOR INSTALLATION OF NEW FRAME AS SCHEDULED.
3	REMOVE AND SALVAGE CARD READER FOR REINSTALLATION
4	REMOVE OVERHEAD DOOR, TRACK, HOUSING, AND ALL ASSOCIATED COMPONENTS. PREPARE EXISTING OPENING FOR INSTALLATION OF NEW FRAME AS SCHEDULED.
5	REMOVE FOLDING PARTITION TRACK, AND ALL ASSOCIATED COMPONENTS. PATCH AND REPAIR EXISTING SURFACES TO MATCH ADJACENT EXISTING CONDITIONS.
6	REMOVE SUSPEND CEILING SYSTEM IN ITS ENTIRETY, INCLUDING CEILING PANELS, GRID, WALL ANGLES, AND SUSPENSION COMPONENTS SO THAT THE EXISTING STRUCTURE ABOVE IS COMPLETELY EXPOSED. COORDINATE WITH M/E/P DOCUMENTS FOR ADDITIONAL REQUIREMENTS.
7	REMOVE LIGHT WELLS, SIDE PARTITIONS IN THEIR ENTIRETY
8	REMOVE GYPSUM CEILING SYSTEM, BULKHEADS & ASSOCIATED FRAMING, AND LIGHT TROUGHS IN THEIR ENTIRETY
9	REMOVE GYPSUM CEILING SYSTEM, BULKHEADS & ASSOCIATED FRAMING, SUSPENDED CEILING SYSTEMS, AND LIGHT TROUGHS IN THEIR ENTIRETY
10	REMOVE SUSPENDED CEILING SYSTEM, BULKHEADS & ASSOCIATED FRAMING AND LIGHT TROUGHS IN THEIR ENTIRETY

GENERAL DEMOLITION NOTES:

D1. DASHED LINES INDICATE GENERAL EXISTING CONSTRUCTION TO BE REMOVED. GENERAL CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITIONS RELATING TO THE DEMOLITION REQUIRED FOR INSTALLATION OF NEW CONSTRUCTION SHOWN ELSEWHERE.

D2. SEE STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR OTHER DEMOLITION WORK REQUIRED. ANY DEMOLITION OF MECHANICAL, ELECTRICAL, OR PLUMBING EQUIPMENT SHOWN ON THESE DRAWINGS, IS FOR COORDINATION ONLY. COORDINATE ALL WORK BY OTHER CONTRACTORS INCLUDING CAPPING AND DISCONNECTING OF BUILDING SERVICES SUCH AS WATER, WASTE, ELECTRIC, DUCTWORK, ETC.

D3. BEFORE DEMOLITION AND THROUGHOUT CONSTRUCTION, CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW WITH OWNER'S REPRESENTATIVE ALL ITEMS BEING REMOVED BY THEIR TRADES. ALL ITEMS DESIGNATED DURING THIS REVIEW TO REMAIN OWNER'S PROPERTY, SHALL BE MAINTAINED IN GOOD CONDITION AND TURNED OVER TO OWNER. ALL ITEMS DESIGNATED TO BE REUSED AS PART OF NEW CONSTRUCTION SHALL BE MAINTAINED IN A REUSABLE CONDITION AND STORED ON SITE BY CONTRACTOR IN A CLEAN, DRY LOCATION UNTIL INSTALLATION. ALL REMAINING ITEMS AND MATERIALS DEEMED TO BE TRASH SHALL BE DISPOSED OF PROPERLY BY LAW, OFF SITE BY THE RESPONSIBLE CONTRACTOR.

D4. EXISTING CONDITIONS AS THEY APPEAR IN THESE CONTRACT DOCUMENTS MAY VARY WITH ACTUAL CONDITIONS BECAUSE OF WORK PERFORMED WITH OWNER'S STAFF AND BY OTHER CONTRACTORS (I.E. ASBESTOS ABATEMENT CONTRACTOR) PRIOR TO CONTRACT. PORTIONS OF DEMOLITION WORK MAY BE INCLUDED IN THE SCOPE OF WORK OF ANOTHER CONTRACT AND NOT PART OF THIS PROJECT. GENERAL CONTRACTOR SHALL VERIFY THE ACTUAL SCOPE OF DEMOLITION IN THEIR CONTRACT PRIOR TO SUBMITTING A BID.

D5. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL EXISTING BUILDING DIMENSIONS AND CONDITIONS, INCLUDING FINISHES AND MATERIALS, SYSTEMS SHOWN AND DESIGNATED AS EXISTING ON CONTRACT DRAWINGS PRIOR TO STARTING DEMOLITION AND CONSTRUCTION. ANY DISCREPANCIES IN INFORMATION INDICATED ON CONTRACT DRAWINGS SHALL BE DIRECTED IN WRITING TO THE ATTENTION OF THE ARCHITECT PRIOR TO STARTING OF DEMOLITION AND CONSTRUCTION. VERIFICATION OF CLEARANCES REQUIRED FOR ALL NEW EQUIPMENT, PIPING, DUCTWORK AND RELATED COMPONENTS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

D6. DEMOLITION WORK SHOWN ON THE DEMOLITION CONTRACT DRAWINGS SHALL BE FOR THE BUILDING RECEIVING MAJOR DEMOLITION WORK, AND DOES NOT REPRESENT THE DEMOLITION FOR THE PROJECT IN ITS ENTIRETY. REFER TO CONTRACT DRAWINGS FOR ADDITIONAL DEMOLITION WORK, IF ANY, FOR EACH ROOM OR BUILDING COMPONENT.

D7. OWNER RESERVES THE RIGHT TO SALVAGE AND REMOVE ANY EXISTING ITEMS BEFORE START OF DEMOLITION WORK.

D8. DEMOLITION DRAWINGS INDICATE FLOOR SLAB AND ROOF AREAS TO BE SELECTIVELY REMOVED. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR ANY SAWCUTTING AND PATCHING OF CONCRETE SLABS THAT NEEDS TO OCCUR AS PART OF THEIR WORK. IN ADDITION, REFER TO STRUCTURAL DRAWINGS FOR SAWCUTTING AND PATCHING THAT NEEDS TO OCCUR TO ACCOMMODATE INSTALLATION OF NEW FOOTINGS, PIERS ETC.

D9. GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY EXISTING LOAD BEARING WALLS AND PROVIDE TEMPORARY SHORING AND SUPPORT UNTIL NEW STRUCTURE CAN BE INSTALLED.

GENERAL ALTERATION NOTES:

R1. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION AND RECORDING OF ALL EXISTING BUILDING DIMENSIONS AND CONDITIONS RELATED TO THE WORK, INCLUDING BUT NOT LIMITED TO FINISHES, MATERIALS AND SYSTEMS SHOWN, AND DESIGNATED AS EXISTING IN CONTRACT DOCUMENTS. ANY DISCREPANCIES FROM INFORMATION INDICATED ON CONTRACT DOCUMENTS SHALL BE DIRECTED TO THE ATTENTION OF THE ARCHITECT. VERIFICATION OF CLEARANCES REQUIRED FOR ALL NEW EQUIPMENT, PIPING, DUCTWORK, AND RELATED COMPONENTS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

R2. CONTRACTORS IS RESPONSIBLE TO REVIEW WITH THE OWNERS REPRESENTATIVE, ALL ITEMS REQUIRING REMOVAL BEFORE THE START OF WORK. OWNER RESERVES THE RIGHT TO SALVAGE ANY ITEM. ALL REMAINING ITEMS SHALL BE DISPOSED OF OFF SITE.

R3. WHERE EXISTING WALL OPENINGS ARE INDICATED TO BE CLOSED, USE MATERIALS AND FINISHES TO MATCH ADJACENT EXISTING FINISHES. MASONRY SHALL BE TOOTHED INTO THE EXISTING COURSE TO ACHIEVE A UNIFORM JOINT PATTERN TO MATCH THE EXISTING. COORDINATE WITH MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS

R4. ALL NEW MASONRY WALLS AND INFILLS THAT ARE IN CONTINUANCE WITH EXISTING MASONRY WALLS SHALL BE TOOTHED INTO THE EXISTING COURSE TO ACHIEVE A UNIFORM JOINT PATTERN TO MATCH THE EXISTING. FIELD VERIFY WALL THICKNESS. COORDINATE WITH MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS

R5. IN ALL RENOVATED AREAS OF THE WORK, THE INTENT OF THESE CONTRACT DOCUMENTS IS TO PROVIDE A LEVEL OF QUALITY FOR ALL PATCHED SURFACES EQUAL TO THAT OF NEW SURFACES, INCLUDING BUT NOT LIMITED TO PLASTER, GYPSUM WALL BOARD AND MASONRY. COORDINATE WITH MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS

R6. ALL EXISTING MATERIALS AND FINISHES DISTURBED OR INTERRUPTED BY THE WORK SHALL BE REPLACED OR "FILLED IN" TO ACHIEVE UNIFORM COLOR, TEXTURE, PATTERN AND APPEARANCE TO ADJACENT ADJACENT MATERIALS AND FINISHES. TRANSITIONS BETWEEN EXISTING TO EXISTING AND NEW TO EXISTING MATERIALS AND FINISHES SHALL BE ACHIEVED IN STRAIGHT HORIZONTAL AND OR VERTICAL LINES BETWEEN DIFFERENT AND OR NEW MATERIALS AND FINISHES.

R7. PATCH ALL HOLES IN FLOORS, WALLS AND CEILINGS, LEVEL WITH EXISTING ADJACENT SURFACES TO MATCH ADJACENT EXISTING FINISHES. PATCH TO COMPLETE THE WORK, MATCH THE EXISTING ADJACENT MATERIALS, PATTERNS AND FINISHES.

R8. PATCH, REPAIR OR REPLACE ALL EXISTING FINISHES AND MATERIALS DISTURBED DURING CONSTRUCTION OR AS A RESULT OF DEMOLITION OR REMOVAL OF AN ITEM. ALL REPAIR OR REPLACEMENT SHALL MATCH ADJACENT EXISTING AND/OR NEW FINISHES, PATTERNS AND MATERIALS. SEE ROOM FINISH SCHEDULE FOR NEW FINISHES.

R9. PREPARE EXISTING REMAINING WORK SUBSTRATES TO RECEIVE NEW FINISHES AS INDICATED ON THE ROOM FINISH SCHEDULE. SUBSTRATE PREPARATION SHALL BE IN CONFORMANCE WITH THE INSTALLATION REQUIREMENTS OF EACH NEW FINISH.

R12. AT THE DEMOLITION OF AN EXISTING ITEM, REMOVE ALL TRACES OF THE DEMOLISHED ITEMS COMPONENTS FROM THE SURFACE OF THE REMAINING FLOOR, WALLS AND CEILING. AT THE REMOVED FASTENERS IN ALL EXISTING MASONRY WALLS AND FLOORS, PATCH HOLES WITH GROUT LEVEL WITH EXISTING ADJACENT SURFACES IN ORDER TO RECEIVE NEW FINISHES.

R13. AT EXISTING FLOORS: CUT IN PLACE CONSTRUCTION TO RECEIVE NEW WORK. REPLACE WITH MATERIALS TO MATCH EXISTING REMAINING MATERIALS. PATCH FLUSH TO ADJACENT EXISTING ELEVATIONS. APPLY CEMENTITIOUS UNDERLAYMENT TO PRODUCE A UNIFORM SURFACE IN ALL AREAS RECEIVING NEW FINISHES AS INDICATED ON THE ROOM FINISH SCHEDULE. PATCHED JOINTS SHALL NOT TELEGRAPH THRU THE NEW FINISH. SEE DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND OTHER FINISHES. COORDINATE WITH MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS

R15. PAINT EXISTING METALS: AT EXISTING DOOR LINTELS TO REMAIN AND OTHER PAINTED METAL COMPONENTS INDICATED, REMOVE ALL DIRT, LOOSE PAINT AND RUST. SAND ENTIRE FRAME, PRIME AND PAINT. COLOR SELECTION BY ARCHITECT. WHERE THE EXISTING PAINT IS INCOMPATIBLE WITH NEW PAINT COATINGS, THE EXISTING PAINT SHALL BE COMPLETELY REMOVED.

R16. PAINT SURFACES: WHERE PATCHING OCCURS IN THE WORK OF AN EXISTING PAINTED SURFACE, THE PATCHED AREA SHALL BE SPACKLED, PRIMED AND INTERMEDIATE PAINT COATS APPLIED OVER THE PATCH. APPLY FINAL PAINT COAT OVER ENTIRE UNBROKEN SURFACE CONTAINING THE PATCH. THE UNBROKEN SURFACE SHALL BE FROM THE INTERSECTION OF THE WALL TO FLOOR TO THE INTERSECTION OF THE WALL TO CEILING AND FROM THE RIGHT SIDE WALL TO WALL INTERSECTION TO THE LEFT SIDE WALL TO WALL INTERSECTION. PROVIDE ADDITIONAL SPACKLING AND/OR PAINT COATS UNTIL THE PATCH AREAS BLEND INVISIBLY INTO THE ADJACENT EXISTING SURFACE. UNBROKEN CEILING SURFACES SHALL BE FROM CEILING TO WALL INTERSECTION AND OR NEW BULKHEAD CEILING ELEVATION CHANGE FOR THE ENTIRE PERIMETER OF THE CEILING AREA. APPLY PAINT COATS AS DESCRIBED FOR THE WALLS.



1 DP01 - Overall Lower Level Demolition Plan
AD101 1/16" = 1'-0"

PROFESSIONAL CERTIFICATION:
I HEREBY CERTIFY THAT THESE
DOCUMENTS WERE PREPARED OR
APPROVED BY ME, AND THAT I AM
A DULY LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS OF
THE STATE OF MARYLAND, LICENSE
No. 8490, EXPIRATION DATE:
03/04/2025.

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WO# 23043

PROJECT
MANAGER S. WENTZ

DESIGNER C. LIMBERT

DATE 2/26/2024

LOWER LEVEL DEMOLITION PLAN
HARFORD COUNTY PUBLIC SCHOOLS - ABERDEEN MIDDLE SCHOOL
HVAC SYSTEMIC RENOVATIONS
111 MT ROYAL AVE, ABERDEEN, MARYLAND 21001.

BID DOCUMENTS

AD101

PSC-12.006

1. EX IS INDICATED IN THIN/LIGHT LINE WEIGHT.
2. NEW WORK IS INDICATED IN THICKER/DARK LINE WEIGHT
3. ALL SP WORK INDICATED ON PLAN IS BASE BIDWORK.

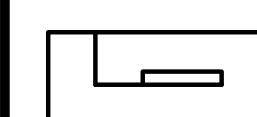
- ① DSS-3 EVAPORATOR, MOUNT ON WALL ABOVE DOOR.
- ② 40X20 R/A UP, 40X12 S/A AND 40X8 S/A UP TO 40X20 SA UP, 40X20 R/A AND 40X12 SA DN
- ③ RS AND RL UP, SIZE RS AND RL PIPING IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ④ FAN-1, SUPPORT FROM STRUCTURE ABOVE.
- ⑤ 1-1/4" CD DN TO CONDENSATE PUMP P-A.

4/3/24

REVISIONS	DESCRIPTION
	ADDENDUM NO. 1
	ADDENDUM NO. 2
	ADDENDUM NO. 3
	ADDENDUM NO. 4

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Consulting Engineers



WO# 23043

PROJECT	SED
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DESIGNER	SED
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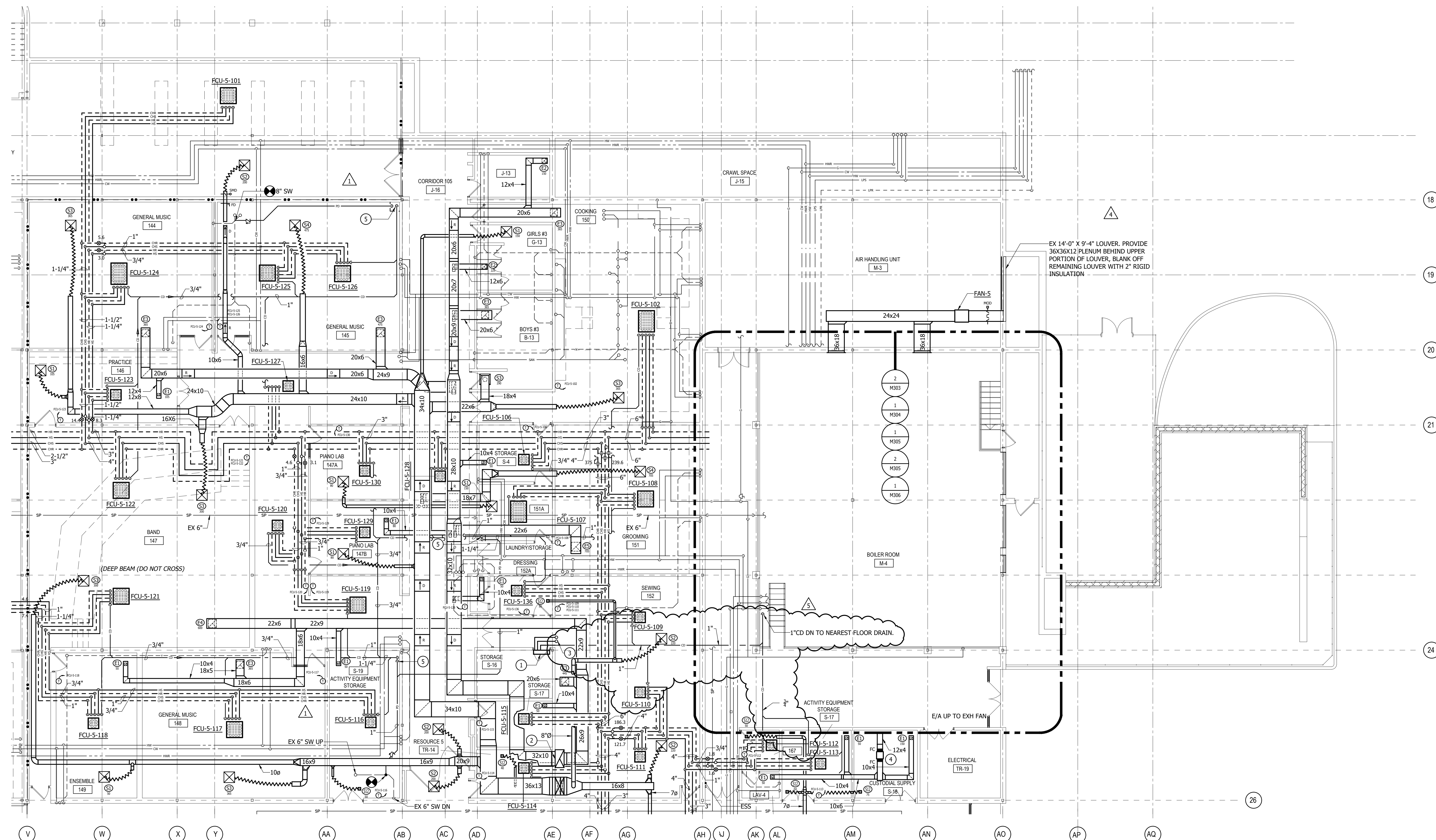
DATE 2/26/2024

LOWER LEVEL AREA E - NEW WORK

BID SUBMISSION

M203

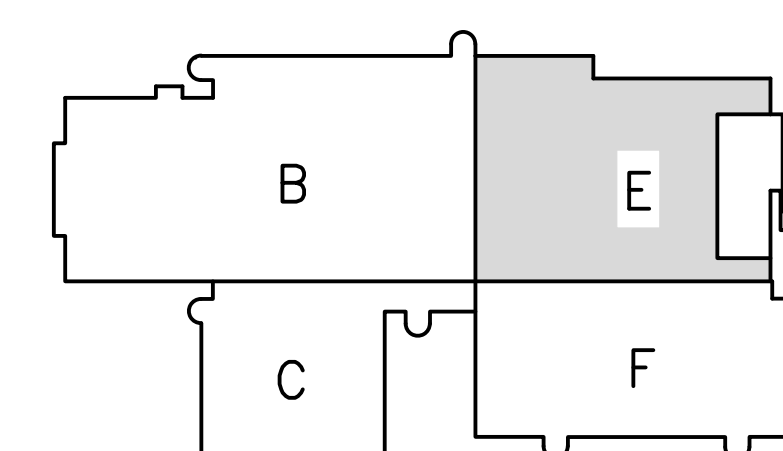
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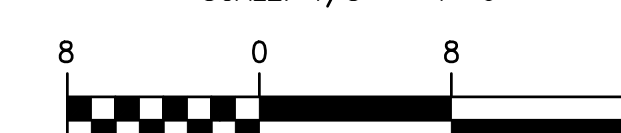
1
M203

LOWER LEVEL AREA E - NEW WORK

SCALE: 1/8" = 1'-0"



SCALE: 1/8" = 1'-0"



KEY PLAN
N.T.S.



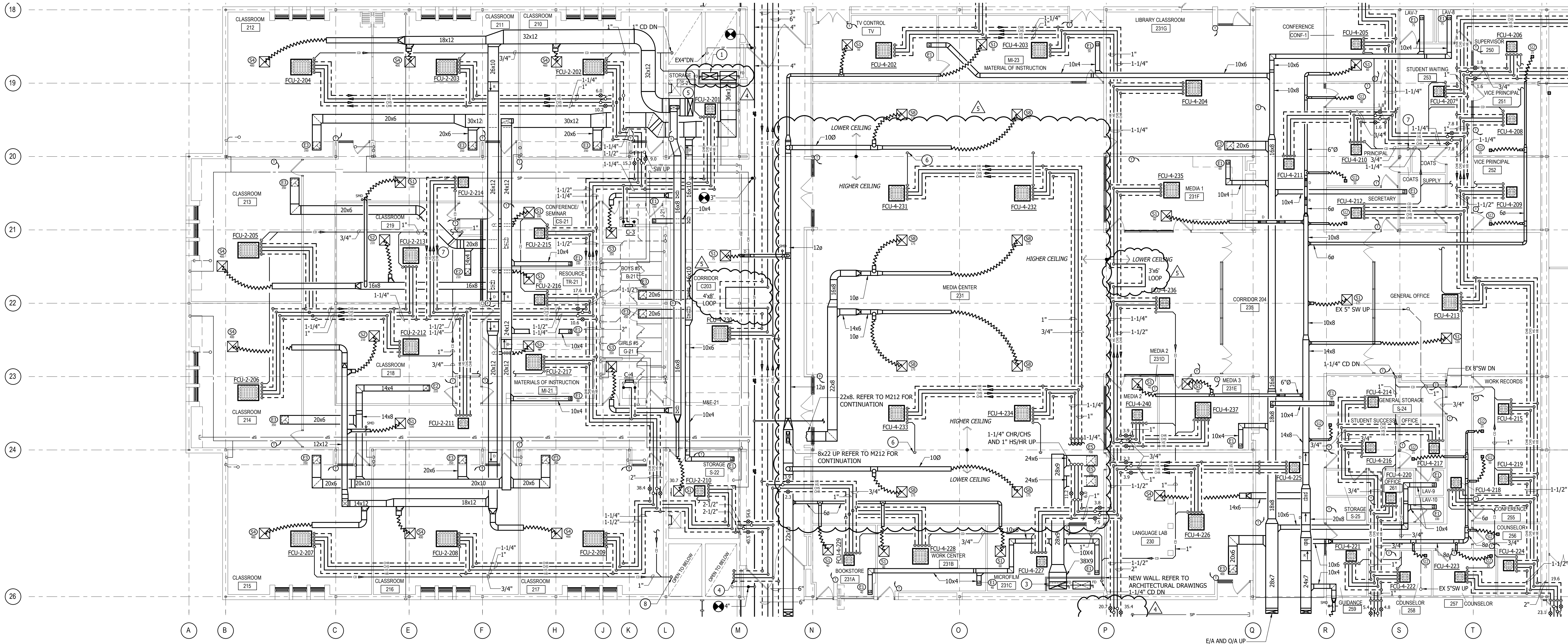
GENERAL NOTES:

- EX IS INDICATED IN THIN/LIGHT LINE WEIGHT.
- NEW WORK IS INDICATED IN THICK/DARK LINE WEIGHT.
- ALL SP WORK INDICATED ON PLAN IS BASE BID WORK.

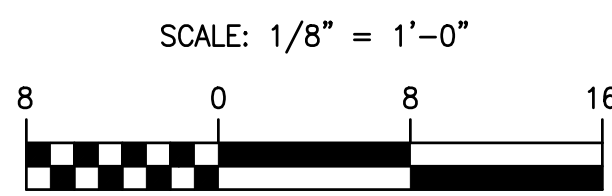
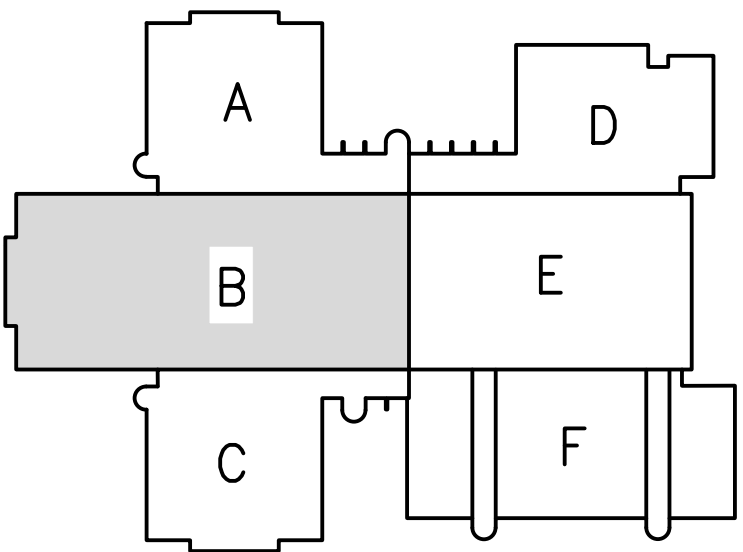
DRAWING NOTES:

- 3/4"14 OA UP AND DN. 4/20"20 EA UP AND 3/4"12 EA DN. ENCLOSE IN NEW CHASE WALL. REFER TO ARCHITECTURAL DRAWINGS.
- 12x40 OA UP.
- 18x40 EA UP AND 14x140 EA DN. 18x40 OA UP AND DN.
- EX 4" SP, 2-1/2" CHR, 2-1/2" CHS, 2" HS, AND 2" HR DN
- 32x12 OA UP
- 3/4" CD. TERMINATE THROUGH HIGH BAY WALL ABOVE LOWER MEDIA CENTER ROOF. TERMINATE WITH 1/8" BEND (TYP OF 2)
- 1-1/4" CD DN
- 1" CD DN

REVISIONS		APPENDIX NO. 5			
NO.	DATE	DESCRIPTION	APPENDIX NO. 1	APPENDIX NO. 2	APPENDIX NO. 3
1	3/7/24				
2	3/14/24				
3	3/20/24				
4	3/27/24				



1 UPPER LEVEL AREA B - NEW WORK
SCALE: 1/8" = 1'-0"



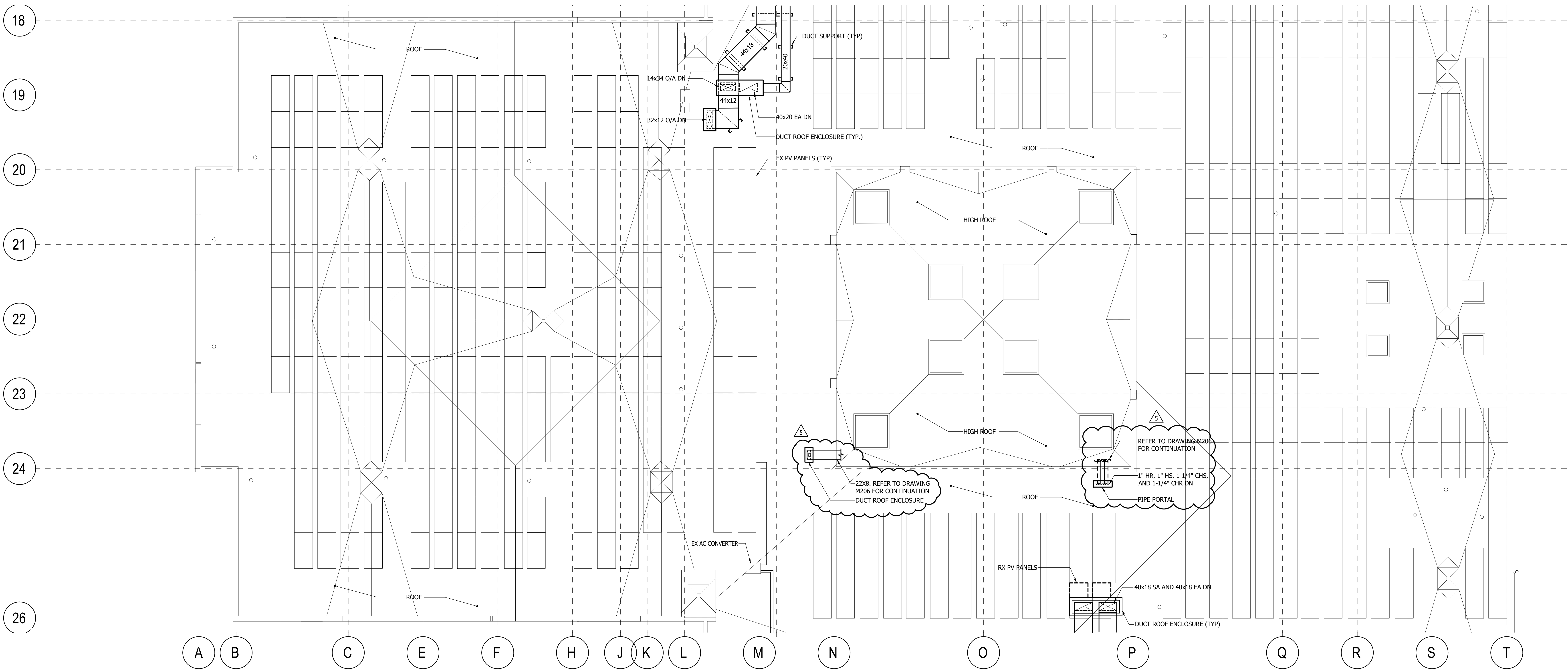
KEY PLAN
N.T.S.

UPPER LEVEL AREA B - NEW WORK
HARFORD COUNTY PUBLIC SCHOOLS - ABERDEEN MIDDLE SCHOOL
HVAC SYSTEMIC RENOVATIONS
111 MT. ROYAL AVE, ABERDEEN, MARYLAND 21001.

BID SUBMISSION

M206

PSC-12.006



1
M212
ROOF PLAN AREA B - NEW WORK
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

- EX IS INDICATED IN THIN/LIGHT LINE WEIGHT.
- NEW WORK IS INDICATED IN THICKER/DARK LINE WEIGHT.
- ALL ROOF WORK SHALL BE COORDINATED WITH AND PERFORMED BY THE APPROVED CONTRACTOR BY FIRESTONE BUILDING PRODUCTS, THE WARRANTY HOLDER OF THE ROOF.
- ALL PV PANEL WORK SHALL BE COORDINATED WITH AND PERFORMED BY THE APPROVED CONTRACTOR BY LUMINACE SOLAR OPERATIONS. SHIVANSH CHAURUSHIA, 1-973-796-7319, shivansh.chaurushia@luminace.com
- REFER TO DETAILS FOR CONDENSATE TRAPS FOR DOAS UNITS. PROVIDE THE NUMBER OF TRAPS AS REQUIRED BY THE MANUFACTURER.

4/3/24

ADDENDUM NO. 5

REVISIONS		ADDENDUM NO. 5			
NO.	DATE	DESCRIPTION	ADDENDUM NO. 1	ADDENDUM NO. 2	ADDENDUM NO. 3
1	3/7/24				
2	3/14/24				
3	3/20/24				
4	3/27/24				

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WO# 23043

PROJECT MANAGER SED

DESIGNER SED

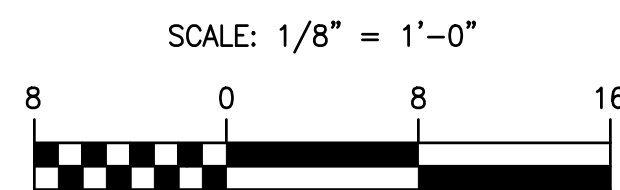
DATE 2/26/2024

ROOF PLAN AREA B - NEW WORK
HARFORD COUNTY PUBLIC SCHOOLS - ABERDEEN MIDDLE SCHOOL
HVAC SYSTEMIC RENOVATIONS
111 MT ROYAL AVE, ABERDEEN, MARYLAND 21001

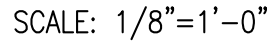
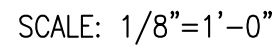
BID SUBMISSION

M212

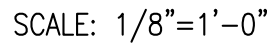
PSC-12.006



KEY PLAN
N.T.S.



- PLATFORM NOTES:
1. ALL STEEL SHALL BE HOT-DIPPED GALVANIZED.
 2. TOP OF STRUCTURAL STEEL SHALL BE 4'-0" ABOVE FINISHED ROOF.



- PLATFORM NOTES:**
1. ALL STEEL SHALL BE HOT-DIPPED GALVANIZED.
 2. TOP OF STRUCTURAL STEEL SHALL BE 4'-0" ABOVE FINISHED ROOF.

PLAN NOTES:

4. (E) DENOTES EXISTING DIMENSION OR STRUCTURAL MEMBER. COLUMBIA ENGINEERING INC., PREPARED THE EXISTING STRUCTURAL LAYOUT BASED ON THE BUILDING'S ORIGINAL CONTRACT DOCUMENTS. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND MEMBER SIZES AND REPORT DISCREPANCIES TO COLUMBIA ENGINEERING PRIOR TO PROCEEDING WITH FABRICATION OR CONSTRUCTION.
5. NEW STRUCTURAL STEEL SHALL BE ADAPTED TO SUIT THE MECHANICAL EQUIPMENT. THE CONTRACTOR SHALL COORDINATE DIMENSIONS WITH THE SELECTED MECHANICAL EQUIPMENT MANUFACTURER. THE CENTER OF GRAVITY OF CURB SHALL BE ON THE CENTERLINE OF THE STEEL BEAMS.
6. SUBMIT DETAILED DRAWINGS OF THE SELECTED MECHANICAL EQUIPMENT TO COLUMBIA ENGINEERING INC. FOR REVIEW. DRAWINGS SHALL INCLUDE, BUT NOT NECESSARILY LIMITED TO, THE SIZE AND WEIGHT OF THE EQUIPMENT, LOAD DISTRIBUTION, INSTALLATION DETAILS, OPENING SIZES AND LOCATIONS AND CURB DETAILS AND DIMENSIONS.
7. THE CONTRACTOR SHALL COORDINATE THE SIZE AND LOCATION OF THE NEW OPENINGS IN THE EXISTING STRUCTURE. SUBMIT DIMENSIONED DRAWINGS TO COLUMBIA ENGINEERING INC., FOR REVIEW. IF OPENINGS DIFFER SUBSTANTIALLY FROM THOSE SHOWN, THE DESIGN MAY NEED TO BE MODIFIED.
8. REINFORCEMENT OF ROOF STRUCTURE, IF REQUIRED, SHALL BE COMPLETED PRIOR TO INSTALLING NEW EQUIPMENT.
9. TEMPORARY REMOVAL AND REPLACEMENT OF STRUCTURAL ELEMENTS FOR INSTALLATION OF NEW EQUIPMENT IS THE RESPONSIBILITY OF THE CONTRACTOR AND SUBJECT TO APPROVAL BY THE ENGINEER OF RECORD. ALL STRUCTURAL ELEMENTS ALTERED DURING INSTALLATION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. THE INSTALLATION PROCEDURE, INCLUDING SEQUENCE, LOADING, ALTERATIONS AND REMEDIATION (IF NECESSARY), SHALL BE CERTIFIED BY AN PROFESSIONAL ENGINEER.
10. REFER TO TYPICAL DETAILS ON SHEET S301 FOR CONNECTION OF NEW STRUCTURE TO EXISTING STRUCTURE.
11. NEW PENETRATIONS THROUGH THE EXISTING METAL EDE GYPSUM ROOF PANELS SHALL BE POSITIONED TO AVOID CUTTING OR DAMAGING THE EDE SUPPORTS. IN SITUATION WHERE THE EDE SUPPORTS ARE NOT TO BE AVOIDED OR WHERE THE WIDTH OF THE PENETRATION EXCEEDS 1'-0", INSTALL ANGLE SUPPORT FRAME IN ACCORDANCE WITH G/S301.
12. ALL ROOF WORK SHALL BE COORDINATED WITH AND PERFORMED BY THE APPROVED CONTRACTOR BY FIRESTONE BUILDING PRODUCTS, THE WARRANTY HOLDER OF THE ROOF.
13. ALL PV PANEL WORK SHALL BE COORDINATED WITH AND PERFORMED BY THE APPROVED CONTRACTOR BY LUMINANCE SOLAR OPERATIONS. SHIVANSH CHAURUSHIA, 1-973-796-7319, SHIVANSH.CHAURUSHIA@LUMINANCE.COM

KEYED NOTES:

ANGLE FRAME AROUND NEW OPENING THROUGH EXISTING ROOF DECK. REFER TO TYPICAL DETAIL G/S301. COORDINATE SIZE AND LOCATION OF OPENINGS WITH MEP DRAWINGS AND MEP CONTRACTOR.

(2*)
EXISTING ROOF OPENING SHALL BE INFILLED WITH METAL DECK PER TYPICAL DETAIL
J/S301.

(3*)
PROVIDE ANGLE FRAME AROUND THE OPENING. REFER TO TYPICAL DETAIL G/S301.

(4*)
CURB MOUNTED ROOF TOP UNIT SHALL BE SUPPORTED BY ANGLE FRAME. REFER TO
TYPICAL DETAIL H/S301.

(5*)
NEW HSS 4.50 x 0.237 POST

(6*)
REINFORCE EXISTING BEAM. REFER TO N/S301. REMOVE OR RELOCATE ALL EXISTING MEP EQUIPMENT AND OTHER OBSTRUCTIONS AS NEEDED TO COMPLETE REMEDIAL WORK. REPLACE AFTER REINFORCEMENT IS SUCCESSFULLY INSTALLED AND INSPECTED.

(7*) PRIMARY SPAN DIRECTION OF RECTANGULAR BAR WELDED GRATING. GRATING SHALL CONSIST OF 1 $\frac{1}{4}$ "x $\frac{3}{8}$ " BEARING BARS SPACED AT 1 $\frac{3}{16}$ "o.c. AND CROSS BARS AT 4"o.c., WELD OR BOLT GRATING TO SUPPORTING STEEL AT 12"o.c.

BRACE EXISTING COLUMN, REFER TO P/S301.

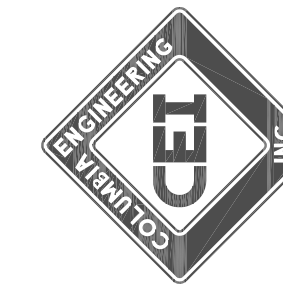
(9*)
BRACE EXISTING COLUMN, REFER TO P/S301. IN LIEU OF BRACING, THE CONTRACTOR
IS PERMITTED TO REINFORCE THE EXISTING COLUMN WITH NEW STEEL PLATES WELDED
TO TWO FACES FULL HEIGHT, REFER TO Q/S301.

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MANAGER

DESIGNER.

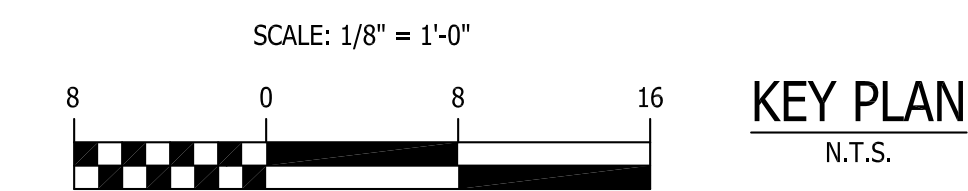
DATE 26 FEB 24

ROOF FRAMING PLANS
- AREA "A"
HARFORD COUNTY PUBLIC SCHOOLS - ABERDEEN MIDDLE SCHOOL
HVAC SYSTEMIC RENOVATIONS
111 MT ROYAL AVE, ABERDEEN, MARYLAND 21001.

BID DOCUMENTS

S103

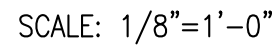
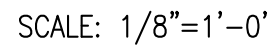
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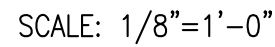
SCALE: 1/8" = 1'-0"

KEY PLAN

N.T.S.



1. ALL STEEL SHALL BE HOT-DIPPED GALVANIZED.
2. TOP OF STRUCTURAL STEEL SHALL BE 6'-0" ABOVE THE LOCAL HIGH POINT OF THE FINISHED ROOF. CONTRACTOR SHALL FIELD VERIFY EXISTING ROOFING CONDITIONS AND CONFIRM REQUIRED POST HEIGHT PRIOR TO FABRICATION.



1. ALL STEEL SHALL BE HOT-DIPPED GALVANIZED.
2. TOP OF STRUCTURAL STEEL SHALL BE 6'-2" ABOVE THE LOCAL HIGH POINT OF THE FINISHED ROOF. CONTRACTOR SHALL FIELD VERIFY EXISTING ROOFING CONDITIONS AND CONFIRM REQUIRED POST HEIGHT PRIOR TO FABRICATION.

PLAN NOTES:

1. (E) DENOTES EXISTING DIMENSION OR STRUCTURAL MEMBER. COLUMBIA ENGINEERING INC., PREPARED THE EXISTING STRUCTURAL LAYOUT BASED ON THE BUILDING'S ORIGINAL CONTRACT DOCUMENTS. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND MEMBER SIZES AND REPORT DISCREPANCIES TO COLUMBIA ENGINEERING PRIOR TO PROCEEDING WITH FABRICATION OR CONSTRUCTION.
2. NEW STRUCTURAL STEEL SHALL BE LOCATED TO SUIT THE MECHANICAL EQUIPMENT. THE CONTRACTOR SHALL COORDINATE DIMENSIONS WITH THE SELECTED MECHANICAL EQUIPMENT MANUFACTURER. THE CENTER OF GRAVITY OF CURB SHALL BE ON THE CENTERLINE OF THE STEEL BEAMS.
3. SUBMIT DETAILED DRAWINGS OF THE SELECTED MECHANICAL EQUIPMENT TO COLUMBIA ENGINEERING INC., FOR REVIEW. DRAWINGS SHALL INCLUDE, BUT NOT NECESSARILY LIMITED TO, THE SIZE AND WEIGHT OF THE EQUIPMENT, LOAD DISTRIBUTION, INSTALLATION DETAILS, OPENING SIZES AND LOCATIONS AND CURB DETAILS AND DIMENSIONS.
4. THE CONTRACTOR SHALL COORDINATE THE SIZE AND LOCATION OF THE NEW OPENINGS IN THE EXISTING STRUCTURE. SUBMIT DIMENSIONED DRAWINGS TO COLUMBIA ENGINEERING INC., FOR REVIEW. IF OPENINGS DIFFER SUBSTANTIALLY FROM THOSE SHOWN, THE DESIGN MAY NEED TO BE MODIFIED.
5. REINFORCEMENT OF ROOF STRUCTURE, IF REQUIRED, SHALL BE COMPLETED PRIOR TO INSTALLING NEW EQUIPMENT.
6. TEMPORARY REMOVAL AND REPLACEMENT OF STRUCTURAL ELEMENTS FOR INSTALLATION OF NEW MEP EQUIPMENT IS THE RESPONSIBILITY OF THE CONTRACTOR AND SUBJECT TO APPROVAL BY THE ENGINEER OF RECORD. ALL STRUCTURAL ELEMENTS ALTERED DURING INSTALLATION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. THE INSTALLATION PROCEDURE, INCLUDING SEQUENCING, LOADING, ALTERATIONS, AND REMEDIATION (IF NECESSARY), SHALL BE CERTIFIED BY AN PROFESSIONAL ENGINEER.
7. REFER TO TYPICAL DETAILS ON SHEET S301 FOR CONNECTION OF NEW STRUCTURE TO EXISTING STRUCTURE.
8. NEW PENETRATIONS THROUGH THE EXISTING METAL DECK EPSILON ROOF PANELS SHALL BE POSITIONED TO AVOID CUTTING OR DAMAGING THE EOE SUPPORTS. IN SITUATIONS WHERE THE EOE SUPPORTS CAN NOT BE AVOIDED OR WHERE THE WIDTH OF THE PENETRATION EXCEEDS 1'-0", INSTALL ANGLE SUPPORT FRAME IN ACCORDANCE WITH G/301.
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KEYED NOTES:

- ANGLE FRAME AROUND NEW OPENING THROUGH EXISTING ROOF DECK. REFER TO TYPICAL DETAIL G/5301. COORDINATE SIZE AND LOCATION OF OPENINGS WITH MEP DRAWINGS AND MEP CONTRACTOR.
- (2*) EXISTING ROOF OPENING SHALL BE INFILLED WITH METAL DECK PER TYPICAL DETAIL J/5301.
- (3*) PROVIDE ANGLE FRAME AROUND THE OPENING. REFER TO TYPICAL DETAIL G/5301.
- (4*) CURB MOUNTED ROOF TOP UNIT SHALL BE SUPPORTED BY ANGLE FRAME. REFER TO TYPICAL DETAIL H/5301.
- (5*) NEW HSS 4.50 x 0.237 POST
- (6*) REINFORCE EXISTING BEAM. REFER TO N/5301. REMOVE OR RELOCATE ALL EXISTING MEP EQUIPMENT AND OTHER OBSTRUCTIONS AS NEEDED TO COMPLETE REMEDIAL WORK. REPLACE AFTER REINFORCEMENT IS SUCCESSFULLY INSTALLED AND INSPECTED.
- (7*) PRIMARY SPAN DIRECTION OF RECTANGULAR BAR WELDED GRATING. GRATING SHALL CONSIST OF 1" X 1/4" BEARING BARS SPACED AT 1 3/8" o.c. AND CROSS BARS AT 12" o.c., WELD OR BOLT GRATING TO SUPPORTING STEEL AT 12" o.c.
- (8*) BRACE EXISTING COLUMN. REFER TO P/5301.
- (9*) BRACE EXISTING COLUMN. REFER TO P/5301. IN LIEU OF BRACING, THE CONTRACTOR IS PERMITTED TO REINFORCE THE EXISTING COLUMN WITH NEW STEEL PLATES WELDED TO TWO FACES FULL HEIGHT. REFER TO Q/5301.

KEY PLAN
N.T.S.

S104