CSARCH

Bid Addendum No. 5

December 7, 2023

Pawling Central School District
2020 Capital Project – Phase 3

SED Project No. & Review No.
Pawling Elementary School: **SED No. 13-12-01-04-0-001-024**

CSArch Project No. 208-2101.03

Previously Issued Addenda Incorporated into Bid Documents

Bid Addendum No. 1	**11/17/2023**
Bid Addendum No. 2	**11/22/2023**
Bid Addendum No. 3	**11/29/2023**
Bid Addendum No. 4	**11/30/2023**

This Addendum No. 5 forms part of the Contract Documents and modifies the original construction documents Issued for Bid: November 1, 2023. Addendum No. 5 consists of FOUR pages and the listed attachments.

Revisions to the Project Manual

1. Section 004116.02 – Bid Form Contract No.32 – Mechanical Construction:

   Delete in its entirety and **Replace** with the attached Bid Form.

2. Section 011200 – Multiple Contract Summary: **Add** the attached *Site Logistics Plan* to the end of the section.

3. Section 012300 - Alternates, Part 3.1, A.: At Window Replacements Alternates #1A, #1B, #1C, #1D:

   Add note "*Window Roller Shades shown on the drawings associated with area of window replacements shall be included in each Alternate #1A, #1B, #1C, #1D.*"

4. Section 012300 – Alternates, Part 3.1, A.: **Add:**

   6. Alternate #6: Add cost for providing Building Automation System (BAS / BMS) Controls for HVAC. Contract 32 (MC)

   Base Bid, the Owner shall provide Building Automation System Controls as a separate Controls Contract:

   The Controls Contractor Scope of Work shall provide the design, engineering, coordination, labor, controls materials, controls equipment, hardware, software, and services as required for a complete BACnet Building Automation System (BAS), to perform all functions and sequences of operation as listed in the contact documents.

   The Controls Contractor Scope of Work shall furnish controls and instrumentation devices including but not limited to control valves, stand-alone control dampers (shown and tagged on floor plans), thermowells, pressure probes, flow switches, insertion flow meters, and ultrasonic flow meters, required for system operations and as indicated to the Mechanical Contractor for installation in the mechanical systems. The Controls Contractor and Mechanical Contractor shall coordinate the requirements of said devises based on approved submittals.

   Base Bid, the Mechanical Contractor shall provide for Mechanical Systems intended to operate as standalone units all parts, labor, components, controls, electrical connections, associated piping, ductwork and wiring required for mechanical systems as shown on the drawings AND as required by the manufacturer, to ensure a fully operational, standalone system. The Controls Contractor shall provide any monitoring or set points of said systems as indicated by the contract documents, including but not limited to: Variable Refrigerant Flow Split Systems.

   If Alternate #6 is awarded, the Mechanical Contractor shall provide the complete Controls Contract Scope of Work as part of the Mechanical Contract.

5. Section 078100 – Applied Fire Protection, Part 1.2, A. 1.:

   Add *"The section includes sprayed fire-resistive materials at the structural steel columns and beams at the canopy and vestibule addition, the light-gauge metal trusses and deck at the canopy and vestibule will be fire protected by a continuous layer of 5/8 inch gypsum board enclosure as indicated on the drawings."*

6. Section 083113 – Access Doors and Frames: **Add** the attached section 083113.

7. Section 123216 – Manufactured Plastic-Laminate-Clad Casework: Part 2.1, B.

   Delete *"Music Casework Basis-of-Design Product: Subject to compliance with requirements, provide Wenger Acoustic Cabinets or equal."*

   Add *"Casework and Furniture shown at Music 154 on Drawing A607 is furnished by Owner, shown for reference."*

8. Section 284621 – Modifications to Existing Fire Alarm System:

   Delete in its entirety and **Replace** with the attached Section 284621.

Revisions to the Contract Drawings

9. Drawing C310: At site removals plan paving drive loop, **Delete** notes "ALTERNATE L-1", paving drive loop is Base Bid scope.
10. Drawing C320: At site layout plan paving drive loop, **Delete** notes "ALTERNATE L-1", paving drive loop is Base Bid scope.
11. Drawing AA121: **Add** the note:

    Asbestos Abatement Contractor is responsible to install 2x4 blocking or metal track (furnished by GC, MC, EC) on existing asbestos containing walls and ceilings for attachment of wall and ceiling anchors at regular spacing (16" O.C. max) as directed (by GC, MC, EC) for:
    - *Chase Walls, refer to A121 Drawing.*
    - *Ceiling Window Soffits, refer to A821 Drawing.*
    - *HVAC Ductwork & Equipment, refer to M121 Drawing.*
    - *Electrical Conduit, refer to E121 Drawing.*

    The blocking will be required at the following Rooms:
    254, 256, 260, 262, 252, 259, 258, 257, 255, 253, 251, Corridor 250

    The Lower Level and First Floor Level plaster is Non-ACM. ONLY the 2nd floor windows fall under the asbestos scope as indicated on AA drawings.

12. **Delete** drawing sheet AD201, **Add** revised drawing sheet AD201.
13. Drawing A201, A202, A203:

    Add note *"THE B1, B2, B3, B4, B5 KEY NOTES ARE BASE BID WORK SCOPE."*
14. **Delete** drawing sheet A302, **Add** revised drawing sheet A302.
15. **Delete** drawing sheet A304, **Add** revised drawing sheet A304.
16. **Delete** drawing sheet A401, **Add** revised drawing sheet A401.
17. **Delete** drawing sheet A601, **Add** revised drawing sheet A601.
18. **Delete** drawing sheet A602, **Add** revised drawing sheet A602.
19. **Delete** drawing sheet A813, **Add** revised drawing sheet A813.
20. **Delete** drawing sheet A814, **Add** revised drawing sheet A814.
21. Drawing A920: At Windows W15, W16, W17:

    Delete note "*PROVIDE FULL HEIGHT MOTORIZED ROLLER SHADE*"

    Add note "*PROVIDE FULL HEIGHT MANUAL ROLLER SHADES, EXTEND CONTROL CHAIN TO WITHIN 4FT OF FLOOR LEVEL*"
22. Drawing FS101: At salvage equipment notes,

Add "*IF THE OWNER DECIDES THAT CERTAIN KITCHEN EQUIPMENT ITEMS ARE NOT WANTED FOR REUSE ELSEWHERE, SUCH ITEMS SHALL BE LEGALLY DISPOSED OF.*"

23. **Delete** drawing sheet M901, **Add** revised drawing sheet M901.
24. **Delete** drawing sheet ED111, **Add** revised drawing sheet ED111.
25. **Delete** drawing sheet E903, **Add** revised drawing sheet E903.
26. **Delete** drawing sheet ES000, **Add** revised drawing sheet ES000.
27. **Delete** drawing sheet ES111, **Add** revised drawing sheet ES111.

END OF BID ADDENDUM NO. 5

SECTION 004116.02 - BID FORM CONTRACT NO. 32 – MECHANICAL CONSTRUCTION

PAWLING CENTRAL SCHOOL DISTRICT

BIDDER INFORMATION

CONTACT: _____

COMPANY: _____

ADDRESS: _____

_____

TELEPHONE: (____) _____

FACSIMILE: (____) _____

E-MAIL: _____

BID TO (Owner): Attention:

Pawling Central School District
515 Route 22
Pawling, NY 12564
2020 Capital Project-Phase 3

PRIME CONTRACT: Contract No. 32

PROJECT TITLE: Pawling Central School District
2020 Capital Project-Phase 3

Pawling Elementary School: SED No. 13-12-01-04-0-001-024

ARCHITECTS
PROJECT NO.: 208-2101.03

1. Representations: By making this Bid, the Bidder represents that:

   The Bidder (identified above) hereby certifies that they have examined and fully understands the requirements and intent of the Bidding and Contract Documents, including Drawings, Project Manuals, and Addenda; and proposes to provide all labor, material, and equipment necessary to complete the Work on, or before, the dates specified in the Agreement for the Base Bid of:

2. Base Bid: _____

   (Words)

   _____($_____)

   (Figures)

   In all locations sums shall be expressed in both words and figures. In case of discrepancy, written word governs.

3. Addenda: The Bidder acknowledges receipt of the following Addendum:

   No._____ Dated _____ No._____ Dated _____

   No._____ Dated _____ No._____ Dated _____

   No._____ Dated _____ No._____ Dated _____

4. Alternates:

   Alternate #2: Add Vestibule addition construction instead of base-bid canopy at building entrance.

   ADD to the base bid, the sum of:

   _____ ($_____)

   (Words) *(Figures)*

   Alternate #3: Add Kitchen / Cafeteria renovation construction.

   ADD to the base bid, the sum of:

   _____ ($_____)

   (Words) *(Figures)*

   Alternate #4: Add Central Conference renovation construction.

   ADD to the base bid, the sum of:

   _____ ($_____)

   (Words) *(Figures)*

Alternate #5: Add / Deduct cost for providing specific Basis-of-Design HVAC Equipment scheduled on drawing PES M901, instead of acceptable equivalents.

ADD / (-DEDUCT) to the base bid, the sum of:

_____ ($_____)
(Words) *(Figures)*

Alternate #6: Add cost for providing Building Automation System (BMS) Controls for HVAC.

ADD to the base bid, the sum of:

_____ ($_____)
(Words) *(Figures)*

5. Unit Costs: Not applicable to this contract.

6. Bid Security: Attached hereto is Bid Security in the form of (circle correct form) Bid Bond, Certified Check, Cash in the amount of 5 percent of the written Base Bid amount.

7. Allowances: The Bidder affirms that all allowances listed in the Bidding Documents have been included in the Base Bid and include the overhead and profit for said Allowance.

8. Time of Commencement and Completion: The Bidder agrees to commence Work on the stipulated starting date(s) and will substantially complete the Work in accordance with the project schedule stipulated in Specification Section 01 12 50 – Summary of Work.

9. Rejection of Bids: The Bidder acknowledges that the Owner reserves the right to waive any informality in, or to reject any or all Bids.

10. Execution of Contract: If notice of the acceptance of this Bid is mailed, telegraphed, or otherwise delivered to the undersigned within forty-five (45) days after the date of the Bid Opening, or any time thereafter, the undersigned will, within ten (10) working days after the receipt of the form of Agreement, execute and deliver the Contract.

11. Site Visit: By initialing at the end of this paragraph the Bidder acknowledges visiting the project Site as requested by the Bidding Documents.

_____
(Name-Printed) (Initials)

12. Signature: _____

(Signature)

_____

(Name – Printed)

_____

(Title – Printed) *(Date)*

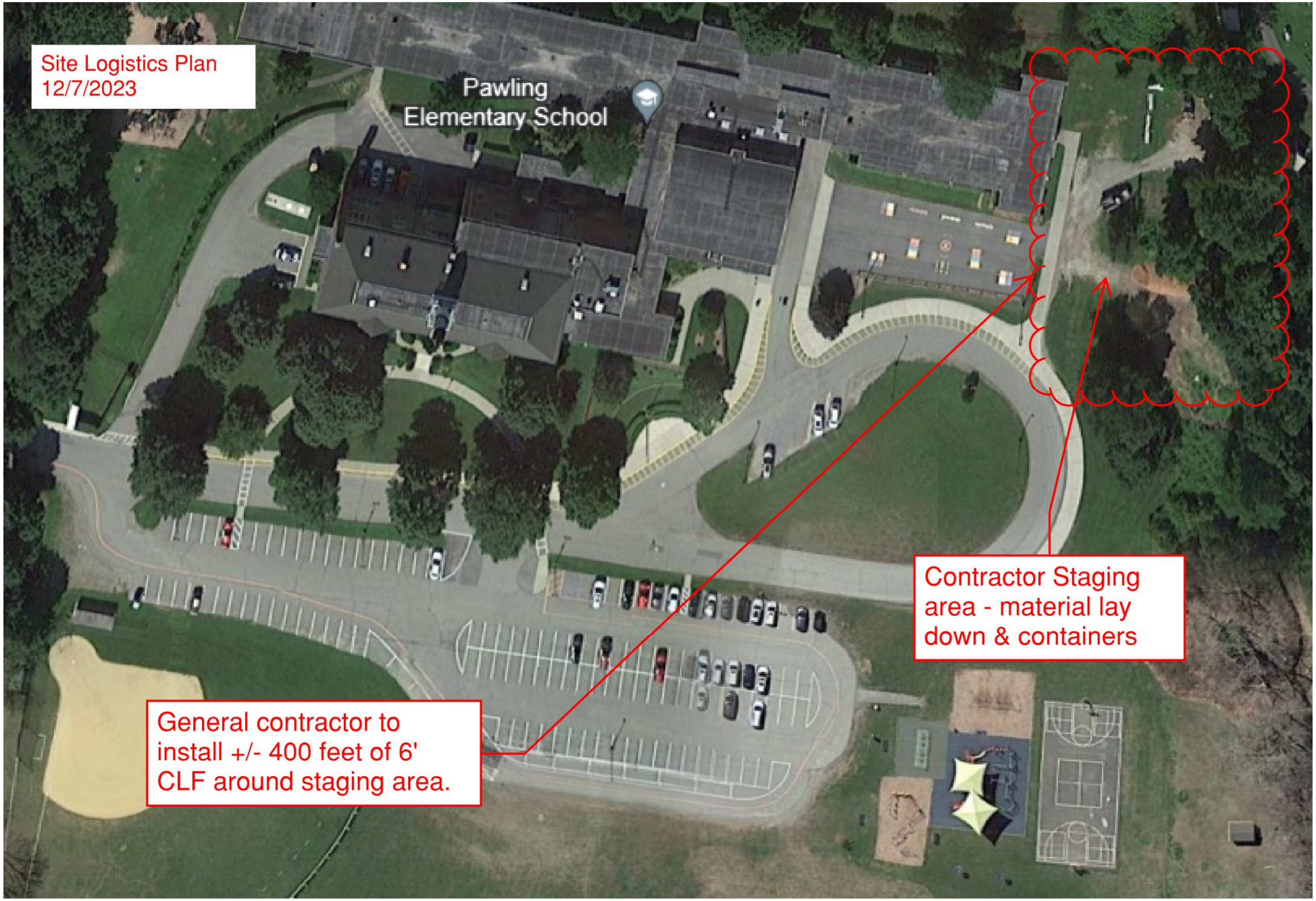
13. Attachments: As itemized in the "Instructions to Bidders" for a complete Bid Form include the following:

    a. Bid Form.
    b. Resolution.
    c. Non-Collusive Bid Certification.
    d. Bid Security.
    e. Iran Divestment Act Certificate.

14. Supplementary Bid Information: If apparent lowest Bidder upon Bid Opening, submit in accordance with the "Instruction To Bidders" within 3 working days the following:

    a. Contractor Statement of Qualifications – AIA Document A305.
    b. Subcontractor List.
    c. Proposed Equivalent List.
    d. Schedule of Values.
    e. Project Manager Resume.
    f. Qualification Statement.
    g. List of Materials and Equipment.

END OF SECTION 004116.02


Site Logistics Plan
12/7/2023
Pawling
Elementary School
Contractor Staging area - material lay down & containers
General contractor to install +/- 400 feet of 6' CLF around staging area.

SECTION 083113 - ACCESS DOORS AND FRAMES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Access doors and frames.
2. Fire-rated access doors and frames.

B. Related Requirements:
1. Section 083123 "Floor Doors" for doors installed in floors.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, fire ratings, material descriptions, dimensions of individual components and profiles, and finishes.

B. Samples: For each type of access door and frame and for each finish specified, complete assembly minimum 6 by 6 inches (150 by 150 mm) in size.

C. Product Schedule: For access doors and frames.

1.3 CLOSEOUT SUBMITTALS

A. Record Documents: For fire-rated doors, list of applicable room name and number in which access door is located.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Fire-Rated Access Doors and Frames: Assemblies complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection and temperature-rise limit ratings indicated, according to NFPA 252 or UL 10B.

2.2 ACCESS DOORS AND FRAMES

A. Flush Access Doors with Concealed Flanges:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

    a. ACUDOR Products, Inc.
    b. Babcock-Davis.
    c. J. L. Industries, Inc.; Activar Construction Products Group, Inc.
    d. Larsen's Manufacturing Company.
    e. Milcor; Hart & Cooley, Inc.
    f. Nystrom, Inc.

2. Description: Face of door flush with frame; with concealed flange for gypsum board installation and concealed hinge.
3. Locations: Wall and ceiling.
4. Door Size: As indicated.
5. Uncoated Steel Sheet for Door: Nominal 0.060 inch (1.52 mm), 16 gage, factory primed.
6. Frame Material: Same material and thickness as door.
7. Latch and Lock: Cam latch, key operated.

B. Lightweight Flush Access Doors:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

    a. ACUDOR Products, Inc.
    b. Babcock-Davis.
    c. Larsen's Manufacturing Company.
    d. Nystrom, Inc.

2. Description: Face of door flush with exposed flange, with exposed piano hinge; frameless for surface installation.
3. Optional Features: Gasketing and Piano hinges
4. Locations: Ceiling.
5. Door Size: over 36” x 36”.
6. Uncoated Steel Sheet for Door: Nominal 0.018 inch (0.46 mm), 26 gage, factory primed.
7. Frame Material: Aluminum, nominal 0.045 inch (1.15 mm), mill finish.
8. Latch and Lock: Cam latch, key operated

2.3 FIRE-RATED ACCESS DOORS AND FRAMES

A. Fire-Rated, Flush Access Doors with Concealed Flanges:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

    a. ACUDOR Products, Inc.
    b. Babcock-Davis.
    c. J. L. Industries, Inc.; Activar Construction Products Group, Inc.
    d. MIFAB, Inc.
    e. Nystrom, Inc.

2. Description: Door face flush with frame, with a core of mineral-fiber insulation enclosed in sheet metal; with exposed flange for gypsum board installation, self-closing door, and concealed hinge.
3. Optional Features: Piano hinges
4. Locations: Wall and ceiling.
5. Door Size: As indicated
6. Fire-Resistance Rating: Not less than that of adjacent construction .
7. Temperature-Rise Rating: 450 deg F (250 deg C) at the end of 30 minutes.
8. Metallic-Coated Steel Sheet for Door: Nominal 0.040 inch (1.02 mm), 20 gage , factory primed and finish painted.
9. Frame Material: Same material, thickness, and finish as door.
10. Latch and Lock: Self-closing, self-latching door hardware, operated by key.
11. Finish Color: Ass selected from manufacturer's full range of colors.

2.4 MATERIALS

A. Steel Plates, Shapes, and Bars: ASTM A36/A36M.

B. Steel Sheet: Uncoated or electrolytic zinc coated, ASTM A879/A879M, with cold-rolled steel sheet substrate complying with ASTM A1008/A1008M, Commercial Steel (CS), exposed.

C. Stainless Steel Plate, Sheet, and Strip: ASTM A240/A240M or ASTM A666, Type 304. Remove tool and die marks and stretch lines, or blend into finish.

D. Stainless Steel Flat Bars: ASTM A666, Type 304. Remove tool and die marks and stretch lines, or blend into finish.

E. Aluminum Extrusions: ASTM B221 (ASTM B221M), Alloy 6063.

F. Aluminum Sheet: ASTM B209 (ASTM B209M), alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated.

G. Frame Anchors: Same material as door face.

H. Inserts, Bolts, and Anchor Fasteners: Hot-dip galvanized steel according to ASTM A153/A153M or ASTM F2329.

2.5 FABRICATION

A. General: Provide access door and frame assemblies manufactured as integral units ready for installation.

B. Metal Surfaces: For metal surfaces exposed to view in the completed Work, provide materials with smooth, flat surfaces without blemishes. Do not use materials with exposed pitting, seam marks, roller marks, rolled trade names, or roughness.

C. Doors and Frames: Grind exposed welds smooth and flush with adjacent surfaces. Furnish mounting holes, attachment devices and fasteners of type required to secure access doors to types of supports indicated.

1. For concealed flanges with drywall bead, provide edge trim for gypsum panels securely attached to perimeter of frames.
2. For concealed flanges with plaster bead for full-bed plaster applications, provide zinc-coated expanded-metal lath and exposed casing bead welded to perimeter of frames.

D. Recessed Access Doors: Form face of panel to provide recess for application of applied finish. Reinforce panel as required to prevent buckling. Provide access sleeves for each latch operator and install in holes cut through finish.

1. For recessed doors with plaster infill, provide self-furring expanded-metal lath attached to door panel.

E. Latch and Lock Hardware:

1. Quantity: Furnish number of latches and locks required to hold doors tightly closed.
2. Keys: Furnish two keys per lock and key all locks alike.

F. Aluminum: After fabrication, apply manufacturer's standard protective coating on aluminum that will come in contact with concrete.

2.6 FINISHES

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

C. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

D. Painted Finishes: Comply with coating manufacturer's written instructions for cleaning, conversion coating, and applying and baking finish.

1. Factory Primed: Apply manufacturer's standard, lead- and chromate-free, universal primer immediately after surface preparation and pretreatment.
2. Factory Finished: Apply manufacturer's standard baked-enamel or powder-coat finish immediately after cleaning and pretreating, with minimum dry-film thickness of 1 mil (0.025 mm) for topcoat.

a. Color As selected by Architect from full range of industry colors.

E. Stainless Steel Finishes:

1. Surface Preparation: Remove tool and die marks and stretch lines, or blend into finish.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Comply with manufacturer's written instructions for installing access doors and frames.

3.3 ADJUSTING

A. Adjust doors and hardware, after installation, for proper operation.

3.4 ACCESS DOOR SCHEDULE

A. Provide the following 1 hour fire-rated wall access doors:

1. Quantity (15) size 16 x 16 at Area 1 Fire Dampers.
2. Quantity (2) size 16 x16 at Area 1 Vestibule Ceiling.
3. Quantity (2) size 16 x 16, location to be determined in the field.

B. Provide the following non-fire-rated wall access doors:

1. Quantity (24) size 16 x 16 at Area 2, 3, 4 ISU valves.
2. Quantity (4) size 16 x 16, location to be determined in the field.

END OF SECTION 083113

SECTION 284621 – MODIFICATIONS TO EXISTING FIRE ALARM SYSTEM - *REVISED BY ADDENDUM No. 5*

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. The specified modifications will replace existing fire alarm systems within all areas of renovation and expand the existing fire alarm system as necessary to serve all areas of new construction in the Elementary School. Modifications made to the existing Elementary School fire alarm system:

1. *Fire Alarm Control Panel (FACP). - REVISED BY ADDENDUM No. 5*
2. *Fire Alarm Remote Annunciator Panel (FAAP). - REVISED BY ADDENDUM No. 5*
3. Manual fire-alarm boxes.
4. System smoke detectors.
5. Duct smoke detectors.
6. Carbon monoxide detectors.
7. Heat detectors.
8. Fire-alarm notification appliances.
9. Fire-alarm addressable interface devices.
10. Engineering and reprogramming associated with the installation of the new equipment and updating existing information.

B. Related Requirements:

1. Section 087100 "Door Hardware" for magnetic door holders that release in response to fire-alarm outputs.
2. Section 260519 "Low-Voltage Electrical Power Conductors and Cables"
3. Section 260523 "Control Voltage Electrical Power Cables" for cables and conductors for fire-alarm systems.

1.3 DESCRIPTION OF EXISTING FIRE ALARM SYSTEM

A. The existing Fire-Lite Alarms by Honeywell Model MS-9200UDLS Fire Alarm Control Panel (FACP) operates as the head-end for an integrated multiplexed protected premises and proprietary fire alarm, monitoring and control system. Changes in the

status of monitored points are detected by the micro-processor based proprietary supervising station and protected premises subsidiary stations located throughout the building.

1.4 DEFINITIONS

A. EMT: Electrical metallic tubing.

B. NICET: National Institute for Certification in Engineering Technologies.

C. Voltage Class: For specified circuits and equipment, voltage classes are defined as follows:

1. Control Voltage: Listed and labeled for use in remote-control, signaling, and power-limited circuits supplied by a Class 2 or Class 3 power supply having rated output not greater than 150 V and 5 A, allowing use of alternate wiring methods complying with NFPA 70, Article 725.
2. Low Voltage: Listed and labeled for use in circuits supplied by a Class 1 or other power supply having rated output not greater than 1000 V, requiring use of wiring methods complying with NFPA 70, Article 300, Part I.

1.5 SEQUENCING AND SCHEDULING

A. Existing Fire-Alarm Equipment: Maintain existing equipment fully operational until system modifications have been tested and accepted. When new equipment is installed, label it "NOT IN SERVICE" until it is accepted. Remove labels from new equipment when put into service, and label existing fire-alarm equipment "NOT IN SERVICE" until removed from building.

B. Equipment Removal: After acceptance of new fire-alarm system, remove existing disconnected fire-alarm equipment and associated wiring.

1.6 ACTION SUBMITTALS

A. Approved Permit Submittal: Submittals must be approved by authorities having jurisdiction prior to submitting them to Architect.

B. Product Data: For each type of product, including furnished options and accessories.

1. Include construction details, material descriptions, dimensions, profiles, and finishes.
2. Include rated capacities, operating characteristics, and electrical characteristics.

C. Shop Drawings: For fire-alarm system.

1. Comply with recommendations and requirements in "Documentation" section of "Fundamentals" chapter in NFPA 72.
2. Include plans, elevations, sections, and details, including details of attachments to other Work.
3. Include details of equipment assemblies. Indicate dimensions, weights, loads, required clearances, method of field assembly, components, and locations. Indicate conductor sizes, indicate termination locations and requirements, and distinguish between factory and field wiring.
4. Include voltage drop calculations for notification-appliance circuits.
5. Include battery-size calculations.
6. Include input/output matrix.
7. Include written statement from manufacturer that equipment and components have been tested as a system and comply with requirements in this Section and in NFPA 72.

1.7 INFORMATIONAL SUBMITTALS

A. Field quality-control reports.

B. Qualification Statements: For Installer.

C. Sample Warranty: Submittal must include line item pricing for replacement parts and labor.

1.8 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For fire-alarm systems and components to include in emergency, operation, and maintenance manuals.

1. In addition to items specified in Section 017823 "Operation and Maintenance Data," include the following and deliver copies to authorities having jurisdiction:

a. Comply with "Records" section of "Inspection, Testing and Maintenance" chapter in NFPA 72.
b. Provide "Fire-Alarm and Emergency Communications System Record of Completion Documents" in accordance with "Completion Documents" Article in "Documentation" section of "Fundamentals" chapter in NFPA 72.
c. Complete wiring diagrams showing connections between devices and equipment. Each conductor must be numbered at every junction point with indication of origination and termination points.
d. Device addresses.

e. Provide "Inspection and Testing Form" in accordance with "Inspection, Testing and Maintenance" chapter in NFPA 72, and include the following:

1) Equipment tested.
2) Frequency of testing of installed components.
3) Frequency of inspection of installed components.
4) Requirements and recommendations related to results of maintenance.
5) Manufacturer's user training manuals.

f. Manufacturer's required maintenance related to system warranty requirements.

1.9 QUALITY ASSURANCE

A. UL Listing: The system products for the modifications shall be listed in the UL Fire Protection Equipment Directory under product category “Control Units System (UOJZ)”.

B. Company Field Advisor: Company Field Advisor shall be National Institute for Certification in Engineering Technologies (NICET) certified as Level III or higher Fire Alarm Protection/Fire Alarm Systems Engineering Technician. Secure the services of a Company Field Advisor from the Company of the existing system for a minimum of 24 working hours at the contract site for the following:
1. Render advice and witness test of existing system.
2. Render advice regarding modifications to the system.
3. Assist in reprogramming the system.
4. Witness final system test and then certify with an affidavit that the modifications were installed in accordance with the contract documents and are operating properly.

C. Installer Qualifications:

1. Personnel must be trained and certified by manufacturer for installation of units required for this Project.
2. Installation must be by personnel certified by NICET technician.
3. Obtain certification by NRTL in accordance with NFPA 72.
4. Licensed or certified by authorities having jurisdiction.

1.10 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace fire-alarm system equipment and components that fail because of defects in materials or workmanship within specified warranty period.

1. Warranty Period: 5 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 EXISTING FIRE-ALARM SYSTEM TO BE MODIFIED

A. Source Limitations for Fire-Alarm System and Components: Components must be compatible with, and operate as extension of, existing system. Provide system manufacturer's certification that components provided have been tested as, and will operate as, a system. Provide all necessary system components and associated wiring connections to accommodate all system work indicated on the drawings.

2.2 DESIGN MAKE ACCEPTABLE MANUFACTURER - REVISED BY ADDENDUM No. 5

A. Fire-Lite Alarms by Honeywell is the design make of equipment provided by this Section.

2.3 FIRE ALARM CONTROL PANEL (FACP) - REVISED BY ADDENDUM No. 5

A. Fire-Lite Alarms by Honeywell Model No. MS-9600UDLS(E).

B. The system shall be an addressable, entirely solid state, microprocessor based, utilize digital transmission and shall be field programmable. All system programming including field modifications shall be stored in non-volatile memory. Field modifications shall be automatically stored without special actions. The panel shall be designed and manufactured expressly for the intent to detect the presence of fire and to provide indication of such detection. Panel shall contain as a minimum power supply(s), control module, main control printed circuit board, initiation modules, notification modules, terminals and back up battery(s). Control module shall have 80 character backlit LCD display and twelve control buttons (four being field assignable), minimum. Display shall indicate the battery voltage at all times.

C. Provide with (2) – Signaling Line Circuit (SLC) Loops via required expander module. Each loop configured for NFPA Style 4, 6 or 7 operation with capability to support up to 318 (159 detectors and 159 monitor, control or relay modules) addressable devices.

D. Provide with (4) – Class B (Style Y) Notification Appliance Circuits (NACS) – convertible to (2) – Class A (Style Z) NACS.

E. The system shall be modular in design to allow for future expansion with a minimum of hardware additions.

F. The digital fire communicator shall be installed in the FACP or mounted in a separate enclosure. The communicator shall be powered by 24 VDC from the FACP and shall report four (4) conditions - (2) alarm, (1) trouble and (1) supervisory. The unit shall have a built in auxiliary relay output which is programmable for alarm or trouble conditions, and shall be capable of sending a distinctive AC power failure report. The communicator shall be UL 864 listed and meet the requirements of NFPA 72 Chapter 4 for supervising station fire alarm systems.

G. The FACP shall be located where shown on the drawings. Enclosures shall accept all system items for an aesthetically suitable operator's console. Enclosures shall be of modular size to allow surface mounting of multiple boxes adjacent to each other, shall have hinged solid metal doors and contain a lock with a key common to all system devices. Enclosure shall have a red finish.

H. The FACP shall operate its integral LCD Display and remote printer through an RS-232C port operating up to 9600 baud to indicate all operator transactions, alarms, trouble reports and any other conditions specified by system programming.

I. Conditions of the system shall be indicated at the operator interface by LED's. These conditions shall be alarm, supervisory, trouble and alarm silenced. An LCD 2 line, 40 character per line display shall also be included. It shall display "SYSTEM IS NORMAL" with the date and time under normal circumstances. The LCD display shall also indicate type of alarm, point status, number of alarms and location. Through the use of function keys, historical data can also be displayed.

J. The FACP shall include a password (three (3) levels of protection with individual passwords, minimum) protected key pad for access to programming, special functions and all system features.

K. Any event initiated by the FACP due to an alarm input shall be retained in nonvolatile EPROM memory. The FACP shall also have sufficient memory for 1200 individual alarm/trouble events.

L. Provide modules for network interfacing connection to graphic annunciator.

M. Provide with Maintenance Alert monitoring and Automatic Test Operation capabilities.

N. Battery and charger shall be as specified within this section.

2.4 FIRE ALARM REMOTE ALARM ANNUNCIATOR PANEL (FAAP) - REVISED BY ADDENDUM No. 5

A. Fire-Lite Alarms by Honeywell Model No. ANN-80. Mimics information displayed on the FACP's LCD display.

B. Wall mount within a surface box. Maximum depth of 4 in., stainless steel trim. Nominal dimensions of 5.5 in. high x 7 in. wide.

C. Annunciation shall be by four line by 20 character backlit LCD 80 – character display to provide system information and alarm/trouble description with system indicators for AC Power, Alarm, Trouble, Supervisory and Alarm Silenced conditions.

D. Unit power and control shall be from the FACP. Unit circuiting shall be supervised.

E. Provide trouble signal with audible buzzer, silencing switch and system reset. All pushbuttons shall be inoperable without keyswitch activated. Pushbuttons for alarm acknowledge, signal silence, drill and alarm reset shall be standard on the front with a description. Shall include a minimum of four auxiliary switches/pushbuttons to be programmed as coordinated with the owner (possible options are door holder release override, manual alarm initiation, elevator capture bypass, etc.).

F. Keyswitch enables/disables control switches and mechanically locks annunciator enclosure. Keyswitch and control switches can be enabled or disabled at the FACP.

G. Tamper-resistant front panel screws.

2.5 BATTERY AND CHARGER - REVISED BY ADDENDUM No. 5

A. Standby power shall be provided through 24 volt DC battery and automatic charger. Provide sealed lead-calcium batteries suitable for a minimum of 60 hours of battery standby. When the system is operating on the battery supply, a trouble condition shall be generated. When utility power is restored, the system shall revert back to 120 VAC supply without any operator action. Provide cell reversal protection.

B. Charger shall be self-regulating, solid state, type, automatic with capability to fully charge the discharged battery within 48 hours.

C. Battery life expectancy shall be ten (10) years minimum. Locate batteries, battery box and charger within the FACP enclosure.

2.6 MANUAL FIRE-ALARM BOXES

A. General Requirements for Manual Fire-Alarm Boxes: Comply with UL 38. Boxes must be finished in red with molded, raised-letter operating instructions in contrasting color; must show visible indication of operation; and must be mounted on recessed outlet box. If indicated as surface mounted, provide manufacturer's surface back box.

1. Single-action mechanism, pull-lever type; with integral addressable module arranged to communicate manual-station status (normal, alarm, or trouble) to FACU.
2. Double-action mechanism requiring two actions to initiate alarm, pull-lever type; with integral or attached addressable module arranged to communicate manual-station status (normal, alarm, or trouble) to FACU.
3. Station Reset: Key- or wrench-operated switch.
4. Indoor Protective Shield: Factory-fabricated, clear plastic enclosure hinged at top to permit lifting for access to initiate alarm. Lifting cover actuates integral battery-powered audible horn intended to discourage false-alarm operation.
5. Weatherproof Protective Shield: Factory-fabricated, clear plastic enclosure hinged at top to permit lifting for access to initiate alarm.
6. Able to perform at up to 90 percent relative humidity at 90 deg F (32 deg C).
7. Material: Manual stations made of Lexan polycarbonate.
8. Able to be used in indoor or outdoor areas.

2.7 SYSTEM SMOKE DETECTORS

A. Photoelectric Smoke Detectors:
   1. Performance Criteria:
      a. Regulatory Requirements:
         1) NFPA 72.
         2) UL 268.
      b. General Characteristics:
         1) Detectors must be four or two-wire type.
         2) Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to FACU.
         3) Base Mounting: Detector and associated electronic components must be mounted in twist-lock module that connects to fixed base. Provide terminals in fixed base for connection to building wiring.
         4) Self-Restoring: Detectors do not require resetting or readjustment after actuation to restore them to normal operation.
         5) Integral Visual-Indicating Light: LED type, indicating detector has operated and power-on status.
         6) Detector address must be accessible from FACU and must be able to identify detector's location within system and its sensitivity setting.
         7) Operator at FACU, having designated access level, must be able to manually access the following for each detector:
            a) Primary status.

b) Device type.
c) Present average value.
d) Present sensitivity selected.
e) Sensor range (normal, dirty, etc.).

8) Detector must have functional humidity range within 90 percent relative humidity.
9) Color: White.
10) Remote Control: Unless otherwise indicated, detectors must be digital-addressable type, individually monitored at FACU for calibration, sensitivity, alarm condition and individually adjustable for sensitivity by FACU.
11) Rate-of-rise temperature characteristic of combination smoke- and heat-detection units must be selectable at FACU for 20 deg F (11 deg C) per minute.
12) Fixed-temperature sensing characteristic of combination smoke- and heat-detection units must be independent of rate-of-rise sensing and must be settable at FACU to operate at 135 deg F (57 deg C).
13) Multiple levels of detection sensitivity for each sensor.
14) Sensitivity levels based on time of day.

2.8 DUCT SMOKE DETECTORS

A. Description: Photoelectric-type, duct-mounted smoke detector.

B. Performance Criteria:

1. Regulatory Requirements:

a. NFPA 72.
b. UL 268A.

2. General Characteristics:

a. Detectors must be four-wire type.
b. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to FACU.
c. Self-Restoring: Detectors do not require resetting or readjustment after actuation to restore them to normal operation.
d. Integral Visual-Indicating Light: LED type, indicating detector has operated with power-on status.
e. Detector address must be accessible from FACU and must be able to identify detector's location within system and its sensitivity setting.

f. Operator at FACU, having designated access level, must be able to manually access the following for each detector:

1) Primary status.
2) Device type.
3) Present average value.
4) Present sensitivity selected.
5) Sensor range (normal, dirty, etc.).

g. Weatherproof Duct Housing Enclosure: NEMA 250, Type 4X; NRTL listed for use with supplied detector for smoke detection in HVAC system ducts.
h. Each sensor must have multiple levels of detection sensitivity.
i. Sampling Tubes: Design and dimensions as recommended by manufacturer for specific duct size, air velocity, and installation conditions where applied.
j. Relay Fan Shutdown: Fully programmable relay rated to interrupt fan motor-control circuit.

2.9 CARBON MONOXIDE DETECTORS

A. Description: Carbon monoxide detector listed for connection to fire-alarm system.

B. Performance Criteria:

1. Regulatory Requirements:

a. NFPA 72
b. NFPA 720.
c. UL 2075.

2. General Characteristics:

a. Mounting: Adapter plate for outlet box mounting.
b. Testable by introducing test carbon monoxide into sensing cell.
c. Detector must provide alarm contacts and trouble contacts.
d. Detector must send trouble alarm when nearing end-of-life, power supply problems, or internal faults.
e. Locate, mount, and wire in accordance with manufacturer's written instructions.
f. Provide means for addressable connection to fire-alarm system.
g. Test button simulates alarm condition.

2.10 HEAT DETECTORS

A. Combination-Type Heat Detectors:

1. Performance Criteria:

    a. Regulatory Requirements:

        1) NFPA 72.
        2) UL 521.

    b. General Characteristics:

        1) Temperature sensors must test for and communicate sensitivity range of device.

    c. Actuated by fixed temperature of 135 deg F (57 deg C) or rate of rise that exceeds 15 deg F (8 deg C) per minute unless otherwise indicated.
    d. Mounting: Twist-lock base interchangeable with smoke-detector bases.
    e. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to FACU.
    f. Detector must have functional humidity range of 90 percent relative humidity.
    g. Color: White.

B. Fixed-Temperature-Type Heat Detectors:
    1. Performance Criteria:

        a. Regulatory Requirements:

            1) NFPA 72.
            2) UL 521.

        b. General Characteristics:

            1) Actuated by temperature that exceeds fixed temperature of 190 deg F (88 deg C).
            2) Mounting: Twist-lock base interchangeable with smoke-detector bases.
            3) Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to FACU.
            4) Detector must have functional humidity range of 90 percent.
            5) Color: White.

2.11 FIRE-ALARM NOTIFICATION APPLIANCES

A. Fire-Alarm Audible Notification Appliances:
    1. Description: Horns or other notification devices that cannot output voice messages.

2. Performance Criteria:

a. Regulatory Requirements:

1) NFPA 72.

b. General Characteristics:

1) Individually addressed, connected to signaling-line circuit, equipped for mounting as indicated, and with screw terminals for system connections.
2) Connected to notification-appliance signal circuits, zoned as indicated, equipped for mounting as indicated, and with screw terminals for system connections.

B. Fire-Alarm Voice/Tone Notification Appliances:
1. Description: Notification appliances capable of outputting voice evacuation messages.
2. Performance Criteria:

a. Regulatory Requirements:

1) NFPA 72.
2) UL 1480.

b. General Characteristics:

1) Speakers for Voice Notification: Locate speakers for voice notification to provide intelligibility requirements of "Notification Appliances" and "Emergency Communications Systems" chapters in NFPA 72.
2) High-Range Units: Rated 2 to 15 W.
3) Low-Range Units: Rated 1 to 2 W.
4) Mounting: Surface mounted and bidirectional.
5) Matching Transformers: Tap range matched to acoustical environment of speaker location.
6) Combination Devices: Factory-integrated audible and visible devices in single-mounting assembly, equipped for mounting as indicated, and with screw terminals for system connections.

C. Fire-Alarm Visible Notification Appliances:
1. Performance Criteria:

a. Regulatory Requirements:

1) NFPA 72.

2) UL 1971.

b. General Characteristics:

1) Rated Light Output:
a) 15/30/75/110 cd, selectable in field.

2) Clear or nominal white polycarbonate lens mounted on aluminum faceplate.
3) Mounting: Wall mounted unless otherwise indicated.
4) For units with guards to prevent physical damage, light output ratings must be determined with guards in place.
5) Flashing must be in temporal pattern, synchronized with other units.
6) Strobe Leads: Factory connected to screw terminals.
7) Mounting Faceplate: Factory finished, Red.

2.12 FIRE-ALARM ADDRESSABLE INTERFACE DEVICES

A. Performance Criteria:

1. Regulatory Requirements:

a. NFPA 72.

2. General Characteristics:

a. Include address-setting means on module.
b. Store internal identifying code for control panel use to identify module type.
c. Listed for controlling HVAC fan motor controllers.
d. Monitor Module: Microelectronic module providing system address for alarm-initiating devices for wired applications with normally open contacts.
e. Integral Relay: Capable of providing direct signal to circuit-breaker shunt trip for power shutdown.

1) Allow control panel to switch relay contacts on command.
2) Have minimum of two normally open and two normally closed contacts available for field wiring.

f. Control Module:

1) Operate notification devices.
2) Operate solenoids for use in sprinkler service.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions for compliance with requirements for ventilation, temperature, humidity, and other conditions affecting performance of the Work.

1. Verify that manufacturer's written instructions for environmental conditions have been permanently established in spaces where equipment and wiring are installed before installation begins.

B. Prior to modifying the system, perform tests to ascertain the operating condition of the existing system. Tests shall be witnessed by the Company Field Advisor. Prepare a written report for the District indicating any repairs necessary to make the existing sub-systems function properly and insure full capability of supporting the work indicated on the drawings.

C. Examine roughing-in for electrical connections to verify actual locations of connections before installation.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Preinstallation Testing: Perform verification of functionality of installed components of existing system prior to starting work. Document equipment or components not functioning as designed.

B. Interruption of Existing Fire-Alarm Service: Do not interrupt fire-alarm service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary guard service in accordance with requirements indicated:

1. Notify Construction Manager no fewer than 7 days in advance of proposed interruption of fire-alarm service.
2. Do not proceed with interruption of fire-alarm service without Construction Manager's written permission.

C. Protection of In-Place Conditions: Protect devices during construction unless devices are placed in service to protect facility during construction.

3.3 INSTALLATION OF EQUIPMENT

A. Comply with NECA 305, NFPA 72, NFPA 101, and requirements of authorities having jurisdiction for installation and testing of fire-alarm equipment. Install electrical wiring to comply with requirements in NFPA 70 including, but not limited to, Article 760, "Fire Alarm Systems."

1. Devices placed in service before other trades have completed cleanup must be replaced.
2. Devices installed, but not yet placed, in service must be protected from construction dust, debris, dirt, moisture, and damage in accordance with manufacturer's written storage instructions.

B. Connecting to Existing Equipment: Verify that the existing fire-alarm system is operational before making changes or connections.

1. Connect new equipment to existing control panel in existing part of building.
2. Connect new equipment to existing monitoring equipment at supervising station.
3. Expand, modify, and supplement existing control and monitoring equipment as necessary to extend existing control and monitoring functions to new points. New components must be capable of merging with existing configuration without degrading the performance of either system.

C. Manual Fire-Alarm Boxes:

1. Install manual fire-alarm box in normal path of egress within 60 inch (1520 mm) of exit doorway.
2. Mount manual fire-alarm box on background of contrasting color.
3. Operable part of manual fire-alarm box must be between 42 and 48 inch (1060 and 1220 mm) above floor level. Devices must be mounted at same height unless otherwise indicated.

D. Smoke- and Heat-Detector Spacing:

1. Comply with "Smoke-Sensing Fire Detectors" section in "Initiating Devices" chapter in NFPA 72, for smoke-detector spacing.
2. Comply with "Heat-Sensing Fire Detectors" section in "Initiating Devices" chapter in NFPA 72, for heat-detector spacing.
3. Smooth ceiling spacing must not exceed 30 ft. (9 m).
4. Spacing of detectors for irregular areas, for irregular ceiling construction, and for high ceiling areas must be determined in accordance with Annex A in NFPA 72.
5. HVAC: Locate detectors no closer than 36 inch (910 mm) from air-supply diffuser or return-air opening.
6. Lighting Fixtures: Locate detectors not closer than 12 inch (300 mm) from lighting fixture and not directly above pendant mounted or indirect lighting.

E. Install cover on each smoke detector that is not placed in service during construction. Cover must remain in place except during system testing. Remove cover prior to system turnover.

F. Provide all wiring required for fan shutdown. Wire from the addressable control module for each fan to be shut down and provide wiring from the module to the fan control unit (starter, adjustable speed drive, etc.) Dry contact shall be wired ahead of all control functions for starters. Provide intermediate relay for control circuits beyond the rating of the control module. - REVISED BY ADDENDUM No. 5

G. Duct Smoke Detectors: Comply with NFPA 72 and NFPA 90A. Install sampling tubes so they extend the full width of duct. Tubes more than 36 inch (9100 mm) long must be supported at both ends.

1. Do not install the detector in duct smoke-detector housing during construction. Install detector only during system testing and prior to system turnover.

H. Audible Alarm-Indicating Devices: Install not less than 6 inch (150 mm) below ceiling. Install bells and horns on flush-mounted back boxes with device-operating mechanism concealed behind grille. Install devices at same height unless otherwise indicated.

I. Visible Alarm-Indicating Devices: Install adjacent to each alarm bell or alarm horn and at least 6 inch (150 mm) below ceiling. Install devices at same height unless otherwise indicated.

J. Device Location-Indicating Lights: Locate in public space near device they monitor.

K. CO Detector Signage: Coordinate with the Owner, install a permanent 8-1/2 in. and 11 in., two (2) color lamicoid sign at eye level in the vicinity of every CO alarm notification device indicating specific instructions to be followed, ex. "Do not enter room if an alarm is sounding". - REVISED BY ADDENDUM No. 5

3.4 ELECTRICAL CONNECTIONS

A. Connect wiring in accordance with Section 260519 "Low-Voltage Electrical Power Conductors and Cables."

B. Ground equipment in accordance with Section 260526 "Grounding and Bonding for Electrical Systems."

C. Install electrical devices furnished by manufacturer, but not factory mounted, in accordance with NFPA 70 and NECA 1.

D. Install nameplate for each electrical connection, indicating electrical equipment designation and circuit number feeding connection.

1. Nameplate must be laminated acrylic or melamine plastic signs, as specified in Section 260553 "Identification for Electrical Systems."

3.5 CONTROL CONNECTIONS

A. Install control and electrical power wiring to field-mounted control devices.

B. Connect control wiring in accordance with Section 260523 "Control-Voltage Electrical Power Cables."

C. Install nameplate for each control connection, indicating field control panel designation and I/O control designation feeding connection.

3.6 PATHWAYS

A. Pathways above recessed ceilings and in inaccessible locations may be routed exposed.

1. Exposed pathways located less than 96 inch (2440 mm) above floor must be installed in EMT.

B. Pathways must be installed in EMT. Exceptions: Pathways installed exposed at Outdoor locations, sump and ejector pits, elevator pits, loading docks, garages, rooftops, gymnasiums and Boiler/Mechanical Rooms/Main Electrical Rooms must be installed in GRC: Galvanized rigid steel conduit.

C. Exposed conduit must be painted red enamel.

3.7 CONNECTIONS

A. Provide the required quantity of 20 ampere, 120 volt circuits to the system with a minimum of one (1) for the FACP, one (1) for door release, and one (1) for each notification circuit extender. - REVISED BY ADDENDUM No. 5

B. Provide minimum #18 AWG twisted shielded pair for addressable signal line circuits. Notification appliance circuits shall be#14AWG minimum. Conductor size shall meet or exceed the manufacturer recommendation and be within the voltage drop calculations. - REVISED BY ADDENDUM No. 5

C. Provide minimum #18 AWG twisted pair for speakers and telephones. Speaker circuits shall be shielded. - REVISED BY ADDENDUM No. 5

D. Addressable signal line and Notification Appliance circuits shall be NFPA 72 - 2022 Class A (redundant,single open operation). - REVISED BY ADDENDUM No. 5

E. Provide a 24VDC power circuit, #16 twisted pair minimum (increase the conductor size based upon voltage drop calculations), with each initiation addressable circuit for the entire length. - REVISED BY ADDENDUM No. 5

F. Make addressable connections with supervised interface device. Install interface device less than 36 inch (910 mm) from device controlled. Make addressable confirmation connection when such feedback is available at device or system being controlled.

G. For fire-protection systems related to doors in fire-rated walls and partitions and to doors in smoke partitions, comply with requirements in Section 087100 "Door Hardware." Connect hardware and devices to fire-alarm system.

1. Verify that hardware and devices are listed for use with installed fire-alarm system before making connections.

3.8 IDENTIFICATION

A. Identify system components, wiring, cabling, and terminals. Comply with requirements for identification specified in Section 270553 "Identification for Communications Systems."

B. Install framed instructions in location visible from FACP.

3.9 GROUNDING

A. Ground FACP and associated circuits in accordance with Section 260526 "Grounding and Bonding for Electrical Systems."

B. Ground shielded cables at control panel location only. Insulate shield at device location.

3.10 FIELD QUALITY CONTROL

A. Field tests must be witnessed by authorities having jurisdiction.

B. Administrant for Tests and Inspections:
1. Perform tests and inspections with assistance of factory-authorized service representative.

C. Tests and Inspections:

1. Visual Inspection: Conduct visual inspection prior to testing.

a. Inspection must be based on completed record Drawings and system documentation that is required by "Completion Documents, Preparation" table in "Documentation" section of "Fundamentals" chapter in NFPA 72.
b. Comply with "Visual Inspection Frequencies" table in "Inspection" section of "Inspection, Testing and Maintenance" chapter in NFPA 72; retain "Initial/Reacceptance" column and list only installed components.

2. System Testing: Comply with "Test Methods" table in "Testing" section of "Inspection, Testing and Maintenance" chapter in NFPA 72.
3. Test audible appliances for public operating mode in accordance with manufacturer's written instructions. Perform test using portable sound-level meter complying with Type 2 requirements in ASA S1.4 Part 1/IEC 61672-1.
4. Test audible appliances for private operating mode in accordance with manufacturer's written instructions.
5. Test visible appliances for public operating mode in accordance with manufacturer's written instructions.
6. Factory-authorized service representative must prepare "Fire Alarm System Record of Completion" in "Documentation" section of "Fundamentals" chapter in NFPA 72 and "Inspection and Testing Form" in "Records" section of "Inspection, Testing and Maintenance" chapter in NFPA 72.

D. Reacceptance Testing: Perform reacceptance testing to verify proper operation of added or replaced devices and appliances.

E. The fire alarm system will be considered defective if it does not pass tests and inspections.

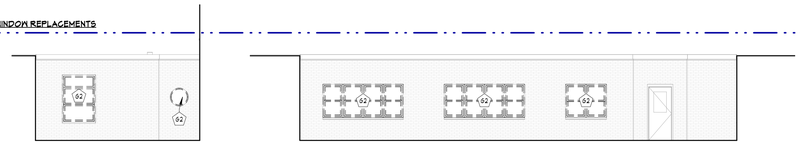
F. Prepare test and inspection reports.

G. Maintenance Test and Inspection: Perform tests and inspections listed for weekly, monthly, quarterly, and semiannual periods. Use forms developed for initial tests and inspections.

H. Annual Test and Inspection: One year after date of Substantial Completion, test fire-alarm system complying with visual and testing inspection requirements in NFPA 72. Use forms developed for initial tests and inspections.

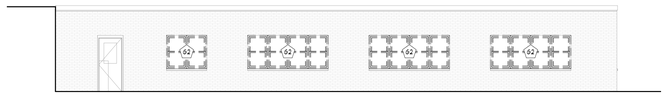
END OF SECTION 284621

ALTERNATE#1B - WINDOW REPLACEMENTS



6 DEMO ELEVATION - EAST
AD201 1/8" = 1'-0"

5 PARTIAL DEMO ELEVATION - WEST
AD201 1/8" = 1'-0"



4 PARTIAL DEMO ELEVATION - NORTH
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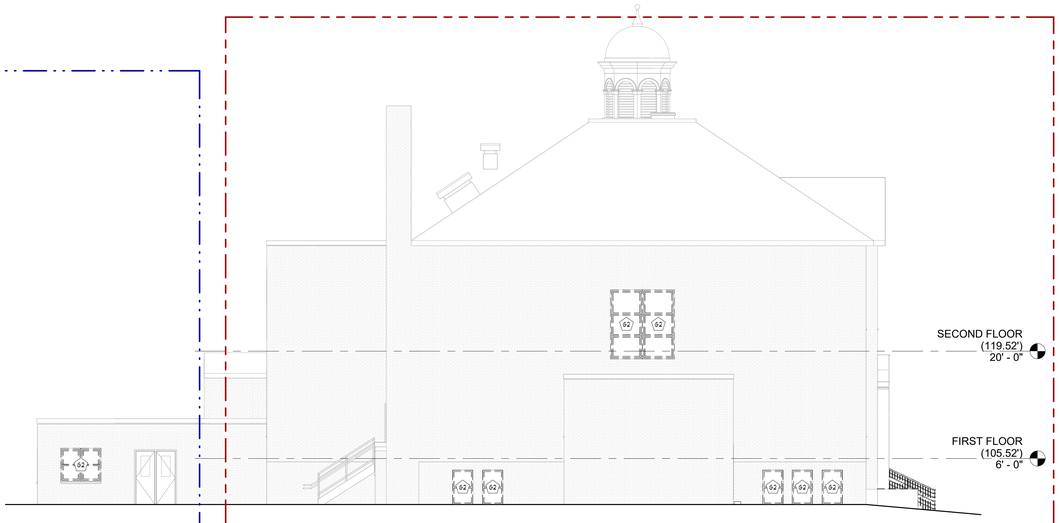
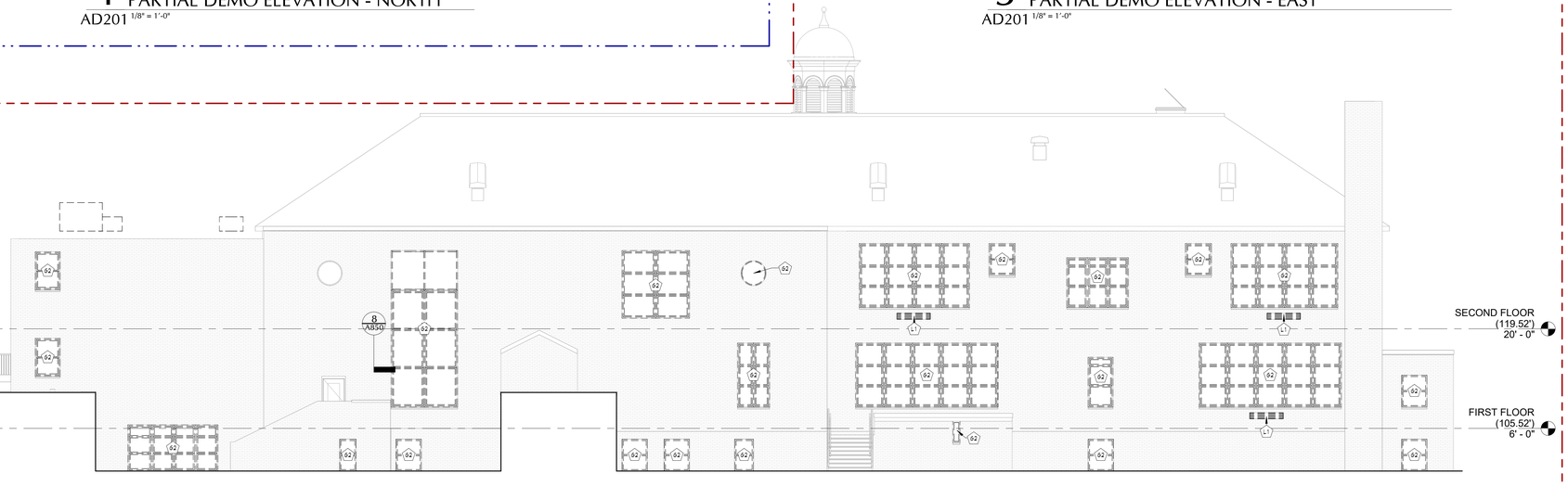


3 PARTIAL DEMO ELEVATION - EAST
AD201 1/8" = 1'-0"

ALTERNATE#1A - WINDOW REPLACEMENTS



2 PARTIAL DEMO ELEVATION - WEST
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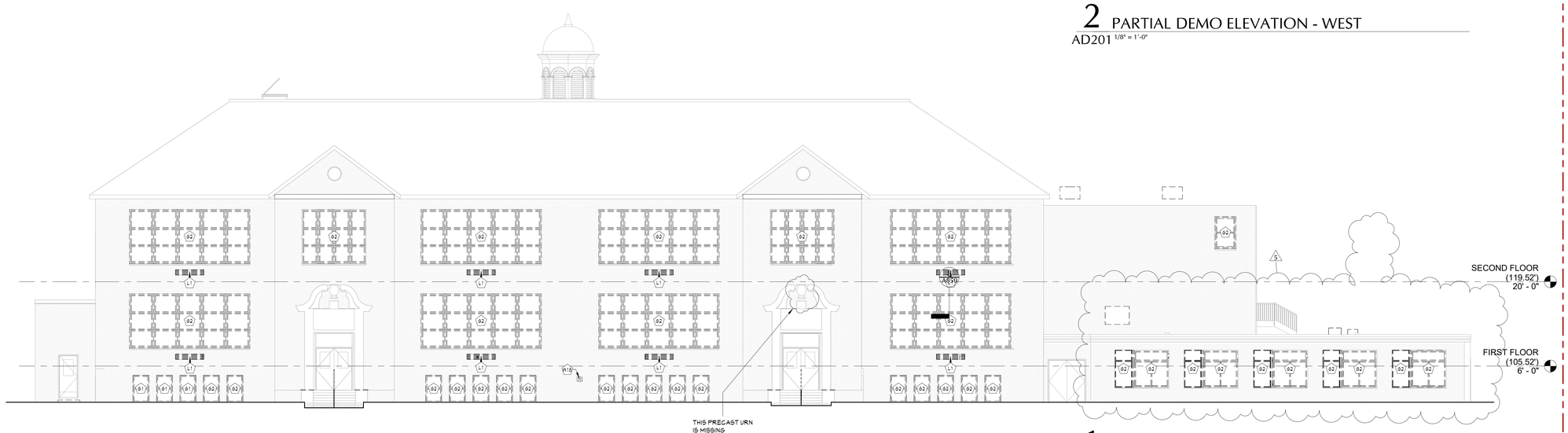


1 PARTIAL DEMO ELEVATION - EAST
AD201 1/8" = 1'-0"

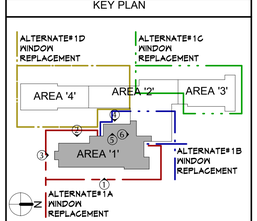
GENERAL NOTES

1. REFER TO SHEET 2-G001 FOR ADDITIONAL GENERAL NOTES.

KEY NOTES

#	DESCRIPTION
G1	REMOVE WINDOW SYSTEM IN ITS ENTIRETY, INCLUDING ALL SILLS, FLASHING AND FASTENERS.
G2	REMOVE WINDOW SYSTEM IN ITS ENTIRETY. EXISTING WINDOWS SILLS AND STOOLS TO REMAIN. REMOVE AND SALVAGE EXISTING WOOD WINDOW TRIM FOR REINSTALLATION.
L1	REMOVE EXISTING LOUVER, AT LOCATIONS WHERE EXISTING UNIT VENTILATORS ARE REMOVED, COORDINATE WITH 'M' DRAWINGS.
W1B	SAWCUT AND PROVIDE OPENING AT EXTERIOR WALL AS REQUIRED FOR NEW LOUVER. COORDINATE WITH 'M' DWGS.

KEY PLAN



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Consultant

PAWLING CENTRAL SCHOOL DISTRICT
PAWLING ELEMENTARY SCHOOL
2020 CAPITAL PROJECT - PHASE 3

Project Title

REGISTERED ARCHITECT
CHRISTOPHER MARK NOLAN
No. 025803
STATE OF NEW YORK

#	DATE	DESCRIPTION
2	12/07/2023	BID ADDENDUM 2
1	11/17/2023	BID ADDENDUM 1

Drawn By:	MK/JM
Checked By:	PN
Proj. #:	13-12-01-04-0-001-024
CSArch Proj. #:	208-2101B3
Issued for Bid:	11/1/2023

Sheet Title

EXTERIOR DEMOLITION ELEVATIONS

Sheet No.

PES
AD201

CONSTRUCTION DOCUMENTS

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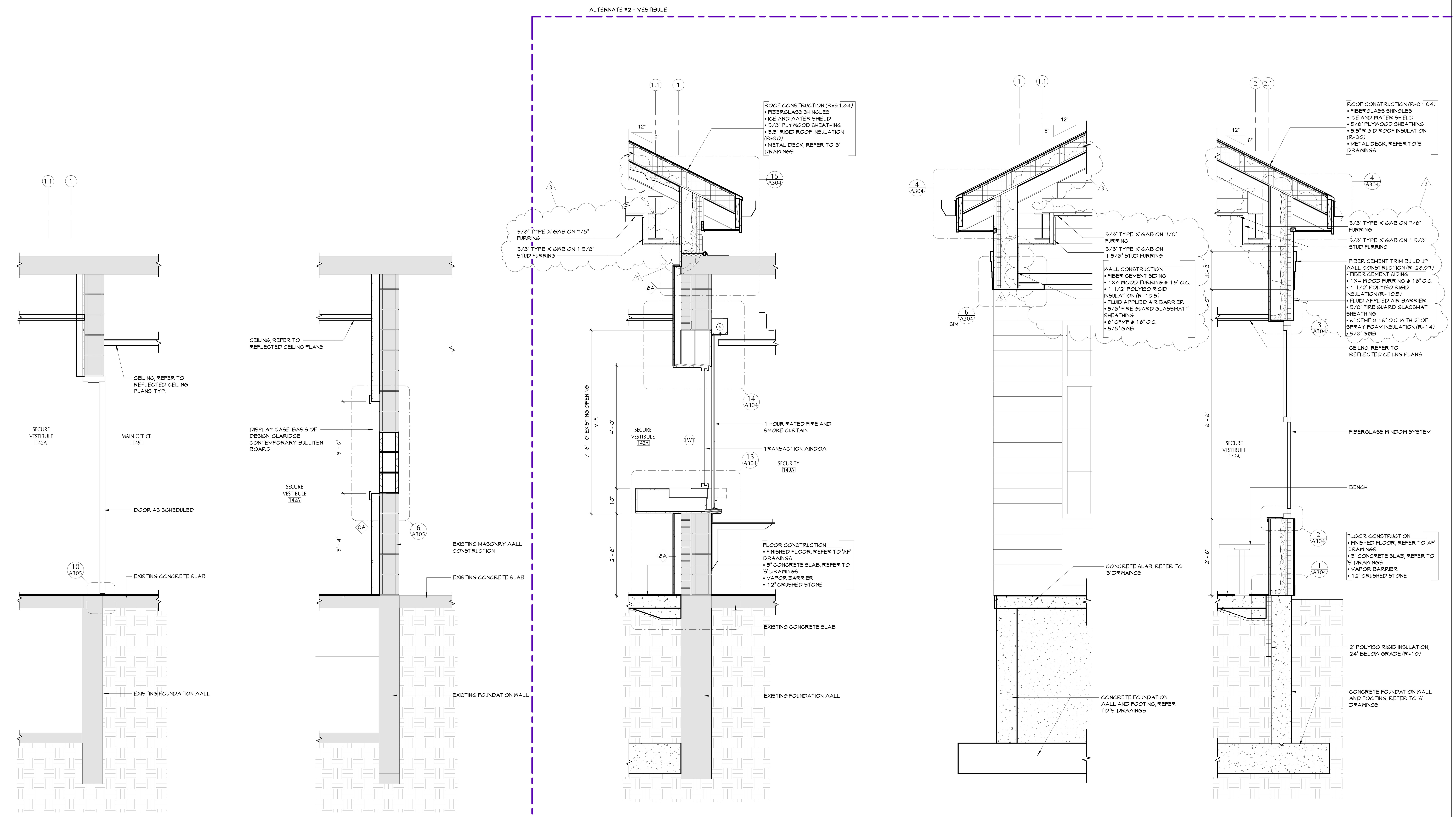

5 WALL SECTION A302 3/4" = 1'-0"

4 WALL SECTION A302 3/4" = 1'-0"

3 WALL SECTION A302 3/4" = 1'-0"

2 WALL SECTION A302 3/4" = 1'-0"

1 WALL SECTION A302 3/4" = 1'-0"

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Consultant

Project Title

PAWLING CENTRAL SCHOOL DISTRICT
PAWLING ELEMENTARY SCHOOL
2020 CAPITAL PROJECT - PHASE 3

REGISTERED ARCHITECT GREGORY MARK KLOKIW No. 025863-1 STATE OF NEW YORK

IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ARCHITECT IS ALTERED, THE ALTERING ARCHITECT SHALL AFFIX TO HIS ITEM THE SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION

#	DATE	DESCRIPTION
5	12/07/2023	BID ADDENDUM 5
3	11/29/2023	BID ADDENDUM 3

Drawn By:	MK/JM
Checked By:	PN
Proj. #:	13-12-01-04-0-001-024
CSArch Proj. #:	208-2101.03
Issued for Bid:	11/1/2023

Sheet Title

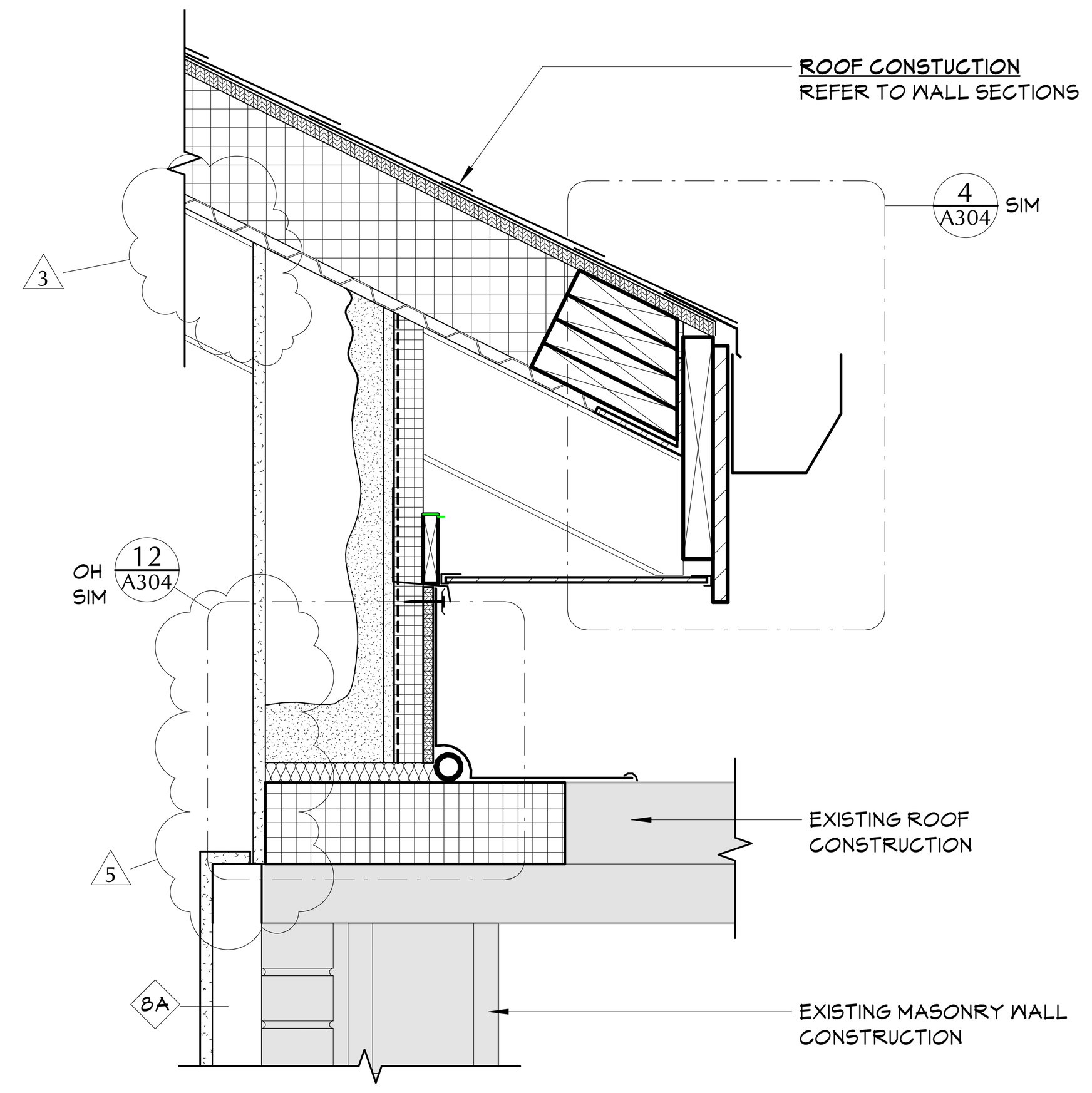
WALL SECTIONS

Sheet No.

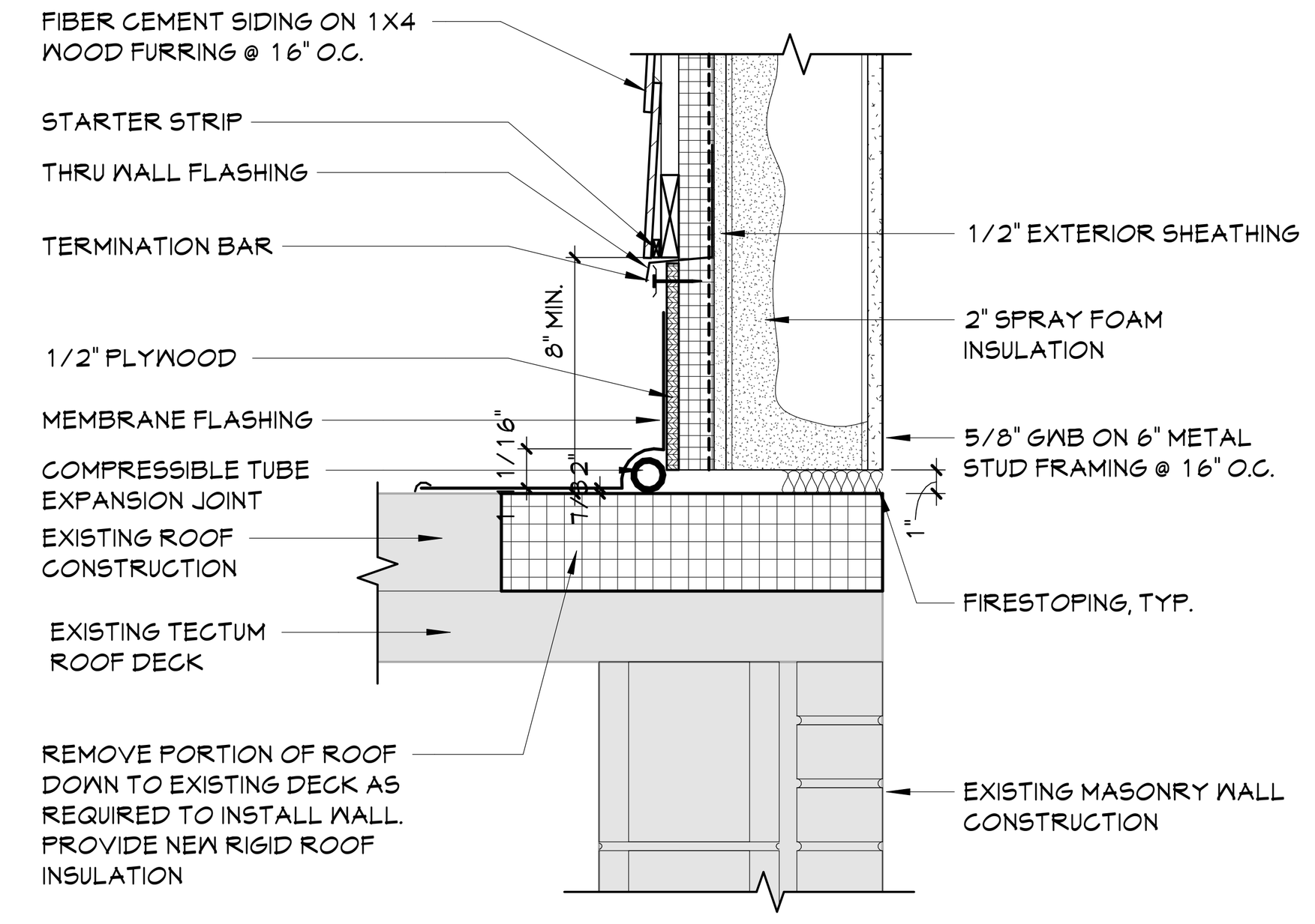
PES A302

CONSTRUCTION DOCUMENTS

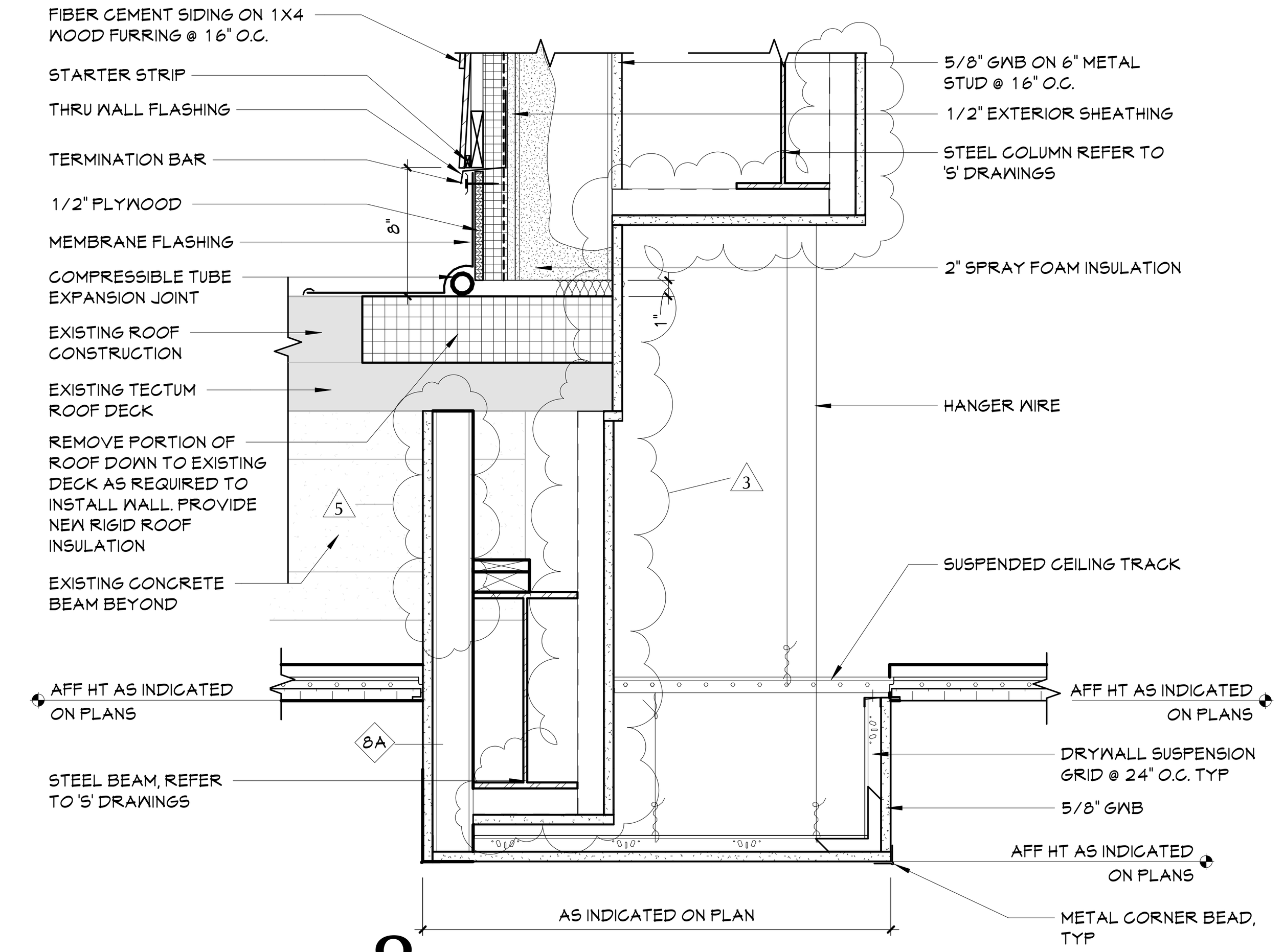
NOTE: AT CANOPY BASE BID ROOF SECTION 5.5" RIGID INSULATION IS OMITTED, FASTEN 5/8" PLYWOOD DIRECTLY TO METAL DECK



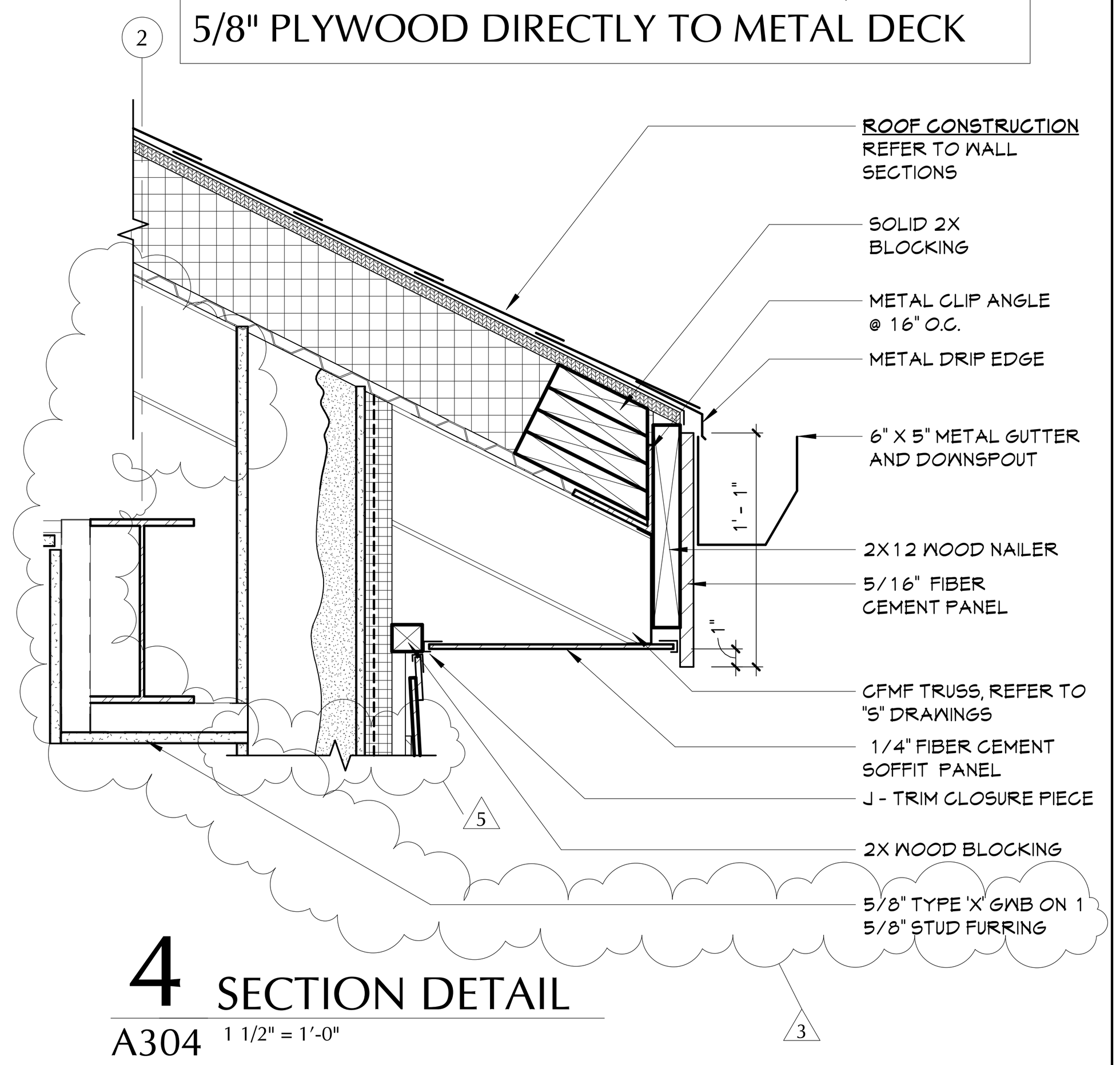
15 SECTION DETAIL
A304 1 1/2" = 1'-0"



12 SECTION DETAIL
A304 1 1/2" = 1'-0"



8 SECTION DETAIL
A304 1 1/2" = 1'-0"



4 SECTION DETAIL
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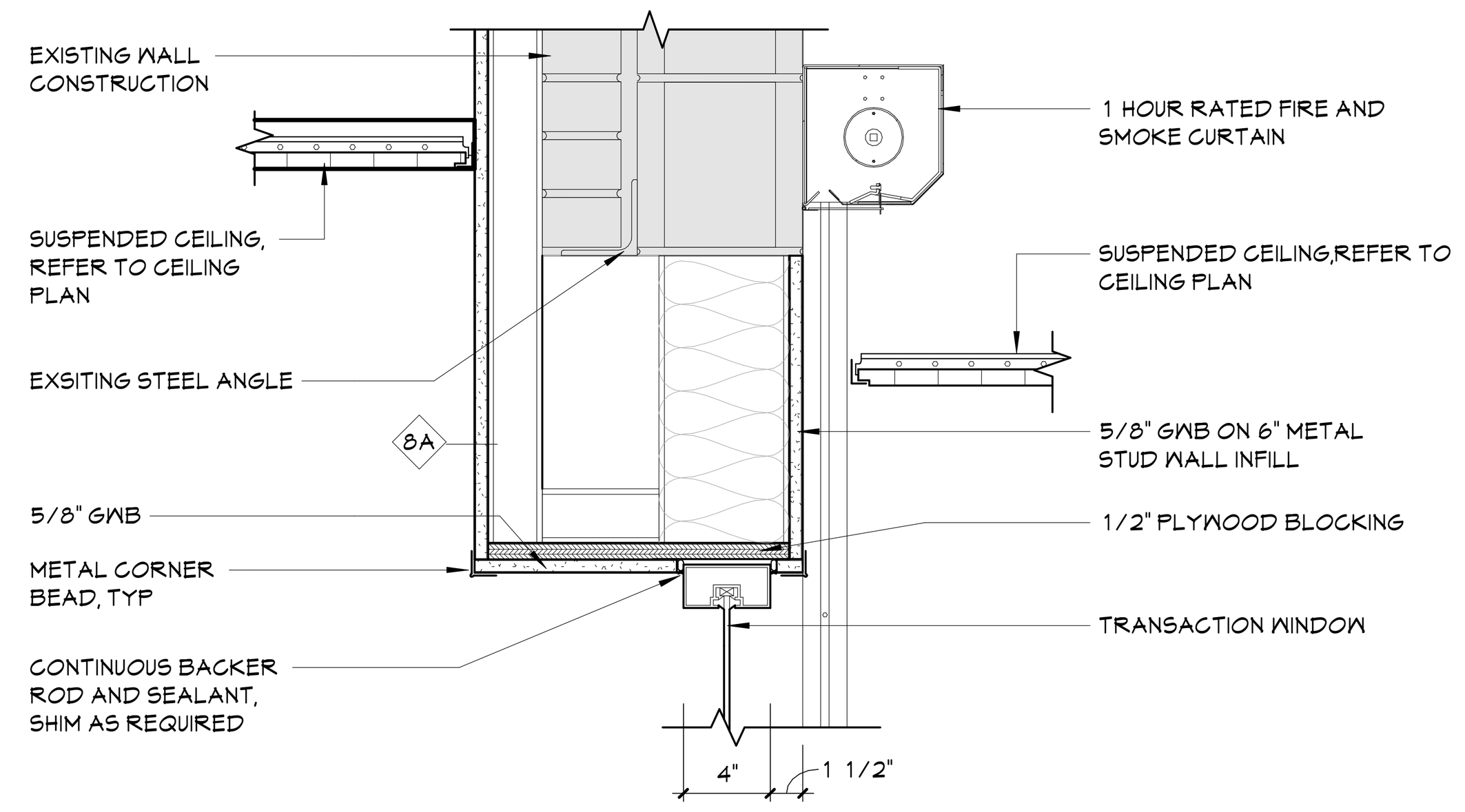

14 SECTION DETAIL
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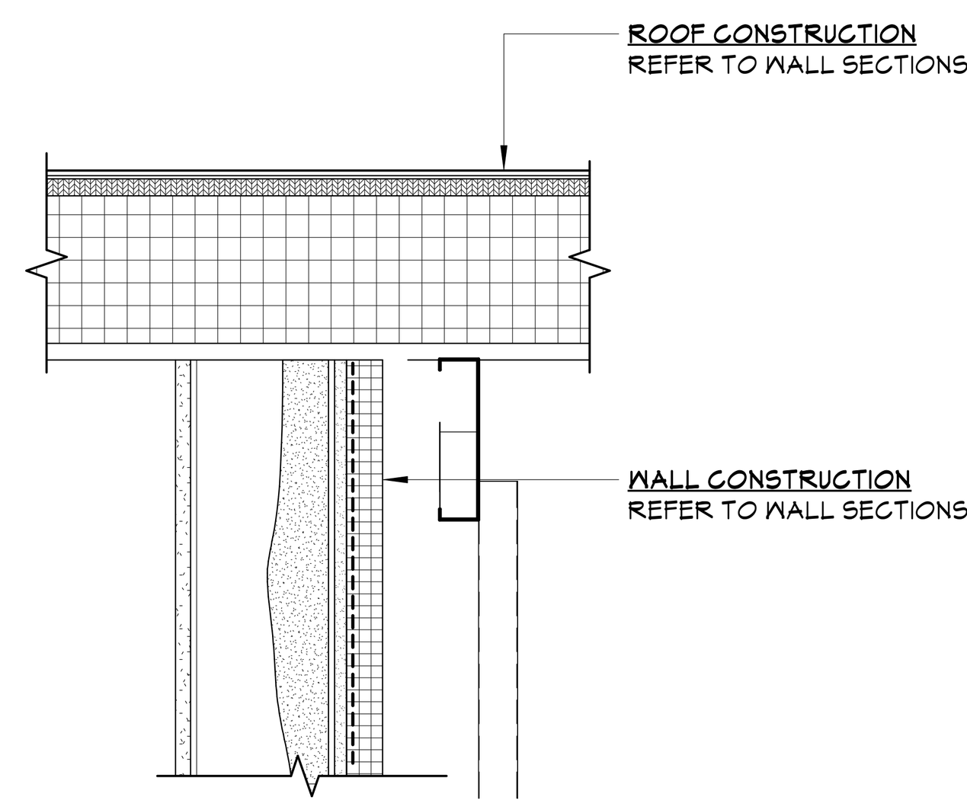
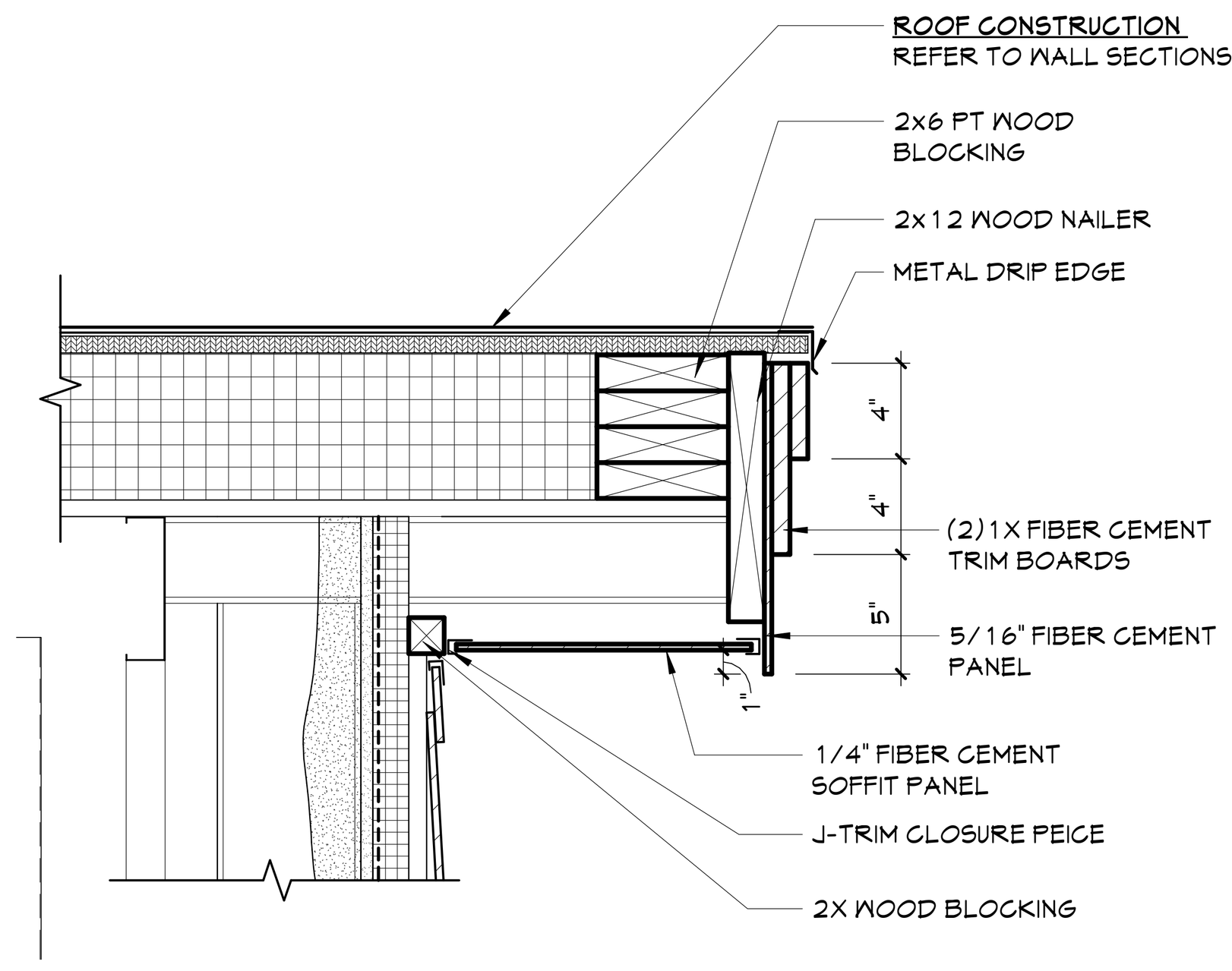


11 SECTION DETAIL
A304 1 1/2" = 1'-0"



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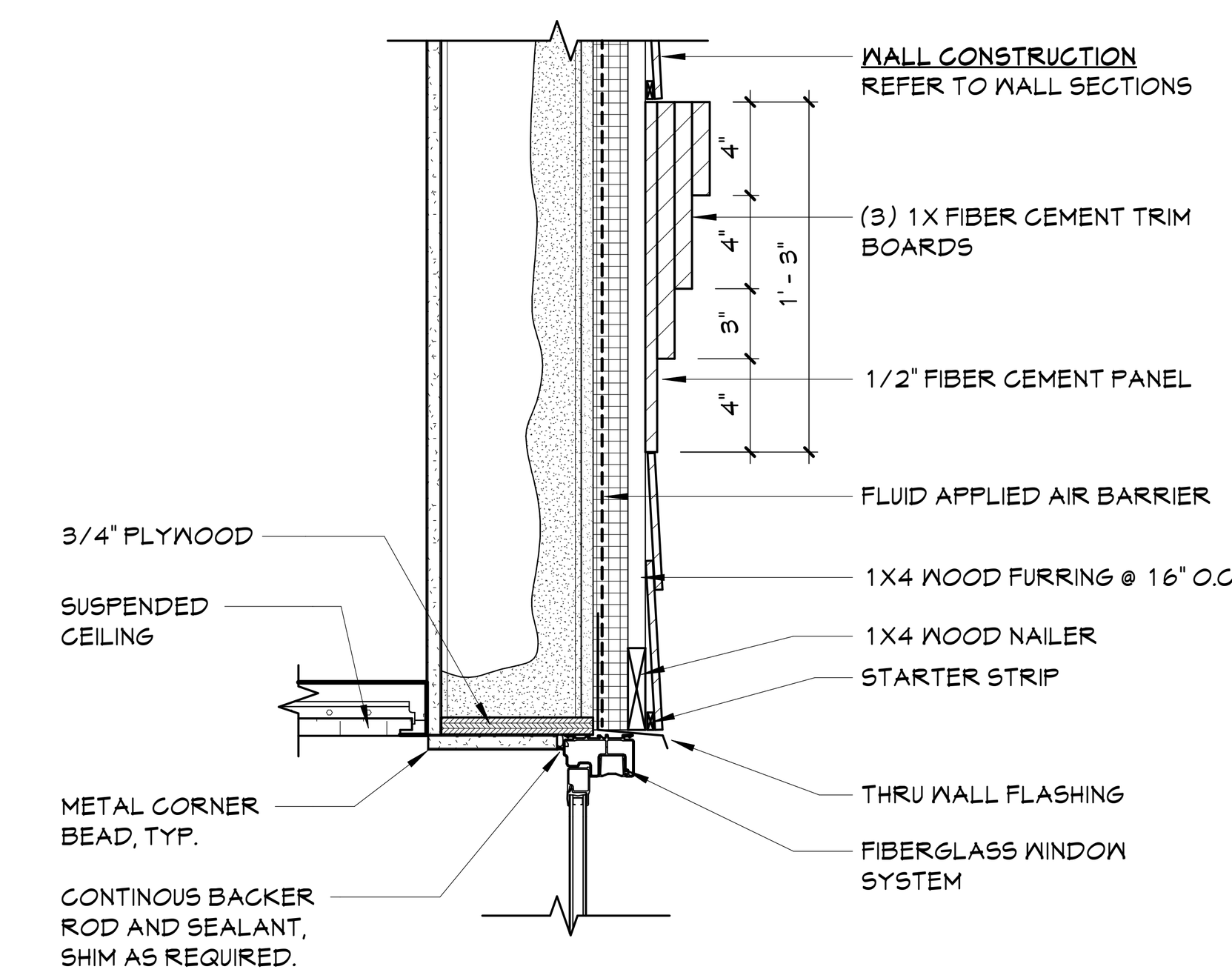
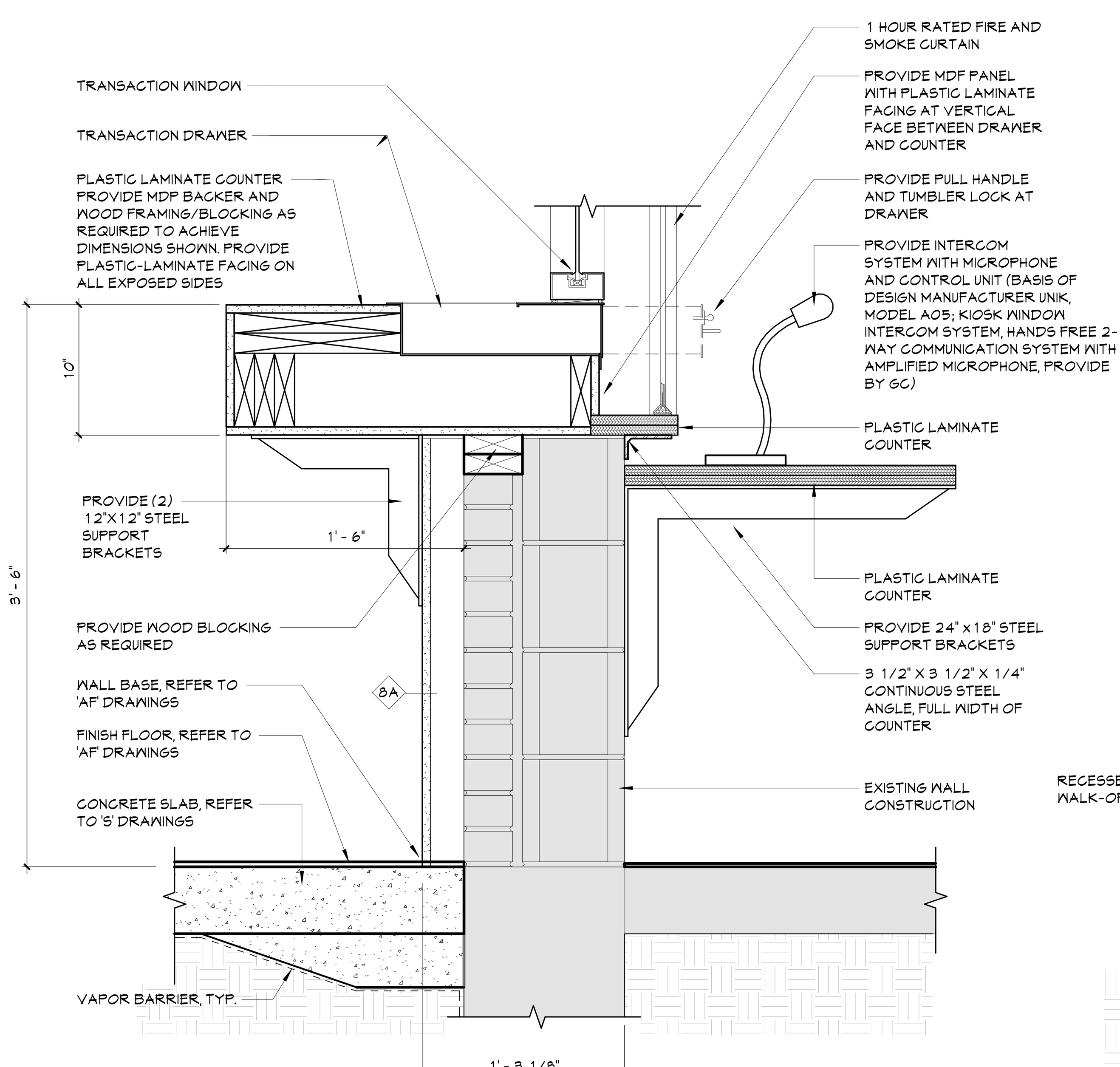
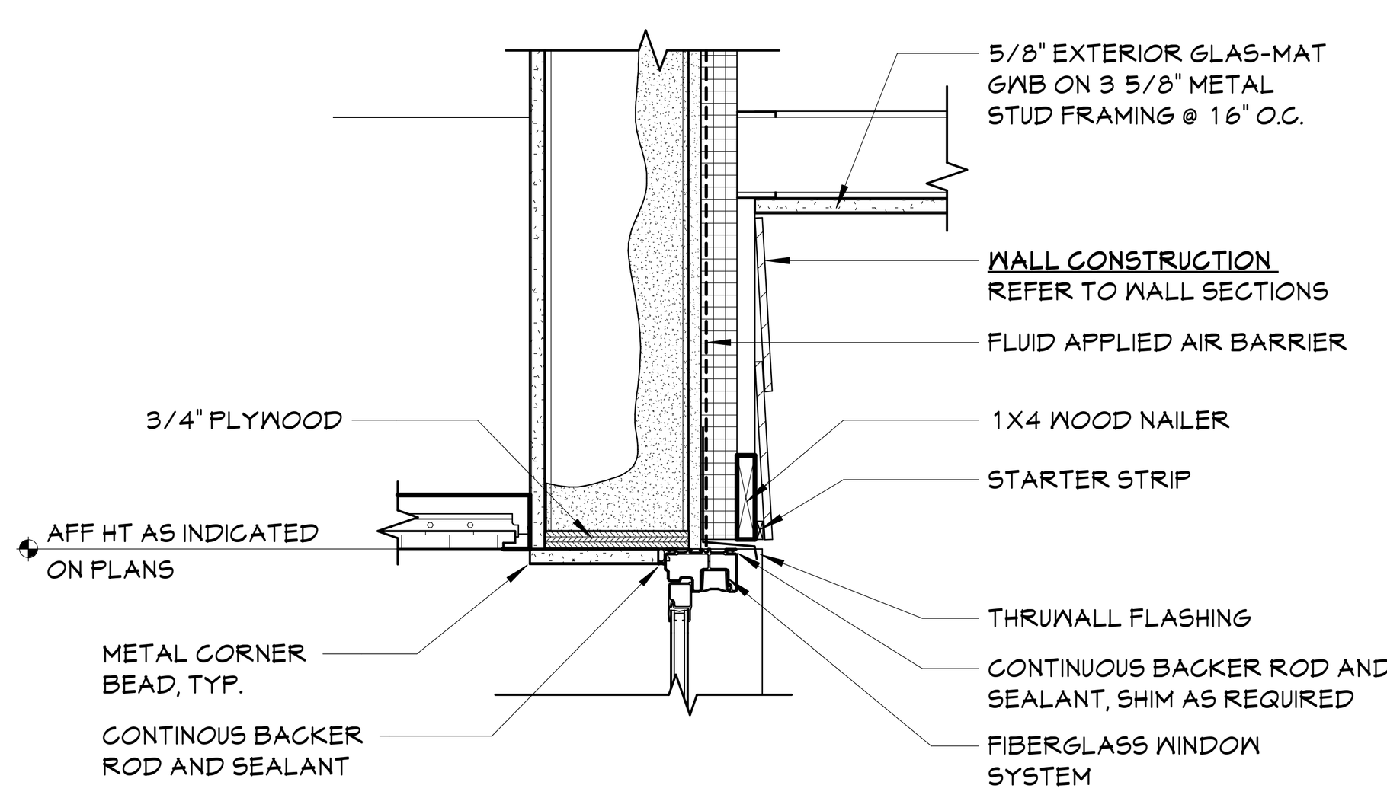


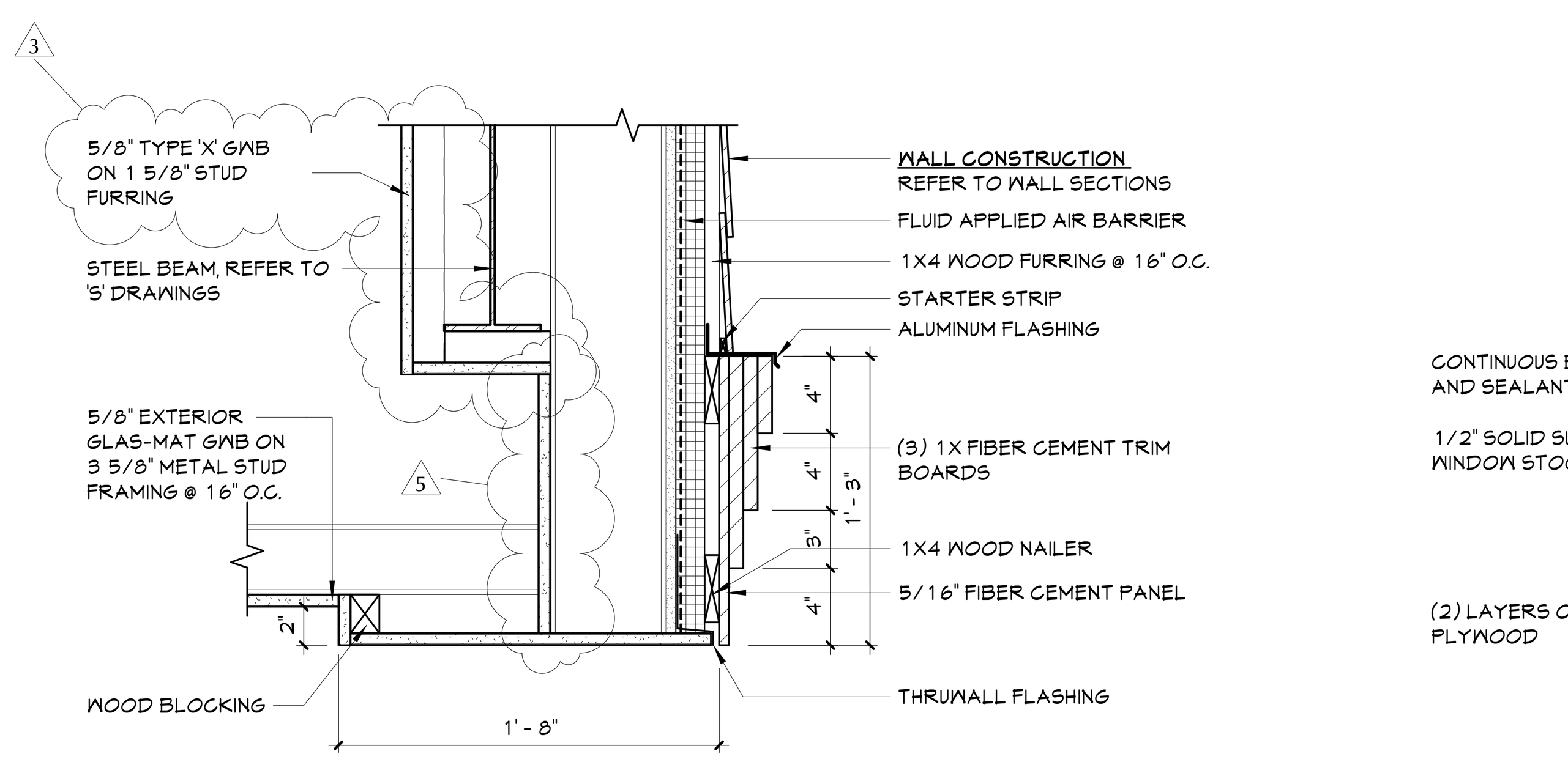
3 SECTION DETAIL
A304 1 1/2" = 1'-0"



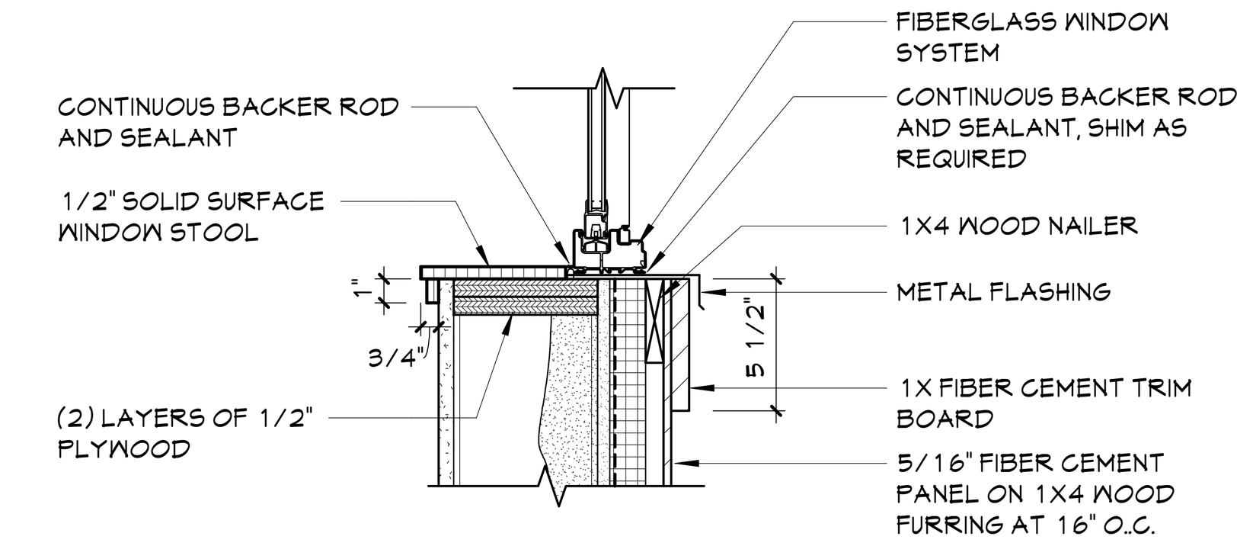
13 SECTION DETAIL
A304 1 1/2" = 1'-0"



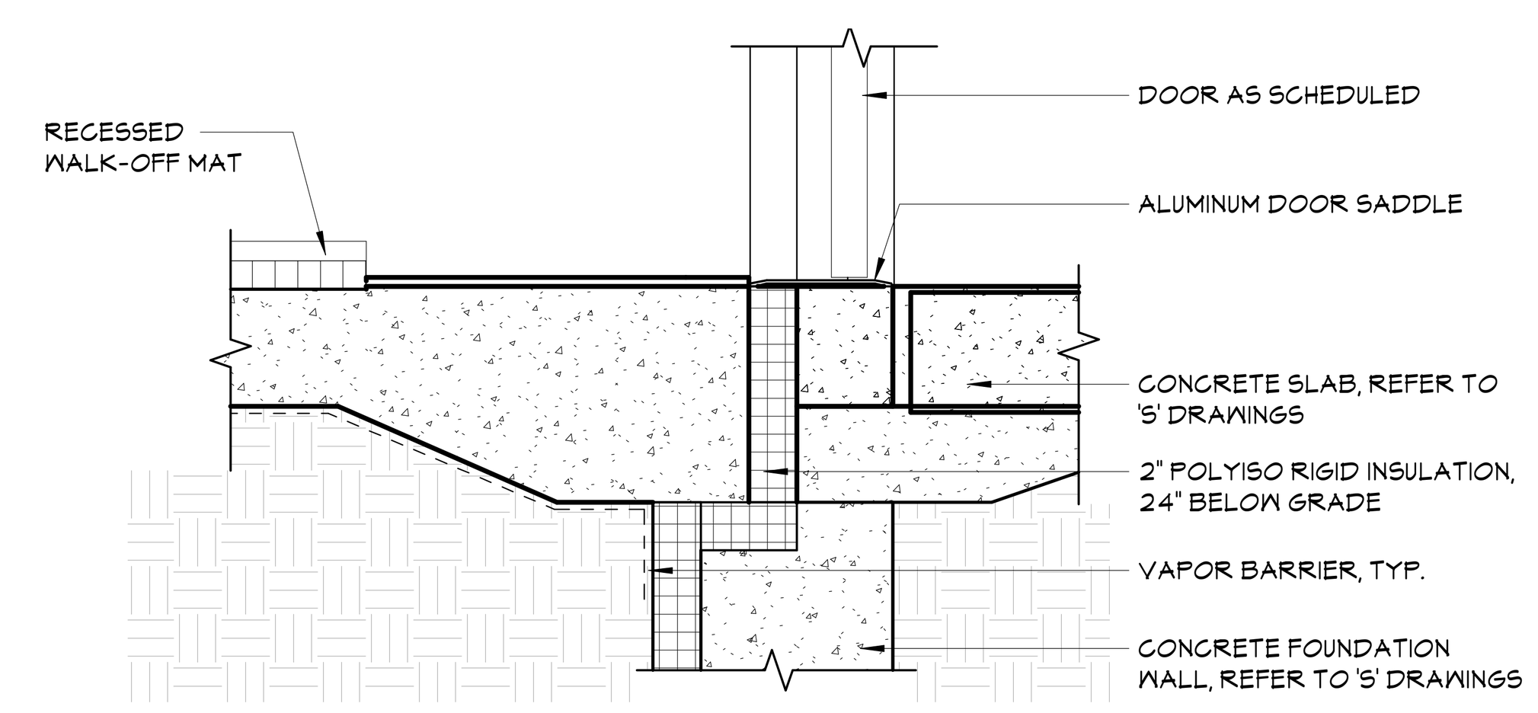
10 SECTION DETAIL
A304 1 1/2" = 1'-0"



6 SECTION DETAIL
A304 1 1/2" = 1'-0"



2 SECTION DETAIL
A304 1 1/2" = 1'-0"



9 SECTION DETAIL
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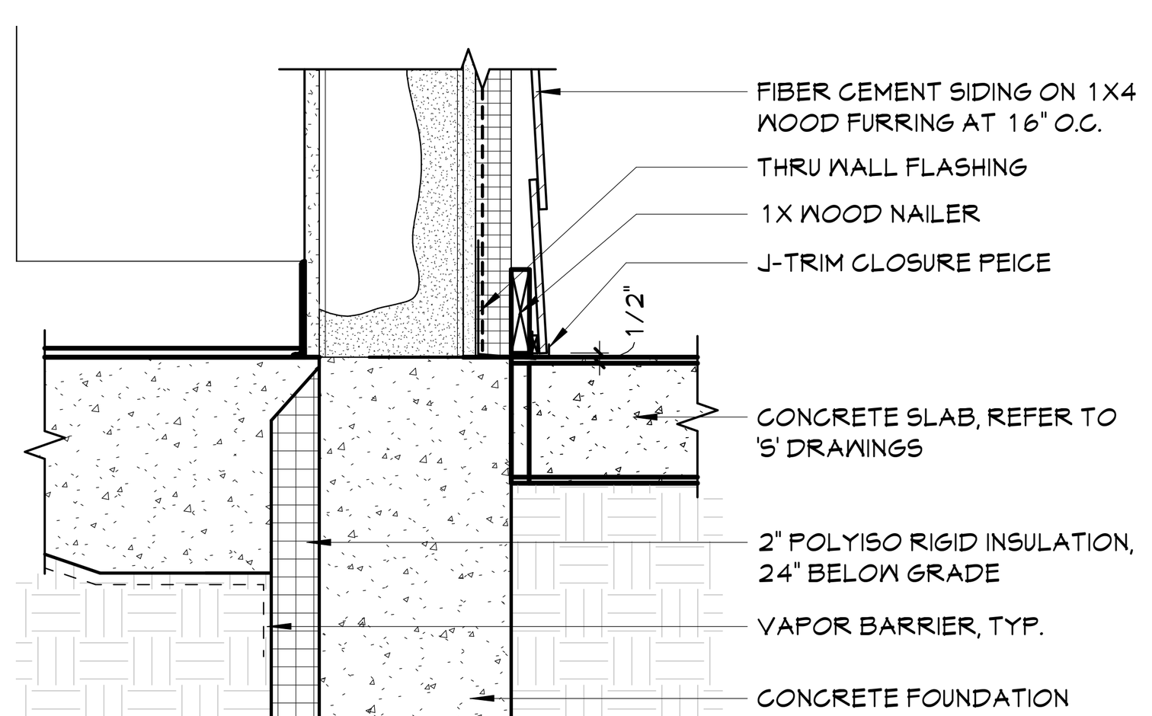

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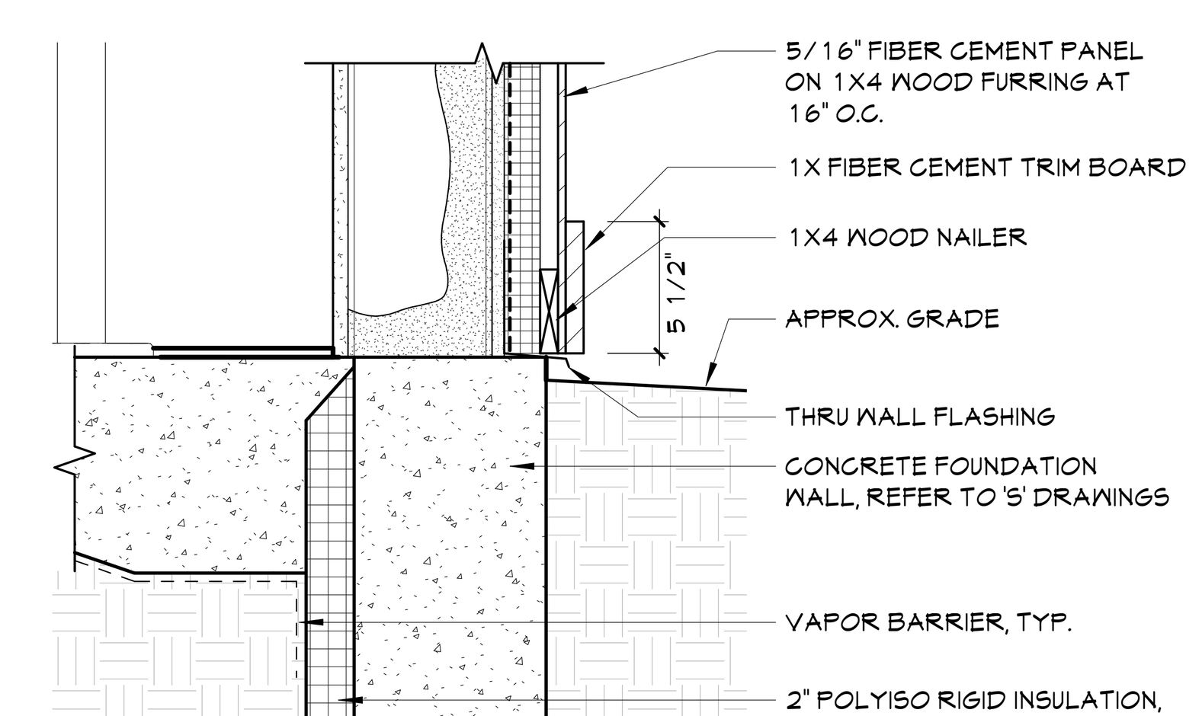
A304 1 1/2" = 1'-0"



1 SECTION DETAIL
A304 1 1/2" = 1'-0"

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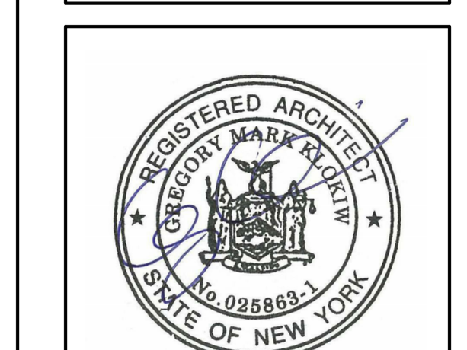
Project Title

PAWLING CENTRAL SCHOOL DISTRICT
PAWLING ELEMENTARY SCHOOL
2020 CAPITAL PROJECT - PHASE 3



IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ARCHITECT IS ALTERED, THE ALTERING ARCHITECT SHALL AFFIX TO HIS ITEM THE SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION

#	DATE	DESCRIPTION
5	12/07/2023	BID ADDENDUM 5
3	11/29/2023	BID ADDENDUM 3

Drawn By:	MK/JM
Checked By:	PN
Proj. #:	13-12-01-04-0-001-024
CSArch Proj. #:	208-2101.03
Issued for Bid:	11/1/2023

Sheet Title

SECTION DETAILS

Sheet No.

PES A304

CONSTRUCTION DOCUMENTS

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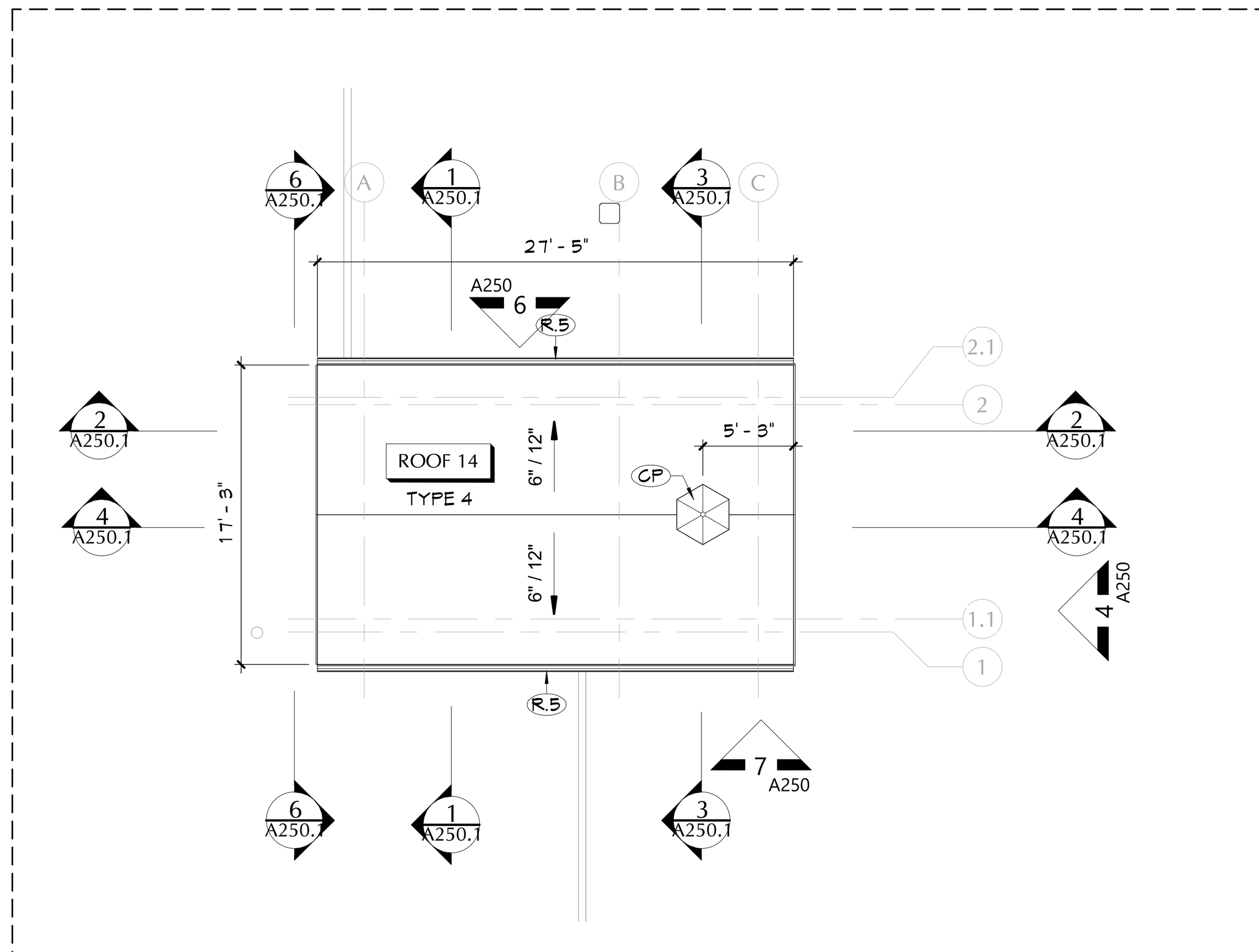
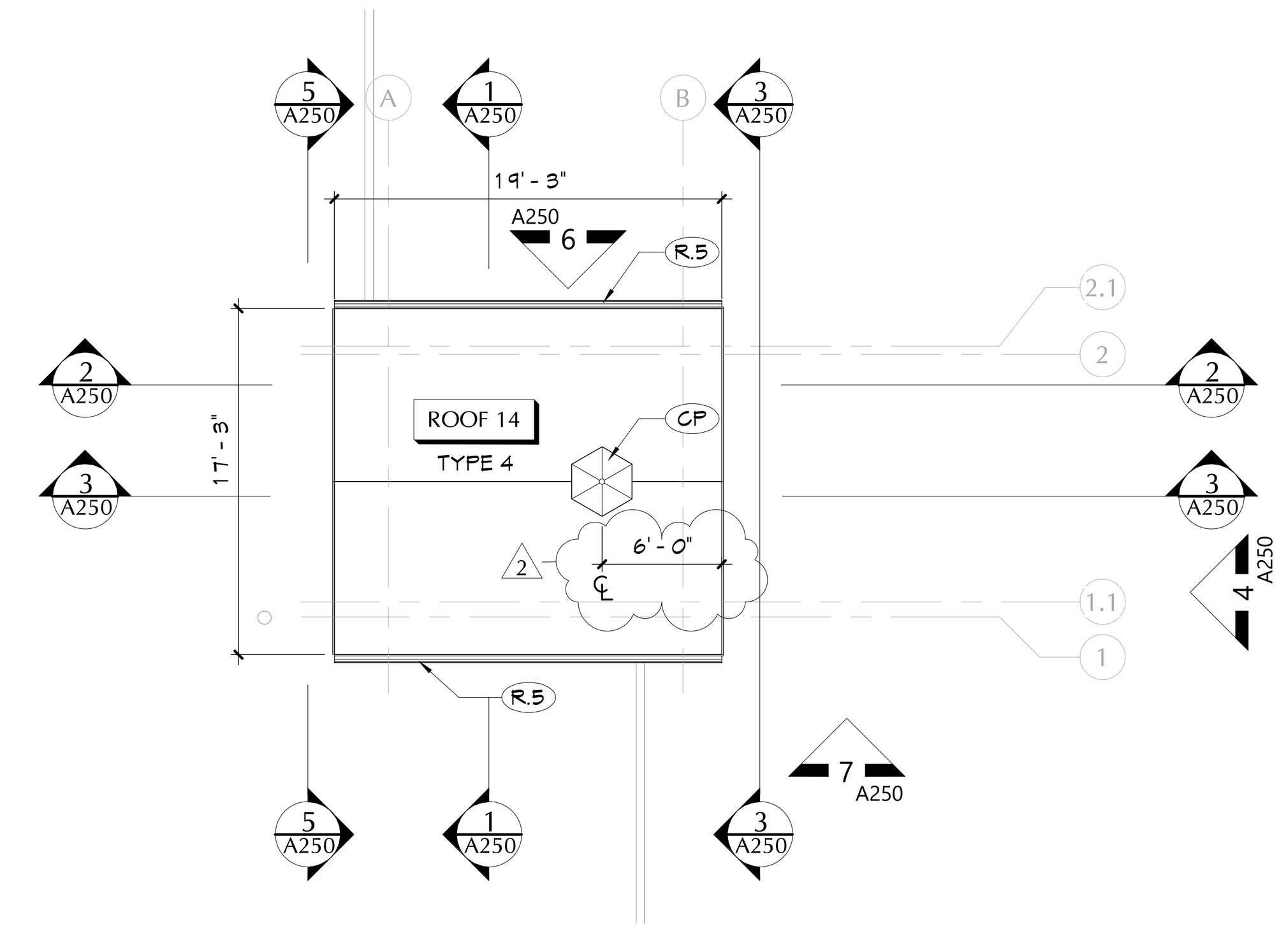
ALTERNATE #1



3 ENLARGED ROOF PLAN - ALT. 2 - VESTIBULE
A401 1/8" = 1'-0"



2 ENLARGED ROOF PLAN - BASE BID - CANOPY
A401 1/8" = 1'-0"

KEY NOTES

#	DESCRIPTION
CP	PVC CUPOLA. BASIS OF DESIGN; CUPOLA-PINNACLE-AZEK 42"L X 42"W X 77"H
R.1	MECHANICAL EQUIPMENT CURB, FURNISHED BY MC, INSTALLED BY GC, GC TO PROVIDE SUPPLEMENTAL STEEL. COORDINATE WITH 'S' AND 'M' DRAWINGS. REFER TO DETAIL 3/A450.
R.2	PROVIDE ROOF ASSEMBLY INFILL AT EXISTING OPENINGS. MATCH PROFILE AND DEPTH OF EXISTING DECK. REFER TO DETAIL 2/A450.
R.5	METAL ROOF GUTTER AND ROOF LEADER.
R.6	PROVIDE VENT PIPE. REFER TO DETAIL 6/A450.
R.7	MECHANICAL DUCT SUPPORT RAIL COORDINATE WITH MECHANICAL DRAWINGS. REFER TO DETAIL 7/A450.
R.8	PROVIDE CONDENSING UNIT EQUIPMENT SUPPORT RAIL. PROVIDE CURB WITH RUBBER BOOT AT ASSOCIATED PIPE PENETRATIONS. REFER TO DETAILS 1/A450 AND 5/A450.
R.12	42" HIGH GUARDRAIL. BASIS OF DESIGN SAFETYRAIL 200 BY BLUEWATER MANUFACTURING. REFER TO DETAIL 9/A450.
R.13	PROVIDE FALL PROTECTION TIE-OFF DEVICE ATTACHED TO EXISTING ROOF DECK. BASIS-OF-DESIGN; FALL TECH, MODEL 78218WCSWE, 18" TALL. REFER TO DETAIL 8/A450.
R.14	MECHANICAL STEEL DUNNAGE SUPPORT FRAME FLASHING & PIPE PENETRATION FLASHING, REFER TO DETAIL 4/A450. COORDINATE WITH 'S' AND 'M' DRAWINGS.

2

ROOF GENERAL NOTES

1. ALL EXISTING ROOF DRAINS TO REMAIN, UNO.
2. CURB SIZES SHOWN REFLECT PENETRATING DUCT SIZE. CURB SIZE MAY VARY, REFER TO MECHANICAL DRAWINGS, COORDINATE ACTUAL SIZE OF CURBS IN APPROVED SUBMITTALS.
3. NEW ROOF AND ROOF INSULATION FASTENERS TO ENGAGE HIGH POINT OF STEEL DECK FLUTES.
4. PROVIDE MINIMUM 1 1/2" RIGID INSULATION AT NEW FLAT ROOF AREAS, TAPER INSULATION TO HEIGHTS INDICATED.
5. REFER TO STRUCTURAL DRAWINGS FOR ROOF TOP EQUIPMENT SUPPORT DUNNAGE.

ROOF DESCRIPTIONS

ROOF TYPE 1 - EXISTING CONSTRUCTION
1. EXISTING EPDM MEMBRANE
2. EXISTING ROOF INSULATION
3. GYPSUM ROOF DECK

ROOF TYPE 2 - EXISTING CONSTRUCTION
1. EXISTING SLATE SHINGLE
2. EXISTING WOOD SEAHTING/DECKING
3. EXISTING WOOD RAFTER FRAMING

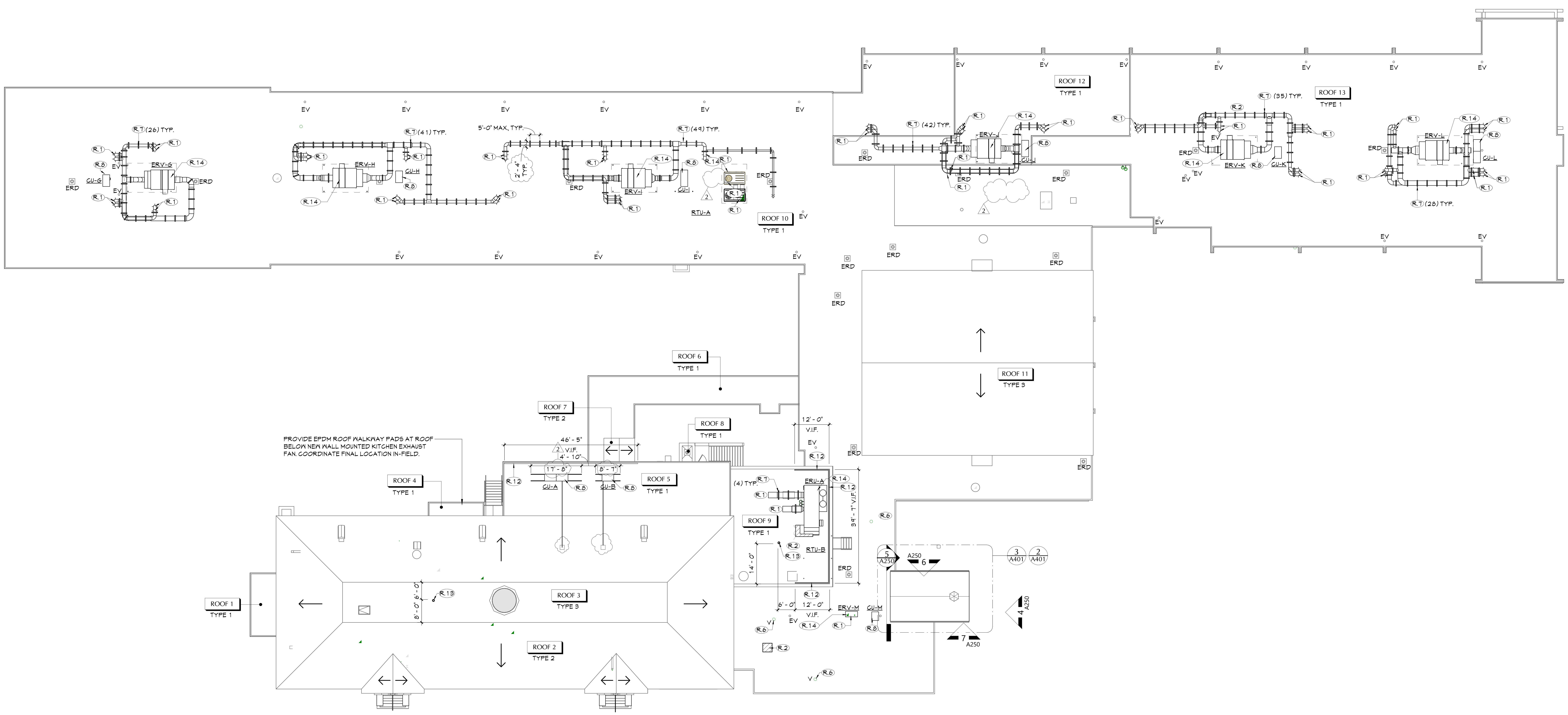
ROOF TYPE 3 - EXISTING CONSTRUCTION
1. EXISTING EPDM MEMBRANE
2. EXISTING WOOD SEAHTING/DECKING
3. EXISTING WOOD RAFTER FRAMING

ROOF TYPE 4 - NEW CONSTRUCTION
1. FIBERGLASS SHINGLES
2. ICE AND WATER SHIELD
3. PLYWOOD ROOF SHEATHING
4. 5.5" RIGID ROOF INSULATION (R-30)
5. METAL ROOF DECK, REFER TO 'S' DRAWINGS

5

ROOF LEGEND

- RD ROOF DRAIN, REFER TO PLUMBING DRAWINGS
- SC ROOF SCUPPER
- V VENT PIPE, REFER TO PLUMBING DRAWINGS
- ROOF PENETRATIONS, REFER TO MECHANICAL DRAWINGS
- AH ROOF ACCESS HATCH
- S SKYLIGHT
- INDICATES DIRECTION OF SLOPE AT 1/4" PER FOOT MINIMUM, UNO
- L ROOF LADDER
- EJ EXPANSION JOINT
- E_ EXISTING TO REMAIN



1 OVERALL ROOF PLAN
A401 1/16" = 1'-0"

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Project Title

PAWLING CENTRAL SCHOOL DISTRICT
PAWLING ELEMENTARY SCHOOL
2020 CAPITAL PROJECT - PHASE 3

REGISTERED ARCHITECT · GREGORY MARK KLOKIW · No. 025863-1 · STATE OF NEW YORK

#	DATE	DESCRIPTION
5	12/07/2023	BID ADDENDUM 5
2	11/22/2023	BID ADDENDUM 2
1	11/17/2023	BID ADDENDUM 1

Drawn By:	MK/JM
Checked By:	PN
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Issued for Bid:	11/1/2023

Sheet Title

OVERALL ROOF PLAN

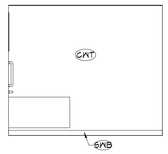
1

Sheet No.

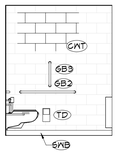
PES A401

CONSTRUCTION DOCUMENTS

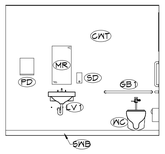
9 TOILET 147A SOUTH
A601 1/4" = 1'-0"



8 TOILET 147A EAST
A601 1/4" = 1'-0"

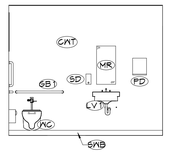


7 TOILET 147A NORTH
A601 1/4" = 1'-0"



6 TOILET 147A WEST
A601 1/4" = 1'-0"

5 TOILET 147B SOUTH
A601 1/4" = 1'-0"



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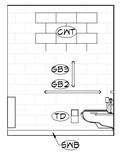
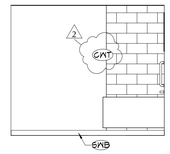
A601 1/4" = 1'-0"

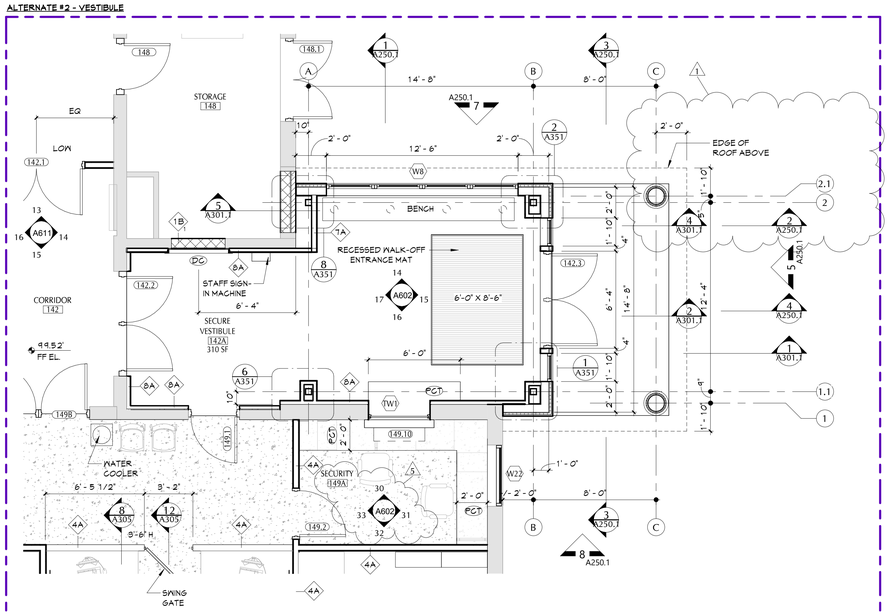


3 TOILET 147B NORTH
A601 1/4" = 1'-0"

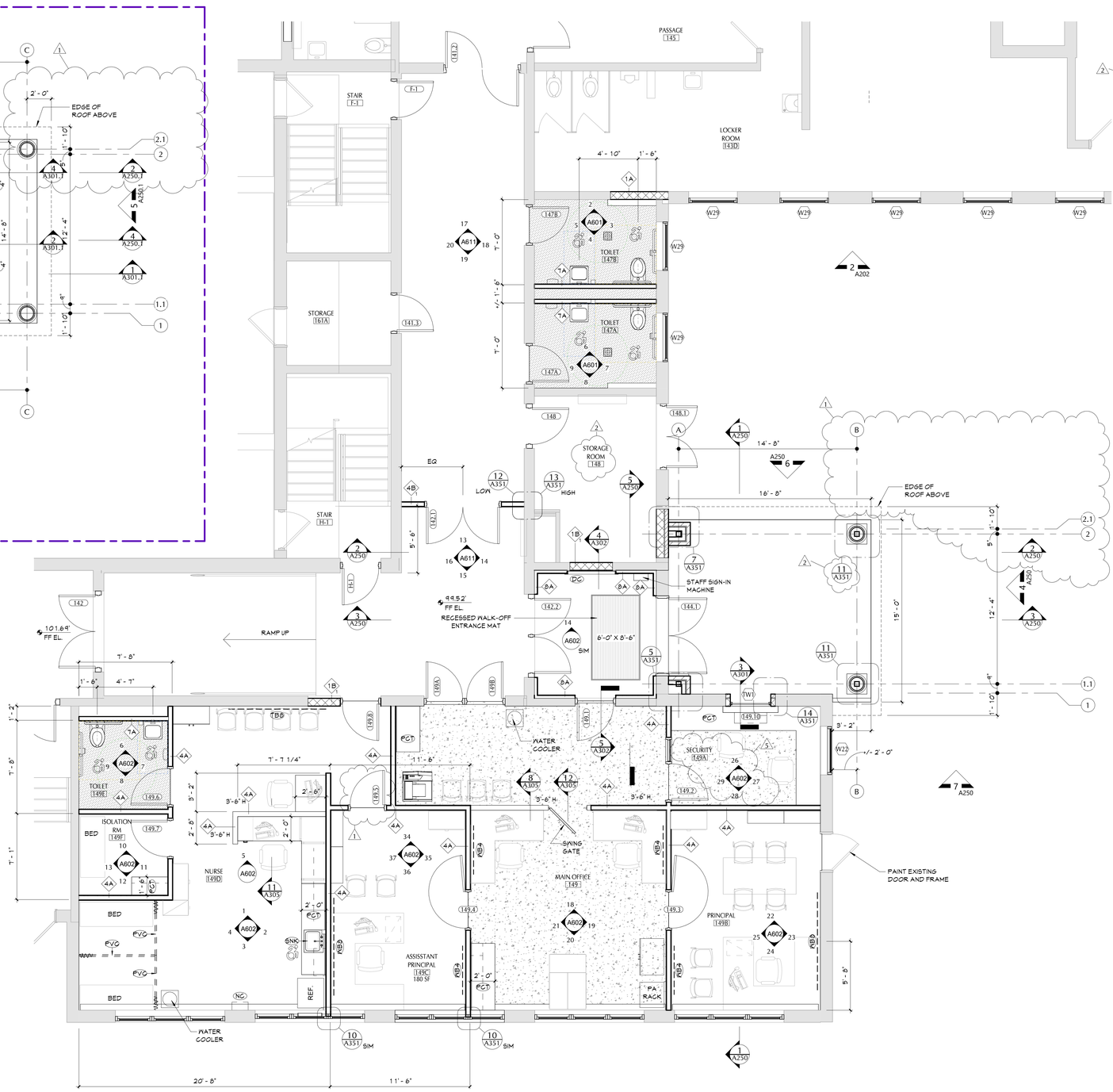


2 TOILET 147B WEST
A601 1/4" = 1'-0"

ALTERNATE #2 - VESTIBULE



10 ENLARGED PLAN - ALT 2 - VESTIBULE
A601 1/4" = 1'-0"



1 ENLARGED PLAN - MAIN OFFICE / ENTRY / NURSE
A601 1/4" = 1'-0"

GENERAL NOTES

1. ALL CASEWORK SHALL HAVE PLASTIC LAMINATE (PLAM) COUNTERTOPS AND 4" BACK SPLASHES UNO.
2. INSTALL MATCHING FILLER PANELS IN LOCATIONS SHOWN. ADD MATCHING FILLER PANELS AS REQUIRED FOR FINAL FIT/FINISH.
3. PROVIDE BLOCKING IN ALL ADJACENT WALLS AS REQUIRED TO INSTALL ALL CASEWORK.
4. PROVIDE FINISHED END PANEL AT ALL EXPOSED FACES OF CASEWORK.
5. PROVIDE WALL BASE AS SCHEDULED ON ALL EXPOSED TOE KICK SPACES AND EXPOSED END PANELS.

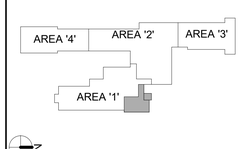
CASEWORK NOTES

FINISH
FL PLASTIC LAMINATE

KEY NOTES

#	DESCRIPTION
CMT	CERAMIC WALL TILE REFER TO FINISH DRAWINGS FOR SPECIFIC TILE SIZE, FINISH AND PATTERN.
DG	DISPLAY CASE BASES OF DESIGN; AARCO PRODUCTS INC. RECESSED GLAZED #10-490 DISPLAY BOARD WITH HINGED DOORS 3'-0"H X 4'-0"W.
GB1	36" GRAB BAR
GB2	42" GRAB BAR
GB3	18" VERTICAL GRAB BAR
LV1	SINGLE STATION LAVATORY, REFER TO PLUMBING DRAWINGS
MR	CHANNEL FRAMED MIRROR, 16" X 30"
NC	NARGOTICS CABINET (BASIS OF DESIGN; GLOBAL INDUSTRIAL STAINLESS STEEL NARGOTICS CABINET W/DOUBLE DOOR/DOUBLE LOCK, 18"Wx8"Dx24"H, T9F436851SS)
PCT	PLAM COUNTERTOP AND 4" BACKSPLASH, CONTINUOUS
PD	PAPER TOWEL DISPENSER (PROVIDED BY OWNER, SHOWN FOR REFERENCE)
PVC	PRIVACY CURTAIN
SD	SOAP DISPENSER (PROVIDED BY OWNER, SHOWN FOR REFERENCE)
SNK	SINK, REFER TO PLUMBING DRAWINGS
SWB	SCHEDULED WALL BASE
TBB	TACKBOARD, 4'H X 8'L
TD	TOILET TISSUE DISPENSER (SUPPLIED BY OWNER, SHOWN FOR REFERENCE)
WB4	WHITEBOARD, 4'H X 4'L
WB8	WHITEBOARD, 4'H X 8'L
WC	WATER CLOSET, REFER TO PLUMBING DRAWINGS

KEY PLAN



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PAWLING ELEMENTARY SCHOOL
2020 CAPITAL PROJECT - PHASE 3

Project Title

#	DATE	DESCRIPTION
5	12/07/2023	BID ADDENDUM 5
4	11/22/2023	BID ADDENDUM 4
3	11/17/2023	BID ADDENDUM 3

Drawn By:	MK/JM
Checked By:	PN
Proj. #:	13-12-01-04-0-001-024
CSArch Proj. #:	208-2101.03
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Sheet Title
ENLARGED PLANS - MAIN OFFICE / ENTRY / NURSE

Sheet No.
PES
A601

CONSTRUCTION DOCUMENTS

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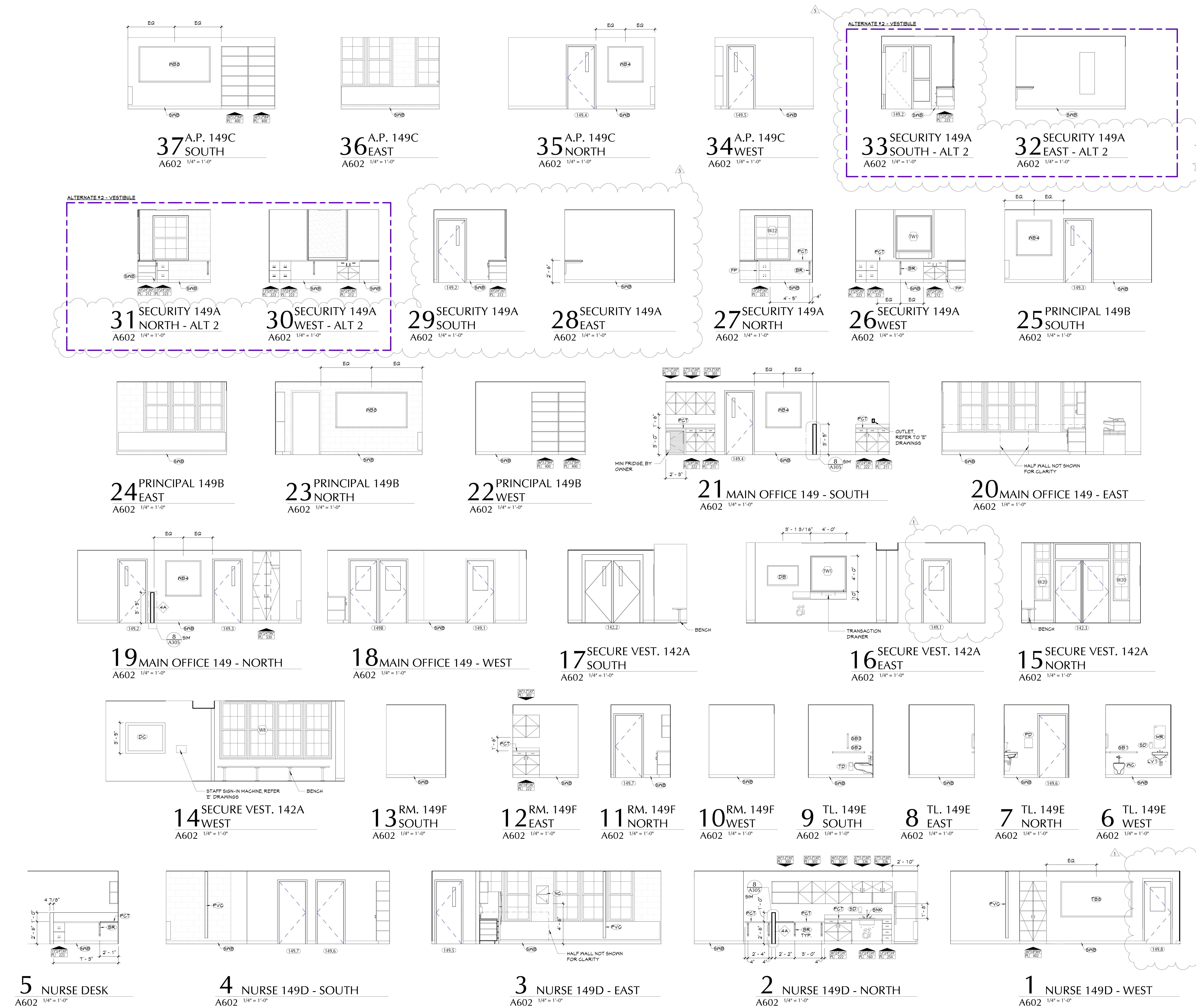


GENERAL NOTES

1. ALL CASEWORK SHALL HAVE PLASTIC LAMINATE (PLAM) COUNTERTOPS AND 4" BACK SPLASHES, UNO.
2. INSTALL MATCHING FILLER PANELS IN LOCATIONS SHOWN. ADD MATCHING FILLER PANELS AS REQUIRED FOR FINAL FIT/FINISH.
3. PROVIDE BLOCKING IN ALL ADJACENT WALLS AS REQUIRED TO INSTALL ALL CASEWORK.
4. PROVIDE FINISHED END PANEL AT ALL EXPOSED FACES OF CASEWORK.
5. PROVIDE WALL BASE AS SCHEDULED ON ALL EXPOSED TOE KICK SPACES AND EXPOSED END PANELS.

CASEWORK NOTES

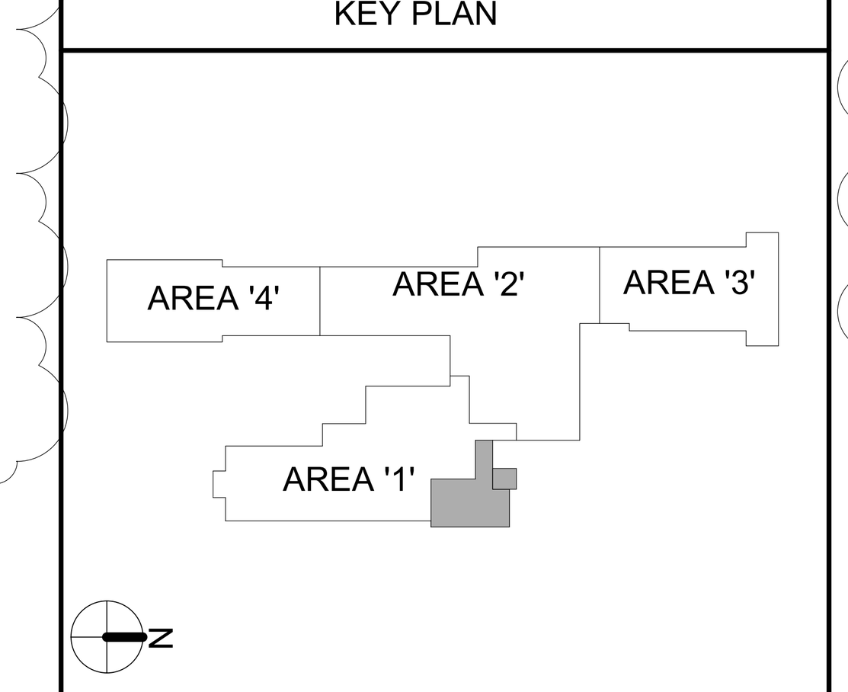
- WIDTH OF CASEWORK
- DEPTH OF CASEWORK
- HEIGHT OF CASEWORK
- AWI DESIGN NUMBER (INDICATES ELEVATION LAYOUT ONLY, REFER TO DETAILS AND SPECIFICATIONS FOR CASEWORK CONSTRUCTION REQUIREMENTS)
- CASEWORK MATERIAL FINISH

FINISH
PL PLASTIC LAMINATE

KEY NOTES

#	DESCRIPTION
BR	STEEL SUPPORT BRACKET
DB	DISPLAY MONITOR
DC	DISPLAY CASE. BASES OF DESIGN; AARCO PRODUCTS INC. RECESSED GLAZED #10-990 DISPLAY BOARD WITH HINGED DOORS 3'-0"H X 4'-0"W.
FP	FILLER PANEL, MATERIAL TO MATCH CASEWORK BODY
GB1	36" GRAB BAR
GB2	42" GRAB BAR
GB3	18" VERTICAL GRAB BAR
LV1	SINGLE STATION LAVATORY, REFER TO PLUMBING DRAWINGS
MR	CHANNEL FRAMED MIRROR, 16" X 30"
NC	NARCOTICS CABINET (BASIS OF DESIGN; GLOBAL INDUSTRIAL STAINLESS STEEL NARCOTICS CABINET W/DOUBLE DOOR/DOUBLE LOCK, 16"Wx8"Dx24"H, T9F436951SS)
PCT	PLAM COUNTERTOP AND 4" BACKSPLASH, CONTINUOUS
PD	PAPER TOWEL DISPENSER (PROVIDED BY OWNER, SHOWN FOR REFERENCE)
PVC	PRIVACY CURTAIN
SD	SOAP DISPENSER (PROVIDED BY OWNER, SHOWN FOR REFERENCE)
SNK	SINK, REFER TO PLUMBING DRAWINGS
SWB	SCHEDULED WALL BASE
TB8	TACKBOARD, 4'H X 8'L
TD	TOILET TISSUE DISPENSER (SUPPLIED BY OWNER, SHOWN FOR REFERENCE)
WB4	WHITEBOARD, 4'H X 4'L
WB8	WHITEBOARD, 4'H X 8'L
WC	WATER CLOSET, REFER TO PLUMBING DRAWINGS

KEY PLAN



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Project Title
PAWLING CENTRAL SCHOOL DISTRICT
PAWLING ELEMENTARY SCHOOL
2020 CAPITAL PROJECT - PHASE 3

REGISTERED ARCHITECT GREGORY MARK KLOKIW No. 025863-1 STATE OF NEW YORK

#	DATE	DESCRIPTION
5	12/07/2023	BID ADDENDUM 5
1	11/17/2023	BID ADDENDUM 1

Drawn By:	MK/JM
Checked By:	PN
Proj. #:	13-12-01-04-0-001-024
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Sheet Title
INTERIOR ELEVATIONS - MAIN OFFICE / ENTRY / NURSE

Sheet No.
PES A602

CONSTRUCTION DOCUMENTS

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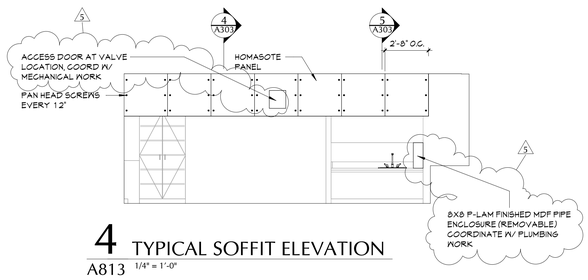
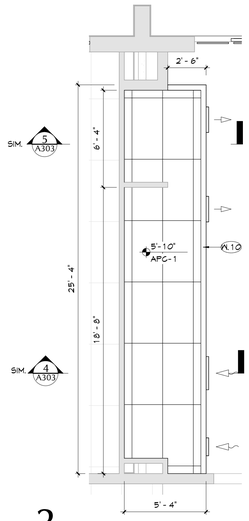
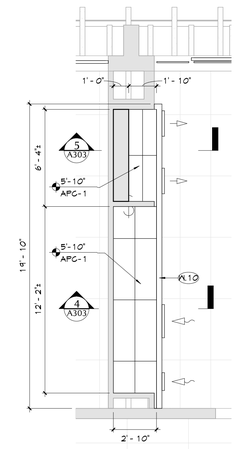


4 TYPICAL SOFFIT ELEVATION
A813 1/4" = 1'-0"



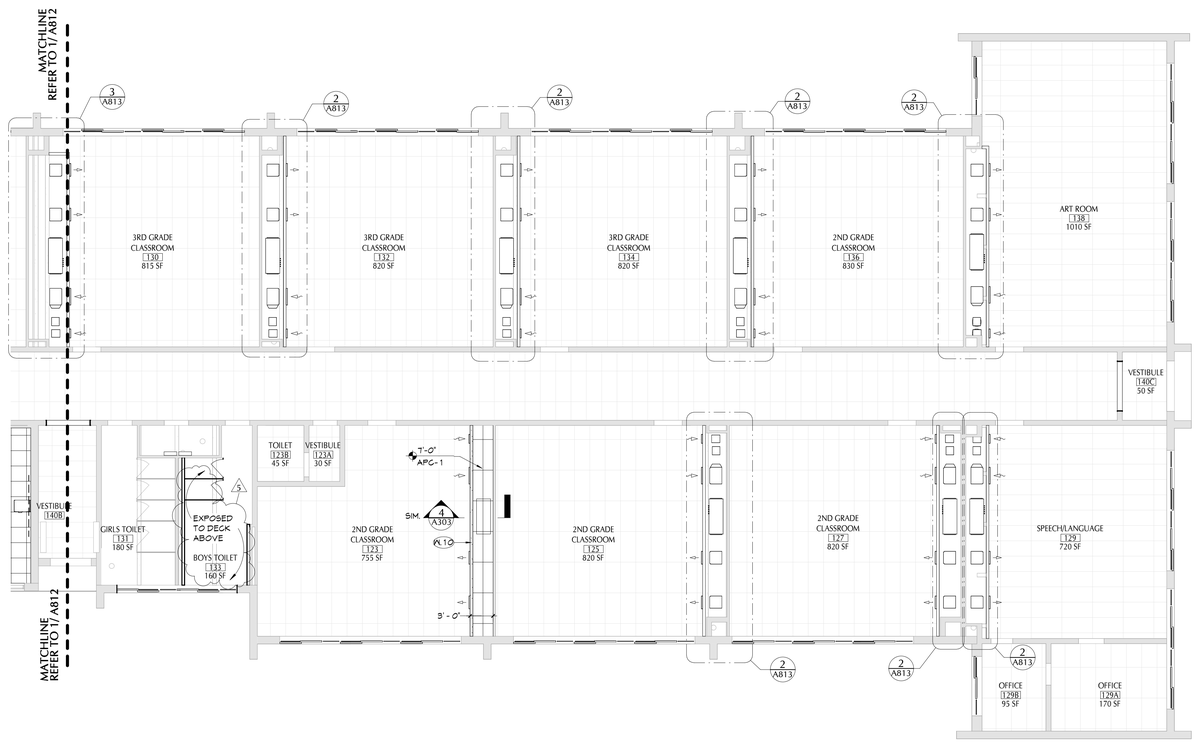
3 TYPICAL SOFFIT PLAN
A813 1/4" = 1'-0"

REFER TO TYPICAL SOFFIT ELEVATION 4/A813



2 TYPICAL SOFFIT PLAN
A813 1/4" = 1'-0"

REFER TO TYPICAL SOFFIT ELEVATION 4/A813



1 FIRST FLOOR RCP - AREA 3
A813 1/8" = 1'-0"

CEILING NOTES

1. INSTALL CEILING GRIDS CENTERED IN THE ROOM, UNO. IN ROOMS OTHER THAN RECTANGULAR SHAPED, INSTALL GRIDS CENTERED ON WALLS OR OTHER BUILT FEATURES AS INDICATED.
2. INSTALLATION HEIGHTS OF THE CEILINGS MAY VARY SLIGHTLY FROM PLANS IN ROOMS WITH EXTERIOR WINDOWS. ACTUAL CEILING HEIGHT TO BE VERIFIED IN THE FIELD.
3. FINAL INSTALLED CEILINGS SHALL HAVE HEIGHTS COORDINATED WITH OTHER CONTRACTORS WITH ABOVE CEILING WORK AND VERIFIED WITH FIELD CONDITIONS. ALL CHANGES IN CONFIGURATION OR HEIGHTS ARE TO BE APPROVED BY THE ARCHITECT.

CEILING LEGEND

	GWB OR PLASTER CEILING, REFER TO DETAILS AND ROOM FINISH SCHEDULE
	SUSPENDED ACOUSTICAL PANEL CEILING SYSTEM
+X'-X"	CEILING HEIGHT ABOVE FINISHED FLOOR
ETR	EXISTING TO REMAIN

ELECTRICAL EQUIPMENT, REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

	2'x4' LIGHT FIXTURE
	2'x2' LIGHT FIXTURE
	1'x LIGHT FIXTURE
	RECESSED DOWN LIGHT
	CEILING MOUNTED EXIT SIGN

MECHANICAL EQUIPMENT, REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.

	HVAC SUPPLY GRILLE
	HVAC RETURN GRILLE

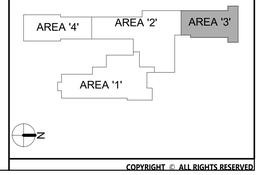
CEILING TYPES

APC-1	2'x4' ACOUSTIC PANEL CEILING, FINE FISSURE
APC-2	2'x2' ACOUSTIC PANEL CEILING, FINE FISSURE
APC-3	3'-0" DIAMETER ACOUSTIC CEILING CLOUD, ROUND TECTUM
APC-4	2'-0" DIAMETER ACOUSTIC CEILING CLOUD, ROUND TECTUM
APC-5	2'x4' ACOUSTIC PANEL CEILING, WASHABLE
GWB	GYPSUM WALL BOARD

KEY NOTES

#	DESCRIPTION
W.10	PROVIDE NEW HOMASOTE BOARD ATTACHED TO 3 5/8" METAL STUD CONSTRUCTION UPON COMPLETION OF MECHANICAL EQUIPMENT INSTALL.

KEY PLAN



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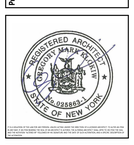
PAWLING CENTRAL SCHOOL DISTRICT
PAWLING ELEMENTARY SCHOOL
2020 CAPITAL PROJECT - PHASE 3

Project Title



S	11/07/2023	BID ADDENDUM 5
#:	DATE	DESCRIPTION

Drawn By:	MK/JM
Checked By:	PN
Proj. #:	13-12-01-04-0-001-024
CSArch Proj. #:	208-2101.03
Issued for Bid:	11/1/2023

Sheet Title

PARTIAL FIRST FLOOR RCP - AREA '3'

Sheet No.

PES
A813

CONSTRUCTION DOCUMENTS

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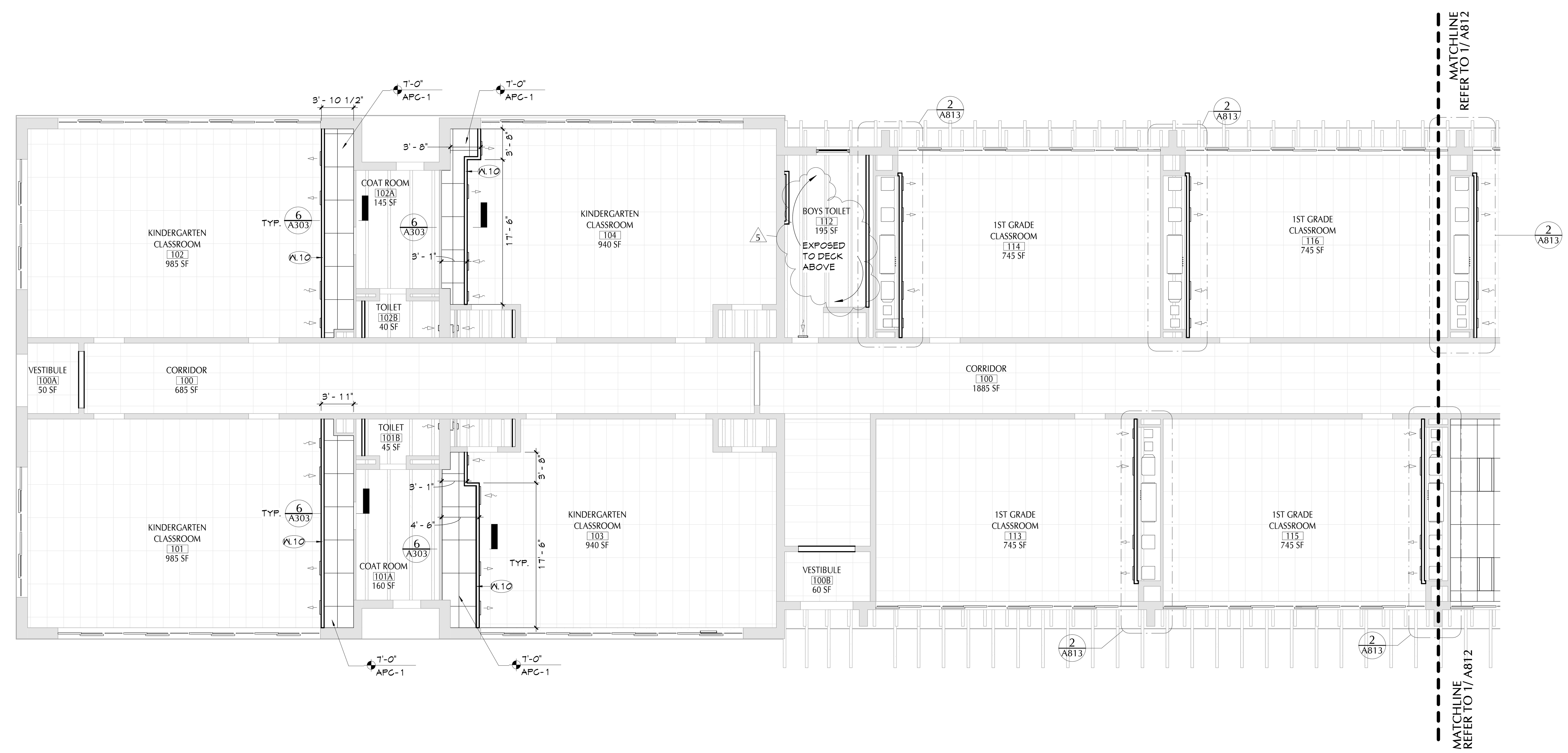


1 FIRST FLOOR RCP - AREA 4

A814 1/8" = 1'-0"

CEILING NOTES

1. INSTALL CEILING GRIDS CENTERED IN THE ROOM, UNO. IN ROOMS OTHER THAN RECTANGULAR SHAPED, INSTALL GRIDS CENTERED ON WALLS OR OTHER BUILT FEATURES AS INDICATED.
2. INSTALLATION HEIGHTS OF THE CEILINGS MAY VARY SLIGHTLY FROM PLANS IN ROOMS WITH EXTERIOR WINDOWS. ACTUAL CEILING HEIGHT TO BE VERIFIED IN THE FIELD.
3. FINAL INSTALLED CEILINGS SHALL HAVE HEIGHTS COORDINATED WITH OTHER CONTRACTORS WITH ABOVE CEILING WORK AND VERIFIED WITH FIELD CONDITIONS. ALL CHANGES IN CONFIGURATION OR HEIGHTS ARE TO BE APPROVED BY THE ARCHITECT.

CEILING LEGEND

- GWB OR PLASTER CEILING, REFER TO DETAILS AND ROOM FINISH SCHEDULE
- SUSPENDED ACOUSTICAL PANEL CEILING SYSTEM
- +X'-X" CEILING HEIGHT ABOVE FINISHED FLOOR
- ETR EXISTING TO REMAIN

ELECTRICAL EQUIPMENT, REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

- 2'X4' LIGHT FIXTURE
- 2'X2' LIGHT FIXTURE
- 1'X LIGHT FIXTURE
- RECESSED DOWN LIGHT
- CEILING MOUNTED EXIT SIGN

MECHANICAL EQUIPMENT, REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.

- HVAC SUPPLY GRILLE
- HVAC RETURN GRILLE

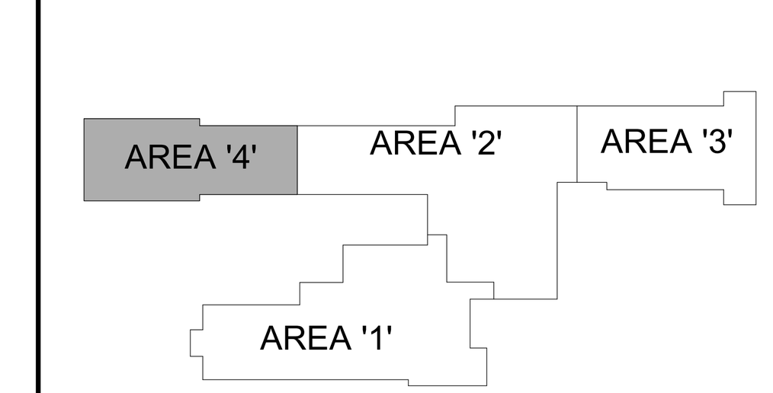
CEILING TYPES

APC-1	2'X4' ACOUSTIC PANEL CEILING, FINE FISSURE
APC-2	2'X2' ACOUSTIC PANEL CEILING, FINE FISSURE
APC-3	3'-0" DIAMETER ACOUSTIC CEILING CLOUD, ROUND TECTUM
APC-4	2'-0" DIAMETER ACOUSTIC CEILING CLOUD, ROUND TECTUM
APC-5	2'X4' ACOUSTIC PANEL CEILING, WASHABLE
GWB	GYPSUM WALL BOARD

KEY NOTES

#	DESCRIPTION
W.10	PROVIDE NEW HOMASOTE BOARD ATTACHED TO 3 5/8" METAL STUD CONSTRUCTION UPON COMPLETION OF MECHANICAL EQUIPMENT INSTALL.

KEY PLAN



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Project Title

PAWLING CENTRAL SCHOOL DISTRICT
PAWLING ELEMENTARY SCHOOL
2020 CAPITAL PROJECT - PHASE 3

REGISTERED ARCHITECT GREGORY MARK KLOKIW No. 025863-1 STATE OF NEW YORK

IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ARCHITECT IS ALTERED, THE ALTERING ARCHITECT SHALL AFFIX TO HIS ITEM THE SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION

#	DATE	DESCRIPTION
5	12/07/2023	BID ADDENDUM 5

Drawn By:	MK/JM
Checked By:	PN
Proj. #:	13-12-01-04-0-001-024
CSArch Proj. #:	208-2101.03
Issued for Bid:	11/1/2023

Sheet Title

PARTIAL FIRST FLOOR RCP - AREA '4'

Sheet No.

PES A814

CONSTRUCTION DOCUMENTS

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AIR SEPARATOR SCHEDULE

TAG	GPM	MANUFACTURER	MODEL
AS-A	110	SPIROTHERM	VDN300

EXPANSION TANK SCHEDULE

TAG	TYPE	ACCEPTANCE (GAL)	VOLUME (GAL)	DIAMETER / HEIGHT	SYSTEM FILL (PSIG)	RELIEF VALVE (PSIG)	MANUFACTURER	MODEL	NOTES
ET-A	DIAPHRAGM	53	53	24/38	50	75	AMTROL	200-L	1, 2

NOTES:
1. ASME PRESSURE VESSEL.
2. 40% GLYCOL SYSTEM.

GLYCOL MANAGEMENT SYSTEM SCHEDULE

TAG	LOCATION	VOLUME (GAL)	TYPE	SYSTEM FILL (PSIG)	RELIEF VALVE (PSIG)	MOTOR HP	VOLTAGE	PHASE	DISCONNECT SWITCH	MANUFACTURER	MODEL	NOTES
GMU-A	MAIL ROOM	50	40% PROPYLENE GLYCOL	50	75	1/2	120	1	FIELD PROVIDED	J.L. WINGERT CO.	GL50-E2-2-B-C-HC-HTM	1,2

NOTES:
1. PROVIDE WITH CONTACTS FOR REMOTE INDICATION OF HIGH/LOW LEVELS AND PUMP STATUS.
2. PROVIDE WITH HAND-OFF-AUTO SWITCHES.

PLATE & FRAME HEAT EXCHANGER SCHEDULE

			SOURCE SIDE						LOAD SIDE									
TAG	SERVICE	MBH	FLUID	GPM	EFT (F)	LFT (F)	FPD (FT)	FLUID	GPM	EFT (F)	LFT (F)	FPD (FT)	NOMINAL DIMENSIONS (IN)	NO. OF PLATES	DESIGN BASIS	MODEL	NOTES
PFHX-A	GHW	1650	WATER	104.7	160	130	11.0	40% PG	110	125	155	14.3	51.1x12.6x35.4	119	ALFA LAVAL	AQ2L-FG	

PUMP SCHEDULE

			PUMP DATA							ELECTRICAL DATA					
TAG	SERVICE	TYPE	GPM	PRESSURE (FT)	RPM	BHP	HP	MOTOR CONTROLLER	VOLTAGE	PHASE	FLA	DISCONNECT SWITCH	MANUFACTURER	MODEL
P-A-1	BUILDING HEATING GLYCOL	SPLIT-COUPLED INLINE	100	110	3500	4.02	7.5	FACTORY VFD	208	3	17.5	FIELD PROVIDED	TACO	SKS1506D
P-A-2	BUILDING HEATING GLYCOL	SPLIT-COUPLED INLINE	100	110	3500	4.02	7.5	FACTORY VFD	208	3	17.5	FIELD PROVIDED	TACO	SKS1506D

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CABINET UNIT HEATER SCHEDULE

	FAN DATA				HEATING COIL DATA							ELECTRICAL DATA						
TAG	CFM	ESP (In. Wg)	HP	MOTOR CONTROLLER	EAT (F)	LAT (F)	EFT (F)	LFT (F)	GPM	FPD (FT)	MBH	VOLTAGE	PHASE	MCA	MOCP	DISCONNECT SWITCH	MANUFACTURER	MODEL
CUH-B	600	0.05	0.089	INTEGRAL ECM	60	111.6	155	135	2.2	5.88	33.6	120	1	3.88	15	FIELD PROVIDED	TRANE	FFEB060

NOTES:
1. FINAL CONNECTIONS TO ALL CABINET UNIT HEATERS ARE 0.75" UNLESS NOTED OTHERWISE.

DIFFUSER & GRILLE SCHEDULE

TAG	SYSTEM TYPE	SHAPE	NOMINAL SIZE	MATERIAL	FINISH	MOUNTING	ACCESSORIES	MANUFACTURER	MODEL
A	SUPPLY GRILLE	RECTANGULAR	NECK SIZE + 2"	STEEL	WHITE POWDER COAT	SURFACE	–	TITUS	300RL
B	RETURN GRILLE	RECTANGULAR	NECK SIZE + 2"	STEEL	WHITE POWDER COAT	SURFACE	–	TITUS	350ZRL
D1	SUPPLY DIFFUSER	SQUARE	24"x24"	STEEL	WHITE POWDER COAT	CEILING	–	TITUS	OMNI
G1	RETURN GRILLE	SQUARE	24"x24"	STEEL	WHITE POWDER COAT	CEILING	–	TITUS	350ZRL
G2	RETURN GRILLE	SQUARE	24"x24"	STEEL	WHITE POWDER COAT	CEILING	–	TITUS	OMNI

DUCT SILENCER SCHEDULE

					DYNAMIC INSERTION LOSS (dB)								
TAG	CFM	SIZE (ENTERING-LEAVING)	LENGTH (FT)	FACE VELOCITY (FPM)	APD (in. WC)	63	125	250	500	1000	2000	4000	MANUFACTURER	MODEL
DS-ERU-R	7500	30"/36"-30"/36"	3	1350	0.13	4	4	9	18	27	28	23	VIBRO ACOUSTICS	EXRFL-MLV-F9
DS-ERU-S	7500	30"/36"-30"/36"	4	1350	0.18	5	6	11	22	33	34	29	VIBRO ACOUSTICS	EXRFL-MLV-F9

NOTES:
1. DUCT SILENCERS PROVIDED WITH 12" EXTENDED WIDTH.

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FAN SCHEDULE

			FAN DATA						ELECTRICAL DATA					
TAG	SERVICE	TYPE	CFM	ESP (In. Wg)	RPM	BHP	HP	MOTOR CONTROLLER	VOLTAGE	PHASE	FLA	DISCONNECT SWITCH	MANUFACTURER	MODEL
F-B	KITCHEN HOOD	UPBLAST	2940	1	1119	0.86	2	INTEGRAL ECM	120	1	12.5	FIELD PROVIDED	GREENHECK	CUE-180-VG
F-C	VENTILATION EXHAUST	INLINE	500	0.5	1368	0.21	157W	INTEGRAL ECM	120	1	2.45	FIELD PROVIDED	GREENHECK	CSP-A510-VG

FIN TUBE SCHEDULE

	ELEMENT							ENCLOSURE				
TAG	PIPE DIAMETER (IN)	# OF ROWS	ELEMENT WIDTH (IN)	ELEMENT HEIGHT (IN)	EAT (F)	AVG. FLUID TEMP. (F)	BTU/FT	WIDTH (IN)	HEIGHT (IN)	DESCRIPTION	MANUFACTURER	MODEL
FT-B	0.75	2	4.25	4.25	70	145	1340	6	24	TOP OUTLET, STAMPED LOUVERS	STERLING	JVB-RD24

NOTES:
1. FINAL CONNECTIONS TO ALL FINNED TUBES ARE 0.75" UNLESS NOTED OTHERWISE.

AIR COOLED CONDENSING UNIT SCHEDULE

	NOMINAL		SEER/	ELECTRICAL DATA					WEIGHT			
TAG	TONS	REFIGERANT	IEER	VOLTAGE	PHASE	MCA	MOCP	DISCONNECT SWITCH	(LBS)	MANUFACTURER	MODEL	NOTES
CU-A1	10/20	R410A	24.2	208	3	40	60	FIELD PROVIDED	700	TRANE	TUHYE1203AN40A	1
CU-A2	10/20	R410A	24.2	208	3	40	60	FIELD PROVIDED	700	TRANE	TUHYE1203AN40A	1
CU-B	12	R410A	30.4	208	3	47	70	FIELD PROVIDED	700	TRANE	TUHYE1443AN40A	
CU-G	12	R410A	30.4	208	3	47	70	FIELD PROVIDED	700	TRANE	TUHYE1443AN40A	
CU-H	12	R410A	30.4	208	3	47	70	FIELD PROVIDED	700	TRANE	TUHYE1443AN40A	
CU-I	14	R410A	31.2	208	3	56	90	FIELD PROVIDED	800	TRANE	TUHYE1683AN40A	
CU-J	14	R410A	31.2	208	3	56	90	FIELD PROVIDED	800	TRANE	TUHYE1683AN40A	
CU-K	12	R410A	30.4	208	3	47	70	FIELD PROVIDED	700	TRANE	TUHYE1443AN40A	
CU-L1	8/16	R410A	32.6	208	3	31	45	FIELD PROVIDED	700	TRANE	TUHYE0963AN40A	2
CU-L2	8/16	R410A	32.6	208	3	31	45	FIELD PROVIDED	700	TRANE	TUHYE0963AN40A	2
CU-M	6	R410A	32.5	208	3	23	35	FIELD PROVIDED	600	TRANE	TUHYE0723AN40A	

NOTES:
1. CU-A COMBINATION UNIT (MODEL TUHYE2403BN40A) CONSISTS OF UNIT CU-A1 (MODEL TUHYE1203AN40A) AND UNIT CU-A2 (MODEL TUHYE1203AN40A).
2. CU-L COMBINATION UNIT (MODEL TUHYE1923BN40A) CONSISTS OF UNIT CU-L1 (MODEL TUHYE0963AN40A) AND UNIT CU-L2 (MODEL TUHYE0963AN40A).

INDOOR SPLIT UNITS

		FAN DATA			COOLING DATA						HEATING DATA			ELECTRICAL DATA							
TAG	TYPE	CFM	OA CFM	ESP (In. Wg)	EAT DB (F)	EAT WB (F)	LAT DB (F)	LAT WB (F)	REFRIGERANT	NOMINAL MBH	EAT (F)	LAT (F)	NOMINAL MBH	VOLTAGE	PHASE	MCA	MOCP	DISCONNECT SWITCH	WEIGHT (LBS)	MANUFACTURER	MODEL	NOTES
ISU-AHU-A	AIR HANDLING UNIT	500	75	0.5	77	65	57	55	R410A	18	70	89	20	208	1	3	15	FIELD PROVIDED	113	TRANE	TPVFYP018AM141A	1
ISU-AHU-B	AIR HANDLING UNIT	800	200	0.5	77	65	56	55	R410A	30	70	92	34	208	1	4.1	15	FIELD PROVIDED	141	TRANE	TPVFYP030AM141A	1
ISU-AHU-C	AIR HANDLING UNIT	800	300	0.5	77	65	56	55	R410A	30	70	92	34	208	1	4.1	15	FIELD PROVIDED	141	TRANE	TPVFYP030AM141A	1
ISU-AHU-D	AIR HANDLING UNIT	1000	350	0.5	77	65	57	55	R410A	36	70	91	40	208	1	4.1	15	FIELD PROVIDED	141	TRANE	TPVFYP036AM141A	1
ISU-AHU-E	AIR HANDLING UNIT	1000	400	0.5	77	65	56	55	R410A	36	70	89	40	208	1	4.1	15	FIELD PROVIDED	141	TRANE	TPVFYP036AM141A	1
ISU-AHU-F	AIR HANDLING UNIT	1000	425	0.5	77	65	56	55	R410A	36	70	92	40	208	1	4.1	15	FIELD PROVIDED	141	TRANE	TPVFYP036AM141A	1
ISU-AHU-G	AIR HANDLING UNIT	1000	450	0.5	77	65	55	55	R410A	36	70	91	40	208	1	4.1	15	FIELD PROVIDED	141	TRANE	TPVFYP036AM141A	1
ISU-AHU-H	AIR HANDLING UNIT	1000	475	0.5	77	65	55	55	R410A	36	70	91	40	208	1	4.1	15	FIELD PROVIDED	141	TRANE	TPVFYP036AM141A	1
ISU-AHU-I	AIR HANDLING UNIT	1000	500	0.5	77	65	55	55	R410A	36	70	89	40	208	1	4.1	15	FIELD PROVIDED	141	TRANE	TPVFYP036AM141A	1
ISU-AHU-J	AIR HANDLING UNIT	1200	550	0.5	77	65	55	55	R410A	48	70	89	54	208	1	5.6	15	FIELD PROVIDED	172	TRANE	TPVFYP048AM141A	1
ISU-AHU-K	AIR HANDLING UNIT	1500	725	0.5	77	65	54	54	R410A	54	70	95	60	208	1	5.6	15	FIELD PROVIDED	172	TRANE	TPVFYP054AM141A	1
ISU-C-A	CEILING RECESSED CASSETTE	300	25	0	77	65	59	58	R410A	8	70	85	9	208	1	0.28	15	FIELD PROVIDED	35	TRANE	TPLFYP008FM140A	1
ISU-C-B	CEILING RECESSED CASSETTE	300	50	0	77	65	59	58	R410A	8	70	90	9	208	1	0.28	15	FIELD PROVIDED	35	TRANE	TPLFYP008FM140A	1
ISU-C-C	CEILING RECESSED CASSETTE	300	50	0	77	65	55	54	R410A	12	70	94	13.5	208	1	0.29	15	FIELD PROVIDED	35	TRANE	TPLFYP012FM140A	1
ISU-C-D	CEILING RECESSED CASSETTE	450	25	0	77	65	55	54	R410A	18	70	95	20	208	1	0.5	15	FIELD PROVIDED	66	TRANE	TPLFYP018FM140A	1
ISU-C-E	CEILING RECESSED CASSETTE	450	50	0	77	65	53	52	R410A	18	70	99	20	208	1	0.5	15	FIELD PROVIDED	66	TRANE	TPLFYP018FM140A	1

NOTES:
1. BALANCE SUPPLY AIR DUCT FROM ERV TO EACH ISU. ERV SUPPLY AIR CFM IS TO BE THE OUTDOOR AIR CFM LISTED IN SCHEDULE. PROVIDE BALANCE DAMPERS AS REQUIRED.

DUCTED HEATING COIL SCHEDULE

TAG	FLUID	CFM	APD (in. WC)	EAT (F)	LAT (F)	EFT (F)	LFT (F)	GPM	MBH	FPD (FT)	WIDTH (IN)	HEIGHT (IN)	MANUFACTURER	MODEL
HC-ERV-A	40% PG	575	0.12	49	95	155	125	1.9	29.0	0.60	18	18	TRANE	DWPB18018
HC-ERV-B	40% PG	900	0.14	48	95	155	125	3.3	45.5	0.62	18	18	TRANE	DWPB18018
HC-ERV-C	40% PG	1250	0.12	52	95	155	125	4.2	58.0	0.89	18	18	TRANE	DWPB18018
HC-ERV-D	40% PG	1125	0.11	49	95	155	125	3.9	56.9	0.57	18	18	TRANE	DWPB18018
HC-ERV-M	WATER	300	0.24	46	95	155	125	1.2	16.1	0.09	12	12	TRANE	DWPB12012
HC-RTU-A	WATER	1600	0.23	45	95	155	125	6.3	86.8	6.46	24	18	TRANE	DTTB18024

ROOF TOP UNIT SCHEDULE

		SUPPY FAN DATA							POWER	COOLING DATA						ELECTRICAL DATA					WEIGHT			
TAG	SERVICE	CFM	OA CFM	ESP (In. Wg)	RPM	BHP	HP	MOTOR CONTROLLER	EXHAUST FAN HP	NOMINAL TONS	AMBIENT TEMPERATURE	EAT DB (F)	EAT WB (F)	LAT DB (F)	LAT WB (F)	VOLTAGE	PHASE	MCA	MOCP	DISCONNECT SWITCH	(LBS)	MANUFACTURER	MODEL	NOTES
RTU-A	119	1600	500	0.75	938	.55	1	FACTORY PROVIDED VFD	0.87	5	95	79	67	57.5	56	208	3	33	45	FACTORY PROVIDED	1000	TRANE	THC067E3R0A	1

NOTES:
1. SIDE SUPPLY AND RETURN DUCT CONNECTIONS.

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PACKAGED ENERGY RECOVERY UNIT SCHEDULE

		SUPPLY FAN DATA						EXHAUST FAN DATA						HOT WATER COIL DATA							DX COIL DATA					ENERGY RECOVERY WHEEL DATA												ELECTRICAL DATA									
																										WINTER				SUMMER																	
TAG	SERVICE	CFM	OA CFM	ESP (In. Wg)	RPM	BHP	HP	CFM	CFM (EVENT MODE)	ESP (In. Wg)	RPM	BHP	HP	FLUID	EAT (F)	LAT (F)	EFT (F)	LFT (F)	GPM	MBH	FPD (FT)	EAT DB (F)	EAT WB (F)	LAT DB (F)	LAT WB (F)	MBH	OA TEMP DB (F)	RA TEMP DB (F)	LAT DB (F)	OA TEMP DB (F)	OA TEMP WB (F)	RA TEMP DB (F)	RA TEMP WB (F)	LAT DB (F)	LAT WB (F)	VOLTAGE	PHASE	FLA	MCA	MOCP	DISCONNECT SWITCH	MOTOR CONTROLLER	WEIGHT (LBS)	MANUFACTURER	MODEL	NOTES
ERU-A	160,161	7500	4500	1.00	2013	6.05	7.5	4500	1500	1.00	1553	5.35	7.5	40% PG	56	97	155	131	30.0	330	2.1	77	64	55	54	207.6	-10	70	47	89	73	74	62	78	66	208	3	94.7	113.6	125	FACTORY PROVIDED	FACTORY PROVIDED VFD	5000	TRANE	OADG017F1	

PACKAGED ENERGY RECOVERY VENTILATOR SCHEDULE

		SUPPLY FAN					EXHAUST FAN DATA						HEATING COIL DATA									ENERGY RECOVERY SECTION DATA										ELECTRICAL DATA									
																						WINTER				SUMMER																	
TAG	SERVICE	CFM	ESP (In. Wg)	RPM	BHP	HP	CFM	ESP (In. Wg)	RPM	BHP	HP	MOTOR CONTROLLER	FLUID	APD (in. WC)	EAT (F)	LAT (F)	EFT (F)	LFT (F)	GPM	MBH	FPD (FT)	OA TEMP DB (F)	RA TEMP DB (F)	LAT DB (F)	OA TEMP DB (F)	OA TEMP WB (F)	RA TEMP DB (F)	RA TEMP WB (F)	LAT DB (F)	LAT WB (F)	VOLTAGE	PHASE	FLA	MCA	MOCP	DISCONNECT SWITCH	WEIGHT (LBS)	MANUFACTURER	MODEL
ERV-A	154, 254, 256	575	0.75	–	0.5	1	575	0.75	–	0.5	1	ECM, 0-10V	–						–	–		-10	70	49	89	73	74	62	78	67	120	1	8	18	20	FACTORY PROVIDED	600	RENEWAIRE LLC	HE1.5JINV-D11EE
ERV-B	155, 156D, 258, 259	900	0.75	–	0.5	1	900	0.75	–	0.5	1	ECM, 0-10V	–						–	–		-10	70	48	89	73	74	62	78	67	120	1	8	18	20	FACTORY PROVIDED	600	RENEWAIRE LLC	HE1.5JINV-D11EE
ERV-C	151, 158, 251, 253, 253A	1250	0.75	–	0.7	1	1250	0.75	–	0.7	1	ECM, 0-10V	–						–	–		-10	70	45	89	73	74	62	79	68	120	1	8	18	20	FACTORY PROVIDED	600	RENEWAIRE LLC	HE1.5JINV-D11EE
ERV-D	252, 255, 257	1125	0.75	–	0.7	1	1125	0.75	–	0.7	1	ECM, 0-10V	–						–	–		-10	70	49	89	73	74	62	78	67	120	1	8	18	20	FACTORY PROVIDED	600	RENEWAIRE LLC	HE1.5JINV-D11EE
ERV-G	101, 102, 103, 104	1850	0.5	1763	0.7	3.62	1850	0.5	1745	0.7	3.62	ECM, 0-10V	40% PG	0.04	43	95	155	125	7.9	112	17.72	-10	70	48	89	73	74	62	78	67	208	3	8.6	19.4	25	FACTORY PROVIDED	4400	RENEWAIRE LLC	DN-3-JRTBH133
ERV-H	113, 114, 115, 116	1800	0.5	1731	0.7	3.62	1800	0.5	1716	0.7	3.62	ECM, 0-10V	40% PG	0.04	49	101	155	125	7.4	103	15.3	-10	70	49	89	73	74	62	78	67	208	3	8.6	19.4	25	FACTORY PROVIDED	4400	RENEWAIRE LLC	DN-3-JRTBH133
ERV-I	117, 118, 119A, 120, 121, 122	1950	0.5	1828	0.7	3.62	1950	0.5	1814	0.7	3.62	ECM, 0-10V	40% PG	0.04	48	96	155	125	7.8	110	17.0	-10	70	48	89	73	74	62	78	67	208	3	8.6	19.4	25	FACTORY PROVIDED	4400	RENEWAIRE LLC	DN-3-JRTBH133
ERV-J	124, 126, 128	1500	0.5	1535	0.5	3.62	1500	0.5	1534	0.5	3.62	ECM, 0-10V	40% PG	0.04	50	96	155	125	7.7	76	17.7	-10	70	50	89	73	74	62	78	67	208	3	8.6	19.4	25	FACTORY PROVIDED	4400	RENEWAIRE LLC	DN-3-JRTBH133
ERV-K	123, 130, 132, 134	1950	0.5	1828	0.7	3.62	1950	0.5	1814	0.7	3.62	ECM, 0-10V	40% PG	0.04	48	96	155	125	7.8	101	17.0	-10	70	48	89	73	74	62	78	67	208	3	8.6	19.4	25	FACTORY PROVIDED	4400	RENEWAIRE LLC	DN-3-JRTBH133
ERV-L	125, 127, 129, 136, 138	2650	0.5	2333	1.6	3.62	2650	0.5	2306	1.6	3.62	ECM, 0-10V	40% PG	0.08	44	98	155	125	10.3	149	17.4	-10	70	44	89	73	74	62	79	68	208	3	8.6	19.4	25	FACTORY PROVIDED	4400	RENEWAIRE LLC	DN-3-JRTBH133
ERV-M	149, 149A, 149B, 149C, 149D, 149E, 149F	300	0.5	1523	0.1	0.5	300	0.5	1506	0.1	0.5	ECM, 0-10V	–	0.00						–	–	-10	70	55	89	73	74	62	77	66	208	1	4.8	3.9	15	FACTORY PROVIDED	500	RENEWAIRE LLC	HE10JRTV-D15EE
ERV-N	B21	500	0.5	1747	0.2	0.5	500	0.5	1720	0.2	0.5	ECM, 0-10V	–	0.00						–	–	-10	70	50	89	73	74	62	78	66	208	1	4.8	3.9	15	FACTORY PROVIDED	350	RENEWAIRE LLC	HE10JINV-D15EE

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Consultant

Project Title
PAWLING CENTRAL SCHOOL DISTRICT
PAWLING ELEMENTARY SCHOOL
2020 CAPITAL PROJECT - PHASE 3

ZACHARY ROBERT WILSON
STATE OF NEW YORK
097797
LICENSED PROFESSIONAL ENGINEER
Expires : 06/30/2025

#	DATE	DESCRIPTION
5	12/07/2023	BID ADDENDUM #5
3	11/29/2023	BID ADDENDUM #3

Drawn By:
Checked By:
Proj. #: 13-12-01-04-0-001-024
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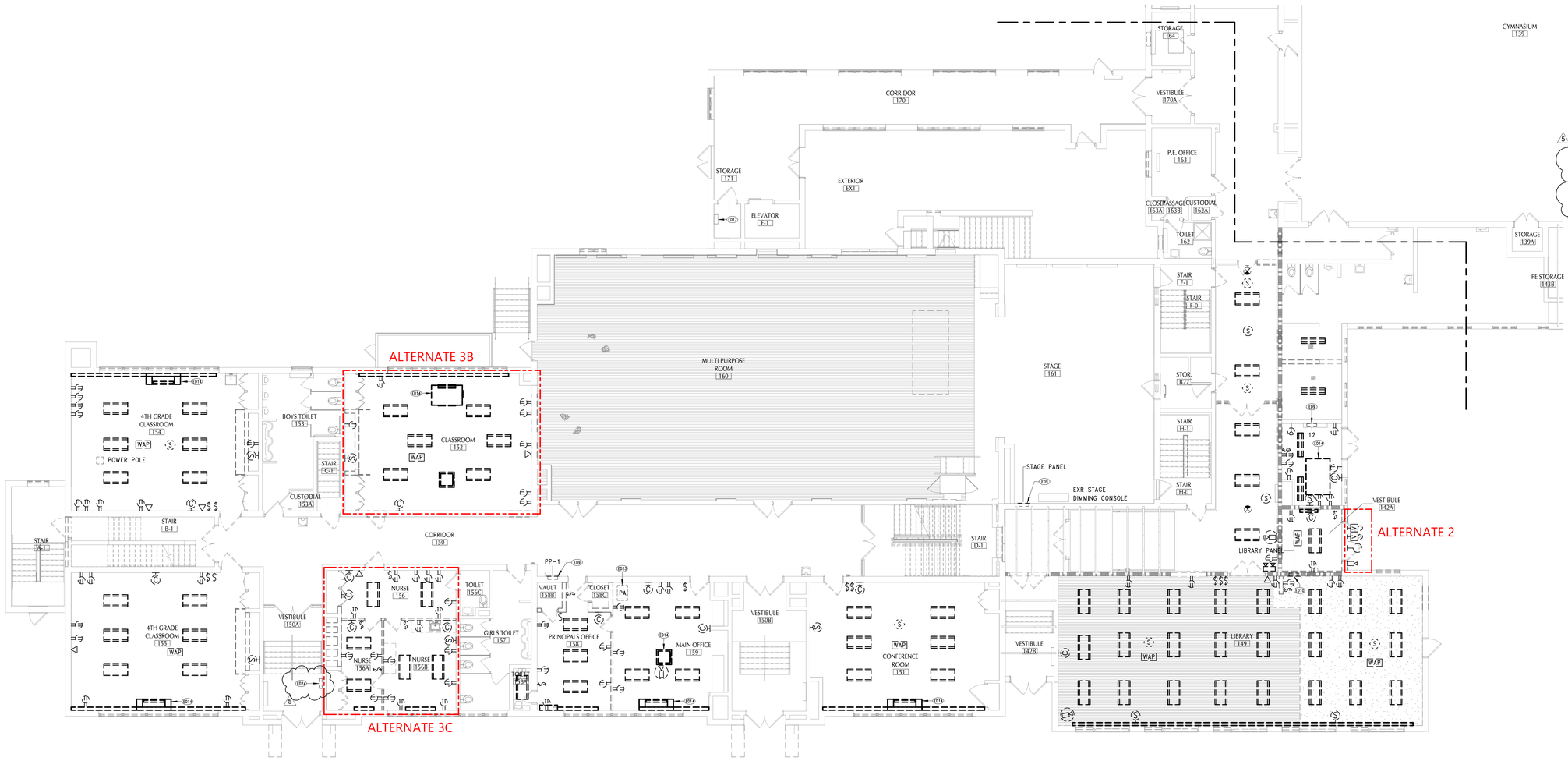
Issued for Bid: 11/03/23

Sheet Title
SCHEDULES

Sheet No.
PES
M901

CONSTRUCTION DOCUMENTS



1 DEMOLITION FIRST FLOOR PLAN - AREA '1'
ED111 1/8" = 1'-0"

SHEET NOTES

A. BEFORE REMOVAL OR MODIFICATION OF ANY EXISTING CIRCUITS, FIELD VERIFY IF CIRCUITS FEED OTHER AREAS OF THE BUILDING REQUIRED TO REMAIN ENERGIZED DURING CONSTRUCTION.

B. ALL EXISTING WIRING AND CONDUIT TO ELECTRICAL ITEMS SHOWN AS DEMOLISHED–ON THIS DRAWING SHALL BE REMOVED IN IT'S ENTIRETY BACK TO SOURCE PANELBOARD. LABEL CIRCUIT BREAKER AS SPARE IN EXISTING PANELBOARD DIRECTORY.

C. WHERE REQUIRED TO DISCONNECT OR MODIFY PART OF AN EXISTING CIRCUIT SERVING AREAS OUTSIDE OF THE DEMOLITION SCOPE, THE CIRCUIT SHALL BE RECONNECTED AND MODIFIED TO MAINTAIN CONTINUITY.

D. MAINTAIN CONTINUITY OF ALL EXISTING TO REMAIN BRANCH CIRCUITS.

E ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROGRAMMING OF THE EXISTING FIRE ALARM SYSTEM TO ACCOUNT FOR THE REMOVAL OF DEVICES FROM THE EXISTING FIRE ALARM SYSTEM. PROVIDE ALL NECESSARY FIRE WATCHES IN AREAS WITHOUT COVERAGE WHEN FIRE ALARM SYSTEM IS OFF LINE.

F. DISCONNECT ELECTRICAL CONNECTIONS TO MECHANICAL AND OTHER EQUIPMENT BEING REMOVED BY OTHER TRADES.

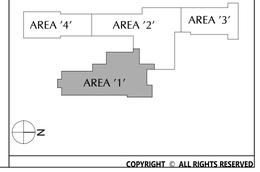
G. REMOVE ABANDONED RACEWAYS, BOXES, SUPPORTS, ETC. WHERE EXPOSED (INCLUDING THOSE LOCATED ABOVE EXISTING SUSPENDED CEILING) AND WHERE THEY INTERFERE WITH WORK OF ANY TRADE.

H. PROVIDE ALL BUILDING SURFACE RESTORATION OF EXISTING PENETRATIONS ASSOCIATED WITH REQUIRED ELECTRICAL DEMOLITION WORK. PATCH AND PAINT TO MATCH SURROUNDING EXISTING SURFACES AS NECESSARY. FOR PENETRATIONS LEFT IN FIRE RATED CONSTRUCTION, PROVIDE RE QUIRED FIRESTOPPING PER SPECIFICATION SECTION 078413.

KEY NOTES

ED9	DISCONNECT AND REMOVE EXISTING PANEL AND SUPPLY FEEDER BACK TO SOURCE. UNLESS INDICATED OTHERWISE, MAINTAIN ALL EXISTING BRANCH CIRCUIT WIRING FOR RECONNECTION TO REPLACEMENT PANEL.
ED10	DISCONNECT AND REMOVE EXISTING PANEL. DISCONNECT AND REMOVE PANEL SUPPLY FEEDER AND ALL EXISTING BRANCH CIRCUIT WIRING.
ED14	DISCONNECT POWER FROM EXISTING HVAC EQUIPMENT. REMOVE BRANCH CIRCUIT WIRE AND CONDUIT BACK TO POWER SOURCE PANELBOARD.
ED17	EXISTING ELEVATOR POWER DISCONNECT SWITCH AND ASSOCIATED SUPPLY FEEDER TO BE MAINTAINED FOR REUSE.
ED23	DISCONNECT, REMOVE AND RELOCATE EXISTING PUBLIC ADDRESS MAIN CONSOLE. STORE EQUIPMENT ONSITE WHERE DIRECTED. DISCONNECT AND REMOVE EXISTING ASSOCIATED POWER BRANCH WIRING AND ASSOCIATED RACEWAYS BACK TO SOURCE PANELBOARD. MAINTAIN ALL ACTIVE SYSTEM CONTROL AND AUDIO SPEAKER CABLE CONNECTIONS FOR EXTENSION AND RECONNECTION TO RELOCATED CONSOLE.
ED24	DISCONNECT AND REMOVE EXISTING FIRE ALARM CONTROL PANEL (FACP). TURN OVER TO THE SCHOOL DISTRICT. MAINTAIN ALL EXISTING SYSTEM ALARM INITIATION, NOTIFICATION AND SUPERVISORY CIRCUIT WIRING AND ASSOCIATED RACEWAYS NOT SUBJECT TO DEMOLITION FOR REUSE.

KEY PLAN



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PAWLING CENTRAL SCHOOL DISTRICT
PAWLING ELEMENTARY SCHOOL
2020 CAPITAL PROJECT - PHASE 3

Project Title

#	DATE	DESCRIPTION
5	12/07/2023	BID ADDENDUM #5

Drawn By:	NDH
Checked By:	JRB
Proj. #:	13-12-01.04-0-001-024
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Issued for Bid:	11/03/23

Sheet Title
FIRST FLOOR DEMOLITION PLAN - AREA '1'

Sheet No.
PES
ED111

CONSTRUCTION DOCUMENTS

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Branch Panel: PP-1

Location: CORRIDOR 150
Supply From: SWBD ES
Mounting: SURFACE
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 22KA
Mains Type: 100 A MCB
Mains Rating: 100

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	RECEPT. MAKER SPACE 155	20	1	180 VA	180 VA					1	20	PROJECTOR RECEPT. MAKER SPACE...	2
3	PROJECTOR RECEPT. MUSIC 154	20	1			180 VA	180 VA			1	20	RECEPT. MUSIC 154	4
5	PROJECTOR RECEPT. CLASSROOM...	20	1					180 VA	180 VA	1	20	RECEPT. CLASSROOM 158	6
7	MAKER SPACE LIGHTING	20	1	960 VA	960 VA					1	20	MUSIC SPACE LIGHTING	8
9	EXISTING BRANCH CIRCUITS	20	1			0 VA	0 VA			1	20	EXISTING BRANCH CIRCUITS	10
11	EXISTING BRANCH CIRCUITS	20	1					0 VA	0 VA	1	20	EXISTING BRANCH CIRCUITS	12
13	SPARE	20	1	0 VA	0 VA					1	20	SPARE	14
15	SPARE	20	1			0 VA	0 VA			1	20	SPARE	16
17	SPARE	20	1					0 VA	0 VA	1	20	SPARE	18
19	SPARE	20	1	0 VA	0 VA					1	20	SPARE	20
21	SPACE	--	1			--	--			1	--	SPACE	22
23	SPACE	--	1					--	--	1	--	SPACE	24
25	SPACE	--	1	--	--					1	--	SPACE	26
27	SPACE	--	1			--	--			1	--	SPACE	28
29	SPACE	--	1					--	--	1	--	SPACE	30
			Total Load:	2280 VA		360 VA		360 VA					
			Total Amps:	19		3		3					

Notes: PROVIDE PANELBOARD WITH INTEGRAL (FACTORY INSTALLED) SURGE SUPPRESSION DEVICE

Branch Panel: PP-1-2

Location: ELECTRICAL 135D
Supply From: SWBD ES
Mounting: SURFACE
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 22KA
Mains Type: 600 A MCB
Mains Rating: 600

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	ERV-I ROOFTOP	20	3	0 VA	0 VA					3	20	CU-I ROOFTOP	2
3	--	--	--			0 VA	0 VA			--	--	--	4
5	--	--	--					0 VA	0 VA	--	--	--	6
7	ERV-J ROOFTOP	20	3	0 VA	0 VA					3	20	CU-J ROOFTOP	8
9	--	--	--			0 VA	0 VA			--	--	--	10
11	--	--	--					0 VA	0 VA	--	--	--	12
13	CU-K ROOFTOP	20	3	0 VA	0 VA					3	20	ERV-K ROOFTOP	14
15	--	--	--			0 VA	0 VA			--	--	--	16
17	--	--	--					0 VA	0 VA	--	--	--	18
19	CU-L1 ROOFTOP	20	3	0 VA	0 VA					3	20	CU-L2 ROOTFTOP	20
21	--	--	--			0 VA	0 VA			--	--	--	22
23	--	--	--					0 VA	0 VA	--	--	--	24
25	ERV-L ROOFTOP	20	3	0 VA	0 VA					3	20	RTU-A ROOFTOP	26
27	--	--	--			0 VA	0 VA			--	--	--	28
29	--	--	--					0 VA	0 VA	--	--	--	30
31	RECEPT. ROOFTOP	20	1	360 VA	360 VA					1	20	RECEPT. ROOFTOP	32
33	SPARE	20	1			0 VA	0 VA			1	20	SPARE	34
35	SPARE	20	1					0 VA	0 VA	1	20	SPARE	36
37	SPARE	20	1	0 VA	0 VA					1	20	SPARE	38
39	SPACE	--	1			--	--			1	--	SPACE	40
41	SPACE	--	1					--	--	1	--	SPACE	42
			Total Load:	720 VA		0 VA		0 VA					
			Total Amps:	6		0		0					

Notes: PROVIDE PANEL WITH (2)-3 POLE 225 AMP SUB-FEED CIRCUIT BREAKERS FOR CONNECTION OF PANELS "N" & "P".
PROVIDE PANELBOARD WITH INTEGRAL (FACTORY INSTALLED) SURGE SUPPRESSION DEVICE

Branch Panel: PP-1-4

Location: COAT ROOM 101A
Supply From: SWBD ES
Mounting: SURFACE
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 22KA
Mains Type: 400 A MCB
Mains Rating: 400

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	ISU-AHU'S CLASSROOMS	20	2	4.5 VA	4.5 VA					2	20	ISU-AHU'S CLASSROOMS	2
3	--	--	--			4.5 VA	4.5 VA			--	--	--	4
5	ERV-G ROOFTOP	20	3					0 VA	0 VA	3	20	ERV-H ROOFTOP	6
7	--	--	--	0 VA	0 VA					--	--	--	8
9	--	--	--			0 VA	0 VA			--	--	--	10
11	CU-G ROOFTOP	20	3					0 VA	0 VA	3	20	CU-H ROOFTOP	12
13	--	--	--	0 VA	0 VA					--	--	--	14
15	--	--	--			0 VA	0 VA			--	--	--	16
17	RECEPT. ROOFTOP	20	1					360 VA	0 VA	1	20	SPARE	18
19	SPARE	20	1	0 VA	0 VA					1	20	SPARE	20
21	SPARE	20	1			0 VA	0 VA			1	20	SPARE	22
23	SPACE	--	1					--	--	1	--	SPACE	24
25	SPACE	--	1	--	--					1	--	SPACE	26
27	SPACE	--	1			--	--			1	--	SPACE	28
29	SPACE	--	1					--	--	1	--	SPACE	30
31	SPACE	--	1	--	--					1	--	SPACE	32
33	SPACE	--	1			--	--			1	--	SPACE	34
35	SPACE	--	1					--	--	1	--	SPACE	36
37	SPACE	--	1	--	--					1	--	SPACE	38
39	SPACE	--	1			--	--			1	--	SPACE	40
41	SPACE	--	1					--	--	1	--	SPACE	42
			Total Load:	9 VA		9 VA		360 VA					
			Total Amps:	0.1		0.1		3					

Notes: PROVIDE PANEL WITH (2)-3 POLE 150 AMP SUB-FEED CIRCUIT BREAKERS FOR CONNECTION OF PANELS "9" & "9A".
PROVIDE PANELBOARD WITH INTEGRAL (FACTORY INSTALLED) SURGE SUPPRESSION DEVICE

Branch Panel: PP-A (1)

Location: ATTIC 303
Supply From: SWBD ES
Mounting: SURFACE
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 22KA
Mains Type: 400 A MCB
Mains Rating: 400

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	ISU-AHU'S ATTIC	20	2	341.1 VA	0 VA					2	20	ISU-AHU'S ATTIC	2
3	--	--	--			341.1 VA	0 VA			--	--	--	4
5	ISU-AHU'S ATTIC	20	2					0 VA	180 VA	1	20	RECEPT. ROOFTOP	6
7	--	--	--	0 VA	180 VA					1	20	RECEPT. ROOFTOP	8
9	CU-A1 ROOFTOP	20	3			0 VA	0 VA			3	20	CU-A2 ROOFTOP	10
11	--	--	--					0 VA	0 VA	--	--	--	12
13	--	--	--	0 VA	0 VA					--	--	--	14
15	CU-B ROOFTOP	20	3			0 VA	0 VA			3	20	CU-M ROOFTOP	16
17	--	--	--					0 VA	0 VA	--	--	--	18
19	--	--	--	0 VA	0 VA					--	--	--	20
21	Other	20	2			0 VA	0 VA			1	20	ERV-B	22
23	--	--	--					0 VA	0 VA	1	20	ERV-C	24
25					360 VA					1	20	RECEPT. ATTIC	26
27	ERV-A	20	1			0 VA	0 VA			2	20	Other	28
29	ERV-D	20	1					0 VA	0 VA	--	--	--	30
31	SPARE	20	1	0 VA									32
33	SPARE	20	1			0 VA	0 VA			1	20	FAN F-B	34
35	SPARE	20	1					0 VA	0 VA	1	20	EXISTING BRANCH CIRCUIT	36
37	EXISTING BRANCH CIRCUIT	20	1	0 VA	0 VA					1	20	EXISTING BRANCH CIRCUIT	38
39	EXISTING BRANCH CIRCUIT	20	1			0 VA	0 VA			1	20	EXISTING BRANCH CIRCUIT	40
41	EXISTING BRANCH CIRCUIT	20	1					0 VA	0 VA	1	20	EXISTING BRANCH CIRCUIT	42
			Total Load:	881 VA		341 VA		180 VA					
			Total Amps:	7.5		3		1.5					

Notes: PROVIDE PANELBOARD WITH INTEGRAL (FACTORY INSTALLED) SURGE SUPPRESSION DEVICE

Branch Panel: PP-A (2)

Location: ATTIC 303
Supply From: SWBD ES
Mounting: SURFACE
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 22KA
Mains Type: 400 A MLO
Mains Rating: 400

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
43	SPARE	20	1	0 VA	0 VA					1	20	SPARE	44
45	SPARE	20	1			0 VA	0 VA			1	20	SPARE	46
47	SPARE	20	1					0 VA	0 VA	1	20	SPARE	48
49	SPACE	--	1	--	--					1	--	SPACE	50
51	SPACE	--	1			--	--			1	--	SPACE	52
53	SPACE	--	1					--	--	1	--	SPACE	54
55	SPACE	--	1	--	--					1	--	SPACE	56
57	SPACE	--	1			--	--			1	--	SPACE	58
59	SPACE	--	1					--	--	1	--	SPACE	60
61	SPACE	--	1	--	--					1	--	SPACE	62
63	SPACE	--	1			--	--			1	--	SPACE	64
65	SPACE	--	1					--	--	1	--	SPACE	66
67	SPACE	--	1	--	--					1	--	SPACE	68
69	SPACE	--	1			--	--			1	--	SPACE	70
71	SPACE	--	1					--	--	1	--	SPACE	72
73	SPACE	--	1	--	--					1	--	SPACE	74
75	SPACE	--	1			--	--			1	--	SPACE	76
77	SPACE	--	1					--	--	1	--	SPACE	78
79	SPACE	--	1	--	--					1	--	SPACE	80
81	SPACE	--	1			--	--			1	--	SPACE	82
83	SPACE	--	1					--	--	1	--	SPACE	84
			Total Load:	0 VA		0 VA		0 VA					
			Total Amps:	0		0		0					

Notes: PROVIDE PANELBOARD WITH INTEGRAL (FACTORY INSTALLED) SURGE SUPPRESSION DEVICE

Branch Panel: LP-G-1

Location: DISTRICT RECORD B20
Supply From: SWBD ES
Mounting: SURFACE
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 22KA
Mains Type: 225 A MCB
Mains Rating: 225

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	HVAC PUMP MECH. RM.	30	3	2100 VA	2100 VA					3	30	HVAC PUMP MECH. RM.	2
3	--	--	--			2100 VA	2100 VA			--	--	--	4
5	--	--	--					2100 VA	2100 VA	--	--	--	6
7	GMU-A MECHANICAL ROOM	20	1	0 VA	1536 VA					1	20	INDOOR RECESS LIGHTING	8
9	DIST. RECORD/STORAGE LIGHTING	20	1			888 VA	0 VA			1	20	Other INDOOR RECESS B19	10
11	Receptacle INDOOR RECESS B19	20	1					180 VA	1080 VA	1	20	Receptacle PASSAGE B20B	12
13	SPARE	20	1	0 VA	0 VA					1	20	SPARE	14
15	SPARE	20	1			0 VA	0 VA			1	20	SPARE	16
17	SPARE	20	1					0 VA	0 VA	1	20	SPARE	18
19	SPACE	--	1	--	--					1	--	SPACE	20
21	SPACE	--	1			--	--			1	--	SPACE	22
23	SPACE	--	1					--	--	1	--	SPACE	24
25	SPACE	--	1	--	--					1	--	SPACE	26
27	SPACE	--	1			--	--			1	--	SPACE	28
29	SPACE	--	1					--	--	1	--	SPACE	30
31	SPACE	--	1	--	--					1	--	SPACE	32
33	SPACE	--	1			--	--			1	--	SPACE	34
35	SPACE	--	1					--	--	1	--	SPACE	36
37	SPACE	--	1	--	--					1	--	SPACE	38
39	SPACE	--	1			--	--			1	--	SPACE	40
41	SPACE	--	1					--	--	1	--	SPACE	42
			Total Load:	5736 VA		5088 VA		5460 VA					
			Total Amps:	48.3		42.4		46					

Notes:

ALTERNATE 3A

Branch Panel: KP-1 (1)

Location: KITCHEN STORAGE 156D
Supply From: SWBD ES
Mounting: SURFACE
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 22KA
Mains Type: 400 A MCB
Mains Rating: 400

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	RECEPT. KITCHEN STORAGE 156D	20	1	180 VA	1200 VA					1	20	FREEZER, REACH-IN RECEPT.	2
3	EXHAUST HOOD	30	1			2400 VA	8160 VA			1	20	REFRIGERATOR, REACH-IN RECEPT.	4
5 *	STEAMER	40	2					3025 VA	3600 VA	1	40	SERVING COUNTER RECEPT.	6
7	--	--	--	3025 VA	1130 VA					1	20	MILK COOLER/HAND SINK RECEPT.	8
9	FIRE SUPPRESSION SYSTEM	20	1			1800 VA	2400 VA			1	30	WALK-IN COOLER/FREEZER	10
11	SERVING COUNTER RECEPT.	30	1					2400 VA	675 VA	2	20	WARMING CABINET, PASS-THRU	12
13	SERVING COUNTERS RECEPT.	30	1	2400 VA	675 VA					--	--	--	14
15	REFRIGERATOR, PASS-THRU RECEPT.	20	1			780 VA	1200 VA			1	20	POWER AIR DOOR	16
17	LIGHTING KITCHEN STORAGE 156D	20	1					672 VA	578.3 VA	3	20	CONDESNING UNIT, FREEZER	18
19	LIGHTING KITCHEN 152	20	1	864 VA	578.3 VA					--	--	--	20
21	WALK-IN COOLER REFRIGERATION	20	1			500 VA	578.3 VA			--	--	--	22
23	WALK-IN FREEZER REFRIGERATION	20	2					947.5 VA	1200 VA	1	20	DRAIN LINE HEATER	24
25	--	--	--	947.5 VA	3733.3 VA					3	20	CONVECTION OVEN	* 26
27	CONDENSING UNIT, FREEZER	20	3			1166.7 VA	3733.3 VA			--	--	--	28
29	--	--	--					1166.7 VA	3733.3 VA	--	--	--	30
31	--	--	--	1166.7 VA	2081.7 VA					3	30	RANGE	* 32
33 *	TILT SKILLET	60	3			5175 VA	2081.7 VA			--	--	--	34
35	--	--	--					5175 VA	2081.7 VA	--	--	--	36
37	--	--	--	5175 VA	500 VA					1	20	SERVING COUNTER, FROST TOP...	38
39	SERVING COUNTER, HOT FOOD...	30	2			1825 VA	372 VA			1	20	CUH-B-152	40
41	--	--	--					1825 VA	180 VA	1	20	FAN F-C	* 42
			Total Load:	27257 VA		32172 VA		27260 VA					
			Total Amps:	227.1		268.1		227.2					

Notes: * PROVIDE SHUNT TRIP CIRCUIT BREAKER WITH CONTROL COIL CONNECTION TO KITCHEN HOOD FIRE SUPPRESSION SYSTEM.
PROVIDE PANELBOARD WITH INTEGRAL (FACTORY INSTALLED) SURGE SUPPRESSION DEVICE

Branch Panel: KP-1 (2)

Location: KITCHEN STORAGE 156D
Supply From: SWBD ES
Mounting: SURFACE
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 22KA
Mains Type: 400 A MLO
Mains Rating: 400

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
43	Receptacle KITCHEN 152	20	1	3600 VA	0 VA					1	20	SPARE	44
45	SPARE	20	1			0 VA	0 VA			1	20	SPARE	46
47	SPARE	20	1					0 VA	0 VA	1	20	SPARE	48
49	SPARE	20	1	0 VA	--					1	--	SPACE	50
51	SPACE	--	1			--	--			1	--	SPACE	52
53	SPACE	--	1					--	--	1	--	SPACE	54
55	SPACE	--	1	--	--					1	--	SPACE	56
57	SPACE	--	1			--	--			1	--	SPACE	58
59	SPACE	--	1					--	--	1	--	SPACE	60
61	SPACE	--	1	--	--					1	--	SPACE	62
63	SPACE	--	1			--	--			1	--	SPACE	64
65	SPACE	--	1					--	--	1	--	SPACE	66
67	SPACE	--	1	--	--					1	--	SPACE	68
69	SPACE	--	1			--	--			1	--	SPACE	70
71	SPACE	--	1					--	--	1	--	SPACE	72
73	SPACE	--	1	--	--					1	--	SPACE	74
75	SPACE	--	1			--	--			1	--	SPACE	76
77	SPACE	--	1					--	--	1	--	SPACE	78
79	SPACE	--	1	--	--					1	--	SPACE	80
81	SPACE	--	1			--	--			1	--	SPACE	82
83	SPACE	--	1					--	--	1	--	SPACE	84
			Total Load:	3600 VA		0 VA		0 VA					
			Total Amps:	30		0		0					

Notes:

ALTERNATE 3C

Branch Panel: LP-1-1

Location: SECURITY 149A
Supply From: SWBD ES
Mounting: SURFACE
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 22KA
Mains Type: 225 A MCB
Mains Rating: 225

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	PROJECTOR CLASSROOM 151	20	1	180 VA	180 VA					1	20	RECEPT. CLASSROOM 151	2
3	RECEPT. NURSE 149D	20	1			1260 VA	180 VA			1	20	REFRIGERATOR RECEPT. NURSE 149D	4
5	RECEPT. ASST. PRINCIPAL 149C	20	1					900 VA	1080 VA	1	20	RECEPT. MAIN OFFICE 149	6
7	PRINTER RECEPT. MAIN OFFICE 149	20	1	180 VA	180 VA					1	20	2-WAY CHARGING STATION MAIN...	8
9	RECEPT. MAIN OFFICE 149	20	1			1080 VA	720 VA			1	20	RECEPT. SECURITY 149A	10
11	ISU-AHU'S MAIN OFFICE	20	2					2261 VA	0 VA	1	20	DISPLAY CABINET VESTIBULE 142A	12
13	--	--	--	0 VA	0 VA					1	20	STAFF SIGN-IN VESTIBULE 142A	14
15	RECEPT. VESTIBULE 142A	20	1			360 VA	1728 VA			1	20	CLASSROOM LIGHTING	16
17	NURSE/ASST PRINCIPAL LIGHTING	20	1					1248 VA	1248 VA	1	20	MAIN OFFICE/PRINCIPAL LIGHTING	18
19	SECURITY/ENTRANCE LIGHTING	20	1	1803 VA	372 VA					1	20	CUH-B-142A SECURE VESTIBULE	20
21	SECURITY WINDOW FIRE SHUTTER	20	1			0 VA	0 VA			1	20	FACP (VESTIBULE 150A)	22
23	FAAP (VESTIBULE 142A)	20	1					0 VA	0 VA	1	20	SPARE	24
25	SPARE	20	1	0 VA	0 VA					1	20	SPARE	26
27	SPARE	20	1			0 VA	0 VA			1	20	SPARE	28
29	SPACE	--	1					--	--	1	--	SPACE	30
31	SPACE	--	1	--	--					1	--	SPACE	32
33	SPACE	--	1			--	--			1	--	SPACE	34
35	SPACE	--	1					--	--	1	--	SPACE	36
37	SPACE	--	1	--	--					1	--	SPACE	38
39	SPACE	--	1			--	--			1	--	SPACE	40
41	SPACE	--	1					--	--	1	--	SPACE	42
			Total Load:	2895 VA		5328 VA		6737 VA					
			Total Amps:	24.1		47.5		59.3					

Notes: PROVIDE PANELBOARD WITH INTEGRAL (FACTORY INSTALLED) SURGE SUPPRESSION DEVICE

Branch Panel: LP-1-2A

Location: PDL 121
Supply From: PANEL LP-2B
Mounting: SURFACE
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 22KA
Mains Type: 100 A MCB
Mains Rating: 100

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	ISU-AHU'S CLASSROOMS	20	2	0 VA	79 VA					2	20	ISU-AHU'S LIBRARY	2
3	--	--	--			0 VA	0 VA			--	--	--	4
5	PROJECTOR CLASSROOM 117	20	1					180 VA	540 VA	1	20	RECEPT. CLASSROOM 117	6
7	RECEPT. LIBRARY 119	20	1	540 VA	180 VA					1	20	PROJECTOR LIBRARY 119	8
9	RECEPT. LIBRARY 119	20	1			720 VA	540 VA			1	20	RECEPT. LIBRARY 119	10
11	RECEPT. LIBRARY OFFICE 119A	20	1					720 VA	1659 VA	1	20	LIGHTING LIBRARY 119	12
13	SPARE	20	1	0 VA	0 VA					1	20	SPARE	14
15	SPARE	20	1			0 VA	0 VA			1	20	SPARE	16
17	SPARE	20	1					0 VA	0 VA	1	20	SPARE	18
19	SPACE	--	1	--	--					1	--	SPACE	20
21	SPACE	--	1			--	--			1	--	SPACE	22
23	SPACE	--	1					--	--	1	--	SPACE	24
25	SPACE	--	1	--	--					1	--	SPACE	26
27	SPACE	--	1			--	--			1	--	SPACE	28
29	SPACE	--	1					--	--	1	--	SPACE	30
31	SPACE	--	1	--	--					1	--	SPACE	32
33	SPACE	--	1			--	--			1	--	SPACE	34
35	SPACE	--	1					--	--	1	--	SPACE	36
37	SPACE	--	1	--	--					1	--	SPACE	38
39	SPACE	--	1			--	--			1	--	SPACE	40
41	SPACE	--	1					--	--	1	--	SPACE	42
			Total Load:	799 VA		1260 VA		3099 VA					
			Total Amps:	6.7		11.1		26.4					

Notes: PROVIDE PANELBOARD WITH INTEGRAL (FACTORY INSTALLED) SURGE SUPPRESSION DEVICE

Branch Panel: LP-1-2B

Location: STAFF 135B
Supply From: PANEL P
Mounting: SURFACE
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 22KA
Mains Type: 225A MLO
Mains Rating: 225

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	ISU-AHU'S CLASSROOMS	20	2	0 VA	4.5 VA					2	20	ISU-AHU'S CLASSROOMS	2
3	--	--	--			0 VA	4.5 VA			--	--	--	4
5	PROJECTOR RECEPT. CONF. RM. 135	20	1					180 VA	180 VA	1	20	PROJECTOR RECEPT. CONF. RM. 135	6
7	FLOOR RECEPT. CONF. RM. 135	20	1	720 VA	720 VA					1	20	FLOOR RECEPT. CONF. RM. 135	8
9	FLOOR RECEPT. CONF. RM. 135	20	1			720 VA	720 VA			1	20	FLOOR RECEPT. CONF. RM. 135	10
11	FLOOR RECEPT. CONF. RM. 135	20	1					720 VA	180 VA	1	20	PROJECTOR RECEPT. CONF. RM. 135	12
13	RECEPT. STAFF 135B	20	1	1440 VA	1192 VA					1	20	LIGHTING STAFF 135B	14
15	REFRIGERATOR RECEPT. STAFF 135B	20	1			180 VA	1728 VA			1	20	LIGHTING CONF. RM. 135	16
17	ISU-AHU'S CLASSROOM	20	2					341.1 VA	180 VA	1	20	PROJECTOR RECEPT. CONF. RM. 135	18
19	--	--	--	341.1 VA	0 VA					1	20	SPARE	20
21	PANEL LP-1-2A	100	3			0 VA	0 VA			1	20	SPARE	22
23	--	--	--					0 VA	0 VA	1	20	SPARE	24
25	--	--	--	0 VA	0 VA					1	20	SPARE	26
27	SPACE	--	1			--	--			1	--	SPACE	28
29	SPACE	--	1					--	--	1	--	SPACE	30
31	SPACE	--	1	--	--					1	--	SPACE	32
33	SPACE	--	1			--	--			1	--	SPACE	34
35	SPACE	--	1					--	--	1	--	SPACE	36
37	SPACE	--	1	--	--					1	--	SPACE	38
39	SPACE	--	1			--	--			1	--	SPACE	40
41	SPACE	--	1					--	--	1	--	SPACE	42
			Total Load:	4418 VA		3353 VA		1781 VA					
			Total Amps:	38.8		30		14.8					

Notes: PROVIDE PANELBOARD WITH INTEGRAL (FACTORY INSTALLED) SURGE SUPPRESSION DEVICE

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Project Title

PAWLING CENTRAL SCHOOL DISTRICT
PAWLING ELEMENTARY SCHOOL
2020 CAPITAL PROJECT - PHASE 3

JAMES R. BARRETT
073467
EXPIRES 5/31/2026

#	DATE	DESCRIPTION
5	12/07/2023	BID ADDENDUM #5

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Sheet Title

PANEL SCHEDULES

Sheet No.

PES
E903

CONSTRUCTION DOCUMENTS

FIRE ALARM SYSTEM NOTES

1. ALL WIRING, POWER, CONDUCTORS, CONDUITS ETC. SHALL MEET THE LATEST EDITION OF BOTH THE NATIONAL ELECTRICAL CODE AND NFPA 72.
2. ALL FIRE ALARM CIRCUITS SHALL BE SIZED TO A MAXIMUM OF 80% OF CAPACITY.
3. ALL FIRE ALARM CIRCUITS SHALL BE WIRED NFPA STYLE 4/Y/B (CLASS B) WITH THE EXCEPTION OF THE NETWORK CIRCUIT WHICH SHALL BE NFPA STYLE 7 (CLASS A WITH ISOLATION). DUAL CLASS B NETWORKING IS NOT STYLE 7 AND WILL NOT BE APPROVED. ALL AUDIBLE AND VISUAL CIRCUITS SHALL BE STYLE Y/CLASS B.
4. CONDUITS MAY NOT ENTER THE TOP OF ANY FIRE ALARM EQUIPMENT CABINET.
5. ALL FIRE ALARM CABINETS AND JUNCTION BOXES SHALL BE PAINTED FIRE DEPARTMENT RED. ALL FIRE ALARM CABINETS SHALL BE CLEARLY LABELED WITH A LAMINATE ENGRAVED LABEL.
6. ALL FIRE ALARM WIRE SHALL BE CLEARLY LABELED IN JUNCTION BOXES AND CABINETS. ALL TERMINALS SHALL BE NUMBERED AND LABELED. ALL CONNECTIONS SHALL BE EITHER SOLDERED, APPROVED TERMINAL STRIPS OR SCOTCH LOCKS.
7. ALL LOW VOLTAGE FIRE ALARM CONDUCTORS SHALL BE PROTECTED BY EITHER BUILDING CONSTRUCTION OR CONDUIT TO 8 FEET ABOVE THE FINISHED FLOOR. LOADING DOCKS, GARAGES, SUPPRESSION AND EXTINGUISHING SYSTEM WIRING, MECHANICAL AND ELECTRICAL ROOMS AND OTHER LOCATIONS SUBJECT TO MECHANICAL DAMAGE SHALL BE IN FULL RIGID CONDUIT. IN ALL OTHER AREAS, 2-HOUR RATED FIRE ALARM WIRE MAY BE RUN WITHOUT CONDUIT ABOVE 8 FT.
8. FIRE ALARM CABLES SHALL NOT BE MIXED WITH NON FIRE ALARM CABLING. LOW VOLTAGE FIRE ALARM CABLING SHALL NOT BE MIXED OR WIRED NEAR ANY AC CIRCUIT.
9. ALL LOW VOLTAGE WIRING SHALL BE FPLP 150 DEGREE C UL LISTED FIRE ALARM WIRE. ALL NOTIFICATION CIRCUITS SHALL BE A MINIMUM OF 14 AWG AND ALL OTHER LOW VOLTAGE FIRE ALARM CIRCUITS SHALL BE 16 AWG MINIMUM.
10. POLARITY SHALL BE OBSERVED ON ALL CIRCUITS. T-TAPPING SHALL NOT BE ALLOWED ON ANY NOTIFICATION CIRCUITS (HORN, STROBE OR SPEAKER). T-TAPPING SHALL NOT BE PERMITTED ON ADDRESSABLE CIRCUITS WITHOUT THE EXPRESS PERMISSION OF THE ENGINEER.
11. ALL WIRING SHALL BE INSPECTED TO ASSURE THERE ARE NO OPENS, SHORTS OR EARTH GROUNDS.
12. SHIELDED CONDUCTORS OR RUNNING IN SEPARATE RACEWAY SHALL BE AS INSTRUCTED BY THE FIRE ALARM MANUFACTURER'S DOCUMENTATION. ALL NON-POWER LIMITED WIRING, INCLUDING CIRCUITS FOR CENTRALIZED AMPLIFIERS SHALL BE RUN IN A SEPARATE RACEWAY (NOTE: CENTRALIZED AMPLIFIERS, ARE NOT PERMITTED ON NEW SYSTEMS).
13. A CENTRAL STATION DIALER AND TWO DEDICATED PHONE LINES SHALL BE PROVIDED. THE DIALER SHALL BE CAPABLE OF SENDING THE FOLLOWING EVENTS: ALARM, MANUAL STATION, WATERFLOW, SUPERVISORY, CARBON MONOXIDE, TROUBLE, PUMP RUNNING AND PUMP TROUBLE.
14. ALL AREA OR DUCT SMOKE DETECTORS SHALL BE PHOTO-ELECTRIC TYPE.
15. SMOKE DETECTORS MUST BE MOUNTED AT LEAST 3 FT AWAY FROM ANY AIR REGISTER.
16. DEVICE LOCATIONS MUST BE READILY ACCESSIBLE TO ALLOW FOR MAINTENANCE AND REPAIR.
17. DUCT MOUNTED SMOKE DETECTORS SHALL BE MOUNTED ON THE DUCTWORK IN STRICT ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS. ALL DUCT DETECTORS SHALL BE PROVIDED WITH A REMOTE LED.
18. MANUAL PULL STATIONS SHALL BE MOUNTED 48 INCHES ABOVE THE FINISHED FLOOR TO THE HANDLE OF THE STATION AND SHALL BE PAINTED FIRE DEPARTMENT RED. ALL MANUAL STATION SHALL BE INSTALLED SO THAT THEY ARE KEPT UN-OBSTRUCTED AT ALL TIMES.
19. ALL STROBE LIGHTS SHALL BE UL-1971 APPROVED/LISTED. THE MINIMUM CANDELA IS 30 UNLESS OTHERWISE NOTED.
20. NOTIFICATION DEVICES THAT INCLUDE A STROBE SHALL BE MOUNTED 80 INCHES OFF THE FINISHED FLOOR TO THE BOTTOM OF THE STROBE, NOT NECESSARILY THE ELECTRICAL BOX.
21. ALL AUXILIARY RELAYS FOR FAN SHUTDOWN, DOOR RELEASE, DAMPER CONTROL, ELEVATOR CONTROL, ETC SHALL BE WIRED A MAXIMUM OF 3 FT FROM THE CONTROLLED DEVICE. THE AUXILIARY RELAY SHALL FUNCTION WITHIN THE REQUIRED VOLTAGE AND CURRENT OF THE CONTROLLED DEVICE. SLAVE OR INTERPOSING RELAYS SHALL BE INCLUDED AND POWERED BY THE FIRE ALARM CONTROL PANEL IN A FAIL-SAFE (FIRE FUNCTION) POSITION. POWER TO THE INTERPOSING RELAY SHALL BE MONITORED BY THE FIRE ALARM SYSTEM.
22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ANY AND ALL ABANDONED FIRE ALARM CABINETS, DEVICES, AND WIRE. PAINT, PATCH AND CLEANUP SHALL ALSO BE INCLUDED.
23. FOR APPLICATIONS REQUIRING A FIRE ALARM SYSTEM REPLACEMENT (FCC, FACP, OR SCP, SSCP ETC), THE CONTRACTOR SHALL BE RESPONSIBLE FOR INTERFACING THE NEW SYSTEM WITH THE OLD SYSTEM SO THAT THEY ACT AS ONE. ONCE SYSTEM APPROVAL IS GRANTED, THE CONTRACTOR SHALL THEN BE RESPONSIBLE FOR REMOVING THE OLD SYSTEM INCLUDING REMOVING OLD WIRE AND CONDUIT, PATCH, PAINT, AND CLEANUP. FIRE WATCH, IF NECESSARY, SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
24. CARBON MONOXIDE (CO) AND COMBINATION SMOKE AND CO DETECTORS SHALL BE FULLY ADDRESSABLE AND INCLUDE A SOUNDER BASE. MANUFACTURERS THAT DO NOT OFFER AN ADDRESSABLE CO OR SMOKE/CO TYPE DEVICE SHALL INCLUDE SEPARATE CO AND SMOKE DETECTORS, EACH WITH AN INTERNAL SYNCHRONIZED TEMPORAL 3 AND 4 SOUNDERS, AND THE NECESSARY MONITORING DEVICES SO THAT THE FIRE ALARM SYSTEM MAY MONITOR BOTH TYPES SEPARATELY. IF POWERED SEPARATELY (24VDC), POWER TO THE DEVICE SHALL ALSO BE SUPERVISED.
25. BOOSTER POWER SUPPLIES SHALL BE PROVIDED AS NECESSARY FOR STROBE CIRCUIT DRAW AND LENGTHY STROBE CIRCUIT RUNS. PROVIDE A SEPARATE 120V POWER FEED FOR EACH BOOSTER AS WELL AS A SMOKE DETECTOR MOUNTED DIRECTLY ABOVE IT.
26. ALL REMOTE FIRE ALARM CONTROL CABINETS (DATA GATHERING PANELS, TTBS ETC) SHALL INCLUDE AN INTERNAL TAMPER SWITCH. EACH SHALL ALSO INCLUDE A SMOKE DETECTOR MOUNTED ON THE CEILING DIRECTLY ABOVE IT SHOULD ONE OR MORE NOT ALREADY BE SHOWN ON THE PLANS IN THE ROOM THE PANEL IS MOUNTED IN.
27. REFER TO HVAC, FIRE PROTECTION, SECURITY AND FIRE ALARM FLOOR PLANS FOR EXACT QUANTITIES AND LOCATIONS OF ALL FIRE ALARM DEVICES.
28. CONTRACTOR'S RESPONSIBILITY TO SHOW ALL WIRING, ZONING, ETC... IN SHOP DRAWINGS. CONTRACTOR TO COORDINATE WITH ARCHITECTURAL DRAWING FOR ELEVATIONS, SECTIONS, MOUNTING HEIGHTS AND DETAILS. AS WELL AS COMPLY WITH CODE.
29. ELECTRICAL CONTRACTOR SHALL INCLUDE IN HIS BID TWO DAYS FOR FIRE DEPARTMENT ACCEPTANCE AND TWO DAYS FOR OWNER ACCEPTANCE FOR EACH PHASE OF THIS PROJECT (COORDINATE WITH CONSTRUCTION MANAGER).
30. SUBMIT COMPLETE SHOP DRAWINGS FOR THE SYSTEM, INCLUDING WIRING DIAGRAMS, CATALOG CUTS OF ALL DEVICES, AND SYSTEM RISER DIAGRAM, BATTERY CALCULATION.
31. ELECTRICAL CONTRACTOR SHALL PERFORM ALL NECESSARY FIRE DEPARTMENT FILING. WORK SHALL NOT BE CONSIDERED COMPLETE UNLESS ALL NECESSARY FILING, TESTS, AND INSPECTIONS ARE COMPLETED AND APPROVED.
32. ELECTRICAL CONTRACTOR SHALL FIRE STOP ALL CONDUIT PENETRATIONS THROUGH FIRE RATED PARTITIONS AND SLABS.
33. PROVIDE A SIGN AT THE ENTRANCE TO THE BUILDING & ENTRANCE INDICATING THE LOCATION OF THE MAIN FIRE ALARM CONTROL PANEL.
34. COORDINATE LOCATIONS OF ALL DEVICES AND CONDUIT ROUTING WITH ARCHITECT PRIOR TO ANY WORK AND INSTALLATION.
35. ALL COMBINATION AUDIBLE/VISUAL ALARM UNITS AND VISUAL(STROBE UNITS) SHALL BE WALL MOUNTED AT NO HIGHER THAN 80" A.F.F. ALL STROBE LIGHTS WITHIN A COMMON VISUAL ZONE SHALL BE SYNCHRONIZED. ALL MANUAL PULL STATIONS, BEAM DETECTORS, SOUNDING AND VISUAL ALARM DEVICES AND FIRE ALARM PANEL SHALL BE KEPT UNOBSTRUCTED ALL ALL TIMES.
36. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL PROGRAMMING, WIRE AND DEVICES REQUIRED TO INTERFACE SPRINKLER, HVAC, ELEVATOR AND SECURITY SYSTEMS WITH ADDRESSABLE COMPONENTS OF THE FIRE ALARM SYSTEM.
37. REFER TO ELECTRICAL DRAWINGS FOR POWER SUPPLY TO THE FIRE ALARM SYSTEM.
38. PROVIDE FINAL AS PER INSTALLATION WIRING DIAGRAM & INSTRUCTIONS OF THE FIRE ALARM SYSTEM MOUNTED SECURELY INSIDE THE FIRE ALARM CONTROL PANEL.
39. CONTRACTOR TO REVIEW HVAC, SECURITY, AND OTHER CONSULTANT DRAWINGS, THESE INCLUDES BUT NOT LIMITED TO SMOKE DAMPERS, FIRE SMOKE DAMPERS, ELEVATOR CONTROLS, FIRE DOORS HARDWARE AND CONTROLS, MOTORIZED DOOR & WINDOWS, ETC.. THEY SHALL CONTROL AND RECEIVE STATUS INDICATION (OPEN & CLOSED) FOR EACH ASSOCIATED CONTROL CIRCUITS. INTERFACE WITH THE FIRE ALARM SYSTEM AS REQUIRED BY CODE AND PROVIDE RELAYS/CONTROL MODULES FOR FIRE ALARM SYSTEM CONTROL FOR THE STARTING AND STOPPING OF ALL LIFE SAFETY RELATED SMOKE EXHAUST, SMOKE PURGE AND CONTROLLING FANS/MOTORS WITH EACH ASSOCIATED CONTROL WIRING.
40. PROVIDE 20A, 1P, 120V CIRCUIT TO ALL FIRE SMOKE DAMPERS FROM EMERGENCY SOURCE PANEL AND SHALL BE TIE-IN WITH FIRE ALARM SYSTEM. CONTRACTOR SHALL COORDINATE QUANTITY AND LOCATIONS OF ALL FIRE SMOKE DAMPERS (FSD's) WITH HVAC DRAWINGS. REFER TO ELECTRICAL DRAWING FOR FSD'S CIRCUITRY. THE CONTRACTOR SHALL REVIEW HVAC DRAWINGS AND SCHEDULES FOR ALL DUCT SIZES. IF DUCT SIZE REQUIRES MORE THAN ONE DETECTORS OR LONGER SAMPLING TUBE, THEY SHALL PROVIDE ADDITIONAL DEVICES OR LONGER SAMPLING TUBES TO SATISFY NFPA AND BUILDING CODE REQUIREMENTS. THIS SHALL BE PROVIDED AS PART OF BASE BID FOR A COMPLETE CODE COMPLIANT SYSTEM.
41. ALL OUTDOOR FIRE ALARM DEVICES SHALL BE WEATHERPROOF TYPE.
42. ALL FIRE ALARM EQUIPMENT SHALL BE KEPT UNOBSTRUCTED ALL TIMES.
43. ALL FIRE ALARM CABLING SHALL BE 2 HOUR FIRE RATED.

PUBLIC ADDRESS AND MASTER CLOCK SYSTEM MODIFICATION NOTES

1. EC TO PROVIDE EQUIPMENT, DEVICES, CABLING/RACEWAY AND COMPONENTS FULLY COMPATIBLE WITH EXISTING SYSTEMS. RAULAND BORG CORP. PUBLIC ADDRESS SYSTEM AND BOGEN COMMUNICATIONS LLC. MASTER CLOCK SYSTEM - BOTH SERVICED BY ALARM SPECIALISTS INC.
2. BASIC MATERIALS AND METHODS REQUIRED TO INSTALL ALL INDICATED SYSTEM MODIFICATIONS SHALL BE SUBJECT TO THE REQUIREMENTS OF APPLICABLE DIVISION 28 SPECIFICATION SECTIONS. 5
3. EC SHALL BE RESPONSIBLE FOR SECURING THE SERVICES OF THE SYSTEM'S LOCAL SERVICE ORGANIZATION ON CONTRACT WITH THE DISTRICT TO PERFORM FINAL DEVICE/EQUIPMENT CONNECTIONS TO EXISTING HEAD-END CONSOLE EQUIPMENT AND ALL REQUIRED ACCEPTANCE TESTING/COMMISSIONING/CLOSEOUT OF ALL SYSTEM MODIFICATION WORK.

FIRE ALARM SEQUENCE OF OPERATION

A. ACTIVATION OF A MANUAL PULL STATION WILL DO THE FOLLOWING:
   a. ANNUNCIATE THE DEVICE IN ALARM ON AN ENGLISH LANGUAGE DISPLAY AT THE FIRE ALARM PANEL.
   b. SHUTDOWN ALL FANS GREATER THAN 1000 C.F.M. AND CLOSE ASSOCIATED FIRE SMOKE DAMPERS AND SMOKE DAMPERS.
   c. ACTIVATE HORN AND STROBES.
   d. SOUND AN AUDIBLE ALARM TONE WITHIN ZONE CONTAINING INITIATING FIRE ALARM SIGNAL.
   e. SEND A PULL STATION ALARM SIGNAL TO THE FACP.

B. ACTIVATION OF AN AREA SMOKE DETECTOR OR DUCT DETECTOR WILL DO THE FOLLOWING:
   a. ANNUNCIATE THE DEVICE IN ALARM ON AN ENGLISH LANGUAGE DISPLAY AT THE FIRE ALARM PANEL.
   b. SHUTDOWN ALL FANS GREATER THAN 1000 C.F.M. AND CLOSE ASSOCIATED FIRE SMOKE DAMPERS AND SMOKE DAMPERS.
   c. ACTIVATE HORN AND STROBES.
   d. SOUND AN AUDIBLE ALARM TONE WITHIN ZONE CONTAINING INITIATING FIRE ALARM SIGNAL.
   e. SEND A SMOKE ALARM SIGNAL TO THE FACP.
   f. SEND SIGNAL TO BMS SYSTEM TO BEGIN SMOKE EXHAUST SEQUENCE.
   g. OPERATE ALL DOOR RELEASES AT EGRESS DOORS.

C. ACTIVATION OF A WATERFLOW SWITCH WILL DO THE FOLLOWING:
   a. ANNUNCIATE THE DEVICE IN ALARM ON AN ENGLISH LANGUAGE DISPLAY AT THE FIRE ALARM PANEL
   b. SHUTDOWN ALL FANS GREATER THAN 1000 C.F.M. AND CLOSE ASSOCIATED FIRE SMOKE DAMPERS AND SMOKE DAMPERS.
   c. ACTIVATE HORN AND STROBES.
   d. SOUND AN AUDIBLE ALARM TONE WITHIN ZONE CONTAINING INITIATING FIRE ALARM SIGNAL.
   e. SEND A WATERFLOW ALARM SIGNAL TO THE FACP
   f. OPERATE ALL DOOR RELEASES AT EGRESS DOORS.

D. ACTIVATION OF A TAMPER SWITCH WILL DO THE FOLLOWING:
   a. ANNUNCIATE THE DEVICE IN ALARM ON AN ENGLISH LANGUAGE DISPLAY AT THE FIRE ALARM PANEL
   b. SEND A SUPERVISORY SIGNAL TO THE FACP.

E. OPERATION OF A KITCHEN HOOD EXHAUST SYSTEM MONITORING DEVICE WILL DO THE FOLLOWING:
   a. ANNUNCIATE THE DEVICE IN ALARM ON AN ENGLISH LANGUAGE DISPLAY AT THE FIRE ALARM PANEL.
   b. ACTIVATE AUDIBLE ALARM TONE WITHIN ZONE CONTAINING INITIATING FIRE ALARM SIGNAL.
   c. SEND A SMOKE ALARM SIGNAL TO THE FACP.
   d. SEND SIGNAL TO BMS SYSTEM AND/OR KITCHEN HOOD CONTROL PANEL TO BEGIN SMOKE EXHAUST SEQUENCE.
   e. OPERATE ALL DOOR RELEASES AT EGRESS DOORS.

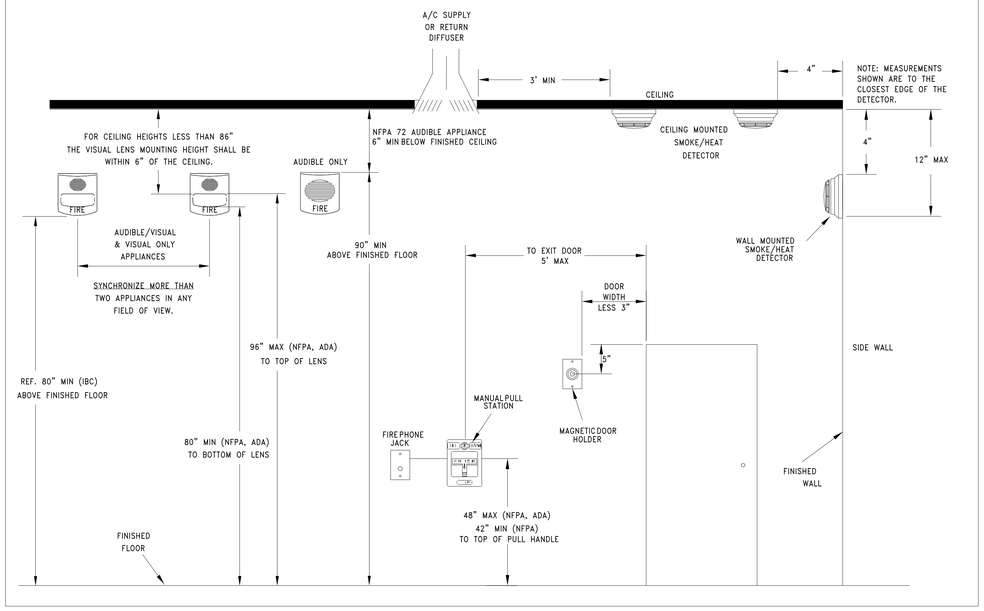
F. ACTIVATION OF A CARBON MONOXIDE DETECTOR WILL DO THE FOLLOWING:
   a. INITIATE A DISTINCT CARBON MONOXIDE DETECTOR SUPERVISORY SIGNAL FOR CORRESPONDING DETECTOR ON AN ENGLISH LANGUAGE DISPLAY AT THE FIRE ALARM PANEL.
   b. ACTIVATE DISTINCT LOCAL CARBON MONOXIDE DETECTOR HORN/STROBE DEVICES FOR ASSOCIATED DETECTOR IN ALARM CONDITION.
   c. ACTIVATE CARBON DETECTOR SOUND BASE (IF PRESENT).
   d. SEND A DISTINCT CARBON MONOXIDE DETECTOR SUPERVISORY SIGNAL TO THE FACP.

G. A CARBON MONOXIDE DETECTOR IN A TROUBLE CONDITION WILL DO THE FOLLOWING:
   a. INITIATE A DISTINCT CARBON MONOXIDE DETECTOR TROUBLE SIGNAL FOR CORRESPONDING DETECTOR ON AN ENGLISH LANGUAGE DISPLAY AT THE FIRE ALARM PANEL.
   b. SEND A DISTINCT CARBON MONOXIDE DETECTOR TROUBLE SIGNAL TO THE FACP.

GENERAL NOTES:

1. NEW FIRE ALARM DEVICES TO MATCH EXISTING FIRE ALARM DEVICES. COORDINATE REQUIREMENTS WITH FIRE ALARM VENDOR FOR BUILDING.
2. PROVIDE BOOSTERS, POWER EXTENDERS AND END OF LINE RESISTORS AS NEEDED.
3. REMOTE POWER SUPPLIES SHOULD BE ACCESSIBLE AND LOCATED IN ELECTRICAL ROOMS OR CLOSETS.
4. REFER TO POWER DRAWINGS FOR POWER CONNECTION TO FIRE ALARM PANELS AND EQUIPMENT.

FIRE ALARM DEVICE MOUNTING HEIGHT REFERENCE (PER NFPA 72)



SECURITY

CR	CARD READER
DC	DOOR CONTACT
DR	REMOTE DOOR RELEASE
EL	ELECTRONIC LOCK
ES	ELECTRONIC STRIKE
IC	INTERCOM SYSTEM, SUBSCRIPT DENOTES: M – MASTER STATION V – VIDEO INTERCOM
KP	KEYPAD
ML	MAGNETIC LOCK
MS	MOTION SENSOR
PB	PANIC BUTTON / HOLD-UP / DURESS ALARM
RTE	REQUEST TO EXIT
	SECURITY CAMERA, CEILING MOUNTED
	SECURITY CAMERA, WALL MOUNTED

DATA & COMMUNICATION

▽#	DATA OUTLET BOX #=NUMBER OF CAT6A CABLES TO BE PROVIDED
▼	TELEPHONE OUTLET BOX
▽▼	COMBINATION TELEPHONE/DATA OUTLET BOX
▽	DATA OUTLET BOX - IN CEILING
▽	DATA OUTLET BOX - IN FLOOR BOX
WAP	WIRELESS ACCESS POINT
	DATA EQUIPMENT RACK
S	PUBLIC ADDRESS SYSTEM SPEAKER, WALL MOUNTED
S	PUBLIC ADDRESS SYSTEM SPEAKER, IN CEILING
C	MASTER CLOCK, WALL MOUNTED
PA	PUBLIC ADDRESS SYSTEM HEAD-END

FIRE ALARM

S	SMOKE DETECTOR, CEILING MOUNTED, SUBSCRIPT DENOTES: E – ELEVATOR RECALL D – DUCT DETECTOR BR – BEAM DETECTOR (RECIEVER) BT – BEAM DETECTOR (TRANSMITTER)
S	SMOKE DETECTOR, WALL MOUNTED
H	HEAT DETECTOR, CEILING MOUNTED
H	HEAT DETECTOR, WALL MOUNTED
CO	CARBON MONOXIDE DETECTOR, CEILING MOUNTED
CO	CARBON MONOXIDE DETECTOR WITH SOUNDER BASE, WALL MOUNTED
G	GAS DETECTOR, CEILING MOUNTED
G	GAS DETECTOR WITH SOUNDER BASE, WALL MOUNTED
V	FIRE ALARM STROBE, WALL MOUNTED, SUBSCRIPT DENOTES: # – CANDELA RATING WG – WIRE GUARD WP – WEATHER PROOF CO – REMOTE STROBE FOR CO DETECTOR
V	FIRE ALARM STROBE, CEILING MOUNTED
S	FIRE ALARM COMBINATION SPEAKER/STROBE, WALL MOUNTED
S	FIRE ALARM COMBINATION SPEAKER/STROBE, CEILING MOUNTED
H	FIRE ALARM COMBINATION HORN/STROBE, WALL MOUNTED
H	FIRE ALARM COMBINATION HORN/STROBE, CEILING MOUNTED
S	FIRE ALARM SPEAKER, WALL MOUNTED
S	FIRE ALARM SPEAKER, CEILING MOUNTED
H	FIRE ALARM HORN, WALL MOUNTED
H	FIRE ALARM HORN, CEILING MOUNTED
B	BELL, WALL MOUNTED
F	MANUAL PULL STATION
W	SPRINKLER WATER FLOW SWITCH
T	SPRINKLER TAMPER SWITCH
R	FIRE ALARM RELAY
SR	FIRE ALARM SHUTDOWN RELAY
DH	DOOR HOLDER
AR	AREA OF REFUGE
FSD	FIRE/SMOKE DAMPER
SD	SMOKE DAMPER
FACP	FIRE ALARM CONTROL PANEL
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FDGP	FIRE ALARM DATA GATHERING PANEL
ARC	AREA OF REFUGE CENTRAL COMMUNICATION

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PAWLING CENTRAL SCHOOL DISTRICT
PAWLING ELEMENTARY SCHOOL
2020 CAPITAL PROJECT - PHASE 3

Project Title

STATE OF NEW YORK
JAMES R. BARRETT
073467
LICENSED PROFESSIONAL ENGINEER
EXPIRES 5/31/2026

#	DATE	DESCRIPTION
5	12/07/2023	BID ADDENDUM #5

Drawn By:	NDH
Checked By:	JRB
Proj. #:	13-12-01-04-0-001-024
CSArch Proj. #:	208-2101.03
Issued for Bid:	11/03/23

Sheet Title
SYSTEMS NOTES, LEGENDS AND ABBREVIATIONS

Sheet No.
PES
ES000

CONSTRUCTION DOCUMENTS

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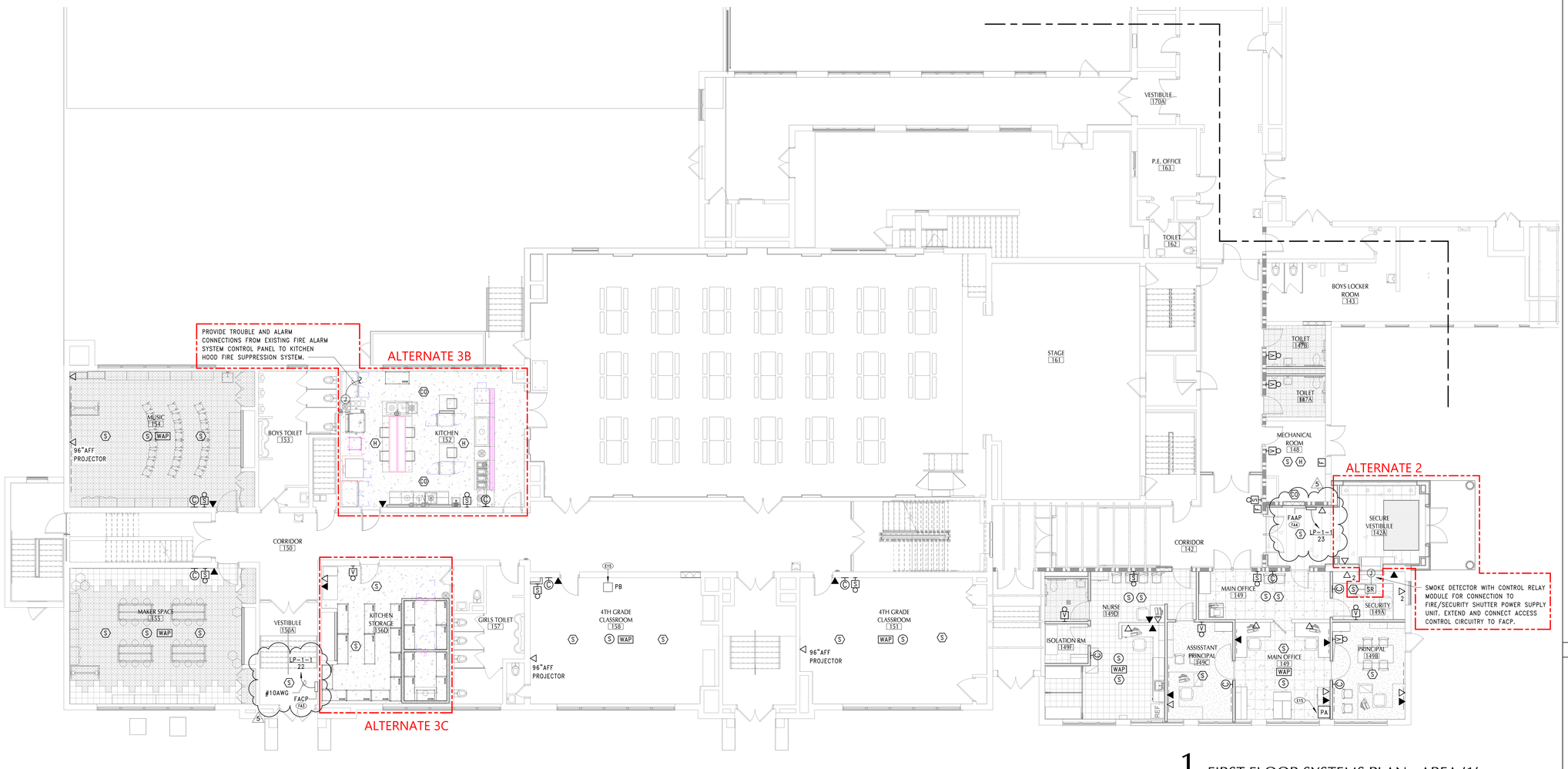
SHEET NOTES

A. FIELD COORDINATE ROUTING OF ALL FEEDERS AND BRANCH CIRCUITS.

B. ALL PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE PROPERLY FIRE-STOPPED.

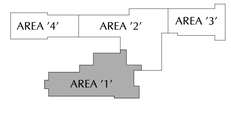
KEY NOTES

E15	PROVIDE RELOCATION OF EXISTING PUBLIC ADDRESS CONSOLE AS INDICATED. PROVIDE A NEMA TYPE 1 PULLBOX LOCATED ABOVE THE CEILING AT THE EXISTING (PREVIOUS) PA SYSTEM CONSOLE LOCATION TO ACCOMMODATE THE EXTENSION OF ALL ACTIVE AUDIO AND CONTROL SYSTEM CABLING TO THE CONSOLE RELOCATION IN MAIN OFFICE 149. PROVIDE RECONNECTION OF EXTENDED CABLING AND POWER WIRING TO RELOCATED CONSOLE. PROVIDE COMPLETE ACCEPTANCE TESTING OF RELOCATED PA SYSTEM CONSOLE TO ASSURE THAT PROPER OPERATION HAS BEEN RESTORED.
FA3	PROVIDE REPLACEMENT FIRE ALARM CONTROL PANEL (FACP). PROVIDE CONNECTION OF ALL SYSTEM DEVICES, COMPONENTS AND EQUIPMENT INDICATED. EXTEND AND RECONNECT ALL EXISTING ACTIVE FIRE ALARM SYSTEM WIRING. REFER TO SPECIFICATION SECTION NO. 284621 FOR OVERALL SYSTEM MATERIAL, INSTALLATION, COMMISSIONING AND ACCEPTANCE TESTING REQUIREMENTS.
FA4	PROVIDE FIRE ALARM REMOTE ANNUNCIATOR PANEL (FAAP). PROVIDE INTERCONNECTION TO FIRE ALARM CONTROL PANEL (FACP). REFER TO SPECIFICATION SECTION NO. 284621.



1 FIRST FLOOR SYSTEMS PLAN - AREA '1'
ES111 1/8" = 1'-0"

KEY PLAN



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Sheet Title

FIRST FLOOR SYSTEMS PLAN - AREA '1'

Sheet No.

PES
ES111

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