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SOUTH JERSEY Biz BEST OF BIZ 2024

ADDENDUM - 01

DATE: .....18 February 2024
FROM: .....Scott England
VIA:.....File Share

SUBJECT:
ADDENDUM #01
LINDENWOLD SCHOOL #4
RYEB Project #5743F, H & O

This addendum is issued to clarify, correct or supplement the Documents as originally issued and will become a part of the Contract. Receipt thereof shall be acknowledged by Bidders in space provided in the Form of Bid. Failure to acknowledge this Addendum on the official Form of Bid may be cause for rejection of Bid.

1.01. **CLARIFICATION**: (Reference to High-Performance Coatings and Maintenance Repainting Locations):

All corridor-side surfaces and stairwells: Follow Specification Section 099600, HIGH PERFORMANCE COATINGS for repainting of these areas. Contractor to field-test existing substrates and existing finishes for proper adhesion and compatibility before proceeding.

All other spaces: Follow Specification Section 090190.52, MAINTENANCE RE-PAINTING for all other spaces. Contractor to field test existing substrates and existing finishes for proper adhesion and compatibility before proceeding.

1.02. **AMENDMENT**: See attached amended electrical drawings numbered E-001, E-002, E-003, E-101, E-102, E-103, E-104, E-105, E-106, E-200, E-300, consisting of 11 drawings total.

1.03. **AMENDMENT**: See attached amended mechanical drawings, numbered, H-100, H-101, H-102, H-103, H-105, H-106, HP-100, HP-102, H-402, H-403, consisting of 11 drawings total.

1.04. **ADDITION**: Ground Penetrating Radar GPR Information: See attached report entitled "Ground Penetrating Radar (GPR) Utility Locate-Lindenwold School #4", dated 18 October 2016 for Contractor review and coordination.

As part of the Base-Bid, the Contractor is to provide an updated Ground Penetrating Radar (GPR) service and report to locate (mark-out) all existing underground utilities in areas where site utilities are located, and new work is required. Provide a copy of the GPR Report to the A/E and Owner prior to proceeding with excavation.

1.05. **CLARIFICATION**: All areas indicated to receive new flooring materials are to receive floor patching/leveling of the existing subfloor prior to installation of new flooring adhesive.

1.06. **AMENDMENT**: Delete specification section 096519, LUXURY VINYL COMPOSITION TILE FLOORING as bound in the Project Manual.

Replace with the attached specification section 096519, LUXURY VINYL COMPOSITION TILE FLOORING, consisting of 6 pages total.

1.07 **CLARIFICATION**: (Reference to Specification Section 123216, MANUFACTURED PLASTIC-LAMINATE-CLAD CASEWORK):

1. All casework must be of balanced construction to avoid warpage or sag.
2. All cores at sinks and sink bases are to be constructed of moisture-resistant (MR) particleboard.
3. Plywood construction materials are not acceptable.

1.08 **AMENDMENT**: (Reference to Specification Section 095113, ACOUSTICAL PANEL CEILINGS)

1. Delete Specification Section 095113, Acoustical Panel Ceilings as published in the Project Manual.

2. Replace with amended and attached Specification Section 095113, Acoustical Panel Ceilings, consisting of 9 pages total.

Type APC-2 acoustical panel ceilings was added to the scope of work and is to be used at all restroom locations.

1.09 **CLARIFICATIONS**: (Bidders Questions)

1. **Question**: Note 1 on H-104 is calling for all Supply, Return, and Exhaust duct above roof shall be Dual-Tech prefab duct. There are goosenecks on the roof which appear to be acting as relief. Do the goosenecks also need to be Dual-Tech.

   Response: HVAC New Work Note #1 has been amended on drawings H-104 & H-105, an attached to this addendum.

2. **Question**: Note 1 on H-104 calls for duct on roof to be Dual-Tech or Approved Equal. Since this ductwork is not listed in the spec, please provide approved equal products.

   Response: HVAC New Work Note #1 has been amended on drawings H-104 & H-105, an attached to this addendum.

1.10 **ADDITION**: As part of the Contract, a Contractor provided Fire-Watch will be required at all times during the periods when life-safety systems are non-functional. The designated Fire Watch must be maintained by the Contractor until the life-systems are fully operational.

1.11 **CLARIFICATION**: The Board of Education will employ the services of a Construction Manager to oversee the Project. A Construction Manager has not been selected as of this date and will be named in the Spring of 2026.

1.12 **CLARIFICATION**: (Bidders Question):

1. **Question**: The Schedule states that the abatement will commence on 6/29/26 and that the rest of the work can only begin once the abatement is completed, and clean air tests are achieved. This will leave very little time for the rest of the work to be finished by the substantial completion date of 8/31/26. Is the intent to have multiple shift workers around the clock? As the schedule stands now, it seems unfeasible to complete the work under normal conditions.

   Response:

A. Please refer to specification section ASBESTOS ABATEMENT WORK PLAN-2026 HVAC REPLACEMENT, for detailed specifics related to the asbestos abatement work with specific attention paid to work designated under Subchapter 8, and work areas designated as "Occupied".

- For the "Subchapter-8" boiler room abatement work, the job is being performed under occupied conditions. Other trades may occupy and work in those parts of the building outside the construction barriers set up to demarcate the abatement zone. After acceptable air tests are obtained and the final cleaning and breakdown in the boiler room are complete, the boiler room and adjacent lower-level classroom and hallway areas will be available for re-occupancy by other contractors.

- For the other non-"Subchapter 8" floor coverings and sink removal work, the scope may be divided into phases at the discretion of the GC and their subcontractors and, as areas are completed and acceptable air tests are obtained, the abated areas may be re-occupied by the other trades.

- Please review the asbestos abatement portion of the specification for details regarding the scope of the asbestos abatement activities.

B. Please refer to specification Section 011000, SUMMARY, Paragraph 1.11, WORK RESTRICTIONS. This section specifically lists the hours the building will be open to the contracting team and the procedures to follow. The Owner will permit First and Second Shift work availability if given 3-days prior notice.

C. First and Second Shifts: If requested by the Contractor, the Owner will provide building accessibility for both first and second shifts without additional charge to the Contractor. Three-days prior notice is required for second shift access request.

D. Third Shift: If requested by the Contractor, the Owner will make the facility open for Third-Shift work, if given three-days prior notice. The Contractor will be responsible for reimbursing the costs of the third shift building coverage to the Owner.

1.13 **CLARIFICATION**: (Bidders Question):

1. **Question**: Will the Moisture Vapor Emission Control be needed in every instance that new flooring is to be installed? It is only referenced in the specifications and not on the plans.

2. **Response**:

A. All new flooring adhesive must be provided by the flooring manufacturer (or acceptable to the flooring manufacturer in writing) and must be the highest level high-humidity/high-moisture conditions.
B. MVEP is required when the moisture test results when the test results exceed the adhesive manufacturer's published data.
C. For the purpose of the Bid, the Contractor should include 7,500 SF of MVEP for this Project.
D. All areas indicated to receive new flooring materials are to receive floor patching/leveling of the existing subfloor prior to installation of new flooring adhesives in addition to any MVEP required.

1.14 **CLARIFICATION**: (Reference to Specification Section 123216, MANUFACTURED PLASTIC-LAMINATE-CLAD CASEWORK):

1. All casework must be of balanced construction to avoid warpage or sag.
2. All core at sinks and sink bases are to be constructed of moisture-resistant (MR) particleboard.
3. Plywood construction materials are not acceptable.

1.15 **CLARIFICATION**: All existing roof mounted PV panels have been removed from the roof. The Owner intends to install a new rooftop PV system after the new roofing is installed.

1.16 **CLARIFICATION (**Bidders Questions):

A. **Question**: Given the significant amounts of VAT abatement condensed into the early portion of the 2026 Summer coupled with the remainder of the contract work, especially the re-roofing, is it possible to perform abatement and new flooring installations (minus small perimeter portions around classroom UVs) within Summer 2025, and or Holiday breaks? A major concern is the disturbance from re-roofing activities in relation air quality clearances. Concerns are impacts to the aggressive schedule, costs for re-testing borne by contractor, etc.

Response: All work is to be conducted in 2026 per the contract documents. All air testing and costs are outside the Contractor contract and will be provided through the Owner.

B. **Question**: Who will be responsible for life safety, building security , etc. during electrical service & generator outages.

Response: See item 1.10 above.

C. **Question**: There seems to be (2) Alternate #5's on the bid form. Please clarify.

Response: No, there is only one Alternate No. 05 on the Form of Bid. There is an Alternate numbered 0.5 for the roofing work that may be the confusion. However, Alternate Bid No.05 was amended to include resilient terrazzo tile flooring as part of Alternate No. 5.

Bidders are to use the amended Form of Bid attached to this Addendum for their bid submission.

D. **Question**: On the F/A replacement we are assuming that the installation of the new system must be completed and certified before existing system removals can be started is that accurate ?

Response: The existing FA system must remain in full operation until switchover to the new FA system to ensure seamless building coverage.

E. **Question**: Who will be responsible for maintaining 24/7 fire watch through the existing school during abatement work.

Response: See item 1.10 above.

F. **Question**: Who will be responsible for dehumidification within the entire school during abatement work ? Are there any specific areas within the school outside of abatement areas that need to be maintained but whose system also serve areas of scheduled abatement ? If so, please indicate locations.

Response: The existing building does not currently have dehumidification capabilities. The Contractor will not be required to provide temporary dehumidification as part of their scope of work.

G. **Question**: It was noticed within certain divisions of the specs its calls for contractor to procure & pay for all permits , fees, etc. (i.e. 260000- 1.9(B)). Other language within the documents place all permits & fees upon the owner. Please clarify.

Response: The Contractor will apply for and obtain all permits. If the Borough of Lindenwold charges a plan review fee, the Contractor will pay for the permit costs and submit the costs to the Lindenwold BoE for reimbursement without any Contractor markup.

H. **Question**: Are there any specific permits and or fees associated with Atlantic City Electric that will be the responsibly of the contractor?

Response: The Contractor must apply for new electrical service to Atlantic City Electric. Any fees required by Atlantic City Electric will be paid by the Lindenwold Board of Education.

I. **Question**: Will there be any additional costs to the contractor by monitoring & sampling is conducted on 2nd shifts ?

Response: The Owner will provide all monitoring and sampling on first and second shifts without cost to the Owner.

1.17 **ADDITION**: In Classroom 112, Contractor shall remove the existing tackboard to permit the installation of the HVAC piping and piping chase. Contractor to turn over tackboard to the Owner in undamaged condition and patch wall and repaint.

1.18 **CLARIFICATION**: In all toilet rooms, storage closets and coat cubbies areas within each classroom, the Contractor is to remove all existing gypsum/plaster ceilings and ceiling support systems in their entirety. Install new acoustical panel ceilings. Follow MEP drawings for new lighting and other work in these areas.

1.19 **CLARIFICATION (**Bidders Questions):

A. **Question:** Please advise the contract number and title required on line 7 of the Consent of Surety.

Response: On line 7, please input the name of the project and the Architect's project number.

B. Question: Are other manufacturers of SBS roofing acceptable such as Versico and Garland? Are other roofing systems such as EPDM or TPO acceptable alternates?

Response: The SBS specifications currently list a Basis-of-Design System along with three other pre-approved systems and manufacturers. Garland is currently listed.

As required by NJ Public Contracts Law, the specifications also have provisions for the submission of potential "or equal" products. The burden of proof of equivalency of other manufacturers systems lays with the Contractor and the approval or rejection of proposed systems is the architect's decision.

Only SBS systems, as specified and approved, are acceptable on this project.

C. **Question**: Specifications list a surface preparation schedule that does not appear on the plans, please advise.

Response: The specifications surface preparation is general in nature and is intended to provide direction for known conditions present in the building. The Contractor shall review the existing conditions and develop a submission of systems preparation and finish painting based on the conditions currently present in the building.

D. **Question**: Would it be possible to get a valuation of the existing building to help us calculate the Builder's Risk that we are to carry.

Response: The Board of Education will not require the Contractor to purchase Builder's Risk insurance coverage for the project. All other specified insurance is required.

1.20 **AMENDMENT**: See attached amended plumbing drawings numbered, PD-100, PD-101, P-100, P-102, P-104, P-300, consisting of six sheets total.

1.21 **CLARIFICATION**: See amended drawings A-200 and A-200.1, consisting of two (2) drawings total.

ATTACHMENTS:

1. Specification Section 095113, ACOUSTICAL PANEL CEILINGS, consisting of 9 pages total.
2. Specification Section 0956519, LUXURY VINYL COMPOSITION TILE FLOORING, consisting of 6 pages total.
3. Ground Penetrating Radar (GPR) Report, dated October 18, 2016, consisting of 14 pages total.
4. Amended Specification Section 002000, FORM OF BID, consisting of 10 pages total.
5. Amended electrical drawings numbered E-001, E-002, E-003, E-101, E-102, E-103, E-104, E-105, E-106, E-200, E-300, consisting of 11 drawings total.
6. Amended mechanical drawings, numbered, H-100, H-101, H-102, H-103, H-105, H-106, HP-100, HP-102, H-402, H-403, consisting of 11 drawings total.
7. Amended plumbing drawings numbered, PD-100, PD-101, P-100, P-102, P-104, P-300, consisting of 6 drawings total.
8. Amended architectural drawings A-200 and A200.1, consisting of 2 pages total.

Addendum 01 consists of (45) pages and (30) drawings.

END OF ADDENDUM 01

SECTION 095113 - ACOUSTICAL PANEL CEILINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section includes acoustical panels and exposed suspension systems for interior ceilings.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Samples: For each exposed product and for each color and texture specified, 6 inches (150 mm) in size.

C. Samples for Initial Selection: For components with factory-applied finishes.

D. Samples for Verification: For each component indicated and for each exposed finish required, prepared on Samples of sizes indicated below:

1. Acoustical Panels: Set of 6-inch- (150-mm-) square Samples of each type, color, pattern, and texture.
2. Exposed Suspension-System Members, Moldings, and Trim: Set of 6-inch- (150-mm-) long Samples of each type, finish, and color.

1.4 INFORMATIONAL SUBMITTALS

A. Product Test Reports: For each acoustical panel ceiling, for tests performed by manufacturer and witnessed by a qualified testing agency.

B. Evaluation Reports: For each acoustical panel ceiling suspension system and anchor and fastener type, from ICC-ES.

C. Field quality-control reports.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For finishes to include in maintenance manuals.

1.6 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Acoustical Ceiling Units: Full-size panels equal to 2 percent of quantity installed.
2. Suspension-System Components: Quantity of each exposed component equal to 2 percent of quantity installed.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver acoustical panels, suspension-system components, and accessories to Project site and store them in a fully enclosed, conditioned space where they will be protected against damage from moisture, humidity, temperature extremes, direct sunlight, surface contamination, and other causes.

B. Before installing acoustical panels, permit them to reach room temperature and a stabilized moisture content.

1.8 FIELD CONDITIONS

A. Environmental Limitations: Do not install acoustical panel ceilings until spaces are enclosed and weathertight, wet-work in spaces is complete and dry, work above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations: Obtain each type of acoustical ceiling panel and its supporting suspension system from single source from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

A. Surface-Burning Characteristics: Comply with ASTM E 84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

1. Flame-Spread Index: Class A according to ASTM E 1264.
2. Smoke-Developed Index: 50 or less.

B. Fire-Resistance Ratings: Comply with ASTM E 119; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

1. Indicate design designations from UL or from the listings of another qualified testing agency.

2.3 ACOUSTICAL PANELS APC-1 (At all locations except Restrooms)

A. Acoustical Panel Standard: Provide manufacturer's standard panels according to ASTM E 1264 and designated by type, form, pattern, acoustical rating, and light reflectance unless otherwise indicated.

B. District Standard: USG Radar Basic, Item #R2310, or Architect-approved equal.

C. Type: Type III, Form 2, Pattern C, E and C,E,K.

D. Color: White.

E. Light Reflectance (LR): Not less than 0.83.

F. Noise Reduction Coefficient (NRC): Not less than 0.55.

G. Thickness: 5/8-inch.

H. Modular Size: 24 by 48 inches.

I. CAC Min: 35

J. Fire Rating: Class A.

K. Sag Resistance: Manufacturer’s standard formula.

L. Edge: Square.

M. Antimicrobial Treatment: Manufacturer's standard broad spectrum, antimicrobial formulation that inhibits fungus, mold, mildew, and gram-positive and gram-negative bacteria and showing no mold, mildew, or bacterial growth when tested according to ASTM D 3273, ASTM D 3274, or ASTM G 21 and evaluated according to ASTM D 3274 or ASTM G 21.

N. Warranty: Manufacturer’s standard 30-year systems warranty against visible sag, mold/mildew and bacterial growth.

O. Basis of Design: USG Ceiling Solutions, ClimaPlus Performance Kitchen Lay-In Panels, Item #3410, or Architect-approved equal from one of the following manufacturers:

1. Armstrong Ceiling Solutions.
2. Certainteed; Saint-Gobain.
3. Architect-approved equal.

P. Acoustical Panel Standard: Provide manufacturer's standard panels according to ASTM E1264 and designated by type, form, pattern, acoustical rating, and light reflectance unless otherwise indicated.

Q. VOC Emissions: Low-emitting with GREENGUARD Certification.

R. Recycled Content: Not less than 24% recycled content.

S. Flame Spread: 25 or less per ASTM E84.

T. Smoke Developed: 50 or less per ASTM E84.

U. Classification: Provide fire-resistance-rated panels as follows:

1. Type and Form: Type IX; Form 2, water felted.
2. Pattern: G (smooth).

V. Color: White.

W. Light Reflectance (LR): Not less than 0.90.

X. Ceiling Attenuation Class (CAC): Not less than 35.

Y. Edge/Joint Detail: Square.

Z. Thickness: 5/8 inch.

AA. Modular Size: 24 by 48 inches.

BB. Antimicrobial Treatment: Manufacturer's standard broad spectrum, antimicrobial formulation that inhibits fungus, mold, mildew, and gram-positive and gram-negative bacteria and showing no mold, mildew, or bacterial growth when tested according to ASTM D3273, ASTM D3274, or ASTM G21 and evaluated according to ASTM D3274 or ASTM G21.

CC. Warranty: Manufacturer’s standard no visible sag and mold and mildew protection for 30 years from Date of Substantial Completion.

2.4 ACOUSTICAL PANELS APC-2 (All Restroom Locations)

A. Basis of Design: USG Ceiling Solutions, ClimaPlus Performance Kitchen Lay-In Panels, Item #3410, or Architect-approved equal from one of the following manufacturers:

1. Armstrong Ceiling Solutions.
2. Certainteed; Saint-Gobain.
3. Architect-approved equal.

B. Acoustical Panel Standard: Provide manufacturer's standard panels according to ASTM E1264 and designated by type, form, pattern, acoustical rating, and light reflectance unless otherwise indicated.

C. VOC Emissions: Low-emitting with GREENGUARD Certification.

D. Recycled Content: Not less than 24% recycled content.

E. Flame Spread: 25 or less per ASTM E84.

F. Smoke Developed: 50 or less per ASTM E84.

G. Classification: Provide fire-resistance-rated panels as follows:

1. Type and Form: Type IX; Form 2, water felted.
2. Pattern: G (smooth).

H. Color: White.

I. Light Reflectance (LR): Not less than 0.90.

J. Ceiling Attenuation Class (CAC): Not less than 35.

K. Edge/Joint Detail: Square.

L. Thickness: 5/8 inch.

M. Modular Size: 24 by 48 inches.

N. Antimicrobial Treatment: Manufacturer's standard broad spectrum, antimicrobial formulation that inhibits fungus, mold, mildew, and gram-positive and gram-negative bacteria and showing no mold, mildew, or bacterial growth when tested according to ASTM D3273, ASTM D3274, or ASTM G21 and evaluated according to ASTM D3274 or ASTM G21.

O. Warranty: Manufacturer’s standard no visible sag and mold and mildew protection for 30 years from Date of Substantial Completion.

2.5 METAL SUSPENSION SYSTEM

A. Metal Suspension-System Standard: Provide manufacturer's standard, direct-hung, metal suspension system and accessories according to ASTM C 635/C 635M and designated by type, structural classification, and finish indicated.

B. Wide-Face, Capped, Double-Web, Fire-Rated, Steel Suspension System: Main and cross runners roll formed from cold-rolled steel sheet; prepainted, electrolytically zinc coated, or hot-dip galvanized, G30 (Z90) coating designation; with prefinished 15/16-inch- (24-mm-) wide metal caps on flanges.

1. Type A or Type C, USG Ceiling Systems.

2. Structural Classification: Intermediate-duty system.
3. End Condition of Cross Runners: butt-edge type.
4. Face Design: Flat, flush.
5. Cap Material: Cold-rolled steel.
6. Cap Finish: Painted white.
7. Manufacturer: Same manufacturer as the acoustical panel ceiling tiles.

2.6

2.7 ACCESSORIES

A. Attachment Devices: Size for five times the design load indicated in ASTM C 635/C 635M, Table 1, "Direct Hung," unless otherwise indicated. Comply with seismic design requirements.

   a. Corrosion Protection: Stainless-steel components complying with ASTM F 593 and ASTM F 594, Group 1 Alloy 304 or 316.

B. Wire Hangers, Braces, and Ties: Provide wires as follows:

   1. Stainless-Steel Wire: ASTM A 580/A 580M, Type 304, nonmagnetic.
   2. Size: Wire diameter sufficient for its stress at three times hanger design load (ASTM C 635/C 635M, Table 1, "Direct Hung") will be less than yield stress of wire, but not less than 0.106-inch- (2.69-mm) diameter wire.

C. Flat Hangers: Mild steel, zinc coated or protected with rust-inhibitive paint.

D. Angle Hangers: Angles with legs not less than 7/8 inch (22 mm) wide; formed with 0.04-inch- (1-mm-) thick, galvanized-steel sheet complying with ASTM A 653/A 653M, G90 (Z275) coating designation; with bolted connections and 5/16-inch- (8-mm-) diameter bolts.

E. Seismic Clips: Manufacturer's standard seismic clips designed to secure acoustical panels in place during a seismic event.

F. Seismic Stabilizer Bars: Manufacturer's standard perimeter stabilizers designed to accommodate seismic forces.

G. Seismic Struts: Manufacturer's standard compression struts designed to accommodate seismic forces.

2.8 METAL EDGE MOLDINGS AND TRIM

A. Roll-Formed, Sheet-Metal Edge Moldings and Trim: Type and profile indicated or, if not indicated, manufacturer's standard moldings for edges and penetrations that comply with seismic design requirements; formed from sheet metal of same material, finish, and color as that used for exposed flanges of suspension-system runners.

   1. Edge moldings shall fit acoustical panel edge details and suspension systems indicated and match width and configuration of exposed runners unless otherwise indicated.
   2. For lay-in panels with reveal edge details, provide stepped edge molding that forms reveal of same depth and width as that formed between edge of panel and flange at exposed suspension member.
   3. For circular penetrations of ceiling, provide edge moldings fabricated to diameter required to fit penetration exactly.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, including structural framing to which acoustical panel ceilings attach or abut, with Installer present, for compliance with requirements specified in this and other Sections that affect ceiling installation and anchorage and with requirements for installation tolerances and other conditions affecting performance of acoustical panel ceilings.

B. Examine acoustical panels before installation. Reject acoustical panels that are wet, moisture damaged, or mold damaged.

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

3.2 PREPARATION

A. Measure each ceiling area and establish layout of acoustical panels to balance border widths at opposite edges of each ceiling. Avoid using less-than-half-width panels at borders unless otherwise indicated, and comply with layout shown on reflected ceiling plans.

B. Layout openings for penetrations centered on the penetrating items.

3.3 INSTALLATION

A. Install acoustical panel ceilings according to ASTM C 636/C 636M, seismic design requirements, and manufacturer's written instructions.

1. Fire-Rated Assembly: Install fire-rated ceiling systems according to tested fire-rated design.

B. Suspend ceiling hangers from building's structural members and as follows:

1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structure or of ceiling suspension system.
2. Splay hangers only where required and, if permitted with fire-resistance-rated ceilings, to miss obstructions; offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
3. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with location of hangers at spacings required to support standard suspension-system members, install supplemental suspension members and hangers in form of trapezes or equivalent devices.
4. Secure wire hangers to ceiling-suspension members and to supports above with a minimum of three tight turns. Connect hangers directly to structure or to inserts, eye screws, or other devices that are secure and appropriate for substrate and that will not deteriorate or otherwise fail due to age, corrosion, or elevated temperatures.

5. Secure flat, angle, channel, and rod hangers to structure, including intermediate framing members, by attaching to inserts, eye screws, or other devices that are secure and appropriate for both the structure to which hangers are attached and the type of hanger involved. Install hangers in a manner that will not cause them to deteriorate or fail due to age, corrosion, or elevated temperatures.
6. Do not support ceilings directly from permanent metal forms or floor deck. Fasten hangers to cast-in-place hanger inserts, postinstalled mechanical or adhesive anchors, or power-actuated fasteners that extend through forms into concrete.
7. When steel framing does not permit installation of hanger wires at spacing required, install carrying channels or other supplemental support for attachment of hanger wires.
8. Do not attach hangers to steel deck tabs.
9. Space hangers not more than 48 inches (1200 mm) o.c. along each member supported directly from hangers unless otherwise indicated; provide hangers not more than 8 inches (200 mm) from ends of each member.
10. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards.

C. Install edge moldings and trim of type indicated at perimeter of acoustical ceiling area and where necessary to conceal edges of acoustical panels.

1. Apply acoustical sealant in a continuous ribbon concealed on back of vertical legs of moldings before they are installed.
2. Screw attach moldings to substrate at intervals not more than 16 inches (400 mm) o.c. and not more than 3 inches (75 mm) from ends. Miter corners accurately and connect securely.
3. Do not use exposed fasteners, including pop rivets, on moldings and trim.

D. Install suspension-system runners so they are square and securely interlocked with one another. Remove and replace dented, bent, or kinked members.

E. Install acoustical panels with undamaged edges and fit accurately into suspension-system runners and edge moldings. Scribe and cut panels at borders and penetrations to provide precise fit.

1. For square-edged panels, install panels with edges fully hidden from view by flanges of suspension-system runners and moldings.
2. For reveal-edged panels on suspension-system runners, install panels with bottom of reveal in firm contact with top surface of runner flanges.
3. For reveal-edged panels on suspension-system members with box-shaped flanges, install panels with reveal surfaces in firm contact with suspension-system surfaces and panel faces flush with bottom face of runners.
4. Paint cut edges of panel remaining exposed after installation; match color of exposed panel surfaces using coating recommended in writing for this purpose by acoustical panel manufacturer.
5. Protect lighting fixtures and air ducts according to requirements indicated for fire-resistance-rated assembly.

3.4 ERECTION TOLERANCES

A. Suspended Ceilings: Install main and cross runners level to a tolerance of 1/8 inch in 12 feet (3 mm in 3.6 m), non-cumulative.

B. Moldings and Trim: Install moldings and trim to substrate and level with ceiling suspension system to a tolerance of 1/8 inch in 12 feet (3 mm in 3.6 m), non-cumulative.

3.5 CLEANING

A. Clean exposed surfaces of acoustical panel ceilings, including trim, edge moldings, and suspension-system members. Comply with manufacturer's written instructions for cleaning and touchup of minor finish damage.

B. Remove and replace ceiling components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

END OF SECTION 095113

SECTION 096519 – LUXURY VINYL COMPOSITION TILE FLOORING

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Commercial luxury vinyl composition tile.

1.3 RELATED SECTIONS

A. Section 090561.13, “Moisture Vapor Emission Control”.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Samples: Full-size units of each color, texture, and pattern of floor tile required.

C. Samples for Initial Selection: For each type of floor tile indicated.

D. Samples for Verification: Full-size units of each color and pattern of floor tile required.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For each type of floor tile to include in maintenance manuals.

1.7 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Floor Tile: Furnish one box for every 50 boxes or fraction thereof, of each type, color, and pattern of floor tile installed.

1.8 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are competent in techniques required by manufacturer for floor tile installation and seaming method indicated.

1. Engage an installer who employs workers for this Project who are trained or certified by floor tile manufacturer for installation techniques required.

1.9 DELIVERY, STORAGE, AND HANDLING

A. Store floor tile and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 deg F (10 deg C) or more than 90 deg F (32 deg C). Store floor tiles on flat surfaces.

1.10 FIELD CONDITIONS

A. Maintain ambient temperatures within range recommended by manufacturer, but not less than 70 deg F (21 deg C) or more than 95 deg F (35 deg C), in spaces to receive floor tile during the following periods:

1. 48 hours before installation.
2. During installation.
3. 48 hours after installation.

B. After installation and until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer, but not less than 55 deg F (13 deg C) or more than 95 deg F (35 deg C).

C. Close spaces to traffic during floor tile installation.

D. Close spaces to traffic for 48 hours after floor tile installation.

E. Install floor tile after other finishing operations, including painting, have been completed.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Fire-Test-Response Characteristics: For resilient floor tile, as determined by testing identical products according to ASTM E648 or NFPA 253 by a qualified testing agency.

1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.

2.2 LUXURY VINYL TILES

A. Commercial Grade Luxury Vinyl Floor Tiles: Manufacturer's luxury vinyl tiles consisting of commercial UV-cured coating, performance wear layer, with printed visual layer, base layers, with smooth wearing surface and manufacturer's standard factory-applied, protective coating.

B. Basis-of-Design Manufacturer and Product: Natural Creations Collections, Armstrong Commercial Flooring Systems or a specification-compliant and approved equal product from one of the following:

1. Burke Flooring.
2. Forbo Flooring Systems.
3. Architect-approved equal.

C. Thickness: 0.125-inch product, with a wear layer of 0.020-inch.

D. Size: 18-inches by 18-inches tiles.

E. Colors: As selected from manufacturer's full range of colors available.

F. Gloss: Low gloss.

G. Patterns: Architect may select up to three different colors installed in a pattern to be determined by the Architect. Pattern may include squares, diagonals or checkerboard patterns.

H. Warranty: Manufacturer's standard 20-year commercial warranty.

I. Adhesives: As provided by (or recommended by the manufacturer in writing) for high moisture, and high relative humidity concrete slab conditions. Adhesive must come from the same manufacturer as the floor tiles, unless otherwise acceptable to the flooring manufacturer.

2.3 INSTALLATION MATERIALS

A. Trowelable Leveling and Patching Compounds: Latex-modified, portland-cement-based or blended hydraulic-cement-based formulation provided or approved by floor tile manufacturer for applications indicated.

B. Adhesives: High Moisture and High Humidity/Water-resistant type recommended by floor tile and adhesive manufacturers to suit floor tile and substrate conditions indicated.

C. Floor Polish: Provide protective, liquid floor-polish products recommended by floor tile manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.

1. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of floor tile.

2. Pre-Installation Testing: Conduct pre-installation moisture testing at intervals recommended by the manufacturer. Perform bond tests and pH test, as recommended by the flooring manufacturer. Adhesive selection shall be based on the results of testing.

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

3.2 PREPARATION

A. Prepare substrates according to floor tile manufacturer's written instructions to ensure adhesion of resilient products.

B. Concrete Substrates: Prepare according to ASTM F710.

1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
2. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by floor tile manufacturer. Do not use solvents.
3. Alkalinity and Adhesion Testing: Perform tests recommended by floor tile manufacturer. Proceed with installation only after substrate alkalinity falls within range on pH scale recommended by manufacturer in writing, but not less than 5 or more than 9 pH.
4. Moisture Testing: Unless the flooring manufacturer has more stringent requirements, perform tests so that each test area does not exceed 200 sq. ft. (18.6 sq. m), and perform no fewer than three tests in each installation area and with test areas evenly spaced in installation areas.

    a. Anhydrous Calcium Chloride Test: ASTM F1869. Proceed with installation only after substrates have maximum moisture-vapor-emission rate acceptable to the flooring manufacturer and compliance with the adhesive requirements.

    b. Relative Humidity Test: Using in-situ probes, ASTM F2170. Proceed with installation only after substrates have a rate acceptable to the flooring manufacturer and and compliance with the adhesive requirements.

    c. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound; remove bumps and ridges to produce a uniform and smooth substrate.

d. Selection of flooring adhesive must meet the requirements of the flooring manufacturer.

C. Do not install floor tiles until materials are the same temperature as space where they are to be installed.

1. At least 48 hours in advance of installation, move resilient floor tile and installation materials into spaces where they will be installed.

D. Immediately before installation, sweep and vacuum clean substrates to be covered by resilient floor tile.

3.3 FLOOR TILE INSTALLATION

A. Comply with manufacturer's written instructions for installing floor tile.

B. Lay out floor tiles from center marks established with principal walls, discounting minor offsets, so tiles at opposite edges of room are of equal width. Adjust as necessary to avoid using cut widths that equal less than one-half tile at perimeter.

1. Lay tiles square with room axis in pattern as determined by the Architect.

C. Match floor tiles for color and pattern by selecting tiles from cartons in the same sequence as manufactured and packaged, if so numbered. Discard broken, cracked, chipped, or deformed tiles.

1. Lay tiles with grain direction alternating in adjacent tiles (basket-weave pattern).

D. Scribe, cut, and fit floor tiles to butt neatly and tightly to vertical surfaces and permanent fixtures including built-in furniture, cabinets, pipes, outlets, and door frames.

E. Extend floor tiles into toe spaces, door reveals, closets, and similar openings. Extend floor tiles to center of door openings.

F. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on floor tiles as marked on substrates. Use chalk or other nonpermanent marking device.

G. Adhere floor tiles to substrates using a full spread of adhesive applied to substrate to produce a completed installation without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, and other surface imperfections.

H. Accessories: Install according to manufacturer's written instructions.

3.4 CLEANING AND PROTECTION

A. Comply with manufacturer's written instructions for cleaning and protecting floor tile.

B. Perform the following operations immediately after completing floor tile installation:

1. Remove adhesive and other blemishes from surfaces.
2. Sweep and vacuum surfaces thoroughly.
3. Damp-mop surfaces to remove marks and soil.

C. Protect floor tile from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.

D. Sealers and Finish Coats: No finish coats per Owner's request.

E. Cover floor tile until Substantial Completion.

END OF SECTION 096519

GROUND PENETRATING RADAR SYSTEMS, INC.

THE RADAR GUYS

NORTHEAST REGION

October 18, 2016

RYEBREAD

Attn: Scott England

SCE@RYEBREAD.com

609.265.2652

Subject: Ground Penetrating Radar (GPR) Utility Locate at:

Lindenwold School 4

900 E. Gibbsboro Rd
Lindenwold, NJ, 08021
856.783.0405

Lead Technician: Paul Kulesza Jr

Project Manager of Philadelphia and the Tri-State Region
Ground Penetrating Radar Systems, Inc.
Philadelphia- 215.694.4747
Southern New Jersey- 609.350.9651
Paul.Kulesza@gp-radar.com

Table of Contents

1. Overview of GPR

Ground Penetrating Radar (GPR) is a non-destructive testing technology that sends a series of radar pulses into the surface which reflect back off of anomalies below. As the radar pulses through the ground, the waves bend slightly when encountering a material with differing physical properties, particularly density and conductivity. Thousands of pulses are sent and received in a small area, and the received signals are combined to form a real-time image of what is in the ground. The various places where the radar waves bend are displayed as anomalies which can be interpreted as reinforcing steel, steel pipes, PVC conduits, underground storage tanks, voids, foundations, etc. One of the many advantages of the technology is the ability to locate metal and non-metallic objects as well as determining depth to the object. GPR data acquisition is very fast and results are available immediately, allowing any discovered anomalies to be marked directly in the field. Although confused with X-Ray, GPR uses less than 1% of your cell phones radiation emissions and is safe to work with human presence in close proximity.

2. Equipment and Capabilities

Ground Penetrating Radar (GPR)

- **GSSI SIR-3000**

-GPRS uses a Geophysical Survey Systems Inc. (GSSI) SIR-3000 radar unit. This is the most advanced GPR available. It allows for on-site interpretation, as well as stored data for later processing. This equipment is self-calibrating, allowing more precise depth and location measurements.
-GSSI is the world's leading GPR designer and manufacturer. Information can be found at www.geophysical.com.

- **400MHZ GSSI Antenna**

-For mid-range scans, we use a 400MHz antenna with the SIR-3000 GPR head unit. This antenna allows data collection to a maximum depth of 10' depending on soil conditions.
***The average depth the 400MHz antenna penetrates in the Philadelphia Tri-State Area is 5'-8'.*

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- **RD7000 Radiofrequency Detection System**

- Locating specific pipes and cables in large underground networks is becoming increasingly complex. Ground distortion effects, caused by differing soil types and proximity to other conductors, make the operator's job more difficult and time-consuming. The most important requirements for a locator under these circumstances are ease of use, accuracy and reliability. The RD7000 Utility Locator addresses this need with several groundbreaking features that deliver accurate, reliable and repeatable measurements. This is used only to determine any type of electrical current running in the concrete. This is used as backup with the SIR-3000 due to the possibility of electricity within the scanned structures.

3. Site Description

The scanning took place at the Lindenwold Elementary School 4 located at 900 E. Gibbsboro Road in Lindenwold NJ. At this site our primary objective was to scan around the Elementary School, per email correspondence with client, using the SIR-3000 equipped with the 400MHz antenna and the RD-7000 to locate any anomalous features located subsurface. All Findings were marked on the surface in colored marking paint for further review and documented on CAD for the clients.

4. Inspection Methods

The equipment used consisted of a SIR-3000 operating system along with the 400MHz antenna. As the equipment is in active operation, real time data is displayed on the monitor that is interpreted by our trained and experienced technician. The images portrayed by the system will show underground utilities, obstructions, UST's and/or voids if there are any in the concerned area. While in operation, no radioactive emissions are used. Sweeps are also performed using the RD7000 to determine if there were any live conduits running through the concerned area.

As each scan is taken, a cross-sectional image of the ground is displayed and coordinated with a survey wheel attached to the GPR antenna. When an object is spotted, the antenna can be backed up until it is directly on top of the center of the object, and the location of the object can be marked directly onto the surface if required.

5. Findings

After scanning the areas discussed via e-mail, the layout of the conduits and utilities were interpreted and marked on the surface with colored marking paint. Multiple scans were performed parallel to the buildings and perpendicular to the buildings. Multiple utilities and conduits were found throughout the site and marked accordingly. Please see site photos on the following pages.

The photo above shows three lines located utilizing the 400MHz antenna and the RD7000. The water line and main electric run parallel to one another across the road.

The photo above shows a data line and a sewer line. The data line was approximately 3' subsurface while the sewer line was located at approximately 12' +/-.

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The photo above shows multiple electric lines that were located utilizing the RD7000. These lines are marked in red marking paint. The gas line can be seen marked in yellow located at approximately 2’.

The photo above shows the same gas and electric lines as mentioned in the previous photo. The electrical lines were located going to the sign for the school. The gas line was located up to a valve on the shoulder of Gibbsboro road.

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The photo above shows the gas meter on the side of the building. A green paint marking can be seen perpendicular to the building. This green paint indicated the approximate location of the roof drains at 6.5’

The photo above shows multiple locations where the live electric enters the building. The path of the roof drain/storm runs parallel to the fence.

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The photo above shows where the roof drains that ran parallel to the building tie into the storm drain.

The photo above shows where the main electric and data enter the newer portion of the school building. The electric was located 3.5’ subsurface while the data was approximately 2.75’.

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The photo above shows where the above mentioned lines enter the newer portion of the school.

The photo above shows a conduit marked on the surface in red marking paint. This conduit was for the sight lighting located in the parking lot off of Gibbsboro Road.

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The photo above shows the path the conduit takes for the site lighting located in the photo.

The photo above shows an area where multiple roof drains tie into the main trunk, the flow of the roof drains can be seen by the green arrow.

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The photo above shows two culverts where the storm drain/roof drains empty into.

The photo above shows the path the storm drain follows. This drain runs through the playground and dumps out beyond the fencing.

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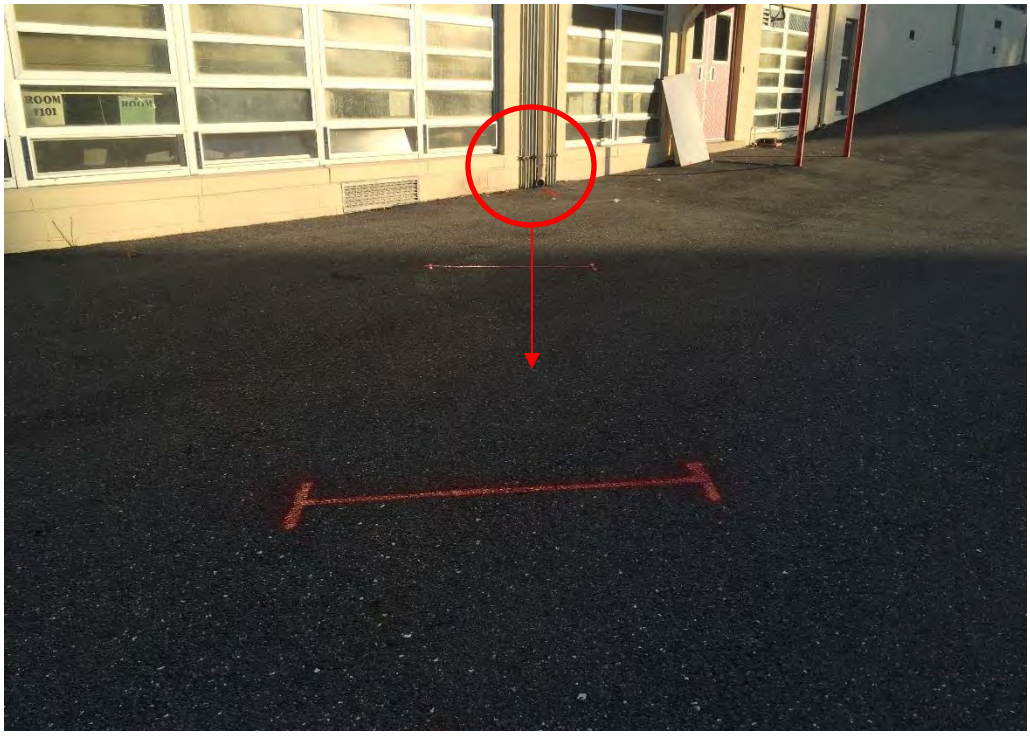

The photo above shows the path the conduits take from the outside of the school building towards the trailer located in the courtyard.

The photo above shows the path the above mentioned conduits take leading into the trailer. These lines were located at approximately 3.75’ subsurface.

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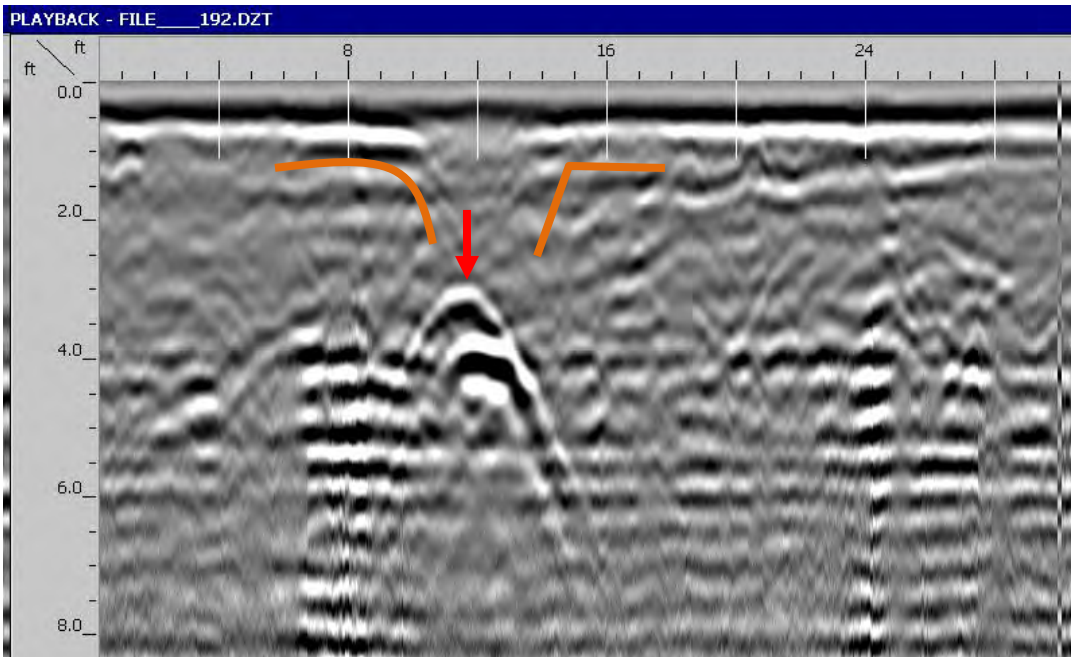
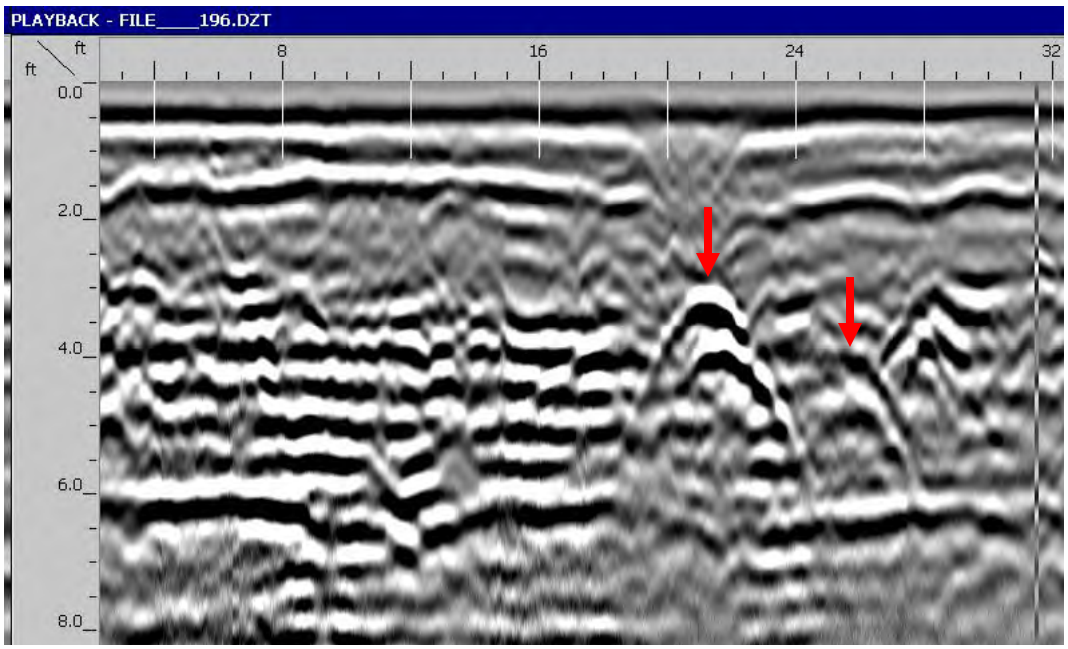
6. Radar Data

The following data was collected at the site and included for a better understanding of the GPR imaging that was done. You will see true data scans taken in real time at the site.



The screenshot of data above shows a line located at approximately 3' subsurface, which can be seen below the red arrow. Trench markings can be seen above the orange lines.



The screenshot of data above shows two lines that were located at approximately 3' and 4'. These lines can be seen below the red arrows.

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7. Qualifications

Ground Penetrating Radar Systems, Inc. (GPRS) was started in October 2001, by Matt Aston. The original intention in starting this business was to give contractors a reliable way to "see" into the concrete slabs in order to avoid cutting embedded electrical conduits and critical reinforcing steel. While GPRS performs this work on a regular basis, there are many other applications in which we use Ground Penetrating Radar to benefit our customer base.

Since our inception, GPRS has grown from a small group of technicians operating from a single office in Toledo, Ohio, to be a nationwide organization with project managers located in almost every major city across the country. This is how our trained and experienced technicians are able to complete nearly 1,800 projects each month. We are very proud of our performance with a reported incident of error on less than one percent of the projects we have completed. Our customers have expressed a high level of satisfaction, as evidenced by the fact that in 2014, nearly 75% of our business was either repeat or referred by our customers. GPRS has been involved on projects ranging from small residential jobs to major construction projects with values in excess of $1 Billion.

8. Closing

Thank you for the opportunity to serve you on this project. I hope this report has answered all the questions you had regarding this survey. However if there is anything you have questions about or feel was omitted, please do not hesitate to contact me.

Thank you,

Paul Kulesza

Project Manager of Philadelphia and the Tri-State Region

Ground Penetrating Radar Systems, Inc.

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Lindenwold #4
Elementary School Utility Mapping
Legend
Data
Electric
Gas
Sanitary
Storm Sewer
Water
Google earth
300 ft
N

SECTION 002000 - FORM OF BID - AMENDED ADDENDUM #1

TO:
Kathleen Huder, Business Administrator/Board Secretary
LINDENWOLD BOARD OF EDUCATION
801 Egg Harbor Road
Lindenwold, New Jersey 08021

FROM:

_____ (NAME)

_____ (ADDRESS)

_____ (CITY, STATE, ZIP)

_____ (PHONE/FAX NUMBER)

_____ (E-MAIL ADDRESS)

Operating as an individual, a partnership, corporation, LLC, under the laws of the State of New Jersey

_____
(Input Business Type)

BID FOR: RYEBREAD PROJECT NO. 5743F, H & O

BUILDING RENOVATION - LINDENWOLD SCHOOL #4
900 East Gibbsboro Road
Lindenwold, New Jersey 08021

This Bid is based on Specifications and Drawings dated 18 October 2024 and prepared by:

ARCHITECTURAL, MECHANICAL & ELECTRICAL
REGAN YOUNG ENGLAND BUTERA, PC
456 High Street
Mt. Holly, New Jersey 08060

BASE BID:

Pursuant to and in compliance with your request for Bids for the above named project and contract, and having familiarized themselves with the site conditions, and having become familiar with local conditions as they may, in any way, affect the cost and/or execution of the work, and having carefully examined the specifications and drawings named above, the Undersigned Bidder hereby agrees to provide all plant, labor, materials, supplies equipment, transportation and other facilities necessary and proper for, or incidental to, or required for complete and satisfactory execution of work. By submitting a Bid, the Bidder agrees to comply with all requirements of the Project Manual and applicable Law. For a one-time lump sum bid, which shall include the allowance(s) listed below:

Base-Bid _____ (written amount)	($_____) (numerical amount)
Allowance No. 01 – Two hundred thousand dollars and no cents (written amount)	($ 200,000.00) (numerical amount)
Total Base-Bid _____ (written amount)	($_____) (numerical amount)

SCHEDULE OF ALLOWANCES:

Below, which include labor, materials, taxes, insurance, overhead, profit and other costs in connection therewith, shall be included in the Base Bid proposal for the quantities listed. Allowances listed shall include all incidental items required to render the allowance fully complete and operational whether specifically referenced or not. Any unused allowances shall be deducted from the contract value at the stated amount.

Contingency Allowance No. 01: Include in the Base Bid a contingency allowance amount of two hundred thousand dollars and zero cents ($200,000.00) for additional work, as allowed by applicable law, and as directed by the Architect and approved by the Owner.

SCHEDULE OF ALTERNATE BIDS:

Below to be executed by the Undersigned Bidder in accordance with the Specifications and Drawings for the Addition (ADD), to the Base Bid as follows.

All costs listed for each alternate shall include costs of related coordination, revision, or adjustment.

Bidders shall complete the schedule for each Alternate Bid. Bidders shall be required to bid on all alternates listed under their contract Alternate Bids.

Note: Owner may elect to select from any listed Alternate in accordance with applicable law.

ALTERNATE BID NO. 0.5 – ROOFING SYSTEM REMOVAL AND REPLACEMENT – Removal and replacement of the existing roofing system as shown on the drawings and as specified. For a lump sum total of:

(ADD)

_____($_____)
(written amount) (numerical amount)

ALTERNATE BID NO. 01 – FIRE ALARM SYSTEM – Removal and replacement of the existing fire alarm system with a complete, new turn-key fire alarm system as shown on the drawings and as specified. For a lump sum total of:

(ADD)

_____($_____)
(written amount) (numerical amount)

ALTERNATE BID NO. 02 – ENGINE GENERATOR: Engine generator as shown on the drawings and as specified. For a lump sum total of:

(ADD)

_____($_____)
(written amount) (numerical amount)

ALTERNATE BID NO. 03 – LIGHTING FIXTURE REPLACEMENT: Remove and replace selected classroom and other lighting with new light fixtures as shown on the drawings and as specified.

NOTE: All other existing lighting being reinstalled in new acoustical ceiling grid and panels are part of the Base-Bid. All new lighting shown in the corridors are part of the Base-Bid. For a lump sum total of:

(ADD)

_____($_____)
(written amount) (numerical amount)

ALTERNATE BID NO. 04 – MANUFACTURED PLASTIC-LAMINATED CASEWORK: Remove and replace all existing casework and existing cubbies as shown on the drawings. Work includes new solid-surfacing countertops and plumbing modifications as shown on the drawings.

NOTE: All metal shelving on exterior walls adjacent to new unit ventilators, and as shown on the drawings, are part of the Base-Bid. For a lump sum total of:

(ADD)

_____($_____)
(written amount) (numerical amount)

ALTERNATE BID NO. 05 – ASBESTOS FLOOR TILE ABATEMENT, REPLACEMENT OF LVT & RESILIENT TERRAZZO FLOORING: Asbestos abatement/removal of existing flooring systems and replacement with new LVT and resilient terrazzo tile flooring system and wall base as shown on the drawings and as specified. Work includes all required floor slab preparation to received new flooring system. For a lump sum total of:

(ADD)

_____($_____)
(written amount) (numerical amount)

ALTERNATE BID NO. 06 – MAINTENANCE REPAINTING OF ALL CLASSROOMS AND CORRIDORS: Prepare all existing surfaces to receive minimum two (2) coats of new primer, finish paint as shown on the drawings and Room Finish Schedule. Work included all hollow metal and door frames on all sides and all hard-ceiling ceilings and soffits. For a lump sum total of:

(ADD)

_____($_____)
(written amount) (numerical amount)

SCHEDULE OF UNIT PRICES:

Unit Prices will not be a basis for selection of lowest responsible Bid.

Below, which include labor, materials, goods, and equipment required under the Contract, insurance, overhead, profit and other costs in connection therewith, shall prevail for changes in quantity of work when modification to Contract is made by Change Order. *Unit prices may be either deducted from or added to the contract value at the stated amount* Unit Prices listed shall include all incidental items required to render the Unit Price fully complete and operational whether

specifically referenced or not. Unused Unit Price totals included in the Base Bid shall be deducted from the contracted amount at the end of the Project.

All Prime Bidders shall complete the schedule for each Unit Price. If a Unit Price does not pertain to a particular trade or if there is no cost associated with the Unit Price, input "No Dollar Change" in that space. If the space is left blank, it will be construed to mean there is no cost associated to that Unit Price for that particular trade. Prime Bidders shall be required to bid on all Unit Prices listed under their contract Alternate Bids.

Bidders shall note that the unit prices are for work in addition to that contained on the plans and included in the Base Bid and can be added to or subtracted from at the discretion of the Architect.

Unit Price – UP-1: METAL ROOF DECK REMOVAL & REPLACEMENT: Remove and replace deteriorated or structurally deficient metal roof decking as directed by the Architect. This unit price shall apply only when the removal and infilling of roofing system exceeds or is less than the 200 square feet that is included in the Base Bid.

Qty Unit	Cost/Unit	Total
Per 1 SF	$_____	$_____

Unit Price – UP-2: LIGHTWEIGHT CONCRETE DECK REMOVAL & REPLACEMENT: Remove and replace deteriorated or structurally deficient lightweight concrete roof decking as directed by the Architect. This unit price shall apply only when the removal and infilling of roofing system exceeds or is less than the 200 square feet that is included in the Base Bid.

Qty Unit	Cost/Unit	Total
Per 1 SF	$_____	$_____

HOLD HARMLESS AGREEMENT: By submitting and executing a bid, the Bidder, if operating as an individual, a partnership, corporation, LLC, under the laws of the State of New Jersey, agrees to indemnify and hold harmless the Owner, Architect, and their agents and employees, from all and against all claims, damages, losses, and expenses, including reasonable attorney's fees in case it shall be necessary to file an action, arising out of bodily injury, illness or death, or for property damage, by the Contractor negligent, reckless or intentional acts or omission or that of a Subcontractor, or that of anyone employed by them or for whose acts contractor or subcontractor may be liable. This indemnification and agreement shall apply in all instances whether Owner, Architect is made a party to the action by third-party in-pleading or is made party to a collateral action arising, in whole or in part, from any of the issues emanating from the original cause of action or claim.

TIME OF COMPLETION: The Undersigned Bidder agrees to complete the work as indicated in the Advertisement, (Bidder is referred to AIA GENERAL CONDITIONS, Par. 8.1).

ATTACHED TO THIS BID are **TWO** copies (One original hard copy and one copy) of all the following documents (Fill in all blank spaces). Failure to comply may be cause for rejection of bid.

DOCUMENTS ACCOMPANYING BID:

Failure to provide all below listed documents may be cause for disqualification of bidder and/or rejection of bid. Documents referenced as "Mandatory Documents" must be provided.

Bidder may elect to provide all required documents with the bid submission.

DOCUMENTS TO BE PROVIDED WITH THE BID:

Bidder's Checklist: Bidder should submit the following documents IN THE ORDER LISTED BELOW and place an "X" in the box next to each item provided.

In bid envelope:

1. ☐ Form of Bid. **(Mandatory Document)**

2. ☐ New Jersey DPMC Notice of Contractor Classification, in accordance with N.J.S.A. 18A:18A-26 et seq. and N.J.S.A 18A:18A-32. **(Mandatory Document)**

3. ☐ New Jersey DPMC Total Amount of Uncompleted Contracts (DPMC Form 701), in accordance with N.J.S.A. 18A:18A-26 et seq. and N.J.S.A 18A:18A-32. **(Mandatory Document)**

4. ☐ Public Works Contractor Registration Certificate from the New Jersey Department of Labor in accordance with the "Public Works Contractor Registration Act", in accordance with N.J.S.A. 34:11-56.48 et seq. **(Mandatory Document)**

5. ☐ Bid Guarantee in the form of a Bid Bond, certified check, or cashier's check in the amount of 10% of the Base Bid, but in any event not more than $20,000.00. The Bid Security must be in a form consistent with the statutory requirements of the State of New Jersey, in accordance with N.J.S.A. 18A:18A-24. **(Mandatory Document)**

6. ☐ Consent of Surety: Section 002800, or similar in accordance with N.J.S.A. 18A:18A-25. **(Mandatory Document)**

7. ☐ Surety Company & Agency Information: Section 002801.

8. ☐ Ownership Disclosure Statement: Section 002900, in accordance with N.J.S.A 52:25-24.2. **(Mandatory Document)**

9. ☐ Equipment Certification: Section 002905: In accordance with N.J.S.A. 18A:18A-23.

10. ☐ Non-Collusion Affidavit: Section 002950.

11. ☐ No Material Change of Circumstances: Section 002960, in accordance with N.J.S.A. 18A:18A-26 et seq. and N.J.S.A 18A:18A-32. **(Mandatory Document)**

12. ☐ Contractor's Sworn Contractor Certification. Section 004580; and

- ☐ A. Contractor or trade license. **(Mandatory Document).** (Not applicable for General Contractor).
- ☐ B. "Certificate of Authority" issued by the Department of Treasury. **(Mandatory Document)**

13. ☐ Notice of Prequalification from the New Jersey School Development Authority. (**Mandatory Document)**

14. ☐ List of Subcontractors: Section 005290, in accordance with N.J.S.A.18A:18A-18. **(Mandatory Document)**

For each Subcontractor listed, attached a copy of:

- ☐ A. New Jersey DPMC Notice of Contractor Classification, in accordance with N.J.S.A. 18A:18A-26 et seq. and N.J.S.A 18A:18A-32. **(Mandatory Document)**
- ☐ B. New Jersey DPMC Total Amount of Uncompleted Contracts (DPMC Form 701), in accordance with N.J.S.A. 18A:18A-26 et seq. and N.J.S.A 18A:18A-32. **(Mandatory Document)**
- ☐ C. Public Works Contractor Registration Certificate from the New Jersey Department of Labor in accordance with the "Public Works Contractor Registration Act", in accordance with N.J.S.A. 34:11-56.48 et seq. **(Mandatory Document)**
- ☐ D. Contractor's Sworn Contractor Certification. Section 004580; and
  - ☐ 1. Contractor or trade license. **(Mandatory Document).** (Not applicable for General Contractor or Structural Steel).
  - ☐ 2. "Certificate of Authority" issued by the Department of Treasury. **(Mandatory Document)**
- ☐ E. Evidence of listed trade Subcontractor's performance security. (Required only if Bidders Bid Bond does not cover Bidders subcontractors.) (Attach to Bidder's Bid Bond).

☐ F. Notice of Prequalification from the New Jersey School Development Authority. (**Mandatory Document)**

DOCUMENTS TO BE PROVIDED PRIOR TO THE NOTICE OF AWARD:

Documents referenced as "Mandatory Documents" must be submitted prior to the Award of the Contract.

15. ☐ Business Registration of Public Contractors from the New Jersey Division of Taxation in accordance with N.J.S.A. 52:32-44. **(Mandatory Document)**

16. ☐ Form of certification stating that bidder is not currently debarred, suspended, or disqualified under N.J.A.C. section 19:32-1.8. Section 002970. **(Mandatory Document)**

17. ☐ Political Contribution Disclosure Form: Section 004590, in accordance with N.J.S.A. 19:44A-20.26. **(Mandatory Document)**

18. ☐ Prevailing Wage Rates Certification: Section 004595, in accordance with P.L. 2021, c.301; A4869 and S2414.

19. ☐ Lowest Bidder Prevailing Wage Certification (if required pursuant to N.J.S.A 34:11-56.27a): Section 004596.

20. ☐ Federal Debarment Certification: Form of certification stating that bidder is not currently debarred, suspended, or disqualified in accordance with N.J.S.A. 52:32-44.1. Section 002971. **(Mandatory Document)**

DOCUMENTS TO BE PROVIDED AFTER THE NOTICE OF AWARD AND PRIOR TO THE EXECUTION OF THE CONTRACT:

21. ☐ Affirmative Action Evidence for Construction Projects & Mandatory Equal Opportunity Language: Section 002850, in accordance with N.J.S.A 10:5-32 et seq. and N.J.A.C. 17:27-3.1 and N.J.A.C. 17:27-6.2. **(Mandatory Document).**

22. ☐ Exhibit E-2 - Form of Contractor Certification & Consent: Section 009000, in accordance with the NJSDA Grant Agreement. **(Mandatory Document).**

IF AWARDED CONTRACT, the Undersigned Bidder agrees to execute the AGREEMENT and to furnish the required Performance and Payment Bonds and evidence of required insurance as soon as practicable after Notice of Acceptance of bid or in any event not later than 10 calendar days after receipt of such notification.

If the Undersigned Bidder fails to execute AGREEMENT and furnish required bond and evidence of insurance, the Bid Security accompanying this Bid will be forfeited to the Owner as liquidated damages for the delay and loss caused to the Owner by reason of such failure by the Undersigned Bidder.

THE UNDERSIGNED BIDDER HAS COMPLIED with all requirements concerning licensing and with all Local, State and Federal laws. No legal requirement has been violated in making this Bid nor will be violated in the execution of the Work if this Bid is accepted.

In addition, the undersigned hereby certifies that there has been no material adverse change in the qualification information last submitted to the New Jersey Department of Treasury pursuant to N.J.S.A. 18A:18A-28.

IT IS UNDERSTOOD that the right is reserved by the Owner to reject all bids in accordance with N.J.S.A. 18A:18A-22, or any bid that is non-responsive or submitted by a bidder that is not responsible, and to waive any minor immaterial informality or defect in a bid as permitted by law.

AWARD OF CONTRACT(S)

A Contract shall be awarded for all of the work and materials required to complete the project, unless all bids are rejected, to the lowest responsible bidder based on the total amount of the Base Bid and Alternates (if any), accepted by the Owner.

IT IS AGREED THAT THIS BID MAY NOT BE WITHDRAWN for a period of 60 days after the actual date of receipt of bids.

ACKNOWLEDGEMENT OF ADDENDA

In accordance with N.J.S.A. 18A:18A-21(c) and (d), notification of and the receipt of the following addenda is acknowledged by the Undersigned bidder (List by Addendum number and Addendum date):

ADDENDUM NO.	DATED	ADDENDUM NO.	DATED

☐ Check box on of no addenda were received.

Respectfully submitted this _____ day of _____ 20_____.

_____(Name of Firm)

By: _____L.S.
Print

*(SEAL IF BIDDER
IS A CORPORATION)

_____
Signature

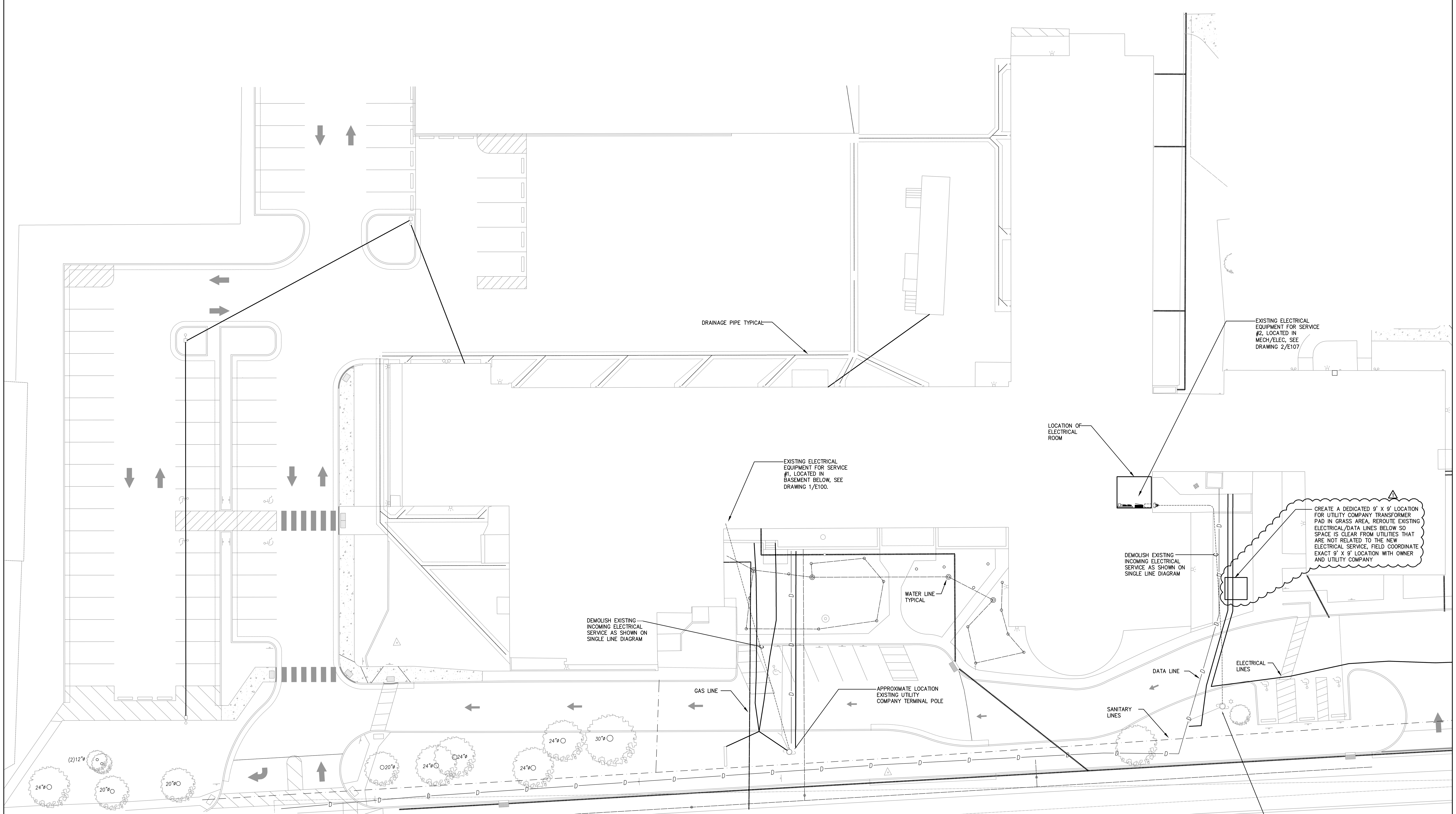
_____
Title

_____
Federal Employment Identification Number (FEIN)

END OF SECTION 002000

ROOFTOP EQUIPMENT NOTES:

1. FOLLOW MECHANICAL AND STRUCTURAL DRAWINGS FOR LOCATIONS OF NEW MECHANICAL EQUIPMENT.
2. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS WHERE NEW ROOF TOP EQUIPMENT AND STRUCTURAL REINFORCEMENT WORK WILL OCCUR.
3. RELOCATE ALL POWER AND DATA CONDUITS, WIRING AND OTHER EQUIPMNET AS REQUIRED TO PERMIT INSTALLATION OF STRUCTURAL REINFORCEMENT AND NEW MECHANICAL EQUIPMENT.



1
E001
SITE PLAN – ELECTRICAL DEMOLITION
SCALE 1/16" = 1'-0"

Frank Tindall, P.E.
PROFESSIONAL ENGINEER
NJ 38656

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P.O. BOX 777, 196 PRINCETON–HIGHTSTOWN RD.
PRINCETON JUNCTION NEW JERSEY 08550

REGAN YOUNG ENGLAND BUTERA
REFERENDUMS · ENGINEERING · ARCHITECTURE · DESIGN
456 HIGH STREET · MT. HOLLY, NEW JERSEY 08060 USA
+1(609)265-2652/-0333FAX · 21AI00912100 · RYEBREAD.COM

REGAN YOUNG, AIA
21AI00912100

NJDOE PROJECT NUMBERS
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ROOF- 2670-040-23-R501

NJSDA PROJECT NUMBERS
HVAC- 2670-040-23-G5KN
ROOF- 2670-050-23-G5KM

NJSDA GRANT NUMBERS
HVAC- G5-6677
ROOF- G5-6676

PROJECT TITLE:
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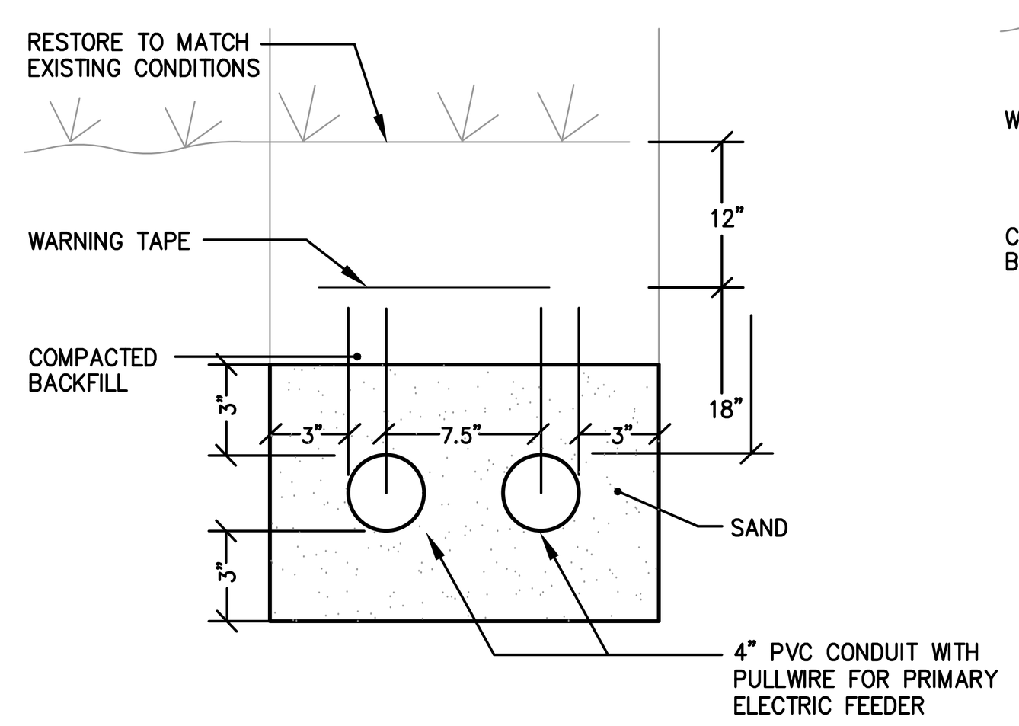
ADDRESS:
LINDENWOLD SCHOOL #4
BLOCK 64, LOT 1; BLOCK 65, LOT 1 & BLOCK 66, LOT 1
900 EAST GIBBSBORO ROAD
LINDENWOLD, NJ 08021

PROJECT NO.	5743F, H, O
SUBMISSION DATE:	
REVISION DATE:	1 18 FEB 2025
DRAWING DATE:	18 OCT 2024
PRINT DATE:	18 OCT 2024
DRAWN BY:	LA
SHEET TITLE:	SITE PLAN- ELECTRICAL DEMOLITION

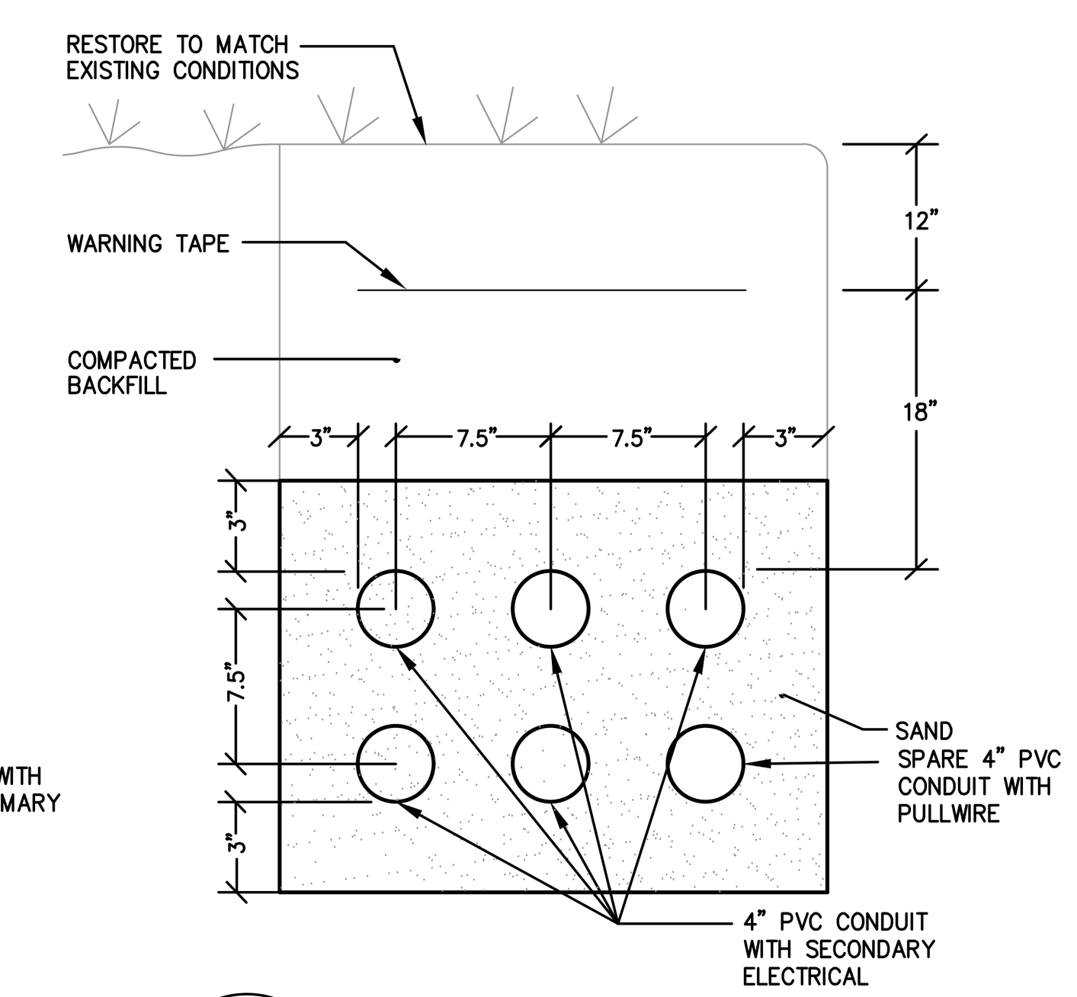
E-001

1/16" = 1'-0" | 1/8" = 1'-0" | 1/4" = 1'-0" | 1/2" = 1'-0" | 3/4" = 1'-0" | 1" = 1'-0" | 1 1/2" = 1'-0" | 3" = 1'-0"

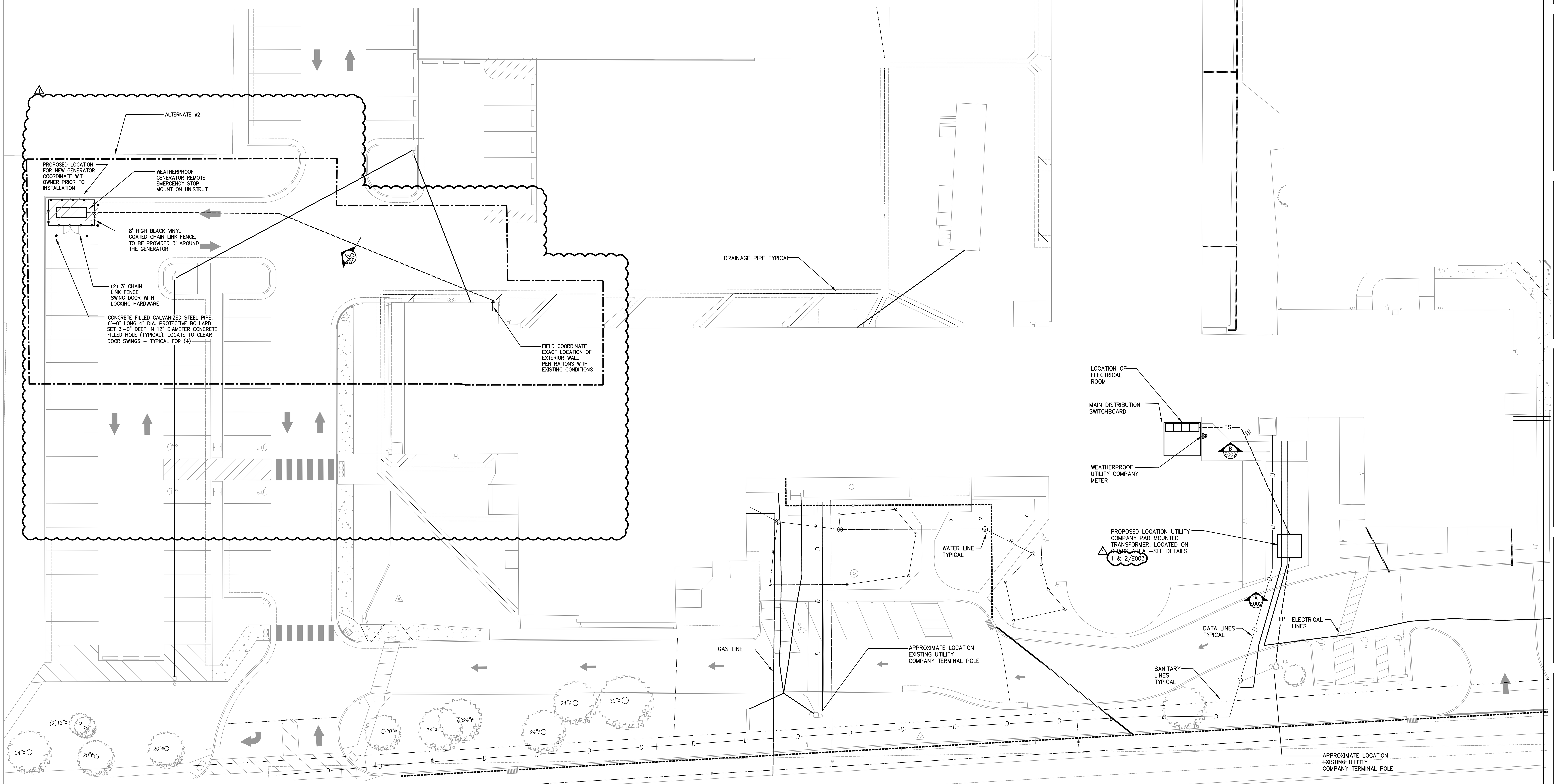
THIS DRAWING FORMATTED TO BE PRINTED FULL SIZE AT 30" x 42" - DO NOT SCALE DRAWINGS



A
E002
DUCTBANK – DETAIL
SCHEMATIC



B
E002
DUCTBANK – DETAIL
SCHEMATIC



1
E002
SITE PLAN – ELECTRICAL
SCALE 1/16" = 1'-0"

NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING EXISTING UNDERGROUND UTILITIES. ALL UTILITIES SHALL BE MARKED OUT AS REQUIRED BY NJUA, CALL BEFORE YOU DIG.
2. APPROXIMATE LOCATIONS OF KNOWN UTILITIES ARE INDICATED ON THE DRAWING.
3. ALL EXTERIOR TRENCHING SHALL BE FENCED OFF.

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DRAWN BY:	LA
SHEET TITLE:	SITE PLAN- ELECTRICAL

E-002

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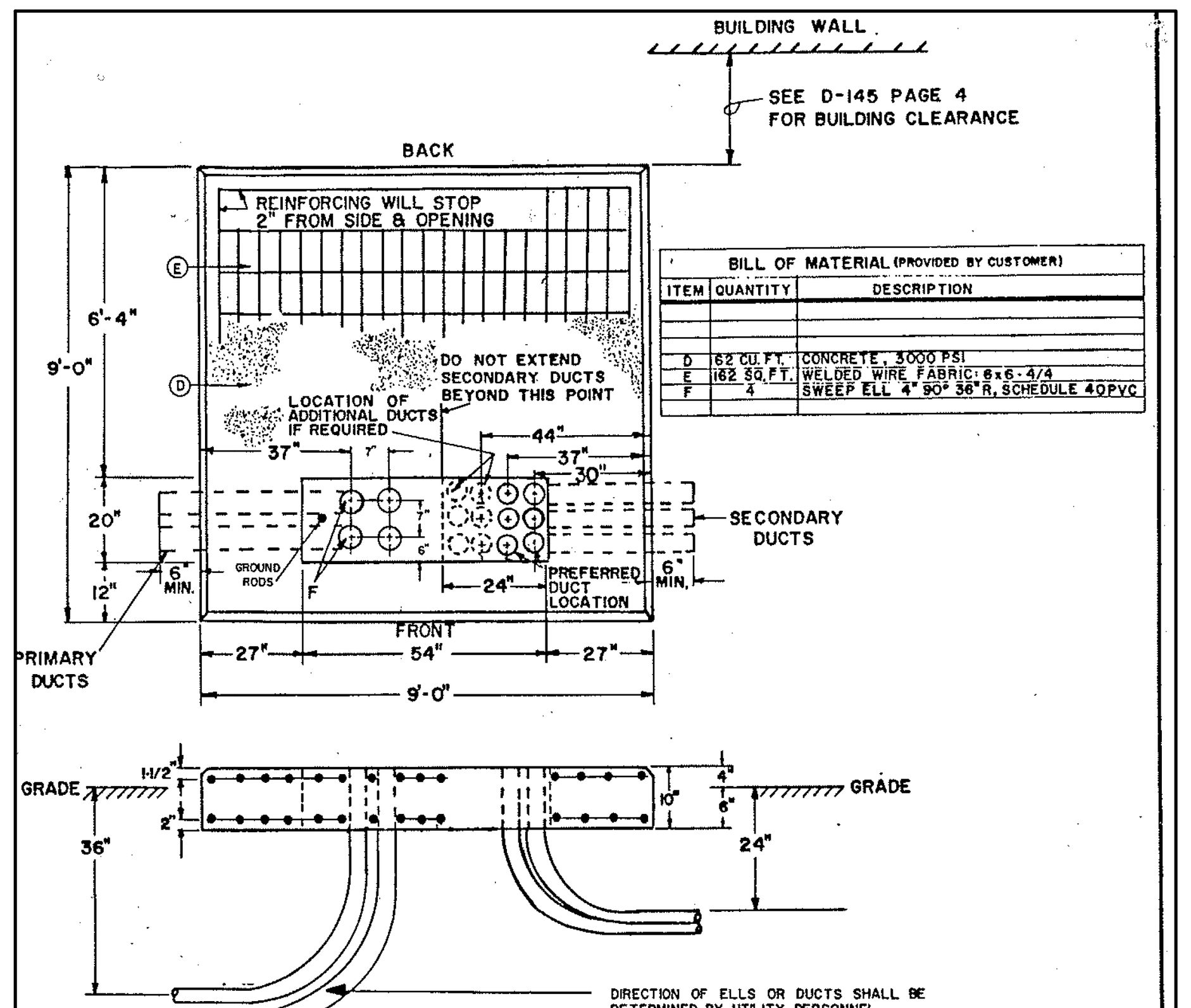
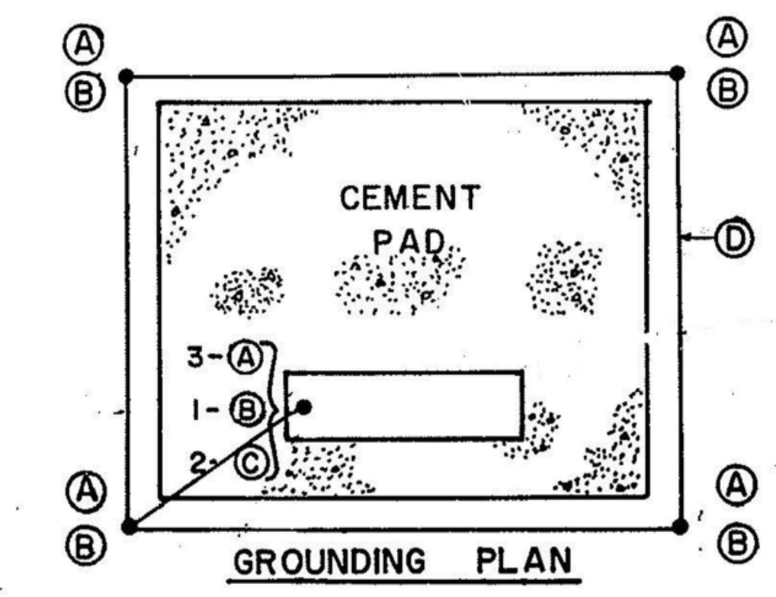


NOTES:

1. THIS DRAWING IS PROVIDED FOR THE PURPOSE OF PLANNING CONSTRUCTION - IT IS IMPORTANT TO RECOGNIZE THAT ALL DETAILS SHOWN ARE VARIABLE AND SUBJECT TO CHANGE TO MEET THE REQUIREMENTS OF SPECIFIC TRANSFORMERS.
2. ALL H.V. SWEEP ELLS ARE TO EXTEND 6" BEYOND EDGE OF PAD & 36" DEEP.
3. ALL CONCRETE SHALL MEET OR EXCEED THE DESIGN AND TEST SPECIFICATIONS OF THE AMERICAN CONCRETE INSTITUTE (ACI) MINIMUM STRENGTH OF CONCRETE: 3000 P.S.I.
4. ALL PADS SHALL BE REINFORCED WITH 6 X 6 - 4/4 WELDED STEEL WIRE FABRIC. THE SQUARE WELDED WIRE FABRIC SHALL BE INSTALLED TWO (2) INCHES UP FROM THE BOTTOM OF THE SLAB AND (1-1/2) INCHES BELOW THE TOP OF THE SLAB. THE REINFORCEMENT SHALL STOP TWO (2) INCHES FROM THE SIDES AND OPENINGS OF THE PAD.
5. ALL EXPOSED CONCRETE EDGES SHALL BE CHAMFERED AT A 45° ANGLE WITH A 3/4" FLAT SURFACE.
6. THE PAD SHALL BE LEVEL AND SHALL EXTEND 4" ABOVE FINISHED GRADE, & BE INSTALLED ON UNDISTURBED OR WELL TAMPED EARTH.
7. ALL PRIMARY AND SECONDARY CONDUIT BENDS SHALL BE INSTALLED AND TERMINATED FLUSH WITH THE TOP OF THE TRANSFORMER PAD. THE CENTER OF THE OPENINGS OF THE PRIMARY CONDUIT BENDS SHALL BE SIX (6) INCHES FROM THE FRONT OF THE CONDUIT OPENING.
8. WHEN THE PAD IS LOCATED IN AREAS EXPOSED TO VEHICULAR TRAFFIC, A PROTECTIVE BARRIER SHALL BE PROVIDED TO PROTECT THE TRANSFORMER. REFER TO D-145, PAGE 4 FOR DETAILS OF THE BARRIER.
9. INSTALLATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL SAFETY CODE, AND ATLANTIC CITY ELECTRIC COMPANY RULES AND REGULATIONS. SEE D-159 FOR SECONDARY CONNECTIONS.
10. PAD TO BE LOCATED 10' MINIMUM ABOVE MEAN SEA LEVEL. (11.7' ABOVE MEAN LOW WATER)
11. DUCT WINDOW SHALL NOT BE FILLED WITH CEMENT.

1 / E003 TRANSFORMER PAD DETAIL
NOT TO SCALE

A	7	GROUND ROD: 1/2" x 8' COPPERWELD
B	5	GROUND ROD CLAMP: 1/2"
C	2	GROUND ROD COUPLING
D	44 FT.	No. 4 BARE COPPER WIRE



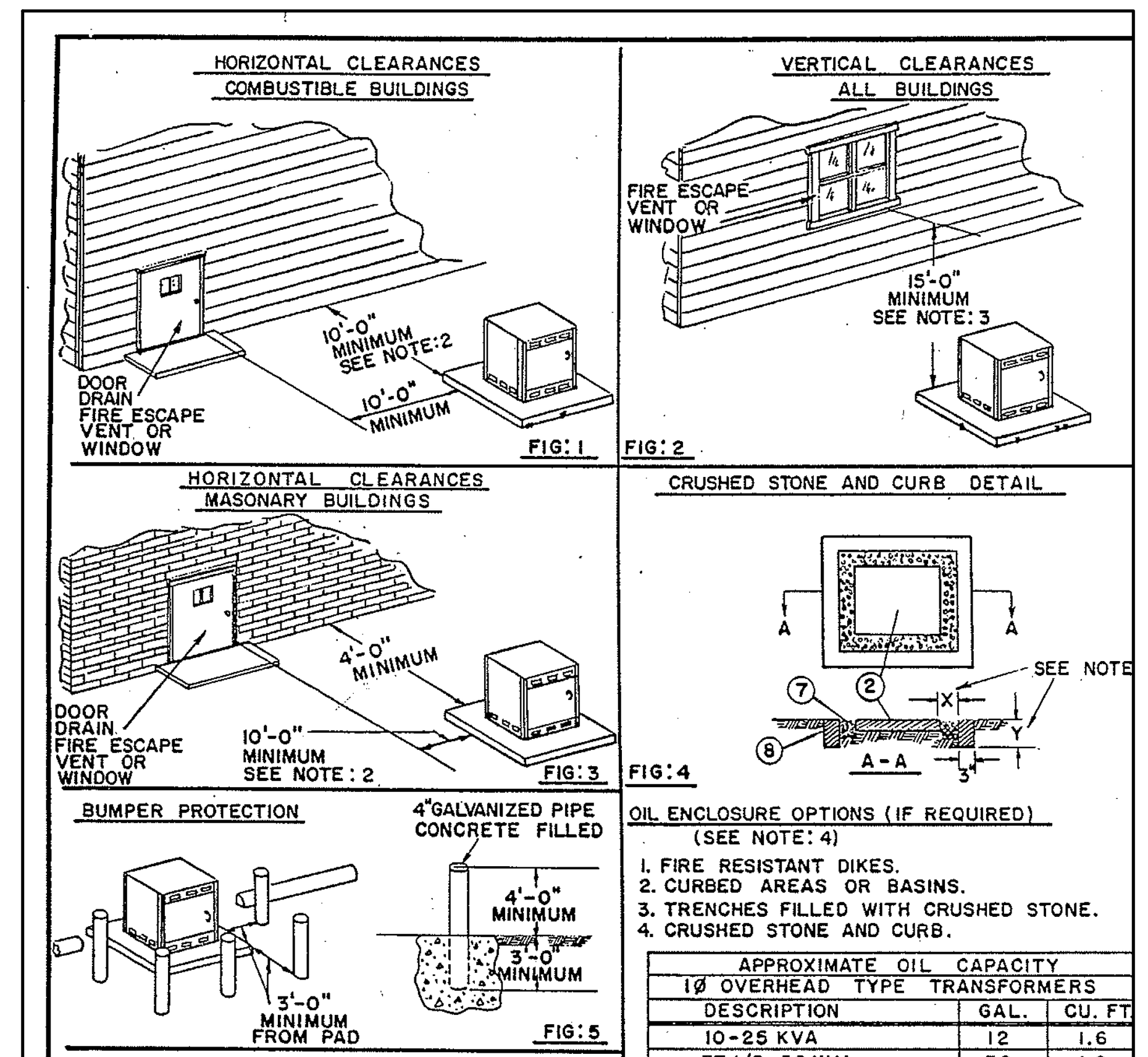
GROUNDING PLAN

NOTE:

THE GROUNDING LOOP IS TO BE TIED TO THE DRIVEN TRANSFORMER GROUND. ADDITIONAL GROUNDS SHALL BE REQUIRED IF NECESSARY TO REDUCE THE GROUND RESISTANCE TO A VALUE LESS THAN 25 ohms.

SPECIAL NOTE:

DUCT WINDOW SHALL NOT BE FILLED IN WITH CEMENT.



OIL ENCLOSURE OPTIONS (IF REQUIRED)
(SEE NOTE: 4)

1. FIRE RESISTANT DIKES.
2. CURBED AREAS OR BASINS.
3. TRENCHES FILLED WITH CRUSHED STONE.
4. CRUSHED STONE AND CURB.

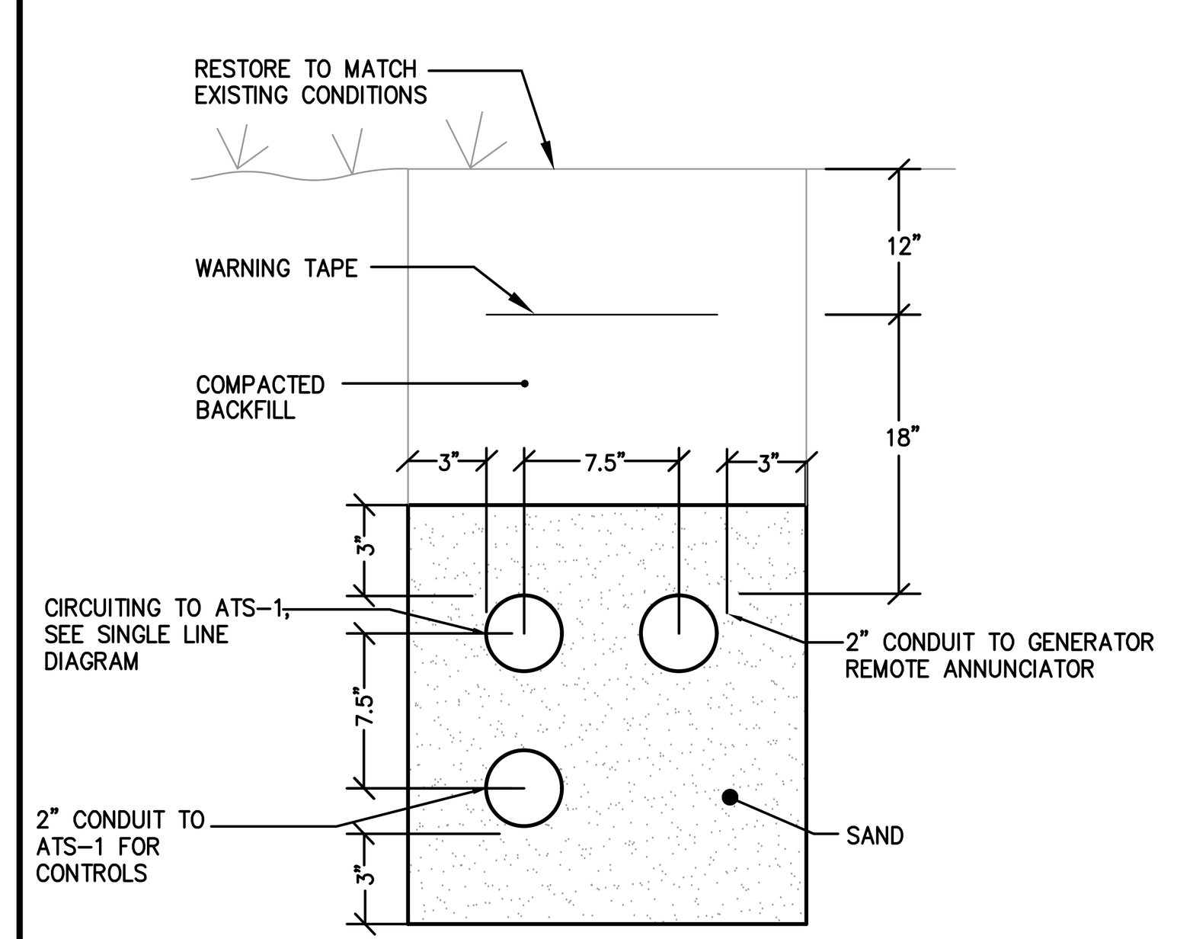
APPROXIMATE OIL CAPACITY 1Ø OVERHEAD TYPE TRANSFORMERS		
DESCRIPTION	GAL.	CU. FT
10-25 KVA	12	1.6
37-1/2-50 KVA	30	4.0
75-100 KVA	42	5.6
167-333 KVA	60	8.0
500 KVA	95	12.7

NOTES:

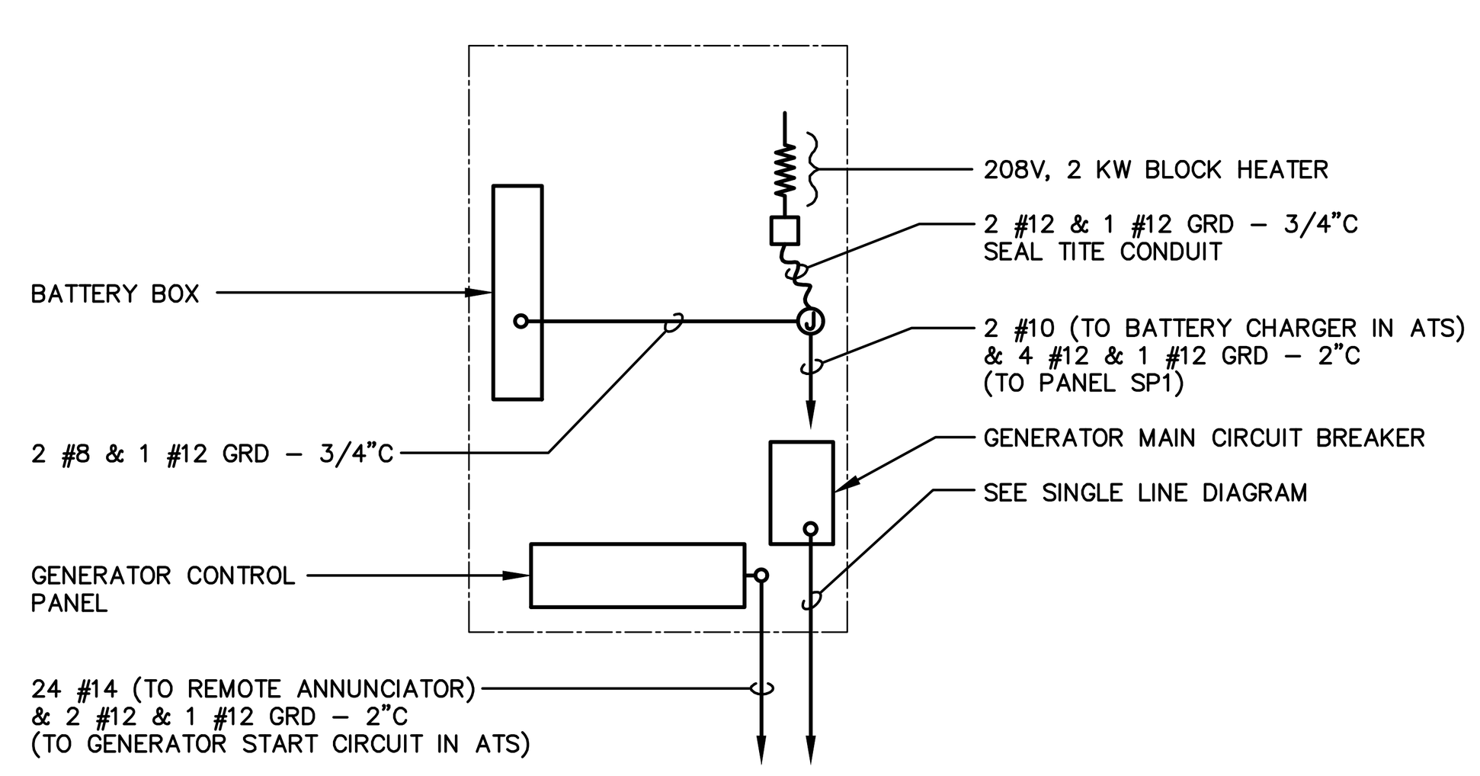
1. FIGURES 1-4 ARE PRIMARILY FOR TRANSFORMER INSTALLATIONS. FIGURE 5 APPLIES TO ALL INSTALLATIONS EXPOSED TO VEHICULAR TRAFFIC.
2. MAY BE LESS IF FIRE PROOF BARRIER IS INSTALLED.
3. MAY BE LESS IF PERMANENTLY CLOSED BY MASONRY, BRICK, GLASS BLOCK OR FIRE RESISTANT WIRED GLASS, OR IF HORIZONTAL CLEARANCES IN FIGURE 1 ARE OBTAINED.
4. OIL ENCLOSURES ARE REQUIRED FOR TRANSFORMER INSTALLATIONS ADJACENT TO BUILDINGS O COMBUSTIBLE MATERIALS UNLESS THE SLOPE OF THE GROUND IS SUCH THAT OIL FROM A RUPTURED TANK CANNOT DRAIN TOWARD THE CRITICAL AREAS.
5. TRANSFORMER NOISE CAN BE MINIMIZED BY ISOLATING THE PAD FROM BUILDING FOUNDATION OR MOUNTING THE TRANSFORMER ON ACCOUSTIC CUSHIONING MATERIAL. IF RIGID BUS A DUCT CONSTRUCTION IS USED, FLEXIBLE CONNECTIONS ARE REQUIRED.
6. OIL ENCLOSURE DIMENSIONS MUST BE DETERMINED FROM OIL CAPACITY REQUIRMENTS - SEE CH WITH FIG. 4.

2 / E003 UTILITY COMPANY TRANSFORMER – MINIMUM DISTANCE FROM BUILDING AND BUMPER PROTECTION – DETAILS
NOT TO SCALE

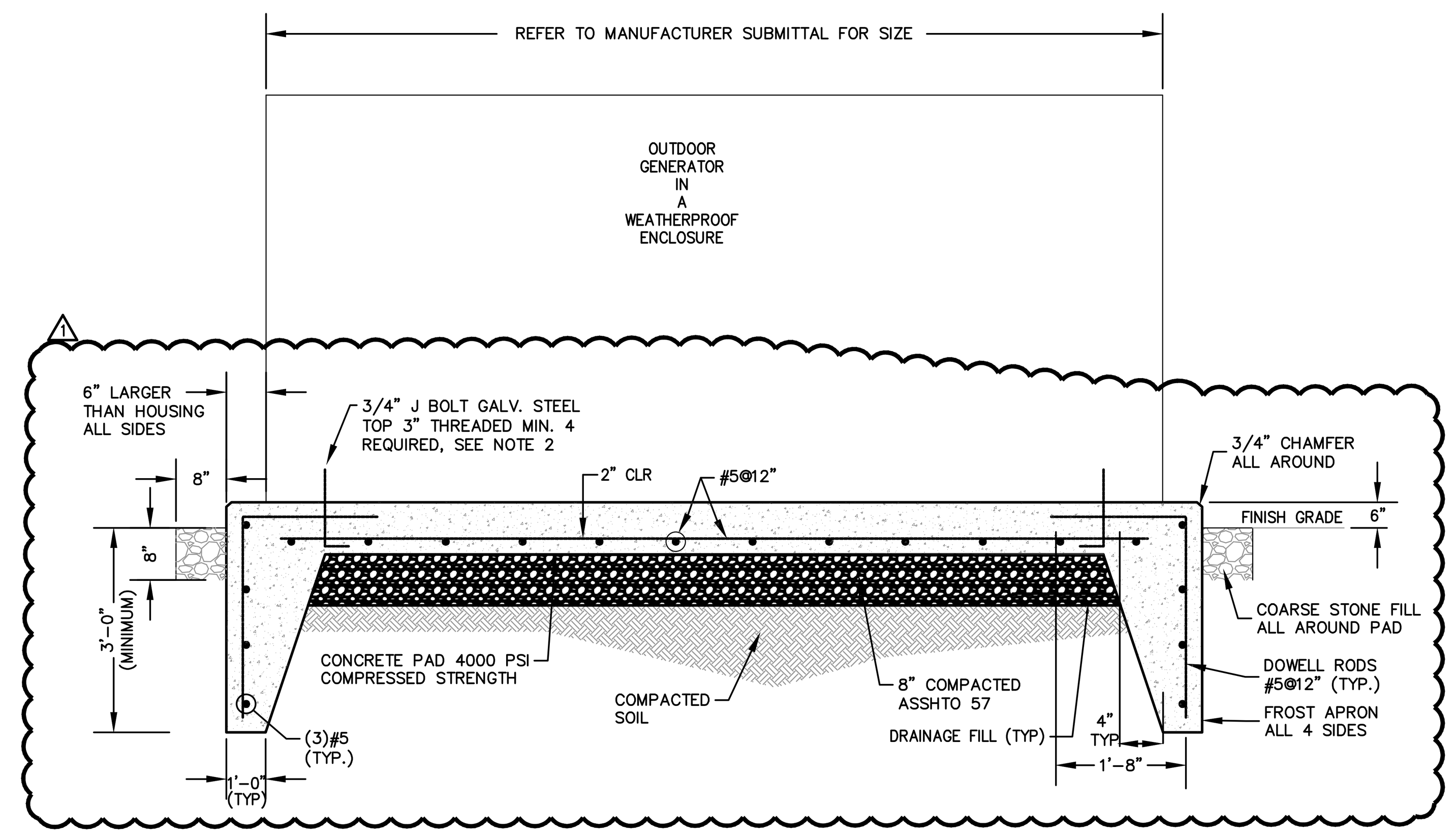
ALTERNATE #2



A / E003 DUCTBANK DETAIL
NOT TO SCALE



3 / E003 GENERATOR CONNECTION DETAIL
NOT TO SCALE



4 / E003 GENERATOR ARRANGEMENT ON GRADE
NOT TO SCALE

NOTES:

1. PAD SIZE SHALL BE BASED ON DIMENSIONS OF FINAL APPROVED GENERATOR/HOUSING.
2. COORDINATE THE EXACT LOCATIONS AND TYPE OF ANCHORING WITH MANUFACTURER'S WRITTEN INSTRUCTION, AND PROVIDE AS SPECIFIED.

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SHEET TITLE:	DETAILS - ELECTRICAL

E-003

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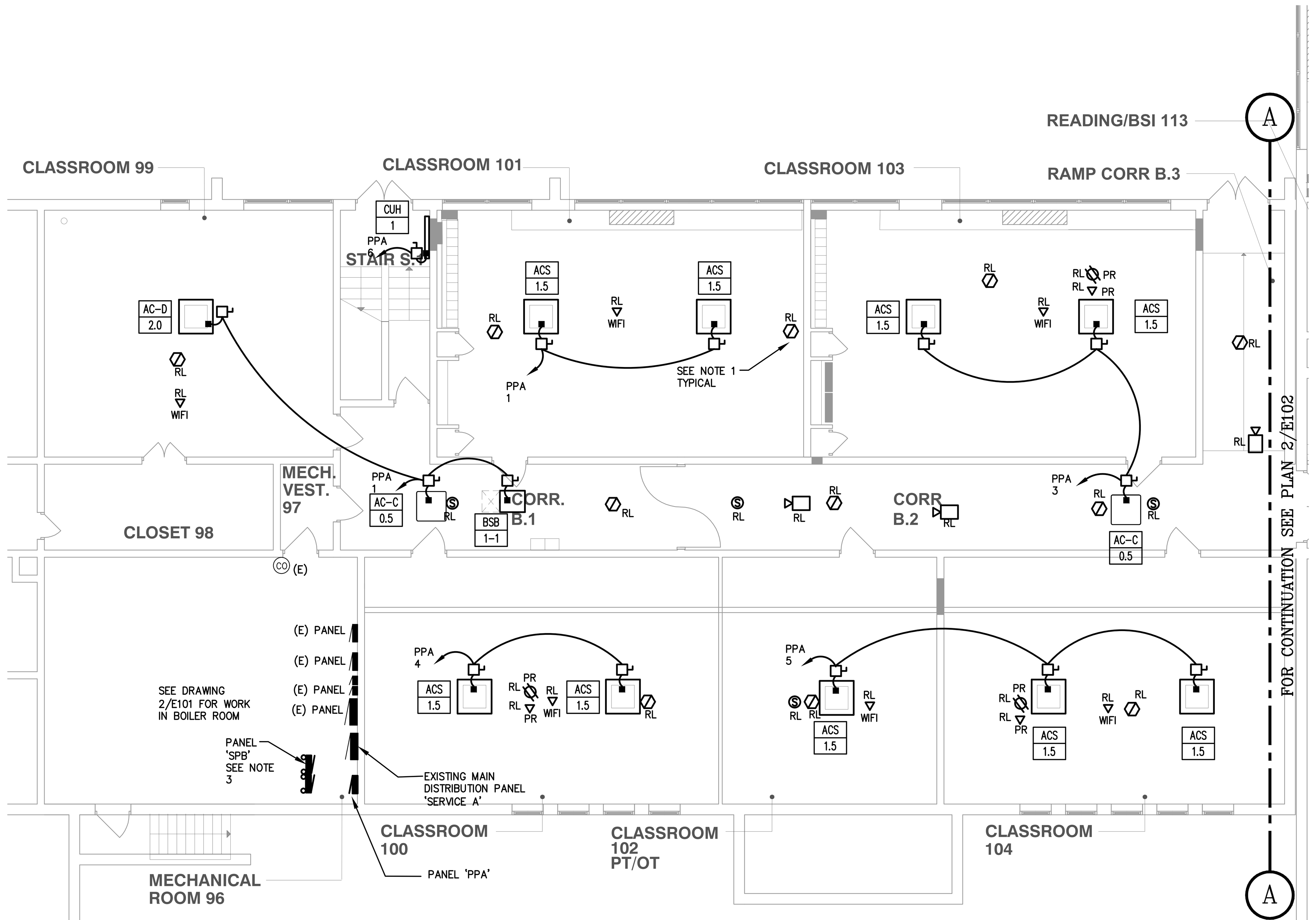


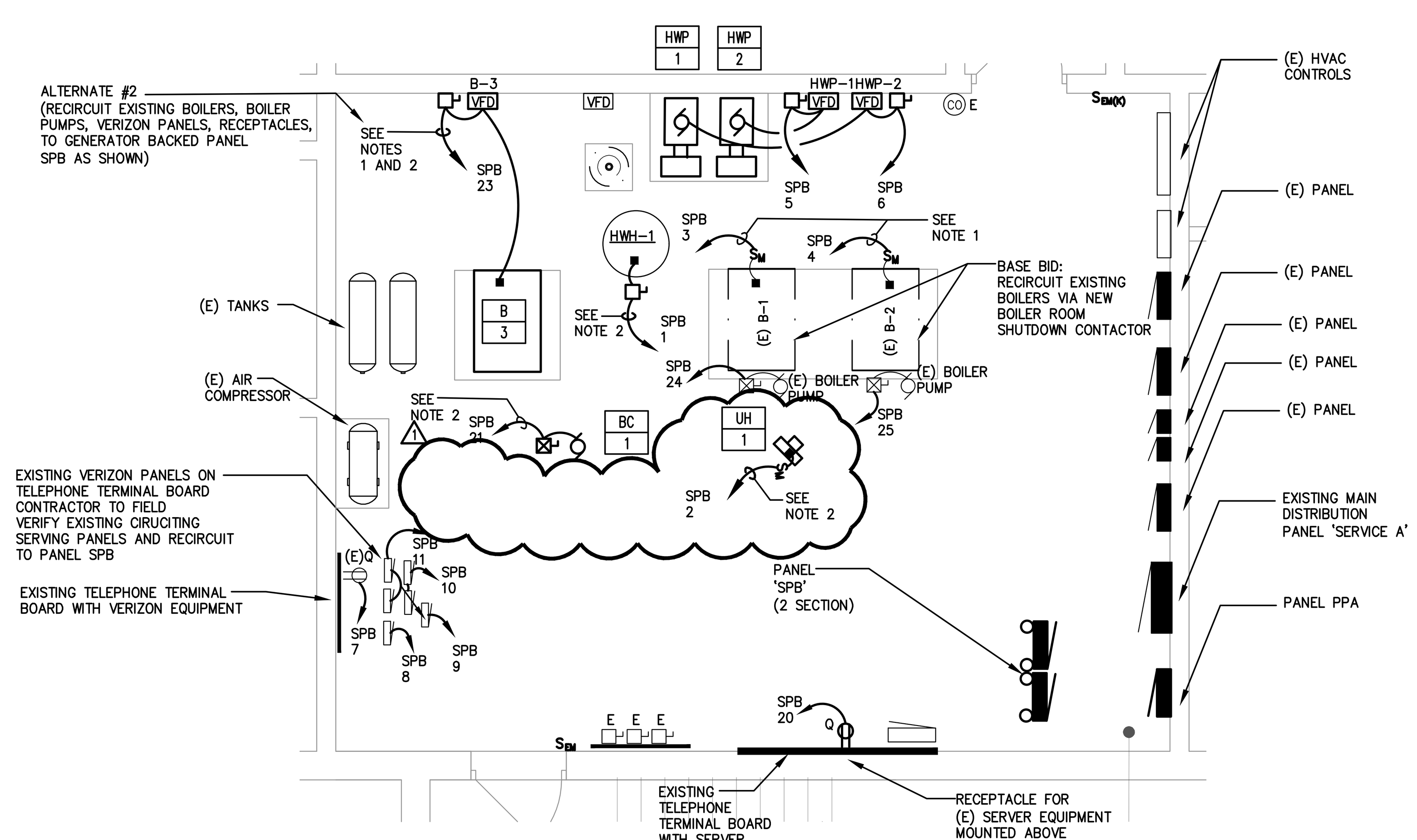
1 / E101

BASEMENT FLOOR PLAN LEVEL 1 – POWER

SCALE 1/8" = 1'-0"

NOTES:

1. IF ALTERNATE #1 (FIRE ALARM) IS ACCEPTED DO NOT REINSTALL EXISTING FIRE ALARM DEVICES ON CEILING, PROVIDE NEW FIRE ALARM DEVICES AS SHOWN ON FIRE ALARM DRAWINGS. BASE BID WILL BE TO REINSTALL EXISTING.
2. DUCT SMOKE AND CARBON MONOXIDE DETECTORS AS SHOWN ON THESE PLANS ARE NEW AND MUST BE INSTALLED REGARDLESS IF ALTERNATE #1 (FIRE ALARM) IS ACCEPTED.
3. MOUNT ON GALVANIZED STEEL UNI-STRUT WITH STAINLESS STEEL HARDWARE SUPPORTED FROM BUILDING STRUCTURE.



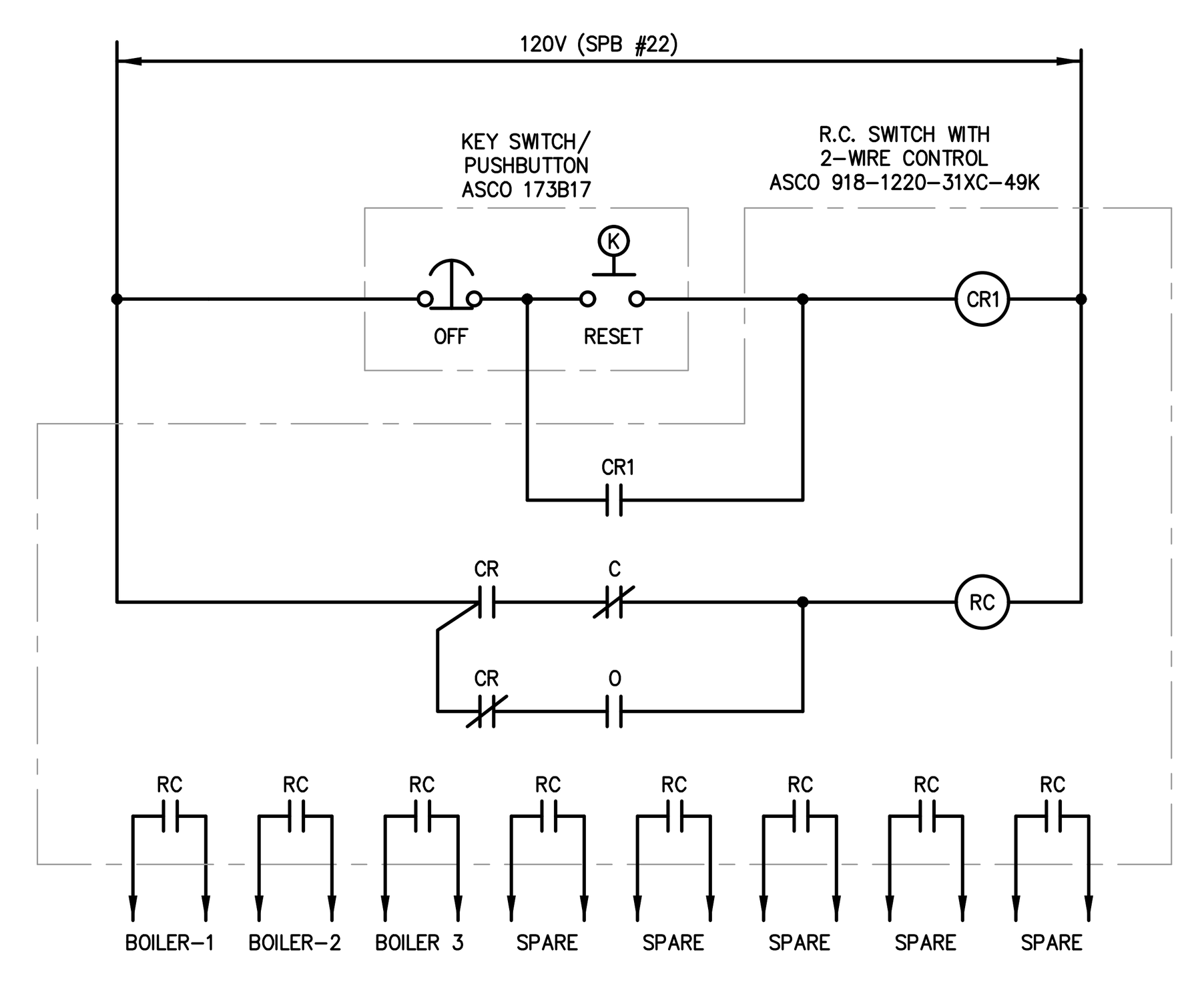
2 / E101

BOILER ROOM PLAN – ELECTRICAL

SCALE 1/4" = 1'-0"

NOTES:

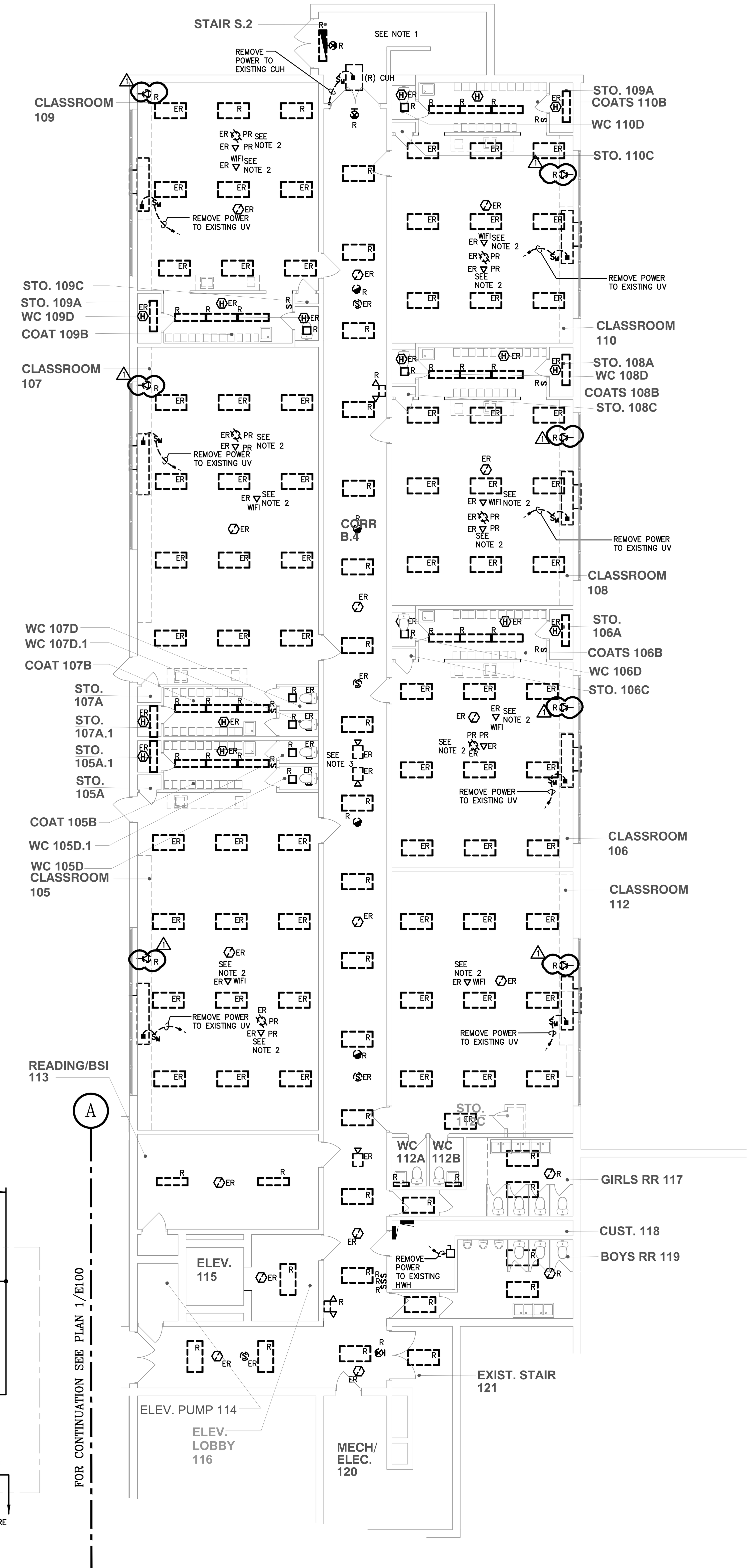
1. CIRCUIT VIA BOILER ROOM EMERGENCY SHUTDOWN CONTACTOR, SEE DETAIL 3/E101.
2. IF GENERATOR, ALTERNATE #2, IS NOT ACCEPTED CIRCUIT BACK TO PANEL PPA.



3 / E101

BOILER ROOM EMERGENCY SHUT DOWN WIRING DIAGRAM

SCHEMATIC



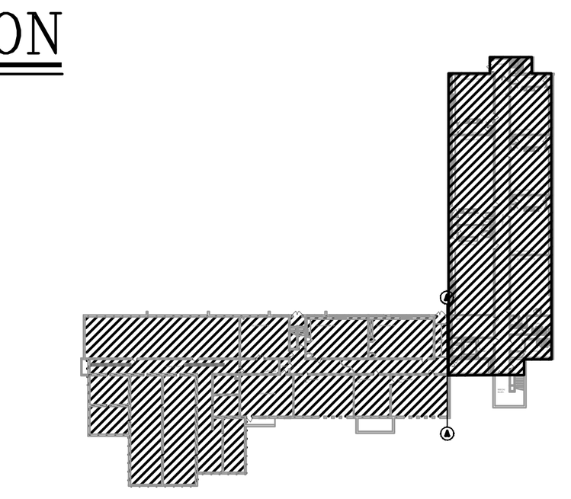
4 / E101

BASEMENT FLOOR PLAN LEVEL 2 – ELECTRICAL DEMOLITION

SCALE 1/8" = 1'-0"

NOTES:

1. REMOVE ALL EXISTING LIGHTING/LIGHTING CONTROL IN CORRIDORS AND STAIRS, WHETHER SHOWN OR NOT. NEW LIGHTING AND LIGHTING CONTROL WILL BE PLACED IN THESE AREAS AND SERVED FROM THE NEW STANDBY GENERATOR.
2. CLASSROOMS CONTAINS CEILING MOUNTED WIRELESS ACCESS POINTS AND/OR PROJECTOR, THIS EQUIPMENT WILL BE REMOVED BY OWNER PRIOR TO CONSTRUCTION. ALL CABLING SERVING THESE DEVICES WILL REMAIN ABOVE CEILING, TEMPORARILY RELOCATE BACK BOXES SERVING THESE DEVICES AND PROVIDE SUPPORT TO ENSURE CABLING DOES NOT GET DAMAGED. AFTER COMPLETION OF HVAC IN CLASSROOM PROVIDE RELOCATION OF BACK BOX IN CEILING AND CONNECT ALL EXISTING CABLES AS REQUIRED. THE EQUIPMENT WILL BE REINSTALLED BY OWNER
3. CEILING MOUNTED CAMERA WILL BE REMOVED BY OWNER PRIOR TO CONSTRUCTION. ALL CABLING SERVING CAMERA WILL REMAIN ABOVE CEILING. TEMPORARILY RELOCATE BACK BOXES SERVING CAMERA AND PROVIDE SUPPORT TO ENSURE CABLING DOES NOT GET DAMAGED. AFTER COMPLETTION OF HVAC IN AREA PROVIDE RELOCATION OF BACK BOX IN CEILING AND CONNECT ALL EXISITNG CABLES AS REQUIRED. CAMERA WILL BE REINSTALLED BY OWNER.



KEY PLAN

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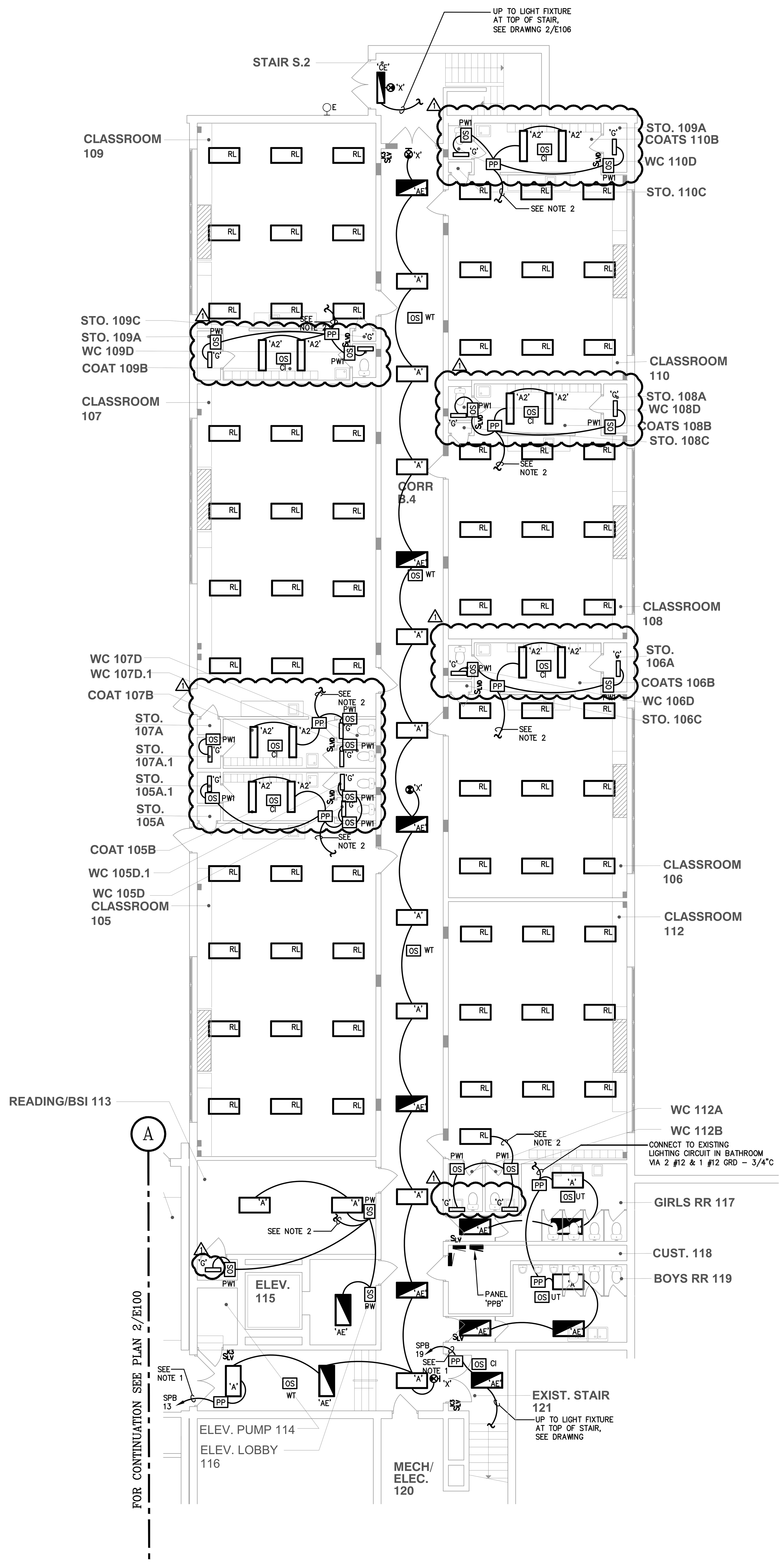
SHEET TITLE: BASEMENT FLOOR PLAN LEVEL 1 AND 2 - ELECTRICAL

E-101

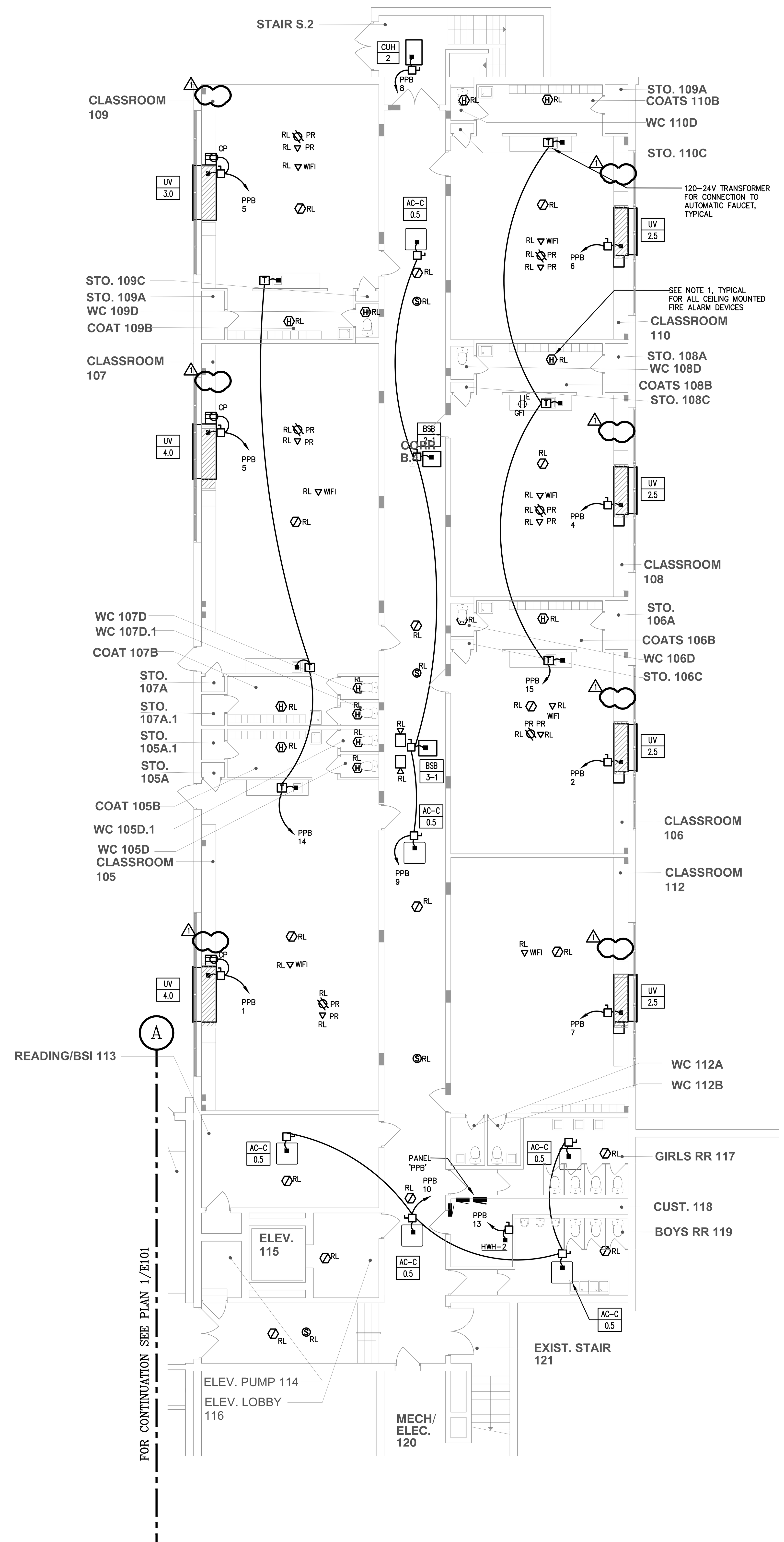


1 / E102
BASEMENT FLOOR PLAN LEVEL 2 – LIGHTING

SCALE 1/8" = 1'-0"

NOTES:

1. IF GENERATOR, ALTERNATE #2, IS NOT ACCEPTED CIRCUIT LIGHTING TO PANEL PPA AS SHOWN ON PANEL SCHEDULE.
2. CONNECT TO EXISTING CLASSROOM LIGHTING CIRCUIT, VIA 2 #12 & 1 #12 GRD – 3/4"C



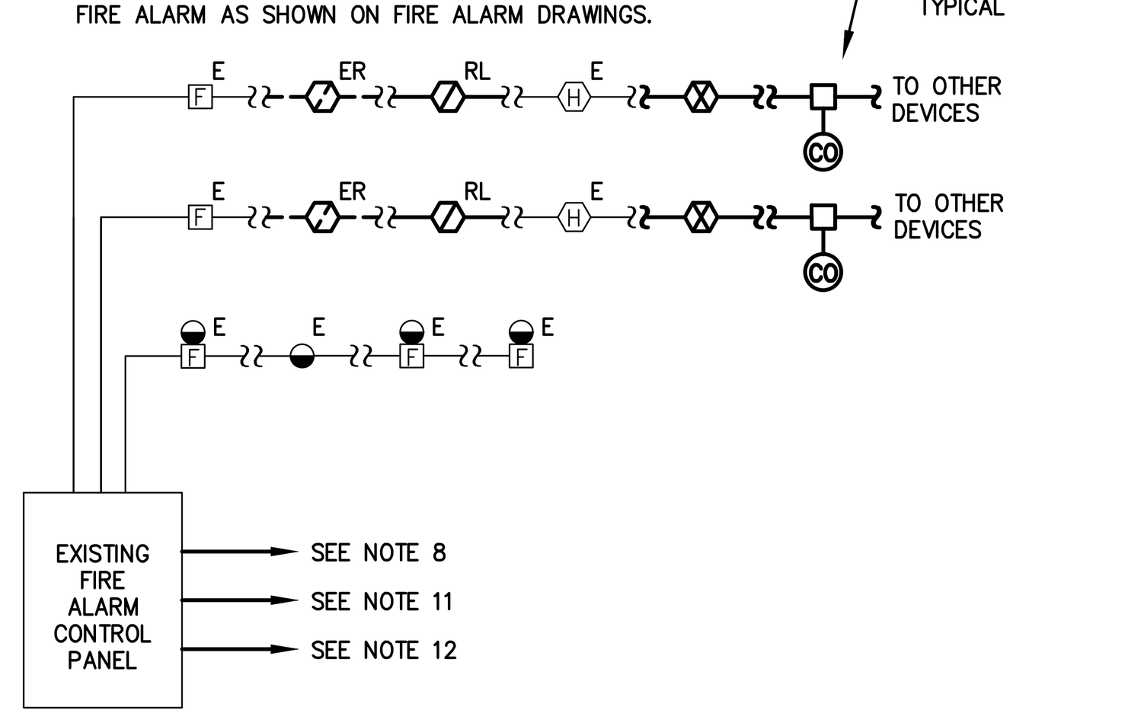
2 / E102
BASEMENT FLOOR PLAN LEVEL 2 – POWER

SCALE 1/8" = 1'-0"

NOTES:

1. IF ALTERNATE #1 (FIRE ALARM) IS ACCEPTED DO NOT REINSTALL EXISTING FIRE ALARM DEVICES ON CEILING, PROVIDE NEW FIRE ALARM DEVICES AS SHOWN ON FIRE ALARM DRAWINGS. BASE BID WILL BE TO REINSTALL EXISTING.
2. DUCT SMOKE AND CARBON MONOXIDE DETECTORS AS SHOWN ON THESE PLANS ARE NEW AND MUST BE INSTALLED REGARDLESS IF ALTERNATE #1 (FIRE ALARM) IS ACCEPTED.

NOTES: RISER DIAGRAM SHOWS FIRE ALARM SCOPE FOR BASE BID ONLY, REMOVE AND RESINSTALL DEVICES AS REQUIRED FOR HVAC AND NEW CEILING WORK, AND PROVIDE NEW DUCT AND CARBON MARNOXIDE DETECTORS AS REQUIRED – IF ALTERNATE #1 (FIRE ALARM) IS ACCEPTED, REMOVE ALL EXISTING AND PROVIDE ALL NEW FIRE ALARM AS SHOWN ON FIRE ALARM DRAWINGS.

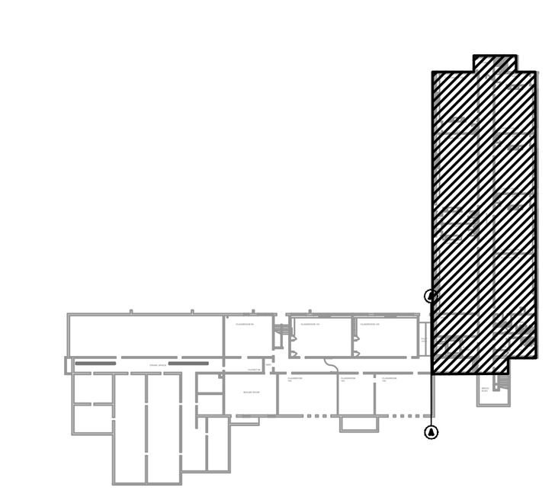


3 / E102
FIRE ALARM SYSTEM RISER DIAGRAM

SCHEMATIC

FIRE ALARM SYSTEM NOTES:

1. PROVIDE ALL WIRING AS RECOMMENDED BY MANUFACTURER. ALL WIRING SHALL BE IN CONDUIT. FIRE ALARM LABELED MC CABLE MAY BE USED IN CONCEALED LOCATIONS WHERE PERMITTED BY CODE.
2. CONTRACTOR IS RESPONSIBLE FOR INSURING THAT FIRE ALARM SYSTEM MODIFICATIONS MEET ALL APPLICABLE CODES AND FOR OBTAINING FINAL APPROVAL FROM LOCAL FIRE INSPECTOR(S).
3. PRIOR TO STARTING WORK, PREPARE SHOP DRAWINGS INCLUDING ALL INFORMATION REQUIRED UNDER IBC, SECTION 907.1.2. SUBMIT SHOP DRAWINGS TO ENGINEER FOR REVIEW AND APPROVAL. ONCE APPROVED, SUBMIT SHOP DRAWINGS TO CODE REVIEWER/INSPECTOR(S) FOR APPROVAL. SHOP DRAWINGS TO BE SIGNED AND SEALED BY A NEW JERSEY PROFESSIONAL ENGINEER.
4. EXPAND EXISTING FIRE ALARM SYSTEM AS REQUIRED TO CONNECT NEW DEVICES. PROVIDE ALL NEW HARDWARE, RELAYS, MODULES, WIRING, BATTERIES, ECT., AS NECESSARY FOR COMPLETE INSTALLATION.
5. PROVIDE ALL PROGRAMMING BY A FACTORY CERTIFIED VENDOR AS REQUIRED TO MAKE THE NECESSARY MODIFICATION TO THE SYSTEM. INCLUDE ANY HARDWARE, WIRING, OF COMPONENTS NECESSARY FOR CONTINUED REUSE.
6. CONTRACTOR IS RESPONSIBLE TO COORDINATE QUANTITY AND LOCATION DUCT MOUNTED SMOKE DETECTORS. FIELD COORDINATE EXACT LOCATIONS OF DUCT MOUNTED SMOKE DETECTORS WITH INSTALLED DUCTWORK.
7. FURNISH AND INSTALL DUCT MOUNTED SMOKE DETECTORS WITH REMOTE INDICATING LIGHT AND TEST SWITCH. CONTRACTOR SHALL VERIFY AND CLEARLY LABEL REMOTE TEST SWITCH AS TO THE HVAC EQUIPMENT ASSOCIATED WITH EACH DETECTOR.
8. PROVIDE INTERCONNECTION WIRING BETWEEN HVAC EQUIPMENT AND FIRE ALARM CONTROL PANEL AS REQUIRED FOR FAN SHUTDOWN AND SMOKE VENT OPERATION. ALL UNITS SHALL HAVE SEPARATE UNIT SHUTDOWN.
9. PROVIDE CARBON MONOXIDE DETECTORS AT ALL MECHANICAL EQUIPMENT UTILIZING NATURAL GAS. PROVIDE CARBON MONOXIDE DETECTORS WITHIN THE FIREST SPACES SERVED BY GAS FIRED MECHANICAL EQUIPMENT.
10. ALL FIRE ALARM CONTROL PANELS, REMOTE ANNUNICIATORS, AND BOOSTER PANELS SHALL HAVE SMOKE DETECTORS COVERAGE ABOVE. PROVIDE DEVICES WHETHER SHOWN ON PLANS OR NOT.
11. PROVIDE AN ENABLE/DISABLED SIGNAL TO THE BUILDING AUTOMATION HVAC CONTROL SYSTEM TO INDICATE THE STATUS OF THE HVAC EQUIPMENT.
12. THE EXISTING FIRE ALARM SYSTEM SHALL MONITOR THE NEW EMERGENCY GENERATOR FOR FAILURE, TROUBLE AND LOW FUEL CONDITIONS. PROVIDE ALL WIRING, HARDWARE, SOFTWARE, ETC. BETWEEN EQUIPMENT AS REQUIRED.
13. UPON COMPLETION OF FIRE ALARM WORK, PROVIDE A RE-ACCEPTANCE TEST OF THE ENTIRE SYSTEM PER NFPA 72.



KEY PLAN

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NJDOE PROJECT NUMBERS
HVAC- 2670-040-23-R503
ROOF- 2670-040-23-R501

NJSDA PROJECT NUMBERS
HVAC- 2670-040-23-G5KN
ROOF- 2670-050-23-G5KM

NJSDA GRANT NUMBERS
HVAC- G5-6677
ROOF- G5-6676

PROJECT TITLE:	**BUILDING RENOVATION LINDENWOLD SCHOOL #4**
ADDRESS:	**LINDENWOLD SCHOOL #4** **BLOCK 64, LOT 1;** BLOCK 65, LOT 1 & BLOCK 66, LOT 1 900 EAST GIBBSBORO ROAD LINDENWOLD, NJ 08021
PROJECT NO.	5743F, H, O
SUBMISSION DATE:	
REVISION DATE:	⚠ 18 FEB 2025
DRAWING DATE:	18 OCT 2024
PRINT DATE:	18 OCT 2024
DRAWN BY:	LA
SHEET TITLE:	PARTIAL BASEMENT FLOOR PLAN - ELECTRICAL

E-102

1/16" = 1'-0" | 1/8" = 1'-0" | 1/4" = 1'-0" | 1/2" = 1'-0" | 3/4" = 1'-0" | 1" = 1'-0" | 1 1/2" = 1'-0" | 3" = 1'-0"

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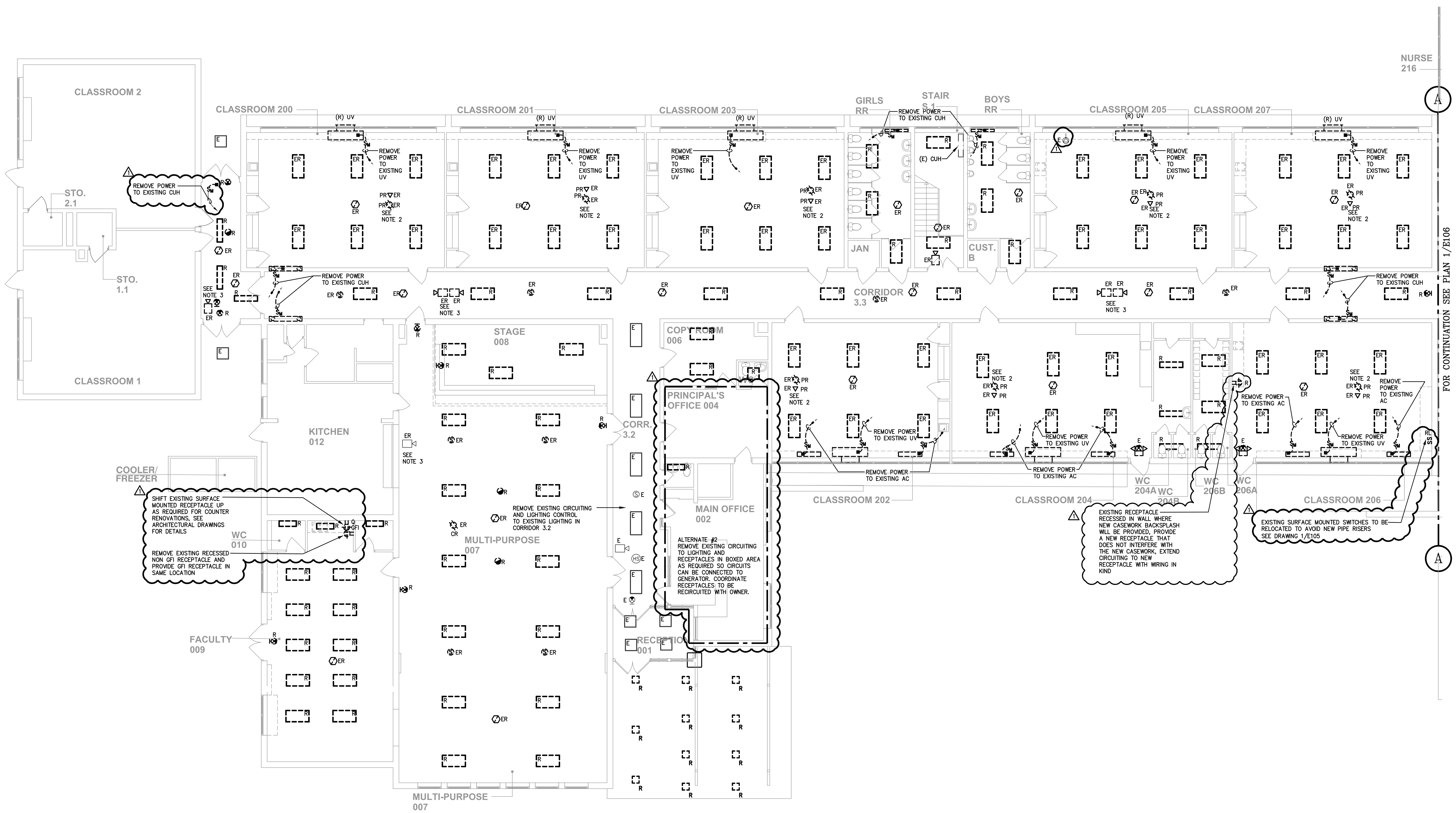
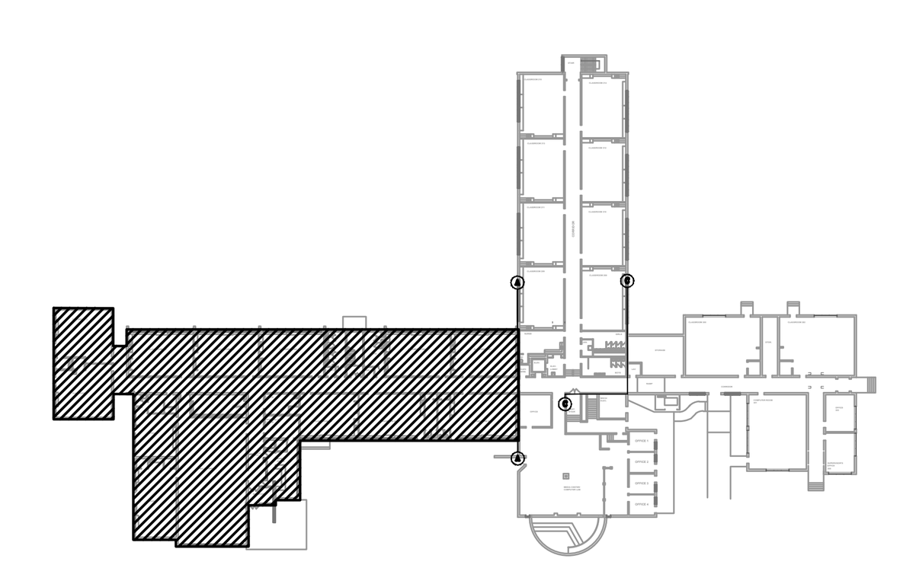


1 / E103 FLOOR PLAN LEVEL 3 – ELECTRICAL DEMOLITION

SCALE 1/8" = 1'-0"

NOTES:

1. REMOVE ALL EXISTING LIGHTING/LIGHTING CONTROL IN CORRIDOR/STAIRS, WHETHER SHOWN OR NOT. NEW LIGHTING AND LIGHTING CONTROL WILL BE PLACED IN THESE AREAS.
2. CLASSROOMS CONTAINS CEILING MOUNTED WIRELESS ACCESS POINTS AND/OR PROJECTOR, THIS EQUIPMENT WILL BE REMOVED BY OWNER PRIOR TO CONSTRUCTION. ALL CABLING SERVING THESE DEVICES WILL REMAIN ABOVE CEILING, TEMPORARILY RELOCATE BACK BOXES SERVING THESE DEVICES AND PROVIDE SUPPORT TO ENSURE CABLING DOES NOT GET DAMAGED. AFTER COMPLETION OF HVAC IN CLASSROOM PROVIDE RELOCATION OF BACK BOX IN CEILING AND CONNECT ALL EXISTING CABLES AS REQUIRED. THE EQUIPMENT WILL BE REINSTALLED BY OWNER
3. CEILING MOUNTED CAMERA WILL BE REMOVED BY OWNER PRIOR TO CONSTRUCTION. ALL CABLING SERVING CAMERA WILL REMAIN ABOVE CEILING. TEMPORARILY RELOCATE BACK BOXES SERVING CAMERA AND PROVIDE SUPPORT TO ENSURE CABLING DOES NOT GET DAMAGED. AFTER COMPLETTION OF HVAC IN AREA PROVIDE RELOCATION OF BACK BOX IN CEILING AND CONNECT ALL EXISITNG CABLES AS REQUIRED. CAMERA WILL BE REINSTALLED BY OWNER.



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SHEET TITLE:	FLOOR PLAN LEVEL 3 - ELECTRICAL

E-103

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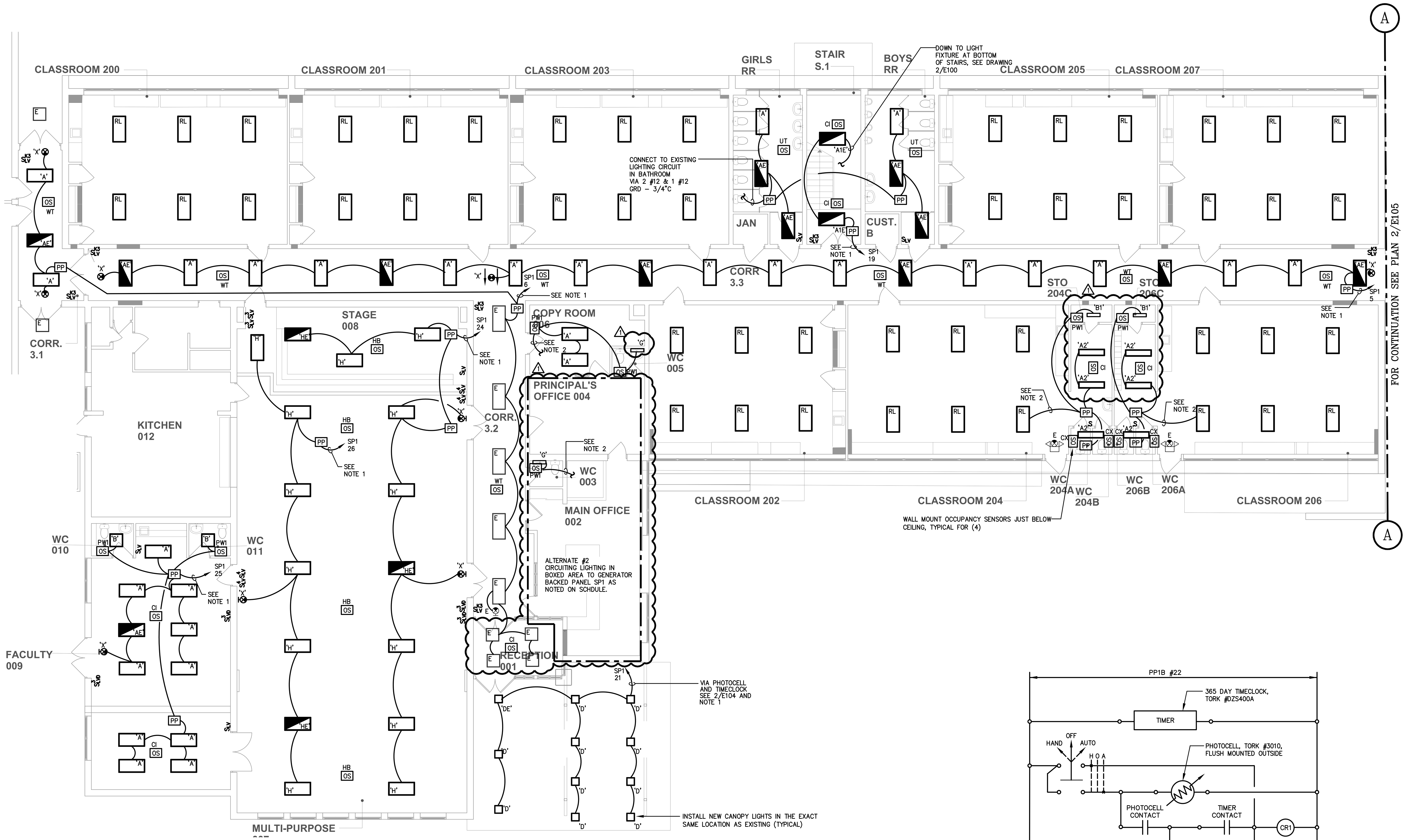


LIGHTING FIXTURE SCHEDULE

ID	LAMPS	MANUFACTURER	CATALOG NUMBER	MOUNTING	DESCRIPTION
A	77W LED 7200 LUMENS SPX 40	COLUMBIA LIGHTONIA, METALUX OR APPROVED EQUAL	LZPT24-40VL-GLSR-SU-ED	RECESSED	2' X 4' FIXTURE, CURVE SHIELDING, 0-10V DIMMING, UNIVERSAL 120-277V INPUT
AE	77W LED 7200 LUMENS SPX 40	COLUMBIA LIGHTONIA, METALUX OR APPROVED EQUAL	LZPT24-40VL-GLSR-SU-ED-ELL14	RECESSED	2' X 4' FIXTURE, CURVE SHIELDING, HIGH LUMENS, 0-10V DIMMING 90 MINUTE INTEGRAL BATTERY BACKUP, UNIVERSAL 120-277V INPUT
A1	91W LED 9200 LUMENS SPX 40	COLUMBIA LIGHTONIA, METALUX OR APPROVED EQUAL	LZPT24-40XL-GLSR-SU-ED	RECESSED	2' X 4' FIXTURE, CURVE SHIELDING, 0-10V DIMMING, UNIVERSAL 120-277V INPUT
A1E	91W LED 9200 LUMENS SPX 40	COLUMBIA LITHONIA, METALUX OR APPROVED EQUAL	LZPT24-40XL-GLSR-SU-ED-ELL14	RECESSED	2' X 4' FIXTURE, CURVE SHIELDING, HIGH LUMENS, 0-10V DIMMING 90 MINUTE INTEGRAL BATTERY BACKUP, UNIVERSAL 120-277V INPUT
A2	33W LED 3300 LUMENS SPX 40	COLUMBIA LIGHTONIA, METALUX OR APPROVED EQUAL	LZPT14-40VW-GLSR-SU-ED	RECESSED	1' X 4' FIXTURE, CURVE SHIELDING, 0-10V DIMMING, UNIVERSAL 120-277V INPUT
B	21W LED 2300 LUMENS SPX 40	COLUMBIA LIGHTONIA, METALUX OR APPROVED EQUAL	LZPT22-40MW-GLSR-S-ED	RECESSED	2' X 2' FIXTURE, CURVE SHIELDING, 0-10V DIMMING, UNIVERSAL 120-277V INPUT
CE	44W LED 5541 LUMENS SPX 40	COLUMBIA LIGHTONIA, METALUX OR APPROVED EQUAL	ESL-440-HL-FAW-EDU-ELL14	WALL	3.06" D X 3.11" H X 4' W STAIRWELL FIXTURE, FROSTED ACRYLIC LENS, WIDE DISTRIBUTION, 0-10V DIMMIING, INTEGRAL 90 MINUTE BATTERY BACKUP, UNIVERSAL 120-277V INPUT
D	55W LED 7000 LUMENS SPX 40	BEACON OR APPROVED EQUAL	LSQ2-55-4K7-120-XXX	SURFACE	14" SQUARE X 6" DEEP EXTERIOR CANOPY FIXTURE, COLOR/FINISH AS SELECTED BY ARCHITECT, 120V INPUT
DE	55W LED 7000 LUMENS SPX 40	BEACON OR APPROVED EQUAL	LSQ2-55-4K7-120-XXX-EH	SURFACE	14" SQUARE X 6" DEEP EXTERIOR CANOPY FIXTURE, COLOR/FINISH AS SELECTED BY ARCHITECT, INTEGRAL COLD WEATHER 90 MINUTE BATTERY BACKUP, 120V INPUT
G (△1)	16W LED 1400 LUMENS SPX 35	WAC OR APPROVED EQUAL	WS-224G2	SURFACE/ WALL	5-3/8" X 2' SURFACE MOUNTED FIXTURE, 120-277V INPUT (SURFACE MOUNT IN CLOSET AND BATHROOMS W/OUT SINKS WALL MOUNT IN BATHROOMS W/SINKS)
H	180W LED 7200 LUMENS SPX 40	KENALL OR APPROVED EQUAL	HASEDI24-180L-40K8-DIM1-DV-2F-2H-6	RECESSED	2' X 4' FIXTURE, HIGH ABUSE FIXTURE, 0-10V DIMMING, INTEGRAL, UNIVERSAL 120-277V INPUT
HE	180W LED 7200 LUMENS SPX 40	KENALL OR APPROVED EQUAL	HASEDI24-180L-40K8-DIM1-DV-2F-2H-6-LEL	RECESSED	2' X 4' FIXTURE, HIGH ABUSE FIXTURE, 0-10V DIMMING, INTEGRAL 90 MINUTE BATTERY BACKUP, UNIVERSAL 120-277V INPUT
R	17W LED 900 LUMENS SPX 40	SAYLITE COOPER OR APPROVED EQUAL	VPW-17W-900L-MV-50K-SN	SURFACE	VAPOR PROOF FIXTURE, UL LISTED FOR WET LOCATIONS, RIGHT ANGLE/BOX, CLEAR GLOBE, CAST GUARD, 120V INPUT
RH	2.5W LED	SURE-LITE EMERGI-LITE, ATLITE OR APPROVED EQUAL	APRW	SURFACE	2 LAMP REMOTE HEAD, COLOR AS SELECTED BY ARCHITECT, 3.6V INPUT
X	LED	SURE-LITE EMERGI-LITE, ATLITE OR APPROVED EQUAL	APXH7RG2	WALL/ CEILING	EXIT SIGN WITH 6" x 3/4" RED LETTERS, FACES SINGLE OR DOUBLE FACE AS REQ'D, ARROWS AS SHOWN, 120V INPUT, INTEGRAL 90 MINUTE EMERGENCY BATTERY BACKUP, REMOTE HEAD CAPACITY

1 / E104 FLOOR PLAN LEVEL 3 – LIGHTING

SCALE 1/8" = 1'-0"

NOTES:

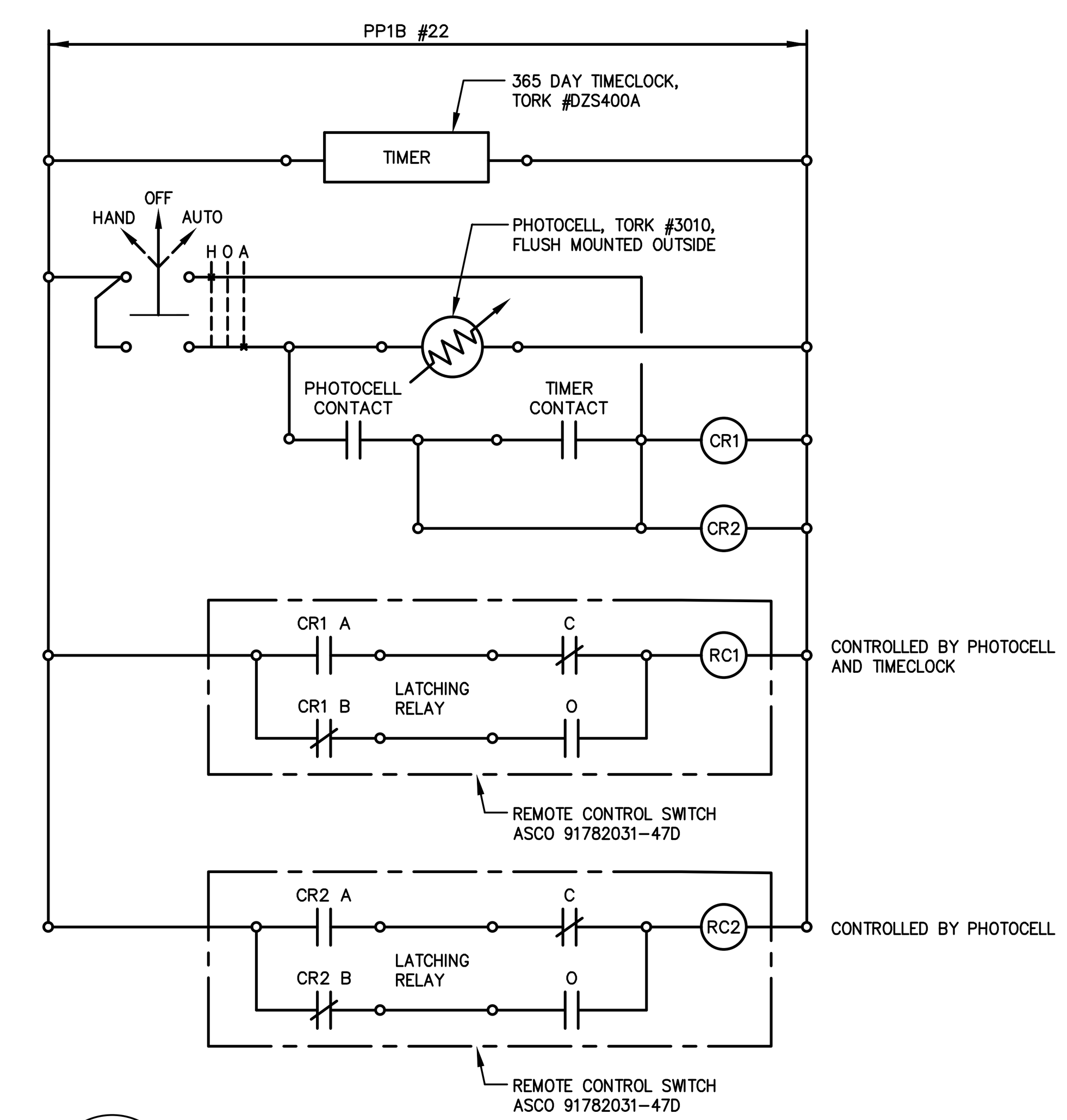
1. IF GENERATOR, ALTERNATE #2, IS NOT ACCEPTED CIRCUIT LIGHTING BACK TO PANEL PP1B AS SHOWN ON PANEL SCHEDULE.
2. CONNECT TO EXISTING LIGHTING CIRCUIT IN AREA, VIA 2 #12 & 1 #12 GRD – 3/4"C.

LIGHTING FIXTURE NOTES:

1. ALL FIXTURES SHALL COMPLY WITH ASHRAE/IESNA 90.1 2016 LIGHTING EFFICACY STANDARDS FOR NEW COMMERCIAL BUILDINGS.
2. CONNECT ALL EXIT SIGNS AHEAD OF ALL SWITCHING AND CONTROLS.
3. PROVIDE ALL EMERGENCY LIGHTING CONTROL RELAYS AND LIGHT FIXTURES SPECIFIED WITH EMERGENCY BATTERY BACKUP WITH AN UNSWITCHED PHASE LEG TO MONITOR FOR NORMAL POWER FAILURE.
4. VERIFY EXACT LOCATION OF FIXTURES IN FIELD WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.

AUTOMATIC LIGHTING CONTROL NOTES:

1. FURNISH AND INSTALL ALL WIRING AND DEVICES AS RECOMMENDED BY THE MANUFACTURER'S WRITTEN INSTRUCTION FOR THE INSTALLATION OF OCCUPANCY SENSORS.
2. PROVIDE ALL RELAYS, POWER PACKS AND LOW VOLTAGE WIRING AS REQUIRED.
3. VERIFY ALL OCCUPANCY SENSORS TO BE FURNISHED AND INSTALLED WITH LOW VOLTAGE OR LINE VOLTAGE INPUTS.
4. THE CONTRACTOR SHALL SET ALL PROGRAMMABLE TIME DELAYS TO A MINIMUM OF 15 MINUTES UNLESS OTHERWISE NOTED. ALL OCCUPANCY SENSORS WITH AN AUTOMATIC SENSITITY SETTING SHALL BE SET TO AUTOMATIC UNLESS A REDUCED SENSITIVITY SETTING IS RECOMMENDED BY THE MANUFACTURER OR REQUESTED BY THE OWNER. ALL OCCUPANCY SENSORS WITH A SELECTABLE WALK-THROUGH MODE SHALL BE SET TO THIS MODE.

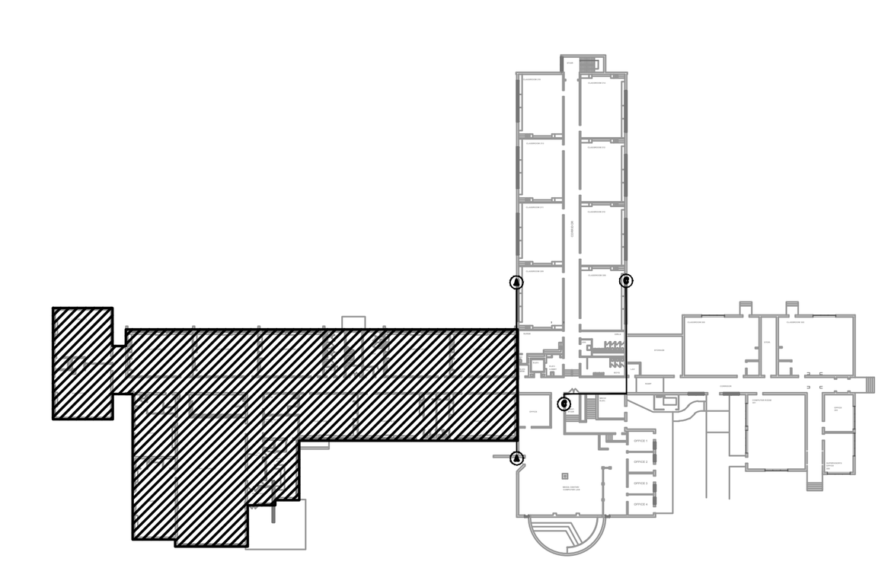


2 / E104 SCHEMATIC WIRING DIAGRAM FOR EXTERIOR LIGHTING CONTROL

SCHEMATIC

NOTES:

1. MOUNT CONTROL SWITCH RELAY & REMOTE CONTROL SWITCH IN NEMA 1 ENCLOSURE AND MOUNT HAND-OFF-AUTO SELECTOR SWITCH ON THE FACE OF ENCLOSURE. COORDINATE EXACT LOCATION IN FIELD.
2. ALL EXTERIOR EMERGENCY FIXTURES SHALL BE CONTROLLED BY PHOTOCELL ONLY.



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E-104

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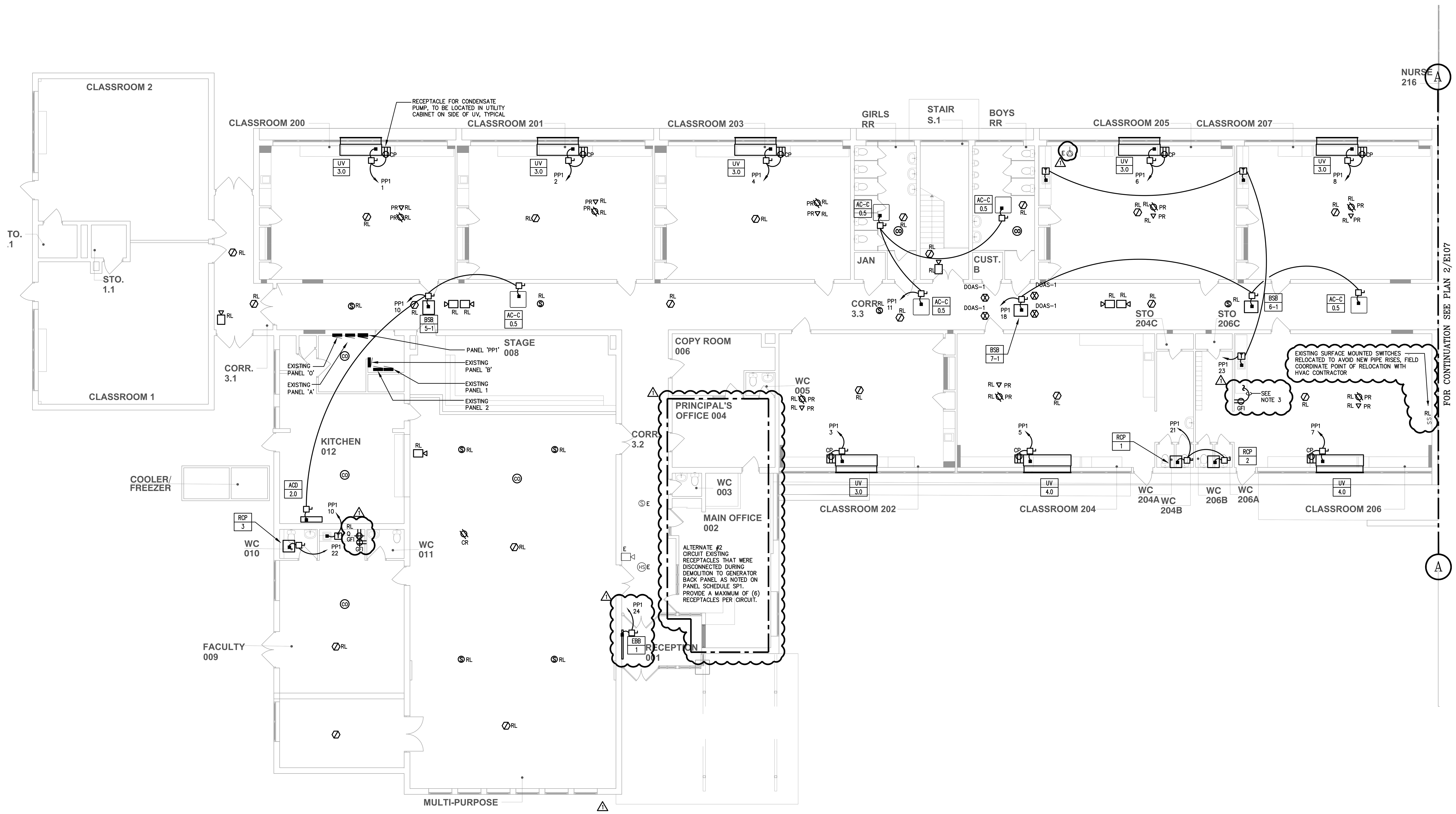
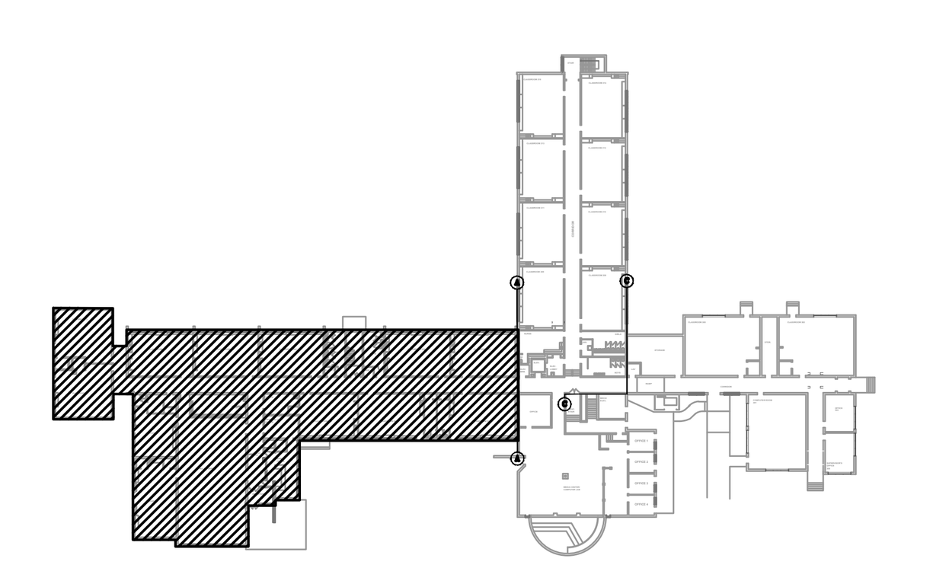


1 / E105 **FLOOR PLAN LEVEL 3 - POWER**

SCALE 1/8" = 1'-0"

NOTES:

1. IF ALTERNATE #1 (FIRE ALARM) IS ACCEPTED DO NOT REINSTALL EXISTING FIRE ALARM DEVICES ON CEILING, PROVIDE NEW FIRE ALARM DEVICES AS SHOWN ON FIRE ALARM DRAWINGS. BASE BID WILL BE TO REINSTALL EXISTING.
2. DUCT SMOKE AND CARBON MONOXIDE DETECTORS AS SHOWN ON THESE PLANS ARE NEW AND MUST BE INSTALLED REGARDLESS IF ALTERNATE #1 (FIRE ALARM) IS ACCEPTED.
3. CONNECT TO EXISTING RECEPTACLE CIRCUIT THAT PREVIOUSLY SERVED DEMOLISHED RECEPTACLE SEE DRAWING E/103.



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E-105

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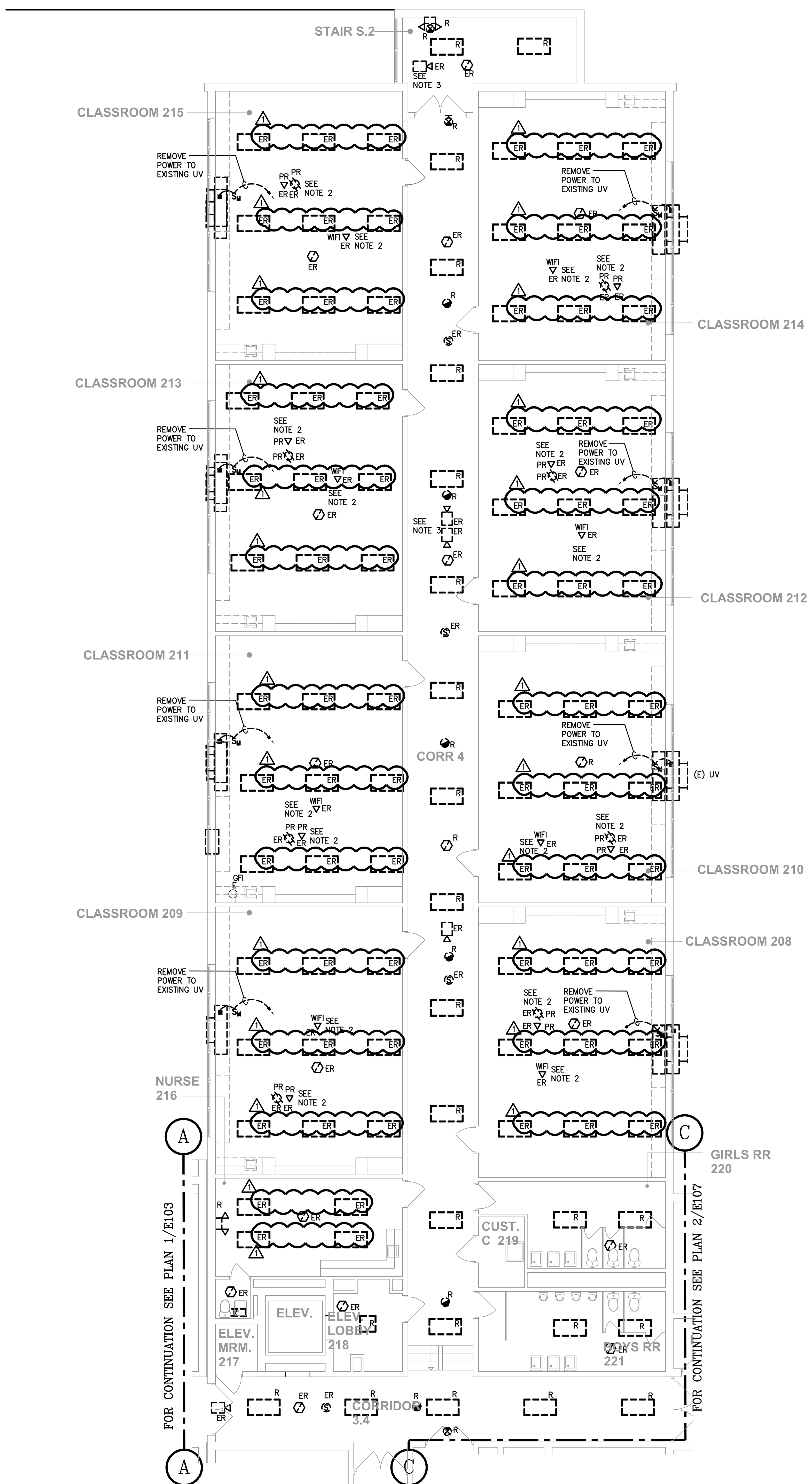


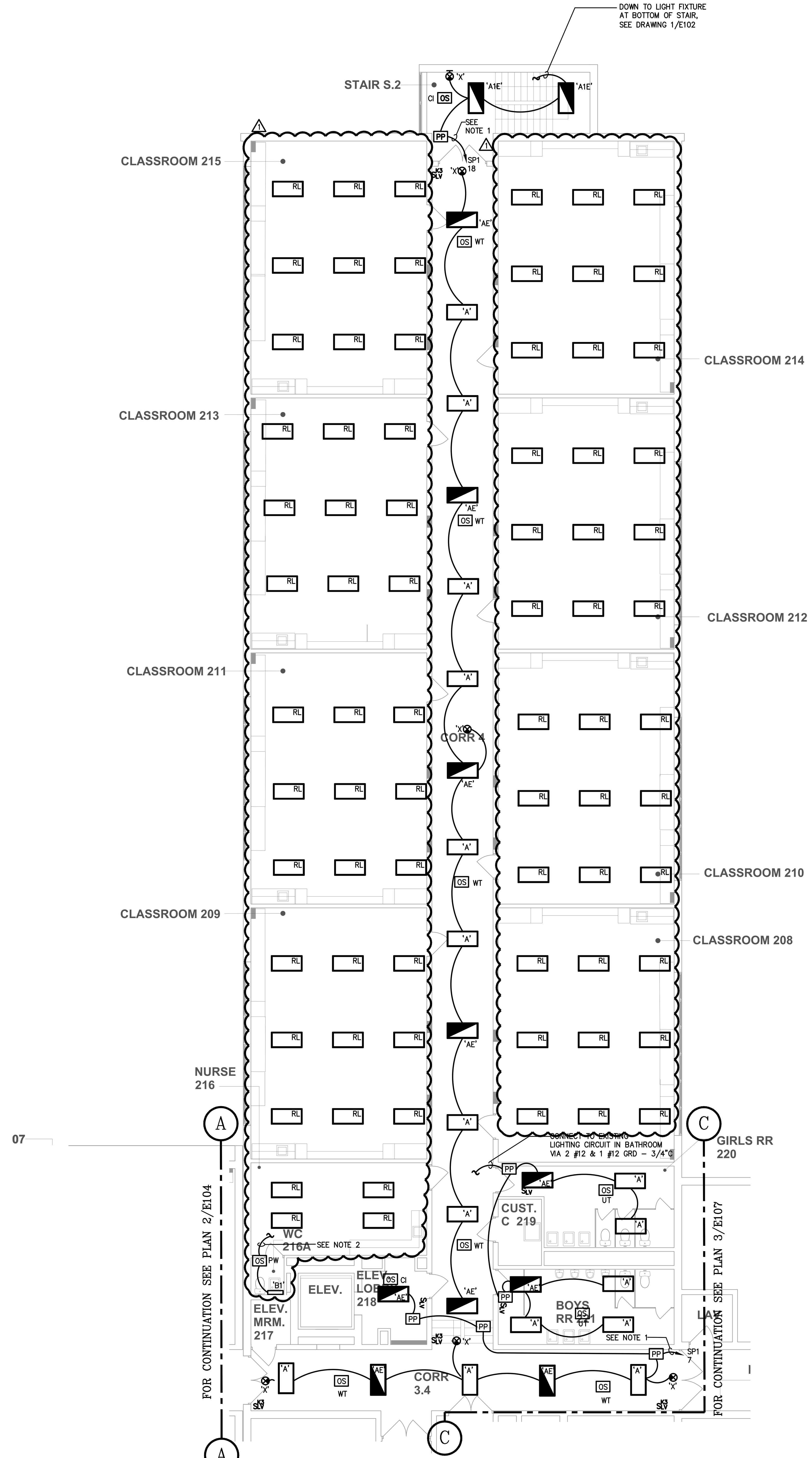
FLOOR PLAN LEVEL 4 – ELECTRICAL DEMOLITION

1/E106

SCALE 1/8" = 1'-0"

NOTES:

1. REMOVE ALL EXISTING LIGHTING/LIGHTING CONTROL IN CORRIDORS, STAIRS AND CLASSROOMS WHETHER SHOWN OR NOT. NEW LIGHTING AND LIGHTING CONTROL WILL BE PLACED IN THESE AREAS.
2. CLASSROOMS CONTAINS CEILING MOUNTED WIRELESS ACCESS POINTS AND/OR PROJECTOR, THIS EQUIPMENT WILL BE REMOVED BY OWNER PRIOR TO CONSTRUCTION. ALL CABLING SERVING THESE DEVICES WILL REMAIN ABOVE CEILING, TEMPORARILY RELOCATE BACK BOXES SERVING THESE DEVICES AND PROVIDE SUPPORT TO ENSURE CABLING DOES NOT GET DAMAGED. AFTER COMPLETION OF HVAC IN CLASSROOM PROVIDE RELOCATION OF BACK BOX IN CEILING AND CONNECT ALL EXISTING CABLES AS REQUIRED. THE EQUIPMENT WILL BE REINSTALLED BY OWNER
3. CEILING MOUNTED CAMERA WILL BE REMOVED BY OWNER PRIOR TO CONSTRUCTION. ALL CABLING SERVING CAMERA WILL REMAIN ABOVE CEILING. TEMPORARILY RELOCATE BACK BOXES SERVING CAMERA AND PROVIDE SUPPORT TO ENSURE CABLING DOES NOT GET DAMAGED. AFTER COMPLETTION OF HVAC IN AREA PROVIDE RELOCATION OF BACK BOX IN CEILING AND CONNECT ALL EXISITNG CABLES AS REQUIRED. CAMERA WILL BE REINSTALLED BY OWNER.



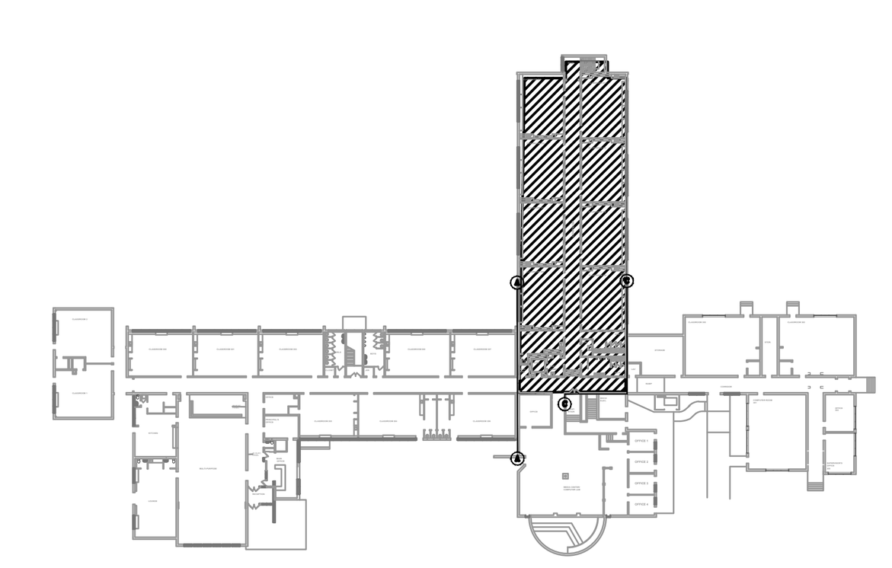
FLOOR PLAN 4 – LIGHTING

2/E106

SCALE 1/8" = 1'-0"

NOTES:

1. IF GENERATOR, ALTERNATE #2, IS NOT ACCEPTED CIRCUIT LIGHITNG BACK TO PANEL PP1B AS SHOWN ON PANEL SCHEDULE.
2. PROVIDE AND CONNECT TO EXISTING LIGHTING CIRCUIT VIA 2 #12 & 1 #12 GRD – 3/4"C.



KEY PLAN

KELTER & GILLIGO consulting engineers

Frank Tindall, P.E.
PROFESSIONAL ENGINEER
NJ 38656

REGAN YOUNG ENGLAND BUTERA
REFERENDUMS • ENGINEERING • ARCHITECTURE • DESIGN
456 HIGH STREET • MT. HOLLY, NEW JERSEY 08060 USA

REGAN YOUNG, AIA
21AI00912100

NJDOE PROJECT NUMBERS
HVAC- 2670-040-23-R503
ROOF- 2670-040-23-R501

NJSDA PROJECT NUMBERS
HVAC- 2670-040-23-G5KN
ROOF- 2670-050-23-G5KM

NJSDA GRANT NUMBERS
HVAC- G5-6677
ROOF- G5-6676

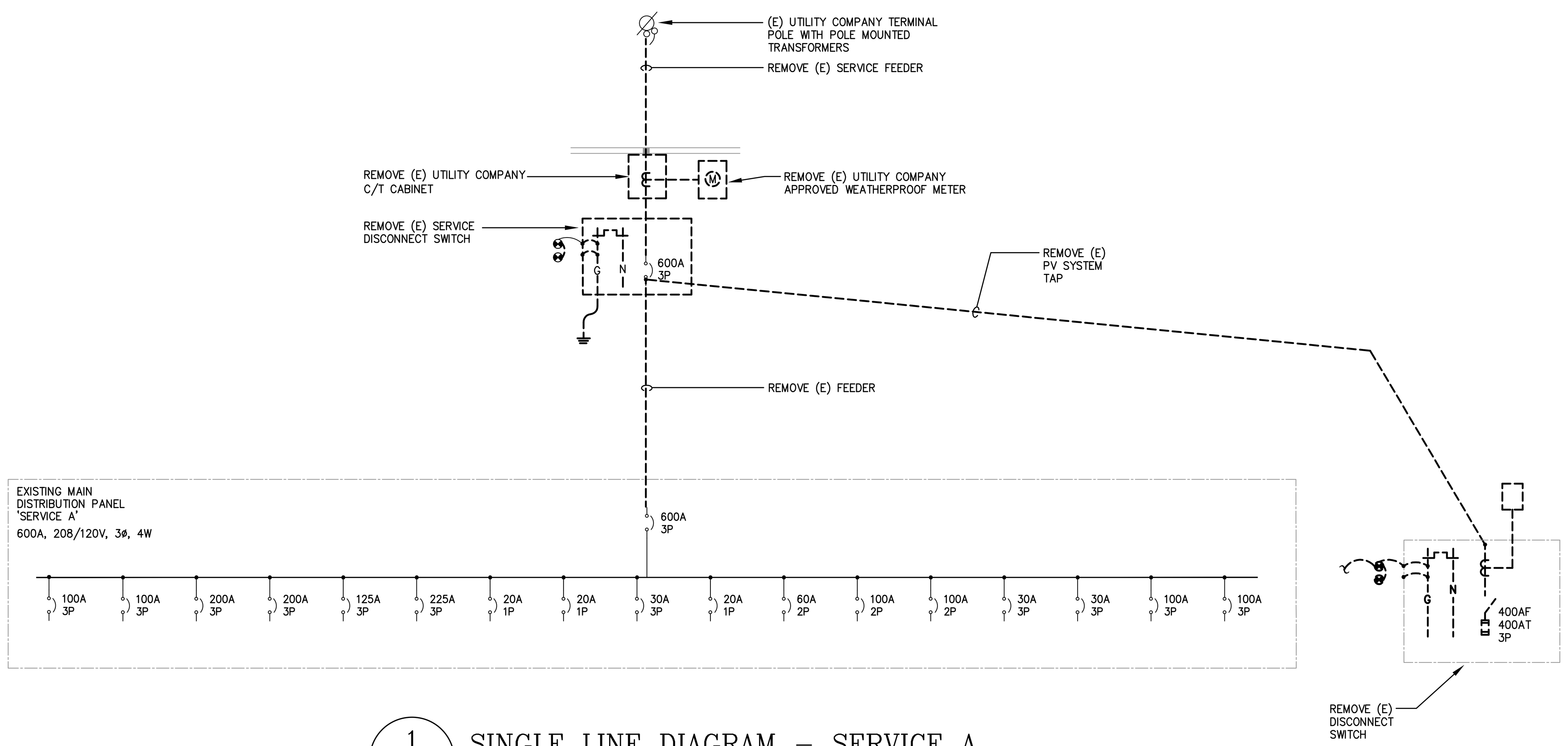
PROJECT TITLE:
BUILDING RENOVATION LINDENWOLD SCHOOL #4

ADDRESS:
LINDENWOLD SCHOOL #4
BLOCK 64, LOT 1; BLOCK 65, LOT 1 & BLOCK 66, LOT 1
900 EAST GIBBSBORO ROAD
LINDENWOLD, NJ 08021

PROJECT NO.	5743F, H, O
SUBMISSION DATE:	
REVISION DATE:	△1 18 FEB 2025
DRAWING DATE:	18 OCT 2024
PRINT DATE:	18 OCT 2024
DRAWN BY:	LA
SHEET TITLE:	FLOOR PLANS LEVEL 4 - ELECTRICAL

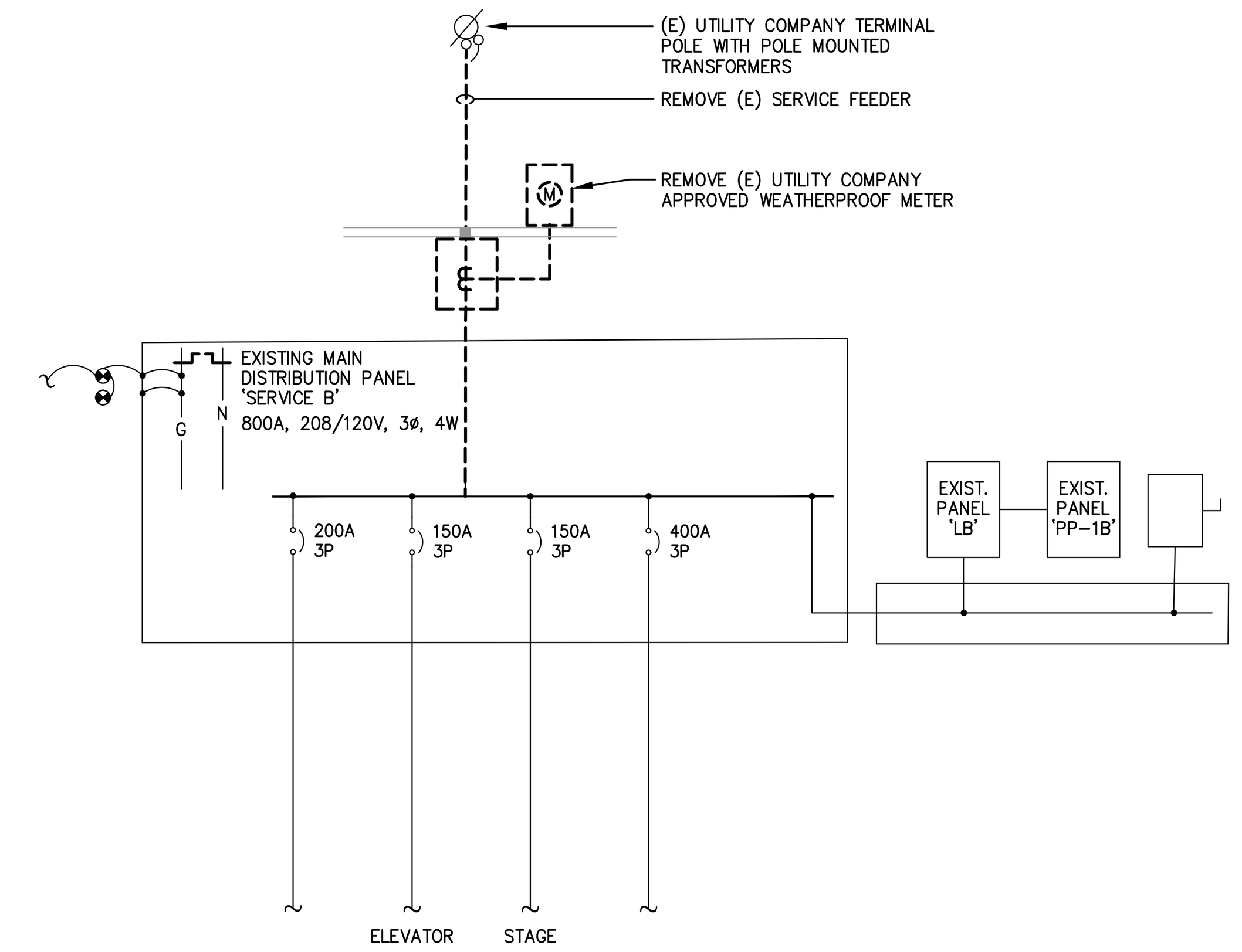
E-106

THIS DRAWING FORMATTED TO BE PRINTED FULL SIZE AT 30" x 42" - DO NOT SCALE DRAWINGS



1 / E200 SINGLE LINE DIAGRAM – SERVICE A

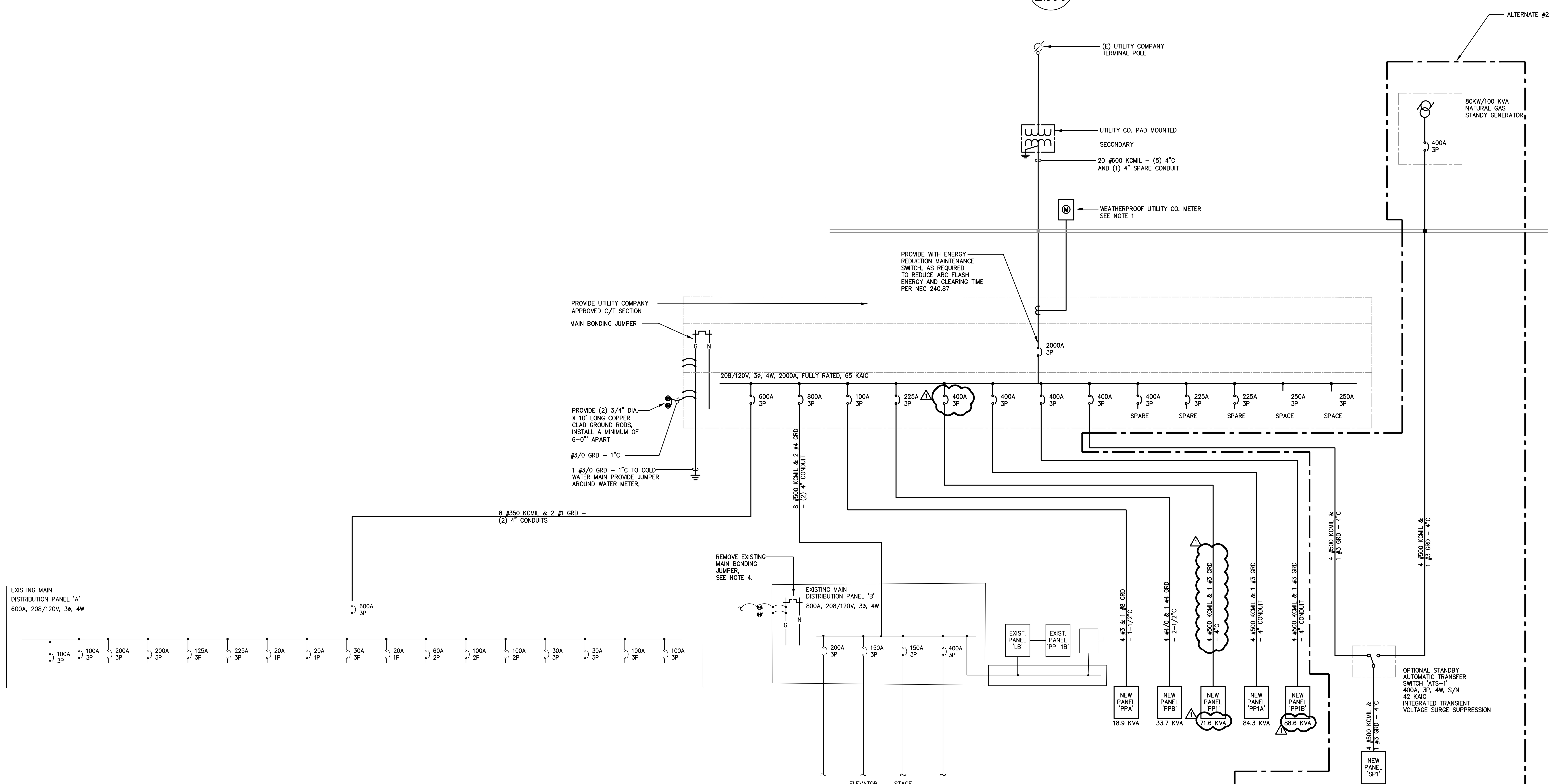
SCHEMATIC



2 / E200 SINGLE LINE DIAGRAM – SERVICE B

SCHEMATIC

262.2 KVA EXISTING DEMAND LOAD
-33.0 KVA DEMOLISHED LOAD
297.1 KVA NEW CONNECTED LOAD
526.3 KVA NEW TOTAL CONNECTED LOAD



3 / E200 SINGLE LINE DIAGRAM – NEW SERVICE

SCHEMATIC

NOTES:

1. COORDINATE WITH UTILITY COMPANY AND MAKE ALL NECESSARY PROVISIONS AS REQUIRED.
2. WHERE THERE IS 20' OR MORE OF 1/2" OR LARGER REBAR ENCASED IN A MINIMUM OF 2" OF CONCRETE IT SHALL BE BONDED TOGETHER WITH STEEL WIRE TIES AND CONNECTED TO THE GROUNDING ELECTRODE SYSTEM VIA #4 AWG SOLID COPPER CONDUCTOR AND A APPROVED GROUNDING CLAMP, BURNDY TYPE "GAR" SERIES OR EQUAL PER NEC 250-50(C) 250-52(A)(3), 250-66(B) AND 250-70.
3. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING EXISTING ABOVE GRADE AND UNDERGROUND UTILITIES. ALL UTILITIES SHALL BE MARKED OUT AS REQUIRED BY NJUA, CALL BEFORE YOU DIG.
4. ENSURE THAT ALL NEUTRALS AND GROUNDS ARE SEPARATED AT BOTHBEXISTING DISTRIBUTION BOARDS. REARRANGE TERMINATIONS IF/AS REQUIRED TO COMPLY.
5. PROVIDE SWITCHBOARD WITH ARC-FLASH HAZARD WARNING LABEL AS DESCRIBED PER NEC 110.21 (B).
6. PER NEC 110.24 MARK SWITCHBOARD WITH CALCULATED AVAILABLE FAULT CURRENT, LABEL SHALL INCLUDE THE DATE THE FAULT-CURRENT CALCULATION WAS PERFORMED.

1/16" = 1'-0" 1/8" = 1'-0" 1/4" = 1'-0" 1/2" = 1'-0" 3/4" = 1'-0" 1" = 1'-0" 1 1/2" = 1'-0" 3" = 1'-0"

THIS DRAWING FORMATTED TO BE PRINTED FULL SIZE AT 30" x 42" - DO NOT SCALE DRAWINGS

KELTER & GILLIGO consulting engineers
P.O. BOX 777, 196 PRINCETON-HIGHTSTOWN RD. PRINCETON JUNCTION, NEW JERSEY 08550

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REGAN YOUNG, AIA
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NJDOE PROJECT NUMBERS
HVAC- 2670-040-23-R503
ROOF- 2670-040-23-R501

NJSDA PROJECT NUMBERS
HVAC- 2670-040-23-G5KN
ROOF- 2670-050-23-G5KM

NJSDA GRANT NUMBERS
HVAC- G5-6677
ROOF- G5-6676

PROJECT TITLE:
BUILDING RENOVATION LINDENWOLD SCHOOL #4

ADDRESS:
LINDENWOLD SCHOOL #4
BLOCK 64, LOT 1; BLOCK 65, LOT 1 & BLOCK 66, LOT 1
900 EAST GIBBSBORO ROAD
LINDENWOLD, NJ 08021

PROJECT NO.	5743F, H, O
SUBMISSION DATE:	
REVISION DATE:	1 18 FEB 2025
DRAWING DATE:	18 OCT 2024
PRINT DATE:	18 OCT 2024
DRAWN BY:	LA
SHEET TITLE:	SINGLE LINE DIAGRAM - ELECTRICAL

E-200

PANELBOARD 'PPA'

208/120V, 3ø, 4W, S/N, SURFACE, 100A MAIN LUGS ONLY, 22 KAIC

CKT. NO.	CIRCUIT BREAKER		LOAD		CIRCUIT DESCRIPTION	WIRE & CONDUIT
	AMPS	POLES	KVA	HP		
1	15	2	0.6	–	AC-D-2.0, AC-C-0.5, BSB-1-1	2 #12 & 1 #12 GRD – 3/4"C
2	15	2	0.8	–	ACS-1.5, ACS-1.5	2 #12 & 1 #12 GRD – 3/4"C
3	15	2	0.9	–	ACS-1.5, ACS-1.5, AC-C-0.5	2 #12 & 1 #12 GRD – 3/4"C
4	15	2	0.8	–	ACS-1.5, ACS-1.5	2 #12 & 1 #12 GRD – 3/4"C
5	15	2	1.2	–	ACS-1.5, ACS-1.5, ACS-1.5	2 #12 & 1 #12 GRD – 3/4"C
6	20	1	–	–	CUH (STAIR 1)	2 #12 & 1 #12 GRD – 3/4"C
7	20	1	–	–	SPARE	–
8	20	1	–	–	SPARE	–
9	20	1	1.1	–	CLASSROOM 99, 101, 103 LTG	2 #12 & 1 #12 GRD – 3/4"C
10	20	1	0.9	–	CLASSROOM 100, 102, 104 LTG	2 #12 & 1 #12 GRD – 3/4"C
11	15	3	2.1	1.5	HWP-1	3 #12 & 1 #10 GRD – 3/4"C
12	15	3	2.1	1.5	HWP-2	3 #12 & 1 #10 GRD – 3/4"C
13	20	1	–	–	BOILER 3	2 #12 & 1 #12 GRD – 3/4"C
14	20	1	0.8	–	CORR. LTG. CLRMS 99-104	2 #12 & 1 #12 GRD – 3/4"C
15	20	1	1.2	–	CORR. LTG. CLRMS 105-110	2 #10 & 1 #10 GRD – 3/4"C
16	20	1	0.5	–	STAIR LTG (BY MECH/ELEC RM)	2 #12 & 1 #12 GRD – 3/4"C
17	20	1	0.2	–	ASCO CONTACTOR	2 #12 & 1 #12 GRD – 3/4"C
18	20	3	2.1	–	BC-1	3 #12 & 1 #12 GRD – 3/4"C
19	20	3	–	–	HWH-1	3 #12 & 1 #12 GRD – 3/4"C
20	20	1	–	–	UH-1	2 #12 & 1 #12 GRD – 3/4"C
21	20	2	–	–	SPARE	–
22	20	2	–	–	SPARE	–
23	20	1	–	–	SPARE	–
23	20	1	–	–	SPARE	–
23	20	1	–	–	SPARE	–
23	20	1	–	–	SPARE	–
			15.3	TOTAL CONNECTED LOAD		

IF ALTERNATE #2 (GENERATOR IS ACCEPTED), CONNECT CIRCUITS TO PANEL SPB AND LABEL SPARE

PANELBOARD 'PPB'

208/120V, 3ø, 4W, S/N, SURFACE, 225A MAIN LUGS ONLY, 22 KAIC

CKT. NO.	CIRCUIT BREAKER		LOAD		CIRCUIT DESCRIPTION	WIRE & CONDUIT
	AMPS	POLES	KVA	HP		
1	15	1	0.7	–	CLASSROOM 105 – UV-3.0	2 #12 & 1 #12 GRD – 3/4"C
2	15	1	0.7	–	CLASSROOM 106 – UV-3.0	2 #12 & 1 #12 GRD – 3/4"C
3	15	1	0.7	–	CLASSROOM 107 – UV-3.0	2 #12 & 1 #12 GRD – 3/4"C
4	15	1	0.7	–	CLASSROOM 108 – UV-3.0	2 #12 & 1 #12 GRD – 3/4"C
5	15	1	0.7	–	CLASSROOM 109 – UV-3.0	2 #10 & 1 #10 GRD – 3/4"C
6	15	1	0.7	–	CLASSROOM 110 – UV-3.0	2 #10 & 1 #10 GRD – 3/4"C
7	15	1	0.7	–	CLASSROOM 112 – UV-3.0	2 #12 & 1 #12 GRD – 3/4"C
8	20	1	0.1	–	CUH	2 #12 & 1 #12 GRD – 3/4"C
9	15	2	0.4		BSB-2-1, BSB-3-1 AC-C-0.5, AC-C-0.5	2 #12 & 1 #12 GRD – 3/4"C
10	15	2	0.3		AC-C-0.5, AC-C-0.5, AC-C-0.5, AC-C-0.5	2 #12 & 1 #12 GRD – 3/4"C
11	20	1	0.5	–	SINK CLASSRM 105/107/109	2 #12 & 1 #12 GRD – 3/4"C
12	20	1	0.5	–	SINK CLASSRM 106/108/110	2 #12 & 1 #12 GRD – 3/4"C
13	100	3	27.0	–	HWH-2	3 #4 & 1 #8 GRD – 1"C
14	20	2	–	–	SPARE	–
15	20	1	–	–	SPARE	–
16	20	1	–	–	SPARE	–
17	20	1	–	–	SPARE	–
18	20	1	–	–	SPARE	–
19	20	1	–	–	SPARE	–
20	20	1	–	–	SPARE	–
21	20	1	–	–	SPARE	–
22	20	1	–	–	SPARE	–
23	20	1	–	–	SPARE	–
24	20	1	–	–	SPARE	–
25	20	1	–	–	SPARE	–
26	20	1	–	–	SPARE	–
27	–	1	–	–	SPACE	–
28	–	1	–	–	SPACE	–
29	–	1	–	–	SPACE	–
30	–	1	–	–	SPACE	–
31	–	1	–	–	SPACE	–
32	–	1	–	–	SPACE	–
33	–	1	–	–	SPACE	–
34	–	1	–	–	SPACE	–
35	–	1	–	–	SPACE	–
36	–	1	–	–	SPACE	–
			33.7	TOTAL CONNECTED LOAD		

PANELBOARD 'PP1'

208/120V, 3ø, 4W, S/N, SURFACE, 400A MAIN LUGS ONLY, 22 KAIC

CKT. NO.	CIRCUIT BREAKER		LOAD		CIRCUIT DESCRIPTION	WIRE & CONDUIT
	AMPS	POLES	KVA	HP		
1	15	1	0.8	–	CLASSROOM 200 – UV-3.0	2 #12 & 1 #12 GRD – 3/4"C
2	15	1	0.8	–	CLASSROOM 201 – UV-3.0	2 #12 & 1 #12 GRD – 3/4"C
3	15	1	0.8	–	CLASSROOM 202 – UV-3.0	2 #12 & 1 #12 GRD – 3/4"C
4	15	1	0.8	–	CLASSROOM 203 – UV-3.0	2 #12 & 1 #12 GRD – 3/4"C
5	15	1	0.8	–	CLASSROOM 204 – UV-3.5	2 #12 & 1 #12 GRD – 3/4"C
6	15	1	0.8	–	CLASSROOM 205 – UV-3.0	2 #12 & 1 #12 GRD – 3/4"C
7	15	1	0.8	–	CLASSROOM 206 – UV-3.0	2 #10 & 1 #10 GRD – 3/4"C
8	15	1	0.8	–	CLASSROOM 207 – UV-3.5	2 #10 & 1 #10 GRD – 3/4"C
9	110	3	24.3	–	DOAS-1	3 #2 & 1 #6 GRD – 1-1/2"C
10	15	2	0.6	–	BSB-5-1, AC-0.5, ACD-2.0	2 #12 & 1 #12 GRD – 3/4"C
11	15	2	0.2	–	AC-0.5,AC-0.5,AC-0.5	2 #12 & 1 #12 GRD – 3/4"C
12	60	3	14.8	–	RTU-1	3 #6 & 1 #10 GRD – 1"C
13	60	3	19.7	–	ACCU-5	3 #6 & 1 #10 GRD – 1"C
14	20	1	0.6	–	SERVICE LTG/REC DOAS-1	2 #12 & 1 #12 GRD – 3/4"C
15	20	1	0.6	–	SERVICE LTG/REC ACCU-5	2 #12 & 1 #12 GRD – 3/4"C
16	20	1	0.5	–	EF-1	2 #12 & 1 #12 GRD – 3/4"C
17	20	1	0.3	–	SERVICE LTG/REC RTU-1	2 #12 & 1 #12 GRD – 3/4"C
18	15	2	0.3	–	BSB-6-1, 7-1, AC-C-0.5	2 #12 & 1 #12 GRD – 3/4"C
19	20	1	0.5	–	EF-4	2 #12 & 1 #12 GRD – 3/4"C
20	20	1	0.1	–	AUTO FAUCET – FACULTY	2 #12 & 1 #12 GRD – 3/4"C
21	20	2	0.8	–	RCP-1/2	2 #12 & 1 #12 GRD – 3/4"C
22	20	2	0.8	–	RCP-3	2 #12 & 1 #12 GRD – 3/4"C
23	20	1	0.1	–	AUTO FAUCET CLRM 206/207	2 #12 & 1 #12 GRD – 3/4"C
24	20	2	1.0	–	EBB-1	2 #12 & 1 #12 GRD – 3/4"C
25	20	2	–	–	SPARE	–
26	20	1	–	–	SPARE	–
27	20	1	–	–	SPARE	–
28	20	1	–	–	SPARE	–
29	20	1	–	–	SPARE	–
			71.6	TOTAL CONNECTED LOAD		

PANELBOARD 'PP1A'

208/120V, 3ø, 4W, S/N, SURFACE, 400A MAIN LUGS ONLY, 42 KAIC

CKT. NO.	CIRCUIT BREAKER		LOAD		CIRCUIT DESCRIPTION	WIRE & CONDUIT
	AMPS	POLES	KVA	HP		
1	60	3	19.7	–	ACCU-2	3 #6 & 1 #10 GRD – 1"C
2	50	3	17.2	–	ACCU-3	3 #6 & 1 #10 GRD – 1"C
3	50	3	17.2	–	ACCU-8	3 #6 & 1 #10 GRD – 1"C
4	50	3	17.2	–	ACCU-9	3 #6 & 1 #10 GRD – 1"C
5	30	2	2.7	2	EF-3	2 #10 & 1 #10 GRD – 3/4"C
6	20	1	0.6	–	SERVICE LTG/REC ACCU-2/3	2 #12 & 1 #12 GRD – 3/4"C
7	20	1	0.6	–	SERVICE LTG/REC ACCU-8/9	2 #12 & 1 #12 GRD – 3/4"C
8	15	1	0.7	–	CLASSROOM 208 – UV-3.0	2 #12 & 1 #12 GRD – 3/4"C
9	15	1	0.7	–	CLASSROOM 209 – UV-X	2 #12 & 1 #12 GRD – 3/4"C
10	15	1	0.7	–	CLASSROOM 210 – UV-3.0	2 #12 & 1 #12 GRD – 3/4"C
11	15	1	0.7	–	CLASSROOM 211 – UV-X	2 #12 & 1 #12 GRD – 3/4"C
12	15	1	0.7	–	CLASSROOM 212 – UV-X	2 #12 & 1 #12 GRD – 3/4"C
13	15	1	0.7	–	CLASSROOM 213 – UV-X	2 #12 & 1 #12 GRD – 3/4"C
14	15	1	0.7	–	CLASSROOM 214 – UV-X	2 #10 & 1 #10 GRD – 3/4"C
15	15	1	0.7	–	CLASSROOM 215 – UV-X	2 #10 & 1 #10 GRD – 3/4"C
16	15	2	0.2	–	BSB-5-1, AC-0.5	2 #12 & 1 #12 GRD – 3/4"C
17	15	2	0.2		AC-C-0.5, AC-C-0.5	2 #12 & 1 #12 GRD – 3/4"C
18	20	1	0.2		FAUC CLRM 208/210/212/214	2 #12 & 1 #12 GRD – 3/4"C
19	20	1	0.2		FAUC CLRM 209/211/213/215	2 #12 & 1 #12 GRD – 3/4"C
20	30	2	2.7	2	EF-5	2 #10 & 1 #10 GRD – 3/4"C
21	20	2			SPARE	–
22	20	2			SPARE	–
23	20	1			SPARE	–
24	20	1			SPARE	–
25	20	1			SPARE	–
26	20	1			SPARE	–
27	20	1			SPARE	–
28	20	1			SPARE	–
			84.3	TOTAL CONNECTED LOAD		

PANELBOARD 'PP1B'

208/120V, 3ø, 4W, S/N, SURFACE, 400A MAIN LUGS ONLY, 22 KAIC

CKT. NO.	CIRCUIT BREAKER		LOAD		CIRCUIT DESCRIPTION	WIRE & CONDUIT
	AMPS	POLES	KVA	HP		
1	80	3	17.8	–	DOAS2	3 #4 & 1 #8 GRD – 1-1/2"C
2	20	3	5.9	–	ACCU-4	3 #12 & 1 #12 GRD – 3/4"C
3	20	3	5.9	–	ACCU-10	3 #12 & 1 #12 GRD – 3/4"C
4	20	1	0.3	–	SERVICE REC/LTG DOAS-2	2 #12 & 1 #12 GRD – 3/4"C
5	20	1	0.6	–	SERVICE REC/LTG ACCU-4/10	2 #12 & 1 #12 GRD – 3/4"C
6	70	3	19.7	–	ACCU-6	3 #4 & 1 #8 GRD – 1-1/4"C
7	50	3	17.2	–	ACCU-1	3 #8 & 1 #10 GRD – 1"C
8	20	1	0.3	–	SERVICE REC/LTG ACCU-6	2 #12 & 1 #12 GRD – 3/4"C
9	20	1	0.3	–	SERVICE REC/LTG ACCU-1	2 #12 & 1 #12 GRD – 3/4"C
10	20	1	0.5	–	EF-2	2 #12 & 1 #12 GRD – 3/4"C
11	30	3	9.8	–	ACCU-7	3 #10 & 1 #10 GRD – 3/4"C
12	20	1	0.6	–	SERVICE REC/LTG ACCU-7	2 #12 & 1 #12 GRD – 3/4"C
13	20	1	0.3	–	SERVICE REC LTG DOAS-2	2 #12 & 1 #12 GRD – 3/4"C
14	20	1	1.2	–	CORR. LTG. CLRMS 200-207	2 #10 & 1 #10 GRD – 3/4"C
15	20	1	1.0	–	CORR. LTG. MAIN OFF,CLRMS 1-2	2 #8 & 1 #8 GRD – 1"C
16	20	1	1.4	–	CORR. LTG. CLRMS 208-216	2 #10 & 1 #10 GRD – 3/4"C
17	20	1	0.7	–	CORR. LTG RMS 300-305	2 #12 & 1 #12 GRD – 3/4"C
18	20	1	0.5	–	STAIR LTG (BACK)	2 #10 & 1 #10 GRD – 3/4"C
19	20	1	0.2	–	STAIR LTG (BY BOILER RM)	2 #10 & 1 #10 GRD – 3/4"C
20	20	1	0.2	–	FIRE ALARM CONTROL PANEL	2 #10 & 1 #10 GRD – 3/4"C
21	20	1	0.3	–	CANOPY LTG.	2 #8 & 1 #10 GRD – 1"C
22	20	1	0.2	–	TIME CLOCK	2 #12 & 1 #12 GRD – 3/4"C
23	20	1	1.1	–	MULTIPURPOSE RM LTG.	2 #8 & 1 #10 GRD – 1"C
24	20	1	0.8	–	FACULTY LTG.	2 #8 & 1 #10 GRD – 1"C
25	20	1	1.8	–	MULTIPURPOSE RM LTG.	2 #8 & 1 #10 GRD – 1"C
26	20	1	–	–	SPARE	–
27	20	1	–	–	SPARE	–
28	20	1	–	–	SPARE	–
			88.6	TOTAL CONNECTED LOAD		

IF ALTERNATE #2 (GENERATOR IS ACCEPTED), CONNECT CIRCUITS TO PANEL SP1 AND LABEL SPARE

IF ALTERNATE #2 (GENERATOR IS ACCEPTED), CONNECT CIRCUITS TO PANEL SP1 AND LABEL SPARE

ALTERNATE #2

PANELBOARD 'SPB' (2 SECTION)

208/120V, 3ø, 4W, S/N, SURFACE, 225A MAIN LUGS ONLY, 22 KAIC, INTERNALLY MOUNTED SPD 120KA

CKT. NO.	CIRCUIT BREAKER		LOAD		CIRCUIT DESCRIPTION	WIRE & CONDUIT
	AMPS	POLES	KVA	HP		
1	20	3	0.2	–	HWH-1	3 #12 & 1 #12 GRD – 3/4"C
2	20	1	0.2	–	UH-1	2 #12 & 1 #12 GRD – 3/4"C
3	20	1	1.5	–	(E) BOILER 1	2 #12 & 1 #12 GRD – 3/4"C
4	20	1	1.5	–	(E) BOILER 2	2 #12 & 1 #12 GRD – 3/4"C
5	15	3	2.1	1.5	HWP-1	3 #12 & 1 #12 GRD – 3/4"C
6	15	3	2.1	1.5	HWP-2	3 #12 & 1 #12 GRD – 3/4"C
7	20	1	0.4	–	VERIZON SERV. EQUIP. REC.	2 #12 & 1 #12 GRD – 3/4"C
8	20	1	0.5	–	(E) VERIZON PNLS.	2 #12 & 1 #12 GRD – 3/4"C
9	20	1	0.5	–	(E) VERIZON PNLS.	2 #12 & 1 #12 GRD – 3/4"C
10	20	1	0.5	–	(E) VERIZON PNLS.	2 #12 & 1 #12 GRD – 3/4"C
11	20	1	0.5	–	(E) VERIZON PNLS.	2 #12 & 1 #12 GRD – 3/4"C
12	20	1	0.8	–	CORR. LTG. CLRMS 99-104	2 #12 & 1 #12 GRD – 3/4"C
13	20	1	1.2	–	CORR. LTG. CLRMS 105-110	2 #10 & 1 #10 GRD – 3/4"C
* 14	30	3	5.0	–	(E) WALK IN FREEZER – COND.	3 #10 & 1 #10 GRD – 3/4"C
* 15	15	3	2.0	–	(E) WALK IN COOLER – COND.	3 #12 & 1 #12 GRD – 3/4"C
* 16	20	2	1.0	–	(E) WALK IN COOLER – EVAP.	2 #12 & 1 #12 GRD – 3/4"C
* 17	20	2	1.0	–	(E) WALK IN FREEZER – EVAP.	2 #12 & 1 #12 GRD – 3/4"C
* 18	20	1	0.5	–	(E) WALK IN LIGHTING	2 #12 & 1 #12 GRD – 3/4"C
19	20	1	0.5	–	STAIR LTG (BY MECH/ELEC RM)	2 #12 & 1 #12 GRD – 3/4"C
20	20	1	0.2	–	REC. SERVER RM EQ. IN BOIL. RM	2 #12 & 1 #12 GRD – 3/4"C
21	20	1	0.2	–	BOILER 3	2 #12 & 1 #12 GRD – 3/4"C
22	20	1	0.2	–	ASCO CONTACTOR	2 #12 & 1 #12 GRD – 3/4"C
23	20	3	2.1	–	BC-1	3 #12 & 1 #12 GRD – 3/4"C
24	20	3	2.1	–	(E) BOILER 1 PUMP	3 #12 & 1 #12 GRD – 3/4"C
25	20	3	2.1	–	(E) BOILER 2 PUMP	3 #12 & 1 #12 GRD – 3/4"C
26	20	2	–	–	SPARE	–
27	20	2	–	–	SPARE	–
28	20	1	–	–	SPARE	–
29	20	1	–	–	SPARE	–
30	20	1	–	–	SPARE	–
31	20	1	–	–	SPARE	–
32	20	1	–	–	SPARE	–
33	20	1	–	–	SPARE	–
34	20	1	–	–	SPARE	–
35	20	1	–	–	SPARE	–
36	20	1	–	–	SPARE	–
37	20	1	–	–	SPARE	–
38	20	1	–	–	SPARE	–
39-65	–	1	–	–	SPACE	–
			28.9	TOTAL CONNECTED LOAD		

* CIRCUITING AS REQUIRED FOR EXISTING WALK-IN COOLER AND FREEZER, FIELD EVALUATE ADJUST CIRCUIT BREAKER AND FEEDER SIZES AS REQUIRED TO MATCH EXISTING.

IF ALTERNATE #2 (GENERATOR IS NOT ACCEPTED) CONNECT CIRCUITS TO PANEL PPA

IF ALTERNATE #2 (GENERATOR IS NOT ACCEPTED) CONNECT CIRCUITS TO PANEL PPA

IF ALTERNATE #2 (GENERATOR IS NOT ACCEPTED) CONNECT CIRCUITS TO PANEL PPA

PANELBOARD 'SP1'

208/120V, 3ø, 4W, S/N, SURFACE, 400A MAIN LUGS ONLY, 22 KAIC, INTERNALLY MOUNTED SPD 120 KA

CKT. NO.	CIRCUIT BREAKER		LOAD		CIRCUIT DESCRIPTION	WIRE & CONDUIT
	AMPS	POLES	KVA	HP		
1	150	3	28.9	–	PANEL SPB	SEE SIGNLE LINE DIAGRAM
2	150	3			SPARE	
3	60	3			SPARE	
4	60	3			SPARE	
5	20	1	1.2	–	CORR. LTG. CLRMS 200-207	2 #10 & 1 #10 GRD – 3/4"C
6	20	1	1.0	–	CORR. LTG. MAIN OFF,CLRMS 1-2	2 #8 & 1 #8 GRD – 1"C
7	20	1	1.4	–	CORR. LTG. CLRMS 208-216	2 #10 & 1 #10 GRD – 3/4"C
8	20	1	0.7	–	CORR. LTG RMS 300-305	2 #12 & 1 #12 GRD – 3/4"C
9	20	1	0.4	–	(E) REC. SERVER ROOM	2 #12 & 1 #12 GRD – 3/4"C
10	20	1	0.4	–	(E) REC. SERVER ROOM	2 #12 & 1 #12 GRD – 3/4"C
11	20	1	0.4	–	(E) REC. SERVER ROOM	2 #12 & 1 #12 GRD – 3/4"C
12	20	1	0.5	–	(E) SERVER RM CONT. PNL	2 #12 & 1 #12 GRD – 3/4"C
13	20	1	0.5	–	(E) SERVER RM CONT. PNL.	2 #12 & 1 #12 GRD – 3/4"C
14	20	1	0.5	–	(E) SERVER RM CONT. PNL.	2 #12 & 1 #12 GRD – 3/4"C
15	20	1	0.5	–	(E) SERVER RM CONT. PNL.	2 #12 & 1 #12 GRD – 3/4"C
16	20	1	0.5	–	(E) SERVER RM CONT. PNL.	2 #12 & 1 #12 GRD – 3/4"C
17	20	1	0.5	–	(E) SERVER RM CONT. PNL.	2 #12 & 1 #12 GRD – 3/4"C
18	20	1	0.5	–	STAIR LTG (BACK)	2 #10 & 1 #10 GRD – 3/4"C
19	20	1	0.2	–	STAIR LTG (BY BOILER RM)	2 #10 & 1 #10 GRD – 3/4"C
20	20	1	0.2		FIRE ALARM CONTROL PANEL	2 #10 & 1 #10 GRD – 3/4"C
21	20	1	0.3		CANOPY LTG.	2 #8 & 1 #10 GRD – 1"C
22	20	2	2.0	–	GENERATOR BLOCK HTR	2 #12 & 1 #12 GRD – 3/4"C
23	20	2	–	–	SPARE	–
24	20	1	1.1	–	MULTIPURPOSE RM LTG.	2 #8 & 1 #10 GRD – 1"C
25	20	1	0.8	–	FACULTY LTG.	2 #8 & 1 #10 GRD – 1"C
26	20	1	1.8	–	MULTIPURPOSE RM LTG.	2 #8 & 1 #10 GRD – 1"C
27	20	1	0.5	–	MAIN OFFICE/PRIN. LTG.	2 #8 & 1 #10 GRD – 1"C
28	20	1	1.1	–	MAIN OFFICE RECEPS.	2 #8 & 1 #10 GRD – 1"C
29	20	1	1.1	–	MAIN/OFFICE PRIN. OFFICE REC.	2 #8 & 1 #10 GRD – 1"C
30	20	1	–	–	SPARE	–
31	20	1	–	–	SPARE	–
32	20	1	–	–	SPARE	–
			47.0	TOTAL CONNECTED LOAD		

IF ALTERNATE #2 (GENERATOR IS NOT ACCEPTED) CONNECT CIRCUITS TO PANEL PP1B

IF ALTERNATE #2 (GENERATOR IS NOT ACCEPTED) CONNECT CIRCUITS TO PANEL PP1B

IF ALTERNATE #2 (GENERATOR IS NOT ACCEPTED) CONNECT CIRCUITS TO PANEL PP1B

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NJDOE PROJECT NUMBERS
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ROOF- 2670-040-23-R501

NJSDA PROJECT NUMBERS
HVAC- 2670-040-23-G5KN
ROOF- 2670-050-23-G5KM

NJSDA GRANT NUMBERS
HVAC- G5-6677
ROOF- G5-6676

PROJECT TITLE:
BUILDING RENOVATION LINDENWOLD SCHOOL #4

ADDRESS:
LINDENWOLD SCHOOL #4
BLOCK 64, LOT 1; BLOCK 65, LOT 1 & BLOCK 66, LOT 1
900 EAST GIBBSBORO ROAD
LINDENWOLD, NJ 08021

PROJECT NO.: 5743F, H, O

SUBMISSION DATE:

REVISION DATE: 1 18 FEB 2025

DRAWING DATE: 18 OCT 2024

PRINT DATE: 18 OCT 2024

DRAWN BY: LA

SHEET TITLE: PANEL SCHEDULES - ELECTRICAL

E-300

HVAC DEMOLITION KEY NOTES

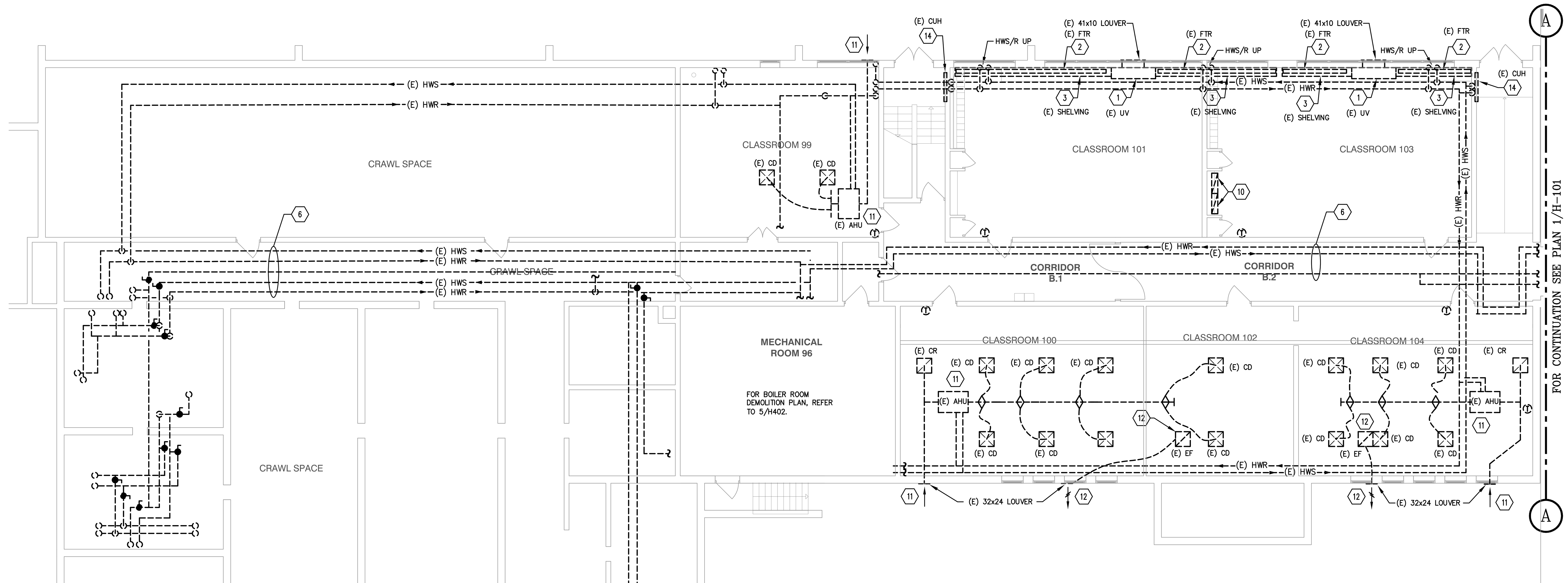
1. (E) UV AND ASSOCIATED LOUVER, WALL SLEEVE, HWS/R PIPING, THERMOSTAT, CONTROLS AND SUPPORTS SHALL BE REMOVED IN THEIR ENTIRETY. (E) WALL OPENING SHALL BE MODIFIED TO ACCOMMODATE NEW UV WALL LOUVER. PATCH UNUSED WALL OPENING PER ARCHITECTURAL DETAILS.
2. (E) FTR AND ASSOCIATED PIPING, VALVES, ENCLOSURE & APPURTENANCES SHALL BE REMOVED IN THEIR ENTIRETY. PATCH AND PAINT WALL/FLOOR TO MATCH EXISTING.
3. (E) CLASSROOM SHELVING SHALL BE REMOVED BY ASBESTOS ABATEMENT SUBCONTRACTOR. REFER TO ASBESTOS ABATEMENT SPECIFICATION FOR ADDITIONAL INFORMATION AND EXACT LOCATIONS.
4. (E) RECESSED WALL CUH, HWS/R PIPING, ASSOCIATED CONTROLS, SUPPORTS & APPURTENANCES SHALL BE DEMOLISHED IN THEIR ENTIRETY. INFILL AND PAINT WALL PER ARCHITECTURAL DETAILS AND SPECIFICATIONS.
5. (E) CEILING MOUNTED CUH, HWS/R PIPING, ASSOCIATED CONTROLS, SUPPORTS & APPURTENANCES SHALL BE DEMOLISHED IN THEIR ENTIRETY. PATCH/FILL-IN (E) CEILING GRID TO MATCH ADJACENT. PROVIDE NEW T BAR AND CEILING TILES AS REQUIRED.
6. (E) HWS/R DISTRIBUTION PIPING TO BE REMOVED IN ITS ENTIRETY, INCLUDE BRANCH PIPING UNLESS SPECIFIED.
7. (E) TRANSFER GRILLE AND ASSOCIATED DUCTWORK SHALL BE REMOVED IN THEIR ENTIRETY. INFILL AND PAINT WALL PER ARCHITECTURAL DETAILS AND SPECIFICATIONS.
8. (E) WINDOW AC UNIT SHALL REMAIN IN SERVICE.
9. (E) DUCTLESS INDOOR AC UNIT AND ASSOCIATED ROOF MOUNTED CONDENSING UNIT, CONTROLS, REFRIGERANT PIPING AND SUPPORTS SHALL BE REMOVED IN THEIR ENTIRETY. RECOVER REFRIGERANT PER LATEST EPA/DEP STANDARDS PRIOR TO DEMOLITION WORK. PATCH AND PAINT WALL PER ARCHITECTURAL DETAILS AND SPECIFICATIONS.
10. (E) TRANSFER GRILLES TO REMAIN. FOLLOW ARCHITECTURAL DETAILS AND SPECIFICATIONS.
11. (E) AHU, ASSOCIATED CONTROLS, AIR DEVICES, DUCTWORK, HWS/R PIPING, AND APPURTENANCES SHALL BE DEMOLISHED IN THEIR ENTIRETY. (E) LOUVER SHALL BE REMOVED. PATCH (E) WALL OPENING PER ARCHITECTURAL DETAILS AND SPECIFICATIONS.
12. (E) EXHAUST FAN AND ASSOCIATED GRILLES, DUCTWORK AND CONTROLS SHALL BE REMOVED. ASSOCIATED LOUVER SHALL BE REMOVED. PATCH (E) WALL OPENING PER ARCHITECTURAL DETAILS AND SPECIFICATIONS.
13. (E) DUCT HEATER AND ASSOCIATED DUCTWORK, SUPPORTS, CONTROLS AND APPURTENANCES SHALL BE DEMOLISHED IN THEIR ENTIRETY.
14. (E) RECESSED WALL CUH, HWS/R PIPING, ASSOCIATED CONTROLS, SUPPORTS & APPURTENANCES SHALL BE DEMOLISHED IN THEIR ENTIRETY.
15. (E) TRANSFER GRILLE AND ASSOCIATED DUCTWORK SHALL BE REMOVED IN THEIR ENTIRETY. REUTILIZE (E) WALL OPENING.
16. (E) FTR SHALL BE ABANDONED IN PLACE. REMOVE (E) CONTROLS AND CAP HWS/R PIPING BACK TO MAINS WATER TIGHT. PATCH (E) WALL/FLOOR OPENINGS PER ARCHITECTURAL DETAILS AND SPECIFICATIONS.

1

HVAC DEMOLITION GENERAL NOTES

1. (E) CEILINGS WILL BE REMOVED AND REPLACED WITH NEW AS INDICATED BY ARCHITECTURAL DRAWINGS. IN ALL OTHER CASES, CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE (E) CEILINGS AS REQUIRED TO INSTALL NEW WORK, TEMPORARILY STORE (E) MATERIALS DURING INSTALLATION OF NEW WORK, AND REINSTALL WHEN NEW WORK IS COMPLETE.
2. DEMOLITION OF DUCTWORK SHALL INCLUDE REMOVAL OF ALL ASSOCIATED INSULATION, AIR DEVICES, DAMPERS, HANGERS AND APPURTANCES. AFTER REMOVAL, ALL WALL/PARTITION/SLAB OPENINGS SHALL BE INFILLED AND FINISHED WITH MATERIALS THAT MATCH EXISTING.
3. DEMOLITION OF PIPING SHALL INCLUDE THE REMOVAL OF ALL ASSOCIATED INSULATION, VALVES, SPECIALTIES, HANGERS AND APPURTANCES. AFTER REMOVAL, ALL WALL/PARTITION/SLAB OPENINGS SHALL BE INFILLED AND FINISHED WITH MATERIALS THAT MATCH EXISTING.
4. DEMOLITION OF CONTROLS THROUGHOUT THE RENOVATED SPACES SHALL INCLUDE REMOVAL OF (E) DEVICES, PANELS, TUBING, WIRING, AIR SUPPLY ETC. PATCH/REFINISH WALL AFTER REMOVALS TO MATCH (E) CONSTRUCTION. NOTE THAT (E) CONTROLS IN UNRENOVATED SPACES SHALL REMAIN IN SERVICE.
5. DEMOLITION OF EQUIPMENT SHALL INCLUDE REMOVAL OF ALL ASSOCIATED SUPPORTS, HANGERS, PADS CONTROLS, STARTERS, POWER CIRCUITS, ETC.
6. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF CEILINGS THAT WILL BE REMOVED AND REPLACED IN THEIR ENTIRETY. FOR ALL OTHER SPACES, THE CONTRACTOR SHALL BE RESPONSIBLE TO TEMPORARILY REMOVE AND REPLACE (E) CEILING CONSTRUCTION AS REQUIRED FOR INSTALLATION OF NEW WORK. WHEREVER PARTIAL OR OUTRIGHT REMOVAL OF CEILINGS IS REQUIRED, CONTRACTOR SHALL BE RESPONSIBLE TO PROPERLY SUPPORT (E) WORK AS SPECIFIED FOR NEW.
7. CONTRACTOR SHALL BE RESPONSIBLE TO REROUTE (E) WORK AS REQUIRED TO ACCOMMODATE INSTALLATION OF NEW WORK.
8. REMOVE AND REPLACE HVAC CEILING DEVICES AS REQUIRED TO FACILITATE THE INSTALLATION OF NEW CEILINGS

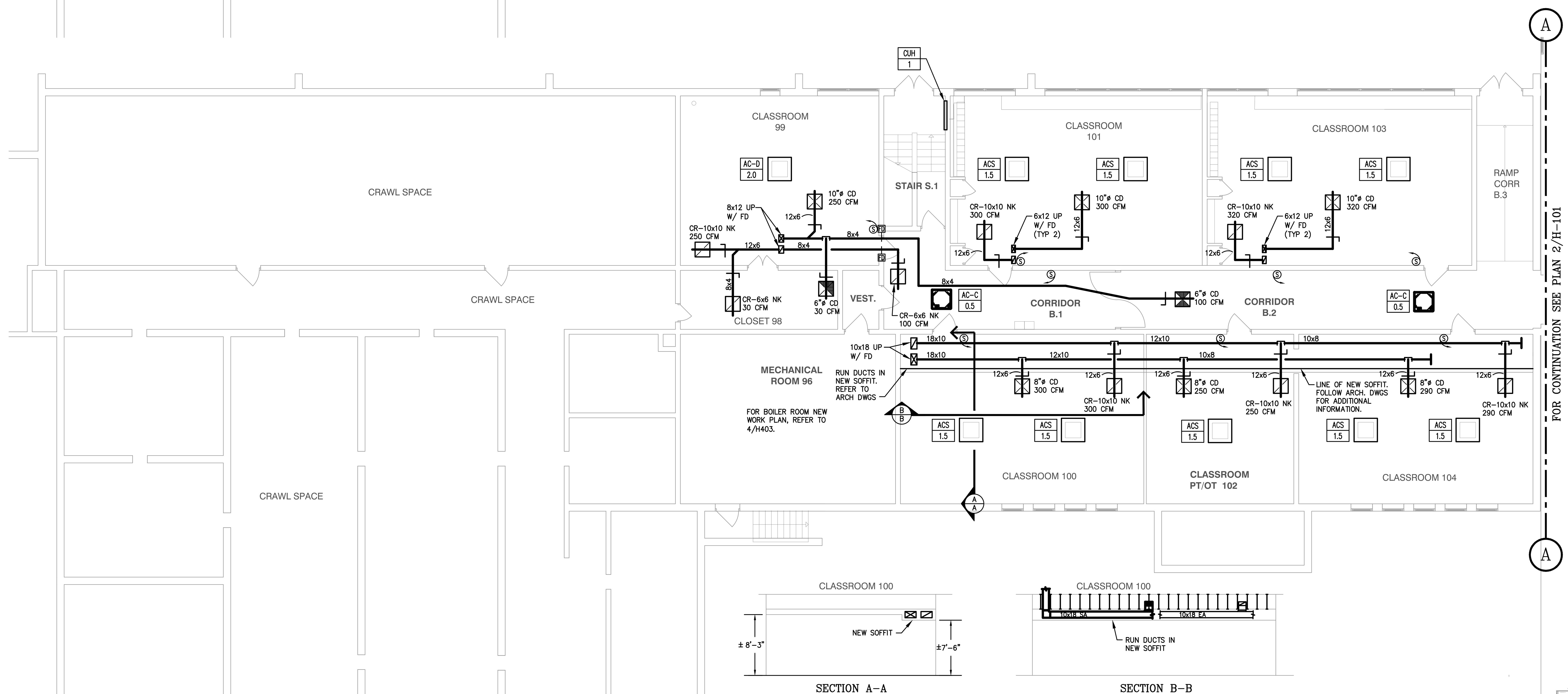
1



1 / H100 **BASEMENT FLOOR PLAN LEVEL 1 – HVAC DEMOLITION**

SCALE 1/8" = 1'-0"

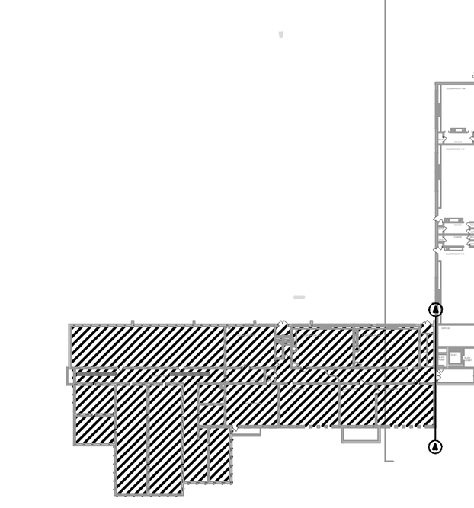
NOTE:
ALL DEMOLISHED DUCTS AND OTHER PENETRATIONS SHALL BE INFILLED WITH SAME MATERIAL AS ADJACENT CONSTRUCTION.



2 / H100 **BASEMENT FLOOR PLAN LEVEL 1 – NEW HVAC DUCTWORK**

SCALE 1/8" = 1'-0"

NOTES:
1. FIELD MEASURE EACH CLASSROOM TO ENSURE PROPER QUANTITIES AND MEASUREMENTS OF NEW UNDER-WINDOW SHELVING AND FILLER SECTIONS. FOLLOW ARCHITECTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
2. COORDINATE FINAL LOCATION OF NEW SPACE MOUNTED CONTROL SENSORS WITH EXISTING CONDITIONS.



KEY PLAN

THIS DRAWING FORMATTED TO BE PRINTED FULL SIZE AT 30" x 42" - DO NOT SCALE DRAWINGS

February 14, 2025 12:19:46 p.m.
Drawing: 3126 – H-100.DWG

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NJSDA PROJECT NUMBERS
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ROOF- 2670-050-23-G5KM

NJSDA GRANT NUMBERS
HVAC- G5-6677
ROOF- G5-6676

PROJECT TITLE:
BUILDING RENOVATION LINDENWOLD SCHOOL #4

ADDRESS:
LINDENWOLD SCHOOL #4
BLOCK 64, LOT 1; BLOCK 65, LOT 1 & BLOCK 66, LOT 1
900 EAST GIBBSBORO ROAD
LINDENWOLD, NJ 08021

PROJECT NO.:	5743F, H, O
SUBMISSION DATE:	
REVISION DATE:	1 18 FEB 2025
DRAWING DATE:	18 OCT 2024
PRINT DATE:	18 OCT 2024
DRAWN BY:	SLB
SHEET TITLE:	BASEMENT FLOOR PLANS LEVEL 1 - HVAC

H-100

HVAC DEMOLITION KEY NOTES

1. (E) UV AND ASSOCIATED LOUVER, WALL SLEEVE, HWS/R PIPING, THERMOSTAT, CONTROLS AND SUPPORTS SHALL BE REMOVED IN THEIR ENTIRETY. (E) WALL OPENING SHALL BE MODIFIED TO ACCOMMODATE NEW UV WALL LOUVER. PATCH UNUSED WALL OPENING PER ARCHITECTURAL DETAILS.
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6. (E) HWS/R DISTRIBUTION PIPING TO BE REMOVED IN ITS ENTIRETY, INCLUDE BRANCH PIPING UNLESS SPECIFIED.
7. (E) TRANSFER GRILLE AND ASSOCIATED DUCTWORK SHALL BE REMOVED IN THEIR ENTIRETY. INFILL AND PAINT WALL PER ARCHITECTURAL DETAILS AND SPECIFICATIONS.
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9. (E) DUCTLESS INDOOR AC UNIT AND ASSOCIATED ROOF MOUNTED CONDENSING UNIT, CONTROLS, REFRIGERANT PIPING AND SUPPORTS SHALL BE REMOVED IN THEIR ENTIRETY. RECOVER REFRIGERANT PER LATEST EPA/DEP STANDARDS PRIOR TO DEMOLITION WORK. PATCH AND PAINT WALL PER ARCHITECTURAL DETAILS AND SPECIFICATIONS.
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16. (E) FTR SHALL BE ABANDONED IN PLACE. REMOVE (E) CONTROLS AND CAP HWS/R PIPING BACK TO MAINS WATER TIGHT. PATCH (E) WALL/FLOOR OPENINGS PER ARCHITECTURAL DETAILS AND SPECIFICATIONS.

HVAC DEMOLITION GENERAL NOTES

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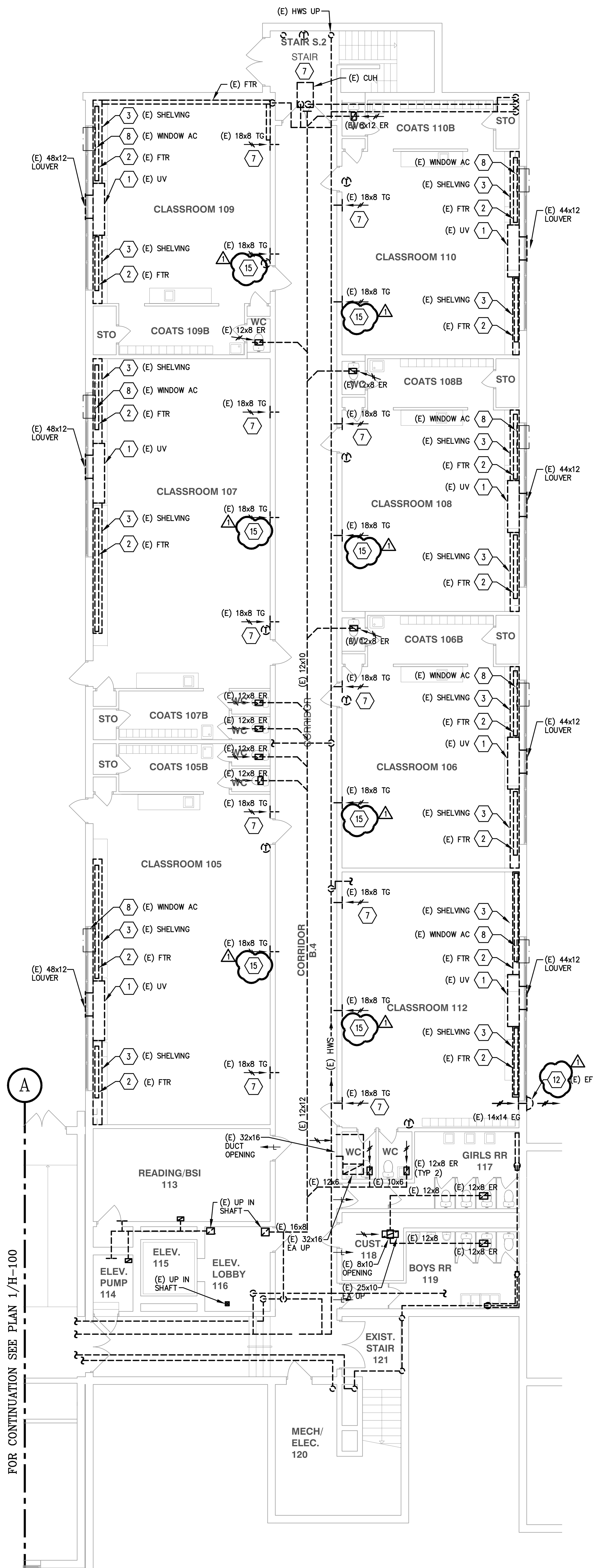
8. REMOVE AND REPLACE HVAC CEILING DEVICES AS REQUIRED TO FACILITATE THE INSTALLATION OF NEW CEILINGS



1 / H101 — BASEMENT FLOOR PLAN LEVEL 2 – HVAC DEMOLITION

SCALE 1/8" = 1'-0"

NOTE:
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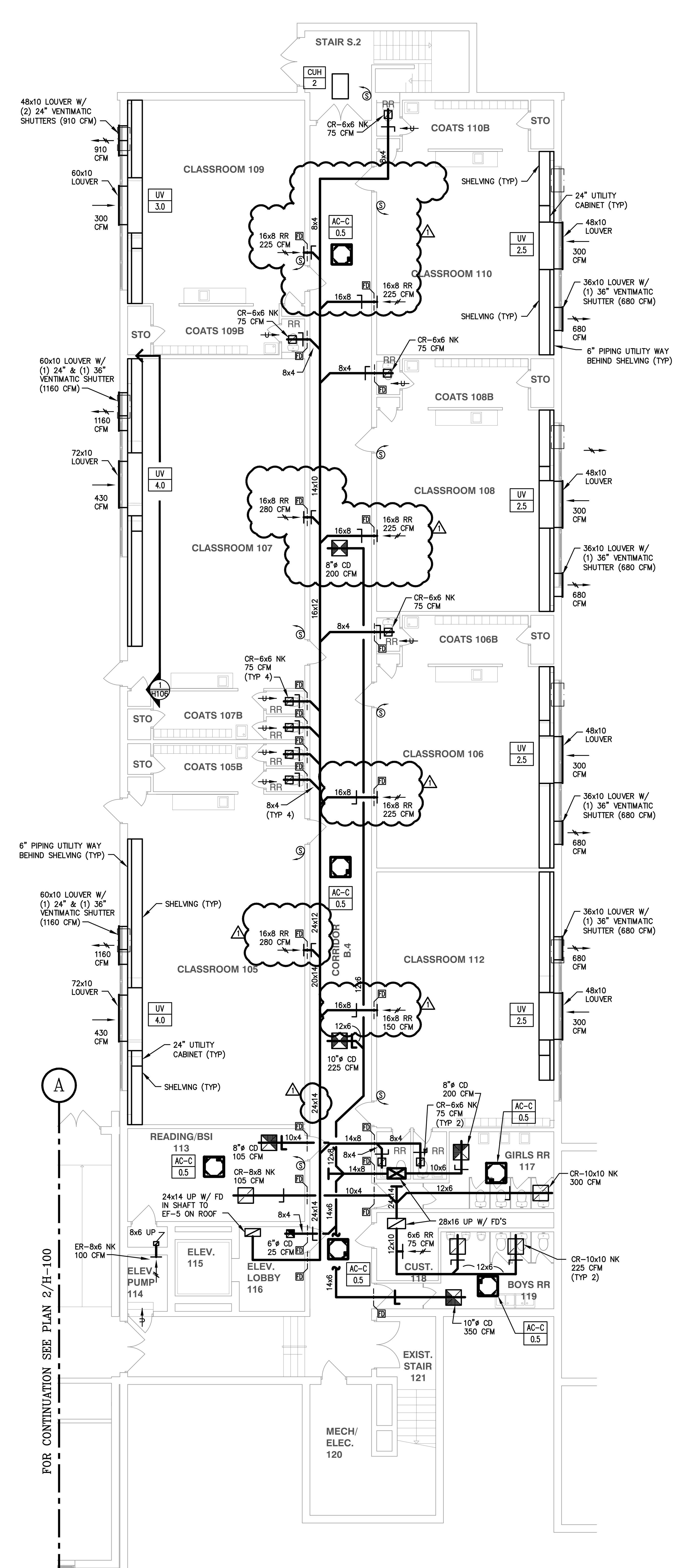

2 / H101 — BASEMENT FLOOR PLAN LEVEL 2 – NEW HVAC DUCTWORK

SCALE 1/8" = 1'-0"

NOTES:
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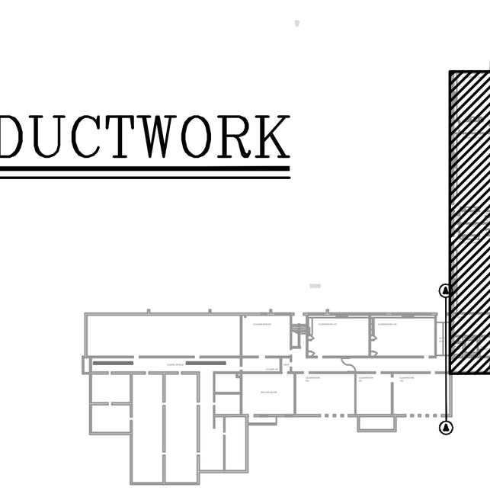

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ADDRESS:
LINDENWOLD SCHOOL #4
BLOCK 64, LOT 1; BLOCK 65, LOT 1 & BLOCK 66, LOT 1
900 EAST GIBBSBORO ROAD
LINDENWOLD, NJ 08021

PROJECT NO.: 5743F, H, O

SUBMISSION DATE:
REVISION DATE: (1) 18 FEB 2025

DRAWING DATE: 18 OCT 2024
PRINT DATE: 18 OCT 2024
DRAWN BY: SLB
SHEET TITLE: BASEMENT FLOOR PLANS LEVEL 2 - HVAC

H-101

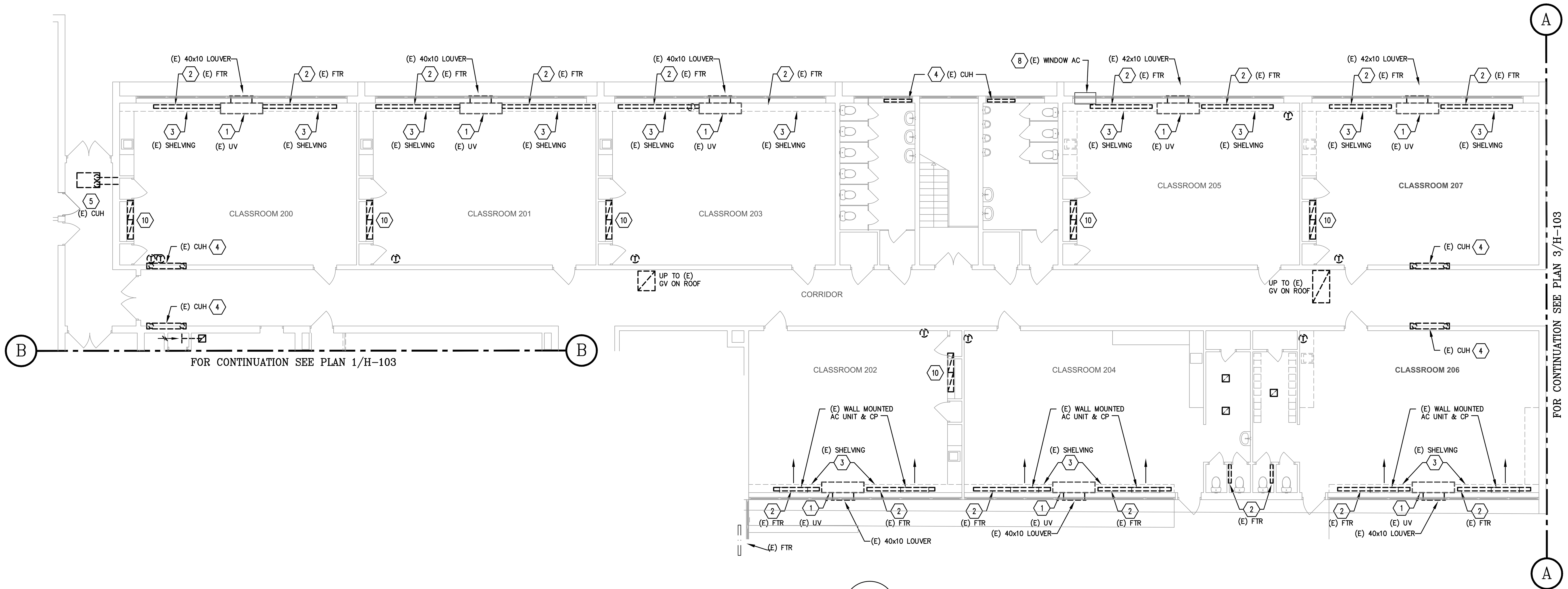
February 14, 2025 12:21:05 p.m.
Drawing: 3126 – H-101.DWG

HVAC DEMOLITION KEY NOTES

1. (E) UV AND ASSOCIATED LOUVER, WALL SLEEVE, HWS/R PIPING, THERMOSTAT, CONTROLS AND SUPPORTS SHALL BE REMOVED IN THEIR ENTIRETY. (E) WALL OPENING SHALL BE MODIFIED TO ACCOMMODATE NEW UV WALL LOUVER. PATCH UNUSED WALL OPENING PER ARCHITECTURAL DETAILS.
2. (E) FTR AND ASSOCIATED PIPING, VALVES, ENCLOSURE & APPURTENANCES SHALL BE REMOVED IN THEIR ENTIRETY. PATCH AND PAINT WALL/FLOOR TO MATCH EXISTING.
3. (E) CLASSROOM SHELVING SHALL BE REMOVED BY ASBESTOS ABATEMENT SUBCONTRACTOR. REFER TO ASBESTOS ABATEMENT SPECIFICATION FOR ADDITIONAL INFORMATION AND EXACT LOCATIONS.
4. (E) RECESSED WALL CUH, HWS/R PIPING, ASSOCIATED CONTROLS, SUPPORTS & APPURTENANCES SHALL BE DEMOLISHED IN THEIR ENTIRETY. INFILL AND PAINT WALL PER ARCHITECTURAL DETAILS AND SPECIFICATIONS.
5. (E) CEILING MOUNTED CUH, HWS/R PIPING, ASSOCIATED CONTROLS, SUPPORTS & APPURTENANCES SHALL BE DEMOLISHED IN THEIR ENTIRETY. PATCH/FILL-IN (E) CEILING GRID TO MATCH ADJACENT. PROVIDE NEW T BAR AND CEILING TILES AS REQUIRED.
6. (E) HWS/R DISTRIBUTION PIPING TO BE REMOVED IN ITS ENTIRETY, INCLUDE BRANCH PIPING UNLESS SPECIFIED.
7. (E) TRANSFER GRILLE AND ASSOCIATED DUCTWORK SHALL BE REMOVED IN THEIR ENTIRETY. INFILL AND PAINT WALL PER ARCHITECTURAL DETAILS AND SPECIFICATIONS.
8. (E) WINDOW AC UNIT SHALL REMAIN IN SERVICE.
9. (E) DUCTLESS INDOOR AC UNIT AND ASSOCIATED ROOF MOUNTED CONDENSING UNIT, CONTROLS, REFRIGERANT PIPING AND SUPPORTS SHALL BE REMOVED IN THEIR ENTIRETY. RECOVER REFRIGERANT PER LATEST EPA/DEP STANDARDS PRIOR TO DEMOLITION WORK. PATCH AND PAINT WALL PER ARCHITECTURAL DETAILS AND SPECIFICATIONS.
10. (E) TRANSFER GRILLES TO REMAIN. FOLLOW ARCHITECTURAL DETAILS AND SPECIFICATIONS.
11. (E) AHU, ASSOCIATED CONTROLS, AIR DEVICES, DUCTWORK, HWS/R PIPING, AND APPURTENANCES SHALL BE DEMOLISHED IN THEIR ENTIRETY. (E) LOUVER SHALL BE REMOVED. PATCH (E) WALL OPENING PER ARCHITECTURAL DETAILS AND SPECIFICATIONS.
12. (E) EXHAUST FAN AND ASSOCIATED GRILLES, DUCTWORK AND CONTROLS SHALL BE REMOVED. ASSOCIATED LOUVER SHALL BE REMOVED. PATCH (E) WALL OPENING PER ARCHITECTURAL DETAILS AND SPECIFICATIONS.
13. (E) DUCT HEATER AND ASSOCIATED DUCTWORK, SUPPORTS, CONTROLS AND APPURTENANCES SHALL BE DEMOLISHED IN THEIR ENTIRETY.
14. (E) RECESSED WALL CUH, HWS/R PIPING, ASSOCIATED CONTROLS, SUPPORTS & APPURTENANCES SHALL BE DEMOLISHED IN THEIR ENTIRETY.
15. (E) TRANSFER GRILLE AND ASSOCIATED DUCTWORK SHALL BE REMOVED IN THEIR ENTIRETY. REUTILIZE (E) WALL OPENING.
16. (E) FTR SHALL BE ABANDONED IN PLACE. REMOVE (E) CONTROLS AND CAP HWS/R PIPING BACK TO MAINS WATER TIGHT. PATCH (E) WALL/FLOOR OPENINGS PER ARCHITECTURAL DETAILS AND SPECIFICATIONS.

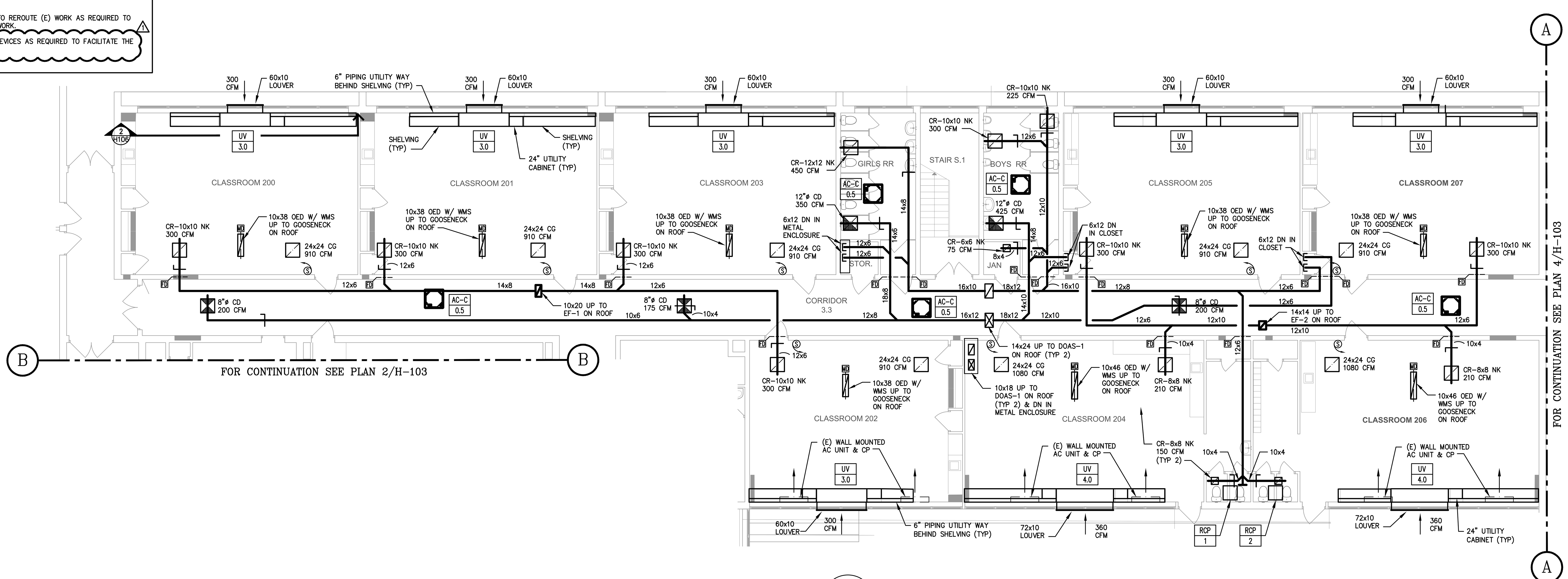
HVAC DEMOLITION GENERAL NOTES

1. (E) CEILINGS WILL BE REMOVED AND REPLACED WITH NEW AS INDICATED BY ARCHITECTURAL DRAWINGS. IN ALL OTHER CASES, CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE (E) CEILINGS AS REQUIRED TO INSTALL NEW WORK, TEMPORARILY STORE (E) MATERIALS DURING INSTALLATION OF NEW WORK, AND REINSTALL WHEN NEW WORK IS COMPLETE.
2. DEMOLITION OF DUCTWORK SHALL INCLUDE REMOVAL OF ALL ASSOCIATED INSULATION, AIR DEVICES, DAMPERS, HANGERS AND APPURTANCES. AFTER REMOVAL, ALL WALL/PARTITION/SLAB OPENINGS SHALL BE INFILLED AND FINISHED WITH MATERIALS THAT MATCH EXISTING.
3. DEMOLITION OF PIPING SHALL INCLUDE THE REMOVAL OF ALL ASSOCIATED INSULATION, VALVES, SPECIALTIES, HANGERS AND APPURTANCES. AFTER REMOVAL, ALL WALL/PARTITION/SLAB OPENINGS SHALL BE INFILLED AND FINISHED WITH MATERIALS THAT MATCH EXISTING.
4. DEMOLITION OF CONTROLS THROUGHOUT THE RENOVATED SPACES SHALL INCLUDE REMOVAL OF (E) DEVICES, PANELS, TUBING, WIRING, AIR SUPPLY ETC. PATCH/REFINISH WALL AFTER REMOVALS TO MATCH (E) CONSTRUCTION. NOTE THAT (E) CONTROLS IN UNRENOVATED SPACES SHALL REMAIN IN SERVICE.
5. DEMOLITION OF EQUIPMENT SHALL INCLUDE REMOVAL OF ALL ASSOCIATED SUPPORTS, HANGERS, PADS CONTROLS, STARTERS, POWER CIRCUITS, ETC.
6. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF CEILINGS THAT WILL BE REMOVED AND REPLACED IN THEIR ENTIRETY. FOR ALL OTHER SPACES, THE CONTRACTOR SHALL BE RESPONSIBLE TO TEMPORARILY REMOVE AND REPLACE (E) CEILING CONSTRUCTION AS REQUIRED FOR INSTALLATION OF NEW WORK. WHEREVER PARTIAL OR OUTRIGHT REMOVAL OF CEILINGS IS REQUIRED, CONTRACTOR SHALL BE RESPONSIBLE TO PROPERLY SUPPORT (E) WORK AS SPECIFIED FOR NEW.
7. CONTRACTOR SHALL BE RESPONSIBLE TO REROUTE (E) WORK AS REQUIRED TO ACCOMMODATE INSTALLATION OF NEW WORK.
8. REMOVE AND REPLACE HVAC CEILING DEVICES AS REQUIRED TO FACILITATE THE INSTALLATION OF NEW CEILINGS



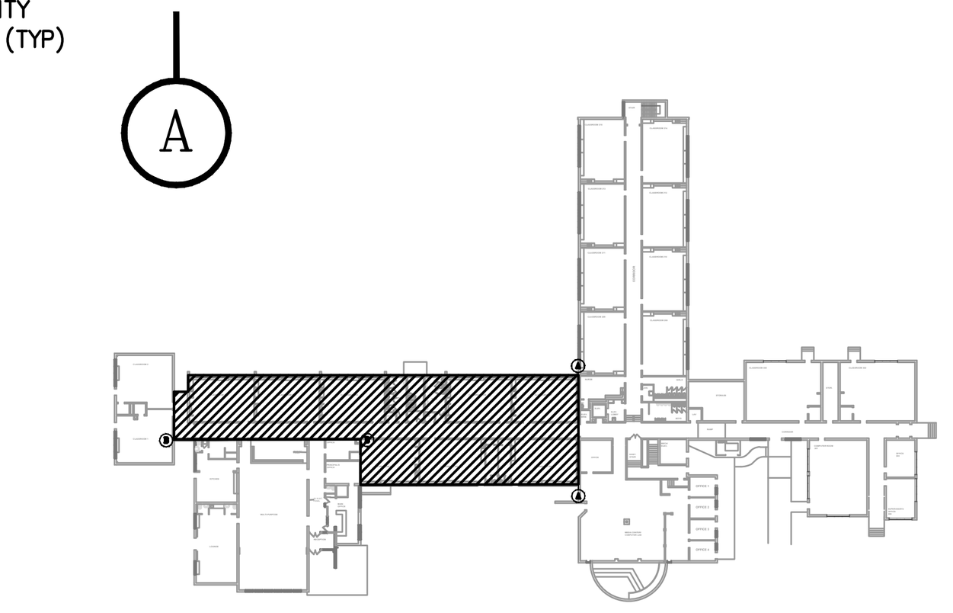
1 H102 FLOOR PLAN LEVEL 3 – HVAC DEMOLITION
SCALE 1/8" = 1'-0"

NOTE:
ALL DEMOLISHED DUCTS AND OTHER PENETRATIONS SHALL BE INFILLED WITH SAME MATERIAL AS ADJACENT CONSTRUCTION.



2 H102 FLOOR PLAN LEVEL 3 – NEW HVAC DUCTWORK
SCALE 1/8" = 1'-0"

NOTES:
1. FIELD MEASURE EACH CLASSROOM TO ENSURE PROPER QUANTITIES AND MEASUREMENTS OF NEW UNDER-WINDOW SHELVING AND FILLER SECTIONS. FOLLOW ARCHITECTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
2. COORDINATE FINAL LOCATION OF NEW SPACE MOUNTED CONTROL SENSORS WITH EXISTING CONDITIONS.



KEY PLAN

THIS DRAWING FORMATTED TO BE PRINTED FULL SIZE AT 30" x 42" - DO NOT SCALE DRAWINGS

KELTER & GILLIGO consulting engineers
P.O. BOX 777, 196 PRINCETON-HIGHTSTOWN RD.
PRINCETON JUNCTION NEW JERSEY 08550

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NJDOE PROJECT NUMBER
HVAC- 2670-040-23-R503
ROOF- 2670-040-23-R501

NJSDA PROJECT NUMBER
HVAC- 2670-040-23-G5KN
ROOF- 2670-050-23-G5KM

NJSDA GRANT NUMBERS
HVAC- G5-6677
ROOF- G5-6676

PROJECT TITLE:
BUILDING RENOVATIO LINDENWOLD SCHOO

ADDRESS:
LINDENWOLD SCHOOL #4
BLOCK 64, LOT 1; BLOCK 65, L
& BLOCK 66, LOT 1
900 EAST GIBBSBORO ROAD
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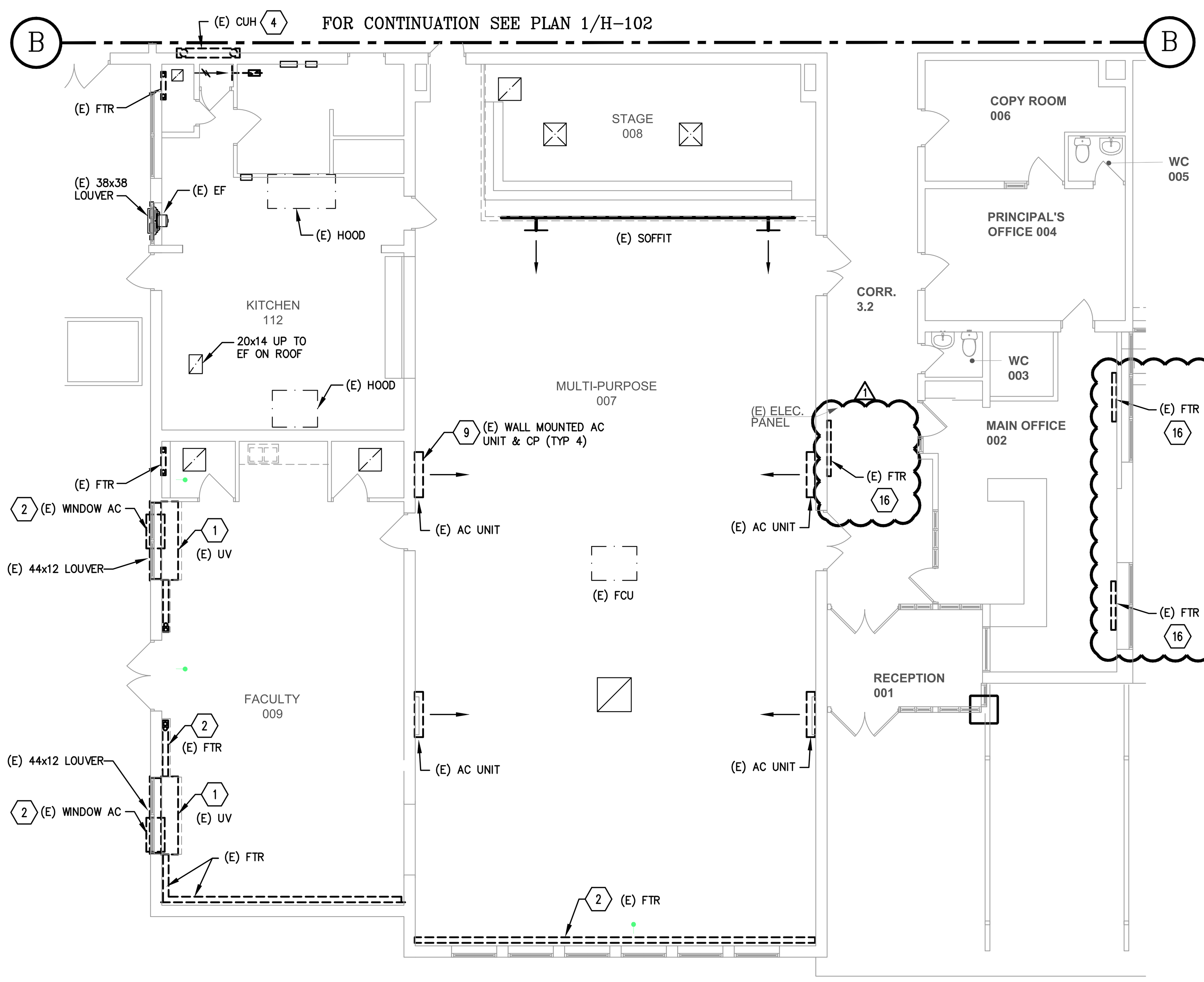
SHEET TITLE:	FLOOR PLAN LEVE HVAC

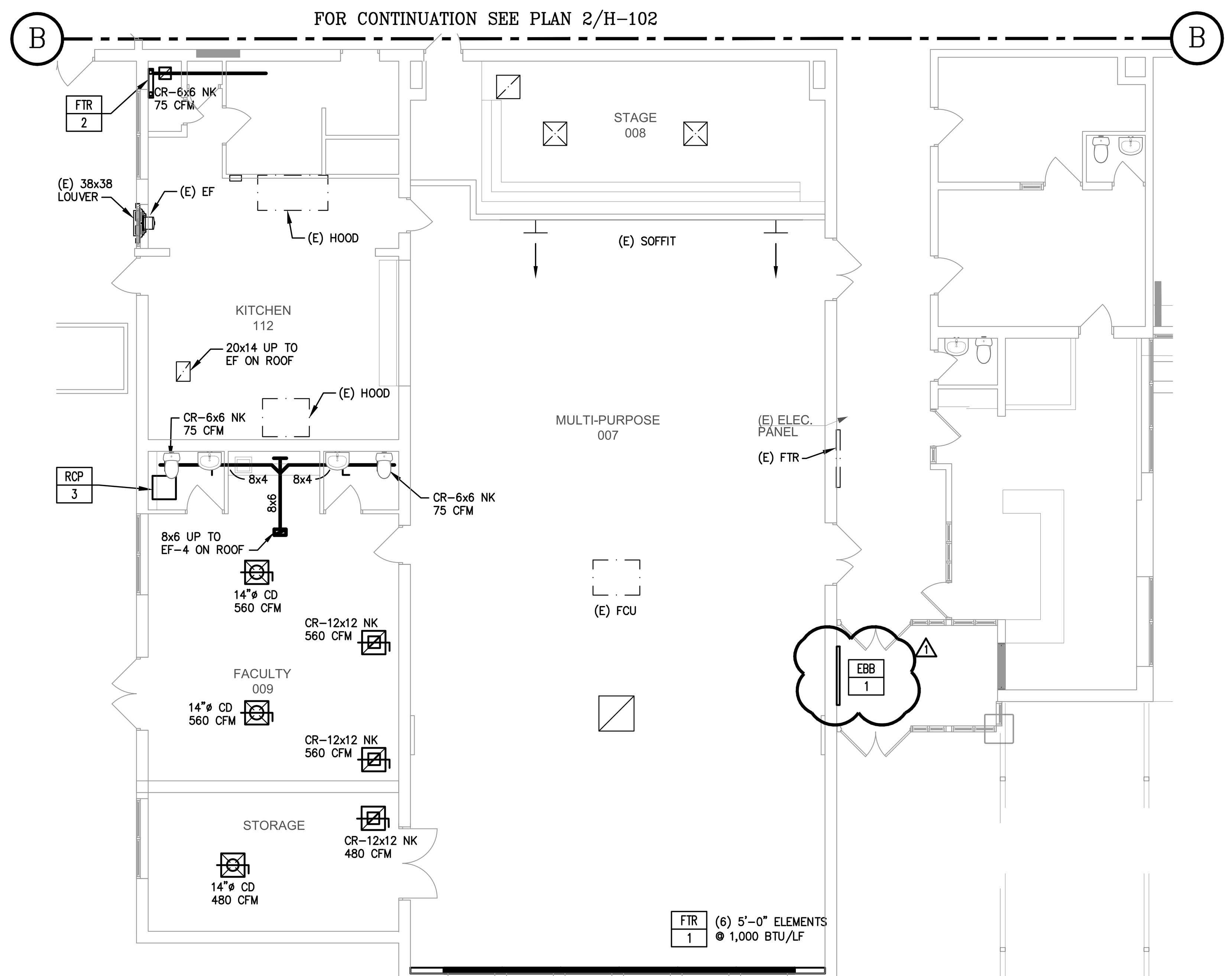
H-102



1 FLOOR PLAN LEVEL 3 – HVAC DEMOLITION
H103

SCALE 1/8" = 1'-0"

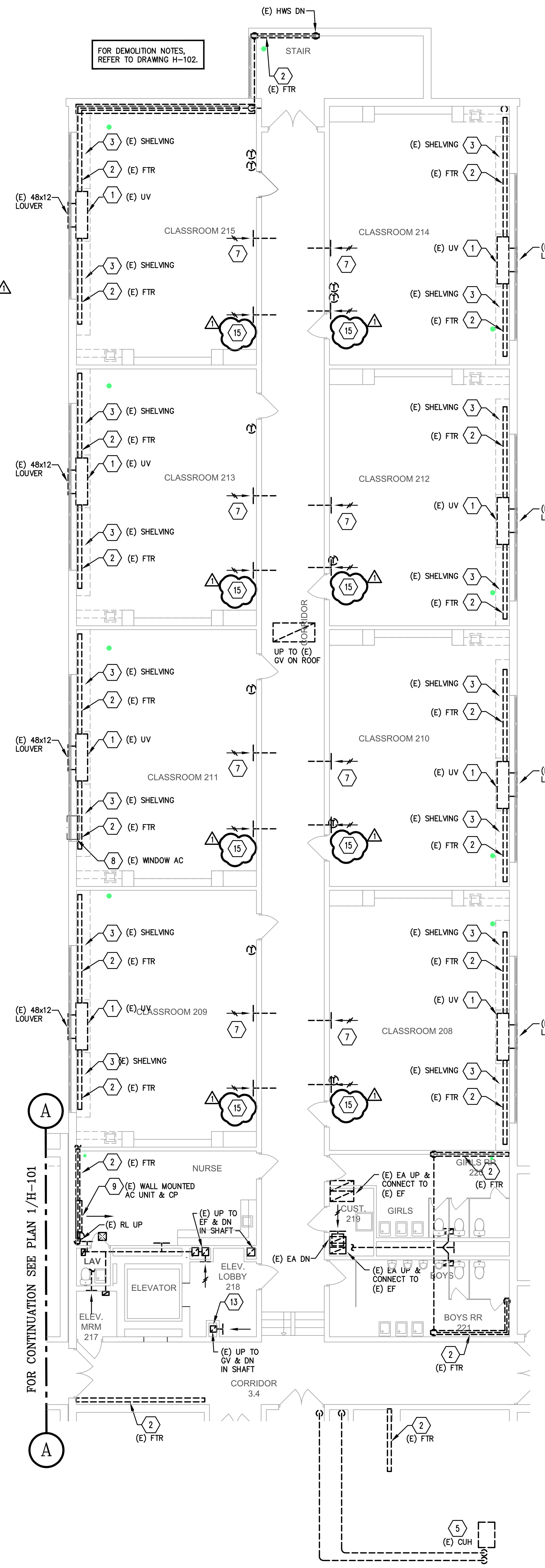
NOTE:
ALL DEMOLISHED DUCTS AND OTHER PENETRATIONS SHALL BE INFILLED WITH SAME MATERIAL AS ADJACENT CONSTRUCTION.



2 FLOOR PLAN LEVEL 3 – NEW HVAC DUCTWORK
H103

SCALE 1/8" = 1'-0"

NOTES:
1. FIELD MEASURE EACH CLASSROOM TO ENSURE PROPER QUANTITIES AND MEASUREMENTS OF NEW UNDER-WINDOW SHELVING AND FILLER SECTIONS. FOLLOW ARCHITECTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
2. COORDINATE FINAL LOCATION OF NEW SPACE MOUNTED CONTROL SENSORS WITH EXISTING CONDITIONS.

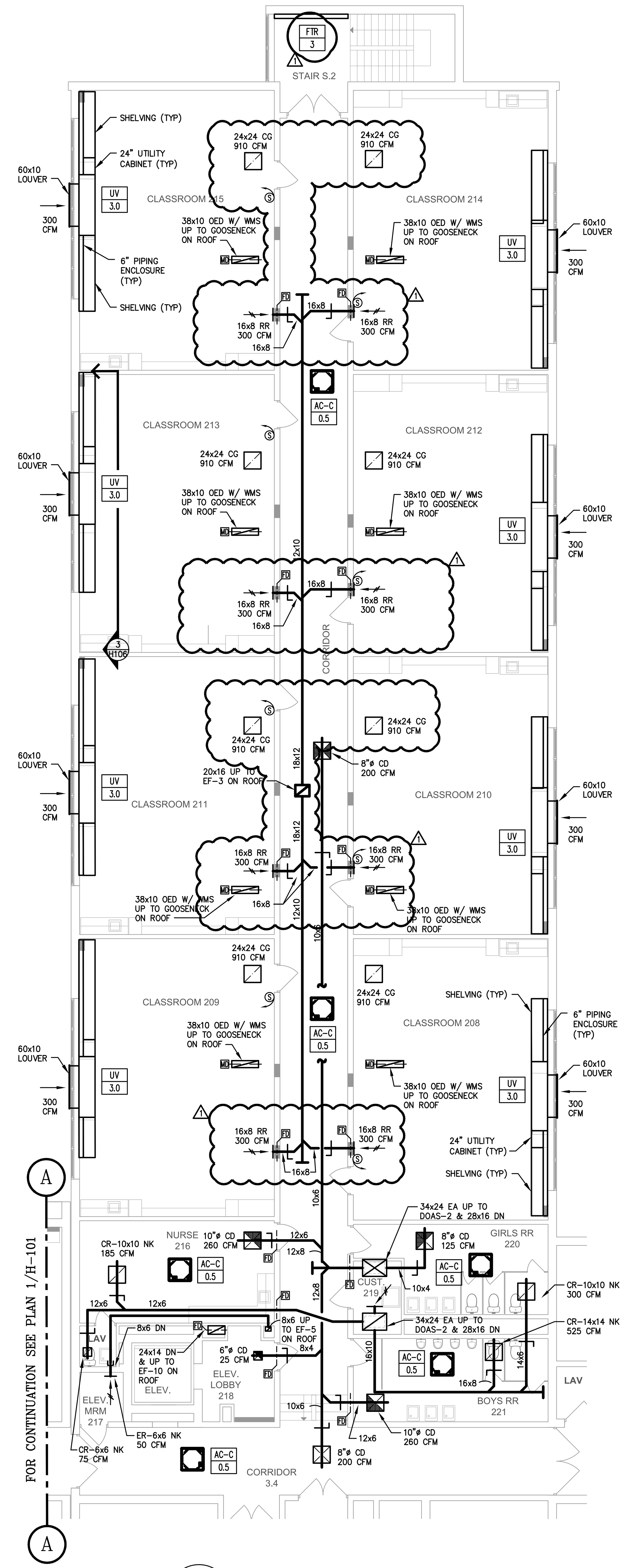


3 FLOOR PLAN LEVELS 3 & 4 – HVAC DEMOLITION
H103

SCALE 1/8" = 1'-0"

NOTE:
ALL DEMOLISHED DUCTS AND OTHER PENETRATIONS SHALL BE INFILLED WITH SAME MATERIAL AS ADJACENT CONSTRUCTION.

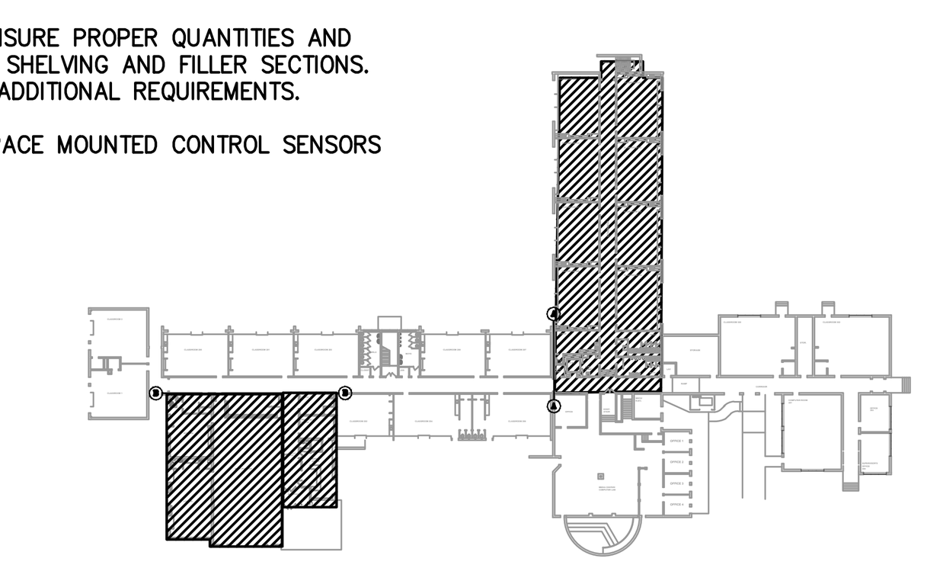
FOR DEMOLITION NOTES, REFER TO DRAWING H-102.



4 FLOOR PLAN LEVELS 3 & 4 – NEW HVAC DUCTWORK
H103

SCALE 1/8" = 1'-0"

NOTES:
1. FIELD MEASURE EACH CLASSROOM TO ENSURE PROPER QUANTITIES AND MEASUREMENTS OF NEW UNDER-WINDOW SHELVING AND FILLER SECTIONS. FOLLOW ARCHITECTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
2. COORDINATE FINAL LOCATION OF NEW SPACE MOUNTED CONTROL SENSORS WITH EXISTING CONDITIONS.



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Frank Tindall, P.E.
PROFESSIONAL ENGINEER
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NJDOE PROJECT NUMBERS
HVAC- 2670-040-23-R503
ROOF- 2670-040-23-R501

NJSDA PROJECT NUMBERS
HVAC- 2670-040-23-G5KN
ROOF- 2670-050-23-G5KM

NJSDA GRANT NUMBERS
HVAC- G5-6677
ROOF- G5-6676

PROJECT TITLE:
BUILDING RENOVATION LINDENWOLD SCHOOL #4

ADDRESS:
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SHEET TITLE:	FLOOR PLAN LEVELS 3 & 4 - HVAC

H-103

1/16" = 1'-0" · 1/8" = 1'-0" · 1/4" = 1'-0" · 1/2" = 1'-0" · 3/4" = 1'-0" · 1" = 1'-0" · 1 1/2" = 1'-0" · 3" = 1'-0"

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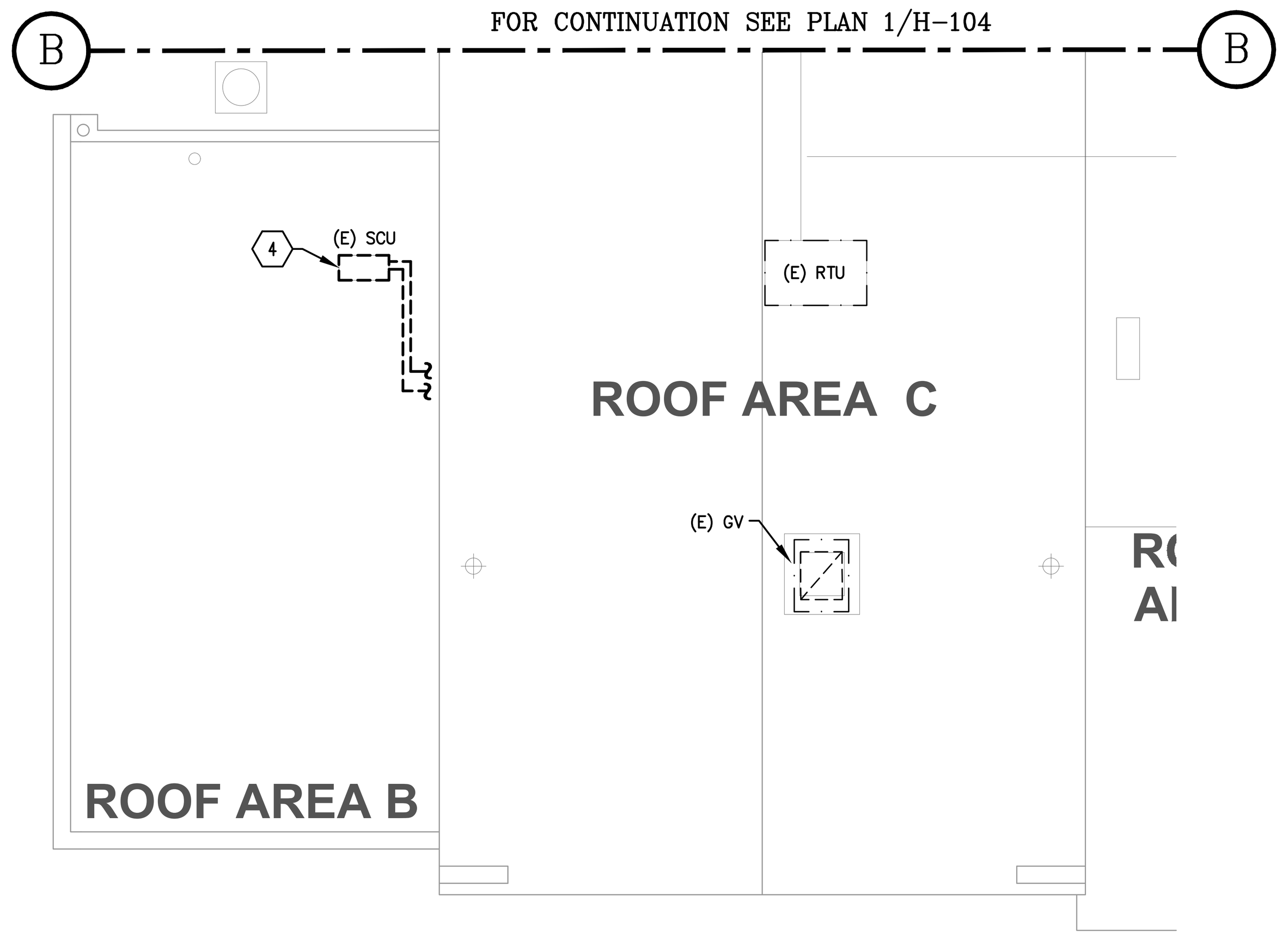
HVAC DEMOLITION KEY NOTES

1. (E) GRAVITY VENTILATOR AND ASSOCIATED ROOF CURB AND DUCTWORK SHALL BE REMOVED IN THEIR ENTIRETY.
2. (E) EXHAUST FAN AND ASSOCIATED ROOF CURB, DUCTWORK, AND AIR DEVICES SHALL BE REMOVED IN THEIR ENTIRETY.
3. (E) EXHAUST FAN, DUCTWORK AND AIR DEVICES SHALL BE REMOVED IN THEIR ENTIRETY. ASSOCIATED ROOF CURB SHALL BE REUTILIZED/MODIFIED TO ACCOMMODATE NEW DUCTWORK.
4. (E) CU, PADS, SUPPORTS, REFRIGERANT PIPING, SLEEVES, CONTROLS & APPURTENANCES SHALL BE REMOVED IN THEIR ENTIRETY. RECOVER REFRIGERANT PER LATEST EPA/DEP STANDARDS PRIOR TO DEMOLITION WORK.
5. (E) GRAVITY VENT AND ASSOCIATED ROOF CURB, DUCTWORK, DUCT HEATER, AND AIR DEVICES SHALL BE REMOVED IN THEIR ENTIRETY.

HVAC NEW WORK NOTES

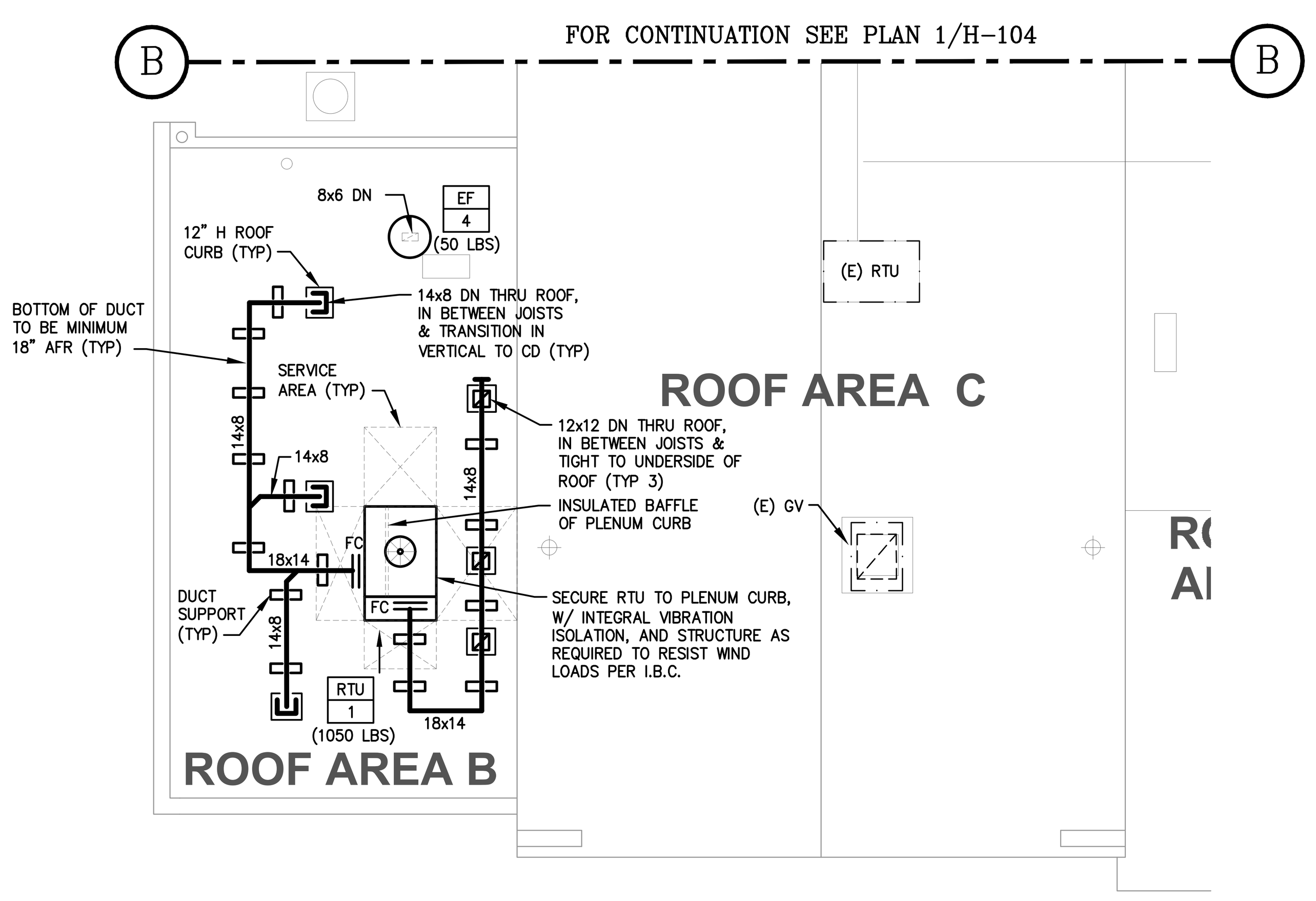
1. ALL SUPPLY AND EXHAUST AIR DUCTWORK ABOVE ROOF SHALL BE PRE-FABRICATED DOUBLE-LAYER DUCTING SYSTEM WITH 0.032" ALUMINUM JACKET WITH R16 KINGSPAN KOOL DUCT PANELS THAT ARE UL LISTED AS A CLASS 1 AIR DUCT SYSTEM BY PTM MANUFACTURING, LLC DUAL-TECH, TUFF DUCT SYSTEMS OR APPROVED EQUAL. SECURE AND SUPPORT TO ROOF ACCORDING TO CONTRACT DOCUMENTS AND PER MANUFACTURER'S INSTRUCTIONS. RELIEF DUCTWORK SHALL BE GALVANIZED SHEETMETAL. (1)
2. RUN REFRIGERANT PIPING BETWEEN EACH VRV AC UNIT & CORRESPONDING BRANCH SELECTOR BOX, AND BETWEEN BRANCH SELECTOR BOX AND CORRESPONDING CU. REFER TO PIPING DIAGRAMS ON DWG H401.
3. INSTALL, SIZE, INSULATE, & CHARGE REFRIGERANT LINES PER MANUFACTURER'S INSTRUCTIONS. REFER TO PIPING DIAGRAMS.
4. ALL CHANGES IN DIRECTION OF CONDENSATE PIPING SHALL BE MADE WITH DWV FITTINGS AND PROVIDED WITH A CLEAN OUT, WHETHER INDICATED ON THE PLANS OR NOT.
5. FOLLOW ARCHITECTURAL DRAWINGS FOR NEW WORK/ROOF REPLACEMENT COORDINATION REQUIRED.
6. ALL EQUIPMENT ROOF PENETRATIONS SHALL BE CENTERED BETWEEN EXISTING STRUCTURAL FRAMING MEMBERS. FIELD VERIFY LOCATIONS.
7. ROOF CURBS SHALL BE A MINIMUM OF 12" ABOVE THE FINISHED SURFACE OF ADJACENT ROOF. PROVIDE BUILT-IN METAL CRICKETS (WITH ¼" PER 1'-0" PITCH) ON THE HIGH SIDE TO DIRECT WATER AROUND THE CURBS.
8. ALL NEW ROOFTOP EQUIPMENT MUST BE LOCATED MORE THAN 10'-0" FROM A ROOF EDGE OR CHANGE IN ROOF LEVELS.



1/H105 PARTIAL ROOF PLAN – HVAC DEMOLITION

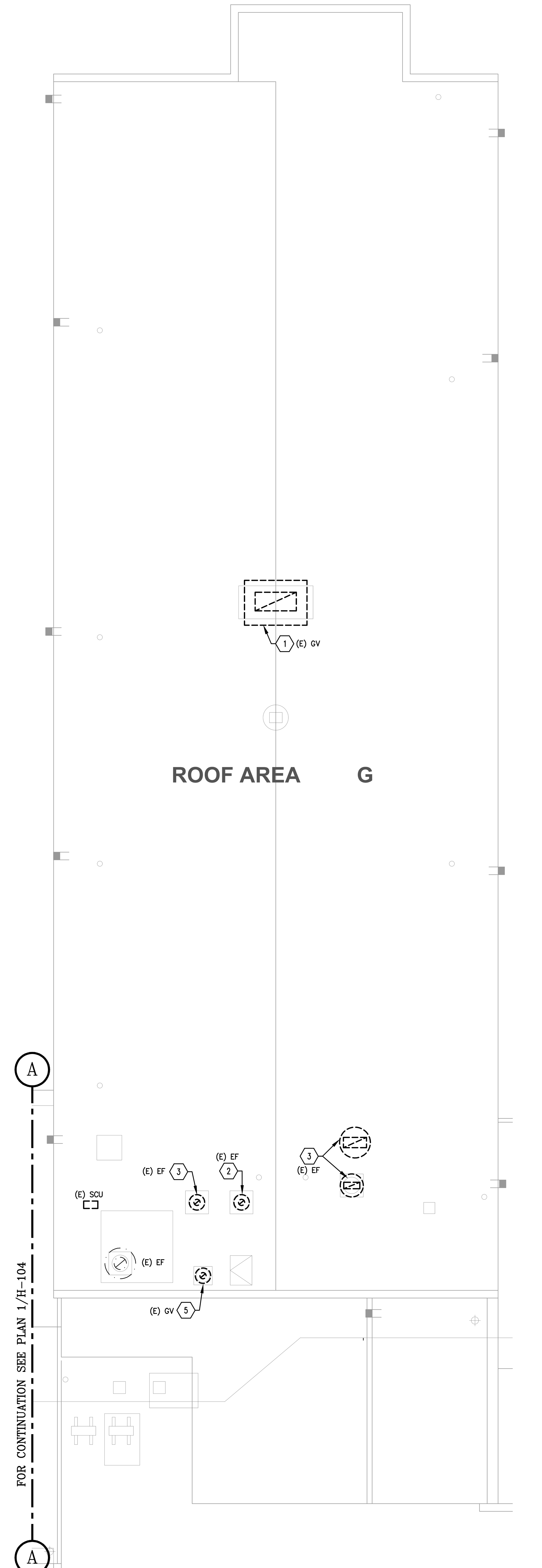
SCALE 1/8" = 1'-0"

NOTE:
ALL DEMOLISHED DUCTS AND OTHER PENETRATIONS SHALL BE INFILLED WITH SAME MATERIAL AS ADJACENT CONSTRUCTION



2/H105 PARTIAL ROOF PLAN – HVAC

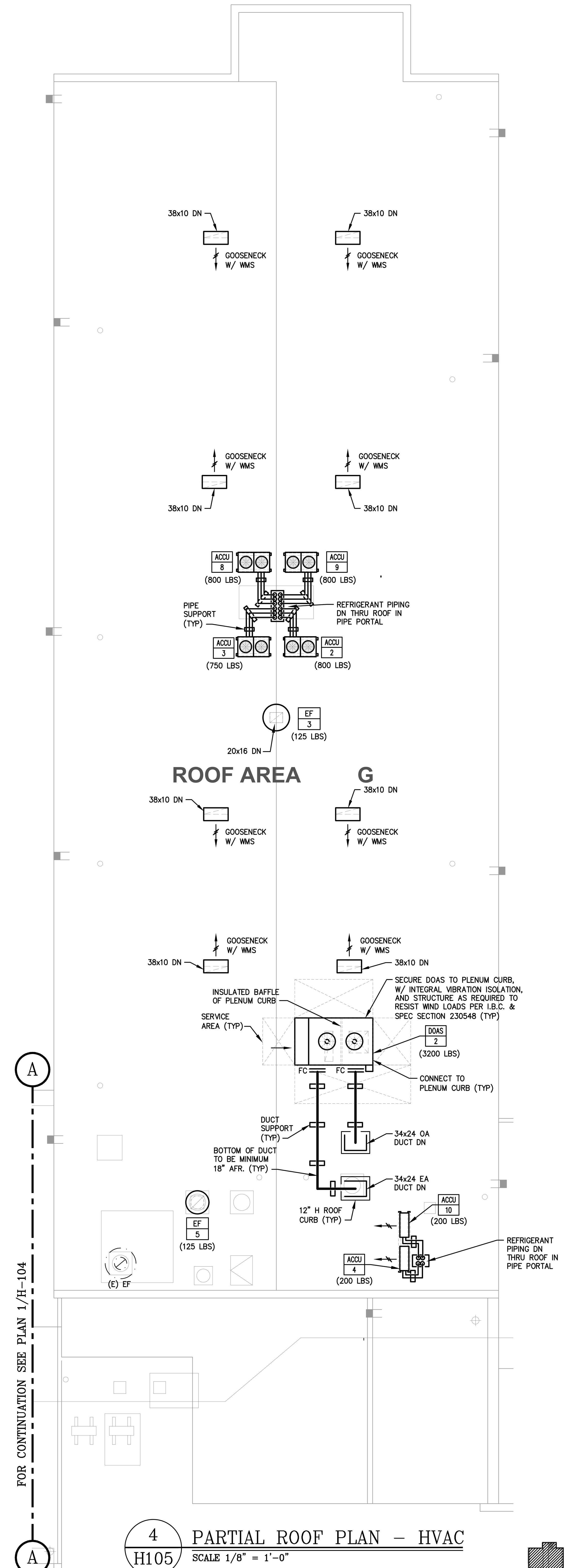
SCALE 1/8" = 1'-0"



3/H105 PARTIAL ROOF PLAN – HVAC DEMOLITION

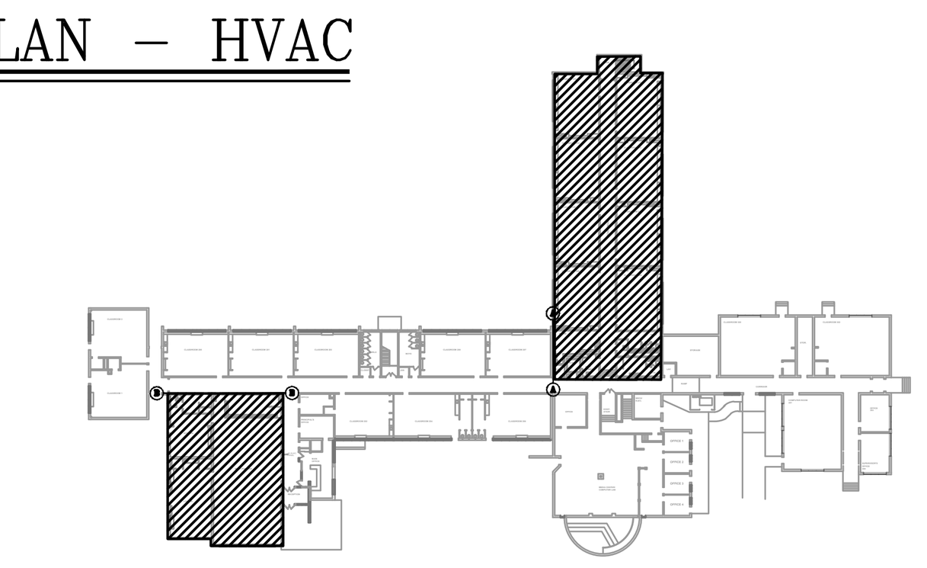
SCALE 1/8" = 1'-0"

NOTE:
ALL DEMOLISHED DUCTS AND OTHER PENETRATIONS SHALL BE INFILLED WITH SAME MATERIAL AS ADJACENT CONSTRUCTION, AND TEMPORARY ROOFING TO MAKE WEATHER TIGHT UNTIL NEW ROOFING SYSTEM IS INSTALLED.

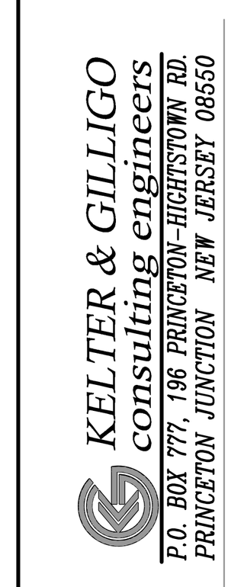


4/H105 PARTIAL ROOF PLAN – HVAC

SCALE 1/8" = 1'-0"



KEY PLAN



Frank Tindall, P.E.
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REGAN YOUNG, AIA
21AI00912100

NJDOE PROJECT NUMBERS
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ROOF- 2670-040-23-R501

NJSDA PROJECT NUMBERS
HVAC- 2670-040-23-G5KN
ROOF- 2670-050-23-G5KM

NJSDA GRANT NUMBERS
HVAC- G5-6677
ROOF- G5-6676

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SHEET TITLE:	PARTIAL ROOF PLANS - HVAC

H-105

1/16" = 1'-0" 1/8" = 1'-0" 1/4" = 1'-0" 1/2" = 1'-0" 3/4" = 1'-0" 1" = 1'-0" 1 1/2" = 1'-0" 3" = 1'-0"

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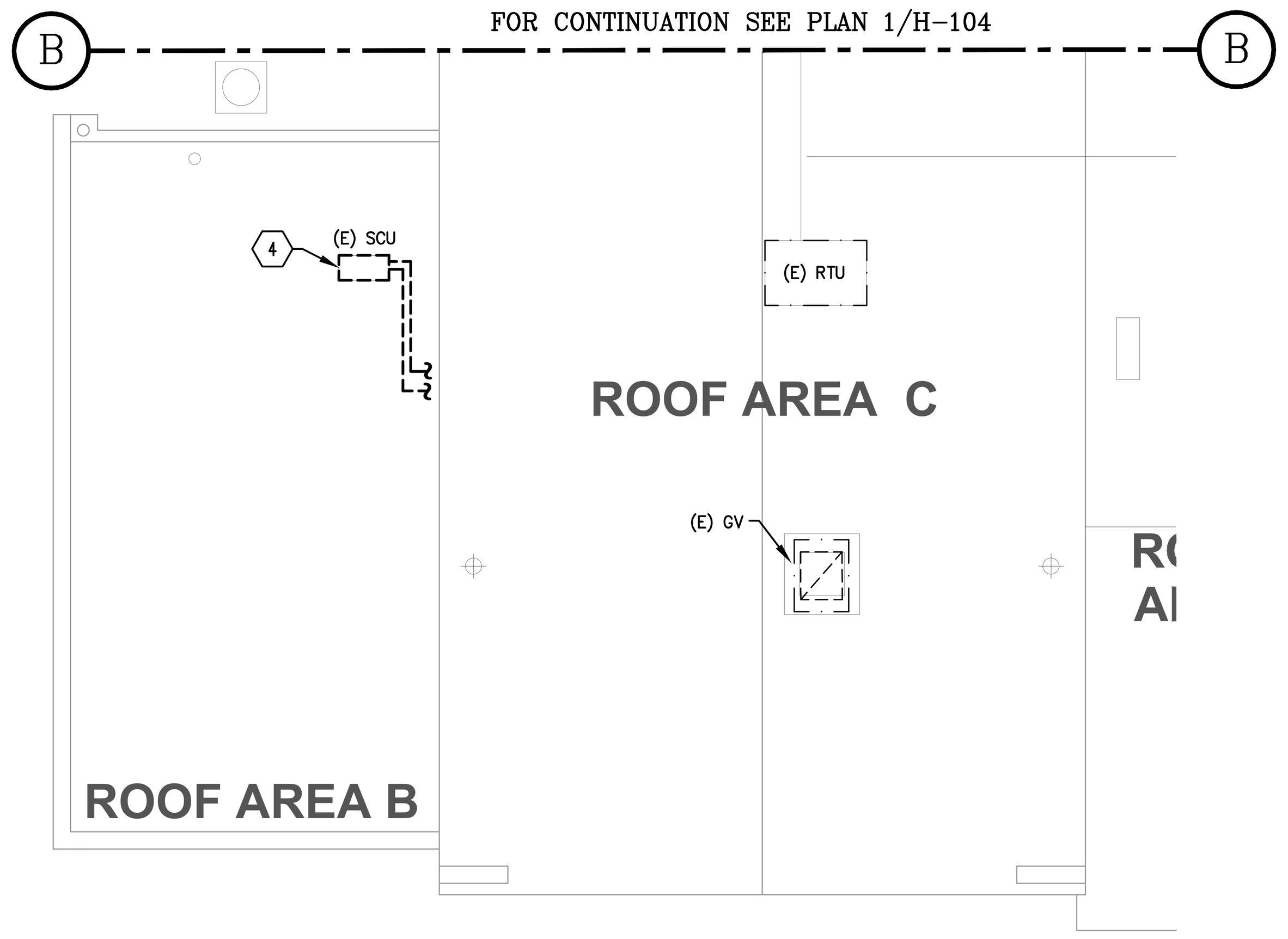
HVAC DEMOLITION KEY NOTES

1. (E) GRAVITY VENTILATOR AND ASSOCIATED ROOF CURB AND DUCTWORK SHALL BE REMOVED IN THEIR ENTIRETY.
2. (E) EXHAUST FAN AND ASSOCIATED ROOF CURB, DUCTWORK, AND AIR DEVICES SHALL BE REMOVED IN THEIR ENTIRETY.
3. (E) EXHAUST FAN, DUCTWORK AND AIR DEVICES SHALL BE REMOVED IN THEIR ENTIRETY. ASSOCIATED ROOF CURB SHALL BE REUTILIZED/MODIFIED TO ACCOMMODATE NEW DUCTWORK.
4. (E) CU, PADS, SUPPORTS, REFRIGERANT PIPING, SLEEVES, CONTROLS & APPURTENANCES SHALL BE REMOVED IN THEIR ENTIRETY. RECOVER REFRIGERANT PER LATEST EPA/DEP STANDARDS PRIOR TO DEMOLITION WORK.
5. (E) GRAVITY VENT AND ASSOCIATED ROOF CURB, DUCTWORK, DUCT HEATER, AND AIR DEVICES SHALL BE REMOVED IN THEIR ENTIRETY.

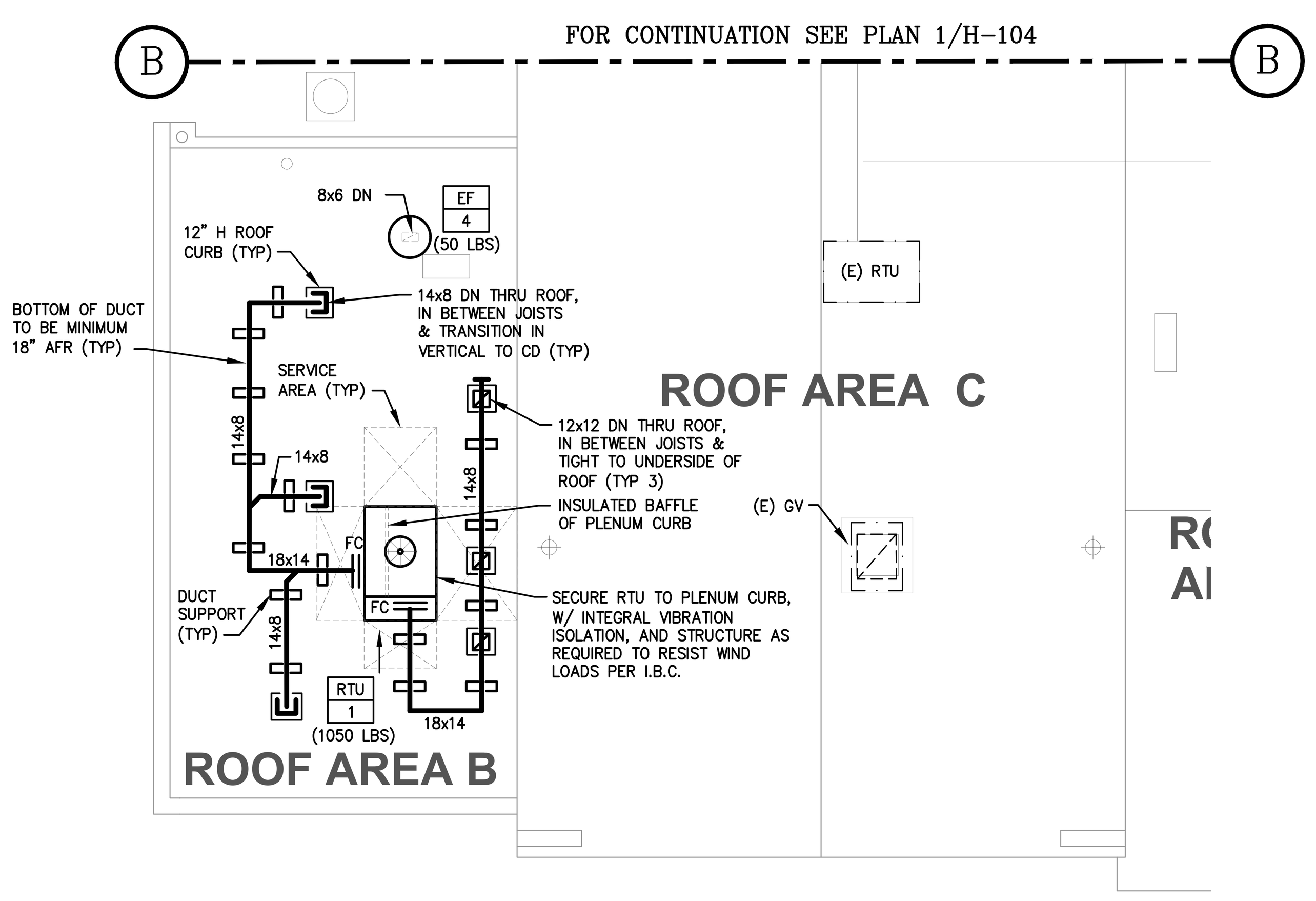
HVAC NEW WORK NOTES

1. ALL SUPPLY AND EXHAUST AIR DUCTWORK ABOVE ROOF SHALL BE PRE-FABRICATED DOUBLE-LAYER DUCTING SYSTEM WITH 0.032" ALUMINUM JACKET WITH R16 KINGSPAN KOOL DUCT PANELS THAT ARE UL LISTED AS A CLASS 1 AIR DUCT SYSTEM BY PTM MANUFACTURING, LLC DUAL-TECH, TUFF DUCT SYSTEMS OR APPROVED EQUAL. SECURE AND SUPPORT TO ROOF ACCORDING TO CONTRACT DOCUMENTS AND PER MANUFACTURER'S INSTRUCTIONS. RELIEF DUCTWORK SHALL BE GALVANIZED SHEETMETAL. (1)
2. RUN REFRIGERANT PIPING BETWEEN EACH VRV AC UNIT & CORRESPONDING BRANCH SELECTOR BOX, AND BETWEEN BRANCH SELECTOR BOX AND CORRESPONDING CU. REFER TO PIPING DIAGRAMS ON DWG H401.
3. INSTALL, SIZE, INSULATE, & CHARGE REFRIGERANT LINES PER MANUFACTURER'S INSTRUCTIONS. REFER TO PIPING DIAGRAMS.
4. ALL CHANGES IN DIRECTION OF CONDENSATE PIPING SHALL BE MADE WITH DWV FITTINGS AND PROVIDED WITH A CLEAN OUT, WHETHER INDICATED ON THE PLANS OR NOT.
5. FOLLOW ARCHITECTURAL DRAWINGS FOR NEW WORK/ROOF REPLACEMENT COORDINATION REQUIRED.
6. ALL EQUIPMENT ROOF PENETRATIONS SHALL BE CENTERED BETWEEN EXISTING STRUCTURAL FRAMING MEMBERS. FIELD VERIFY LOCATIONS.
7. ROOF CURBS SHALL BE A MINIMUM OF 12" ABOVE THE FINISHED SURFACE OF ADJACENT ROOF. PROVIDE BUILT-IN METAL CRICKETS (WITH ¼" PER 1'-0" PITCH) ON THE HIGH SIDE TO DIRECT WATER AROUND THE CURBS.
8. ALL NEW ROOFTOP EQUIPMENT MUST BE LOCATED MORE THAN 10'-0" FROM A ROOF EDGE OR CHANGE IN ROOF LEVELS.

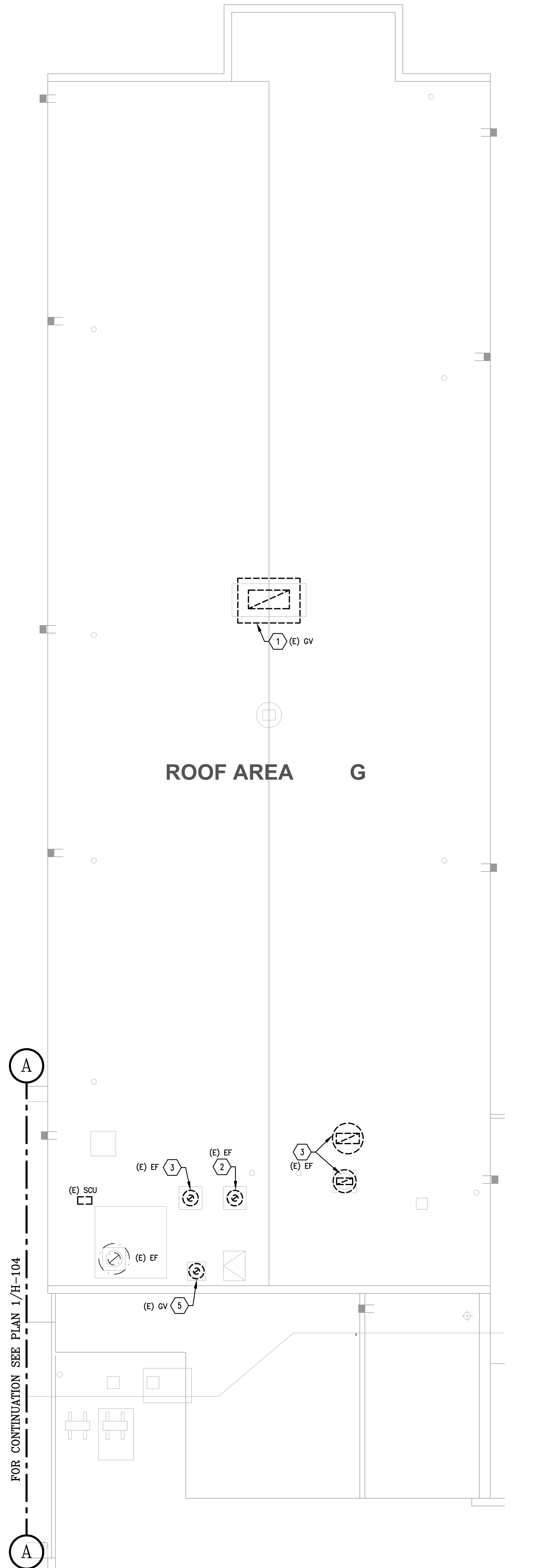


1 H105 PARTIAL ROOF PLAN – HVAC DEMOLITION
SCALE 1/8" = 1'-0"

NOTE:
ALL DEMOLISHED DUCTS AND OTHER PENETRATIONS SHALL BE INFILLED WITH SAME MATERIAL AS ADJACENT CONSTRUCTION

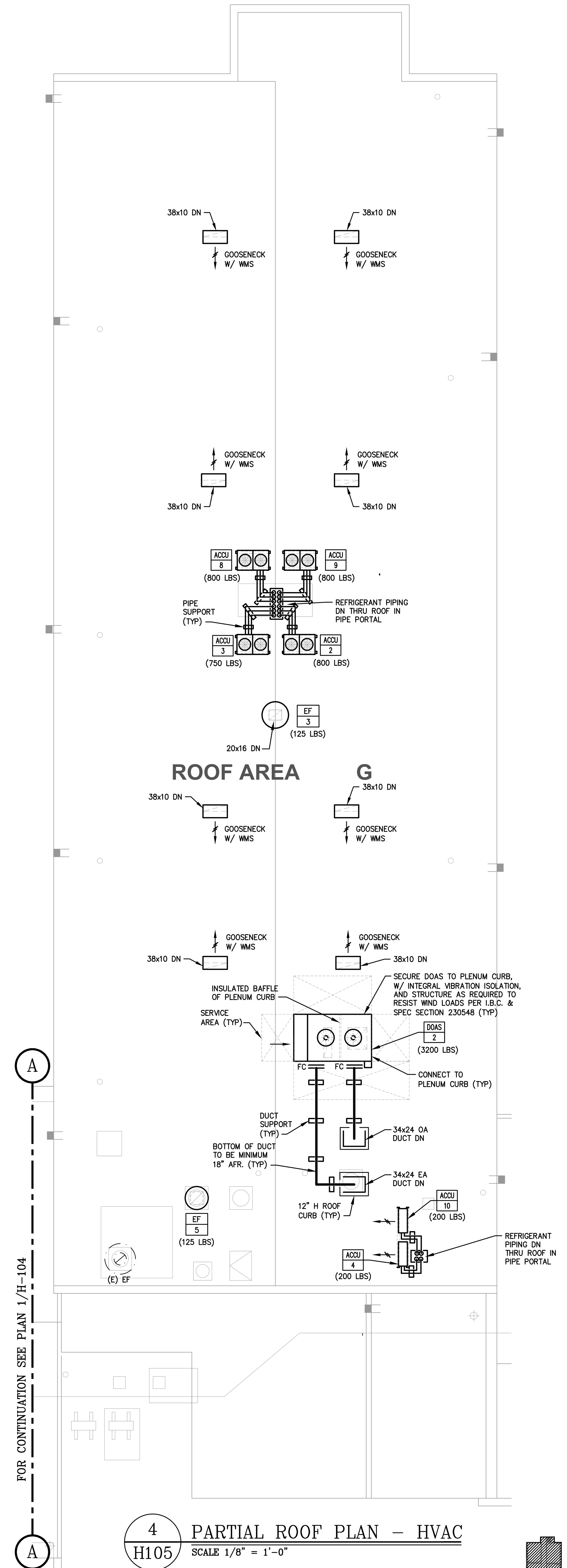


2 H105 PARTIAL ROOF PLAN – HVAC
SCALE 1/8" = 1'-0"

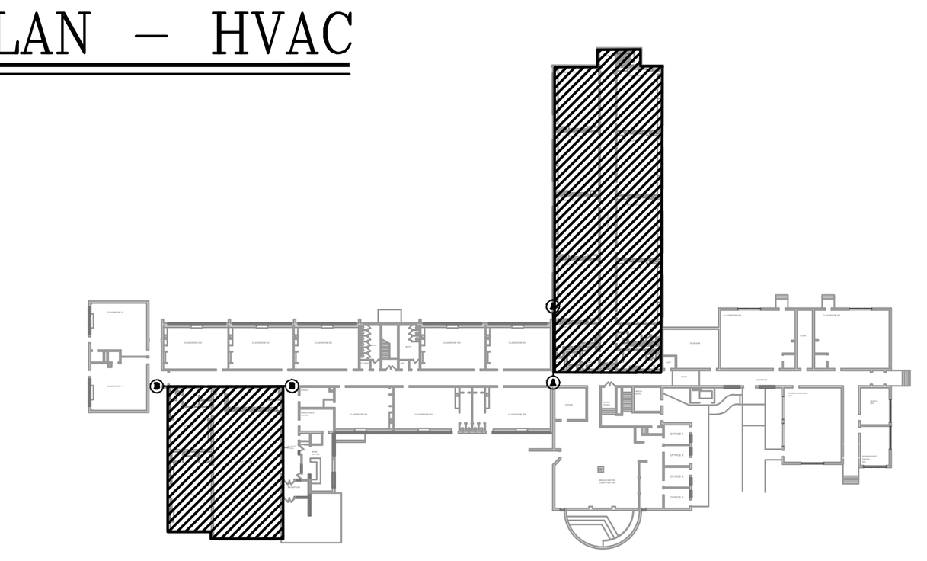


3 H105 PARTIAL ROOF PLAN – HVAC DEMOLITION
SCALE 1/8" = 1'-0"

NOTE:
ALL DEMOLISHED DUCTS AND OTHER PENETRATIONS SHALL BE INFILLED WITH SAME MATERIAL AS ADJACENT CONSTRUCTION, AND TEMPORARY ROOFING TO MAKE WEATHER TIGHT UNTIL NEW ROOFING SYSTEM IS INSTALLED.



4 H105 PARTIAL ROOF PLAN – HVAC
SCALE 1/8" = 1'-0"



KEY PLAN

KELTER & GILLIGO consulting engineers
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Frank Tindall, P.E.
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REGAN YOUNG, AIA
21AI00912100

NJDOE PROJECT NUMBERS
HVAC- 2670-040-23-R503
ROOF- 2670-040-23-R501

NJSDA PROJECT NUMBERS
HVAC- 2670-040-23-G5KN
ROOF- 2670-050-23-G5KM

NJSDA GRANT NUMBERS
HVAC- G5-6677
ROOF- G5-6676

PROJECT TITLE:
BUILDING RENOVATION LINDENWOLD SCHOOL #4

ADDRESS:
LINDENWOLD SCHOOL #4
BLOCK 64, LOT 1; BLOCK 65, LOT 1 & BLOCK 66, LOT 1
900 EAST GIBBSBORO ROAD
LINDENWOLD, NJ 08021

PROJECT NO.:	5743F, H, O
SUBMISSION DATE:	
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DRAWING DATE:	18 OCT 2024
PRINT DATE:	18 OCT 2024
DRAWN BY:	SLB
SHEET TITLE:	PARTIAL ROOF PLANS - HVAC

H-105

1/16" = 1'-0" 1/8" = 1'-0" 1/4" = 1'-0" 1/2" = 1'-0" 3/4" = 1'-0" 1" = 1'-0" 1 1/2" = 1'-0" 3" = 1'-0"

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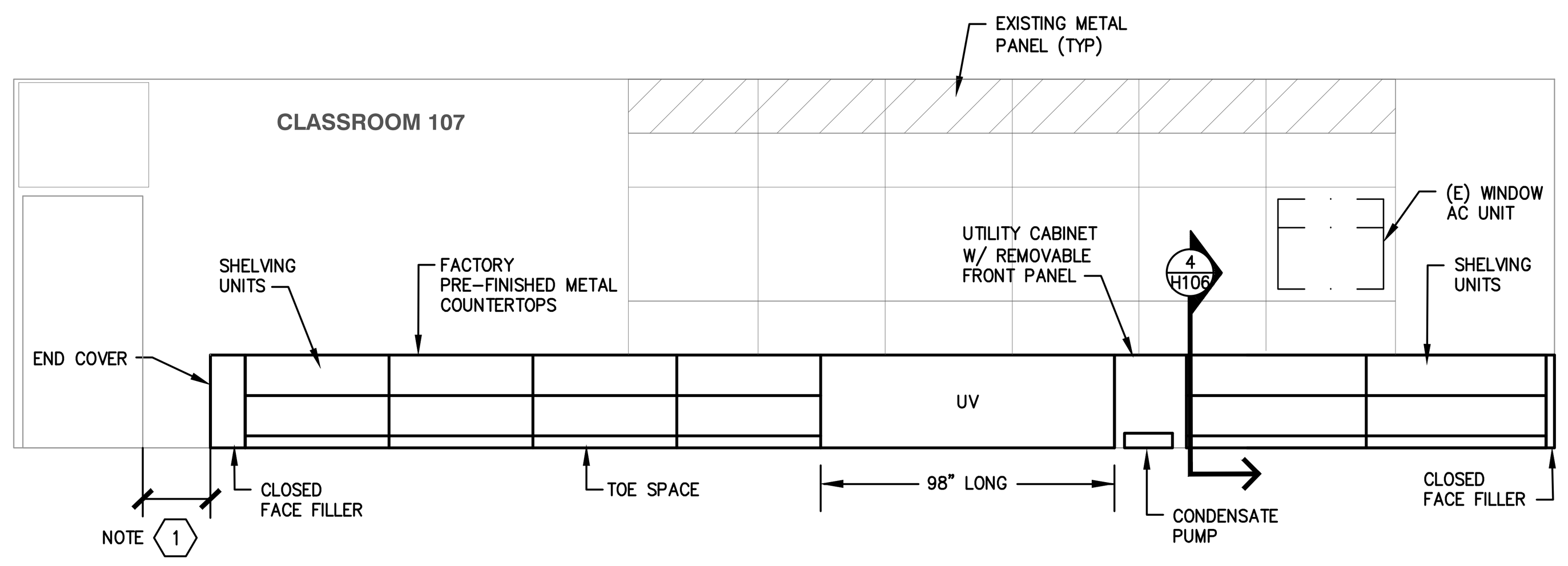
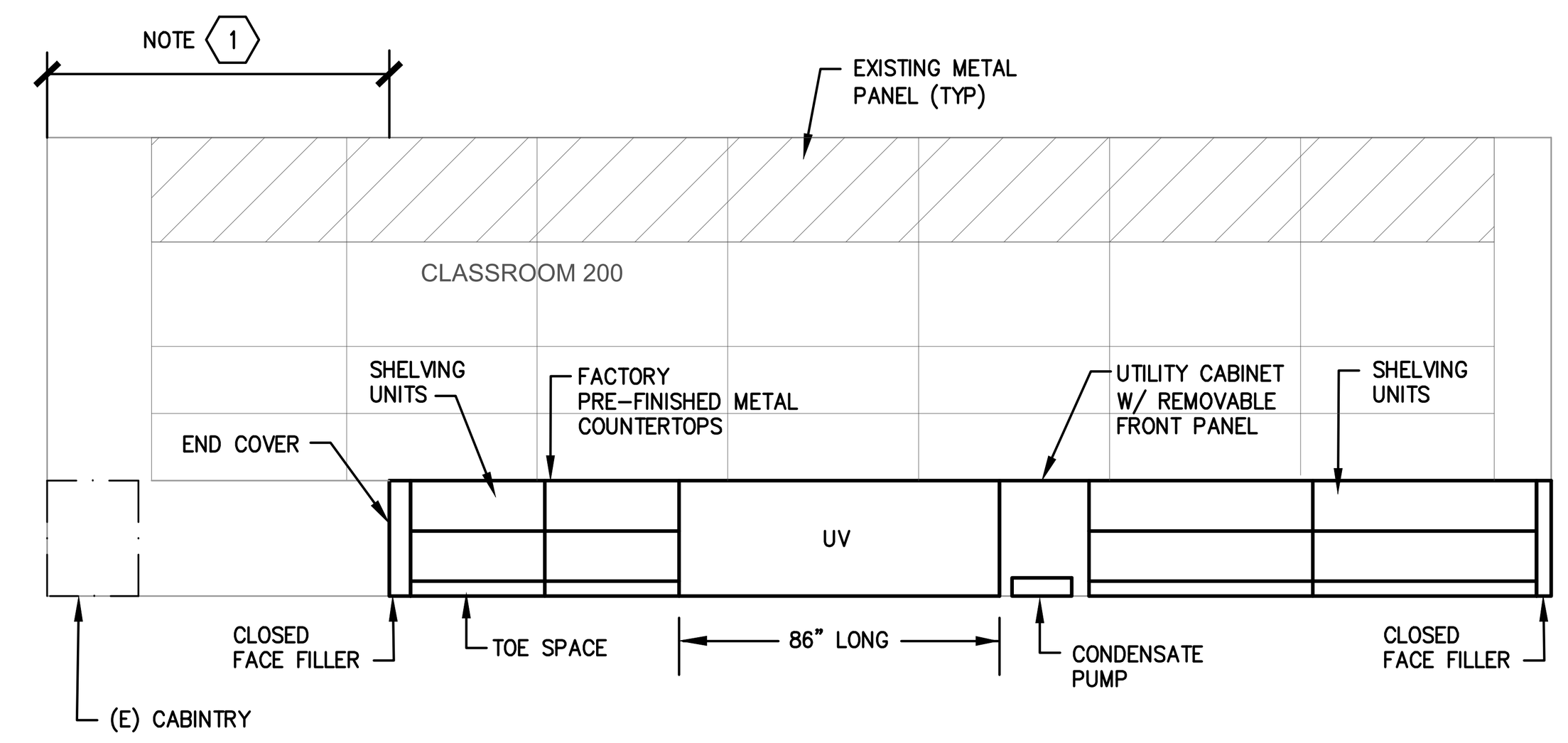


1 / H106 **SHELVING ELEVATION DETAIL**
SCALE 1/4" = 1'-0"



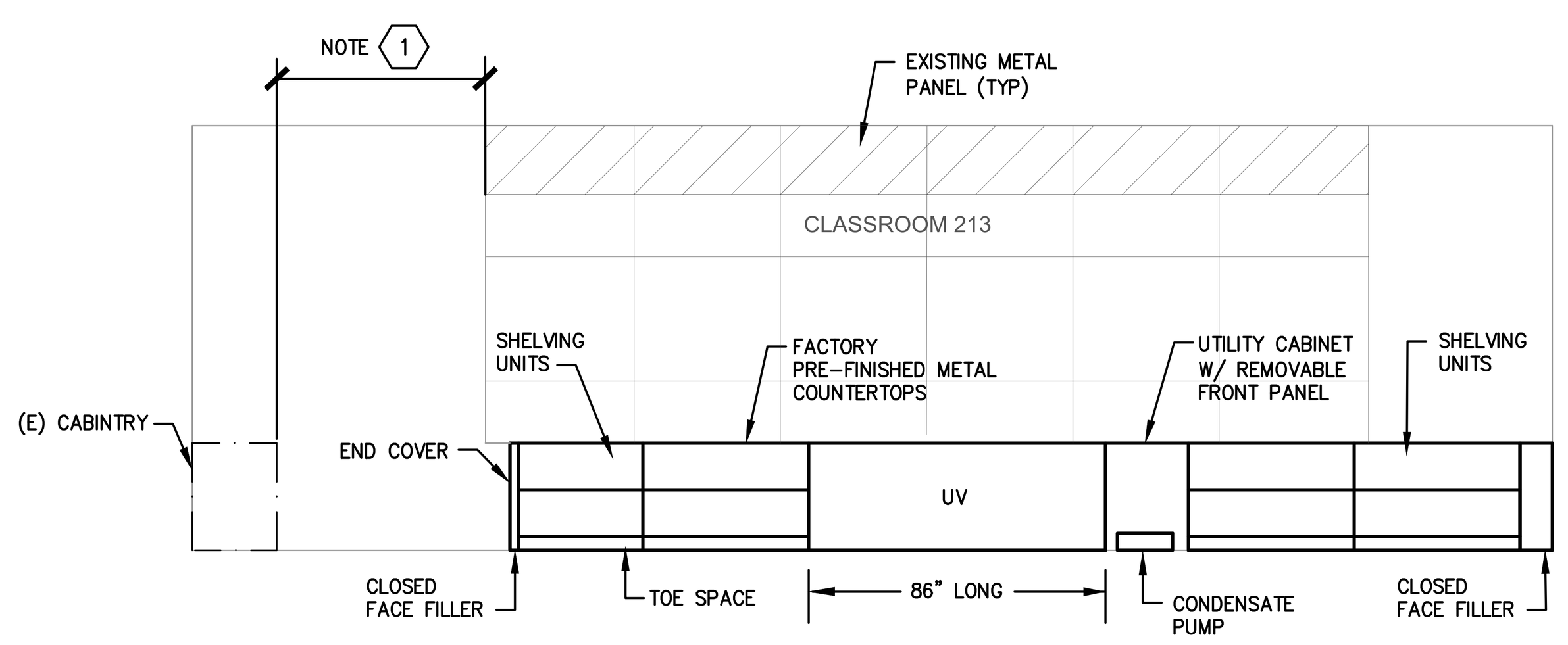
2 / H106 **SHELVING ELEVATION DETAIL**
SCALE 1/4" = 1'-0"

KEY NOTES

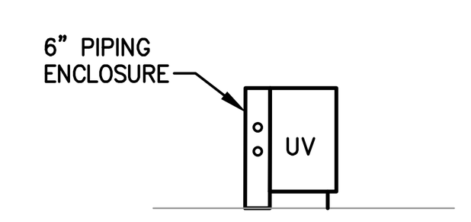
1. FOLLOW ARCHITECTURAL DRAWINGS FOR CLEAR SPACE DIMENSIONS AND REQUIREMENTS.

GENERAL NOTES

1. COORDINATE SHELVING LAYOUTS WITH ARCHITECTURAL DRAWINGS. (TYP)
2. FIELD MEASURE EACH ROOM AND PROVIDE DETAILED SHOP DRAWINGS OF LAYOUTS .



3 / H106 **SHELVING ELEVATION DETAIL**
SCALE 1/4" = 1'-0"



4 / H106 **UV ELEVATION DETAIL**
SCALE 1/4" = 1'-0"

NOTE:
1. REFER TO PIPING DRAWINGS FOR PIPE SIZES AND QUANTITIES.

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SHEET TITLE:	SHELVING ELEVATION DETAILS - HVAC

H-106

February 14, 2025 12:36:26 p.m.
Drawing: 3126 – H-106.DWG

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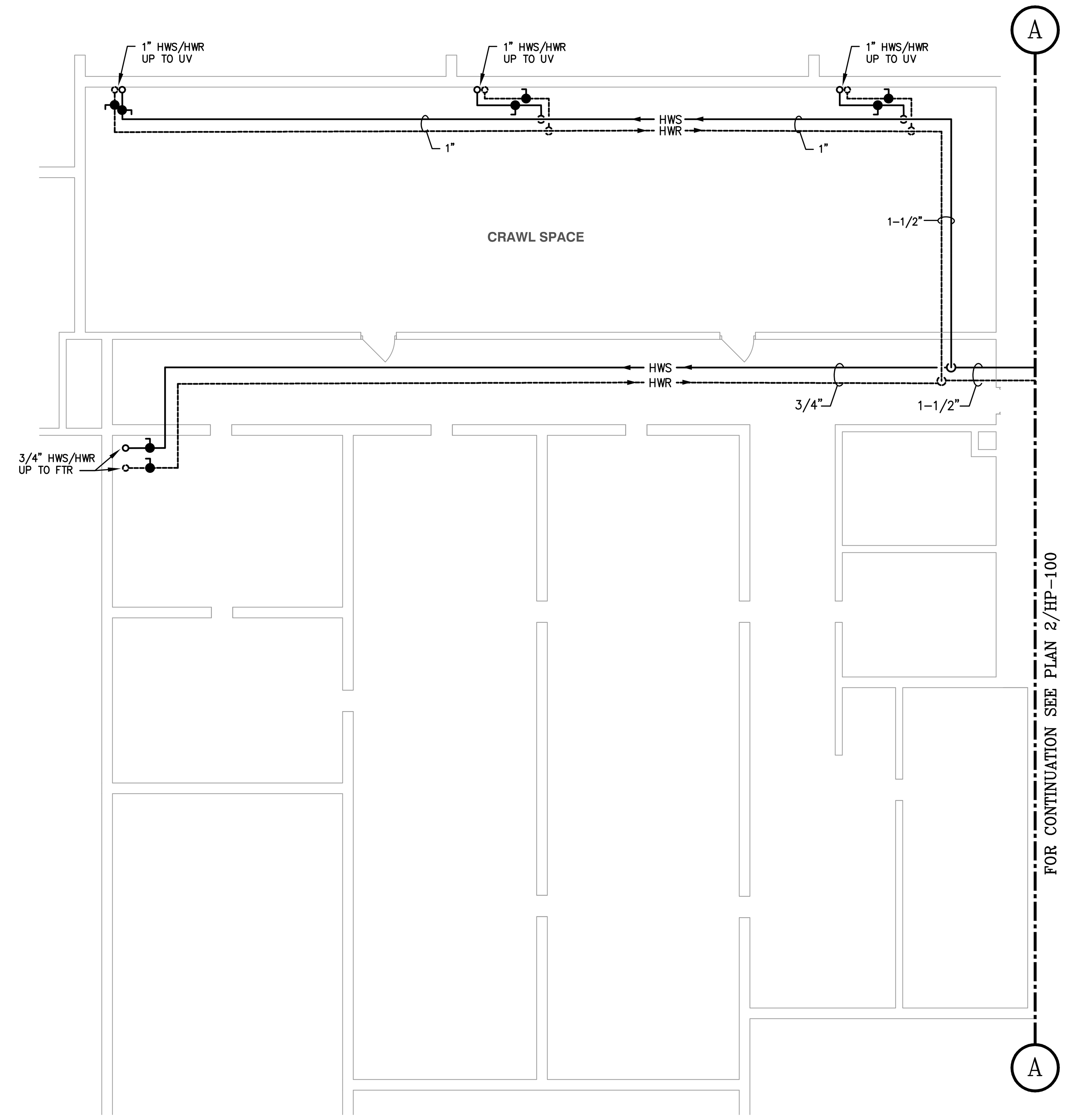
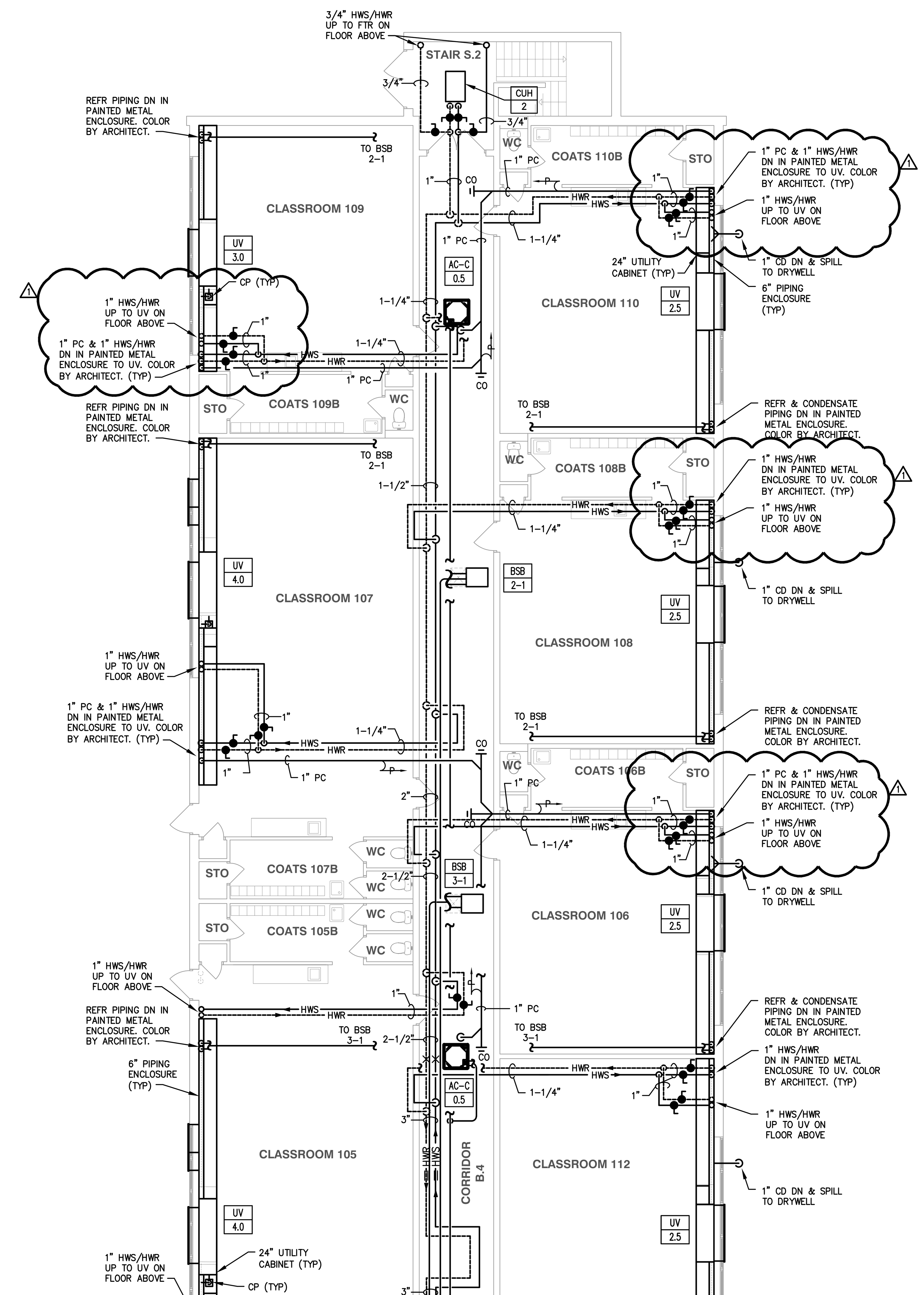
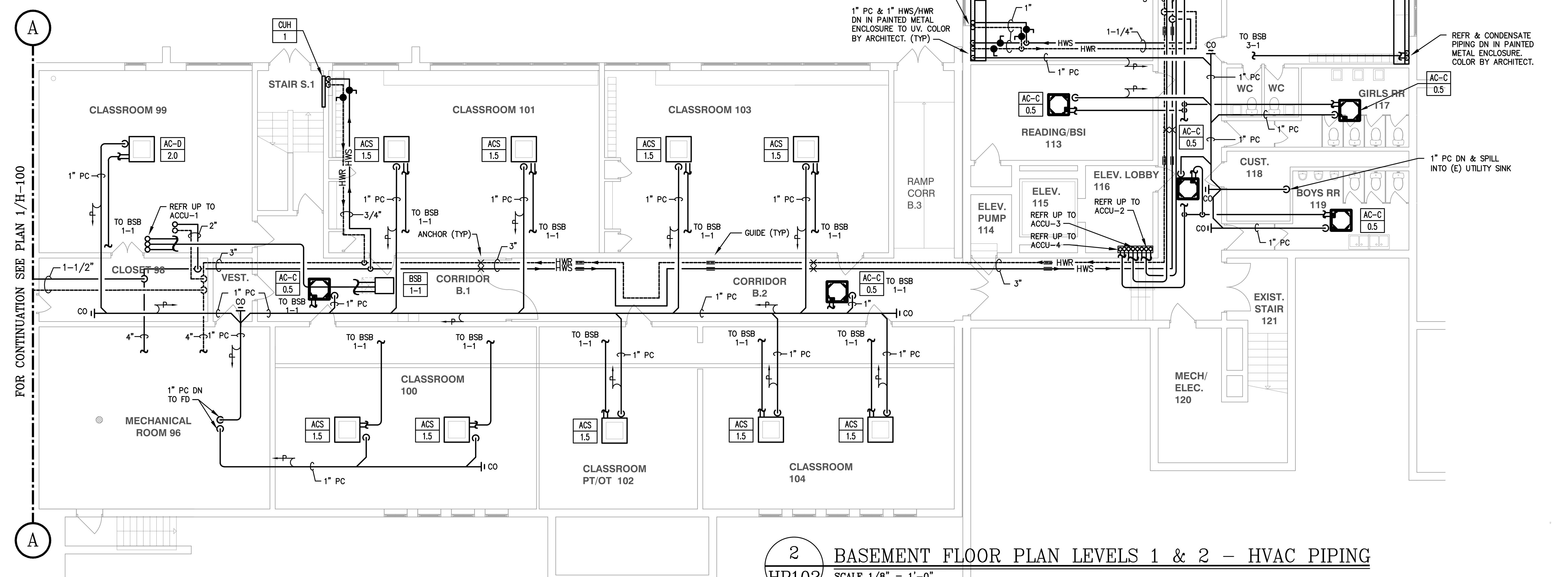


1 HP101 CRAWL SPACE FLOOR PLAN – HVAC PIPING

SCALE 1/8" = 1'-0"

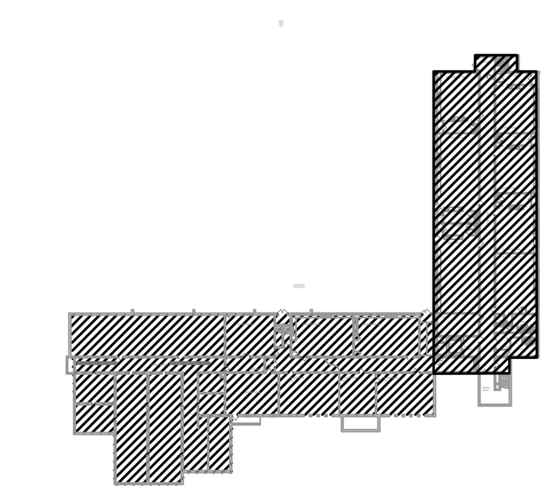
NOTES:
1. –

2 HP102 BASEMENT FLOOR PLAN LEVELS 1 & 2 – HVAC PIPING

SCALE 1/8" = 1'-0"

NOTES:
1. RUN REFRIGERANT PIPING BETWEEN EACH VRV AC UNIT & CORRESPONDING BRANCH SELECTOR BOX, AND BETWEEN BRANCH SELECTOR BOX AND CORRESPONDING CU. REFER TO ACCU PIPING DIAGRAMS.
2. INSTALL, SIZE, INSULATE, & CHARGE REFRIGERANT LINES PER MANUFACTURER'S INSTRUCTIONS. REFER TO ACCU PIPING DIAGRAMS.
3. ALL CHANGES IN DIRECTION OF CONDENSATE PIPING SHALL BE MADE DION FITTINGS PROVIDED WITH A CLEAN OUT, WHETHER INDICATED ON THE PLANS OR NOT.



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SHEET TITLE:	CRAWL SPACE & BASEMENT FLOOR PLANS LEVELS 1 & 2 - HVAC PIPING

HP-100

February 14, 2025 2:36:33 p.m.
Drawing: 3126 - HP-100.DWG

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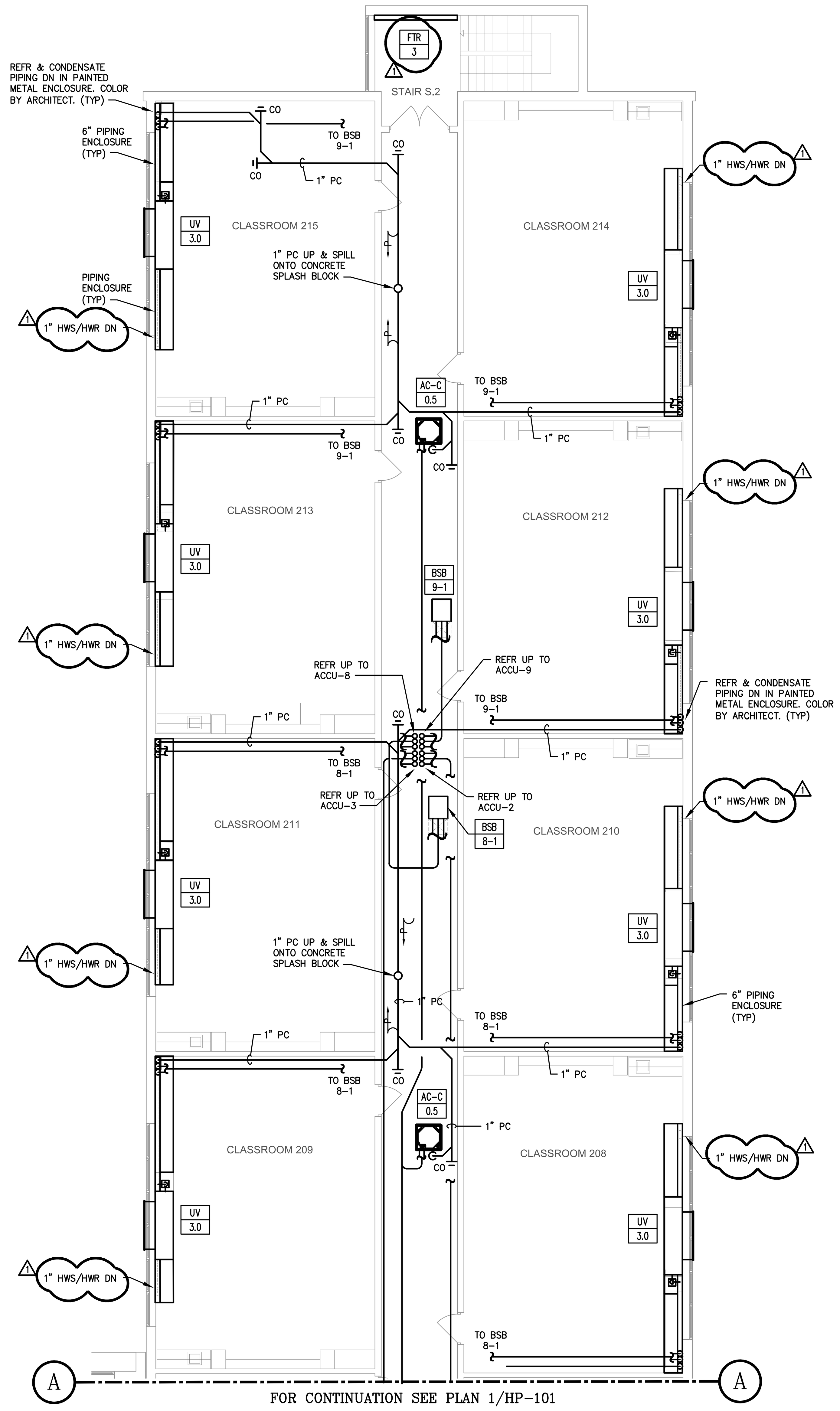


FOR CONTINUATION SEE PLAN 1/HP-101

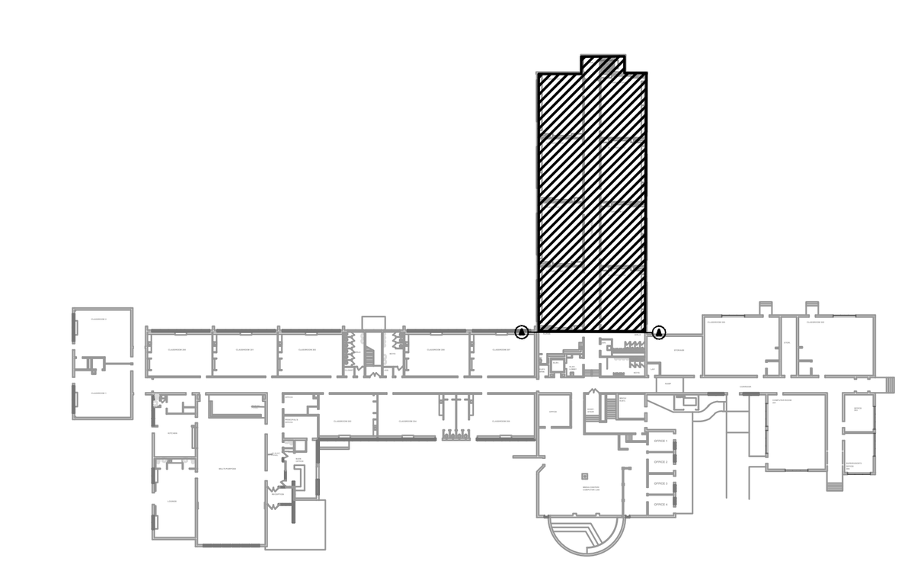
1
HP102

FLOOR PLAN LEVEL 4 – HVAC PIPING

SCALE 1/8" = 1'-0"

NOTES:

1. RUN REFRIGERANT PIPING BETWEEN EACH VRV UV/AC UNIT & CORRESPONDING BRANCH SELECTOR BOX, AND BETWEEN BRANCH SELECTOR BOX AND CORRESPONDING CU. REFER TO ACCU PIPING DIAGRAMS.
2. INSTALL, SIZE, INSULATE, & CHARGE REFRIGERANT LINES PER MANUFACTURER'S INSTRUCTIONS. REFER TO ACCU PIPING DIAGRAMS.
3. ALL CHANGES IN DIRECTION OF CONDENSATE PIPING SHALL BE MADE DION FITTINGS PROVIDED WITH A CLEAN OUT, WHETHER INDICATED ON THE PLANS OR NOT.



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SHEET TITLE:	FLOOR PLAN LEVEL 4 - HVAC PIPING

HP-102

1/16" = 1'-0" 1/8" = 1'-0" 1/4" = 1'-0" 1/2" = 1'-0" 3/4" = 1'-0" 1" = 1'-0" 1 1/2" = 1'-0" 3" = 1'-0"

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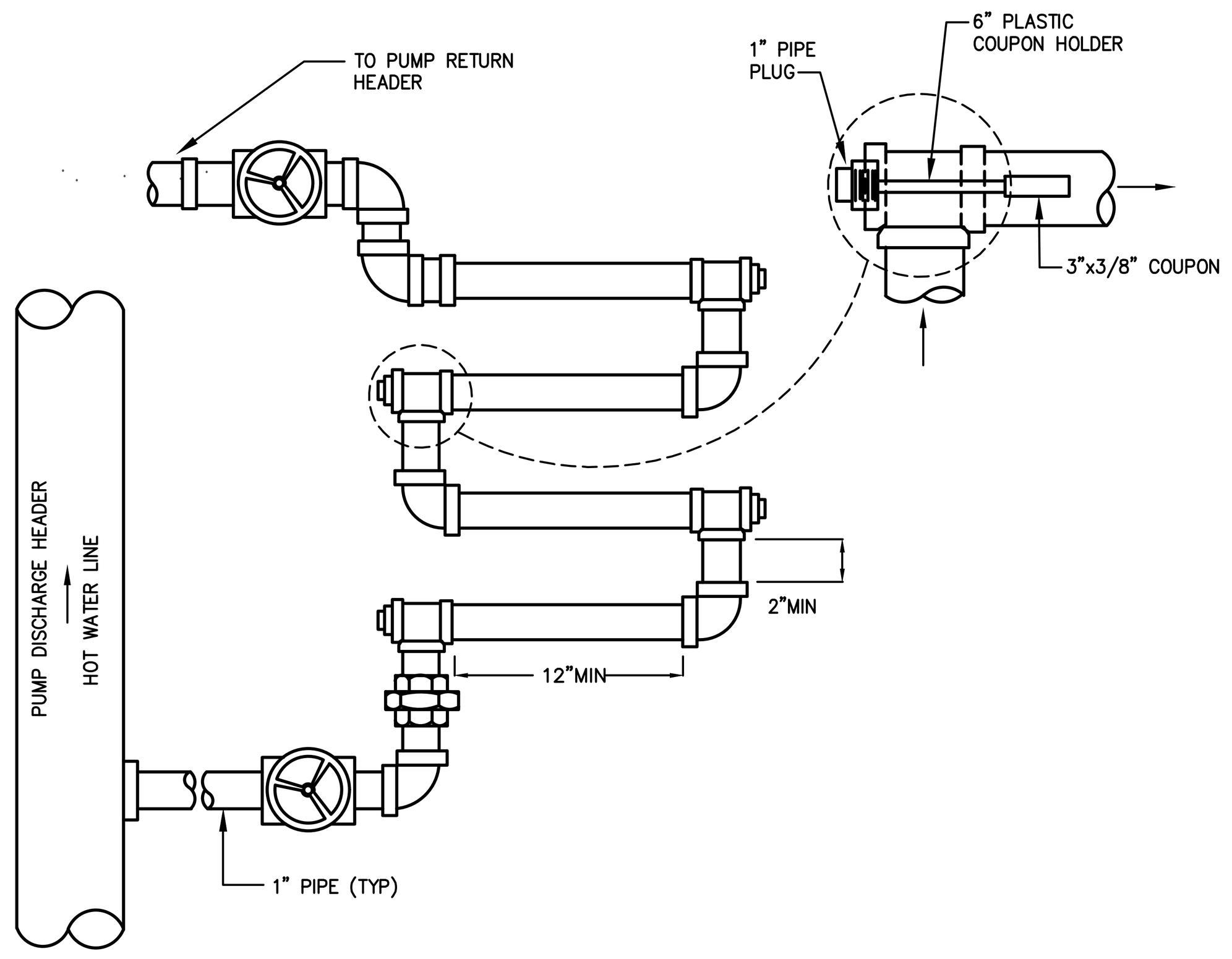
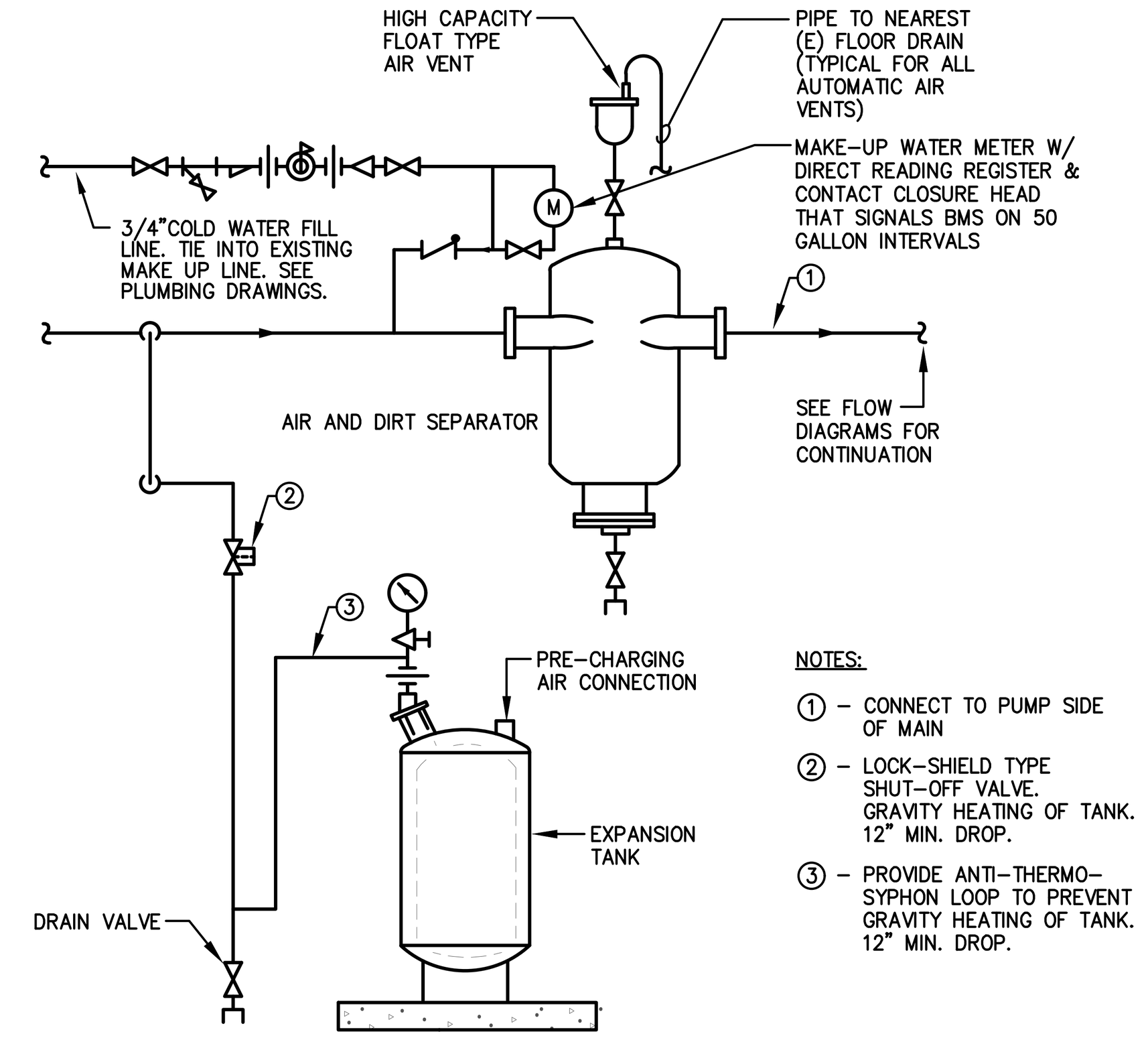


1 H402 CORROSION COUPON RACK DETAIL

NOT TO SCALE

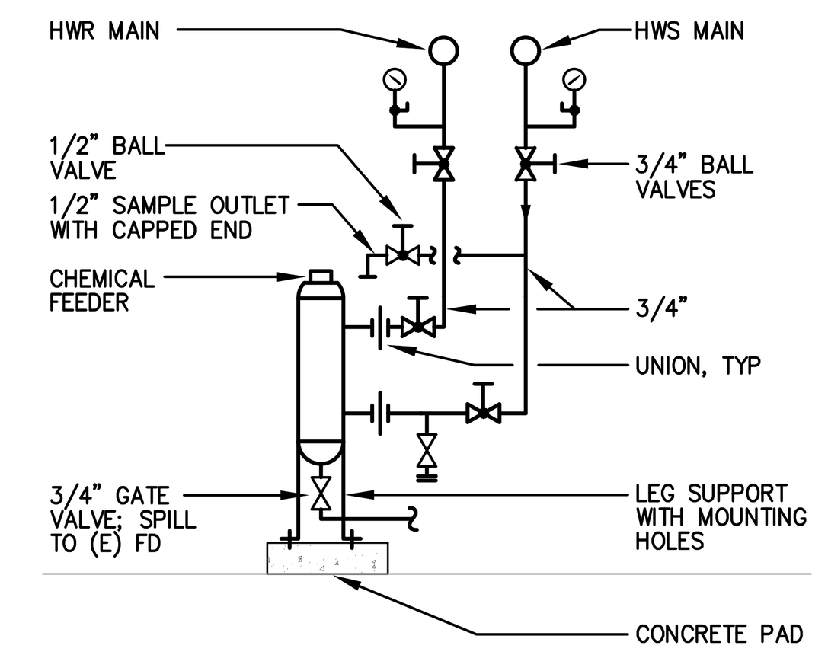
NOTE:

1. MOUNT COUPON RACK ON GALVANIZED STEEL UNI-STRUT WITH STAINLESS STEEL HARDWARE ANCHORED TO BUILDING STRUCTURE.



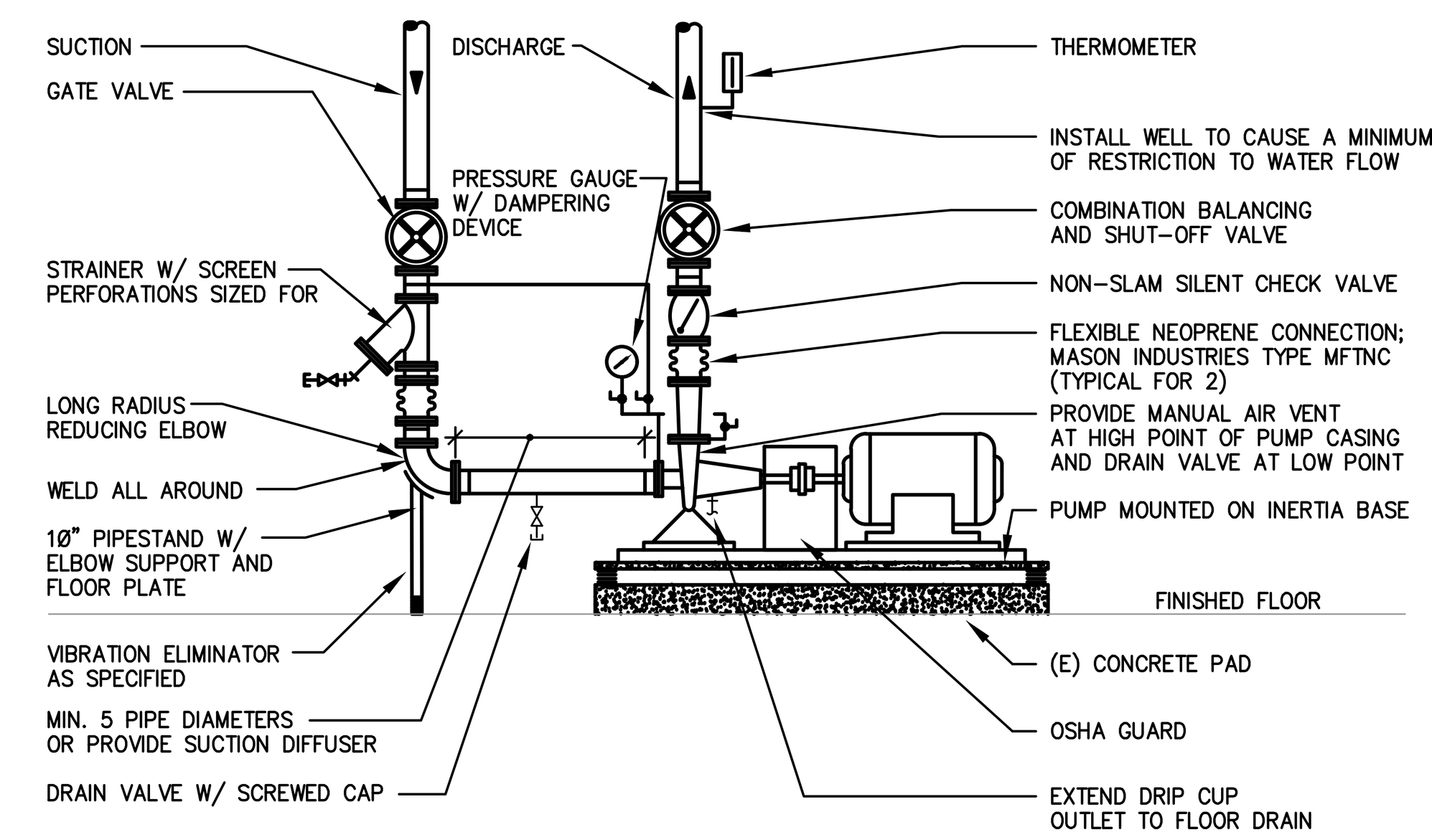
2 H402 AIR CONTROL & PIPING CONNECTION FOR HW SYSTEM

NOT TO SCALE



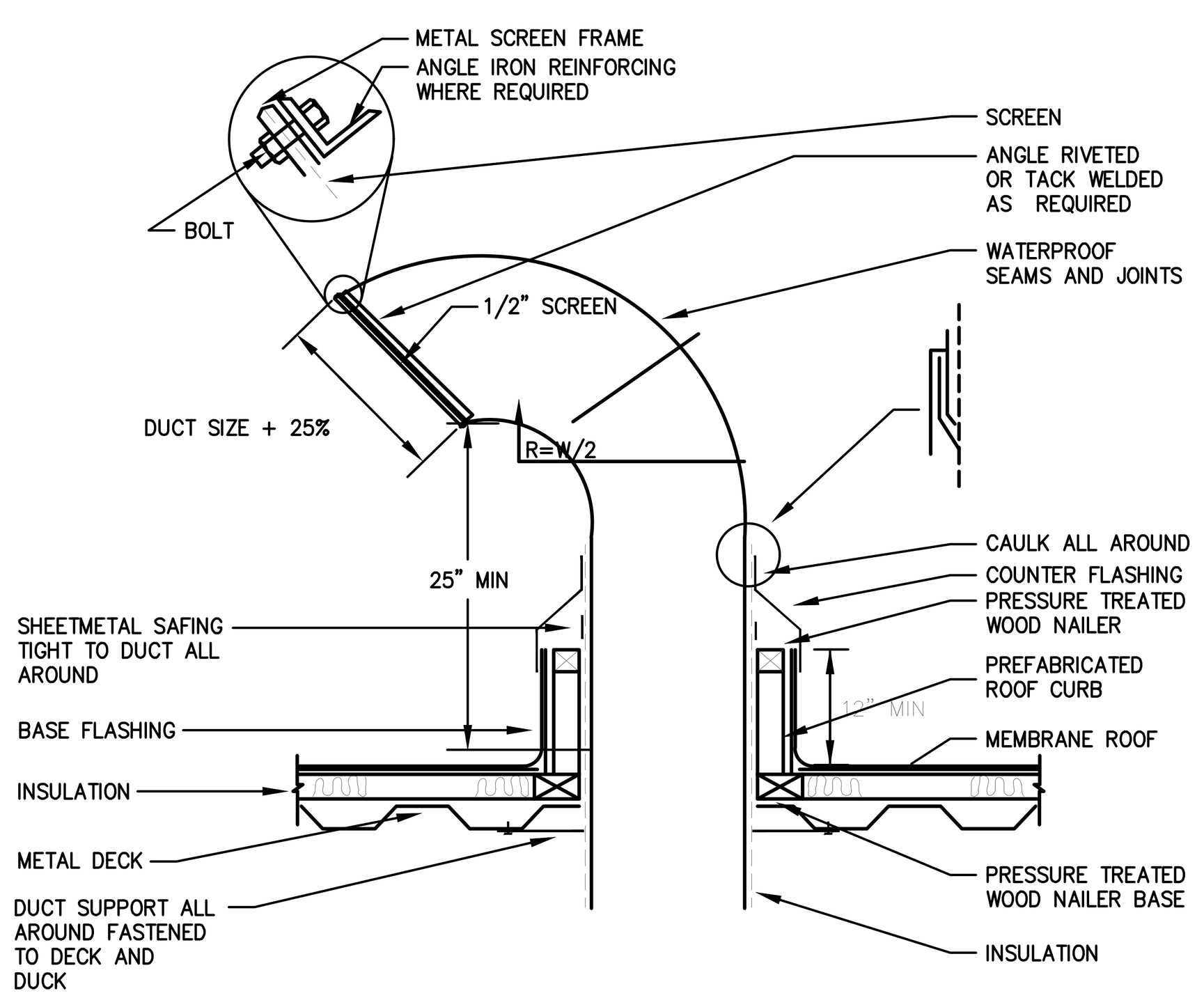
3 H402 CHEMICAL FEED DETAIL

NOT TO SCALE



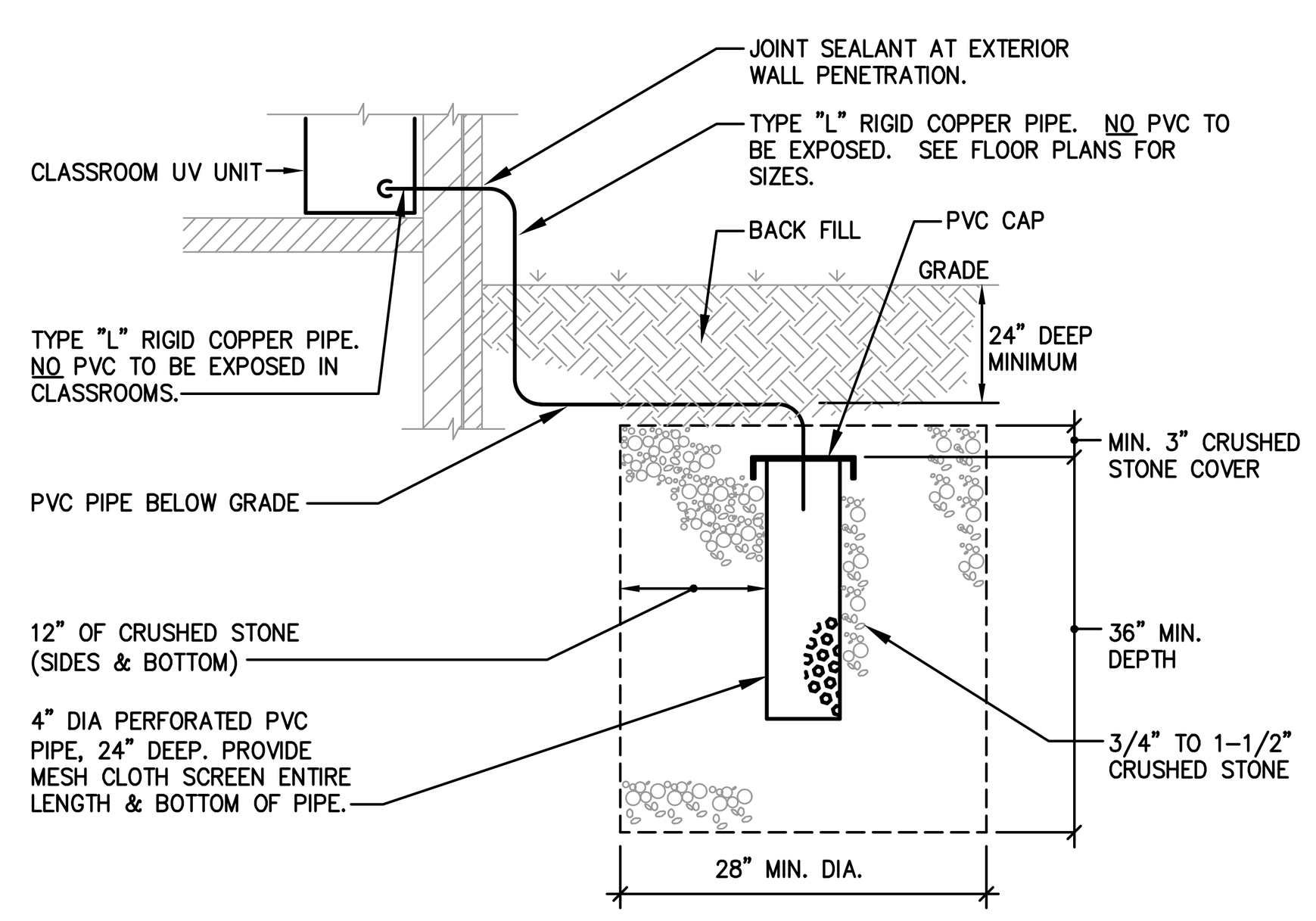
4 H402 END SUCTION PUMP PIPING DETAIL

NOT TO SCALE



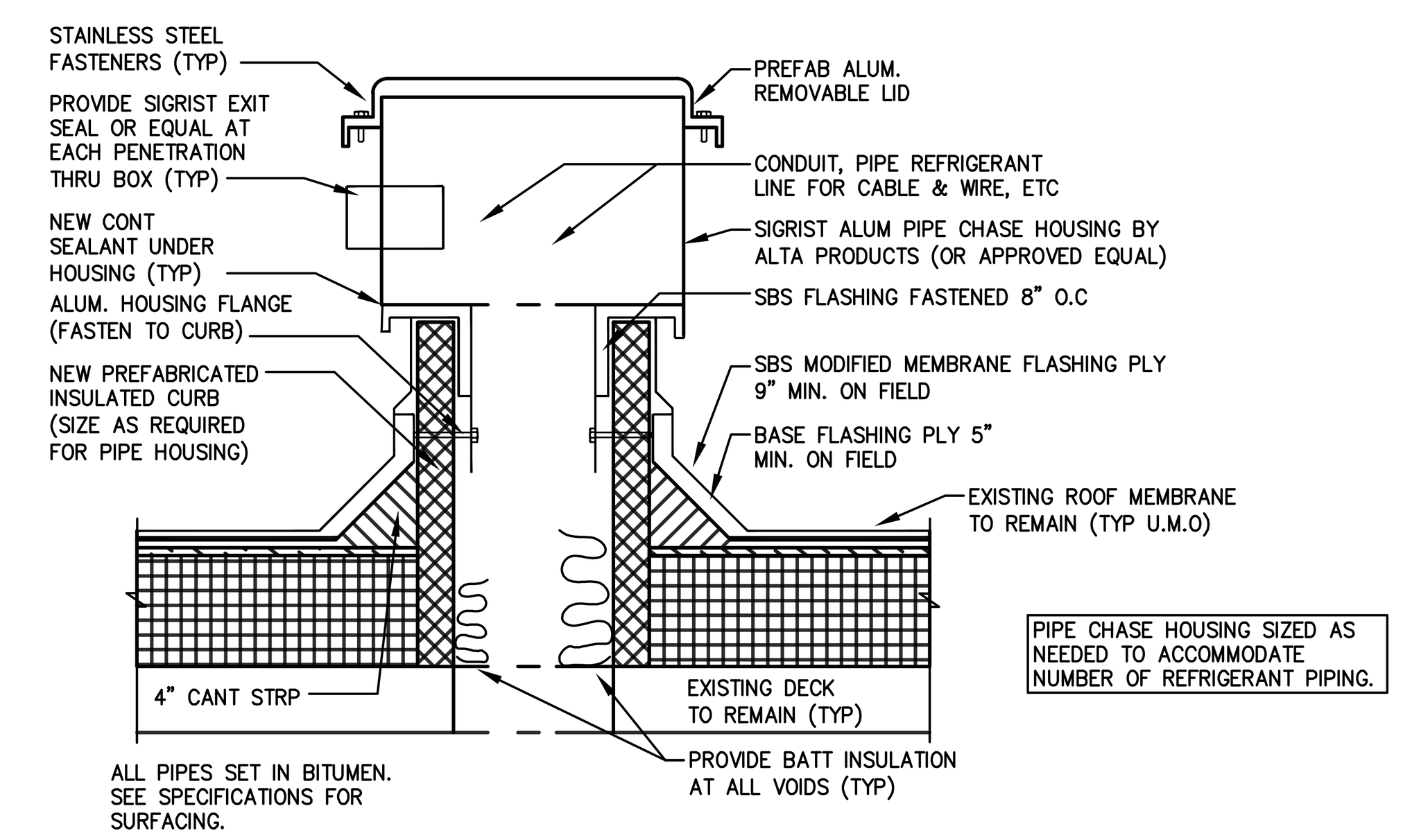
5 H402 RECTANGULAR GOOSENECK

NOT TO SCALE



6 H-402 CONDENSATE DRAIN & DRYWELL DETAIL

NOT TO SCALE

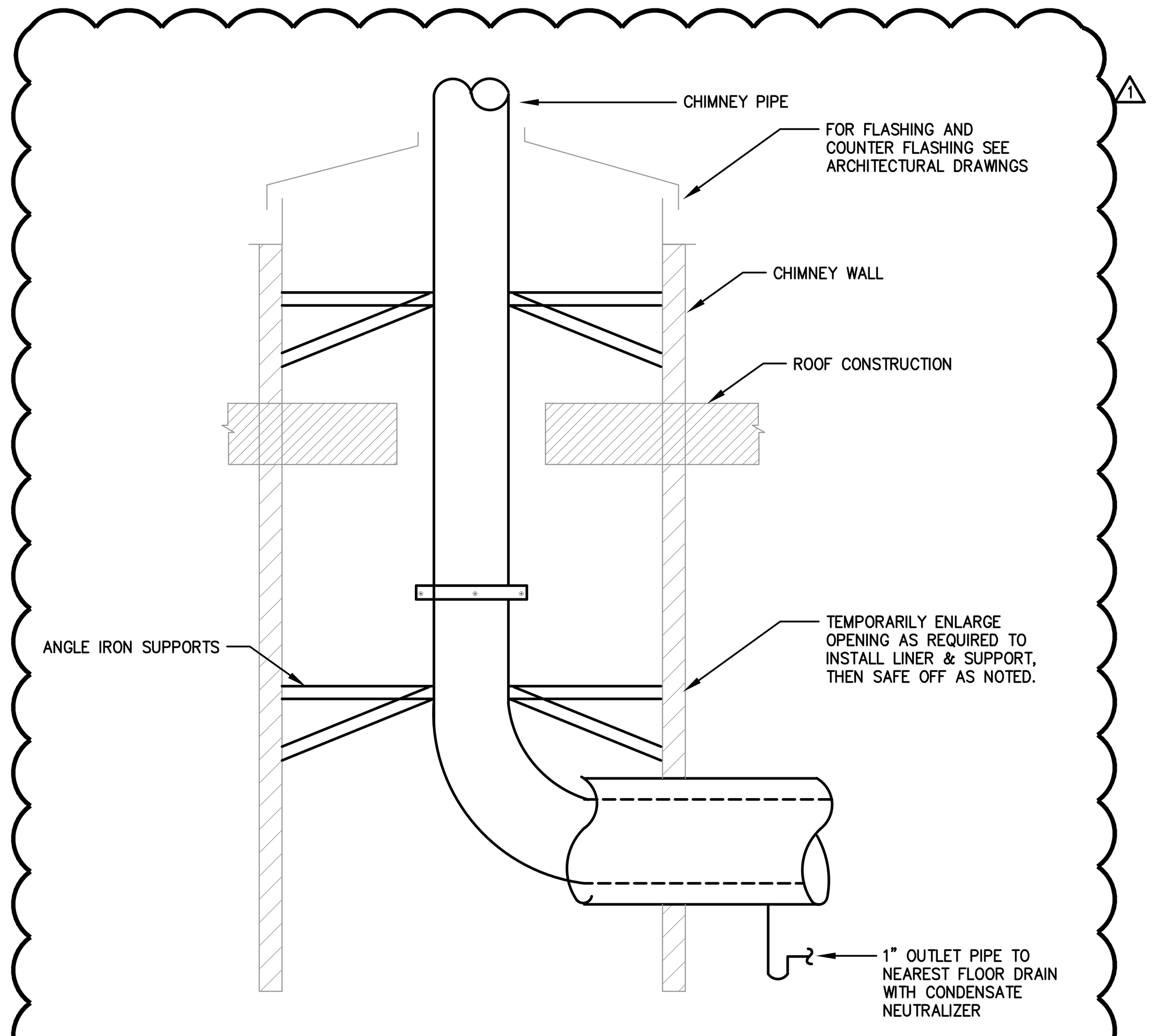


6 H400 REFRIGERANT PIPES/ELECTRICAL CONDUITS PENETRATION THROUGH ROOF W/ ALUM HOUSING

NOT TO SCALE

NOTES:

1. REFER TO ROOFING DETAILS ON ARCHITECTURAL DRAWINGS.
2. ALL WOOD SHALL BE PRESSURE TREATED FIRE RETARDANT.



8 H300 BOILER FLUE DETAIL

NOT TO SCALE

NOTE: FOLLOW ARCHITECTURAL DRAWINGS FOR ADDITIONAL ROOF DETAIL INFORMATION.

KELTER & GILLIGO consulting engineers
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H-402

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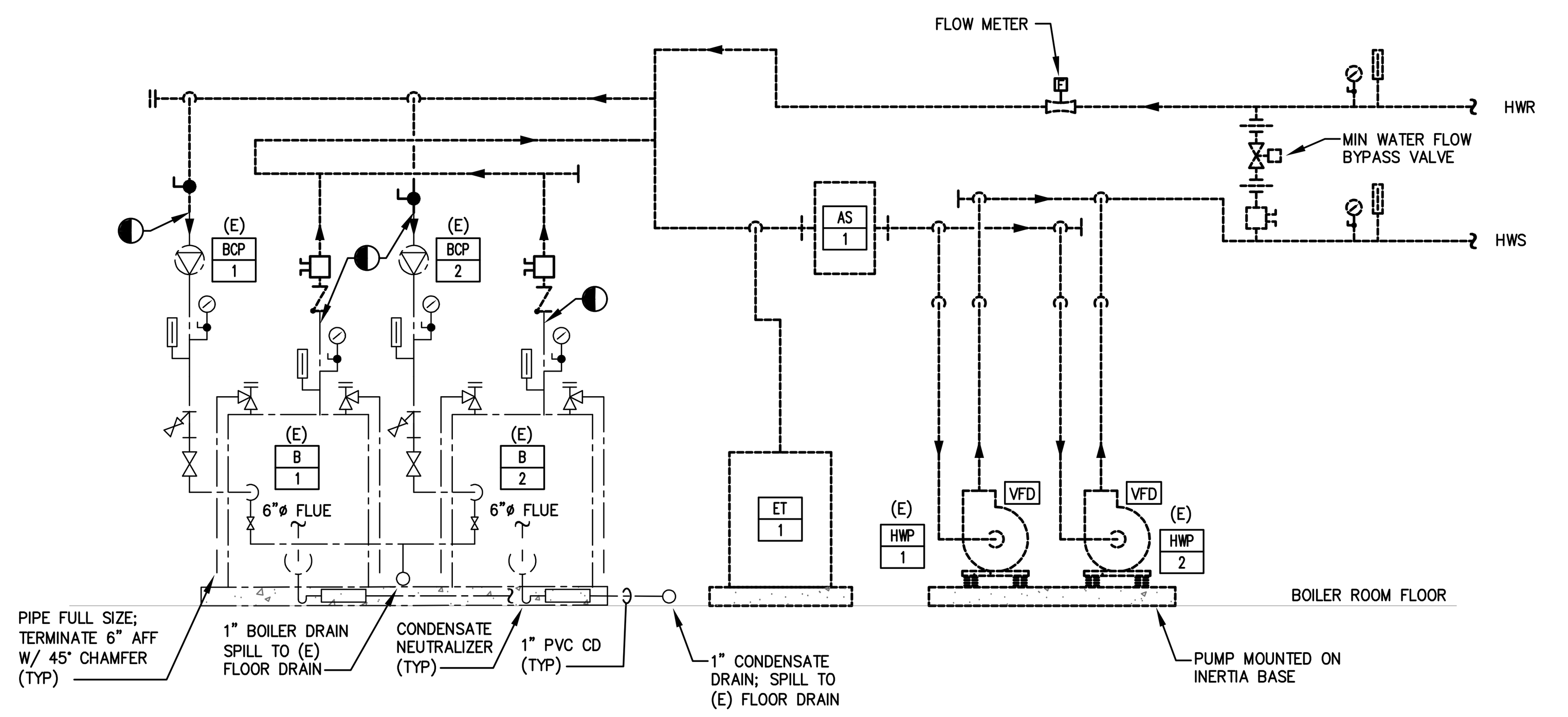
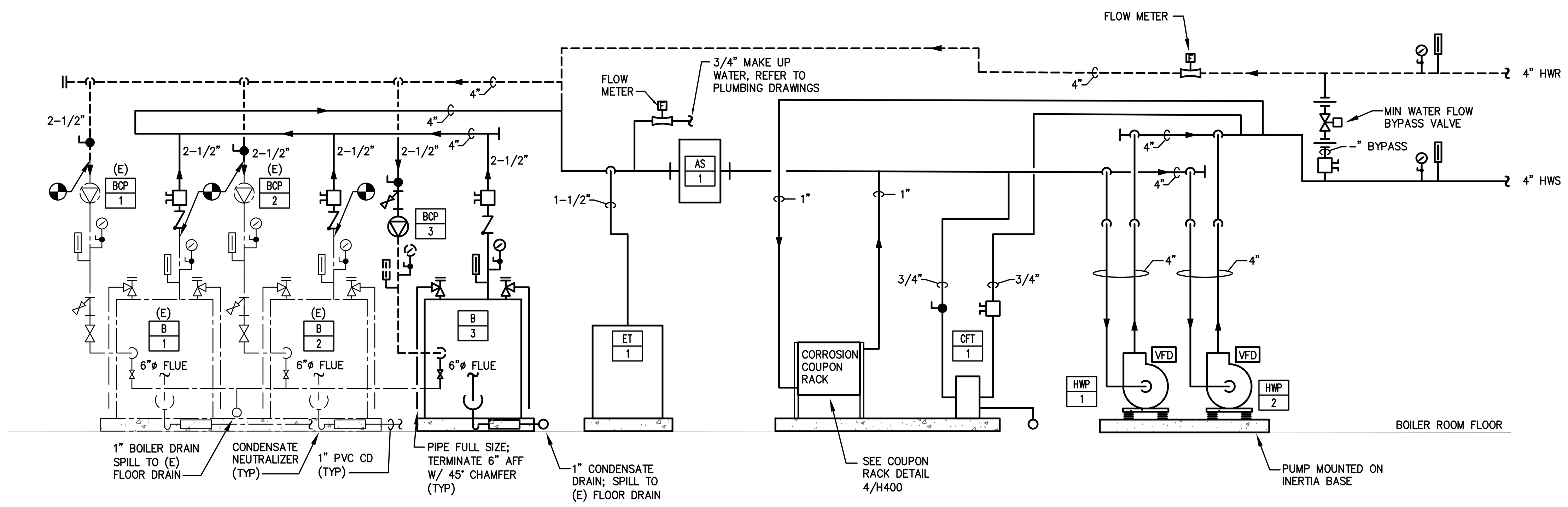


1 / H403 — DEMOLITION BOILER PLANT PIPING DIAGRAM

NOT TO SCALE

NOTE:

1. DEMOLITION OF (E) EQUIPMENT SHALL INCLUDE REMOVAL OF ASSOCIATED POWER CIRCUITS, STARTERS, CONTROLS CONCRETE PADS, ETC.

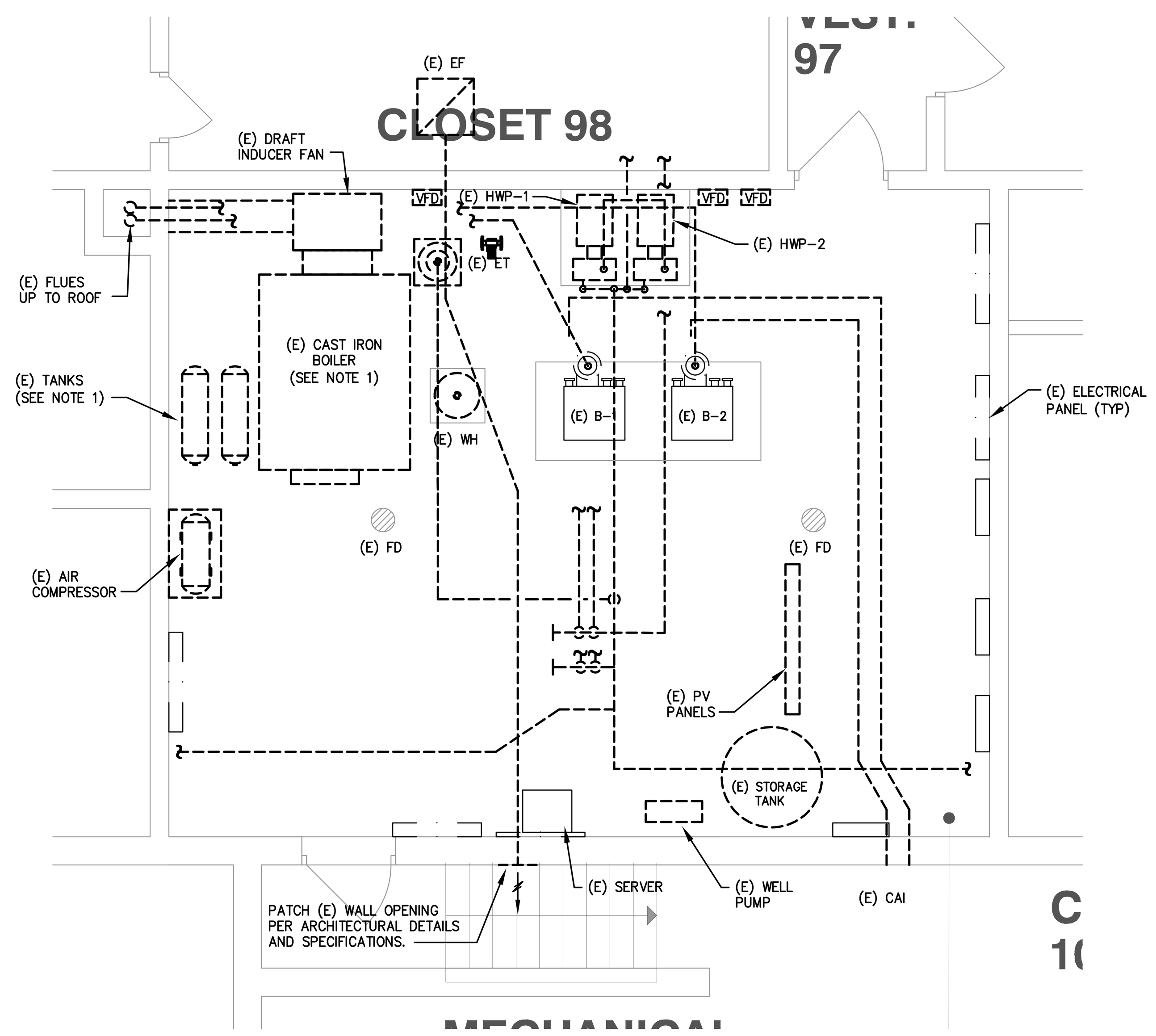


2 / H403 — NEW BOILER PLANT PIPING DIAGRAM

NOT TO SCALE

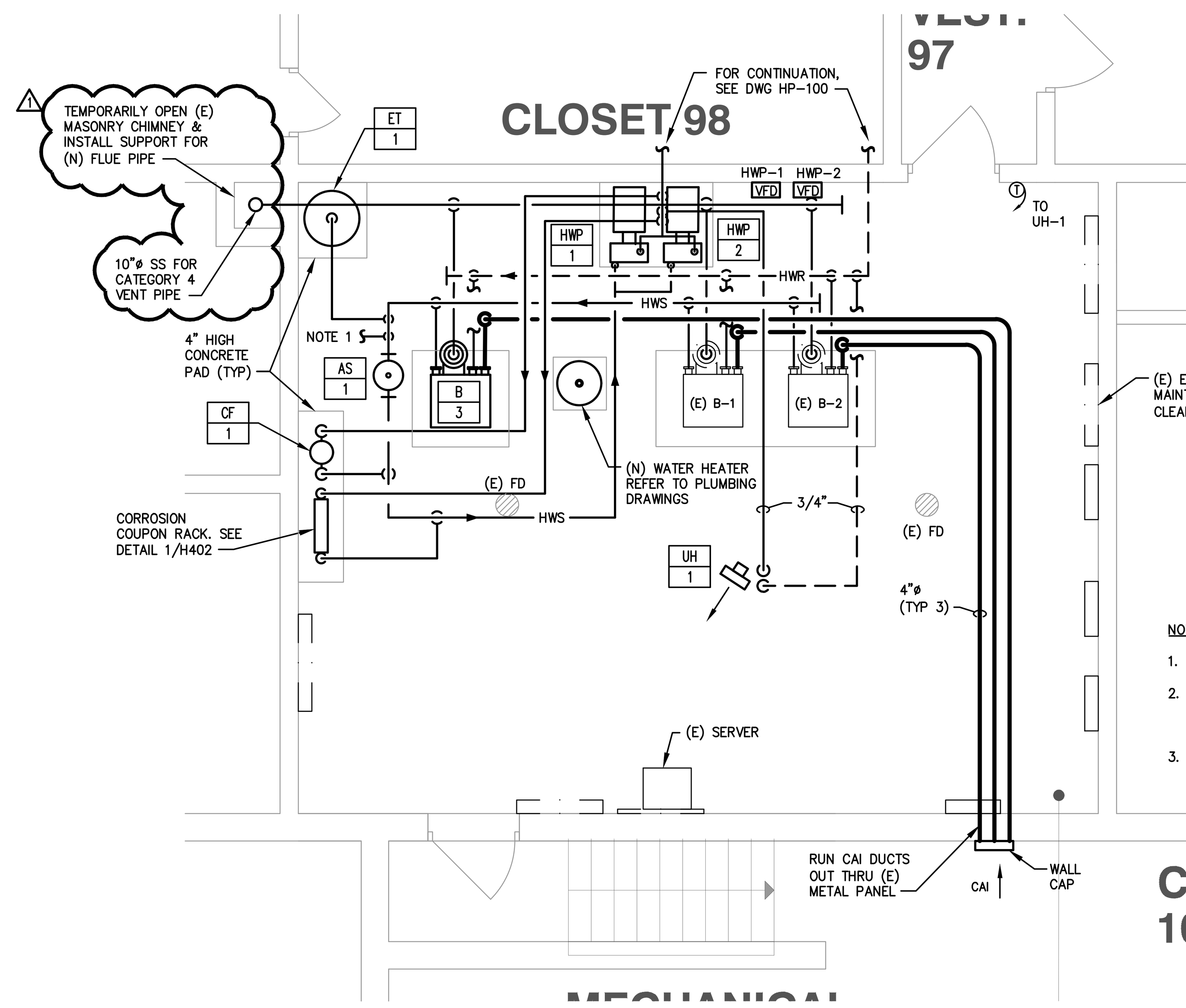
NOTE:

1. ALL EQUIPMENT & CONTROL VALVE CONNECTIONS SHALL BE FLANGED.



3 / H403 — BOILER ROOM PLAN – HVAC DEMOLITION

SCALE 1/4" = 1'-0"



4 / H403 — BOILER ROOM PLAN – HVAC NEW WORK

SCALE 1/4" = 1'-0"

NOTES:

1. 3/4" COLD WATER TO MAKE UP WATER EQUIPMENT. REFER TO PLUMBING DRAWINGS.
2. CONTRACTOR SHALL COORDINATE NEW WORK WITH EXISTING WORK OF ALL TRADES. THE (E) SPRINKLER SYSTEM SHALL REMAIN IN SERVICE. COORDINATE ALL WORK AROUND THE (E) SPRINKLER SYSTEM.
3. PROVIDE AN EQUIPMENT RACK FOR CHEMICAL TREATMENT AND MAKE UP WATER SERVICE. PROVIDE GALVANIZED STEEL UNI-STRUT WITH STAINLESS STEEL HARDWARE.

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H-403

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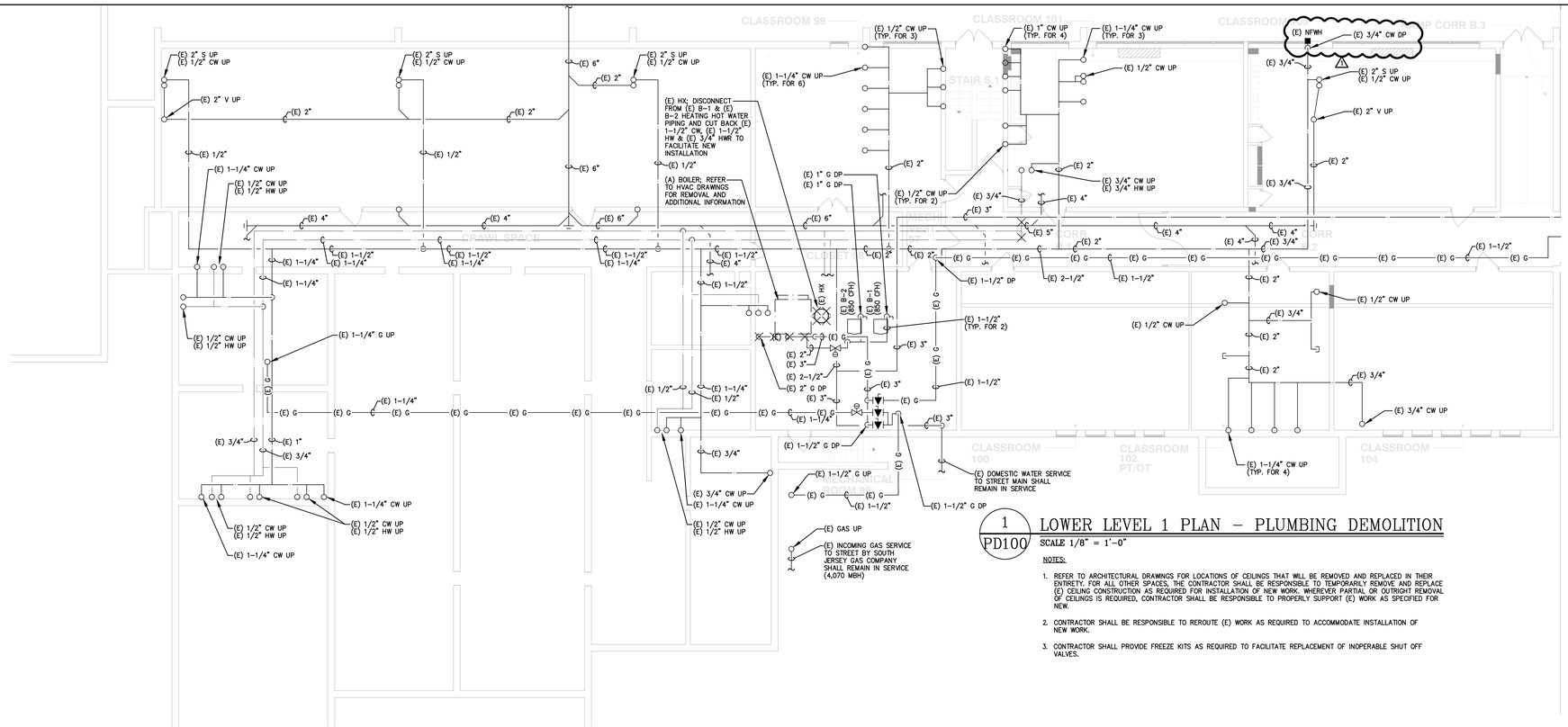
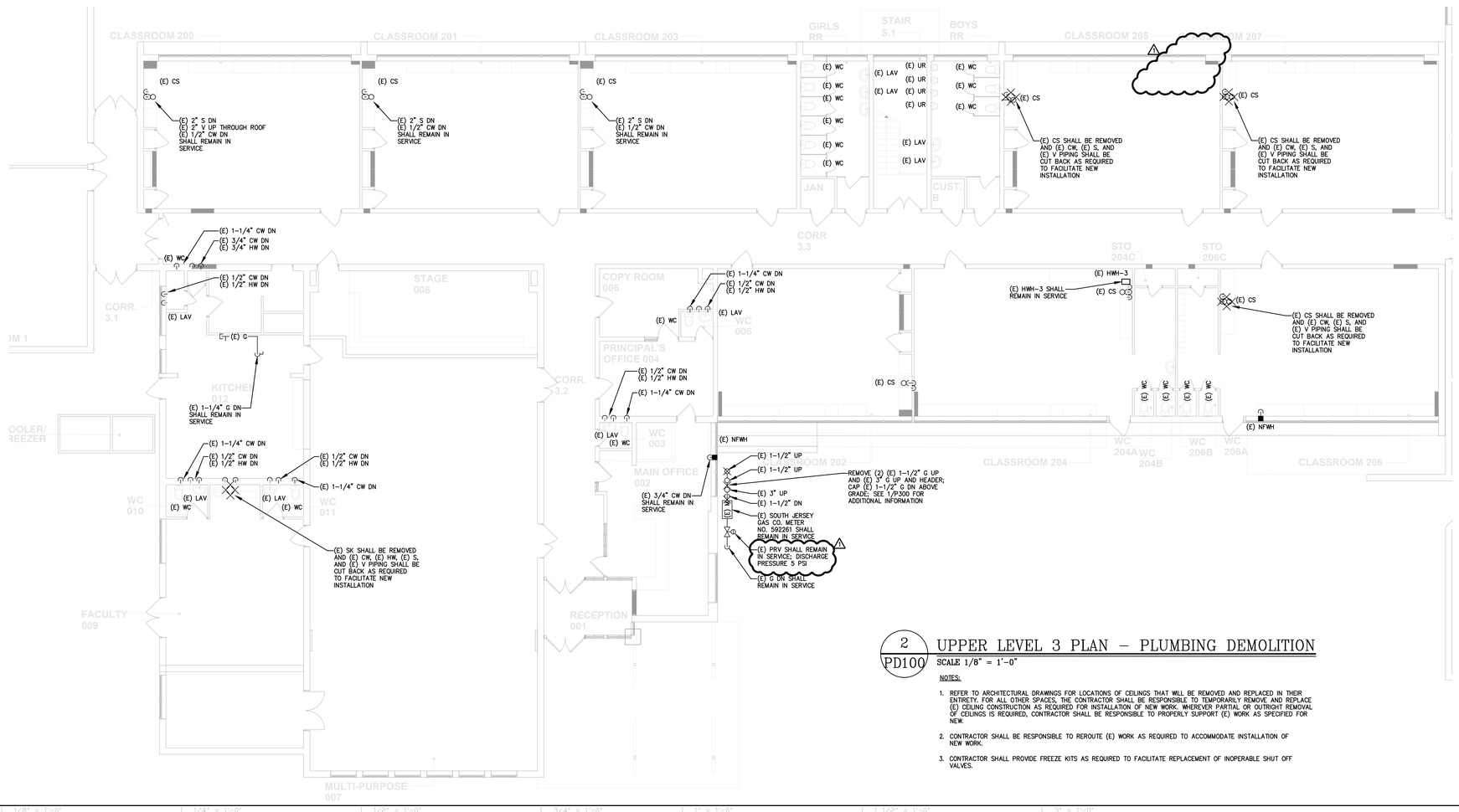


1 PD100 LOWER LEVEL 1 PLAN – PLUMBING DEMOLITION

SCALE 1/8" = 1'-0"

NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF CEILINGS THAT WILL BE REMOVED AND REPLACED IN THEIR ENTIRETY. FOR ALL OTHER SPACES, THE CONTRACTOR SHALL BE RESPONSIBLE TO TEMPORARILY REMOVE AND REPLACE (E) CEILING CONSTRUCTION AS REQUIRED FOR INSTALLATION OF NEW WORK. WHEREVER PARTIAL OR OUTRIGHT REMOVAL OF CEILINGS IS REQUIRED, CONTRACTOR SHALL BE RESPONSIBLE TO PROPERLY SUPPORT (E) WORK AS SPECIFIED FOR NEW.
2. CONTRACTOR SHALL BE RESPONSIBLE TO REROUTE (E) WORK AS REQUIRED TO ACCOMMODATE INSTALLATION OF NEW WORK.
3. CONTRACTOR SHALL PROVIDE FREEZE KITS AS REQUIRED TO FACILITATE REPLACEMENT OF INOPERABLE SHUT OFF VALVES.

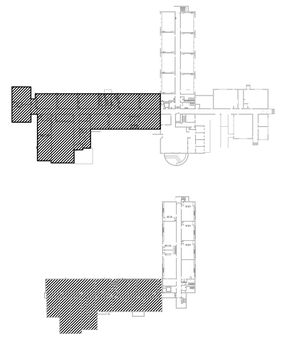


2 PD100 UPPER LEVEL 3 PLAN – PLUMBING DEMOLITION

SCALE 1/8" = 1'-0"

NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF CEILINGS THAT WILL BE REMOVED AND REPLACED IN THEIR ENTIRETY. FOR ALL OTHER SPACES, THE CONTRACTOR SHALL BE RESPONSIBLE TO TEMPORARILY REMOVE AND REPLACE (E) CEILING CONSTRUCTION AS REQUIRED FOR INSTALLATION OF NEW WORK. WHEREVER PARTIAL OR OUTRIGHT REMOVAL OF CEILINGS IS REQUIRED, CONTRACTOR SHALL BE RESPONSIBLE TO PROPERLY SUPPORT (E) WORK AS SPECIFIED FOR NEW.
2. CONTRACTOR SHALL BE RESPONSIBLE TO REROUTE (E) WORK AS REQUIRED TO ACCOMMODATE INSTALLATION OF NEW WORK.
3. CONTRACTOR SHALL PROVIDE FREEZE KITS AS REQUIRED TO FACILITATE REPLACEMENT OF INOPERABLE SHUT OFF VALVES.



KEY PLAN

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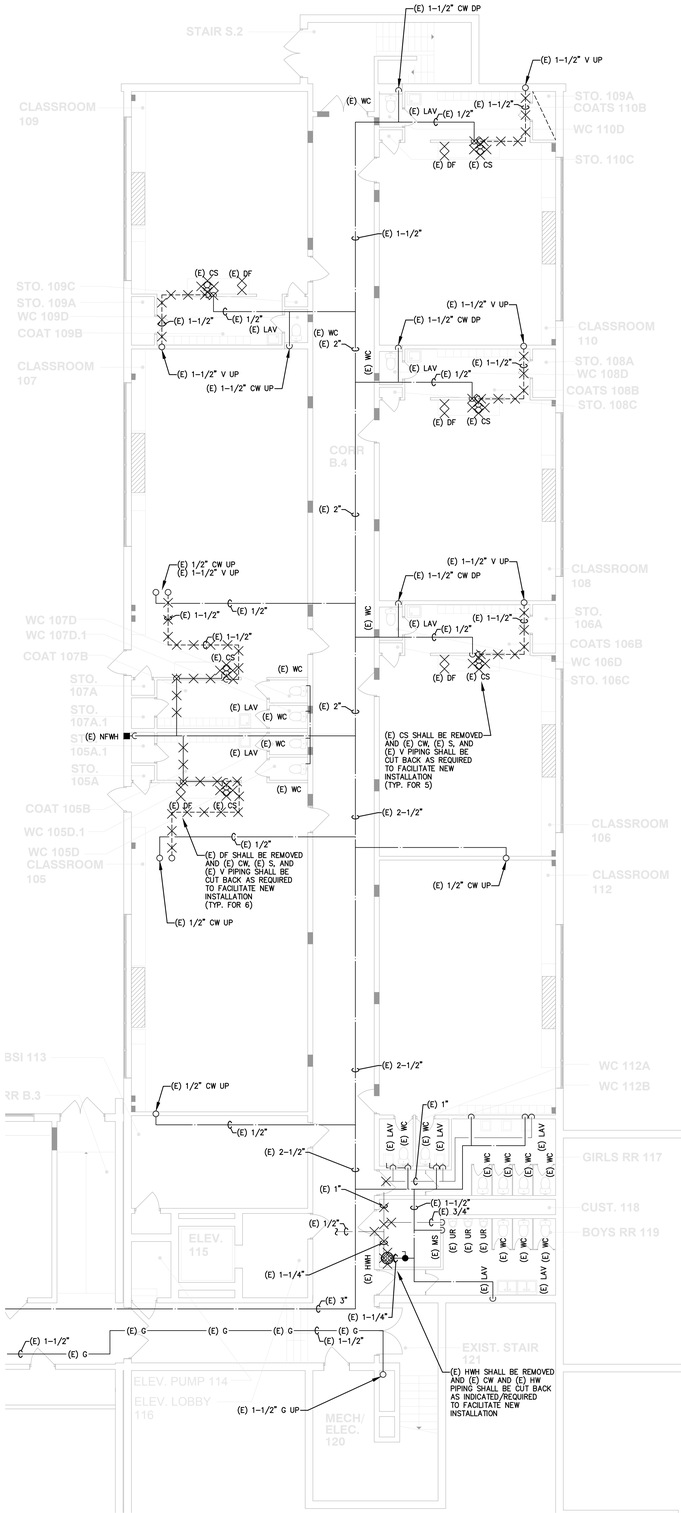
REVISION DATE:	⚠ 18 FEB 2025
DRAWING DATE:	18 OCT 2024
PRINT DATE:	18 OCT 2024
DRAWN BY:	ACL
SHEET TITLE:	PARTIAL LOWER LEVEL 1 AND UPPER LEVEL 3 PLANS - PLUMBING DEMOLITION

PD-100

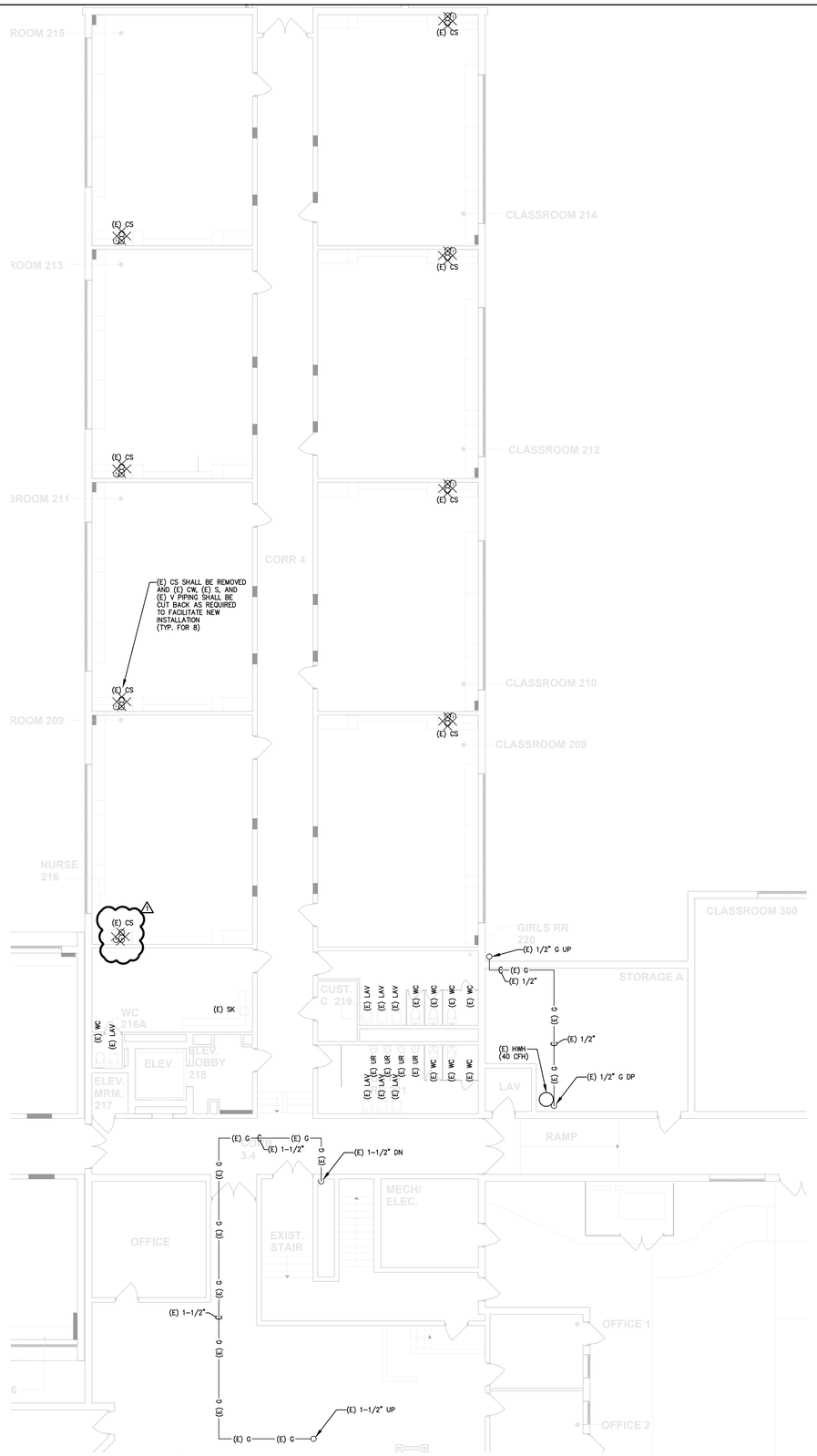


1 PD101 LOWER LEVEL 2 PLAN – PLUMBING DEMOLITION

SCALE 1/8" = 1'-0"

NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF CEILINGS THAT WILL BE REMOVED AND REPLACED IN THEIR ENTIRETY. FOR ALL OTHER SPACES, THE CONTRACTOR SHALL BE RESPONSIBLE TO TEMPORARILY REMOVE AND REPLACE (E) CEILING CONSTRUCTION AS REQUIRED FOR INSTALLATION OF NEW WORK. WHEREVER PARTIAL OR OUTRIGHT REMOVAL OF CEILINGS IS REQUIRED, CONTRACTOR SHALL BE RESPONSIBLE TO PROPERLY SUPPORT (E) WORK AS SPECIFIED FOR NEW.
2. CONTRACTOR SHALL BE RESPONSIBLE TO REROUTE (E) WORK AS REQUIRED TO ACCOMMODATE INSTALLATION OF NEW WORK.
3. CONTRACTOR SHALL PROVIDE FREEZE KITS AS REQUIRED TO FACILITATE REPLACEMENT OF INOPERABLE SHUT OFF VALVES.

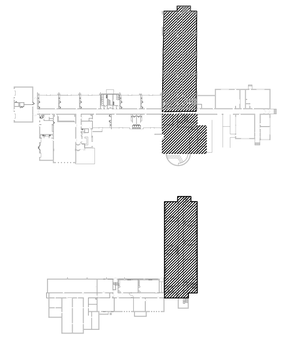


2 PD101 UPPER LEVEL 4 PLAN – PLUMBING DEMOLITION

SCALE 1/8" = 1'-0"

NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF CEILINGS THAT WILL BE REMOVED AND REPLACED IN THEIR ENTIRETY. FOR ALL OTHER SPACES, THE CONTRACTOR SHALL BE RESPONSIBLE TO TEMPORARILY REMOVE AND REPLACE (E) CEILING CONSTRUCTION AS REQUIRED FOR INSTALLATION OF NEW WORK. WHEREVER PARTIAL OR OUTRIGHT REMOVAL OF CEILINGS IS REQUIRED, CONTRACTOR SHALL BE RESPONSIBLE TO PROPERLY SUPPORT (E) WORK AS SPECIFIED FOR NEW.
2. CONTRACTOR SHALL BE RESPONSIBLE TO REROUTE (E) WORK AS REQUIRED TO ACCOMMODATE INSTALLATION OF NEW WORK.
3. CONTRACTOR SHALL PROVIDE FREEZE KITS AS REQUIRED TO FACILITATE REPLACEMENT OF INOPERABLE SHUT OFF VALVES.



KEY PLAN

KELTER & GILLIGO consulting engineers
PRINCETON JUNCTION NEW JERSEY 08550
Frank Tindall, P.E.
PROFESSIONAL ENGINEER
NJ 38656
REGAN YOUNG ENGLAND BUTERA
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NJDOE PROJECT NUMBERS
HVAC- 2670-040-23-R503
ROOF- 2670-040-23-R501

NJSDA PROJECT NUMBERS
HVAC- 2670-040-23-G5KN
ROOF- 2670-050-23-G5KM

NJSDA GRANT NUMBERS
HVAC- G5-6677
ROOF- G5-6676

PROJECT TITLE:
BUILDING RENOVATION LINDENWOLD SCHOOL #4

ADDRESS:
LINDENWOLD SCHOOL #4
BLOCK 64, LOT 1; BLOCK 65, LOT 1 & BLOCK 66, LOT 1
900 EAST GIBBSBORO ROAD
LINDENWOLD, NJ 08021

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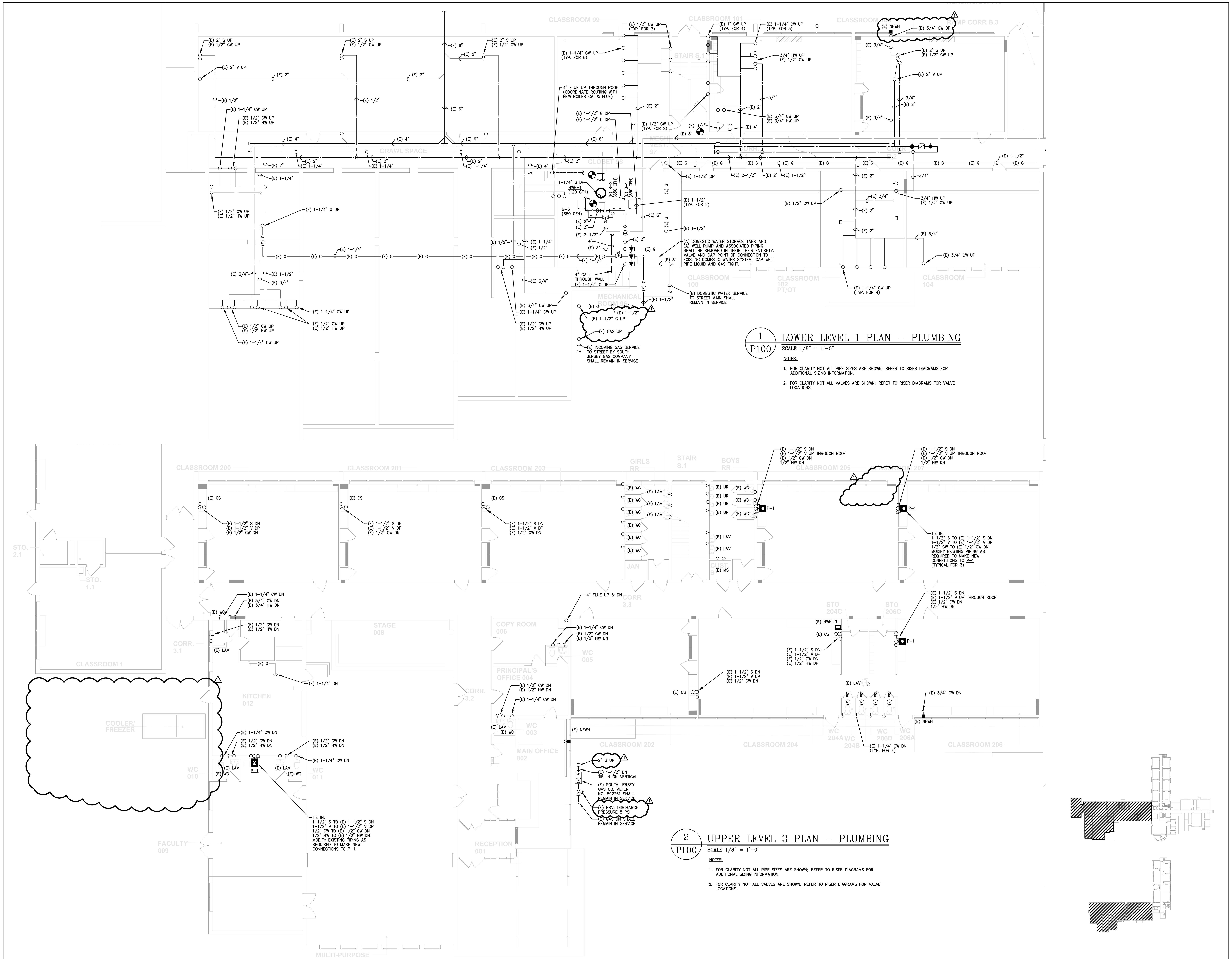
PD-101

1/16" = 1'-0" 0' 8' 16' 32' 48'
1/8" = 1'-0" 0' 4' 8' 16' 24'
1/4" = 1'-0" 0' 2' 4' 8' 12'
1/2" = 1'-0" 0' 1' 2' 4' 6'
3/4" = 1'-0" 0' 1' 2' 3'
1" = 1'-0" 0' 1' 2' 3'
1 1/2" = 1'-0" 0' 1' 2'
2" = 1'-0" 0' 1'

THIS DRAWING FORMATTED TO BE PRINTED FULL SIZE AT 30" x 42" - DO NOT SCALE DRAWINGS



1 / P100 LOWER LEVEL 1 PLAN – PLUMBING

SCALE 1/8" = 1'-0"

NOTES:

1. FOR CLARITY NOT ALL PIPE SIZES ARE SHOWN; REFER TO RISER DIAGRAMS FOR ADDITIONAL SIZING INFORMATION.
2. FOR CLARITY NOT ALL VALVES ARE SHOWN; REFER TO RISER DIAGRAMS FOR VALVE LOCATIONS.

2 / P100 UPPER LEVEL 3 PLAN – PLUMBING

SCALE 1/8" = 1'-0"

NOTES:

1. FOR CLARITY NOT ALL PIPE SIZES ARE SHOWN; REFER TO RISER DIAGRAMS FOR ADDITIONAL SIZING INFORMATION.
2. FOR CLARITY NOT ALL VALVES ARE SHOWN; REFER TO RISER DIAGRAMS FOR VALVE LOCATIONS.

KELTER & GILLIGO consulting engineers

Frank Tindall, P.E. PROFESSIONAL ENGINEER NJ 38656

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NJSDA PROJECT NUMBERS

HVAC- 2670-040-23-G5KN
ROOF- 2670-050-23-G5KM

NJSDA GRANT NUMBERS

HVAC- G5-6677
ROOF- G5-6676

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P-100

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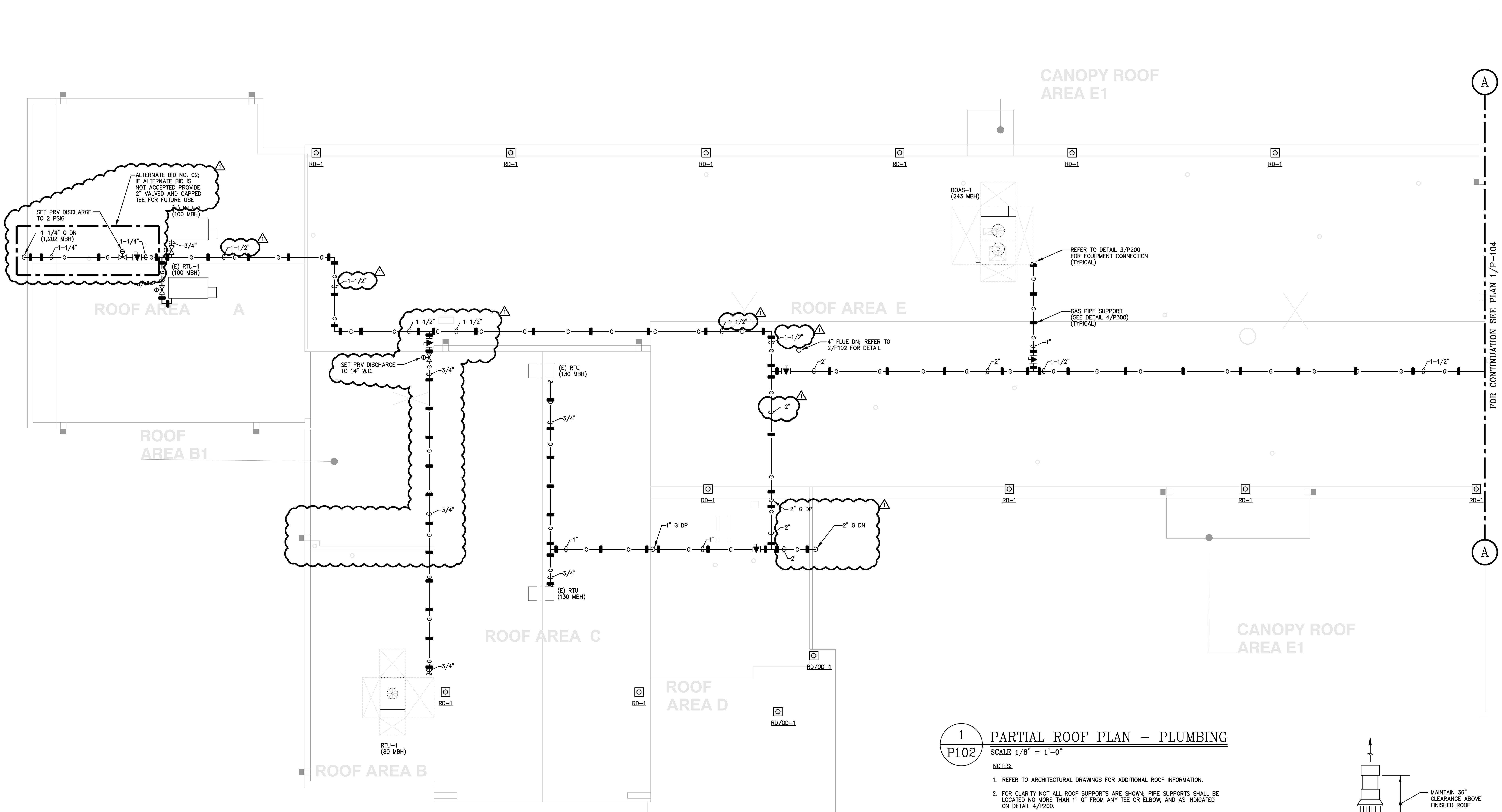
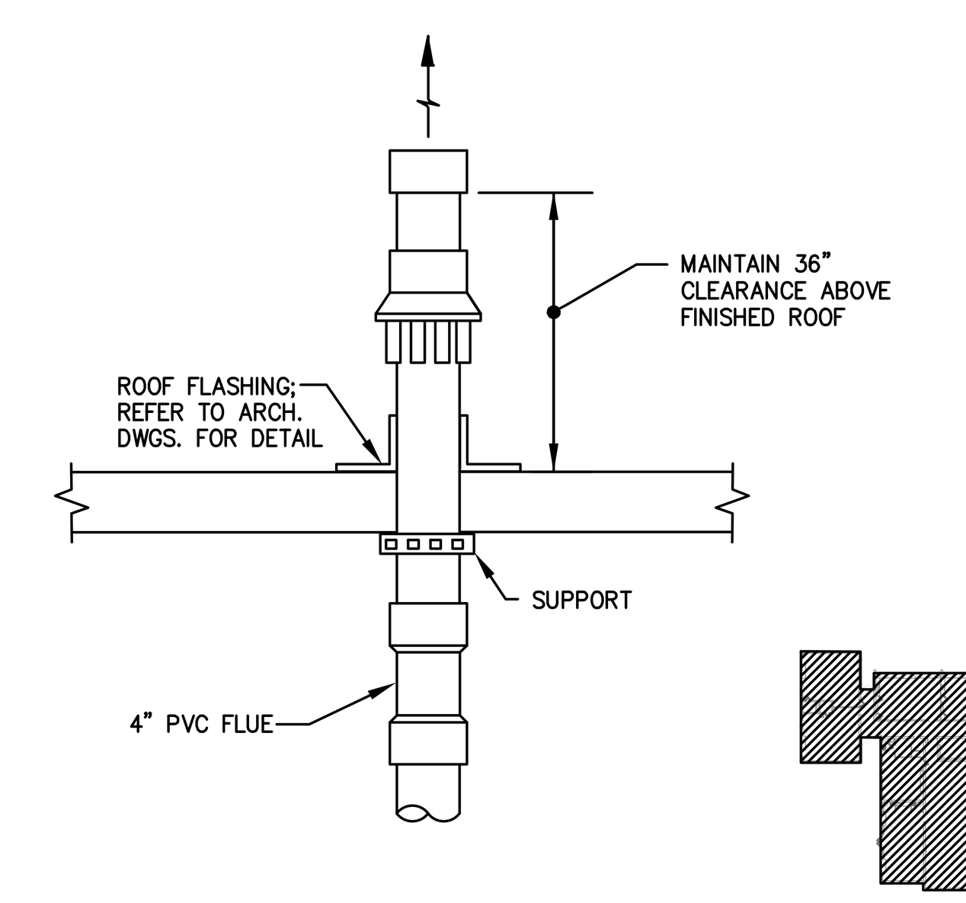


1 / P102 PARTIAL ROOF PLAN – PLUMBING

SCALE 1/8" = 1'-0"

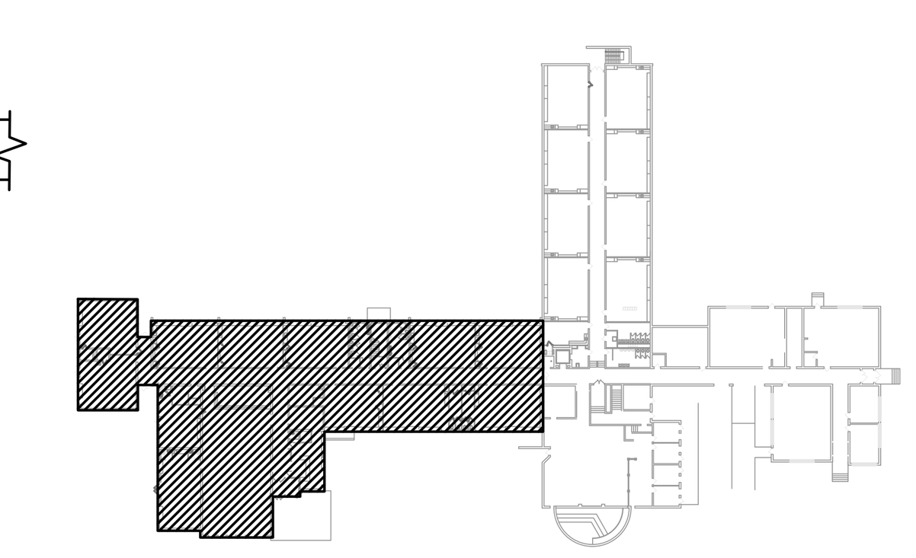
NOTES:

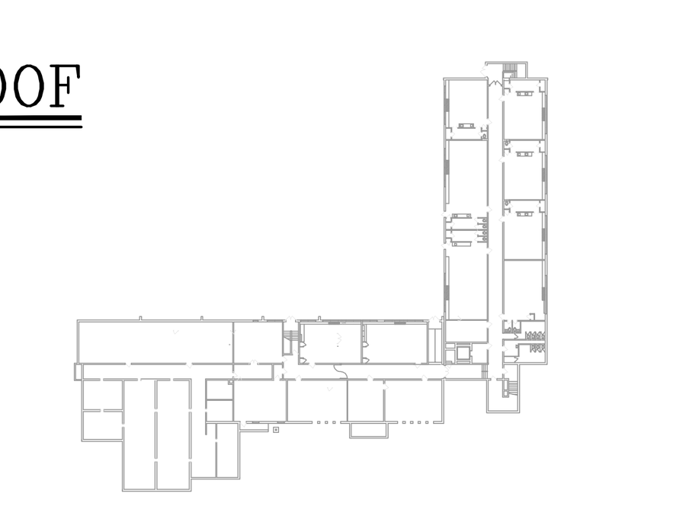
1. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL ROOF INFORMATION.
2. FOR CLARITY NOT ALL ROOF SUPPORTS ARE SHOWN; PIPE SUPPORTS SHALL BE LOCATED NO MORE THAN 1'-0" FROM ANY TEE OR ELBOW, AND AS INDICATED ON DETAIL 4/P200.



2 / P102 GAS HOT WATER HEATER ROOF FLUE TERMINATION DETAIL

NOT TO SCALE





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21AI00912100

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SHEET TITLE: PARTIAL ROOF PLAN - PLUMBING

P-102

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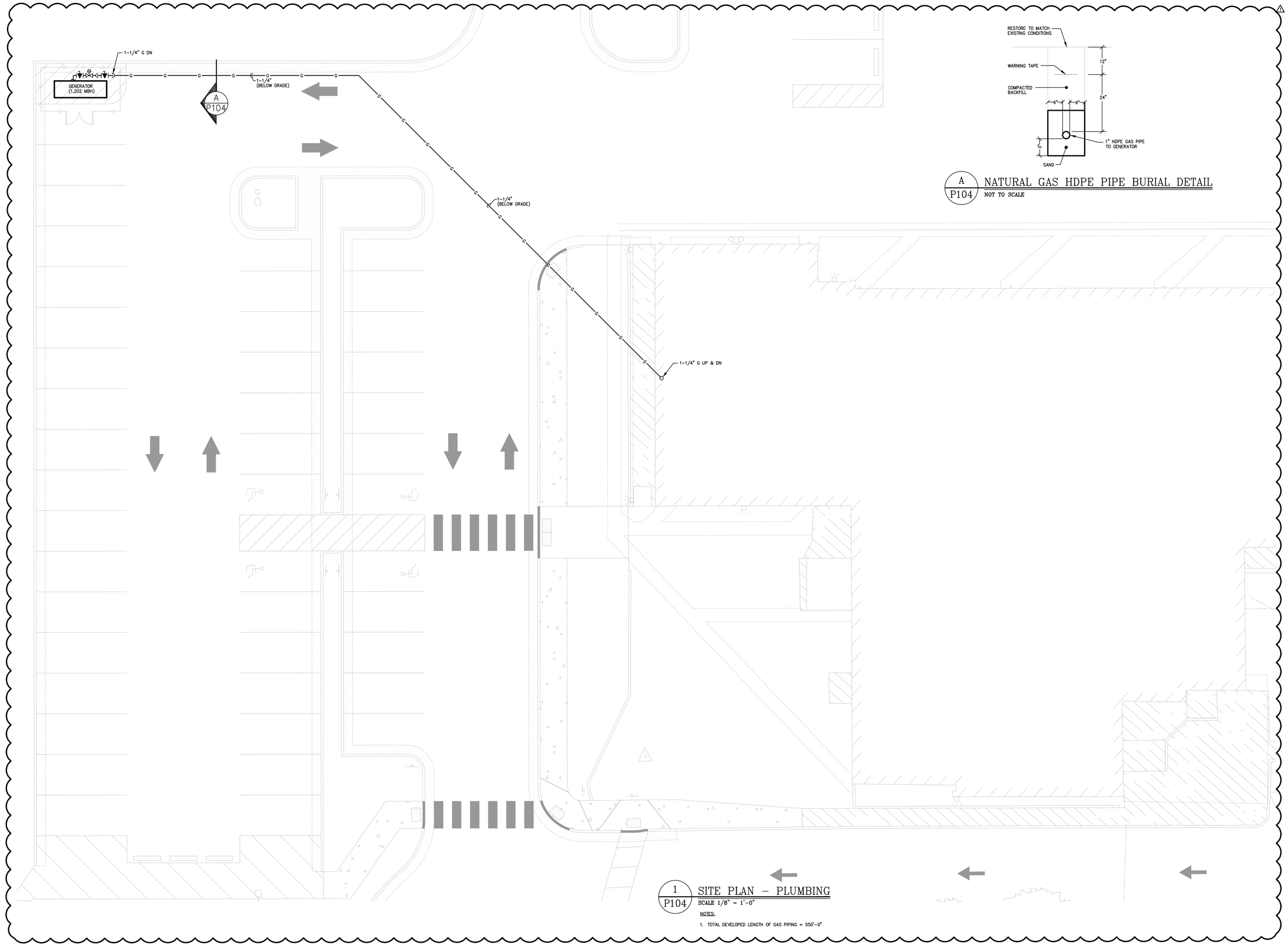

A
P104
NATURAL GAS HDPE PIPE BURIAL DETAIL
NOT TO SCALE

1
P104
SITE PLAN – PLUMBING
SCALE 1/8" = 1'-0"

NOTES:

1. TOTAL DEVELOPED LENGTH OF GAS PIPING = 550'-0"

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DRAWING DATE:	18 OCT 2024
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SHEET TITLE:	SITE PLAN - PLUMBING

P-104

1/16" = 1'-0" | 1/8" = 1'-0" | 1/4" = 1'-0" | 1/2" = 1'-0" | 3/4" = 1'-0" | 1" = 1'-0" | 1 1/2" = 1'-0" | 3" = 1'-0"

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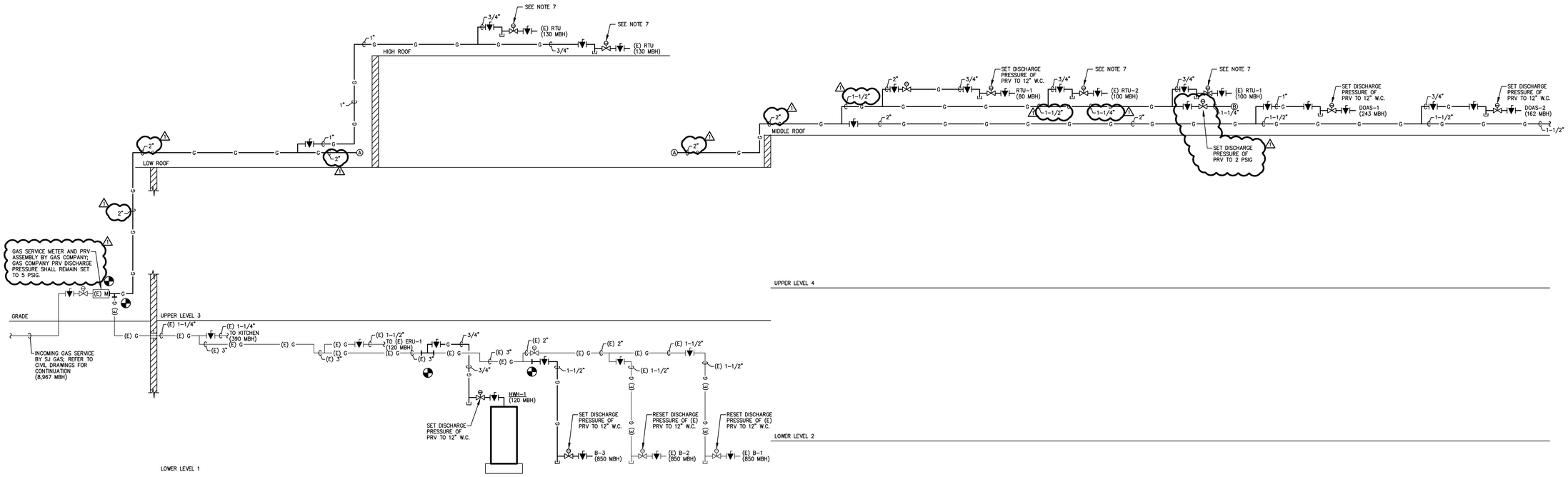
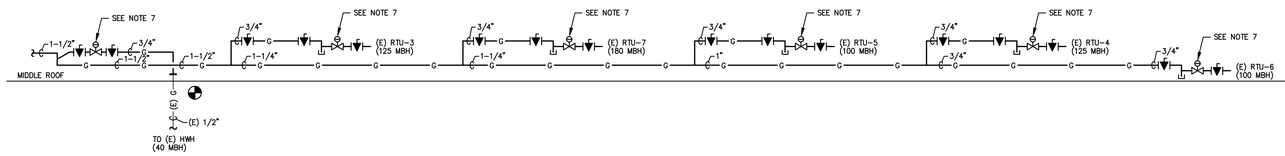


1 P300 NATURAL GAS RISER DIAGRAM – PLUMBING

SCHEMATIC

NOTES:

1. TOTAL DEVELOPED LENGTH OF GAS PIPING = 550'-0"
2. ALL GAS PRV'S SHALL BE EQUIMETER LOCK-UP TYPE OR APPROVED EQUAL, AND APPROVED BY SOUTH JERSEY GAS.
3. ALL EXTERIOR GAS PRV'S SHALL BE INSTALLED SUCH THAT VENT OPENINGS POINT DOWN AND PROVIDE WITH INSECT SCREEN.
4. ROOFTOP GAS PRV VENT LINES SHALL BE EXTENDED TO TERMINATE MINIMUM 10'-0" FROM OUTSIDE AIR INTAKE OF RTUS AND DOAS UNITS; PROVIDE GOOSENECKS AND INSECT SCREENS.
5. ALL INTERIOR GAS PRV'S SHALL BE VENTED TO EXTERIOR OF BUILDING PER INTERNATIONAL FUEL GAS CODE (2021); USE OF VENT LIMITERS IS SPECIFICALLY PROHIBITED; PROVIDE GOOSENECKS AND INSECT SCREENS. ⚠1
6. ALL GAS PIPING SHALL BE SIZED PER INTERNATIONAL FUEL GAS CODE (2021) TABLE 402.4(4) EXCEPT AS OTHERWISE NOTED.
7. RESET PRVS FOR EXISTING GAS-FIRED EQUIPMENT PER ORIGINAL MANUFACTURER'S WRITTEN INSTRUCTIONS.

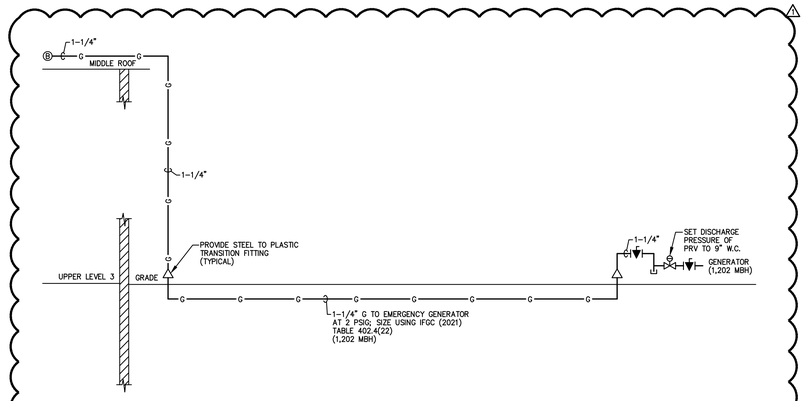


2 P300 NATURAL GAS RISER DIAGRAM – PLUMBING

SCHEMATIC

NOTES:

1. TOTAL DEVELOPED LENGTH OF GAS PIPING = 550'-0"
2. ALL GAS PRV'S SHALL BE EQUIMETER LOCK-UP TYPE OR APPROVED EQUAL, AND APPROVED BY SOUTH JERSEY GAS.
3. ALL EXTERIOR GAS PRV'S SHALL BE INSTALLED SUCH THAT VENT OPENINGS POINT DOWN AND PROVIDE WITH INSECT SCREEN.
4. ROOFTOP GAS PRV VENT LINES SHALL BE EXTENDED TO TERMINATE MINIMUM 10'-0" FROM OUTSIDE AIR INTAKE OF RTUS AND DOAS UNITS; PROVIDE GOOSENECKS AND INSECT SCREENS.
5. ALL INTERIOR GAS PRV'S SHALL BE VENTED TO EXTERIOR OF BUILDING PER INTERNATIONAL FUEL GAS CODE (2021); USE OF VENT LIMITERS IS SPECIFICALLY PROHIBITED; PROVIDE GOOSENECKS AND INSECT SCREENS. ⚠1
6. ALL GAS PIPING SHALL BE SIZED PER INTERNATIONAL FUEL GAS CODE (2021) TABLE 402.4(4) EXCEPT AS OTHERWISE NOTED.
7. RESET PRVS FOR EXISTING GAS-FIRED EQUIPMENT PER ORIGINAL MANUFACTURER'S WRITTEN INSTRUCTIONS.



3 P300 NATURAL GAS RISER DIAGRAM – ALTERNATE BID NO. 02 – PLUMBING

SCHEMATIC

NOTES:

1. TOTAL DEVELOPED LENGTH OF GAS PIPING = 550'-0"
2. ALL GAS PRV'S SHALL BE EQUIMETER LOCK-UP TYPE OR APPROVED EQUAL, AND APPROVED BY SOUTH JERSEY GAS.
3. ALL EXTERIOR GAS PRV'S SHALL BE INSTALLED SUCH THAT VENT OPENINGS POINT DOWN AND PROVIDE WITH INSECT SCREEN.
4. ALL ABOVE GROUND GAS PIPING SHALL BE SIZED PER INTERNATIONAL FUEL GAS CODE (2021) TABLE 402.4(4) EXCEPT AS OTHERWISE NOTED.
5. ALL UNDERGROUND GAS PIPING SHALL BE SIZED PER INTERNATIONAL FUEL GAS CODE (2021) TABLE 402.4(22) EXCEPT AS OTHERWISE NOTED.

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P-300

1/16" = 1'-0" | 1/8" = 1'-0" | 1/4" = 1'-0" | 1/2" = 1'-0" | 3/4" = 1'-0" | 1" = 1'-0" | 1 1/2" = 1'-0" | 2" = 1'-0"

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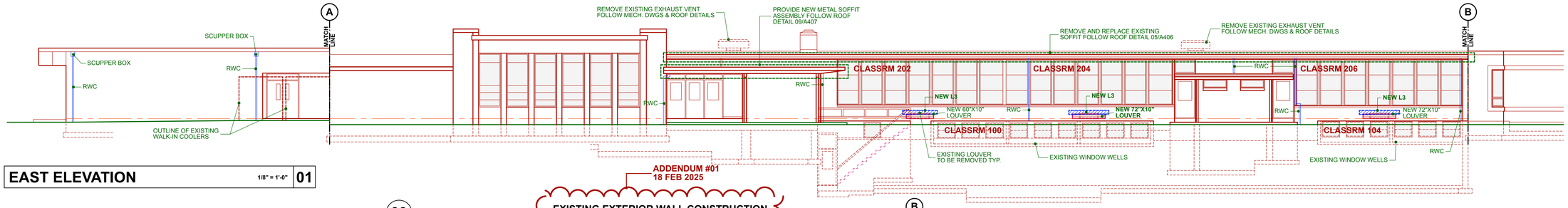
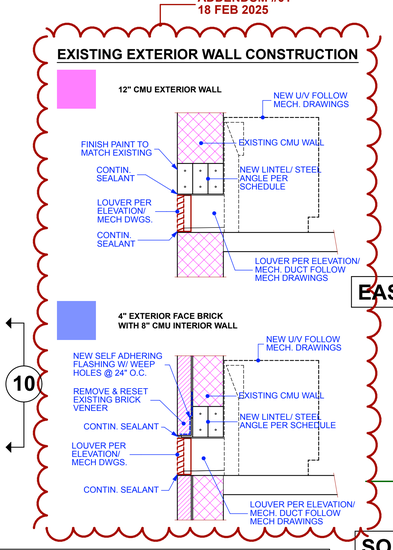
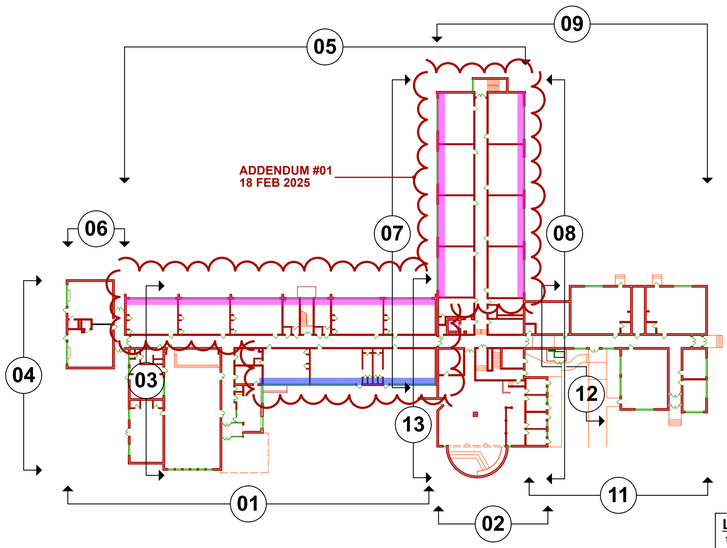


EAST ELEVATION 1/8" = 1'-0" 01

ADDENDUM #01
18 FEB 2025

EXISTING EXTERIOR WALL CONSTRUCTION



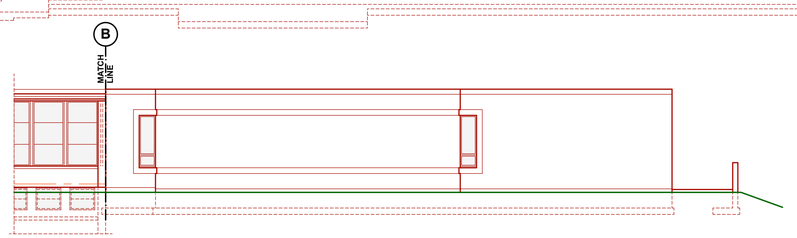


ELEVATION KEY NTS 00

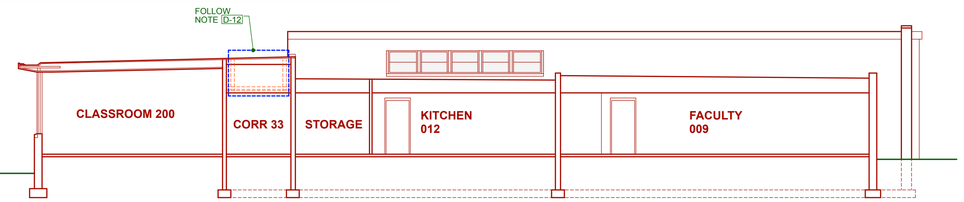
LOOSE LINTEL SCHEDULE- NOTES:

1. PROVIDE ONE (1) GALV. STEEL ANGLE FOR EACH MASONRY WIDTH. (MIN. 4" BEARING) FOR MASONRY WALL/ BRICK VENEER TYPE WALL.
2. BEAR LINTELS 8" MINIMUM EACH SIDE OF OPENING.

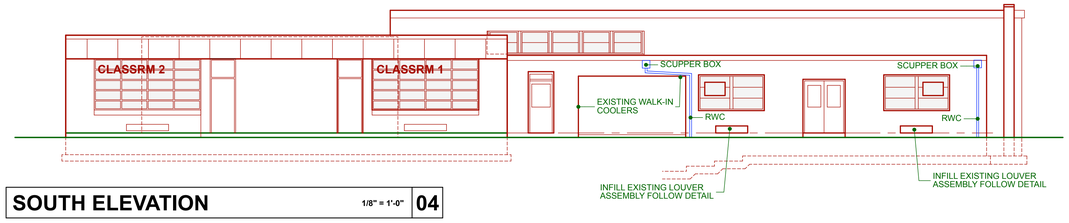
LINTEL TYPE	MASONRY OPENING	LINTEL DESCRIPTION	PROFILE
L-1 L-2	2'- 5'-0"	8" THICK CMU WALL (2) PIECES 4"x8" PRECAST CONCRETE LINTEL W/ #4 BARS TOP AND BOTTOM. 12" THICK CMU WALL (3) PIECES 4"x8" PRECAST CONCRETE LINTEL W/ #4 BARS TOP AND BOTTOM.	
L-3	6'-0"	8" THICK CMU WALL (2) PIECES 4"x8" PRECAST CONCRETE LINTEL W/ #4 BARS TOP AND BOT. + 5"x 3 1/2"x 3/8" GALV. STEEL ANGLE. 8" THICK CMU WALL (3) PIECES 4"x8" PRECAST CONCRETE LINTEL W/ #4 BARS TOP AND BOT. + 5"x 3 1/2"x 3/8" GALV. STEEL ANGLE.	



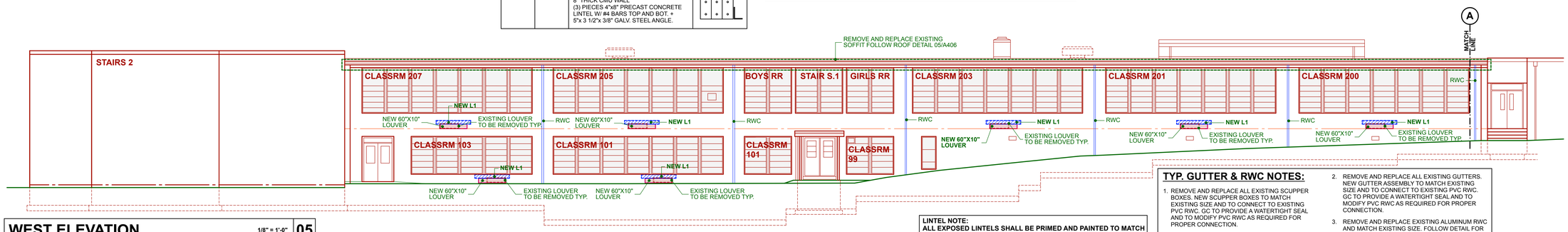
EAST ELEVATION 1/8" = 1'-0" 02



SOUTH ELEVATION/ SECTION 1/8" = 1'-0" 03



SOUTH ELEVATION 1/8" = 1'-0" 04

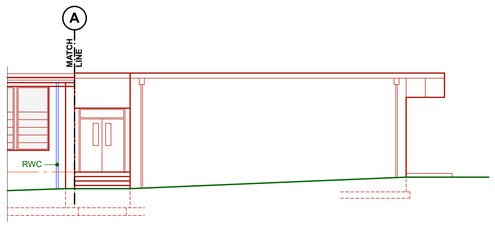


WEST ELEVATION 1/8" = 1'-0" 05

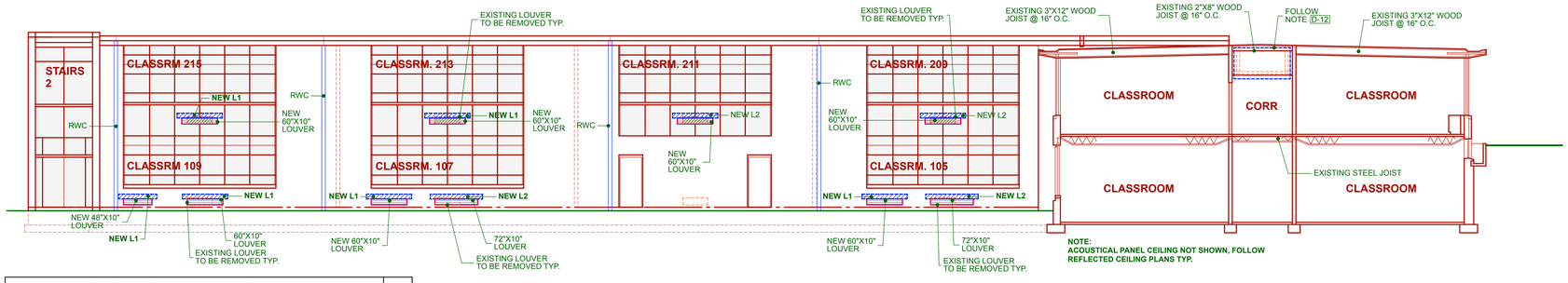
LINTEL NOTE:
ALL EXPOSED LINTELS SHALL BE PRIMED AND PAINTED TO MATCH EXISTING WALL FINISHES.

TYP. GUTTER & RWC NOTES:

1. REMOVE AND REPLACE ALL EXISTING SCUPPER BOXES. NEW SCUPPER BOXES TO MATCH EXISTING SIZE AND TO CONNECT TO EXISTING PVC RWC. GC TO PROVIDE A WATERTIGHT SEAL AND TO MODIFY PVC RWC AS REQUIRED FOR PROPER CONNECTION.
2. REMOVE AND REPLACE ALL EXISTING GUTTERS. NEW GUTTER ASSEMBLY TO MATCH EXISTING SIZE AND TO CONNECT TO EXISTING PVC RWC. GC TO PROVIDE A WATERTIGHT SEAL AND TO MODIFY PVC RWC AS REQUIRED FOR PROPER CONNECTION.
3. REMOVE AND REPLACE EXISTING ALUMINUM RWC AND MATCH EXISTING SIZE. FOLLOW DETAIL FOR ADDITIONAL INFORMATION.



WEST ELEVATION 1/8" = 1'-0" 06



NOTE:
ACOUSTICAL PANEL CEILING NOT SHOWN, FOLLOW REFLECTED CEILING PLANS TYP.

SOUTH ELEVATION/ SECTION 1/8" = 1'-0" 07

1/16" = 1'-0" | 1/8" = 1'-0" | 1/4" = 1'-0" | 1/2" = 1'-0" | 3/4" = 1'-0" | 1" = 1'-0" | 1 1/2" = 1'-0" | 3" = 1'-0"

THIS DRAWING FORMATTED TO BE PRINTED FULL SIZE AT 30" x 42" - DO NOT SCALE DRAWINGS

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REGAN YOUNG, AIA
21AI0912100

NJDOE PROJECT NUMBERS
HVAC- 2670-040-23-R503
ROOF- 2670-040-23-R501

NJSDA PROJECT NUMBERS
HVAC- 2670-040-23-G5KN
ROOF- 2670-050-23-G5KM

NJSDA GRANT NUMBERS
HVAC- G5-6677
ROOF- G5-6676

PROJECT TITLE:
BUILDING RENOVATION
LINDENWOLD SCHOOL #4

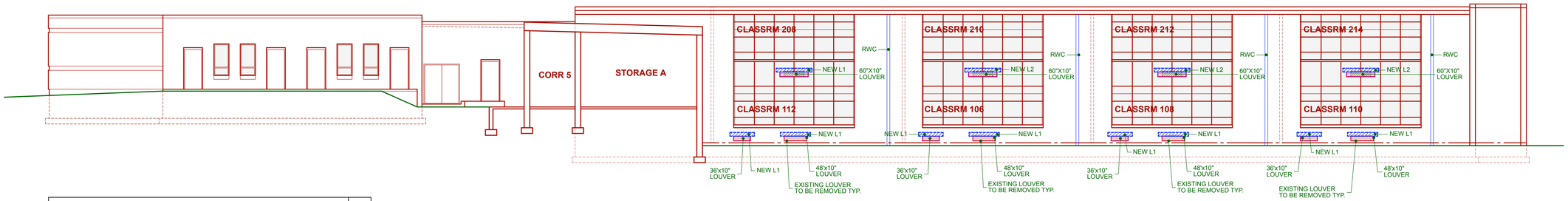
ADDRESS:
LINDENWOLD SCHOOL #4
BLOCK 64, LOT 1; BLOCK 65, LOT 1 & BLOCK 66, LOT 1
900 EAST GIBBSBORO ROAD
LINDENWOLD, NJ 08021

PROJECT NO.:	5743F,H,O

SUBMISSION DATE:	
REVISION DATE:	

DRAWING DATE:	18 OCT 2024
PRINT DATE:	18 February 2025
DRAWN BY:	RMR
SHEET TITLE:	ELEVATIONS

A200

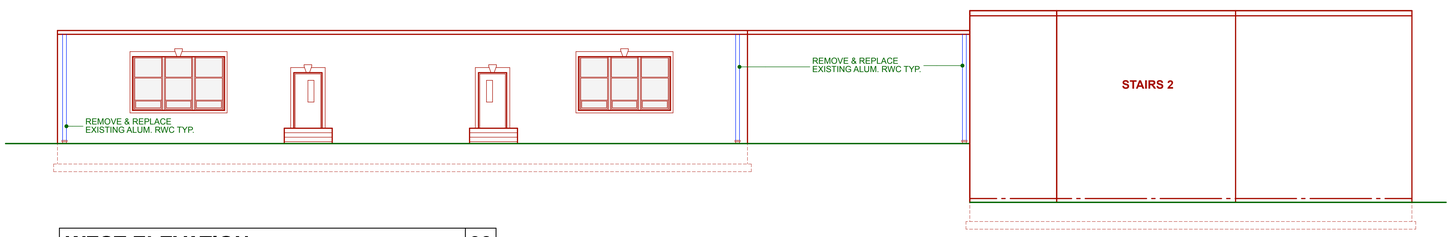


NORTH ELEVATION/ SECTION 1/8" = 1'-0" 08

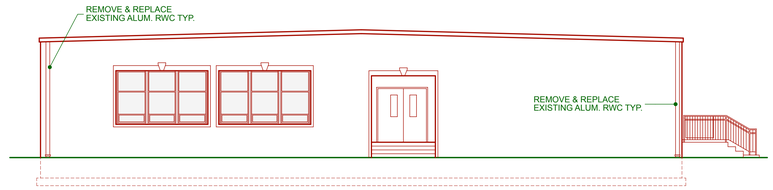
LINTEL NOTE:
ALL EXPOSED LINTELS SHALL BE PRIMED AND PAINTED TO MATCH EXISTING WALL FINISHES.

TYP. GUTTER & RWC NOTES:

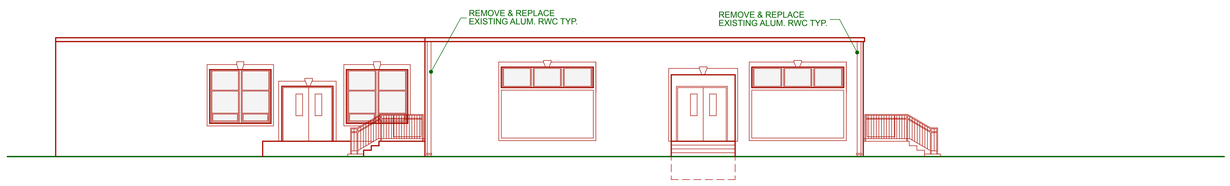
1. REMOVE AND REPLACE ALL EXISTING SCUPPER BOXES. NEW SCUPPER BOXES TO MATCH EXISTING SIZE AND TO CONNECT TO EXISTING PVC RWC. GC TO PROVIDE A WATERTIGHT SEAL AND TO MODIFY PVC RWC AS REQUIRED FOR PROPER CONNECTION.
2. REMOVE AND REPLACE ALL EXISTING GUTTERS. NEW GUTTER ASSEMBLY TO MATCH EXISTING SIZE AND TO CONNECT TO EXISTING PVC RWC. GC TO PROVIDE A WATERTIGHT SEAL AND TO MODIFY PVC RWC AS REQUIRED FOR PROPER CONNECTION.
3. REMOVE AND REPLACE EXISTING ALUMINUM RWC AND MATCH EXISTING SIZE. FOLLOW DETAIL FOR ADDITIONAL INFORMATION.



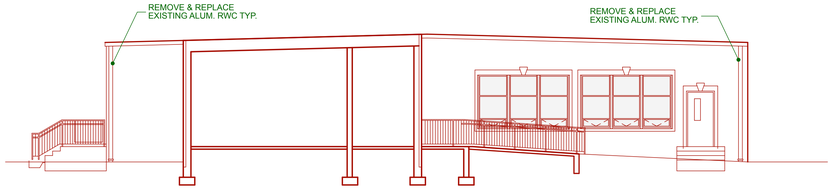
WEST ELEVATION 1/8" = 1'-0" 09



NORTH ELEVATION 1/8" = 1'-0" 10



EAST ELEVATION/ SECTION 1/8" = 1'-0" 11

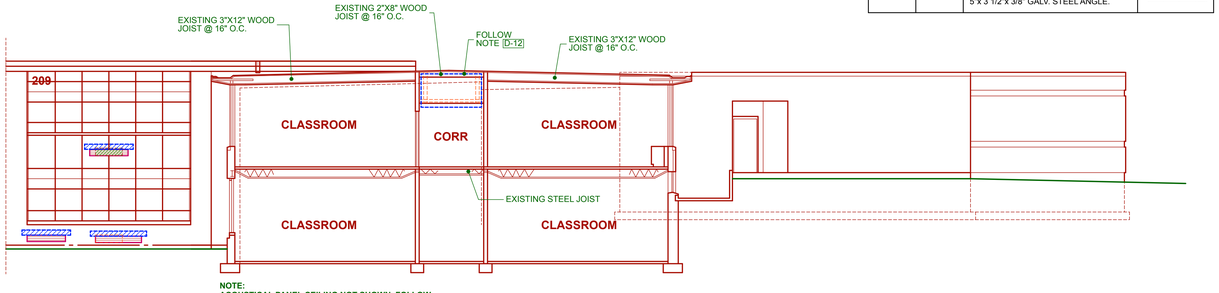


SOUTH ELEVATION/ SECTION 1/8" = 1'-0" 12

LOOSE LINTEL SCHEDULE- NOTES:

1. PROVIDE ONE (1) GALV. STEEL ANGLE FOR EACH MASONRY WIDTH. (MIN. 4" BEARING) FOR MASONRY WALL/ BRICK VENEER TYPE WALL.
2. BEAR LINTELS 8" MINIMUM EACH SIDE OF OPENING.

LINTEL TYPE	MASONRY OPENING	LINTEL DESCRIPTION	PROFILE
L-1 L-2	2'- 5'-0"	8" THICK CMU WALL (2) PIECES 4"x8" PRECAST CONCRETE LINTEL W/ #4 BARS TOP AND BOTTOM. 12" THICK CMU WALL (3) PIECES 4"x8" PRECAST CONCRETE LINTEL W/ #4 BARS TOP AND BOTTOM.	
L-3	6'-0"	8" THICK CMU WALL (2) PIECES 4"x8" PRECAST CONCRETE LINTEL W/ #4 BARS TOP AND BOT. + 5"x 3 1/2"x 3/8" GALV. STEEL ANGLE. 8" THICK CMU WALL (3) PIECES 4"x8" PRECAST CONCRETE LINTEL W/ #4 BARS TOP AND BOT. + 5"x 3 1/2"x 3/8" GALV. STEEL ANGLE.	



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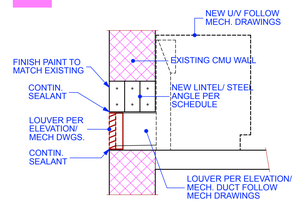
SOUTH ELEVATION/ SECTION 1/8" = 1'-0" 13

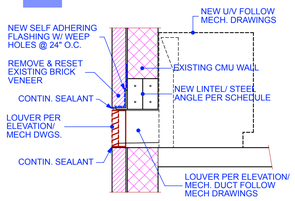
ADDENDUM #01
18 FEB 2025

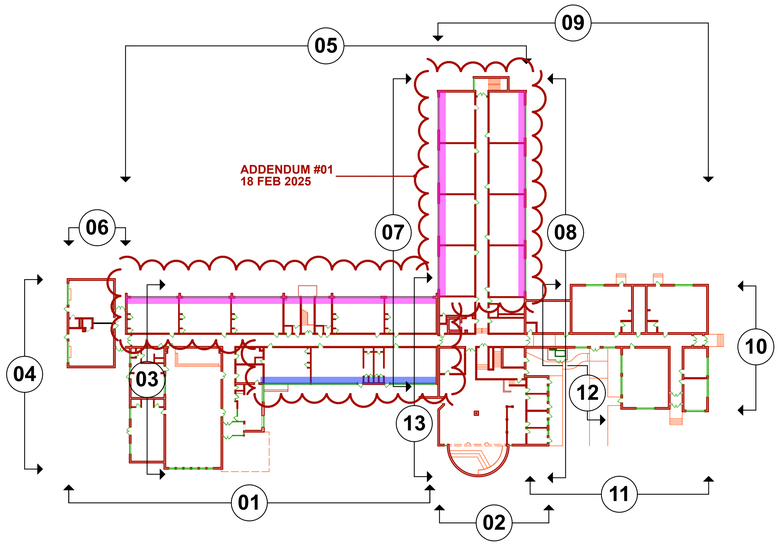
EXISTING EXTERIOR WALL CONSTRUCTION

12" CMU EXTERIOR WALL



4" EXTERIOR FACE BRICK WITH 8" CMU INTERIOR WALL





ELEVATION KEY NTS 00

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A200.1

1/16" = 1'-0" 0' 8' 16' 32' 48'
1/8" = 1'-0" 0' 4' 8' 16' 24'
1/4" = 1'-0" 0' 2' 4' 8' 12'
1/2" = 1'-0" 0' 1' 2' 4' 6'
3/4" = 1'-0" 0' 6" 1' 2' 3'
1" = 1'-0" 0' 6" 1' 2' 3'
1 1/2" = 1'-0" 0' 6" 1' 2'
3" = 1'-0" 0' 3' 6' 1'

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