

ADDENDUM

Project Name:	Hamtramck Public Schools HVAC Upgrades Phase 2	Addendum No:	Two (2)
Project Number:	22-118	Issue Date:	September 21, 2022
Project Location:	Hamtramck, Michigan		

To the Contract Documents for the requested: **HPS HVAC Upgrades Phase 2**

This Addendum forms a part of the above described Contract Documents and supersedes, supplements or clarifies parts thereof to the extent defined by the terms set forth in this Addendum.

This addendum consists of (3) typed pages and the following attachments:

- Specifications: 003100 (2 pages), 012300 (2 pages)
- Drawings:

Architectural:	A0-02, A1-01, A1-02, A1-03, A3-01, A3-02, A3-03, A4-01, A5-01, A6-01
Mechanical:	M1-03, M3-02, M4-02, M4-03, M5-01, M8-02
Electrical:	E3-01

SPECIFICATIONS:

- Item SP1** Specification Section 003100 – BID FORM (re-issued in its entirety)
- A. Revise Bid Due Date to **SEPTEMBER 29, 2022 at 2:00 pm**
 - B. Add **Alternate No. 1: EXTERIOR METAL SECURITY CANOPY**
- Item SP2** Specification Section 012300 – ALTERNATES (issued in its entirety)

ARCHITECTURAL DRAWINGS:

- Item A1** Drawing A0-02; ROOM FINISH SCHEDULE, DETAILS (re-issued)
- A. Schedule updated with finish changes and clarifications
 - B. Add Plan Detail 3 for Exterior Metal Security Canopy
 - C. Add Section Details 4, 5, & 6 for Exterior Metal Security Canopy
- Item A2** Drawing A1-01; LOWER LEVEL DEMOLITION PLAN (re-issued)
- A. Scope clarification and key note update.
- Item A3** Drawing A1-02; GROUND LEVEL DEMOLITION PLAN (re-issued)
- A. Scope clarification and key note update.
- Item A4** Drawing A1-03; UPPER LEVEL DEMOLITION PLAN (re-issued)
- A. Scope clarification and key note update

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- Item A5** Drawing A3-01; LOWER LEVEL FLOOR PLAN (re-issued)
A. Scope clarification and key note update
B. New site underdrain installation
- Item A6** Drawing A3-02; GROUND LEVEL FLOOR PLAN (re-issued)
A. Scope clarification and key note update
B. Layout and utility piping coordination changes.
- Item A7** Drawing A3-03; UPPER LEVEL FLOOR PLAN (re-issued)
A. Scope clarification and key note update
B. Room finish scope changes.
C. Finish application for new mechanical equipment in gym area.
- Item A8** Drawing 3-20; DEMOLITION and NEW WORK ROOF PLAN (revised but not re-issued)
A. Add key note #2 to read: NEW GAS PIPE PENETRATION THRU ROOF. FLASH NEW PENETRATION PER DETAIL 4/A3-02. Key note tag was already shown on plan.
- Item A9** Drawing A4-01; LOWER LEVEL REFLECTED CEILING PLAN (re-issued)
A. Scope clarification and key note update
B. Detail adjustment for mechanical duct installation through metal panel and gyp board header.
- Item A10** Drawing A5-01; EXTERIOR ELEVATIONS (re-issued)
A. Scope clarification and key note update.
B. Layout and utility piping coordination changes.
- Item A11** Drawing A6-01; WALL SECTIONS and DETAILS (re-issued)
A. Scope clarification and detail note update
B. Installation of new galvanized security enclosure structure.

MECHANICAL DRAWINGS:

- Item M1** Drawing M1-01 LOWER LEVEL MECHANICAL DEMOLITION PLAN (revised but not re-issued):
A. Change Demo Key Note F to read: REMOVE INLINE EXHAUST FAN AND CAP VERTICAL DUCTWORK GOING UP (UPSTREAM). PREPARE DOWNSTREAM DUCTWORK (FROM TOILET ROOMS) FOR NEW CONNECTION.
- Item M2** Drawing M1-02 GROUND LEVEL MECHANICAL DEMOLITION PLAN (revised but not re-issued):
A. Change Demo Key Note K to read: REMOVE FTR AND CAP STEAM AND CONDENSATE PIPING IN A CONCEALED MANNER. CAP PIPING AS CLOSE TO MAIN AS POSSIBLE.
- Item M3** Drawing M1-03 UPPER LEVEL MECHANICAL DEMOLITION PLAN (re-issued):
A. Revise FTR piping demolition as shown.
- Item M4** Drawing M3-02 GROUND LEVEL HVAC PIPING PLAN (re-issued)
A. Revise refrigerant and condensate piping for AC-3 as shown.
B. Add Construction Note 14 as shown.

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- Item M5** Drawing M3-03 UPPER LEVEL HVAC PIPING PLAN (revised but not re-issued)
A. Remove FTR piping on southeast wall in Classroom 205
- Item M6** Drawing M4-02 GROUND LEVEL SHEET METAL PLAN (re-issued)
A. Add flexible duct connectors as shown.
B. Revise outdoor air intake as shown
- Item M7** Refer to Sheet M4-03 UPPER LEVEL SHEET METAL PLAN (re-issued)
A. Revise duct size in between roof steel for RH-1 as shown.
- Item M8** Drawing M5-01 ENLARGED MECHANICAL BOILER PLAN (re-issued)
A. Add outdoor insulated hood to combustion air intake louver as shown.
- Item M9** Drawing M7-03 MECHANICAL SCHEDULES (revised but not re-issued)
A. Revise: VUVs 1-9 above Plenum height to be 48 inches.
- Item M10** Drawing M8-02 TEMPERATURE CONTROLS (re-issued)
A. Replace manual twist timer for Boiler with new DDC starter to be integrated into BMS. Refer to detail and Sequence Of Operation as shown.

ELECTRICAL DRAWINGS:

- Item E1** Drawing E3-01; LOWER LEVEL POWER PLAN (re-issued)
A. Revise location of duct detectors Classroom 007 and Custodian 008.
- Item E2** Drawing E3-02; GROUND LEVEL POWER PLAN (revised but not re-issued)
A. Remove all duct detectors in Office 124.

****END OF ADDENDUM****

BID FORM

BID PROPOSAL FOR: Hamtramck Public Schools
HVAC Upgrades – Phase 2
Project #22-118

BID TO: PARTNERS in Architecture, PLC
65 Market Street
Mount Clemens, MI 48043

BID DUE DATE: SEPTEMBER 29, 2022 at 2:00 pm

BIDDERS NAME: _____

We have examined the Contract Documents for the proposed Hamtramck Public Schools – Administration Building Parking Lot Renovations project as prepared by PARTNERS in Architecture, PLC.

In accordance therewith, the undersigned proposes to furnish all labor and materials for construction as set forth in the Contract Documents, including the following Addenda, if any (fill in the addenda number, thus confirming receipt):

Addendum Number _____ Addendum Number _____

Addendum Number _____ Addendum Number _____

1. Accompanying the proposal is a bid security for work required to be furnished by the Contract Documents, the same being subject to forfeiture in the event of default by the undersigned.
2. I agree to complete the Project, by the dates listed in Specification Section 011000 – Summary; provided that a notice to proceed is issued within thirty (30) days.
3. I understand that the Owner reserves the right to reject any or all bids, and it is agreed that this bid may not be withdrawn for a period of sixty (60) days from the opening thereof.
5. Attached herewith are the documents requested in the Supplementary Instructions to Bidders, Specification Section 002213, paragraph 4.3.5.
6. I agree to comply with the School District Covid-19 safety protocols as listed in Specification Section 011000 – Summary 1.6 C.

A. BASE BID: HVAC Upgrades – Phase 2

A. Early Childhood Elementary

(Insert a base bid amount in the blank provided).

_____ Dollars \$ _____

B. ALLOWANCES: Refer to section 012100 for a complete description

(These amounts are included in the "Base Bid" amount listed on the bid form)

1. Allowance No. 1: Brick Veneer Material \$ __ Included in Base Bid _____

C. ALTERNATES: Refer to section 012300 for a complete description:

1. Alternate No. 1: EXTERIOR METAL SECURITY CANOPY

Add \$ _____

D. SCHEDULE: Fill in proposed construction duration to achieve substantial completion. Refer to Specification Section 011000 for schedule requirements.

E. FEDERAL DAVIS/BACON REQUIREMENTS

By signing below, I understand that the project is funded by the Federal ESSER program and that wage rates for workers are to follow Davis/Bacon Prevailing Wage requirements outlined in the Supplementary General Conditions Section 008000.

BIDDERS INFORMATION:

Company Name: _____

Address: _____

Phone Number: _____

Corporate Officer Name: _____ Title _____

Signature: _____

Email: _____

Cell Phone Number: _____ Date: _____

Federal ID Number : _____ Davis Bacon Unique Entity Identifier: _____

END OF BID FORM

SECTION 012300 - ALTERNATES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for alternates.

1.2 DEFINITIONS

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the base bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
 - 1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
 - 2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.3 PROCEDURES

- A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
 - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
- B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated revisions to alternates.
- C. Execute accepted alternates under the same conditions as other work of the Contract.
- D. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PARTNERS 22-118
ALTERNATES
012300 - 2

PART 2 - PRODUCTS (Not Used)

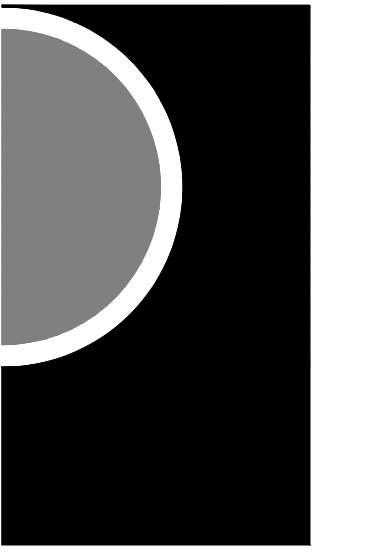
PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. Alternate No. 1: Exterior Metal Security Canopy

1. Base Bid: The base bid is to install masonry screen wall around mechanical equipment with no metal security canopy.
2. Alternate: The alternate is to provide and install an exterior metal security canopy at the masonry screen wall around the mechanical equipment as indicated on Sheet A0-02.

END OF SECTION 012300



50% Review	05/19/2022
90% Review	06/24/2022
Bidding - Construction	08/30/2022
Addendum #2	09/21/2022

Room Finish Schedule

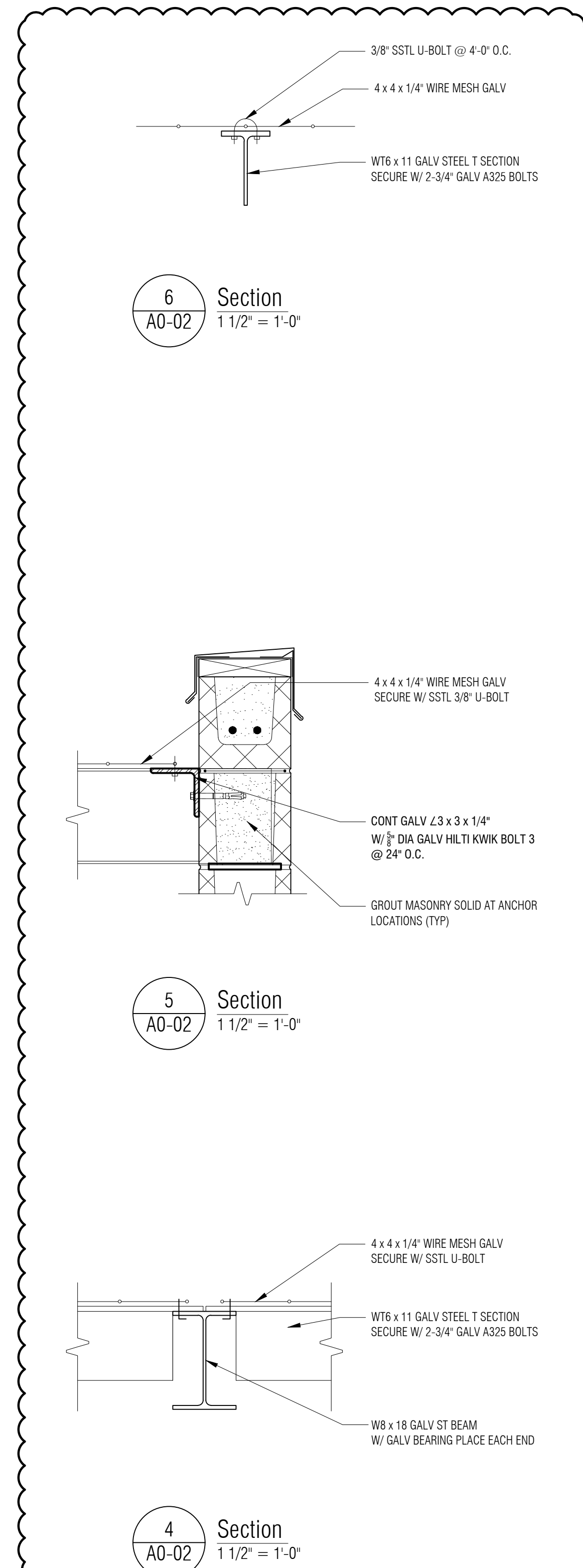
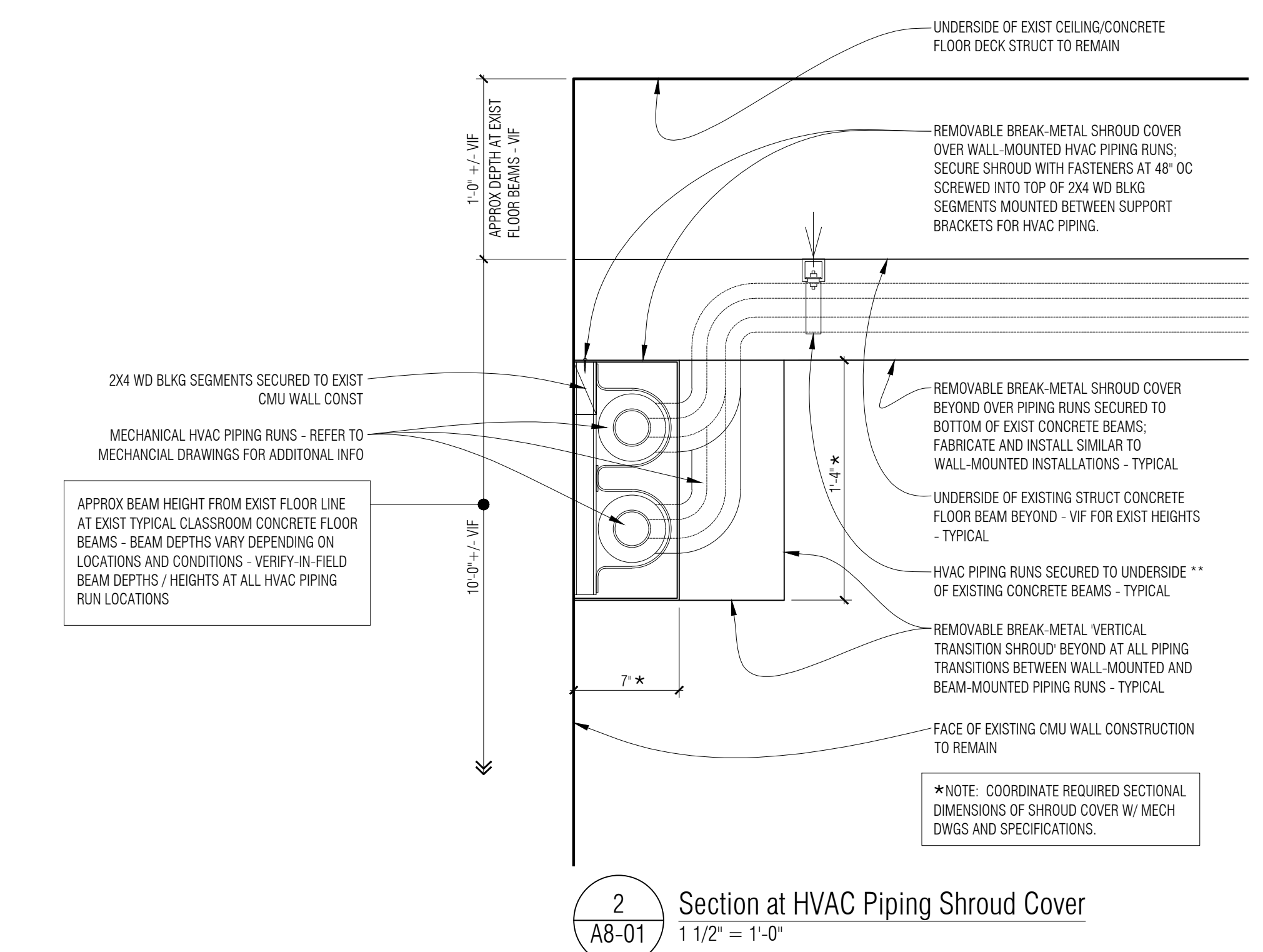
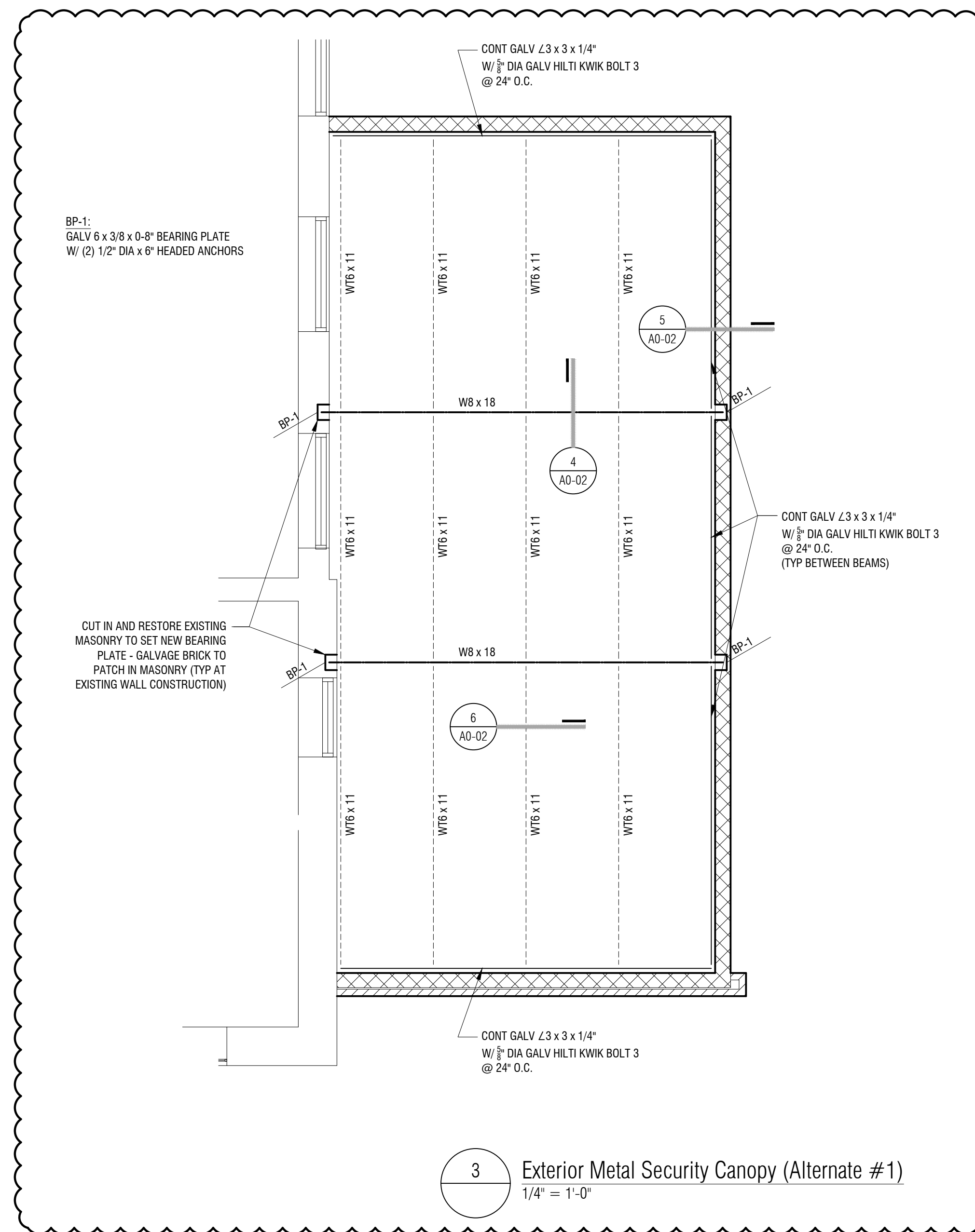
ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS				CEILING FINISH	ROOM FINISH KEY NOTES
				NORTH	EAST	SOUTH	WEST		
001	CAFE	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3, 4
006	CLASSROOM	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3, 4
007	CLASSROOM	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3, 4
009	BOYS TOILET	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
010	GIRLS TOILET	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
012	CLASSROOM	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
013	VESTIBULE	ETE	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
101	CLASSROOM	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3, 4
102	CLASSROOM	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3, 4
103	CLASSROOM	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3, 4
104	CLASSROOM	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3, 4
105	CLASSROOM	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3, 4
106	VESTIBULE	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
107	TOILET ROOM	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
108	VESTIBULE	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
109	MAIN OFFICE	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
110	BREAK ROOM	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
111	OFFICE	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
112	WORK ROOM	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
113	TOILET ROOM	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
114	OFFICE	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
115	WORK ROOM	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
116	GIRLS TOILET ROOM	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
117	BOYS TOILET ROOM	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
119	CORRIDOR	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
120	CORRIDOR	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
121	VESTIBULE	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
122	VESTIBULE	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
123	OFFICE	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3, 4, 7, 8
124	OFFICE	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3, 4, 7, 8
125	GYMNASIUM	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3, 4, 7, 8
S3	STAIR	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
S4	STAIR	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
S5	STAIR	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
201	CLASSROOM	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3, 4
202	CLASSROOM	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3, 4
203	CLASSROOM	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3, 4
204	CLASSROOM	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3, 4
205	CLASSROOM	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3, 4
206	COMPUTER ROOM	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
207	LIBRARY	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3, 4, 7, 8
208	GIRLS TOILET ROOM	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3, 4, 7, 8
209	BOYS TOILET ROOM	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
211	CORRIDOR	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
212	CORRIDOR	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
214	MEZZANINE	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3
215	OFFICE	ETR	ETR	ETR	ETR	ETR	ETR	ETR	7
217	STAGE	ETR	ETR	PNT-1	PNT-1	PNT-1	PNT-1	ETR	1, 2, 3

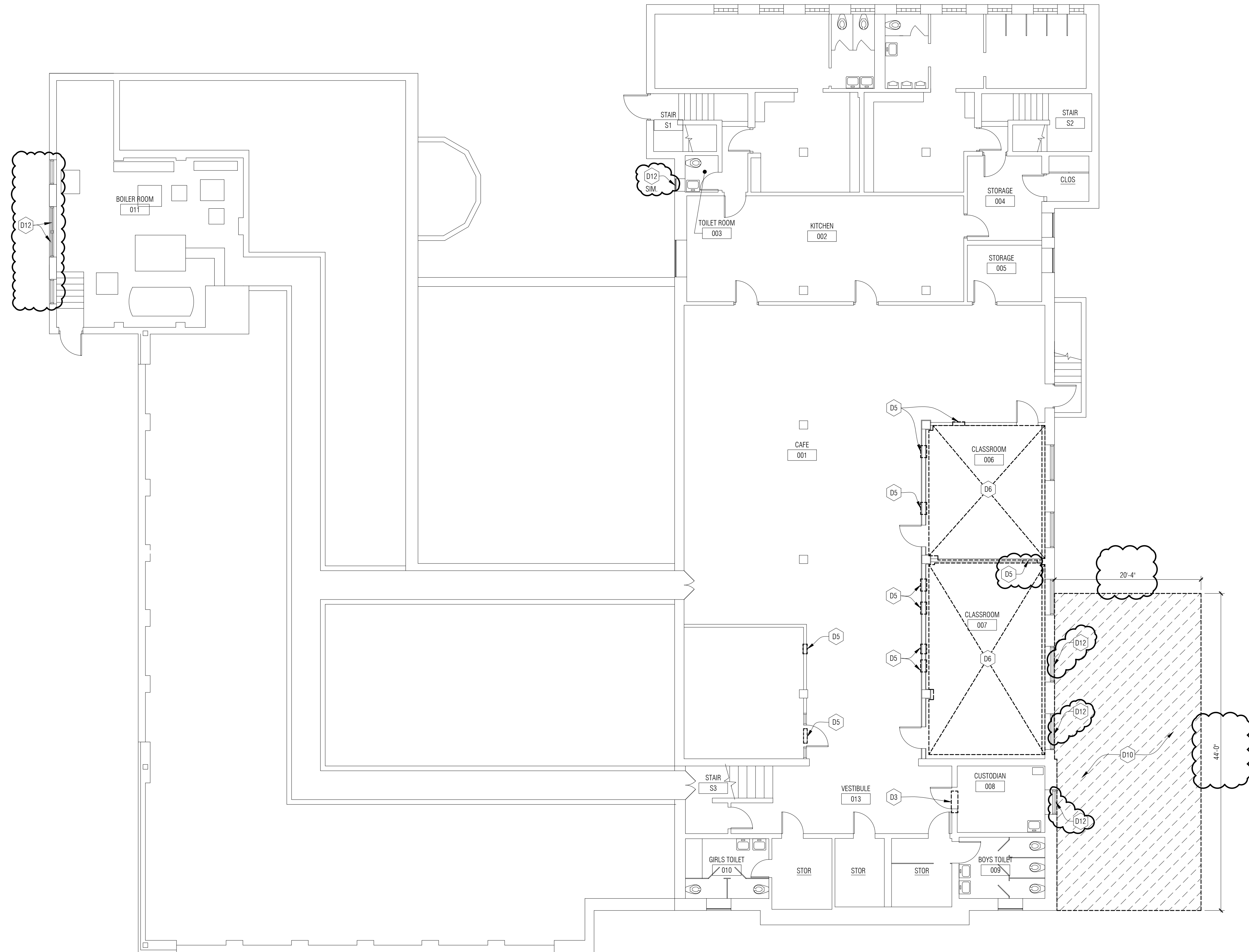
General Notes:

- SCOPE OF WORK SHALL BE LIMITED TO NEW PAINT AT FULL EXTENT OF ALL PRE-EXISTING PAINTED CMU WALL SURFACES - REFER TO INTERIOR ELEVATIONS FOR APPROXIMATE LOCATIONS. CONTRACTOR TO VERIFY IN FIELD.
- ETR: EXISTING TO REMAIN
- CONFIRM ALL QUESTIONS RE EXTENT OF NEW PAINT WORK SCOPE WITH ARCHITECT PRIOR TO PROCEEDING.

Room Finish Key Notes:

- PAINT AT FULL EXTENT OF ALL PRE-EXISTING PAINTED CMU WALL SURFACES - TYPICAL UON.
- DO NOT PAINT EXISTING GLAZED BLOCK - TYPICAL.
- DO NOT PAINT EXISTING CEILINGS AND/OR STRUCT CONCRETE FLOOR DECK AND/OR BEAMS - TYPICAL.
- DO NOT PAINT EXISTING WOOD TRIM OR CASEWORK IN CLASSROOMS - TYPICAL.
- REMOVE / SAVAGE / REINSTALL EXIST CEILING TILES IN NEW GRID INSTALL. GRID ELEV TO BE COORD IN FIELD.
- PAINT NEW EXPOSED DUCTWORK (PNT- TBD)
- PAINT NEW EXPOSED UTILITY / MECH LINES, INSUL. DUCT, ETC. (PNT- TBD)
- NEW FABRIC DUCT SUPPORT BRACKETS AND HANGERS TO BE PAINTED (PNT- TBD)





Lower Level Demolition Plan
 1/8" = 1'-0"

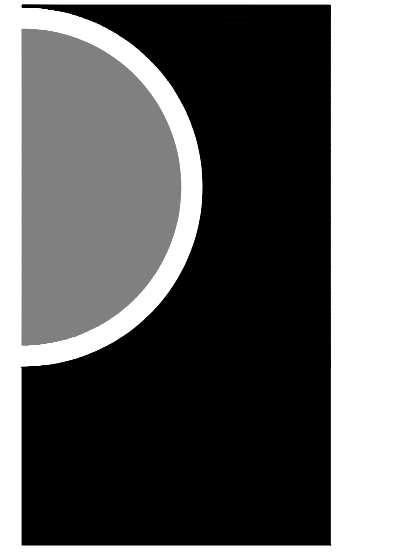
DEMOLITION GENERAL NOTES:

- A. DO NOT SCALE DRAWINGS. USE DIMENSIONS PROVIDED AND VERIFY IN FIELD. IF A CONFLICT IS ENCOUNTERED OR A REQUIRED DIMENSION IS NOT PROVIDED, REQUEST A CLARIFICATION FROM THE ARCHITECT.
- B. NOTIFY ARCHITECT OF ANY DISCREPANCIES AND/OR CONFLICTS WITH FLOOR PLAN AND EXISTING BUILDING CONDITIONS PRIOR TO STARTING ANY WORK.
- C. ALL DEMOLITION DRAWINGS & DETAILS ARE PROVIDED TO SHOW THE GENERAL SCOPE OF THE DEMOLITION WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERFORM ALL DEMOLITION WORK NECESSARY TO ACCOMPLISH NEW WORK. THE DEMOLITION DRAWINGS AND DETAILS MAY NOTE TYPICAL ITEMS IN SOME AREAS, WHICH APPLY IN OTHER AREAS (AND ARE DESIGNATED WITH DASHED LINES) COORDINATE ALL DEMOLITION WORK WITH ALL ARCHITECTURAL, CIVIL, STRUCT, MECH AND ELEC DRAWINGS. THE CONTRACTOR IS RESPONSIBLE TO REFERENCE ALL DRAWINGS & SPECIFICATIONS TO CONFIRM EXTENT OF DEMOLITION WORK.
- D. ALL CONSTRUCTION AND DEMOLITION MEANS, METHODS AND SAFETY PRECAUTIONS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR
- E. DISPOSE OF ALL DEMOLITION MATERIALS LEGALLY OFF-SITE, U.O.N.
- F. ASBESTOS AND OTHER HAZARDOUS MATERIALS WILL BE REMOVED BY OWNER'S ABATEMENT CONTRACTOR PRIOR TO START OF CONSTRUCTION. IF ANY SUSPECTED HAZARDOUS MATERIAL IS ENCOUNTERED, STOP WORK IN THAT AREA AND IMMEDIATELY INFORM THE CONSTRUCTION MANAGER.
- G. CONTRACTOR SHALL PROTECT EXISTING BUILDING ELEMENTS AND SITE FROM DAMAGE CAUSED BY CONTRACTOR AND SHALL REPAIR ALL DAMAGED AREAS (IDENTIFIED BY OWNER, ARCHITECT AND/OR CM) AT NO ADDITIONAL COST.
- H. REMOVE ALL ITEMS PROJECTING FROM EXISTING WALLS OR FLOORS TO REMAIN (BLOCKING, SCREWS, FASTENERS, OBSOLETE PIPE & CONDUIT, MOUNTING PLATES, OBSOLETE FIXED EQUIPMENT, ETC). PATCH AND REPAIR TO RECEIVE NEW FINISH.

DEMO PLAN KEY NOTES:

- D1 REMOVE RECESSED WALL LOUVER (+/- 40"x16") AND ALL ASSOCIATED COMPONENTS COMPLETE FROM CMU WALL (+/- 10'-0" A.F.F.).
- D2 REMOVE EXISTING ACCESS DOOR (+/- 5'-4" x 3'-0"), FRAME AND ALL ASSOCIATED COMPONENTS COMPLETE (+/- 7'-0" A.F.F.).
- D3 REMOVE PORTION OF CMU WALL FOR NEW DUCT PENETRATION - OPENING SHOULD INCLUDE REMOVAL OF CMU TO CONC STRUCTURE ABOVE.
- D4 MODIFY EXISTING CMU AT REMOVED EXHAUST FAN TO ACCOMMODATE NEW EXHAUST FAN - COORDINATE W/ NEW MECH EQUIPMENT.
- D5 REMOVE PORTION OF MODULAR WALL SYSTEM FOR MECHANICAL EQUIPMENT - COORDINATE VERTICAL OPENING LOCATION WITH CLASSROOM CEILING AND OPENING SIZE AND LOCATION W/ MECH.
- D6 REMOVE ACT CEILING GRID SYSTEM COMPLETE - CEILING TILES AND CEILING MOUNTED DEVICES TO BE SALVAGED AND REUSED.
- D7 REMOVE ACOUSTIC CEILING TREATMENT AS REQUIRED TO ACCOMMODATE NEW STRUCTURE.
- D8 REMOVE ROOFING, INSULATION AND ROOF DECKING IN AREA BELOW ROOF CURB. COORDINATE W/ MECH AND STRUCT.
- D9 REMOVE CEILING MOUNTED ACCESS DOOR - FRAME TO REMAIN. EXISTING MECH UNIT TO BE REMOVED - REFER TO MECH.
- D10 REMOVE PORTION OF EXISTING ASPHALT PARKING LOT PAVING AND CONC CURBS AS NEEDED FOR NEW MASONRY SCREEN WALL AND MECHANICAL EQUIPMENT PADS - PROTECT EXISTING DOWNSPOUTS AND DRAIN LINES.
- D11 REMOVE EXISTING METAL PANEL FROM WINDOW FRAME FOR INSTALLATION OF NEW LOUVER - SALVAGE AND RETURN TO OWNER.
- D12 EXIST INSUL PANEL IN WINDOW SYSTEM TO BE MODIFIED FOR MECH DUCT PENETRATION - COORD WITH MECH.
- D13 MULTIPLE UTILITY PIPING CORES THRU WALL CONSTRUCTION - COORD LOCATION / ELEV WITH MECH, ELEC, AND ARCH.
- D13a MULTIPLE UTILITY PIPING CORES THRU FLOOR / ROOF CONSTRUCTION BY ABATEMENT CONTRACTOR - MECH / ELEC TO COORD AND LOCATE PENETRATIONS IN FIELD - VERIFY W/ ARCHITECT.
- D14 REMOVE, SALVAGE AND REINSTALL EXISTING LAY IN CEILING TO COMPLETE WORK - REFER TO MECH.
- D15 COORDINATE NEW MECH OPENING TO BE MINIMUM OF 24" FROM BEAM LOCATION - ORIENT LONG DIMENSION OF OPENING TO BE PERPENDICULAR TO CONCRETE BEAM - COORD LOCATION W/ MECH - CONTRACTOR TO USE CARE TO NOT DAMAGE THE EXISTING CONCRETE BEAM WHILE SAWCUTTING SLAB FOR NEW ROOF OPENING.

PARTNERS

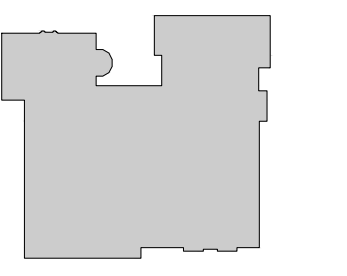


PARTNERS in Architecture, PLC
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 MOUNT CLEMENS, MI 48043
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 CONSULTANT

KEY PLAN



OWNER

Hamtramck Public Schools

PROJECT NAME

HVAC Improvements Phase 2 Early Childhood

11680 McDougall St
 Hamtramck, MI 48212

PROJECT NO.

22-118

ISSUES / REVISIONS

50% Review	05/19/2022
90% Review	06/24/2022
Bidding - Construction	08/30/2022
Addendum #2	09/21/2022

DRAWN BY

CHECKED BY
DRM

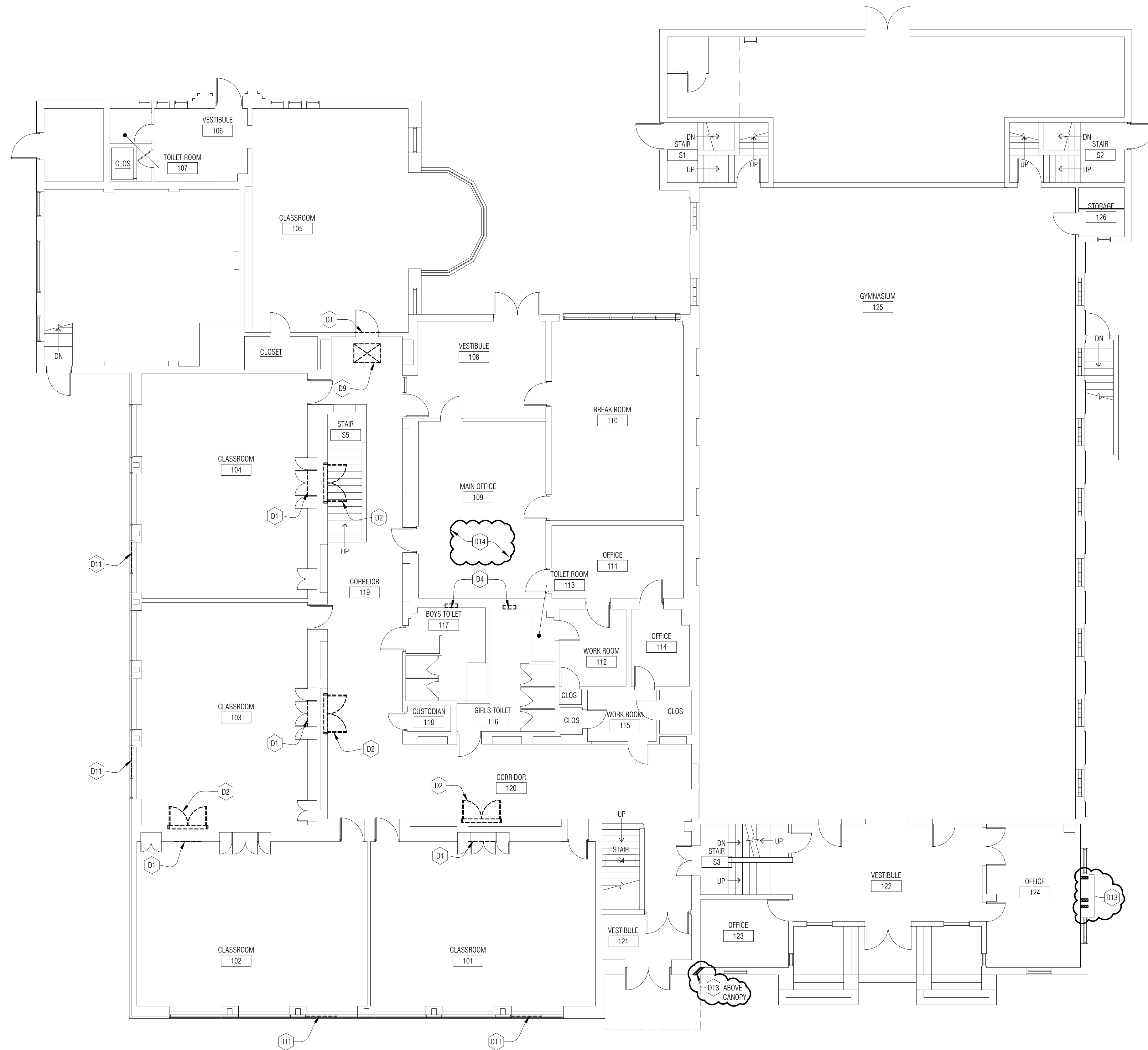
APPROVED BY
MAM

SHEET NAME

LOWER LEVEL DEMOLITION PLAN

SHEET NO.

A1-01



Ground Level Demolition Plan
 1/8" = 1'-0"

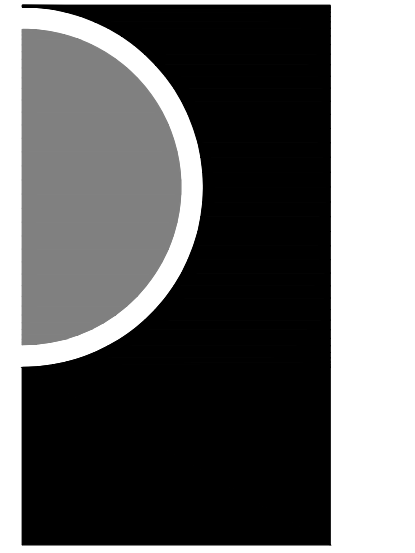
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- B. NOTIFY ARCHITECT OF ANY DISCREPANCIES AND/OR CONFLICTS WITH FLOOR PLAN AND EXISTING BUILDING CONDITIONS PRIOR TO STARTING ANY WORK.
- C. ALL DEMOLITION DRAWINGS & DETAILS ARE PROVIDED TO SHOW THE GENERAL SCOPE OF THE DEMOLITION WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERFORM ALL DEMOLITION WORK NECESSARY TO ACCOMPLISH NEW WORK. THE DEMOLITION DRAWINGS AND DETAILS MAY NOTE TYPICAL ITEMS IN SOME AREAS, WHICH APPLY IN OTHER AREAS (AND ARE DESIGNATED WITH DASHED LINES) COORDINATE ALL DEMOLITION WORK WITH ALL ARCHITECTURAL, CIVIL, STRUCT, MECH AND ELEC DRAWINGS. THE CONTRACTOR IS RESPONSIBLE TO REFERENCE ALL DRAWINGS & SPECIFICATIONS TO CONFIRM EXTENT OF DEMOLITION WORK.
- D. ALL CONSTRUCTION AND DEMOLITION MEANS, METHODS AND SAFETY PRECAUTIONS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR
- E. DISPOSE OF ALL DEMOLITION MATERIALS LEGALLY OFF-SITE, U.O.N.
- F. ASBESTOS AND OTHER HAZARDOUS MATERIALS WILL BE REMOVED BY OWNER'S ABATEMENT CONTRACTOR PRIOR TO START OF CONSTRUCTION. IF ANY SUSPECTED HAZARDOUS MATERIAL IS ENCOUNTERED, STOP WORK IN THAT AREA AND IMMEDIATELY INFORM THE CONSTRUCTION MANAGER.
- G. CONTRACTOR SHALL PROTECT EXISTING BUILDING ELEMENTS AND SITE FROM DAMAGE CAUSED BY CONTRACTOR AND SHALL REPAIR ALL DAMAGED AREAS (IDENTIFIED BY OWNER, ARCHITECT AND/OR CM) AT NO ADDITIONAL COST.
- H. REMOVE ALL ITEMS PROJECTING FROM EXISTING WALLS OR FLOORS TO REMAIN (BLOCKING, SCREWS, FASTENERS, OBSOLETE PIPE & CONDUIT, MOUNTING PLATES, OBSOLETE FIXED EQUIPMENT, ETC). PATCH AND REPAIR TO RECEIVE NEW FINISH.

DEMO PLAN KEY NOTES:

- D1 REMOVE RECESSED WALL LOUVER (+/- 40"x16") AND ALL ASSOCIATED COMPONENTS COMPLETE FROM CMU WALL (+/- 10'-0" A.F.F.)
- D2 REMOVE EXISTING ACCESS DOOR (+/- 5'-4" x 3'-0"), FRAME AND ALL ASSOCIATED COMPONENTS COMPLETE (+/- 7'-0" A.F.F.)
- D3 REMOVE PORTION OF CMU WALL FOR NEW DUCT PENETRATION - OPENING SHOULD INCLUDE REMOVAL OF CMU TO CONC STRUCTURE ABOVE.
- D4 MODIFY EXISTING CMU AT REMOVED EXHAUST FAN TO ACCOMMODATE NEW EXHAUST FAN - COORDINATE W/ NEW MECH EQUIPMENT.
- D5 REMOVE PORTION OF MODULAR WALL SYSTEM FOR MECHANICAL EQUIPMENT - COORDINATE VERTICAL OPENING LOCATION WITH CLASSROOM CEILING AND OPENING SIZE AND LOCATION W/ MECH.
- D6 REMOVE ACT CEILING GRID SYSTEM COMPLETE - CEILING TILES AND CEILING MOUNTED DEVICES TO BE SALVAGED AND REUSED.
- D7 REMOVE ACOUSTIC CEILING TREATMENT AS REQUIRED TO ACCOMMODATE NEW STRUCTURE.
- D8 REMOVE ROOFING, INSULATION AND ROOF DECKING IN AREA BELOW ROOF CURB. COORDINATE W/ MECH AND STRUCT.
- D9 REMOVE CEILING MOUNTED ACCESS DOOR - FRAME TO REMAIN. EXISTING MECH UNIT TO BE REMOVED - REFER TO MECH.
- D10 REMOVE PORTION OF EXISTING ASPHALT PARKING LOT PAVING AND CONC CURBS AS NEEDED FOR NEW MASONRY SCREEN WALL AND MECHANICAL EQUIPMENT PADS - PROTECT EXISTING DOWNSPOUTS AND DRAIN LINES.
- D11 REMOVE EXISTING METAL PANEL FROM WINDOW FRAME FOR INSTALLATION OF NEW LOUVER - SALVAGE AND RETURN TO OWNER.
- D12 EXIST INSUL PANEL IN WINDOW SYSTEM TO BE MODIFIED FOR MECH DUCT PENETRATION - COORD WITH MECH.
- D13 MULTIPLE UTILITY PIPING CORES THRU WALL CONSTRUCTION - COORD LOCATION / ELEV WITH MECH, ELEC, AND ARCH.
- D13a MULTIPLE UTILITY PIPING CORES THRU FLOOR / ROOF CONSTRUCTION BY ABATEMENT CONTRACTOR - MECH / ELEC TO COORD AND LOCATE PENETRATIONS IN FIELD - VERIFY W/ ARCHITECT.
- D14 REMOVE, SALVAGE AND REINSTALL EXISTING LAY IN CEILING TO COMPLETE WORK - REFER TO MECH.
- D15 COORDINATE NEW MECH OPENING TO BE MINIMUM OF 24" FROM BEAM LOCATION - ORIENT LONG DIMENSION OF OPENING TO BE PERPENDICULAR TO CONCRETE BEAM - COORD LOCATION W/ MECH - CONTRACTOR TO USE CARE TO NOT DAMAGE THE EXISTING CONCRETE BEAM WHILE SAWCUTTING SLAB FOR NEW ROOF OPENING.

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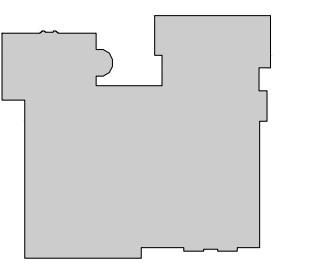


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KEY PLAN



OWNER

Hamtramck Public Schools

PROJECT NAME

HVAC Improvements Phase 2 Early Childhood

11680 McDougall St
 Hamtramck, MI 48212

PROJECT NO.

22-118

ISSUES / REVISIONS

50% Review	05/19/2022
90% Review	06/24/2022
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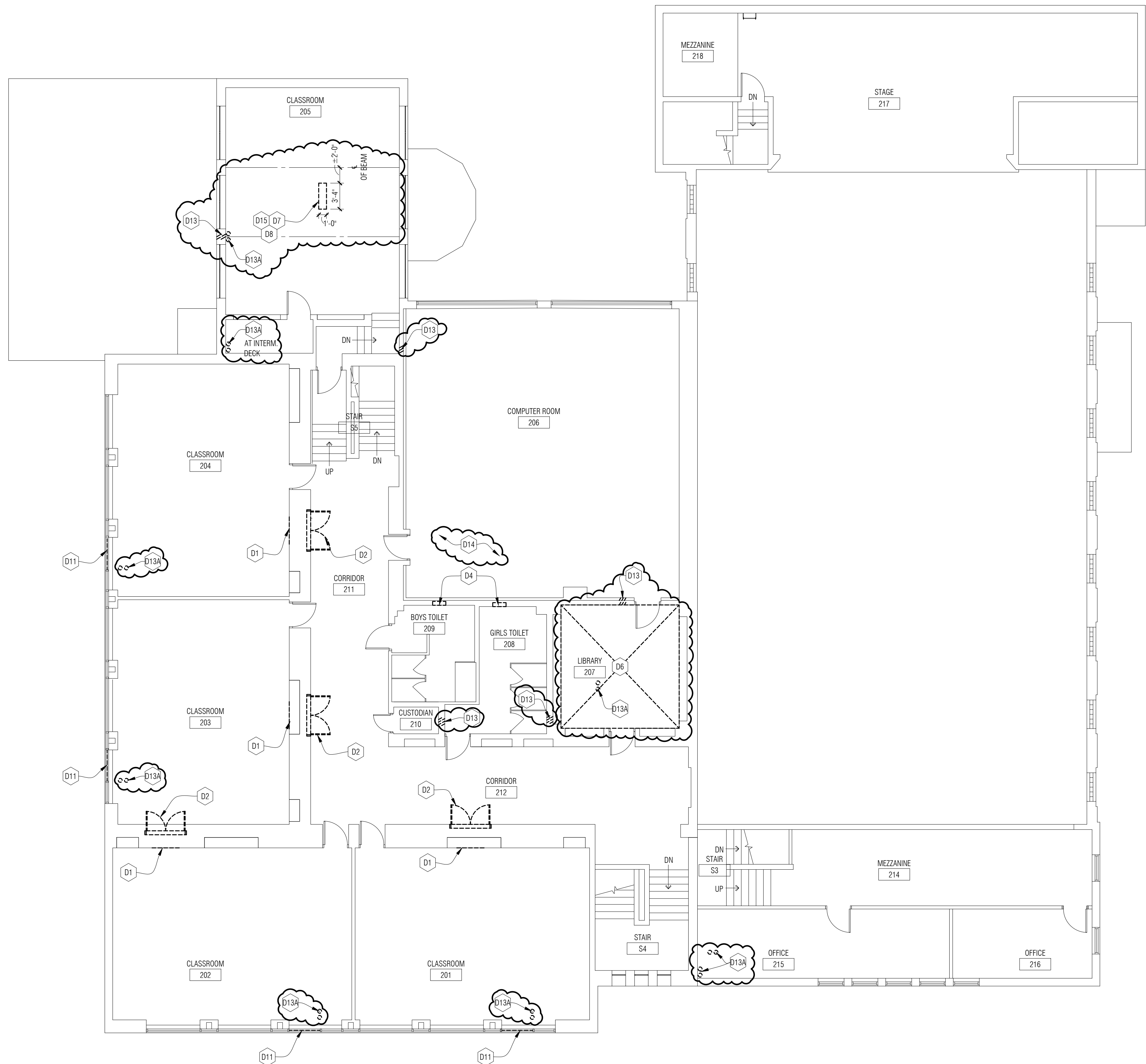
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SHEET NAME

GROUND LEVEL DEMOLITION PLAN

SHEET NO.

A1-02

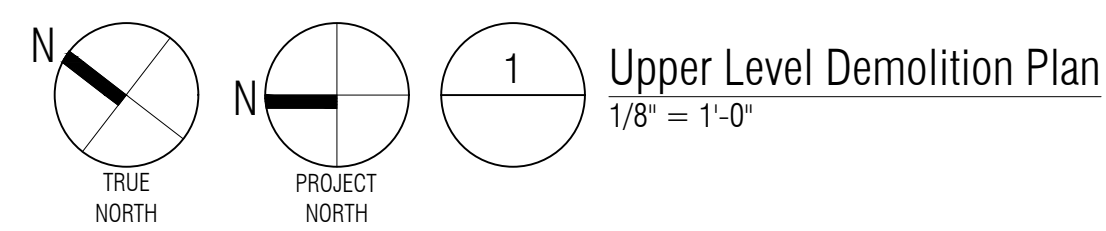


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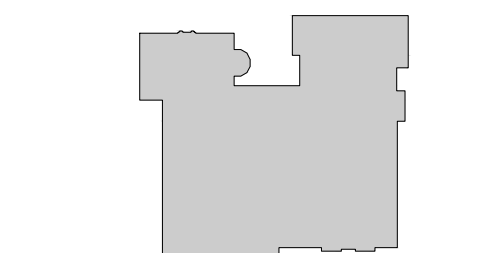


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PLAN NORTH

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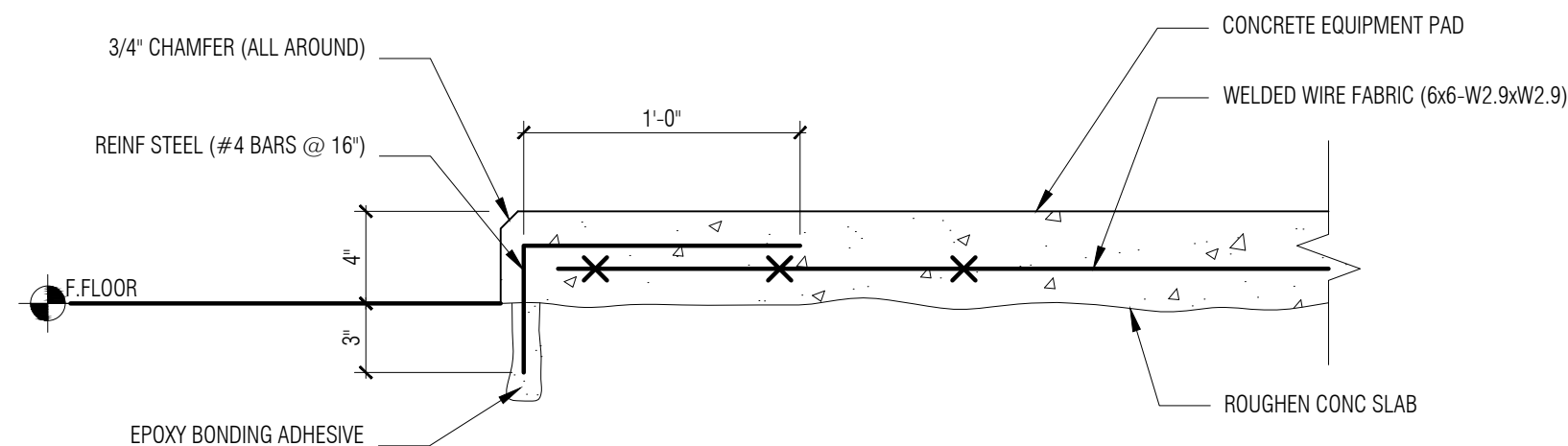
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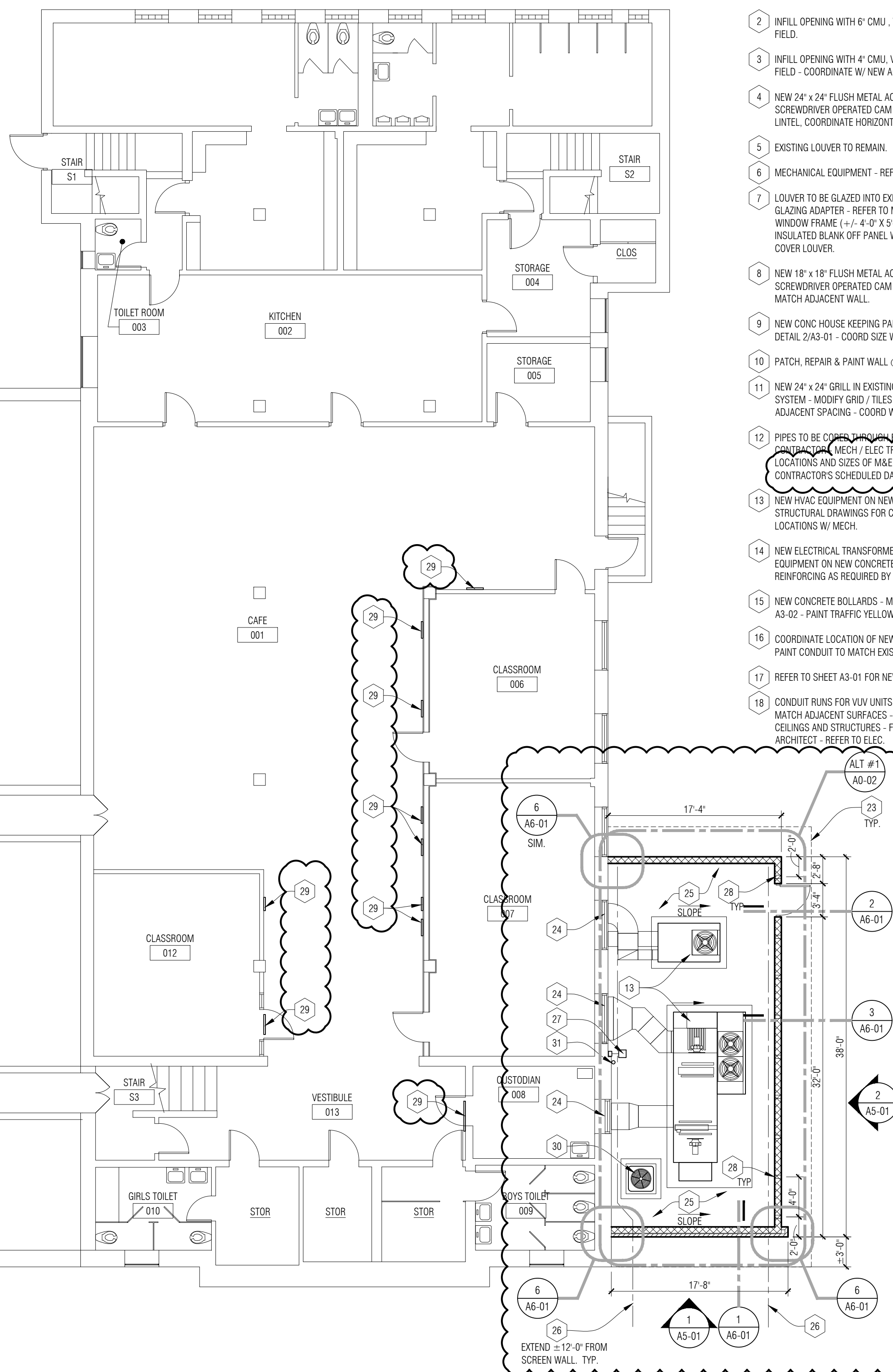
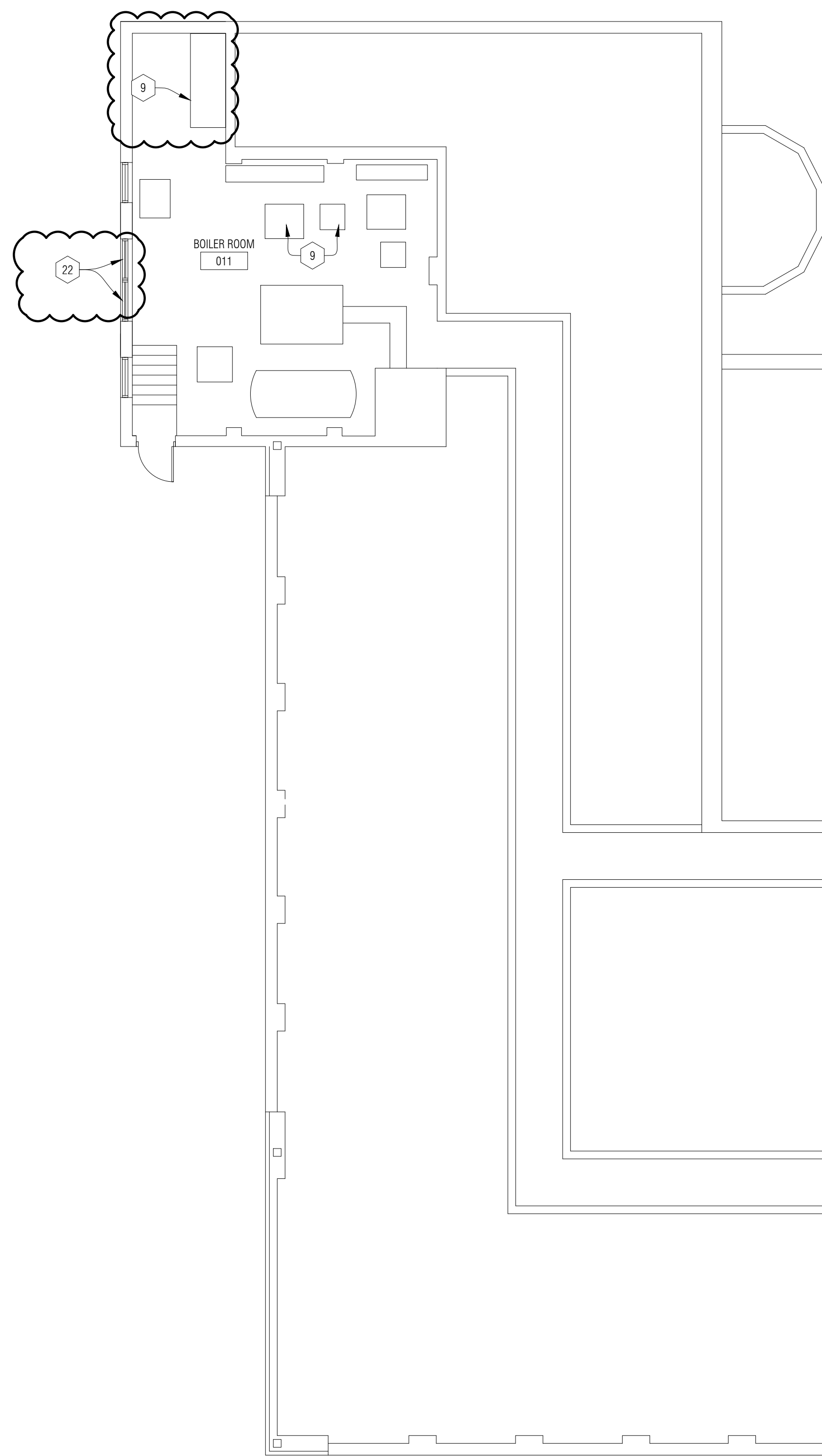
UPPER LEVEL DEMOLITION PLAN

SHEET NO.
A1-03



NOTE: COORDINATE SIZE AND LOCATION OF CONCRETE EQUIPMENT PADS INCLUDING ANCHORING DEVICES W/ INFORMATION PROVIDED BY THE APPROPRIATE EQUIPMENT MFR

2
A3-01 Concrete Equipment Pad (Interior)
1 1/2" = 1'-0"



1
Lower Level Floor Plan
1/8" = 1'-0"

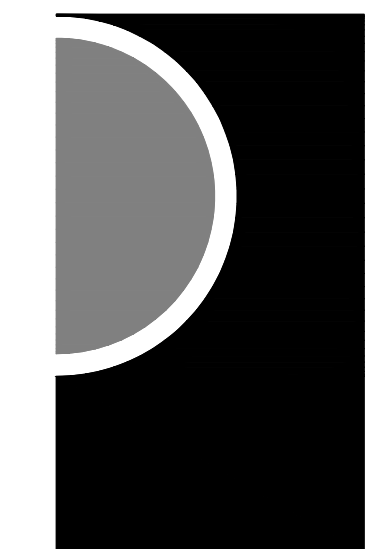
FLOOR PLAN GENERAL NOTES:

- A. COORDINATE SIZE AND LOCATION OF ALL DUCT, SHAFT AND LOUVER OPENINGS IN WALLS AND FLOORS WITH MECHANICAL - REFER TO STRUCTURAL FOR ALL REQUIRED LINTELS.
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- C. REFER TO STRUCTURAL FOR ALL BEARING WALLS, COLUMNS, LINTELS, ETC.
- D. REFER TO ARCHITECTURAL AND STRUCTURAL SECTIONS AND DETAILS FOR ALL EXTERIOR WALL CONSTRUCTION.
- E. PROTECT EXISTING ROOF MEMBRANE DURING CONSTRUCTION.

NEW WORK KEY NOTES:

- 1 DASHED LINE OF NEW PIPING ROUTE - REFER TO INTERIOR ELEVATIONS, COORDINATE W/ MECH - SEAL ALL WALL PENETRATIONS.
- 2 INFILL OPENING WITH 6" CMU, VERIFY MASONRY THICKNESS IN FIELD.
- 3 INFILL OPENING WITH 4" CMU, VERIFY MASONRY THICKNESS IN FIELD - COORDINATE W/ NEW ACCESS DOOR LOCATION.
- 4 NEW 24" x 24" FLUSH METAL ACCESS PANEL W/ FLUSH SCREWDRIVER OPERATED CAM LOCK - LOCATE BELOW EXISTING LINTEL, COORDINATE HORIZONTAL LOCATION W/ MASONRY INFILL.
- 5 EXISTING LOUVER TO REMAIN.
- 6 MECHANICAL EQUIPMENT - REFER TO MECH.
- 7 LOUVER TO BE GLAZED INTO EXISTING STOREFRONT FRAME W/ GLAZING ADAPTER - REFER TO MECH & COORD W/ EXISTING WINDOW FRAME (+/- 4'-0" X 5'-0") - PROVIDE MATCHING METAL INSULATED BLANK OFF PANEL WHERE VUV EXTENSION DOES NOT COVER LOUVER.
- 8 NEW 18" x 18" FLUSH METAL ACCESS PANEL W/ FLUSH SCREWDRIVER OPERATED CAM LOCK IN GYPSUM WALL - PAINT TO MATCH ADJACENT WALL.
- 9 NEW CONC HOUSE KEEPING PAD ON EXISTING SLAB - REFER TO DETAIL 2/A3-01 - COORD SIZE W/ MECH.
- 10 PATCH, REPAIR & PAINT WALL @ REMOVED MECH EQUIPMENT.
- 11 NEW 24" x 24" GRILL IN EXISTING 24" x 48" ACOUSTIC CEILING SYSTEM - MODIFY GRID / TILES AS REQUIRED TO MATCH EXISTING ADJACENT SPACING - COORD W/ MECH.
- 12 PIPES TO BE COVERED THROUGH FLOOR BY UPBATHMENT PANELS. MECH / ELEC TRADES TO LAYOUT AND COORD LOCATIONS AND SIZES OF M&E EQUIPMENT PRIOR TO ABATEMENT CONTRACTOR'S SCHEDULED DATE.
- 13 NEW HVAC EQUIPMENT ON NEW CONCRETE PADS - REFER TO STRUCTURAL DRAWINGS FOR CONC REINF - VERIFY SIZE AND LOCATIONS W/ MECH.
- 14 NEW ELECTRICAL TRANSFORMERS AND RELATED ELECTRICAL EQUIPMENT ON NEW CONCRETE PADS (THICKNESS AND REINFORCING AS REQUIRED BY DTE) - COORDINATE W/ ELEC.
- 15 NEW CONCRETE BOLLARDS - MAX SPACING 60" O.C. - SEE DETAIL A3-02 - PAINT TRAFFIC YELLOW.
- 16 COORDINATE LOCATION OF NEW CONDENSER UNIT W/ MECH - PAINT CONDUIT TO MATCH EXISTING BRICK.
- 17 REFER TO SHEET A3-01 FOR NEW CONSTRUCTION.
- 18 CONDUIT RUNS FOR VUV UNITS WILL BE EXPOSED AND PAINTED TO MATCH ADJACENT SURFACES - CONDUIT TO BE RUN CLOSE TO CEILINGS AND STRUCTURES - FINAL PATH TO BE COORDINATED W/ ARCHITECT - REFER TO ELEC.
- 19 REMOVE, SALVAGE, AND REINSTALL EXIST LAY IN CEILING TO COMPLETE WORK - REFER TO MECH.
- 20A NEW AC UNIT EXPOSED AND SUSPENDED IN ROOM - SET UNIT CEILING FLANGE AT ±10'-8" A.F.F. - VERIFY DIM W/ ARCHITECT IN FIELD.
- 20B NEW AC LINE SET TO CONDENSER UNIT EXPOSED MOUNTING - SET LINES IN NEAT UNIFORM MANOR W/ PAINTABLE INSULATION - CORE AND SEAL INDEPENDENT HOLES THRU WALL CONSTRUCTION - COORD ELEV IN FIELD W/ ARCHITECT.
- 20C NEW 3" OUTSIDE AIR DUCT TO UNIT W/ MOTORIZED DAMPER - PAINT EXPOSED DUCTS / DAMPER HOUSING - CORE OPENING FOR DUCT THRU MASONRY WALL AND PROVIDE WEATHER HOOD - COORD ELEV A.F.F. W/ ARCHITECT IN FIELD.
- 20D NEW AC CONDENSATE PIPING EXPOSED IN ROOM - MOUNT IN NEAT UNIFORM PATH - PROVIDE PAINTABLE INSULATION - CORE HOLE THRU EXIST MASONRY WALL - COORD PATH AND ELEV A.F.F. W/ ARCHITECT IN FIELD.
- 20E NEW AC LINE SET TO CONDENSER UNIT EXPOSED IN ROOM - SET LINES IN NEAT UNIFORM MANOR W/ PAINTABLE INSUL - CORE AND SEAL INDEPENDENT HOLES FOR THRU FLOOR CONSTR ABOVE - FIRE STOP AND SEAL PENETRATIONS W/ 1HR RATED PENETRATION SEALANT SYSTEM - COORD ELEV AND LAYOUT W/ ARCHITECT IN FIELD.
- 21 AREA OF EXTENDED PIPE COVER FOR VALVE INSTALLATION - ACCESS TO VALVES TO BE BY INDEPENDENTLY REMOVABLE COVER SECTION OR ACCESS DOOR - COORD W/ MECH FOR LOCATING SECTION ADJACENT TO PIPE RUN INTERSECTIONS AND EXISTING CONCRETE BEAM.
- 22 UPPER SASH PANEL TO BE REMOVED AND REPLACED W/ MECH LOUVER, REFER TO MECH - MATCH INSULATED PANEL COLOR - COORD INSTALLATION W/ MECH HOOD, REFER TO MECH.
- 23 SAW CUT DAMAGED ASPHALT PAVING TO UNIFORMLY PATCH BACK ASPHALT PAVING TO MATCH ADJACENT FINISH AND SLOPE. REPAIR AND COMPACT SUB-BASE AND BASE.
- 24 EXISTING METAL FACE INSUL PANEL IN ALUM WINDOW FRAME TO BE MODIFIED / SEALED FOR DUCT PENETRATION AND NEW LOUVER INSTALLATION - COORD LOCATION / LAYOUT W/ MECH TRADES - REFER TO MECH.
- 25 NEW CRUSHED CONC SURFACING ON PREPARED AND SLOPED SUB-BASE - SLOPE 1/4" PER FOOT - MATCH EXISTING PAVING ELEV AT TRANSITION.
- 26 LINE OF 4" PER PVC DRAIN W/ FILTER SOCK MATERIAL - SLOPE TO WEST LAWN AREA AND DAYLIGHT W/ 4" MITERED DRAIN GRILLE (18.5 x 4.5 x 4.5" GREEN ANGLED GRATE) - SET DRAIN IN PEA GRAVEL - RESTORE LAWN AREAS.
- 27 NEW 4" PVC YARD DRAIN - SET AT 2" BELOW WINDOW SILL ELEVATION - PIPE INTO ROOF CONDUCTOR DRAIN FITTING (INDS 9" SQUARE CATCH BASIN W/ GRATE) - REMOVE AND REPLACE TOP SECTION OF EXISTING DRAIN BOOT TO MAKE CONNECTION.
- 28 NEW 4" DRAIN SLEEVE THRU 4 X 4 CUT-OUT IN NEW BLOCK - MORTAR SLEEVE IN PLACE - SET W/ FLUSH REMOVABLE GRILLE FITTING.
- 29 NEW SURFACE MOUNTED GRILLE BY MECH - PATCH AND TOUCH UP NEW OPENING AT THRU WALL CONSTRUCTION.
- 30 NEW ACCU ON NEW CONC PAD W/ WALL MOUNTED UTILITY LINES AND ELEC DISCONNECT - COORD W/ MECH AND ELEC - PAINT EXPOSED INSULATED LINES AND CONDUIT - COORD PATH AND PENETRATION ELEV W/ ARCHITECT IN FIELD.
- 31 NEW GAS SERVICE LINE WALL MOUNTED FROM ROOF - PAINT PIPE AND BRACKETS TO MATCH BRICK COLOR - VERIFY W/ ARCH.
- 32 COORD LOCATION OF NEW RELIEF HOOD CURB AND OPENING THRU CONC DECK TO ORIENT OPENING LONG DIMENSION PERPENDICULAR TO CONC BEAM.
- 33 NEW AC SPLIT SYSTEM UNIT MOUNTED IN LAY-IN ACOUSTIC CEILING SYSTEM - COORD LAYOUT W/ PREVIOUS GRID LAYOUT AND MECH - ALL MECH PIPING TO BE CONCEALED ABOVE CEILING.
- 34 RESET EXISTING ACOUSTIC TILE AND REMOUNT LIGHT FIXTURES IN NEW CEILING GRID - COORD NEW CEILING ELEVATION W/ ARCHITECT IN FIELD - EXTEND FIXTURE ELEC FEED AS REQUIRED.
- 35 LINE OF EXISTING GRID MOUNT SURFACE LIGHTING FIXTURE TO BE RESET IN NEW CEILING SYSTEM.
- 36 NEW METAL SUPPLY AND RETURN DUCT W/ CONN THRU ROOF - REFER TO STRUCT FOR REINFORCING - PAINT EXPOSED METAL DUCTS, HANGERS, BRACKETS, AND STEEL REINFORCING.
- 37 NEW FABRIC DUCT W/ HANGERS AND SUPPORT BRACKETS - PAINT HANGER AND BRACKETS AND ALL EXPOSED COMPONENTS.
- 38 PROVIDE NEW 3-5/8" STUD INFILL FRAMING W/ 5/8" TYPE X GYP BD SHEATHING AND MATCHING 12 X 12 ADHERED ACOUSTIC TILE WITH-IN REMAINING OPENING FRAME - PAINT EXISTING FRAME.
- 39 PROVIDE 24" X 24" METAL ACCESS DOOR W/ FRAME AND DOOR TO ACCEPT MATCHING 12 X 12 ACOUSTIC TILE - POSITION ACCESS DOOR TO MATCH TILE PATTERN WITH IN REPLACEMENT AREA.

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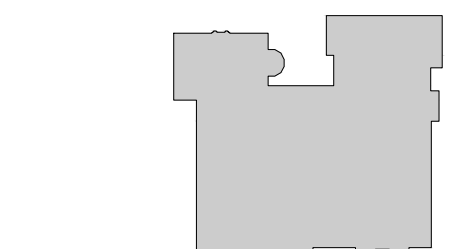
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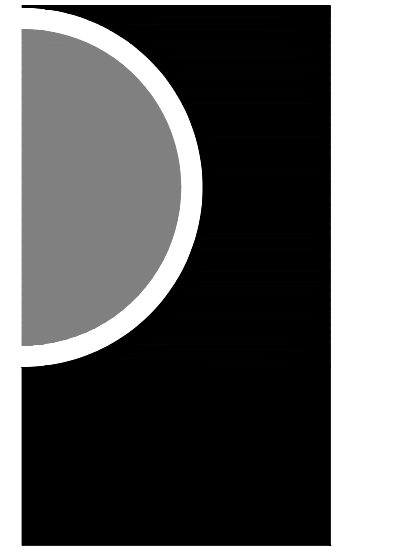
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SHEET NAME

LOWER LEVEL
FLOOR PLAN

SHEET NO.

A3-01



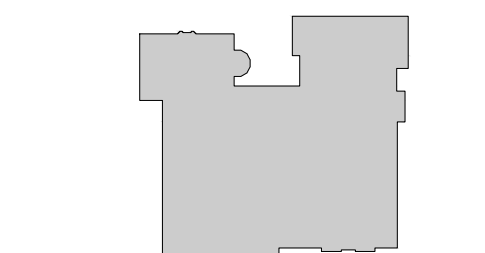
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GROUND LEVEL
 FLOOR PLAN

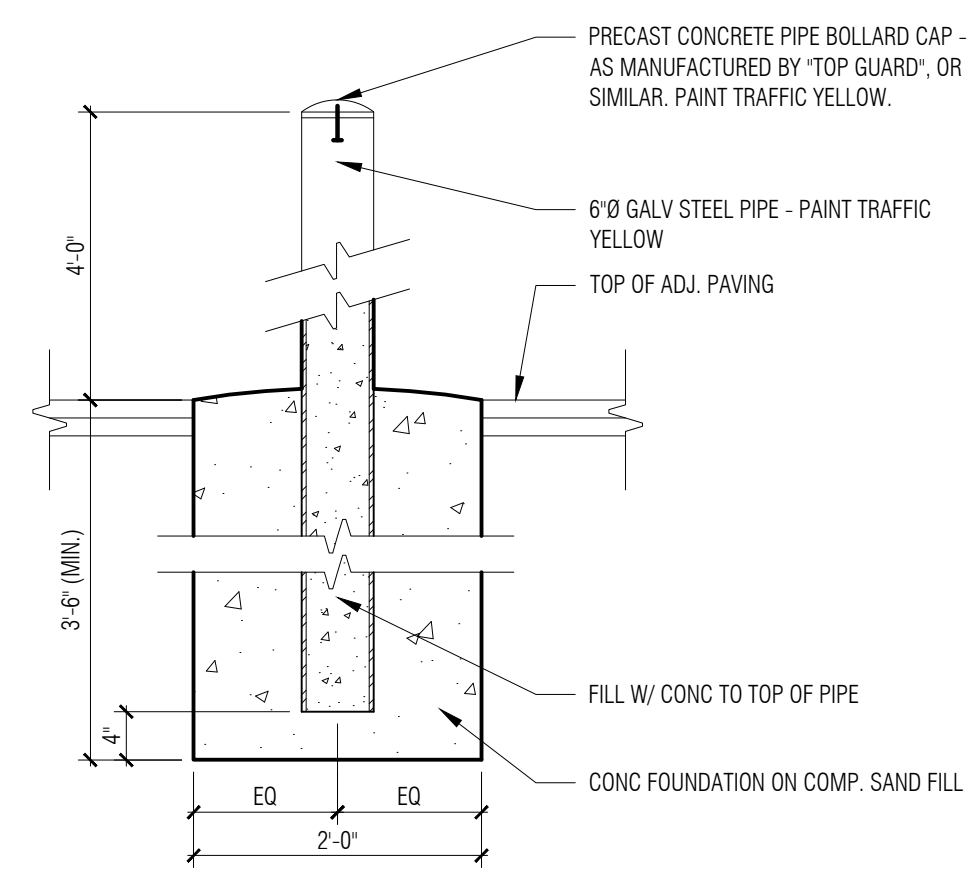
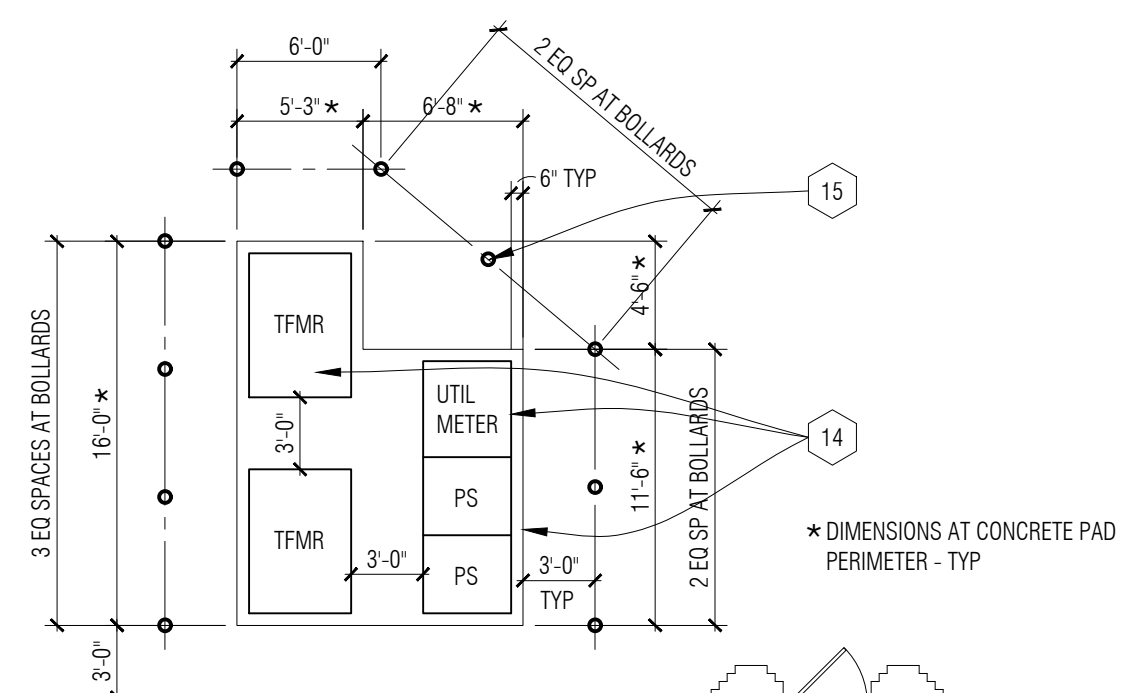
SHEET NO.
 A3-02

FLOOR PLAN GENERAL NOTES:

- COORDINATE SIZE AND LOCATION OF ALL DUCT, SHAFT AND LOUVER OPENINGS IN WALLS AND FLOORS WITH MECHANICAL - REFER TO STRUCTURAL FOR ALL REQUIRED LINTELS.
- DO NOT SCALE DRAWINGS. USE DIMENSIONS PROVIDED. IF A CONFLICT IS ENCOUNTERED OR A REQUIRED DIMENSION IS NOT PROVIDED, REQUEST A CLARIFICATION FROM THE ARCHITECT.
- REFER TO STRUCTURAL FOR ALL BEARING WALLS, COLUMNS, LINTELS, ETC.
- REFER TO ARCHITECTURAL AND STRUCTURAL SECTIONS AND DETAILS FOR ALL EXTERIOR WALL CONSTRUCTION.
- PROTECT EXISTING ROOF MEMBRANE DURING CONSTRUCTION.

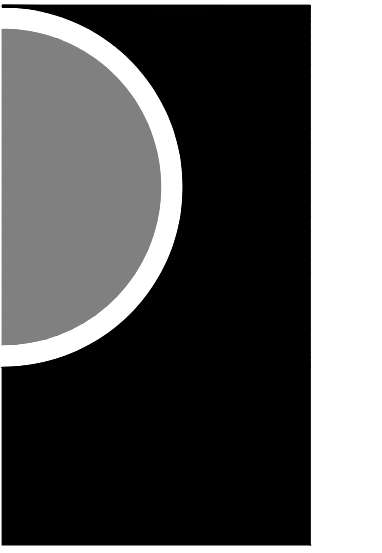
NEW WORK KEY NOTES:

- DASHED LINE OF NEW PIPING ROUTE - REFER TO INTERIOR ELEVATIONS, COORDINATE W/ MECH - SEAL ALL WALL PENETRATIONS.
- INFILL OPENING WITH 4" CMU, VERIFY MASONRY THICKNESS IN FIELD.
- INFILL OPENING WITH 4" CMU, VERIFY MASONRY THICKNESS IN FIELD - COORDINATE W/ NEW ACCESS DOOR LOCATION.
- NEW 24" x 24" FLUSH METAL ACCESS PANEL W/ FLUSH SCREWDRIVER OPERATED CAM LOCK - LOCATE BELOW EXISTING LINTEL, COORDINATE HORIZONTAL LOCATION W/ MASONRY INFILL.
- EXISTING LOUVER TO REMAIN.
- MECHANICAL EQUIPMENT - REFER TO MECH.
- LOUVER TO BE GLAZED INTO EXISTING STOREFRONT FRAME W/ GLAZING ADAPTER - REFER TO MECH & COORD W/ EXISTING WINDOW FRAME (+/- 4'-0" X 5'-0") - PROVIDE MATCHING METAL INSULATED BLANK OFF PANEL WHERE VUV EXTENSION DOES NOT COVER LOUVER.
- NEW 18" x 18" FLUSH METAL ACCESS PANEL W/ FLUSH SCREWDRIVER OPERATED CAM LOCK IN GYPSUM WALL - PAINT TO MATCH ADJACENT WALL.
- NEW CONC HOUSE KEEPING PAD ON EXISTING SLAB - REFER TO DETAIL 2/A3-01 - COORD SIZE W/ MECH.
- PATCH, REPAIR & PAINT WALL @ REMOVED MECH EQUIPMENT.
- NEW 24" x 24" GRILL IN EXISTING 24" x 48" ACOUSTIC CEILING SYSTEM - MODIFY GRID / TILES AS REQUIRED TO MATCH EXISTING ADJACENT SPACING - COORD W/ MECH.
- PIPES TO BE COVERED THROUGH FLOOR BY UPSTAIRMENT PANELS. MECH / ELEC TRADES TO LAYOUT AND COORD LOCATIONS AND SIZES OF M&E EQUIPMENT PRIOR TO ABATEMENT CONTRACTOR'S SCHEDULED DATE.
- NEW HVAC EQUIPMENT ON NEW CONCRETE PADS - REFER TO STRUCTURAL DRAWINGS FOR CONC REINF - VERIFY SIZE AND LOCATIONS W/ MECH.
- NEW ELECTRICAL TRANSFORMERS AND RELATED ELECTRICAL EQUIPMENT ON NEW CONCRETE PADS (THICKNESS AND REINFORCING AS REQUIRED BY DTE) - COORDINATE W/ ELEC.
- NEW CONCRETE BOLLARDS - MAX SPACING 60" O.C. - SEE DETAIL A3-02 - PAINT TRAFFIC YELLOW.
- COORDINATE LOCATION OF NEW CONDENSER UNIT W/ MECH - PAINT CONDUIT TO MATCH EXISTING BRICK.
- REFER TO SHEET A3-01 FOR NEW CONSTRUCTION.
- CONDUIT RUNS FOR VUV UNITS WILL BE EXPOSED AND PAINTED TO MATCH ADJACENT SURFACES - CONDUIT TO BE RUN CLOSE TO CEILINGS AND STRUCTURES - FINAL PATH TO BE COORDINATED W/ ARCHITECT - REFER TO ELEC.
- REMOVE, SALVAGE, AND REINSTALL EXIST LAY IN CEILING TO COMPLETE WORK - REFER TO MECH.
- NEW AC UNIT EXPOSED AND SUSPENDED IN ROOM - SET UNIT CEILING FLANGE AT ±10'-8" A.F.F. - VERIFY DIM W/ ARCHITECT IN FIELD.
- NEW AC LINE SET TO CONDENSER UNIT EXPOSED MOUNTING - SET LINES IN NEAT UNIFORM MANOR W/ PAINTABLE INSULATION - CORE AND SEAL INDEPENDENT HOLES THRU WALL CONSTRUCTION - COORD ELEV IN FIELD W/ ARCHITECT.
- NEW 3" OUTSIDE AIR DUCT TO UNIT W/ MOTORIZED DAMPER - PAINT EXPOSED DUCTS / DAMPER HOUSING - CORE OPENING FOR DUCT THRU MASONRY WALL AND PROVIDE WEATHER HOOD - COORD ELEV A.F.F. W/ ARCHITECT IN FIELD.
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- AREA OF EXTENDED PIPE COVER FOR VALVE INSTALLATION - ACCESS TO VALVES TO BE BY INDEPENDENTLY REMOVABLE COVER SECTION OR ACCESS DOOR - COORD W/ MECH FOR LOCATING SECTION ADJACENT TO PIPE RUN INTERSECTIONS AND EXISTING CONCRETE BEAM.
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- EXISTING METAL FACE INSUL PANEL IN ALUM WINDOW FRAME TO BE MODIFIED / SEALED FOR DUCT PENETRATION AND NEW LOUVER INSTALLATION - COORD LOCATION / LAYOUT W/ MECH TRADES - REFER TO MECH.
- NEW CRUSHED CONC SURFACING ON PREPARED AND SLOPED SUB-BASE - SLOPE 1/4" PER FOOT - MATCH EXISTING PAVING ELEV AT TRANSITION.
- LINE OF 4" PER PVC DRAIN W/ FILTER SOCK MATERIAL - SLOPE TO WEST LAWN AREA AND DAYLIGHT W/ 4" MITERED DRAIN GRILLE - SET DRAIN IN PEA GRAVEL - RESTORE LAWN AREAS.
- NEW 4" PVC YARD DRAIN - SET AT 2" BELOW WINDOW SILL ELEVATION - PIPE INTO ROOF CONDUCTOR DRAIN FITTING - REMOVE AND REPLACE TOP SECTION OF EXISTING DRAIN BOOT TO MAKE CONNECTION.
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- NEW ACCU ON NEW CONC PAD W/ WALL MOUNTED UTILITY LINES AND ELEC DISCONNECT - COORD W/ MECH AND ELEC - PAINT EXPOSED INSULATED LINES AND CONDUIT - COORD PATH AND PENETRATION ELEV W/ ARCHITECT IN FIELD.
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- COORD LOCATION OF NEW RELIEF HOOD CURB AND OPENING THRU CONC DECK TO ORIENT OPENING LONG DIMENSION PERPENDICULAR TO CONC BEAM.
- NEW AC SPLIT SYSTEM UNIT MOUNTED IN LAY-IN ACOUSTIC CEILING SYSTEM - COORD LAYOUT W/ PREVIOUS GRID LAYOUT AND MECH - ALL MECH PIPING TO BE CONCEALED ABOVE CEILING.
- RESET EXISTING ACOUSTIC TILE AND REMOUNT LIGHT FIXTURES IN NEW CEILING GRID - COORD NEW CEILING ELEVATION W/ ARCHITECT IN FIELD - EXTEND FIXTURE ELEC FEED AS REQUIRED.
- LINE OF EXISTING GRID MOUNT SURFACE LIGHTING FIXTURE TO BE RESET IN NEW CEILING SYSTEM.
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- NEW FABRIC DUCT W/ HANGERS AND SUPPORT BRACKETS - PAINT HANGER AND BRACKETS AND ALL EXPOSED COMPONENTS.
- PROVIDE NEW 3-5/8" STUD INFILL FRAMING W/ 5/8" TYPE X GYP BD SHEATHING AND MATCHING 12 X 12 ADHERED ACOUSTIC TILE WITH-IN REMAINING OPENING FRAME - PAINT EXISTING FRAME.
- PROVIDE 24" X 24" METAL ACCESS DOOR W/ FRAME AND DOOR TO ACCEPT MATCHING 12 X 12 ACOUSTIC TILE - POSITION ACCESS DOOR TO MATCH TILE PATTERN WITH-IN REPLACEMENT AREA.



2
 A3-02
 Typ. Pipe Bollard Detail
 3/4" = 1'-0"

1
 Ground Level Floor Plan
 1/8" = 1'-0"



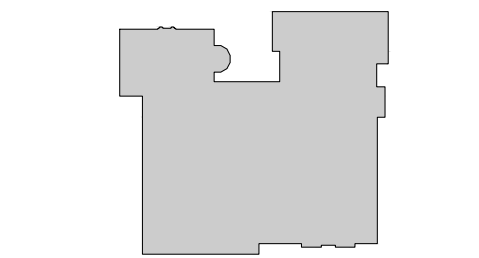
PARTNERS in Architecture, PLC
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CONSULTANT

KEY PLAN



OWNER

Hamtramck Public Schools

PROJECT NAME

HVAC Improvements
 Phase 2
 Early Childhood

11680 McDougall St
 Hamtramck, MI 48212

PROJECT NO.

22-118

ISSUES / REVISIONS

50% Review	05/19/2022
90% Review	06/24/2022
Bidding - Construction	08/30/2022
Addendum #2	09/21/2022

DRAWN BY

CHECKED BY
 DRM

APPROVED BY
 MAM

SHEET NAME

UPPER LEVEL
 FLOOR PLAN

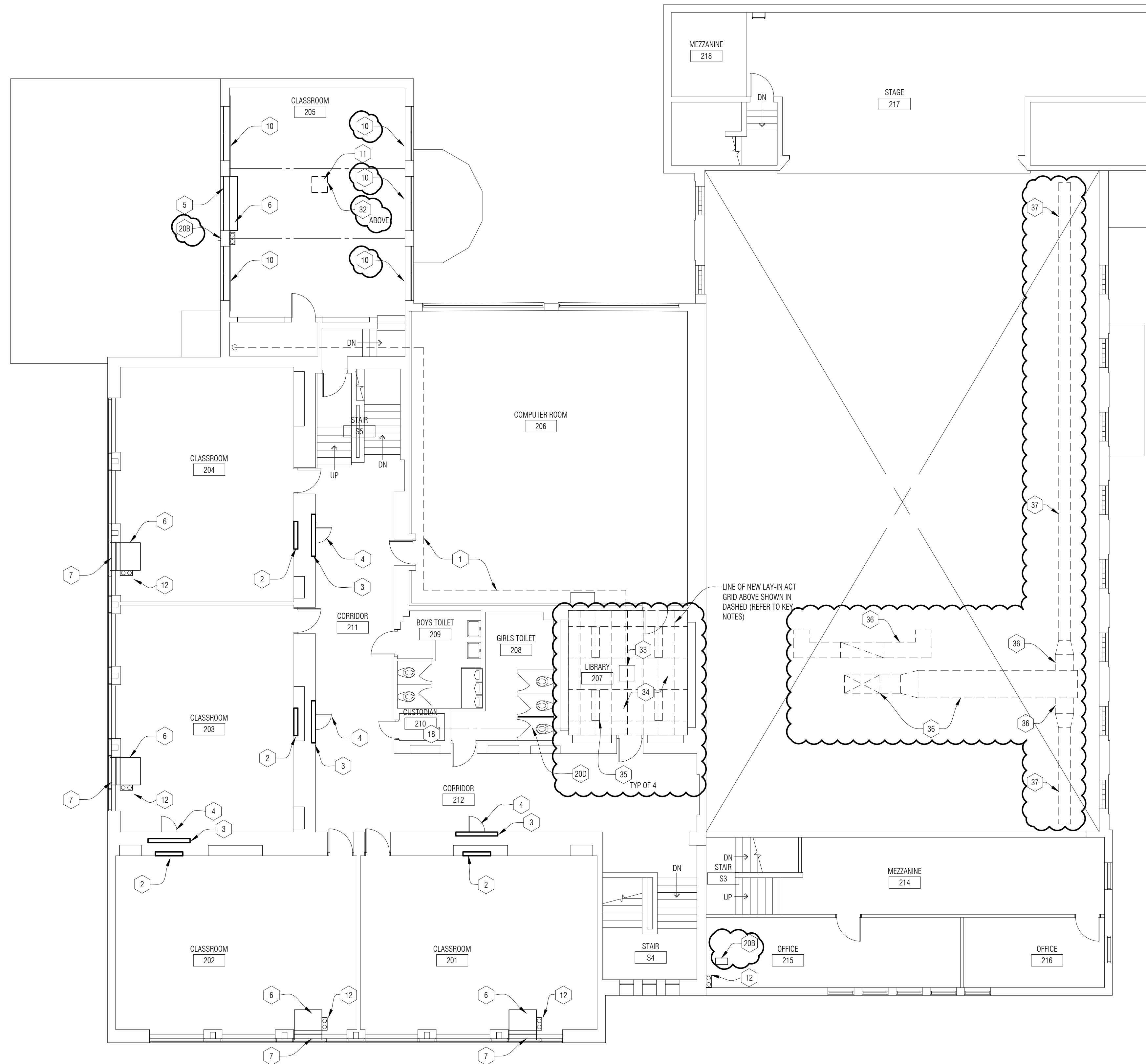
SHEET NO.
 A3-03

FLOOR PLAN GENERAL NOTES:

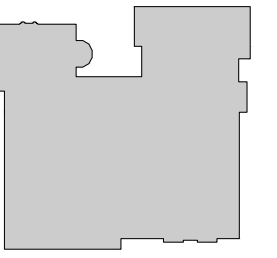
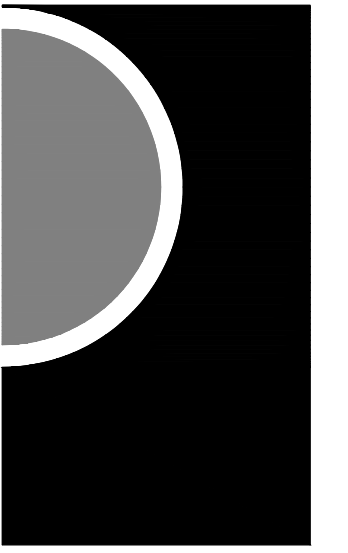
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NEW WORK KEY NOTES:

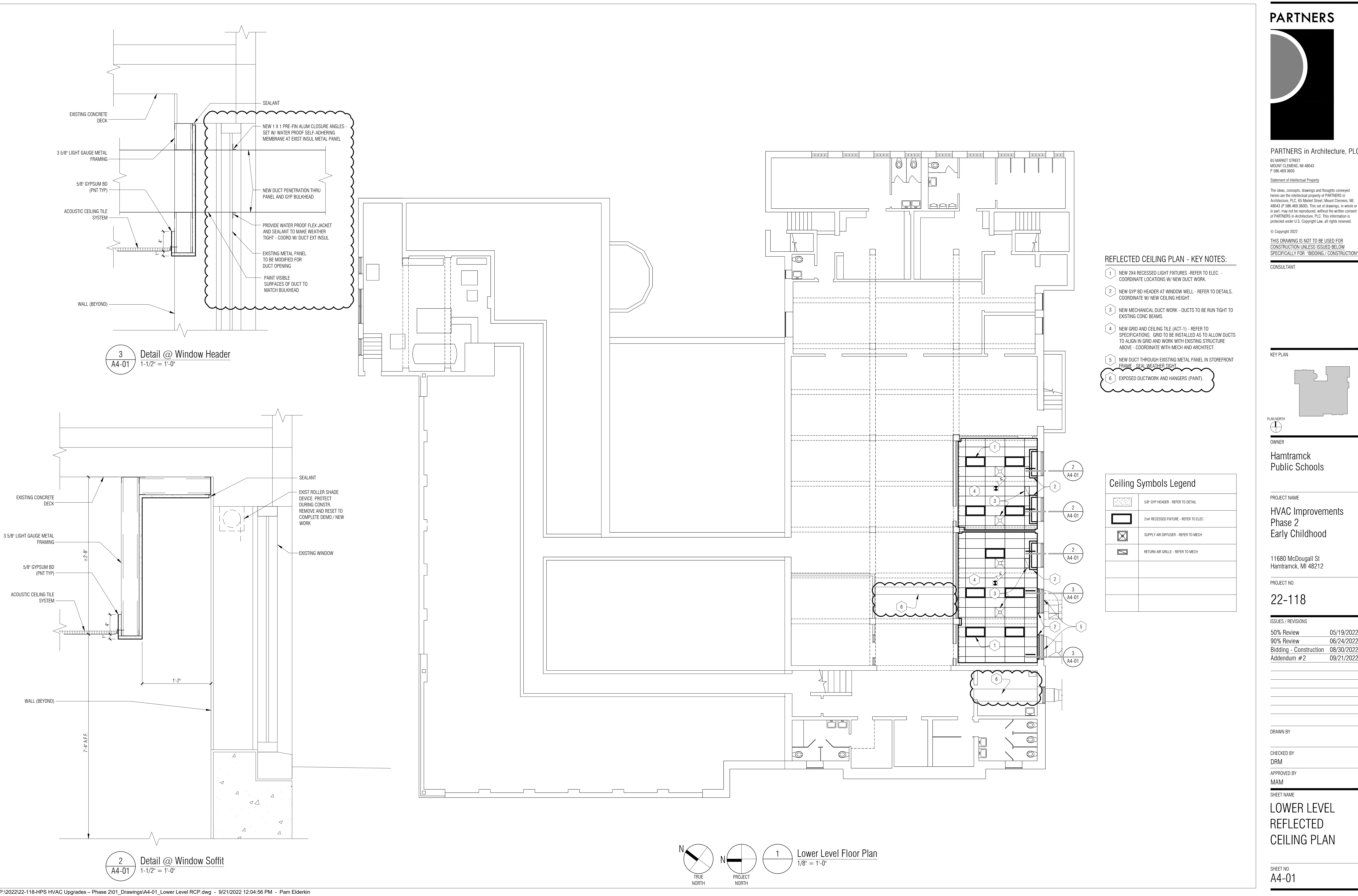
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- 30 NEW ACCU ON NEW CONC PAD W/ WALL MOUNTED UTILITY LINES AND ELEC DISCONNECT - COORD W/ MECH AND ELEC - PAINT EXPOSED INSULATED LINES AND CONDUIT - COORD PATH AND PENETRATION ELEV W/ ARCHITECT IN FIELD.
- 31 NEW GAS SERVICE LINE WALL MOUNTED FROM ROOF - PAINT PIPE AND BRACKETS TO MATCH BRICK COLOR - VERIFY W/ ARCH.
- 32 COORD LOCATION OF NEW RELIEF HOOD CURB AND OPENING THRU CONC DECK TO ORIENT OPENING LONG DIMENSION PERPENDICULAR TO CONC BEAM.
- 33 NEW AC SPLIT SYSTEM UNIT MOUNTED IN LAY-IN ACOUSTIC CEILING SYSTEM - COORD LAYOUT W/ PREVIOUS GRID LAYOUT AND MECH - ALL MECH PIPING TO BE CONCEALED ABOVE CEILING.
- 34 RESET EXISTING ACOUSTIC TILE AND REMOUNT LIGHT FIXTURES IN NEW CEILING GRID - COORD NEW CEILING ELEVATION W/ ARCHITECT IN FIELD - EXTEND FIXTURE ELEC FEED AS REQUIRED.
- 35 LINE OF EXISTING GRID MOUNT SURFACE LIGHTING FIXTURE TO BE RESET IN NEW CEILING SYSTEM.
- 36 NEW METAL SUPPLY AND RETURN DUCT W/ CONN THRU ROOF - REFER TO STRUCT FOR REINFORCING - PAINT EXPOSED METAL DUCTS, HANGERS, BRACKETS, AND STEEL REINFORCING.
- 37 NEW FABRIC DUCT W/ HANGERS AND SUPPORT BRACKETS - PAINT HANGER AND BRACKETS AND ALL EXPOSED COMPONENTS.
- 38 PROVIDE NEW 3-5/8" STUD INFILL FRAMING W/ 5/8" TYPE X GYP BD SHEATHING AND MATCHING 12 X 12 ADHERED ACOUSTIC TILE WITH-IN REMAINING OPENING FRAME - PAINT EXISTING FRAME.
- 39 PROVIDE 24" X 24" METAL ACCESS DOOR W/ FRAME AND DOOR TO ACCEPT MATCHING 12 X 12 ACOUSTIC TILE - POSITION ACCESS DOOR TO MATCH TILE PATTERN WITH-IN REPLACEMENT AREA.



Upper Level Floor Plan
 1/8" = 1'-0"



50% Review	05/19/2022
90% Review	06/24/2022
Bidding - Construction	08/30/2022
Addendum #2	09/21/2022



REFLECTED CEILING PLAN - KEY NOTES:

- 1 NEW 2x4 RECESSED LIGHT FIXTURES - REFER TO ELEC. - COORDINATE LOCATIONS W/ NEW DUCT WORK.
- 2 NEW GYP BD HEADER AT WINDOW WELL - REFER TO DETAILS, COORDINATE W/ NEW CEILING HEIGHT.
- 3 NEW MECHANICAL DUCT WORK - DUCTS TO BE RUN TIGHT TO EXISTING CONC BEAMS.
- 4 NEW GRID AND CEILING TILE (ACT-1) - REFER TO SPECIFICATIONS. GRID TO BE INSTALLED AS TO ALLOW DUCTS TO ALIGN IN GRID AND WORK WITH EXISTING STRUCTURE ABOVE - COORDINATE WITH MECH AND ARCHITECT.
- 5 NEW DUCT THROUGH EXISTING METAL PANEL IN STOREFRONT FRAME - SEAL WEATHER TIGHT.
- 6 EXPOSED DUCTWORK AND HANGERS (PAINT).

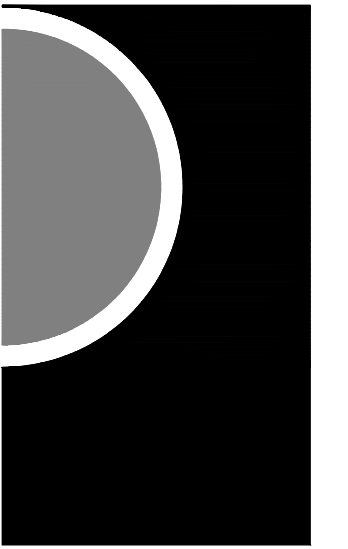
Ceiling Symbols Legend

	5/8" GYP HEADER - REFER TO DETAIL
	2x4 RECESSED FIXTURE - REFER TO ELEC
	SUPPLY AIR DIFFUSER - REFER TO MECH
	RETURN AIR GRILLE - REFER TO MECH

3 Detail @ Window Header
 A4-01 1-1/2" = 1'-0"

2 Detail @ Window Soffit
 A4-01 1-1/2" = 1'-0"

1 Lower Level Floor Plan
 1/8" = 1'-0"



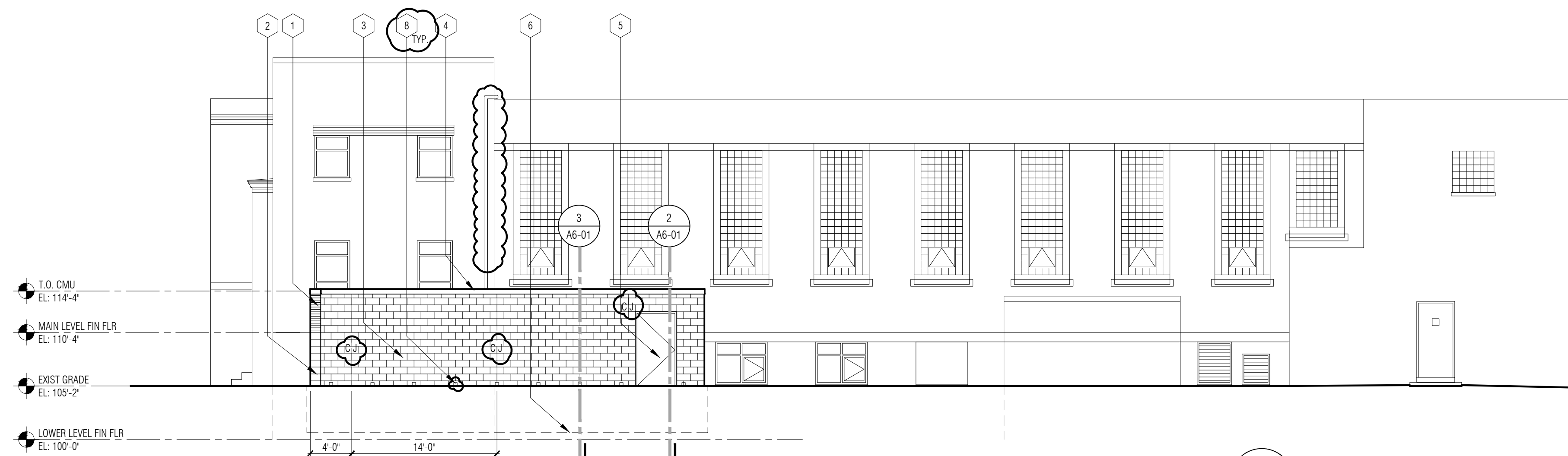
50% Review	05/19/2022
90% Review	06/24/2022
Bidding - Construction	08/30/2022
Addendum #2	09/21/2022

EXTERIOR ELEVATIONS GENERAL NOTES:

- A. REFER TO MATERIAL FINISH / COLOR SCHEDULE (SPEC SECTION 000200)
- B. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING AND UNDERSTANDING EXISTING CONDITIONS.
- C. REFER TO SECTION DETAILS FOR CAST STONE SILL PROFILES

ELEVATION KEY NOTES:

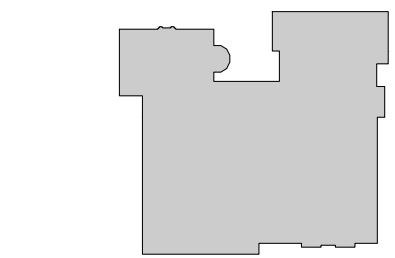
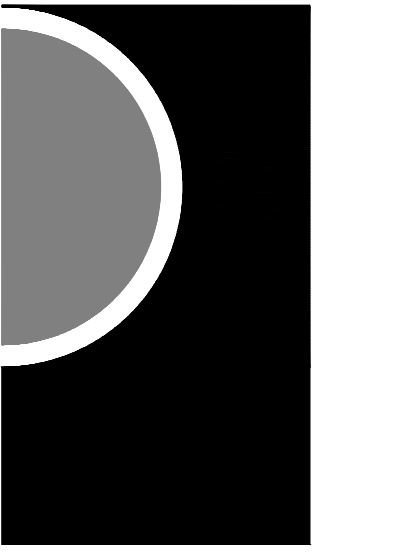
- 1 RUNNING BOND FACE BRICK.
- 2 4" CMU FACE - TOP OF BLOCK TO ALIGN WITH TOP OF STONE BASE ON EXISTING BUILDING (DECORATIVE BLOCK DCM-1)
- 3 8" SINGLE WATTLE CMU WALL - REFER TO STRUCT (DECORATIVE COLORED BLOCK DCM-2)
- 4 PRE-FINISHED METAL COPING.
- 5 3'-8" x 7'-0" FRP DOOR AND ALUMINUM FRAME - REFER TO SPECIFICATIONS, HARDWARE SET #1.
- 6 LINE OF NEW SCREEN WALL FOOTING. REFER TO STRUCT.
- 7 2" EXPANSION JOINT. REFER TO PLAN DETAILS FOR MORE INFO.
- 8 4" DIA PVC DRAIN SLEEVE W/ GRILLE THRU WALL AT PAVING ELEV. SET AT 48" O.C. HORIZONTAL.
- 9 NEW GAS LINE FEED FROM ROOF - EXTEND AND TURN GAS PIPE ONTO ADJ WALL SURFACE AND MOUNT TO WALL - RUN TO NEW GROUND MOUNTED HVAC EQUIPMENT - PAINT PIPE AND BRACKETS TO MATCH BRICK COLOR - VERIFY COLOR W/ ARCHITECT.
- 10 NEW SIDE WALL INTAKE GRILLE - COORD LOCATION W/ MECH AND ARCHITECT - PRE-DRILL AND CORE EXISTING STONE VENEER, LOCATE BELOW OVERHANG AT VESTIBULE SIDE WALL.
- 11 NEW COMBINED CONDENSATE DRAIN PIPE THRU WALL FROM 1ST AND 2ND FLOOR VUV UNITS (TYP ALL ELEVATIONS).



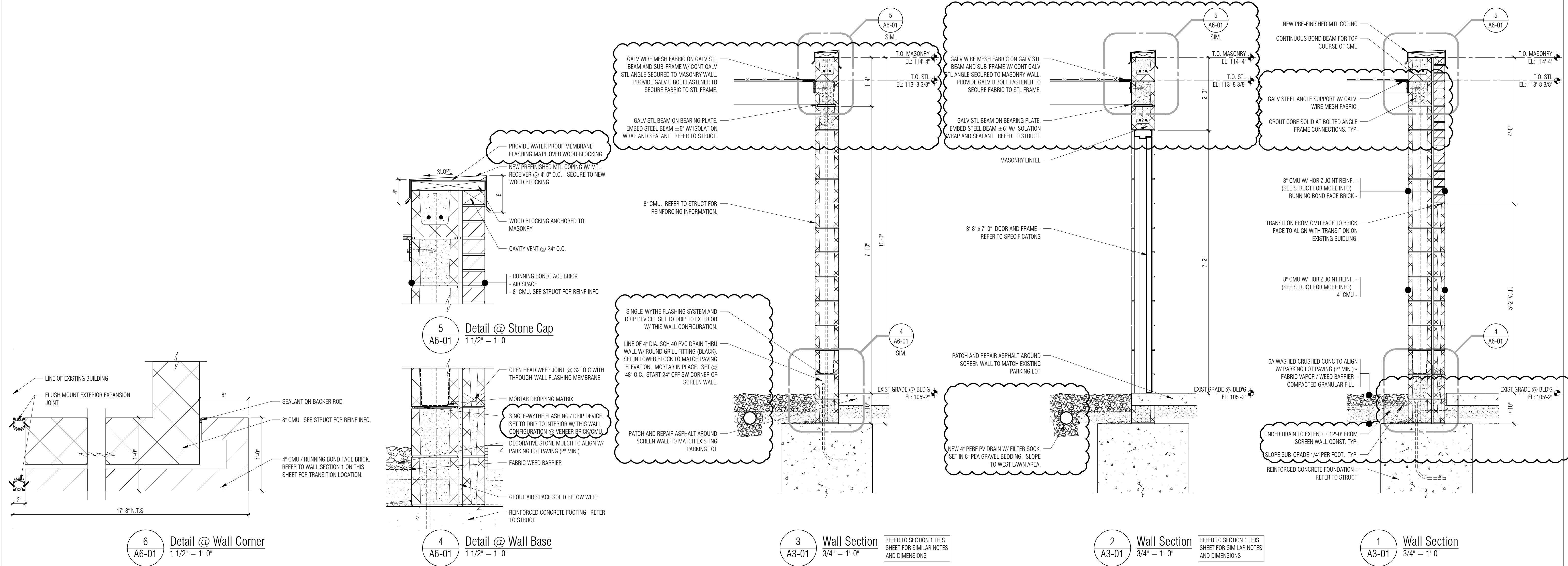
2 South Exterior Elevations
S3-01 1/8" = 1'-0"



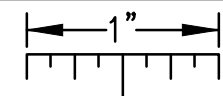
1 West Exterior Elevation
A3-01 1/8" = 1'-0"



50% Review	05/19/2022
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THE FOLLOWING DIMENSION EQUALS ONE INCH WHEN PRINTED TO SCALE.

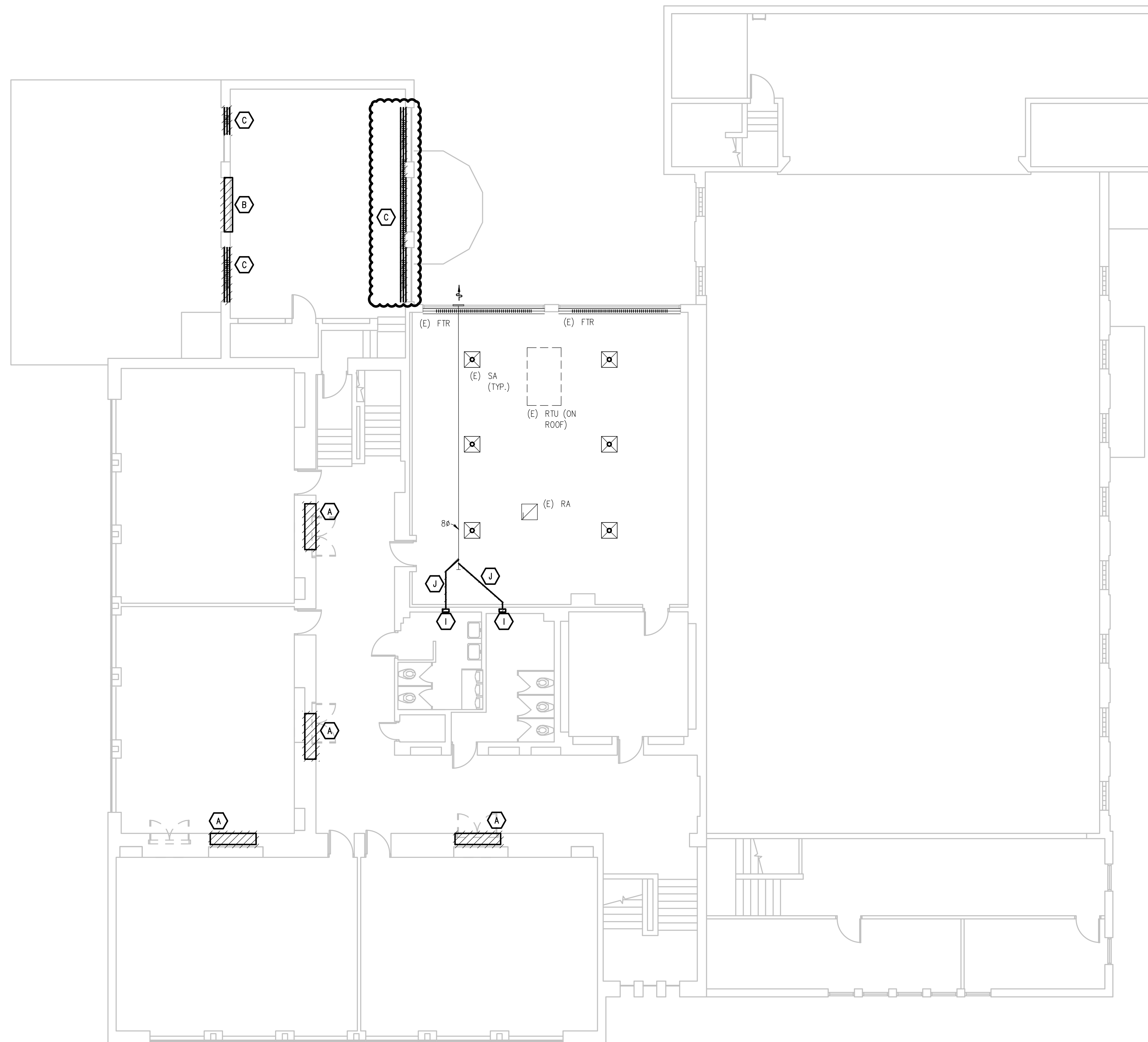


MECHANICAL DEMOLITION GENERAL NOTES:

1. ANY INTERRUPTION OF EXISTING SERVICES AND/OR EQUIPMENT SHALL BE PERFORMED AT A TIME APPROVED IN ADVANCE BY THE OWNER'S REPRESENTATIVE.
2. THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF THE WORK. ACTUAL ROUTING AND SIZES OF EXISTING PIPING AND DUCTWORK MIGHT DIFFER TO A LIMITED EXTENT FROM WHAT IS SHOWN. MAJOR DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL EXISTING CONDITIONS SHALL BE REPORTED TO THE ENGINEER.
3. THE EXACT EXTENT OF DEMOLITION SHALL BE AS REQUIRED BY THE NEW WORK.
4. ALL MECHANICAL ITEMS TO BE REMOVED SHALL BE REMOVED COMPLETE, INCLUDING ALL RELATED ITEMS SUCH AS HANGERS, SUPPORTS, CONTROLS, ETC. CAP ALL OPEN ENDED PIPES AND DUCTWORK.

DEMOLITION KEY NOTES:

- A. REMOVE SHEET METAL BOX FAN/HEATER FROM WALL CAVITY. CAP STEAM AND CONDENSATE PIPING IN A CONCEALED MANNER. PROVIDE ACCESS DOOR FOR CAPPED PIPING (REFER TO ARCHITECTURAL).
- B. REMOVE STEAM UNIT VENTILATOR AND ASSOCIATED CONTROLS. CAP STEAM AND CONDENSATE PIPING IN A CONCEALED MANNER. BLANK OFF LOUVER.
- C. REMOVE STEAM FIN TUBE RADIATION AND ASSOCIATED STEAM TRAP AND CONTROLS. CAP STEAM AND CONDENSATE BRANCH PIPING AS CLOSE TO MAIN AS POSSIBLE.**
- D. REMOVE STEAM AIR HANDLING UNIT AND ASSOCIATED SUPPLY, RETURN AND OUTDOOR AIR DUCTWORK COMPLETE. BLANK OFF LOUVER (SEE DETAIL). CAP STEAM AND CONDENSATE PIPING IN A CONCEALED MANNER.
- E. REMOVE STEAM AHU AND ASSOCIATED DUCTWORK AND CONTROLS. COORDINATE WALL INFILL WITH ARCHITECTURAL.
- F. REMOVE INLINE EXHAUST FAN AND CAP VERTICAL DUCTWORK GOING UP (UPSTREAM). PREPARE DOWNSTREAM DUCTWORK (FROM TOILET ROOMS) FOR NEW CONNECTION.
- G. REMOVE SHEET METAL BOX FAN/HEATER FROM CEILING CAVITY. CAP STEAM AND CONDENSATE PIPING IN A CONCEALED MANNER. PROVIDE ACCESS DOOR FOR CAPPED PIPING (REFER TO ARCHITECTURAL).
- H. EXISTING LOUVER TO REMAIN. SEE BLANK OFF DETAIL.
- I. REMOVE AND DISCONNECT RESIDENTIAL EXHAUST FAN. PREPARE HOLE IN MASONRY FOR NEW WORK.
- J. REMOVE 3" EXHAUST DUCT BRANCH. PREPARE FOR NEW WORK.
- K. REMOVE FTR AND CAP STEAM AND CONDENSATE PIPING IN A CONCEALED MANNER. CAP PIPING AS CLOSE TO MAIN AS POSSIBLE.



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PARTNERS in Architecture, PLC

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PBA Project No. 2022-005

KEY PLAN

OWNER

Hamtramck
Public Schools

PROJECT NAME

HVAC Improvements
Phase 2
Early Childhood

11680 McDougall St
Hamtramck, MI 48212

PROJECT NO.

22-118

ISSUES / REVISIONS

50% Review	05/19/2022
95% Review	06/17/2022
Bidding - Construction	08/30/2022
Addendum #2	09/21/2022

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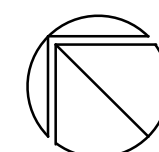
SVM

SHEET NAME

UPPER LEVEL MECHANICAL
DEMOLITION PLAN

SHEET NO.

M1-03

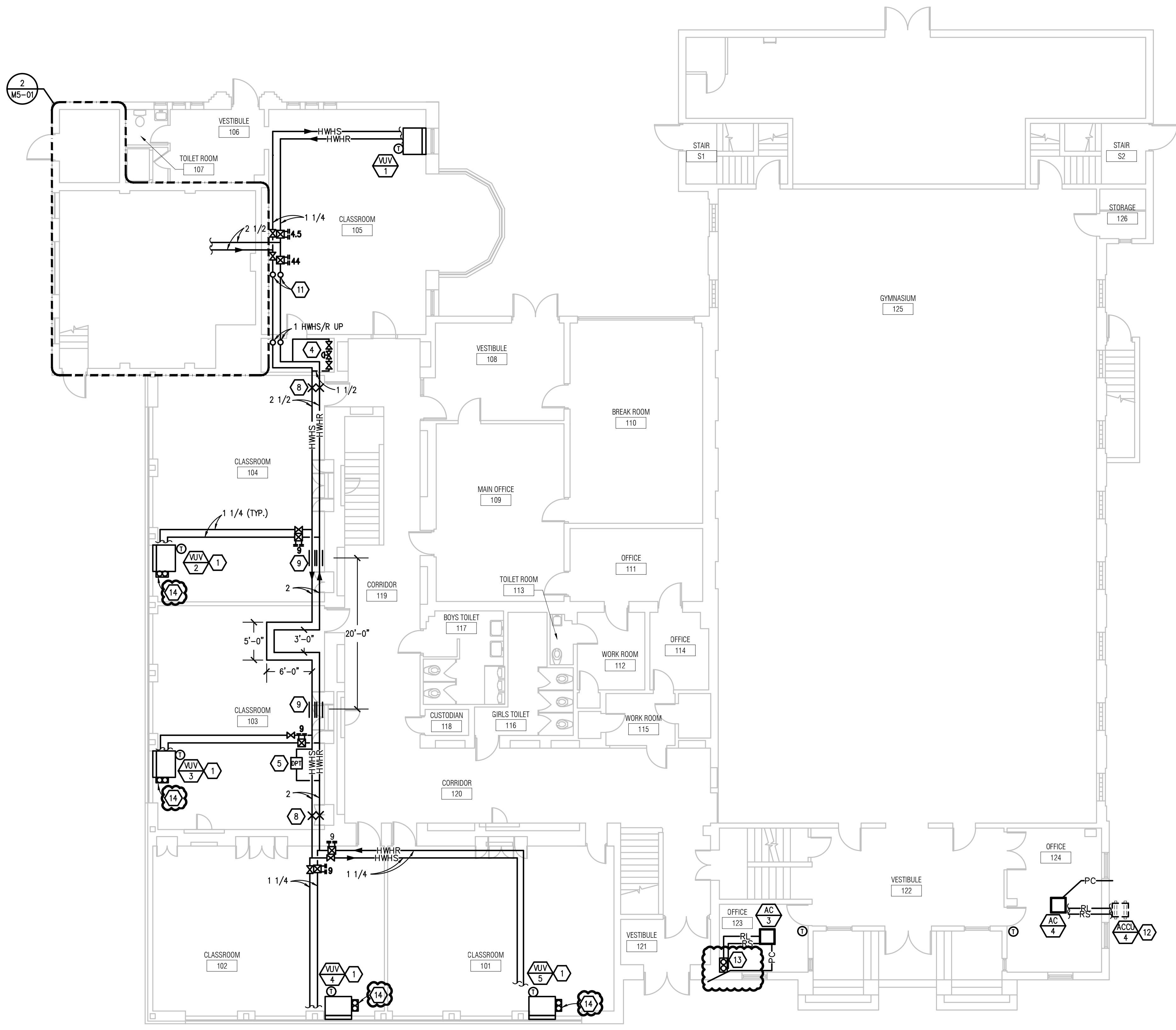
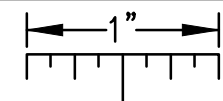


UPPER LEVEL MECHANICAL DEMOLITION PLAN

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

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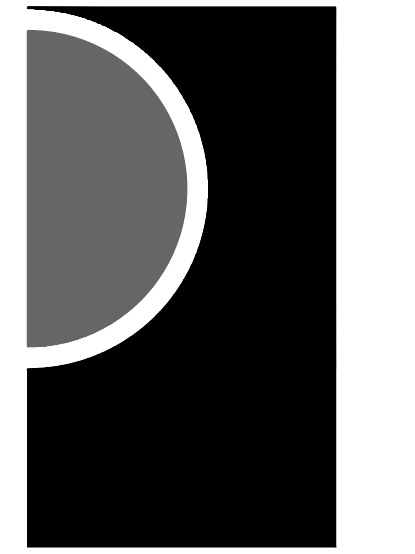
HVAC PIPING GENERAL NOTES:

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2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
3. PIPING AND DUCTWORK SHALL NOT BE INSTALLED ABOVE ELECTRICAL TRANSFORMERS, SWITCHBOARDS, PANELBOARDS OR MOTOR CONTROL CENTERS.
4. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
5. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
6. SUBMIT PROPOSED METHODS OF ANCHORING AND GUIDING PIPING SYSTEMS TO STRUCTURAL ENGINEER FOR APPROVAL.
7. COORDINATE LOCATION OF DUCT-MOUNTED HYDRONIC DEVICES WITH SHEET METAL TRADES.
8. BRANCH PIPING SERVING TERMINAL UNIT HEATING COILS OR RADIANT CEILING PANELS SHALL BE 3/4" UNLESS OTHERWISE NOTED. BRANCH PIPING SERVING MORE THAN ONE TERMINAL UNIT HEATING COIL SHALL BE 1" UNLESS OTHERWISE NOTED. BRANCH PIPING SERVING HOT WATER UNIT HEATERS AND CABINET UNIT HEATERS SHALL BE 1" UNLESS OTHERWISE NOTED.
9. REFER TO TEMPERATURE CONTROLS STANDARD MOUNTING HEIGHTS DETAIL FOR ELEVATIONS OF WALL MOUNTED TEMPERATURE CONTROL DEVICES.

CONSTRUCTION KEY NOTES:

1. PROVIDE CONDENSATE PIPING BETWEEN VUV ON 2nd FLOOR AND 1st FLOOR VUV. CONDENSATE TO SPILL OUT 18 INCHES ABOVE GRADE.
2. PROVIDE NECESSARY HWHS & R PIPING TO FACILITATE VUV TOP OR BOTTOM CONNECTION.
3. 1 HWHS & R COMES FROM BELOW TO FEED VUV. PROVIDE VUV MANUFACTURER'S SHEET METAL ENCLOSURE.
4. 1 1/2 MINIMUM BYPASS VALVE (11 GPM).
5. DIFFERENTIAL PRESSURE TRANSMITTER.
6. 1 HWHS & R PIPING FROM BELOW WITHIN SHEET METAL ENCLOSURE.
7. LIQUID & SUCTION REFRIGERANT PIPING GOES UP TO CONDENSER ON ROOF. PROVIDE PIPE PORTAL.
8. PIPE ANCHOR (TYPICAL).
9. PIPE GUIDE (TYPICAL).
10. 1 PUMPED CONDENSATE TO DISCHARGE (WITH AIR GAP) TO MOP SINK.
11. 1 HWHS & R UP TO FEED CONSOLE UV ABOVE.
12. UNIT TO BE MOUNTED ON BRACKETS ON THE WALL REFER TO VIBRATION ISOLATOR SCHEDULE.
13. LIQUID & SUCTION REFRIGERANT PIPING GOES UP THRU SECOND FLOOR TO CONDENSER ON ROOF. REFER TO ARCHITECTURAL FOR PIPE (CONDENSATE) ROUTING.
14. 1 HWHS & R GOES UP TO FEED VUV ABOVE. PROVIDE SHEET METAL ENCLOSURE.

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 Fax: 248-879-0007
 www.PeterBassoAssociates.com
 PBA Project No. 2022-0015

KEY PLAN

OWNER
Hamtramck Public Schools

PROJECT NAME
HVAC Improvements Phase 2 Early Childhood

11680 McDougall St
 Hamtramck, MI 48212

PROJECT NO.
22-118

ISSUES / REVISIONS

50% Review	05/19/2022
95% Review	06/17/2022
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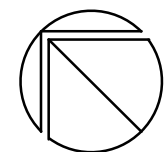
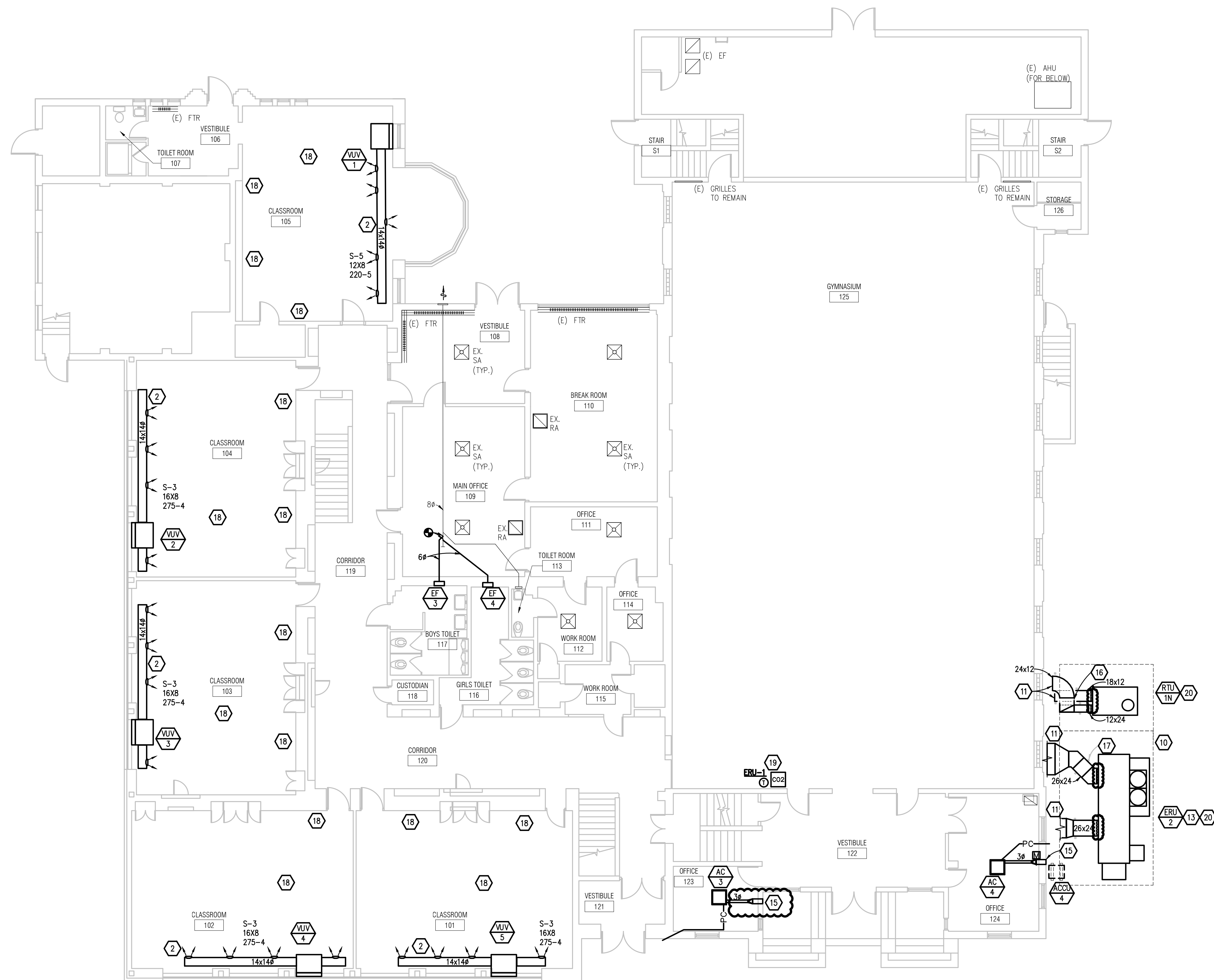
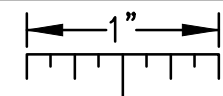
SHEET NAME
 GROUND LEVEL HVAC PIPING PLAN

SHEET NO.
M3-02

GROUND LEVEL HVAC PIPING PLAN
 SCALE: 1/8" = 1'-0"

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GROUND LEVEL SHEET METAL PLAN

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

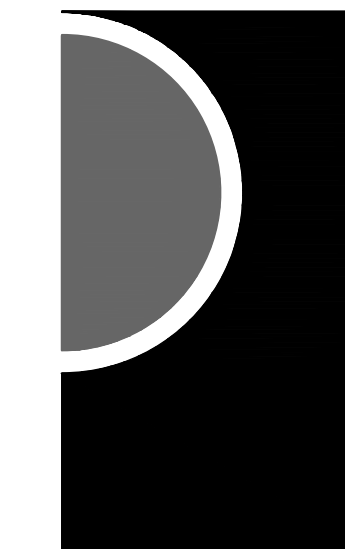
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7. REFER TO TEMPERATURE CONTROLS STANDARD MOUNTING HEIGHTS DETAIL FOR ELEVATIONS OF WALL MOUNTED TEMPERATURE CONTROL DEVICES.

CONSTRUCTION KEY NOTES:

1. PROVIDE NEW 12 x 12 EXHAUST DUCT TO NEW 12 x 12 LOUVER. PROVIDE INSECT SCREEN ON LOUVER.
2. DOUBLE WALL OVAL DUCT. TYPICAL FOR ALL CLASSROOMS WITH VUVs.
3. 24x12 RETURN AIR DUCT TO UNIT ON GRADE. SEE M4-02 FOR CONTINUATION.
4. 18x12 SUPPLY AIR DUCT TO UNIT ON GRADE. SEE M4-02 FOR CONTINUATION.
5. 52x10 SUPPLY DUCT TRANSITIONS INTO UNIT ON GRADE. SEE M4-02 FOR CONTINUATION.
6. 36x12 RETURN DUCT TRANSITIONS INTO UNIT ON GRADE. SEE M4-02 FOR CONTINUATION.
7. SUPPLY AIR ELBOW. 53 x 27 GOES UP THRU ROOF.
8. RETURN AIR TEE. 56 x 16 GOES UP THRU ROOF.
9. PROVIDE 2 HOUR FIRE & SMOKE DAMPER(S).
10. SERVICE CLEARANCE.
11. SEE LOWER SHEET METAL PLAN M4-01 FOR CONTINUATION.
12. INSTALL UV MANUFACTURER PROVIDED MATCHING SHEET METAL CABINETRY (OPEN).
13. PROVIDE ELECTRIC HEAT TRACE ON ERU HEAT EXCHANGER CONDENSATE DRAINS. LOCATE CONTROLLER WITHIN ERU HOUSING.
14. PROVIDE 10x10 LOUVER WITH INSECT SCREEN.
15. PROVIDE NEW 8x8 LOUVER WITH INSECT SCREEN.
16. RETURN DUCTWORK ROUTES ABOVE SUPPLY AND BACK DOWN. PROVIDE NECESSARY FITTINGS AND DUCT SUPPORTS.
17. DUCT SUPPORT (TYPICAL).
18. PROVIDE SHEET METAL ENCLOSURE FOR ALL EXPOSED HYDRONIC PIPING IN CLASSROOMS.
19. PROVIDE GUARD FOR THERMOSTAT AND CO2 SENSOR.
20. UNIT TO SIT ON CONCRETE HOUSEKEEPING PAD. COORDINATE WITH STRUCTURAL.
21. EXHAUST FAN TO BE MOUNTED INSET OF WINDOW SILL.
22. DUCT ELBOW PENETRATES ROOF TO GO DOWN. SEE M4-02 FOR CONTINUATION.
23. 24 x 24 R-2 TRANSITIONS TO 12x40 TO FIT IN BETWEEN STEEL UP TO HOOD ON ROOF.

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PBA Project No. 2022-0015

KEY PLAN

OWNER

Hamtramck
Public Schools

PROJECT NAME

HVAC Improvements
Phase 2
Early Childhood

11680 McDougall St
Hamtramck, MI 48212

PROJECT NO.

22-118

ISSUES / REVISIONS

50% Review	05/19/2022
95% Review	06/17/2022
Bidding - Construction	08/30/2022
Addendum #2	09/21/2022

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SHEET NAME

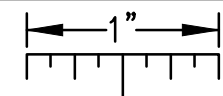
GROUND LEVEL SHEET METAL PLAN

SHEET NO.

M4-02

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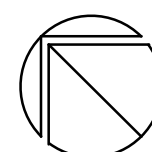
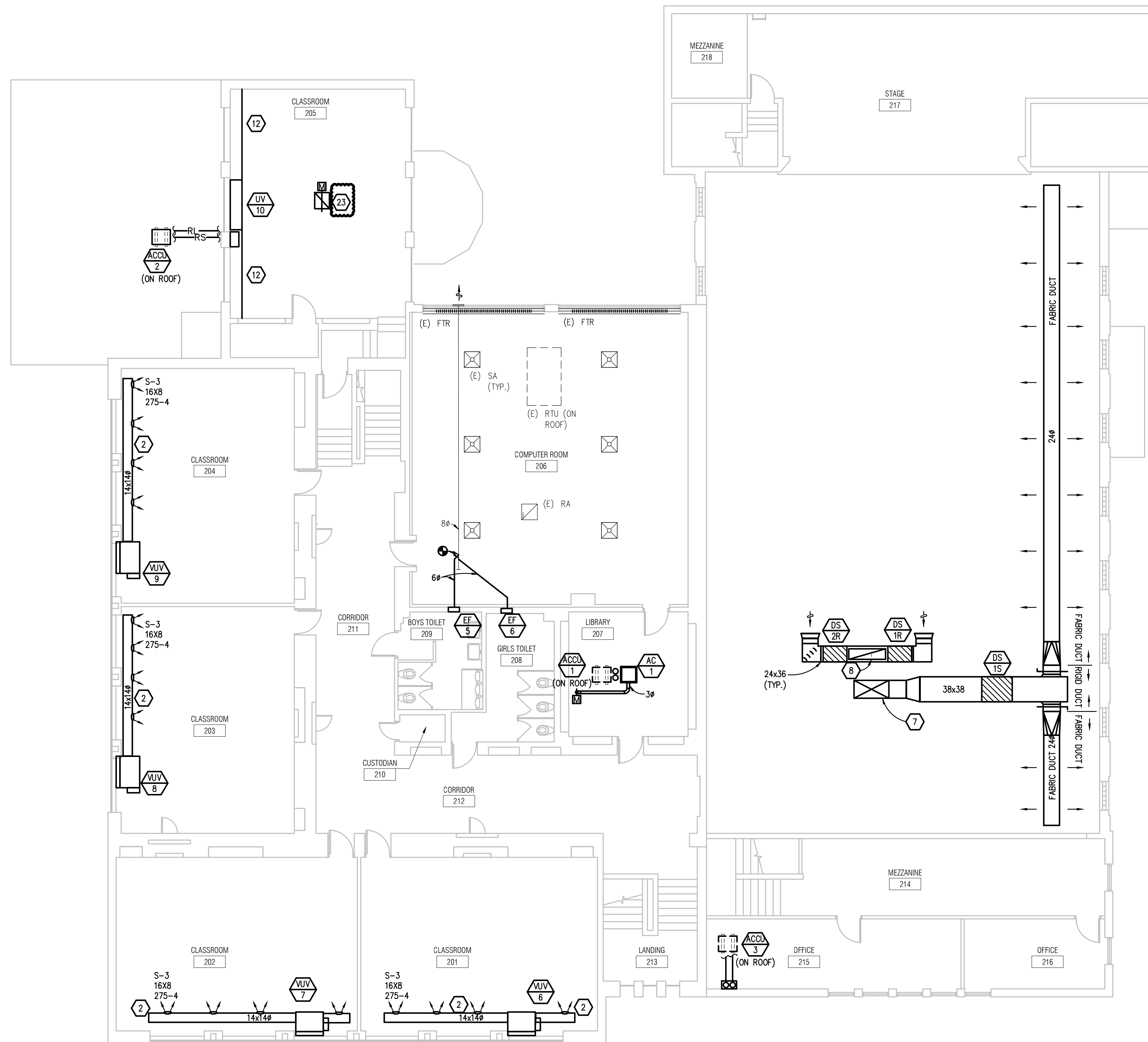


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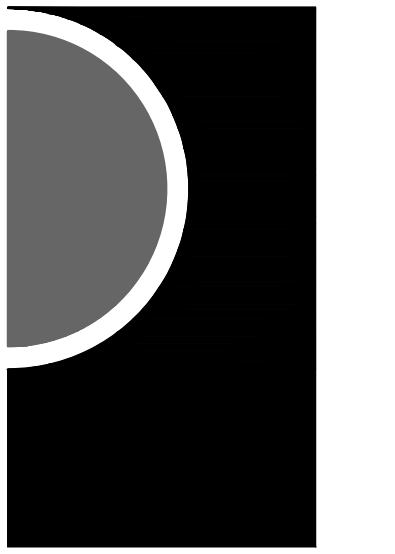
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10. SERVICE CLEARANCE.
11. SEE LOWER SHEET METAL PLAN M4-01 FOR CONTINUATION.
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UPPER LEVEL SHEET METAL PLAN
SCALE: 1/8" = 1' - 0"

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PIA Project No. 2022-0035

KEY PLAN

OWNER

Hamtramck
Public Schools

PROJECT NAME
HVAC Improvements
Phase 2
Early Childhood

11680 McDougall St
Hamtramck, MI 48212

PROJECT NO.

22-118

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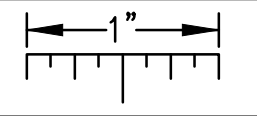
SHEET NAME

UPPER LEVEL SHEET METAL PLAN

SHEET NO.

M4-03

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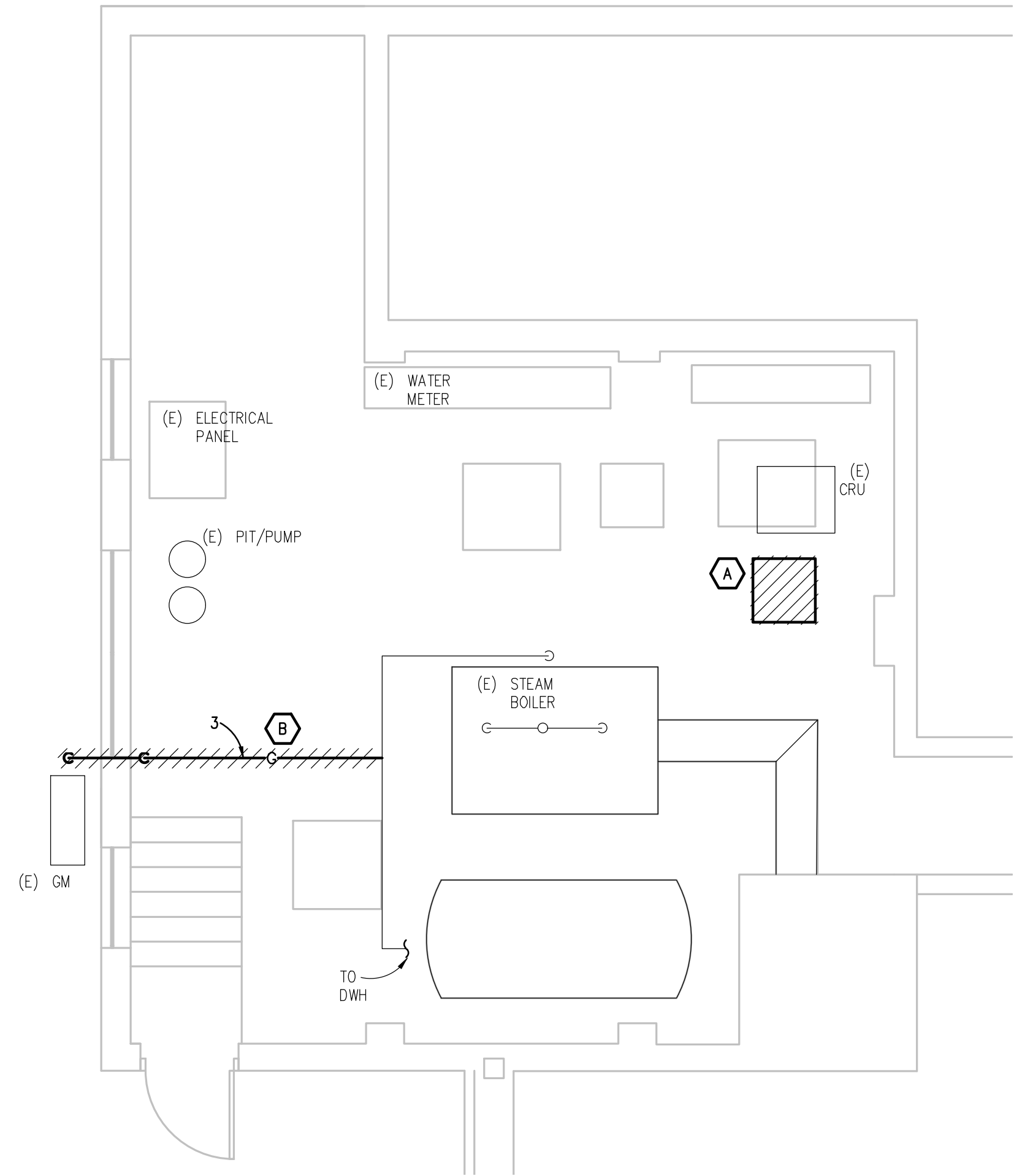


MECHANICAL DEMOLITION GENERAL NOTES:

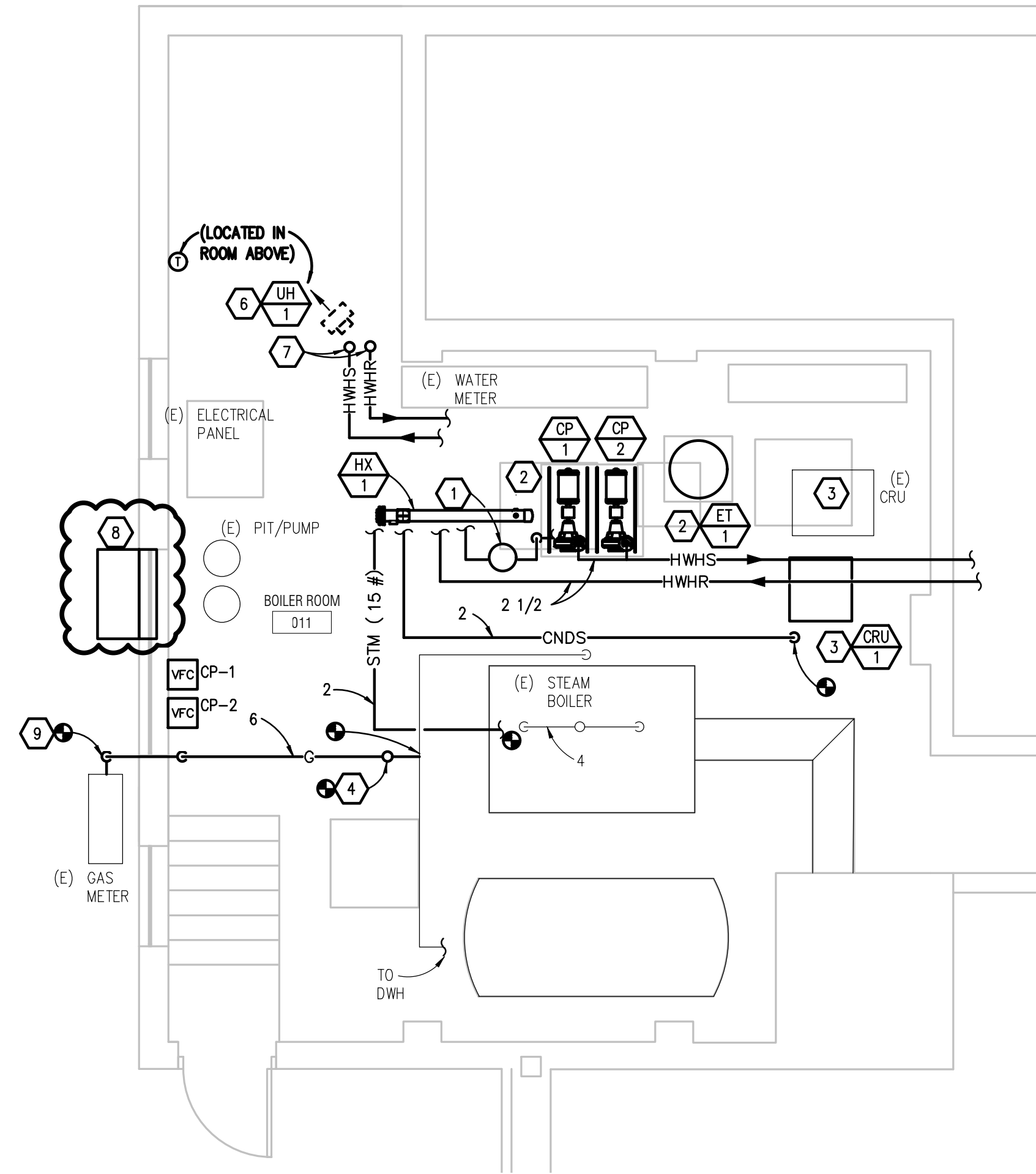
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DEMOLITION KEY NOTES:

- A. REMOVE CONDENSATE RECEIVER UNIT COMPLETE. PREPARE STEAM AND CONDENSATE PIPING FOR NEW WORK.
- B. REMOVE 3 GAS MAIN BACK TO METER.



ENLARGED MECHANICAL BOILER DEMOLITION PLAN
SCALE: 1/4" = 1' - 0"



ENLARGED MECHANICAL BOILER PLAN
SCALE: 1/4" = 1' - 0"

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3. PIPING AND DUCTWORK SHALL NOT BE INSTALLED ABOVE ELECTRICAL TRANSFORMERS, SWITCHBOARDS, PANELBOARDS OR MOTOR CONTROL CENTERS.
4. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
5. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
6. SUBMIT PROPOSED METHODS OF ANCHORING AND GUIDING PIPING SYSTEMS TO STRUCTURAL ENGINEER FOR APPROVAL.
7. COORDINATE LOCATION OF DUCT-MOUNTED HYDRONIC DEVICES WITH SHEET METAL TRADES.
8. BRANCH PIPING SERVING TERMINAL UNIT HEATING COILS OR RADIANT CEILING PANELS SHALL BE 3/4" UNLESS OTHERWISE NOTED. BRANCH PIPING SERVING MORE THAN ONE TERMINAL UNIT HEATING COIL SHALL BE 1" UNLESS OTHERWISE NOTED. BRANCH PIPING SERVING HOT WATER UNIT HEATERS AND CABINET UNIT HEATERS SHALL BE 1" UNLESS OTHERWISE NOTED.
9. REFER TO TEMPERATURE CONTROLS STANDARD MOUNTING HEIGHTS DETAIL FOR ELEVATIONS OF WALL MOUNTED TEMPERATURE CONTROL DEVICES.

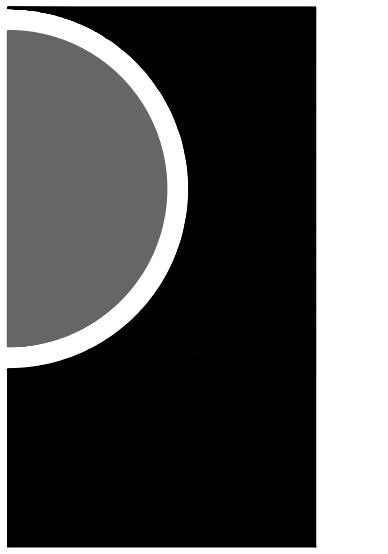
SHEET METAL GENERAL NOTES:

1. THESE DRAWINGS ARE DIAGRAMMATIC, AND REPRESENT THE GENERAL INTENT AND ARRANGEMENT OF SYSTEMS. THEY ARE NOT TO BE CONSIDERED FABRICATION/COORDINATION/SHOP DRAWINGS. COORDINATION WITH OTHER TRADES IS REQUIRED. PROVIDE THE ADDITIONAL FITTINGS AND OFFSETS THAT WILL BE REQUIRED TO COMPLETE EACH SYSTEM AND TO AVOID INTERFERENCES WITH ALL OTHER SYSTEMS INCLUDING THE STRUCTURE, PIPING SYSTEMS, ELECTRICAL CONDUITS, BUS DUCTS, CABLE TRAY, LIGHT FIXTURES, ETC. AND/OR OTHER SPACE CONSTRAINTS.
2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
3. PIPING AND DUCTWORK SHALL NOT BE INSTALLED ABOVE ELECTRICAL TRANSFORMERS, SWITCHBOARDS, PANELBOARDS OR MOTOR CONTROL CENTERS.
4. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
5. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
6. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR DIMENSIONED LOCATION OF GRILLES, REGISTERS, AND DIFFUSERS.
7. REFER TO TEMPERATURE CONTROLS STANDARD MOUNTING HEIGHTS DETAIL FOR ELEVATIONS OF WALL MOUNTED TEMPERATURE CONTROL DEVICES.

CONSTRUCTION KEY NOTES:

1. AIR/DIRT SEPERATOR.
2. NEW MECHANICAL EQUIPMENT TO SIT ON NEW CONCRETE HOUSEKEEPING PAD.
3. VENT CONDENSATE RECEIVER UP THRU ROOF AND TERMINATE MIN. 3 FEET ABOVE ROOF.
4. NEW 3 GAS PIPE WITH SHUTOFF VALVE UP THRU BOILER ROOM ROOF.
5. NEW CONDENSATE TO CONNECT INTO EXISTING CONDENSATE. FIELD VERIFY.
6. UNIT HEATER AND ASSOCIATED ROOM TEMPERATURE SENSOR LOCATED IN STORAGE ROOM ABOVE.
7. 1 HWHS & R PIPING GOES UP TO FEED UNIT HEATER LOCATED IN STORAGE ROOM ABOVE.
8. PROVIDE 36" x 30" COMBUSTION AIR LOUVER AND INSULATED OUTDOOR AIR HOOD WITH BIRDSCREEN. COORDINATE WITH ARCHITECTURAL TRADES.
9. NEW 6 GAS MAIN. COORDINATE NECESSARY TRANSITION FLANGE WITH UTILITY COMPANY. REFER TO GAS PIPING DIAGRAM DETAIL.

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PBA Project No. 2022-0015

KEY PLAN

OWNER
Hamtramck Public Schools

PROJECT NAME
HVAC Improvements Phase 2 Early Childhood

11680 McDougall St
Hamtramck, MI 48212

PROJECT NO.
22-118

ISSUES / REVISIONS

50% Review	05/19/2022
95% Review	06/17/2022
Bidding - Construction	08/30/2022
Addendum #2	09/21/2022

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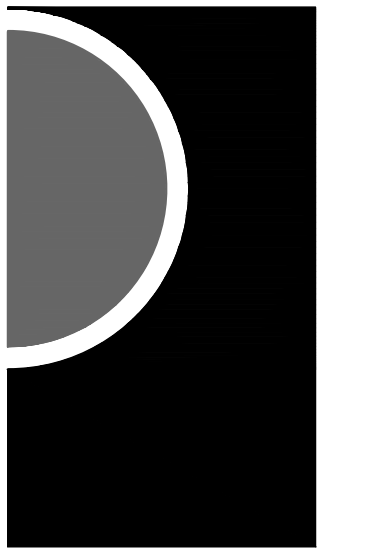
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APPROVED BY
SVM

SHEET NAME
ENLARGED MECHANICAL BOILER PLANS

SHEET NO.
M5-01

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PBA Project No. 2022025

KEY PLAN

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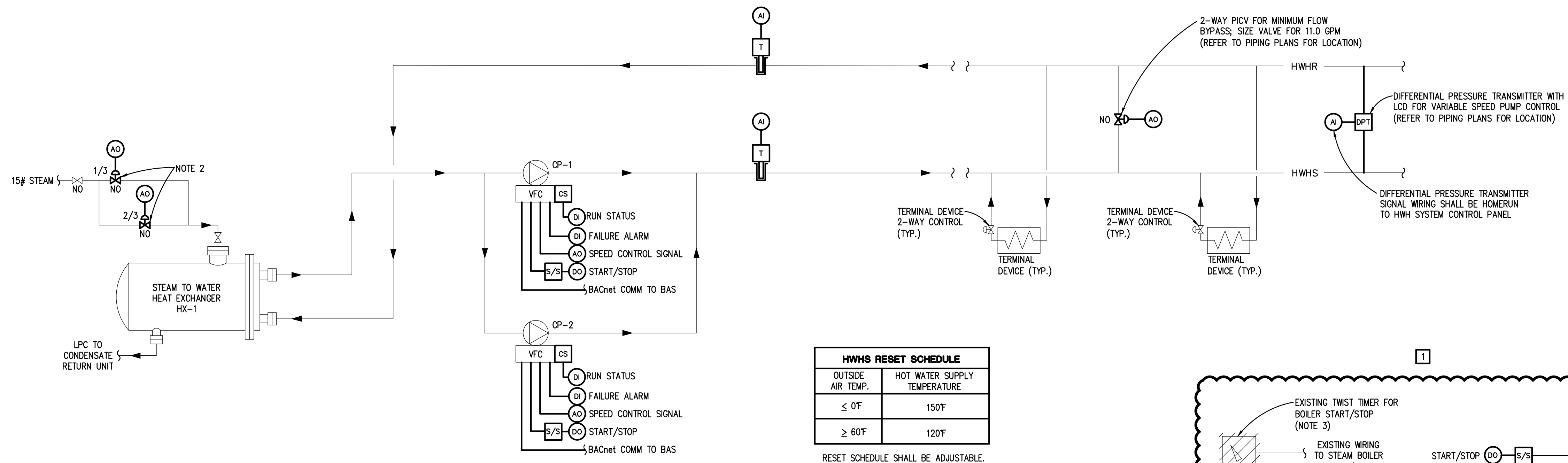
TEMPERATURE CONTROLS

SHEET NO.

M8-02

TC GENERAL NOTES

TC GENERAL NOTES ON DRAWING M8-01 APPLY TO THIS DRAWING



HOT WATER HEATING SYSTEM CONTROL

SERVES EARLY CHILDHOOD AREA

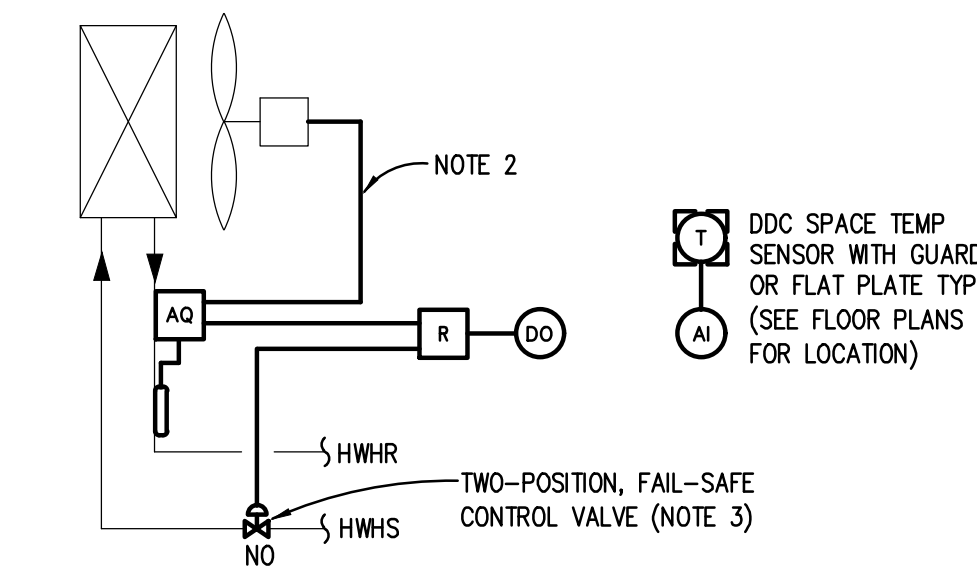
NOTES:

1. TC CONTRACTOR SHALL COORDINATE IMMERSION WELL FOR TEMP SENSORS WITH MECHANICAL CONTRACTOR.
2. TC CONTRACTOR SHALL FURNISH 1/3 & 2/3 STEAM CONTROL VALVE/ACTUATOR ASSEMBLY FOR HEAT EXCHANGER PER MECHANICAL SCHEDULES FOR INSTALLATION BY MECHANICAL CONTRACTOR.

SEQUENCE OF OPERATION:

NOTE: ALL SETPOINTS DESCRIBED IN SEQUENCE SHALL BE ADJUSTABLE BY SYSTEM OPERATORS (CREATE REQUIRED VIRTUAL POINTS). APPROPRIATE DEADBANDS SHALL BE USED TO PREVENT SHORT CYCLING SITUATIONS. ALL MOTOR CONTROL SWITCHES SHALL BE IN "AUTO" POSITION. ALL CONTROL LOOPS SHALL BE ENABLED AND DISABLED BASED ON SYSTEM STATUS TO PREVENT LOOP WINDUP.

1. HOT WATER HEATING SYSTEM SHALL BE ENABLED BY DDC TO OPERATE CONTINUOUSLY WHEN OUTDOOR AIR TEMPERATURE IS BELOW 55°F.
2. HWH CIRC PUMPS CP-1 & CP-2 SHALL HAVE START/STOP CAPABILITY FROM THE DDC SYSTEM. WHEN HWH SYSTEM IS ENABLED, ONE OF THE TWO PUMPS SHALL BE ACTIVATED BY DDC TO OPERATE CONTINUOUSLY. THE OTHER WILL SERVE AS STANDBY.
3. DDC SHALL ALTERNATE PUMP OPERATION BASED ON RUNTIME HOURS OR AT THE BEGINNING OF EACH MONTH - OPERATOR SELECTABLE. THE STANDBY PUMP SHALL BE ACTIVATED PRIOR TO DEACTIVATING PREVIOUSLY DESIGNATED LEAD PUMP TO MAINTAIN FLOW THROUGH HX DURING SWITCHOVER.
4. DDC SHALL MONITOR OPERATING STATUS OF EACH PUMP THRU RESPECTIVE CURRENT SWITCH. UPON PUMP FAILURE, DDC SHALL ACTIVATE FAILURE ALARM AND AUTOMATICALLY START THE STANDBY PUMP.
5. VFD COMMON FAILURE ALARM FOR EACH CIRC PUMP SHALL BE MONITORED BY DDC THRU AVAILABLE CONTACTS AT RESPECTIVE PUMP.
6. DDC SHALL MONITOR HWH SYSTEM LOOP DIFFERENTIAL PRESSURE TRANSMITTER AND MODULATE HWH CIRC PUMP VFC TO MAINTAIN HWH LOOP DIFFERENTIAL PRESSURE SETPOINT OF 20 FT OF HEAD (FINAL SETPOINT TO BE ADJUSTED AT SYSTEM BALANCING).
7. WHENEVER HWH CIRC PUMP VFC SPEED IS OPERATING AT HWH FLOW LOW LIMIT SETPOINT (OR CONTROL SIGNAL FROM DDC) AND HWH LOOP DIFFERENTIAL PRESSURE IS ABOVE SETPOINT, DDC SHALL MODULATE MINIMUM FLOW BYPASS VALVE OPEN TO MAINTAIN HWH LOOP DP SETPOINT. WHENEVER MINIMUM FLOW BYPASS VALVE MODULATES TO FULL CLOSED POSITION, AFTER 600 SECONDS, DDC SHALL MODULATE HWH CIRC PUMP VFC TO MAINTAIN HWH LOOP DPT SETPOINT AS PREVIOUSLY DESCRIBE.
8. DDC SHALL MODULATE HX 1/3 & 2/3 CONTROL VALVES IN SEQUENCE TO MAINTAIN HOT WATER HEATING HEATING SUPPLY (HWH) TEMP BASED ON INDICATED OUTSIDE AIR RESET SCHEDULE.



HWH UNIT HEATER CONTROL

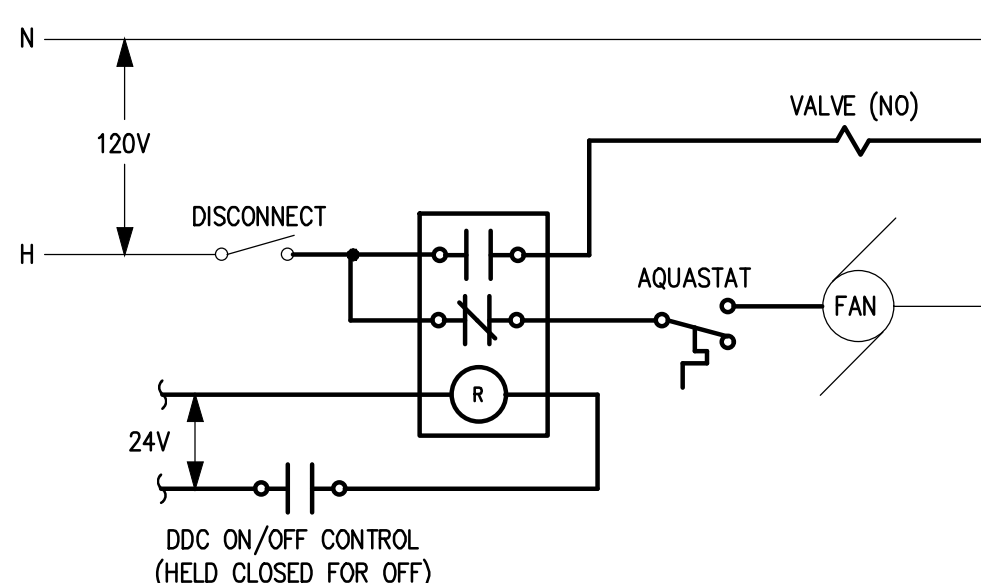
TYPICAL

NOTES:

1. REFER TO FLOOR PLANS FOR QUANTITY AND LOCATION OF UNITS.
2. AQUASTAT SHALL BE WIRED IN SERIES WITH FAN CONTROL WIRING CIRCUIT.
3. TC CONTRACTOR SHALL FURNISH 2-WAY PRESSURE DEPENDENT CONTROL VALVES FOR HEATING ELEMENTS PER MECHANICAL SCHEDULES FOR INSTALLATION BY MECH CONTRACTOR.

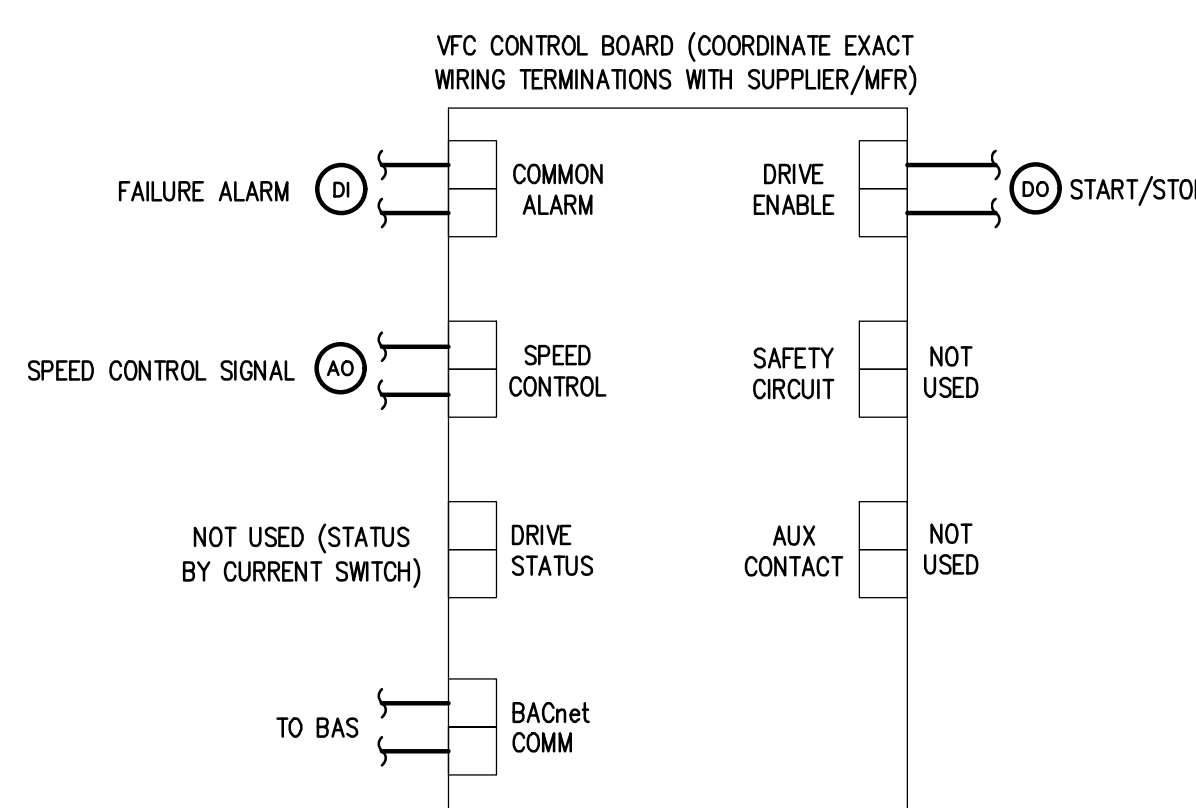
SEQUENCE OF OPERATION:

1. DDC SHALL ENABLE/DISABLE UH FAN CIRCUIT AND OPEN/CLOSE HEATING VALVE AS REQUIRED TO MAINTAIN SPACE TEMP SETPOINT OF 60°F (ADJ.).
2. FAN SHALL ACTIVATE UPON PROOF OF HWH FLOW BY AQ.
3. DDC SHALL PROVIDE 2°F DEADBAND AROUND SETPOINTS FOR CONTROL.



HWH UNIT HEATER WIRING

TYPICAL

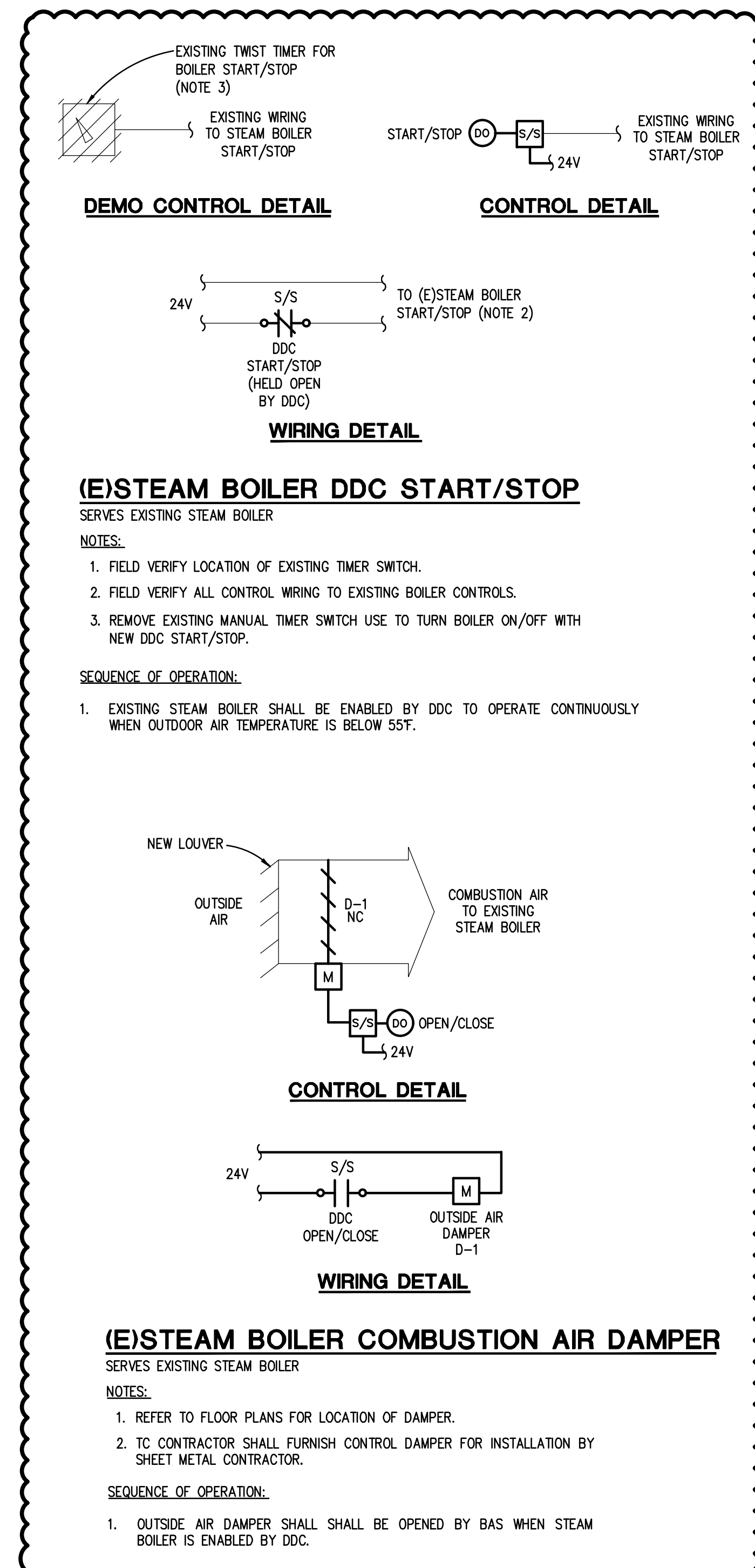


HWH PUMPS CP-1 & CP-2 VFC WIRING

TYPICAL

NOTES:

1. VFC WIRING DETAIL IDENTIFIES INTENT AND DOES NOT INDICATE ACTUAL WIRING REQUIREMENTS. CONSULT WITH VFC SUPPLIER FOR THE ACTUAL WIRING REQUIREMENTS. TC CONTRACTOR AND VFC START-UP REP SHALL JOINTLY FIELD COORDINATE VFC CONTROL AND OPERATION TO MEET SEQUENCE OF OPERATION.
2. VFC SHALL BE WIRED TO BAS THRU BACnet INTERFACE FOR ADDITIONAL MONITORING. REFER TO DETAIL ON DRAWING M8-01.



(E)STEAM BOILER DDC START/STOP

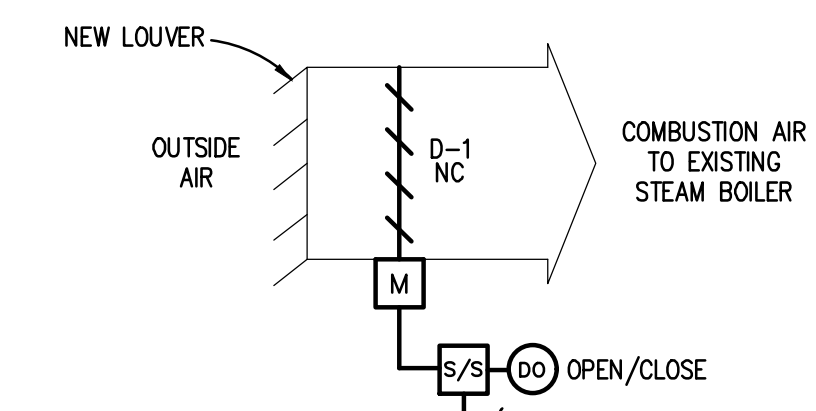
SERVES EXISTING STEAM BOILER

NOTES:

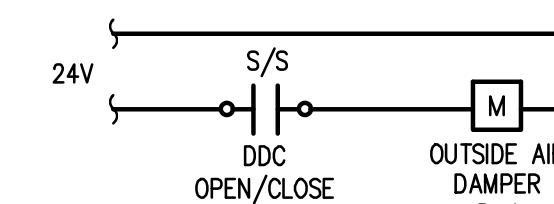
1. FIELD VERIFY LOCATION OF EXISTING TIMER SWITCH.
2. FIELD VERIFY ALL CONTROL WIRING TO EXISTING BOILER CONTROLS.
3. REMOVE EXISTING MANUAL TIMER SWITCH USE TO TURN BOILER ON/OFF WITH NEW DDC START/STOP.

SEQUENCE OF OPERATION:

1. EXISTING STEAM BOILER SHALL BE ENABLED BY DDC TO OPERATE CONTINUOUSLY WHEN OUTDOOR AIR TEMPERATURE IS BELOW 55°F.



CONTROL DETAIL



WIRING DETAIL

(E)STEAM BOILER COMBUSTION AIR DAMPER

SERVES EXISTING STEAM BOILER

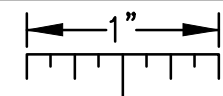
NOTES:

1. REFER TO FLOOR PLANS FOR LOCATION OF DAMPER.
2. TC CONTRACTOR SHALL FURNISH CONTROL DAMPER FOR INSTALLATION BY SHEET METAL CONTRACTOR.

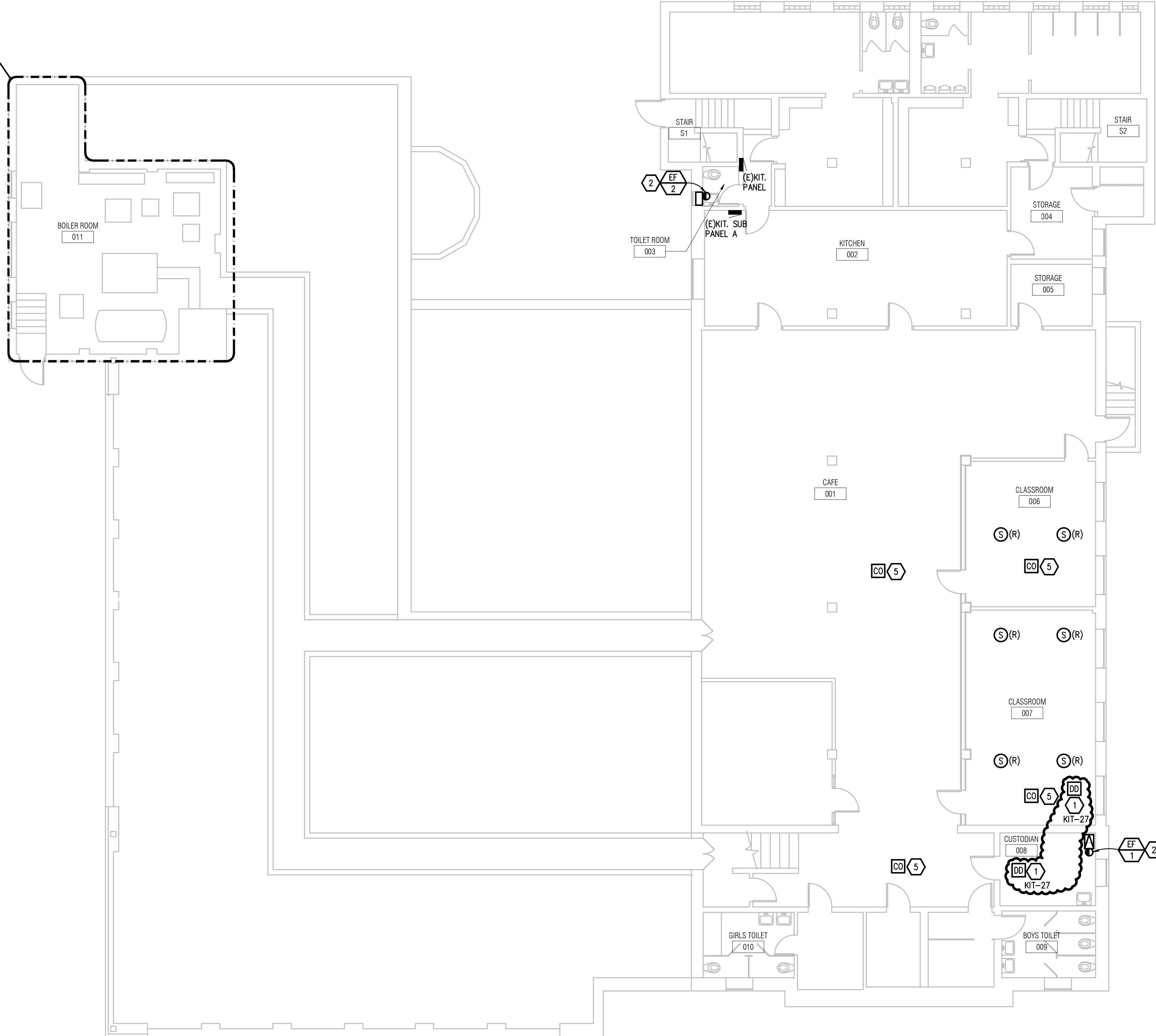
SEQUENCE OF OPERATION:

1. OUTSIDE AIR DAMPER SHALL BE OPENED BY BAS WHEN STEAM BOILER IS ENABLED BY DDC.

THE FOLLOWING DIMENSION EQUALS ONE INCH WHEN PRINTED TO SCALE.



1
E6-01



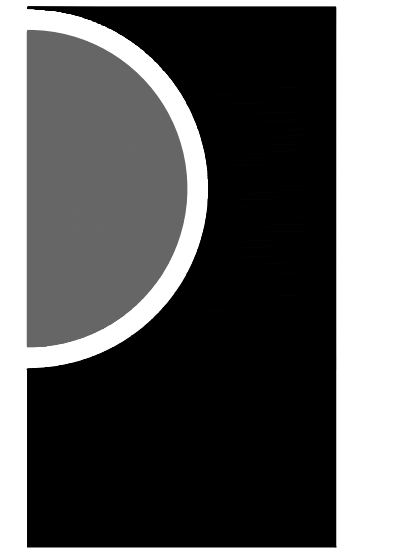
ELECTRICAL GENERAL NOTES:

- THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS. COORDINATE EXACT EQUIPMENT LOCATIONS, ELEVATIONS, AND FINAL CONNECTION REQUIREMENTS. PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS AND OFFSETS.
- INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
- COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
- PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
- MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
- REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PROVIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC. AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS. WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES, PROVIDE THE CIRCUIT OF HIGHER AMPACITY.
- REFER TO TEMPERATURE CONTROLS SHEETS FOR REQUIRED FIRE ALARM CONTROL MODULES, DUCT SMOKE DETECTORS, AND MOTOR CONTROLLERS. PROVIDE ALL ACCESSORIES INDICATED.
- ALL FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH EXISTING FIRE-LITE MS-10UD FIRE ALARM SYSTEM. PROVIDE NECESSARY COMPONENTS, MODULES, ETC. AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. RE-TEST AND CERTIFY EXISTING FIRE ALARM SYSTEM AT COMPLETION OF PROJECT.

CONSTRUCTION KEY NOTES:

- SMOKE DAMPER DUCT SMOKE DETECTOR SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. COORDINATE INSTALLATION WITH THE MECHANICAL CONTRACTOR SO THAT UPON DETECTION OF SMOKE, THE SUPPLY/RETURN FAN WILL SHUT DOWN. ELECTRICAL CONTRACTOR SHALL WIRE DUCT SMOKE DETECTOR TO FIRE ALARM SYSTEM, AND CIRCUIT DAMPER ACTUATOR FROM A DEDICATED 120 VOLT CIRCUIT AS INDICATED. PROVIDE A 20A-1P SWITCH AT EACH ACTUATOR. CONTROL OF AIR HANDLING EQUIPMENT IS VIA THE FIRE ALARM CONTROL PANEL. PROVIDE ALL REQUIRED CONTROL MODULES AND RELAYS, COORDINATE WORK WITH THE TEMPERATURE CONTROL CONTRACTOR AND FIRE ALARM MANUFACTURER. DAMPER SHALL CLOSE UPON DETECTION OF SMOKE AND SHUT DOWN ASSOCIATED RTU. DAMPER SHALL ALSO CLOSE UPON NORMAL SHUT DOWN OF RTU BY TC CONTRACTOR. PROVIDE ALL CONTROL MODULES, RELAYS, ETC FOR A COMPLETE SYSTEM. PROVIDE QUANTITIES AS INDICATED.
- CIRCUIT EXHAUST FAN TO LOAD SIDE OF EXISTING TOGGLE SWITCH CONTROLLING LIGHT FIXTURES WITHIN ROOM.
- DUCT SMOKE DETECTOR SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. COORDINATE MOUNTING LOCATION AND QUANTITY WITH THE MECHANICAL DUCTWORK CONTRACTOR. ELECTRICAL CONTRACTOR SHALL WIRE DUCT SMOKE DETECTOR/RTU SUPPLY/RETURN FAN MOTOR STARTER SO THAT UPON DETECTION OF SMOKE, THE SUPPLY/RETURN FAN WILL SHUT DOWN. THIS SHALL BE ACCOMPLISHED VIA THE FIRE ALARM CONTROL PANEL. PROVIDE ALL REQUIRED CONTROL MODULES AND RELAYS. COORDINATE WITH THE TEMPERATURE CONTROL/FIRE ALARM CONTRACTOR. PROVIDE WEATHER PROOF ENCLOSURES AS REQUIRED.
- CIRCUIT HEAT TRACE AS INDICATED.
- CARBON MONOXIDE DETECTOR TO BE U.L. 2075 LISTED. CARBON MONOXIDE DETECTOR TO BE POWERED BY AND REPORT BACK TO FIRE ALARM CONTROL PANEL. FIRE ALARM SUPPLIER SHALL COORDINATE EXACT LOCATION AND QUANTITY WITH FIRE MARSHAL.

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KEY PLAN

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SHEET NAME
LOWER LEVEL POWER PLAN

SHEET NO.
E3-01

LOWER LEVEL POWER PLAN
SCALE: 1/8" = 1' - 0"

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