

Community Park Elementary School

Princeton Public Schools



FVHD architects
planners
Fraytak Veisz Hopkins Duthie P C
New Jersey | Pennsylvania | fvhdpc.com

French & Parrello Associates
MEP CONSULTING ENGINEERS | WALL TOWNSHIP - NEW JERSEY

Harrison-Hamnett, P.C.
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NU-21A0770000 FA-RA473520X GEORGE R. DUTHIE JR., AIA, PP NU-21A0729700 JASON J. DUBOWITZ, AIA NU-21A079980 FA-RA43009 STEPHEN W. SCHREYER JR., AIA, LEED AP BD+C NU-21A0200100 FA-RA410435	Architect 10/10/25 Date
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FVHD public
policy
planners
Fraytak Veizs Hopkins Duthie P.C.

Corporate:
1515 Lower Ferry Road
Trenton - New Jersey 08628
Pennsylvania: 140 Whitaker Avenue
Mont Clare - Pennsylvania 19453
F V H D P C . C O M

Project Name
Addition and
Renovations to
Community Park
Elementary School

Princeton Public Schools

Project Location

372 Witherspoon
St, Princeton, NJ
08542

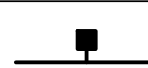
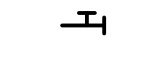
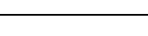
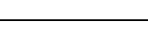
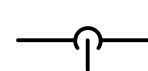
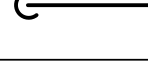
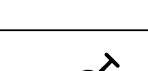
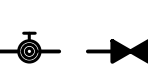
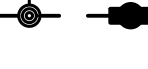
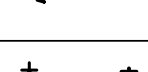
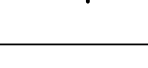
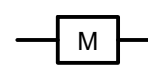
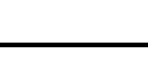
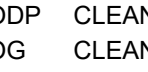
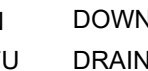
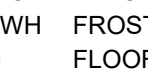
Project Number
5516C
Project Date
0.10.2025
Checked By
GRD
Drawn By
BMP
Scale
AS NOTED

TITLE SHEET AND DRAWING INDEX

No.	Date	Description
	10.10.25	NJ DCA SUBMISSION

Rowing Number

G001

	
	
	
	
	
	
	
	WATER HAMMER ARRESTER
	HOSE BIBB
	WALL HYDRANT
	CLEAN-OUT/PLUG OUTLET
	CLEAN-OUT DECK PLATE OR GRADE PLATE
	"1/2" TRAP
	BOTTOM PIPE CONNECTION
	TOP PIPE CONNECTION
	ELBOW TURNED DOWN
	ELBOW TURNED UP/CONNECTION TO VERTICAL LINE
	VALVE IN VERTICAL
	GATE OR BALL VALVE
	BALL VALVE
	CHECK VALVE
	OS&Y (OUTSIDE SCREW & YOKE) VALVE
	GAS COCK
	RELIEF VALVE
	UNION
	FLOOR DRAIN
	PUMP
	METER
	CIRCUIT SETTER ASSEMBLY
	BACKFLOW PREVENTER ASSEMBLY
	REGULATOR

PLUMBING ABBREVIATIONS			
AW	ACID WASTE	IE	INVERT ELEVATION
CC	CLEANOUT	LV	LAVATORY
CD	CLEANOUT DECK PLATE	OSY	OUTSIDE SURFACE & YOKÉ GATE
COOP	CLEANOUT GRADE	VAL	VALVE
COOP	CLEANOUT WALL PLATE	PSI	POUNDS PER SQUARE INCH
CW	COLD WATER	(GAL)	GALLON
DN	DOWN (PENETRATES FLOOR SLAB)	SAN	ST
DFU	DRAINAGE FIXTURE UNIT	ST	STORM
EDIS	ELECTOR DISCHARGE	SQ FT	SQUARE FOOT
ELS	ELECTRIC WATER COOLER	TP	TRAP
FPWH	FROST PROOF WALL HYDRANT	TR	TEMPERED WATER
FD	FLOOR DRAIN	UG	UNDERGROUND
FU	FIXTURE UNIT	UP	UP (PENETRATES FLOOR SLAB)
FT	FEET	URNAL	URNAL
Q	QAS	V	VENT
GPM	GALLONS PER MINUTE	VIF	VENT IN FIELD
GAL	GALLONS	VTR	VENT THROUGH ROOF
HG	HOSE BIB	WC	WATER CLOSET
	HOT WATER	WFU	WATER FIXTURE UNITS
HW	HOT WATER RETURN	WHA	WATER HAMMER ARRESTOR
	INDIRECT WASTE		

APPLICABLE CODES & STANDARDS:

ALL WORK SHALL BE IN STRICT ACCORDANCE WITH THE LATEST CODES AND SUBCODES AS ADOPTED BY THE STATE OF NEW JERSEY:

- NEW JERSEY UNIFORM CONSTRUCTION CODE (NUCC)
- REHABILITATION SUBCODE 5-23-6
- ADMINISTRATIVE CODE: TITLE 6
- 2021 INTERNATIONAL BUILDING CODE - NJ EDITION
- 2023 NATIONAL ELECTRICAL CODE
- 2021 NATIONAL STANDARD PLUMBING CODE
- 2021 INTERNATIONAL MECHANICAL CODE
- 2021 INTERNATIONAL FUEL GAS CODE
- 2019 ASHRAE 90.1 ENERGY STANDARD
- 2022 NFPA STANDARD 13
- REQUIREMENTS OF LOCAL AUTHORITY HAVING JURISDICTION

- OTHER THAN SPECIFIED EQUIPMENT SHALL BE BORNE BY THE CONTRACTOR, INCLUDING, BUT NOT LIMITED TO WORK AFFECTING OTHER CONTRACTORS, THE OWNER, OR RE-DESIGN ISSUES.
8. NO INDICATED WORK SHALL BE PERFORMED BY THE PLUMBING CONTRACTOR UNLESS OTHERWISE SPECIFIED.
9. DO NOT USE ANY PART OF THE OWNER'S BUILDING AS A SHOP, EXCEPT PARTS DESIGNATED FOR SUCH PURPOSES BY THE OWNER.
10. ALL CONTRACT WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL REQUIREMENTS OF THE WRITTEN SPECIFICATIONS FOR THIS PROJECT WHICH ARE CONSIDERED TO BE AN INTEGRAL PART OF THE CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS (FOR THE JOB SITE) AND REFER TO COPIES OF THE WRITTEN SPECIFICATIONS AS PART OF THESE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FOR ALL PROJECT SCOPE. IN ALL CASES OF DISCREPANCY BETWEEN PLANS AND SPECIFICATIONS, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN AND WHERE IT IS UNCLEAR, SUCH CASES SHALL BE REFERRED TO THE ARCHITECT FOR CLARIFICATION.
11. ANY DISCREPANCIES OR INADEQUACIES WITHIN THESE BID DOCUMENTS OR BETWEEN THESE BID DOCUMENTS AND RELATED HVAC, ELECTRICAL, FIRE PROTECTION, ARCHITECTURAL, INTERIOR DECOR AND FINISHES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND/OR ENGINEER PRIOR TO BID SUBMISSION.
12. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING HIS BID FOR THE PROPOSED WORK. HE SHALL BE RESPONSIBLE TO VERIFY FIELD CONDITIONS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO BID SUBMISSION.
13. THE PLUMBING CONTRACTOR SHALL REVIEW THESE PLANS AND SPECIFICATIONS, AS WELL AS THE RELATED HVAC, ELECTRICAL, ARCHITECTURAL, INTERIOR DECOR AND SITE ENGINEERING DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE WORKING DRAWINGS BEING INSTALLED SO THAT COORDINATION AND ACTUAL CONSTRUCTION OF THE PLUMBING CONTRACTOR SHALL COOPERATE WITH ALL OTHER CONTRACTORS AND TRADING ON THIS PROJECT TO ENSURE A SMOOTH RUNNING AND COMPLETION OF THE PROJECT.
14. CONTRACTOR SHALL COORDINATE HIS SCHEDULES WITH THE OWNER AND GENERAL CONTRACTOR TO COMPLY WITH THE OWNER'S USE OF THE BUILDING.
15. IF ANY UNEXPECTED DISCOVERY OF SUSPECTED HAZARDOUS MATERIALS IS MADE DURING THE COURSE OF WORK, THE CONTRACTOR SHALL REPORT THE DISCOVERY IMMEDIATELY TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE WORKING DRAWINGS BEING INSTALLED SO THAT MATERIAL CONTRACTOR SHALL RESUME WORK AFTER ALL HAZARDOUS MATERIAL HAS BEEN REMOVED AND THE AREA IS DEEMED SAFE FOR WORK.
16. CONTRACTOR RESPONSIBLE FOR THE PROPER CARE OF ALL OWNER'S EQUIPMENT AND/OR FURNISHINGS WHICH ARE REQUIRED TO BE TEMPORARILY REMOVED, STORED OR RELOCATED. CONTRACTOR SHALL REPLACE, REPAIR OR REIMBURSE OWNER FOR ALL DAMAGES TO SUCH EQUIPMENT AND/OR FURNISHINGS. THE CONTRACTOR SHALL ADVISE THE OWNER OF ANY DAMAGE TO SUCH EQUIPMENT FOR DISPOSITION OR REMOVED EQUIPMENT AND/OR MATERIALS.
17. CONTRACTORS WORK MAY BE REQUIRED OUTSIDE OF DESIGNATED SPACE. ALL SYSTEMS BEING INSTALLED SHALL BE PROTECTED FROM DAMAGE. THE CONTRACTOR SHALL BE RESPONSIBLE TO INSURE NO WORK PERFORMED, INSIDE OR OUTSIDE OF THE DESIGNATED SPACE, SHALL DISRUPT ANY SERVICE OR SYSTEMS AT ANY OTHER AREAS. IF ANY CONDITIONS ARISE THAT ARE NOT IDENTIFIED ON DRAWINGS, REPORT IMMEDIATELY TO THE ARCHITECT AND/OR ENGINEER OR OWNER. NO WORK SHALL PROCEED WITHOUT APPROVALS FROM ENGINEER OR OWNER.
18. DRAWINGS ARE DIAGRAMMATIC IN NATURE AND MAY HAVE TO BE ADAPTED TO COMPLY WITH EXISTING BUILDING CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING SUCH DRAWINGS, INDICATING LOCATIONS, AND ROUTING OF DUCTS, PIPES, AND WIRING.
19. PIPING SHOWN ON DRAWINGS SHOW THE GENERAL RUN, RISE AND CONNECTIONS AND MAY OR MAY NOT IN ALL PARTS BE SHOWN IN ITS EXACT POSITION. CONTRACTOR SHALL BE RESPONSIBLE FOR ERECTING THE PIPING IN ITS EXACT POSITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ACCESS, CLEARANCE, HEADROOM AND PITTING AND MAINTAINED. CONTRACTORS OF THE VARIOUS TRADES SHALL BE RESPONSIBLE FOR COORDINATING THE PIPING WITH THE OTHER TRADES.
20. ALL CONTRACTORS SHALL PROVIDE CUTTING AND PATCHING FOR THEIR RESPECTIVE TRADES.
21. REMOVE AND REINSTALL CEILING SYSTEMS AS REQUIRED FOR THE INSTALLATION OF THE PLUMBING WORK AND REPLACEMENT ANY COMPONENTS DAMAGED BY PERSONNEL, OR EQUIPMENT DURING PERFORMANCE OF WORK. PATCH AND REPAIR ALL DAMAGE CAUSED BY REMOVAL. MATCH EXISTING MATERIALS.
22. THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL CONNECTION OF DOMESTIC WATER, GAS, SANITARY AND VENT PIPING INCLUDING VALVES, TRIMS AND EQUIPMENT, TO PLUMBING FIXTURES AT LOCATIONS INDICATED ON THE PLANS.
23. RUN ALL DOMESTIC WATER AND SANITARY WASTE AT LOWEST LEVEL, AND SANITARY WASTE AS HIGH AS POSSIBLE. PROVIDE SLOPE FOR ALL PIPING. INSTALL LONG RUNS OF PIPING WITH SLOPE (LOIST) SPACE AND OTHER PIPING TIGHT TO BOTTOM OF SITE. COORDINATE AND VERIFY WITH OTHER TRADES. PROVIDE SLOPE AS SHOWN ON DRAWINGS.
24. ALL EXPOSED HORIZONTAL AND VERTICAL PIPING SHALL BE INSTALLED IN A NEAT ARRANGEMENT IN LOCATIONS WHICH ARE THE MOST NONCONSPICUOUS. VERTICAL DROPS SHALL BE KEPT AT AN ABSOLUTE MINIMUM AND THEIR FINAL LOCATIONS SHALL BE COORDINATED AND RUN WITH CHASES. IF CHASES ARE NOT AVAILABLE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING CHASES. REVIEW ARCHITECTURAL, DRAWINGS FOR CHASE LOCATIONS TO COORDINATE ALL VERTICAL PIPING. PROVIDE SLOPE FOR SUCH LOCATIONS ARE TO BE REVIEWED WITH ARCHITECT/ENGINEER PRIOR TO INSTALLATION.
25. ALL PLUMBING FIXTURES/APPLIANCES SHALL HAVE THEIR OWN INDEPENDENT SHUT-OFF VALVES. INSTALLED IN AN EASILY ACCESSIBLE AND CONVENIENT LOCATION. EACH DOMESTIC WATER BRANCH SHALL HAVE ITS OWN INDEPENDENT SHUT-OFF VALVE.
26. CONNECT GAS PIPING TO APPLIANCES USING MANUAL SHUT-OFF VALVES AND UNIONS. INSTALL VALVE WITHIN 72 INCHES OF EACH GAS FIRED APPLIANCE AND EQUIPMENT. INSTALL UNION BETWEEN VALVE AND THE FIRST EQUIPMENT CONNECTION.
27. DOMESTIC HOT WATER HEATER TEMPERATURE/PRESSURE RELIEF VALVES SHALL BE PIPED FALL TO THE NEAREST APPROVED STANDPIPE OR FLOOR DRAIN. THIS REQUIREMENT SHALL BE APPLICABLE TO ALL DOMESTIC WATER HEATERS EXCEPT INSTANTANEOUS WATER HEATERS.
28. THE PLUMBING CONTRACTOR SHALL RUN OUT ALL BUILDING DRAINAGE AND WASTE LINES TO WITHIN APPROVED STANDPIPE OR FLOOR DRAIN. ALL CONNECTIONS TO SITE SYSTEMS AS INDICATED ON PLANS. COORDINATE WITH SITE ENGINEER.
29. FURNISH AND INSTALL PIPE SCHEDULES OR SLEEVE SEAL SYSTEMS AS REQUIRED. SEE SPECIFICATION FOR DETAILS.
30. ALL PIPING SYSTEM PENETRATIONS OF FIRE-RATED WALLS AND FLOORS SHALL BE SEALED WITH UL APPROVED FIRE-RESISTANT MATERIALS. METHODS TO MAINTAIN FIRE-SMALL AND DRAHT INTACT OF STRUCTURE. SPECIFIED TECHNOLOGIES "PENSL" 2001 OR EQUAL, TWO-PART FOAMED-IN-PLACE POLYURETHANE. FIRE-RATED WALLS SHALL BE PENETRATED BY PIPING. THE CONTRACTOR SHALL INSTALL SEALANT, INCLUDING FLOORING, PACKING AND OTHER ACCESSORY MATERIALS TO FILL OPENINGS WHERE FIRE-RATED WALL PENETRATIONS OCCUR. COMPLY WITH INSTALLATION APPROVED BY THE BUILDING DEPARTMENT.
31. ALL PENETRATIONS THROUGH WALLS AND FLOORS INCLUDING GLASS PENETRATIONS SHALL BE SUBSTANTIALLY SEALED BY UTILIZING A NON-CRACKING POLYURETHANE OR SIMILAR CAULK, OR OTHER APPROVED METHOD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE CODE REQUIREMENTS FOR THE PENETRATIONS.
32. INSULATE ALL NEW HOT WATER AND COLD WATER PIPING SYSTEMS. INSULATION SHALL BE INSTALLED AS A COMPLETE SYSTEM INCLUDING VALVES, FITTINGS, ETC. INSULATION THICKNESS SHALL COMPLY WITH THE REQUIREMENTS OF 2019 ASHRAE 90.1 TABLE 6.5.1-3. SEE SPECIFICATIONS SECTION 1505B FOR DETAILS.
33. INSULATE ROOF DRAIN A OVERFLOW DRAIN, BOILER AND ALL INTERIOR STORM PIPING. INSULATION SHALL BE INSTALLED AS A COMPLETE SYSTEM INCLUDING FITTINGS, ETC. SEE SPECIFICATIONS FOR DETAILS.
34. ALL CONTRACTORS REMOVING ANY EQUIPMENT, PIPES, DUCTS, CONDUCITS ETC. SHALL PATCH ALL SURFACES DISTURBED OR LEFT UNFINISHED BY THIS WORK TO MATCH ADJACENT SURFACES.
35. PROVIDE GAS PIPING SUPPORTS ON ROOF AT ALL DIRECTION CHANGES AND STRAIGHT RUNS WITH SPACING NOT EXCEEDING LENGTHS STATED IN TABLE 415.1 OF IFGC, 2021 FOR MATERIALS AND LISTED APPROVED JOINTS. PROVIDE SUPPORTS FOR ALL PIPING. PROVIDE SUPPORTS TO STAND WITH CLAMP OR METAL BAND. SUPPORT SHALL NOT BE SECURED TO ROOF SURFACE. BOTTOM OF PIPING SHALL BE MINIMUM 1/2" OVER ROOF SURFACE.
36. WHERE SLABS ARE CUT FOR UNDERSLAB PIPING OR BEING REPLACED, COORDINATE WITH ARCHITECTURAL DRAWINGS AND PROVIDE REPAIRS TO MATCH ADJACENT SURFACES.
37. ALL FLOOR DRAIN TRAPS SHALL BE PROVIDED WITH DEEP SEAL TRAPS.
38. THE PLUMBING CONTRACTOR SHALL PROVIDE A COMPLETE SET OF "AS-BUILT" DRAWINGS INDICATING THE PRECISE LOCATION OF ALL SYSTEMS, EQUIPMENT CONCEALED OR EMBEDDED PIPES. PIPE CONCEALED AND ACCESSORIES SHALL BE IDENTIFIED. THESE PLANS SHALL ALSO INCLUDE ALL CHANGES AND DEVIATIONS FROM BID DOCUMENTS.

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| MV-1 | <p>THERMOSTATIC MIXING VALVE: LEONARD ECO-MIX® MODEL TN-26/LF-BT HIGH-LOW, LEAD FREE WITH 3/4" INLETS, 3/4" OUTLET, INLET COLD STOP VALVE, WALL SUPPORT, OUTLET DRAIN, 1/2" METER AND BALL VALVE AND ROUGH BRONZE FINISH, ASSE 1017 CERTIFIED</p> <p>MINIMUM FLOW 1 GPM: VALVE SHALL BE PIPED AND INSTALLED PER MANUFACTURER'S REQUIREMENTS.</p> |
| PMV-1 | <p>SAME AS MV-1.</p> |
| FWH-2 | <p>FROST PROOF WALL HYDRANT: JR SMITH #5590QT NON-FREEZE WITH INTEGRAL VACUUM BREAKER.</p> |
| WHA | <p>WATER HAMMER ARRESTER: SIOUX CITY HYDRA-RESTER OR APPROVED EQUIV. SIZE PER MANUFACTURER'S REQUIREMENTS. SUPPLY WITH JR SMITH 4762-C 6" X 6" STAINLESS STEEL ACCESS PANEL WITH CYCLO AND ROLLER LOCK.</p> |
| IMB-1 | <p>REFRIGERATOR ICE MACHINE BOX: DATNEY MODEL K9B14 12K WITH QUARTER TURN VALVE AND SW6 BOX FOR RECESSED MOUNTING.</p> |
| REF-2 | <p>CHEMICAL DISPENSER CN MAKE UP BACKFLOW PREVENTION ASSEMBLY: WATTS SERIES LF009 QT, LEAD FREE REDUCED PRESSURE ZONE ASSEMBLY, 3/4" WITH QUARTER TURN BALL VALVES (QT) AND AIR GAP FITTING. PIPE AIR GAP DRAIN TIGHT AGAINST WALL AND TIGHTEN 1/2" ABOVE MOP SINK RUN WITH 45 DEGREE ELBOW. ATTACH TO WALL WITH BRACKETS MAXIMUM 12" ON CENTER.</p> |
| REF-2 | <p>MECHANICAL CW MAKE UP BACKFLOW PREVENTION ASSEMBLY: WATTS SERIES LF009 QT, LEAD FREE REDUCED PRESSURE ZONE ASSEMBLY, 1" WITH QUARTER TURN BALL VALVES (QT) AND AIR GAP FITTING. PIPE AIR GAP DRAIN TO FUNNEL, FLOOR DRAIN AND SPILL ABOVE GRATE.</p> |
| HB-1 | <p>CHEMICAL DISPENSER HOSE BIB: CHICAGO 998-RF WITH BUILT IN VACUUM BREAKER, TIE HANDLE, 3/4" HOSE THREAD OUTLET AND NOUGH CHROME FINISH.</p> |

DRAIN SCHEDULE

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| FD-1 | FLOOR DRAIN: JR. SMITH #2005 SQUARE, TOP: FLASHING COOL, CAST IRON BODY. ADJUSTABLE STRAINER, WITH #2692 QUAD CLOSE TRAP SEAL, AND DEEP SEAL P-TAP. SIZE PER PLAN. |
| FD-2 | FLOOR DRAIN: JR. SMITH FIGURE 2812 6" DIA. 8" DIAMETER TOP: FLASHING COOL, CAST IRON BODY, DUCTILE IRON GRATE, WITH #2916 QUAD CLOSE TRAP SEAL, AND DEEP SEAL TRAP. PER PLAN. |
| FD-3 | FUNNEL DRAIN: SAME AS FD-2 EXCEPT WITH FIGURE 9704 8 3/4" X 3 3/4" STAINLESS STEEL. OVAL FUNNEL ATTACHED TO GRATE. SIZE PER PLAN. |
| RD | ROOF DRAIN: JR. SMITH FIGURE #1015 CAST IRON ROOF DRAIN WITH ADJUSTABLE EXTENSION PROVIDE WITH UNDERDECK CLAMP, PUMP RECEIVER AND CAST IRON DOME. SIZE PER PLAN. |
| OD | OVERFLOW ROOF DRAIN: OVERFLOW ROOF DRAIN STANDPIPE: SEE DETAIL ON ARCHITECTURAL DRAWINGS. OVERFLOW ROOF DRAIN STANDPIPE SHALL BE SAME DIAMETER AS ROOF DRAIN. SIZE PER PLAN. |
| CD | CANOPY DRAIN: JR. SMITH FIGURE #1330 RC-18 CAST IRON ROOF DRAIN. PROVIDE WITH UNDERDECK CLAMP. PUMP RECEIVER AND CAST IRON DOME. SIZE PER PLAN. |
| DB-1 | DOWNSPOUT BOOT: JR. SMITH FIGURE 1787-B 18" DIA. CAST IRON BODY AND STRAPS, CLEANOUT, 18" LENGTH, WITH 4" ROUND INLET AND 4" ROUND OUTLET. PRIOR TO ORDERING, PLUMBING CONTRACTOR SHALL CONFIRM WITH GENERAL CONTRACTOR INLET STYLE MATCHES ACTUAL. PROVIDE MATERIAL, STYLE, ROUND OR RECTANGULAR AIR ADJUST FIGURE AS REQUIRED. |
| CODP | CLEAN OUT DECK PLATE: JR. SMITH FIGURE 4023, MEDIUM-DUTY CAST IRON CLEANOUT WITH ROUND ADJUSTABLE SCORATED SECURED NICKEL BRONZE TOP. TAPER THREAD, BRONZE PLUG, SIZE PER PLAN. IN AREAS WITH CARPET, TOP SHALL BE CARPET CLAMPING TYPE SURF. 1/2" X 2". |
| COG | CLEAN OUT GRADE: JR. SMITH FIGURE 4233-M, EXTRA HEAVY DUTY CAST IRON CLEANOUT WITH DUCTILE IRON COVER. SIZE PER PLAN. |
| COWP | CLEAN OUT WALL PLATE: JR. SMITH FIGURE 4422, WALL CLEANOUT WITH ACCESS COVER, TAPER THREAD, BRONZE PLUG, SIZE PER PLAN. |

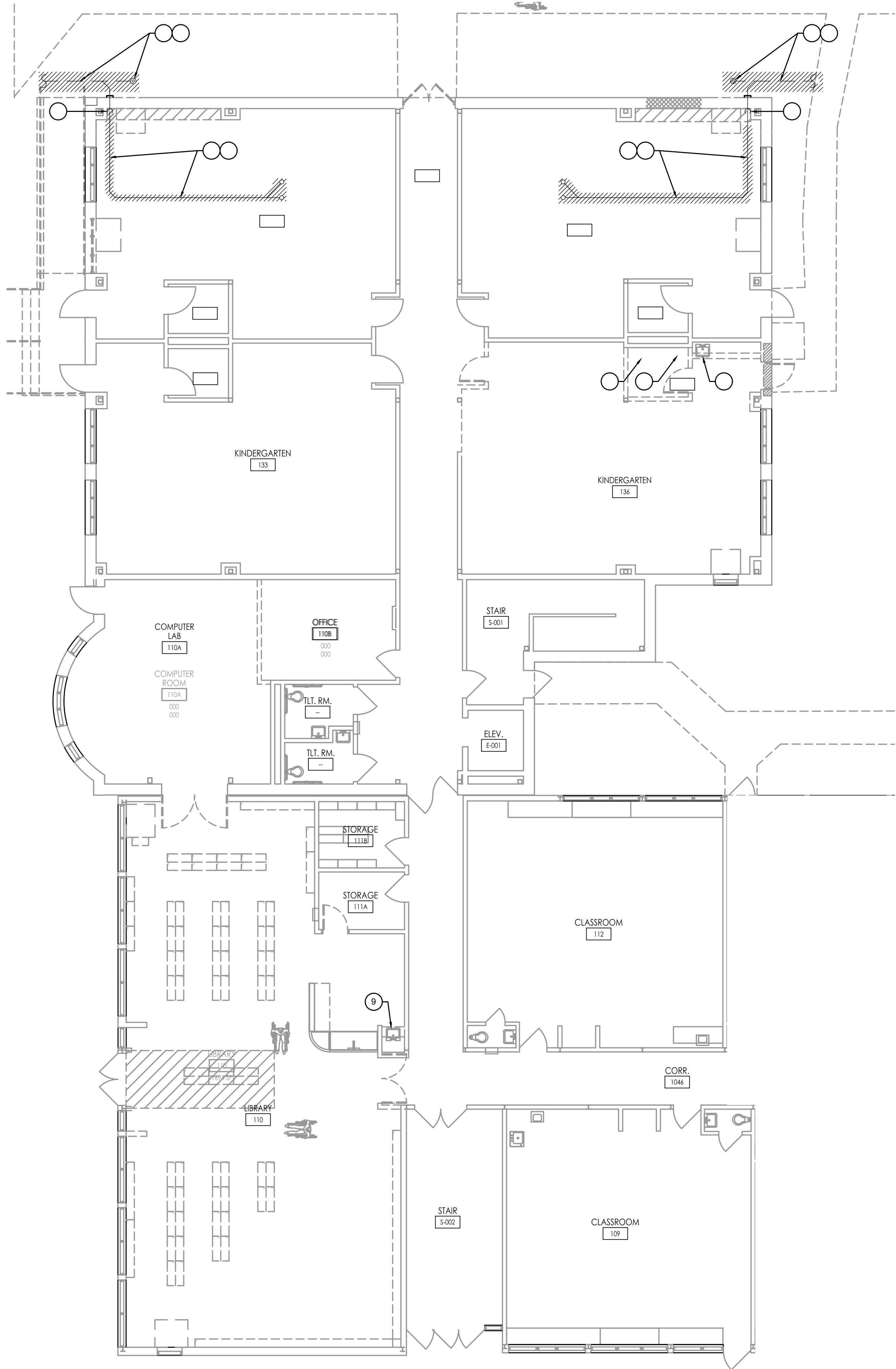
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EFVHD
Epidemiology
Prevention
and
Control
Pravak Variz Hopkins Dunne PC

10/10/25

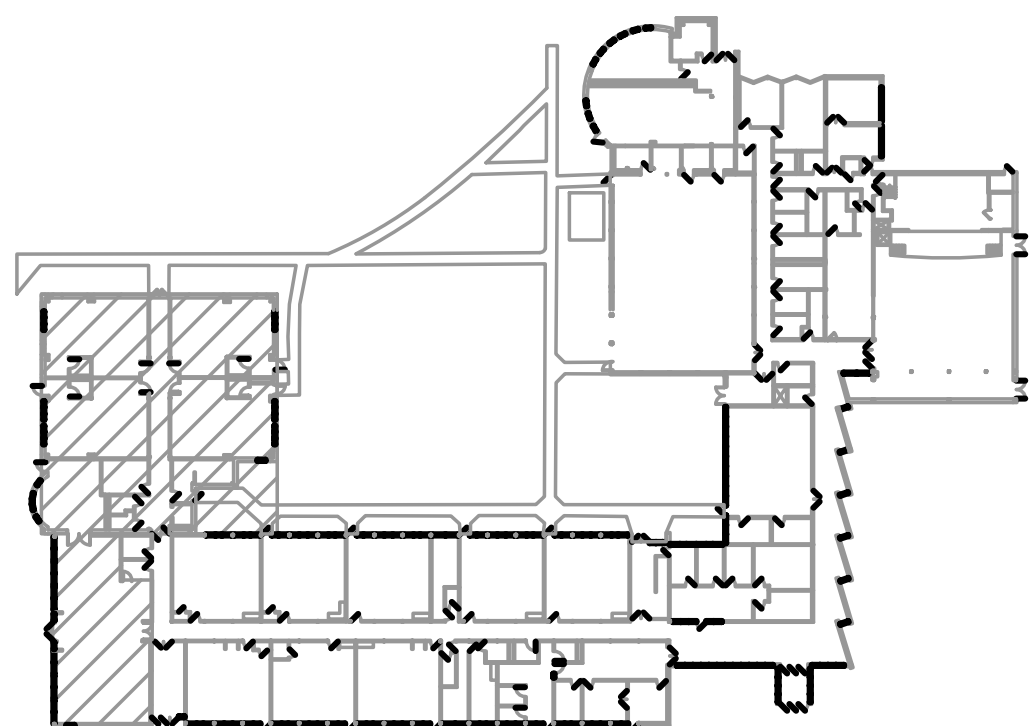
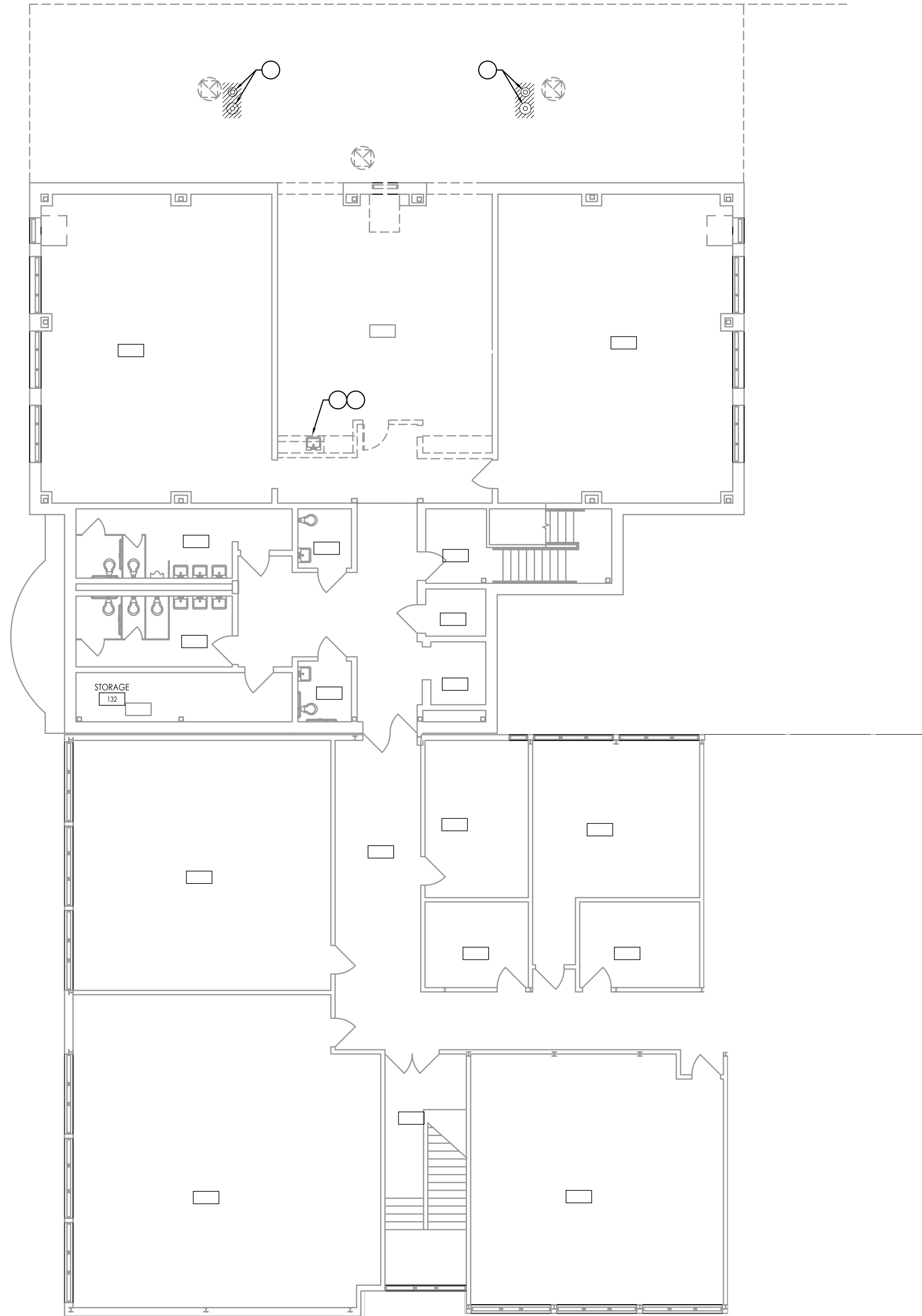
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FIRST FLOOR DEMOLITION PLAN - BLOCK A
SCALE: 1/8" = 1'-0"

DEMOLITION KEY NOTES

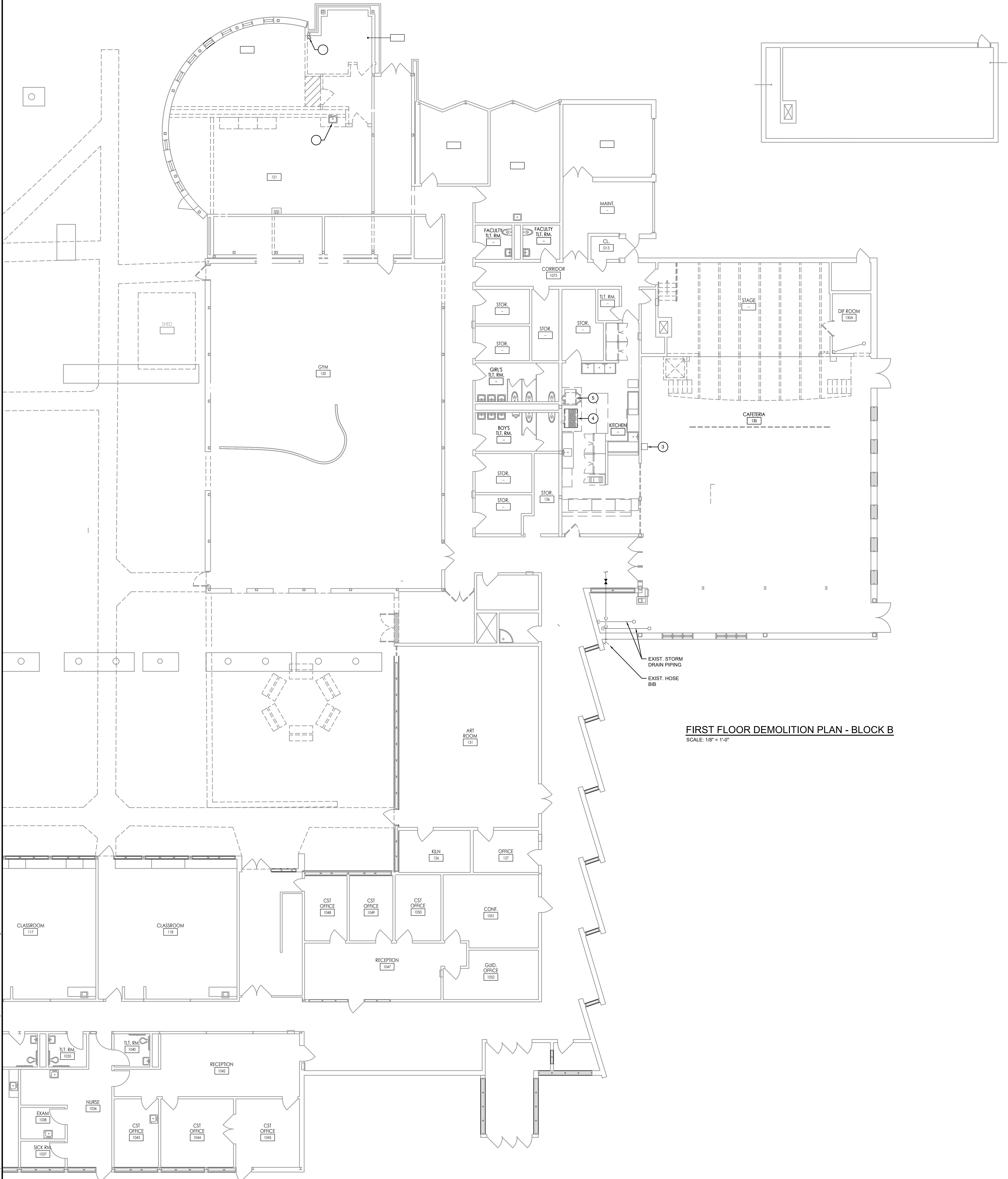
- FIELD VERIFY EXACT LOCATION AND SIZE OF EXISTING PIPING.
- REMOVE EXISTING 4" GRADE CLEANOUT AND RELATED UNDERGROUND STORM PIPING BACK TO BUILDING AND CAP WATER TIGHT. REMOVE PIPING BACK TO CONNECTION TO SITE MAIN AND CAP WATER TIGHT. SEE SITE PLAN BY CIVIL ENGINEER FOR CONTINUATION BACK TO SITE MAIN. COORDINATE WITH SITE CONTRACTOR.
- REMOVE EXISTING STORM DRAIN PIPING AND ALL RELATED PIPE HANGERS. PATCH ALL SURFACES DISTURBED OR LEFT UNFINISHED BY THIS WORK TO MATCH ADJACENT SURFACES.
- REMOVE EXISTING STORM DRAIN CONDUCTOR DOWN TO BELOW FLOOR AND CAP WATER TIGHT. PATCH ALL SURFACES DISTURBED OR LEFT UNFINISHED BY THIS WORK TO MATCH ADJACENT SURFACES.
- REMOVE EXISTING ROOF AND OVERFLOW DRAIN.
- DISCONNECT AND REMOVE EXISTING FLOOR MOUNTED WATER CLOSET AND FLUSH VALVE. REMOVE EXISTING SANITARY PIPING BACK TO BELOW FLOOR AND PREPARE FOR EXTENSION TO NEW 2" SANITARY PIPING. SEE NEW WORK PLAN. REMOVE EXISTING COLD WATER PIPING BACK TO BEHIND WALL AND CAP WATER TIGHT. PATCH ALL SURFACES DISTURBED OR LEFT UNFINISHED BY THIS WORK TO MATCH ADJACENT SURFACES.
- DISCONNECT AND REMOVE EXISTING LAVATORY, FAUCET AND ALL ASSOCIATED SUPPORTS. REMOVE EXISTING SANITARY, VENT, HOT WATER AND COLD WATER BACK TO BEHIND WALL AND CAP WATER TIGHT. PATCH ALL SURFACES DISTURBED OR LEFT UNFINISHED BY THIS WORK TO MATCH ADJACENT SURFACES.
- DISCONNECT AND REMOVE EXISTING COUNTERTOP SINK, FAUCET AND ALL ASSOCIATED SUPPORTS. REMOVE EXISTING SANITARY, VENT, HOT WATER AND COLD WATER BACK TO BEHIND WALL AND CAP WATER TIGHT. PATCH ALL SURFACES DISTURBED OR LEFT UNFINISHED BY THIS WORK TO MATCH ADJACENT SURFACES.
- DISCONNECT AND REMOVE EXISTING COUNTERTOP SINK, FAUCET AND ALL ASSOCIATED SUPPORTS. REMOVE EXISTING SANITARY PIPING DOWN TO BELOW FLOOR AND CAP WATER TIGHT. REMOVE EXISTING VENT, HOT WATER AND COLD WATER PIPING BACK TO CONNECTION TO MAINS AND CAP WATER TIGHT. PATCH ALL SURFACES DISTURBED OR LEFT UNFINISHED BY THIS WORK TO MATCH ADJACENT SURFACES.
- DISCONNECT AND REMOVE EXISTING COUNTERTOP SINK, FAUCET AND ALL ASSOCIATED SUPPORTS. REMOVE EXISTING SANITARY, HOT WATER AND COLD WATER PIPING BACK TO CONNECTION TO MAINS BELOW FLOOR ABOVE FIRST FLOOR CEILING AND CAP WATER TIGHT. REMOVE EXISTING VENT PIPING BACK TO CONNECTION TO MAIN AND CAP WATER TIGHT. FIELD VERIFY EXACT LOCATION AND SIZE OF EXISTING PIPING. PATCH ALL SURFACES DISTURBED OR LEFT UNFINISHED BY THIS WORK TO MATCH ADJACENT SURFACES.
- CAREFULLY REMOVE EXISTING TILE AS REQUIRED TO COMPLETE THIS WORK AND REINSTALL IN ORIGINAL CONDITION. CONTRACTOR RESPONSIBLE TO REPLACE ANY CEILING TILE DAMAGED AS PART OF THIS WORK WITH NEW TILE TO MATCH EXISTING.



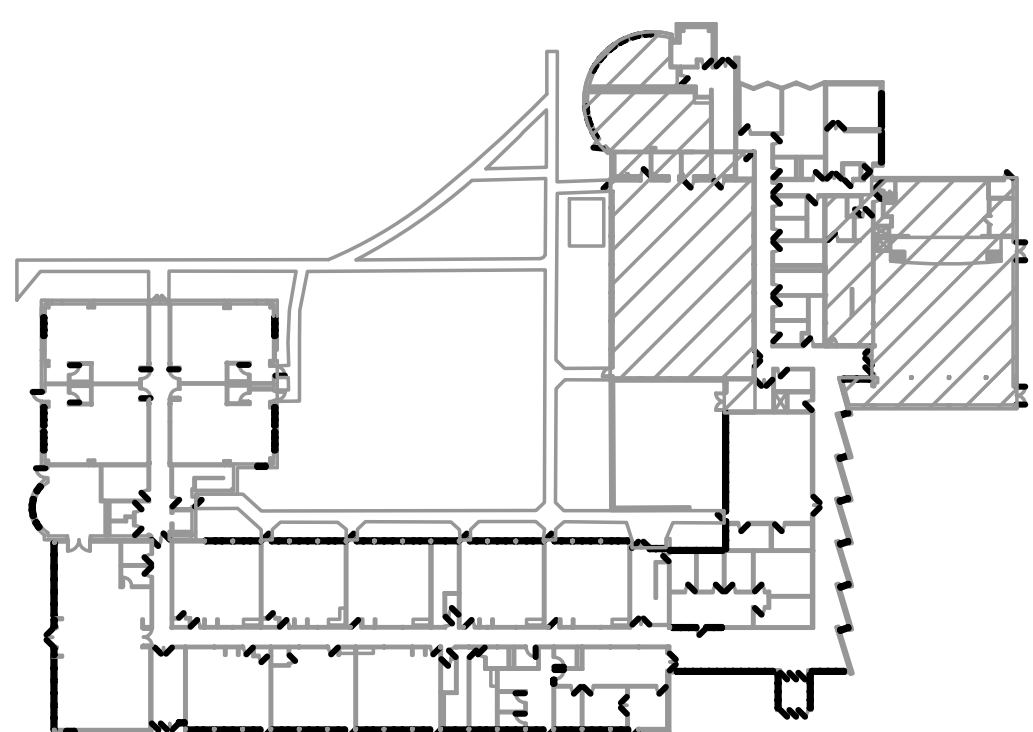
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FIRST FLOOR DEMOLITION PLAN - BLOCK B
SCALE: 1/8" = 1'-0"

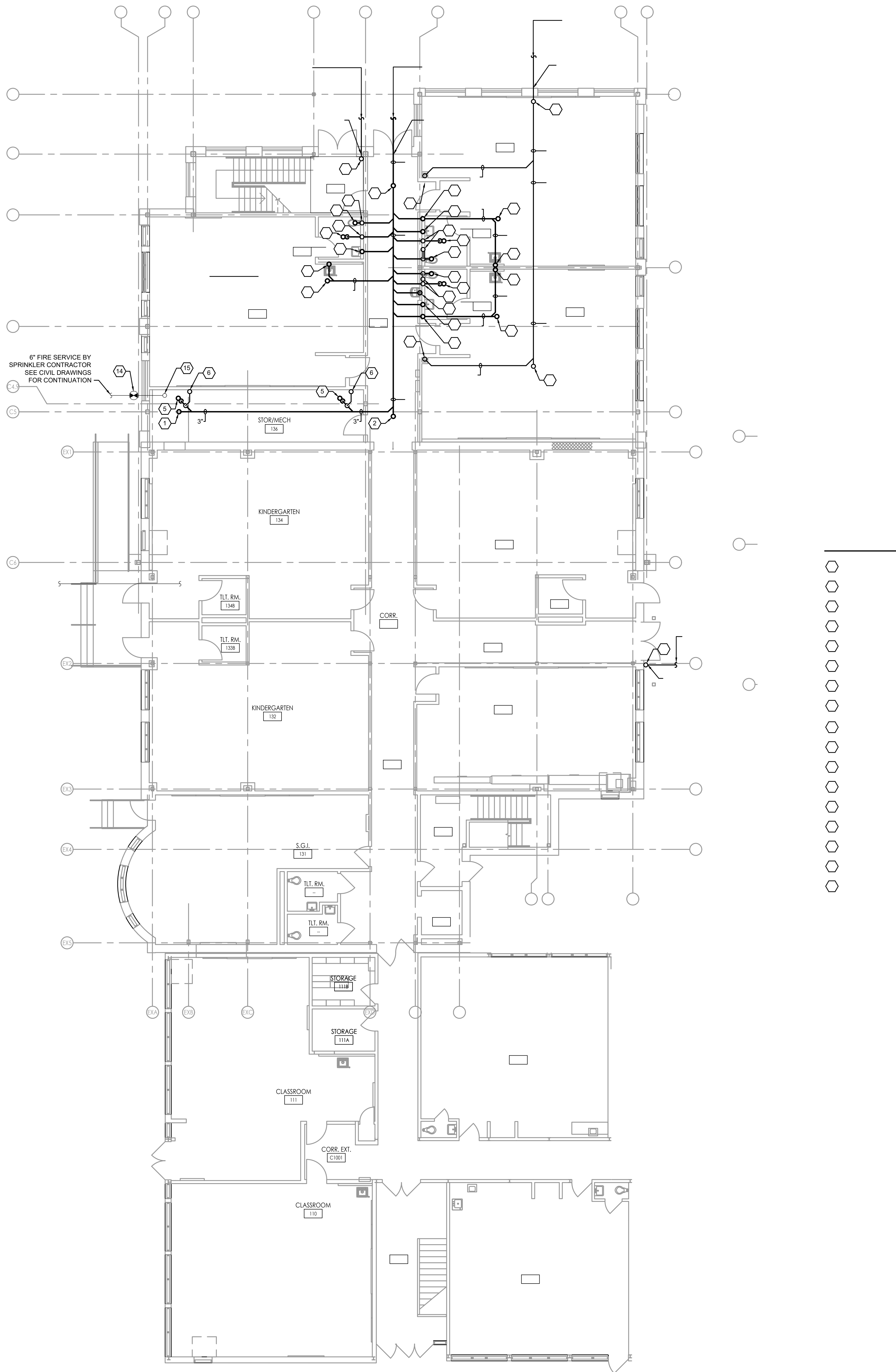


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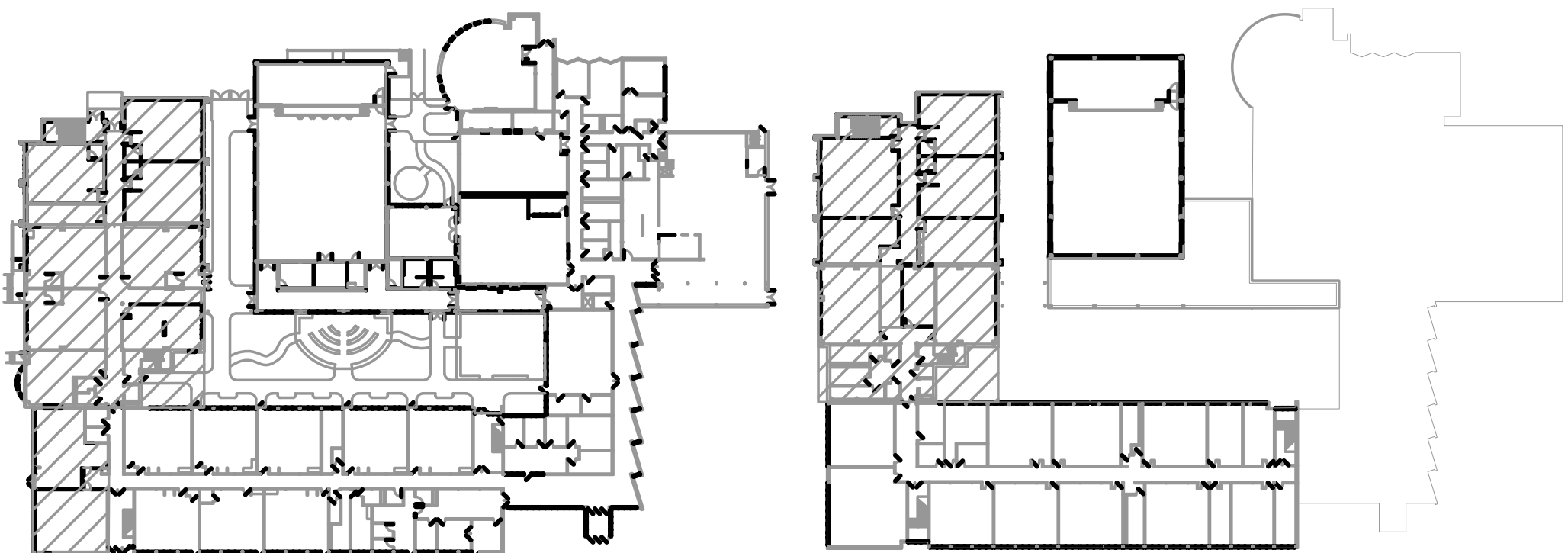
Corporate Office:
1800 Rt. 34, Suite 101
732.312.9800

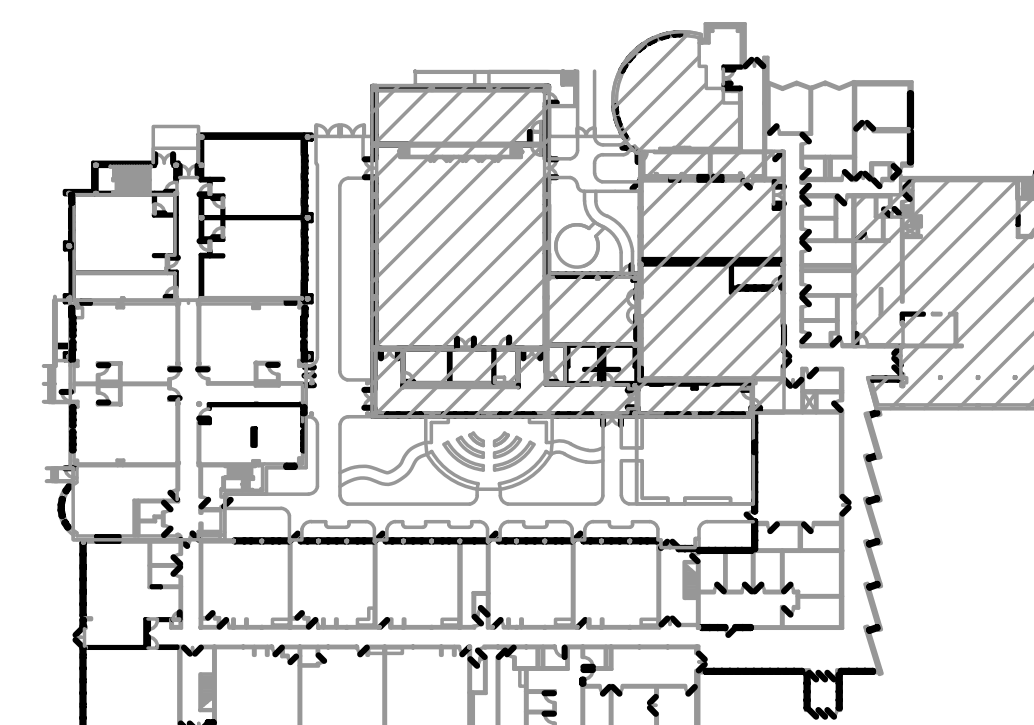
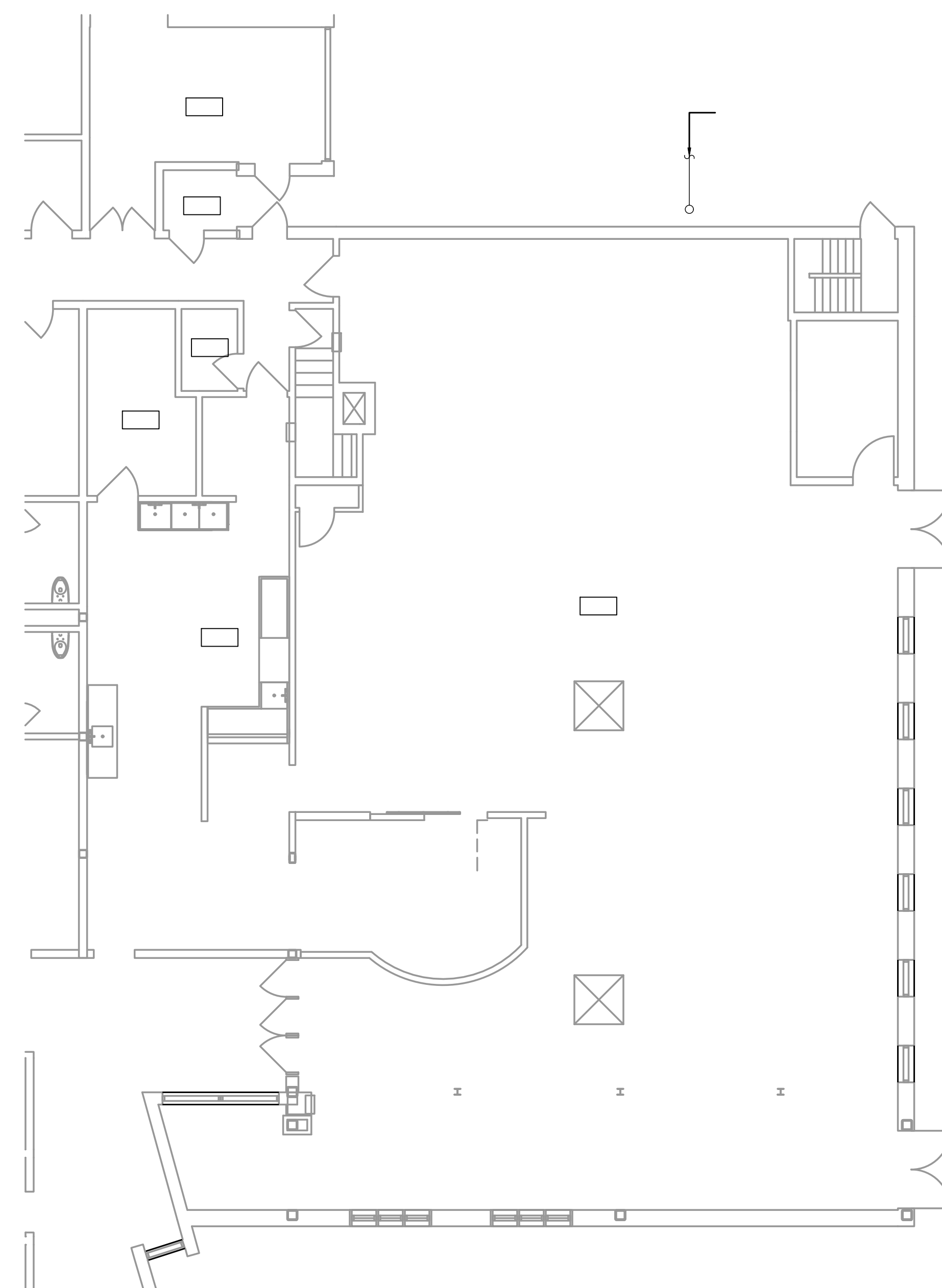
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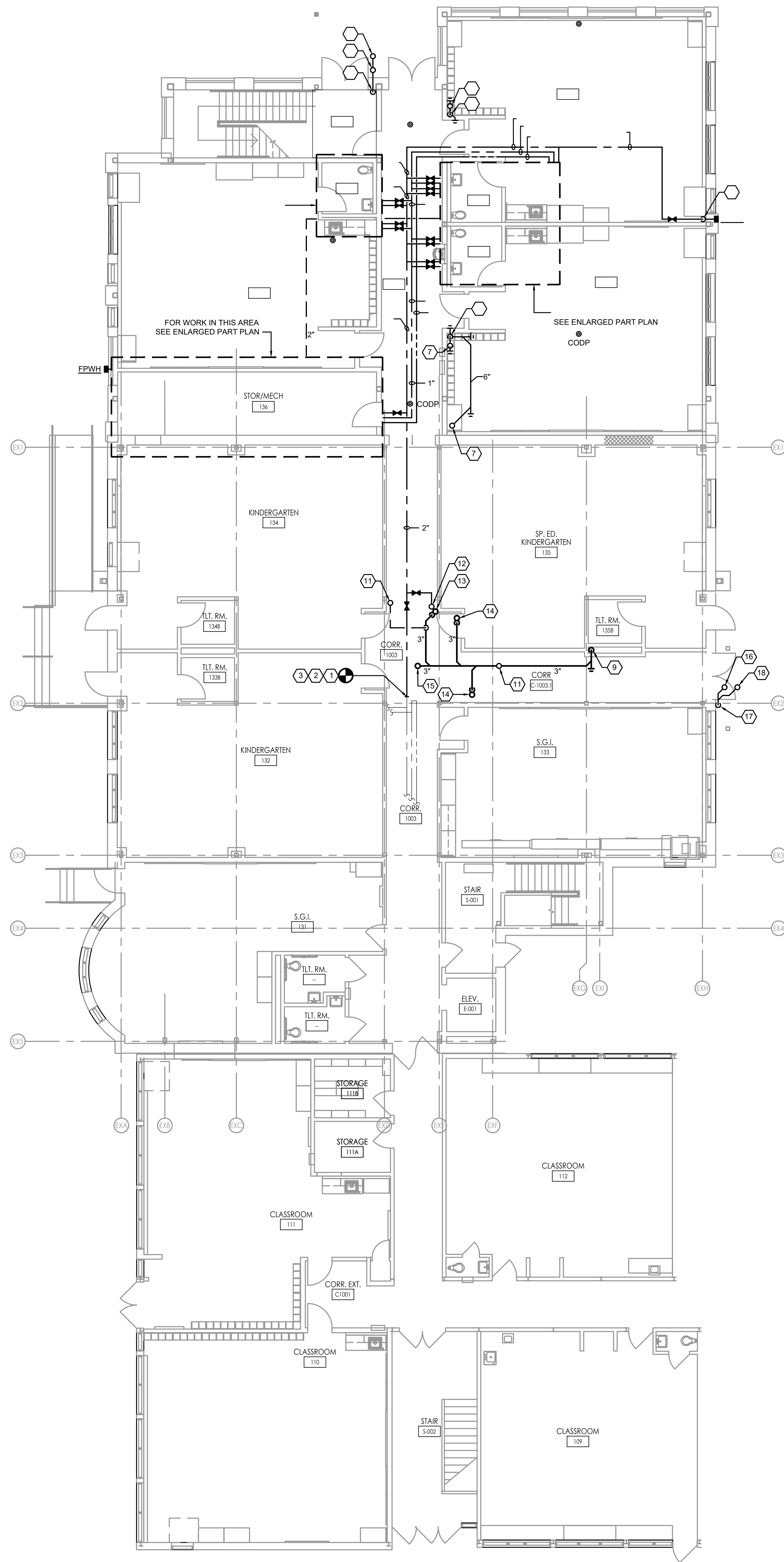
AREA OF WORK 'C1' + 'AC'
SCALE: 1/8" = 1'-0"



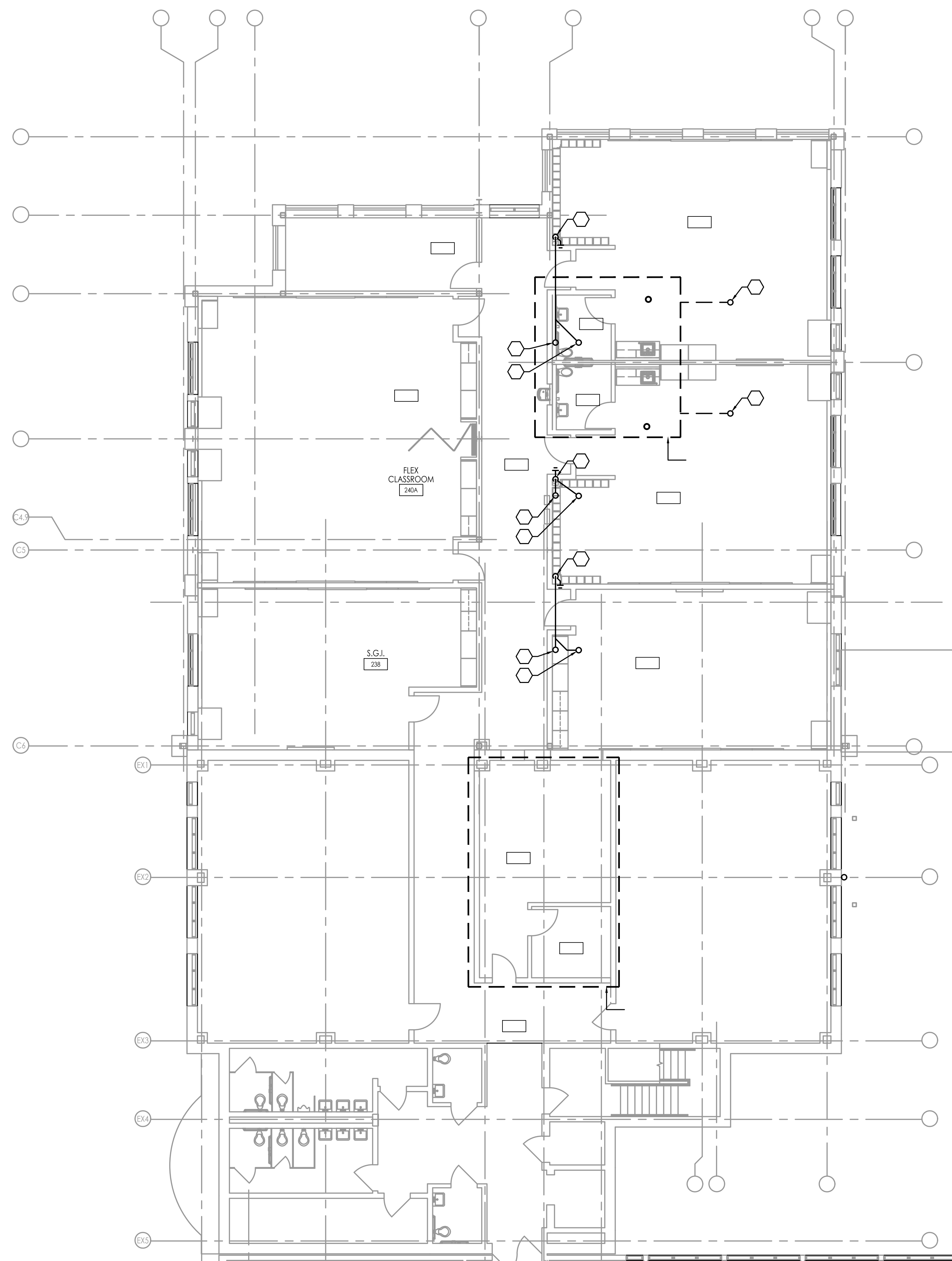


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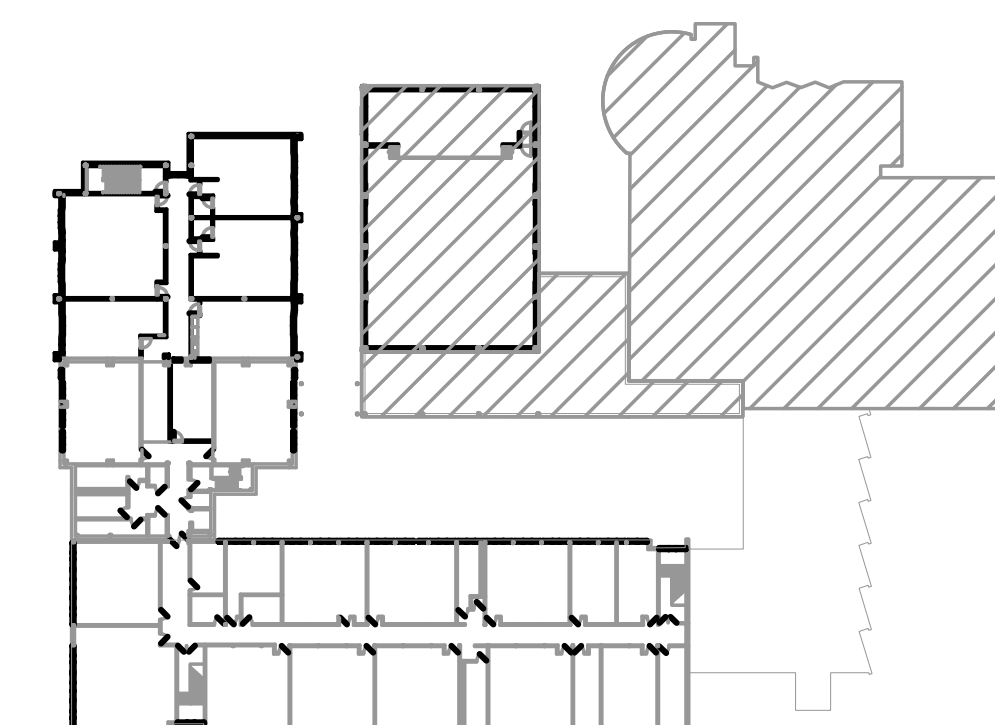
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Frayak Veitz Hopkins Dunne P C



AREA OF WORK 'C1' + 'AC'
SCALE: 1/8" = 1'-0"



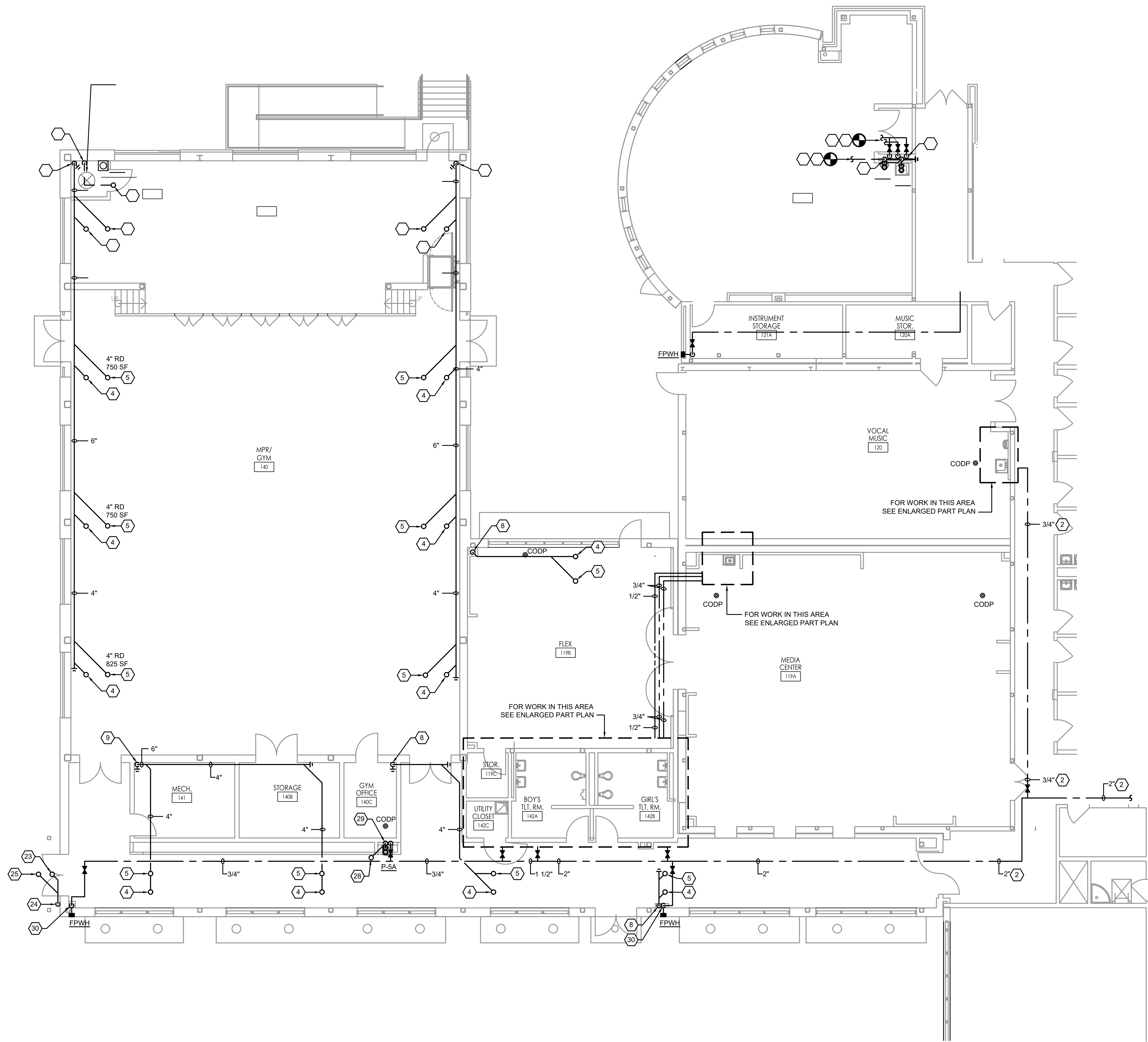
AREA OF WORK 'C2'
SCALE: 1/8" = 1'-0"



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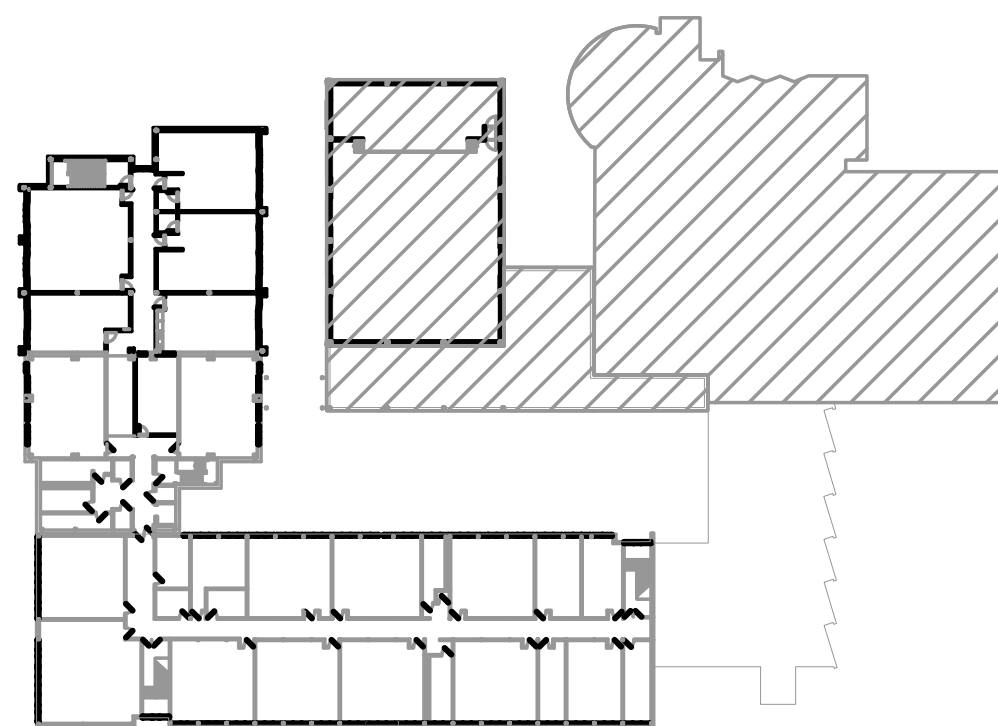
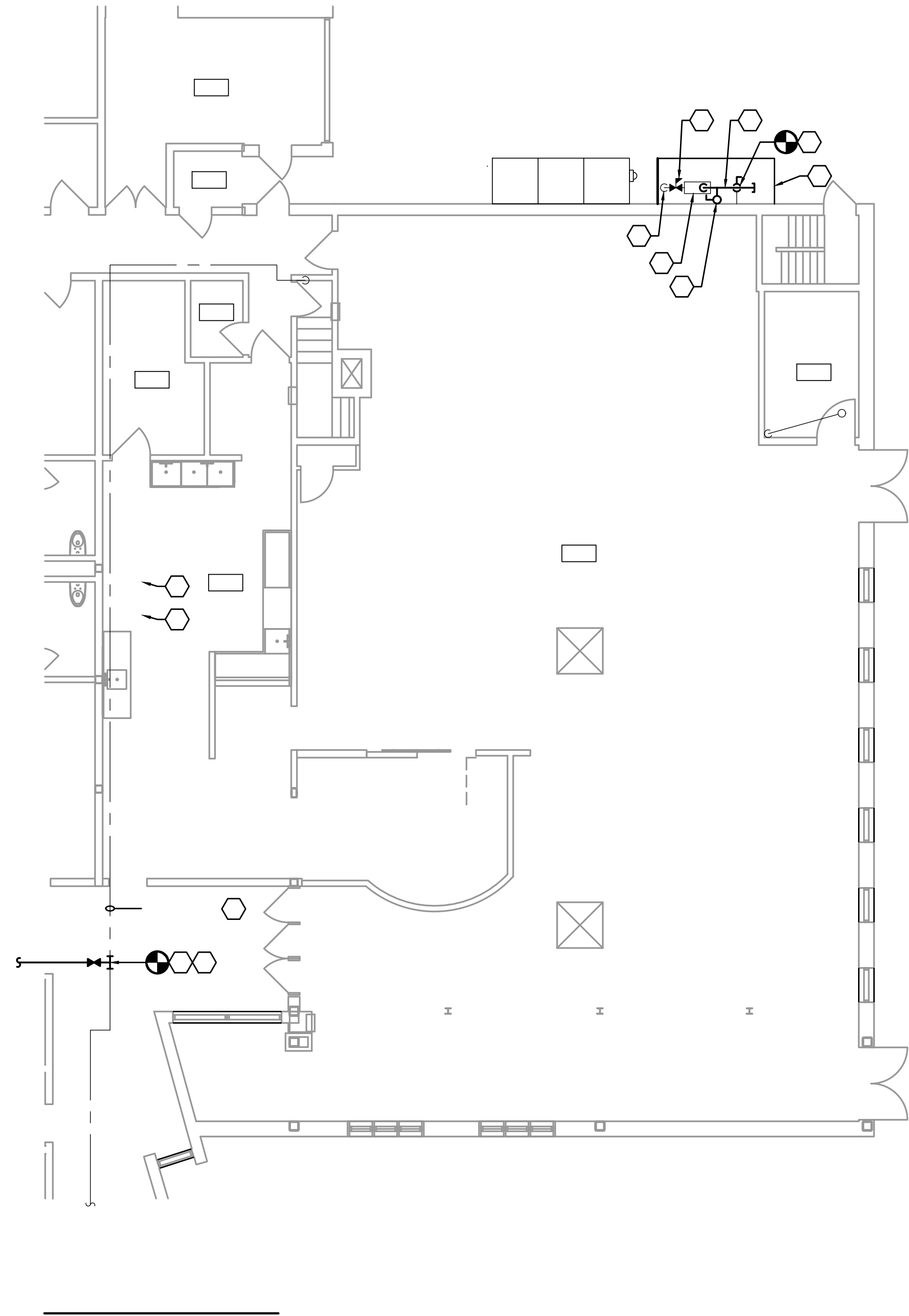
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AREA OF WORK 'B1' + 'AA'
SCALE: 1/8" = 1'-0"

KEY NOTES

- 1 FIELD VERIFY EXACT LOCATION AND SIZE OF EXISTING PIPING.
- 2 CAREFULLY REMOVE EXISTING CEILING TILE FOR THIS WORK AND REINSTALL IN ORIGINAL CONDITION. CONTRACTOR RESPONSIBLE TO REPLACE ANY CEILING TILE DAMAGED AS PART OF THIS WORK WITH NEW TILE TO MATCH EXISTING.
- 3 CONNECT NEW 2" COLD WATER PIPING TO EXISTING 3" COLD WATER PIPING. MODIFY EXISTING PIPING AS REQUIRED TO MAKE CONNECTION. PATCH ALL SURFACES DISTURBED OR LEFT UNFINISHED BY THIS WORK TO MATCH ADJACENT SURFACES.
- 4 4" STORM UP TO ROOF DRAIN.
- 5 4" STORM UP TO OVERFLOW DRAIN.
- 6 6" STORM UP TO ROOF DRAIN.
- 7 6" STORM UP TO OVERFLOW DRAIN.
- 8 4" STORM DOWN. PROVIDE COWP @ BASE.
- 9 6" STORM DOWN. PROVIDE COWP @ BASE.
- 10 4" VENT DOWN.
- 11 4" VENT UP TO 4" VENT THRU ROOF.
- 12 CONNECT NEW 1 1/2" VENT TO EXISTING VENT PIPING FROM REMOVED SINK. EXTEND, OFFSET, MODIFY AND ADJUST EXISTING PIPING AS REQUIRED TO MAKE CONNECTION.
- 13 CONNECT NEW 1/2" HOT AND COLD WATER PIPING TO EXISTING VENT HOT AND COLD WATER PIPING FROM REMOVED SINK. EXTEND, OFFSET, MODIFY AND ADJUST EXISTING PIPING AS REQUIRED TO MAKE CONNECTION.
- 14 1/2" COLD WATER DOWN, 1/2" HOT WATER DOWN, 1 1/2" VENT UP, AND 2" SANITARY DOWN.
- 15 1/2" COLD WATER DOWN, 1 1/2" VENT UP, AND 2" SANITARY DOWN.
- 16 GAS SERVICE BY PSE&G GAS COMPANY.
- 17 PSE&G SHALL REMOVE EXISTING SERVICE REGULATOR AND REPLACE WITH NEW LARGER CAPACITY SERVICE REGULATOR. CONTRACTOR SHALL CONFIRM WITH PSE&G NEW REGULATOR OUTLET PRESSURE WILL BE SET TO 1 PSI TO MATCH EXISTING PRESSURE SET POINT.
- 18 PSE&G SHALL REMOVE EXISTING GAS METER AND REPLACE WITH NEW LARGER CAPACITY METER. CONFIRM WITH PSE&G NEW TIE IN POINT AND ADJUST PIPING ARRANGEMENT AS REQUIRED TO ACCOMMODATE ACTUAL NEW METER LOCATION. EXTEND EXISTING AND NEW CONCRETE PAD AS REQUIRED TO MEET PSE&G REQUIREMENTS.
- 19 REMOVE EXISTING PIPE HEADER DOWNSTREAM OF METER AND CONSTRUCT NEW 6" HEADER APPROXIMATELY 4' 48" ABOVE WALKWAY. EXTEND NEW 6" HEADER AS REQUIRED TO PSE&G TIE IN POINT. CONTRACTOR SHALL MEET WITH PSE&G ON SITE TO REVIEW REQUIREMENTS AND TIE IN POINT LOCATION AND ADJUST HEADER HEIGHT AND LENGTH AS REQUIRED.
- 20 REMOVE EXISTING 2" GAS PIPING AND RELATED PIPE SUPPORTS UP TO ROOF AND REPLACE WITH NEW 4" GAS PIPING AND SUPPORTS. PROVIDE DEDICATED SHUT OFF VALVE AT BASE OF NEW RISER. FIELD VERIFY EXACT LOCATION AND SIZE OF EXISTING PIPING. PATCH ALL SURFACES DISTURBED OR LEFT UNFINISHED BY THIS WORK TO MATCH ADJACENT SURFACES.
- 21 CONNECT NEW 3" GAS PIPING TO EXISTING 3" GAS PIPING DROPPING DOWN INTO EXISTING BOILER ROOM. PROVIDE NEW 3" SHUT OFF VALVE TO ISOLATE EXISTING BOILER ROOM PIPING. EXTEND, OFFSET, ADJUST, AND MODIFY EXISTING PIPING AS REQUIRED TO MAKE CONNECTION. FIELD VERIFY EXACT LOCATION AND SIZE OF EXISTING PIPING.
- 22 REMOVE EXISTING CHAIN LINK FENCE AND PROVIDE NEW CHAIN LINK FENCE WITH GATE AS REQUIRED TO ACCOMMODATE NEW PSE&G GAS METER ASSEMBLY AND SPACE REQUIREMENTS.
- 23 3" STORM UP TO CD.
- 24 3" STORM DOWN TO DB-1.
- 25 3" STORM UP TO OD.
- 26 NEW GAS STEAMER SUPPLIED BY OWNER. PLUMBING CONTRACTOR SHALL SHALL CONNECT 1" GAS TO EXISTING GAS HEADER AND MAKE FINAL CONNECTION TO NEW STEAMER. PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL NEW SHUT OFF VALVE, SWIVEL FITTING, AND APPROVED GAS CONNECTOR. FIELD VERIFY EXACT LOCATION AND SIZE OF EXISTING PIPING. EXTEND, OFFSET, MODIFY AND ADJUST EXISTING PIPING AS REQUIRED TO MAKE CONNECTION.
- 27 NEW GAS STOVE SUPPLIED BY OWNER. PLUMBING CONTRACTOR SHALL SHALL CONNECT 1 1/4" GAS TO EXISTING GAS HEADER AND MAKE FINAL CONNECTION TO NEW STOVE. PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL NEW SHUT OFF VALVE, SWIVEL FITTING, AND APPROVED GAS CONNECTOR. FIELD VERIFY EXACT LOCATION AND SIZE OF EXISTING PIPING. EXTEND, OFFSET, MODIFY AND ADJUST EXISTING PIPING AS REQUIRED TO MAKE CONNECTION.
- 28 1 1/2" VENT UP TO 3" VENT THRU ROOF.
- 29 2" SANITARY AND 1/2" COLD WATER DOWN, 1 1/2" VENT UP.
- 30 3/4" COLD WATER DOWN.





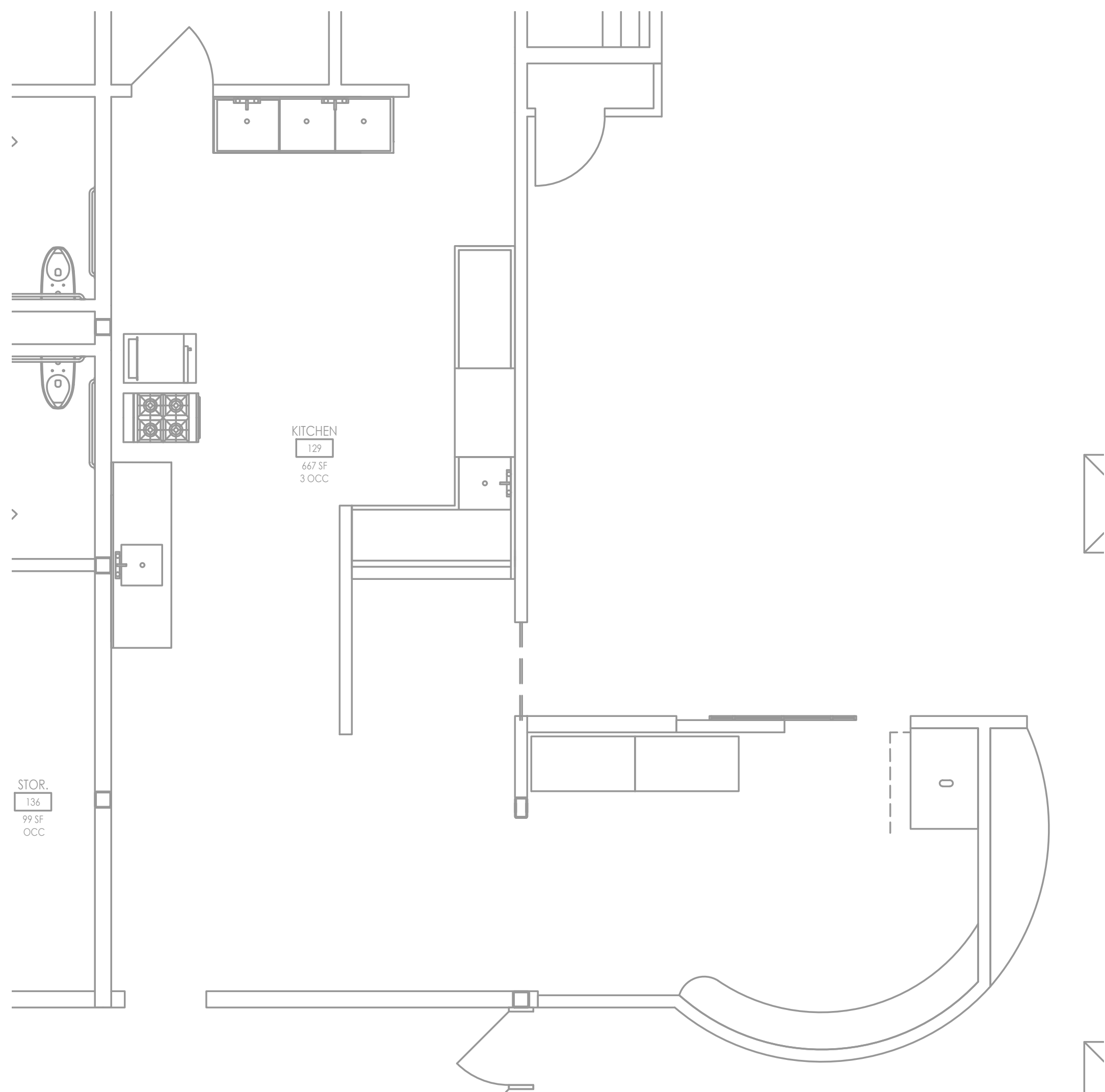
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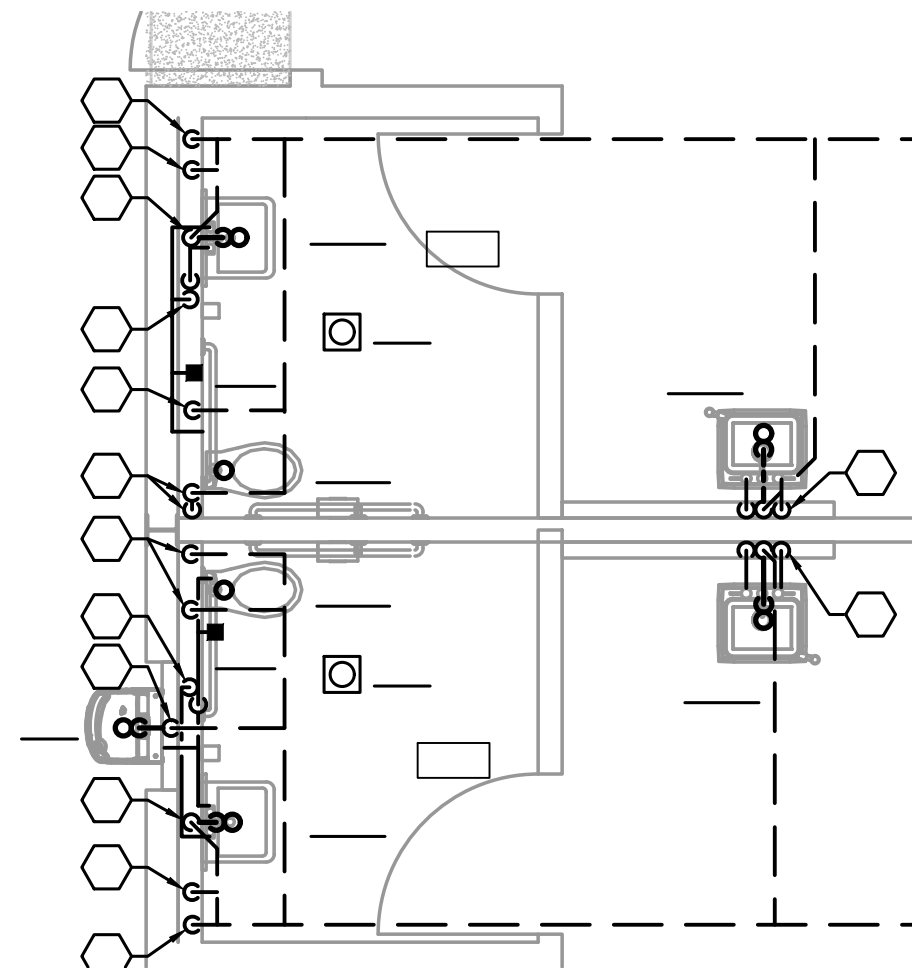
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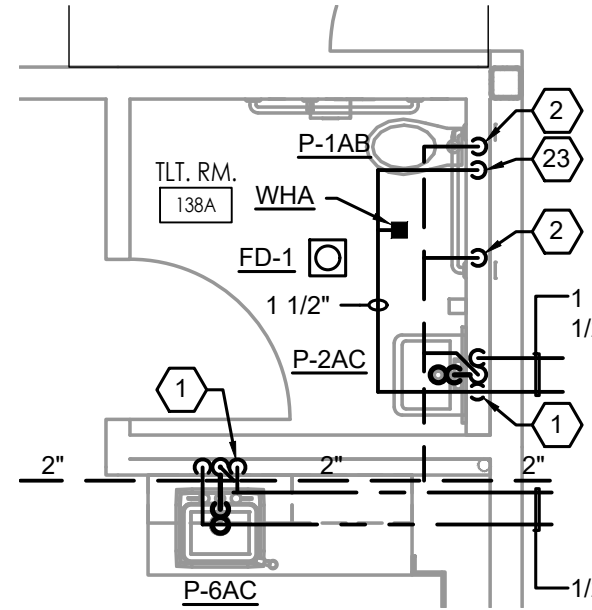
- 7 PROVIDE PIPE SUPPORTS AT ALL DIRECTION CHANGES AND STRAIGHT RUNS WITH SPACING NOT EXCEEDING LENGTHS STATED IN TABLE 4.1. SELECT ADJUSTABLE BRACKET TYPE, FOR MATERIALS AND LISTED PIPE SIZES. SUPPORTS SHOULD BE SADDLE BLOCK ROLLER TYPE WITH PIPE SECURED TO STAND WITH CLAMP OR METAL BAND. SUPPORT IS NOT TO BE ON ROOF SURFACE. MINIMUM DISTANCE OF PIPING SHALL BE MINIMUM 12" ABOVE ROOF SURFACE.
- 8 CLEAN, PRIME AND PAINT ALL EXTERIOR GAS PIPING WITH TWO COATS OF EPOXY RESISTANT INTERIOR PAINT. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- 9 THE COLOR OF VERTICAL PIPING SHALL BE PAINTED TO MATCH COLOR OF BUILDING FACADE.
- 10 FIELD VERIFY SIZE AND LOCATION OF UNIT GASE CONNECTION AND TRANSITION TO EXISTING PIPING.
- 11 PROVIDE PRESSURE REGULATOR. CONTRACTOR SHALL TAKE PRESSION READING FOR GAS PRESSURE TO PROPERLY SELECT REGULATOR SPRING RATINGS. REGULATORS SHALL BE ANSI Z51 280 BELL & HOWELL LOCK UP TYPE. FIELD VERIFY EXISTING GAS PIPING DOWNWARD WITH BUILT IN INSPECT SCREEN. VENTS TO BE LOCATED OUTSIDE OF MAIN FLOOR AREA. FIELD VERIFY EXISTING PIPING FOR MECHANICAL REQUIREMENTS FOR ROOFTOP HVAC EQUIPMENT GAS PRESSURE REQUIREMENTS. PROVIDE VALVED AND CAPPED TEE FOR 1/2" NPT THREADED GAS LINE. FIELD VERIFY EXISTING PIPING MEASURING DEVICE WITH FCCG SECTION 410.2, LATEST ADPOTED EDITION IN COMPLIANCE WITH THE UPGC SECTION 410.2, LATEST ADPOTED EDITION
- 12 PROVIDE PIPE SUPPORTS ATTACHED TO WALL AT TOP AND BOTTOM OF ROOM.
- 13 COORDINATE ROUTING OF GAS PIPING IN THIS AREA WITH EXISTING ELECTRICAL CONDUIT.
- 14 EXISTING 2" GAS PIPING TO REMAIN. FIELD VERIFY EXACT LOCATION AND SIZE OF EXISTING PIPING.
- 15 REMOVE EXISTING 2" GAS PIPING AND RELATED PIPE SUPPORTS AND REPLACE WITH NEW 4" GAS PIPING AND SUPPORTS. FIELD VERIFY EXACT LOCATION AND SIZE OF EXISTING PIPING.
- 16 REMOVE EXISTING 2" GAS PIPING HANGING DOWN TO EXISTING GAS ASSEMBLY AND RELATED PIPE SUPPORTS AND REPLACE WITH NEW 4" GAS PIPING AND SUPPORTS. FIELD VERIFY EXACT LOCATION AND SIZE OF EXISTING PIPING. FIELD VERIFY EXISTING PIPING LEFT UNFINISHED BY THIS WORK TO MATCH ADJACENT SURFACES.
- 17 CONNECT NEW 4" GAS PIPING TO EXISTING 2" GAS PIPING. EXTEND, OFFSET, MODIFY AND ADJUST EXISTING PIPING AS REQUIRED TO MAKE CONNECTION.



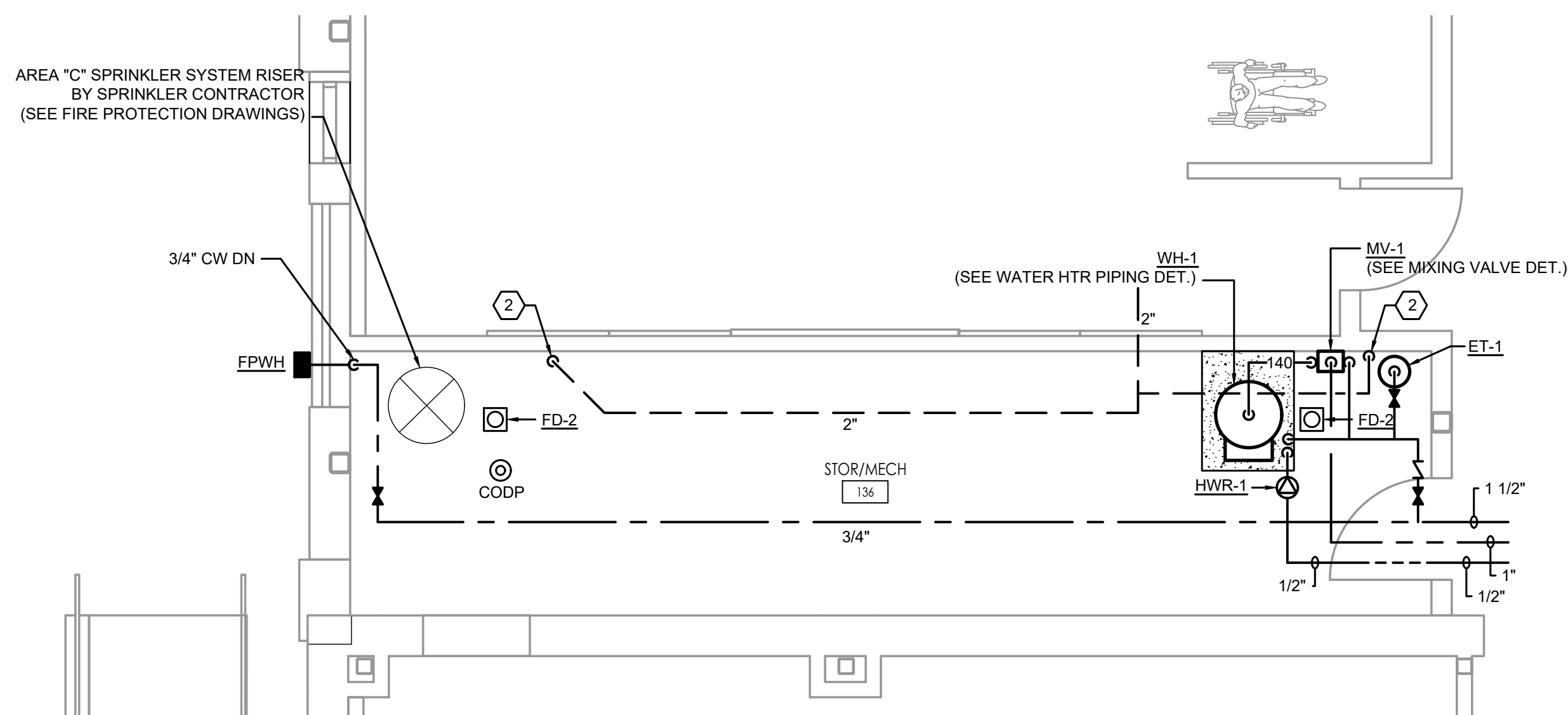
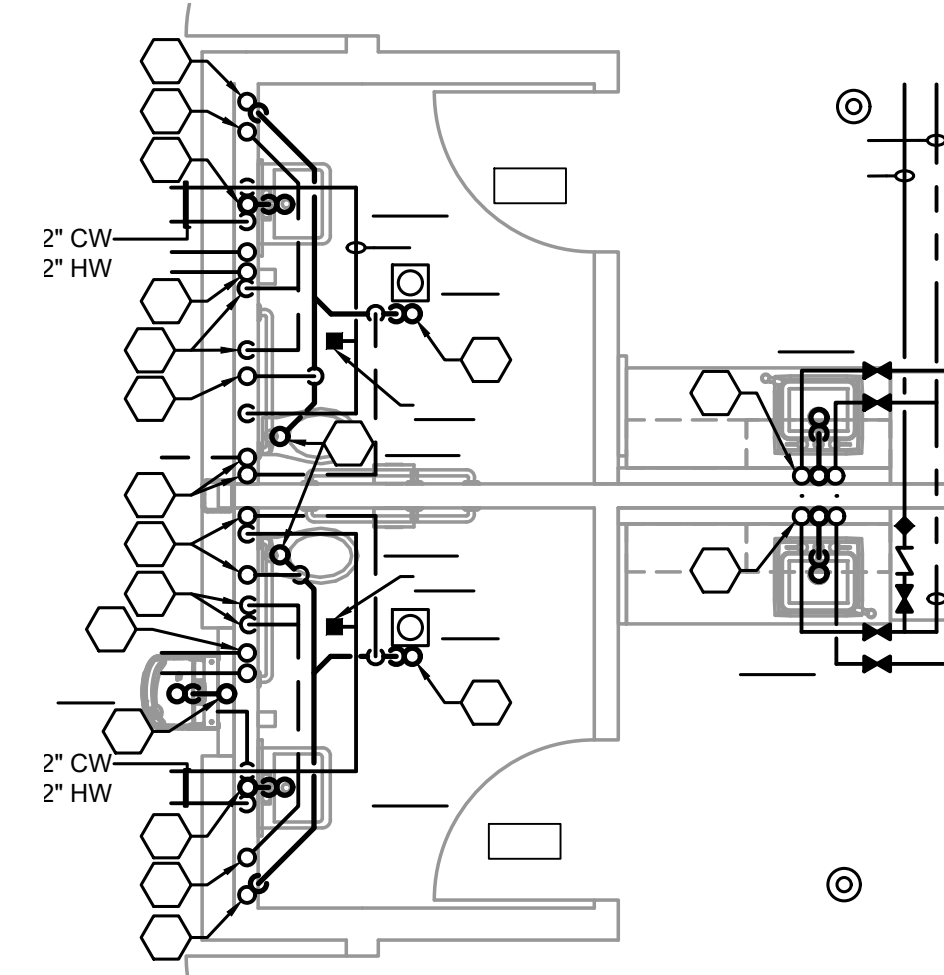
FIRST FLOOR PART PLAN
SCALE: 1/4" = 1'-0"



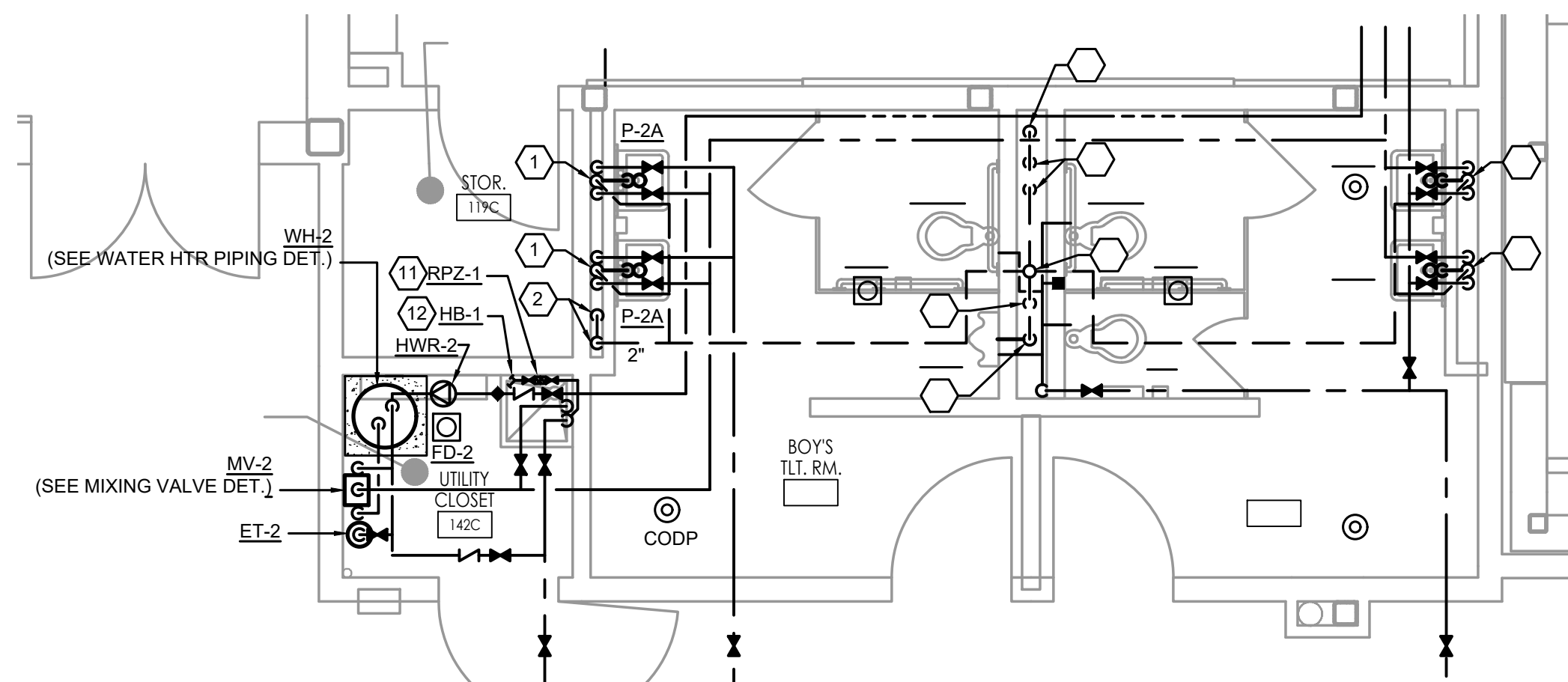
SECOND FLOOR PART PLAN
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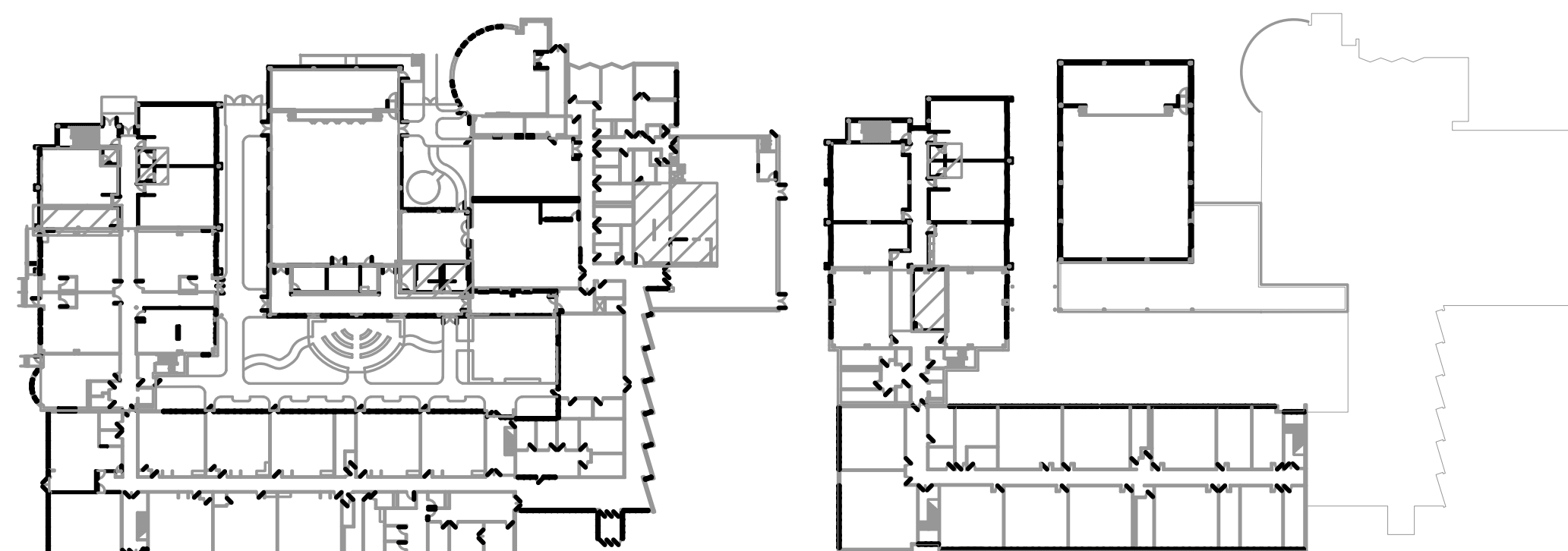
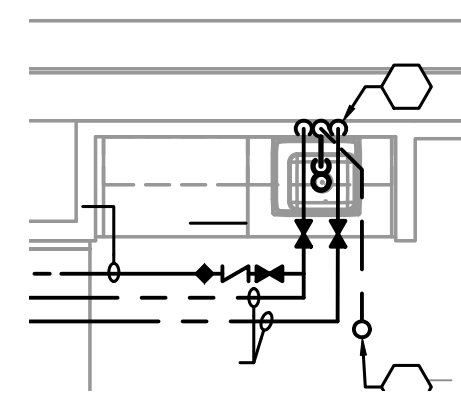
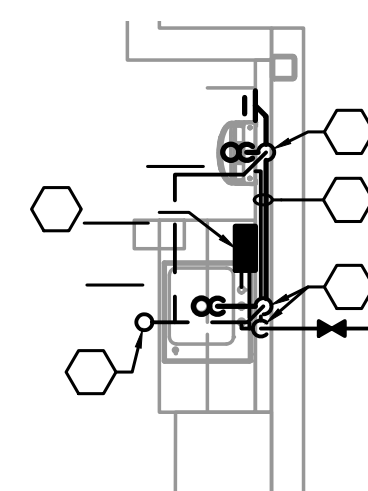
FIRST FLOOR PART PLAN
SCALE: 1/4" = 1'-0"



FIRST FLOOR PART PLAN
SCALE: 1/4" = 1'-0"



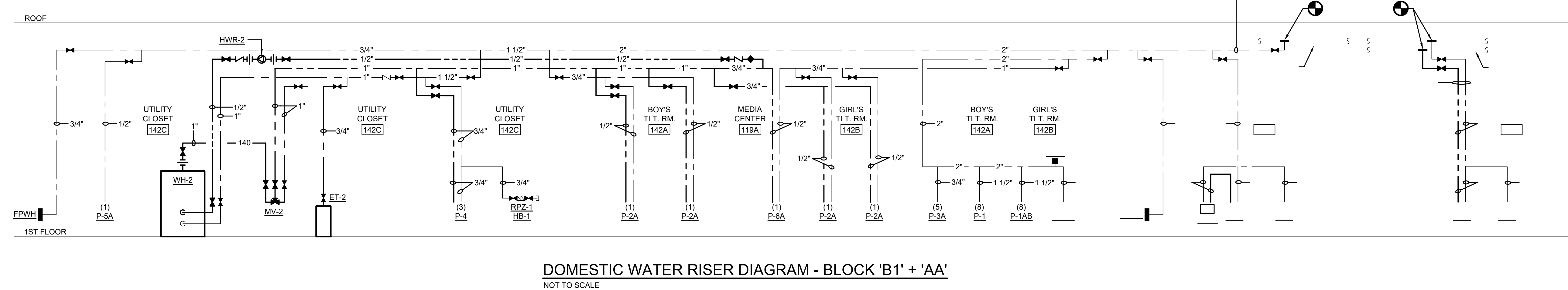
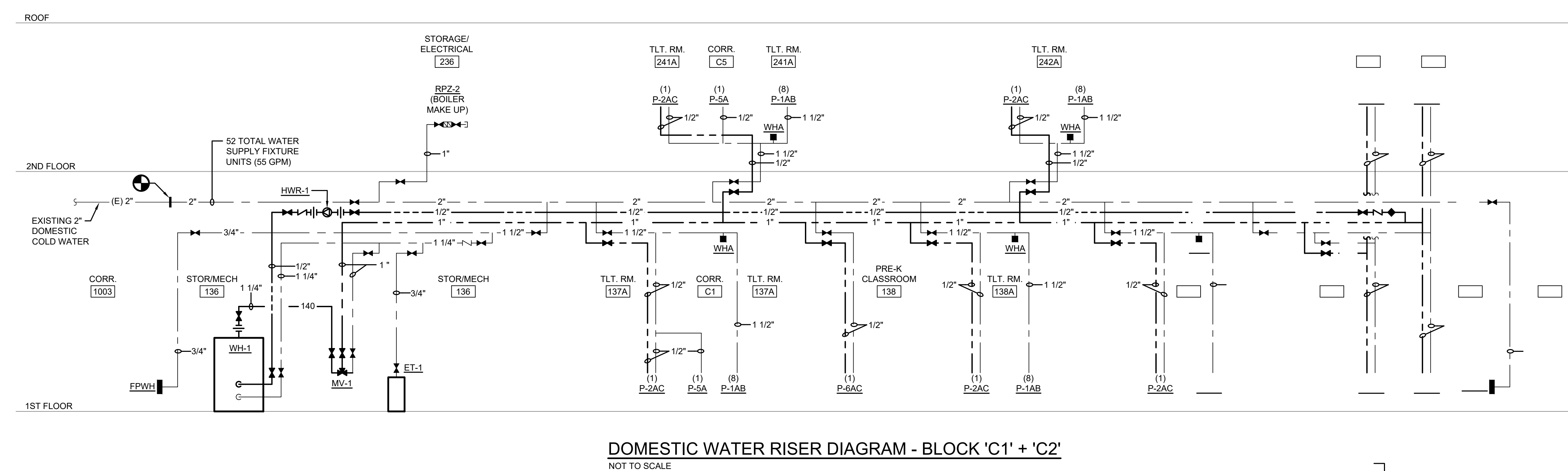
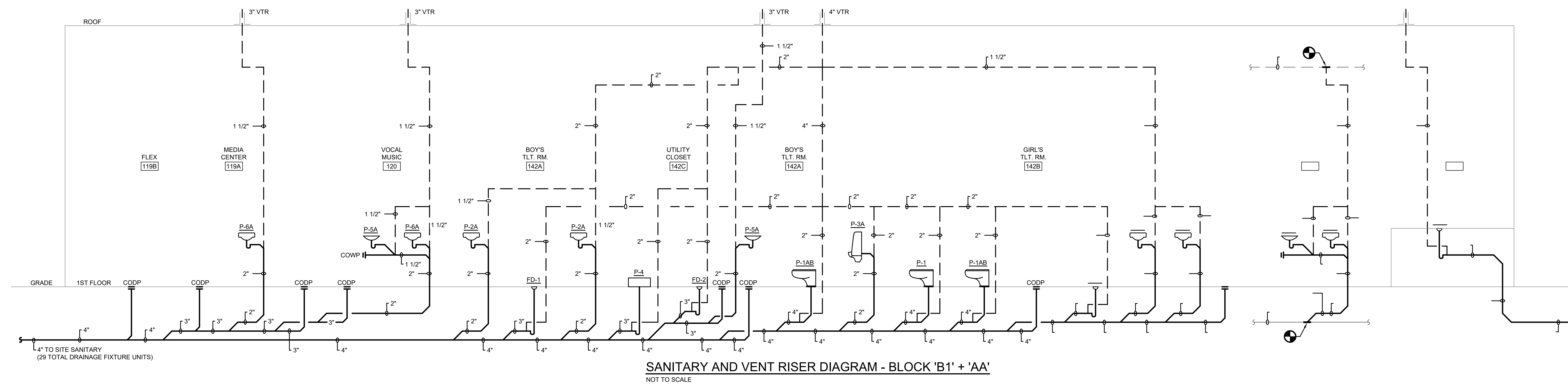
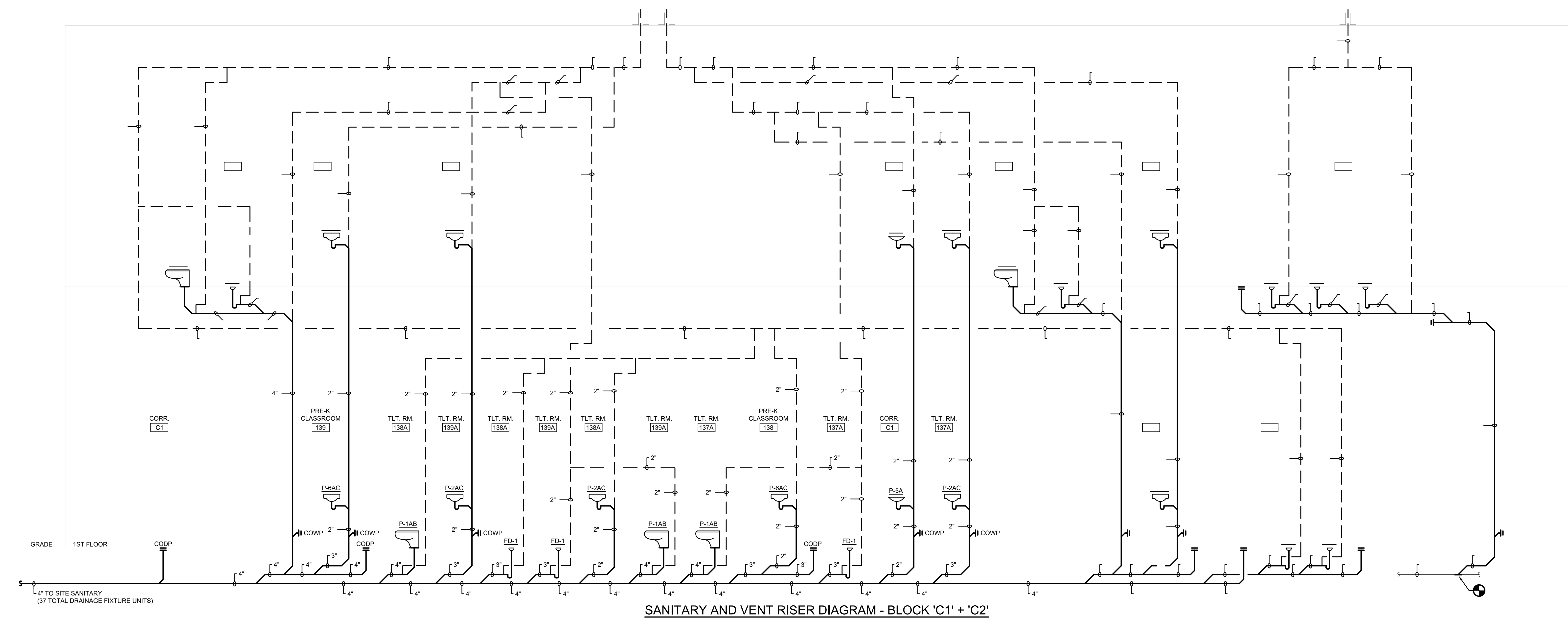
FIRST FLOOR PART PLAN
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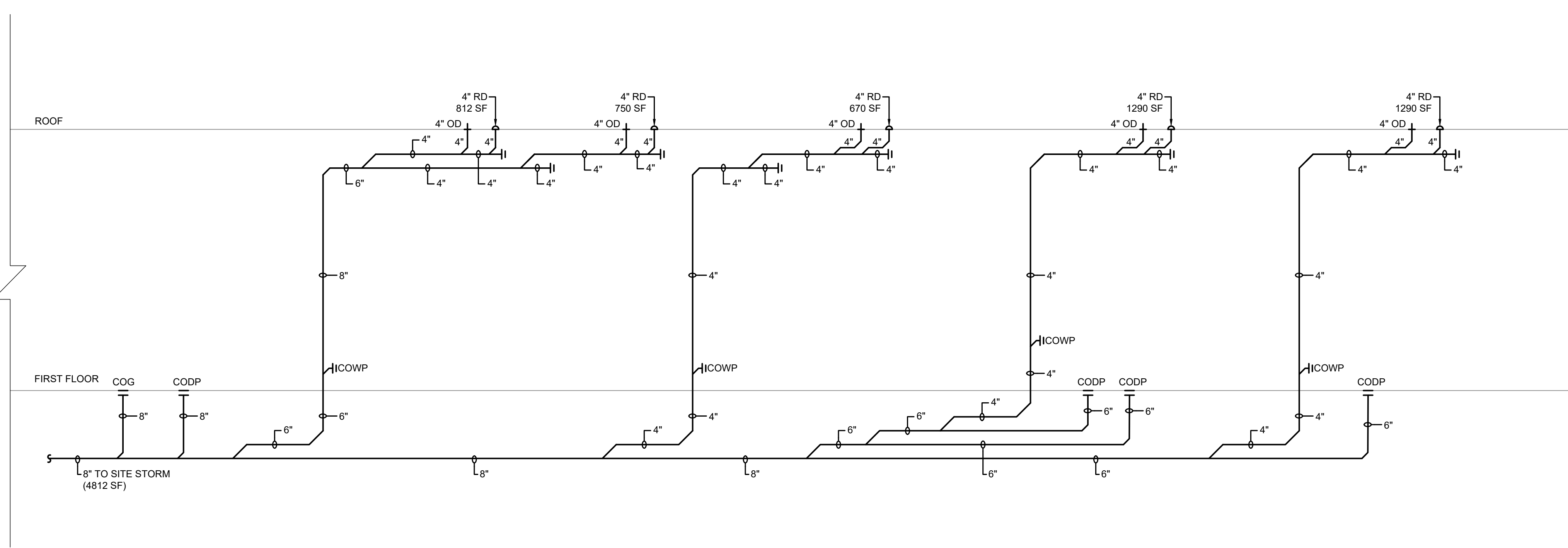
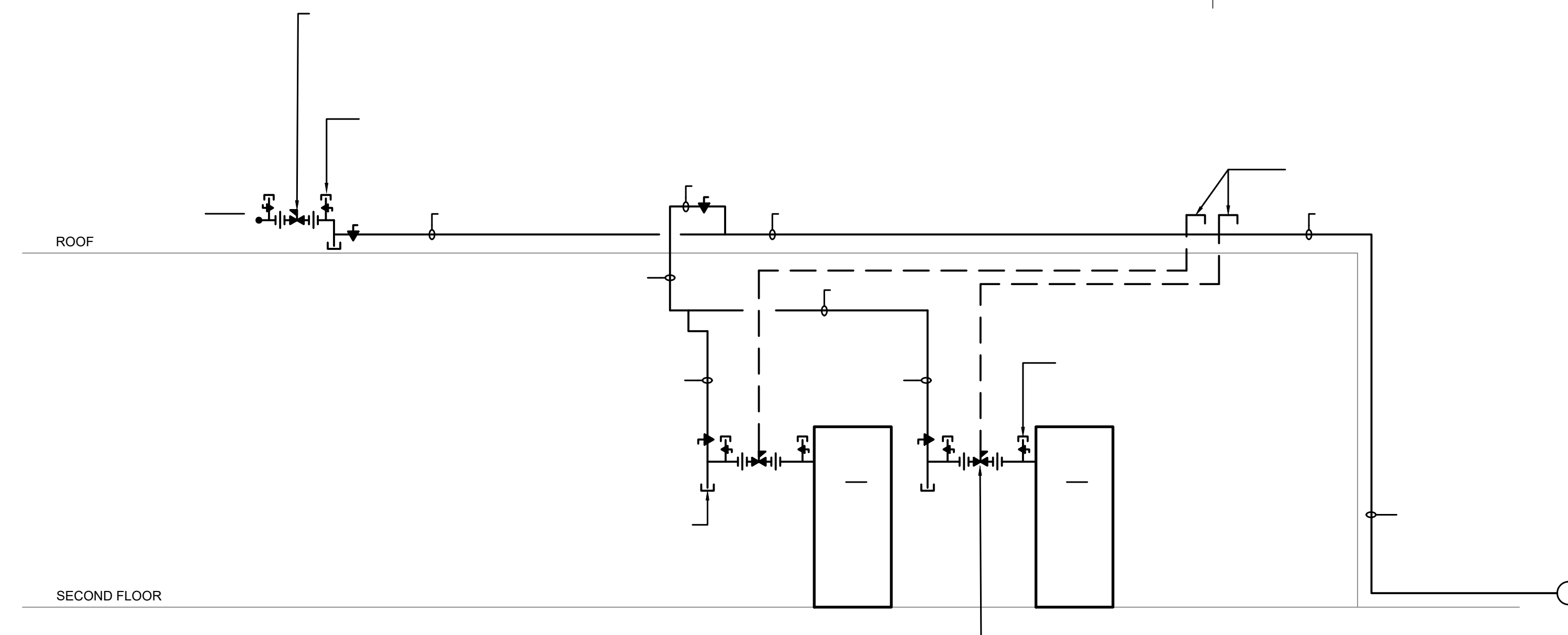
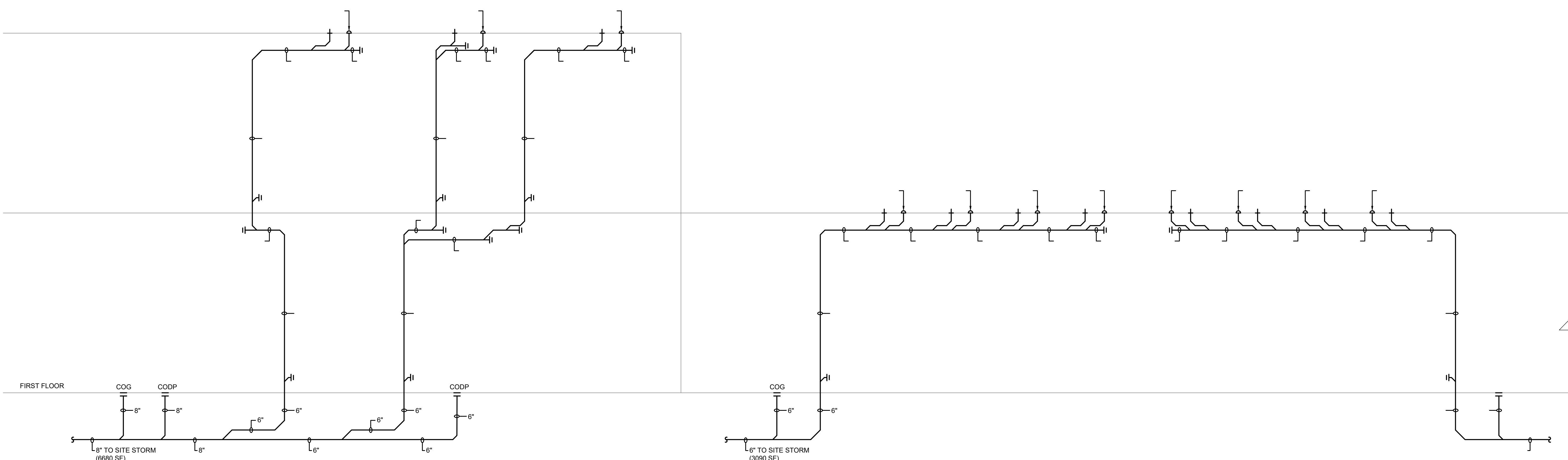


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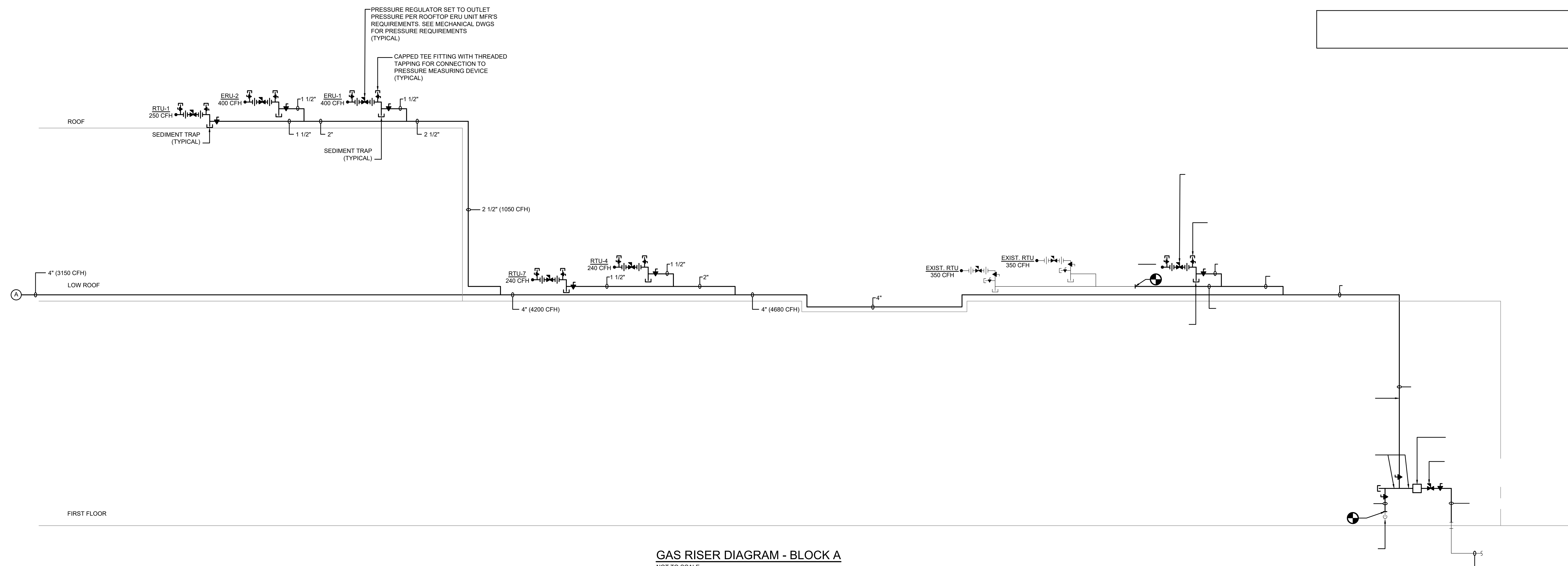
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STORM RISER DIAGRAM



GAS RISER DIAGRAM - BLOCK A

PIPE SIZING BASED ON: IFGC, 2021 TABLE 402.4(3),
LESS THAN 2 PSI INLET PRESSURE
3.0 IN. WC. PRESSURE DROP & 0.60 SPECIFIC GRAVITY
LONGEST RUN: 720 LF INCLUDES 50% FITTING ALLOWANCE
(FROM METER TO RTU-6)



~~G. R. Trench~~ 10/10/25

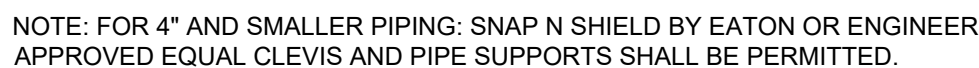
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1. MINIMUM SIZE OF VENT EXTENSION THROUGH ROOF TO BE 3".
2. CHANGE OF DIAMETER TO BE MADE AT LEAST 12" BELOW ROOF.
3. VENT PIPE TO EXTEND 24" ABOVE ROOF AND TO BE SEALED WATERTIGHT BY PROPER FLASHING.
4. ALL VENT RISERS SHALL BE OFFSET AS REQUIRED TO CLEAR ROOF STRUCTURE, DUCTWORK OR MECH ROOFTOP UNITS. PLUMBING CONTRACTOR TO COORDINATE WITH OTHER TRADES.
5. ROOFING CONTRACTOR SHALL SUPPLY BOOT FLASHING FOR RUBBER ROOF SYSTEMS.

VENT INCREASER DETAIL



PIPE HANGERS & SUPPORT DETAIL - WATER, WASTE & VENT



NOTE: THE ELEVATION OF EACH FLOOR DRAIN SHALL BE SET SO THAT THE FLOOR WITHIN A TWO FOOT RADIUS CAN BE SLOPED TOWARD THE DRAIN IN COMPLIANCE WITH 2021 NSPC SECTION 7.16.6



THE SAME AGENCY HAVING JURISDICTION AFTER INSTALLATION. FIRE SUPPRESSION CONSTRUCTION DRAWINGS SHALL BE SIGNED AND SEALED BY AN ENGINEER LICENSED IN THE AREA WHERE THE PROJECT IS LOCATED.

8. SPRINKLER HEADS SHALL NOT INTERFERE WITH LIGHTING FIXTURES, SPEAKERS, DUCTWORK, AIR CONDITIONING DIFFUSERS AND GRILLES, ETC. COORDINATE WITH ARCHITECT'S REFLECTED CEILING PRIOR TO SUBMITTING SHOP DRAWING.

9. THE FIRE PROTECTION DRAWINGS ARE INTENDED TO INDICATE, ONLY DIAGRAMMATICALLY, THE EXTENT AND THE GENERAL CHARACTER AND LOCATIONS OF THE WORK INCLUDED.

10. COORDINATE ALL FIRE SPRINKLER WORK WITH ARCHITECTURAL REFLECTED CEILING PLANS AND OTHER TRADES. SPRINKLER SHALL BE LOCATED IN CENTER OF CEILING TILE OR IN QUARTER POINT OF 4' DIMENSION AND CENTER OF 2' DIMENSION.

11. ALL SPRINKLER PIPING SHALL BE SEISMICALLY BRACED AND PITCHED FOR DRAINAGE.

12. CHANGES OR SUBSTITUTIONS OF EQUIPMENT WILL NOT BE ALLOWED WITHOUT SPECIFIC WRITTEN APPROVAL FROM THE ARCHITECT OR ENGINEER. ALL COSTS RESULTING FROM THE SELECTION OF OTHER THAN SPECIFIED EQUIPMENT SHALL BE BORNE BY THE CONTRACTOR, INCLUDING, BUT NOT LIMITED TO WORK AFFECTING OTHER CONTRACTORS, THE OWNER, OR RE-DESIGN ISSUES.

13. ALL INDICATED WORK SHALL BE PERFORMED BY THE FIRE PROTECTION CONTRACTOR UNLESS OTHERWISE NOTED.

14. DO NOT USE ANY PART OF THE OWNER'S BUILDING AS A SHOP, EXCEPT PARTS DESIGNATED FOR SUCH PURPOSES BY THE OWNER.

15. ALL CONTRACT WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL REQUIREMENTS OF THE WRITTEN SPECIFICATIONS FOR THIS PROJECT WHICH ARE CONSIDERED TO BE AN INTEGRAL PART OF THE CONTRACT DOCUMENTS. ALL CONTRACTORS AND SUBCONTRACTORS SHALL MAINTAIN AT THE JOB SITE AND REFER TO COPIES OF THE WRITTEN SPECIFICATIONS AS PART OF THESE DRAWINGS. REFER TO THE WRITTEN SPECIFICATIONS IN CONJUNCTION WITH THE PLANS FOR FULL PROJECT SCOPE. IN ALL CASES OF DISCREPANCY BETWEEN PLANS AND SPECIFICATIONS, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN AND WHERE IT IS UNCLEAR, SUCH CASES SHALL BE REFERRED TO THE ENGINEER FOR ADJUDICATION.

16. ANY DISCREPANCIES OR INADEQUACIES WITHIN THESE BID DOCUMENTS OR BETWEEN THESE BID DOCUMENTS AND RELATED HVAC, ELECTRICAL, FIRE PROTECTION, ARCHITECTURAL, INTERIOR DECOR AND FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND/OR ENGINEER PRIOR TO BID SUBMISSION.

17. THE FIRE PROTECTION CONTRACTOR SHALL REVIEW THESE PLANS AND SPECIFICATIONS, AS WELL AS THE RELATED HVAC, ELECTRICAL, ARCHITECTURAL, INTERIOR DECOR AND SITE ENGINEERING DRAWINGS TO BECOME FAMILIAR WITH THE FULL PROJECT SCOPE. DURING THE COURSE OF CONSTRUCTION COORDINATION AND ACTUAL CONSTRUCTION, THE FIRE PROTECTION CONTRACTOR SHALL COOPERATE WITH ALL OTHER CONTRACTORS AND TRADES ON THIS PROJECT TO ENSURE A SMOOTH RUNNING AND CAREFULLY COORDINATED INSTALLATION.

18. CONTRACTOR SHALL COORDINATE HIS SCHEDULING WITH THE GENERAL CONTRACTOR.

19. IF ANY UNEXPECTED DISCOVERY OF SUSPECTED HAZARDOUS MATERIALS, IE ASBESTOS, IS MADE DURING THE COURSE OF WORK, THE CONTRACTOR SHALL REPORT THE DISCOVERY IMMEDIATELY TO THE OWNER. THE CONTRACTOR SHALL STOP ANY WORK THAT MAY DISTURB THE SUSPECTED HAZARDOUS MATERIAL. CONTRACTOR SHALL RESUME WORK AFTER ALL HAZARDOUS MATERIAL HAS BEEN REMEDIATED.

20. CONTRACTOR RESPONSIBLE FOR THE PROPER CARE OF ALL OWNER'S EQUIPMENT AND/OR FURNISHINGS WHICH ARE REQUIRED TO BE TEMPORARILY REMOVED, STORED OR RELOCATED. CONTRACTOR SHALL REPLACE, REPAIR OR REIMBURSE OWNER FOR ALL DAMAGES TO SUCH PROPERTIES AT FULL REPLACEMENT VALUE AND EQUIVALENCY. CONTRACTOR SHALL ADVISE OWNER FOR DISPOSITION OR REMOVED EQUIPMENT AND/OR MATERIALS.

21. PIPING SHOWN ON DRAWINGS SHOW THE GENERAL RUN AND CONNECTIONS AND MAY OR MAY NOT IN ALL PARTS BE SHOWN IN ITS EXACT POSITION. CONTRACTOR SHALL BE RESPONSIBLE FOR ERECTING THE PIPING SUITABLE IN EVERY RESPECT FOR THE WORK. PIPING SHALL BE INSTALLED SO THAT ACCESS, CLEARANCE, HEADROOM AND PITCH ARE MAINTAINED. CONTRACTORS OF THE VARIOUS TRADES SHALL COORDINATE THE INSTALLATION.

22. ALL CONTRACTORS SHALL PROVIDE CUTTING AND PATCHING FOR THEIR RESPECTIVE TRADES.

23. ALL SPRINKLER PIPING TO RUN AS HIGH AS POSSIBLE. ALL MAINS SHALL BE RUN TIGHT TO STEEL. COORDINATE LOCATIONS WITH GENERAL CONTRACTOR.

24. ALL EXPOSED HORIZONTAL AND VERTICAL PIPING SHALL BE INSTALLED IN A NEAT ARRANGEMENT IN LOCATIONS WHICH ARE THE MOST INCONSPICUOUS. VERTICAL DROPS SHALL BE KEPT TO AN ABSOLUTE MINIMUM AND THEIR FINAL LOCATIONS SHALL BE COORDINATED AND RUN WITHIN CHASES, WALLS, SOFFITS WITH OTHER MECHANICAL/ELECTRICAL FEEDS. ALL SUCH LOCATIONS ARE TO BE REVIEWED WITH ARCHITECT/ENGINEER PRIOR TO INSTALLATION.

25. ALL PIPING SYSTEM PENETRATIONS OF FIRE-RATED WALLS AND FLOOR SHALL BE SEALED WITH UL-APPROVED FIRE RESISTANT JOINT SEALER, SPECIFIED TECHNOLOGIES' PENISIL 200V OR EQUAL. TWO-PART FOAMED-IN-PLACE SILICONE SEALANT. FIRE RESISTANT SEALER SHALL BE TESTED IN ACCORDANCE WITH ASTM M14. INSTALL SEALANT, INCLUDING FORMING, PACKING AND OTHER ACCESSORY MATERIALS TO FILL OPENINGS WHERE FIRE-RATED WALL PENETRATIONS OCCUR. COMPLY WITH INSTALLATION REQUIREMENTS ESTABLISHED BY TESTERS AND INSPECTION AGENCY.

26. ALL CONTRACTORS REMOVING ANY EQUIPMENT, PIPES, DUCTS, CONDUITS, ETC. SHALL PATCH ALL SURFACES DISTURBED OR LEFT UNFINISHED BY THIS WORK TO MATCH ADJACENT SURFACES.

27. REFER TO SPECIFICATIONS FOR SPRINKLER HEAD AND ESCUTCHEON FINISHES AND COLORS.

28. THE FIRE PROTECTION CONTRACTOR SHALL PROVIDE A COMPLETE SET OF "AS-BUILT" DRAWINGS INDICATING THE PRECISE LOCATION OF ALL SYSTEMS, EQUIPMENT, CONCEALED OR EMBEDDED PIPES, PIPE CONNECTIONS AND ACCESS DOORS. THESE PLANS SHALL ALSO INCLUDE ALL CHANGES AND DEVIATIONS FROM BID DOCUMENTS.

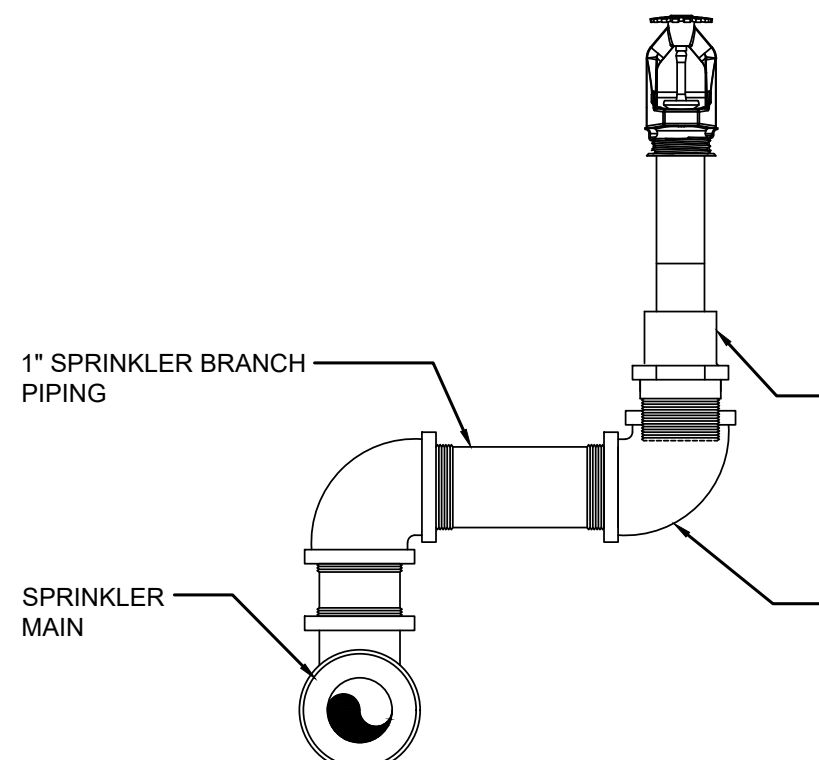
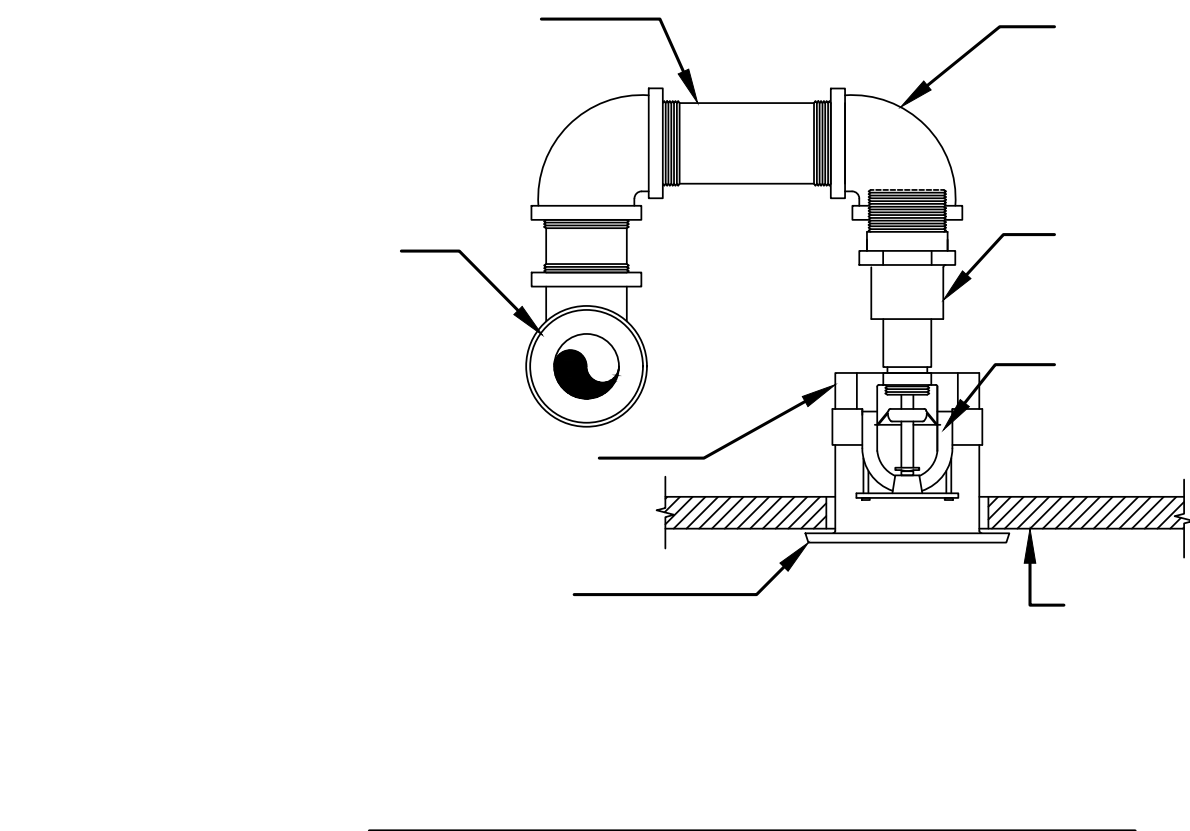
29. GUARANTEE ALL WORK, MATERIAL AND EQUIPMENT FOR A PERIOD OF ONE (1) YEAR FROM DATE OF CERTIFICATE OF OCCUPANCY.

3. ALL DROP NIPPLES SHALL BE 1" UNLESS OTHERWISE NOTED.

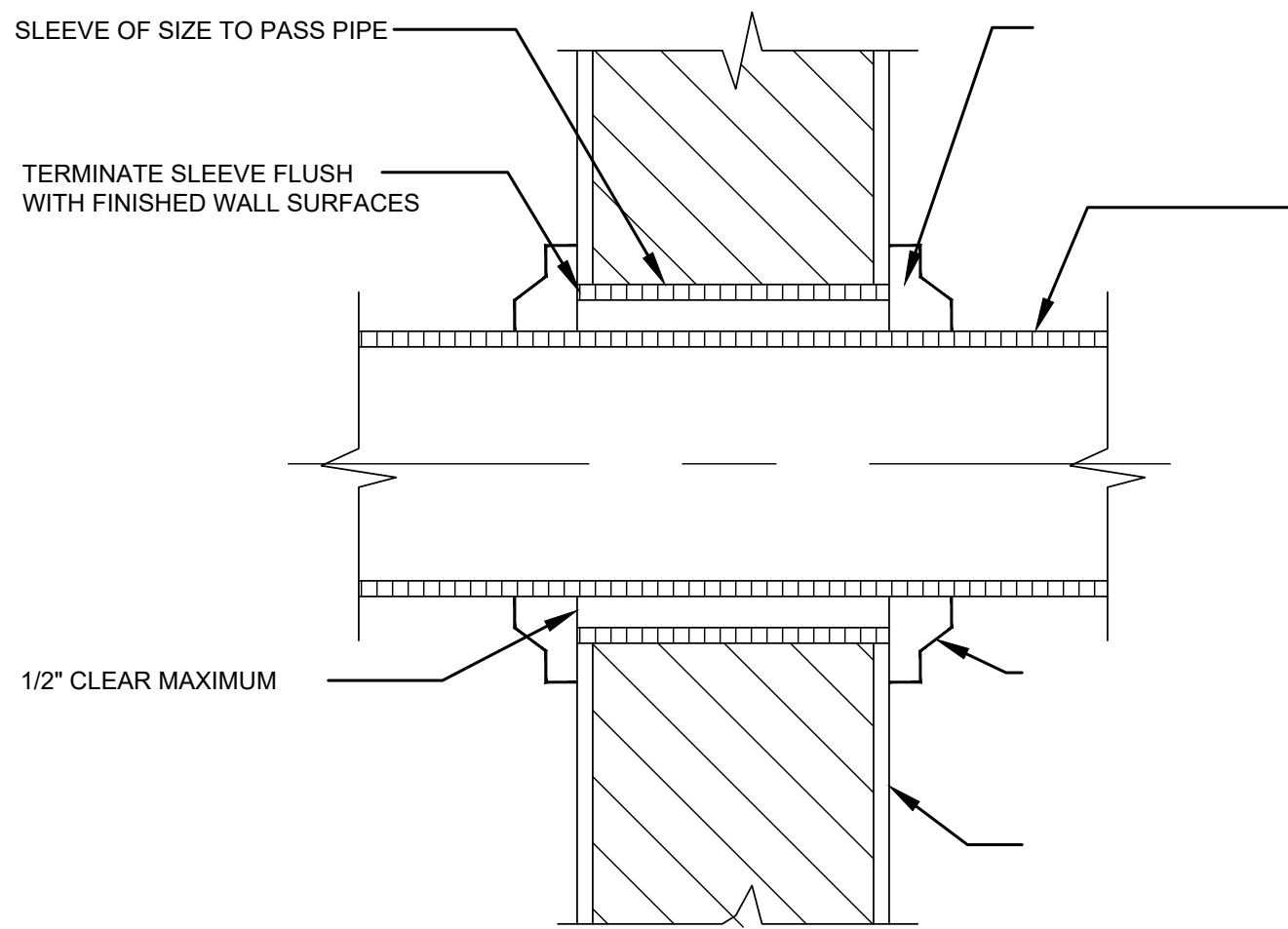
APPLICABLE CODES:

ALL WORK SHALL BE IN STRICT ACCORDANCE WITH THE LATEST CODES AND SUBCODES AS ADOPTED BY THE STATE OF NEW JERSEY:

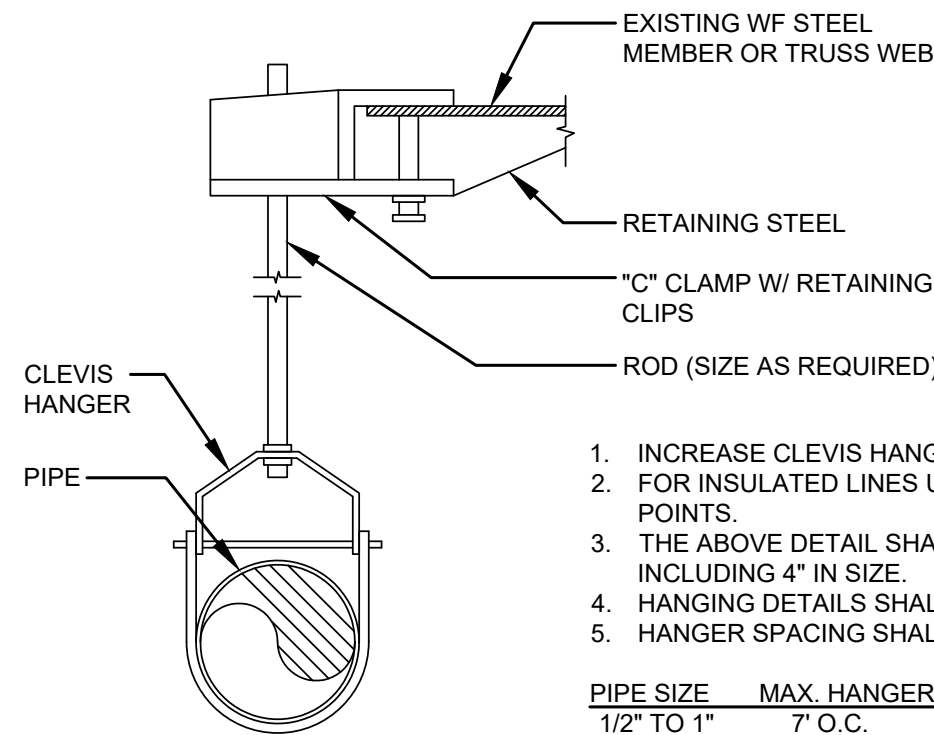
- NEW JERSEY UNIFORM CONSTRUCTION CODE (NUCC)
- REHABILITATION SUBCODE 5-23-6
- ADMINISTRATIVE CODE: TITLE 6
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- 2019 ASHRAE 90.1 ENERGY CONSERVATION CODE
- 2019 NFPA 13
- REQUIREMENTS OF LOCAL AUTHORITY HAVING JURISDICTION



UPRIGHT PENDANT SPRINKLER HEAD
NOT TO SCALE

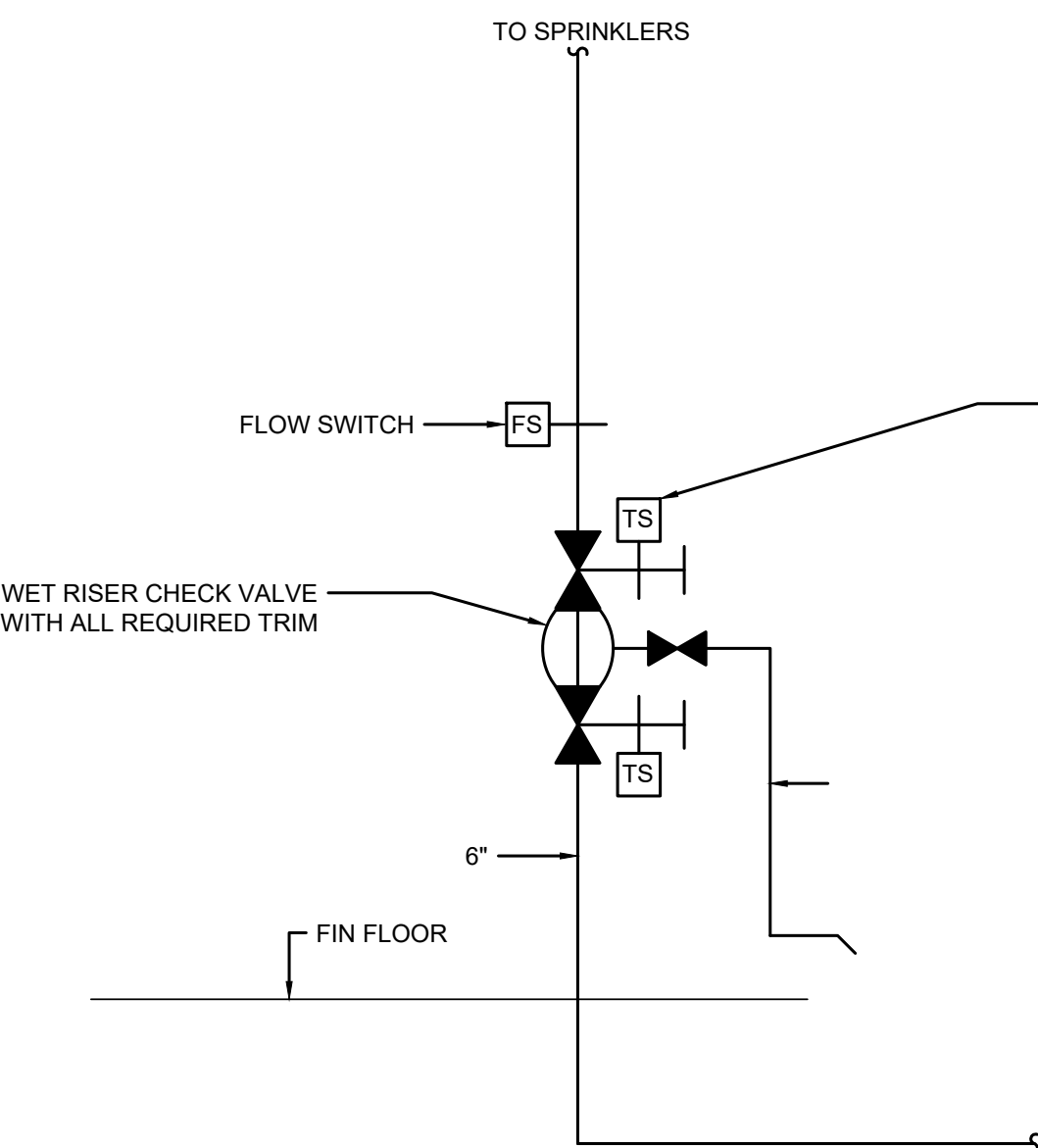


PIPE THRU RATED WALL
NOT TO SCALE

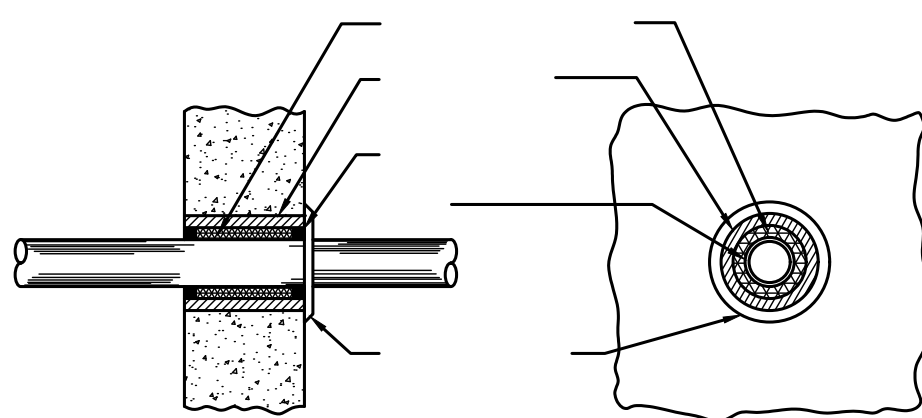
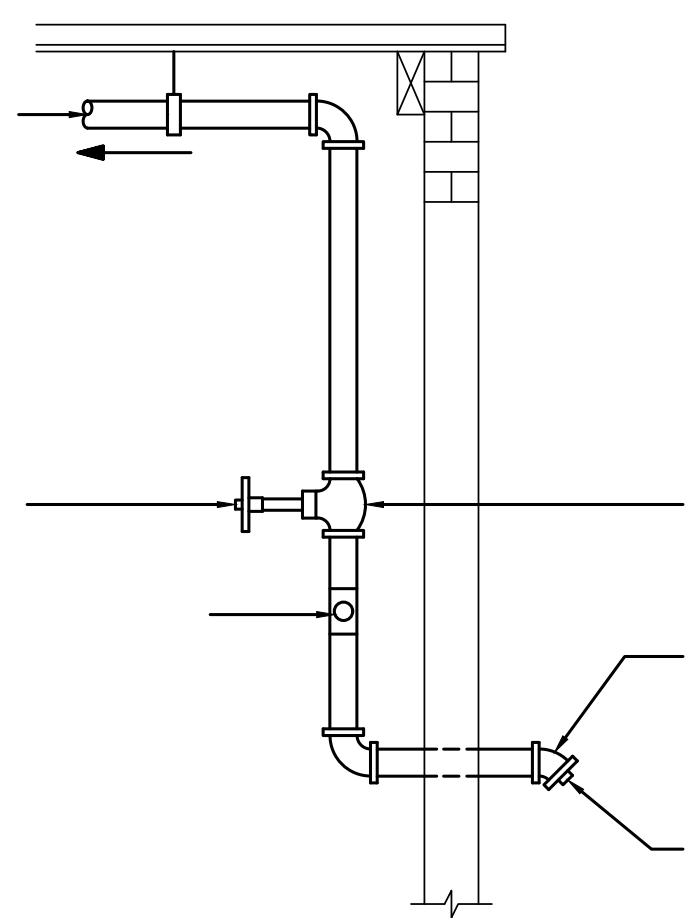
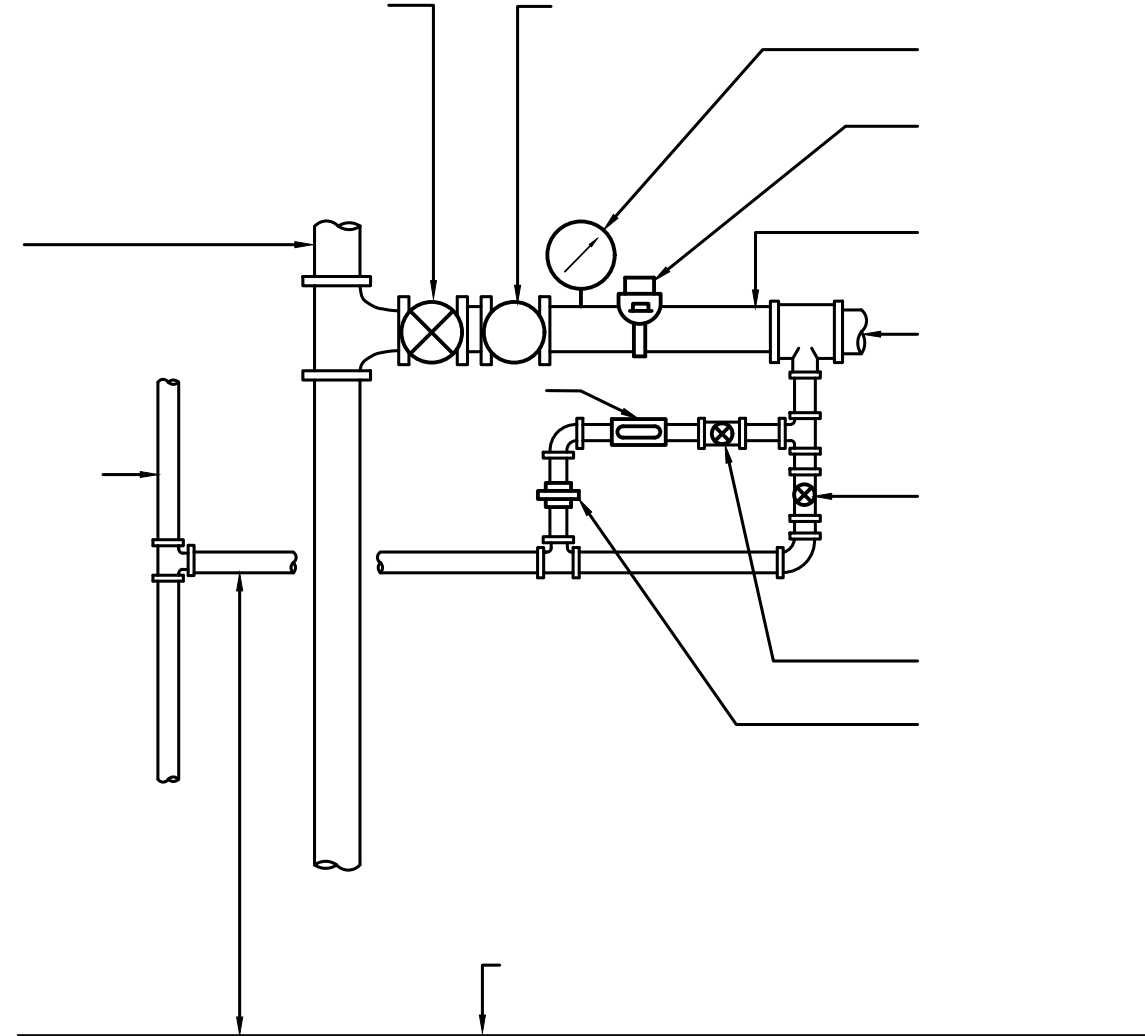


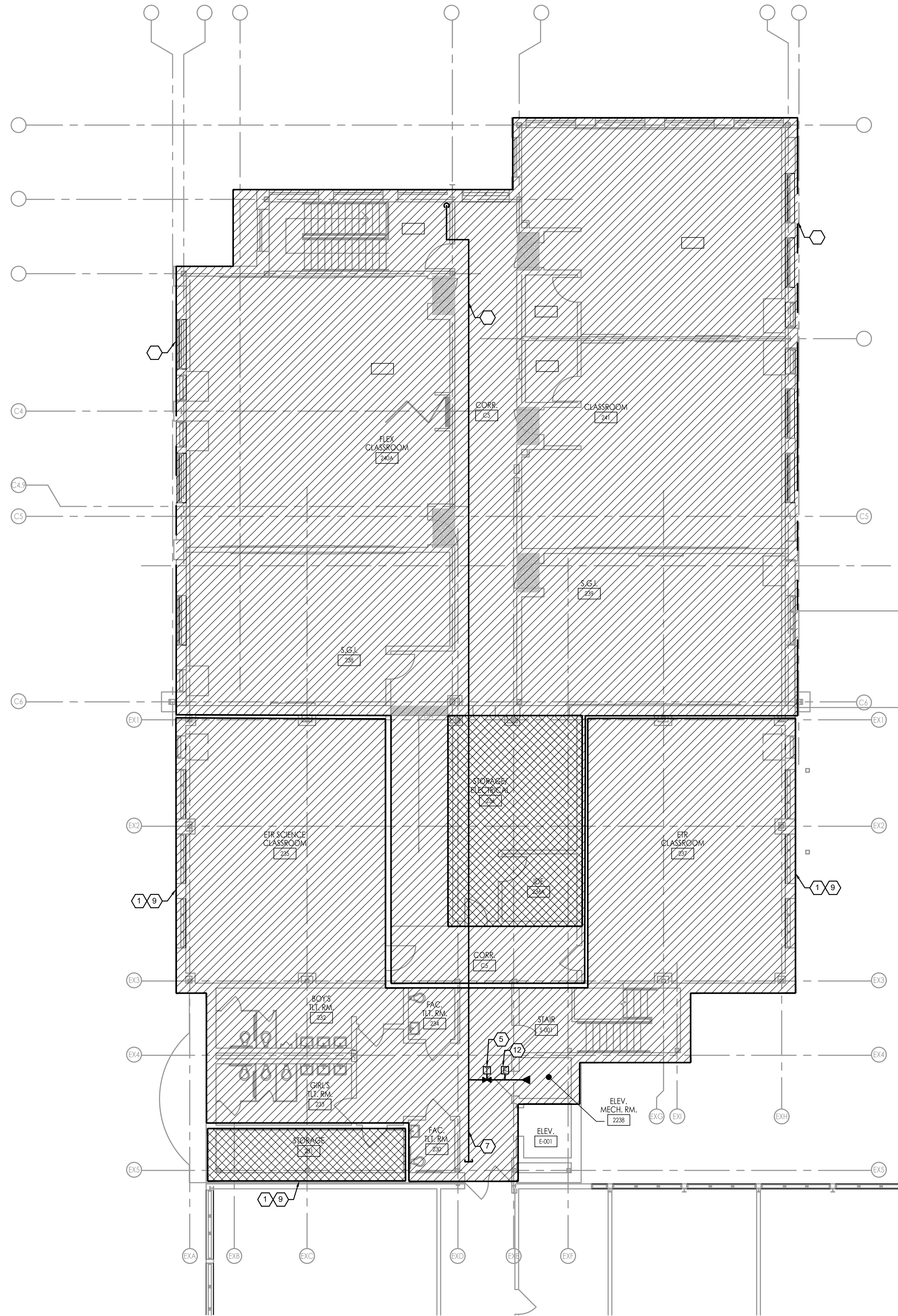
TYPICAL HANGER DETAIL
NOT TO SCALE

1. INCREASE CLEVIS HANGER SIZE TO ALLOW FOR INSULATION.
 2. FOR INSULATED LINES USE STEEL PIPE SHIELDS AT HANGER POINTS.
 3. THE ABOVE DETAIL SHALL BE USED ONLY FOR LINES UP TO AND INCLUDING 4" IN SIZE.
 4. HANGING DETAILS SHALL BE SUBMITTED FOR REVIEW.
 5. HANGER SPACING SHALL BE AS FOLLOWS:
- | PIPE SIZE | MAX. HANGER SPACING | MIN. ROD SIZE |
|--------------|---------------------|---------------|
| 1/2" TO 1" | 7' O.C. | 3/8" |
| 1-1/4" TO 2" | 9' O.C. | 1/2" |
| 2-1/2" TO 4" | 10' O.C. | 1/2" |
6. REPAIR OF FIRE PROOFING AT REMOVED AND NEW SUPPORT CONNECTIONS.

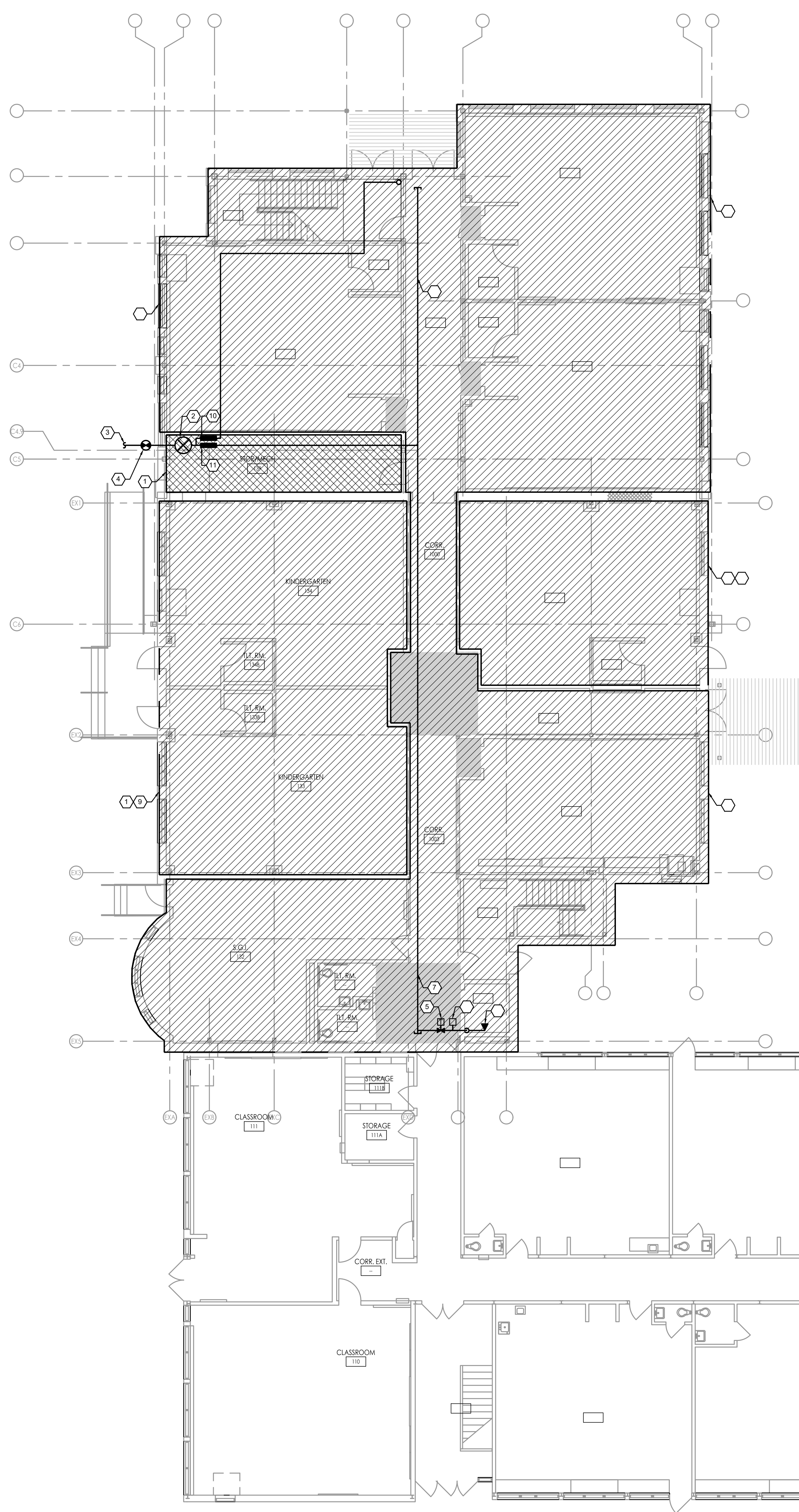


SPRINKLER RISER DETAIL
NOT TO SCALE

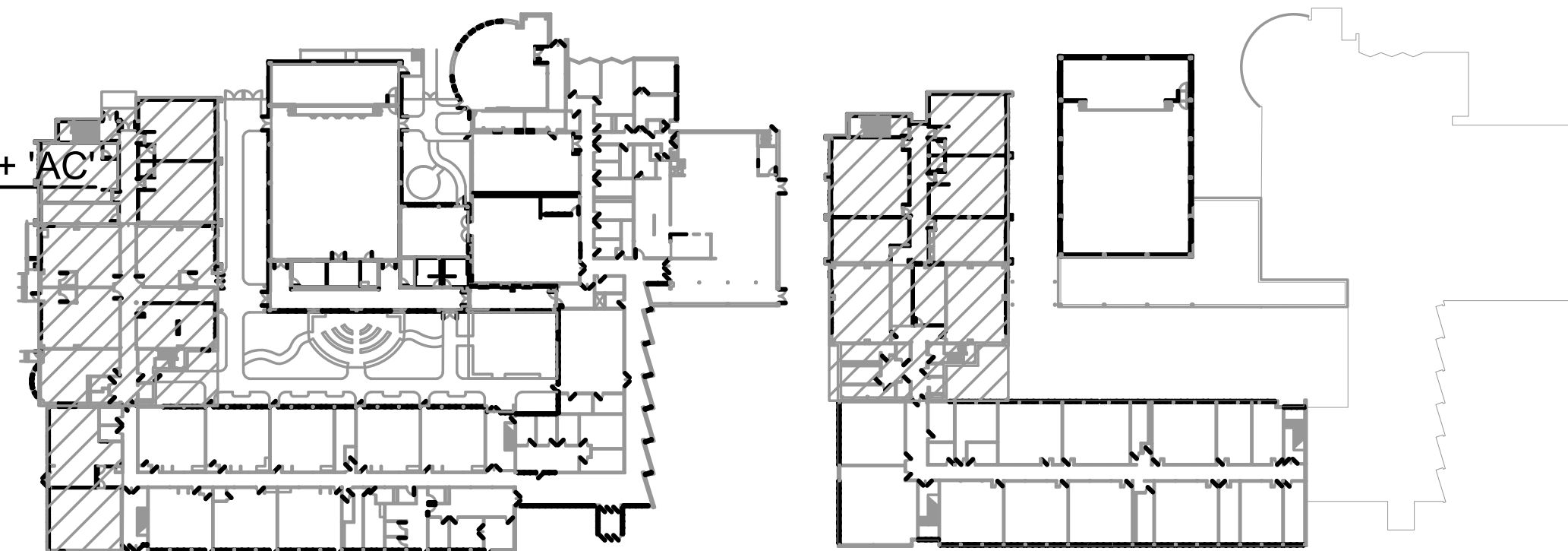
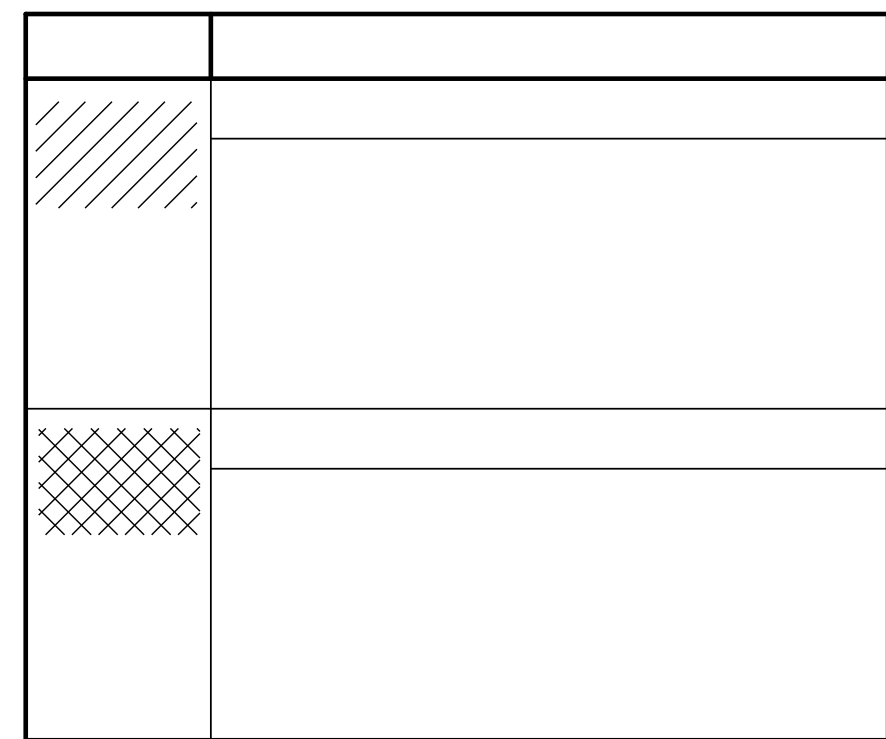
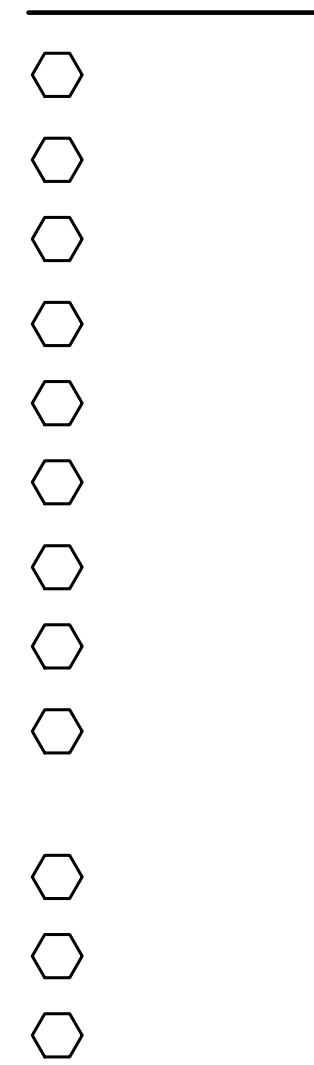


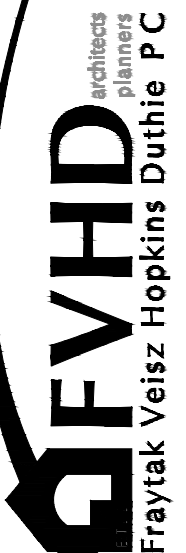


AREA OF WORK 'C2'
SCALE: 1/8" = 1'-0"



AREA OF WORK 'C1' + 'AC'
SCALE: 1/8" = 1'-0"





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VD	VOLUME DAMPER		MOTOR OPERATED VALVE, THREE WAY
FD	FIRE DAMPER AND ACCESS DOOR		MOTOR OPERATED VALVE, TWO WAY
	MOTOR OPERATED DAMPER		CHECK VALVE
	UNDERCUT DOOR		GAS COCK
	LOUVERED DOOR		UNION
	THERMOSTAT		STRAINER WITH BLOWDOWN
	SENSOR		RELIEF VALVE
	HUMIDISTAT		PRESSURE GAUGE
	DUCT SMOKE DETECTOR		THERMOMETER
	CO2 DETECTOR		AUTOMATIC FLOW CONTROL VALVE - B&G CIRCUIT SETTER OR EQUAL
	CONNECT TO EXISTING		HVAC UNIT (SEE PLANS AND SCHEDULES) HVAC UNIT CLEARANCE
	NATURAL GAS DETECTOR		POINT OF CONNECTION
	CO / NOX COMBINATION DETECTOR		
	POINT OF DISCONNECTION		

MECHANICAL ABBREVIATIONS			
AFF	ABOVE FINISHED FLOOR	MC	MECHANICAL CONTRACTOR
AD	ACCESS DOOR	MOD	MOTOR OPERATED DAMPER
ATC	AUTOMATIC TEMPERATURE CONTROLS	OA	OUTDOOR AIR
BDD	BACKDRAFT DAMPER	OAI	OUTDOOR AIR INTAKE
BMS	BUILDING MANAGEMENT SYSTEM	OC	ON CENTER
BDD	BOTTOM OF DUCT	OED	OPEN ENDED DUCT
BOP	BOTTOM OF PIPE	PC	PUMPED CONDENSATE
CD	CEILING DIFFUSER	RA	RETURN AIR
CO	CLEANOUT	RP	RADIANT PANEL
CFM	CUBIC FEET PER MINUTE	RR	RETURN GRILLE
D	DIAMETER	RR	RETURN REGISTER
E	EXISTING	SA	SUPPLY AIR
EA	EXHAUST AIR	SG	SUPPLY GRILLE
EC	ELECTRICAL CONTRACTOR	SR	SUPPLY REGISTER
EG	EXHAUST GRILLE	TD	TRANSFER DUCT
EG	EXHAUST REGISTER	TG	TRANSFER GRILLE
FO	FLAT OVAL	WMS	WIRE MESH SCREEN
OM	INSTALLATION AND OPERATION MANUAL	WR	WALL REGISTER

APPLICABLE CODES:

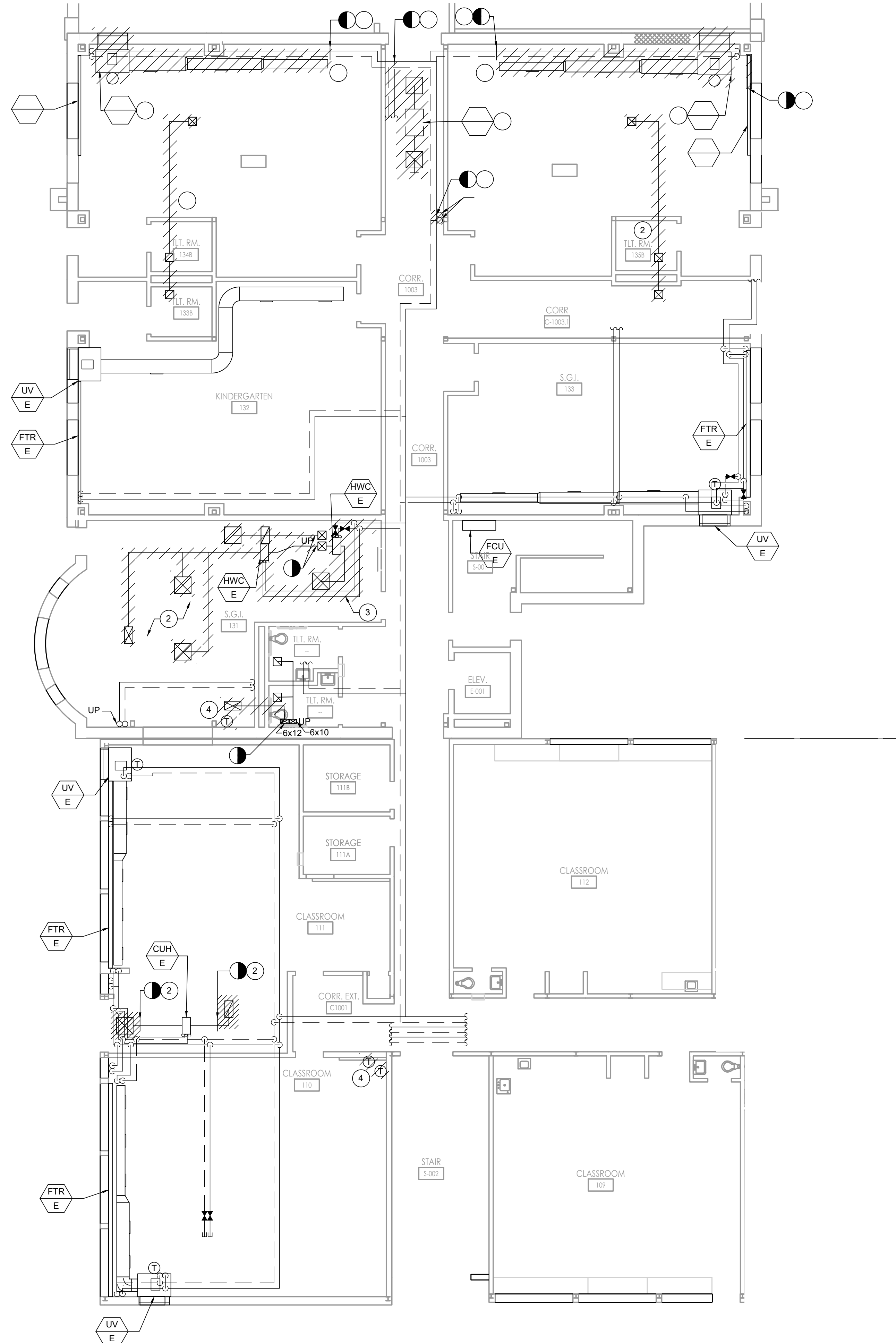
ALL WORK SHALL BE IN STRICT ACCORDANCE WITH THE LATEST CODES AND SUBCODES AS ADOPTED BY THE STATE OF NEW JERSEY.

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- REQUIREMENTS OF LOCAL AUTHORITY HAVING JURISDICTION

- DOCUMENTS AND RELATED PLUMBING, ELECTRICAL, FIRE PROTECTION, ARCHITECTURAL, INTERIOR DECOR AND FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND/OR ENGINEER PRIOR TO BID SUBMISSION.
12. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING HIS BID FOR THE PROPOSED WORK. HE SHALL BE RESPONSIBLE TO VERIFY FIELD CONDITIONS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO SUBMISSION OF BIDS IN WRITING.
13. THE MECHANICAL CONTRACTOR SHALL REVIEW THESE PLANS AND SPECIFICATIONS, AS WELL AS THE RELATED PLUMBING, ELECTRICAL, ARCHITECTURAL, INTERIOR DECOR AND SITE ENGINEERING DRAWINGS TO BECOME FAMILIAR WITH THE FULL PROJECT SCOPE. DURING THE COURSE OF CONSTRUCTION COORDINATION AND ACTUAL CONSTRUCTION, THE MECHANICAL CONTRACTOR SHALL COOPERATE WITH ALL OTHER CONTRACTORS AND TRADES ON THIS PROJECT TO ENSURE A SMOOTH RUNNING AND CAREFULLY COORDINATED INSTALLATION.
14. THE MECHANICAL CONTRACTOR SHALL REVIEW ALL CONTRACT DOCUMENTS, EXISTING CONDITIONS, AND AS-BUILT CONDITIONS PERTAINING TO THE HVAC SYSTEMS. MECHANICAL CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, MATERIAL, PARTS, SUPPLIES AND LABOR TO BALANCE ALL HVAC EQUIPMENT TO OWNERS' SATISFACTION.
15. CONTRACTOR SHALL COORDINATE HIS SCHEDULING WITH THE OWNER AND GENERAL CONTRACTOR TO COMPLY WITH THE OWNERS USAGE OF THE BUILDING.
16. IF ANY UNEXPECTED DISCOVERY OF SUSPECTED HAZARDOUS MATERIALS IS MADE DURING THE COURSE OF WORK, THE CONTRACTOR SHALL REPORT THE DISCOVERY IMMEDIATELY TO THE OWNER. THE CONTRACTOR SHALL STOP ANY WORK THAT MAY DISTURB THE SUSPECTED HAZARDOUS MATERIAL. CONTRACTOR SHALL RESUME WORK AFTER ALL HAZARDOUS MATERIAL HAS BEEN REMEDIATED.
17. CONTRACTOR RESPONSIBLE FOR THE PROPER CARE OF ALL OWNERS' EQUIPMENT AND/OR FURNISHINGS WHICH ARE REQUIRED TO BE TEMPORARILY REMOVED, STORED OR RELOCATED. CONTRACTOR SHALL REPLACE, REPAIR OR REIMBURSE OWNER FOR ALL DAMAGES TO SUCH PROPERTIES AT FULL REPLACEMENT VALUE AND EQUIVALENCY. CONTRACTOR SHALL ADVISE OWNER FOR DISPOSITION OF REMOVED EQUIPMENT AND/OR MATERIALS.
18. CONTRACTORS WORK MAY BE REQUIRED OUTSIDE OF DESIGNATED SPACE. ALL SYSTEMS BEING DEMOLISHED AND REMOVED, MODIFIED, AND/OR TERMINATED SHALL BE FIELD VERIFIED TO INSURE NO WORK PERFORMED, INSIDE OR OUTSIDE OF THE DESIGNATED SPACE, SHALL DISRUPT ANY SERVICE OR SYSTEMS OF ANY OTHER AREAS. IF ANY CONDITIONS ARISE THAT ARE NOT IDENTIFIED ON DRAWINGS, IMMEDIATE NOTIFICATION SHALL BE PROVIDED TO THE ENGINEER OR OWNER. NO WORK SHALL PROCEED WITHOUT APPROVALS FROM ENGINEER OR OWNER.
19. DRAWINGS ARE DIAGRAMMATIC IN NATURE AND MAY HAVE TO BE ADAPTED TO COMPLY WITH EXISTING BUILDING CONDITIONS. CONTRACTOR SHALL SUBMIT HVAC SHOP DRAWINGS, INDICATING LOCATIONS, AND ROUTING OF DUCTS, PIPING, AND WIRING.
20. DUCTING AND PIPING SHOWN ON DRAWINGS SHOW THE GENERAL RUN AND CONNECTIONS AND MAY OR MAY NOT IN ALL PARTS BE SHOWN IN ITS EXACT POSITION. CONTRACTOR SHALL BE RESPONSIBLE FOR ERECTING THE DUCTING/PIPING SUITABLE IN EVERY RESPECT FOR THE WORK. DUCTWORK/PIPING SHALL BE INSTALLED SO THAT ACCESS, CLEARANCE, HEADROOM AND PITCH ARE MAINTAINED. CONTRACTORS OF THE VARIOUS TRADES SHALL COORDINATE THE INSTALLATION. MECHANICAL CONTRACTOR SHALL REVIEW ARCHITECTURAL DRAWINGS FOR CHASE AND SOFFIT LOCATIONS TO COORDINATE ALL EXPOSED DUCTWORK & PIPE ROUTING.
21. ALL CONTRACTORS SHALL PROVIDE CUTTING AND PATCHING FOR THEIR RESPECTIVE TRADES.
22. REMOVE AND REINSTALL CEILING SYSTEM AS REQUIRED FOR THE INSTALLATION OF MECHANICAL WORK AND REPLACE IN KIND ANY COMPONENTS DAMAGED BY PERSONNEL OR EQUIPMENT DURING PERFORMANCE OF THE WORK. PATCH AND REPAIR ALL DAMAGE CAUSED BY REMOVAL, MATCH EXISTING ADJACENT SURFACES.
23. ALL MECHANICAL EQUIPMENT AND APPLIANCES SHALL BEAR THE LABEL OF AN APPROVING AGENCY, LISTING AND LABELING AGENCY QUALIFICATIONS. A "NATIONALLY RECOGNIZED TESTING LABORATORY" AS DEFINED IN THE INTERNATIONAL MECHANICAL CODE, LATEST ADOPTED EDITION.
24. ALL PENETRATIONS THRU FIRE RATED WALLS, FLOORS, AND CEILINGS SHALL BE SEALED WITH A UL APPROVED FIRESTOP MATERIAL SUITABLE FOR CONSTRUCTION MATERIAL TO MAINTAIN FIRE, SMOKE, AND DRAFT INTEGRITY OF STRUCTURE. FIRE RESISTANT SEALER SHALL BE TESTED IN ACCORDANCE WITH ASTM E81. INSTALL SEALANT, INCLUDING FOAMING, PACKING AND OTHER ACCESSORY MATERIALS TO FILL OPENINGS WHERE FIRE-RATED WALL PENETRATIONS OCCUR. COMPLY WITH INSTALLATION REQUIREMENTS ESTABLISHED BY TESTERS AND INSPECTION AGENCY.
25. ALL CONTRACTORS REMOVING OR RELOCATING ANY EQUIPMENT, PIPES, DUCTS, CONDUTITS, ETC. SHALL PATCH ALL SURFACES DISTURBED BY THIS WORK TO MATCH ADJACENT SURFACES.
26. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER HANDLING, DISPOSAL & ASSOCIATED COSTS OF ALL REFRIGERANT MATERIAL. DURING THIS CONTRACT, IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL CODES AND/OR REGULATIONS.
26. UPON AWARD OF CONTRACT AND SUBSEQUENT REVIEW & RELEASE OF BOILER SHOP DRAWINGS BY ENGINEER OF RECORD, THE CONTRACTOR SHALL FILL OUT AND FILE AIR PERMIT APPLICATIONS REPORT IN A TIMELY MANNER FOR ALL BOILERS. THE CONTRACTOR SHALL ALSO FILL OUT AND FILE INSTALLER/SERVICE VERIFICATION OF FUNCTION TESTING AND OPERATION OF CONTROLS AND SAFETY DEVICES FOR ALL BOILERS. THE CONTRACTOR SHALL PAY ALL FEES FOR THE PERMITS AND INSPECTIONS. PROVIDE THE OWNERS AND ENGINEER EACH WITH A COPY OF FILLED OUT FORMS PRIOR TO MAILING. CONTRACTOR MUST SECURE PERMIT PRIOR TO PROJECT CLOSEOUT. SEND FORMS ALONG WITH NJDEP'S REQUIRED FEE TO: NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY BUREAU OF SOURCE REVIEW, CN-27, TRENTON, NEW JERSEY 08625-0027.

33. ALL SPACE SENSORS (IE. TEMPERATURE, CARBON DIOXIDE, HUMIDITY, ETC.) SHALL BE MOUNTED AT 48" AFF TO MEET ADA REQUIREMENTS. COORDINATE THE LOCATION OF THERMOSTAT WITH OTHER TRADE.
- PROVIDE TAMPER PROOF COVERS FOR ALL TEMPERATURE SENSORS. PROVIDE T6500 SERIES VENTED GUARD, CLEAR, OR ENGINEER APPROVED EQUAL, ON ALL TEMPERATURE SENSORS. AVAILABLE FROM WWW.KELLE.COM, 888-397-5353.
34. PROVIDE GAS PIPING SUPPORTS ON ROOF AT ALL DIRECTION CHANGES AND STRAIGHT RUNS WITH SPACING NOT EXCEEDING LENGTHS STATED IN TABLE 415.1 OF IFGC. LISTED PIPE SIZES. SUPPORTS SHALL BE SADDLE BLOCK ROLLER TYPE WITH PIPE SECURED TO STAND WITH CLAMP OR METAL BAND. SUPPORT SHALL NOT BE SECURED TO ROOF SURFACE. BOTTOM OF PIPING SHALL BE MINIMUM 3 1/2" ABOVE ROOF SURFACE.
35. ALL EXPOSED HORIZONTAL AND VERTICAL PIPING SHALL BE INSTALLED IN A NEAT ARRANGEMENT IN LOCATIONS WHICH ARE THE MOST INCONSPICUOUS. VERTICAL DROPS SHALL BE KEPT TO AN ABSOLUTE MINIMUM AND THEIR FINAL LOCATIONS SHALL BE COORDINATED AND RUN WITHIN CHASES, WALLS OR SOFFITS WITH OTHER PLUMBING/ELECTRICAL FEEDS. ARCHITECTURAL DRAWINGS FOR CHASE & SOFFIT LOCATIONS TO COORDINATE ALL EXPOSED PIPING ROUTING. PROVIDE PIPE ENCLOSURE FOR ALL EXPOSED PIPING LOCATED OUTSIDE THE MECHANICAL ROOM. ALL SUCH LOCATIONS SHALL BE REVIEWED WITH ARCHITECT/ENGINEER PRIOR TO INSTALLATION. MINIMUM 2 COATS MARINE GRADE EPOXY PRIMER AND 2 COATS OF INTERIOR/EXTERIOR GRADE PAINT. COORDINATE WITH ARCHITECT FOR COLOR SELECTION. SEE SPECIFICATION FOR ADDITIONAL INFORMATION.
36. ALL PIPING SHALL BE ORGANIZED NEATLY AND KEPT TIGHT TO WALLS AND CEILING.
37. FURNISH AND INSTALL PIPE SLEEVES OR SLEEVE SEAL SYSTEMS AS REQUIRED. SEE SPECIFICATION FOR DETAILS.
38. GRAVITY CONDENSATE PIPING SHALL BE PITCHED MINIMUM 1/8" PER FOOT.
40. ALL CONDENSATE DRAIN PIPING CONNECTION TO CONDENSATE DRAIN RISERS SHALL BE PROVIDED WITH WYE TYPE FITTINGS.
41. ALL DUCTWORK SHALL BE CONNECTED TO MOTORIZED EQUIPMENT WITH FLEXIBLE DUCT CONNECTORS.
42. ALL RIGID DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEET STEEL. FABRICATION OF DUCTWORK AND INSTALLATION SHALL BE IN ACCORDANCE WITH SMACNA STANDARDS AND RECOMMENDATIONS.
43. ALL DUCTWORK SIZES SHOWN ON DRAWINGS ARE CLEAR INTERNAL DIMENSIONS.
44. ALL INTERIOR DUCTWORK SHALL HAVE DUCT LINER. SEE SPECIFICATION FOR DETAILS.
45. ALL INTERIOR DUCTWORK EXPOSED WITHIN FINISHED SPACES SHALL BE FACTORY FABRICATED DOUBLE WALLED SPIRAL SEAM WITH INTERSTITIAL INSULATION. SEE SPECIFICATION FOR DETAILS. DUCTWORK SHALL HAVE STICKERS AND LABELS REMOVE AND PREPARED FOR PAINT. PAINT ALL EXPOSED INDOOR DUCTWORK, REGISTERS/DIFFUSERS, HANGER AND SUPPORTS, PROVIDE MINIMUM 2 COATS PRIMER AND 2 COATS OF INTERIOR GRADE PAINT. COORDINATE WITH ARCHITECT FOR COLOR SELECTION.
46. ALL INTERIOR DUCTWORK CONCEALED OR EXPOSED IN NON-FINISHED AREA, EG ATTIC, ABOVE CEILING, ETC. SHALL BE SINGLE WALLED SPIRAL SEAM EXTERNALLY INSULATED WITH FLEXIBLE DUCTWRAP AND VAPOR BARRIER. SEE SPECIFICATIONS FOR DETAILS.
47. ALL FLEXIBLE DUCTWORK SHALL BE CLASS I, LABELED UL 181. SEE SPECIFICATIONS FOR DETAILS. DUCTWORK SHALL NOT BE ACCEPTABLE FOR NEGATIVE PRESSURE APPLICATIONS. FLEXIBLE DUCTWORK SHALL NOT BE ACCEPTABLE FOR NEGATIVE PRESSURE APPLICATION. FLEXIBLE DUCTWORK SHALL BE LIMITED TO 5'-0".
48. ALL EXTERIOR DUCTWORK SHALL HAVE DUCT LINER AND EXTERNAL RIGID INSULATION AND BE COVERED WITH SELF ADHERING PREFABRICATED PROTECTIVE MEMBRANE THAT IS UV AND OZONE RESISTANT. THIS JACKETING SHALL BE FIELD APPLIED IN ACCORDANCE SPECIFICATION FOR DETAILS.
49. DURING THE INSTALLATION OF MECHANICAL EQUIPMENT AND ASSOCIATED SYSTEMS, THE CONTRACTOR SHALL IDENTIFY ANY DAMAGE TO FIREPROOFING MATERIAL CAUSED BY WORK OF THE TRADE. THE CONTRACTOR SHALL PROVIDE WRITTEN REPORT DESIGNATION LOCATIONS, TO GENERAL CONTRACTOR, BEFORE FIREPROOFING IS COVERED BY SUBSEQUENT CONSTRUCTION.
50. THE MECHANICAL CONTRACTOR SHALL PROVIDE A COMPLETE SET OF "AS-BUILT" DRAWINGS INDICATING THE PRECISE LOCATION OF ALL SYSTEMS, EQUIPMENT, DUCTWORK, PIPING AND ACCESS DOORS. THESE PLANS SHALL ALSO INCLUDE ALL CHANGES AND DEVIATIONS FROM BID DOCUMENTS.
51. ALL ROOFTOP EQUIPMENT THAT REQUIRES SERVICE SHALL BE LOCATED AT A MINIMUM OF 10'-0" FROM ROOF'S EDGE. GUARDS SHALL BE PROVIDED FOR EQUIPMENT LOCATED WITHIN 10'-0" OF ROOF EDGE. THE GUARDS SHALL BE NOT LESS THAN 42 INCHES IN HEIGHT AND SHALL EXTEND NOT LESS THAN 10'-0" BEYOND EACH END COMPONENT OF EQUIPMENT THAT REQUIRES SERVICE.
52. AFTER COMPLETING SYSTEM INSTALLATION, TESTING, ADJUSTING, AND BALANCING UNIT AND AIR DISTRIBUTION SYSTEMS, CLEAN FILTER HOUSINGS AND PROVIDE NEW FILTERS FOR ALL HVAC EQUIPMENT. EQUIPMENT THAT REQUIRE FILTER CHANGE INCLUDE BUT NOT LIMITED TO: PACKAGED ROOF TOP UNITS, ENERGY RECOVERY UNITS, ENERGY RECOVERY VENTILATORS, DUCTED INDOOR HEAT PUMPS, FAN COIL UNITS, CASSETTE TYPE HEAT PUMPS, AIR HANDLING UNITS, UNIT VENTILATORS AND FAN POWERED VARIABLE AIR VOLUME TERMINAL UNITS.

10/10/25



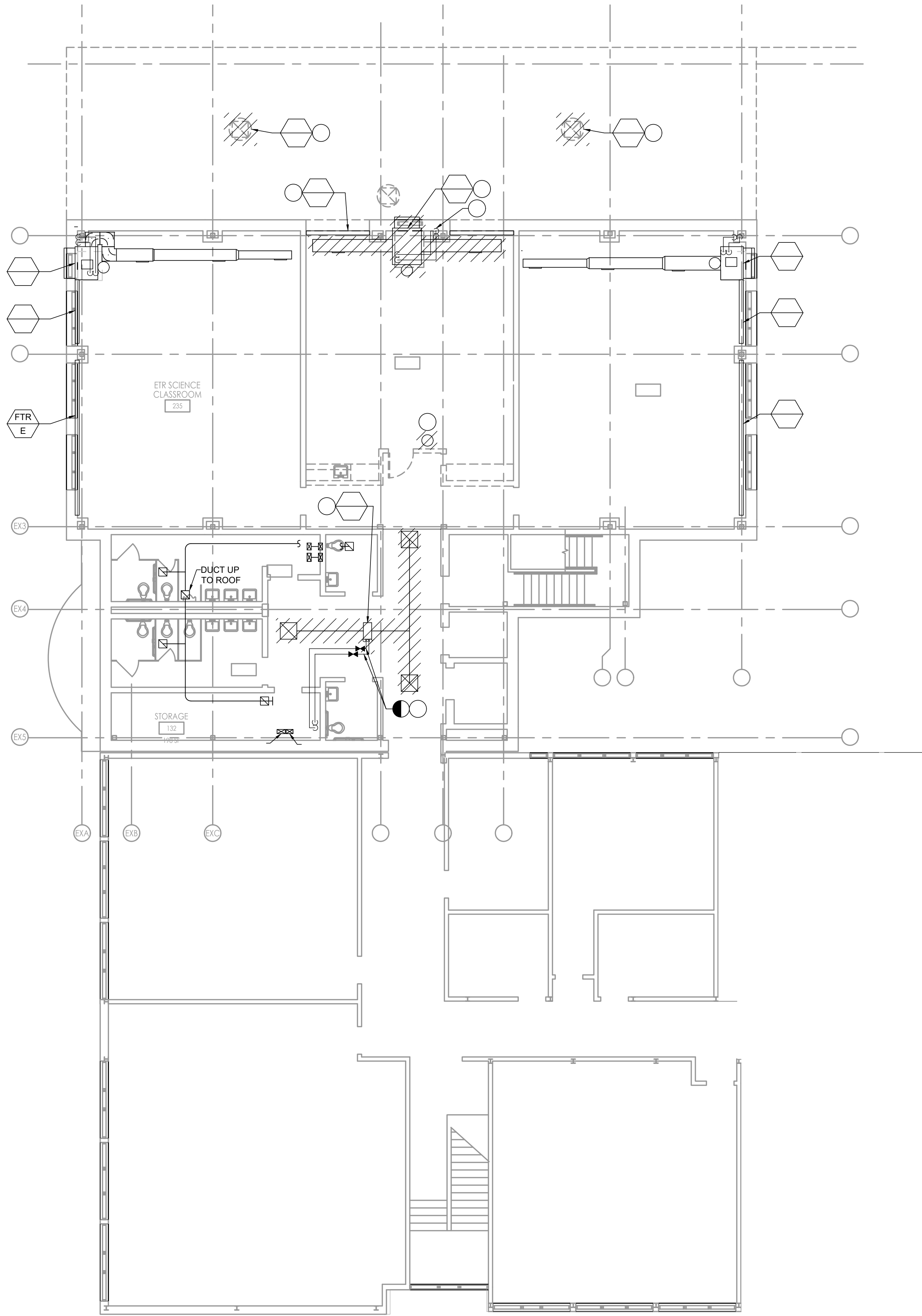
FIRST FLOOR DEMOLITION PLAN - BLOCK A
SCALE: 1/8" = 1'-0"

DEMOLITION KEY NOTES

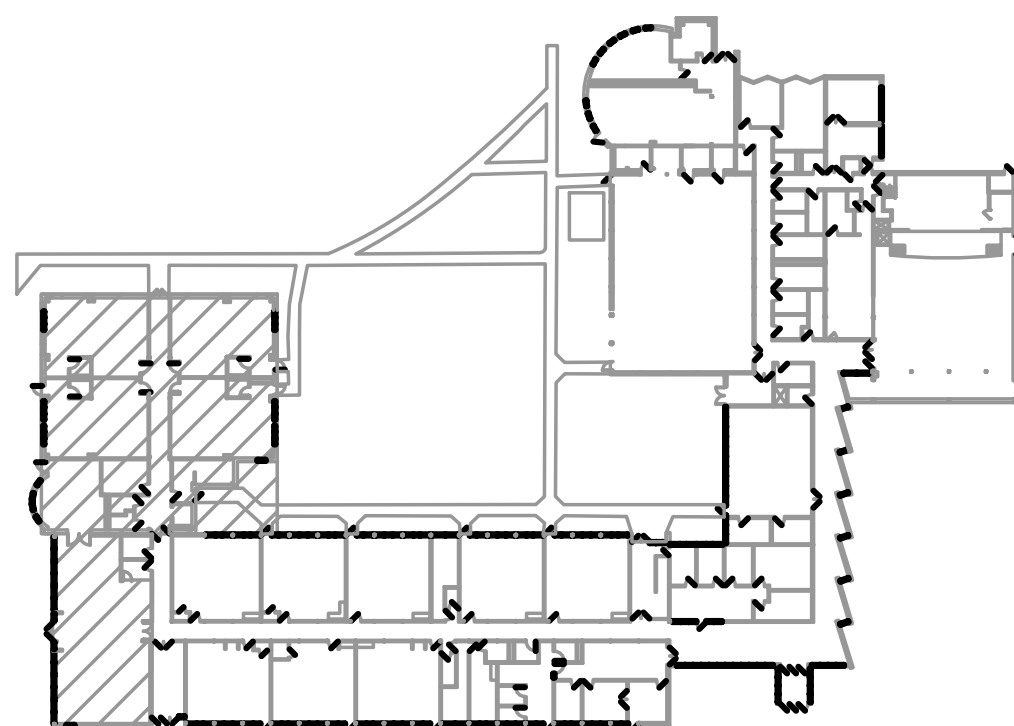
1. REMOVE AND DISCARD EXISTING FIN TUBE, FIN TUBE COVER, SUPPORTS AND ALL ASSOCIATED ACCESSORIES. EXISTING HWSR, VALVES, SUPPORTS, ETC. TO BE REMOVED AS SHOWN AND CAPPED. SEE FLOOR PLAN FOR ADDITIONAL INFORMATION. PATCH ALL SURFACES DISTURBED OR LEFT UNFINISHED BY THIS WORK TO MATCH ADJACENT SURFACES.
2. REMOVE AND DISCARD THAT PORTION OF EXISTING DUCTWORK INCLUDING DAMPERS, SUPPORTS AND ALL ASSOCIATED ACCESSORIES AS SHOWN. SEE FLOOR PLAN FOR ADDITIONAL INFORMATION. SEAL REMAINING DUCTWORK AIRTIGHT. PATCH ALL SURFACES DISTURBED OR LEFT UNFINISHED BY THIS WORK TO MATCH ADJACENT SURFACES.
3. REMOVE AND DISCARD THAT PORTION OF EXISTING HWSR/PIPING INCLUDING VALVES, SUPPORTS AND ALL ASSOCIATED ACCESSORIES AS SHOWN AND CAP. PATCH ALL SURFACES DISTURBED OR LEFT UNFINISHED BY THIS WORK TO MATCH ADJACENT SURFACES.
4. REMOVE AND DISCARD EXISTING THERMOSTAT, CONTROL, WIRING/TUBING, ETC. PROVIDE BLANK COVER PLATE. PATCH ALL SURFACES DISTURBED OR LEFT UNFINISHED BY THIS WORK TO MATCH ADJACENT SURFACES.
5. REMOVE AND DISCARD EXISTING UNIT, OA LOUVER, INSULATED PANEL, DUCTWORK, DAMPERS, REGISTERS/DIFFUSERS, THERMOSTAT, CONDENSATE PIPING THRU WALL, SUPPORTS AND ALL ASSOCIATED ACCESSORIES. REMOVE EXISTING HWSR BACK TO RESPECTIVE MAINS AND CAP. PATCH ALL SURFACES DISTURBED OR LEFT UNFINISHED BY THIS WORK TO MATCH ADJACENT SURFACES.
6. REMOVE AND DISCARD EXISTING UNIT, THERMOSTAT, SUPPORTS AND ALL ASSOCIATED ACCESSORIES. REMOVE PIPING BACK TO RESPECTIVE MAINS AND CAP. PATCH ALL SURFACES DISTURBED OR LEFT UNFINISHED BY THIS WORK TO MATCH ADJACENT SURFACES.
7. REMOVE AND DISCARD EXHAUST FAN, CURB ALL DUCTWORK AND ASSOCIATED CONTROLS.
8. EXISTING UNIT VENTILATOR TO BE RELOCATED. REMOVE AND DISCARD EXISTING THERMOSTAT, LOUVER AND ALL DUCTWORK.
9. REMOVE AND DISCARD THAT PORTION OF EXISTING PIPING INCLUDING VALVES, SUPPORTS AND ALL ASSOCIATED ACCESSORIES AS SHOWN AND CAP. SEE FLOOR PLAN FOR ADDITIONAL INFORMATION. PATCH ALL SURFACES DISTURBED OR LEFT UNFINISHED BY THIS WORK TO MATCH ADJACENT SURFACES.

SHEET NOTES

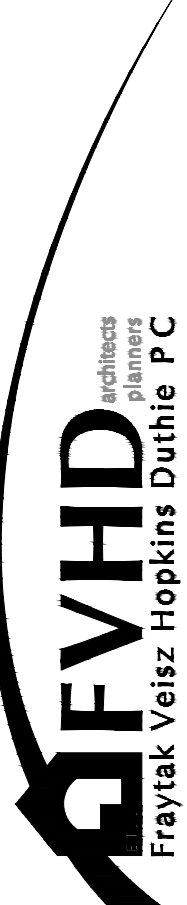
1. REFER TO ARCHITECTURAL DRAWINGS FOR NOTES AND DETAILS PERTAINING TO ROOFING, STRUCTURAL, GENERAL CONSTRUCTION, ETC.
2. REMOVE AND REINSTALL CEILING SYSTEM AS REQUIRED FOR THE INSTALLATION OF MECHANICAL WORK AND REPLACE IN KIND ANY COMPONENTS DAMAGED BY PERSONNEL OR EQUIPMENT DURING PERFORMANCE OF THE WORK. PATCH AND REPAIR ALL DAMAGE CAUSED BY REMOVAL, MATCH EXISTING ADJACENT SURFACES.
3. PROVIDE AND INSTALL METAL PIPE ENCLOSURE SYSTEM ON ALL EXPOSED PIPING. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
4. ALL EXISTING EQUIPMENT TO REMAIN SHALL BE PROTECTED THROUGH ALL PHASES OF CONSTRUCTION. UPON COMPLETION OF ALL PHASES OF CONSTRUCTION, CONTRACTOR SHALL CLEAN UNIT, ALL COILS AND REPLACE FILTERS.
5. IF UNITS ARE RUNNING DURING ANY PHASE OF CONSTRUCTION CONTRACTOR SHALL REPLACE FILTERS WEEKLY.



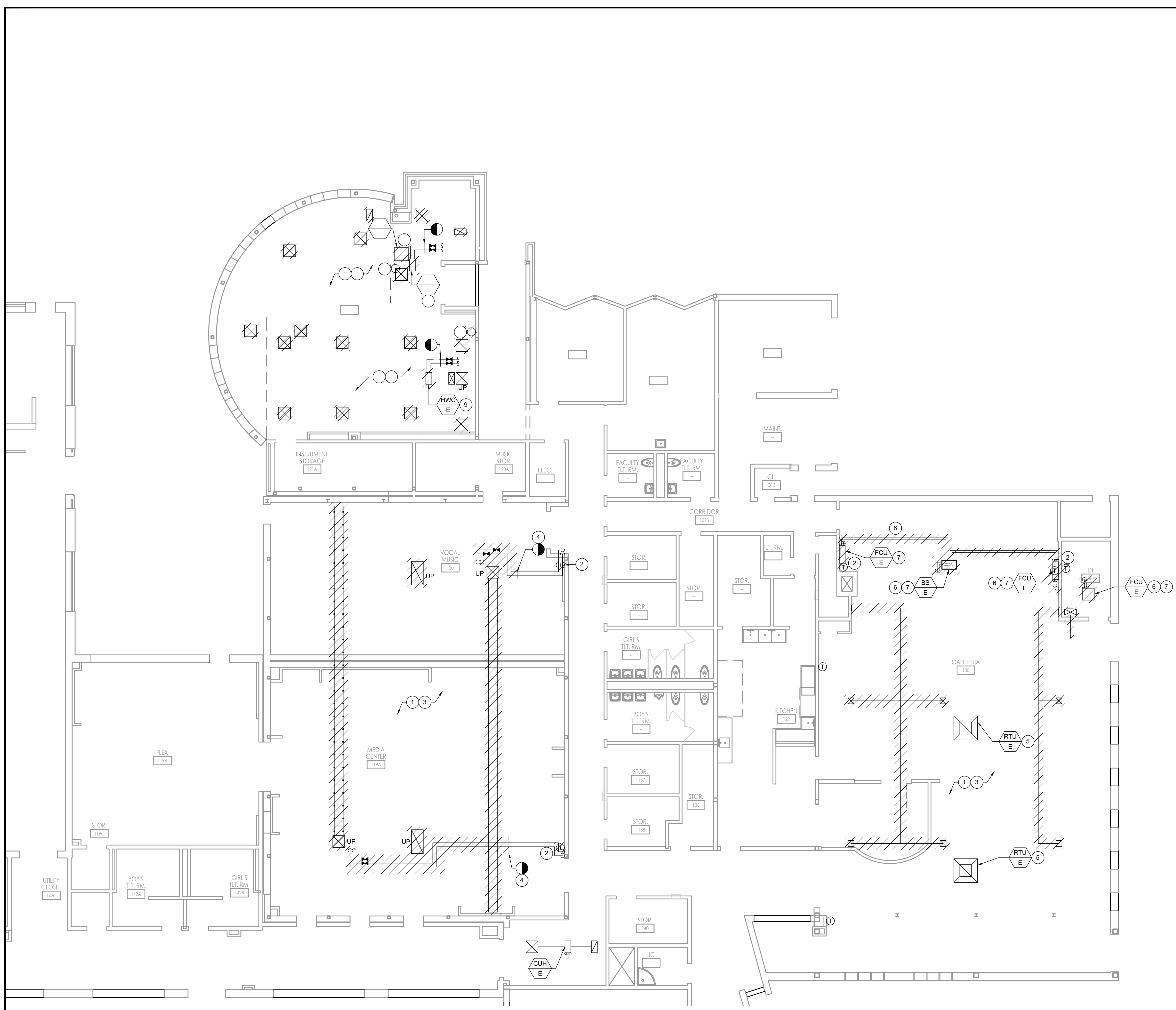
SECOND FLOOR DEMOLITION PLAN - BLOCK A
SCALE: 1/8" = 1'-0"



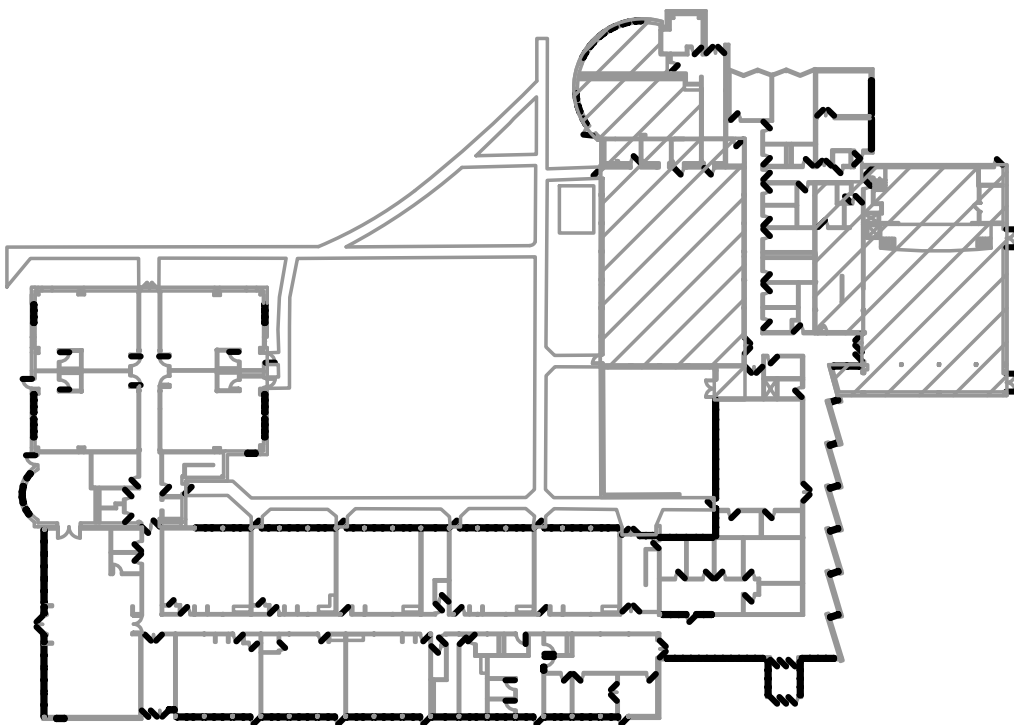
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FIRST FLOOR DEMOLITION PLAN - BLOCK B
SCALE: 1/8" = 1'-0"



FPA
FRENCH & PARRELLO
ASSOCIATES

Corporate Office:
1800 Rt. 34, Suite 101
732.312.9800

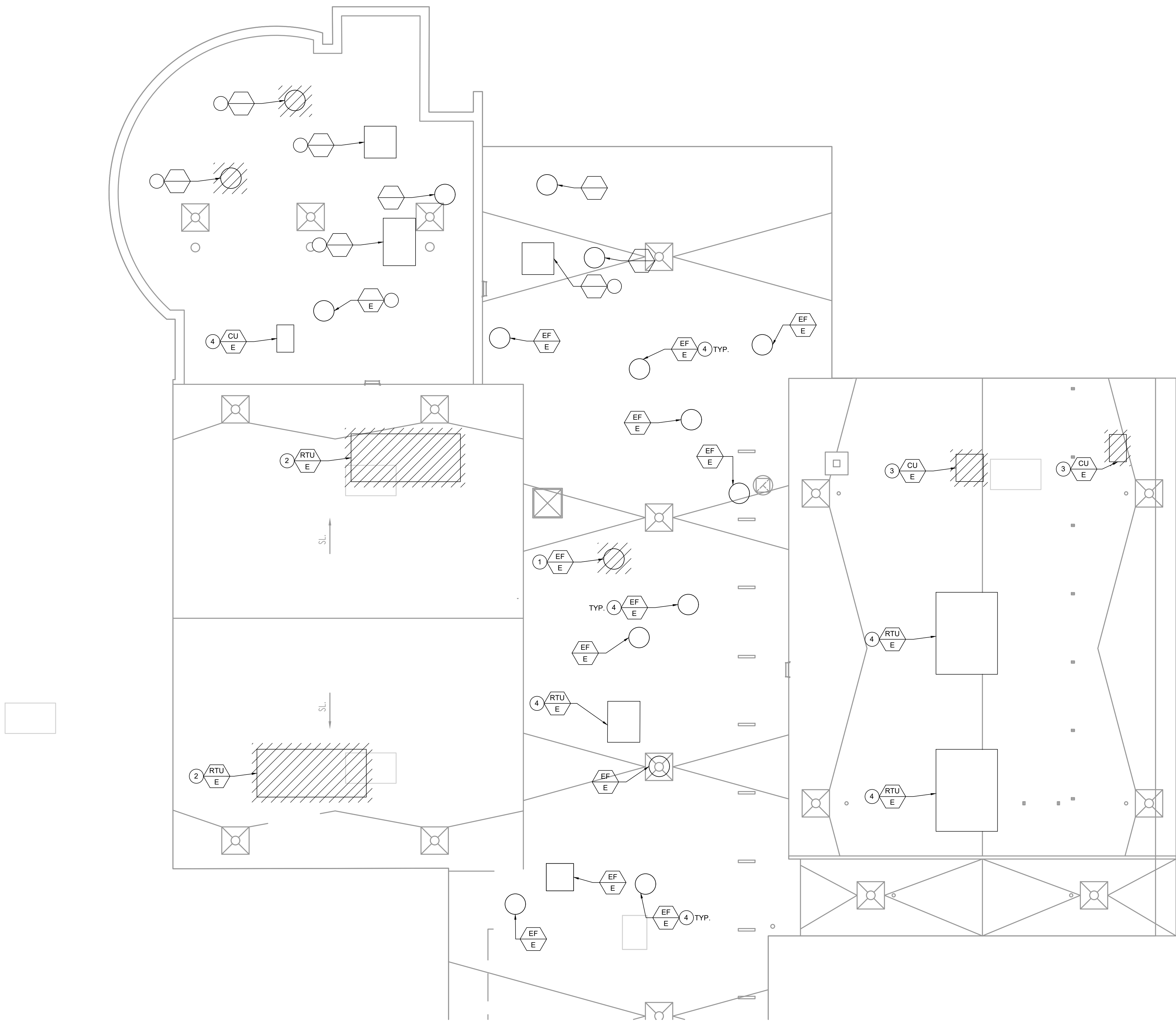
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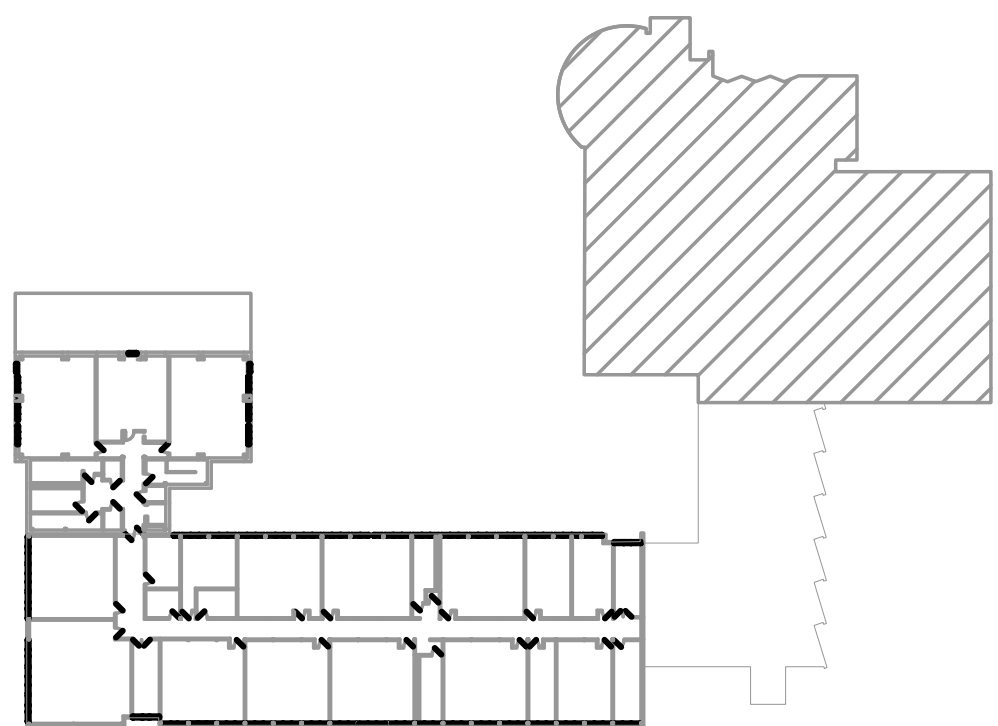
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ROOF DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

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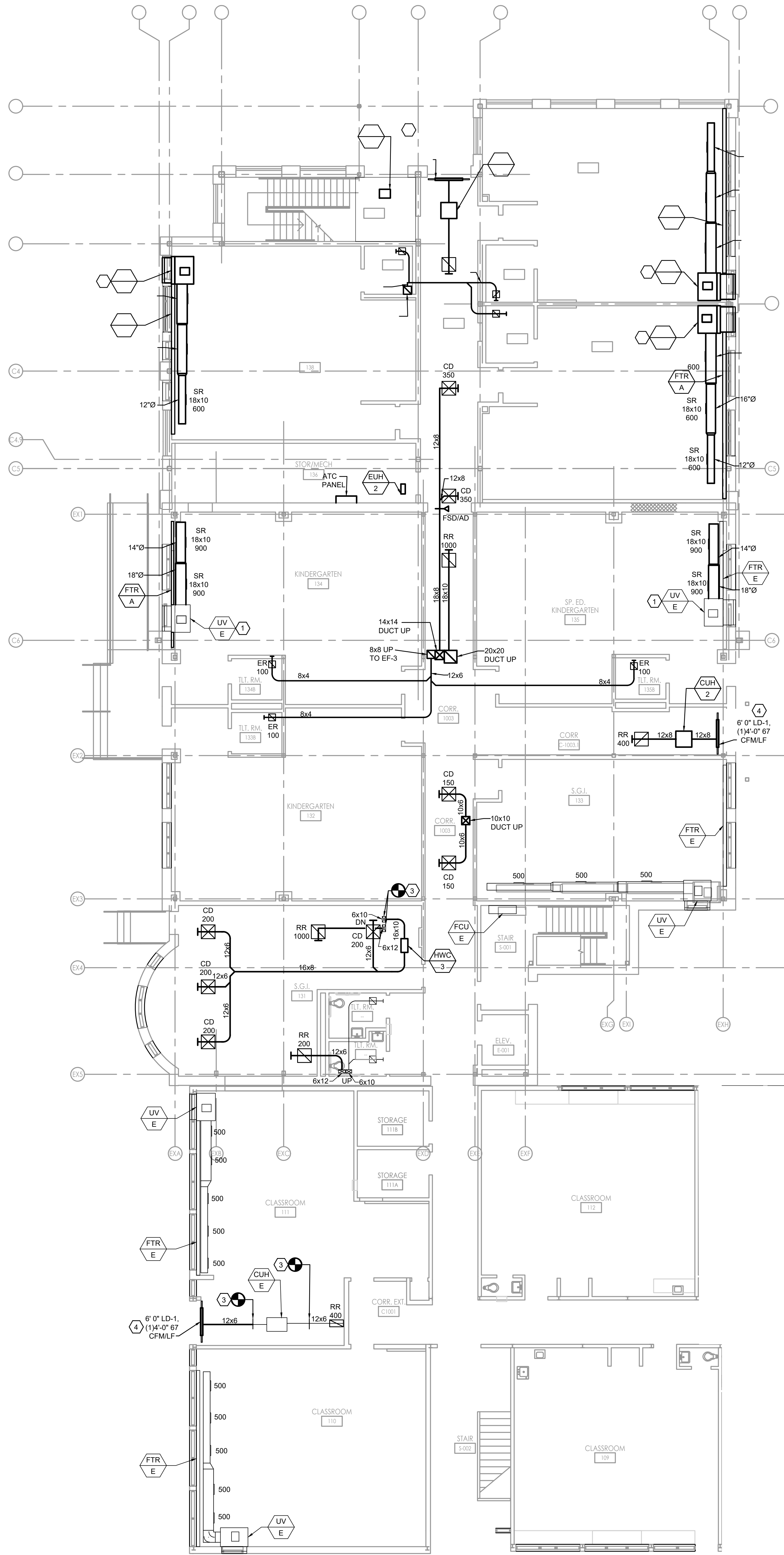




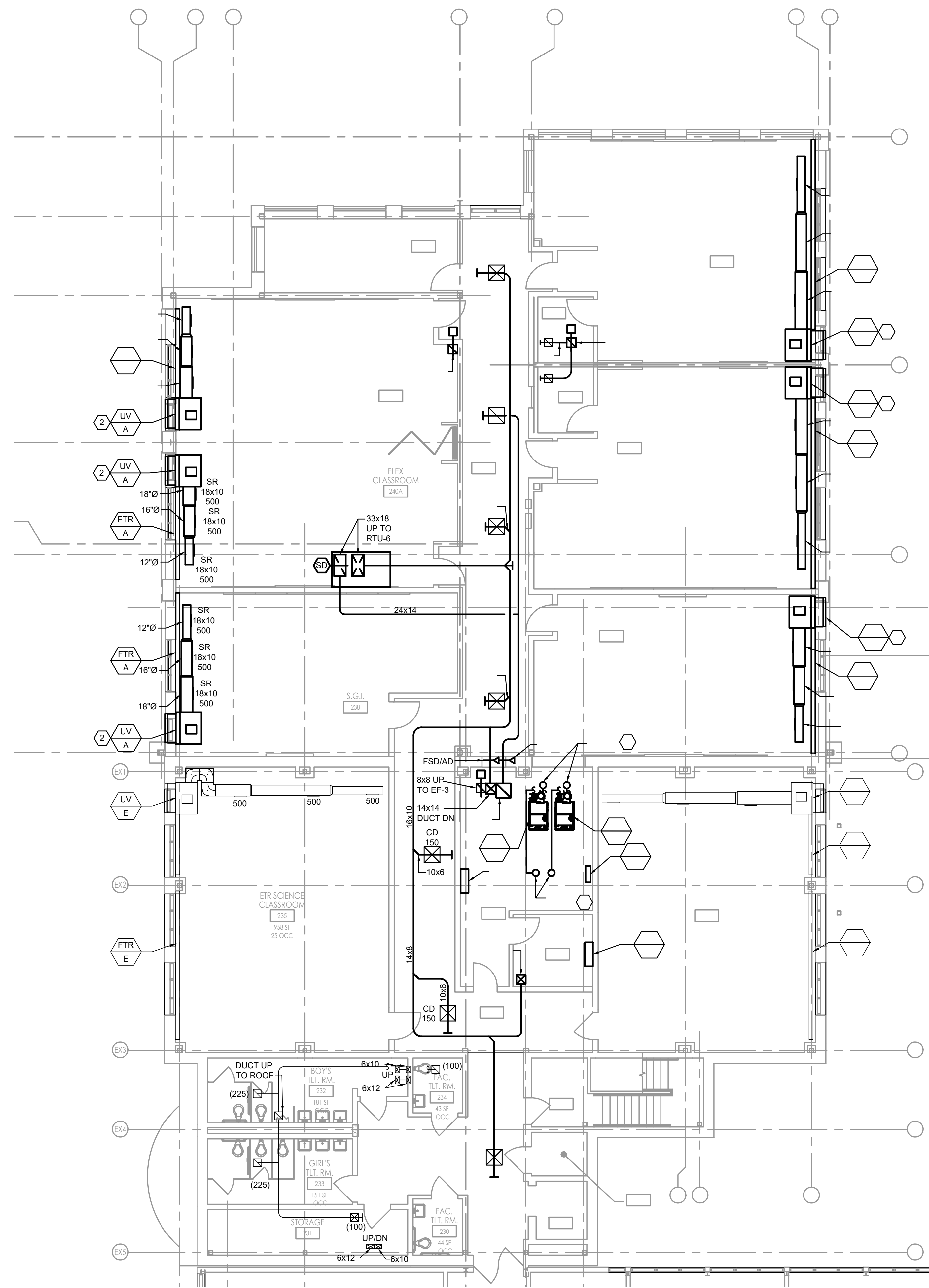
FVHD architects
planners
Fraytak Veisz Hopkins Duthie P.C.

628 Ditch 10/10/25

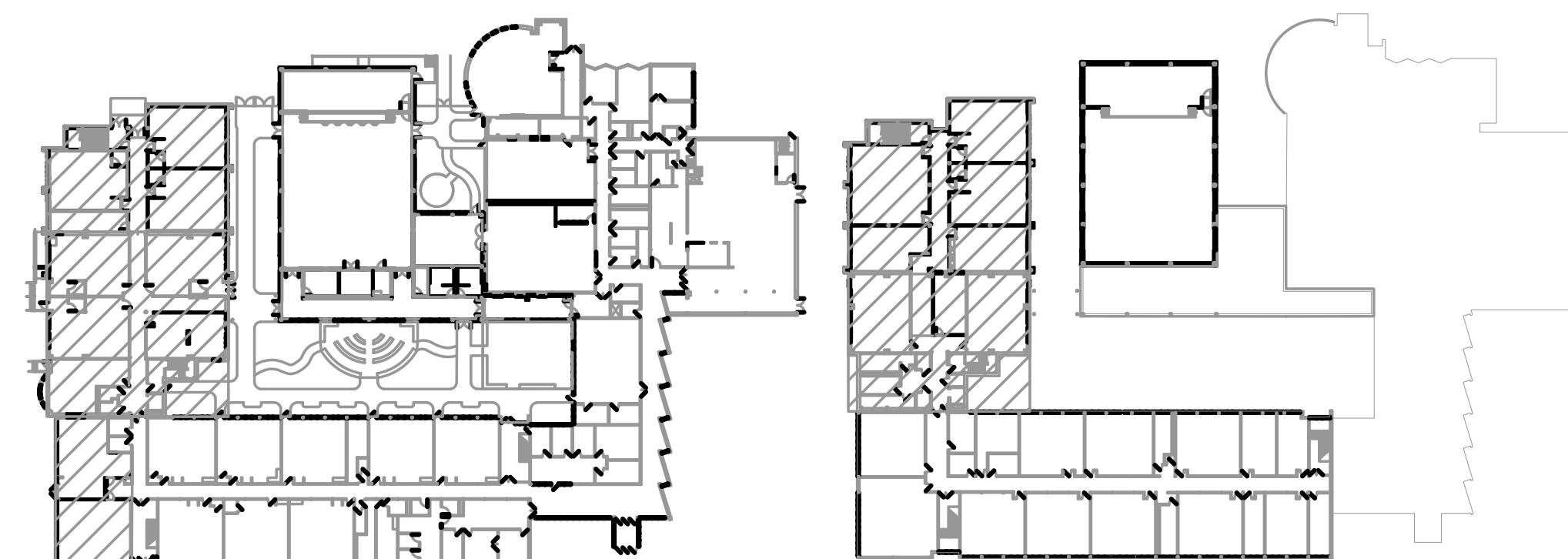
FVHDP.C.COM



FIRST FLOOR DUCTWORK PLAN - BLOCK A
SCALE: 1/8" = 1'-0"

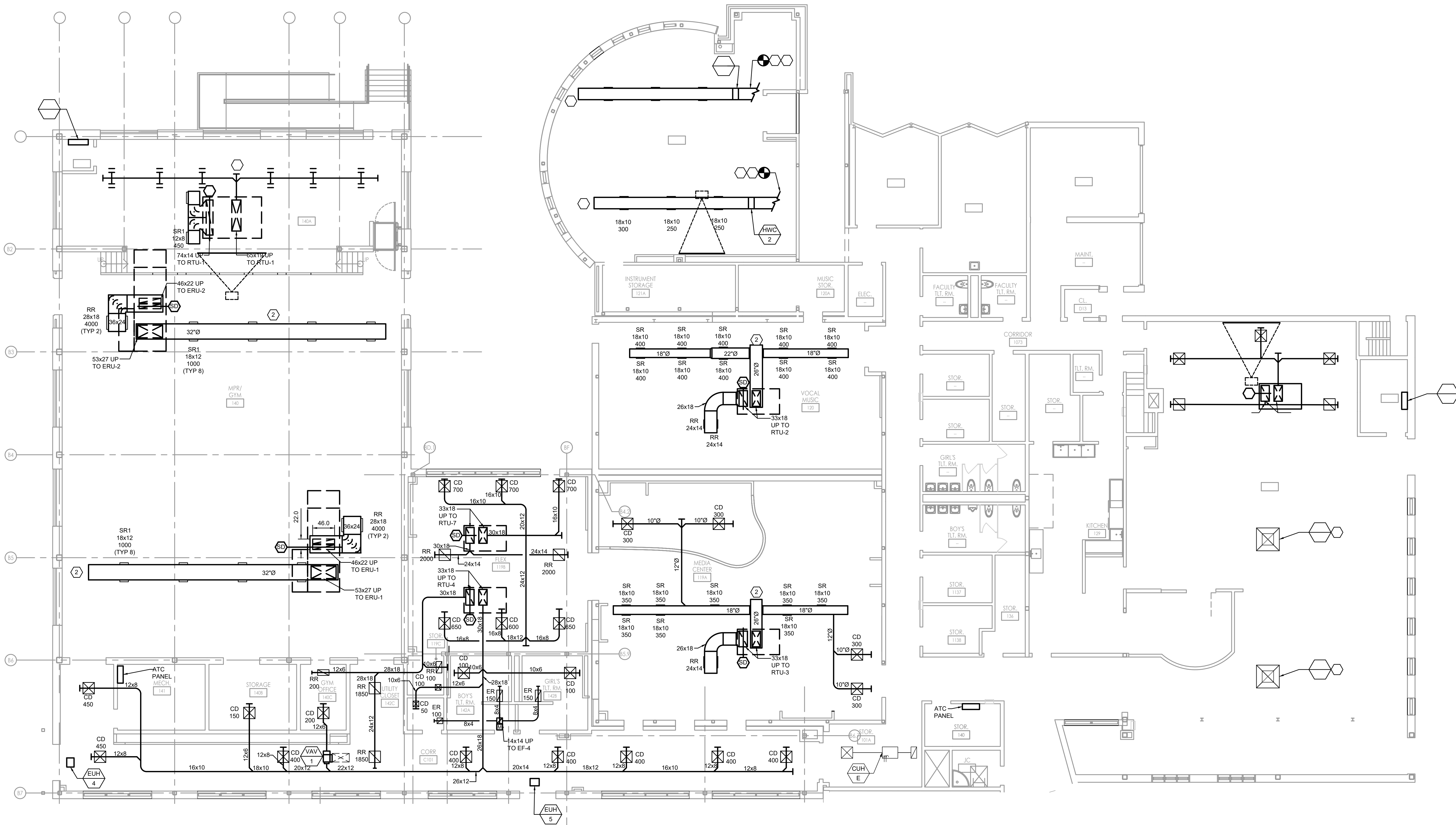


SECOND FLOOR DUCTWORK PLAN - BLOCK A
SCALE: 1/8" = 1'-0"

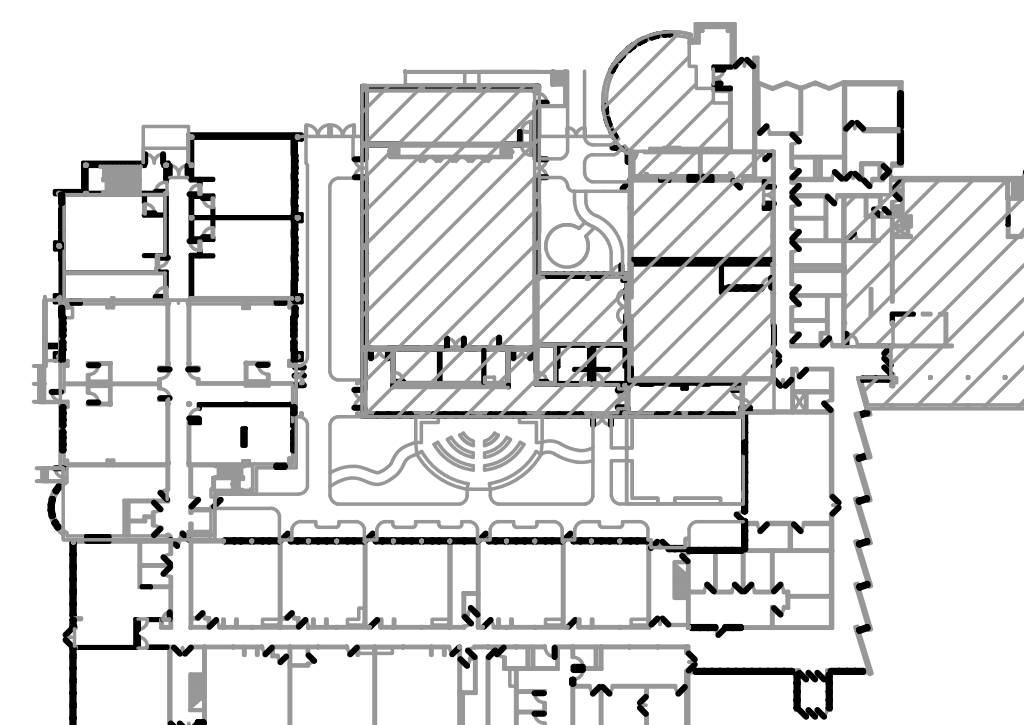


FVH D
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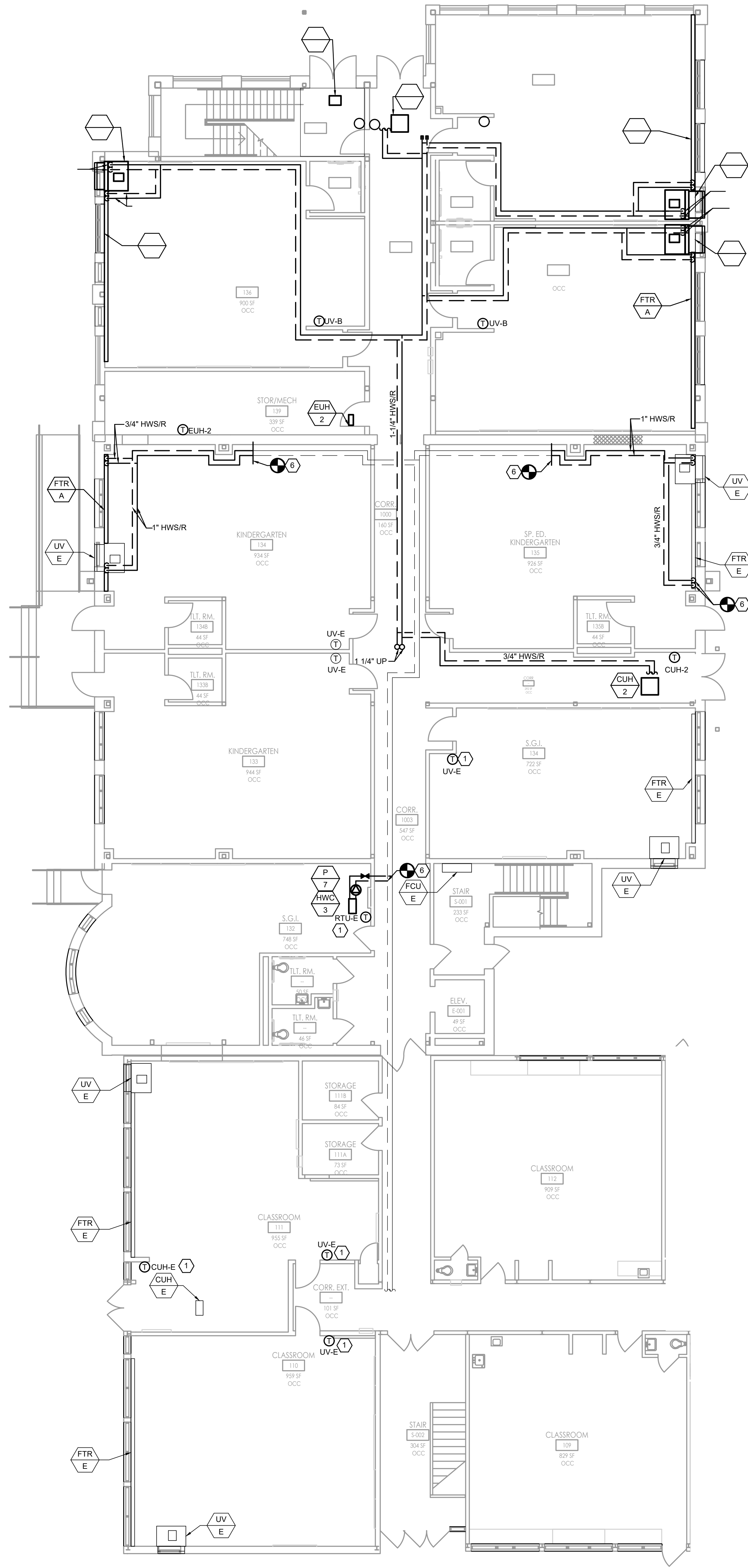
FIRST FLOOR DUCTWORK PLAN - BLOCK B
SCALE: 1/8" = 1'-0"



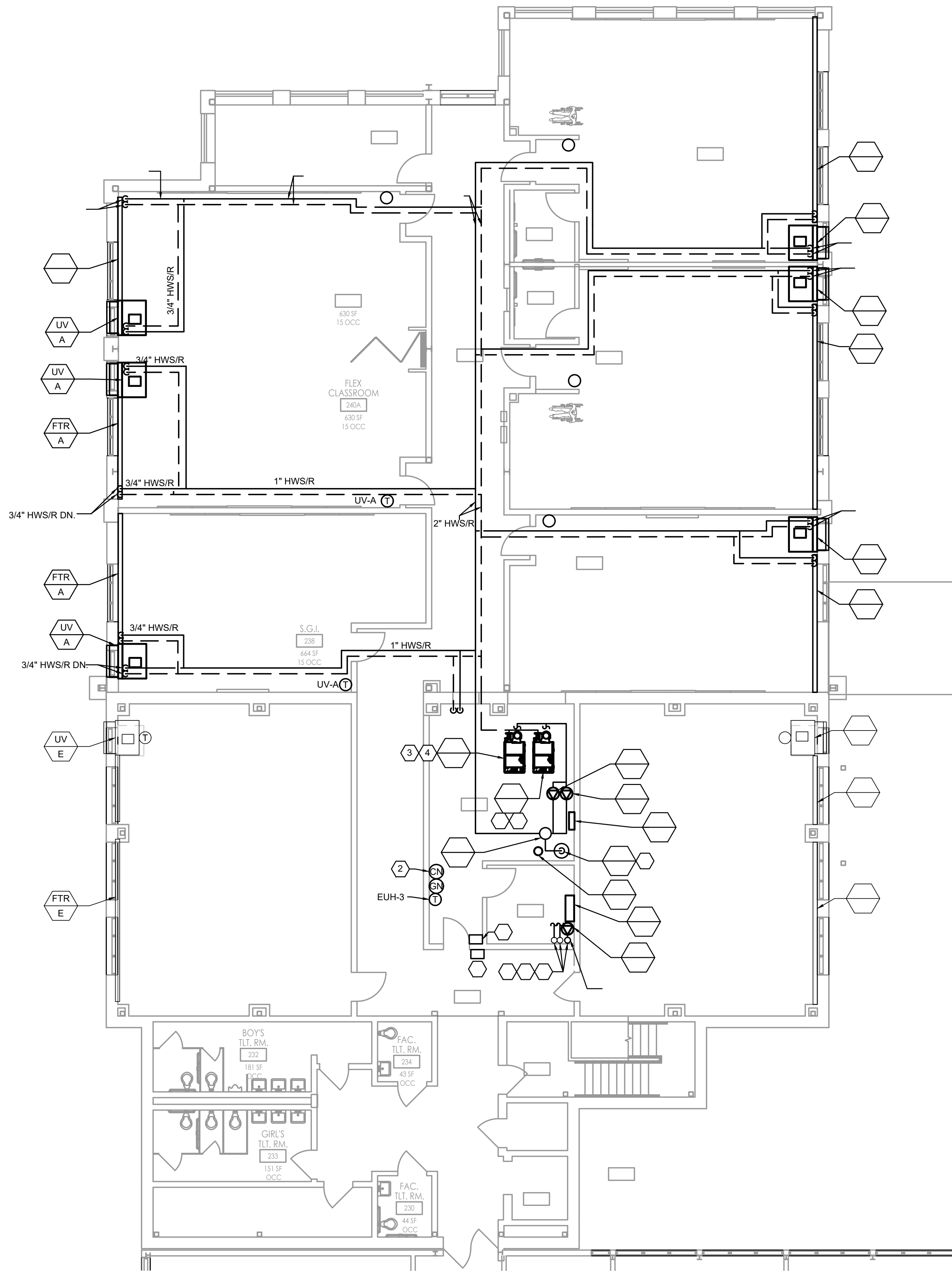
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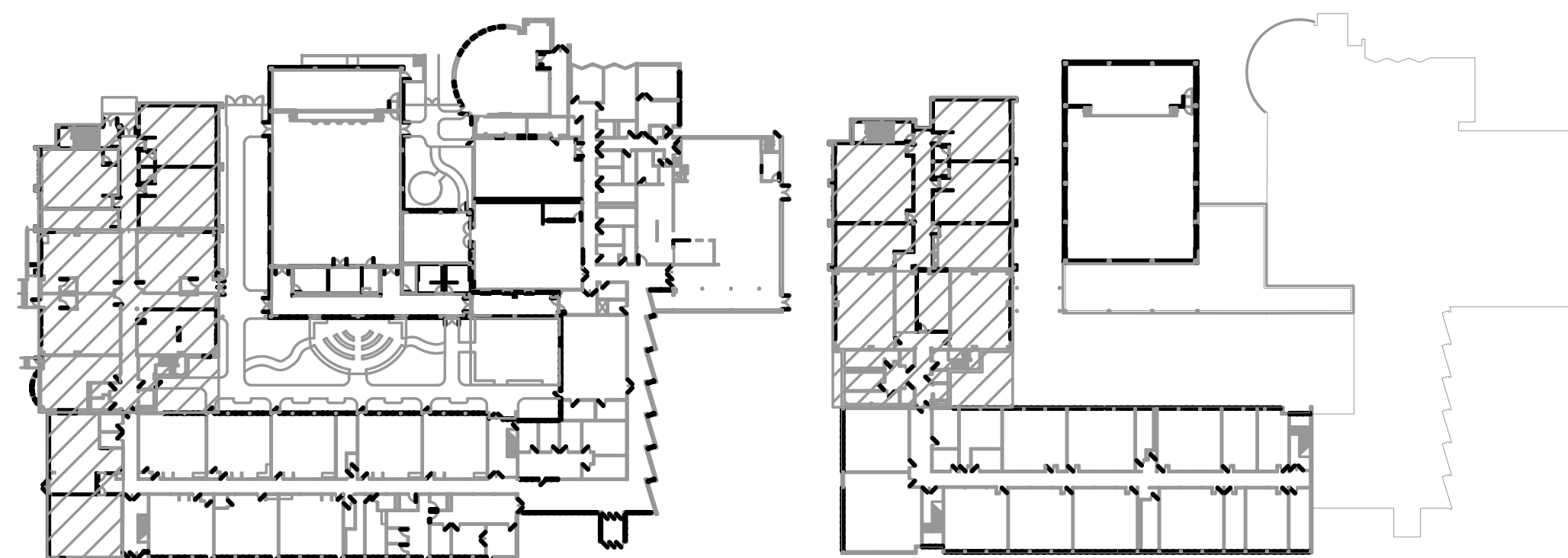
10/10/25



FIRST FLOOR PIPING PLAN - BLOCK A
SCALE: 1/8" = 1'-0"

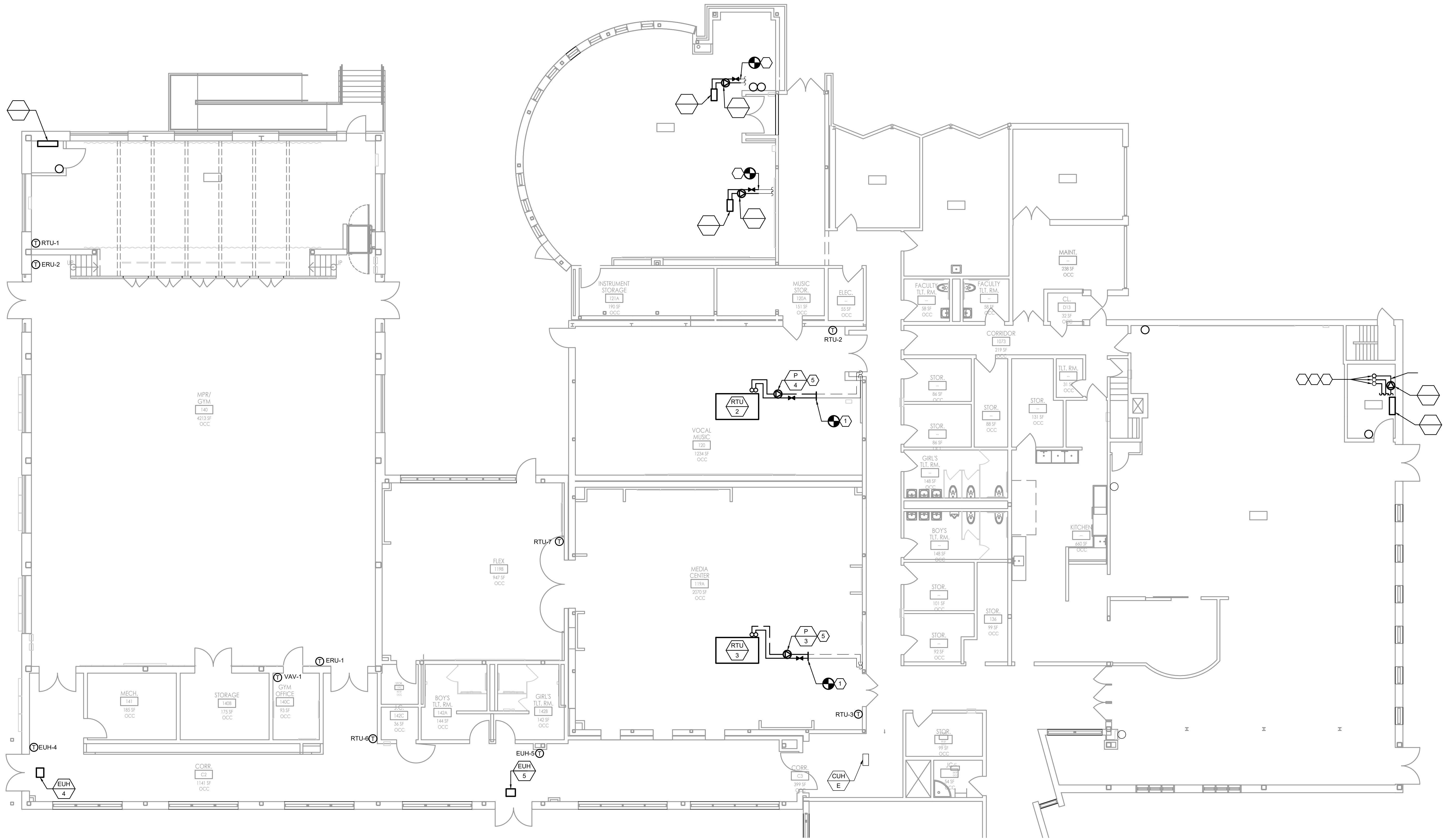


SECOND FLOOR PIPING PLAN - BLOCK A
SCALE: 1/8" = 1'-0"

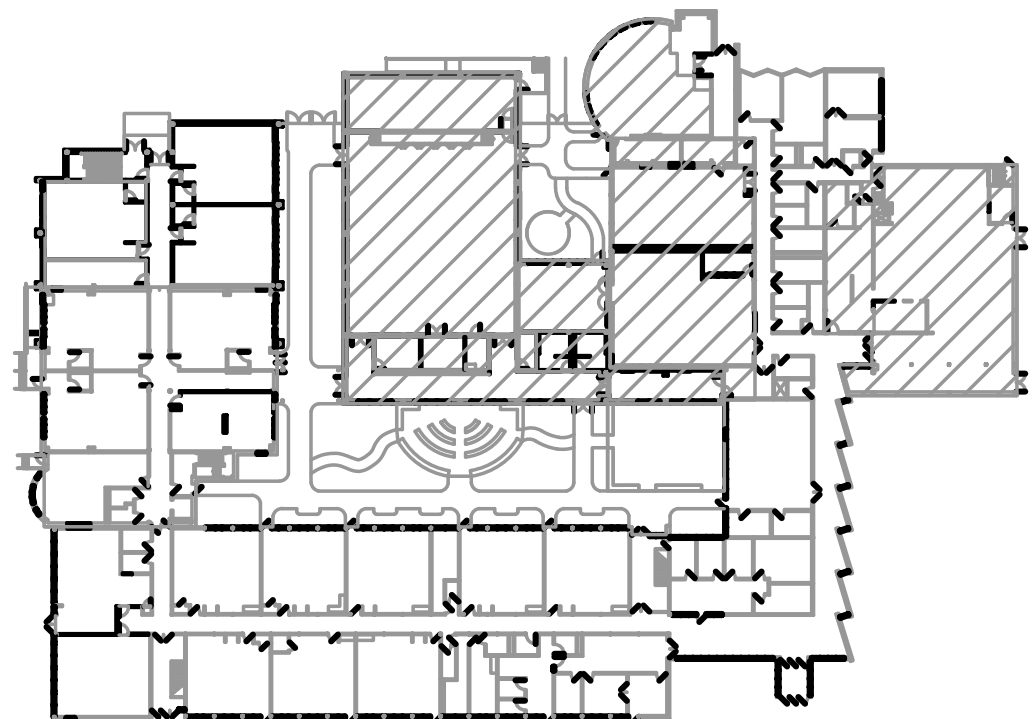


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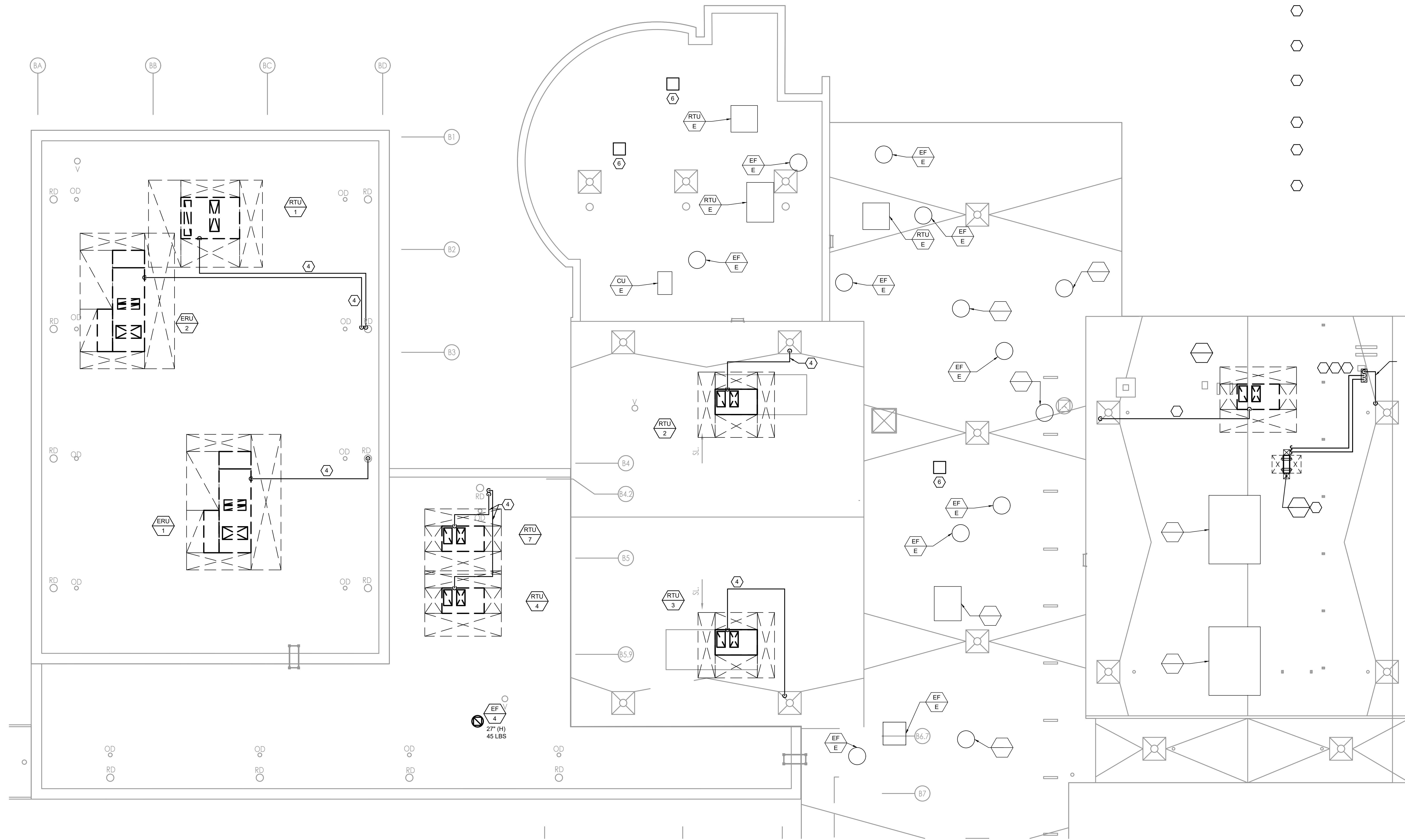


FIRST FLOOR PIPING PLAN - BLOCK B
SCALE: 1/8" = 1'-0"

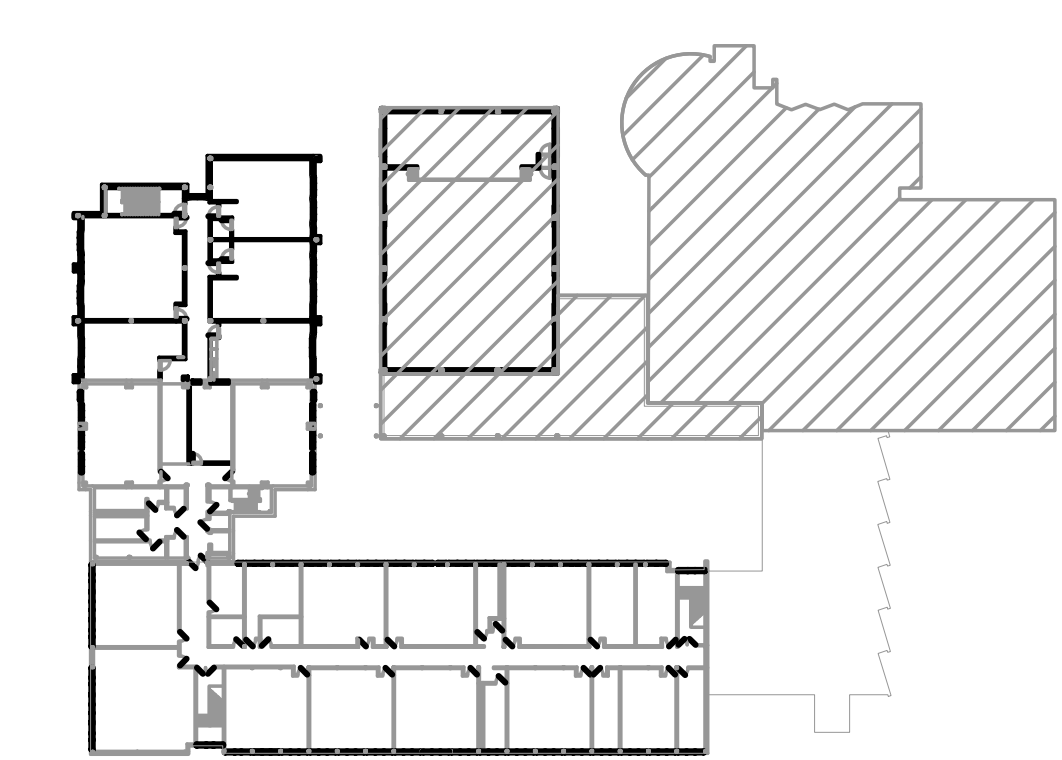


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ROOF PLAN - BLOCK A
SCALE: 1/8" = 1'-0"



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Corporate Office:
1800 Rte. 34, Suite 101
732.312.9800

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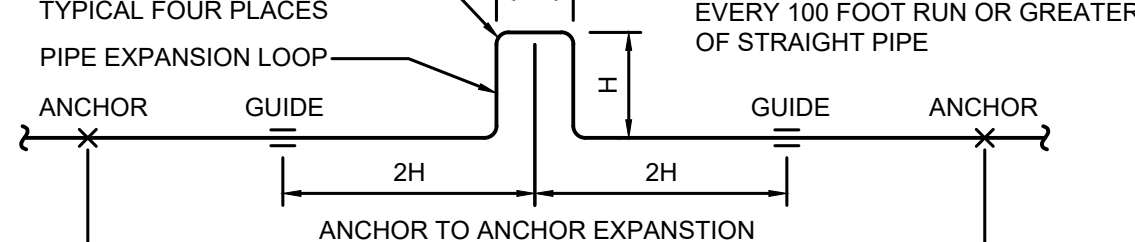
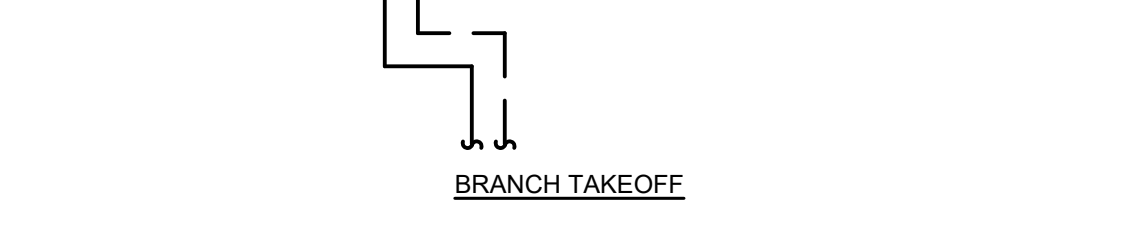
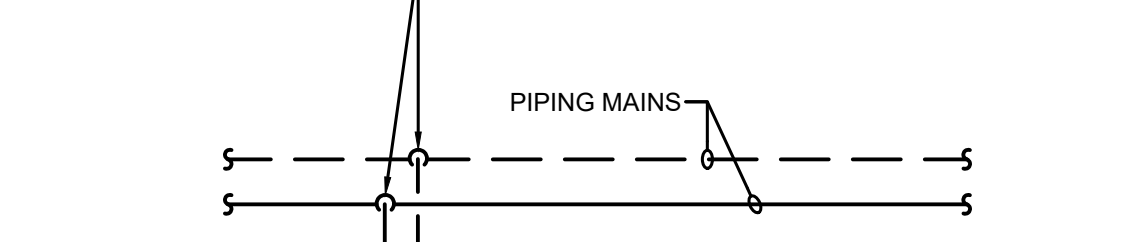
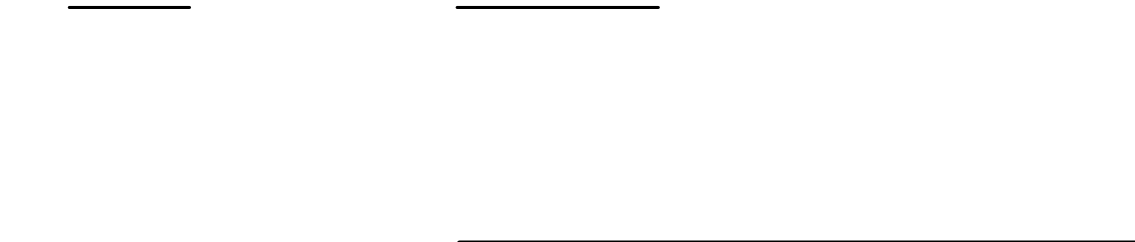
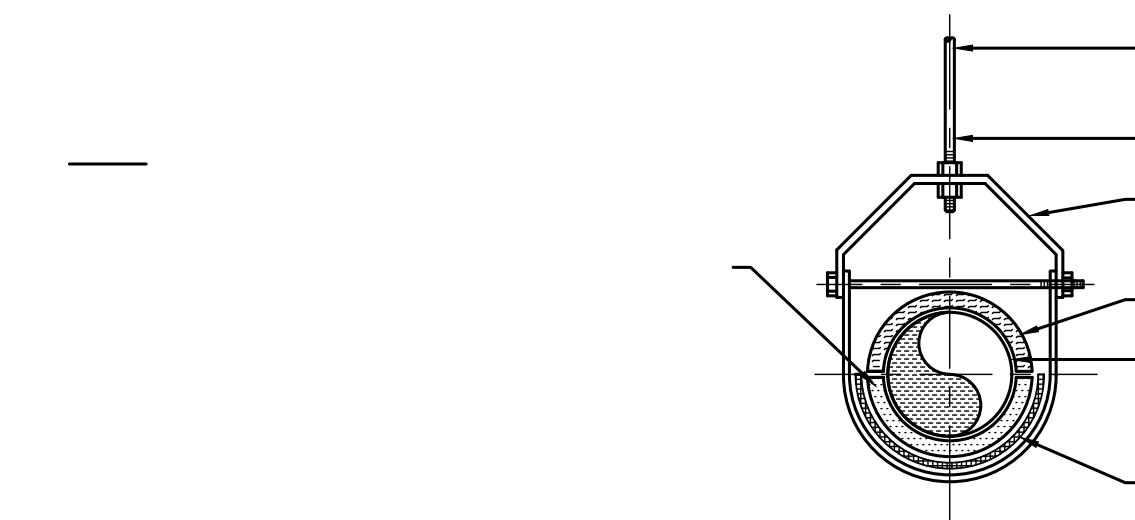
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New Jersey New York Pennsylvania Massachusetts

HOT WATER COIL SCHEDULE																				
PLANO	MANUFACTURER MODEL	TYPE	ROWS	FINS PER FOOT	FIN HEIGHT IN.	FIN LENGTH IN.	DEPTH IN.	CFM	TOTAL CAP SQ. FT.	ENT AIR °F	LVS AIR °F	GPM	WPD IN. FT	EWTF °F	LWTF °F	COIL FACE AREA FT	COIL FACE VELOCITY FPM	AIR PRESS DROP IN. WVC	WEIGHT LBS	REMARKS
HWC-1	TRANE DP2B12024	121 BAND	2	126	12	24	6-1/2	1000	54.22	45	95	2.71	0.77	160	120	2	500	0.196	31.5	SEE NOTES
HWC-2	TRANE DP2B12024	121 BAND	2	149	12	24	6-1/2	1600	86.76	45	95	4.34	3.75	160	120	2	800	0.513	32.7	SEE NOTES
HWC-3	TRANE DP2B12016	131 S.G.I	2	136	12	16	6-1/2	800	43.38	45	95	2.17	1.09	160	120	1.33	600	0.287	25.2	SEE NOTES
NOTES: 1. SEE WATER PIPING DETAILS. 2. PROVIDE (FL) 1/2" SIZED SECONDARY DRAIN PAN BELOW HW COIL. CONSTRUCTED OF MINIMUM 24 GAUGE GALVANIZED STEEL, WITH A 2" DEPTH AND MINIMUM 3" OVER LAP OF COIL DIMENSIONS INCLUDING ALL VALVING AND FITTINGS. INSTALL A WATER DETECTOR IN PAN WITH A (NO) ALARM CONTACT TO BE MONITORED BY BUILDING CONTROL SYSTEM. 3. PROVIDE COIL TRANSITION AS REQUIRED.																				

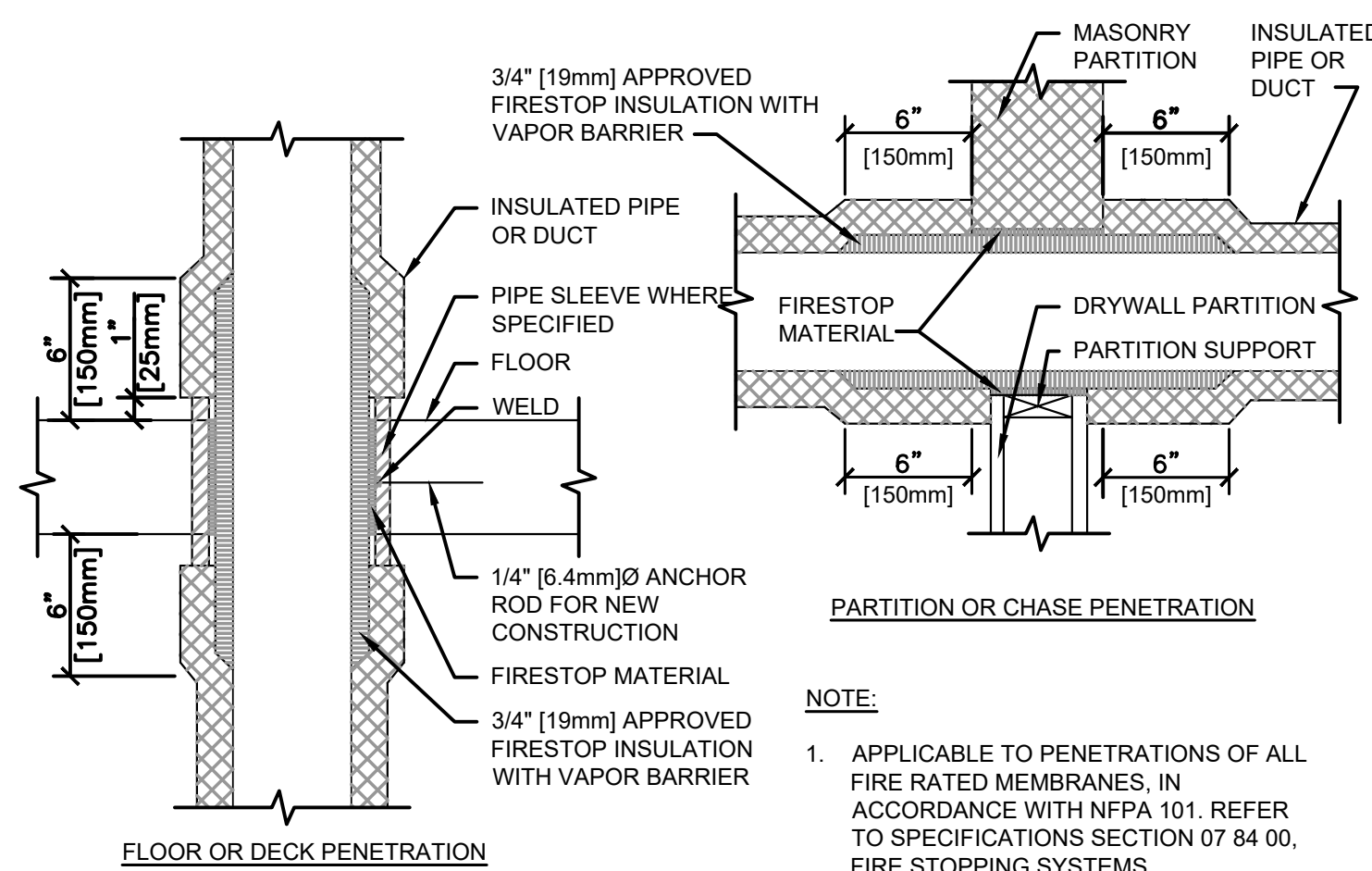
FIN-TUBE RADIATION SCHEDULE							
PLAN NO.	MANUFACTURER MODEL	STUHR PER LF	WVG TEMP	HEATING ELEMENT			REMARKS
				TUBE	FINS PER FT	ACTIVE LENGTH	
FTR#A	JMB-S20	1030	140	3/4	50	SEE PLANS	2 SEE NOTES
NOTES: 1. PROVIDE WITH MANUFACTURER ENCLOSURE, FACTORY PAINTED. COLOR SHALL BE SELECTED BY ARCHITECT. 2. PROVIDE ACCESS PANELS AT EACH END OF ENCLOSURE FOR VALVE ACCESS. 3. CONTRACTOR TO FIELD MEASURE PER MANUFACTURERS RECOMMENDATIONS PRIOR TO ORDERING. 4. PROVIDE AN 8" O.D. COVER FLANGE ON ONE PIPE END. FINING, INSULATION, ETC AS REQUIRED FOR A COMPLETE INSTALLATION. COORDINATE FINISH INSTALLATION WITH ARCHITECT. 5. PROVIDE RETURN TO WALL LOUVERED INLET FOR ALL RADIATORS. 6. MANUFACTURER RETURN TO WALL PIPE HANGERS.							



REFERENCE: ASHRAE SYSTEMS & EQUIPMENT HANDBOOK, PIPE BENDS & LOOPS
 $L = 8.225 \times \text{SQUARE ROOT } (AAE \times D) \times 2H + W$
AAE = ANCHOR-TO-ANCHOR EXPANSION IN INCHES
D = PIPE OUTSIDE DIAMETER IN INCHES
AAE = UTE + AAD
UTE = UNIT THERMAL EXPANSION IN INCHES PER 100 FEET FOR STEEL AND/OR COPPER PIPE
AAD = ANCHOR-TO-ANCHOR DISTANCE IN FEET
H = EXPANSION LOOP HEIGHT IN FEET
W = EXPANSION LOOP WIDTH IN FEET

PIPE EXPANSION DETAIL

NOT TO SCALE

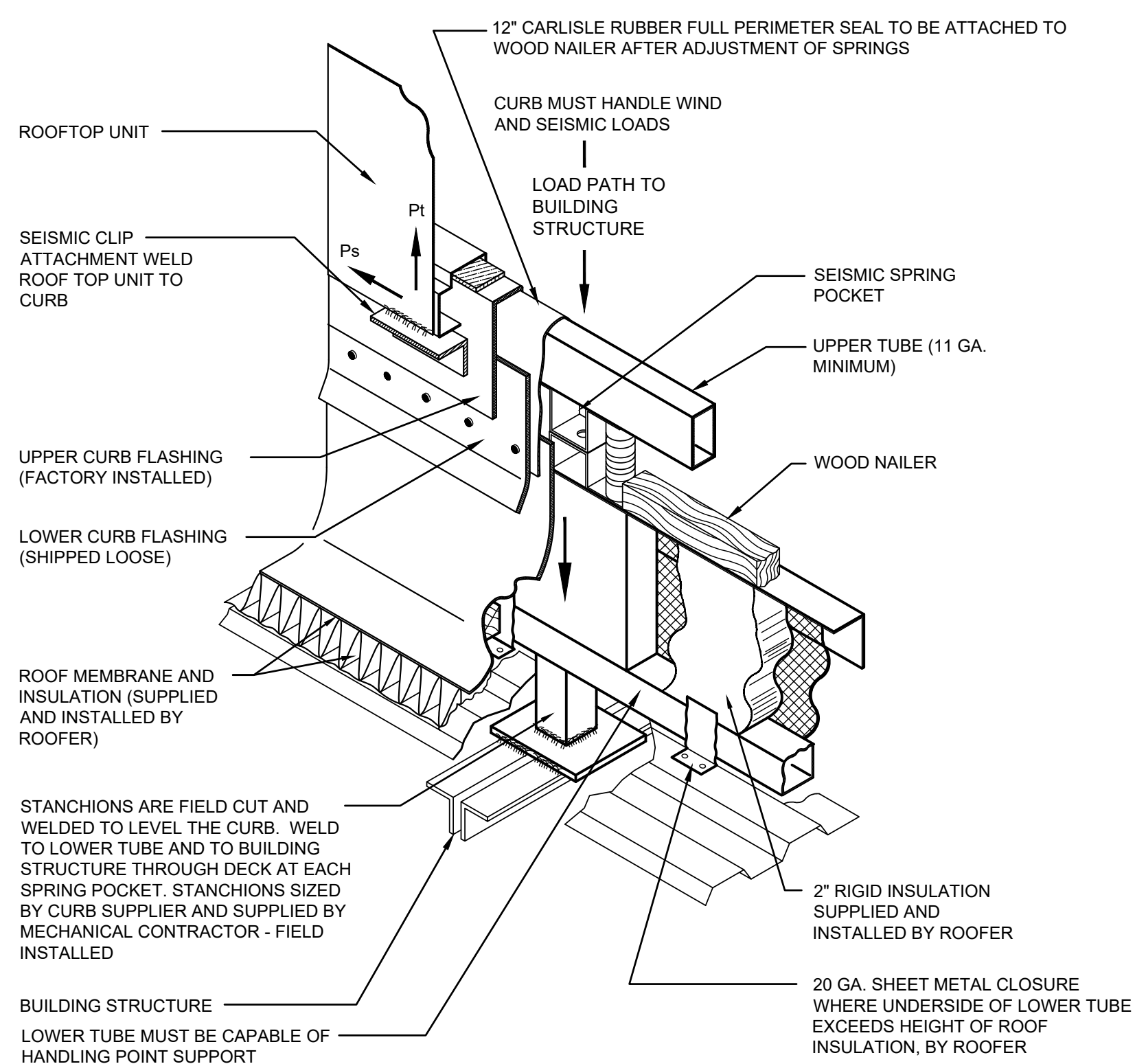


NOTE:

1. APPLICABLE TO PENETRATIONS OF ALL FIRE RATED MEMBRANES, IN ACCORDANCE WITH NFPA 101. REFER TO SPECIFICATIONS SECTION 07 84 00, FIRE STOPPING SYSTEMS.

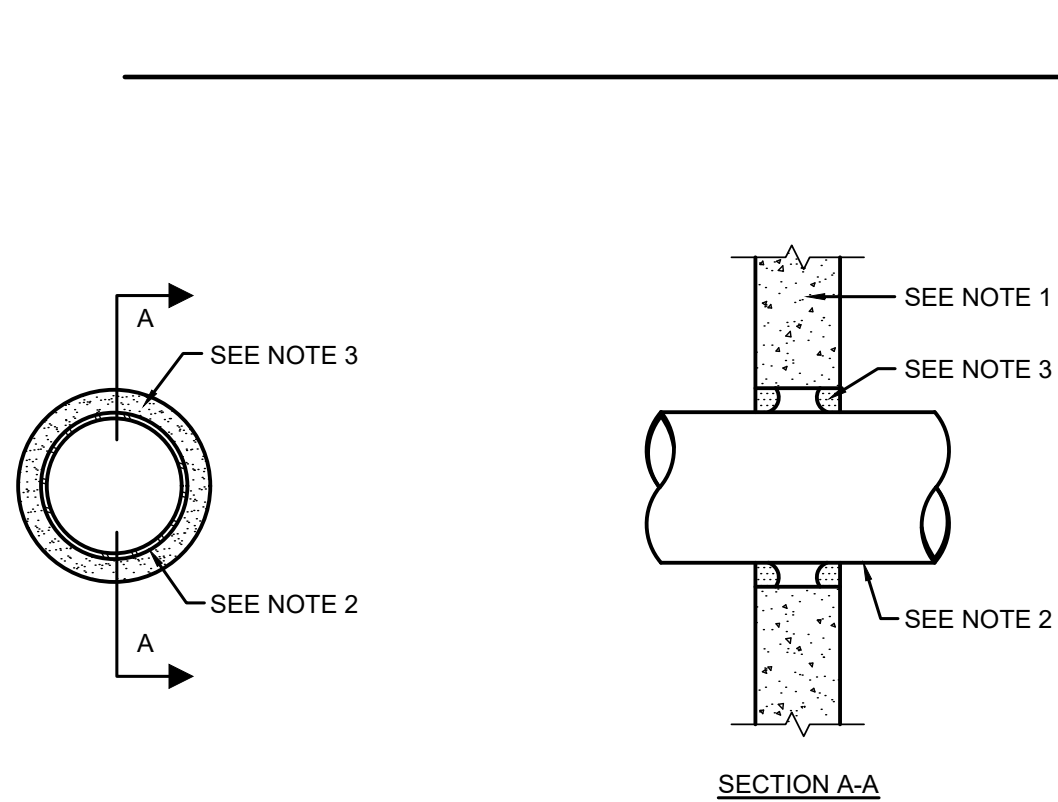
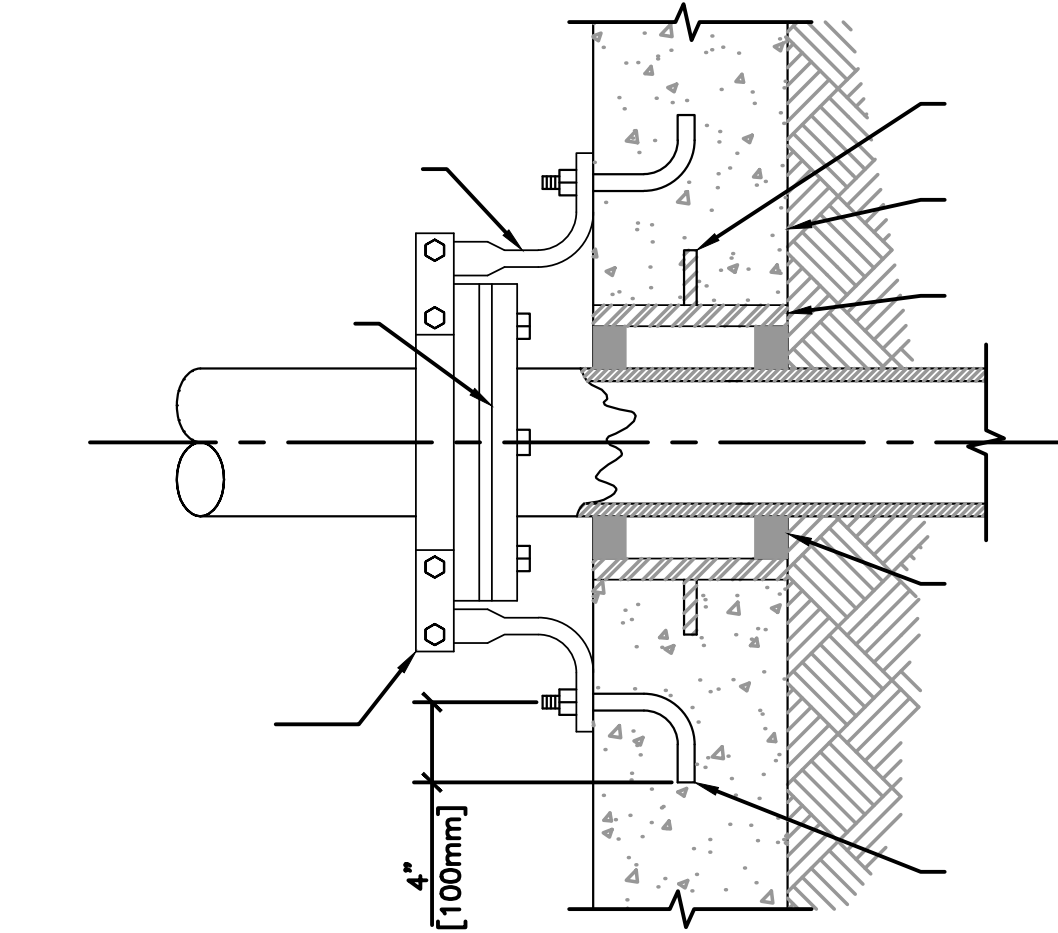
PIPE/DUCT PENETRATION OF SMOKE/FIRE BARRIERS

NOT TO SCALE



ATTACHMENT OF ISOLATED WIND AND SEISMIC ROOF CURB ON LEVEL OR PITCHED BAR JOIST-SUPPORTED ROOF

NOT TO SCALE

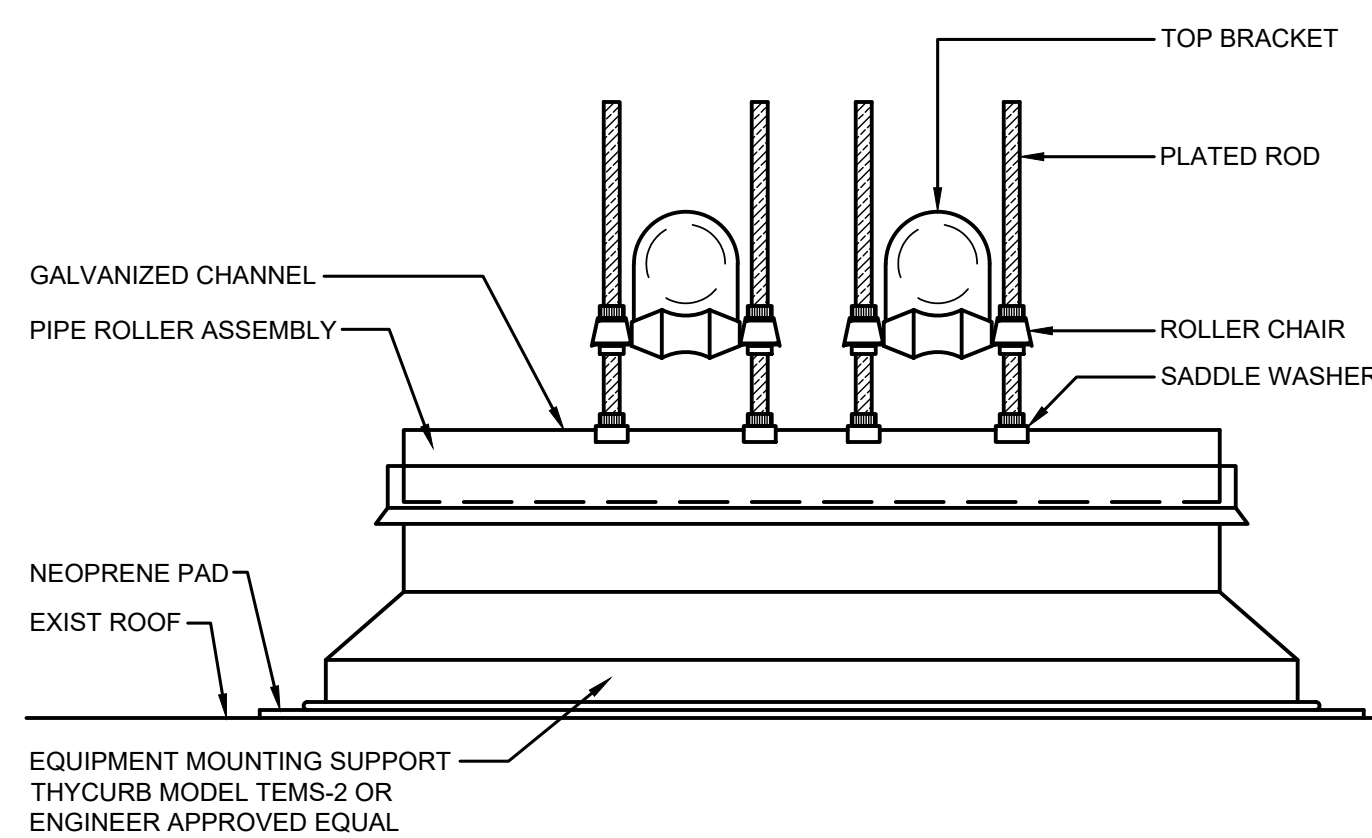


NOTES:

1. FLOOR OR WALL ASSEMBLY - MIN 4 1/2 INCH THICK LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS. MAX DIAMETER OF THROUGH OPENING IS 12 1/4 INCH. SEE CONCRETE BLOCKS (CACT) CATEGORY IN FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.
2. PIPE OR CONDUIT - NOMINAL 10 INCH DIAMETER (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE, NOMINAL 6 INCH DIAMETER (OR SMALLER) RIGID STEEL CONDUIT, NOMINAL 4 INCH DIAMETER (OR SMALLER) STEEL EMT OR NOMINAL 3 INCH DIAMETER (OR SMALLER) TYPE L (OR HEAVIER) COPPER PIPE. MAXIMUM ONE PIPE OR CONDUIT PER THROUGH OPENING. MAXIMUM ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND EDGE OF OPENING IS 3/4 INCH MINIMUM ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND EDGE OF OPENING IS 0 INCH (POINT CONTACT). PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL.
3. FILL VOID OR CAVITY MATERIALS - PUTTY: MOLDABLE PUTTY MATERIAL, KNEADED BY HAND AND APPLIED TO FILL ANNULAR SPACE TO A MINIMUM DEPTH OF 1 INCH. FLUSH WITH TOP SURFACE OF FLOOR. IN WALL ASSEMBLIES, REQUIRED PUTTY THICKNESS TO BE INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL. MINNESOTA MINING & MFG. CO. - OP 25WB+ *BEARING THE UL CLASSIFICATION MARKING

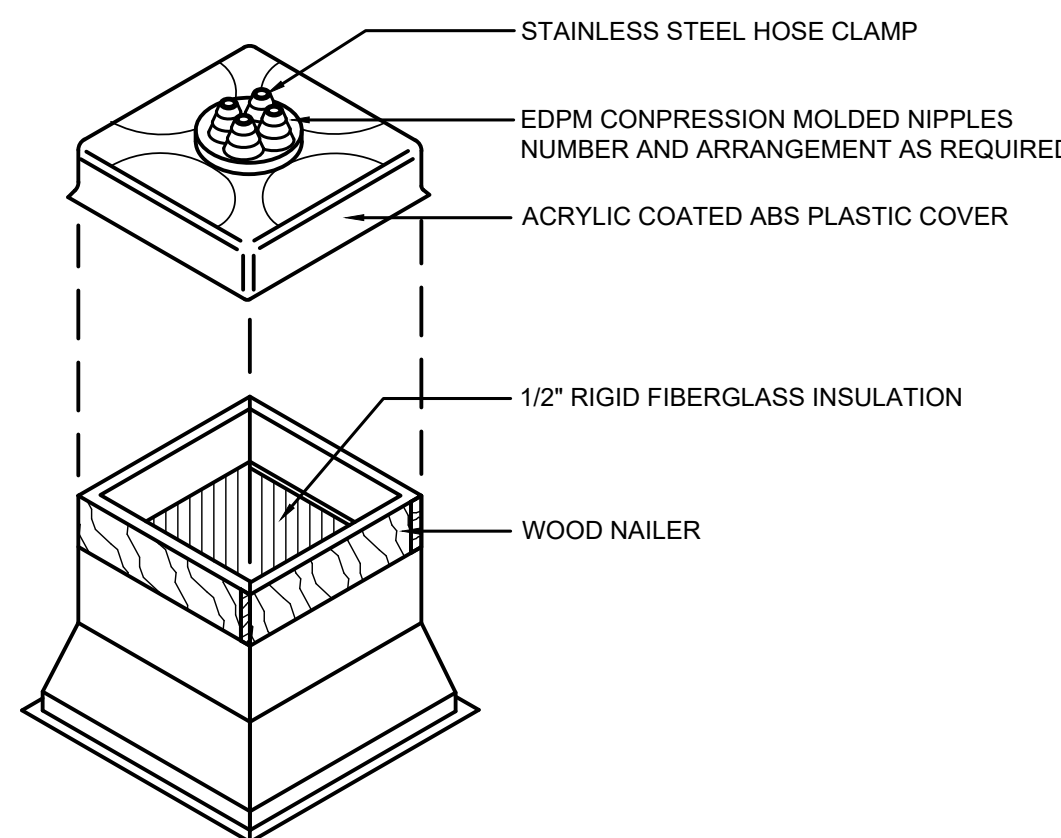
PIPE PENETRATION FIRE STOPPING DETAIL AT FIRE RATED MASONRY

NOT TO SCALE



ROOF PIPE SUPPORT

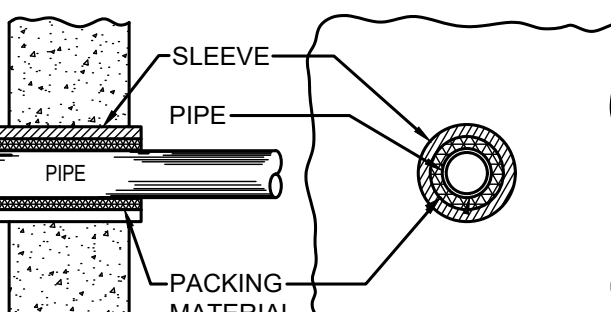
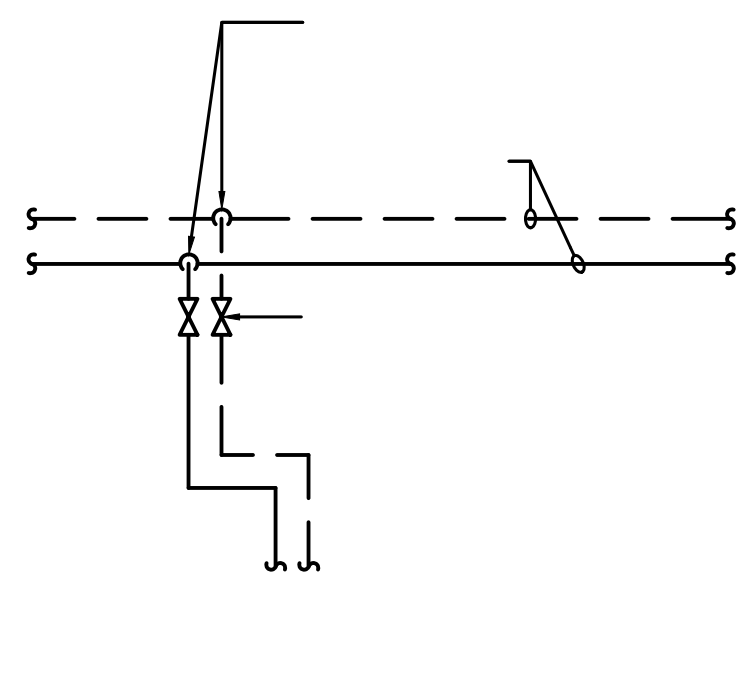
NOT TO SCALE



NOTE: PROVIDE SEPARATE BOOT FOR EACH PIPE. PROVIDE ADDITIONAL BOOTS FOR ELECTRICAL POWER AND CONTROL CONDUITS. DO NOT PASS MORE THAN (1) PIPE THRU EACH NIPPLE TO FACILITATE PROPER SEALING. COORDINATE WITH ELECTRICAL AND PLUMBING CONTRACTOR FOR NUMBER AND ARRANGEMENT OF BOOTS.

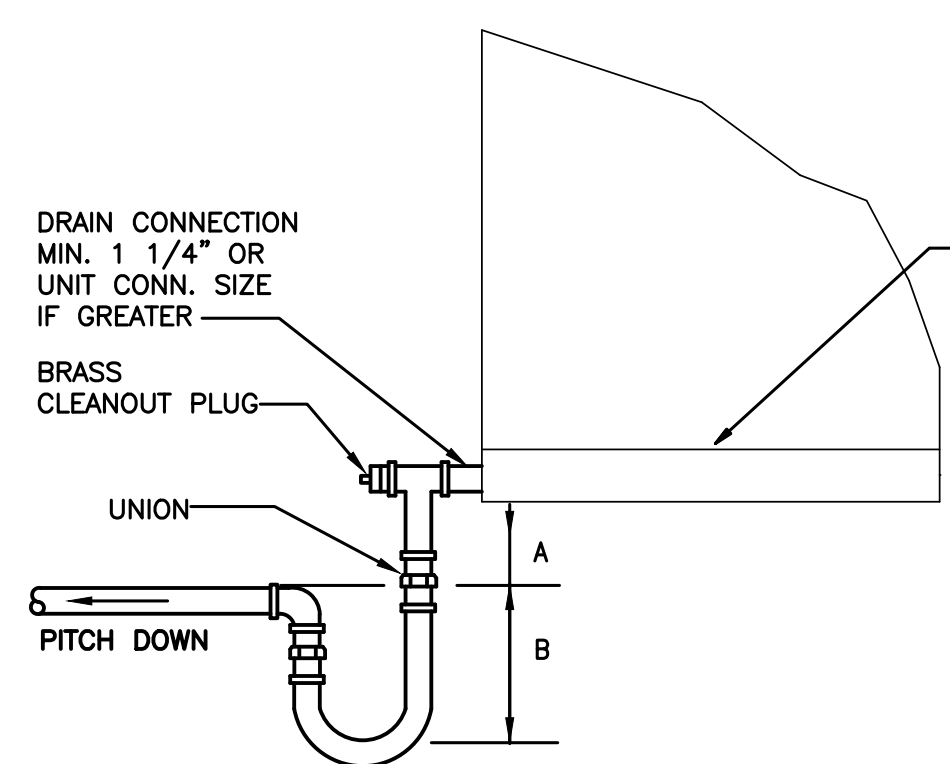
PIPE PORTAL DETAIL

NOT TO SCALE



(CONCRETE AND FOUNDATION WALLS)

NOTE: NO STRUCTURAL STRAIN SHOULD BE TRANSMITTED FROM ANY WALL TO THE PIPING SYSTEM THE SLEEVING RELIEVING ARCH OR STRUCTURAL BEAM SUPPORT METHODS PROTECT THE PIPING FROM SUPERIMPOSED LOADS THE "PACKING" MATERIAL AROUND THE PIPE IS FLEXIBLE ENOUGH TO RESPOND TO SETTLING IN THE STRUCTURE OR PIPING

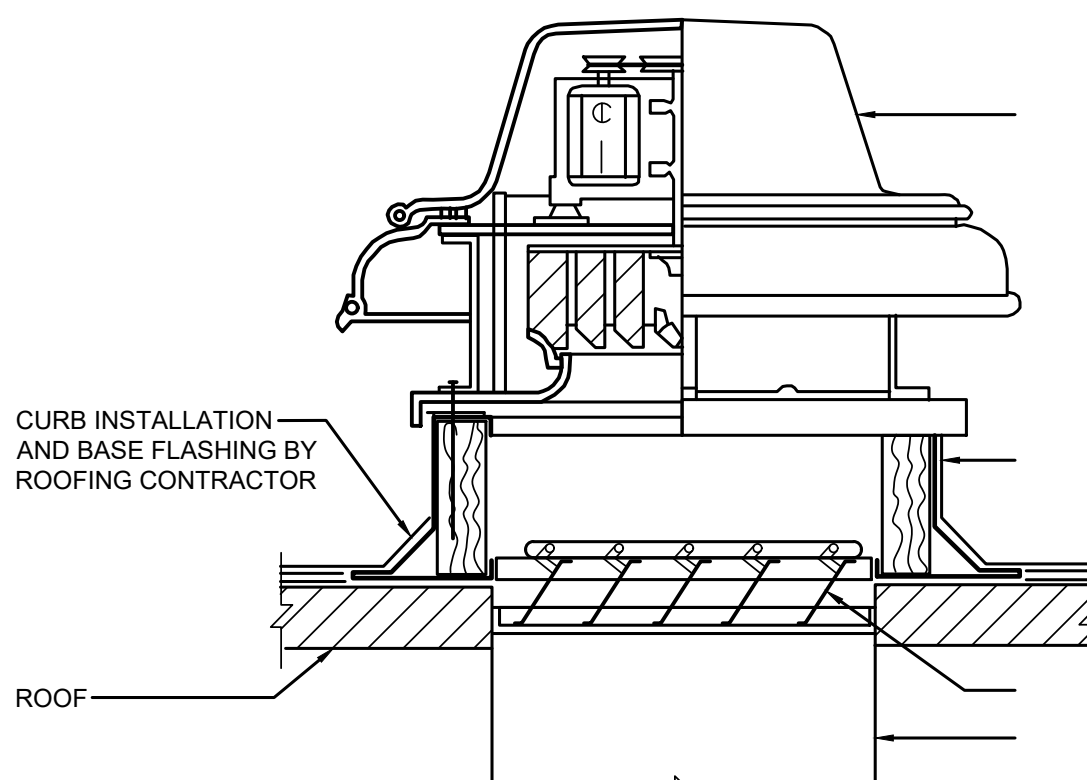


UNIT TYPE	A	B
DRAIN THRU	1.5H ₁	3H ₁
BLOW THRU	2" (MIN.)	2H ₁

H₁ = FAN SUCTION PRESSURE
H₂ = FAN DISCHARGE PRESSURE
H = 150% 1"(MIN.) NEGATIVE STATIC PRESSURE AT FAN INLET

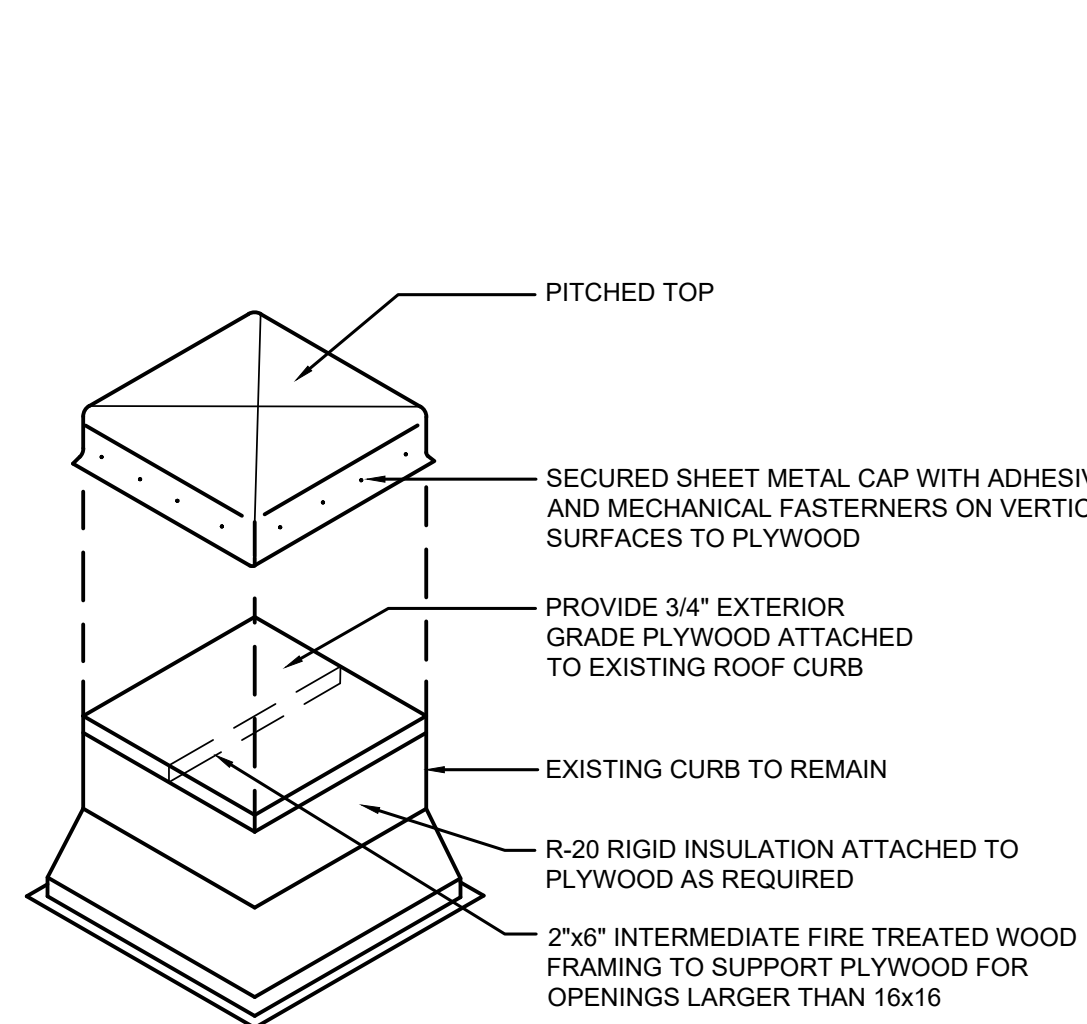
CONDENSATE TRAP DETAIL

NOT TO SCALE



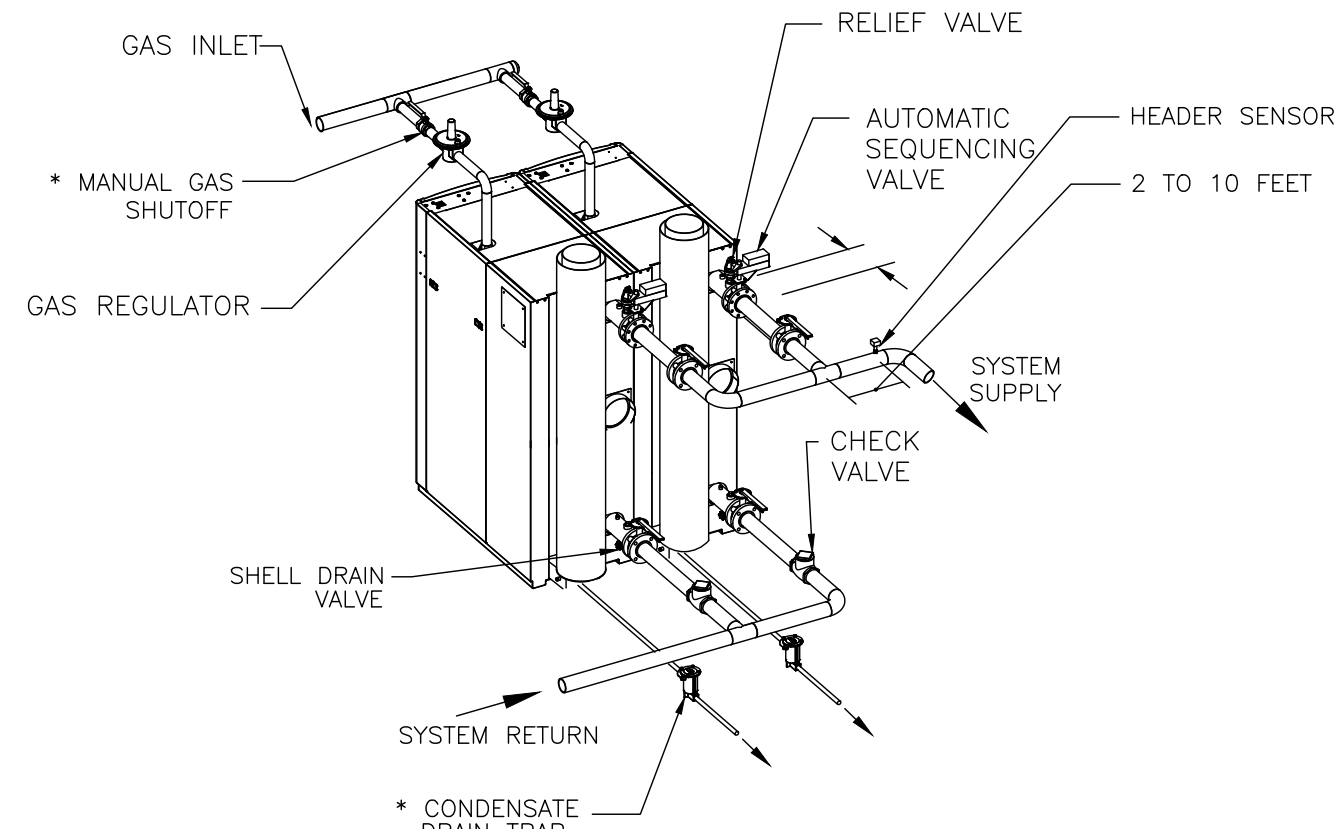
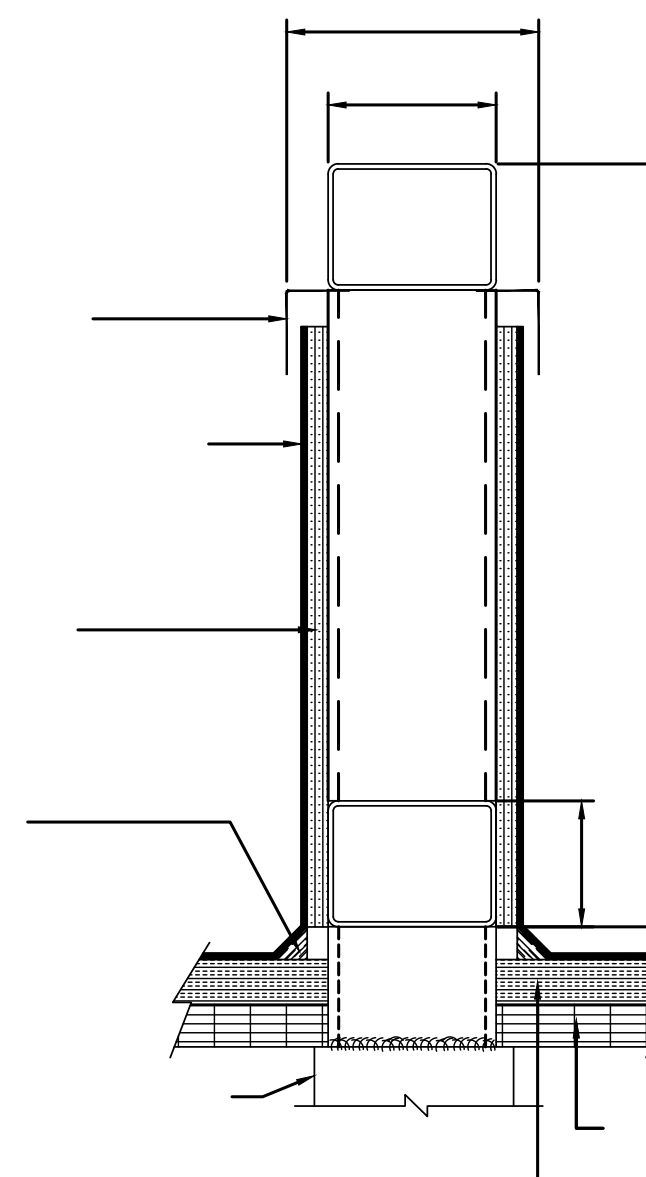
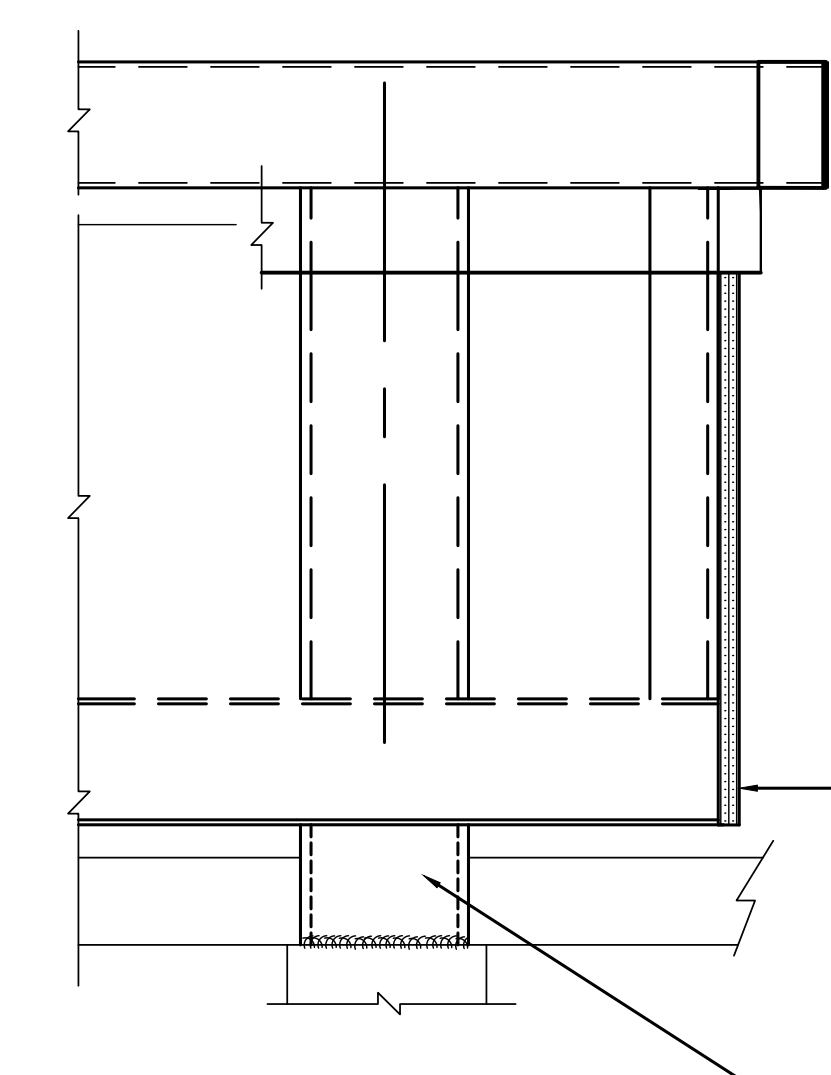
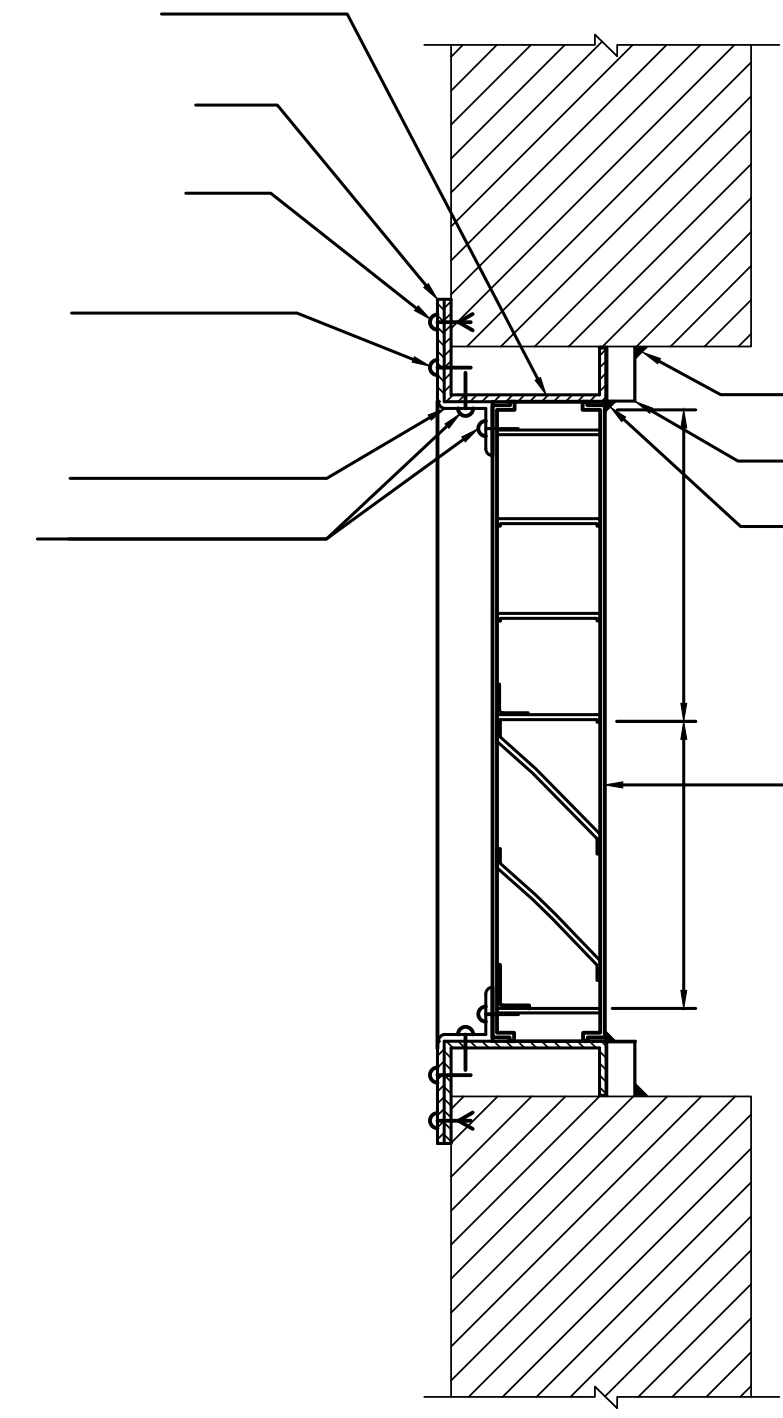
ROOF MOUNTED EXHAUST FAN DETAIL

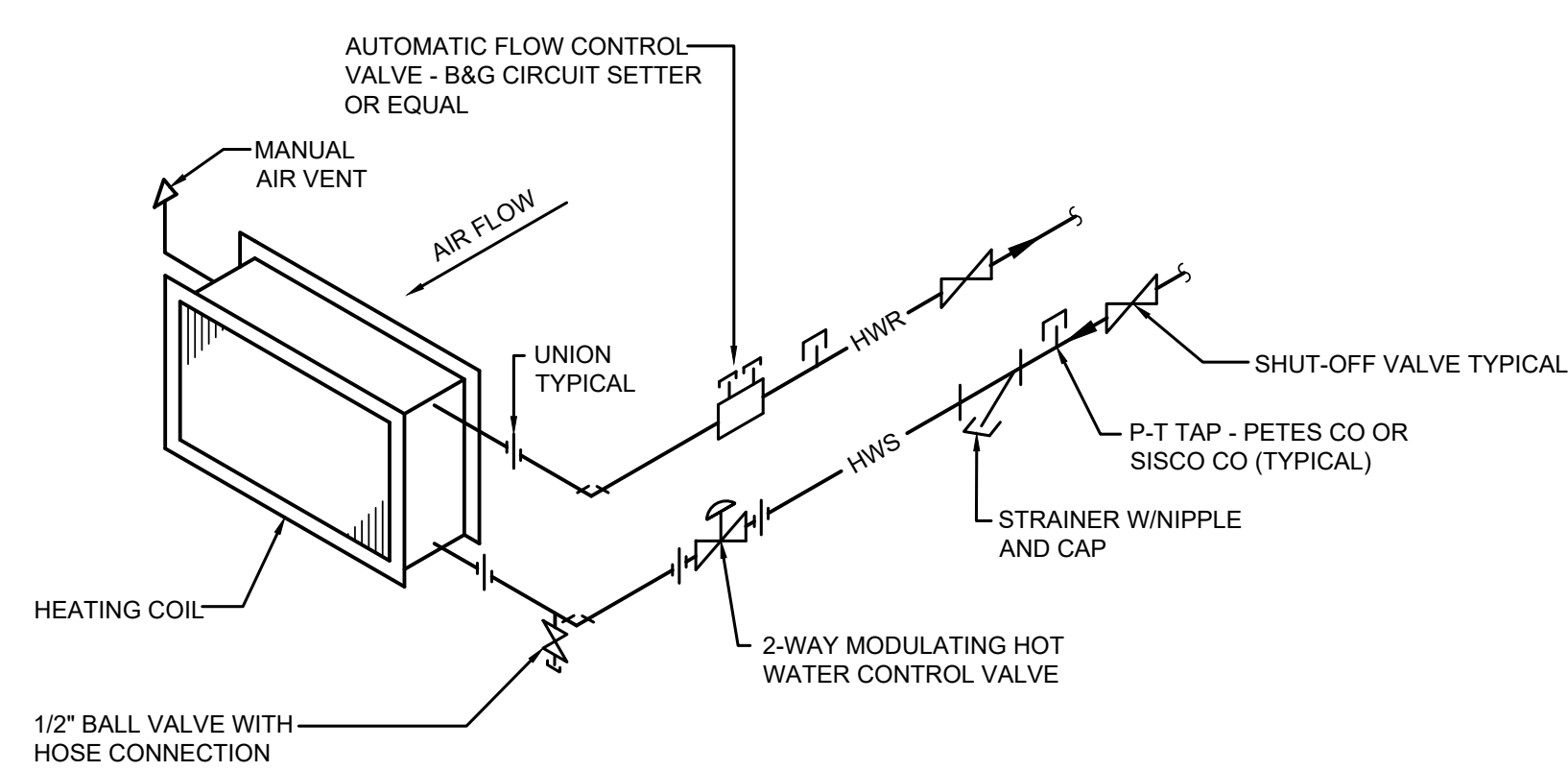
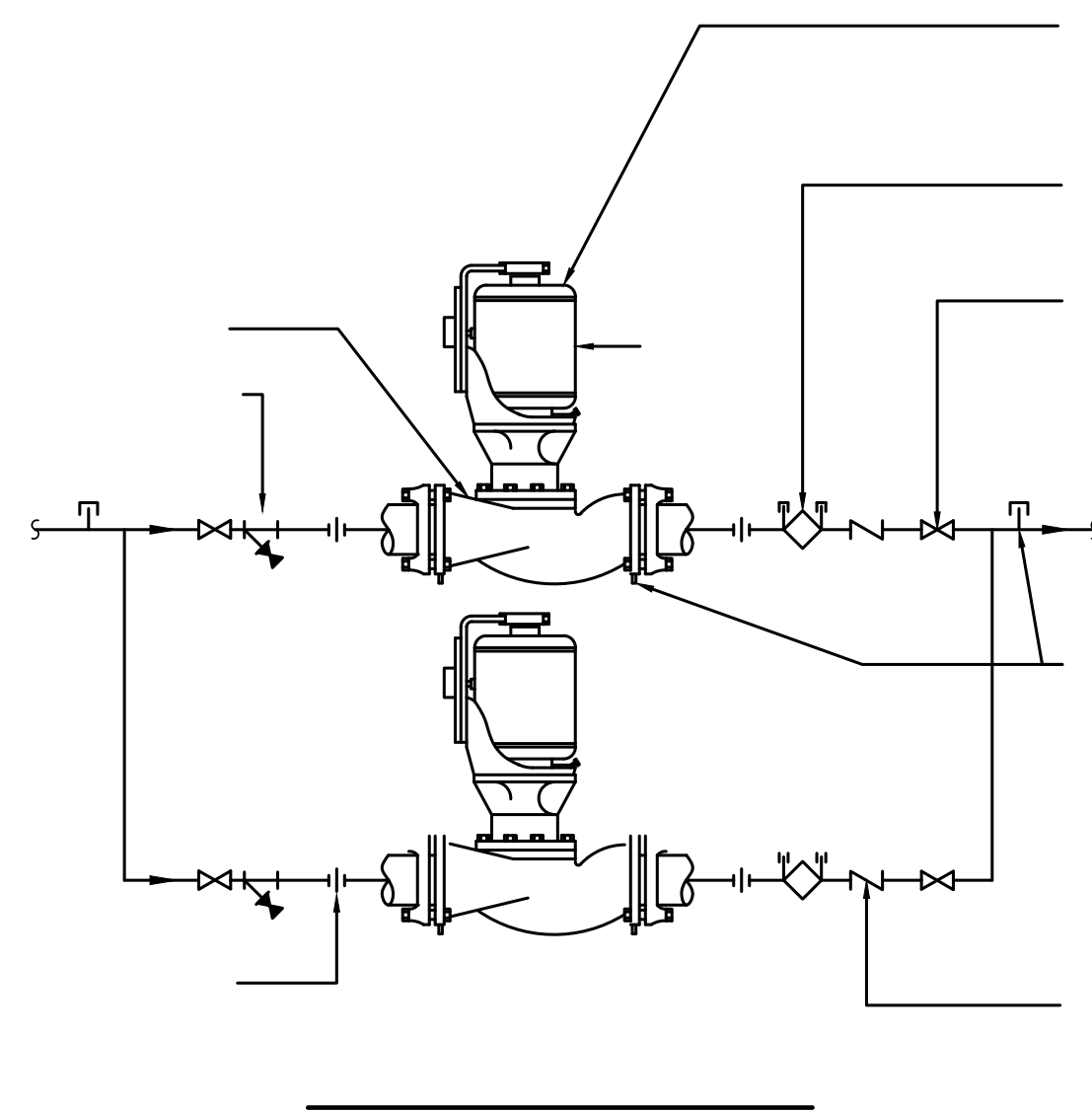
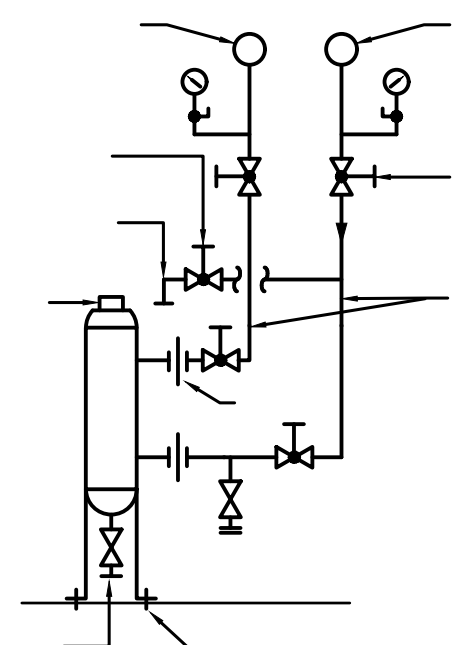
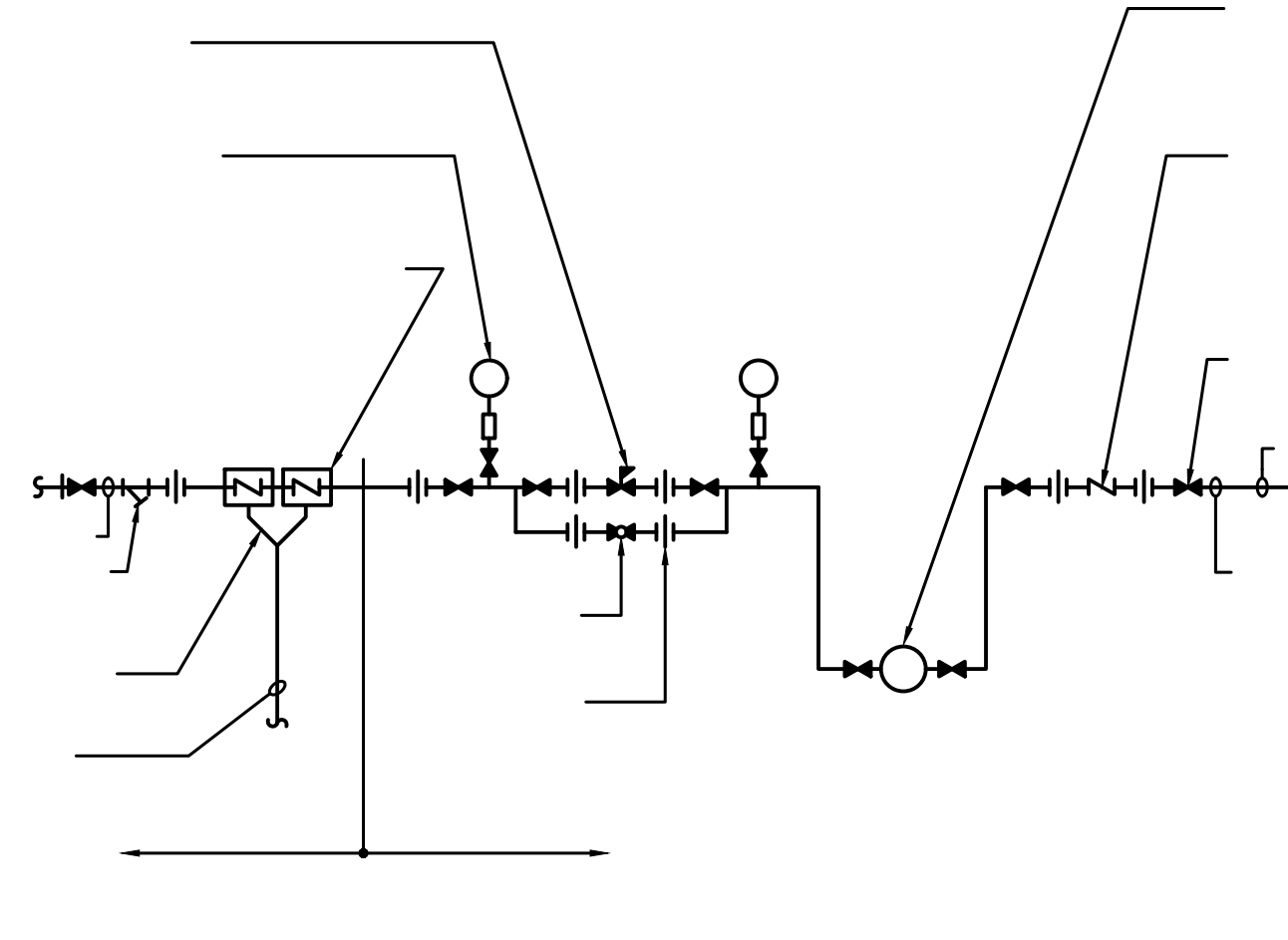
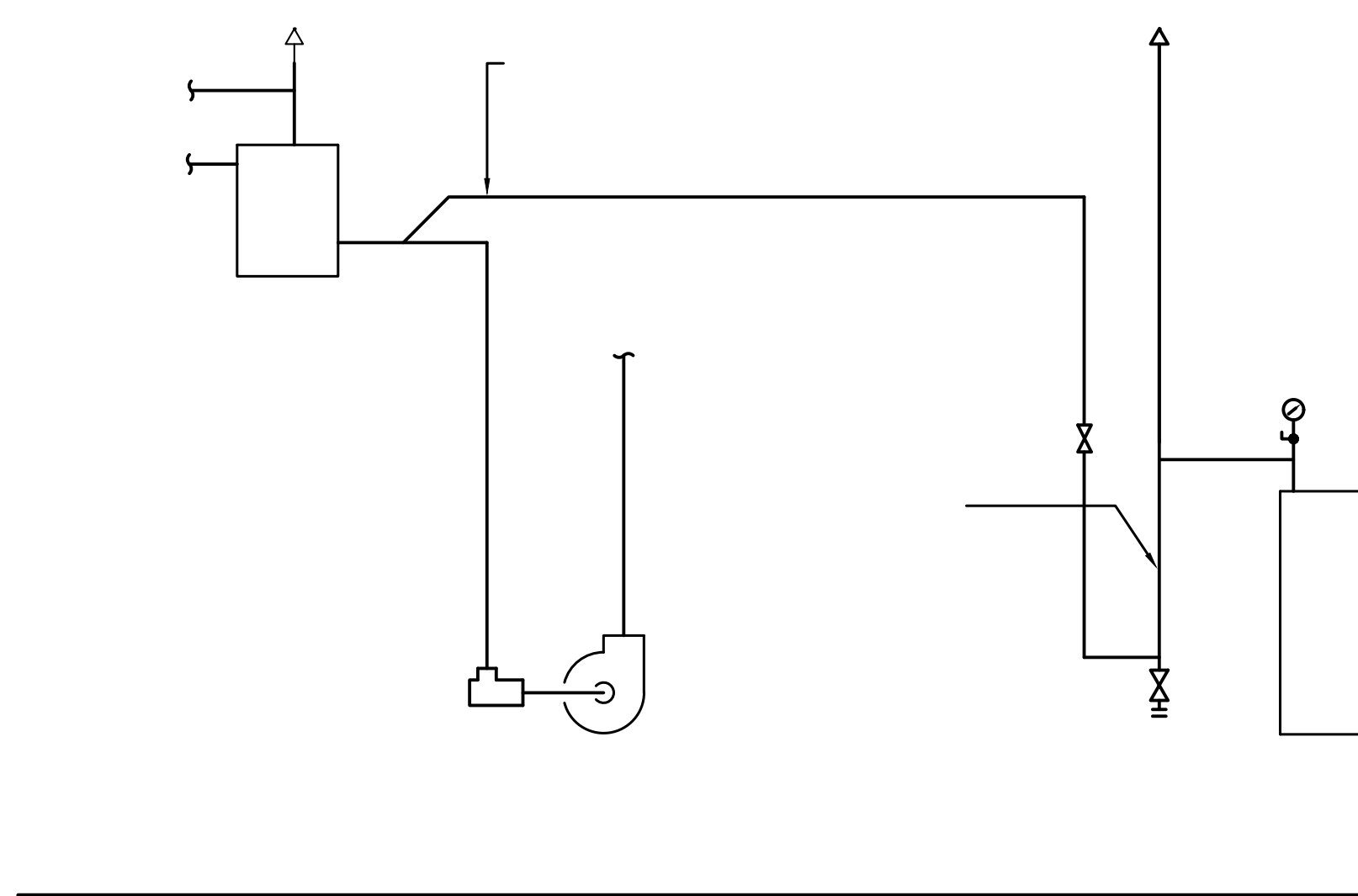
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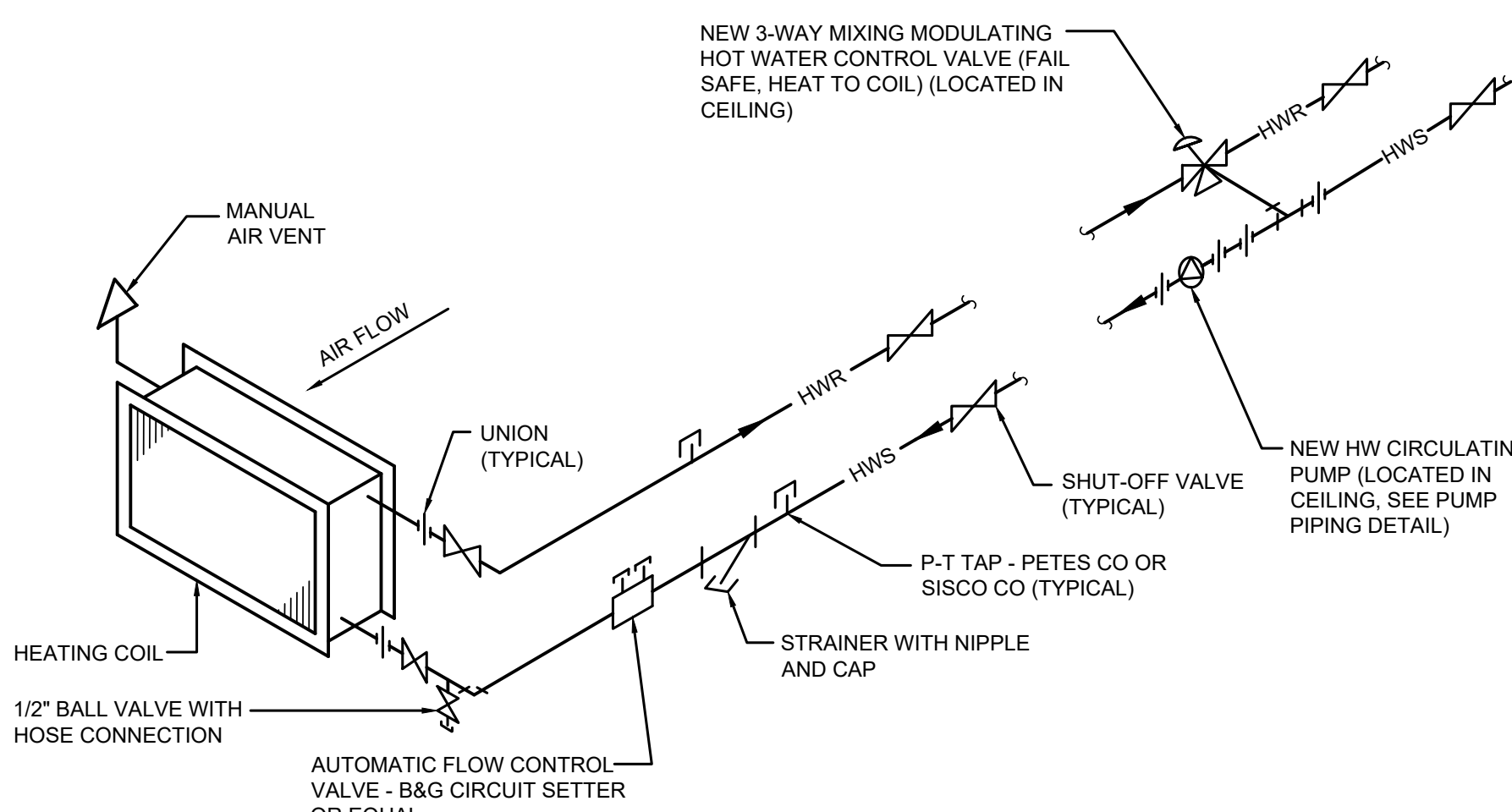
ROOF CURB CAP DETAIL

NOT TO SCALE

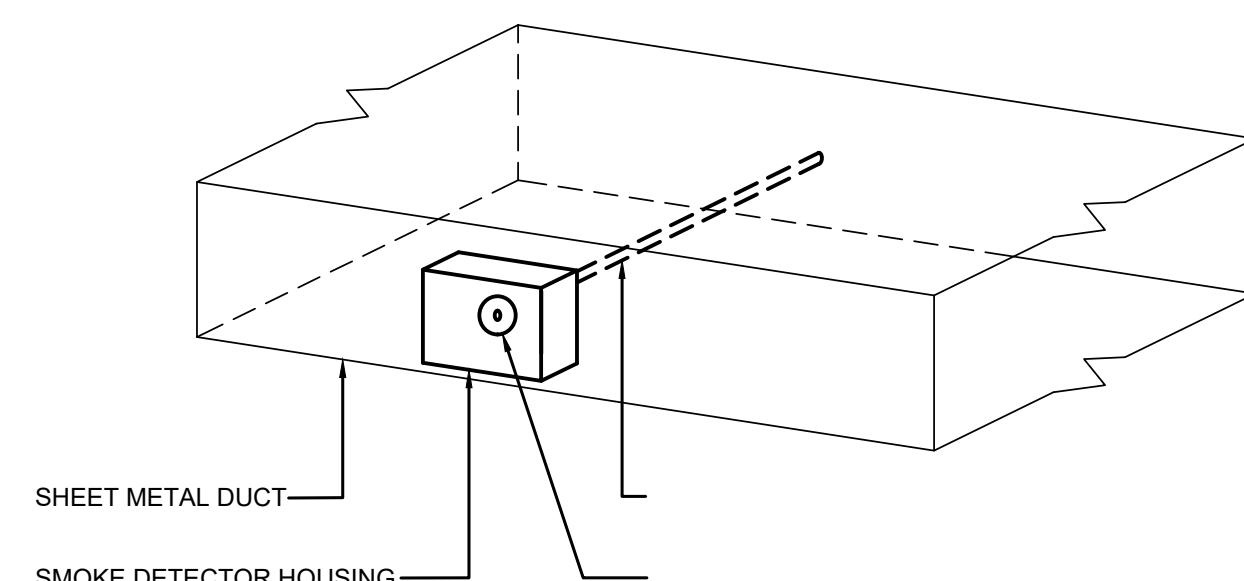




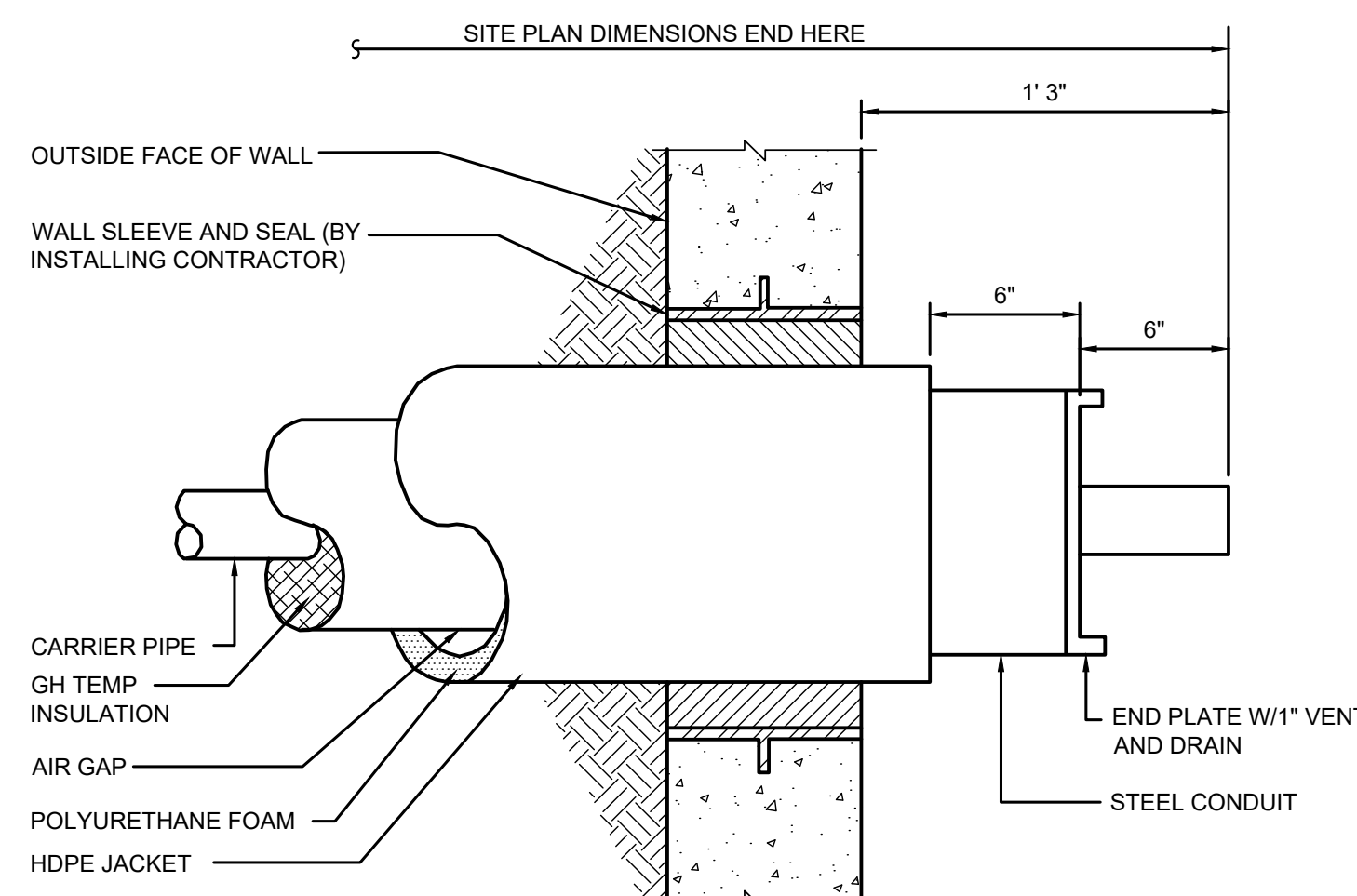
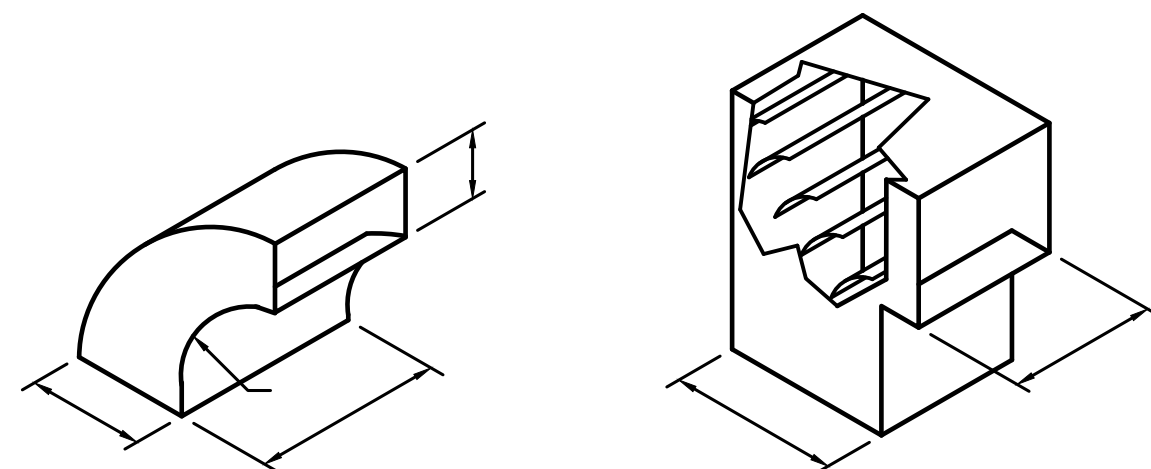
HOT WATER HEATING COIL DETAIL
NOT TO SCALE



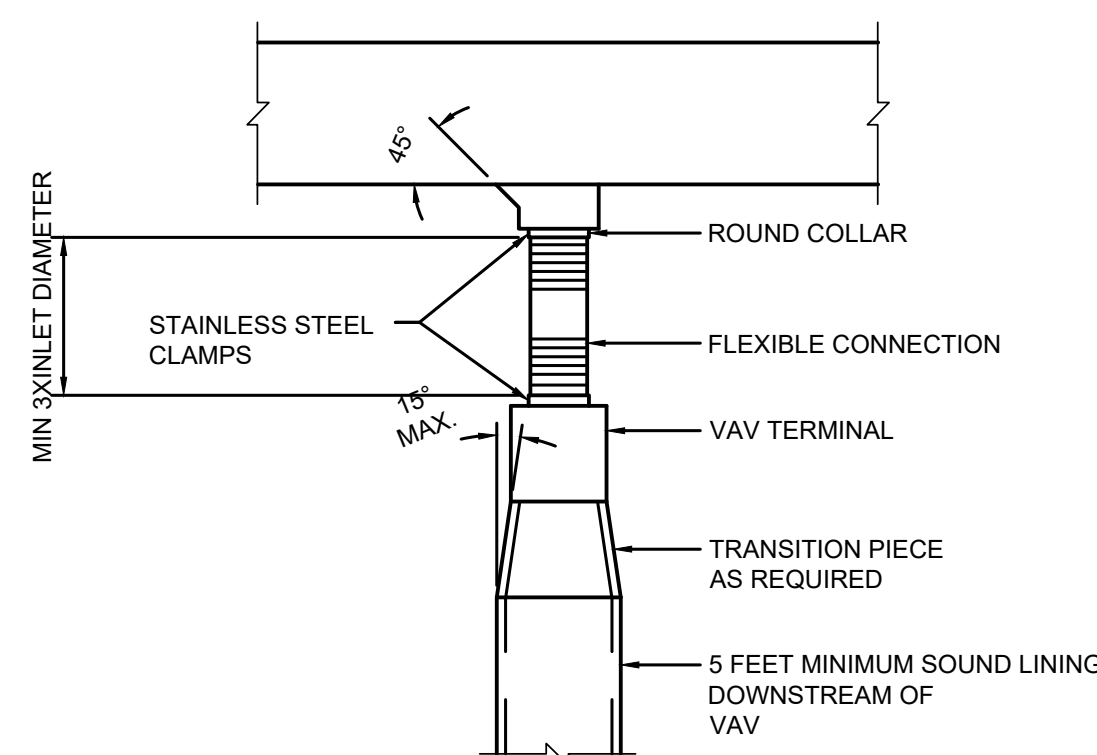
HOT WATER HEATING COIL WITH FREEZE PROTECTION PUMP DETAIL
NOT TO SCALE



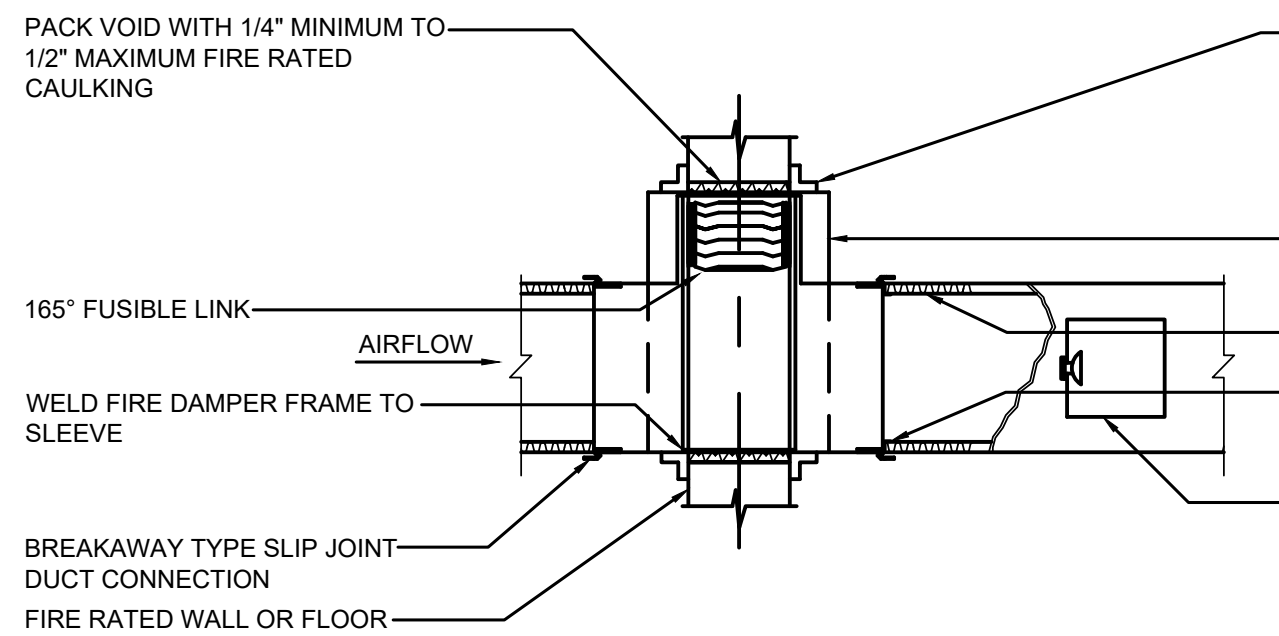
HORIZONTAL DUCT DETECTOR INSTALLATION DETAIL
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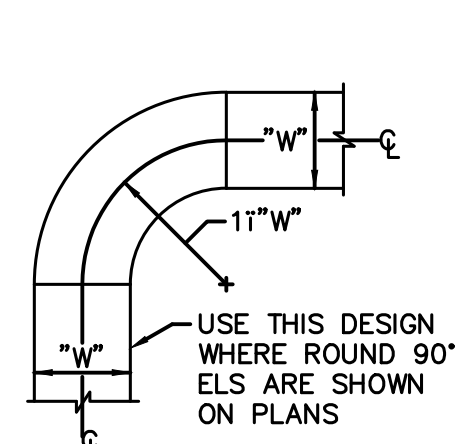
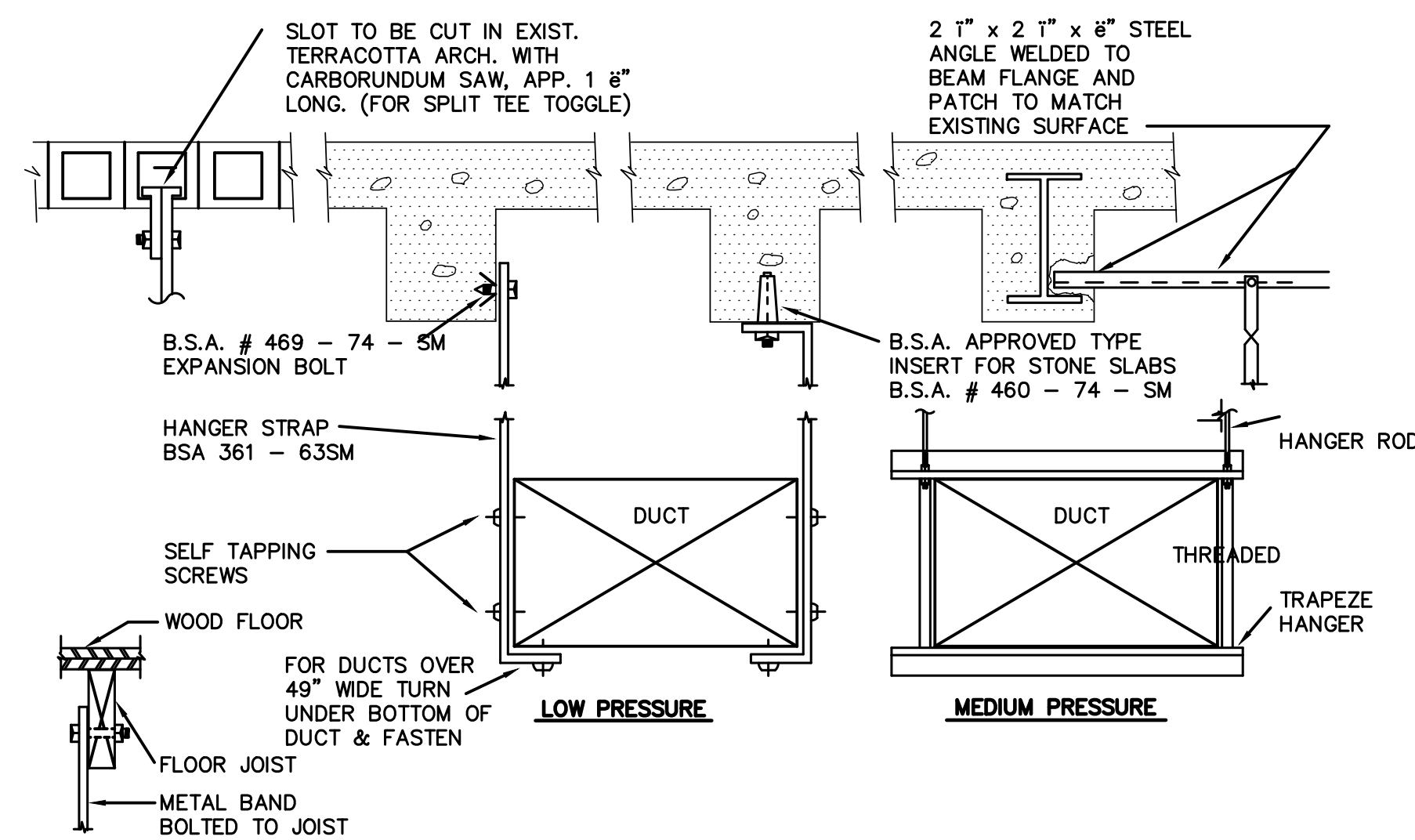
WALL PENETRATION DETAIL
NOT TO SCALE



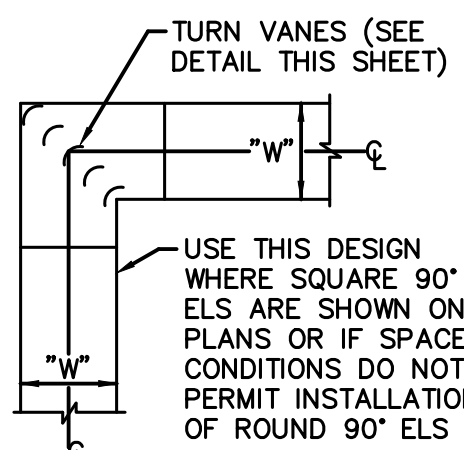
BRANCH CONNECTION TO VAV TERMINAL DETAIL
NOT TO SCALE



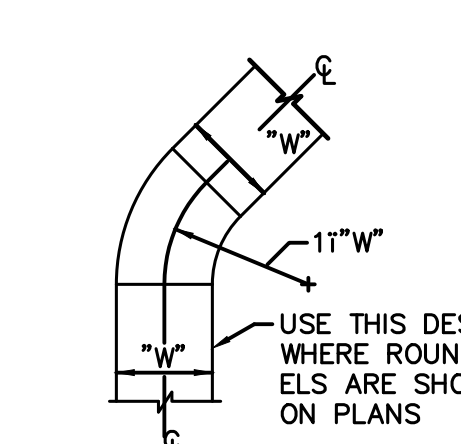
FIRE DAMPER DETAIL
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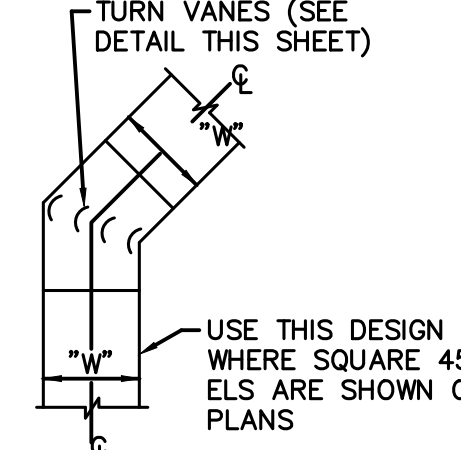
ROUND 90° ELBOW



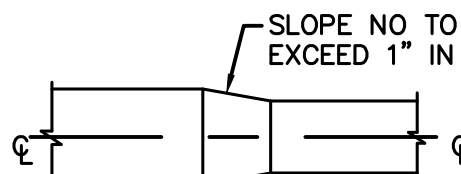
SQUARE 90° ELBOW



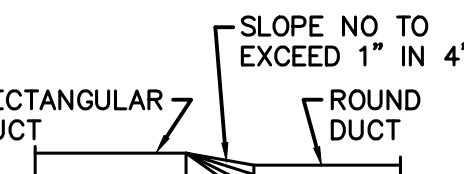
ROUND 45° ELBOW



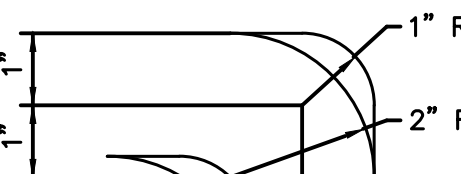
SQUARE 45° ELBOW



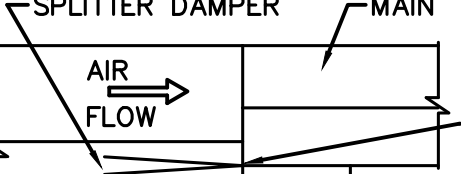
TYPICAL RECTANGULAR TRANSITION



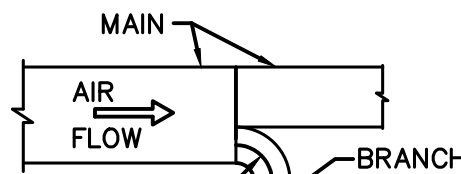
TYPICAL RECTANGULAR TO ROUND TRANSITION



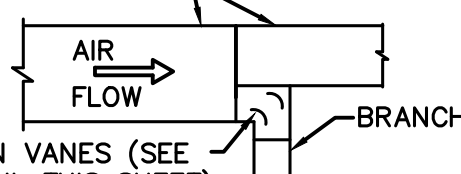
DETAIL OF TURN VANES



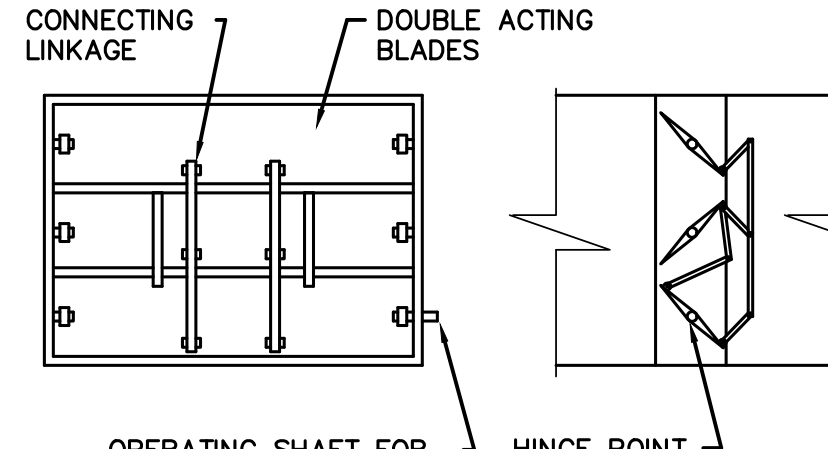
TYPICAL SPLITTER DAMPER



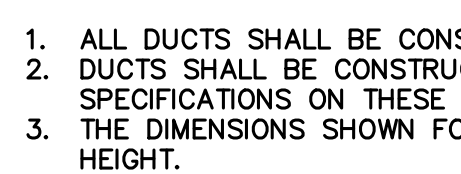
ROUND BRANCH TAKEOFF



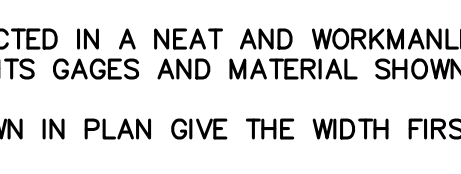
SQUARE BRANCH TAKEOFF
CONSTRUCTION OF BRANCH TAKEOFF FROM MAIN



TYPICAL VOLUME DAMPER



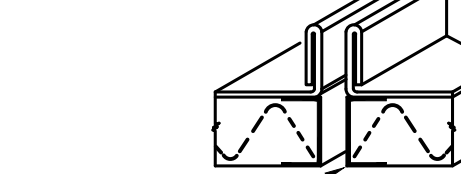
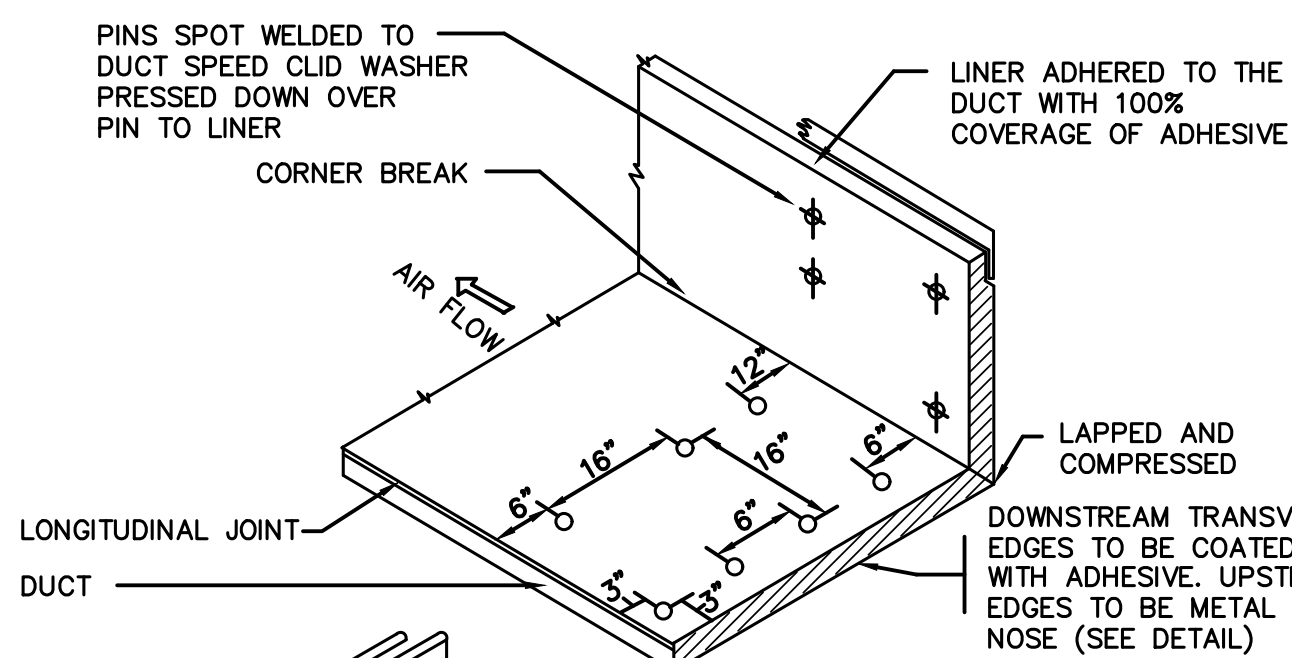
DETAIL OF TURN VANES



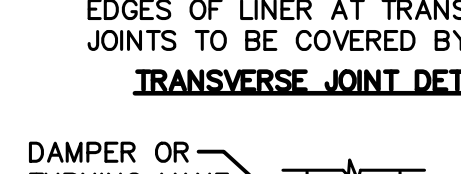
TYPICAL SPLITTER DAMPER

LOW VELOCITY DUCT LAYOUT DETAILS
NOT TO SCALE

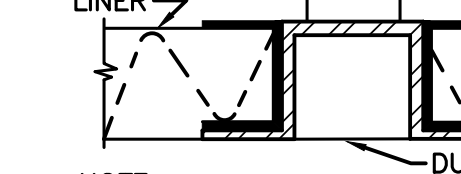
FIRE DAMPER RATING SCHEDULE	
BASED ON INTERNATIONAL BUILDING CODE, LATEST ADOPTED EDITION, TABLE 716.3.1, AND INTERNATIONAL MECHANICAL CODE, LATEST ADOPTED EDITION, TABLE 607.3.1.	
TYPE OF PENETRATION	
LESS THAN 3-HOUR FIRE-RESISTANCE-RATED ASSEMBLIES	
3-HOUR OR GREATER FIRE-RESISTANCE-RATED ASSEMBLIES	
NOTES:	
1. FIRE DAMPERS SHALL BE REQUIRED IN PENETRATIONS AS LISTED ABOVE, WHICH INCLUDE, BUT ARE NOT LIMITED TO, FIRE-RESISTANCE RATED SHIRT WALLS, FLOOR ASSEMBLIES, CEILING ASSEMBLIES, AND SMOKE BARRIERS.	
2. FIRE DAMPERS SHALL HAVE THE MINIMUM FIRE PROTECTION RATING SPECIFIED IN TABLE 607.3.1 OF THE INTERNATIONAL MECHANICAL CODE, LATEST ADOPTED EDITION.	
3. TWO HOUR FIRE-RESISTANCE RATED FIRE WALLS INCLUDE, BUT ARE NOT LIMITED TO, BOILER ROOM, ELEVATOR MACHINE ROOM, FIRE PUMP ROOM, SHEDS, FLOOR PENETRATIONS, AND WHERE NEW ADDITIONS CONNECT TO EXISTING BUILDING.	
4. PROVIDE ACCESS DOORS AT ALL FIRE DAMPERS. ACCESS DOOR LOCATIONS SHALL BE PERMANENTLY IDENTIFIED ON THE EXTERIOR BY A LABEL HAVING MINIMUM 1/2 INCH HEIGHT LETTERING READING "FIRE DAMPER" IN ACCORDANCE WITH IBC, LATEST ADOPTED EDITION 717.4 AND IMC, LATEST ADOPTED EDITION 607.4.	
5. IBC, LATEST ADOPTED EDITION, 717.5.2, "FIRE BARRIERS"; EXCEPTION 3, & IMC, LATEST ADOPTED EDITION, 607.5.2 "FIRE BARRIERS"; EXCEPTION 3 FIRE DAMPERS ARE NOT REQUIRED AT HVAC DUCT PENETRATIONS OF FIRE BARRIERS WITH A REQUIRED 1-HOUR OR LESS FIRE-RESISTANCE RATING WHERE BUILDING IS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM.	
6. IBC, LATEST ADOPTED EDITION, 717.5.4, "FIRE PARTITIONS"; EXCEPTION 1, & IMC, LATEST ADOPTED EDITION, 607.5.3 "FIRE PARTITIONS"; EXCEPTION 1, FIRE DAMPERS ARE NOT REQUIRED AT HVAC DUCT PENETRATIONS OF FIRE PARTITIONS WHERE PARTITIONS ARE TENANT SEPARATION AND CORRIDOR WALLS IN BUILDINGS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM.	
7. IBC, LATEST ADOPTED EDITION, 717.5.4, "FIRE PARTITIONS"; EXCEPTION 3, & IMC, LATEST ADOPTED EDITION 607.5.3 "FIRE PARTITIONS"; EXCEPTION 3, FIRE DAMPERS ARE NOT REQUIRED AT HVAC DUCT PENETRATIONS OF FIRE PARTITIONS WHERE DUCT SYSTEM IS CONSTRUCTED OF APPROVED MATERIALS PER IMC, LATEST ADOPTED EDITION, AND THE DUCT PENETRATING THE PARTITION MEETS THE FOLLOWING MINIMUM REQUIREMENTS:	
A. THE DUCT SHALL NOT EXCEED 100 SQUARE INCHES.	
B. THE DUCT SHALL BE CONSTRUCTED OF STEEL A MINIMUM OF 0.0217 INCH THICKNESS.	
C. THE DUCT SHALL NOT HAVE OPENINGS THAT COMMUNICATE THE CORRIDOR WITH ADJACENT SPACES OR ROOMS.	
D. THE DUCT SHALL BE INSTALLED ABOVE A CEILING.	
E. THE DUCT SHALL NOT TERMINATE AT A WALL REGISTER IN THE FIRE-RESISTANCE-RATED WALL.	
F. A MINIMUM 12 INCH LONG BY 0.060 INCH THICK STEEL SLEEVE SHALL BE CENTERED IN EACH DUCT OPENING. THE SLEEVE SHALL BE SECURED TO BOTH SIDES OF THE WALL AND ALL FOUR SIDES OF THE SLEEVE WITH MINIMUM 1 1/2 INCH BY 1 1/2 INCH BY 0.060 INCH STEEL RETAINING ANGLES. THE RETAINING ANGLES SHALL BE SECURED TO THE SLEEVE AND WALL WITH NO. 10 SCREWS. THE ANNULAR SPACE BETWEEN THE STEEL SLEEVE AND THE WALL OPENING SHALL BE FILLED WITH ROCK (MINERAL) WOOL BATTING ON ALL SIDES.	



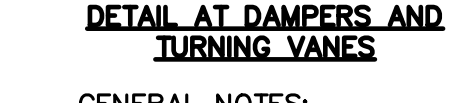
TRANSVERSE JOINT DETAIL



DETAIL AT DAMPERS AND TURNING VANES



ACCESS DOOR NOSING DETAIL



ACCESS DOOR NOSING DETAIL

ACCESS DOOR NOSING DETAIL

ACCESS DOOR NOSING DETAIL

ACCESS DOOR NOSING DETAIL

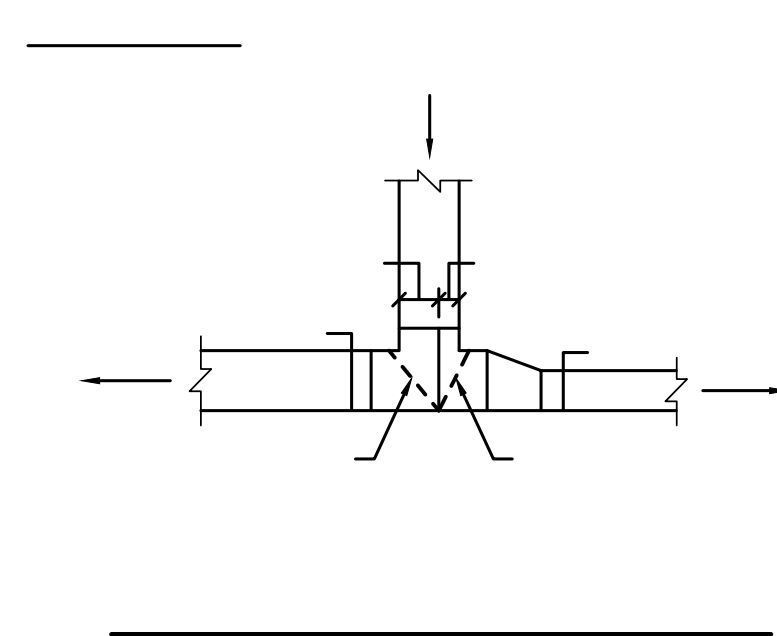
ACCESS DOOR NOSING DETAIL

ACCESS DOOR NOSING DETAIL

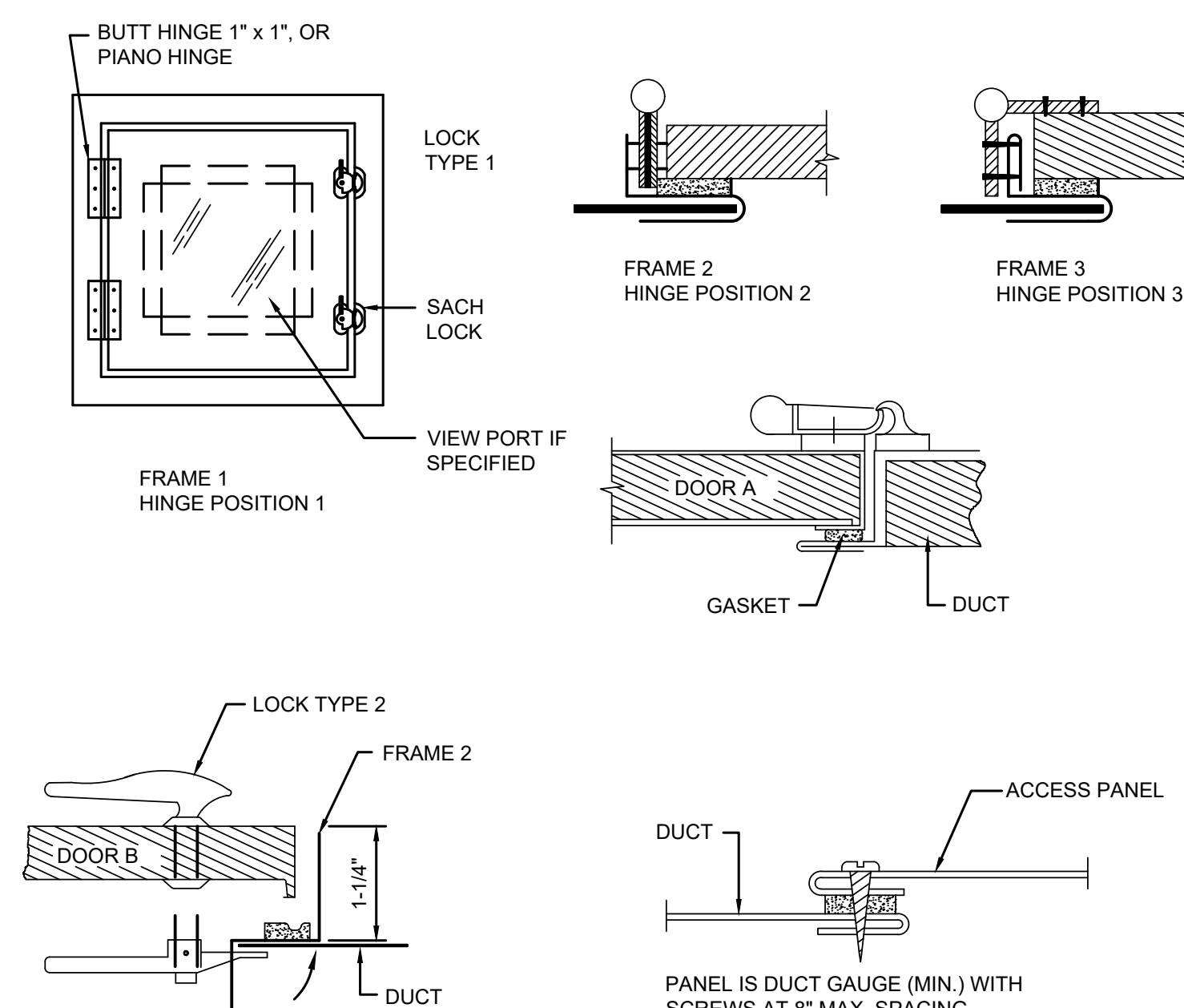
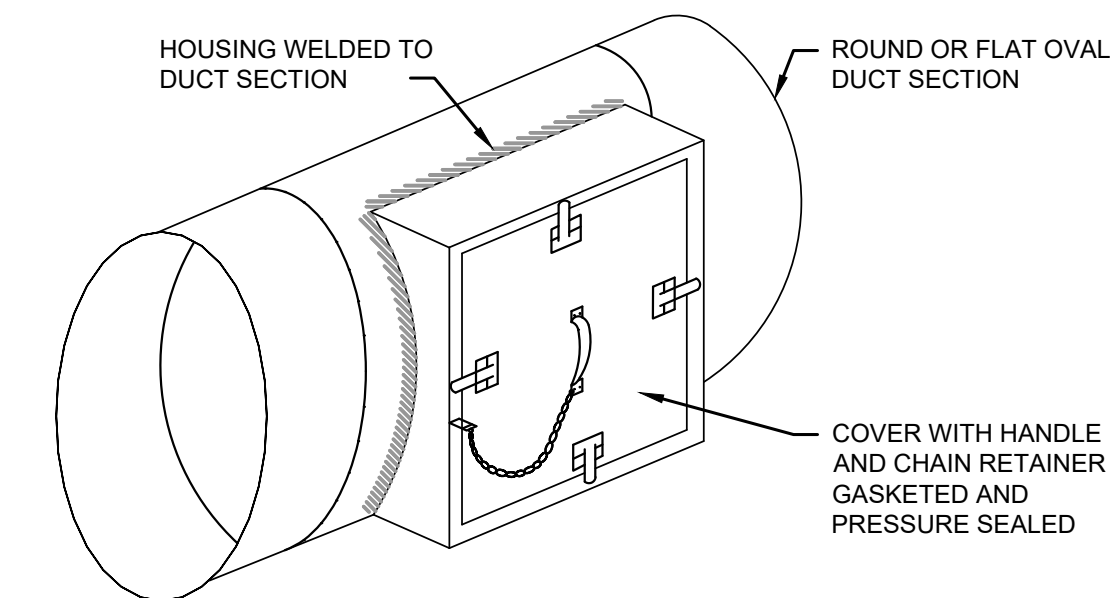
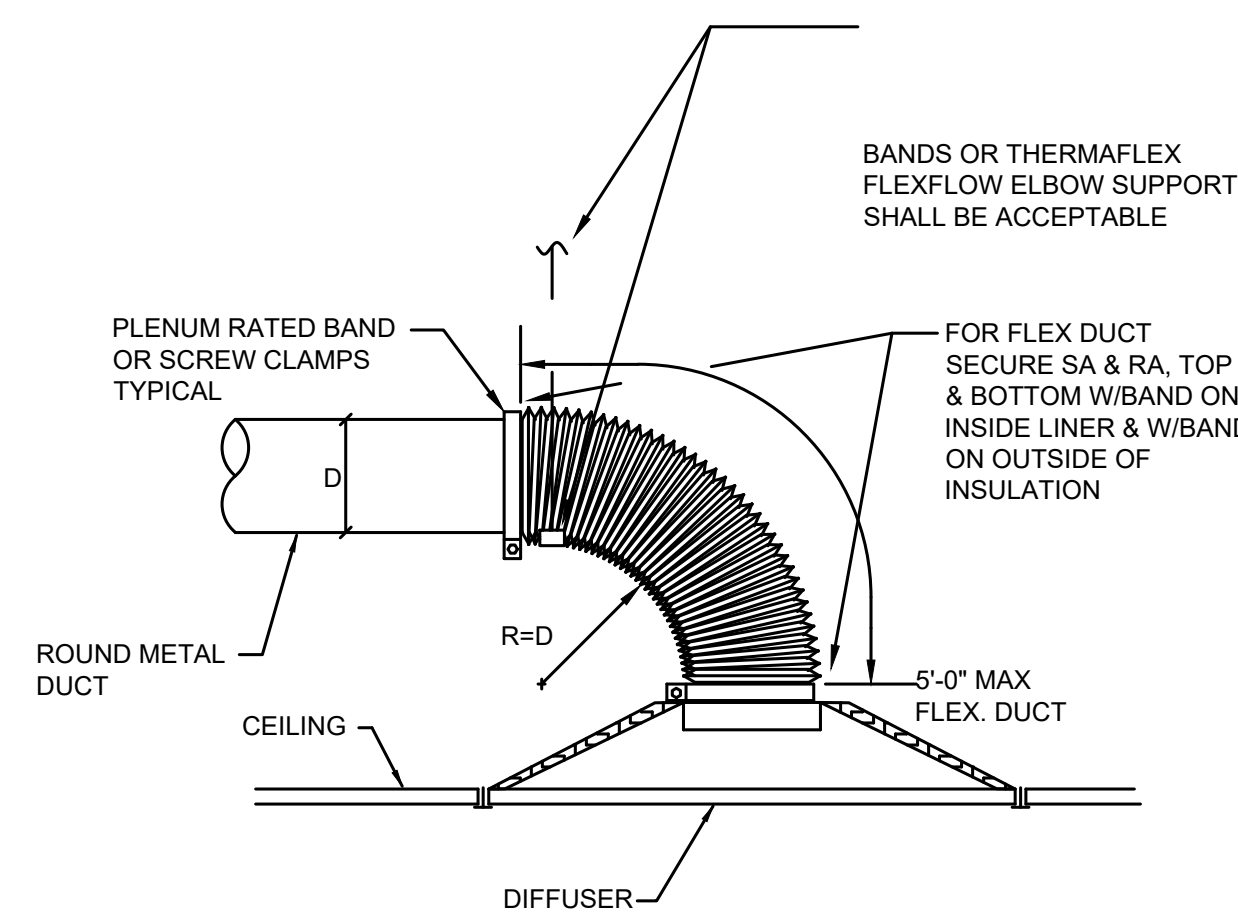
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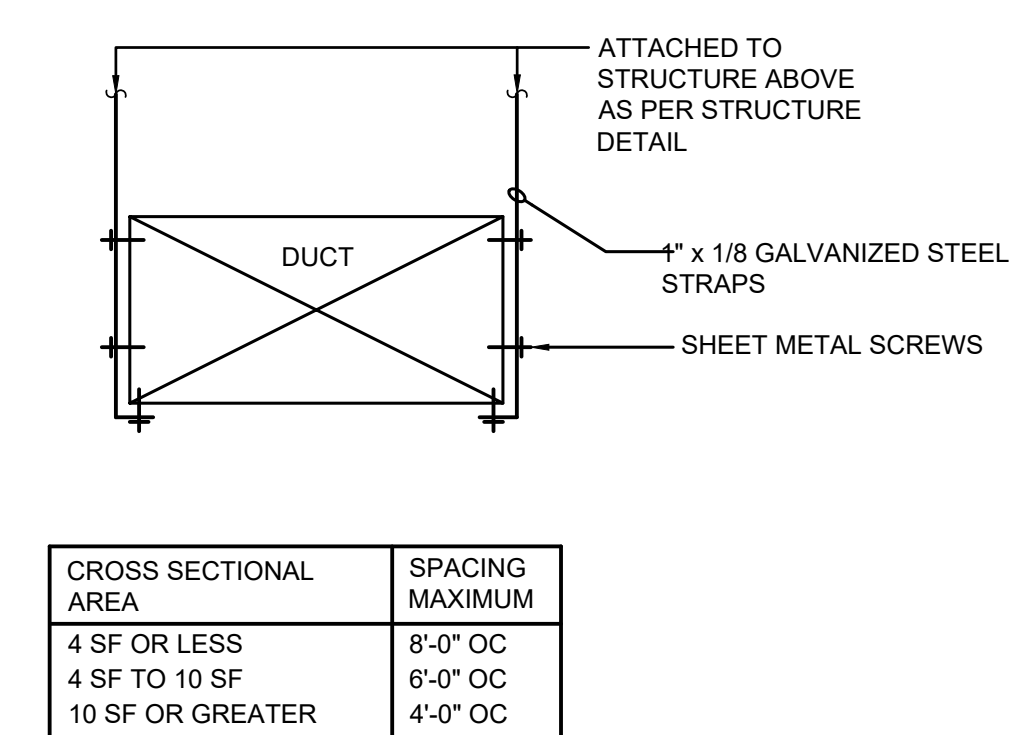
ACCESS DOOR NOSING DETAIL



DIFFUSER CONNECTION DETAIL
NOT TO SCALE



DUCT ACCESS DOORS
NOT TO SCALE



DUCT HANGER DETAIL
NOT TO SCALE

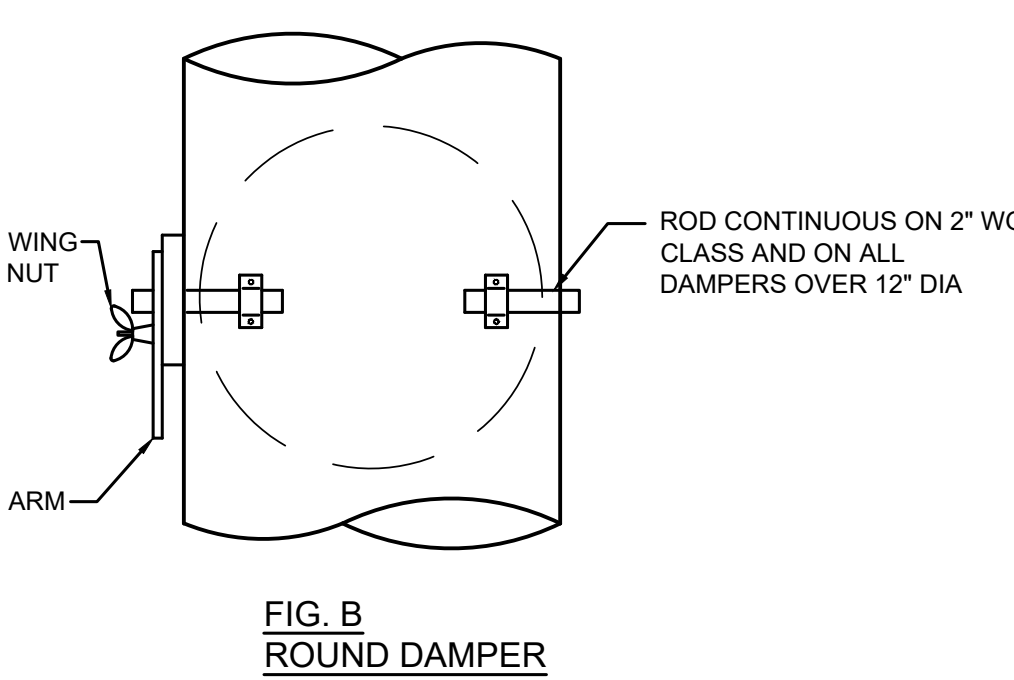
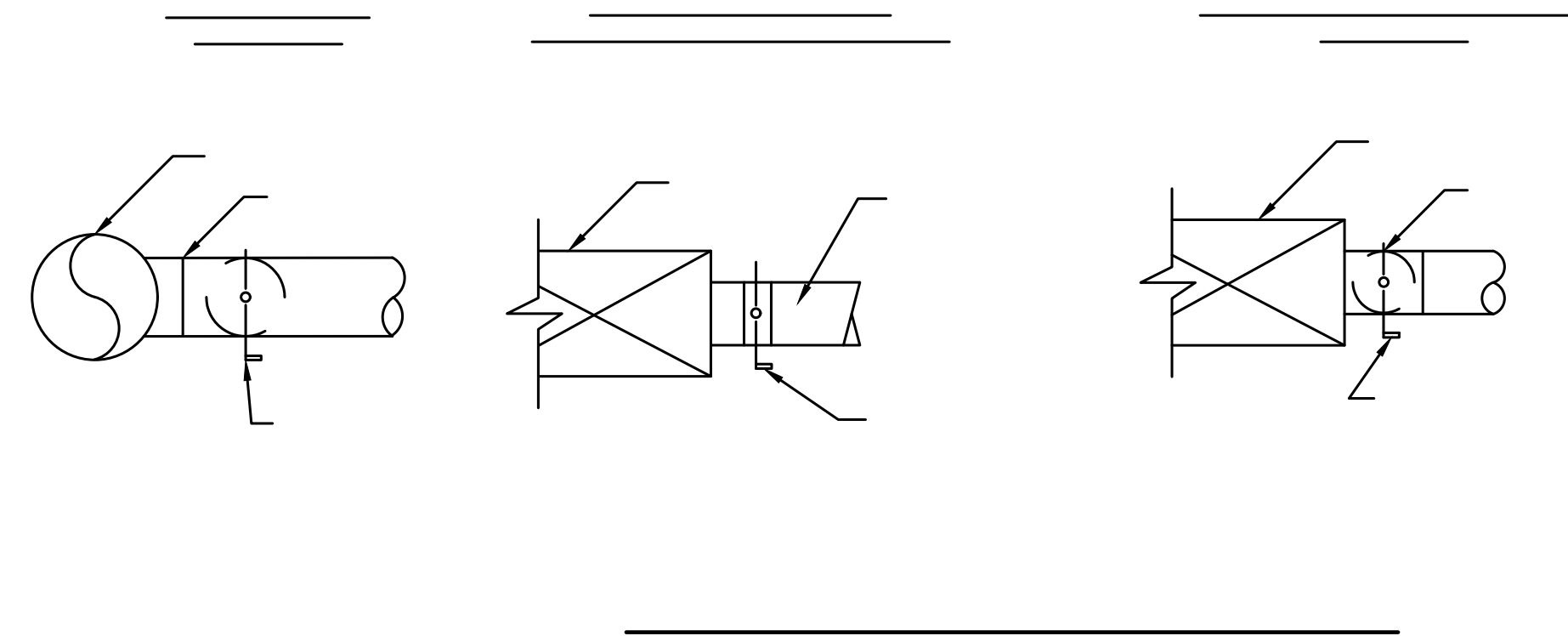


FIG. B
ROUND DAMPER

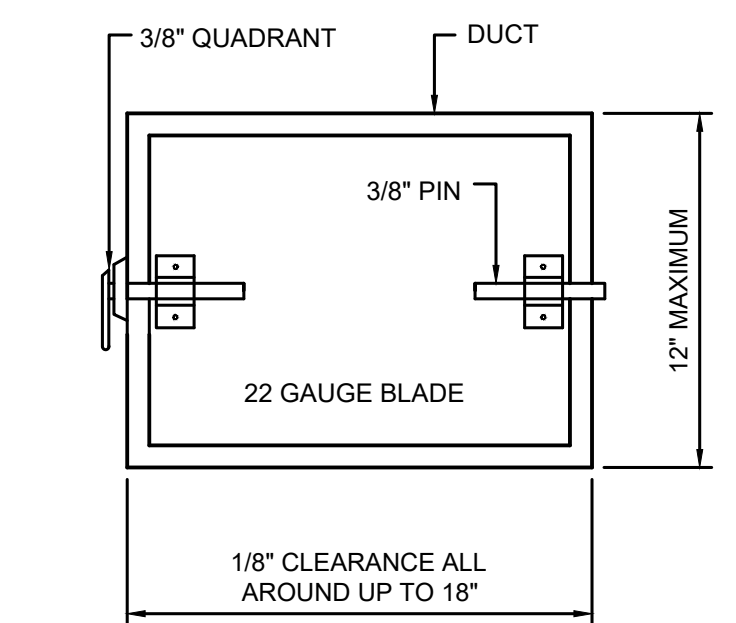
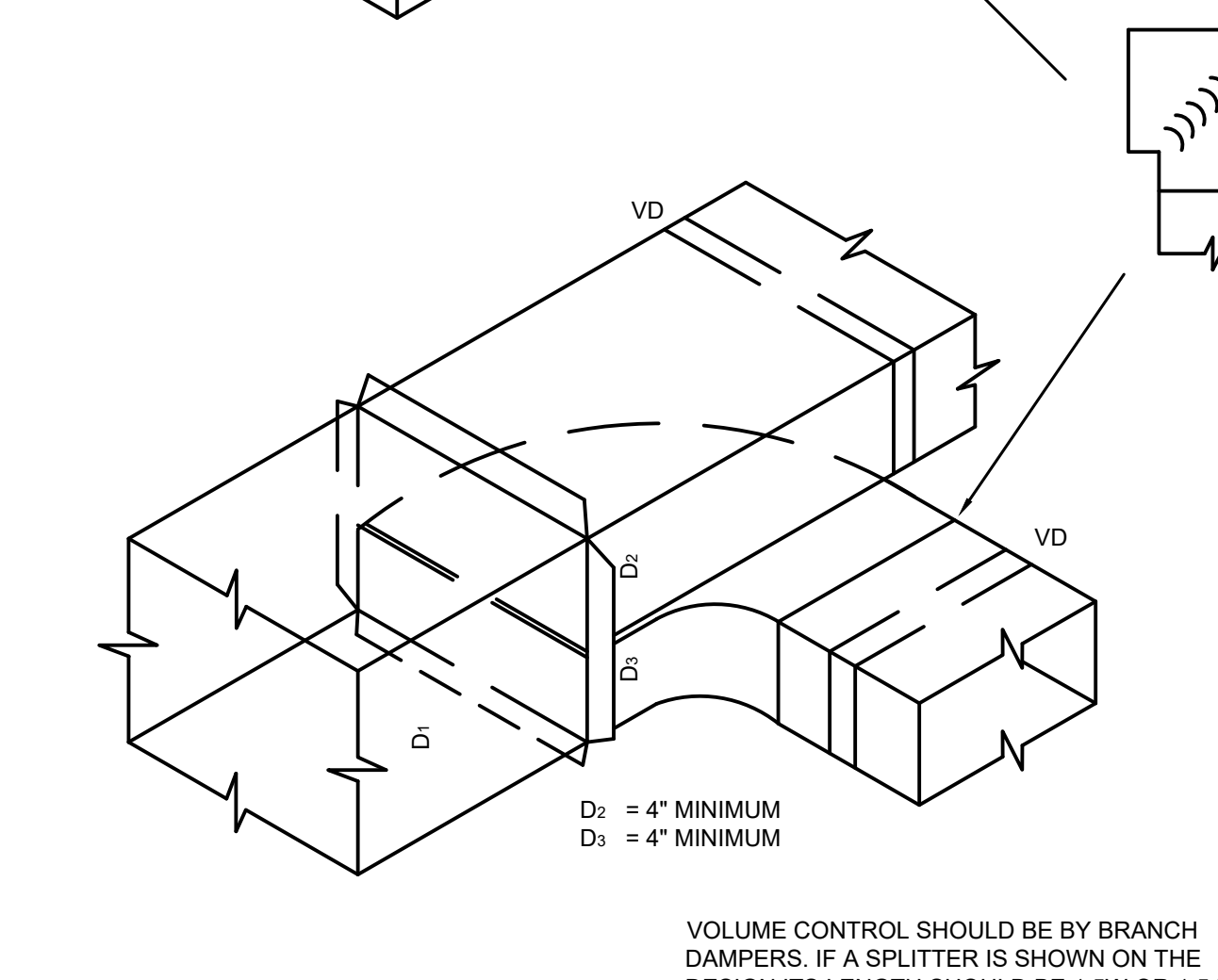
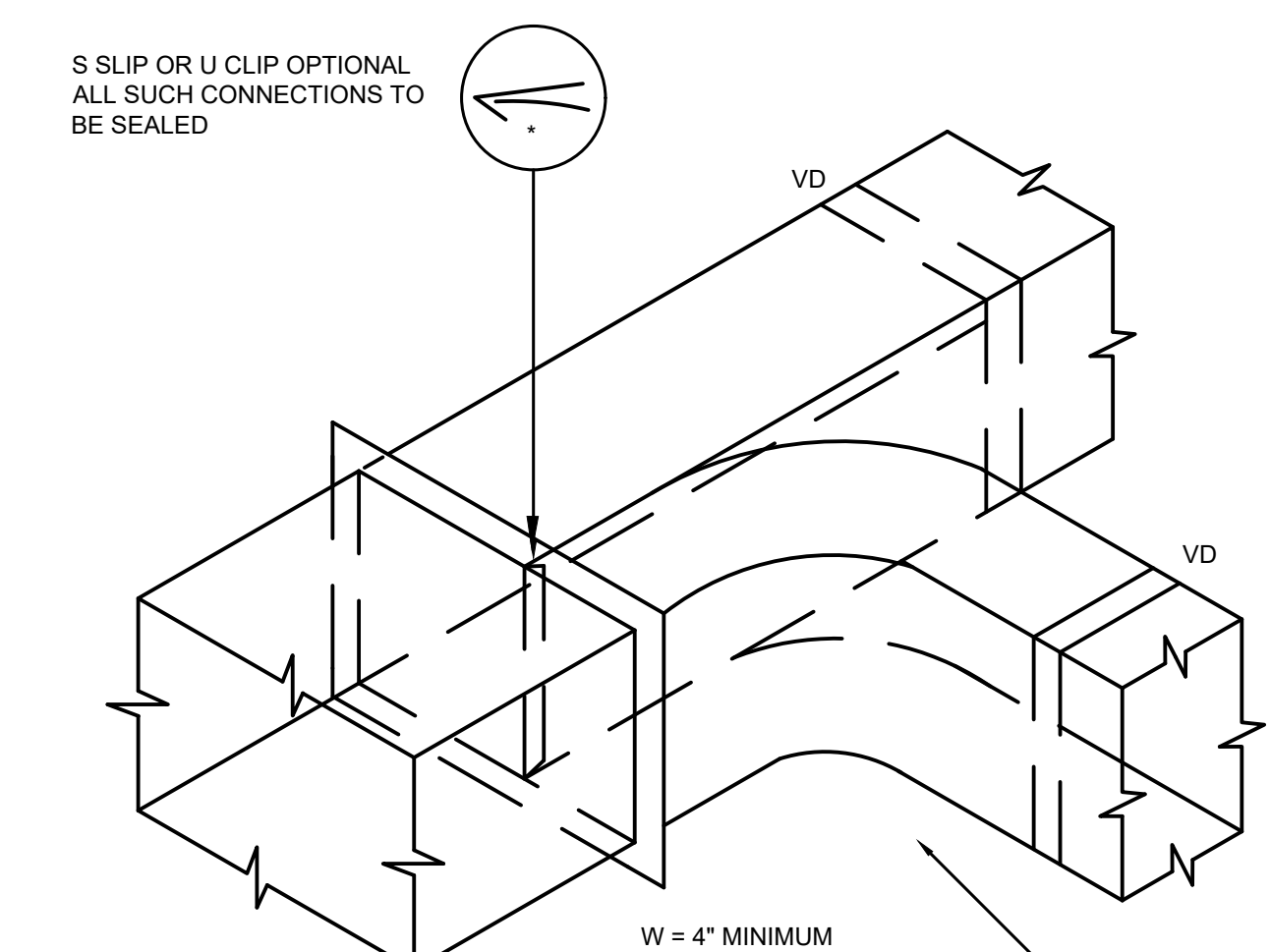


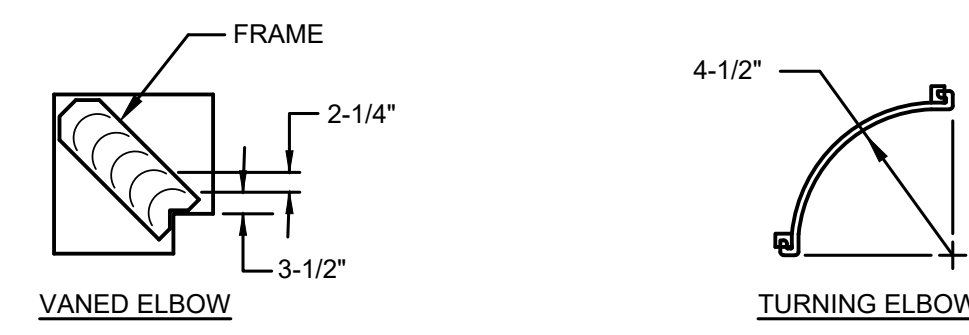
FIG. A
RECTANGULAR DAMPER

RECTANGULAR VOLUME DAMPERS EXCEEDING 1.5 SF
SHALL BE OPPOSED BLADE DAMPER TYPE

VOLUME DAMPERS - SINGLE BLADE TYPE
NOT TO SCALE

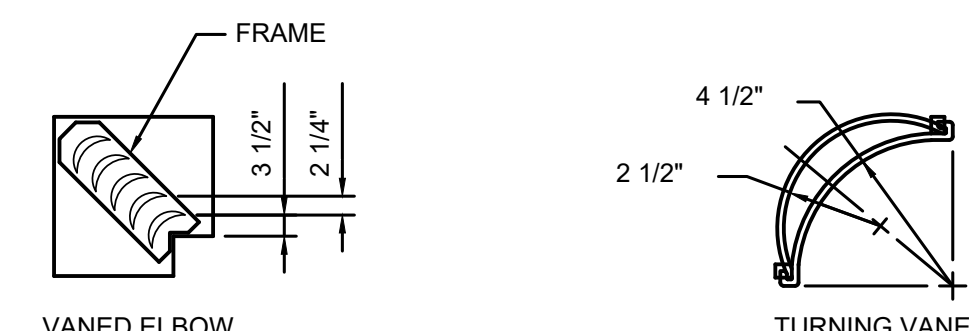


PARALLEL FLOW BRANCHES DETAIL
NOT TO SCALE



NOTES:
1. LOCKING LUGS INTEGRAL WITH VANE.
2. MAXIMUM UNSUPPORTED VANE LENGTH 36".
3. FRAMES BOLTED OR RIVETED TO ELBOW.
4. VANES AND FRAME SAME GAUGE AS ELBOW.

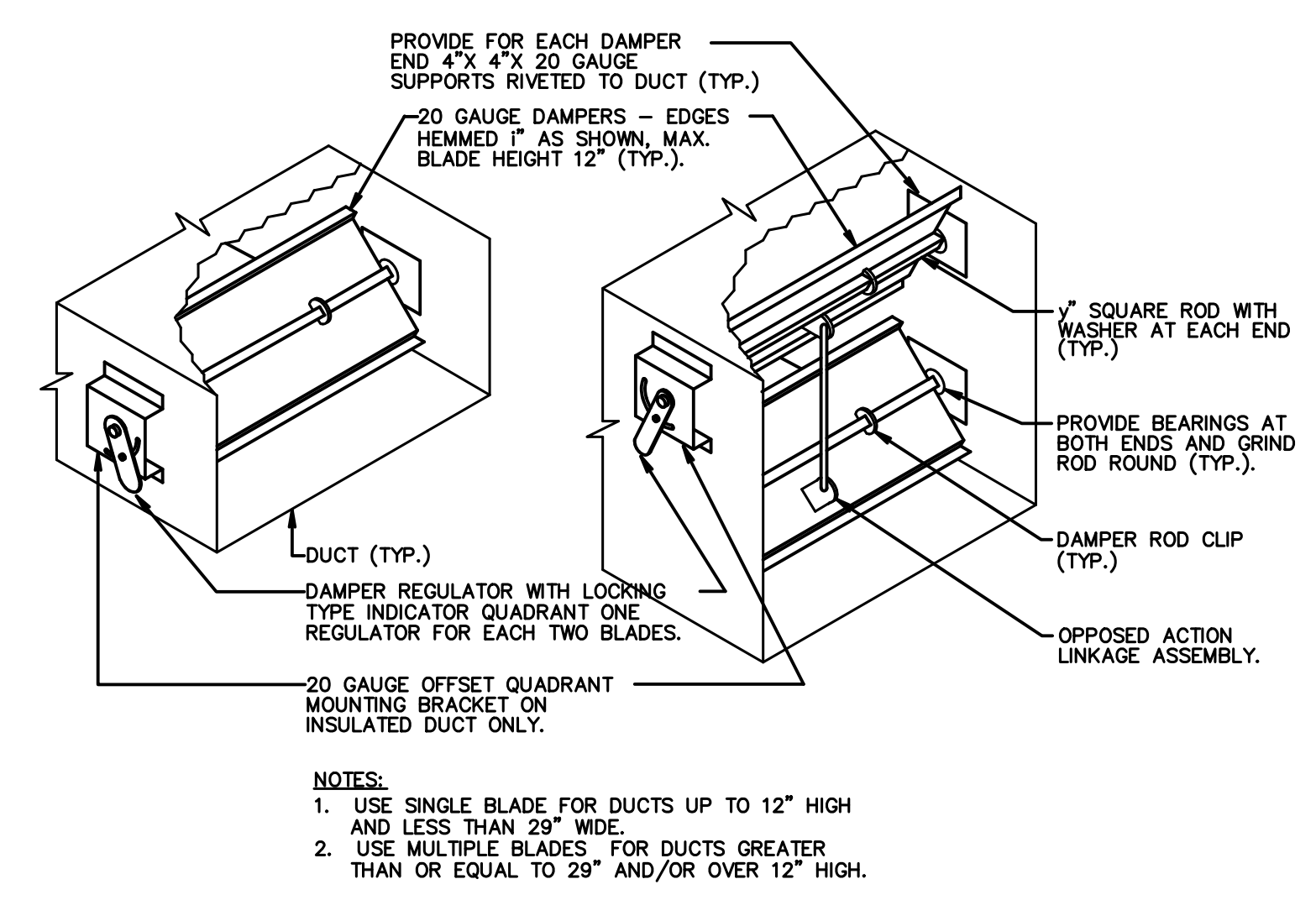
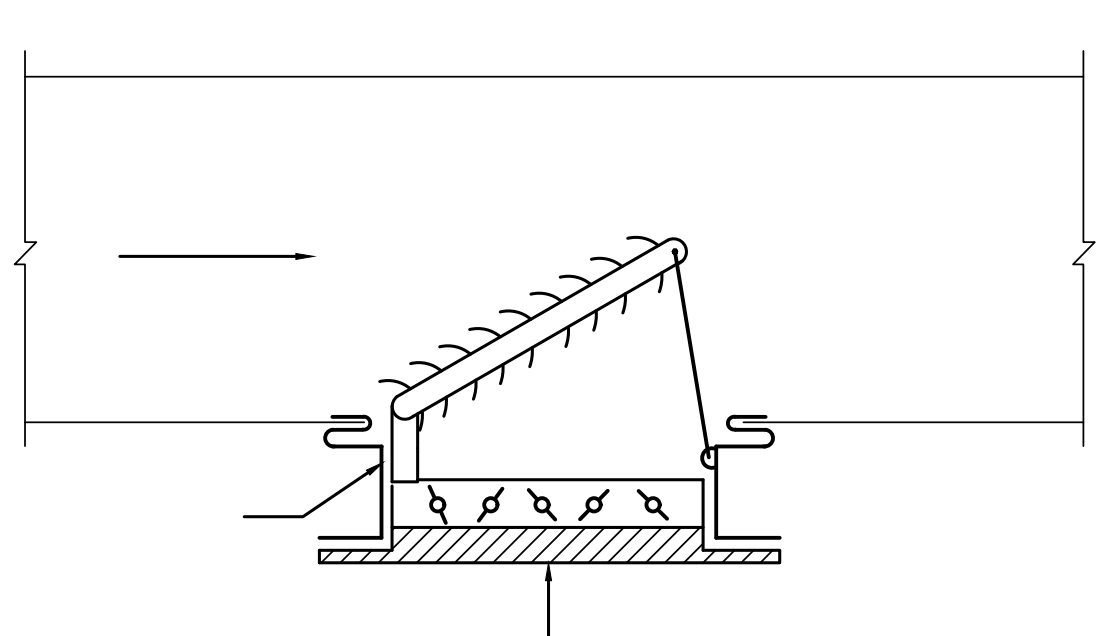
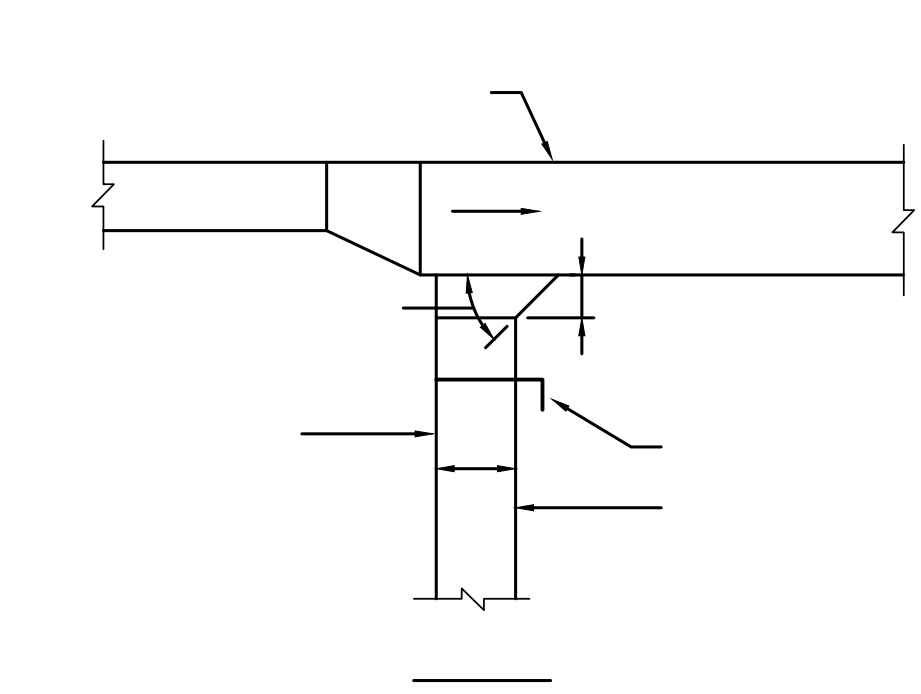
SINGLE THICKNESS
DUCTWORK UNDER 1200 FPM



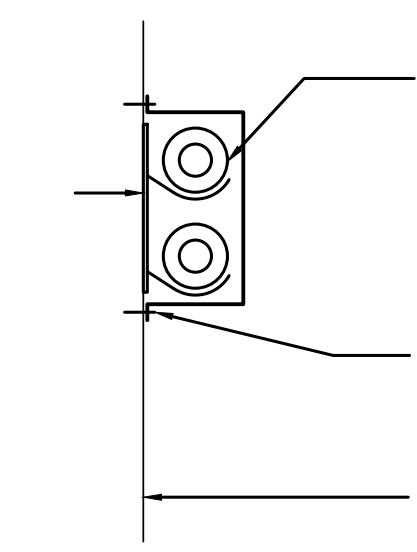
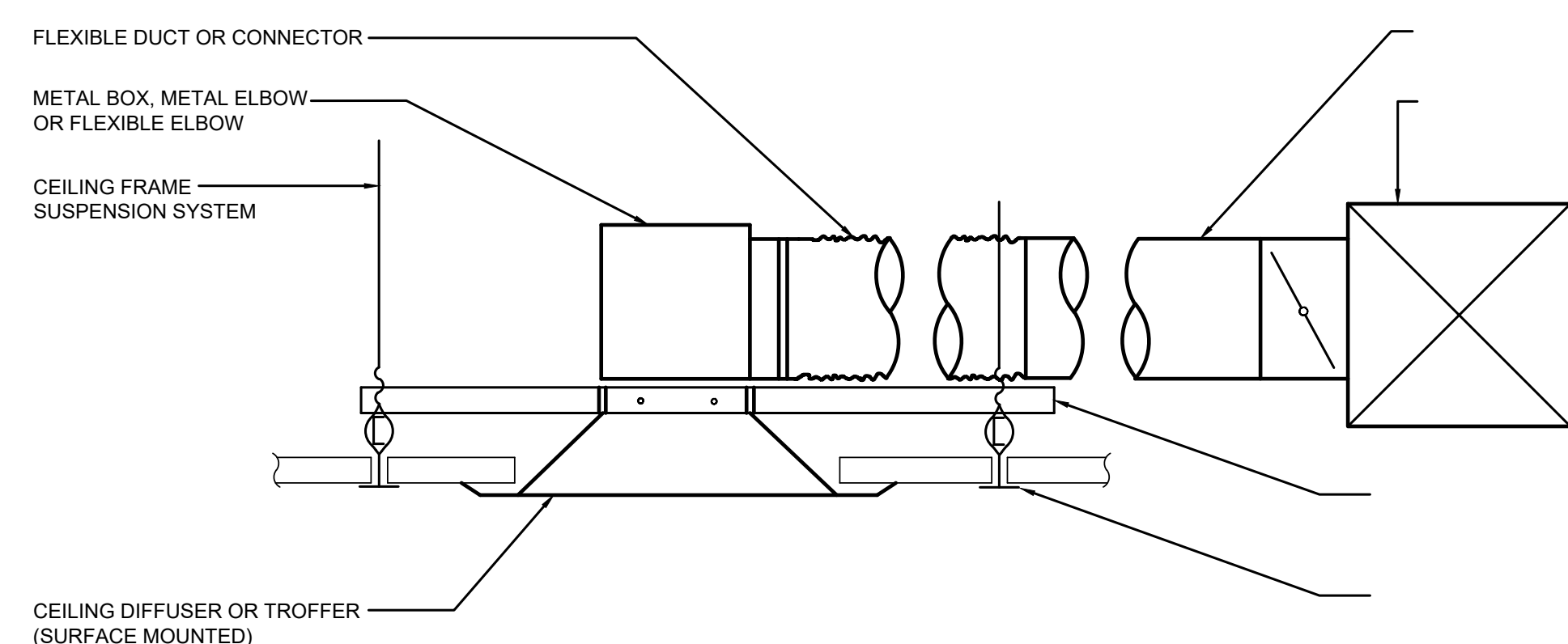
DOUBLE THICKNESS
DUCTWORK OVER 1200 FPM

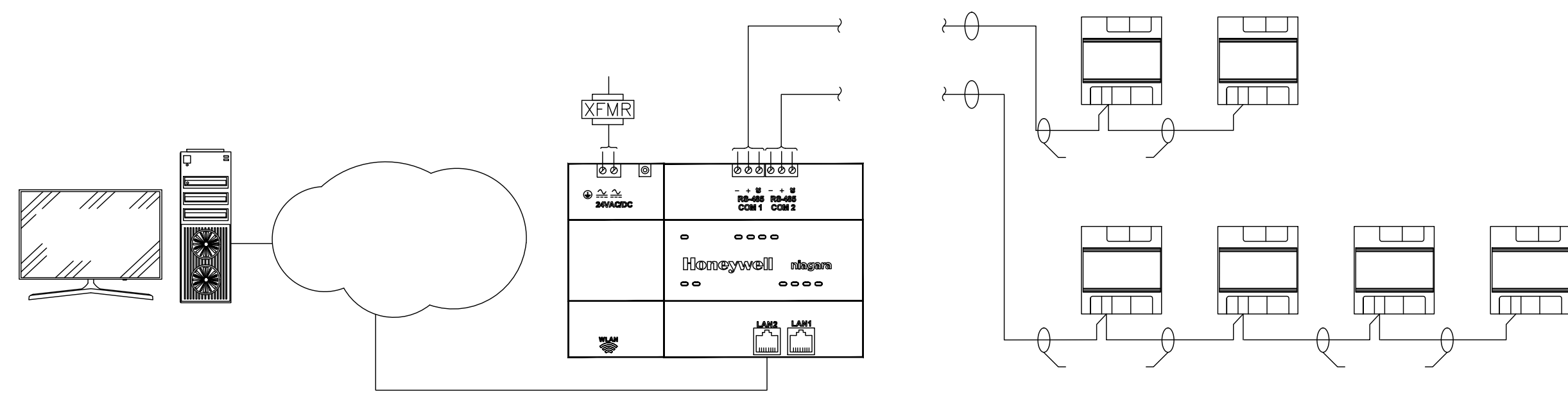
NOTES:
1. LOCKING LUGS INTEGRAL WITH VANE.
2. MAXIMUM UNSUPPORTED VANE LENGTH 48".
3. FRAMES BOLTED OR RIVETED TO ELBOW.
4. VANES AND FRAME SAME GAUGE AS ELBOW.

TURNING VANES FOR SQUARE ELBOWS
NOT TO SCALE

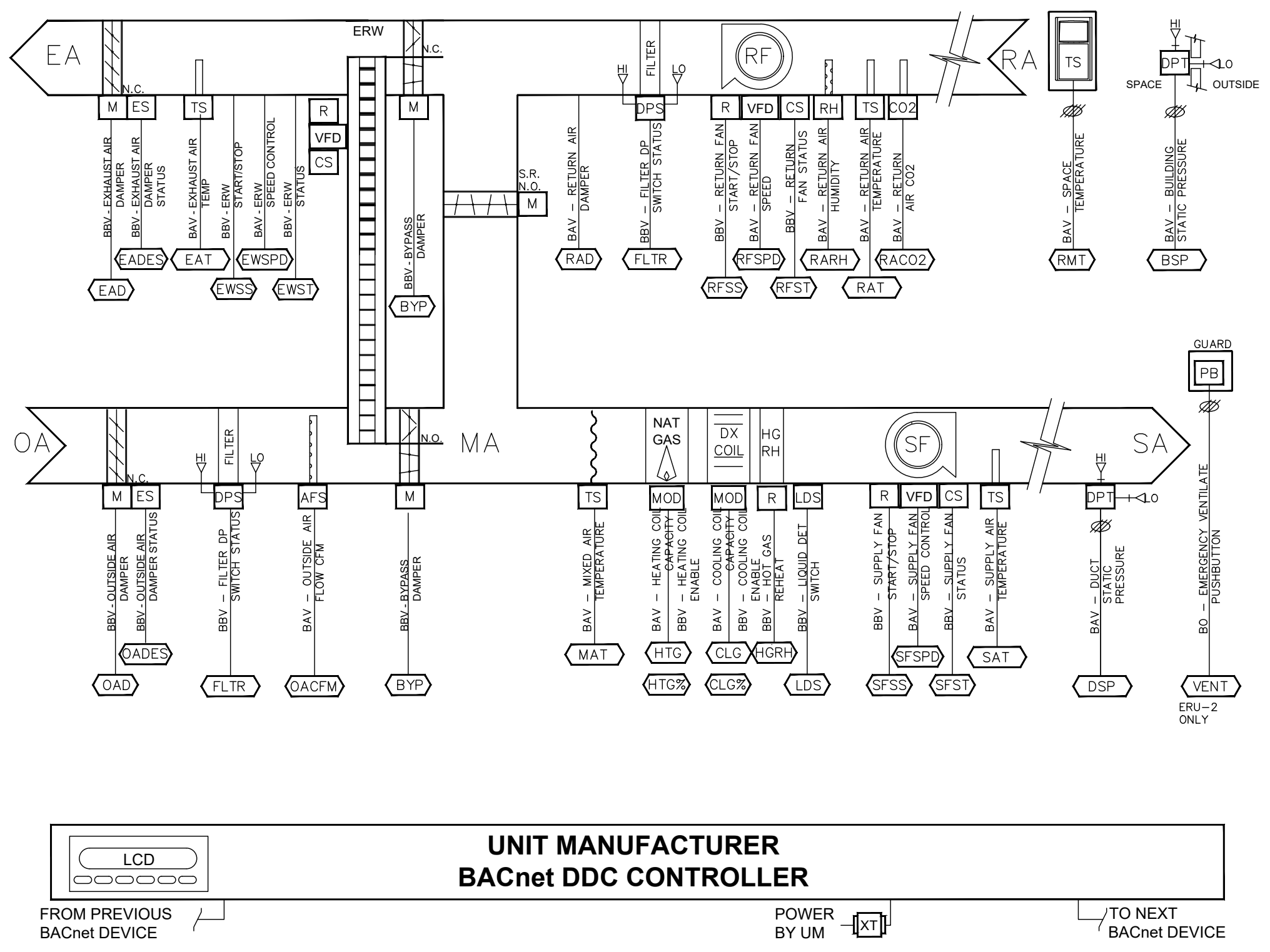
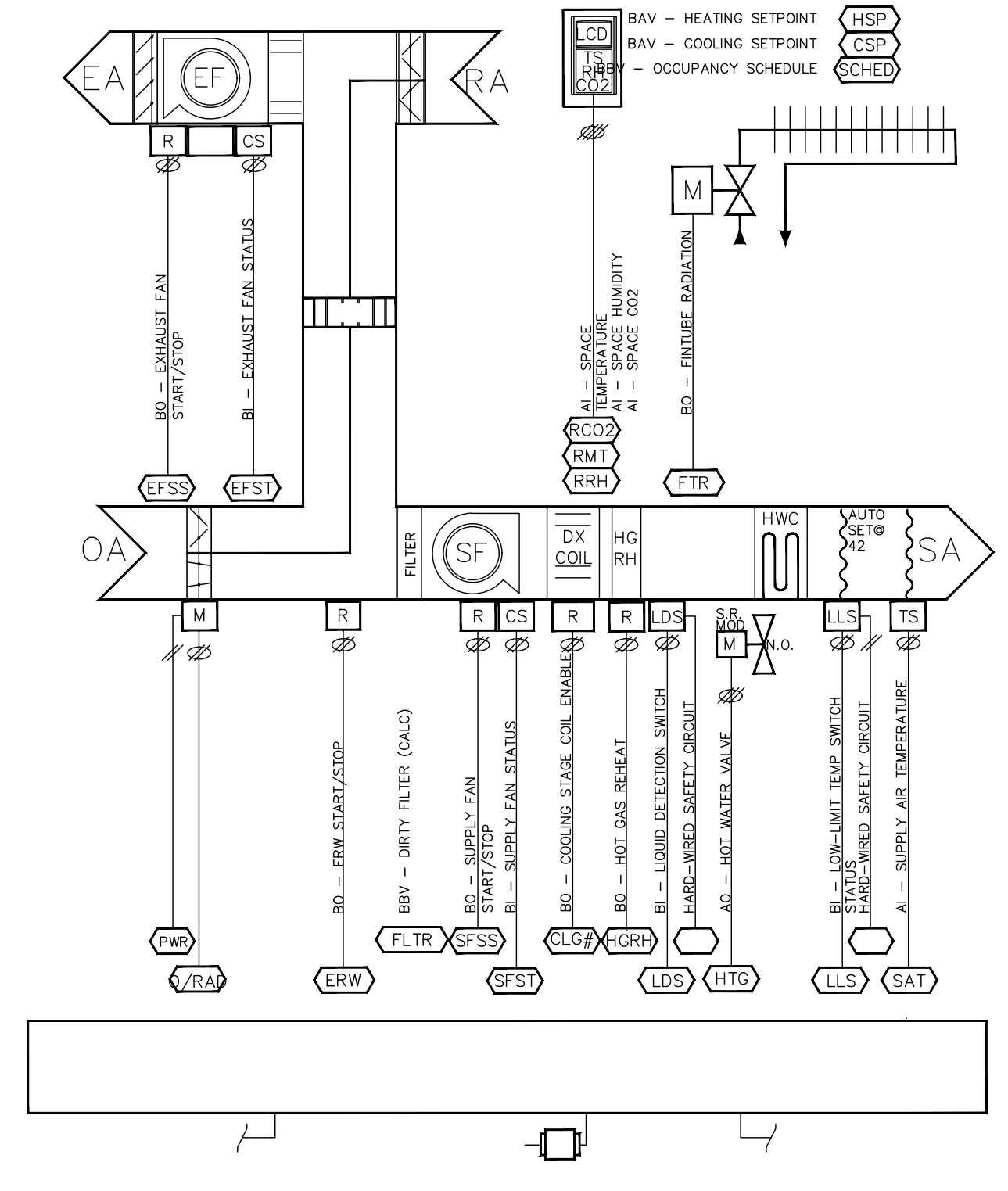
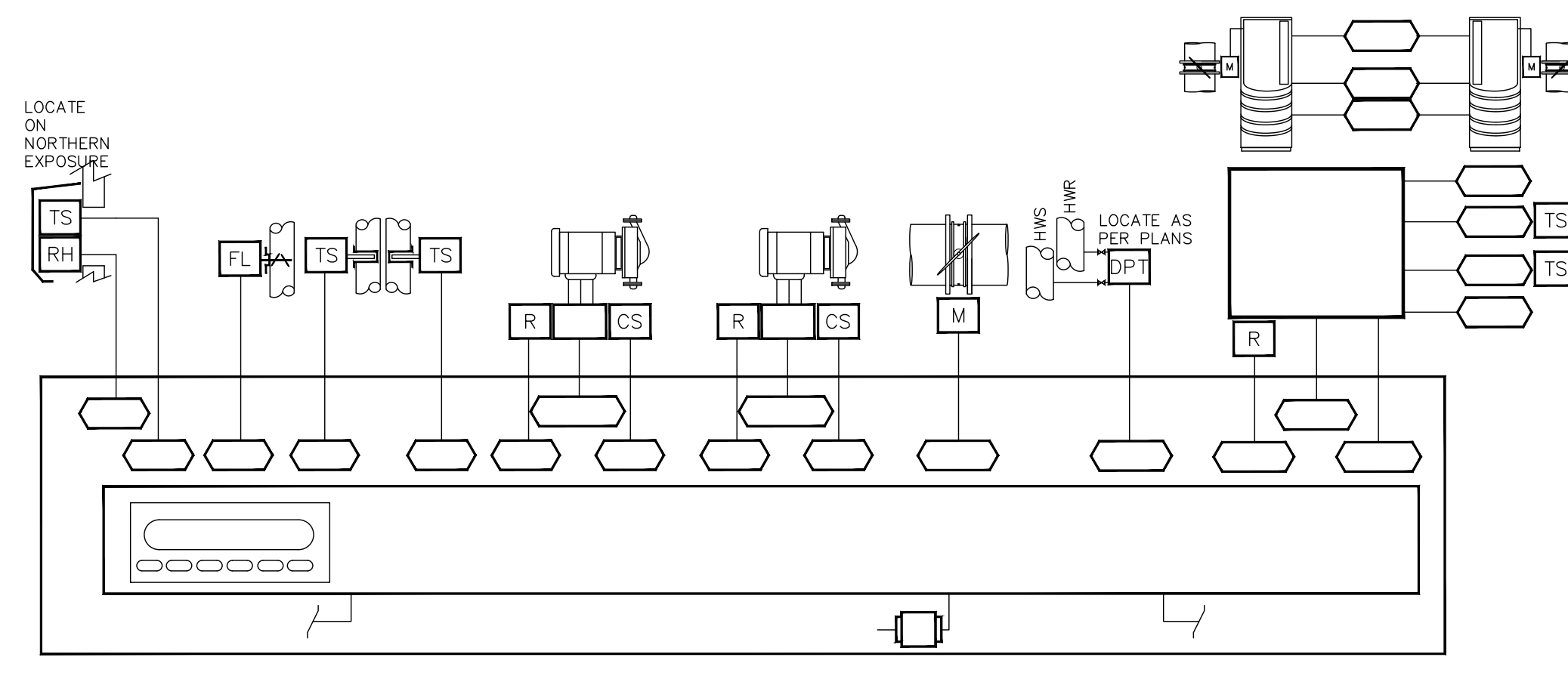


NOTES:
1. USE SINGLE BLADE FOR DUCTS UP TO 12" HIGH
AND LESS THAN 20" WIDE.
2. USE MULTIPLE BLADES FOR DUCTS GREATER
THAN OR EQUAL TO 20" AND/OR OVER 12" HIGH.

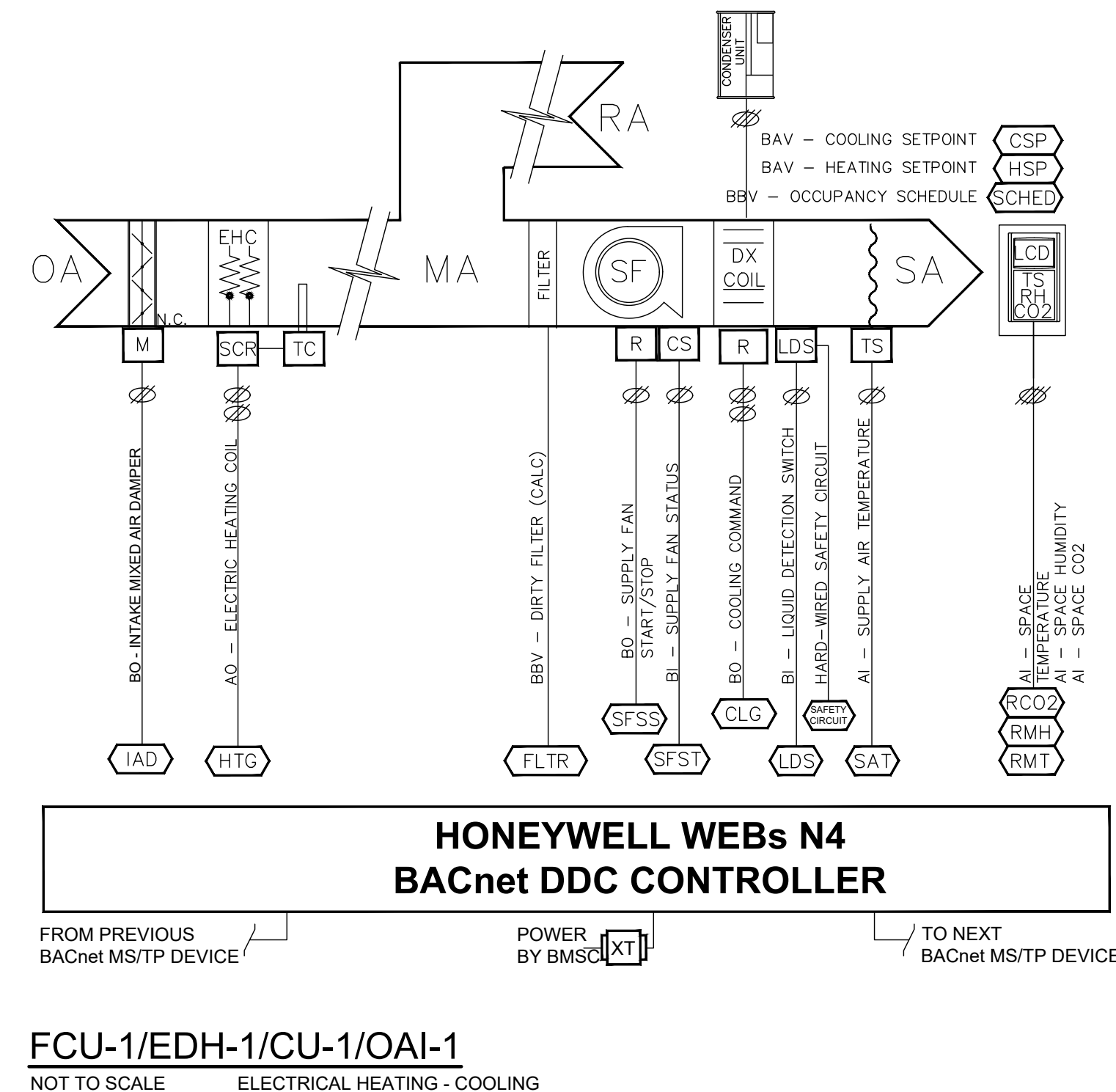




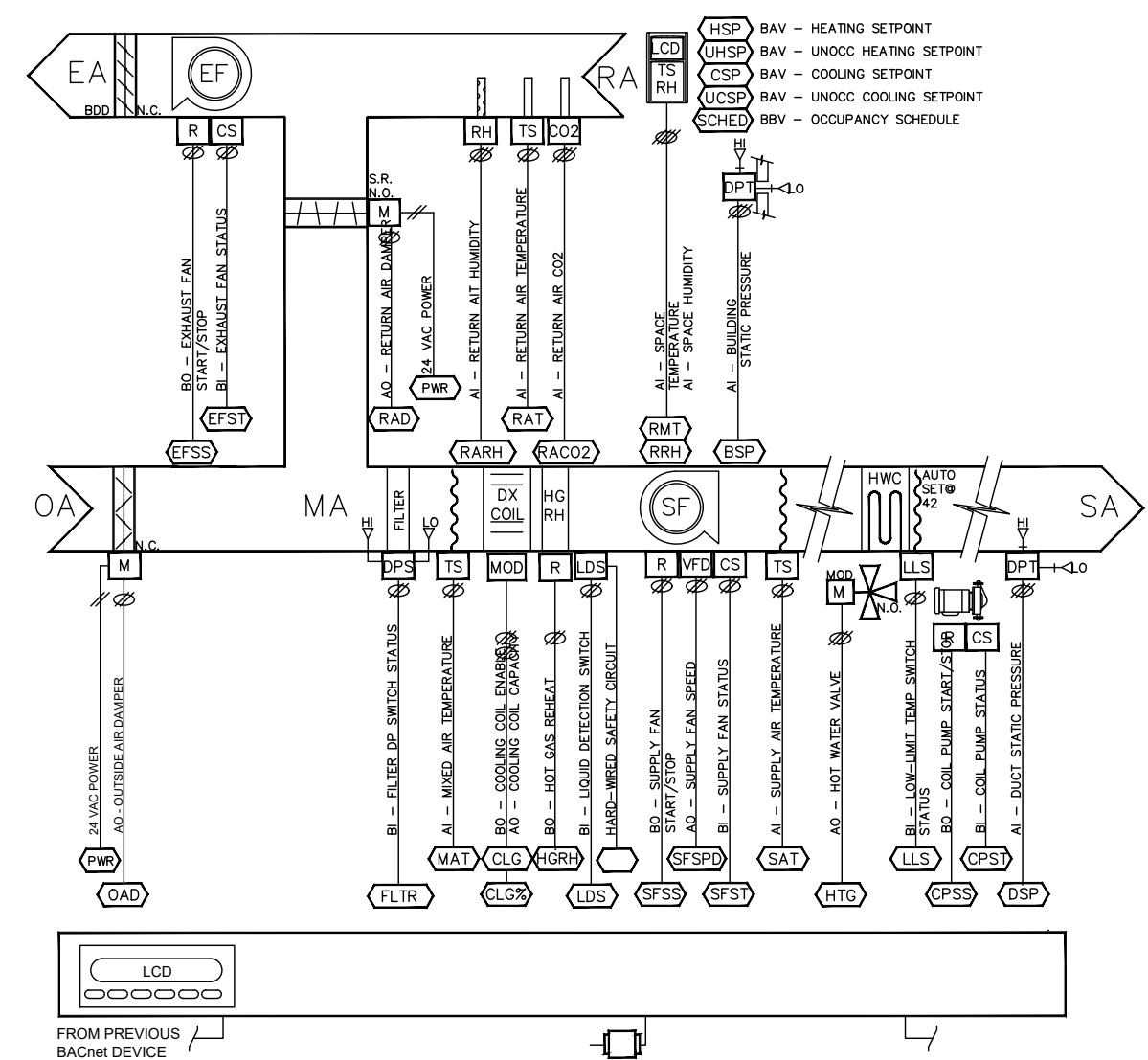
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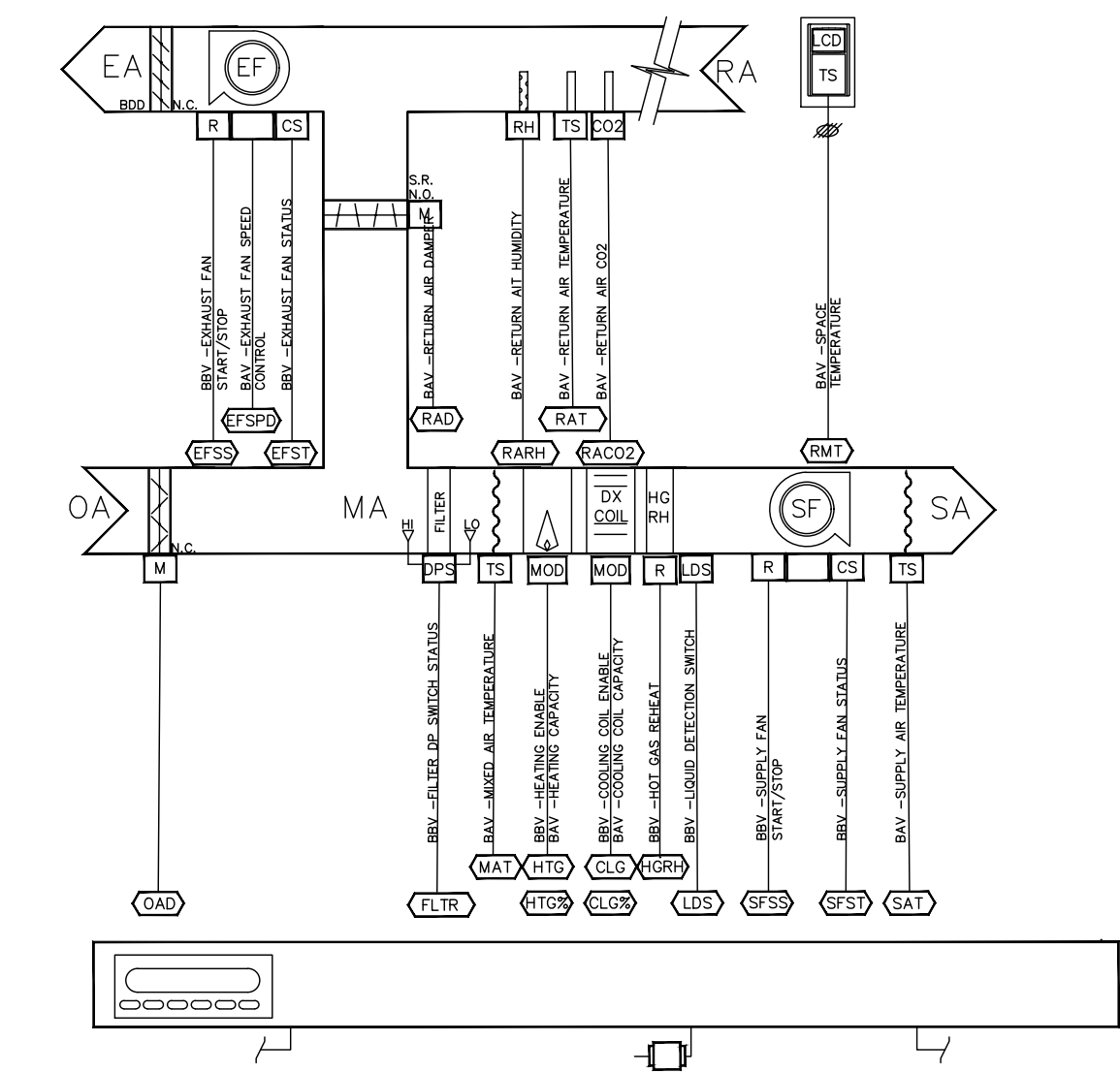
ERU
NOT TO SCALE



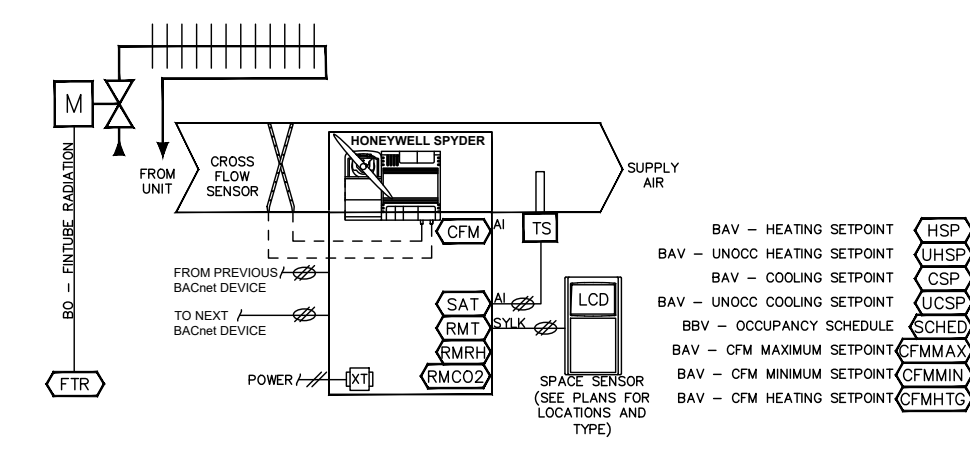
FCU-1/EDH-1/CU-1/OAI-1
NOT TO SCALE ELECTRICAL HEATING - COOLING



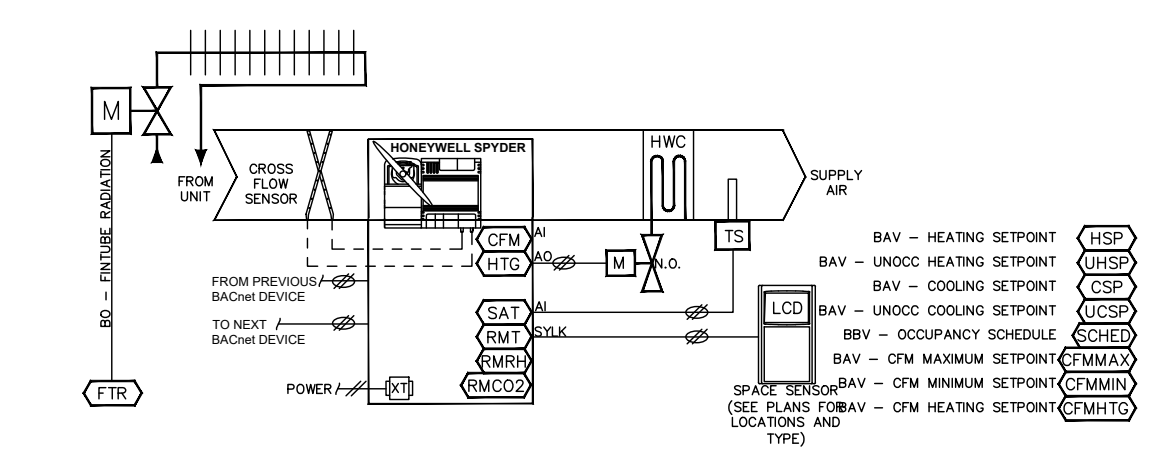
RTU - DX COOLING AND HOT WATER HEATING
NOT TO SCALE DX COOLING w/ HGWH & HW WATER HEATING



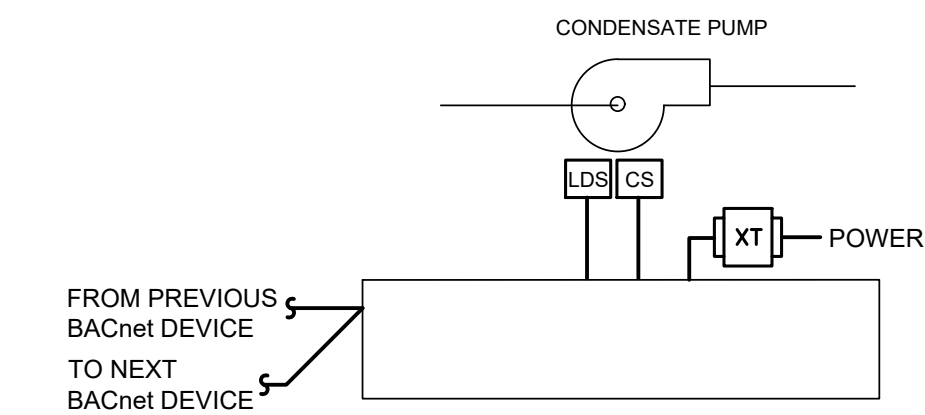
FACTORY PROVIDED AND APPROVED
RETROFIT UNIT SECTION SYSTEM



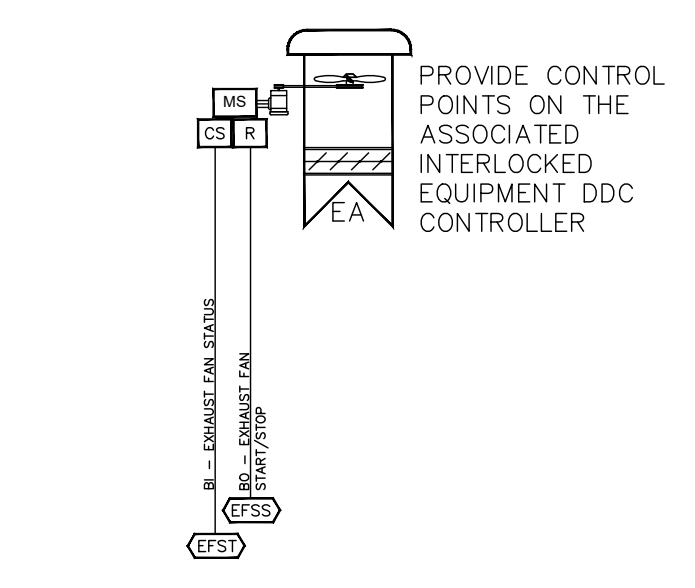
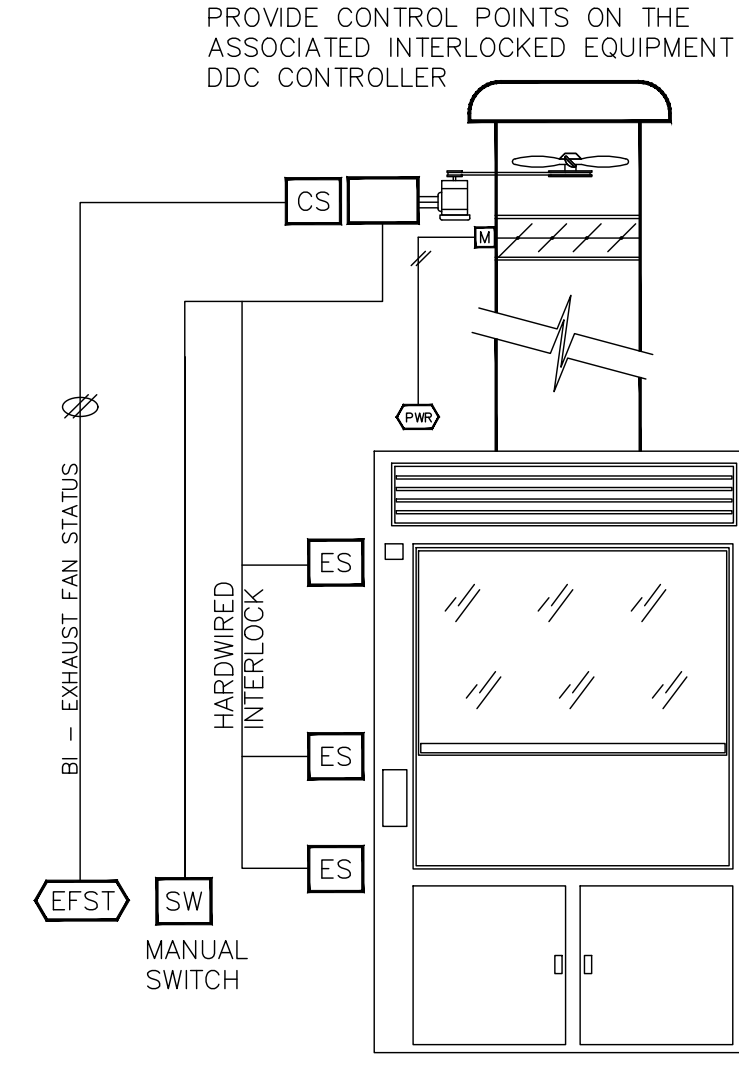
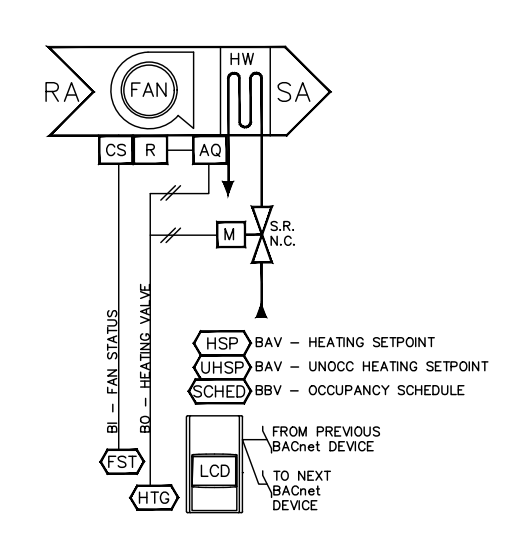
VARIABLE AIR VOLUME BOX
NOT TO SCALE COOLING ONLY



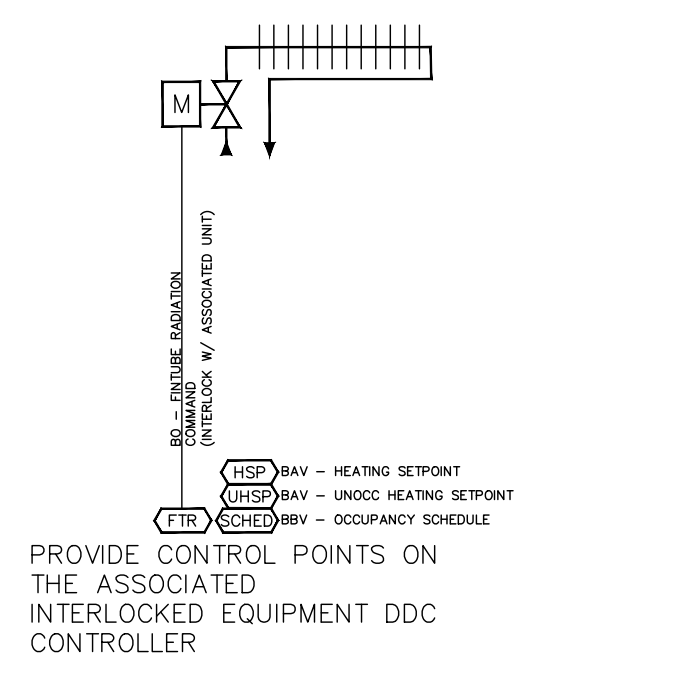
VARIABLE AIR VOLUME BOX
NOT TO SCALE WITH HOT WATER RETREAT



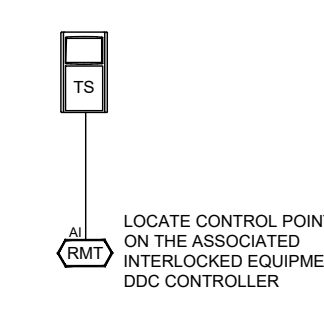
CONDENSATE PUMP - ATC DIAGRAM
MONITORING AND ALARM
NOT TO SCALE



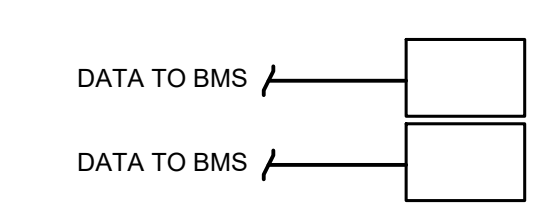
EXHAUST FAN
NOT TO SCALE DDC - INTERLOCKED



FINTUBE HEATING RADIATION
NOT TO SCALE DDC - INTERLOCKED



TEMPERATURE SENSOR - ATC DIAGRAM
NOT TO SCALE SINGLE POINT MONITORING



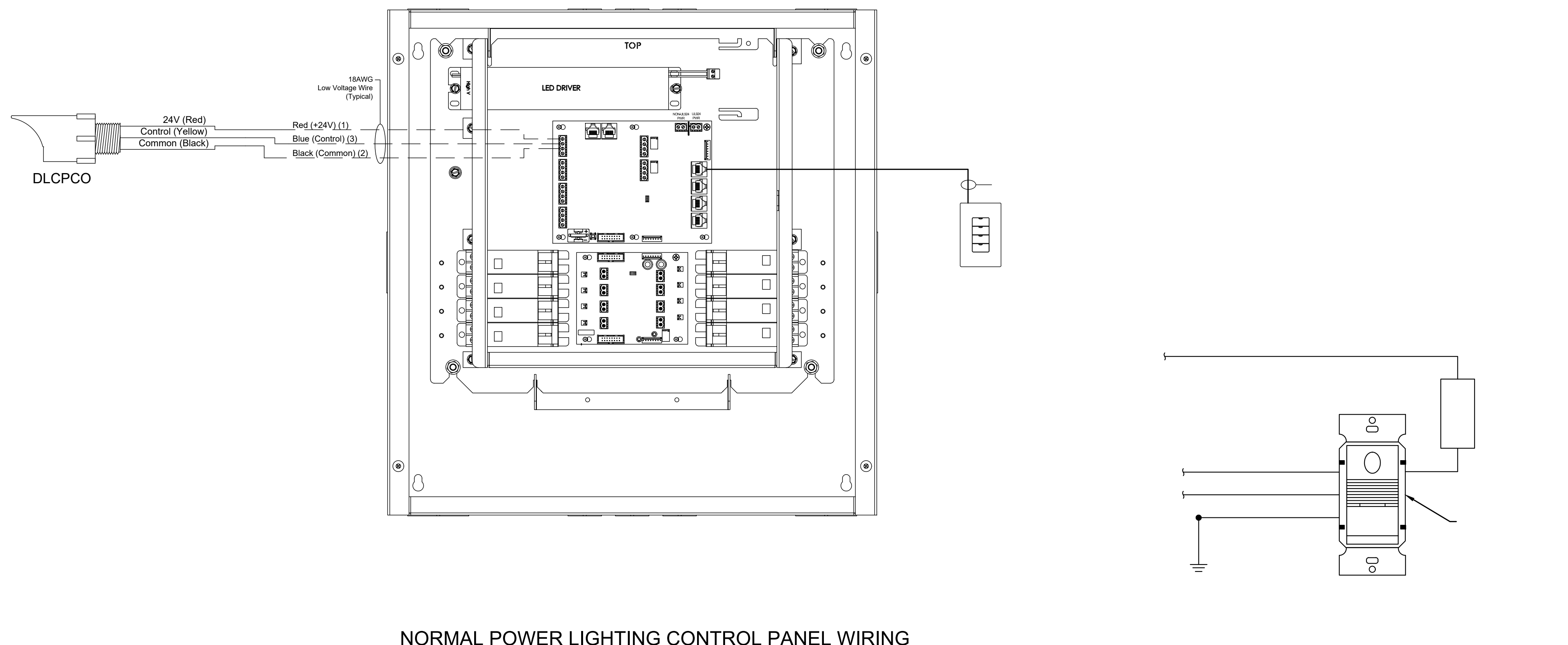
OUTSIDE AIR TEMP/HUMIDITY - ATC DIAGRAM
NOT TO SCALE

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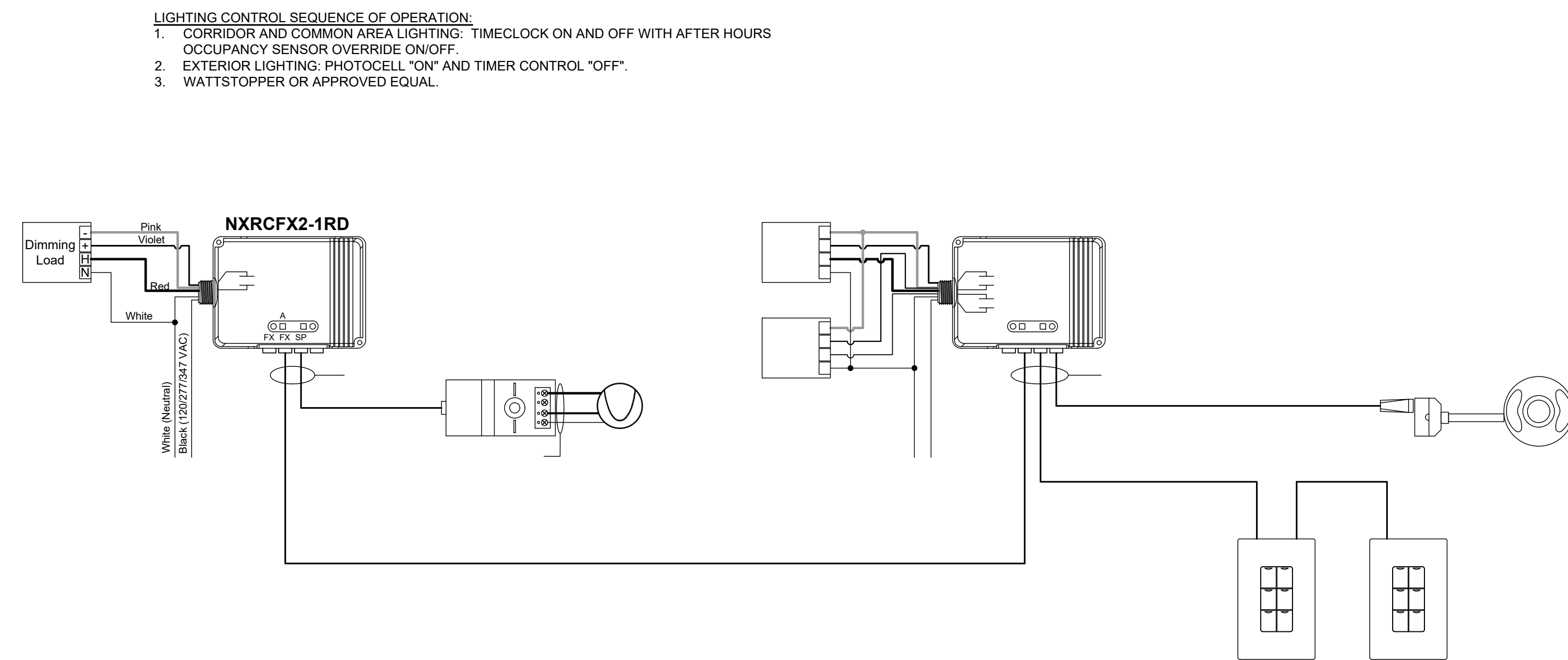
FVHVD
Fraytek Veiz Hopkins Duthie P.C.

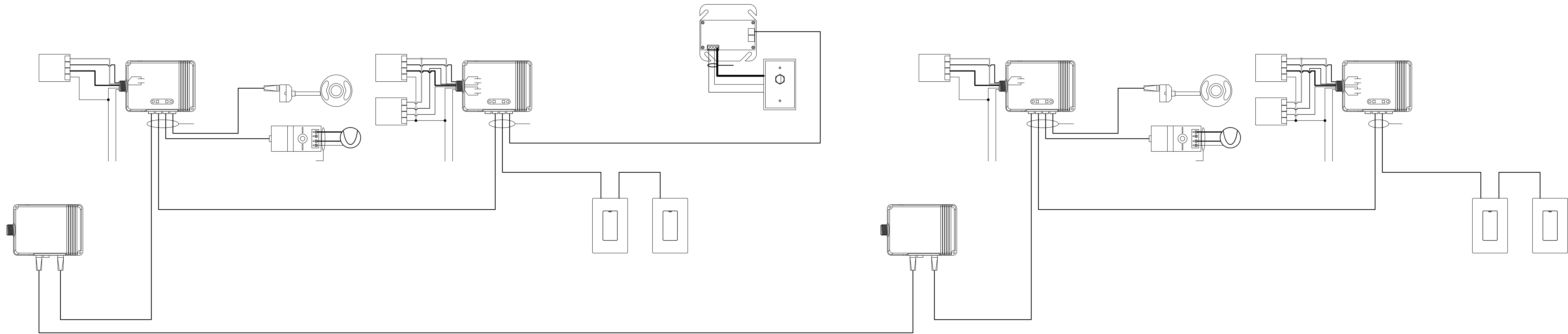
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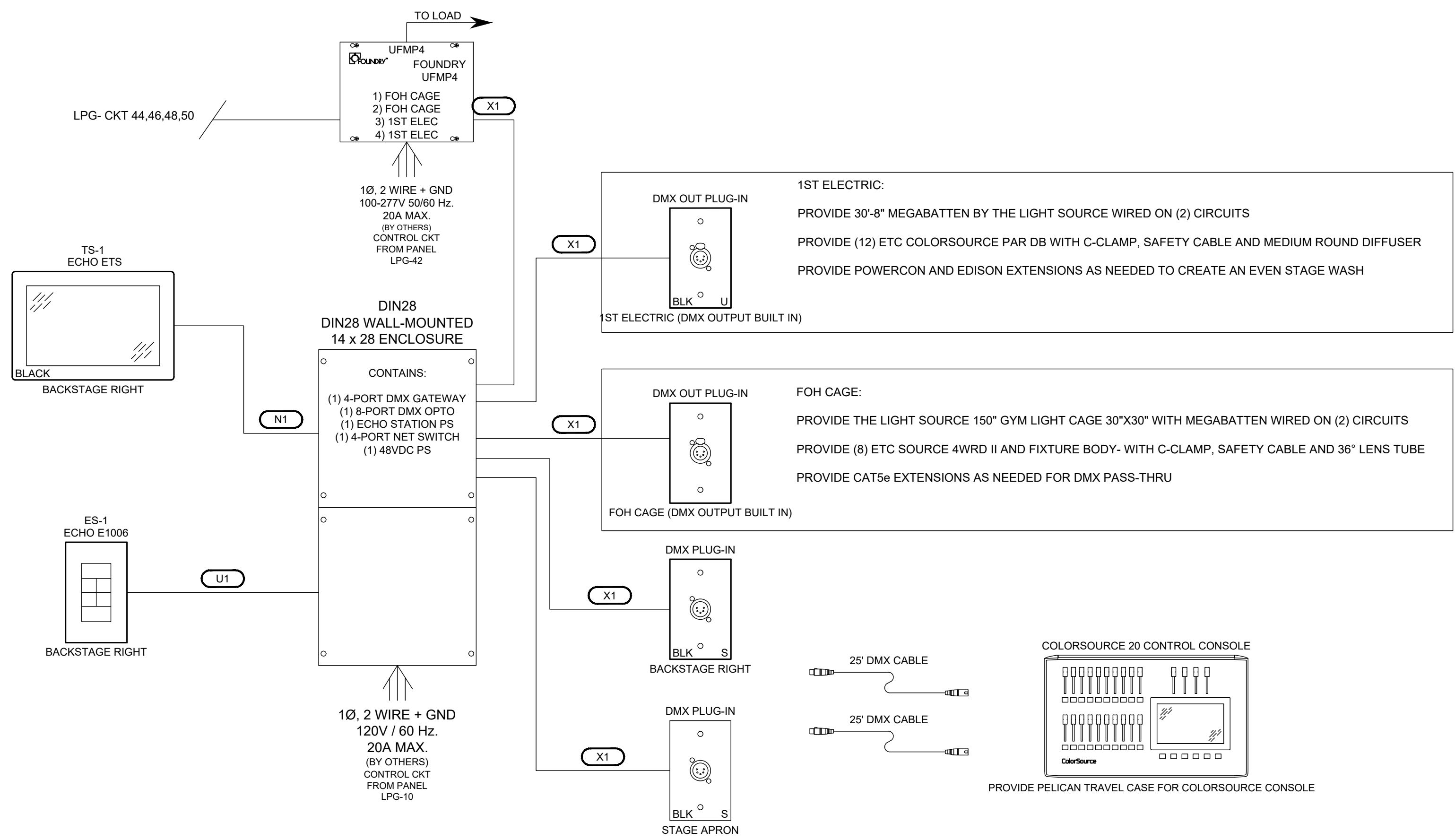
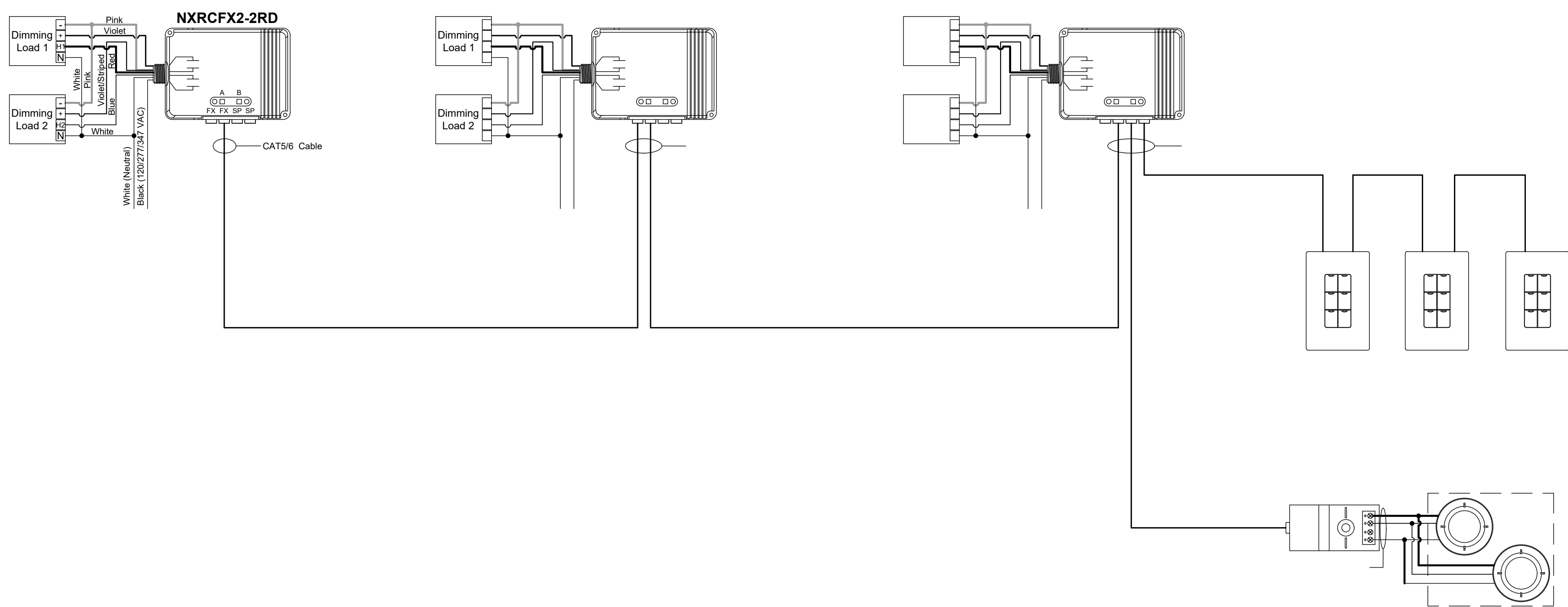
[illegible][illegible]

NORMAL POWER LIGHTING CONTROL PANEL WIRING SCHEMATIC





TYPICAL NX LIGHTING CONTROL WITH PARTITION SENSOR DETAIL
NOT TO SCALE
REFER TO FLOOR PLANS FOR QUANTITIES AND TYPES



CONTROL WIRING LEGEND
* = WIRE QUANTITY

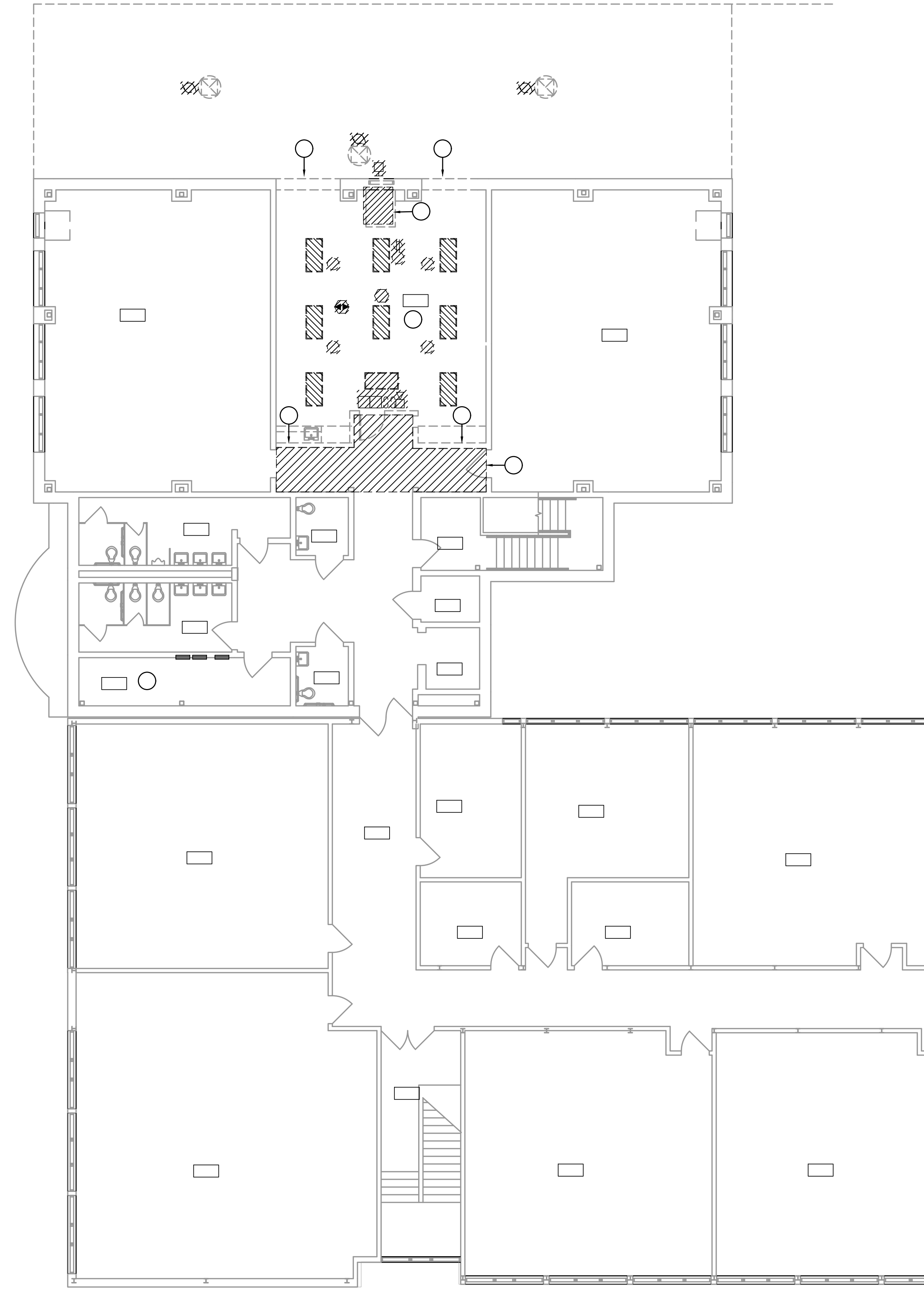
U* (1) TMB PCLP1PT (UNISON/ECHO)
X* (1) TMB PC224T (DMX)
N* (1) BELDEN #2412 (CAT6) (ETCnet)
P* (2) #16 AWG. STRANDED WIRES (PANIC)

NOTES:
1. COORDINATE REQUIREMENTS WITH MARCUS GEISE AT DIVERSIFIED, PHONE (287) 280-1380.
2. TOTAL COMBINED LENGTH OF UNISON/ECHO WIRING RUNS CANNOT EXCEED 1500 FEET (500 METERS).
3. ALL ETCnet RUNS SHALL BE CONTINUOUS. UNSPLICED RUNS LESS THAN 300 FEET (90 METERS). ALL NETWORK CONNECTIONS TO BE TIA/EIA 568B.

STAGE LIGHTING CONTROL PANEL WIRING SCHEMATIC
NOT TO SCALE

10/10/25
G. R. D. 10/10/25

FVH D
Fraytak Veisz Hopkins Duthie P.C.
FVH D P C . C O M



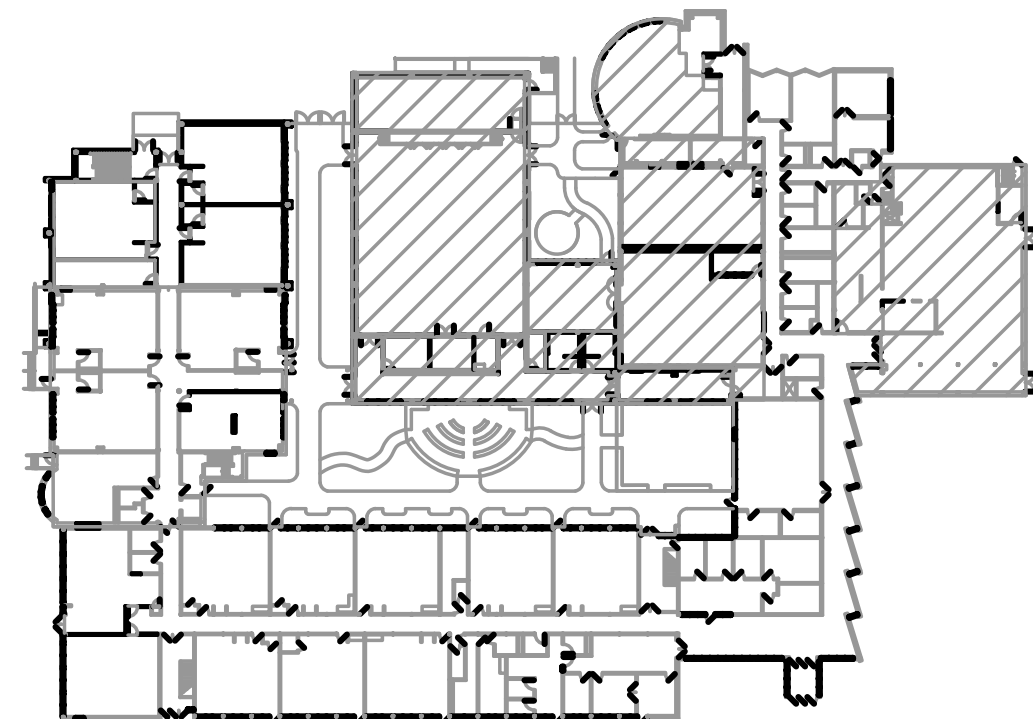
FVHDPC.COM

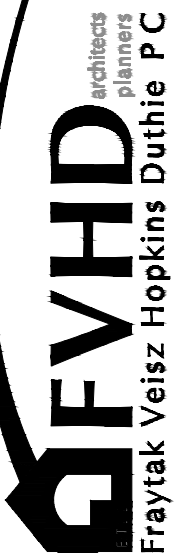
\\fpa\server\jacob\CS\CONSTRUCTION\B15 - Providence\B02445\B1 - Community Pk & E\B15\DEMOLITION\B15 - B15.dwg

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FIRST FLOOR DEMOLITION PLAN - BLOCK B
SCALE: 1/8" = 1'-0"

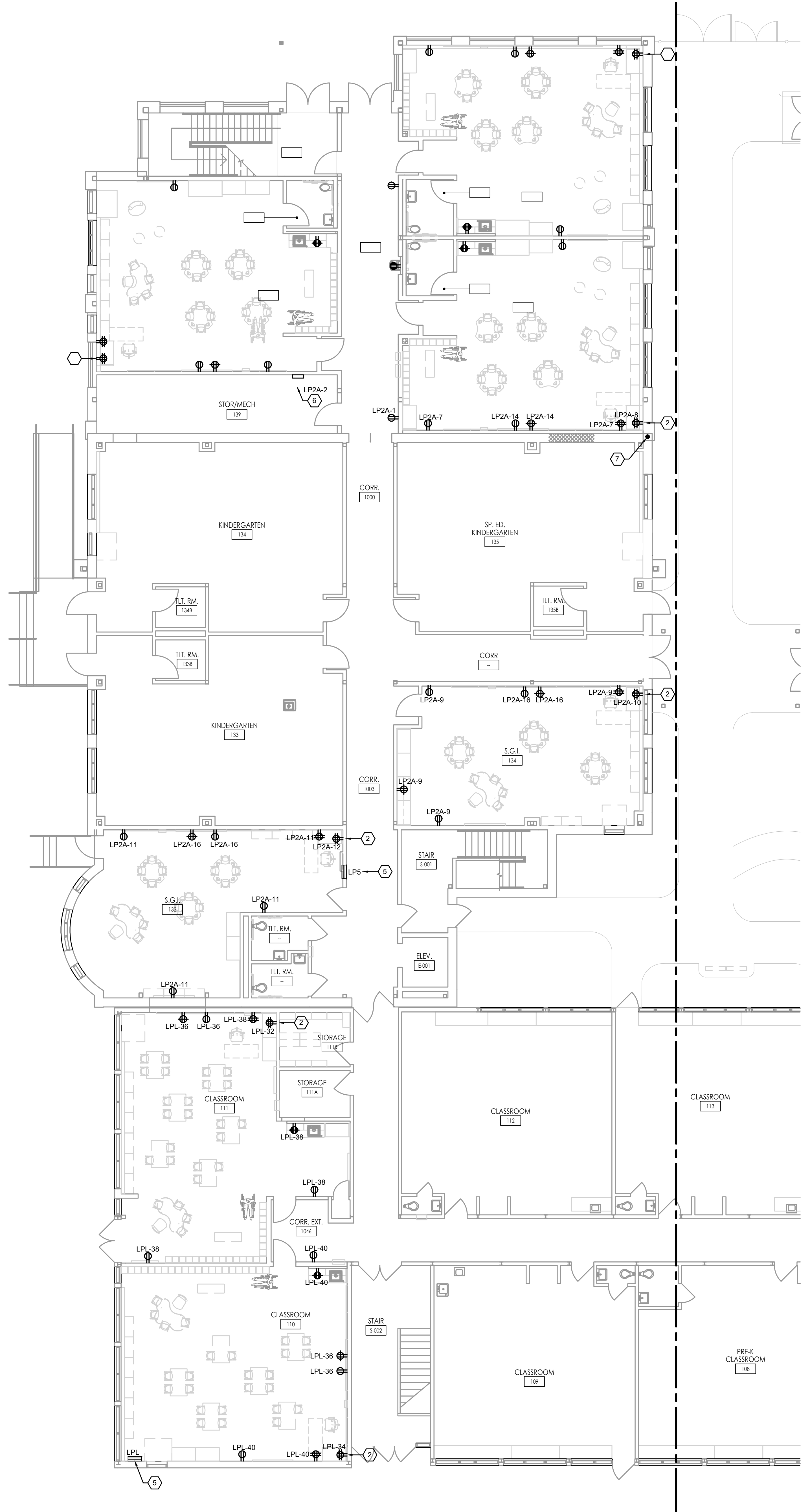




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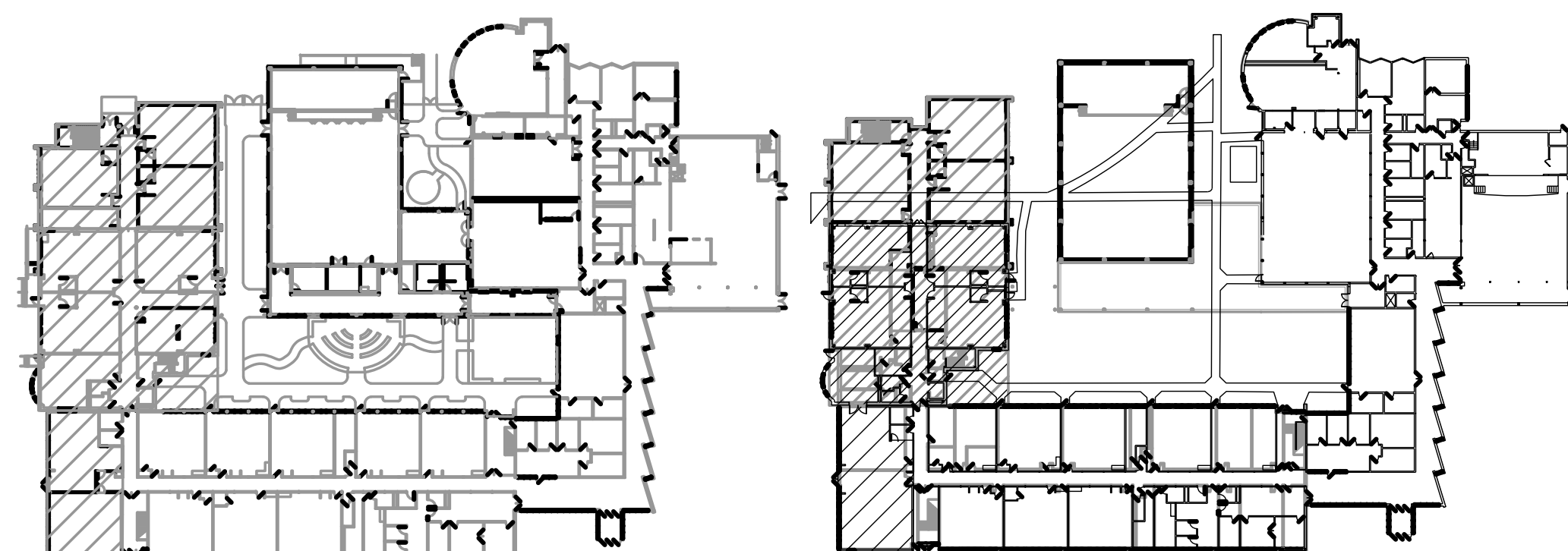
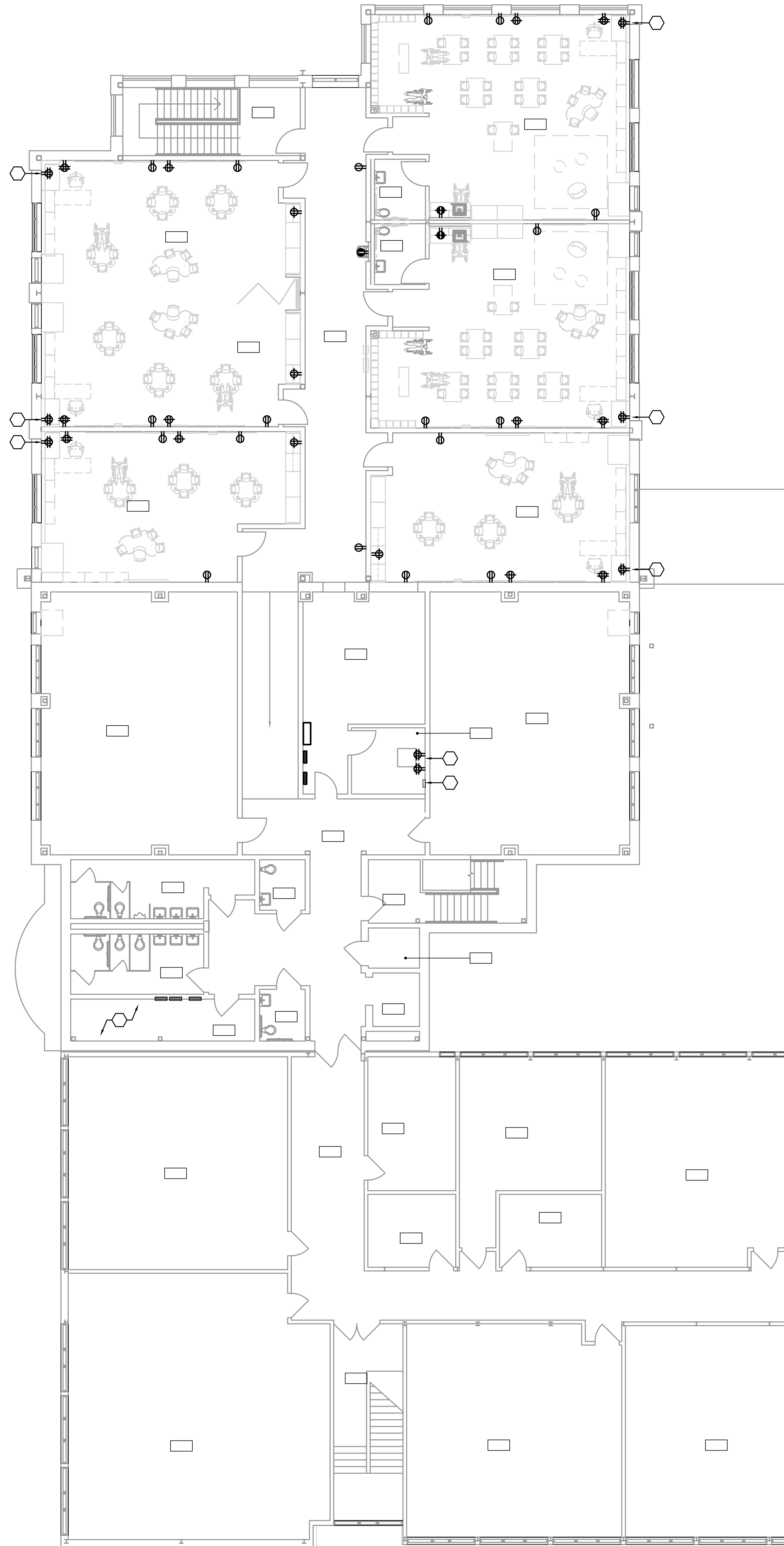
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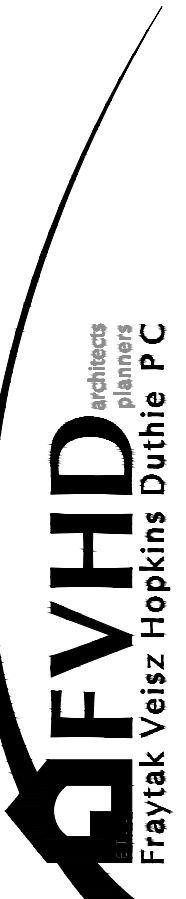


FIRST FLOOR POWER PLAN - BLOCK A
SCALE: 1/8" = 1'-0"

KEY NOTES

- EXISTING POWER PANELS AND CONTROL PANELS THIS ROOM. FIELD VERIFY EXACT LOCATIONS.
- QUAD OUTLET FOR CLASSROOM AUDIO CABINET. FIELD VERIFY EXACT MOUNTING HEIGHT AND LOCATION.
- NEW IDF RACK (BY OTHERS) AND QUAD RECEPTACLES.
- IDF MASTER GROUND BUS. SEE DETAIL SHEET.
- EXISTING PANEL(S) TO REMAIN.
- NEW FIRE ALARM EXPANDER PANEL.
- FOUNDATION / UFER GROUNDING CONDUCTOR LOCATION.

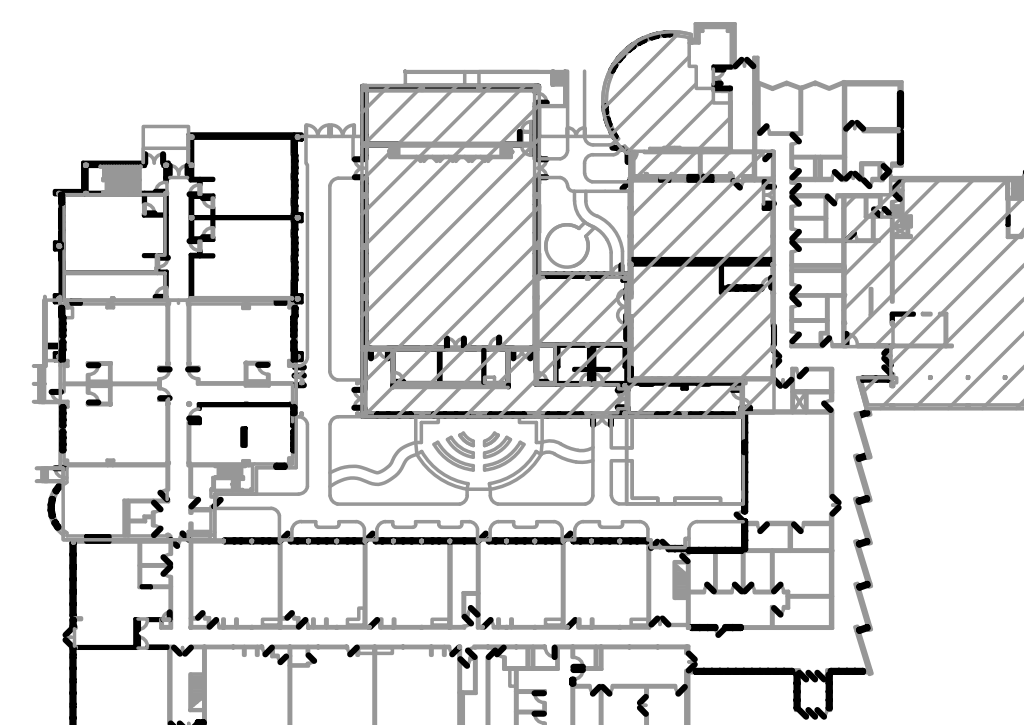




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SCALE: 1/8" = 1'-0"

1. COORDINATE ALL WIRING DEVICE LOCATIONS AND MOUNTING HEIGHTS WITH THE ARCHITECT PRIOR TO ROUGH-IN. ALL RECEPTABLES SHALL BE TAMPER RESISTANT.
2. CONTRACTOR SHALL CAREFULLY COORDINATE ALL ELECTRICAL EQUIPMENT LOCATIONS AND CLEARANCES. PANEL AND EQUIPMENT SIZES SHOWN ON THE PLANS ARE BASED ON SQUARE D.
3. CIRCUIT ELECTRONIC TRAP PRIMERS TO THE NEAREST RECEPTABLE CIRCUIT SERVING THE AREA LOCATED - 2012 & 11/2 IN 3/4". REFER TO THE PLANS FOR EXACT LOCATION.
4. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR ADDITIONAL INFORMATION.
5. UNLESS SHOWN ON THIS PLAN AS NEW OR RELOCATED, ALL EXISTING WIRING DEVICES SHALL REMAIN.
6. "ETR" DESIGNATES SPECIFIC EXISTING EQUIPMENT OR DEVICES TO REMAIN.
7. ALL EXTERIOR RECEPTABLES SHALL BE TAMPER RESISTANT GFCI TYPE WITH CAST ALUMINUM-USE LOCKABLE COVER.

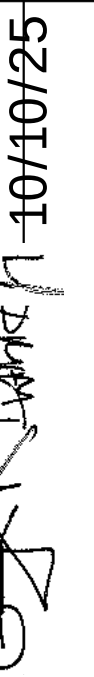
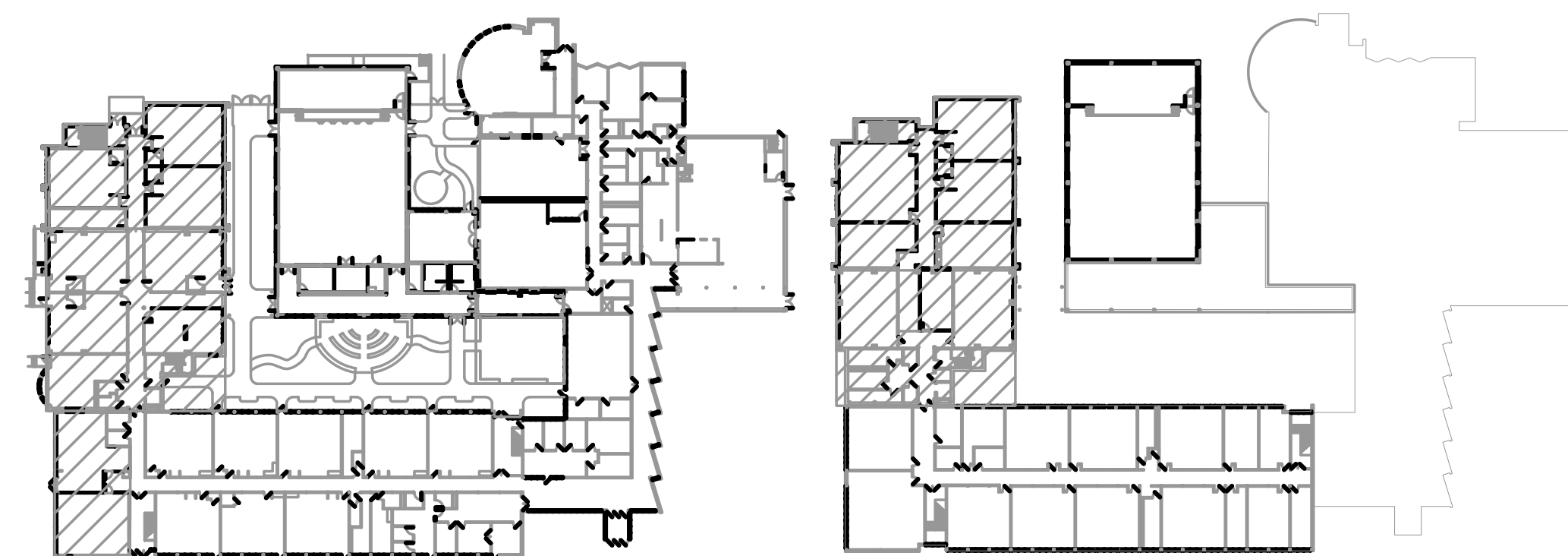
- 1 EXISTING POWER PANELS AND CONTROL PANELS THIS ROOM. FIELD VERIFY EXACT LOCATIONS.
- 2 QUAD OUTLET FOR CLASSROOM AUDIO CABINET. FIELD VERIFY EXACT MOUNTING HEIGHT AND LOCATION.
- 3 DUPLEX RECEPTACLE FOR SCOREBOARD POWER. FIELD COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH THE EQUIPMENT VENDOR.
- 4 RELOCATED MILK COOLER. EXTEND EXISTING CIRCUIT FROM PANEL JP AND PROVIDE NEW GFI RECEPTACLE AT NEW LOCATION. -3812 MC TO BE RUN CONCEALED ABOVE CEILING AND WITH DRY WALLS.
- 5 EXISTING 250A DISCONNECT SWITCH FOR PANEL HV2C IN STORAGE AREA. FIELD VERIFY EXACT LOCATION AND MOUNTING HEIGHT.
- 6 DUPLEX RECEPTACLE FOR ACTIVITY CENTER POWER. FIELD COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH THE EQUIPMENT VENDOR.
- 7 JUNCTION BOX FOR PROJECTOR SCREEN POWER. FIELD COORDINATE EXACT LOCATION AND CONTROLS WITH THE EQUIPMENT VENDOR. PROVIDE KEY SWITCH OPERATOR (OR LOCKING COVER FOR THE MANUFACTURER SUPPLIER).
- 8 JUNCTION BOX AND POWER WIRING FOR MOTORIZED BACKSTOP. COORDINATE EXACT WIRING REQUIREMENTS AND CONTROL WIRING WITH THE EQUIPMENT VENDOR. CONTROLLED VIA PORTER POWER-TOUCH.
- 9 PORTER POWER-TOUCH 4 CONTROLLER LOCATION FOR MOTORIZED BACKSTOP AND DIVIDER CURTAIN CONTROL. PROVIDE 2-GANG JUNCTION BOX AND FIELD VERIFY EXACT LOCATION AND MOUNTING ARCHITECT. FIELD COORDINATE EXACT WIRING REQUIREMENTS AND CONTROL WIRING WITH THE EQUIPMENT VENDOR.

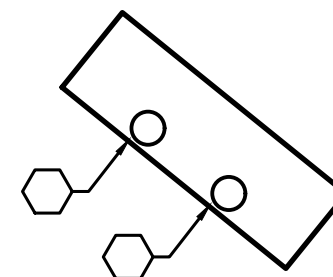
- | | |
|----|--|
| 10 | STAGE LIFTER W/POWER DISCONNECT SWITCH. FIELD COORDINATE EXACT LOCATION WITH THE EQUIPMENT VENDOR AND SHOP DRAWINGS. |
| 11 | JUNCTION BOX AND POWER WIRING FOR MOTORIZED STAGE CURTAINS. COORDINATE INSTALLATION AND CONTROLS WITH CURTAIN VENDOR AND SHOP DRAWINGS. |
| 12 | JUNCTION BOX AND POWER WIRING FOR MOTORIZED BLEACHERS WITH PENDANT CONTROL UNIT. FIELD COORDINATE INSTALLATION WITH EQUIPMENT VENDOR AND SHOP DRAWINGS. |
| 13 | 1-1/4" ROUND RECEPTACLE FOR MOTORIZED GYM PARTITION CURTAIN. FIELD COORDINATE EXACT LOCATION AND INSTALLATION WITH EQUIPMENT VENDOR AND SHOP DRAWINGS. |
| 14 | QUAD RECEPTACLE FOR AUDIO SYSTEM RACK. FIELD VERIFY EXACT LOCATION WITH AUDIO EQUIPMENT VENDOR. |
| 15 | NEW SIMPLEX NEMA 5-15R RECEPTACLE FOR NEW STEAMER. CIRCUIT TO NEAREST 120V RECEPTACLE SERVING THIS AREA. 2P/12 & 1P/120 IN 3/4" O.D. |
| 16 | ALL EXIST'G OF ROOM EQUIPMENT, RACKS, ETC. TO REMAIN. |
| 17 | WEATHERPROOF RECEPTACLE WITH CAST ALUMINUM IN-USE COVER AND WEATHERPROOF TEACHING EQUIPMENT. FIELD VERIFY EXACT LOCATION AND MOUNTING HEIGHT WITH THE ARCHITECT. |
| 18 | EXISTING PANEL(S) AND ELECTRICAL DISTRIBUTION EQUIPMENT TO REMAIN. |
| 19 | NEW LOCATION OF NEW PANEL 'SP'. ALL EXISTING CIRCUITS TO REMAIN FROM THE EXISTING PANEL 'SP' TO THE EXTENDING TO THIS LOCATION. |
| 20 | NEW FIRE ALARM EXPANDER PANEL. |
| 21 | NEW D/F RACK (BY OTHERS) AND QUAD RECEPTACLES. |

- 23 MOTORIZED SHADE MECHANOT POWER STATION. PROVIDE ALL 120V
POWER WIRING AND ALL LOW VOLTAGE WIRING AS REQUIRED FOR THE
24 SHADES TO BE INSTALLED TO MEET ALL CITY AND STATE SPECIFICATIONS
AND INSTALL PER THE MANUFACTURER'S WRITTEN INSTALLATION
INSTRUCTIONS AND SHOP DRAWINGS FOR A COMPLETE AND
25 OPERATIONAL SYSTEM.
- 26 THREE (3) DEDICATED DUPLEX RECEPTABLES MOUNTED IN CABINET
27 BELOW FOR CHROMEBOOM CHARGERS AND ONE (1) QUAD RECEPTABLE
28 MOUNTED ABOVE COVER.
- 29 CIRCUIT TO EXISTING BRANCH CIRCUIT MADE SPARE BY DEMOLITION
30 SERVING THIS AREA - 312.1 MC.
- 31 QUAD RECEPTACLE FOR STAGE SOUND SYSTEM RACK
- 32 QUAD RECEPTACLE FOR STAGE LIGHTING RACK / CONTROL PANEL
- 33 QUAD RECEPTACLE FOR STAGE LIGHTING RACK / CONTROL PANEL VIA THE
34 EXISTING CHINTING CIRCUIT SYSTEM / TIMECLOCK. REFER TO
35 LIGHTING CONTROL PLANS.
- 36 MOTORIZED SHADE LOW VOLTAGE CONTROLER/LINK SWITCH(S).
37 PROVIDE LOW VOLTAGE WIRING TO SHADES, AND FROM SHADES TO THE
38 MAIN POWER STATION. FIELD VERIFY EXACT LOCATION. REFER TO
39 MOTORIZED SHADE SHOP DRAWINGS FOR FULL EXTENT OF THE
40 WORK. PROVIDE GROUNDING COVER FOR MANUFACTURER SUPPLIED
41 SWITCH(S).
- 42 FOUNDATION / UFER GROUNDING CONDUCTOR LOCATION.
- 43 CEILING MOUNTED DUPLEX RECEPTACLE FOR PROJECTOR. FIELD
44 VERIFY EXACT LOCATION WITH THE ARCHITECT.



- ① MECHANICAL EQUIPMENT TAG. REFER TO MECHANICAL EQUIPMENT COORDINATION SCHEDULE FOR LOCAL POWER DISCONNECT INFORMATION AND PANEL SCHEDULES FOR CIRCUIT, WIRE AND CONDUIT SIZES. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR EXACT LOCATIONS. (TYPICAL).
- ② ATC PANEL LOCATION. COORDINATE WITH MECHANICAL CONTRACTOR AND CATWALK LOCATION.
- ③ MOTORIZED DAMPER. PROVIDE 120V POWER TO ACTUATORS.
- ④ JUNCTION BOX AND POWER WIRING FOR FUTURE RADON VENT FAN. REFER TO DETAILS ON ARCHITECTURAL PLANS.





3. REFER TO MECHANICAL AND PLUMBING PLANS FOR EXACT EQUIPMENT LOCATIONS.

- ③ AND CATAWK EQUIPMENT.
- ④ MOTORIZED DAMPER, PROVIDE 120V POWER TO ACTUATORS.
- ⑤ EXISTING OUTDOOR MAIN DISTRIBUTION SWITCHBOARD.
- ⑥ JUNCTION BOX AND POWER WIRING FOR FUTURE RADON VENT FAN. REFER TO DETAILS ON ARCHITECTURAL PLANS.
- ⑦ JUNCTION BOX AND POWER WIRING FOR HOT BOX SLAB MOUNT HEATING SYSTEM. REFER TO CHUBB DRAWING C-5.0 FOR EXACT LOCATION. CIRCUIT TO EXISTING BOILER ROOM PANEL #1 AS INDICATED. APPROXIMATE LENGTH OF RUN 160'-0". CONTRACTOR TO FIELD VERIFY.



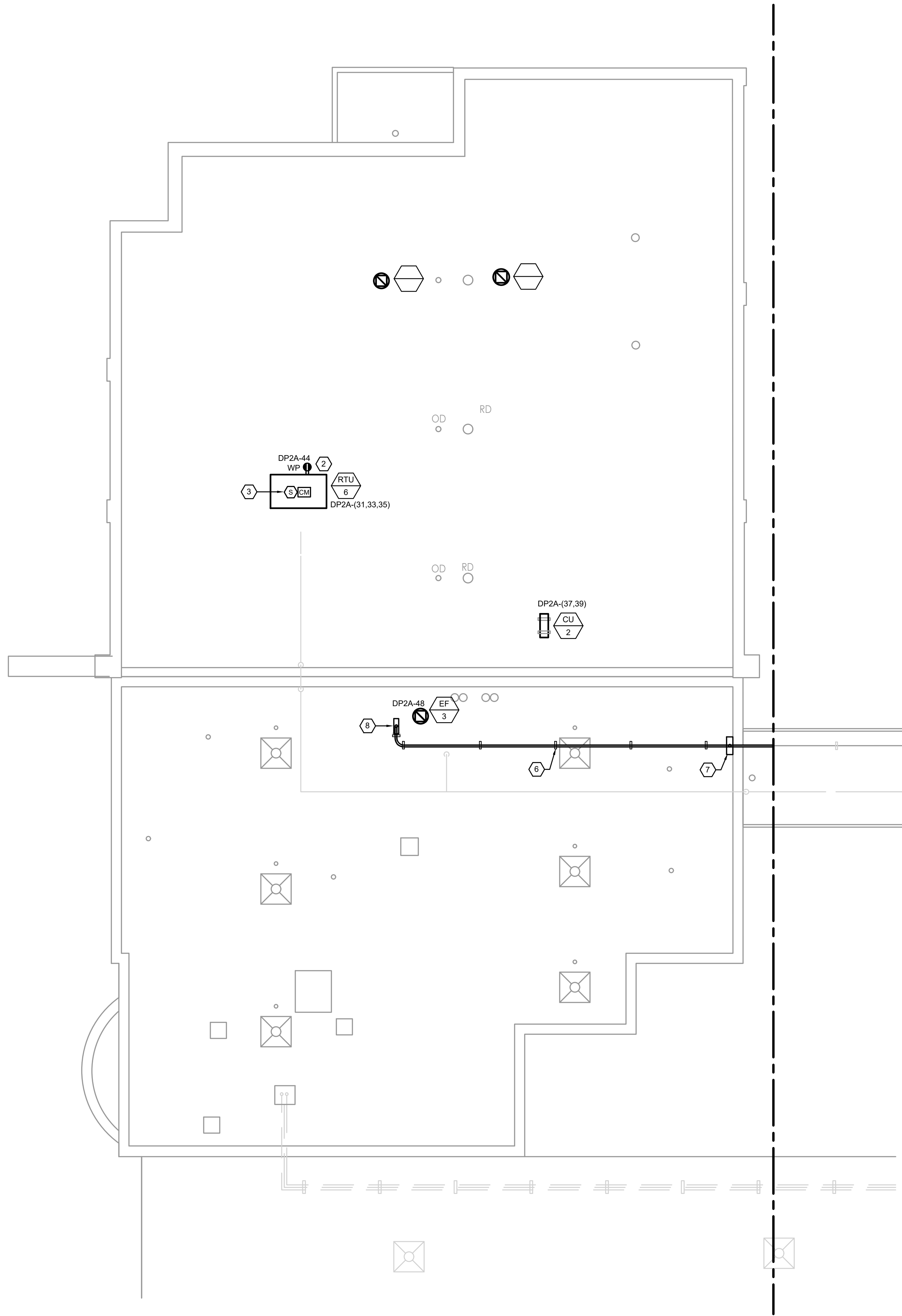
Corporate Office
1800 Rt 34, Suite 10
732.312.9800



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Architects
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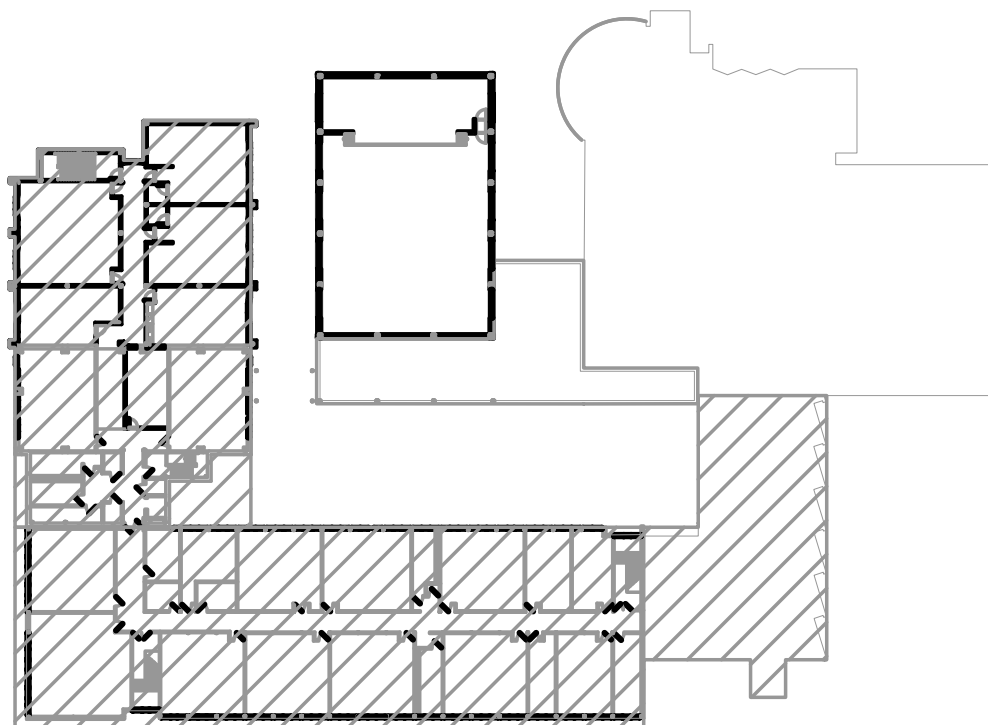
ROOF HVAC POWER PLAN - BLOCK A
SCALE: 1/8" = 1'-0"

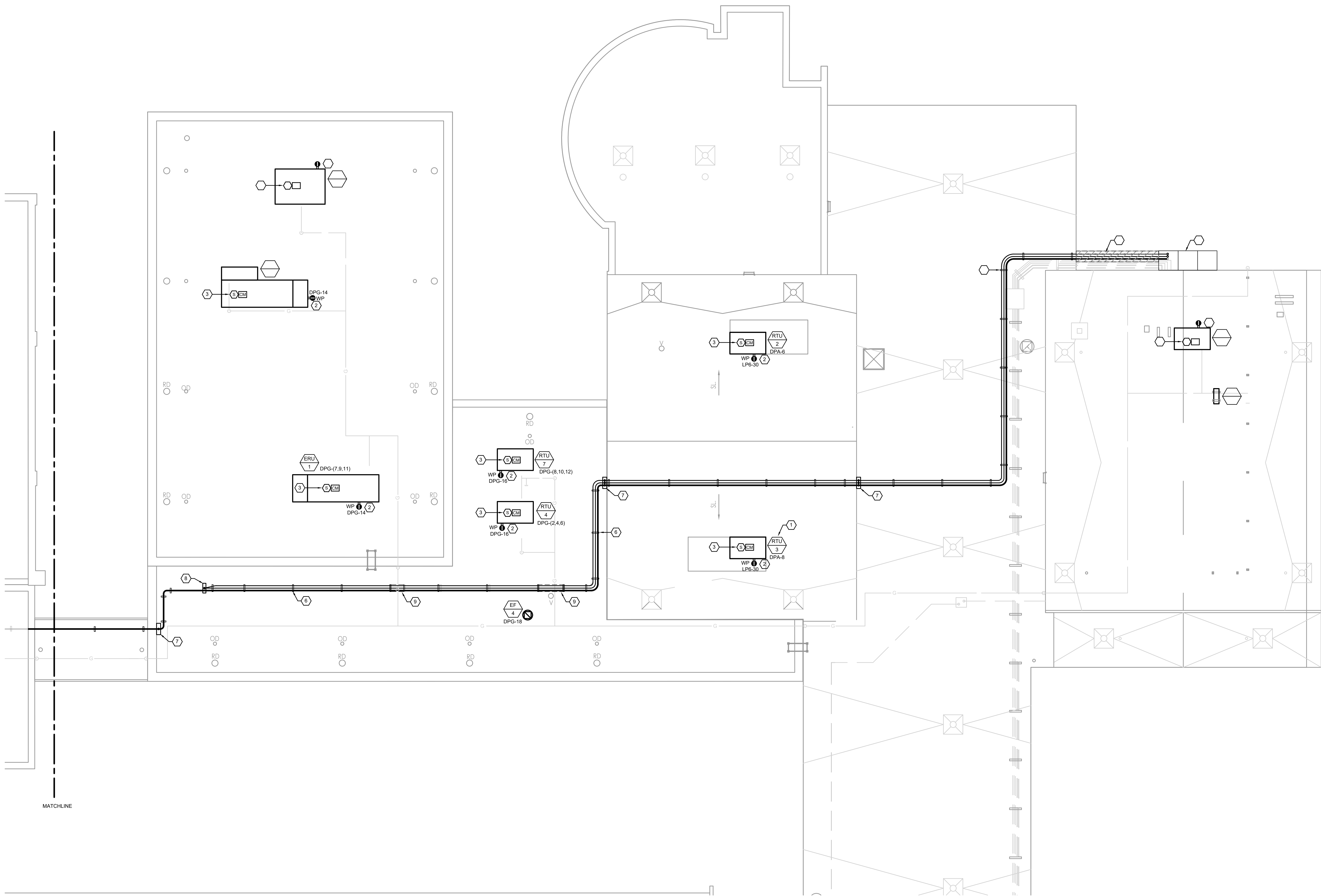
SHEET NOTES

- REFER TO LOW VOLTAGE & FIRE ALARM PLANS, AND FIRE ALARM RISER DIAGRAM FOR ADDITIONAL DUCT SMOKE DETECTOR INFORMATION.
- FOR ADDITIONAL SCOPE OF WORK RELATED TO THE BUILDING MANAGEMENT SYSTEM AND HVAC CONTROLS, PLEASE REFER TO SPECIFICATION SECTION 230900 - INSTRUMENTATION AND CONTROL FOR HVAC EQUIPMENT.
- REFER TO MECHANICAL AND PLUMBING PLANS FOR EXACT EQUIPMENT LOCATIONS.
- REFER TO ONE LINE DIAGRAM AND PANEL SCHEDULES FOR ALL CONDUIT AND FEEDER SIZES.
- CONTRACTOR SHALL COORDINATE ALL ROOFTOP CONDUIT ROUTING. AVOID CONFLICTS WITH OTHER TRADES AND EXISTING CONDITIONS. VERIFY EXACT RUN LENGTHS IN THE FIELD AND PROVIDE ALL PULLBOXES AND OFFSET AS REQUIRED PER NEC. CONTRACTOR SHALL COORDINATE ALL CONDUIT RUNS WITH THE GENERAL CONTRACTOR AND MARK OUT THEIR LOCATIONS PRIOR TO COMMENCING WORK.
- ALL ROOF MOUNTED FEEDERS SHALL BE TYPE XHHW-2 IN RGS CONDUIT. REFER TO ONE LINE DIAGRAM AND PANEL SCHEDULES FOR ADDITIONAL INFORMATION.

KEY NOTES

- MECHANICAL EQUIPMENT TAG. REFER TO MECHANICAL EQUIPMENT COORDINATION SCHEDULE FOR LOCAL POWER DISCONNECT INFORMATION AND PANEL SCHEDULES FOR CIRCUIT, WIRE AND CONDUIT SIZES. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR EXACT LOCATIONS. (TYPICAL).
- ATC PANEL LOCATION. COORDINATE WITH MECHANICAL CONTRACTOR AND CATWALK EQUIPMENT.
- MOTORIZED DAMPER. PROVIDE 120V POWER TO ACTUATORS.
- DUCT SMOKE DETECTOR.
- DUPLEX GFI RECEPTACLE WITH CAST ALUMINUM IN-USE WEATHERPROOF COVER.
- ROOF CONDUIT SUPPORT SPACED EVERY 10'-0" PER NEC. CONDUIT SHALL BE A MINIMUM OF 4" ABOVE ROOF. REFER TO ARCHITECTURAL DETAIL SHEETS.
- NEMA 3R PULLBOX SIZED PER NEC.
- NEW PANEL MP28 IN MECHANICAL ROOM BELOW.
-





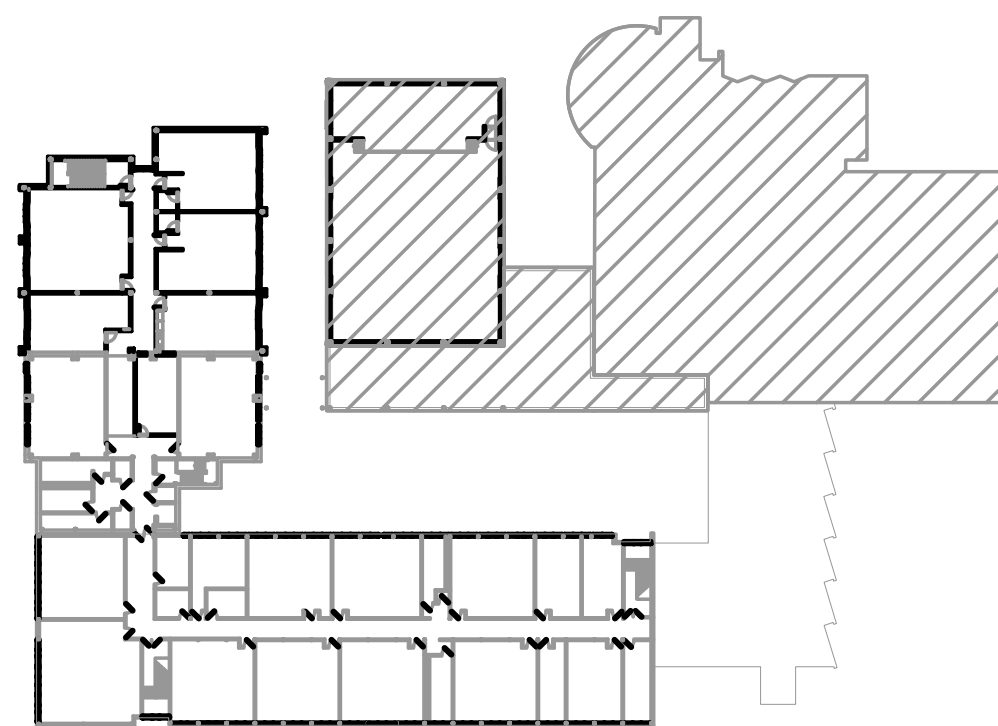
ROOF HVAC POWER PLAN - BLOCK B
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. REFER TO LOW VOLTAGE & FIRE ALARM PLANS, AND FIRE ALARM RISER DIAGRAM FOR ADDITIONAL DUCT SMOKE DETECTOR INFORMATION.
2. FOR ADDITIONAL SCOPE OF WORK RELATED TO THE BUILDING MANAGEMENT SYSTEM AND HVAC CONTROLS, PLEASE REFER TO SPECIFICATION SECTION 230900 - INSTRUMENTATION AND CONTROL FOR HVAC EQUIPMENT
3. REFER TO MECHANICAL AND PLUMBING PLANS FOR EXACT EQUIPMENT LOCATIONS
4. REFER TO ONE LINE DIAGRAM AND PANEL SCHEDULES FOR ALL CONDUIT AND FEEDER SIZES.
5. CONTRACTOR SHALL COORDINATE ALL ROOFTOP CONDUIT ROUTING. AVOID CONFLICTS WITH OTHER TRADES AND EXISTING CONDITIONS. VERIFY EXACT RUN LENGTHS IN THE FIELD AND PROVIDE ALL PULLBOXES AND OFFSET AS REQUIRED PER NEC. CONTRACTOR SHALL COORDINATE ALL CONDUIT RUNS WITH THE GENERAL CONTRACTOR AND MARK OUT THEIR LOCATIONS PRIOR TO COMMENCING WORK.
6. ALL ROOF MOUNTED FEEDERS SHALL BE TYPE XHHW-2 IN RGS CONDUIT. REFER TO ONE LINE DIAGRAM AND PANEL SCHEDULES FOR ADDITIONAL INFORMATION.

KEY NOTES

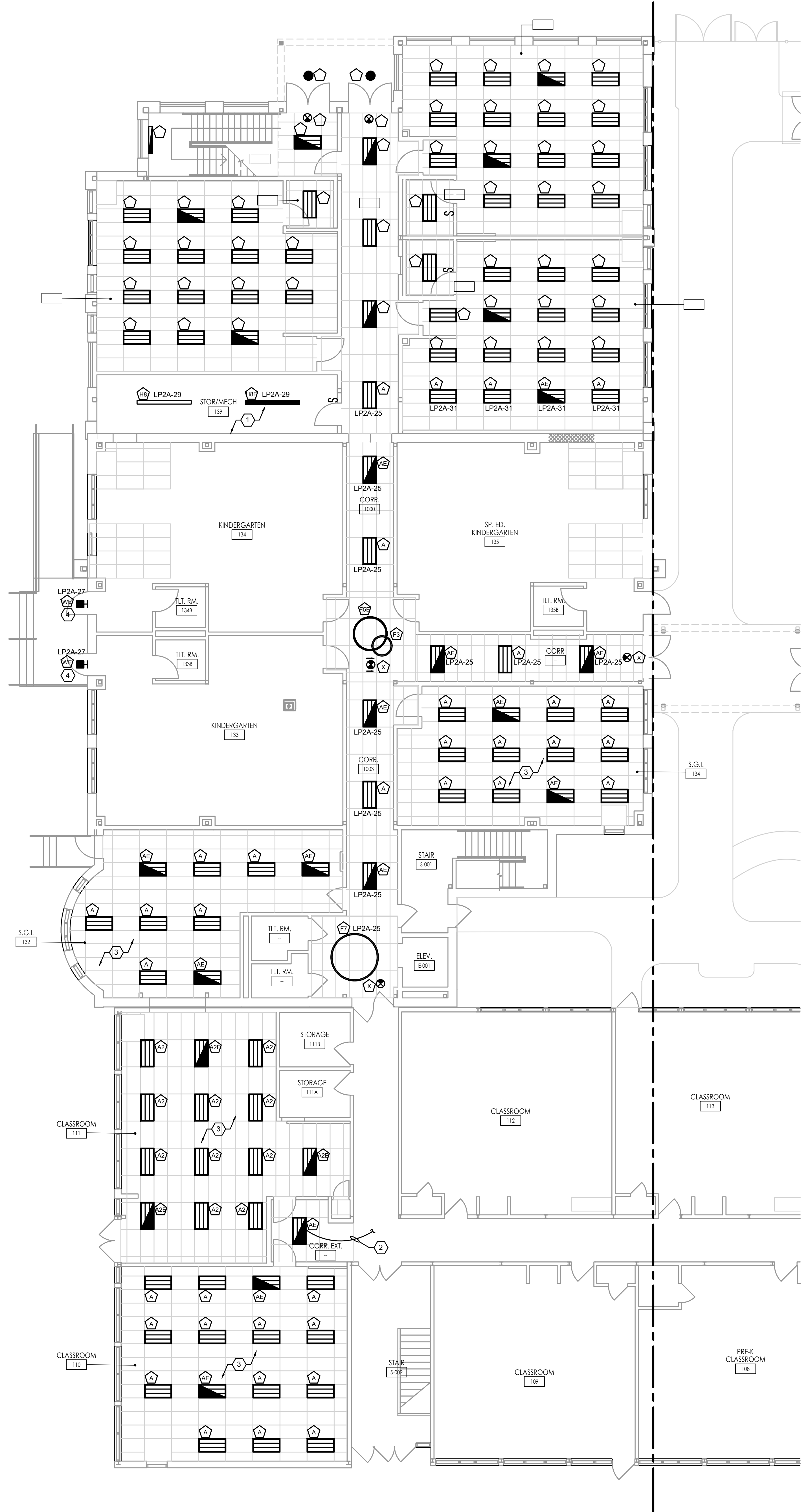
- ① MECHANICAL EQUIPMENT TAG. REFER TO MECHANICAL EQUIPMENT COORDINATION SCHEDULE FOR LOCAL POWER DISCONNECT INFORMATION AND PANEL SCHEDULES FOR CIRCUIT, WIRE AND CONDUIT SIZES. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR EXACT LOCATIONS (TYPICAL).
- ② DUPLEX GFI RECEPTACLE WITH CAST ALUMINUM IN-USE WEATHERPROOF COVER. FIELD COORDINATE EXACT LOCATION AT THE UNIT.
- ③ DUCT SMOKE DETECTOR AND CONTROL MODULE. REFER TO FIRE ALARM RISER DIAGRAM AND MECHANICAL EQUIPMENT COORDINATION SCHEDULE FOR ADDITIONAL INFORMATION.
- ④ EXISTING OUTDOOR MAIN DISTRIBUTION SWITCHBOARD.
- ⑤ PROVIDE UNI-STRUT SUPPORTS FROM MDS TO ROOF.
- ⑥ ROOF CONDUIT SUPPORT SPACED EVERY 10'-0" PER NEC. CONDUIT SHALL BE A MINIMUM OF 4" ABOVE ROOF. REFER TO ARCHITECTURAL DETAIL SHEETS.
- ⑦ NEMA 3R PULLBOX SIZED PER NEC.
- ⑧ NEW PANEL DPG IN MECHANICAL ROOM BELOW.
- ⑨ PROVIDE ROOF SUPPORTS SUITABLE TO CROSS OVER EXISTING CONDUITS OR NEW GAS PIPING. AFTER CROSSING, DROP DOWN TO MINIMUM 4" ABOVE ROOF SURFACE.



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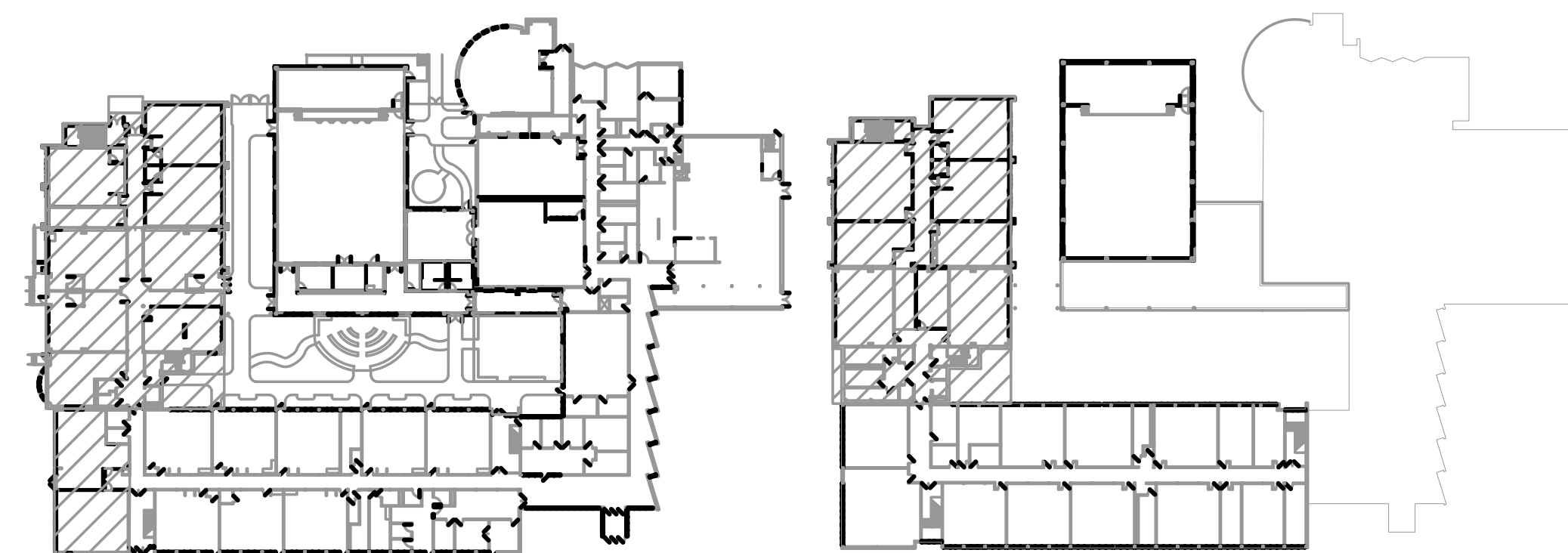
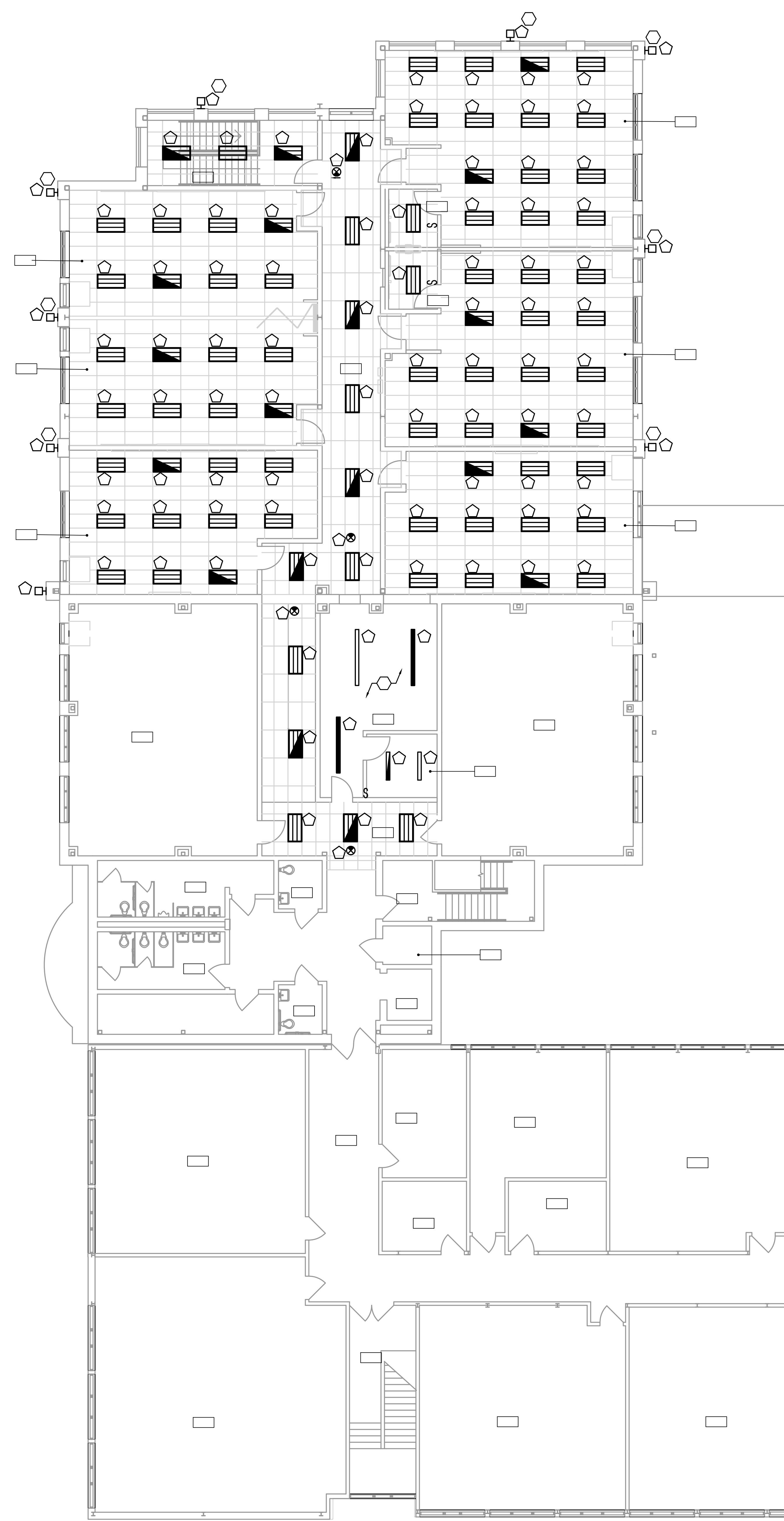
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FIRST FLOOR LIGHTING PLAN - BLOCK A
SCALE: 1/8" = 1'-0"

KEY NOTES

- 1 LIGHTING THIS ROOM OR ANY ROOM WITH PANELBOARDS SHALL NOT HAVE AUTOMATIC CONTROLS PER NEC. PROVIDE GENERAL USE SNAP SWITCHES.
- 2 CIRCUIT NEW CORRIDOR EXTENSION LIGHTING TO THE EXISTING CORRIDOR LIGHTING CIRCUIT - 3#12 MC.
- 3 CIRCUIT NEW LIGHTING THIS ROOM TO THE EXISTING LIGHTING CIRCUIT SERVING THIS AREA - 3#12 MC.
- 4 EXTERIOR WALLPACK LIGHTING FIXTURE MOUNTED AT 10'-0" AFF TO CENTERLINE OF FIXTURE.



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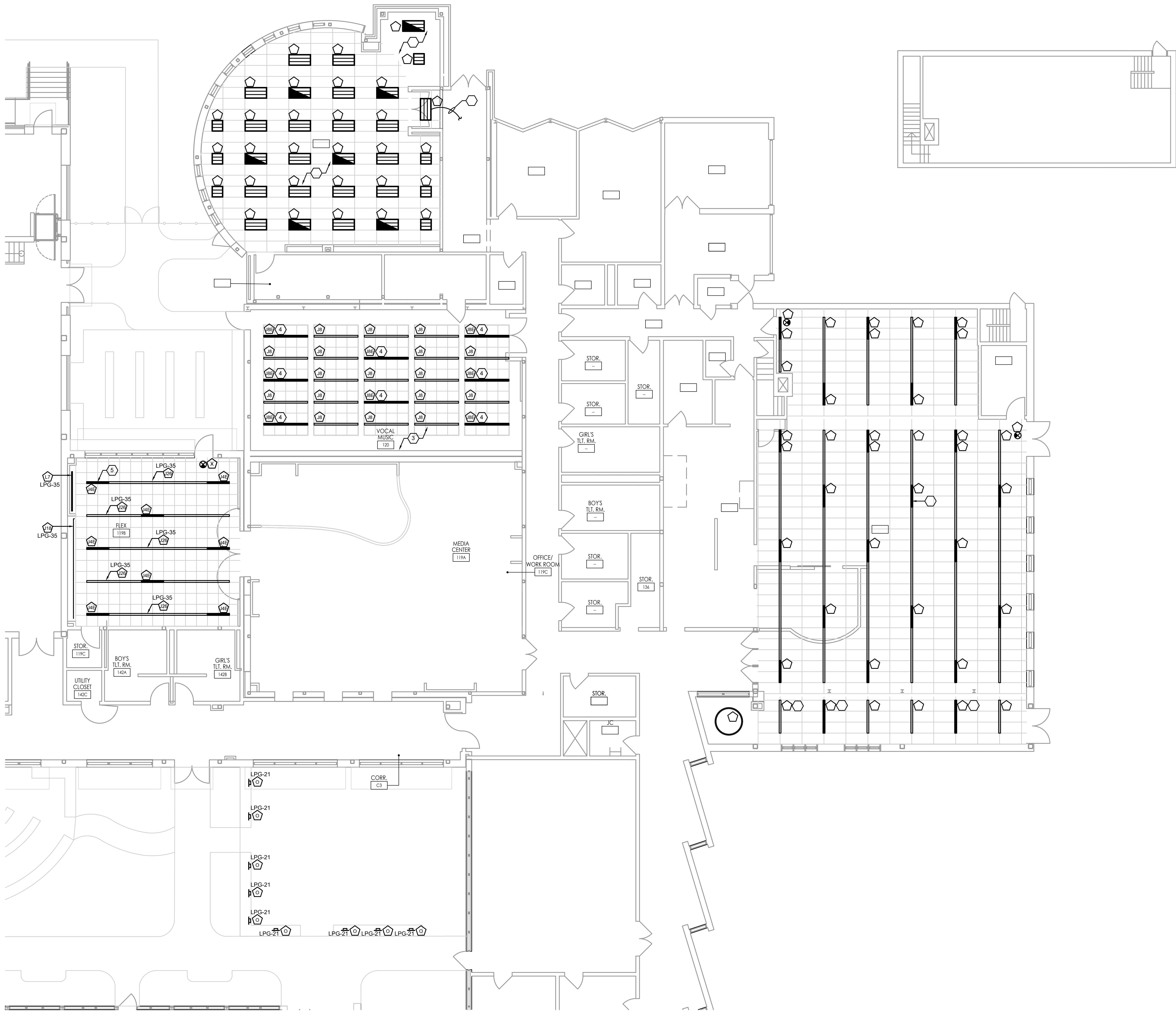
1. COORDINATE ALL LIGHTING FIXTURE AND WIRING DEVICE LOCATIONS WITH THE ARCHITECT PRIOR TO ROUGH-IN.
2. CONTRACTOR SHALL COORDINATE ALL LIGHTING LOCATIONS, MOUNTING HEIGHTS AND SWITCHING LOCATIONS WITH THE ARCHITECTURAL PLANS PRIOR TO ROUGH-IN. REFER TO LIGHTING CONTROLS DRAWINGS.
3. ALL EXIT, ULTIMATE EMERGENCY LIGHTING AND FIXTURE EMERGENCY BATTERY PACKS SHALL BE CONNECTED TO THE LINE SIDE OF THE CIRCUIT SERVING AREA LOCATED AND AHEAD OF ANY SWITCHING OR LIGHTING CONTROL.
4. UNLESS SHOWN ON THIS PLAN AS NEW, ALL OTHER LIGHTING SHALL BE EXISTING TO REMAIN.

- 1 LIGHTING THIS ROOM OR ANY ROOM WITH PANELBOARDS SHALL NOT HAVE AUTOMATIC CONTROLS PER NEC. PROVIDE GENERAL USE SNAP SWITCHES.
- 2 CIRCUIT NEW CORRIDOR LIGHTING TO THE EXISTING CORRIDOR LIGHTING CIRCUIT - 3@12 MC.
- 3 CIRCUIT NEW LIGHTING THIS ROOM TO THE EXISTING LIGHTING CIRCUIT MADE AVAILABLE BY DEMOLITION SERVING THIS AREA - 3@12 MC.
- 4 CIRCUIT NEW EXTERIOR WALL PACE LIGHTING FIXTURE TO THE EXISTING EXTERIOR LIGHTING CIRCUIT SERVING THIS AREA - 3@12 MC.
- 5 CIRCUIT REAR CEILING LINEAR LIGHTING FIXTURES TYPES 'B' AND '1' TO THE EXISTING LIGHTING CIRCUIT MADE AVAILABLE BY DEMOLITION THIS ROOM - 3@12 MC.
- 6 TYPE 'B4E' REPRESENTS THE SECTION OF THE ROW(S) THAT IS TO BE PROVIDED WITH EMERGENCY BACKUP, NOT AN ADDITIONAL FIXTURE. TYPICAL FOR ALL.
- 7 TYPE '4E' REPRESENTS THE SECTION OF THE ROW(S) THAT IS TO BE PROVIDED WITH EMERGENCY BACKUP, NOT AN ADDITIONAL FIXTURE. TYPICAL FOR ALL.
- 8 ENTIRE FIXTURE FURNISHED WITH EMERGENCY BACKUP.
- 9 EXTERIOR WALLPACKE LIGHTING FIXTURE MOUNTED AT 10'-0" AFF TO CENTERLINE OF CURB.
- 10 COORDINATE STAGE LIGHTING LOCATIONS WITH BACK OF HOUSE TYPE. PROVIDE STRUCTURAL DUCTWORK, ETC. REFER TO DRAWING E-2 STAGE LIGHTING CONTROL DETAIL FOR ADDITIONAL INFORMATION.
- 11 DIMENSION IS SPECIFICATION SECTION 1605: THEATRICAL STAGE LIGHTING FOR FIXTURE SPECIFICATIONS AND CONTROL SPECIFICATIONS.
- 12 STAGE LIGHTING CONTROL EQUIPMENT. REFER TO RISER DIAGRAM ON DRAWING E-1 AND PANEL LPG SCHEDULE.
- 13 FIRST ELECTRIC. CIRCUIT TO PANEL LPG-10 THROUGH STAGE LIGHTING RAY PANEL.
- 14 FRONT OF HOUSE CAGE. CIRCUIT TO PANEL LPG-10 THROUGH STAGE LIGHTING RAY PANEL.



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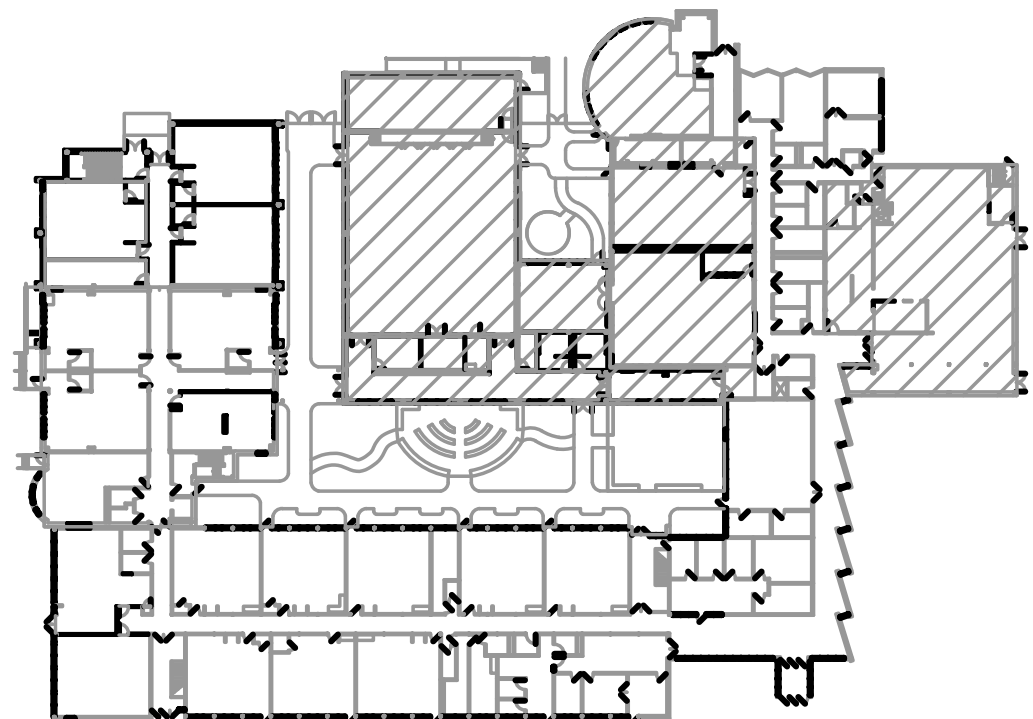
FIRST FLOOR LIGHTING PLAN - ALTERNATE BID
SCALE: 1/8" = 1'-0"

SHEET NOTES

- COORDINATE ALL LIGHTING FIXTURE AND WIRING DEVICE LOCATIONS WITH THE ARCHITECT PRIOR TO ROUGH-IN.
- CONTRACTOR SHALL COORDINATE ALL LIGHTING LOCATIONS, MOUNTING HEIGHTS AND SWITCHING LOCATIONS WITH THE ARCHITECTURAL PLANS PRIOR TO ROUGH-IN. REFER TO LIGHTING CONTROLS DRAWINGS.
- ALL EXIT, UNIT EMERGENCY LIGHTING AND FIXTURE EMERGENCY BATTERY PACKS SHALL BE CONNECTED TO THE LINE SIDE OF THE CIRCUIT SERVING AREA LOCATED AND AHEAD OF ANY SWITCHING OR LIGHTING CONTROL.
- UNLESS SHOWN ON THIS PLAN AS NEW, ALL OTHER LIGHTING SHALL BE EXISTING TO REMAIN.

KEY NOTES

- LIGHTING THIS ROOM OR ANY ROOM WITH PANELBOARDS SHALL NOT HAVE AUTOMATIC CONTROLS PER NEC. PROVIDE GENERAL USE SNAP SWITCHES.
- CIRCUIT NEW CORRIDOR LIGHTING TO THE EXISTING CORRIDOR LIGHTING CIRCUIT - 3P12 MC.
- CIRCUIT NEW LIGHTING THIS ROOM TO THE EXISTING LIGHTING CIRCUIT MADE AVAILABLE BY DEMOLITION SERVING THIS AREA - 3P12 MC.
- ENTIRE FIXTURE FURNISHED WITH EMERGENCY BATTERY.
- TYPE 'JAE' REPRESENTS THE SECTION OF THE ROW(S) THAT IS TO BE PROVIDED WITH EMERGENCY BATTERY, NOT AN ADDITIONAL FIXTURE. TYPICAL FOR ALL.



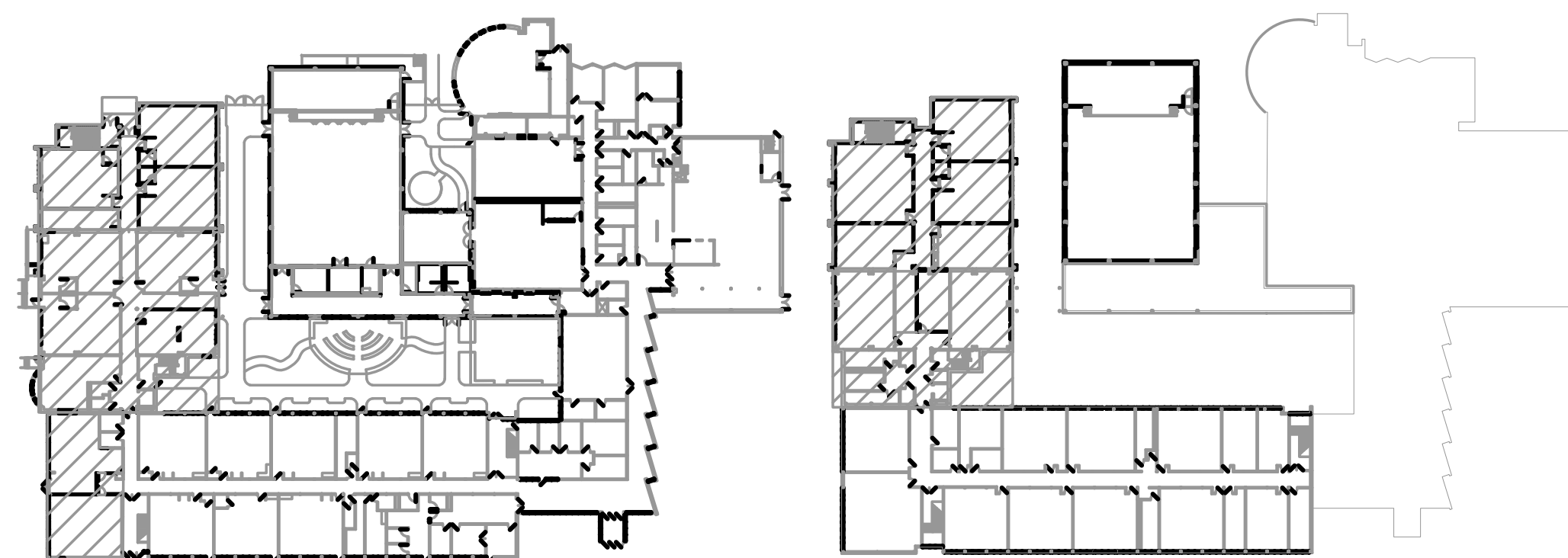


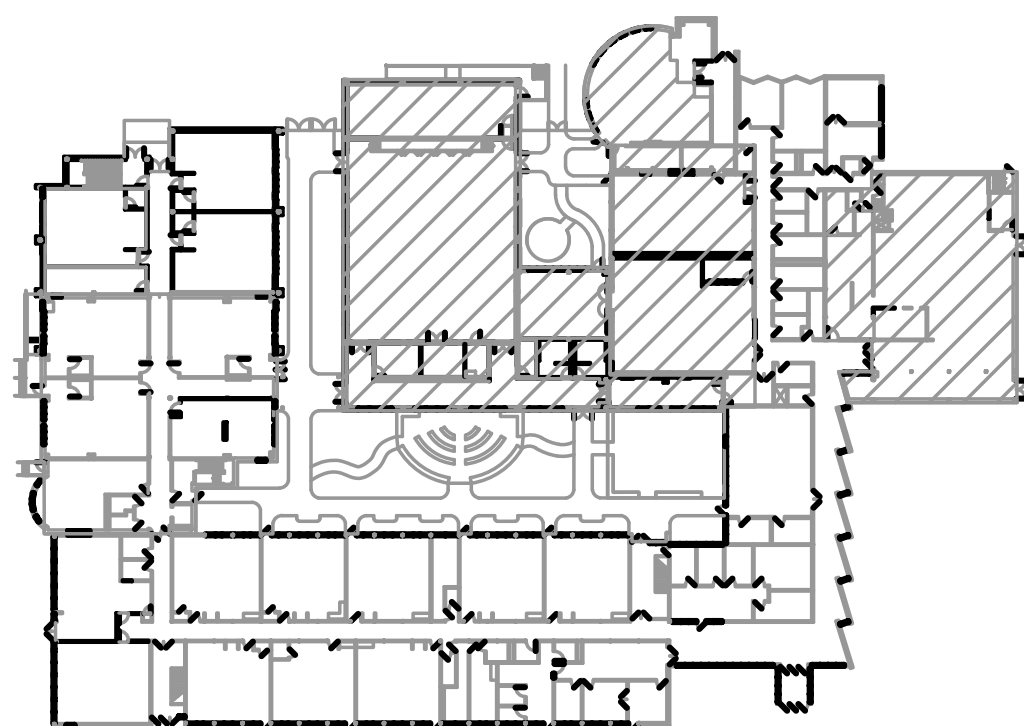
SHEET NOTES

1. COORDINATE ALL LIGHTING FIXTURE AND WIRING DEVICE LOCATIONS WITH THE ARCHITECT PRIOR TO ROUGH-IN.
2. UNLESS SHOWN ON THIS PLAN AS NEW, ALL OTHER LIGHTING AND CONTROLS SHALL BE EXISTING TO REMAIN.
3. ALL CORRIDOR LIGHTING SHALL BE CONTROLLED VIA TIMECLOCK WITH OCCUPANCY SENSOR OVERRIDE. PROVIDE KEY SWITCHES FOR LOCAL CONTROL BY AUTHORIZED PERSONNEL ONLY.

KEY NOTES

- | | |
|---|--|
| 1 | PROVIDE GENERAL USE SNAP SWITCH. |
| 2 | LOWER CASE LETTER DESIGNATES SWITCHING ARRANGEMENT (TYPICAL). |
| 3 | PROVIDE KEY SWITCHES IN CORRIDORS FOR MANUAL OVERRIDE OF STAIRWELL AND CORRIDOR LIGHTING FIXTURES FOR USE BY AUTHORIZED PERSONNEL ONLY. (TYPICAL). |
| 4 | ROOMS AND SPACES WITH PANELBOARDS AND MECHANICAL EQUIPMENT SHALL HAVE NO AUTOMATIC LIGHTING CONTROLS. |
| 5 | PHOTOCELL FOR EXTERIOR LIGHTING CONTROL. |
| 6 | NEW CORRIDOR LIGHTING TO BE CONTROLLED VIA EXISTING CORRIDOR LIGHTING CONTROLS. |





Project: Inside Edge at Parkville

- VLV connection line is lay cable, ISO 20-AWG.
- CAT5 connector line is CAT5E rated to 1Gbps
- NX Network connection line is powered CAT5.
- PZB for connection line is CAT5E cables for network cable FX platform.
- VLVN connection shows representing the voltage
- VLVN connection represents the line and voltage -Connection line types are for reference only and may take for shown on drawings.

(1) IPD/COPCO

PHOTOCELL SENSOR, OUTDOOR,
WHITE

(4*) NKSMDT-DIMM

NO DIMMER MODULE, DUAL TECH, 30W
LED, WHITE

(1) LHMST50-E-WH

LIGHTINGWAVE DIMMER DATA,
RECEIVING DATA FROM LED ENDORS

(1) NSND2-W-H

NO DIGITAL SWITCH SWATCH FOUR
PILOT MONITORARY, FLIGHT

(1) LHMTS5-G-WH

LIGHTINGWAVE DIMMER DATA,
RECEIVING DATA FROM LED ENDORS
WITH INTELLIGENT, SINGLE RELAY
THROUOUTPUT, ISOATING 100 W TO

(2) NSND2-W-MV

NO DIGITAL SWITCH SWATCH SIX
PILOT MONITORARY, FLIGHT

(1) NKX2

NO SMART PORT CONTACT INTERACE
MODULE

(1) NSPD2-ORLD-WH

NO DIGITAL SWITCH ON/OFFALY SWITCH

(1) NKSG

NO DAYLIGHT SENSOR

(1) NSPPS

NO WALL PARTITION SENSOR

(2) NNHNB2

NO HUBNET NETWORK BRIDGE
MODULE

(1) RUSADAPTER

RUSH ADAPTER FOR OCCUPANCY AND
DATAPOINT (BRIDGE)

(1) NRKSG

NO ROOM CONTROLLER, I/F RELAY,
2 X CHANNEL, REMOTE MONITORING
UNIVERSITY, VOLAGE

(1) WSF85-LSDMM

WSF85 HIGH BAY SENSOR LINE, 300'
COVERGE AREA

(1) NRKSPC2-TRDUM

NO ROOM CONTROL, I/F RELAY,
2 X CHANNEL, REMOTE MONITORING
UNIVERSITY, VOLAGE

(1) WSF85A-F

HIGH BAY, HIGH BAY SENSOR
WITH DAYLIGHT SENSING, SURFACE MPT,
PANEL TYPE, 30' COVERGE(REDUCED)
FORM C RELAY

(2) NRKSPC2-TRDUM

NO ROOM CONTROL, I/F RELAY,
2 X CHANNEL, REMOTE MONITORING
UNIVERSITY, VOLAGE

(1) WSF85A-F

HIGH BAY, HIGH BAY SENSOR
WITH DAYLIGHT SENSING, SURFACE MPT,
PANEL TYPE, 30' COVERGE(REDUCED)
FORM C RELAY

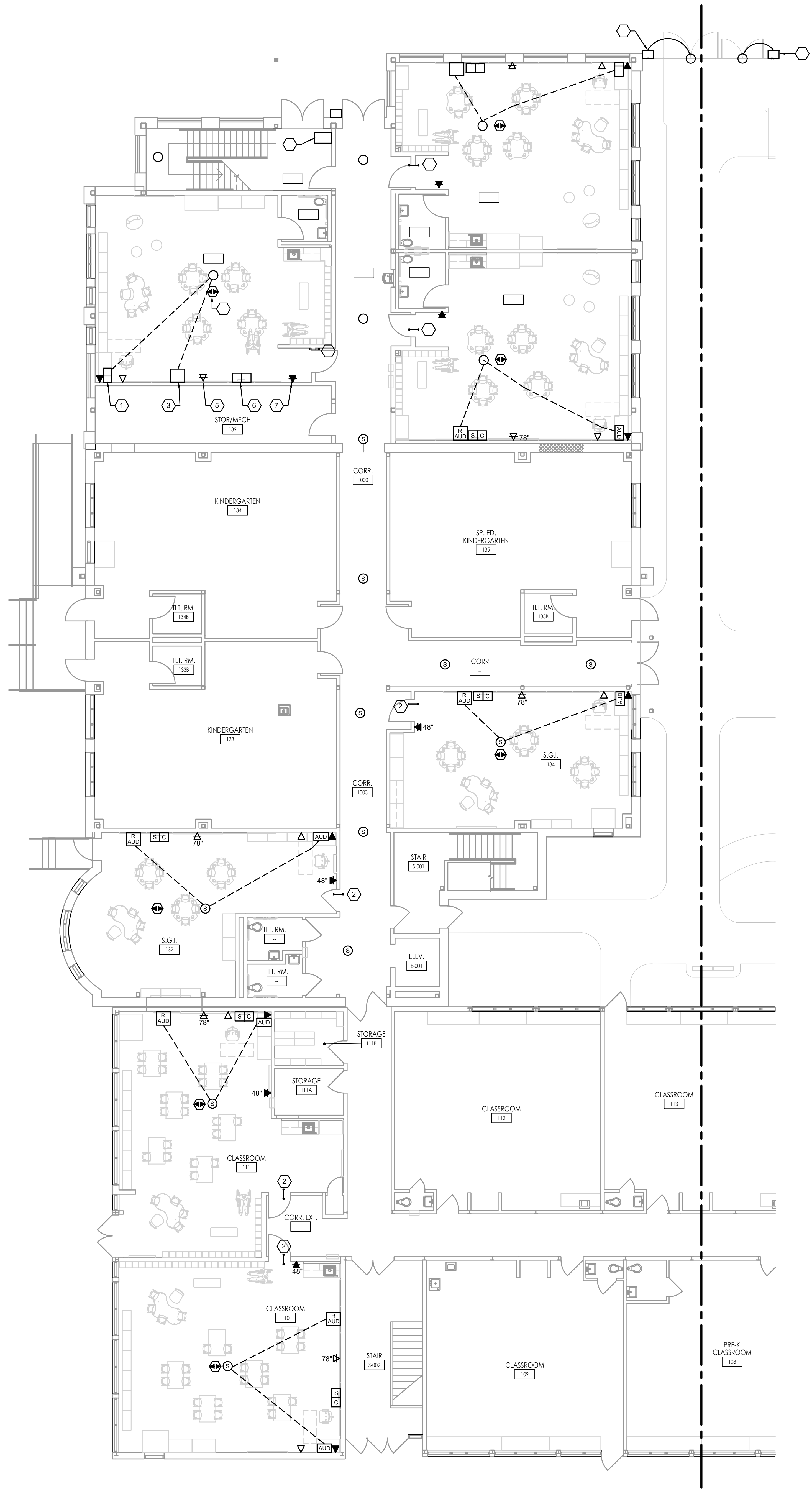
NOTES:

- All device locations are approximate, refer to manufacturers installation instructions prior to installation.
- Occupancy sensors utilizing ultrasonic technology must be located a minimum of four to six feet from HVAC supply and return vents.
- 360 degree Occupancy sensors utilizing ultrasonic technology must be located a minimum of two feet from the wall.
- Sensors mounted over a door must be placed one foot inside the threshold.
- All switches are displayed as Display. Please refer to your Bill of Material for correct color and all product.
- If by default line voltage wall switch occupancy sensors are selected as Ground leakage devices, if installation requires Neutral connection, please refer to your Bill of Materials for appropriate model number.
- Contractor is responsible for: power sensitivity & time delay settings; (for non-adaptive products), recommended placement and verification of circuits with respect to power placement.
- Contractor is responsible for field verification of required number of Power Packs/Smart Packs/Room Controllers:
 - One Power Pack/Room Controller is required for each circuit.
 - One Room Controller can handle a total of 30 load points per module (see install instructions).
 - One power pack is required for every four users in the zone.
 - If multiple circuits are to be controlled by a sensor, an auxiliary relay can be used in conjunction with the power pack.
 - The maximum number of sensors that can be put on a power pack is to be reduced by one for each slave pack used.
 - Contractor is responsible for ensuring that the bill of materials complies with the intended design, project specifications and local codes.
- NX Network is a powered network, do not connect NX Network CAT5 cables to standard Ethernet devices. Consult factory if additional network segments are required. Current is not liable for any damage due to XXXXXX.
- If the distance between the Signal Generating Devices (Area Controller, NX Panel, NXHD or NXHNBB) exceeds 100 meters (328 feet) of cable, a Power over Ethernet Router (not provided by Current) will need to be installed.
- The placement of the patches are not the exact placement. They may need to be moved to a more optimum location per the individual room conditions.

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

1. COORDINATE ALL LIGHTING FIXTURE AND WIRING DEVICE LOCATIONS WITH THE ARCHITECT PRIOR TO ROUGH-IN.
2. UNLESS SHOWN ON THIS PLAN AS NEW, ALL OTHER LIGHTING AND CONTROLS SHALL BE EXISTING TO REMAIN.
3. ALL CORRIDOR LIGHTING SHALL BE CONTROLLED VIA TIMECLOCK WITH OCCUPANCY SENSOR OVERRIDE. PROVIDE KEY SWITCHES FOR LOCAL CONTROL BY AUTHORIZED PERSONNEL ONLY.

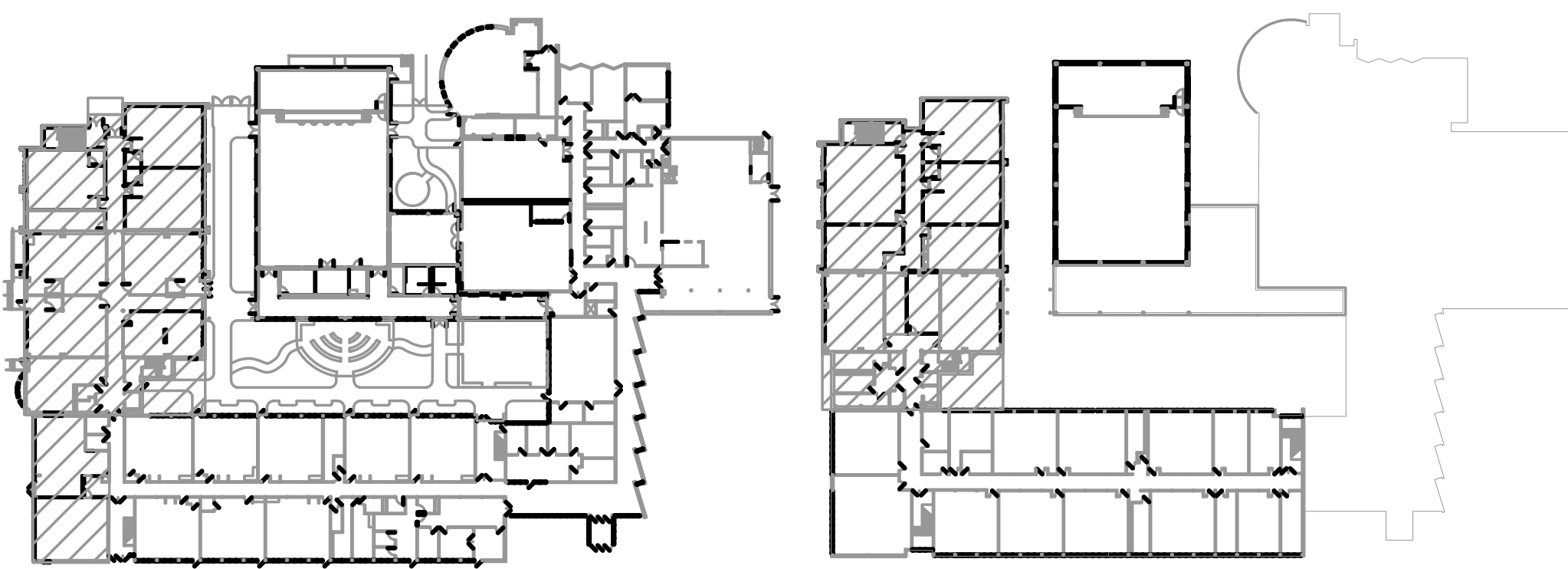
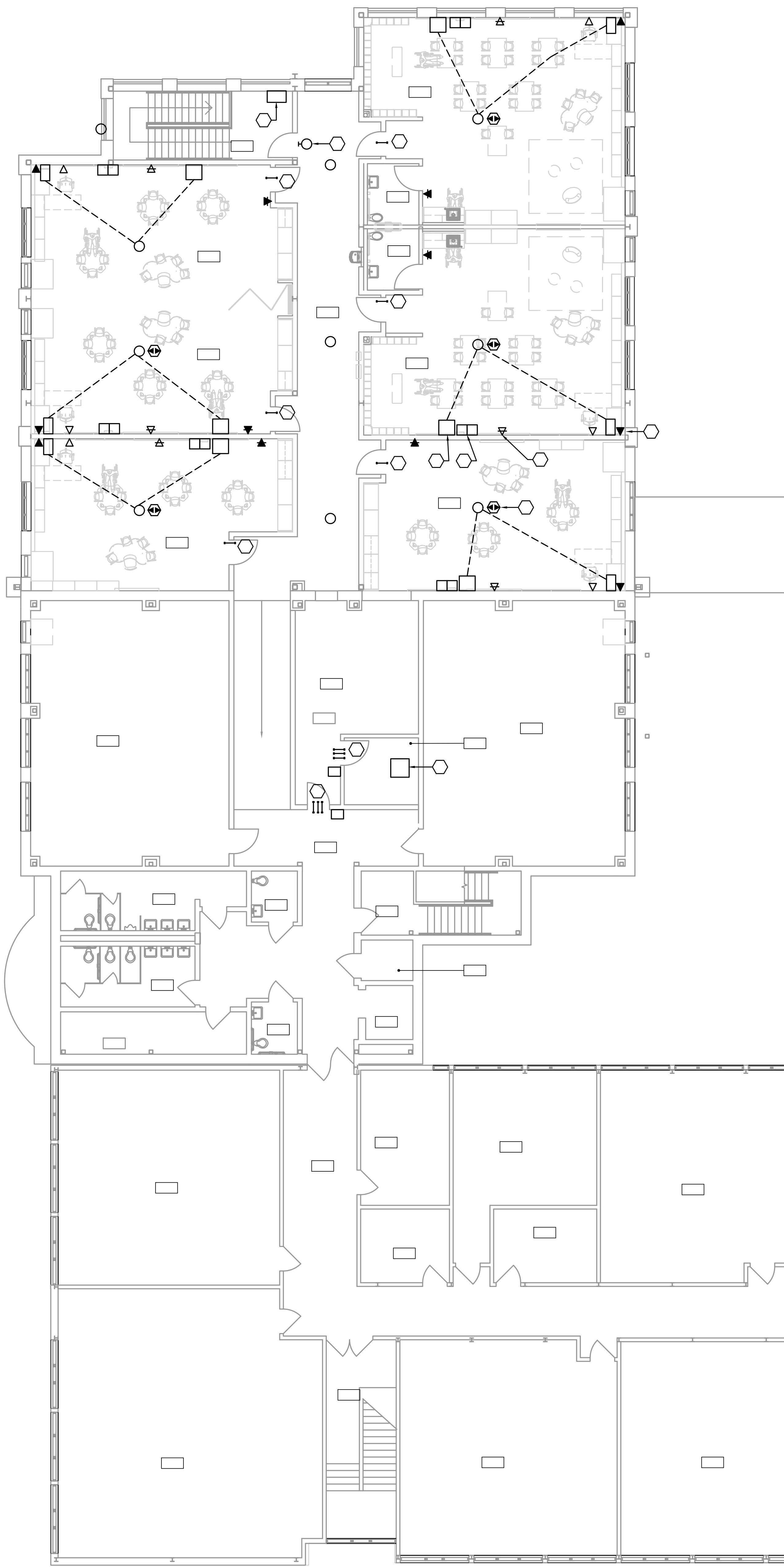
1. PROVIDE GENERAL USE SNAP SWITCH.
2. LOWER CASE LETTER DESIGNATES SWITCHING ARRANGEMENT (TYPICAL).
3. PROVIDE CONTROL PANEL FOR EXTERIOR AND CORRIDOR LIGHTING TIME/SEQUENCE CONTROL. FIELD VERIFY EXACT LOCATION.
4. PHOTOCELL FOR EXTERIOR LIGHTING CONTROL.
5. PROVIDE KEY SWITCHES IN CORRIDORS FOR MANUAL OVERRIDE OF CORRIDOR LIGHTING FIXTURES FOR USE BY AUTHORIZED PERSONNEL ONLY. (TYPICAL).
6. CAFETERIA, MEDIA CENTER AND FLEX SPACE SWITCH LOCATIONS TO BE FIELD CO-ORDINATED WITH THE OWNER. SWITCHES SHOULD BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL.
7. NEW CORRIDOR LIGHTING TO BE CONTROLLED VIA EXISTING CORRIDOR LIGHTING CONTROLS.
8. ADDITIONAL FX: FOR BUS POWER ONLY. NOT FOR SWITCHING / DIMMING.



FIRST FLOOR LOW VOLTAGE PLAN - BLOCK A
SCALE: 1/8" = 1'-0"

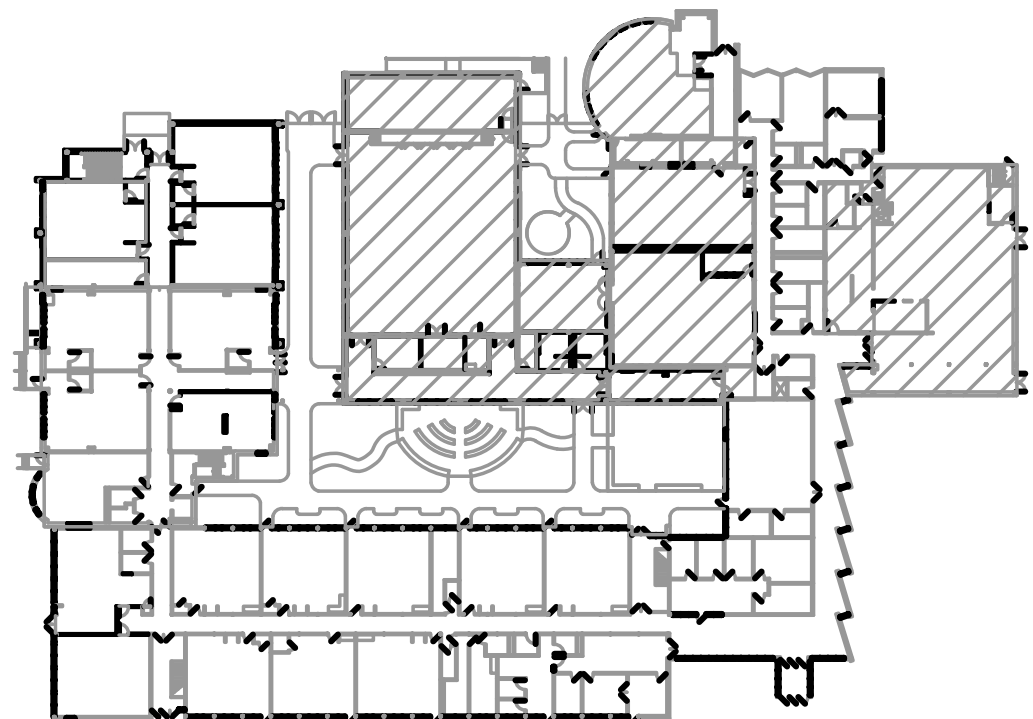
KEY NOTES

- 1 DATA, TELEPHONE AND HDMI JUNCTION BOXES AT TEACHERS AV CABINET LOCATION. REFER TO SYMBOL LIST.
- 2 2" CONDUIT SLEEVE(S) INTO ROOM. PROVIDE QUANTITY AS SHOWN (TYPICAL).
- 3 LOCAL AUDIO SYSTEM WITH HDMI CABLES TO CEILING TEACHING BREAKER. REMOTE MICROPHONE WITH VOLUME CONTROL AND SOURCE SETTING. AND SHORT THROW PROJECTOR.
- 4 CEILING MOUNTED WIRELESS ACCESS (WIFI) ROUTER LOCATION.
- 5 DATA OUTLET FOR SHORT THROW PROJECTOR MOUNTED 78" AFF. CLOCK/SPEAKER BOX MOUNTED ABOVE PROJECT. REFER TO ARCHITECTURAL ELEVATIONS. (TYPICAL).
- 6 CLOCK/SPEAKER LOCATION. REFER TO SYMBOL LIST (TYPICAL).
- 7 TELEPHONE MOUNTED AT 48" AFF (TYPICAL).
- 8 ILLUMINATED "AREA OF REFUGE" SIGN. CONNECT TO EXISTING CORRIDOR LIGHTING CIRCUIT SERVING THIS AREA AHEAD OF SWITCHING AND/OR LIGHTING CONTROLS - 2#12 & 1#12EG IN 3/4" EMT CONDUIT.
- 9 AREA OF REFUGE MASTER STATION. LOCATE IN MAIN OFFICE OR SECURITY OFFICE. FIELD COORDINATE EXACT LOCATION WITH THE OWNER PRIOR TO ROUGH-IN. REFER TO DETAILS FOR ADDITIONAL INFORMATION.
- 10 AREA OF REFUGE CALL STATION. REFER TO DETAIL SHEETS.
- 11 CARD READER FOR GATE ACCESS.
- 12 DATA RACK (BY OTHERS) LOCATION.



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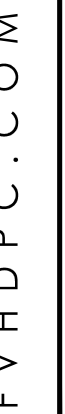
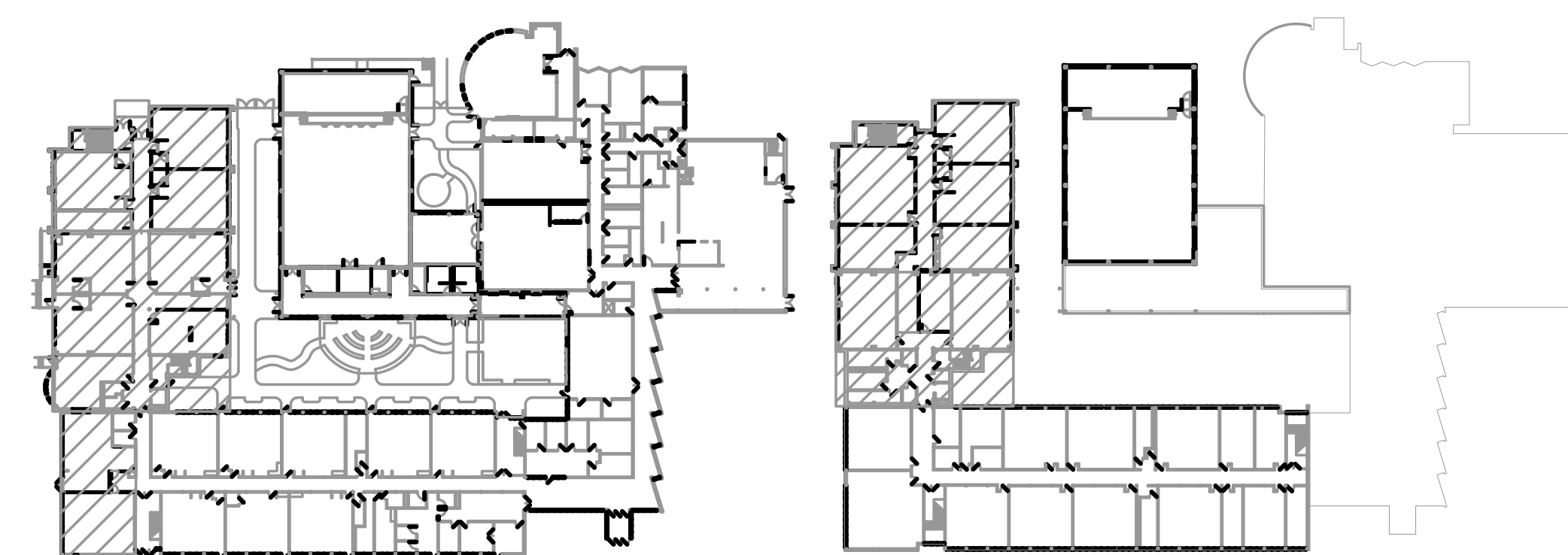
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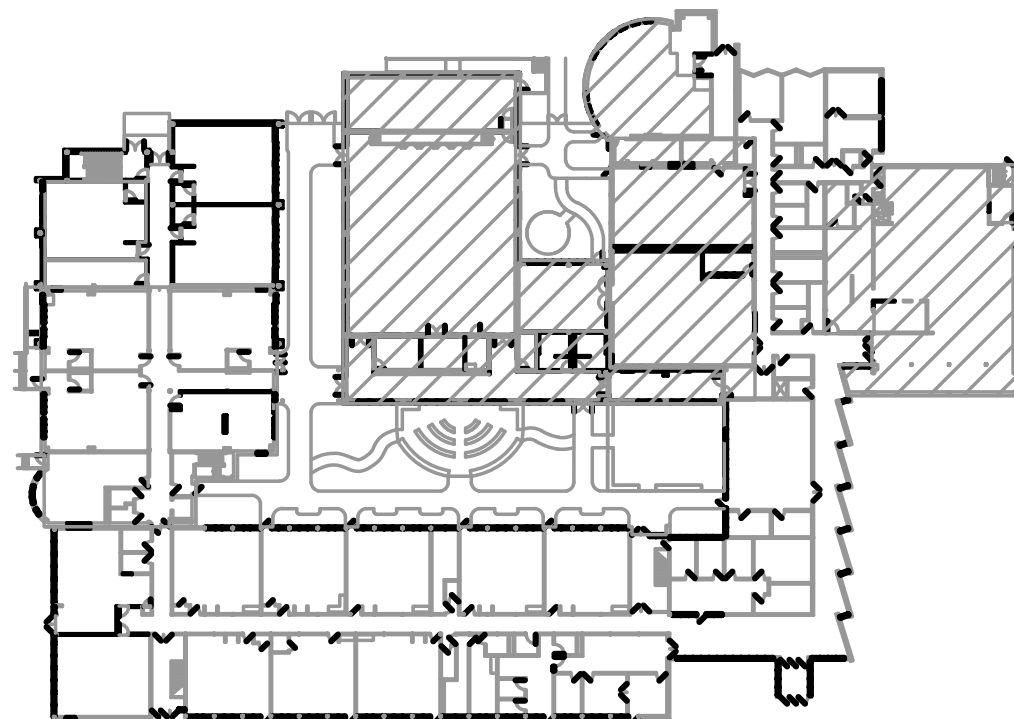


11	PROVIDE TWO GANG JUNCTION BOX AND 16 AWG TWISTED SHIELDED PAIR COMMUNICATIONS CABLES FROM POWR-TOUCH 4 TOUCHSCREEN TO GYM EQUIPMENT LABEL PANELS. COORDINATE INSTALLATION REQUIREMENTS WITH MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.
12	HDMI AND AV FOR PROJECTOR SCREEN AND AV CONTROLLER.
13	DATA RACK (BY OTHERS) LOCATION.
14	CARD READER FOR GATE ACCESS.
15	CEILING MOUNTED DATA OUTLET FOR PROJECTOR. FIELD VERIFY EXACT LOCATION WITH THE ARCHITECT.



- 1 NEW FIRE ALARM EXPANDER PANEL.
- 2 CO DETECTOR TO BE LOCATED AT THE FIRST AIR OUTLET FROM GAS-FIRED ROOFTOP UNITS. COORDINATE EXACT LOCATIONS WITH THE MECHANICAL CONTRACTOR.
- 3 FIRE PROTECTION FLOW AND TAMPER SWITCH MONITOR MODULES. REFER TO FIRE PROTECTION DRAWINGS.





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

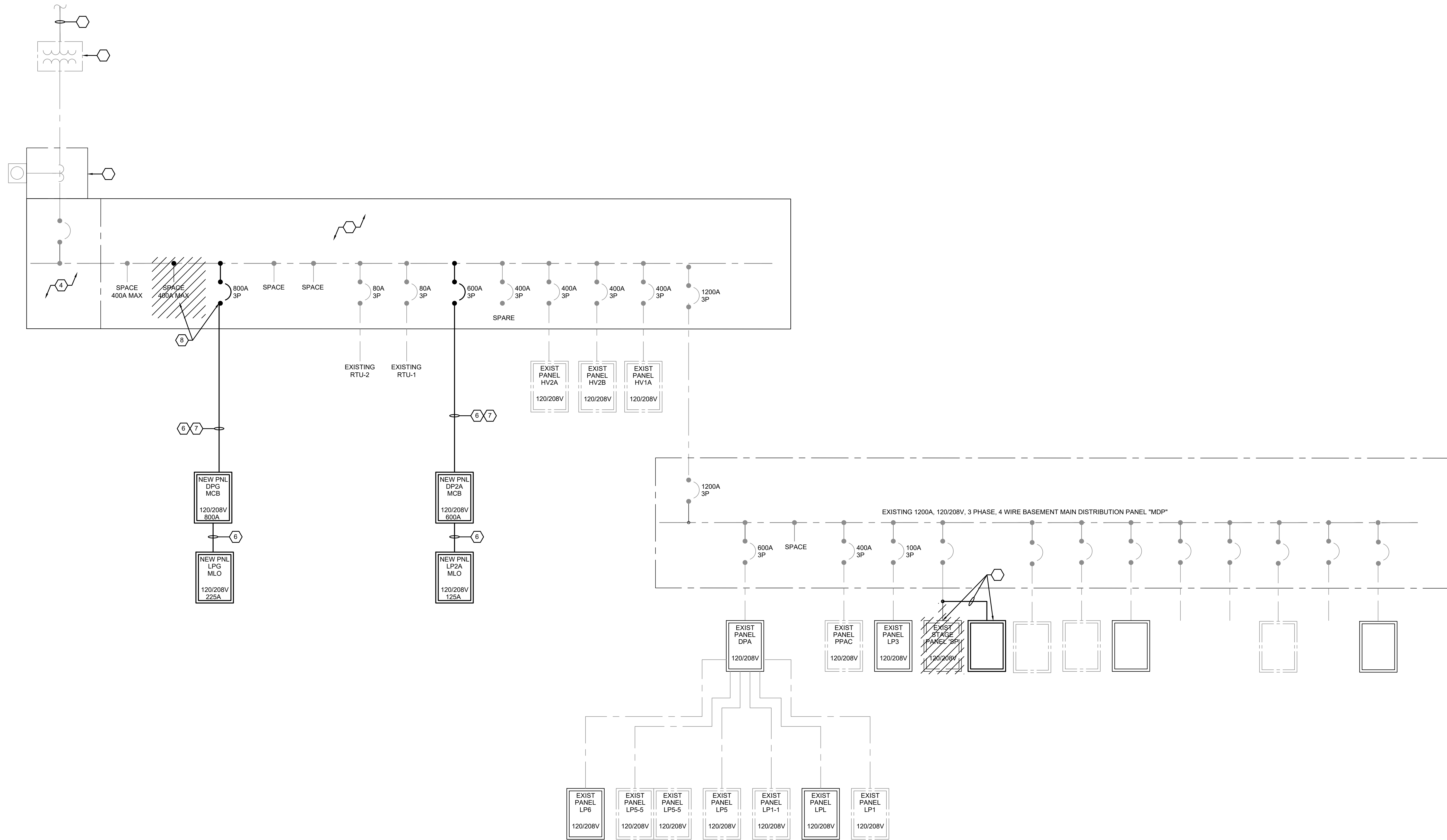


Corporate Office
Suite 34, Suite
732.312.9

EFVD
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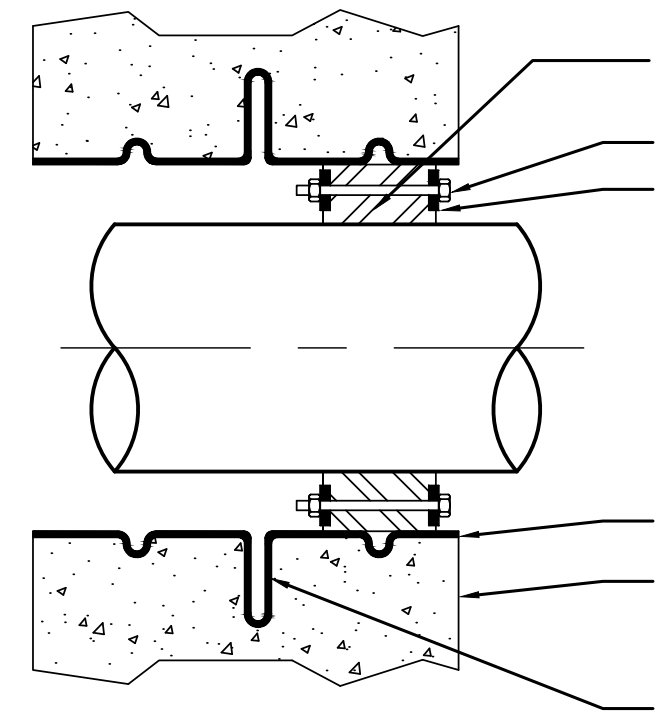
LINETYPE LEGEND	
--- / --- / ---	DEMO
---	EXISTING
---	EXISTING (MODIFIED)
---	NEW

SHEET NOTES

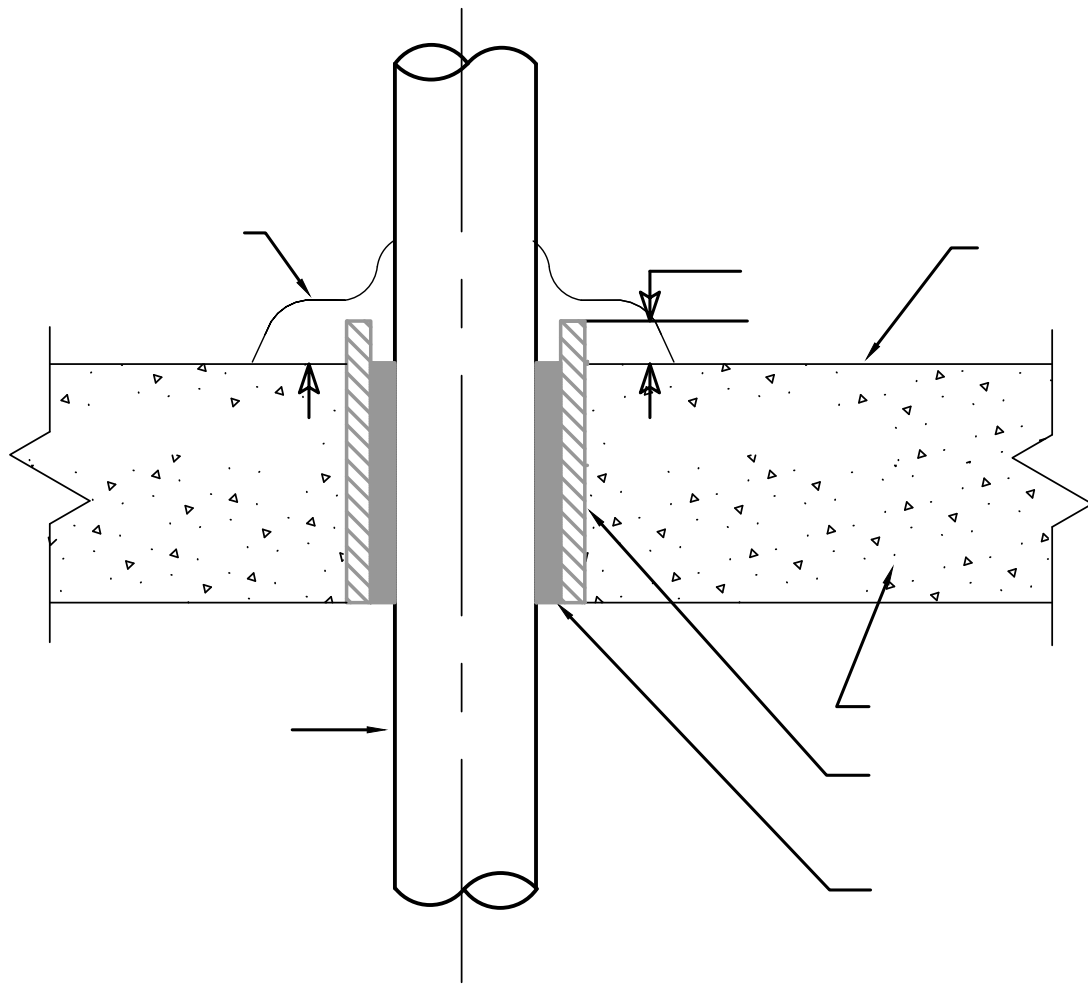
- THE CONTRACTOR SHALL COORDINATE ANY REQUIRED ELECTRIC SERVICE OR AREA POWER SHUTDOWNS WITH THE OWNER AT LEAST SEVEN (7) DAYS PRIOR TO THE SHUTDOWN. ALL SHUTDOWN WORK SHALL BE PERFORMED ON WEEKENDS.
- UNLESS NOTED OTHERWISE OR SHOWN AS NEW, ALL PANELS, CIRCUIT BREAKERS, WIRING AND CONDUIT SHALL BE EXISTING TO REMAIN.
- THE CONTRACTOR SHALL CONFIRM EXISTING CIRCUIT ARRANGMENT WHERE INDICATED TO FIELD VERIFY AND UPDATE PANEL DIRECTORIES AND NAMEPLATE AS REQUIRED. REFER TO PANEL SCHEDULES.

ONE LINE DIAGRAM KEY NOTES

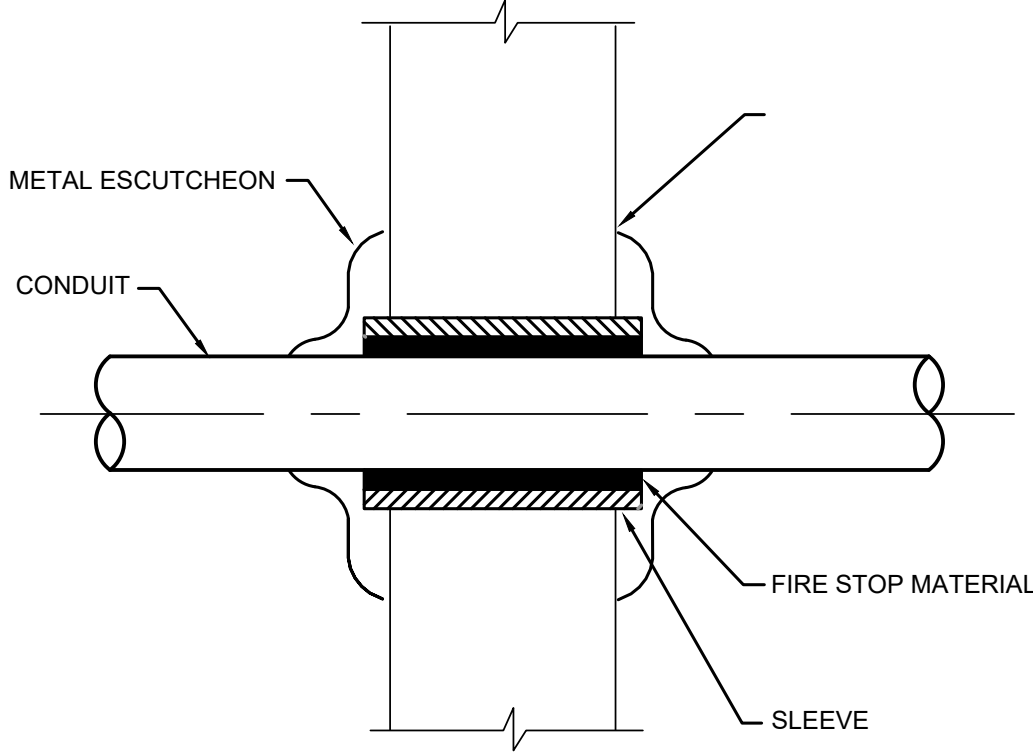
- EXISTING UNDERGROUND PRIMARY SERVICE.
- EXISTING UTILITY COMPANY TRANSFORMER.
- EXISTING CT SECTION AND SWITCHBOARD MOUNTED METER.
- EXISTING MAIN SERVICE DISCONNECT SWITCH.
- EXISTING DISTRIBUTION SECTION.
- SEE PANEL SCHEDULES.
- CONDUITS TO BE ROUTED ALONG ROOF. REFER TO DRAWING E4.3.
- EXISTING 400A SPACE AND 250A SPACE TO BE USED FOR NEW 800A ELECTRONIC TRIP ADJUSTABLE CIRCUIT BREAKER FOR NEW PANEL DPG.
- EXISTING PANEL SP TO BE REMOVED, RELOCATED AND REPLACED WITH NEW. REFER TO PANEL SCHEDULES. EXTEND EXISTING CONDUIT AND FEEDERS TO NEW PANEL LOCATION.



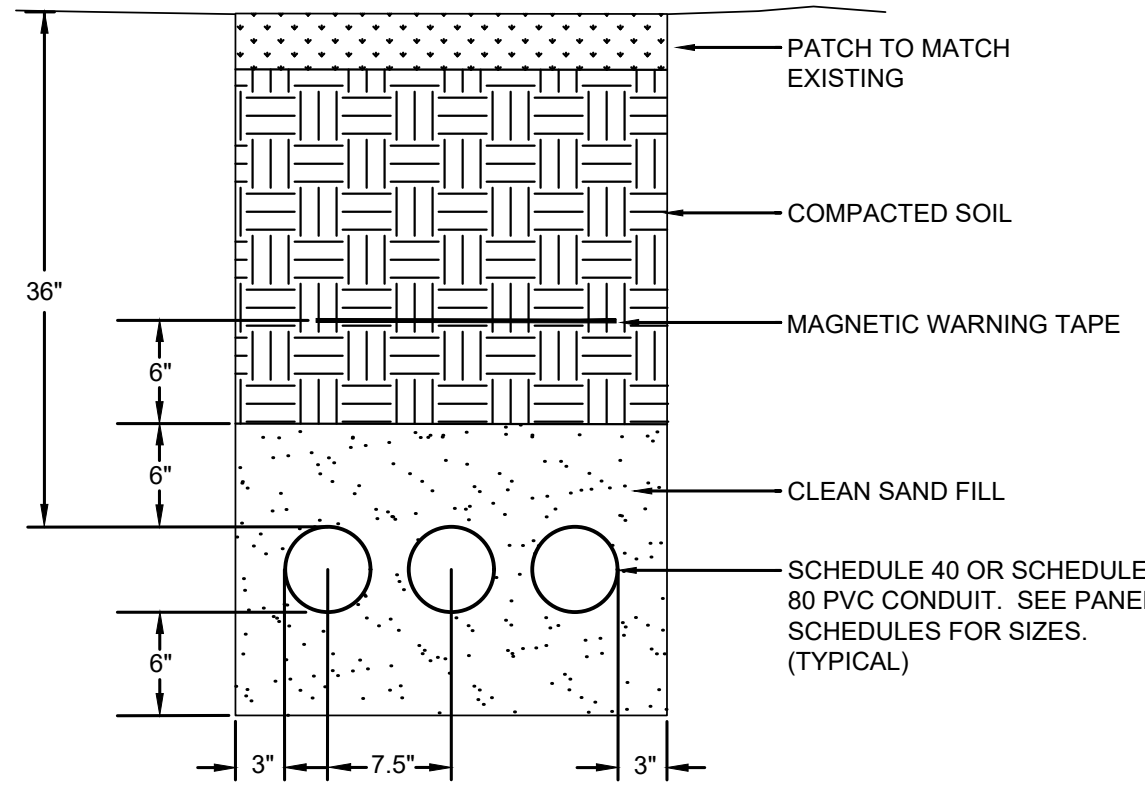
CONDUIT PENETRATION DETAIL
THRU FIRE RATED SOLID WALL
NOT TO SCALE



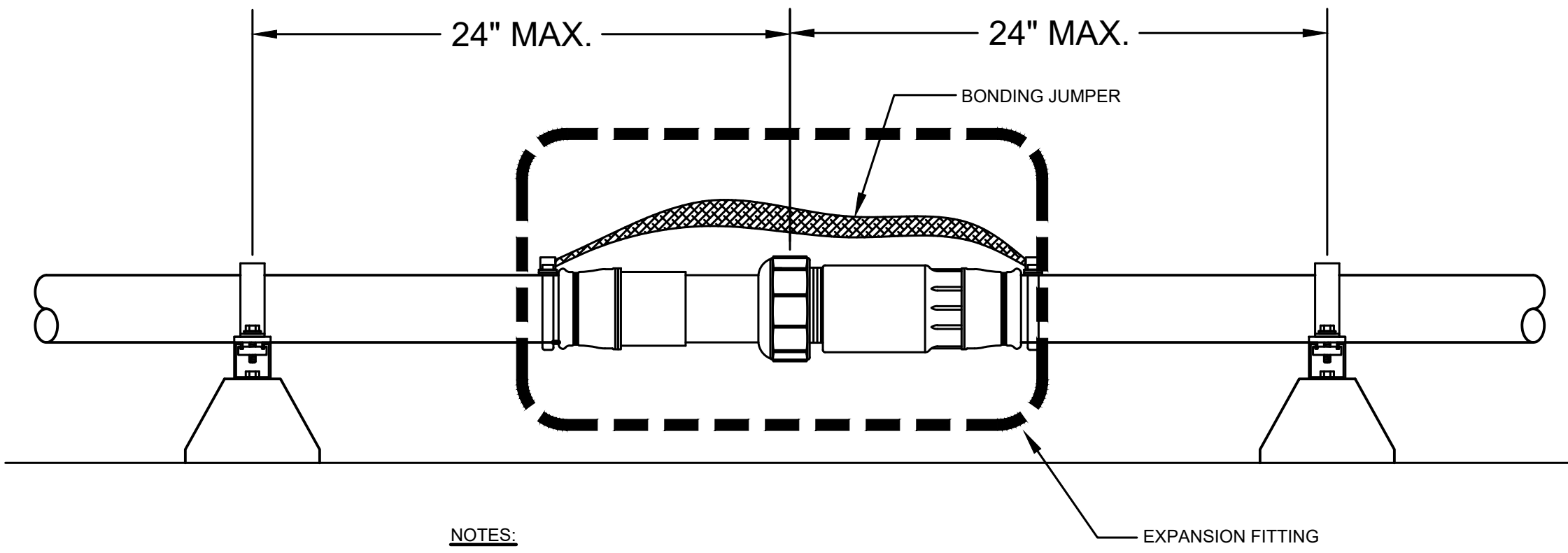
TYPICAL DIRECT BURIAL CONDUIT DETAIL
NOT TO SCALE



CONDUIT PENETRATION DETAIL
THRU FIRE RATED SOLID WALL
NOT TO SCALE

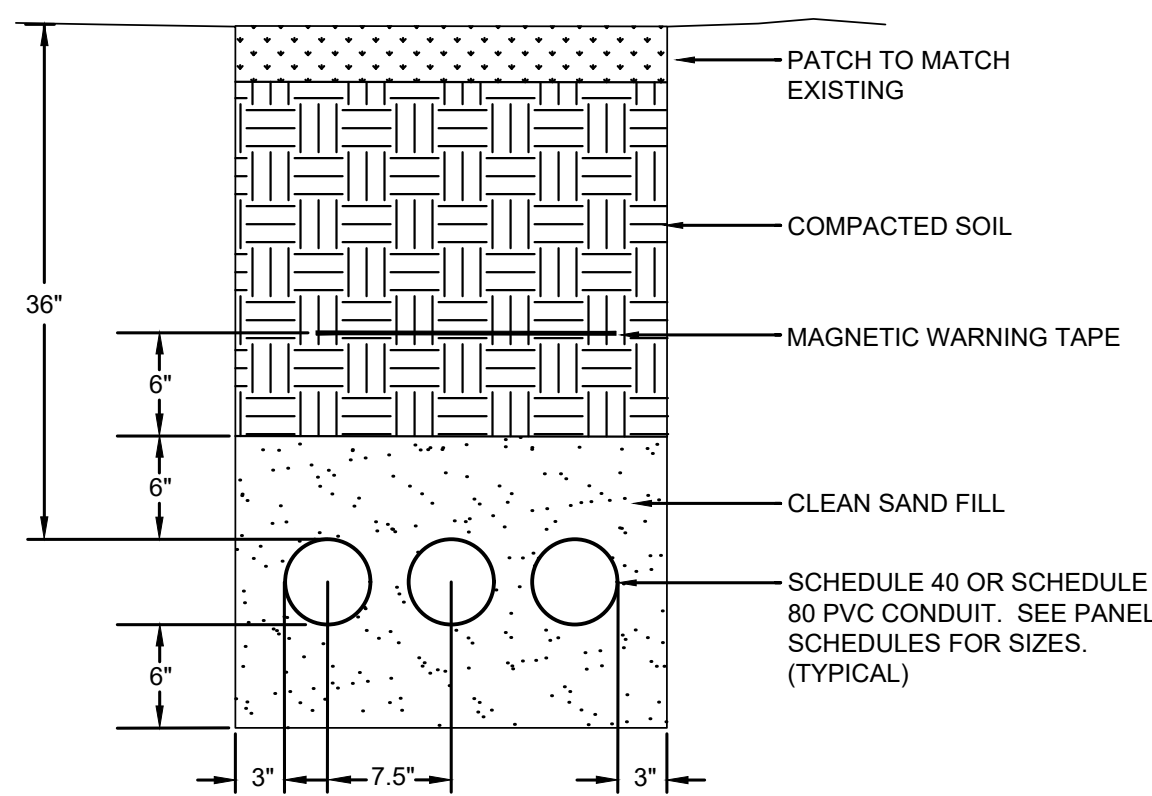


TYPICAL DIRECT BURIAL CONDUIT DETAIL
NOT TO SCALE

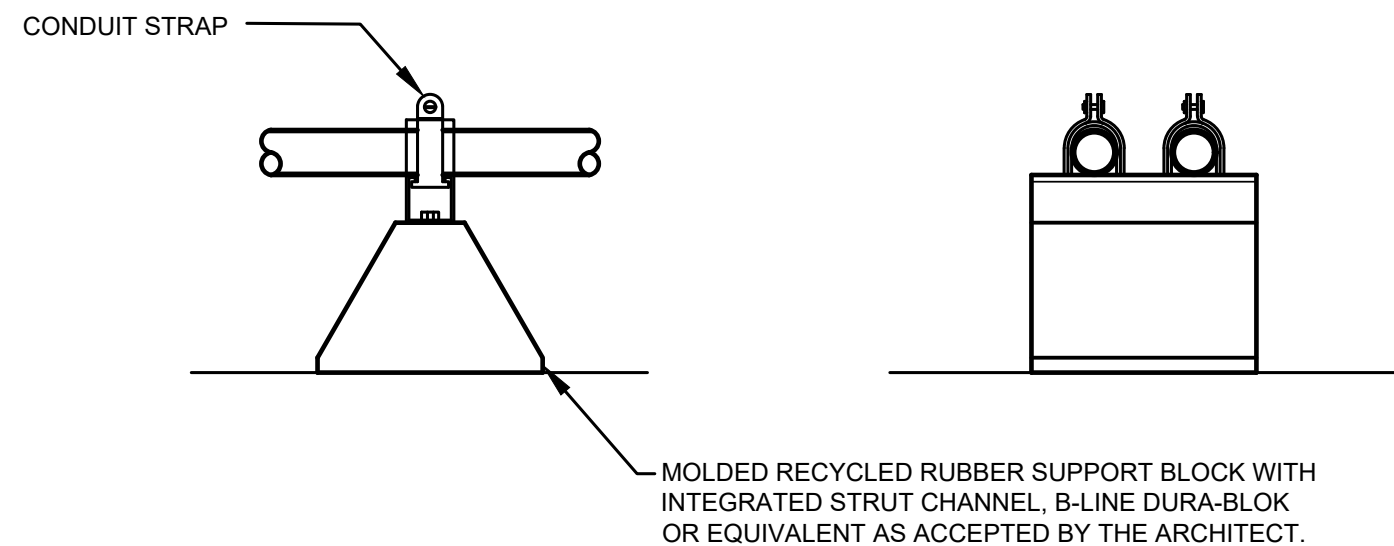


- NOTES:
1. PROVIDE EXPANSION JOINT FOR CONDUIT RUN ON ROOF WHERE:
 2. CONDUIT CROSS STRUCTURAL JOINTS.
 3. CONDUIT RUN MORE THAN 200'
 4. EXPANSION JOINT SHALL BE COOPER MODEL# XUG-EMT WITH BONDING JUMPER

EXPANSION JOINT DETAIL
NOT TO SCALE

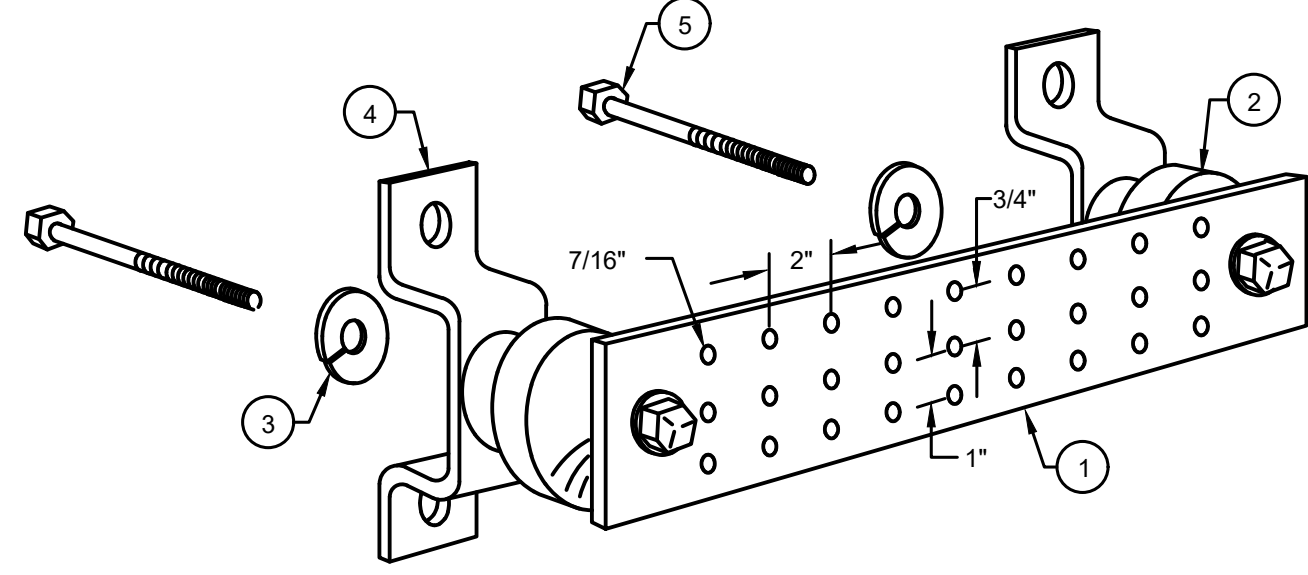


TYPICAL DIRECT BURIAL CONDUIT DETAIL
NOT TO SCALE



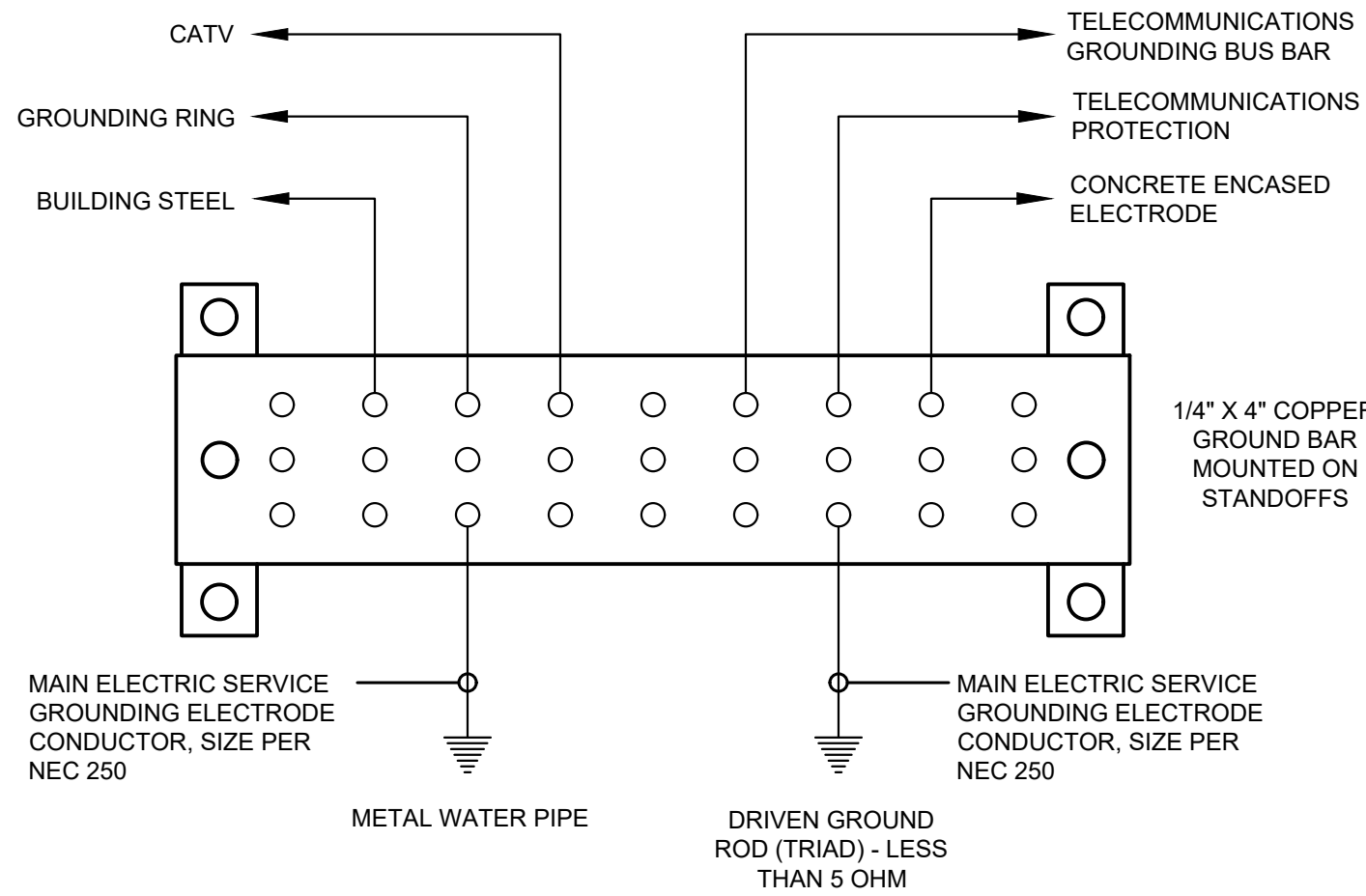
- NOTES:
1. RUBBER FOOTINGS TO REST ON ROOF. NO AFFIXING IS REQUIRED.
 2. PROVIDE SPACE FOR THERMAL EXPANSION OF CONDUIT ACCOMMODATED BY CONDUIT STRAP AND SQUARE WASHER COMBINATION.

ROOF CONDUIT MOUNTING DETAIL
NOT TO SCALE



DETAIL KEY NOTES

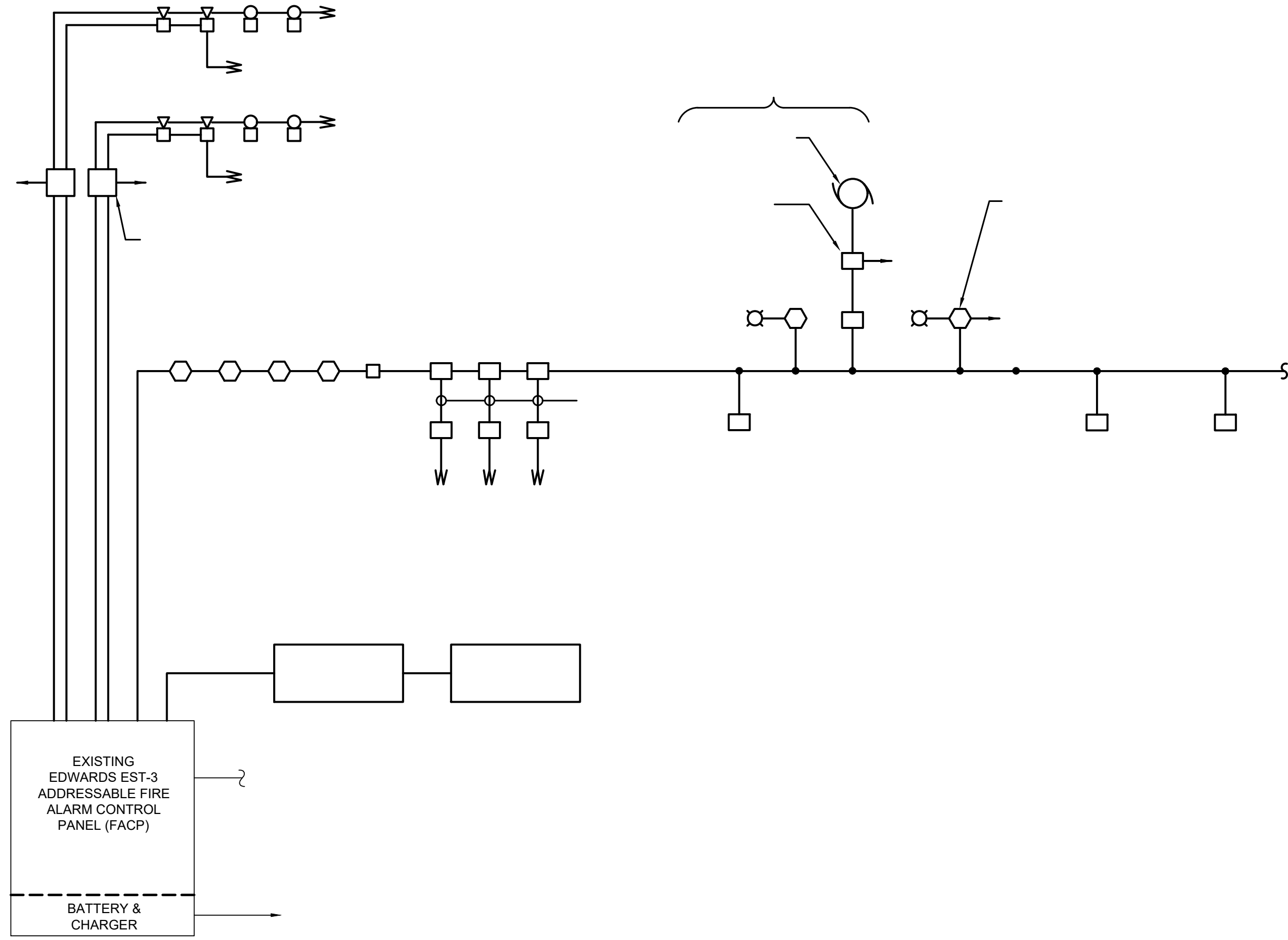
1. COPPER GROUND BAR, 1/4"X 4"X 20" WITH THREE (3) HOLES. HOLE CENTERS SHALL MATCH NEMA DOUBLE LUG CONFIGURATION
2. INSULATORS.
3. 5/8" LOCKWASHERS.
4. WALL MOUNTING BRACKET.
5. 5/8"-11 X 1" HMCS BOLTS.



NOTES:

1. REFER TO NATIONAL ELECTRICAL CODE "GROUNDING ELECTRODE CONDUCTORS" TABLE (2020 NEC 250.66) AND "EQUIPMENT GROUNDING CONDUCTORS" TABLE (2020 NEC 250.122) FOR SIZING OF GROUNDING CONDUCTORS INDICATED ABOVE.
2. BUSBAR AND ACCESSORIES SHALL BE BY THE FOLLOWING MANUFACTURERS:
A. HARGER
B. NEWTON
C. APPROVED EQUAL

MASTER GROUND BAR
NOT TO SCALE



10/10/25

