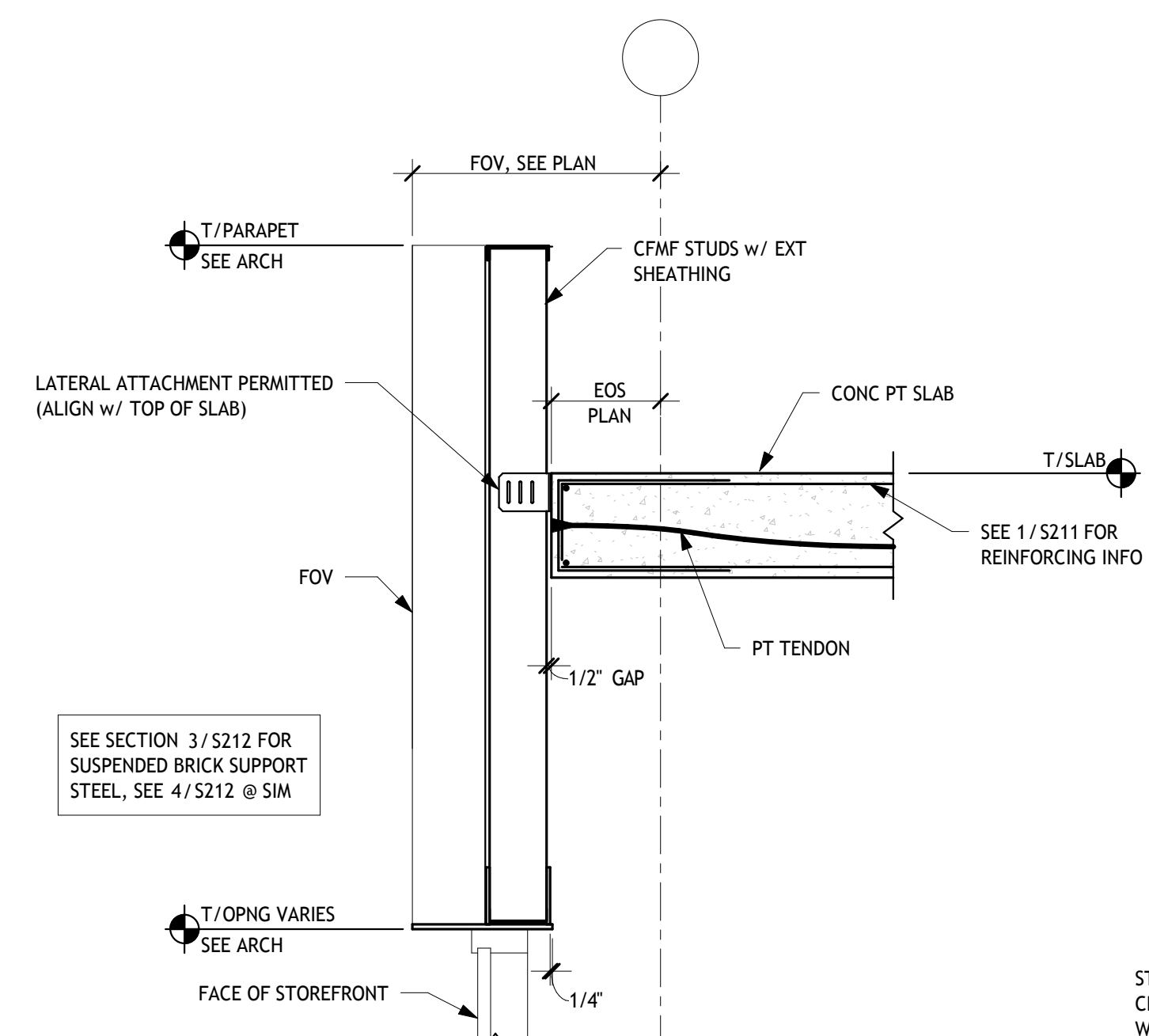
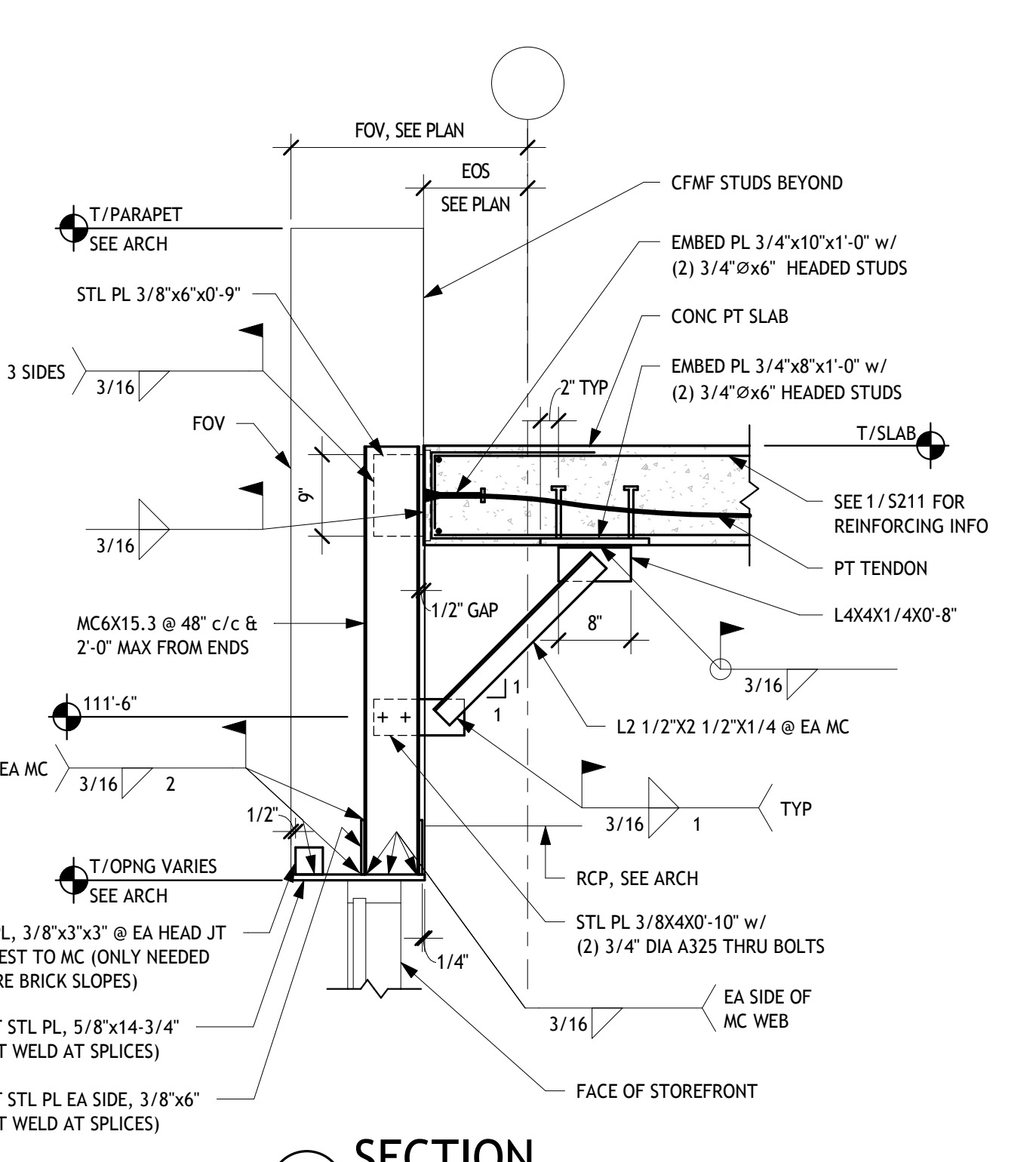


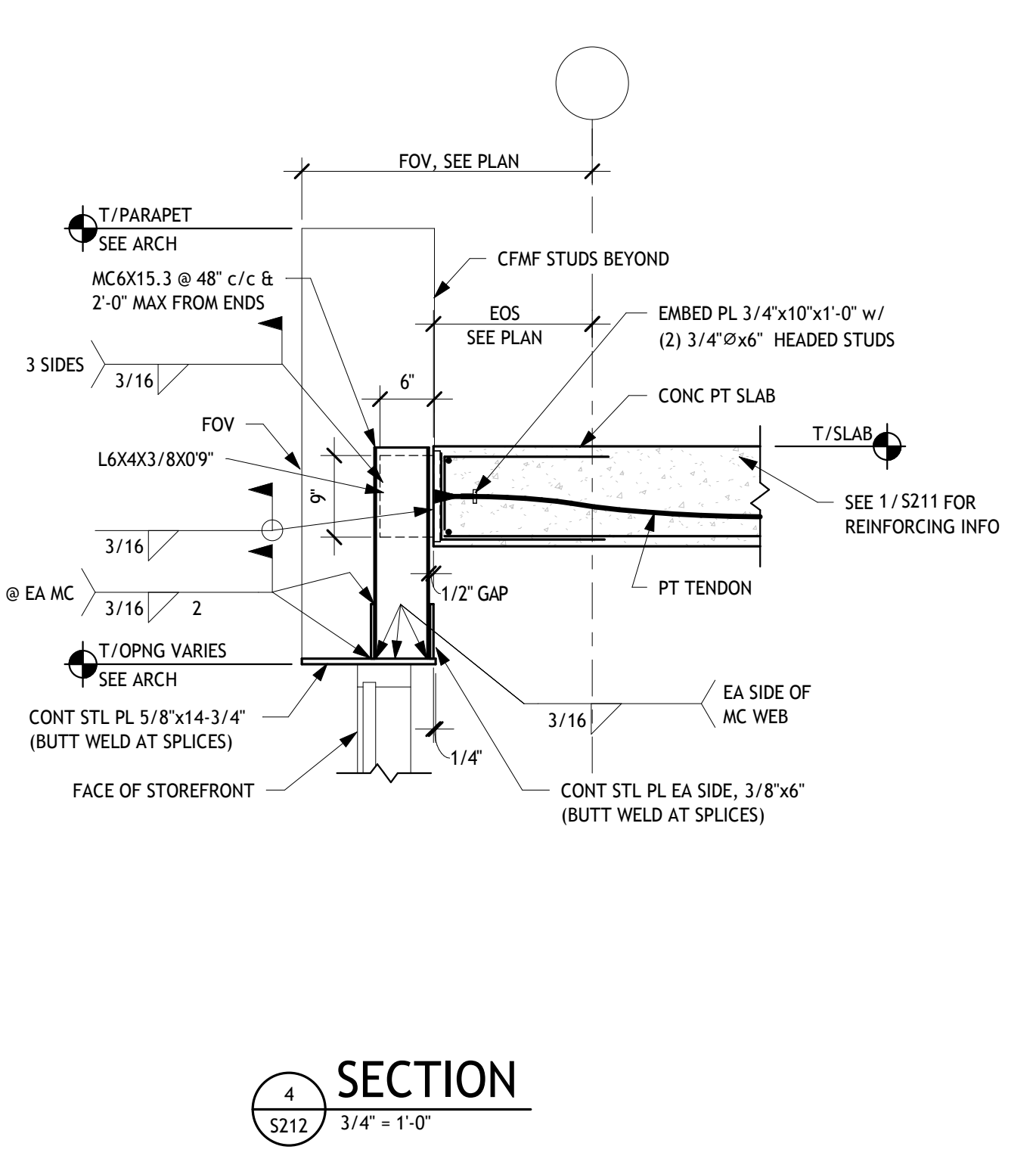
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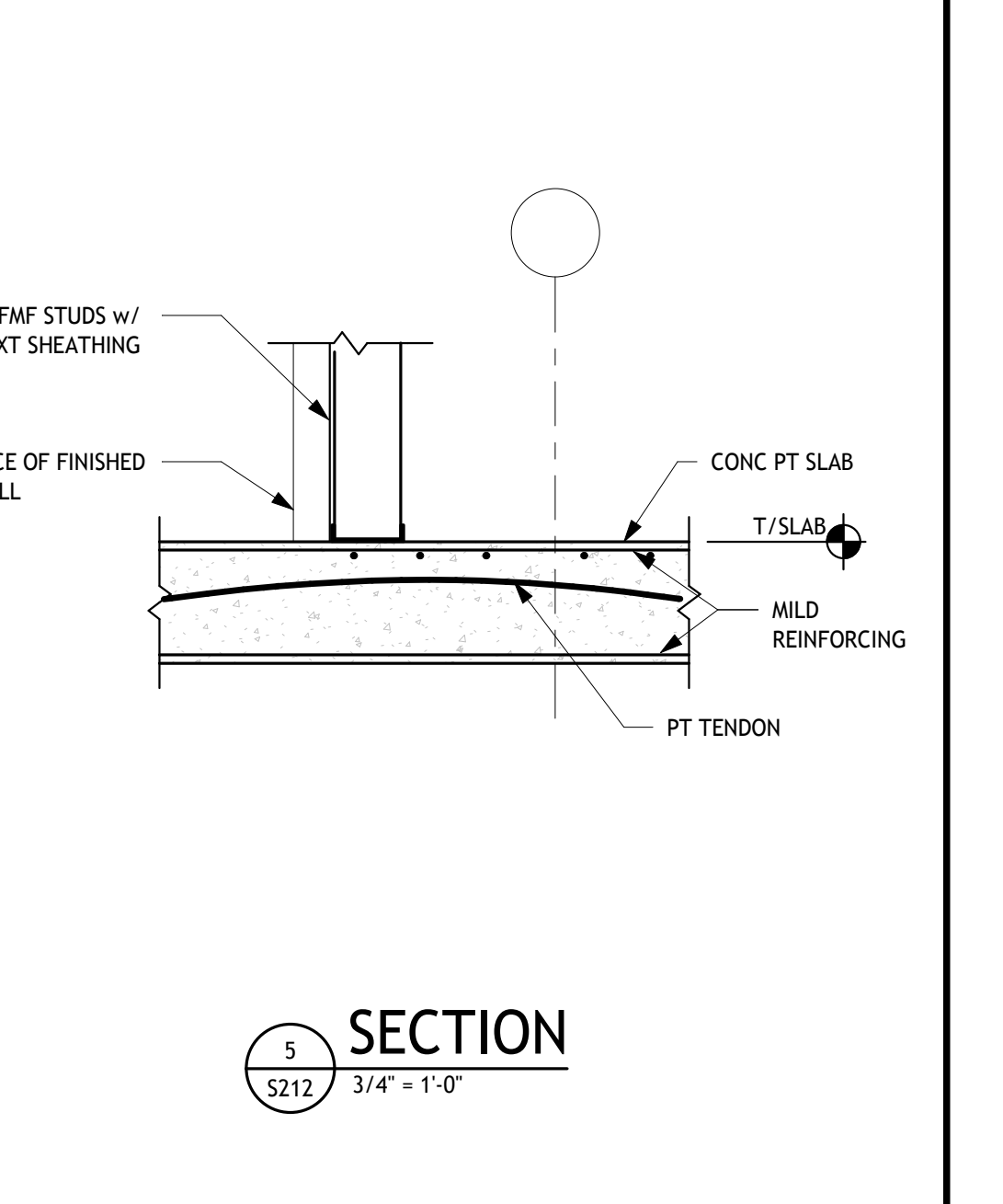
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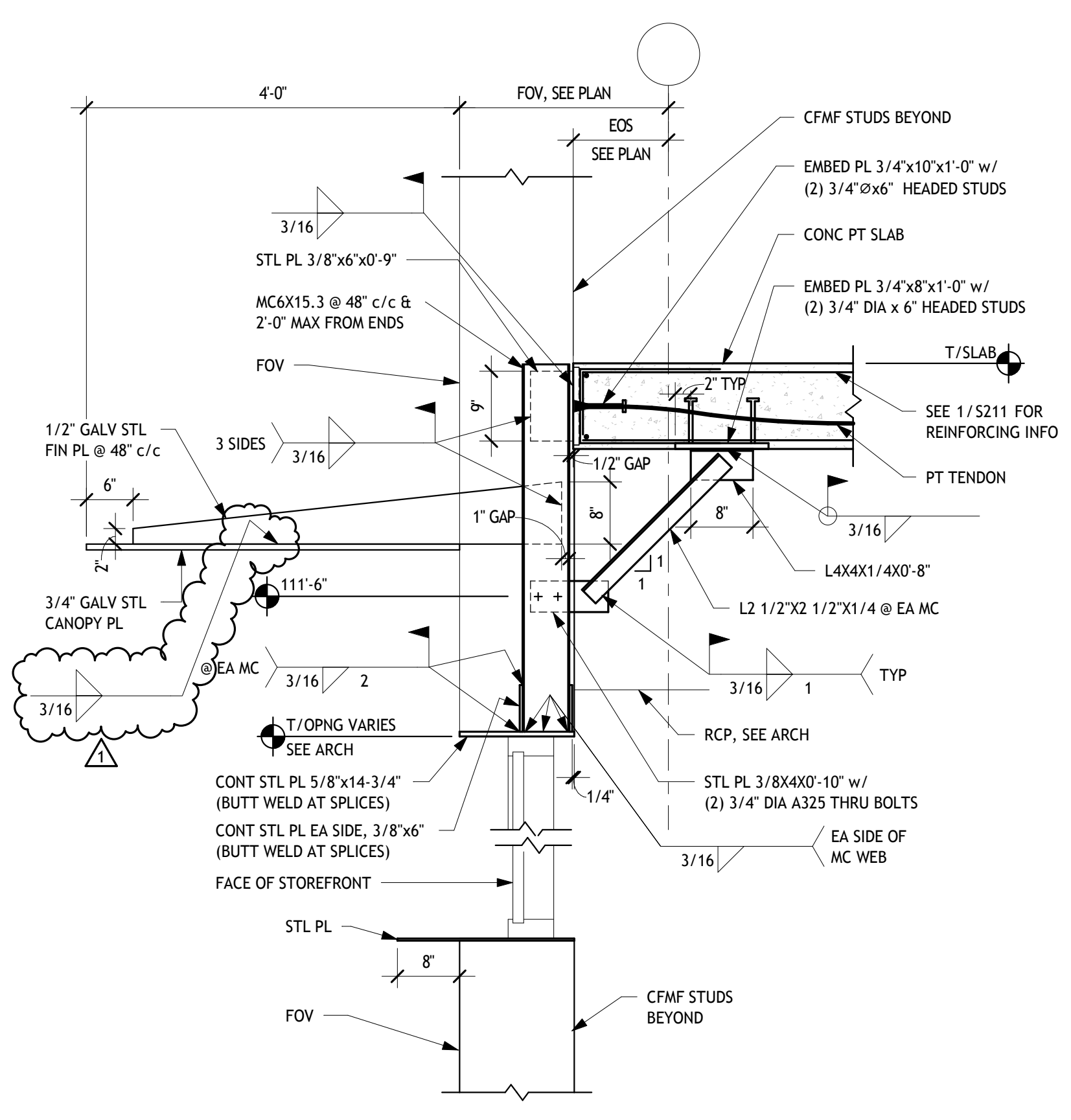
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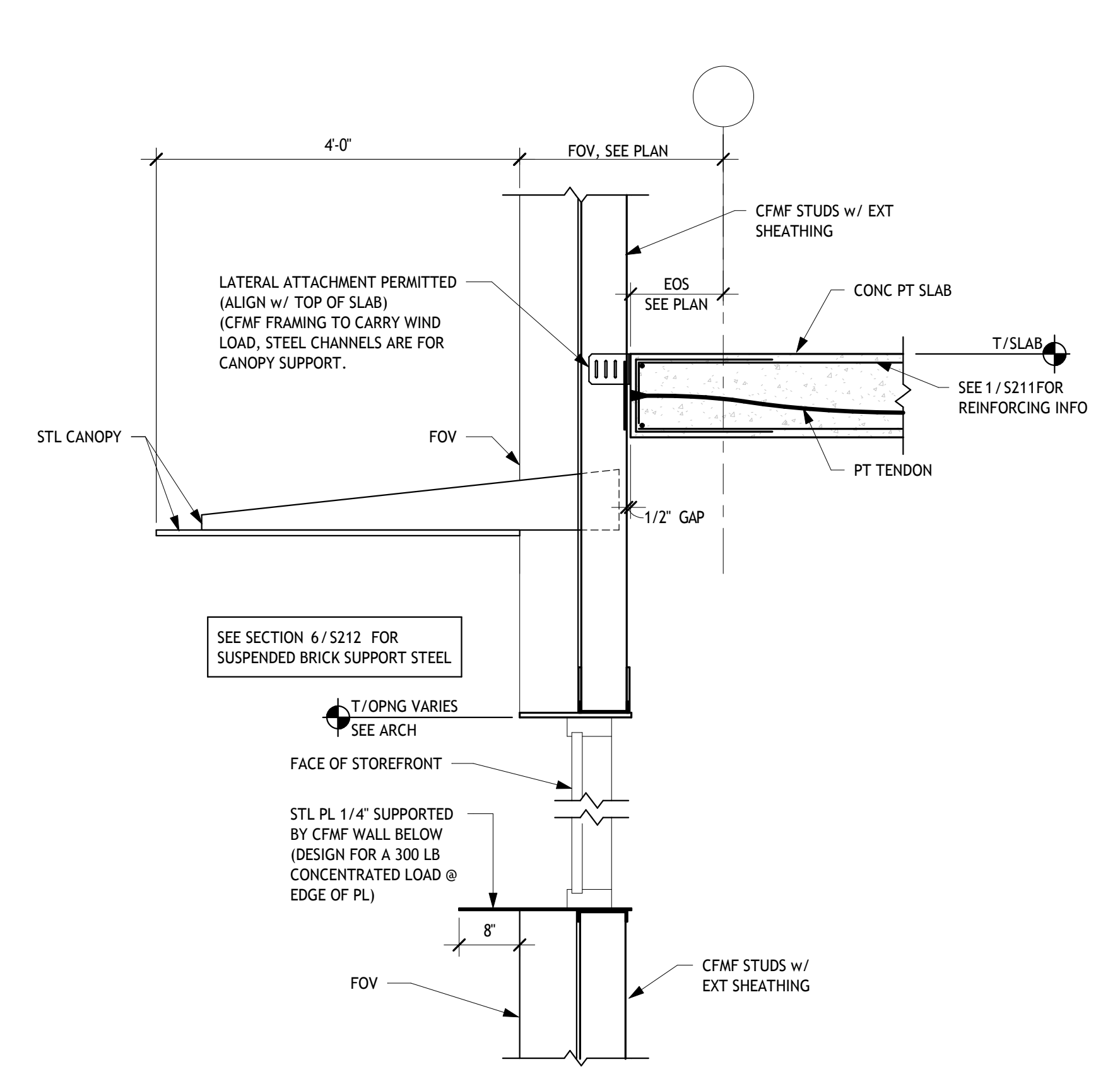
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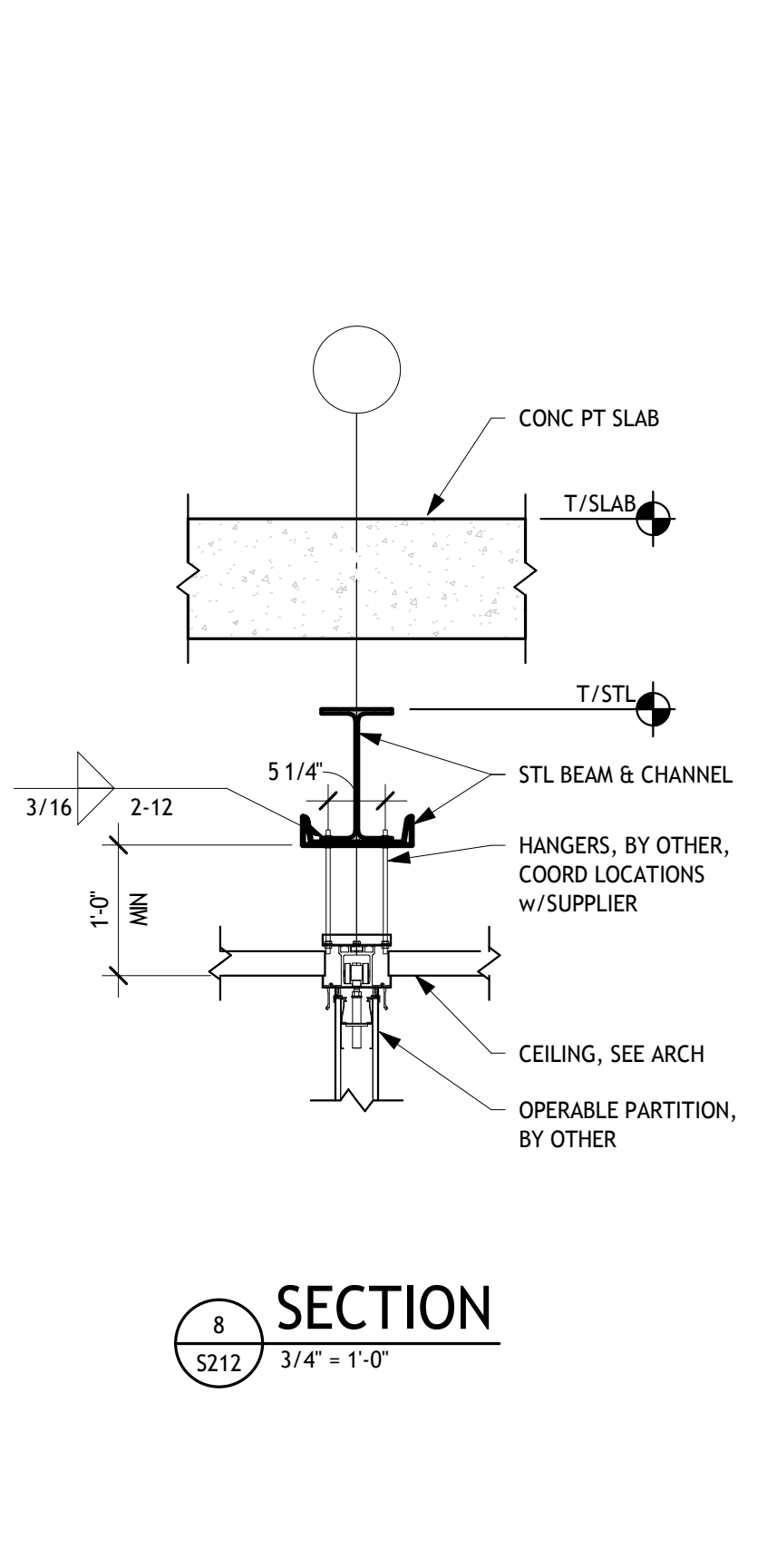
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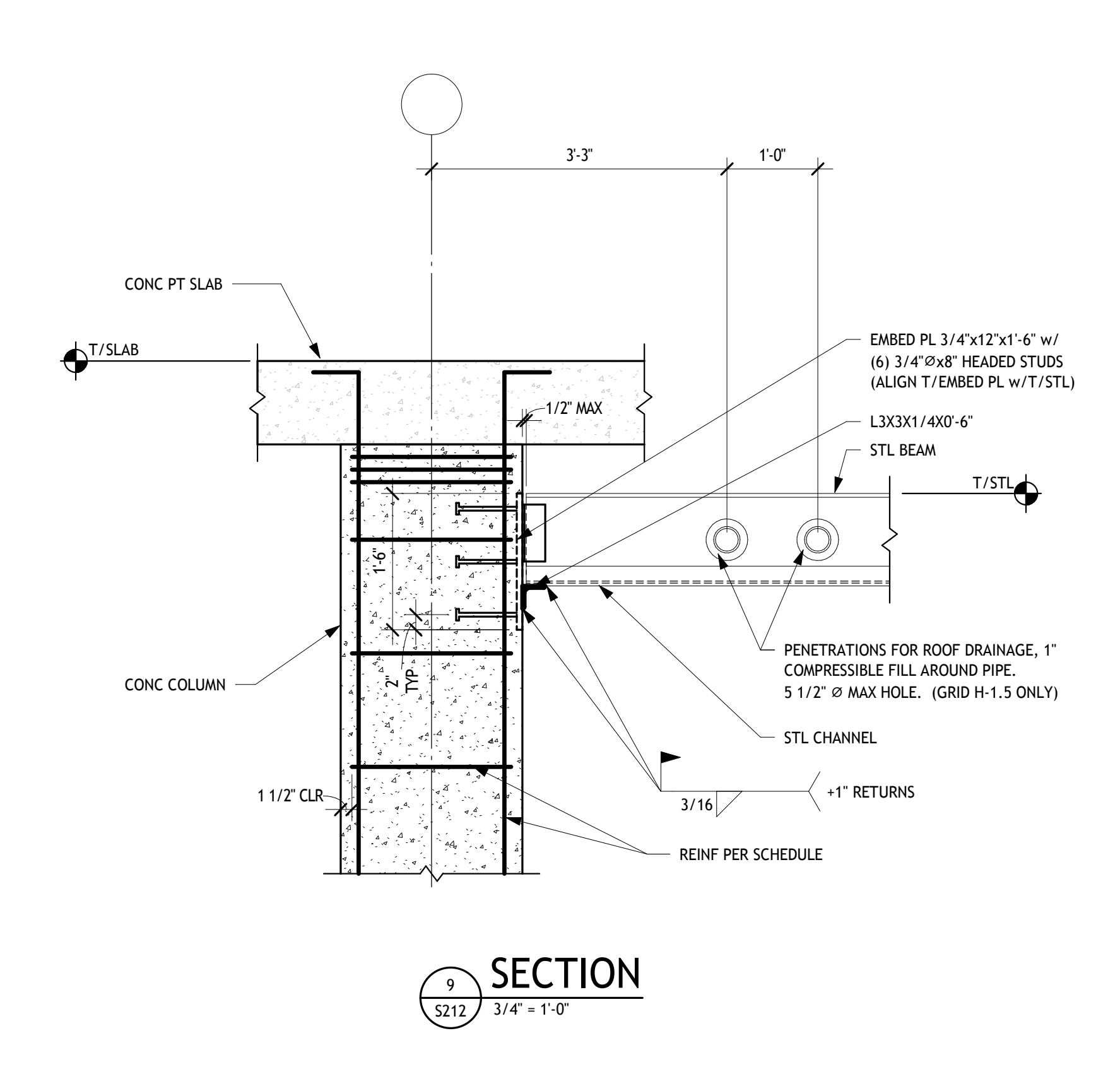
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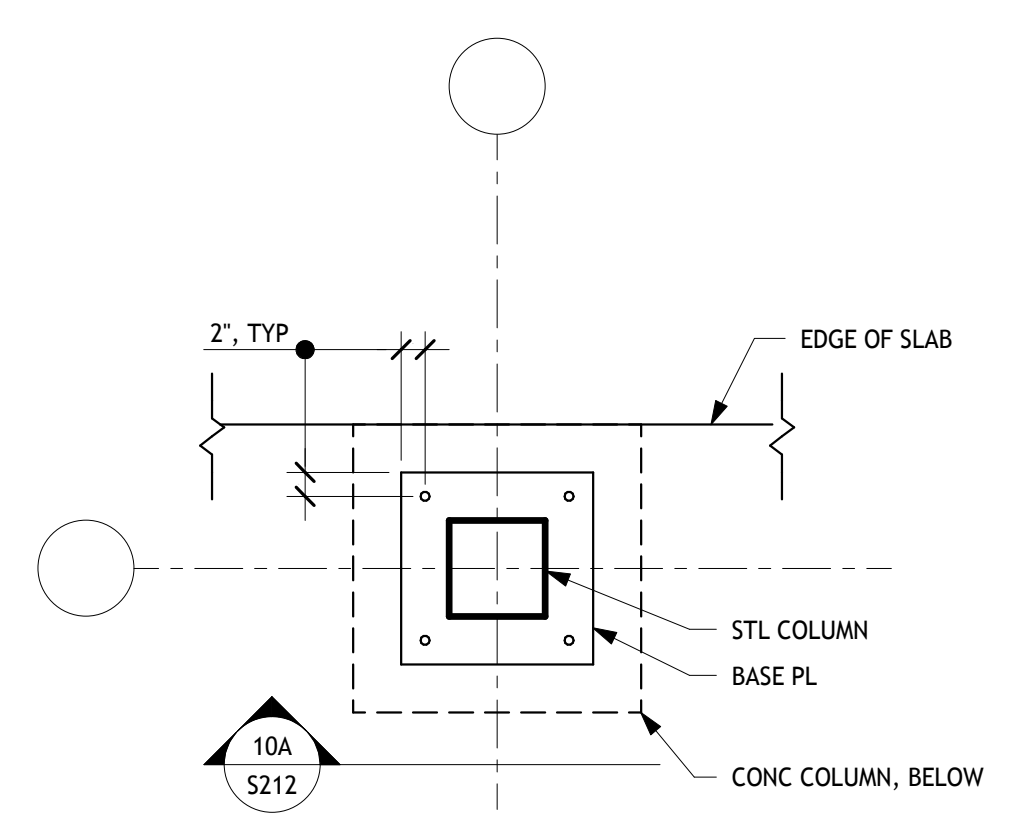
7 SECTION
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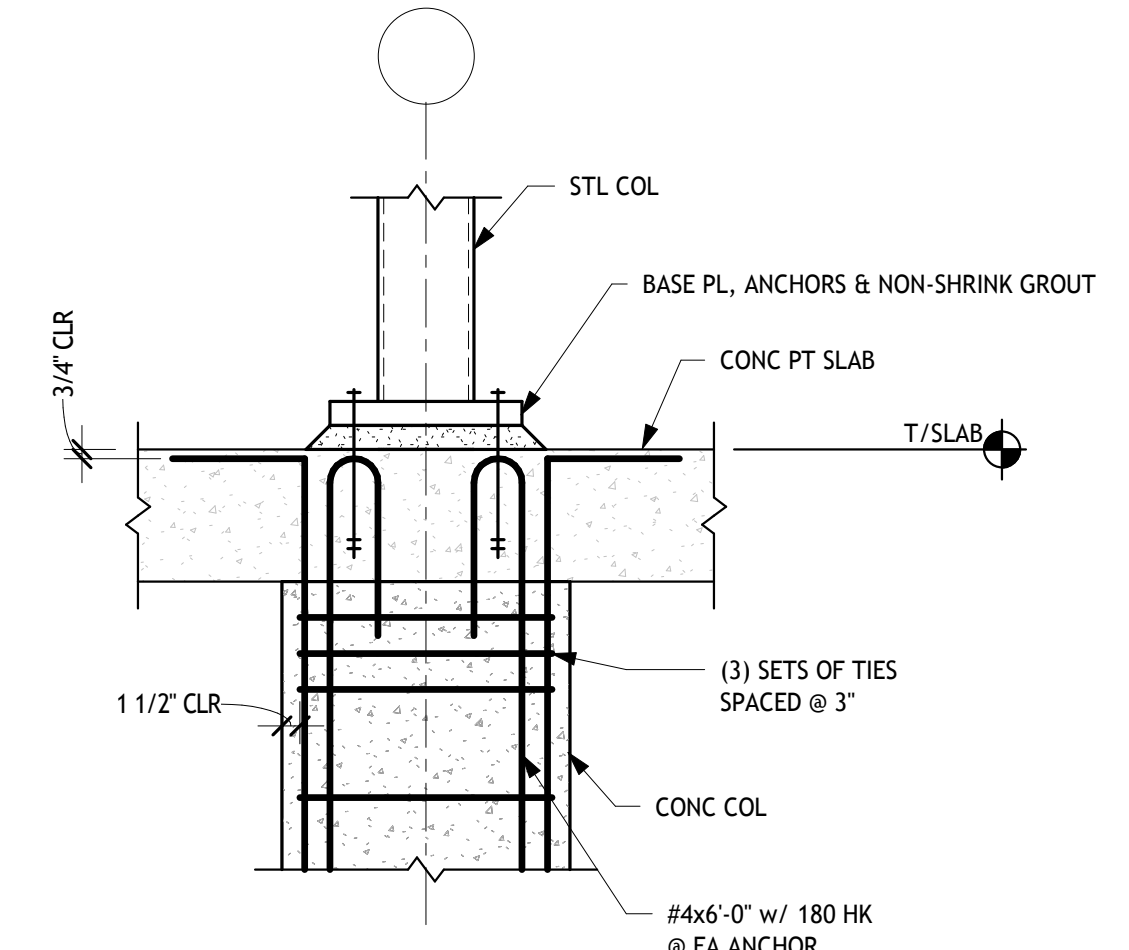
8 SECTION
3/4" = 1'-0"



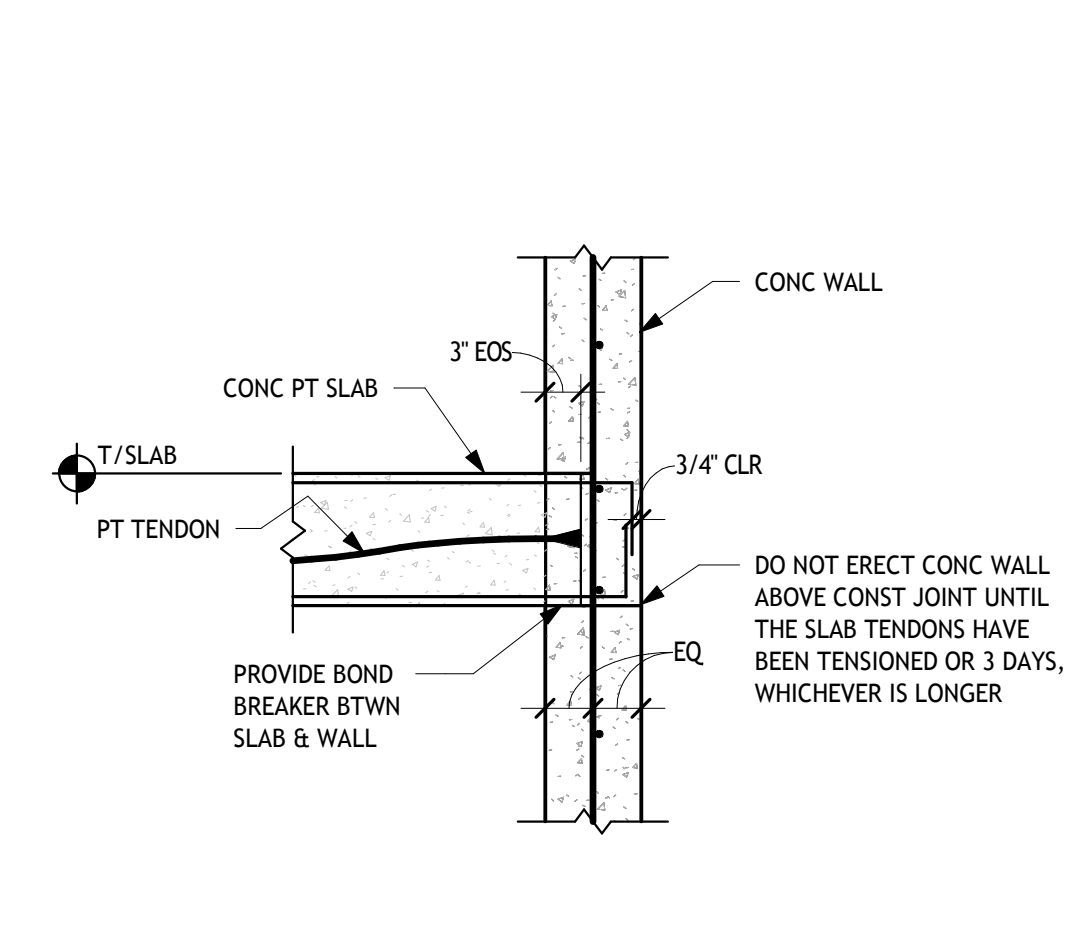
9 SECTION
3/4" = 1'-0"



10A DETAIL
3/4" = 1'-0"



10A SECTION
3/4" = 1'-0"



11 SECTION
3/4" = 1'-0"

REVISION SCHEDULE		
#	DATE	REVISION DESCRIPTION
1	07.05.22	Addendum 01

PROJECT NAME :

CML REYNOLDSBURG
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ISSUE DATE : 06/10/2022

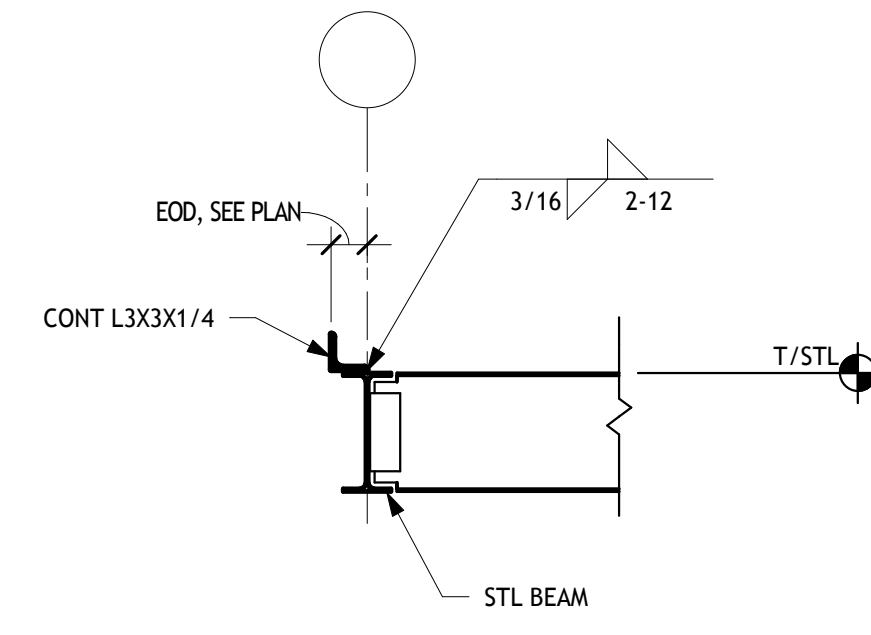
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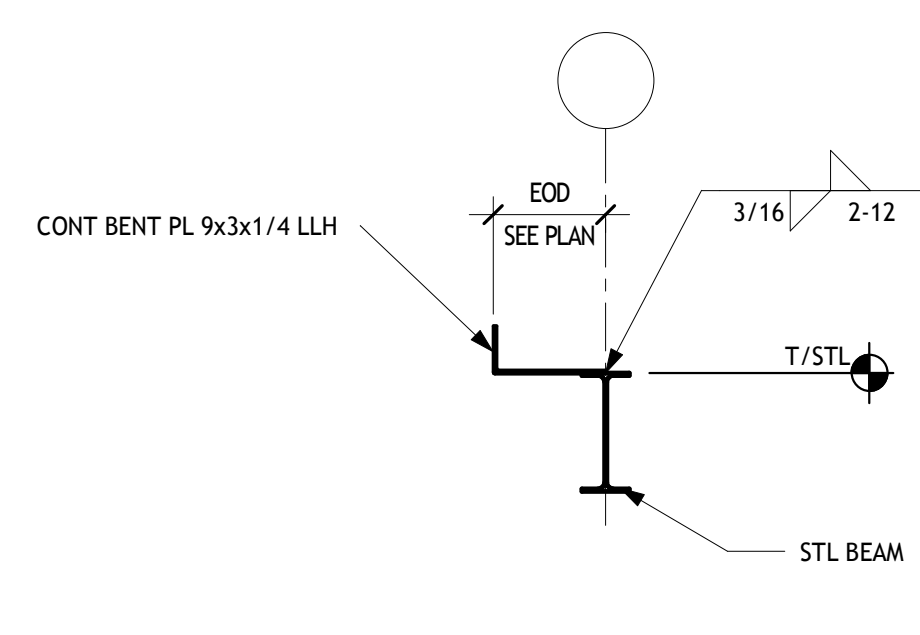
SECOND FLOOR & LOW ROOF SECTIONS & DETAILS

S212

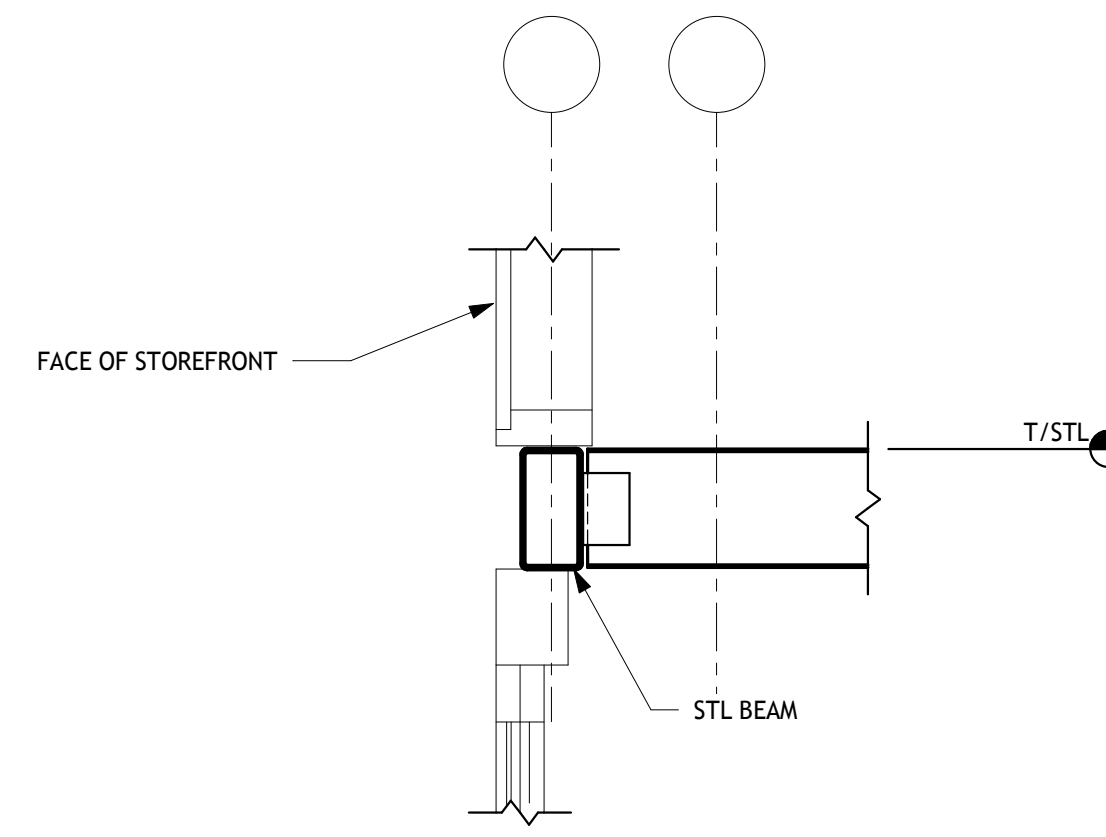
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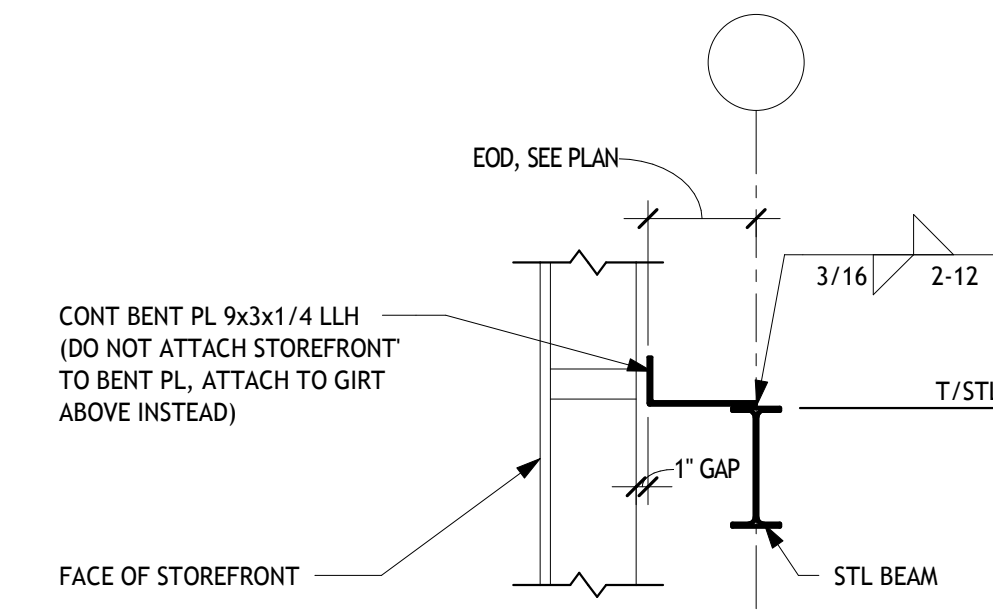
1 SECTION
S213 3/4" = 1'-0"



2 SECTION
S213 3/4" = 1'-0"



3 SECTION
S213 3/4" = 1'-0"



4 SECTION
S213 3/4" = 1'-0"

REVISION SCHEDULE		
#	DATE	REVISION DESCRIPTION
1	07.05.22	Addendum 01

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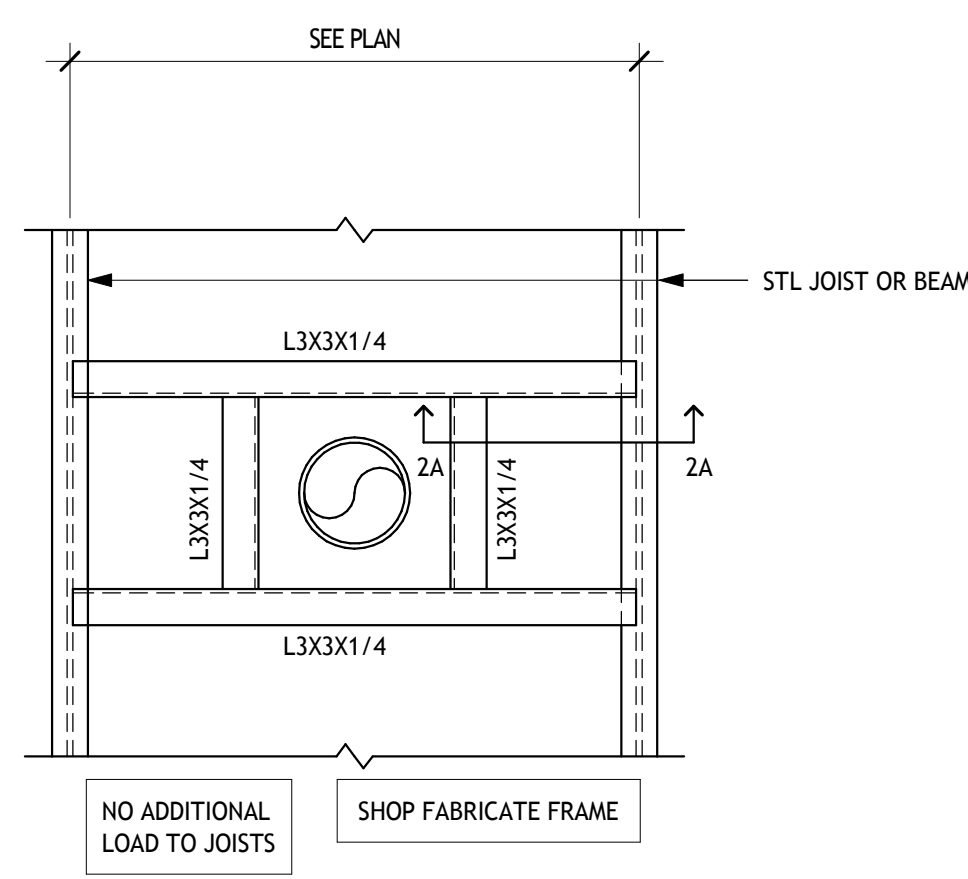
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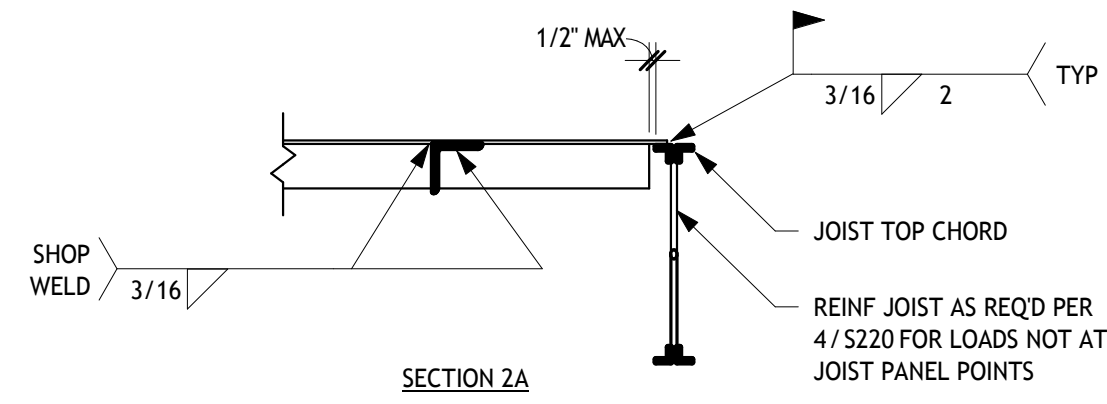
VESTIBULE SECTIONS

S213



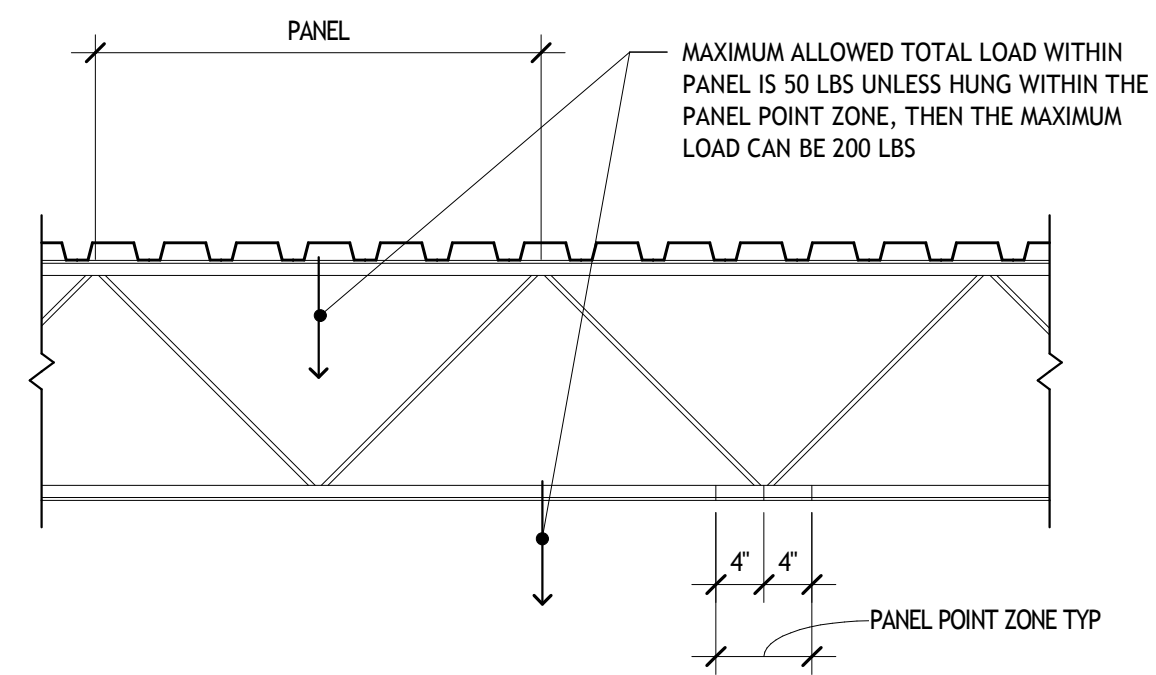
1 TYPICAL FRAME FOR ROOF DRAIN AND OVERFLOW DRAIN DETAIL

TWO FRAMES AT EACH LOW POINT MAY BE REQD, COORD w/ MEP DWGS. REQUIRED AT OPENING GREATER THAN 1'-0".

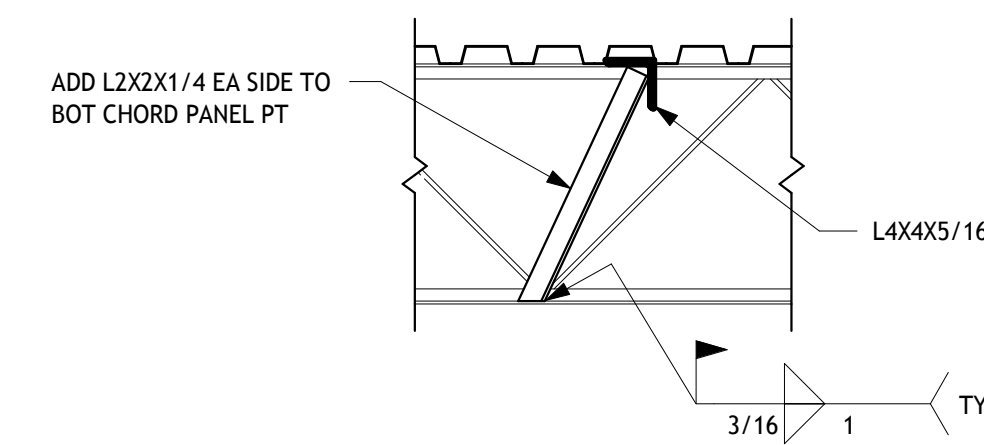


2 TYPICAL RTU AND FAN ROOF FRAMING DETAIL

FRAMING FOR OTHER MECHANICAL ROOF OPENINGS, ROOF HATCH, AND SCUTTLES SIMILAR. USE L4x4x5/16 LLV FOR SPANS GREATER THAN 6'-0"



3 TYPICAL MISCELLANEOUS HANGER DETAIL



4 TYPICAL JOIST WEB REINFORCEMENT DETAIL

REVISION SCHEDULE		
#	DATE	REVISION DESCRIPTION
1	07.05.22	Addendum 01

PROJECT NAME :

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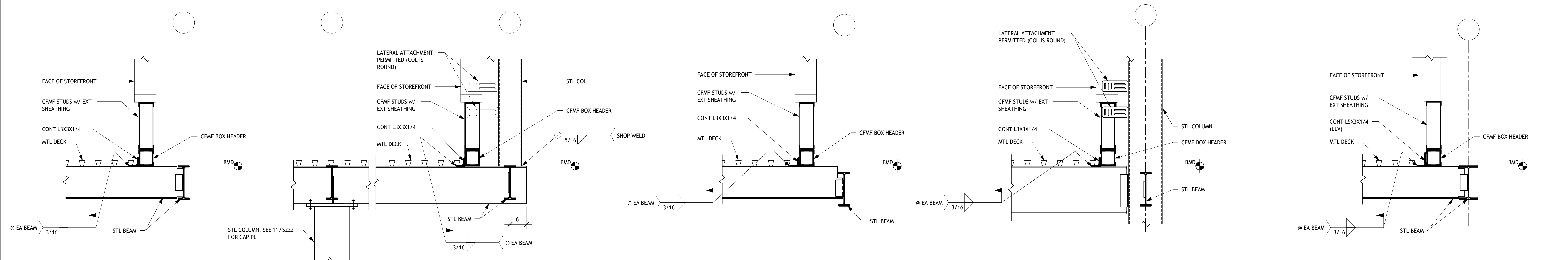
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01/01/2022
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TYPICAL ROOF FRAMING DETAILS

S220



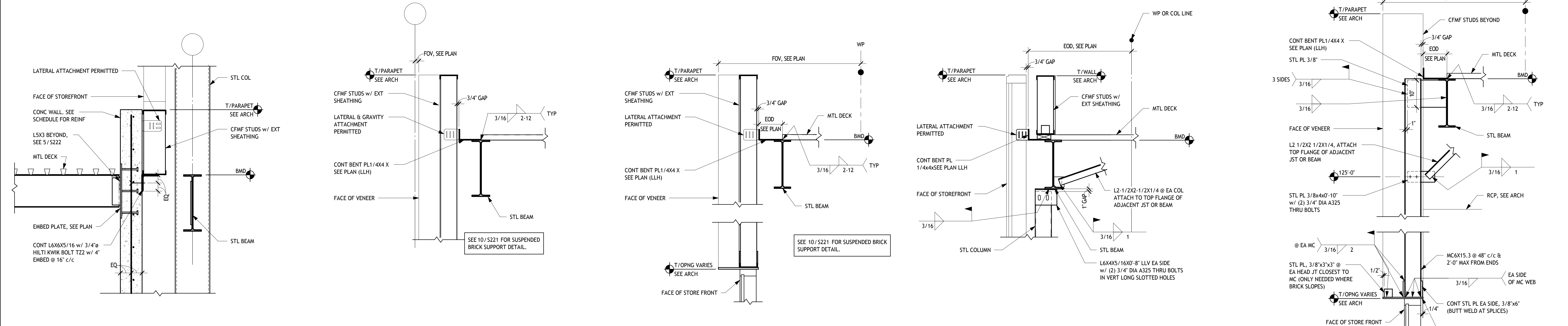
1 SECTION
S221 3/4" = 1'-0"

2 SECTION
S221 3/4" = 1'-0"

3 SECTION
S221 3/4" = 1'-0"

4 SECTION
S221 3/4" = 1'-0"

5 SECTION
S221 3/4" = 1'-0"



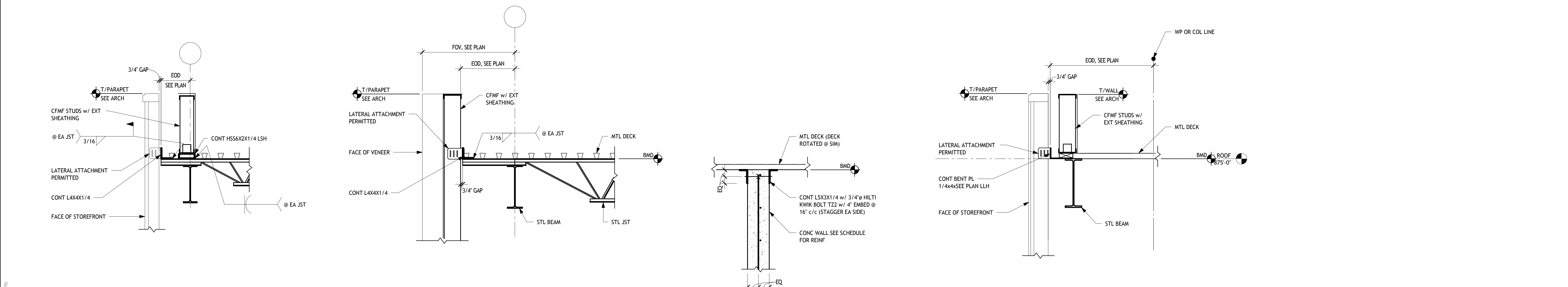
6 SECTION
S221 3/4" = 1'-0"

7 SECTION
S221 3/4" = 1'-0"

8 SECTION
S221 3/4" = 1'-0"

9 SECTION
S221 3/4" = 1'-0"

10 SECTION
S221 3/4" = 1'-0"



11 SECTION
S221 3/4" = 1'-0"

12 SECTION
S221 3/4" = 1'-0"

13 SECTION
S221 3/4" = 1'-0"

14 SECTION
S221 3/4" = 1'-0"

REVISION SCHEDULE		
#	DATE	REVISION DESCRIPTION
1	07.05.22	Addendum 01

PROJECT NAME:
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ISSUE DATE: 06/10/2022

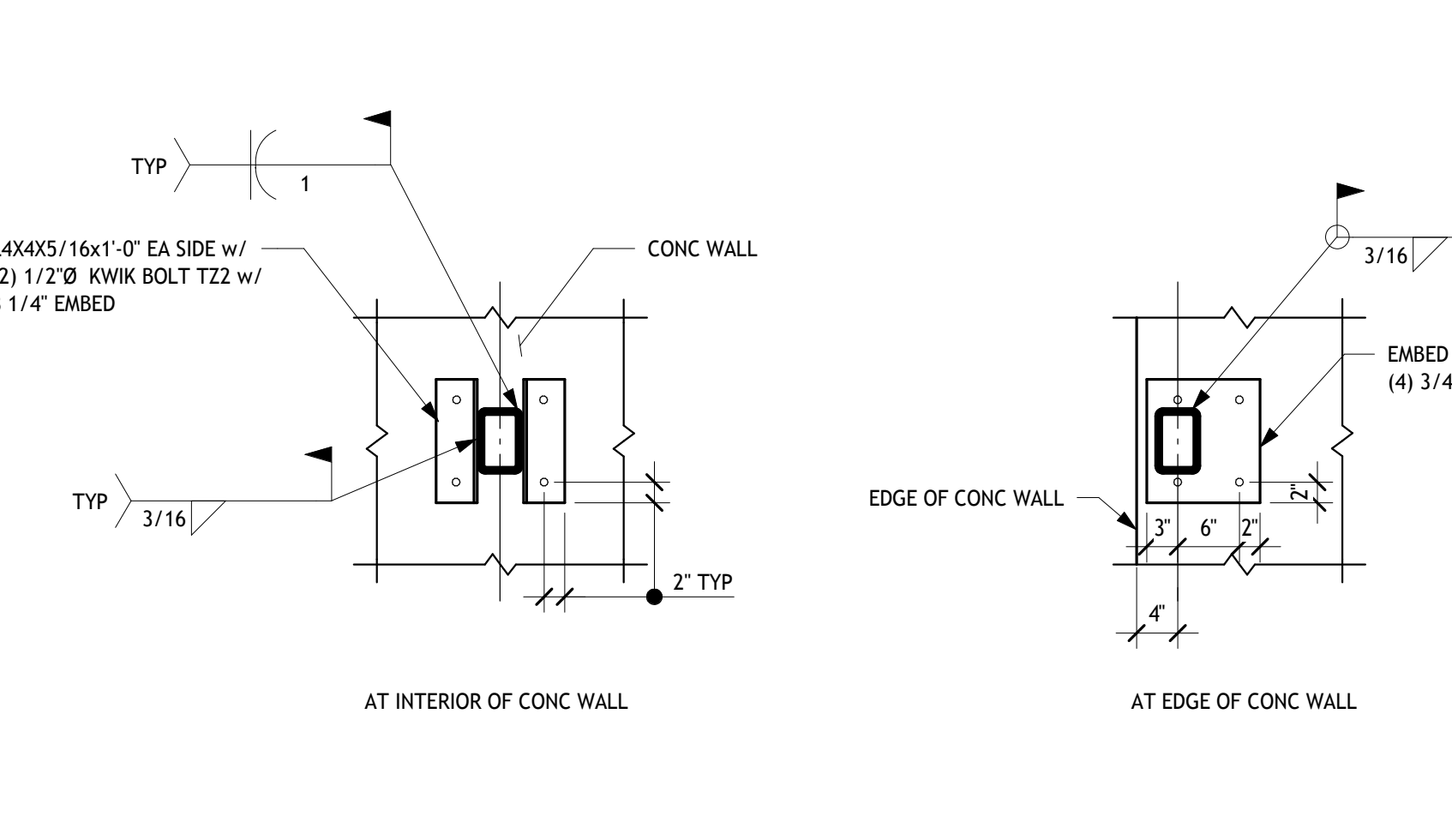
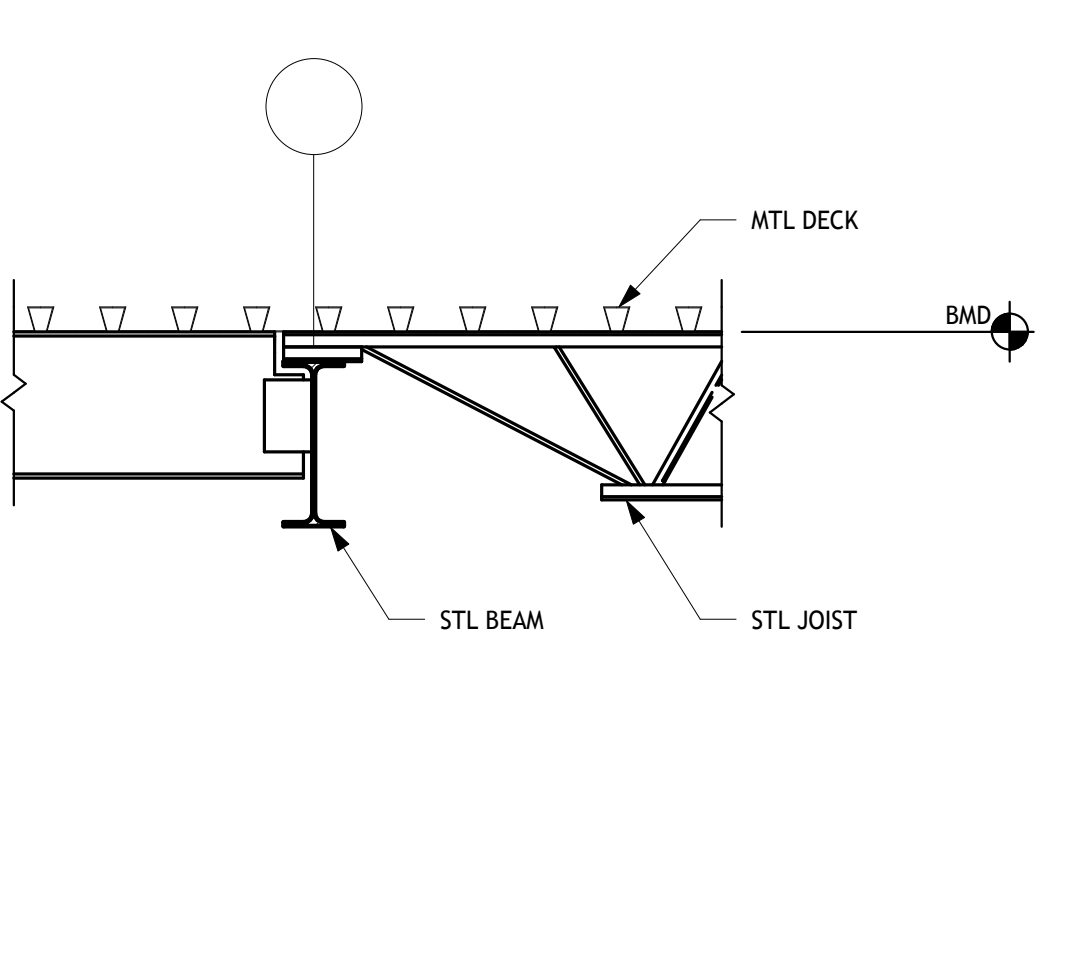
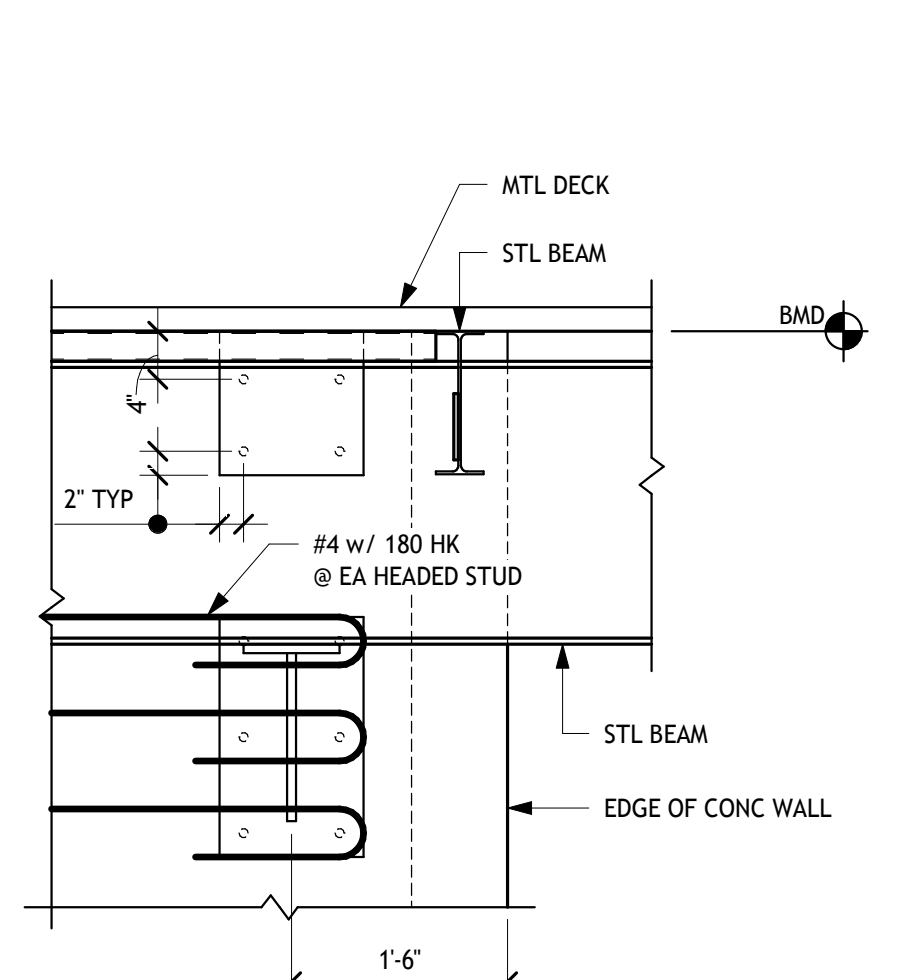
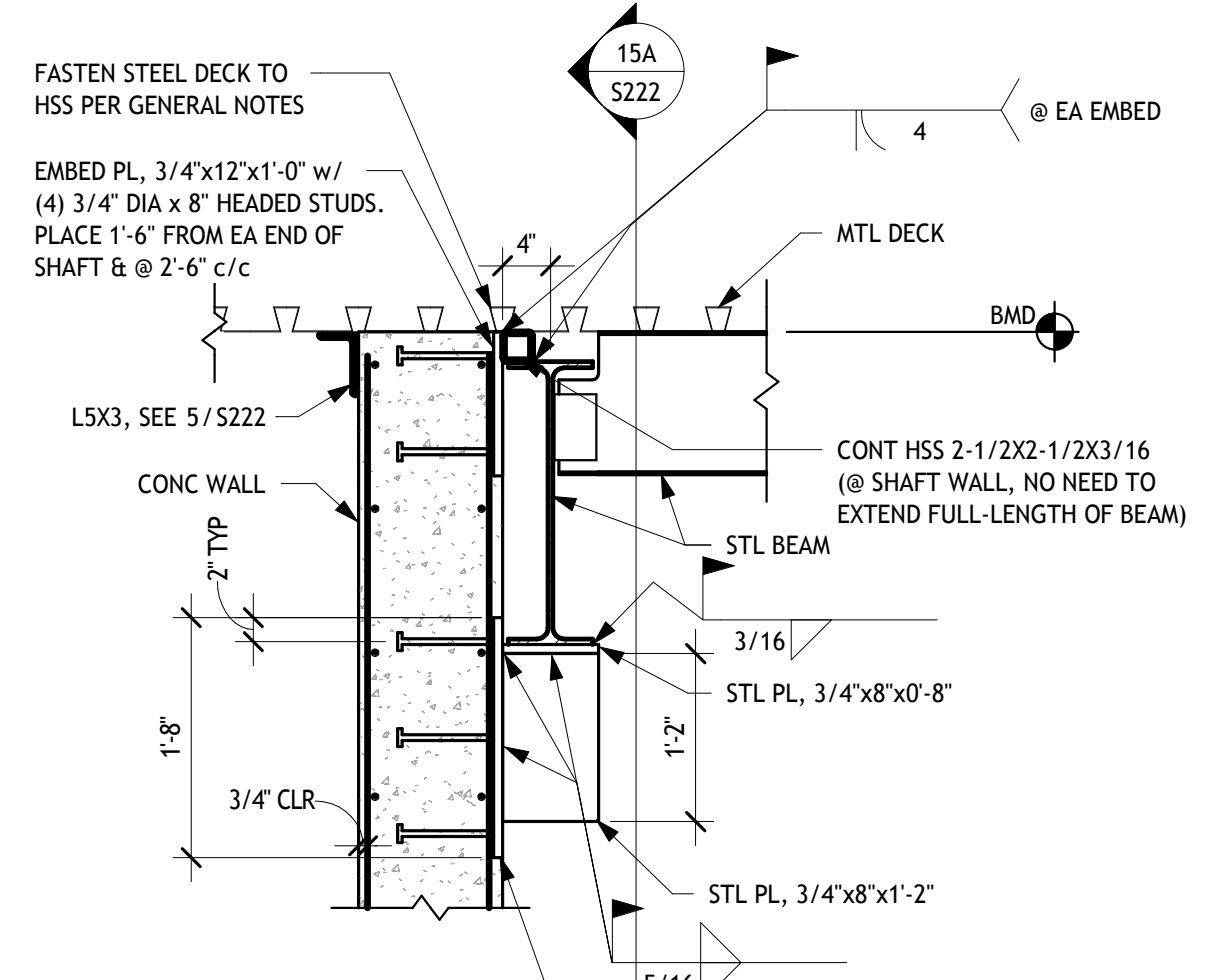
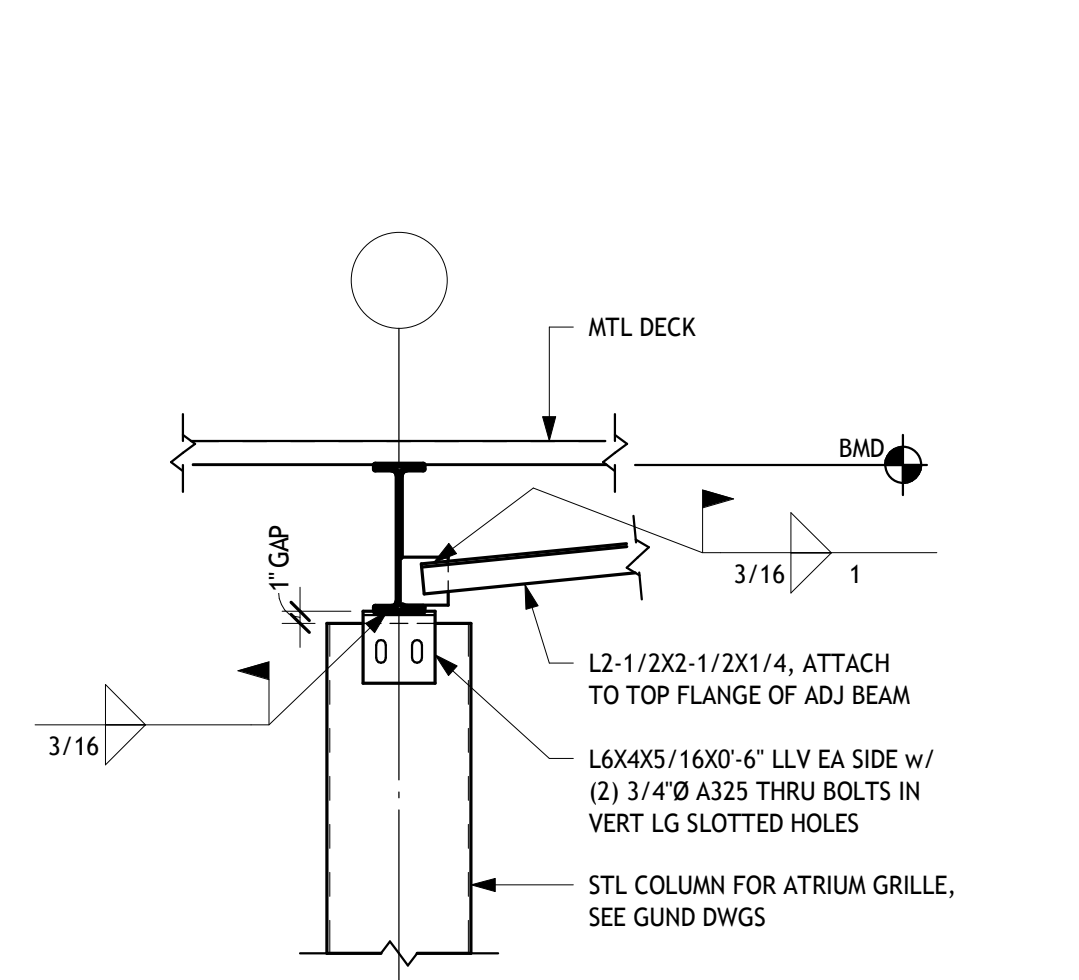
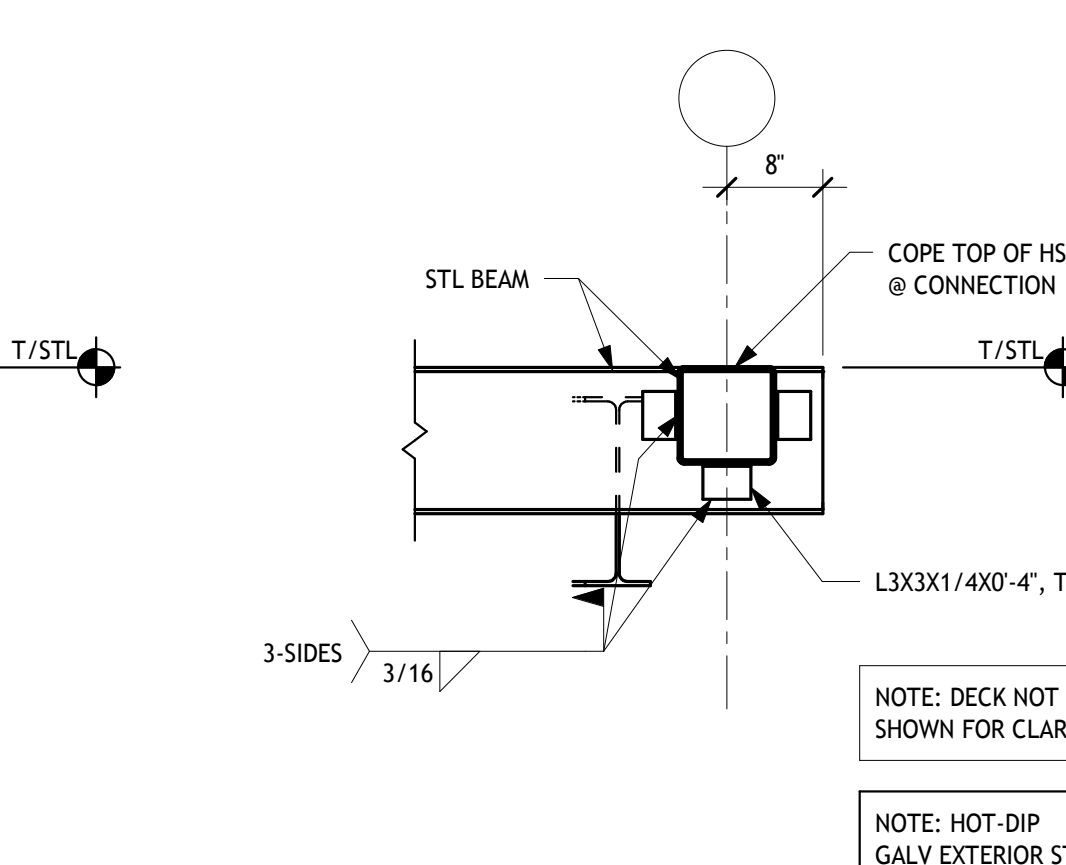
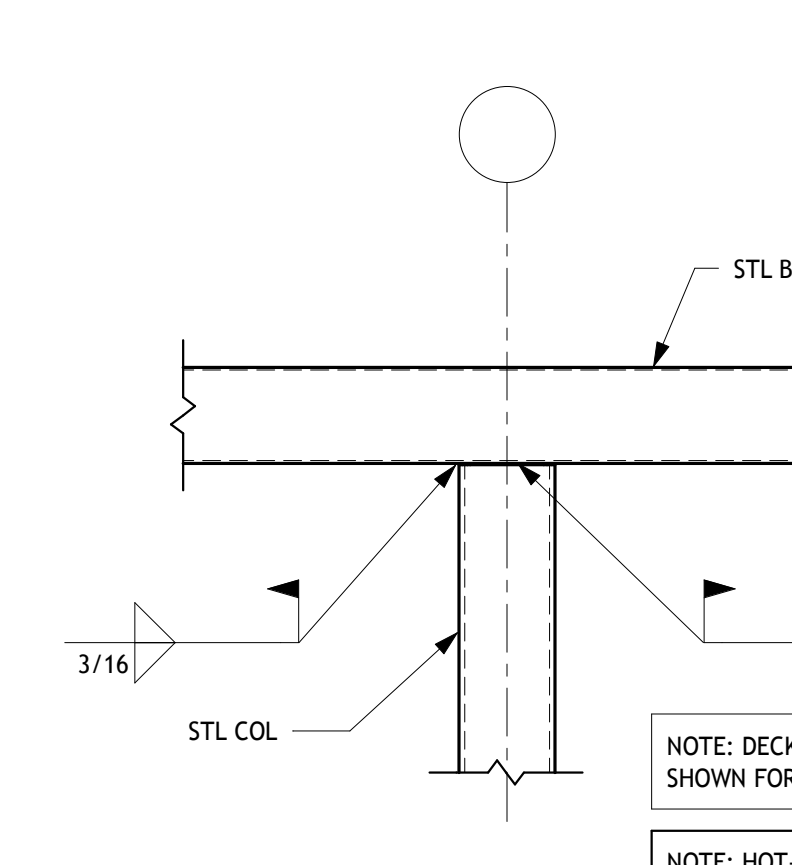
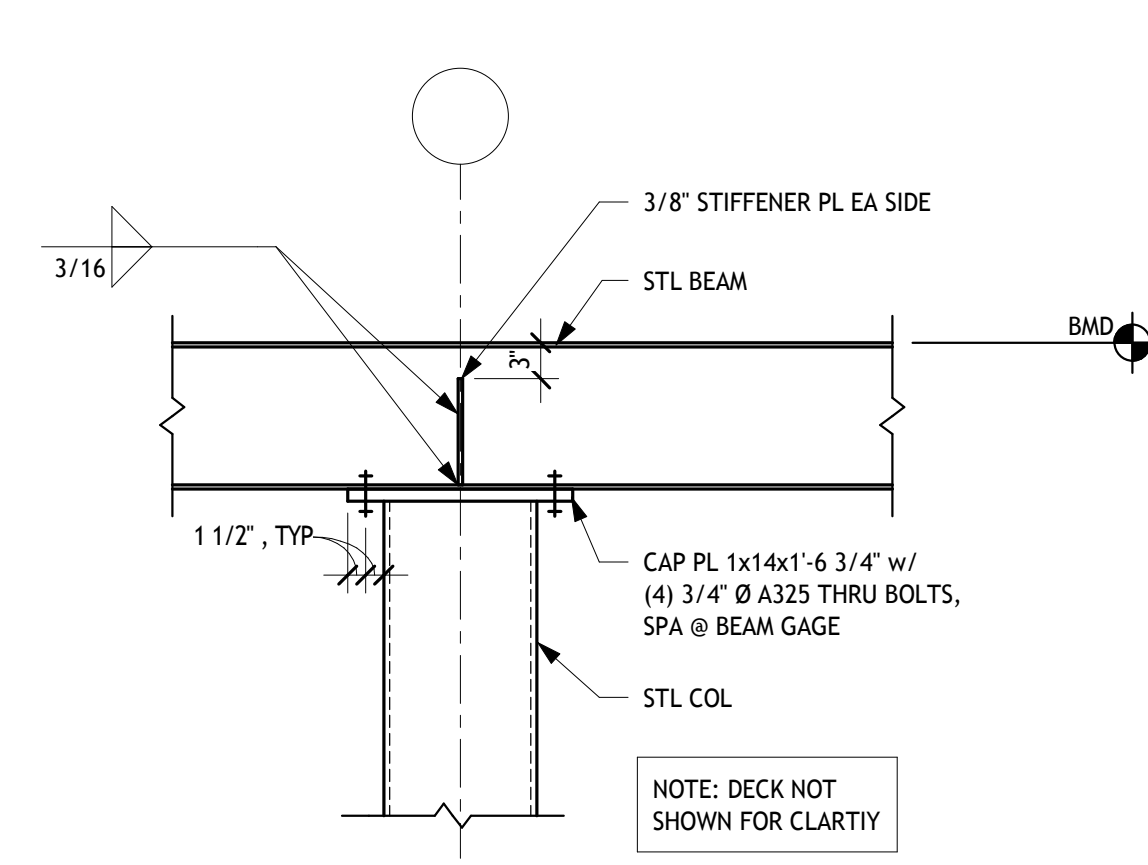
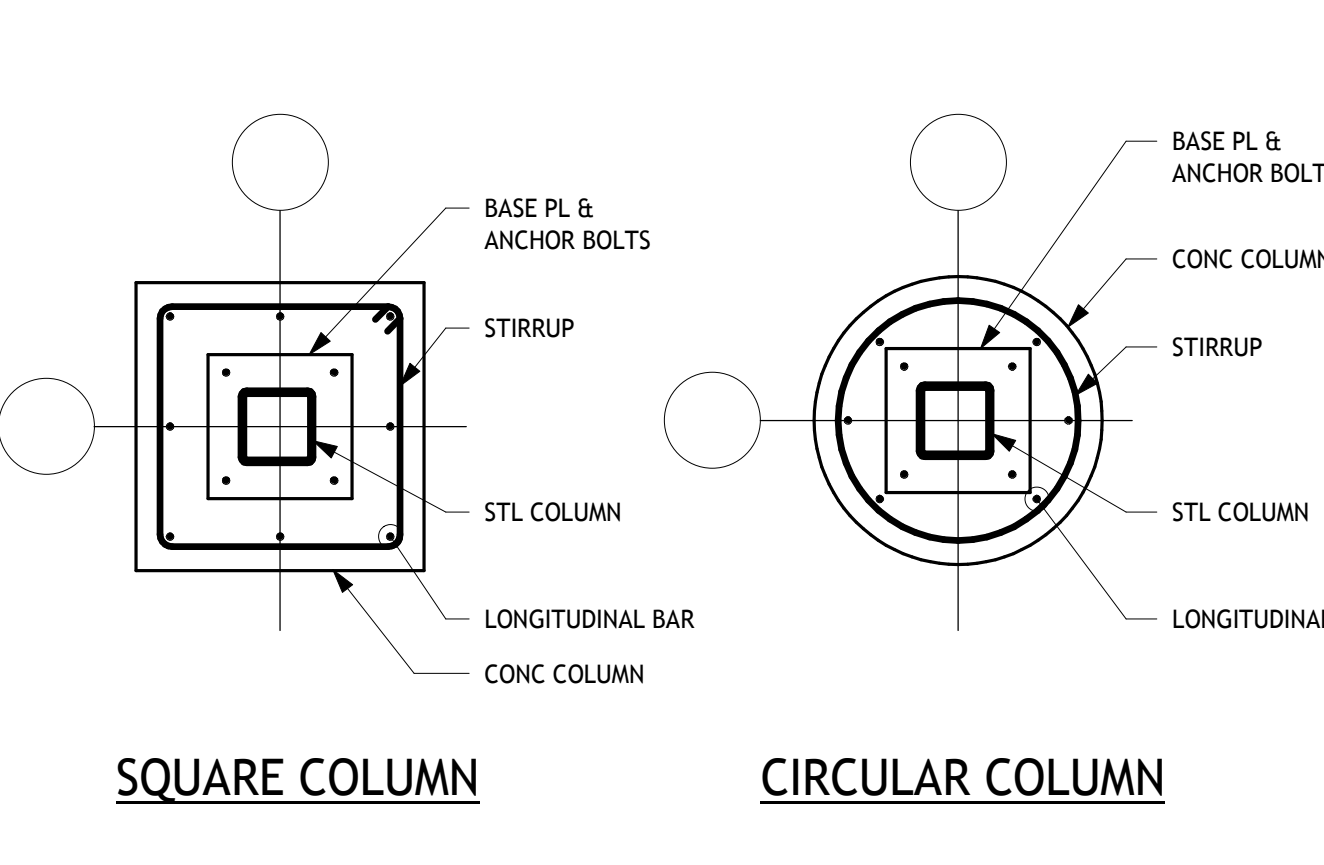
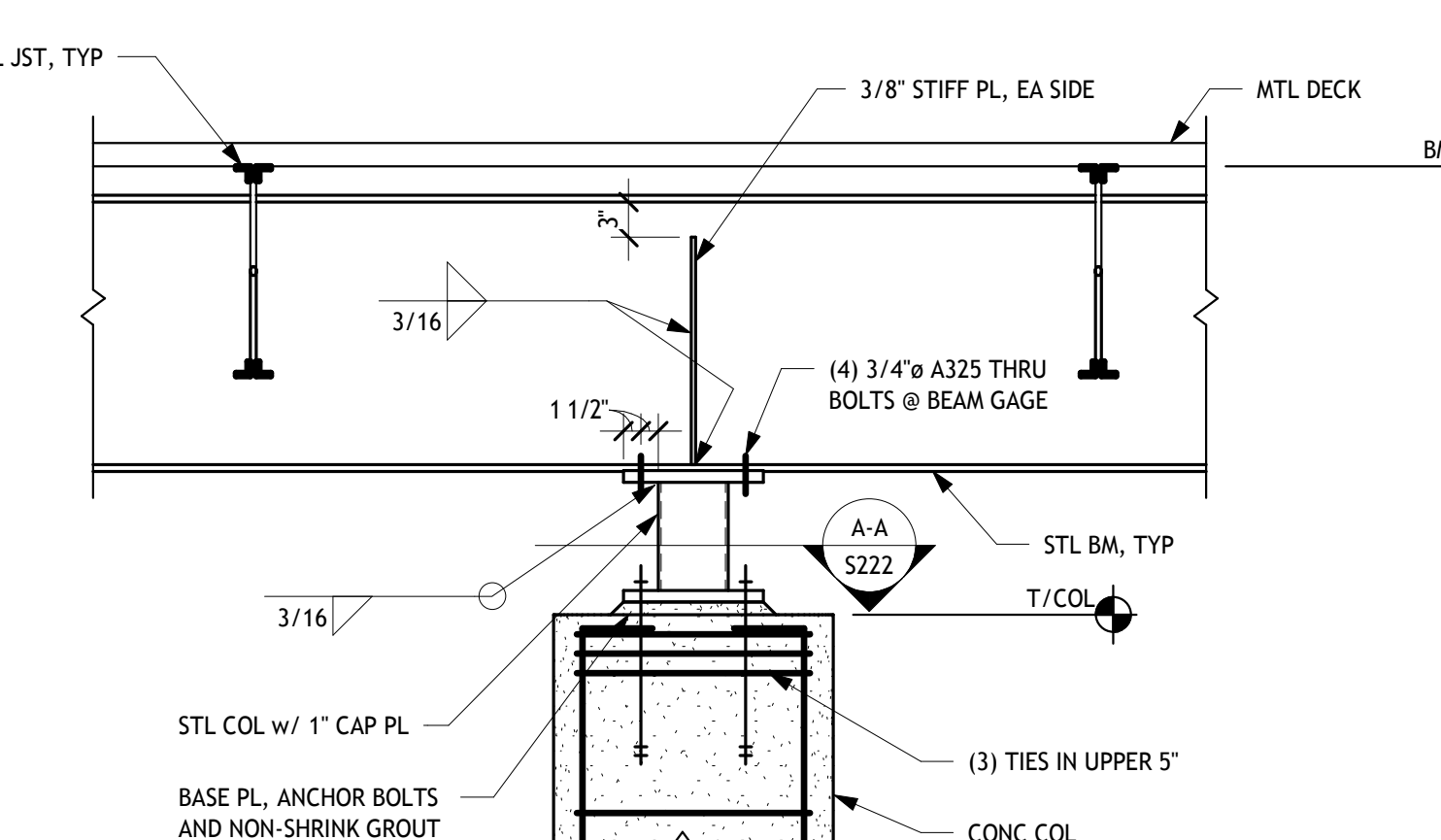
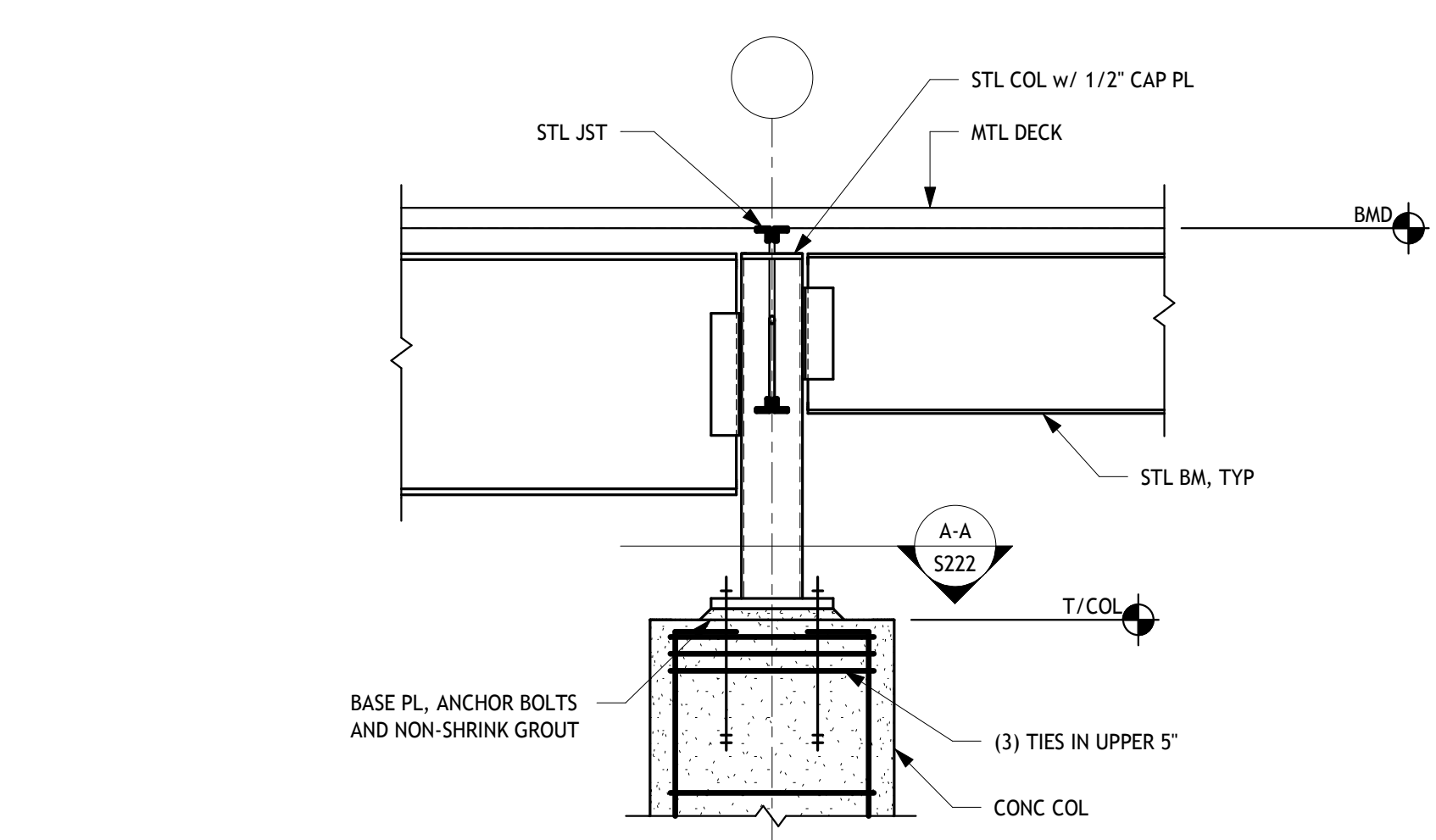
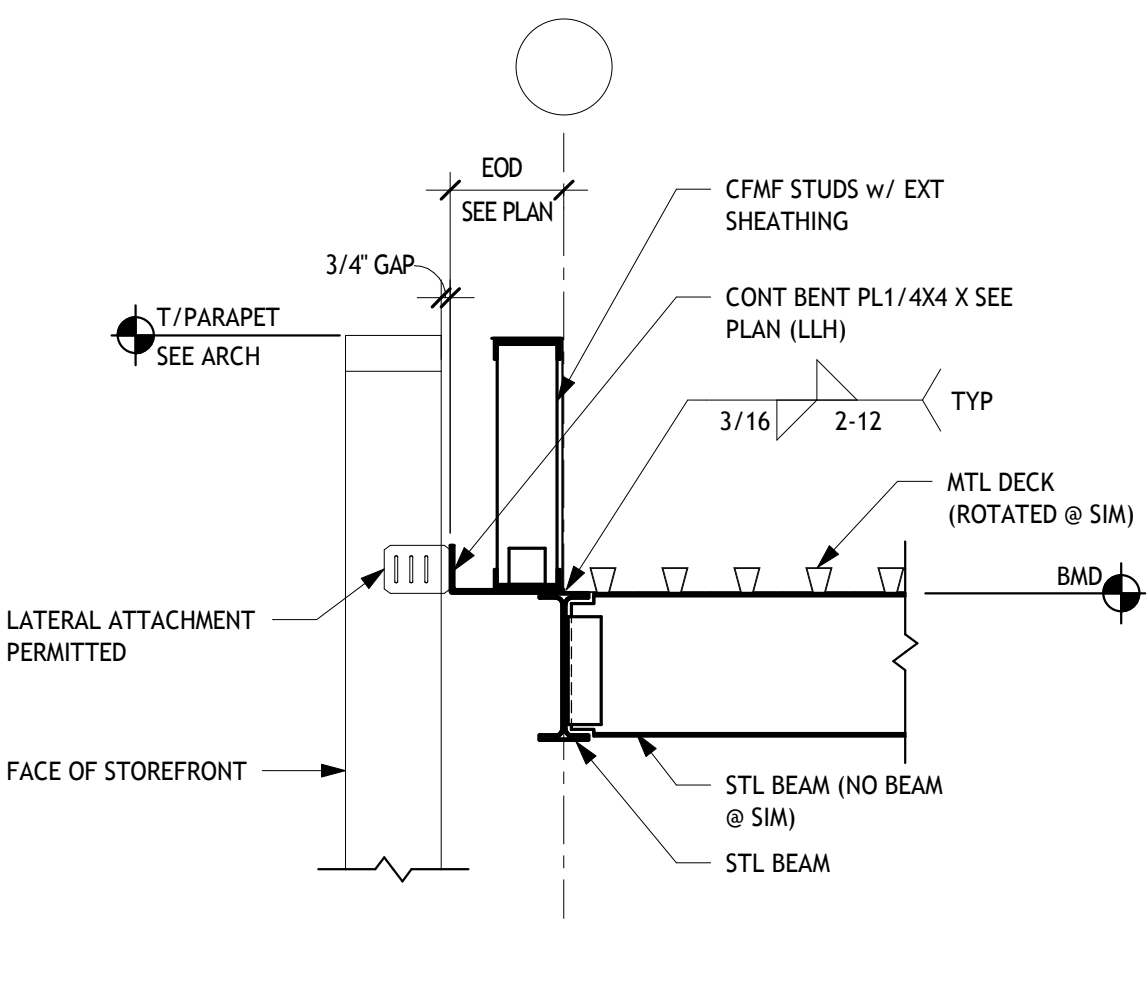
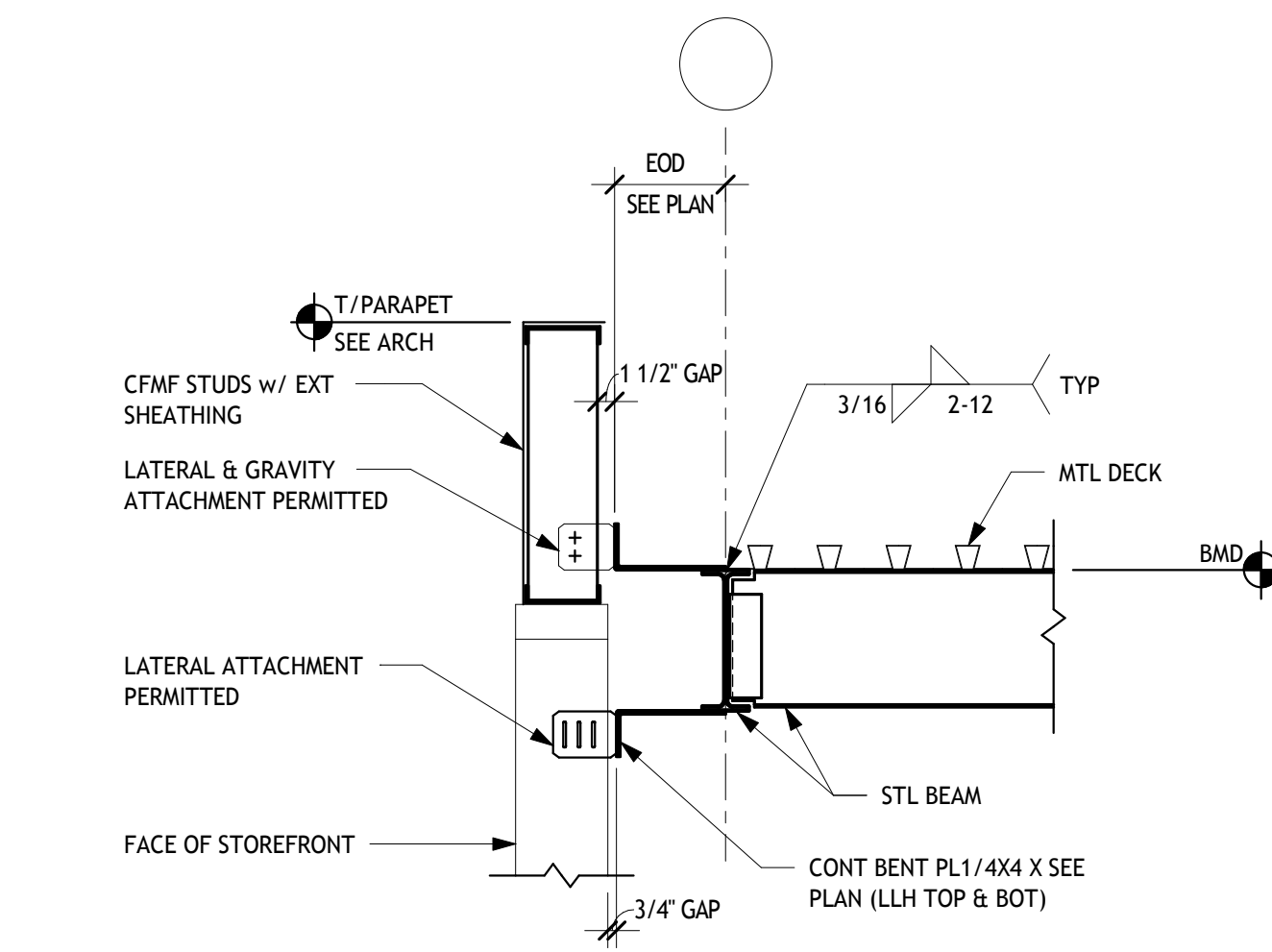
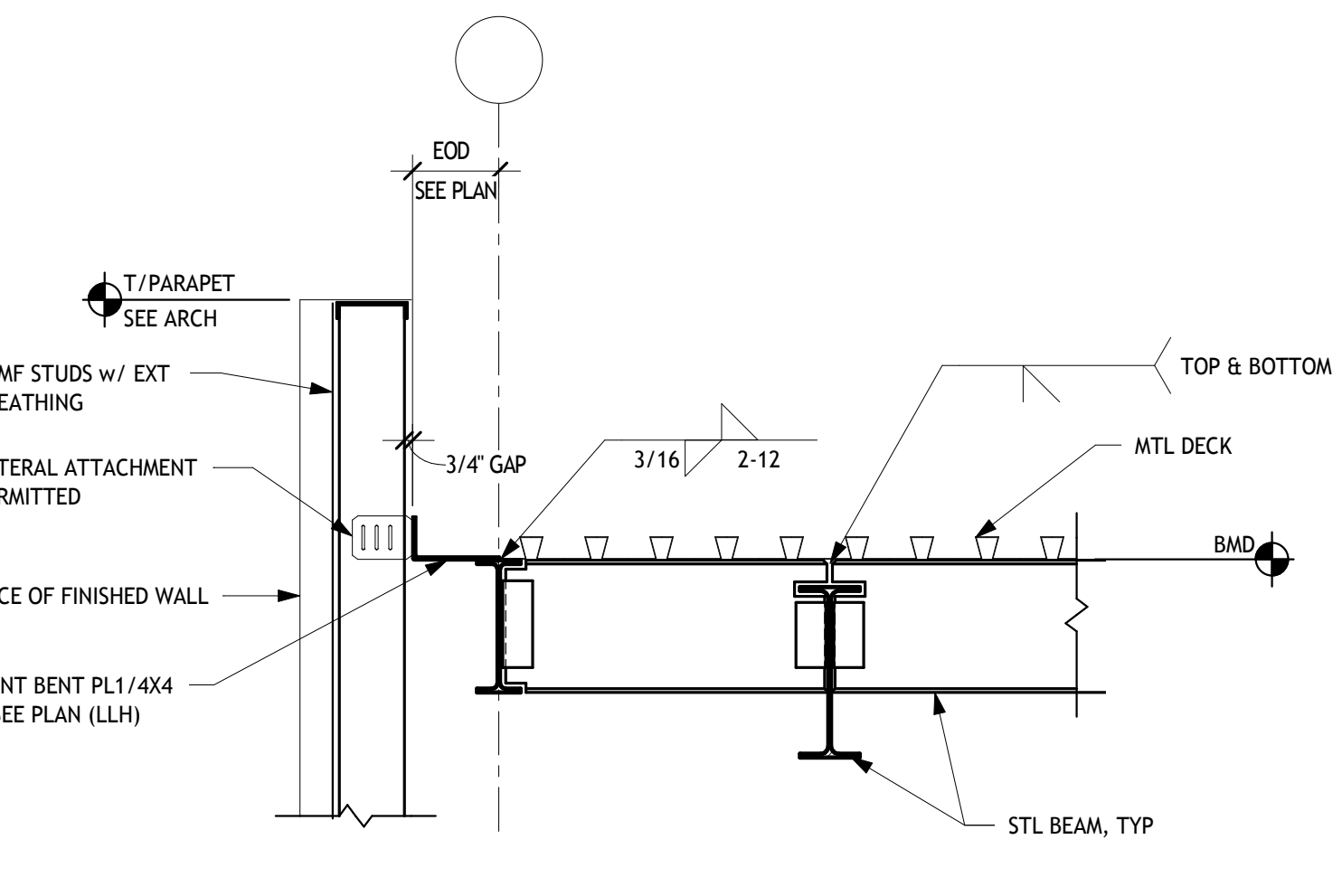
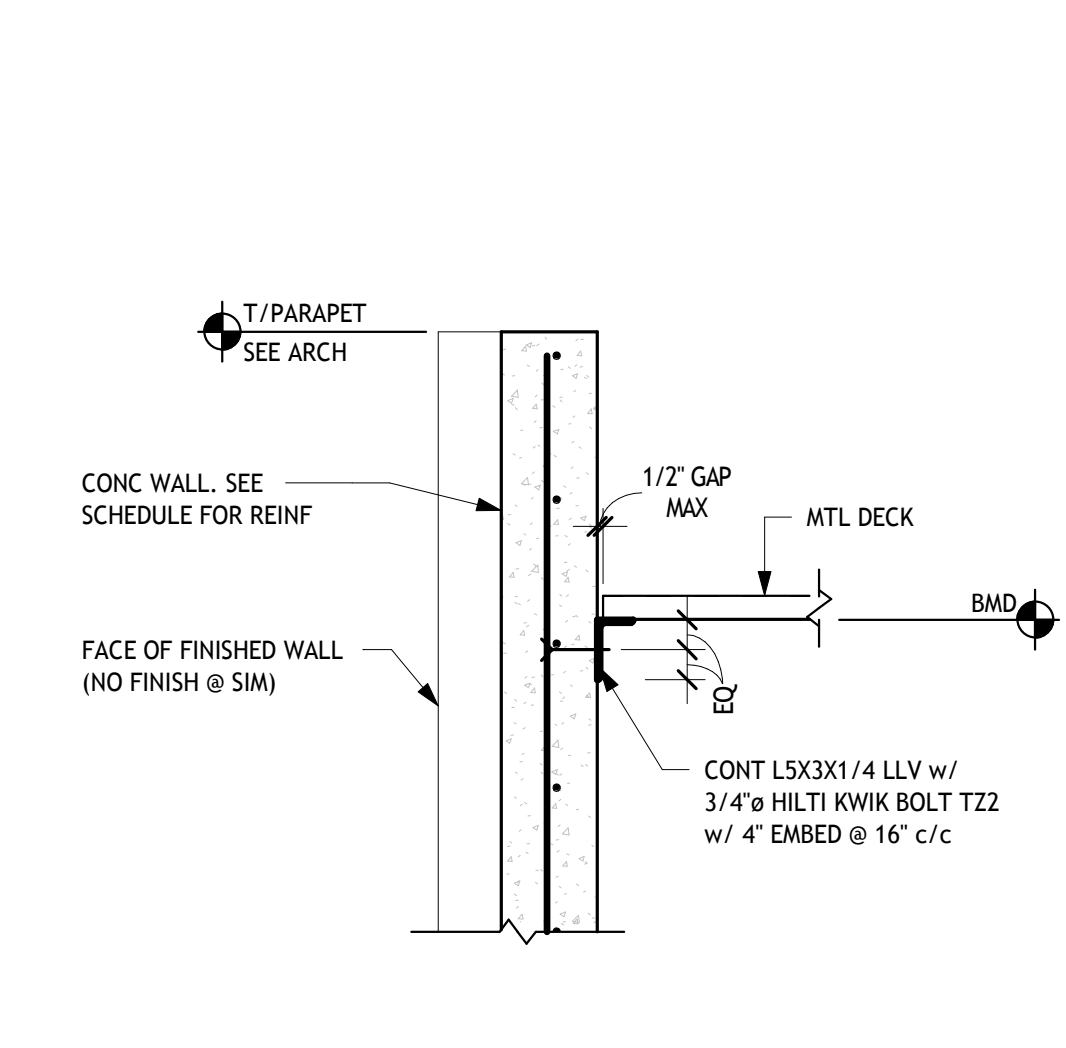
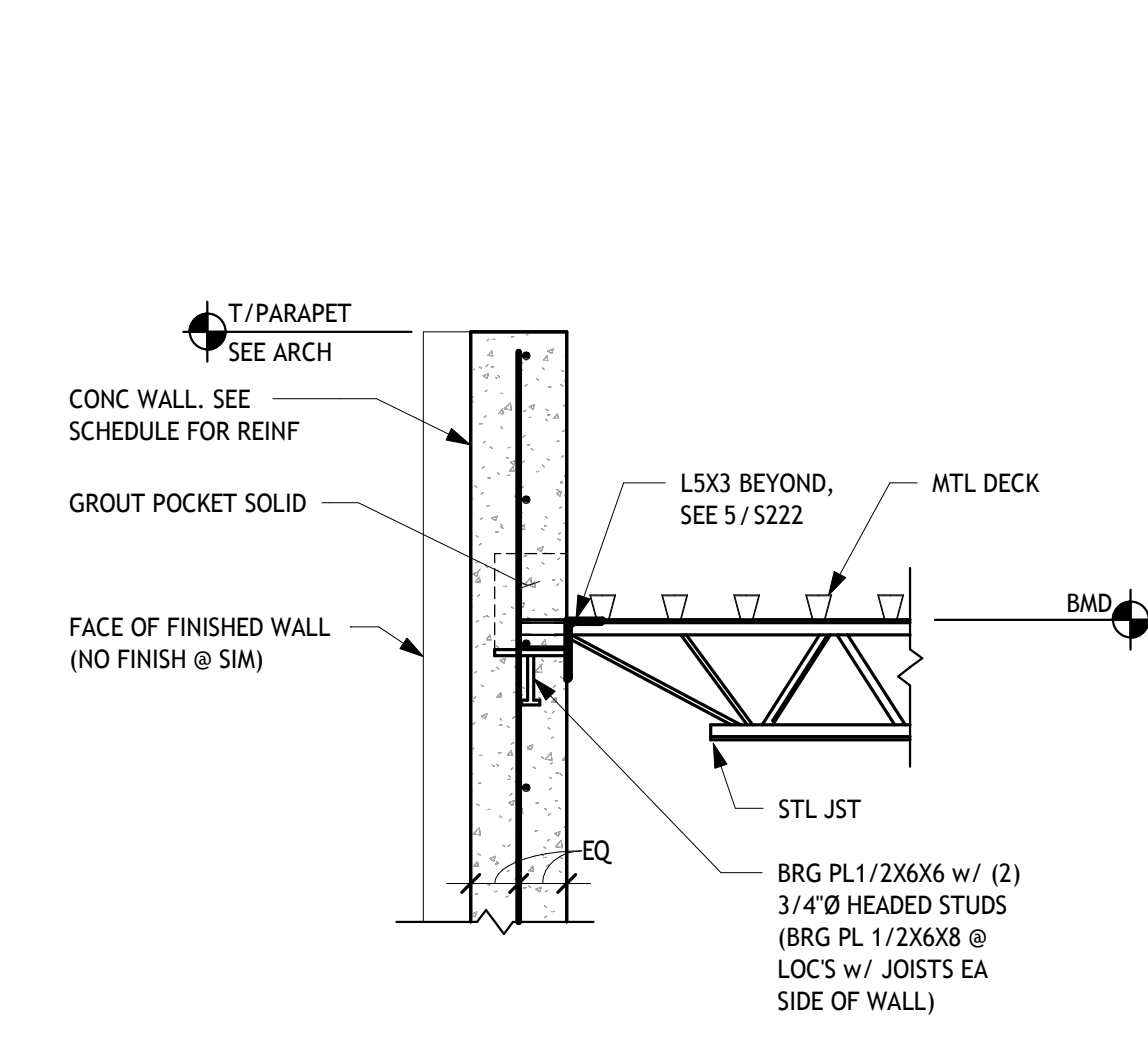
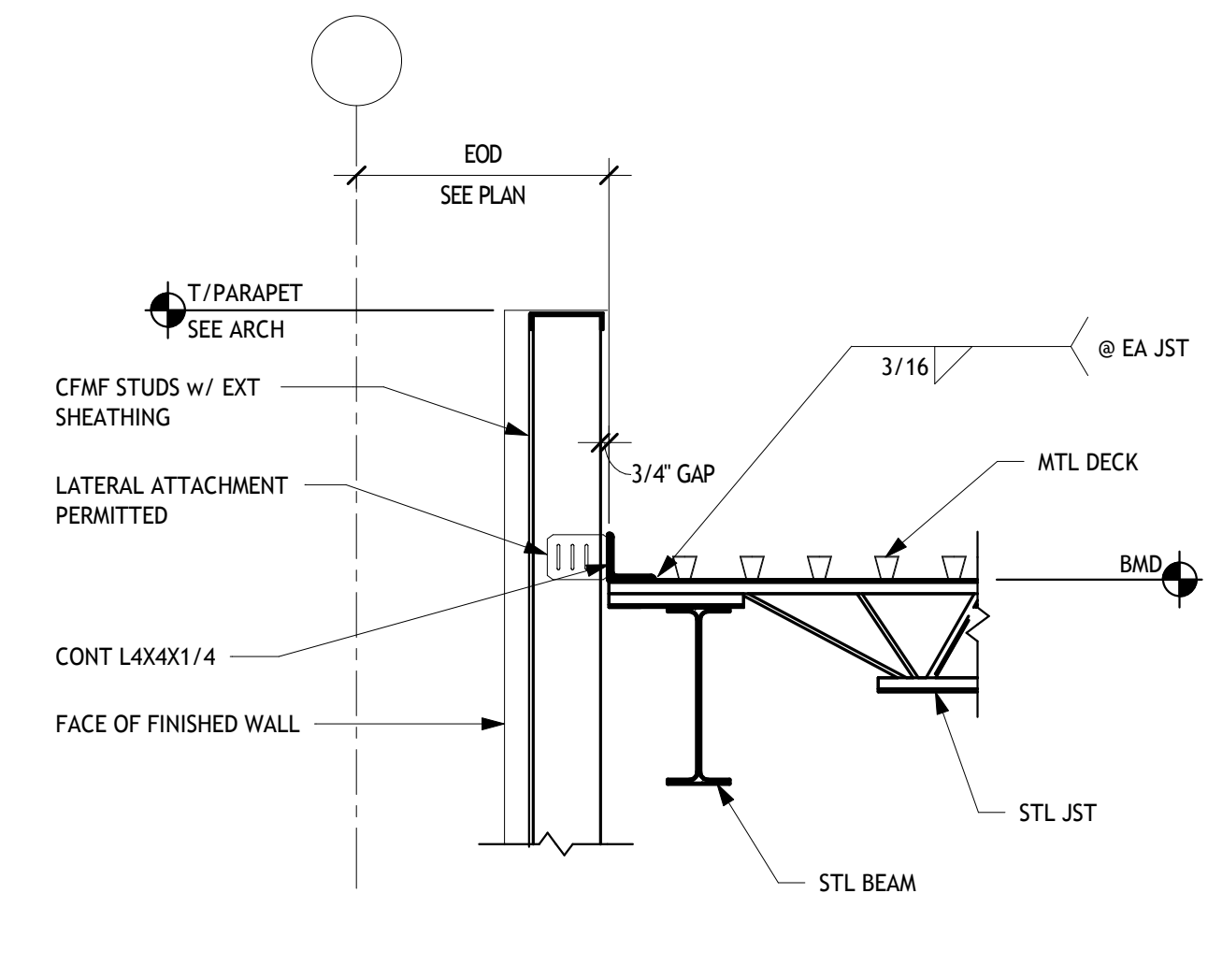
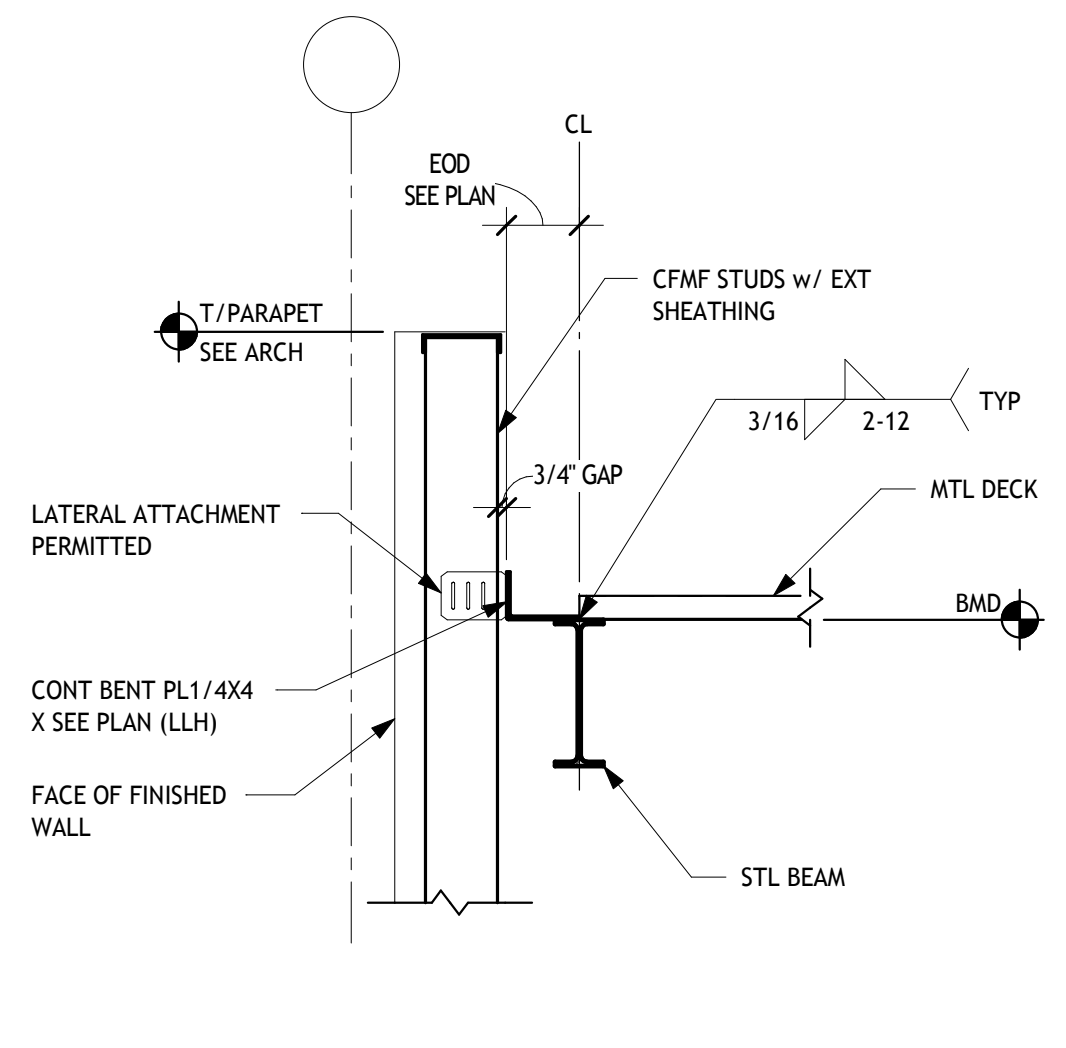
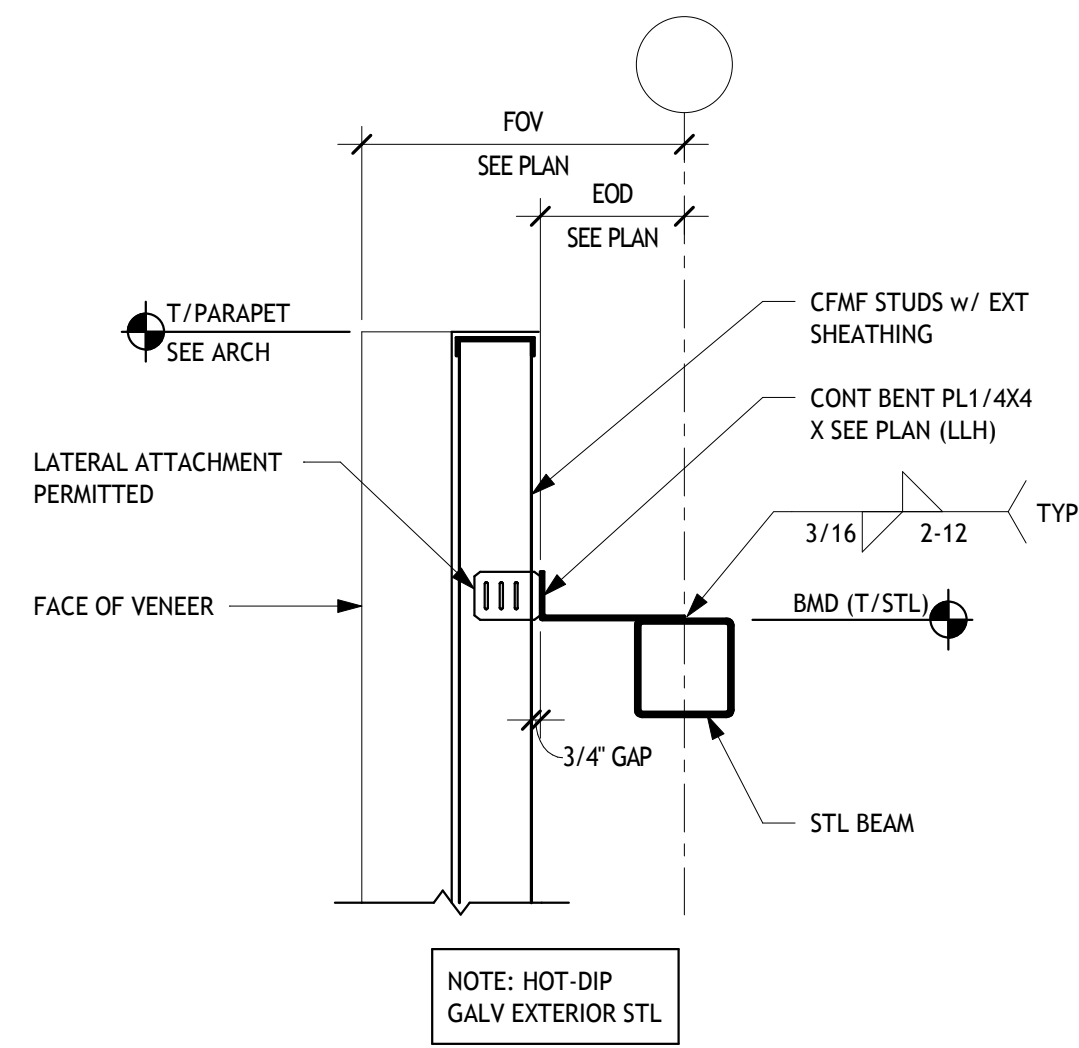
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ROOF FRAMING SECTIONS & DETAILS

S221

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REVISION SCHEDULE		
#	DATE	REVISION DESCRIPTION
1	07.05.22	Addendum 01
3	08.09.22	Bulletin 02

PROJECT NAME:

CML REYNOLDSBURG
1402 BRICE ROAD
REYNOLDSBURG, OHIO 43068

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ISSUE DATE: 06/10/2022

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ROOF FRAMING SECTIONS & DETAILS

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ABBREVIATIONS	
	NOTE: NOT ALL ABBREVIATIONS MAY BE USED.
(A)	EXISTING TO BE ABANDONED
(D)	EXISTING TO BE DEMOLISHED
(E)	EXISTING TO REMAIN
(F)	FUTURE
(R)	EXISTING TO BE RELOCATED
ABV	ABOVE
AFF	ABOVE FINISHED FLOOR
APPROX	APPROXIMATE
AUTO	AUTOMATIC
AVG	AVERAGE
BF	BELOW FLOOR
BFV	BUTTERFLY VALVE
BLDG	BUILDING
BOP	BOTTOM OF PIPE
CAP	CAPACITY
CONN	CONNECTION OR CONNECT
CONT	CONTINUATION
CU FT	CUBIC FEET
CU IN	CUBIC INCH
D	DRAIN
DDCA	DOUBLE CHECK DETECTOR ASSEMBLY
DEPT	DEPARTMENT
DA	DIAMETER
DN	DOWN
DWG	DRAWING
EL	ELEVATION
EQUIP	EQUIPMENT
EXP	EXPANSION
EXIST	EXISTING
F	FIRE PROTECTION WATER SUPPLY
°F	DEGREES FAHRENHEIT
FDC	FIRE DEPARTMENT CONNECTION
FIN FL EL	FINISHED FLOOR ELEVATION
FP	FIRE PROTECTION
FS	FLOW SWITCH
FT	FOOT OR FEET
FVC	FIRE VALVE CABINET
GA	GAUGE
GAL	GALLONS
GPM	GALLONS PER MINUTE
HD	HEAD
HGT	HEIGHT
HP	HORSEPOWER
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
IN	INCHES
KW	KILOWATT
LB	POUNDS
LF	LINEAR FEET
LG	LENGTH
MAX	MAXIMUM
MECH	MECHANICAL
MFG	MANUFACTURER
MIN	MINIMUM
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
PLBG	PLUMBING
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE
PS	PRESSURE SWITCH
PSI	POUNDS PER SQUARE INCH
PSIG	PSI GAUGE
RPM	REVOLUTIONS PER MINUTE
SEC	SECOND
SPEC	SPECIFICATION
STSTL	STAINLESS STEEL
STD	STANDARD
STR	STRAINER
TE	TOP ELEVATION
TOP	TOP OF PIPE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
W	WATER
WG	WATER GAUGE
WGT	WEIGHT
WPV	SUPERVISED WALL POST INDICATOR VALVE

SYMBOLS LIST	
PIPING	
EXISTING TO REMAIN	————— (E) —————
EXISTING TO BE DEMOLISHED	----- (D) -----
EXISTING ABANDONED	----- (A) -----
FIRE PROTECTION	————— F —————
FIRE PROTECTION AREA	————— F —————
PIPING (FITTINGS, VALVES, AND MISCELLANEOUS)	
DROP	————— ∩ —————
RISE	————— ∪ —————
TEE	————— T —————
CAP	————— ⊥ —————
FLOW ARROW	————— → —————
PUMP	————— (P) —————
GLOBE VALVE	————— (G) —————
SOLENOID VALVE	————— (S) —————
SUPERVISED VALVE	————— (SV) —————
PRESSURE REDUCING VALVE	————— (PRV) —————
OUTSIDE STEM & YOKE VALVE	————— (OS&Y) —————
DOUBLE DETECTOR CHECK ASSEMBLY	————— (DDCA) —————
BUTTERFLY VALVE	————— (BV) —————
BALL VALVE	————— (BV) —————
CHECK VALVE	————— (CV) —————
STRAINER	————— (STR) —————
UNION	————— (U) —————
PIPE SLEEVE	————— (PS) —————
FLOW SWITCH	————— (FS) —————
PRESSURE SWITCH	————— (PS) —————
UPRIGHT SPRINKLER HEAD	————— (UH) —————
PENDANT OR CONCEALED SPRINKLER HEAD	————— (PC) —————
SIDEWALL SPRINKLER HEAD	————— (SH) —————
DRY-PIPE BARREL SIDEWALL SPRINKLER HEAD	————— (DPSH) —————
FIRE DEPARTMENT CONNECTION	————— (FDC) —————
PRESSURE GAUGE WITH STOPCOCK	————— (PG) —————
NOTATIONS	
CONNECT TO EXISTING	⊕
BEGINNING AND/OR END OF DEMOLITION	⊖

FLOW TEST INFORMATION	
STATIC PRESSURE:	- PSI
RESIDUAL PRESSURE:	- PSI
HYDRANT FLOW:	- GPM
PITOT:	- PSI
FLOW HYDRANT:	-
PRESSURE HYDRANT:	-
TEST DATE:	--/--
TEST TIME:	--:--
TEST BY:	- FIRE PROTECTION

SPRINKLER SYSTEM					
DESIGN DENSITY & SPRINKLER COVERAGE CHART					
HAZARD CLASSIFICATION		AREA	DENSITY (GPM/SQ. FT)	MAXIMUM COVERAGE AREA PER SPRINKLER (SQ. FT)	DESIGN AREA (SQ. FT)
LH	LIGHT HAZARD	ALL SPACES UNLESS OTHERWISE NOTED	0.10	225	1000
OH1	ORDINARY HAZARD GROUP 1	MECHANICAL/ ELECTRICAL ROOMS, STORAGE ROOMS, TRASH ROOMS	0.15	130	1500

- GENERAL FIRE PROTECTION NOTES:**
- THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND ARE NOT INTENDED TO SHOW THE EXACT LOCATIONS OF COMPONENTS, NOR SHOW ALL SYSTEM COMPONENTS. CONTRACTOR SHALL PROVIDE ADDITIONAL OFFSETS OR FITTINGS REQUIRED FOR PROPER INSTALLATION, COORDINATION WITH OTHER TRADES, AND/OR TO MAINTAIN PROPER CLEARANCES.
 - DRAWINGS ARE NOT TO BE SCALED. DIMENSIONS SHALL GOVERN. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE CONCERNING EXISTING AND NEW WORK BEFORE PROCEEDING WITH EITHER FABRICATION OR INSTALLATION IN MECHANICAL AREAS WITH NUMEROUS OBSTRUCTIONS INCLUDING DUCTWORK, EQUIPMENT AND PIPING. THIS WILL REQUIRE ON SITE CUTTING AND VERIFICATION.
 - ANY INFORMATION CONFLICTS BETWEEN THE SPECIFICATIONS AND DRAWINGS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION. THE CONTRACTOR(S) SHALL NOT PROCEED WITH ANY WORK, EXCEPT AT THEIR OWN RISK, UNTIL CLARIFICATIONS OF THE CONFLICTS ARE ISSUED TO THE CONTRACTOR(S) BY THE ENGINEER.
 - ALL MATERIAL AND LABOR SHALL BE UNDER WARRANTY FOR ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER. ANY NEW DEVICES OR EQUIPMENT FOUND FAULTY SHALL BE REPLACED AS PART OF THE WARRANTY.
 - A SET OF APPROVED DRAWINGS SHALL BE MAINTAINED ON SITE AND ALL FIELD CHANGES SHALL BE RED LINED ON THE DRAWINGS. CONTRACTOR SHALL PREPARE AS-BUILT DRAWINGS IN ELECTRONIC (AUTOCAD) FORMAT, REFLECTING ACCURATE FIELD CONDITIONS.
 - THE CONTRACTOR SHALL PREPARE AND SUBMIT SHOP DRAWINGS FOR THE SPRINKLER SYSTEMS SHOWING ALL SPRINKLER LOCATIONS, SPACED AND LOCATED IN ACCORDANCE WITH NFPA 13. THE SHOP DRAWINGS SHALL BE APPROVED IN WRITING PRIOR TO STARTING THE INSTALLATION.
 - ALL PENETRATIONS THROUGH FIRE RESISTANCE RATED CONSTRUCTION SHALL BE PROVIDED A UL LISTED THROUGH PENETRATION FIRESTOP ASSEMBLY. THE RATINGS OF ALL FIRESTOP ASSEMBLIES SHALL BE GREATER THAN OR EQUAL TO THE RATINGS OF THE PENETRATED BARRIER.
 - CORE DRILL PENETRATIONS IN CONCRETE FLOORS OR WALLS 1-2 INCHES LARGER THAN THE PIPE DIAMETER OF THE PENETRATING PIPE.
 - ALL OPENINGS OR DAMAGE TO EXISTING WALLS, CEILING, FLOORS AND STRUCTURAL MEMBERS FROM PENETRATIONS, REMOVALS, INSTALLATIONS OR OTHER ACTIONS OF THE CONTRACTOR SHALL BE PATCHED, REPAIRED AND PAINTED WITH NEW MATERIALS BY THE CONTRACTOR TO MATCH ADJACENT WORK, WHETHER SPECIFICALLY NOTED OR NOT. REPAIRS ARE AT THE CONTRACTOR'S EXPENSE.
 - DUCTWORK, PIPING, MECHANICAL EQUIPMENT AND CEILING SHALL NOT BE UTILIZED AS LADDERS, SCAFFOLDING OR WORK PLATFORMS.
 - NO STRUCTURAL MEMBERS SHALL BE CUT, DRILLED, OR BURNED WITHOUT THE KNOWLEDGE AND WRITTEN APPROVAL OF THE OWNER.
 - ALL ELEVATIONS ABOVE FINISHED FLOOR (AFF) INDICATED FOR STRUCTURAL MEMBERS AND CEILING ARE APPROXIMATE. VARIANCES OF +/- 1" CAN BE EXPECTED DUE TO SLOPING FLOORS AND STRUCTURAL MEMBERS.
 - THE SPRINKLER SYSTEM SHALL BE IN ACCORDANCE WITH NFPA 13.
 - WATER SUPPLIES SHALL BE CALCULATED BY USING THE LATEST WATER FLOW INFORMATION AND ALLOWING FOR A 10% REDUCTION OF THE STATED PRESSURES OR P.S.I., WHICHEVER IS GREATER, AS AN ALLOWANCE FOR SEASONAL VARIATIONS IN WATER SUPPLY.
 - EQUIPMENT, MATERIALS, INSTALLATION WORKMANSHIP, EXAMINATION AND TESTING SHALL BE IN ACCORDANCE WITH NFPA 13 EXCEPT AS MODIFIED HEREIN. INSTALL PIPING STRAIGHT AND TRUE TO BEAR EVENLY ON HANGARS AND SUPPORTS. PIPE SHALL NOT INTERFERE WITH OTHER EQUIPMENT AND CONSTRUCTION. AUTOMATIC SPRINKLERS SHALL BE PERPENDICULAR TO CEILING. THE AUTOMATIC SPRINKLER COVER PLATES SHALL NOT BE FIELD PAINTED.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR AVOIDING ALL CONFLICTS WITH LIGHTING FIXTURES, DIFFUSERS, GRILLS, DUCTS, STRUCTURAL MEMBERS, MECHANICAL EQUIPMENT AND PIPES. SPRINKLERS INSTALLED IN PROXIMITY TO OBSTRUCTIONS SHALL BE LOCATED TO MINIMIZE OBSTRUCTION TO DISCHARGE IN ACCORDANCE WITH NFPA 13.
 - NO FABRICATION OR INSTALLATION IS ALLOWED WITHOUT APPROVED SHOP DRAWING SUBMITTALS.
 - CONTRACTOR SHALL SUBMIT SYSTEM CATALOG PRODUCT DATA SHEETS AND SAMPLES OF ALL COMPONENTS PROPOSED FOR USE PRIOR TO INSTALLATION FOR APPROVAL. SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL AND SHALL INCLUDE ALL ITEMS REQUIRED BY NFPA 13.
 - ONLY LISTED AND APPROVED DEVICES AND MATERIALS AS SPECIFIED IN NFPA 13 SHALL BE INSTALLED THROUGHOUT THE SYSTEM. EACH COMPONENT OF THE SPRINKLER SYSTEM SHALL BE LISTED AS A PRODUCT BY THE MANUFACTURER UNDER THE APPROPRIATE CATEGORY FOR THE INTENDED USE BY UNDERWRITERS LABORATORIES (UL) OR FACTORY MUTUAL (FM) AND SHALL BEAR THE "UL" OR "FM" LABEL, AS APPROPRIATE.
 - THE COMPONENTS OF HANGER ASSEMBLIES THAT DIRECTLY ATTACH TO THE PIPE OR TO THE BUILDING SHALL BE LISTED IN ACCORDANCE WITH NFPA 13.
 - SPRINKLER SYSTEM PIPING SHALL NOT SHARE SUPPORTS WITH OTHER BUILDING SYSTEMS. IN MECHANICAL AREAS, PIPING SHALL NOT BE ATTACHED TO THE DUCT WORK. STATIONS SHALL BE USED WHERE PIPING IS UNABLE TO BE HUNG FROM ABOVE.
 - ONLY LISTED AND APPROVED NEW SPRINKLERS SHALL BE EMPLOYED IN THE INSTALLATION OF THE SPRINKLER SYSTEM.
 - ENSURE SPRINKLER TEMPERATURE RATINGS ARE IN ACCORDANCE WITH NFPA 13 REQUIREMENTS FOR PROXIMITY TO HEAT GENERATING DEVICES.
 - CONTRACTOR SHALL MAKE PROVISIONS TO ENSURE ADEQUATE DRAINAGE OF ALL PIPING IN ACCORDANCE WITH NFPA 13. ALL DRAIN DISCHARGE SHALL BE PIPED TO DESIGNATED AREAS. LOCATION OF ALL OUTSIDE DISCHARGE POINTS SHALL BE COORDINATED WITH THE OWNER.
 - THE CONTRACTOR SHALL PROVIDE LOW POINT DRAINS AS REQUIRED BY NFPA 13. ALL LOW POINTS SHALL BE MARKED WITH SIGNAGE INDICATING "AUXILIARY DRAIN."
 - PROVIDE DRAINS AND INSPECTOR'S TEST DISCHARGE TO DESIGNATED LOCATIONS.
 - ALL SPRINKLER PIPING SHALL BE INSTALLED SO THAT ALL PORTIONS OF THE SYSTEM CAN BE DRAINED BACK THROUGH DRAIN VALVE OR LOW POINT DRAINS PROVIDED.
 - UPON COMPLETION OF INSTALLATION, ALL PIPING SHALL BE PRESSURE TESTED IN ACCORDANCE WITH NFPA 13 FOR TWO (2) HOURS AT A PRESSURE OF 200 PSI OR 50 PSI ABOVE THE MAXIMUM WORKING PRESSURE OF THE SYSTEM FOR NEW SYSTEM, OR USING HYDROSTATIC TEST AT THE SYSTEM WORKING PRESSURE FOR THE EXISTING SYSTEM TO ADD NEW SPRINKLER SYSTEM. ALL TESTS SHALL BE WITNESSED AND ACCEPTED BY THE AUTHORITY HAVING JURISDICTION.
 - REPLACE PIPING SYSTEM COMPONENTS THAT DO NOT PASS HYDROSTATIC TEST PROCEDURES AND RETEST TO DEMONSTRATE COMPLIANCE. REPEAT PROCEDURE UNTIL SATISFACTORY RESULTS ARE OBTAINED.
 - FUSHING SHALL BE PERFORMED IN ACCORDANCE WITH NFPA 25. REPORT FUSHING AND HYDROSTATIC TEST RESULTS PROMPTLY AND IN WRITING TO THE OWNER. CONTRACTOR SHALL PROVIDE CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR THE SPRINKLER SYSTEMS.
 - SPRINKLERS SHALL BE PROVIDED THROUGHOUT BUILDING INCLUDING BUT NOT LIMITED TO: ELECTRIC ROOMS AND CLOSES, TEL/DATA CLOSES, AND ENTRY VESTIBULES, STAIRWELLS, AT THE MAIN LANDING, UTILIZING UPRIGHT SPRINKLERS, BELOW DUCTS, GROUPS OF DUCTS OR OTHER OBSTRUCTIONS GREATER THAN 48" WIDE IN EXPOSED CONSTRUCTION AREAS, PER NFPA-13 REQUIREMENTS.
 - PIPING IN AREAS WITH FINISHED CEILING SHALL BE INSTALLED ABOVE FINISHED CEILING.
 - ALL SPRINKLER SYSTEM VALVES SHALL BE OF THE INDICATING TYPE AND PROVIDED WITH ELECTRICAL SUPERVISORY (TAMPER) SWITCHES INTERCONNECTED WITH THE BUILDING FIRE ALARM SYSTEM. THE FLOW SWITCH SHALL ALSO BE INTERCONNECTED WITH THE FIRE ALARM SYSTEM TO ALARM WHEN FLOW IN THAT ZONE OCCURS.
 - CONTRACTOR SHALL PROVIDE LABELS (WITH FLOW ARROWS) FOR ALL EXPOSED PIPING IN ACCORDANCE WITH OSHA STANDARDS AND NFPA 13.
 - CONTRACTOR SHALL CONDUCT FIRE HYDRANT FLOW TESTS TO OBTAIN HYDRAULIC DATA NEEDED TO PREPARE DESIGN FOR HYDRAULICALLY CALCULATED SYSTEM.
 - CONTRACTOR SHALL PROVIDE HYDROSTATIC TEST, FINAL FLOW TEST UPON COMPLETION OF ALL SYSTEM WORK, AND BACKFLOW PREVENTER TEST REPORT PER NFPA 13 TO AND FIRE DEPARTMENT UPON COMPLETION OF WORK.
 - SPRINKLERS SHALL BE LOCATED IN CENTER OF CEILING TILES, OR CENTER OF SHORT SIDE OF TILE AND AT QUARTER POINTS OF LONG SIDE OF TILE, WHERE APPLICABLE, AND SHALL BE LOCATED IN RELATIONSHIP TO LIGHTING FIXTURES AND HVAC DIFFUSERS TO MAINTAIN A SYMMETRICAL PATTERN FOR AN AESTHETICALLY PLEASING EFFECT. NO PIPING SHALL BE EXPOSED WITH THE EXCEPTION OF PIPING IN AREAS WITH NO CEILING.
 - PROVIDE ADDITIONAL SPRINKLERS BEYOND CODE REQUIRED MINIMUMS TO PROVIDE SYMMETRICAL LAYOUTS.
 - PROVIDE A TEST CONNECTION DOWNSTREAM OF THE BACKFLOW PREVENTION DEVICE. SIZE SHALL BE ADEQUATE TO PROVIDE FOR FLOW TEST SYSTEM DEMAND. PROVIDE SUPERVISED SWITCH ON ALL VALVES.
 - NO SPRINKLER PIPING SHALL BE INSTALLED PASSING THROUGH ELECTRICAL ROOMS OR OVER ELECTRICAL PANELS/ EQUIPMENT WHICH SERVES OTHER AREAS. COORDINATE THE LOCATION OF ALL PIPING WITH ELECTRICAL EQUIPMENT AND OTHER TRADES AND ADJUST AS NECESSARY.
 - MAKE REASONABLE AND NECESSARY MODIFICATIONS IN LAYOUTS AND COMPONENTS NEEDED TO PREVENT CONFLICTS WITH WORK OF OTHER TRADES AND TO COORDINATE IN ACCORDANCE WITH SPECIFICATIONS.
 - MAINTAIN MAXIMUM HEADROOM AT ALL LOCATIONS. ALL PIPING TO BE AS TIGHT TO THE UNDERSIDE OF DECK AS POSSIBLE. ALL EXPOSED PIPING SHALL BE APPROVED BY ARCHITECT AND SHALL MAINTAIN REQUIRED CLEARANCES.
 - PROVIDE AND INSTALL GUARDS ON SPRINKLERS SUSCEPTIBLE TO MECHANICAL DAMAGE INCLUDING, BUT NOT LIMITED TO, SPRINKLERS IN MECHANICAL ROOMS AND SPRINKLERS INSTALLED LESS THAN 7' AFF.
 - CONTRACTOR TO PROVIDE COPY OF NFPA 25 TO OWNER UPON COMPLETION OF PROJECT, AS REQUIRED PER NFPA 13.

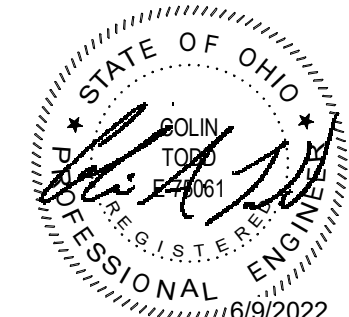
REVISION SCHEDULE		
#	DATE	REVISION DESCRIPTION

PROJECT NAME :

CML REYNOLDSBURG
1402 BRICE ROAD
REYNOLDSBURG, OHIO 43068

100% CONSTRUCTION DOCUMENTS
ISSUED FOR BIDDING AND PERMITS

ISSUE DATE : 06/10/22



GENERAL INFORMATION - FIRE PROTECTION

FPO.00

GENERAL NOTES
A. SEE SHEET FP0.00 FOR GENERAL NOTES.

- CODED NOTES
- DO NOT RUN SPRINKLER MAINS THROUGH THIS ROOM. OR LOCATE PIPING OR SPRINKLER HEADS OVER ELECTRICAL EQUIPMENT IN THIS SPACE.
 - PROVIDE SPRINKLER COVERAGE BELOW ROLL-UP DOORS WHEN IN THE OPEN POSITION.



1 FIRST FLOOR PLAN - FIRE PROTECTION
1/8" = 1'-0"

REVISION SCHEDULE		
#	DATE	REVISION DESCRIPTION

PROJECT NAME :

CML REYNOLDSBURG
1402 BRICE ROAD
REYNOLDSBURG, OHIO 43068

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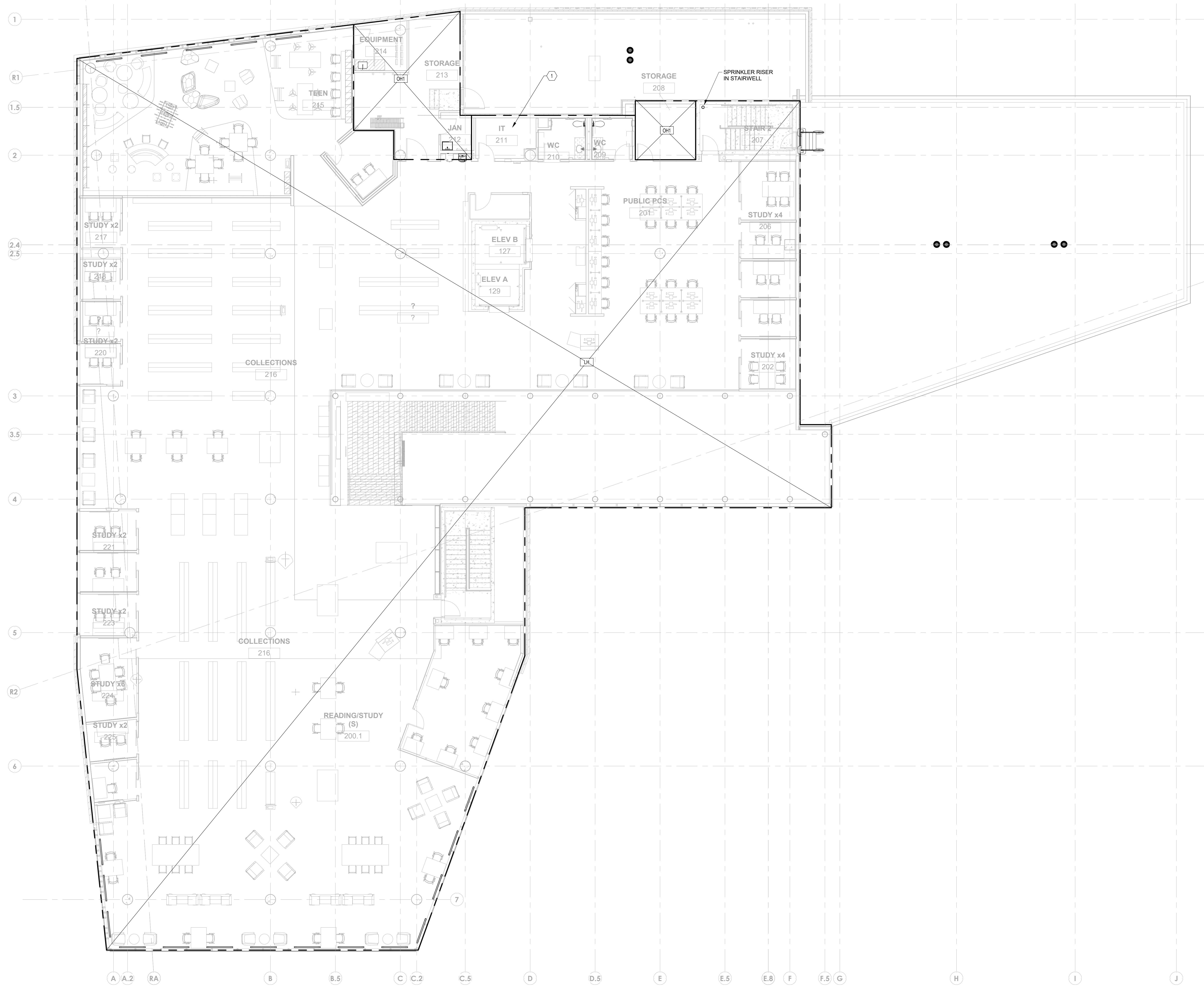
LEVEL 1 FIRE PROTECTION PLAN

FP1.01

6/9/2022 8:49 PM © 2017 JONATHAN BARNES ARCHITECTURE & DESIGN, LTD.

GENERAL NOTES
 A. SEE SHEET FP0.00 FOR GENERAL NOTES.

CODED NOTES
 1. DO NOT RUN SPRINKLER PIPING OR LOCATE SPRINKLER HEADS OVER ELECTRICAL EQUIPMENT IN THIS SPACE.



REVISION SCHEDULE	
#	REVISION DESCRIPTION

PROJECT NAME :

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 REYNOLDSBURG, OHIO 43068

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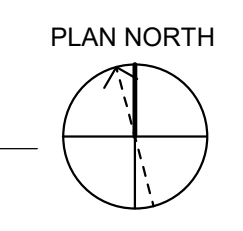
AEC ADVANCED
 ENGINEERING
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 Mechanical | Electrical | Plumbing | Fire Protection
 1400 Dublin Road, Suite: (614) 486-4775
 Columbus, Ohio 43215 Fax: (614) 486-4082



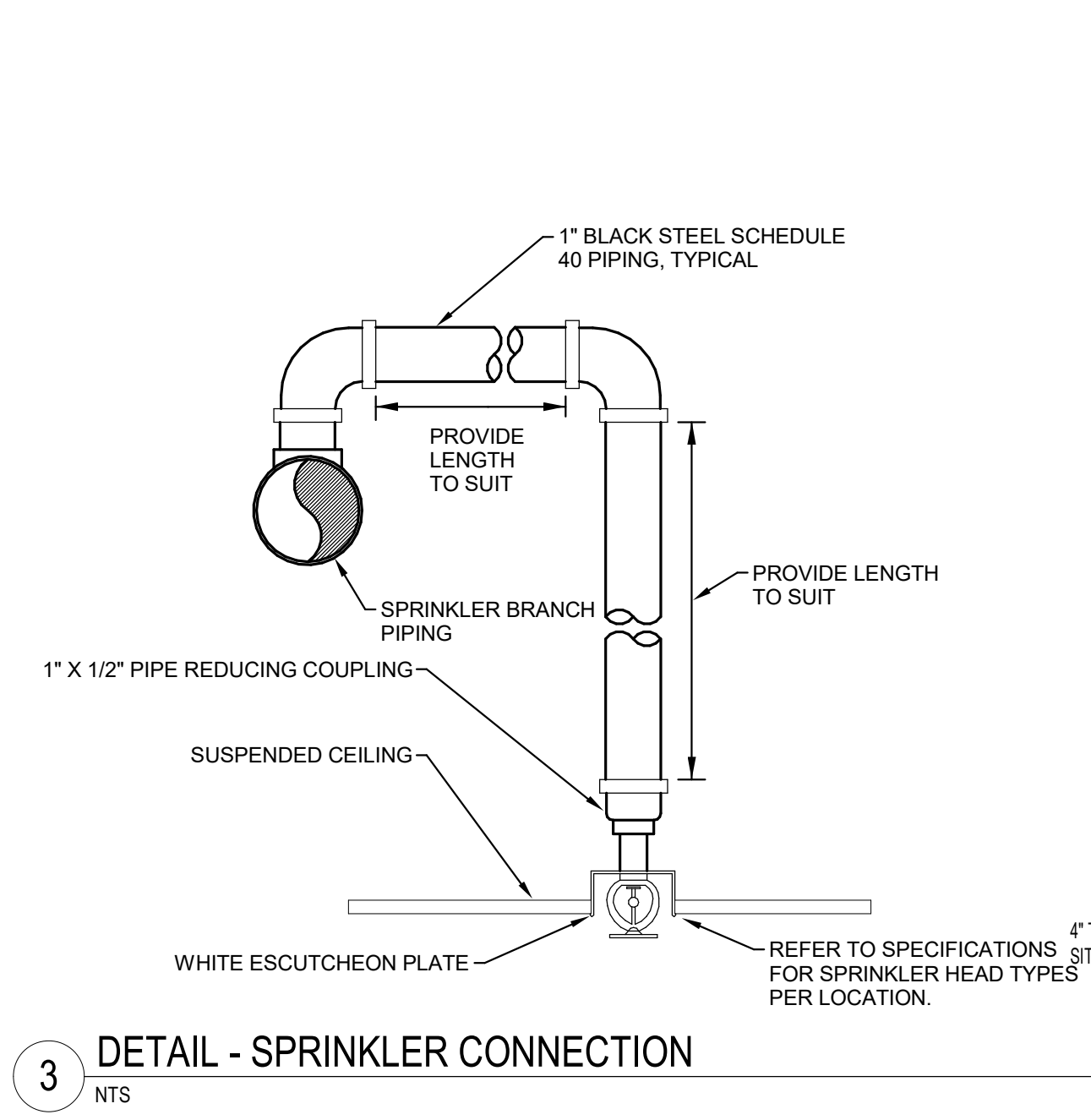
LEVEL 2 FIRE PROTECTION PLAN

FP1.02

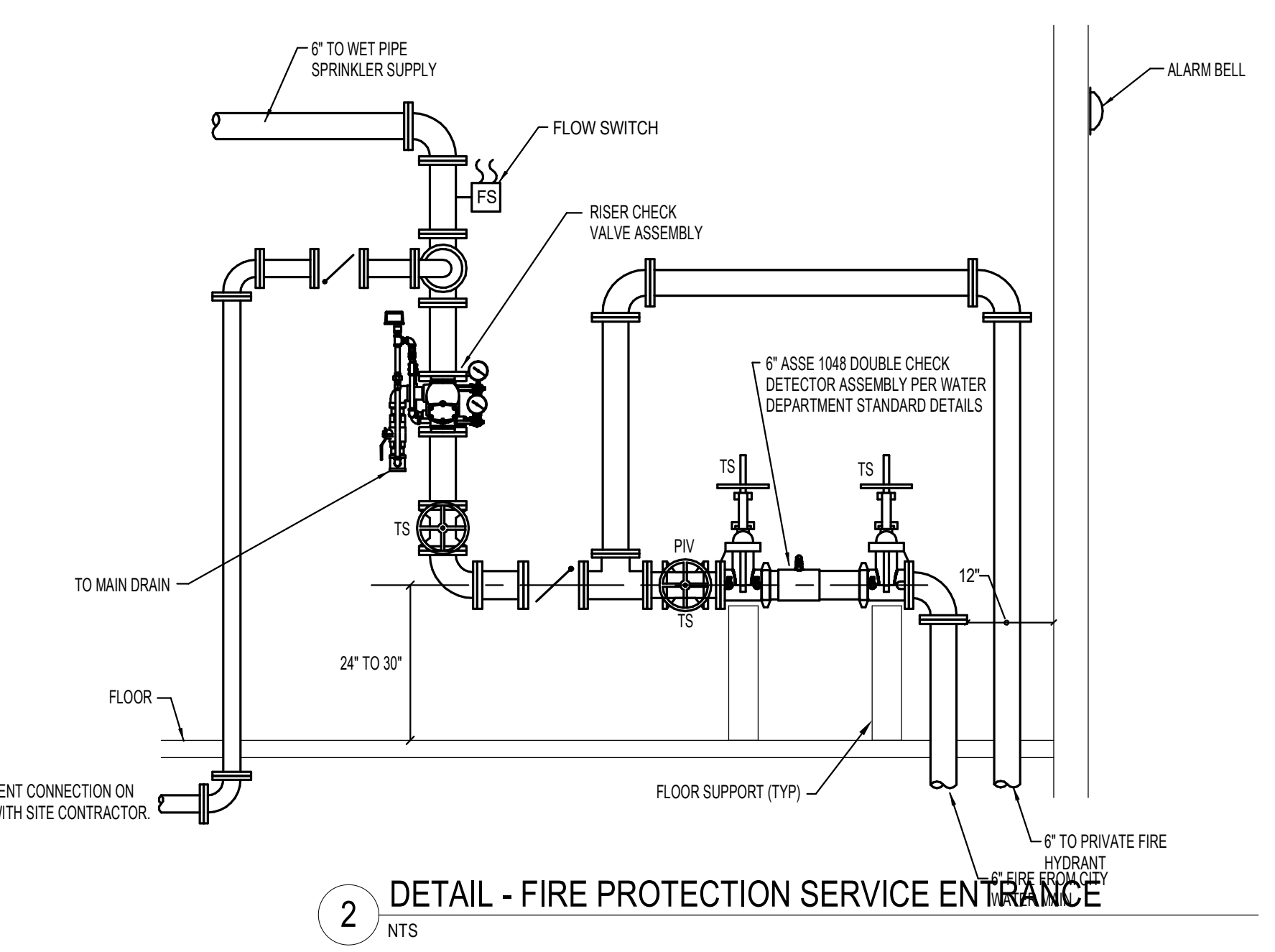
1 SECOND FLOOR PLAN - FIRE PROTECTION
 1/8" = 1'-0"



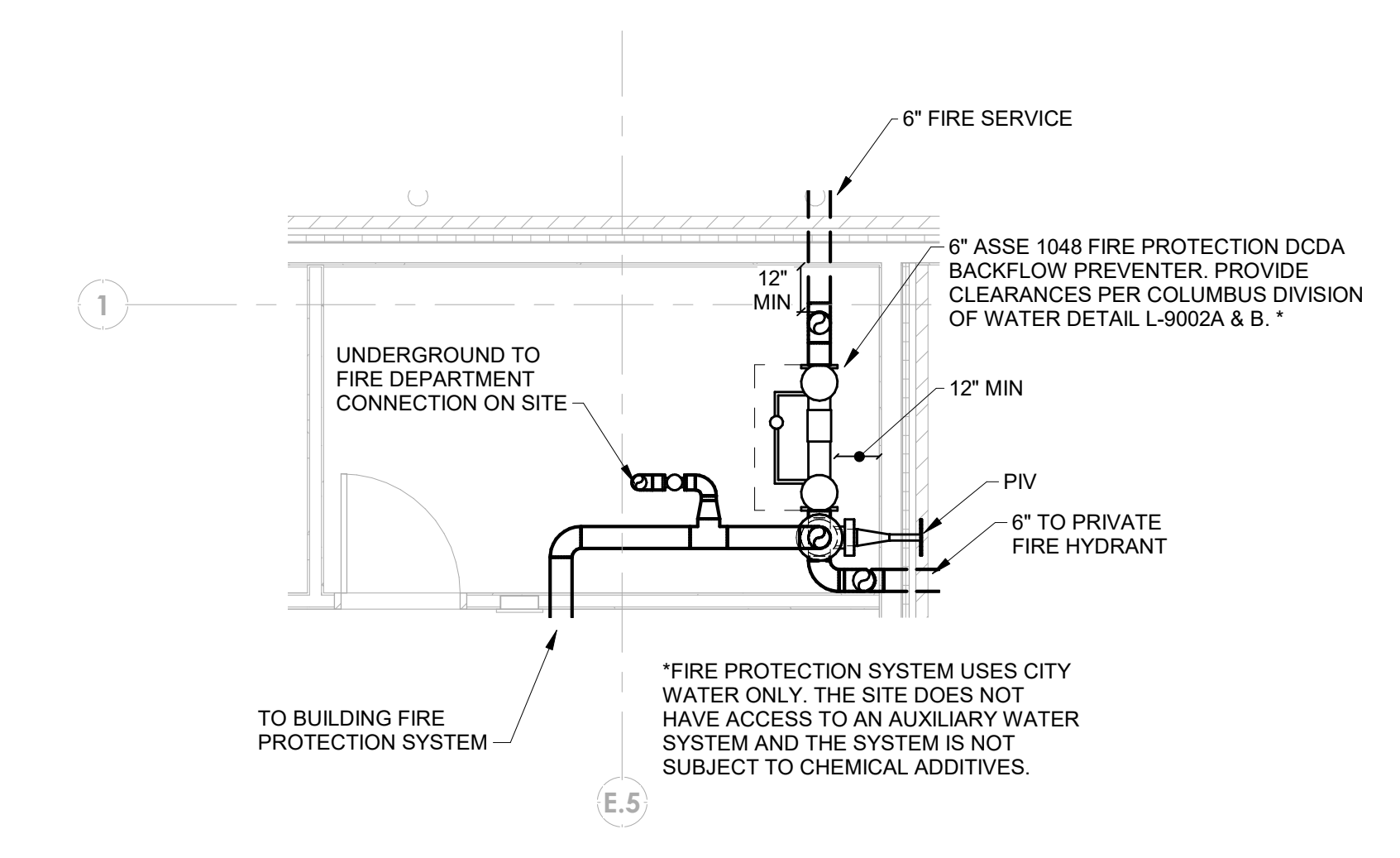
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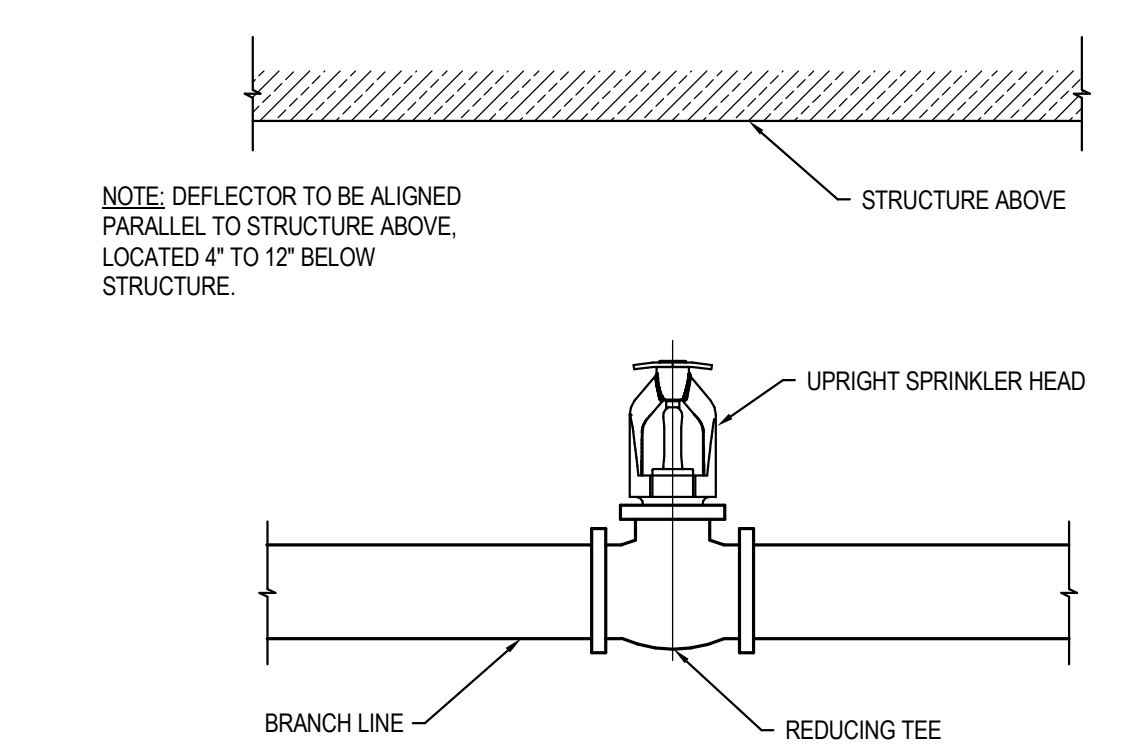
3 DETAIL - SPRINKLER CONNECTION
NTS



2 DETAIL - FIRE PROTECTION SERVICE ENTRANCE
NTS



1 ENLARGED WATER ROOM PLAN - FIRE PROTECTION
1/4" = 1'-0"



4 DETAIL - TYPICAL UPRIGHT SPRINKLER
NTS

REVISION SCHEDULE		
#	DATE	REVISION DESCRIPTION

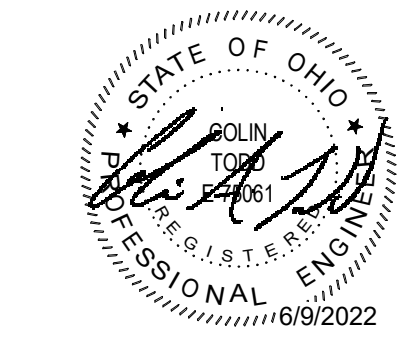
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ISSUE DATE : 06/10/22

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DETAILS - FIRE PROTECTION

FP5.01

ABBREVIATIONS	
NOTE: NOT ALL ABBREVIATIONS MAY BE USED.	
(A)	EXISTING TO BE ABANDONED
(D)	EXISTING TO BE DEMOLISHED
(E)	EXISTING TO REMAIN
(F)	FUTURE
(R)	EXISTING TO BE RELOCATED
AAV	AUTOMATIC AIR VENT
AFF	ABOVE FINISHED FLOOR
AMB	AMBIENT
APD	AIR PRESSURE DROP
A/E	ARCHITECT/ENGINEER
BAS	BUILDING AUTOMATION SYSTEM
BFP	BACKFLOW PREVENTOR
BLDG	BUILDING
BOB	BOTTOM OF BEAM
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BOS	BOTTOM OF STRUCTURE
CL	CENTER LINE
CO	CLEAN OUT
DB	DRY BULB
DIA	DIAMETER
DN	DOWN
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EFF	EFFICIENCY
EG	ETHYLENE GLYCOL
ESP	EXTERNAL STATIC PRESSURE
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
FPI	FINS PER INCH
GTC	GENERAL TRADES CONTRACTOR
ID	INNER DIAMETER
LAT	LEAVING AIR TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MFR	MANUFACTURER
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OD	OUTSIDE DIAMETER
PD	PRESSURE DROP
PRV	PRESSURE REDUCING VALVE
RA	RETURN AIR
REL	RELIEF AIR
SA	SUPPLY AIR
SCC	SENSIBLE COOLING CAPACITY
SP	STATIC PRESSURE
TCC	TOTAL COOLING CAPACITY
TCP	TEMPERATURE CONTROL PANEL
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VFD	VARIABLE FREQUENCY DRIVE
WB	WET BULB
WG	WATER GAUGE
WPD	WATER PRESSURE DROP

SYMBOLS LIST	
NOTE: NOT ALL SYMBOLS MAY BE USED.	
LINE STYLES	DUCTWORK
NEW WORK (VISIBLE)	SUPPLY/O.A. DUCT RISE (SINGLE LINE)
NEW WORK (HIDDEN)	SUPPLY/O.A. DUCT RISE (DOUBLE LINE)
EXISTING WORK (VISIBLE)	SUPPLY/O.A. DUCT DROP (SINGLE LINE)
EXISTING WORK (HIDDEN)	SUPPLY/O.A. DUCT DROP (DOUBLE LINE)
PIPING	SUPPLY/O.A. DUCT DROP (DOUBLE LINE)
HEATING WATER SUPPLY	RETURN/EXHAUST/RELIEF DUCT RISE (SINGLE LINE)
HEATING WATER RETURN	RETURN/EXHAUST/RELIEF DUCT RISE (DOUBLE LINE)
CHILLED WATER SUPPLY	RETURN/EXHAUST/RELIEF DUCT DROP (SINGLE LINE)
CHILLED WATER RETURN	RETURN/EXHAUST/RELIEF DUCT DROP (DOUBLE LINE)
CONDENSER WATER SUPPLY	RETURN/EXHAUST/RELIEF DUCT DROP (SINGLE LINE)
CONDENSER WATER RETURN	RETURN/EXHAUST/RELIEF DUCT DROP (DOUBLE LINE)
COOLING COIL CONDENSATE	RETURN/EXHAUST/RELIEF DUCT DROP (DOUBLE LINE)
REFRIGERANT SUCTION	FLAT OVAL (DROP OR RISE)
REFRIGERANT LIQUID	DOUBLE LINE FLEX DUCT
HIGH PRESSURE STEAM	SINGLE LINE FLEX DUCT
LOW PRESSURE STEAM CONDENSATE	ACCESS DOOR
LOW PRESSURE STEAM	90 DEGREE FITTING (WITH TURNING VANES)
LOW PRESSURE STEAM CONDENSATE	TEE
PUMPED STEAM CONDENSATE	CAP
	REDUCER
	FLOW ARROW
	PUMP
	2-WAY CONTROL VALVE
	3-WAY CONTROL VALVE
	BUTTERFLY VALVE
	BALL VALVE
	CHECK VALVE
	COMBINATION BALANCE/SHUT-OFF VALVE
	TRIPLE DUTY VALVE
	GATE VALVE
	PLUG VALVE
	GLOBE VALVE
	PRESSURE RELIEF VALVE
	PRESSURE REDUCING VALVE
	STRAINER
	DRAIN VALVE WITH HOSE END ADAPTER
	UNION
	AUTOMATIC AIR VENT
	MANUAL AIR VENT
	THERMOMETER
	PRESSURE GAUGE (WITH STOPCOCK)
	PRESSURE/TEMPERATURE TEST PLUG
	FLOW SENSOR
	PRESSURE SENSOR
	TEMPERATURE SENSOR
	STEAM TRAP
	METER
	FLEXIBLE CONNECTION
	HEAT TRACED PIPE
	PIPE ANCHOR
	PIPE GUIDE
	EXPANSION JOINT
	DIFFUSER
	SIDEWALL GRILLE/REGISTER/DIFFUSER
	GRILLE/REGISTER
	VOLUME DAMPER
	FIRE DAMPER WITH ACCESS DOOR
	SMOKE DAMPER WITH ACCESS DOOR
	COMB. FIRE/SMOKE DAMPER WITH ACCESS DOOR
	BACKDRAFT DAMPER
	MOTORIZED DAMPER WITH ACCESS DOOR
	AIR FLOW ARROW
	THERMOSTAT (MOUNT 48" AFF TO CENTER UNO)
	HUMIDISTAT (MOUNT 48" AFF TO CENTER UNO)
	MISCELLANEOUS SENSOR
	CO SENSOR
	CO ₂ SENSOR
	CONNECT TO EXISTING
	TERMINAL BOX

- GENERAL NOTES:**
- THESE NOTES APPLY TO ALL DIVISION 23 DRAWINGS.
 - ALL HVAC WORK SHALL BE PERFORMED IN ACCORDANCE WITH LOCAL, STATE, AND NATIONAL CODES.
 - CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, FEES, AND PERMITS FOR A COMPLETE INSTALLATION. CONTRACTOR SHALL COMPLY WITH ALL GENERAL CONDITIONS LISTED ON THE ARCHITECTURAL DRAWINGS.
 - IN CASE OF DIFFERENCE BETWEEN BUILDING CODES, SPECIFICATIONS, INDUSTRY STANDARDS, UTILITY COMPANY REGULATIONS, FIRE INSURANCE CARRIER'S REQUIREMENTS, AND CONTRACT DOCUMENTS, THE MOST STRINGENT SHALL GOVERN. PROMPTLY NOTIFY THE ENGINEER IN WRITING OF ANY SUCH DIFFERENCE.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE FUNCTIONALITY OF THE HVAC SYSTEM INCLUDING ELECTRICAL AND CONTROL ITEMS ASSOCIATED WITH THE MECHANICAL EQUIPMENT.
 - THE DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED TO DETERMINE EXACT LOCATION OF MECHANICAL, PLUMBING, AND EQUIPMENT. FOR PURPOSES OF CLEARNESS AND LEGIBILITY, SIZE AND LOCATION OF EQUIPMENT ARE SHOWN TO SCALE WHEREVER POSSIBLE.
 - IN THE EVENT OF A CONFLICT OCCURS BETWEEN THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND THE ACTUAL FIELD CONDITIONS THE CONTRACTOR SHALL ADVISE ENGINEER IN WRITING PRIOR TO PROCEEDING WITH WORK. THE CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH RESTOCKING, RELOCATING OF EQUIPMENT, SYSTEMS, PIPING, ETC. FROM FAILURE TO PROPERLY COORDINATE INSTALLATION AND NOT ADVISING IN WRITING OF CONFLICT PRIOR TO PURCHASE AND/OR INSTALLATION.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR START-UP OF ALL EQUIPMENT AND SYSTEMS INSTALLED, MODIFIED, OR REVISED BY THIS WORK PER MANUFACTURER'S REQUIREMENTS AND/OR CONTRACT DOCUMENTS.
 - AT THE END OF CONSTRUCTION, CONTRACTOR SHALL PERFORM A COMPLETE AIR SYSTEM FLOW BALANCE FOR ALL EQUIPMENT AND SYSTEMS SHOWN, SCHEDULED OR OTHERWISE IDENTIFIED. CONTRACTOR SHALL INCLUDE TIME IN CONSTRUCTION SCHEDULE TO FULLY TEST AND BALANCE SYSTEMS PRIOR TO OWNER OCCUPANCY TO ASSURE ADJUSTMENTS CAN BE MADE TO MITIGATE COMFORT ISSUES FOR OCCUPANTS POST CONSTRUCTION.
 - UPON COMPLETION OF HVAC SYSTEMS, THE MECHANICAL CONTRACTOR SHALL INSTRUCT THE OWNER IN THE COMPLETE OPERATION OF THE SYSTEMS.
 - PRIOR TO AND DURING CONSTRUCTION, CONTRACTOR SHALL FULLY PROTECT THE AIR HANDLING AND DUCTWORK SYSTEMS. CONTRACTOR SHALL PROTECT EACH RETURN AIR GRILLE OPENING AND RETURN AIR DUCT WITH MINIMUM MERV 8 FILTER MEDIA. AIR HANDLING EQUIPMENT AND DUCTS COVERED WITH DRYWALL/CONSTRUCTION DUST SHALL BE CLEANED AT CONTRACTOR EXPENSE.
 - THE CONTRACTOR SHALL ENSURE THAT ALL MECHANICAL EQUIPMENT, DUCTWORK, PIPING, VALVES, AND ACCESS LOCATIONS HAVE CLEARANCES IN ACCORDANCE TO THE DRAWINGS AND THE MANUFACTURER'S REQUIREMENTS FOR FULL ACCESSIBILITY AND OPERATION OF MECHANICAL SYSTEMS.
 - THE CONTRACTOR SHALL PROVIDE ACCESS PANELS, IN WALLS OR CEILING, OR ACCESS DOORS, IN DUCTWORK, AS INDICATED OR REQUIRED FOR ACCESS TO CONCEALED MECHANICAL EQUIPMENT OR DEVICES.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION AND SHALL REPAIR ADJACENT NEW SURFACES, AREAS, AND PROPERTY THAT MAY BE DAMAGED AS A RESULT OF NEW WORK.
 - COORDINATE THE LOCATION OF ALL UTILITY CONNECTION POINTS FOR EQUIPMENT WITH OTHER TRADES. COORDINATION INCLUDES ALLOWING PROPER CLEARANCE FOR ELECTRICAL DEVICES FURNISHED WITH EQUIPMENT INCLUDING CONTROLS, DISCONNECTS, ETC.
 - REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF CEILING DEVICES.
 - COORDINATE CLOSELY WITH OTHER TRADES IN LOCATING AND INSTALLING ALL SYSTEMS ABOVE SUSPENDED CEILINGS. SPECIFICALLY, COORDINATE LAYOUT WITH ELECTRICAL AND PLUMBING CONTRACTORS TO ALLOW SUFFICIENT ROOM FOR RECESSED LIGHT FIXTURES, FIRE SPRINKLER, AND PLUMBING VENTS WHERE APPLICABLE.
 - ANNULAR SPACE OF PIPE, CONDUIT, DUCT, AND OTHER SIMILAR PENETRATIONS OF FIRE RATED ASSEMBLIES SHALL BE FIRESTOPPED. IN ADDITION, PENETRATIONS THRU 0-HOUR RATED FLOORS SHALL ALSO BE FIRESTOPPED TO RETARD PASSAGE OF FIRE AND SMOKE. REFER TO FIRESTOPPING SPECIFICATION. REFER TO ARCHITECTURAL DRAWINGS FOR CONSTRUCTION, LAYOUT, AND FIRE RATINGS OF FLOORS, WALLS, PARTITIONS, AND OTHER BUILDING ELEMENTS.

- THE CONTRACTOR SHALL PROVIDE ALL CUTTING, PATCHING, FINISHING, AND PENETRATIONS REQUIRED BY THE INSTALLATIONS. ALL FLOOR PENETRATIONS SHALL BE PATCHED AND SEALED TO BE WATERTIGHT. PROVIDE CHROME ESCUTCHEON FOR EXPOSED PIPING PENETRATIONS. CUTTING OF BUILDING CONSTRUCTION MATERIALS SHALL CONFORM TO THE CHARACTERISTICS OF THE PARTICULAR MATERIAL INVOLVED AND SHALL NOT CREATE ANY STRUCTURAL WEAKNESS OR UNSIGHTLY APPEARANCE.
- PROVIDE ROOM TEMPERATURE THERMOSTATS FOR ALL UNITS. PREFERRED LOCATIONS ARE SHOWN ON THE PLANS. COORDINATE LOCATION OF THERMOSTATS AND OTHER WALL MOUNTED DEVICES WITH FURNITURE, WALL FRAMING, ELECTRICAL OUTLETS AND DEVICES, AND TECHNOLOGY OUTLETS AND DEVICES PRIOR TO ROUGH-IN.
- ALL ROOF AND DECK PENETRATIONS SHALL BE COMPLETED DONE BY THE GENERAL TRADES CONTRACTOR. COORDINATE EXACT SIZE AND LOCATION WITH ARCHITECT AND STRUCTURAL ENGINEER. COORDINATE SCOPE OF WORK WITH GENERAL CONTRACTOR PRIOR TO BIDDING.
- COORDINATE EXACT LOCATION OF DIFFUSERS, GRILLES AND REGISTERS WITH AREA SMOKE DETECTORS, LIGHTS, AND ELECTRICAL DEVICES. AIR DEVICES SHALL NOT BE CLOSER THAN 3 FEET FROM AN AREA SMOKE DETECTOR.
- BRANCH DUCT TO DIFFUSERS SHALL BE SAME SIZE AS DIFFUSER NECK UNLESS NOTED OTHERWISE. FLEXIBLE DUCT CONNECTION TO THE DIFFUSER SHALL BE NO MORE THAN 5 FEET IN LENGTH. FLEXIBLE DUCT SHALL NOT BE FOR ELBOW TO DIFFUSER WITH A FLEXFLOW SUPPORT ELBOW.
- PROVIDE VOLUME DAMPERS AS SHOWN ON THE DRAWINGS, AS REQUIRED BY THE SPECIFICATIONS, AND SHOWN IN TYPICAL DETAILS. LOCATE VOLUME DAMPERS IN ACCESSIBLE LOCATIONS. A VOLUME DAMPER SHALL BE PROVIDED FOR EACH DIFFUSER AND GRILLE IN ORDER TO BALANCE EACH AIR DEVICE INDEPENDENTLY PER SPECIFIED CFM STATED ON DRAWINGS.
- DUCTWORK DIMENSIONS SHOWN ON DRAWINGS ARE INSIDE CLEAR, UNLESS NOTED OTHERWISE.
- PROVIDE STRAIGHT INLET AND OUTLET DUCTS PER THE LENGTH THE EQUIPMENT MANUFACTURER RECOMMENDS. FAN INLETS SHALL BE MINIMUM 3 DUCT DIAMETERS OF STRAIGHT DUCT. INSTALL AND SUPPORT MECHANICAL EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE FLEXIBLE CONNECTIONS AND VIBRATION ISOLATION FOR VIBRATING EQUIPMENT UNLESS NOTED OTHERWISE.
- INSTALL AIRFOIL TURNING VANES IN ALL 90 DEGREE ELBOWS EXCEPT TRANSFER DUCTS AND OPEN RETURN AIR BOOTS.
- CONTRACTOR SHALL COMPLY WITH SMACNA "HVAC DUCT CONSTRUCTION AND STANDARDS" AND OTHER APPLICABLE STANDARDS INCLUDED IN THE SPECIFICATIONS FOR THE CONSTRUCTION AND SUPPORT OF DUCTWORK, UNLESS OTHERWISE NOTED
- ALL DUCTS SHALL BE RUN ABOVE CEILING. IN GENERAL, KEEP DUCT MAINS NEXT TO UNDERSIDE OF STRUCTURE.
- CHANGES IN HVAC DUCT AND PIPE ELEVATIONS SHALL BE PROVIDED AND BE COORDINATED WITH OTHER SYSTEMS INCLUDING, BUT NOT LIMITED, TO PLUMBING, FIRE PROTECTION, ELECTRICAL, AND BUILDING ELEMENTS SYSTEMS. OFFSET DUCTS INTO JOIST SPACE FOR WHERE SPACE ABOVE CEILING IS NOT SUFFICIENT FOR DUCTS TO CROSS OTHER DUCTS OR WORK OF OTHER CONTRACTORS.
- DUCTWORK AND PIPING ON DRAWINGS DOES NOT INDICATE ALL REQUIRED OFFSETS AND FITTINGS. INCLUDE THESE OFFSETS AND FITTINGS TO COORDINATE WITH OTHER CONTRACTORS.
- SECURELY FASTEN ALL DUCTWORK WITHIN STRUCTURES TO THE BUILDING CONSTRUCTION BY MEANS OF HANGERS, SUPPORTS, GUIDES, ANCHORS, AND SWAY BRACES TO MAINTAIN DUCTWORK ALIGNMENT, TO PREVENT SAGGING, AND TO PREVENT NOISE AND EXCESSIVE STRAIN ON DUCTWORK DUE TO MOVEMENT UNDER OPERATING CONDITIONS. SUPPORTS FOR ALL DUCTWORK SHALL BE IN ACCORDANCE WITH LATEST ANSI AND SMACNA STANDARDS.
- CONTRACTOR SHALL PROTECT THE DUCTWORK TO PREVENT ENTRY OF DIRT AND ANY OTHER FOREIGN MATERIAL DURING THE INSTALLATION.
- COLOR CODE AND LABEL DUCTWORK IN ACCORDANCE WITH SPECIFICATIONS.
- PROVIDE FLEXIBLE CONNECTIONS FOR ALL VIBRATING EQUIPMENT.
- SEAL ALL DUCT PENETRATIONS THROUGH SMOKE PARTITIONS WITH AN APPROVED MATERIAL TO LIMIT THE FREE PASSAGE OF SMOKE. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF RATED WALLS AND ADDITIONAL INFORMATION.
- CONTRACTOR SHALL PROVIDE A COMPLETE HVAC INVENTORY TO INCLUDE: MAKE, MODEL, SERIAL NUMBER, LOCATION OR AREA SERVICING, AND AIR FILTER SIZE WITH SUGGESTED MERV # PRIOR TO OPENING THE BUILDING TO THE PUBLIC.
- COORDINATE CLOSELY WITH ALL OTHER TRADE TO ENSURE SERVICEABLE ACCESS TO ALL CONTROLS, MECHANICALS, AND FILTERS.

REVISION SCHEDULE		
#	DATE	REVISION DESCRIPTION

PROJECT NAME :

CML REYNOLDSBURG
 1402 BRICE ROAD
 REYNOLDSBURG, OHIO 43068

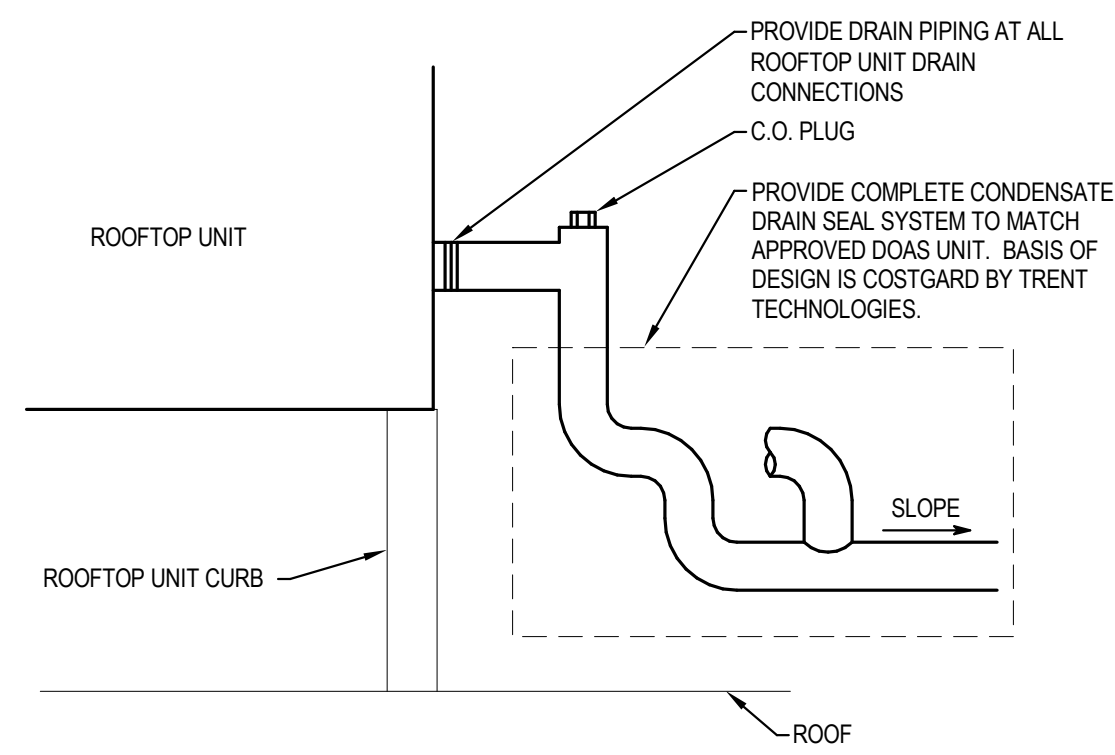
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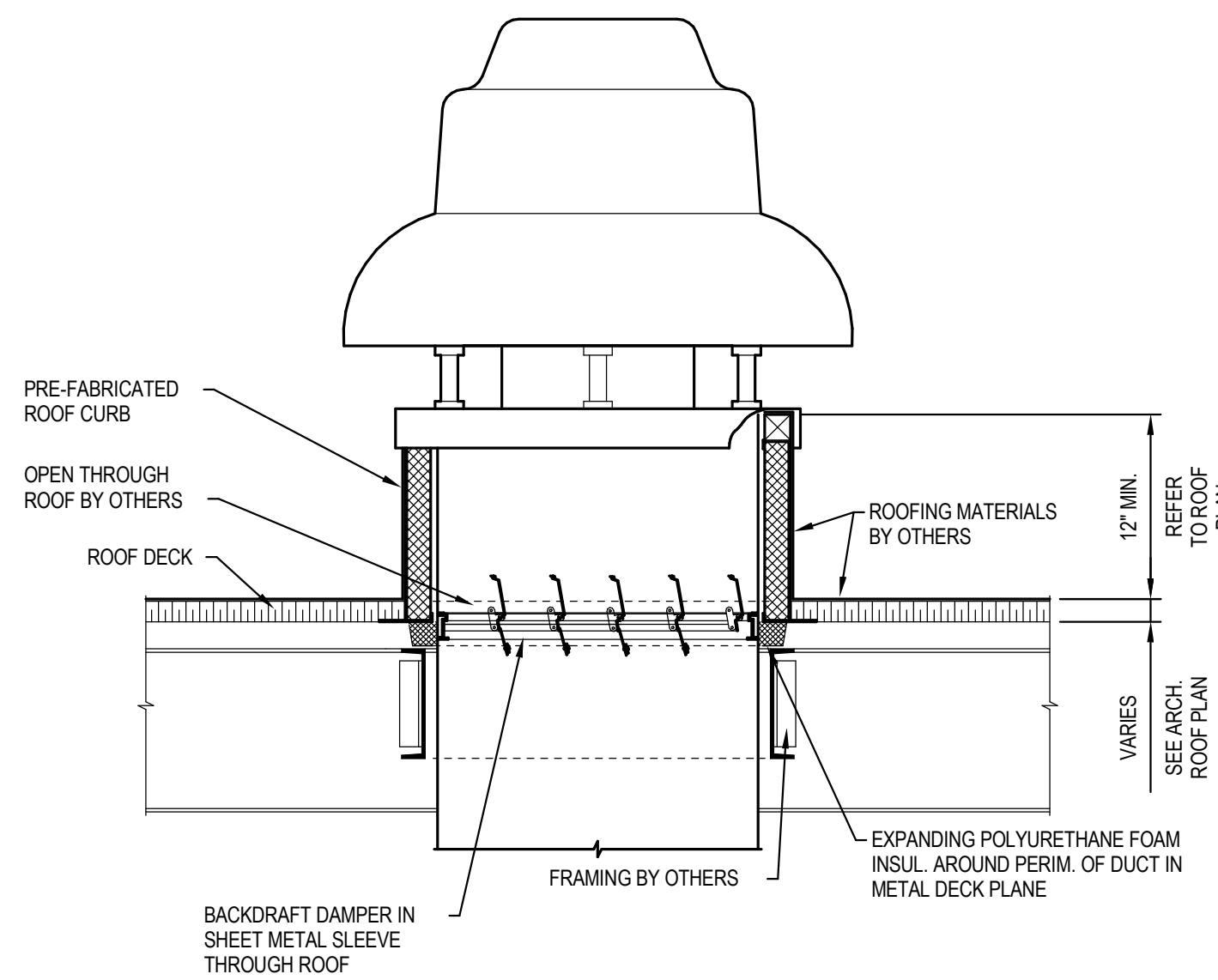
GENERAL INFORMATION - MECHANICAL

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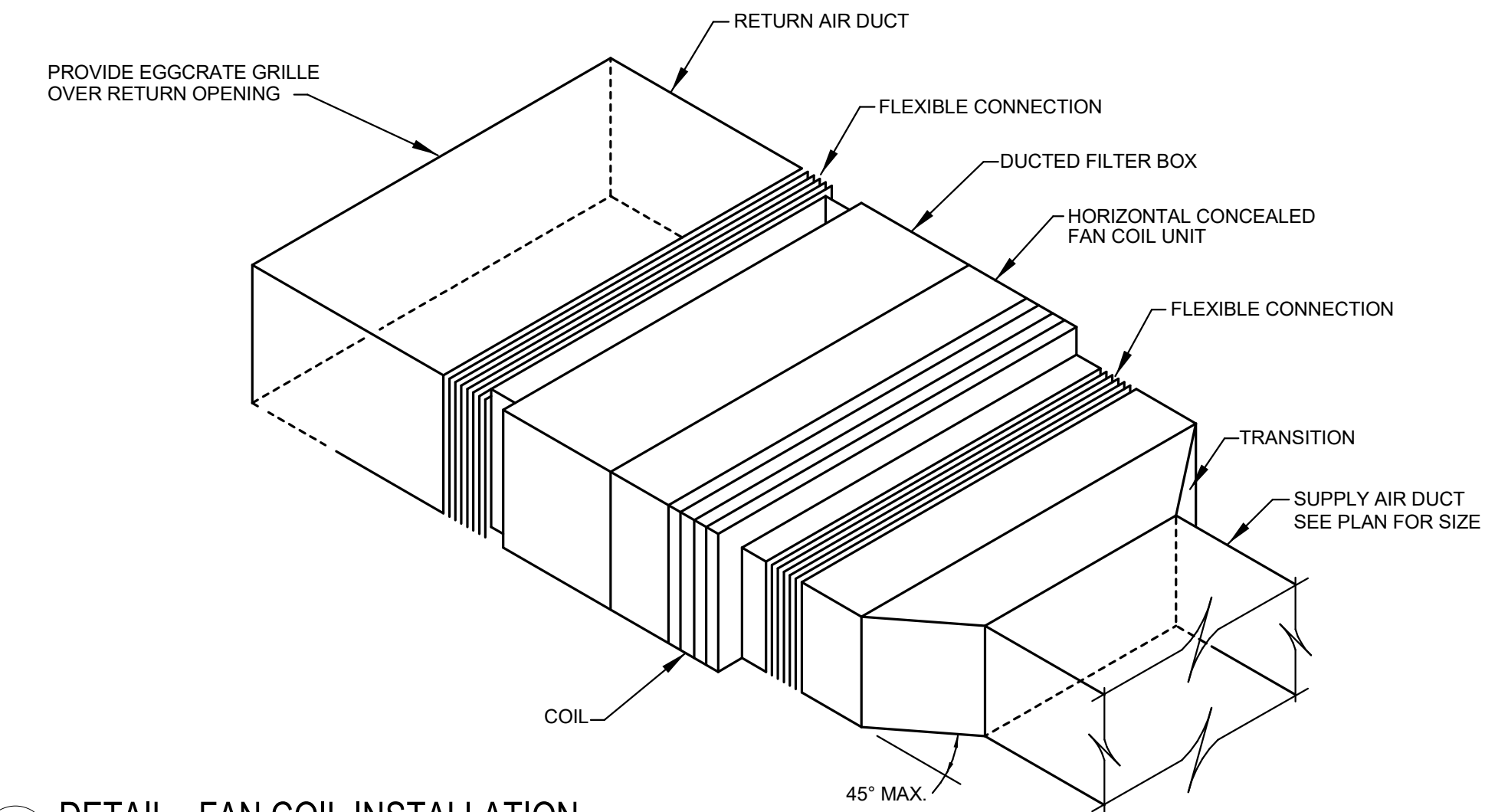
1 DETAIL - ROOFTOP UNIT CONDENSATE DRAIN PIPING

NTS



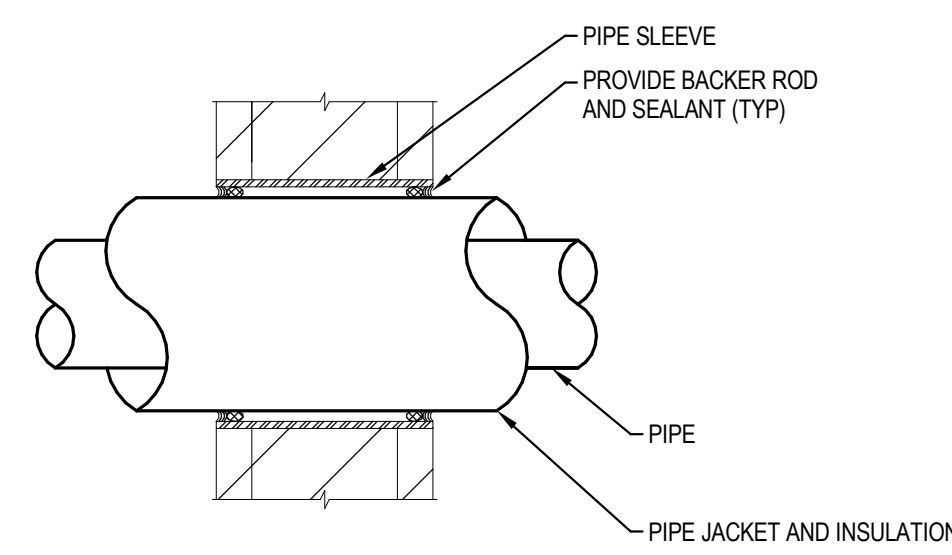
2 DETAIL - ROOF MOUNTED EXHAUST FAN

NTS



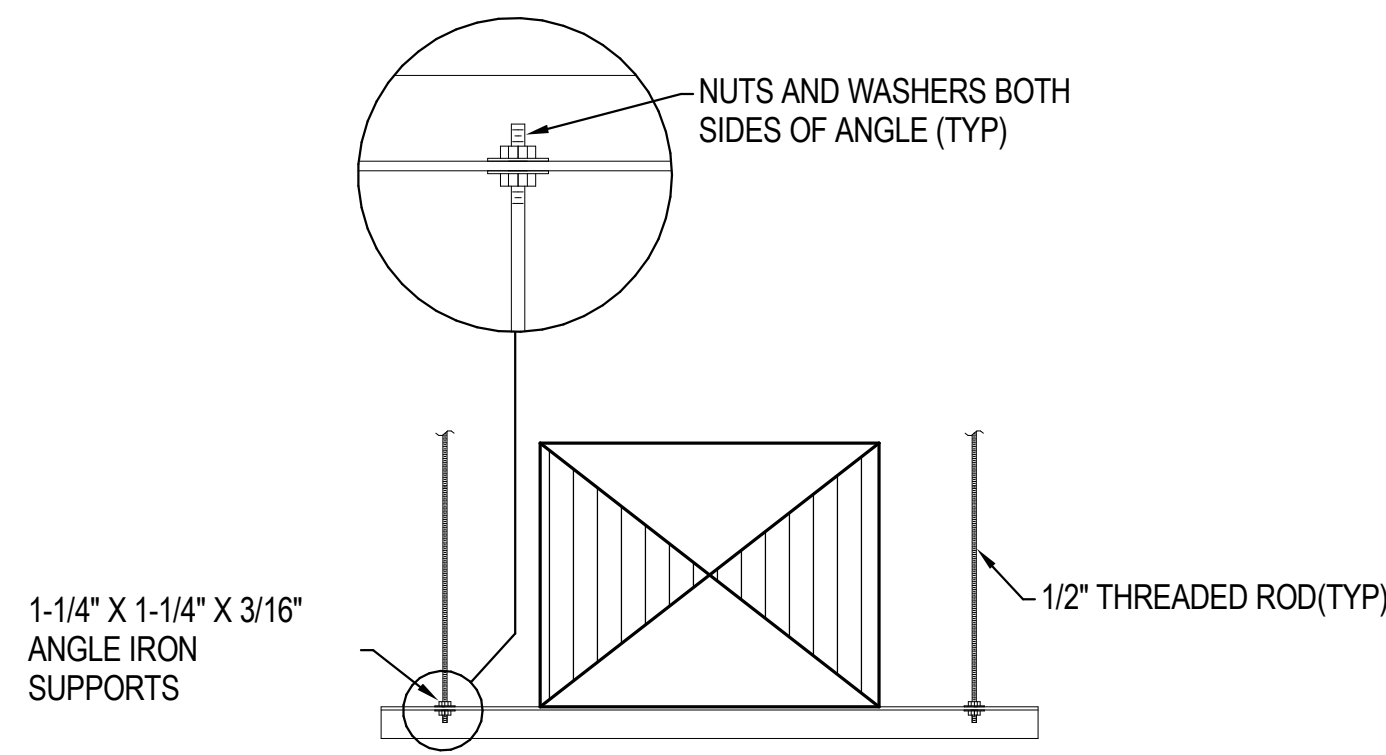
3 DETAIL - FAN COIL INSTALLATION

NTS



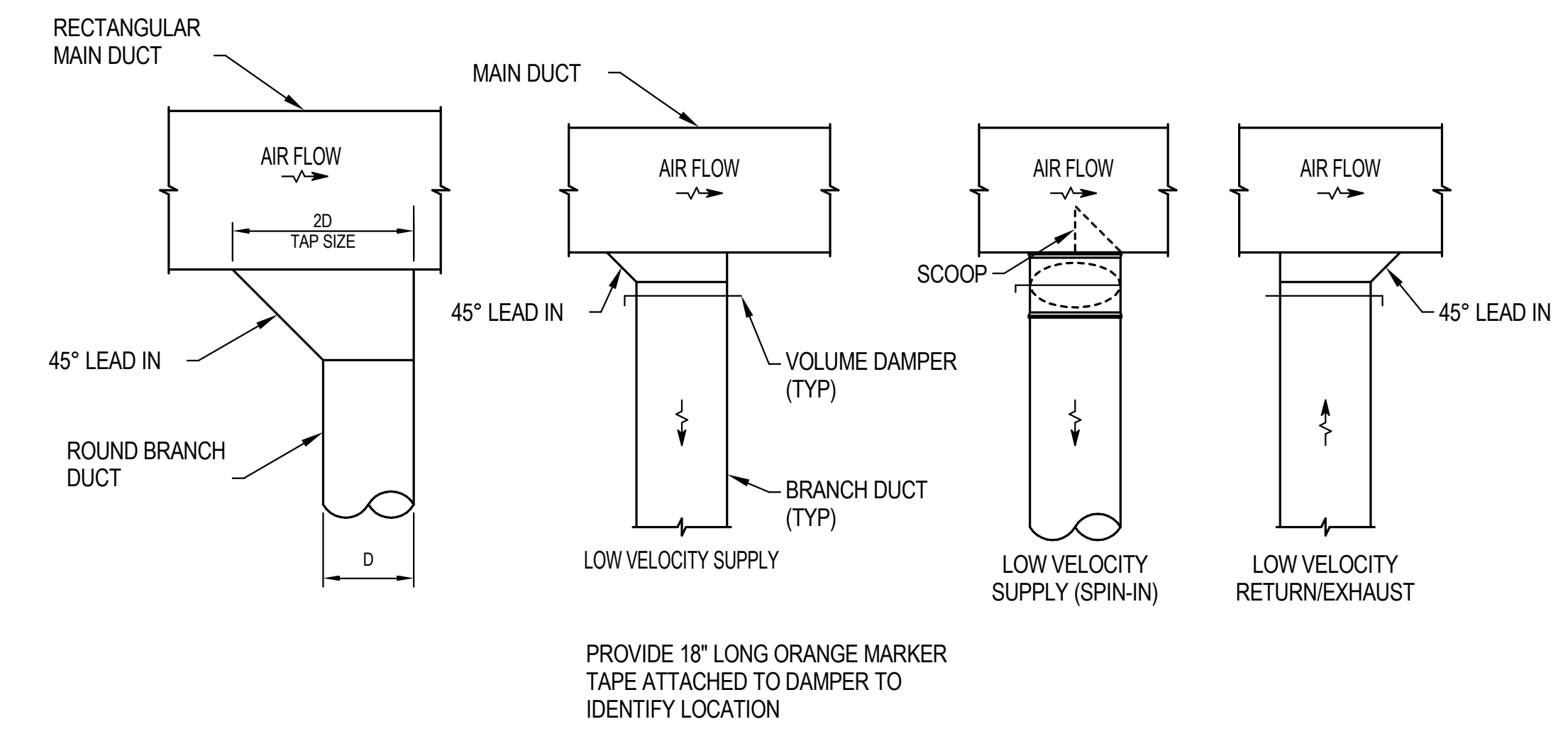
4 DETAIL - PIPING WALL PENETRATION

NTS



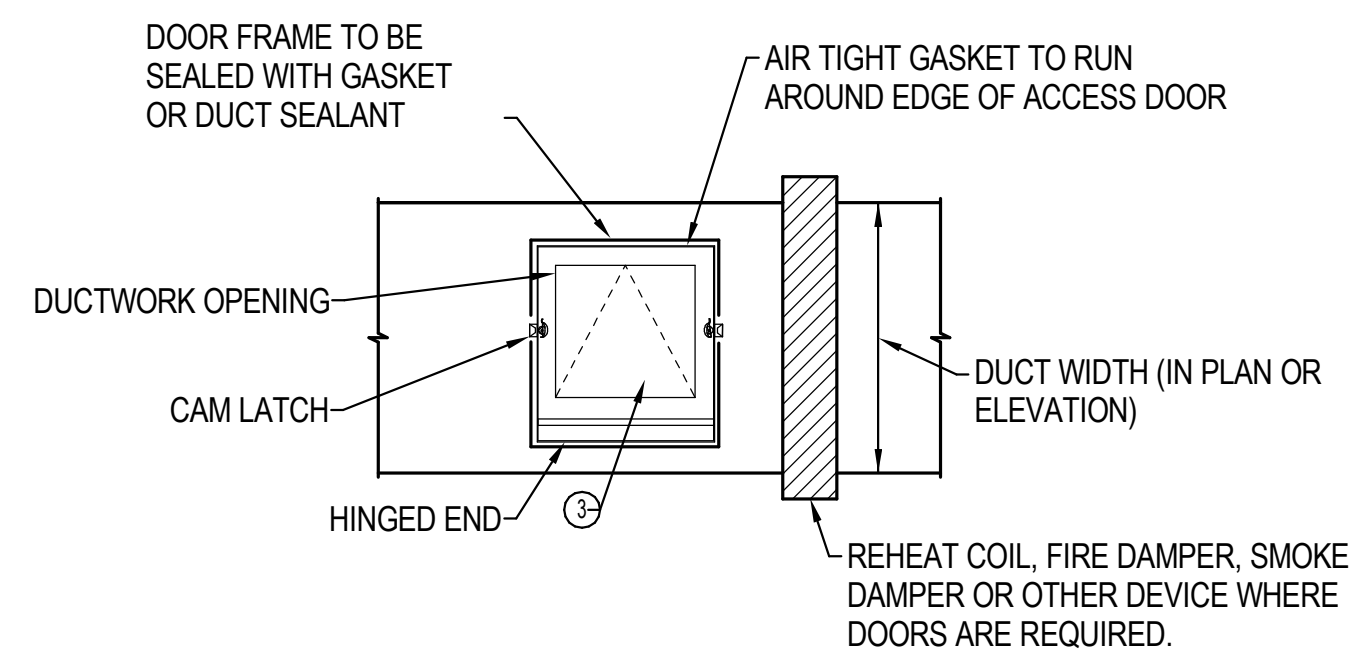
5 DETAIL - DUCTWORK HANGER

NTS



6 DETAIL - TYPICAL DUCT CONNECTIONS (LOW VELOCITY SUPPLY)

NTS

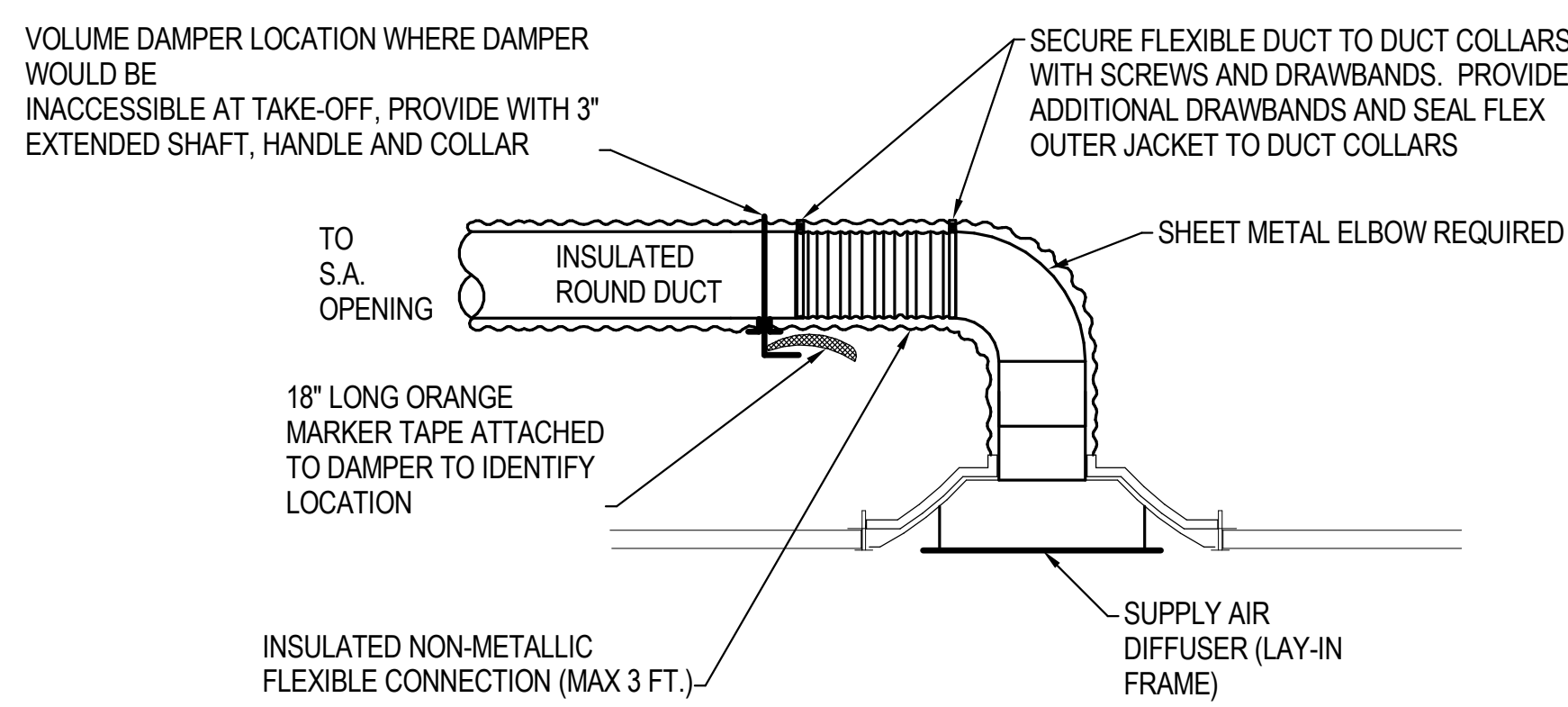


ACCESS DOOR SIZE SCHEDULE	
DUCT WIDTH	ACCESS DOOR SIZE
6" TO 10"	6" x 6" MINIMUM
10" TO 12"	8" x 8" MINIMUM
12" TO 21"	12" x 12" MINIMUM ①
21" & ABOVE	18" x 18" MINIMUM ②

- ① ACCESS DOORS TO 16"x16" WHERE DUCT SIZE AND SPACES ALLOWS
- ② FOUR CAM LATCHES ARE REQUIRED
- ③ DOORS TO BE INSTALLED ON SIDE OR BOTTOM OF DUCT WITH BEST ACCESS

7 DETAIL - DUCT ACCESS DOOR

NTS



8 DETAIL - DIFFUSER MOUNTING (SUPPLY DUCT CLOSE TO CEILING)

NTS

REVISION SCHEDULE		
#	DATE	REVISION DESCRIPTION

PROJECT NAME :

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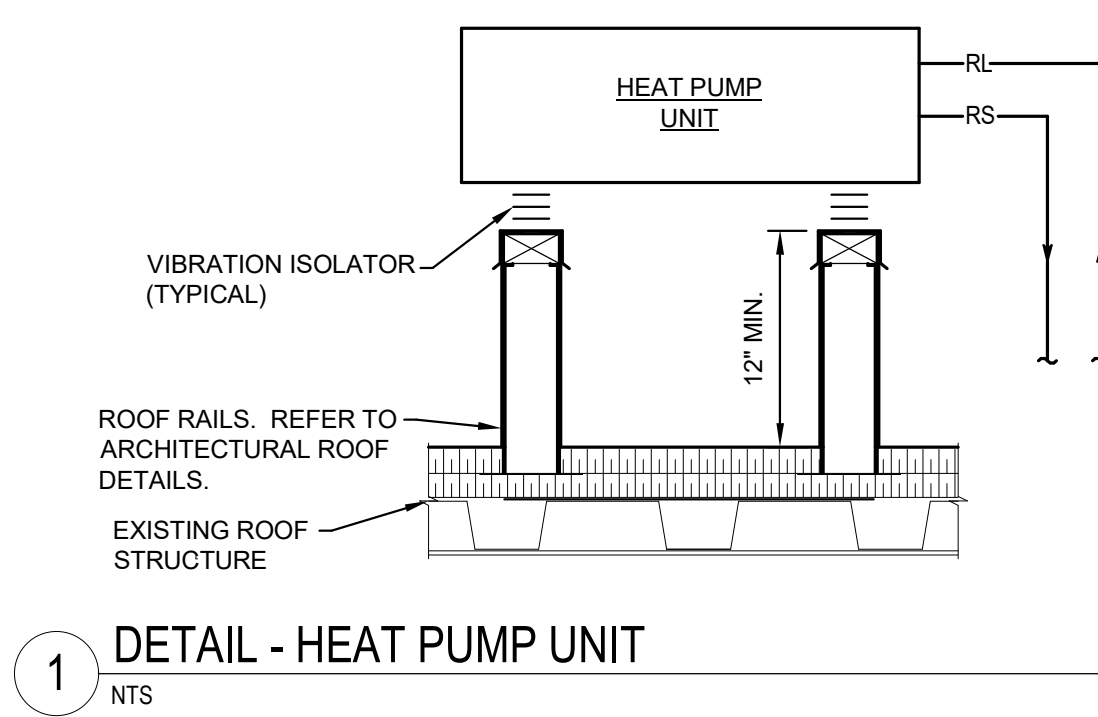
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Columbus, Ohio 43215 | Fax: (614) 486-4082

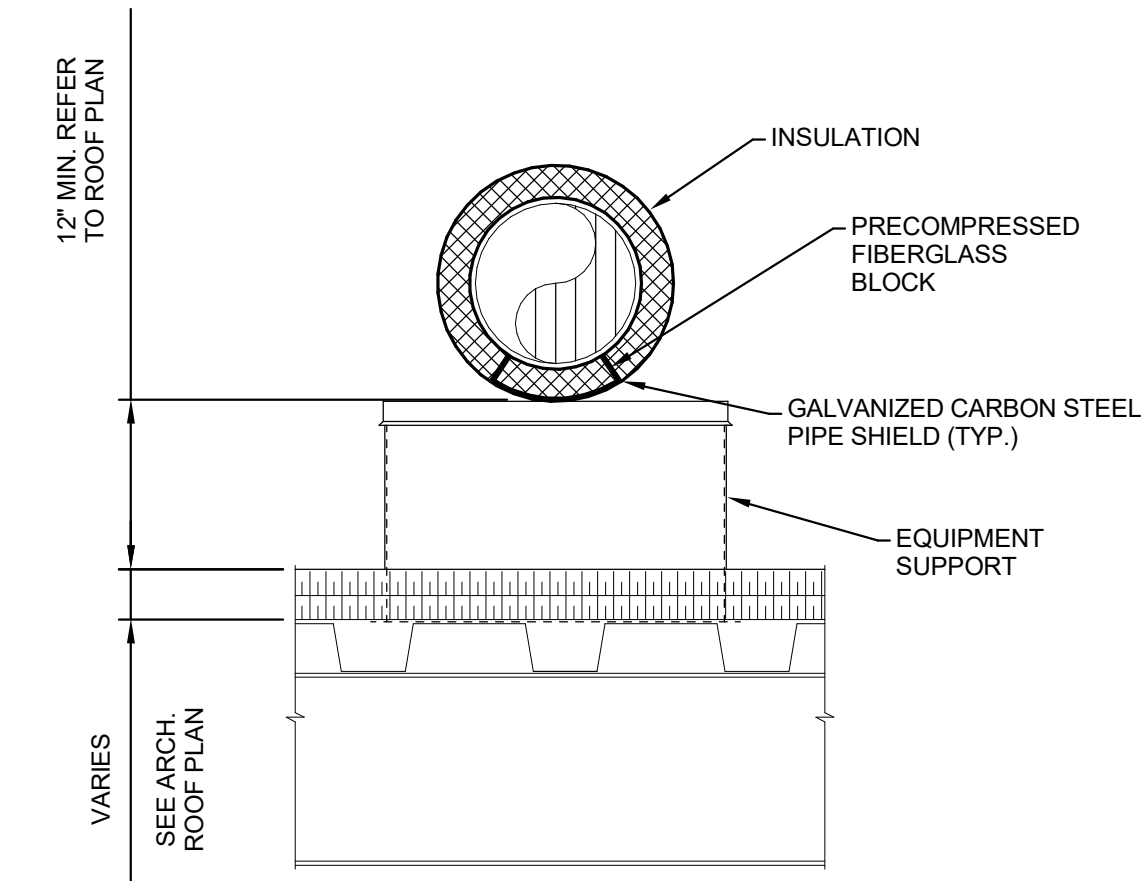


DETAILS - MECHANICAL

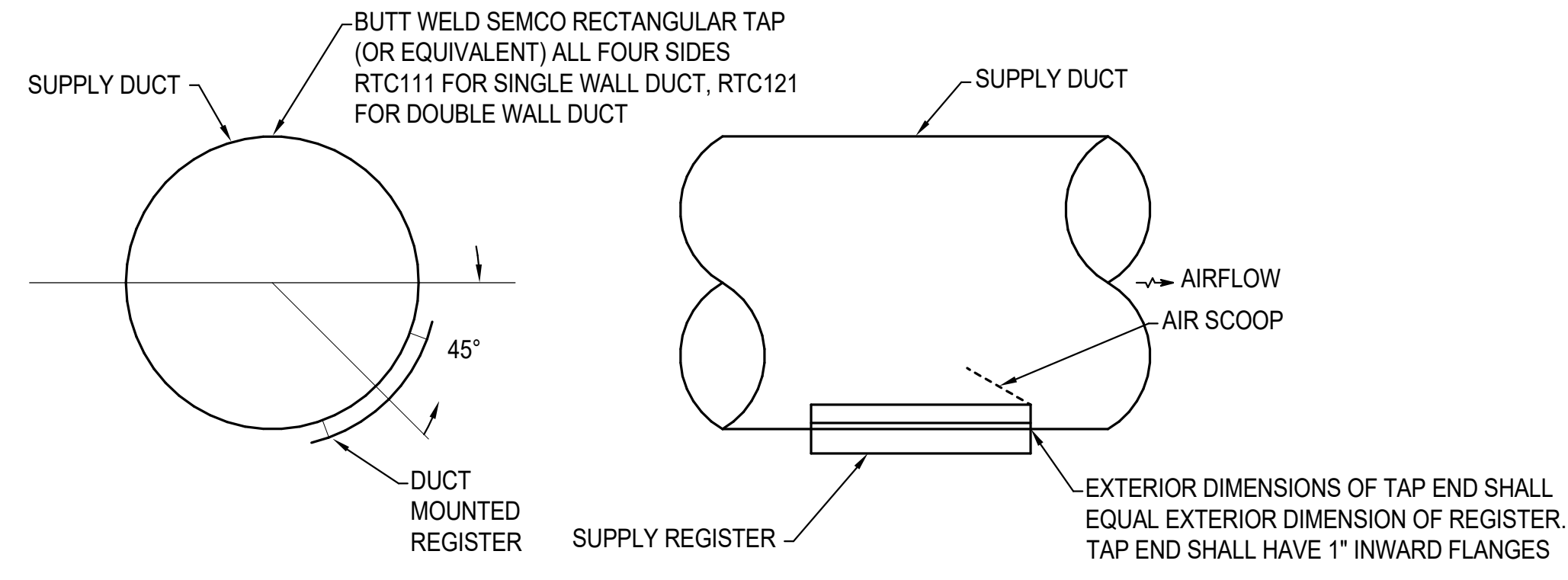
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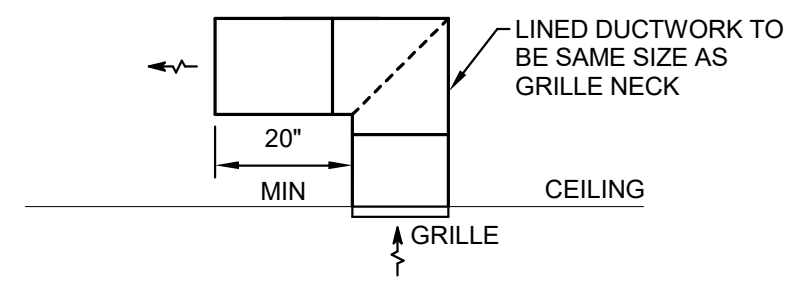
1 DETAIL - HEAT PUMP UNIT
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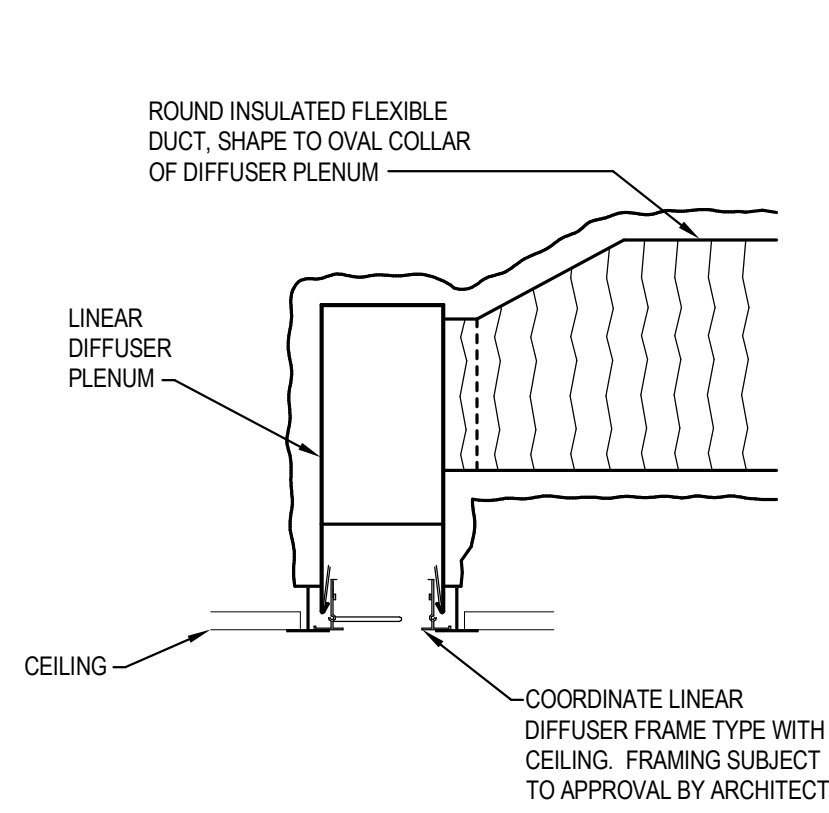
2 DETAIL - PIPE SUPPORT ON ROOF
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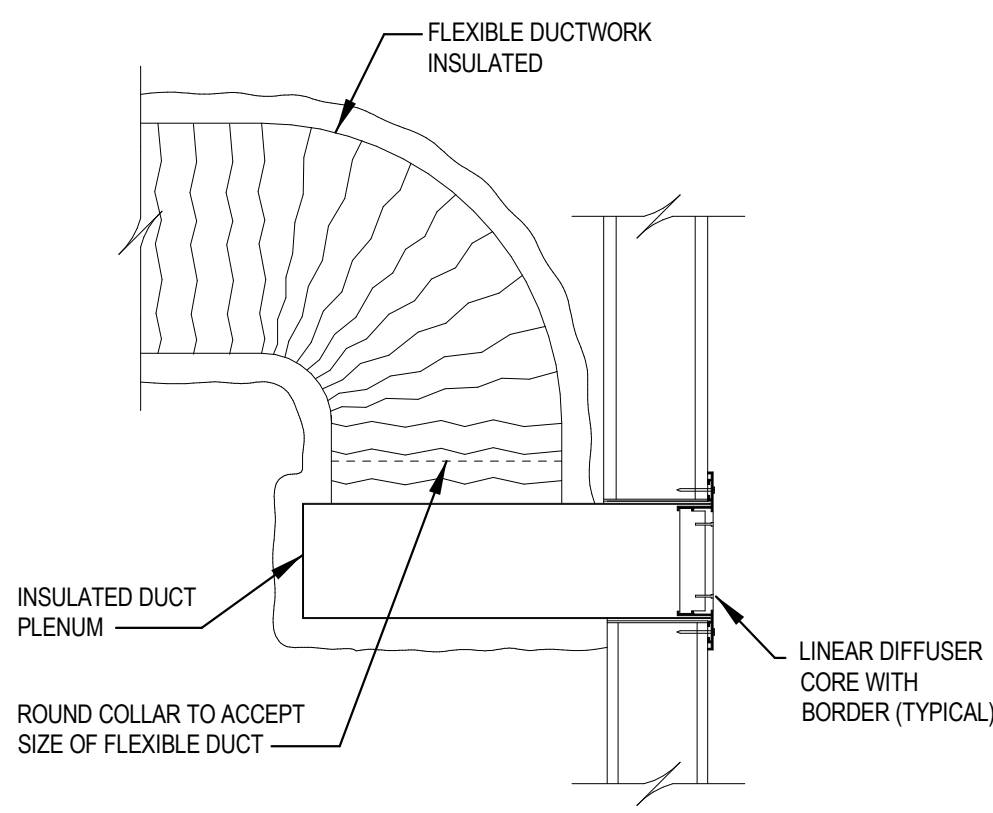
3 DETAIL - DUCT MOUNTED DIFFUSER
NTS



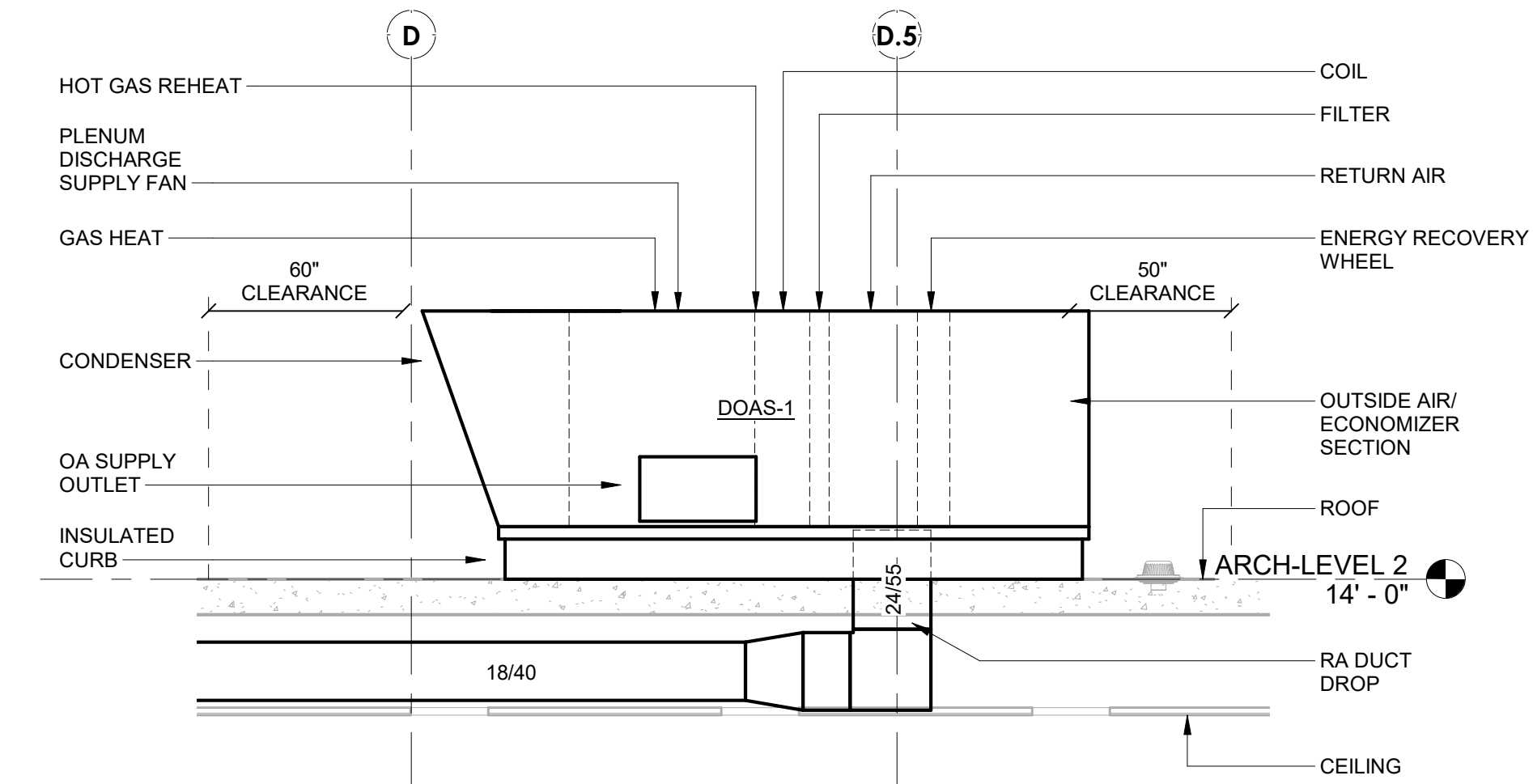
4 DETAIL - RETURN-TRANSFER AIR BOOT
NTS



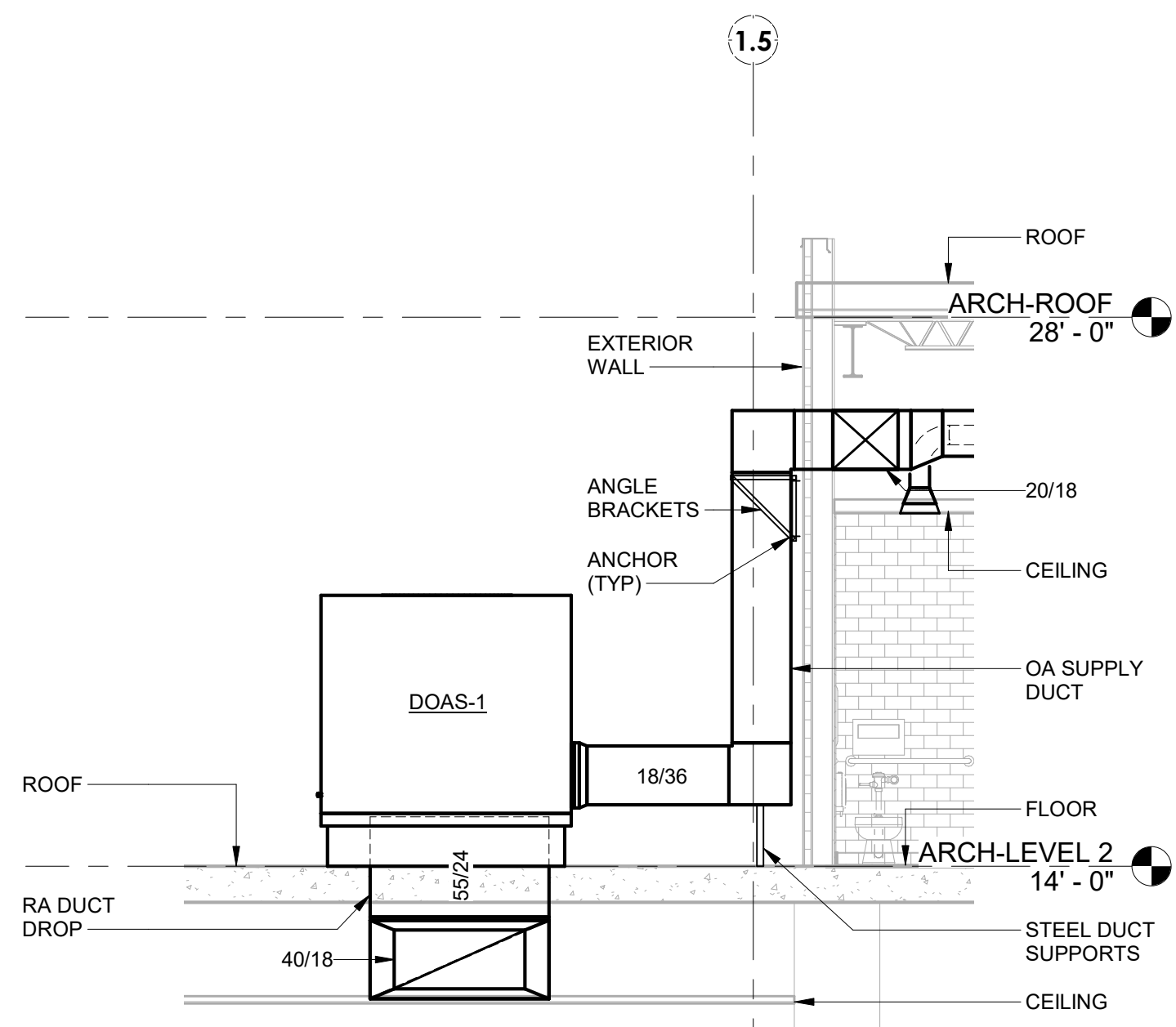
5 DETAIL - LINEAR DIFFUSER
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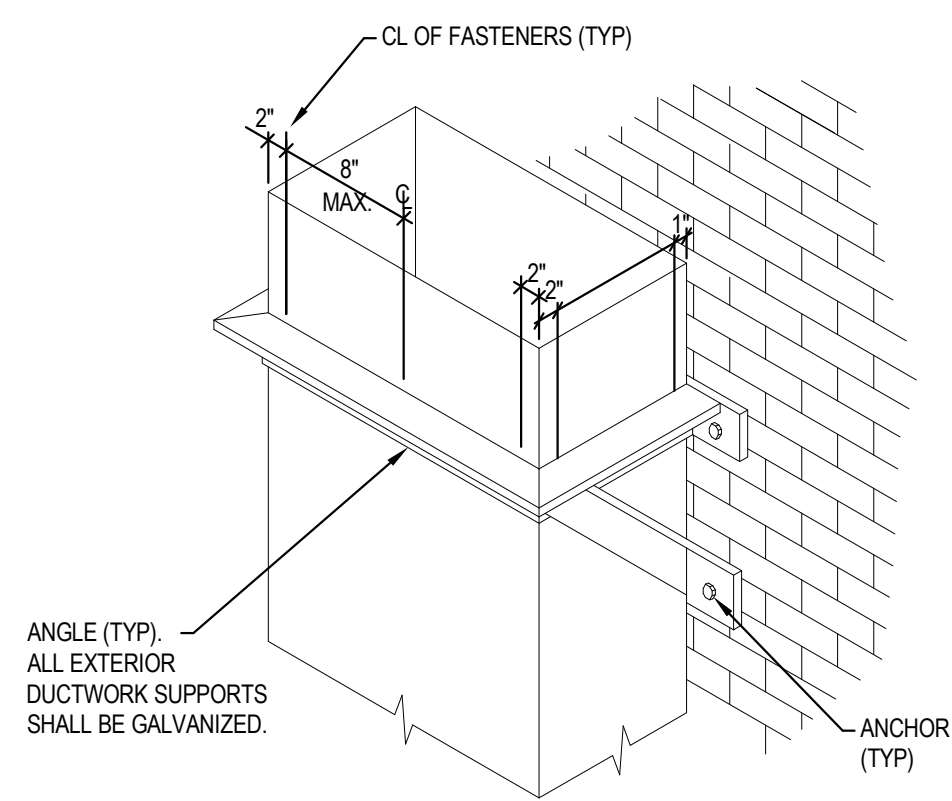
6 DETAIL - SIDEWALL LINEAR DIFFUSER
NTS



7 DETAIL - ROOFTOP DOAS UNIT
1/4\"/>



8 DETAIL - DOAS UNIT DUCTWORK
1/4\"/>



9 DETAIL - VERTICAL DUCT WALL SUPPORTS
NTS

ANGLE BRACKET SIZING	
DUCT CROSS SECTIONAL AREA EQUAL TO OR LESS THAN 650 SQ. IN.	1" x 1" x 1/8"
DUCT CROSS SECTIONAL AREA GREATER THAN 650 SQ. IN.	1-1/4" x 1-1/4" x 1/8"

- NOTES:
- BRACKETS ARE SIZED FOR 12 FEET OF DUCT MAXIMUM.
 - LOCATE DUCTS AGAINST WALL OR MAXIMUM 2" AWAY FROM WALL.
 - EACH WALL ANCHOR SHALL SATISFY THE FOLLOWING CRITERIA UNLESS OTHER ANALYSIS IS MADE:
 - TENSILE LOAD = 38 x DUCT WEIGHT; SAFETY FACTOR 4.
 - SHEAR LOAD = 12 x DUCT WEIGHT; SAFETY FACTOR 4.

REVISION SCHEDULE		
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CML REYNOLDSBURG
1402 BRICE ROAD
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DETAILS - MECHANICAL

M5.02

DEDICATED OUTDOOR AIR UNIT SCHEDULE
EQUIPMENT BASED ON DAKIN UNLESS NOTED OTHERWISE

UNIT DATA				SUPPLY FAN DATA				EXHAUST FAN DATA				FILTER DATA															
TAG	LOCATION	MODEL	CFM	T.S.P. (IN W.G.)	E.S.P. (IN W.G.)	WHEEL TYPE	HP	DRIVE	CFM	E.S.P. (IN W.G.)	WHEEL TYPE	HP	DRIVE	DESCRIPTION	TOTAL	THICKNESS (IN)	SIZE (IN)	MERV	FACE VEL (FPM)	A.P.D. (IN W.G.)	DESCRIPTION	TOTAL	THICKNESS (IN)	SIZE (IN)	MERV	FACE VEL (FPM)	A.P.D. (IN W.G.)
DOAS-1	ROOF	DPS020A	6,000	4.2	1.25	SWSI AF	10.0	DIRECT	4,000	1.25	SWSI AF	4.0 EA (QTY OF 2)	DIRECT	ENERGY RECOVERY OUTDOOR ENERGY RECOVERY EXHAUST	3	2	20x25	8	576.9	0.52	FINAL FILTER	9	2	18x24	8	222.2	0.09

ENERGY RECOVERY WHEEL DATA				COOLING COIL DATA				HEATING				HOT GAS RE-HEAT HEAT COIL DATA				ELECTRICAL DATA				UNIT WEIGHT (LB)	CURB WEIGHT (LB)	NOTES																		
SEASON	AIRFLOW (SUPPLY/EXH)	DB TEMP (F)	WB TEMP (F)	WHEEL LEAVING TEMP (F)	EFFECTIVENESS	A.P.D. (IN W.G.)	FLA	TOTAL MBH	SENSIBLE MBH	REFRIG TYPE	A.P.D. IN W.G.	E.A.T. (F)	W.B.	D.B.	W.B.	MAX FACE VEL (FPM)	ROWS	FINS PER IN.	CFM	MBH (INPUT/OUTPUT)	A.P.D. IN W.G.	E.A.T. (F)	L.A.T. (F)	HEATER QTY	HEATING TYPE	MBH	L.A.T. (F)	A.P.D.	VOLTS	PHASE	MCA	MOCP	UNIT WEIGHT (LB)	CURB WEIGHT (LB)	NOTES					
SUMMER	6000/4000	95.0	75.0	75.0	83.8	68.5	0.74	0.79	0.77	0.7	256.1	187.8	R-410A	0.29	83.8	68.5	54.8	54.7	280.4	4	15	6,000	450/360	0.56	36.7	92.0	2	NATURAL GAS	99.0	70	60.4	0.05	208	3	141.5	200	4,333	1,030	ALL NOTES	
WINTER	6000/4000	0.0	-1.0	70.0	50.0	36.7	26.6	0.76	0.80																															

- NOTES:**
- ELECTRICAL CONTRACTOR TO PROVIDE DISCONNECT SWITCH
 - PROVIDE 120V LIGHT IN EACH ACCESSIBLE SECTION WITH SINGLE LIGHT SWITCH
 - MODULATING GAS REHEAT
 - ECM POWERED EXHAUST WITH BAROMETRIC RELIEF DAMPER
 - OUTSIDE AIR MEASUREMENT SYSTEM
 - HAULGUARDS ON CONDENSERS
 - LOW AMBIENT CONTROLS
 - PROVIDE 14" TALL INSULATED CURB
 - STAINLESS STEEL DRAIN PAN
 - MODULATING GAS HEAT WITH 1:21 TURNDOWN
 - FIELD POWERED 115V OUTLET
 - BACNET/MSIP CARD, FACTORY INSTALLED
 - POWERED EXHAUST, MODULATING WITH BUILDING PRESSURE CONTROL
 - 0-100% ECONOMIZER WITH COMPARATIVE ENTHALPY CONTROL
 - OUTDOOR AIR MONITOR
 - OUTSIDE AIR HUMIDITY SENSOR WITH SUNSCREEN
 - LEAVING COIL ENTERING FAN TEMPERATURE SENSOR
 - DUCT HIGH LIMIT SWITCH
 - RETURN AIR TEMP. SENSOR
 - OUTSIDE AIR ENTHALPY SENSOR
 - DIRTY FILTER ON/OFF SWITCH
 - OUTSIDE AIR TEMP. SENSOR
 - RETURN AIR ENTHALPY SENSOR
 - CONDENSATE OVERFLOW SWITCH
 - DIRTY AIR FLOW STATION
 - SUPPLY FAN AIR PROVING VIA MODBUS
 - BUILDING STATIC PRESSURE SENSOR
 - CONDENSATE OVERFLOW SWITCH
 - HEATING AND COOLING DISCHARGE AIR TEMPERATURE RESET
 - SUPPLY LEAVING WHEEL TEMP. SENSOR
 - EXHAUST LEAVING WHEEL TEMP. SENSOR
 - HEATING AND COOLING DISCHARGE AIR TEMPERATURE RESET
 - FIELD PROVIDE COMPLETE CONDENSATE DRAIN SEAL SYSTEM TO MATCH APPROVED DOAS UNIT, BASIS OF DESIGN COST/GARD BY TRENT TECHNOLOGIES

ELECTRIC UNIT HEATER SCHEDULE
EQUIPMENT BASED ON QMARK UNLESS NOTED OTHERWISE

UNIT DATA				HEATING ELEMENTS				NOTES
TAG	LOCATION	MODEL	TYPE	TOTAL KW	VOLTS	PHASE	AMPS	
EUH-1	SOUTH STAIRWELL	AWH	ARCHITECTURAL WALL HEATER	3.0	208	1	14.4	1, 2, 3
EUH-2	NORTH STAIRWELL	AWH	ARCHITECTURAL WALL HEATER	3.0	208	1	14.4	1, 2, 3
EUH-3	VESTIBULE 100	AWH	ARCHITECTURAL WALL HEATER	3.0	208	1	14.4	1, 2, 3
EUH-4	WATER ROOM 116	MLH	CEILING MOUNTED UNIT HEATER	3.0	208	1	14.5	1, 2, 4
EUH-5	2ND FLOOR STORAGE ROOM	MLH	CEILING MOUNTED UNIT HEATER	5.0	208	1	24.0	1, 2, 4

NOTES:

- PROVIDE FACTORY INSTALLED DISCONNECT SWITCH
- THERMOSTAT TO BE PROVIDED BY TEMPERATURE CONTROLS CONTRACTOR
- MOUNT BOTTOM OF UNIT AT 18" AFF UNLESS NOTED OTHERWISE
- PROVIDE OPTIONAL BRACKET FOR CEILING MOUNTED UNIT

FAN SCHEDULE
EQUIPMENT BASED ON GREENHECK UNLESS NOTED OTHERWISE

UNIT DATA				MOTOR DATA				NOTES
TAG	FUNCTION	MODEL	FAN TYPE	CFM	E.S.P. IN W.G.	RPM	BELT OR DIRECT	
EF-1	RESTROOMS AND GENERAL EXHAUST	G-140-VG	CENTRIFUGAL ROOF	1,650	0.75	1266	DIRECT	BACKDRAFT, 10.5, 1.0, 120, 1, ALL NOTES

NOTES:

- PROVIDE CONTROL DIAL FOR BALANCING
- PROVIDE GRAVITY BDD
- PROVIDE FACTORY INSTALLED DISCONNECT SWITCH
- FACTORY FABRICATED 24" ROOF CURB
- PROVIDE BIRDSCREEN

DUCTLESS SPLIT SYSTEM SCHEDULE
EQUIPMENT BASED ON DAKIN UNLESS NOTED OTHERWISE

INDOOR UNIT DATA				INDOOR UNIT EVAPORATOR DATA				HEAT PUMP HEATING				OUTDOOR UNIT DATA				NOTES			
TAG	LOCATION	MODEL	TYPE	MAX CFM	TOTAL MBH	VOLTS	PHASE	MCA	REFRIG TYPE	SEER	TOTAL MBH	HSPF	TAG	MODEL	VOLTS		PHASE	MCA	MOCP
AC-1	IT ROOM 125	FAQ18TAVJU	WALL MOUNTED	495	18.0	208	1	0.5	R-410A	17.0	NA	NA	ACCU1	RZR18TAVJUA	208	1	16.5	20	1,2,3,4,5,6,7,8
AC-2	IT ROOM 211	FAQ18TAVJU	WALL MOUNTED	495	18.0	208	1	0.5	R-410A	17.0	20.0	8.2	ACCU2	RZQ18TAVJUA	208	1	16.5	20	1,2,3,4,5,6,7

NOTES:

- ELECTRICAL CONTRACTOR TO PROVIDE DISCONNECT SWITCHES (INDOOR AND OUTDOOR UNITS)
- PROVIDE WALL MOUNTED PROGRAMMABLE THERMOSTAT
- SEPARATE POWER SOURCES FOR INDOOR AND OUTDOOR UNITS
- PROVIDE OUTDOOR UNIT WITH FRONT WIND BAFFLE FOR LOW AMBIENT COOLING OPERATION
- PROVIDE WALL SUPPORTS FOR INDOOR UNIT
- PROVIDE 18" TALL EQUIPMENT STAND FOR OUTDOOR UNIT
- PROVIDE BLUE DIAMOND MAXIBLUE CONDENSATE PUMP WITH RESEVOIR & SENSOR (208V)
- THIS SYSTEM IS COOLING ONLY

ELECTRIC BASEBOARD UNIT HEATER SCHEDULE
EQUIPMENT BASED ON INDOECO UNLESS NOTED OTHERWISE

UNIT DATA				HEATING ELEMENTS				NOTES
TAG	LOCATION	MODEL	TYPE	WFT	WATTS	LENGTH IN	VOLTS	
EBB-1	SEE DRAWINGS	BM1	PEDESTAL	100	500	60	208	1, 2, 3
EBB-2	SEE DRAWINGS	BM1	PEDESTAL	175	875	60	208	1, 2, 3

NOTES:

- PROVIDE FACTORY INSTALLED DISCONNECT SWITCH
- UNIT WITH INTEGRAL THERMAL CUTOFF
- PROVIDE STANDARD COLOR, TO BE CHOSEN BY ARCHITECT

DUCT CONSTRUCTION SCHEDULE

DUCT LOCATION	DUCT CONSTRUCTION				MATERIAL	NOTES
	SHAPE	TYPE	LEAKAGE CLASS (CFM PER 100 SF @ 1 IN WG)	PRESSURE CLASS (IN WG)		
Indoors Concealed From View	ROUND OR oval	X	-2 or +2	NA	X	X X X X
	RECTANGULAR	X	-2 or +2	NA	X	X X X X
	SINGLE WALL	X	-2 or +2	NA	X	X X X X
Indoors Exposed to View in Finished Space	ROUND OR oval	X	-2 or +2	NA	X	X X X X
	RECTANGULAR	X	-2 or +2	NA	X	X X X X
	DOUBLE WALL	X	-2 or +2	NA	X	X X X X
Outdoors	ROUND OR oval	X	-2 or +2	4	X	X X X X
	RECTANGULAR	X	-2 or +2	4	X	X X X X
	SINGLE WALL	X	-2 or +2	4	X	X X X X

SUPPLY AIR DUCT						
Indoors Concealed From View	X	X	+1	NA	X	X X X X
Indoors Exposed to View in Unfinished Space	X	X	+1	NA	X	X X X X
Indoors Exposed to View in Finished Space	X	X	+1	NA	X	X X X X

RETURN AIR OR MIXED AIR DUCT						
Indoors Concealed From View	X	X	-2 or +2	NA	X	X X X X
Indoors Exposed to View in Unfinished Space	X	X	-2 or +2	NA	X	X X X X
Indoors Exposed to View in Finished Space	X	X	-2 or +2	NA	X	X X X X

TRANSFER AIR DUCT						
Indoors Concealed From View	X	X	-1 or +1	NA	X	X X X X
Indoors Exposed to View in Unfinished Space	X	X	-1 or +1	NA	X	X X X X
Indoors Exposed to View in Finished Space	X	X	-1 or +1	NA	X	X X X X

CLASS 1 OR 2 EXHAUST AIR DUCT						
Indoors Concealed From View	X	X	-2 or +2	NA	X	X X X X
Indoors Exposed to View in Unfinished Space	X	X	-2 or +2	NA	X	X X X X
Indoors Exposed to View in Finished Space	X	X	-2 or +2	NA	X	X X X X

NOTES:

AIR BALANCE SCHEDULE

FAN SYSTEM / ROOM	Outdoor Air (cfm)	Exhaust Air (cfm)	Net Pressurization (cfm)
EF-1			
1 - Mens 103		300	-300
1 - Womens 102		300	-300
1 - Jan 104		75	-75
1 - WC 124		75	-75
1 - WC 126		75	-75
1 - Fam 139		75	-75
1 - Kit 134		75	-75
1 - Staff Lounge 131		150	-150
1 - Elec Room 119		300	-300
2 - WC 209		75	-75
2 - WC 210		75	-75
2 - Jan 212		75	-75
DOAS-1	6,000	4,000	2,000
TOTALS	6,000	5,650	350

AIR DEVICE SCHEDULE
EQUIPMENT BASED ON TITUS UNLESS NOTED OTHERWISE

SUPPLY DIFFUSER				RETURN/EXHAUST GRILLE TAGS:				NOTES
TAG	FUNCTION	MODEL	FACE SIZE	NECK SIZE	FRAME TYPE	MATERIAL	DAMPER	
D1	SUPPLY	OMNI	24"x24"	SEE PLANS	LAY-IN	STEEL	IN DUCT	30
D2	SUPPLY	OMNI	24"x24"	SEE PLANS	SURFACE	STEEL	IN DUCT	30
D3	SUPPLY	OMNI	12"x12"	SEE PLANS	SURFACE	STEEL	IN DUCT	30
D4	SUPPLY	FL-10	4' L, 2-SLOT	SEE PLANS	LAY-IN	ALUMINUM	IN DUCT	30
D5	SUPPLY	CT-540	48"x6"	SEE PLANS	SURFACE	ALUMINUM	IN DUCT	30
D6	SUPPLY	TMR	11" DIA.	SEE PLANS	DUCT MTD.	STEEL	IN DUCT	30
D7	SUPPLY	TMR	15" DIA.	SEE PLANS	DUCT MTD.	STEEL	IN DUCT	30
D8	SUPPLY	300RL	NECK SIZE PLUS 1.75"	6"x6"	SURFACE	STEEL	IN DUCT	30
D9	SUPPLY	S300F	NECK SIZE PLUS 1.75"	12"x6"	DUCT MTD.	STEEL	ASD	30
D10	SUPPLY	300RL	NECK SIZE PLUS 1.75"	12"x6"	SURFACE	STEEL	IN DUCT	30
G1	RETURN/TRANSFER/EXHAUST	50F	NECK SIZE PLUS 1.75"	22"x22"	LAY-IN	ALUMINUM	-	30
G2	RETURN/TRANSFER/EXHAUST	50F	NECK SIZE PLUS 1.75"	22"x10"	LAY-IN	ALUMINUM	-	30
G3	RETURN/TRANSFER/EXHAUST	50F	NECK SIZE PLUS 1.75"	10"x10"	LAY-IN	ALUMINUM	-	30
G4	RETURN/TRANSFER/EXHAUST	50F	NECK SIZE PLUS 1.75"	10"x10"	SURFACE	ALUMINUM	-	30
G5	RETURN/TRANSFER/EXHAUST	350RL	NECK SIZE PLUS 1.75"	6"x6"	SURFACE	STEEL	-	30
G6	RETURN/TRANSFER/EXHAUST	350RL	NECK SIZE PLUS 1.75"	12"x6"	SURFACE	STEEL	-	30
G8	RETURN/TRANSFER/EXHAUST	350RL	NECK SIZE PLUS 1.75"	30"x18"	SURFACE	STEEL	-	30
G9	RETURN/TRANSFER/EXHAUST	350RL	NECK SIZE PLUS 1.75"	36"x12"	SURFACE	STEEL	-	30
G10	RETURN/TRANSFER/EXHAUST	350RL	NECK SIZE PLUS 1.75"	84"x18"	SURFACE	STEEL	-	30
G11	RETURN/TRANSFER/EXHAUST	350RL	NECK SIZE PLUS 1.75"	12"x10"	SURFACE	STEEL	-	30
G12	RETURN/TRANSFER/EXHAUST	50F	NECK SIZE PLUS 1.75"	22"x10"	SURFACE	ALUMINUM	IN DUCT	30

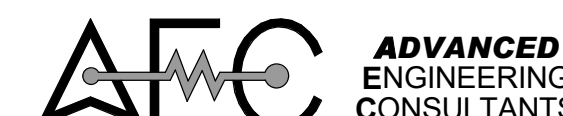
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#	DATE	REVISION DESCRIPTION
1	07.05.22	Addendum 01

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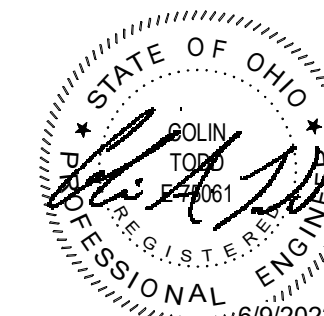
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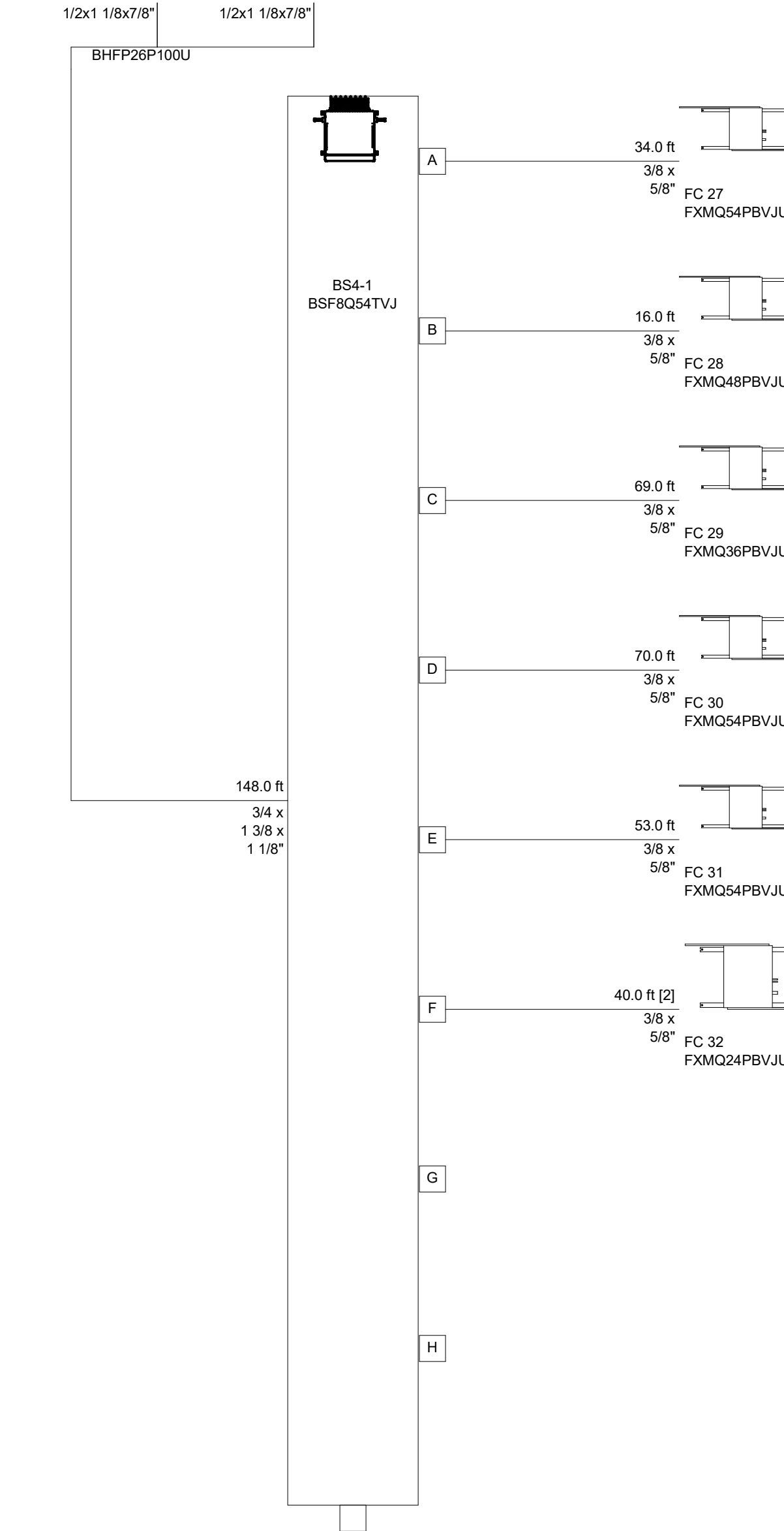
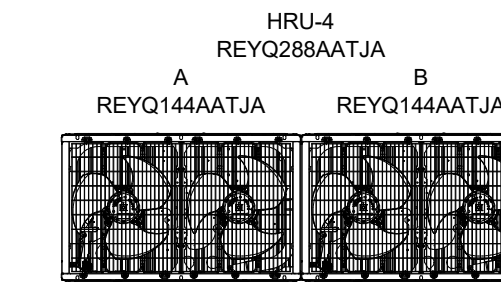
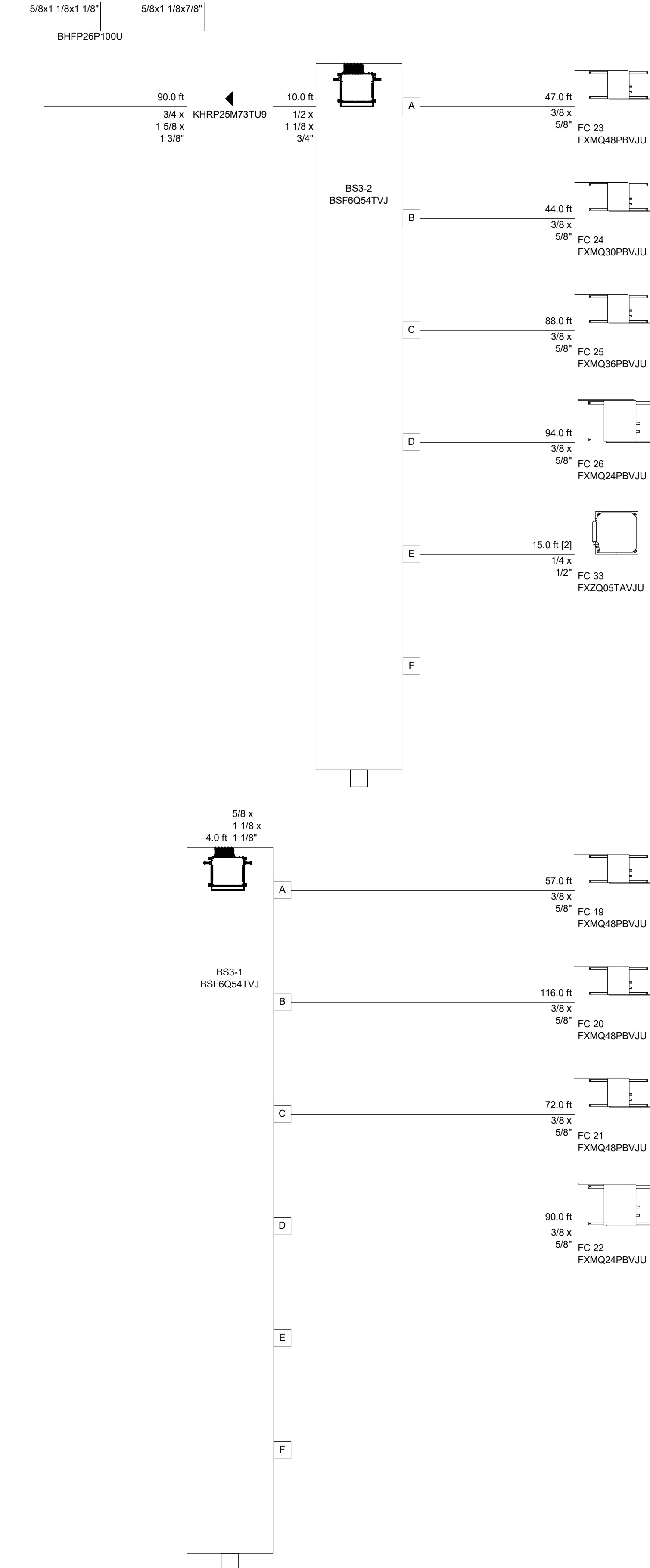
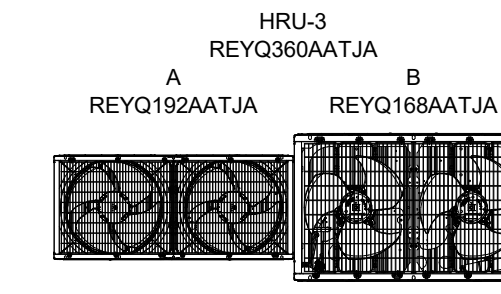
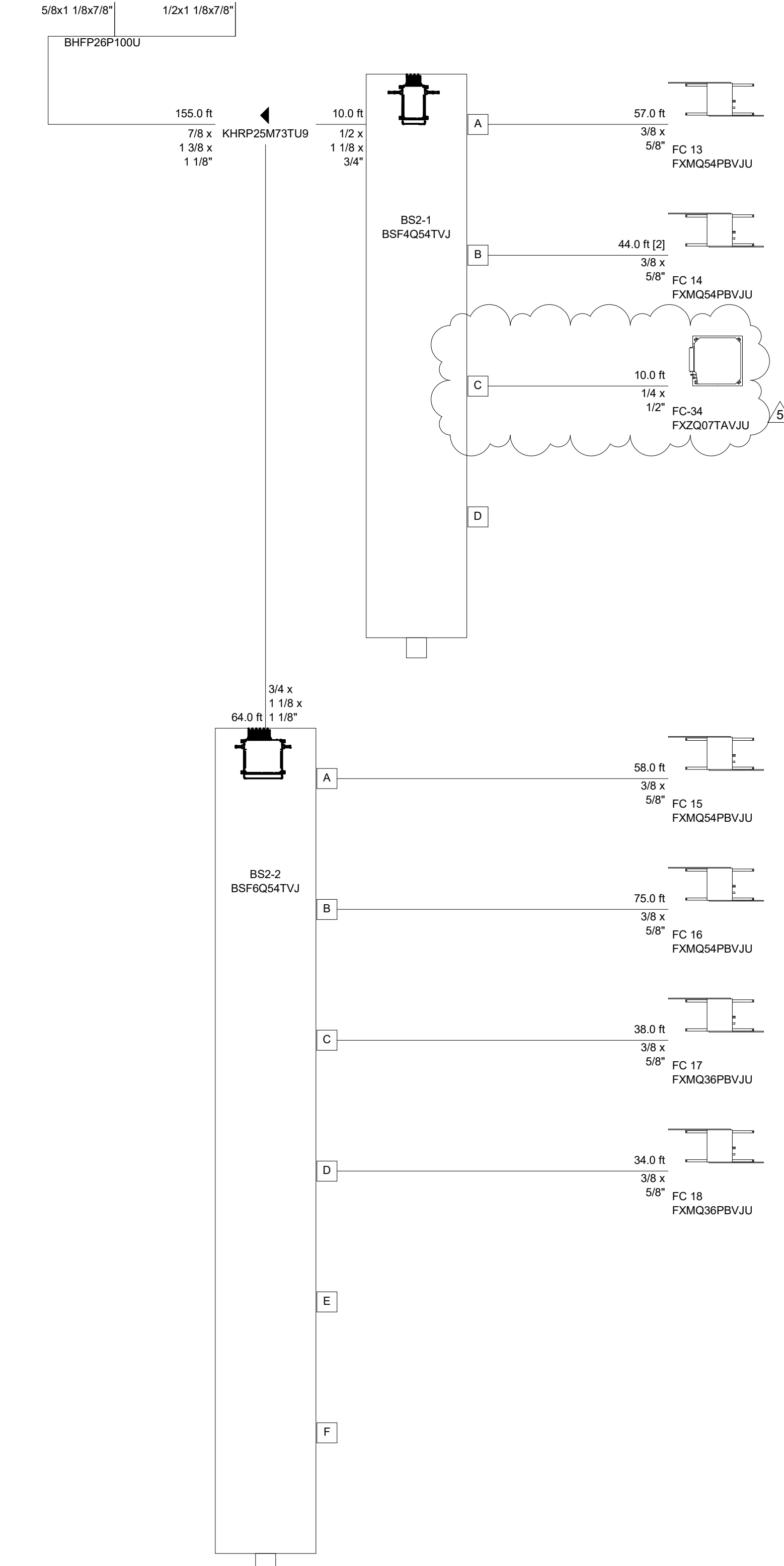
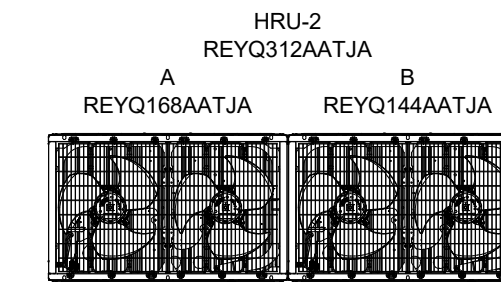
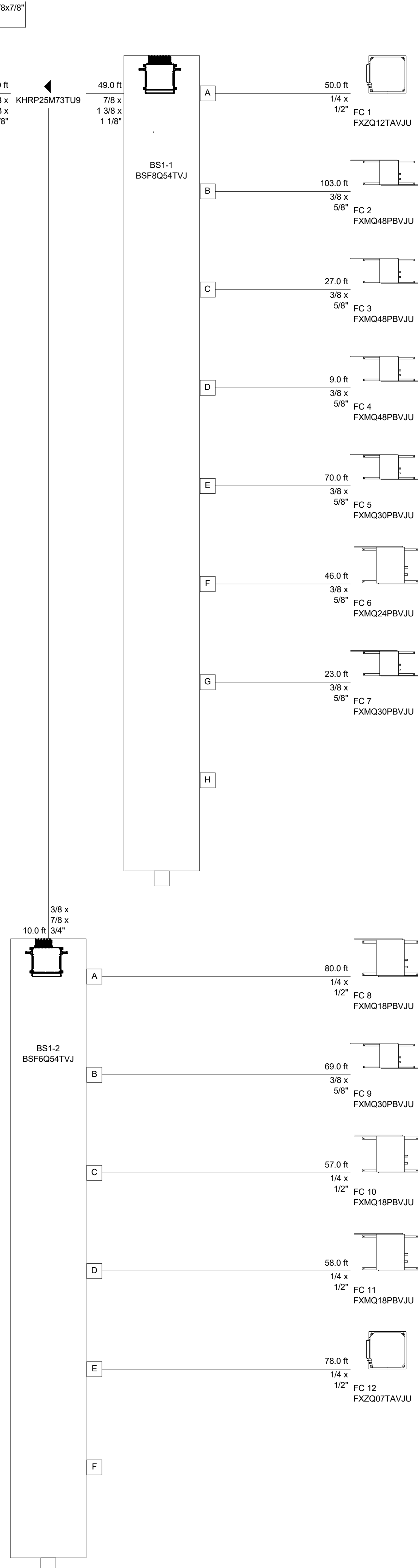
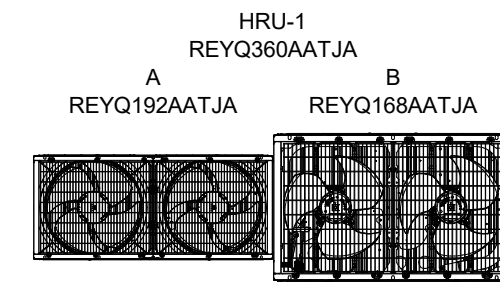


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SCHEDULES - MECHANICAL

M6.01



REVISION SCHEDULE		
#	DATE	REVISION DESCRIPTION
5	10.25.22	Bulletin 05

PROJECT NAME :

CML REYNOLDSBURG
1402 BRICE ROAD
REYNOLDSBURG, OHIO 43068

100% CONSTRUCTION DOCUMENTS
ISSUED FOR BIDDING AND PERMITS

ISSUE DATE : 06/10/22

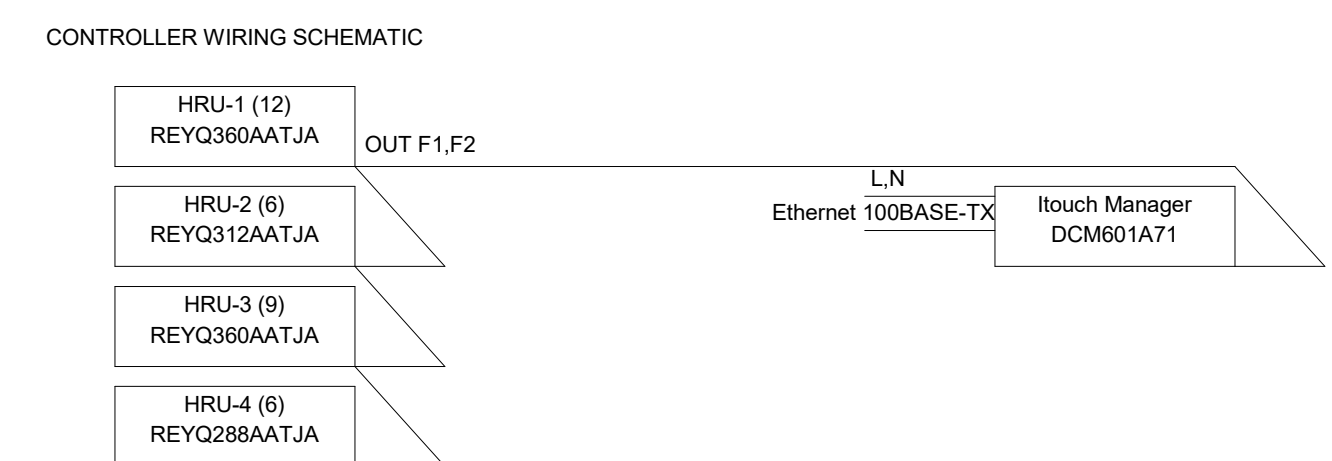
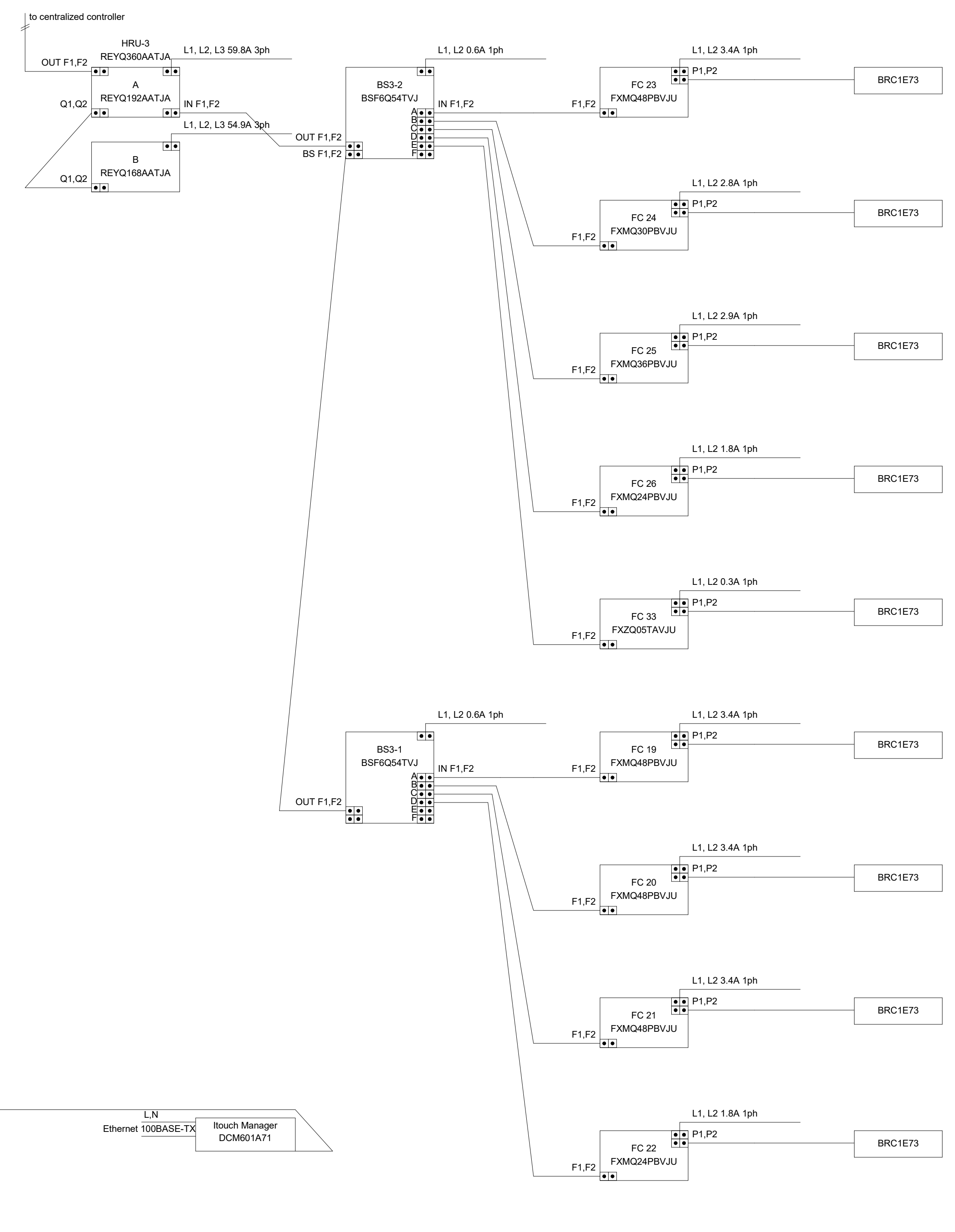
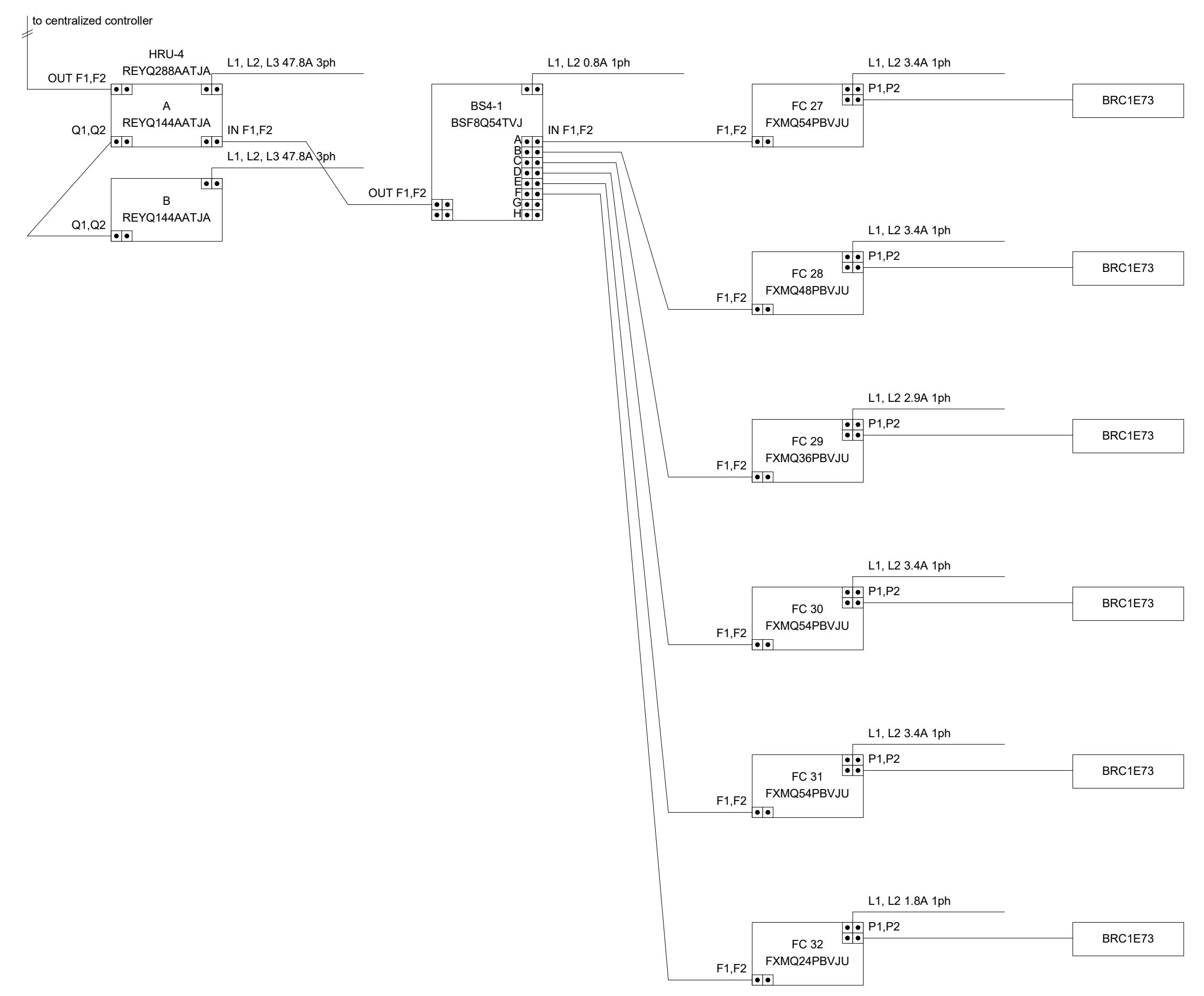
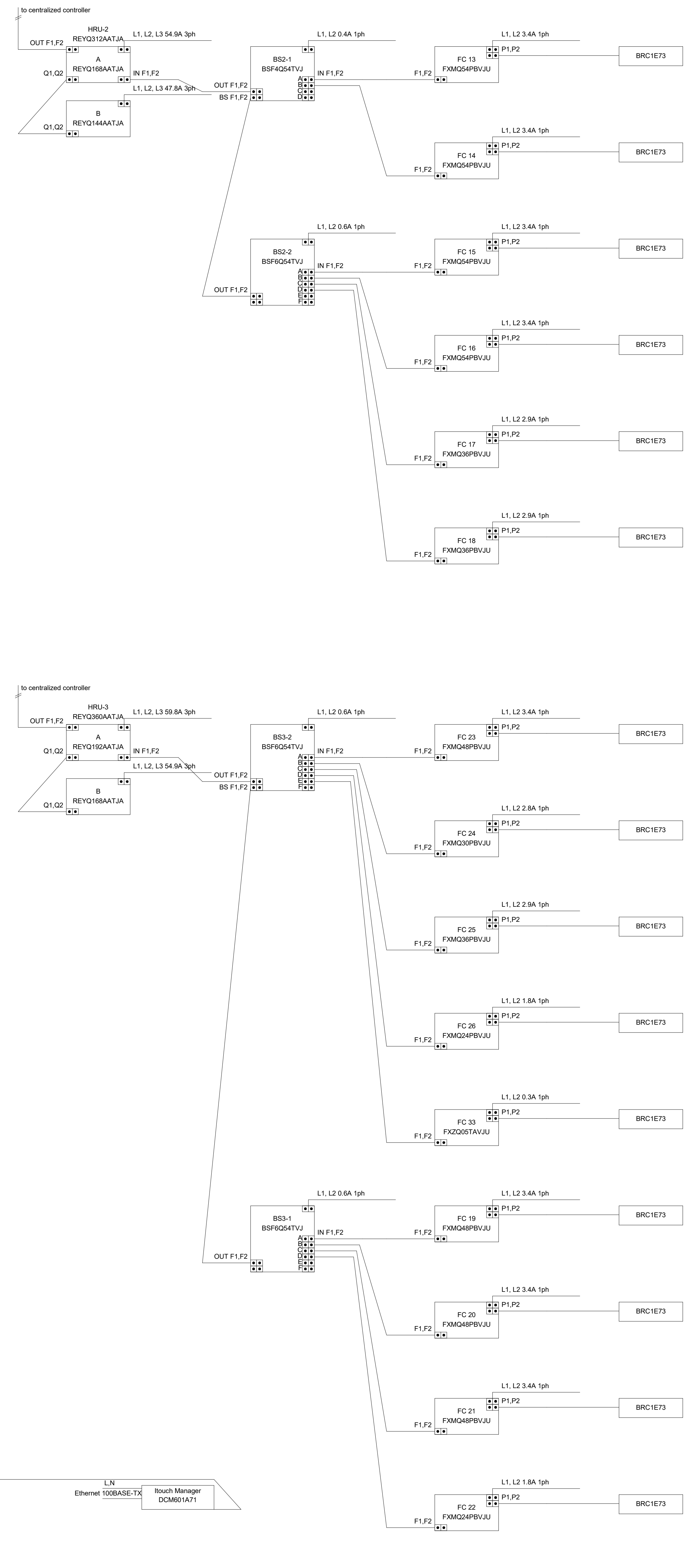
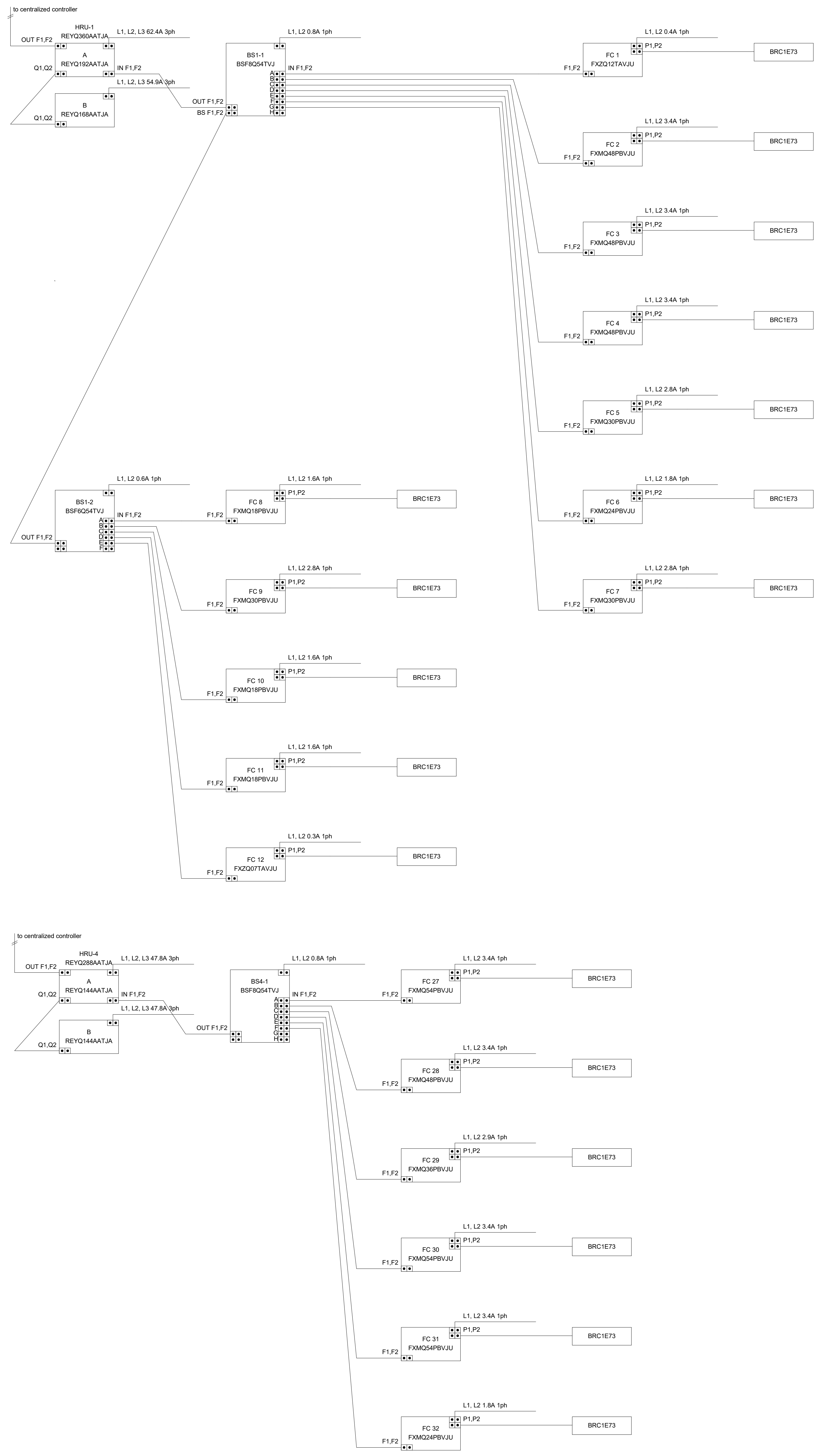
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VRF SYSTEM DIAGRAMS - PIPING

M7.01

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REVISION SCHEDULE		
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VRF SYSTEM DIAGRAMS - WIRING

M7.02

BUILDING GLOBAL POINTS

Type	Description	Quantity	D	M	A	L	S	G
AI	Outside Air Temperature	1	X			X		X
DI	General Alarm / Smoke Signal (from fire system)	1	X		X			X
PI	Building Electric Meter	1	X			X		X

* Quantity to be determined per the associated drawings.

DEDICATED OUTSIDE AIR SYSTEM (DOAS) WITH ERW

A. Factory mounted discharge air control shall be provided by unit manufacturer. These packaged unit controls shall sequence the DX cooling and gas heat to maintain a discharge air temperature setpoint. Factory controls shall also provide control for economizer, minimum outside air control, and exhaust fan control.

B. A BAS communications interface shall be provided by the unit manufacturer.

1. Wiring and termination of the BAS to the interface shall be provided by the BAS contractor. Final terminations shall be verified by the representative of the unit manufacturer prior to startup.

C. Safeties

1. All controls shall incorporate the following safeties where applicable:

- Smoke detectors for the unit shall be provided and installed by the Electrical Contractor and interlocked by the Electrical Contractor (unless otherwise specified) to stop the air handling unit fan(s) when smoke is detected (unless otherwise specified).
- Damper limit switches shall be provided on the exhaust air dampers and shall be interlocked with the exhaust fan. The exhaust fan shall be disabled until the damper is proven open.

D. Mode control

- The air handling unit shall have a Pre-Occupied, Occupied, and Unoccupied mode of operation.
- The operating mode shall be automatically initiated through occupied/unoccupied time-of-day schedules or operator commands at the BAS operator workstation.
- Within each mode the unit shall operate as described below.

E. Occupied Mode

1. Discharge Air Control. The packaged unit controls shall maintain a constant discharge air temperature setpoint of 70° F. The discharge air temperature setpoint shall be adjustable through the BAS.

- On a call for cooling, the unit's refrigeration controls shall operate to maintain discharge air temperature setpoint.
- On a call for heat, the unit shall modulate the gas heating section to maintain the discharge air temperature setpoint.

F. Economizer Mode

- The unit shall be in "economizer mode" when the outside air temperature is between 45 deg and 65 deg. During the "economizer mode" of operation, the heating and cooling functions shall be locked out. If a heat wheel failure is detected, the heating mode shall be enabled.
- When the outside air temperature is below 45 degrees, the heating mode shall be active. The cooling mode shall remain disabled.
- When the outside air temperature is above 65 deg, the cooling mode shall be enabled, the heating mode shall remain disabled.

G. Modulating Hot Gas Reheat

- The unit is provided with fully modulating, sub-cooling, hot gas reheat coil.
- The controls shall utilize both leaving coil temperature sensor (LCT), and discharge air temperature sensor (DAT).
- During dehumidification, the refrigeration circuit controls the compressor(s) to maintain the LCT setpoint (adjustable) and the reheat coil is controlled to maintain the supply air reheat setpoint.
- When a call for both cooling and dehumidification is made, the reheat setpoint is set as the cooling DAT setpoint.
- During a call for dehumidification only, the reheat setpoint is reset in a linear manner between the min and max reheat setpoints (adjustable). This reset is based on the cooling and heating setpoints for the DOAS unit.
- Enable dehumidification based on dew point. Dehumidification will be activated when the dew point in the space rises above the dehumidification setpoint.

H. Unoccupied Control

- During the scheduled unoccupied times, the unit shall be off.
- Night Setback Heating Control - When any space temperature drops below the unoccupied heating setpoint of 55° F, the unit shall start and continue to run for a minimum of 5 minutes after satisfaction of the space setpoint.
- Night Setup Cooling Control - When any space temperature rises above the unoccupied cooling setpoint of 85° F, the unit shall start and continue to run for a minimum of 5 minutes after satisfaction of the space setpoint.

I. Morning Warm-Up

- During the warm-up mode, the unit shall operate similar to the occupied mode with the following exceptions:
 - The discharge air setpoint shall be increased to 95° F.
 - The outside air dampers and exhaust air dampers shall remain fully closed. The recirculation air damper shall remain fully open.
 - The exhaust fan shall remain off. Energy recovery wheel shall be off.
 - Cooling shall be disabled.
- This mode shall continue until the space reaches its targeted occupied setpoint or the scheduled occupied start time is reached.

J. Morning Cool-Down

- During the cool down mode, the unit shall operate similar to the occupied mode with the following exceptions:
 - The discharge air setpoint shall be decreased to 55° F.
 - The outside air dampers and exhaust air dampers shall remain fully closed. The recirculation air damper shall remain fully open.
 - The exhaust fan shall remain off. Energy recovery wheel shall be off.
 - Heating shall be disabled.
- This mode shall continue until the space reaches its targeted occupied setpoint or the scheduled occupied start time is reached.

K. Discharge Air Temperature (DAT) Reset

1. The DAT setpoint may be reset based on outdoor air temperature. A linear relationship between the DAT and the outdoor air temperature will be created for minimum and maximum DAT setpoints. The DAT is to be reset from 62F at an outdoor air temperature of 85F to a temperature of 76F at an outdoor air temperature of 20F. All values shall be adjustable.

L. Building Pressure Control

1. Provide building static pressure transmitter located within the DOAS control panel. Tubing shall be run from the panel to the building pressure pickup location and the outside building reference location. System shall have bidirectional reading capability for positive and negative pressures. The building pressure pickup location shall be in Staff Room 135 and be located in a location that is not influenced by diffuser supply airflow jets. The outside building reference location shall be on the roof in a location and elevation to negate wind effects. Building pressure setpoint shall be 0.02" (adjustable).

K. System Points:

Type	Description	Quantity	D	M	A	L	S	G
AI*	Outside Air Temperature	1	X					
AI*	Outside Air Humidity	1	X					
***	Unit Enable Command	1	X	X				
***	Unit Mode Status	1	X	X				
***	Supply Fan Command	1	X	X				
***	Outdoor Air Flow Measurement	1	X	X	X			
***	Supply Fan Command	1	X	X	X			
***	Supply Fan Status	1	X	X	X			
***	Supply Air Speed Command	1	X	X				
***	Exhaust Air Flow Measurement	1	X	X				
***	Exhaust Fan Speed Command	1	X	X				
***	Dirty Filter Alarm Status	1	X	X	X			
***	High Static Pressure Cutout	1	X	X	X			
***	Mixed Air Temperature	1	X	X	X			
***	Exhaust Air Damper	1	X	X				
***	Economizer Dampers	1	X	X				
***	Energy Recovery Wheel Command	1	X	X				
***	Energy Recovery Wheel Status	1	X	X	X			
***	DX Cooling Command 1	1	X	X				
***	DX Cooling Command 2	1	X	X				
***	DX Cooling Command 3	1	X	X				
***	DX Cooling Command 4	1	X	X				
***	Heating Command 1	1	X	X				
***	Heating Command 2	1	X	X				
***	Heating Command 3	1	X	X				
***	Heating Command 4	1	X	X				
***	Return Air Temperature	1	X	X	X			
***	Return Air Humidity	1	X	X	X			
***	Return Air CO2	1	X	X	X			
***	Space Temperature	1	X	X	X			
***	Space Humidity	1	X	X	X			
***	Coldest Space Temperature	1**	X	X	X			
***	Warmest Space Temperature	1**	X	X	X			
***	Building Pressure	1	X	X	X			

* Point shared from global points list

** Determined from all the terminal units served by the air handler.

*** Field verify type available for integration back to BAS system

VARIABLE REFRIGERANT FLOW (VRF) SYSTEM

A. Factory mounted controls shall be provided by unit manufacturer. These packaged unit controls shall sequence the DX cooling and heating to maintain a space temperature setpoint.

- Each unit's occupancy shall be scheduled through the BAS based on the scheduling requirements of the owner and provide the following:
 - Zone fan shall be on, and unit shall cycle heating or cooling operation during occupied mode
 - Occupant shall not have to select the mode of operation (heating/cooling) for zones that have adjustable space temp control (staff work areas).
 - fan shall be off during unoccupied mode, cycling on as needed to heat/cool
 - VRF points shall be reported to and logged at the BAS. Points include: Discharge Air Temperature, VRF zone temperature, zone temperature set point, VRF cool/heat status, and fan status.

2. The unit shall control the space temperature to the following adjustable space temperature setpoints, as a starting point.

- Occupied Mode
 - Heating - 72° F
 - Cooling - 75° F
- Unoccupied Mode
 - Heating - 55° F
 - Cooling - 85° F

B. Pre-Occupied Mode

- Each VRF unit shall be controlled on its own occupied/unoccupied time schedule as defined at the operator workstation. The BAS shall index the unit to start in advance of the scheduled occupied time, via an adaptive optimal start sequence. The unit shall enter an optimal-start mode to command the unit into the occupied mode early, as required to achieve space setpoint by the normal scheduled occupancy time.
- Should the space temperature not reach the occupied setpoint before to the scheduled occupied time, or reach the setpoint too early, the adaptive optimal start sequence shall automatically adjust itself for subsequent starts.

C. A BAS communications interface shall be provided by the unit manufacturer.

- Wiring and termination of the BAS to the interface shall be provided by the BAS contractor. Final terminations shall be verified by the representative of the unit manufacturer prior to startup. All points available through the communications interface shall also be monitored and/or commanded

UNIT HEATERS

A. When the outside air temperature is below 45 deg, a wall mounted line voltage thermostat shall cycle the fan and electric heating coil to maintain its adjustable setpoint. Heater shall be locked out when outside air temperature is above 45 deg.

B. The building automation system shall control the space temperature to 60 deg (adj).

C. System Points:

Type	Description	Quantity	D	M	A	L	S	G
AO	Space Temperature Setpoint	1 per htr	X	X				
DO	Heater/OA Lockout Command	1	X	X				

BASEBOARD HEATERS

A. Baseboard heaters shall operate as a second stage of heat (Fan Coils shall be first stage of heat)

B. When a nearby Fan Coil zone drops more than 2 deg below the zone heating setpoint, activate baseboard heater.

C. Heater shall be locked out if nearby Fan Coil is in cooling mode as determined by the zone temperature and the setpoint.

D. Heater shall be locked out if outside air temperature is above 55 deg F (adjustable).

EXHAUST FANS

A. Misc. exhaust fans including all toilet exhaust fans shall be controlled in conjunction with the occupied/unoccupied condition of the air handling unit or zoned area in which the fan is located.

B. Other fans (as noted in the Fan Schedule on the Drawings) shall be controlled via switch or timer, installed by the Electrical Contractor.

C. A motor current operated switch shall input fan status to a DDC panel for ALL exhaust fans.

D. System Points:

Type	Description	Quantity	D	M	A	L	S	G
DO	Exhaust Fan Command	1 per fan*	X	X				
DI	Exhaust Fan Status	1 per fan	X	X	X			
AI	Mechanical/Electrical Room Temperature	1	X	X	X			
AI	Main Mechanical Room Temperature	1	X	X	X			
DO	Main Mechanical Room Intake Damper Command	1	X	X				

* As noted in the Fan Schedule on the Drawings

BUILDING LIGHTING

A. The building exterior lighting shall be controlled on a time schedule as defined at the operator workstation. Interior lighting shall be controlled directly by the lighting control system. Lighting data and control points shall be accessible through the communications interface provided with the lighting control panel.

B. System Points:

Type	Description	Quantity	D	M	A	L	S	G
DO	Lighting Command	1 per circuit or zone	X	X				

UTILITY METERING

A. Integrate Gas Meter reading with Building Automation System.

B. Integrate Water Meter reading with Building Automation System.

C. Integrate Electric Meter reading with Building Automation System.

D. Monitor Elevator Sump Pump level through the Building Automation System.

E. Monitor Domestic Water circulation pump status through the Building Automation System.

REVISION SCHEDULE		
#	DATE	REVISION DESCRIPTION

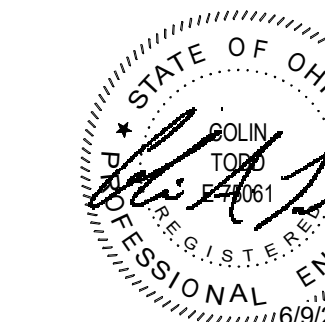
PROJECT NAME :

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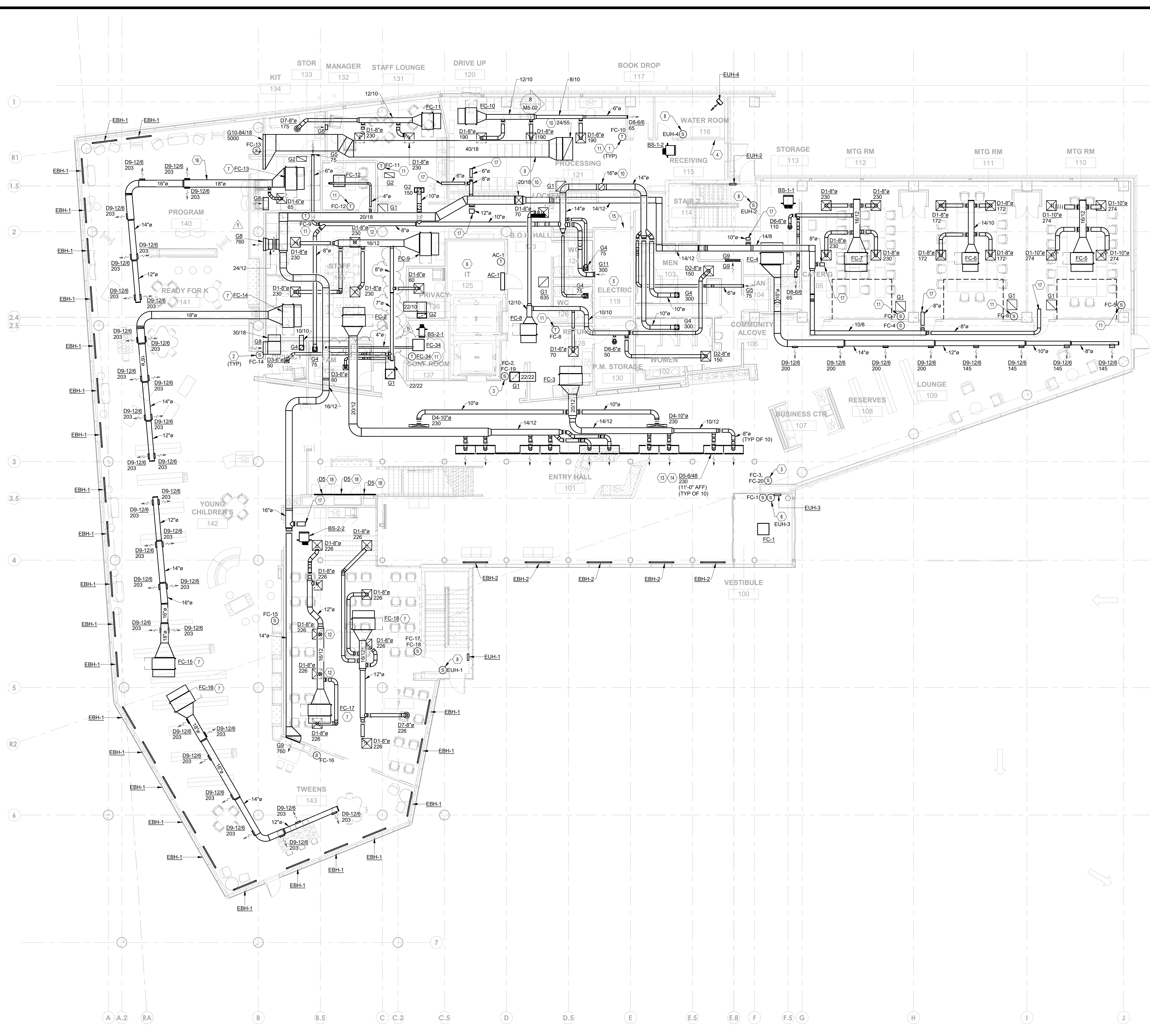
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SEQUENCE OF OPERATION -
MECHANICAL

M8.01



VENTILATION (DOAS-1)	
ROOM / FC UNIT	VENTILATION AIR CFM
FC-1	15
LOBBY	310
FC-4	210
FC-5	150
FC-6	150
FC-7	175
FC-8	90
FC-9	175
FC-10	95
FC-11	100
FC-12	20
PROGRAM & STORAGE	200
READY FOR K	220
YOUNG CHILDREN'S	380
TWEENS	410
SCHOOL HELP	330
FC-34	40

- GENERAL NOTES**
- ALL EXPOSED DUCTWORK IN CONDITIONED SPACES SHALL BE PERFORATED DOUBLE WALL DUCTWORK. PROVIDE PAINT GRIP FOR DUCTWORK TO ALLOW FOR PAINTING.
 - PROVIDE FOR FIRST 35' OF SUPPLY DUCT FROM DOAS UNIT DOUBLE WALL DUCT. PROVIDE FIRST 35' OF RETURN DUCT FROM DOAS UNIT LINED DUCTWORK.
 - PROVIDE DRIP PAN FOR ALL INDOOR UNITS. TIE LEVEL SENSOR INTO BAS CONTROLS.
 - ALL EXPOSED FAN COIL UNITS AND DUCTWORK SHALL BE INSTALLED AS HIGH AS POSSIBLE BELOW STRUCTURE UNLESS OTHERWISE NOTED.
 - WALL MOUNTED AIR DEVICE MOUNTING HEIGHTS LISTED ON THE DRAWINGS IN PARENTHESIS. DIMENSION LISTED IS TO CENTER OF AIR DEVICE.
 - CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT FILTERS CAN BE INSTALLED WITHOUT DAMAGE TO FILTERS.

- CODED NOTES**
- UNLESS OTHERWISE NOTED, THIS SYMBOL REPRESENTS AN ADJUSTABLE THERMOSTAT.
 - UNLESS OTHERWISE NOTED, THIS SYMBOL REPRESENTS A TEMPERATURE SENSOR WITH NO ADJUSTABILITY OR DISPLAY. SETPOINT FOR THIS SYSTEM SHALL BE ADJUSTED THROUGH THE BAS. PROVIDE ADDITIONAL MAIN CONTROLLER (THERMOSTAT) IN A BACK-OF-HOUSE LOCATION FOR MAINTENANCE/TROUBLESHOOTING. COORDINATE WITH OWNER.
 - THERMOSTAT/SENSOR TO CONTROL MULTIPLE FAN COIL UNITS.
 - HVAC EMERGENCY SHUTOFF BUTTON. BUTTON SHALL SHUTDOWN ALL VRF AND DOAS UNITS THROUGH THE BUILDING AUTOMATION SYSTEM. PROVIDE NON-LOCKABLE PLASTIC COVER.
 - BUILDING AUTOMATION CONTROL PANEL(S) TO BE LOCATED IN THIS ROOM. COORDINATE EXACT LOCATION AND POWER AND DATA REQUIREMENTS WITH ELECTRICAL CONTRACTOR. DAIKIN'S TOUCH MANAGER TO BE INSTALLED IN BUILDING AUTOMATION PANEL.
 - PROVIDE TEMPERATURE SENSOR IN IT ROOM TO ALARM THE BUILDING AUTOMATION SYSTEM IF ROOM TEMPERATURE EXCEEDS SETPOINT.
 - SUPPLY AND RETURN DUCTWORK FOR THIS UNIT SHALL BE ACOUSTICALLY LINED.
 - TEMPERATURE SENSOR FOR HEATER.
 - DUCT MOUNTED SMOKE DETECTOR. PROVIDED AND WIRED BY ELECTRICAL CONTRACTOR. INSTALLED BY MECHANICAL CONTRACTOR.
 - DUCT UP TO FLOOR ABOVE. REFER TO SHEET MH1.02 FOR CONTINUATION.
 - CENTER OF THERMOSTAT/SENSOR SHALL BE 42" AFF.
 - VOLUME DAMPER IN VERTICAL BRANCH DUCT.
 - FIELD FABRICATE DIFFUSER PLENUM AS REQUIRED TO COORDINATE BRANCH DUCT CONNECTION WITH BUILDING STRUCTURE. COORDINATE EXACT LOCATION WITH ARCHITECT AND GENERAL CONTRACTOR.
 - PROVIDE CONTINUOUS DIFFUSER APPEARANCE ACROSS ALL SIDEWALL AIR DEVICES BY AIR DEVICE MANUFACTURER. UNUSED SECTIONS SHALL BE BLANKED-OFF. COORDINATE EXACT LENGTH AND LOCATION WITH ARCHITECTURAL DRAWINGS.
 - MAKE-UP AIR FOR THIS ROOM TRANSFERRED THROUGH DOOR UNDERCUT.
 - COORDINATE DUCT LOCATION WITH LIGHT FIXTURES AND CEILING PROJECTOR. CENTER DUCT BETWEEN LIGHT FIXTURES.
 - PROVIDE BIRD SCREEN OVER DUCT OPENING.
 - PROVIDE LINEAR TRANSFER AIR GRILLES ABOVE AQUARIUM. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT PLACEMENT.

REVISION SCHEDULE		
#	DATE	REVISION DESCRIPTION
1	07.05.22	Addendum 01
4	10.07.22	Bulletin 04
5	10.25.22	Bulletin 05

PROJECT NAME:

CML REYNOLDSBURG
1402 BRICE ROAD
REYNOLDSBURG, OHIO 43068

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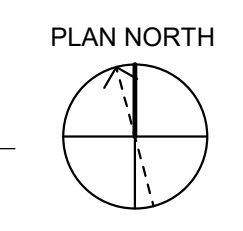
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LEVEL 1 MECHANICAL PLAN

MH1.01

1 FIRST FLOOR PLAN - HVAC
1/8" = 1'-0"



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VENTILATION (DOAS-1)	
ROOM / FC UNIT	VENTILATION AIR CFM
PUBLIC PCS & STOR. 208	255
FC-22	130
STORAGE 213, TEEN, TEEN STORAGE, & STUDIO	365
FC-26	80
READING/STUDY	1080
COLLECTIONS	740
FC-29	150
FC-32	90

GENERAL NOTES

- A. ALL EXPOSED DUCTWORK IN CONDITIONED SPACES SHALL BE PERFORATED DOUBLE WALL DUCTWORK. PROVIDE PAINT GRIP FOR DUCTWORK TO ALLOW FOR PAINTING.
- B. PROVIDE FOR FIRST 35' OF SUPPLY DUCT FROM DOAS UNIT DOUBLE WALL DUCT. PROVIDE FIRST 35' OF RETURN DUCT FROM DOAS UNIT LINED DUCTWORK.
- C. PROVIDE DRIP PAN FOR ALL INDOOR UNITS. THE LEVEL SENSOR INTO BAS CONTROLS.
- D. ALL EXPOSED FAN COIL UNITS AND DUCTWORK SHALL BE INSTALLED AS HIGH AS PRACTICAL BELOW STRUCTURE AND RUN HORIZONTALLY UNLESS OTHERWISE NOTED. ITEMS REQUIRING ACCESS SHALL BE INSTALLED NO MORE THAN 14'-0" AFF TO BOTTOM.
- E. WALL MOUNTED AIR DEVICE MOUNTING HEIGHTS LISTED ON THE DRAWINGS IN PARENTHESIS DIMENSION LISTED IS TO CENTER OF AIR DEVICE.
- F. ALL EXTERIOR PIPING SHALL BE PAINTED WHITE.
- G. REFER TO M700 SERIES DRAWINGS FOR VRF SYSTEM CONFIGURATION AND PIPING DIAGRAMS.
- H. CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT FILTERS CAN BE INSTALLED WITHOUT DAMAGE TO FILTERS.

CODED NOTES

- 1. PROVIDE TEMPERATURE SENSOR IN IT ROOM TO ALARM THE BUILDING AUTOMATION SYSTEM IF ROOM TEMPERATURE EXCEEDS SETPOINT.
- 2. UNLESS OTHERWISE NOTED, THIS SYMBOL REPRESENTS A TEMPERATURE SENSOR WITH NO ADJUSTABILITY OR DISPLAY. SETPOINT FOR THIS SYSTEM SHALL BE ADJUSTED THROUGH THE BAS. PROVIDE ADDITIONAL MAIN CONTROLLER THERMOSTAT IN A BACK-OFF-HOUSE LOCATION FOR MAINTENANCE TROUBLESHOOTING. COORDINATE WITH OWNER.
- 3. THERMOSTAT/SENSOR BY CONTROLS CONTRACTOR TO CONTROL MULTIPLE FAN COIL UNITS.
- 4. AVERAGING TEMPERATURE SENSOR USED TO CONTROL FAN COIL UNIT.
- 5. SUPPLY AND RETURN DUCTWORK FOR THIS UNIT SHALL BE ACOUSTICALLY LINED.
- 6. TEMPERATURE SENSOR FOR HEATER.
- 7. DUCT CONTINUED FROM FLOOR BELOW. REFER TO SHEET MH1.01 FOR CONTINUATION.
- 8. DUCT UP TO ROOF MOUNTED EXHAUST FAN. REFER TO SHEET MH1.07 FOR CONTINUATION.
- 9. TRANSFER RETURN AIR OPENING IN WALL ABOVE CEILING.
- 10. INSTALL ALL VRF HEAT PUMP OUTDOOR UNITS A MINIMUM OF 24" AWAY FROM EACH OTHER.
- 11. THIS UNIT CONTROLLED BY TEMPERATURE SENSOR ON FIRST FLOOR. REFER TO SHEET MH1.01.
- 12. FIELD FABRICATE DIFFUSER PLENUM AS REQUIRED TO COORDINATE BRANCH DUCT CONNECTION WITH BUILDING STRUCTURE. COORDINATE EXACT LOCATION WITH ARCHITECT AND GENERAL CONTRACTOR.
- 13. PROVIDE CONTINUOUS DIFFUSER APPEARANCE ACROSS ALL SIDEWALL AIR DEVICES BY AIR DEVICE MANUFACTURER. UNUSED SECTIONS SHALL BE BLANKED-OFF. COORDINATE EXACT LENGTH AND LOCATION WITH ARCHITECTURAL DRAWINGS.
- 14. BUILDING AUTOMATION CONTROL PANEL(S) TO BE LOCATED IN THIS ROOM. COORDINATE EXACT LOCATION AND POWER AND DATA REQUIREMENTS WITH ELECTRICAL CONTRACTOR. DAKIN'S TOUCH MANAGER TO BE INSTALLED IN BUILDING AUTOMATION PANEL.
- 15. VOLUME DAMPER IN VERTICAL BRANCH DUCT.
- 16. MOUNT UNIT ON PRE-FABRICATED ROOF RAILS.
- 17. INSTALL GRILLE AS HIGH AS POSSIBLE.
- 18. INSTALL GRILLE ABOVE CEILING.
- 19. PROVIDE BIRD SCREEN OVER DUCT OPENING.
- 20. CENTER OF THERMOSTAT/SENSOR SHALL BE 42" AFF.
- 21. RETURN AIR DUCTWORK SHALL BE ACOUSTICALLY LINED.
- 22. MOUNT TEMPERATURE SENSOR ON WINDOW MULLION.

REVISION SCHEDULE		
#	DATE	REVISION DESCRIPTION
1	07.05.22	Addendum 01

PROJECT NAME :

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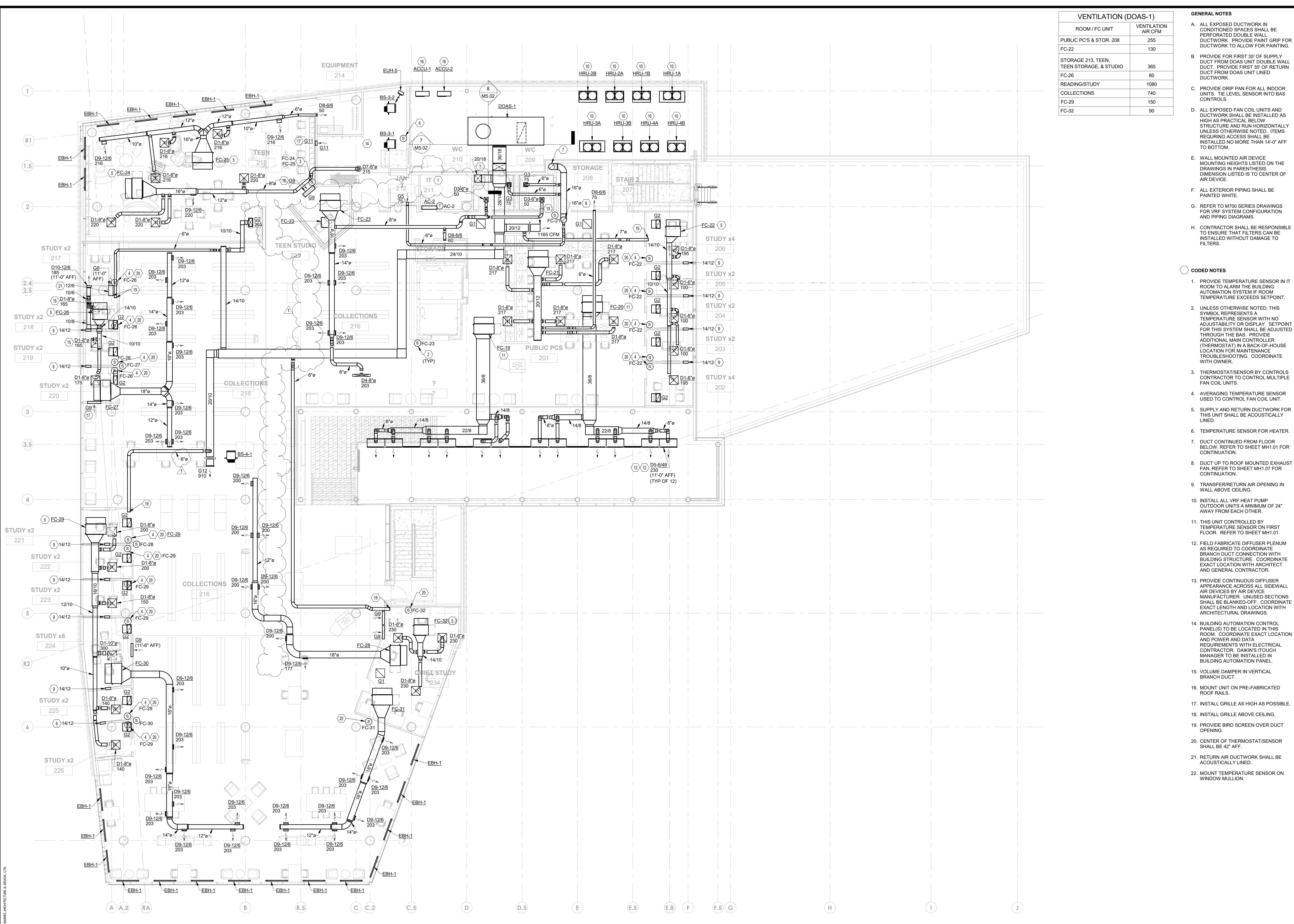
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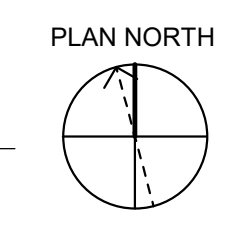


LEVEL 2 MECHANICAL PLAN

MH1.02



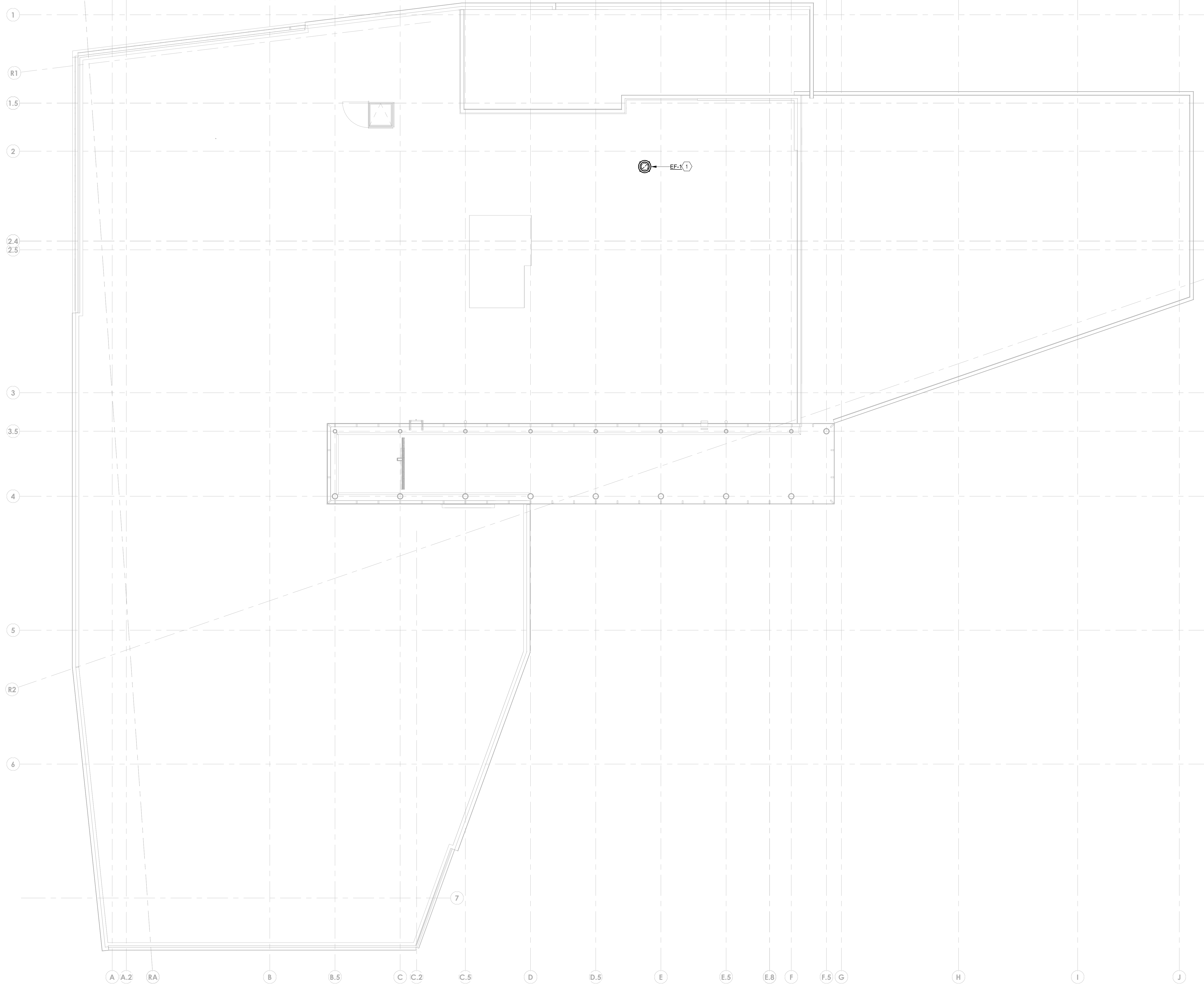
1 SECOND FLOOR PLAN - HVAC
1/8" = 1'-0"



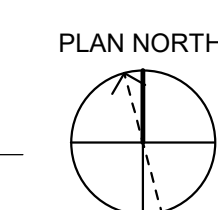
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CODED NOTES

- 1. LOCATE EDGE OF FAN A MINIMUM OF 10'-0" FROM ROOF EDGE.



1 ROOF - HVAC
1/8" = 1'-0"



REVISION SCHEDULE

#	DATE	REVISION DESCRIPTION

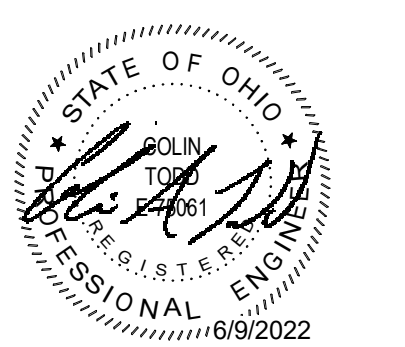
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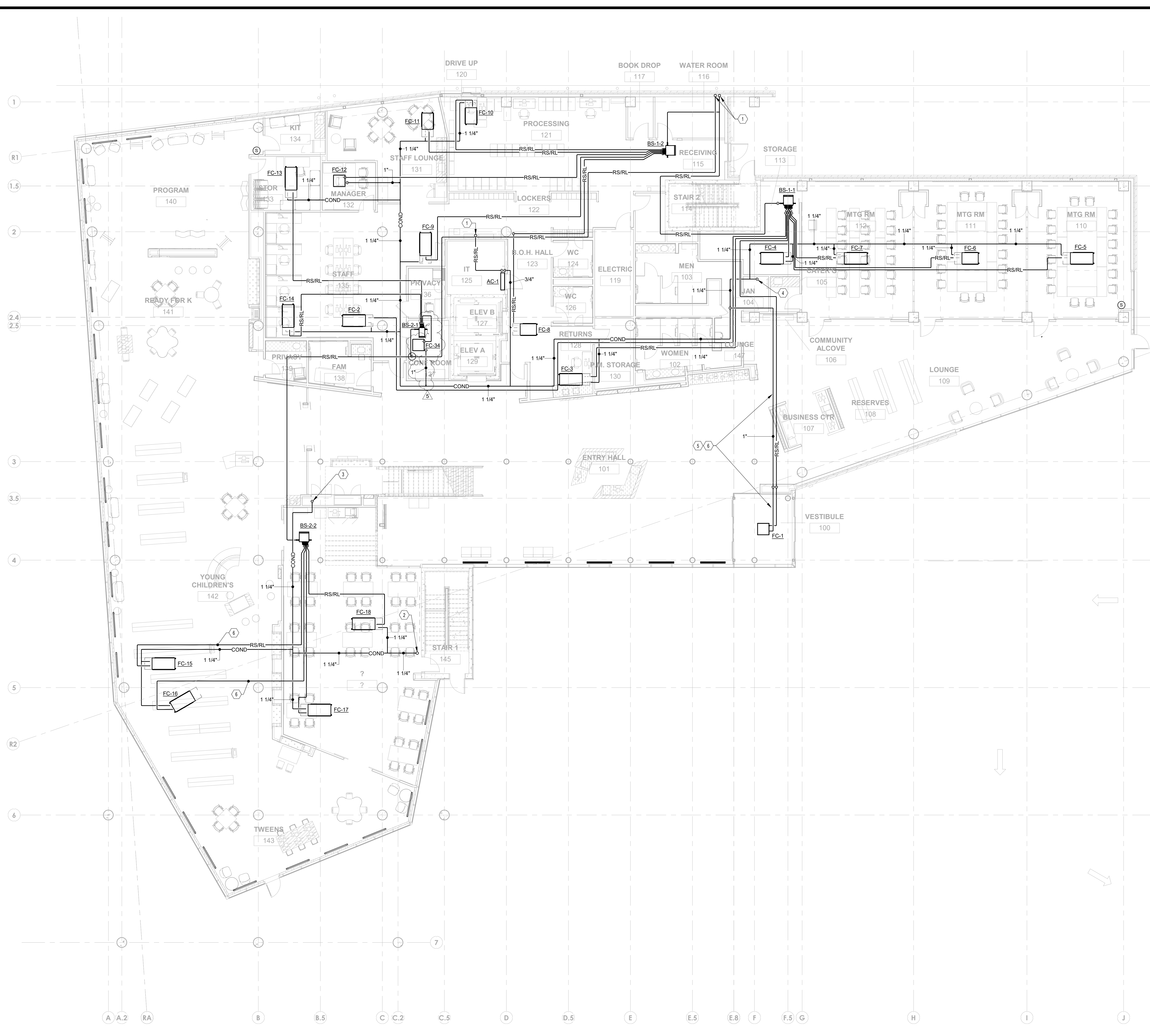
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ROOF MECHANICAL PLAN

MH1.03



- GENERAL NOTES**
- A. ALL EXPOSED PIPING INSULATION SHALL BE WHITE.
 - B. REFER TO M700 SERIES DRAWINGS FOR VRF SYSTEM CONFIGURATION AND PIPING DIAGRAMS.

- CODED NOTES**
- 1. REFRIGERANT PIPING UP TO FLOOR ABOVE.
 - 2. CONDENSATE PIPE FROM FLOOR ABOVE.
 - 3. CONDENSATE PIPE DOWN ALONG WALL TO DISCHARGE INTO FLOOR DRAIN. PROVIDE 2" MIN. AIR GAP.
 - 4. CONDENSATE PIPE DOWN TO DISCHARGE INTO JANITORS SINK. PROVIDE 2" MIN. AIR GAP.
 - 5. INSTALL ALL EXPOSED PIPING IN THIS AREA AS HIGH AS POSSIBLE IN TIGHT PARALLEL CONFIGURATION, AND IN A NEAT AND WORKMAN LIKE MANNER.
 - 6. PROVIDE HARD COPPER REFRIGERANT PIPING IN THIS EXPOSED AREA.

REVISION SCHEDULE		
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5	10.25.22	Bulletin 05

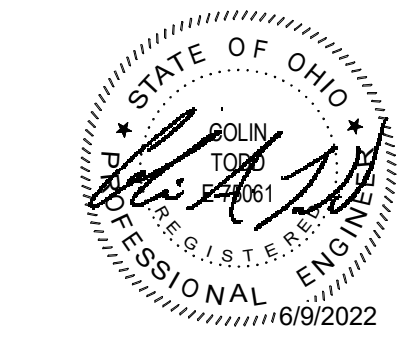
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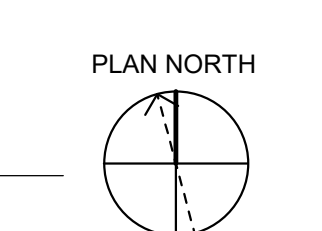
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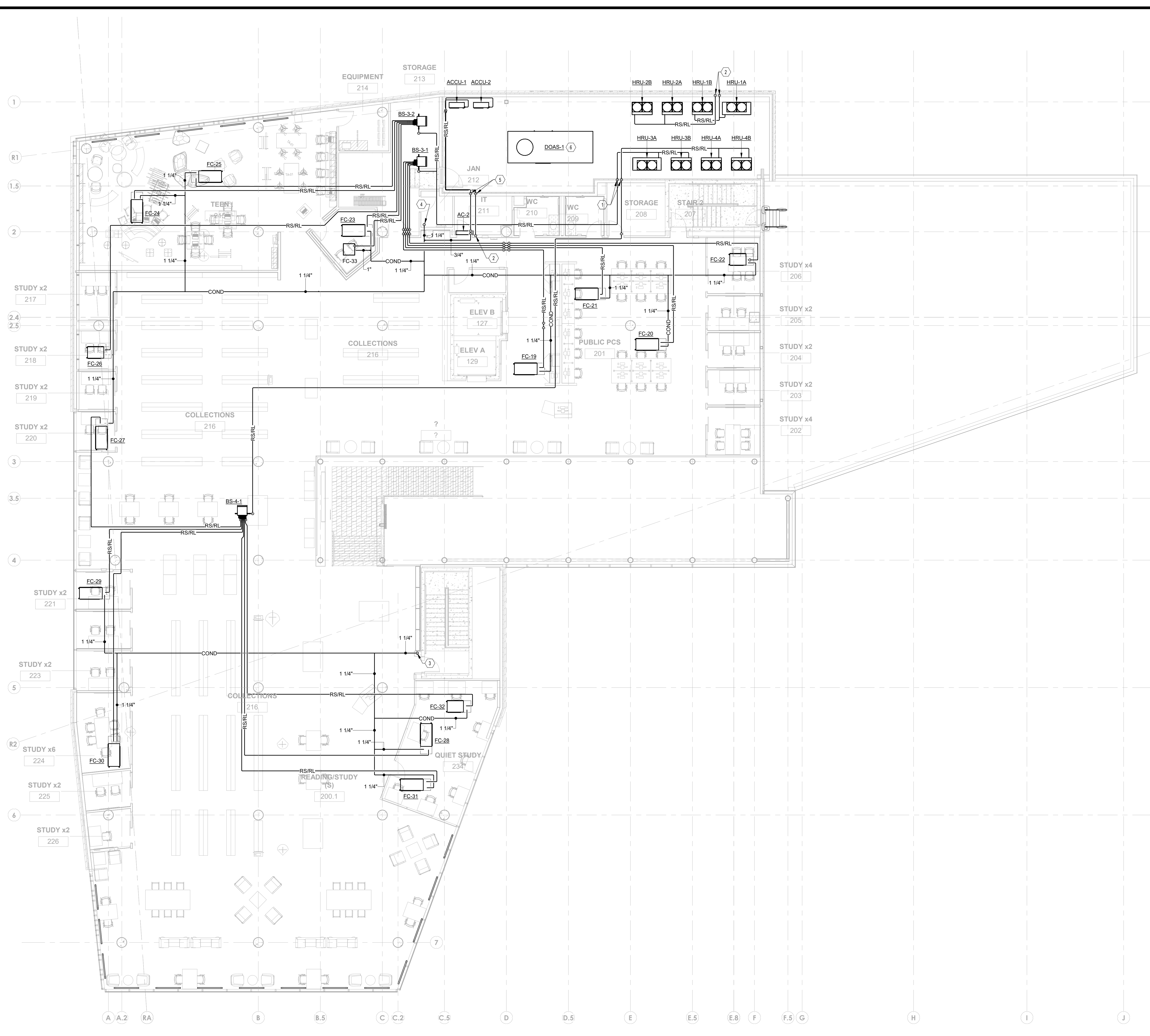
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1 FIRST FLOOR PLAN - HVAC PIPING
 1/8" = 1'-0"



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GENERAL NOTES

- A. ALL EXPOSED PIPING INSULATION SHALL BE WHITE.
- B. REFER TO M700 SERIES DRAWINGS FOR VRF SYSTEM CONFIGURATION AND PIPING DIAGRAMS.
- C. REFRIGERANT PIPE ROUTING AS SHOWN IS SCHEMATIC IN NATURE. ACTUAL PATH AND MISCELLANEOUS EQUIPMENT (I.E. REFRIGERANT JOINTS AND VALVES) SHALL BE DESIGNED AS A SYSTEM BY APPROVED MANUFACTURER SELECTION PROGRAM AND SUBMITTED TO ENGINEER FOR REVIEW. CONTRACTOR SHALL INCORPORATE THE VRF MANUFACTURER'S PIPING AND EQUIPMENT DRAWINGS INTO 1/4 SCALE COORDINATION DRAWINGS AND VERIFY THAT ALL SYSTEM COMPONENTS WILL FIT WITHIN THE FACILITY BEFORE SUBMITTING TO THE ENGINEER FOR REVIEW AND BEFORE FABRICATION COMMENCES. ANY ADDITIONAL EQUIPMENT, ELECTRICAL WORK, ETC. FOR VRF SYSTEMS OTHER THAN THE BASIS OF DESIGN WILL BE REQUIRED TO BE PROVIDED AT THE EXPENSE OF THE MECHANICAL CONTRACTOR.
- D. PROVIDE CHECK VALVES FOR ALL VRF CONDENSATE DRAIN LINES AFTER PUMP TO PREVENT WATER BACKFLOW INTO UNIT UNLESS CHECK VALVE IS INTEGRAL TO PUMP.

CODED NOTES

- 1. REFRIGERANT PIPING DOWN IN WALL CAVITY AND TO CORRESPONDING VRF HEAT PUMPS ON ROOF.
- 2. REFRIGERANT PIPING DOWN TO FLOOR BELOW.
- 3. CONDENSATE PIPE DOWN TO FLOOR BELOW.
- 4. CONDENSATE PIPE DOWN TO DISCHARGE INTO JANITOR'S SINK. PROVIDE 2" MIN. AIR GAP.
- 5. REFRIGERANT PIPING DOWN IN WALL CAVITY AND TO CORRESPONDING DUCTLESS SPLIT OUTDOOR UNITS. RUN PIPING ALONG EXTERIOR WALLS ABOVE ROOF ACCESS DOOR, THEN DROP TO RUN JUST ABOVE ROOF.
- 6. ROUTE CONDENSATE PIPE TO PRIMARY ROOF DRAIN.

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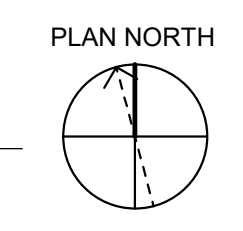
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LEVEL 2 HVAC PIPING PLAN

MP1.02

1 SECOND FLOOR PLAN - HVAC PIPING
 1/8" = 1'-0"



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ABBREVIATIONS	
NOTE: NOT ALL ABBREVIATIONS MAY BE USED.	
A	AMPERE
AC	ALTERNATING CURRENT OR AIR CONDITIONER
AF	ARC-FAULT CURRENT INTERRUPTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPS INTERRUPTING CAPACITY
ANNC	ANNUNCIATOR
AWG	AMERICAN WIRE GAUGE
AV	AUDIOVISUAL
BPS	BOLTED PRESSURE SWITCH
C	CONDUIT
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CM	CONSTRUCTION MANAGER
CTR	COUNTER
DC	DIRECT CURRENT
DP	DISTRIBUTION PANELBOARD
DTT	DOUBLE TWIN TUBE
EB	ELECTRONIC BALLAST
EC	ELECTRICAL CONTRACTOR
EM	EMERGENCY
EMT	ELECTRICAL METAL TUBING
EWG	ELECTRIC WATER COOLER
FA	FIRE ALARM
FLA	FULL LOAD AMPS
G	GROUND
GC	GENERAL TRADES CONTRACTOR
GFI	GROUND FAULT CIRCUIT INTERRUPTER (GFCI)
GEN	GENERATOR
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HPC	HIGH PRESSURE CONTACT SWITCH
HZ	HERTZ
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
INCD	INCANDESCENT
KVA	KILOVOLT AMPERE

ABBREVIATIONS	
NOTE: NOT ALL ABBREVIATIONS MAY BE USED.	
KW	KILOWATT
LTG	LIGHTING OR LIGHT
LRA	LOCKED ROTOR AMPS
MCA	MINIMUM CIRCUIT AMPACITY
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MLO	MAIN LUGS ONLY
MOCP	MAXIMUM OVERCURRENT PROTECTION
MSB	MAIN SWITCHBOARD
MH	METAL HALIDE
MTS	MANUAL TRANSFER SWITCH
NAC	NOTIFICATION APPLIANCE CIRCUIT
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NF	NON-FUSED
OCC	OCCUPANCY
PA	PUBLIC ADDRESS
PB	PULL BOX OR PUSH BUTTON
PVC	POLYVINYL CHLORIDE (PLASTIC PIPE)
PWR	POWER
RECP	RECEPTACLE
RX/REX	REQUEST TO EXIT
STP	SHIELDED, TWISTED PAIR
TC	TIME CLOCK
TR	TAMPER RESISTANT
TRT	TRIPLE TUBE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
UTP	UNSHIELDED, TWISTED PAIR
V	VOLT
W	WATT
WAP	WIRELESS ACCESS POINT
WH	WATTHOUR
WP	WEATHERPROOF
XFMR	TRANSFORMER
Z	IMPEDANCE
PH	PHASE
LV	LOW VOLTAGE

LIGHTING SYMBOLS	
NOTE: NOT ALL SYMBOLS MAY BE USED.	
	JUNCTION BOX
	PANELBOARD
	GENERAL PURPOSE LUMINAIRE
	EMERGENCY LUMINAIRE
	WALL MOUNTED EXIT SIGN
	CEILING MOUNTED ILLUMINATED EXIT SIGN WITH DIRECTIONAL ARROWS
	CEILING MOUNTED EMERGENCY DUAL FACE ILLUMINATED EXIT SIGN WITH DIRECTIONAL ARROWS
	POLE MOUNTED LUMINAIRE (SINGLE)
	SWITCH: X-BLANK-SINGLE POLE 20A, TOGGLE; X-3-THREE WAY; X-4-FOUR WAY; X-P-PILOT LIGHT; X-K-KEY; X-OS-D-COMBINATION DIMMER OCC SENSOR; X-D-DIMMER;
	EMERGENCY LIGHT

POWER SYMBOLS	
NOTE: NOT ALL SYMBOLS MAY BE USED.	
	20A DUPLEX RECEPTACLE WITH COVER PLATE: X=MOUNTING HEIGHT (STANDARD = 18" TO CENTER); F=FLUSHED IN FLOOR, C= FLUSHED IN CEILING
	GFCI (GROUND FAULT CIRCUIT INTERRUPTER) TYPE RECEPTACLE
	WEATHER-RESISTANT, GFCI RECEPTACLE WITH "EXTRA DUTY" WEATHERPROOF IN-USE COVER
	RECEPTACLE MOUNT AT 4" ABOVE SURFACE OR BACKSPASH TO BOTTOM
	USB TYPE RECEPTACLE WITH TAMPER RESISTANT
	TAMPER RESISTANT RECEPTACLE
	SIMPLEX RECEPTACLE
	QUADRUPLEX RECEPTACLE: SEE DUPLEX RECEPTACLE FOR TYPES
	WALL MOUNTED SPECIAL RECEPTACLE: REFER TO PLANS FOR ADDITIONAL INFORMATION
	SURFACE MOUNTED RACEWAY
	STANDARD DISCONNECT SWITCH: X=CIRCUIT BREAKER SIZE, Y=NUMBER OF POLES, Z=SPECIAL DESIGNATION
	STANDARD FUSED DISCONNECT SWITCH: X=CIRCUIT BREAKER SIZE, Y=FUSING, Z=NUMBER OF POLES
	MOTOR STARTER: X=STARTER SIZE, Y=NUMBER OF POLES
	COMBINATION MOTOR STARTER/DISCONNECT SWITCH: X=STARTER SIZE, Y=FUSE SIZE, Z=NUMBER OF POLES
	MOTOR (BY OTHERS); PROVIDE POWER AS INDICATED
	UTILITY METER
	FRACTIONAL HORSEPOWER MANUAL MOTOR STARTER: 2 = 2-POLE
	JUNCTION BOX
	SURGE PROTECTIVE DEVICE
	PANELBOARD
	RECESSED 2-GANG FLOOR BOX (POWER ONLY) (WIREMOLD RFB11-FPCTC SERIES OR APPROVED EQUAL) (1) DUPLEX RECEPTACLE (1) EMPTY GANG FOR FUTURE USE
	RECESSED 4-GANG FLOOR BOX (POWER AND DATA) (WIREMOLD RFB11-FPCTC SERIES OR APPROVED EQUAL) (2) DUPLEX RECEPTACLES (2) DATA OUTLETS
	RECESSED 6-GANG FLOOR BOX (POWER AND DATA) (WIREMOLD RFB11-FPCTC SERIES OR APPROVED EQUAL) (3) DUPLEX RECEPTACLES (6) DATA OUTLETS
	RECESSED FLOOR BOX (POWER AND DATA) (WIREMOLD RFB11-FPCTC SERIES OR APPROVED EQUAL) HARDWIRED FURNITURE CONNECTION COORDINATE COVER PLATE WITH ARCHITECT.

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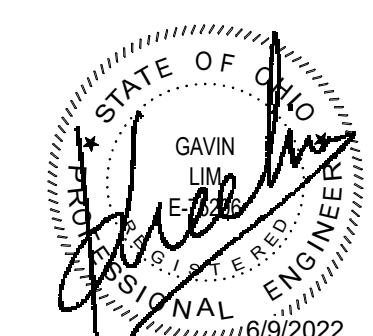
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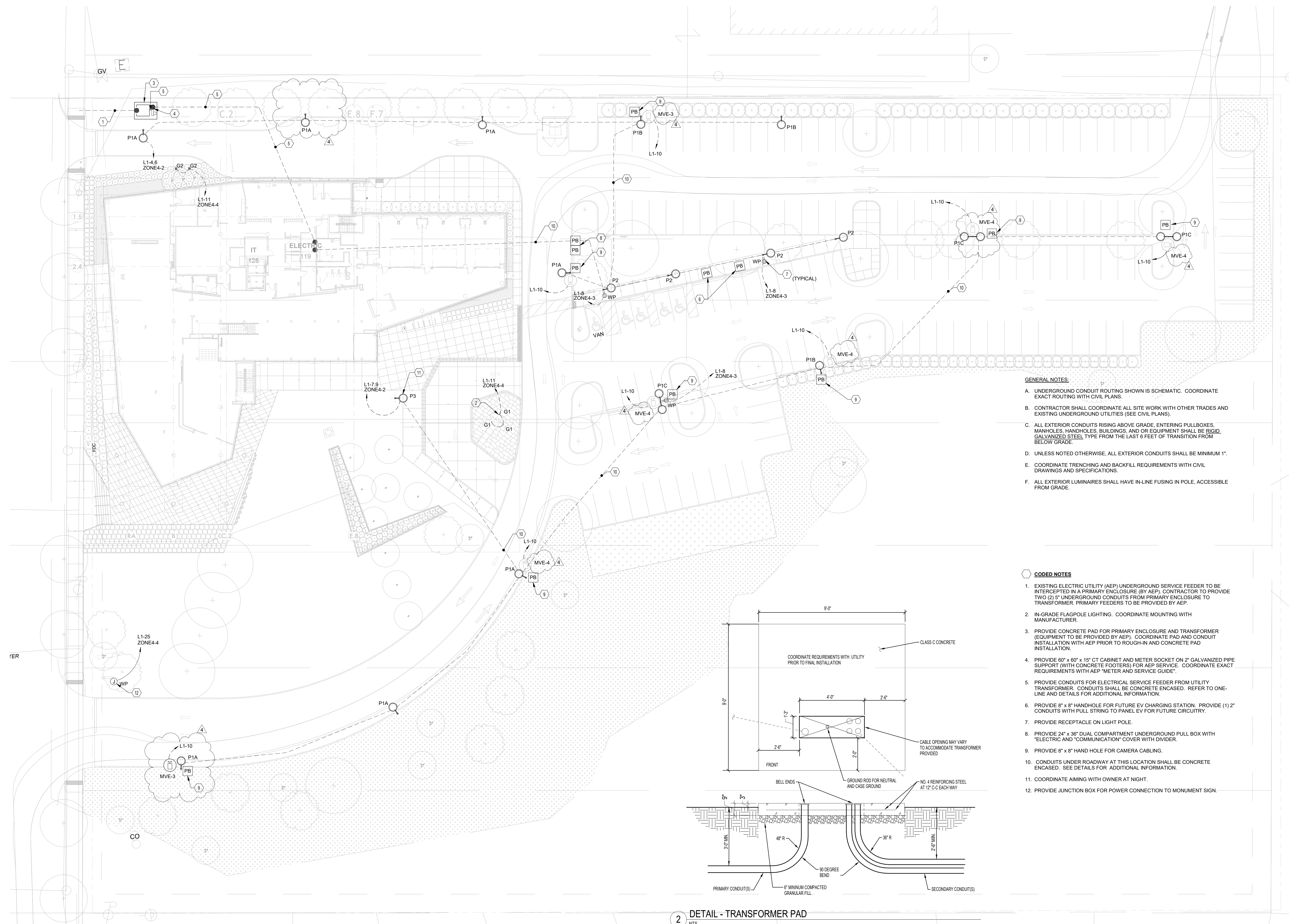
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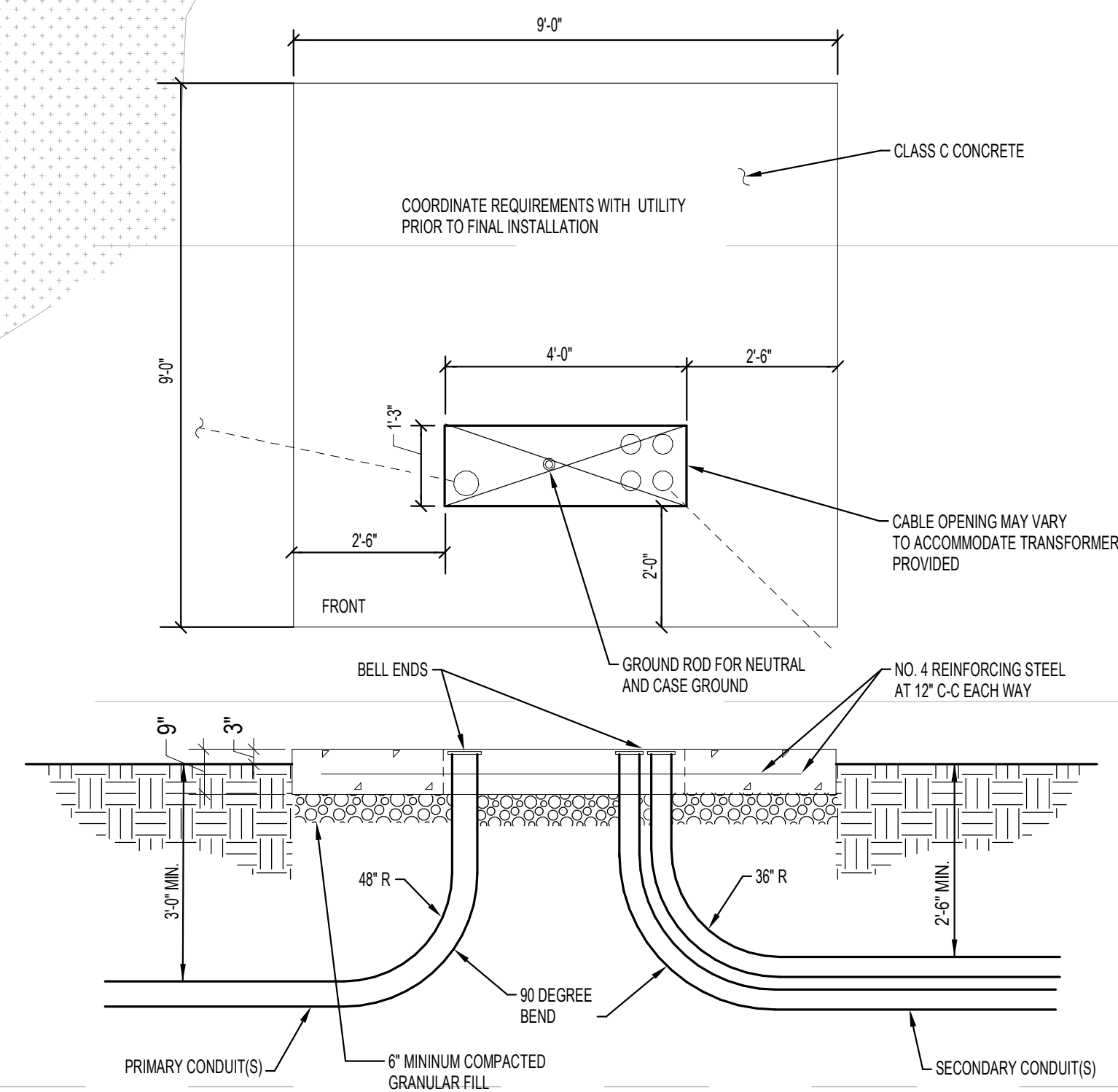
GENERAL INFORMATION - ELECTRICAL

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- GENERAL NOTES:**
- UNDERGROUND CONDUIT ROUTING SHOWN IS SCHEMATIC. COORDINATE EXACT ROUTING WITH CIVIL PLANS.
 - CONTRACTOR SHALL COORDINATE ALL SITE WORK WITH OTHER TRADES AND EXISTING UNDERGROUND UTILITIES (SEE CIVIL PLANS).
 - ALL EXTERIOR CONDUITS RISING ABOVE GRADE, ENTERING PULLBOXES, MANHOLES, HANDHOLES, BUILDINGS, AND/OR EQUIPMENT SHALL BE RIGID GALVANIZED STEEL TYPE FROM THE LAST 6 FEET OF TRANSITION FROM BELOW GRADE.
 - UNLESS NOTED OTHERWISE, ALL EXTERIOR CONDUITS SHALL BE MINIMUM 1".
 - COORDINATE TRENCHING AND BACKFILL REQUIREMENTS WITH CIVIL DRAWINGS AND SPECIFICATIONS.
 - ALL EXTERIOR LUMINAIRES SHALL HAVE IN-LINE FUSING IN POLE, ACCESSIBLE FROM GRADE.

- CODED NOTES**
- EXISTING ELECTRIC UTILITY (AEP) UNDERGROUND SERVICE FEEDER TO BE INTERCEPTED IN A PRIMARY ENCLOSURE (BY AEP). CONTRACTOR TO PROVIDE TWO (2) 5" UNDERGROUND CONDUITS FROM PRIMARY ENCLOSURE TO TRANSFORMER. PRIMARY FEEDERS TO BE PROVIDED BY AEP.
 - IN-GRADE FLAGPOLE LIGHTING. COORDINATE MOUNTING WITH MANUFACTURER.
 - PROVIDE CONCRETE PAD FOR PRIMARY ENCLOSURE AND TRANSFORMER (EQUIPMENT TO BE PROVIDED BY AEP). COORDINATE PAD AND CONDUIT INSTALLATION WITH AEP PRIOR TO ROUGH-IN AND CONCRETE PAD INSTALLATION.
 - PROVIDE 60" x 60" x 15" CT CABINET AND METER SOCKET ON 2" GALVANIZED PIPE SUPPORT (WITH CONCRETE FOOTERS) FOR AEP SERVICE. COORDINATE EXACT REQUIREMENTS WITH AEP "METER AND SERVICE GUIDE".
 - PROVIDE CONDUITS FOR ELECTRICAL SERVICE FEEDER FROM UTILITY TRANSFORMER. CONDUITS SHALL BE CONCRETE ENCASED. REFER TO ONE-LINE AND DETAILS FOR ADDITIONAL INFORMATION.
 - PROVIDE 8" x 8" HANDHOLE FOR FUTURE EV CHARGING STATION. PROVIDE (1) 2" CONDUITS WITH PULL STRING TO PANEL EV FOR FUTURE CIRCUITRY.
 - PROVIDE RECEPTACLE ON LIGHT POLE.
 - PROVIDE 24" x 36" DUAL COMPARTMENT UNDERGROUND PULL BOX WITH "ELECTRIC AND COMMUNICATION" COVER WITH DIVIDER.
 - PROVIDE 8" x 8" HAND HOLE FOR CAMERA CABLING.
 - CONDUITS UNDER ROADWAY AT THIS LOCATION SHALL BE CONCRETE ENCASED. SEE DETAILS FOR ADDITIONAL INFORMATION.
 - COORDINATE AIMING WITH OWNER AT NIGHT.
 - PROVIDE JUNCTION BOX FOR POWER CONNECTION TO MONUMENT SIGN.



2 DETAIL - TRANSFORMER PAD
NTS

1 SITE PLAN - ELECTRICAL
1" = 20'-0"



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4	10.07.22	Bulletin 04

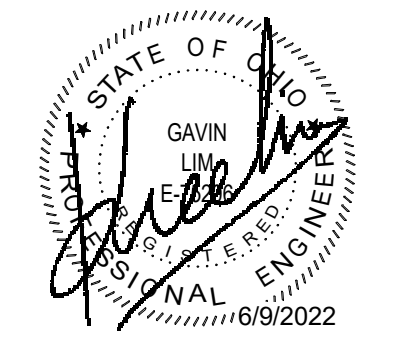
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SITE PLAN - ELECTRICAL

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