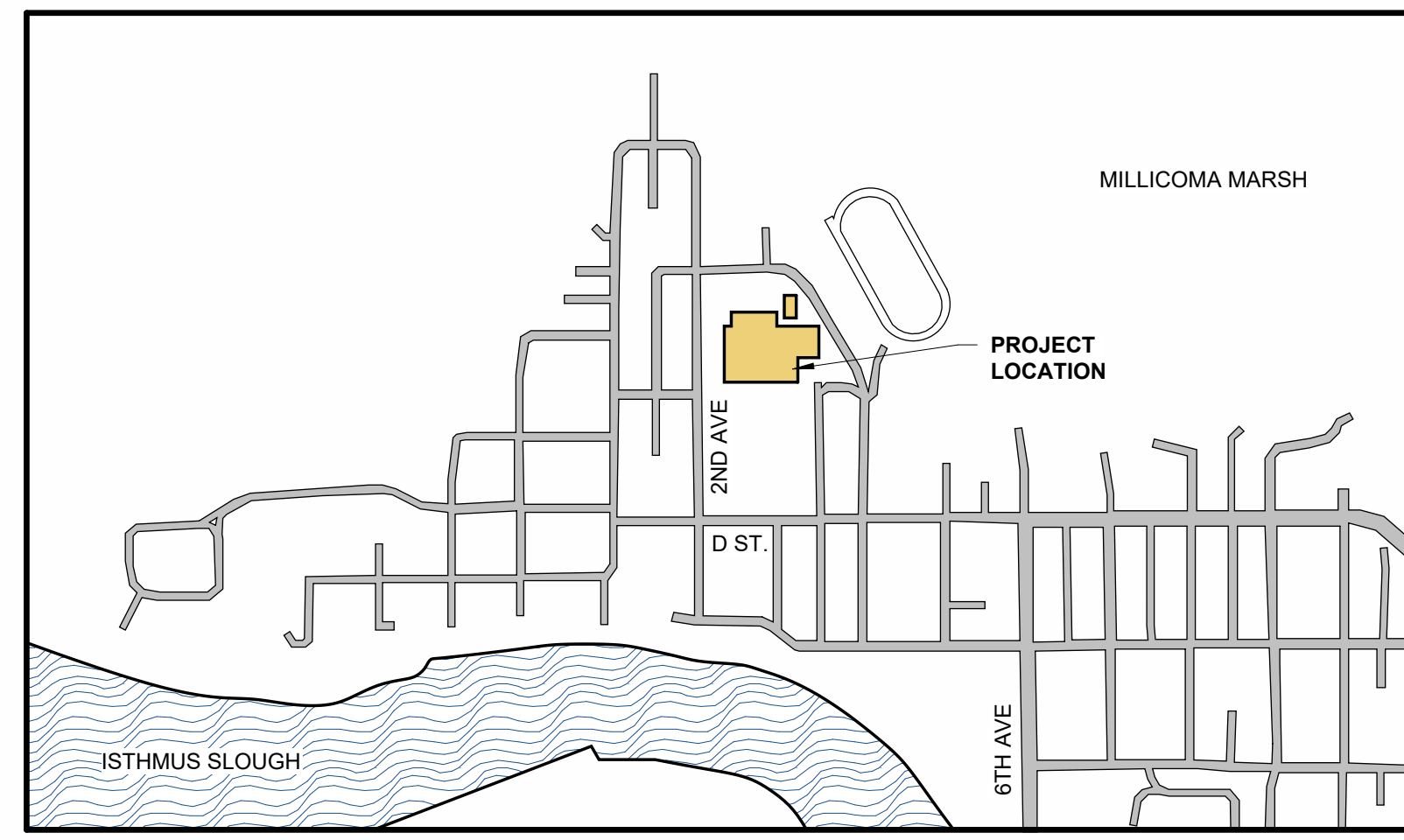
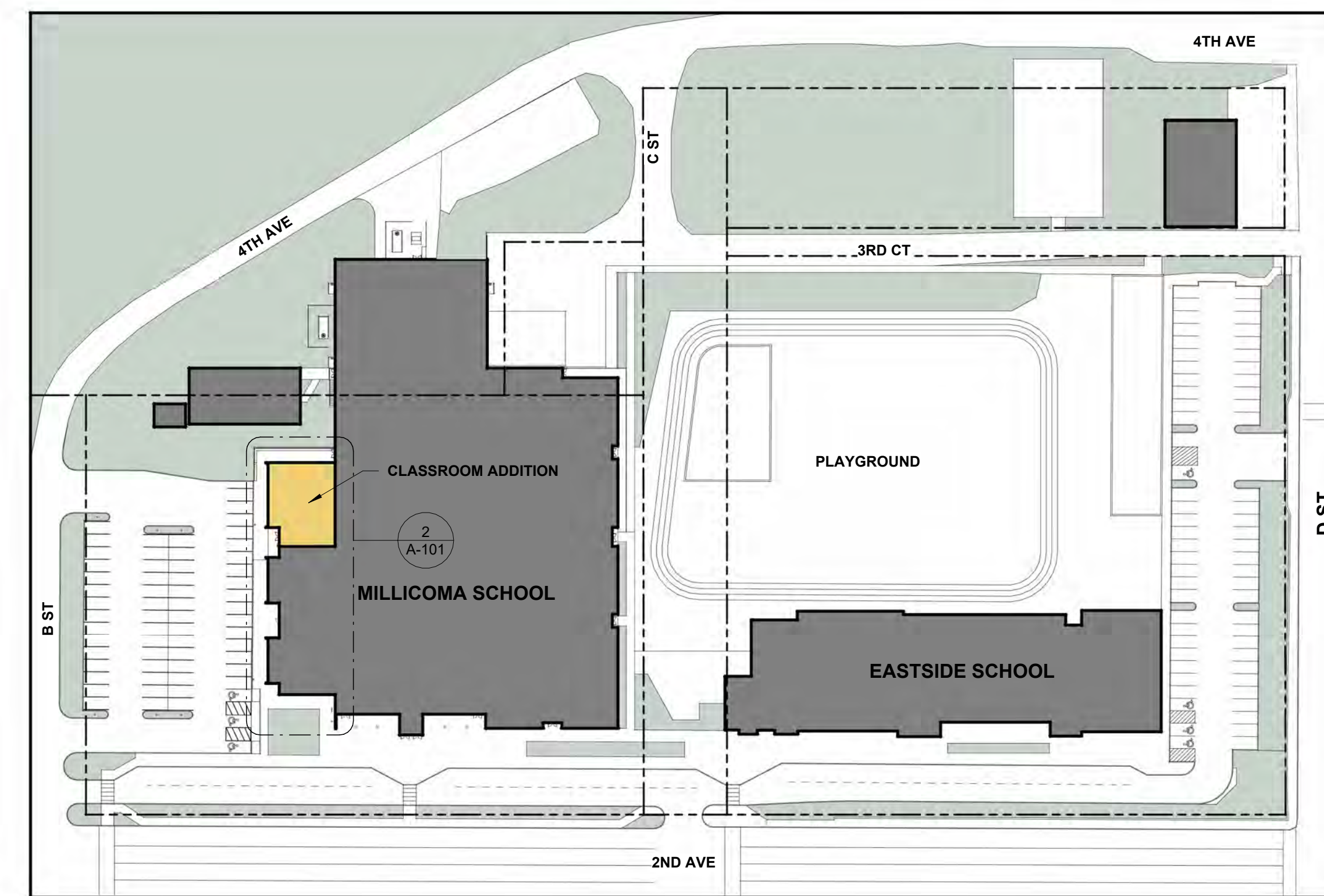


MILLICOMA SCHOOL REROOF & CLASSROOM ADDITION

COOS BAY PUBLIC SCHOOLS
260 2ND AVE, COOS BAY, OREGON



4 VICINITY MAP
N.T.S.



3 OVERALL SITE PLAN
1" = 80'-0"

PROJECT TEAM

OWNER
COOS BAY SCHOOL DISTRICT
1255 HEMLOCK AVE
COOS BAY, OR 97420
PHONE: (541) 267-3104

PROJECT MANAGEMENT
INTEGRITY MANAGEMENT SOLUTIONS
18525 VAN HORN ROAD
ALSEA, OR 97324
PHONE: (541) 760-5885
CONTACT: CHRIS GIGGY

CONTRACTOR
SCOTT PARTNEY CONSTRUCTION
720 CHAPPELL PKWY
NORTH BEND, OR 97459
PHONE: (541) 756-7060
CONTACT: SCOTT PARTNEY

ARCHITECT
HGE ARCHITECTS INC.
333 SOUTH 4TH STREET
COOS BAY, OR 97420
PHONE: (541) 269-1166
CONTACT: JOE SLACK

STRUCTURAL
DCI ENGINEERS
921 SW WASHINGTON STREET, SUITE 560
PORTLAND, OR 97205
PHONE: (503) 242-2448
CONTACT: TODD YOUNG

PLUMBING
INTERFACE ENGINEERING INC.
100 SW MAIN ST
SUITE 1600
PORTLAND, OR 97204
PHONE: (503) 382-2266
CONTACT: RICK SILENZI

MECHANICAL - OWNER CONSULTANT
COMFORT FLOW HEATING
1951 DON ST
SPRINGFIELD, OR 97477
PHONE: (541) 726-0100
CONTACT: JARED ECK

ELECTRICAL - OWNER CONSULTANT
KYLE ELECTRIC
1085 S 2ND ST
COOS BAY, OR 97420
PHONE: (541) 756-2723
CONTACT: JASON MAULT

SHEET INDEX

GENERAL
G-000 COVER SHEET
G-001 CODE SUMMARY

ARCHITECTURAL DEMO
AD201 OVERALL DEMO FLOOR PLANS
AD221 ROOF DEMO PLAN

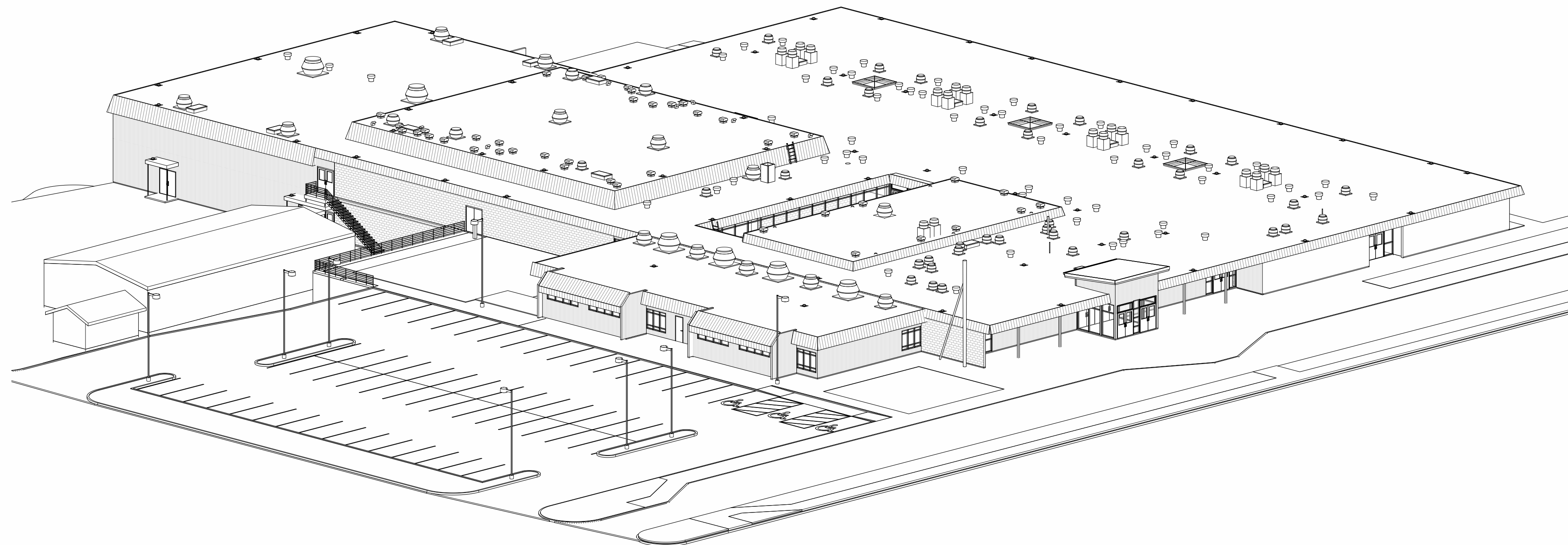
ARCHITECTURAL
A-101 SITE PLANS & DETAILS
A-201 OVERALL FLOOR PLANS
A-202 ENLARGED PLAN & INT. ELEVATIONS - CLASSROOM ADDITION
A-203 ENLARGED PLANS & INT. ELEVATIONS - WORKROOMS
A-211 REFLECTED CEILING PLANS
A-212 ENLARGED REFLECTED CEILING PLANS
A-222 ROOF PLAN - WEST
A-223 ROOF PLAN - EAST
A-301 BUILDING SECTIONS
A-302 BUILDING SECTIONS
A-303 ENLARGED BUILDING SECTIONS & DETAILS
A-401 EXTERIOR ELEVATIONS
A-402 ENLARGED EXTERIOR ELEVATIONS & ROOF MONITOR
A-501 EXTERIOR DETAILS
A-502 EXTERIOR DETAILS
A-503 EXTERIOR DETAILS - SKYLIGHTS / ROOF MONITORS
A-505 OPENING DETAILS & INTERIOR DETAILS
A-701 SCHEDULES & ABBREVIATIONS

STRUCTURAL
S-001 GENERAL NOTES, LEGEND, & ABBREVIATIONS
S-002 GENERAL NOTES CONTINUED
S-202 ENLARGED PLAN - CLASSROOM ADDITION
S-231 ROOF FRAMING PLAN
S-301 FOUNDATION DETAILS
S-401 FRAMING DETAILS
S-405 ROOF OVER-FRAMING DETAILS

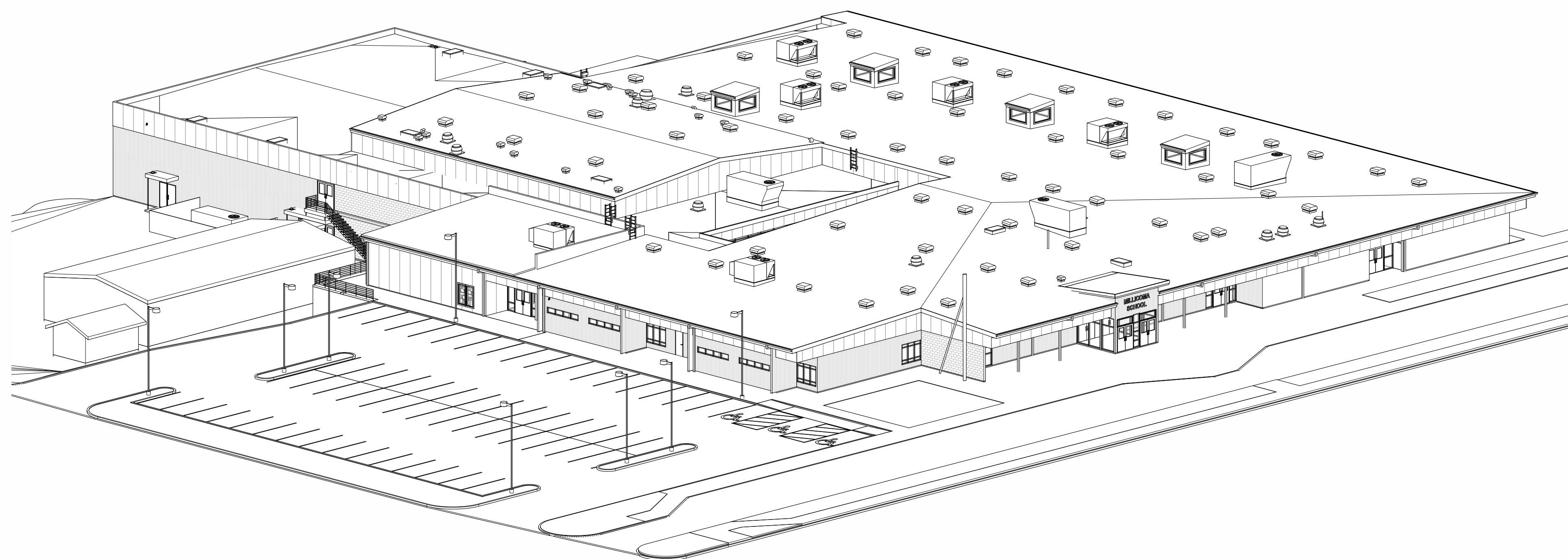
PLUMBING
P-001 SYMBOLS LIST & GENERAL NOTES
PD201 MAIN FLOOR PLAN - DEMOLITION
PD232 ROOF PLAN - DEMOLITION
P-201 MAIN FLOOR PLAN
P-232 ROOF PLAN

MECHANICAL - FOR REFERENCE ONLY
M1.00 SPECIFICATIONS, SYMBOLS, & ABBREVIATIONS
M1.10 SCHEDULES
M1.11 SCHEDULES
M2.00 HVAC LOWER LEVEL DEMOLITION
M2.10 HVAC INTERMEDIATE LEVEL DEMOLITION
M2.20 HVAC MAIN LEVEL DEMOLITION - WEST
M2.21 HVAC ROOF LEVEL DEMOLITION - EAST
M2.30 HVAC ROOF LEVEL DEMOLITION
M3.00 HVAC LOWER LEVEL
M3.10 HVAC INTERMEDIATE LEVEL
M3.20 HVAC MAIN LEVEL - WEST
M3.21 HVAC MAIN LEVEL - EAST
M3.30 HVAC ROOF LEVEL
M4.00 DETAILS
M4.01 CONTROL SCHEMATICS AND SEQUENCES

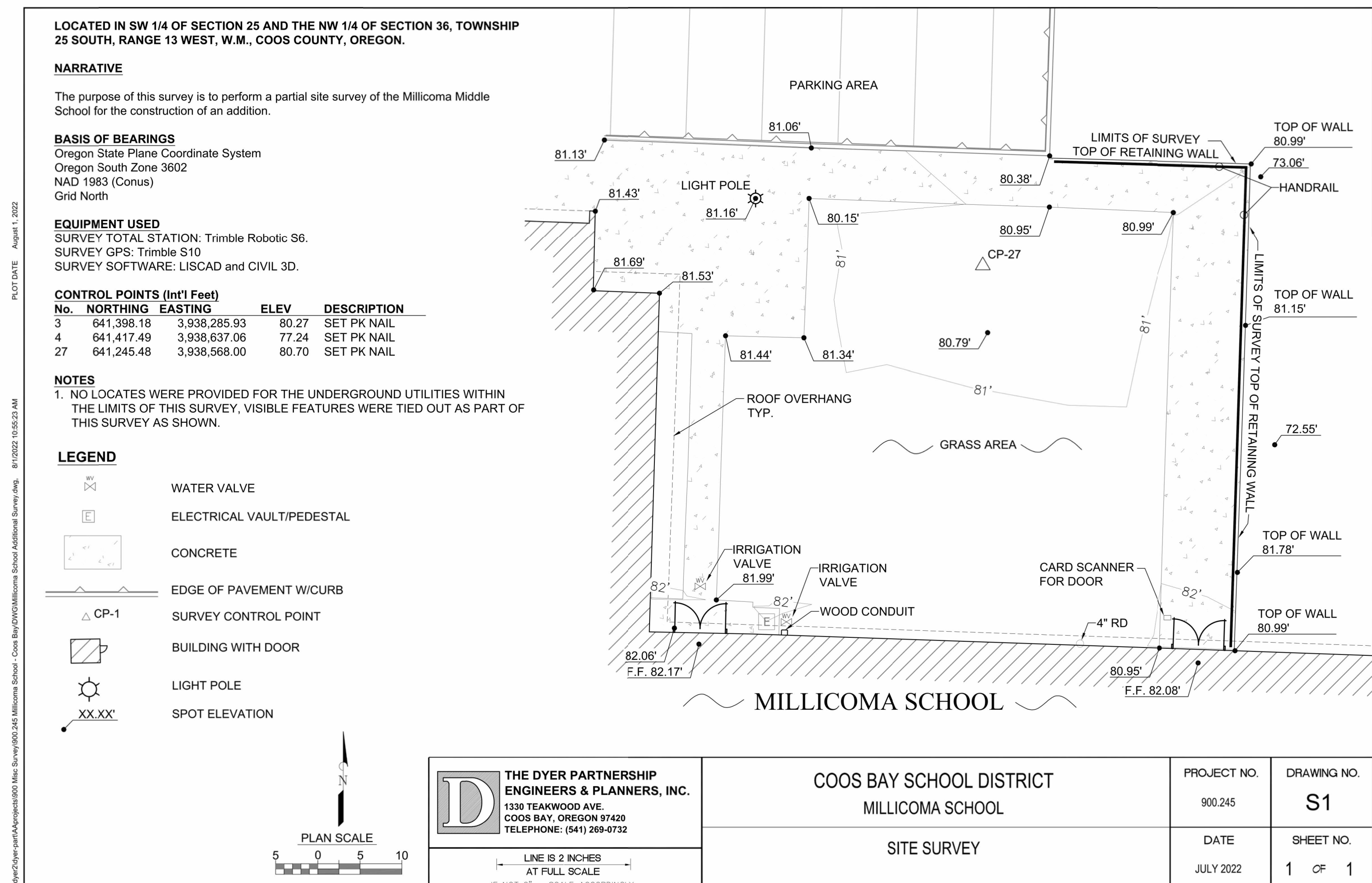
ELECTRICAL - FOR REFERENCE ONLY
E1.0 ONE-LINE DIAGRAM
E1.1 PANEL SCHEDULES
E2.0 NEW CLASSROOMS
E2.1 LIGHTING REPLACEMENT
E3.0 HVAC REPLACEMENT - LOWER & INTERMEDIATE LEVELS
E3.1 HVAC REPLACEMENT - UPPER LEVEL
E3.2 HVAC REPLACEMENT - ROOF



2 VIEW FROM NORTHWEST - EXISTING



1 VIEW FROM NORTHWEST



EXISTING SURVEY @ CLASSROOM ADDITION

PROJECT NO. 22.25
MILLICOMA SCHOOL REROOF & CLASSROOM ADDITION
COOS BAY SCHOOL DISTRICT
260 2ND AVE
COOS BAY, OR 97420

BIDDING

REVISIONS:

#	DATE	DESCRIPTION
A	1/20/23	BID SET

DATE: JANUARY 2023
SHEET TITLE: COVER SHEET
G-000
Copyright © 2023
HGE ARCHITECTS, INC.

CODE SUMMARY

APPLICABLE CODES:

2019 Oregon Structural Specialty Code (2018 IBC)
2018 International Existing Building Code

BUILDING CONSTRUCTION:

Existing Construction: Type 5B, non-sprinklered (Table 601) - Alteration Level 1 per IEBC
Existing Occupancy: E (305.1)
Addition Construction: Type 5B, non-sprinklered
Addition Occupancy: E

BUILDING AREA (GROSS SQ. FT.):

(E) Basement: 9,794 SF
(E) Lower Floor: 18,744 SF
(E) Main Floor: 52,563 SF
EXISTING TOTAL: 81,101 SF
Main Floor Addition: 2,720 SF
BUILDING TOTAL: 83,821 SF

ALLOWABLE HEIGHTS & AREAS:

Existing:
Type 5B, non-sprinklered, Occupancy Type E

Height (Table 504.3):
Allowable: 40 ft
Existing actual: 46 ft > 40 ft; N.G.
Addition actual: 18 ft; OK
Stories (Table 504.4):
Allowable: 1 story
Existing actual: 3 stories > 1; N.G.
Addition actual: 1 story; OK
Area (Table 506.2):
Allowable: 9,500 SF
Existing actual: 81,101 SF > 9,500 SF; N.G.
Addition actual: 2,744 SF; OK

Therefore, existing building is non-compliant with current code.
Addition to be considered separate building with shared facilities.

FIRE WALLS

Exterior walls, fire separation of < 5 ft, Occupancy Group E: 1-hour (Table 602)
Fire walls: 2-hour (Table 706.4, note A)
Construction (Table 721.1(2), item no. 14-1.5):
2x4 16" O.C. w/ (2) layers 5/8" type X gypsum wallboard each side
30" parapet required (706.6)
1-1/2-hour door (Table 716.1(1))
Allowable opening size (707.6): 156 SF; actual: 117 SF; OK

ATTIC DRAFTSTOPS

Divide attic into areas of maximum 3,000 SF (718.4); OK; see Roof Plans
Ventilation (1202.1): 1/300 of area, with 40-50% of venting located in upper portion of attic area; OK

TRAVEL DISTANCE MAXIMUM (TABLE 1006.2.1)

Occupancy Type E, no sprinkler: 75 feet; OK

OCCUPANT LOADS (TABLE 1004.5):

Room Name	Room No.	Area	Type	O.L.F.	Max Occ.	Req. Exits
Addition Hall	171	508 SF	E	-	98	1
Classroom 26	172	978 SF	E	20	49	1
Classroom 27	173	978 SF	E	20	49	1

PLUMBING FIXTURES (TABLE 2902.1):

Required:
1 toilet per 50 each sex
1 lavatory per 50 each sex
1 drinking fountain per floor

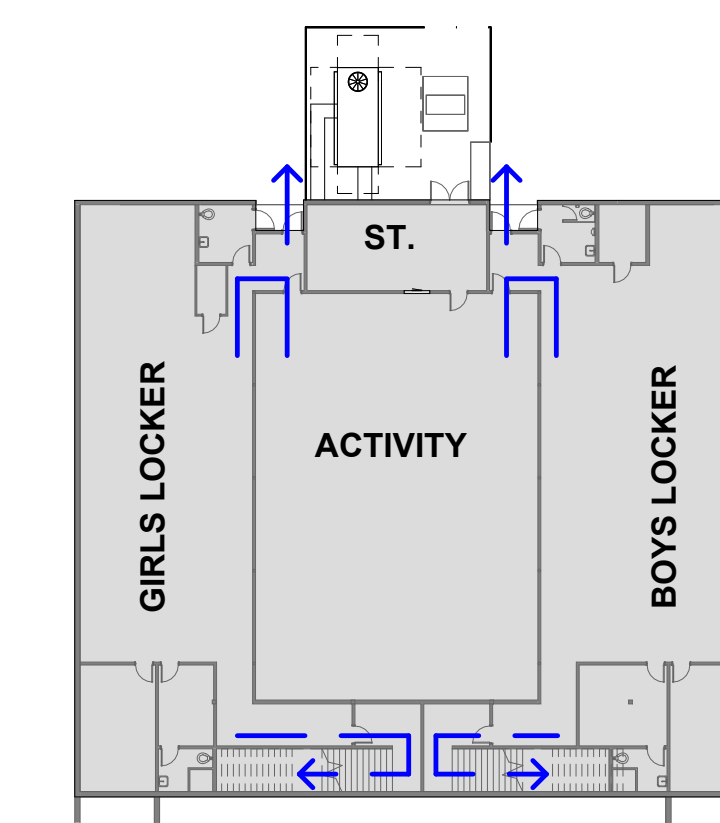
Total occupant load, including addition: 1,575 (see Occupant Load Schedule on A-701)
Assuming 788 males, 788 females:
16 toilets & 16 lavatories required for males
16 toilets & 16 lavatories required for females

Actual:
Male toilets: 21 (15 toilets, plus 6 urinals = 6 toilets, per Table 2902.1)
Male lavatories: 18
Female toilets: 23
Female lavatories: 18

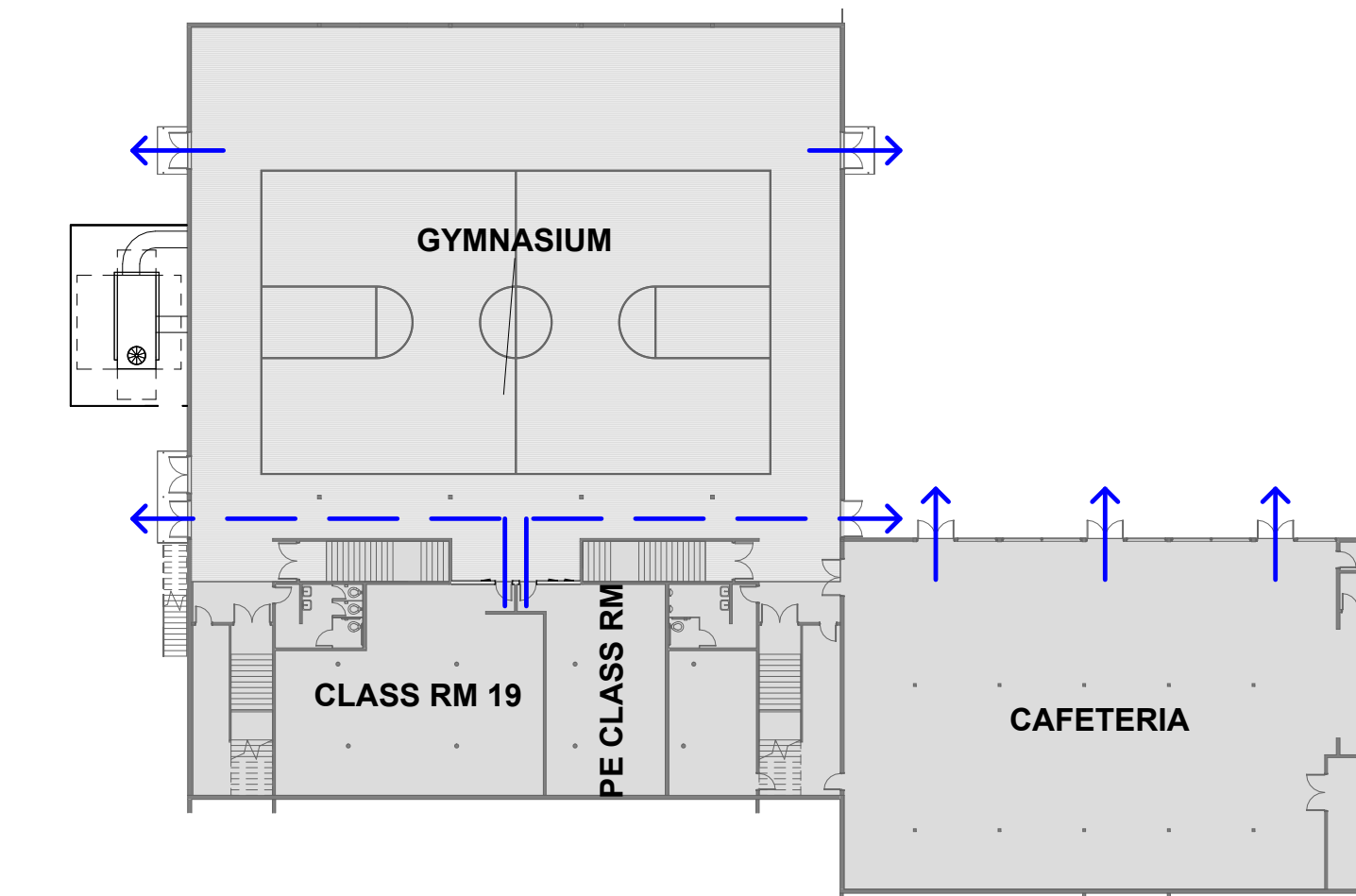
Therefore, building with addition is in compliance; OK

ROOM NAME	NO.	AREA	OCCUPANCY TYPE	OCCUPANCY LOAD FACTOR	OCCUPANT LOAD
WEST HALL	102A	2385 SF			
NORTH HALL 1	102B	1361 SF			
SOUTH HALL 1	102C	2261 SF			
NORTH HALL 2	102E	1115 SF			
SOUTH HALL 2	102F	2915 SF			
OFFICE	103	334 SF	B	150	3
WAITING RM	104	342 SF	B	150	3
COUNSELOR	105	116 SF	B	150	1
COUNSELOR	106	116 SF	B	150	1
SICK RM	107	156 SF	I	240	1
NURSE	109	151 SF	I	240	1
ST.	110	82 SF	S	300	1
PRINCIPLE	112	129 SF	B	150	1
ST.	113	148 SF	S	300	1
STAFF RM	114	629 SF	B	150	5
LIBRARY	119	2732 SF	A	200	28
OFFICE	120	86 SF	B	150	1
WORK RM	121	379 SF	B	150	3
OFFICE	122	133 SF	B	150	1
CONF.	123	87 SF	B	150	1
CONF.	124	254 SF	B	150	2
AUDITORIUM	129	6007 SF	E	20	301
OFFICE	129A	452 SF	B	150	3
PRACTICE	130	86 SF	S	300	1
PRACTICE	131	125 SF	S	300	1
PRACTICE	132	275 SF	S	300	1
OFFICE	133	291 SF	S	300	1
ST.	134	158 SF	S	300	1
OFFICE	135	128 SF	B	150	1
OFFICE	136	148 SF	B	150	1
LIBRARY	137	159 SF	S	300	1
PRACTICE	138	87 SF	S	300	1
PRACTICE	139	86 SF	S	300	1
CLASS RM 1	143	928 SF	E	20	47
CLASS RM 2	144	928 SF	E	20	47
CLASS RM 3	145	929 SF	E	20	47
CLASS RM 4	146	929 SF	E	20	47
CLASS RM 5	147	928 SF	E	20	47
WORK RM 1	148	535 SF	E	20	27
CLASS RM 6	149	929 SF	E	20	47
CLASS RM 7	150	929 SF	E	20	47
CLASS RM 8	151	929 SF	E	20	47
CLASS RM 9	152	929 SF	E	20	47
WORK RM 2	153	534 SF	E	20	27
CLASS RM 10	154	926 SF	E	20	47
CLASS RM 11	155	927 SF	E	20	47
CLASS RM 12	156	929 SF	E	20	47
CLASS RM 13	157	928 SF	E	20	47
WORK RM 3	158	135 SF	E	20	7
MDF	159	253 SF	B	150	2
WORK RM 4	160	135 SF	E	20	7
CLASS RM 14	161	928 SF	E	20	47
CLASS RM 15	162	929 SF	E	20	47
CLASS RM 16	163	929 SF	E	20	47
CLASS RM 17	164	928 SF	E	20	47
WORK RM 5	165	535 SF	E	20	27
CLASS RM 22	166	1048 SF	E	20	53
CLASS RM 23	167	1049 SF	E	20	53
STORAGE	168	337 SF	S	300	2
CLASS RM 24	169	1049 SF	E	20	53
CLASS RM 25	170	1050 SF	E	20	53
CLASS RM 26	172	978 SF	E	20	49
CLASS RM 27	173	978 SF	E	20	49

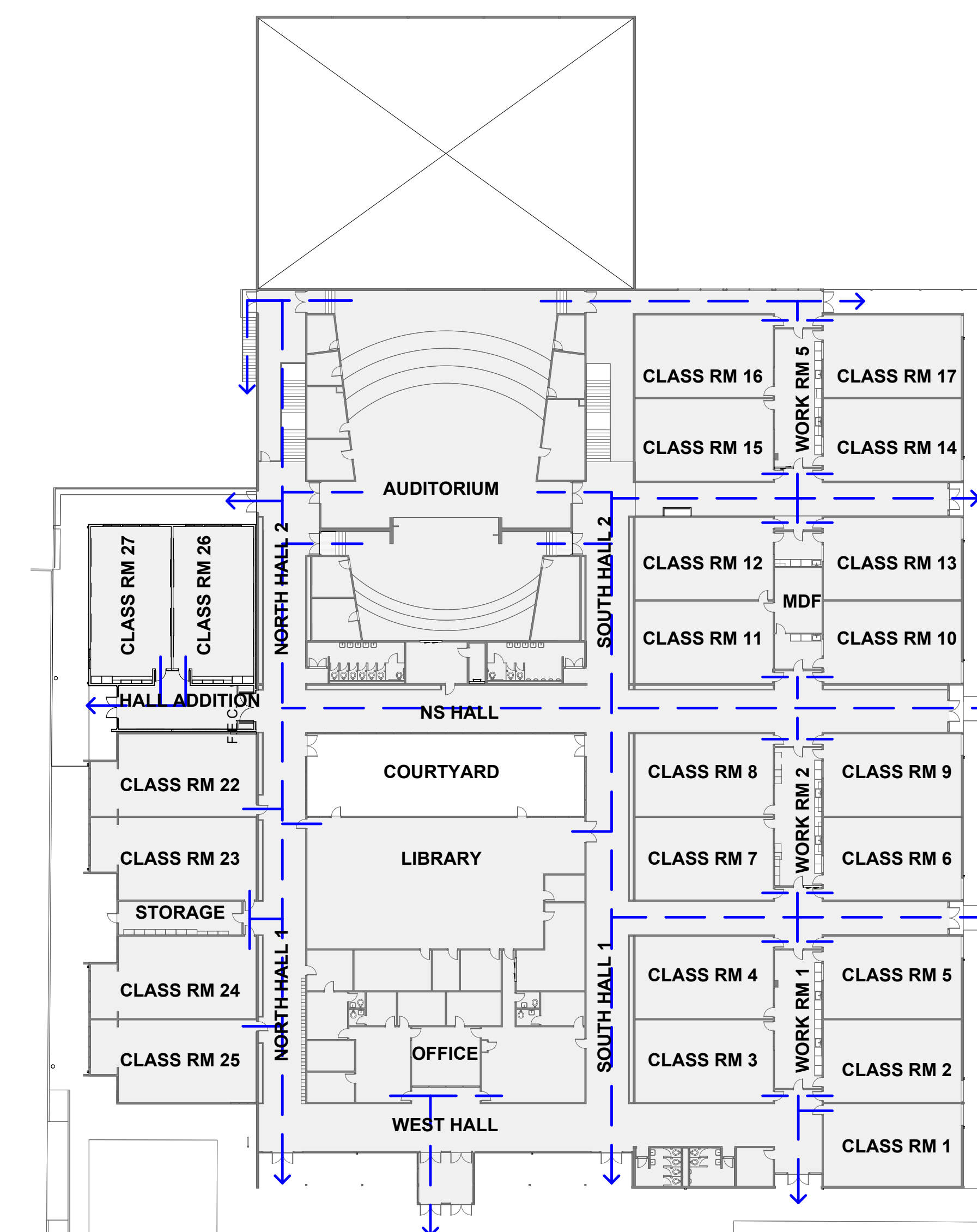
TOTAL: 1,575



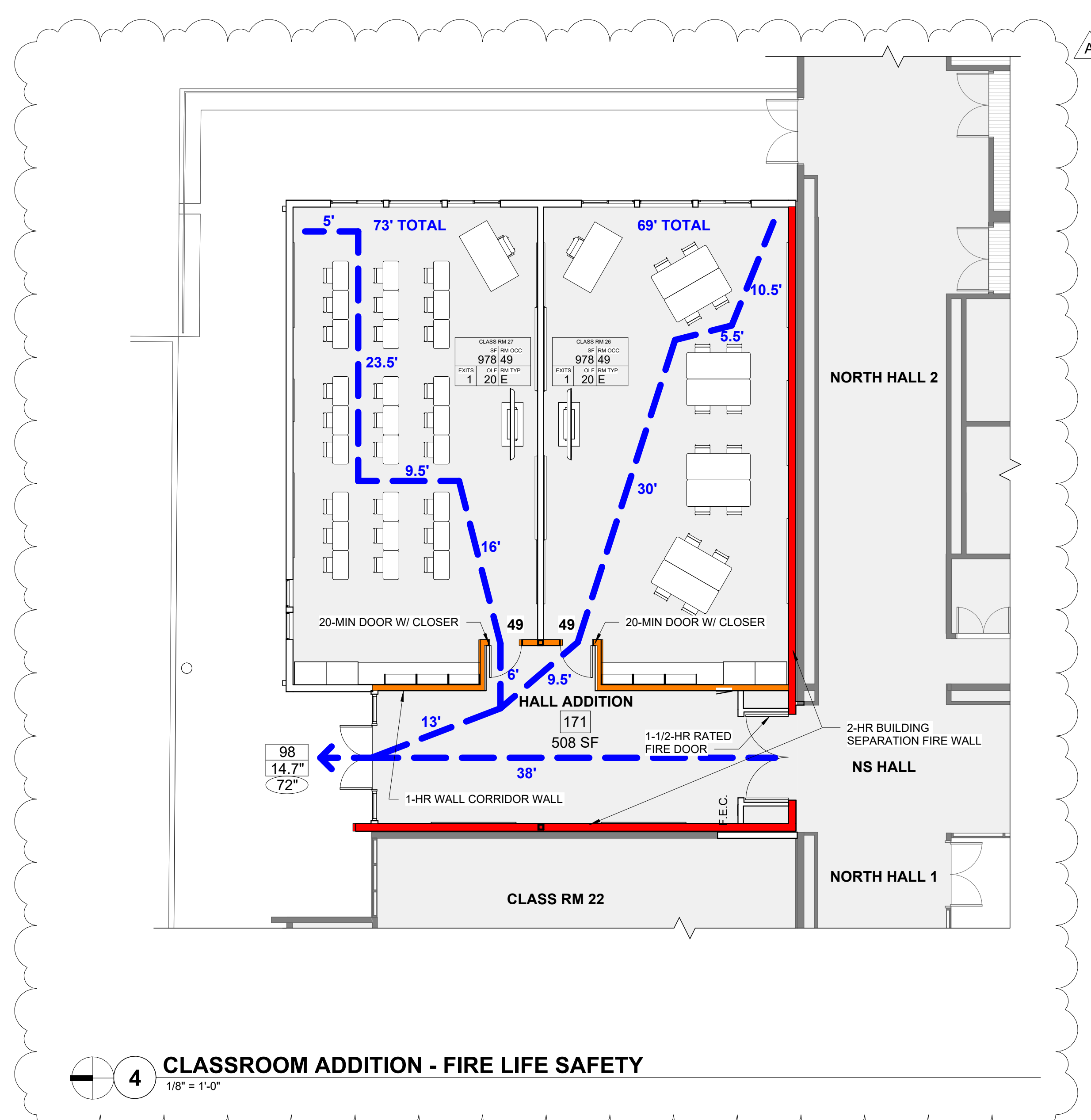
3 BASEMENT FLOOR PLAN - FIRE LIFE SAFETY
1" = 30'-0"



2 LOWER FLOOR PLAN - FIRE LIFE SAFETY
1" = 30'-0"



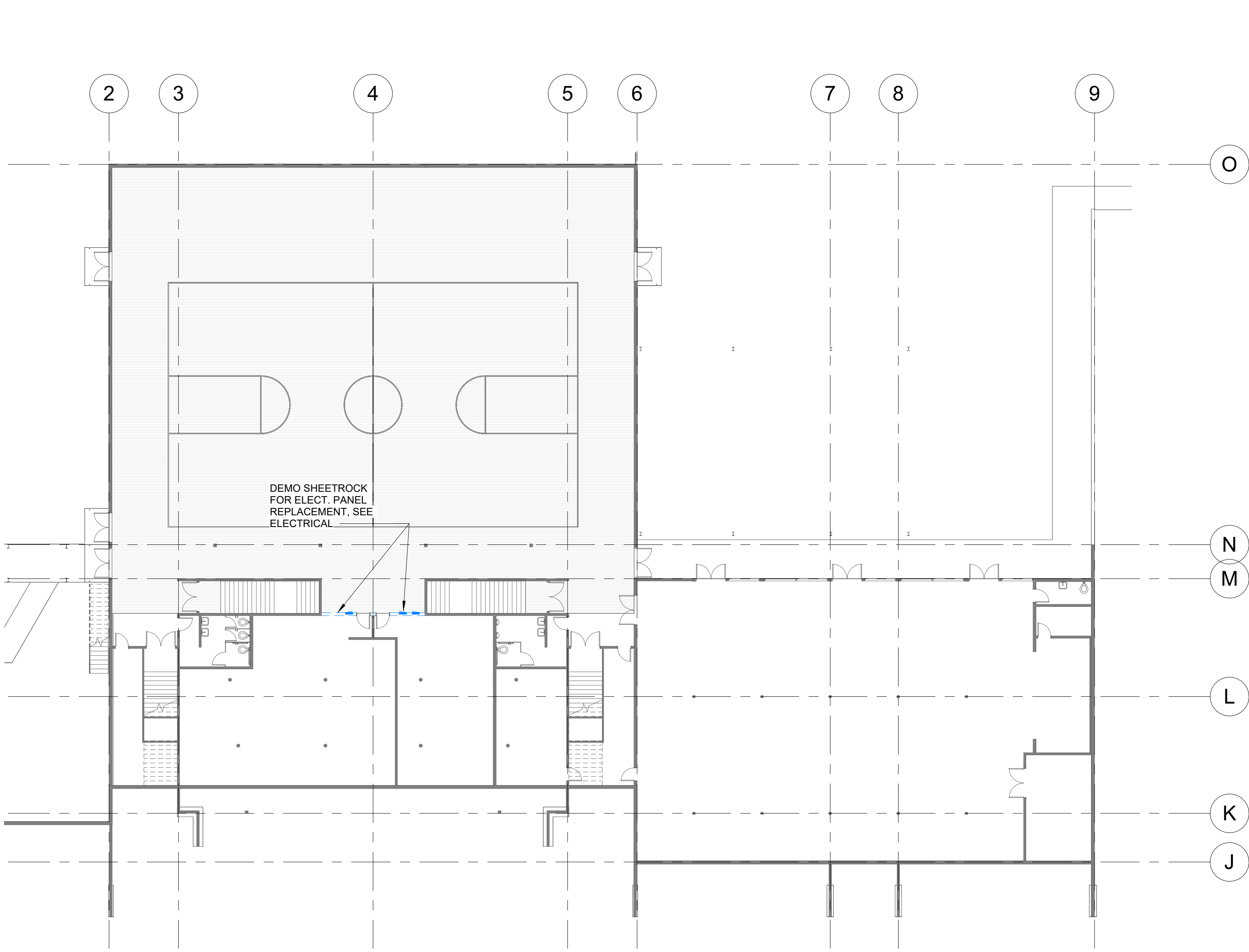
1 MAIN FLOOR PLAN - FIRE LIFE SAFETY
1" = 30'-0"



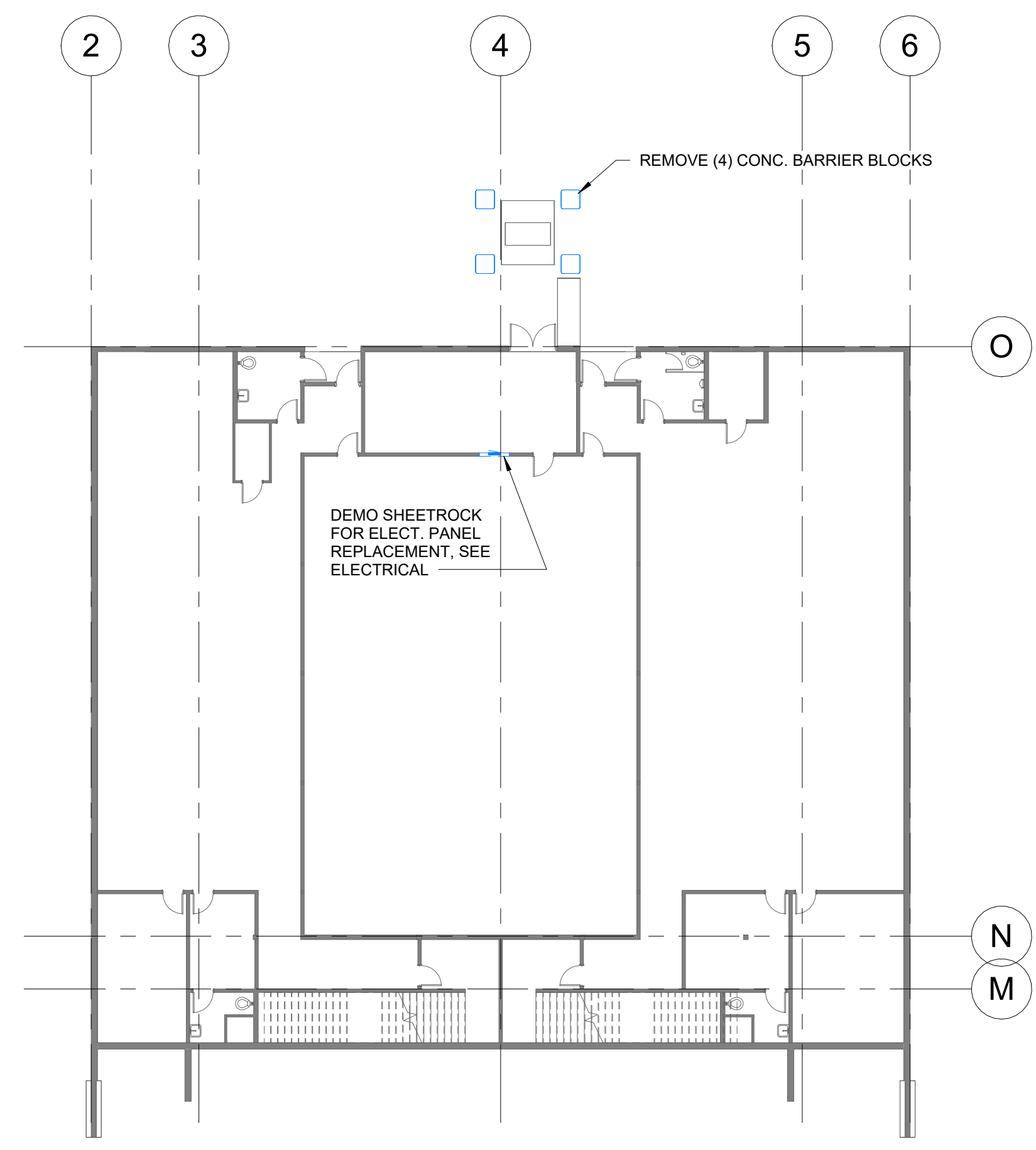
4 CLASSROOM ADDITION - FIRE LIFE SAFETY
1/8" = 1'-0"

DEMO FLOOR PLAN GENERAL NOTES

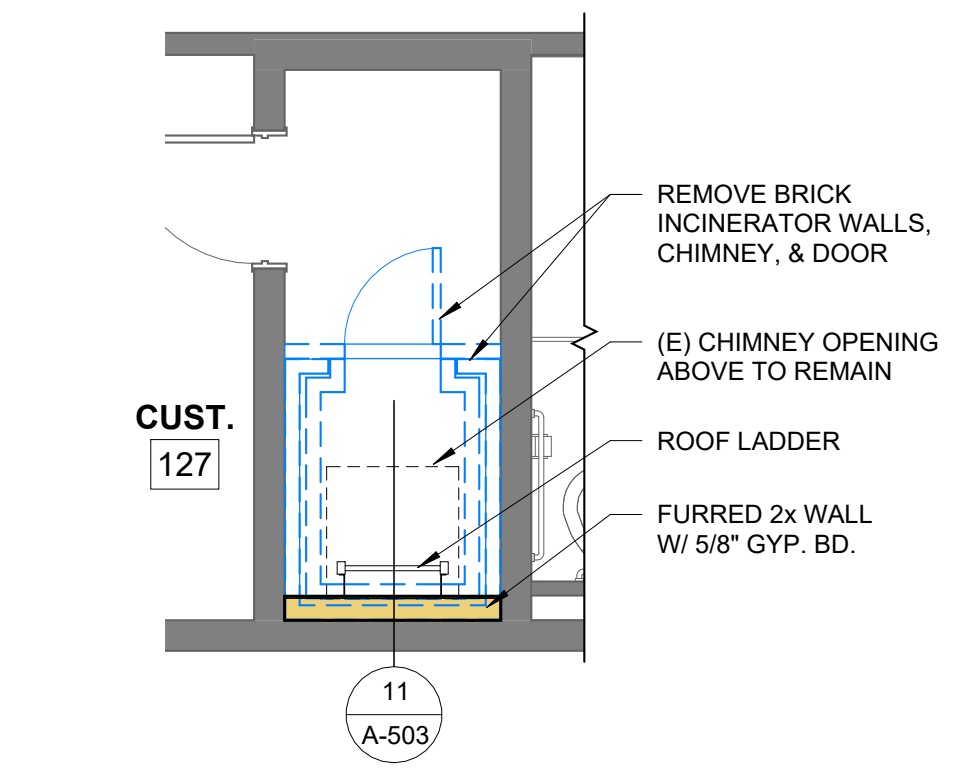
- A. REFER TO REFLECTED CEILING PLANS AND KEYNOTES FOR DEMO INFORMATION
- B. REFER TO SHEET A-701 FINISH SCHEDULE AND KEYNOTES FOR DEMO INFORMATION
- C. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR EXTENT OF DEMOLITION REQUIRED FOR REMOVAL OF ABANDONED COMPONENTS AND NEW WORK



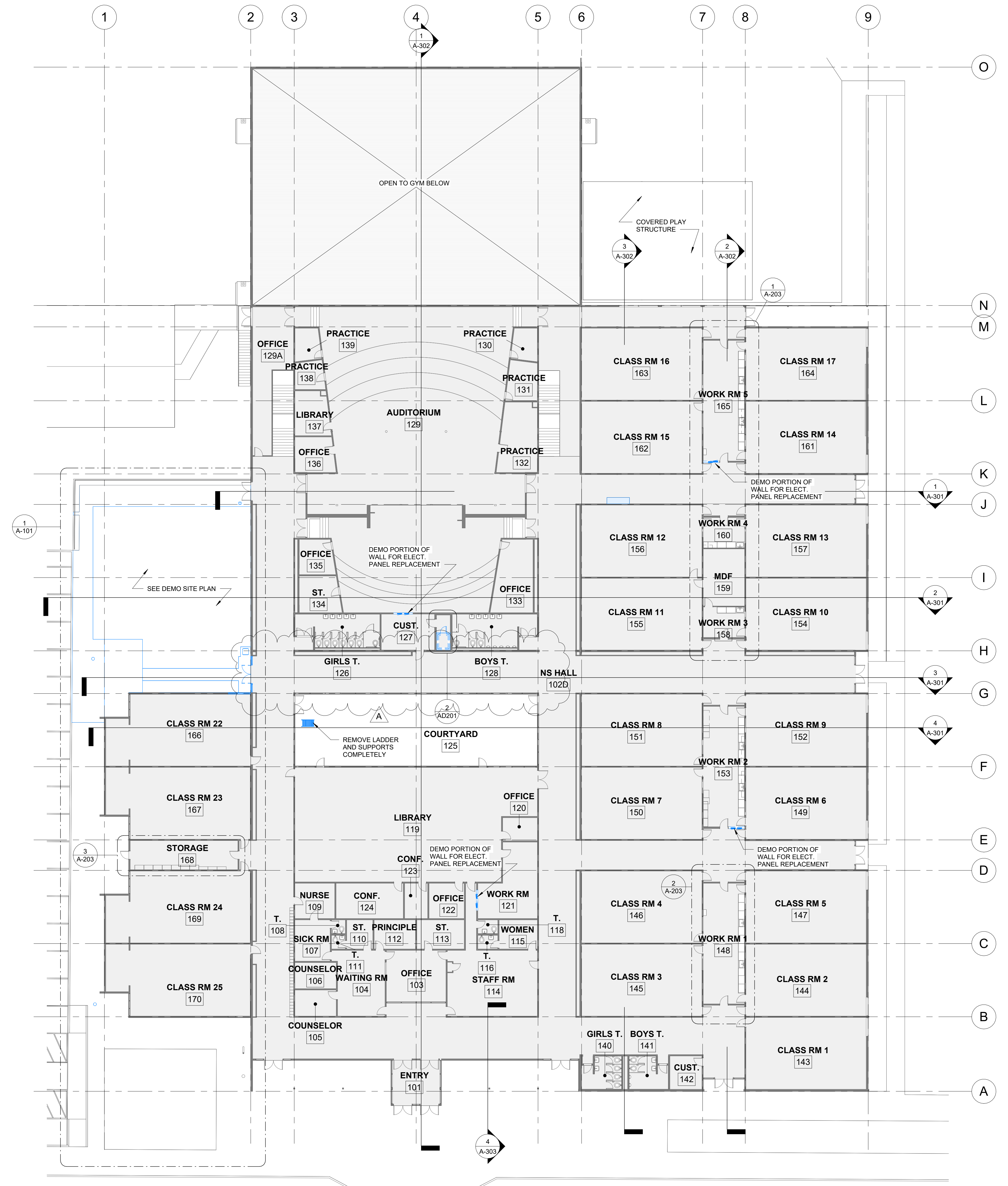
3 DEMO PLAN - LOWER FLOOR
 1/16" = 1'-0"



4 DEMO PLAN - BASEMENT
 1/16" = 1'-0"



2 ENLARGED DEMO PLAN - CUSTODIAL
 1/4" = 1'-0"



1 DEMO PLAN - MAIN FLOOR
 1/16" = 1'-0"

BIDDING

REVISIONS	#	DATE	DESCRIPTION
A	1	1/20/23	BID SET

DATE: JANUARY 2023

SHEET TITLE:
OVERALL DEMO FLOOR PLANS

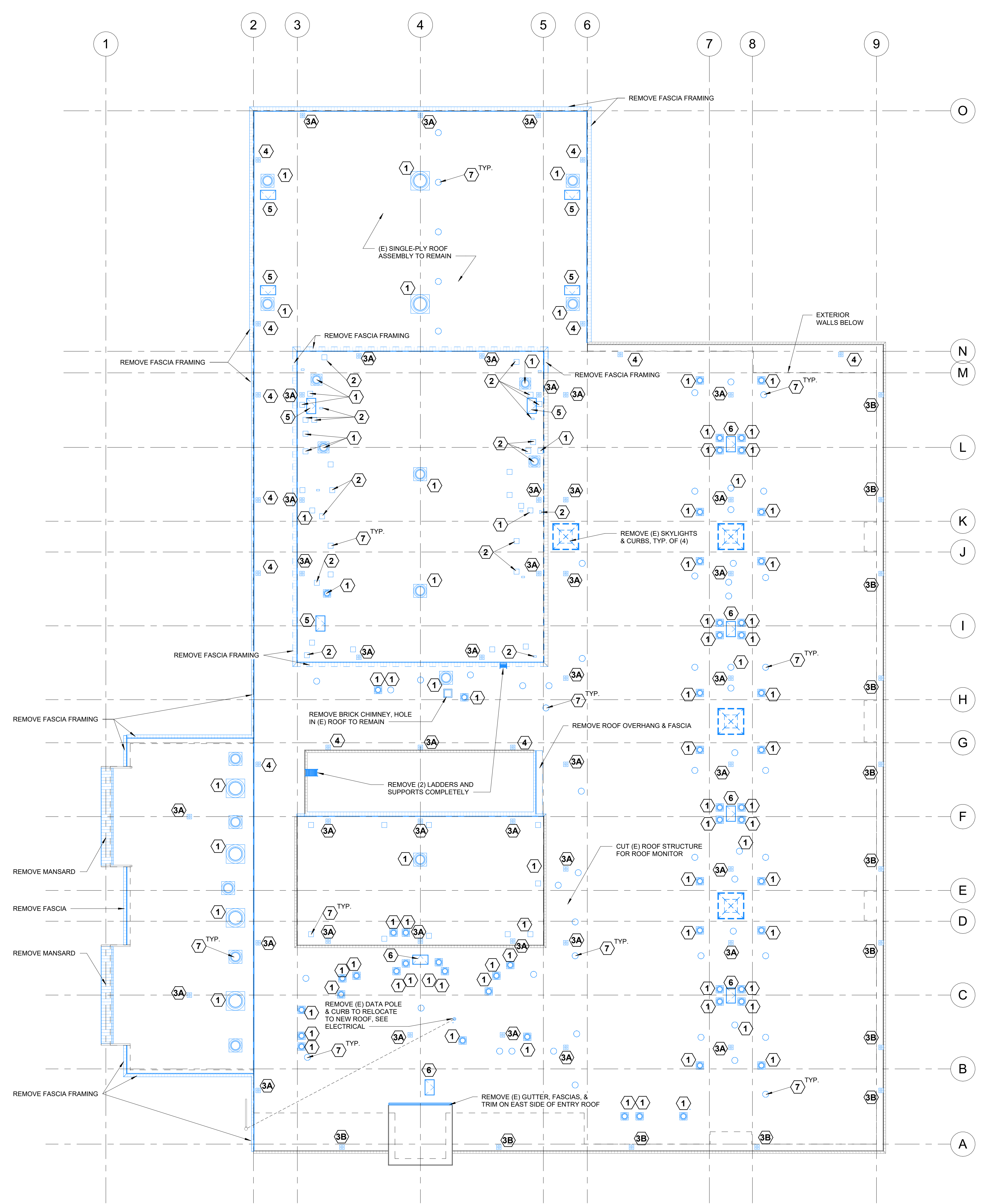
AD201

ROOF DEMO PLAN GENERAL NOTES

1. ALL (E) PLUMBING VENTS TO REMAIN. EXTEND TO NEW ROOF.
2. REMOVE ALL (E) FASCIA SIDING, TRIM, & CANT STRIPS. FRAMING/SHEATHING TO REMAIN UNLESS NOTED OTHERWISE.

ROOF DEMO PLAN KEYNOTES

1. MECHANICAL EQUIPMENT TO BE REMOVED. SEE MECHANICAL.
2. MECHANICAL EQUIPMENT TO BE REMOVED & RE-USED. SEE MECHANICAL.
- 3A. REMOVE ROOF DRAIN. CAP PIPING BELOW ROOF LINE. SEE PLUMBING.
- 3B. REMOVE ROOF DRAIN. MAINTAIN PIPING FOR CONNECTION TO GUTTER DOWNSPOUT. SEE PLUMBING.
4. REMOVE ROOF HATCH. NEW ROOF HATCH TO BE INSTALLED IN SAME LOCATION. (E) OPENING TO REMAIN & ACCESS EXTENDED TO NEW ROOF.
5. REMOVE ROOF HATCH. OPENING TO REMAIN.
6. REMOVE ROOF HATCH. OPENING TO REMAIN.
7. REMOVE ATTIC VENT & CURB. OPENING TO REMAIN. VERIFY WITH MECHANICAL.



1 DEMO PLAN - ROOF
1/16" = 1'-0"

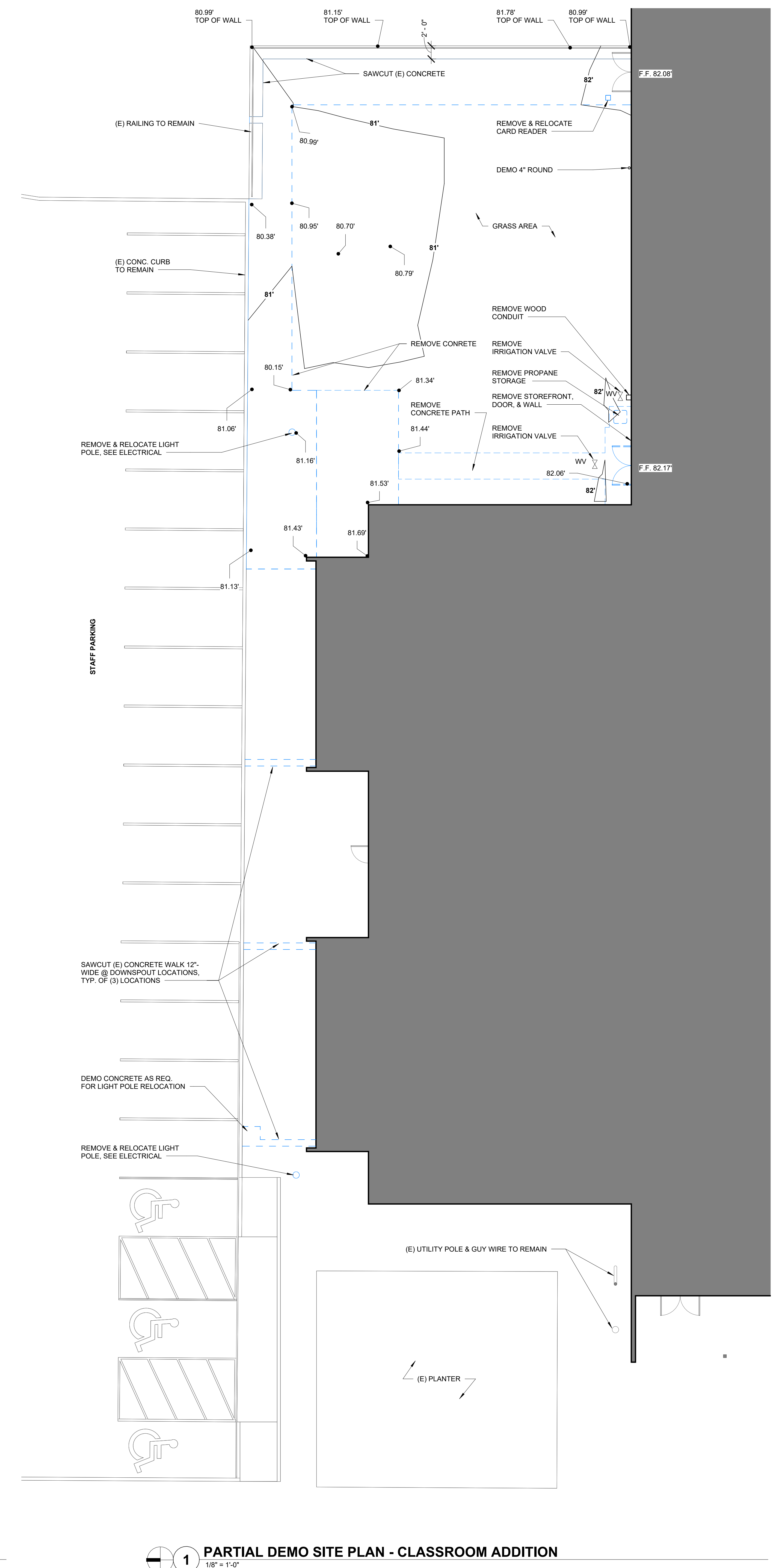
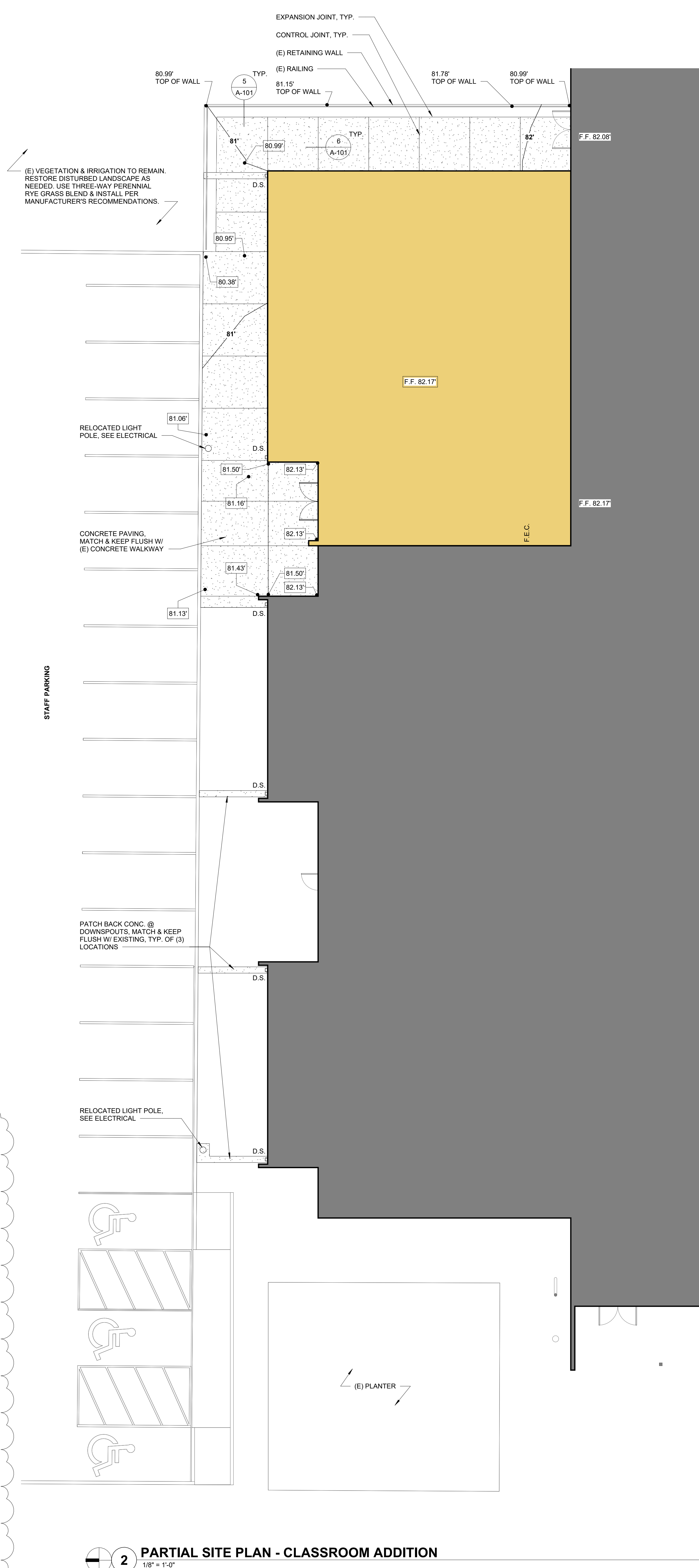
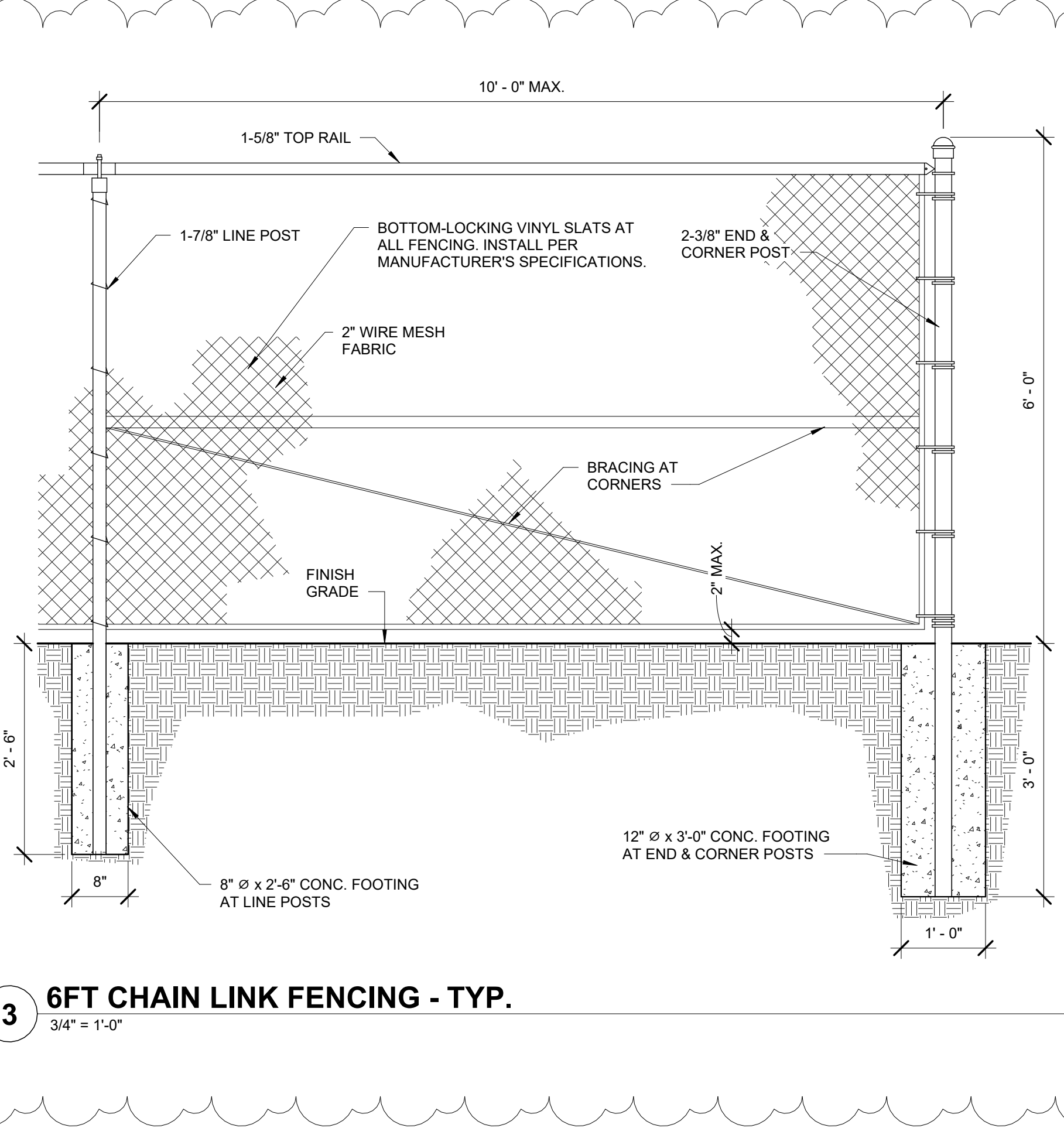
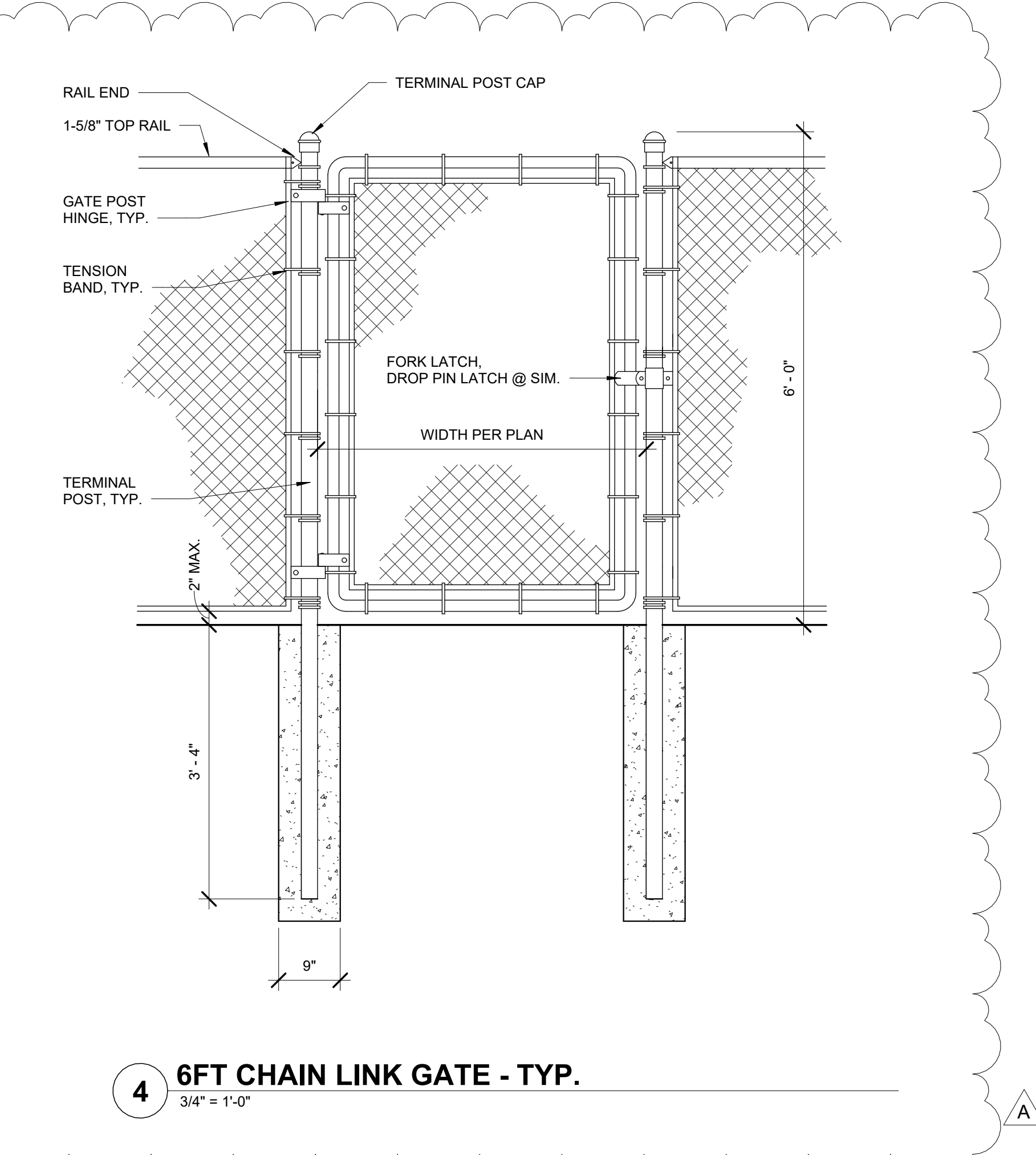
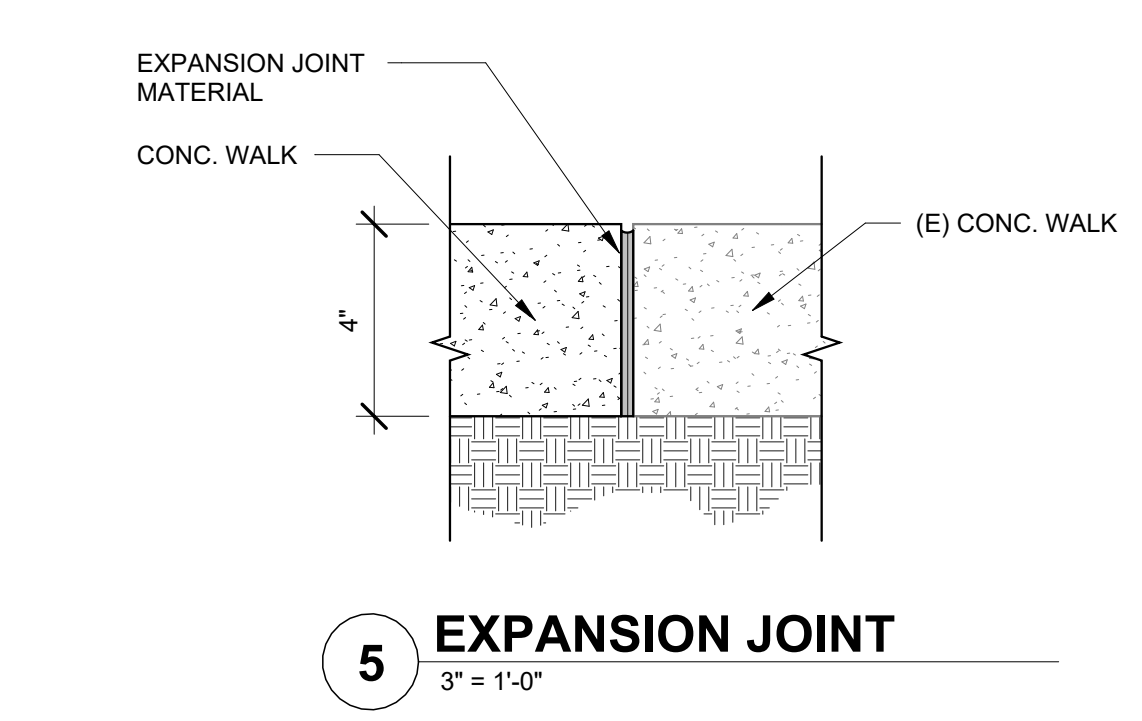
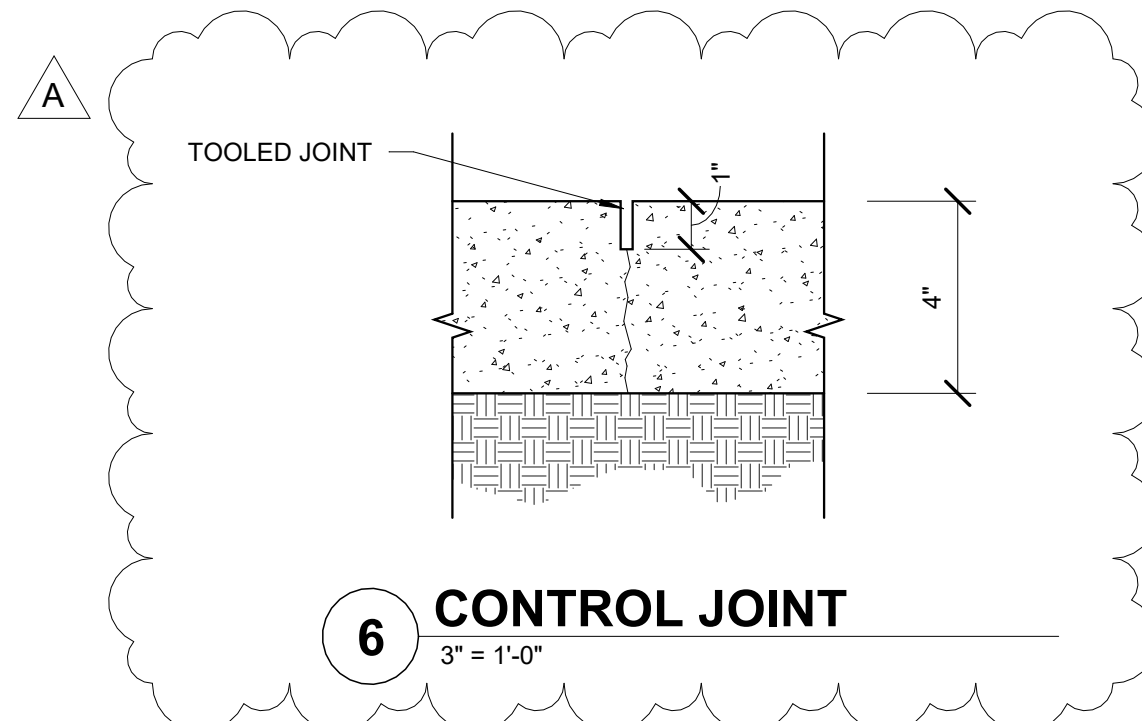
PROJECT NO. : 22.25
MILLICOMA SCHOOL REROOF & CLASSROOM ADDITION
COOS BAY SCHOOL DISTRICT
290 2ND AVE
COOS BAY, OR 97420

BIDDING

REVISIONS:	DATE	DESCRIPTION
#		
A	1/20/23	BID SET

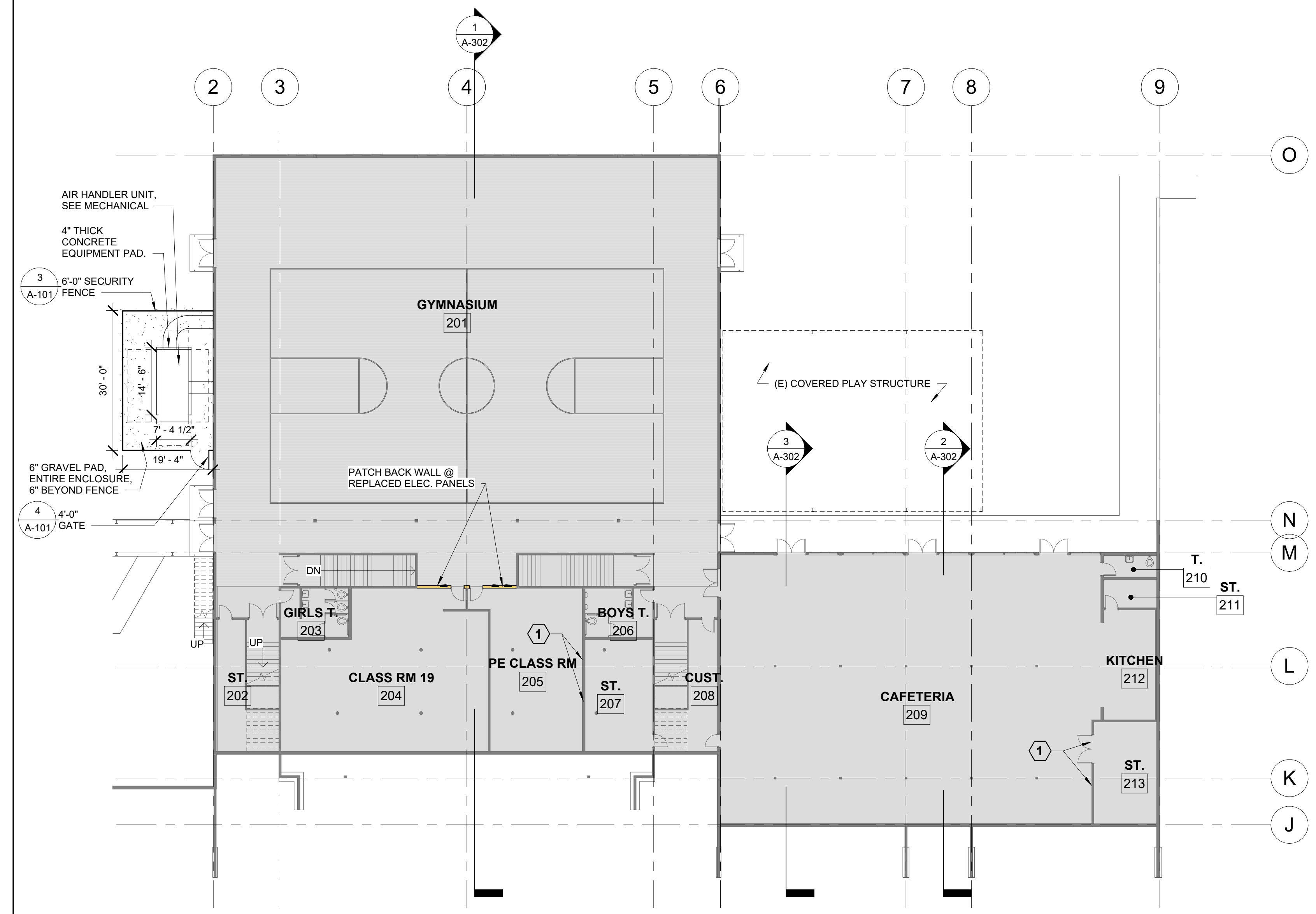
DATE: JANUARY 2023
SHEET TITLE:
ROOF DEMO PLAN

AD221

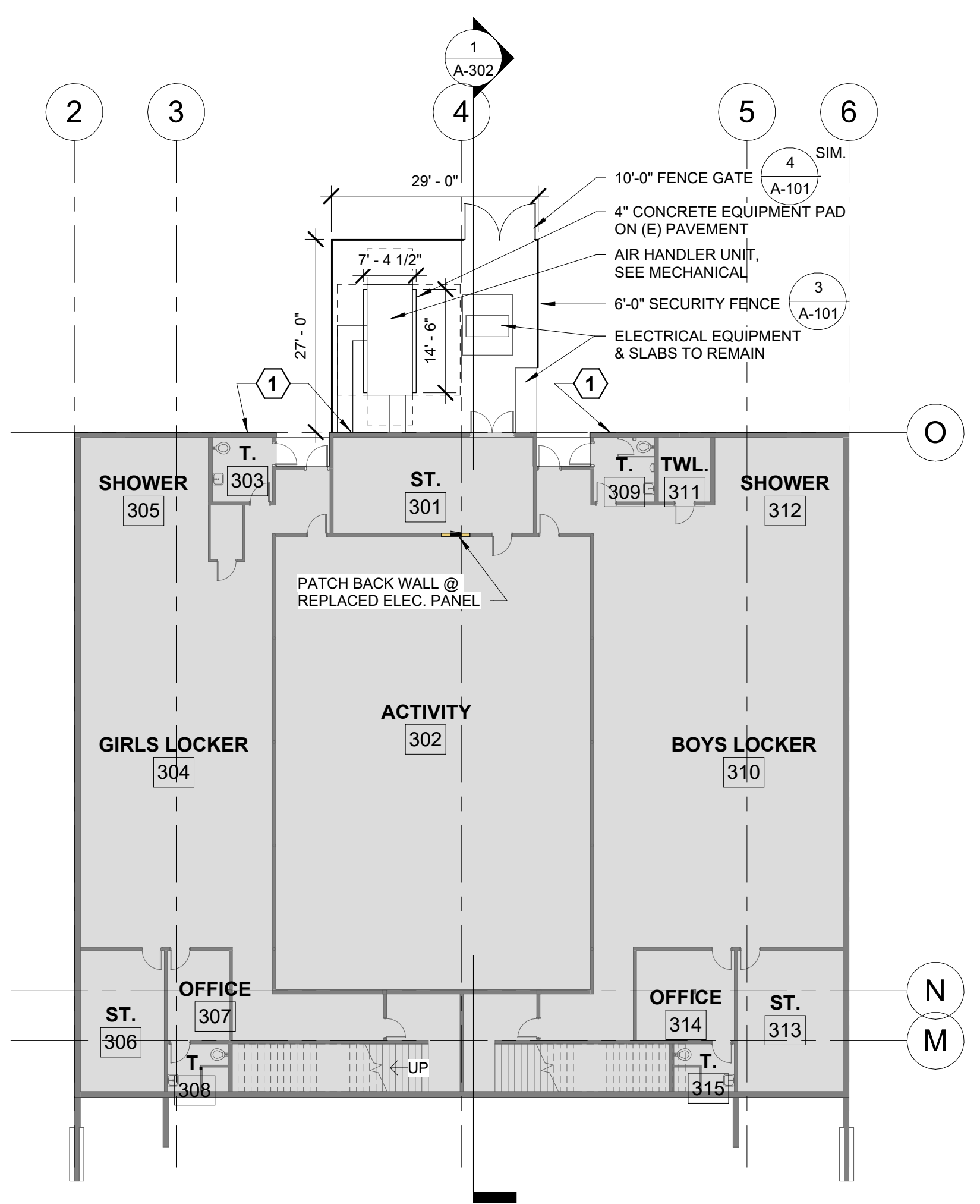


1. PATCH BACK WALL FLUSH, MATCH (E) FINISH, AFTER EQUIPMENT REMOVAL. SEE MECH. AND ELECTRICAL FOR LOCATION AND EXTENT OF WORK.

OVERALL FLOOR PLAN KEYNOTE
1/4" = 1'-0"



2 LOWER FLOOR PLAN
1/16" = 1'-0"



3 BASEMENT FLOOR PLAN
1/16" = 1'-0"

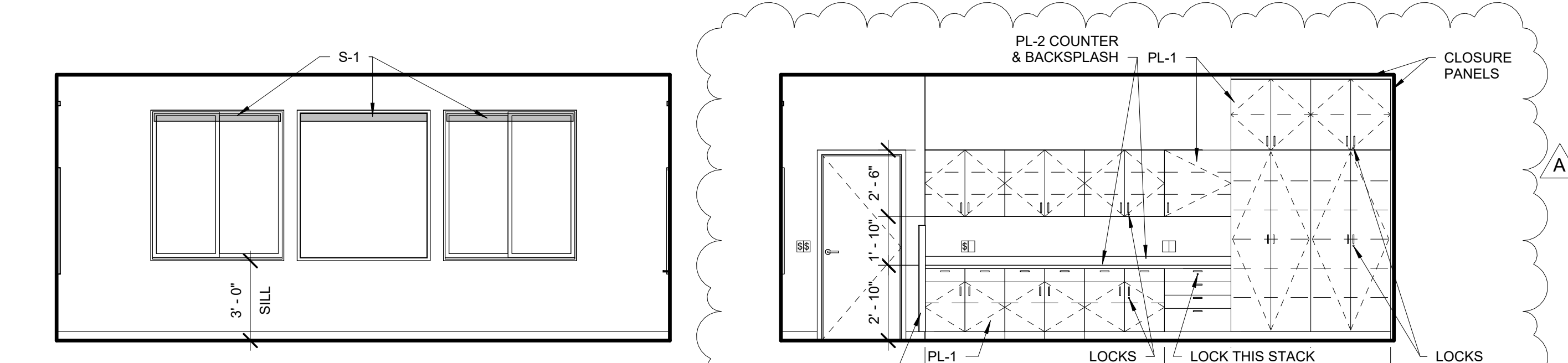


1 MAIN FLOOR PLAN
1/16" = 1'-0"

PROJECT NO.: 22-25
MILLICOMA SCHOOL REROOF & CLASSROOM ADDITION
COOS BAY SCHOOL DISTRICT
290 2ND AVE.
COOS BAY, OR 97420

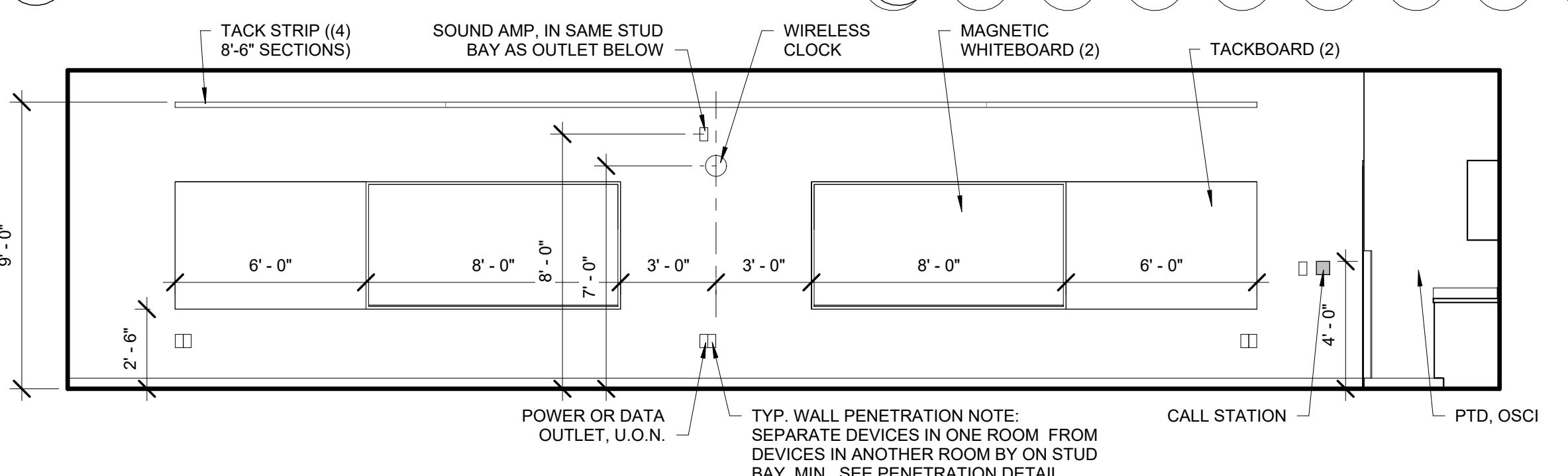
BIDDING
REVISIONS:
DATE DESCRIPTION
A 1/20/23 BID SET

DATE: JANUARY 2023
SHEET TITLE:
OVERALL FLOOR PLANS

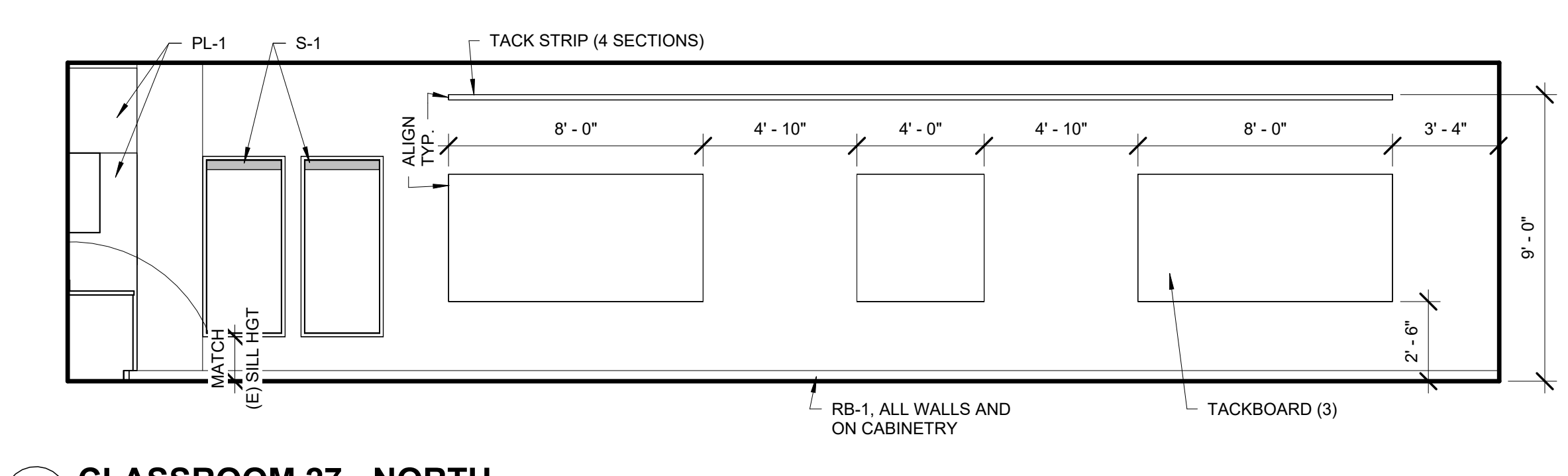


8 CLASSROOM 27 - EAST
 1/4" = 1'-0"

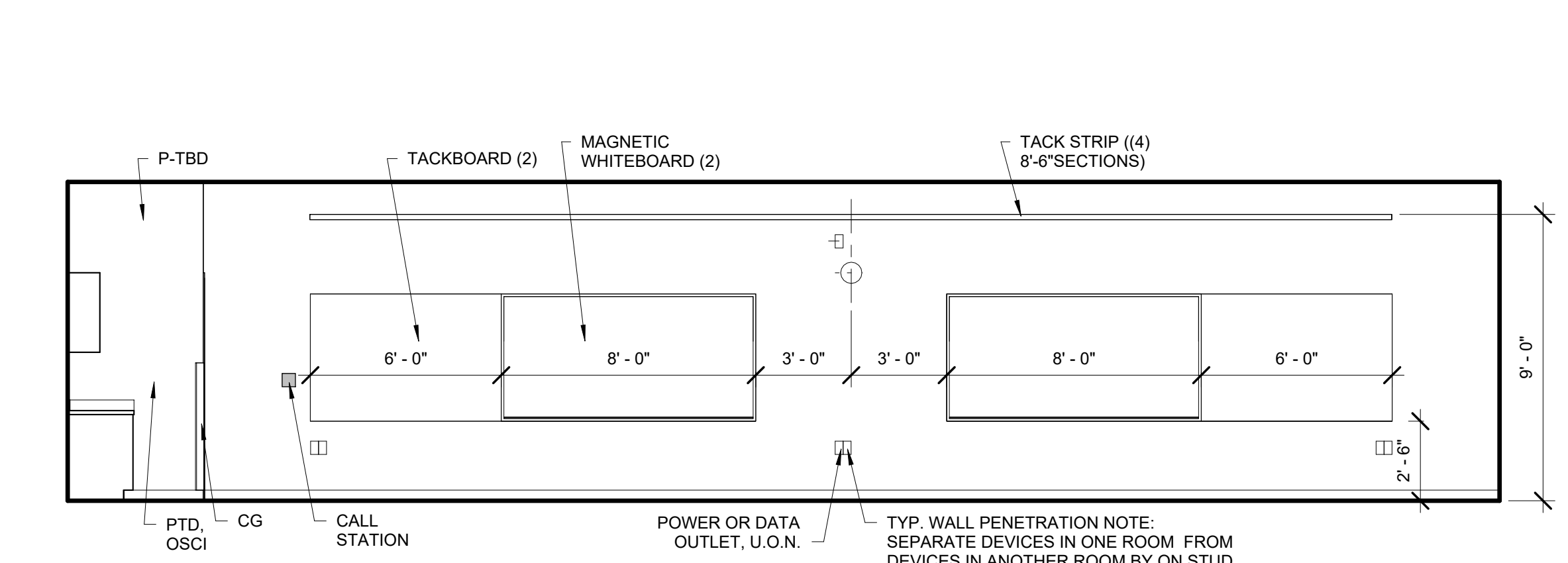
7 CLASSROOM 27 - WEST
 1/4" = 1'-0"



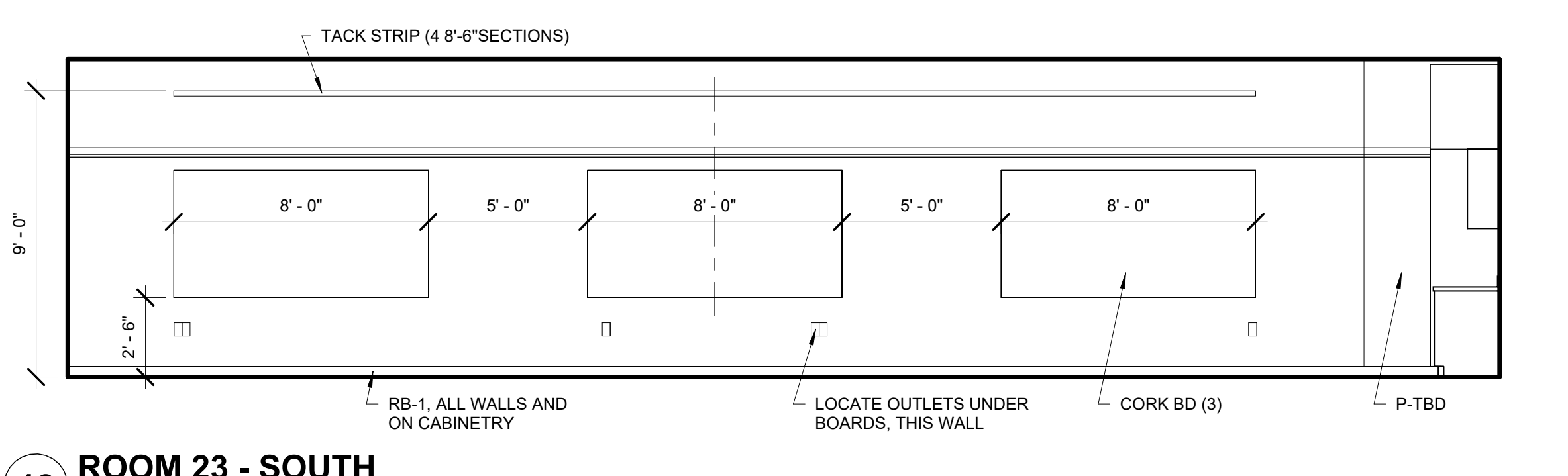
9 CLASSROOM 27 - SOUTH
 1/4" = 1'-0"



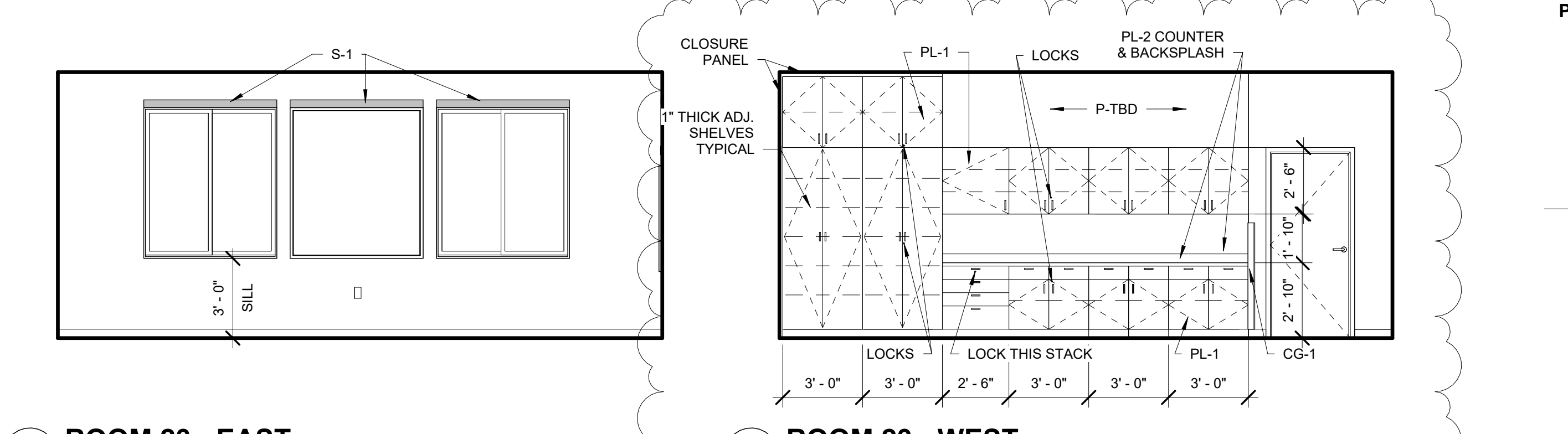
10 CLASSROOM 27 - NORTH
 1/4" = 1'-0"



11 ROOM 23 - NORTH
 1/4" = 1'-0"



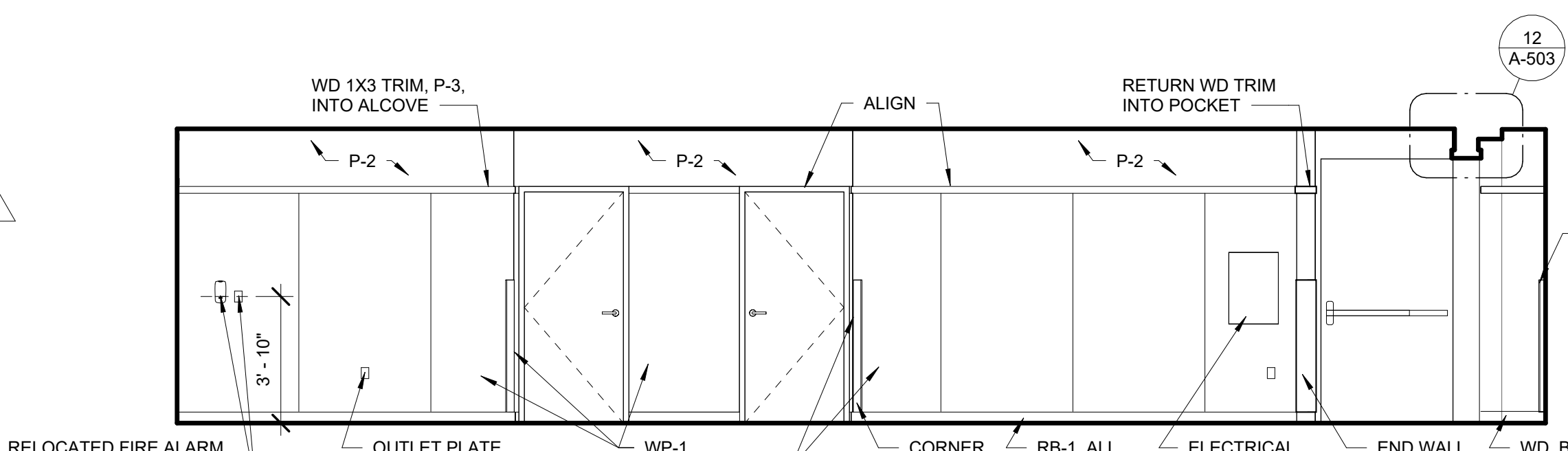
12 ROOM 23 - SOUTH
 1/4" = 1'-0"



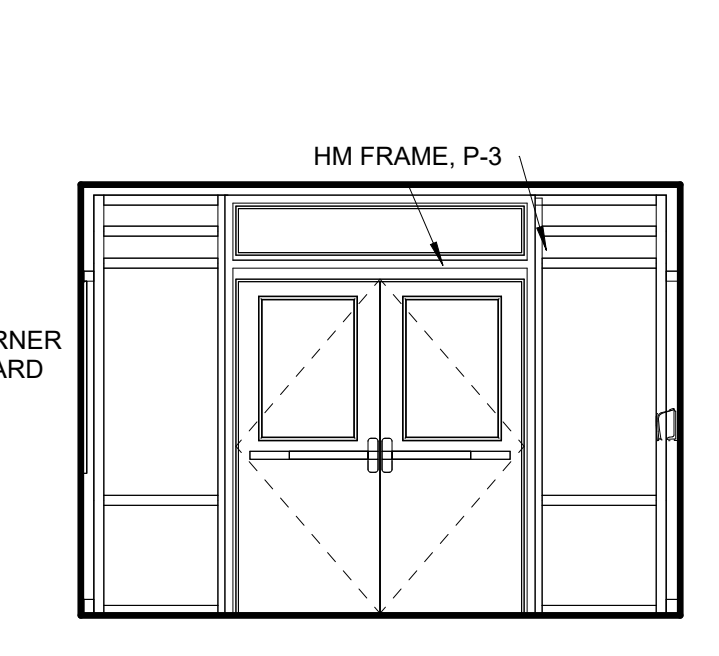
14 ROOM 23 - EAST
 1/4" = 1'-0"

13 ROOM 23 - WEST
 1/4" = 1'-0"

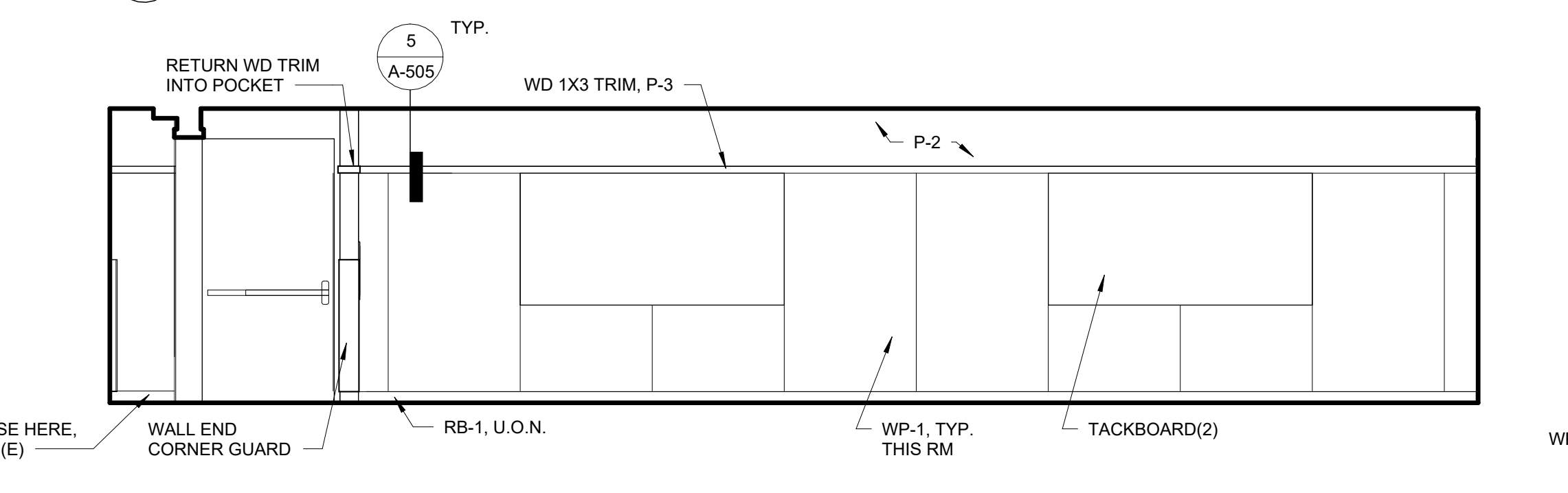
GENERAL INTERIOR ELEVATION NOTES:
 A. ALL CABINETRY LOCKS KEYED THE SAME



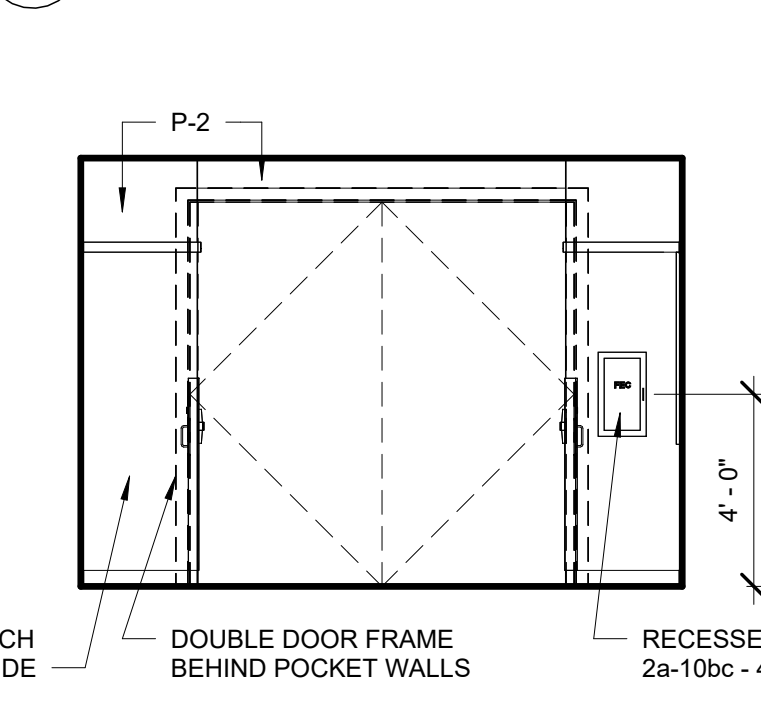
6 HALL ADDITION - EAST
 1/4" = 1'-0"



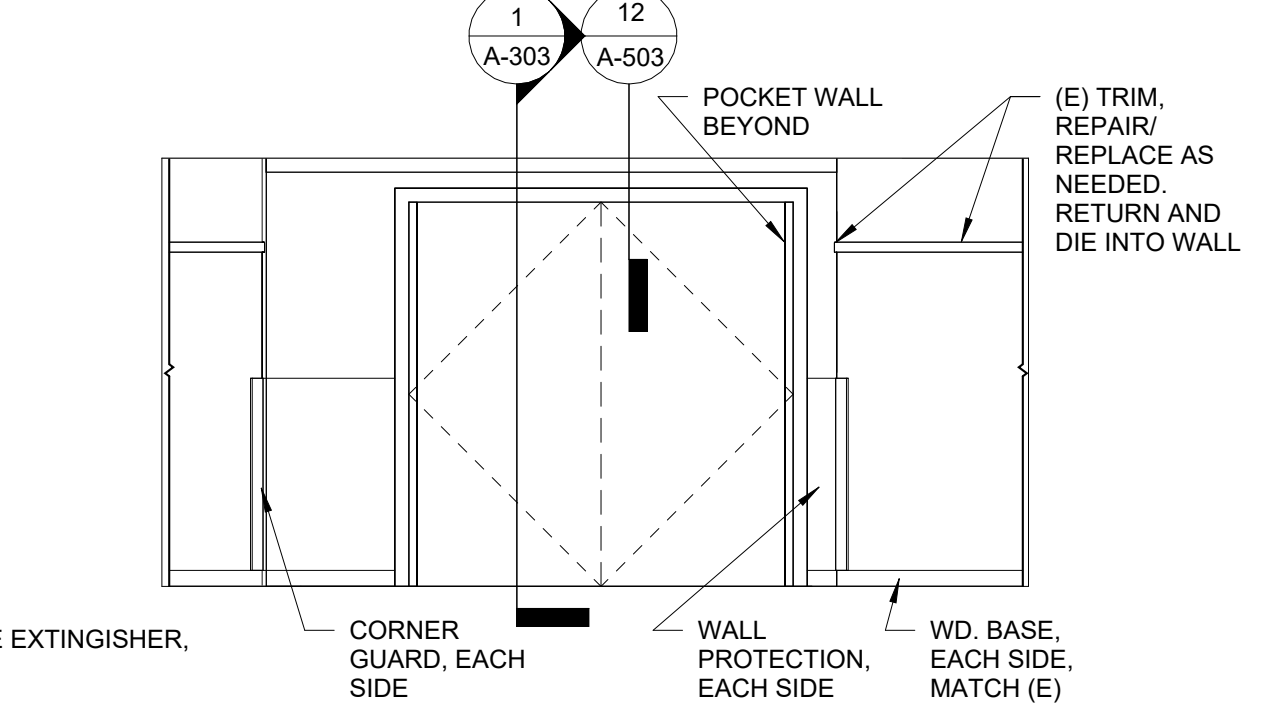
5 HALL ADDITION - NORTH
 1/4" = 1'-0"



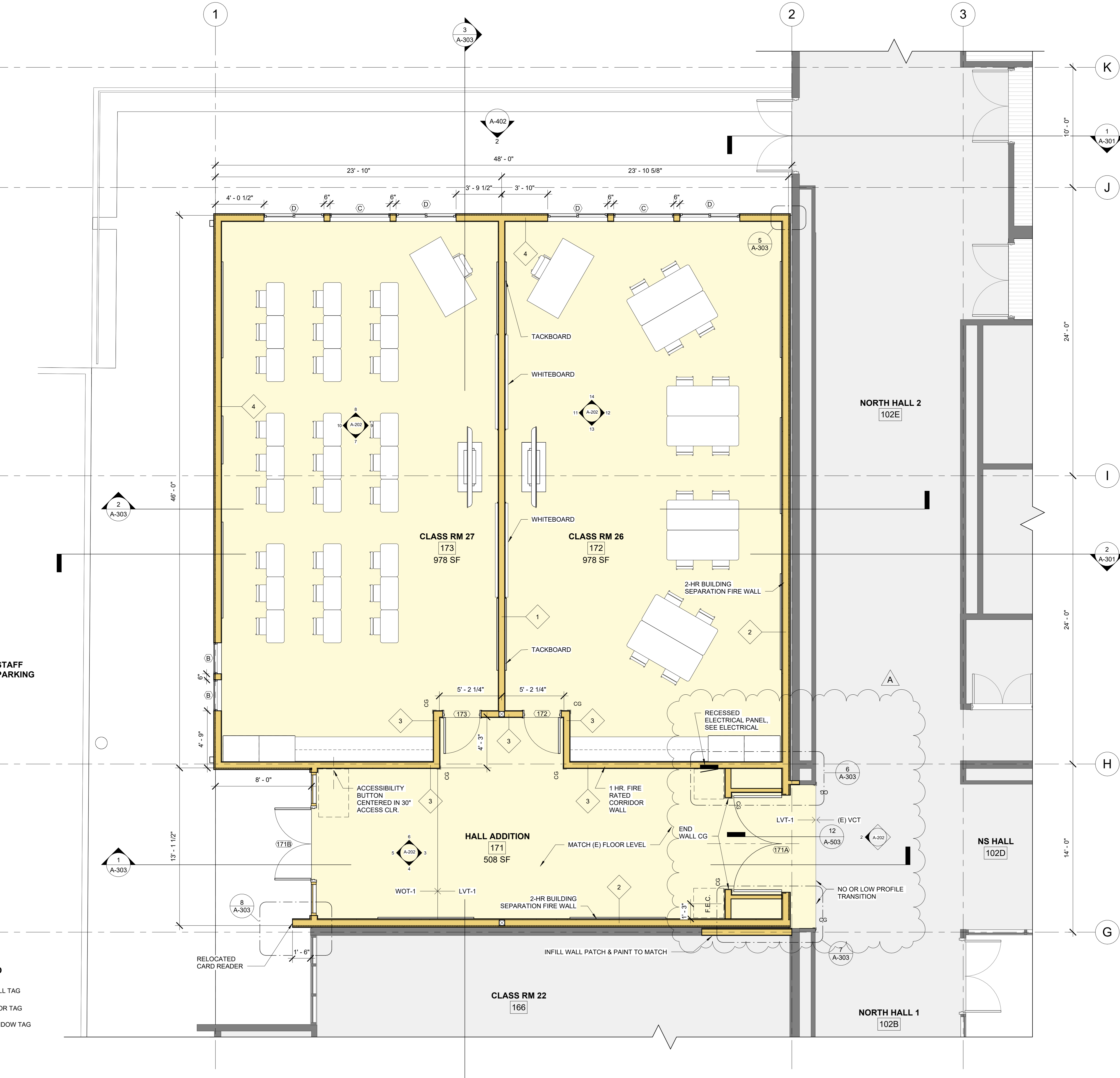
4 HALL ADDITION - WEST
 1/4" = 1'-0"



3 HALL ADDITION - SOUTH
 1/4" = 1'-0"



2 NS HALL - NORTH ELEVATION
 1/4" = 1'-0"



- LEGEND**
- ◆ WALL TAG
 - ◆◆◆ DOOR TAG
 - ⊗ WINDOW TAG

ENLARGED PLAN GENERAL NOTES

1. REFER TO A-505 FOR WALL TYPE SCHEDULE & DETAILS.

1 ENLARGED PLAN - CLASSROOM ADDITION
 1/4" = 1'-0"

PROJECT NO. 22-25
 MILLICOMA SCHOOL REROOF & CLASSROOM ADDITION
 COOS BAY SCHOOL DISTRICT
 290 2ND AVE
 COOS BAY, OR 97420

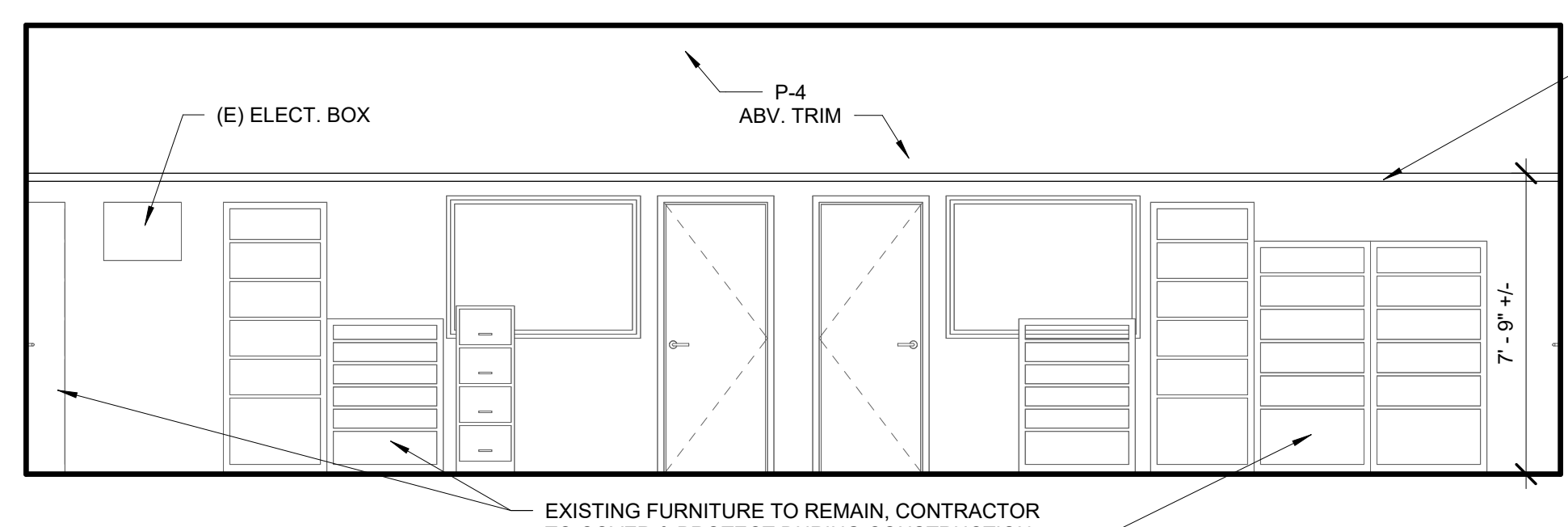
BIDDING

REVISIONS:	#	DATE	DESCRIPTION
A	1	1/20/23	BID SET

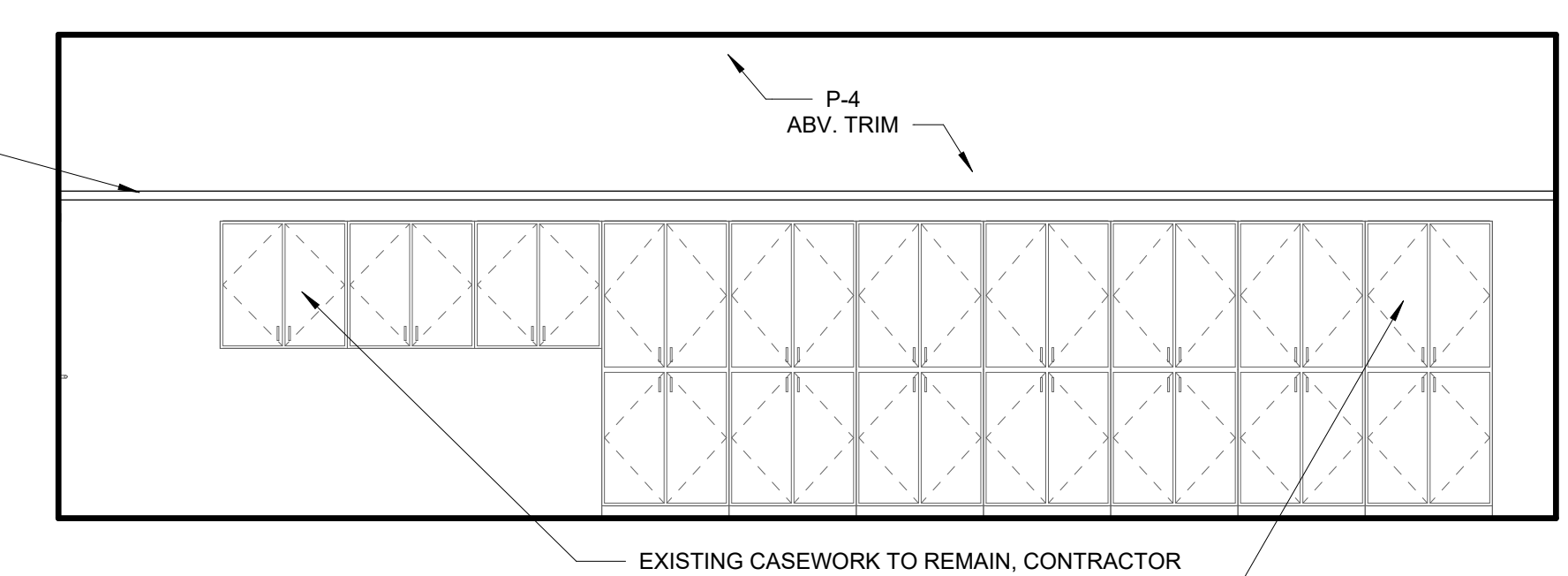
DATE: JANUARY 2023

SHEET TITLE:
ENLARGED PLAN & INT. ELEVATIONS - CLASSROOM ADDITION

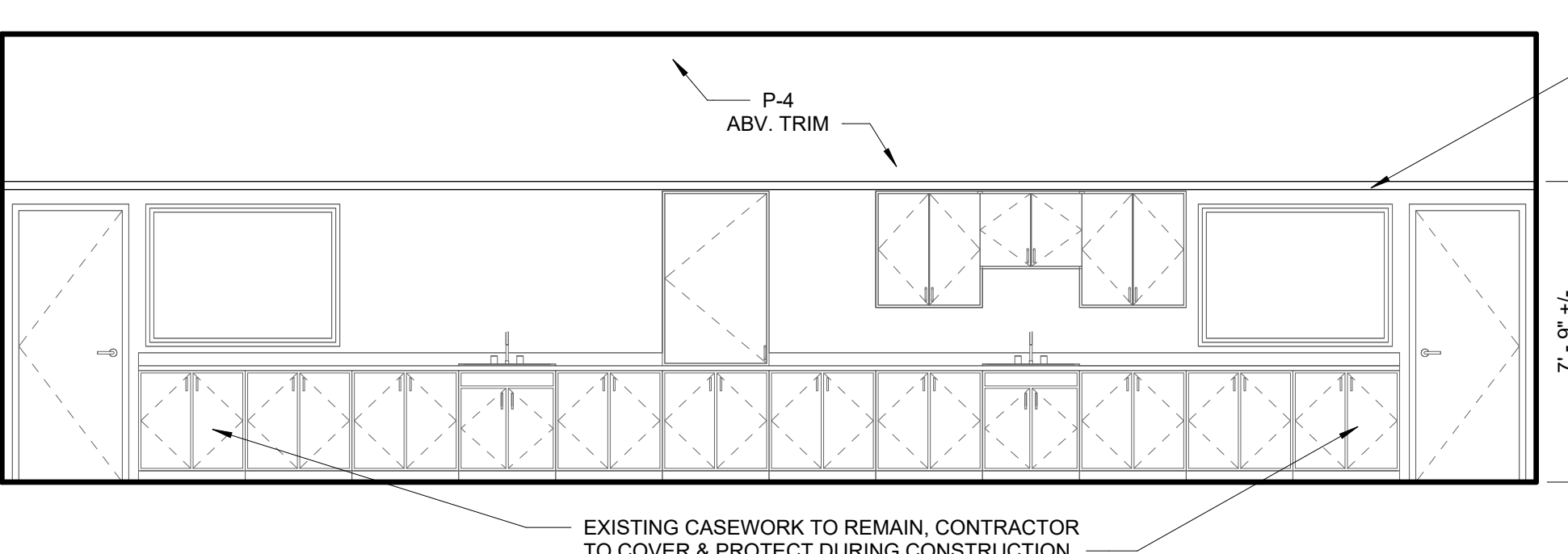
A-202



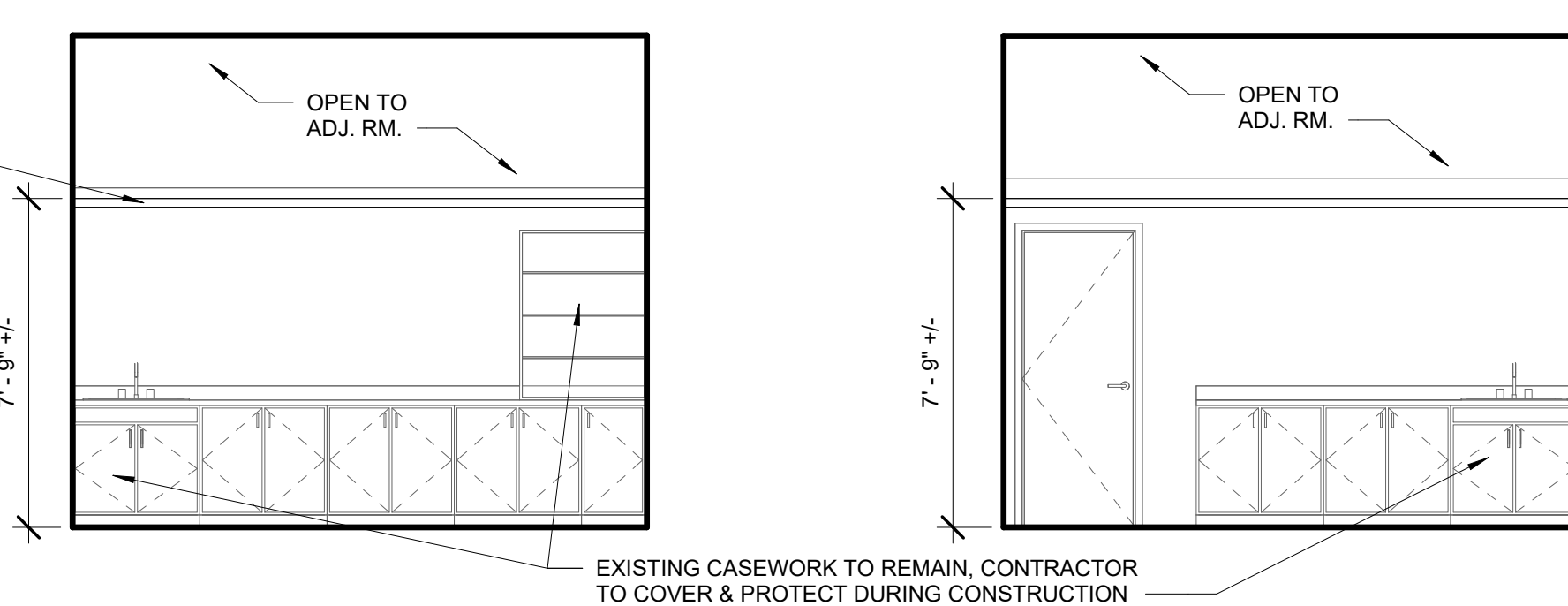
14 WORK RM 5 - NORTH
 1/4" = 1'-0"



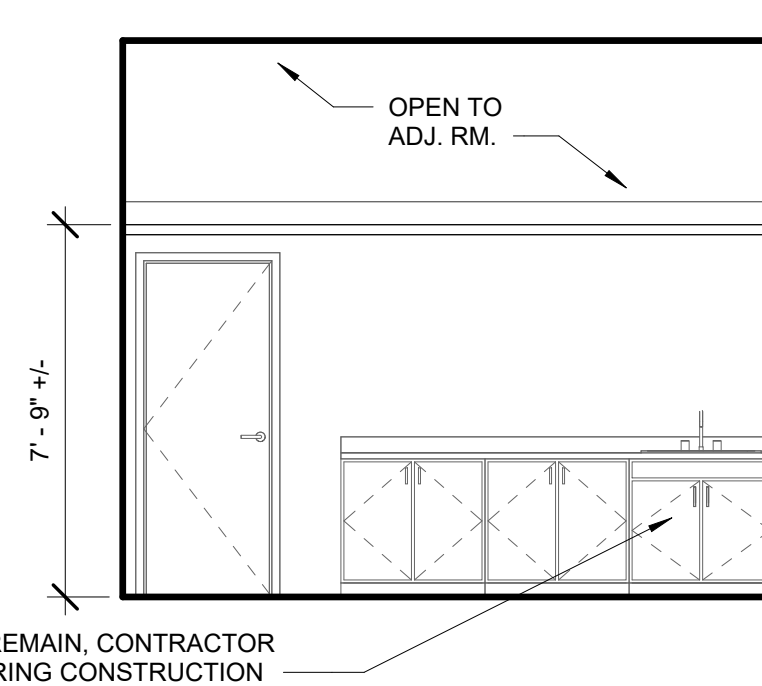
13 STORAGE - WEST
 1/4" = 1'-0"



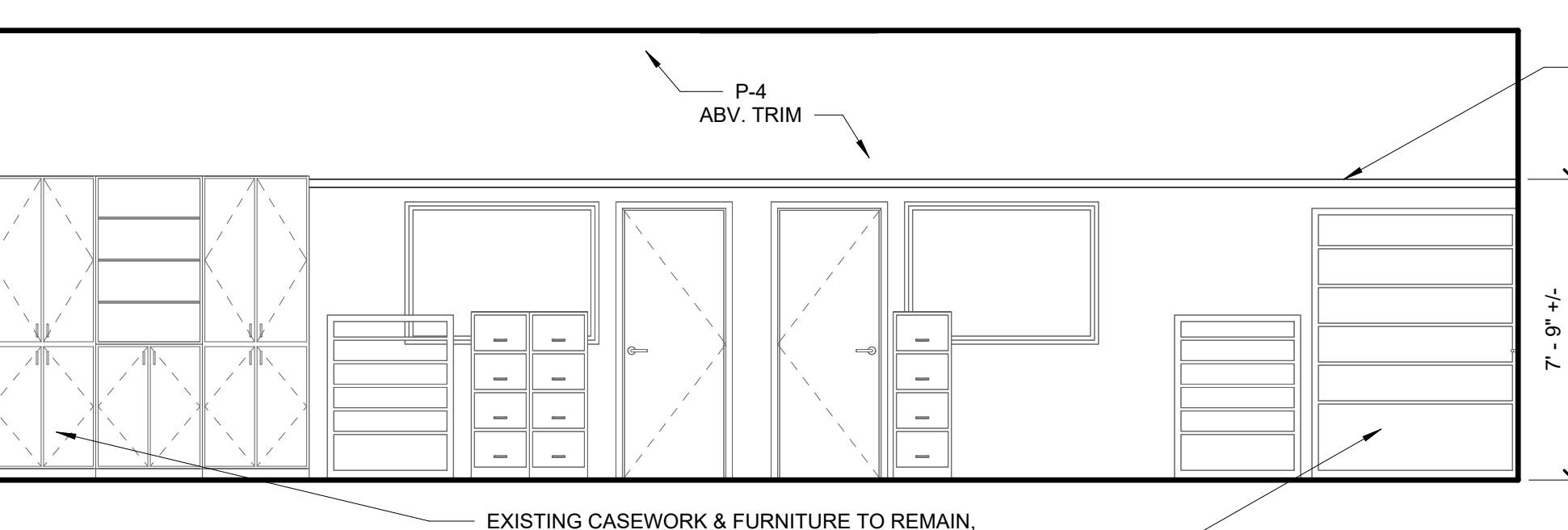
12 WORK RM 5 - SOUTH
 1/4" = 1'-0"



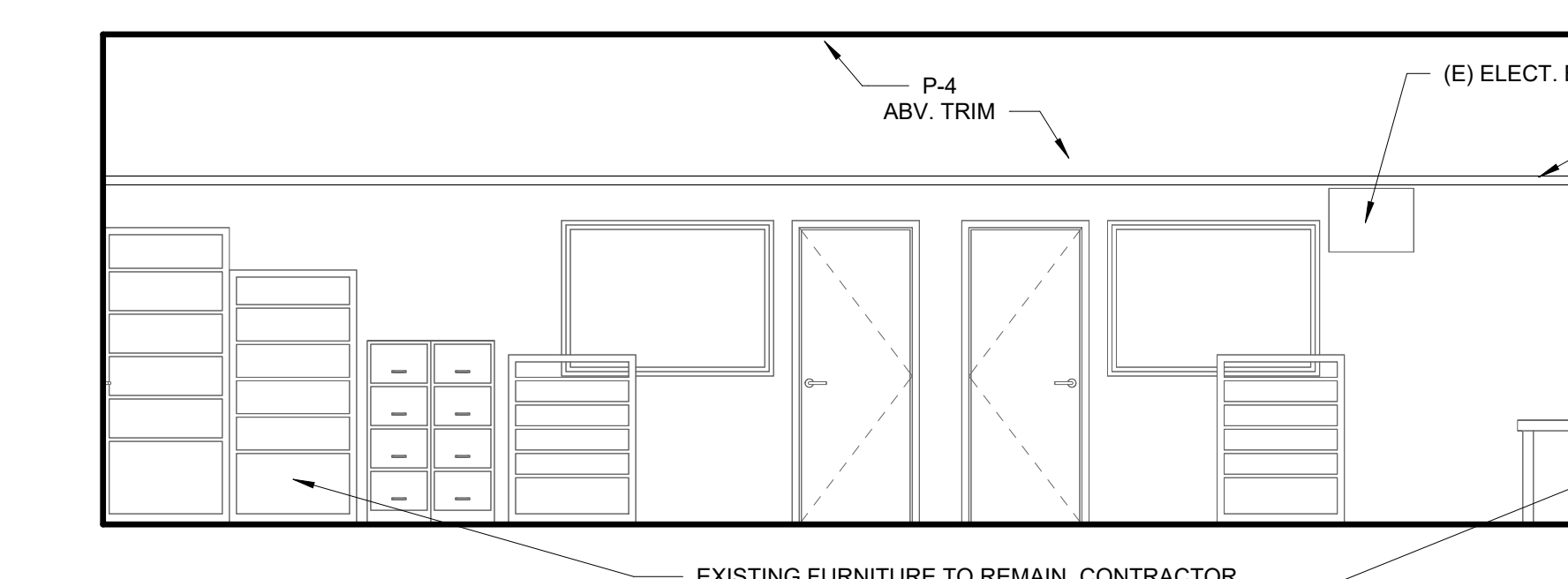
11 WORK RM 4 - WEST
 1/4" = 1'-0"



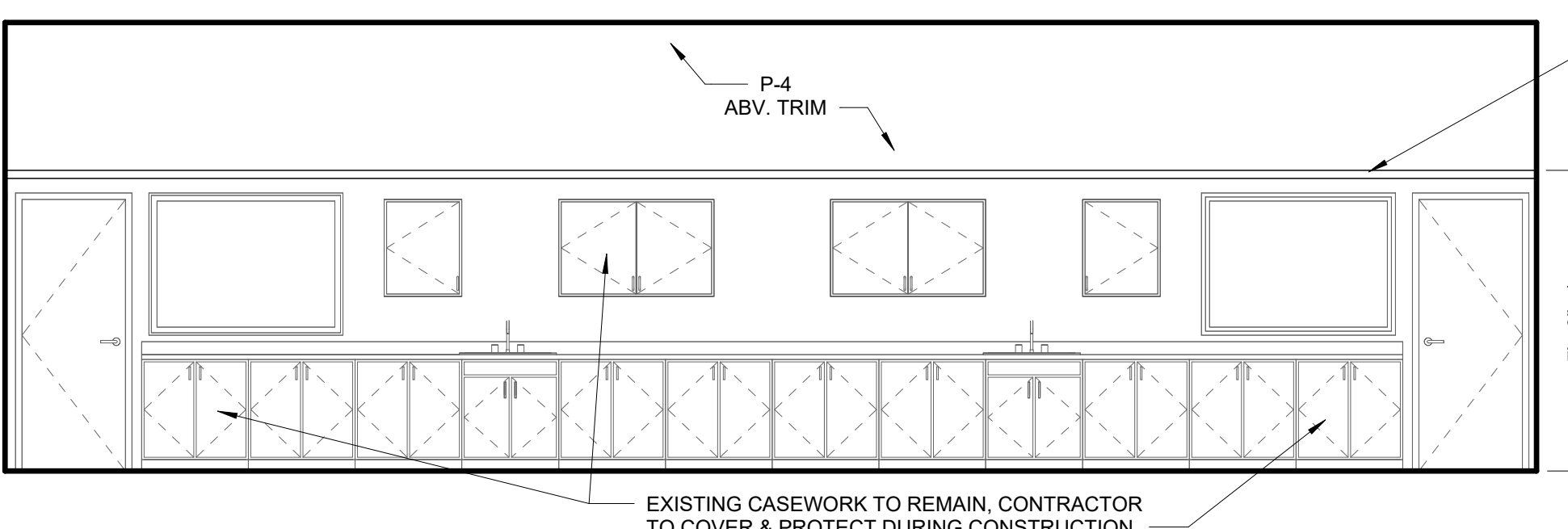
10 WORK RM 3 - EAST
 1/4" = 1'-0"



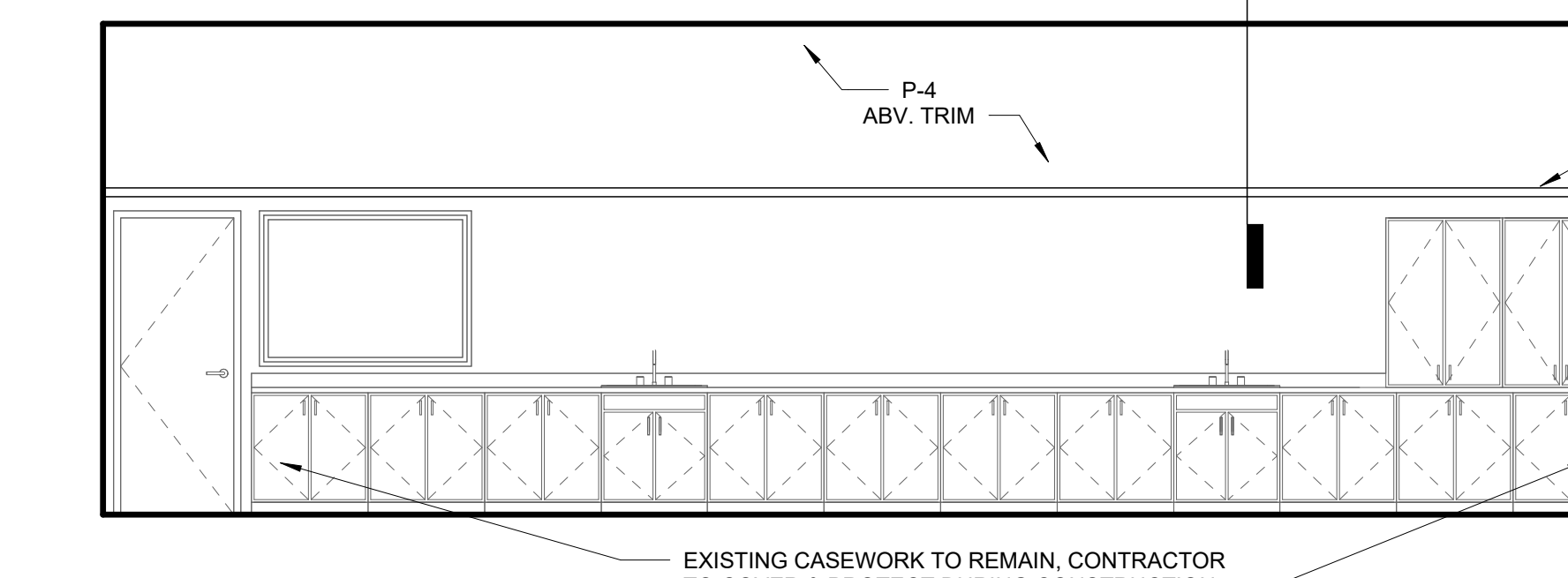
9 WORK RM 2 - NORTH
 1/4" = 1'-0"



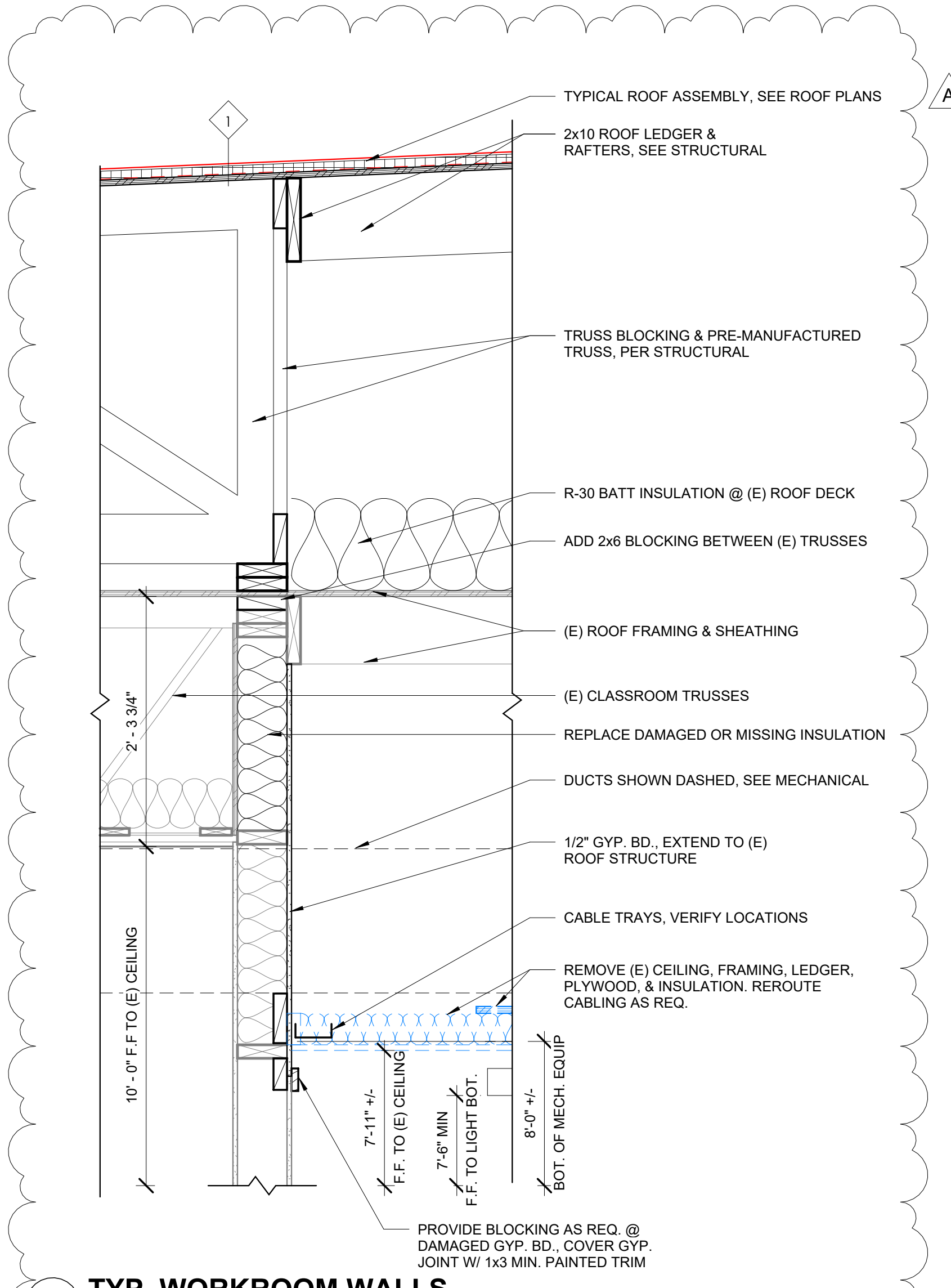
8 WORK RM 1 - NORTH
 1/4" = 1'-0"



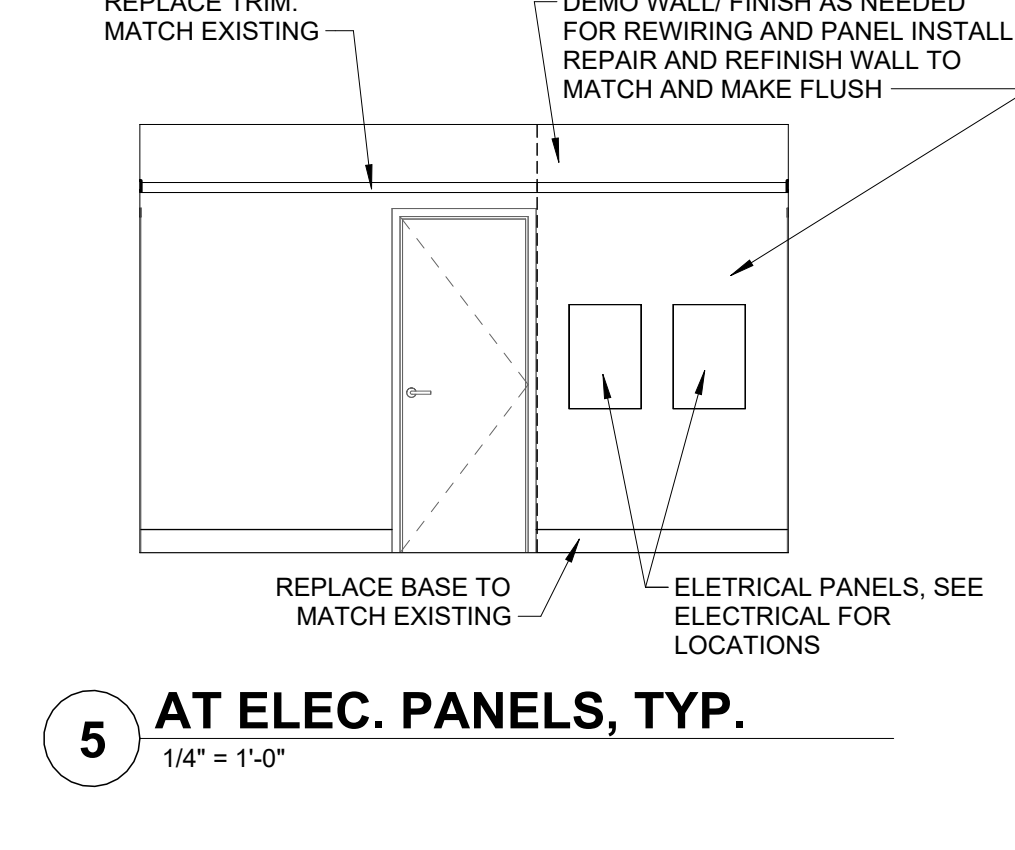
7 WORK RM 2 - SOUTH
 1/4" = 1'-0"



6 WORK RM 1 - SOUTH
 1/4" = 1'-0"

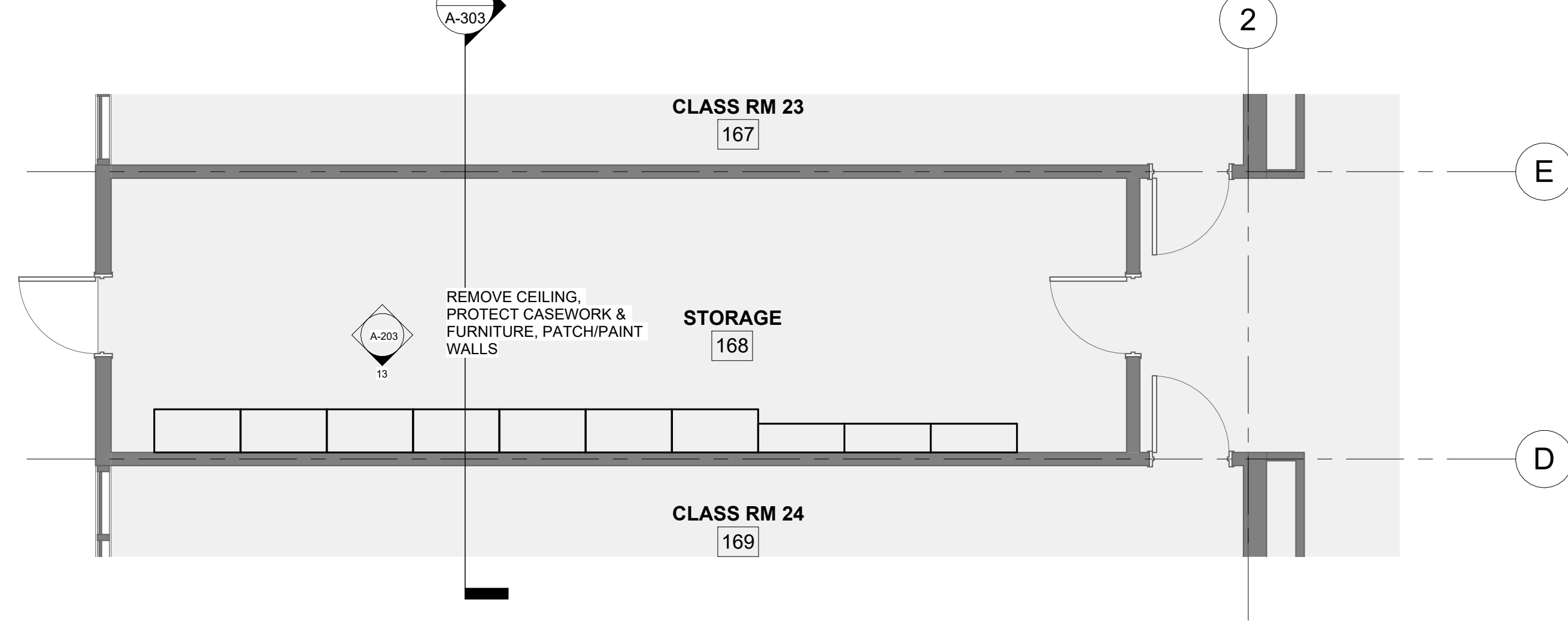


4 TYP. WORKROOM WALLS
 1" = 1'-0"

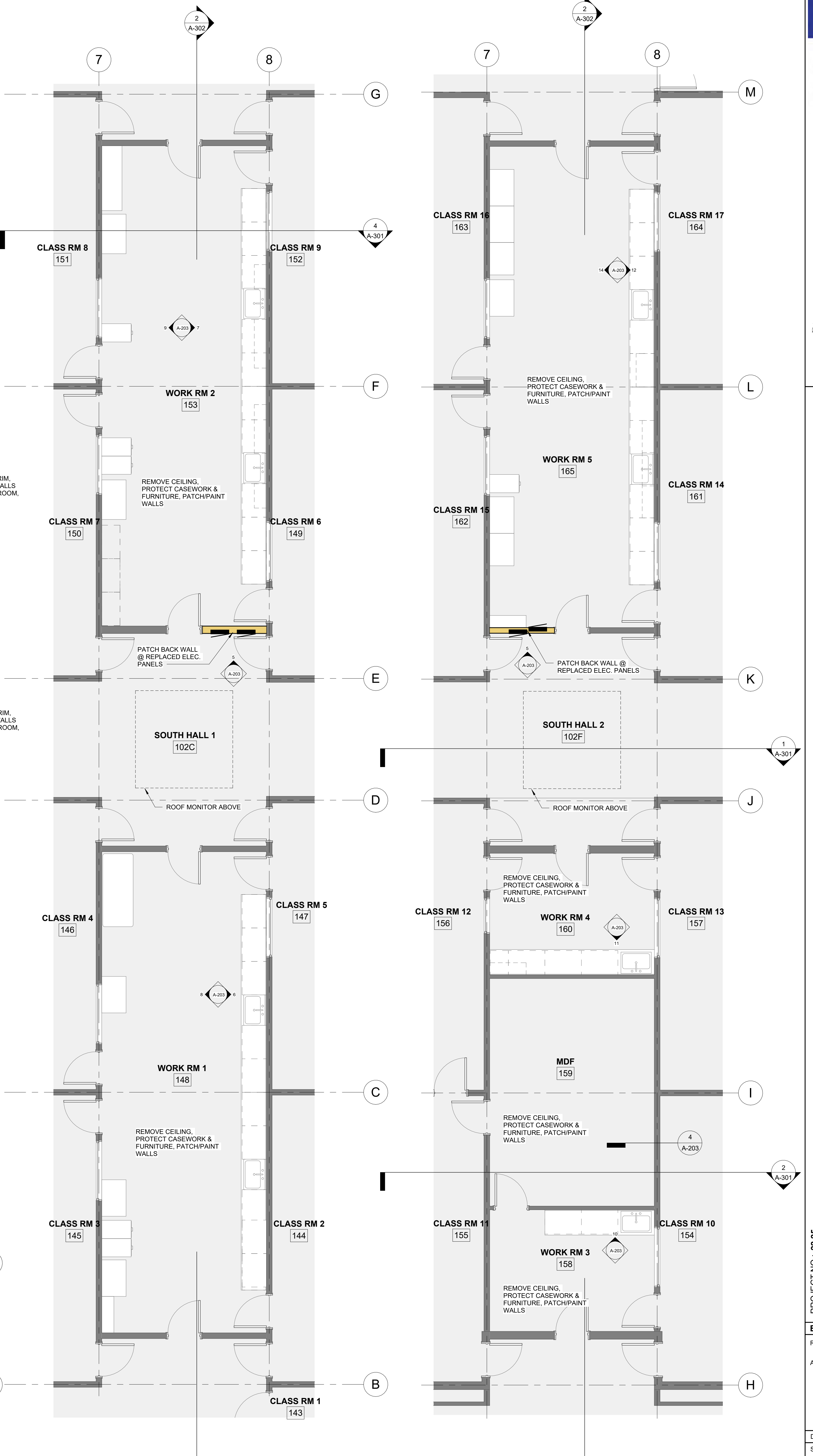


5 AT ELEC. PANELS, TYP.
 1/4" = 1'-0"

GENERAL NOTES FOR WORK ROOMS & STORAGE ROOM:
 1. EXISTING CASEWORK & FURNITURE TO REMAIN. CONTRACTOR TO COVER & PROTECT DURING CONSTRUCTION.
 2. CONTRACTOR TO PROVIDE ELECTRICAL & DATA CABLE TRAYS (NOT SHOWN IN ELEVATION). VERIFY LOCATIONS AND REROUTE ELECTRICAL & DATA AS REQ.



3 ENLARGED PLAN - RM 19 STORAGE
 1/4" = 1'-0"

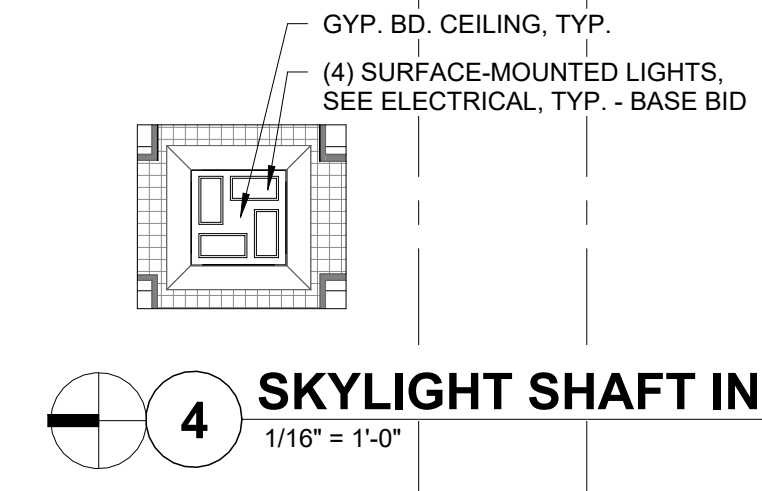
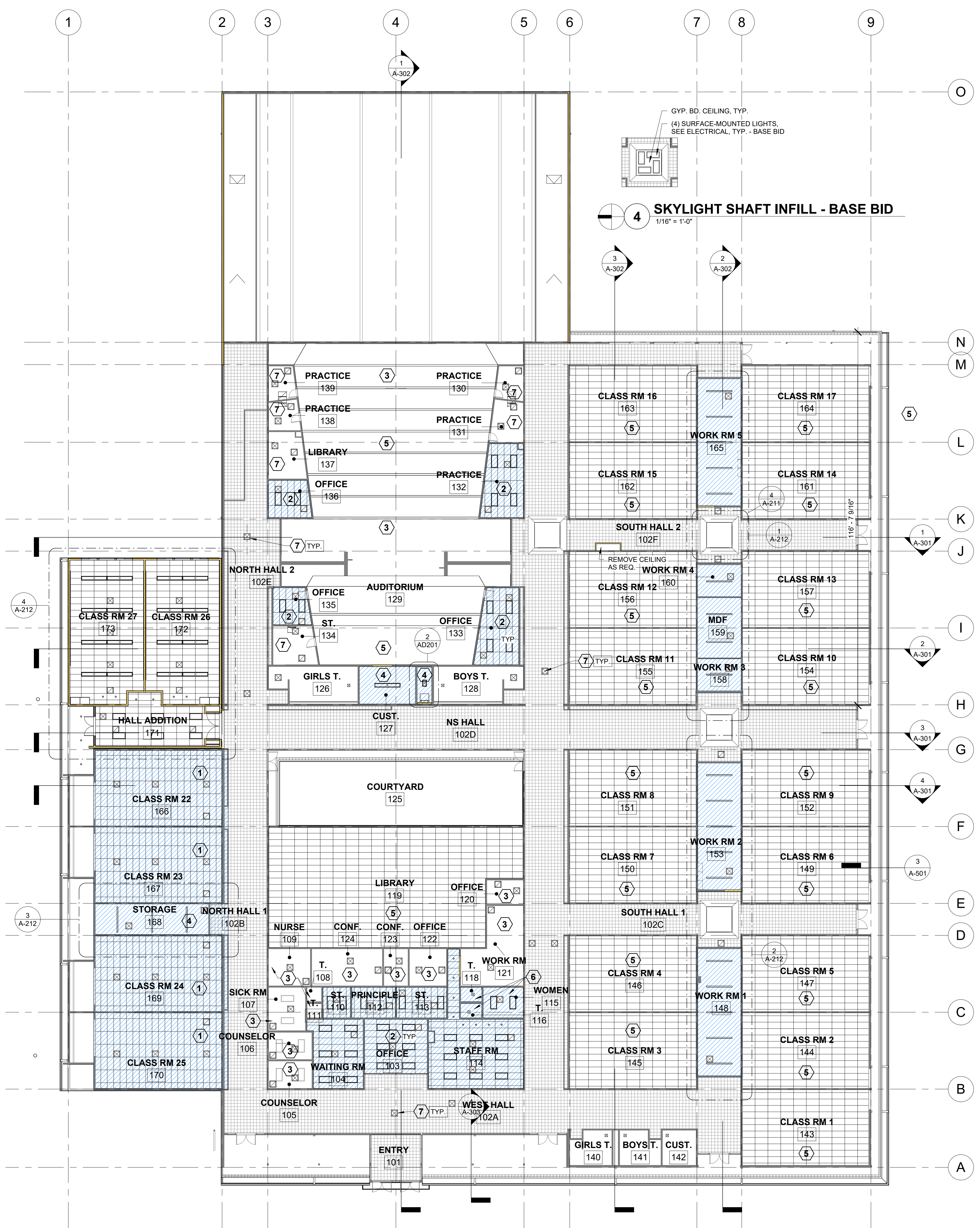
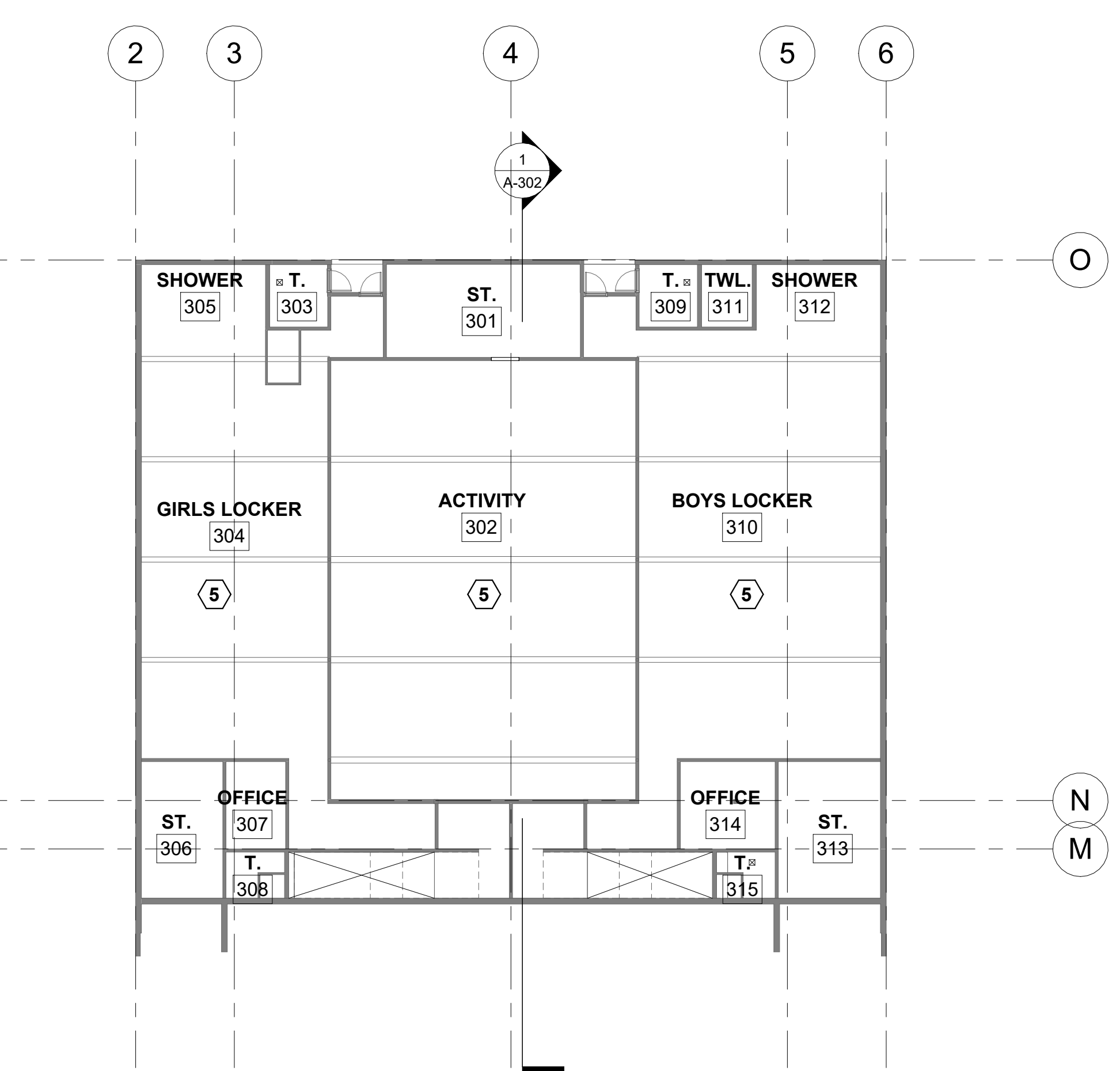
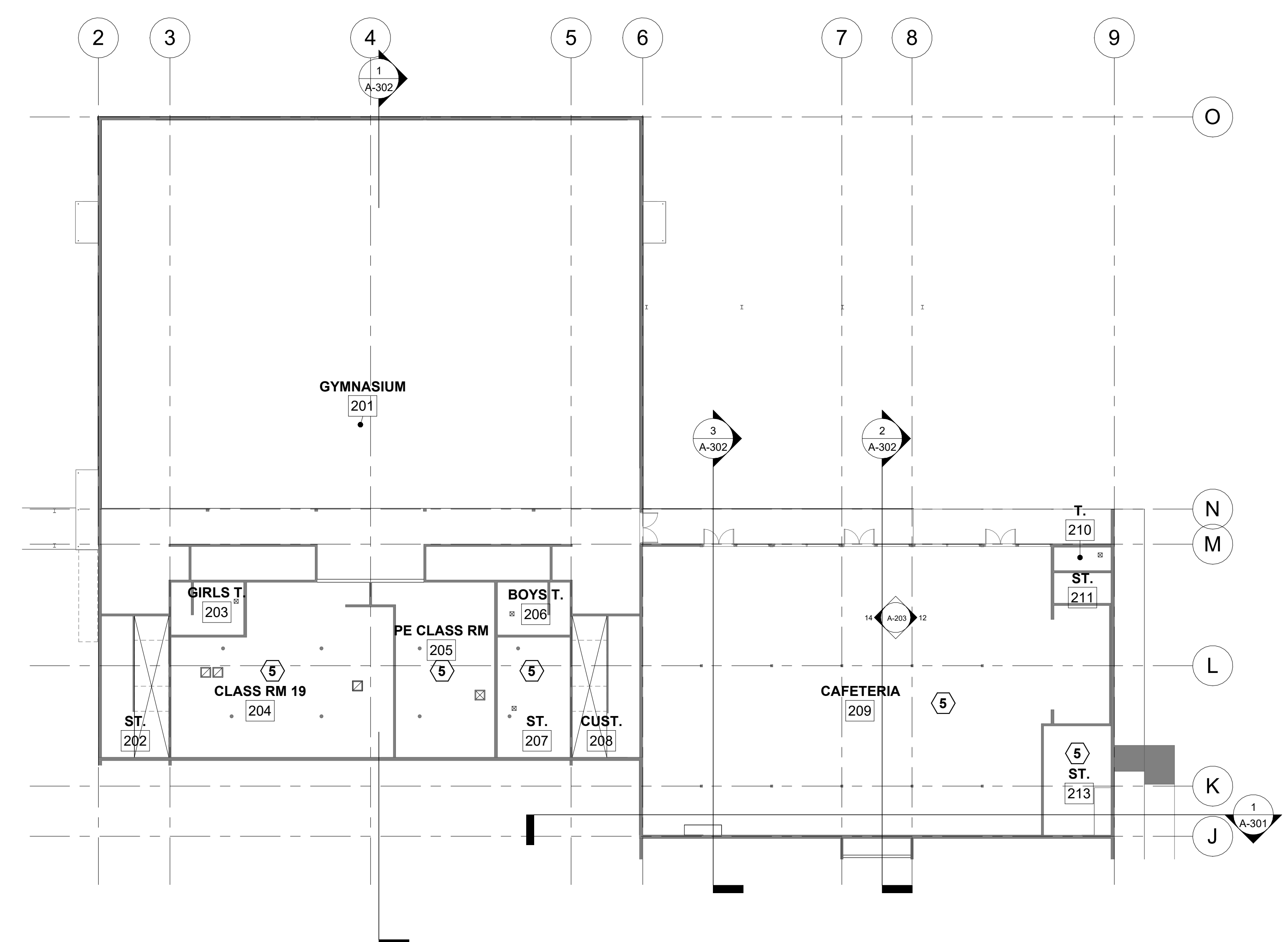
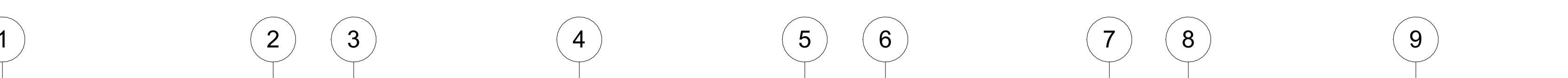


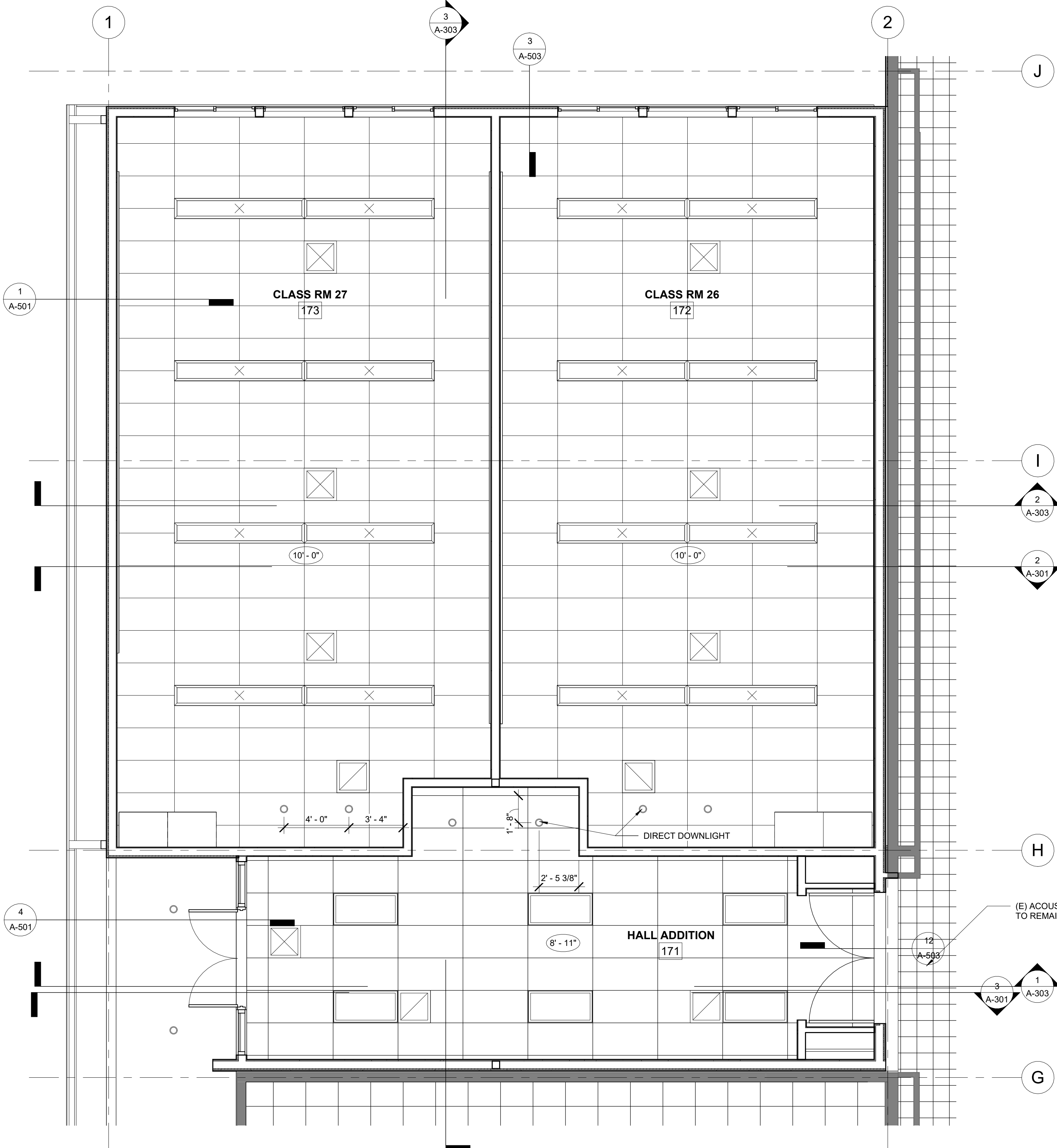
2 ENLARGED PLAN - WEST WORKROOMS
 1/4" = 1'-0"

1 ENLARGED PLAN - EAST WORKROOMS
 1/4" = 1'-0"

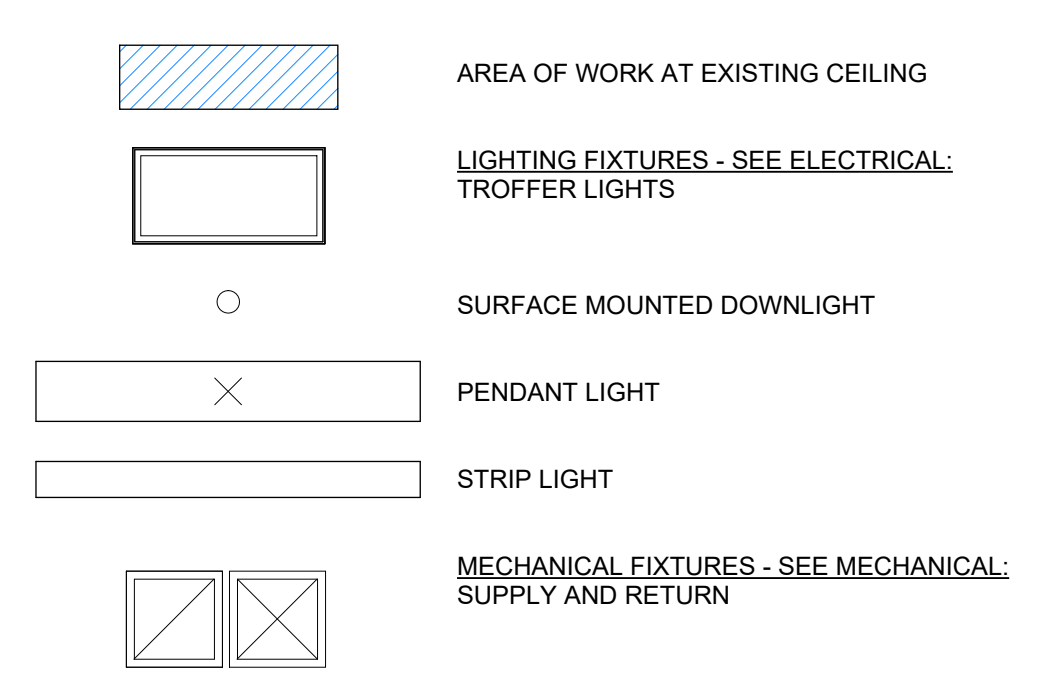
1. REPLACE CEILING TILE & REMOVE DIRECT LAY BATT INSULATION. CEILING GRID TO REMAIN.
 2. REMOVE HARD LID CEILING & ADD BACK SUSPENDED ACOUSTICAL CEILING @ (E) HEIGHT.
 3. PATCH BACK CEILING, STRUCTURE AND FINISH, AS REQUIRED FOR HVAC REMOVAL AND WORK.
 4. PROTECT EXISTING LIGHTS.
 5. REMOVE CEILING. CLEAN & PAINT BOTTOM OF EXISTING ROOF STRUCTURE, AND WALLS, PER FINISH SCHEDULE AND PER ELEVATIONS, BEFORE MEP WORK.
 6. EXPOSED DUCT WORK THIS ROOM.
 7. REMOVE AND REPLACE HARD LID CEILING AFTER MECH. WORK.
 8. LOCATE GRILLS TO MINIMIZE DAMAGE TO EXISTING TO REMAIN ACOUSTICAL CEILING TILE. PATCH BACK WALL FLUSH (MATCH (E) FINISH) AFTER EQUIPMENT REMOVAL. SEE MECH. AND ELECTRICAL FOR LOCATION AND EXTENT OF WORK.
- A. EXISTING LIGHTING AND MECHANICAL NOT SHOWN
B. MAINTAIN EXISTING CEILING HEIGHTS IF NOT NOTED
C. PROTECT FROM DAMAGE EXISTING TO REMAIN ADHERED ACOUSTICAL CEILING TILE.
D. CENTER LIGHTS AS SHOWN
E. REFER TO MECHANICAL AND ELECTRICAL FOR EXTENT OF WORK AND ADDITIONAL INFORMATION. WHERE POSSIBLE MINIMIZE REMOVAL/DEMO.

RCP LEGEND **CEILING PLAN KEY NOTES (KN)** **RCP GENERAL NOTES**



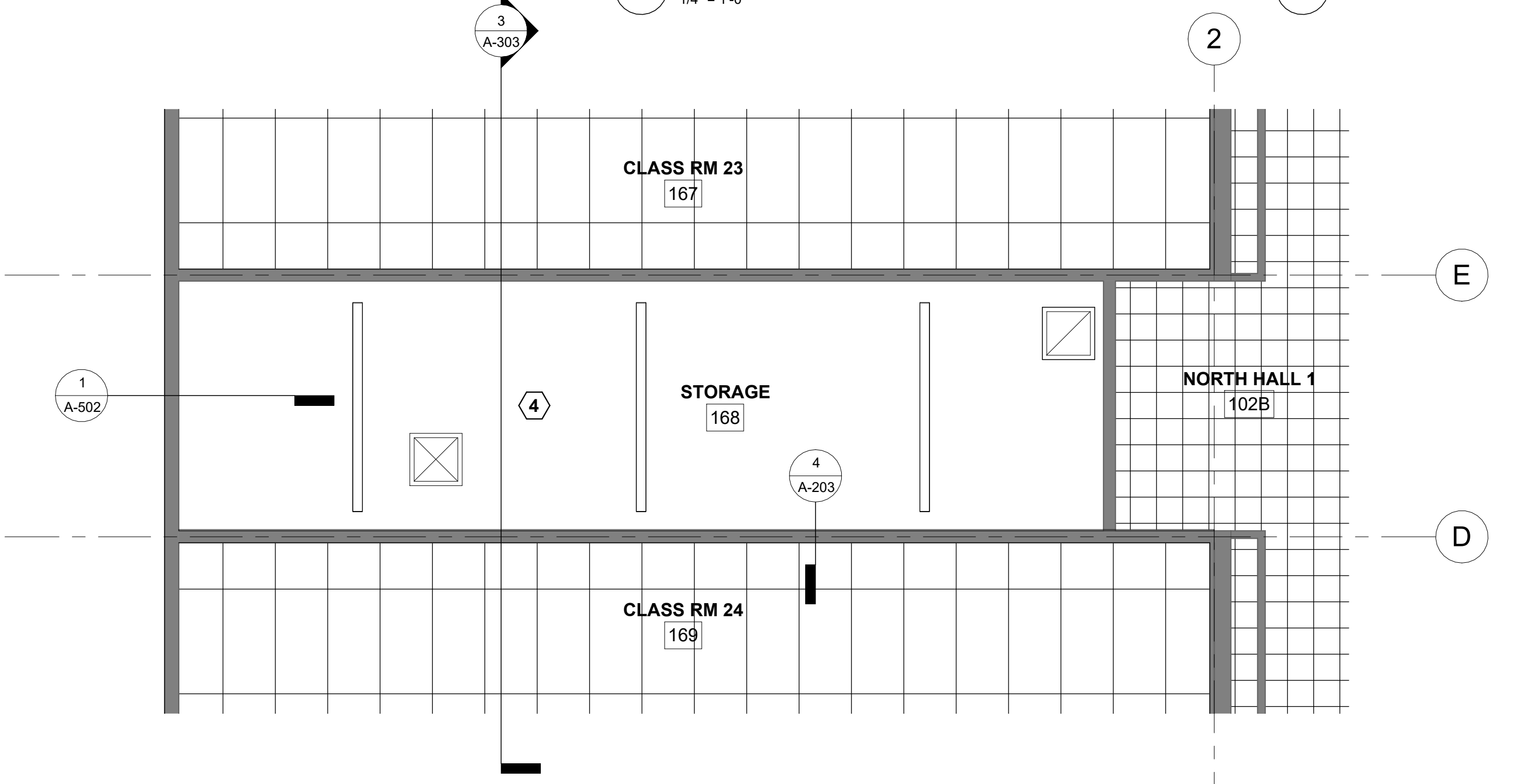


4 REFLECTED CEILING PLAN - ENLARGED - CLASS RM ADDITION
1/4" = 1'-0"

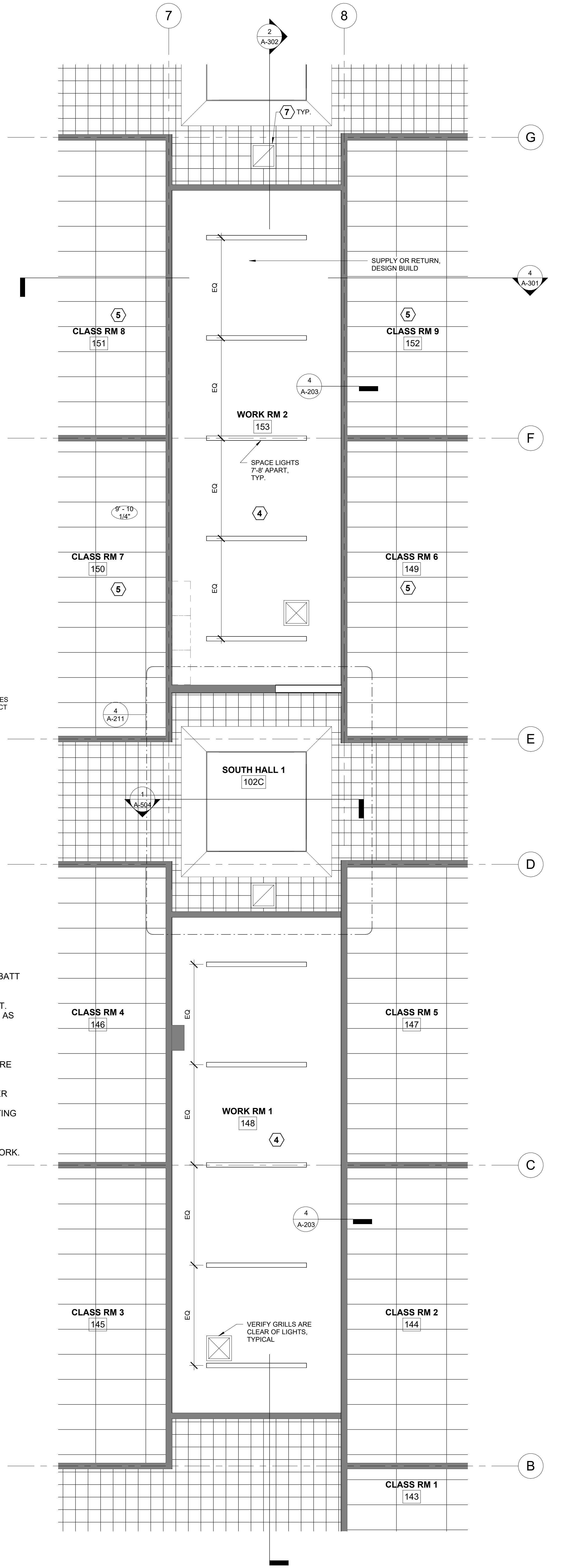


RCP LEGEND
1/4" = 1'-0"

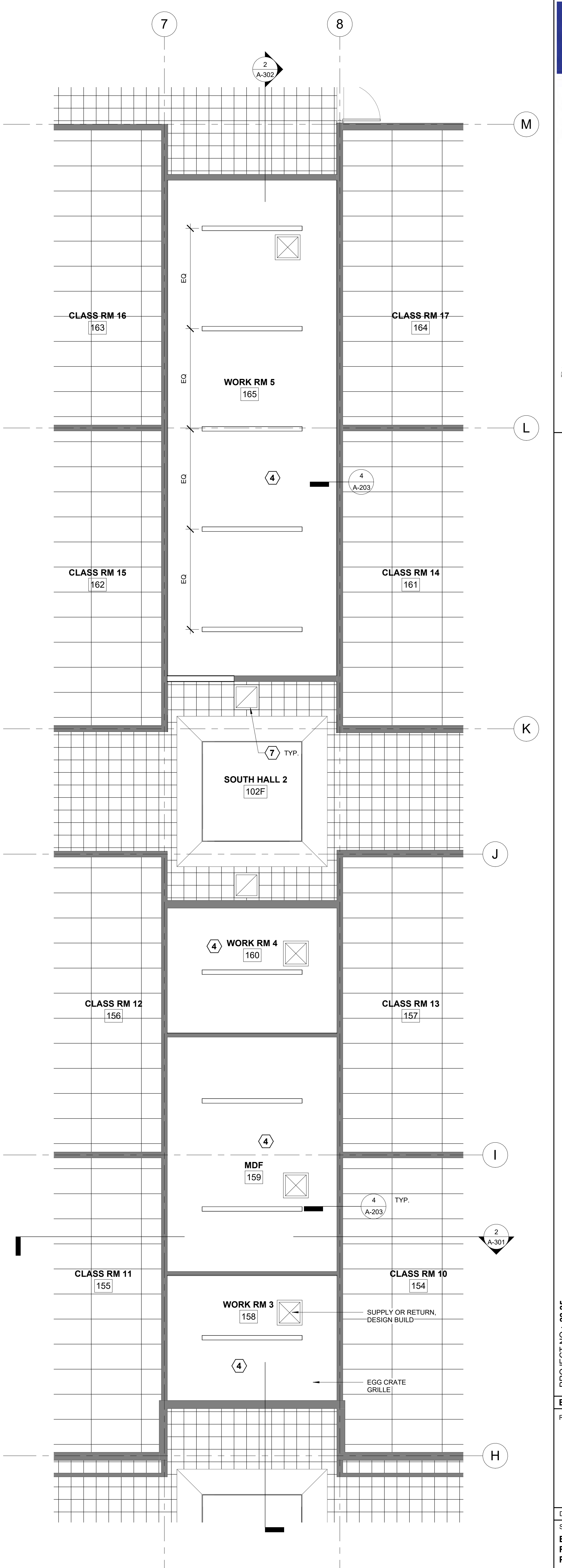
- CEILING PLAN KEY NOTES (KN)**
1. REPLACE CEILING TILE & REMOVE DIRECT LAY BATT INSULATION, CEILING GRID TO REMAIN.
 2. REMOVE HARD LID CEILING & ADD BACK SUSPENDED ACOUSTICAL CEILING @ (E) HEIGHT. PATCH BACK CEILING, STRUCTURE AND FINISH, AS REQUIRED FOR HVAC REMOVAL AND WORK. PROTECT EXISTING LIGHTS.
 3. REMOVE CEILING, CLEAN & PAINT BOTTOM OF EXISTING ROOF STRUCTURE, AND WALLS, PER FINISH SCHEDULE AND PER ELEVATIONS, BEFORE MEP WORK.
 4. EXPOSED DUCT WORK THIS ROOM. REMOVE AND REPLACE HARD LID CEILING AFTER MECH. WORK.
 5. LOCATE GRILLS TO MINIMIZE DAMAGE TO EXISTING TO REMAIN ACOUSTICAL CEILING TILE.
 6. PATCH BACK WALL FLUSH, MATCH (E) FINISH, AFTER EQUIPMENT REMOVAL. SEE MECH. AND ELECTRICAL FOR LOCATION AND EXTENT OF WORK.



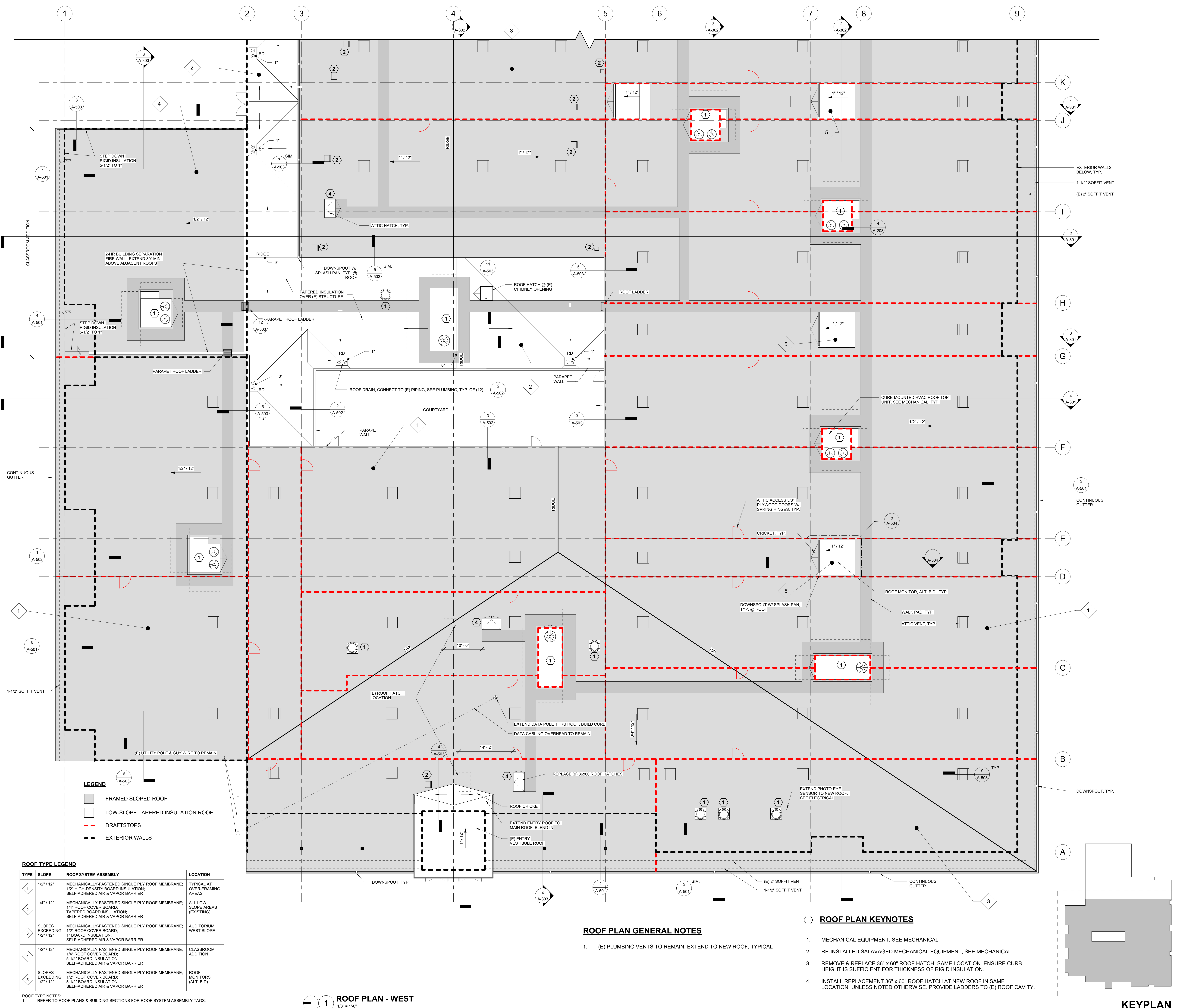
3 REFLECTED CEILING PLAN - ENLARGED - STORAGE
1/4" = 1'-0"



2 REFLECTED CEILING PLAN - ENLARGED - TYPICAL WK RM, #148, 153, 165
1/4" = 1'-0"



1 REFLECTED CEILING PLAN - ENLARGED - EAST WORKROOMS
1/4" = 1'-0"



LEGEND

- FRAMED SLOPED ROOF
- LOW-SLOPE TAPERED INSULATION ROOF
- DRAFTSTOPS
- EXTERIOR WALLS

ROOF TYPE LEGEND

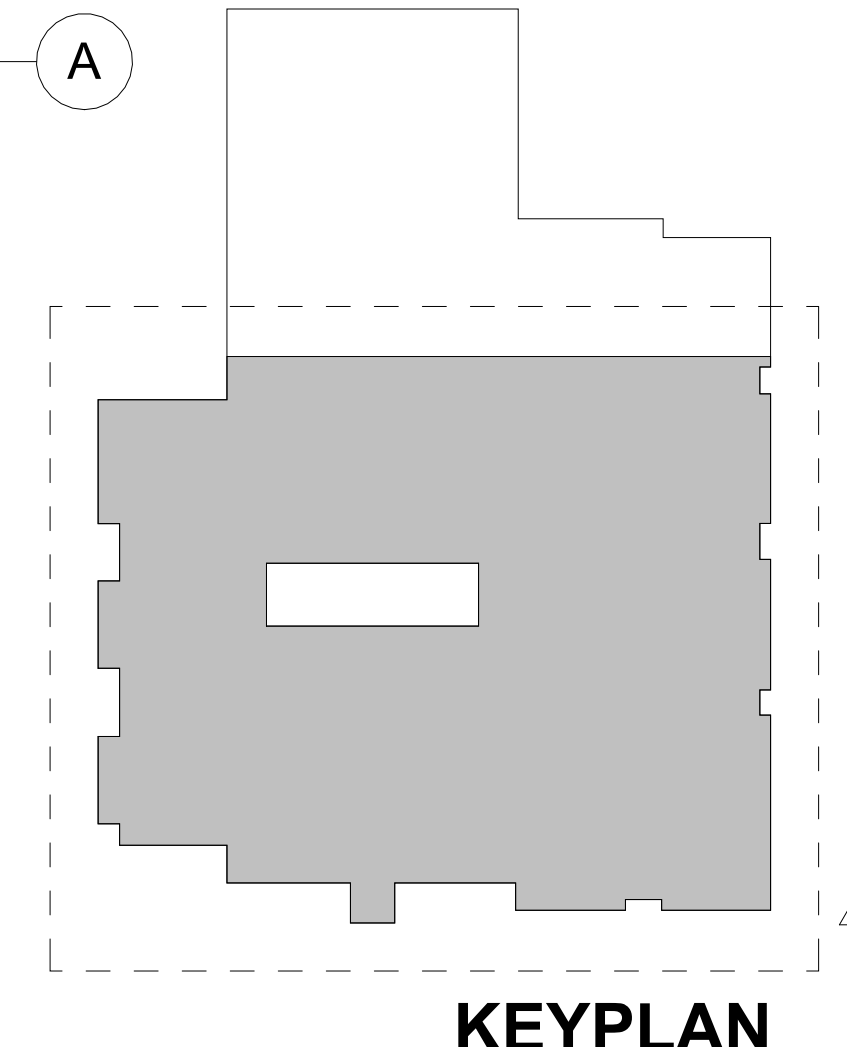
TYPE	SLOPE	ROOF SYSTEM ASSEMBLY	LOCATION
1	1/2" / 12"	MECHANICALLY-FASTENED SINGLE PLY ROOF MEMBRANE; 1/2" HIGH-DENSITY BOARD INSULATION; SELF-ADHERED AIR & VAPOR BARRIER	TYPICAL AT OVER-FRAMING AREAS
2	1/4" / 12"	MECHANICALLY-FASTENED SINGLE PLY ROOF MEMBRANE; 1/4" ROOF COVER BOARD; TAPERED BOARD INSULATION; SELF-ADHERED AIR & VAPOR BARRIER	ALL LOW SLOPE AREAS (EXISTING)
3	SLOPES EXCEEDING 1/2" / 12"	MECHANICALLY-FASTENED SINGLE PLY ROOF MEMBRANE; 1/4" ROOF COVER BOARD; 1" BOARD INSULATION; SELF-ADHERED AIR & VAPOR BARRIER	AUDITORIUM; WEST SLOPE
4	1/2" / 12"	MECHANICALLY-FASTENED SINGLE PLY ROOF MEMBRANE; 1/4" ROOF COVER BOARD; 5-1/2" BOARD INSULATION; SELF-ADHERED AIR & VAPOR BARRIER	CLASSROOM ADDITION
5	SLOPES EXCEEDING 1/2" / 12"	MECHANICALLY-FASTENED SINGLE PLY ROOF MEMBRANE; 1/4" ROOF COVER BOARD; 5-1/2" BOARD INSULATION; SELF-ADHERED AIR & VAPOR BARRIER	ROOF MONITORS (ALT. BID)

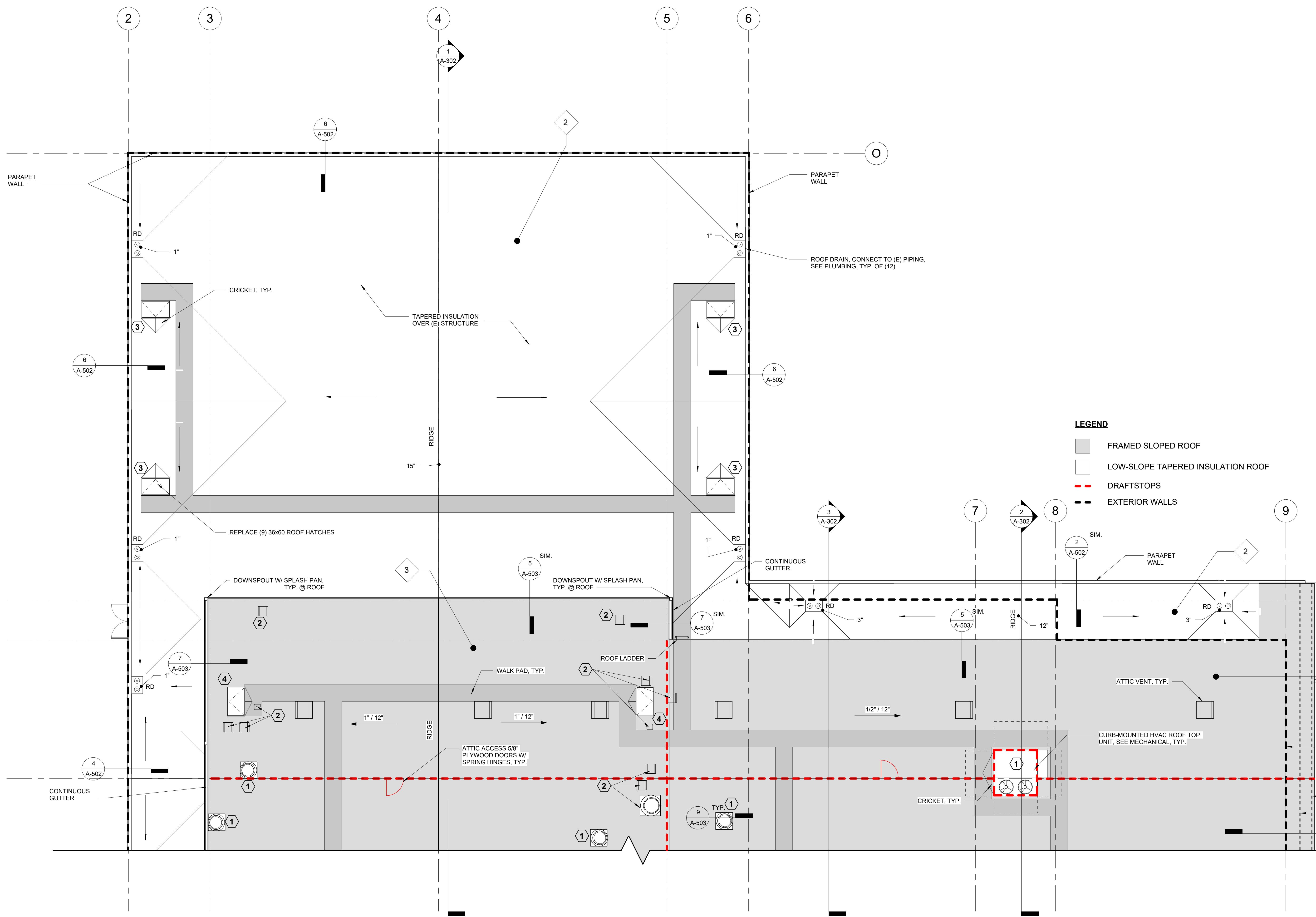
ROOF TYPE NOTES:
1. REFER TO ROOF PLANS & BUILDING SECTIONS FOR ROOF SYSTEM ASSEMBLY TAGS.

- ROOF PLAN GENERAL NOTES**
- (E) PLUMBING VENTS TO REMAIN. EXTEND TO NEW ROOF, TYPICAL

- ROOF PLAN KEYNOTES**
- MECHANICAL EQUIPMENT. SEE MECHANICAL
 - RE-INSTALLED SALVAGED MECHANICAL EQUIPMENT. SEE MECHANICAL
 - REMOVE & REPLACE 36" x 60" ROOF HATCH. SAME LOCATION. ENSURE CURB HEIGHT IS SUFFICIENT FOR THICKNESS OF RIGID INSULATION.
 - INSTALL REPLACEMENT 36" x 60" ROOF HATCH AT NEW ROOF IN SAME LOCATION, UNLESS NOTED OTHERWISE. PROVIDE LADDERS TO (E) ROOF CAVITY.

1 ROOF PLAN - WEST
1/8" = 1'-0"





ROOF TYPE LEGEND

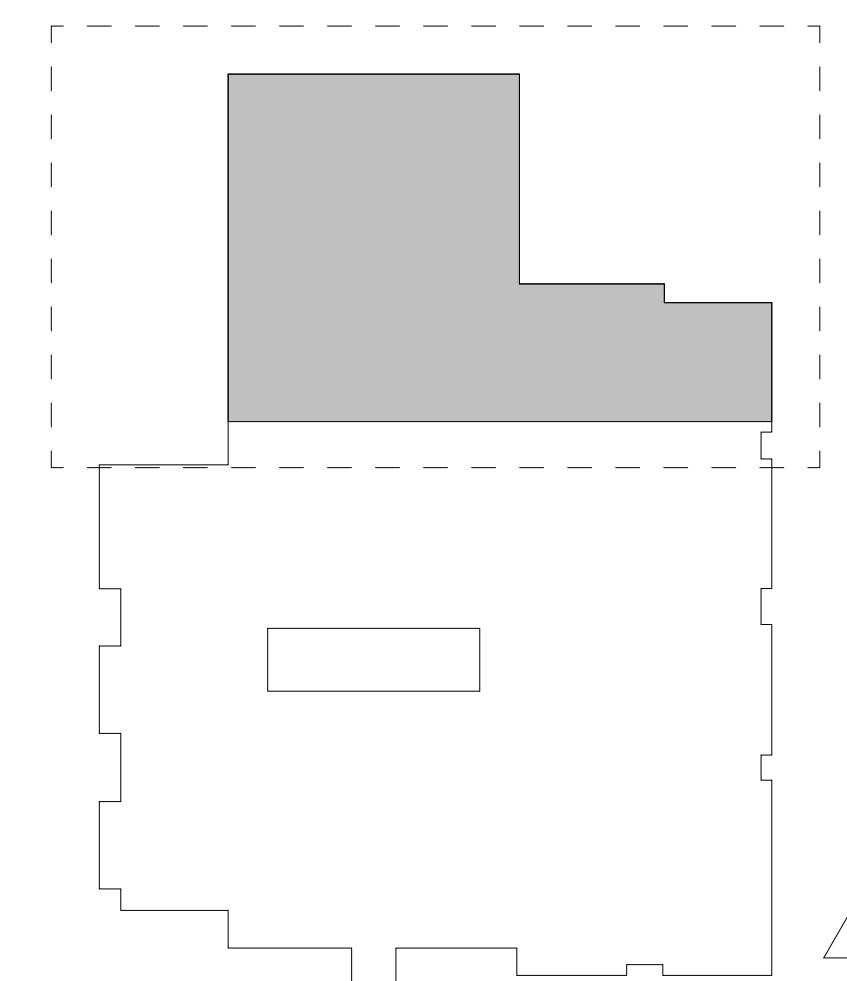
TYPE	SLOPE	ROOF SYSTEM ASSEMBLY	LOCATION
1	1/2" / 12"	MECHANICALLY-FASTENED SINGLE PLY ROOF MEMBRANE; 12" HIGH-DENSITY BOARD INSULATION; SELF-ADHERED AIR & VAPOR BARRIER	TYPICAL AT OVER-FRAMING AREAS
2	1/4" / 12"	MECHANICALLY-FASTENED SINGLE PLY ROOF MEMBRANE; 1/4" ROOF COVER BOARD; TAPERED BOARD INSULATION; SELF-ADHERED AIR & VAPOR BARRIER	ALL LOW SLOPE AREAS (EXISTING)
3	SLOPES EXCEEDING 1/2" / 12"	MECHANICALLY-FASTENED SINGLE PLY ROOF MEMBRANE; 1/2" ROOF COVER BOARD; 1" BOARD INSULATION; SELF-ADHERED AIR & VAPOR BARRIER	AUDITORIUM; WEST SLOPE
4	1/2" / 12"	MECHANICALLY-FASTENED SINGLE PLY ROOF MEMBRANE; 1/4" ROOF COVER BOARD; 5-1/2" BOARD INSULATION; SELF-ADHERED AIR & VAPOR BARRIER	CLASSROOM ADDITION
5	SLOPES EXCEEDING 1/2" / 12"	MECHANICALLY-FASTENED SINGLE PLY ROOF MEMBRANE; 1/2" ROOF COVER BOARD; 5-1/2" BOARD INSULATION; SELF-ADHERED AIR & VAPOR BARRIER	ROOF MONITORS (ALT. BID)

ROOF TYPE NOTES:
1. REFER TO ROOF PLANS & BUILDING SECTIONS FOR ROOF SYSTEM ASSEMBLY TAGS.

- ROOF PLAN KEYNOTES**
- MECHANICAL EQUIPMENT, SEE MECHANICAL.
 - RE-INSTALLED SALVAGED MECHANICAL EQUIPMENT, SEE MECHANICAL.
 - REMOVE & REPLACE 36" x 60" ROOF HATCH, SAME LOCATION, ENSURE CURB HEIGHT IS SUFFICIENT FOR THICKNESS OF RIGID INSULATION.
 - INSTALL REPLACEMENT 36" x 60" ROOF HATCH AT NEW ROOF IN SAME LOCATION, UNLESS NOTED OTHERWISE, PROVIDE LADDERS TO (E) ROOF CAVITY.

- ROOF PLAN GENERAL NOTES**
- (E) PLUMBING VENTS TO REMAIN, EXTEND TO NEW ROOF, TYPICAL.

1 ROOF PLAN - EAST
1/8" = 1'-0"



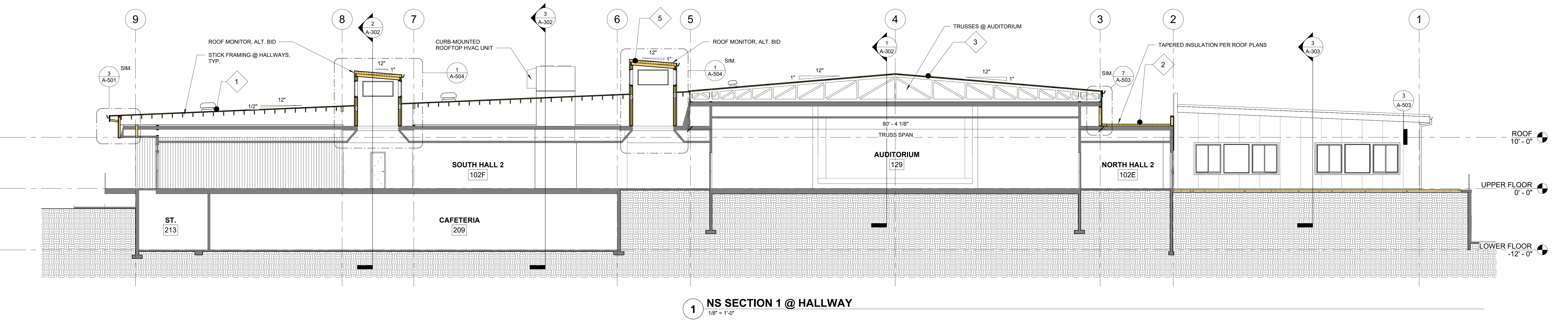
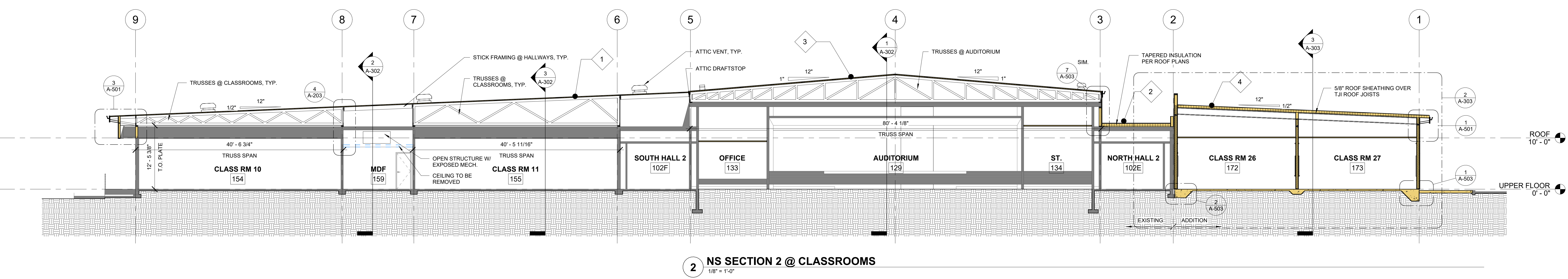
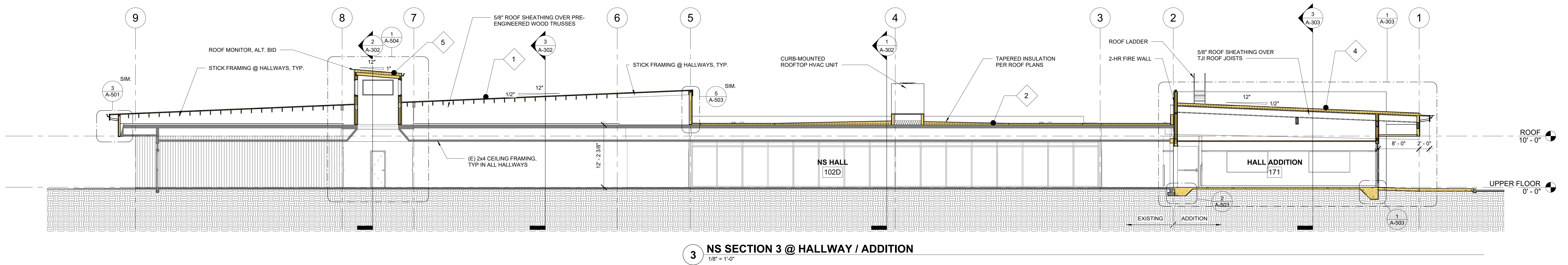
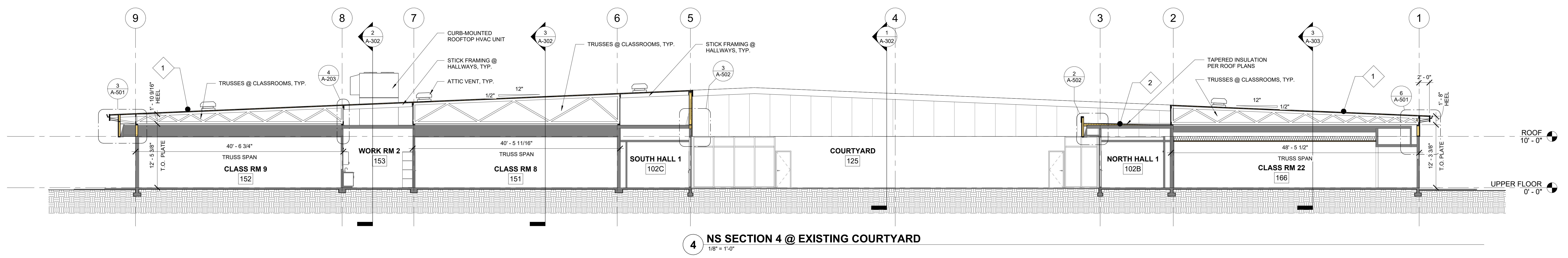
PROJECT NO.: 22.25
MILLICOMA SCHOOL REROOF & CLASSROOM ADDITION
COOS BAY SCHOOL DISTRICT
290 2ND AVE
COOS BAY, OR 97420

BIDDING

REVISIONS	DATE	DESCRIPTION
#		
A	1/20/23	BID SET

DATE: JANUARY 2023
SHEET TITLE:
ROOF PLAN - EAST

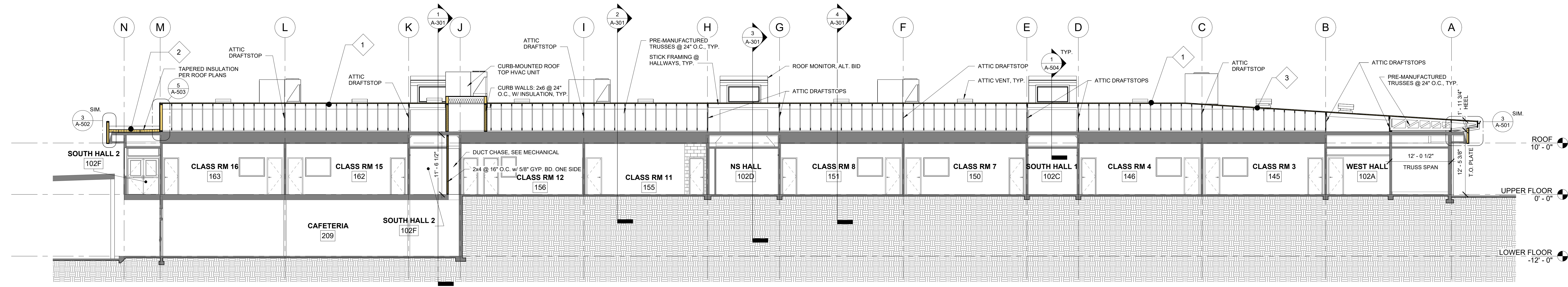
A-223



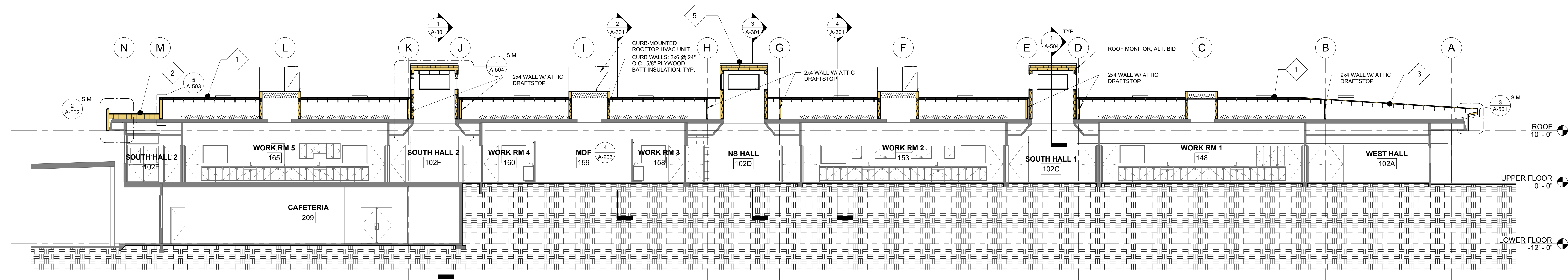
PROJECT NO. 22.25

BIDDING

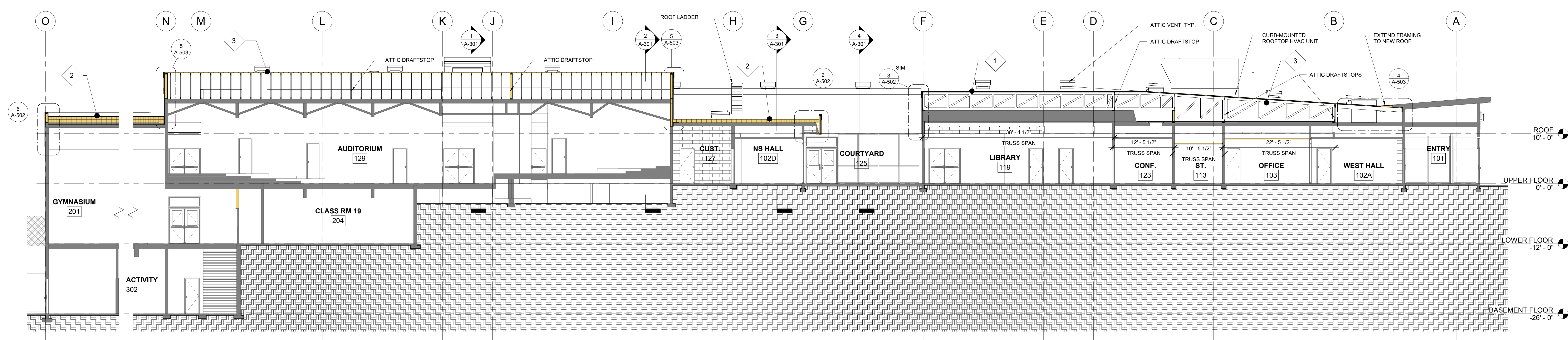
REVISIONS:	DATE	DESCRIPTION
A	1/20/23	BID SET



3 EW SECTION 3 @ CLASSROOMS
1/8" = 1'-0"



2 EW SECTION 2 @ WORKROOMS
1/8" = 1'-0"



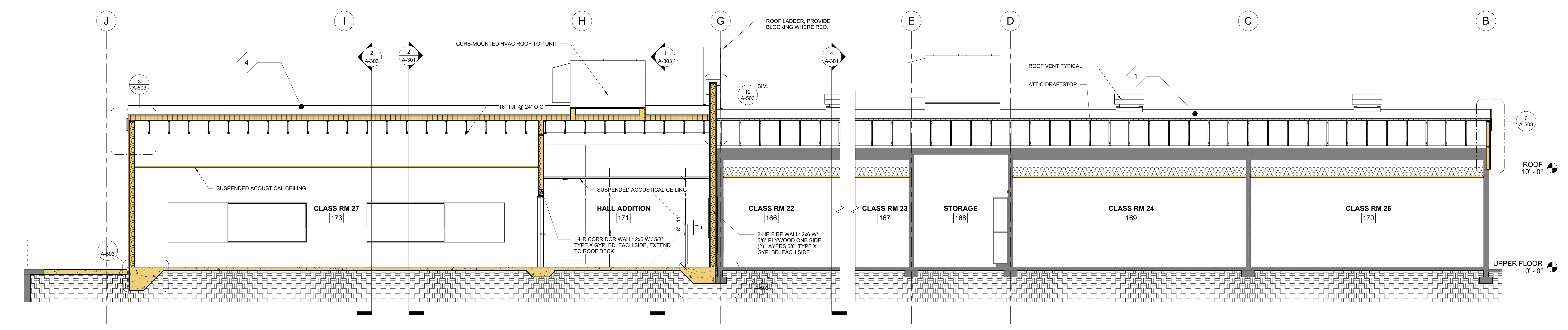
1 EW SECTION 1 @ GYM & AUDITORIUM
1/8" = 1'-0"

MILLICOMA SCHOOL REROOF & CLASSROOM ADDITION
 COOS BAY SCHOOL DISTRICT
 290 2ND AVE
 COOS BAY, OR 97420
 PROJECT NO.: 22.25

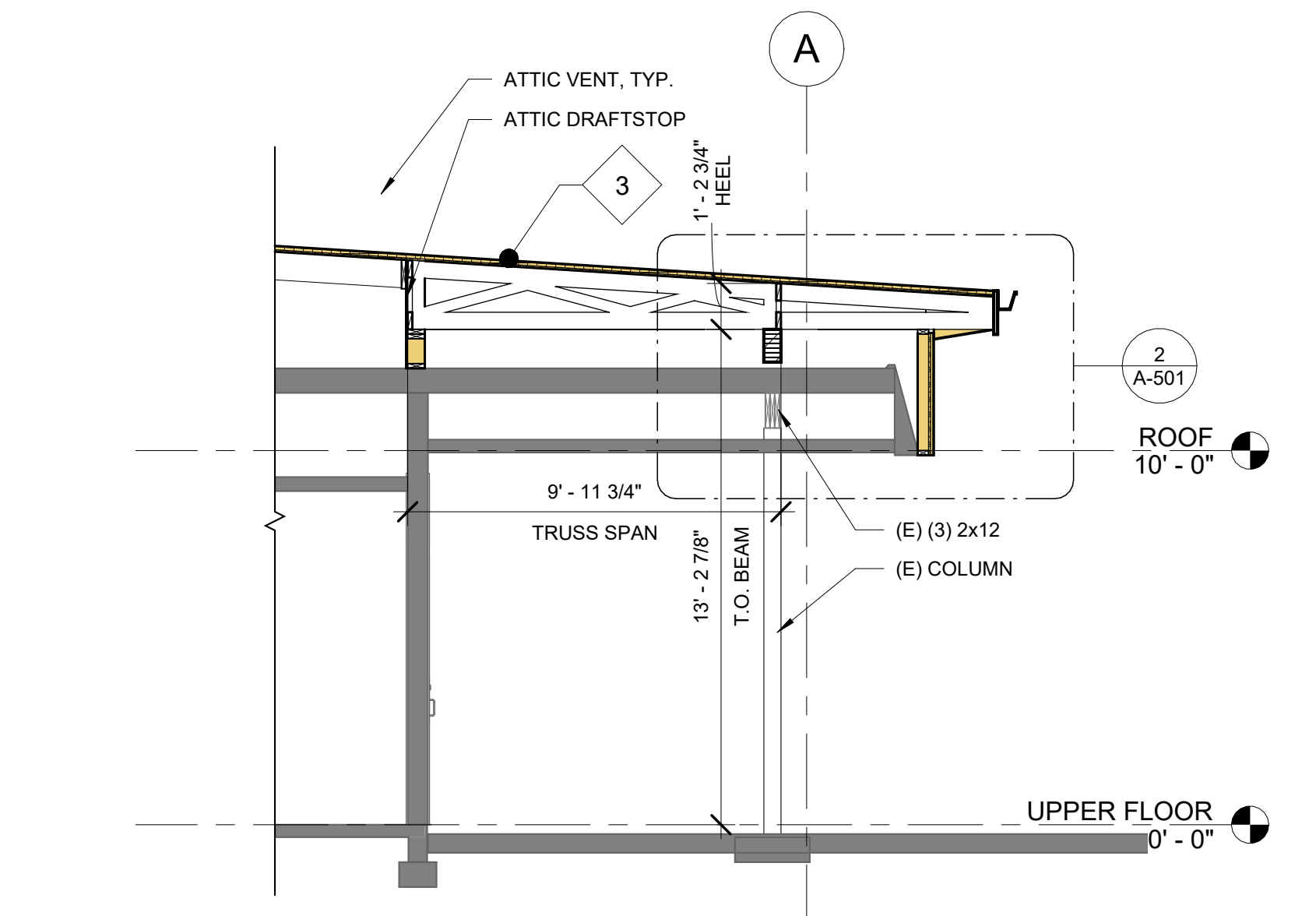
BIDDING

REVISIONS	DATE	DESCRIPTION
A	1/20/23	BID SET

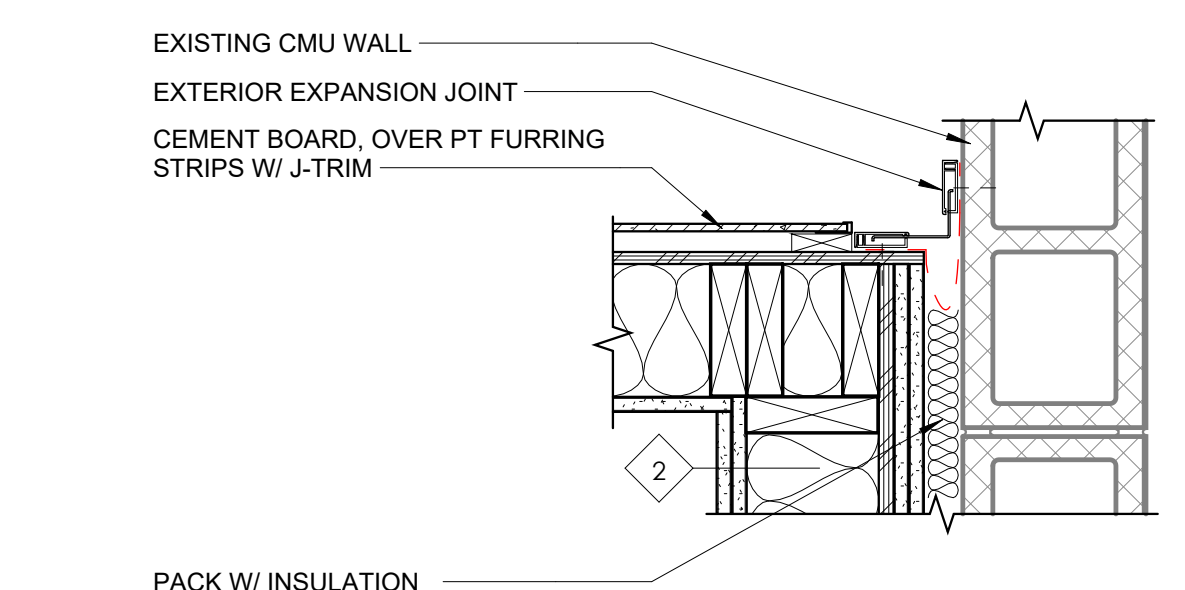
DATE: JANUARY 2023
SHEET TITLE: **BUILDING SECTIONS**



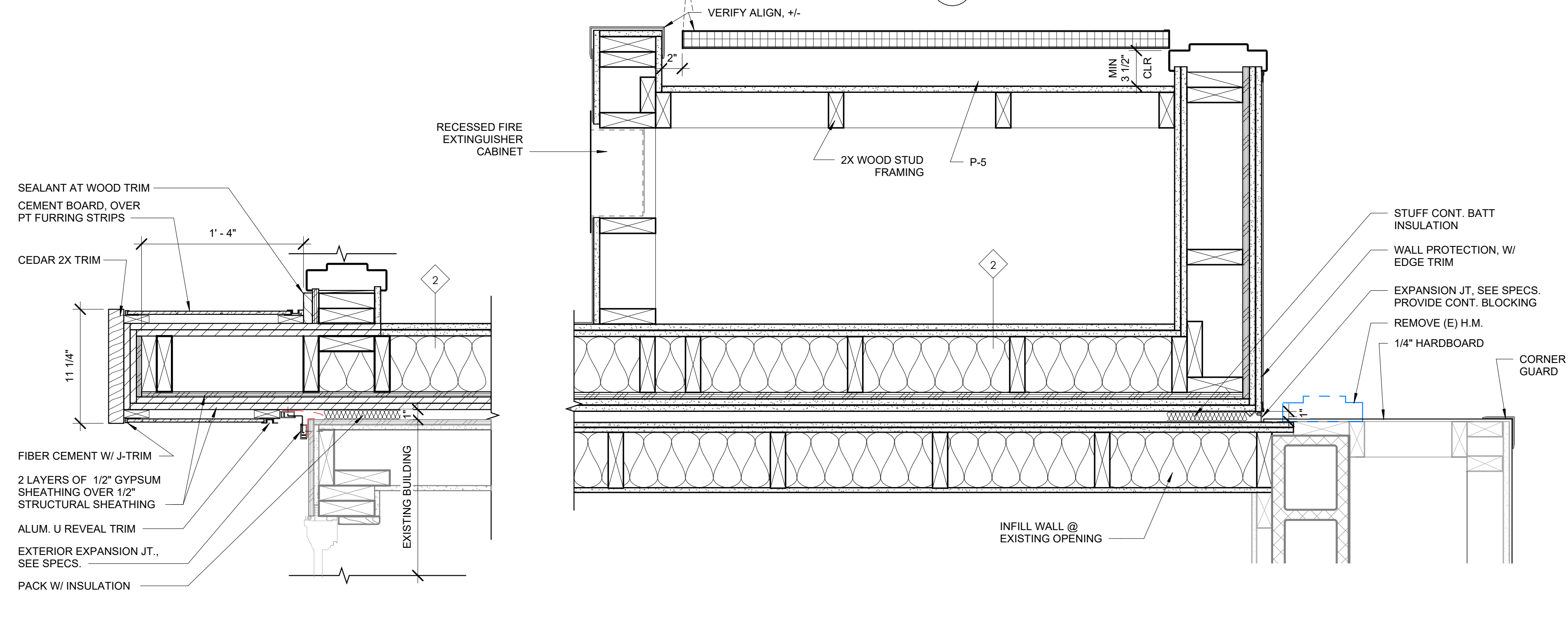
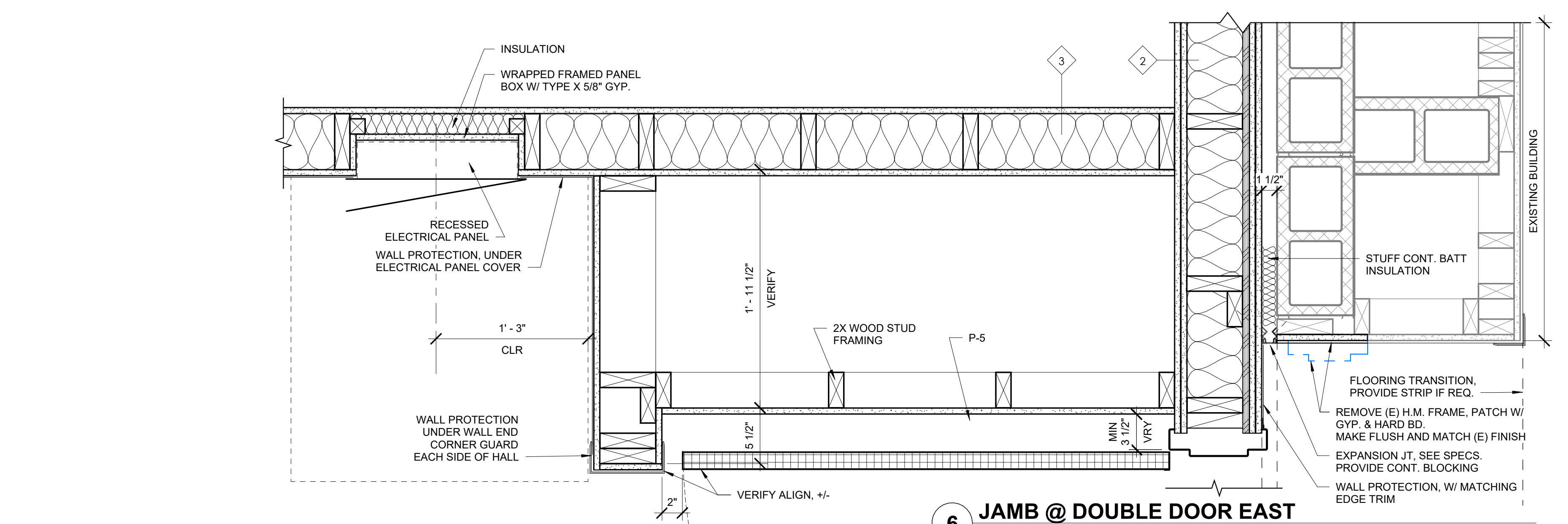
3 EW SECTION @ CLASSROOM ADDITION
1/4" = 1'-0"



4 EW SECTION @ WEST OVERHANG
1/4" = 1'-0"

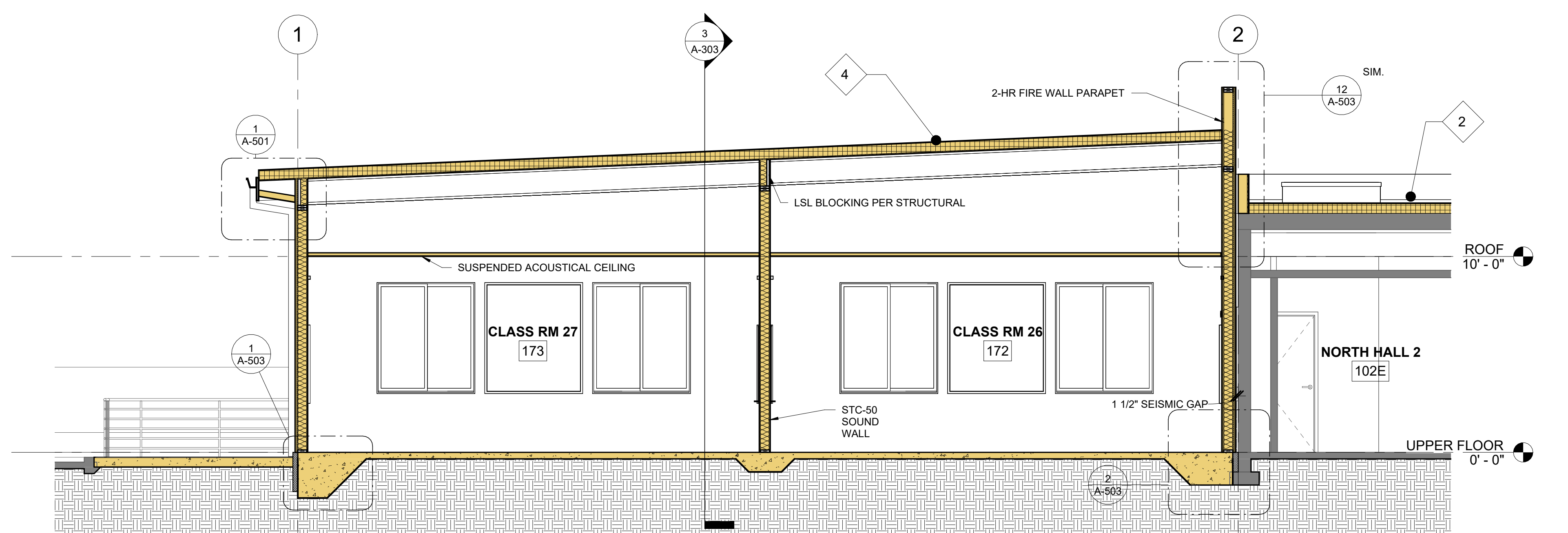


5 EXPANSION JOINT AT EXISTING WALL
1 1/2" = 1'-0"

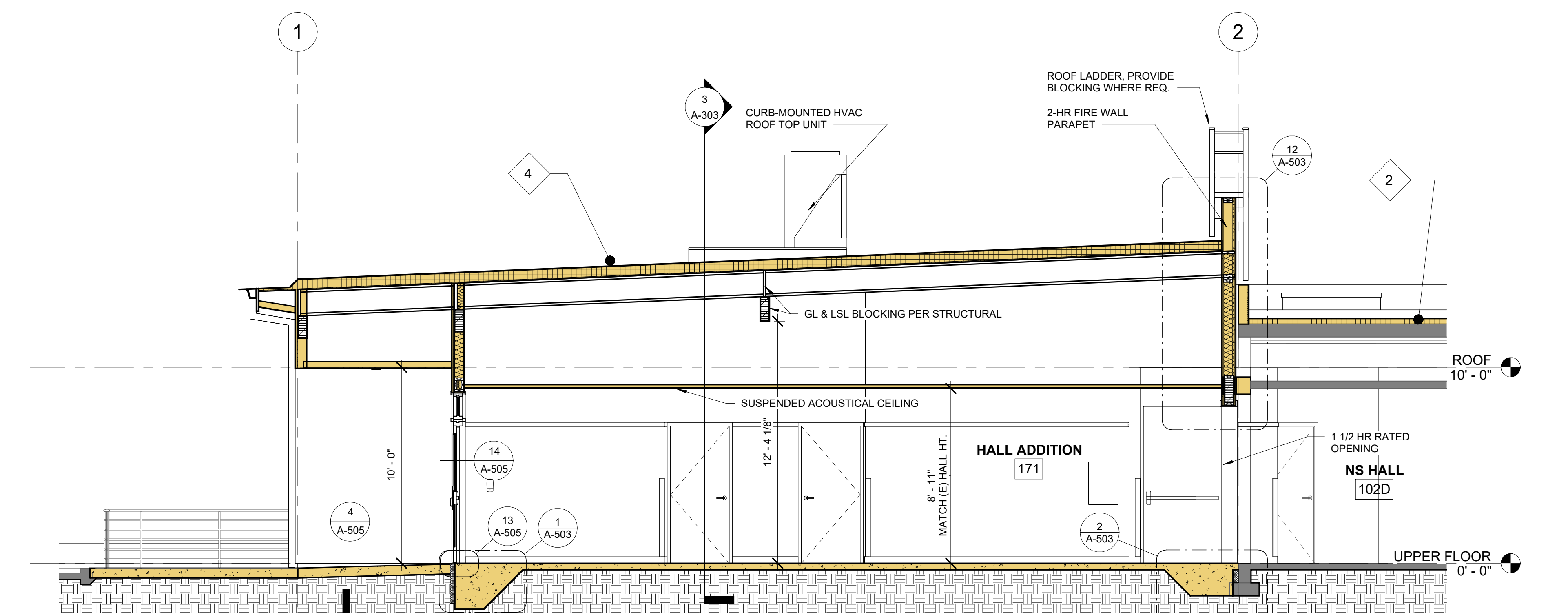


8 PLAN DETAIL @ FIRE WALL
1 1/2" = 1'-0"

7 JAMB @ COILING DOOR WEST
1 1/2" = 1'-0"



2 NS SECTION @ CLASSROOM ADDITION
1/4" = 1'-0"

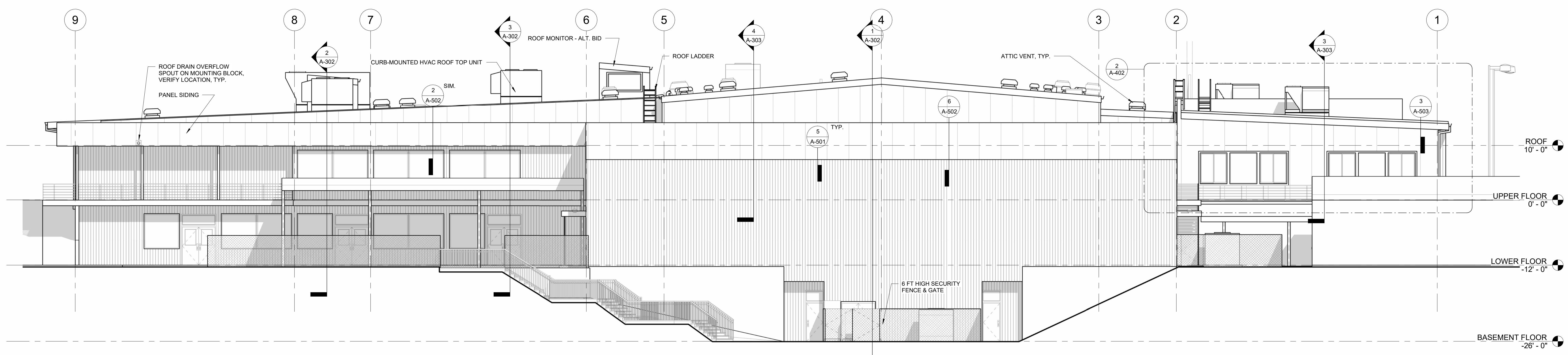


1 NS SECTION @ HALL ADDITION
1/4" = 1'-0"

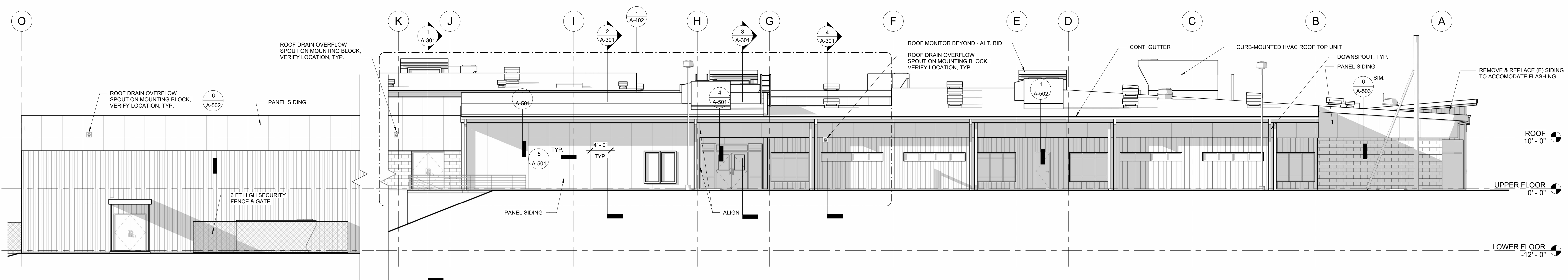
BIDDING

REVISIONS:	DATE	DESCRIPTION
A	1/20/23	BID SET

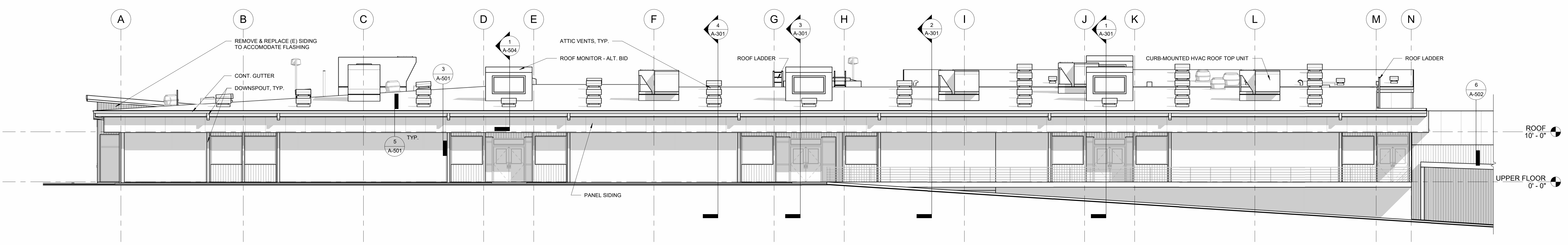
DATE: JANUARY 2023
SHEET TITLE:
ENLARGED BUILDING SECTIONS & DETAILS



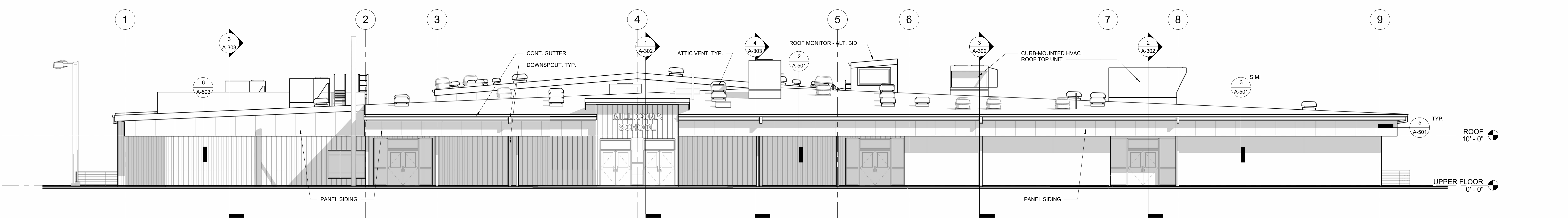
4 EAST ELEVATION
1/8" = 1'-0"



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



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



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

PROJECT NO.: 22.25
MILLICOMMA SCHOOL REROOF & CLASSROOM ADDITION
COOS BAY SCHOOL DISTRICT
290 2ND AVE
COOS BAY, OR 97420

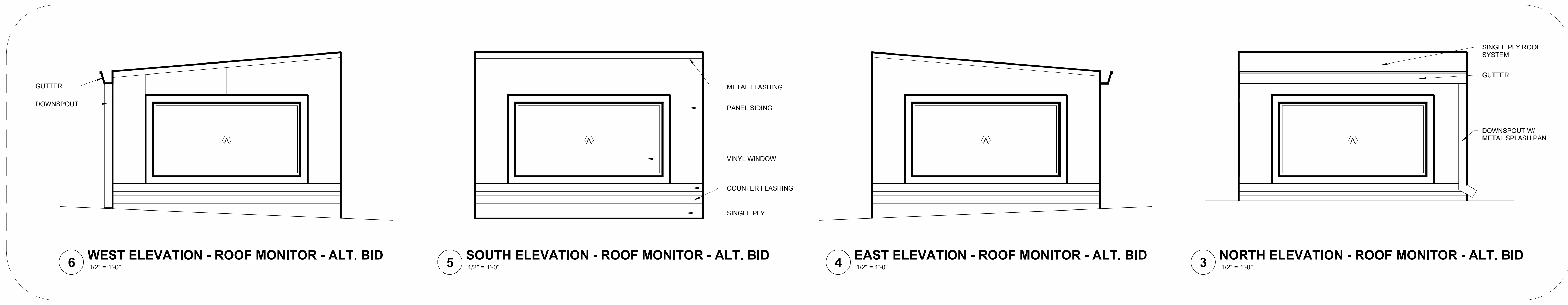
BIDDING

#	DATE	DESCRIPTION
A	1/20/23	BID SET

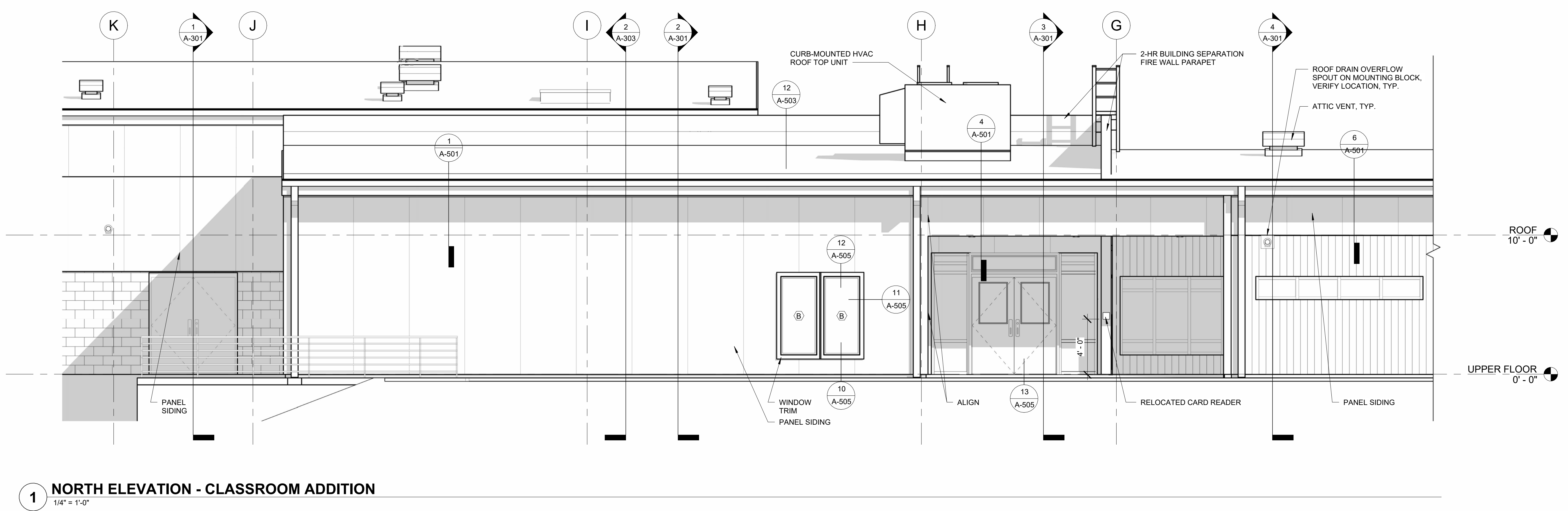
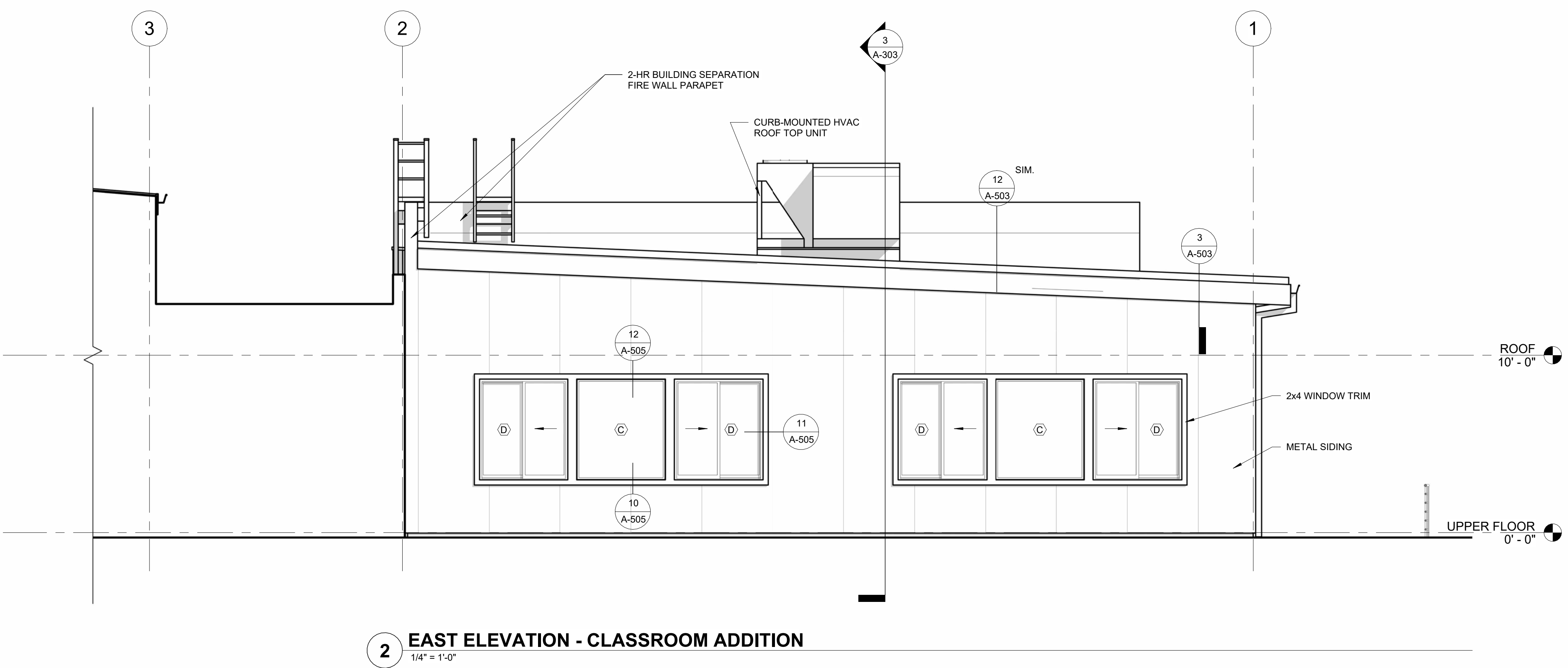
DATE: JANUARY 2023

SHEET TITLE:
EXTERIOR ELEVATIONS

A-401



ALTERNATE BID



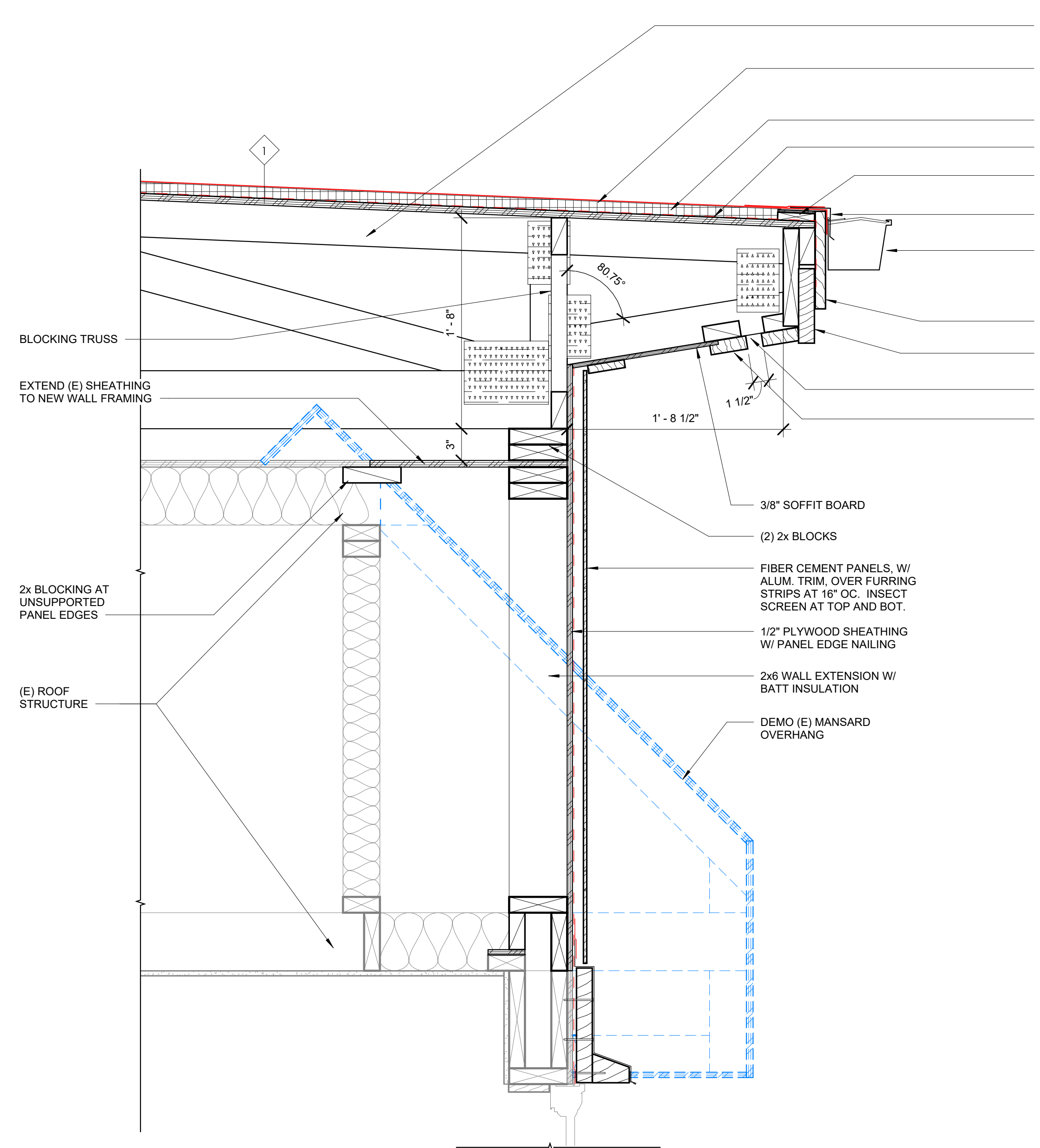
PROJECT NO. : 22.25
MILLICOMA SCHOOL REROOF & CLASSROOM ADDITION
COOS BAY SCHOOL DISTRICT
290 2ND AVE.
COOS BAY, OR 97420

BIDDING		
REVISIONS:	#	DATE
	A	1/20/23
		DESCRIPTION
		BID SET

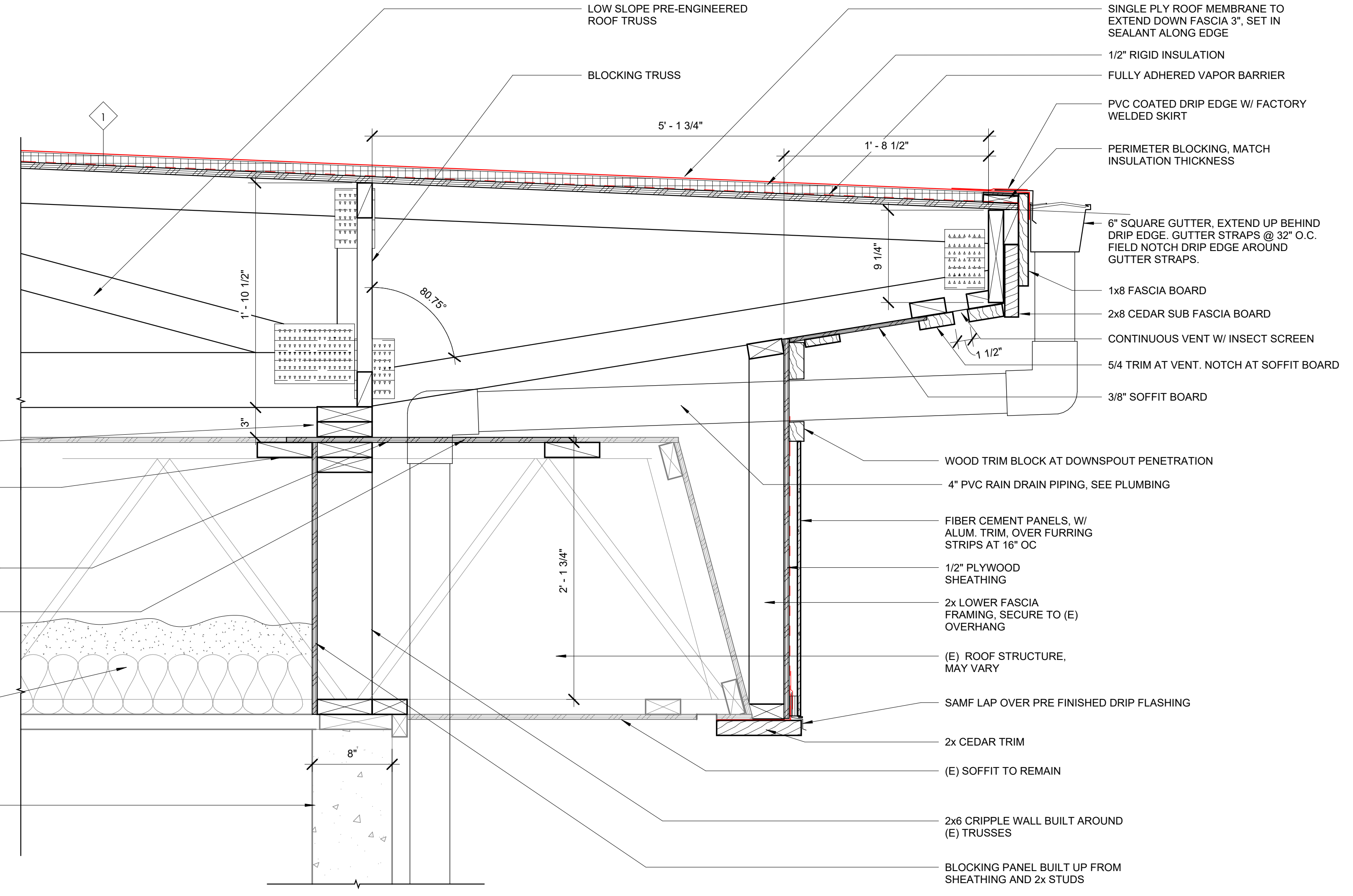
DATE: JANUARY 2023

SHEET TITLE:
ENLARGED EXTERIOR ELEVATIONS & ROOF MONITOR

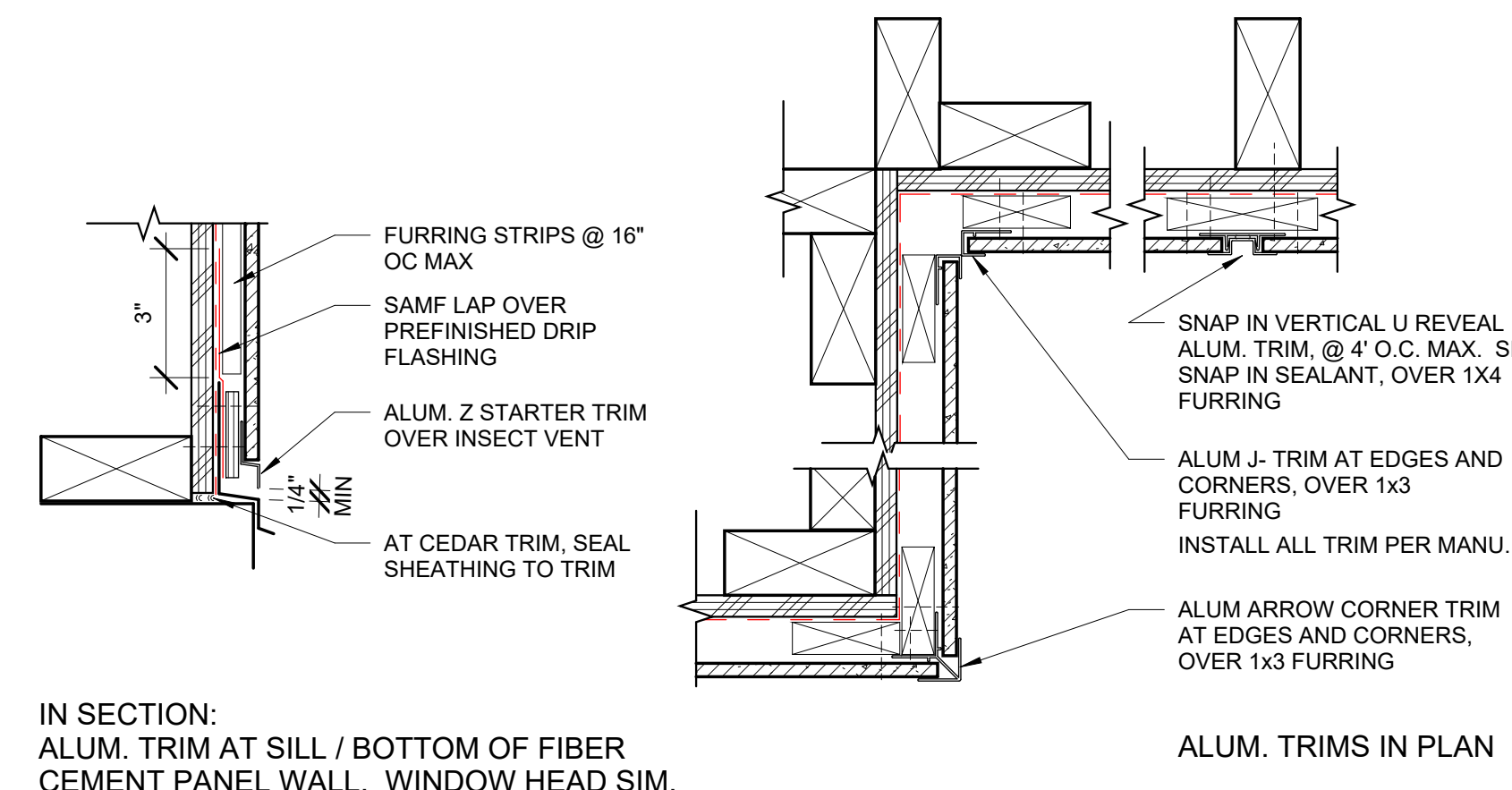
A-402



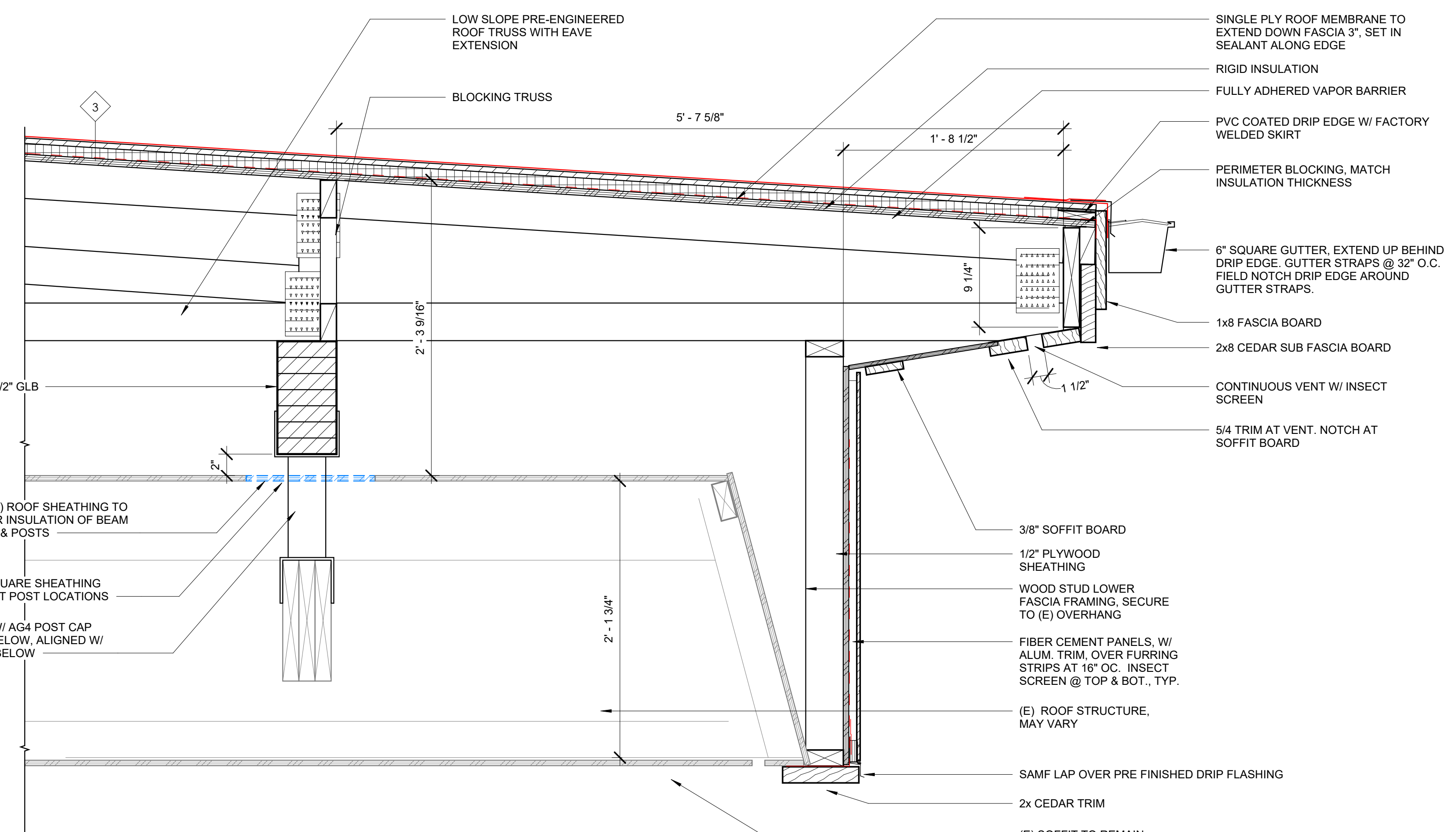
6 EAVE @ (E) NORTH CLASSROOMS
1 1/2" = 1'-0"



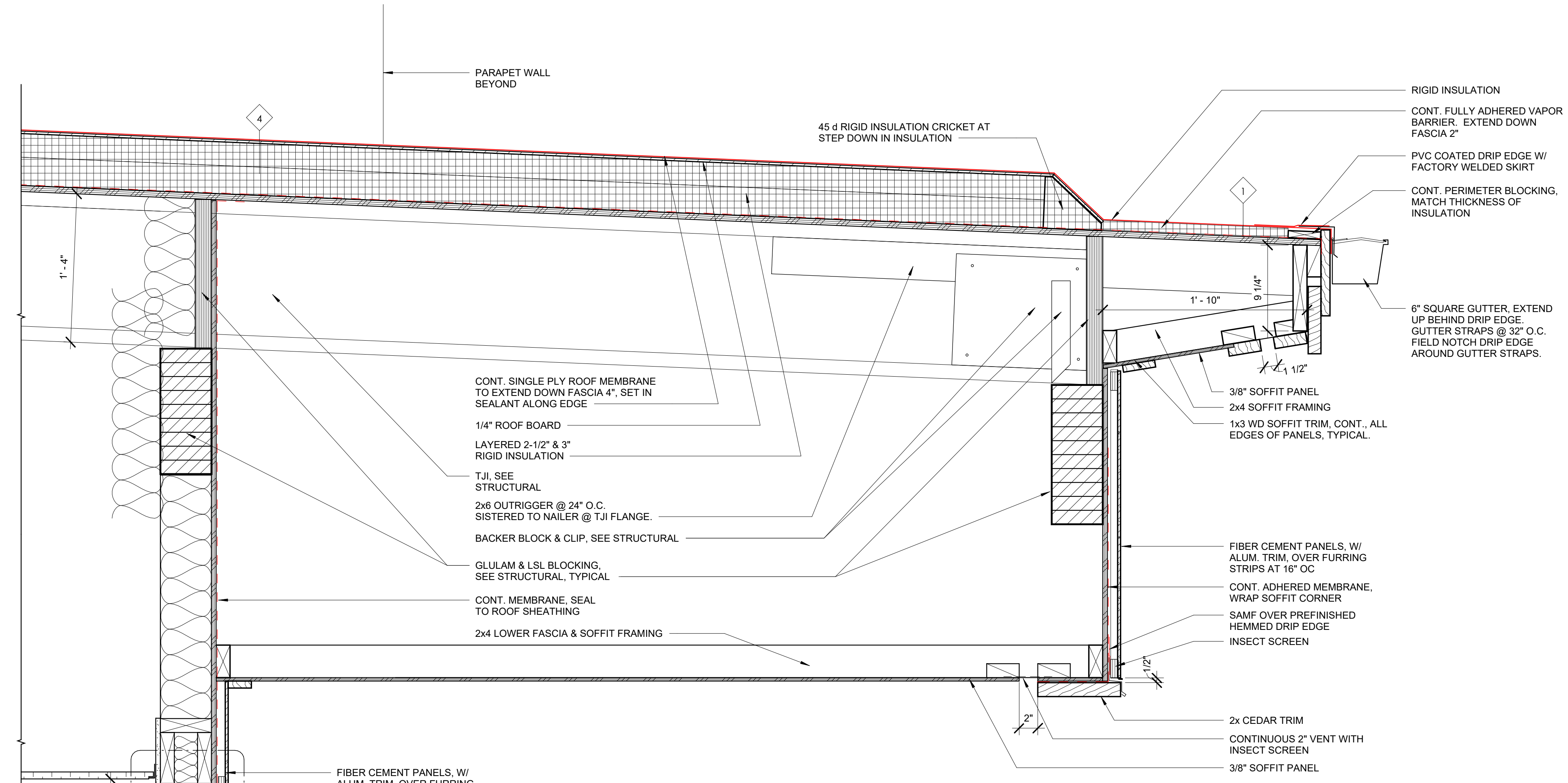
3 EAVE @ (E) SOUTH CLASSROOMS
1 1/2" = 1'-0"



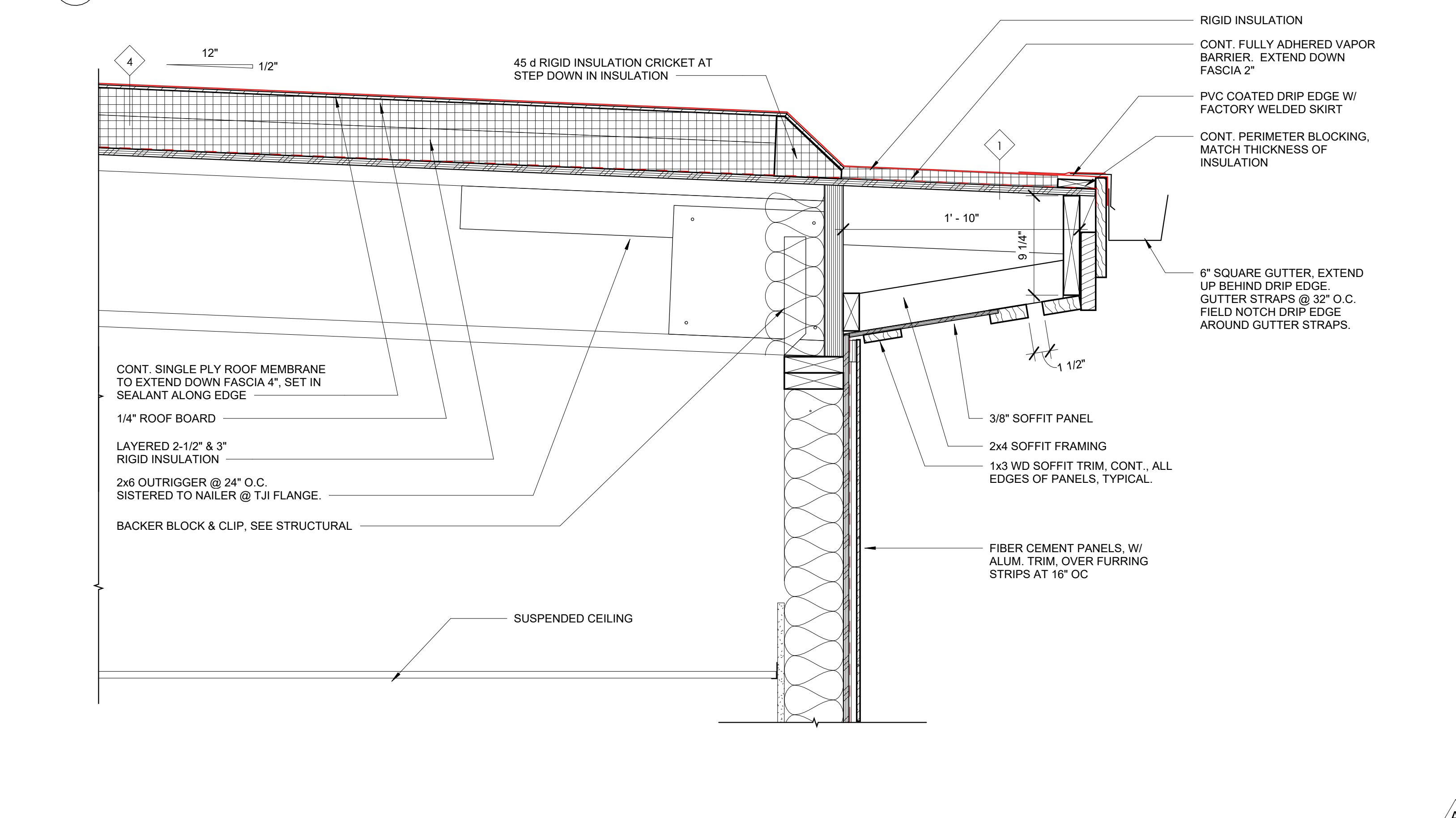
5 FIBER CEMENT PANEL ALUM. TRIM
3" = 1'-0"



2 EAVE @ (E) WEST COVERED WALK
1 1/2" = 1'-0"



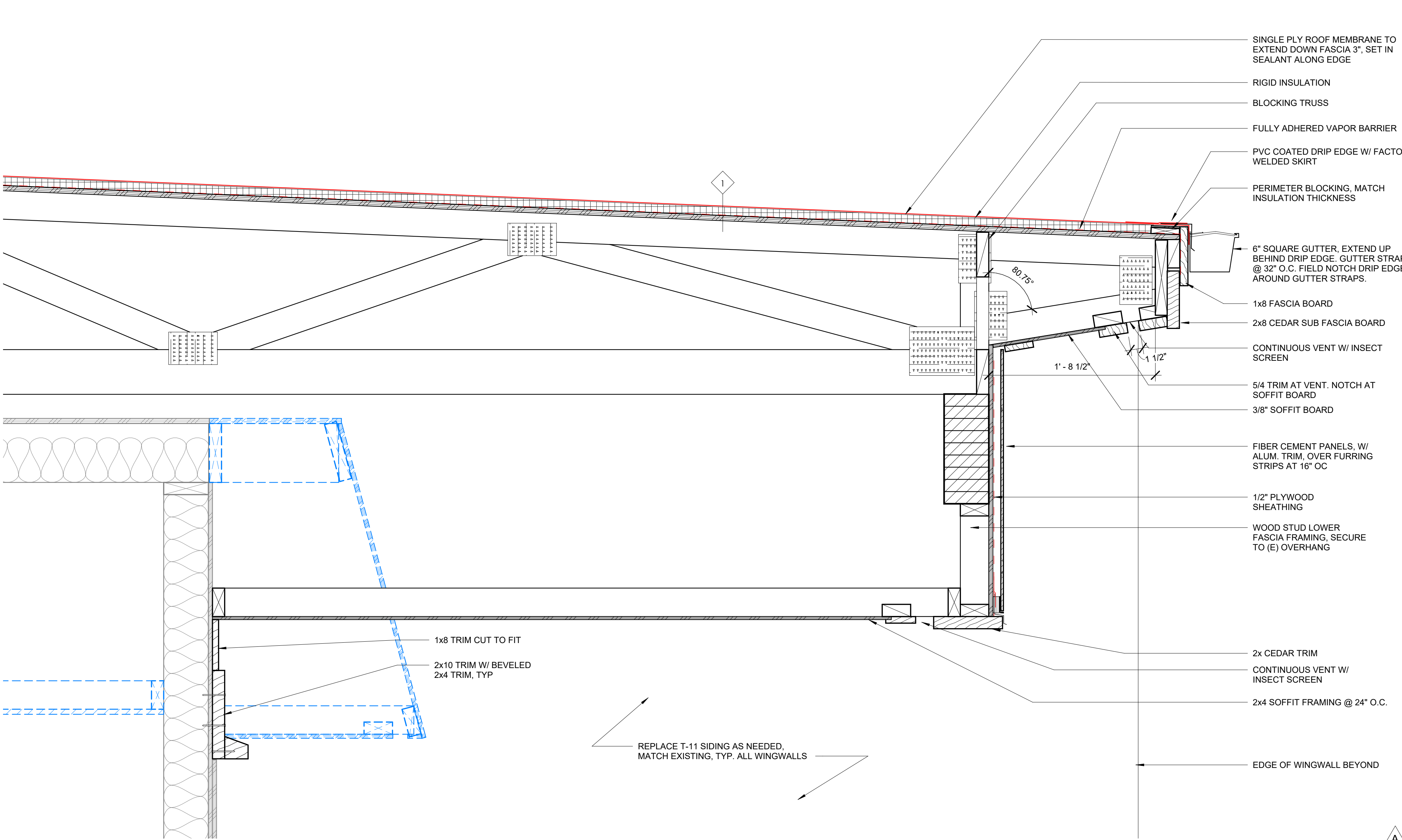
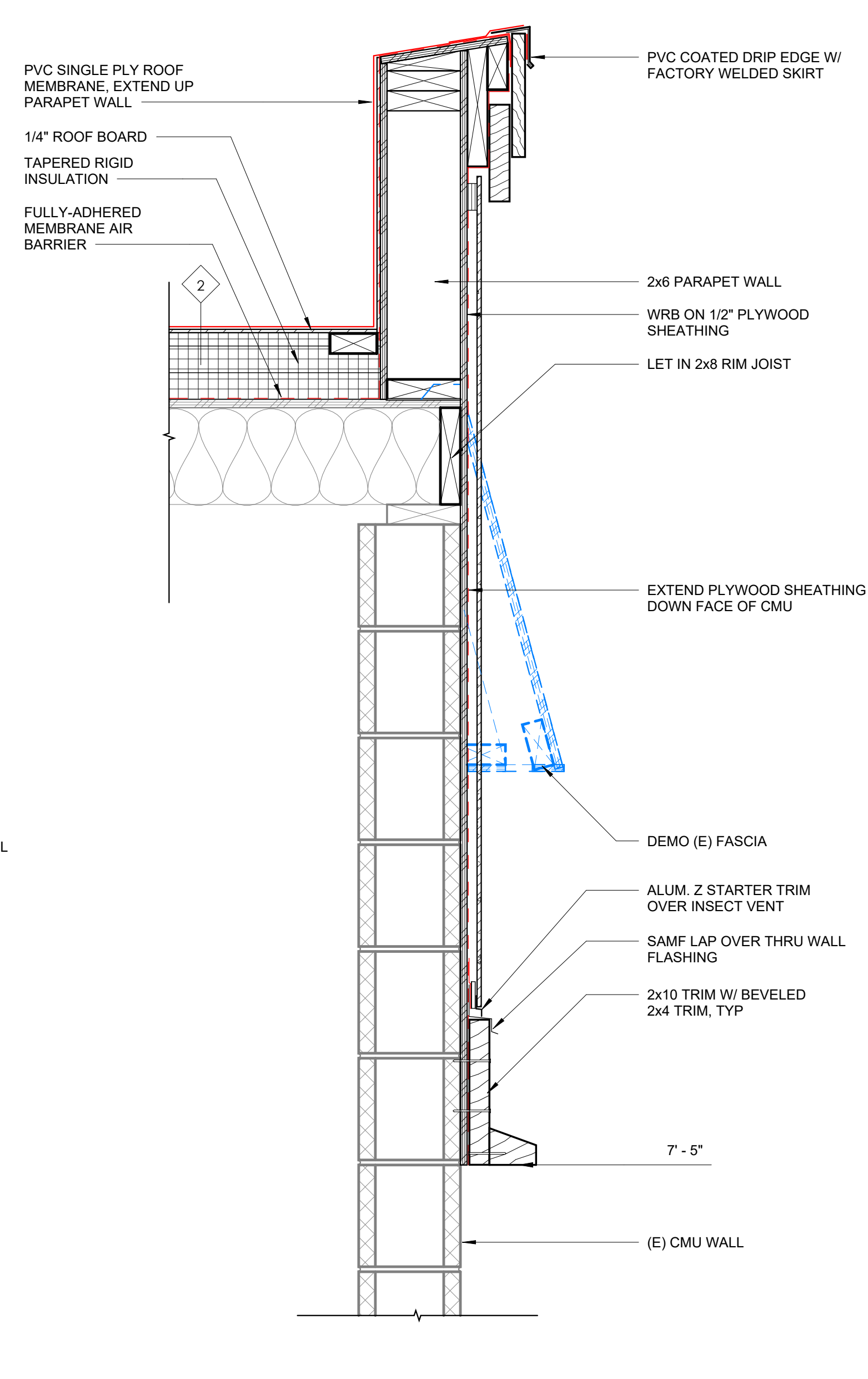
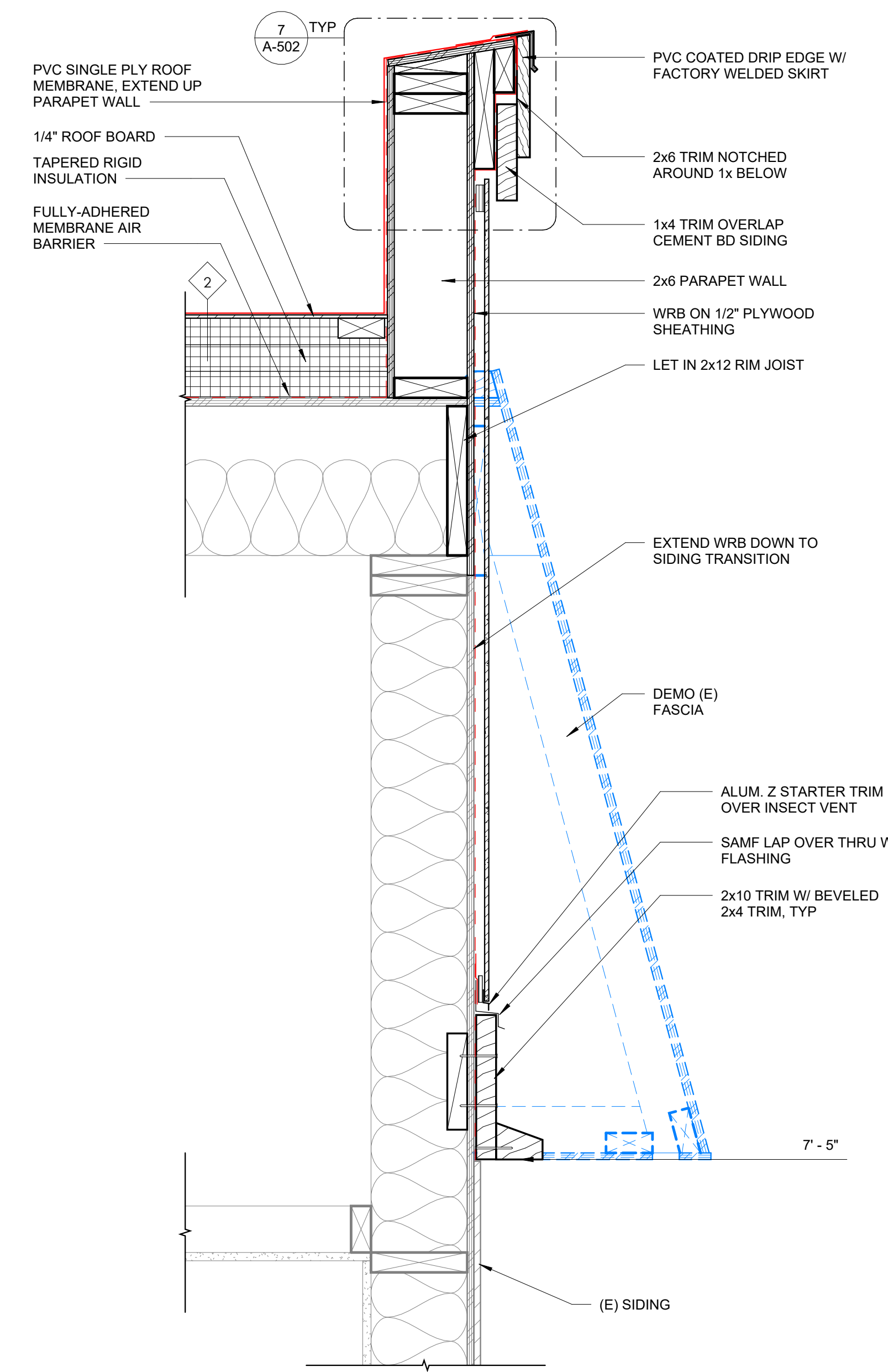
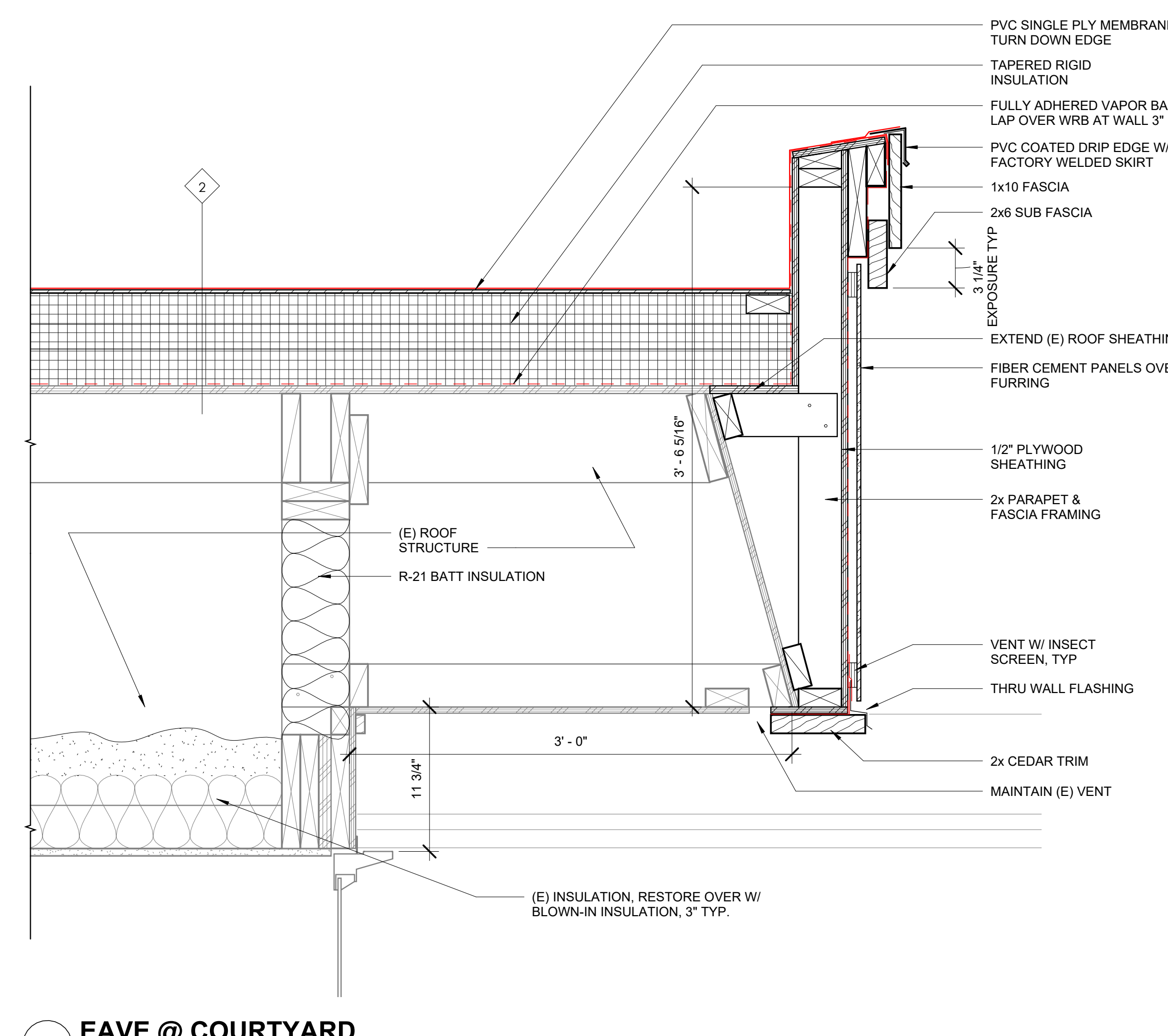
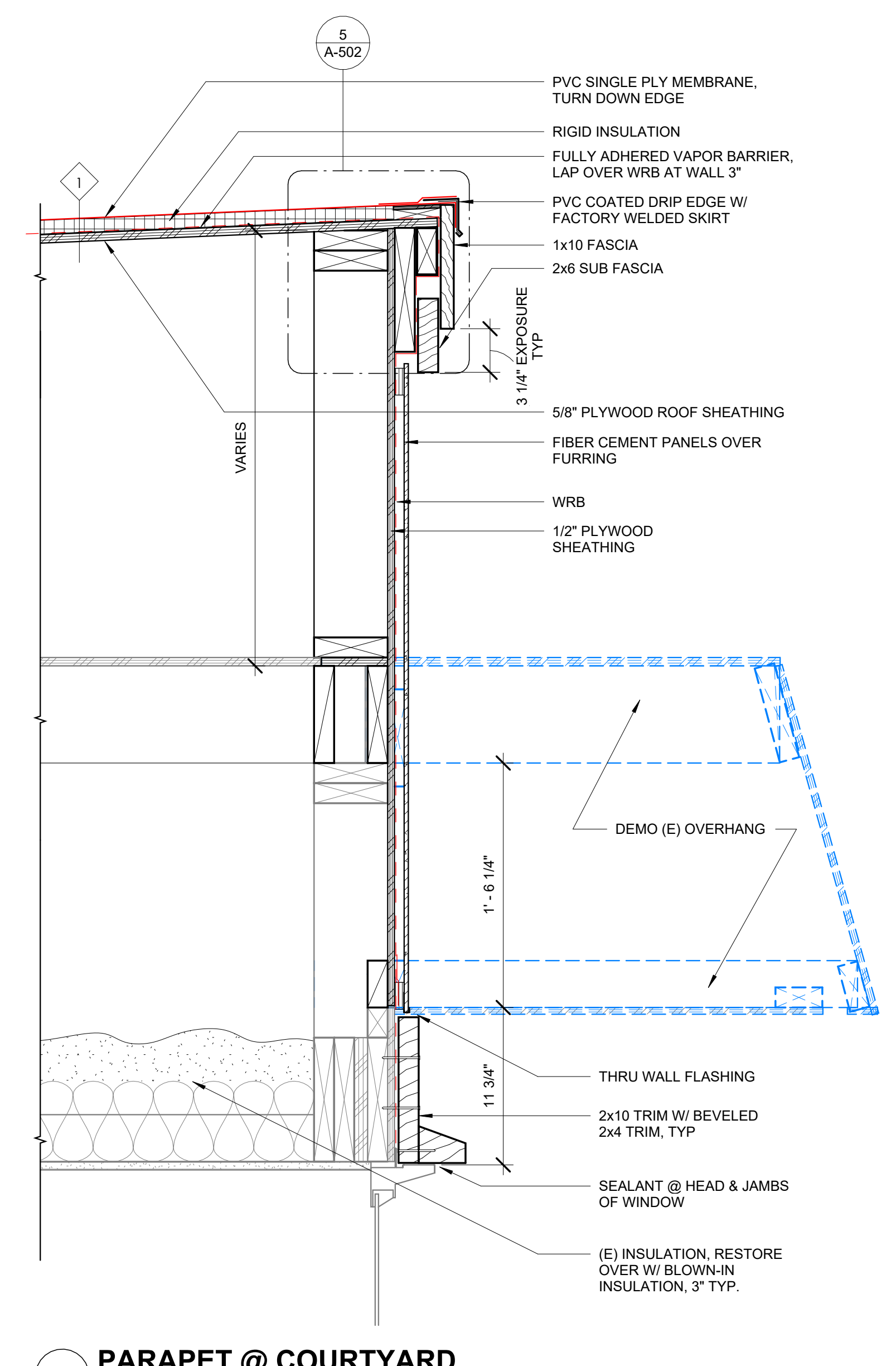
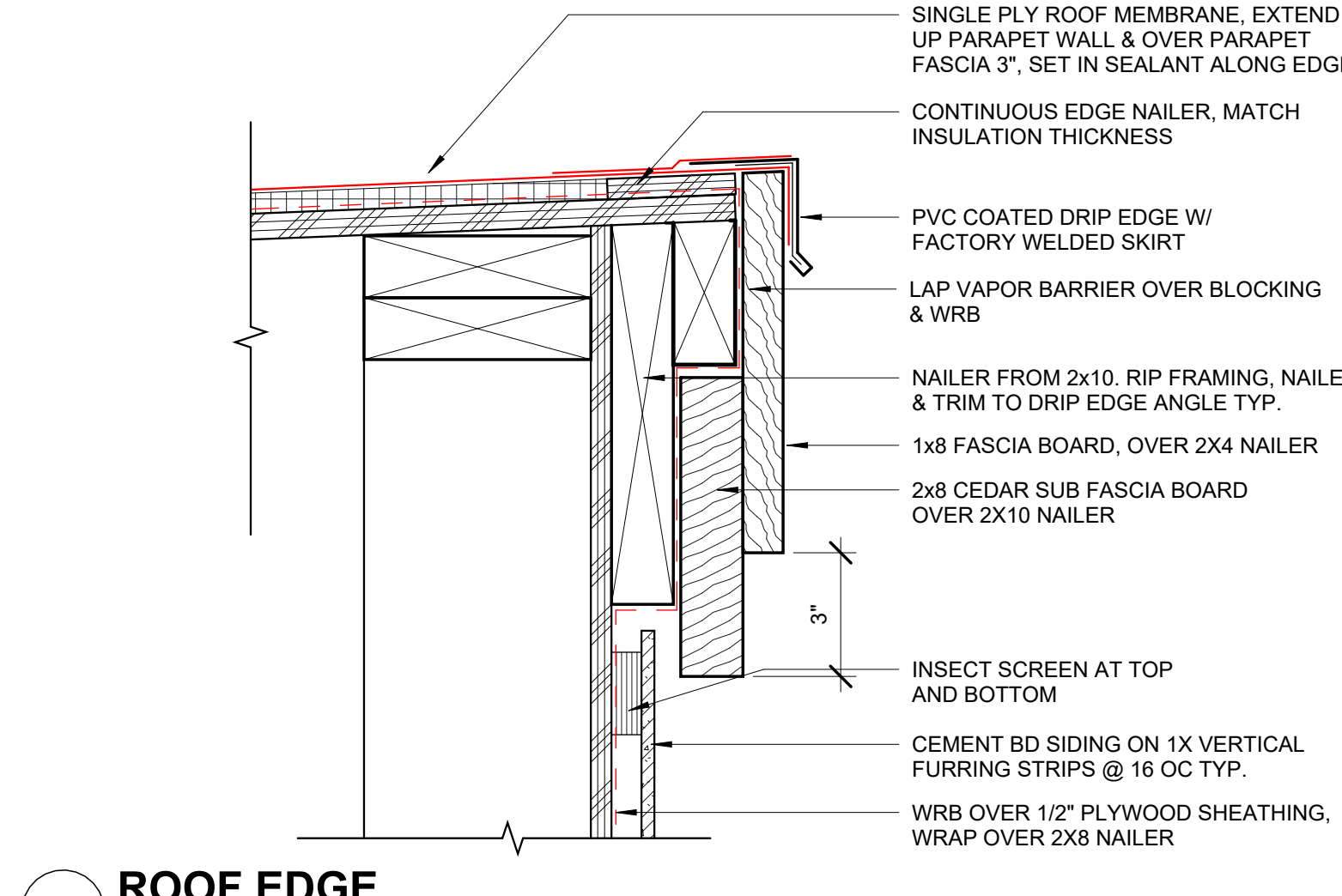
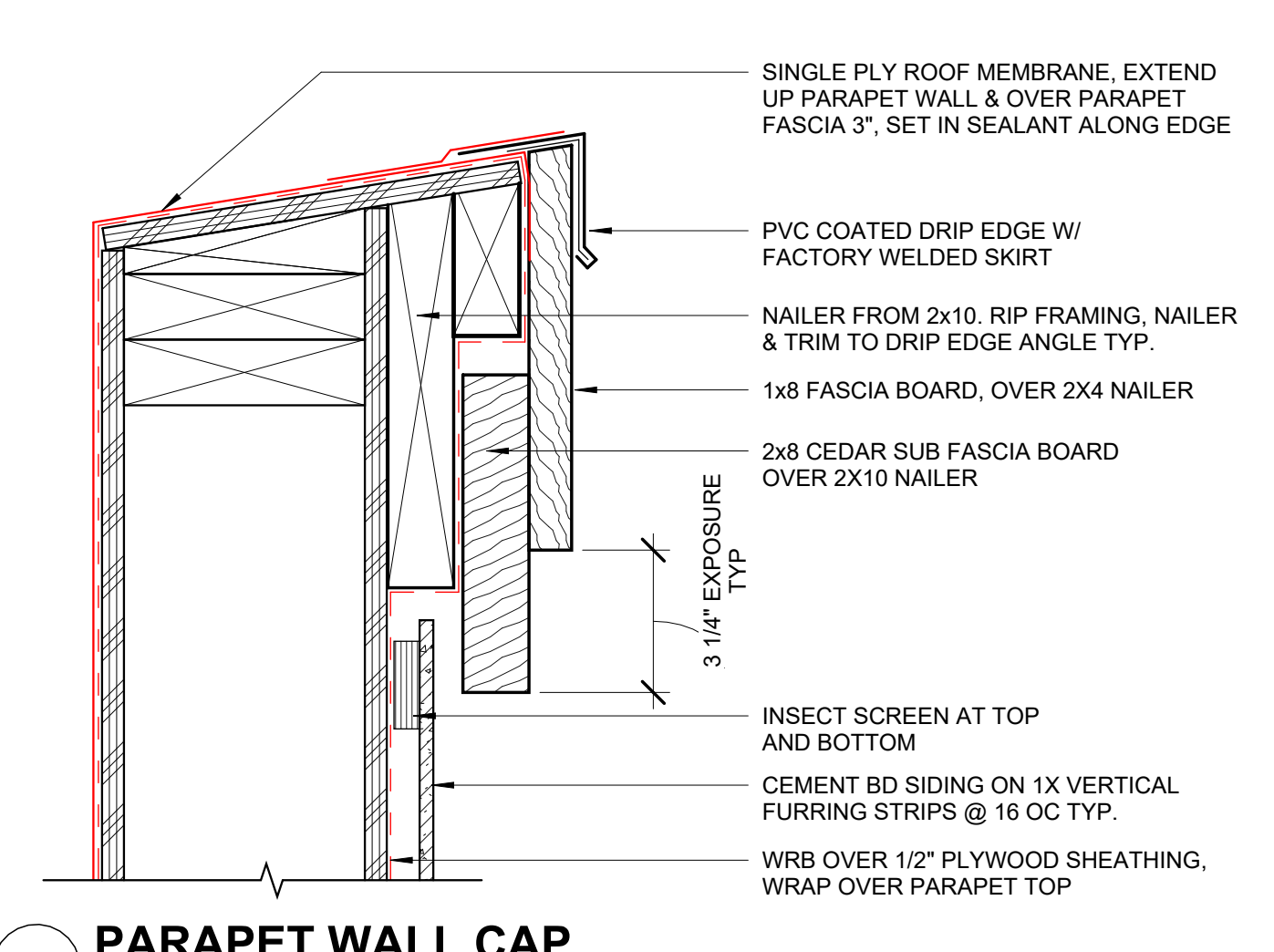
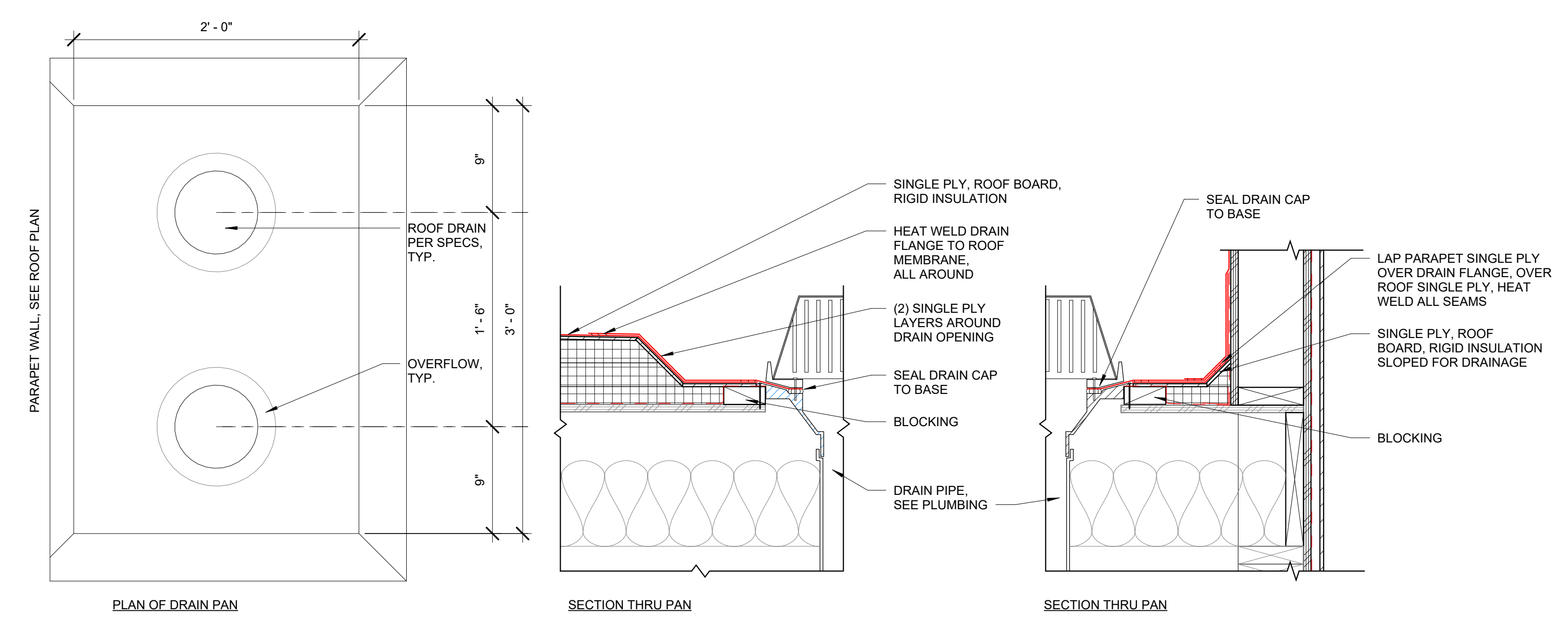
4 EAVE @ HALL ADDITION
1 1/2" = 1'-0"



1 EAVE @ CLASSROOM ADDITION
1 1/2" = 1'-0"

BIDDING

REVISIONS:	DATE	DESCRIPTION
#		
A	1/20/23	BID SET



BIDDING

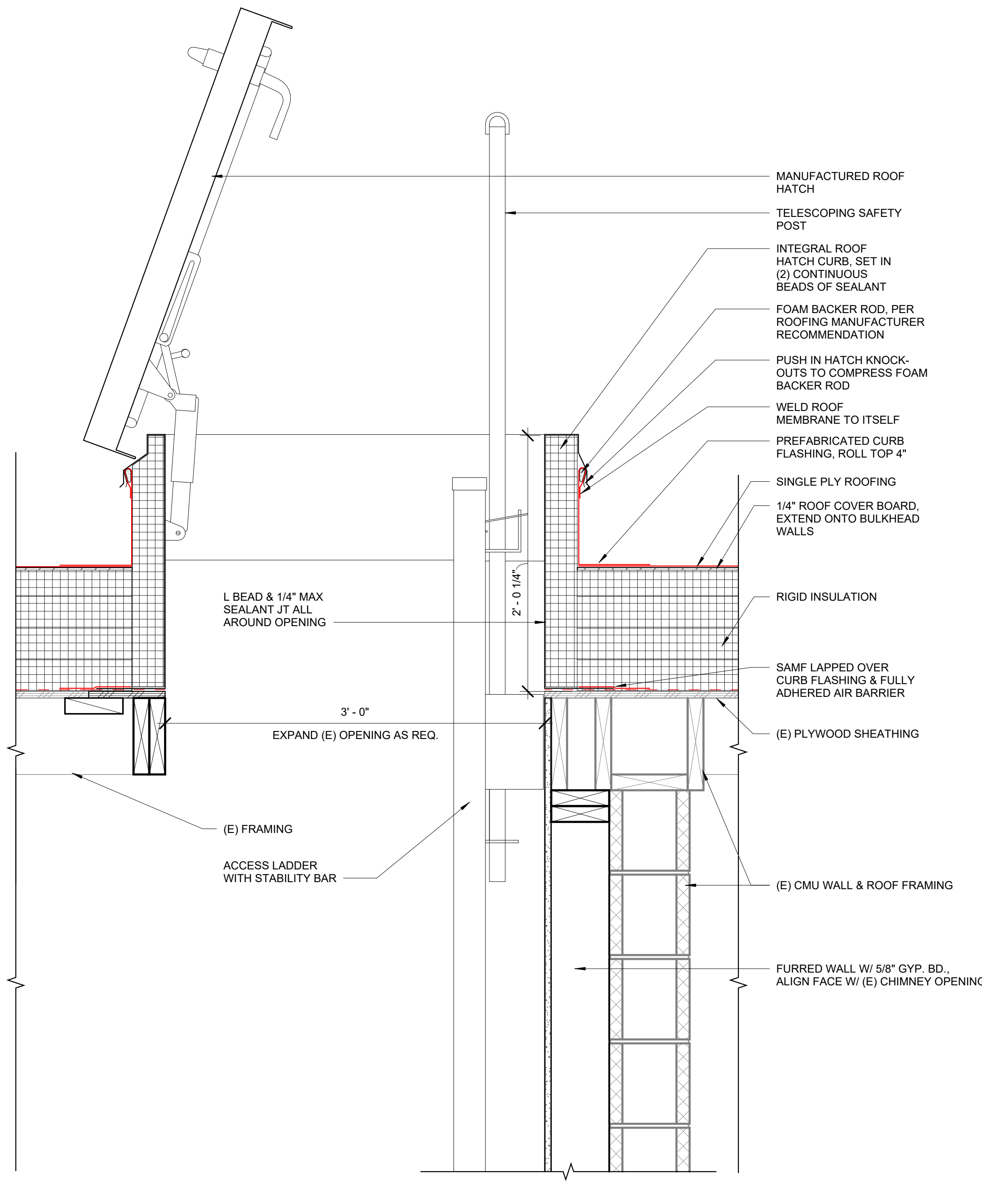
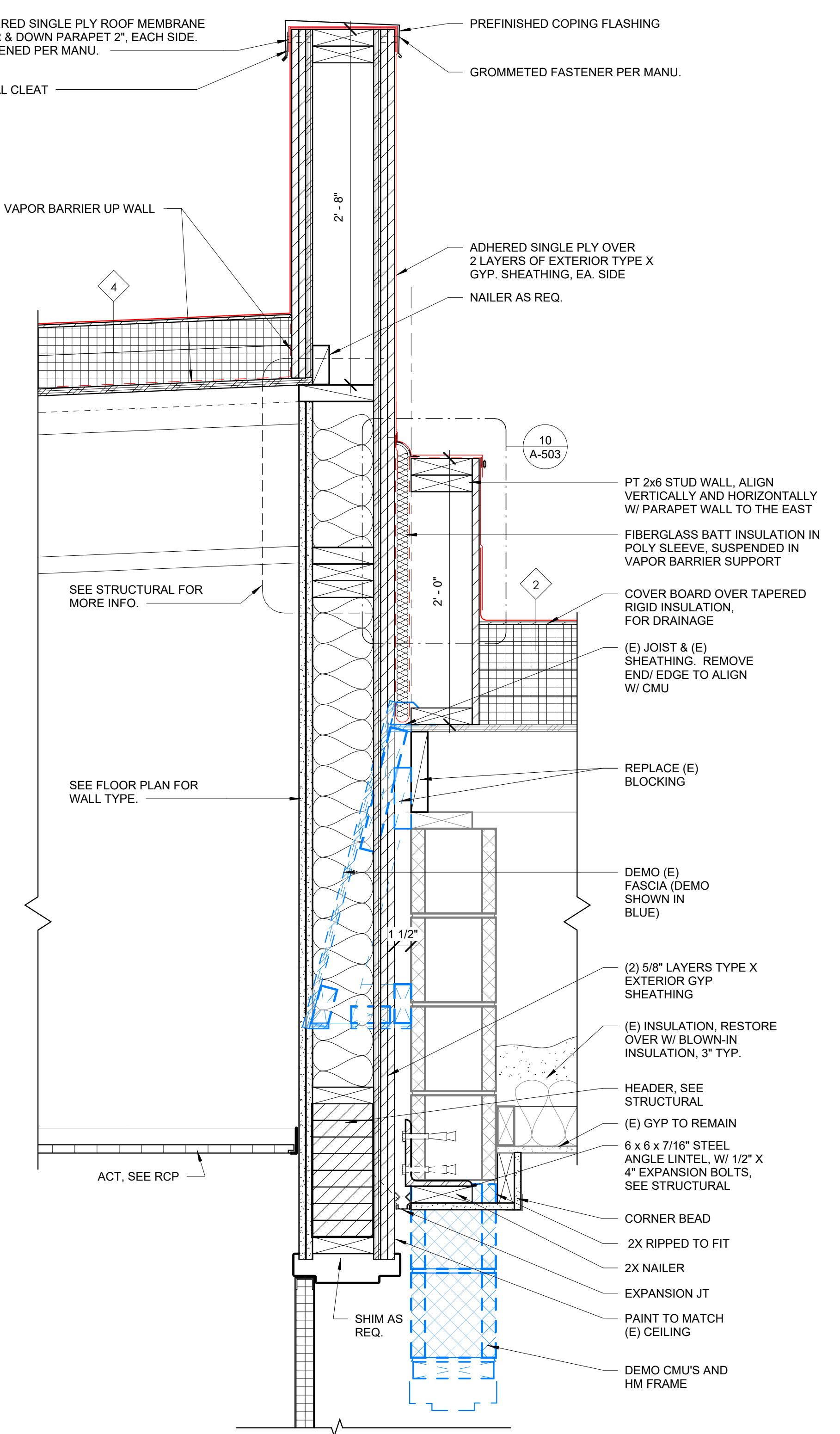
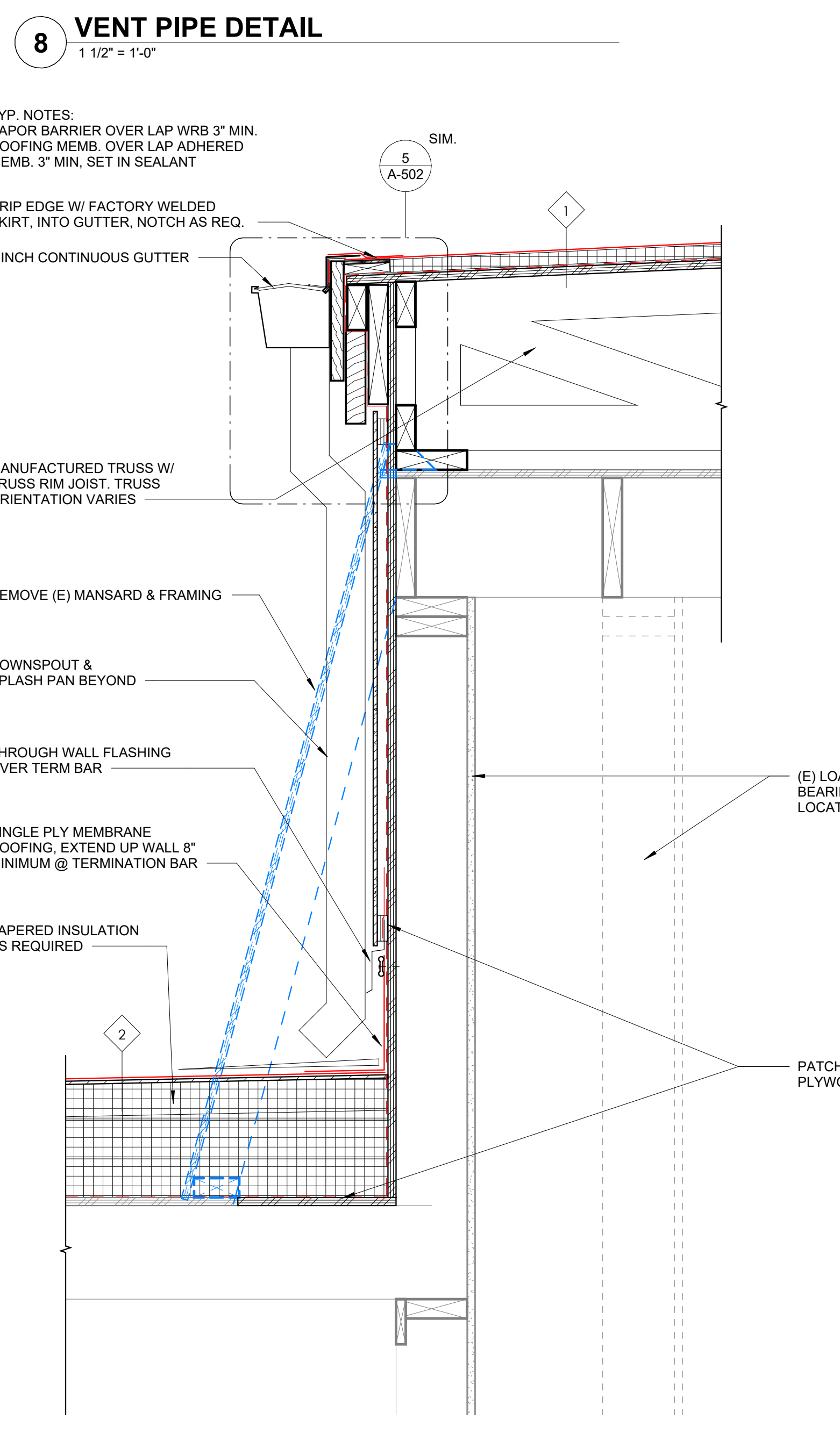
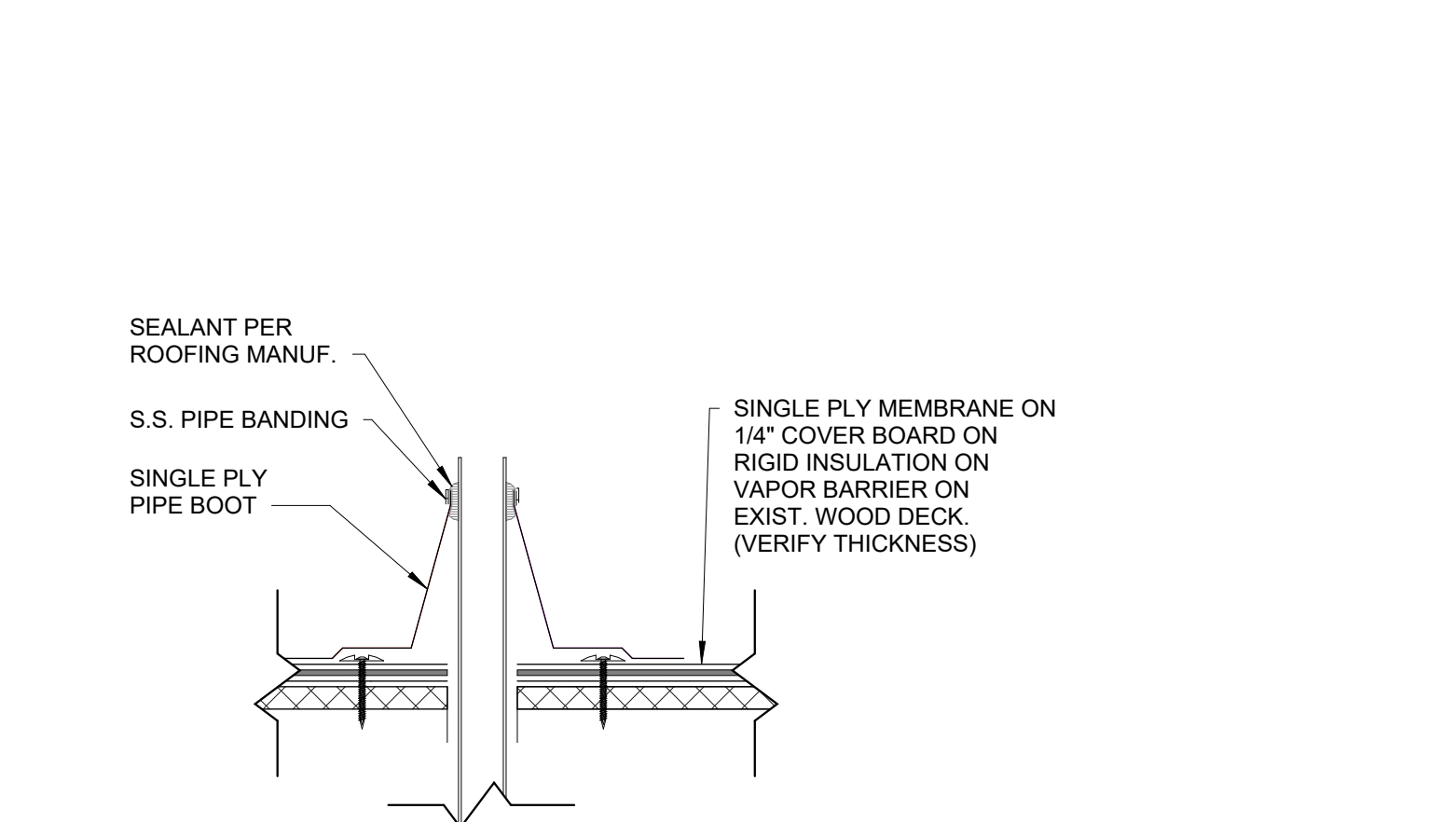
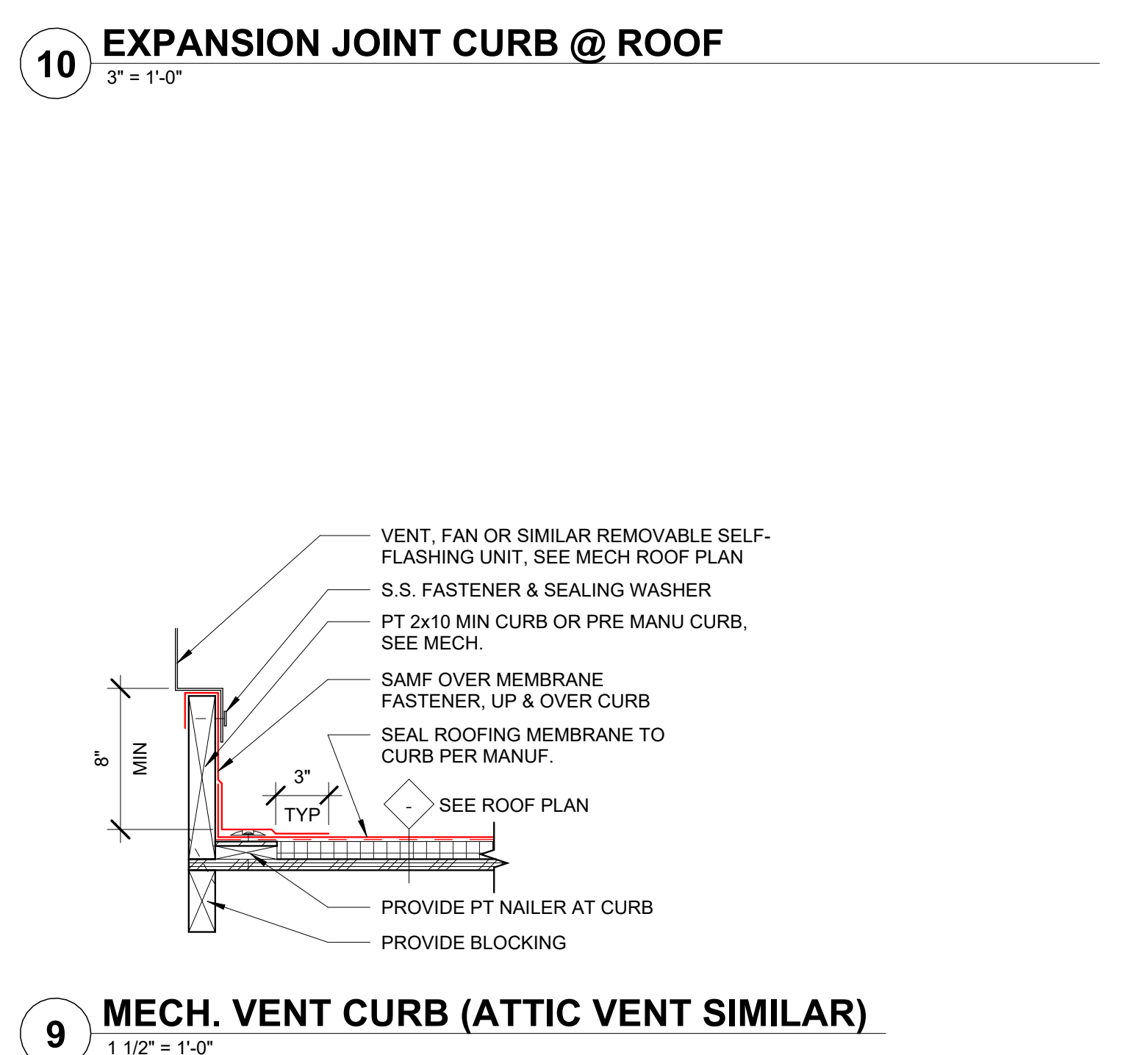
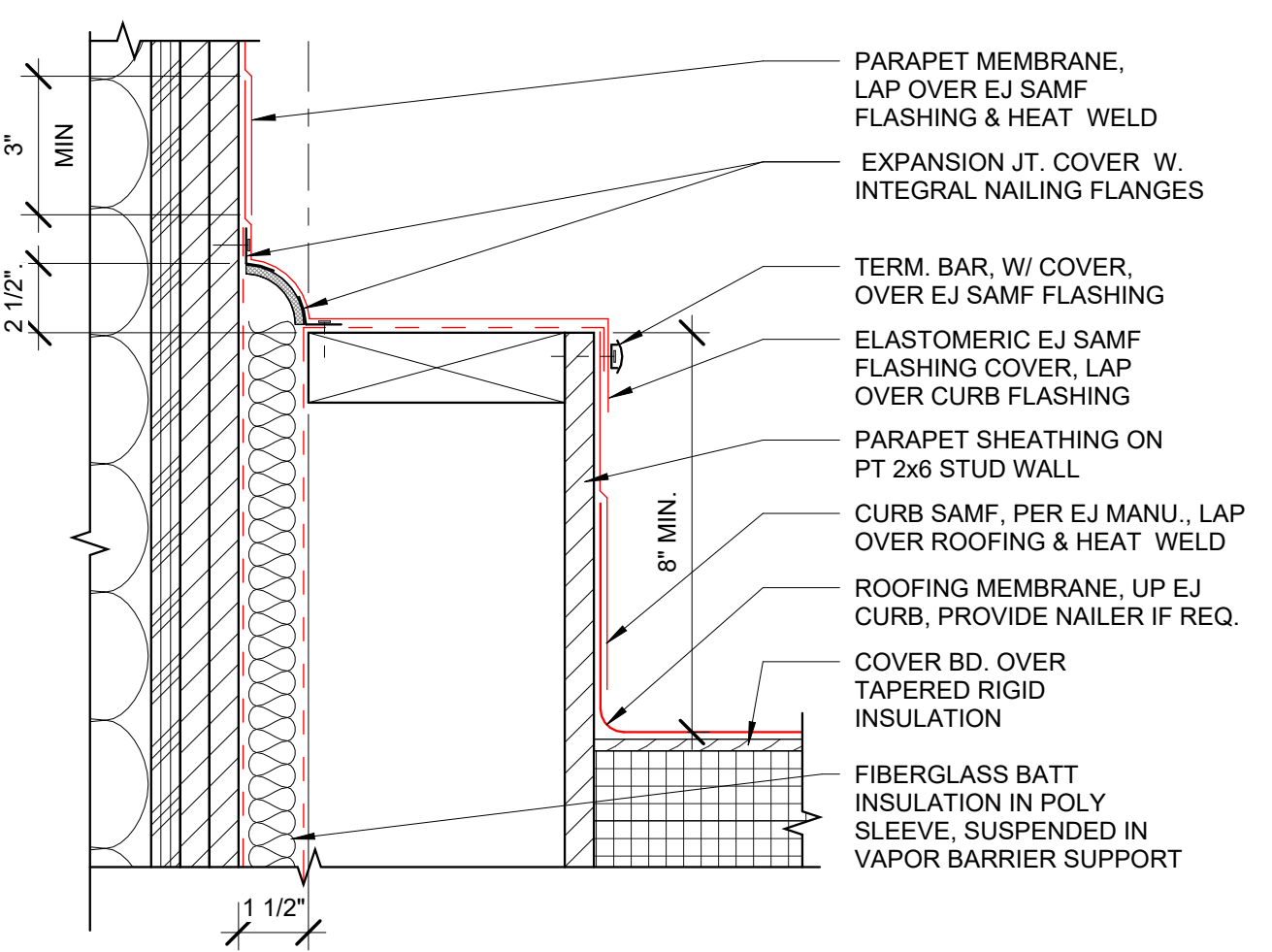
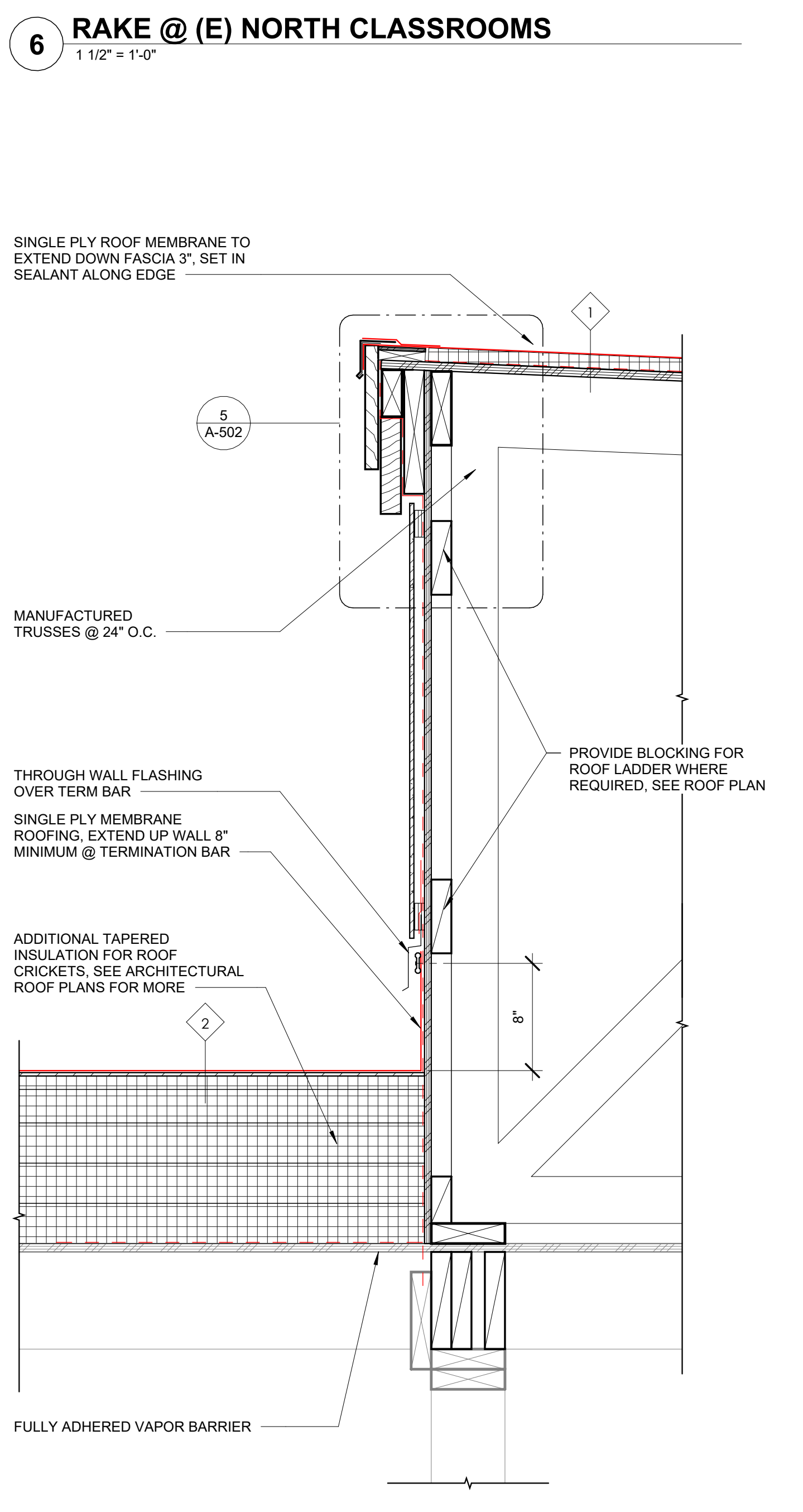
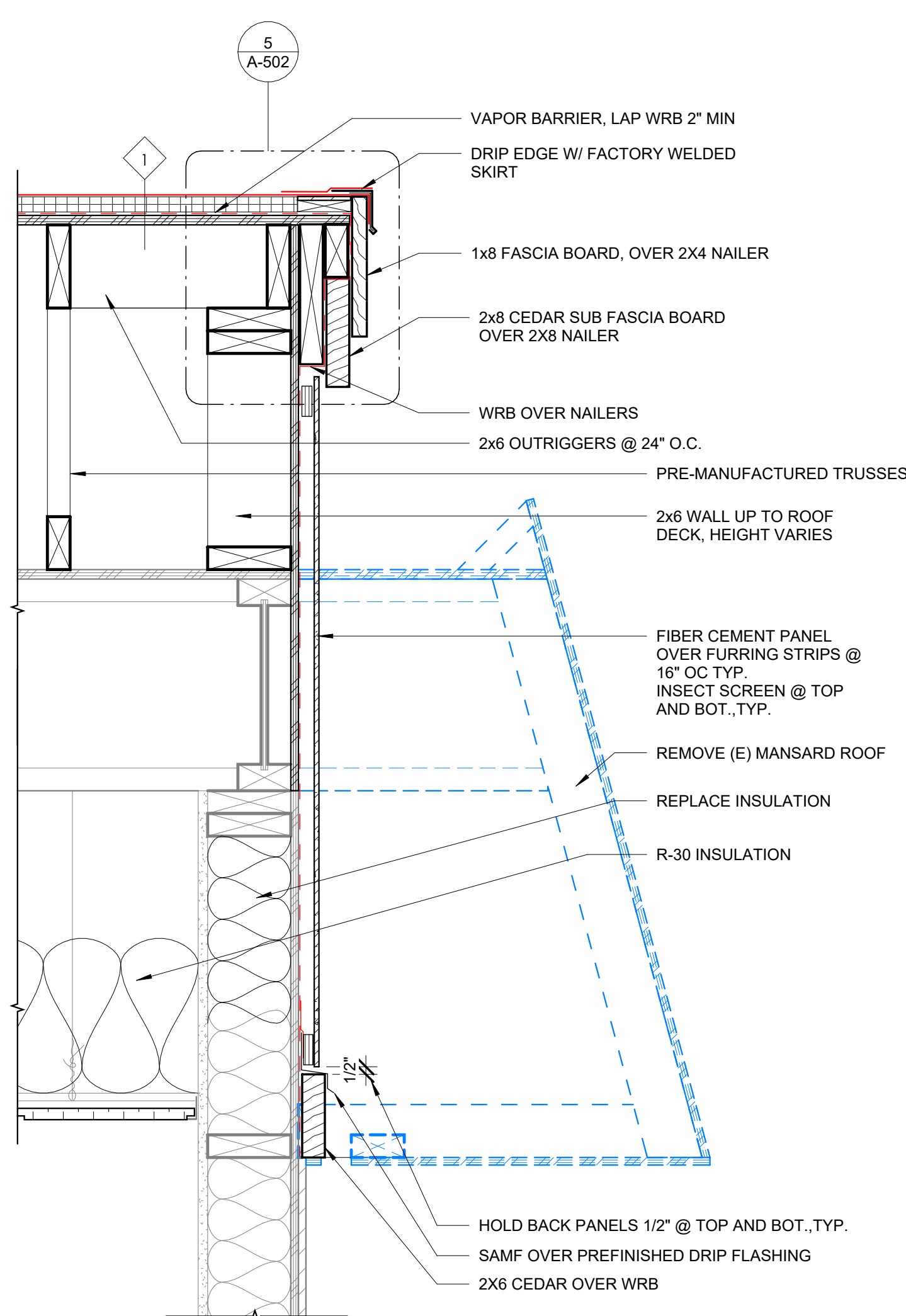
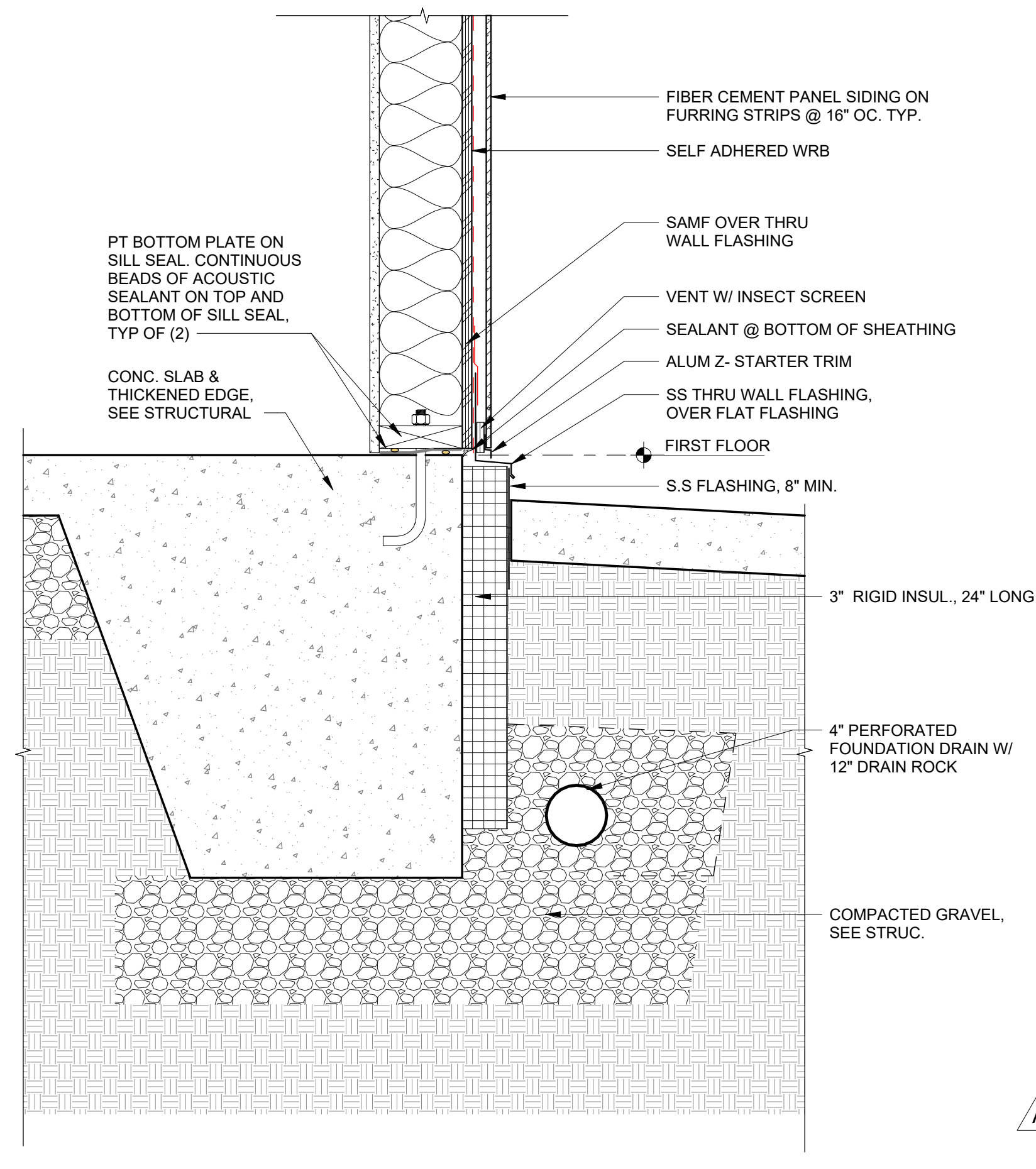
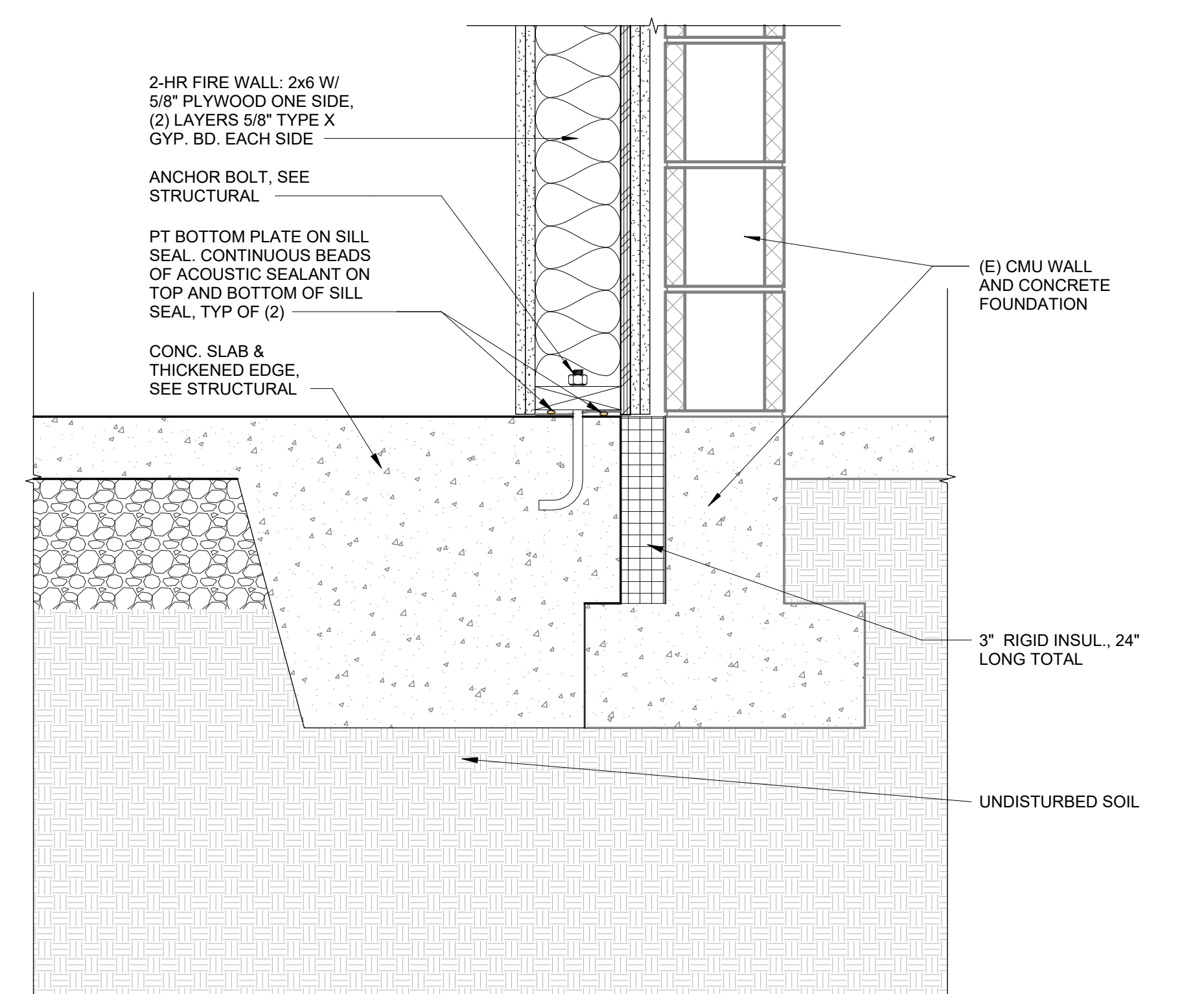
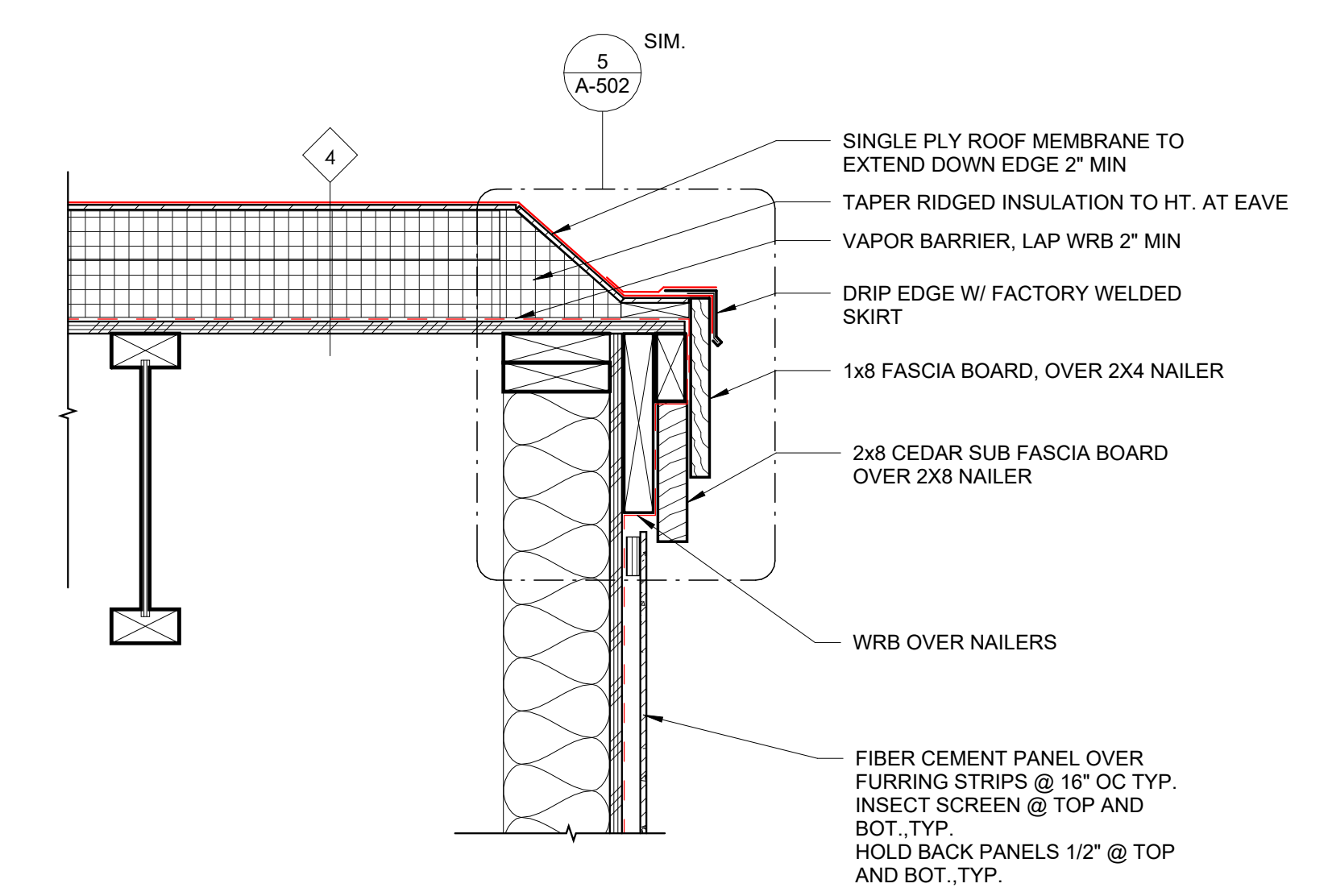
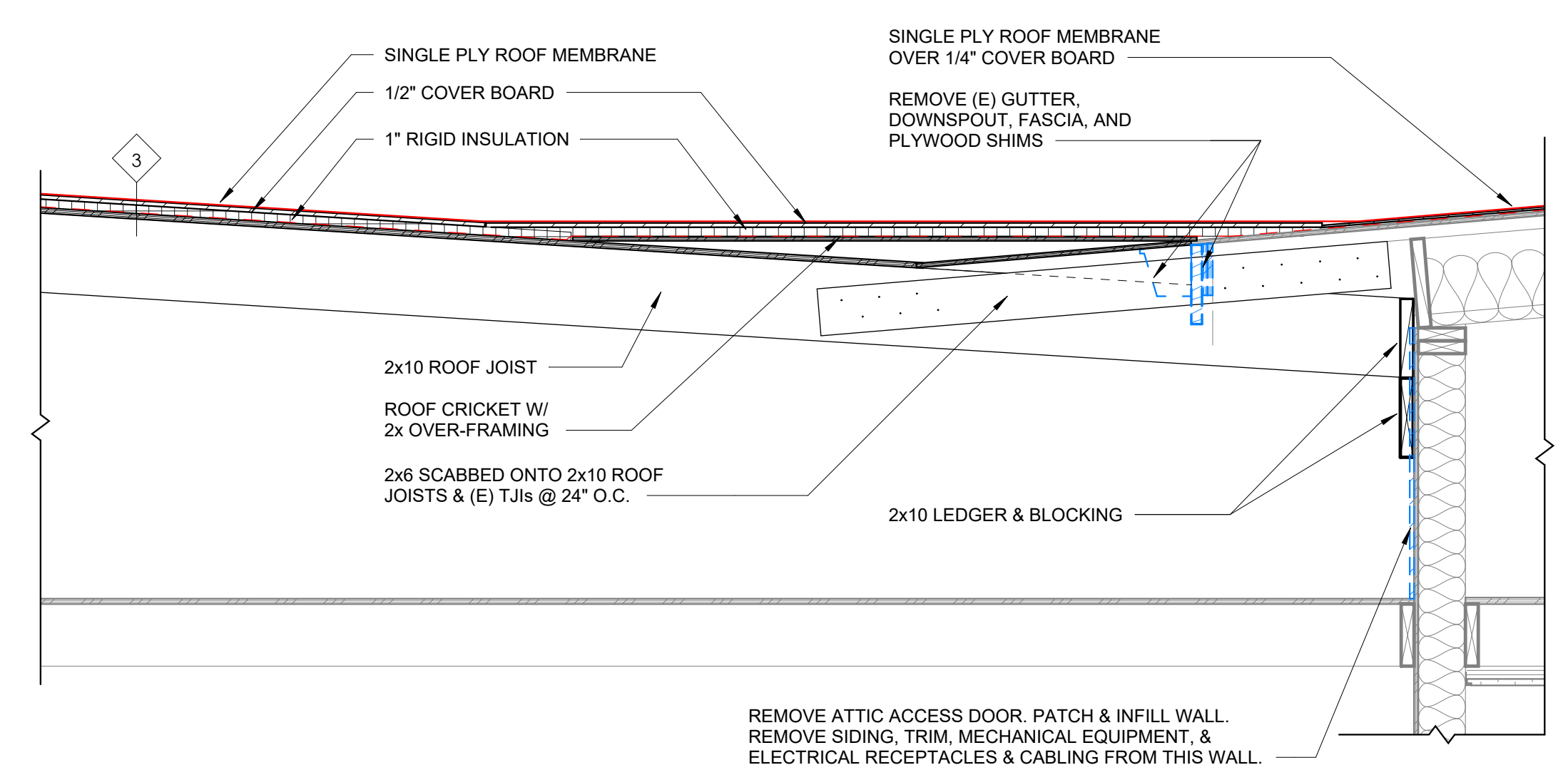
REVISIONS:	#	DATE	DESCRIPTION
A	1	1/20/23	BID SET

DATE: JANUARY 2023
SHEET TITLE: EXTERIOR DETAILS

BIDDING

REVISIONS:	DATE	DESCRIPTION
#		
A	1/20/23	BID SET

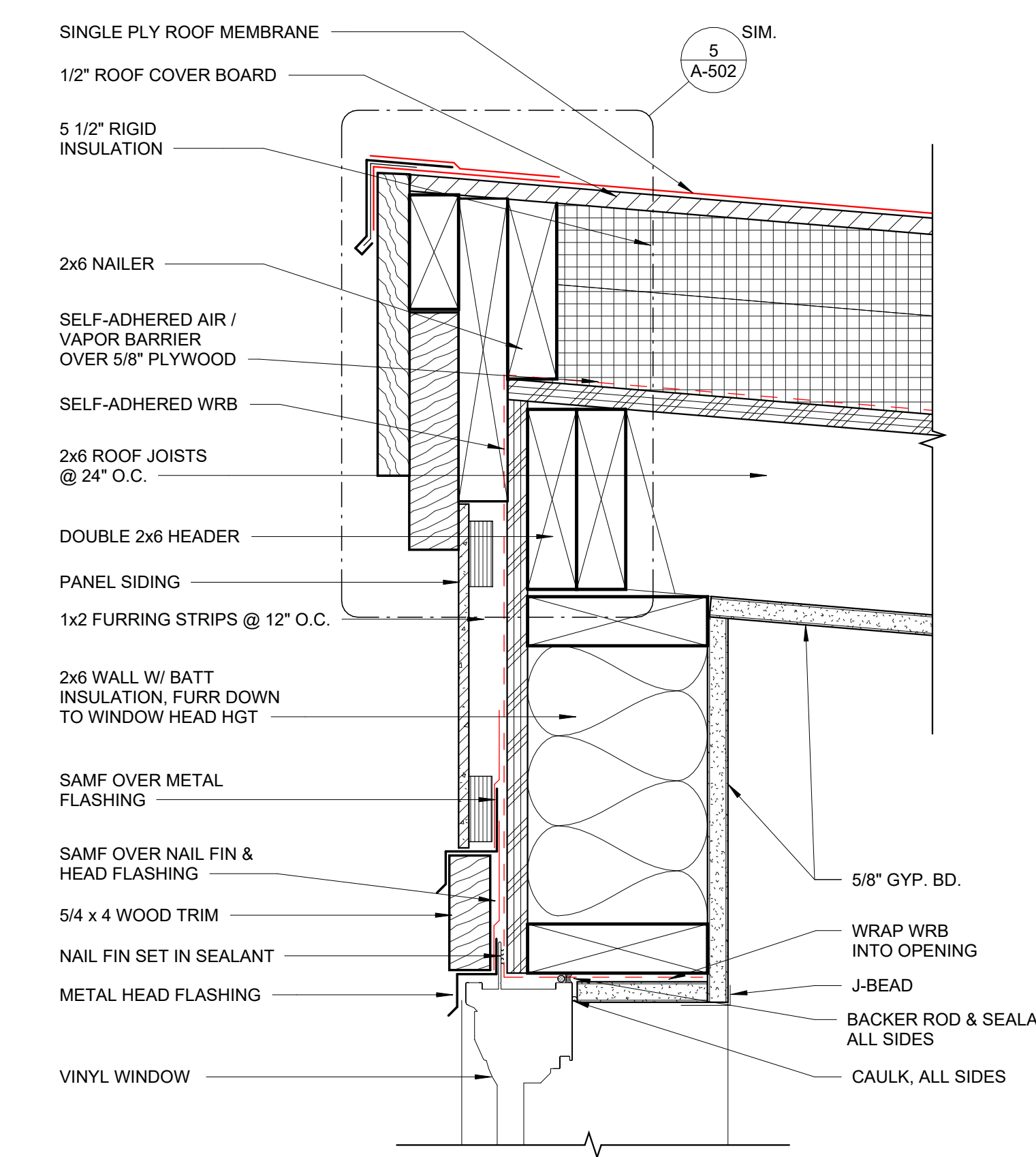
DATE: JANUARY 2023
 SHEET TITLE:
EXTERIOR DETAILS



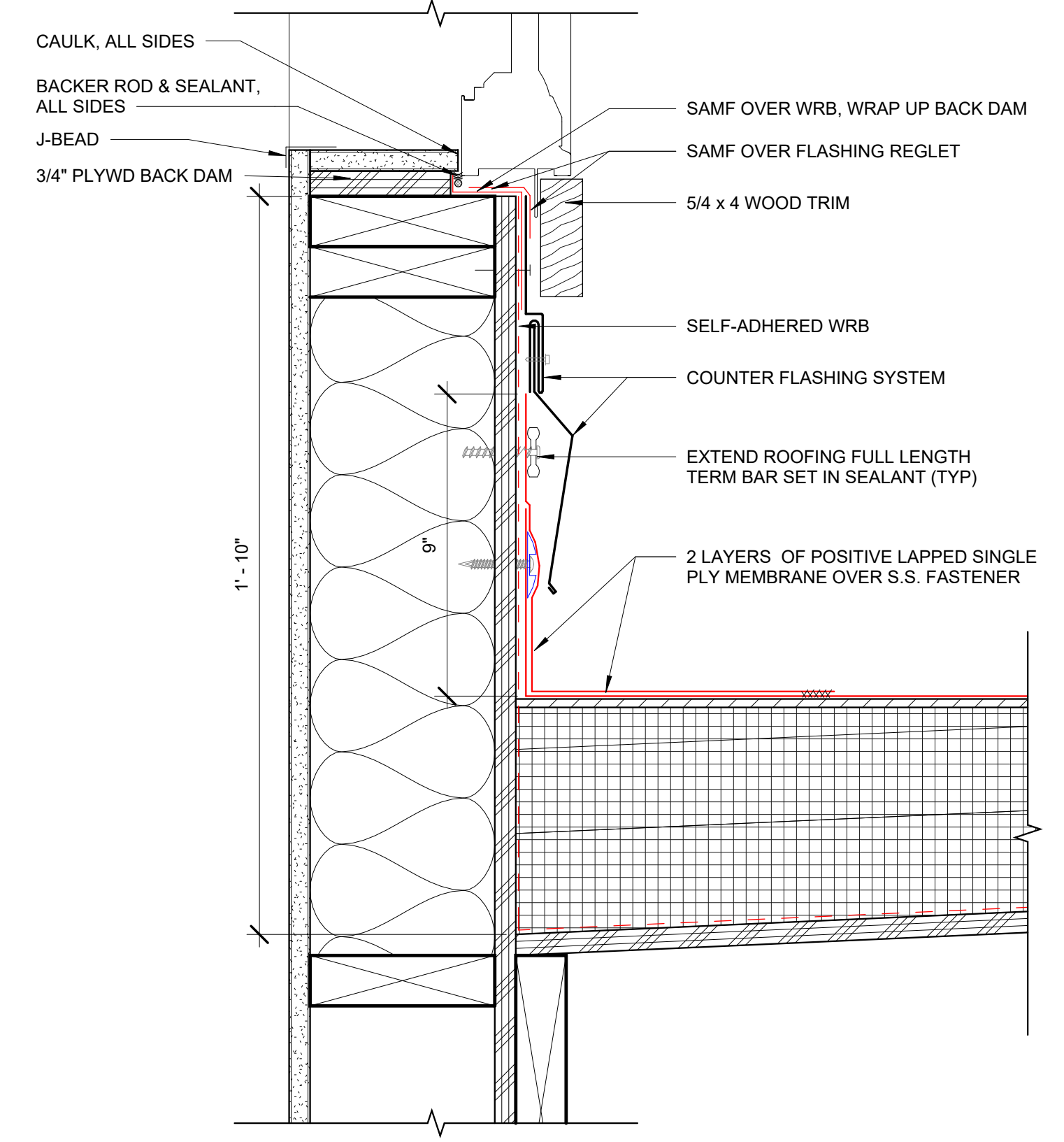
BIDDING

REVISIONS:	#	DATE	DESCRIPTION
A	1	1/20/23	BID SET

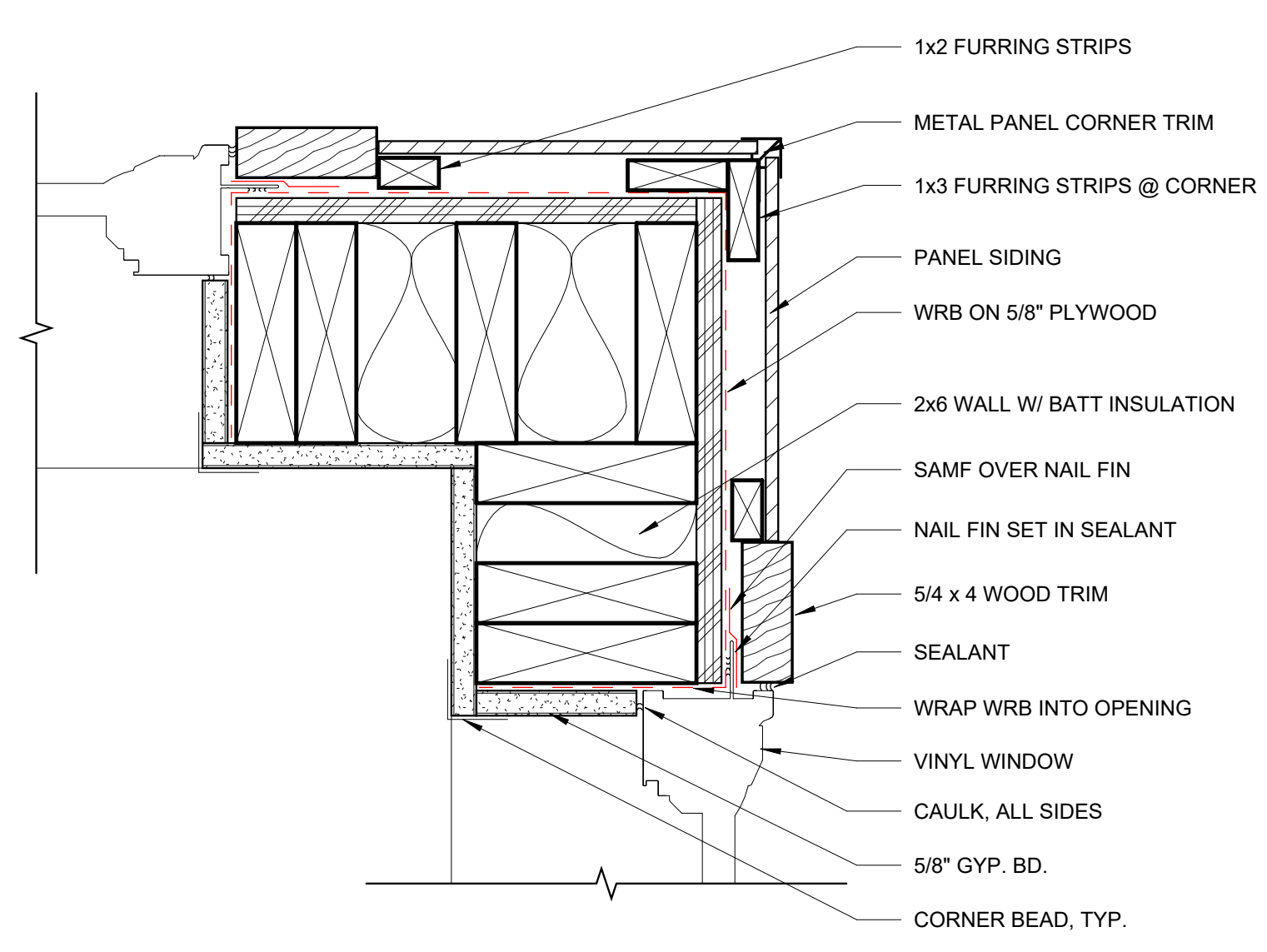
DATE: JANUARY 2023
SHEET TITLE:
EXTERIOR DETAILS - SKYLIGHTS / ROOF MONITORS



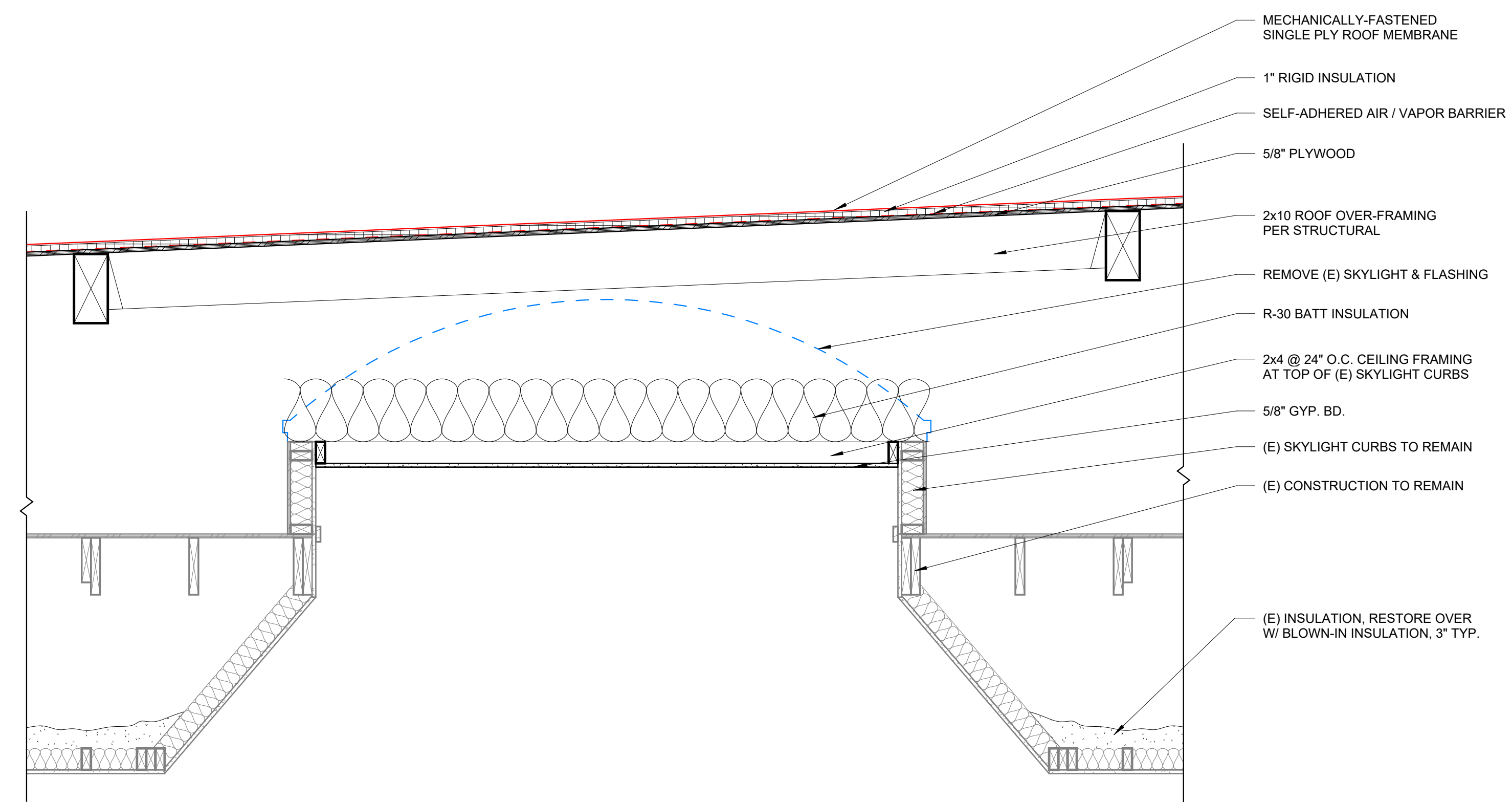
8 WINDOW HEAD @ ROOF MONITOR - ALT. BID
3/4" = 1'-0"



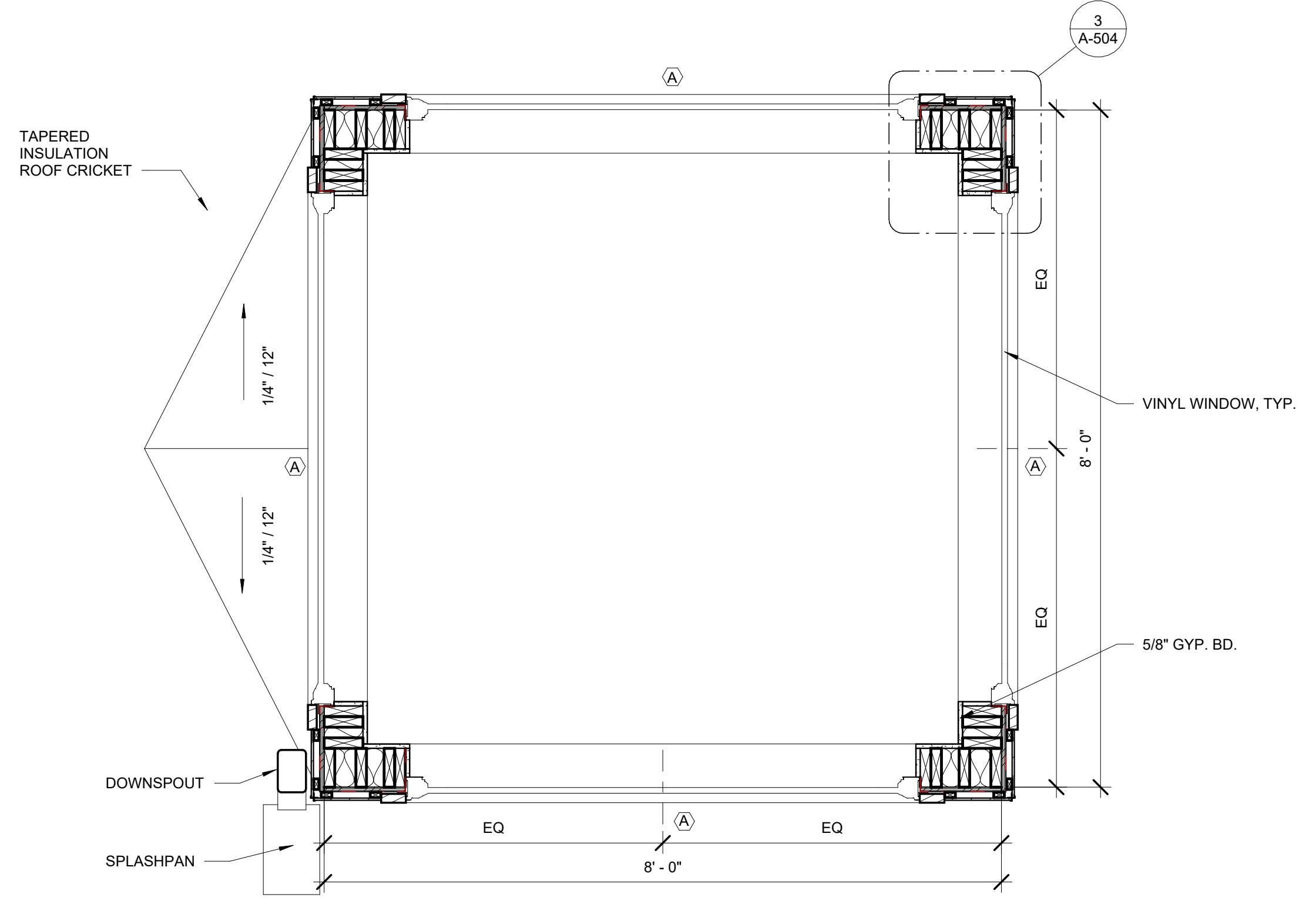
6 WINDOW SILL @ ROOF MONITOR - ALT. BID
3/4" = 1'-0"



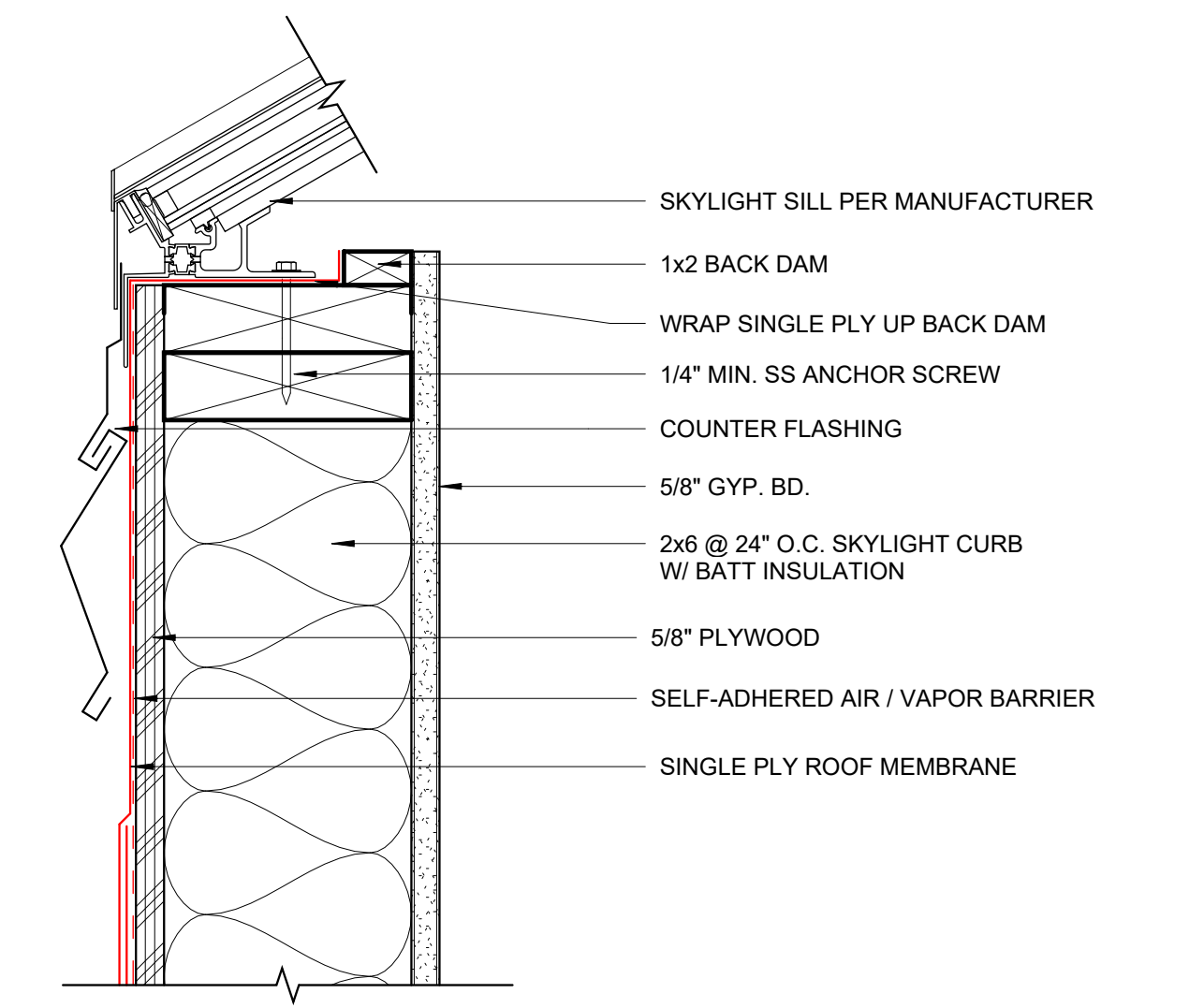
3 ROOF MONITOR CORNER DETAIL - ALT. BID
3/4" = 1'-0"



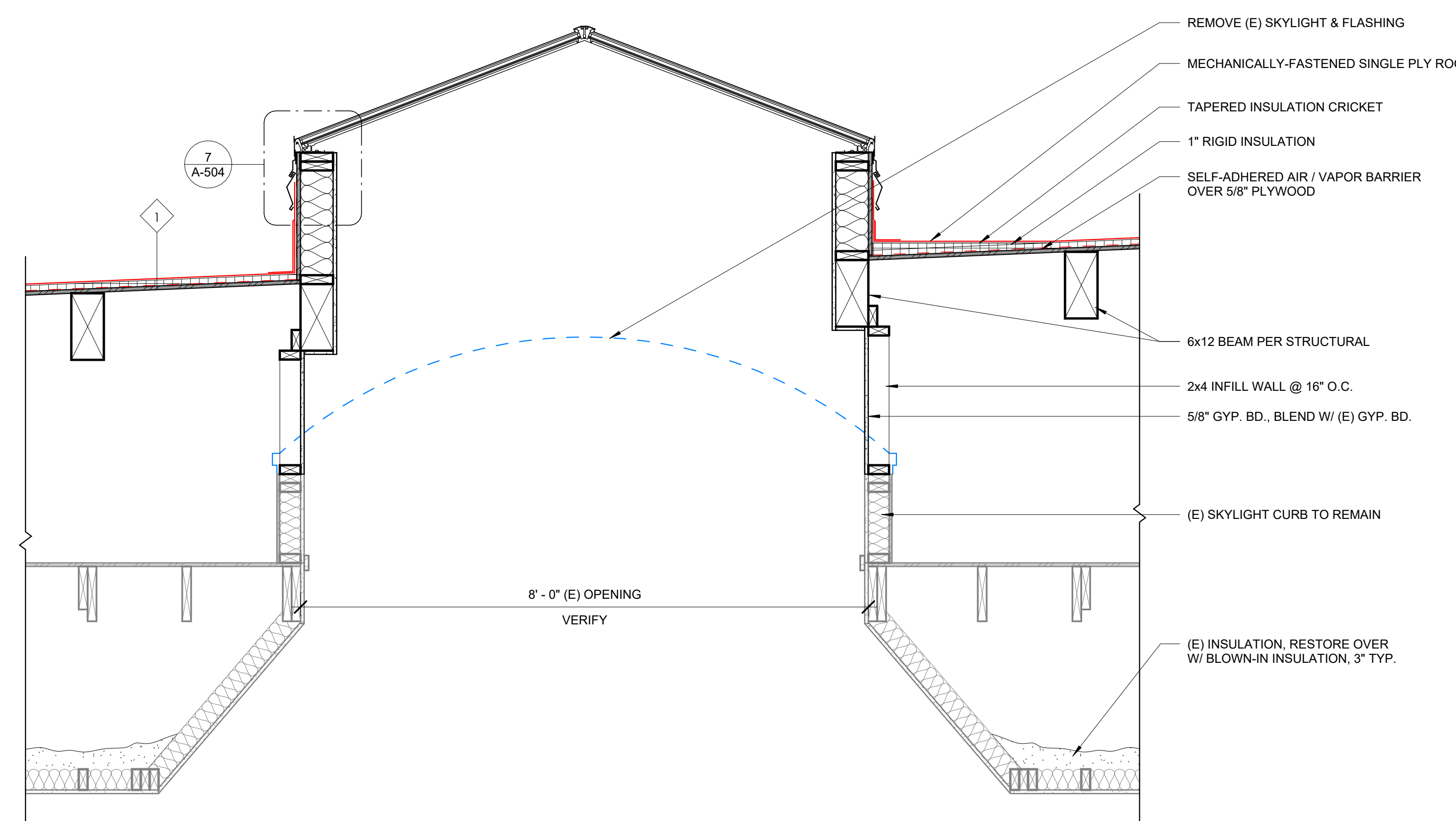
5 ENLARGED SECTION - SKYLIGHT INFILL - BASE BID
3/4" = 1'-0"



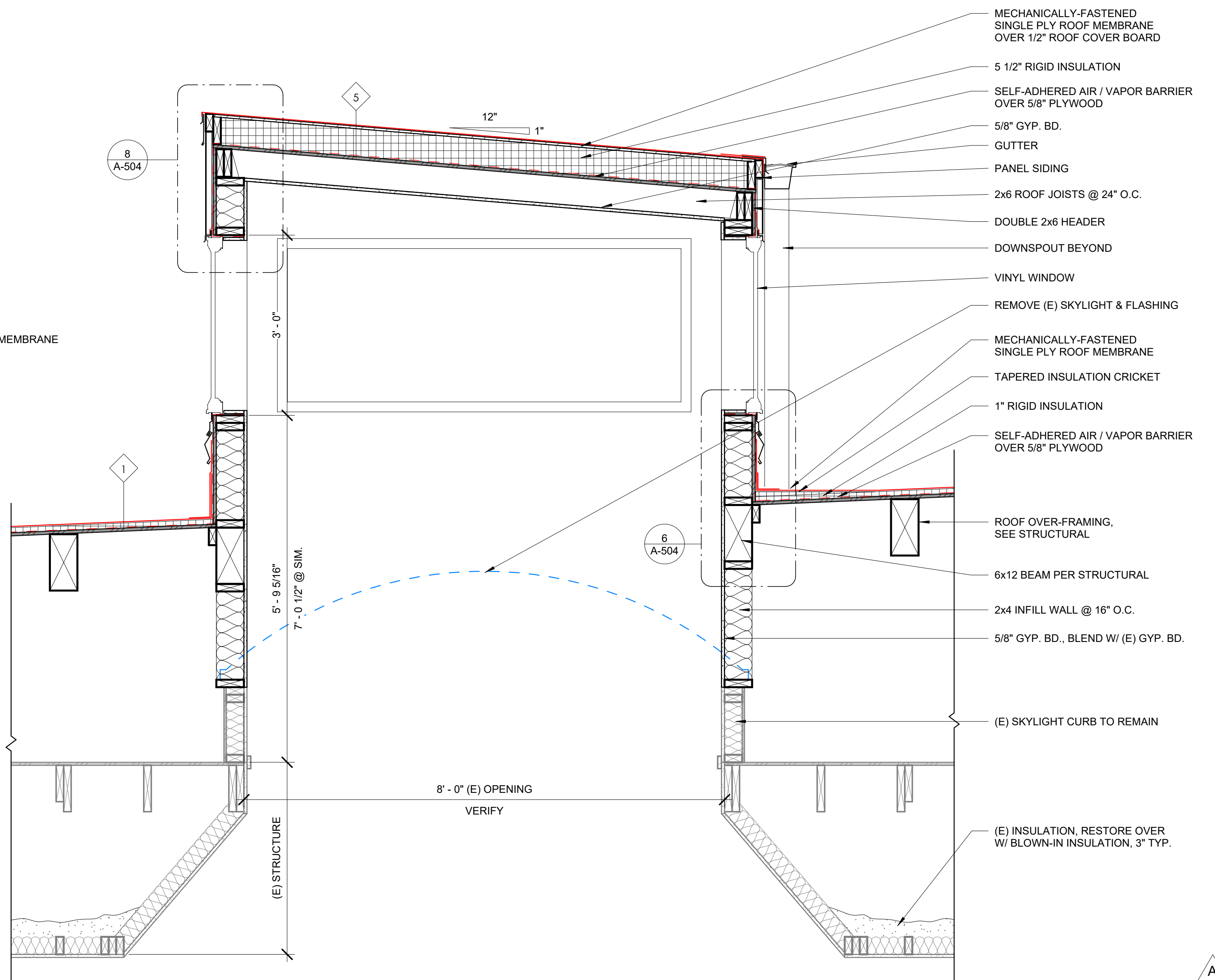
2 ENLARGED PLAN - ROOF MONITOR - ALT. BID
3/4" = 1'-0"



7 SKYLIGHT SILL - ALT. BID
3/4" = 1'-0"



4 ENLARGED SECTION - SKYLIGHT - ALT. BID
3/4" = 1'-0"

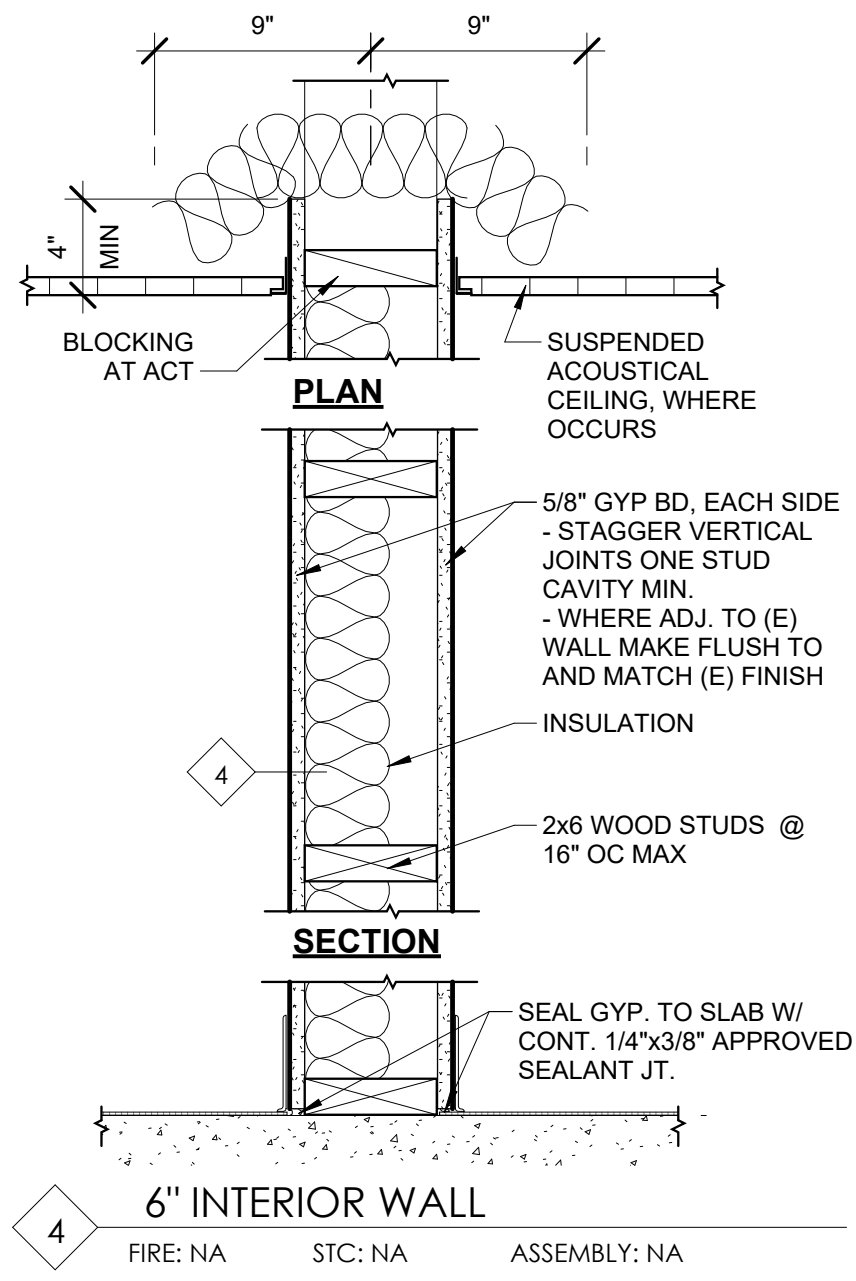


1 ENLARGED SECTION - ROOF MONITOR - ALT. BID
3/4" = 1'-0"

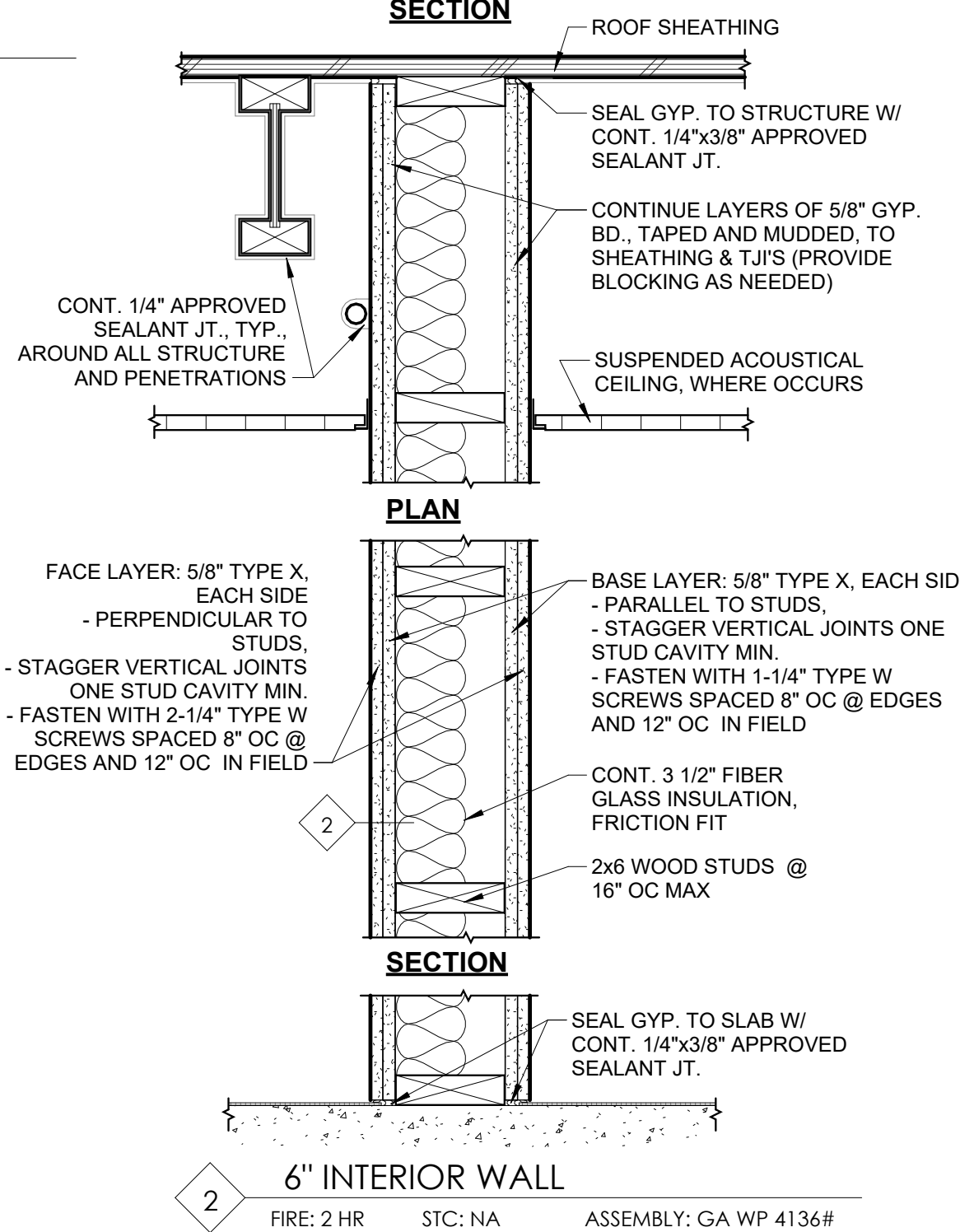
WALL TYPE LEGEND			
TYPE	RATING	DESIGN #	WALL ASSEMBLY
1	STC-49	GA WP 3377#	5/8" TYPE-X PROPRIETARY GYP. BD.; 2x6 @ 16" O.C. W/ SOUND INSULATION; 5/8" PLYWOOD; 5/8" TYPE-X PROPRIETARY GYP. BD.
2	2-HR	GA WP 4138#	(2) LAYERS 5/8" TYPE-X GYP. BD.; 2x6 @ 16" O.C. W/ R-21 BATT INSULATION; 5/8" PLYWOOD; (2) LAYERS 5/8" TYPE-X GYP. BD.
3	1-HR	GA WP 3377#	5/8" TYPE-X PROPRIETARY GYP. BD.; 2x6 @ 16" O.C. W/ SOUND INSULATION; 5/8" TYPE-X PROPRIETARY GYP. BD.
4			5/8" GYP. BD.; 2x6 @ 16" O.C. W/ R-21 BATT INSULATION; 5/8" PLYWOOD; WRB; CEMENT BOARD SIDING

WALL TYPE NOTES:
 1. REFER TO CLASSROOM ADDITION ENLARGED PLAN FOR WALL TAGS.
 2. 1-HR FIRE WALLS ARE TO EXTEND FROM FLOOR TO ROOF STRUCTURE.
 3. 2-HR FIRE WALLS ARE TO EXTEND 30" MIN. ABOVE ADJACENT ROOFS.
 4. REFER TO SHEET A-303, BUILDING SECTIONS - CLASSROOM ADDITION, SEE STRUCTURAL FOR STRUCTURAL SHEATHING LOCATION AND DETAILING LOCATION.

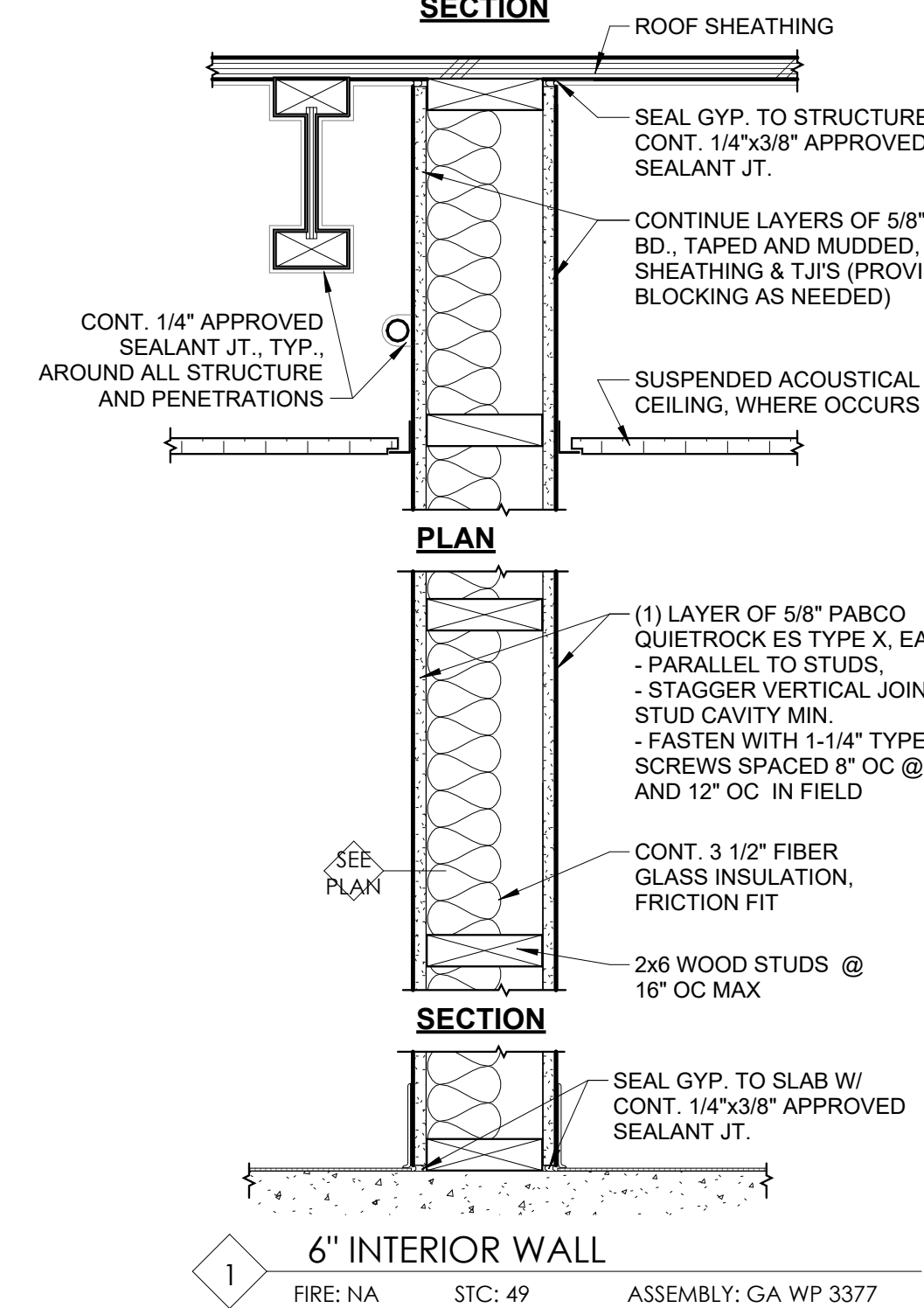
WALL TYPE LEGEND
 1/4" = 1'-0"



18 WALL TYPE 4
 1 1/2" = 1'-0"

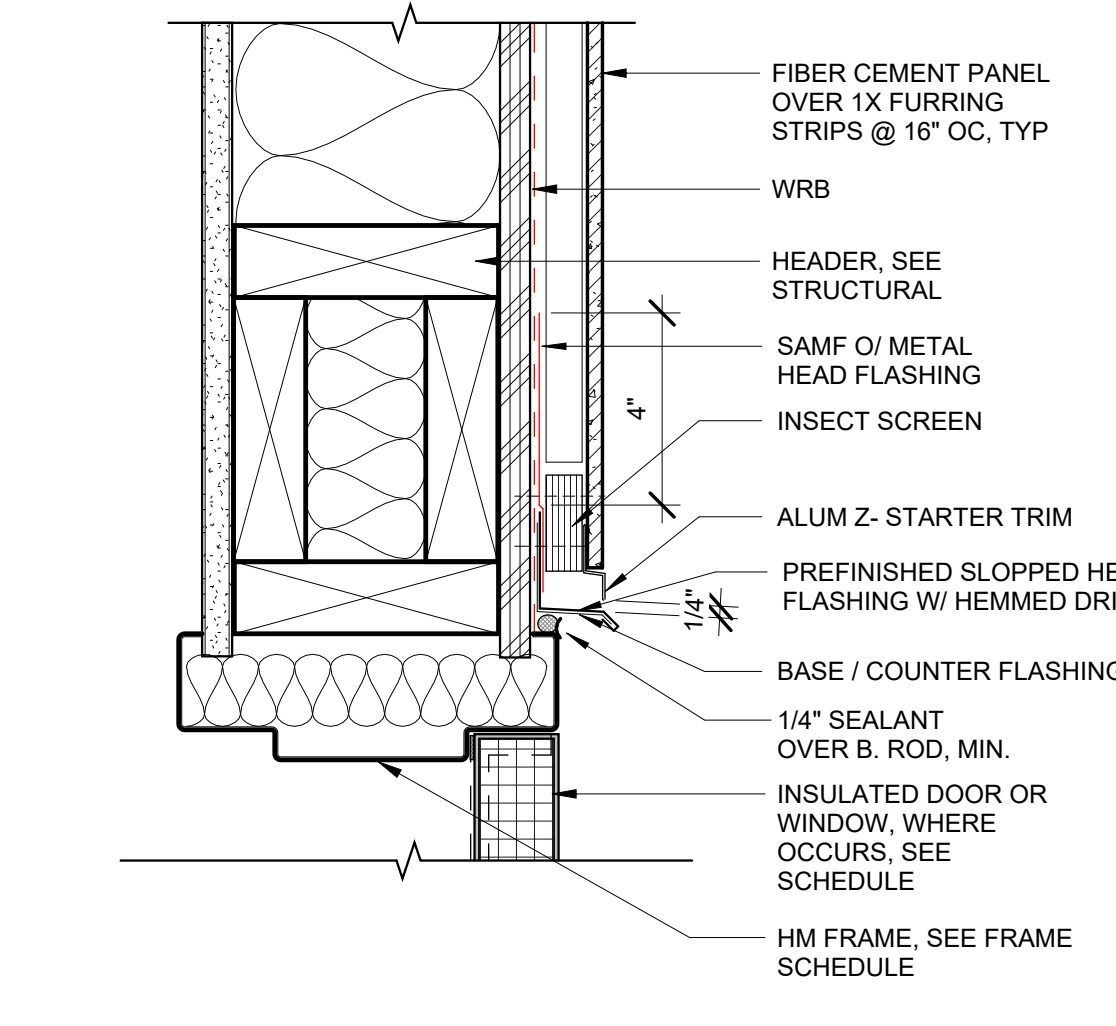


17 WALL TYPE 3 DETAILS
 1 1/2" = 1'-0"

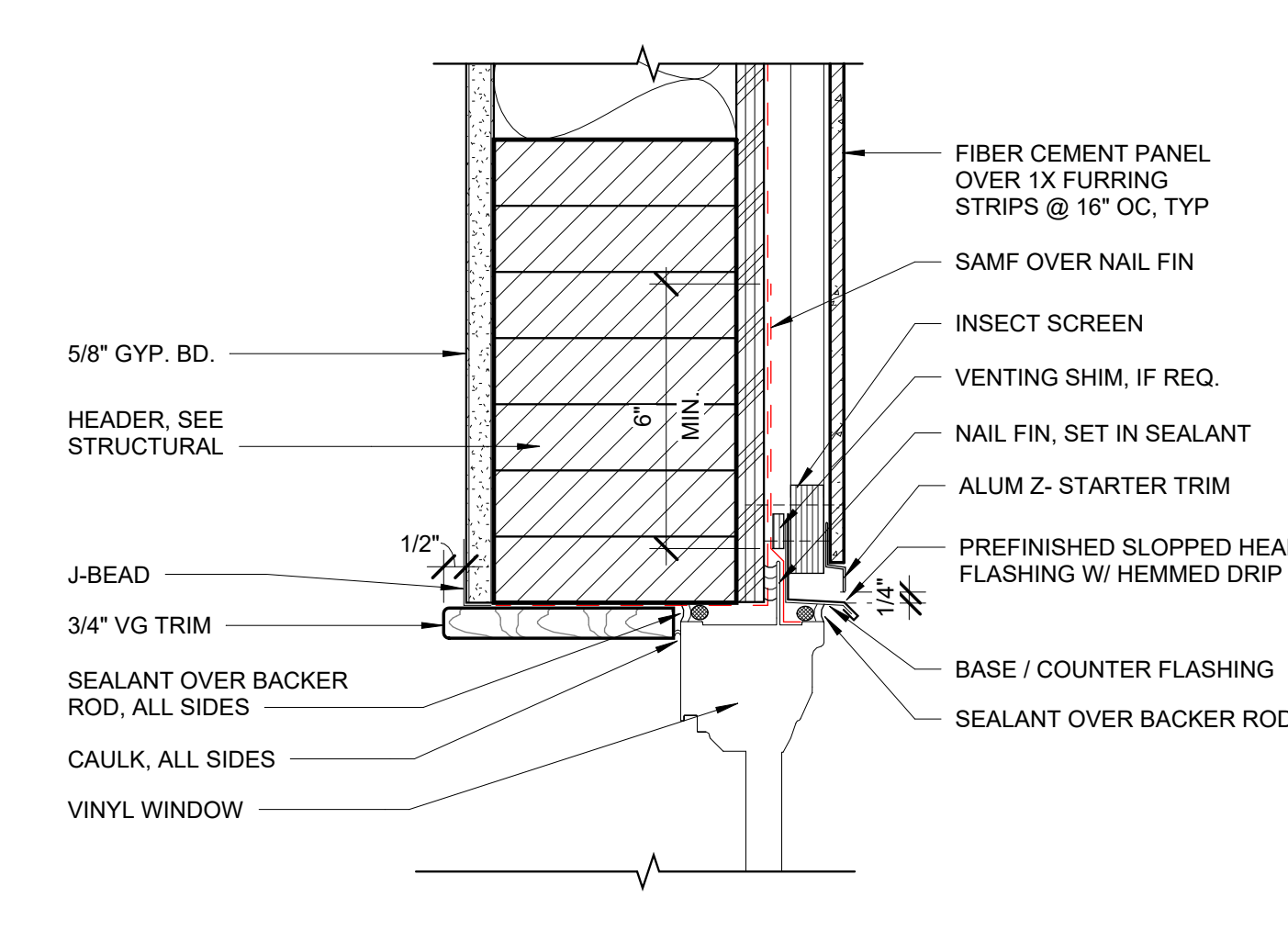


16 WALL TYPE 1 & 2 DETAILS
 1 1/2" = 1'-0"

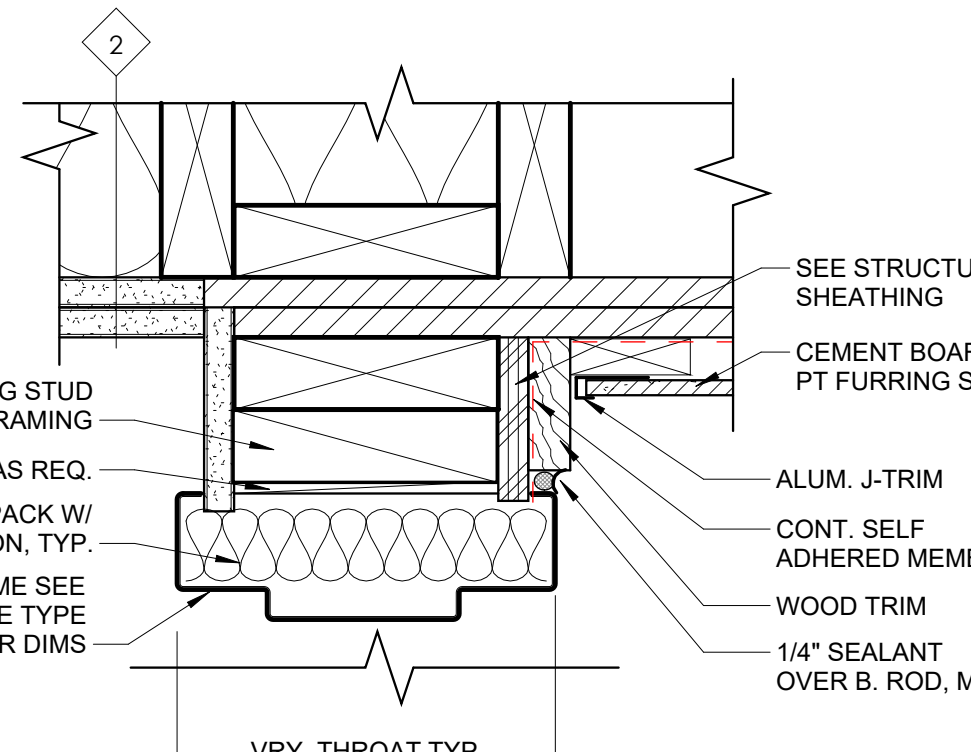
15 HM FRAME HEAD
 3" = 1'-0"



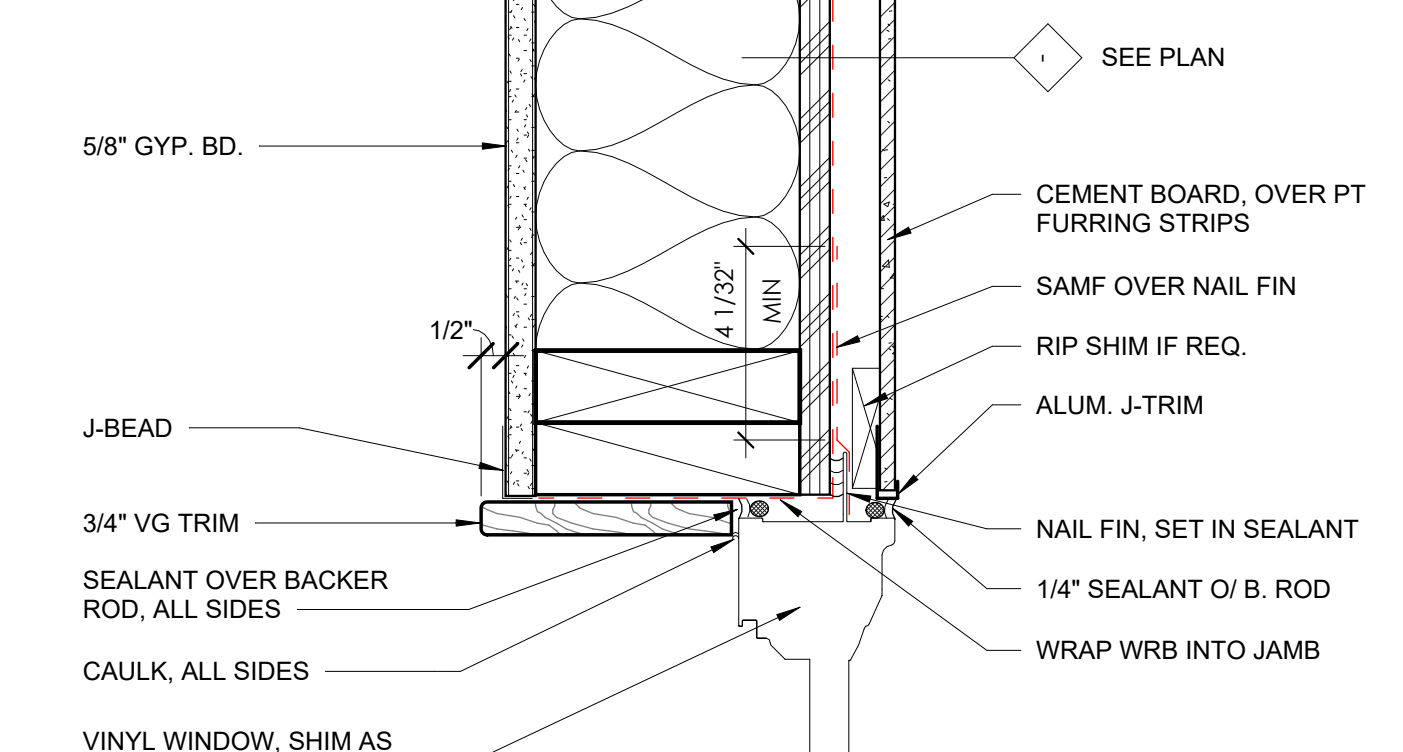
12 TYP. WINDOW HEAD
 3" = 1'-0"



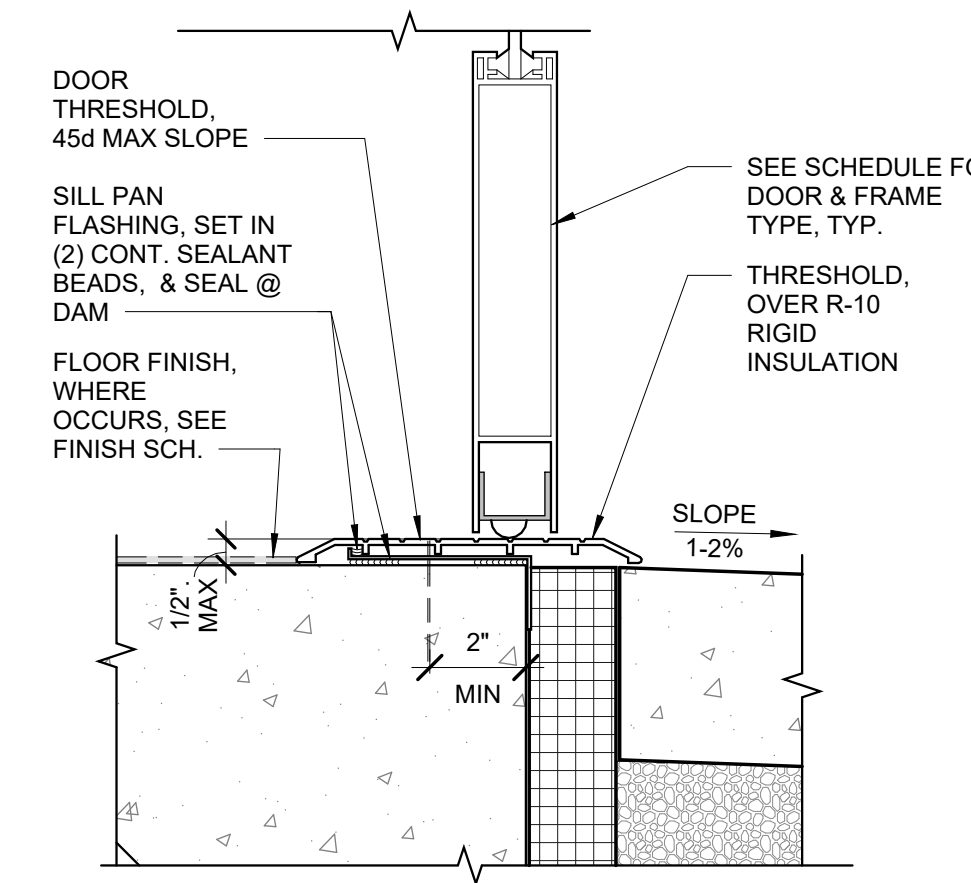
14 HM DOOR JAMB @ METAL SIDING
 3" = 1'-0"



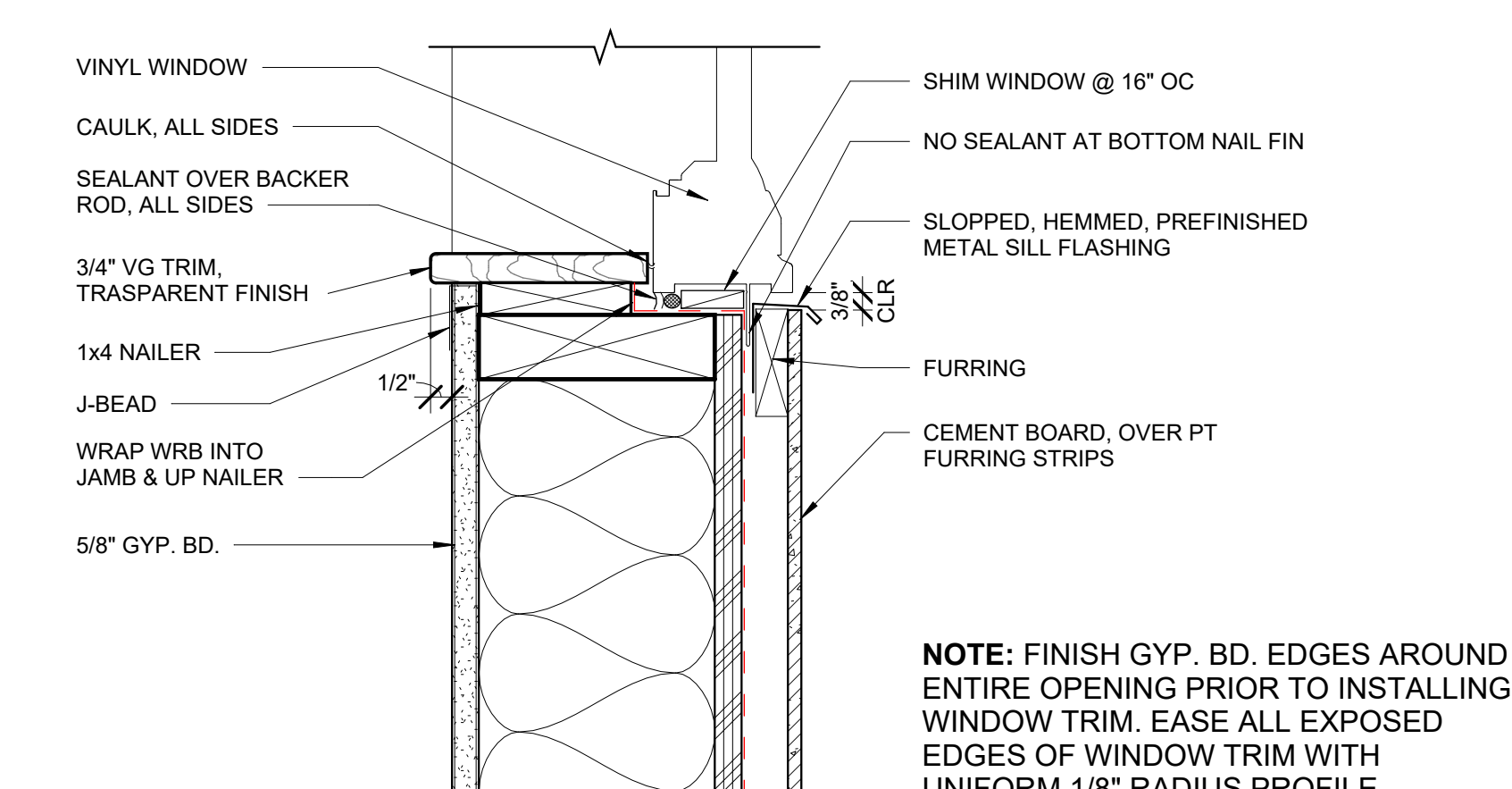
11 TYP. WINDOW JAMB
 3" = 1'-0"



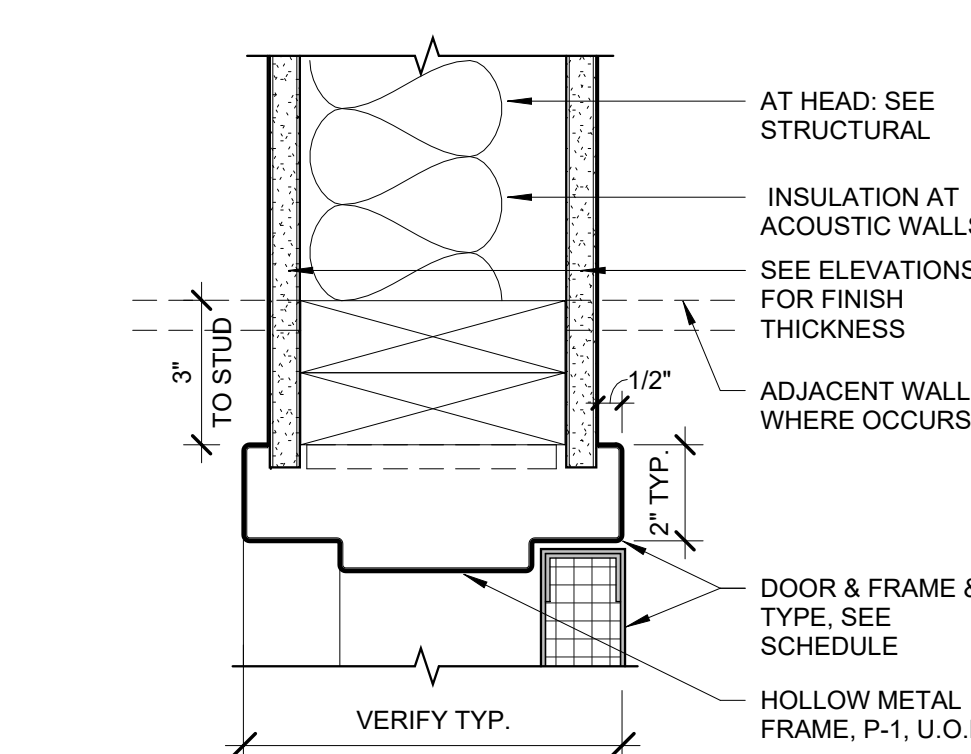
13 THRESHOLD
 3" = 1'-0"



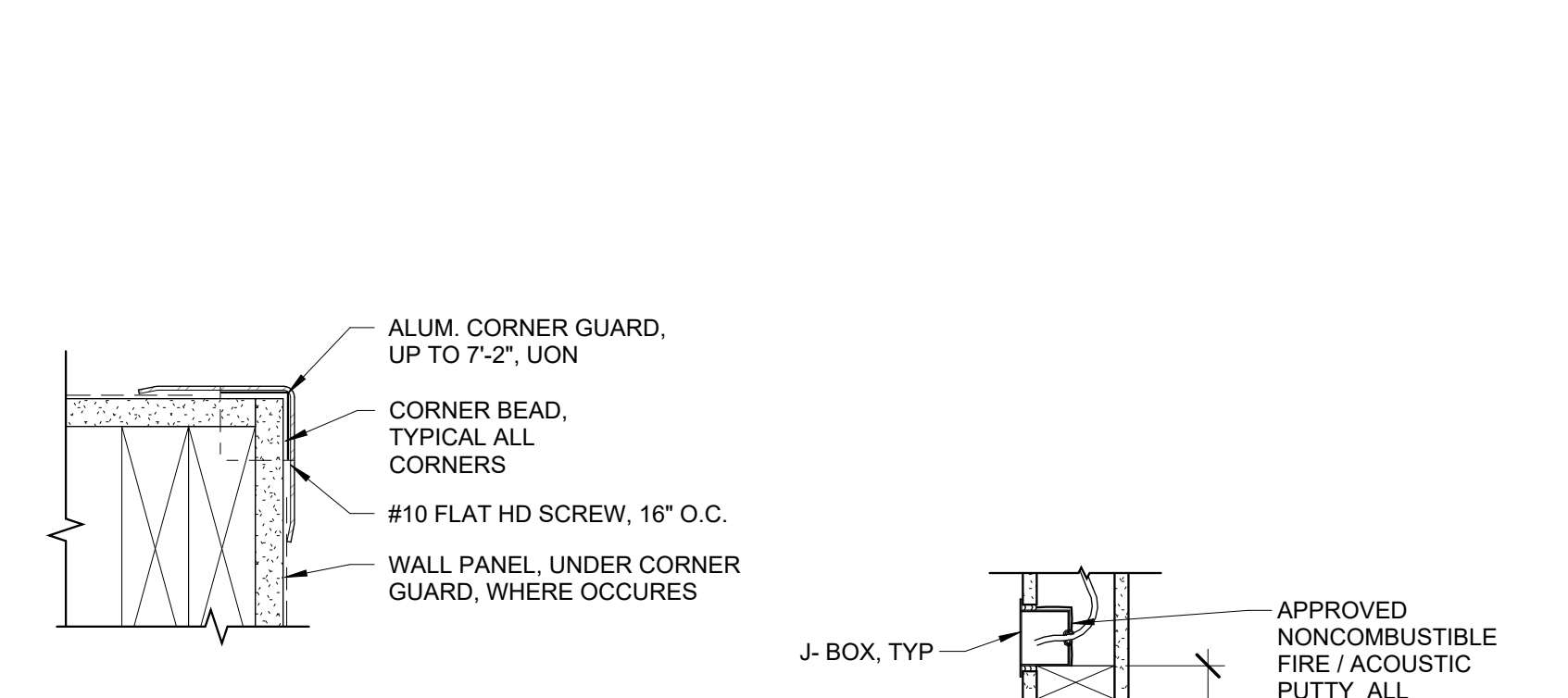
10 TYP. WINDOW SILL
 3" = 1'-0"



9 HM DOOR JAMB @ INT., HEAD SIM.
 3" = 1'-0"



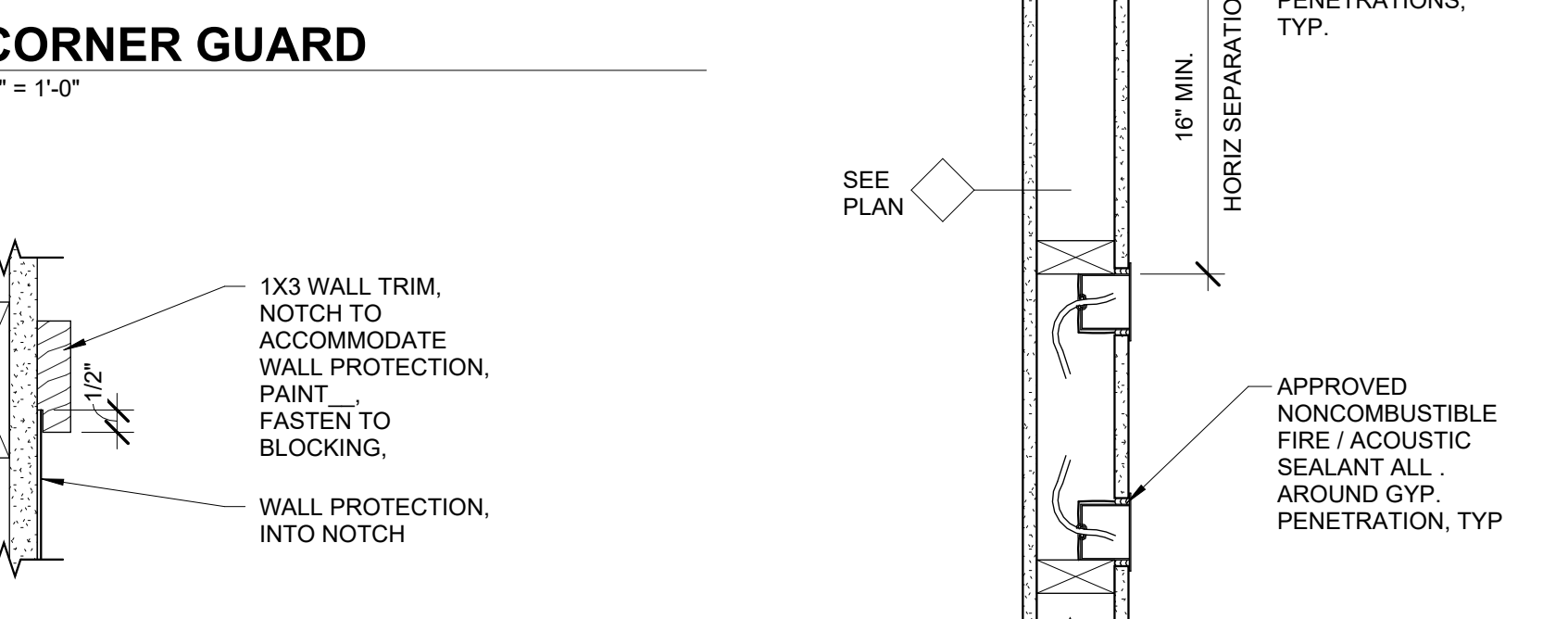
6 CORNER GUARD
 3" = 1'-0"



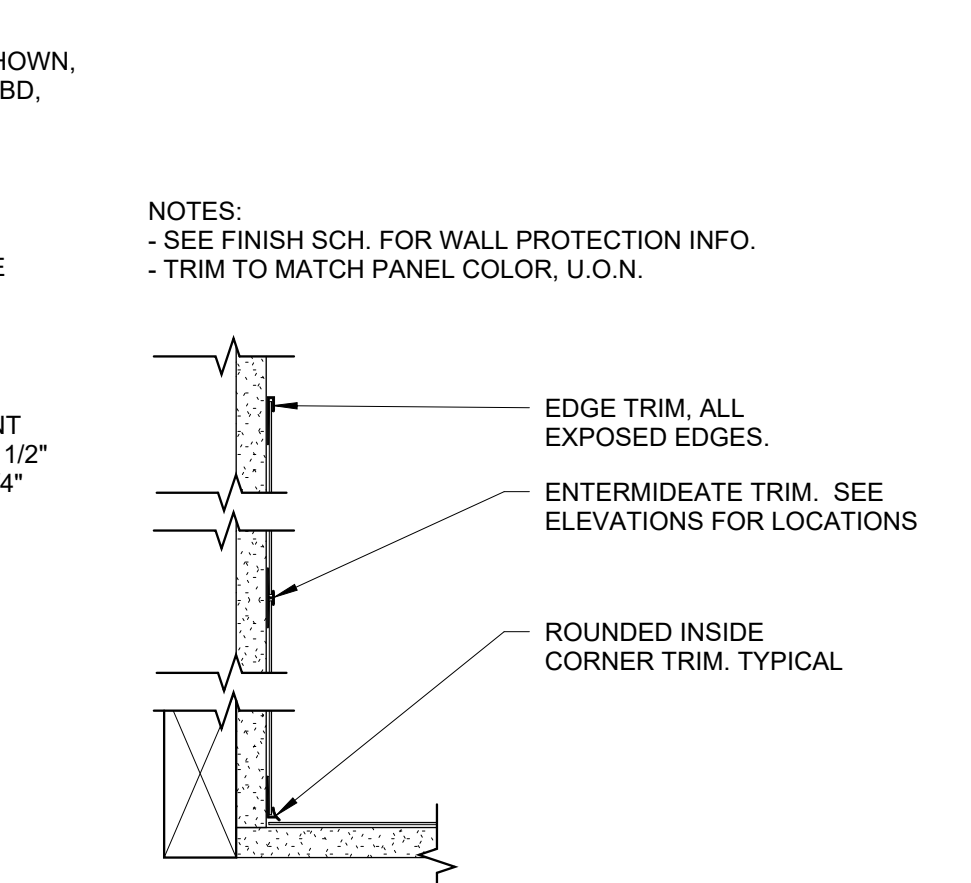
5 WALL TRIM
 3" = 1'-0"



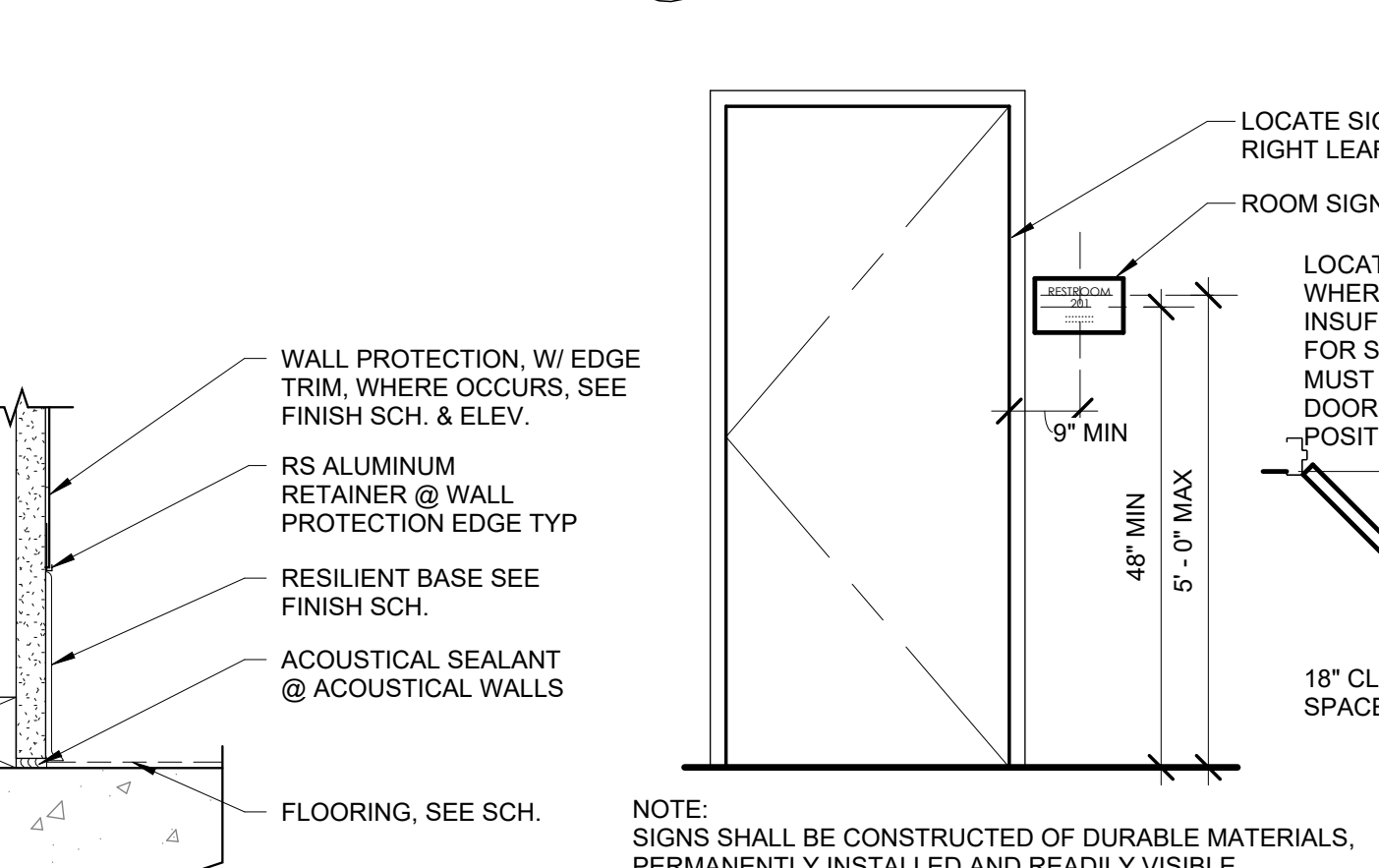
2 J-BOX PENETRATIONS
 1 1/2" = 1'-0"



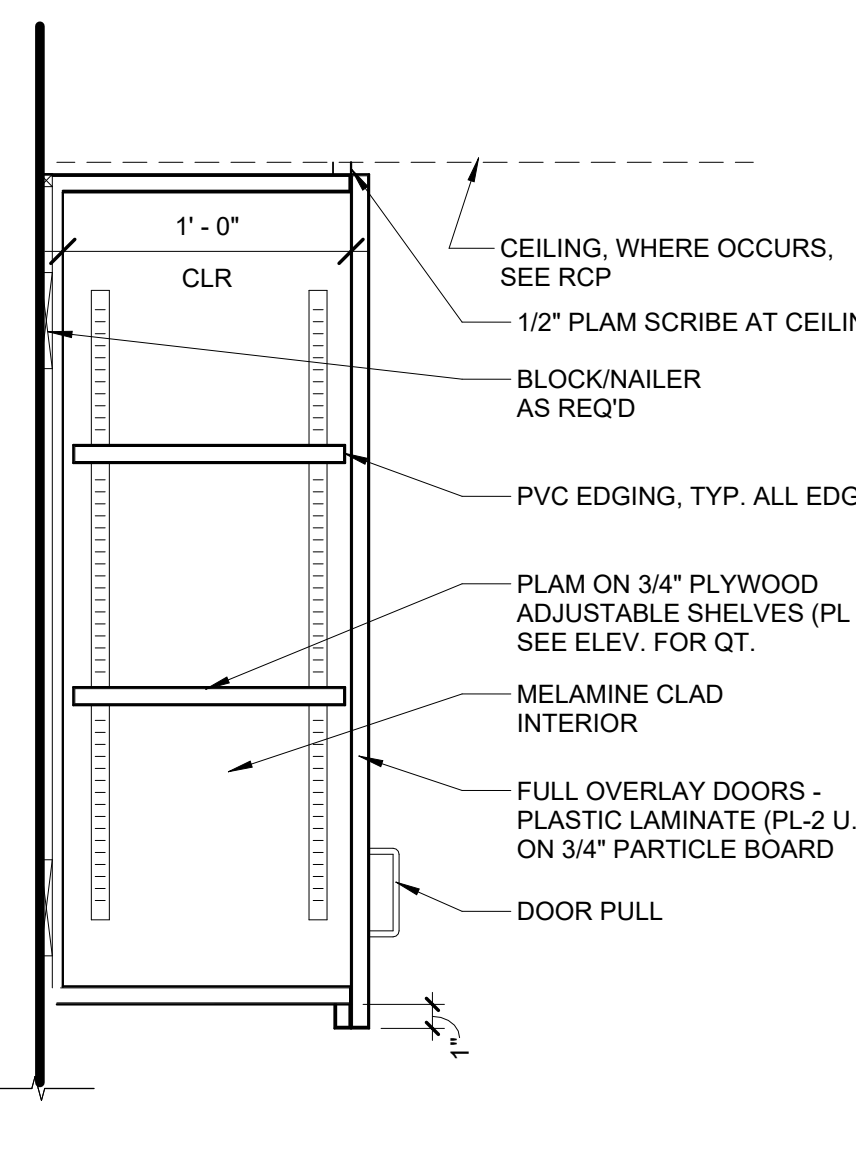
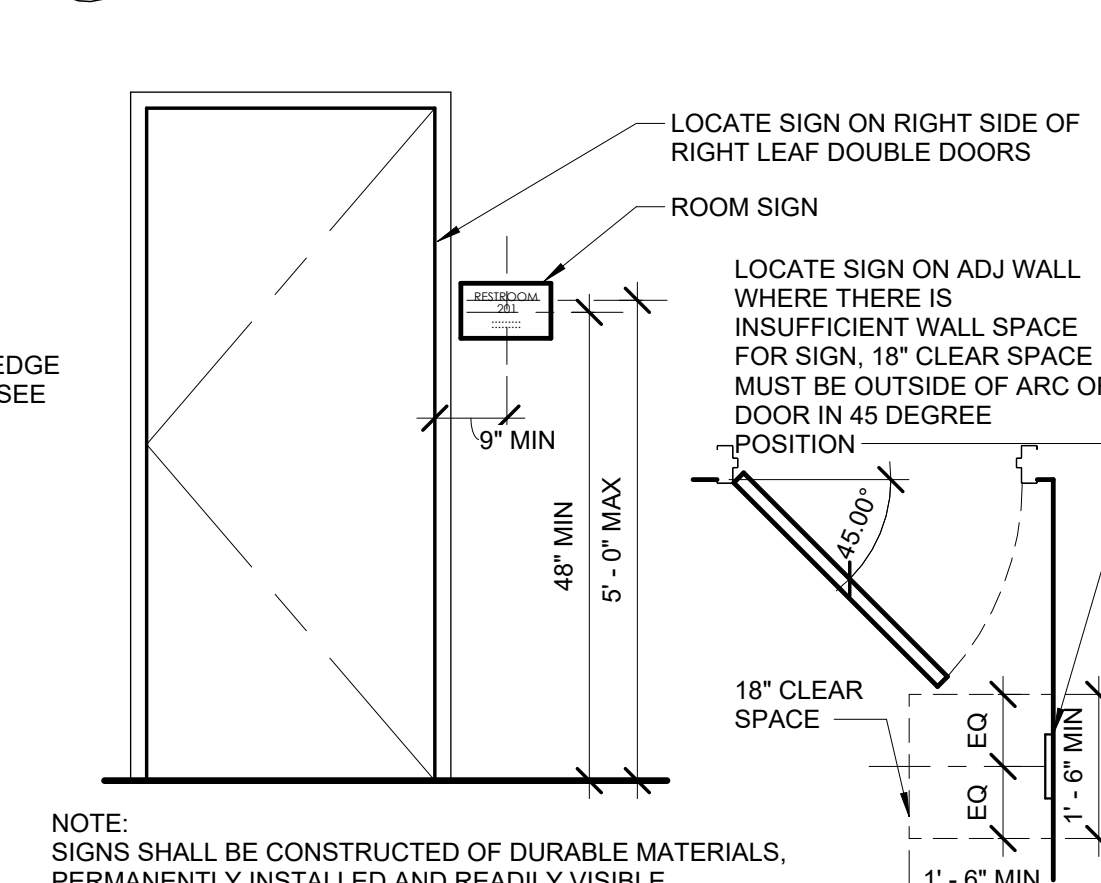
7 WALL PROTECTION
 3" = 1'-0"



4 WALL BASE
 3" = 1'-0"

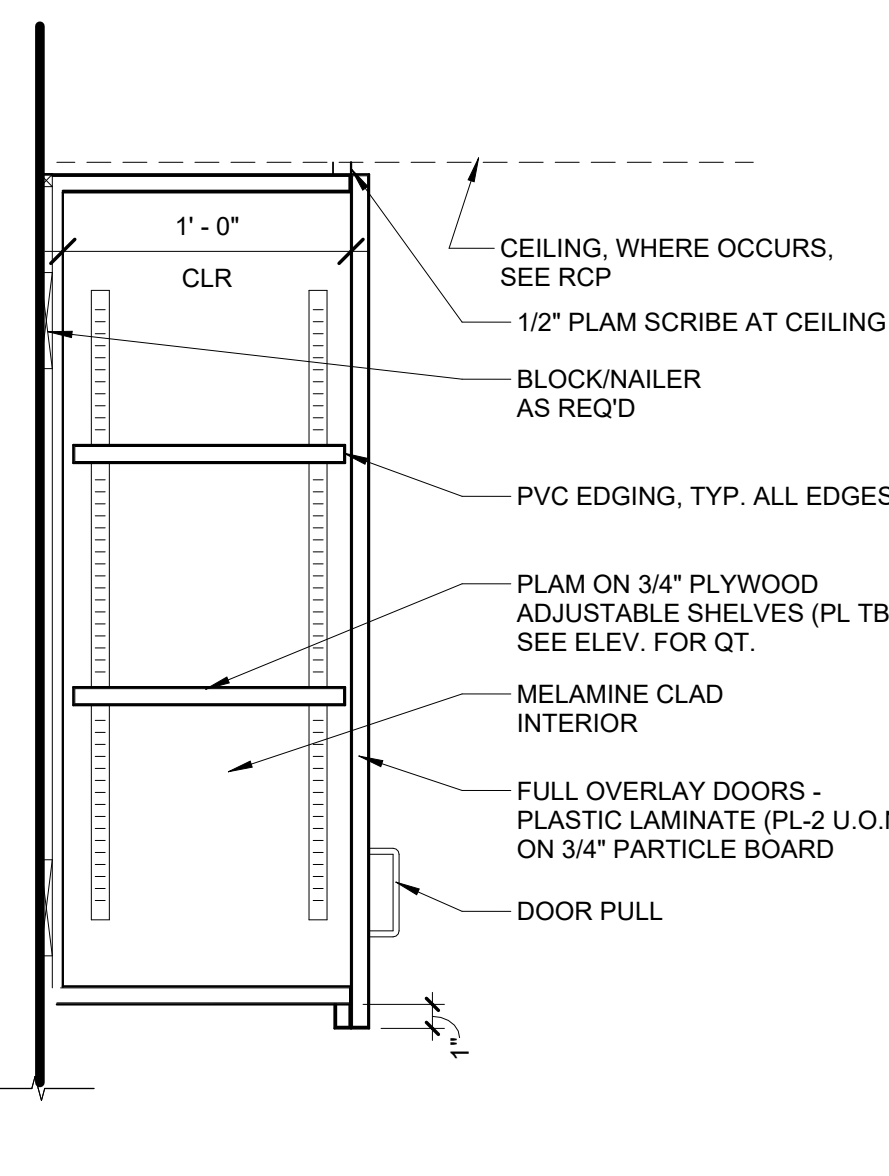


1 DOOR SIGNAGE, TYP.
 1/2" = 1'-0"

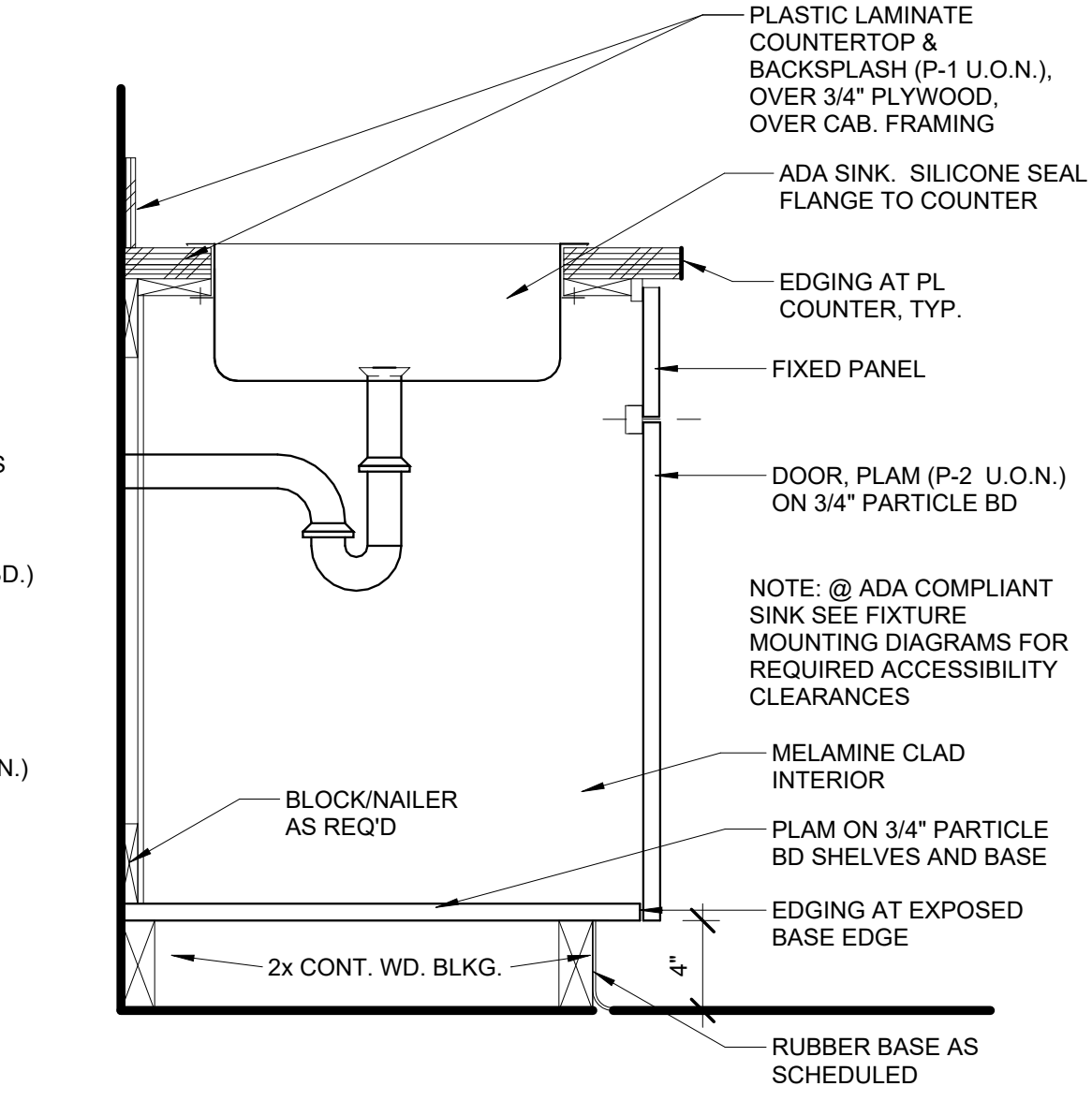


33 FULL HEIGHT SHELVING
 1 1/2" = 1'-0"

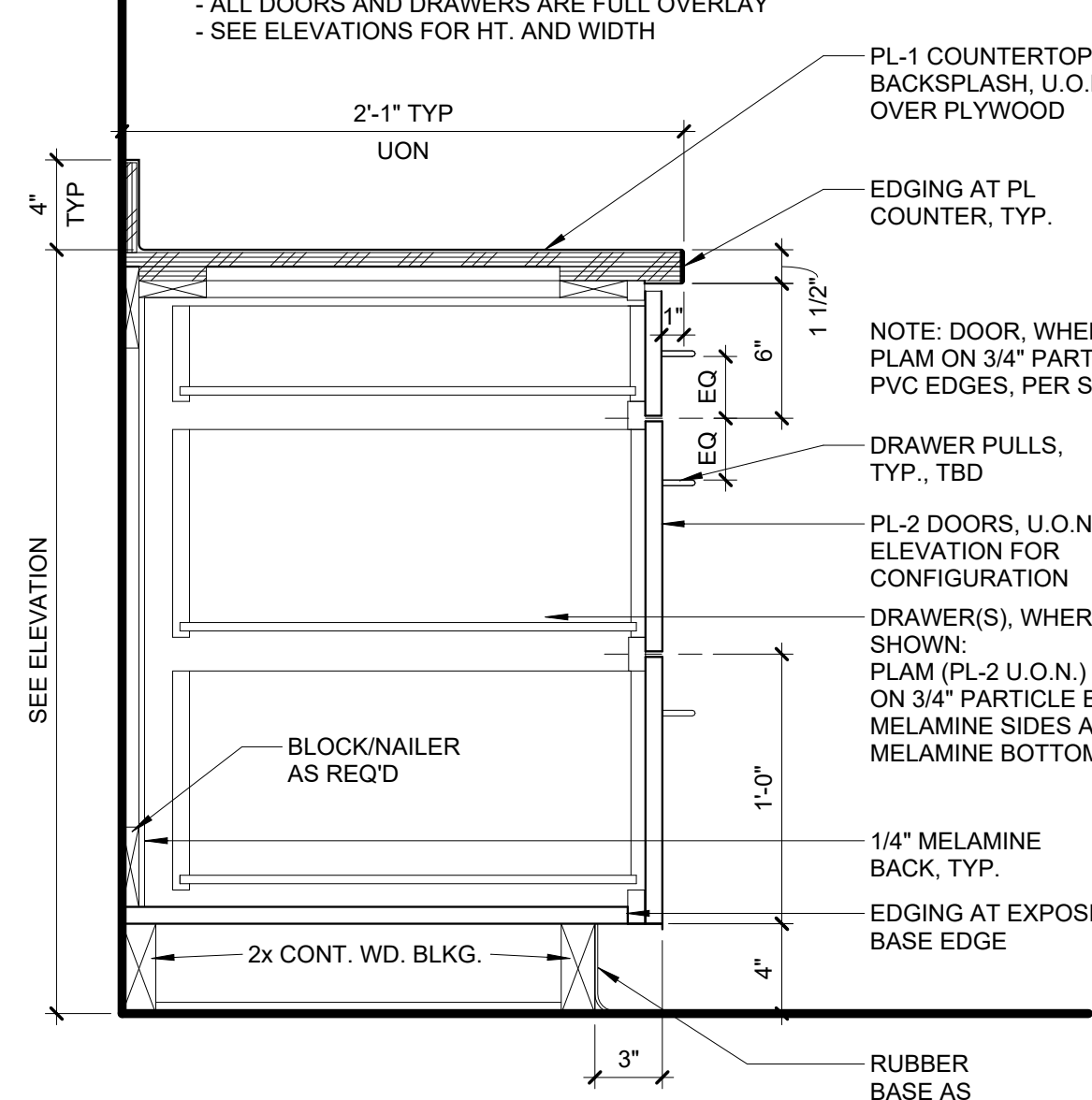
32 UPPER CABINET
 1 1/2" = 1'-0"



31 BASE CABINET AT SINK
 1 1/2" = 1'-0"



30 BASE CABINET - TYPICAL
 1 1/2" = 1'-0"



ROOM FINISH SCHEDULE								
LOCATION	FLOOR	WALL FINISH				CEILING	NOTES / REMARKS	
ROOM NAME	NO.	FLOOR FINISH	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	CEILING FINISH
ENTRY	101							
WEST HALL	102A			KEY NOTE 8.				KEY NOTE 7, TYP.
NORTH HALL 1	102B							
SOUTH HALL 1	102C							KEY NOTE 7, TYP.
NS HALL	102D							SEE OVERALL PLAN FOR EXTENT OF LVT & NOTES
NORTH HALL 2	102E							KEY NOTE 7, TYP.
SOUTH HALL 2	102F							KEY NOTE 7, TYP.
OFFICE	103		KEY NOTE 8.		KEY NOTE 8.			ACT-1 KEY NOTE 2.
WAITING RM	104					KEY NOTE 8.		ACT-1 KEY NOTE 2.
COUNSELOR	105				KEY NOTE 8.			KEY NOTE 3.
COUNSELOR	106				KEY NOTE 8.			P-2 KEY NOTE 3.
SICK RM	107							P-2 KEY NOTE 3.
T.	108							P-2 KEY NOTE 3.
NURSE	109							P-2 KEY NOTE 3.
ST.	110							ACT-1 KEY NOTE 2.
T.	111							P-2 KEY NOTE 3.
PRINCIPLE	112						KEY NOTE 8.	ACT-1 KEY NOTE 2.
ST.	113							ACT-1 KEY NOTE 2.
STAFF RM	114						KEY NOTE 8.	ACT-1 KEY NOTE 2.
WOMEN	115				KEY NOTE 8.			P-2 KEY NOTE 6.
T.	116							P-2 KEY NOTE 6.
CORRIDOR	117							ACT-1 KEY NOTE 2.
T.	118						KEY NOTE 8.	P-2 KEY NOTE 6.
LIBRARY	119				KEY NOTE 8.			KEY NOTE 5.
OFFICE	120							KEY NOTE 3.
WORK RM	121					KEY NOTE 8.		KEY NOTE 3.
OFFICE	122					KEY NOTE 8.		KEY NOTE 3.
CONF.	123							KEY NOTE 3.
CONF.	124							KEY NOTE 3.
COURTYARD	125							
GIRLS T.	126							KEY NOTE 3.
CUST.	127							P-2 KEY NOTE 4.
BOYS T.	128							KEY NOTE 3.
AUDITORIUM	129			KEY NOTE 8.	KEY NOTE 8.	KEY NOTE 8.		KEY NOTE 3 AND 5.
OFFICE	129A							
PRACTICE	130			KEY NOTE 8.	KEY NOTE 8.		KEY NOTE 8.	KEY NOTE 7.
PRACTICE	131						KEY NOTE 8.	KEY NOTE 7.
PRACTICE	132			KEY NOTE 8.		KEY NOTE 8.		ACT-1 KEY NOTE 2.
OFFICE	133				KEY NOTE 8.			ACT-1 KEY NOTE 2.
ST.	134							ACT-1 KEY NOTE 7.
OFFICE	135				KEY NOTE 8.	KEY NOTE 8.		ACT-1 KEY NOTE 2.
OFFICE	136				KEY NOTE 8.	KEY NOTE 8.		ACT-1 KEY NOTE 2.
LIBRARY	137					KEY NOTE 8.		ACT-1 KEY NOTE 7.
PRACTICE	138				KEY NOTE 8.		KEY NOTE 8.	ACT-1 KEY NOTE 7.
PRACTICE	139				KEY NOTE 8.	KEY NOTE 8.		ACT-1 KEY NOTE 7.
GIRLS T.	140							KEY NOTE 3.
BOYS T.	141							KEY NOTE 3.
CUST.	142							KEY NOTE 3.
CLASS RM 1	143							KEY NOTE 5.
CLASS RM 2	144			KEY NOTE 8.				KEY NOTE 5.
CLASS RM 3	145					KEY NOTE 8.		KEY NOTE 5.
CLASS RM 4	146					KEY NOTE 8.		KEY NOTE 5.
CLASS RM 5	147			KEY NOTE 8.				KEY NOTE 5.
WORK RM 1	148				KEY NOTE 8.			P-4 & @ UPPER WALLS KEY NOTE 4.
CLASS RM 6	149			KEY NOTE 8.				KEY NOTE 5.
CLASS RM 7	150					KEY NOTE 8.		KEY NOTE 5.
CLASS RM 8	151					KEY NOTE 8.		KEY NOTE 5.
CLASS RM 9	152			KEY NOTE 8.				KEY NOTE 5.
WORK RM 2	153					KEY NOTE 8.		P-4 & @ UPPER WALLS KEY NOTE 4.
CLASS RM 10	154			KEY NOTE 8.				KEY NOTE 5.
CLASS RM 11	155					KEY NOTE 8.		KEY NOTE 5.
CLASS RM 12	156					KEY NOTE 8.		KEY NOTE 5.
CLASS RM 13	157			KEY NOTE 8.				KEY NOTE 5.
WORK RM 3	158							P-2 KEY NOTE 4.
MDF	159							P-4 & @ UPPER WALLS KEY NOTE 4.
WORK RM 4	160					KEY NOTE 8.		P-4 & @ UPPER WALLS KEY NOTE 4.
CLASS RM 14	161			KEY NOTE 8.				KEY NOTE 5.
CLASS RM 15	162					KEY NOTE 8.		KEY NOTE 5.
CLASS RM 16	163					KEY NOTE 8.		KEY NOTE 5.
CLASS RM 17	164			KEY NOTE 8.				KEY NOTE 5.
WORK RM 5	165					KEY NOTE 8.		P-4 & @ UPPER WALLS KEY NOTE 4.
CLASS RM 22	166			KEY NOTE 8.			KEY NOTE 8.	ACT-1 KEY NOTE 1.
CLASS RM 23	167							ACT-1 KEY NOTE 1.
STORAGE	168							P-4 & @ UPPER WALLS KEY NOTE 4.
CLASS RM 24	169					KEY NOTE 8.		ACT-1 KEY NOTE 1.
CLASS RM 25	170					KEY NOTE 8.		ACT-1 KEY NOTE 1.
HALL ADDITION	171	WOT-1/LVT-1	RB-1	P-2 OVER WP-1	KEY NOTE 8.	P-2 OVER WP-1	P-2 OVER WP-1	ACT-1 SEE ELEVATIONS
CLASS RM 26	172	LVT-2	RB-1	P-1		P-1	P-1	ACT-1 SEE ELEVATIONS
CLASS RM 27	173	LVT-2	RB-1	P-1		P-1	P-1	ACT-1 SEE ELEVATIONS
GYMNASIUM	201							KEY NOTE 5.
ST.	202							
GIRLS T.	203							KEY NOTE 7.
CLASS RM 19	204							KEY NOTE 5.
PE CLASS RM	205						KEY NOTE 8.	KEY NOTE 5.
BOYS T.	206							KEY NOTE 7.
ST.	207							KEY NOTE 5.
CUST.	208			KEY NOTE 8.				
CAFETERIA	209					KEY NOTE 8.		KEY NOTE 5.
T.	210							
ST.	211			KEY NOTE 8.		KEY NOTE 8.		KEY NOTE 2.
KITCHEN	212			KEY NOTE 8.		KEY NOTE 8.	KEY NOTE 8.	KEY NOTE 2.
ST.	213			KEY NOTE 8.		KEY NOTE 8.	KEY NOTE 8.	P-2 KEY NOTE 2.
ST.	301			KEY NOTE 8.		KEY NOTE 8.	KEY NOTE 8.	KEY NOTE 2.
ACTIVITY	302			KEY NOTE 8.		KEY NOTE 8.	KEY NOTE 8.	KEY NOTE 5.
T.	303							
GIRLS LOCKER	304							KEY NOTE 5.
SHOWER	305							
ST.	306							
GENERAL FINISH SCHEDULE NOTE: IF THERE IS NO FINISH NOTED, THE FINISH IS EXISTING AND THERE IS NO WORK								
T.	308							
T.	309							
BOYS LOCKER	310							KEY NOTE 5.
TWIL	311							
SHOWER	312							
ST.	313							
OFFICE	314							
T.	315							

CEILING PLAN KEY NOTES (KN)

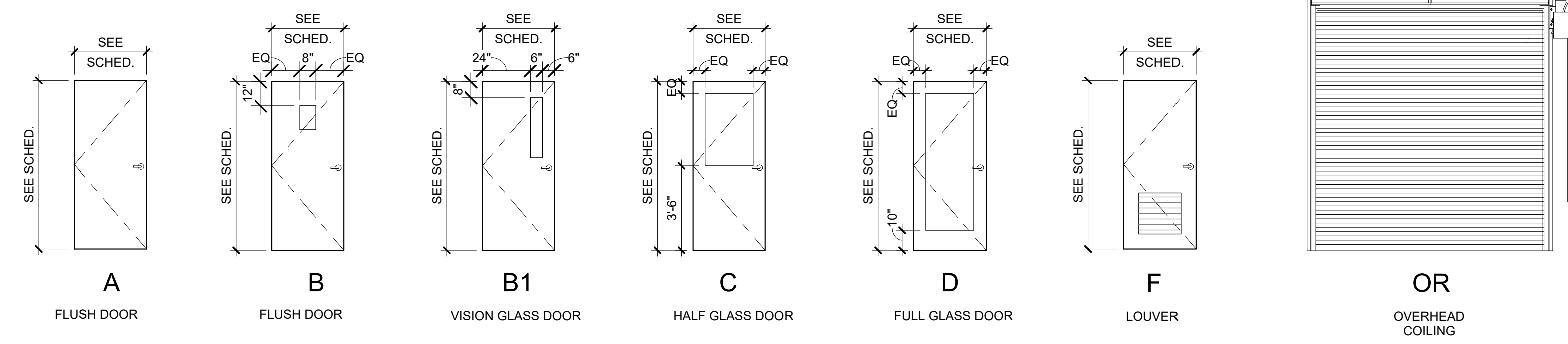
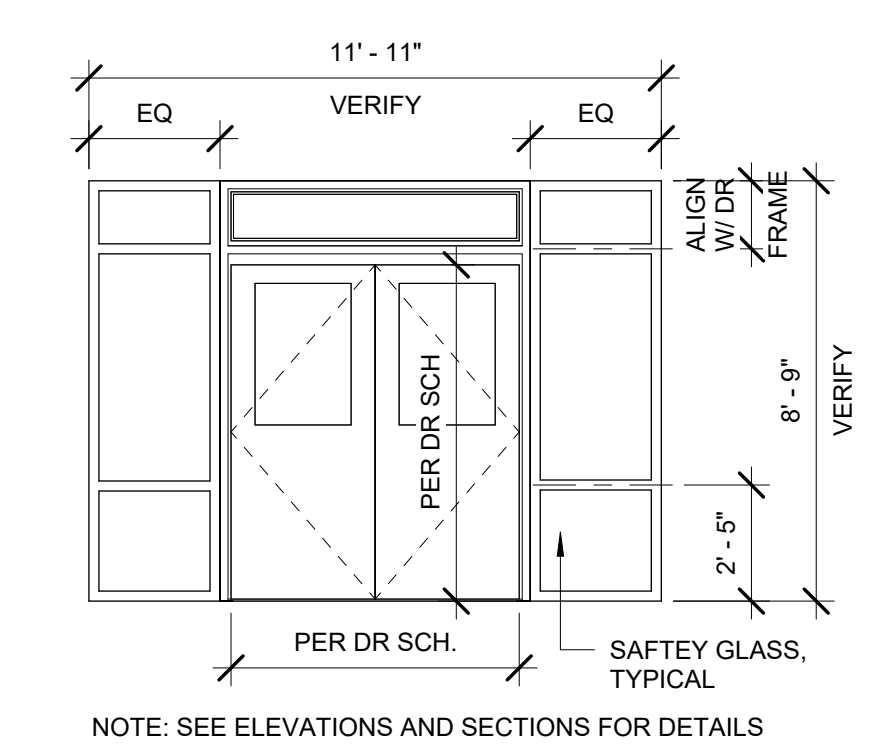
FINISH LIST

BASIS OF DESIGN LEGEND:

FINISH TAG	PRODUCT TYPE	MANUFACTURE	STYLE	COLOR
ACT-1	SUSPENDED ACOUSTICAL CEILING TILE	ARMSTRONG	ULTIMA	244
ACT-2	ACOUSTICAL CEILING TILE	ARMSTRONG	MATCH EXISTING	
CG-1	WALL PROTECTION	CS AGROVYN	FOLKSTONE	927
LVT-1	MOHAWK GROUP	MATUTO PLUS STONE	BARELY BEIGE STONE	123A
LVT-2	MOHAWK GROUP	MATUTO PLUS STONE	AGREEABLE GREY STONE	926A
P-1	INTERIOR PAINT (CLASS RM WALLS)	SHERWIN WILLIAMS	ORIGAMI WHITE	SW 7636
P-2	INTERIOR PAINT	SHERWIN WILLIAMS	MATCH EXISTING HALL UPPER WALL / CEILINGS	
P-3	INTERIOR PAINT (TRIM)	SHERWIN WILLIAMS	COLOR TBD	
P-4	INTERIOR PAINT	SHERWIN WILLIAMS	DOMINO SW 6989 - MATTE	
P-5	INTERIOR PAINT	SHERWIN WILLIAMS	MATCH EXISTING GRAY HALL PAINT	
P-6	EXTERIOR PAINT	SHERWIN WILLIAMS	MATCH EXISTING FIELD	
P-7	EXTERIOR PAINT	SHERWIN WILLIAMS	MATCH EXISTING TRIM	
P-8	EXTERIOR PAINT (FIBER CEMENT PANEL COLOR)	SHERWIN WILLIAMS	COLOR TBD	
PL-1	PLASTIC LAMINATE	FORMICA	NEUTRAL TWILL	8826-58
PL-2	PLASTIC LAMINATE	FORMICA	FOSSIL	5349-58
RB-1	RESILIENT BASE	TARKETT	BURNT LUMBER 63	
S-1	ROLLER SHADE	DETAL	3% OPEN	BROOME (LIGHT GREY), 1903
WOT	WALK OFF TILE			
DIR	DIRECTION			
DM	DE-MOUNTABLE PARTITION			
DN	DOWN			
DO	DITTO			
DR	DOOR			
DRWR	DRAWER			
DS	DOWNSPOUT			
DWG	DRAWING			
DWL	DOWEL			
DWS	DEFORMED WELDED STUD			
(E)	EXISTING			
EA	EACH			
EC	ELECTRICAL CONTRACTOR			
EF	EACH FACE			
EH	ELECTRICAL HEATER/EXHAUST			
HOOD	EXPANSION JOINT			
EJ	ELEVATION			
ELE	ELECTRICAL			
ELEV	ELEVATOR/ELEVATION			
EMBED	EMBEDDED			
EMER	EMERGENCY			
ENT	ENTRANCE			
EQ	EQUAL			
EQUIP	EQUIPMENT			
ES	EMERGENCY SHOWER			
ESR	ELASTOMERIC SHEET ROOFING			
EV	EXISTING TO REMAIN			
EVC	ELECTRIC WATER COOLER			
EW	EACH WAY			
EWC	ELECTRIC WATER COOLER			
EXAV	EXCAVATE			
EXP	EXPANSION			
EXPD	EXPOSED			
EXPF	EXPLOSION PROOF			
EXT	EXTERIOR			

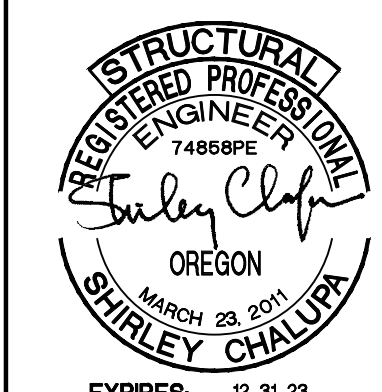
DOOR SCHEDULE								
ROOM NAME	DOOR NO.	SIZE (WxH)	TYPE	MATERIAL	FRAME	HARDWARE GROUP	RATING	COMMENTS
HALL ADDITION	171A	8'-0" X 8'-0"	B	HM	HM	HW-2FS	1-1/2 HR	DOOR TO REMAIN OPEN EXCEPT IN CASE OF FIRE
HALL ADDITION	171B	6'-0" X 7'-0"	C	HM / GLASS	HM	HW-50	-	ACCESS CONTROL DOOR. SEE ELEV. BELOW.
CLASS RM 26	172	3'-0" X 7'-0"	B1	WD	WD	HW-20F	20 MINS	
CLASS RM 27	173	3'-0" X 7'-0"	B1	WD	WD	HW-20F	20 MINS	

WINDOW SCHEDULE					
MARK	WINDOW SIZE	COUNT	TYPE	COMMENTS	
A	6' - 0" X 3' - 0"	16	FIXED	ROOF MONITORS - ALT. BID	
B	2' - 7" X 5' - 8"	2	FIXED		
C	5' - 0" X 5' - 8"	2	FIXED		
D	5' - 0" X 5' - 8"	4	SLIDER	W/ INSECT SCREEN	



ABBREVIATIONS

@	AT	FA	FIELD ADJUSTABLE	NA	NOT APPLICABLE	T & B	TOP AND BOTTOM
AC	ACOUSTIC	FV	FIELD VERIFY	NIC	NOT IN CONTRACT	TB	TACKBOARD/TOWEL BAR
ACC	ACCESS	FD	FLOOR DRAIN	NO	NOMINAL	TBR	TO BE REMOVED
ACT	ACOUSTIC CEILING TILE	FDN	FOUNDATION	NOM	NOMINAL	TCP	THIN COAT PLASTER
ACP	ACOUSTIC CEILING PANEL	FE	FIRE EXTINGUISHER	NS	NON-SHRINK	TD	TOWEL DISPENSER
AD	AREA DRAIN	FEQ	FIRE EXTINGUISHER CABINET	NTS	NOT TO SCALE	TOW	TOWEL DISPENSER AND WASTE
ADD	ADDITIONAL	FHC	FIRE HOSE CABINET	NWC	NORMAL WEIGHT CONCRETE	TEMP	TEMPERATURE/TEMPERED
ADJ	ADJUSTABLE	FIN	FINISH	OA	OVERALL	TER	TERRAZZO
ADJ	ADJUSTABLE	FIX	FIXTURE	OC	ON CENTER	TEX	TEXTURE
AHJ	AHJ ABOVE FINISH FLOOR	FLR	FLOOR	OD	OUTSIDE DIAMETER/OVERFLOW DRAIN	TFC	TROWELED FLOOR COVERING
AL	ALUMINUM	FLEX	FLEXIBLE	OFF	OFFICE	TG	TONGUE AND GROOVE
ALT	ALTERNATE	FLRG	FLOORING	OPNG	OPENING	THK	THICK
APPROX	APPROXIMATE	FDS	FACE OF STUD	OZ	OUNCE	TOB	TOP OF BEAM
ARCH	ARCHITECTURAL	FR	FIREPROOF/FIRE PROTECTION	OP	OPPOSITE	TCC	TOP OF CURB/TOP OF CONCRETE
BD	BOARD	FR	FIRE RETARDANT	PT	PARTITION	TOD	TOP OF DECK/TOP OF DUCT ELEVATION
BF	BOTH FACES	FT	FEET	PC	PIECE	TOG	TOP OF FOOTING
BFL	BELOW FINISH CEILING	FTG	FOOTING	PC	PORTLAND CEMENT	TOJ	TOP OF JOIST
BLDG	BUILDING	FURG	FURRING	PC	PRECAST CONCRETE	TOP	TOP OF FLOOR
BLKG	BLOCKING	GA	GAUGE	PCPL	PORTLAND CEMENT PLASTER	TOS	TOP OF PIPE ELEVATION
BLK	BLOCK	GALV	GALVANIZED	PDRWR	PAPER TOWEL DISPENSER & WASTE RECEPTACLE	TOW	TOP OF WALL
BOT	BOTTOM	GAL	GALLON	PL	PHILLIPS HEAD/PHASE	TPG	TOPPING
BTWN	BETWEEN	GB	CRAB BAR	PL	PLATE/PROPERTY LINE	TPH	TOILET PAPER HOLDER
CAB	CABINET	GC	GENERAL CONTRACTOR	PLAM	PLASTIC LAMINATE	TRAN	TRANSOM
CG	CORNER GUARD	GG	GENERAL CONTRACTOR	PLAS	PLASTER	TRANS	TRANSVERSE
CLG	CEILING	GFCI	GOVERNMENT FURNISHED, CONTRACTOR INSTALLED	PLBNG	PLYWOOD	TWS	THREADED WELDED STUD
CLG	CEILING	GFCI	GOVERNMENT FURNISHED, CONTRACTOR INSTALLED	PLYVD	PLYWOOD	TYP	TYPICAL
CLG	CEILING	GFCI	GOVERNMENT FURNISHED, CONTRACTOR INSTALLED	PM	PROTECTED METAL	UG	UNDERGROUND
CLO	CLOSET/CLOSURE	GFRG	GLASS FIBER REINFORCED CONCRETE	PNL	PANEL	UNO	UNLESS NOTED OTHERWISE
CLR	CLEAR	GFRG	GLASS FIBER REINFORCED CONCRETE	PNLG	PANELING	U	UNLESS NOTED OTHERWISE
COL	COLUMN	GL	GLASS	PR	PAIR	V	VINYL
COMB	COMBINATION	GLB	GLUE LAM BEAM	PRE FAB	PRE-FABRICATED	VB	VINYL BASE
CMU	CONCRETE MASONRY UNIT	GMU	GLAZED MASONRY UNIT	PRE FM	PRE-FINISHED	VCT	VINYL COMPOSITION TILE
CONC	CONCRETE	GYP	GYP	PSF	POUNDS PER SQUARE FOOT	VERT	VERTICAL
CONF	CONFERENCE	H	HEIGHT	PT	POINT/INCH	VEST	VESTIBULE
CONN	CONNECTION/CONNECT	H	HEIGHT	PTM	PAINT TO MATCH	VOL	VOLUME
CONSTR	CONSTRUCTION	HDBD	HARDBOARD	PVC	POLYVINYL CHLORIDE	VWC	



BIDDING

REVISIONS:	#	DATE	DESCRIPTION

DATE: JANUARY 2023

SHEET TITLE:
STRUCTURAL - GENERAL NOTES, LEGEND, AND ABBREVIATIONS

S-001

STRUCTURAL - GENERAL NOTES

GENERAL REQUIREMENTS

GOVERNING CODE: The design and construction of this project is governed by the "Oregon Structural Specialty Code" (OSSC), 2019 Edition, hereinafter referred to as the OSSC, as adopted and modified by the City of Coos Bay, Oregon understood to be the Authority Having Jurisdiction (AHJ).

REFERENCE STANDARDS: Refer to Chapter 35 of 2019 OSSC. Where other Standards are noted in the drawings, use the latest edition of the standard unless a specific date is indicated. Reference to a section number in a code does not relieve the contractor from compliance with the entire standard.

DEFINITIONS: The following definitions cover the meanings of certain terms used in these notes:

- Architect/Engineer** – The Architect of Record and the Structural Engineer of Record.
 - Structural Engineer of Record (SER)** – The structural engineer who is licensed to stamp & sign the structural documents for the project. The SER is responsible for the design of the Primary Structural System.
 - Submit for review** – Submit to the Architect/SER for review prior to fabrication or construction.
- Per Plan** – Indicates references to the structural plans, elevations and structural general notes.
- Seismic Force Resisting System (SFRS)** – A recognized structural system of components (beams, braces, drags, studs, collectors, diaphragms, columns, walls, etc) of the primary structure that are specially designed and proportioned to resist earthquake-induced ground motions and maintain stability of the structure. Fabrication and installation of components designated as part of the SFRS require the general contractor, subcontractor, or supplier who is responsible for any portion of SFRS fabrication or installation to comply with special requirements (including, but not limited to, material control, compliance certifications, personnel qualifications, documentation, reporting requirements, etc) and to provide the required Quality Control including the required coordination of Special Inspections (Quality Assurance – QA). Special provisions apply to any member designated as part of the SFRS. Refer to plans, elevations, details, Design Criteria and Symbols and Legends for applicable members and connections.
- Specialty Structural Engineer (SSE)** – A professional engineer (PE or SE), licensed in the State where the project is located, (typically not the SER), who performs specialty structural engineering services for selected specialty-engineered elements identified in the Contract Documents, and who has experience and training in the Specialty. Documents stamped and signed by the SSE shall be completed by or under the direct supervision of the SSE.
- Bidder-designed** – Components of the structure that require the general contractor, subcontractor, or supplier who is responsible for the design, fabrication and installation of specialty-engineered elements identified in the Contract Documents to retain the services of an SSE. Submittals of "Bidder-designed" elements shall be stamped and signed by the SSE.

SPECIFICATIONS: Refer to the project specifications issued as part of the contract documents for information supplemental to these drawings.

OTHER DRAWINGS: Refer to the architectural, mechanical, electrical, civil and plumbing drawings for additional information including but not limited to: dimensions, elevations, slopes, door and window openings, non-bearing walls, stairs, finishes, drains, water/sewer, mechanical unit locations, and other non-structural items.

STRUCTURAL DETAILS: The structural drawings are intended to show the general character and extent of the project and are not intended to show all details of the work. Use entire detail sheets and specific details referenced in the plans as "typical" wherever they apply. Similarly, use details on entire sheets with "typical" in the name wherever they apply.

STRUCTURAL RESPONSIBILITIES: The structural engineer (SER) is responsible for the strength and stability of the primary structure in its completed form.

COORDINATION: The Contractor is responsible for coordinating details and accuracy of the work; for conforming and coordinating all quantities and dimensions for selecting fabrication processes; for techniques of assembly; and for performing work in a safe and secure manner.

EXISTING CONDITIONS: Information shown on the drawings related to existing conditions represent the present knowledge, but without guarantee of accuracy. Report conditions that conflict with contract documents to the architect or SECR. Do not rely on information without written direction from the architect and/or SECR. All existing conditions, dimensions and information shall be field verified prior to fabrication as required to coordinate with new construction.

NEW CONSTRUCTION: The contractor shall remove all interfering items for new construction and shall repair or replace all removed items to match the existing conditions in accordance with the architectural drawings. New construction elements shall be designed and installed per current International Building Code 2018, hereinafter referred to as OSSC as allowed by IEBC.

MEANS, METHODS AND SAFETY REQUIREMENTS: The contractor is responsible for the means and methods of construction and all related safety standards such as OSHA and DOSH (Department of Occupational Safety and Health). The contractor is responsible for means and methods of construction related to the intermediate structural conditions (i.e. movement of the structure due to moisture and thermal effects; construction sequence; temporary bracing, etc).

BRACING/SHORING DESIGN ENGINEER: The contractor shall at his discretion employ an SSE, a registered professional engineer for the design of any temporary bracing and shoring. Submit construction sequence to Architect/Engineer for review.

TEMPORARY SHORING, BRACING: The contractor is responsible for the strength and stability of the structure during construction and shall provide temporary shoring, bracing and other elements required to maintain stability until the structure is complete. It is the contractor's responsibility to be familiar with the construction of all existing conditions and the requirements for executing it properly.

CONSTRUCTION LOADS: Loads on the structure during construction shall not exceed the design loads as noted in DESIGN CRITERIA AND LOADS below or the capacity of partially completed construction as determined by the Contractor's SSE for Bracing/Shoring.

CHANGES IN LOADING: The contractor has the responsibility to notify the SER of any architectural, mechanical, electrical, or plumbing load imposed onto the structure that differs from, or that is not documented on the original Contract Documents (architectural / structural / mechanical / electrical or plumbing drawings). Provide documentation of location, load, size and anchorage of all unanticipated loads in excess of 400 pounds. Provide marked-up structural plan indicating location of any new equipment or loads. Submit plans to the Architect/Engineer for review prior to installation.

NOTE PRIORITIES: Plan and detail notes and specific loading data provided on individual plans and detail drawings supplements information in the Structural General Notes.

DISCREPANCIES: In case of discrepancies between the General Notes, Specifications, Plans/Details or Reference Standards, the Architect/Engineer shall determine which shall govern. Discrepancies shall be brought to the attention of the Architect/Engineer before proceeding with the work. Should any discrepancy be noted in the Contract Documents, the Contractor will be deemed to have included in the price the most conservative way of completing the work, unless prior to the submission of the bid, the Contractor asks for a decision from the Architect as to which shall govern. Accordingly, any conflict in or between the Contract Documents shall not be a basis for adjustment in the Contract Price.

SITE VERIFICATION: The contractor shall verify all dimensions and conditions at the site. Conflicts between the drawings and actual site conditions shall be brought to the attention of the Architect/Engineer before proceeding with the work.

ADJACENT UTILITIES: The contractor shall determine the location of all adjacent underground utilities prior to earthwork, foundations, shoring, and excavation. Any utility information shown on the drawings and details is approximate and not necessarily complete.

ALTERNATES: Alternate products of similar strength, nature and form for specified items may be submitted with adequate technical documentation (proper test report, etc.) to the Architect/Engineer for review. Alternate materials that are submitted without adequate technical documentation or that significantly deviate from the design intent of materials specified may be returned without review. Alternates that require substantial extra effort will not be reviewed unless authorized by the Owner.

NARRATIVE: The following items will be repaired, modified, or added for this project:

- Addition of new classrooms, building is seismically separated from the existing building.

ADDITIONS/ALTERATIONS/REPAIRS: Additions, alterations, and/or repairs to the existing structure have been analyzed for additional loading and modification due to the addition, the alteration or the repair. All affected existing member have been analyzed or reinforced as required per IEBC.

All Demolition or removal of architectural, mechanical or structural elements shall not damage structural items to remain.

DESIGN CRITERIA AND LOADS

OCCUPANCY:	Risk Category of Building per 2019 OSSC Table 1604.5	II
WIND DESIGN:	MAIN WIND FORCE RESISTING SYSTEM	
Ultimate Design Wind Speed, V_{ult} (MPH)	120	
Exposure Category	C	
Internal Pressure Coefficient C_{pi}	+0.18	
Topographic Factor K_{zt}	1.0	
Wind Analysis procedure used:	Directional	
SEISMIC DESIGN:	Seismic Design Category: SDG =	E
Basic Structural System	Bearing Wall	
Seismic Force Resisting System	Shear Walls	
Response Modification Factor: $R =$	6	
System Over- Strength Factor $\Omega_{max} =$	2.5	
Deflection Amplification Factor $C_d =$	5	
Site Classification per OSSC 1613.3.2 & ASCE 7-10, Ch. 20, Site Class =	D	
Seismic Importance Factor per ASCE 7-10 Table 1.5-2 $I_p =$	1.0	
Spectral Response Acceleration (Short Period) $S_{ps} =$	1.581 g	
Spectral Response Acceleration (1-Second Period) $S_{p1} =$	0.799 g	
Spectral Design Response Coefficient (Short Period) $R_{sd} =$	1.265 g	
Spectral Design Response Coefficient (1-Second Period) $R_{sd1} =$	0.906 g	
Seismic response coefficient(s) $C_s =$	0.195	
Redundancy Factor (North/South Direction) $NIS_{rho} =$	1.0	
Redundancy Factor (East / West Direction) $EW_{rho} =$	1.0	
Design Base Shear (North/South Direction) (KIPS)	15.5	
Design Base Shear (East / West Direction) (KIPS)	15.5	
Base shear governed by:	Seismic	
Seismic Analysis procedure used:	Equivalent Lateral Force (ELF)	

SNOW LOAD:	(1) Flat Roof Snow Load, (PSF) $p_s =$	(2)
Snow Drift Loading required by Authority Having Jurisdiction?	Yes	
Snow Load Importance Factor $I_s =$	1.0 (3)	
Ground Snow Load, (PSF) $p_g =$	1	
Snow Exposure Factor $C_e =$	B	
Thermal Factor $C_t =$	1.0	

1) Snow Load is un-reducible and includes 5 psf rain-on-snow surcharge where ground snow load is greater than zero and 20 psf or less per ASCE 7-10 Section 7.10.
2) Snow Load based on ASCE Fig 7.4.
3) Snow Load Importance Factor per ASCE 7-10 Table 1.5-2.

DESIGN LIVE LOADS	AREA	LIVE LOADS (PSF) UNO	REMARKS & FOOTNOTES (2)
	Corridors at First Floor	100	
	School Classrooms	40	1000 lb
	Roofs	20 PSF or 300 LB	Area load is reducible. Point load per role (3). See above for Snow Load

- Place 300 lb concentrated load over 2'x2' area at any point to produce maximum stress. Area load and concentrated load are to be considered separately with worst case used for design.
- Unless otherwise noted, point loads to be distributed over a 2.5ft x 2.5ft area and located to produce maximum load effects on structural members.

DESIGN DEAD LOADS	BIDDER DESIGN	DEAD LOADS	REMARKS & FOOTNOTES
	Roof Dead Load, Total	15 PSF	Per Pre-Fabricated Wood Joists design.
	Roof Dead Load, Total per Chord	12 PSF	
	Top Board	8 PSF	
	Bottom Chord	4 PSF	For Pre-Fabricated Wood Truss design.

SUBMITTALS

SUBMIT FOR REVIEW: SUBMITTALS of shop drawings, and product data are required for items noted in the individual materials sections and for bidder designed elements.

SUBMITTAL REVIEW PERIOD: Submittals shall be made in time to provide a minimum of TWO WEEKS or 10 WORKING DAYS for review by the Architect/Engineer prior to the onset of fabrication.

GENERAL CONTRACTOR'S PRIOR REVIEW: Prior to submission to the Architect/Engineer, the Contractor shall review the submittal for completeness. Dimensions and quantities are not reviewed by the SER, and therefore, must be verified by the General Contractor. Contractor shall provide any necessary dimensional details requested by the Designer and provide the Contractor's review stamp and signature before forwarding to the Architect/Engineer.

SHOP DRAWING REVIEW: Once the contractor has completed his review, the SER will review the submittal for general conformance with the design concept and the contract documents of the building and will stamp the submittal accordingly. Changes or comments shall not be made by the contractor without the approval of the Designer. The Designer's specifications, nor departures there from. The SER will return submittals in the form they are submitted in (either hard copy or electronic). For hard copy submittals, the contractor is responsible for submitting the required number of copies to the SER for review.

SHOP DRAWING DELIVERIES: When shop drawings (component design drawings) differ from or add to the requirements of the structural drawings they shall be designed and stamped by the responsible SSE.

DEFERRED SUBMITTALS

BIDDER-DESIGNED ELEMENTS
Submit "Bidder-Designed" deferred submittals to the Architect and SER for review. The deferred submittals shall also be submitted to the city for approval, if required by the city.

- Design of prefabricated "bidder designed", manufactured, pre-engineered, or other fabricated products shall comply with the following requirements:
- Design considers tributary dead, live, wind and earthquake loads in combinations required by OSSC.
 - Design within the Deflection Limits noted herein and as specified or referenced in the OSSC.
 - Design shall conform to the specifications and reference standards of the provisions of the contract documents.
 - Submittal shall include:
 - Calculations prepared, stamped and signed by the SSE demonstrating code conformance.
 - Engineered component design drawings are prepared, stamped and signed by the SSE.
 - Product data, technical information and manufacturer's written requirements and Agency approvals.
 - SSE may submit to the Architect/Engineer, a request to utilize relevant alternate design criteria of similar nature and generally equivalent to that which is recognized by the Authority Having Jurisdiction. Submit adequate documentation of design.

DEFLECTION LIMITS FOR SSE/BIDDER	VERTICAL	LIMIT
Roof Members, Dead + Live or Snow or Wind, Total Load (L) Deflection		L / 240, where L is span length (inches)
Roof, Live or Snow or Wind Load (RL)		L / 360

GENERAL CONTRACTOR'S PRIOR REVIEW: Once the contractor has completed his review of the SSE component drawings, the SER will review the submittal for general conformance with the design of the building and will stamp the submittal accordingly. Changes or comments shall not be made by the contractor without the approval of the Designer. The Designer's specifications, nor departures there from. The SER will return submittals in the form they are submitted in (either hard copy or electronic). For hard copy submittals, the contractor is responsible for submitting the required number of copies to the SER for review.

- Prefabricated Wood Roof Trusses
- Solid Web Wood Joists
- Engineered Wood Products, (Glulam)

INSPECTIONS, QUALITY ASSURANCE VERIFICATIONS AND TEST REQUIREMENTS

INSPECTIONS: Foundations, footings, under slab systems and framing are subject to inspection by the Building Official in accordance with OSSC 110.3. Contractor shall coordinate all required inspections with the Building Official.

SPECIAL INSPECTIONS, VERIFICATIONS AND TESTS: Special Inspections, Verifications and Testing shall be done in accordance with OSSC Chapter 17, THE STATEMENT AND SCHEDULES OF SPECIAL INSPECTIONS listed in these drawings.

STRUCTURAL OBSERVATION: per OSSC Section 1704.6

Structural Observation is the visual observation of the structural system by a registered design professional for general conformance to the approved construction documents. It is not always required on a project, does not include or waive the responsibility for the special inspections and tests required by a Special Inspector per OSSC Chapter 17, is not concurrent, and does not relieve the contractor of compliance with the approved construction documents.

- Required for Seismic Design Category D, E, or F for any of the following:**
- Risk Category III or IV
 - Height greater than 75ft above base
 - Seismic Design Category I with Risk Category I or II and greater than two stories
 - By DCI

Structural Observation for this project is required per OSSC Section 1704.6. Contractor shall notify the SER in a timely manner to allow required Structural Observations to occur. Reports will be distributed to the Architect, the Contractor, Special Inspector and the Authority Having Jurisdiction.

The frequency and extent of observations is at the discretion of the structural observer. Only significant stages of construction identified by the Structural Observer require observation. For repetitive or similar structural elements identified as significant, only design and MEP shop drawings systems that are noted otherwise. The following significant stages of construction require observation: prior to foundation concrete placement, and after roof diaphragm is complete prior to roofing.

CONTRACTOR RESPONSIBILITY: Prior to issuance of the building permit, the Contractor is required to provide the Authority Having Jurisdiction a signed, written acknowledgment of the Contractor's responsibilities associated with the above Statement of Special Inspections addressing the requirements listed in OSSC Section 1704.4. Contractor is referred to OSSC Section 1704.5 and 1705.12.6 for archiving and MEP shop drawings that may be subject to additional inspections (based on the building's designated Seismic Design Category listed in the CRITERIA), including anchorage of HVAC ductwork, containing hazardous materials, piping systems and mechanical units containing flammable, combustible or highly toxic materials, electrical equipment used for emergency or standby power, exterior wall panels and suspended ceiling systems.

SOILS AND FOUNDATIONS

REFERENCE STANDARDS: Conform to OSSC Chapter 18 "Soils and Foundations."

CONTRACTOR'S RESPONSIBILITIES: Contractor shall be responsible to review the Geotechnical Report and shall follow the recommendations specified therein including, but not limited to, subgrade preparations, pile installation procedures, ground water management and steep slope Best Management Practices."

GEOTECHNICAL SUBGRADE INSPECTION: The Geotechnical Engineer shall inspect all sub-grade and prepared soil bearing surfaces, prior to placement of foundation reinforcing steel and concrete. Geotechnical Engineers shall provide a letter to the owner stating the results of the subgrade inspection (bearing pressure) shown below. Assumed values shall be field verified by the Building Official or the Geotechnical Engineer prior to placing concrete.

DESIGN SOIL VALUES:

Safety Factor per Soils Report	1.50	PSF
Allowable Foundation Bearing Pressure	300	PSF/FT
Passive Lateral Pressure	300	PSF/FT
Active Lateral Pressure (unrestrained)	35	PSF/FT
At-Rest Lateral Pressure (restrained)	55	PSF/FT
Seismic Lateral Pressure	84	PSF
Coefficient of Sliding Friction	0.35	

FOUNDATIONS AND FOOTINGS: Foundations shall bear on either on competent native soil or compacted structural fill as per the geotechnical report. Exterior perimeter footings shall bear not less than 12 inches below finish grade, unless otherwise specified by the geotechnical engineer and/or the building official.

FOOTING DEPTH: Tops of footings shall be as shown on plans with vertical changes as indicated with steps in the footings; locations of steps shown as approximate and shall be coordinated with the civil grading plans.

SLABS ON-GRADE: All slabs-on-grade shall bear on compacted structural fill or competent native soil per the geotechnical report. All moisture sensitive slabs-on-grade or those subject to require moisture sensitive coatings/underlayment shall be provided with an appropriate capillary break and vapor barrier/retardant over the subgrade prepared and installed as noted in the geotechnical report, barrier manufacturer's written recommendations and coordinated with the finishes specified by the Architect.

CAST-IN-PLACE CONCRETE

REFERENCE STANDARDS: Conform to:
(1) ACI 308-16 "Standard Specifications for Structural Concrete"
(2) OSSC Chapter 19 "Concrete"
(3) ACI 318-14 "Building Code Requirements for Structural Concrete"
(4) ACI 117-10 "Specifications for Tolerances for Concrete Construction and Materials"

FIELD REFERENCE: The contractor shall keep a copy of ACI Field Reference manual, SP-15, "Standard Specifications for Structural Concrete (ACI 301) with Selected ACI and ASTM References."

CONCRETE MIXTURES: Conform to ACI 301 Section 4 "Concrete Mixtures" and OSSC Section 1904.1.

MATERIALS: Conform to ACI 301 Section 4.2.1 "Materials" for requirements for cementitious materials, aggregates, mixing water and admixtures.

SUBMITTALS: Provide all submittals required by ACI 301 Section 4.1.2. Submit mix designs for each mix in the table below. Substantiating strength results from past tests shall not be older than 24 months per ACI 318 Section 20.4.3.1 (b).

TABLE OF MIX DESIGN REQUIREMENTS

Member Type/Location	Strength Fc (psi)	Test Age (days)	Nominal Maximum Aggregate	Exposure Class	Max W/C Ratio	Air Content (%)	Notes (1 to 8 Typical UNO)
Footings	4000	28	1"	-	0.45	5%	-
Exterior Slabs on Grade & Sidewalks	3000	28	1"	-	0.45	5%	-
Interior Slabs on Grade	3000	28	1"	-	0.50	-	9

Table of Mix Design Requirements Notes:

- W/C Ratio: Water-cementitious material ratios shall be based on the total weight of cementitious materials. Maximum ratios are controlled by strength noted in the Table of Mix Design Requirements and durability requirements given in ACI 318 Section 19.3.
- Cementitious Materials:
 - The use of fly ash, other pozzolans, silica fume, or slag shall conform to ACI 318 Sections 19.3.2 and 20.4.2. Maximum amount of fly ash shall be 25% of total cementitious content unless reviewed and approved otherwise by SER.
 - For concrete used in elevated floors, minimum cementitious materials content shall conform to ACI 301 Table 4.1.2.9. Acceptance of lower cement content is contingent on providing supporting data to the SER for review and acceptance.
 - Cementitious materials shall conform to the relevant ASTM standards listed in ACI 318 Section 20.4.1.1.(1a).
- Air Content: Conform to ACI 318 Section 19.3.3.1. Minimum standards for exposure class are noted in the table. If freezing and thawing class is not noted, air content given is that required by the SER. Tolerance is +/- 1%. Air content shall be measured at point of placement.
- Aggregates shall conform to ASTM C33.
- Slump: Conform to ACI 301 Section 4.2.2.2. Slump shall be determined at point of placement.
- Chloride Content: Conform to ACI 318 Table 19.3.2.1.
- Non-chloride accelerator: Non-chloride accelerating admixture may be used in concrete placed at ambient temperatures below 50° F at the contractor's option.
- ACI 318, Section 19.3.1.1 exposure classes shall be assumed to be F0, S0, W0, and C0 unless different exposure classes are listed in the Table of Mix Design Requirements that modify these base requirements.
- Shrinkage Limit: Concrete used in elevated slabs and beams shall have a shrinkage limit of 0.045% at 28 days measured in accordance with ASTM C157. Submit laboratory test results to SER for approval prior to construction.

FORMWORK & FINISHING: Conform to ACI 301 Section 2 "Formwork and Form Accessories": Removal of Form shall conform to Section 2.3.2 except strength indicated in Section 2.3.2.3 shall be 0.75 x C.

MEASURING, MIXING, AND DELIVERY: Conform to ACI 301 Section 4.3.

HANDLING, PLACING, CONSTRUCTING AND CURING: Conform to ACI 301 Section 5. In addition, hot weather concreting shall conform to ACI 308R-11 and cold weather concreting shall conform to ACI 308R-10.

CONSTRUCTION JOINTS: Conform to ACI 301 Sections 2.2.2.5 and 5.3.2.6. Construction joints shall be located and detailed as on the construction drawings. Submit alternate locations per ACI 301 Section 5.1.2.4(a) for review and approval by the SER two minimum prior to forming. Use of an acceptable adhesive, surface treatment, Portland cement grout or roughening the surface is not required unless specifically noted on the drawings.

EMBEDDED ITEMS: Position and secure in place expansion joint material, anchors and other structural and non-structural embedded items before placing concrete. Contractor shall refer to mechanical, electrical, plumbing and architectural drawings.

SHRINKAGE: Conventional concrete slabs will continue to shrink after initial placement and stressing of concrete. Contractor and subcontractor shall coordinate jointing and interior material finishes to provide adequate tolerances for expected structural frame shrinkage and shall include, but not be limited to: curtain wall, dryvit, storefront, skylight, floor finish, and ceiling supplies. Contact Engineer for expected range of shrinkage.

FLOOR FINISHES: The contractor must provide and correctly install an isolation membrane and properly detail expansion joints to help minimize cracking of finishes with cementitious setting beds or finish properties (ie, stone, terrazzo, concrete topping, etc). The expansion joints shall be sized for an expected shortening movement of 0.01 inches per foot.

CONCRETE CRACK REPAIR AND MAINTENANCE PROGRAM: Concrete shrinks and continues to shrink for up to two years after construction and as a result, cracking will typically occur. These cracks do not typically impair the integrity of the structure. However, DCI recommends a one-time crack repair and maintenance program be implemented for those slabs exposed to water or chemicals. The maintenance program shall consist of:

- Inspect slabs and supporting members two years after construction
- Determine cracks in the structure to be repaired
- Repair cracks

The total length of cracking can be estimated at 0.009 feet of cracks per square foot of slab area. The owner should reserve funds for the one-time maintenance program, which is to take place two years after the completion of construction.

Even though cracking is normal and most often not structurally significant, when cracking occurs during construction the contractor shall contact the Architect/Engineer for review. The contractor should budget 0.004 lb of epoxy injected crack repair per square foot of slab.

STRENGTH TESTING AND ACCEPTANCE

Testing: Obtain samples and conduct tests in accordance with ACI 301 Section 16.3.2. Additional samples may be required to obtain concrete strength at alternate intervals than shown below.

- Core 4 cylinders for 28-day test age (Cure 6 cylinders for 28-day test age post-tensioned concrete. Test 2 cylinders at 2 or 3 days for post-tensioned concrete only, 1 test 1 cylinder at 7 days, test 2 cylinders at 28 days, and test 1 cylinder in reserve for use as needed after 56 days, unless notified by the Engineer to do the contrary, the reserve cylinder will be discarded without being tested for specimens meeting 28-day strength requirements.

- The number of cylinders indicated above reference 8 by



BIDDING

REVISIONS:	#	DATE	DESCRIPTION

DATE: JANUARY 2023
SHEET TITLE:
STRUCTURAL - GENERAL NOTES CONTINUED

S-002

SPECIAL INSPECTIONS

The following Statement and Schedules of Inspections are those Special Inspections and Tests that shall be performed for this project. Special Inspectors shall reference these plans and IBC Chapter 17 for all special inspection requirements. The owner shall retain to provide special inspections for this project. Special Inspectors shall be qualified persons per IBC 1704.2.1. Special inspection reports shall be provided on a weekly basis. Submit copies of all inspection reports to the Architect/Engineer and the Authority Having Jurisdiction for review. In addition to special inspection reports and tests, submit reports and certificates noted in IBC 1704.5 to the Authority Having Jurisdiction. Final special inspection reports will be required by each special inspection firm per IBC 1704.2.4.

STATEMENT OF SPECIAL INSPECTIONS:

This statement of Special Inspections has been written with the understanding that the Building Official will: Review and approve the qualifications of the Special Inspectors. Monitor the special inspection activity on the project site to assure that Special Inspectors are qualified and performing their duty as state within this statement. Review all Special Inspection Reports submitted to them by the Special Inspector. Perform inspections as required by IBC Section 110.3.

The following Special Inspections are applicable to this project:	REQUIRED	REQUIRED
Special Inspections for Standard Buildings (per IBC 1705.1)	REQUIRED	REQUIRED
Special Inspections for Seismic Resistance (per IBC 1705.13)	REQUIRED	NOT REQUIRED
Testing for Seismic Resistance (per IBC 1705.13)	REQUIRED	NOT REQUIRED
Special Inspections for Wind Resistance (per IBC 1705.11)	REQUIRED	NOT REQUIRED

SPECIAL INSPECTION OF SHOP FABRICATED GRAVITY LOAD-BEARING MEMBERS AND ASSEMBLIES:

Special inspection of shop fabricated Gravity Load Bearing Members & Assemblies shall be verified by the Special Inspector as stated in Section 1704.2.5 which includes the following:
Fabricator shall have available for Inspector's review, detailed procedures for material control that demonstrates the fabricator's ability to maintain suitable records and procedures such that, at any time during the fabrication process, the material specification, grade and applicable test reports for primary load-carrying members, are capable of being determined.

STRUCTURAL STEEL per IBC 1705.2.1

A qualified Special Inspector of an "approved agency" providing Quality Assurance (QA) Special Inspections for the project shall review and confirm the Fabricator and Erector's Quality Control (QC) procedures for completeness and adequacy relative to AISC 360-16 Chapter N, AISC 303-16 Code of Standard Practice, AWS D1.1-2015 Structural Welding Code, and 2018 IBC code requirements for the fabricator's scope of work.

- QA Agency providing Special Inspections shall provide personnel meeting the minimum qualification requirements for Inspection and Nondestructive Testing NDT per AISC 360 Section N4.
- Verify Fabricator and Erector QC Program per AISC 360 Section N2.
- Inspection of welds and bolts by both QC and QA personnel shall be per the Schedule of Special Inspections below. All provisions of AWS D1.1 Structural Welding Code for statically loaded structures shall apply.
- Additional Inspection tasks per AISC 360 Section N5.8.
- Inspection for Composite Construction shall be done per AISC 360 Section N6.

POST-INSTALLED ANCHORS TO CONCRETE AND MASONRY: shall comply with IBC Section 1703. Inspections shall be in accordance with the requirements set forth in the approved ICC Evaluation Report and as indicated by the design requirements specified on the drawings. Refer to the POST INSTALLED ANCHORS section of these notes for anchors that are the basis of the design. Special inspector shall verify anchors are as specified in the POST INSTALLED ANCHORS section of these notes or as otherwise specified on the drawings. Substitutions require approval by the SER and require substantiating calculations and current 2018 IBC recognized ICC Evaluation Services (ES) Report. Special Inspector shall document in their Special Inspection Report compliance with each of the elements required within the applicable ICC Evaluation Services (ES) Report.

PREFABRICATED CONSTRUCTION: All prefabricated construction shall conform to IBC Section 1703.

SCHEDULES OF SPECIAL INSPECTIONS:

TABLE 1705.6
REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS

TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	-	X
2. Verify excavations are extended to proper depth and have reach proper material.	-	X
3. Perform classification and testing of compacted fill materials.	-	X
4. Verify use of proper materials, densities and list thickness during placement and compaction of compacted fill.	X	-
5. Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.	-	X

TABLE 1705.3
REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION

TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD	IBC REFERENCE
1. Inspection, reinforcement, and verify placement.	-	X	ACI 318 Ch. 20, 28.2, 28.3, 28.6, 1-28.6.3	1909.4
2. Reinforcing bar welding: a. Verify weldability of reinforcing bars other than ASTM A706 b. Inspect single splice that weld maximum 5/16" c. Inspect all other welds	-	X	AWS D1.4 ACI 318: 26.4.4	-
3. Inspect anchors cast in concrete.	-	X	ACI 318: 17.8.2	-
4. Verify use of required design mix.	-	X	ACI 318, Ch. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1909.2, 1909.3
5. Prior to concrete placement, fabricate specimens, for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	X	-	ASTM C172 ASTM C31 ACI 318: 26.5, 26.6	1909.10
6. Inspect concrete and structure placement for proper application techniques.	X	-	ACI 318: 26.5	1909.6, 1909.7, 1909.8
7. Verify maintenance of specified curing temperature and techniques.	-	X	ACI 318 28.5.3 - 28.5.5	1909.9
8. Inspect formwork for shape, location and dimensions of the concrete member being formed.	-	X	ACI 318: 26.11.1, 2 (B)	-

TABLE 1705.2.3
REQUIRED SPECIAL INSPECTIONS OF OPEN-WEB STEEL JOISTS AND JOIST GIRDERS

TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD
1. Shear Walls (where fastener spacing of the sheathing is 4 inches or less on center) • Anchor Bolts including proper bottom plate sizes (2x and 3x) and plate washers • Hold-downs (HD) and Continuous Rod Tie-Down Systems (RTDS) including squash blocks and anchors to concrete • A35 and LPT shear connectors • Strap Connectors • Boundary Edge Nailing • Plate Nailing and Panel Edge Nailing for size and spacing • Blocking	-	X	IBC Section 1705.11.1 IBC Section 1705.12.2
2. Blocked and Unblocked Diaphragms (unless fastener spacing of the sheathing is 4 inches or less on center) • Blocking and strap connections • Boundary edge and panel shear nailing size and spacing	-	X	IBC Section 1705.11.1 IBC Section 1705.12.2
3. Moisture Content of wood studs, plates, beams, decking, and joists	-	X	As directed by the Contractor to meet moisture content requirements
4. Roof truss "hurricane clips"	-	X	-

WOOD FRAMING

REFERENCE STANDARDS: Conform to:
(1) OSBC Chapter 23 WOOD
(2) NDS - 2018 National Design Specification (NDS) for Wood Construction
(3) ANSI/APA - SDPWA-15: Special Design Provisions for Wind and Seismic
(4) APA D510C-12 Plywood Design Specification
(5) ANS/PTI 1-2014 National Design Standard for Metal-Plate-Connected Wood Truss Construction
(6) ECS1 B1 Guide to Good Practice for Handling, Installing, Restraints & Bracing of Trusses
(7) TPI D38 Recommended Design Specification for Temporary Bracing of Metal Plate Connected Wood Trusses
(8) APA Report TT-045B Minimum Nail Penetration for Wood Structural Panel Connections Subject to Lateral Loads
(9) APA Report TT-061 1-5/16 Inch-Thick I-Joist Flanges and Diaphragm Nail Penetration

SUBMITTALS: Submit shop drawings to the Architect/Engineer for review. Shop drawings shall include member size, spacing, camber, material type, grade, shop and field assembly details and connections, types and location of bolts and other fasteners. Supply shop drawings for the following:
(1) Glued laminated members
(2) Tapered & Parallel Wood Joists (Solid web-wood joists)

DEFERRED SUBMITTALS: Submit product data and proof of ICC approval for framing members and fasteners that have been designed by others. Submit calculations prepared by the SSE in the state of Washington for all members and connections designed by others along with shop drawings. All necessary bridging, blocking, blocking panels and web stiffeners shall be detailed and furnished by the supplier. Temporary and permanent bridging shall be installed in conformance with the manufacturer's specifications. Deflection limits shall be as noted under DEFERRED SUBMITTALS section specific details. Products included are:
• Solid web wood joists (I-joists)

IDENTIFICATION: All sawn lumber and pre-manufactured wood products shall be identified by the grade mark or a certificate of inspection issued by the certifying agency.

MATERIALS:
• Sawn Lumber: Conform to grading rules of WPPA, WCLB or NLGA and Table below. Finger jointed studs acceptable at interior walls only.

TABLE OF SOLID SAWN LUMBER

Member Use	Size	Species	Grade
Wall Stud/ Top & Bottom Plates	2x4, 3x4, 2x6, 3x6	Doug Fir Larch	No. 2
Sill Plate (at concrete)	2x4, 3x4, 2x6, 3x6	PT Doug Fir Larch	No. 2
Post	4x4, 4x6, 4x8	Doug Fir Larch	No. 2
Floor or Roof Joist	2x6 through 2x12	Doug Fir Larch	No. 2
Beam	4x8 through 4x12	Doug Fir Larch	No. 2
Beam	6x8 through 6x12	Doug Fir Larch	No. 1
Post or Timber	6x6, 8x8	Doug-Fir Larch	No. 1

• **Glued Laminated Timber:** Conform to ANSI 117-2015 "Standard Specifications for Structural Glue-laminated Timber of Softwood Species, Manufacturing and Design" and ANSI A190.1 "Structural Glued Laminated Timber". Camber all glued laminated beams, except cantilevered and continuous beams, to 3000' radius, unless shown otherwise on the plans. Fabricate cantilevered and continuous beams flat; unless shown otherwise on plans.

TABLE OF GLULAM AND GRADE

Member	Sizes	Species	Comb. Symbol	Uses
Beams	All	DF/DF	24F-V4	Simple Spans
Beams	All	DF/DF	24F-V8	Continuous or with Cantilever Spans
Columns	All	DF	L2	Post, Truss Member

• **Wood Structural Sheathing (Plywood):** Wood APA-rated structural sheathing includes: all veneer plywood, oriented strand board, waterboard, particleboard, 1/1-1/1 siding, and composites of veneer and wood based material with T&G joint. Architect may display OSB. Conform with Architect's Construction and Industrial Plywood based on Product Standard PS 1-09 by the U.S. Dept. of Commerce, and "Performance Standard for Wood-Based Structural/Sheathing Panels" based on Product Standard PS 2-10 by the U.S. Dept. of Commerce and "Plywood Design Specification" based on APA D510C-12 by the American Plywood Association. Unless noted otherwise, sheathing shall comply with the following table:

TABLE OF SHEATHING - Use, Minimum Thickness and Minimum APA Rating

Location	Thickness	Span Rating	Plywood Grade	Exposure
Roof	15/32"	32/16	C-D	1
Walls	15/32"	32/16	C-D	1

Unless noted otherwise on drawings, install roof and floor panels with long dimension across supports and with panel continuous over two or more spans. End joints shall occur over supports.

• **Timber Connectors:** Shall be "Strong Tie" by Simpson Company as specified in their latest catalog. Alternate connectors by other manufacturers may be substituted provided they have current ICC approval for equivalent or greater load capacities and are reviewed and approved by the SER prior to ordering. Connectors shall be installed per the manufacturer's instructions. Where connector straps connect two members, place one-half of the nails or bolts in each member. Where straps are used as hold-downs, nail straps to wood framing just prior to drywall application, as late as possible in the framing process to allow the wood to shrink and the building to settle. Premature nailing of the strap may lead to strap buckling and potential finish damage.

Where connectors are in exposed exterior applications in contact with preservative treated wood (PT) other than CCA, connectors shall be either hot-dipped galvanized (HDG), mechanically galvanized (ASTM B695, Class 55 minimum) stainless steel, or provided with 1.85 oz/sq ft of zinc galvanizing equal to or better than Simpson ZMAX finish.

Nail straps to wood framing as late as possible in the framing process to allow the wood to shrink and the building to settle. Premature nailing of the strap may lead to strap buckling and potential finish damage.

• **Fasteners (nails, bolts, screws, etc)** attaching timber connectors (joist hangers, post caps and bases, etc) to PT wood shall have similar corrosion resistance properties (matching protective treatments) as the protected connector. Fasteners (nails, bolts, screws, etc) attaching sawn timber members or sheathing (shear walls) to PT wood shall be corrosion resistant; nails and lag bolts shall be either HDG (ASTM A153) or stainless steel. Verify the suitability of the fastener protection/coating with the wood treatment chemical manufacturer/supplier.

Provide washers under the heads and nuts of all bolts and lag screws bearing on wood.

• **Lag Bolts/Bolts:** Conform to ASTM A307 and OSBC Section 2304.10.
• **Nails and Staples:** Conform to ASTM F1667 and OSBC Sections 2303.6 and 2304.10.

NAILING REQUIREMENTS: Conform to OSBC Section 2304.10 "Connections and fasteners." Unless noted on plans, nail per Table 2304.10.1. Nailing for roof/roof sheathing/shear walls shall be per drawings. Nails shall be driven flush and shall not fracture the surface of sheathing. Alternate nails may be used but are subject to review and approval by the Structural Engineer. Substitution of staples for the nailing of rated sheathing is subject to review by the structural engineer prior to construction.

STANDARD LIGHT-FRAME CONSTRUCTION: Unless noted on the plans, construction shall conform to OSBC Section 2308 "Conventional Light-Frame Construction."

NAILERS ON STEEL COLUMNS AND BEAMS: Wood 3x nailers are generally required on all HSS columns and steel beams abutting or embedded within wood framing. Unless noted otherwise, attach with 5/8" diameter bolts or welded studs at 16" on centers. Unless noted otherwise, wood nailers on beams supporting joist hangers shall not overhang the beam flange by more than 1/4".

WOOD SHRINKAGE AND EXPANSION: Wood materials will expand or contract based on relative changes in moisture. The contractor is responsible for means and methods of construction related to mitigating and managing the effects of changes in moisture.

MOISTURE CONTENT: Wood material used for this project shall have maximum moisture content of 19% except for the pressure-treated wood sill plate. Refer to TESTING & INSPECTIONS for the verification of these limits. The maximum moisture content required may be less than 19% when based on a particular cladding/insulation system. Refer to the Architect's drawings, and project specifications, or with cladding installer for maximum recommended moisture content.

SHRINKAGE COMPENSATION FOR MECHANICAL, ELECTRICAL, AND PLUMBING SYSTEMS: MEP systems, including ductwork, pipes, and other elements that run continuously between levels shall be installed/design in such a manner to accommodate shrinkage in the wood framing. Wood shrinkage amounts will vary depending on the construction process and materials used. The anticipated shrinkage under typical conditions is expected to range between 1/8" and 1/4" per foot.

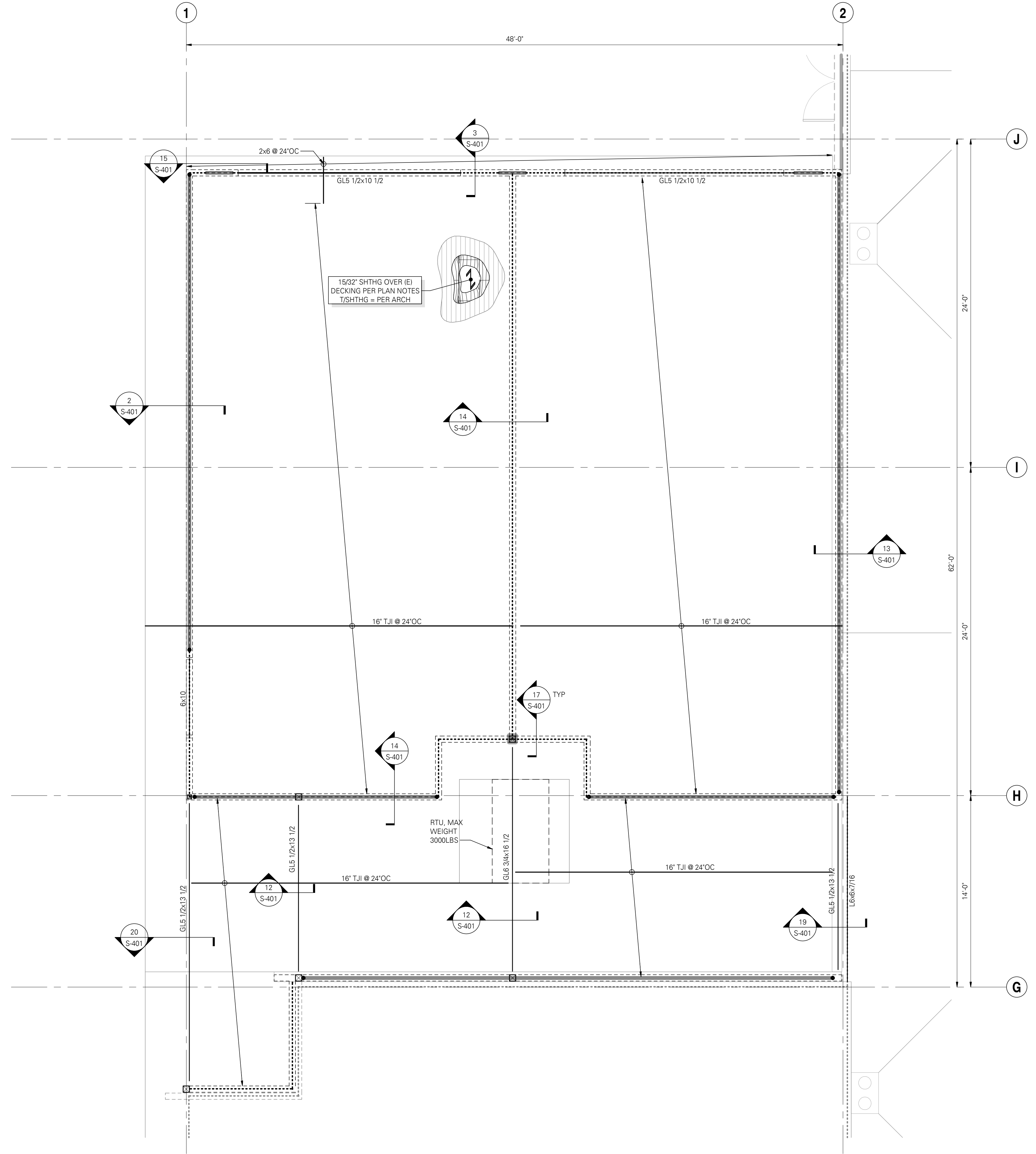
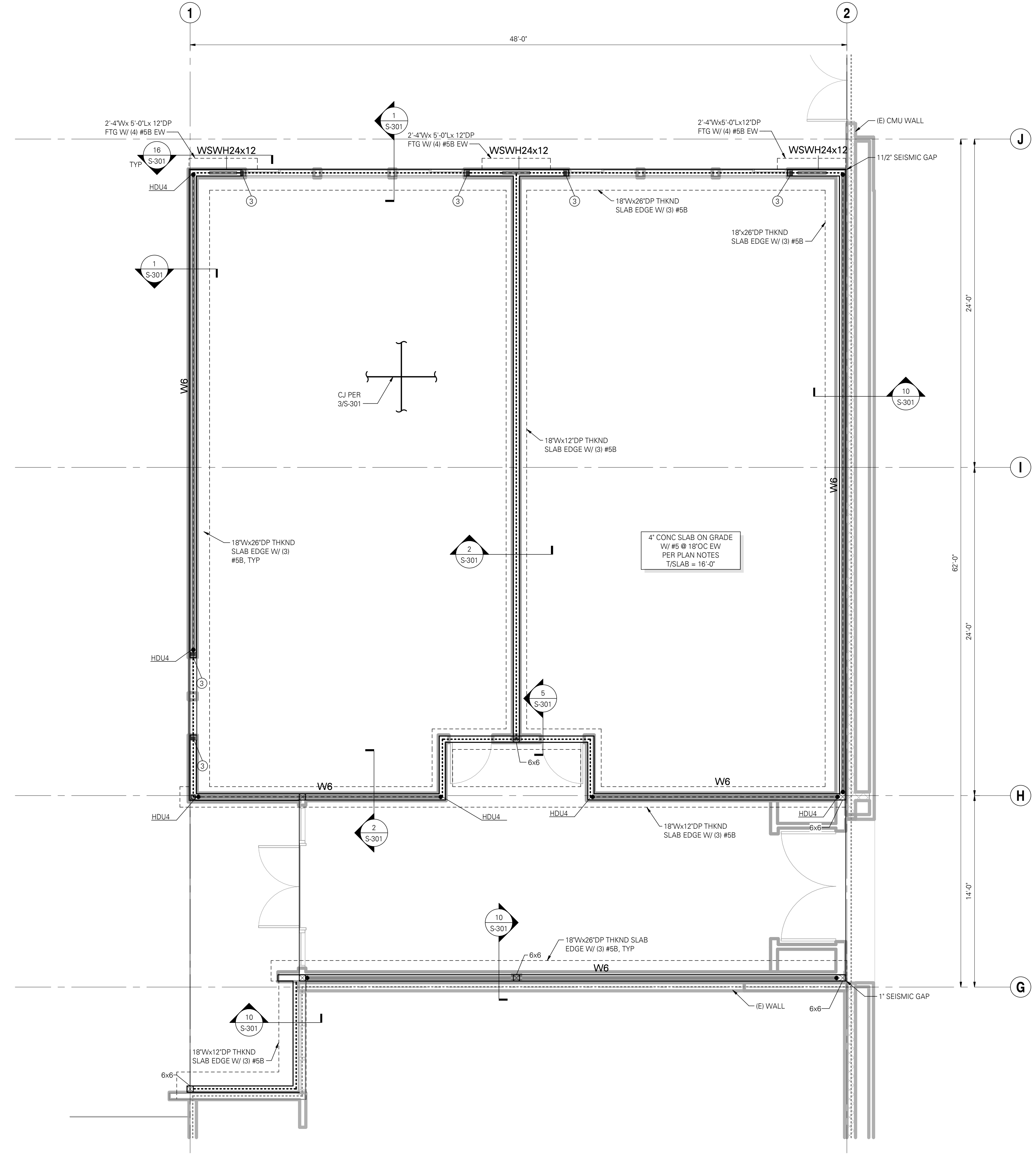
CLADDING COMPATIBILITY: The Architect/Owner shall review the cladding and insulation systems proposed for the project with respect to their performance over wood studs with moisture contents greater than 19%. EIFS systems should be avoided on wood-framed projects due to problems with moisture proofing. Note that DCI is not responsible for the attachment of the cladding to the wood studs which needs to be verified and provided by the cladding supplier.

PRESERVATIVE TREATMENT (PT): Wood materials that are required to be "treated wood" in accordance with OSBC Section 2304.12 "Protection Against Decay and Termite Protection" shall conform to the appropriate standards of the American Wood-Preservers Association (AWPA) for sawn lumber, glued laminated timber, round poles, wood piles and marine piles. Follow American Lumber Standards Committee (ALSC) quality assurance procedures. Products shall bear the appropriate mark. Fasteners or anchors in treated wood shall be of stainless steel or hot-dipped galvanized or as per OSBC 2304.10.5.

Mud flat plates in normally dry interior applications may be treated with Sodium Borate (DOT - Dibutyl Octaborate Tetrahydrate) as recent studies have noted less connector corrosion potential than other available wood treatments or the original CCA treated sill plates. Wood treated with Sodium Borate shall be protected during shipment, storage and installation to minimize leaching of the water-soluble preservative from the lumber. Sodium borate pressure treated plates do not require hot-dipped galvanized connectors.

If using preservative treatments other than CCA or sodium borate, fasteners must be hot dipped galvanized or stainless steel. Wood treated with Alkaline Copper Quaternary (ACQ) requires steel components in contact with the wood to be stainless (nails, bolts, screws, washers & lag screws). Fasteners (nails, bolts, screws, washers & lag screws) attaching timber connectors (joist hangers, post caps and bases, etc) to PT wood shall have similar corrosion resistance properties (matching protective treatments) as the protected connector; that is, use hot dipped galvanized or stainless-steel fasteners. Fasteners (nails, bolts, screws, washers & lag screws) attaching sawn timber members or sheathing (shear walls) to Pressure Treated wood shall be corrosion resistant (hot dipped galvanized or stainless steel).

Always verify the suitability of the fastener protection/coating with the wood treatment chemical manufacturer/supplier.
Fire Retardant Treated (FRT) Wood: Wood material that is required to be Fire Retardant Treated Wood to conform to OSBC section 2303.2 - "Fire Retardant Treated Wood." Submit ICC report to EOR for review and approval prior to construction.



1 CLASSROOM ADDITION FOUNDATION PLAN
SCALE: 1/4" = 1'-0"

2 CLASSROOM ADDITION ROOF PLAN
SCALE: 1/4" = 1'-0"

FOUNDATION PLAN NOTES:

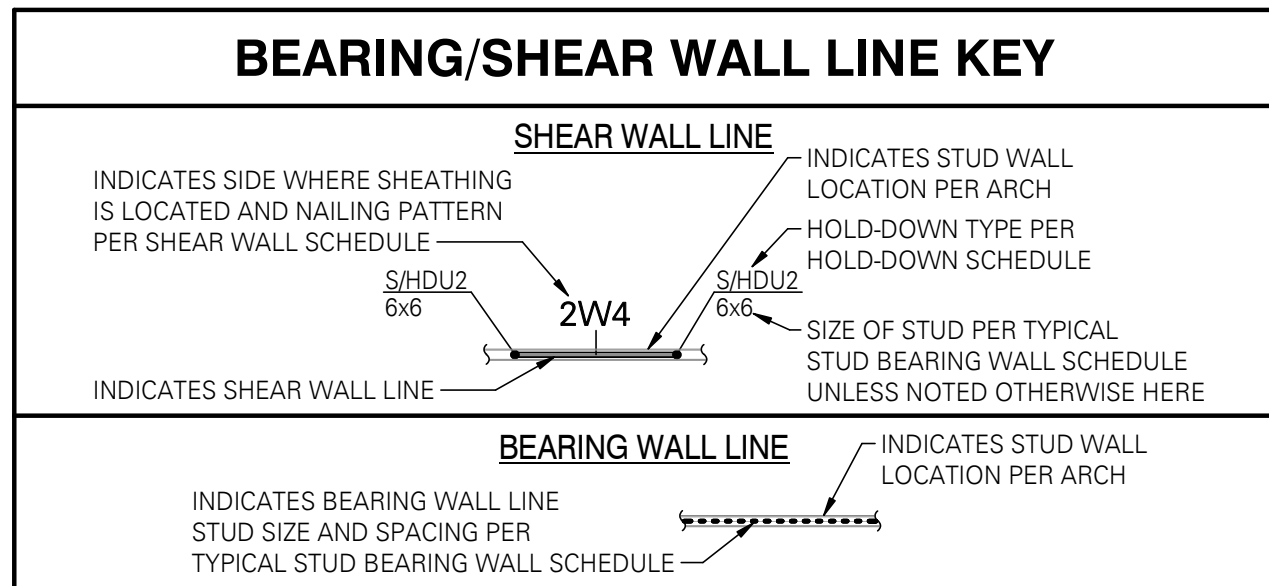
- FOUNDATION NOTES:**
- STRUCTURAL GENERAL NOTES, DESIGN CRITERIA, ABBREVIATIONS AND LEGEND PER S-001, S-002.
 - VERIFY ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS. ALL EXISTING DIMENSIONS SHALL BE FIELD VERIFIED.
 - CONTRACTOR SHALL LOCATE AND VERIFY THE FOLLOWING WITH OTHERS PRIOR TO POURING CONCRETE: ALL DOOR OPENINGS IN FOUNDATION WALLS, DRAINS AND SLOPES, BLOCKOUTS FOR PLUMBING, ALL DUCTS, CHASES AND PIPES PER MECHANICAL, PLUMBING, ELECTRICAL AND SPRINKLER DRAWINGS. CONCRETE CURBS AND LOCATIONS PER ARCHITECTURAL DRAWINGS.
 - TOP OF SLAB (T/S) ELEVATION ASSUMED 0'-0". FOR ACTUAL T/S ELEVATION REFER TO CIVIL AND ARCHITECTURAL DRAWINGS. PROVIDE 6 MIL VAPOR BARRIER BELOW SLAB AT INTERIOR SPACES. PROVIDE FREE-DRAINING GRANULAR FILL PER GEOTECH REPORT.
 - TYPICAL TOP OF INTERIOR (INTERIOR) FOOTING ELEVATION = 0'-0". UNO. TYPICAL TOP OF EXTERIOR (EXTERIOR) FOOTING ELEVATIONS = 1'-0". UNO.
 - ALL FOOTINGS AND SLABS TO BEAR ON COMPETENT NATIVE SOIL AND/OR STRUCTURAL FILL. SUBGRADE PREPARATION, STRUCTURAL FILL, FOOTING DRAINS, AND OTHER REQUIREMENTS PER GEOTECH REPORT AS NOTED IN THE STRUCTURAL GENERAL NOTES.
 - CJ INDICATES CONTROL JOINT PER PLAN.
 - ALL WOOD EXPOSED TO CONCRETE, WEATHER, OR WITHIN 8" OF FINISHED GRADE SHALL BE PRESSURE-TREATED.
 - TYPICAL DETAILS PER:
3/8-301 TYPICAL SLAB ON GRADE JOINT DETAILS WITH REINFORCING
4/8-301 LAP SPLICE AND DEVELOPMENT LENGTH SCHEDULE

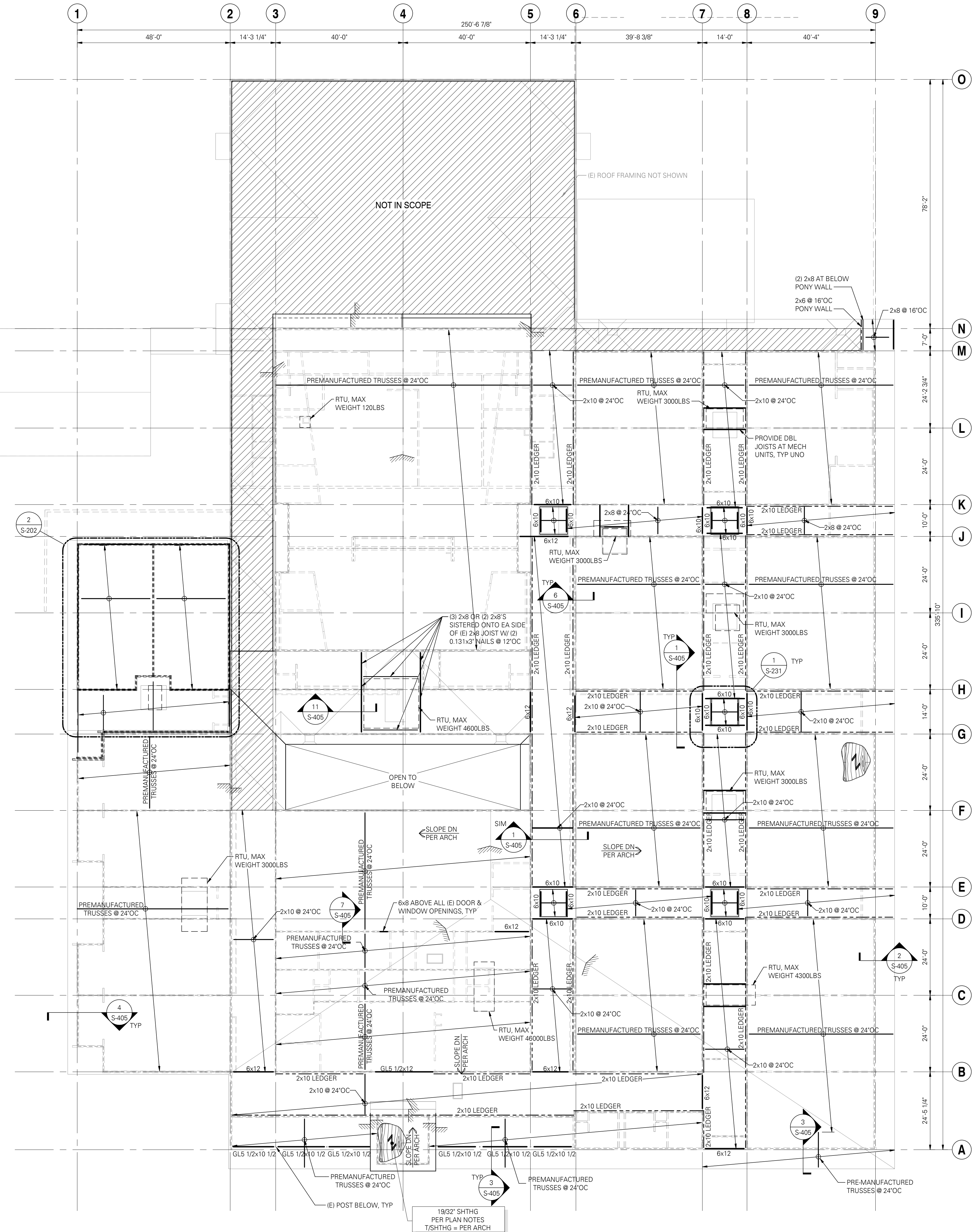
STUD AND SHEAR WALL NOTES:

- LUMBER GRADE PER STRUCTURAL GENERAL NOTES.
- ALL INTERIOR NON-BEARING, NON-STRUCTURAL WALL STUD REQUIREMENTS PER STRUCTURAL GENERAL NOTES.
- HEADERS SHOWN ON FRAMING PLAN SHALL BE SUPPORTED BY (1) TRIMMER AND (1) KING STUD MINIMUM. UNO. WHERE MORE THAN (1) TRIMMER IS REQUIRED, THE NUMBER OF TRIMMER STUDS SHALL BE NOTED THUS: (2) TRIMMERS TO BE CONTINUOUS TO THE FOUNDATION.
- BEAMS SHOWN ON FRAMING PLAN SHALL BE SUPPORTED BY (2) BUNDLED STUDS MINIMUM. UNO. WHERE MORE THAN (2) BUNDLED STUDS ARE REQUIRED, THE NUMBER OF BUNDLED STUDS SHALL BE NOTED THUS: (3) BUNDLED STUDS TO BE CONTINUOUS TO THE FOUNDATION.
- SHEAR WALL AND NAILING REQUIREMENTS PER SHEAR WALL SCHEDULE 9/5-401.
- ALL EXTERIOR WALLS REQUIRING WOOD SHEATHING PER THE ARCHITECT SHALL BE SHEAR WALL TYPE W6 UNO.
- HD (2)2" INDICATES HOLD-DOWN TYPE PER HOLD-DOWN SCHEDULE 6/5-301.
- TYPICAL HOLD-DOWN ELEVATION PER 1/5-301.
- ANCHOR BOLTS TO BE 5/8" DIA x 7" MINIMUM EMBEDMENT PER 9/5-301. PROVIDE HOT-DIPPED GALVANIZED ANCHOR BOLTS AT PRESSURE-TREATED SILL PLATES.
- TYPICAL DETAILS PER:
6/5-401 PLAN - INTERSECTING SHEAR WALLS
7/5-401 TYPICAL STUD WALL OPENING (HEADER) DETAIL
9/5-401 TYPICAL TOP PLATE SPLICE DETAIL
16/5-401 TYPICAL HOLES AND NOTCHES IN WOOD STUDS

ROOF FRAMING PLAN NOTES:

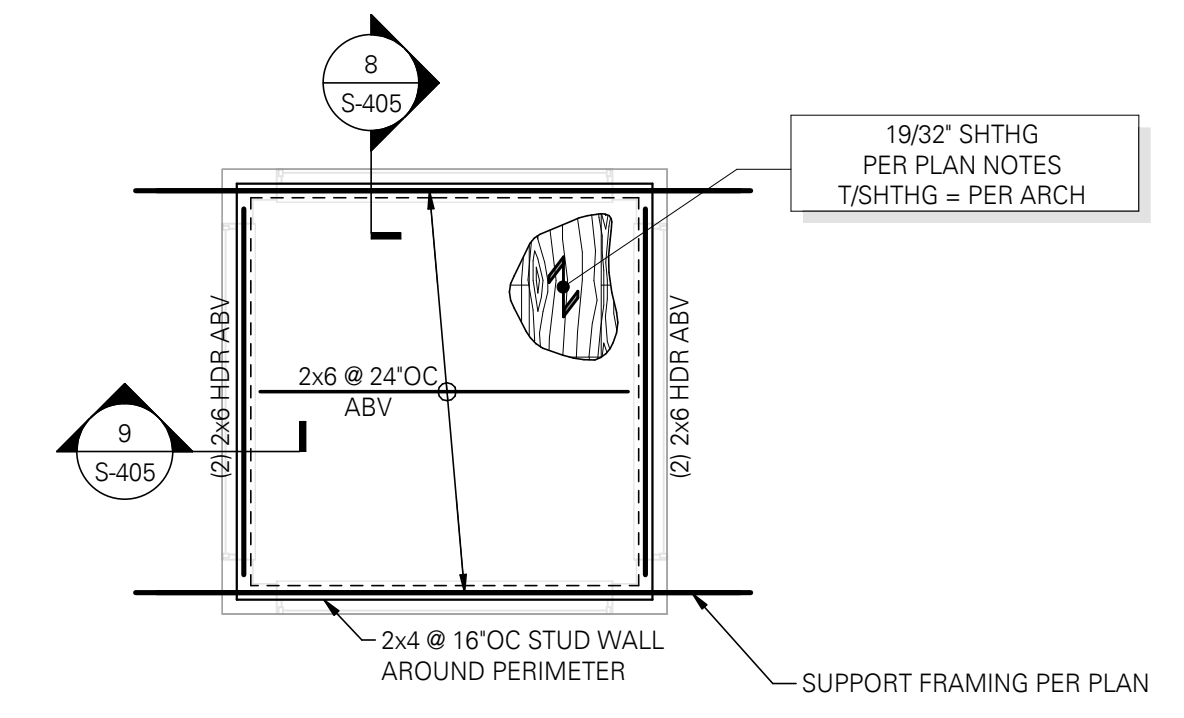
- STRUCTURAL GENERAL NOTES, DESIGN CRITERIA, ABBREVIATIONS AND LEGEND PER S-001, S-002.
- VERIFY ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS. ALL EXISTING DIMENSIONS SHALL BE FIELD VERIFIED.
- ALL DUCTS, CHASES AND PIPES SHALL BE PER MECHANICAL, PLUMBING, ELECTRICAL AND SPRINKLER DRAWINGS. STAIR DETAILS AND GUARDRAILS PER ARCHITECTURAL DRAWINGS.
- ROOF SHEATHING PER PLAN AND STRUCTURAL GENERAL NOTES. SHEATHING TO BE NAILED TO ROOF FRAMING WITH 0.131" DIA x 2 1/2" NAILS @ 6" OC AT SUPPORTED PANEL EDGES AND @ 12" OC FIELD. UNO. LAY SHEATHING WITH FACE GRAIN (LONG DIRECTION) PERPENDICULAR TO SUPPORTS AND STAGGER PANEL END JOINTS. ALLOW 1/8" SPACE BETWEEN PANEL ENDS AND EDGES. BLOCK AND NAIL PANEL EDGES PER SCHEDULE. PROVIDE PANEL SHEATHING CLIPS CENTERED BETWEEN FRAMING AT UNLOCKED SHEATHING EDGES AS REQUIRED BY ROOFING WARRANTY.
- ALL "J" JOIST HANGERS TO BE TOP FLANGE BEARING SIMPSON MIJ OR ITS TYPE, UNO.
- HEADERS SHOWN BUT NOT SPECIFIED ARE TO BE 2x8 MINIMUM. HEADER SUPPORTS PER STUD AND SHEAR WALL PLAN ON FLOOR BELOW.
- BEAMS ARE FLUSH FRAMED WITH JOISTS UNLESS NOTED OTHERWISE ON DETAILS, OR ON PLANS AS 'DB' INDICATING THAT DROPPED BEAM FRAMING IS REQUIRED. BEAM SUPPORTS PER STUD AND SHEAR WALL PLAN ON LEVEL BELOW. PROVIDE ASB CLIP EACH SIDE OF FLUSH BEAMS THAT BEAR ON DOUBLE TOP PLATES.
- PROVIDE SIMPSON H2.5A TIES AT ALL ROOF JOISTS, TRUSSES TYPICAL.
- PROVIDE SOLID BLOCKING OVER ALL SHEAR WALLS AND BEARING WALLS. AT SHEAR WALLS PARALLEL TO FRAMING, ALIGN JOIST OR TRUSS OVER SHEAR WALL. ADDITIONAL JOISTS OR TRUSSES MAY BE REQUIRED.
- ALL RIM JOISTS AND BLOCKING TO BE 1 1/2" LSL MINIMUM UNO.
- ROOF TRUSSES SHALL BE DESIGNED FOR THE FOLLOWING CRITERIA:
• ROOF SYSTEM TO BE BIDDER DESIGNED. ROOF PLAN SHOWN IS A SUGGESTED LAYOUT. CHANGES MUST BE SUBMITTED TO THE ENGINEER-OF-RECORD THRU THE ARCHITECT WITH BEARING POINTS AND REACTIONS TO STRUCTURE.
• STANDARD DEAD AND LIVE LOADS AND SUBMITTAL INFORMATION PER STRUCTURAL GENERAL NOTES.
• PROVIDE SIMPSON H1 OR H2.5A HURRICANE TIES AT ALL ROOF TRUSSES AND ROOF JOISTS, TYPICAL.
• TRUSS HANGERS SHALL BE SUPPLIED AND DESIGNED BY THE TRUSS SUPPLIER.
- BEARING STUD, SHEAR WALL, HOLD-DOWN, POST SIZE, AND POST CAP AND BASE REQUIREMENTS BELOW PER STUD AND SHEAR WALL PLAN.



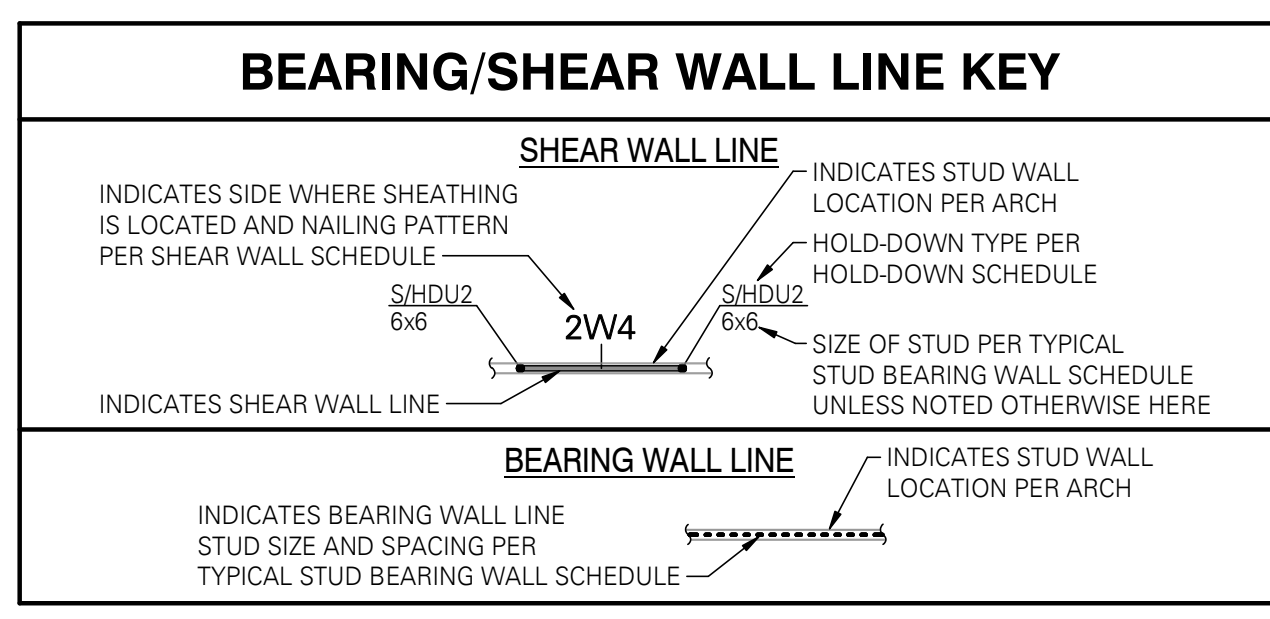


ROOF FRAMING PLAN NOTES:

- STRUCTURAL GENERAL NOTES, DESIGN CRITERIA, ABBREVIATIONS AND LEGEND PER S-001, S-002.
- VERIFY ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS. ALL EXISTING DIMENSIONS SHALL BE FIELD VERIFIED.
- ALL DUCTS, CHASES AND PIPES SHALL BE PER MECHANICAL, PLUMBING, ELECTRICAL AND SPRINKLER DRAWINGS. STAIR DETAILS AND GUARDRAILS PER ARCHITECTURAL DRAWINGS.
- ROOF SHEATHING PER PLAN AND STRUCTURAL GENERAL NOTES. SHEATHING TO BE NAILED TO ROOF FRAMING WITH 0.131" DIA x 1 1/2" NAILS @ 6" OC AT SUPPORTED PANEL EDGES AND @ 12" OC FIELD. UNO. LAY SHEATHING WITH FACE GRAIN LONG DIRECTION PERPENDICULAR TO SUPPORTS AND STAGGER PANEL END JOINTS. ALLOW 1/8" SPACE BETWEEN PANEL ENDS AND EDGES. BLOCK AND NAIL PANEL EDGES PER SCHEDULE. PROVIDE PANEL SHEATHING CLIPS CENTERED BETWEEN FRAMING AT UNLOCKED SHEATHING EDGES AS REQUIRED BY ROOFING WARRANTY.
- ALL "I" JOIST HANGERS TO BE TOP FLANGE BEARING SIMPSON MIT OR ITS TYPE, UNO.
- HEADERS SHOWN BUT NOT SPECIFIED ARE TO BE (2) 2x8 MINIMUM. HEADER SUPPORTS PER STUD AND SHEAR WALL PLAN ON FLOOR BELOW.
- BEAMS ARE FLUSH FRAMED WITH JOISTS UNLESS NOTED OTHERWISE ON DETAILS, OR ON PLANS AS "DB" INDICATING THAT DROPPED BEAM FRAMING IS REQUIRED. BEAM SUPPORTS PER STUD AND SHEAR WALL PLAN ON LEVEL BELOW. PROVIDE 3/8" CLIP EACH SIDE OF FLUSH BEAMS THAT BEAR ON DOUBLE TOP PLATES.
- PROVIDE SIMPSON H2.5A TIES AT ALL ROOF JOISTS, TRUSSES TYPICAL.
- PROVIDE SOLID BLOCKING OVER ALL SHEAR WALLS AND BEARING WALLS. AT SHEAR WALLS PARALLEL TO FRAMING, ALIGN JOIST OR TRUSS OVER SHEAR WALL (ADDITIONAL JOISTS OR TRUSSES MAY BE REQUIRED).
- ALL RIM JOISTS AND BLOCKING TO BE 1 1/2" LSL MINIMUM UNO.
- ROOF TRUSSES SHALL BE DESIGNED FOR THE FOLLOWING CRITERIA:
 - ROOF SYSTEM TO BE BIDDER DESIGNED. ROOF PLAN SHOWN IS A SUGGESTED LAYOUT. CHANGES MUST BE SUBMITTED TO THE ENGINEER-OF-RECORD THRU THE ARCHITECT WITH BEARING POINTS AND REACTIONS TO STRUCTURE.
 - STANDARD DEAD AND LIVE LOADS AND SUBMITTAL INFORMATION PER STRUCTURAL GENERAL NOTES.
 - PROVIDE SIMPSON H1 OR H2.5A HURRICANE TIES AT ALL ROOF TRUSSES AND ROOF JOISTS, TYPICAL.
 - TRUSS HANGERS SHALL BE SUPPLIED AND DESIGNED BY THE TRUSS SUPPLIER.
- BEARING STUD, SHEAR WALL, HOLD-DOWN, POST SIZE, AND POST CAP AND BASE REQUIREMENTS BELOW PER STUD AND SHEAR WALL PLAN.



1 TYPICAL ROOF MONITOR UPPER ROOF PARTIAL PLAN
SCALE: 1/4" = 1'-0"



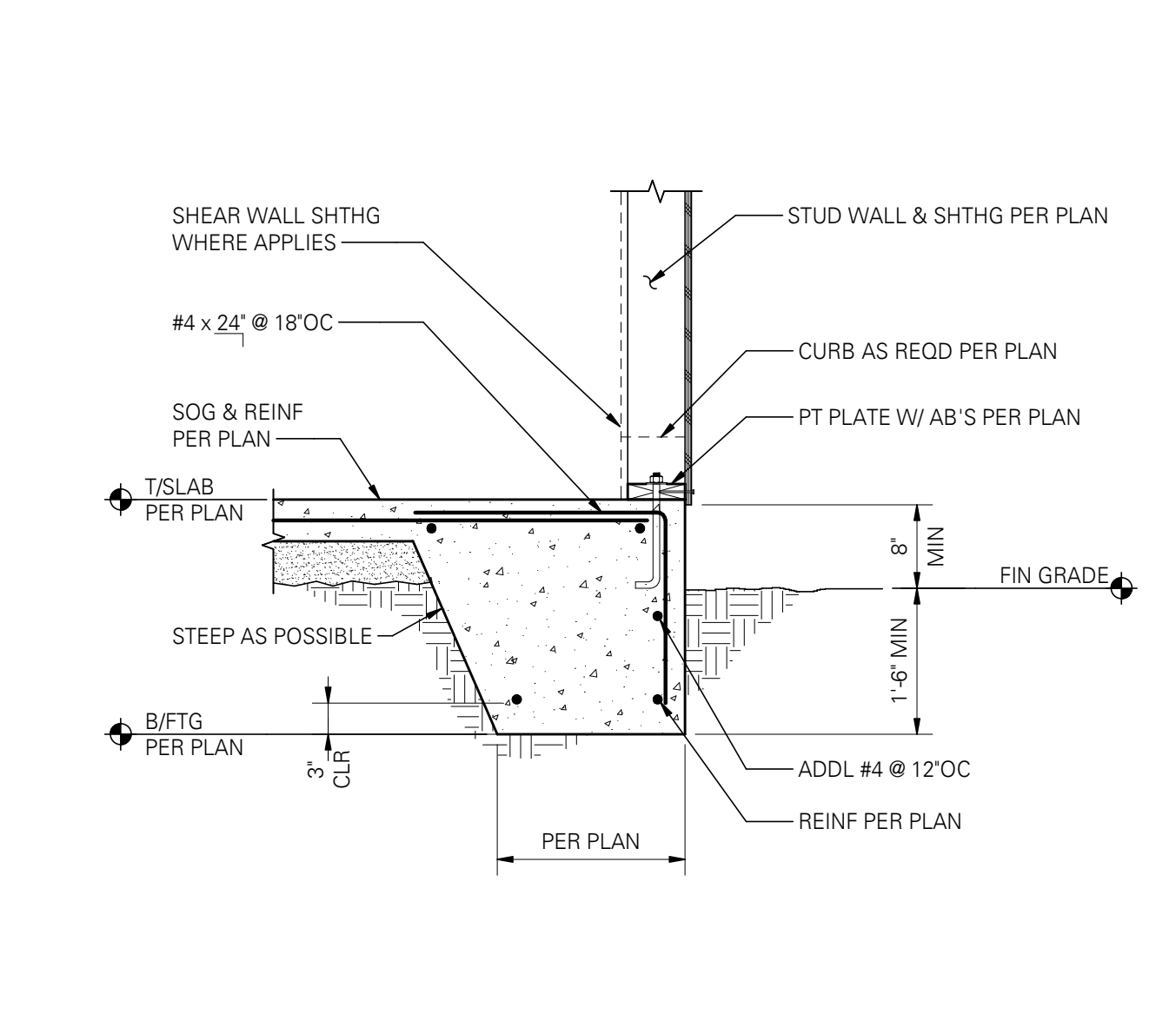
PROJECT NO.: 2225
MILLICOMA SCHOOL REROOF & CLASSROOM ADDITION
MILLICOMA SCHOOL DISTRICT
260 2ND AVE
COOS BAY OR 97420

BIDDING

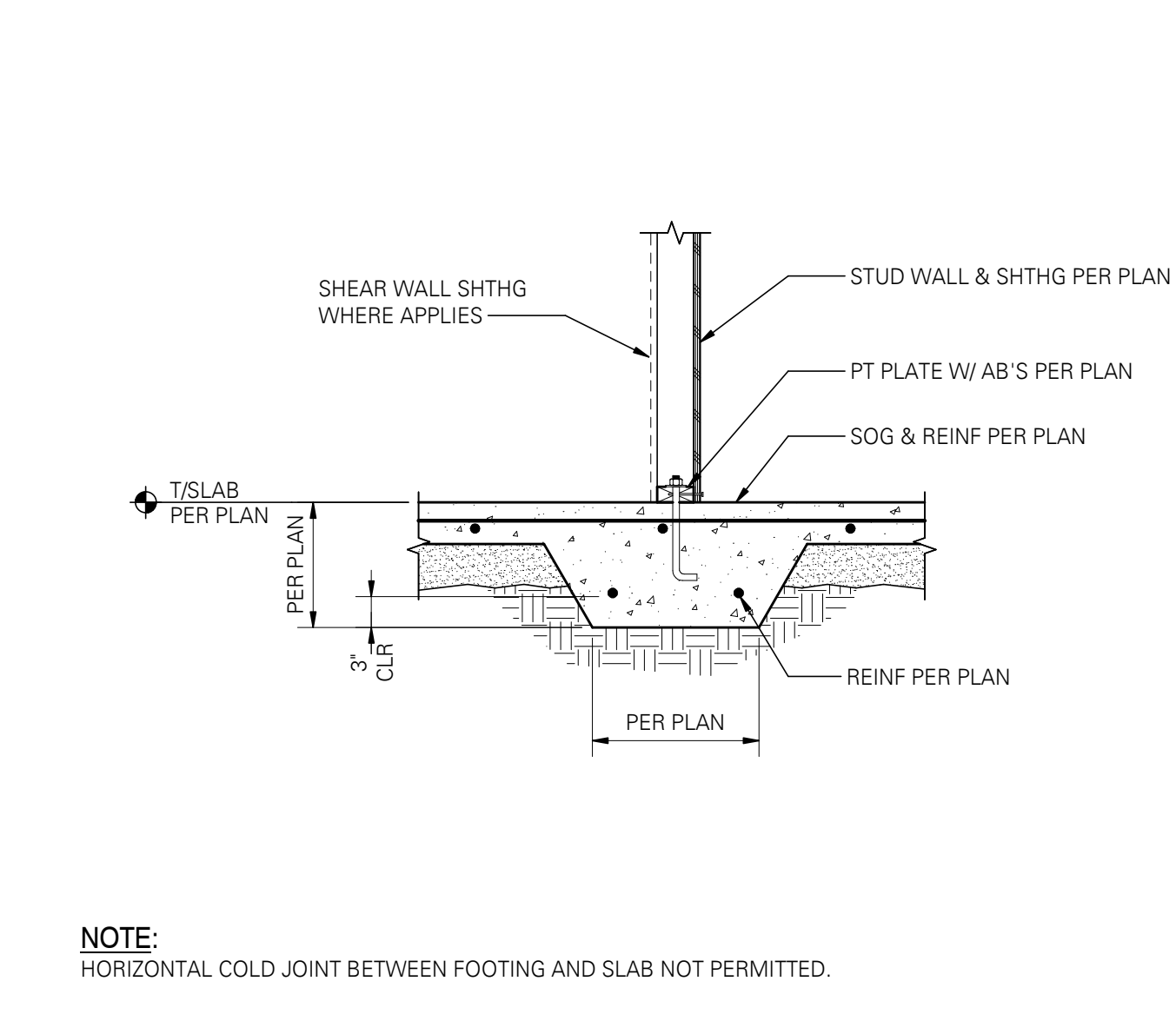
REVISIONS:	#	DATE	DESCRIPTION

DATE: JANUARY 2023
SHEET TITLE:
STRUCTURAL - ROOF FRAMING PLAN

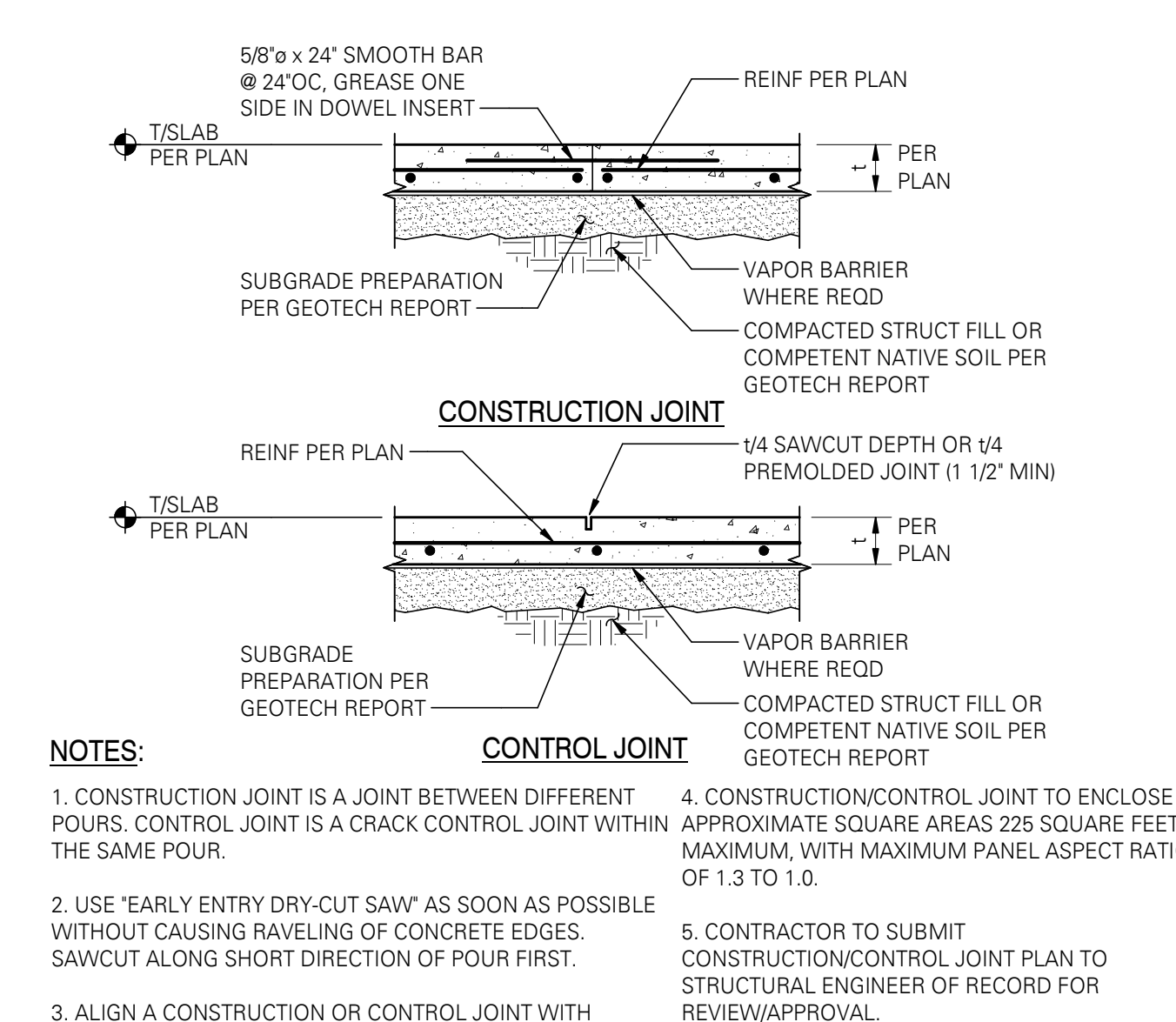
S-231



1 EXTERIOR THICKENED SLAB EDGE FOOTING AT STUD WALL
SCALE: 3/4" = 1'-0" (03020)



2 INTERIOR THICKENED SLAB FOOTING AT STUD WALL
SCALE: 3/4" = 1'-0" (03020)

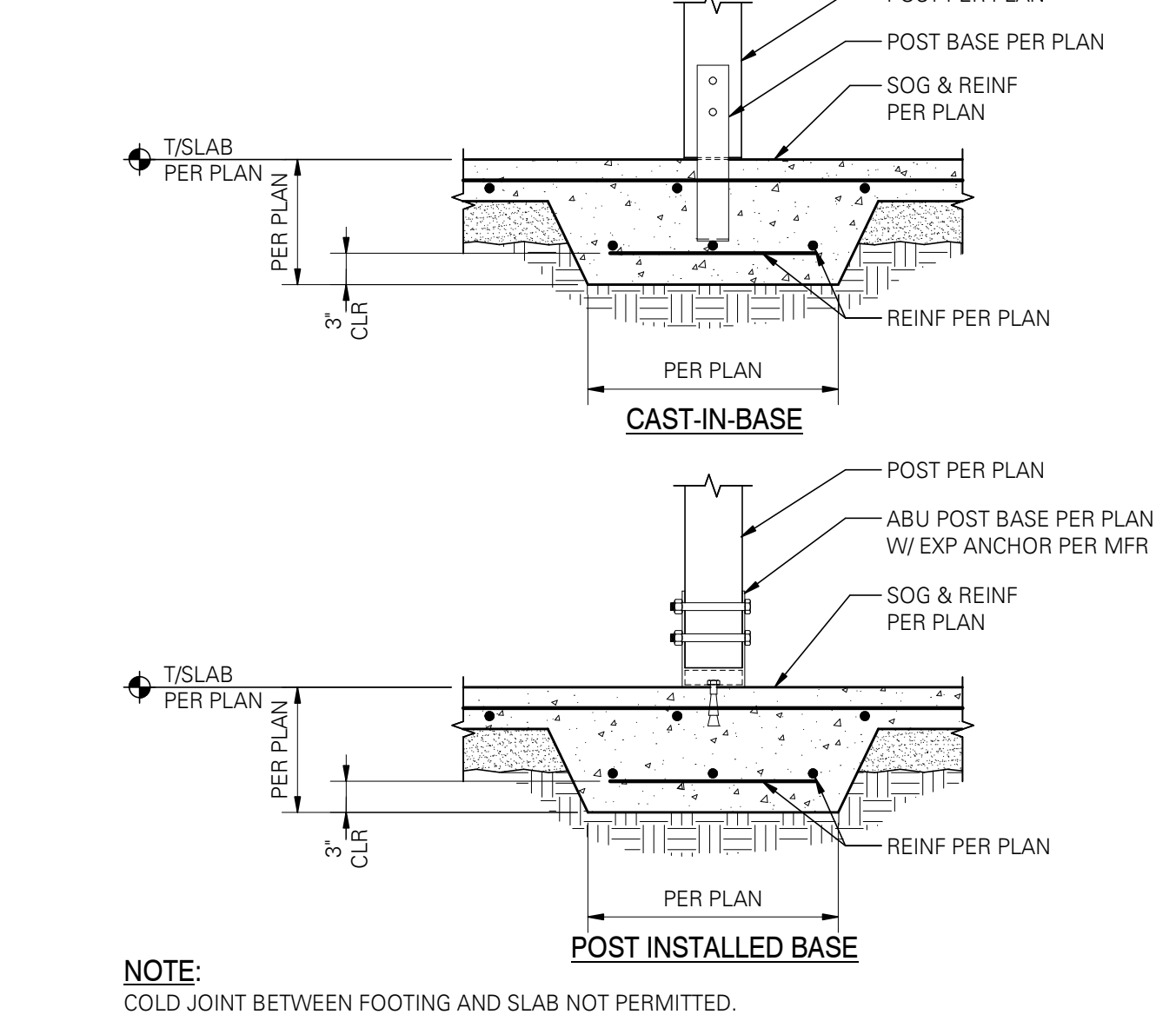


3 TYPICAL SLAB ON GRADE JOINT DETAILS WITH REINFORCING
SCALE: 3/4" = 1'-0" (03201)

BAR SIZE	GRADE 60 REINFORCING				
	MISCELLANEOUS BARS	TOP BARS	HOOKED BARS		
	Ld	Splice	Ld	Splice	
#3	17	22	22	28	9
#4	22	29	29	38	11
#5	28	36	36	47	14
#6	33	43	43	56	17
#7	48	63	63	81	20
#8	55	72	72	93	22
#9	62	81	81	105	25
#10	70	91	91	118	28
#11	78	101	101	131	31
#14	93	N/A	121	N/A	38
#18	124	N/A	161	N/A	50

Fc = 3000psi

4 LAP SPLICE AND DEVELOPMENT LENGTH SCHEDULE
SCALE: 3/4" = 1'-0" (01034)

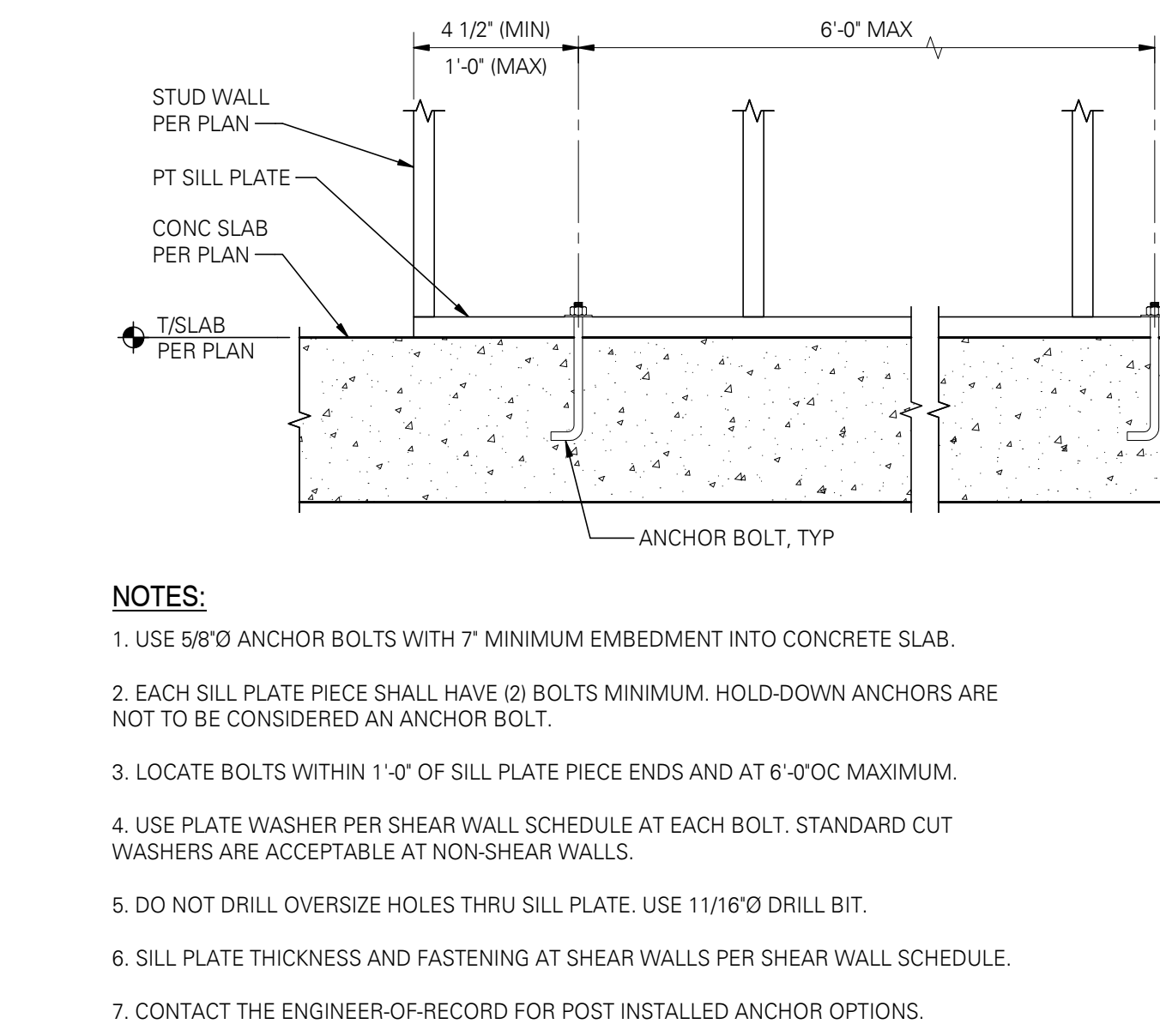


5 INTERIOR THICKENED SLAB FOOTING AT WOOD POST
SCALE: 3/4" = 1'-0" (03010)

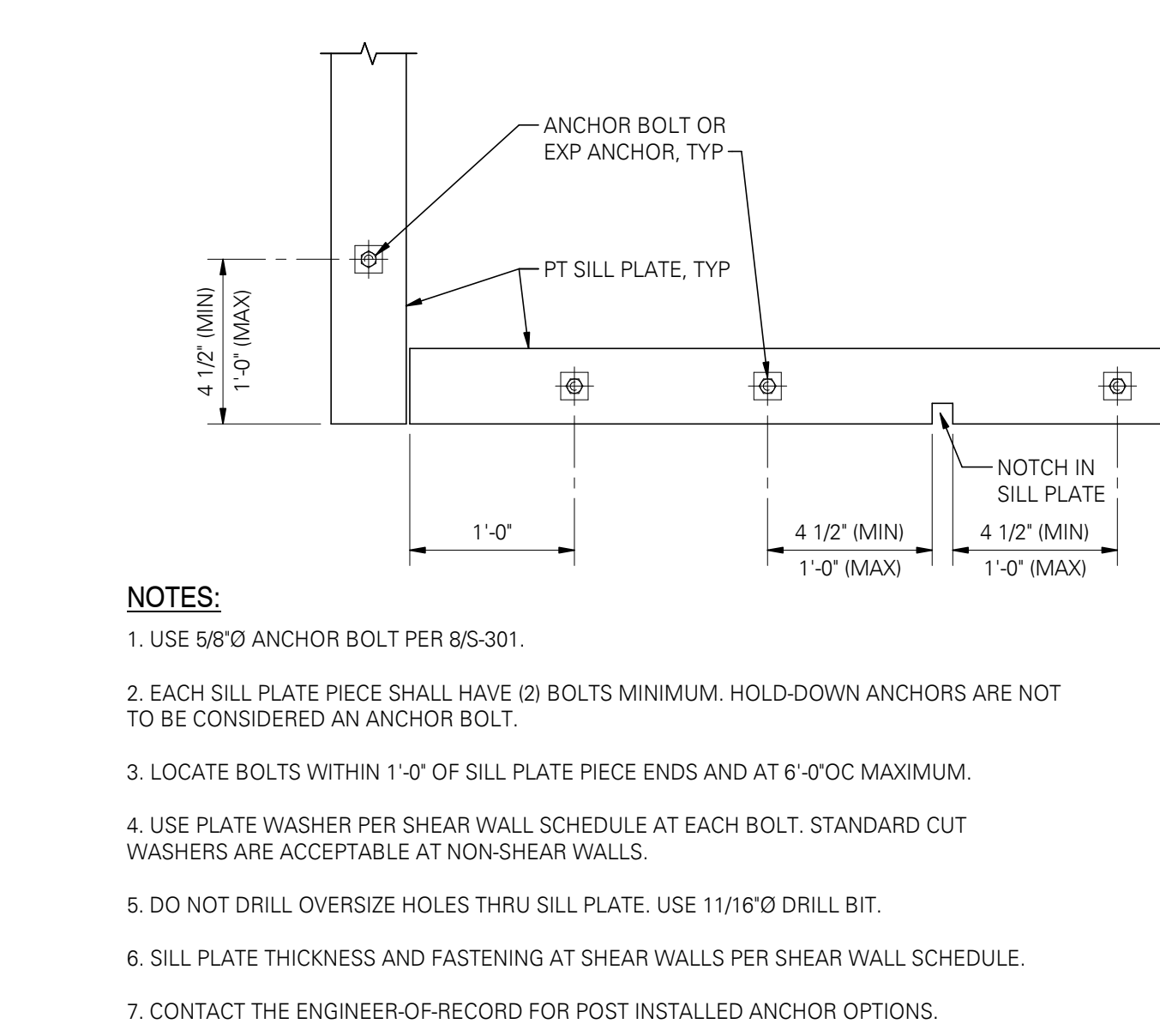
01420 HOLD-DOWN/STRAP SCHEDULE - DOUG-FIR STUDS									
TYPE	NUMBER OF STUDS/POST (3, 10)	NAILS, SCREWS OR BOLTS	DIAMETER (B)	ANCHOR (A)			NOTES		
				STEM WALL (B)	FOOTING				
				EMBED (CIP (B, 11))	CAPACITY	EMBED (CIP (B))	CAPACITY		
WOOD TO CONCRETE	HDJ4	(2) 2x	(10) SDS/1/4x2 1/2	5/8"	10'	4.6k	8'	4.6k	----

NOTES:
(1) SOME HOLD-DOWN TYPES MAY NOT BE USED ON THIS PROJECT.
(2) TYPICAL HOLD-DOWN DETAILS PER 11/53.1, AND 13/53.1. ANCHOR REINFORCEMENT REQUIRED AT STEM WALLS.
(3) PROVIDE PANEL EDGE NAILING PER SHEAR WALL SCHEDULE AT HOLD-DOWN STUDS/POSTS.
(4) BASED ON MINIMUM Fc = 3000 PSI CONCRETE.
(5) STEM WALLS SHALL BE 8" WIDE X 18" TALL MINIMUM.
(6) CAST-IN-PLACE (CIP) TYPE THREADED RODS AT HOLD-DOWNS SHALL HAVE TWO HEX HEAD NUTS WITH OVERSIZED WASHERS.
(7) INCLUDES 1.6 LOAD DURATION INCREASE FOR WOOD.
(8) AT PRESSURE TREATED SILLS, USE HOT DIPPED GALVANIZED BOLTS.
(9) POST INSTALLED HOLD-DOWN OPTIONS MAY BE AVAILABLE AT SOME CONDITIONS. CONTACT ENGINEER OF RECORD PRIOR TO CONSTRUCTION.
(10) NAIL LAMINATE MULTIPLE 2x STUDS WITH PLATE NAILING PER SHEAR WALL SCHEDULE.
(11) STUD WALLS SHALL BE 2x6, CENTER HOLD-DOWN IN STUD WALL.

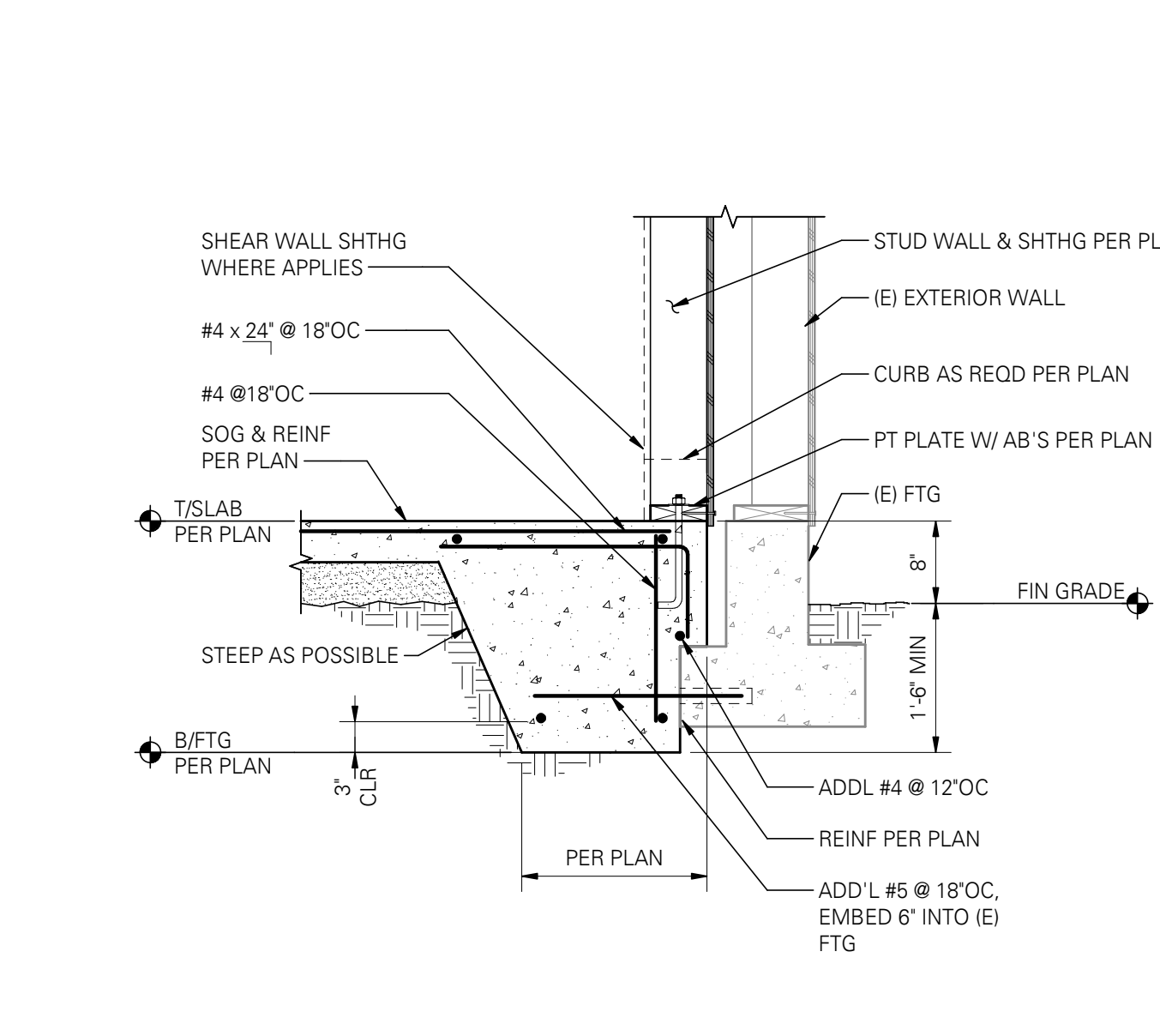
6 HOLD-DOWN/STRAP SCHEDULE - DOUG-FIR STUDS
SCALE: 1" = 1'-0" (01420)



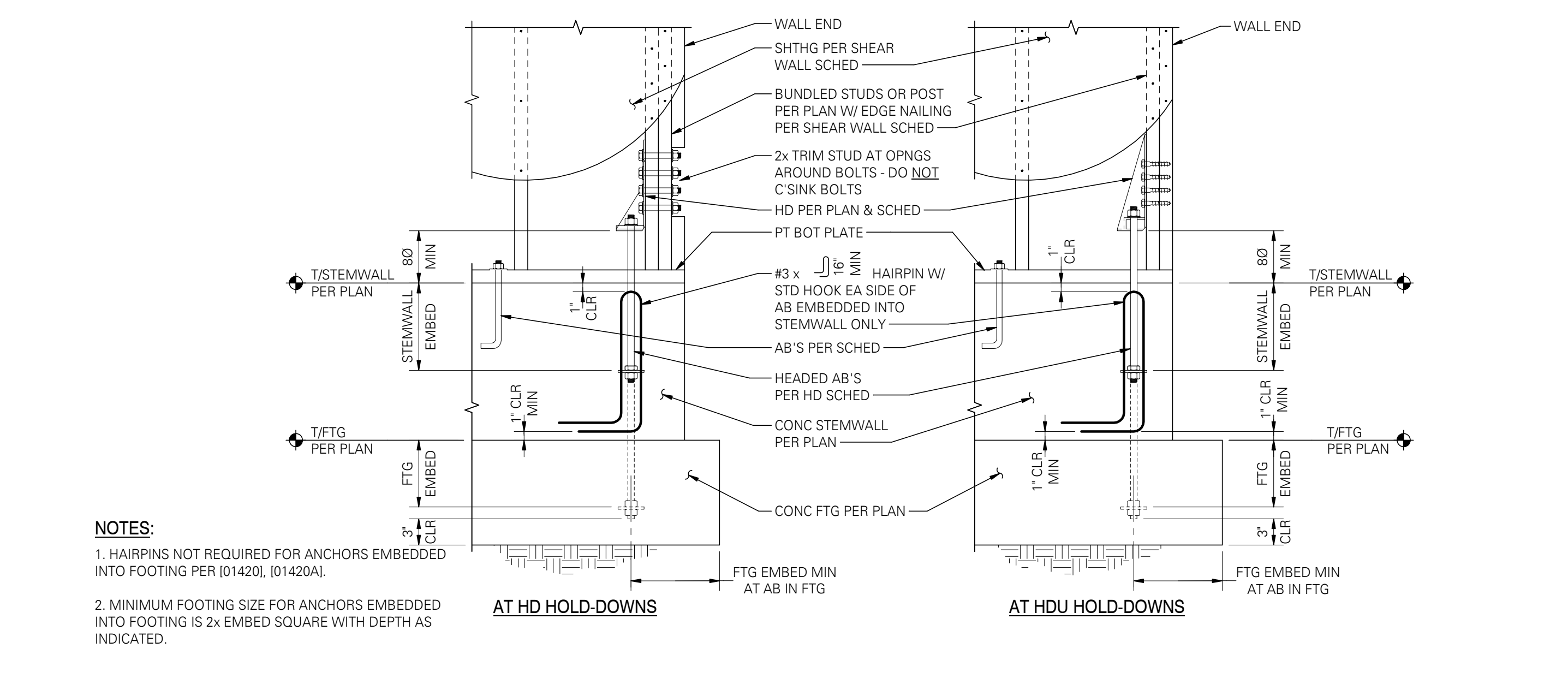
8 TYPICAL SILL PLATE ANCHORAGE TO CONCRETE
SCALE: 1" = 1'-0" (06910)



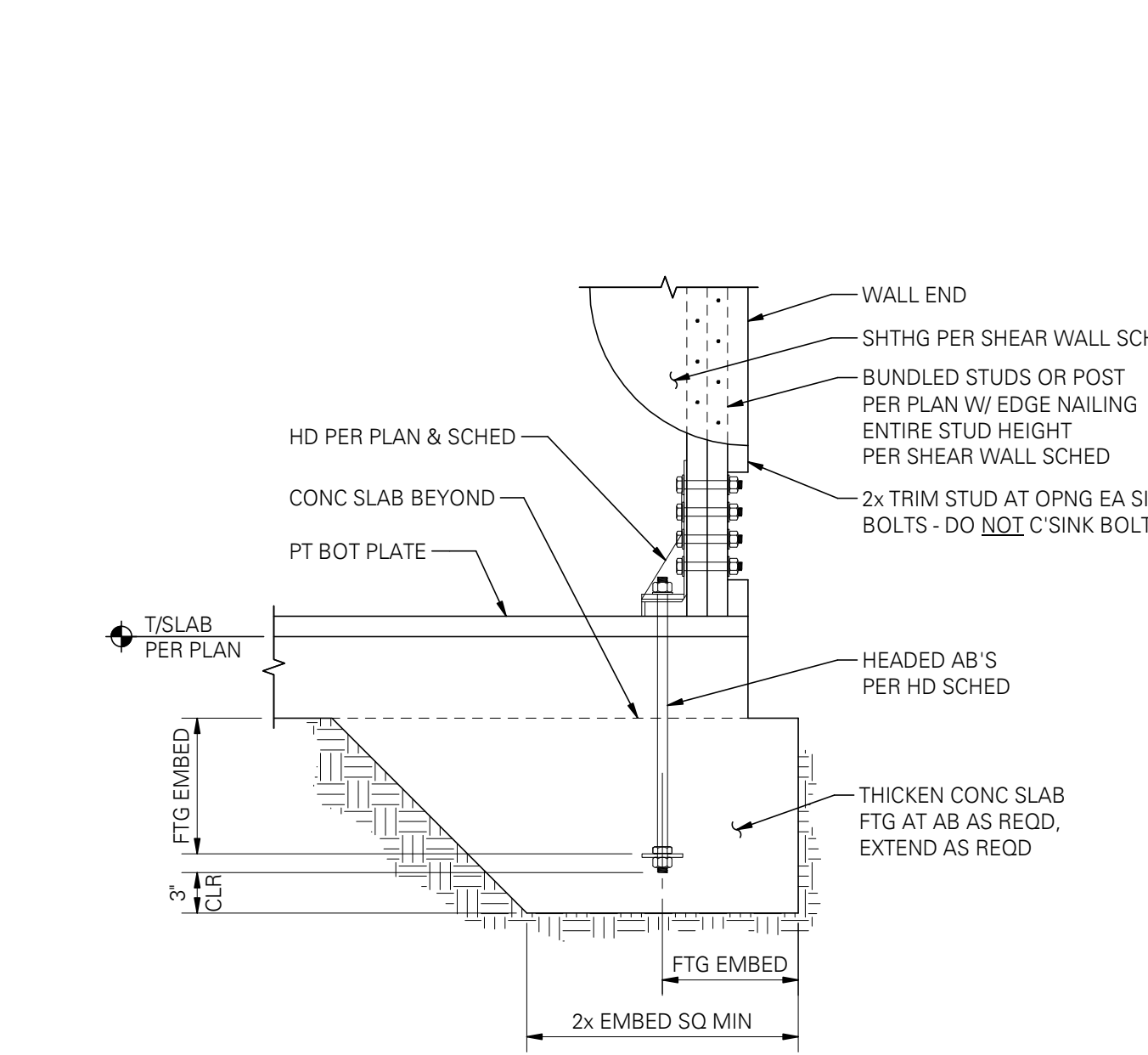
9 PLAN - TYPICAL SILL PLATE ANCHORAGE TO CONCRETE
SCALE: 1" = 1'-0" (06911)



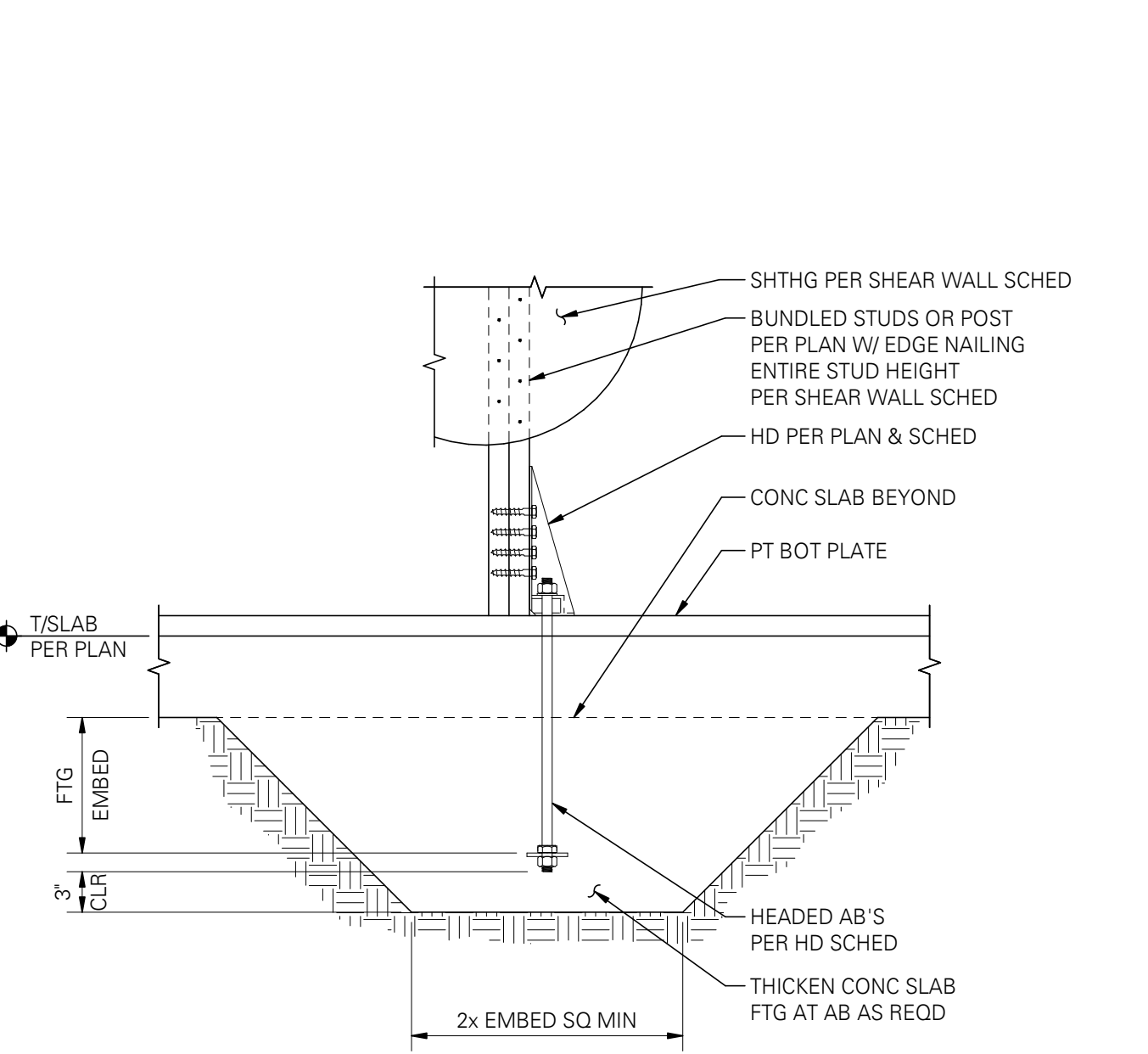
10 EXTERIOR THICKENED SLAB EDGE FOOTING AT STUD WALL
SCALE: 3/4" = 1'-0" (03030)



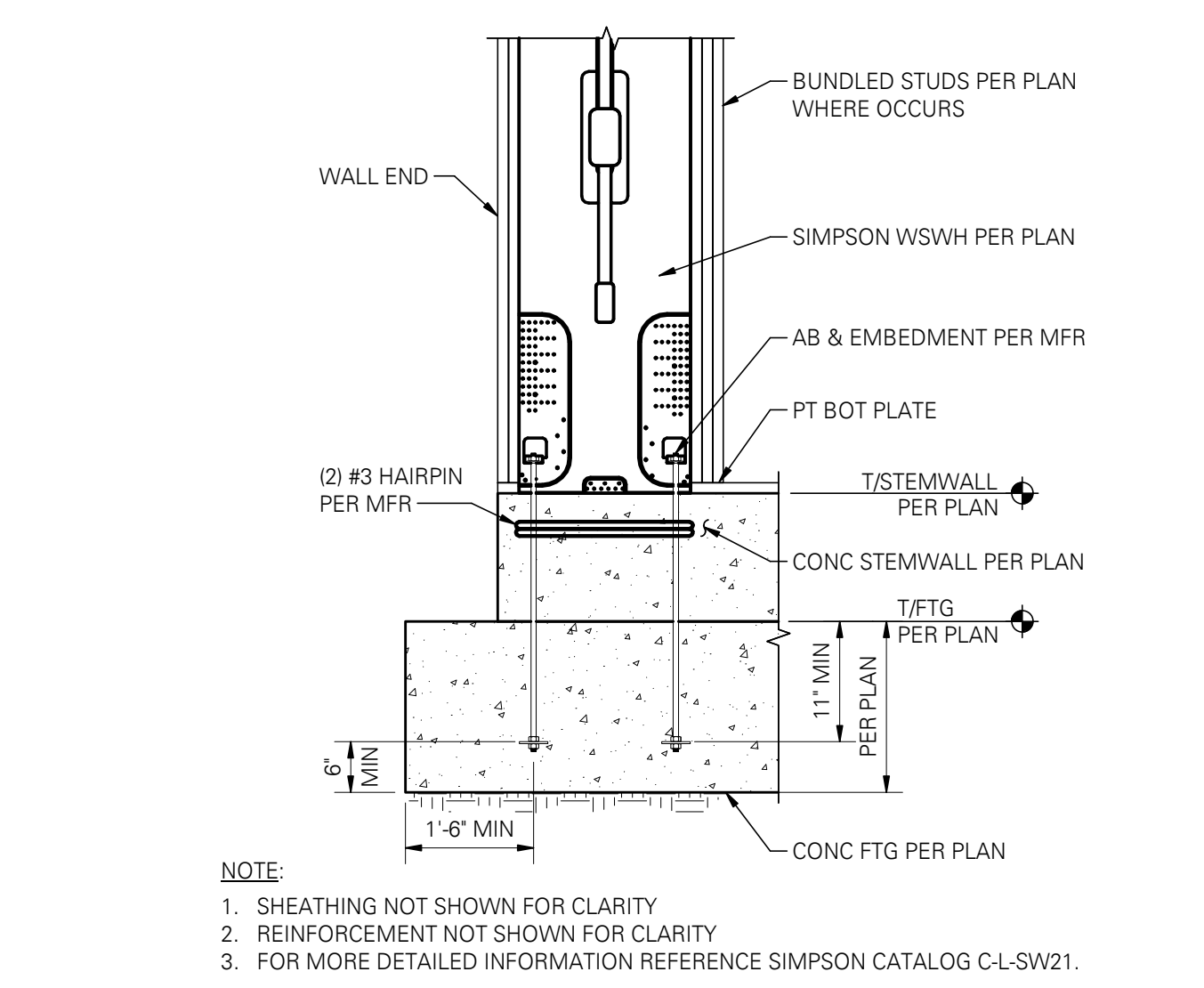
11 TYPICAL HOLD-DOWN AT FOUNDATION - CONCRETE STEMWALL
SCALE: 1" = 1'-0" (06091)



13 TYPICAL HOLD-DOWN AT THICKENED SLAB FOOTING
SCALE: 1" = 1'-0" (06093)



16 WSHW CONNECTION AT FOUNDATION - CONCRETE STEMWALL
SCALE: 1/2" = 1'-0"

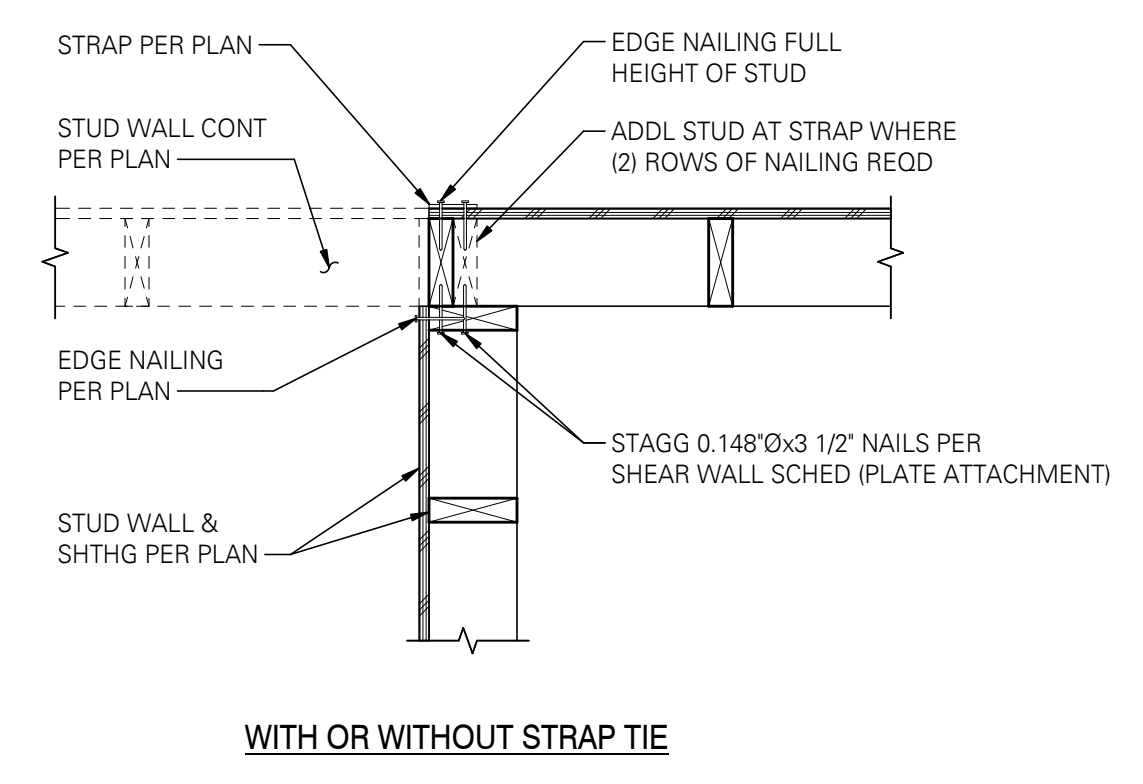


16 WSHW CONNECTION AT FOUNDATION - CONCRETE STEMWALL
SCALE: 1/2" = 1'-0"

BIDDING

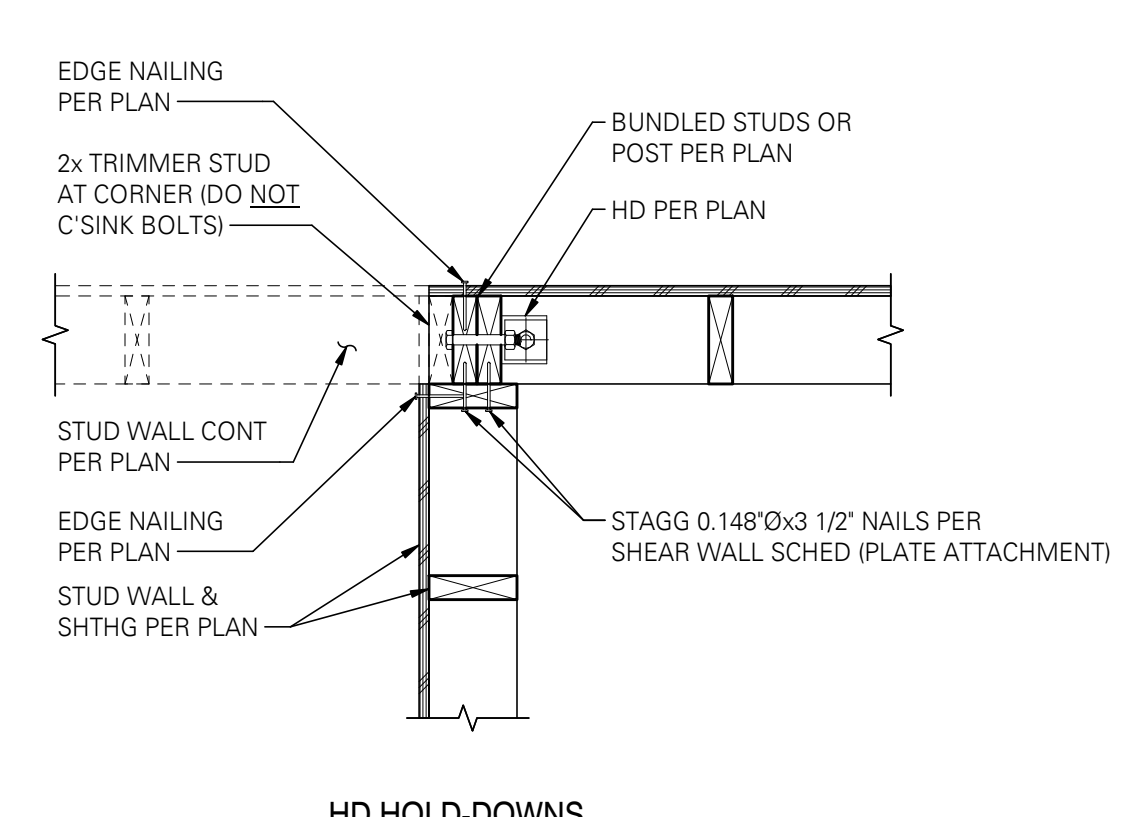
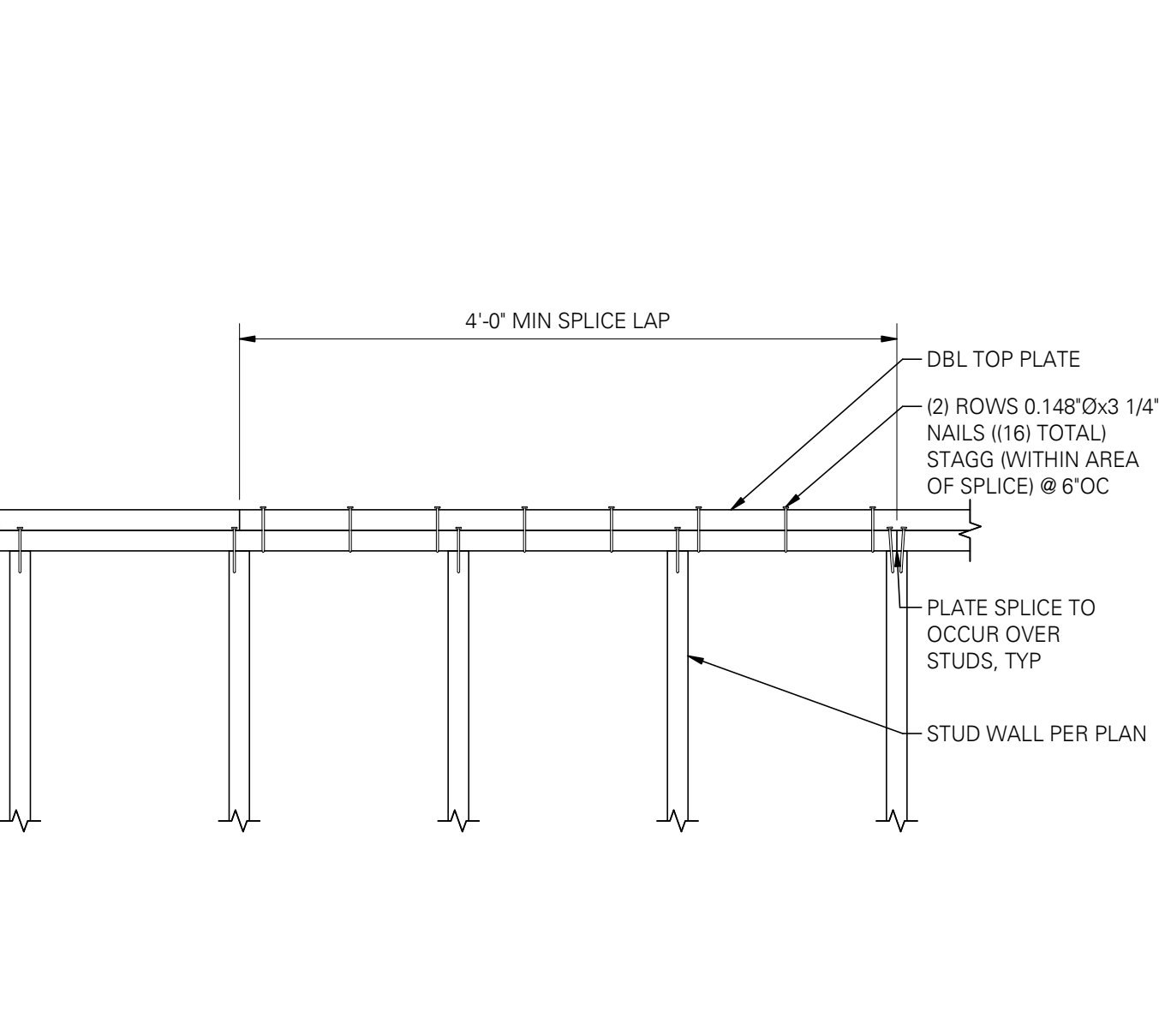
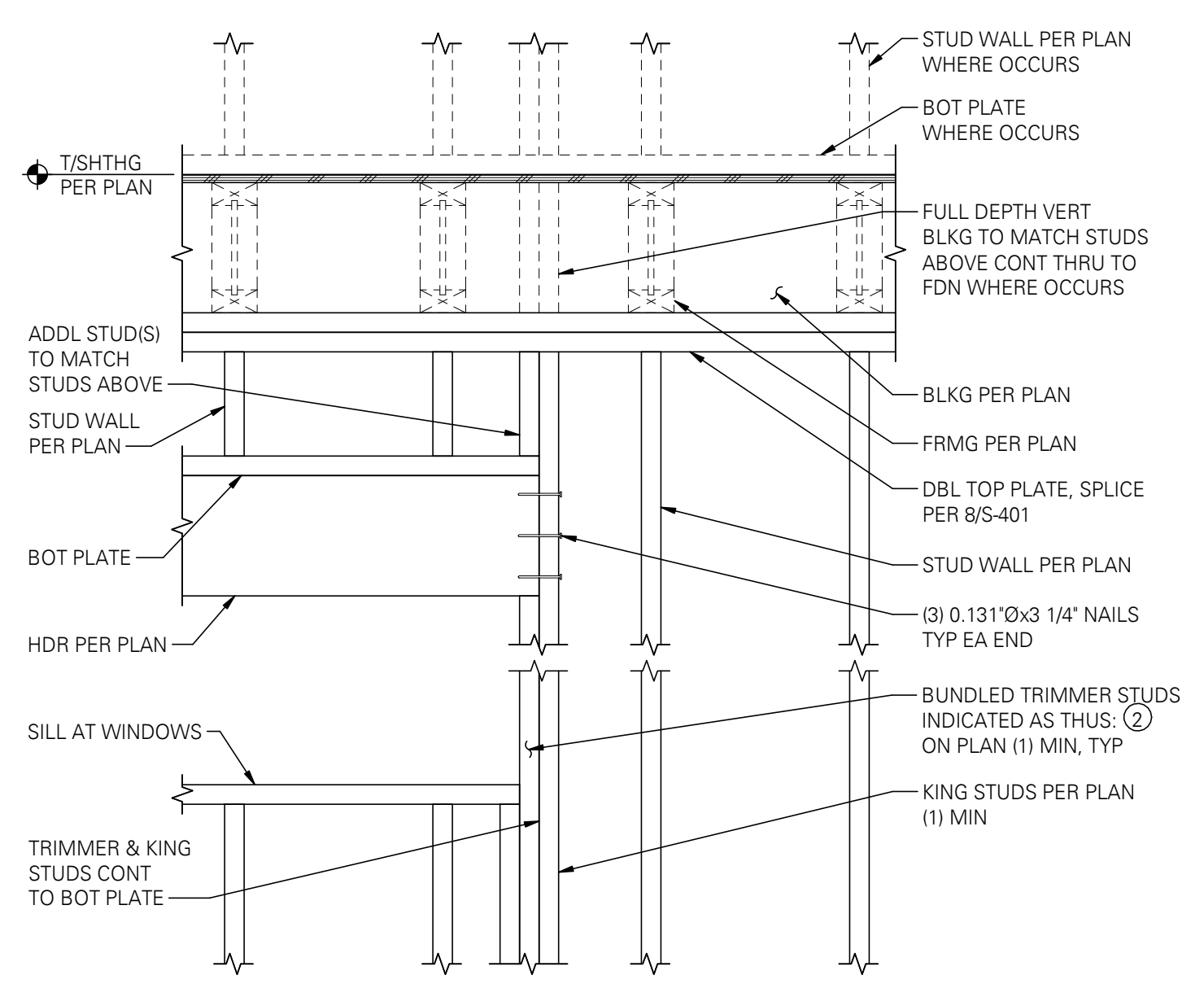
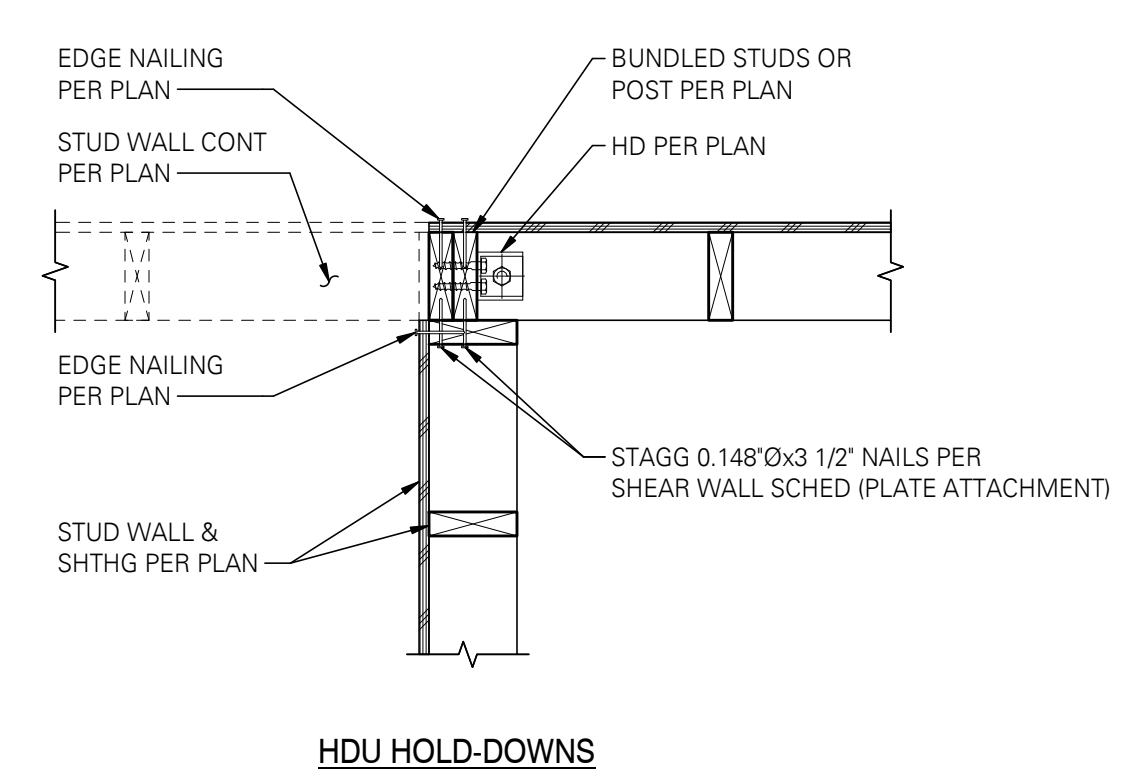
REVISIONS:	DATE	DESCRIPTION
#		

DATE: JANUARY 2023
SHEET TITLE:
STRUCTURAL - FOUNDATION DETAILS



2 EXTERIOR WALL PERPENDICULAR TO ROOF JOISTS WITH OVERHANG - SLOPED ROOF
SCALE: 1" = 1'-0" (06061AM)

3 EXTERIOR WALL PARALLEL TO ROOF JOISTS WITH OVERHANG
SCALE: 1" = 1'-0" (06060AM)



7 TYPICAL HEADER
SCALE: 1" = 1'-0" (06211)

8 TYPICAL PLATE SPICE DETAIL
SCALE: 1" = 1'-0" (06904)

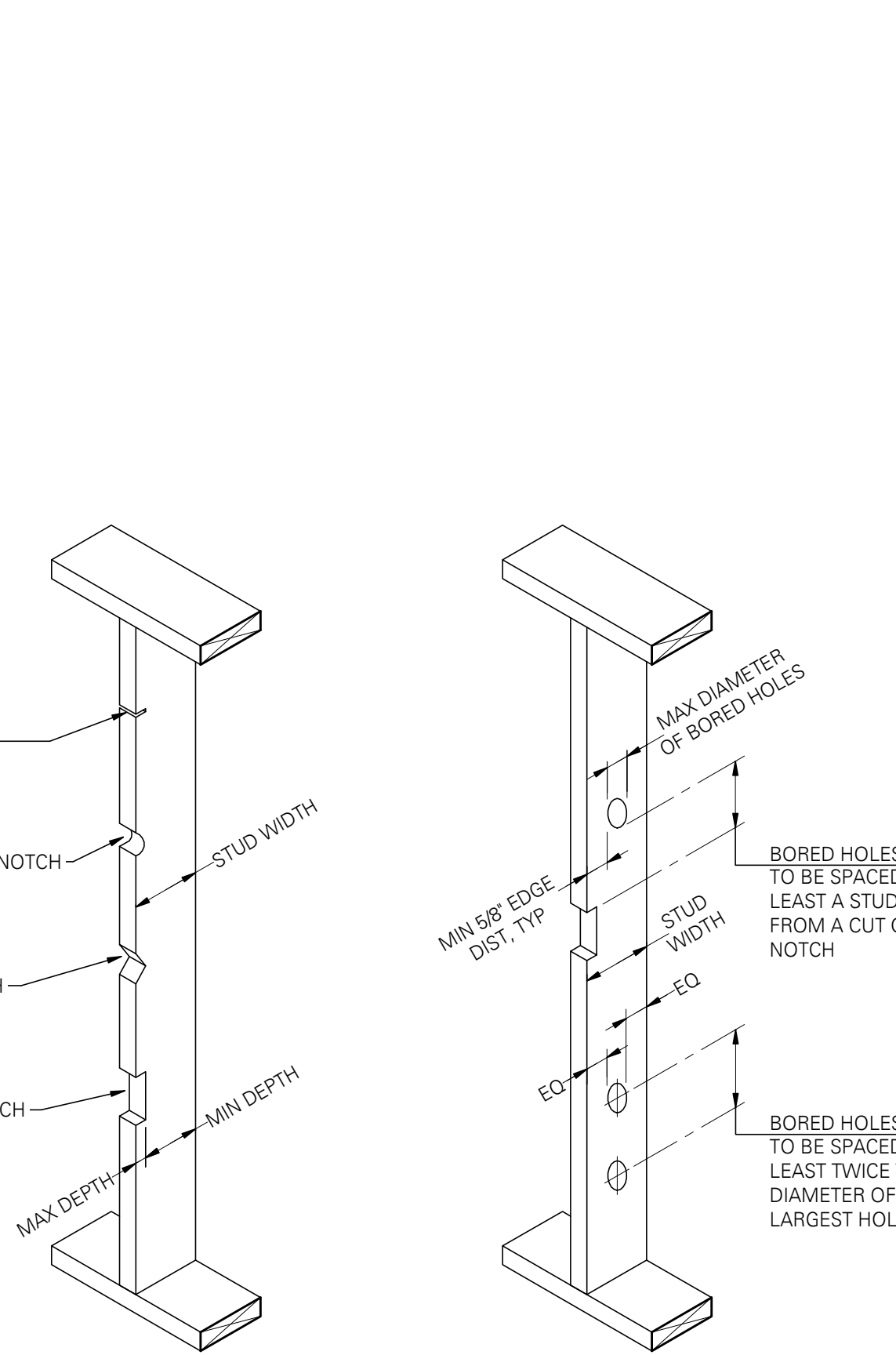
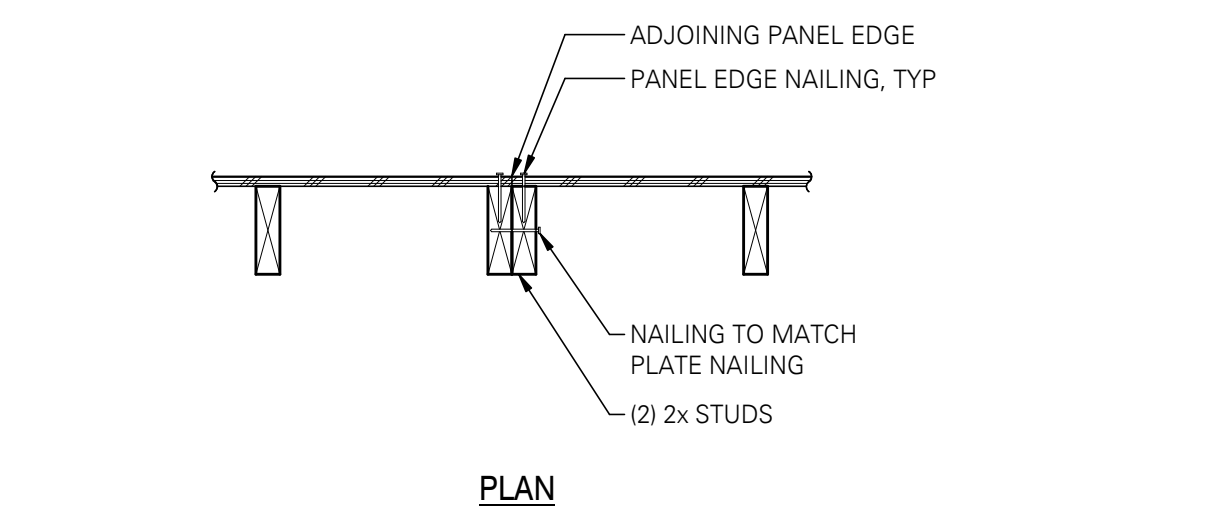
6 PLAN - INTERSECTING SHEAR WALLS
SCALE: 1" = 1'-0" (06110)

01430 SHEAR WALL SCHEDULE W6 FOR 0.131"x2 1/2" NAILS IN DOUG-FIR LARCH (2018 IBC (17))
SOME SHEAR WALL TYPES NOTED MAY NOT BE USED ON THIS PROJECT

WALL TYPE	WALL SHEATHING (APR-RATED [1, 2, 12, 13])	NAIL SIZE & SPACING AT ALL PANEL EDGES (LS, S)	BLOCKING & STUD SIZE AT ADJOINING PANEL EDGES (S, E, L4)	RIM JOIST OR BLOCKING CORN TO TOP PLATE BELOW (17, B)	2x PLATE ATTACHMENT NAILING TO WOOD RIM JOIST OR BLOCKING BELOW	ANCHOR BOLT TO CONCRETE BELOW (10)	SILL PLATE ATTACHMENT SILL PLATE AT FOUNDATION (11)	SHEAR CAPACITY LBS/FT
W6	15/32"	0.131"x2 1/2" @ 6"OC	2x	CLIP @ 16"OC	0.148"x3 1/4" @ 8"OC	5/8" @ 48"OC	2x	260
W4	15/32"	0.131"x2 1/2" @ 4"OC	2x	CLIP @ 16"OC	0.148"x3 1/4" @ 6"OC	5/8" @ 48"OC	2x	350
W3	15/32"	0.131"x2 1/2" @ 3"OC STAGGERED	3x	CLIP @ 12"OC	0.148"x3 1/4" @ 4"OC	5/8" @ 32"OC	2x	490
W2	15/32"	0.131"x2 1/2" @ 2"OC STAGGERED	3x	CLIP @ 16"OC EACH SIDE	0.148"x3 1/4" @ 6"OC (2) ROWS (8)	5/8" @ 24"OC	2x	640

- NOTES:**
- (1) INSTALL PANELS EITHER HORIZONTALLY OR VERTICALLY.
 - (2) WHERE SHEATHING IS APPLIED ON BOTH SIDES OF WALL, PANEL EDGE JOINTS ON 2x FRAMING SHALL BE STAGGERED SO THAT JOINTS ON THE OPPOSITE SIDES ARE NOT LOCATED ON THE SAME STUD.
 - (3) BLOCKING IS REQUIRED AT ALL PANEL EDGES.
 - (4) PROVIDE SHEAR WALL SHEATHING AND NAILING FOR THE ENTIRE LENGTH OF THE WALLS INDICATED ON THE PLANS. ENDS OF FULL HEIGHT WALLS ARE DESIGNATED BY WINDOWS OR DOORWAYS OR AS DESIGNATED ON PLANS. HOLD-DOWN REQUIREMENTS PER PLANS. (ALTERNATE NOTE: WALLS SHOWN WITH HORIZONTAL STRAPS BELOW AND/OR ABOVE OPENINGS REQUIRE SHEATHING, SHEAR WALL NAILING, ETC ABOVE AND BELOW ALL OPENINGS.)
 - (5) SHEATHING EDGE NAILING IS REQUIRED AT ALL HOLD-DOWN POSTS. EDGE NAILING MAY ALSO BE REQUIRED TO EACH STUD USED IN BUILT-UP HOLD-DOWN POSTS. ADDITIONAL INFORMATION PER HOLD-DOWN DETAILS.
 - (6) INTERMEDIATE FRAMING TO BE 2x MINIMUM MEMBERS. ATTACH SHEATHING TO INTERMEDIATE FRAMING WITH 0.131"x2 1/2" NAILS AT 12"OC WHERE STUDS ARE SPACED AT 16"OC AND 0.131"x2 1/2" NAILS AT 6"OC WHERE STUDS ARE SPACED AT 24"OC.
 - (7) BASED ON 0.131"x2 1/2" NAILS USED TO ATTACH FRAMING CLIPS DIRECTLY TO FRAMING. USE 0.131"x2 1/2" NAILS WHERE INSTALLED OVER SHEATHING.
 - (8) FRAMING CLIPS: ABS OR LTPS OR APPROVED EQUIVALENT.
 - (9) WHERE BOTTOM PLATE ATTACHMENT SPECIFIES (2) ROWS OF NAILS OR SCREWS, PROVIDE DOUBLE JOIST, RIM JOIST OR EQUAL BELOW. STAGGER NAIL/SCREWS IN ROWS 1 1/2" APART MINIMUM.
 - (10) ANCHOR BOLTS SHALL BE PROVIDED WITH HOT-DIPPED GALVANIZED STEEL PLATE WASHERS 0.229"x3"x2" MINIMUM. THE HOLE IN THE PLATE WASHER MAY BE DIAGONALLY SLOTTED 13/16"x1 3/4" PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND NUT. PLATE WASHER TO EXTEND TO WITHIN 1/2" OF THE EDGE OF THE SILL PLATE ON THE SIDES WITH SHEATHING AT 2x WALLS WITH SHEATHING ON BOTH SIDES USE PLATE WASHER 0.229"x4 1/2"x4 1/2" MINIMUM. EMBED ANCHOR BOLTS 7" MINIMUM INTO THE CONCRETE.
 - (11) PRESSURE TREATED MATERIAL CAN CAUSE EXCESSIVE CORROSION IN THE FASTENERS. PROVIDE HOT-DIPPED GALVANIZED ELECTROPLATING (IS NOT ACCEPTABLE) NAILS AND CONNECTOR PLATES (FRAMING ANCHORS, ETC) FOR ALL CONNECTORS IN CONTACT WITH PRESSURE TREATED FRAMING MEMBERS. ADDITIONAL INFORMATION PER STRUCTURAL GENERAL NOTES.
 - (12) 7/16" APARATED SHEATHING (OSB) MAY BE USED IN PLACE OF 15/32" SHEATHING PROVIDED THAT ALL STUDS ARE SPACED AT 16"OC MAXIMUM.
 - (13) WHERE WOOD SHEATHING (W) IS APPLIED OVER GYPSUM SHEATHING (G), CONTACT THE ENGINEER OF RECORD FOR ALTERNATE NAILING REQUIREMENTS.
 - (14) AT ADJOINING PANEL EDGES, (2) 2x STUDS NAILED TOGETHER MAY BE USED IN PLACE OF SINGLE 3x STUD. DOUBLE 2x STUDS SHALL BE CONNECTED TOGETHER BY NAILING THE STUDS TOGETHER WITH 3" LONG NAILS OF THE SAME SPACING AND DIAMETER AS THE PLATE NAILING, PER SECTION.
 - (15) CONTACT THE STRUCTURAL ENGINEER OF RECORD FOR ADHESIVE OR EXPANSION BOLT ALTERNATIVES TO CAST-IN-PLACE ANCHOR BOLTS. SPECIAL INSPECTION MAY BE REQUIRED.
 - (16) NAIL STUDS TO 3x SILL PLATES WITH EITHER (2) 0.148"x4" END NAILS OR (4) 0.131"x2 1/2" TOENAILS.
 - (17) **WX** WHERE "W" INDICATES WOOD SHEATHING AND "X" INDICATES EDGE NAIL SPACING.
 - (18) EDGE NAILS SHALL BE LOCATED 3/8" FROM PANEL EDGES.

9 SHEAR WALL SCHEDULE - DOUG-FIR LARCH
SCALE: 1" = 1'-0" (01430)

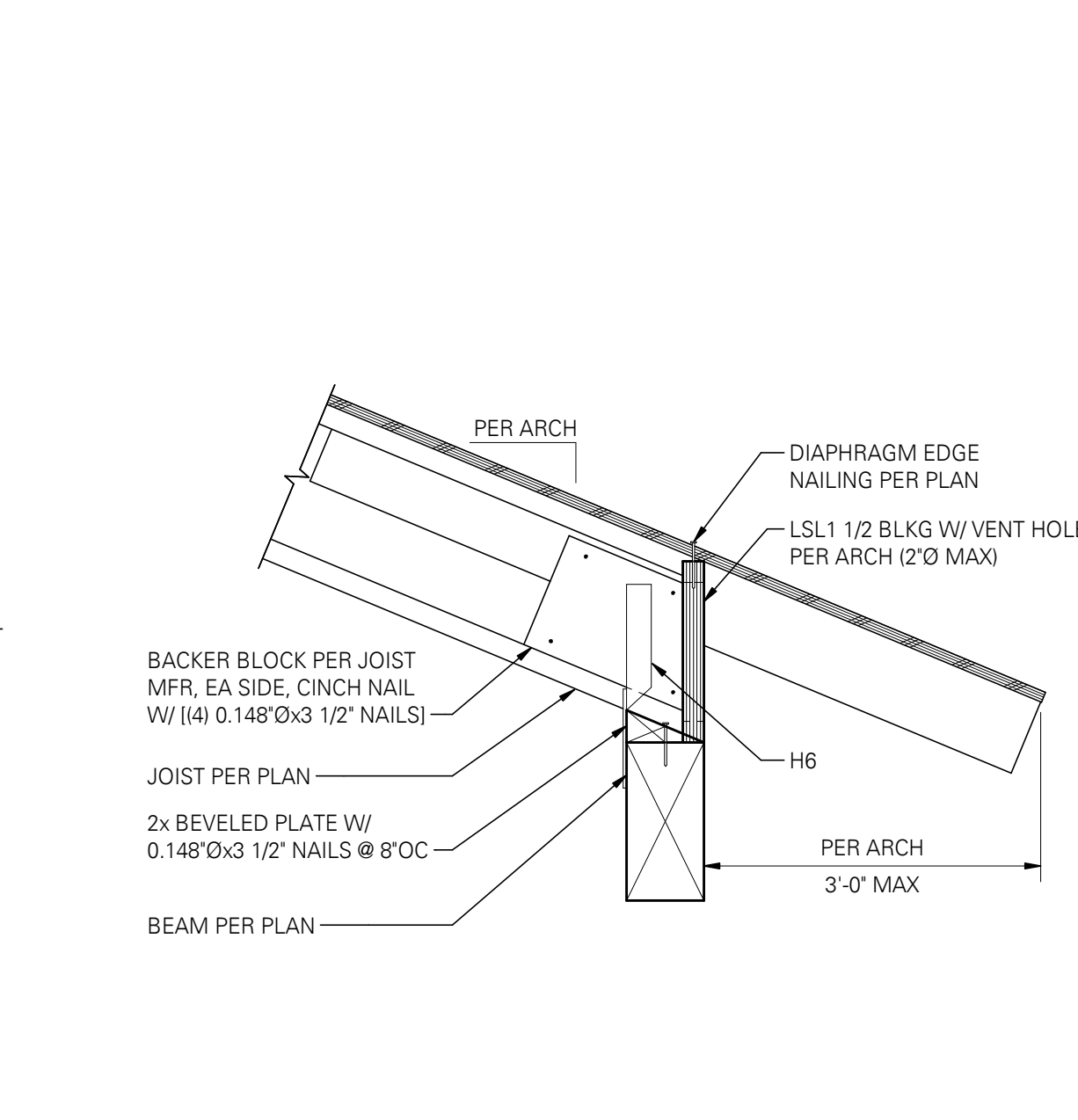
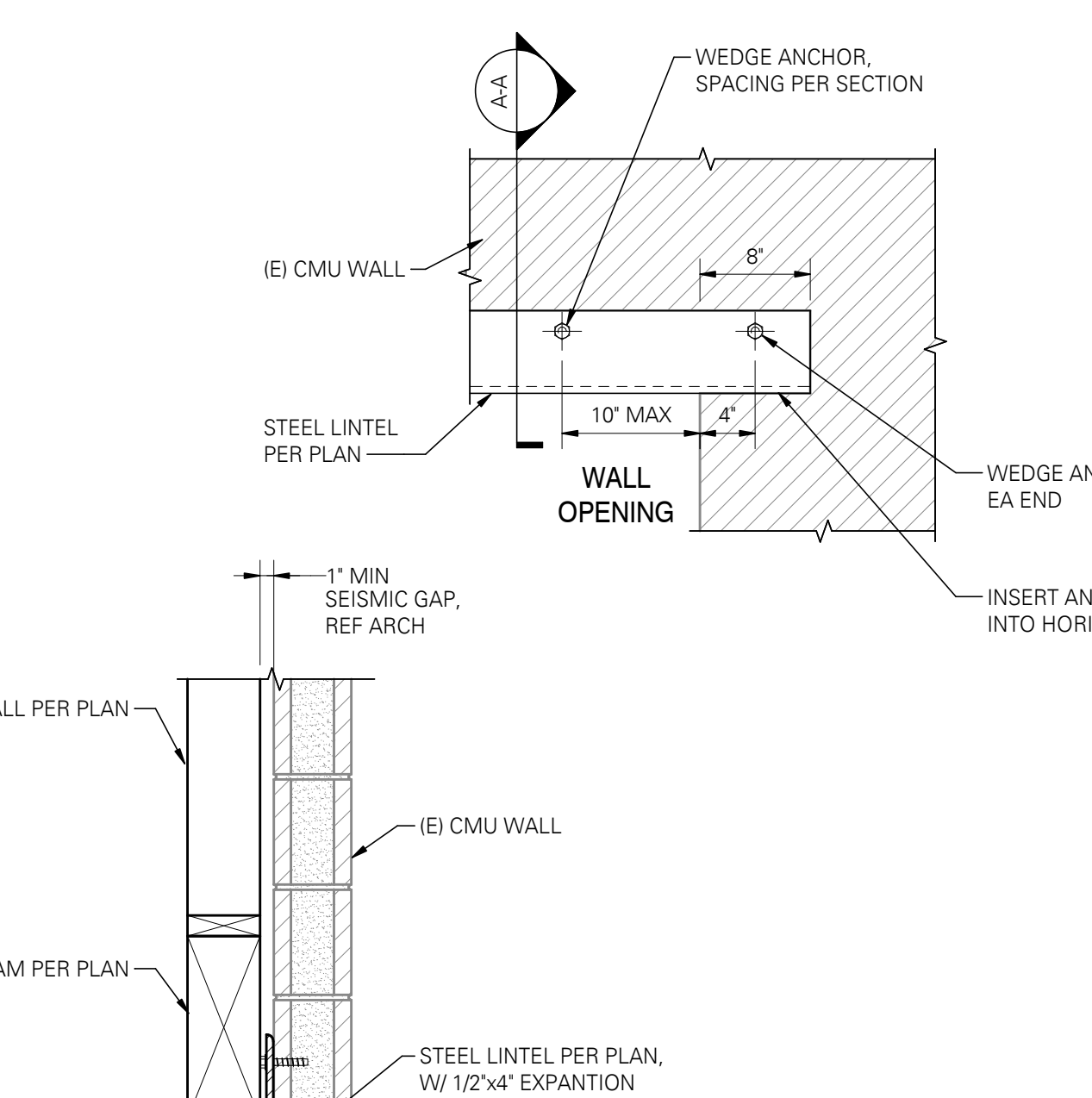
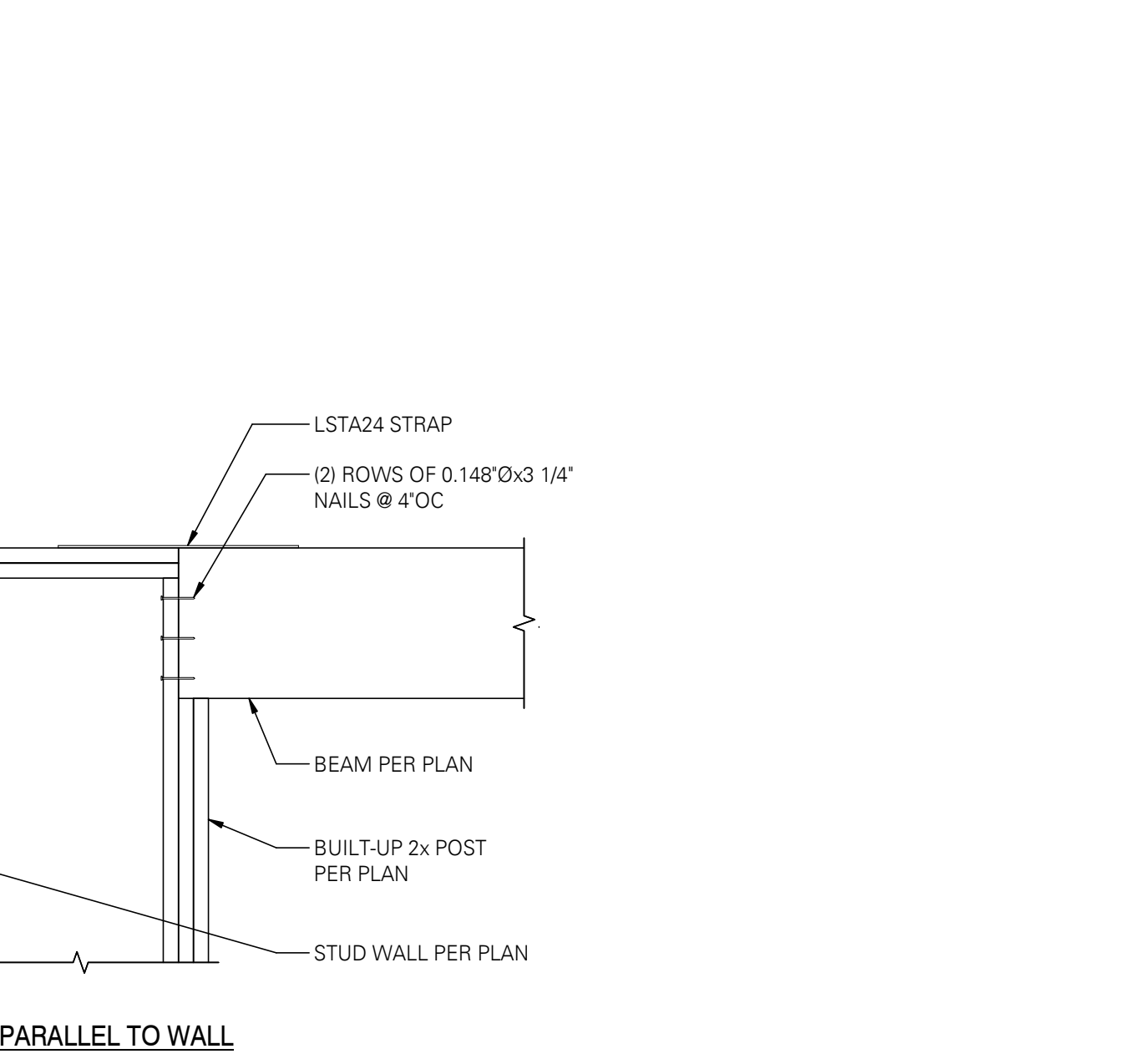
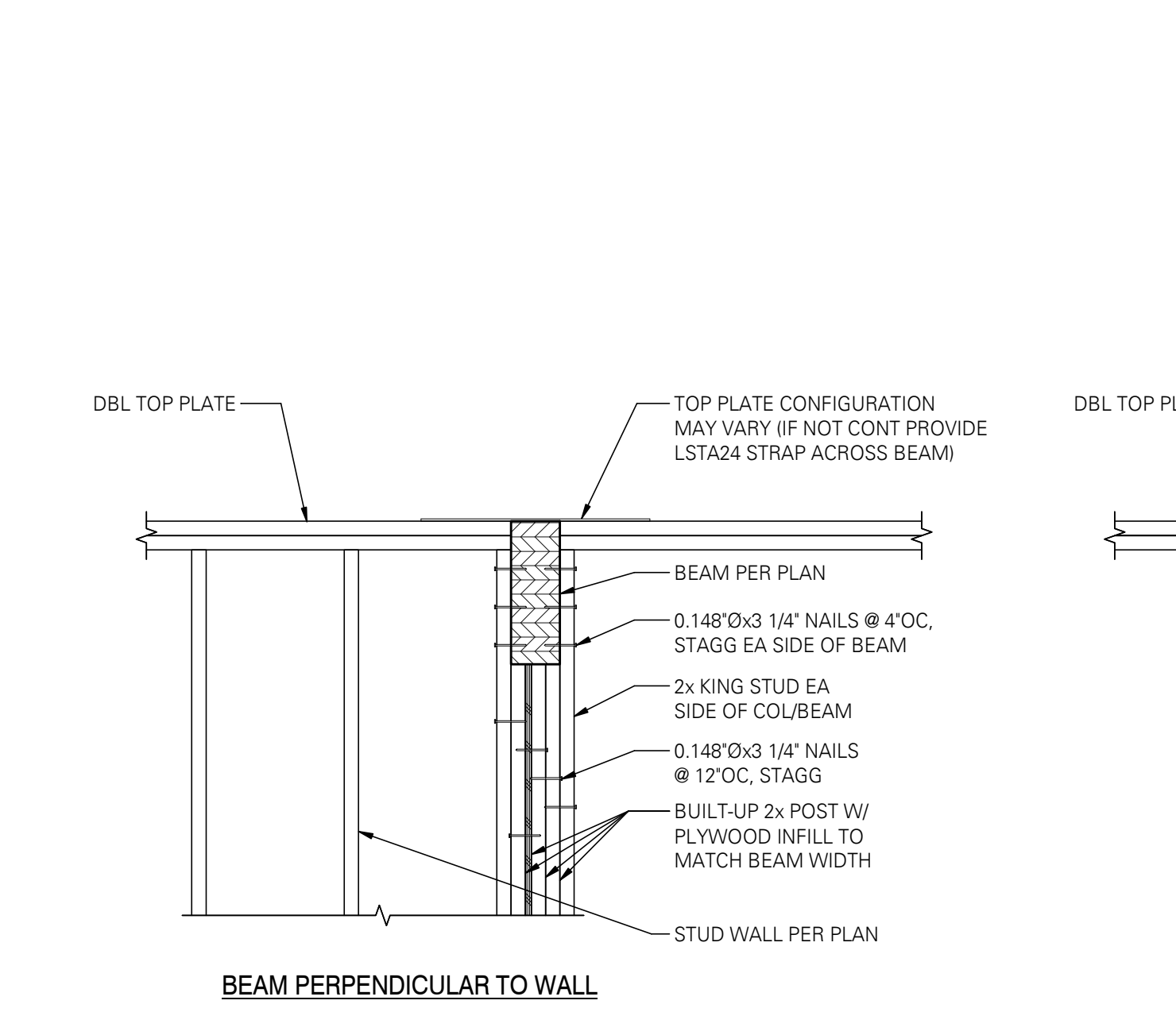


12 TYPICAL JOIST OVER DROPPED BEAM
SCALE: 1" = 1'-0" (06204A)

13 PARAPET - EXTERIOR WALL PERPENDICULAR TO JOIST
SCALE: 1" = 1'-0" (06063)

14 INTERIOR WALL PERPENDICULAR TO ROOF JOIST
SCALE: 1" = 1'-0" (06071)

15 WSWH CONNECTION AT FLAT WALL
SCALE: 3/4" = 1'-0" REF: 6W5HW2



STUD SIZE	MAX DEPTH OF EDGE CUT OR NOTCH	MIN DEPTH REMAINING AFTER CUT OR NOTCH
2x4	7/8"	2 5/8"
2x6	1 3/8"	4 1/8"

STUD SIZE	MAX DEPTH OF EDGE CUT OR NOTCH	MIN DEPTH REMAINING AFTER CUT OR NOTCH
2x4	1 3/8"	2 1/8"
2x6	2 3/16"	3 3/8"

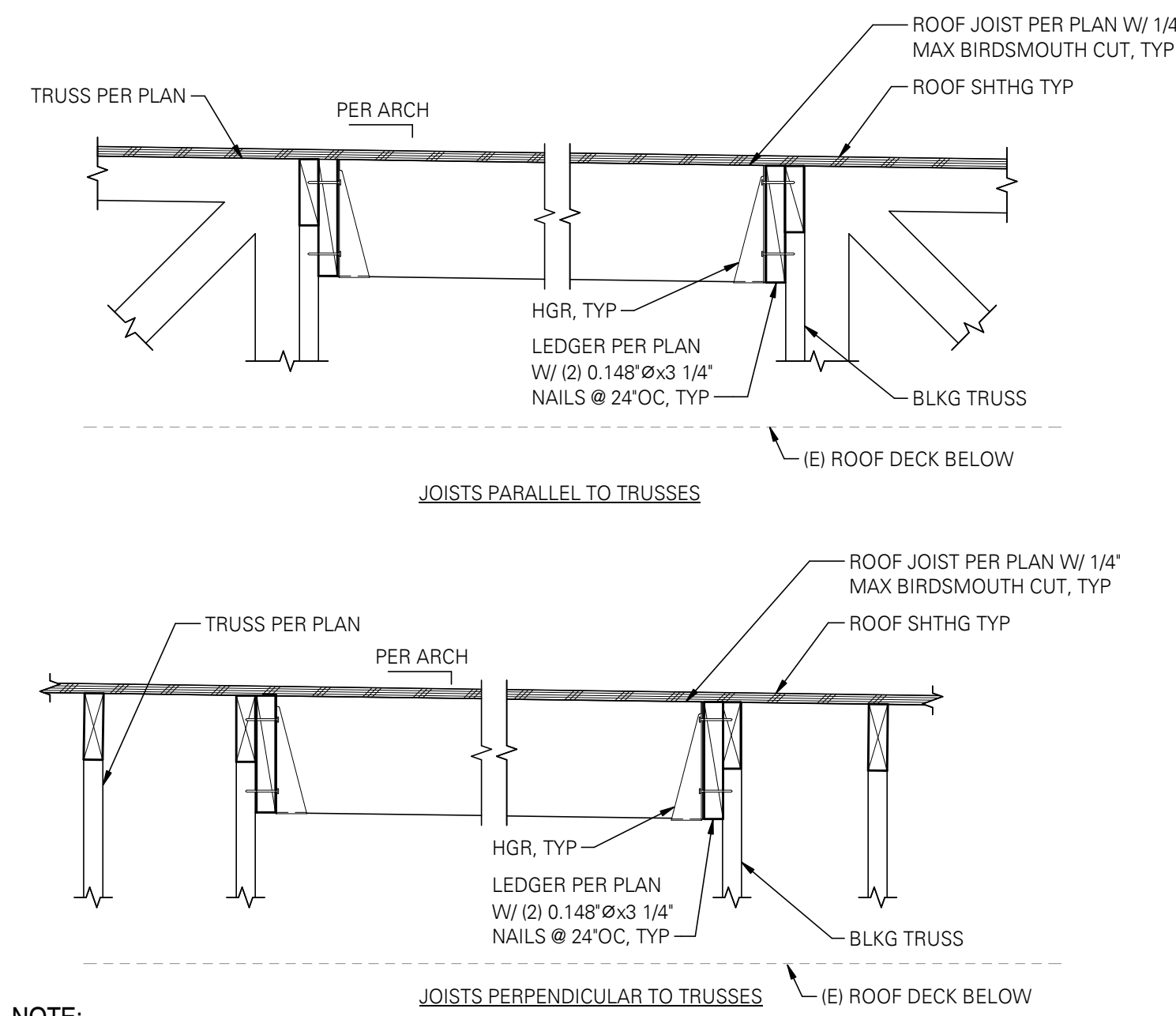
17 TYPICAL BEAM TO STUD WALL
SCALE: 3/4" = 1'-0" (06208)

18 TYPICAL BEAM TO STUD WALL
SCALE: 3/4" = 1'-0" (06208)

19 CMU OPENING
SCALE: 1" = 1'-0" (06061)

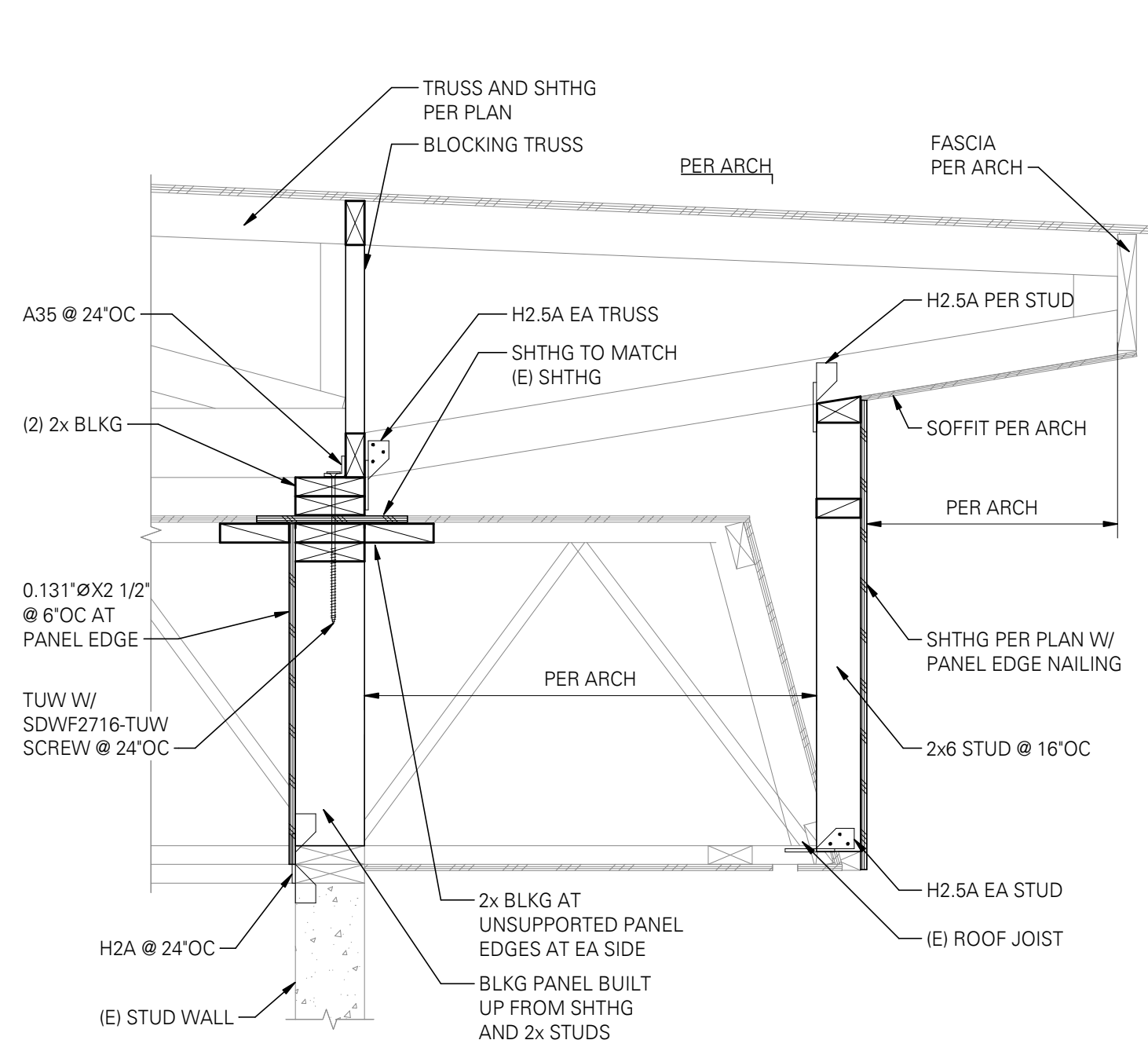
20 EXTERIOR WALL PERPENDICULAR TO ROOF JOISTS WITH OVERHANG - SLOPED ROOF
SCALE: 1" = 1'-0" (06061AM)



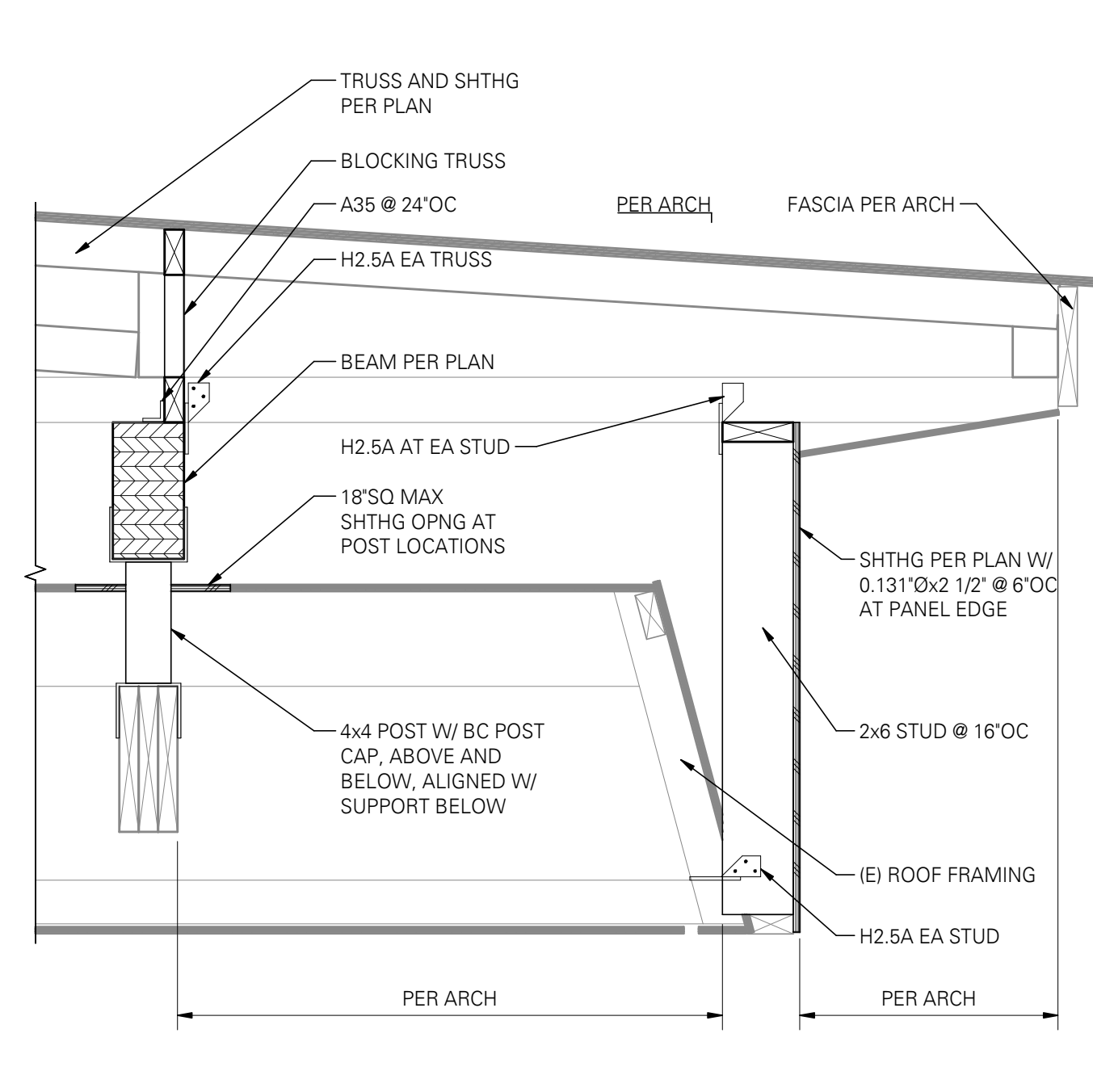


NOTE:
AT SIM JOIST PARALLEL AT ONE END AND PERPENDICULAR AT THE OTHER END

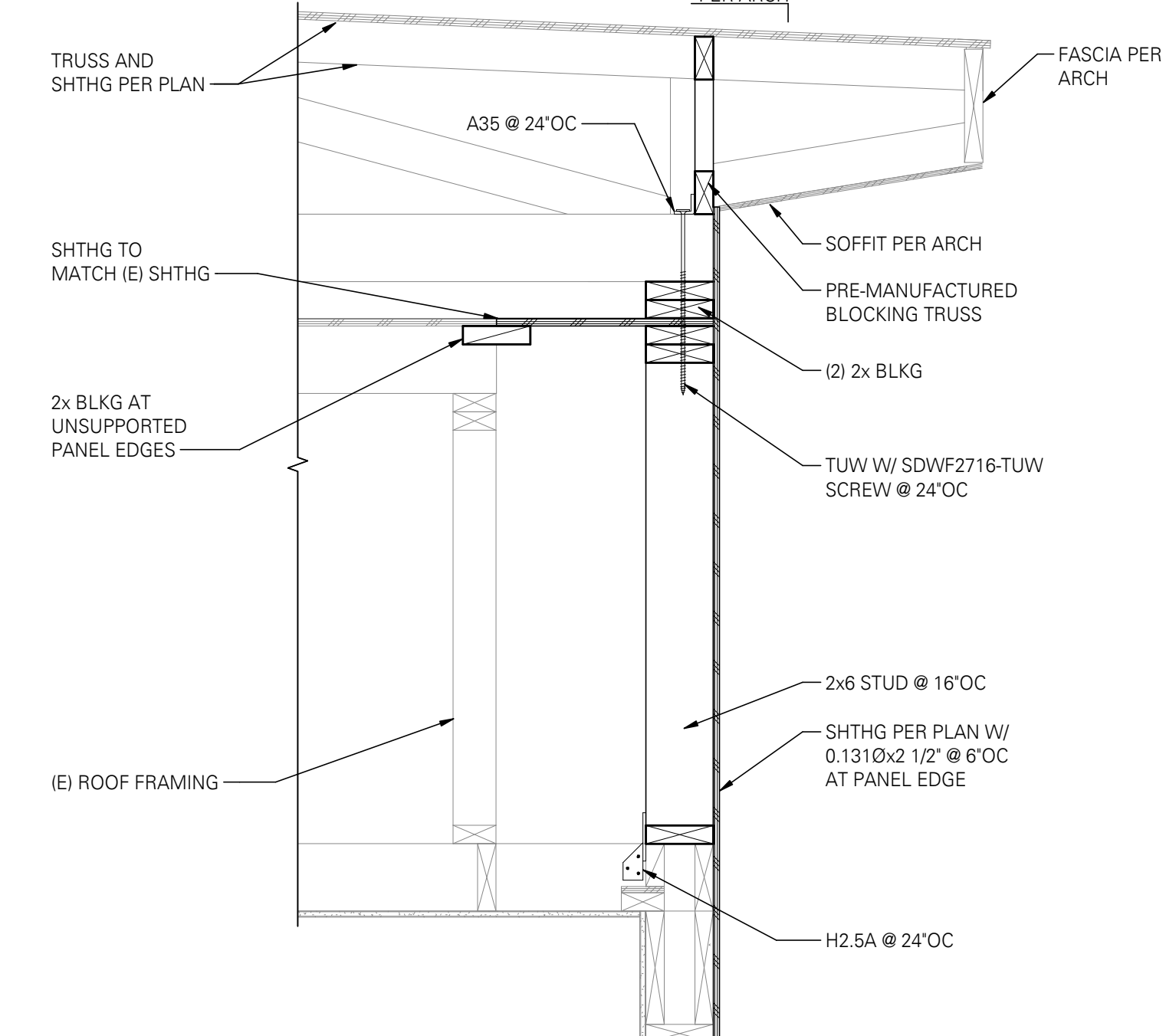
1 TYPICAL ROOF JOIST TO TRUSS CONNECTION
SCALE: 1" = 1'-0"



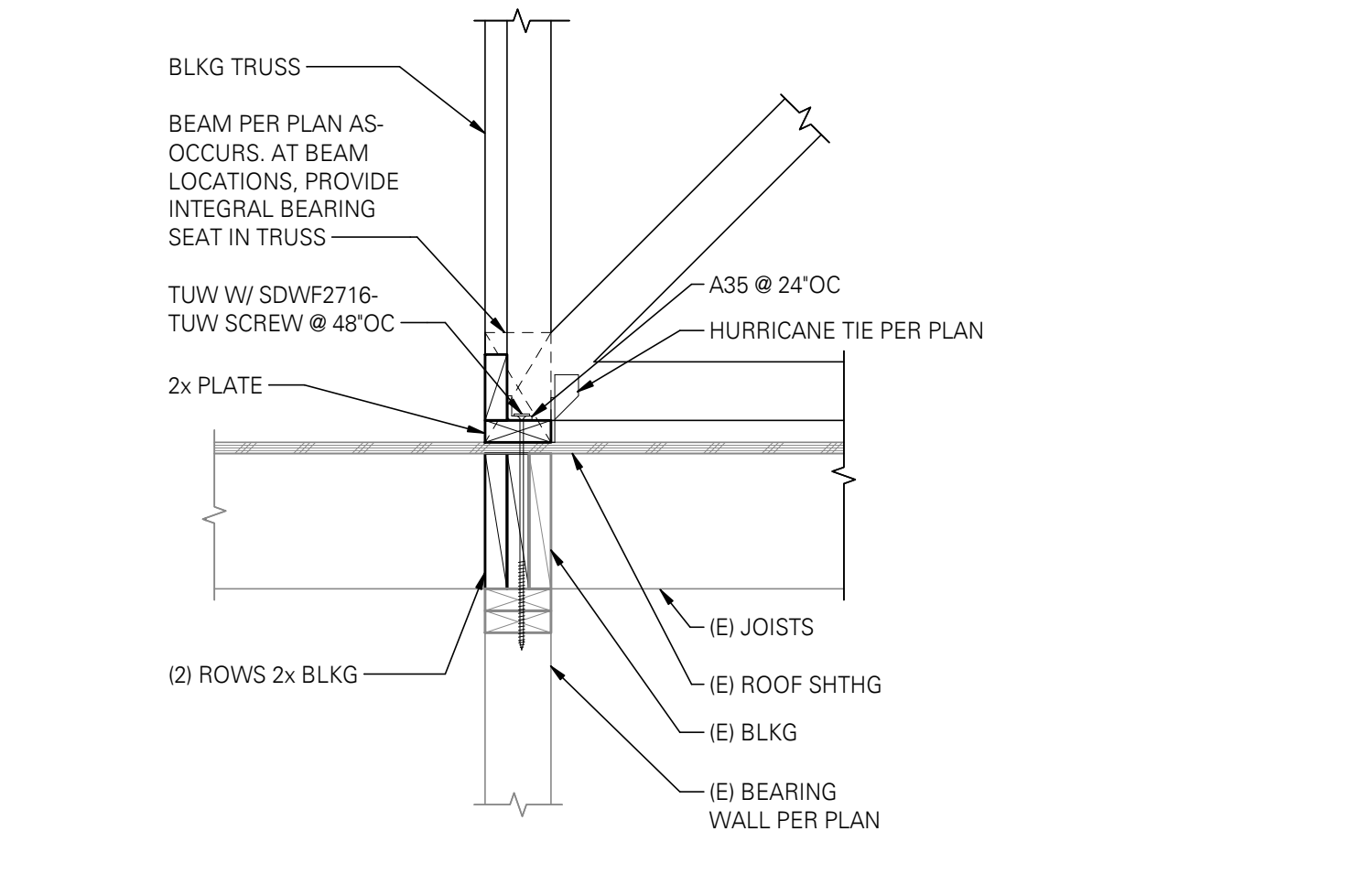
2 EAVE AT EXISTING SOUTH CLASSROOMS
SCALE: 1" = 1'-0"



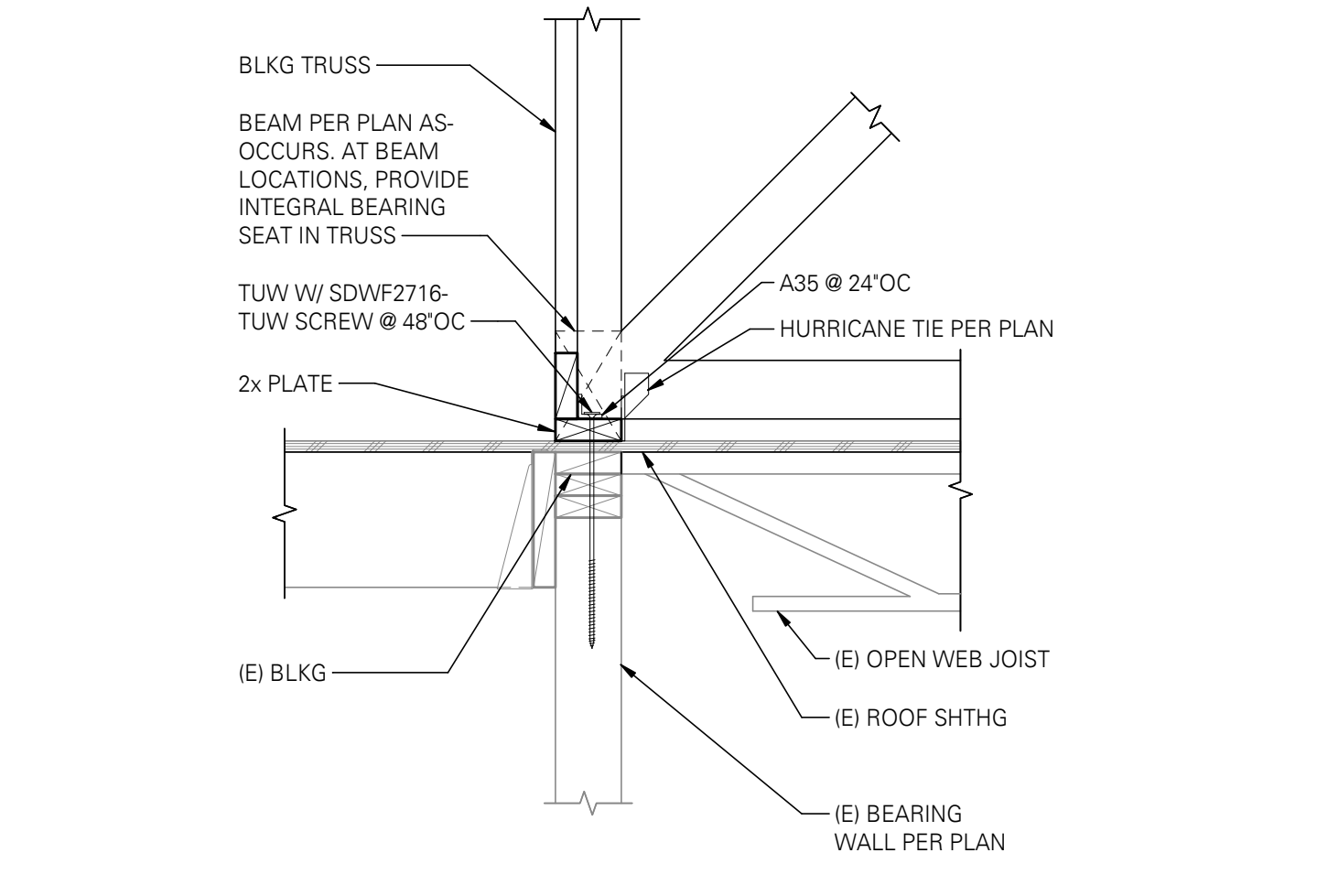
3 EAVE AT (E) WEST COVERED WALK
SCALE: 1" = 1'-0"



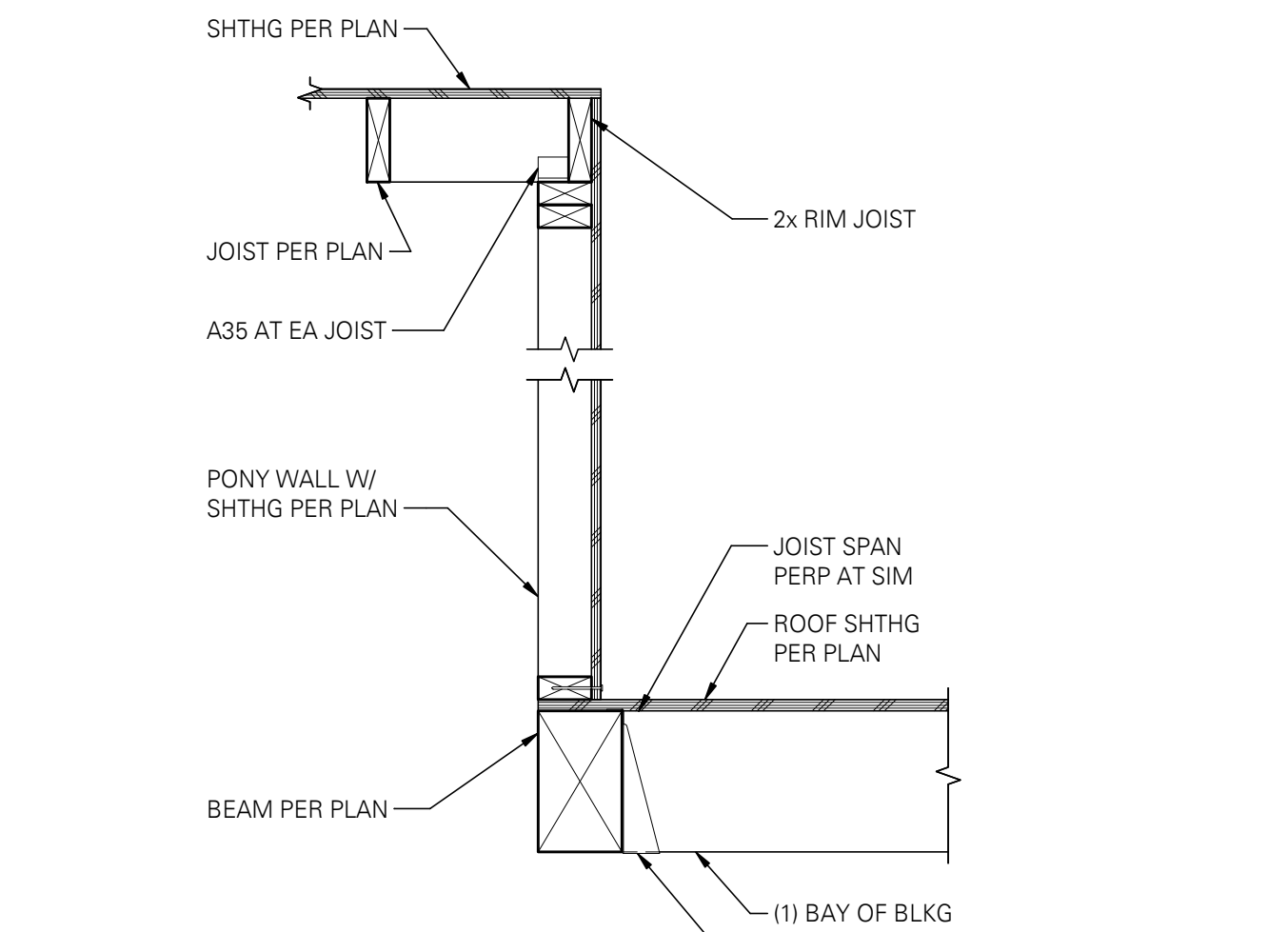
4 EAVE AT (E) NORTH CLASSROOMS
SCALE: 1" = 1'-0"



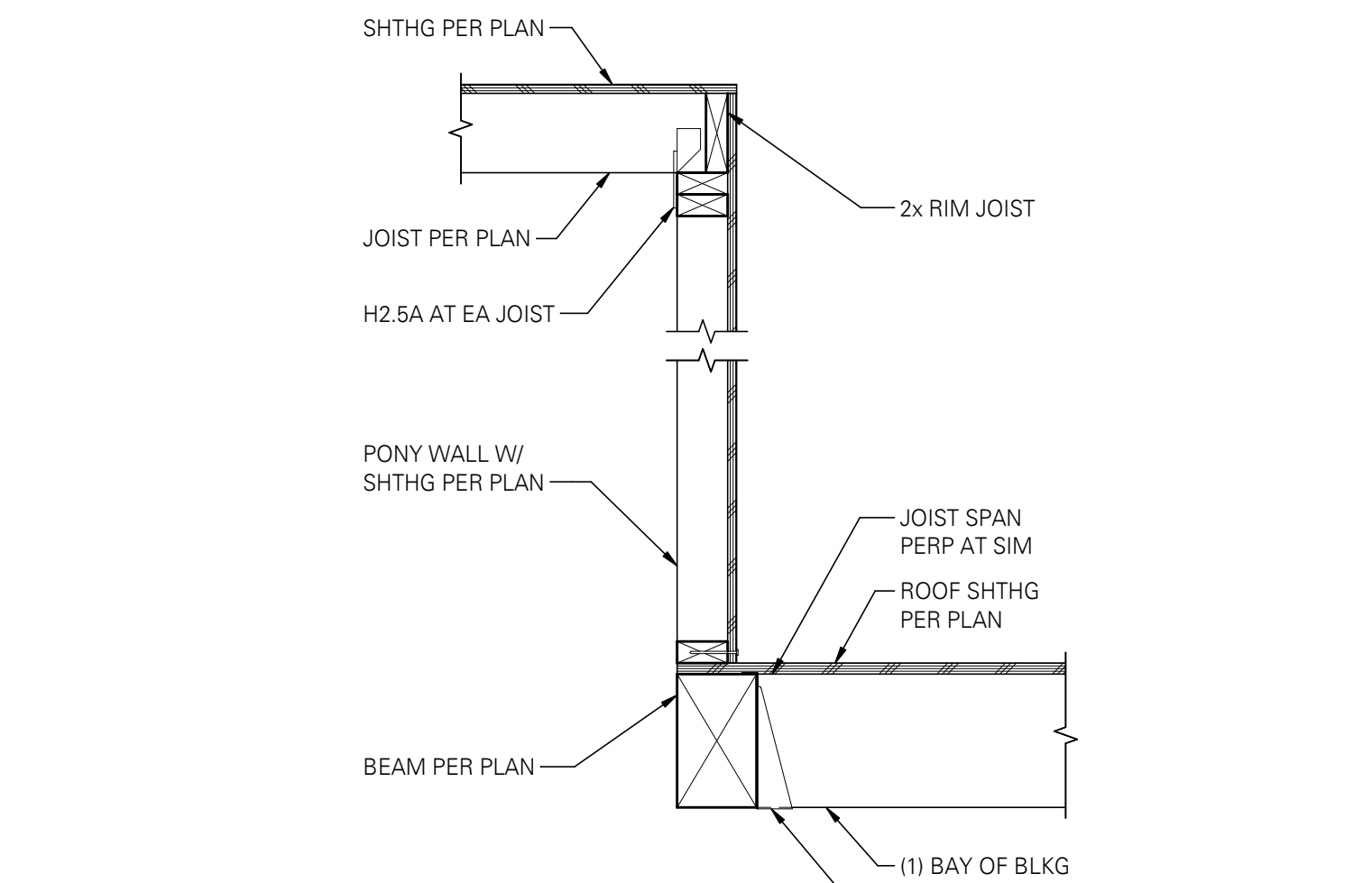
6 ROOF TRUSS TO EXISTING WALL
SCALE: 1" = 1'-0"



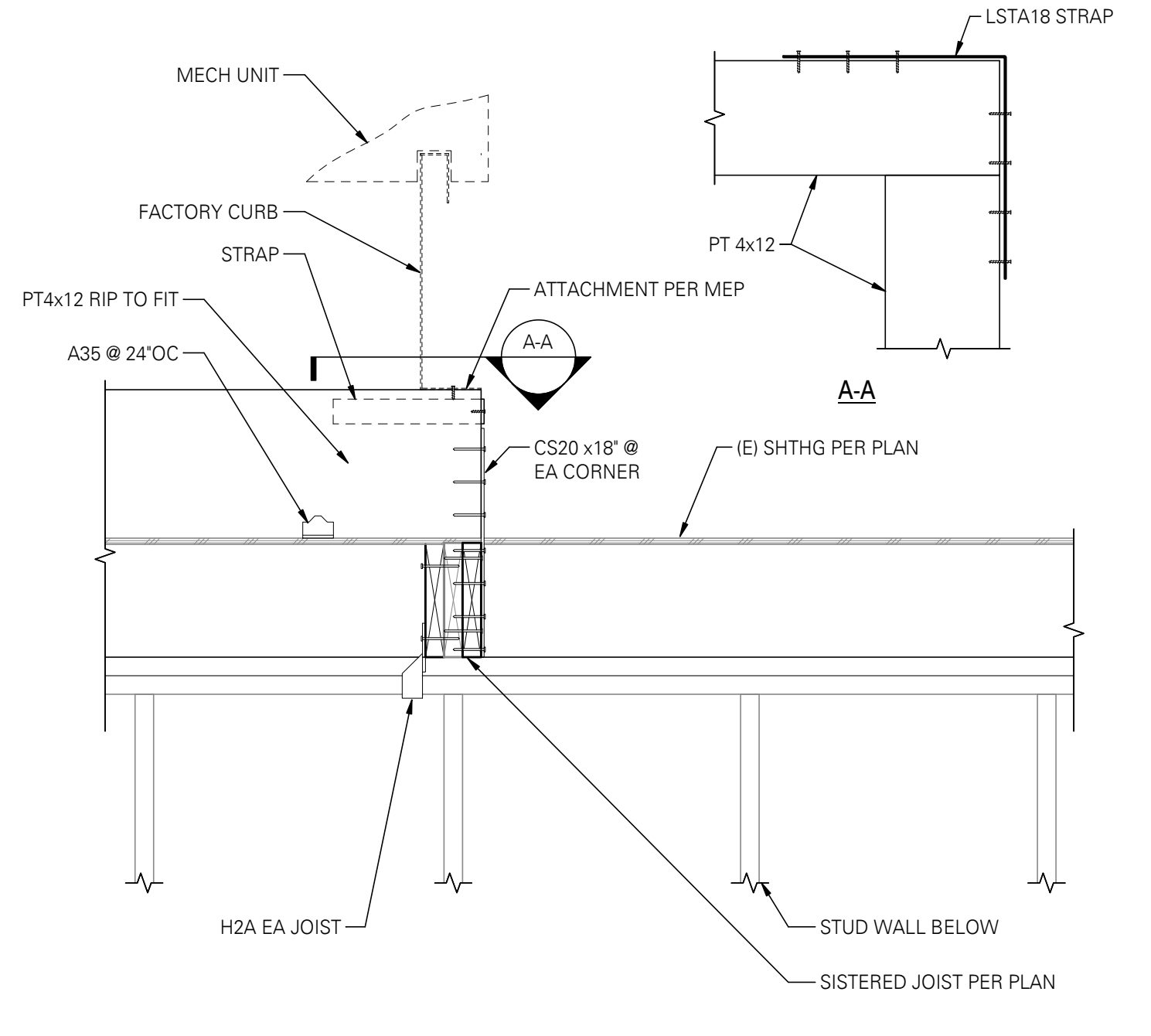
7 ROOF TRUSS TO EXISTING WALL - OPEN WEB TRUSSES BELOW
SCALE: 1" = 1'-0"



8 MONITOR UPPER ROOF PARALLEL TO PONY WALL
SCALE: 1" = 1'-0"



9 MONITOR UPPER ROOF PERPENDICULAR TO PONY WALL
SCALE: 1" = 1'-0"



11 TYPICAL CONNECTION AT MECHANICAL CURB
SCALE: 1" = 1'-0"

HGE ARCHITECTS.
333 S. 4TH STREET
COOS BAY, OR 97420
P: 541.269.1166
general@hge1.com
www.hge1.com

DCI
REGISTERED PROFESSIONAL ENGINEER
921 SW Washington Street, Suite 500
Portland, Oregon 97205
P: (503) 242-2448
www.dci-engineers.com
© Copyright 2022. All rights reserved. No part of this document may be reproduced without the written permission of DCI.

REGISTERED PROFESSIONAL ENGINEER
T. J. CLYDE
OREGON
NOV 28 2018
BRUCE CHALLER
EXPIRES: 11-28-23

PROJECT NO.: 2225
MILLICOMA SCHOOL REROOF & CLASSROOM ADDITION
COOS BAY SCHOOL DISTRICT
260 2ND AVE
COOS BAY OR 97420

BIDDING

REVISIONS:	#	DATE	DESCRIPTION

DATE: JANUARY 2023
SHEET TITLE:
STRUCTURAL - ROOF OVER-FRAMING DETAILS

PLUMBING SYMBOL LIST

NOTE: This is a standard symbol list and not all items listed may be used.

Abbreviations

(A) ABANDON IN PLACE
 ADA AMERICANS WITH DISABILITIES ACT
 & AND
 CO CLEANOUT
 CONT. CONTINUATION
 (N) DEMOLISH
 DS DOWNSPOUT
 DSN DOWNSPOUT NOZZLE
 DFU DRAINAGE FIXTURE UNIT
 DWV DRAINAGE, WASTE AND VENT
 (E) EXISTING
 (N) NEW
 NTS NOT TO SCALE
 # NUMBER
 OD OVERFLOW DRAIN, OUTSIDE DIAMETER
 PLBG PLUMBING
 POC POINT OF CONNECTION
 ROD ROOF DRAIN
 SAN SANITARY
 SD STORM DRAIN
 W WASTE

General

→ CONTINUATION
 ○ EXTENT OF DEMOLITION
 [X] FIXTURE TAG (LEVEL BELOW FIXTURE)
 ⊕ KEYED NOTE
 --- PIPE BELOW GRADE
 ● POINT OF CONNECTION
 ✕✕✕ DEMOLISH
 ——— EXISTING WORK
 ——— NEW WORK

Piping Fittings

→ CAP
 ⊕ OD OVERFLOW ROOF DRAIN
 → PIPE DROP
 ⊕ ROD ROOF DRAIN
 → TEE DOWN ON PIPE
 WCO WALL CLEANOUT

Piping Systems

— — — COLD WATER PIPING
 — — — HOT WATER PIPING
 — — — HOT WATER RETURN PIPING
 — — — OVERFLOW DRAIN PIPING ABOVE GRADE OR FINISHED FLOOR
 SANITARY VENT PIPING
 ——— SANITARY WASTE OR SOIL PIPING ABOVE GRADE OR FINISHED FLOOR
 ——— SANITARY WASTE OR SOIL PIPING BELOW GRADE OR FINISHED FLOOR
 — — — SD STORM DRAIN PIPING ABOVE GRADE OR FINISHED FLOOR
 — — — SD STORM DRAIN PIPING BELOW GRADE OR FINISHED FLOOR

Valves

⊘ SHUTOFF VALVE, GENERAL

PLUMBING FIXTURE SCHEDULE

SYMBOL	FIXTURE TYPE	DESCRIPTION	BASIS OF DESIGN		CONNECTION				NOTES
			MFR	MODEL	W	V	CW	HW	
DSN-1	DOWNSPOUT NOZZLE	SIDEWALL TERMINATION, CAST BRONZE, NICKEL BRONZE FINISH, BRD SCREEN	JR SMITH	1770-NB-BS	SEE DWGS	--	--	--	
OD-1	ROOF DRAIN (OVERFLOW DRAIN)	LARGE AREA, EPOXY COATED CAST IRON BODY WITH FLANGE, FLASHING RING WITH GRAVEL STOP, UNDER DECK CLAMP, EXTENSION, SUMP RECEIVER, 2-INCH WATER DAM, ALUMINUM DOME	JR SMITH	1080-AD-C-E-R-Y	SEE DWGS	--	--	--	
RD-1	ROOF DRAIN	LARGE AREA, EPOXY COATED CAST IRON BODY WITH FLANGE, FLASHING RING WITH GRAVEL STOP, UNDER DECK CLAMP, EXTENSION, SUMP RECEIVER, ALUMINUM DOME	JR SMITH	1010-AD-C-E-R-Y	SEE DWGS	--	--	--	

GENERAL PLUMBING NOTES

- CONSULT ALL DRAWINGS AND SPECIFICATIONS IN THIS PROJECT AND BECOME FAMILIAR WITH ALL EQUIPMENT TO BE INSTALLED. COORDINATE ALL ASPECTS OF THE CONSTRUCTION WITH THE OTHER TRADES ON THE JOB TO ENSURE THAT ALL WORK AND MATERIALS REQUIRED TO PROVIDE A COMPLETE AND OPERATIONAL FACILITY ARE INCLUDED IN THE BID. SPECIFICATIONS TAKE PRECEDENCE OVER DRAWINGS.
- CONDITIONS SHOWN ON THE PLANS RELATIVE TO THE WORK TO BE PERFORMED ARE BASED ON THE BEST INFORMATION AVAILABLE BUT ARE SUBJECT TO VERIFICATION. VERIFY LOCATIONS AND ELEVATIONS OF UTILITIES TO BE CROSSED OR CONNECTED. CORRECT DEFICIENCIES CAUSED BY FAILURE TO PERFORM SUCH VERIFICATIONS AT NO EXPENSE TO OWNER. IMMEDIATELY NOTIFY ARCHITECT AND ENGINEER OF CONDITION IN CONFLICT WITH THE DETAILS/PLANS.
- COORDINATE INSTALLATION OF PIPING BELOW AND ABOVE GRADE WITH STRUCTURAL COMPONENTS AND OTHER SYSTEMS INSTALLATION.
- COORDINATE FIXTURES, EQUIPMENT, PIPE ROUGH-IN/CONNECTION LOCATIONS AND DRAIN LOCATIONS WITH ARCHITECTURAL DRAWINGS.
- PIPING ROUTED THROUGH ROOF TO BE INSTALLED PER ARCHITECTURAL REQUIREMENTS (SEE ARCHITECTURAL DETAILS).
- LOCATE VALVES FOR SERVICE ACCESSIBILITY. VALVES INSTALLED ABOVE CEILING SHALL BE WITHIN 18" OF CEILING.
- INSTALL OVERHEAD PIPING AS CLOSE TO STRUCTURE AS POSSIBLE IN AREAS WITH EXPOSED ROOF STRUCTURE.
- PROVIDE CLEANOUTS FOR SANITARY WASTE AND STORM DRAINAGE SYSTEMS WHERE SHOWN AND AS OTHERWISE REQUIRED BY CODE.
- CONTRACTOR TO PROVIDE LOCATE/SCOPING SERVICES FOR EXISTING PIPING BELOW GRADE AND DOCUMENT/RECORD, COORDINATE WITH NEW WORK PRIOR TO START OF CONSTRUCTION.
- ALL FIRE ASSEMBLY PENETRATIONS SHALL COMPLY WITH 2014 OSSC SECTIONS 714, 715 & 717. REFER TO SPEC BOOK DIVISION 07 8400 "FIRESTOPPING" FOR APPROVED LISTED PENETRATION SYSTEMS. AT THE TIME OF INSPECTION PROVIDE CUTSHEETS TO THE AHJ OF SYSTEMS USED FOR EACH TYPE OF PENETRATION.

DEMOLITION PLUMBING NOTES

- COORDINATE DEMOLITION, CUTTING, PATCHING, ETC. WITH GENERAL CONTRACTOR AND EXISTING FIELD CONDITIONS PRIOR TO SUBMITTING CONSTRUCTION CONTRACT BIDS. SEE SPECIFICATIONS GENERAL PROVISIONS, NOT ALL PIPING IS ILLUSTRATED.
- SAW CUTTING OF ANY FLOOR, AND CORE DRILLING HOLES LARGER THAN EIGHT INCHES DIAMETER IN STRUCTURAL WALLS, FLOOR OR ROOF REQUIRES THE APPROVAL OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF OREGON. CONTRACTOR TO RETAIN THE SERVICES OF THE STRUCTURAL ENGINEER AND FORWARD WET STAMPED STRUCTURAL CALCULATIONS TO THE ARCHITECT PRIOR TO BEGINNING WORK. HOLES SMALLER THAN EIGHT INCHES DIAMETER IN STRUCTURAL WALLS, FLOOR OR ROOF SHALL BE REVIEWED BY THE ARCHITECT AND AUTHORIZED IN WRITING PRIOR TO BEGINNING OF WORK.
- REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR SPACE ALLOTMENT, BEAM LOCATION AND COORDINATION PURPOSES. CONFLICTS REGARDING SPACE REQUIREMENTS, CLEARANCES, INTERFERENCE WITH STRUCTURE OR OTHER WORK, ETC., SHALL BE DIRECTED TO THE ARCHITECT FOR RESOLUTION PRIOR TO INSTALLATION OF WORK.
- THE COST OF CUTTING, PATCHING AND PAINTING OF EXISTING WALLS, CEILINGS, AND FLOOR AS REQUIRED TO ACCOMMODATE WORK AS SHOWN OR SPECIFIED HEREIN, SHALL BE INCLUDED IN THE COST OF THE WORK FOR EACH TRADE. EMPLOY SKILLED WORKMEN TO PERFORM CUTTING AND PATCHING AND RESTORE DISTURBED SURFACES TO ORIGINAL CONDITION. THE MATERIALS AND WORKMANSHIP FOR ALL PATCHING SHALL BE AS SPECIFIED IN THE RESPECTIVE SECTIONS OF THE ARCHITECTURAL SPECIFICATIONS, OR AS DIRECTED BY THE ARCHITECT.
- ALL REVIEWED DOCUMENTS SHALL BE KEPT AT THE SITE OF WORK AND AVAILABLE AT THE TIME OF EACH INSPECTION. OSSC SECTION 107.3.1



BIDDING	
REVISIONS:	
# DATE	DESCRIPTION
A 01/19/23	REVISIONS

SHEET INDEX

P-001	SYMBOLS LIST AND GENERAL NOTES - PLUMBING
PD201	MAIN FLOOR PLAN - PLUMBING - DEMOLITION
PD232	ROOF PLAN - PLUMBING - DEMOLITION
P-201	MAIN FLOOR PLAN - PLUMBING
P-232	ROOF PLAN - PLUMBING

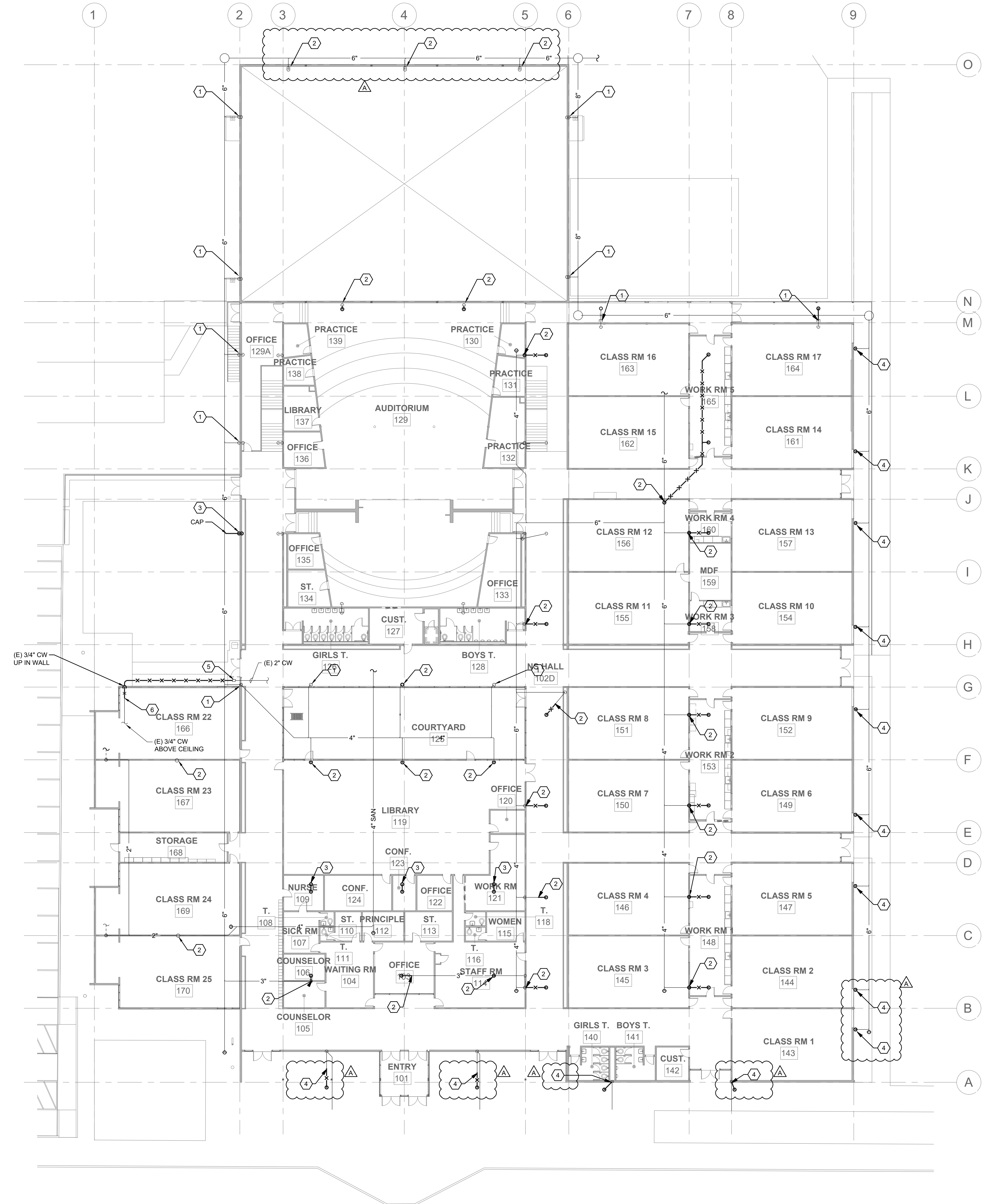
DATE: JANUARY 2023

SHEET TITLE:
**SYMBOLS LIST AND
 GENERAL NOTES -
 PLUMBING**

P-001

SHEET KEYNOTES

- 1 EXISTING ROOF DRAIN PIPING TO REMAIN FOR RECONNECTION TO NEW ROOF DRAIN.
- 2 CAP STORM IN WALL OR CEILING SPACE AND REMOVE ALL PIPING UP TO ROOF DRAIN.
- 3 REMOVE ROOF DRAIN AND PIPING.
- 4 REMOVE ROOF DRAIN AND PIPING TO 18" BELOW SOFFIT FOR CONNECTION TO NEW GUTTER DOWNSPOUT.
- 5 EXISTING UNDERGROUND 2" WATER LINE TO BE REMOVED AND CAPPED TO THIS POINT.
- 6 DEMOLISH EXISTING 3/4" WATER LINE ABOVE CEILING TO THIS POINT. PIPING TO REMAIN FOR RE-CONNECTION.



1 MAIN FLOOR PLAN - PLUMBING - DEMOLITION



BIDDING

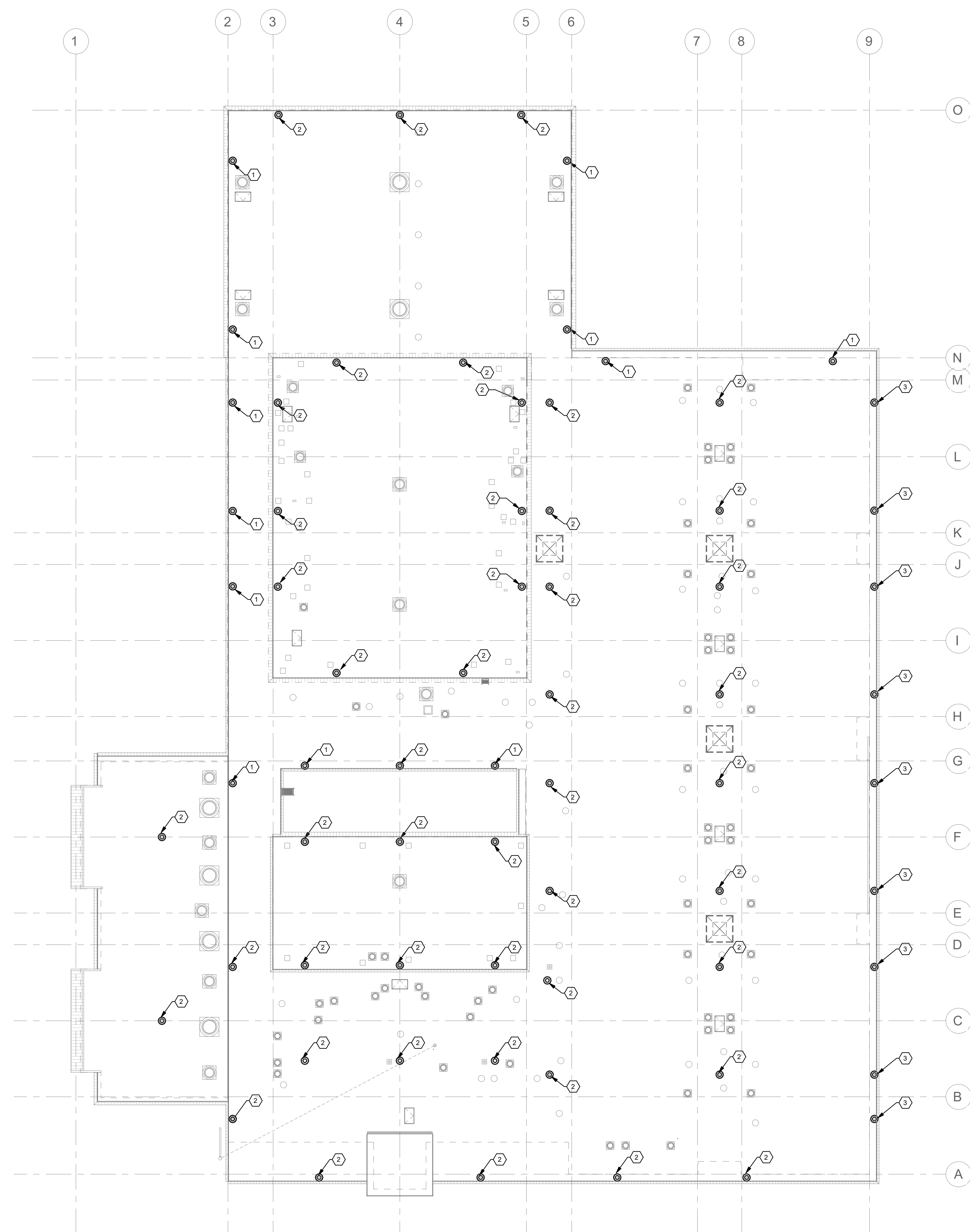
REVISIONS	#	DATE	DESCRIPTION
A	01/19/23		REVISIONS

DATE: JANUARY 2023

SHEET TITLE:
MAIN FLOOR PLAN - PLUMBING - DEMOLITION

SHEET KEYNOTES

- 1 REMOVE ROOF DRAINS AND INSTALL NEW. SEE 1/P-001 FOR CLARIFICATION.
- 2 REMOVE ROOF DRAIN AND CAP PIPING BELOW ROOF LINE.
- 3 REMOVE ROOF DRAIN BUT MAINTAIN PIPING FOR CONNECTION TO NEW GUTTER DOWNSPOUT.



1 ROOF PLAN - PLUMBING - DEMOLITION
 0 8' 16' 32'
 SCALE: 1/16"=1'-0"



333 S. 4TH STREET
 COOS BAY, OR 97420
 P. 541.269.1166
 www.hge1.com
 general@hge1.com



PROJECT: 2022-1618
 CONTACT: Rick Stenzel
 100 SW Main Street, Suite 1600
 Portland, OR 97204
 TEL: 503.882.2266
 www.interfaceengineering.com



PROJECT NO.: 22.25
MILLICOMA SCHOOL REROOF & CLASSROOM ADDITION
 COOS BAY SCHOOL DISTRICT
 280 2ND AVE
 COOS BAY, OR 97420

BIDDING

#	DATE	DESCRIPTION

DATE: JANUARY 2023
 SHEET TITLE:
ROOF PLAN - PLUMBING - DEMOLITION

PD232

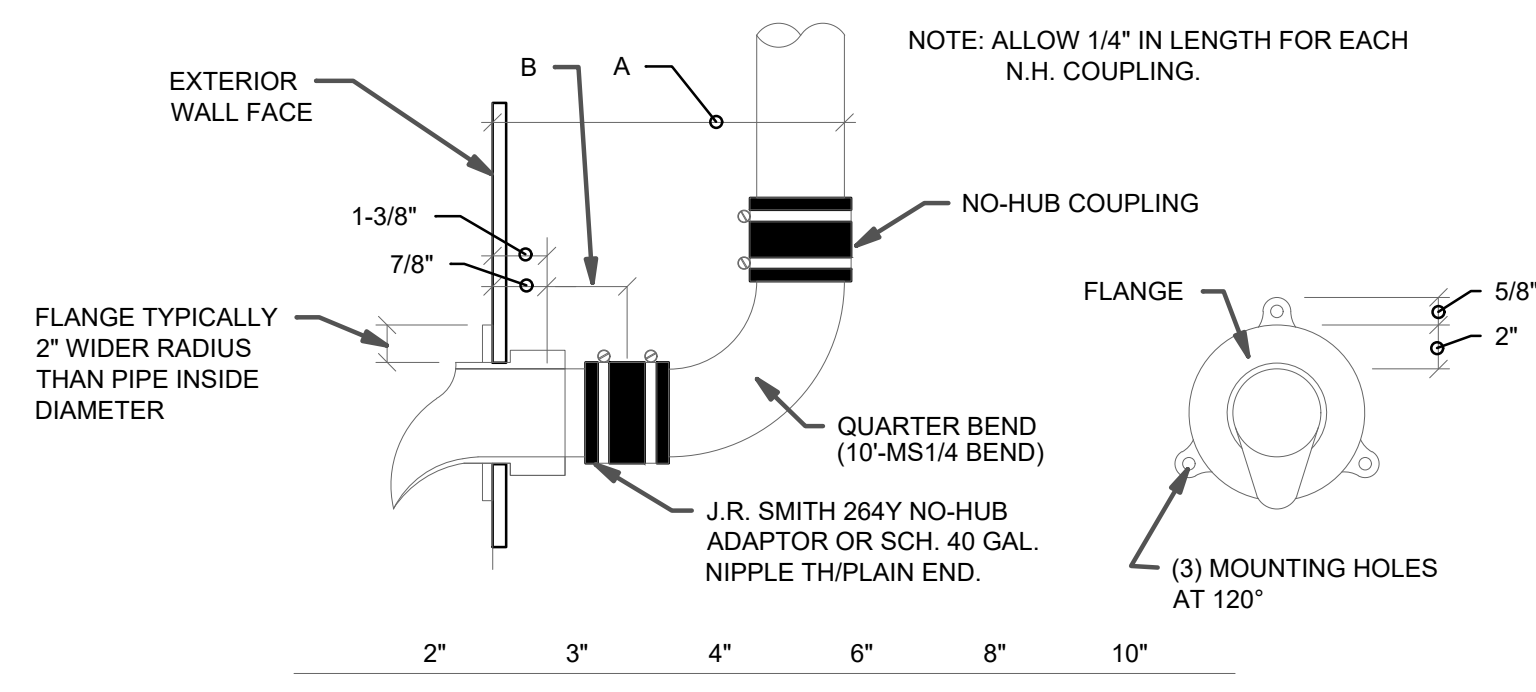
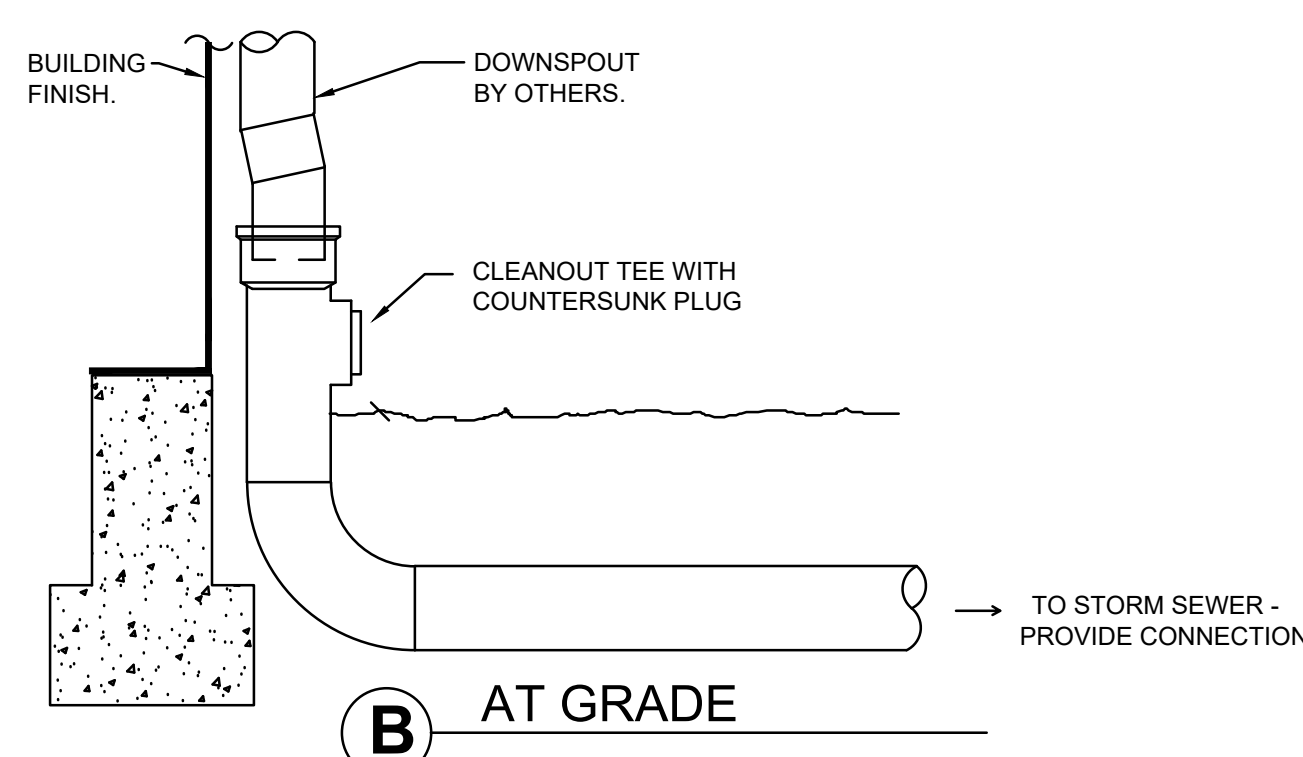
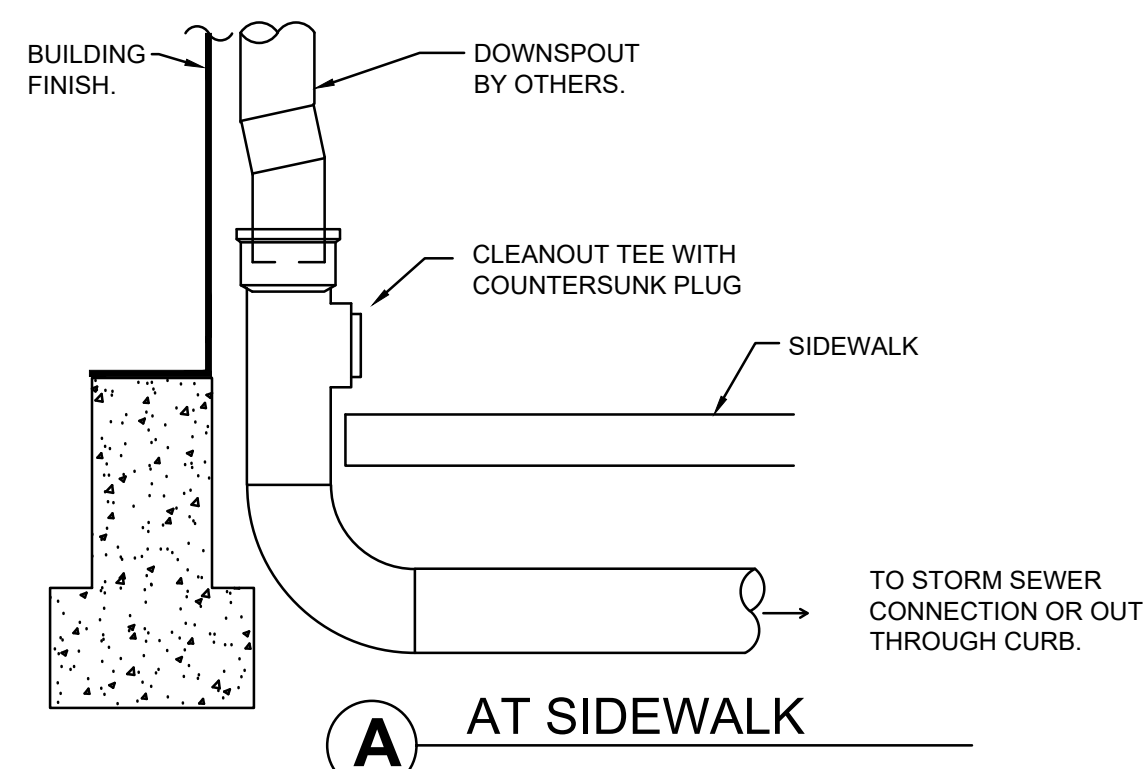
Copyright © 2022
 HGE ARCHITECTS, LLC

GENERAL SHEET NOTES

A. FIELD VERIFY ALL BELOW GRADE UTILITIES PRIOR TO INSTALLING AND CONNECTING NEW LINES.

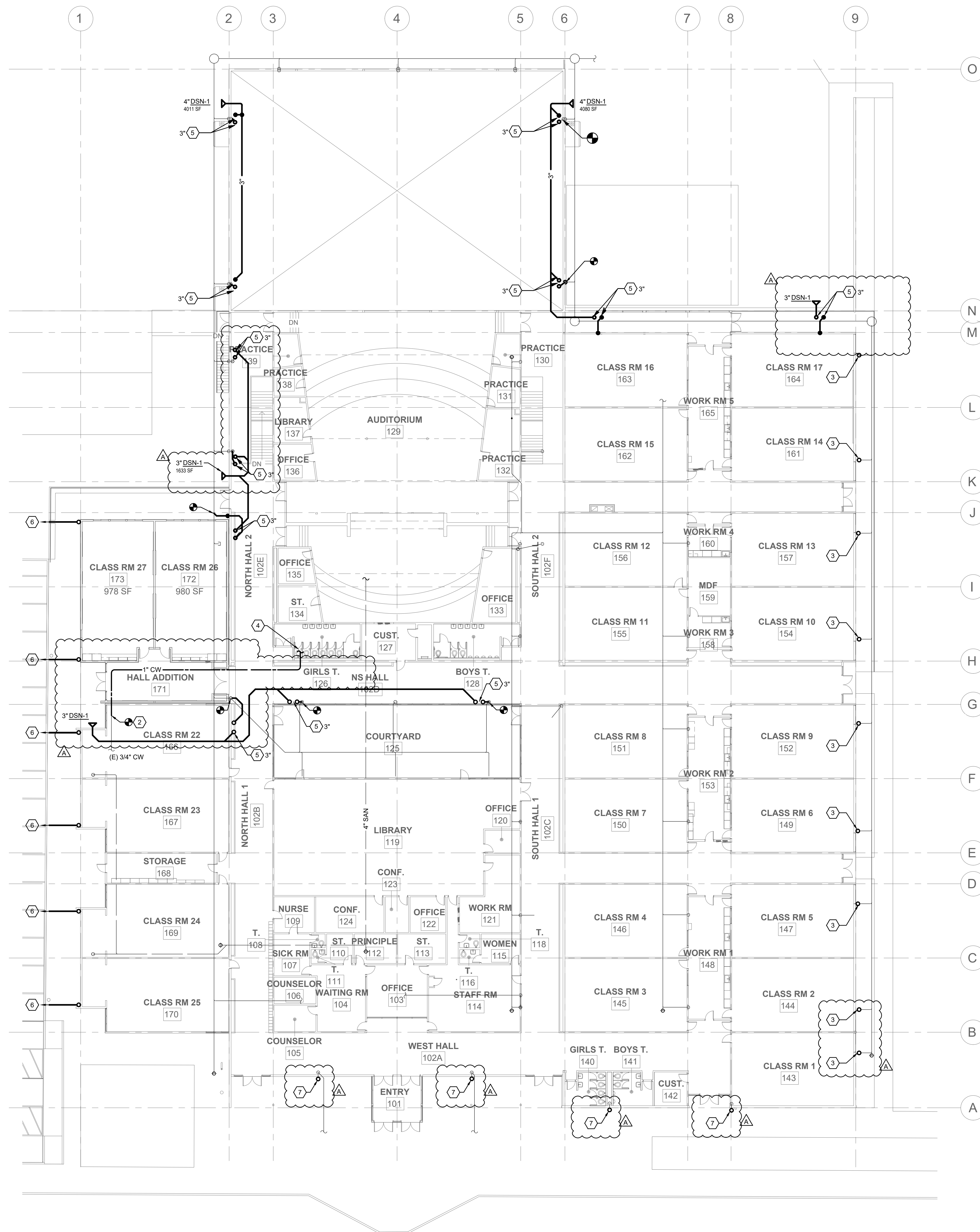
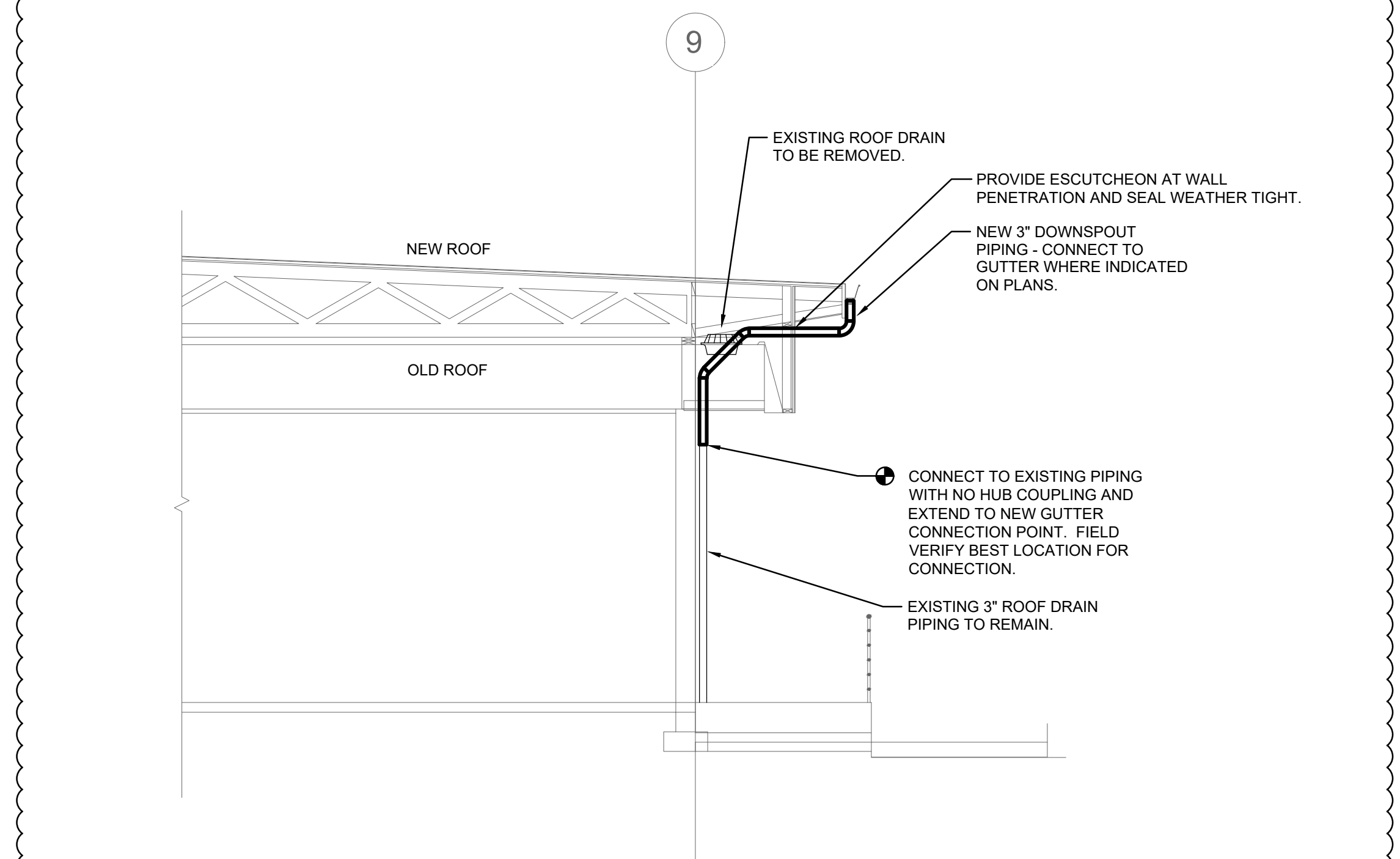
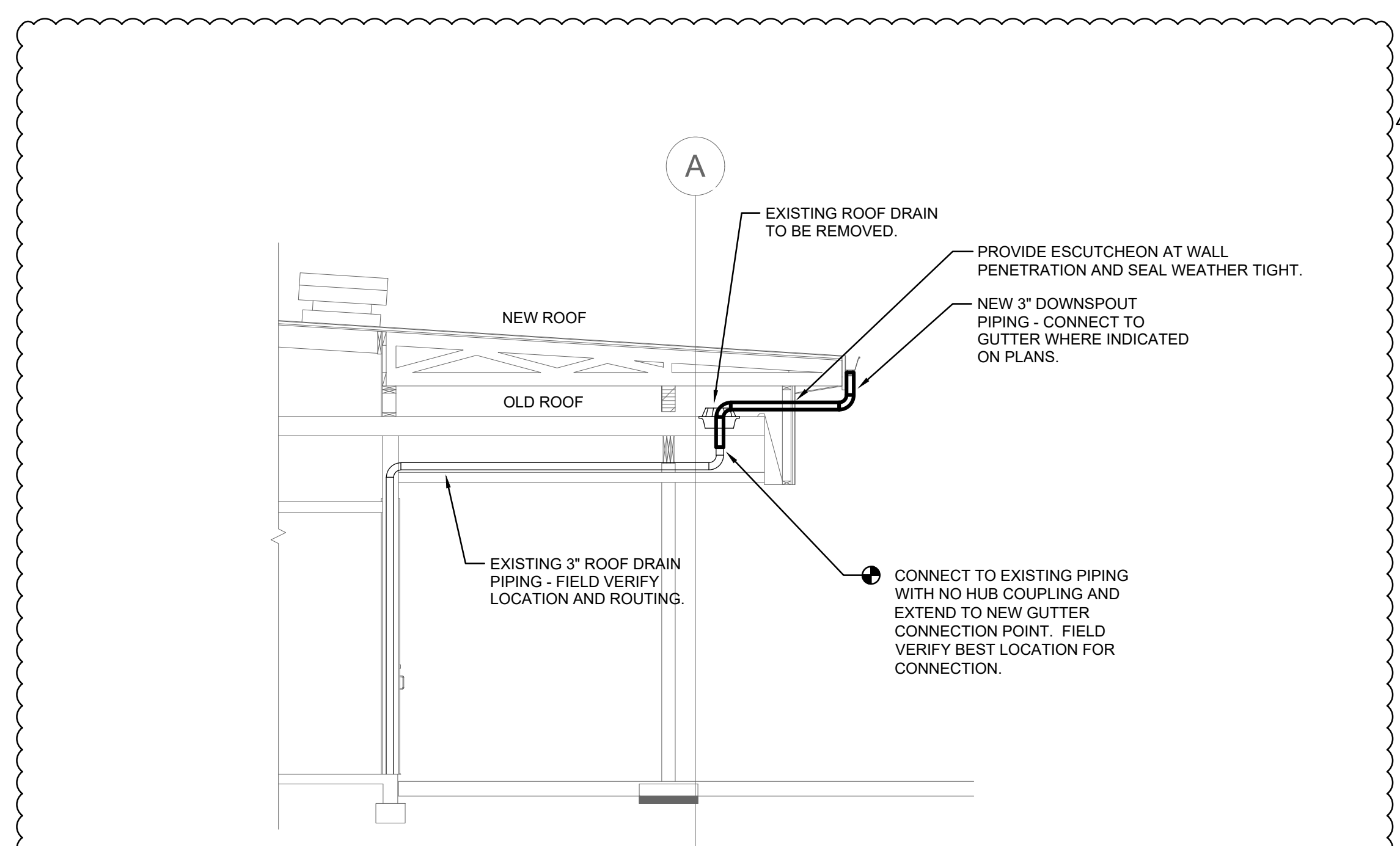
SHEET KEYNOTES

1. NOT USED
2. CONNECT NEW 3/4" CW LINE TO EXISTING AND PROVIDE ISOLATION VALVE ABOVE THE CEILING.
3. PROVIDE NEW 3" DOWNSPOUT PIPING CONNECTED TO EXISTING STORM DRAIN PIPING. SEE DETAIL 5/P201.
4. CONNECT NEW 1" CW PIPING TO EXISTING CW PIPING IN PLUMBING CHASE. FIELD VERIFY ROUTING AND CONNECTION POINT.
5. ROUTE PIPING UP TO NEW ROOF AND OVERFLOW DRAIN.
6. PROVIDE NEW 3" DOWNSPOUT CONNECTION AND EXTEND DRAIN PIPE THROUGH CURB FOR SURFACE DRAINING. SEE DETAIL 3/P201.
7. PROVIDE NEW 3" DOWNSPOUT PIPING CONNECTED TO EXISTING STORM DRAIN PIPING. SEE DETAIL 4/P201.



3 DOWNSPOUT CONNECTION WITH CO TEE
NO SCALE

2 OVERFLOW TERMINATION FITTING
NO SCALE



1 MAIN FLOOR PLAN - PLUMBING
SCALE: 1/16"=1'-0"

BIDDING

REVISIONS	#	DATE	DESCRIPTION
A	1	01/19/23	REVISIONS

GENERAL SHEET NOTES

A. FIELD VERIFY ALL BELOW GRADE UTILITIES PRIOR TO INSTALLING AND CONNECTING NEW LINES.

SHEET KEYNOTES

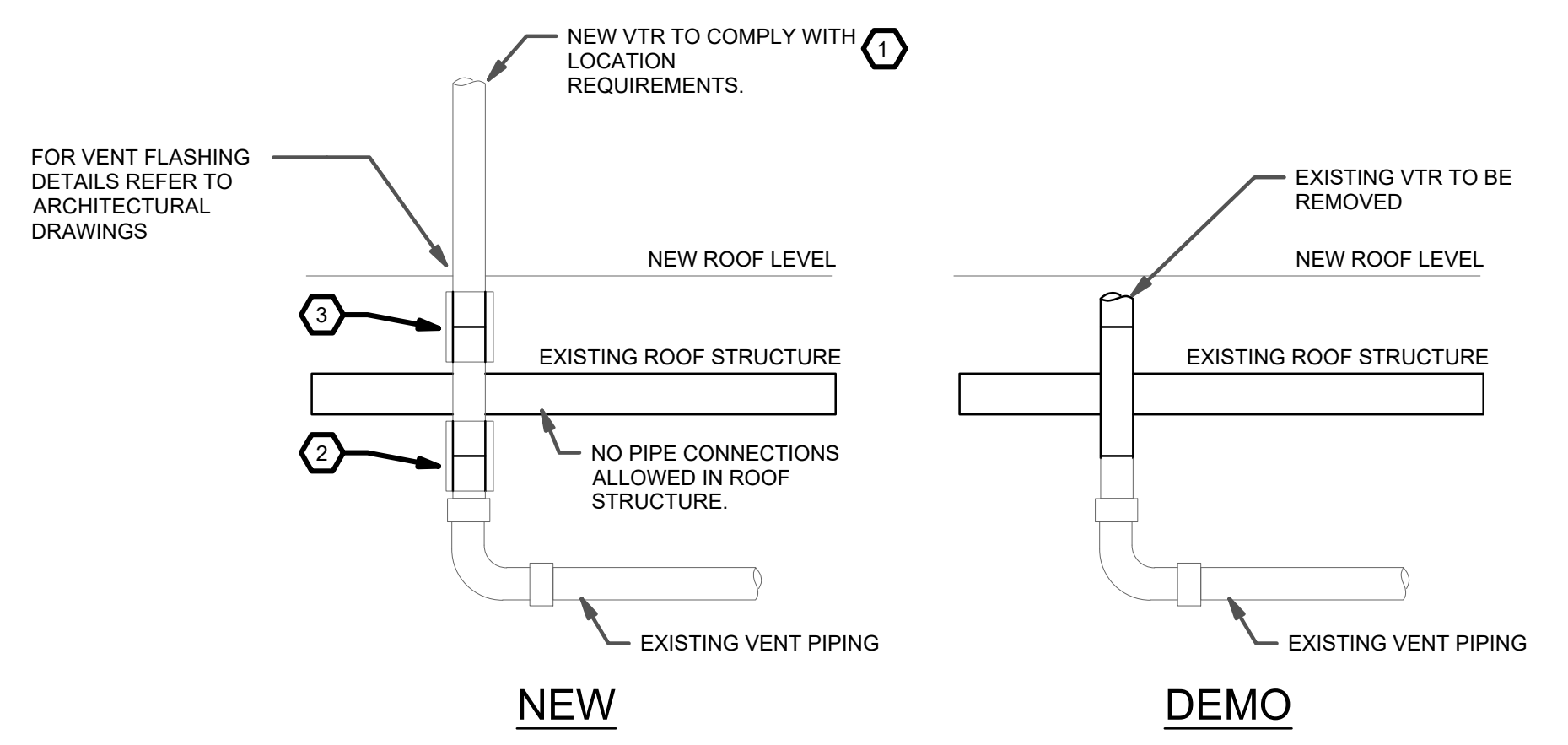
- NEW ROOF AND OVERFLOW DRAIN. CONNECT ROOF DRAIN TO EXISTING PIPING. ROUTE NEW OVERFLOW PIPING AS SHOWN. FIELD VERIFY ALL ROUTING.
- NEW DOWNSPOUT LOCATION. COORDINATE WITH ARCHITECTURAL PLANS.
- FIELD VERIFY LOCATION AND SIZE OF ALL PLUMBING VENTS AND EXTEND THROUGH NEW ROOF PER DETAIL ZIP-232.



333 S. 4TH STREET
COOS BAY, OR 97420
P. 541.369.1166
www.hge1.com
general@hge1.com

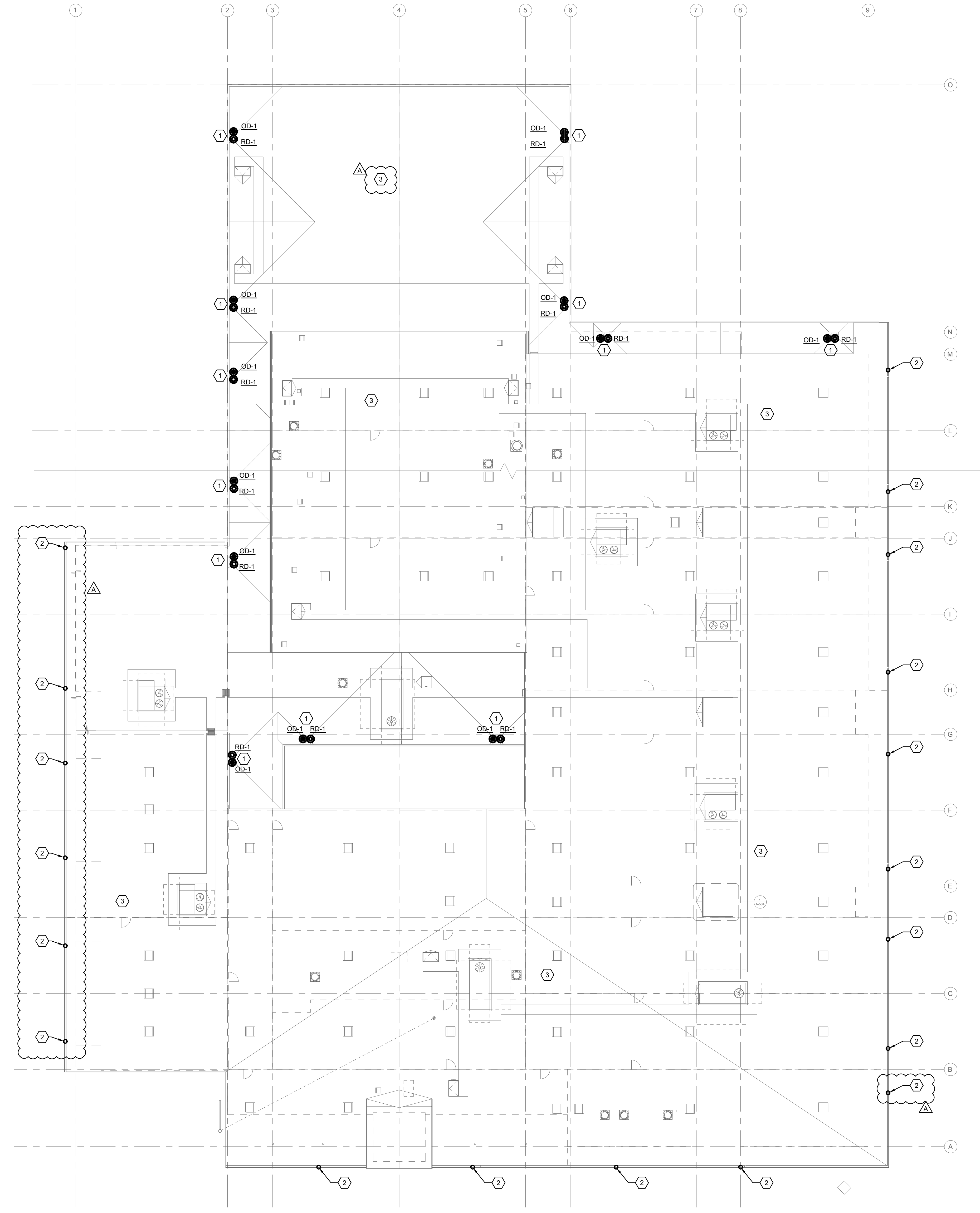


PROJECT: 2022-1618
CONTRACT: Rick Stenzel
100 SW Main Street, Suite 1600
Portland, OR 97204
TEL: 503.882.2266
www.interfaceengineering.com



- KEY NOTES:**
- VENT MAY REMAIN IN SAME LOCATION IF ALL LOCATION REQUIREMENTS ARE MET.
 - PIPE EXTENSION SPLICE IS TO BE MADE BELOW THE ROOF DECK. ELBOW IS TO BE SUPPORTED VERTICALLY, AND THE PIPE EXTENSION IS TO BE BRACED AT THE ROOF DECK.
 - ALTERNATIVE SPLICE LOCATION. THIS LOCATION IS TO BE USED ONLY IF NO ACCESS FROM BELOW THE ROOF IS AVAILABLE.
- CONNECTION NOTE:**
A RIGID COUPLER IS TO BE USED TO CONNECT EXISTING PIPING TO THE NEW EXTENSION OF THE VENT PIPE. USE ONE OF THE FOLLOWING:
- GLUED-ON ABS OR PVC COUPLER FOR PLASTIC PIPES.
- THREADED GALVANIZED STEEL COUPLER.
- HEAVY-DUTY CAST IRON BOLTED-ON COUPLER FOR CAST IRON PIPES.
- LOCATION REQUIREMENTS:**
- TERMINATE A MINIMUM OF 8 INCHES ABOVE FINISHED ROOF SURFACE.
 - TERMINATE A MINIMUM OF 12 INCHES FROM A VERTICAL SURFACE.
 - TERMINATE A MINIMUM OF 10 FEET FROM, OR 3 FEET ABOVE OPERABLE WINDOWS, DOORS, OR AIR INTAKES.

2 VENT THROUGH ROOF DETAIL
NO SCALE



1 ROOF PLAN - PLUMBING
SCALE: 1/16"=1'-0"

PROJECT NO.: 22.25
MILLICOMA SCHOOL REROOF & CLASSROOM ADDITION
COOS BAY SCHOOL DISTRICT
280 2ND AVE
COOS BAY, OR 97420

BIDDING

REVISIONS	#	DATE	DESCRIPTION
A	01/19/23		REVISIONS

DATE: JANUARY 2023
SHEET TITLE:
ROOF PLAN - PLUMBING

P-232

Copyright © 2022
HGE ARCHITECTS., LLC

VAV TERMINAL UNITS (TU, VTU)																
TAG	MODEL [A]	PRIMARY AIR			NOISE CRITERIA (NC)			HEATING COIL							WEIGHT LB	NOTES
		INLET SIZE (IN)	MAX CFM	MIN. CFM (HEATING)	TOTAL APP (IN. W.G.)	DISCH.	RAD.	CFM	EAT, °F	LAT, °F	KW	V	PH	FLA		
TU1-1	VCEF	16	1630	1110	0.010	22	27	1110	55	85	11.0	208	3	30.53	121	1
TU1-2	VCEF	12	1260	550	0.030	24	26	550	55	85	5.5	208	3	15.27	93	1
TU1-3	VCEF	12	1260	550	0.030	24	26	550	55	85	5.5	208	3	15.27	93	1
TU1-4	VCEF	12	1280	550	0.030	24	26	550	55	85	5.5	208	3	15.27	93	1
TU1-5	VCEF	12	1280	550	0.030	24	26	550	55	85	5.5	208	3	15.27	93	1
TU2-1	VCEF	12	1260	550	0.030	24	26	550	55	85	5.5	208	3	15.27	93	1
TU2-2	VCEF	12	1260	550	0.030	24	26	550	55	85	5.5	208	3	15.27	93	1
TU2-3	VCEF	14	1210	740	0.010	22	24	740	55	85	7.5	208	3	20.82	108	1
TU2-4	VCEF	12	1280	550	0.030	24	26	550	55	85	5.5	208	3	15.27	93	1
TU2-5	VCEF	12	1460	550	0.040	26	29	550	55	85	5.5	208	3	15.27	93	1
TU3-1	VCEF	12	1260	550	0.030	24	26	550	55	85	5.5	208	3	15.27	93	1
TU3-2	VCEF	12	1260	550	0.030	24	26	550	55	85	5.5	208	3	15.27	93	1
TU3-3	VCEF	12	1030	590	0.020	22	24	590	55	85	6.0	208	3	16.65	93	1
TU3-4	VCEF	12	1280	550	0.030	24	26	550	55	85	5.5	208	3	15.27	93	1
TU3-5	VCEF	12	1280	550	0.030	24	26	550	55	85	5.5	208	3	15.27	93	1
TU4-1	VCEF	12	1260	550	0.030	24	26	550	55	85	5.5	208	3	15.27	93	1
TU4-2	VCEF	12	1260	550	0.030	24	26	550	55	85	5.5	208	3	15.27	93	1
TU4-3	VCEF	12	1260	550	0.030	24	26	550	55	85	5.5	208	3	15.27	93	1
TU4-4	VCEF	14	1410	970	0.010	24	25	970	55	85	10.0	208	3	27.76	108	1
TU4-5	VCEF	12	1280	550	0.030	24	26	550	55	85	5.5	208	3	15.27	93	1
TU4-6	VCEF	12	1280	550	0.030	24	26	550	55	85	5.5	208	3	15.27	93	1
TU5-1	VCEF	24X16	4420	1330	0.190	36	37	1330	55	90	15.0	208	3	41.64	135	1
TU5-2	VCEF	8	540	180	0.040	25	24	180	55	85	2.0	208	3	5.55	67	1
TU5-3	VCEF	10	710	240	0.020	24	24	240	55	85	2.5	208	3	6.94	81	1
TU5-4	VCEF	12	1130	430	0.020	22	24	430	55	85	5.5	208	3	15.27	93	1
TU5-5	VCEF	6	550	190	0.090	20	24	190	55	85	2.0	208	3	5.55	63	1
TU5-6	VCEF	10	1080	540	0.030	27	27	540	55	85	4.5	208	3	12.49	81	1
TU5-7	VCEF	10	720	570	0.020	25	24	570	55	85	5.5	208	3	15.27	81	1
TU5-8	VCEF	10	810	600	0.020	25	25	600	55	105	6.0	208	3	16.65	81	1
TU5-9	VCEF	10	730	580	0.020	25	24	580	55	85	6.0	208	3	16.65	81	1
TU6-1	VCEF	12	1400	620	0.040	25	29	620	55	85	6.0	208	3	16.65	93	1
TU6-2	VCEF	12	1400	620	0.040	25	29	620	55	85	6.0	208	3	16.65	93	1
TU6-3	VCEF	6	350	130	0.110	20	25	130	55	85	1.5	208	3	4.16	63	1
TU6-4	VCEF	12	1400	620	0.040	25	29	620	55	85	6.0	208	3	16.65	93	1
TU6-5	VCEF	12	1400	620	0.040	25	29	620	55	85	6.0	208	3	16.65	93	1
TU7-1	VCEF	14	1410	710	0.010	24	25	710	55	85	7.0	208	3	19.43	108	1
TU7-2	VCEF	14	1390	700	0.010	24	25	700	55	85	7.0	208	3	19.43	108	1
TU7-3	VCEF	14	1410	1410	0.010	24	25	1410	55	85	11.0	208	3	30.53	108	1
TU7-4	VCEF	14	1410	1410	0.010	24	25	1410	55	85	13.0	208	3	36.08	108	1, 3
TU8-1	VCEF	8	500	180	0.040	25	22	180	55	85	2.0	208	3	5.55	67	1
TU8-2	VCEF	16	2405	910	0.020	26	30	910	55	85	9.0	208	3	24.98	121	1
TU8-3	VCEF	16	2405	910	0.020	26	30	910	55	85	9.0	208	3	24.98	121	1
TU8-4	VCEF	8	510	190	0.040	25	22	190	55	85	2.0	208	3	5.55	67	1
TU8-5	VCEF	14	2220	820	0.010	29	31	820	55	85	8.0	208	3	22.21	108	1
TU8-6	VCEF	6	300	110	0.080	19	24	110	55	85	1.5	208	3	4.16	63	1
TU8-7	VCEF	6	310	110	0.090	19	24	110	55	85	1.5	208	3	4.16	63	1
VTU2-1	VCEF	16	2775	1390	0.030	26	30	2775	60	80	16	208	3	44.5	121	1, 2
VTU2-2	VCEF	16	2800	1400	0.030	26	30	2800	60	80	16	208	3	44.5	121	1, 3
VTU2-3	VCEF	14	2160	1120	0.010	29	31	2160	60	80	16	208	3	44.5	121	1, 2

- NOTES:
1. WITH HEATING COIL SCR CONTROLLER, 24V CONTROL TRANSFORMER. DDC CONTROLS AND ACTUATOR PROVIDED SEPARATELY (FIELD MOUNTED).
 2. TWO-POSITION FLOW TU. AIRFLOW EITHER MIN OR MAX DEPENDING ON SELECTED ROOM USE.
 3. CONSTANT VOLUME TU.

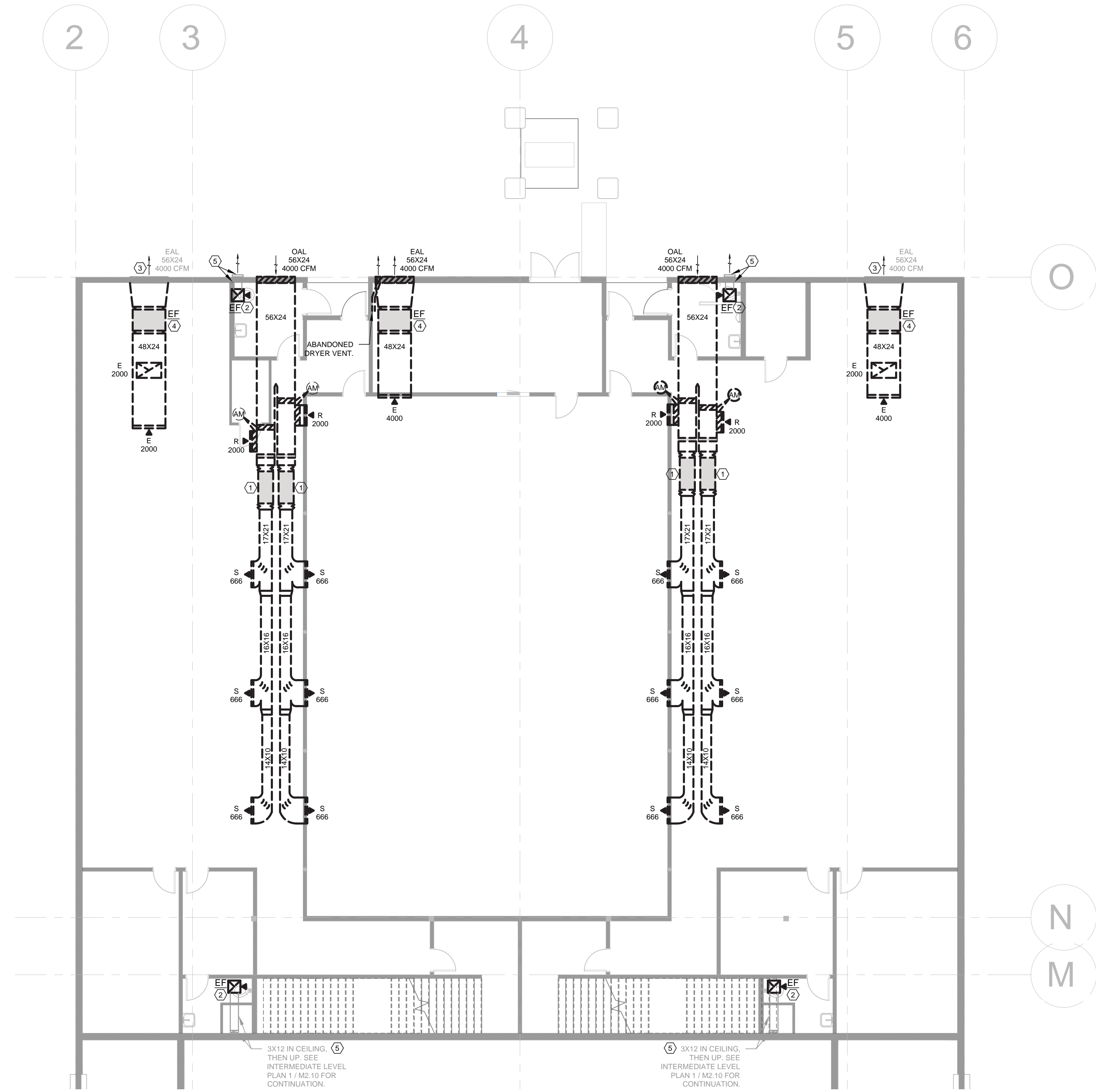
PACKAGED ELECTRIC ROOFTOP HEAT PUMP UNITS (RTU) - VARIABLE AIR VOLUME																																
TAG	MODEL NO. [A]	DISCHARGE	NOMINAL TONS	SUPPLY FAN				RETURN / RELIEF				COOLING				HEATING				AUX HEAT		ELECTRICAL			APPROX WEIGHT (LBS)	NOTES						
				CFM MAX.	CFM MIN.	ESP (IN W.C.)	MINIMUM OSA (CFM)	MOTOR BHP / HP	VFD	CFM MAX.	CFM MIN.	ESP (IN W.C.)	MOTOR BHP / HP	VFD	EAT (°F)	LAT (°F)	TOTAL CAPACITY MBH	EFF. - EER / IEEER	EAT (°F)	LAT (°F)	CAPACITY MBH	COP	KW	STAGES			V	PH	PH	MCA	MOCP	
RTU-1	DP5010A	DOWN	12.5	6140	3310	1.85	2700	4.65/7.5	Y	5950	3370	0.6	236/4	Y	73	56	149	11.7/18	47	61.7	86	3.42	18	4	208	3	208	3	129	150	2700	1, 2, 3, 4, 5, 6, 7, 8, 9
RTU-2	DP5010A	DOWN	12.5	5890	2940	1.85	2415	4.99/7.5	Y	5600	2790	0.6	202/4	Y	73	56	148	11.7/18	47	62.2	86	3.42	18	4	208	3	208	3	129	150	2700	1, 2, 3, 4, 5, 6, 7, 8, 9
RTU-3	DP5010A	DOWN	12.5	5560	2790	1.85	2350	4.56/7.5	Y	5280	2650	0.6	1.85/3	Y	73	56	147	11.7/18	47	63	86	3.42	18	4	208	3	208	3	129	150	2700	1, 2, 3, 4, 5, 6, 7, 8, 9
RTU-4	DP5016A	DOWN	16	7060	3720	1.9	2900	7.26/10	Y	6710	3530	0.6	1.89/3	Y	73	56	184	11.5/20.5	47	63.7	129	3.55	20	4	208	3	208	3	186	200	3900	1, 2, 3, 4, 5, 6, 7, 8, 9
RTU-5	DP5018A	DOWN	17	9790	4660	1.9	1335	8.98/10	Y	8910	4430	0.6	3.28/5	Y	73	58	200	11.4/20.9	47	60.5	139	3.6	10	2	208	3	208	3	156	175	4150	1, 2, 3, 4, 5, 6, 7, 8, 9
RTU-6	DP5010A	DOWN	12.5	5410	2610	1.8	2510	4.37/5	Y	5140	2480	0.6	1.63/3	Y	73	56	146	11.7/18	47	63.4	86	3.42	18	4	208	3	208	3	129	150	2700	1, 2, 3, 4, 5, 6, 7, 8, 9
RTU-7	DP5010A	DOWN	12.5	5120	2480	1.85	1765	4.57/5	Y	4080	3690	0.6	0.95/1.5	Y	73	56	146	11.7/18	47	64.2	86	3.42	18	4	208	3	208	3	123	125	2700	1, 2, 3, 4, 5, 6, 7, 8, 9
RTU-8	DP5016A	DOWN	16	7870	3230	1.9	2810	6.81/10	Y	7480	3070	0.6	2.57/5	Y	73	56	186	12/21.2	47	62	129	3.55	20	4	208	3	208	3	186	200	4150	1, 2, 3, 4, 5, 6, 7, 8, 9
RTU-9	DP5007A	DOWN	8.5	4390	2195	1.2	3250	2.63/4	Y	3515	2375	0.6	0.99/1.5	Y	73	56	98	12.8/19.6	47	85	90	3.66	54	4	208	3	208	3	203	225	2500	1, 2, 3, 4, 5, 6, 7, 8, 9

- NOTES:
1. BASIS OF DESIGN: DAIKIN (REBEL), TRANE (HOIRZON ASHP - OAD/K/N), OR APPROVED EQUAL. DAIKIN (REBEL) MODEL SHOWN.
 1. VARIABLE AIR VOLUME SYSTEM.
 2. FACTORY MOUNTED DUCT SMOKE DETECTOR IN RETURN PATH. BACnet/MSTP COMMUNICATION CARD.
 3. DRY BULB ECONOMIZER.
 4. SPRING ISOLATED CURB.
 5. FIELD WIRED 115 V, 15 A SERVICE RECEPTACLE.
 6. INTEGRAL FACTORY DISCONNECT.
 7. MERV 8 PLEATED FILTERS.
 8. COASTAL ENVIRONMENT: EVAPORATOR COILS TO HAVE SS CASING, COILS WITH ELECTROFIN DIP. PORTIONS OF UNIT EXPOSED DIRECTLY TO OUTDOOR AIR TO HAVE 6000-HOUR SALT SPRAY TEST CORROSION RESISTANCE. DAMPERS, LINKAGE, AND ACTUATORS CONSTRUCTED TO BE SUITABLE FOR MARINE ENVIRONMENT.
 9. REFRIGERANT: R410A

PACKAGED ELECTRIC AT-GRADE HEAT PUMP UNITS (AGU) - VARIABLE AIR VOLUME																																
TAG	MODEL NO. [A]	DISCHARGE	NOMINAL TONS	SUPPLY FAN				RETURN / RELIEF				COOLING				HEATING				AUX HEAT		ELECTRICAL			APPROX WEIGHT (LBS)	NOTES						
				CFM MAX.	CFM MIN.	ESP (IN W.C.)	MINIMUM OSA (CFM)	MOTOR BHP / HP	VFD	CFM MAX.	CFM MIN.	ESP (IN W.C.)	MOTOR BHP / HP	VFD	EAT (°F)	LAT (°F)	TOTAL CAPACITY MBH	EFF. - EER / IEEER	EAT (°F)	LAT (°F)	CAPACITY MBH	COP	KW	STAGES			V	PH	PH	MCA	MOCP	
AGU-1	DP5016A	HORIZONTAL	16	7735	5270	1.25	5200	6.39/10	Y	2800	1400	0.5	0.83/1.5	Y	73	56	186	11.7/20	47	60	129	3.55	60	4	208	3	208	3	277	300	3850	1, 2, 3, 4, 5, 6, 7, 8

- NOTES:
1. BASIS OF DESIGN: DAIKIN (REBEL), TRANE (HOIRZON ASHP - OAD/K/N), OR APPROVED EQUAL. DAIKIN (REBEL) MODEL SHOWN.
 1. VARIABLE AIR VOLUME SYSTEM.
 2. FACTORY MOUNTED DUCT SMOKE DETECTOR IN RETURN PATH. BACnet/MSTP COMMUNICATION CARD.
 3. DRY BULB ECONOMIZER.
 4. FIELD WIRED 115 V, 15 A SERVICE RECEPTACLE.
 5. INTEGRAL FACTORY DISCONNECT.
 6. MERV 8 PLEATED FILTERS.
 7. COASTAL ENVIRONMENT: EVAPORATOR COILS TO HAVE SS CASING, COILS WITH ELECTROFIN DIP. PORTIONS OF UNIT EXPOSED DIRECTLY TO OUTDOOR AIR TO HAVE 6000-HOUR SALT SPRAY TEST CORROSION RESISTANCE. DAMPERS, LINKAGE, AND ACTUATORS CONSTRUCTED TO BE SUITABLE FOR MARINE ENVIRONMENT.
 8. REFRIGERANT: R410A

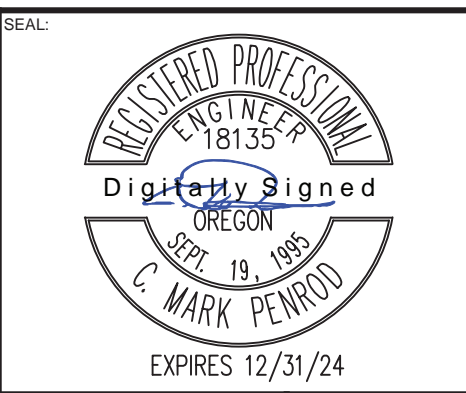
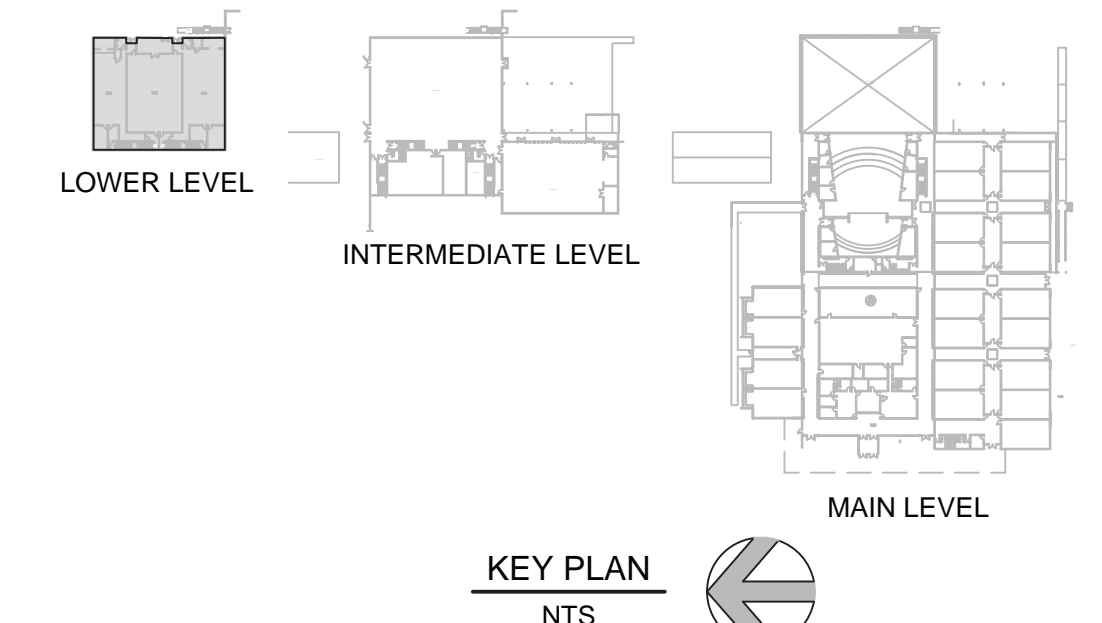
PACKAGED ELECTRIC AT GRADE HEAT PUMP UNITS (AGU) - CONSTANT VOLUME																										
TAG	MODEL NO. [A]	DISCHARGE	NOMINAL TONS	SUPPLY FAN				RETURN / RELIEF				COOLING				HEATING				AUX HEAT		ELECTRICAL			APPROX WEIGHT (LBS)	NOTES
				CFM	ESP (IN W.C.)	MINIMUM OSA (CFM)	MOTOR BHP / HP	VFD	CFM	ESP (IN W.C.)	MOTOR BHP / HP	VFD	EAT (°F)	LAT (°F)	TOTAL CAPACITY MBH	EFF. - EER / IEEER	EAT (°F)	LAT (°F)	CAPACITY MBH	COP	KW	STAGES	V	PH		
AGU-1	DP5016A	HORIZONTAL	16	8000	1	3260	5.5/8	Y	8000	0.7	2.0/3	Y	73	56	186	11.7/20	47	85	166	3.55	60					



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

- KEYED NOTES**
1. ELECTRIC FURNACE, REMOVE.
 2. REMOVE CEILING EXHAUST FAN, DUCTWORK TO REMAIN FOR RECONNECTION.
 3. EXHAUST LOUVER TO REMAIN FOR REUSE.
 4. EXHAUST FAN, REMOVE.
 5. TO REMAIN.

- GENERAL NOTES**
1. DEMOLITION INCLUDES ASSOCIATED SUPPORTS, PIPING, CONTROLS, LOW VOLTAGE WIRING AND APPURTENANCES, UNLESS OTHERWISE NOTED.
 2. LINE VOLTAGE DISCONNECT, AND SAFE-OFF, BY ELECTRICIAN.
- DUCTWORK EXCEPTIONS: WHERE SHOWN AS CAPPED AND / OR SPECIFICALLY NOTED TO REMAIN.



COMFORT FLOW HEATING
AND AIR CONDITIONING
1981 Don Street | Springfield, OR 97477
OFFICE: (541) 726-0100 | FAX: (541) 726-4799
Engineering, Design, Budgeting, Installation & Service
ALL RIGHTS RESERVED. NO PART OF THIS DOCUMENT MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF THE ENGINEERING DEPARTMENT OF COMFORT FLOW HEATING.



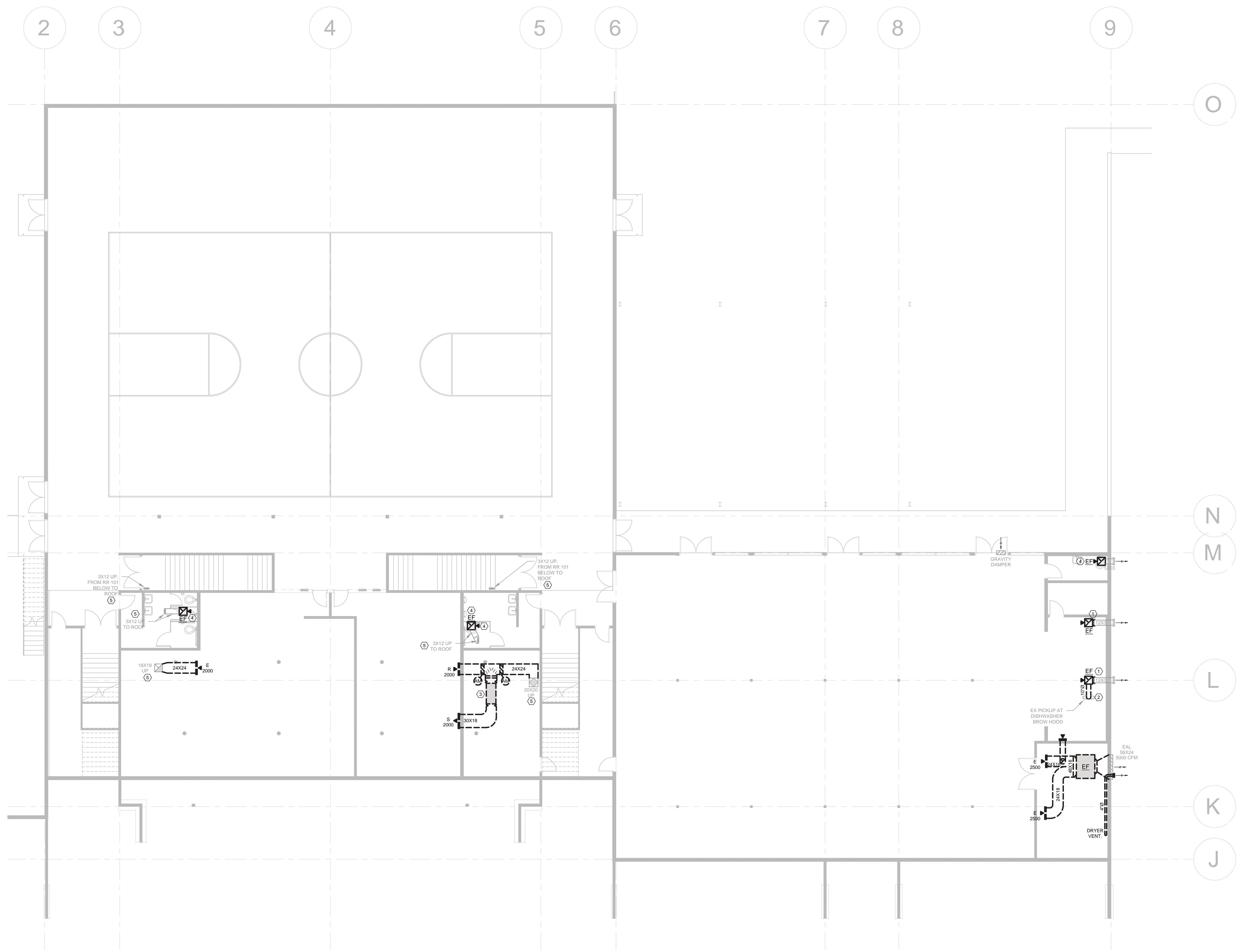
MILLICOMA SCHOOL REROOF & CLASSROOM ADDITION
COOS BAY SCHOOL DISTRICT
260 2ND AVENUE
COOS BAY, OREGON 97420

SHEET TITLE
HVAC LOWER LEVEL DEMOLITION

SOURCE
BIDDING

REVISION	DESCRIPTION	DATE

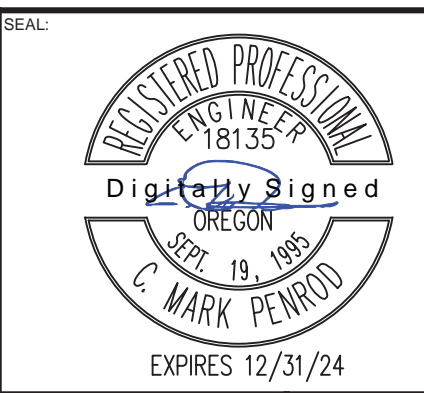
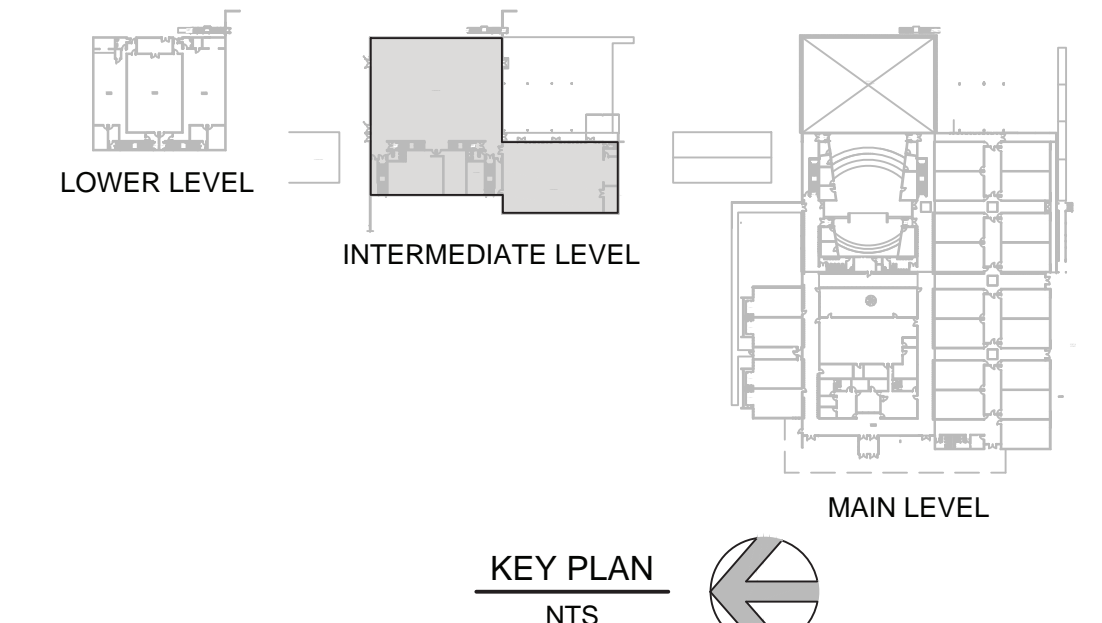
DESIGNER	JS	REVISIONS	CMP	CHECKER	CMP
DRAWING SCALE	AS NOTED	DATE	JANUARY 2023		
FILE NAME	MS-M1.0	PROJECT NO.			
DATE		SHEET NO.			
SHEET	4 OF 15	M2.00			



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

- KEYED NOTES**
1. CAP.
 2. WASHER CONNECTION BOOT TO REMAIN FOR RECONNECTION.
 3. ELECTRIC FURNACE.
 4. REMOVE CEILING EXHAUST FAN. DUCTWORK TO REMAIN FOR RECONNECTION.
 5. TO REMAIN.

- GENERAL NOTES**
1. DEMOLITION INCLUDES ASSOCIATED SUPPORTS, PIPING, CONTROLS, LOW VOLTAGE WIRING AND APPURTENANCES, UNLESS OTHERWISE NOTED.
DUCTWORK EXCEPTIONS: WHERE SHOWN AS CAPPED AND / OR SPECIFICALLY NOTED TO REMAIN.
 2. LINE VOLTAGE DISCONNECT, AND SAFE-OFF, BY ELECTRICIAN.



COMFORT FLOW HEATING
AND AIR CONDITIONING
1951 Don Street | Springfield, OR 97477
OFFICE: (541) 726-0100 | FAX: (541) 726-4799
Engineering, Design, Budgeting, Installation & Service
ALL RIGHTS RESERVED. NO PART OF THIS DOCUMENT
MAY BE USED, REPRODUCED OR TRANSMITTED IN ANY
FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL,
INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION
SYSTEMS. WITHOUT THE WRITTEN PERMISSION OF THE
DEPARTMENT OF COMFORT FLOW HEATING.



MILLICOMA SCHOOL REROOF & CLASSROOM ADDITION
COOS BAY SCHOOL DISTRICT
260 2ND AVENUE
COOS BAY, OREGON 97420

SHEET TITLE: HVAC INTERMEDIATE LEVEL DEMOLITION

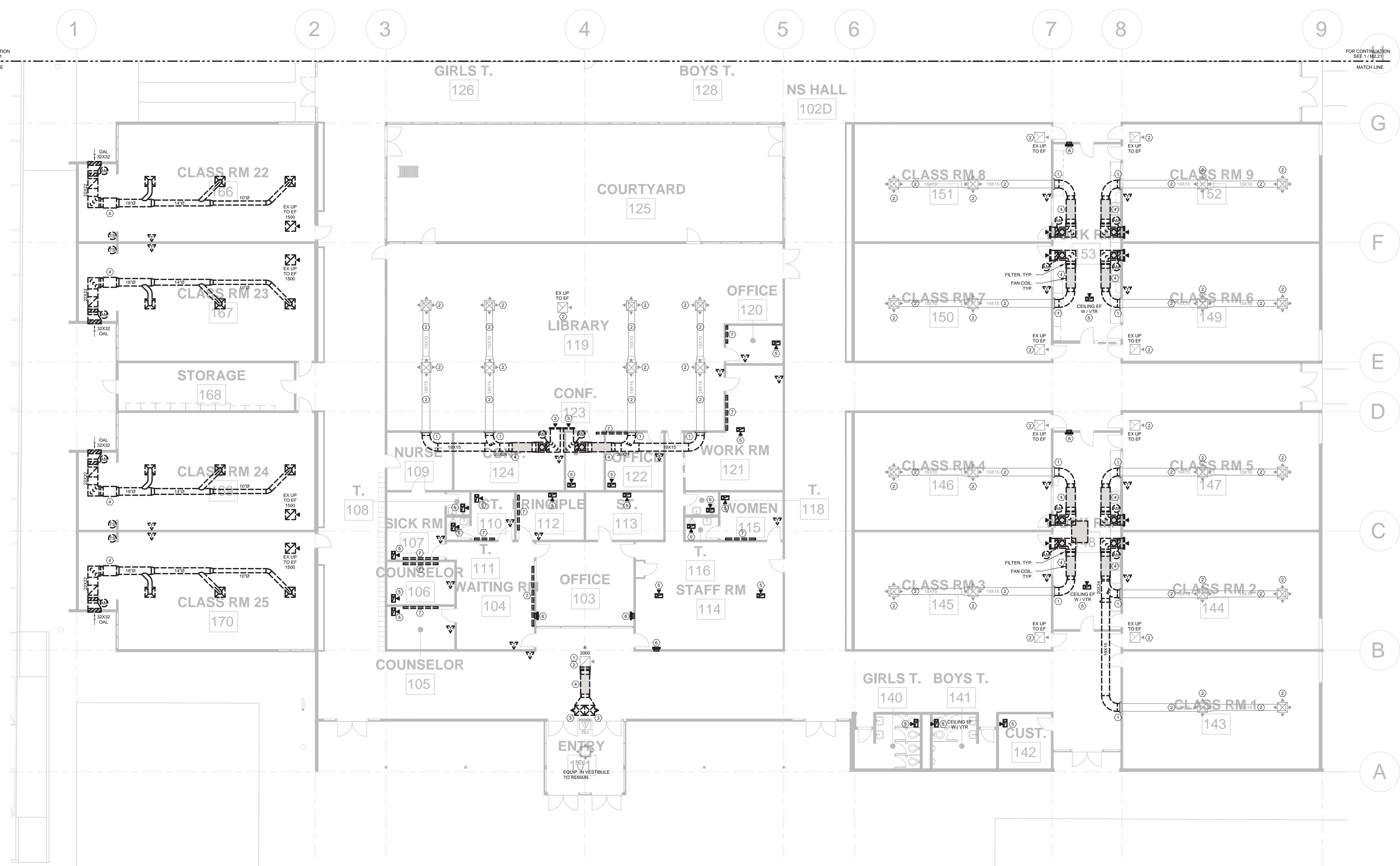
BIDDING

REVISION	DESCRIPTION	DATE

DESIGNER: JS	PREPARED BY: CMP	CHECKED BY: CMP
DRAWING SCALE: AS NOTED	DATE: JANUARY 2023	PROJECT NO: MS-M1.0
SHEET NO: 5 OF 15	SHEET TITLE: M2.10	

FOR CONTINUATION
SEE 1182-21
MATCH LINE

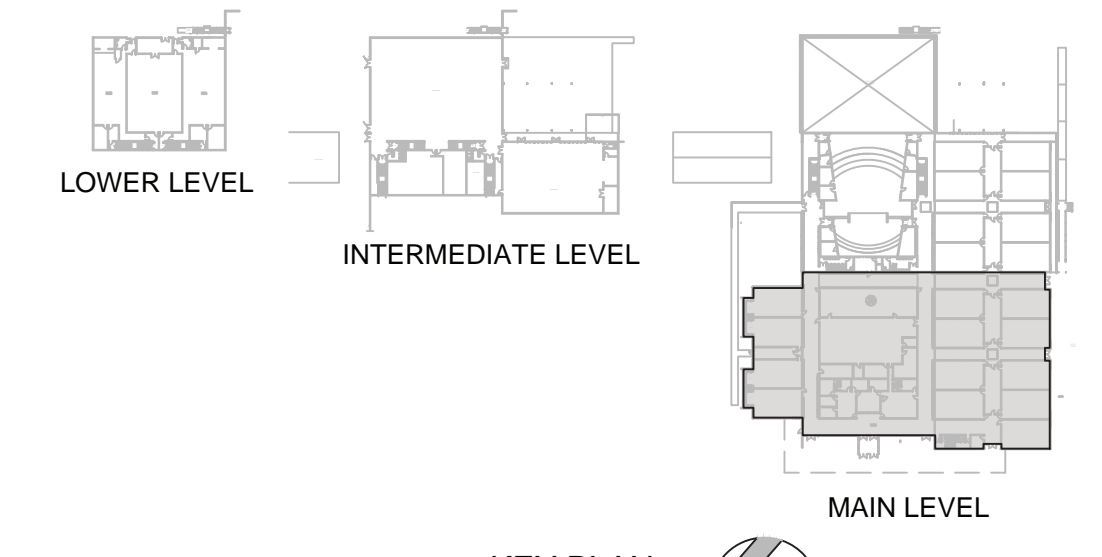
FOR CONTINUATION
SEE 1182-21
MATCH LINE



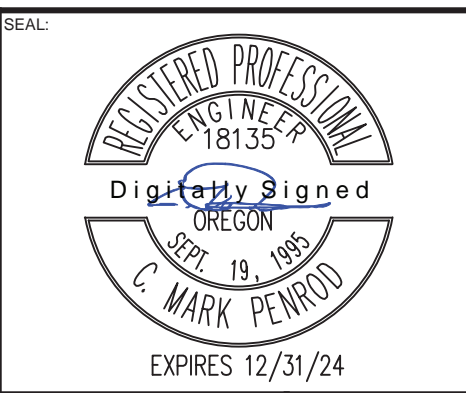
1 MAIN LEVEL PLAN - WEST
SCALE: 1/8"=1'-0"

- KEYED NOTES**
- CAP.
 - ABANDON IN PLACE.
 - GRILLE / DUCT PENETRATION TO BECOME NEW ACCESS WAY FOR NEW EQUIPMENT. SEE ARCHITECTURAL.
 - ELECTRIC FURNACE. REMOVE.
 - REMOVE CEILING EXHAUST FAN AND ASSOCIATED DUCTWORK.
 - 2 kW ELECTRIC HEATER, RECESSES HIGH-LOW CONFIGURATION WITH IN-WALL CONNECTING DUCT AND WALL MOUNTED THERMOSTAT. REMOVE ENTIRE ASSEMBLY.
 - FLOOR / JOIST GRAVITY VENTILATION. TO REMAIN.

- GENERAL NOTES**
- DEMOLITION INCLUDES ASSOCIATED SUPPORTS, PIPING, CONTROLS, LOW VOLTAGE WIRING AND APPURTENANCES, UNLESS OTHERWISE NOTED.
DUCTWORK EXCEPTIONS: WHERE SHOWN AS CAPPED AND / OR SPECIFICALLY NOTED TO REMAIN.
 - LINE VOLTAGE DISCONNECT, AND SAFE-OFF, BY ELECTRICIAN.



KEY PLAN
NTS



COMFORT FLOW HEATING
1951 Don Street Springfield, OR 97477
OFFICE: (541) 726-0100 FAX: (541) 726-4799
Engineering, Design, Budgeting, Installation & Service
ALL RIGHTS RESERVED. NO PART OF THIS DOCUMENT
MAY BE REPRODUCED OR TRANSMITTED IN ANY
FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL,
WITHOUT THE WRITTEN PERMISSION OF THE
DEPARTMENT OF COMFORT FLOW HEATING.



MILLICOMA SCHOOL REROOF & CLASSROOM ADDITION
COOS BAY SCHOOL DISTRICT

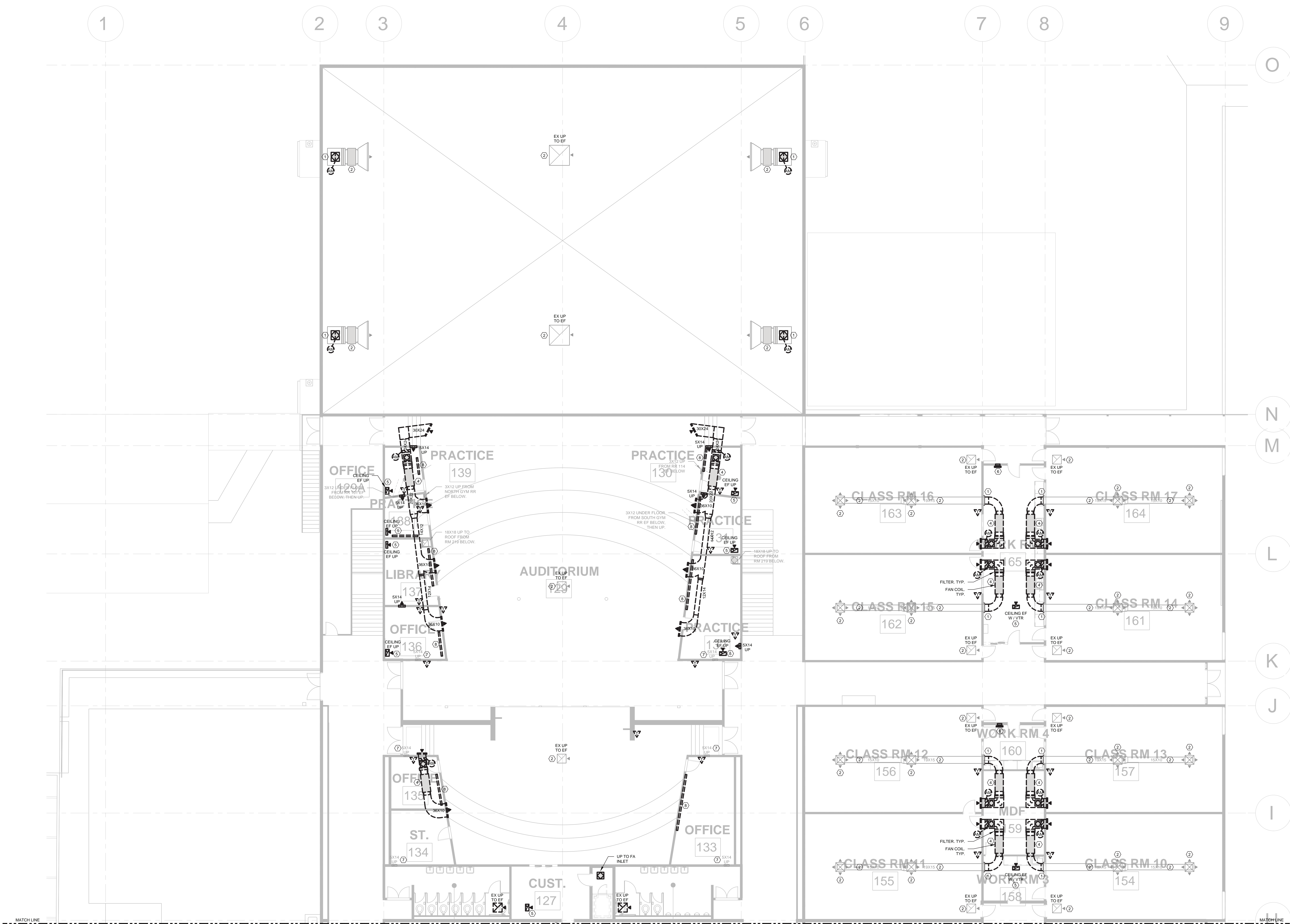
260 2ND AVENUE
COOS BAY, OREGON 97420

PROJECT TITLE: HVAC MAIN LEVEL DEMOLITION - WEST

SOURCE: BIDDING

REVISION	DESCRIPTION	DATE

DESIGNED BY: JS	DESIGNED BY: CMP	CHECKED BY: CMP
DRAWING SCALE: AS NOTED	DATE: JANUARY 2023	PROJECT NO: MS-M1.0
SHEET NO: 6 OF 15	SHEET NO: M2.20	



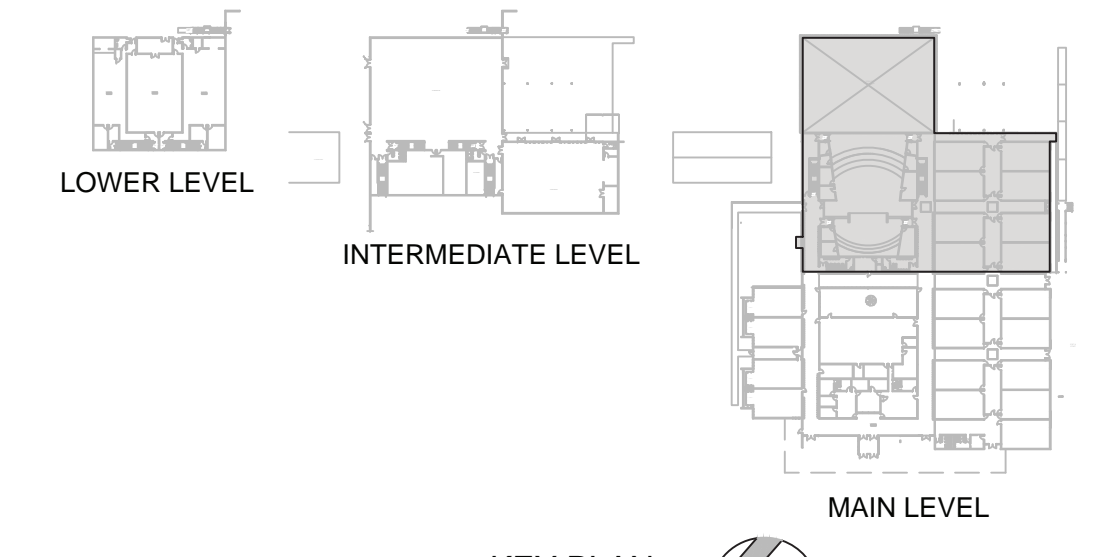
MATCH LINE
FOR CONTINUATION
SEE 1/M2.20

MATCH LINE
FOR CONTINUATION
SEE 1/M2.20

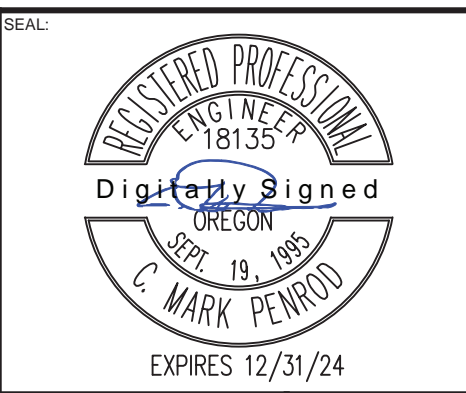
1 MAIN LEVEL PLAN - EAST
SCALE: 1/8"=1'-0"

- KEYED NOTES**
- CAP.
 - ABANDON IN PLACE.
 - REMOVE DIFFUSER / GRILLE, CAP DUCT AND SEAL PENETRATION.
 - ELECTRIC FURNACE, REMOVE.
 - REMOVE CEILING EXHAUST FAN AND ASSOCIATED DUCTWORK.
 - 2 KW ELECTRIC HEATER, RECESSES HIGH-LOW CONFIGURATION WITH IN-WALL CONNECTING DUCT AND WALL MOUNTED THERMOSTAT. REMOVE ENTIRE ASSEMBLY.
 - FLOOR / JOIST GRAVITY VENTILATION, TO REMAIN.
 - ELECTRIC BASEBOARD HEATER, REMOVE.

- GENERAL NOTES**
- DEMOLITION INCLUDES ASSOCIATED SUPPORTS, PIPING, CONTROLS, LOW VOLTAGE WIRING AND APPURTENANCES, UNLESS OTHERWISE NOTED.
DUCTWORK EXCEPTIONS: WHERE SHOWN AS CAPPED AND / OR SPECIFICALLY NOTED TO REMAIN.
 - LINE VOLTAGE DISCONNECT, AND SAFE-OFF, BY ELECTRICIAN.



KEY PLAN
NTS



COMFORT FLOW HEATING
1951 Don Street | Springfield, OR 97477
OFFICE: (541) 726-0100 | FAX: (541) 726-4799
Engineering, Design, Budgeting, Installation & Service
ALL RIGHTS RESERVED. NO PART OF THIS DOCUMENT
MAY BE USED, REPRODUCED OR TRANSMITTED IN ANY
FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL,
INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION
SYSTEMS WITHOUT THE WRITTEN PERMISSION OF THE
DEPARTMENT OF COMFORT FLOW HEATING.



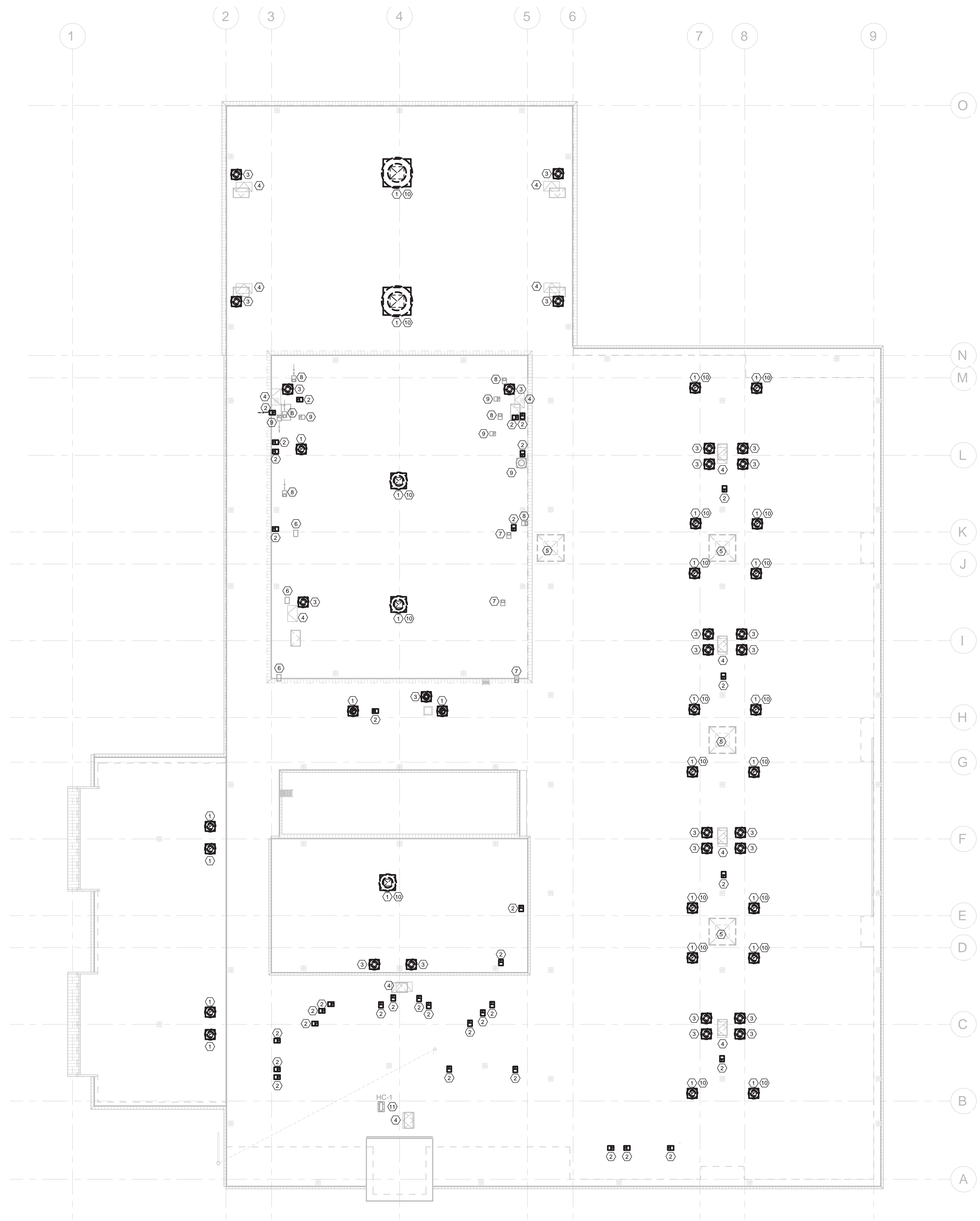
MILLICOMA SCHOOL REROOF & CLASSROOM ADDITION
COOS BAY SCHOOL DISTRICT
260 2ND AVENUE
COOS BAY, OREGON 97420

PROJECT TITLE: HVAC MAIN LEVEL DEMOLITION - EAST

PHASE: BIDDING

DESCRIPTION	DATE

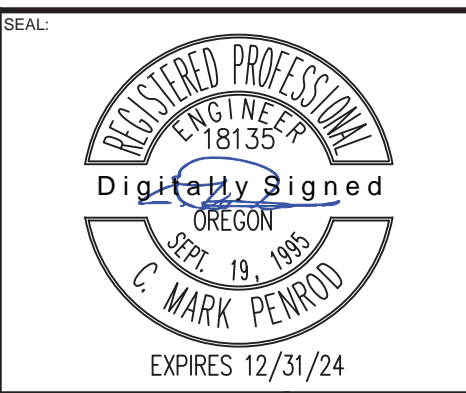
DESIGNED BY: JS	DESIGNED BY: CMP	CHECKED BY: CMP
DRAWING SCALE: AS NOTED	DATE: JANUARY 2023	PROJECT NO: MS-M1.0
SHEET NO: 7 OF 15	SHEET NO: M2.21	



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

- KEYED NOTES**
- EXHAUST FAN, REMOVE.
 - EXHAUST GOOSENECK, REMOVE.
 - FRESH AIR INTAKE, REMOVE.
 - ATTIC LEVEL EQUIPMENT ACCESS DOOR, REFERENCE.
 - SKYLIGHT, REFERENCE.
 - SUBFLOOR VENT OUTLET, TO REMAIN, REMOVE AND SAVE FOR REINSTALLATION ON NEW ROOF.
 - SUBFLOOR VENT OUTLET, TO REMAIN, REMOVE AND SAVE FOR REINSTALLATION ON NEW ROOF.
 - GRAVITY MAKEUP AIR INTAKE TO SUBFLOOR, TO REMAIN, REMOVE AND SAVE FOR REINSTALLATION ON NEW ROOF.
 - TO REMAIN FOR REUSE, VENT TERMINATION, REMOVE AND SAVE FOR REINSTALLATION ON NEW ROOF.
 - CAP / SEAL EXHAUST DUCT BELOW ROOF LEVEL AND ABANDON IN PLACE.
 - REMOVE VESTIBULE MINI-SPLIT CONDENSING UNIT AND SAVE FOR REINSTALLATION ON NEW ROOF.

- GENERAL NOTES**
- DEMOLITION INCLUDES ASSOCIATED SUPPORTS, PIPING, CONTROLS, LOW VOLTAGE WIRING AND APPURTENANCES, UNLESS OTHERWISE NOTED.
 - LINE VOLTAGE DISCONNECT, AND SAFE-OFF, BY ELECTRICIAN.
 - ONLY HVAC RELATED ROOF LEVEL VENT TERMINATIONS SHOWN / ANNOTATED ON THIS PLAN.



COMFORT FLOW HEATING
1961 Don Street | Springfield | OR 97477
OFFICE: (541) 726-0100 | FAX: (541) 726-4799
Engineering, Design, Budgeting, Installation & Service
ALL RIGHTS RESERVED. NO PART OF THIS DOCUMENT
MAY BE USED, REPRODUCED OR TRANSMITTED IN ANY
FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL,
INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION
SYSTEMS WITHOUT THE WRITTEN PERMISSION OF COMFORT FLOW HEATING.



MILLICOMA SCHOOL REROOF & CLASSROOM ADDITION
COOS BAY SCHOOL DISTRICT

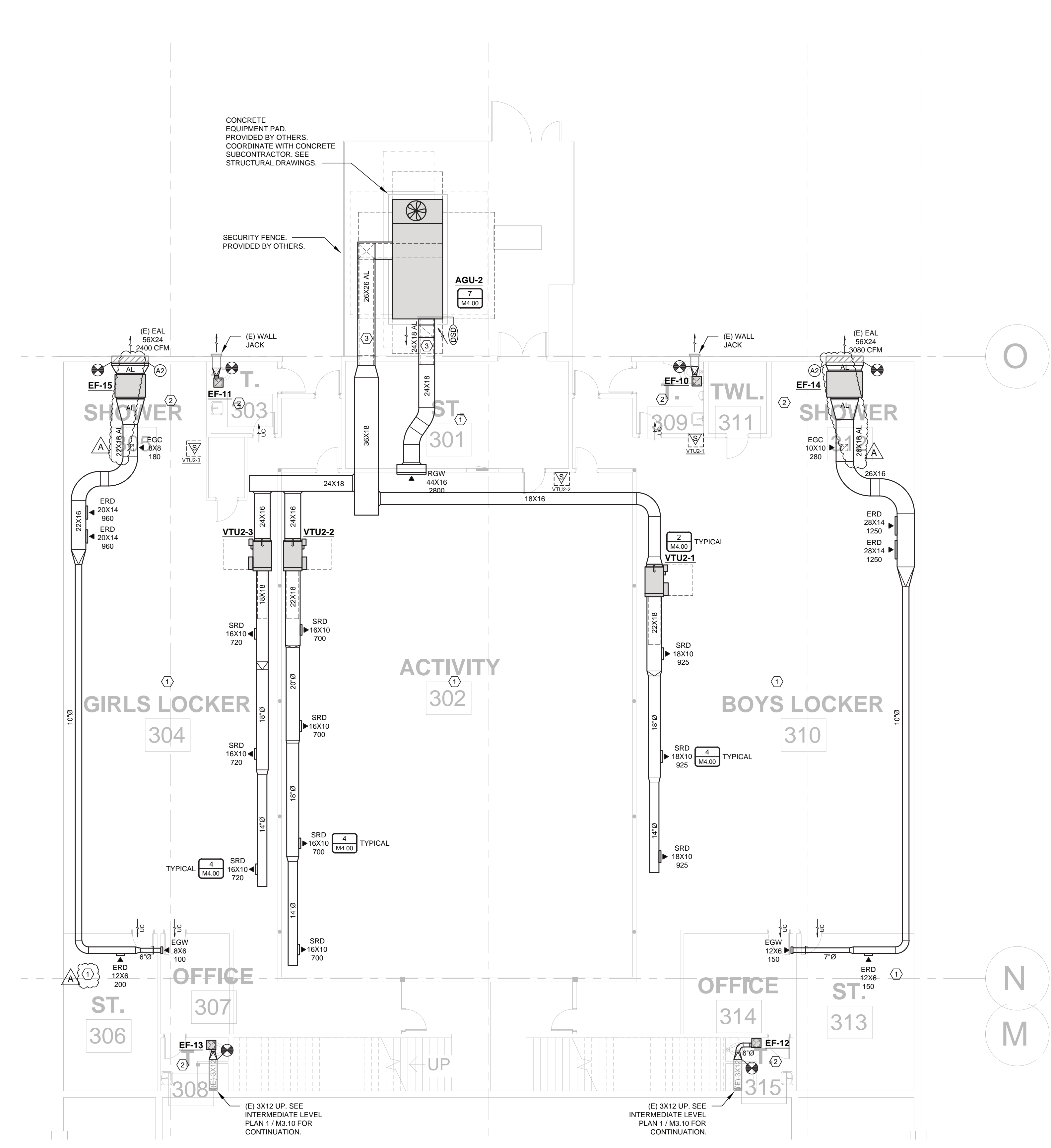
260 2ND AVENUE
COOS BAY, OREGON 97420

SHEET TITLE: HVAC ROOF LEVEL DEMOLITION

REVISION

NO.	DESCRIPTION	DATE

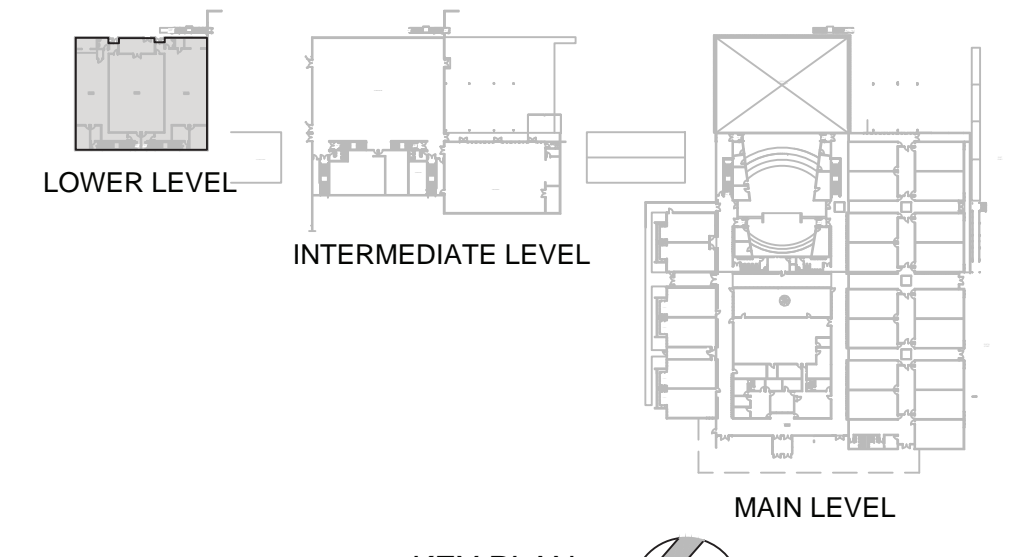
DESIGNED BY	JS	CHECKED BY	CMP	DATE	
DRAWING SCALE	AS NOTED	DATE	JANUARY 2023		
FILE NAME	MS-M1.0	PROJECT NO.			
SHEET NO.	8 OF 15	SHEET NO.			
			M2.30		



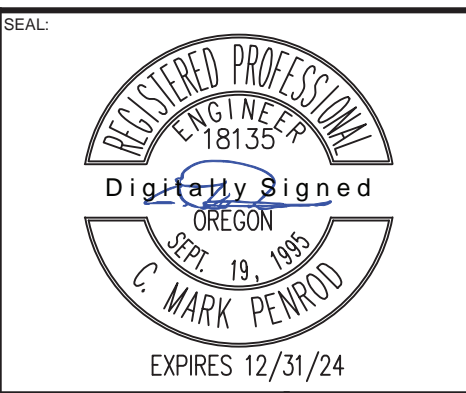
1 LOWER LEVEL PLAN
SCALE: 1/8"=1'-0"

- KEYED NOTES**
- NO CEILING THIS AREA, ALL EXPOSED.
 - SUSPENDED CEILING, DUCTWORK / EQUIPMENT CONCEALED.
 - PROVIDE SUPPORTS FOR OUTDOOR MOUNTED DUCTWORK. SEE DETAIL 9/144.00. SUPPORT SPACING IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE, LATEST EDITION, IN ACCORDANCE WITH OMSC CHAPTER 6. DUCT SUPPORT SPACING SHALL NOT EXCEED 6' LINEAL FOOT OC, WITH AT LEAST ONE SUPPORT AT EACH CHANGE IN DIRECTION.

- GENERAL NOTES**
- FINAL CEILING MOUNTED DIFFUSER AND GRILLE PLACEMENT SHALL BE COORDINATED WITH FINAL ARRANGEMENT FOR LIGHTING AND OTHER CEILING MOUNTED DEVICES. FINAL LOCATION SUBJECT TO APPROVAL BY OWNER AND / OR ARCHITECT.
 - FINAL PLACEMENT OF WALL HUNG DEVICES (SURFACE, OR RECESSED) SHALL BE COORDINATED WITH FINAL ARRANGEMENT OF ELECTRICAL AND ARCHITECTURAL WALL MOUNTED ELEMENTS. FINAL LOCATION SUBJECT TO APPROVAL BY OWNER AND / OR ARCHITECT.



KEY PLAN
NTS



COMFORT FLOW HEATING
1951 Don Street | Springfield, OR 97477
OFFICE: (541) 726-0100 | FAX: (541) 726-4799
Engineering, Design, Budgeting, Installation & Service
ALL RIGHTS RESERVED. NO PART OF THIS DOCUMENT MAY BE USED, REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF THE ENGINEERING DEPARTMENT OF COMFORT FLOW HEATING.



MILLICOMA SCHOOL REROOF & CLASSROOM ADDITION
COOS BAY SCHOOL DISTRICT

260 2ND AVENUE
COOS BAY, OREGON 97420

SHEET TITLE
HVAC LOWER LEVEL

SOURCE
BIDDING

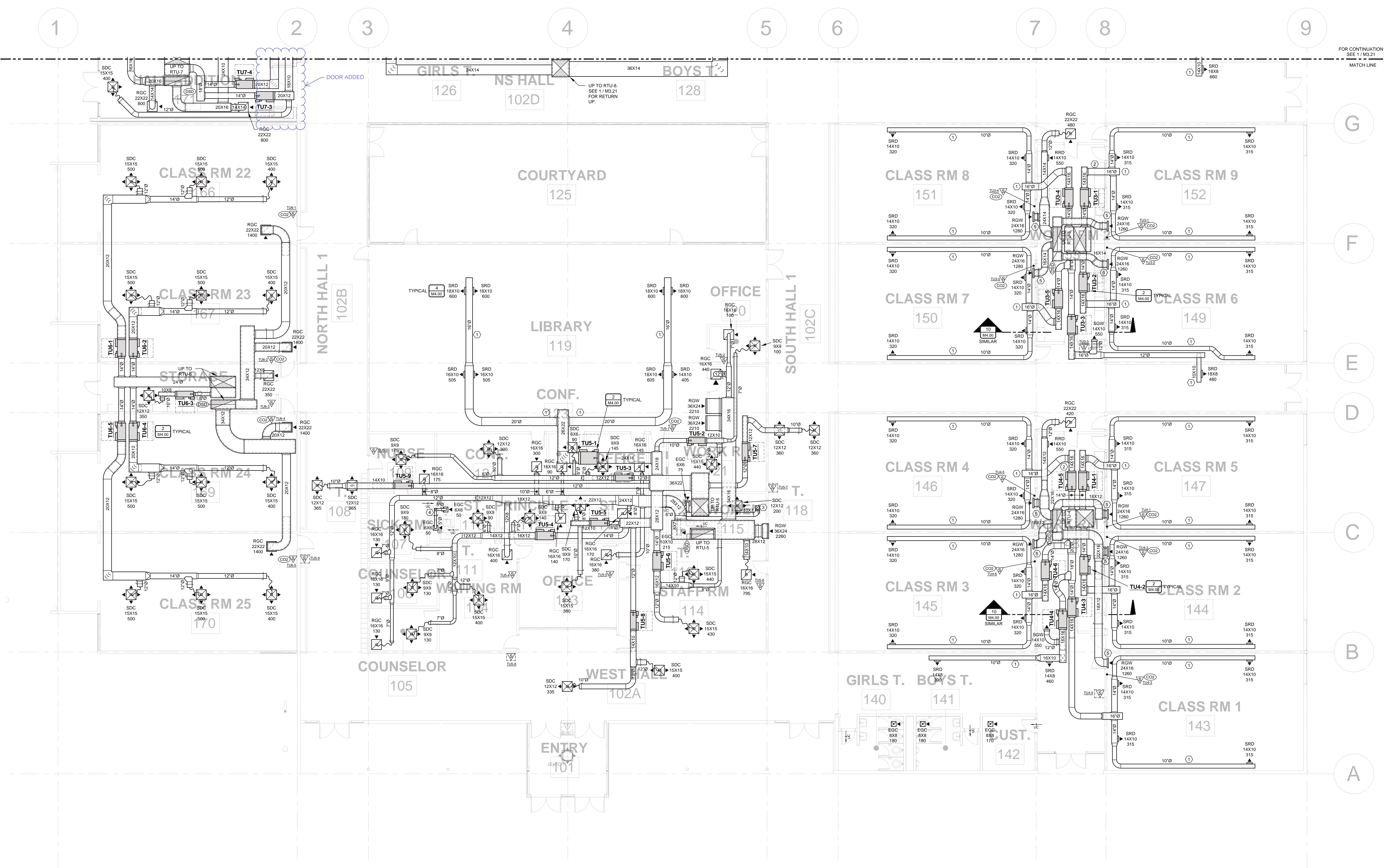
REVISION	DESCRIPTION	DATE
A	COORD. CLARIFICATIONS	12/20/23

DESIGNER	REVISIONS	DATE	CHECKED
JS	CMP		CMP

DRAWING SCALE: AS NOTED
DATE: JANUARY 2023
PROJECT NO.: MS-M1.0
SHEET NO.: 9 OF 15
M3.00

FOR CONTINUATION
SEE 1/M3.21
MATCH LINE

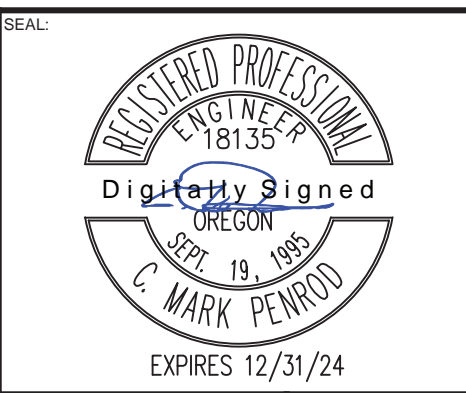
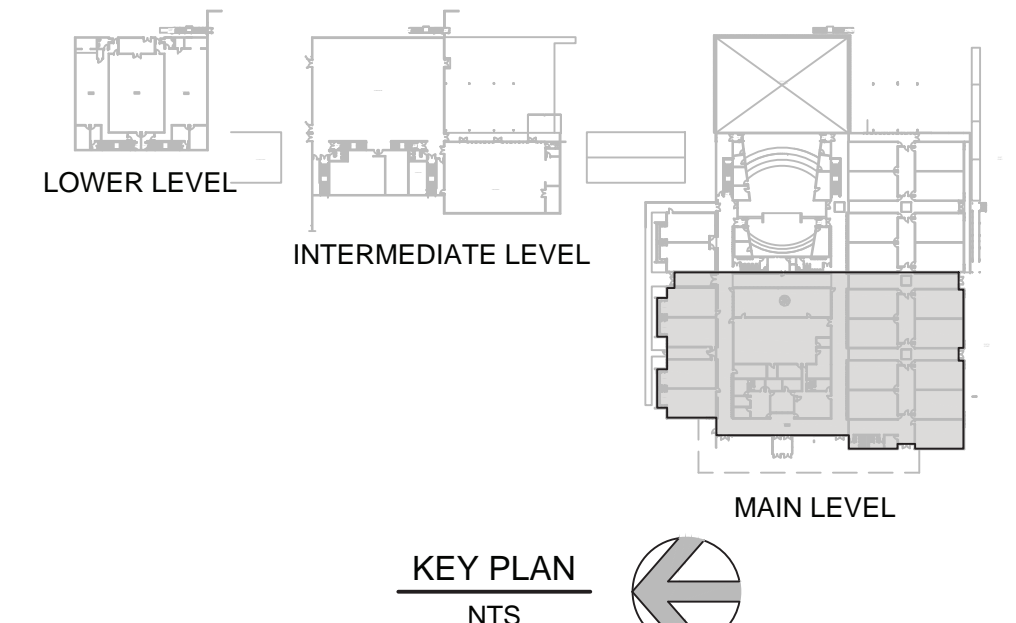
FOR CONTINUATION
SEE 1/M3.21
MATCH LINE



1 MAIN LEVEL PLAN - WEST
SCALE: 1/8"=1'-0"

- KEYED NOTES**
1. EXPOSED DUCTWORK. SEE DETAIL 15 / M4.00 FOR SIDEWALL MOUNTED DUCTWORK.
 2. DUCTWORK AND EQUIPMENT EXPOSED IN THIS AREA.
 3. 8X9 UP TO EF-4
 4. 6X6 UP TO EF-5
 5. MAINTAIN MINIMUM 3" CLEARANCE IN FRONT OF RETURN REGISTER.

- GENERAL NOTES**
1. FINAL CEILING MOUNTED DIFFUSER AND GRILLE PLACEMENT SHALL BE COORDINATED WITH FINAL ARRANGEMENT FOR LIGHTING AND OTHER CEILING MOUNTED DEVICES. FINAL LOCATION SUBJECT TO APPROVAL BY OWNER AND / OR ARCHITECT.
 2. FINAL PLACEMENT OF WALL HUNG DEVICES (SURFACE, OR RECESSED) SHALL BE COORDINATED WITH FINAL ARRANGEMENT OF ELECTRICAL AND ARCHITECTURAL WALL MOUNTED ELEMENTS. FINAL LOCATION SUBJECT TO APPROVAL BY OWNER AND / OR ARCHITECT.



COMFORT FLOW HEATING
1951 Don Street | Springfield, OR 97477
OFFICE: (503) 726-0100 | FAX: (503) 726-4799
Engineering, Design, Budgeting, Installation & Service
ALL RIGHTS RESERVED. NO PART OF THIS DOCUMENT MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF COMFORT FLOW HEATING.



MILLICOMA SCHOOL REROOF & CLASSROOM ADDITION
COOS BAY SCHOOL DISTRICT

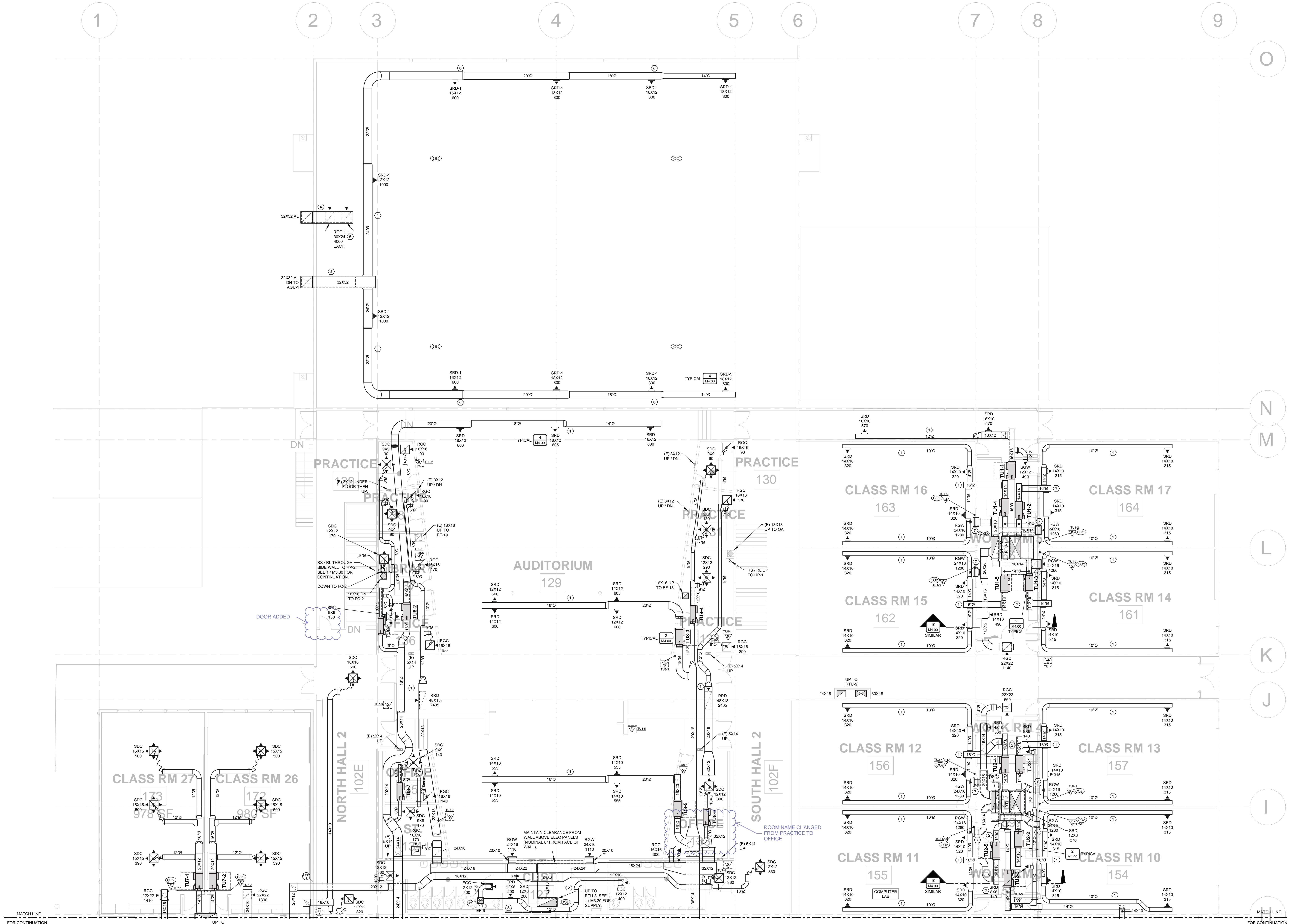
260 2ND AVENUE
COOS BAY, OREGON 97420

PROJECT TITLE: HVAC MAIN LEVEL - WEST

PHASE: BIDDING

REVISION	DESCRIPTION	DATE

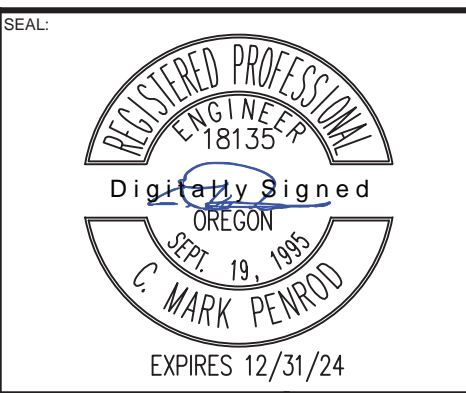
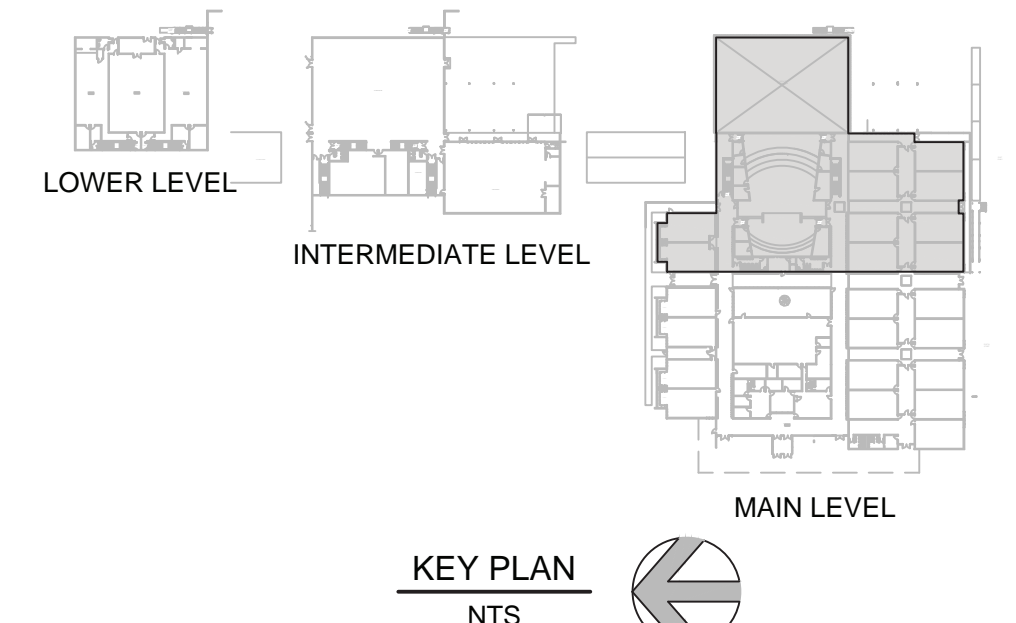
DESIGNED BY: JS	PERMITTED BY: CMP	CHECKED BY: CMP
DRAWING SCALE: AS NOTED	DATE: JANUARY 2023	PROJECT NO: MS-M1.0
SHEET NO: M3.20	11 OF 15	



1 MAIN LEVEL PLAN - EAST
SCALE: 1/8"=1'-0"

- KEYED NOTES**
1. EXPOSED DUCTWORK: SEE DETAIL 15 / M4.00 FOR SIDEWALL MOUNTED DUCTWORK.
 2. DUCTWORK AND EQUIPMENT EXPOSED IN THIS AREA.
 3. DDC SYSTEM CENTRAL PANELS. COORDINATE WITH ELECTRICAL FOR 120 VOLT POWER CIRCUIT REQUIREMENTS.
 4. ROUTE THROUGH EXISTING SOFFIT.
 5. GRILLE IN BOTTOM FACE OF SOFFIT.
 6. COORDINATE MOUNTING AND LOCATION OF DUCT WITH EXISTING BASKETBALL HOOP SUPPORTS.
 7. MAINTAIN MINIMUM 3" CLEARANCE IN FRONT OF RETURN REGISTER.

- GENERAL NOTES**
1. FINAL CEILING MOUNTED DIFFUSER AND GRILLE PLACEMENT SHALL BE COORDINATED WITH FINAL ARRANGEMENT FOR LIGHTING AND OTHER CEILING MOUNTED DEVICES. FINAL LOCATION SUBJECT TO APPROVAL BY OWNER AND / OR ARCHITECT.
 2. FINAL PLACEMENT OF WALL HUNG DEVICES (SURFACE, OR RECESSED), SHALL BE COORDINATED WITH FINAL ARRANGEMENT OF ELECTRICAL AND ARCHITECTURAL WALL MOUNTED ELEMENTS. FINAL LOCATION SUBJECT TO APPROVAL BY OWNER AND / OR ARCHITECT.
 3. REFRIGERANT PIPING ROUTING SHOWN FOR SPACE REQUIREMENT AND PENETRATION LOCATION COORDINATION. FINAL ROUTING AND CONFIGURATION SUBJECT TO ADJUSTMENT FOR FIELD MEASUREMENTS AND CONDITIONS. PIPE SIZING TO BE IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS FOR THE ASSOCIATED EQUIPMENT. SEE ALSO SPECIFICATION SECTION 23 23 00 FOR MATERIALS, JOINTS, INSULATION, AND INSTALLATION & TESTING REQUIREMENTS.



COMFORT FLOW HEATING
1951 Don Street 1 Springfield OR 97477
OFFICE: (503) 726-0100 FAX: (503) 726-4799
Engineering, Design, Budgeting, Installation & Service
ALL RIGHTS RESERVED. NO PART OF THIS DOCUMENT MAY BE USED, REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF COMFORT FLOW HEATING.

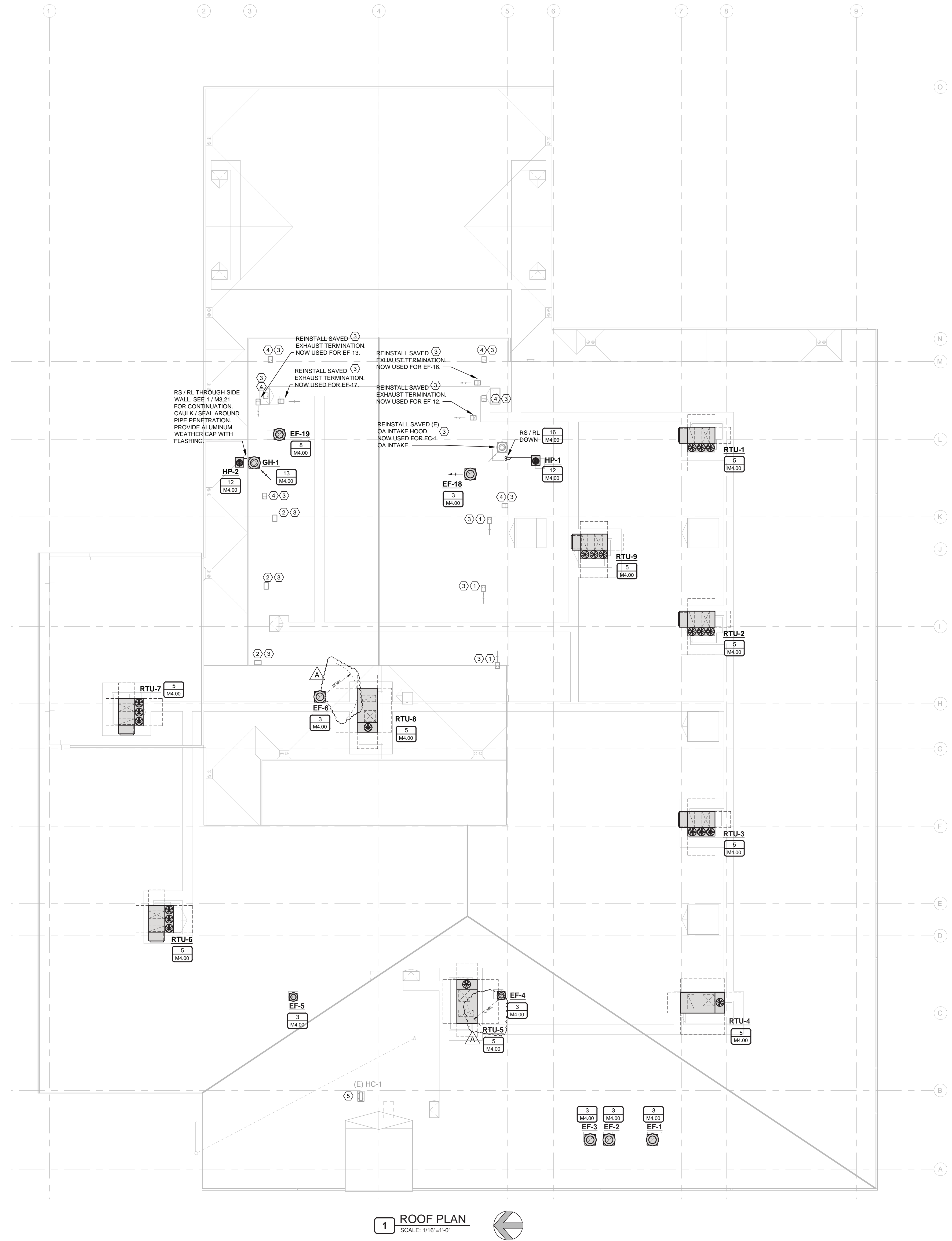


MILLICOMA SCHOOL REROOF & CLASSROOM ADDITION
COOS BAY SCHOOL DISTRICT
260 2ND AVENUE
COOS BAY, OREGON 97420

PROJECT TITLE: HVAC MAIN LEVEL - EAST
SOURCE: BIDDING

REVISION	DESCRIPTION	DATE

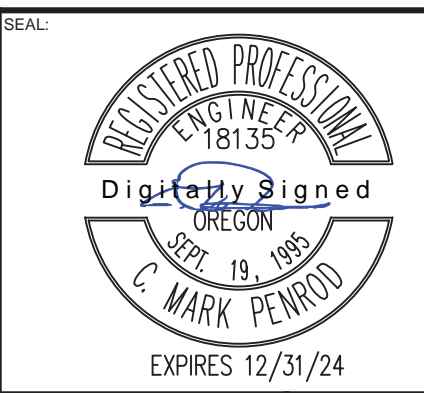
DESIGNED BY: JS	PERMANENT: CMP	CHECKED BY: CMP
DRAWING SCALE: AS NOTED	DATE: JANUARY 2023	PROJECT NO: MS-M1.0
SHEET NO: M3.21	12 OF 15	



1 ROOF PLAN
SCALE: 1/16"=1'-0"

- KEYED NOTES**
1. REINSTALL SAVED SUBFLOOR VENT INLET.
 2. REINSTALL SAVED GRAVITY MAKEUP AIR INTAKE TO SUBFLOOR.
 3. CONNECT AND EXTEND EXISTING DUCTWORK UP TO NEW ROOF LEVEL AND RECONNECT RELOCATED VENT TERMINATION.
 4. REINSTALL SAVED GRAVITY MAKEUP AIR INTAKE TO SUBFLOOR.
 5. REINSTALL EXISTING VESTIBULE MINI-SPLIT CONDENSING UNIT ON NEW ROOF, AND RECONNECT TO VESTIBULE CEILING CASSETTE.

- GENERAL NOTES**
1. COORDINATE ROOF MOUNTED EQUIPMENT AND VENT TERMINATIONS WITH NEW ROOF CONFIGURATION AND STRUCTURAL FRAMING CHANGES. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS.



COMFORT FLOW HEATING
1951 Don Street | Springfield, OR 97477
OFFICE: (541) 726-0100 | FAX: (541) 726-4799
Engineering, Design, Budgeting, Installation & Service
ALL RIGHTS RESERVED. NO PART OF THIS DOCUMENT MAY BE USED, REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF COMFORT FLOW HEATING.



MILLICOMA SCHOOL REROOF & CLASSROOM ADDITION
COOS BAY SCHOOL DISTRICT
260 2ND AVENUE
COOS BAY, OREGON 97420

PART TITLE
HVAC ROOF LEVEL

SOURCE
BIDDING

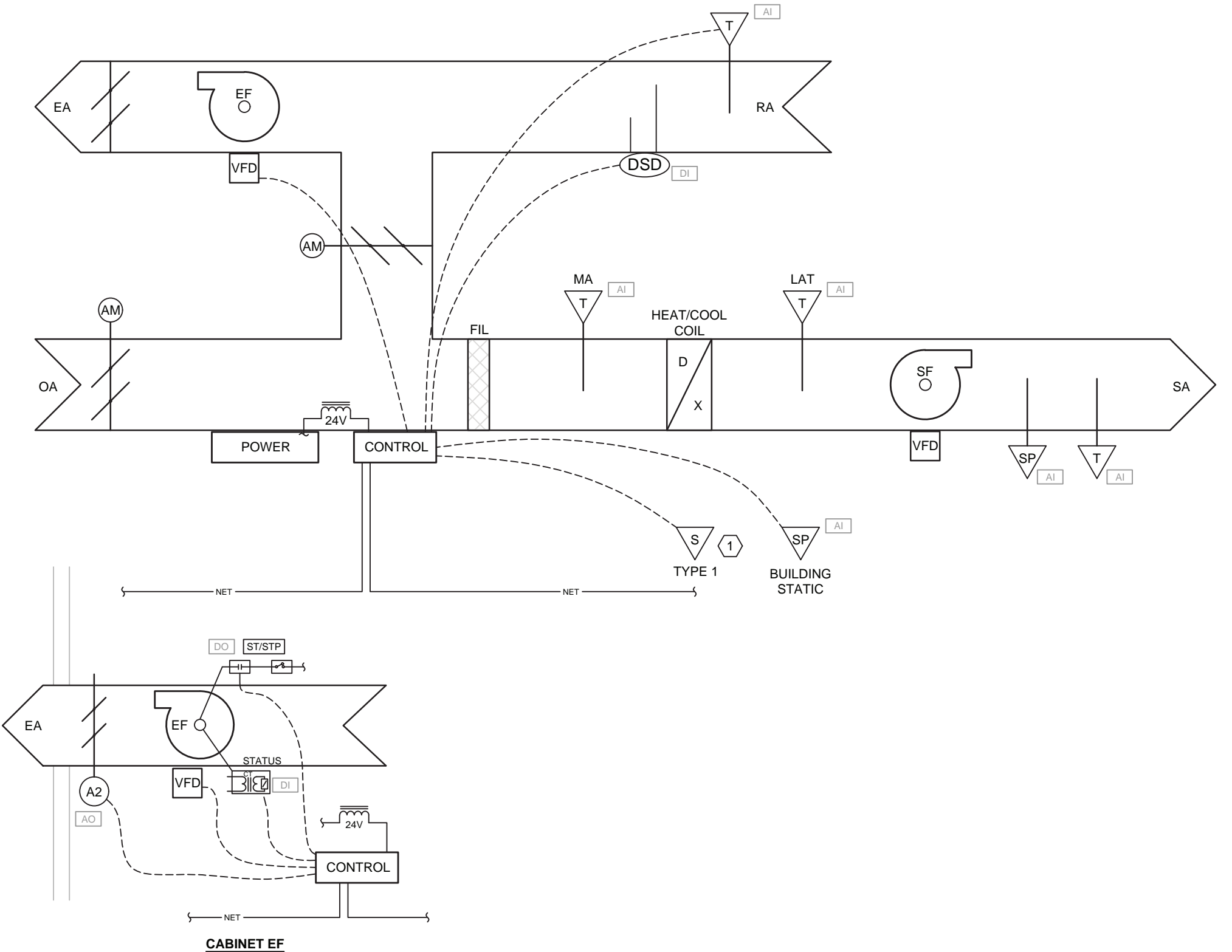
REVISION	DESCRIPTION	DATE
A	COORD. CLARIFICATIONS	12/20/23

DESIGNER	PREPARED	CHECKED
JS	CMP	CMP

DRAWING SCALE: AS NOTED
DATE: JANUARY 2023

PROJECT NO: MS-M1.0
SHEET NO: 13 OF 15

M3.30



AIR HANDLING SYSTEM IS CONSTANT VOLUME WITH OCCUPIED / UNOCCUPIED PERIOD OPERATION. RETURN AIR MODULATION SHALL TRACK SUPPLY AIR MODULATION. SYSTEM OPERATES IN RESPONSE TO BUILDING AUTOMATION SYSTEM PROGRAMMING IN ACCORDANCE WITH THESE LISTED OPERATIONAL REQUIREMENTS AND SET-POINTS, SUBJECT TO SAFETY LIMITS, LOCAL DISCONNECT, OR LOCAL DSD SHUT DOWN. ADDITIONALLY REFER TO CV AND 2-POSITION TU CONTROL FOR INTEGRATED TO OPERATION SEQUENCES AND OPERATING POINTS TO BE DEESC 2021 / ASHRAE 90.1-2019 COMPLIANT FOR MULTI-ZONE VARIABLE AIR VOLUME (GREATER THAN 54K BTU) SYSTEMS.

OPERATION CONTROLLED FROM LOCAL PANEL HOA:
 -AUTO: UNIT COMPONENTS OPERATE / MODULATE IN ACCORDANCE WITH SYSTEM CONTROL PROGRAMS, SUBJECT TO SAFETY LIMITS.
 -OFF: UNIT COMPONENTS INOPERATIVE.
 -HAND: UNIT COMPONENTS 'ON', SUBJECT TO SAFETY LIMITS.
 OPERATIONAL STATUS FOR THE SUPPLY FAN AND EXHAUST FAN SHALL BE REPORTED THROUGH BAS.

OCCUPIED HOURS OPERATION:
 SYSTEM OPERATES CONTINUOUSLY, MODULATING IN RESPONSE TO CONTROLS AND MODE SELECTION TO MAINTAIN SET-POINTS.
 -SPACE COOLING/HEATING SET-POINTS: REFER TO SPECIFICATION SECTION 23.09.00.

UNOCCUPIED HOURS OPERATION:
 -SPACE COOLING/HEATING SET-BACK SET-POINT: REFER TO SPECIFICATION SECTION 23.09.00.
 TEMPERATURE MAINTENANCE: AIR HANDLING SYSTEM SHALL OPERATE IN RESPONSE TO NIGHT SET-BACK PROGRAM TO MAINTAIN MINIMUM AND MAXIMUM SPACE TEMPERATURES. SYSTEM MODULATES TO FULL RECIRCULATION, ASSOCIATED EXHAUST FANS OFF. SYSTEM OPERATES AT 50% OF OCCUPIED HOURS AIR FLOW RATE.
 SYSTEM SHALL ACTIVATE IF:
 -HEATING: TWO, OR MORE, OF ZONES SERVED BY THIS AIR HANDLER ARE AT LEAST 5 DEG F BELOW SET-BACK SET POINT
 -COOLING: TWO, OR MORE, OF ZONES SERVED BY THIS AIR HANDLER ARE AT LEAST 5 DEG F ABOVE SET-BACK HOUR SET POINT
 ONCE ACTIVATED, SYSTEM SHALL REMAIN ON UNTIL TWO OF THE ZONES ARE 5 DEF F ABOVE/BELOW (HEATING/COOLING) SET-BACK SET-POINT.

OCCUPANT OVERRIDE OPERATION:
 SYSTEM SHALL ACTIVATE / RETURN TO OCCUPIED HOUR OPERATION UPON ACTIVATION OF UNOCCUPIED HOUR OVERRIDE SWITCH AT ANY ONE OF ZONES SERVED BY THIS UNIT. AT END OF PROGRAMMED OVERRIDE TIME LIMIT SYSTEM RETURNS TO UNOCCUPIED HOUR OPERATION, OR IF NEW OCCUPIED PERIOD STARTS, SYSTEM STAYS IN OCCUPIED MODE.

FAN MODULATION AND STATIC PRESSURE CONTROL:
 -MAINTAIN NORMAL STATIC PRESSURE AS SENSED BY STATIC PRESSURE SENSOR IN SUPPLY PLENUM.
 -NORMAL STATIC PRESSURE SET-POINT INITIALLY SET: 0.75" W.G. FIELD ADJUST FOR FINAL SET-POINT DURING START-UP AND SYSTEM TUNNING.
 SYSTEM MODULATES TO PROVIDE CONSTANT VOLUME AIR HANDLER, INTERLOCKED EXHAUST FANS, TERMINAL UNITS, BASED ON THE OWNER'S SELECTED ROOM USE STATUS.
 LOCKER ROOM USE MODE: SYSTEM OPERATES TO PROVIDE AIR FLOW SHOWN ON THE HVAC PLANS.
 STORAGE ROOM USE MODE: SYSTEM MODULATES TO PROVIDE 50% OF AIR FLOW SHOWN ON THE HVAC PLANS FOR THE LOCKER ROOM AREAS PROVIDE CAPABILITY TO SELECT EITHER LOCKER ROOM AREA INDIVIDUALLY FOR THIS OPERATIONAL MODE. DEDICATED LOCKER / SHOWER ROOM EXHAUST FANS REDUCE TO 50% AIRFLOW, INTERLOCKED SMALL TOILET ROOM EXHAUST FANS REMAIN AT FULL AIR FLOW. MONITOR LOCKER / SHOWER ROOM EXHAUST FANS REDUCE TO 50% AIRFLOW, INTERLOCKED SMALL TOILET ROOM EXHAUST FANS REMAIN AT FULL AIR FLOW. DEDICATED LOCKER / SHOWER ROOM EXHAUST FANS REDUCE TO 50% AIRFLOW, INTERLOCKED SMALL TOILET ROOM EXHAUST FANS REMAIN AT FULL AIR FLOW.

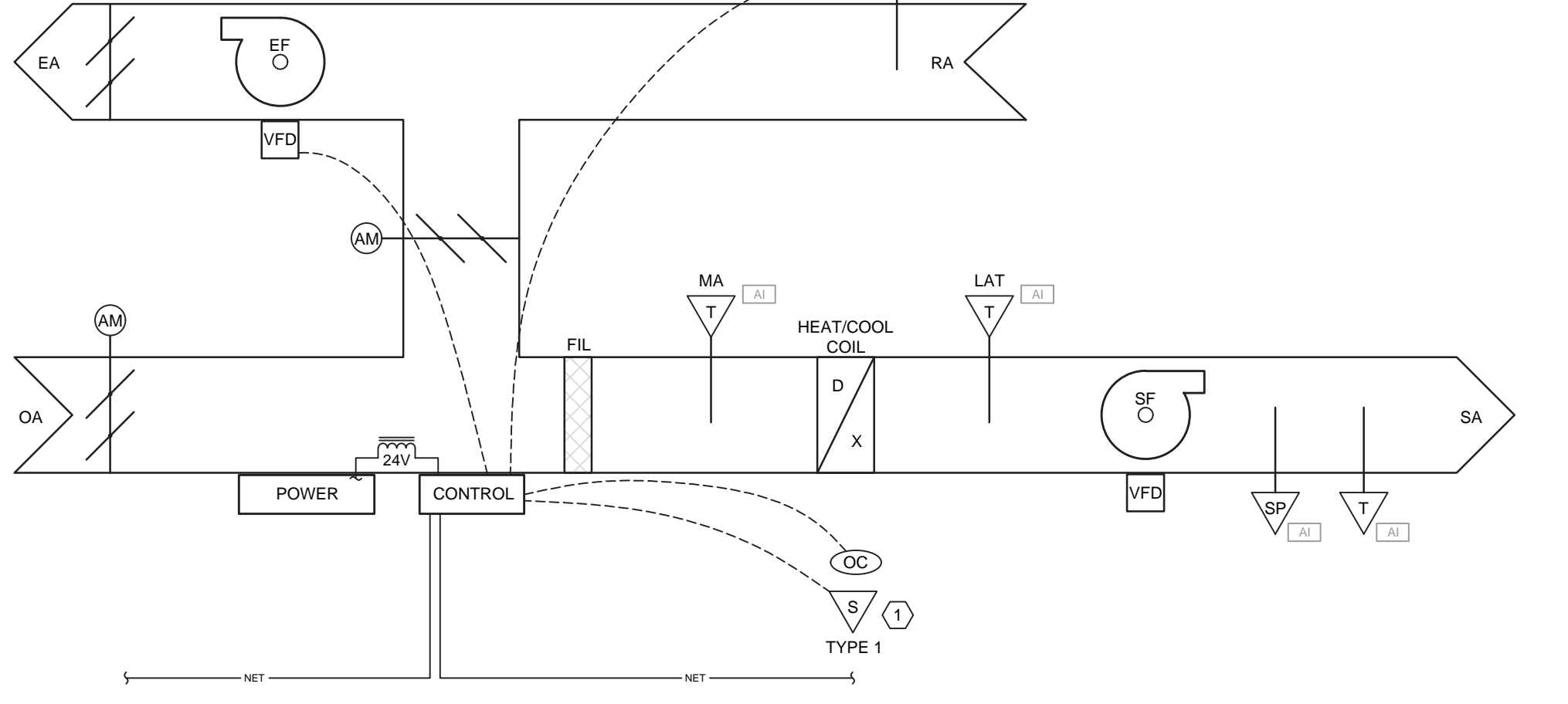
TEMPERING (HEATING) / COOLING:
 HEATING COMPONENTS TO MODULATE IN RESPONSE TO MIXED AIR TEMPERATURE TO PROVIDE MINIMUM 60 DEG F LEAVING AIR TEMPERATURE FROM HEATING SECTION. COOLING COMPONENTS TO MODULATE, IN CONJUNCTION WITH ECONOMIZER COOLING SEQUENCE (FIRST STAGE OF COOLING) IN RESPONSE TO ZONE TEMPERATURES, REPORTED VIA BAS, TO MAINTAIN ZONE COOLING SET-POINTS.
 SUPPLY AIR COOLING TEMPERATURE RESET: SUPPLY AIR TEMPERATURE TO RESET UPON BETWEEN A RANGE OF 56 DEG F AND ZONE COOLING SET-POINT.
 ALL ZONES SATISFIED: SUPPLY AIR TEMPERATURE = AVERAGE OF ZONE COOLING SET-POINT.
 ALL ZONES CALLING FOR COOLING: SUPPLY AIR TEMPERATURE RESETS DOWN, IN 3-MINUTE INTERVALS, UNTIL AT LEAST TWO OF THE ZONES ARE NOMINALLY 1 DEG F BELOW ROOM COOLING SET-POINT.
 SUPPLY AIR HEATING TEMPERATURE RESET: SAME AS COOLING RESET SEQUENCE EXCEPT RESET DOWN BETWEEN RANGE OF 85 DEG F AND ZONE HEATING SET-POINT.

ECONOMIZER / AUTO DAMPER CONTROL:
 OUTSIDE AIR AND RETURN DAMPERS SHALL MODULATE IN CONJUNCTION. RETURN DAMPERS TRACK OUTSIDE AIR DAMPER.
 OUTSIDE AIR DAMPER MODULATES BETWEEN MINIMUM SETTING FOR VENTILATION AIR TO FULL OPEN FOR ECONOMIZER COOLING WHEN OUTDOOR AIR TEMPERATURE PERMITS (OUTDOOR AIR TEMPERATURE LESS THAN 70 DEG F). RETURN DAMPERS TRACK OUTSIDE AIR DAMPER.
 OUTSIDE AIR DAMPER CLOSED WHEN UNIT IS DE-ENERGIZED.

MORNING WARM UP:
 ONE HOUR BEFORE START OF SCHEDULED OCCUPANCY PERIOD, IF 50% OR MORE, OF ZONES ARE AT LEAST 3 DEGREES BELOW HEATING SET-POINT, THEN START AIR HANDLING SYSTEM (RTU AND TERMINAL DEVICES) AND OPERATE IN FOLLOWING CONFIGURATION UNTIL AREA SERVED MEETS HEATING SET-POINT. STOP IF 0 OR MORE ZONES REACH COOLING SET-POINT OR IF OCCUPIED PERIOD BEGINS.
 -OUTSIDE AIR DAMPERS CLOSED
 -AIR HANDLER EXHAUST FAN OFF, INTERLOCKED EXHAUST FANS OFF.
 -RETURN AIR DAMPERS OPEN
 -HEATING EQUIPMENT OPERATES AS NEEDED TO SATISFY SPACE REQUIREMENTS.

LOW LIMIT:
 IF THE LEAVING SUPPLY AIR TEMPERATURE DROPS BELOW 45 DEG F, MODULATE DAMPERS TO REDUCE OA % TO EQUAL THE TOTAL GENERAL EXHAUST VOLUME TAKEN FROM THE AREAS SERVED BY THIS SYSTEM, AND SEND AN ALARM THROUGH THE BUILDING AUTOMATION SYSTEM.
 IF THE LEAVING SUPPLY AIR TEMPERATURE DROPS BELOW 40 DEG F, MODULATE DAMPERS TO FULL RECIRCULATION, AND SEND AN ALARM THROUGH THE BUILDING AUTOMATION SYSTEM. SYSTEM RETURNS TO NORMAL OPERATION WHEN LEAVING SUPPLY AIR TEMPERATURE REACHES 55 DEG F.

3 VAV AGU CONTROL



AIR HANDLING SYSTEM IS CONSTANT VOLUME WITH OCCUPIED / UNOCCUPIED PERIOD OPERATION. SYSTEM AND INTERLOCKED EXHAUST FANS, OPERATE IN REDUCED VOLUME MODE WHEN UNOCCUPIED DURING OCCUPIED HOURS, AND DURING UNOCCUPIED TEMPERATURE MAINTENANCE AS NOTED HEREIN. RETURN AIR MODULATION SHALL TRACK SUPPLY AIR MODULATION. SYSTEM OPERATES IN RESPONSE TO BUILDING AUTOMATION SYSTEM PROGRAMMING IN ACCORDANCE WITH THESE LISTED OPERATIONAL REQUIREMENTS AND SET-POINTS, SUBJECT TO SAFETY LIMITS AND LOCAL DISCONNECT. SEQUENCES AND OPERATING POINTS TO BE DEESC 2021 / ASHRAE 90.1-2019 COMPLIANT FOR SINGLE-ZONE CONSTANT AIR VOLUME (GREATER THAN 54K BTU) SYSTEMS.

OPERATION CONTROLLED FROM LOCAL PANEL HOA:
 -AUTO: UNIT COMPONENTS OPERATE / MODULATE IN ACCORDANCE WITH SYSTEM CONTROL PROGRAMS, SUBJECT TO SAFETY LIMITS.
 -OFF: UNIT COMPONENTS INOPERATIVE.
 -HAND: UNIT COMPONENTS 'ON', SUBJECT TO SAFETY LIMITS.
 OPERATIONAL STATUS FOR THE SUPPLY FAN AND EXHAUST FAN SHALL BE REPORTED THROUGH BAS.

OCCUPIED HOURS OPERATION:
 SYSTEM OPERATES CONTINUOUSLY, MODULATING IN RESPONSE TO CONTROLS TO MAINTAIN SET-POINTS.
 -SPACE COOLING/HEATING SET-POINTS: REFER TO SPECIFICATION SECTION 23.09.00.
 TEMPERATURE MAINTENANCE: AIR HANDLING SYSTEM SHALL OPERATE IN RESPONSE TO NIGHT SET-BACK PROGRAM TO MAINTAIN MINIMUM AND MAXIMUM SPACE TEMPERATURES. SYSTEM MODULATES TO FULL RECIRCULATION, ASSOCIATED EXHAUST FANS OFF. SYSTEM OPERATES AT 50% OF OCCUPIED HOURS AIR FLOW RATE.
 SYSTEM SHALL ACTIVATE IF:
 -HEATING: TWO, OR MORE, OF ZONES SERVED BY THIS AIR HANDLER ARE AT LEAST 5 DEG F BELOW SET-BACK SET POINT
 -COOLING: TWO, OR MORE, OF ZONES SERVED BY THIS AIR HANDLER ARE AT LEAST 5 DEG F ABOVE SET-BACK HOUR SET POINT
 ONCE ACTIVATED, SYSTEM SHALL REMAIN ON UNTIL AREA SERVED IS 5 DEF F ABOVE/BELOW (HEATING/COOLING) SET-BACK SET-POINT.

OCCUPANT OVERRIDE OPERATION:
 SYSTEM SHALL ACTIVATE / RETURN TO OCCUPIED HOUR OPERATION UPON ACTIVATION OF UNOCCUPIED HOUR OVERRIDE SWITCH AT ANY ONE OF ZONES SERVED BY THIS UNIT. AT END OF PROGRAMMED OVERRIDE TIME LIMIT SYSTEM RETURNS TO UNOCCUPIED HOUR OPERATION, OR IF NEW OCCUPIED PERIOD STARTS, SYSTEM STAYS IN OCCUPIED MODE.

FAN MODULATION AND STATIC PRESSURE CONTROL:
 -MAINTAIN NORMAL STATIC PRESSURE AS SENSED BY STATIC PRESSURE SENSOR IN SUPPLY PLENUM.
 -NORMAL STATIC PRESSURE SET-POINT INITIALLY SET: 0.75" W.G. FIELD ADJUST FOR FINAL SET-POINT DURING START-UP AND SYSTEM TUNNING.
 SYSTEM MODULATES TO PROVIDE CONSTANT VOLUME AIR HANDLER, INTERLOCKED EXHAUST FANS, TERMINAL UNITS, BASED ON THE OWNER'S SELECTED ROOM USE STATUS.
 LOCKER ROOM USE MODE: SYSTEM OPERATES TO PROVIDE AIR FLOW SHOWN ON THE HVAC PLANS.
 STORAGE ROOM USE MODE: SYSTEM MODULATES TO PROVIDE 50% OF AIR FLOW SHOWN ON THE HVAC PLANS FOR THE LOCKER ROOM AREAS PROVIDE CAPABILITY TO SELECT EITHER LOCKER ROOM AREA INDIVIDUALLY FOR THIS OPERATIONAL MODE. DEDICATED LOCKER / SHOWER ROOM EXHAUST FANS REDUCE TO 50% AIRFLOW, INTERLOCKED SMALL TOILET ROOM EXHAUST FANS REMAIN AT FULL AIR FLOW. MONITOR LOCKER / SHOWER ROOM EXHAUST FANS REDUCE TO 50% AIRFLOW, INTERLOCKED SMALL TOILET ROOM EXHAUST FANS REMAIN AT FULL AIR FLOW.

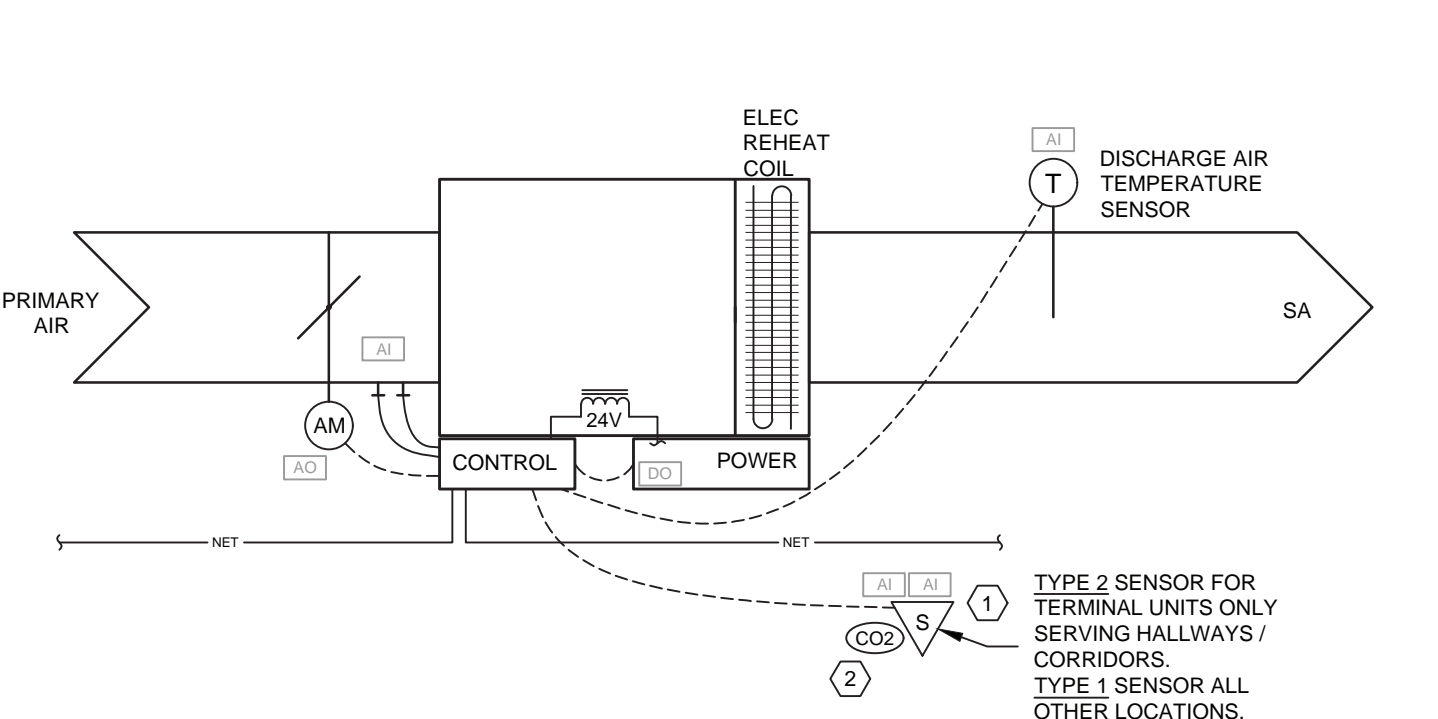
TEMPERING (HEATING) / COOLING:
 HEATING COMPONENTS TO MODULATE IN RESPONSE TO MIXED AIR TEMPERATURE TO PROVIDE MINIMUM 60 DEG F LEAVING AIR TEMPERATURE FROM HEATING SECTION. COOLING COMPONENTS TO MODULATE, IN CONJUNCTION WITH ECONOMIZER COOLING SEQUENCE (FIRST STAGE OF COOLING) IN RESPONSE TO SUPPLY AIR TEMPERATURE TO PROVIDE NORMAL 55 DEG F SUPPLY AIR TEMPERATURE.
 SUPPLY AIR COOLING TEMPERATURE RESET: SUPPLY AIR TEMPERATURE TO RESET UPON BETWEEN A RANGE OF 56 DEG F AND ZONE COOLING SET-POINT.
 ALL ZONES SATISFIED: SUPPLY AIR TEMPERATURE = AVERAGE OF ZONE COOLING SET-POINT.
 ALL ZONES CALLING FOR COOLING: SUPPLY AIR TEMPERATURE RESETS DOWN, IN 3-MINUTE INTERVALS, UNTIL AT LEAST TWO OF THE ZONES ARE NOMINALLY 1 DEG F BELOW ROOM COOLING SET-POINT.
 SUPPLY AIR HEATING TEMPERATURE RESET: SAME AS COOLING RESET SEQUENCE EXCEPT RESET DOWN BETWEEN RANGE OF 85 DEG F AND ZONE HEATING SET-POINT.

ECONOMIZER / AUTO DAMPER CONTROL:
 OUTSIDE AIR AND RETURN DAMPERS SHALL MODULATE IN CONJUNCTION. RETURN DAMPERS TRACK OUTSIDE AIR DAMPER.
 OUTSIDE AIR DAMPER MODULATES BETWEEN MINIMUM SETTING FOR VENTILATION AIR TO FULL OPEN FOR ECONOMIZER COOLING WHEN OUTDOOR AIR TEMPERATURE PERMITS (OUTDOOR AIR TEMPERATURE LESS THAN 70 DEG F). RETURN DAMPERS TRACK OUTSIDE AIR DAMPER.
 OUTSIDE AIR DAMPER CLOSED WHEN UNIT IS DE-ENERGIZED.

MORNING WARM UP:
 ONE HOUR BEFORE START OF SCHEDULED OCCUPANCY PERIOD, IF AREA SERVED IS AT LEAST 3 DEGREES BELOW HEATING SET-POINT, THEN START AIR HANDLING SYSTEM (AIR HANDLER AND ANY TERMINAL DEVICES) AND OPERATE IN FOLLOWING CONFIGURATION UNTIL AREA SERVED MEETS HEATING SET-POINT. STOP IF AREA REACHES COOLING SET-POINT OR IF OCCUPIED PERIOD BEGINS.
 -OUTSIDE AIR DAMPERS CLOSED
 -AIR HANDLER EXHAUST FAN OFF, INTERLOCKED EXHAUST FANS OFF.
 -RETURN AIR DAMPERS OPEN
 -SUPPLY AIR VFD MODULATE TO MAINTAIN OCCUPIED HOUR AIR FLOW.
 -HEATING EQUIPMENT OPERATES AS NEEDED TO SATISFY SPACE REQUIREMENTS.

LOW LIMIT:
 IF THE LEAVING SUPPLY AIR TEMPERATURE DROPS BELOW 45 DEG F, MODULATE DAMPERS TO REDUCE OA % TO EQUAL THE TOTAL GENERAL EXHAUST VOLUME TAKEN FROM THE AREAS SERVED BY THIS SYSTEM, AND SEND AN ALARM THROUGH THE BUILDING AUTOMATION SYSTEM.
 IF THE LEAVING SUPPLY AIR TEMPERATURE DROPS BELOW 40 DEG F, MODULATE DAMPERS TO FULL RECIRCULATION, AND SEND AN ALARM THROUGH THE BUILDING AUTOMATION SYSTEM. SYSTEM RETURNS TO NORMAL OPERATION WHEN LEAVING SUPPLY AIR TEMPERATURE REACHES 55 DEG F.

2 CV AGU, RTU CONTROL



GENERAL:
 CONTROL DAMPER SHALL MODULATE AND HEATING COIL SHALL ENERGIZE / MODULATE IN RESPONSE TO THE SPACE SENSOR FOR THE ZONE SERVED, IN ACCORDANCE WITH HEATING, COOLING, AND DEADBAND TEMPERATURE SET-POINTS. SENSOR MOUNTED DOWNSTREAM OF EACH TU TO MONITOR SUPPLY AIR TEMPERATURE.

OCCUPIED HOURS:
 -COOLING: HEATING COIL, DE-ENERGIZED. DAMPER MODULATES BETWEEN MIN AND MAX SETTINGS IN RESPONSE TO ROOM COOLING DEMAND.
 -DEAD-BAND: PRIMARY AIR VALVE AT MIN SETTING. HEATING COIL, DE-ENERGIZED.
 -HEATING: PRIMARY AIR VALVE MODULATES TO MINIMUM SETTING. HEATING COIL, ENERGIZED (MODULATED VIA SCR CONTROL). WHEN ROOM TEMPERATURE IS SATISFIED, COIL, DE-ENERGIZED.

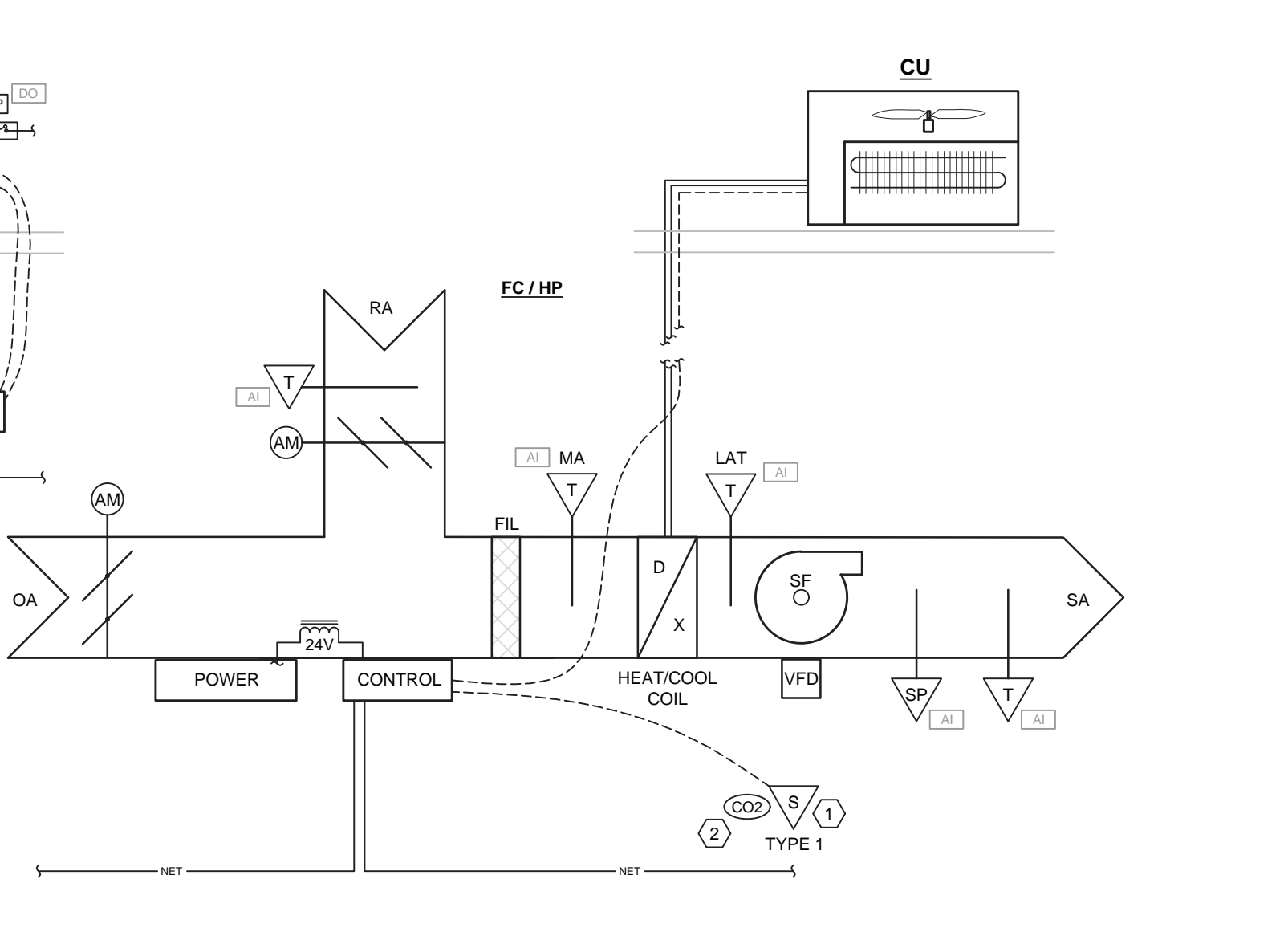
UNOCCUPIED HOURS:
 PRIMARY DAMPER CLOSED, REHEAT COIL, DE-ENERGIZED.
 -SUBJECT TO MORNING WARM UP / COOL DOWN.
 -SUBJECT TO NIGHT (UNOCCUPIED) TEMPERATURE MAINTENANCE.

UNOCCUPIED HOUR OVERRIDE SWITCH:
 WHEN ACTIVATED BY THE SPACE OCCUPANT, SYSTEM RETURNS TO UNOCCUPIED OPERATION AFTER A PRESET TIME LIMIT. TIME LIMIT INITIALLY SET FOR 2 HOURS.

MORNING WARM UP / COOL DOWN:
 PRIMARY AIR VALVE INITIALLY MODULATES TO MAX OPEN SETTING IF SPACE REQUIRES COOLING, OR MODULATES TO HEATING SETTING AND HEATING COIL, ENERGIZED IF SPACE REQUIRES HEATING. PRIMARY AIR VALVE THEN MODULATES BACK TO MINIMUM, AND COIL, DE-ENERGIZED AS APPLICABLE, AS OCCUPIED HOUR SPACE TEMPERATURE SET-POINTS ARE SATISFIED.

NIGHT TEMPERATURE MAINTENANCE:
 OPERATION SAME AS MORNING WARM UP / COOL DOWN SEQUENCE, EXCEPT SET-POINTS. REFER TO SPECIFICATION SECTION 23.09.00 FOR SET-POINTS.

1 VAV RTU CONTROL



GENERAL:
 CONTROL DAMPER SHALL MODULATE AND HEATING COIL SHALL ENERGIZE / MODULATE IN RESPONSE TO THE SPACE SENSOR FOR THE ZONE SERVED, IN ACCORDANCE WITH HEATING, COOLING, AND DEADBAND TEMPERATURE SET-POINTS. SENSOR MOUNTED DOWNSTREAM OF EACH TU TO MONITOR SUPPLY AIR TEMPERATURE.

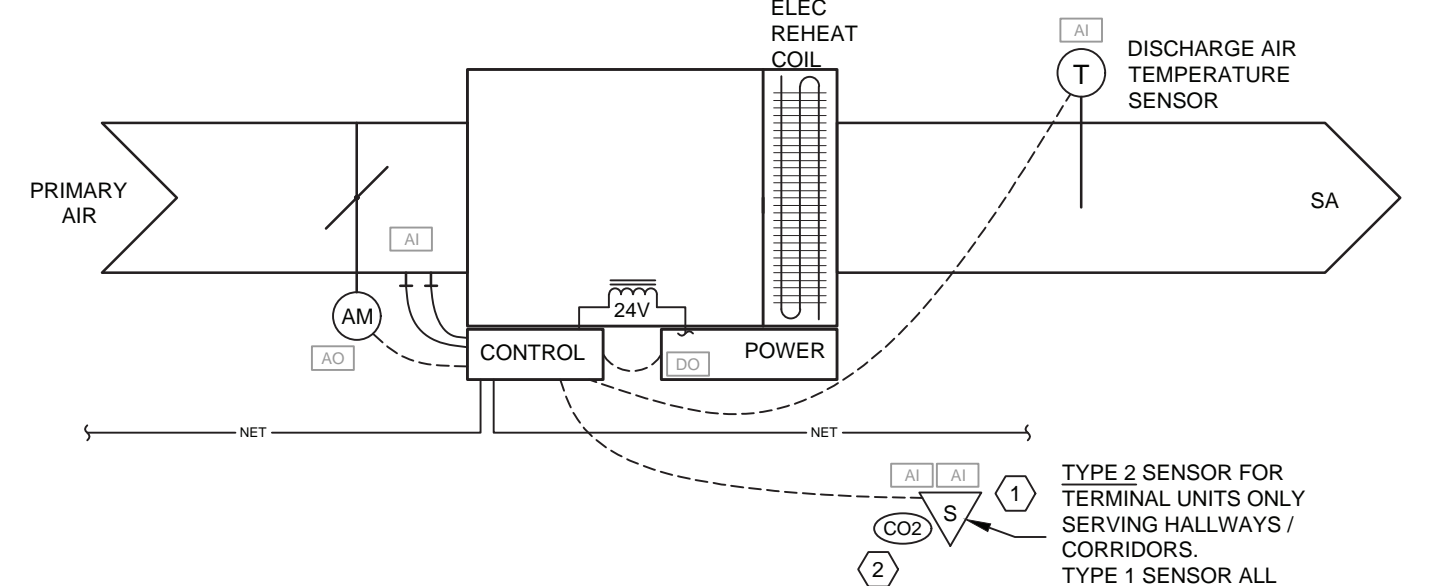
OCCUPIED HOURS:
 2-POSITION DAMPER SET IN RESPONSE LOCKER OR STORAGE ROOM MODE OPERATION (SEE VAV AGU CONTROL).
 -COOLING: HEATING COIL, DE-ENERGIZED.
 -DEAD-BAND: HEATING COIL, DE-ENERGIZED.
 -HEATING: HEATING COIL, ENERGIZED (MODULATED VIA SCR CONTROL). WHEN ROOM TEMPERATURE IS SATISFIED, COIL, DE-ENERGIZED.
 CONSTANT VOLUME: DAMPER MODULATES TO MAINTAIN SCHEDULED AIRFLOW.
 -COOLING, DEAD-BAND, HEATING: SAME AS LISTED PREVIOUSLY.

UNOCCUPIED HOURS:
 PRIMARY DAMPER CLOSED, REHEAT COIL, DE-ENERGIZED.
 -SUBJECT TO MORNING WARM UP / COOL DOWN.
 -SUBJECT TO NIGHT (UNOCCUPIED) TEMPERATURE MAINTENANCE.

UNOCCUPIED HOUR OVERRIDE SWITCH:
 WHEN ACTIVATED BY THE SPACE OCCUPANT, SYSTEM RETURNS TO UNOCCUPIED OPERATION AFTER A PRESET TIME LIMIT. TIME LIMIT INITIALLY SET FOR 2 HOURS.

MORNING WARM UP / COOL DOWN:
 PRIMARY AIR VALVE INITIALLY MODULATES TO MAX OPEN SETTING IF SPACE REQUIRES COOLING, OR MODULATES TO HEATING SETTING AND HEATING COIL, ENERGIZED AS APPLICABLE, AS OCCUPIED HOUR SPACE TEMPERATURE SET-POINTS ARE SATISFIED.

NIGHT TEMPERATURE MAINTENANCE:
 OPERATION SAME AS MORNING WARM UP / COOL DOWN SEQUENCE, EXCEPT SET-POINTS. REFER TO SPECIFICATION SECTION 23.09.00 FOR SET-POINTS.



GENERAL:
 CONTROL DAMPER SHALL MODULATE AND HEATING COIL SHALL ENERGIZE / MODULATE IN RESPONSE TO THE SPACE SENSOR FOR THE ZONE SERVED, IN ACCORDANCE WITH HEATING, COOLING, AND DEADBAND TEMPERATURE SET-POINTS. SENSOR MOUNTED DOWNSTREAM OF EACH TU TO MONITOR SUPPLY AIR TEMPERATURE.

OCCUPIED HOURS:
 2-POSITION DAMPER SET IN RESPONSE LOCKER OR STORAGE ROOM MODE OPERATION (SEE VAV AGU CONTROL).
 -COOLING: HEATING COIL, DE-ENERGIZED.
 -DEAD-BAND: HEATING COIL, DE-ENERGIZED.
 -HEATING: HEATING COIL, ENERGIZED (MODULATED VIA SCR CONTROL). WHEN ROOM TEMPERATURE IS SATISFIED, COIL, DE-ENERGIZED.
 CONSTANT VOLUME: DAMPER MODULATES TO MAINTAIN SCHEDULED AIRFLOW.
 -COOLING, DEAD-BAND, HEATING: SAME AS LISTED PREVIOUSLY.

UNOCCUPIED HOURS:
 PRIMARY DAMPER CLOSED, REHEAT COIL, DE-ENERGIZED.
 -SUBJECT TO MORNING WARM UP / COOL DOWN.
 -SUBJECT TO NIGHT (UNOCCUPIED) TEMPERATURE MAINTENANCE.

UNOCCUPIED HOUR OVERRIDE SWITCH:
 WHEN ACTIVATED BY THE SPACE OCCUPANT, SYSTEM RETURNS TO UNOCCUPIED OPERATION AFTER A PRESET TIME LIMIT. TIME LIMIT INITIALLY SET FOR 2 HOURS.

MORNING WARM UP / COOL DOWN:
 PRIMARY AIR VALVE INITIALLY MODULATES TO MAX OPEN SETTING IF SPACE REQUIRES COOLING, OR MODULATES TO HEATING SETTING AND HEATING COIL, ENERGIZED AS APPLICABLE, AS OCCUPIED HOUR SPACE TEMPERATURE SET-POINTS ARE SATISFIED.

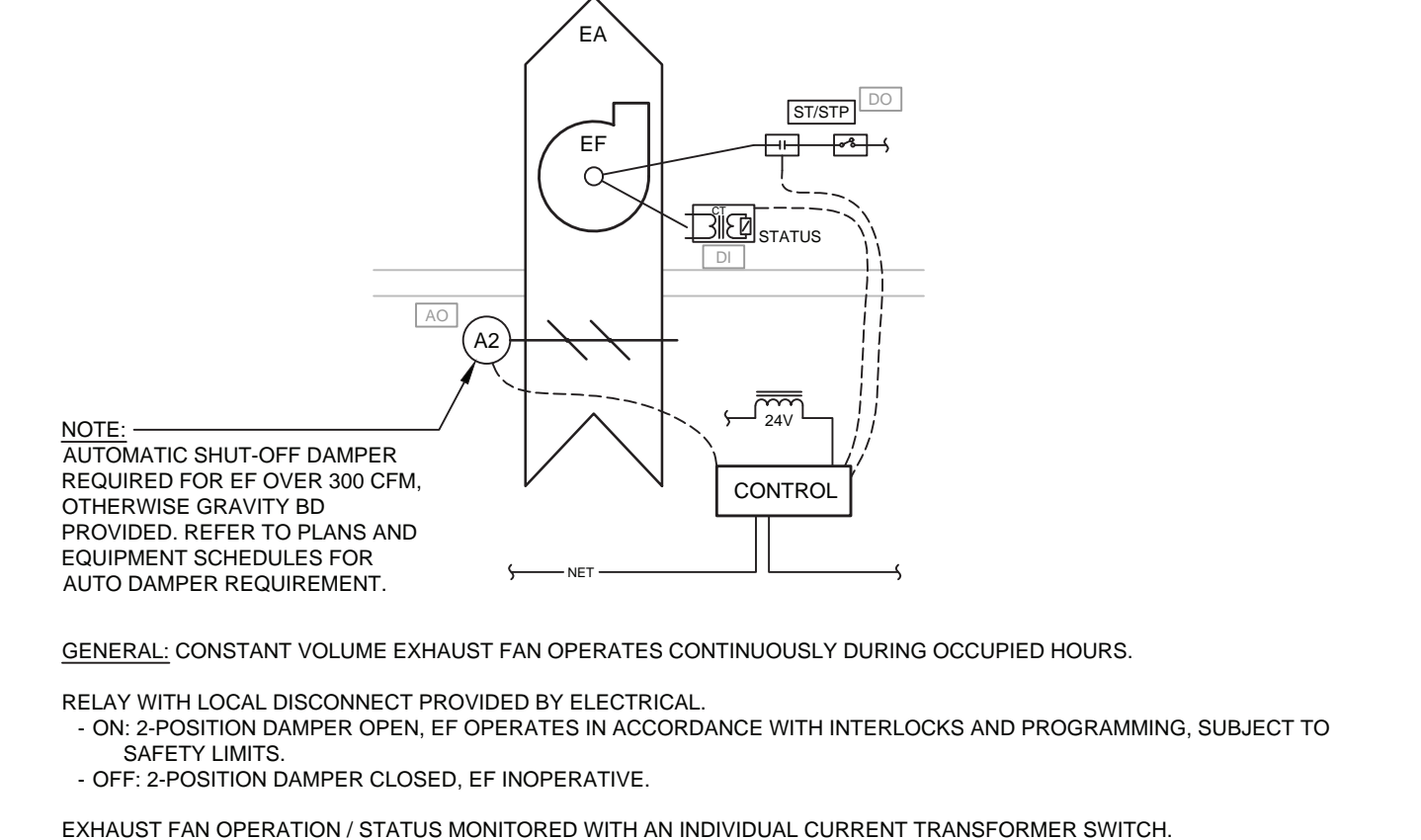
NIGHT TEMPERATURE MAINTENANCE:
 OPERATION SAME AS MORNING WARM UP / COOL DOWN SEQUENCE, EXCEPT SET-POINTS. REFER TO SPECIFICATION SECTION 23.09.00 FOR SET-POINTS.

9 CV & 2-POSITION TU CONTROL

TYPE 1 SPACE SENSOR
 GENERAL:
 DDC SPACE SENSOR WITH DISPLAY. CONFIGURED FOR CONTINUOUS DISPLAY OF SET POINT AND THE OFFSET OF DISPLAYED TEMPERATURES, WITH CO2 SENSOR WHERE INDICATED.
 PUSH BUTTONS:
 USER ADJUSTMENT OF SPACE SET POINT.
 SET POINT ADJUSTMENT THROUGH PROGRAMMING.
 UNOCCUPIED HOUR OVERRIDE.
 -SEE TU CONTROL DESCRIPTION FOR MULTI-ZONE SYSTEMS, AND SYSTEM CONTROL DESCRIPTION FOR SINGLE ZONE SYSTEMS.
 SPECIFICATIONS:
 -RTD TYPE: 1000 OHM AT 77 DEG F
 -50 TO 90 DEG F DISPLAY CAPABILITY.
 -50 TO 90 DEG F SET-POINT CAPABILITY.

TYPE 2 SPACE SENSOR
 GENERAL:
 DDC SPACE SENSOR (NON DISPLAY TYPE).
 PUSH BUTTONS:
 NONE.
 SPECIFICATIONS:
 -RTD TYPE: 1000 OHM AT 77 DEG F
 -50 TO 90 DEG F SET-POINT CAPABILITY.

8 BAS SPACE TEMPERATURE SENSOR



GENERAL, CONSTANT VOLUME EXHAUST FAN OPERATES CONTINUOUSLY DURING OCCUPIED HOURS.
 RELAY WITH LOCAL DISCONNECT PROVIDED BY ELECTRICAL.
 -ON 2-POSITION DAMPER OPEN, EF OPERATES IN ACCORDANCE WITH INTERLOCKS AND PROGRAMMING, SUBJECT TO SAFETY LIMITS.
 -ON 2-POSITION DAMPER CLOSED, EF INOPERATIVE.
 EXHAUST FAN OPERATION / STATUS MONITORED WITH AN INDIVIDUAL CURRENT TRANSFORMER SWITCH.

6 ROOF EF CONTROL

GENERAL:
 CONTROL DAMPER SHALL MODULATE AND HEATING COIL SHALL ENERGIZE / MODULATE IN RESPONSE TO THE SPACE SENSOR FOR THE ZONE SERVED, IN ACCORDANCE WITH HEATING, COOLING, AND DEADBAND TEMPERATURE SET-POINTS. SENSOR MOUNTED DOWNSTREAM OF EACH TU TO MONITOR SUPPLY AIR TEMPERATURE.

OCCUPIED HOURS:
 -COOLING: HEATING COIL, DE-ENERGIZED. DAMPER MODULATES BETWEEN MIN AND MAX SETTINGS IN RESPONSE TO ROOM COOLING DEMAND.
 -DEAD-BAND: PRIMARY AIR VALVE AT MIN SETTING. HEATING COIL, DE-ENERGIZED.
 -HEATING: PRIMARY AIR VALVE MODULATES TO MINIMUM SETTING. HEATING COIL, ENERGIZED (MODULATED VIA SCR CONTROL). WHEN ROOM TEMPERATURE IS SATISFIED, COIL, DE-ENERGIZED.

UNOCCUPIED HOURS:
 PRIMARY DAMPER CLOSED, REHEAT COIL, DE-ENERGIZED.
 -SUBJECT TO MORNING WARM UP / COOL DOWN.
 -SUBJECT TO NIGHT (UNOCCUPIED) TEMPERATURE MAINTENANCE.

UNOCCUPIED HOUR OVERRIDE SWITCH:
 WHEN ACTIVATED BY THE SPACE OCCUPANT, SYSTEM RETURNS TO UNOCCUPIED OPERATION AFTER A PRESET TIME LIMIT. TIME LIMIT INITIALLY SET FOR 2 HOURS.

MORNING WARM UP / COOL DOWN:
 PRIMARY AIR VALVE INITIALLY MODULATES TO MAX OPEN SETTING IF SPACE REQUIRES COOLING, OR MODULATES TO HEATING SETTING AND HEATING COIL, ENERGIZED IF SPACE REQUIRES HEATING. PRIMARY AIR VALVE THEN MODULATES BACK TO MINIMUM, AND COIL, DE-ENERGIZED AS APPLICABLE, AS OCCUPIED HOUR SPACE TEMPERATURE SET-POINTS ARE SATISFIED.

NIGHT TEMPERATURE MAINTENANCE:
 OPERATION SAME AS MORNING WARM UP / COOL DOWN SEQUENCE, EXCEPT SET-POINTS. REFER TO SPECIFICATION SECTION 23.09.00 FOR SET-POINTS.

4 FC / HP CONTROL

CONTROL SYMBOLS LIST:

SYMBOL	DESCRIPTION
[Symbol]	SPACE THERMOSTAT
[Symbol]	CARBON DIOXIDE SENSOR
[Symbol]	CARBON DIOXIDE SENSOR
[Symbol]	OCCUPANCY SENSOR
[Symbol]	ROOM TEMPERATURE SENSOR
[Symbol]	DUCT TEMPERATURE SENSOR
[Symbol]	DUCT STATIC PRESSURE SENSOR
[Symbol]	AUTO DAMPER OPERATOR - TWO POSITION
[Symbol]	AUTO DAMPER OPERATOR - AUTO MODULATING
[Symbol]	DUCT SMOKE DETECTOR
[Symbol]	FIELD WIRING, LOW VOLTAGE
[Symbol]	FIELD WIRING, NETWORK
[Symbol]	RELAY
[Symbol]	CONTROL TRANSFORMER
[Symbol]	CT SWITCH
[Symbol]	ANALOG INPUT
[Symbol]	ANALOG INPUT, VIRTUAL
[Symbol]	ANALOG OUTPUT
[Symbol]	ANALOG OUTPUT, VIRTUAL
[Symbol]	DIGITAL INPUT
[Symbol]	DIGITAL INPUT, VIRTUAL
[Symbol]	DIGITAL OUTPUT
[Symbol]	DIGITAL OUTPUT, VIRTUAL

GENERAL NOTES

- CONTROL SYSTEM SET-POINTS, RUN-TIMES, DELAY TIMES, ETC., ARE TO BE ADJUSTABLE IN THE CONTROL SYSTEM BY BUILDING MAINTENANCE PERSONNEL.
- FIELD PROVIDED LOW VOLTAGE WIRING AND DEVICES SHOWN, REMAINDER OF WIRING AND CONTROL DEVICES FACTORY INSTALLED AND WIRED WITH EQUIPMENT INCLUDING UNITARY CONTROLLER.
- REFER TO HVAC FLOOR PLAN DRAWING SHEETS FOR LOCATIONS OF ROOM SENSORS, CO2 SENSORS, OCCUPANCY SENSORS, AND OTHER REMOTE SPACE OR DUCT MOUNTED DEVICES.
- CONTROL POWER TRANSFORMERS PROVIDED BY EQUIPMENT MANUFACTURER WITH EQUIPMENT.
- LINE VOLTAGE WIRING AND DEVICES EXTERNAL TO EQUIPMENT PROVIDED BY ELECTRICAL.

KEYED NOTES

- REFER TO HVAC PLAN SHEETS FOR LOCATION. PROVIDE PROTECTIVE LOCKERS COVER WHERE INDICATED ON PLANS.
- PROVIDE CO2 SENSOR WHERE INDICATED ON PLANS.
- ONLY ONE OA TEMP SENSOR REQUIRED FOR PROJECT. READING USED AS REFERENCE FOR ALL EQUIPMENT OPERATION AS NEEDED.

COMFORT FLOW HEATING
 1951 Don Street Springfield, OR 97477
 OFFICE (541) 726-0100 FAX: (541) 726-4799
 1987
 Engineering, Design, Budgeting, Installation & Service
 ALL RIGHTS RESERVED. NO PART OF THIS DOCUMENT MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.
 EXPIRES 12/31/24



MILLICOMA SCHOOL REROOF & CLASSROOM ADDITION
 COOS BAY SCHOOL DISTRICT
 260 2ND AVENUE
 COOS BAY, OREGON 97420

CONTROL SCHEMATICS AND SEQUENCES

REVISION	DESCRIPTION	DATE
1	ISSUED FOR BIDDING	JANUARY 2023
2	AS NOTED	JANUARY 2023
3	AS NOTED	JANUARY 2023
4	AS NOTED	JANUARY 2023
5	AS NOTED	JANUARY 2023
6	AS NOTED	JANUARY 2023
7	AS NOTED	JANUARY 2023
8	AS NOTED	JANUARY 2023
9	AS NOTED	JANUARY 2023
10	AS NOTED	JANUARY 2023
11	AS NOTED	JANUARY 2023
12	AS NOTED	JANUARY 2023
13	AS NOTED	JANUARY 2023
14	AS NOTED	JANUARY 2023
15	AS NOTED	JANUARY 2023

BIDDING

NO.	DATE	BY	CHKD BY
1	1/11/23	JS	CMP
2	1/11/23	AS	CMP
3	1/11/23	AS	CMP
4	1/11/23	AS	CMP
5	1/11/23	AS	CMP
6	1/11/23	AS	CMP
7	1/11/23	AS	CMP
8	1/11/23	AS	CMP
9	1/11/23	AS	CMP
10	1/11/23	AS	CMP
11	1/11/23	AS	CMP
12	1/11/23	AS	CMP
13	1/11/23	AS	CMP
14	1/11/23	AS	CMP
15	1/11/23	AS	CMP

PROJECT NO: MS-M1-0
 SHEET NO: 15 OF 15
M4.01

ELECTRICAL SYMBOL SCHEDULE			
SYMBOLS	ONLINE DIAGRAM	NOTES	SYMBOLS
	MOLDED CASE CIRCUIT BREAKER		
	TRANSFORMER		
	CURRENT TRANSFORMER(S)		
	GROUND		
	NEUTRAL BUS		
	MOTOR WITH MOTOR NUMBER (SEE EQUIPMENT SCHEDULE)		
	COMBINATION FIRE SMOKE DETECTOR		
	EQUIPMENT NUMBER (SEE EQUIPMENT SCHEDULE)		
	NON-FUSED DISCONNECT SWITCH		
	FUSED DISCONNECT SWITCH (FUSES SIZED PER EQUIPMENT MANUFACTURERS RECOMMENDATIONS UNLESS OTHERWISE NOTED)		
	COMBINATION MOTOR STARTER / FUSED DISCONNECT SWITCH		
	SUB-DISTRIBUTION PANELBOARD OR SWITCHBOARD		
	BRANCH CIRCUIT PANELBOARD		
	MISCELLANEOUS PANEL, AS NOTED		
	MAIN DISTRIBUTION PANELBOARD		
	TRANSFORMER		
SYMBOLS	RACEWAYS	NOTES	SYMBOLS
	BRANCH CIRCUIT INSTALLED CONCEALED FROM FINISH SPACES. PROVIDE GROUND CONDUCTOR AS INDICATED IN PANEL SCHEDULE. GROUND CONDUCTOR NOT INCLUDED IN HASH MARK INDICATION.		
	BRANCH CIRCUIT INSTALLED IN OR BELOW FLOOR. PROVIDE GROUND CONDUCTOR AS INDICATED IN PANEL SCHEDULE. GROUND CONDUCTOR NOT INCLUDED IN HASH MARK INDICATION.		
	BRANCH CIRCUIT RUN TO PANEL. HASH MARKS INDICATE NUMBER OF CONDUCTORS. PROVIDE GROUND CONDUCTOR AS INDICATED IN PANEL SCHEDULE. GROUND CONDUCTOR NOT INCLUDED IN HASH MARK INDICATION.		
	LOW VOLTAGE EMPTY CONDUIT WITH PULL STRING - 1/2" UNO		
	PULL BOX, 6" x 6" x 4" UNLESS NOTED OTHERWISE		
	JUNCTION BOX, 4" SQUARE UNLESS OTHERWISE NOTED		
	4" CONDUIT BELIEVE WITH BUSINESS AT BOTH ENDS. LOCATE AT 8" ABOVE ACCESSIBLE CEILING		
	CONDUIT SUB-OUT, CAP + MARK WITH APPROVED MARKER		
	CONDUIT, UP		
	CONDUIT, DOWN		
SYMBOLS	RECEPTACLES	NOTES	SYMBOLS
	WHEN ADDED TO A SYMBOL, INDICATES OUTLET MOUNTED WITH BOTTOM OF OUTLET AT 2" ABOVE CENTER TOP OR BACK SPACING UNO		
	DUPLEX CONVENIENCE OUTLET	15"	
	GFI DUPLEX CONVENIENCE OUTLET	15"	
	DUPLEX OUTLET CONNECTED TO EMERGENCY CIRCUIT	15"	
	DOUBLE DUPLEX CONVENIENCE OUTLET	15"	
	SINGLE PHASE SPECIAL PURPOSE OUTLETS, AS NOTED	15" UNO	
	THREE PHASE SPECIAL PURPOSE OUTLETS, AS NOTED	15" UNO	
	FUSH FLOOR OUTLET, AS SHOWN		
SYMBOLS	TELEPHONE / DATA	NOTES	SYMBOLS
	WHEN ADDED TO A SYMBOL, INDICATES OUTLET MOUNTED WITH BOTTOM OF OUTLET AT 2" ABOVE CENTER TOP OR BACK SPACING UNO		
	TELEPHONE, PROVIDE (2) CAT6 CABLES UNO	15"	
	UP ADDED TO SYMBOL, INDICATES WALL MOUNTED	60"	
	FUSH FLOOR OUTLET, AS SHOWN		
	TELEPHONE TERMINAL BOARD, 8" HIGH (WIDTH AS SHOWN), 1/2" FINE MESH BENT PLATE WITH #6 CU GND UNLESS ACCESS PORT, PROVIDE (1) CAT6 CABLES		
	UNLESS ACCESS PORT, PROVIDE (1) CAT6 CABLES		
NOTES	<p>1. ALL SYMBOLS MAY NOT APPLY DIRECTLY TO THIS JOB.</p> <p>2. ALL MOUNTING HEIGHTS SHOWN ARE TO CENTERS OF DEVICES.</p> <p>3. ALL MOUNTING HEIGHTS ARE TYPICAL ON PLANS.</p>		
KEYED NOTES	<p>1. PROVIDE 1" CONDUIT FROM OUTLET BOX TO ACCESSIBLE LOCATION ABOVE CEILING UNLESS NOTED OTHERWISE. TERMINATE CONDUITS WITH BLUE INSULATED BOX CONNECTIONS AND LABEL. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION. ROUTE CAT6 or 6A CABLES TO DATA RACK.</p>		
SYMBOLS	ABBREVIATIONS	NOTES	
AIC	AMPERE INTERRUPTING CAPACITY		
AMP	AMPERE		
C	CONDUIT		
EC	EMPTY CONDUIT (WITH PULL-N LINE)		
ELEC	ELECTRICAL		
FAAP	FIRE ALARM ANNUNCIATOR PANEL		
FACP	FIRE ALARM CONTROL PANEL		
GND	GROUND		
GEN	GENERATOR		
GFI	GROUND FAULT CIRCUIT INTERRUPTER TYPE		
HP	HORSEPOWER		
IG	INSULATED GROUND		
MECH	MECHANICAL		
MPFR	MANUFACTURER		
NEC	NATIONAL ELECTRIC CODE		
NL	NIGHT LIGHT	24 HOUR ON	
OCPI	OWNER FURNISHED CONTRACTOR INSTALLED		
OCPI	OWNER FURNISHED OWNER INSTALLED		
PB	PULL BOX		
PH	PHASE		
PNL	PANEL		
PUR	PURSER		
RTU	RTU/STRT		
T	TELEPHONE		
TTB	TELEPHONE TERMINAL BOARD		
TYP	TYPICAL		
UNO	UNLESS NOTED OTHERWISE		
V	VOLT		
VP	VANDAL PROOF		
W	WATT		
WP	WEATHERPROOF TYPE		

PART 1 - General

1.01 Description

A. Furnish labor, supervision, permits, materials and equipment to complete the work required in Division 16 and by the contract documents.

1.02 Codes

A. Meet requirements of State of Oregon Electrical Specialty Code, Oregon Administrative Rules Chapter 437, American Society of Testing and Materials (ASTM) Federal Specifications, American National Standards Institute (ANSI), National Electrical Manufacturers Association (NEMA), National Fire Protection Association (NFPA), Underwriters Laboratory (UL), National Electrical Code, National Electrical Safety Code, all rules and regulations of the local serving utility, National Board of Fire Underwriters and Oregon Structural Specialty Code International Building Code (IBC). All Codes, rules, and regulations shall be the current or latest edition adopted by authorities having jurisdiction at time of permit.

1.03 Permits, Licenses And Taxes

A. The Contractor shall obtain and pay for all licenses, permits and inspections required by laws, ordinances and rules governing work specified herein. The Contractor shall arrange for inspection of work by the inspectors and shall give the inspectors all necessary assistance in their work of inspection. Division 16 Contractor shall make all necessary arrangements for installation of electrical services indicated on plans.

B. The existence of any wires, conduits, pipes, ducts or other service facilities is shown in a general way only. The Contractor is responsible for making the exact determination of the location and condition of these facilities.

C. The general directions and location of homeruns are indicated on Drawings and are to be extended to panels as though routes were completely shown. No homeruns or branch circuits are to be combined. Items which are installed other than as shown on Drawings and without receiving prior written approval will be ordered removed and installed as shown without additional cost to Owner.

D. Owner shall not be responsible for any loss of unanticipated costs that may be suffered by the successful bidder as a result of such bidder's failure to fully inform himself in advance in regard to all conditions pertaining to the work and character of the work.

E. Contractor shall consult the Architectural drawings for the exact height and/or location of all outlets, switches, lights, etc. specified herein or on the drawings.

F. Outlet locations shown on the drawings are approximate. Contractor shall study the building drawings in relation to spaces and equipment surrounding each outlet so that the lighting fixtures are symmetrically located according to ceiling tile and room layout. When necessary, with the Engineer's approval, outlet shall be relocated to avoid interference with structural features of the building.

PART 2 - Execution

2.01 Identification

A. Provide typewritten circuit schedules for panelboards, junction-connect panels and terminal cabinets. Schedules shall be covered with minimum of 0.018 inch thick clear rigid plastic installed in permanently attached metal frame holder located on inside face of door. Schedules to use final assigned room names/numbers, loads not plan designations.

B. When making modifications to existing equipment or panelboards, provide labels as indicated in this section. Provide new typewritten circuit schedules for all modified panelboards.

2.02 Installation

A. Wiring Requirements: Install wiring complete to every outlet with all devices shown and/or required. All wiring to be in raceways and concealed throughout finished areas unless specifically noted otherwise.

B. Provide raceway connections between outlets, outlets and panels and equipment and panels as shown on Drawings. Size raceways according to governing codes unless otherwise noted.

2.03 Noise Control

A. To minimize noise transmission between occupied spaces, outlet boxes at opposite sides of partitions are not to be placed back to back and installation of straight-through boxes is not permitted.

2.04 Fire-Stopping

A. Where raceways penetrate floors, ceilings, ducts, chases and fire walls, provide fire stopping to maintain integrity of the fire assembly. The code authority having jurisdiction shall approve fire-stopping method.

B. Where electrical boxes exceeding 16 square inches are located in fire resistive walls, fire stopping shall be provided to maintain integrity of the fire assembly.

2.05 Demolition And Salvage At Existing Structures

A. Contractor shall make all necessary adjustments to the electrical system required to meet code, accommodate installation of the new work, and for demolition and removal at existing structures.

B. If existing junction boxes will be made inaccessible, or if abandoned outlets serve as feed through boxes for other existing electrical equipment that is being retained, new conduit and wire shall be provided to bypass the abandoned outlets. If existing conduits pass through partitions or ceilings which are being removed or remodeled, new conduit and wire shall be provided to route around the ceiling or wall and maintain service to the existing load.

C. Locations of items shown on the drawings as existing are partially based on as-built and other drawings which may contain errors. The Contractor shall verify the correctness of the information shown prior to bidding and provide such labor and material as is necessary to accomplish the intent of the contract documents. The plans may show some demolition conditions, but are not intended to show all of them.

D. All materials accumulated during the demolition process are the Owners property and shall be removed from the job site as directed by the Owner.

2.06 Work At Existing Structure

A. Connect to and extend all existing electrical systems as required. Verify location of existing raceways stubbed out. If raceways indicated are not of proper size or in proper location, provide new as required for completion of project.

B. At areas where new ceilings are being installed, remove existing light fixtures and provide box extensions and reinstall existing fixtures. See Architectural Drawings for areas involved.

2.07 Cleanup

A. Contractor shall continually remove debris, cuttings, crates, cartons, etc., created by his work. Such clean up shall be done at sufficient frequency to eliminate hazard to the public, other workmen, the building or the Owner's employees. Before acceptance of the installation, Contractor shall carefully clean cabinets, panels, wiring devices, cover plates, light fixtures, etc., to remove dirt, outtings, paint, plaster, mortar, concrete, etc. Blemishes to finished surfaces of apparatus shall be removed and new finish equal to the original applied.

2.08 Asbestos Bearing Materials

A. If during the course of his work, the Contractor observes the existence of asbestos or asbestos bearing materials, the Contractor shall immediately terminate further work on the project and notify the Owner of the condition. The Owner will, after consultation with the Architect, determine a further course of action.

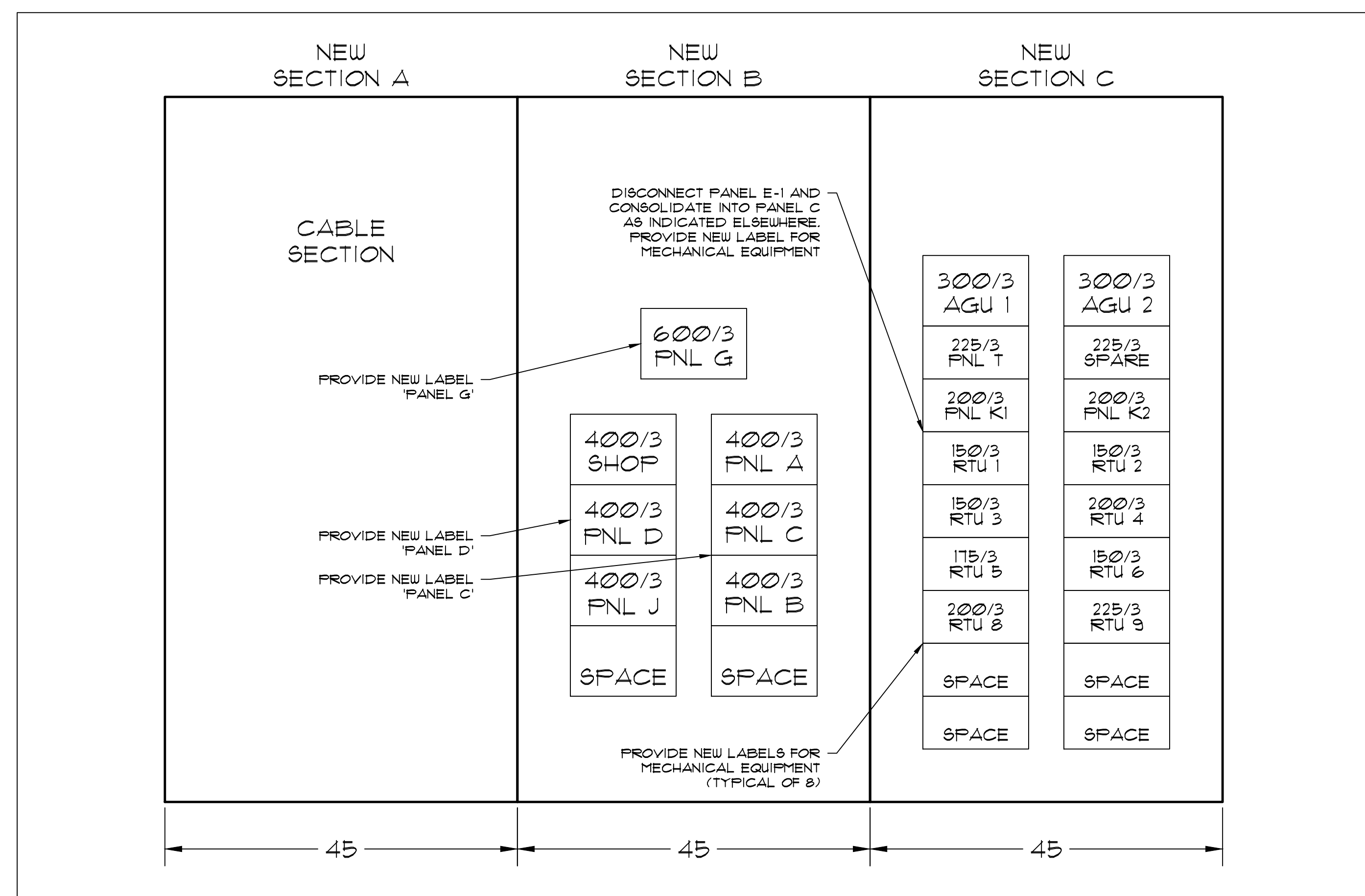
2.09 Polychlorinated Biphenyls (Pcb's)

A. If during the course of his work, the Contractor observes the existence of polychlorinated biphenyls (PCB's), the Contractor shall immediately terminate further work on the project and notify the Owner of the condition. The Owner will, after consultation with the Architect, determine a further course of action.

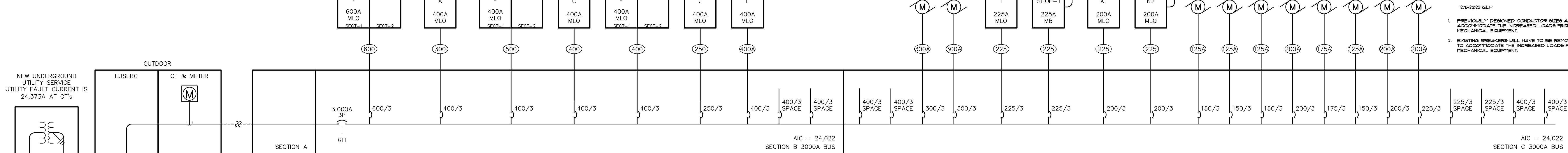
2.10 Payment For Work

A. Payment for work under this Division shall be covered and included as part of the Basic Bid on the project, or as outlined under any schedules.

END OF SECTION



FEEDER	CONDUIT & WIRE SIZE
50	COPPER: 3/4" C, 4 #6 PH, # 8 N, #10 GRD
70	COPPER: 1 1/4" C, 4 #4 PH, #8 GRD
100	COPPER: 1 1/4" C, 4 #2 PH, #8 GRD
125A	ALUMINUM: 2" C, 4 #2/0 PH, #4 GRD
125	COPPER: 1 1/4" C, 3 #1 PH, #6 GRD
175A	ALUMINUM: 2 1/2" C, 4 #4/0 PH, #4 GRD
200A	ALUMINUM: 2 1/2" C, 4 #250 PH, #4 GRD
200	COPPER: 2" C, 4 #3/0 PH, #6 GRD
225	COPPER: 2 1/2" C, 4 #4/0 PH, #4 GRD
250	COPPER: 3" C, 4 #300 PH, #4 GRD
300A	ALUMINUM: 3 1/2" C, 4 #500 PH, #2 GRD
300	COPPER: 3" C, 4 #400 PH, #4 GRD
400A	ALUMINUM: 2 SETS - 3" C, 4 #300 PH, #1/0 GRD
350	COPPER: 2 SETS - 2" C, 4 #3/0 PH, #1/0 GRD
400	COPPER: 2 SETS - 2 1/2" C, 4 #4/0 PH, #1/0 GRD
500	COPPER: 2 SETS - 2 1/2" C, 4 #250 PH, #1/0 GRD
550	COPPER: 2 SETS - 3" C, 4 #300 PH, #1/0 GRD
600	COPPER: 2 SETS - 3" C, 4 #400 PH, #1/0 GRD



1 1-LINE DIAGRAM - UPGRADE
1.0 MILLICOMA SCHOOL

REPLACE 42-POLE WITH 60-POLE PANEL PANEL 'A' FAULT CURRENT = 16291 300 AMP MLO 120 / 208 VOLTS 3-PHASE, 4-WIRE FLUSH MOUNTED

ALL CIRCUIT CONDUCTORS SIZED FOR COPPER 11/18/2022 FED FROM PANEL 'MDP'

REPLACE SEE 1-LINE PANEL 'B' FAULT CURRENT = 16291 400 AMP MLO 120 / 208 VOLTS 3-PHASE, 4-WIRE FLUSH MOUNTED

ALL CIRCUIT CONDUCTORS SIZED FOR COPPER 11/18/2022 FED FROM PANEL 'MDP'

REPLACE SEE 1-LINE PANEL 'C' FAULT CURRENT = 16298 400 AMP MLO 120 / 208 VOLTS 3-PHASE, 4-WIRE FLUSH MOUNTED

ALL CIRCUIT CONDUCTORS SIZED FOR COPPER 11/18/2022 FED FROM PANEL 'MDP'

REPLACE SEE 1-LINE PANEL 'D' FAULT CURRENT = 16300 400 AMP MLO 120 / 208 VOLTS 3-PHASE, 4-WIRE SURFACE MOUNTED

ALL CIRCUIT CONDUCTORS SIZED FOR COPPER 11/18/2022 FED FROM PANEL 'MDP'

REPLACE EXISTING PANEL PANEL 'G' FAULT CURRENT = 18284 600 AMP MLO 120 / 208 VOLTS 3-PHASE, 4-WIRE FLUSH MOUNTED

ALL CIRCUIT CONDUCTORS SIZED FOR COPPER 11/18/2022 FED FROM PANEL 'MDP'

REPLACE WITH 42-POLE PANEL PANEL 'J' FAULT CURRENT = 21388 400 AMP MLO 120 / 208 VOLTS 3-PHASE, 4-WIRE FLUSH MOUNTED

ALL CIRCUIT CONDUCTORS SIZED FOR COPPER 11/18/2022 FED FROM PANEL 'MDP'

NEW PANEL PANEL 'L' FAULT CURRENT = 11929 400 AMP MAIN BREAKER 120 / 208 VOLTS 3-PHASE, 4-WIRE SURFACE MOUNTED

ALL CIRCUIT CONDUCTORS SIZED FOR COPPER 11/18/2022 FED FROM PANEL 'MDP'

REPLACE WITH NEW PANEL 'T' FAULT CURRENT = 14874 225 AMP MLO 120 / 208 VOLTS 3-PHASE, 4-WIRE FLUSH MOUNTED

ALL CIRCUIT CONDUCTORS SIZED FOR COPPER 11/18/2022 FED FROM PANEL 'MDP'

REPLACE WITH NEW PANEL 'U' FAULT CURRENT = 14874 225 AMP MLO 120 / 208 VOLTS 3-PHASE, 4-WIRE FLUSH MOUNTED

ALL CIRCUIT CONDUCTORS SIZED FOR COPPER 11/18/2022 FED FROM PANEL 'MDP'

REPLACE WITH NEW PANEL 'V' FAULT CURRENT = 14874 225 AMP MLO 120 / 208 VOLTS 3-PHASE, 4-WIRE FLUSH MOUNTED

ALL CIRCUIT CONDUCTORS SIZED FOR COPPER 11/18/2022 FED FROM PANEL 'MDP'

REPLACE WITH NEW PANEL 'W' FAULT CURRENT = 14874 225 AMP MLO 120 / 208 VOLTS 3-PHASE, 4-WIRE FLUSH MOUNTED

ALL CIRCUIT CONDUCTORS SIZED FOR COPPER 11/18/2022 FED FROM PANEL 'MDP'

REPLACE WITH NEW PANEL 'X' FAULT CURRENT = 14874 225 AMP MLO 120 / 208 VOLTS 3-PHASE, 4-WIRE FLUSH MOUNTED

ALL CIRCUIT CONDUCTORS SIZED FOR COPPER 11/18/2022 FED FROM PANEL 'MDP'

DOUBLE 'E' ENGINEERING, LLC Myrtle Point, Oregon www.ee-engineering.com

REGISTERED PROFESSIONAL ENGINEER (65550) JAMES F. JONES Oregon License No. 15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

COOS BAY PUBLIC SCHOOLS

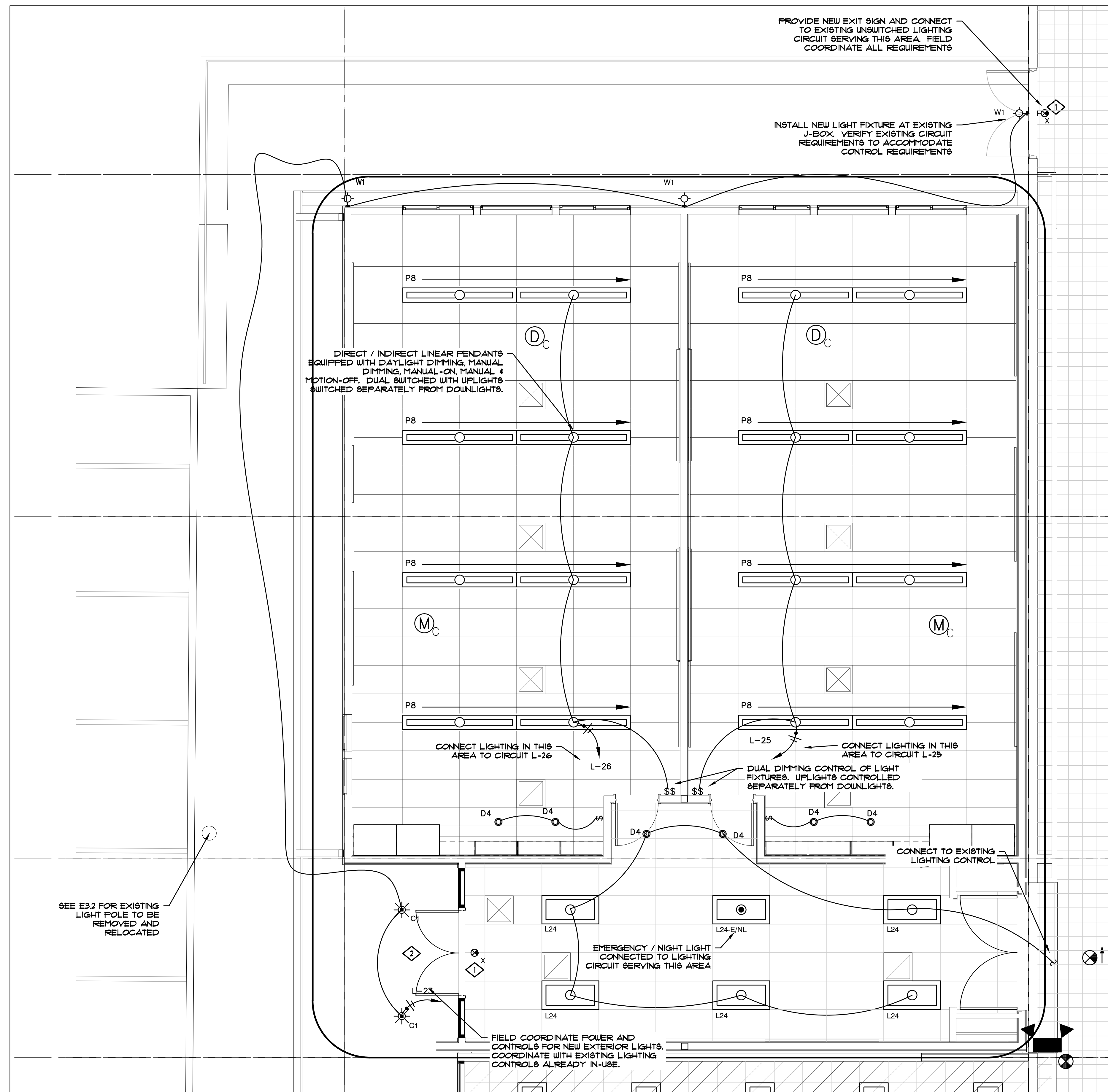
Electrical Plans - One-Line Diagram MILLICOMA SCHOOL ADDITION 260 SECOND AVENUE COOS BAY OREGON

JOB NO: 22.07 DATE: JANUARY 2023 DRAWN BY: GREG PRIDE, PE

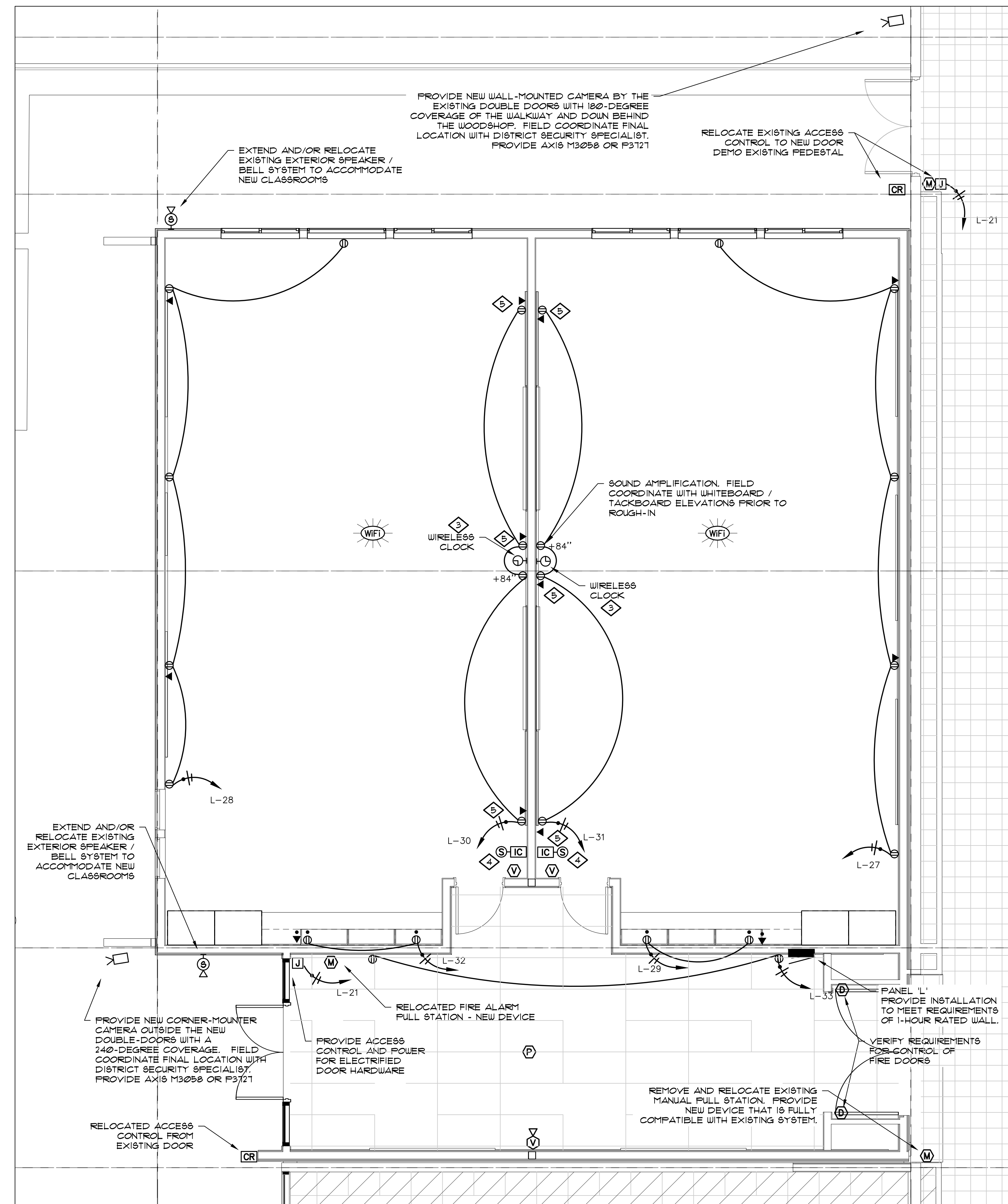
VERIFY SCALES: 1" = 10' ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

SHEET NO. E1.1 Electrical Plan Panel Schedules

KYLE ELECTRIC, INC. PROFESSIONAL ELECTRIC CONTRACTOR



1 ADDITION DETAIL - LIGHTING
E2.0 SCALE: 1/4" = 1'-0"



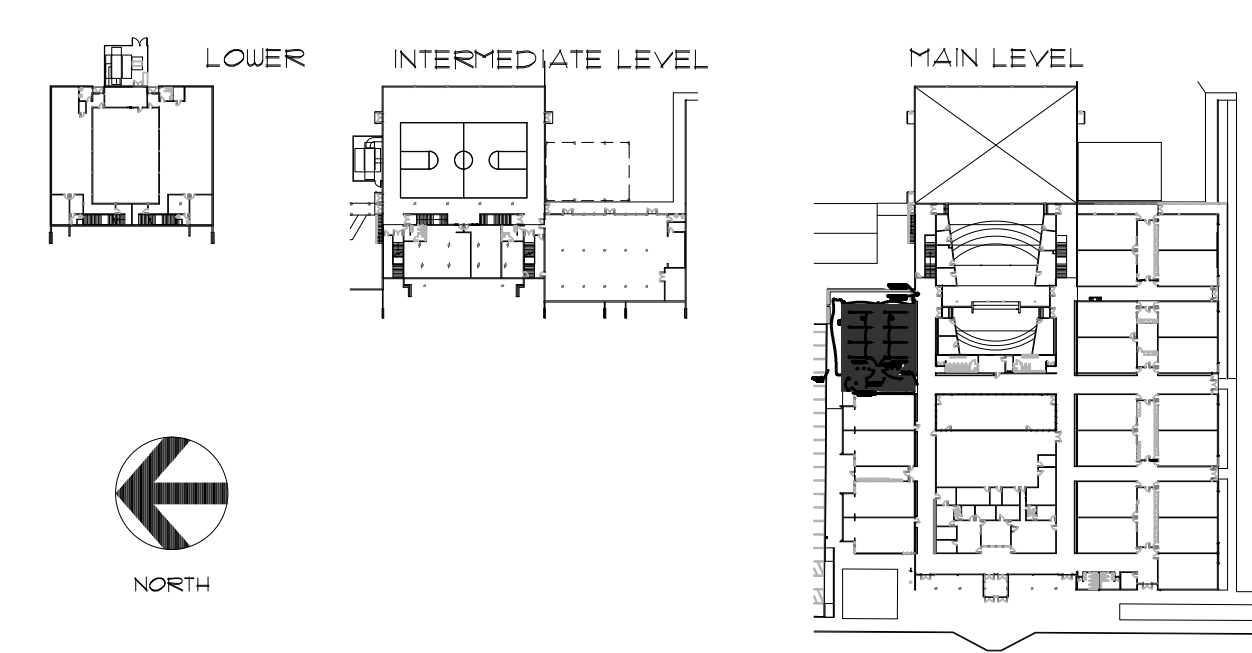
2 ADDITION DETAIL - POWER & SIGNAL
E2.0 SCALE: 1/4" = 1'-0"

KEYED NOTES

- ◇ EXIT SIGN WITH INTEGRAL EGRESS LIGHTING. PROVIDE UNSWITCHED CONDUCTORS FROM LOCAL LIGHTING CIRCUIT FOR EXIT SIGNS.
- ◇ EXTERIOR AND EMERGENCY LIGHTS: CONNECT TO CIRCUIT L23 VIA LIGHTING INVERTER TO PROVIDE EMERGENCY EGRESS LIGHTING. MYERS ILLUMINATOR LV 175 OR APPROVED EQUAL. LOCATE LIGHTING INVERTER IN JANITOR ROOM 348.
- ◇ CLOCKS: PROVIDE NEW CLOCK FOR NEW CLASSROOM. MATCH OWNER'S EXISTING EQUIPMENT.
- ◇ INTERCOM: PROVIDE INTERCOM WITH IP SPEAKER. FIELD COORDINATE LOCATION WITH OWNER. PROVIDE SEPARATE CALL BUTTON UNLESS DETERMINED UNNECESSARY FOR THE SPECIFIC LOCATION. MATCH EXISTING.
- ◇ 1-HOUR AND SOUND CONTROL WALL. DEVICES IN ONE ROOM SHALL BE SEPARATED FROM DEVICES IN THE NEIGHBORING ROOM BY AT LEAST ONE STUD BAY - NOT LESS THAN 16 INCHES. SEE DETAIL FOR ADDITIONAL CLARIFICATION.

SHEET NOTES

1. ELECTRICAL PANELS: PROVIDE ENGRAVED PHENOLIC IDENTIFICATION LABEL FOR EACH PANEL.
2. FIRE ALARM SYSTEM: CONNECT NEW DEVICES TO EXISTING FIRE ALARM PANEL IN OFFICE.
3. PROVIDE ANY NECESSARY COMPONENTS TO COORDINATE MECHANICAL FIRE ALARM SHUT-DOWNS FOR UNITS 2,000 CFM AND LARGER.
4. EXTEND OWNER'S EXISTING SECURITY MANAGEMENT AND ACCESS CONTROL SYSTEM TO NEW DOORS AS INDICATED.

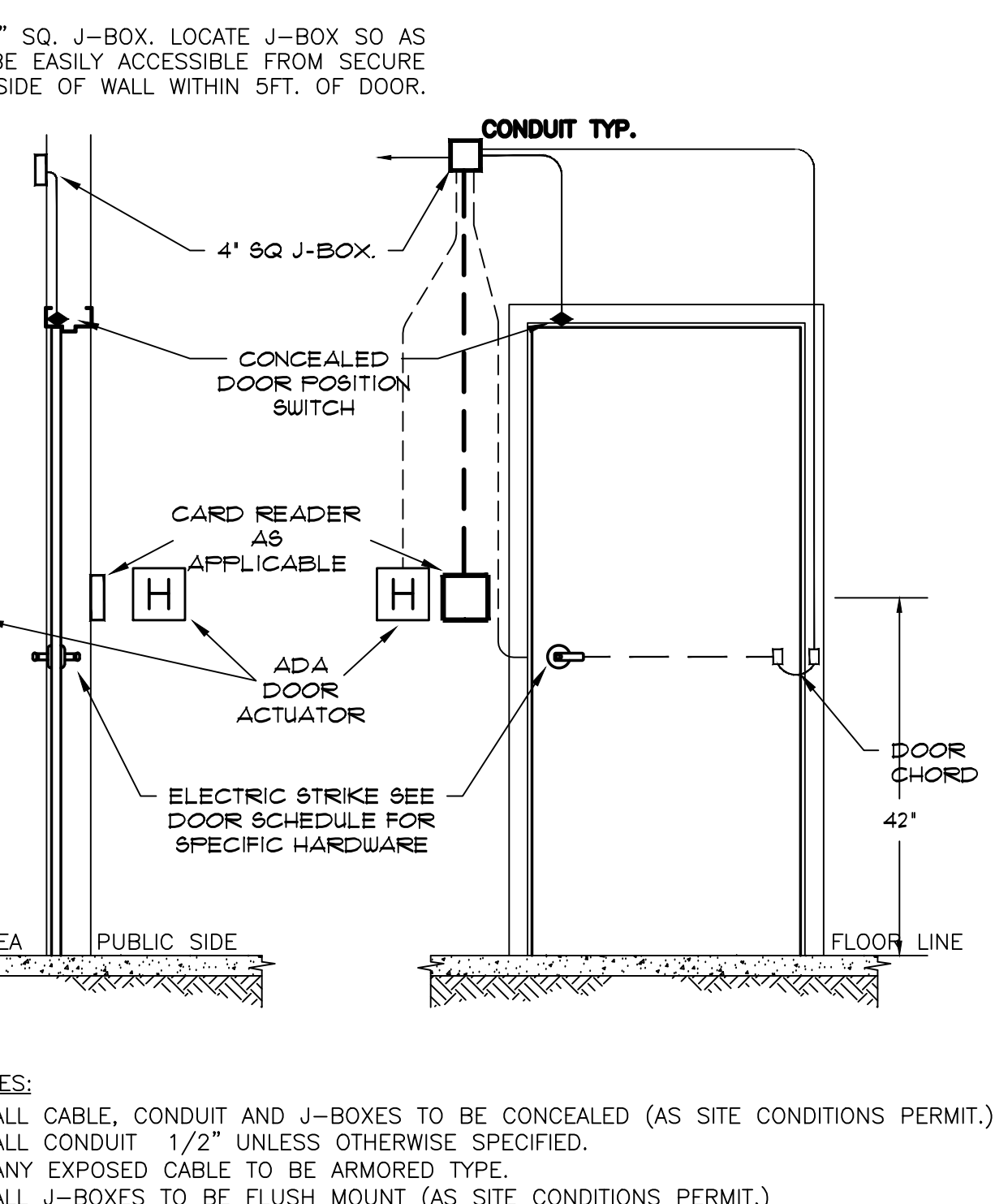


VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

KYLE ELECTRIC, INC.
PROFESSIONAL ELECTRIC CONTRACTOR

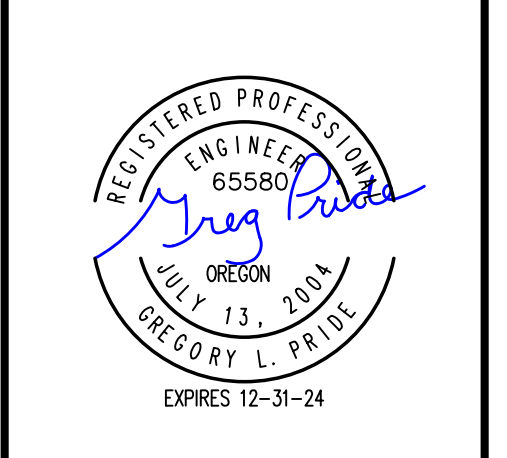
LIGHT FIXTURE SCHEDULE			
NAME	MANUFACTURER	TYPE	DESCRIPTION
C1	RAB VANILED2W	TYPE: HOUSING: MOUNTING: LAMPS:	VANDAL RESISTANT LED DOWNLIGHT 8 1/2" x 8" COLD ROLLED STEEL SEMI-RECESSED - DROP LENSE 4000K LED 1000 LUMENS 12W
D4	PORTFOLIO HOUSING: L048-10-D010-EMB00 LIGHT: EU48-1020-80-35 TRIM: ALBWILLI	TYPE: TRIM: MOUNTING: LAMPS:	4 1/2" LED DOWNLIGHT RECESSED 35K LED 1000 LUMENS 11W / WIDE DIST.
FP	LITHONIA CPANL 2X4 40/50/60LM 35K M2	TYPE: MOUNTING: LAMPS:	SAME AS TYPE 'L24' EXCEPT SURFACE - CEILING (w/BRAKET)
L14	LITHONIA STL4-40L-D40-LP935-NX	TYPE: HOUSING: FINISH: MOUNTING: LAMPS:	VOLUME TRIC LED 1X4 SURFACE COLD-ROLLED STEEL, ACRYLIC LENS WHITE POLYESTER COATING SURFACE - CEILING LED, 80 CRI, 3,500K, 4,000 LUMEN (40 WATTS)
L24 / L24E	LITHONIA CPANL 2X4 40/50/60LM 35K M2 VERIFY GRID-BATTERY	TYPE: HOUSING: FINISH: MOUNTING: BATTERY: LAMPS:	2 X 4 LED FLAT PANEL ALUMINUM FRAME WHITE POLYESTER COATING T-BAR CEILING GRID L24E - ADD BATTERY PACK LED, 80 CRI, 3500K, 5000 LUMEN (42 WATTS)
P8	FINELITE SERIES 12 LED ID DCC-8"-3E-B-8-835 OPEN-120-SC-FA-FE-VERIFY T-BAR-080/080	TYPE: HOUSING: MOUNTING: DAYLIGHT: LAMPS:	18 FOOT LINEAR LED PENDANT SUSPENDED PROVIDE DAYLIGHT DIMMING AT WINDOW WALLS 35K LED 900 LUMEN/FT. 22W/FT
S4	LITHONIA 2LIN L48 5000LM SBL FST MVOLT 35K 80 CRI BLACK	TYPE: HOUSING: FINISH: MOUNTING: LAMPS:	4 FOOT INDUSTRIAL LIGHT COLD ROLLED STEEL BLACK SURFACE - CEILING LED, 80 CRI, 3500K, 5000 LUMEN, 41 WATTS
W1	LITHONIA - DLW 23	TYPE: HOUSING: MOUNTING: FINISH: LAMPS:	LED WALL PACK ALUMINUM HOUSING WALL DARK BRONZE LED 2000 LUMEN 31 WATTS
W4	LITHONIA - VL4-20L-LP835-	TYPE: HOUSING: MOUNTING: FINISH: LAMPS:	4 FOOT LED VANITY LIGHT COLD-ROLLED STEEL WALL WHITE 3500K LED 2000 LUMEN 18.7 WATTS
X	LITHONIA - ECBG LED M6	TYPE: HOUSING: MOUNTING: LAMPS: BATTERY: NOTE:	LED EXIT SIGN WITH EGRESS LIGHTS POLYCARBONATE - GREEN LETTERS FIELD VERIFY WALL / CEILING WHITE LED NI-CAD BATTERY CONNECT TO UNSWITCHED CONDUCTOR

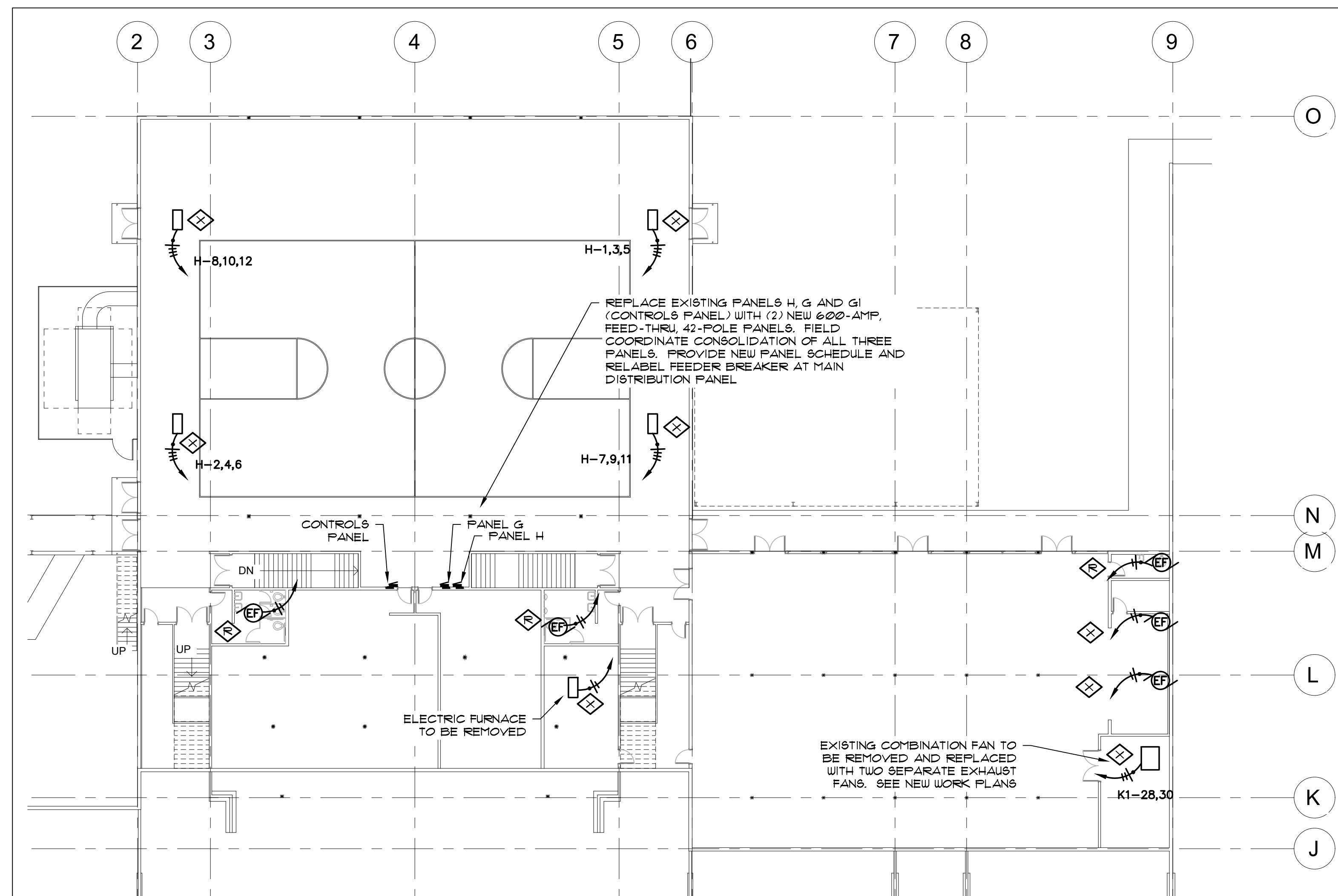
ALL FIXTURES ARE 120 VOLT



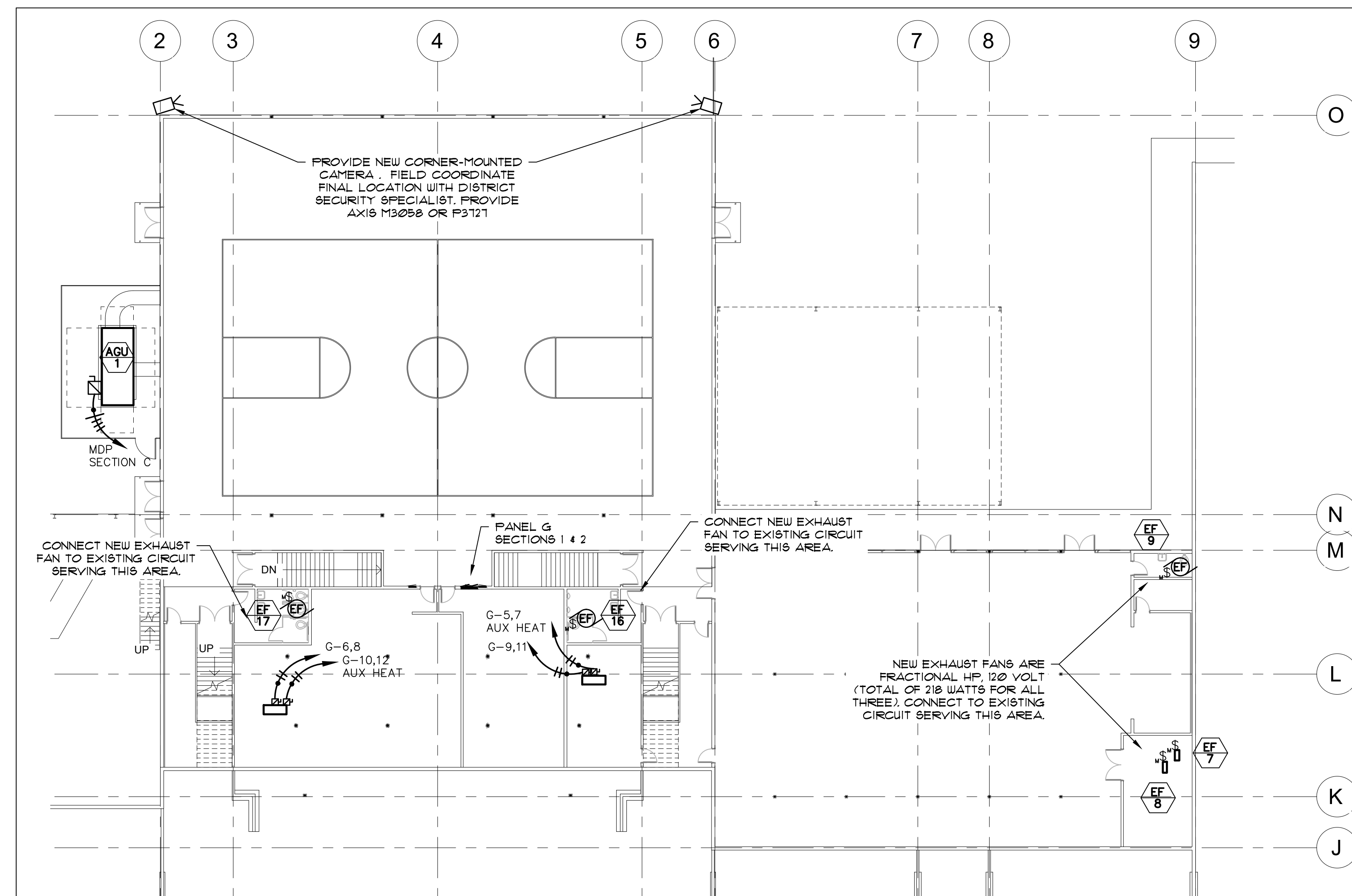
3 DOOR ELEVATION
E2.0 SECURITY DETAIL

4 J-BOX PENETRATION DETAIL
E2.0 NOT TO SCALE

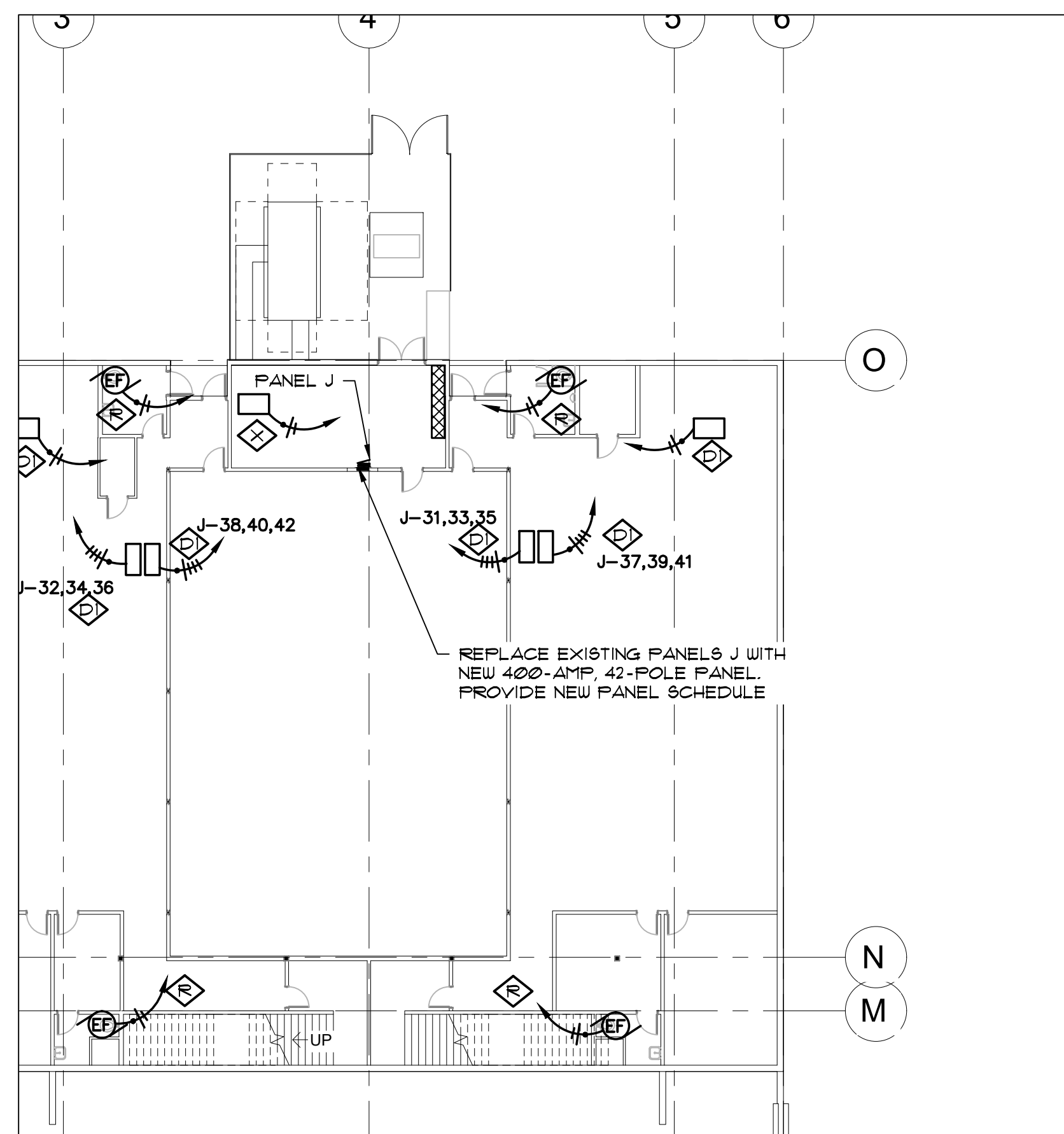




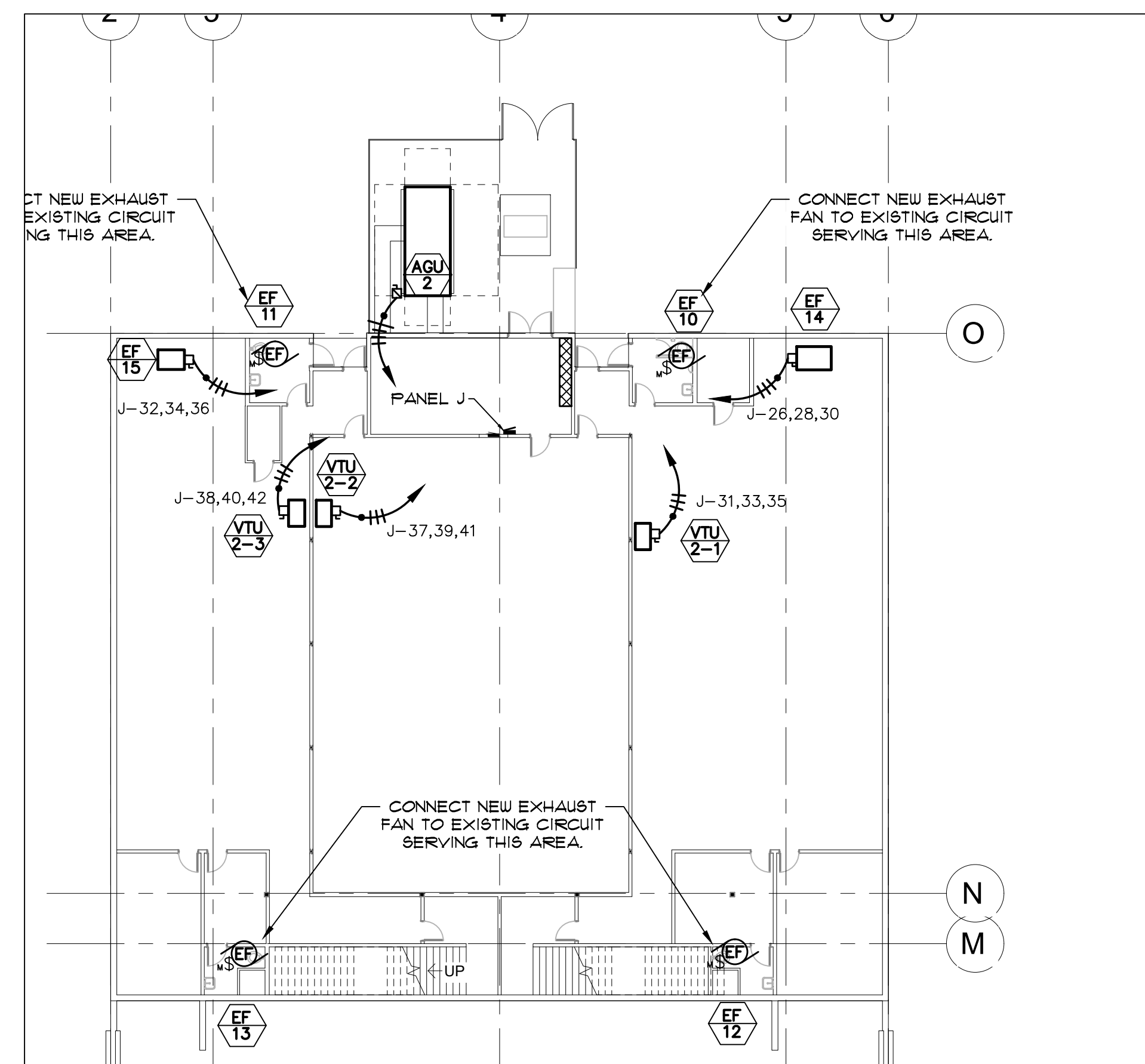
1 INTERMEDIATE LEVEL - DEMOLITION
E3.0 SCALE: 1/16" = 1'-0"



2 INTERMEDIATE LEVEL - NEW WORK
E3.0 SCALE: 1/16" = 1'-0"



3 LOWER LEVEL - DEMOLITION
E3.0 SCALE: 1/16" = 1'-0"



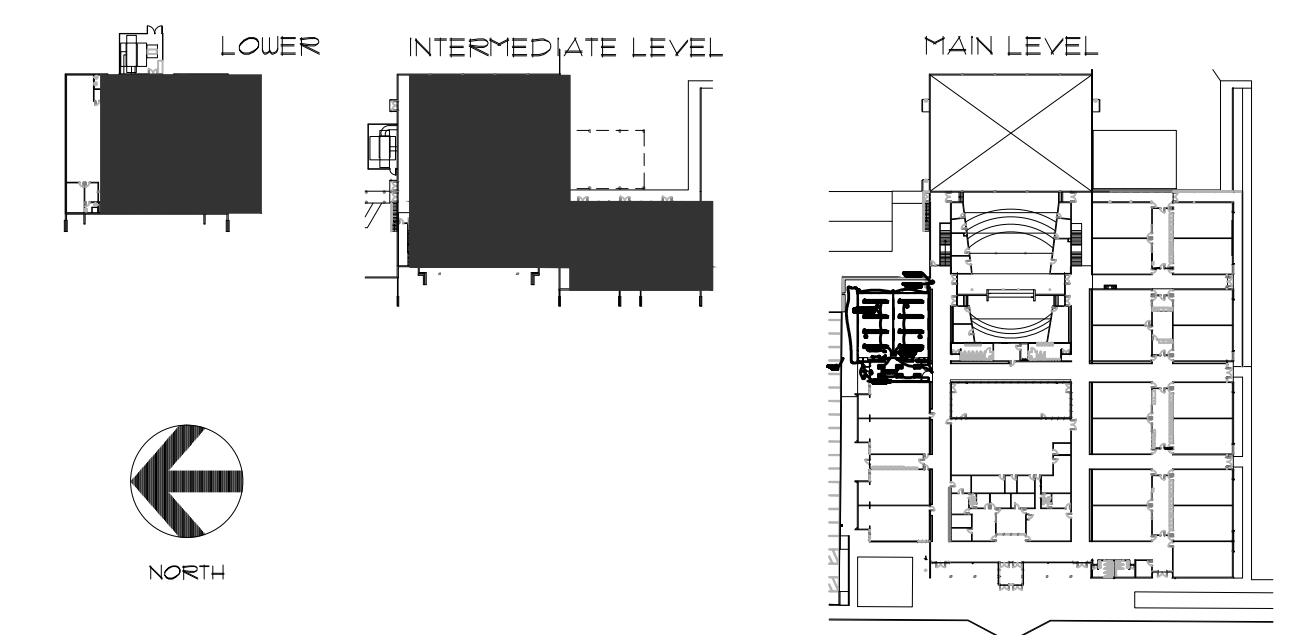
4 LOWER LEVEL - NEW WORK
E4.0 SCALE: 1/16" = 1'-0"

KEYED NOTES

- ✦ DISCONNECT EXISTING MECHANICAL EQUIPMENT SCHEDULED FOR REPLACEMENT. MAINTAIN EXISTING CIRCUIT FOR REUSE. SEE NEW WORK PLAN FOR CIRCUIT AND EQUIPMENT. COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO DEMOLITION. VERIFY EXACT LOCATION IN THE FIELD.
- ✦ EXISTING MECHANICAL EQUIPMENT TO BE REMOVED AND REPLACED. FIELD COORDINATE ELECTRICAL REQUIREMENTS WITH MECHANICAL CONTRACTOR.
- ✦ DISCONNECT AND REMOVE ELECTRICAL CONNECTION AND ASSOCIATED WIRING TO EXISTING MECHANICAL EQUIPMENT. COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO DEMOLITION. VERIFY EXACT LOCATION IN THE FIELD.

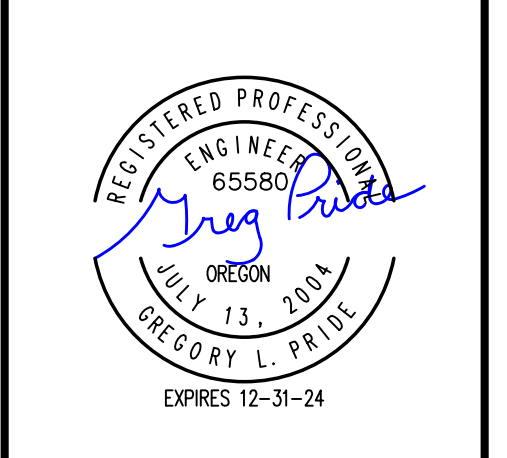
SHEET NOTES

1. WORK SHOWN ON PLAN IS BASED ON AVAILABLE INFORMATION AT THE TIME OF DESIGN. CONTRACTOR IS TO FIELD VERIFY AND COORDINATE PROJECT REQUIREMENTS WITH EXISTING CONDITIONS.
2. UNLESS NOTED OTHERWISE, ALL EQUIPMENT AND DEVICES SHOWN ON THIS PLAN ARE TO BE DISCONNECTED AND REMOVED. REMOVE ALL UNUSED WIRING AND CONDUIT BACK TO PANEL OR ORIGIN. WIRING WHICH SERVES USABLE EXISTING LIGHTING AND POWER OUTLETS SHALL BE REROUTED AND RESTORED CLEAR OF CONSTRUCTION. MAINTAIN ELECTRICAL CONTINUITY OF EXISTING SYSTEM.
3. CONTRACTOR SHALL COORDINATE AND PERFORM NECESSARY ELECTRICAL DEMOLITION WORK ASSOCIATED WITH ALL ITEMS AND EQUIPMENT TO BE REMOVED.
4. CONFIRM THAT ALL EXISTING DEVICES AND EQUIPMENT PLANNED FOR REUSE ARE IN GOOD OPERATING CONDITION. UNSUITABLE ITEMS SHALL NOT BE REUSED. RETURN ALL OTHER ITEMS SUITABLE FOR REUSE TO OWNER.
5. EXISTING CIRCUIT BREAKERS IN BRANCH PANEL MAY BE REUSED IF OF THE PROPER AMPERAGE AND IN GOOD OPERATING CONDITION (TRIP CHECK REQUIRED). OTHERWISE, REPLACE WITH NEW CIRCUIT BREAKER OF THE SAME MANUFACTURE AND TYPE.
6. WIRING WHICH SERVES USABLE EXISTING OUTLETS SHALL BE REROUTED AND RESTORED CLEAR OF CONSTRUCTION. MAINTAIN ELECTRICAL CONTINUITY OF EXISTING SYSTEM. REPAIR AND RECONDITION ASSOCIATED SURFACES TO MATCH ADJACENT SURFACES. VERIFY EXACT LOCATIONS IN THE FIELD.
7. DISCONNECT AND REMOVE ELECTRICAL CONNECTION AND ASSOCIATED WIRING TO EXISTING MECHANICAL EQUIPMENT. COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO DEMOLITION. VERIFY EXACT LOCATION IN THE FIELD. WIRING WHICH SERVES USABLE EXISTING OUTLETS SHALL BE REROUTED AND RESTORED CLEAR OF CONSTRUCTION.
8. DISCONNECT AND REMOVE ELECTRICAL CONNECTION AND ASSOCIATED WIRING TO EXISTING MECHANICAL EQUIPMENT BEING REPLACED WITH NEW EQUIPMENT. COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO DEMOLITION. VERIFY EXACT LOCATION IN THE FIELD. WIRING WHICH SERVES USABLE EXISTING OUTLETS SHALL BE REROUTED AND RESTORED CLEAR OF CONSTRUCTION. MAINTAIN CIRCUIT WIRING ABANDONED IN DEMOLITION FOR CONNECTION TO NEW MECHANICAL EQUIPMENT.
9. PROVIDE ENGRAVED IDENTIFICATION LABEL ON PANEL AND TYPE-WRITTEN DIRECTORY.



KYLE ELECTRIC, INC.
PROFESSIONAL ELECTRIC CONTRACTOR

DOUBLE 'E' ENGINEERING, LLC
Myrtle Point, Oregon
www.ee-engineering.com



Electrical Plans - Demolition
MILLICOMA SCHOOL ADDITION
260 SECOND AVENUE
COOS BAY, OREGON

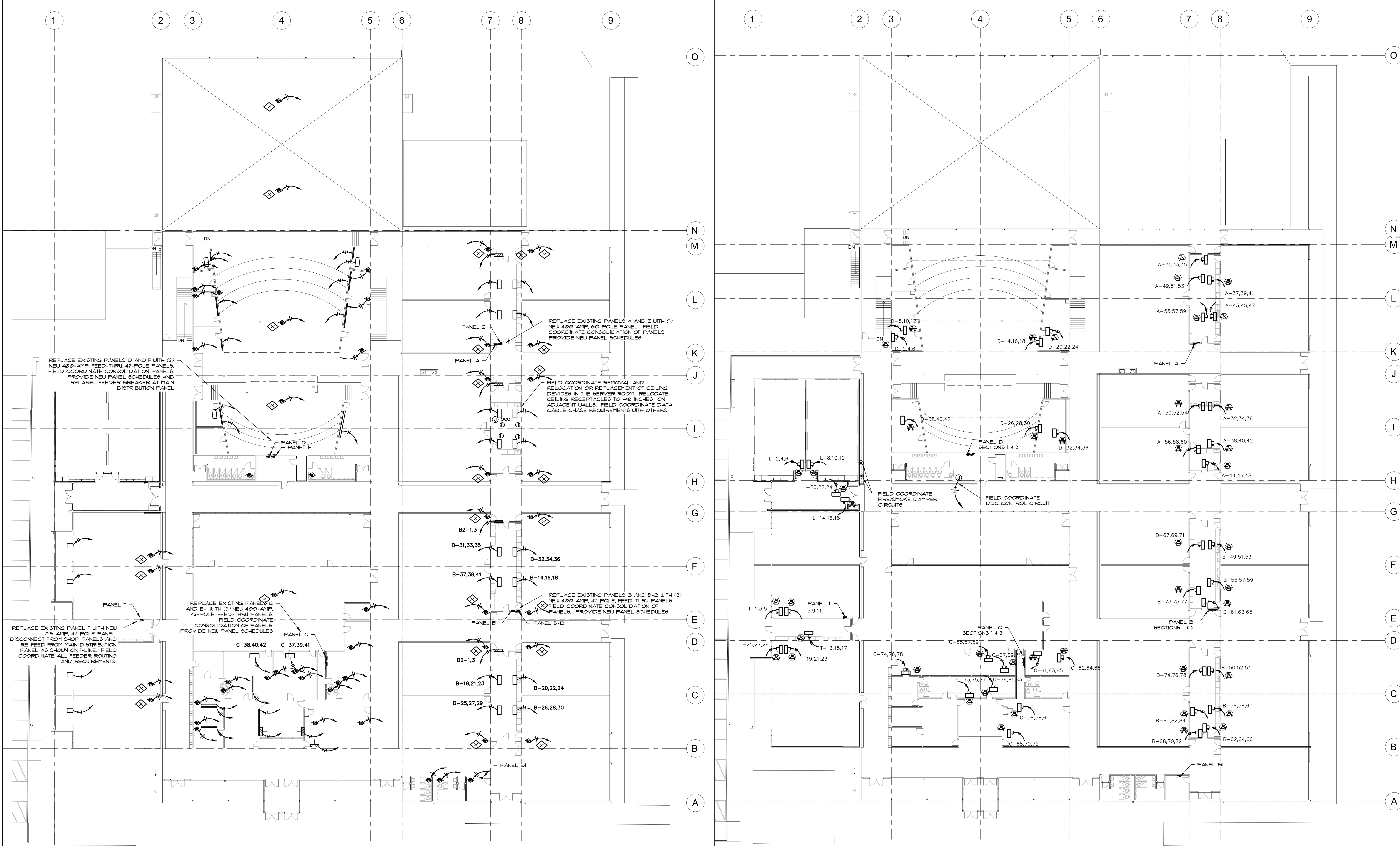
JOB NO.	22.07	
DATE	JANUARY 2023	
DRAWN BY	GREG PRIDE, PE	
REV #	DESCRIPTION	DATE

SHEET NO. **E3.0**
Electrical Plan
HVAC Replacement
Lower & Intermediate Levels

FILE No. C:\Double 'E' Engineering\Projects\22.07 Millicoma\Drawings\Millicoma Electrical Plans.dwg 01/18/23 11:25 — greg

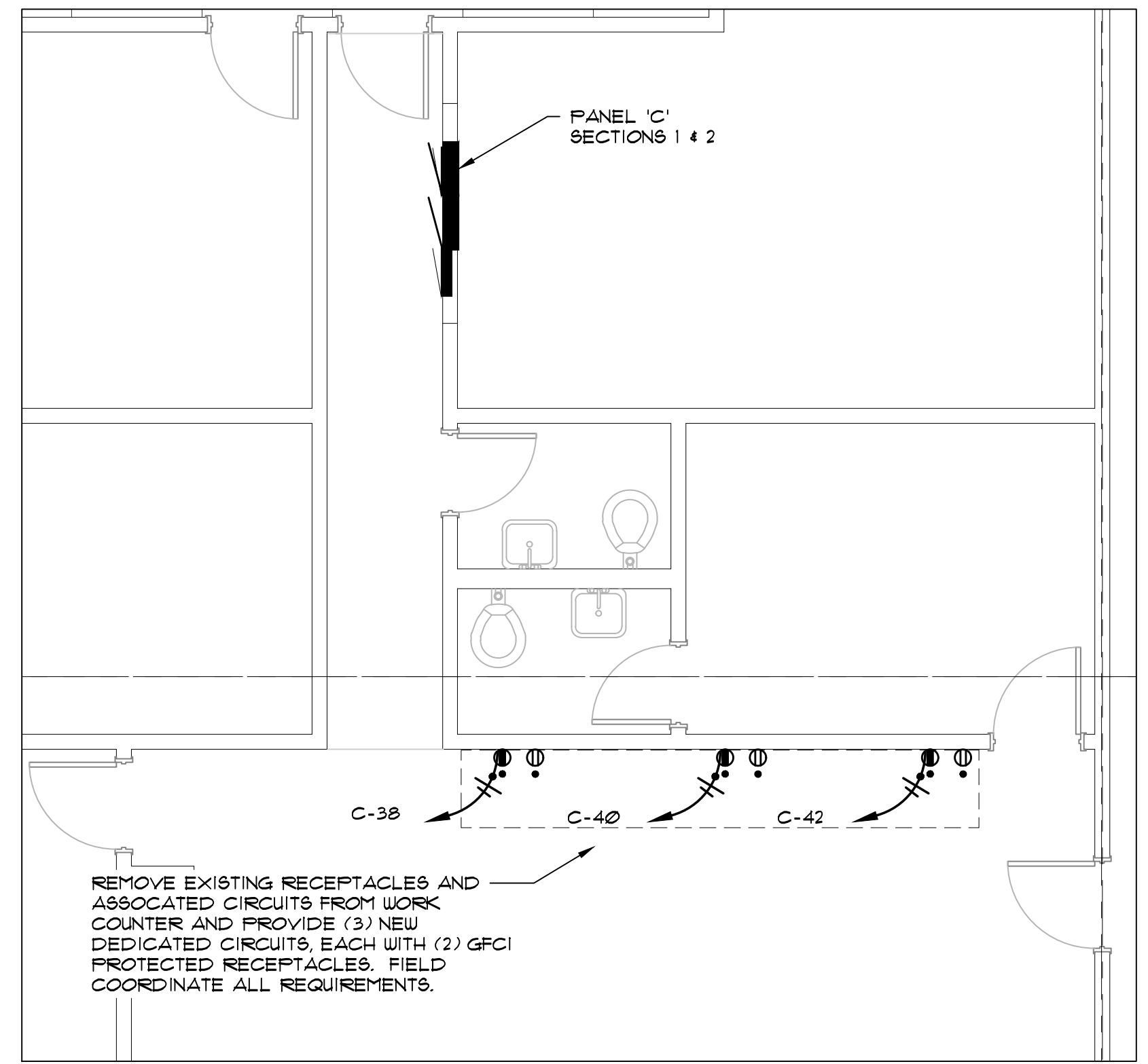
ELECTRICAL BID SET - JANUARY 2023

FILE No. C:\Double 'E' Engineering\Projects\22.07 Millicoma Electrical Plans.dwg 01/18/23 11:25 - greg



1 MAIN LEVEL - DEMOLITION
E3.1 SCALE: 1/16" = 1'-0"

2 MAIN LEVEL - NEW WORK
E3.1 SCALE: 1/16" = 1'-0"



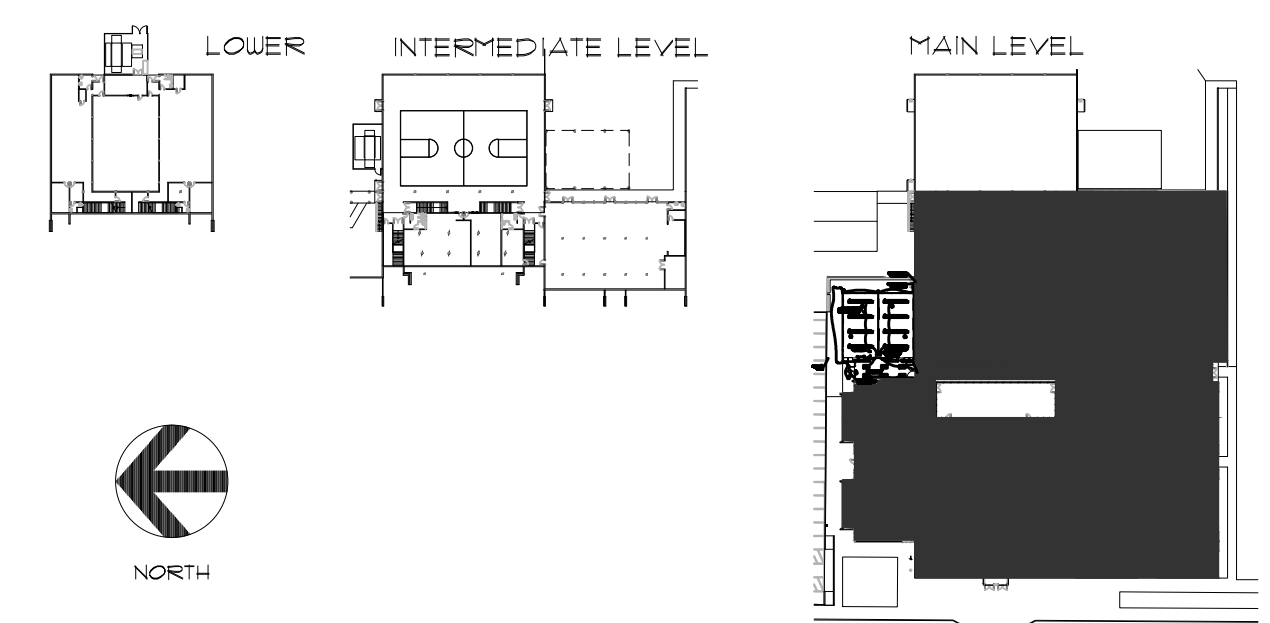
3 STAFF BREAK ROOM DETAIL
E3.1 SCALE: 1/4" = 1'-0"

SHEET NOTES

- WORK SHOWN ON PLAN IS BASED ON AVAILABLE INFORMATION AT THE TIME OF DESIGN. CONTRACTOR IS TO FIELD VERIFY AND COORDINATE PROJECT REQUIREMENTS WITH EXISTING CONDITIONS.
- UNLESS NOTED OTHERWISE ALL EQUIPMENT AND DEVICES SHOWN ON THIS PLAN ARE TO BE DISCONNECTED AND REMOVED. REMOVE ALL UNUSED WIRING AND CONDUIT BACK TO PANEL OR ORIGIN. WIRING WHICH SERVES USABLE EXISTING LIGHTING AND POWER OUTLETS SHALL BE REROUTED AND RESTORED CLEAR OF CONSTRUCTION. MAINTAIN ELECTRICAL CONTINUITY OF EXISTING SYSTEM.
- CONTRACTOR SHALL COORDINATE AND PERFORM NECESSARY ELECTRICAL DEMOLITION WORK ASSOCIATED WITH ALL ITEMS AND EQUIPMENT TO BE REMOVED. CONFIRM THAT ALL EXISTING DEVICES AND EQUIPMENT PLANNED FOR REUSE ARE IN GOOD OPERATING CONDITION. UNSUITABLE ITEMS SHALL NOT BE REUSED. RETURN ALL OTHER ITEMS SUITABLE FOR REUSE TO OWNER.
- EXISTING CIRCUIT BREAKERS IN BRANCH PANEL MAY BE REUSED IF OF THE PROPER AMPERAGE AND IN GOOD OPERATING CONDITION (TRIP CHECK REQUIRED). OTHERWISE, REPLACE WITH NEW CIRCUIT BREAKER OF THE SAME MANUFACTURE AND TYPE.
- WIRING WHICH SERVES USABLE EXISTING OUTLETS SHALL BE REROUTED AND RESTORED CLEAR OF CONSTRUCTION. MAINTAIN ELECTRICAL CONTINUITY OF EXISTING SYSTEM. REPAIR AND RECONDITION ASSOCIATED SURFACES TO MATCH ADJACENT SURFACES. VERIFY EXACT LOCATIONS IN THE FIELD.
- DISCONNECT AND REMOVE ELECTRICAL CONNECTION AND ASSOCIATED WIRING TO EXISTING MECHANICAL EQUIPMENT. COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO DEMOLITION. VERIFY EXACT LOCATION IN THE FIELD. WIRING WHICH SERVES USABLE EXISTING OUTLETS SHALL BE REROUTED AND RESTORED CLEAR OF CONSTRUCTION.
- DISCONNECT AND REMOVE ELECTRICAL CONNECTION AND ASSOCIATED WIRING TO EXISTING MECHANICAL EQUIPMENT BEING REPLACED WITH NEW EQUIPMENT. COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO DEMOLITION. VERIFY EXACT LOCATION IN THE FIELD. WIRING WHICH SERVES USABLE EXISTING OUTLETS SHALL BE REROUTED AND RESTORED CLEAR OF CONSTRUCTION. MAINTAIN ELECTRICAL CONTINUITY OF EXISTING SYSTEM.
- PROVIDE ENGRAVED IDENTIFICATION LABEL ON PANEL AND TYPE-WRITTEN DIRECTORY.

KEYED NOTES

- DISCONNECT EXISTING MECHANICAL EQUIPMENT SCHEDULED FOR REPLACEMENT. MAINTAIN EXISTING CIRCUIT FOR REUSE. SEE NEW WORK PLAN FOR CIRCUIT AND EQUIPMENT COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO DEMOLITION. VERIFY EXACT LOCATION IN THE FIELD.
- EXISTING MECHANICAL EQUIPMENT TO BE REMOVED AND REPLACED. FIELD COORDINATE ELECTRICAL REQUIREMENTS WITH MECHANICAL CONTRACTOR.
- DISCONNECT AND REMOVE ELECTRICAL CONNECTION AND ASSOCIATED WIRING TO EXISTING MECHANICAL EQUIPMENT. COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO DEMOLITION. VERIFY EXACT LOCATION IN THE FIELD.



DOUBLE 'E' ENGINEERING, LLC
Myrtle Point, Oregon
www.ee-engineering.com

Electrical Plans - HVAC Replacement Interior
MILLICOMA SCHOOL ADDITION
260 SECOND AVENUE
COOS BAY OREGON

JOB NO: 22.07
DATE: JANUARY 2023
DRAWN BY: GREG PRIDE, PE

REV #	DESCRIPTION	DATE

VERIFY SCALES
SHEET IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

SHEET NO: **E3.1**
Electrical Plans
HVAC Replacement
Upper Level

KYLE ELECTRIC, INC.
PROFESSIONAL ELECTRIC CONTRACTOR

ELECTRICAL BID SET - JANUARY 2023

