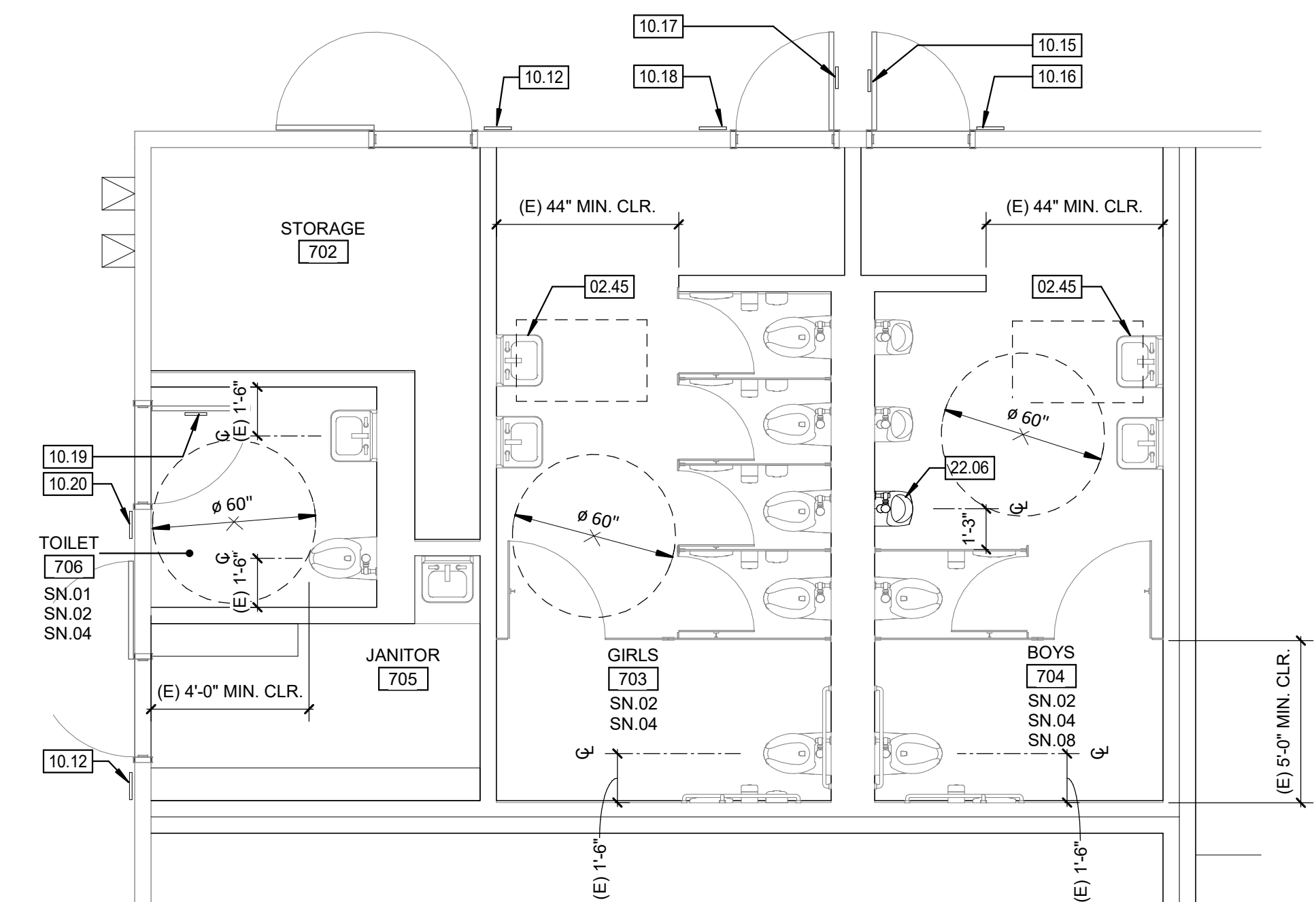
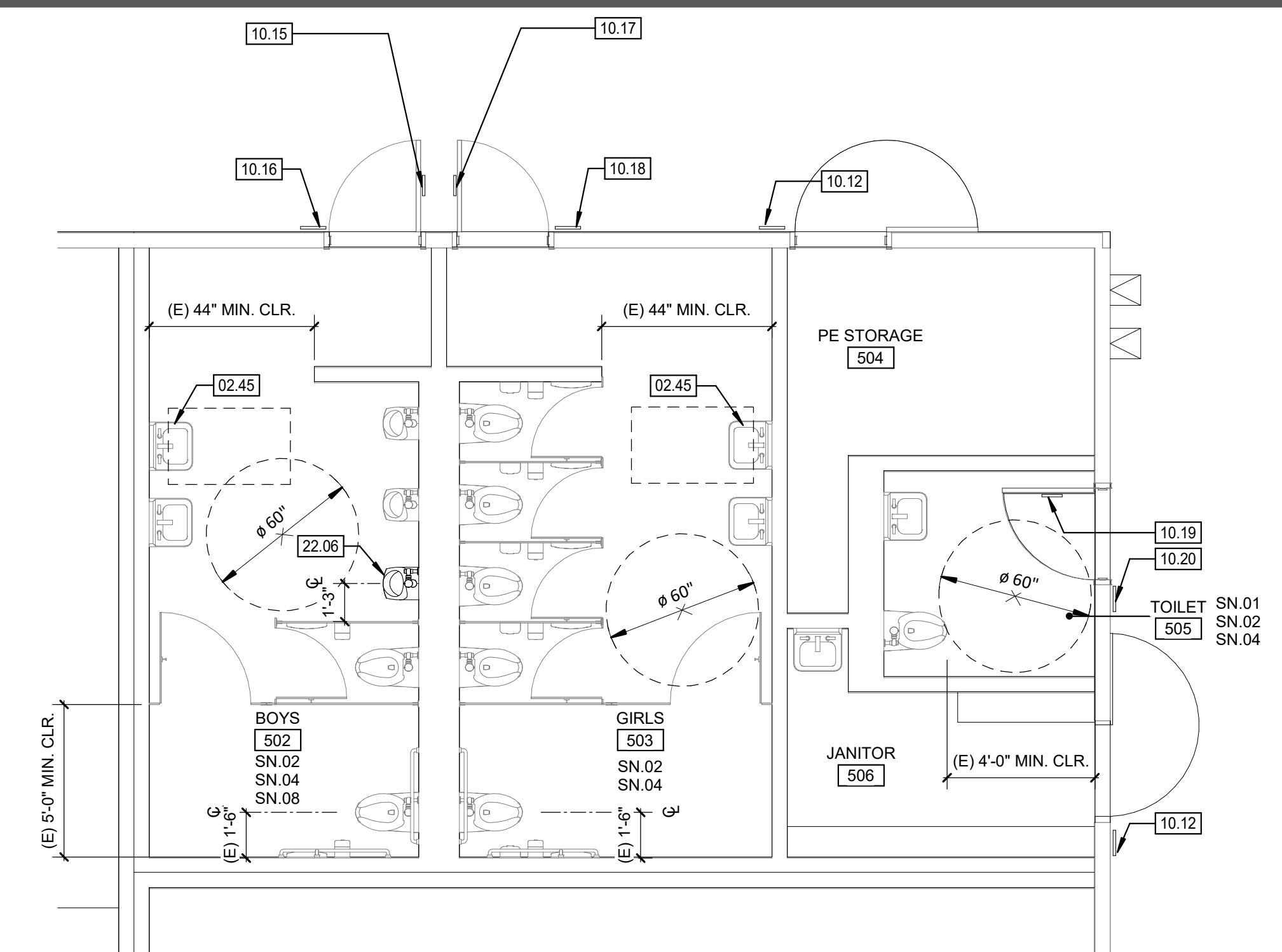


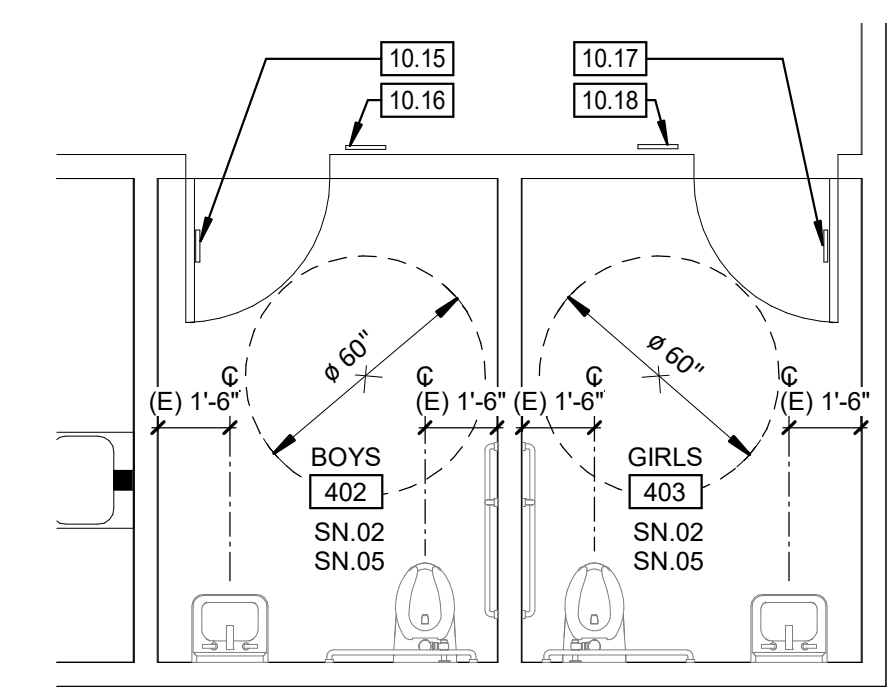
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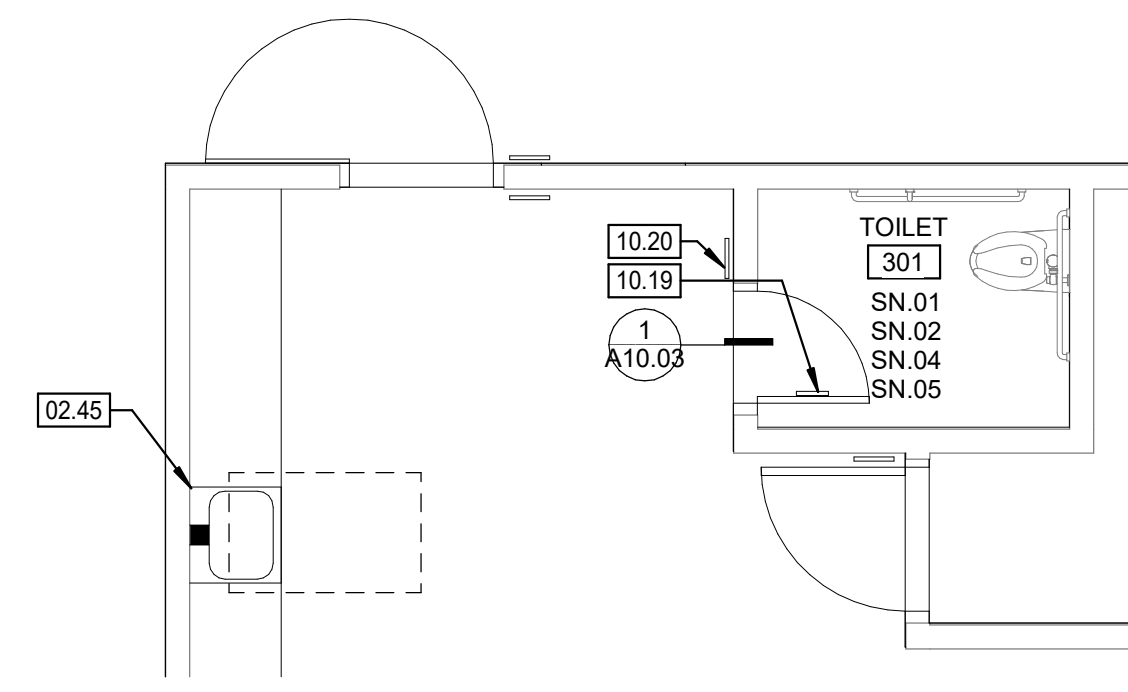
ENLARGED TOILET - BLDG 7 **9**
1/4" = 1'-0"



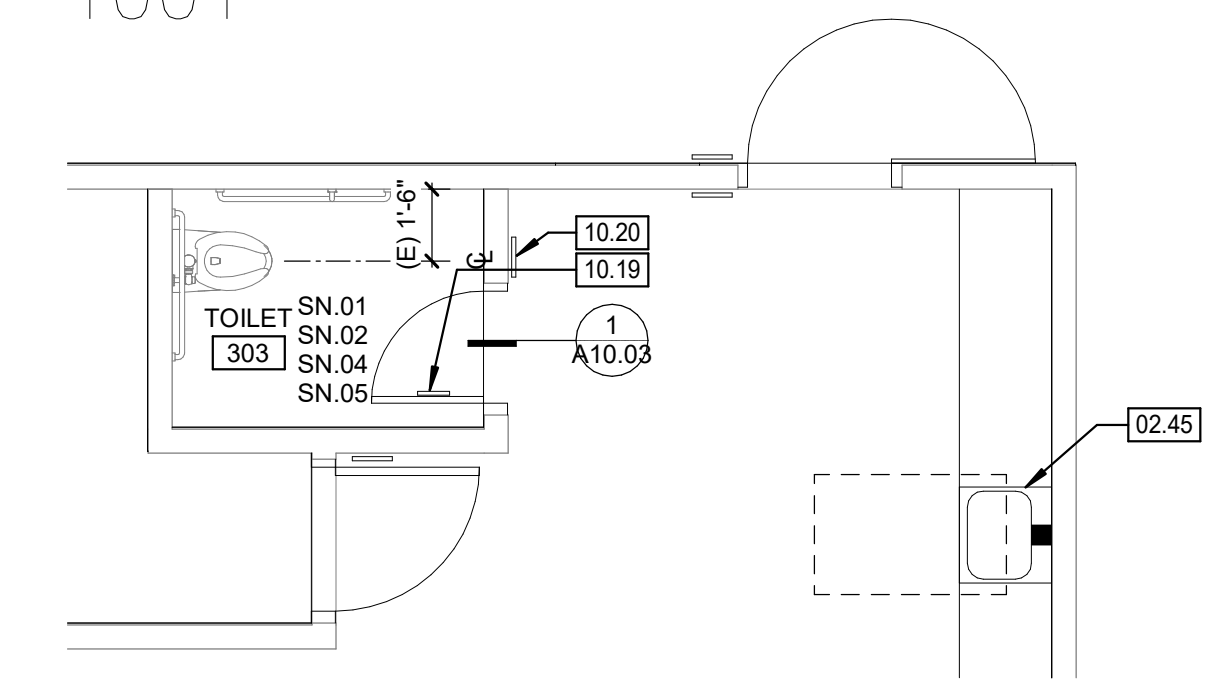
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1/4" = 1'-0"



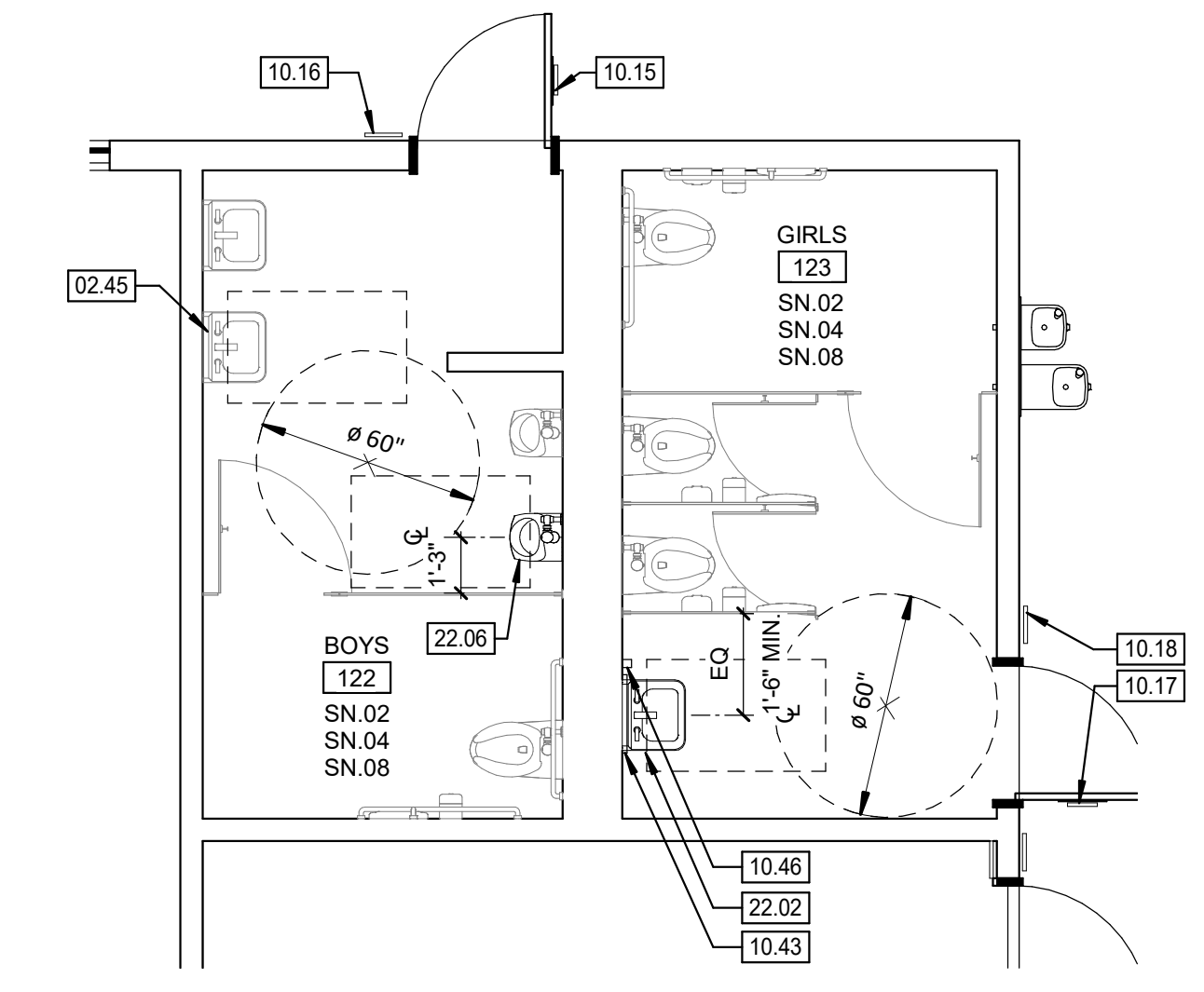
ENLARGED TOILET - UNISEX - BLDG 4 **7**
1/4" = 1'-0"



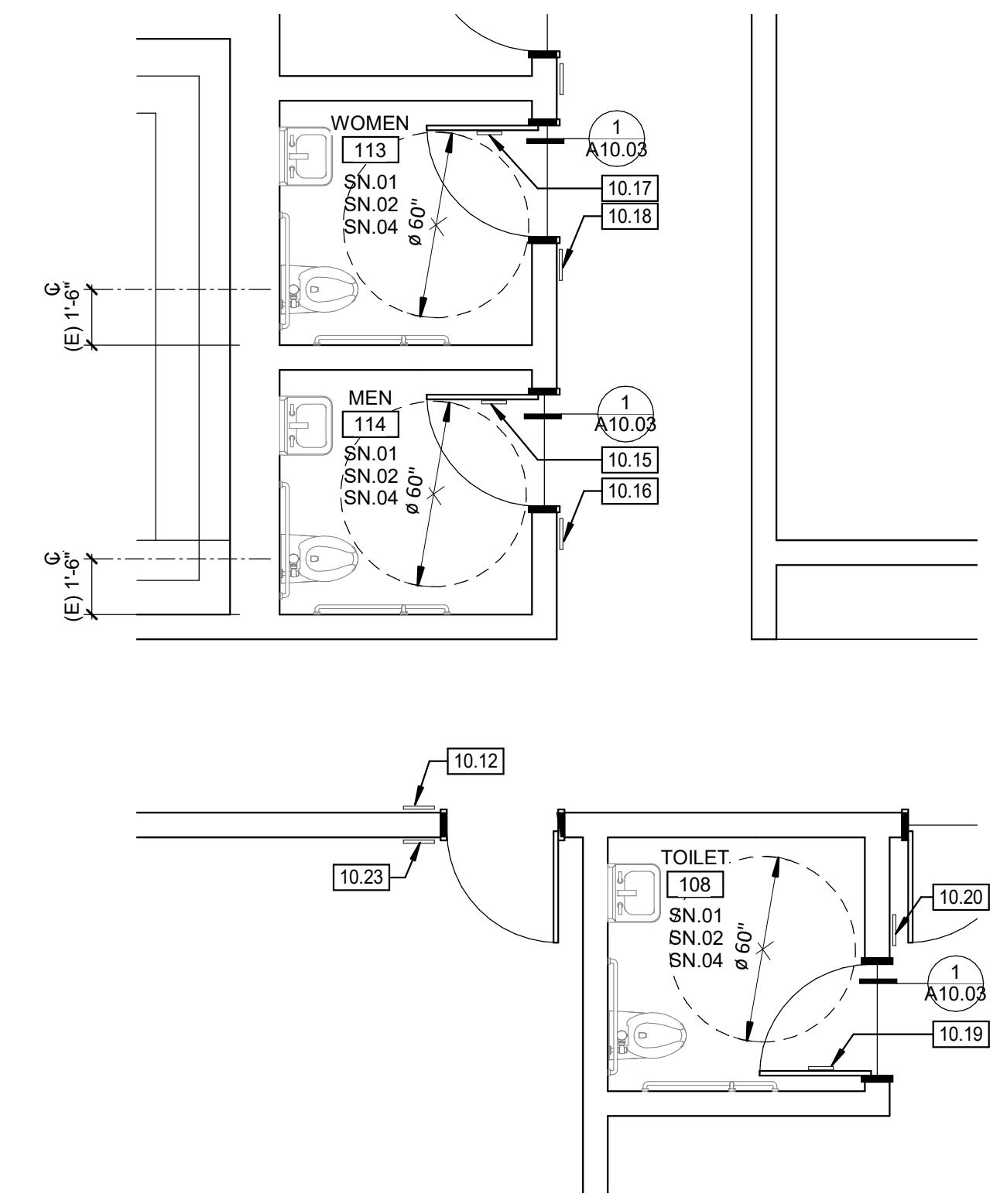
ENLARGED TOILET - UNISEX 2 - BLDG 3 **6**
1/4" = 1'-0"



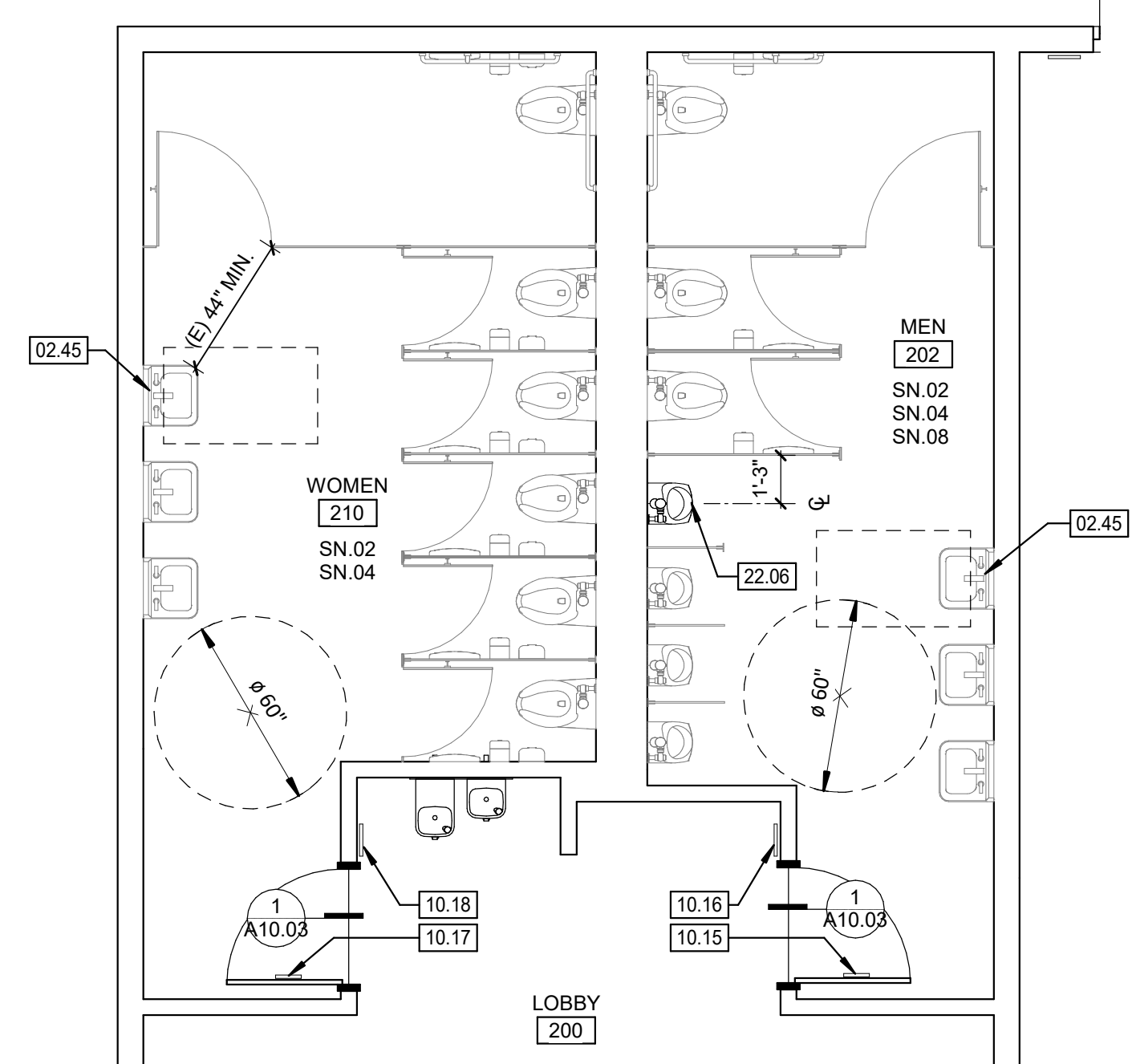
ENLARGED TOILET - UNISEX 1 - BLDG 3 **5**
1/4" = 1'-0"



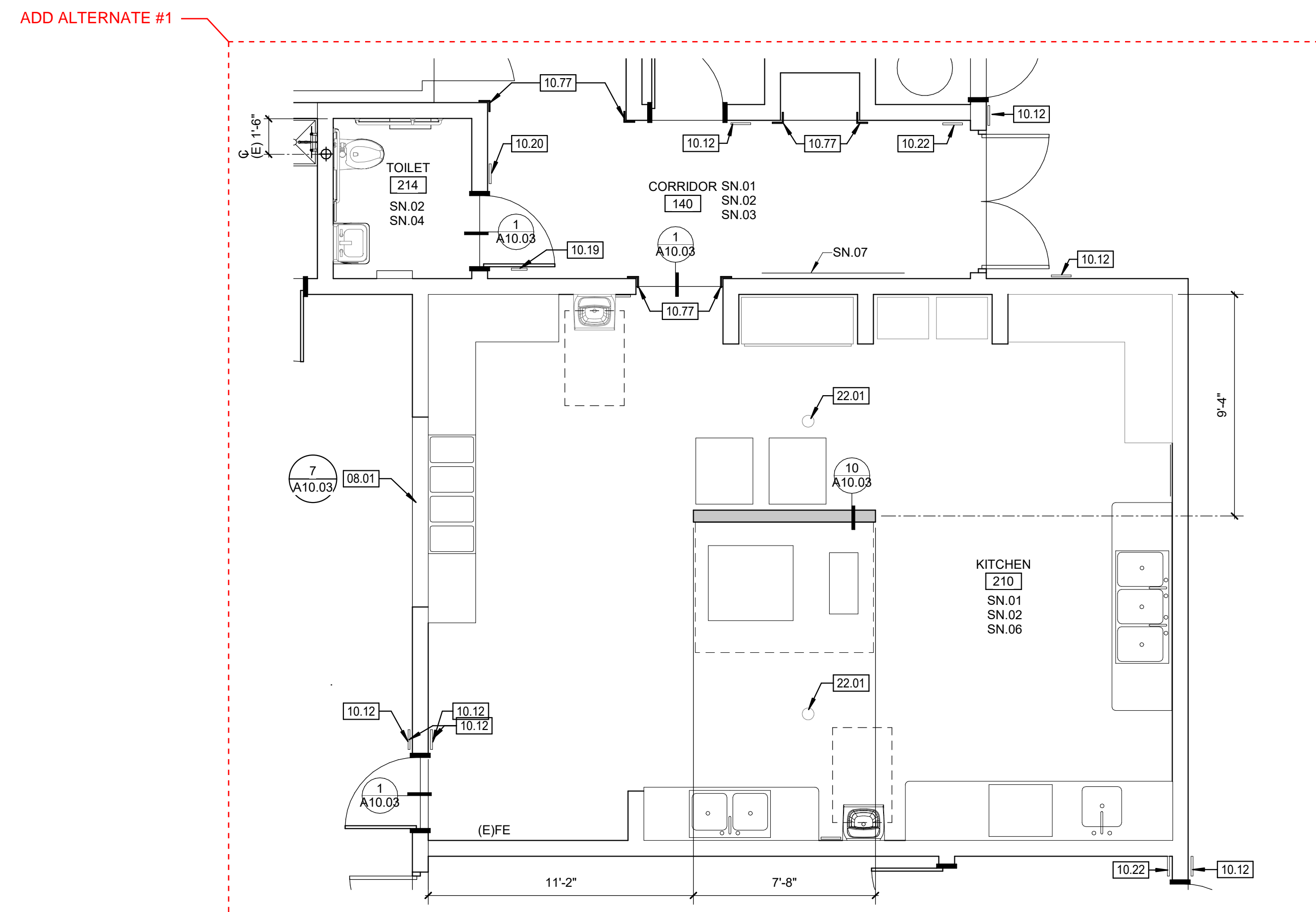
ENLARGED TOILET - BLDG 2 **4**
1/4" = 1'-0"



ENLARGED TOILET - UNISEX - BLDG 2 **3**
1/4" = 1'-0"



ENLARGED TOILET - BLDG 1 **2**
1/4" = 1'-0"



ENLARGED KITCHEN - BLDG 1 **1**
1/4" = 1'-0"

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- KEYNOTES**
- 02.45 (E) ACCESSIBLE LAVATORY WITH 30"X48" CLEAR SPACE
 - 08.01 CUT (E) WINDOW SILL FRAMING, UPDATE WINDOW SILL HEIGHT TO 2'-10"
 - 10.12 ROOM ID SIGN | SA10.04
 - 10.15 MEN'S RESTROOM ID DOOR SIGN | XXA10.81
 - 10.16 MEN'S RESTROOM ID WALL SIGN | XXA10.81
 - 10.17 WOMEN'S RESTROOM ID DOOR SIGN | XXA10.81
 - 10.18 WOMEN'S RESTROOM ID WALL SIGN | XXA10.81
 - 10.19 UNISEX RESTROOM ID DOOR SIGN | XXA10.81
 - 10.20 UNISEX RESTROOM ID WALL SIGN | XXA10.81
 - 10.22 TACTILE "EXIT" SIGN | 6/A10.04
 - 10.23 TACTILE "EXIT ROUTE" SIGN | 6/A10.04
 - 10.43 MIRROR: 24X36 | 3/A10.03
 - 10.46 SOAP DISPENSER | 3/A10.03
 - 10.77 CORNER GUARD - STAINLESS STEEL CG2
 - 22.01 (E) FLOOR DRAIN | SEE PLUMBING DWGS
 - 22.02 LAVATORY, ACCESSIBLE | PLUMB
 - 22.06 URINAL, ACCESSIBLE | PLUMB

- NOTES**
- SLOPE FLOOR MAX 2% TO DRAIN FOR ROOMS WITH FLOOR DRAIN (FD)
 - CONTRACTOR TO PROVIDE BACKING AS REQUIRED FOR ALL INSTALLATIONS, SEE DETAIL 3 / A10.03
 - EXISTING CONDITION SHOWN ARE FOR REFERENCE ONLY, VERIFY EXISTING CONDITION AND DIMENSIONS IN FIELD, UNLESS OTHERWISE NOTED
 - AFTER RELOCATING OR REPLACING (E) FIXTURES PATCH, REPAIR, AND APPLY TILE TO THE WALL OR FLOOR MATCHING (E) TILES

- SHEET NOTES**
- SN.01 (E) GYPSUM WALLBOARD AND WALLCOVERING TO BE PAINTED
 - SN.02 (E) GYPSUM WALLBOARD CEILING TO BE PAINTED (PNT1)
 - SN.03 INSTALL RUBBER BASE
 - SN.04 ALL (E) TILE TO REMAIN, DEEP CLEAN AND PATCH GROUT AS NEEDED
 - SN.05 DEEP CLEAN FRP, DO NOT PAINT
 - SN.06 (E) CLOCKS AND WALL MOUNTED HAND SANITIZER PUMPS TO BE REINSTALLED THE SAME LOCATION
 - SN.07 (E) MARKERBOARDS AND TACKBOARDS TO REMAIN, PROTECT DURING CONSTRUCTION
 - SN.08 REFER TO INTERIOR ELEVATIONS FOR ADDITIONAL INFORMATION

FACILITY:
MATSUYAMA ELEMENTARY SCHOOL
7680 WINDBRIDGE DRIVE
SACRAMENTO, CA 95831

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
ENLARGED PLANS

DSA SUBMITTAL

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000

SHEET:

A7.11

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ALL LINE SHOWN ARE IN 1/8" EQUAL SHEETWORK PAGE SIZE

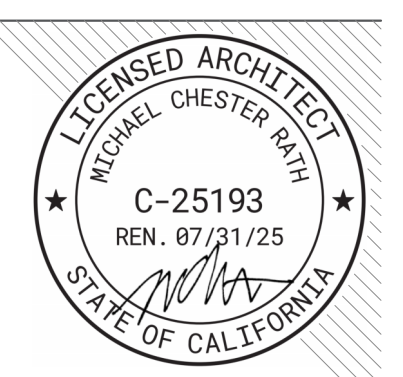
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KEYNOTES

09.47	RESILIENT BASE
10.12	ROOM ID SIGN 5/A10.04
10.22	TACTILE EXIT SIGN 6/A10.04
10.78	CORNER GUARD - PLASTIC CG1

GENERAL NOTES

- PATCH AND REPAIR ANY DAMAGED GYPSUM WALLBOARD PRIOR TO PAINTING
- PATCH AND REGLUE ANY LOOSE WALLCOVERING PRIOR TO PAINTING
- ALL (E) GLUE UP ACOUSTICAL PANELS TO BE PAINTED WITH NON-BRIDGING PAINT
- REMOVE ALL (E) ABANDONED WIRE MOLD
- PROTECT ALL (E) TAGS ON DOORS AND WALLS. DO NOT PAINT.
- PAINT ALL INTERIOR (E) NON-WOOD DOORS AND WINDOW FRAMES (PNT2), (E) WOOD DOORS TO REMAIN AS IS.
- DEMO ALL (E) ROOM ID & RESTROOM SIGNAGE. NEW SIGNAGE TO BE PROVIDED
- ALL (E) CASEWORK TO REMAIN. PROTECT DURING CONSTRUCTION
- ALL (E) SIGNAGE TO BE REPLACED IN THE SAME LOCATION

SHEET NOTES

- SN.01 (E) MARKERBOARDS TO REMAIN. PROTECT DURING CONSTRUCTION
- SN.02 (E) FIRE EXTINGUISHER. PROTECT DURING CONSTRUCTION
- SN.03 (E) FIRE ALARM PANEL. PROTECT DURING CONSTRUCTION
- SN.04 (E) ELECTRICAL PANEL. PROTECT DURING CONSTRUCTION
- SN.05 (E) DISPLAY CASES TO BE REMOVED, STORED & REINSTALLED IN THE SAME LOCATION AND TO MEET ADA CLEARANCE TO RM 121 DOOR
- SN.06 (E) DIFFUSERS TO BE PAINTED TO MATCH THE WALL
- SN.07 (E) EXIT SIGN. PROTECT DURING CONSTRUCTION
- SN.08 (E) CLOCK TO BE REMOVED, STORED AND REINSTALLED IN SAME LOCATION AFTER CONSTRUCTION

FACILITY:
MATSUYAMA ELEMENTARY SCHOOL
7680 WINDBRIDGE DRIVE
SACRAMENTO, CA 95831

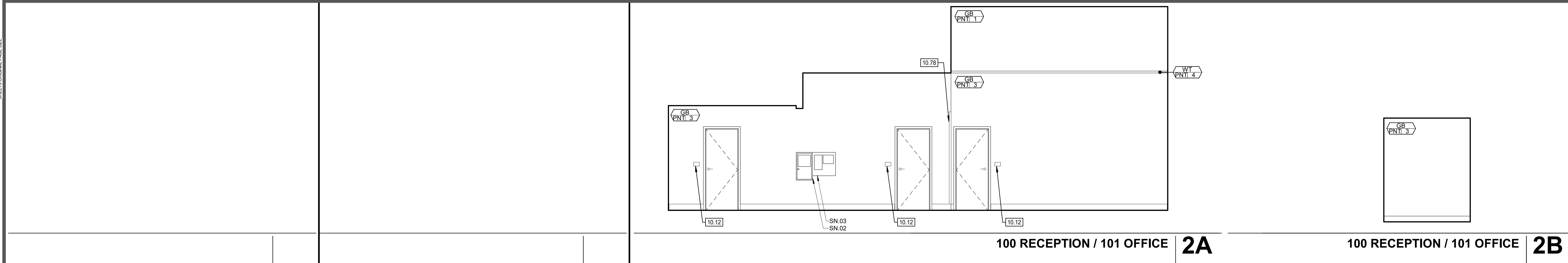
PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
INTERIOR ELEVATIONS

DSA SUBMITTAL

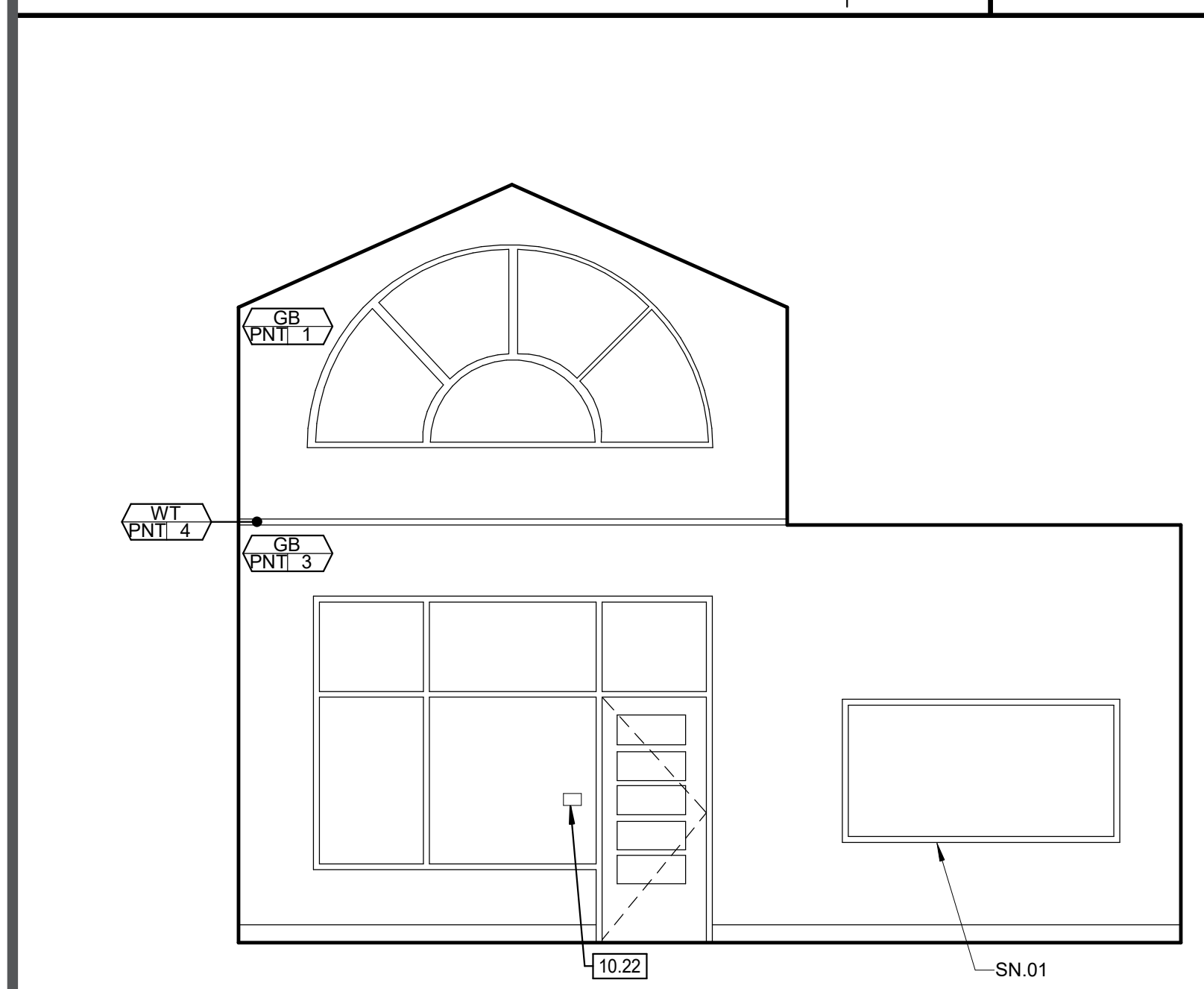
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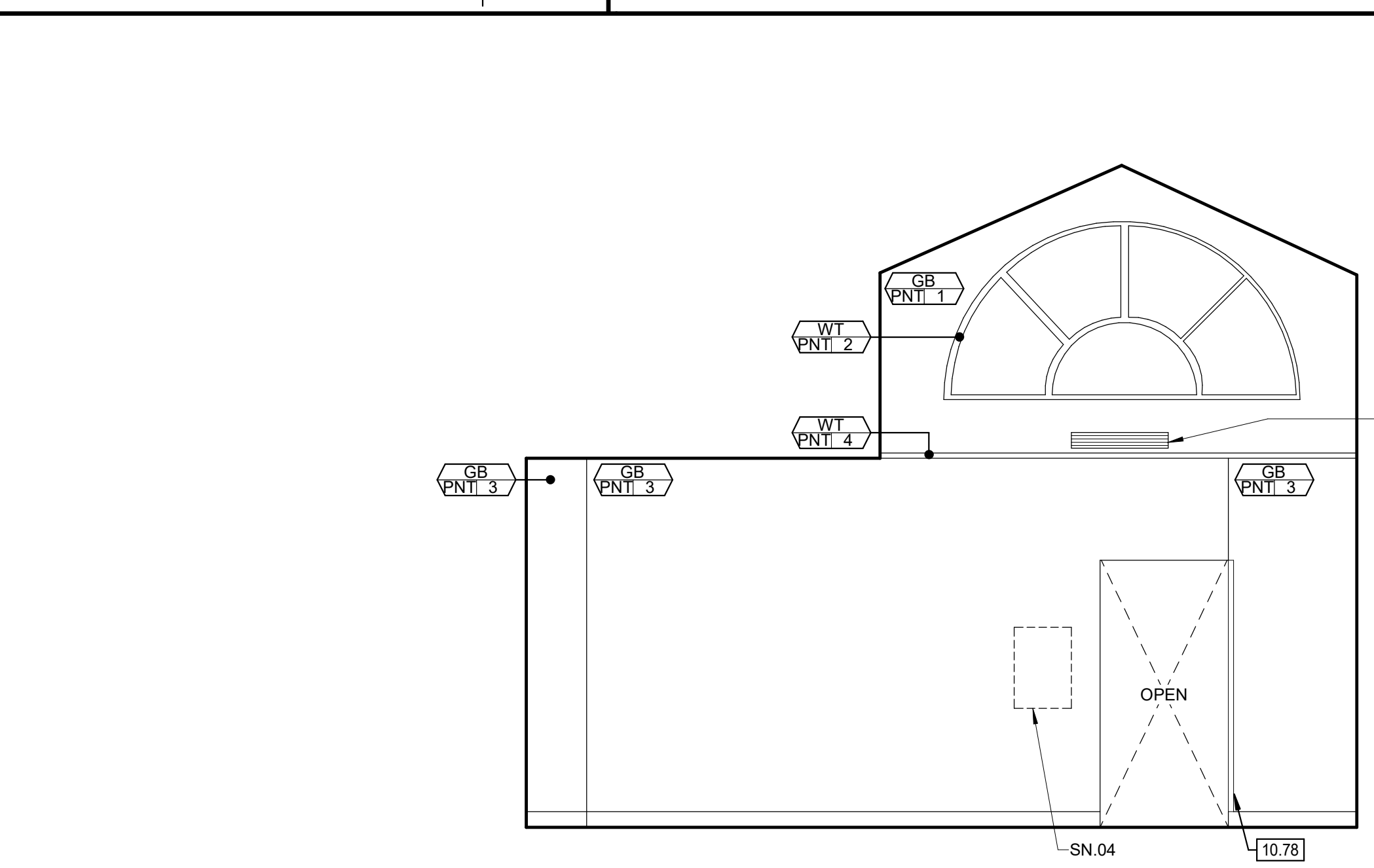


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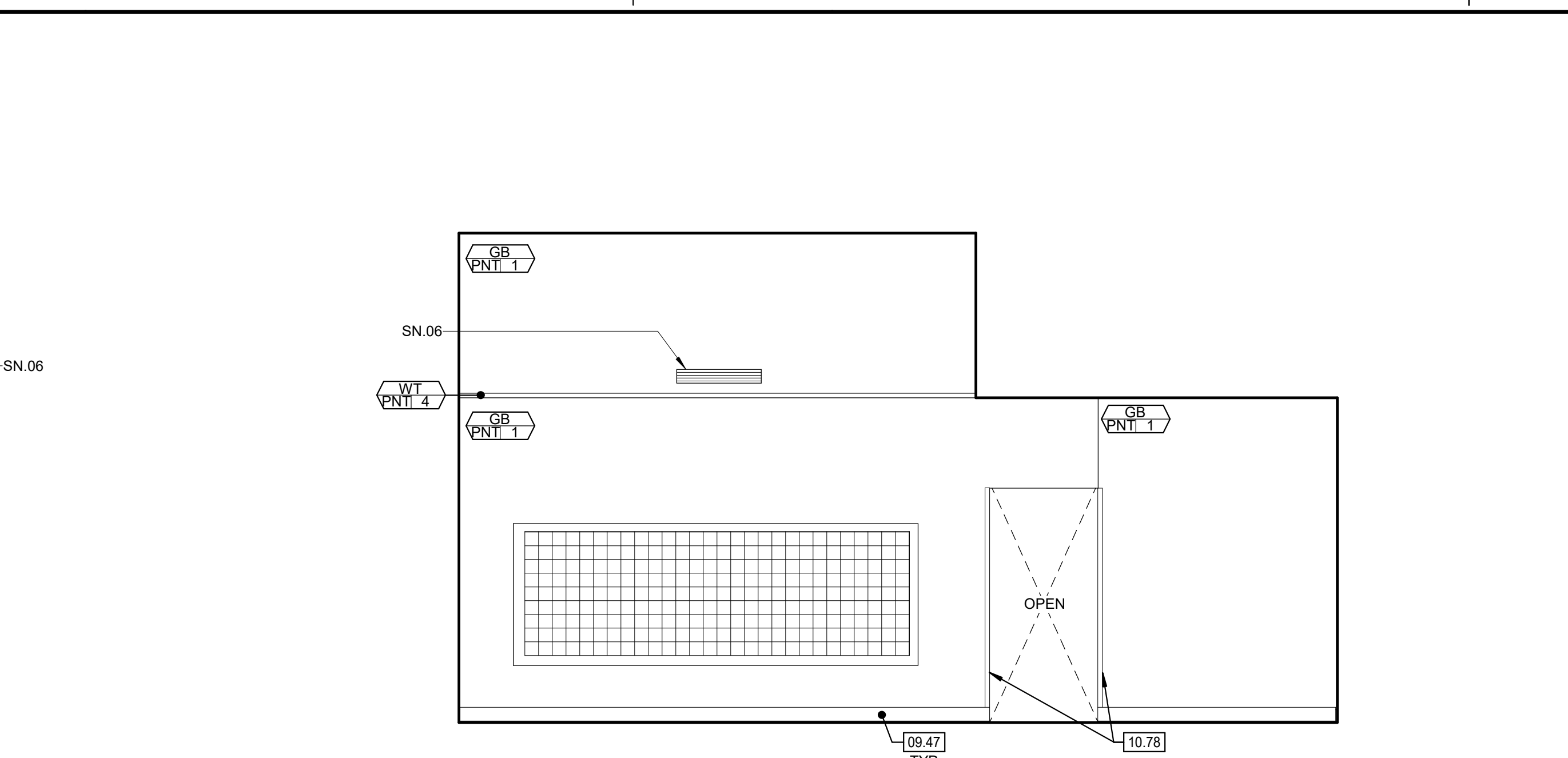
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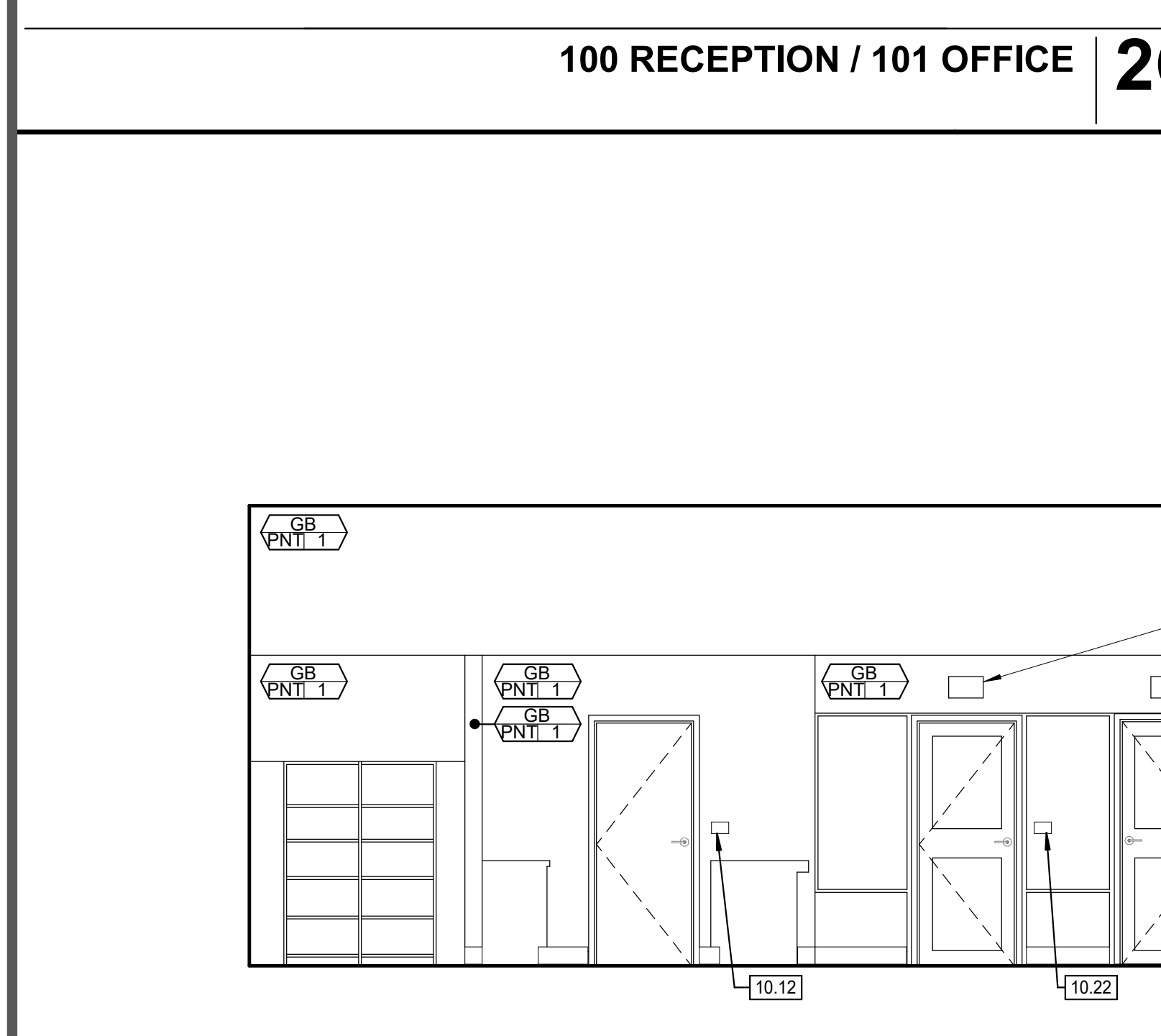
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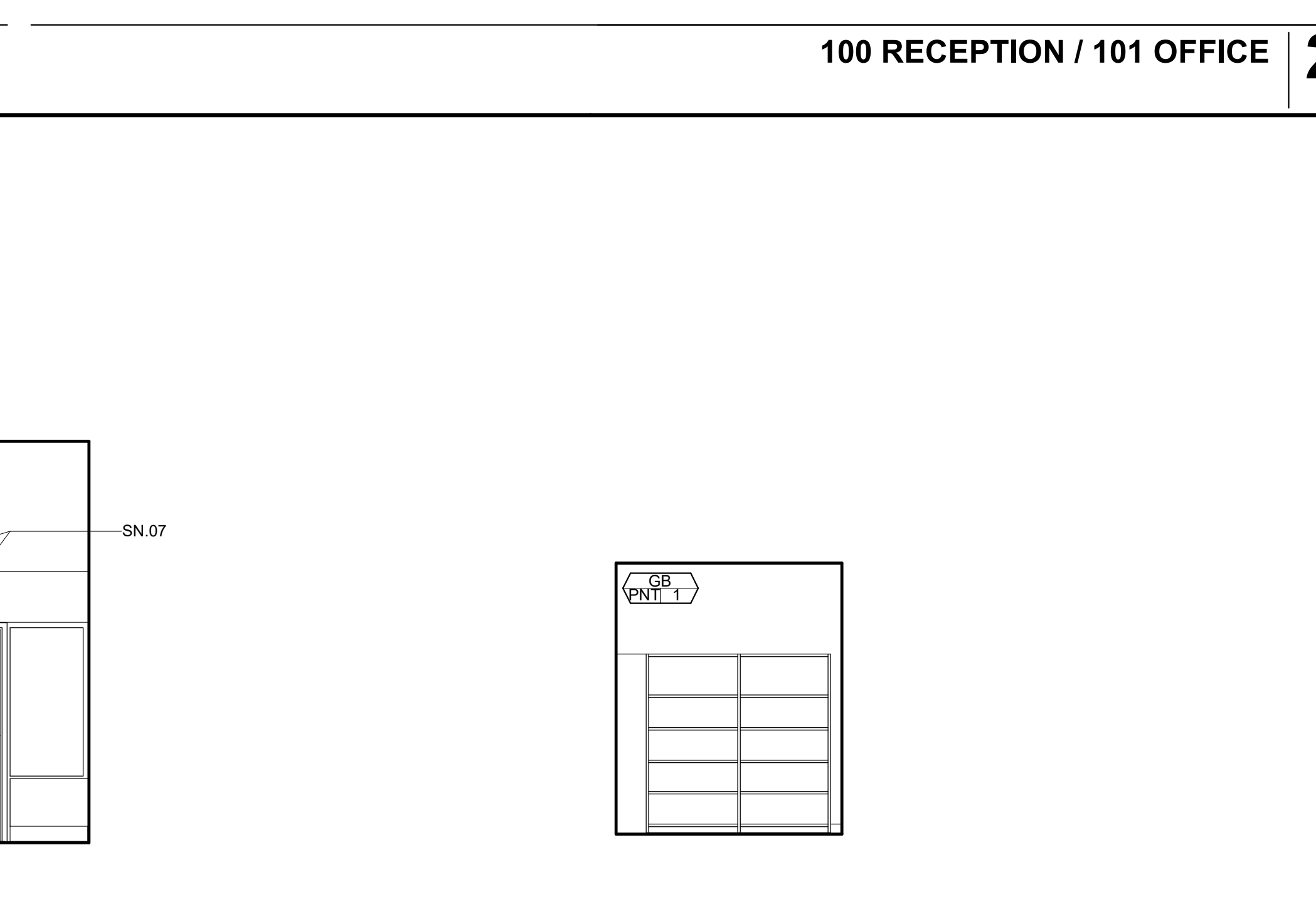
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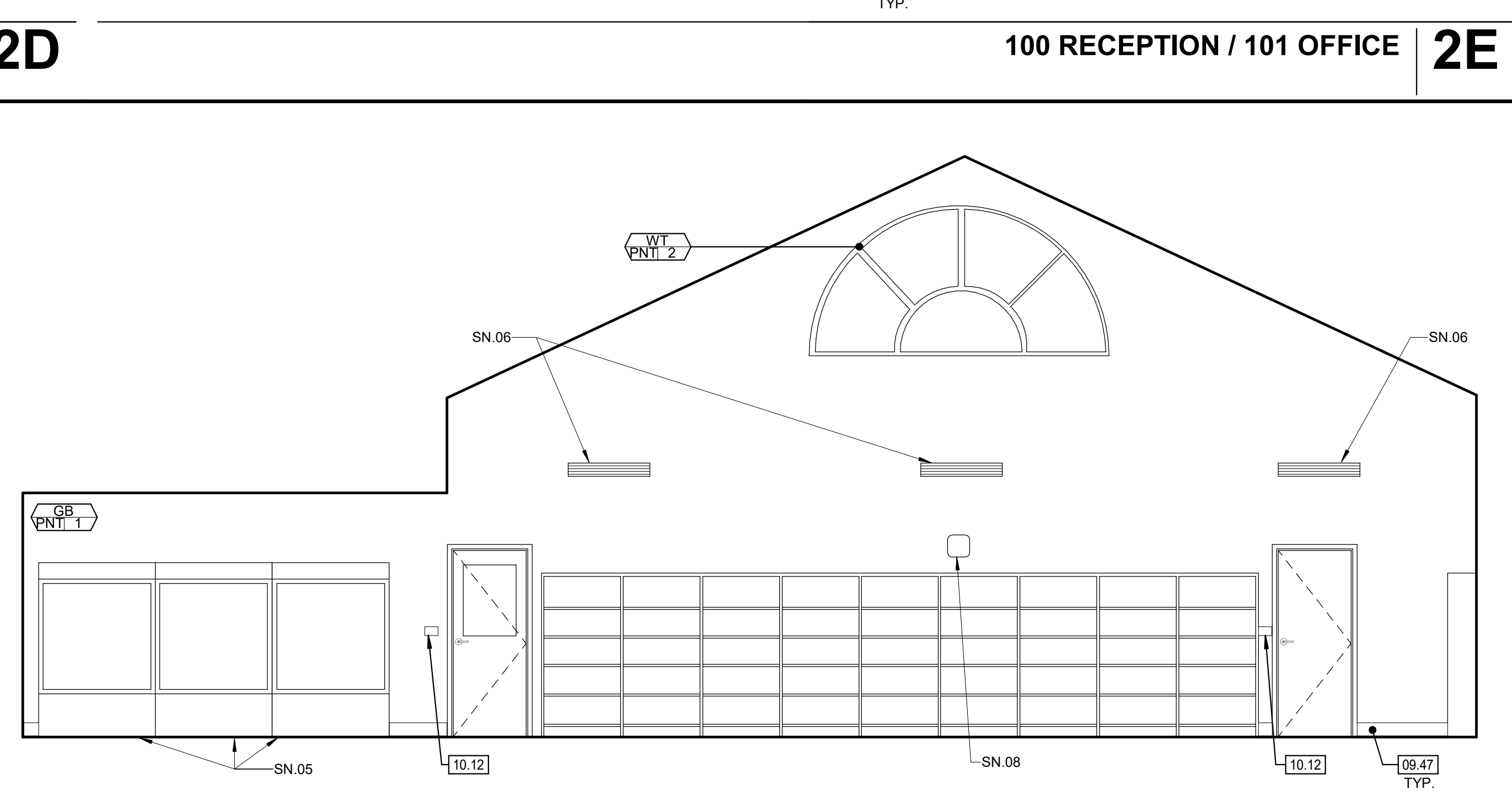
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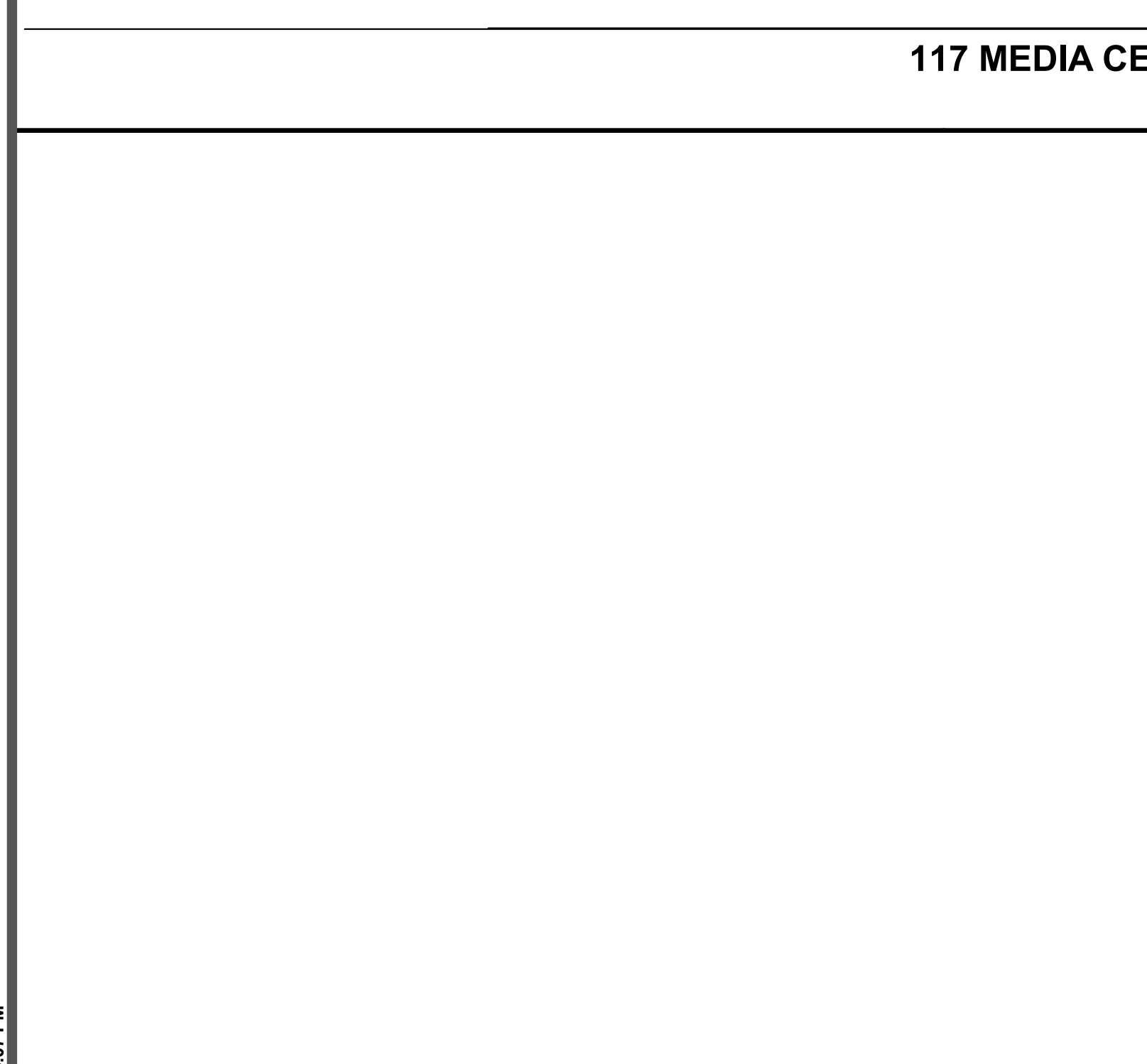
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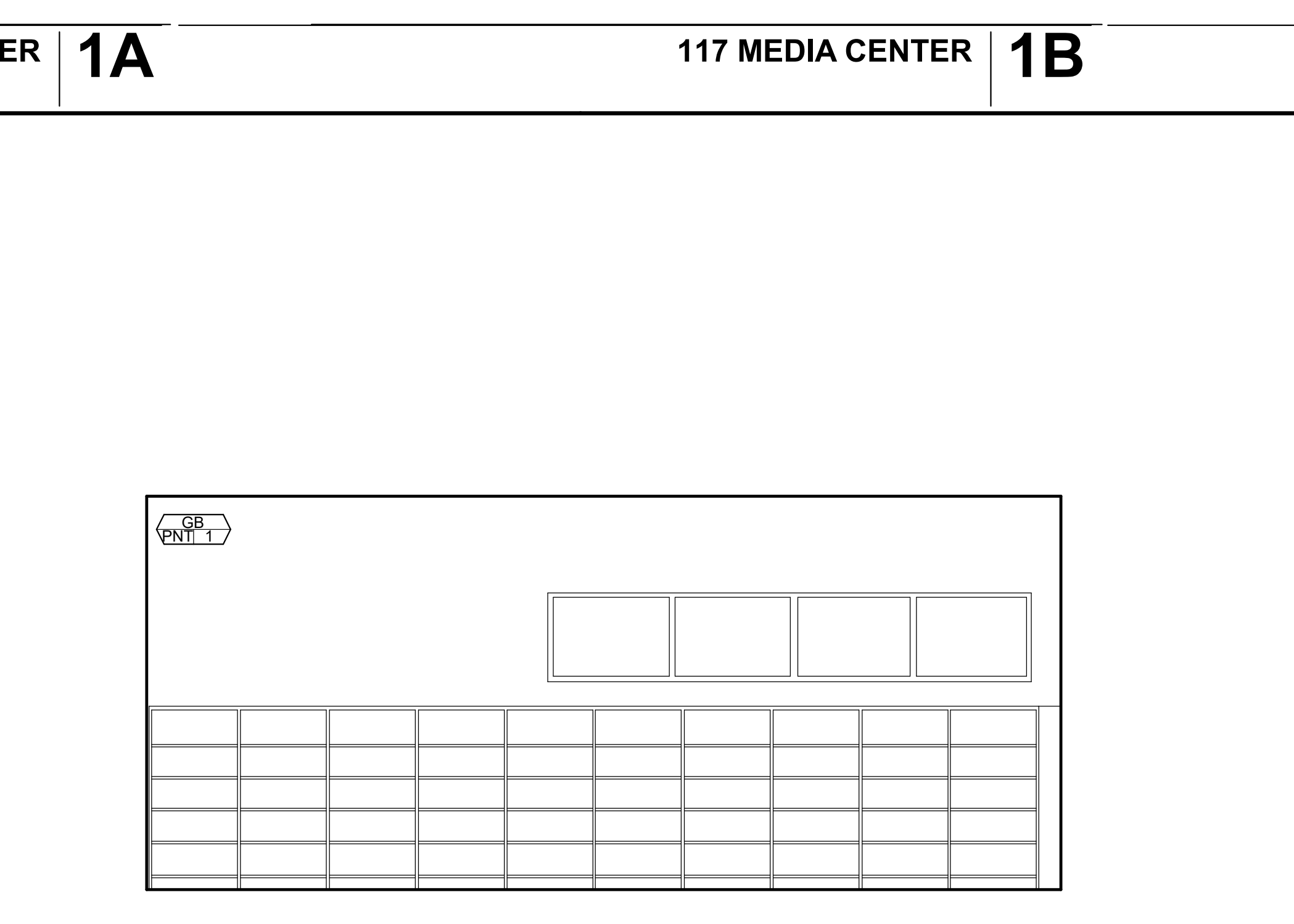
117 MEDIA CENTER **1B**



117 MEDIA CENTER **1C**



117 MEDIA CENTER **1D**



117 MEDIA CENTER **1E**

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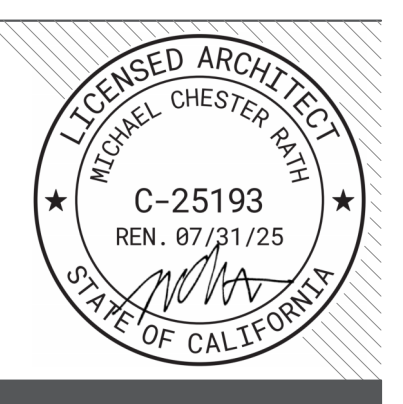
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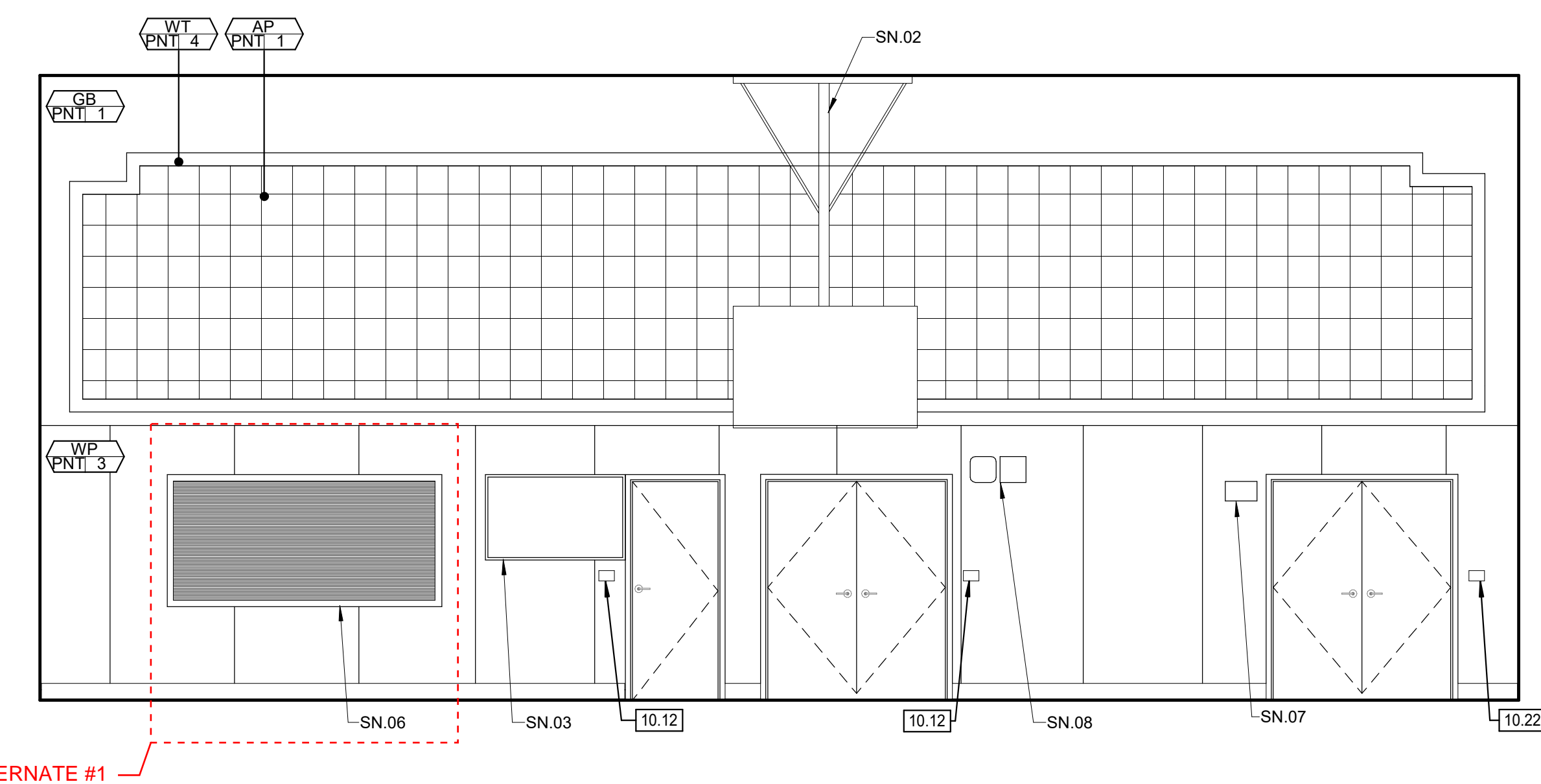
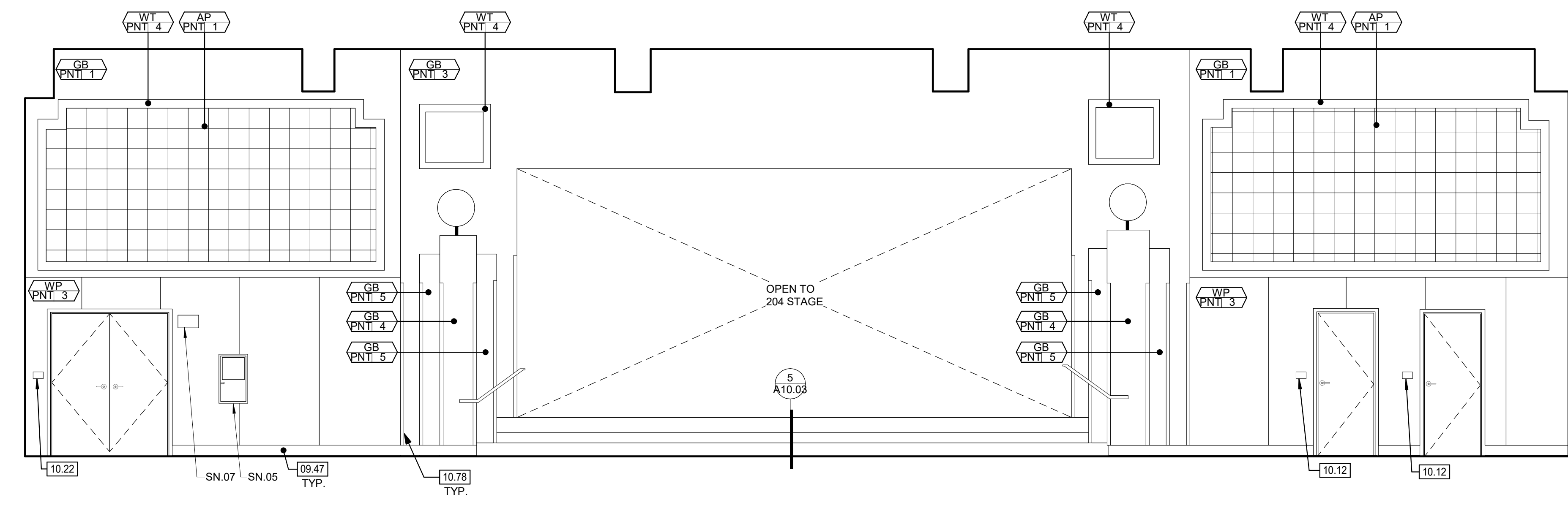
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203 MPR 2A

203 MPR 2B

KEYNOTES

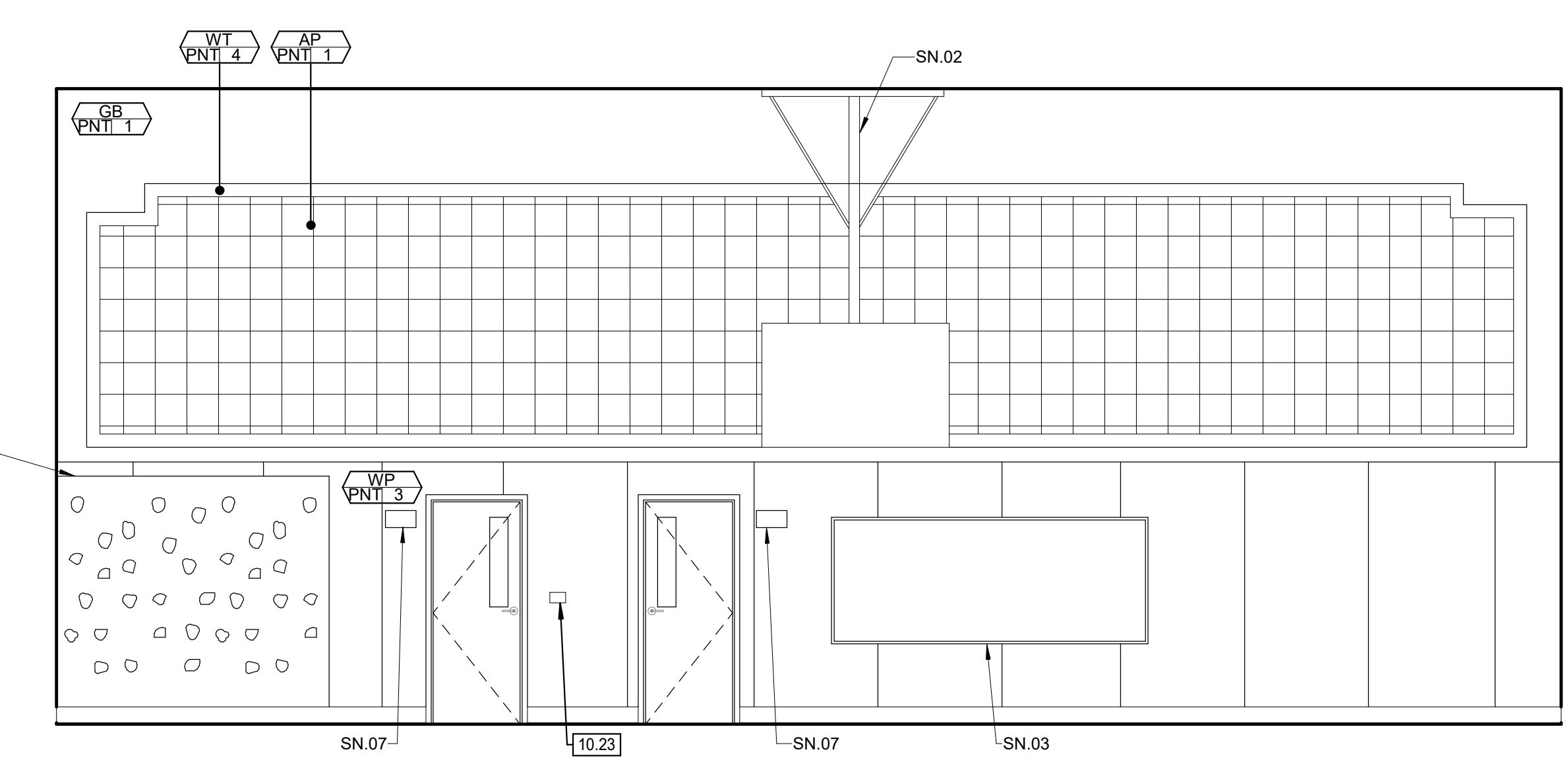
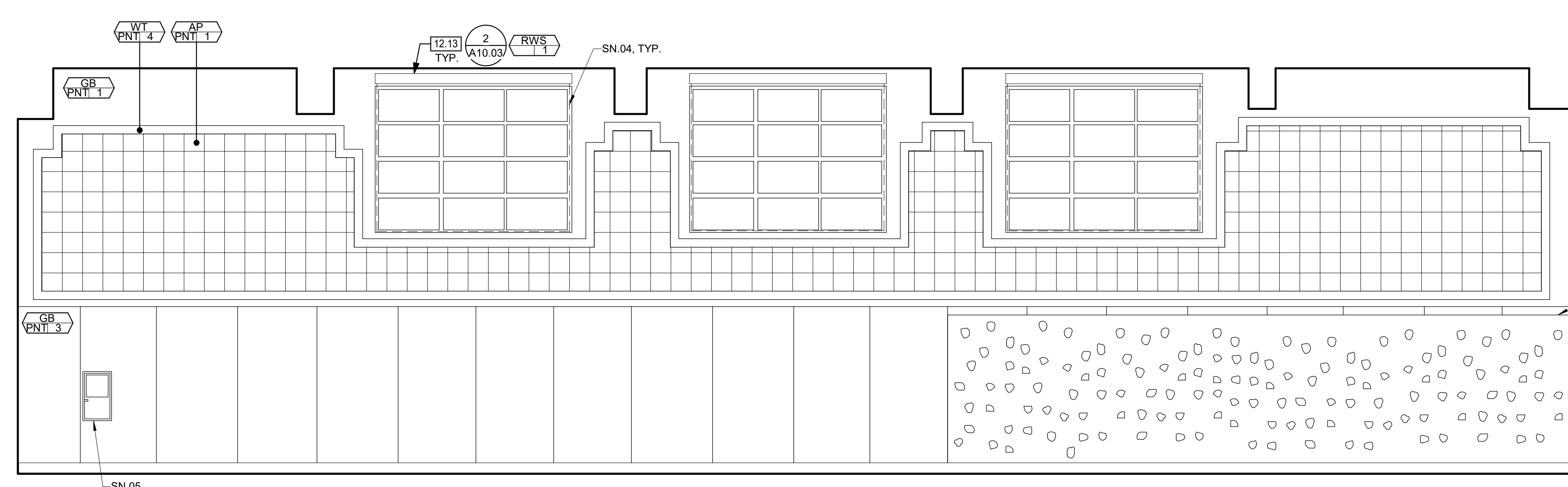
09.47	RESILIENT BASE
10.12	ROOM ID SIGN 5/A10.04
10.22	TACTILE "EXIT" SIGN 6/A10.04
10.23	TACTILE "EXIT ROUTE" SIGN 6/A10.04
10.78	CORNER GUARD - PLASTIC CG1
12.13	MOTORIZED ROLLER SHADE - WALL MOUNTED

GENERAL NOTES

- PATCH AND REPAIR ANY DAMAGED GYPSUM WALLBOARD PRIOR TO PAINTING
- PATCH AND REGLOUE ANY LOOSE WALLCOVERING PRIOR TO PAINTING
- ALL (E) GLUE UP ACOUSTICAL PANELS TO BE PAINTED WITH NON-BRIDGING PAINT
- REMOVE ALL (E) ABANDONED WIRE MOLD
- PROTECT ALL (E) TAGS ON DOORS AND WALLS. DO NOT PAINT.
- PAINT ALL INTERIOR (E) NON-WOOD DOORS AND WINDOW FRAMES (PNT2). (E) WOOD DOORS TO REMAIN AS IS.
- DEMO ALL (E) ROOM ID & RESTROOM SIGNAGE. NEW SIGNAGE TO BE PROVIDED
- ALL (E) CASEWORK TO REMAIN. PROTECT DURING CONSTRUCTION
- ALL (E) SIGNAGE TO BE REPLACED IN THE SAME LOCATION

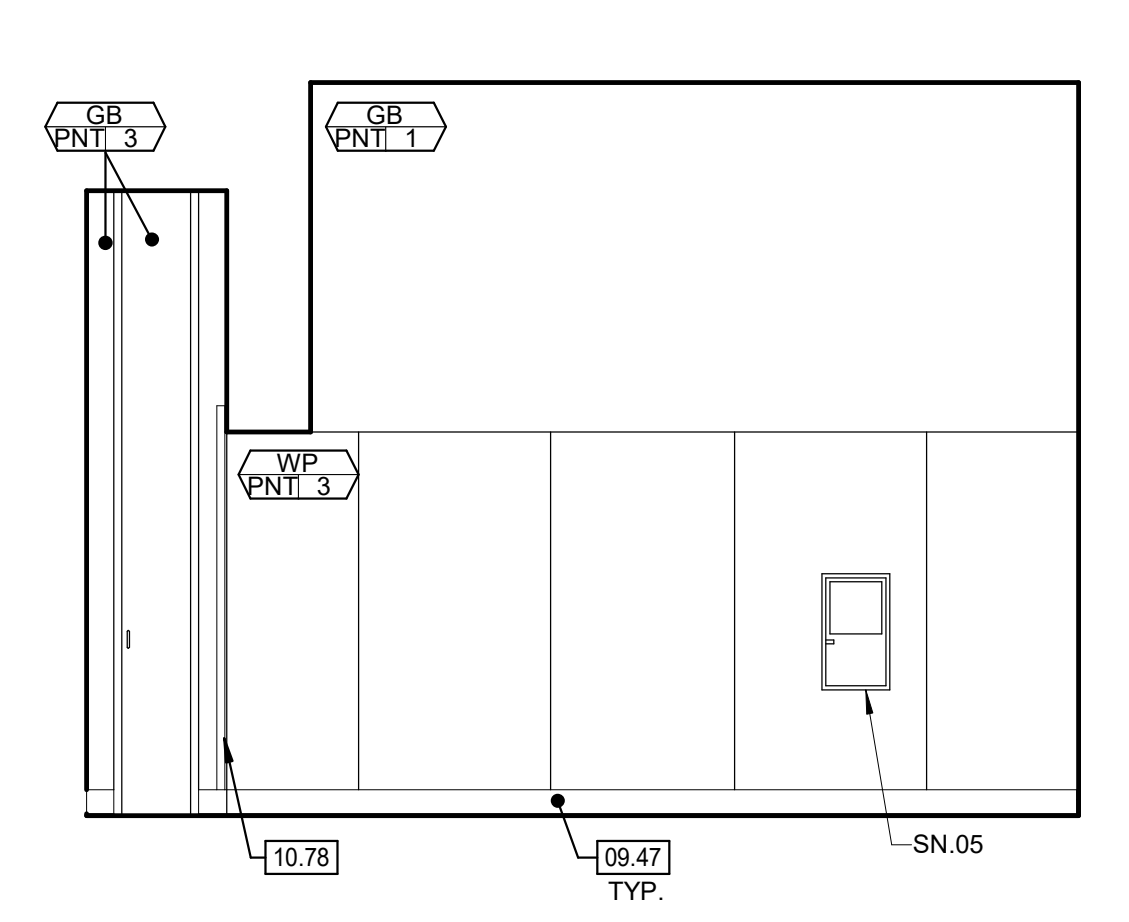
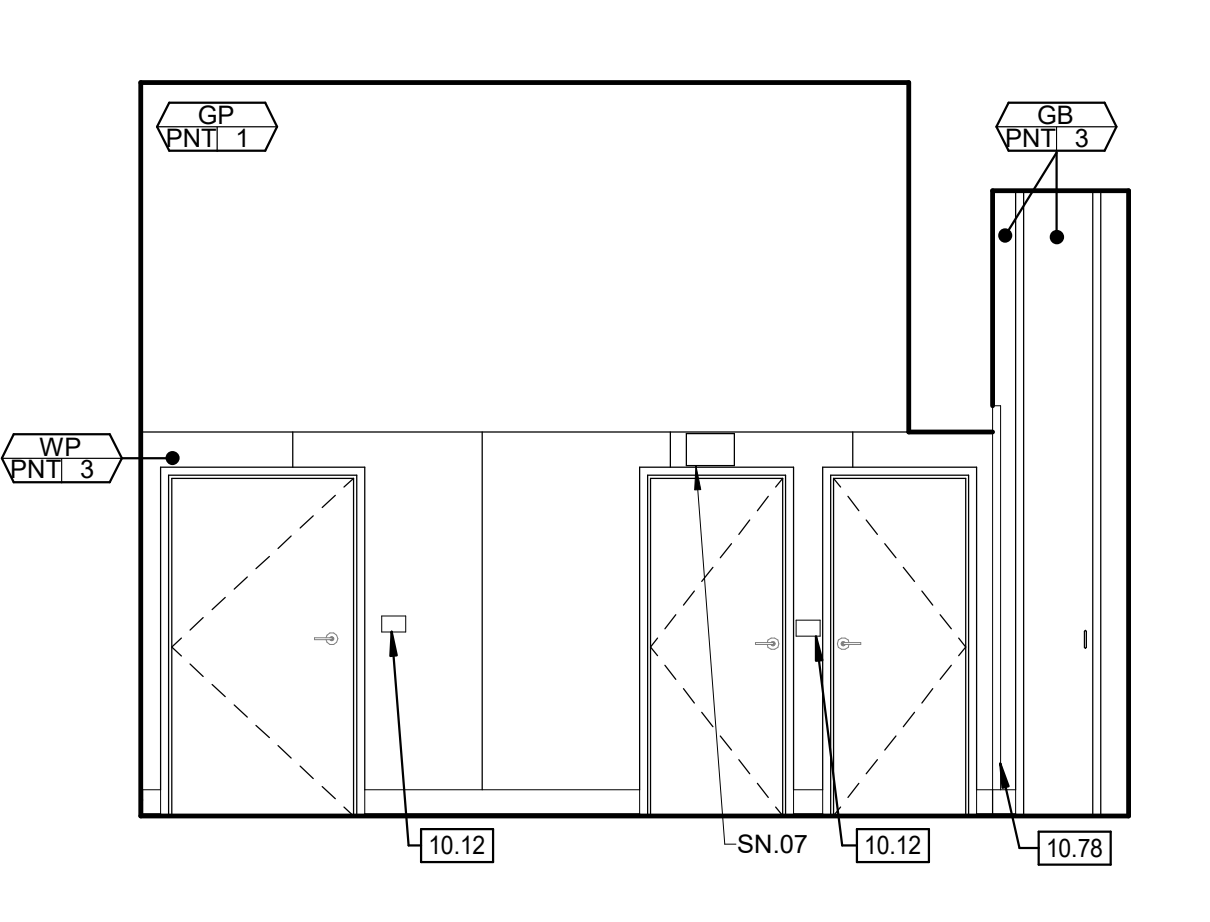
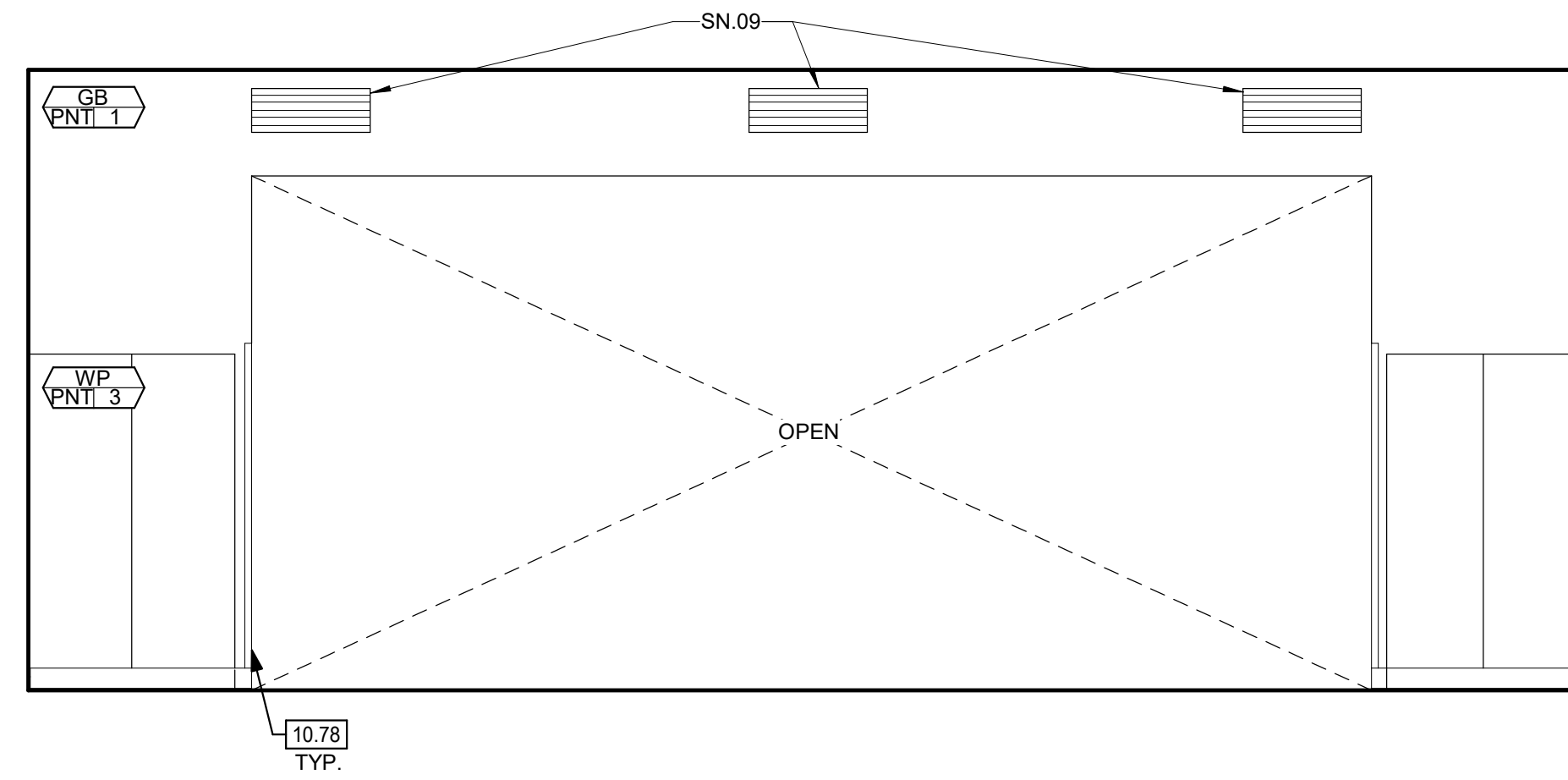
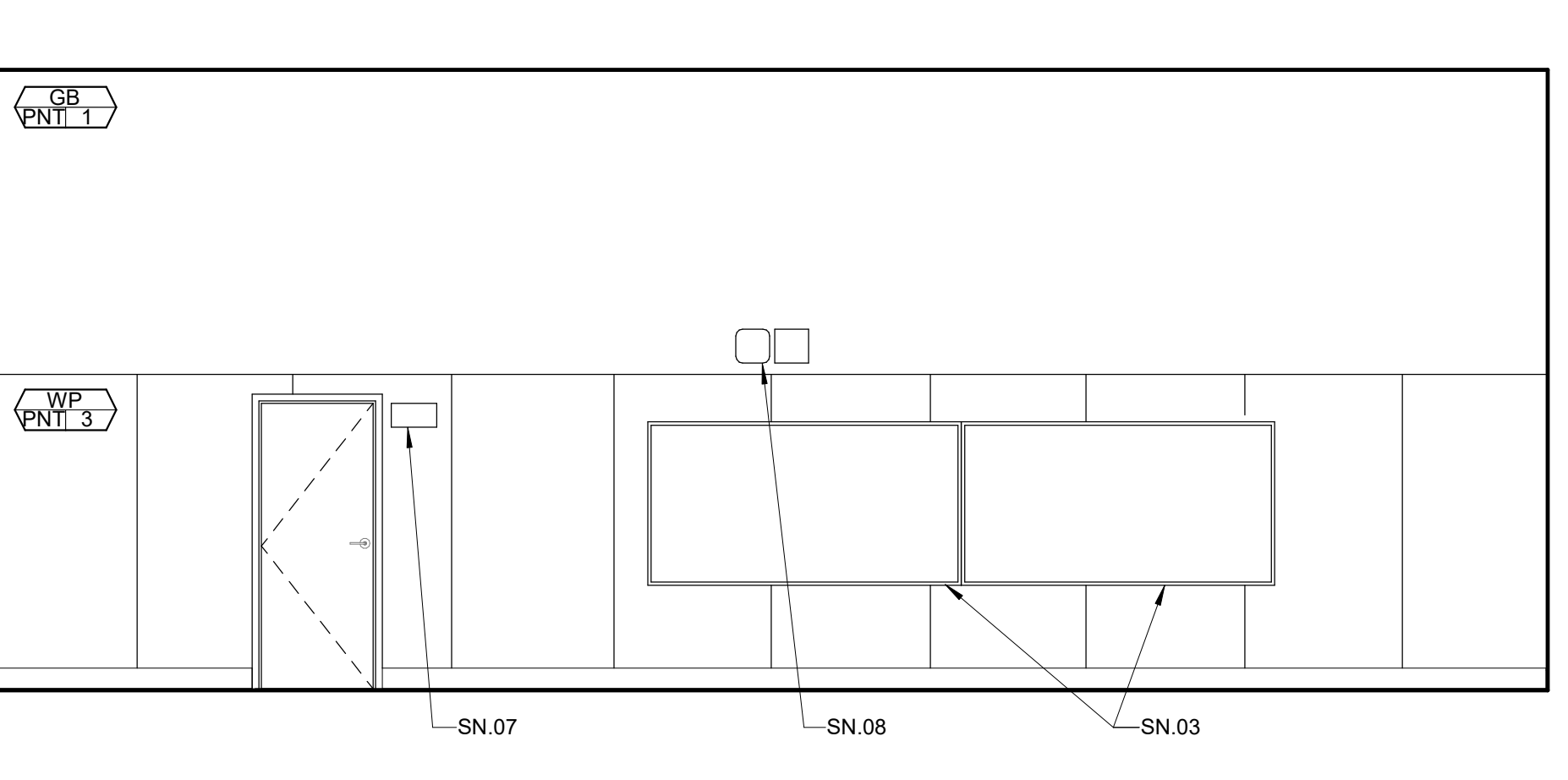
SHEET NOTES

- SN 01 PROTECT (E) ROCK CLIMBING WALL DURING CONSTRUCTION
 SN 02 (E) BASKETBALL SUPPORTS TO BE DEEP CLEANED
 SN 03 (E) MARKERBOARDS AND TACKBOARDS TO REMAIN. PROTECT DURING CONSTRUCTION
 SN 04 EXTENT OF SHADES SHOWN DASHED
 SN 05 (E) FIRE EXTINGUISHER. PROTECT DURING CONSTRUCTION
 SN 06 PAINT (E) FRAME (PNT2). PROTECT AND DO NOT PAINT (E) ROLL UP DOOR
 SN 07 (E) EXIT SIGN. PROTECT DURING CONSTRUCTION
 SN 08 (E) CLOCK AND SPEAKER. SPEAKER TO BE PROTECTED DURING CONSTRUCTION AND CLOCK TO BE REMOVED. STORED AND REINSTALLED IN SAME LOCATION AFTER CONSTRUCTION
 SN 09 (E) DIFFUSERS TO BE PAINTED TO MATCH THE WALL



203 MPR 2C

203 MPR 2D



204 STAGE 1A

204 STAGE 1B

204 STAGE 1C

204 STAGE 1D

FACILITY:
MATSUYAMA ELEMENTARY SCHOOL
7680 WINDBRIDGE DRIVE
SACRAMENTO, CA 95831

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
INTERIOR ELEVATIONS

DSA SUBMITTAL

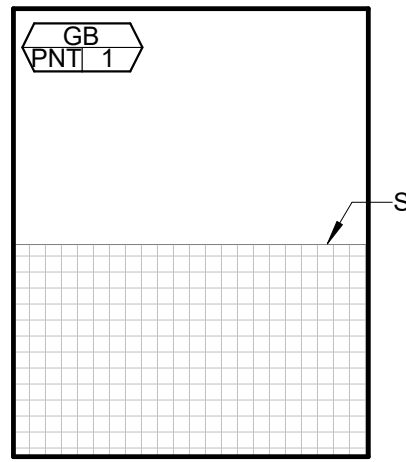
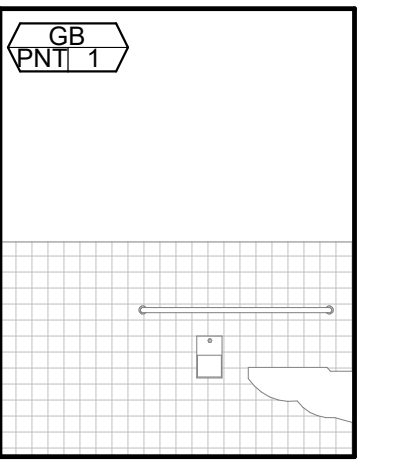
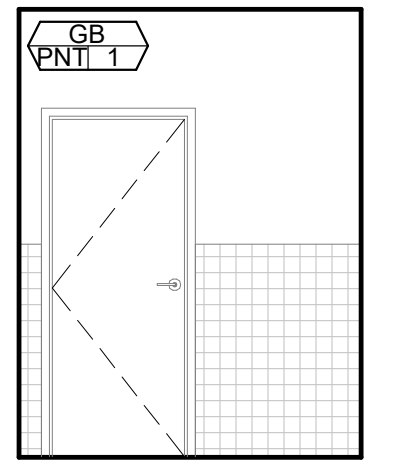
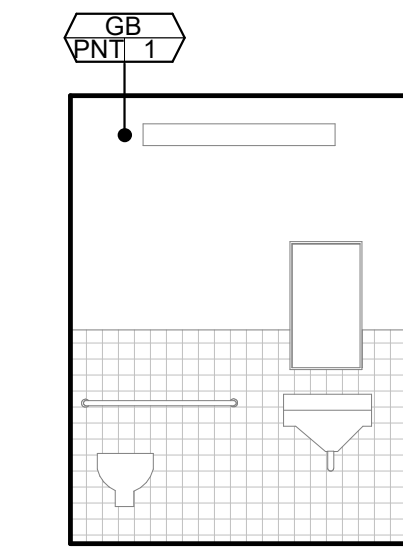
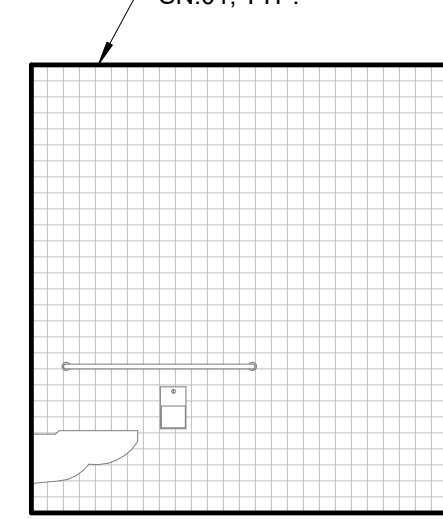
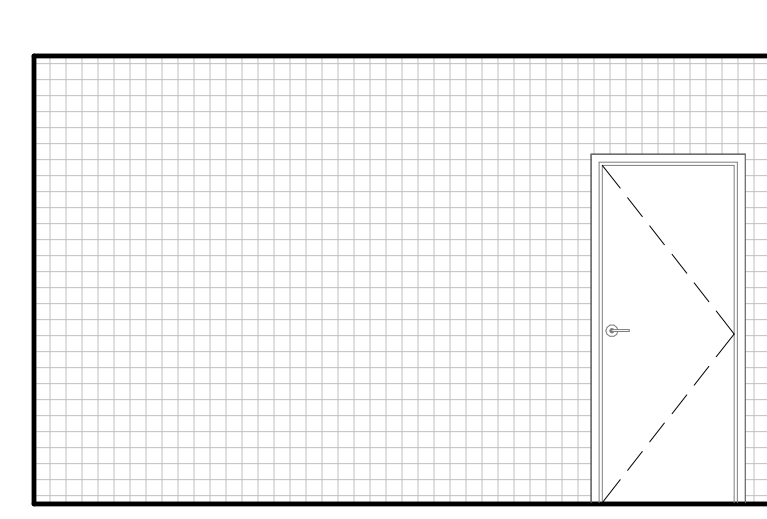
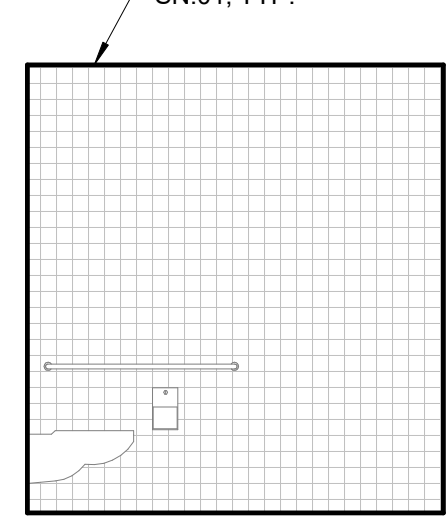
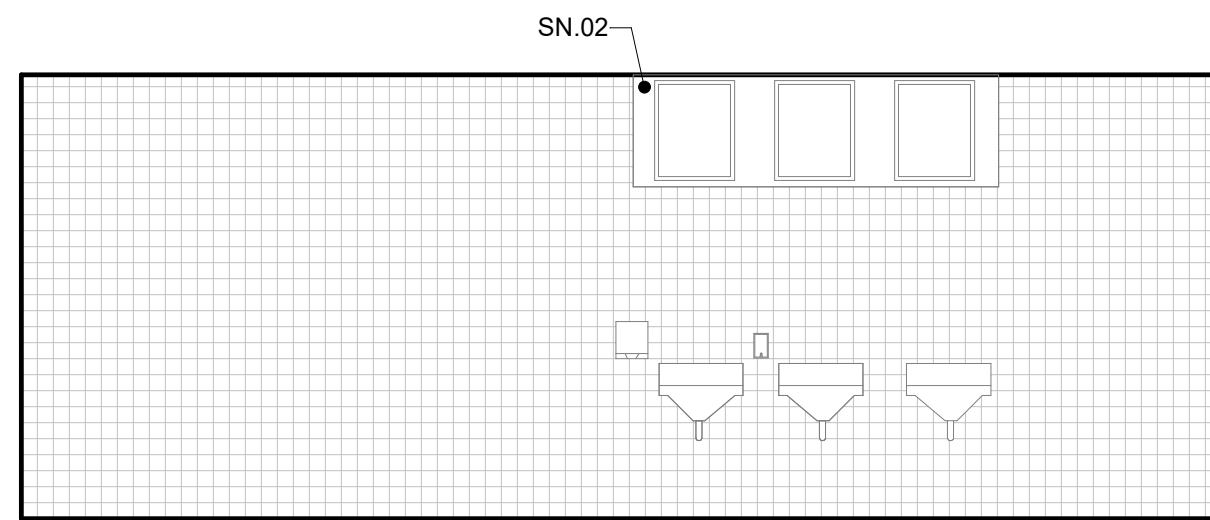
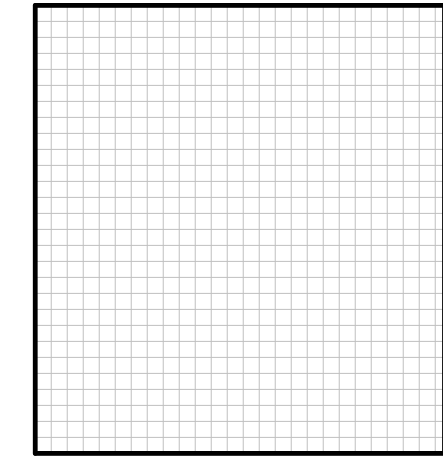
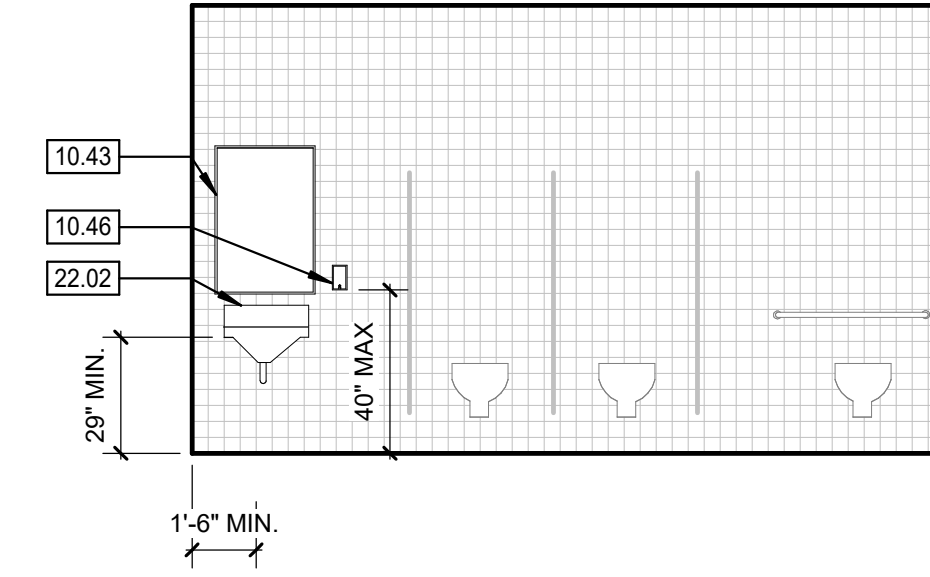
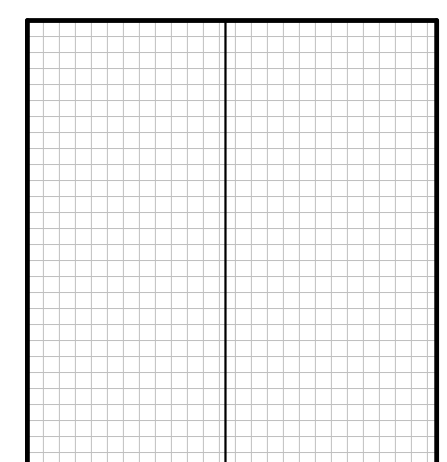
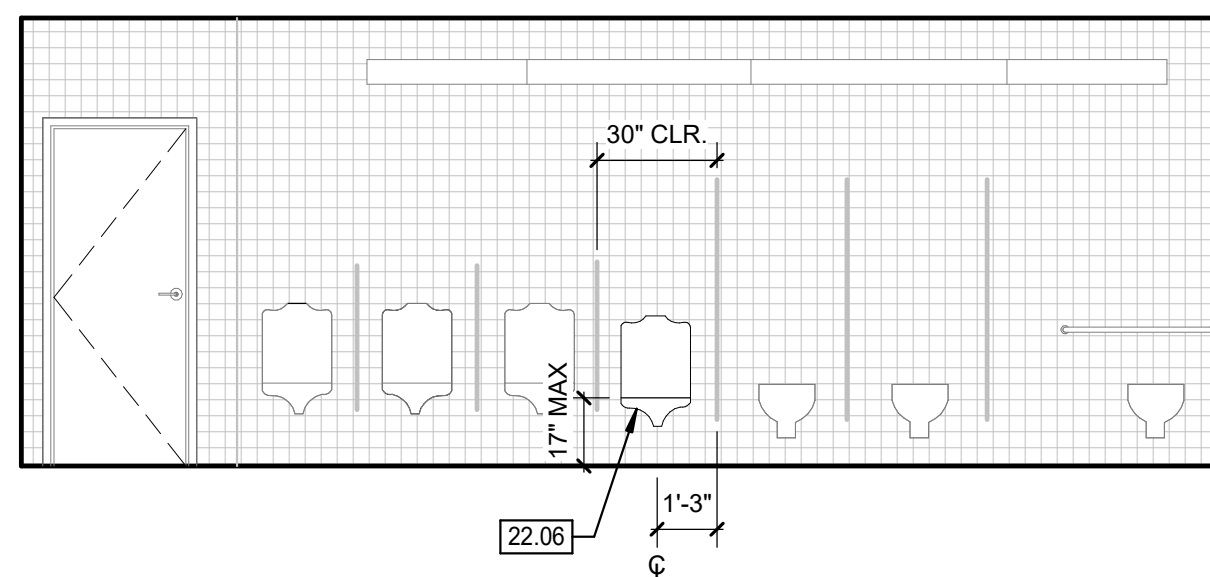
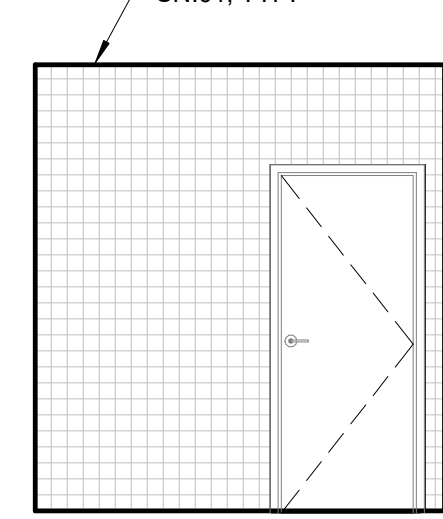
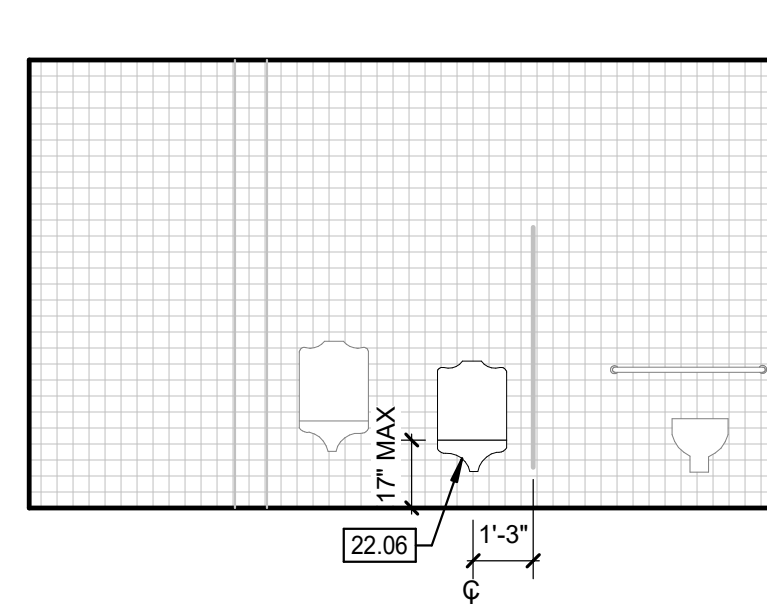
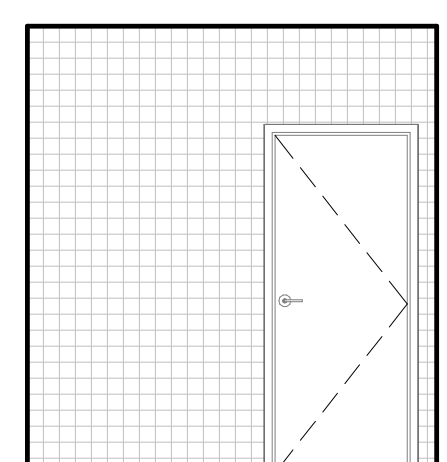
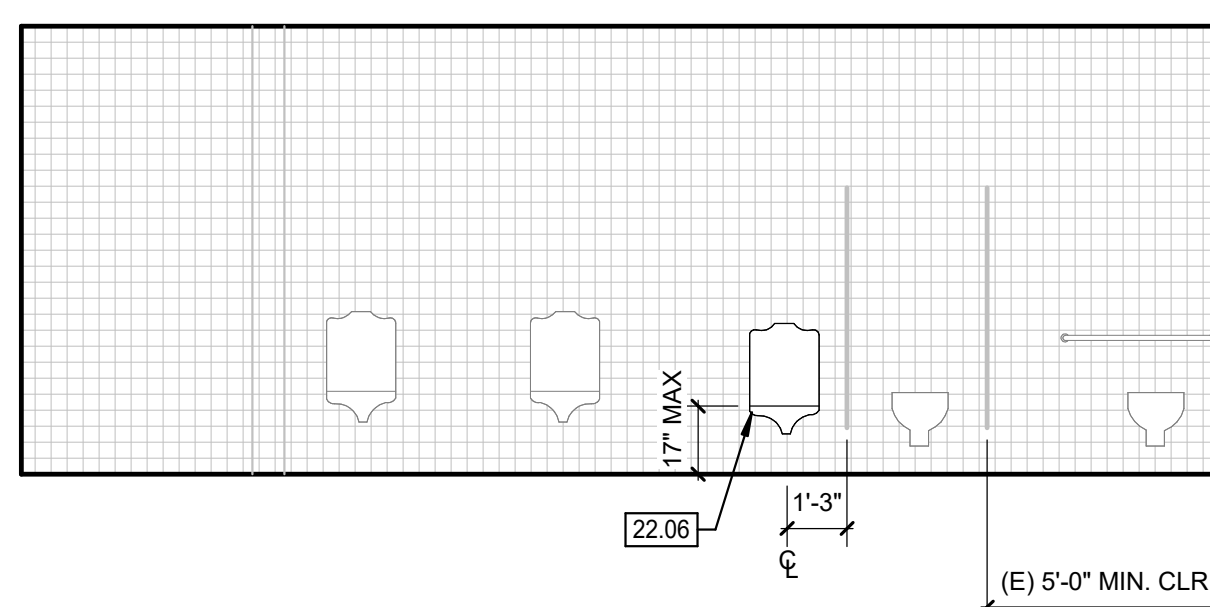
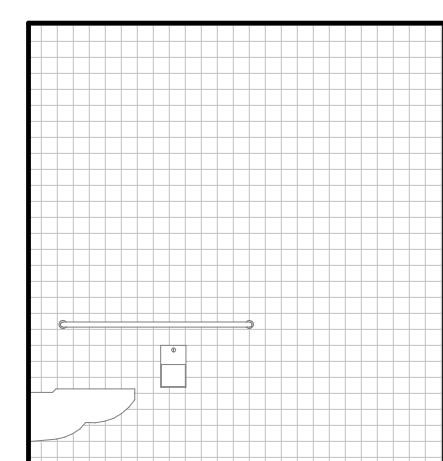
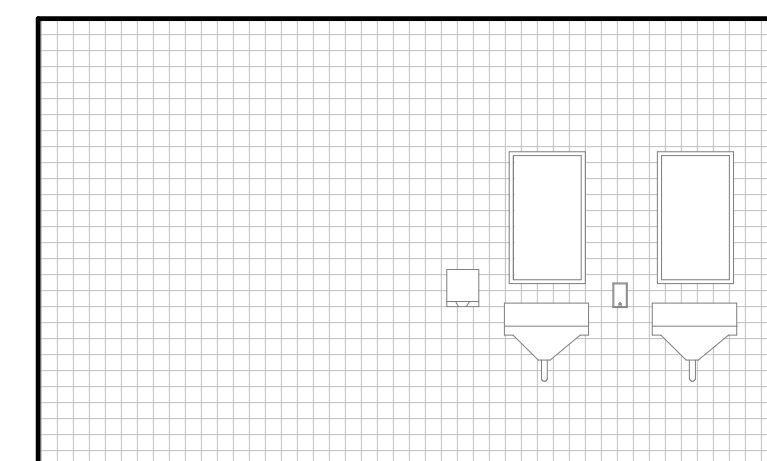
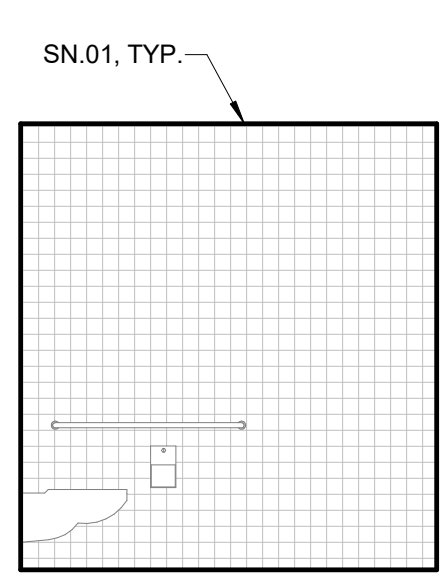
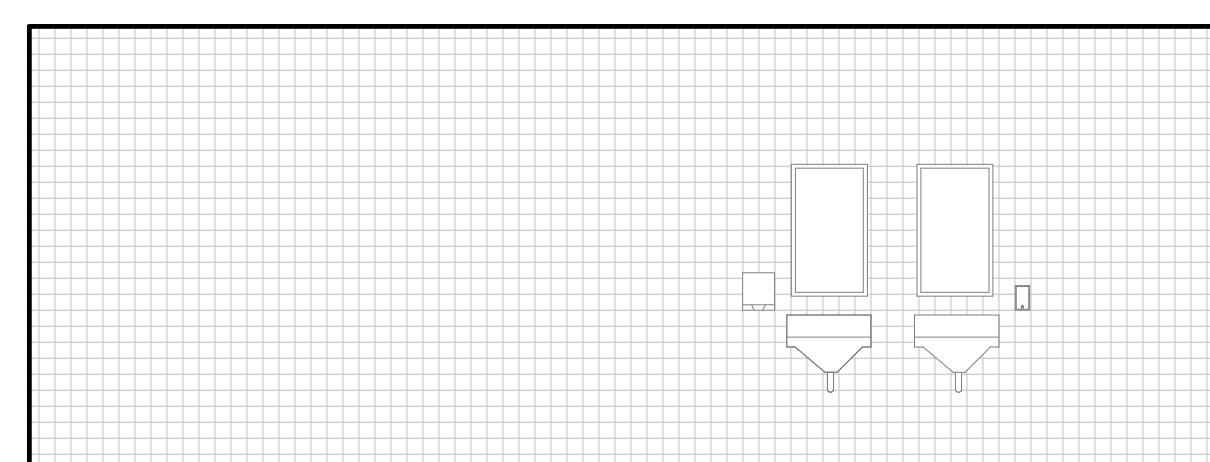
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SHEET:

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 <p>123 TOILET 4A</p>	 <p>123 TOILET 4B</p>	 <p>202 TOILET 3A</p>	 <p>202 TOILET 3B</p>	
 <p>123 TOILET 4C</p>	 <p>123 TOILET 4D</p>	 <p>202 TOILET 3C</p>	 <p>202 TOILET 3D</p>	
 <p>122 TOILET 2A</p>	 <p>122 TOILET 2B</p>	 <p>502 TOILET 1A</p>	 <p>502 TOILET 1B</p>	
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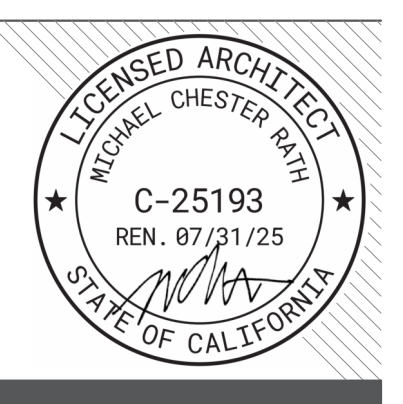
AGENCY APPROVAL:



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KEYNOTES

10.43	MIRROR, 24X36 3/A10.03
10.46	SOAP DISPENSER 3/A10.03
22.02	LAVATORY, ACCESSIBLE PLUMB
22.06	URINAL, ACCESSIBLE PLUMB

GENERAL NOTES

1. PATCH AND REPAIR ANY DAMAGED GYPSUM WALLBOARD PRIOR TO PAINTING
2. PATCH AND REGLUE ANY LOOSE WALLCOVERING PRIOR TO PAINTING
3. ALL (E) GLUE UP ACOUSTICAL PANELS TO BE PAINTED WITH NON-BRIDGING PAINT
4. REMOVE ALL (E) ABANDONED WIRE MOLD
5. PROTECT ALL (E) TAGS ON DOORS AND WALLS. DO NOT PAINT.
6. PAINT ALL INTERIOR (E) NON-WOOD DOORS AND WINDOW FRAMES (PNT2). (E) WOOD DOORS TO REMAIN AS IS.
7. DEMO ALL (E) ROOM ID & RESTROOM SIGNAGE. NEW SIGNAGE TO BE PROVIDED
8. ALL (E) CASEWORK TO REMAIN. PROTECT DURING CONSTRUCTION
9. ALL (E) SIGNAGE TO BE REPLACED IN THE SAME LOCATION

SHEET NOTES

- SN.01 ALL (E) TILE TO REMAIN. DEEP CLEAN AND PATCH GROUT AS NEEDED
- SN.02 (E) GYPSUM WALLBOARD TO BE PAINTED (PNT1)

FACILITY:
MATSUYAMA ELEMENTARY SCHOOL
7680 WINDBRIDGE DRIVE
SACRAMENTO, CA 95831

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
INTERIOR ELEVATIONS

DSA SUBMITTAL

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000

SHEET:

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED
 DIMENSIONS SHOWN ARE TO FACE UNLESS OTHERWISE NOTED

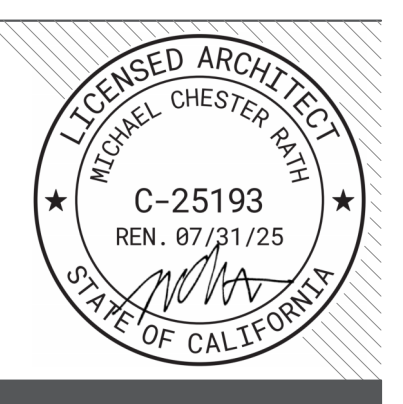
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ISSUE	
DESCRIPTION	DATE

KEYNOTES

09.47 RESILIENT BASE

GENERAL NOTES

- PATCH AND REPAIR ANY DAMAGED GYPSUM WALLBOARD PRIOR TO PAINTING
- PATCH AND REGLOUE ANY LOOSE WALLCOVERING PRIOR TO PAINTING
- ALL (E) GLUE UP ACOUSTICAL PANELS TO BE PAINTED WITH NON-BRIDGING PAINT
- REMOVE ALL (E) ABANDONED WIRE MOLD
- PROTECT ALL (E) TAGS ON DOORS AND WALLS. DO NOT PAINT.
- PAINT ALL INTERIOR (E) NON-WOOD DOORS AND WINDOW FRAMES (PNT2). (E) WOOD DOORS TO REMAIN AS IS.
- DEMO ALL (E) ROOM ID & RESTROOM SIGNAGE. NEW SIGNAGE TO BE PROVIDED
- ALL (E) CASEWORK TO REMAIN. PROTECT DURING CONSTRUCTION
- ALL (E) SIGNAGE TO BE REPLACED IN THE SAME LOCATION

SHEET NOTES

- SN.01 (E) GYPSUM WALLBOARD AND WALLCOVERING TO BE PAINTED
- SN.02 INSTALL RUBBER BASE
- SN.03 (E) MARKERBOARDS AND TACKBOARDS TO REMAIN. PROTECT DURING CONSTRUCTION
- SN.04 (E) ELECTRICAL PANEL, PROTECT DURING CONSTRUCTION
- SN.05 (E) FIRE EXTINGUISHER, PROTECT DURING CONSTRUCTION
- SN.06 (E) CLOCK TO BE REMOVED, STORED AND REINSTALLED IN SAME LOCATION AFTER CONSTRUCTION

FACILITY:
MATSUYAMA ELEMENTARY SCHOOL
 7680 WINDBRIDGE DRIVE
 SACRAMENTO, CA 95831

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

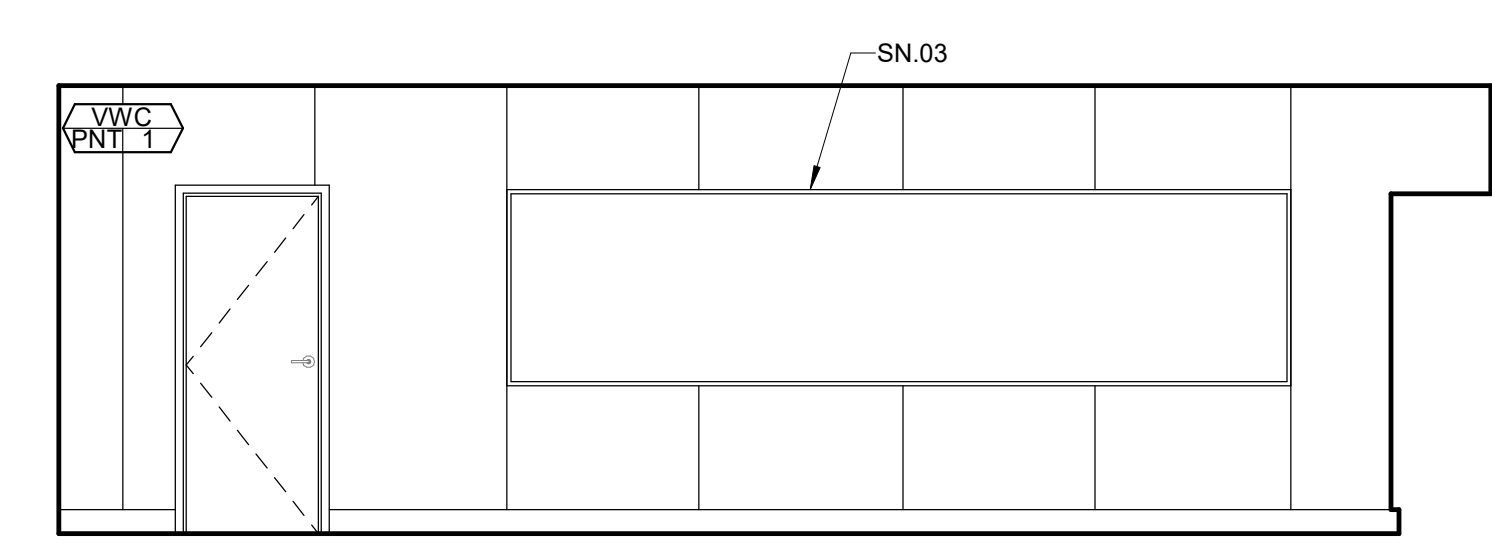
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INTERIOR ELEVATIONS

DSA SUBMITTAL

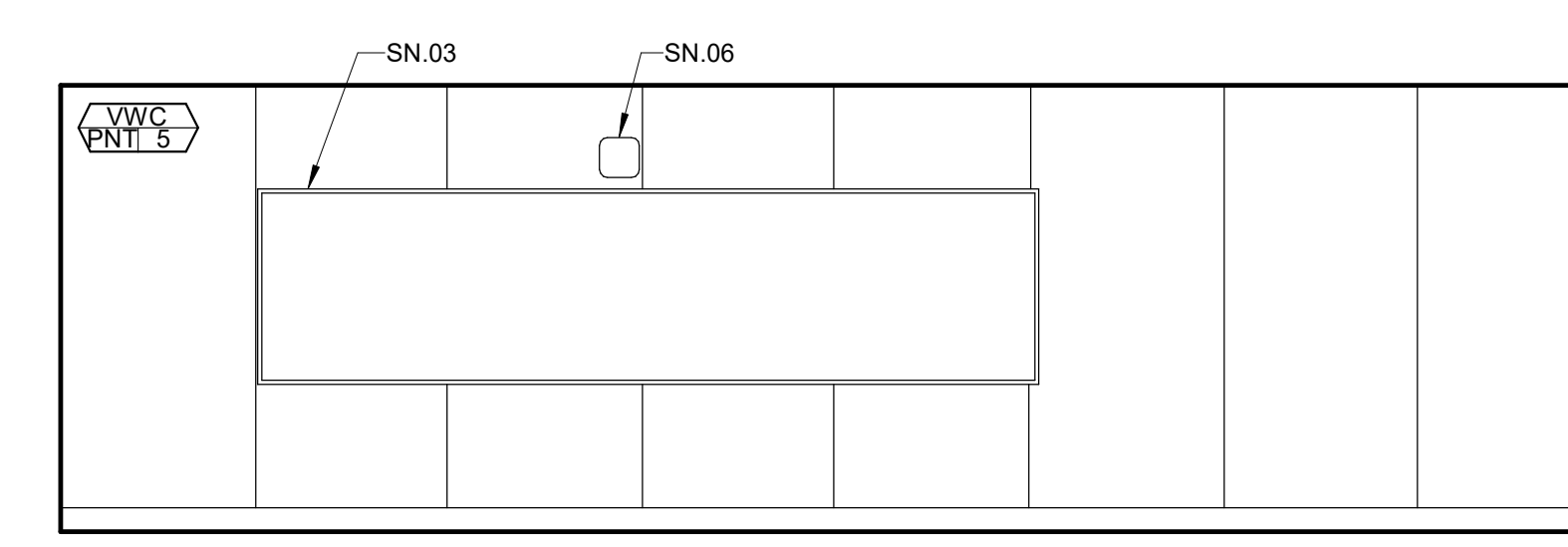
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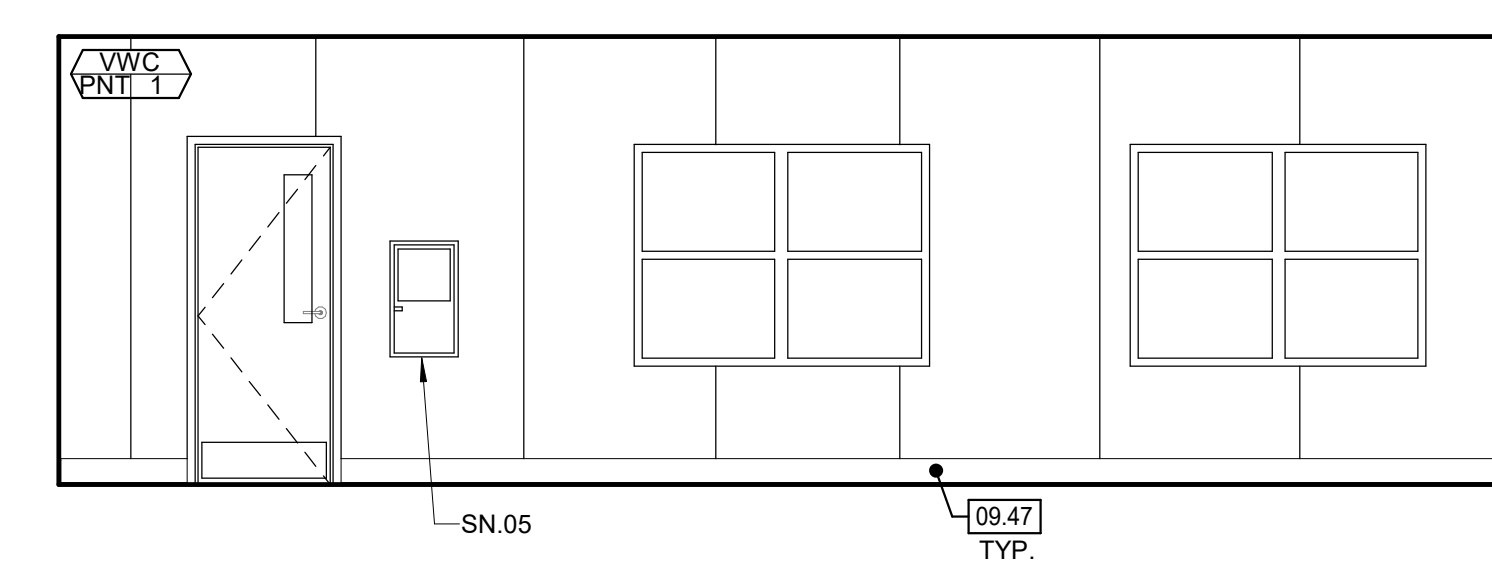
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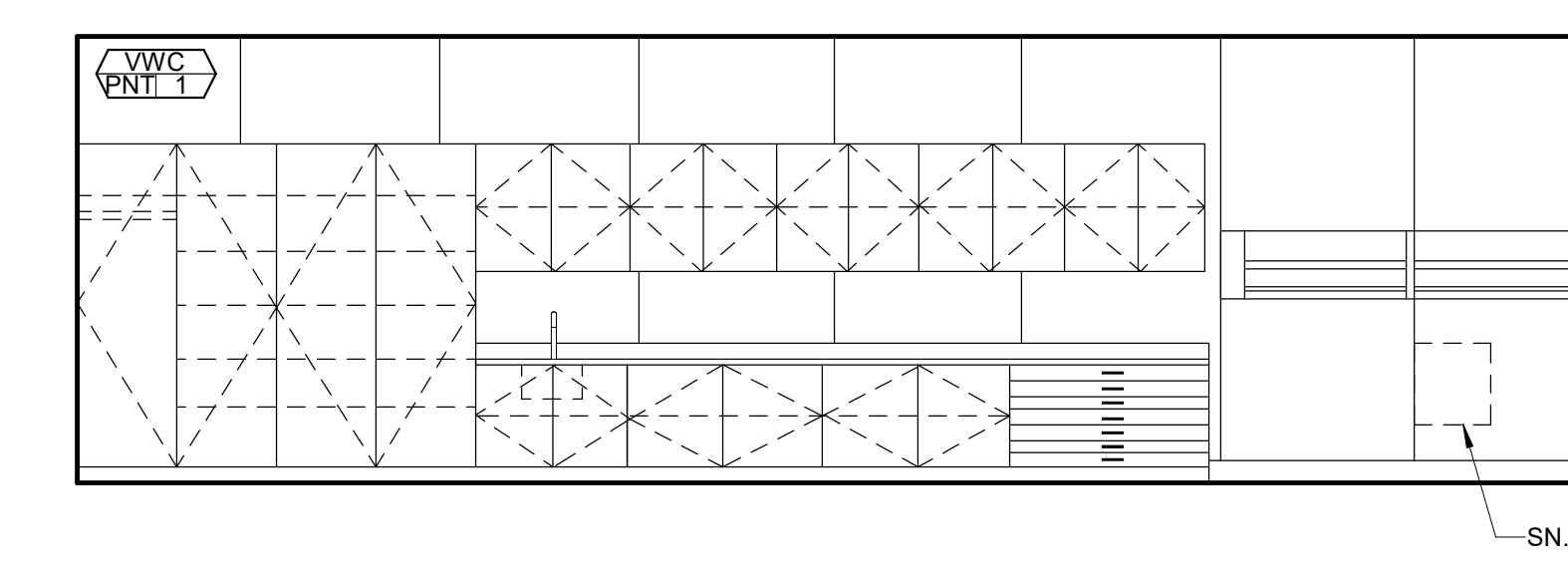
TYPICAL CLASSROOM **2A**



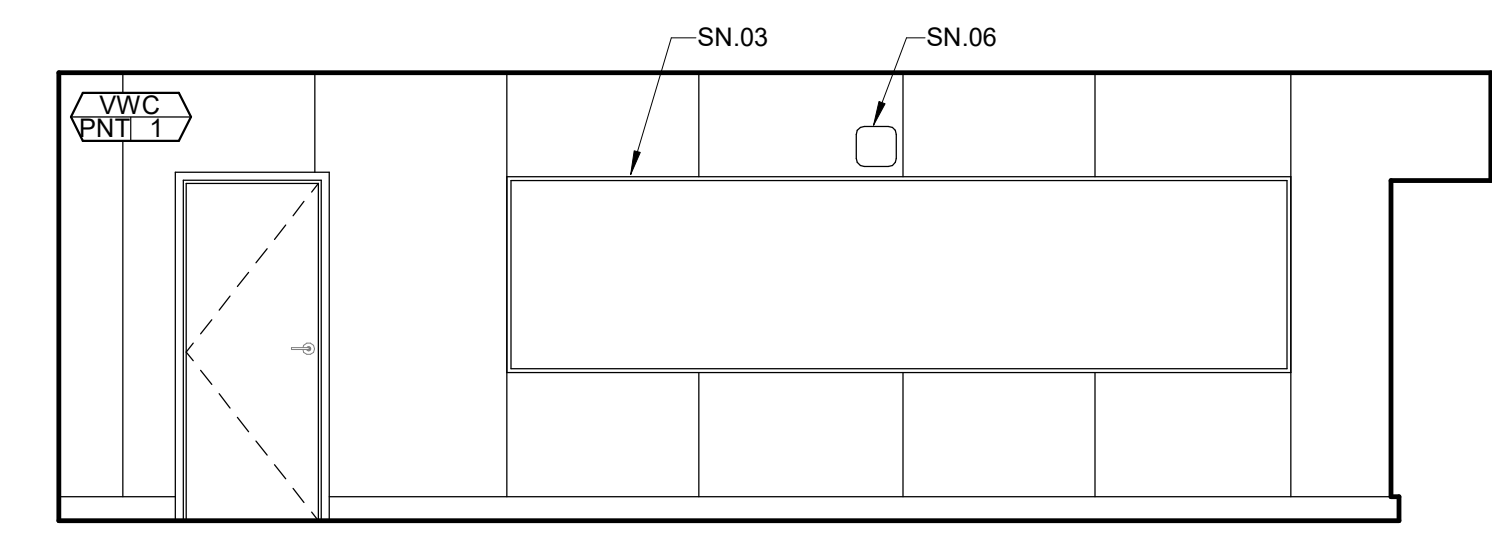
TYPICAL CLASSROOM **2B**



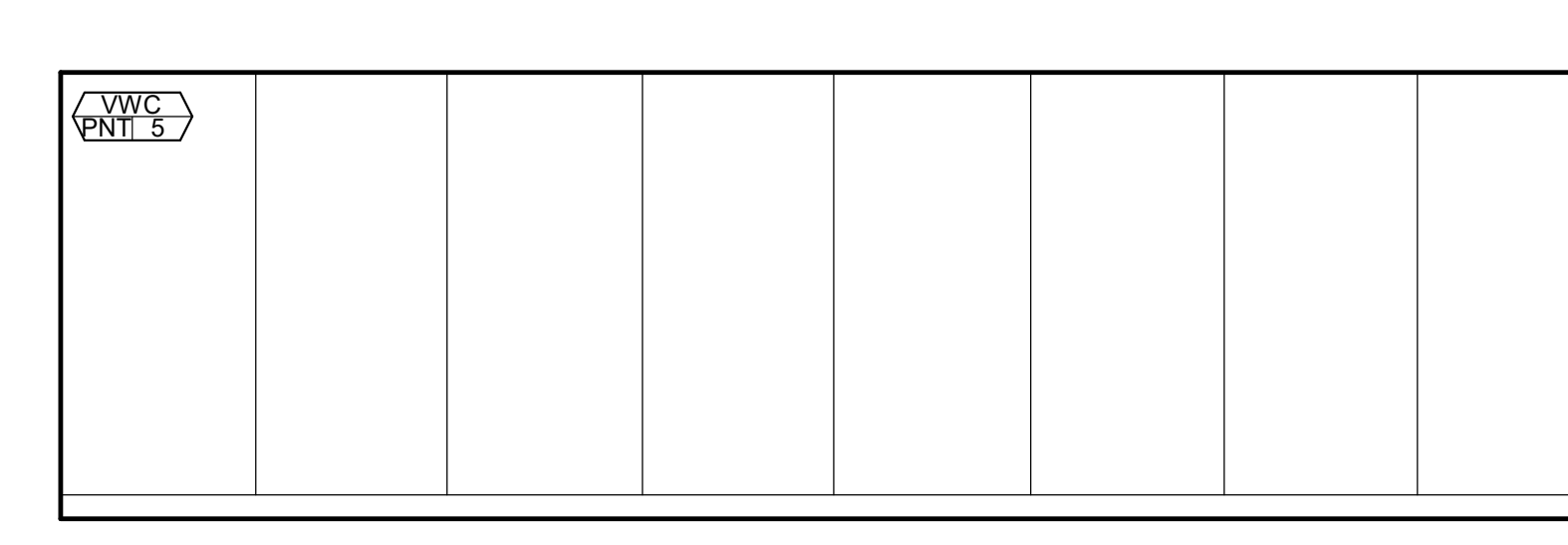
TYPICAL CLASSROOM **2C**



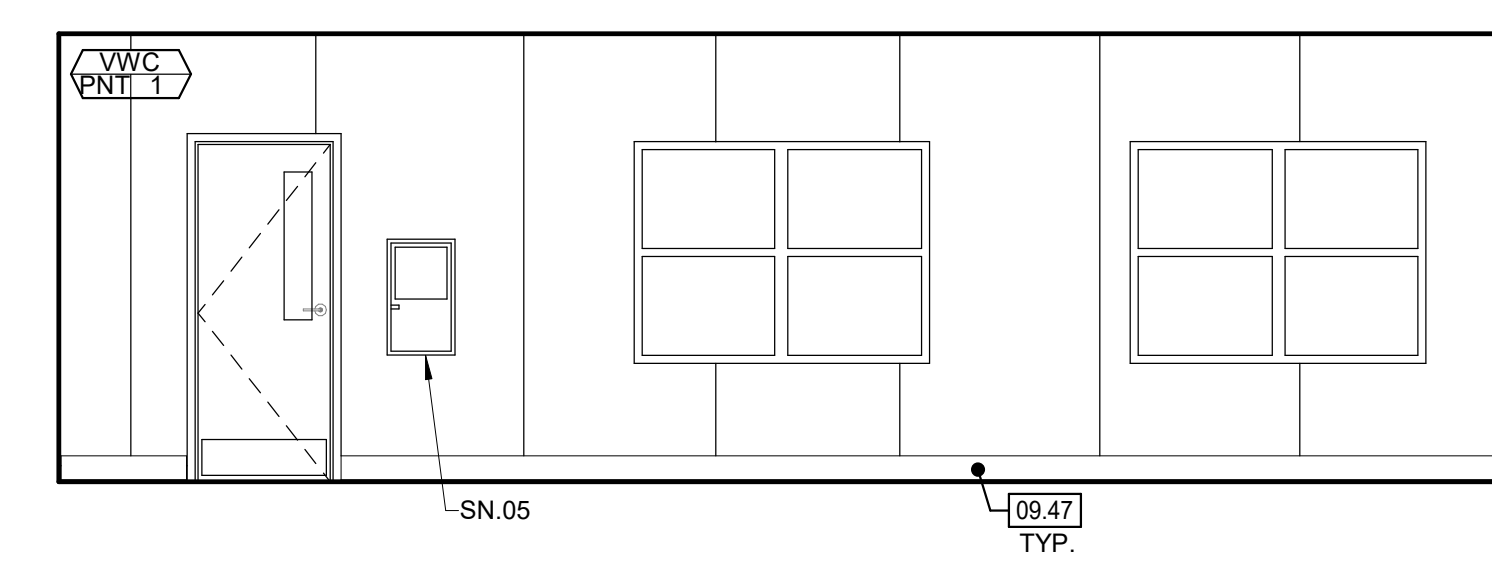
TYPICAL CLASSROOM **2D**



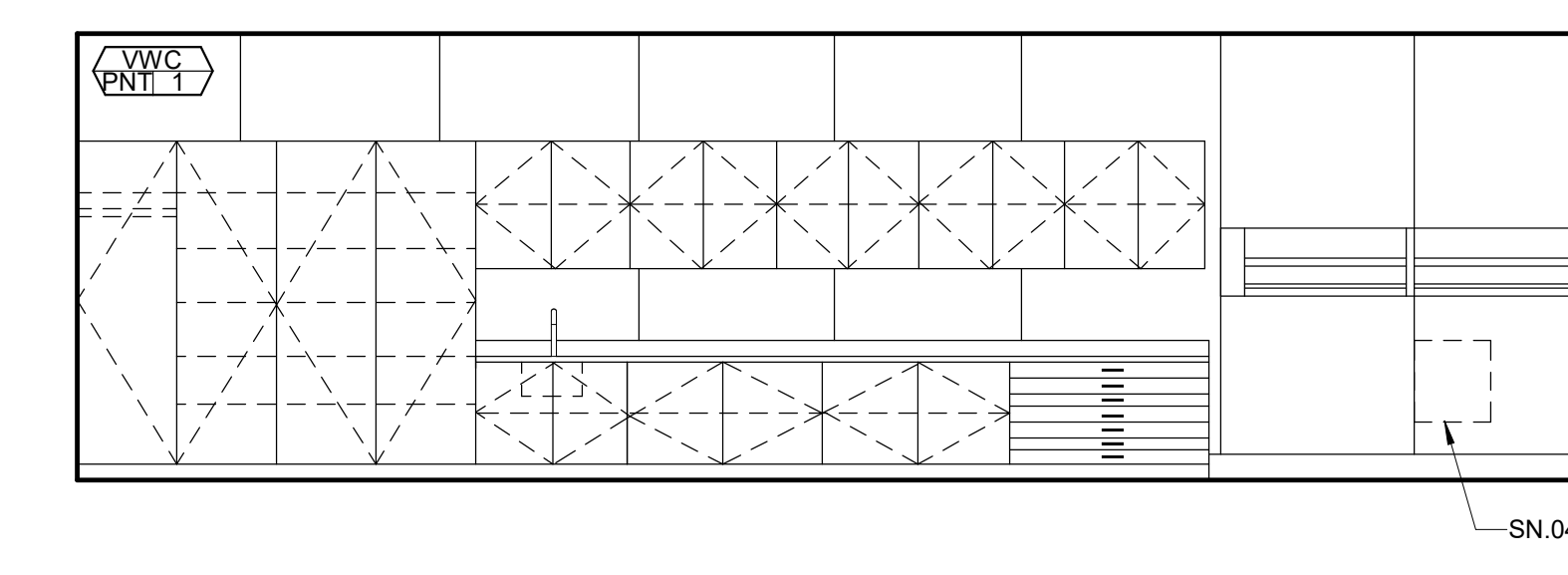
TYPICAL CLASSROOM - FOLDING WALL **1A**



TYPICAL CLASSROOM - FOLDING WALL **1B**



TYPICAL CLASSROOM - FOLDING WALL **1C**



TYPICAL CLASSROOM - FOLDING WALL **1D**

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SN.01.PNT1
PNT2
SN.07.PNT4
SN.01.PNT3
PNT2

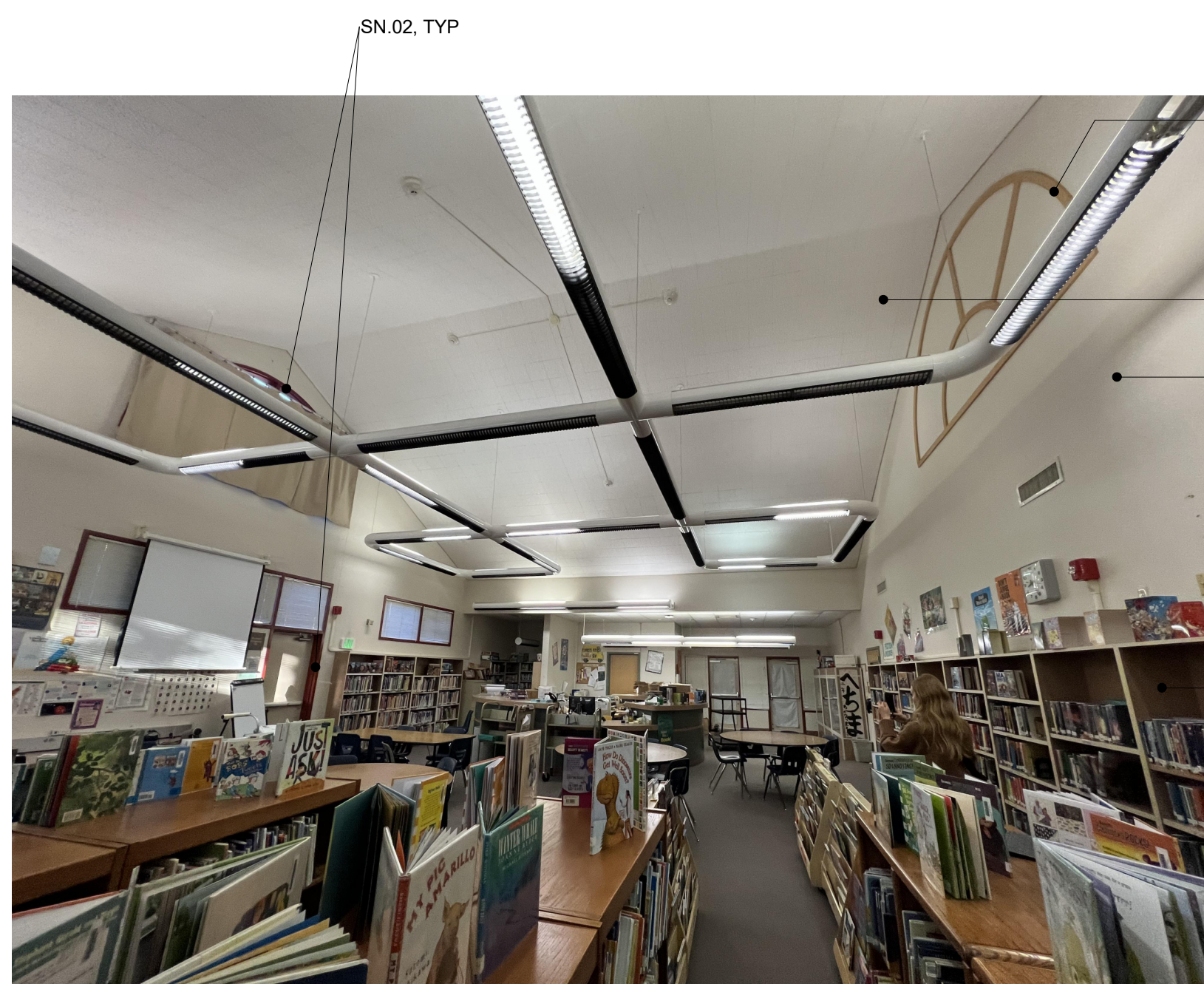


PROTECT ALL TAGS ON DOORS AND WALLS. DO NOT PAINT.



ALL (E) CASEWORK TO REMAIN. PROTECT DURING CONSTRUCTION.

PROTECT DURING CONSTRUCTION



SN.02, TYP

SN.07, PNT2
PNT1
SN.01, PNT1

ALL (E) CASEWORK TO REMAIN. PROTECT DURING CONSTRUCTION, TYP



SN.11

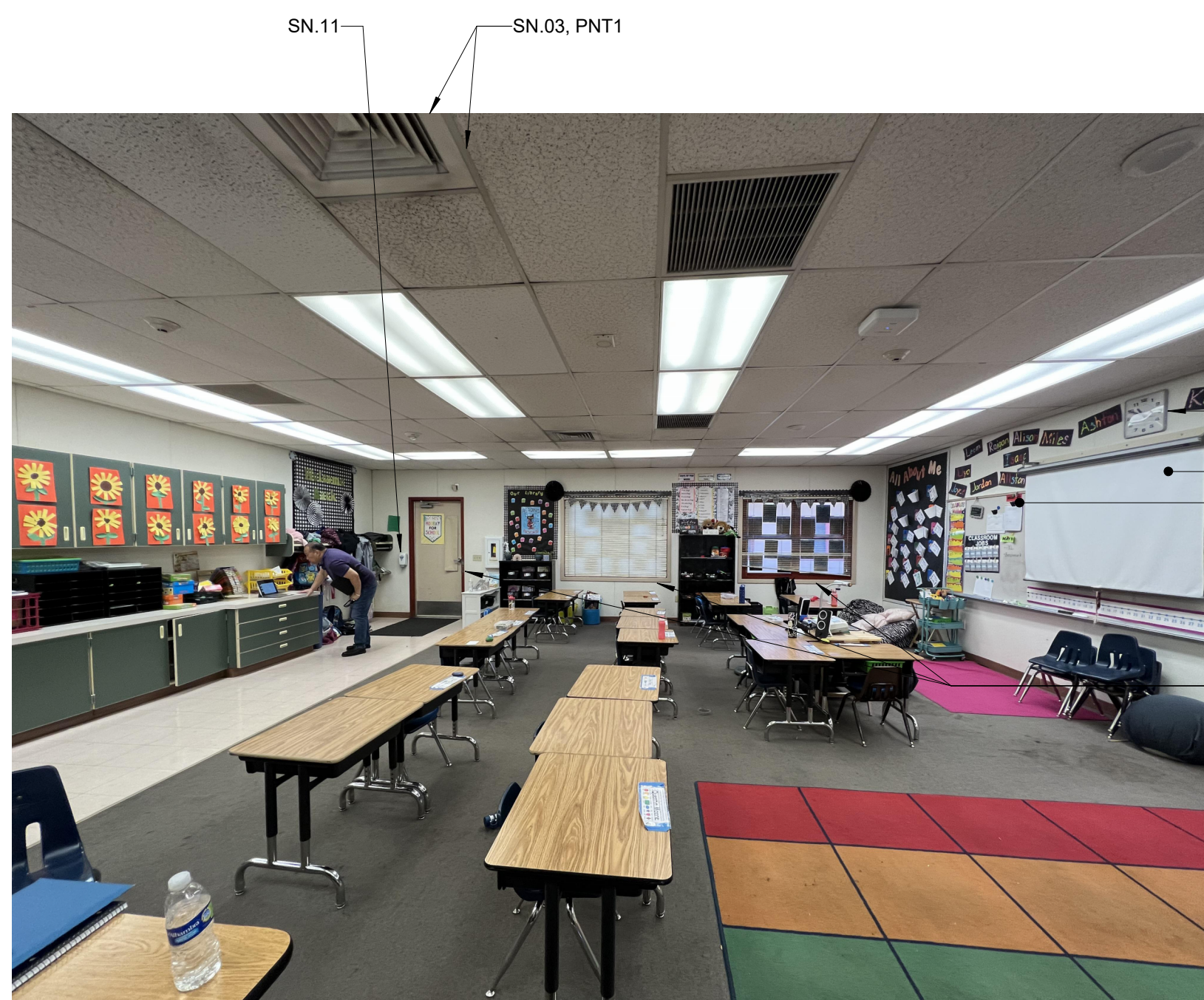
PROTECT ALL TAGS ON DOORS AND WALLS. DO NOT PAINT.

SN.08



SN.03, PNT1

SN.04



SN.11
SN.03, PNT1

SN.10
SN.12
SN.04
PNT2



SN.07, PNT4, TYP
SN.09

SN.02, PNT3
SN.01, PNT3
SN.01, PNT4
SN.01, PNT5

SN.02, PNT1

SN.01, PNT1



SN.05

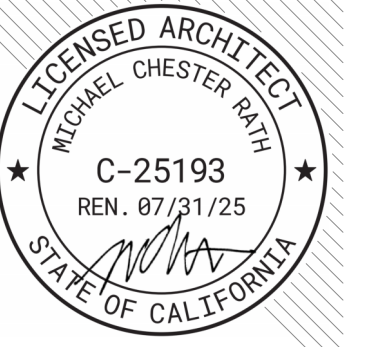
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ISSUE

DESCRIPTION	DATE

PAINT COLOR

- PNT1 DUNN EDWARDS - BALL OF STRING (#DE6190)
- PNT2 DUNN EDWARDS - JET (#DE6378)
- PNT3 DUNN EDWARDS - ICE GRAY (#DEC790)
- PNT4 DUNN EDWARDS - SPRING JUNIPER (#DEA128)
- PNT5 DUNN EDWARDS - KALE (#DE5585)

GENERAL NOTES

1. PATCH AND REPAIR ANY DAMAGED GYPSUM WALLBOARD PRIOR TO PAINTING, AS NEEDED
2. PATCH AND REGLOUE ANY LOOSE WALLCOVERING PRIOR TO PAINTING
3. ALL (E) GLUE UP ACOUSTICAL PANELS TO BE PAINTED WITH NON-BRIDGING PAINT
4. REMOVE ALL (E) ABANDONED WIRE MOLD
5. PROTECT ALL (E) TAGS ON DOORS AND WALLS. DO NOT PAINT.
6. PAINT ALL INTERIOR AND EXTERIOR (E) NON-WOOD DOORS AND WINDOW FRAMES (PNT2). (E) WOOD DOORS TO REMAIN AS IS. DEMO ALL (E) ROOM ID & RESTROOM SIGNAGE. NEW SIGNAGE TO BE PROVIDED
7. ALL (E) CASEWORK TO REMAIN. PROTECT DURING CONSTRUCTION
8. ALL (E) SIGNAGE TO BE REPLACED IN THE SAME LOCATION
9. ALL (E) WALL MOUNTED EQUIPMENT TO BE REMOVED, STORED, AND REINSTALLED IN THE SAME LOCATION AFTER CONSTRUCTION U.N.O.

SHEET NOTES

- SN.01 (E) GYPSUM WALLBOARD AND WALLCOVERING TO BE PAINTED
- SN.02 (E) GYPSUM WALLBOARD CEILING TO BE PAINTED
- SN.03 (E) GRID AND DIFFUSERS AND INSTALL LAY-IN CEILING TILES
- SN.04 (E) MARKERBOARDS TO REMAIN. PROTECT DURING CONSTRUCTION
- SN.05 (E) TILE TO REMAIN. DEEP CLEAN AND PATCH GROUT AS NEEDED
- SN.06 (E) IDF BOX. PROTECT DURING CONSTRUCTION
- SN.07 (E) WOOD TRIM TO BE PAINTED
- SN.08 (E) DISPLAY CASES TO BE REMOVED, STORED, & REINSTALLED IN THE SAME LOCATION
- SN.09 PROTECT (E) ROCK CLIMBING WALL DURING CONSTRUCTION
- SN.10 (E) CLOCK TO BE REMOVED, STORED AND REINSTALLED IN SAME LOCATION AFTER CONSTRUCTION
- SN.11 (E) HAND SANITIZER DISPENSER TO BE REMOVED, STORED, AND REINSTALLED IN SAME LOCATION AFTER CONSTRUCTION
- SN.12 (E) PROJECTION SCREEN TO BE REMOVED, STORED, AND REINSTALLED IN SAME LOCATION AFTER CONSTRUCTION

FACILITY:
MATSUYAMA ELEMENTARY SCHOOL
7680 WINDBRIDGE DRIVE
SACRAMENTO, CA 95831

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
INTERIOR IMAGES

DSA SUBMITTAL

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000

SHEET:

A8.15

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DRAWING. SEE THE DRAWING FOR THE
SHEET'S ORIGINAL PAGE SIZE.

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INTERIOR FINISHES

PAINTING

- PNT1** PAINT COLOR 1
COLOR: TO MATCH DUNN-EDWARDS "BALL OF STRING" (#DE6190)
LOCATION: (E) GYPSUM WALLBOARD CEILINGS, (E) T-BAR GRID AND DIFFUSERS
GLUE UP ACOUSTICAL PANELS (U.N.O.), SEE DRAWINGS
- PNT2** PAINT COLOR 2
COLOR: TO MATCH DUNN-EDWARDS "JET" (#DE6378)
LOCATION: INTERIOR DOOR & WINDOW FRAMES
- PNT3** PAINT COLOR 3
COLOR: TO MATCH DUNN-EDWARDS "ICE GRAY" (#DEC790)
LOCATION: SEE DRAWINGS
- PNT4** PAINT COLOR 4
COLOR: TO MATCH DUNN-EDWARDS "SPRING JUNIPER" (#DEA128)
LOCATION: SEE DRAWINGS
- PNT5** PAINT COLOR 5
COLOR: TO MATCH DUNN-EDWARDS "KALE" (#DE5585)
LOCATION: SEE DRAWINGS

RESILIENT BASE AND ACCESSORIES

- RB1** RUBBER BASE
MANUFACTURER: BURKE
STYLE: BURKEBASE TYPE TP
MATERIAL: TBD
PROFILE: TBD
COLOR: 701 BLACK
FINISH: TBD
LOCATION: 4" AT CASEWORK, 6" AT WALLS.
- STR1** STAIR TREADS & RISERS
MANUFACTURER:
STYLE:
TREADS:
TREADS MATERIAL:
TREADS RUBBER COLOR:
TREADS VI STRIP INSERT COLOR:
RISERS:
RISERS MATERIAL:
RISERS RUBBER COLOR:

RESILIENT FLOORING: RUBBER

- R1** RUBBER
MANUFACTURER: NORA
STYLE: NORAMENT GRANO
COLOR: FENUGREEK (#5307)
FINISH:
THICKNESS: 3.5MM
LOCATION: SEE PLANS
- R2** RUBBER
MANUFACTURER: NORA
STYLE: NORAMENT GRANO
COLOR: ARBORATIVE (#5328)
FINISH:
THICKNESS: 3.5MM
LOCATION: MPR
- R3** RUBBER
MANUFACTURER: NORA
STYLE: NORAMENT GRANO
COLOR: MYRRH (#5308)
FINISH:
THICKNESS: 3.5MM
LOCATION: MPR

RESILIENT FLOORING: SHEET VINYL

- SV1** SHEET VINYL
MANUFACTURER:
STYLE:
COLOR:
FINISH:
THICKNESS:
LOCATION: SEE PLANS
NOTE: 6" INTEGRAL COVE BASE TO HAVE MIN. 3/8" RADIUS (**SVCB1**)
- SVCB1**

RESILIENT FLOORING: SOLID VINYL FLOOR TILE (LVT)

- LVT1** SOLID VINYL TILE
MANUFACTURER: TARKETT
STYLE: ID LATTICE - WOOD
COLOR: 7542 HAZELWOOD
FINISH: TECHTONIC
WEAR LAYER THICKNESS: 0.020" (0.5MM)
SIZE: TBD
LOCATION: SEE PLANS

RESINOUS FLOORING

- RSN1** RESINOUS EPOXY FLOORING
MANUFACTURER: TBD
STYLE: TBD
COLOR: TBD
FINISH: TECHTONIC
NOTE: 6" INTEGRAL COVE BASE TO HAVE MIN. 3/8" RADIUS (**RSNCB1**)
- RSNCB1**

ROLLER WINDOW SHADES (MOTORIZED)

- RWS1** SHADE CLOTH (VISUALLY TRANSPARENT)
MANUFACTURER: MECHOSHADE
STYLE: TBD
OPEN FACTOR: TBD
THICKNESS:
WEAVE:
COLOR: TBD
MOTORIZED SHADE SYSTEM: WHISPERSHADE IQ2.EDU
LOCATION: MPR, SEE INTERIOR ELEVATIONS

SHEET CARPETING

- CPT1** SHEET CARPETING
MANUFACTURER: TARKETT
STYLE: DOUBLE DOUCLE (#A0010)
COLOR: SUMMER SHADOW (#74204)
BACKING: TBD
INSTALLATION: TBD
LOCATION: SEE FINISH PLAN

THEATRICAL CURTAINS

- THC1** THEATRICAL CURTAIN
MANUFACTURER: JB MARTIN
STYLE: #2703 OVERTRUE
WEIGHT: 21 OZ. MINIMUM
COLOR: 7524 OLD JADE
LOCATION: FRONT SETTING VALANCE AND FRONT CURTAIN
- THC2** THEATRICAL CURTAIN
MANUFACTURER: JB MARTIN
STYLE: #2703 OVERTRUE
WEIGHT: 18 OZ. MINIMUM
COLOR: 7001 BLACK
LOCATION: CYCLOPAMA

TILING

- GR1** GROUT
MANUFACTURER: TBD
COLOR: TO MATCH EXISTING
LOCATION: RESTROOMS

WALK-OFF CARPETING

- WCPT1** WALK-OFF CARPETING
MANUFACTURER: TARKETT
STYLE: ASSERTIVE ACTION (#04837)
COLOR: WEATHERED PATINA (#28216)
BACKING: TBD
INSTALLATION:
LOCATION: SEE PLANS

WALL AND DOOR PROTECTION

- CG1** VINYL CORNER GUARD
MANUFACTURER: INPRO ARCHITECTURAL PRODUCTS
STYLE: LOW PROFILE NO TAPE CORNER GUARD
MATERIAL: RIGID VINYL
SIZE: 3" LEG X 8" HEIGHT
THICKNESS: 0.080" (2MM)
COLOR: FEATHER (#0238)
INSTALLATION: ADHESIVE
LOCATION: SEE INTERIOR ELEVATIONS
- CG2** VINYL CORNER GUARD
MANUFACTURER: INPRO ARCHITECTURAL PRODUCTS
STYLE: LOW PROFILE NO TAPE CORNER GUARD
MATERIAL: STAINLESS STEEL
SIZE: 3 1/2" LEG X 8" HEIGHT
THICKNESS: 0.080" (2MM)
COLOR: STAINLESS STEEL
INSTALLATION: ADHESIVE
LOCATION: KITCHEN

EXTERIOR FINISHES

PAINTING

- EPNT1** EXTERIOR PAINT COLOR 1
COLOR: TO MATCH DUNN-EDWARDS "TBD"
LOCATION: SEE DRAWINGS
- EPNT2** EXTERIOR PAINT COLOR 2
COLOR: TO MATCH DUNN-EDWARDS "TBD"
LOCATION: SEE DRAWINGS
- EPNT3** EXTERIOR PAINT COLOR 3
COLOR: TO MATCH DUNN-EDWARDS "EBD"
LOCATION: EXTERIOR REVEALS, DOOR & WINDOW FRAMES
- EPNT4** EXTERIOR PAINT COLOR 4
COLOR: TO MATCH DUNN-EDWARDS "TBD"
LOCATION: SEE DRAWINGS
- EPNT5** EXTERIOR PAINT COLOR 5
COLOR: TO MATCH DUNN-EDWARDS "TBD"
LOCATION: SEE DRAWINGS
- EPNT6** EXTERIOR PAINT COLOR 6
COLOR: TO MATCH DUNN-EDWARDS "EBD"
LOCATION: SEE DRAWINGS

TILING

- EGR1** EXTERIOR GROUT
COLOR: TO MATCH EXISTING
LOCATION: SEE EXTERIOR ELEVATIONS

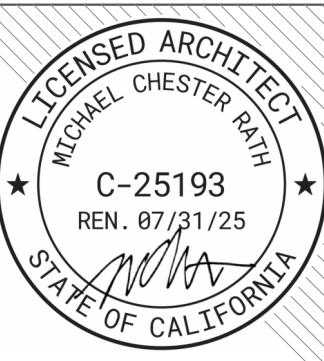
AGENCY
APPROVAL:



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ISSUE

DESCRIPTION DATE

FACILITY:
**MATSUYAMA ELEMENTARY SCHOOL
7680 WINDBRIDGE DRIVE
SACRAMENTO, CA 95831**

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

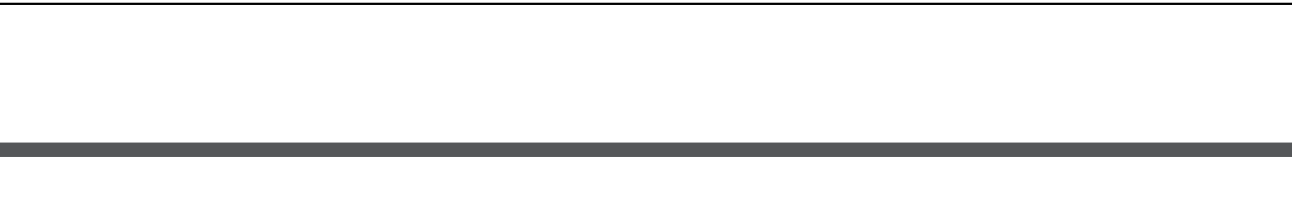
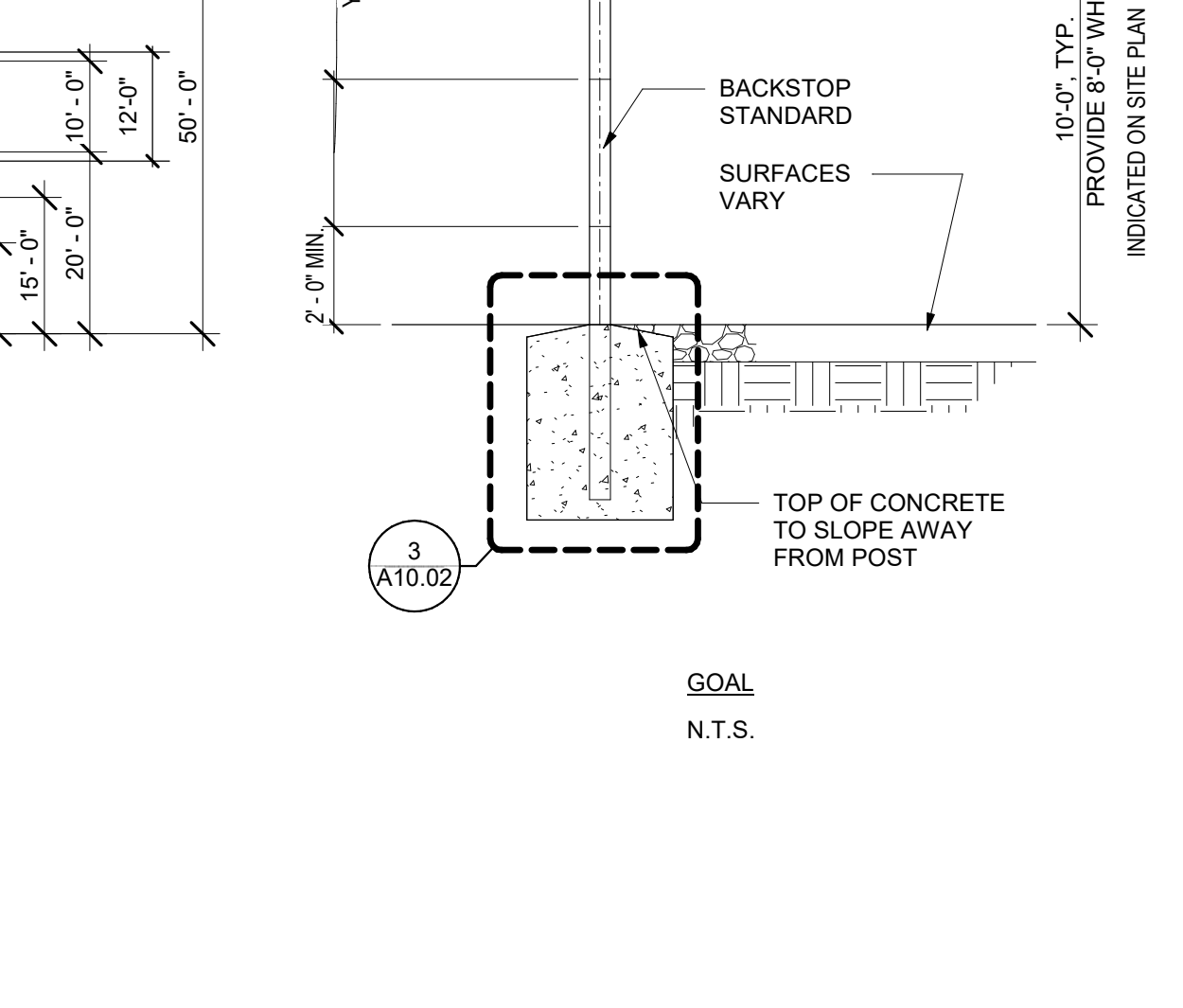
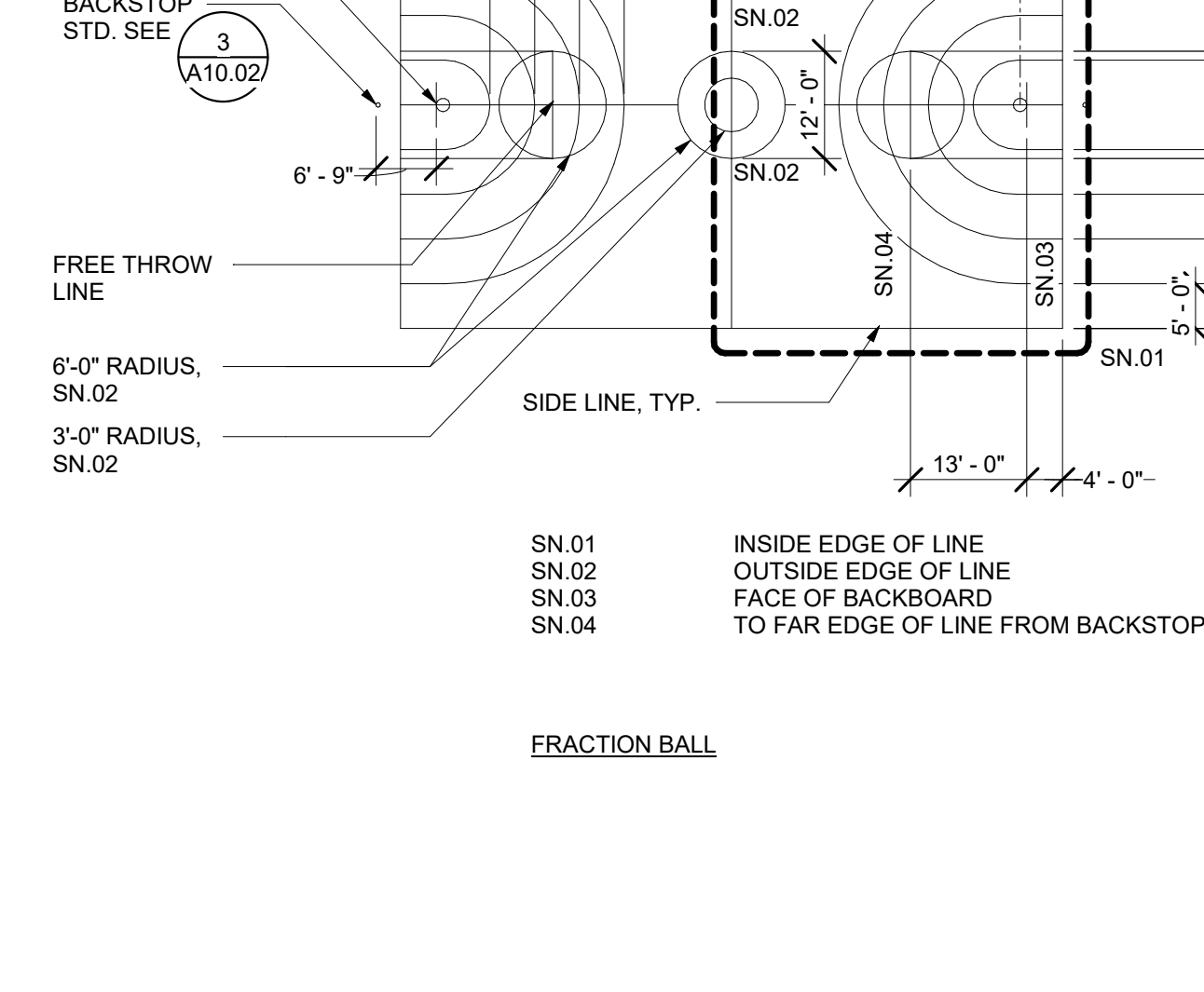
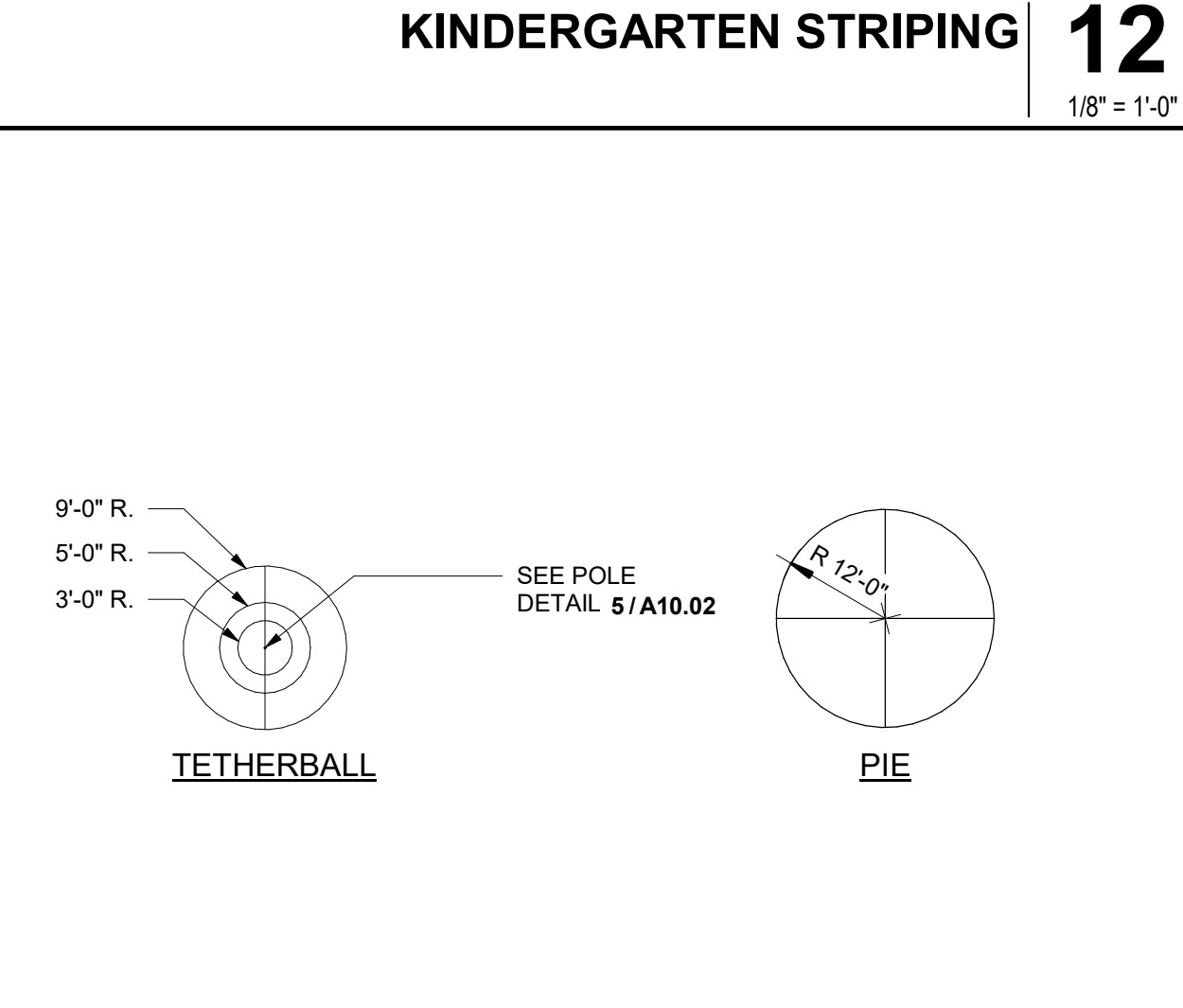
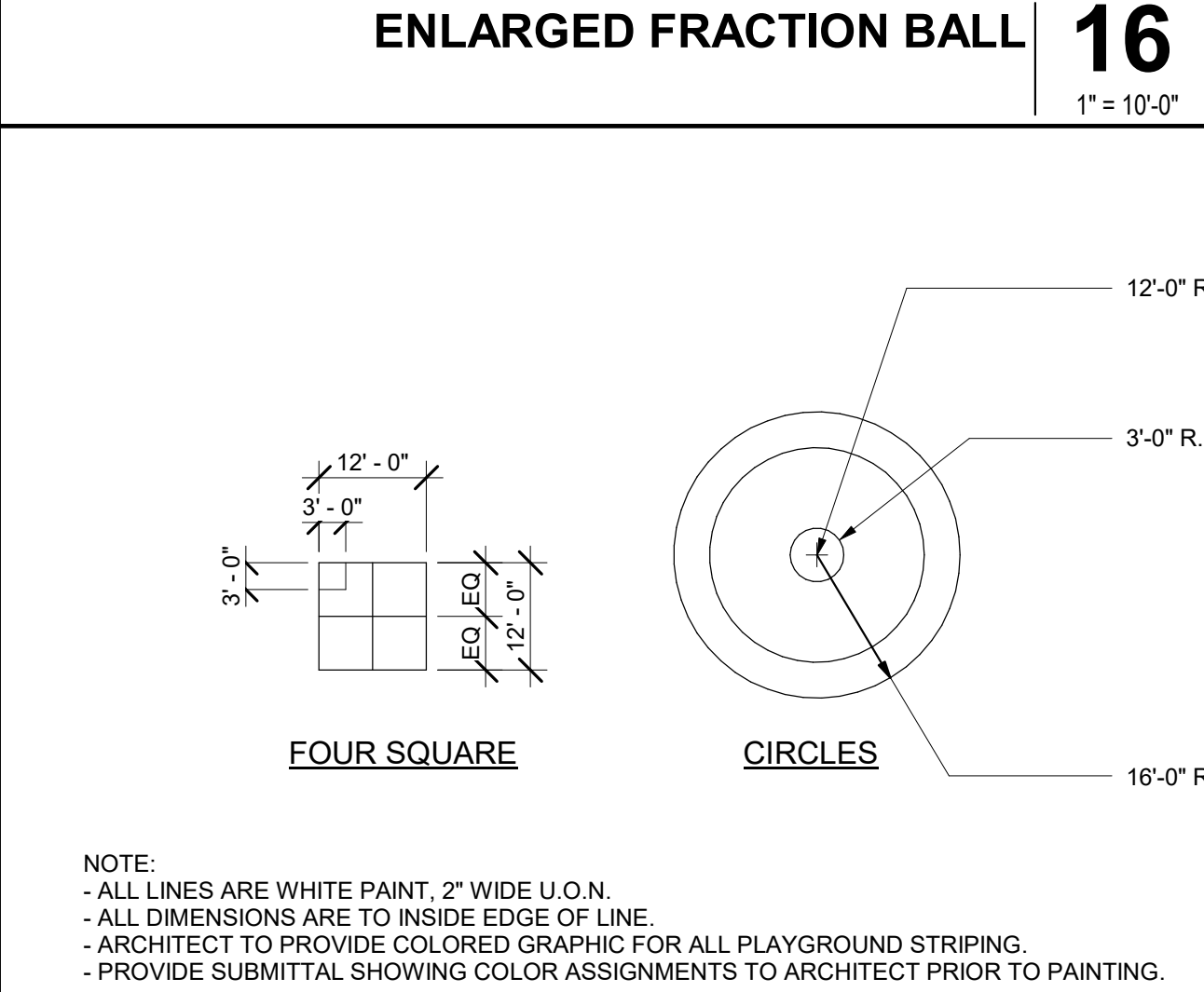
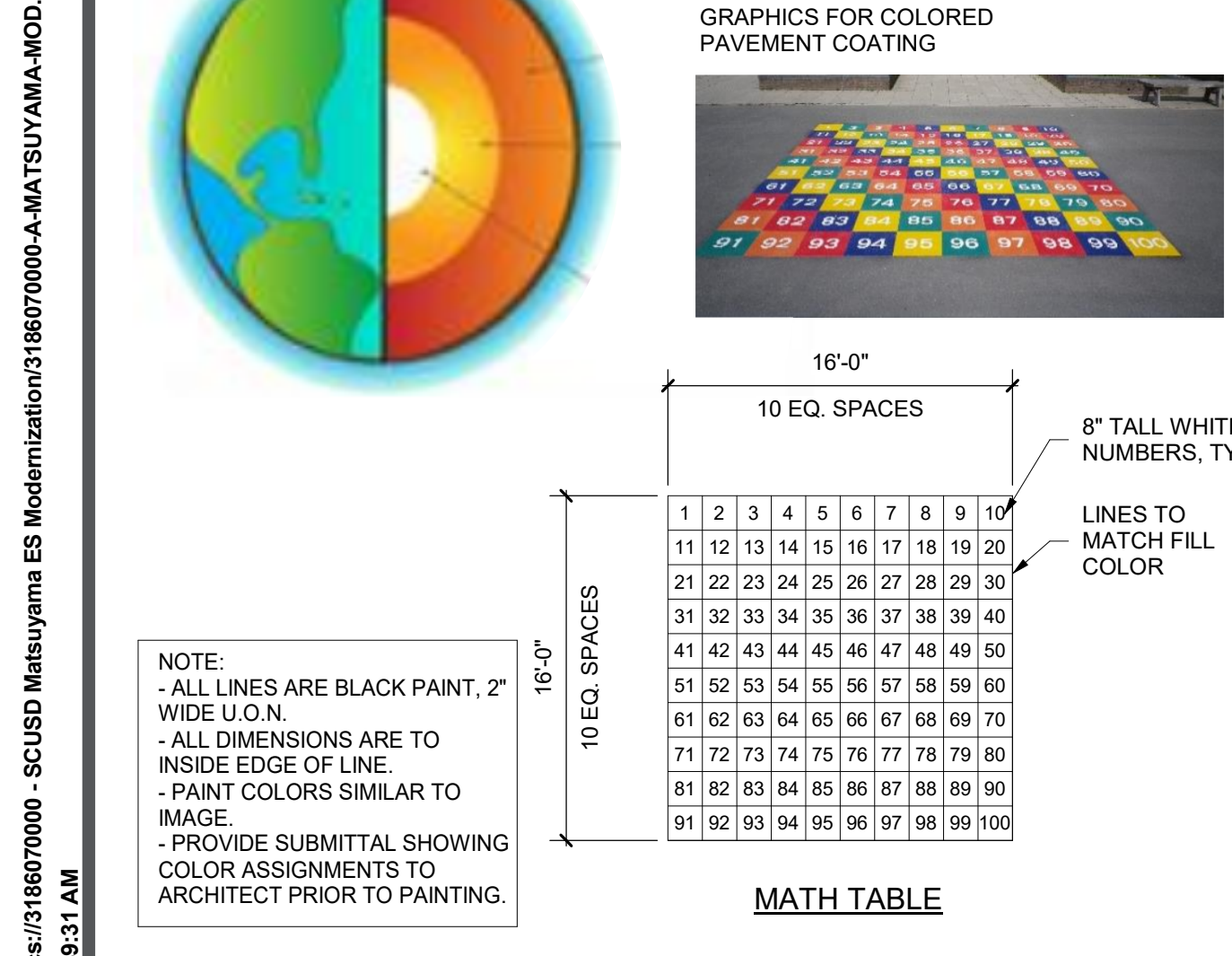
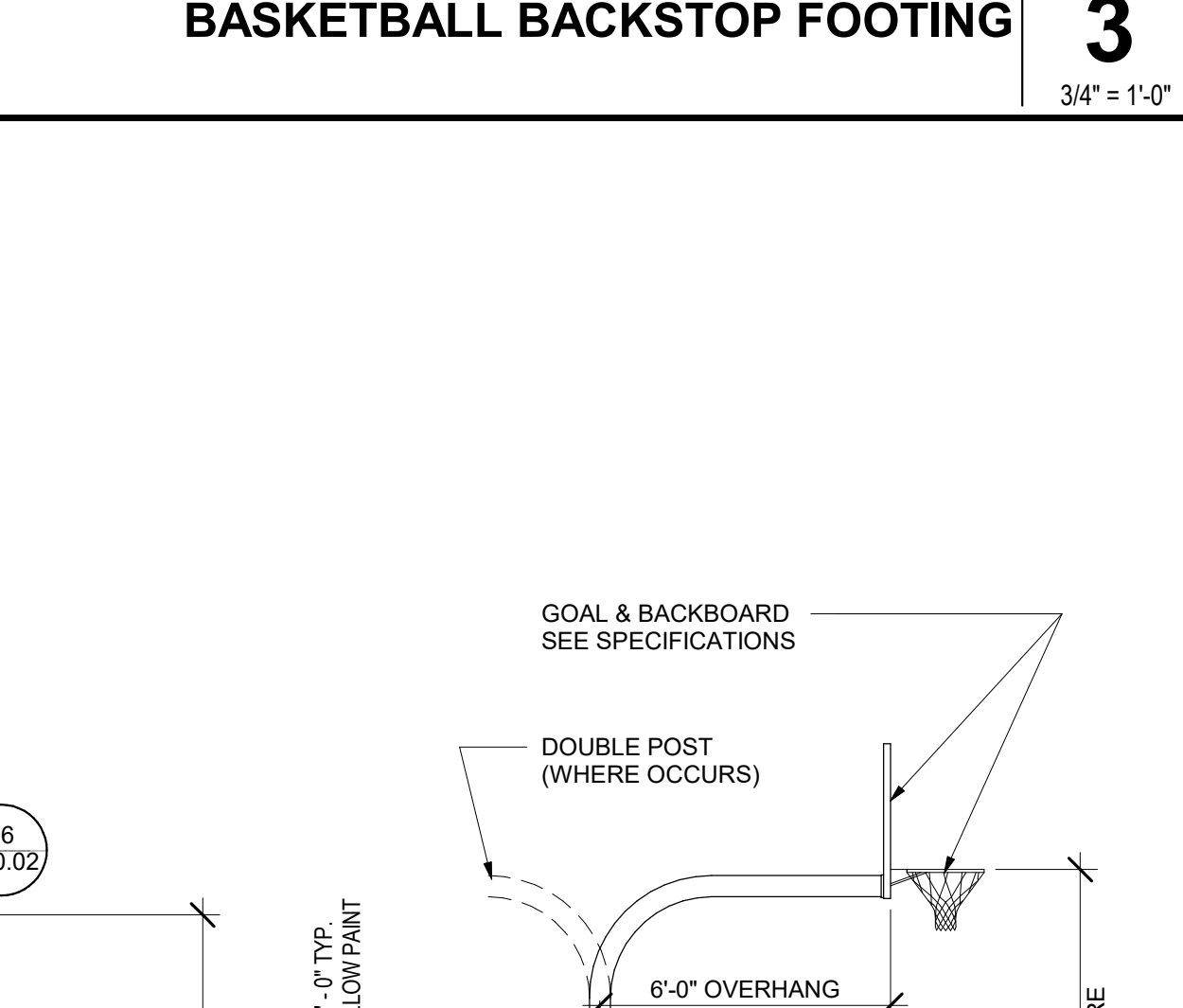
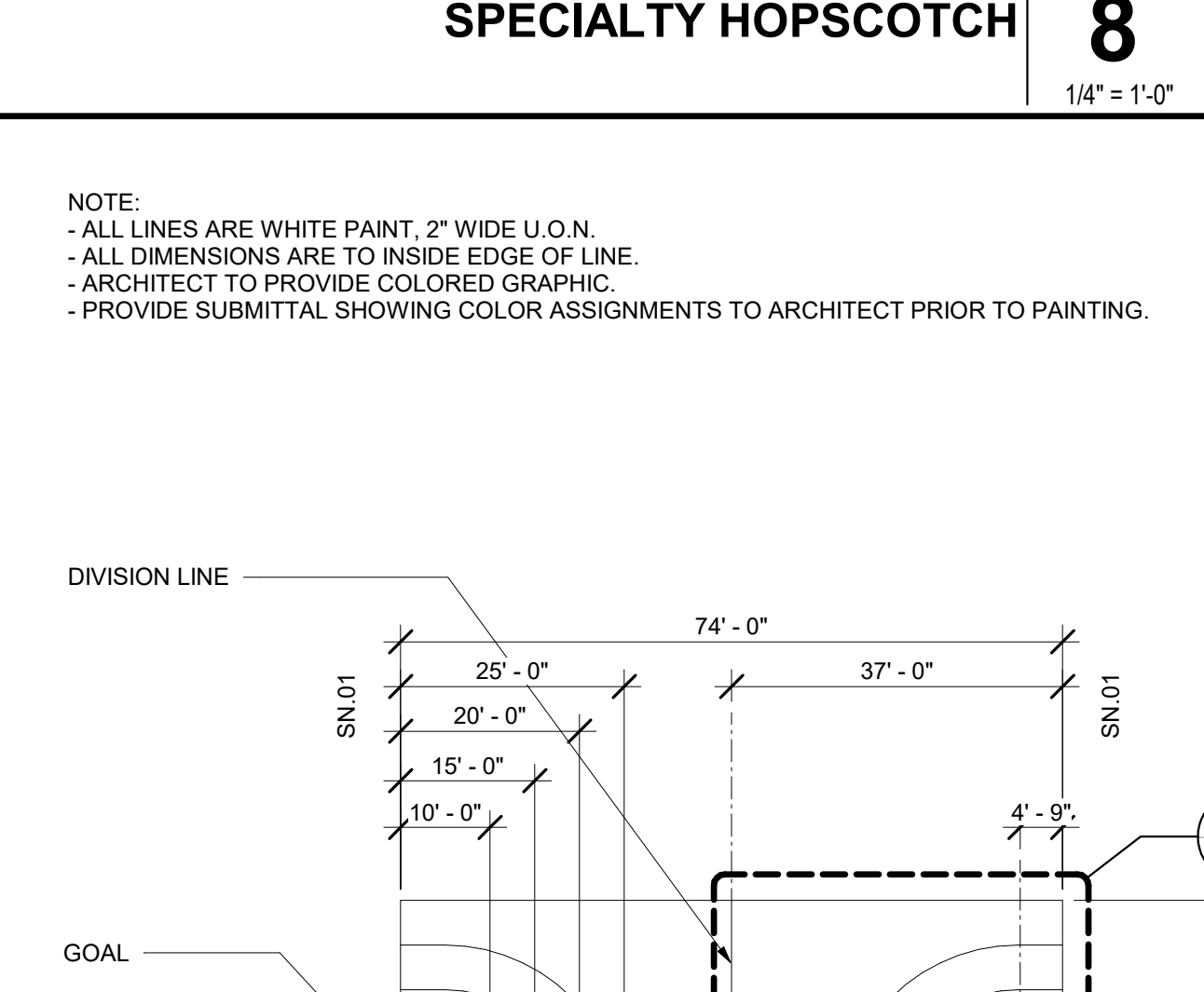
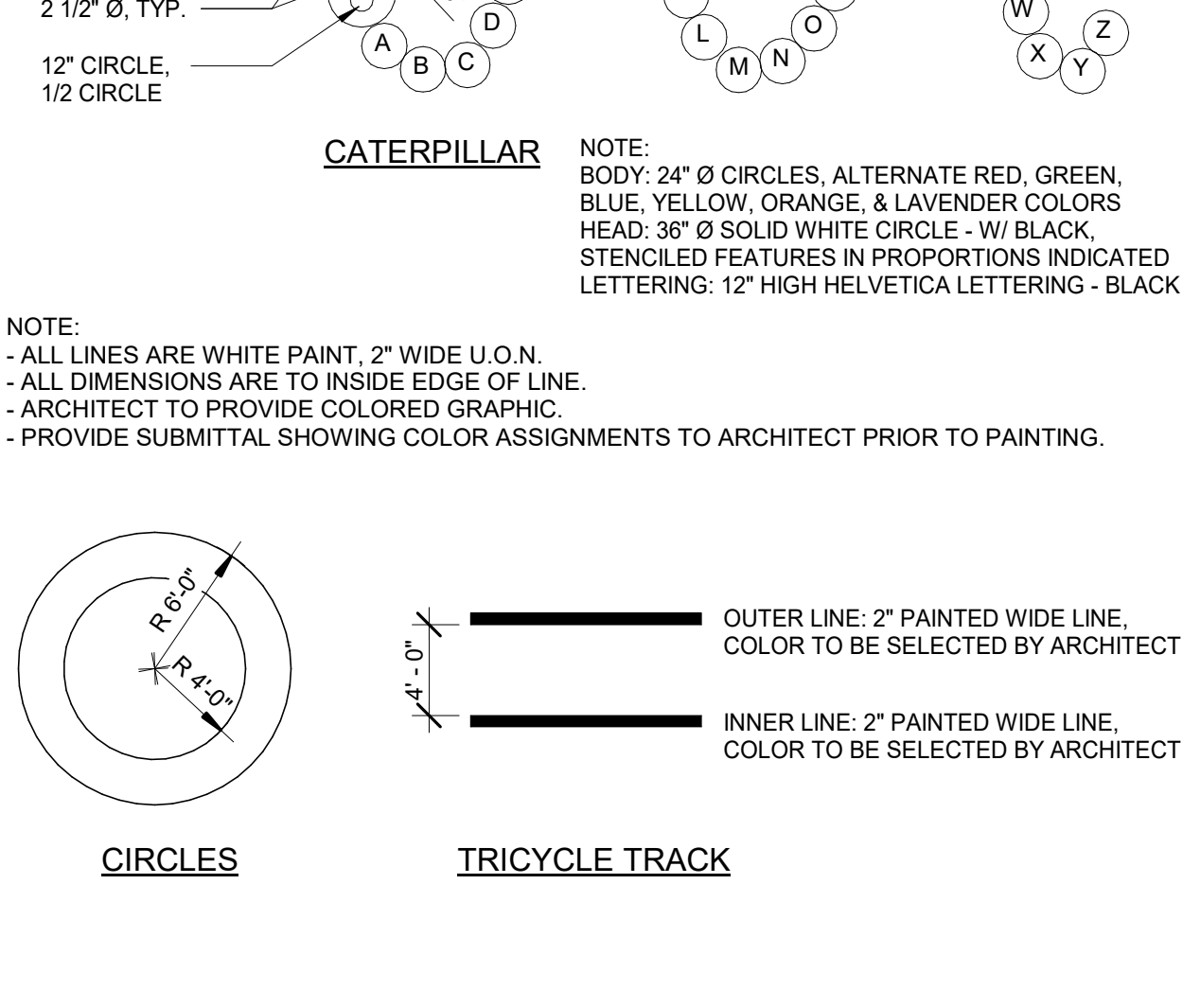
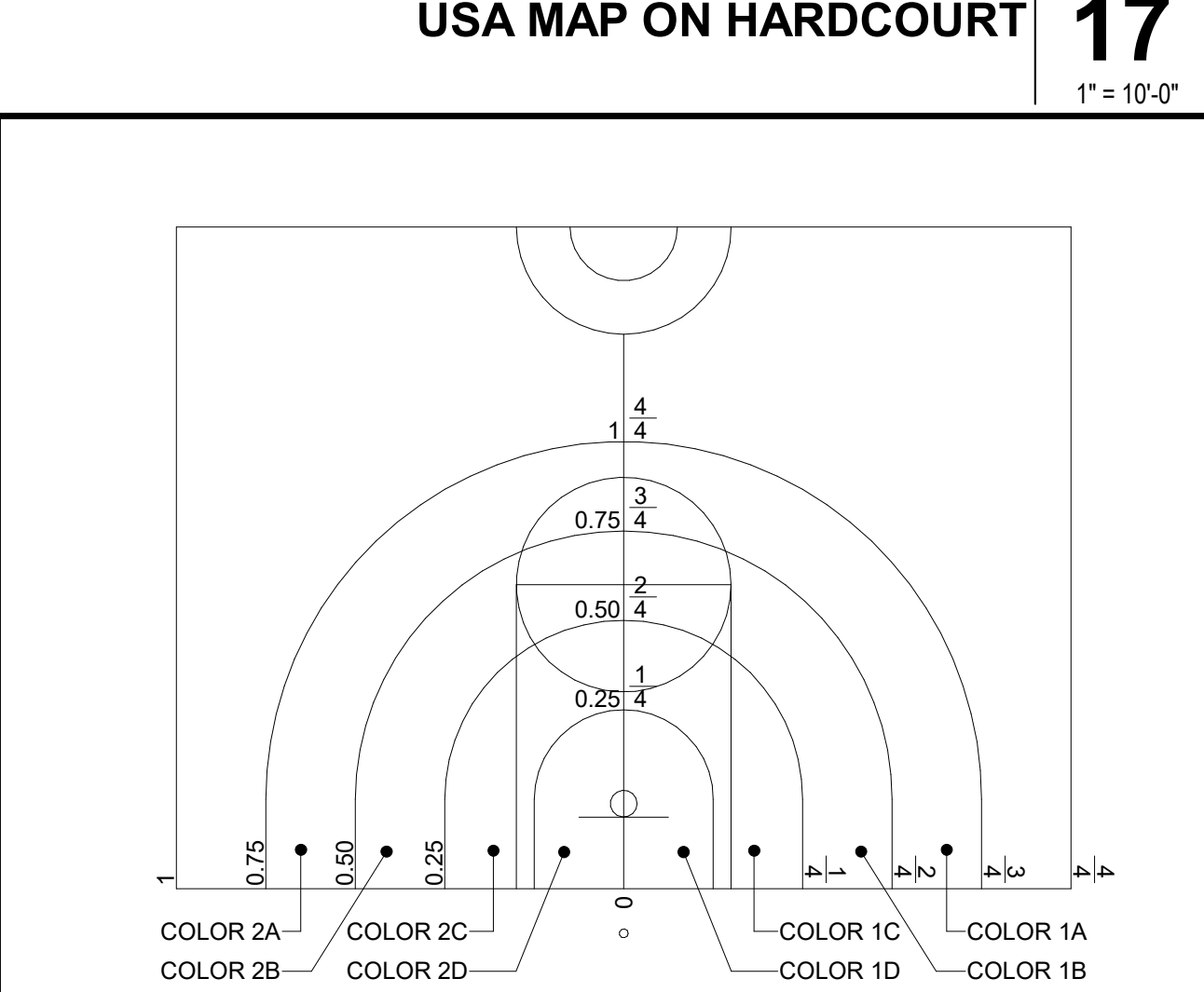
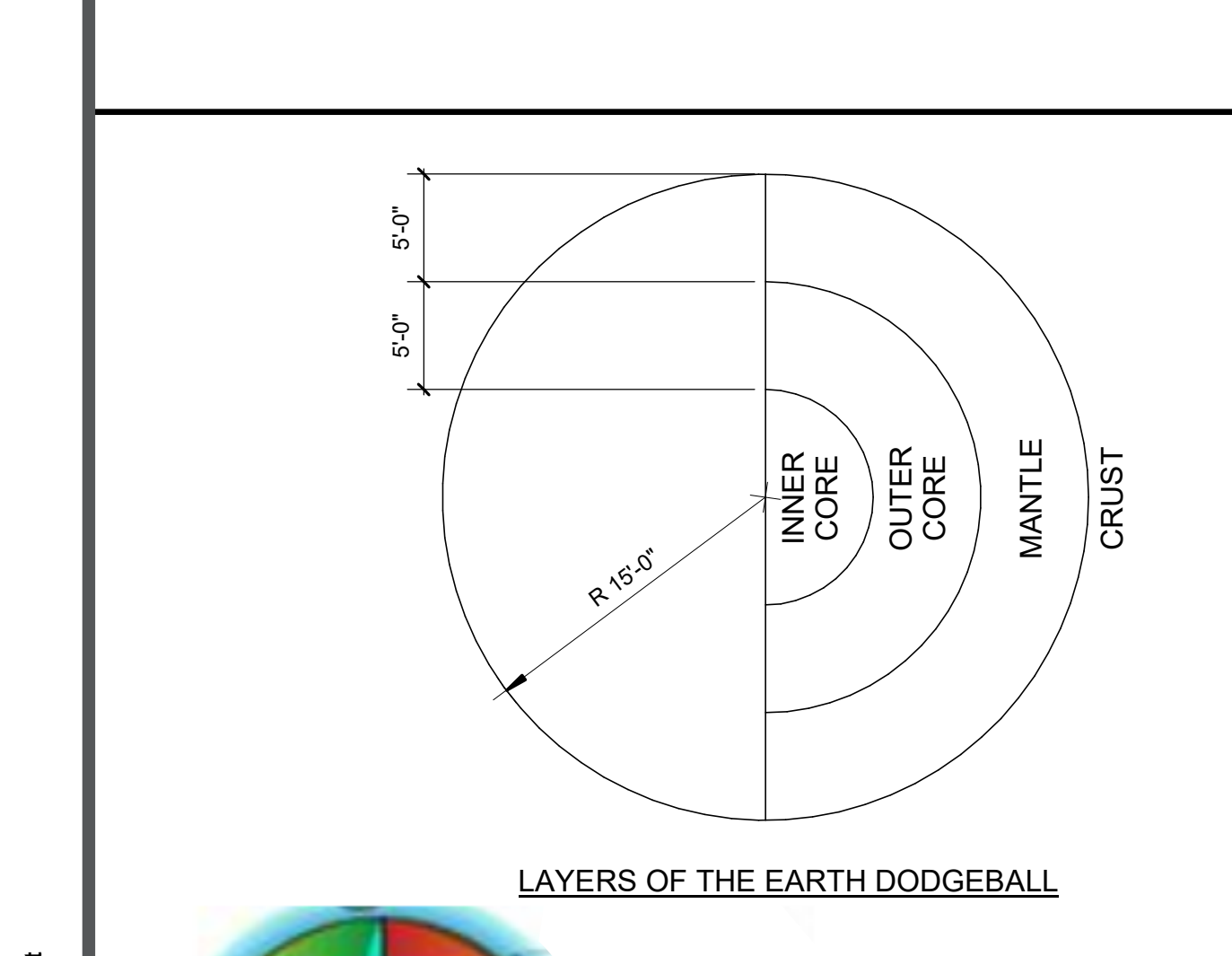
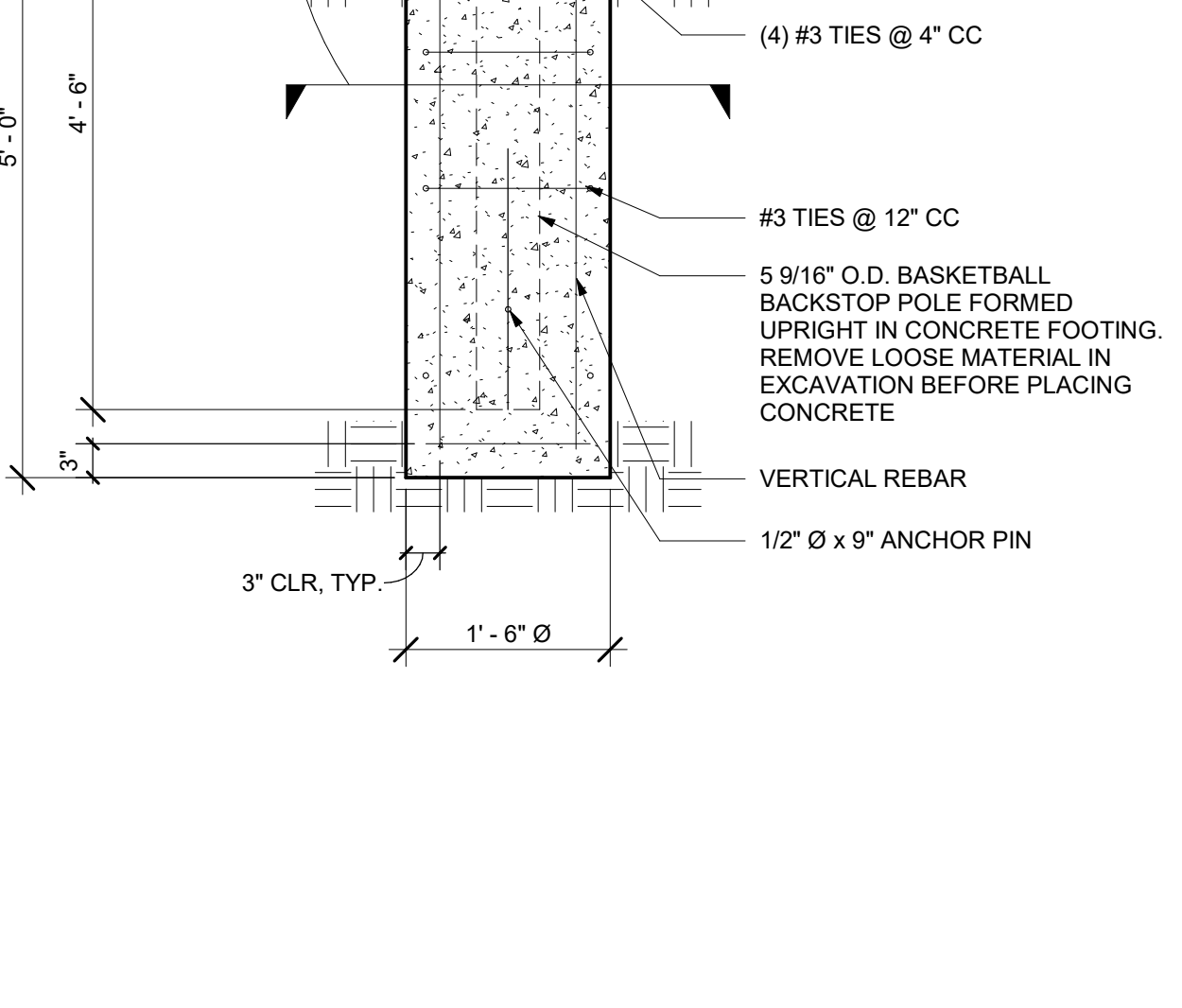
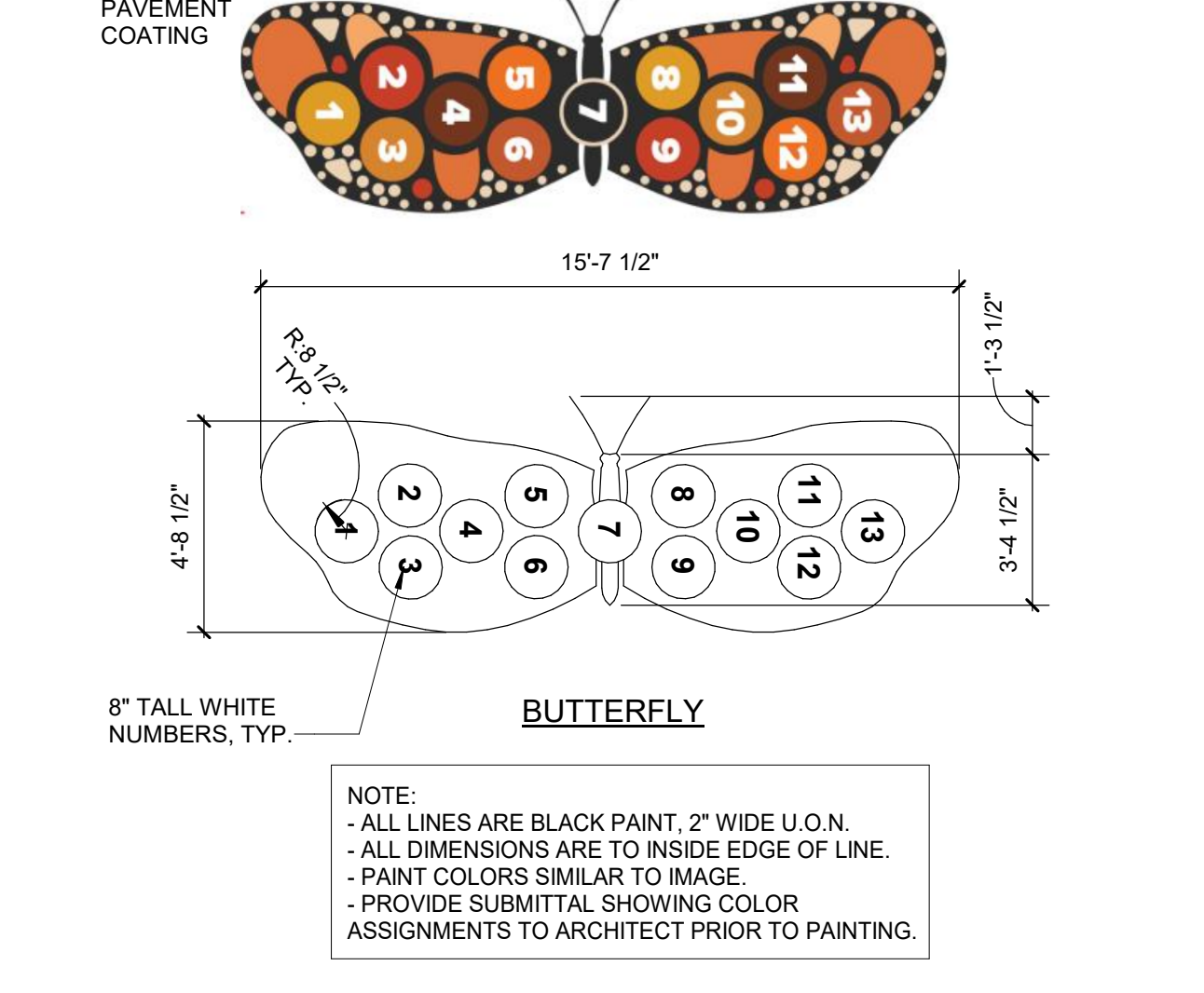
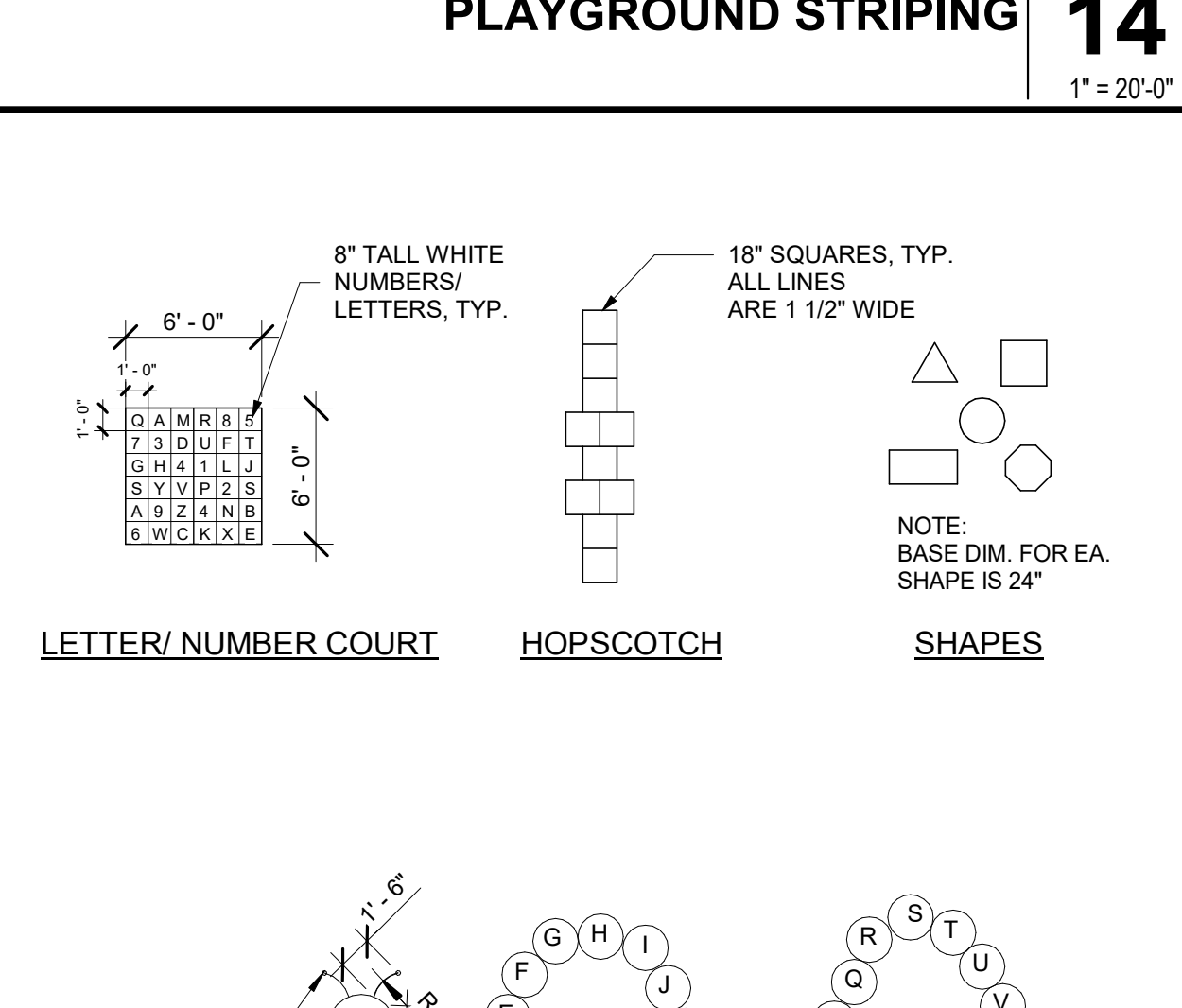
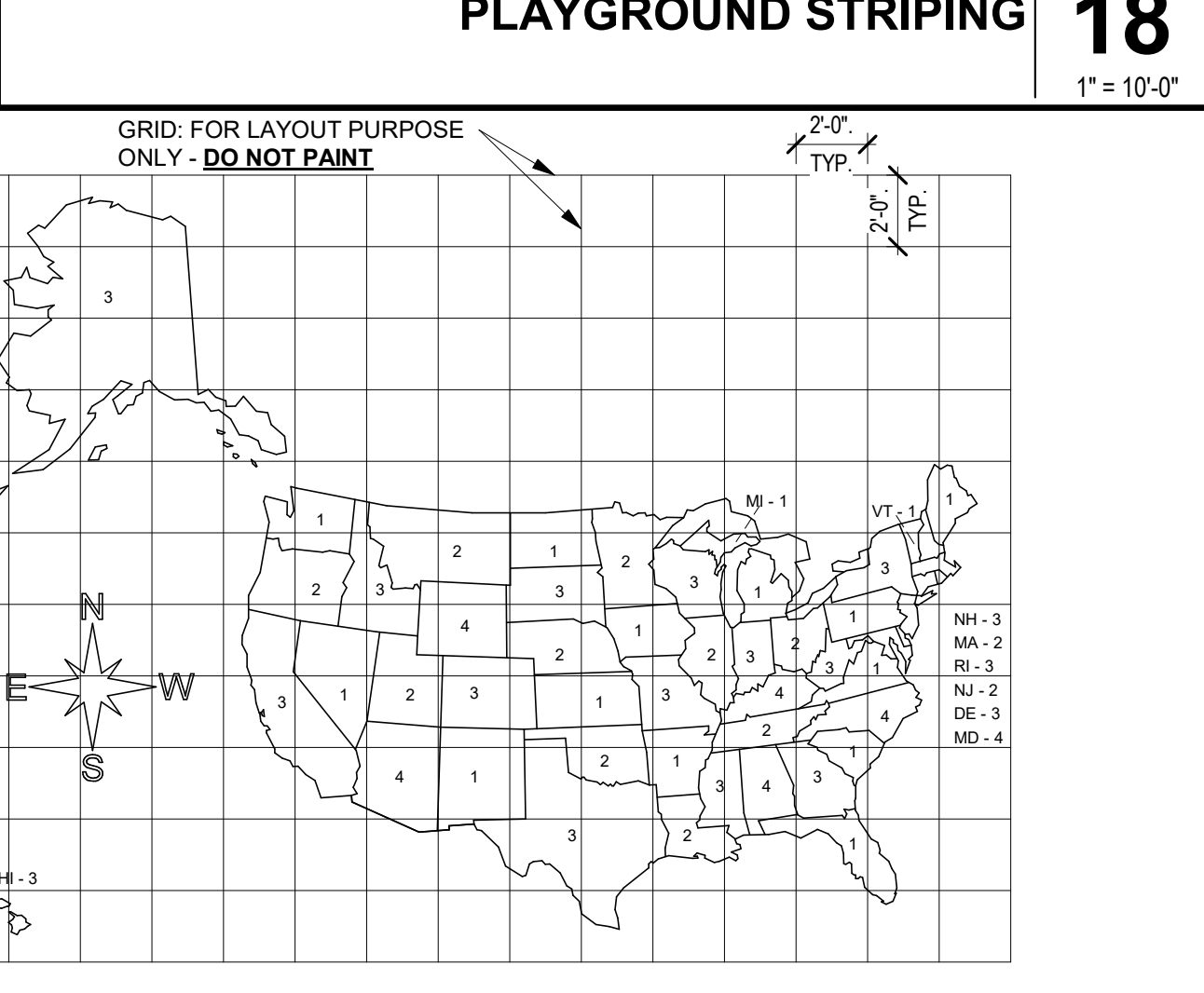
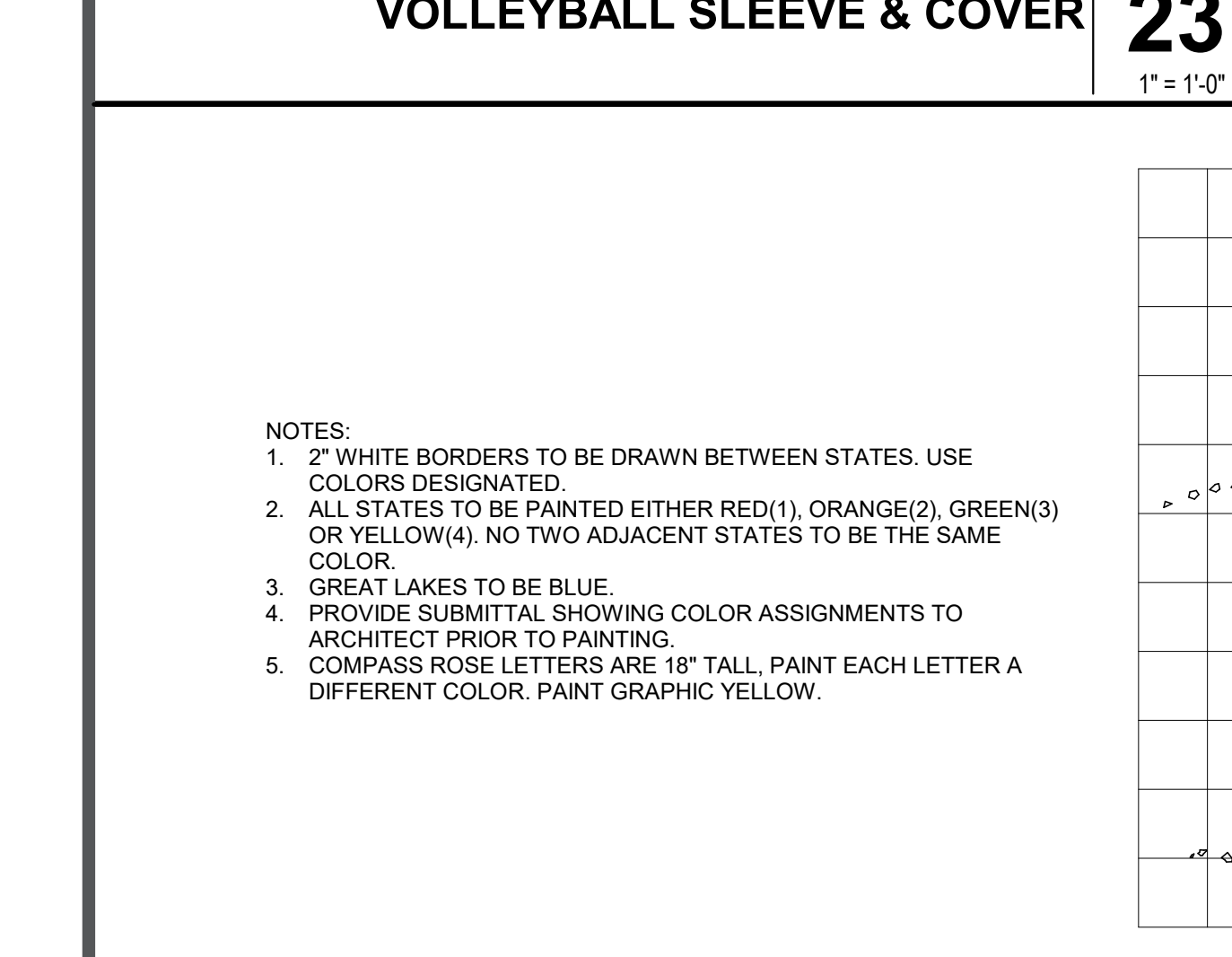
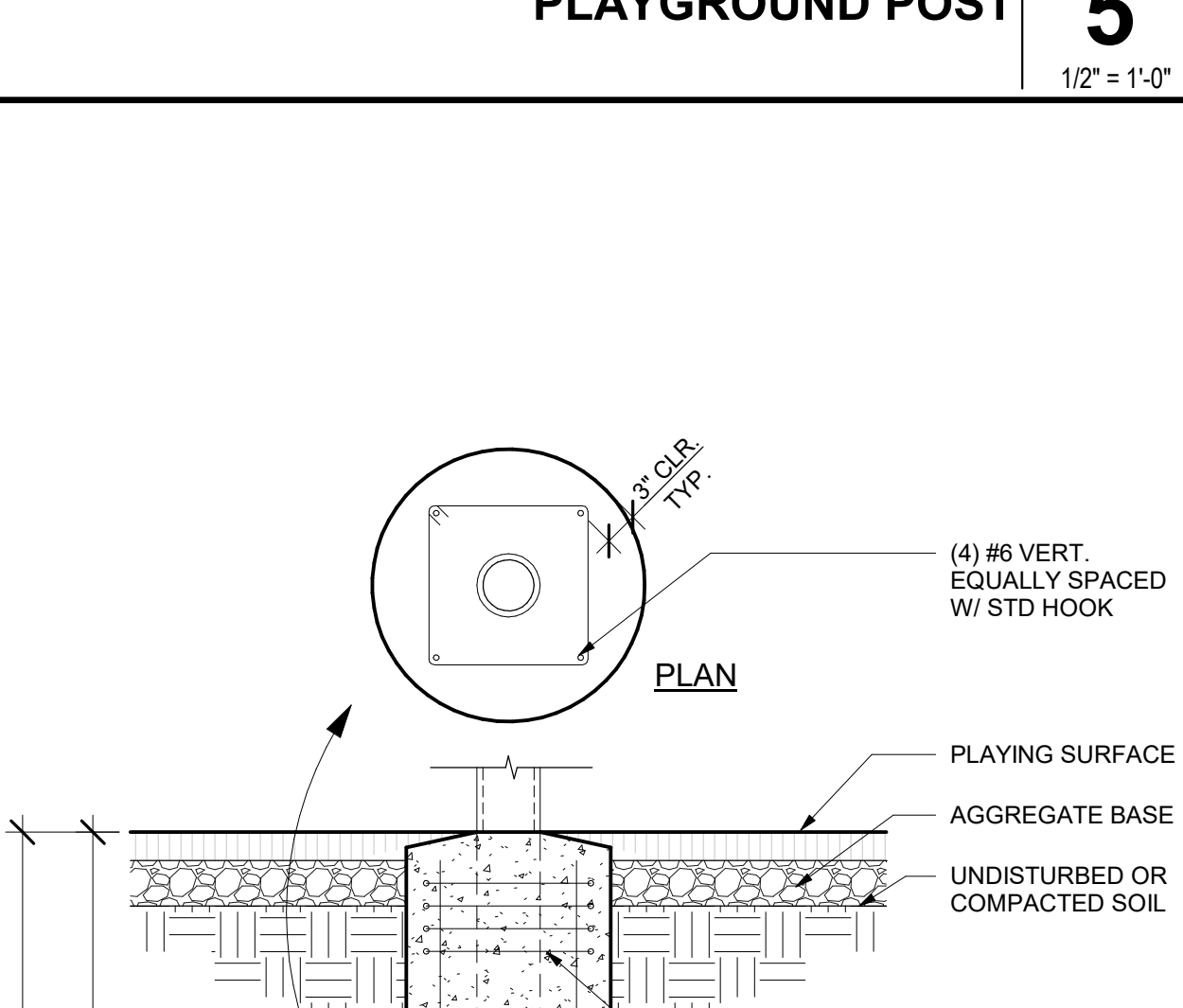
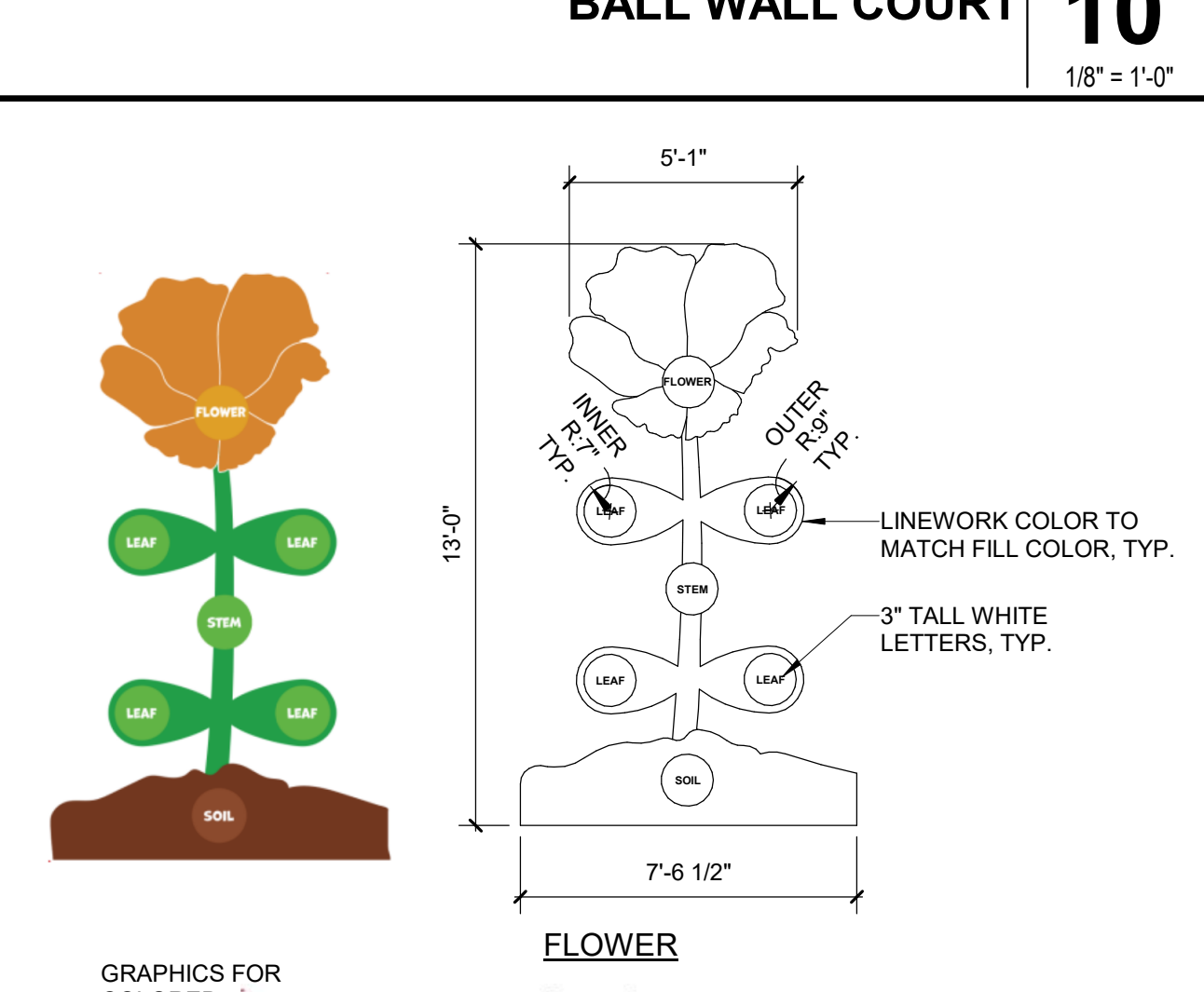
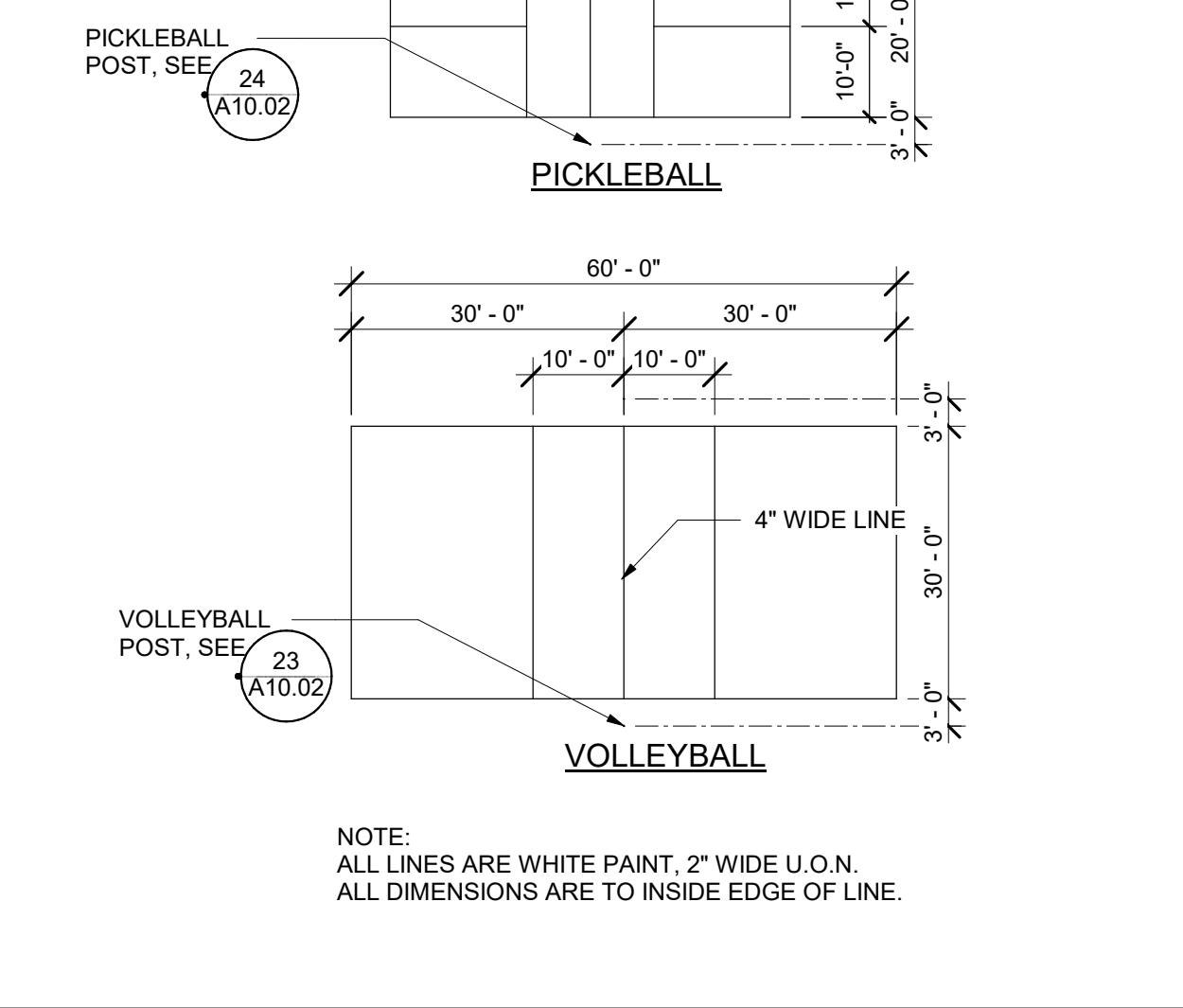
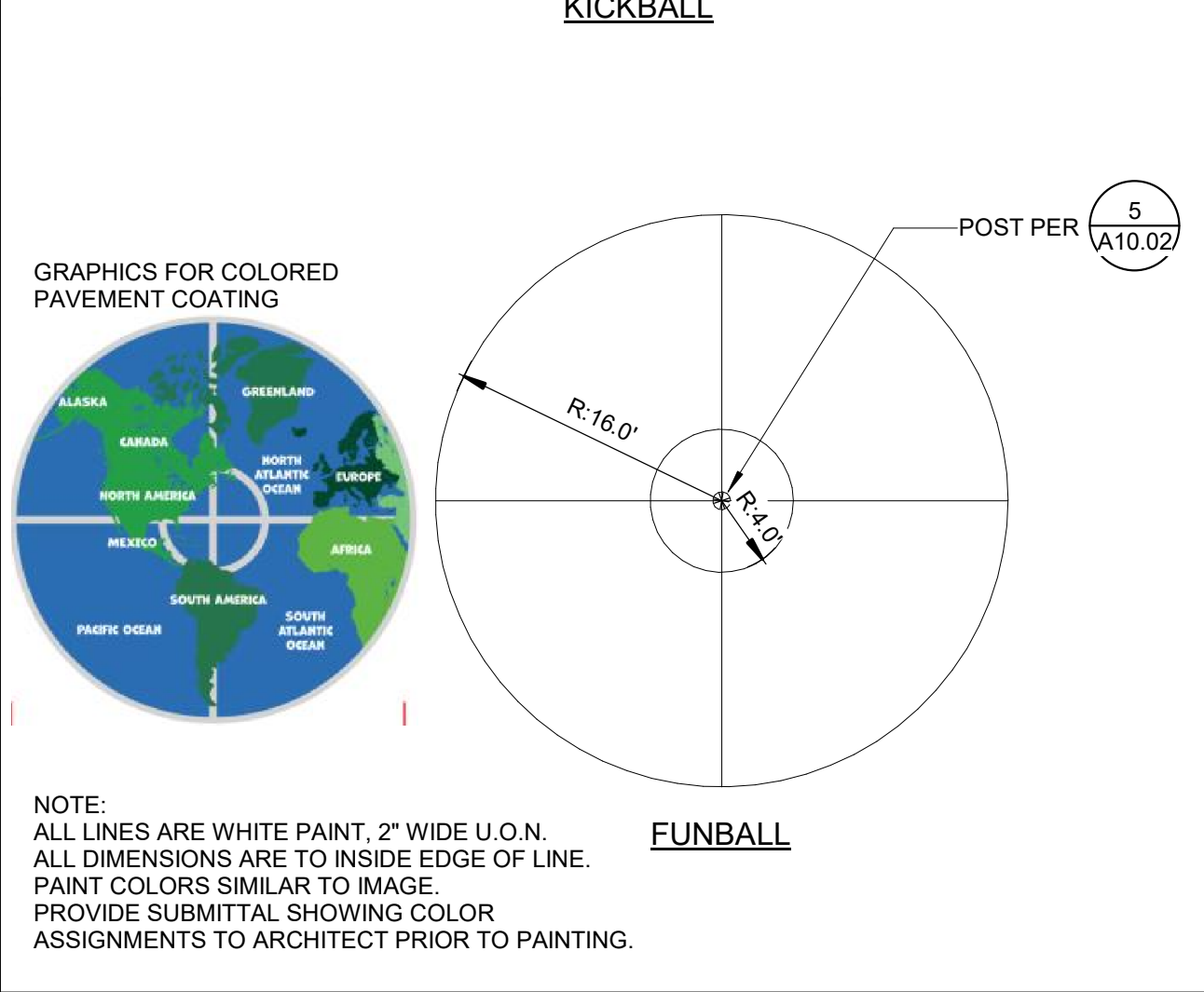
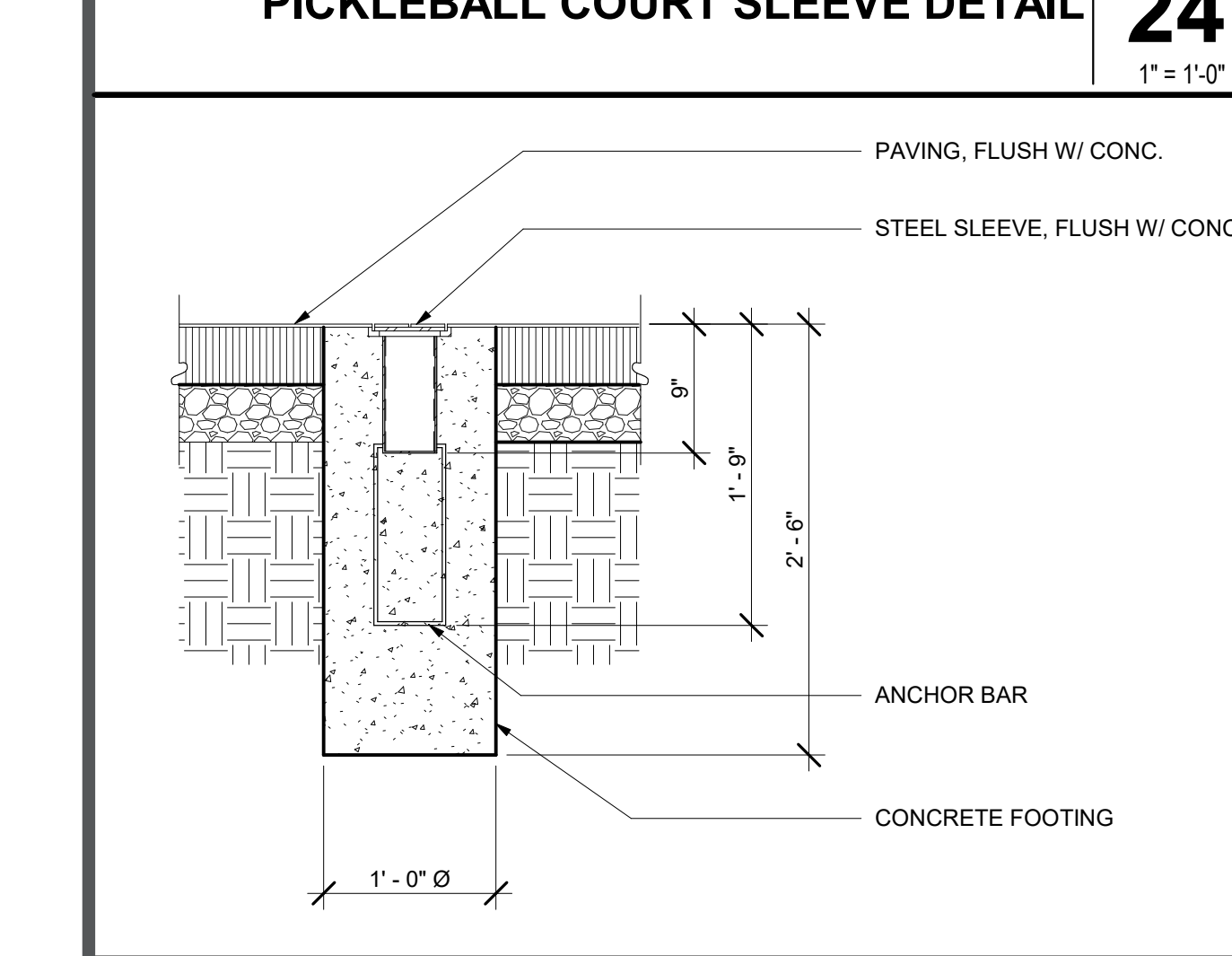
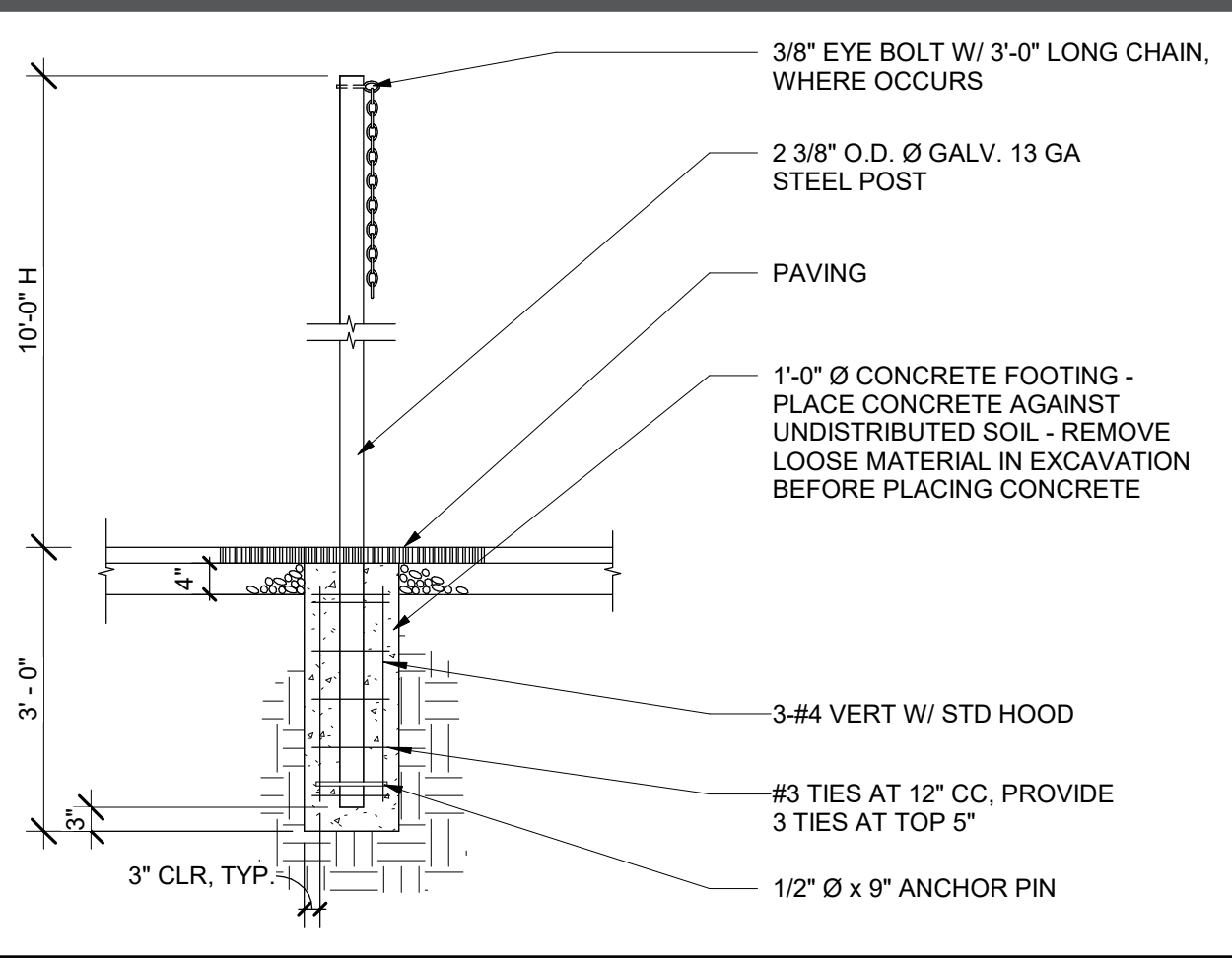
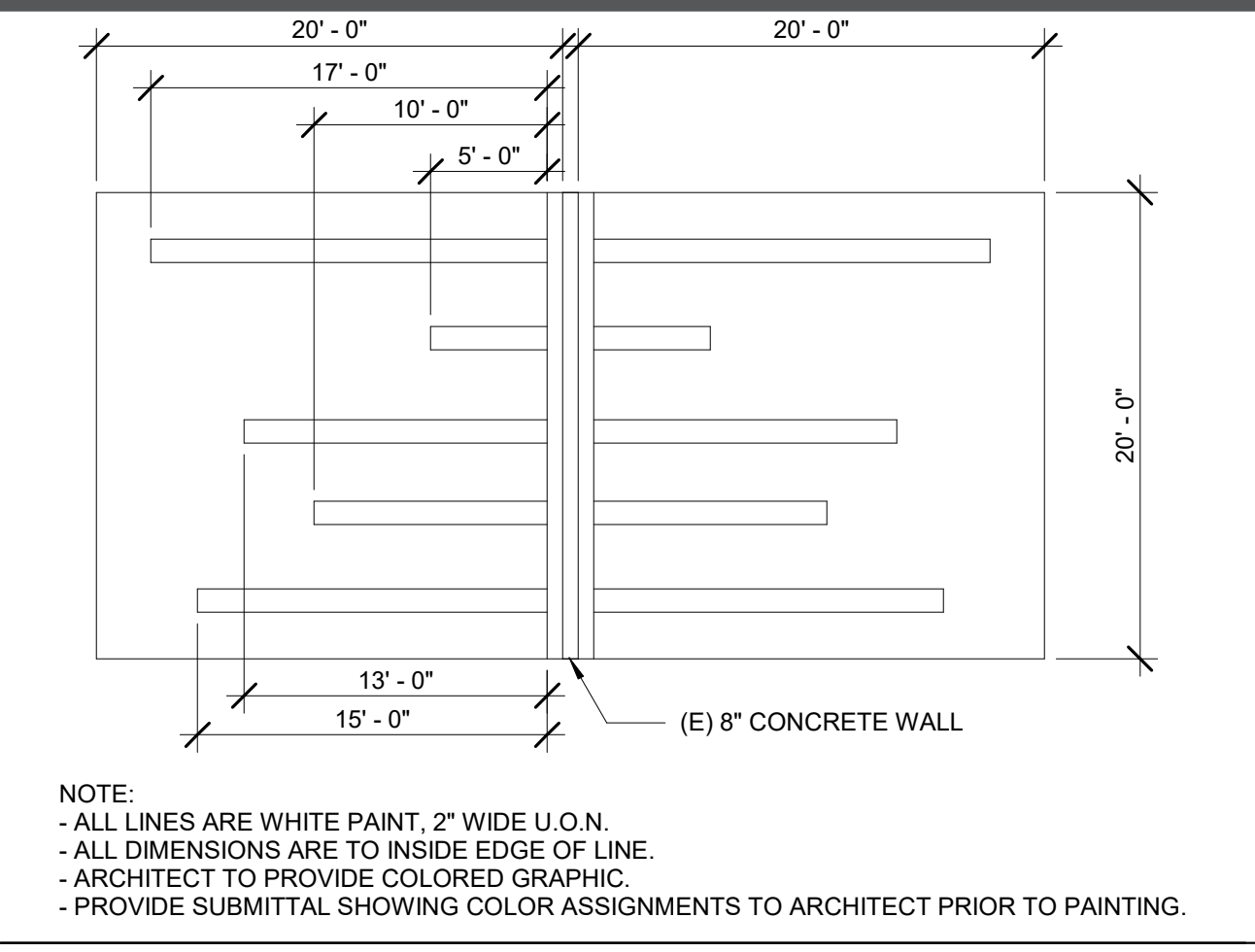
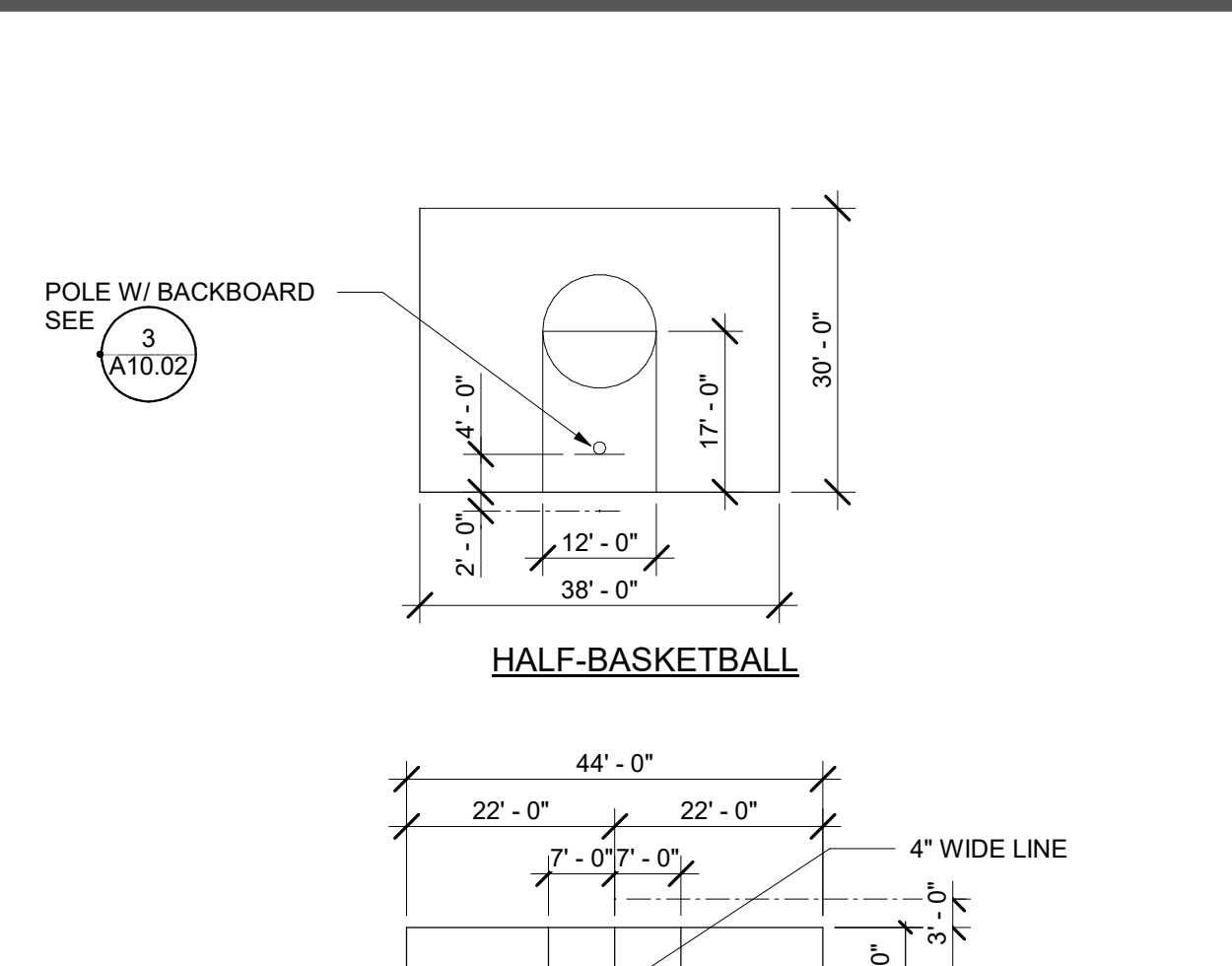
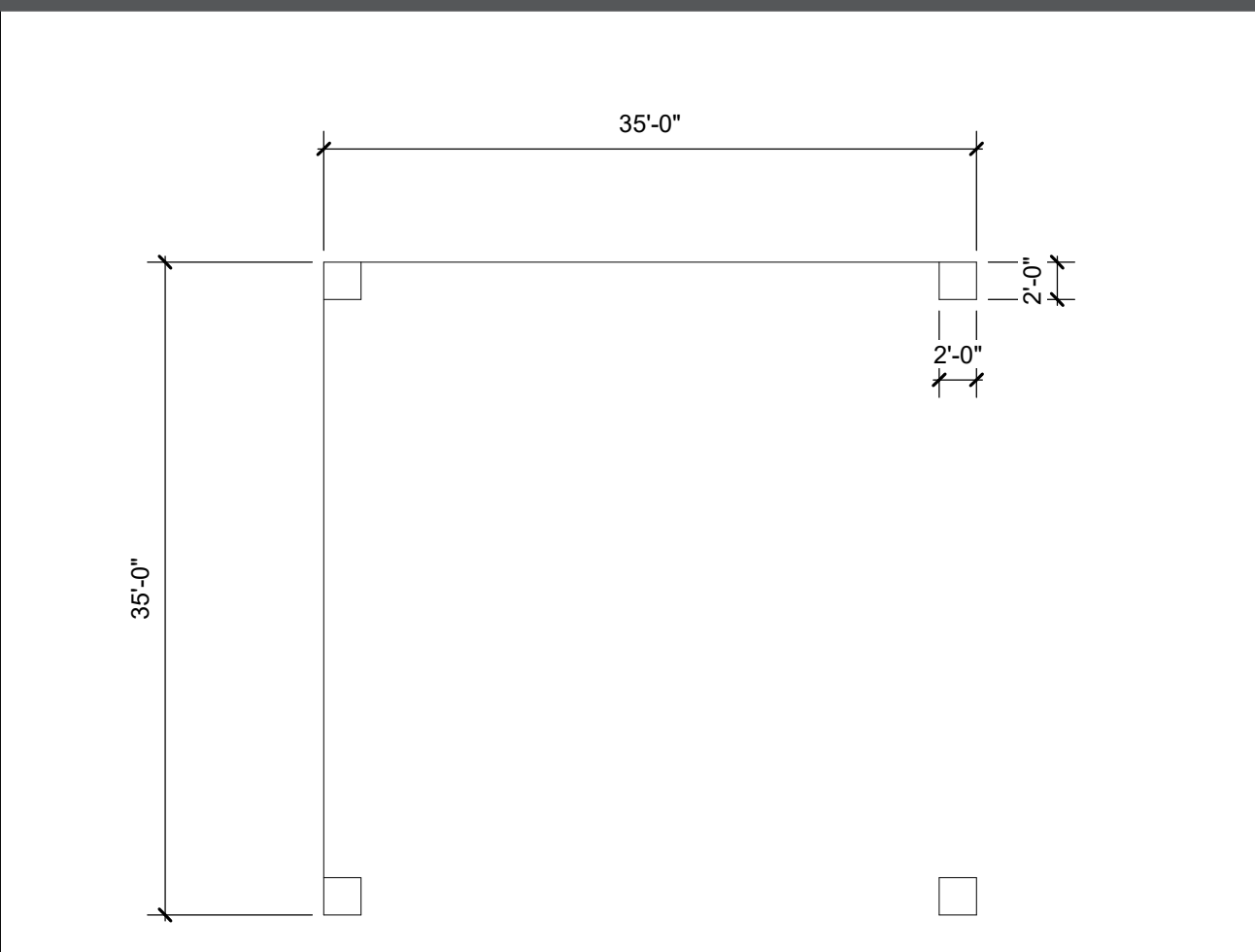
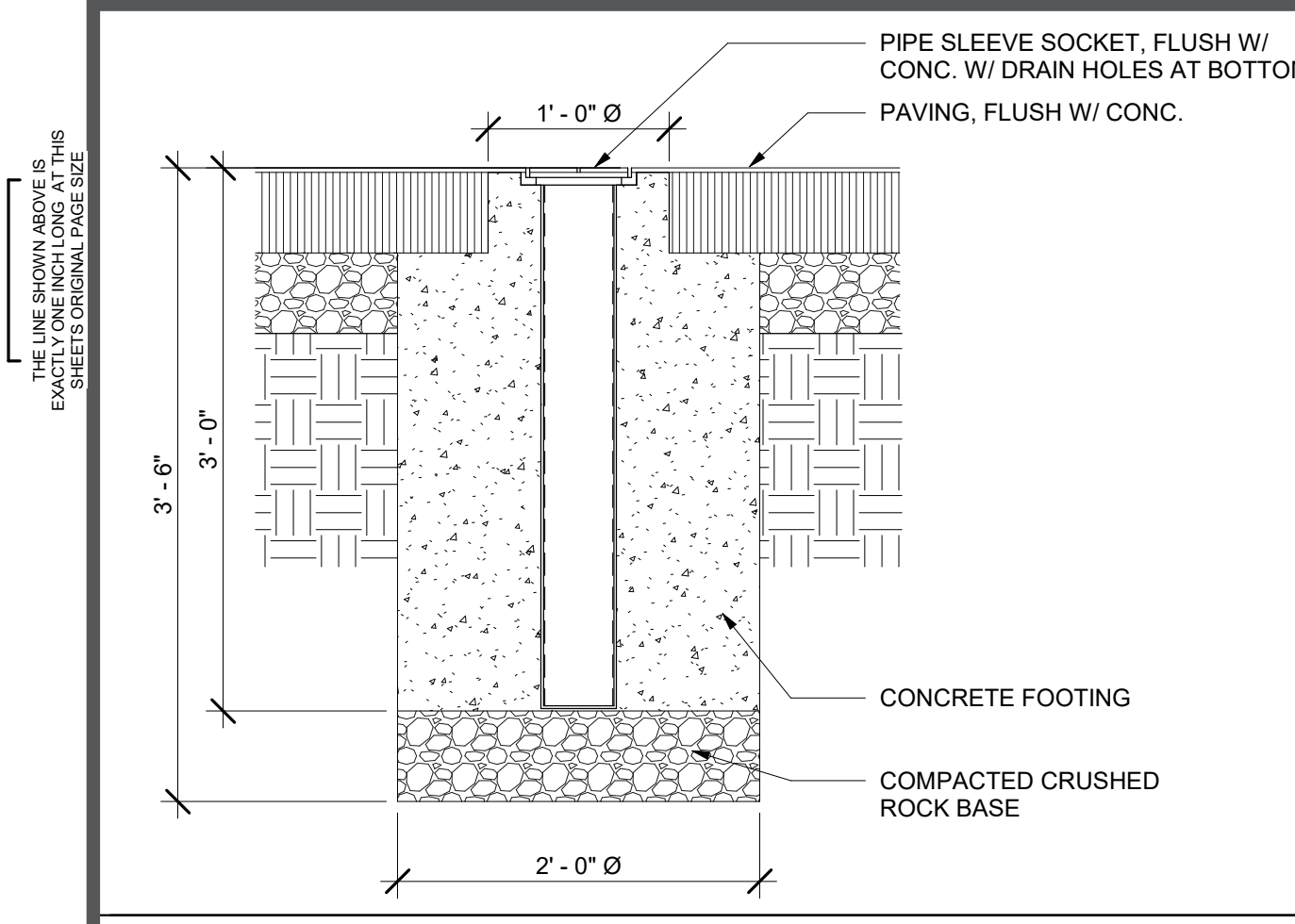
SHEET NAME:
FINISH SCHEDULE

DSA SUBMITTAL

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000

SHEET:

A9.12



AGENCY APPROVAL:

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SACRAMENTO, CA 95816
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ISSUE

DESCRIPTION	DATE

ISSUE

DESCRIPTION	DATE

Autodesk Docs:0318670000 - SCUSD Matsuyama ES Modernization0318670000-A-MATSUYAMA-MOD-04
2/13/2024 10:39:51 AM

FACILITY:
MATSUYAMA ELEMENTARY SCHOOL
7680 WINDBRIDGE DRIVE
SACRAMENTO, CA 95831

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
SITE DETAILS - MISC

DSA SUBMITTAL

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000

SHEET:

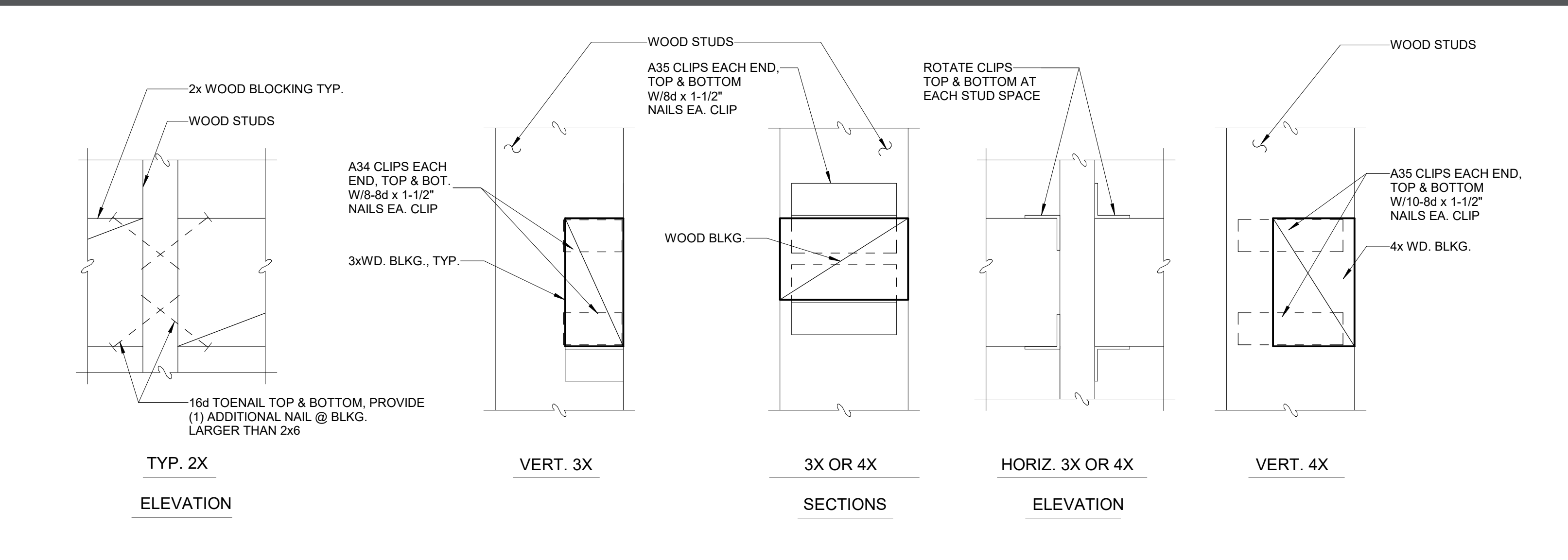
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AutoDesk Docs\031807000 - SCUSD Matsuyama ES Modernization\031807000-A-MATSUYAMA-MOD.rvt
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KITCHEN WALL 10
1 1/2" = 1'-0"



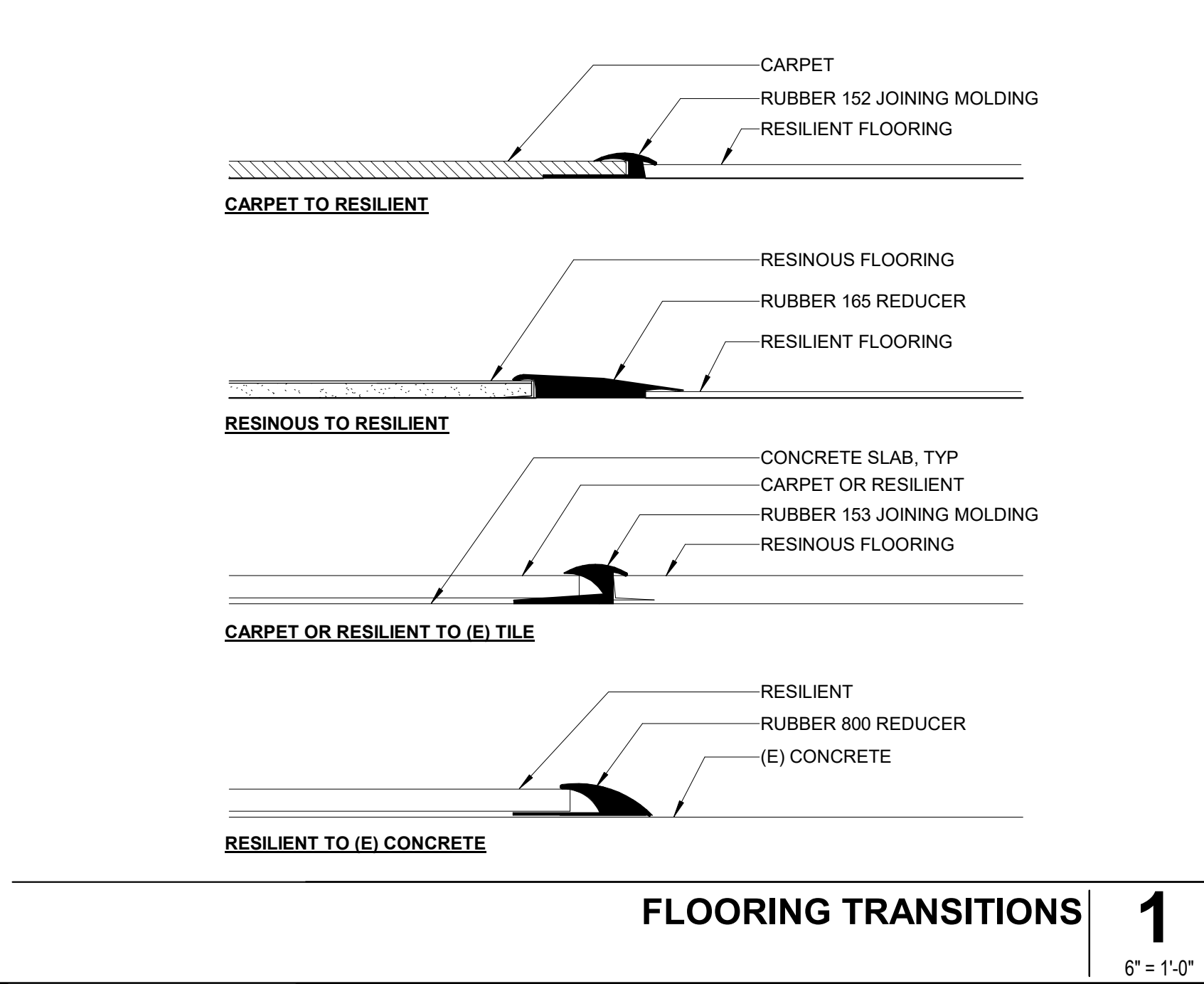
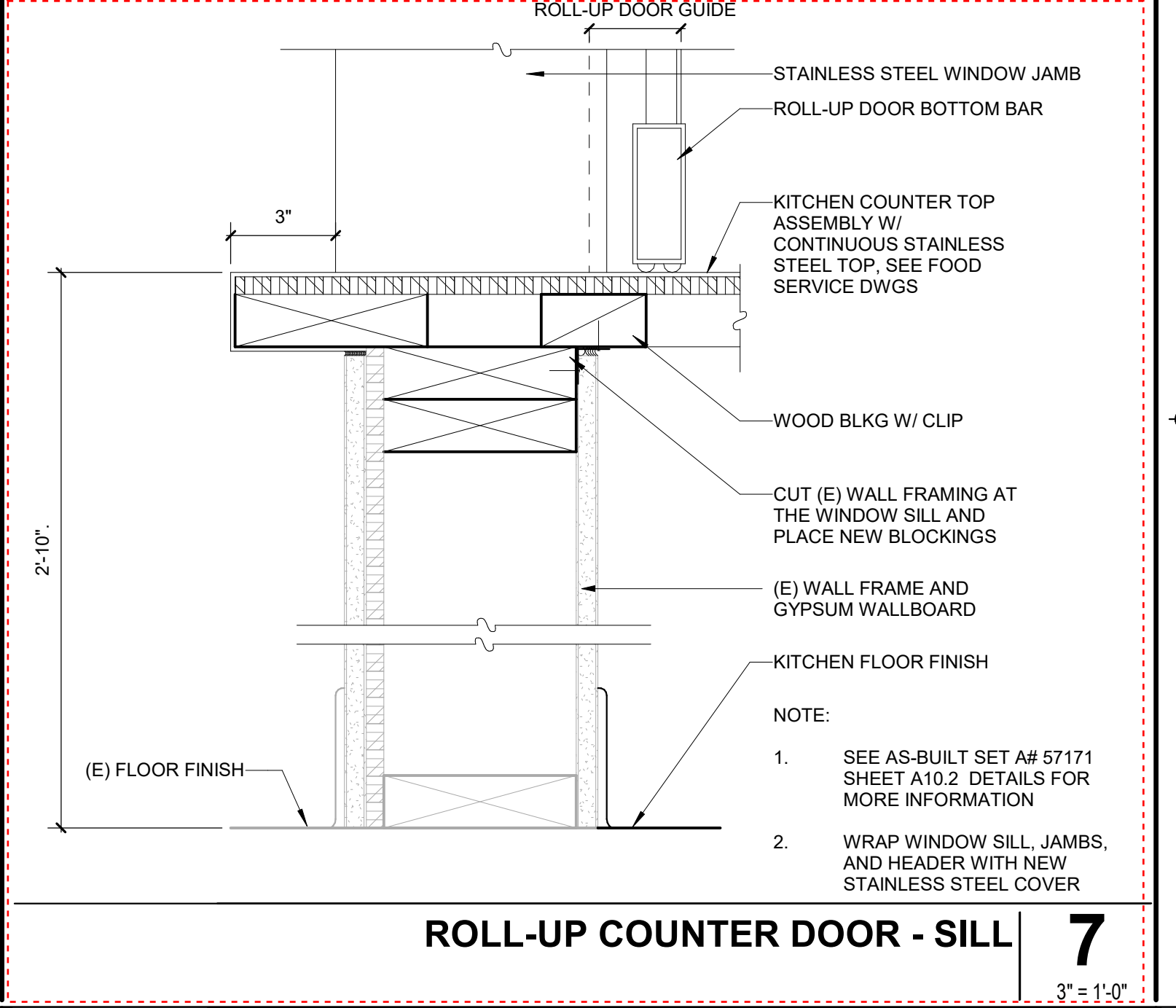
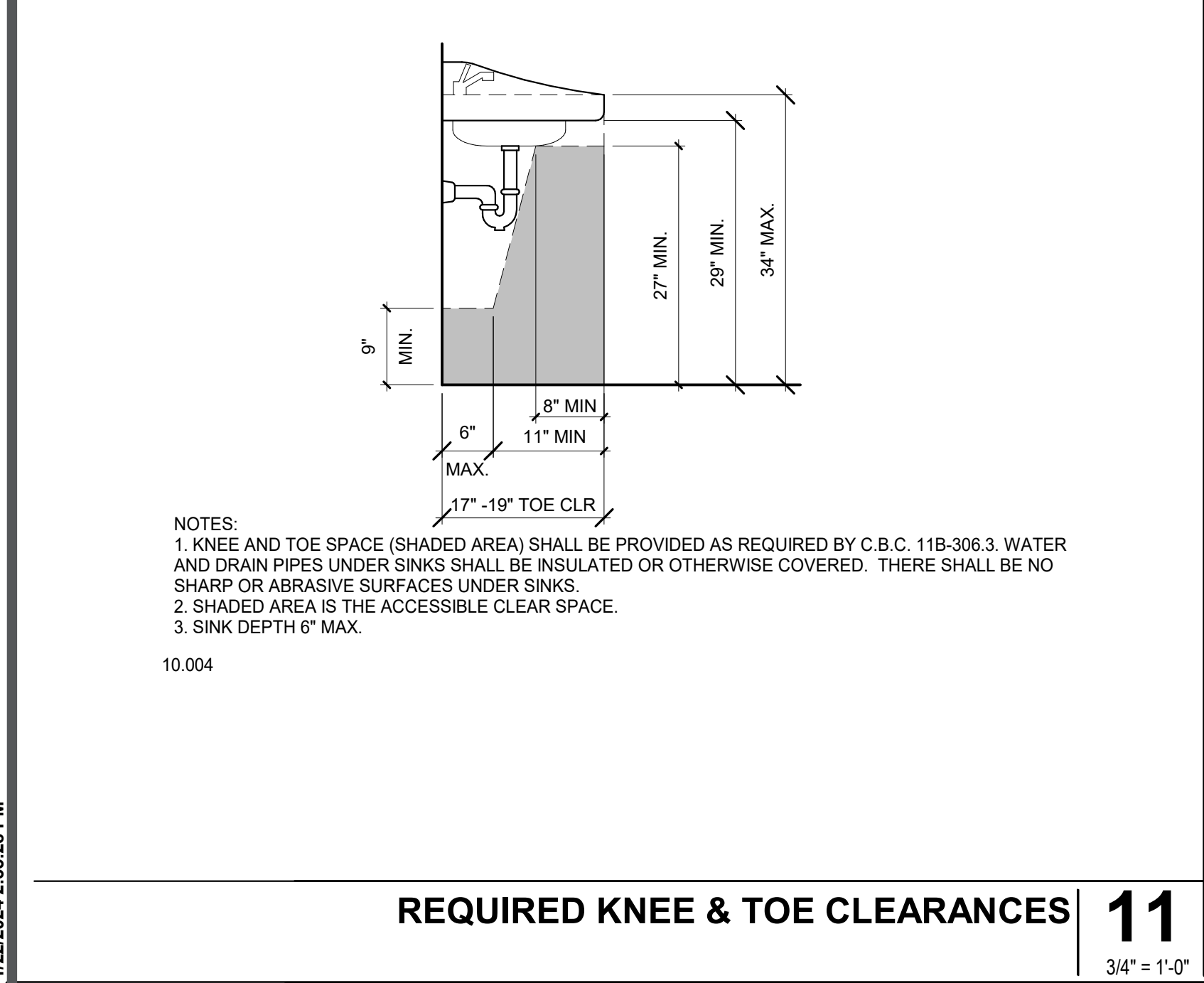
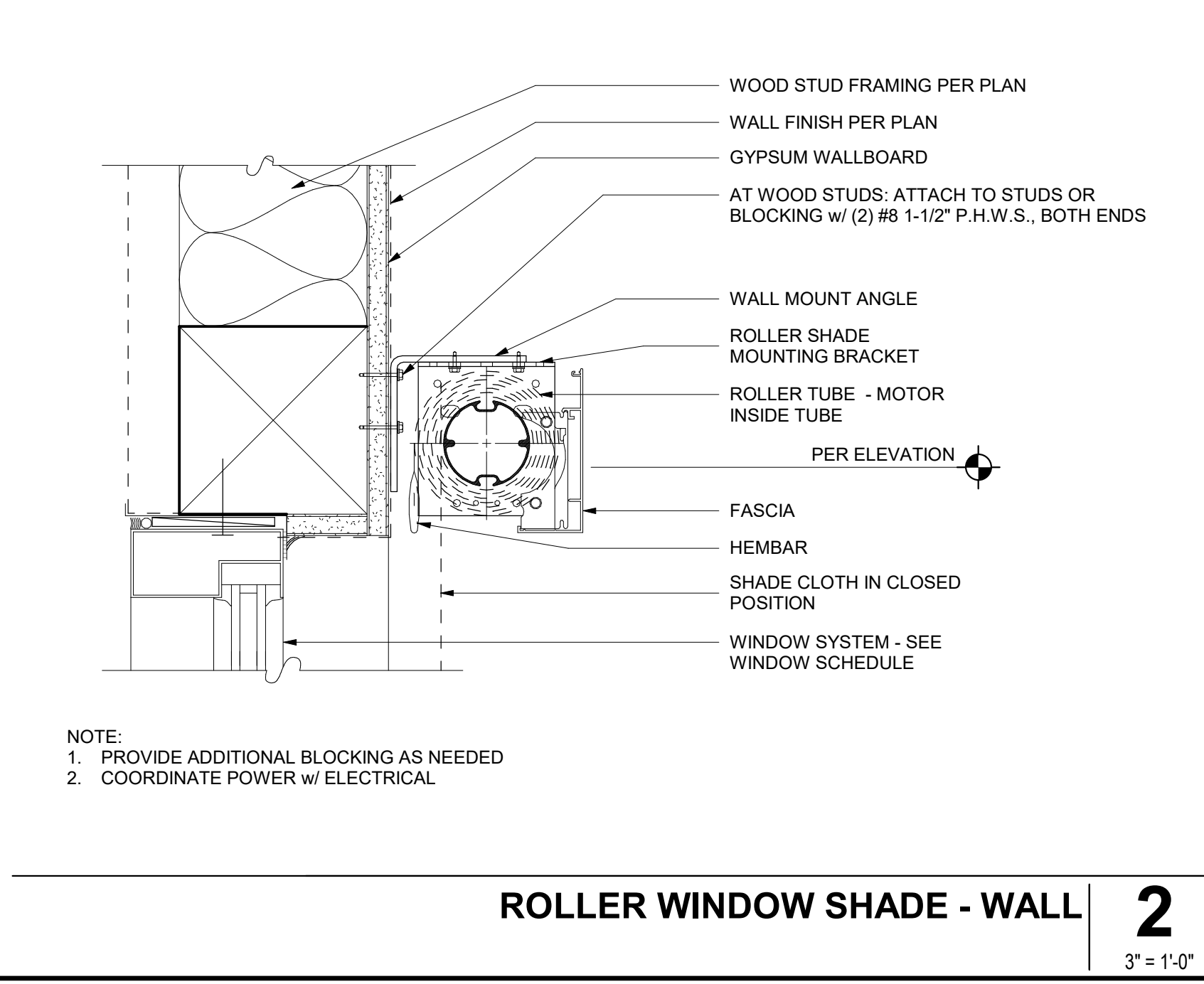
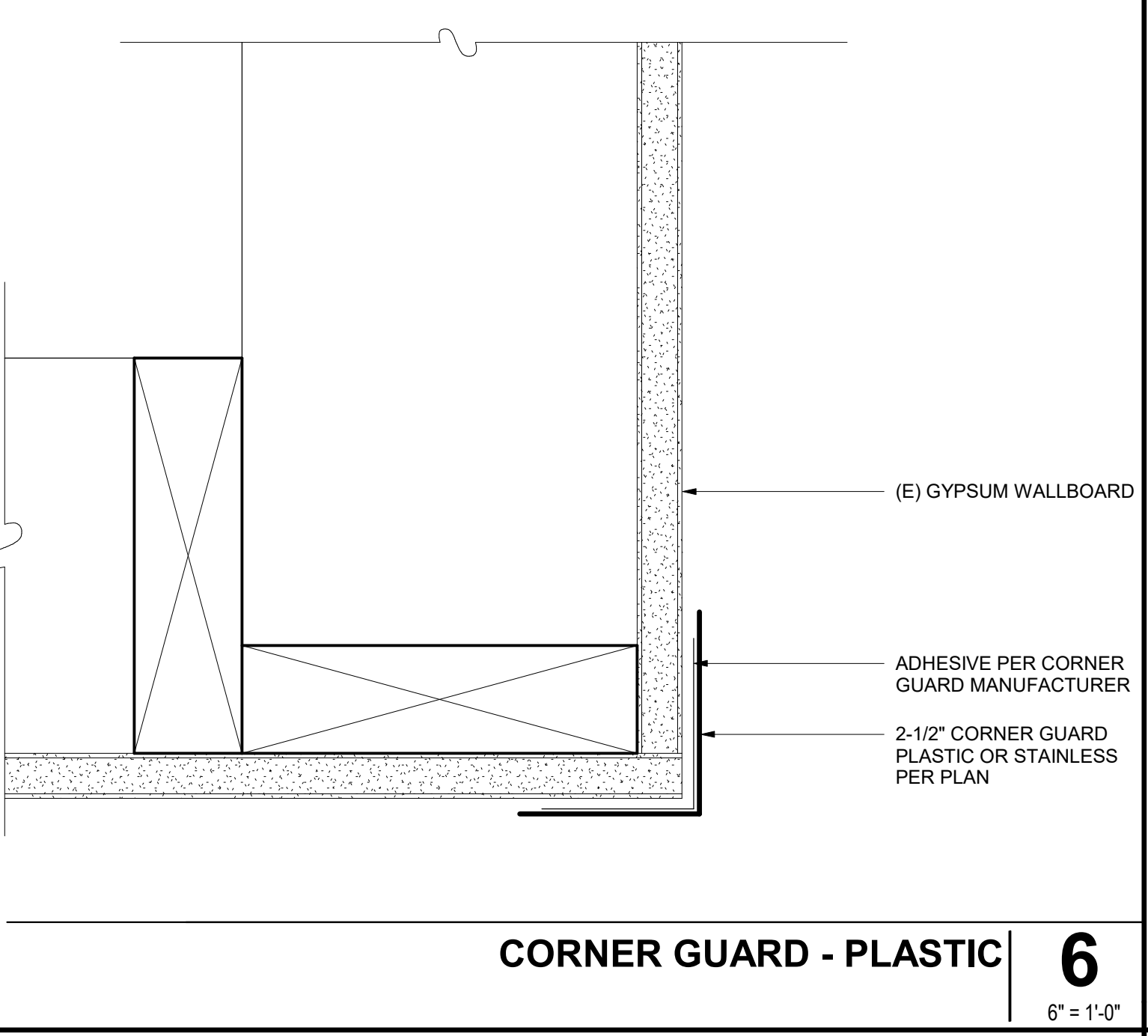
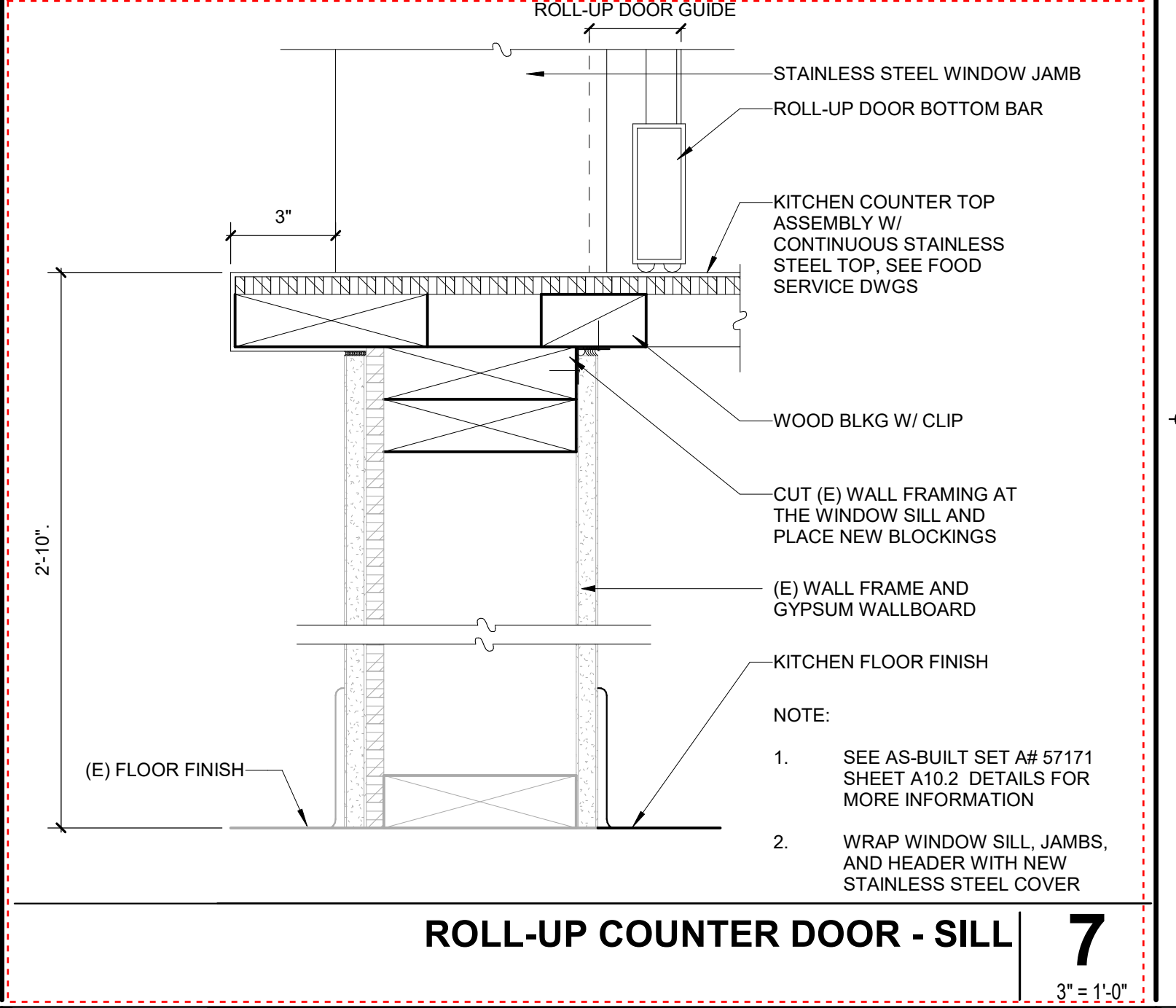
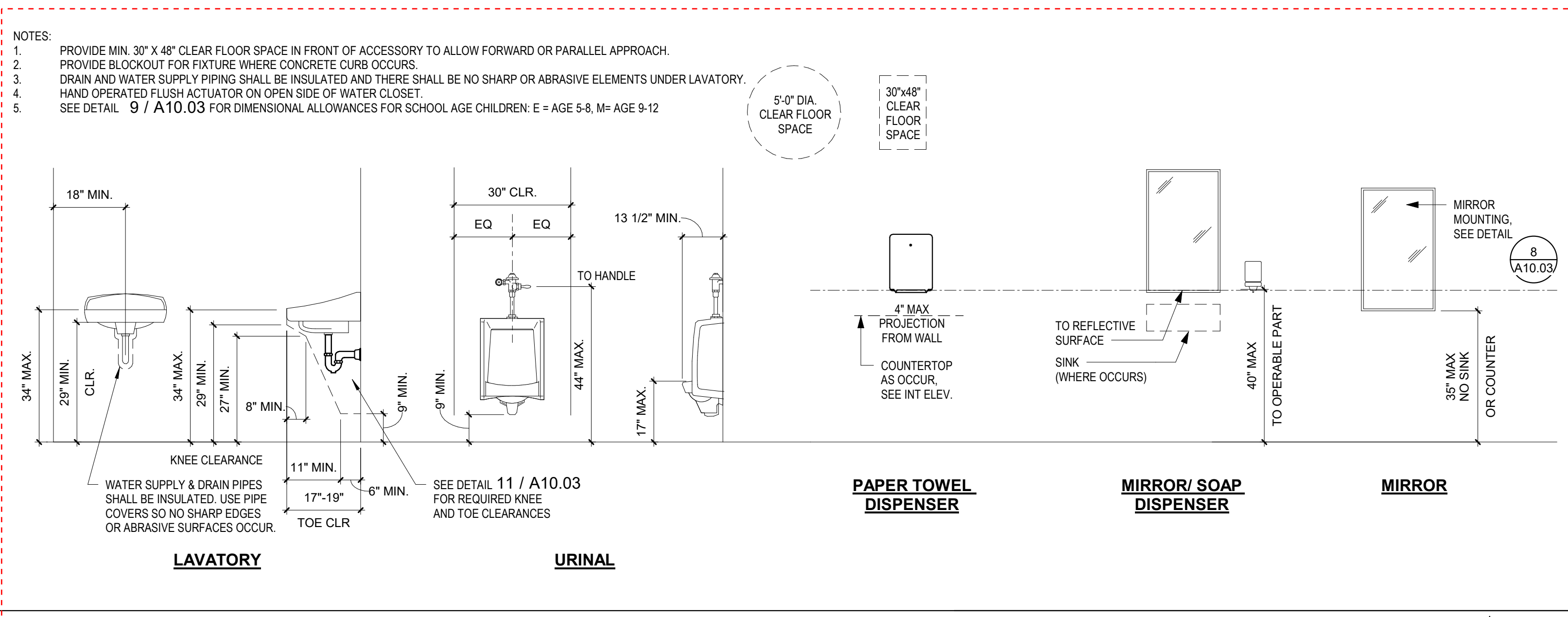
ADD ALTERNATE #1

TABLE 11B-604.9 SUGGESTED DIMENSION FOR CHILDREN'S USE

SUGGESTED DIMENSIONS FOR WATER CLOSETS SERVING CHILDREN AGES 5 - 12

	"KINDERGARTEN" (BUILDING G) = AGE 5 THROUGH 8	"ELEMENTARY" = AGE 9 THROUGH 12
WATER CLOSET CENTERLINE	12 IN. - 15 IN.	15 IN.
WATER CLOSET SEAT HEIGHT	12 IN. - 15 IN.	15 IN.
GRAB BAR HEIGHT AND HANDRAIL	20 IN. - 25 IN.	25 IN.
TP DISPENSER HEIGHT	14 IN. - 17 IN.	17 IN.
URINAL LIP	13 IN. MIN. - 17 IN. MAX.	15 IN. MIN. - 17 IN. MAX.
URINAL FLUSH VALVE	32 IN. MIN. - 44 IN. MAX.	37 IN. MIN. - 44 IN. MAX.
DRINKING FOUNTAIN BUBBLER	PARALLEL APPROACH IF 30 INCHES MAX AFF, 3-1/2" MAX FROM FRONT EDGE OF DF, INCLUDING BUMPERS	32 IN. MIN. - 36 IN. MAX.
DISPENSER REACH HEIGHT	32 IN. MIN. - 40 IN. MAX.	36 IN. MIN. - 40 IN. MAX.

DIM. ALLOWANCE FOR CHILDREN 9
6" = 1'-0"



AGENCY APPROVAL:

HMC Architects
 3186-070-000

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DESCRIPTION	DATE

APPLICABLE TO ADD ALTERNATE 1

KEYNOTES

APPLICABLE TO ADD ALTERNATE #1

NOTES

FACILITY:
 MATSUYAMA ELEMENTARY SCHOOL
 7680 WINDBRIDGE DRIVE
 SACRAMENTO, CA 95831

PROJECT:
 MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
 INTERIOR DETAILS

DATE: 01/04/2024
 CLIENT PROJ NO: 3186-070-000

SHEET:

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A10.03

NAILING SCHEDULE:

DESCRIPTION	NAILING
ROOF	
1. BLKG BTWN CLG JOISTS, RAFTERS OR TRUSSES TO TOP PLATE OR OTHER FRMG BLW BLKG BTWN RAFTERS OR TRUSSES NOT AT THE WALL TOP PLATE, TO RAFTER OR TRUSS	3-8d TOE NAIL, EA END 2-16d END NAIL, EA END 16d FACE NAIL @ 6" cc
2. CLG JOIST TO TOP PLATE	3-8d TOE NAIL EA JOIST
3. CLG JOIST NOT ATTACHED TO PARALLEL RAFTER, LAPS OV/ PARTITIONS (NO THRUST)	3-16d FACE NAIL
4. CLG JOIST ATTACHED TO PARALLEL RAFTER, LAPS OV/ PARTITIONS (W/ THRUST)	CBC TABLE 2308.7.3.1
5. COLLAR TIE TO RAFTER	3-10d FACE NAIL
6. RAFTER OR TRUSS TO TOP PLATE (SEE CBC SECTION 2308.7.3.1, TABLE 2308.7.3.1)	3-10d TOE NAIL
7. RAFTERS TO RIDGE, VALLEY OR HIP RAFTERS, OR RAFTER TO 2" RIDGE	3-10d TOE NAIL OR 2-16d END NAIL
WALL	
8. STUD TO STUD (NOT BRACED WALL PANELS)	16d @ 24" cc FACE NAIL
9. STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS (BRACED WALL PANELS)	16d @ 6" cc FACE NAIL
10. BUILT UP HEADER (2" TO 2" HEADER)	16d @ 16" cc FACE NAIL
11. CONT HEADER TO STUD	4-8d TOE NAIL
12. TOP PLATE TO TOP PLATE	16d @ 16" cc FACE NAIL
13. TOP PLATE TO TOP PLATE, AT END JOINTS	8-16d EA SIDE OF END JOINT FACE NAIL (24" MIN LAP SPLICE EA END)
14. BOT PLATE TO JOIST, RIM, BAND JOIST OR BLKG (NOT @ BRACED WALL PANELS)	16d @ 16" cc
15. BOT PLATE TO JOIST, RIM, BAND JOIST OR BLKG (BRACED WALL PANELS)	2-16d @ 16" cc
16. STUD TO TOP OR BOT PLATE	4-8d TOE NAIL
17. TOP OR BOT PLATE TO STUD	2-16d END NAIL
18. TOP PLATED LAPS AT CORNERS & INTERSECTIONS	2-16d FACE NAIL
19. 1" BRACE TO EA STUD & PLATE	2-8d FACE NAIL
20. 1x6 SHEATHING TO EA BEARING	2-8d FACE NAIL
21. 1x8 & WIDER SHEATHING TO EA BEARING	3-8d FACE NAIL
FLOOR	
22. JOIST TO SILL, TOP PLATE OR GIRDER	3-8d TOE NAIL
23. RIM JOIST, BAND JOIST, OR BLKG TO TOP PLATE, SILL, OR OTHER FRAMING BLW	8d @ 6" cc TOE NAIL
24. 1x6 SUB FLOOR OR LESS TO EA JOIST	2-8d FACE NAIL
25. 2" SUB FLOOR TO JOIST OR GIRDER	2-16d FACE NAIL
26. 2" PLANKS EA BEARING (PLANK & BEAM, FLOOR & ROOF)	2-16d FACE NAIL
27. BUILT UP GIRDERS & BEAMS, 2" LUMBER LAYERS	10d @ 24" cc FACE NAIL AT TOP & BOT, STAGGER ON OPPOSITE SIDES
28. LEDGER STRIP SUPPORTING JOISTS OR RAFTERS	3-16d EA JOIST OR RAFTER FACE NAIL
29. JOIST TO BAND JOIST OR RIM JOIST	3-16d END NAIL
30. BRIDGING OR BLKG TO JOIST, RAFTER OR TRUSS	2-8d TOE NAIL EA END

ROUGH CARPENTRY-MATERIALS:

- ALL SAWN LUMBER SHALL BE DOUG FIR UNO AND HAVE MOISTURE CONTENT NOT TO EXCEED 19% AT TIME OF INSTALLATION. EACH PIECE SHALL BEAR THE STAMP OF WCLB OR WWPFA SHOWING GRADE MARK.
- ALL COMPOSITE WOOD PRODUCTS (IE LVL, LSL, GULLAM, ETC) SHALL BE PROTECTED FROM EXPOSURE AND EXCESSIVE MOISTURE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. MOISTURE CONTENT OF 16% PRIOR TO MEMBERS BEING WRAPPED OR ENCLOSED.
- ALL SAWN LUMBER TO BE SPECIES & GRADE AS NOTED BELOW:

MEMBER	SPECIES & GRADE
2x, & 3x STUDS	#1 DF
2x JOISTS, PLATES	#1 DF
4x HEADERS	#1 DF
4x COLUMNS	#1 DF
6x & LARGER HEADERS	SS DF
6x & LARGER COLUMNS	SS DF
- MATERIAL EXPOSED TO WEATHER OR IN CONTACT W/CONCRETE SHALL BE PRESSURE TREATED
- OPTIONAL FOR EXPOSED BX, BEAMS & POSTS TO BE #1 AC IN LIEU OF TREATED DF
- STUDS TALLER THAN 12'-0" SHALL BE #1 DF
- PRESERVATIVE TREATED & PRESSURE TREATED LUMBER
 - SAWN LUMBER TO BE PROTECTED FROM EARTH, WEATHER, EARTH, & CONCRETE/CMU OR WOOD SHALL BE TREATED
 - PRESERVATIVE TREATMENT & CLEARANCES TO SOIL OR CONCRETE SHALL BE PER CBC 2303.1.9 & 2304.12.1.2
 - FIELD CUTS & HOLES IN TREATED LUMBER SHALL BE PROTECTED IN ACCORDANCE W/WWPA STANDARD M4
 - CONTRACTOR TO COORDINATE WITH TREATED WOOD SUPPLIER TO DETERMINE THE APPROPRIATE LEVEL OF CORROSION PROTECTION FOR HARDWARE & FASTENERS IN CONTACT WITH WOOD TREATED WITH CORROSIVE CHEMICALS.
- ALL WOOD PANEL STRUCTURAL SHEATHING SHALL BE STAMPED W/APA TRADEMARK AND CONFORM TO MOST CURRENT EDITION OF PS-1. USE THICKNESS AND NAILING AS SHOWN ON DRAWINGS. SHEATHING SHALL HAVE EXPOSURE RATING AS APPROPRIATE FOR ON-SITE EXPOSURE CONDITIONS DURING CONSTRUCTION AND IN FINAL CONDITION.

ROUGH CARPENTRY-NAILS:

- ALL SPECIFIED NAILS SHALL CONFORM TO ASTM F1667 OR ICC ESR-1539. ALTERNATE FASTENERS MUST HAVE AN ICC EVALUATION REPORT AND MAY NOT BE USED UNLESS APPROVED IN WRITING BY RW CONSULTING ENGINEERS. ALL NAILS SHALL BE FULL ROUND HEAD WITH MINIMUM PROPERTIES AS FOLLOWS:

SPECIFIED FASTENER	DIAMETER	LENGTH	PENETRATION	APPLICATION
8d	.131"Ø	2 1/2"	1 1/2"	SHITG/FRMG
10d	.148"Ø	3"	1 1/2"	SHITG/FRMG
16d BOX	.135"Ø	3 1/2"	1 1/2"	FRMG
16d SINKER	.148"Ø	3 1/2"	1 1/2"	FRMG
16d COMMON	.162"Ø	3 1/2"	1 1/2"	FRMG

ALL NAILS SHALL BE COMMON WIRE NAILS EXCEPT WHERE SPECIFICALLY NOTED

- NAILS SHALL BE LOCATED AND SPACED TO PREVENT SPLITTING OF WOOD. PREDRILL ALL FASTENERS 75% MAX OF FASTENER DIAMETER WHERE WOOD TENDS TO SPLIT.
- TOENAILS SHALL BE DRIVEN AT AN ANGLE OF APPROX 30° WITH THE MEMBER AND STARTED APPROX 1/3 THE LENGTH OF THE NAIL FROM THE MEMBER END.
- NAILS USED IN HARDWARE SHALL BE AS SPECIFIED BY HARDWARE MFR.
- MINIMUM NAILING SHALL BE PER CBC TABLE 2304.10.1 UNO [SEE TABLE ON THIS SHEET]
- NAILS INSTALLED IN TREATED LUMBER SHALL HAVE CORROSION PROTECTION APPROPRIATE FOR THE TYPE OF CHEMICALS USED IN THE TREATMENT PROCESS. AS A MINIMUM, NAILS INTO TREATED LUMBER OR IN EXTERIOR APPLICATIONS SHALL BE HOT-DIPPED GALVANIZED PER ASTM A153 CLASS D OR TYPE 316 STAINLESS STEEL.
- SHEATHING NAILS SHALL BE DRIVEN SO THAT THEIR HEAD OR CROWN ARE FLUSH WITH THE SURFACE OF THE SHEATHING.

ROUGH CARPENTRY-HARDWARE:

- ALL STEEL CONNECTORS, STRAPS, HANGERS, HARDWARE, ETC SHALL BE BY SIMPSON STRONG-TIE OR APPROVED EQUAL UNO. ATTACH WITH FASTENERS PER MFR TO ACHIEVE THE MAXIMUM TABULATED VALUE.
- HARDWARE COMPONENTS AND FASTENERS INSTALLED AGAINST OR INTO TREATED LUMBER SHALL HAVE CORROSION PROTECTION APPROPRIATE FOR THE TYPE OF CHEMICALS USED IN THE TREATMENT PROCESS. AS A MINIMUM, ALL HARDWARE AND FASTENERS INTO/AGAINST TREATED LUMBER OR IN EXTERIOR APPLICATIONS SHALL BE HOT-DIPPED GALVANIZED (G185 MIN FOR HARDWARE) OR STAINLESS STEEL.
- INSTALL ALL SPECIFIED FASTENERS BEFORE LOADING THE CONNECTION.
- NAILS FOR HARDWARE SHALL NOT BE OVERDRIVEN OR DEFORM THE PART. THE CONTRACTOR SHALL VERIFY WITH THE HARDWARE MFR THAT THE PART PUBLISHED CAPACITIES ARE NOT REDUCED AS A RESULT OF THE INSTALLED CONDITION.
- FASTENER SUBSTITUTIONS FOR HARDWARE ARE NOT ALLOWED UNLESS APPROVED FOR USE BY THE MFR AND THE HARDWARE CAPACITY IS NOT REDUCED.
- WASHERS AT WOOD CONNECTIONS SHALL BE SQUARE PLATE STEEL OR MALLEABLE IRON WITH THE FOLLOWING MIN DIMENSIONS:

FASTENER DIAMETER	MIN WASHER DIMENSIONS	MIN THICKNESS
1/4"	2" x 2"	3/16"
3/8"	2 1/2" x 2 1/2"	3/8"
1/2"	2 3/4" x 2 3/4"	3/8"
5/8"	3" x 3"	3/8"
3/4"	3 1/2" x 3 1/2"	3/8"

ROUGH CARPENTRY-LAG SCREWS:

- ALL SPECIFIED LAG SCREWS SHALL CONFORM TO ANSI/ASME STANDARD B18.2.1.
- LEAD HOLES FOR LAG SCREWS SHALL BE BORED TO AVOID SPLITTING OF WOOD MEMBERS. THE LEAD HOLE FOR THE SHANK SHALL HAVE THE SAME DIAMETER AND LENGTH AS THE UNTHREADED SHANK. THE LEAD HOLE FOR THE THREADED PORTION SHALL NOT EXCEED 70% OF THE SHANK DIAMETER AND HAVE MIN LENGTH EQUAL TO THREADED PORTION.
- LAG SCREWS SHALL BE INSTALLED BY TURNING OF THE LAG SCREW & NOT BY DRIVING OF A HAMMER.
- SOAP OR OTHER LUBRICANT MAY BE USED ON THE LAG SCREW OR IN THE LEAD HOLE AS REQ'D TO PREVENT DAMAGE TO THE LAG SCREW.
- LAG SCREWS INSTALLED IN TREATED LUMBER SHALL HAVE CORROSION PROTECTION APPROPRIATE FOR THE TYPE OF CHEMICALS USED IN THE TREATMENT PROCESS. AS A MINIMUM, LAG SCREWS INTO TREATED LUMBER OR IN EXTERIOR APPLICATIONS SHALL BE HOT-DIPPED GALVANIZED PER ASTM A153 CLASS C OR TYPE 316 STAINLESS STEEL.
- LAG SCREWS SHALL BE INSTALLED WITH A STANDARD CUT WASHER OR PLATE WASHER WITH CORROSION PROTECTION TO MATCH THE LAG SCREW.
- ALL LAG SCREWS TO BE TIGHTENED DURING INSTALLATION & RE-TIGHTENED JUST PRIOR TO CLOSING IN.

DESIGN CRITERIA:

- PROJECT ADDRESS: 7680 WINDBRIDGE DRIVE SACRAMENTO, CA 95831
- BUILDING CODE: 2022 CALIFORNIA BUILDING CODE
- GRAVITY LOADS: (ESTIMATES OF AS-BUILT CONDITIONS)
 - ROOF LIVE LOAD = 20 PSF (REDUCIBLE)
 - ROOF DEAD LOAD = 14 PSF
- LATERAL LOADS: RISK CATEGORY III
 - WIND LOADS (ASCE 7-16)
 - WALL WEIGHTS
 - EXTERIOR WALLS = 15 PSF
 - INTERIOR WALLS = 10 PSF
 - WIND LOADS (ASCE 7-16)
 - BASIC WIND SPEED = 100 MPH (77 MPH ASD)
 - EXPOSURE = C
 - BUILDINGS ARE CONSIDERED "ENCLOSED"
 - PRESSURE COEFFICIENTS
 - INTERNAL PRESSURE COEFFICIENT, GC_i = ± 0.18
 - TOPOGRAPHIC FACTOR, K_t = 1.00
 - WIND DIRECTIONALITY FACTOR, K_d = 0.85
 - GROUND ELEVATION FACTOR, K_e = 1.00
 - VELOCITY PRESSURES
 - q (0'-15') = 11.0 PSF (ASD)
 - q (15'-20') = 11.6 PSF (ASD)
 - q (20'-25') = 12.3 PSF (ASD)
 - SEISMIC LOADS (ASCE 7-16)
 - SITE CLASS = D
 - SEISMIC DESIGN CATEGORY = D
 - IMPORTANCE FACTOR = 1.25
 - REDUNDANCY, ρ = 1.0
 - S_s = 0.630 S₁ = 0.268
 - F_a = 1.296 F_v = 2.064
 - S_{m1} = 0.816 S_{m2} = 0.553
 - S_{m3} = 0.544 S_{m3} = 0.369
 - MECHANICAL EQUIPMENT (ASCE 7-16)
 - IMPORTANCE FACTOR, I_p = 1.00
 - RESPONSE MOD FACTOR, R_p = 6.0
 - AMPLIFICATION FACTOR, a_p = 2.5

INSPECTION NOTES:

- ALL TESTS AND INSPECTIONS ARE TO BE PROVIDED BY A QUALIFIED TESTING LAB OF RECORD, HIRED BY THE DISTRICT (T-24 PART 1, 4-335).
- ALL TESTS AND INSPECTIONS SHALL CONFORM TO CHAPTER 17A OF THE 2022 CBC AND THE PROJECT SPECIFIC DSA-103.
- ALL SPECIAL INSPECTORS SHALL HAVE A MINIMUM OF THREE YEARS OF EXPERIENCE WITH MATERIAL BEING INSPECTED.

POST INSTALLED ANCHOR NOTES:

- ALL POST INSTALLED ANCHORS ARE TO BE INSTALLED PER MANUFACTURER FOR EACH ANCHOR AND PER THE ICC REPORTS LISTED BELOW.
 - EXPANSION ANCHORS IN CONCRETE
 - HILTI KB T22 PER ICC ESR 4266
 - EPOXY ANCHORS IN CONCRETE
 - HILTI HIT-HY 200 PER ICC ESR 3187
 - POST-INSTALLED ANCHORS ARE TO BE INSTALLED ONLY WHERE SPECIFICALLY DETAILED IN THE PROJECT DRAWINGS, WITH EMBEDMENTS AND PROOF TESTING AS SPECIFICALLY IDENTIFIED IN EACH APPLICABLE DETAIL. FOR ADDITIONAL INFORMATION, UNO, FOR EXPANSION ANCHORS, SEE TABLE BELOW.
 - POST-INSTALLED ANCHORS MAY NOT BE USED AT LOCATIONS OTHER THAN THOSE SPECIFICALLY DETAILED IN THE PROJECT DRAWINGS WITHOUT PRIOR WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD.

CONCRETE: HILTI KWIK BOLT T22 EXPANSION ANCHORS SEE ICC ESR-4266 TABLE 1

ANCHOR DIAMETER	1"Ø	1 1/2"Ø	2"Ø
BIT DIAMETER	1"Ø	1 1/2"Ø	1 1/2"Ø
NOMINAL EMBEDMENT	2 1/2"Ø	2 1/2"Ø	4 1/2"Ø
HOLE DEPTH	2 1/2"Ø	2 1/2"Ø	4 1/2"Ø
TORQUE (STAINLESS STEEL)	30 FT-LB	40 FT-LB	60 FT-LB

STRUCTURAL SHEET INDEX:

S0.01	TYPICAL STRUCTURAL NOTES
S2.01	STRUCTURAL PLAN - BUILDING 1
S4.01	DETAILS
S4.02	DETAILS

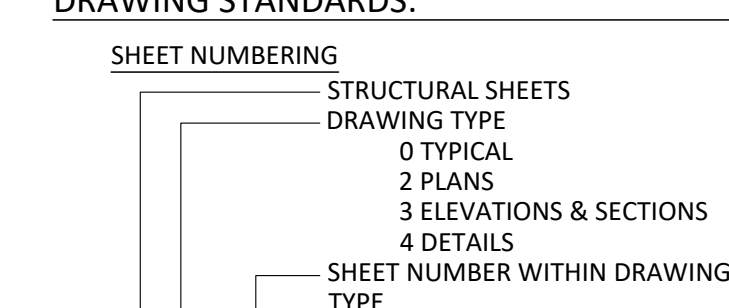
ABBREVIATIONS:

@	AT
AB	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AISI	AMERICAN IRON AND STEEL INSTITUTE
APA	AMERICAN PLYWOOD ASSOCIATION
ARCH	ARCHITECT/ARCHITECTURAL
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
BLKG	BLOCKING
BLW	BELOW
BTWN	BETWEEN
B.O.	BOTTOM OF
BOT	BOTTOM
CBC	CALIFORNIA BUILDING CODE
CC	CENTER TO CENTER
CJ	COLD JOINT
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
Ø	DIAMETER
DWG'S	DRAWINGS
DSA	DIVISION OF THE STATE ARCHITECT
ES	EDGE SCREW W/SPACING PER SHEAR WALL DIAGRAMS
F.O.	FACE OF
FRMG	FRAMING
HD	HOLLOW
HSS	HOLLOW STRUCTURAL SECTION
L	STEEL ANGLE
MAX	MAXIMUM
MC	MARILLANEUS CHANNEL
MIN	MINIMUM
NTS	NOT TO SCALE
#	NUMBER OF POUNDS
OH	OPPOSITE HAND
OV/	OVER
PAF	POWDER-ACTUATED FASTENER
PJ	PANEL JOINT
SEOR	STRUCTURAL ENGINEER OF RECORD
SMS	SHEET METAL SCREW
T & B	TOP AND BOTTOM
THRU	THROUGH
T.O.	TOP OF
TYR	TYPICAL
UNO	UNLESS NOTED OTHERWISE
W/	WITH

GENERAL NOTES:

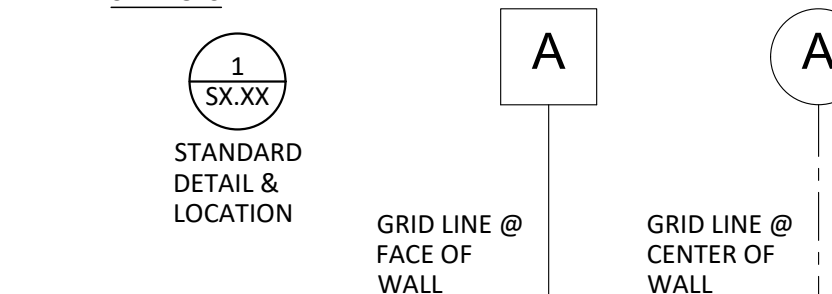
- ALL NEW WORK SHALL CONFORM TO TITLE 24 2022 EDITIONS WITH AMENDMENTS AND ALL OTHER APPLICABLE CODES AND REGULATIONS.
- THIS SET OF STRUCTURAL DRAWINGS IS APPLICABLE ONLY TO THE LISTED PROJECT AND SITE LOCATION.
- NOTES ON THIS SHEET ARE TYPICAL AND SHALL APPLY UNLESS OTHERWISE NOTED OR SHOWN. TYPICAL DETAILS SHALL APPLY FOR ALL LIKE CONDITIONS UNLESS OTHERWISE NOTED OR DETAILED.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS, ELEVATIONS, EXISTING CONDITIONS, AND OTHER RELATED ITEMS. THE CONTRACTOR SHALL REVIEW THE CONTRACT DOCUMENTS PRIOR TO CONSTRUCTION AND SHALL NOTIFY THE ENGINEER OF RECORD IF ANY CONFLICTS ARE SHOWN OR NOTED.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFORM TO RELEVANT SECTIONS OF THE CALIFORNIA "CONSTRUCTION SAFETY ORDERS" AND ALL OSHA REQUIREMENTS. THE ENGINEER OF RECORD ACCEPTS NO RESPONSIBILITY FOR THE CONTRACTOR'S FAILURE TO COMPLY W/ THESE REQUIREMENTS.
- STRUCTURAL DRAWINGS REPRESENT THE FINISHED STRUCTURE, AND DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. DESIGN AND CONSTRUCTION OF ALL TEMPORARY BRACING, SHORING, FORMING, ETC REQUIRED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- A COPY OF TITLE 24 CCR PARTS 1-5 SHALL BE KEPT ON SITE AT ALL TIMES (T-24 PART 1, 4-317(C)).
- ALL CHANGES TO THE ACCESSIBILITY, FIRE AND LIFE SAFETY, AND STRUCTURAL PORTIONS OF THE APPROVED DRAWINGS SHALL BE MADE BY A CONSTRUCTION CHANGE DOCUMENT (CCD). ALL SUCH CHANGES BY CCD ARE TO BE SIGNED BY THE SEOR, THE OWNER, AND APPROVED BY DSA. CHANGES BY CCD ARE NOT VALID UNTIL APPROVED BY DSA (T-24, PART 1, 4-338).
- A PROJECT INSPECTOR (INSPECTOR OF RECORD, IOR) EMPLOYED BY THE OWNER/DISTRICT AND CERTIFIED BY DSA SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK
- THE STRUCTURAL ENGINEER SHALL PERFORM DUTIES PER T-24 PART 1, 4-333(A) AND 4-341. THE CONTRACTOR SHALL PERFORM DUTIES PER 4-343. THE IOR SHALL PERFORM DUTIES PER T-24 PART 1, 4-342.

DRAWING STANDARDS:



S2.01

SYMBOLS



AGENCY APPROVAL:



HMC ARCHITECTS

3186-070-000

2101 CAPITOL AVENUE, SUITE 1100
SACRAMENTO, CA 95818
916 325 1100 / www.hmcarchitects.com

ISSUE

DESCRIPTION	DATE

FACILITY:

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7680 WINDBRIDGE DR.
SACRAMENTO, CA 95831

PROJECT:

MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:

TYPICAL STRUCTURAL NOTES

DSA SUBMITTAL

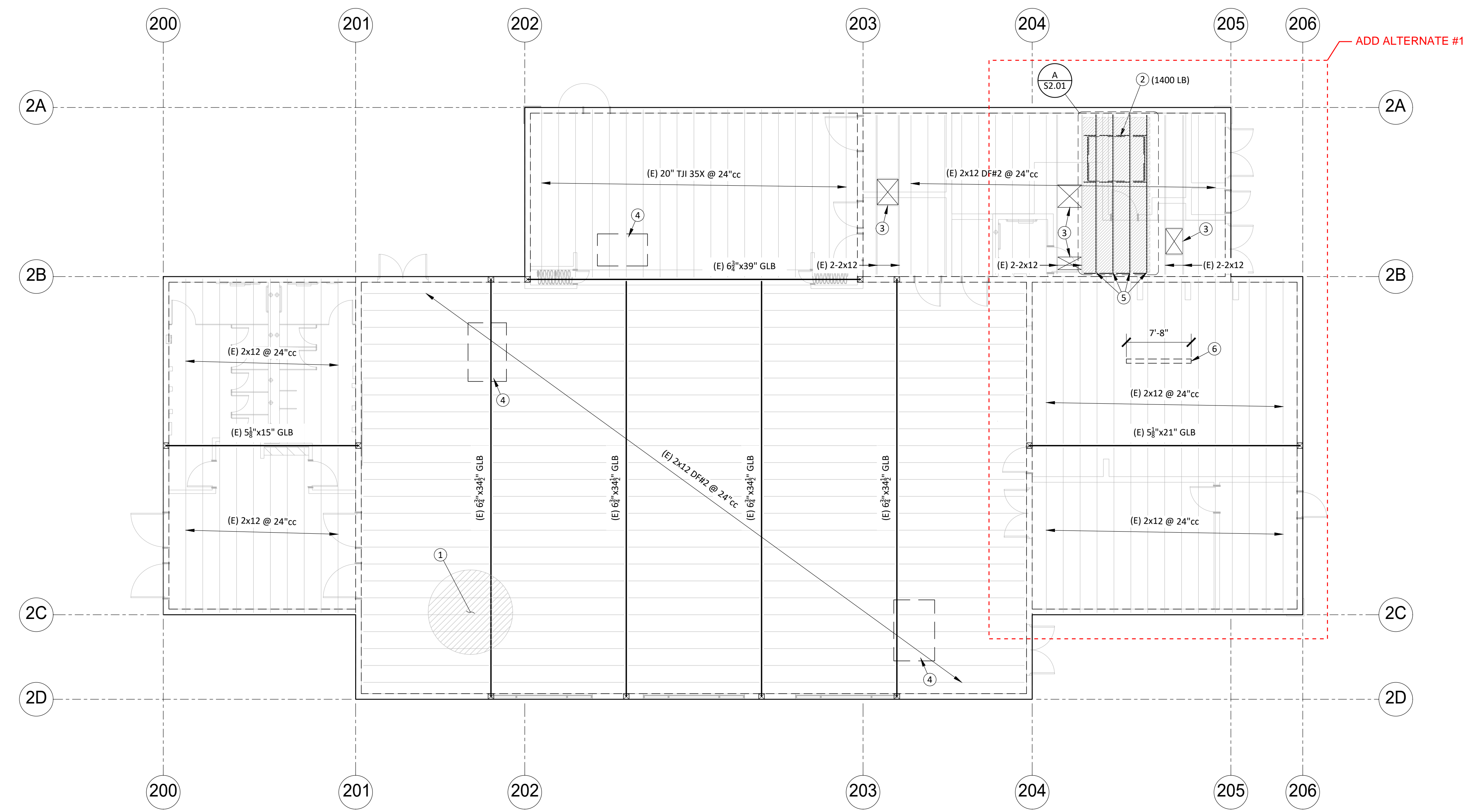
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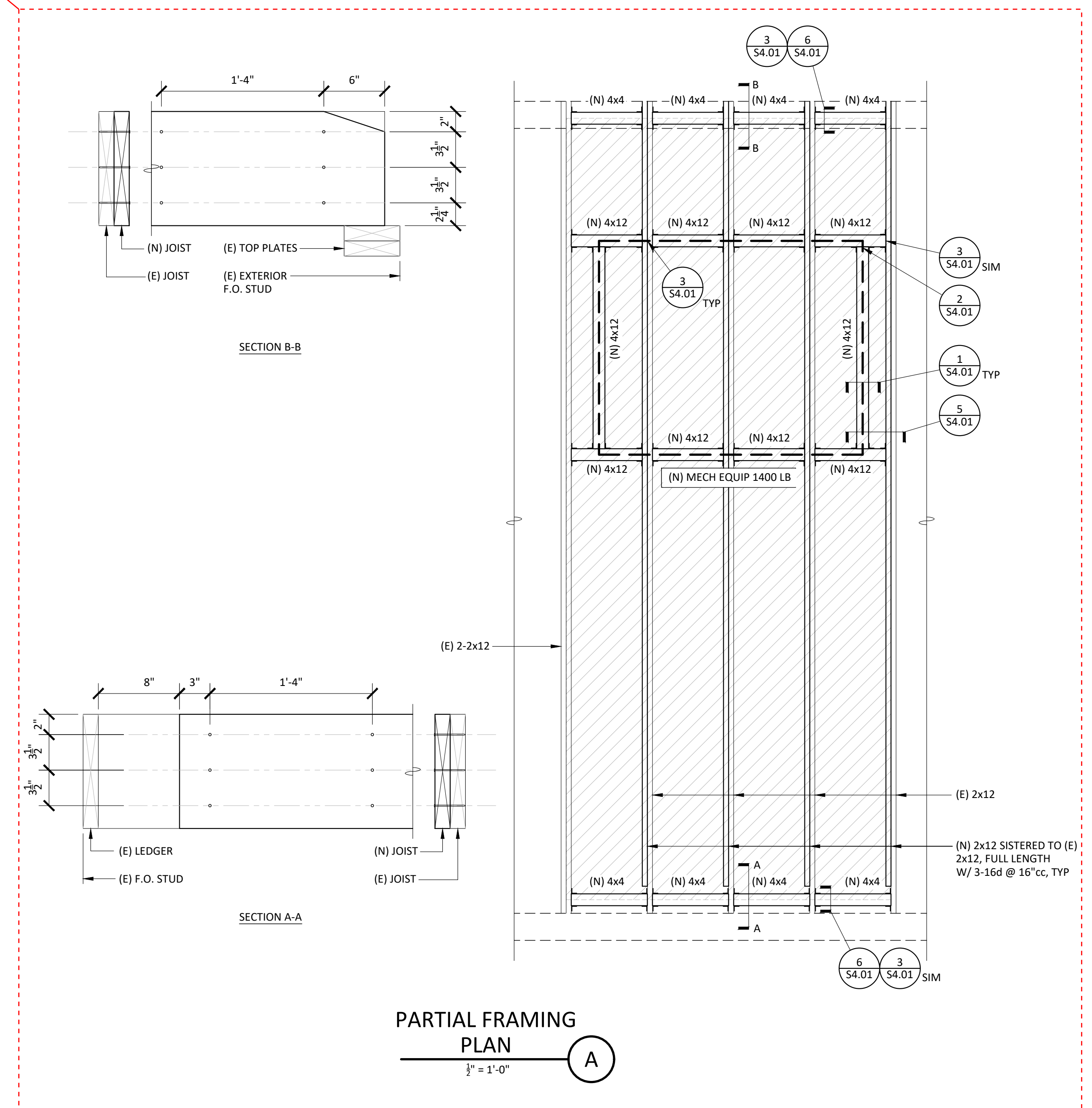
S0.01

FILE NAME: PROJECT ARCHITECTURE
 PROJECT: MATSUYAMA ELEMENTARY SCHOOL
 SHEET: STRUCTURAL PLAN - BUILDING 1



STRUCTURAL PLAN
BUILDING 1 - ROOF
 1/2" = 1'-0"

ADD ALTERNATE #1



PARTIAL FRAMING
PLAN
 1/2" = 1'-0"

STRUCTURAL PLAN NOTES:

- CONTRACTOR SHALL COORDINATE ALL WORK CONTAINED HEREIN WITH ALL PROJECT WORK BY OTHERS INCLUDING CIVIL, ARCHITECTURAL, MECHANICAL, ELECTRICAL & PLUMBING.
- STRUCTURAL SCOPE IS LIMITED TO MISCELLANEOUS FRAMING MODIFICATIONS TO ACCOMMODATE HVAC UPGRADES TO THE BUILDING. ALL WORK PERFORMED IS TO NOT IMPACT EXISTING LATERAL FORCE RESISTING SYSTEM.
- NEW MECHANICAL EQUIPMENT IS TO BE PLACED ON CURB PER MECHANICAL DRAWINGS.
- ALL NEW FRAMING REQUIRED IS TO BE INSTALLED FROM ABOVE THE ROOF DECK OR STRUCTURAL SHEATHING.
- ALL DUCT DROP OPENINGS IN THE ROOF ARE EXISTING. NO NEW ROOF PENETRATIONS ARE TO BE CREATED WITHOUT PRIOR APPROVAL OF SEOR.
- CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS AT LOCATION OF EQUIPMENT PRIOR TO COMMENCING WORK.

STRUCTURAL PLAN LEGEND:

- EXISTING STUD WALL
- EXISTING BEAM/GIRDER MEMBER
- EXISTING JOIST/RAFTER MEMBER
- NEW FRAMING MEMBER
- NEW HVAC EQUIPMENT
- EXTENT OF EXISTING SHEATHING TO BE REMOVED AND REPLACED WITH NEW 5/8" STRUCT 1 EXTERIOR GRADE - NAIL ALL EDGES w/ 8d @ 4"cc AND NAIL FIELD w/ 8d @ 12"cc

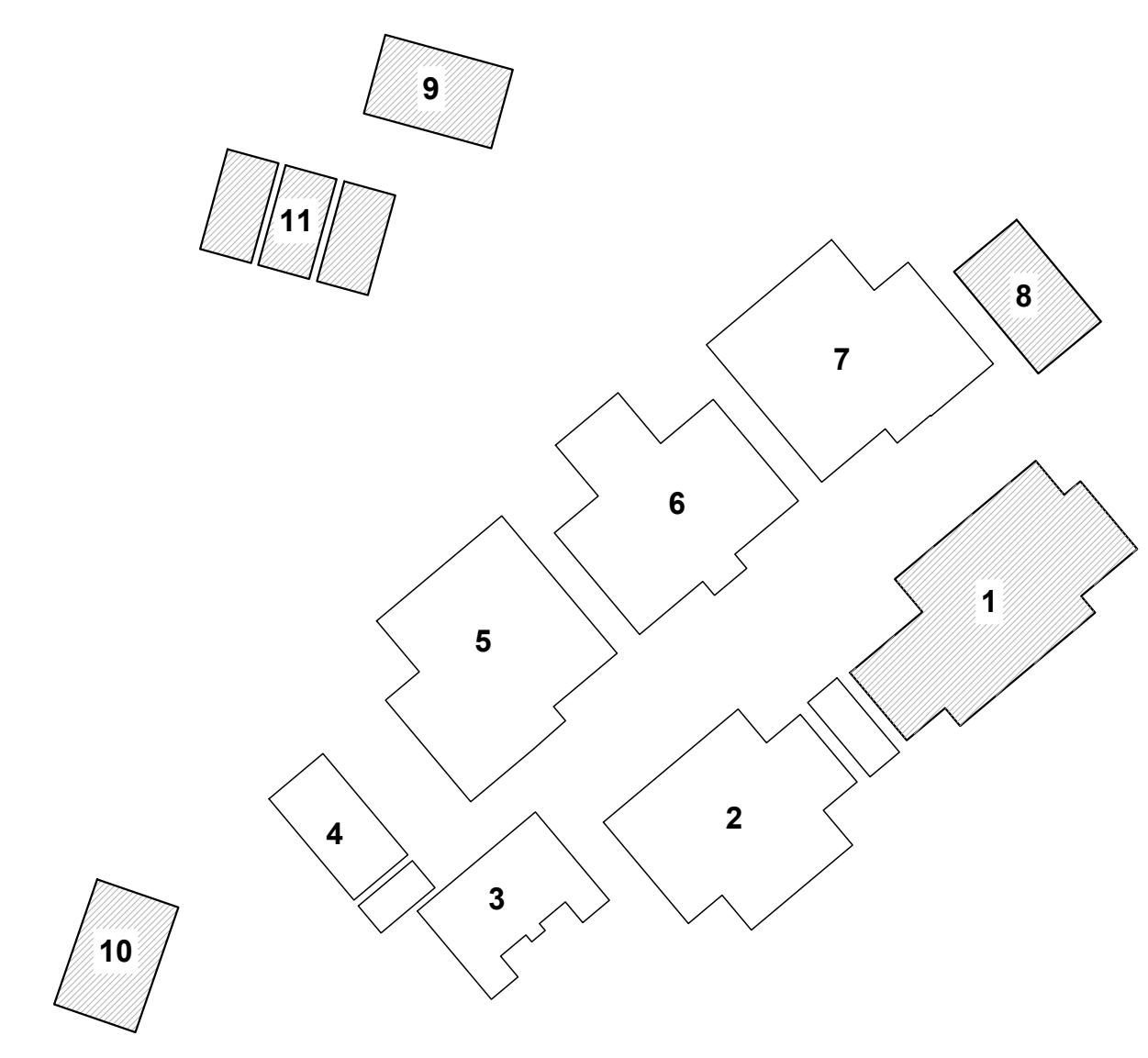
STRUCTURAL PLAN KEYNOTES:

- EXISTING 3/4" PLYWOOD ROOF SHEATHING
- NEW HVAC EQUIPMENT TO BE INSTALLED ON NEW CURB. WEIGHT INDICATED IN PARENTHESIS - SEE MECHANICAL DRAWINGS & 1/54.01
- EXISTING OPENINGS TO REMAIN
- EXISTING UNIT TO REMAIN
- (N) 2x12 SISTERED TO (E) 2x12 w/ 3-16d @ 16"cc
- (N) INTERIOR PARTITION WALL BELOW - SEE ARCHITECTURAL DRAWINGS & 4/54.01

SHEET REFERENCE TABLE:

BUILDING	SHEET(S)
1	SEE SHEETS S2.01 & S4.01
2	NO STRUCTURAL SCOPE
3	NO STRUCTURAL SCOPE
4	NO STRUCTURAL SCOPE
5	NO STRUCTURAL SCOPE
6	NO STRUCTURAL SCOPE
7	NO STRUCTURAL SCOPE
8	SEE SHEET S4.02
9	SEE SHEET S4.02
10	SEE SHEET S4.02
11	SEE SHEET S4.02

BUILDING KEY PLAN:



AGENCY APPROVAL:



HMC ARCHITECTS
 3186-070-000

2101 CAPITOL AVENUE, SUITE 100
 SACRAMENTO, CA 95816
 916.325.1100 / www.hmcarchitects.com

ISSUE	
DESCRIPTION	DATE

RW CONSULTING
Engineers Inc
 1450 HARBOR BLVD SUITE F
 WEST SACRAMENTO, CA 95691
 916.716.6910



FACILITY:
MATSUYAMA ELEMENTARY SCHOOL
 7680 WINDBRIDGE DR.
 SACRAMENTO, CA 95831

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

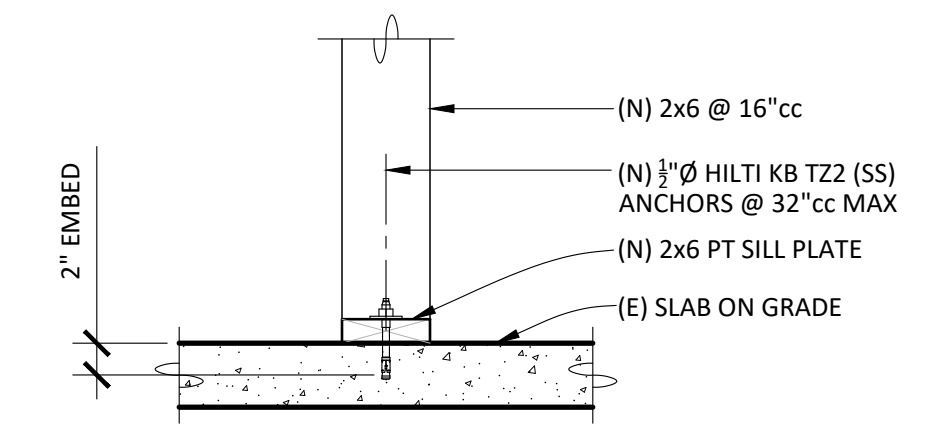
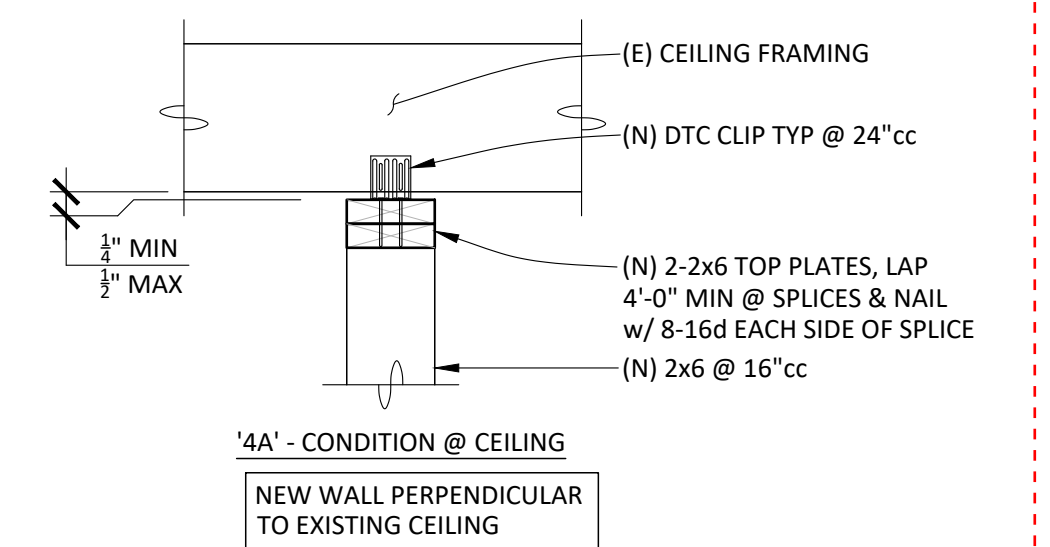
SHEET NAME:
STRUCTURAL PLAN - BUILDING 1

DSA SUBMITTAL

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000
 SHEET:

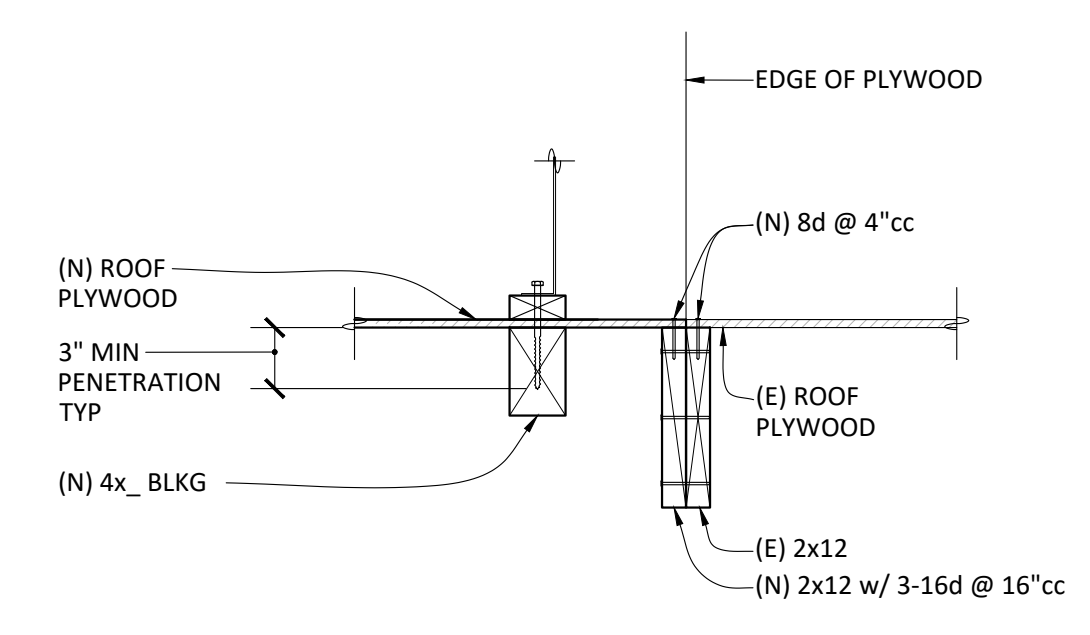
S2.01

ADD ALTERNATE #1

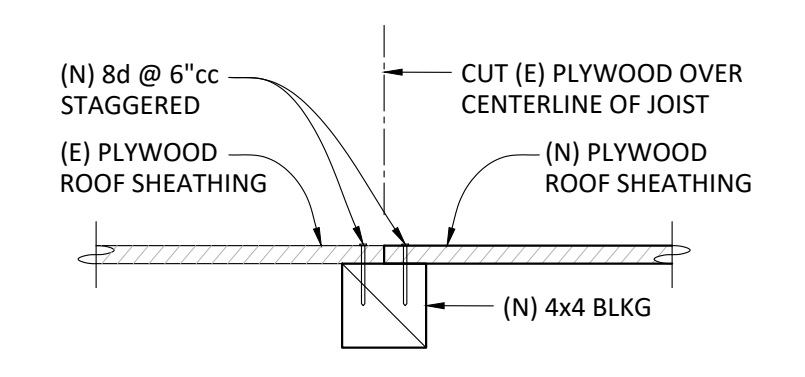


- T22 ANCHOR NOTES:
1. PERIODIC INSPECTION REQUIRED.
 2. TORQUE TEST 10% OF ANCHORS TO 40 FT-LB.

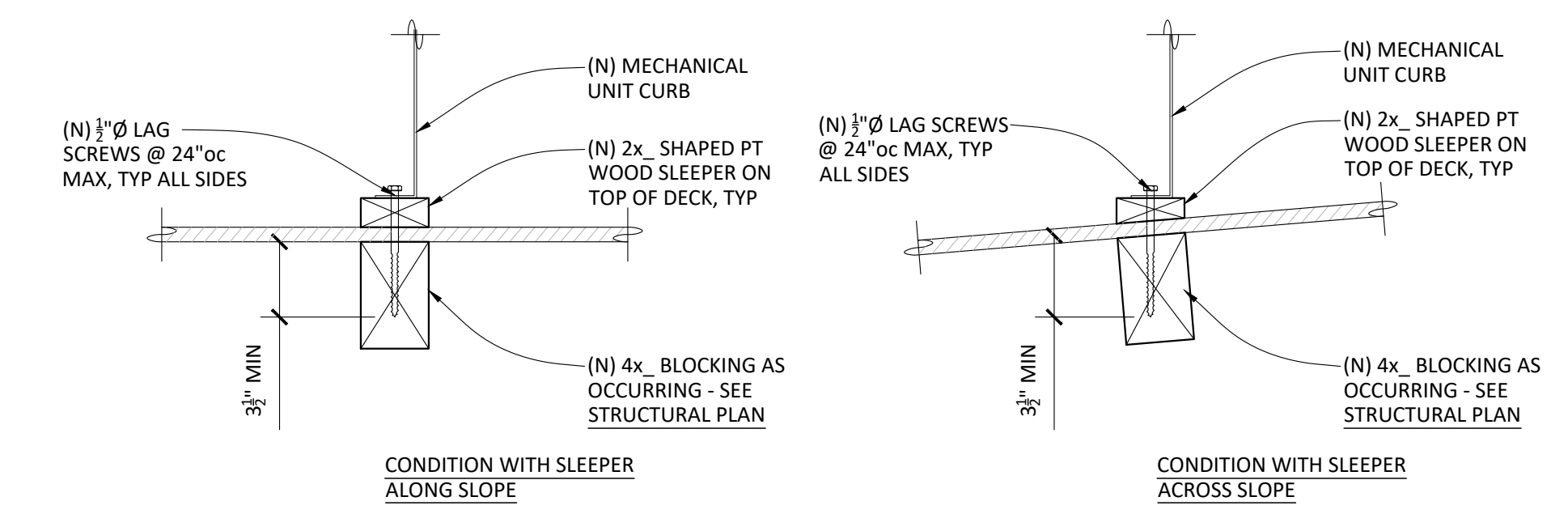
DETAIL 4
1" = 1'-0"



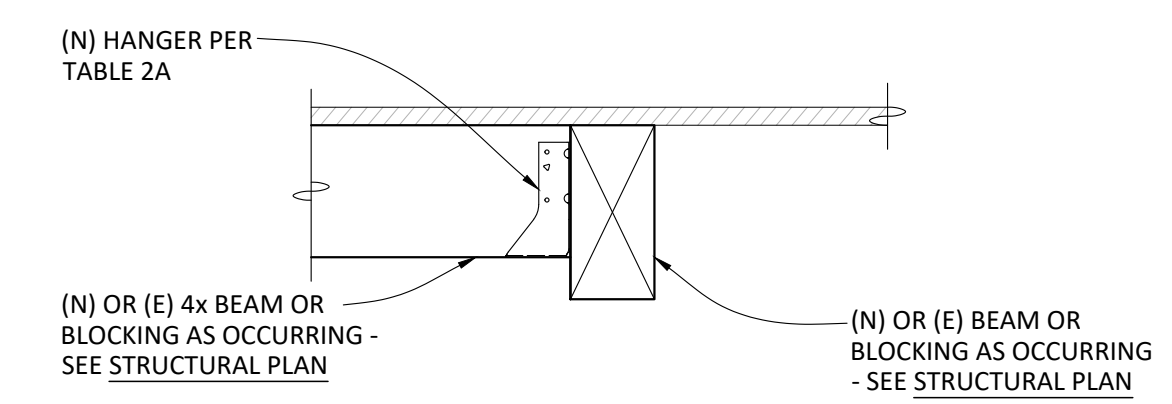
DETAIL 5
1/2" = 1'-0"



DETAIL 6
1/2" = 1'-0"

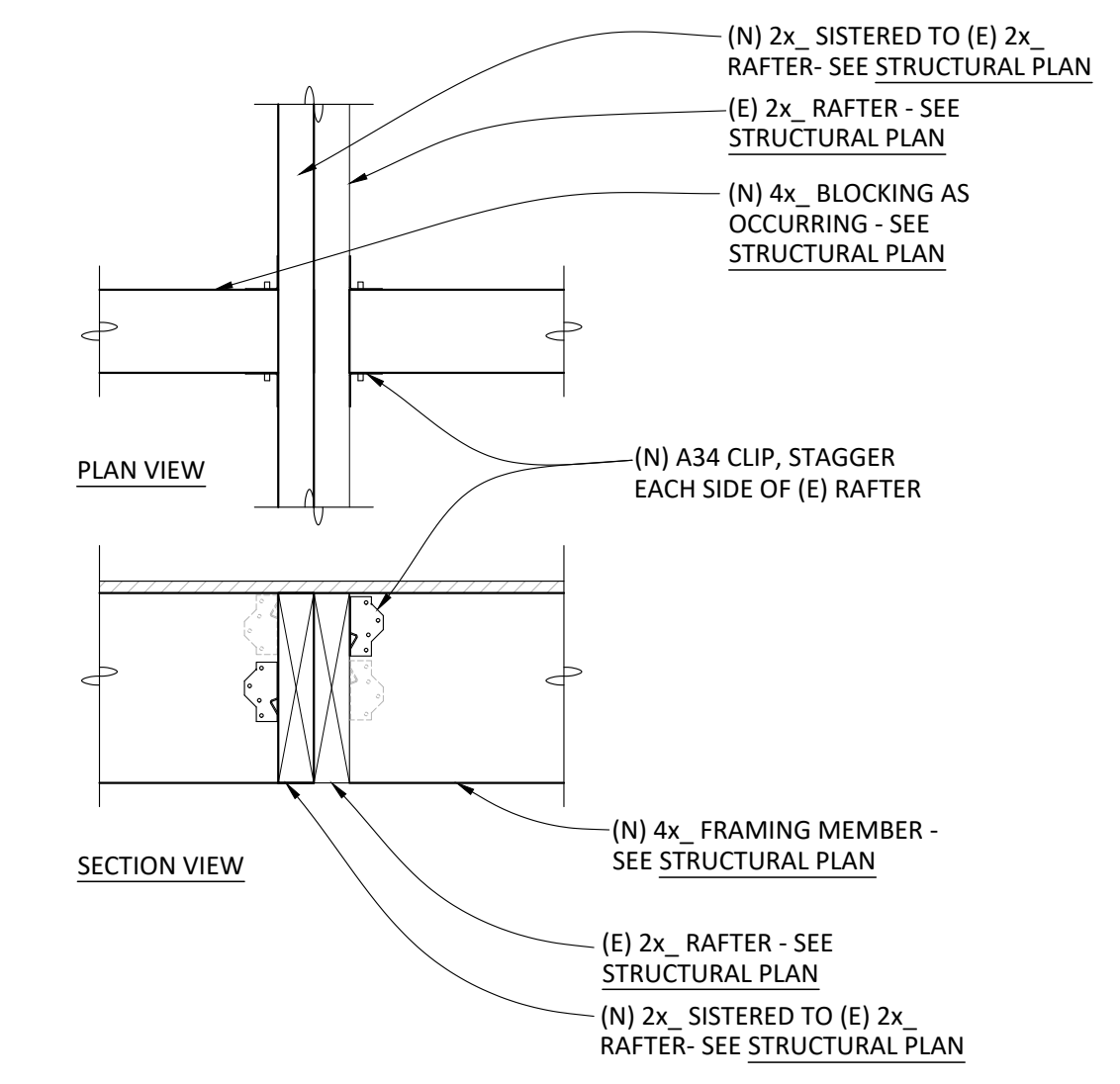


CONDITION @ NEW CURB
DETAIL 1
1/2" = 1'-0"



BRG SECTION	HANGER
4x6, 4x8	SIMPSON LUS46
4x10, 4x12	SIMPSON LUS410
4x14	SIMPSON LUS414

DETAIL 2
1/2" = 1'-0"



THIS DETAIL IS TO BE USED WHERE NEW 4x MEMBERS ARE TO BE FRAMED INTO EXISTING RAFTERS

DETAIL 3
1/2" = 1'-0"

AGENCY APPROVAL:



HMC ARCHITECTS
3186-070-000

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FACILITY:
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SACRAMENTO, CA 95831

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
DETAILS

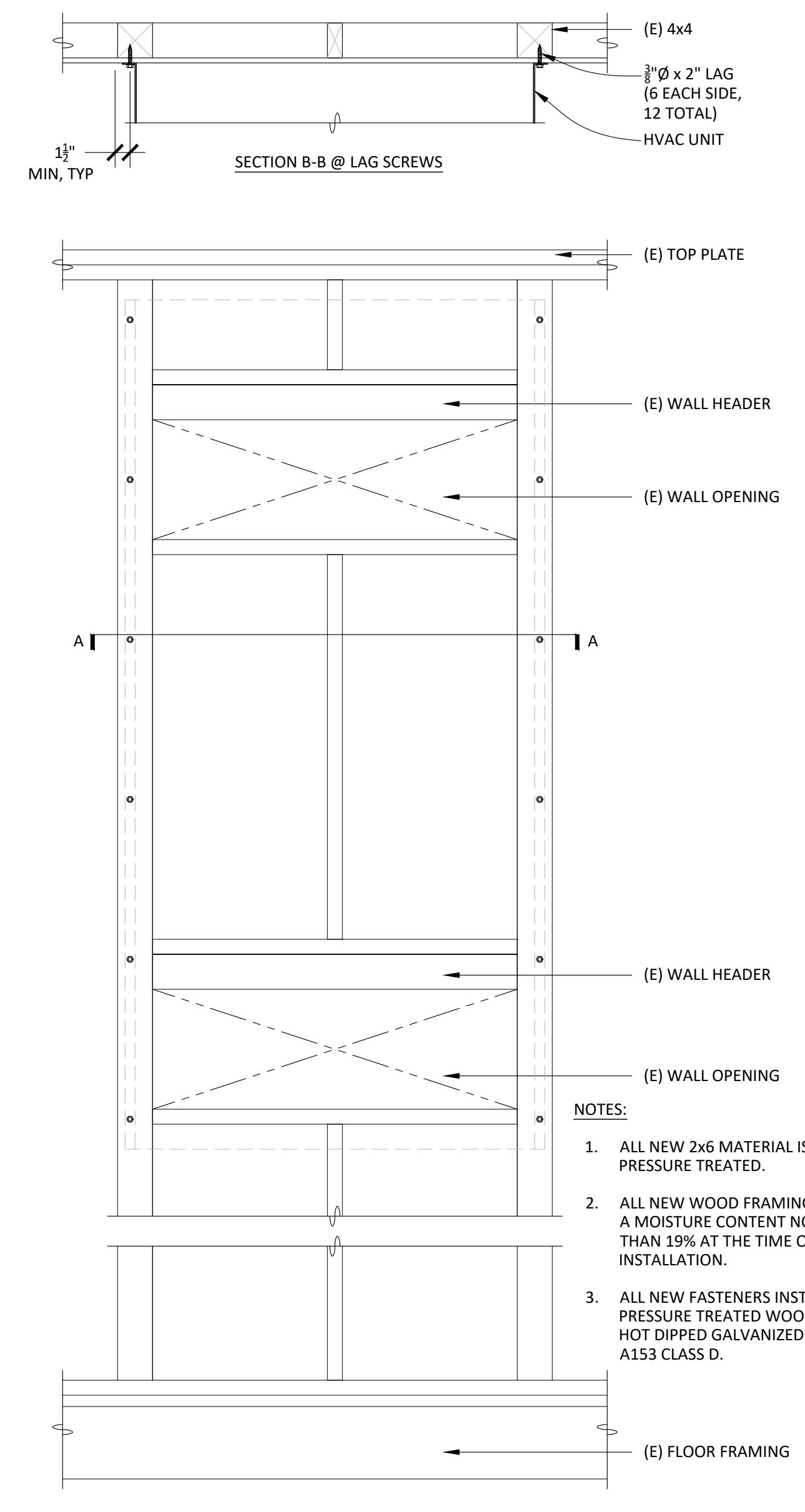
DSA SUBMITTAL

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000

SHEET:

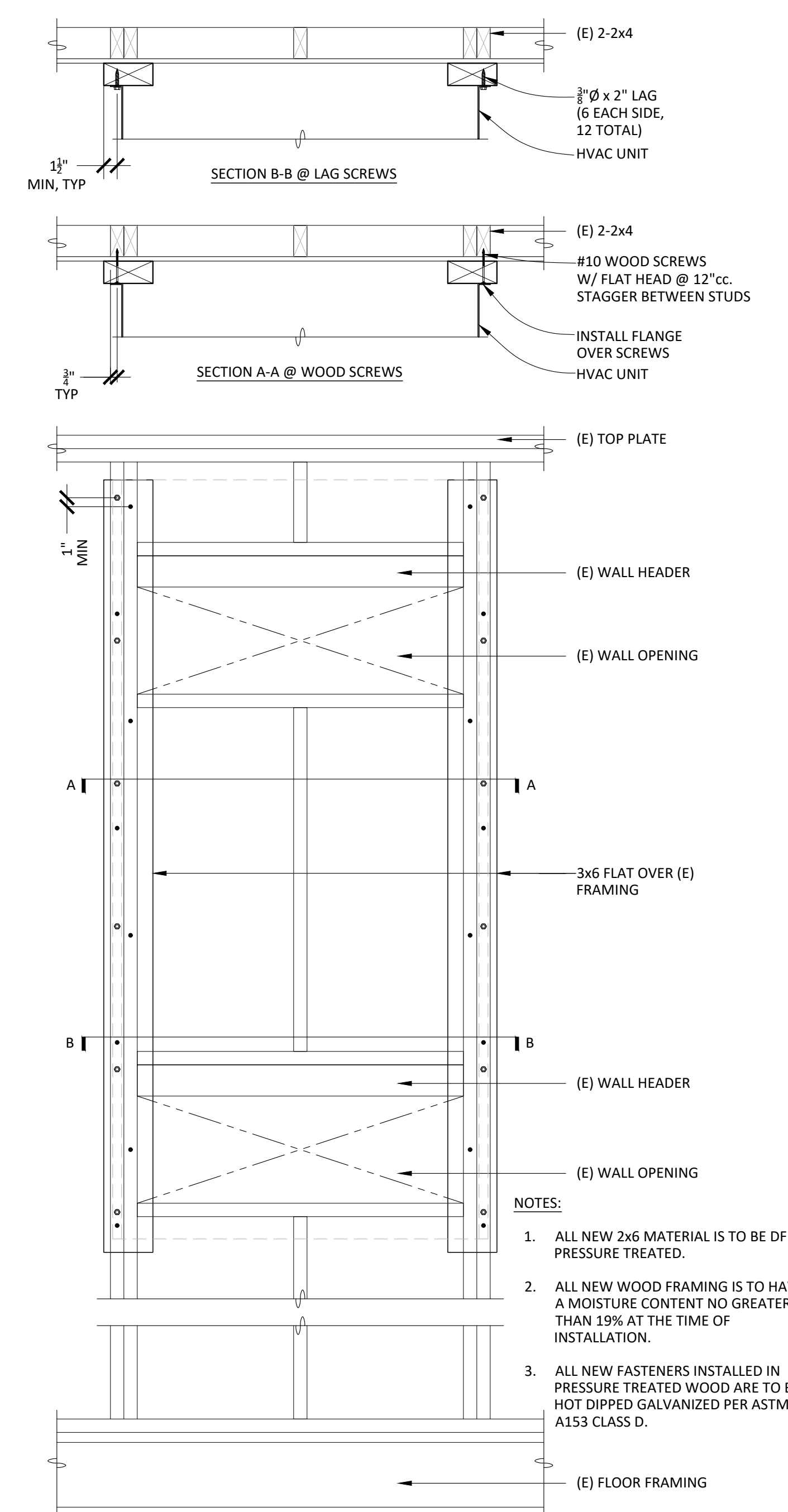
S4.01

ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN INCHES
 DIMENSIONS IN PARENTHESES ARE IN METERS



OCCURS WHEN WALL FRAMING AT HVAC DUCT OPENINGS CONSISTS OF (E) 4x4 STUDS

DETAIL 2
1" = 1'-0"



OCCURS WHEN WALL FRAMING AT HVAC DUCT OPENINGS CONSISTS OF (E) 2-2x4 STUDS

DETAIL 1
1" = 1'-0"

AGENCY APPROVAL:



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3186-070-000

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ISSUE	
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SHEET NAME:
DETAILS

DSA SUBMITTAL

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000

SHEET:

S4.02

EQUIPMENT ANCHORAGE NOTES

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2022 CBC SECTIONS 1617A.1.17 THROUGH 1617A.1.20 & 1617A.1.23 AND ASCE 7-18 CHAPTERS 13, 28 AND 30.

- ALL PERMANENT EQUIPMENT AND COMPONENTS.
- TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.
- TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS:

- COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.
- COMPONENTS WEIGHING LESS THAN 20 POUNDS; OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PIPING AND DUCTWORK DISTRIBUTION SYSTEM BRACING NOTES

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTIONS 13.6.5, 13.6.6, 13.6.7, 13.6.8; AND 2022 CBC, SECTIONS 1617A.1.24 THROUGH 1617A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PRE-APPROVED INSTALLATION GUIDE (E.G., HCAI OPM FOR 2013 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E).

MP MD PP E OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT
 SPECIFIC NOTES AND DETAILS.

MP MD PP E OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL
 (OPMF) #0043-13.

MECHANICAL LEGEND

SYMBOL	ITEM	ABBR.
<input checked="" type="checkbox"/>	SUPPLY AIR	SA
<input checked="" type="checkbox"/>	RETURN AIR	RA
<input checked="" type="checkbox"/>	EXHAUST AIR	EA
<input checked="" type="checkbox"/>	OUTSIDE AIR	OSA
<input checked="" type="checkbox"/>	TRANSFER AIR	TA
	DETAIL DESIGNATION DETAIL NUMBER SHEET NO. WHERE SHOWN	
	EQUIPMENT DESIGNATION UNIT ABBREVIATION NUMBER	
	GRILLE DESIGNATION NECK SIZE & ROW (4 UON) FIRE DAMPER WHERE REQ'D CFM	
	ACOUSTIC LINED DUCT	L
	TURNING VANES	TV
	DUCT FLEXIBLE CONNECTION	
	DUCT RISER	
	DUCT DROP	
	RECTANGULAR TO ROUND FITTING	
	VOLUME CONTROL DAMPER	VD
	FIRE DAMPER W/ ACCESS	FD
	FIRE SMOKE DAMPER W/ ACCESS	FSD
	OPPOSED BLADE DAMPER	OBD
	BACKDRAFT DAMPER	BDD
	MOTORIZED DAMPER	
	THERMOSTAT @ 448" AFF	T-STAT
	SENSOR @ 448" AFF	
	TIMECLOCK @ 448" AFF	
	TEMPERATURE CONTROL PANEL	TCP
	DUCT SMOKE DETECTOR	SD
	PIPE RISER/DROP	(R)/D
	ABOVE FINISHED FLOOR	AFF
	UNLESS OTHERWISE NOTED	UNON
	TYPICAL	(TYP)
	BOTTOM OF DUCT	BOD
	BOTTOM OF PIPE	BOP
	AUTOMATIC AIR VENT	AAV
	MANUAL AIR VENT	MAV
	TEMP. CONTROL CONTRACTOR	TCC
	TEMPERATURE CONTROL VALVE	TCV
	COMBUSTION AIR	CA
	NEW	(N)
	EXISTING	(E)
	POINT OF DIS/CONNECTION	POD/POC
	HEATING HOT WATER SUPPLY	HHWS
	HEATING HOT WATER RETURN	HHWR
	2-WAY CONTROL VALVE	
	BACKFLOW PREVENTER	BFP
	BALL VALVE	
	BUTTERFLY VALVE	
	CAP	
	CHECK VALVE	
	AUTOMATIC BALANCE VALVE (B&G ULTRA SET)	ABV
	AUTOMATIC BALANCE VALVE (B&G CIRCUIT SETTER)	ABV
	CONTROL VALVE (2-WAY)	
	FLEX CONNECTOR	FC
	FLOW ARROW	
	GATE VALVE	
	PRESSURE GAUGE	
	PLUG VALVE	
	REDUCER	
	STRAINER	
	TEMPERATURE SENSOR	TS
	TEST PORT (PETE'S PLUG)	PP
	THERMOMETER	
	TRIPLE DUTY VALVE	

MECHANICAL SPECIFICATIONS

A. THIS CONTRACTOR SHALL COMPLY WITH ALL CODES AND REGULATIONS IN EFFECT AT THE JOB SITE, INCLUDING, BUT NOT LIMITED TO:

- 2022 CALIFORNIA BUILDING CODE
- 2022 CALIFORNIA MECHANICAL CODE
- 2022 CALIFORNIA PLUMBING CODE
- 2022 CALIFORNIA ELECTRICAL CODE
- 2022 CALIFORNIA GREEN BUILDING STANDARDS
- 2022 CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS - TITLE 24
- NATIONAL FIRE PROTECTION ASSOCIATION
- CALIFORNIA STATE FIRE MARSHAL

B. ALL MATERIALS AND EQUIPMENT INSTALLED UNDER THIS CONTRACT SHALL BE GUARANTEED FREE FROM ALL MECHANICAL, ELECTRICAL AND WORKMANSHIP DEFECTS FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ALL DAMAGED ITEMS INSTALLED UNDER THIS CONTRACT WITHOUT ADDITIONAL COST TO OWNER.

C. THE MECHANICAL CONTRACTOR SHALL PROVIDE THE OWNER COPIES OF OPERATION, MAINTENANCE AND PREVENTATIVE MAINTENANCE MANUALS FOR EACH MODEL AND TYPE OF MECHANICAL EQUIPMENT.

D. CHECK AND VERIFY EXISTING CONDITIONS AT THE JOB SITE BEFORE BEGINNING WORK. ADJUST THE LOCATION AND CONFIGURATION OF THE WORK NECESSARY TO SUIT ACTUAL CONDITIONS AND OTHER TRADES. ANY CHANGES REQUIRED MUST FIRST BE APPROVED BY THE ARCHITECT OR ENGINEER.

E. THE LOCATIONS OF EQUIPMENT, PIPING, DUCTWORK AND SYSTEMS SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC AND SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE. CHANGES REQUIRED TO SUIT EXISTING CONDITIONS AND DUE TO COORDINATION WITH OTHER TRADES SHALL BE MADE AT NO EXTRA COST TO THE OWNER.

F. SUBMIT MANUFACTURER'S PRODUCT DATA INCLUDING NAME OF MANUFACTURER, TRADE NAME, MODEL, CAPACITY, OPTIONS, DIMENSIONS, WEIGHTS, INSTALLATION AND STARTUP DATA. EQUIPMENT PERFORMANCE SCHEDULED ARE MINIMUM CAPACITY, AIR FLOW, EFFICIENCY, ETC. REQUIRED. WEIGHTS AND ELECTRICAL DATA SCHEDULED IS MAXIMUM AVAILABLE OR ALLOWABLE.

G. ALL EQUIPMENT IS TO BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER. USING ALL ACCESSORY EQUIPMENT AVAILABLE FROM THE MANUFACTURER FOR SUPPORTS, CONTROLS, ETC., TO MAKE A COMPLETE SYSTEM. ALL EQUIPMENT OR ACCESSORIES NEEDED AND NOT SHOWN OR SPECIFIED SHALL BE FURNISHED AND INSTALLED BY THIS CONTRACTOR. ADJUST THE EQUIPMENT FOR PROPER OPERATION, CHECK ALL CONTROLS AND VERIFY THAT ALL SAFETY DEVICES ARE FUNCTIONING PROPERLY.

H. PROVIDE ACCESS DOORS WHERE ACCESS THROUGH FLOORS, WALLS OR CEILING IS REQUIRED TO ACCESS MECHANICAL CONTROL SYSTEM COMPONENTS, FIRE/SMOKE DAMPERS, SMOKE DETECTORS, ETC., OR OTHER SYSTEMS REQUIRING ACCESS FOR MAINTENANCE, TESTING OR OBSERVATION. COORDINATE THE EXACT TYPE AND LOCATION OF ACCESS DOORS TO PROVIDE PROPER ACCESS TO THE ITEM CONCEALED.

I. CHECK ALL PIPE AND DUCTWORK FOR LEAKS AND EXCESSIVE AIR LOSS AND NOISE. CORRECT ANY DEFICIENCIES AS SOON AS DISCOVERED. OPERATE THE SYSTEMS AS A TEST AND DEMONSTRATE TO THE OWNER AND ARCHITECT OR ENGINEER THAT THE SYSTEM IS FUNCTIONING PROPERLY.

J. GALVANIZED STEEL DUCTS SHALL BE ASTM A 653/A 653M GALVANIZED STEEL SHEET, FORMING STEEL (FS) DESIGNATION, WITH 50% ZINC COATING.

K. FABRICATE, SUPPORT AND SEAL DUCTWORK IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE, AND AS INDICATED. PROVIDE DUCT MATERIAL, GAGES, REINFORCING, AND SEALING FOR 4" STATIC PRESSURE UPSTREAM OF TERMINAL UNITS (VAV, CAV BOXES) AND 2" STATIC PRESSURE DOWNSTREAM OF TERMINAL UNITS (VAV, CAV BOXES).

L. CONSTRUCT DUCTWORK T'S, BENDS, AND ELBOWS WITH RADIUS OF NOT LESS THAN 1-1/2 TIMES WIDTH OF DUCT ON CENTERLINE. WHERE NOT POSSIBLE RECTANGULAR ELBOWS MUST BE USED, PROVIDE AIR FOL TURNING VANES, WHERE ACOUSTICAL LINING IS INDICATED, PROVIDE TURNING VANES OF PERFORATED METAL WITH GLASS FIBER INSULATION.

M. COMBINATION FIRE AND SMOKE DAMPERS SHALL MEET THE REQUIREMENTS OF NFPA 90A, UL 555, UL 555S, AND AS INDICATED. PROVIDE FACTORY SLEEVE AND COLLAR FOR EACH DAMPER.

N. ALL INSULATION AND LINER PRODUCTS SURFACE BURNING CHARACTERISTICS: FLAME SPREAD/SMOKE DEVELOPED INDEX OF 25/50, MAXIMUM, WHEN TESTED IN ACCORDANCE WITH ASTM E 84, NFPA 255, OR UL 723, N.O.1.

MECHANICAL SHEET INDEX

SHEET NO.	SHEET TITLE
M0.01	MECHANICAL LEGEND AND NOTES
M0.02	MECHANICAL SCHEDULES
M1.11	MECHANICAL SITE PLAN
M2.11	MECHANICAL DEMOLITION AND IMPROVEMENT FLOOR PLANS - BLDG 1
M2.12	MECHANICAL DEMOLITION AND IMPROVEMENT FLOOR PLANS - BLDG 2
M2.13	MECHANICAL DEMOLITION AND IMPROVEMENT FLOOR PLANS - BLDG 3, 4
M2.14	MECHANICAL DEMOLITION AND IMPROVEMENT FLOOR PLANS - BLDG 5, 6
M2.15	MECHANICAL DEMOLITION AND IMPROVEMENT FLOOR PLANS - BLDG 7, 8
M2.16	MECHANICAL DEMOLITION AND IMPROVEMENT FLOOR PLANS - BLDG 9, 11
M2.17	MECHANICAL DEMOLITION AND IMPROVEMENT FLOOR PLANS - BLDG 10
M4.11	MECHANICAL DEMOLITION AND IMPROVEMENT ROOF PLANS - BLDG 1
M4.12	MECHANICAL DEMOLITION AND IMPROVEMENT ROOF PLANS - BLDG 2
M4.13	MECHANICAL DEMOLITION AND IMPROVEMENT ROOF PLANS - BLDG 3, 4
M4.14	MECHANICAL DEMOLITION AND IMPROVEMENT ROOF PLANS - BLDG 5, 6
M4.15	MECHANICAL DEMOLITION AND IMPROVEMENT ROOF PLANS - BLDG 7, 8
M5.11	MECHANICAL ENLARGED FLOOR PLANS - BLDG 1 KITCHEN
M6.01	MECHANICAL KITCHEN EQUIPMENT DRAWINGS
M6.02	MECHANICAL KITCHEN EQUIPMENT DRAWINGS
M7.01	MECHANICAL CONTROLS
M7.02	MECHANICAL CONTROLS
M7.03	MECHANICAL CONTROLS
M8.01	MECHANICAL DETAILS
M8.02	MECHANICAL DETAILS

AGENCY APPROVAL:



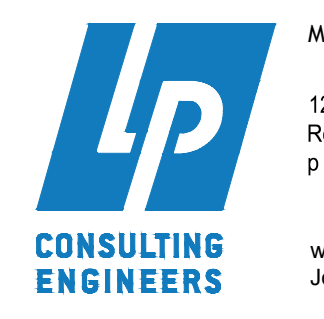
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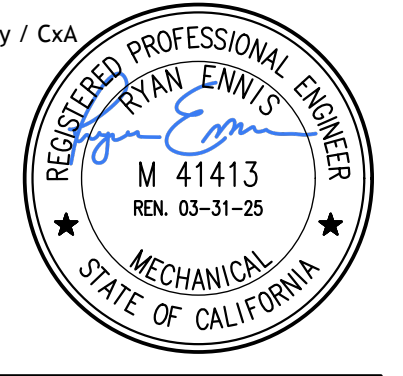
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ISSUE

DESCRIPTION DATE



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PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
MECHANICAL LEGEND AND NOTES

DSA SUBMITTAL

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000

SHEET:

M0.01

DATE PLOTTED: 01/04/2024 2:28:53 PM

OUTSIDE AIR SCHEDULE			
SYSTEM NAME	MIN. OSA CFM	MAX. OSA CFM	DEMAND CONTROL VENT. (Y/N)
HP-8-1	370	-	N
HP-8-2	185	-	N
HP-8-3	185	-	N
HP-9-1	370	-	N
HP-9-2	185	-	N
HP-9-3	185	-	N
HP-10-1	325	-	N
HP-10-2	325	-	N
HP-11-1	360	-	N
HP-11-2	360	-	N
HP-11-3	360	-	N

* OSA TO BE PER TITLE 24, 2022 BUILDING ENERGY EFFICIENCY STANDARDS, SECTION 120.1, REQUIREMENTS.

* DEMAND VENTILATION CONTROLS SHALL MAINTAIN CO2 CONCENTRATIONS LESS THAN OR EQUAL TO 600 PPM PLUS THE OUTDOOR AIR CO2 CONCENTRATIONS IN ALL ROOMS WITH CO2 SENSORS.

WALL MOUNTED HEAT PUMP UNIT SCHEDULE																												
TYPE	MARK	NOM. TONS	ELECTRICAL						BLOWER					COOLING					HEATING					FILTER TYPE	OPERATING WEIGHT (LBS.)	MFR	MODEL	
			VOLT	PHASE	MCA	MOCP	POWER WIRE SIZE	GROUND WIRE SIZE	DESIGN BHP	CFM	E.S.P. (IN WC)	MIN. OSA (CFM)	DRIVE	TYPE	TOTAL CAPACITY (BTUH)	SENSIBLE CAPACITY (BTUH)	E.A. DB (°F)	E.A. WB (°F)	AMBIENT TEMP (°F)	EER	TYPE	CAPACITY @47°F (BTUH)	CAPACITY @17°F (BTUH)					COP@47°F / COP@17°F
HP	8-1	3	208/230	1	53	60	#6	#10	0.5	1150	0.15	400	DIRECT	DX	36000	28600	80	67	95	11.1	DX	33000	21110	3.3/2.3	MERV13	420	BARD	W36H
HP	8-2	3	208/230	1	53	60	#6	#10	0.5	1150	0.15	400	DIRECT	DX	36000	28600	80	67	95	11.1	DX	33000	21110	3.3/2.3	MERV13	420	BARD	W36H
HP	8-3	3	208/230	1	53	60	#6	#10	0.5	1150	0.15	400	DIRECT	DX	36000	28600	80	67	95	11.1	DX	33000	21110	3.3/2.3	MERV13	420	BARD	W36H
HP	9-1	3	208/230	1	53	60	#6	#10	0.5	1150	0.15	400	DIRECT	DX	36000	28600	80	67	95	11.1	DX	33000	21110	3.3/2.3	MERV13	420	BARD	W36H
HP	9-2	3	208/230	1	53	60	#6	#10	0.5	1150	0.15	400	DIRECT	DX	36000	28600	80	67	95	11.1	DX	33000	21110	3.3/2.3	MERV13	420	BARD	W36H
HP	9-3	3	208/230	1	53	60	#6	#10	0.5	1150	0.15	400	DIRECT	DX	36000	28600	80	67	95	11.1	DX	33000	21110	3.3/2.3	MERV13	420	BARD	W36H
HP	10-1	3.5	208/230	1	84	90	#4	#8	0.5	1350	0.15	400	DIRECT	DX	41500	30800	80	67	95	11.0	DX	39000	24100	3.3/2.3	MERV13	550	BARD	W42H
HP	10-2	3.5	208/230	1	84	90	#4	#8	0.5	1350	0.15	400	DIRECT	DX	41500	30800	80	67	95	11.0	DX	39000	24100	3.3/2.3	MERV13	550	BARD	W42H
HP	11-1	3.5	208/230	1	84	90	#4	#8	0.5	1350	0.15	400	DIRECT	DX	41500	30800	80	67	95	11.0	DX	39000	24100	3.3/2.3	MERV13	550	BARD	W42H
HP	11-2	3.5	208/230	1	84	90	#4	#8	0.5	1350	0.15	400	DIRECT	DX	41500	30800	80	67	95	11.0	DX	39000	24100	3.3/2.3	MERV13	550	BARD	W42H
HP	11-3	3.5	208/230	1	84	90	#4	#8	0.5	1350	0.15	400	DIRECT	DX	41500	30800	80	67	95	11.0	DX	39000	24100	3.3/2.3	MERV13	550	BARD	W42H

NOTES:
 1. UNITS PERFORMANCE BASED UPON 105°F DB/ 72°F WB SUMMER AND 30°F DB WINTER AMBIENT CONDITIONS.
 2. PROVIDE ECONOMIZER FOR ALL UNITS.
 3. PROVIDE MERV 13 DISPOSABLE FILTER.
 4. PROVIDE 5KW ELECTRIC RESISTANCE HEAT STRIP FOR HP-8-1, HP-8-2, HP-8-3, HP-9-1, HP-9-2, AND HP-9-3. PROVIDE 10KW ELECTRIC RESISTANCE HEAT STRIP FOR HP-10-1, HP-10-2, HP-11-1, HP-11-2, AND HP-11-3.
 5. UNITS TO BE CONNECTED TO JOHNSON CONTROL DRAWINGS FOR ADDITIONAL INFO.

ADD ALTERNATE #1

ADD ALTERNATE #1

ADD ALTERNATE #1

EXHAUST FAN SCHEDULE																			
TYPE	MARK	FAN TYPE	MOUNT	ELECTRICAL					CFM	ESP (IN. WC)	DRIVE	RPM	SONES	SERVICE	CONTROL	OPERATING WEIGHT (LBS.)	MFR	MODEL	NOTES
				HP	WATTS	VOLT	FLA	PHASE											
REF	1-1	CENTRIFUGAL	ROOF	0.12	-	115	5.8	1	750	0.375	DIRECT	1181	5.8	SEE PLAN	INTERLOCK WITH LIGHTS	70	GREENHECK	GB-100-4	PROVIDE BACK DRAFT DAMPER AND BIRDSCREEN, PRE-WIRED DISCONNECT SWITCH WITH NEMA RATED ENCLOSURE FOR LOCATION, MOTOR THERAL OVERLOAD PROTECTION, PROVIDE WITH PRE-WIRED FAN SPEED CONTROLLER, PROVIDE CURB ADAPTER, CONTRACTOR TO FIELD VERIFY EXISTING CURB DIMENSIONS PRIOR TO ORDERING. FANS TO BE AMCA LICENSED FOR SOUND AND AIR PERFORMANCE.
REF	1-2	CENTRIFUGAL	ROOF	1/60	-	115	-	1	150	0.265	DIRECT	1300	2.8	SEE PLAN	INTERLOCK WITH LIGHTS	25	GREENHECK	G-070-G	PROVIDE BACK DRAFT DAMPER AND BIRDSCREEN, PRE-WIRED DISCONNECT SWITCH WITH NEMA RATED ENCLOSURE FOR LOCATION, MOTOR THERAL OVERLOAD PROTECTION, PROVIDE WITH PRE-WIRED FAN SPEED CONTROLLER, PROVIDE CURB ADAPTER, CONTRACTOR TO FIELD VERIFY EXISTING CURB DIMENSIONS PRIOR TO ORDERING. FANS TO BE AMCA LICENSED FOR SOUND AND AIR PERFORMANCE.
REF	2-1	CENTRIFUGAL	ROOF	0.25	-	115	5.8	1	500	0.375	DIRECT	1009	3.7	SEE PLAN	INTERLOCK WITH LIGHTS	70	GREENHECK	GB-100-4	PROVIDE BACK DRAFT DAMPER AND BIRDSCREEN, PRE-WIRED DISCONNECT SWITCH WITH NEMA RATED ENCLOSURE FOR LOCATION, MOTOR THERAL OVERLOAD PROTECTION, PROVIDE WITH PRE-WIRED FAN SPEED CONTROLLER, PROVIDE CURB ADAPTER, CONTRACTOR TO FIELD VERIFY EXISTING CURB DIMENSIONS PRIOR TO ORDERING. FANS TO BE AMCA LICENSED FOR SOUND AND AIR PERFORMANCE.
REF	5-1	CENTRIFUGAL	ROOF	0.19	-	115	5.8	1	1000	0.375	DIRECT	1410	8.3	SEE PLAN	INTERLOCK WITH LIGHTS	70	GREENHECK	GB-100-4	PROVIDE BACK DRAFT DAMPER AND BIRDSCREEN, PRE-WIRED DISCONNECT SWITCH WITH NEMA RATED ENCLOSURE FOR LOCATION, MOTOR THERAL OVERLOAD PROTECTION, PROVIDE WITH PRE-WIRED FAN SPEED CONTROLLER, PROVIDE CURB ADAPTER, CONTRACTOR TO FIELD VERIFY EXISTING CURB DIMENSIONS PRIOR TO ORDERING. FANS TO BE AMCA LICENSED FOR SOUND AND AIR PERFORMANCE.
REF	5-2	CENTRIFUGAL	ROOF	1/60	-	115	-	1	150	0.265	DIRECT	1300	2.8	SEE PLAN	INTERLOCK WITH LIGHTS	25	GREENHECK	G-070-G	PROVIDE BACK DRAFT DAMPER AND BIRDSCREEN, PRE-WIRED DISCONNECT SWITCH WITH NEMA RATED ENCLOSURE FOR LOCATION, MOTOR THERAL OVERLOAD PROTECTION, PROVIDE WITH PRE-WIRED FAN SPEED CONTROLLER, PROVIDE CURB ADAPTER, CONTRACTOR TO FIELD VERIFY EXISTING CURB DIMENSIONS PRIOR TO ORDERING. FANS TO BE AMCA LICENSED FOR SOUND AND AIR PERFORMANCE.
REF	7-1	CENTRIFUGAL	ROOF	0.19	-	115	5.8	1	1000	0.375	DIRECT	1410	8.3	SEE PLAN	INTERLOCK WITH LIGHTS	70	GREENHECK	GB-100-4	PROVIDE BACK DRAFT DAMPER AND BIRDSCREEN, PRE-WIRED DISCONNECT SWITCH WITH NEMA RATED ENCLOSURE FOR LOCATION, MOTOR THERAL OVERLOAD PROTECTION, PROVIDE WITH PRE-WIRED FAN SPEED CONTROLLER, PROVIDE CURB ADAPTER, CONTRACTOR TO FIELD VERIFY EXISTING CURB DIMENSIONS PRIOR TO ORDERING. FANS TO BE AMCA LICENSED FOR SOUND AND AIR PERFORMANCE.
REF	7-2	CENTRIFUGAL	ROOF	1/60	-	115	-	1	150	0.265	DIRECT	1300	2.8	SEE PLAN	INTERLOCK WITH LIGHTS	25	GREENHECK	G-070-G	PROVIDE BACK DRAFT DAMPER AND BIRDSCREEN, PRE-WIRED DISCONNECT SWITCH WITH NEMA RATED ENCLOSURE FOR LOCATION, MOTOR THERAL OVERLOAD PROTECTION, PROVIDE WITH PRE-WIRED FAN SPEED CONTROLLER, PROVIDE CURB ADAPTER, CONTRACTOR TO FIELD VERIFY EXISTING CURB DIMENSIONS PRIOR TO ORDERING. FANS TO BE AMCA LICENSED FOR SOUND AND AIR PERFORMANCE.
HEF	1-1	UPBLAST	ROOF	0.397	-	115	11.6	1	1575	1.0	DIRECT	1260	9.9	SEE PLAN	INTERLOCK WITH MAU-1	100	CAPITVEAIRE	DU85HFA	SEE ELECTRICAL DRAWINGS FOR DISCONNECT SWITCH. SEE KITCHEN EQUIPMENT DRAWINGS, M6.01 AND M6.02 FOR ADDITIONAL REQUIREMENTS. FAN TO BE INTERLOCKED WITH KITCHEN HOOD AND MAKE-UP AIR UNIT. SEE MECHANICAL CONTROLS AND FOOD SERVICE DRAWINGS FOR ADDITIONAL REQUIREMENTS.

MAKEUP AIR UNIT (GAS/DX) SCHEDULE																								
TYPE	MARK	DUCT DISCHARGE	ELECTRICAL				SUPPLY FAN				COOLING (DX)				HEATING (NATURAL GAS)				FILTER TYPE	OPER. WEIGHT (LBS.)	MANUFACTURER	MODEL NUMBER		
			VOLTS	PHASE	RLA	MCA	MOCP	MOTOR BHP	DRIVE	CFM	E.S.P. (IN WC)	E.A. DB/WB (°F)	L.A. DB/WB (°F)	AMBIENT DB (°F)	CAPACITY TOTAL (MBH)	CAPACITY SENS. (MBH)	AFUE (%)	INPUT (MBH)					OUTPUT (MBH)	AMBIENT DB (°F)
MAU	1-1	SIDE	460	3	13	16.3	20	2.0	DIRECT	1575	1.0	97/69	52/52	105	77	73.4	81	92221	74699	47	MERV-13	1400	CAPITVEAIRE	CASRTU1-1.125-15-6T

NOTES:
 1. SEE ELECTRICAL DRAWINGS FOR DISCONNECT SWITCH.
 2. SEE KITCHEN EQUIPMENT DRAWINGS, M6.01 AND M6.02 FOR ADDITIONAL REQUIREMENTS.
 3. MAKE-UP AIR UNIT TO BE INTERLOCKED WITH KITCHEN HOOD AND EXHAUST FAN. SEE MECHANICAL CONTROLS AND FOOD SERVICE DRAWINGS FOR ADDITIONAL REQUIREMENTS.

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PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
MECHANICAL SCHEDULES

DSA SUBMITTAL

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000

SHEET:

M0.02

FILE NAME: 01/04/2024 2:28:53 PM
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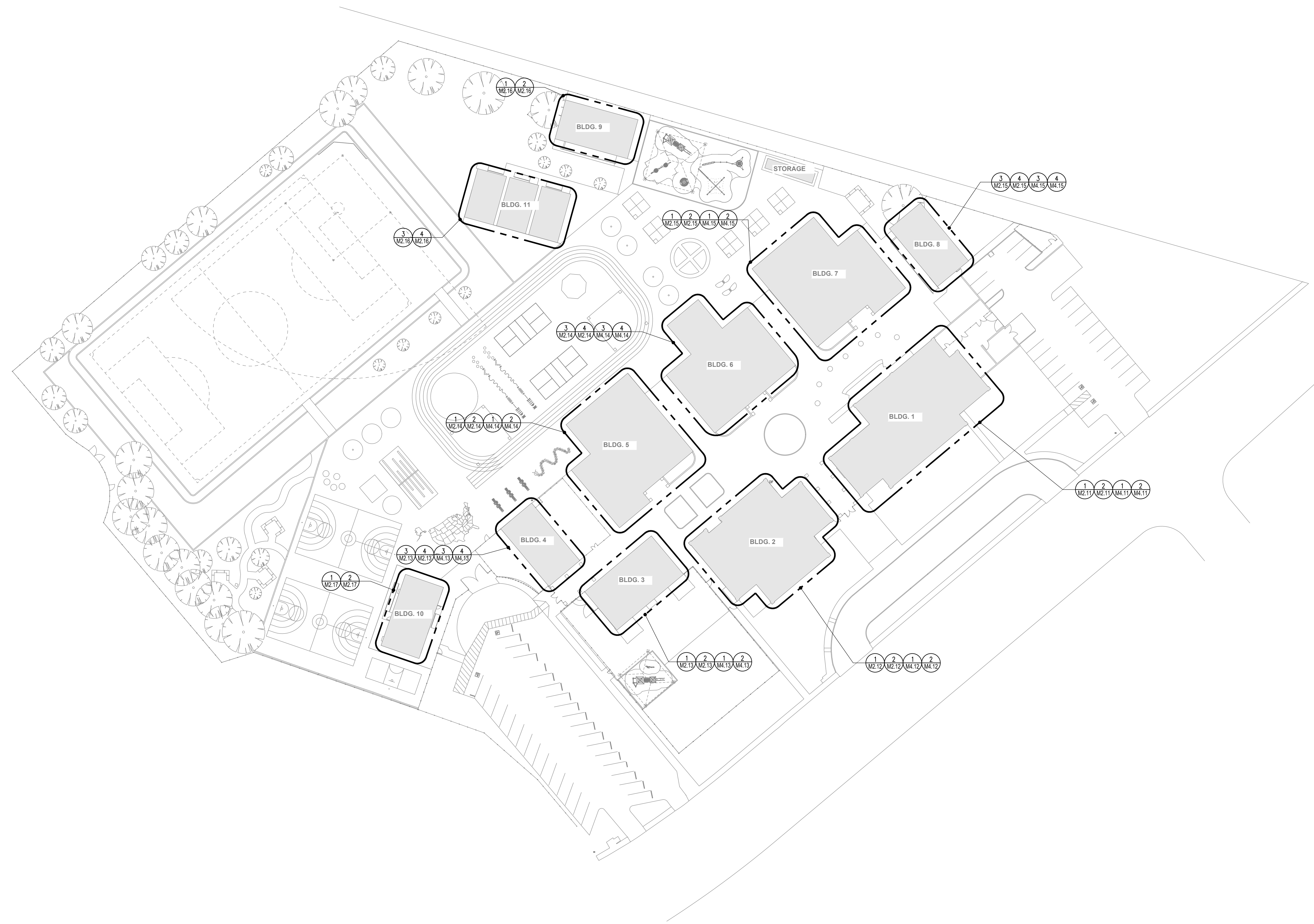


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MECHANICAL SITE PLAN



1
1" = 40'-0"

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PROJECT:
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SHEET NAME:
MECHANICAL SITE PLAN

DSA SUBMITTAL

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000

SHEET:

M1.11

FILE NAME: M2.11.MATSUBYAMA ES MODERNIZATION.DWG
 DATE: 01/04/2024 2:28:53 PM
 SHEET: ORIGINAL PAGE SIZE

KEY NOTES

- ① REMOVE EXISTING DUCTWORK SHOWN HATCHED.
- ② REBALANCE EXISTING AIR OUTLETS/INLET TO AIR QUANTITY SHOWN.

AGENCY APPROVAL:



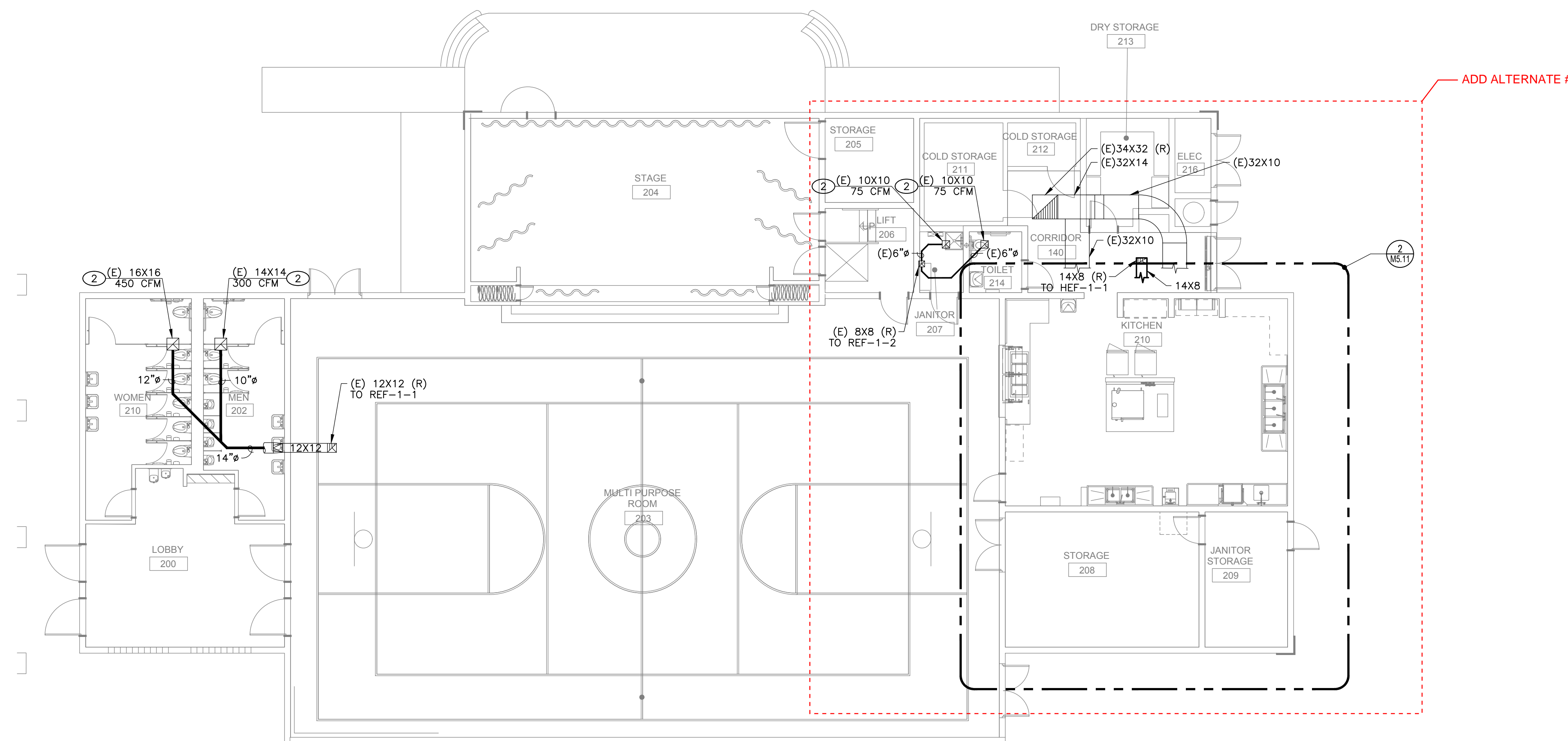
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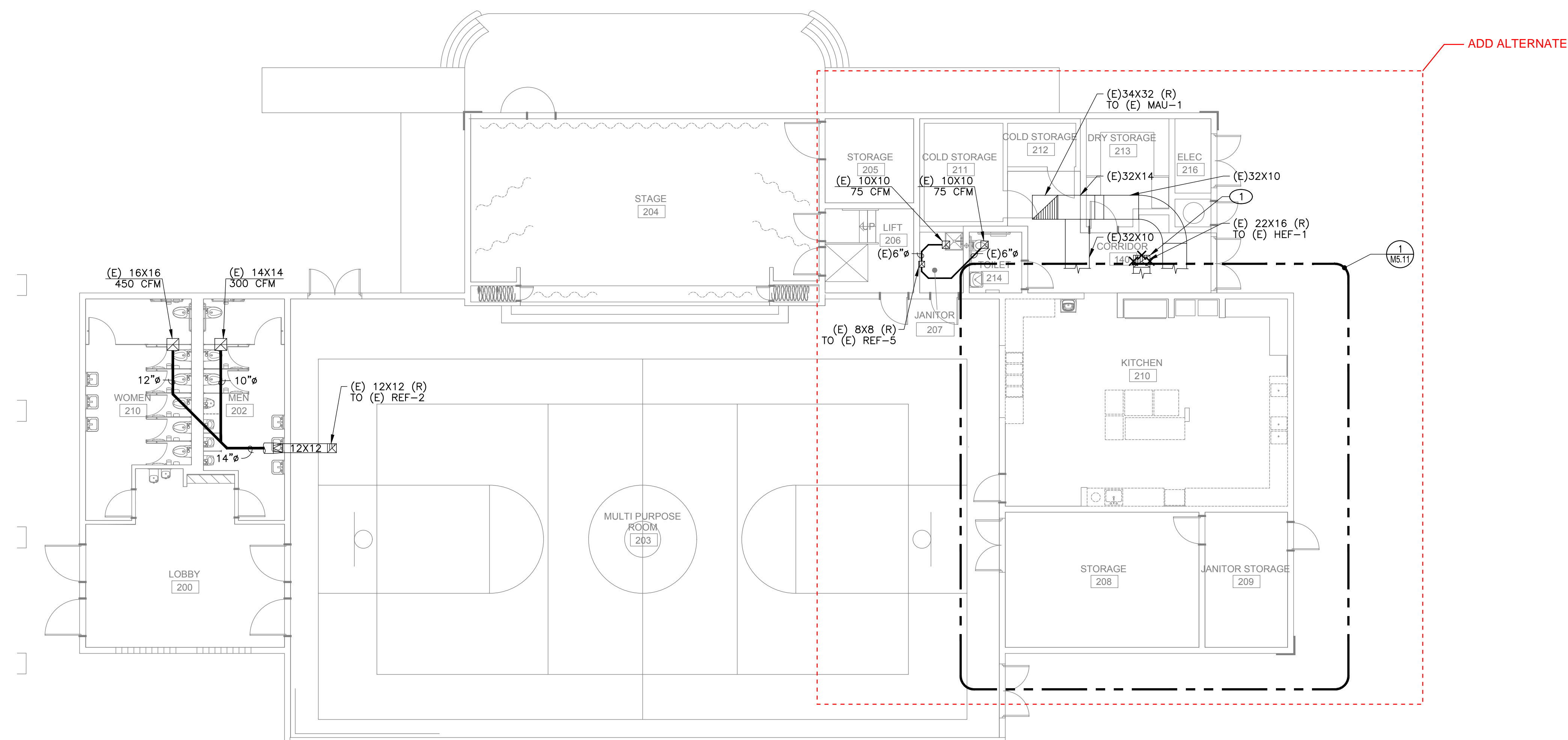


MECHANICAL IMPROVEMENT FLOOR PLAN - BLDG 1

2
 1/8" = 1'-0"

GENERAL NOTES

- 1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
- 2. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.



MECHANICAL DEMOLITION FLOOR PLAN - BLDG 1

1
 1/8" = 1'-0"



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PROJECT:
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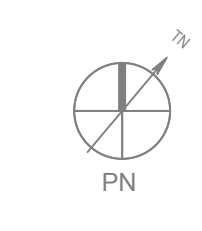
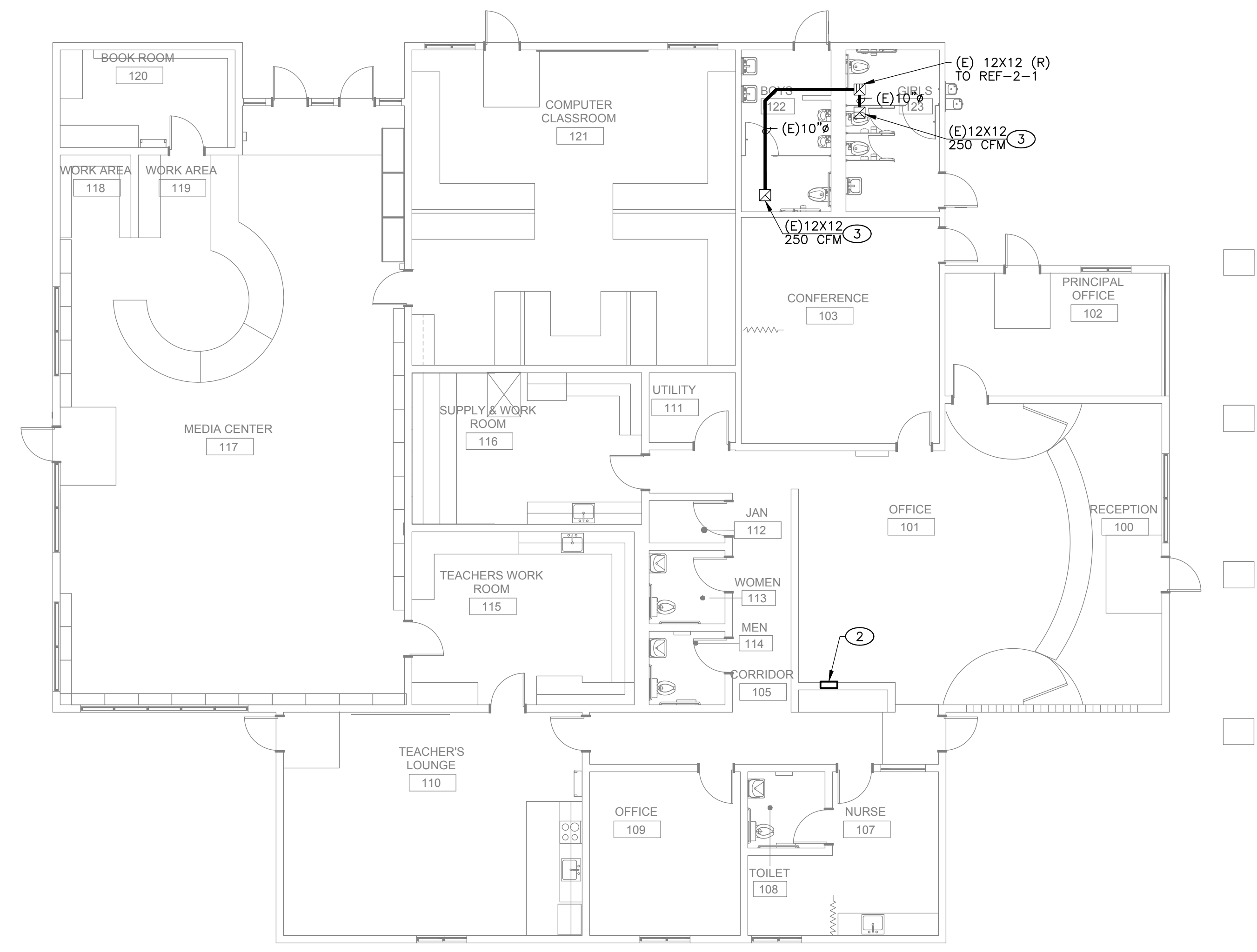
SHEET NAME:
MECHANICAL DEMOLITION AND IMPROVEMENT FLOOR PLANS - BLDG 1

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DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000
 SHEET:

M2.11

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MECHANICAL IMPROVEMENT FLOOR PLAN - BLDG 2

2
 1/8" = 1'-0"

KEY NOTES

- ① REPLACE EXISTING JOHNSON CONTROLS N2 GLOBAL CONTROLLER WITH NEW JOHNSON CONTROL METASYS. ALL EXISTING EQUIPMENT ON EXISTING JOHNSON SYSTEM TO BE CONVERTED TO METASYS.
- ② NEW JOHNSON CONTROL METASYS. SEE SHEET M7.01, M7.02, AND M7.03.
- ③ REBALANCE EXISTING AIR OUTLET/INLET TO AIR QUANTITY SHOWN.

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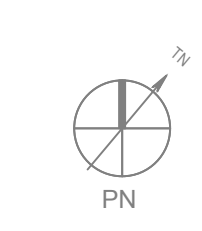
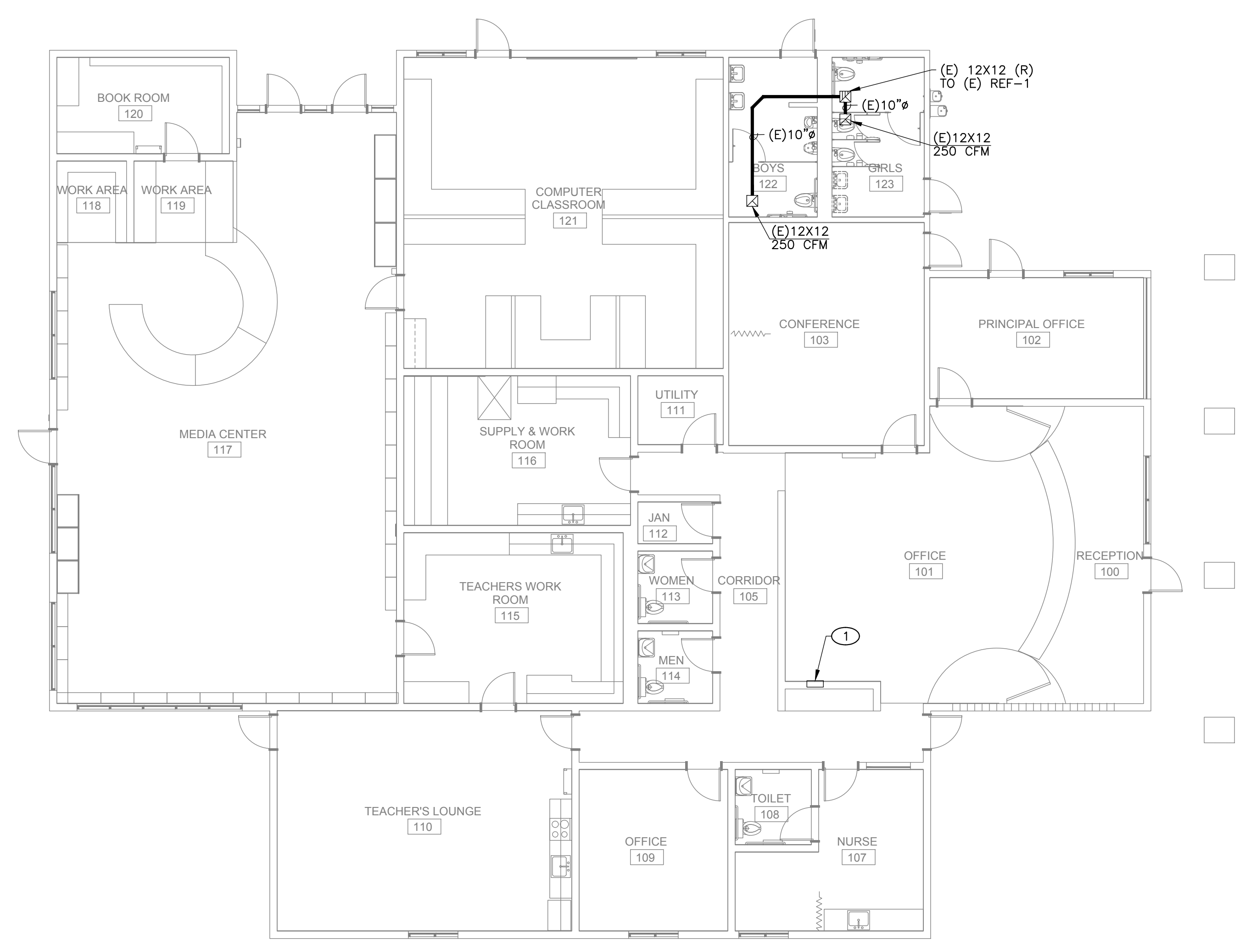
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GENERAL NOTES

1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
2. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.



MECHANICAL DEMOLITION FLOOR PLAN - BLDG 2

1
 1/8" = 1'-0"

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MECHANICAL DEMOLITION AND IMPROVEMENT FLOOR PLANS - BLDG 2

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SHEET:

M2.12

FILE NAME: 011807000 - SCUSD Matsuyama ES Modernization 011807000-A-MATSUYAMA.MOD.rvt
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KEY NOTES

- ① RELABEL EXISTING HVAC UNIT AS SHOWN WITH NEW NAMEPLATE.
- ② NO WORK. FOR REFERENCE ONLY.

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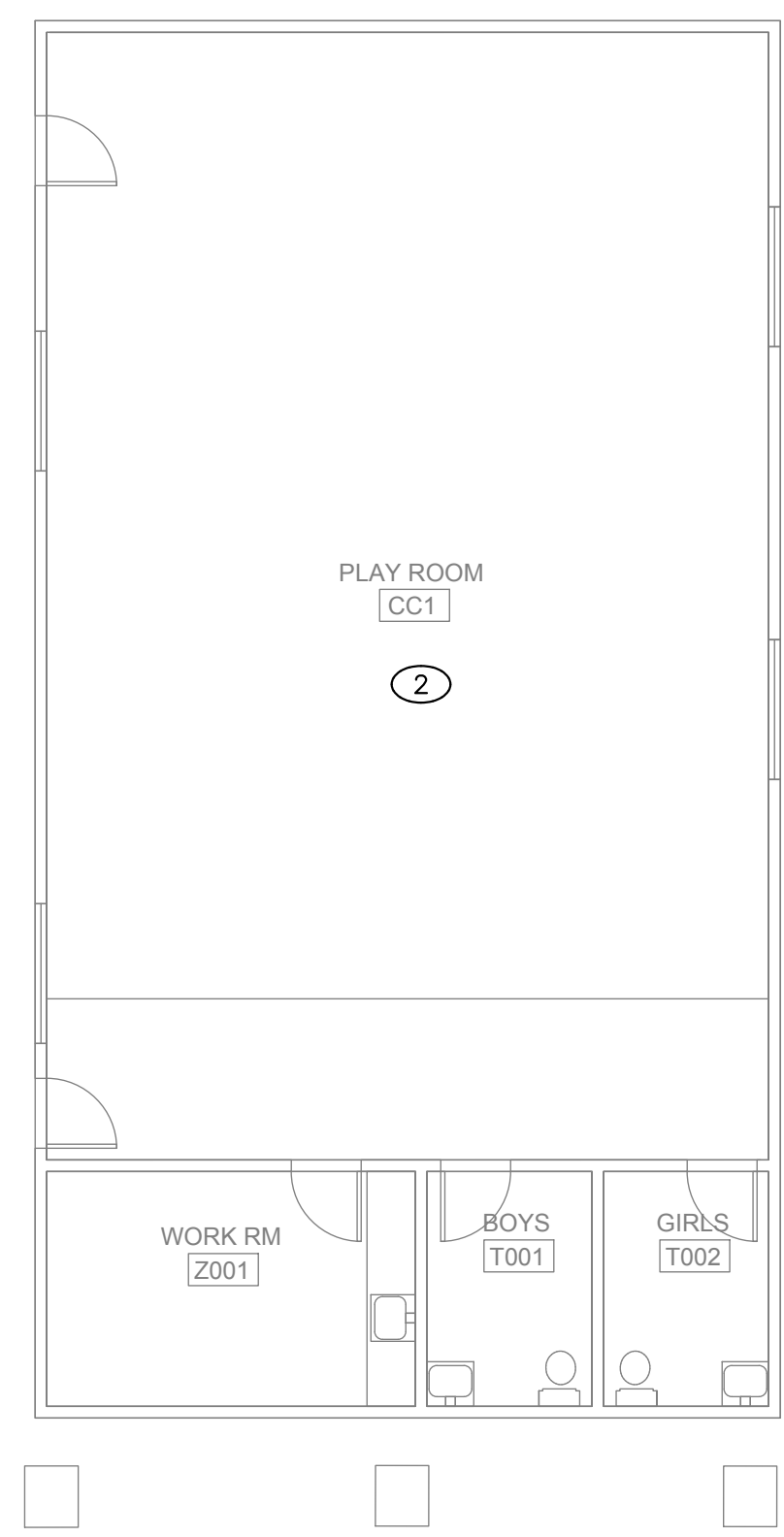
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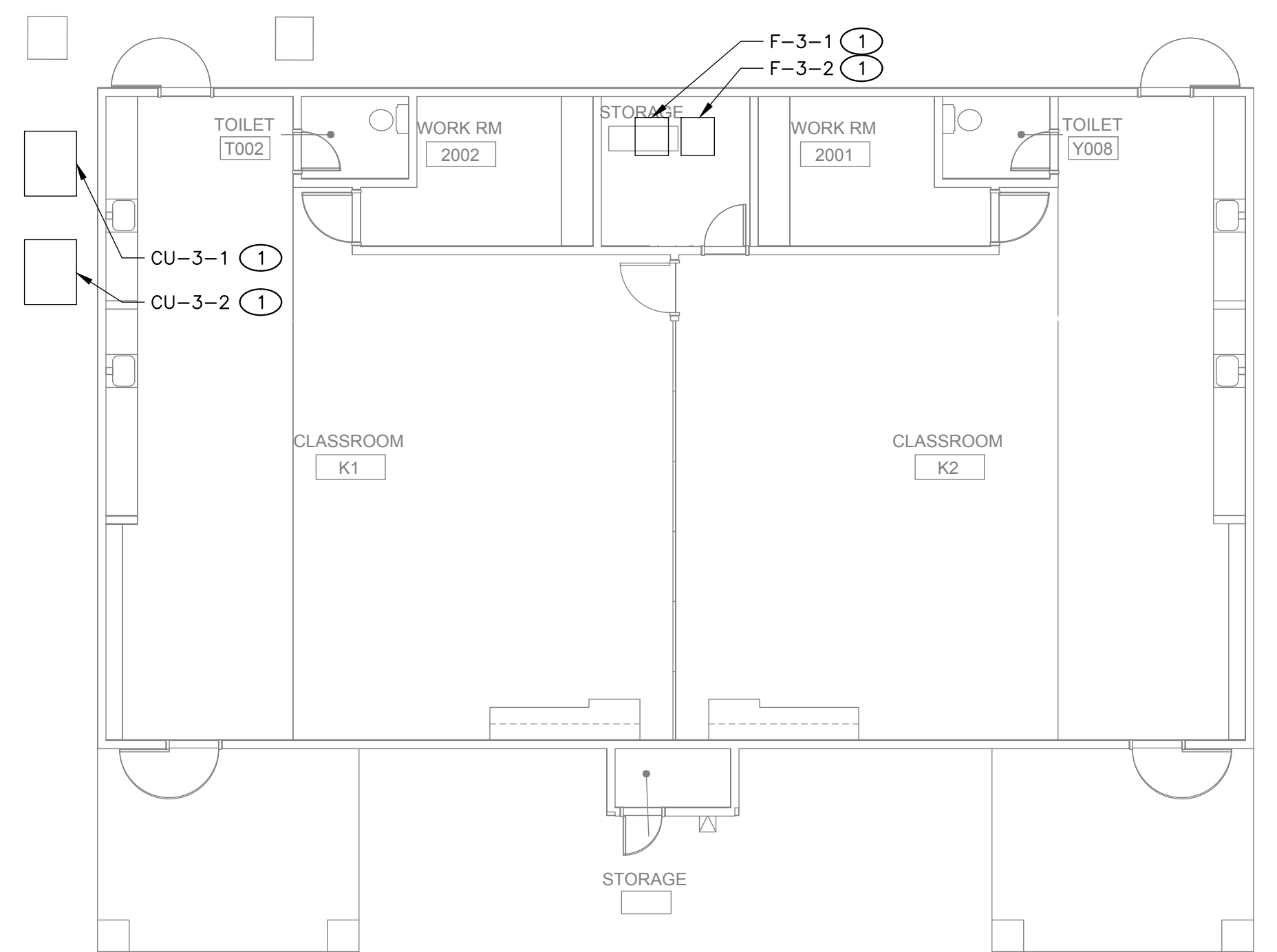
MECHANICAL IMPROVEMENT FLOOR PLAN - BLDG 4 | 4 | 1/8" = 1'-0"



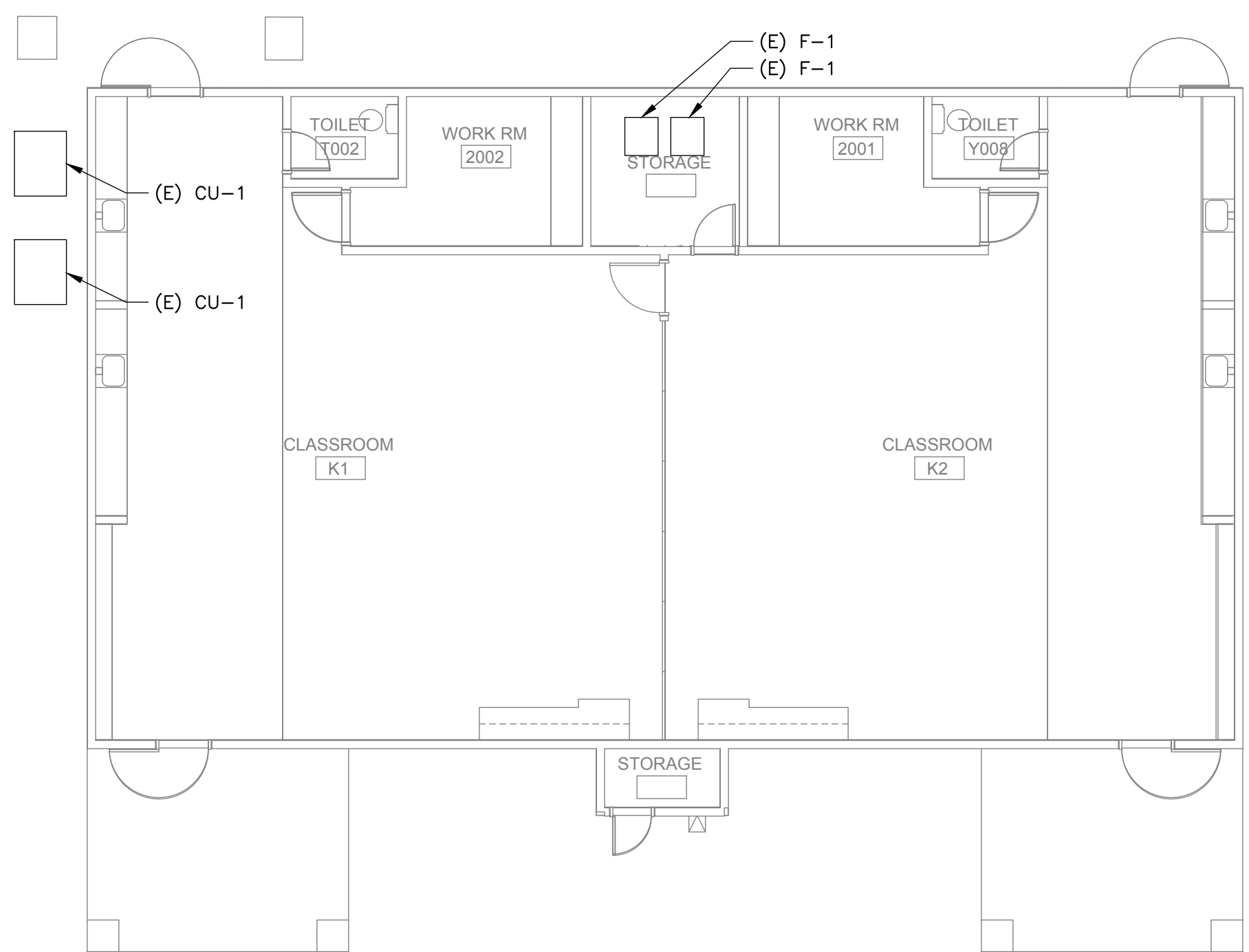
MECHANICAL DEMOLITION FLOOR PLAN - BLDG 4 | 3 | 1/8" = 1'-0"

GENERAL NOTES

- 1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
- 2. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.



MECHANICAL IMPROVEMENT FLOOR PLAN - BLDG 3 | 2 | 1/8" = 1'-0"



MECHANICAL DEMOLITION FLOOR PLAN - BLDG 3 | 1 | 1/8" = 1'-0"

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SHEET NAME:
MECHANICAL DEMOLITION AND IMPROVEMENT FLOOR PLANS - BLDG 3, 4

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DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000

SHEET:

M2.13

Autodesk Docs:0116807000 - SCUSD Matsuyama ES Modernization0116807000-A-MATSUYAMA-MOD.rvt 12/15/2023 2:28:53 PM

KEY NOTES

- ① NO WORK. FOR REFERENCE ONLY.
- ② REBALANCE EXISTING AIR OUTLET/INLET TO AIR QUANTITY SHOWN.

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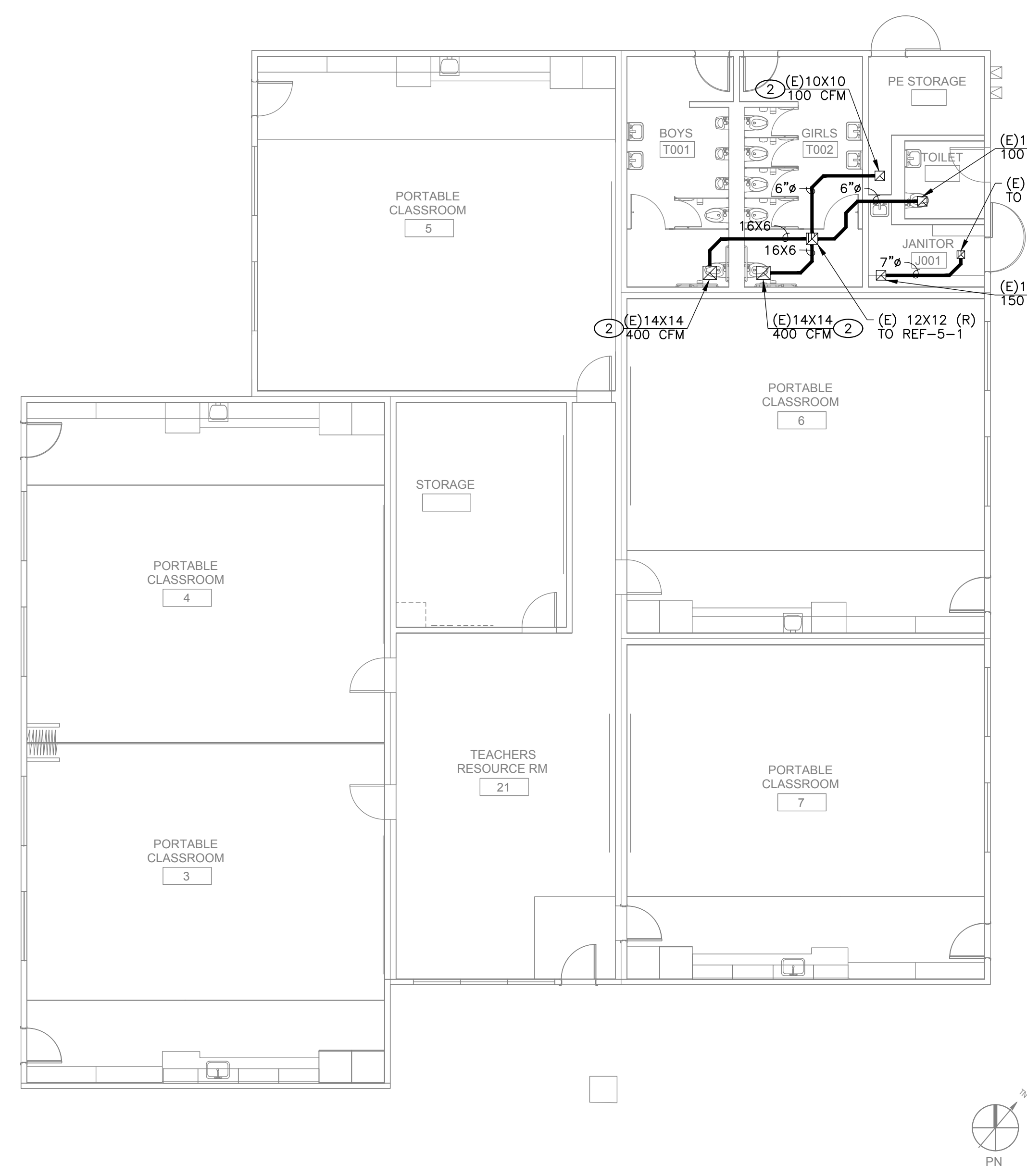
MECHANICAL IMPROVEMENT FLOOR PLAN - BLDG 6 | **4**
1/8" = 1'-0"



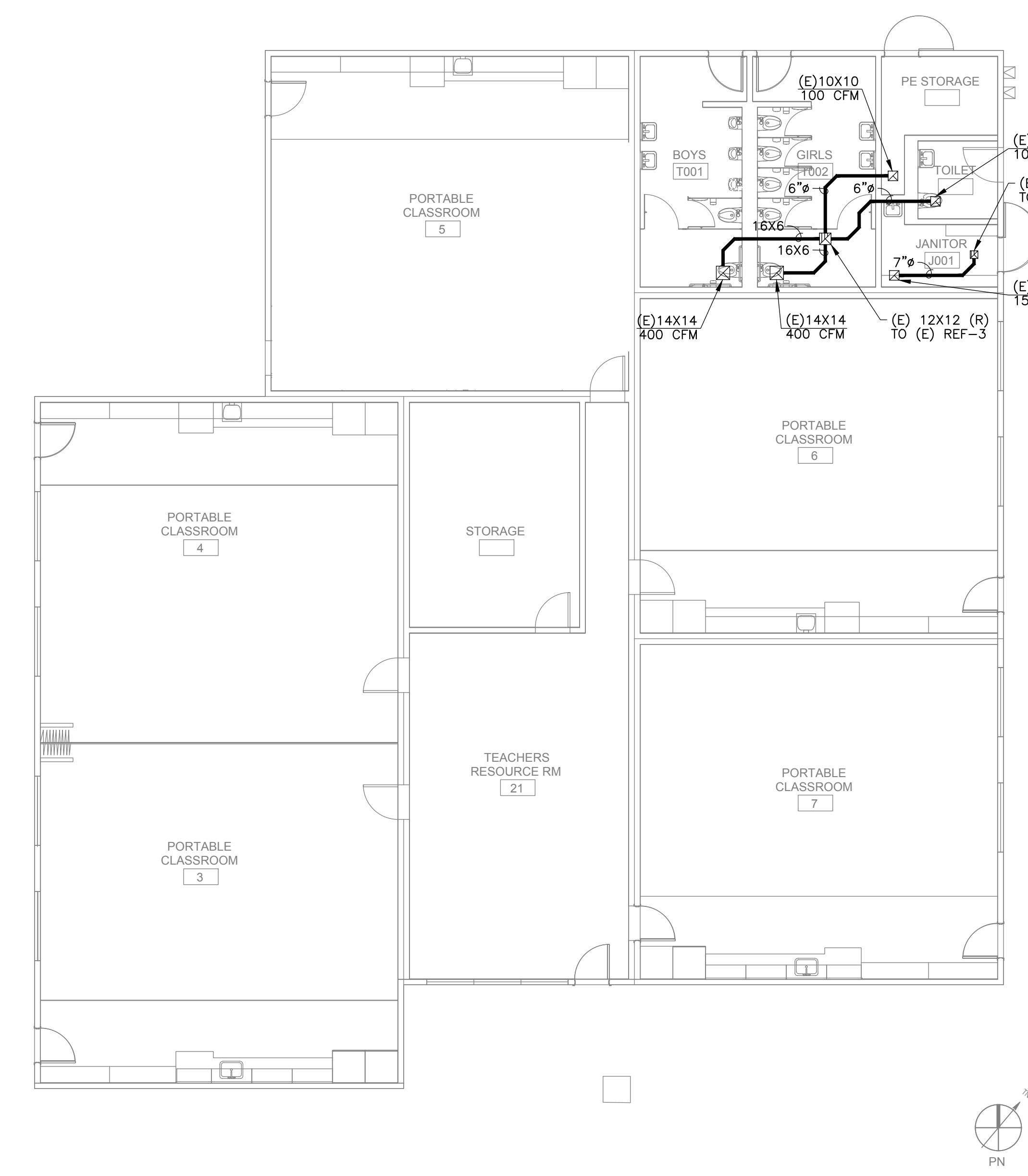
MECHANICAL DEMOLITION FLOOR PLAN - BLDG 6 | **3**
1/8" = 1'-0"

GENERAL NOTES

- 1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
- 2. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.



MECHANICAL IMPROVEMENT FLOOR PLAN - BLDG 5 | **2**
1/8" = 1'-0"



MECHANICAL DEMOLITION FLOOR PLAN - BLDG 5 | **1**
1/8" = 1'-0"

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SHEET NAME:
MECHANICAL DEMOLITION AND IMPROVEMENT FLOOR PLANS - BLDG 5, 6

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 SHEET:

KEY NOTES

- ① REMOVE EXISTING BARD UNITS SHOWN HATCHED. EXISTING DUCTWORK TO REMAIN FOR CONNECTION TO NEW DUCTWORK.
- ② CONNECT NEW BARD UNITS TO EXISTING DUCTWORK.
- ③ REBALANCE EXISTING AIR OUTLET/INLET TO AIR QUANTITY SHOWN.

AGENCY APPROVAL:

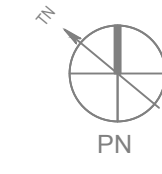
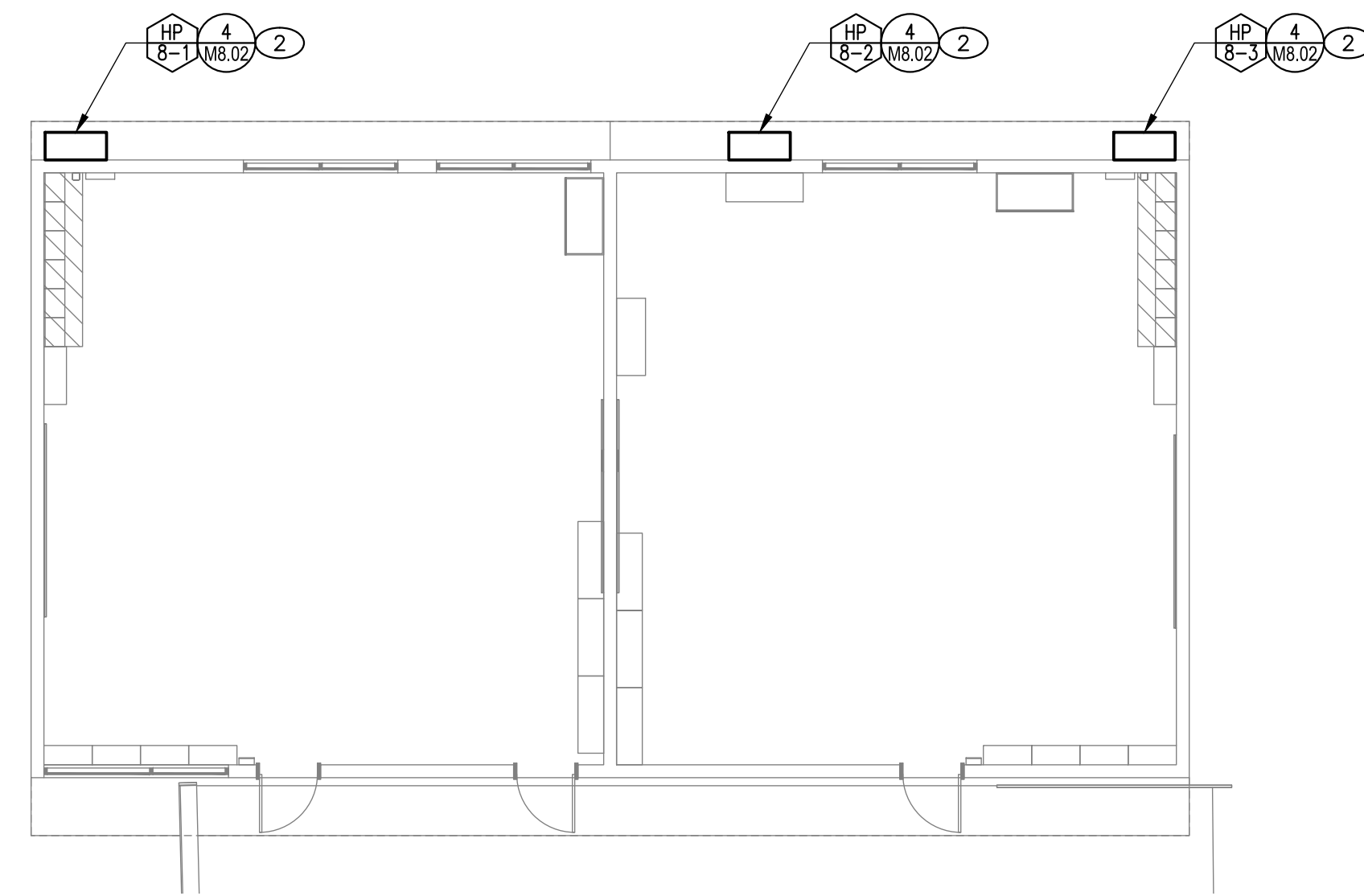


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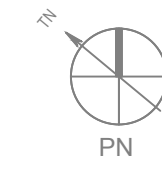
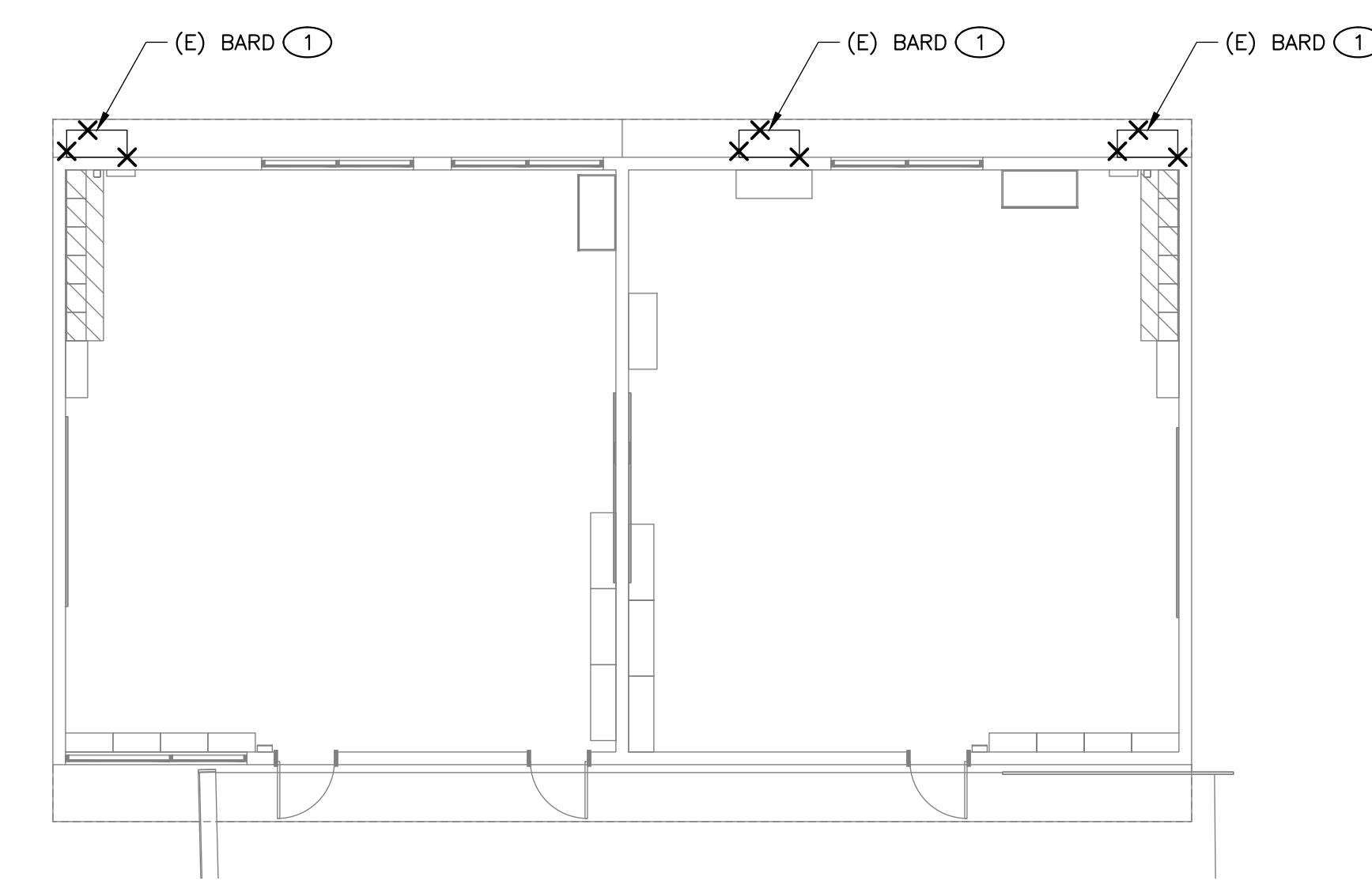
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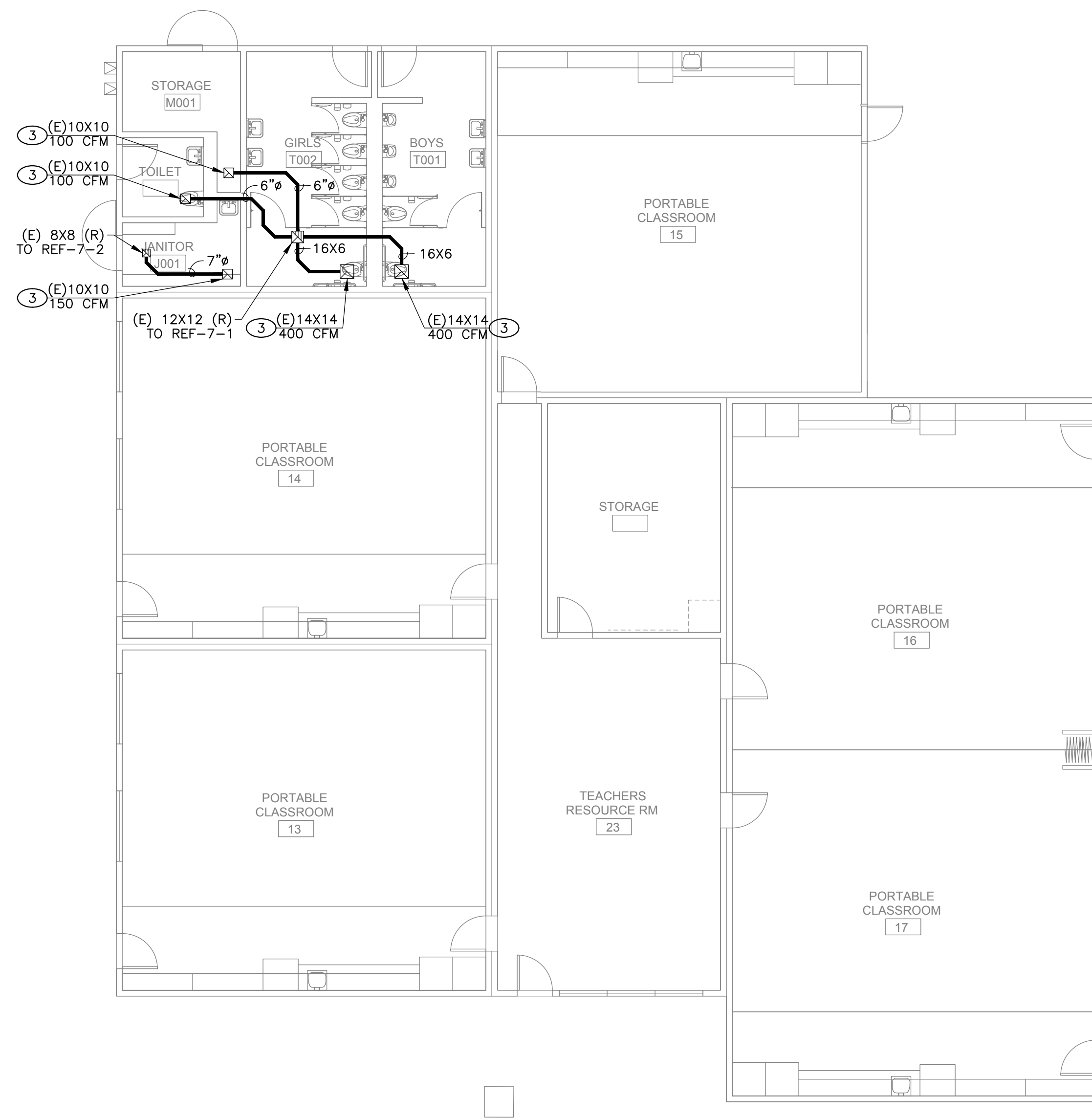
MECHANICAL IMPROVEMENT FLOOR PLAN - BLDG 8 **4**
 1/8" = 1'-0"



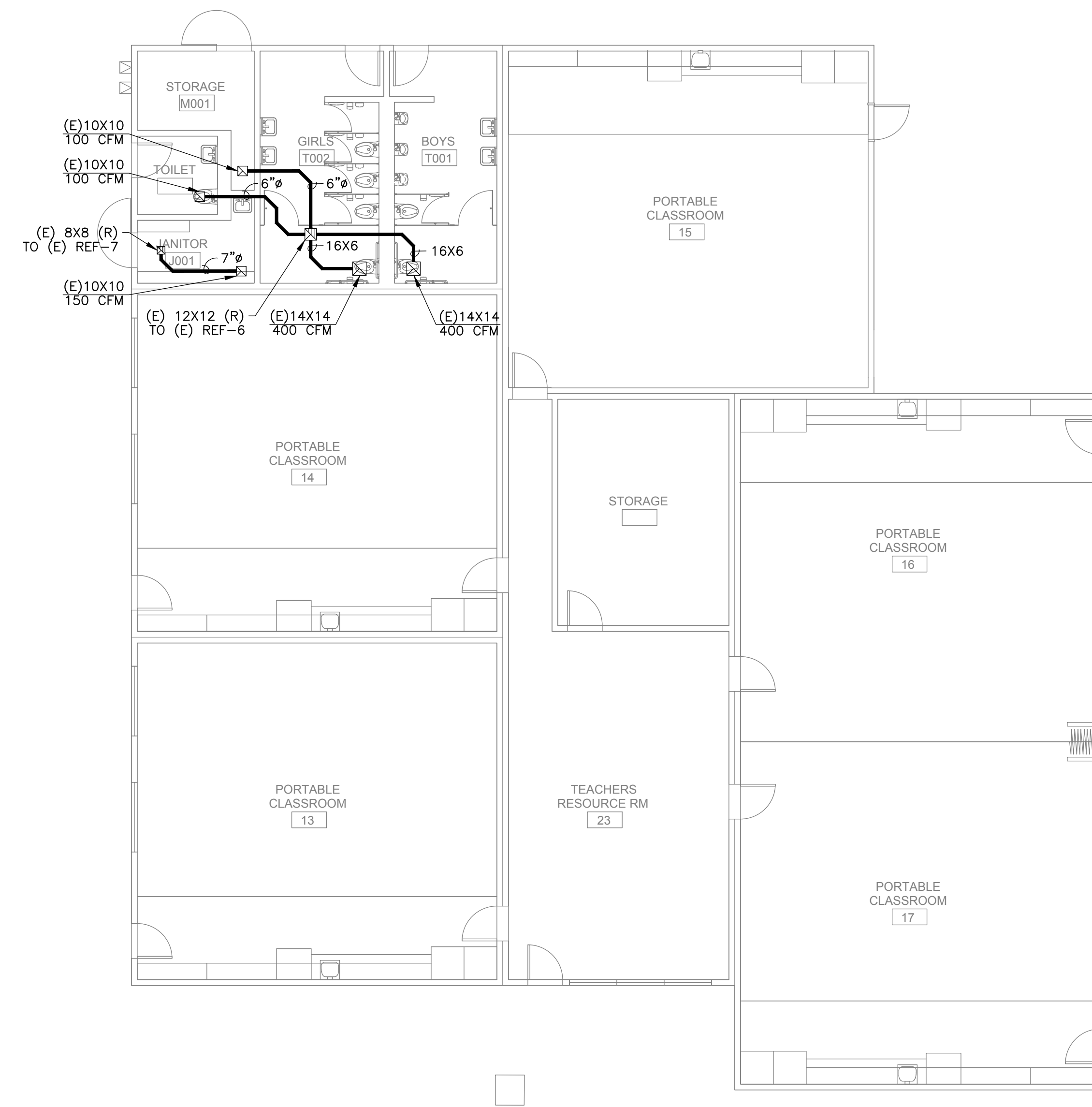
MECHANICAL DEMOLITION FLOOR PLAN - BLDG 8 **3**
 1/8" = 1'-0"

GENERAL NOTES

1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
2. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.



MECHANICAL IMPROVEMENT FLOOR PLAN - BLDG 7 **2**
 1/8" = 1'-0"



MECHANICAL DEMOLITION FLOOR PLAN - BLDG 7 **1**
 1/8" = 1'-0"



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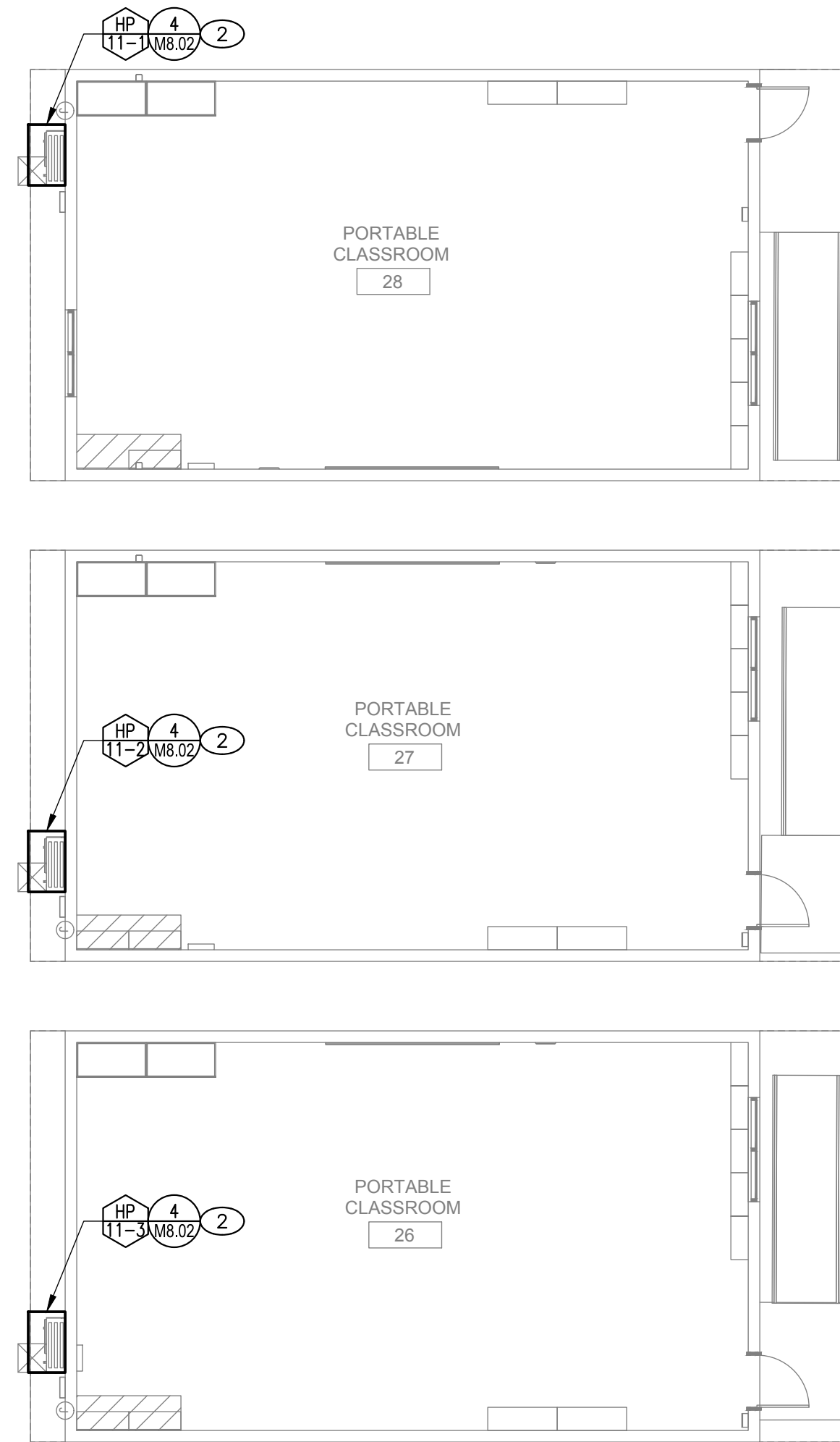
PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
MECHANICAL DEMOLITION AND IMPROVEMENT FLOOR PLANS - BLDG 7, 8

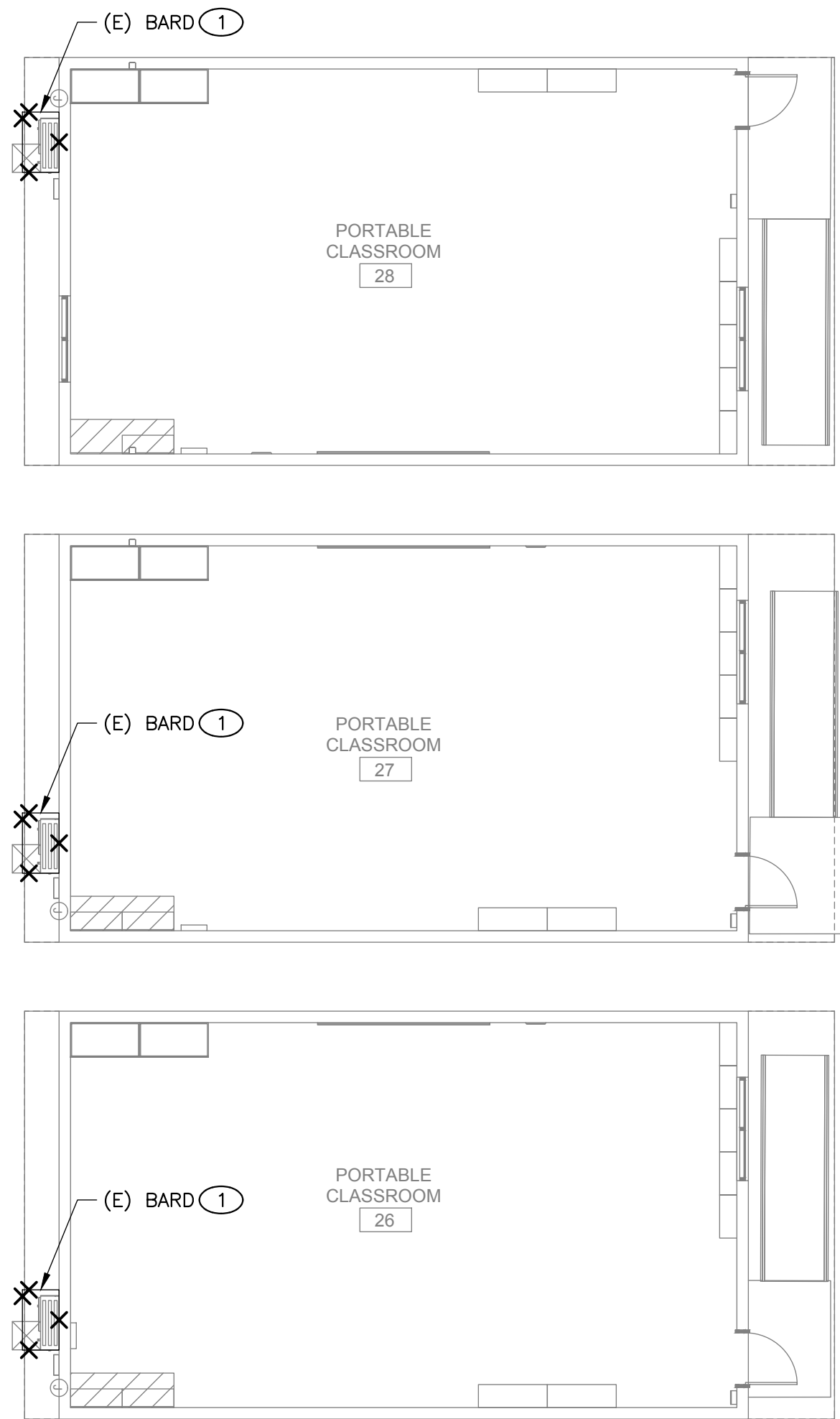
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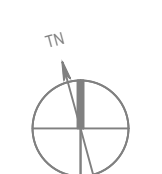
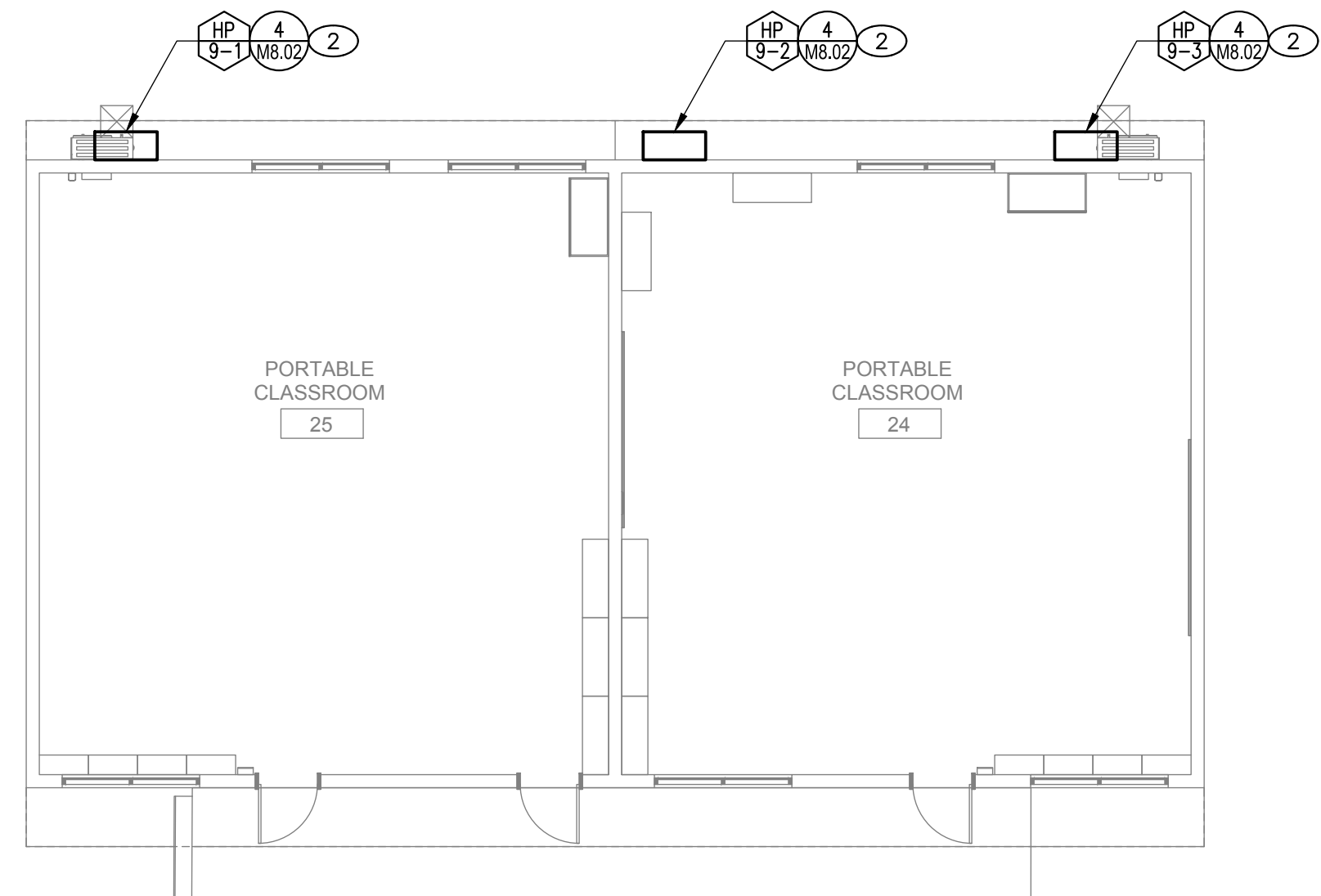
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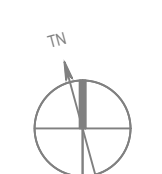
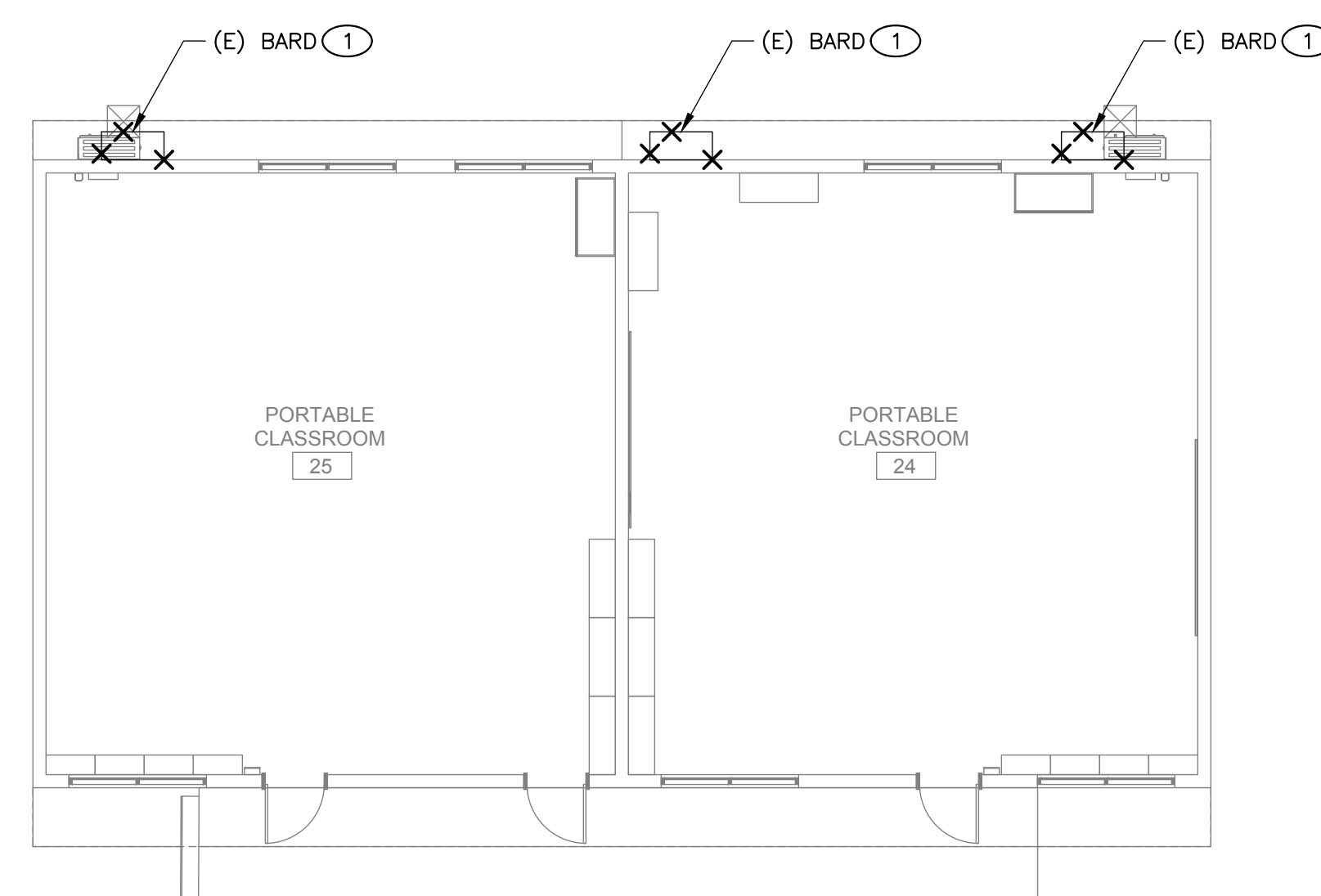
MECHANICAL IMPROVEMENT FLOOR PLAN - BLDG 11 **4**
1/8" = 1'-0"



MECHANICAL DEMOLITION FLOOR PLAN - BLDG 11 **3**
1/8" = 1'-0"



MECHANICAL IMPROVEMENT FLOOR PLAN - BLDG 9 **2**
1/8" = 1'-0"



MECHANICAL DEMOLITION FLOOR PLAN - BLDG 9 **1**
1/8" = 1'-0"

KEY NOTES

- ① REMOVE EXISTING BARD UNITS SHOWN HATCHED. EXISTING DUCTWORK TO REMAIN FOR CONNECTION TO NEW DUCTWORK.
- ② CONNECT NEW BARD UNITS TO EXISTING DUCTWORK.

GENERAL NOTES

- 1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
- 2. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.

AGENCY APPROVAL:



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Roseville, CA 95678
p 916-771-0778
www.lpeengineers.com
Job #: 23-2274

FACILITY:
MATSUYAMA ELEMENTARY SCHOOL
7680 WINDBRIDGE DR.
SACRAMENTO, CA 95831

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
MECHANICAL DEMOLITION AND IMPROVEMENT FLOOR PLANS - BLDG 9, 11

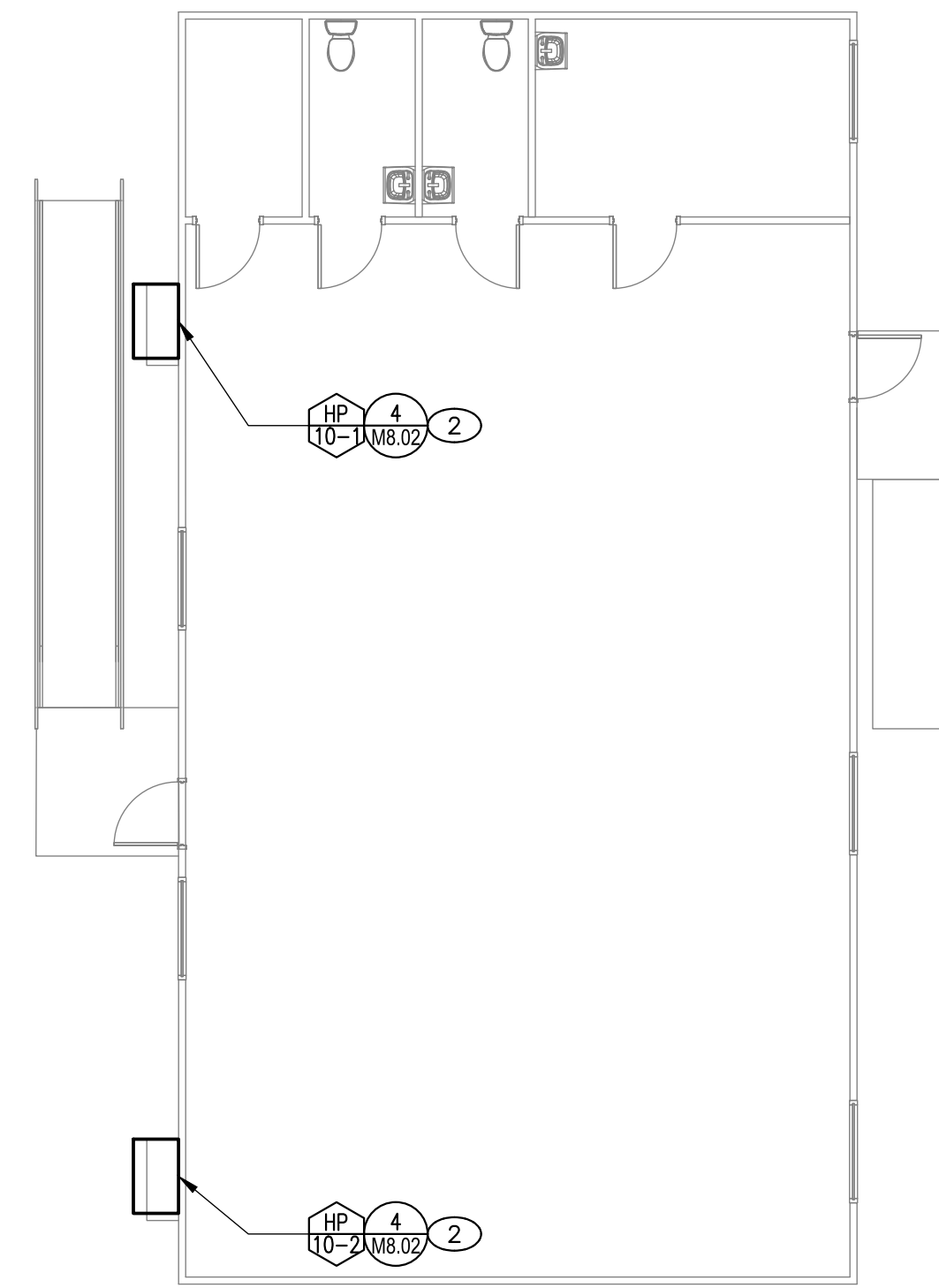
DSA SUBMITTAL

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000
SHEET:

M2.16

KEY NOTES

- ① REMOVE EXISTING BARD UNITS SHOWN HATCHED. EXISTING DUCTWORK TO REMAIN FOR CONNECTION TO NEW DUCTWORK.
- ② CONNECT NEW BARD UNITS TO EXISTING DUCTWORK.

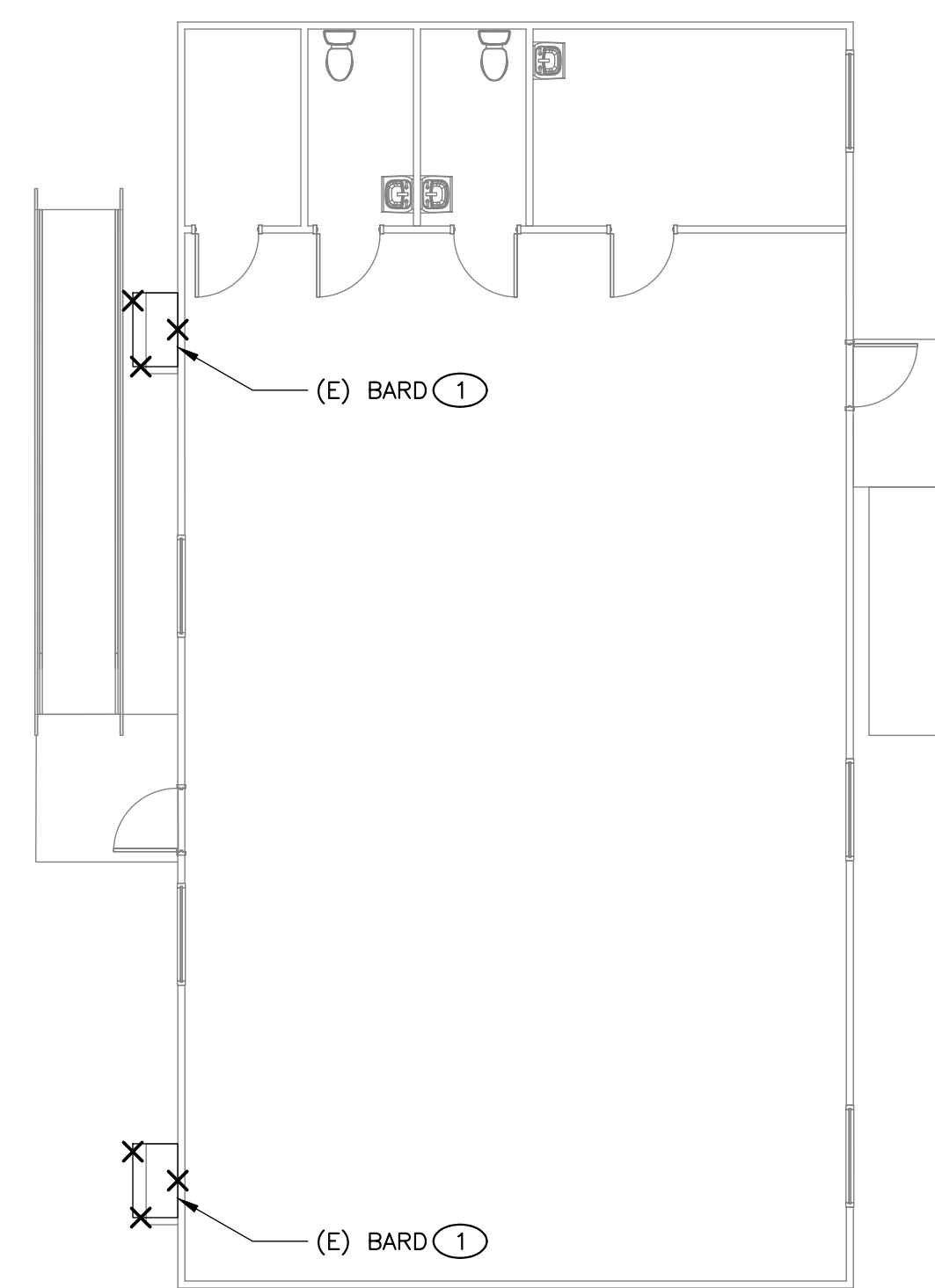


MECHANICAL IMPROVEMENT FLOOR PLAN - BLDG 10

2
1/8" = 1'-0"

GENERAL NOTES

- 1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
- 2. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.



MECHANICAL DEMOLITION FLOOR PLAN - BLDG 10

1
1/8" = 1'-0"

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REGISTERED PROFESSIONAL ENGINEER
 PEAN ENR 41413
 M 41413
 EBN 03-31-25
 MECHANICAL
 STATE OF CALIFORNIA

FACILITY:
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 7680 WINDBRIDGE DR.
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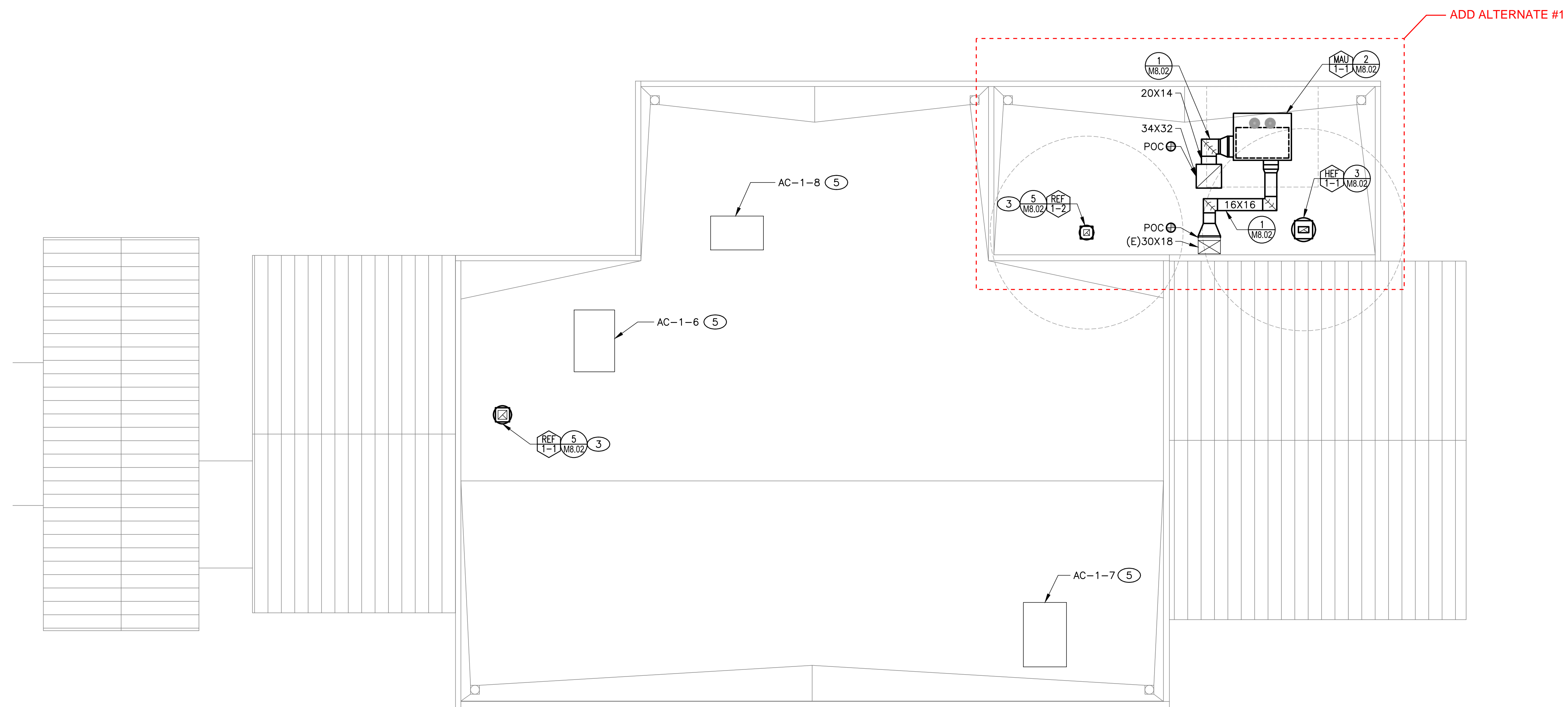
PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
MECHANICAL DEMOLITION AND IMPROVEMENT FLOOR PLANS - BLDG 10

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DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000
 SHEET:

M2.17



MECHANICAL IMPROVEMENT ROOF PLAN - BLDG 1

2
1/8" = 1'-0"

KEY NOTES

- 1 REMOVE EXISTING EXHAUST FAN SHOWN HATCHED. EXISTING CURB TO REMAIN.
- 2 REMOVE EXISTING ROOF EXHAUST FAN AND RELATED CURB, DUCTWORK AND APPURTENANCES.
- 3 MOUNT NEW EXHAUST FAN ON ADAPTER CURB.
- 4 REMOVE EXISTING MECHANICAL UNIT, CURB AND RELATED APPURTENANCES. DUCT DROPS TO REMAIN FOR CONNECTION TO NEW DUCTWORK.
- 5 RELABEL EXISTING HVAC UNIT AS SHOWN WITH NEW NAMEPLATE.

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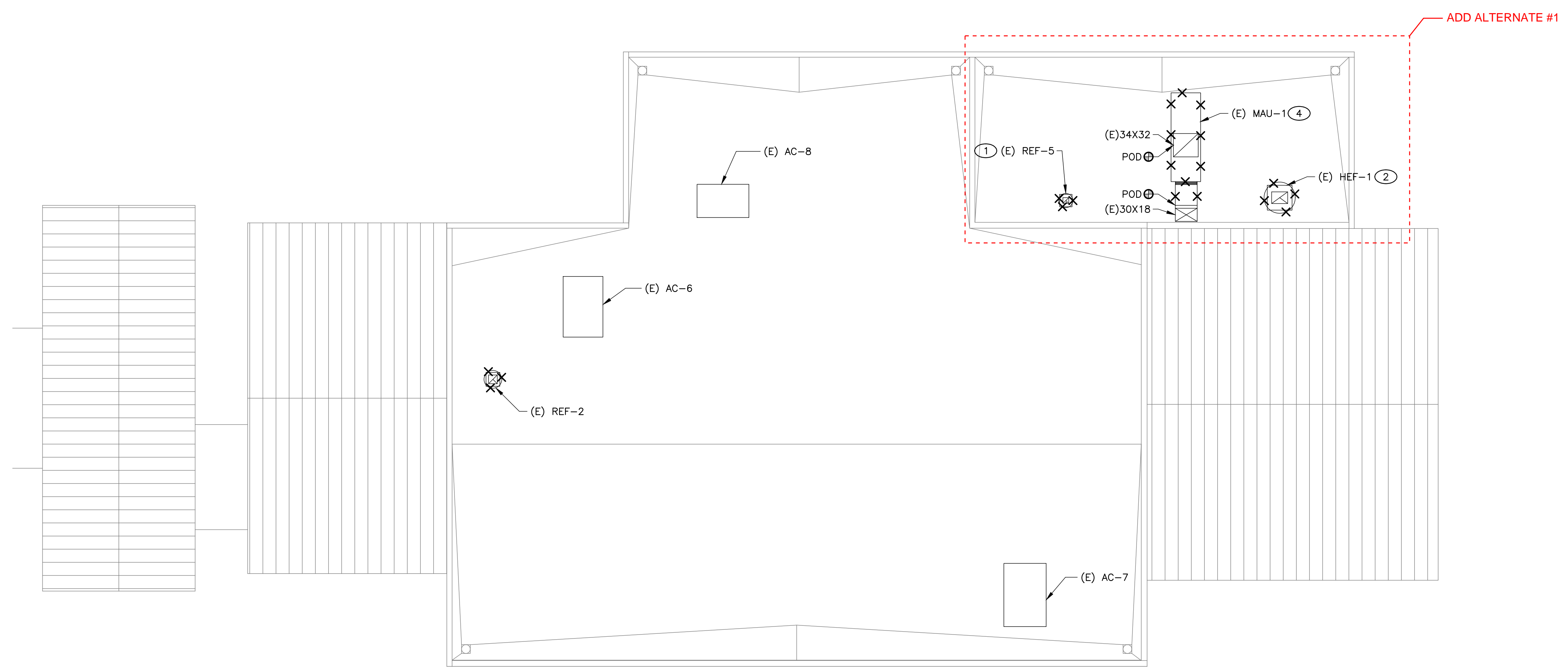
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GENERAL NOTES

1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
2. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.



MECHANICAL DEMOLITION ROOF PLAN - BLDG 1

1
1/8" = 1'-0"

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PROJECT:
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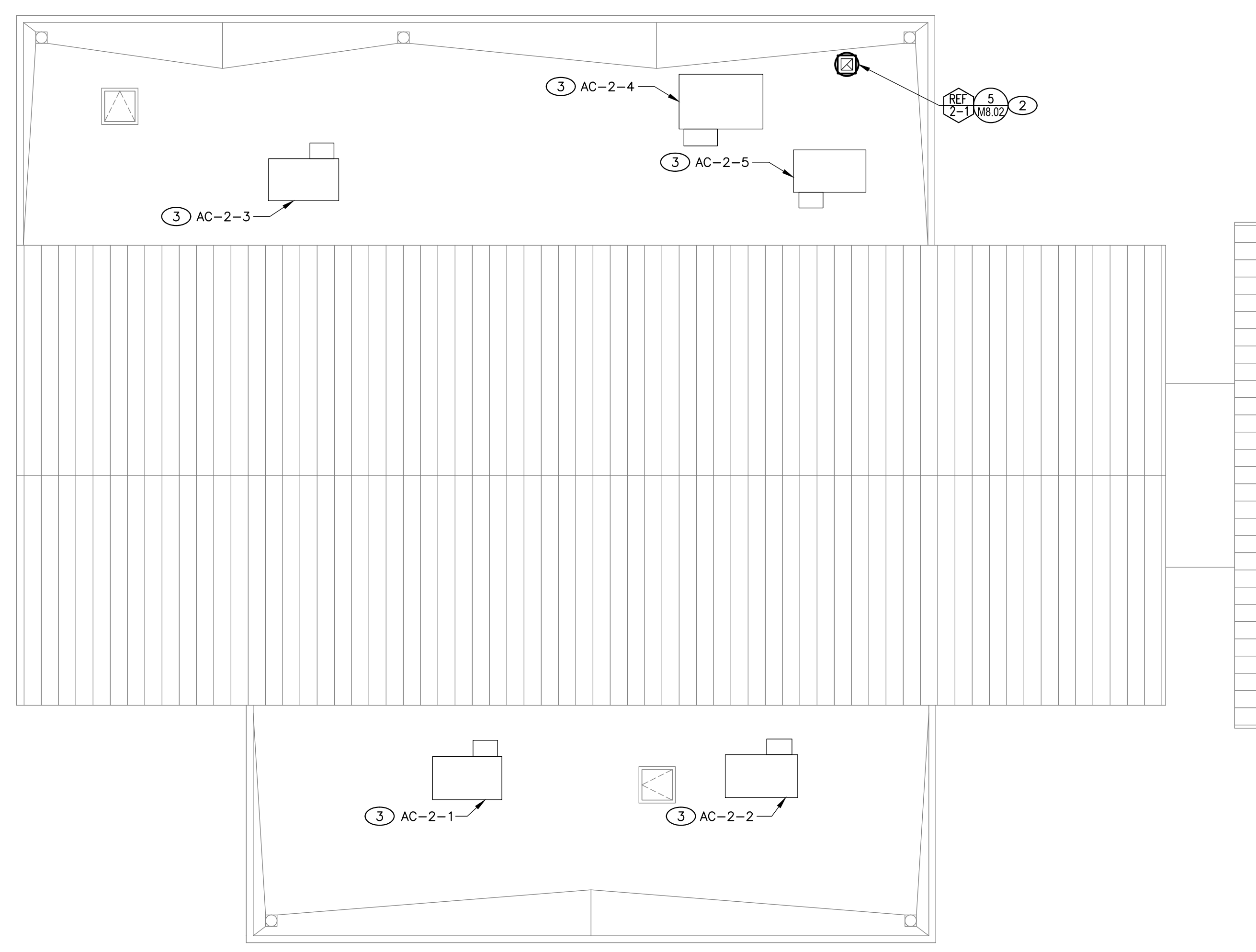
SHEET NAME:
MECHANICAL DEMOLITION AND IMPROVEMENT ROOF PLANS - BLDG 1

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DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000
SHEET:

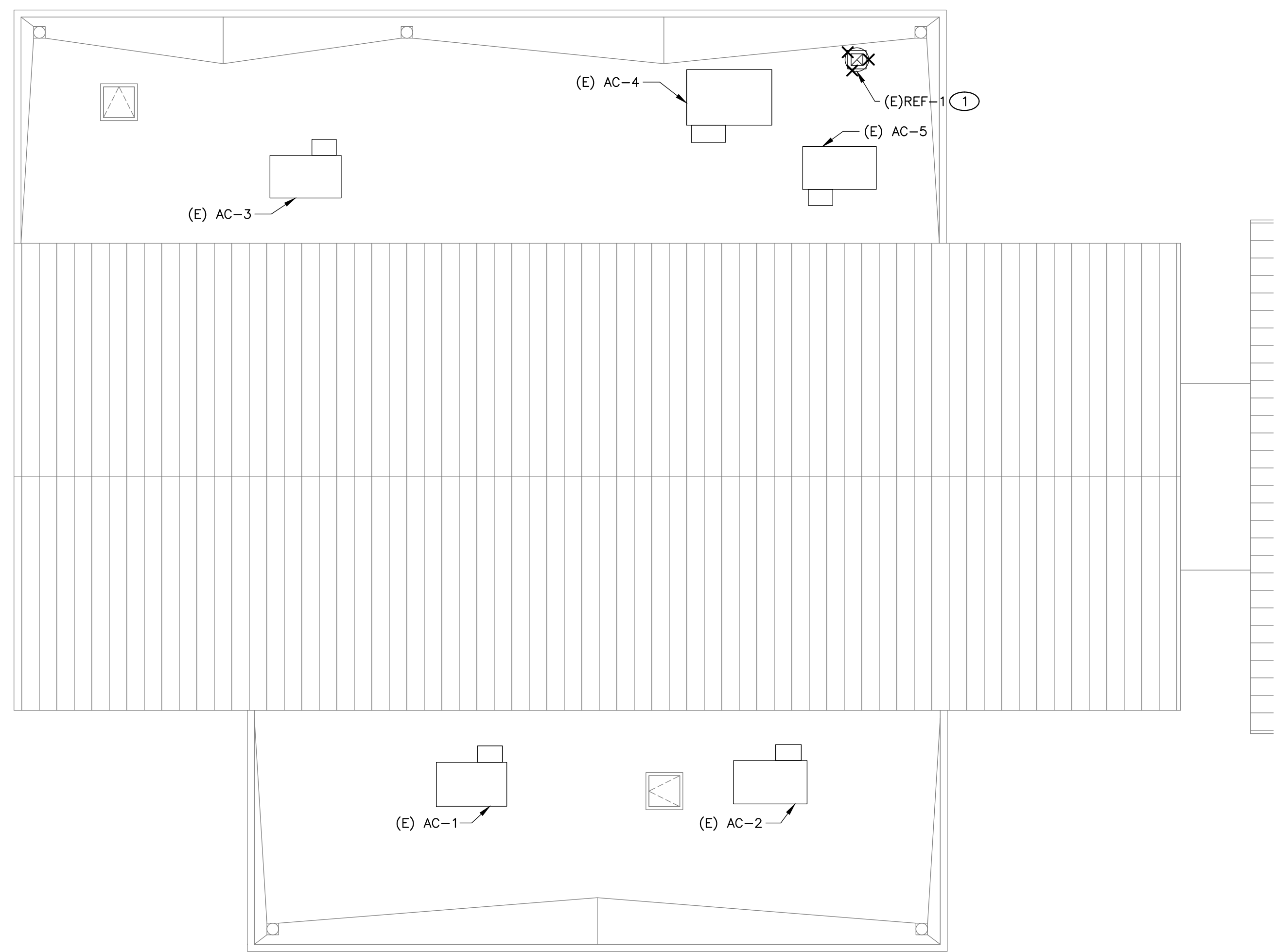
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FILE NAME: SCUSD Matsuyama ES Modernization 018807000-A-MATSUYAMA-MOD.rvt
DATE: 12/15/2023 2:28:53 PM



MECHANICAL IMPROVEMENT ROOF PLAN - BLDG 2

2
1/8" = 1'-0"



MECHANICAL DEMOLITION ROOF PLAN - BLDG 2

1
1/8" = 1'-0"

KEY NOTES

- ① REMOVE EXISTING EXHAUST FAN SHOWN HATCHED. EXISTING CURB TO REMAIN.
- ② MOUNT NEW EXHAUST FAN ON ADAPTER CURB.
- ③ RELABEL EXISTING HVAC UNIT AS SHOWN WITH NEW NAMEPLATE.

GENERAL NOTES

- 1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
- 2. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.

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PROJECT:
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SHEET NAME:
MECHANICAL DEMOLITION AND IMPROVEMENT ROOF PLANS - BLDG 2

DSA SUBMITTAL

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000

SHEET:

M4.12

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KEY NOTES

- ① RELABEL EXISTING HVAC UNIT AS SHOWN WITH NEW NAMEPLATE.

AGENCY APPROVAL:

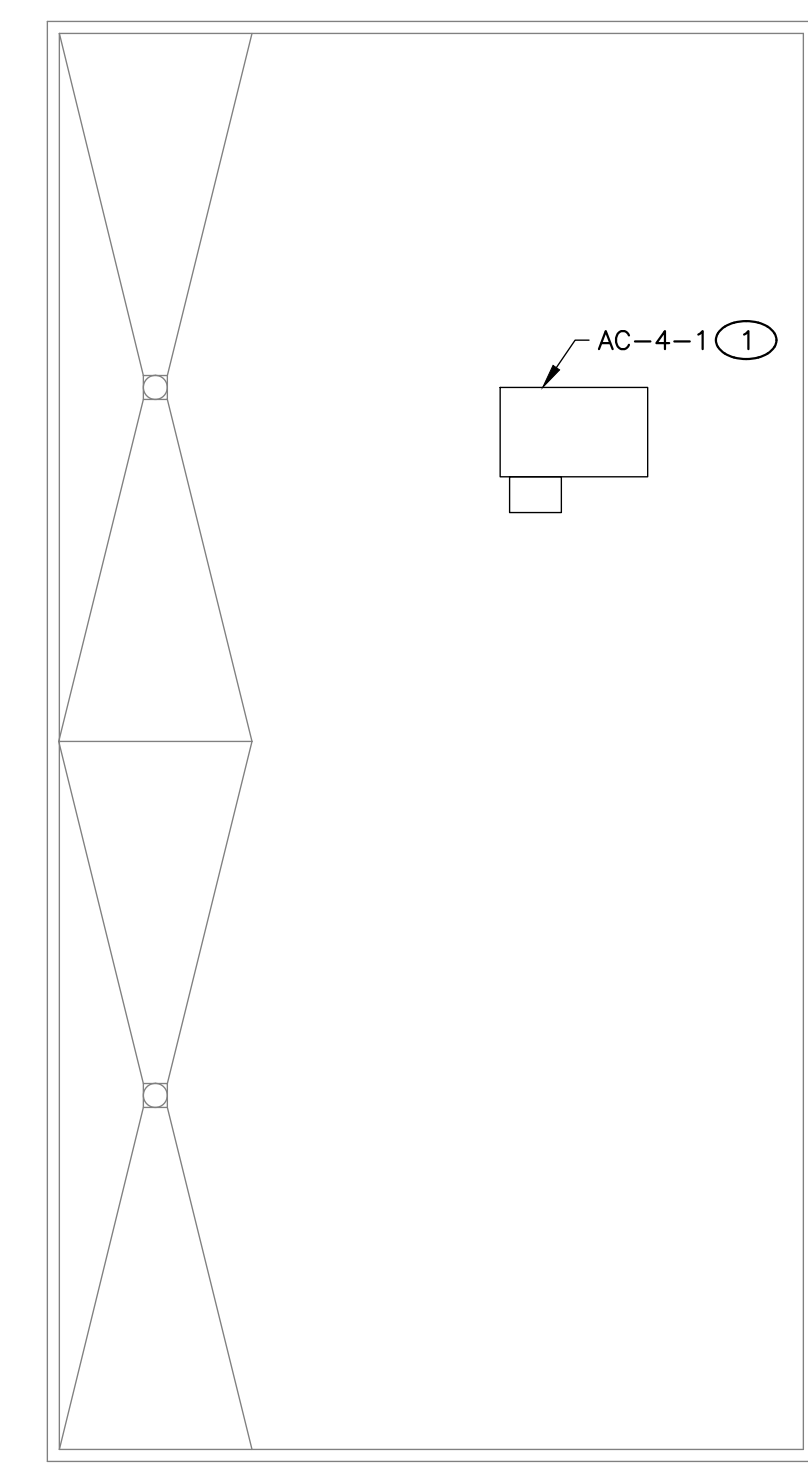


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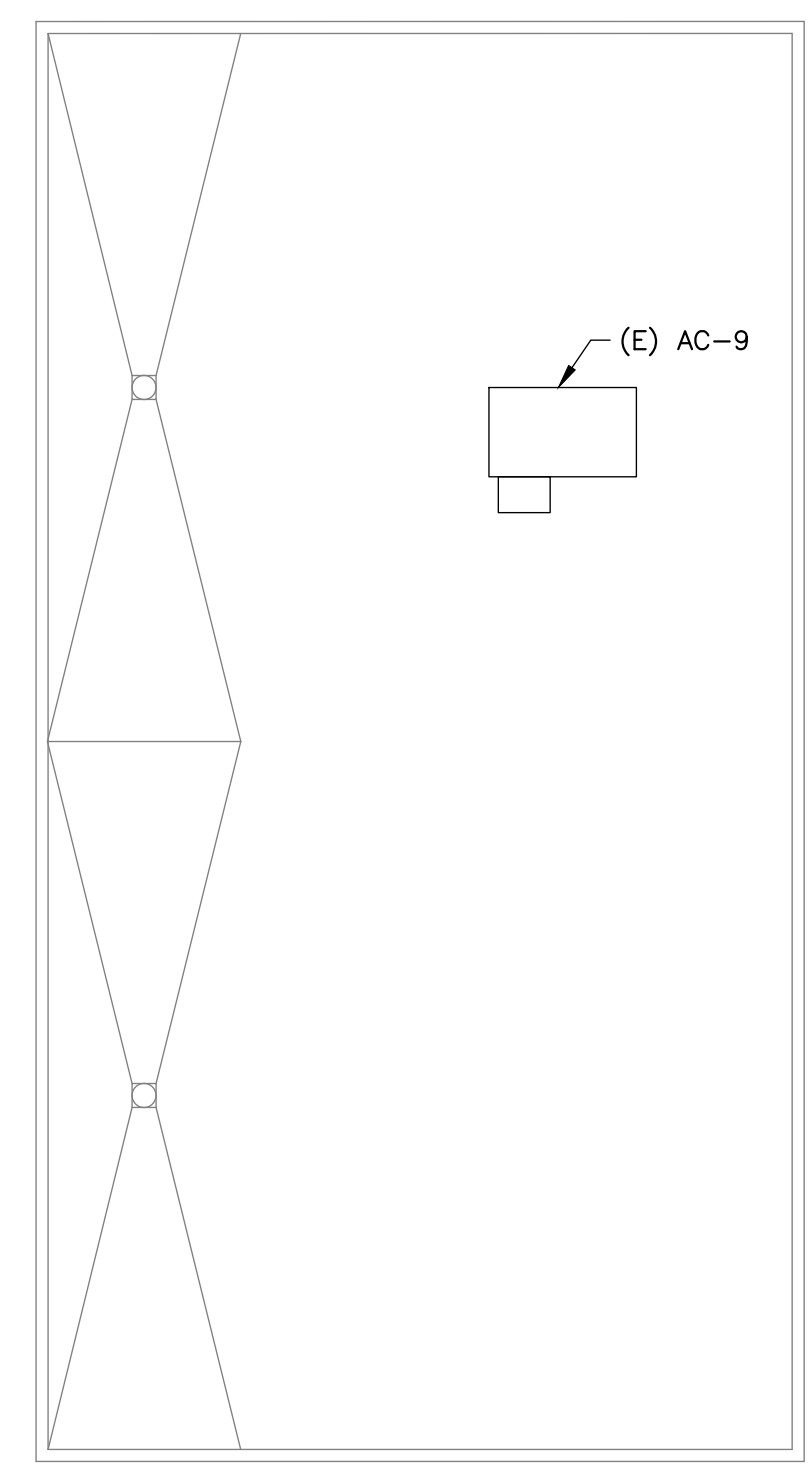
ISSUE	
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MECHANICAL IMPROVEMENT ROOF PLAN - BLDG 4

4

1/8" = 1'-0"



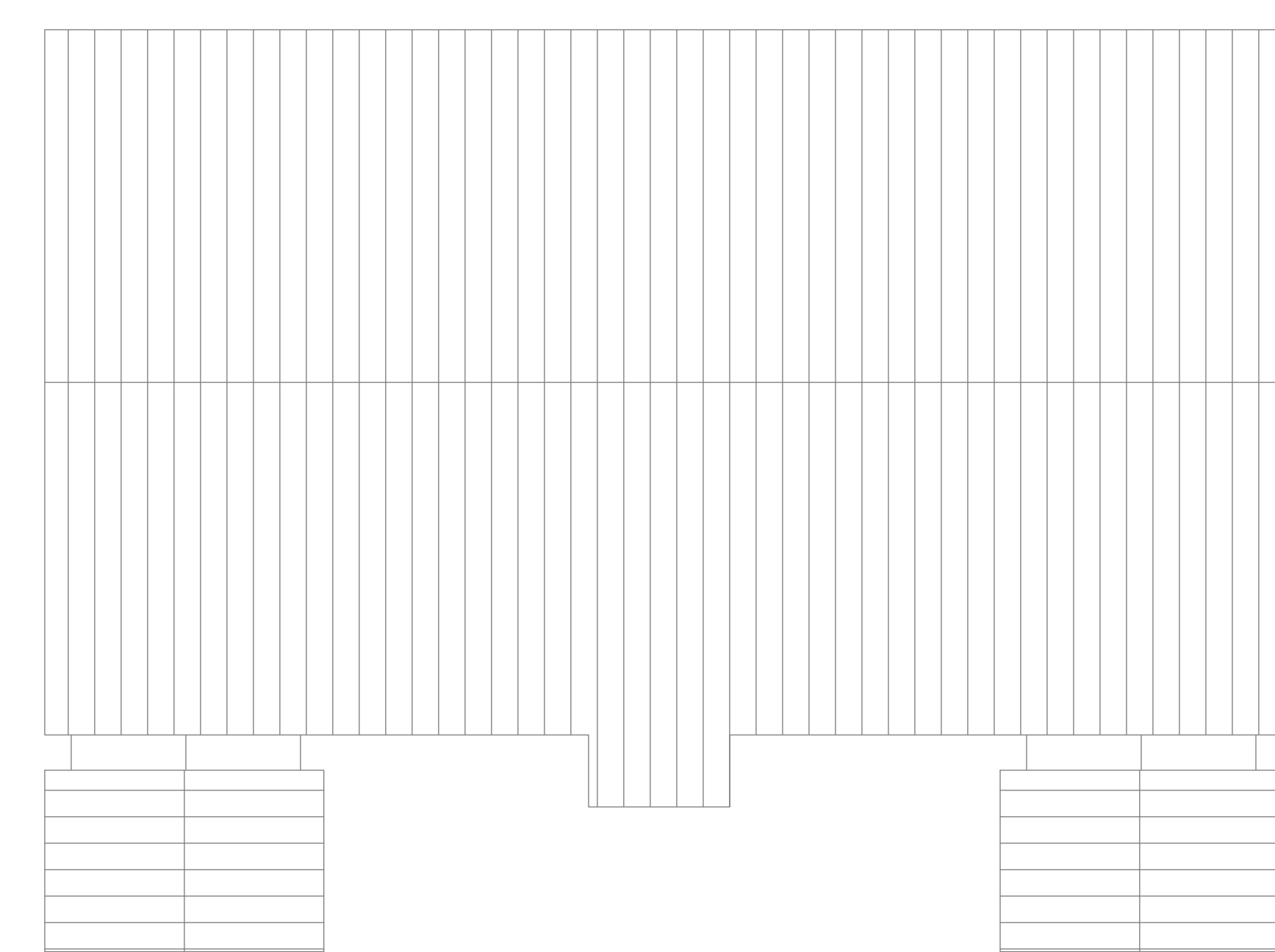
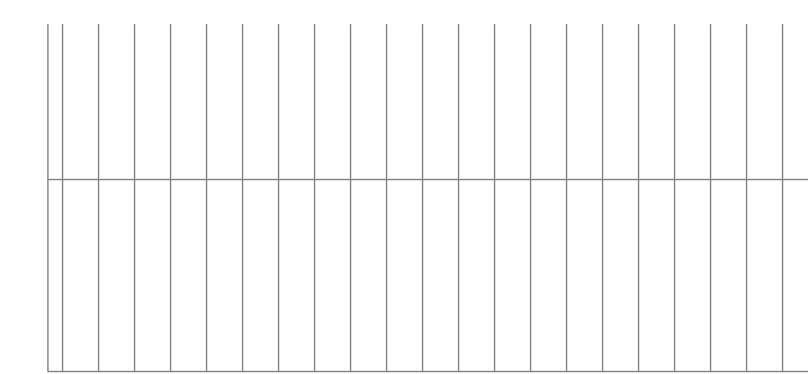
MECHANICAL DEMOLITION ROOF PLAN - BLDG 4

3

1/8" = 1'-0"

GENERAL NOTES

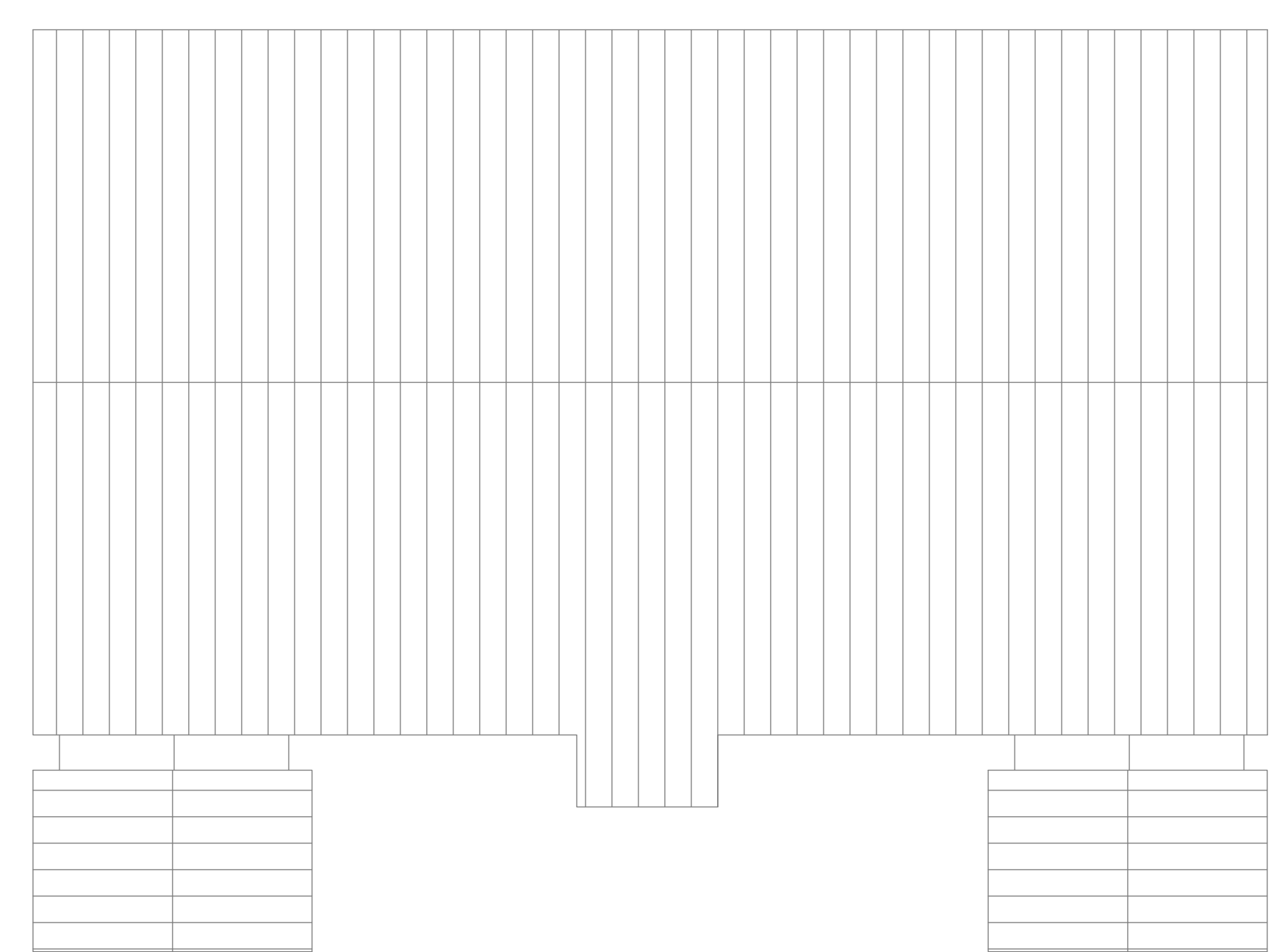
- 1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
- 2. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.



MECHANICAL IMPROVEMENT ROOF PLAN - BLDG 3

2

1/8" = 1'-0"



MECHANICAL DEMOLITION ROOF PLAN - BLDG 3

1

1/8" = 1'-0"

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SACRAMENTO, CA 95831

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
MECHANICAL DEMOLITION AND IMPROVEMENT ROOF PLANS - BLDG 3, 4

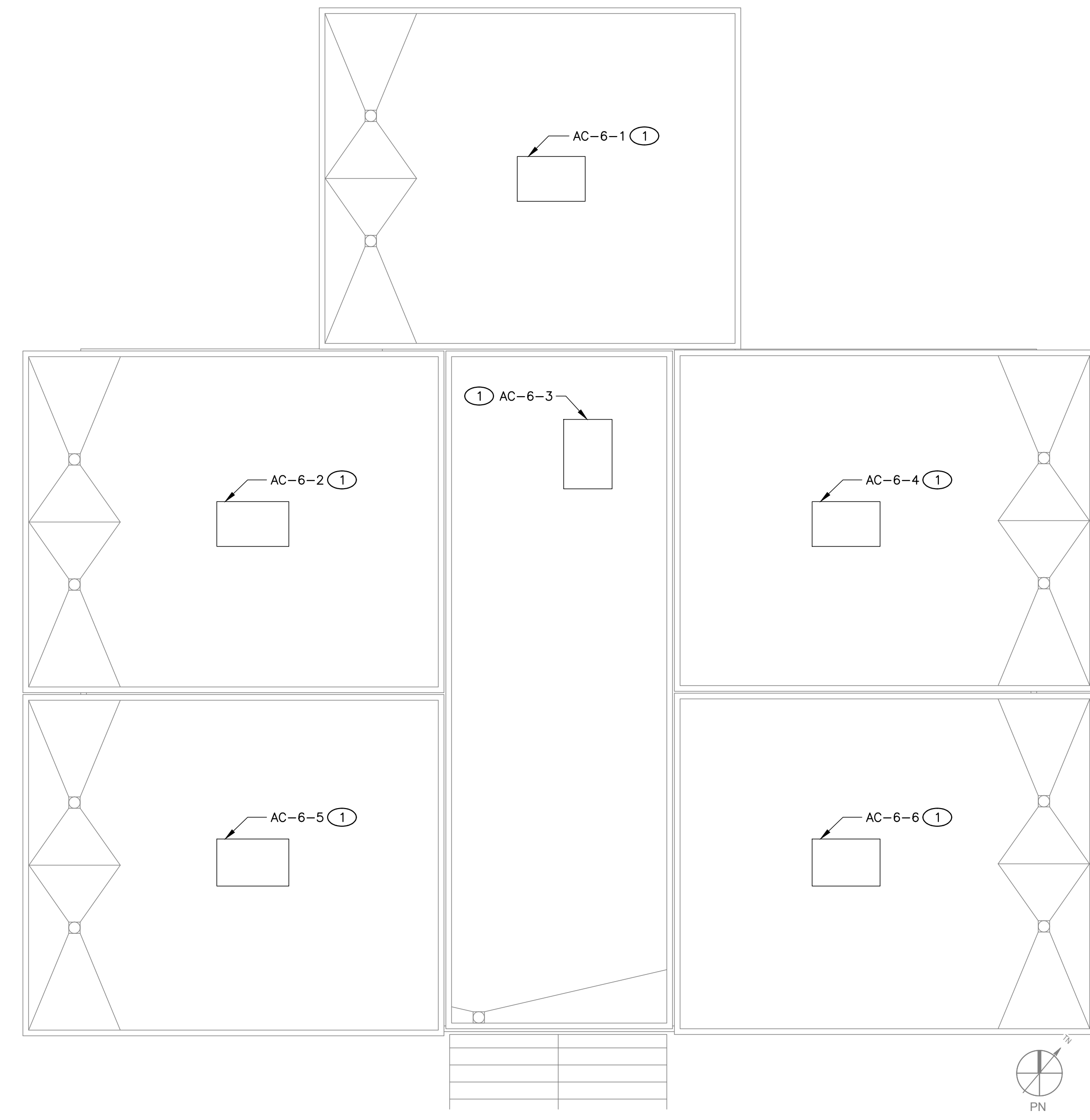
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DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000

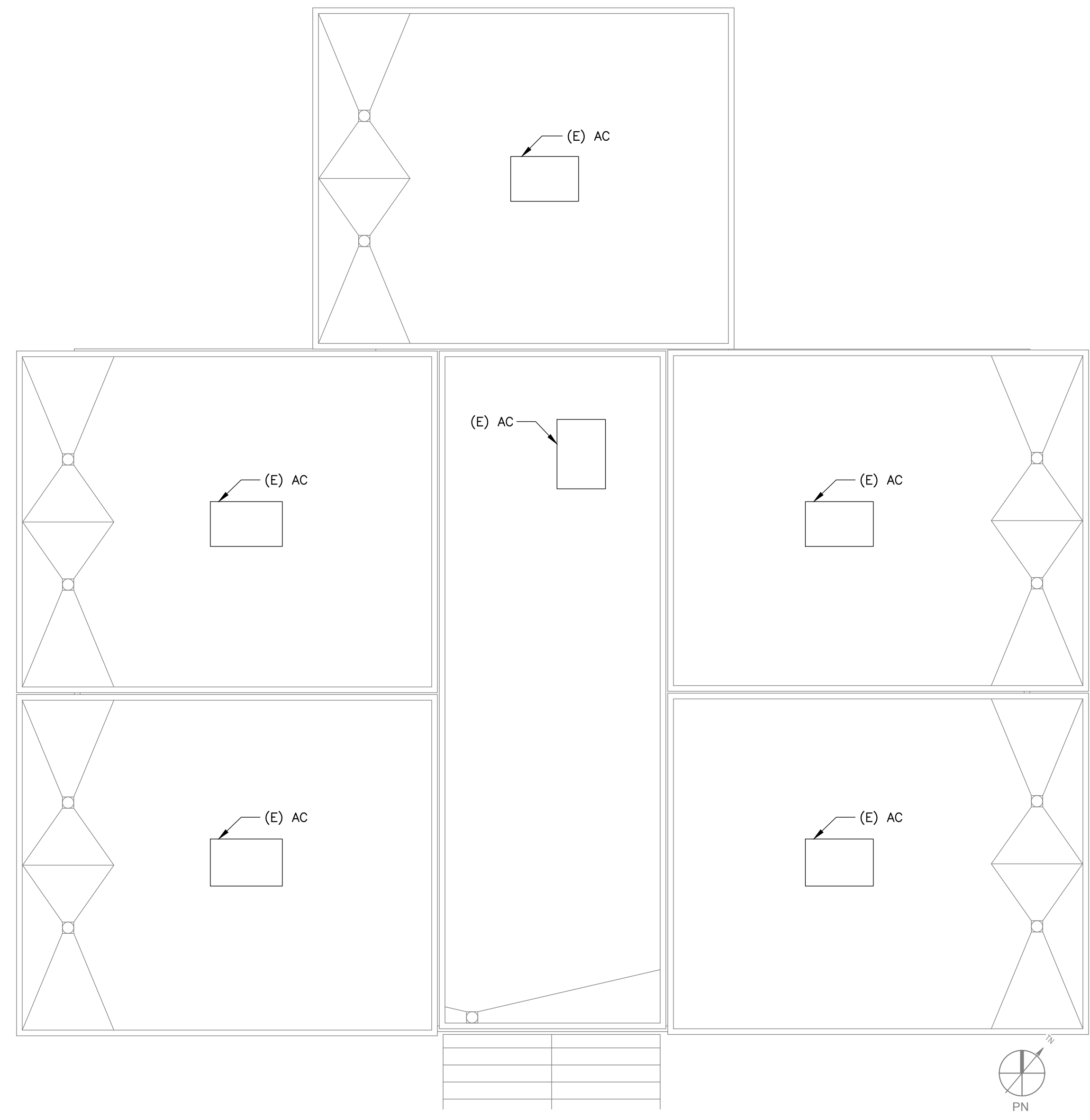
SHEET:

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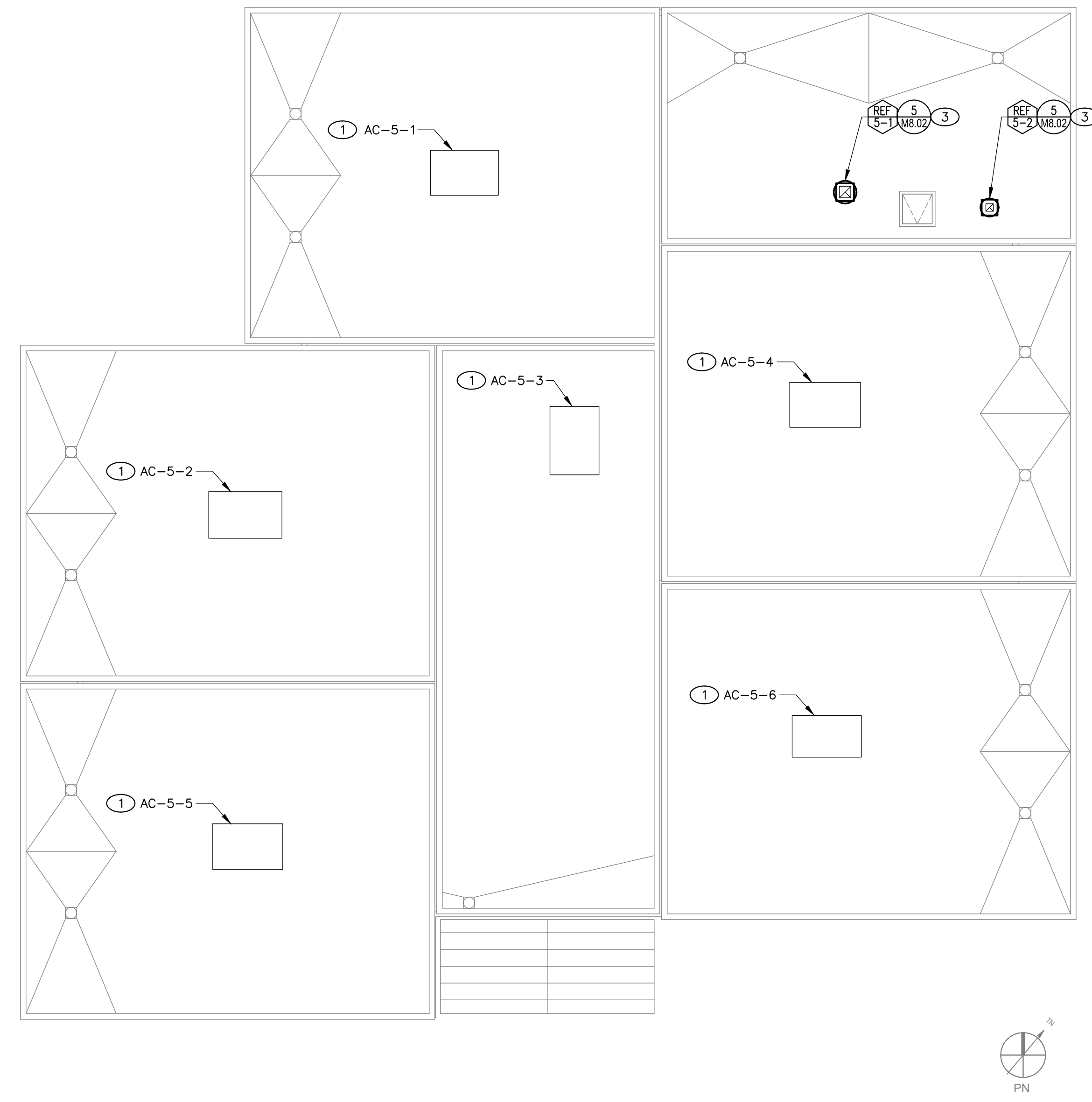
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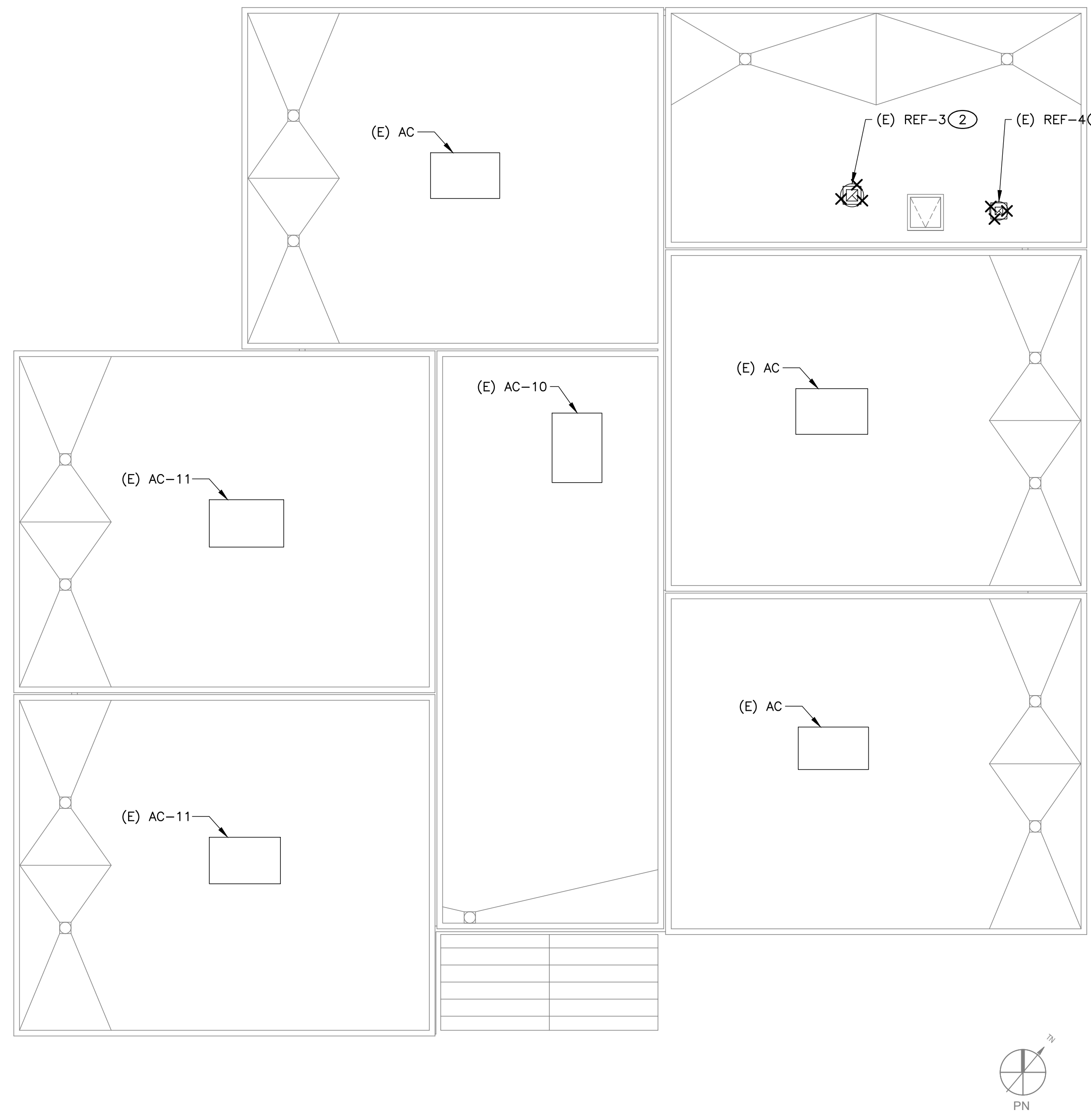
MECHANICAL IMPROVEMENT ROOF PLAN - BLDG 6 | **4**
1/8" = 1'-0"



MECHANICAL DEMOLITION ROOF PLAN - BLDG 6 | **3**
1/8" = 1'-0"



MECHANICAL IMPROVEMENT ROOF PLAN - BLDG 5 | **2**
1/8" = 1'-0"



MECHANICAL DEMOLITION ROOF PLAN - BLDG 5 | **1**
1/8" = 1'-0"

- KEY NOTES**
- 1 RELABEL EXISTING HVAC UNIT AS SHOWN WITH NEW NAMEPLATE.
 - 2 REMOVE EXISTING EXHAUST FAN SHOWN HATCHED. EXISTING CURB TO REMAIN.
 - 3 MOUNT NEW EXHAUST FAN ON ADAPTER CURB.

- GENERAL NOTES**
1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
 2. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.

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Job #: 23-2274

FACILITY:
MATSUYAMA ELEMENTARY SCHOOL
7680 WINDBRIDGE DR.
SACRAMENTO, CA 95831

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
MECHANICAL DEMOLITION AND IMPROVEMENT ROOF PLANS - BLDG 5, 6

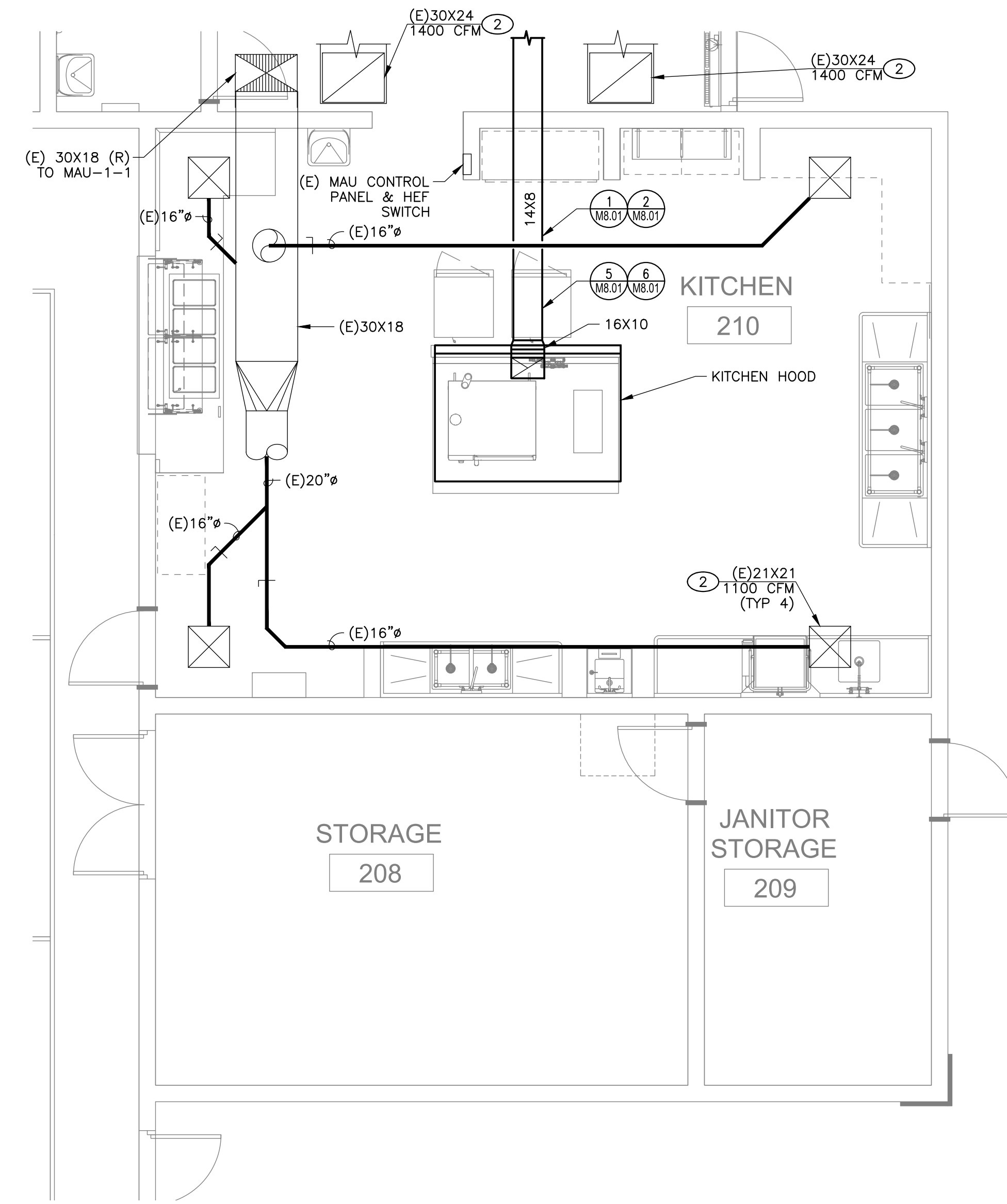
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SHEET:

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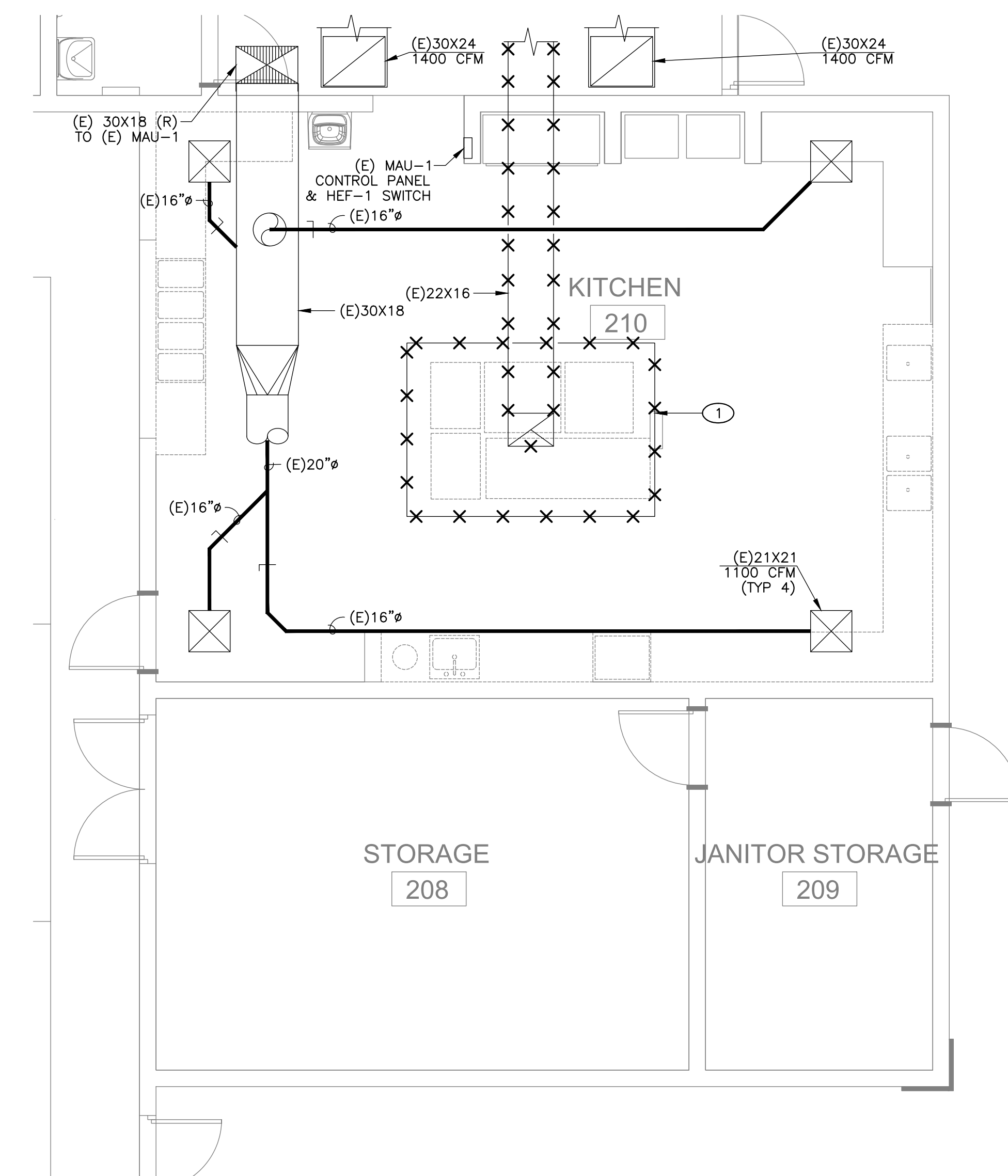
ADD ALTERNATE #1



MECHANICAL IMPROVEMENT ENLARGED FLOOR PLAN - BLDG 1 KITCHEN

2

1/4" = 1'-0"



MECHANICAL DEMOLITION ENLARGED FLOOR PLAN - BLDG 1 KITCHEN

1

1/4" = 1'-0"

KEY NOTES

- 1 REMOVE EXISTING KITCHEN HOOD, DUCTWORK AND RELATED APPURTENANCES. REPLACE WITH NEW HOOD IN SAME LOCATION.
- 2 REBALANCE EXISTING AIR OUTLET/INLET TO AIR QUANTITY SHOWN.

GENERAL NOTES

1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
2. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.

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PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
MECHANICAL ENLARGED FLOOR PLANS - BLDG 1
KITCHEN

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DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000
SHEET:

M5.11

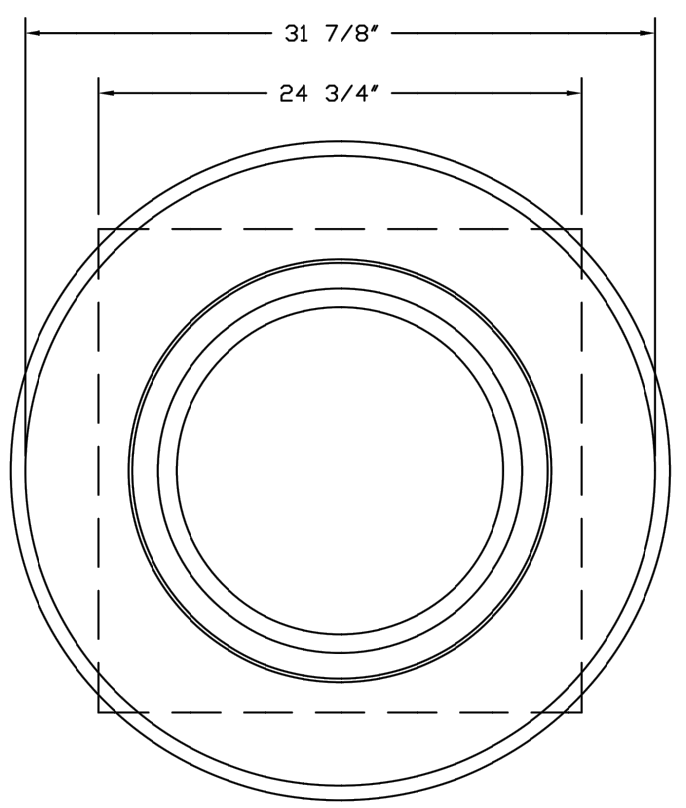
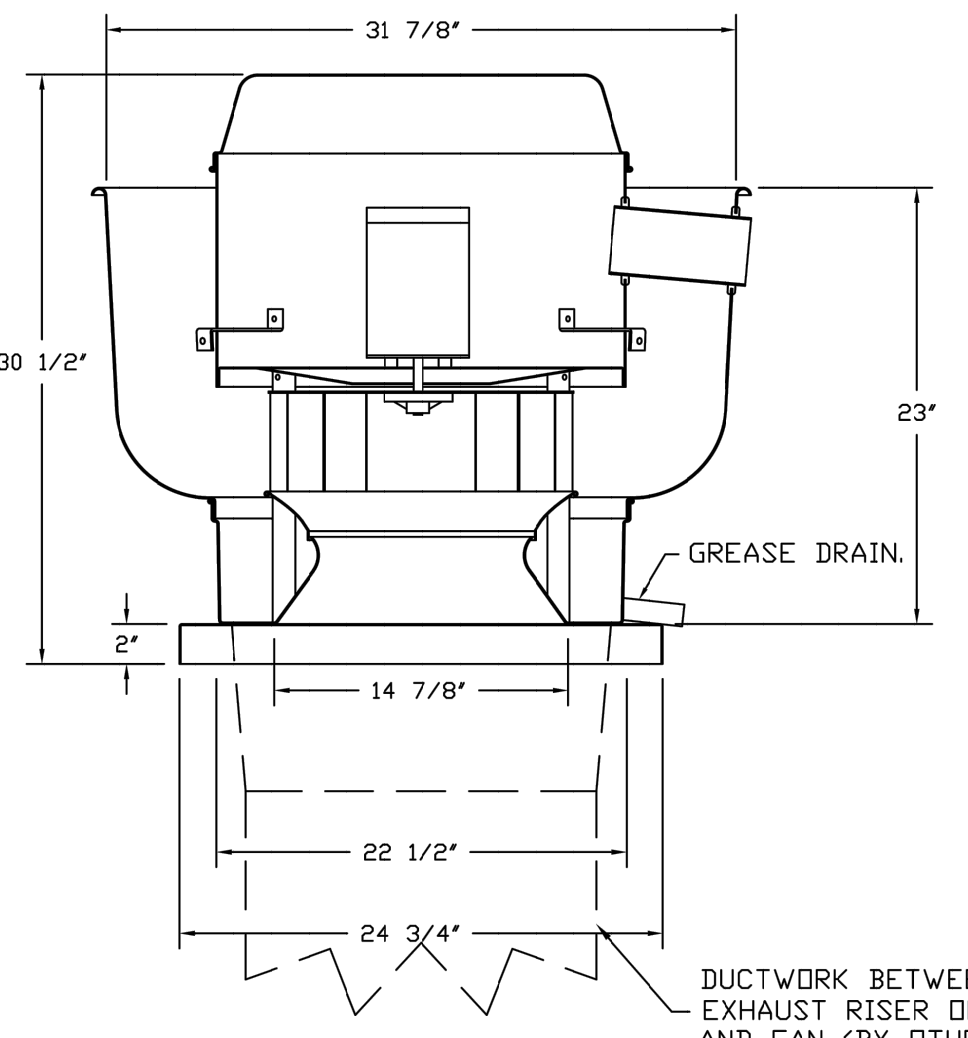
ADD ALTERNATE #1

FOR QUESTIONS, CALL THE
 Northern California Office
 REGION 92
 PHONE: (925) 968 - 1999
 EMAIL: reg92@captiveaire.com

EXHAUST FAN INFORMATION - JOB#6379759

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL.	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SDNES
1		1	DUBSHFA	CAPTIVEAIRE	1575	1.000	1260	TEAO-ECM	1.000	0.3970	1	115	11.6	498 FPM	93	9.9

FAN #1 DUBSHFA - EXHAUST FAN



TOP VIEW

FEATURES:

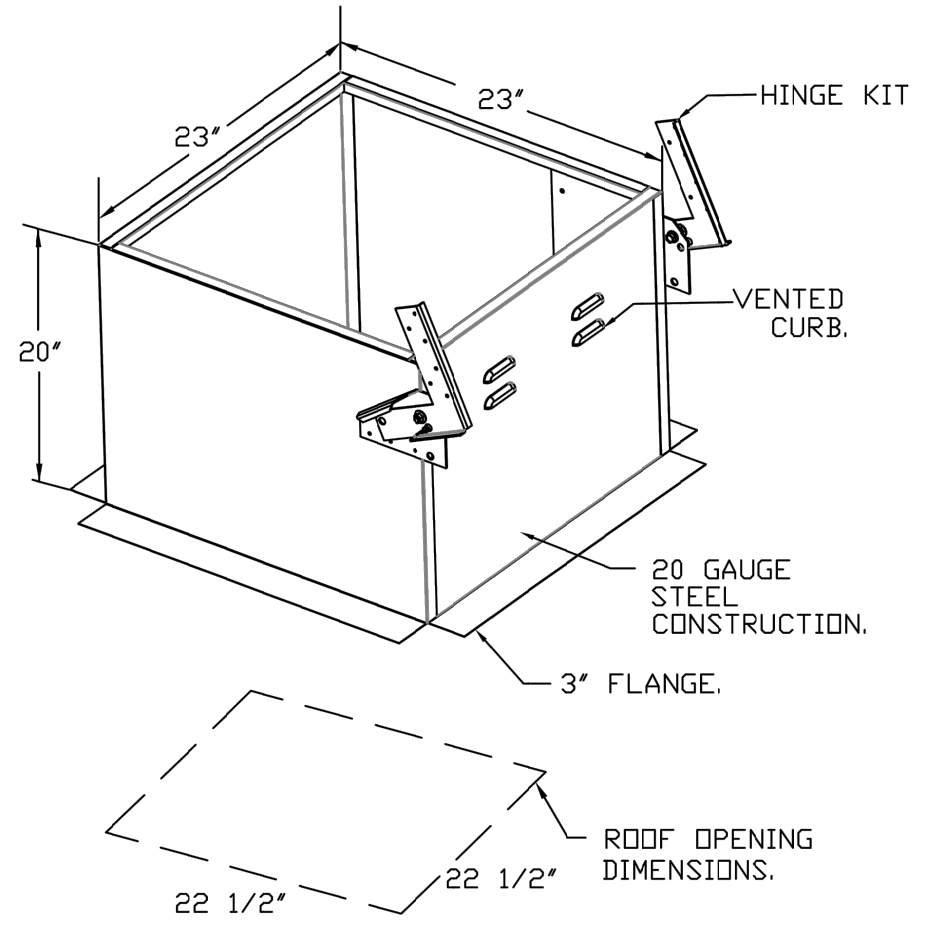
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL765 AND UL-C-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

NORMAL TEMPERATURE TEST
 EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

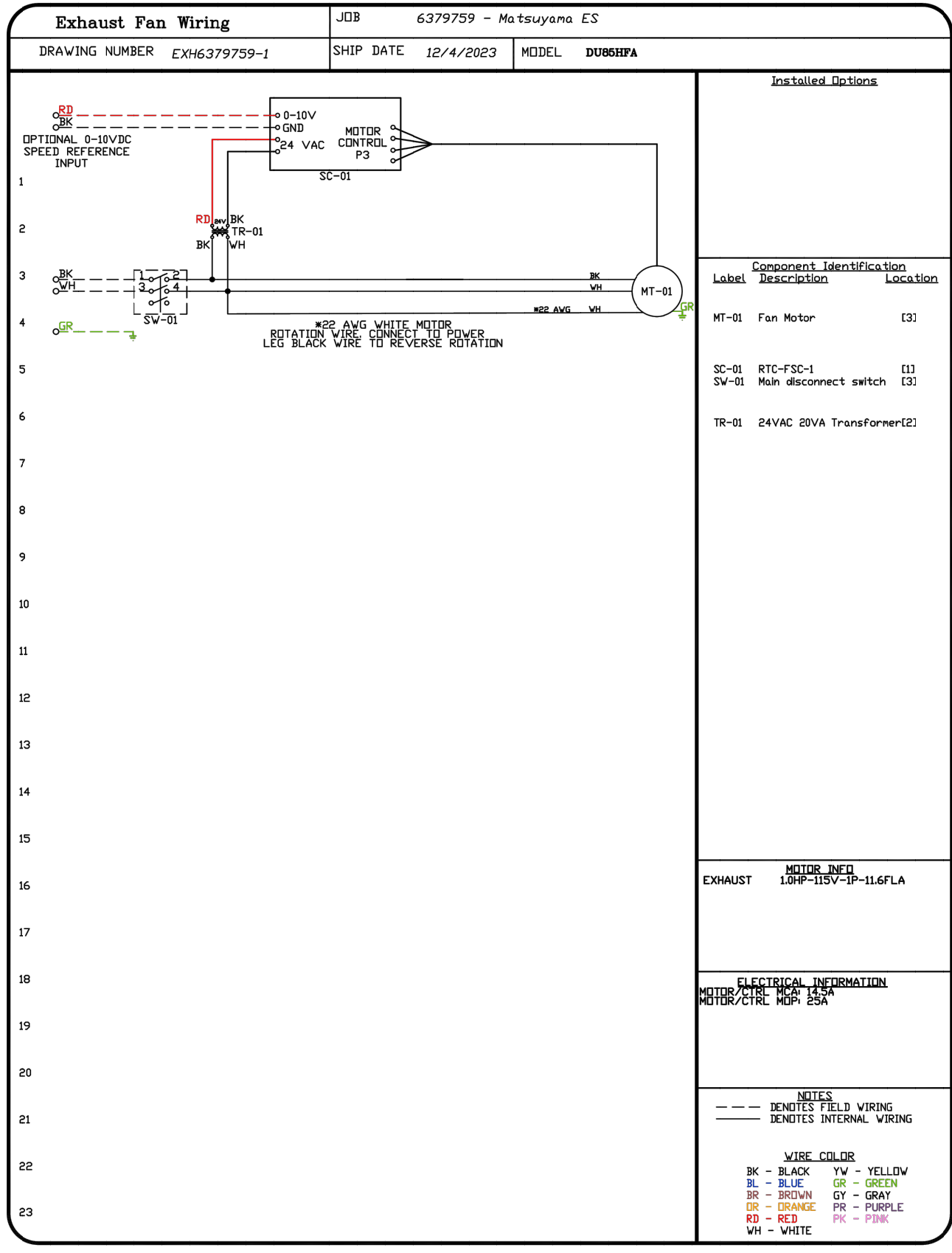
ABNORMAL FLARE-UP TEST
 EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS:

- GREASE BOX.
- ECM WIRING PACKAGE - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL.
- "RETC" (FIELD MOTOR), CCM ROTATION.
- 2 YEAR PARTS WARRANTY.



ROOF OPENING DIMENSIONS: 22 1/2\"/>



REVISIONS	
DESCRIPTION	DATE

CAPTIVEAIRE
 Northern California Office
 110 Burnett Ave, Suite G, Concord, CA 94520 PHONE: (925) 962-1999 FAX: 925-968-6866 EMAIL: reg92@captiveaire.com

Matsuyama ES
 Sacramento, CA, 95831

DATE: 12/4/2023
 DWG.#: 6379759
 DRAWN BY: MRE
 SCALE: 3/4" = 1'-0"
 MASTER DRAWING

SHEET NO. 1

AGENCY APPROVAL:



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 SACRAMENTO, CA 95831

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
MECHANICAL KITCHEN EQUIPMENT DRAWINGS

DSA SUBMITTAL

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000

SHEET:

M6.01

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ADD ALTERNATE #1

DOAS/RTU FAN SCHEDULE - JOB#6379755

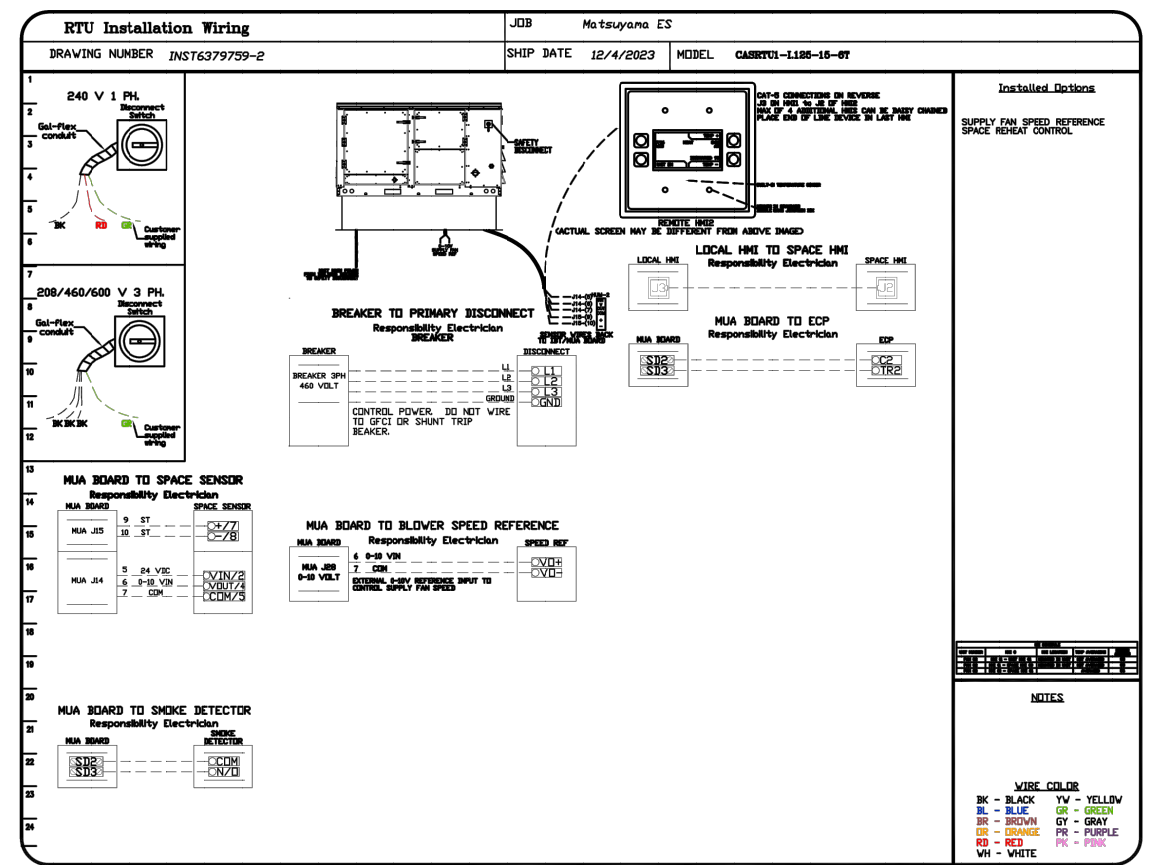
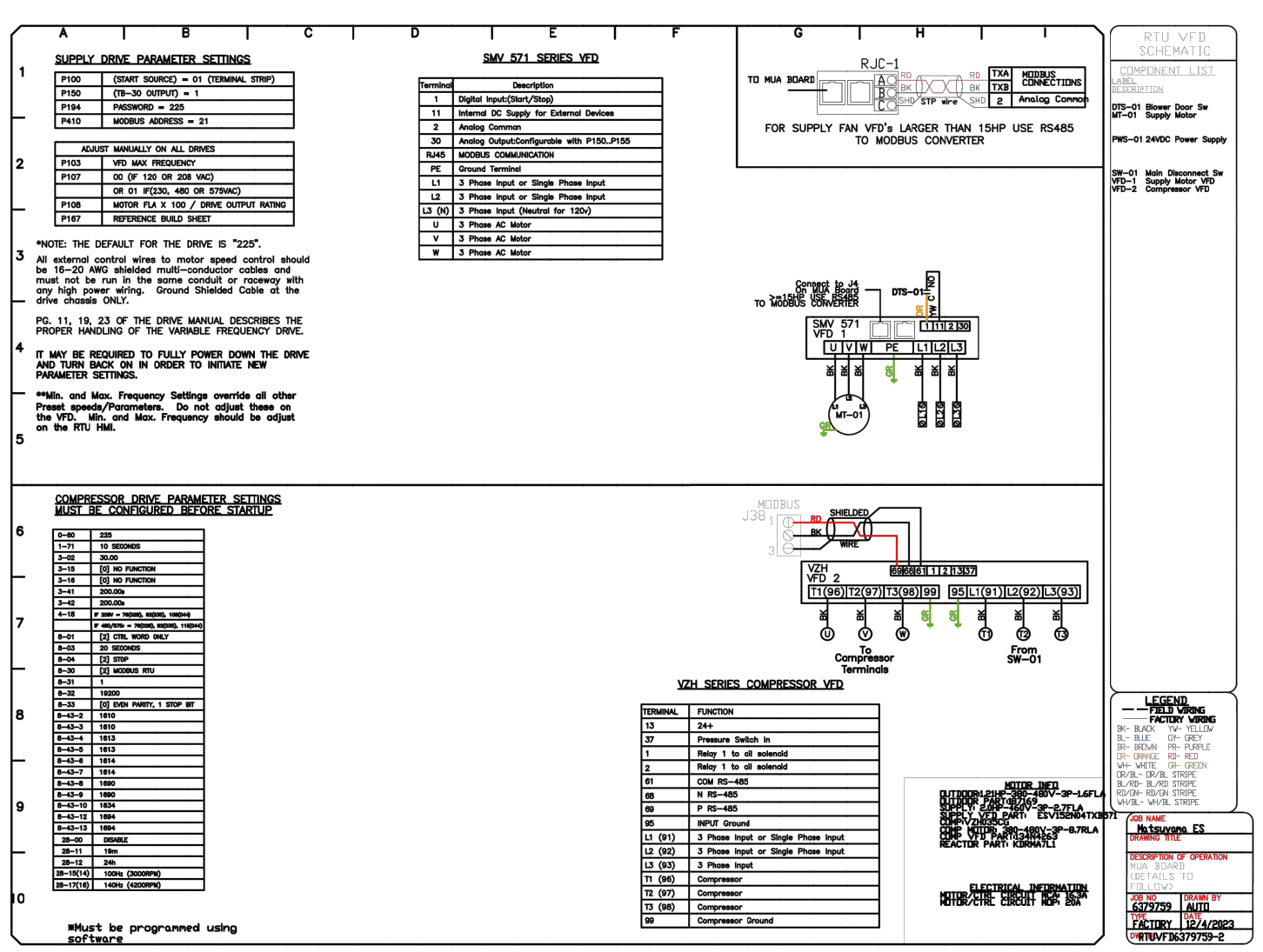
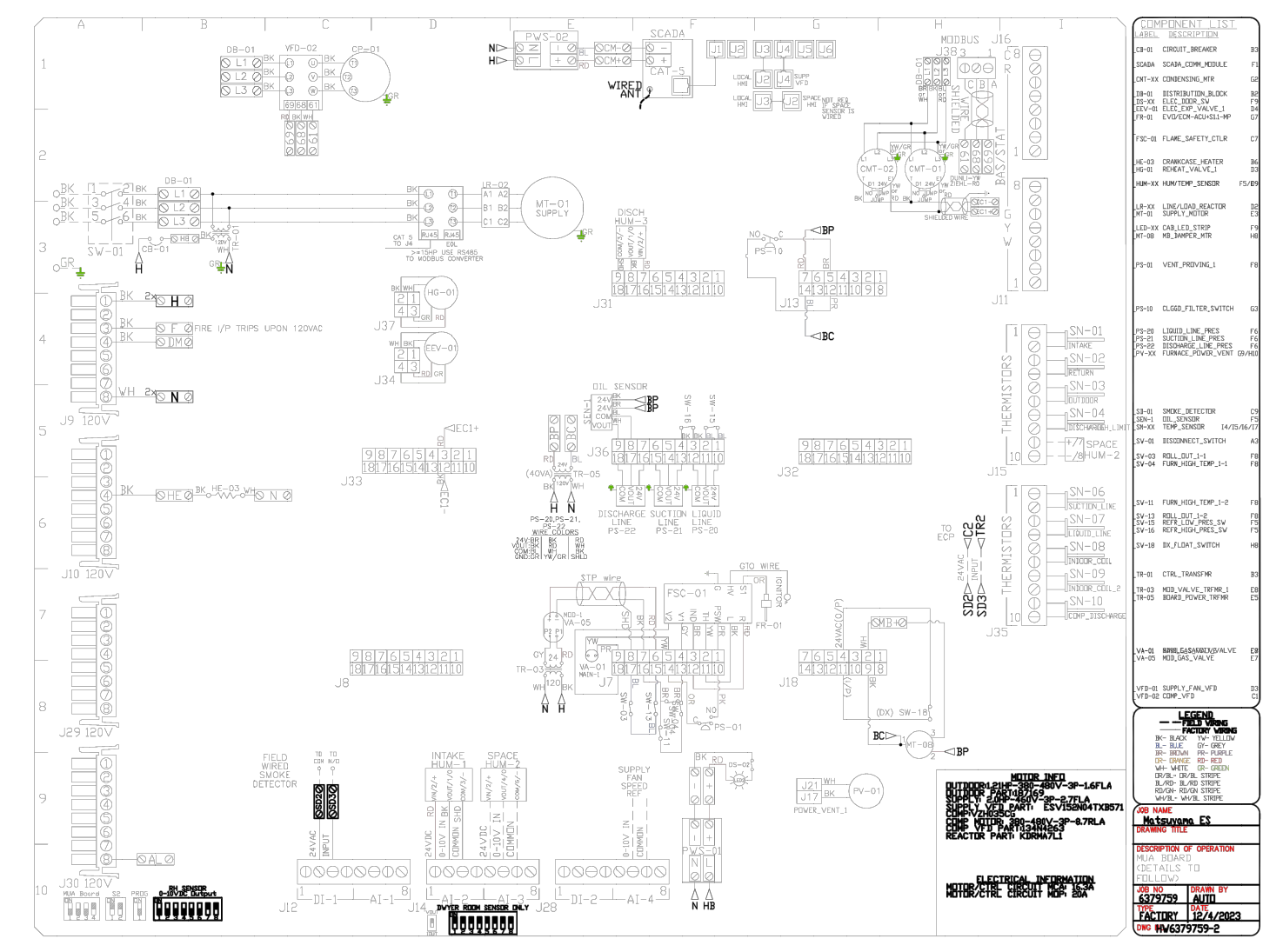
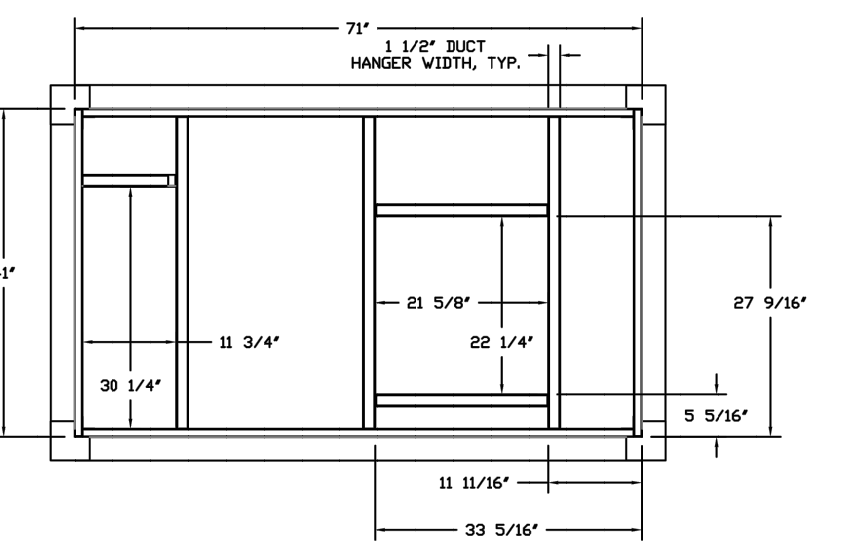
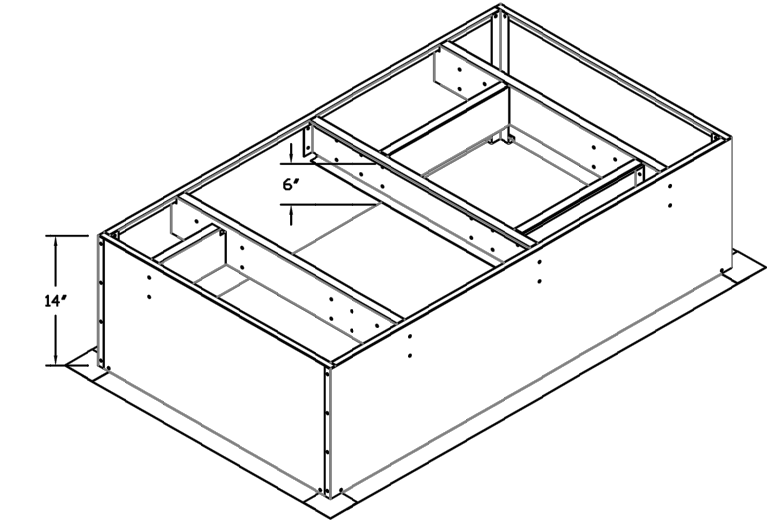
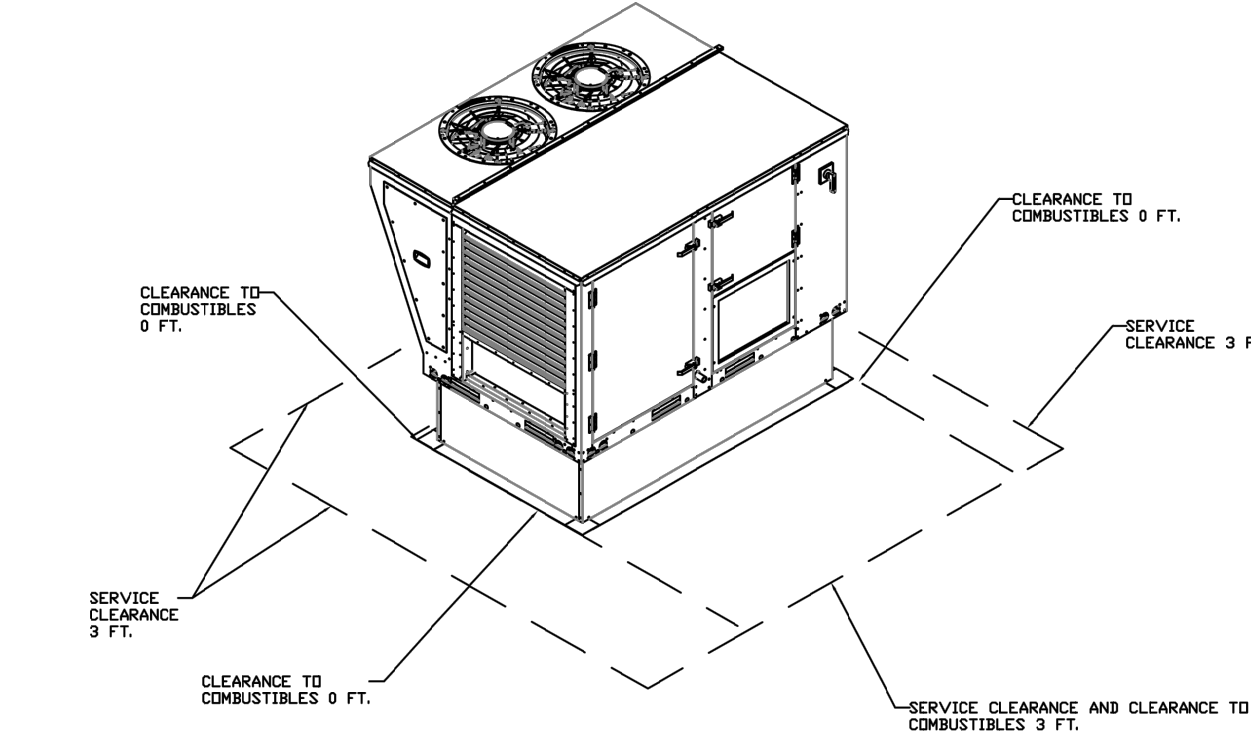
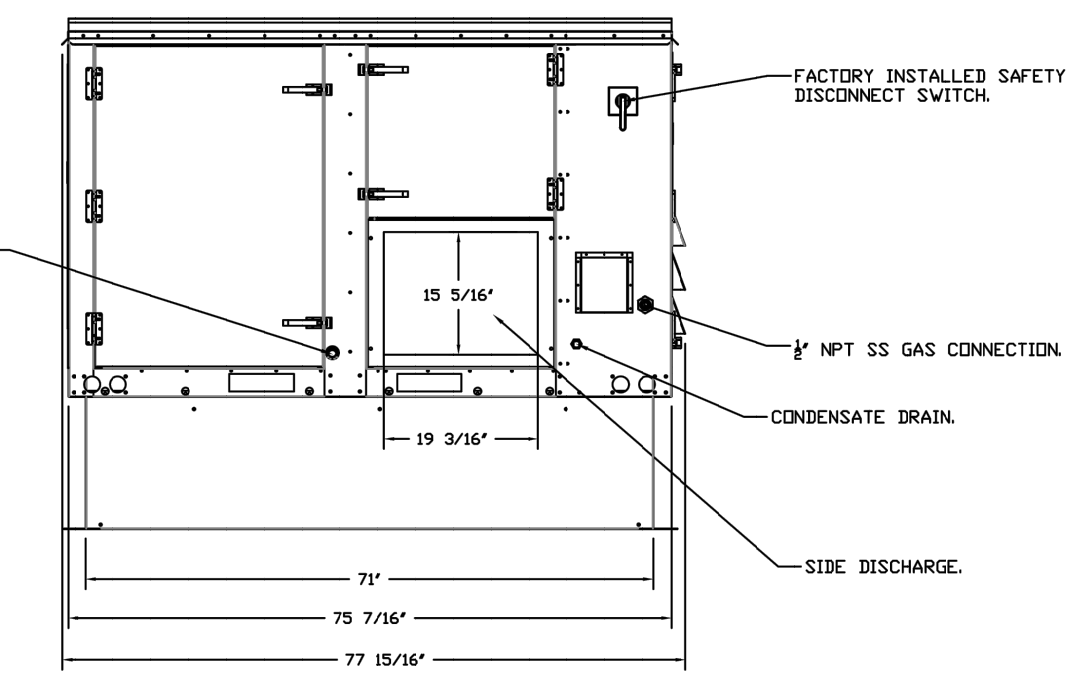
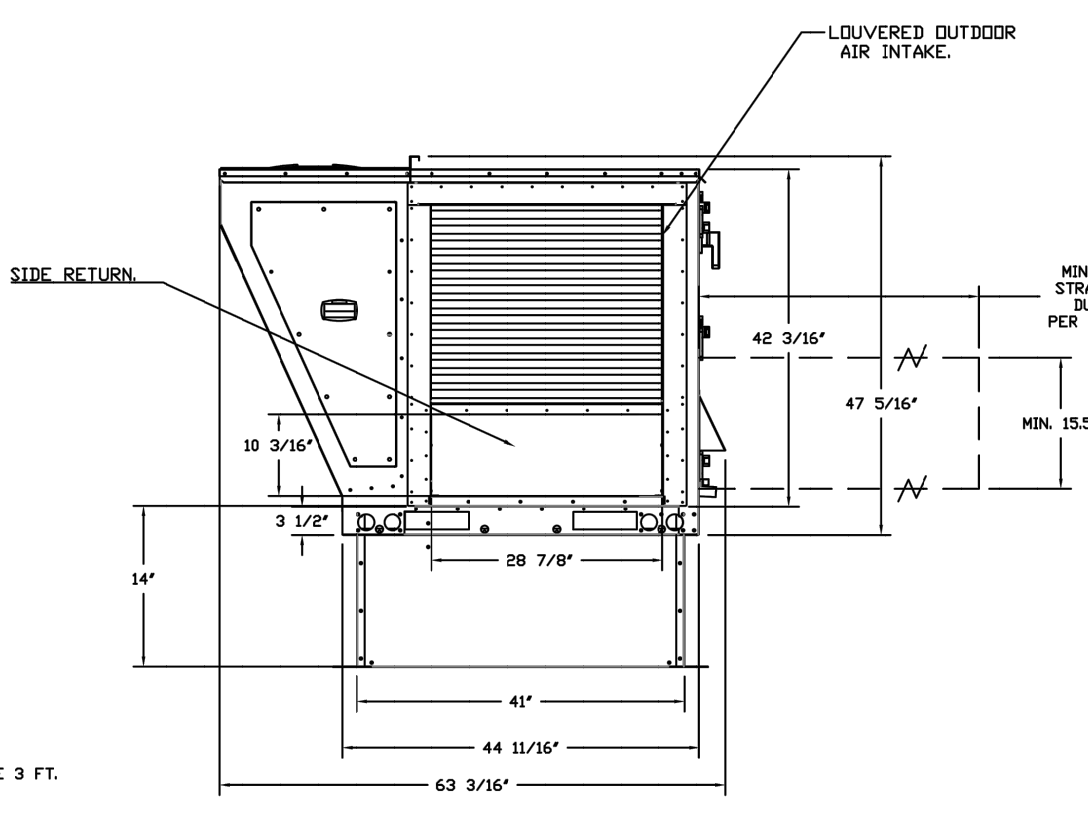
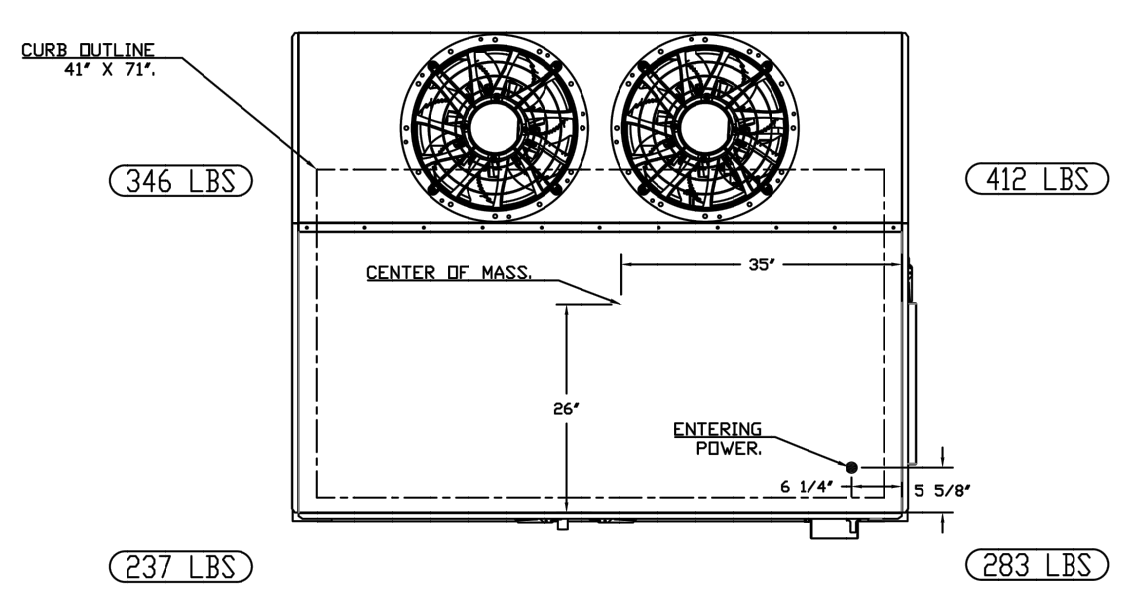
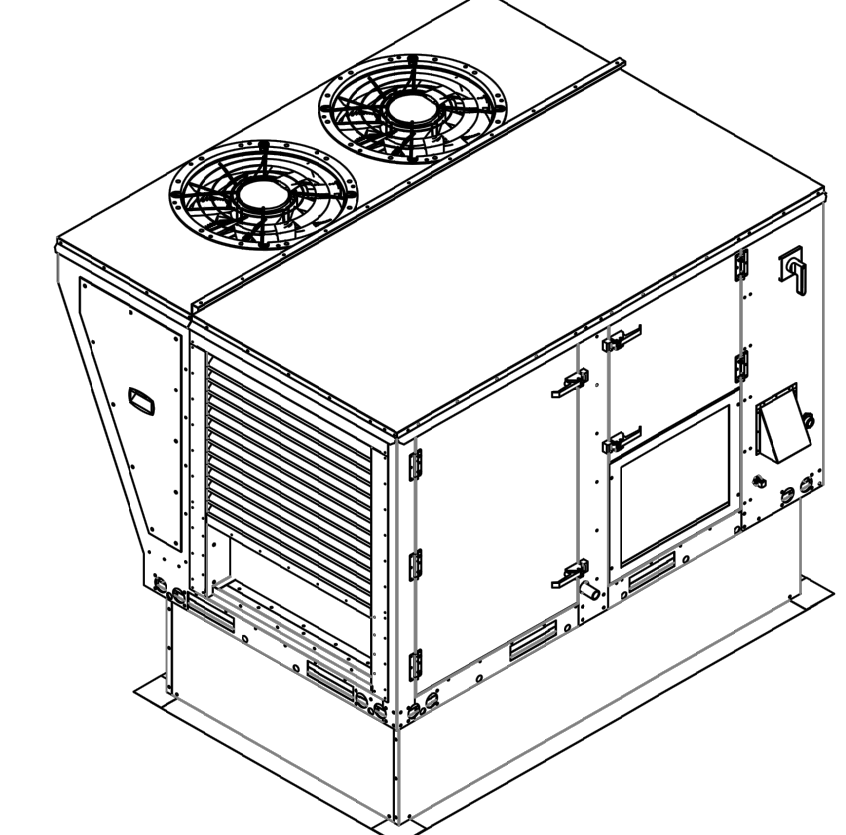
FAN UNIT NO	TAG	QTY	FAN INFORMATION				ELECTRICAL INFORMATION				COOLING INFORMATION				REHEAT INFORMATION				GAS HEAT INFORMATION				NOTES																
			DOAS/RTU MODEL #	MANUFACTURER	RETURN AIR CFM	MAX OUTSIDE AIR CFM	TOTAL CFM	WEIGHT (LBS)	ESP	HP	PHASE	VOLT	MCA	MCCP	OUTSIDE AIR DB WB DB WB	MIXED AIR DB WB DB WB	LEAVING AIR DB WB DB WB	CAPACITY TONS	IEER	DISCHARGE DB WB	CAPACITY DESIRED MAX	MOISTURE REMOVAL RATE		GAS TYPE	INPUT BTU/H	OUTPUT BTU/H	TEMP RISE	REQUIRED INPUT GAS PRESSURE											
1		1	CASRTU-1125-15-6T	CAPTIVEAIR	150-1	0	1575	1575	1578	1.00	2.00	3	460	16.3A	20A	97.0°F	69.0°F	97.0°F	69.0°F	58.1°F	58.2°F	77.0	MBH	19.5	9.2	70.0°F	59.7°F	31.8	MBH	56	MBH	3.3	LBS/H	NATURAL	982E1	74699	41°F	7 IN. W.C. - 14 IN. W.C.	L2,3,4,5,6,7,8,9,10,11,12,3,14

- FAN OPTIONS**
- | FAN UNIT NO | TAG | QTY | DESCRIPTION |
|-------------|-----|-----|--|
| 1 | | 1 | GREASE BOX |
| 1 | | 1 | ECH WIRING PACKAGE - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL -RTC- (CLEOD MOTOR, DCV ROTATION) |
| 1 | | 1 | 2 YEAR PARTS WARRANTY |
| 1 | | 1 | INLET PRESSURE GAUGE, 0-35" |
| 1 | | 1 | HANDHELD PRESSURE GAUGE, 0 TO 10" WG, 1 FURNACE |
| 1 | | 1 | RTU TOTAL CFM MONITORING |
| 1 | | 1 | INTAKE FIRESTAT SET TO 135°F |
| 1 | | 1 | FREELCIN |
| 1 | | 1 | DISCHARGE FIRESTAT SET TO 240°F |
| 1 | | 1 | SINGLE POINT ELECTRICAL CONNECTION FOR RTU, 750VA TRANSFORMER USED, IF A NON-DCV PREVIEW CONTROL THIS UNIT, THE R08, R47, P46, OR R27 PREVIEW OPTION MUST BE SELECTED. THIS DOES NOT PROVIDE SUPPLY STARTER IN PREVIEW |
| 1 | | 1 | CASLIM BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED |
| 1 | | 1 | 8" MERV 13 FILTERS FOR RTU(S) QTY: 4) |
| 1 | | 1 | 8" MERV 8 FILTERS FOR RTU(S) QTY: 4) |
| 1 | | 1 | OVERHEAT STAT |
| 1 | | 1 | VFD FACTORY MOUNTED AND WIRED IN RTU COMMERCIAL CONTROL VESTIBULE |
| 1 | | 1 | REMOTE TEMPERATURE AND HUMIDITY SPACE SENSOR |
| 1 | | 1 | RTU SIDE DISCHARGE |
| 1 | | 1 | COMMERCIAL SMOKE DETECTOR/ALARM INTERLOCK - ALARM SUPPLIED BY OTHERS |
| 1 | | 1 | EVACUATION FIRE INPUT |
| 1 | | 1 | CLOSED FILTER SWITCH - NOTIFICATION ON HMI |
| 1 | | 1 | OCCUPIED SCHEDULING |
| 1 | | 1 | RTU INTAKE/PRECURSOR DAMPER - MANUAL CONTROL VIA HMI |
| 1 | | 1 | VAVY PACKAGE W/ 0-10VDC INPUT CONTROL (37) VFD INCLUDED |
| 1 | | 1 | LOAD REACTOR MOUNTED IN FAN |
| 1 | | 1 | 5 TON MODULATING COOLING OPTION, 460/480V, R410A REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS |
| 1 | | 1 | 5 TON MODULATING REHEAT OPTION - SPACE SETPOINT CONTROL |
| 1 | | 1 | RTU SIDE RETURN |
| 1 | | 1 | RTU CURB DUCT HANGER |
| 1 | | 1 | 5 YEAR ENTIRE UNIT PARTS WARRANTY, 10 YEAR ENTIRE UNIT PARTS WARRANTY WITH REMOTE MONITORING AND CAPTIVEAIR SERVICE CONTRACT, 25 YEAR STAINLESS STEEL FURNACE PARTS WARRANTY (SEE ADDITIONAL DETAILS) |

FAN #2 CASRTU1-1125-15-6T - HEATER

- NOTES:**
- DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
 - C DENOTES CORNER WEIGHT.
 - ROOF OPENING MUST BE 2' SMALLER THAN CURB DIMENSIONS IN BOTH DIRECTIONS.

*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 15.5" x 19.25".



DOAS unit to accept 0-10V from demand control ventilation system and track the exhaust fan. When DCV is off the DOAS unit will open it's recirculation damper and heat and cool the space

DOAS unit needs a HMI mounted in the space to measure temperature and humidity. Cat5 cable needs to be run between HMI and DOAS unit. 4 low voltage wires will need to be run between DOAS unit and DCV on the hood. 2 give it and occupied/unoccupied signal and 2 give it a 0-10V speed reference

REVISIONS

NO.	DESCRIPTION	DATE

CAPTIVE Northern California Office
110 Burnett Ave, Suite G, Concord, CA, 94520 PHONE: (925) 962-1899 FAX: 925-656-8665 EMAIL: nrg@captivair.com

Matsuyama ES
Sacramento, CA, 95831

DATE: 12/4/2023
DWG.#: 6379759
DRAWN BY: MRE
SCALE: 1/2" = 1'-0"
MASTER DRAWING

SHEET NO.
2

AGENCY APPROVAL:

Sacramento City
UNIFIED SCHOOL DISTRICT

HMC Architects
3186-070-000

2101 CAPITOL AVENUE, SUITE 100,
SACRAMENTO, CA, 95816
916 368 7990 / www.hmcarchitects.com

ISSUE

DESCRIPTION	DATE

MEP & FS / Sustainability / CxA
LP CONSULTING ENGINEERS
1209 Pleasant Grove Blvd.
Roseville, CA 95678
916-771-0778
www.lpengineers.com
Job #: 23-2274

REGISTERED PROFESSIONAL ENGINEER
MECHANICAL
M 41413
REN. 03-31-25
STATE OF CALIFORNIA

FACILITY:
MATSUYAMA ELEMENTARY SCHOOL
7680 WINBRIDGE DR.
SACRAMENTO, CA 95831

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
MECHANICAL KITCHEN EQUIPMENT DRAWINGS

DSA SUBMITTAL

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000

SHEET:

M6.02

PLEASE RECYCLE



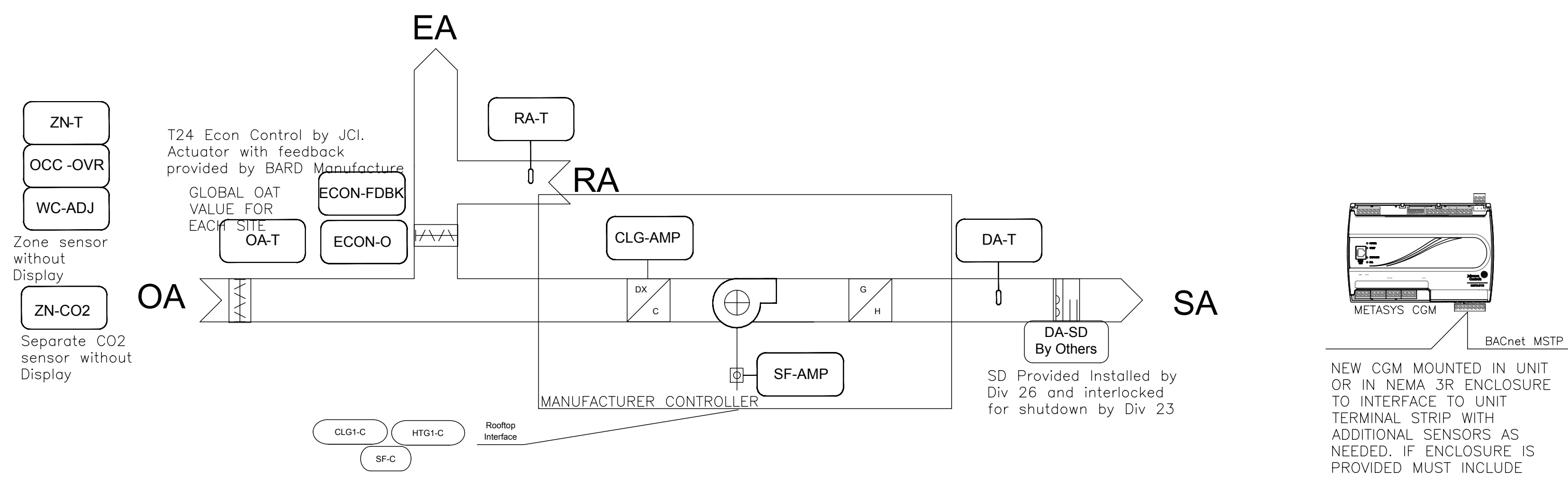
HMC Architects

3186-070-000

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ISSUE

DESCRIPTION	DATE
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SUPPLY FAN CONTROL:
The supply fan (SF-C) will be started based on occupancy schedule. When the supply fan status (SF-AMP) indicates the fan started, the control sequence will be enabled. Upon a loss of airflow (SF-AMP), the supply fan will attempt to automatically restart until positive status is received.

SINGLE ZONE VAV CONTROL:
Upon a call for cooling – the manufacture control board shall stage the supply fan in sequence with the cooling per the single zone VAV guidelines in ASHRAE 90.1

ECONOMIZER CONTROL:
The BMS contractor shall provide the Title 24 FDD economizer control with associated sensors and logic for a functional system. This includes global outside air temp (OA-T, unique to the site), return air temp (RA-T), discharge air temp (DA-T) and damper actuator/feedback (ECON-O) and damper actuator feedback (ECON-FDBK) for typical dry bulb control. The BMS will generate the Faults as per the T24 code and display them as an alarm at the OWS. The faults are to be 1. Air temperature sensor failure/fault 2. Not economizing when it should 3. Economizing when it should not 4. Dampers not modulating 5. Excess outdoor air. The economizer will be enabled whenever the OAT is lower than the Econ Enable Set point.

TEMPERATURE CONTROL:
The unit will control to maintain the locally adjustable zone temperature setpoint (ZN-SP) (WC-ADJ) as sensed by the zone temperature (ZN-T) sensor.

OCCUPIED MODE:
The occupancy mode will be controlled via a network input (OCC-SCHEDULE). The occupancy mode can also be overridden by a network input (OCC-OVERRIDE). It can also be overridden by a temporary occupancy button (OCC-OVR) on the zone sensor will place the unit in occupied mode for an adjustable time – user adjustable initially set for 2 hours. When in occupied mode the fan fan will run continuously.

UNOCCUPIED MODE:
The unit will cycle to maintain unoccupied zone setpoints (CLGUNOCC-SP & HTGUNOCC-SP) during unoccupied periods. The fan will only be on when there is a call for cooling or heating and a compressor or heater is enabled. The fan will be off at all other times.

COOLING COIL:
The cooling coil (CLG-C) will be staged in sequence to maintain the temperature setpoint initially set at 73 and variable at the zone from 73-77.

HEAT PUMP CONTROL:
When the zone temperature (ZN-T) falls below the zone temperature setpoint (ZN-SP) the reversing valve (s) (REV-C) will be indexed to provide heating when the compressor is running. When the zone temperature (ZN-T) rises above the zone temperature setpoint (ZN-SP) the reversing valve (s) (REV-C) will be indexed to provide cooling when the compressor is running.

HEAT PUMP HEATING:
The reheat coil (HTG-C) will be staged in sequence to maintain the temperature setpoint initially set at 69 and variable at the zone from 65-69. If the unit is supplied with KW heat strips it will control them per the manufacture SOO for defrost or supplemental heat to meet heating requests from the BMS.

UNOCCUPIED SETPOINTS:
When unoccupied the cooling set point is 90F (fixed value with no range, user adjustable)
When unoccupied the heating set point is 50F (fixed value with no range, user adjustable)

LOAD SHED PROGRAM:
The AC unit will be part of the utility Load Shed Program. Whenever the utility company sends the network level command to shed load, the BMS will reset the zone cooling set point UP by 2F while maintaining the same range for warm cool adjust (IE – from 75-79F). This load shed event will continue until the utility releases the load shed event command. When the utility releases the load shed event, the BMS will revert to normal set points 5 units at a time per site every 3 min until 100% of the units are back at the normal set point.

CO2 VENTILATION:
The BMS will utilize a zone CO2 sensor sensor to monitor space CO2 value. The BMS will alarm if the zone CO2 value ever rises above 1,000 PPM. After alarming, the BMS will modulate the OSA damper for the common plenum open 10% every 5 min until the zone CO2 set point falls below the set point of 1,000 :M at which point the OSA damper will revert back to its default position. This SOO will be applicable if any of the connected systems is above set POI.

VIRUS MODE:
Via the user interface, the BMS will be able to send a global command to all controlled economizer damper actuators and supply fans. In this mode the economizer actuator is to stroke 100% open to introduce the maximum amount of OSA. The supply fan will be commanded on 24/7 regardless of occupancy schedule. Temperature control will remain per the occupied/unoccupied setpoints above and existing schedule. The Virus mode will take secondary priority to smoke mode.

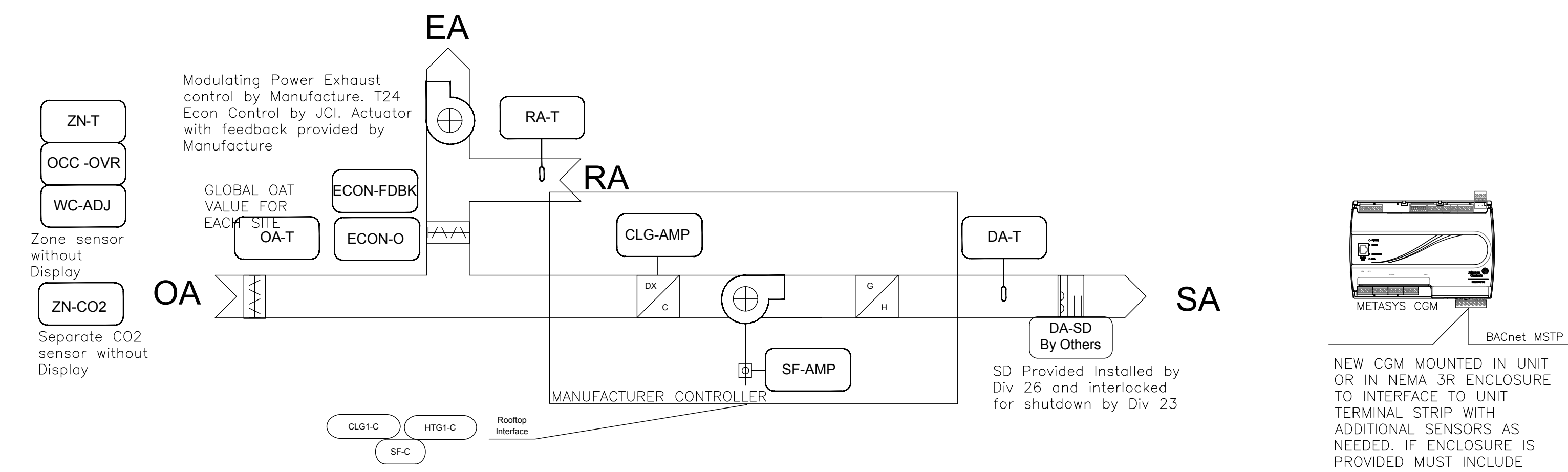
SMOKE MODE:
Via the user interface, the BMS will be able to send a global command to all controlled economizer damper actuators to stroke an (adj.) amount closed and limit OSA. Additionally – this command will change the supply fan control from continuous during occupied to cycled with a call for cooling. The occupied cooling temperature setpoint will change to a fixed value at 74F, the unoccupied setpoint will remain the same at 90F. Heating setpoints remain unchanged. This SOO will remain active as long as the global command is active and will take priority over Virus mode.

OPTIMIZED START/STOP:
JCI will leverage the JCI standard optimized start/stop logic block to provide micro-adjustments to the unit enable command in the morning and disable in the evening. Leveraging global outside air temp, zone temp, zone set point and schedule the BMS will enable/disable unit at different times each day to hit the setpoints when the schedule switches from occupied to unoccupied or visa versa.

ALARMS
The BMS system shall generate an alarm if:
-The zone temperature is 6 degrees away from set point.
-The fan command does not match its status
-The cooling command does not match its status

The BMS will disable ALL alarms during unoccupied mode.

ADDITIONAL POINTS MONITORED BY THE FMS:
Supply Fan Amperage (SF-AMP)
Discharge Air Temperature (DA-T)
Compressor Amperage (CLG-AMP)
Return Air Temperature Sensor (RA-T)
Zone CO2 – (ZN-CO2)
Economizer Position Feedback (ECON-FDBK)



SUPPLY FAN CONTROL:
The supply fan (SF-C) will be started based on occupancy schedule. When the supply fan status (SF-AMP) indicates the fan started, the control sequence will be enabled. Upon a loss of airflow (SF-AMP), the supply fan will attempt to automatically restart until positive status is received.

SINGLE ZONE VAV CONTROL:
Upon a call for cooling – the manufacture control board shall stage the supply fan in sequence with the cooling per the single zone VAV guidelines in ASHRAE 90.1

ECONOMIZER CONTROL:
The BMS contractor shall provide the Title 24 FDD economizer control with associated sensors and logic for a functional system. This includes global outside air temp (OA-T, unique to the site), return air temp (RA-T), discharge air temp (DA-T) and damper actuator/feedback (ECON-O) and damper actuator feedback (ECON-FDBK) for typical dry bulb control. The BMS will generate the Faults as per the T24 code and display them as an alarm at the OWS. The faults are to be 1. Air temperature sensor failure/fault 2. Not economizing when it should 3. Economizing when it should not 4. Dampers not modulating 5. Excess outdoor air. The economizer will be enabled whenever the OAT is lower than the Econ Enable Set point.

TEMPERATURE CONTROL:
The unit will control to maintain the locally adjustable zone temperature setpoint (ZN-SP) (WC-ADJ) as sensed by the zone temperature (ZN-T) sensor.

OCCUPIED MODE:
The occupancy mode will be controlled via a network input (OCC-SCHEDULE). The occupancy mode can also be overridden by a network input (OCC-OVERRIDE). It can also be overridden by a temporary occupancy button (OCC-OVR) on the zone sensor will place the unit in occupied mode for an adjustable time – user adjustable initially set for 2 hours. When in occupied mode the supply fan will run continuously.

UNOCCUPIED MODE:
The unit will cycle to maintain unoccupied zone setpoints (CLGUNOCC-SP & HTGUNOCC-SP) during unoccupied periods. The fan will only be on when there is a call for cooling or heating and a compressor or heater is enabled. The fan will be off at all other times.

COOLING COIL:
The cooling coil (CLG-C) will be staged in sequence to maintain the temperature setpoint initially set at 73 and variable at the zone from 73-77.

GAS FURNACE HEATING COIL:
The reheat coil (HTG-C) will be staged in sequence to maintain the temperature setpoint initially set at 69 and variable at the zone from 65-69. If the unit is supplied with KW heat strips it will control them per the manufacture SOO for defrost or supplemental heat to meet heating requests from the BMS.

UNOCCUPIED SETPOINTS:
When unoccupied the cooling set point is 90F (fixed value with no range, user adjustable)
When unoccupied the heating set point is 50F (fixed value with no range, user adjustable)

ZONE PRESSURE CONTROL:
The AC units are equipped with a modulating power exhaust economizer. The modulating power exhaust economizer with factory provided controller will modulate the exhaust fan to maintain the zone pressure setpoint. The controls contractor is to run the pressure tubing to ensure factory provided modulating power exhaust controller is reading accurate values.

LOAD SHED PROGRAM:
The AC unit will be part of the utility Load Shed Program. Whenever the utility company sends the network level command to shed load, the BMS will reset the zone cooling set point UP by 2F while maintaining the same range for warm cool adjust (IE – from 75-79F). This load shed event will continue until the utility releases the load shed event command. When the utility releases the load shed event, the BMS will revert to normal set points 5 units at a time per site every 3 min until 100% of the units are back at the normal set point.

CO2 VENTILATION:
The BMS will utilize a zone CO2 sensor sensor to monitor space CO2 value. The BMS will alarm if the zone CO2 value ever rises above 1,000 PPM. After alarming, the BMS will modulate the OSA damper for the common plenum open 10% every 5 min until the zone CO2 set point falls below the set point of 1,000 :M at which point the OSA damper will revert back to its default position. This SOO will be applicable if any of the connected systems is above set POI.

VIRUS MODE:
Via the user interface, the BMS will be able to send a global command to all controlled economizer damper actuators and supply fans. In this mode the economizer actuator is to stroke 100% open to introduce the maximum amount of OSA. The supply fan will be commanded on 24/7 regardless of occupancy schedule. Temperature control will remain per the occupied/unoccupied setpoints above and existing schedule. The Virus mode will take secondary priority to smoke mode.

SMOKE MODE:
Via the user interface, the BMS will be able to send a global command to all controlled economizer damper actuators to stroke an (adj.) amount closed and limit OSA. Additionally – this command will change the supply fan control from continuous during occupied to cycled with a call for cooling. The occupied cooling temperature setpoint will change to a fixed value at 74F, the unoccupied setpoint will remain the same at 90F. Heating setpoints remain unchanged. This SOO will remain active as long as the global command is active and will take priority over Virus mode.

OPTIMIZED START/STOP:
JCI will leverage the JCI standard optimized start/stop logic block to provide micro-adjustments to the unit enable command in the morning and disable in the evening. Leveraging global outside air temp, zone temp, zone set point and schedule the BMS will enable/disable unit at different times each day to hit the setpoints when the schedule switches from occupied to unoccupied or visa versa.

ALARMS
The BMS system shall generate an alarm if:
-The zone temperature is 6 degrees away from set point.
-The fan command does not match its status
-The cooling command does not match its status

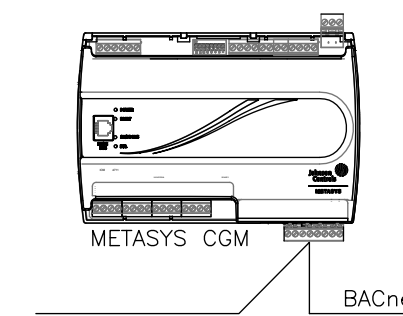
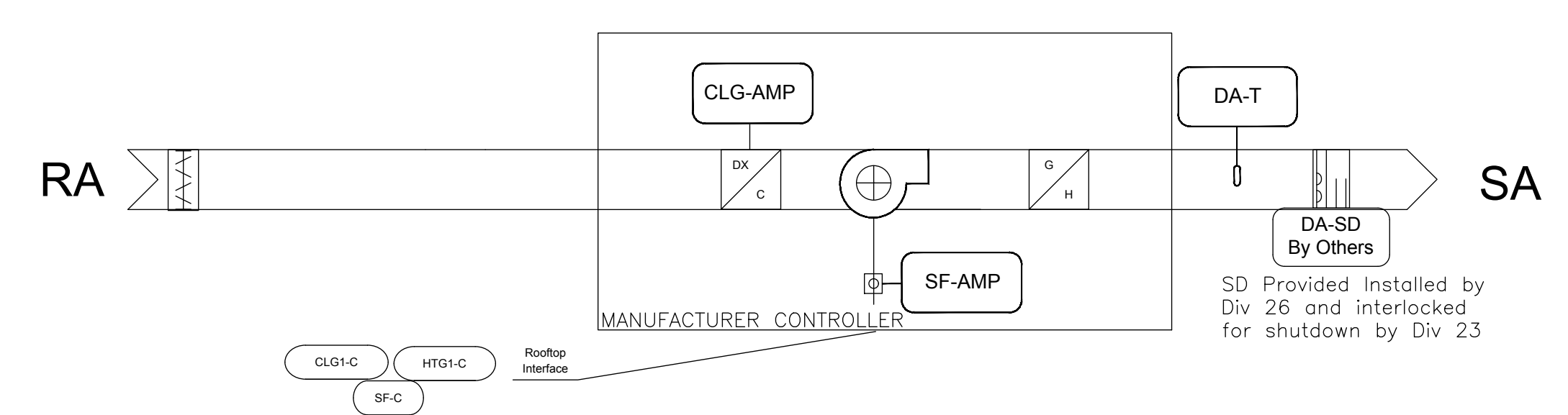
The BMS will disable ALL alarms during unoccupied mode.

ADDITIONAL POINTS MONITORED BY THE FMS:
Supply Fan Amperage (SF-AMP)
Discharge Air Temperature (DA-T)
Compressor Amperage (CLG-AMP)
Return Air Temperature Sensor (RA-T)
Zone CO2 – (ZN-CO2)
Economizer Position Feedback (ECON-FDBK)



Autodesk Docs: 01/16/2024 12:28:53 PM - SCUSD Matsuyama ES Modernization 01/16/2024 - MATSUYAMA-MOD-1.rvt

- ZN-T
- OCC-OVR
- WC-ADJ
- Zone sensor without Display
- ZN-CO2
- Separate CO2 sensor without Display



NEW CGM MOUNTED IN UNIT OR IN NEMA 3R ENCLOSURE TO INTERFACE TO UNIT TERMINAL STRIP WITH ADDITIONAL SENSORS AS NEEDED. IF ENCLOSURE IS PROVIDED MUST INCLUDE LOCK KEYS

SUPPLY FAN CONTROL:
The supply fan (SF-C) will be started based on occupancy schedule. When the supply fan status (SF-AMP) indicates the fan started, the control sequence will be enabled. Upon a loss of airflow (SF-AMP), the supply fan will attempt to automatically restart until positive status is received.

SINGLE ZONE VAV CONTROL:
Upon a call for cooling - the manufacture control board shall stage the supply fan in sequence with the cooling per the single zone VAV guidelines in ASHRAE 90.1

TEMPERATURE CONTROL:
The unit will control to maintain the locally adjustable zone temperature setpoint (ZN-SP) (WC-ADJ) as sensed by the zone temperature (ZN-T) sensor.

OCCUPIED MODE:
The occupancy mode will be controlled via a network input (OCC-SCHEDULE). The occupancy mode can also be overridden by a network input (OCC-OVERRIDE). It can also be overridden by a temporary occupancy button (OCC-OVR) on the zone sensor will place the unit in occupied mode for an adjustable time - user adjustable initially set for 2 hours. When in occupied mode the supply fan will run continuously.

UNOCCUPIED MODE:
The unit will cycle to maintain unoccupied zone setpoints (CLGUNOCC-SP & HTGUNOCC-SP) during unoccupied periods. The fan will only be on when there is a call for cooling or heating and a compressor or heater is enabled. The fan will be off at all other times.

COOLING COIL:
The cooling coil (CLGx-C) will be staged in sequence to maintain the temperature setpoint initially set at 73 and variable at the zone from 73-77.

GAS FURNACE HEATING COIL:
The reheat coil (HTGx-C) will be staged in sequence to maintain the temperature setpoint initially set at 69 and variable at the zone from 65-69. If the unit is supplied with KW heat strips it will control them per the manufacture SOO for defrost or supplemental heat to meet heating requests from the BMS.

UNOCCUPIED SETPOINTS:
When unoccupied the cooling set point is 90F (fixed value with no range, user adjustable)
When unoccupied the heating set point is 50F (fixed value with no range, user adjustable)

LOAD SHED PROGRAM:
The AC unit will be part of the utility Load Shed Program. Whenever the utility company sends the network level command to shed load, the BMS will reset the zone cooling set point UP by 2F while maintaining the same range for warm cool adjust (IE - from 75-79F). This load shed event will continue until the utility releases the load shed event command. When the utility releases the load shed event, the BMS will revert to normal set points 5 units at a time per site every 3 min until 100% of the units are back at the normal set point.

CO2 VENTILATION:
The BMS will utilize a zone CO2 sensor sensor to monitor space CO2 value. The BMS will alarm if the zone CO2 value ever rises above 1,000 PPM.

OPTIMIZED START/STOP:
JCI will leverage the JCI standard optimized start/stop logic block to provide micro-adjustments to the unit enable command in the morning and disable in the evening. Leveraging global outside air temp, zone temp, zone set point and schedule the BMS will enable/disable unit at different times each day to hit the setpoints when the schedule switches from occupied to unoccupied or visa versa.

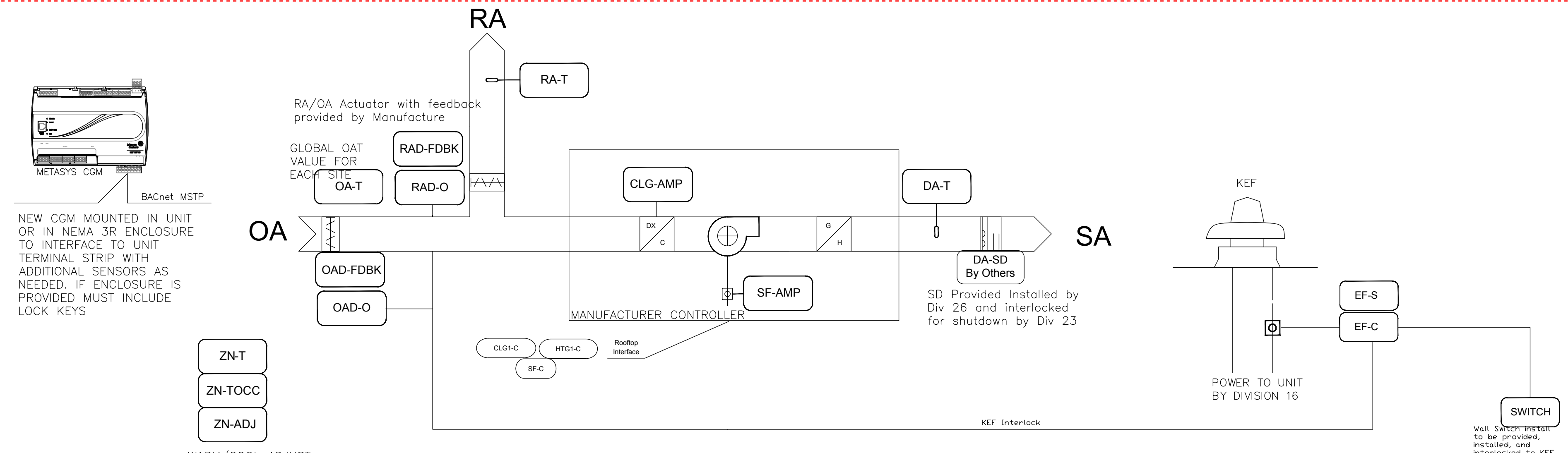
ALARMS
The BMS system shall generate an alarm if:
-The zone temperature is 6 degrees away from set point.
-The fan command does not match its status
-The cooling command does not match its status

The BMS will disable ALL alarms during unoccupied mode.

ADDITIONAL POINTS MONITORED BY THE FMS:
Supply Fan Amperage (SF-AMP)
Discharge Air Temperature (DA-T)
Compressor Amperage (CLG-AMP)
Zone CO2 - (ZN-CO2)

FURNACE CONTROL **2**
NO SCALE

ADD ALTERNATE #1



Sequence of Operation

COMFORT CONDITIONING (STANDARD) CONTROL:
The supply fan (SF-C) will be started based on occupancy schedule. When the supply fan status (SF-S) indicates the fan started, the control sequence will be enabled. The OA damper is to actuate fully closed and the RA damper is to actuate 100% open. Upon a loss of airflow (SF-S), the supply fan will attempt to automatically restart until positive status is received.

TEMPERATURE CONTROL:
The unit will control to maintain the locally adjustable zone temperature setpoint (ZN-ADJ) as sensed by the zone temperature w/c adjust (ZN-T) sensor.

OCCUPIED MODE:
The occupancy mode will be controlled via a network input (OCC-SCHEDULE). The occupancy mode can also be overridden by a network input (OCC-OVERRIDE). A temporary occupancy button (ZN-TOCC) on the zone sensor will place the unit in occupied mode for an adjustable time.

UNOCCUPIED MODE:
The unit will cycle to maintain unoccupied zone setpoints (CLGUNOCC-SP & HTGUNOCC-SP) during unoccupied periods.

COOLING COIL:
The cooling coil will be staged in sequence to maintain the temperature setpoint.

HEATING COIL:
The heating coil will be staged in sequence to maintain the temperature setpoint.

KITCHEN EXHAUST FAN INTERLOCK:
The make up air unit is interlocked to the kitchen exhaust fan. Whenever the KEF fan is commanded on (EF-C), the OA damper will modulate 100% open and the RA damper will modulate fully closed. The two fans will run in tandem to maintain a slight positive pressure in the space as determined during the system balance. When the kitchen exhaust fan is not in service, the MAU shall operate per standard sequencing (referenced above).

ADDITIONAL POINTS MONITORED BY THE BMS:

- Supply Fan Amperage (SF-S)
- Discharge Air Temperature (DA-T)
- Compressor Amperage (CLG-S)

Alarms:

- If the zone temperature (ZN-T) rises 5F above or below the cooling and heating set points.
- If the fan command does not match the fan status.
- The controller shall alarm if the unit cooling command does not match the cooling status

MAKE UP AIR UNIT, KITCHEN EXHAUST FAN **1**
NO SCALE

AGENCY APPROVAL:



HMC Architects

3186-070-000

2101 CAPITOL AVENUE, SUITE 100,
SACRAMENTO, CA, 95816
916 368 7990 / www.hmcarchitects.com

ISSUE	
DESCRIPTION	DATE

MEP & FS / Sustainability / CxA

1209 Pleasant Grove Blvd.
Roseville, CA 95678
p 916-771-0778
www.lpenginers.com
Job #: 23-2274

FACILITY:
MATSUYAMA ELEMENTARY SCHOOL
7680 WINDBRIDGE DR.
SACRAMENTO, CA 95831

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
MECHANICAL CONTROLS

DSA SUBMITTAL

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000

SHEET:

M7.02

AGENCY APPROVAL:

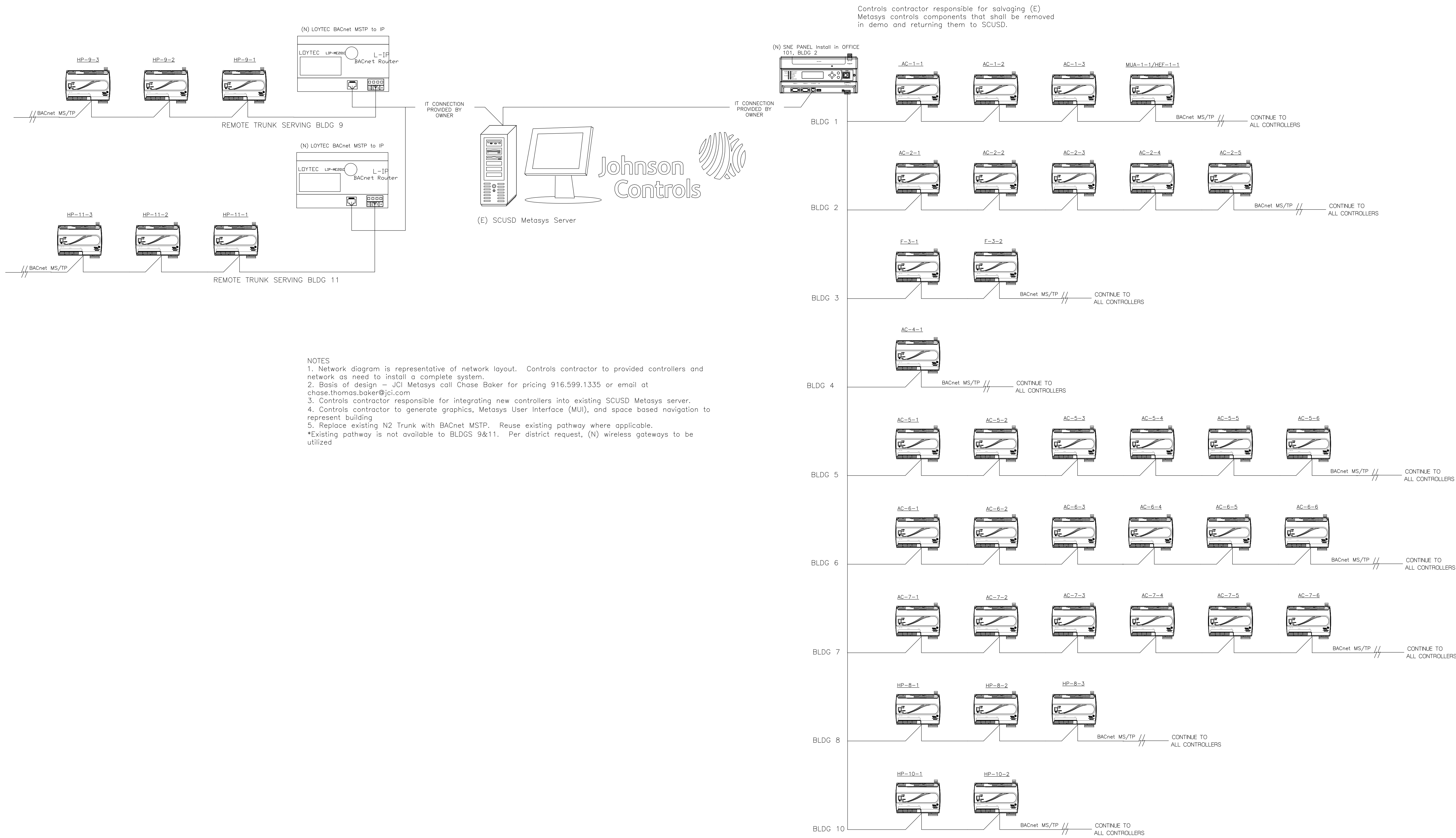


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 SACRAMENTO, CA, 95816
 916 368 7990 / www.hmcarchitects.com

ISSUE	
DESCRIPTION	DATE



- NOTES
1. Network diagram is representative of network layout. Controls contractor to provided controllers and network as need to install a complete system.
 2. Basis of design - JCI Metasys call Chase Baker for pricing 916.599.1335 or email at chase.thomas.baker@jci.com
 3. Controls contractor responsible for integrating new controllers into existing SCUSD Metasys server.
 4. Controls contractor to generate graphics, Metasys User Interface (MUI), and space based navigation to represent building
 5. Replace existing N2 Trunk with BACnet MSTP. Reuse existing pathway where applicable.
- *Existing pathway is not available to BLDGS 9&11. Per district request, (N) wireless gateways to be utilized

NETWORK RISER DIAGRAM- (SCUSD) MATSUYAMA

1
 NO SCALE

FACILITY:
MATSUYAMA ELEMENTARY SCHOOL
 7680 WINDBRIDGE DR.
 SACRAMENTO, CA 95831

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

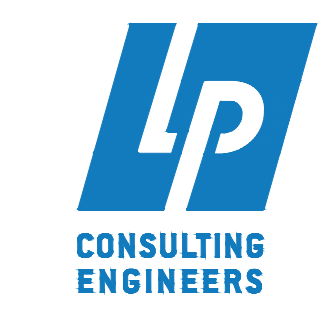
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MECHANICAL CONTROLS

DSA SUBMITTAL

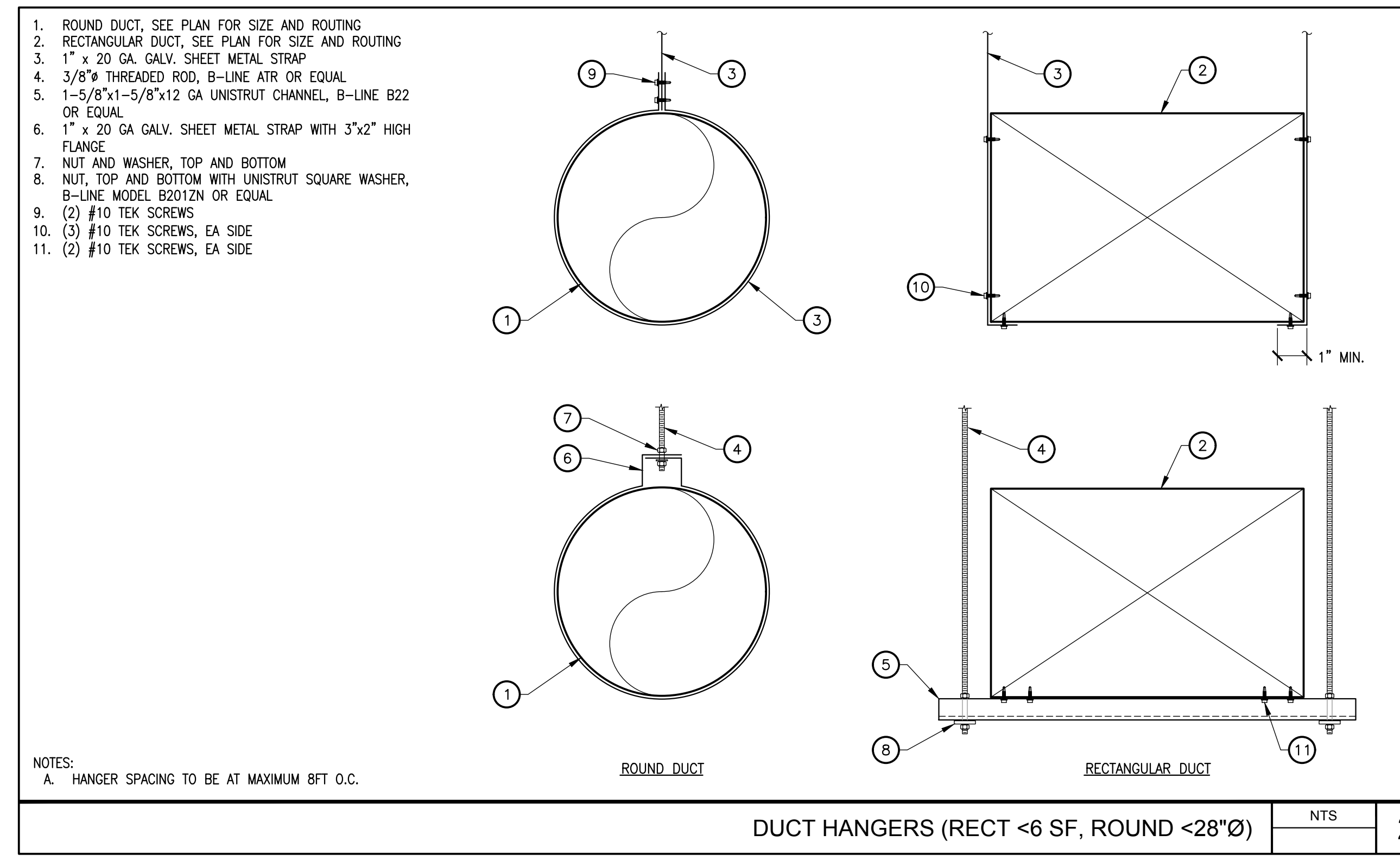
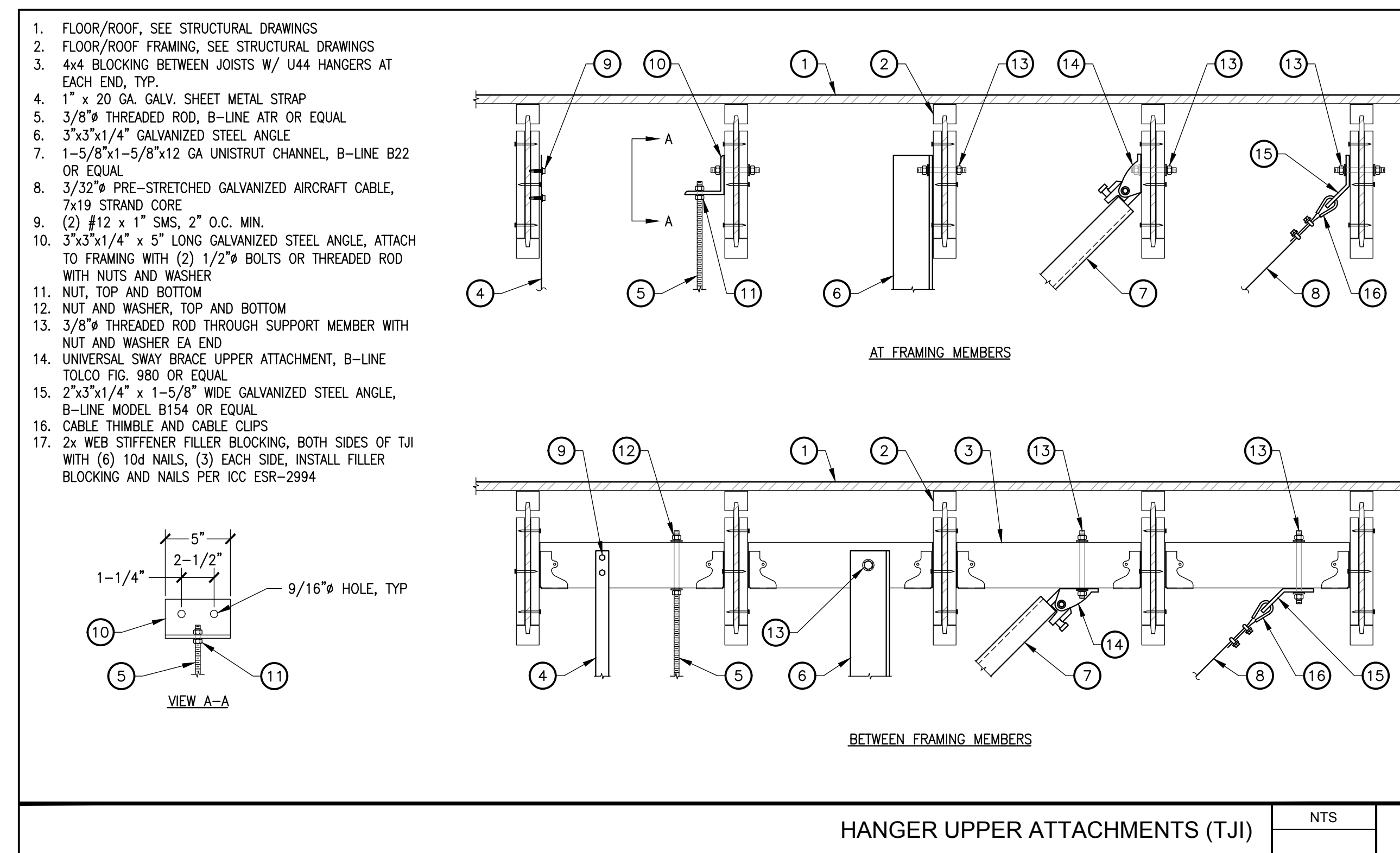
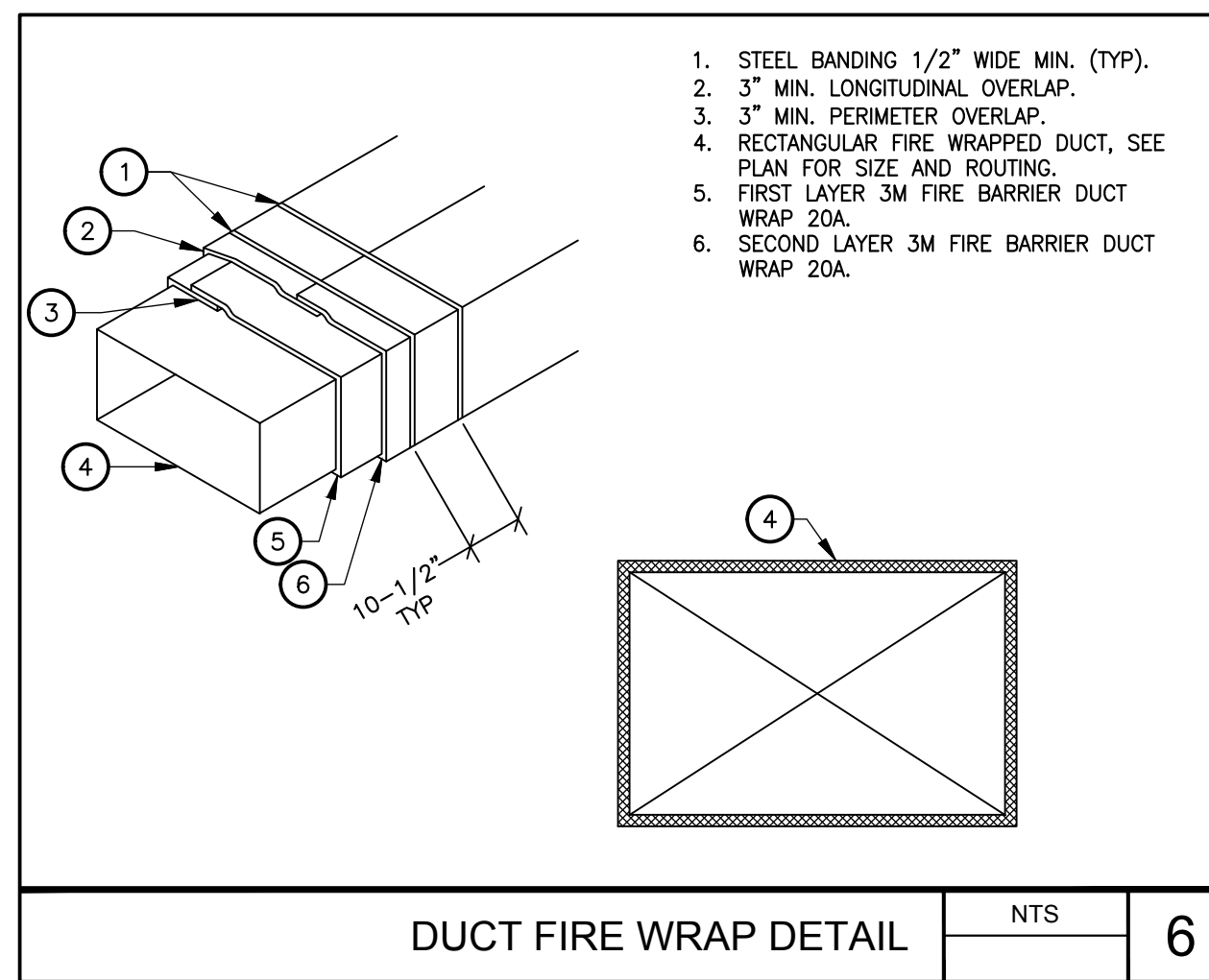
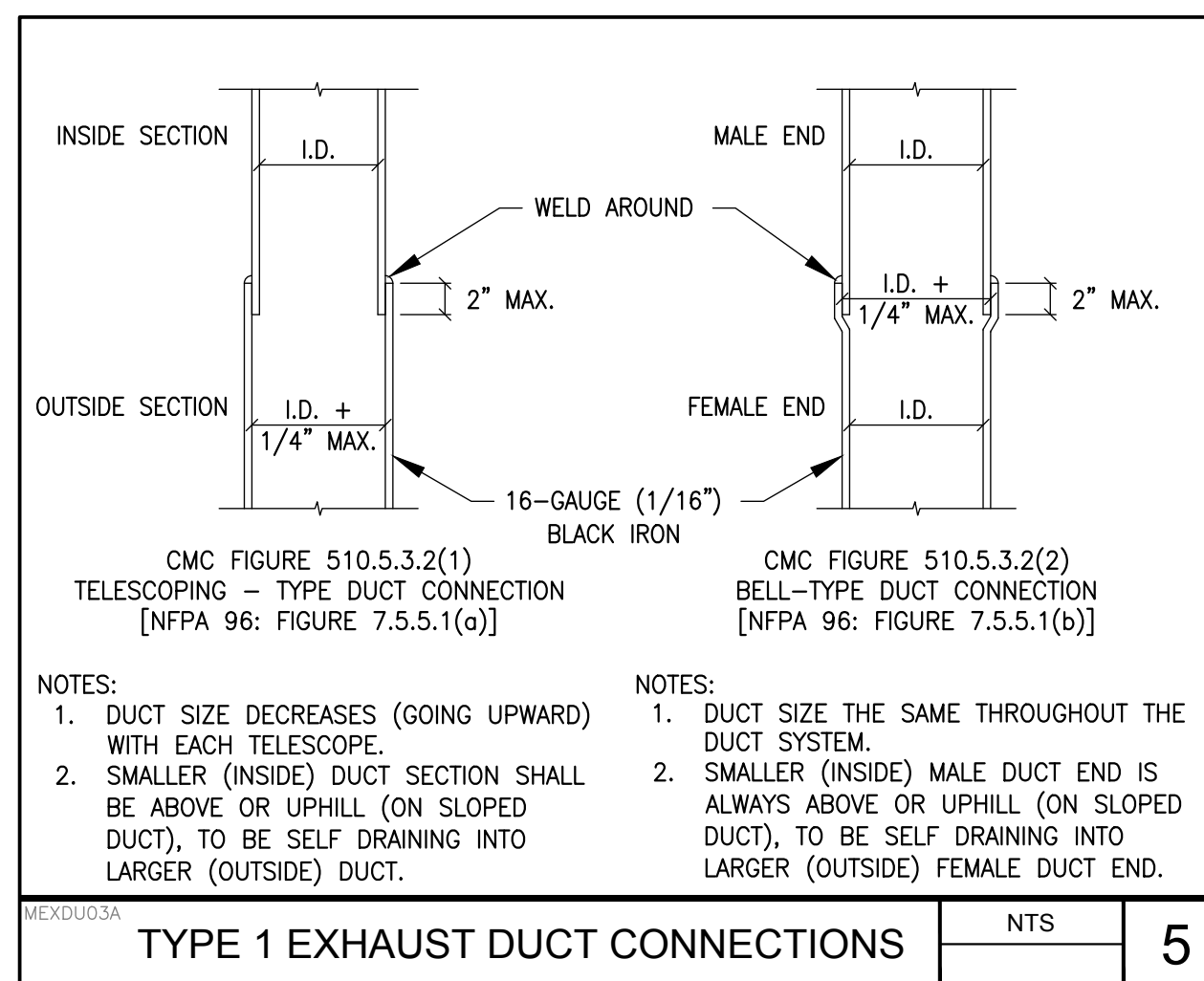
DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000

SHEET:

M7.03



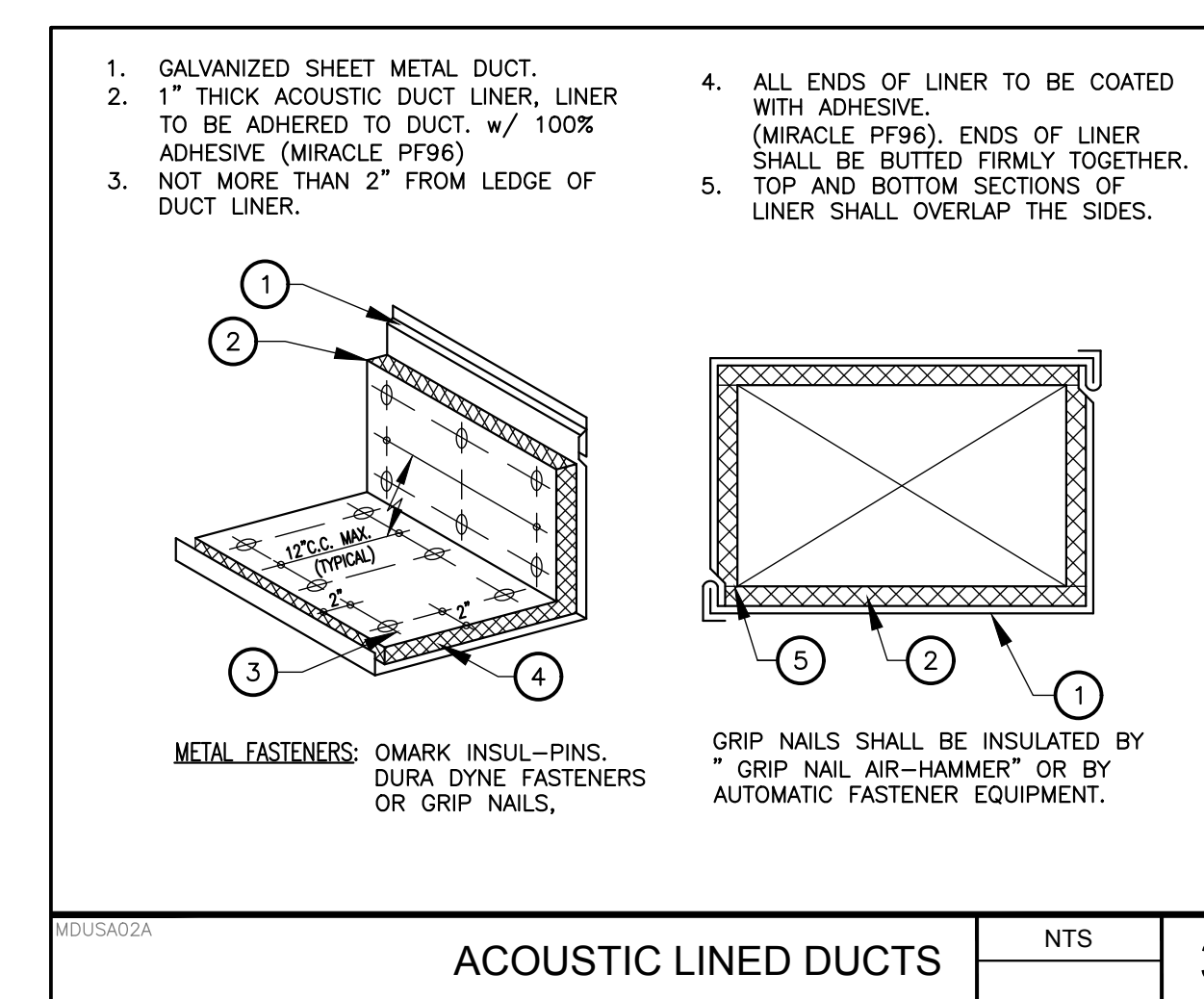
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DIMENSION OF LONGEST SIDE INCHES	SHEET METAL GAGE (ALL FOUR SIDES)	MINIMUM REINFORCING ANGLE SIZE AND MAXIMUM LONGITUDINAL SPACING BETWEEN TRANSVERSE JOINTS &/OR INTERMEDIATE REINFORCING	TRANSVERSE REINFORCING (1)				
			AT JOINTS				
			MIN. HT. IN.	DRIVE SLIP	HEMMED S SLIP	ALTERNATE REINFORCED BAR SLIP	
UP THRU 12	26	NONE REQUIRED	1	26	26	24	24
13 - 18	24	NONE REQUIRED	1	24	24	24	24
19 - 30	24	1" x 1" x 1/8" Ø 60 IN.	1		24	24	24
31 - 42	22	1" x 1" x 1/8" Ø 60 IN.	1			22	22

(1) TRANSVERSE REINFORCING SIZE IS DETERMINED BY DIMENSION OF SIDE TO WHICH ANGLE IS APPLIED.

DUCT CONSTRUCTION STANDARDS NTS 4



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Job #: 23-2274

FACILITY:
MATSUYAMA ELEMENTARY SCHOOL
7680 WINDBRIDGE DR.
SACRAMENTO, CA 95831

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

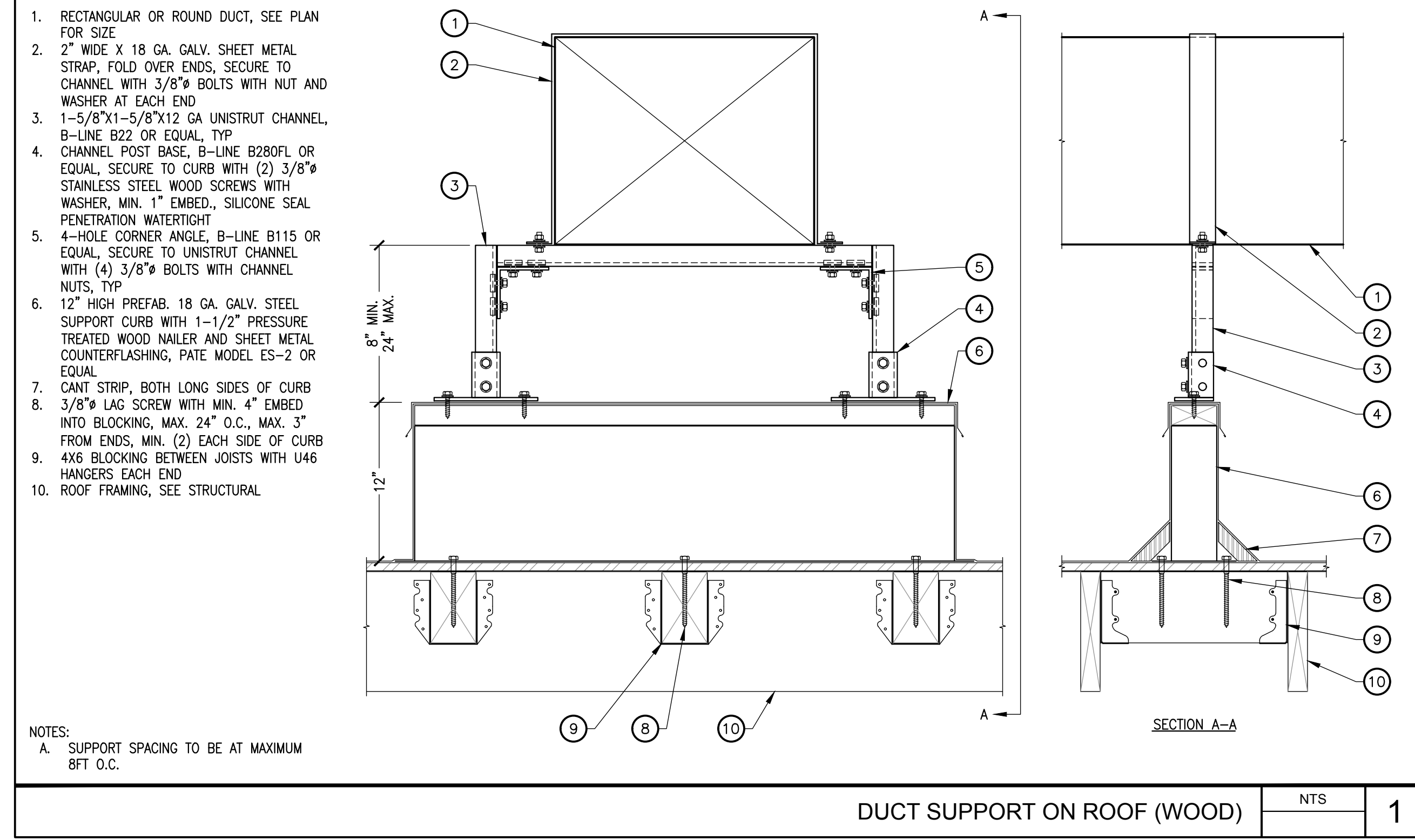
SHEET NAME:
MECHANICAL DETAILS

DSA SUBMITTAL

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000

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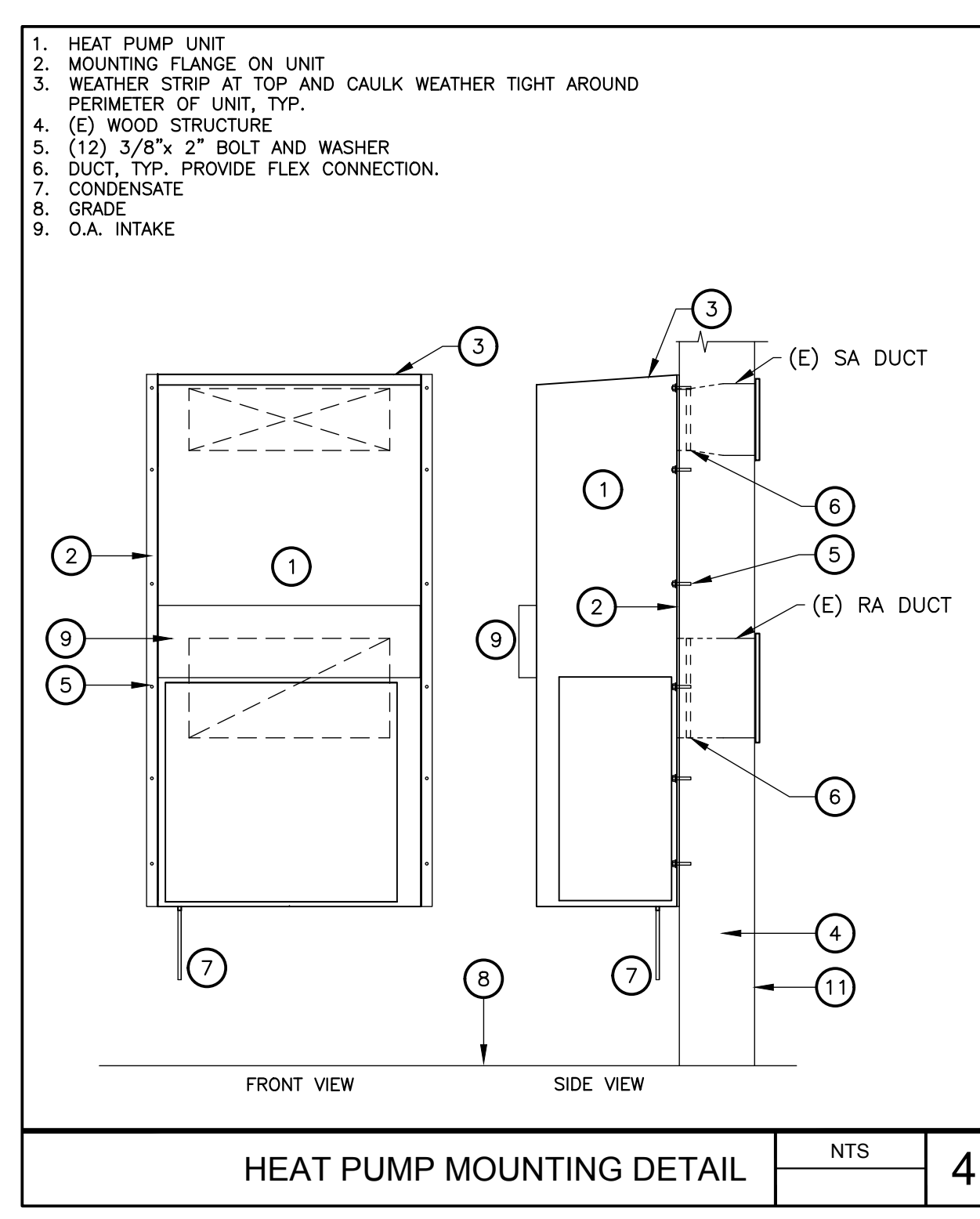
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1. RECTANGULAR OR ROUND DUCT, SEE PLAN FOR SIZE.
2. 2" WIDE X 18 GA. GALV. SHEET METAL STRAP, FOLD OVER ENDS, SECURE TO CHANNEL WITH 3/8" BOLTS WITH NUT AND WASHER AT EACH END.
3. 1-5/8"x1-5/8"x12 GA UNISTRUT CHANNEL, B-LINE B22 OR EQUAL, TYP.
4. CHANNEL POST BASE, B-LINE B230FL OR EQUAL, SECURE TO CURB WITH (2) 3/8" STAINLESS STEEL WOOD SCREWS WITH WASHER, MIN. 1" EMBED., SILICONE SEAL PENETRATION WATER TIGHT.
5. 4-HOLE CORNER ANGLE, B-LINE B115 OR EQUAL, SECURE TO UNISTRUT CHANNEL WITH (4) 3/8" BOLTS WITH CHANNEL NUTS, TYP.
6. 12" HIGH PREFAB. 18 GA. GALV. STEEL SUPPORT CURB WITH 1-1/2" PRESSURE TREATED WOOD NAILER AND SHEET METAL COUNTERFLASHING, PATE MODEL ES-2 OR EQUAL.
7. CANT STRIP, BOTH LONG SIDES OF CURB.
8. 3/8" LAG SCREW WITH MIN. 4" EMBED INTO BLOCKING, MAX. 24" O.C., MAX. 3" FROM ENDS, MIN. (2) EACH SIDE OF CURB.
9. 4X6 BLOCKING BETWEEN JOISTS WITH U46 HANGERS EACH END.
10. ROOF FRAMING, SEE STRUCTURAL.

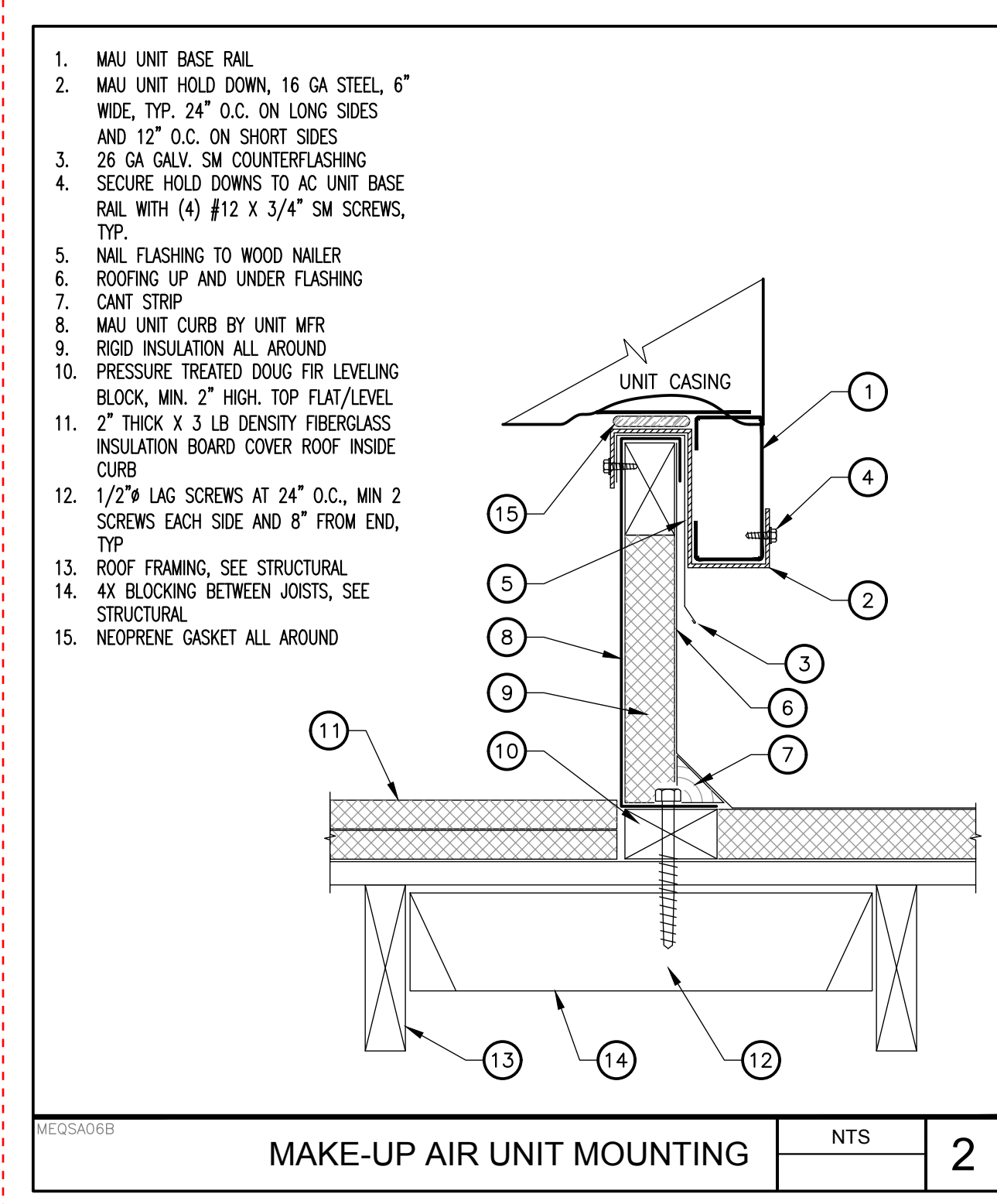
NOTES:
 A. SUPPORT SPACING TO BE AT MAXIMUM 8FT O.C.

DUCT SUPPORT ON ROOF (WOOD) NTS 1



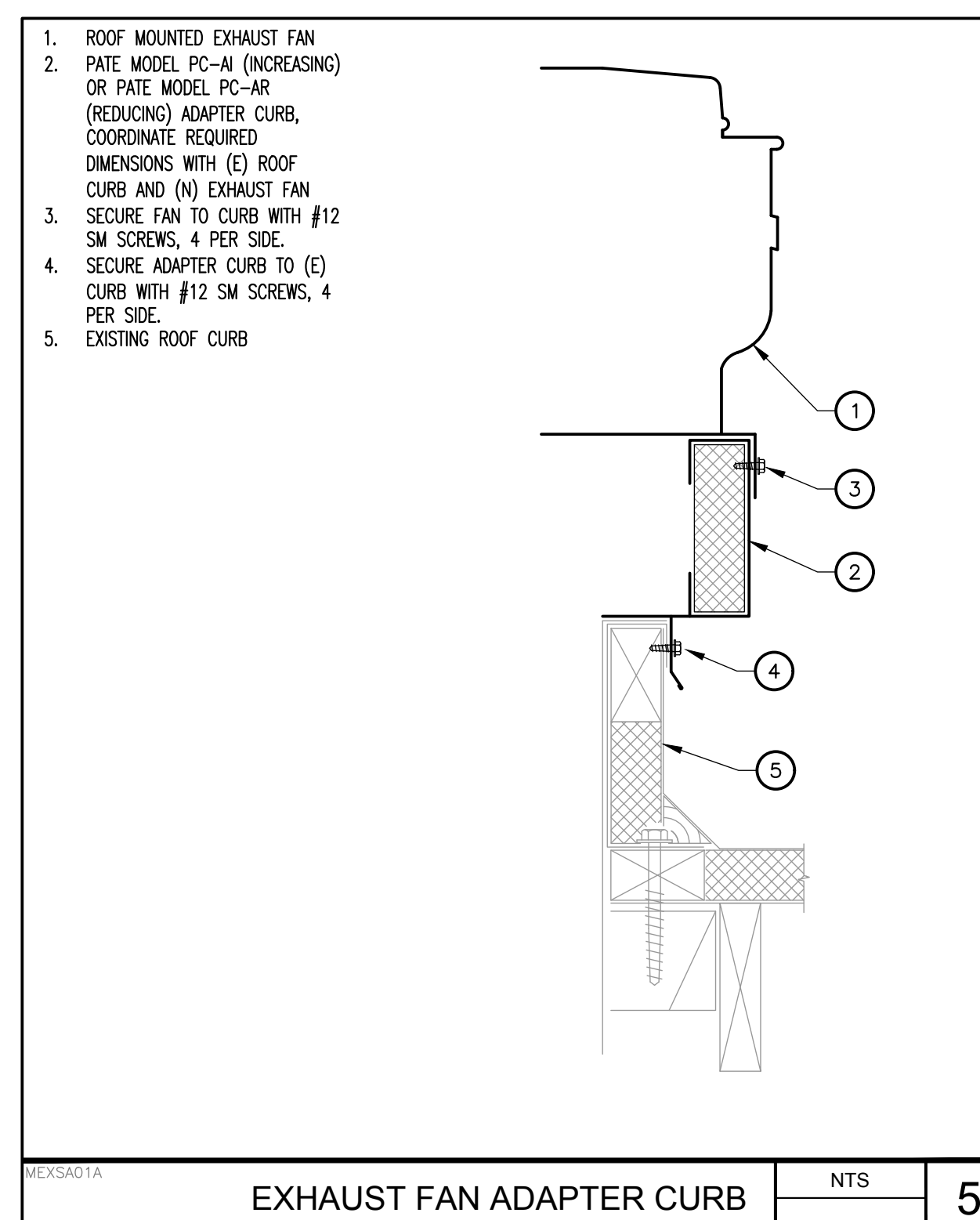
1. HEAT PUMP UNIT
2. MOUNTING FLANGE ON UNIT
3. WEATHER STRIP AT TOP AND CAULK WEATHER TIGHT AROUND PERIMETER OF UNIT, TYP.
4. (E) WOOD STRUCTURE
5. (12) 3/8" X 2" BOLT AND WASHER
6. DUCT, TYP. PROVIDE FLEX CONNECTION.
7. CONDENSATE
8. GRADE
9. O.A. INTAKE

HEAT PUMP MOUNTING DETAIL NTS 4



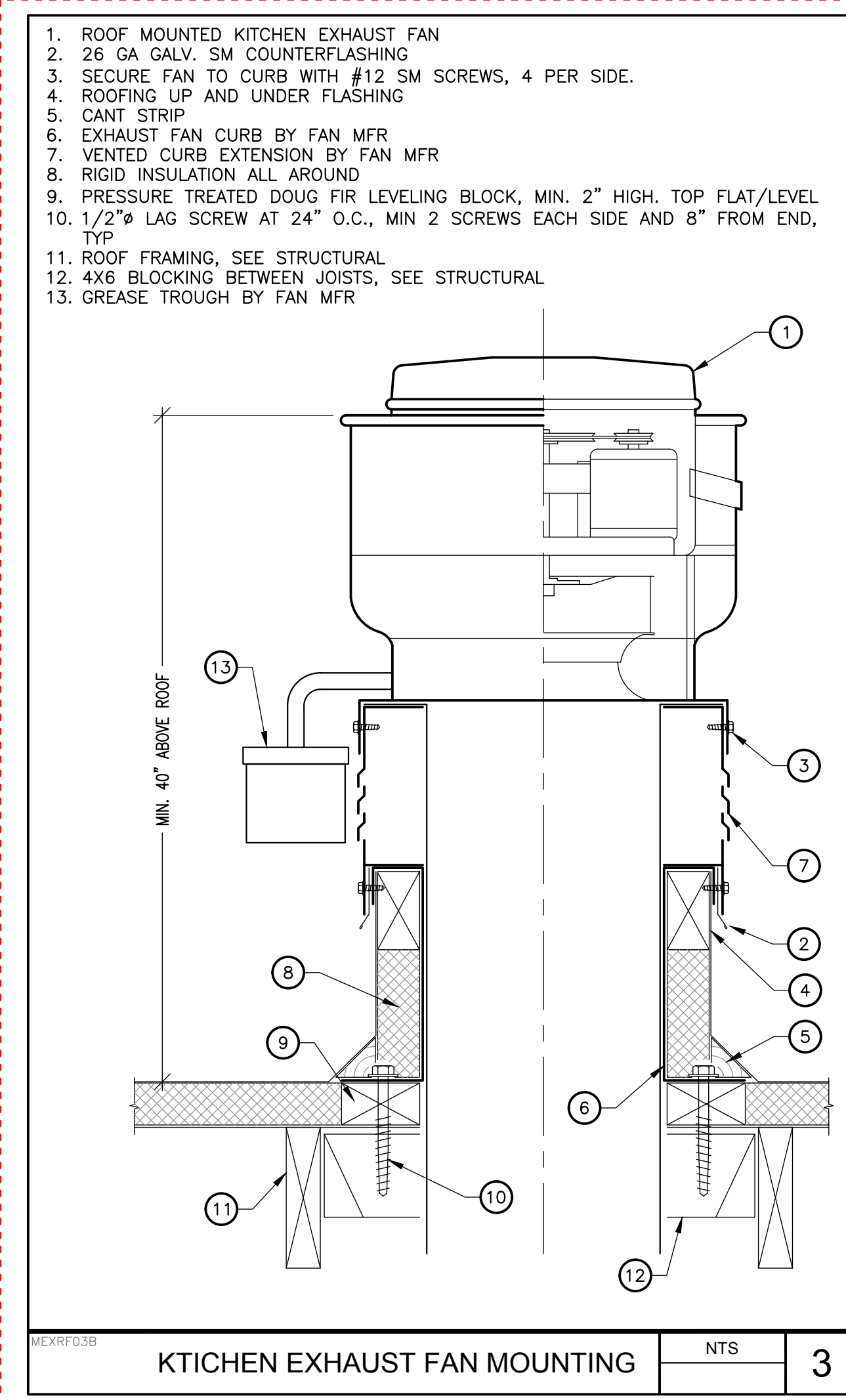
1. MAU UNIT BASE RAIL
2. MAU UNIT HOLD DOWN, 16 GA STEEL, 6" WIDE, TYP. 24" O.C. ON LONG SIDES AND 12" O.C. ON SHORT SIDES
3. 26 GA GALV. SM COUNTERFLASHING
4. SECURE HOLD DOWNS TO AC UNIT BASE RAIL WITH (4) #12 X 3/4" SM SCREWS, TYP.
5. NAUL FLASHING TO WOOD NAILER
6. ROOFING UP AND UNDER FLASHING
7. CANT STRIP
8. MAU UNIT CURB BY UNIT MFR
9. RIGID INSULATION ALL AROUND
10. PRESSURE TREATED DOUG FIR LEVELING BLOCK, MIN. 2" HIGH, TOP FLAT/LEVEL
11. 2" THICK X 3 LB DENSITY FIBERGLASS INSULATION BOARD COVER ROOF INSIDE CURB
12. 1/2" LAG SCREWS AT 24" O.C., MIN 2 SCREWS EACH SIDE AND 8" FROM END, TYP.
13. ROOF FRAMING, SEE STRUCTURAL
14. 4X BLOCKING BETWEEN JOISTS, SEE STRUCTURAL
15. NEOPRENE GASKET ALL AROUND

MAKE-UP AIR UNIT MOUNTING NTS 2



1. ROOF MOUNTED EXHAUST FAN
2. PATE MODEL PC-A (INCREASING) OR PATE MODEL PC-AR (REDUCING) ADAPTER CURB, COORDINATE REQUIRED
3. SECURE FAN TO CURB WITH #12 SM SCREWS, 4 PER SIDE
4. SECURE ADAPTER CURB TO (E) CURB WITH #12 SM SCREWS, 4 PER SIDE.
5. EXISTING ROOF CURB

EXHAUST FAN ADAPTER CURB NTS 5



1. ROOF MOUNTED KITCHEN EXHAUST FAN
2. 26 GA GALV. SM COUNTERFLASHING
3. SECURE FAN TO CURB WITH #12 SM SCREWS, 4 PER SIDE.
4. ROOFING UP AND UNDER FLASHING
5. CANT STRIP
6. EXHAUST FAN CURB BY FAN MFR
7. VENTED CURB EXTENSION BY FAN MFR
8. RIGID INSULATION ALL AROUND
9. PRESSURE TREATED DOUG FIR LEVELING BLOCK, MIN. 2" HIGH, TOP FLAT/LEVEL
10. 1/2" LAG SCREW AT 24" O.C., MIN 2 SCREWS EACH SIDE AND 8" FROM END, TYP.
11. ROOF FRAMING, SEE STRUCTURAL
12. 4X6 BLOCKING BETWEEN JOISTS, SEE STRUCTURAL
13. GREASE TROUGH BY FAN MFR

KITCHEN EXHAUST FAN MOUNTING NTS 3

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EQUIPMENT ANCHORAGE NOTES

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2022 CBC SECTIONS 1617A.1.17 THROUGH 1617A.1.20 & 1617A.1.23 AND ASCE 7-16 CHAPTERS 13, 26 AND 30.

- ALL PERMANENT EQUIPMENT AND COMPONENTS.
- TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.
- TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS:

- COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.
- COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL. RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PIPING AND DUCTWORK DISTRIBUTION SYSTEM BRACING NOTES

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTIONS 13.6.5, 13.6.6, 13.6.7, 13.6.8, AND 2022 CBC, SECTIONS 1617A.1.24 THROUGH 1617A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PRE-APPROVED INSTALLATION GUIDE (E.G., HCAI OPM FOR 2013 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E).

MP MD PP E OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT

SPECIFIC NOTES AND DETAILS.

MP MD PP E OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL

(OPM#) #0043-13.

PLUMBING LEGEND

SYMBOL	ITEM	ABBR.
	FIXTURE DESIGNATION UNIT ABBREVIATION NUMBER	
	DETAIL DESIGNATION DETAIL NUMBER SHEET NO. WHERE SHOWN	
	DOMESTIC COLD WATER	CW
	DOMESTIC HOT WATER	HW
	DOMESTIC HOT WATER SUPPLY	HWS
	DOMESTIC HOT WATER RETURN	HWR
	VENT	V
	GAS	G
	MEDIUM PRESSURE GAS	MG
	LIQUID PROPANE GAS	LPG
	SEWER	S
	GREASE WASTE	GW
	OIL/SAND WASTE	GS
	ACID WASTE	AW
	STORM DRAIN	SD
	ROOF DRAIN	RD
	OVERFLOW DRAIN	OD
	CONDENSATE DRAIN	C
	SECONDARY DRAIN	SCD
	DRAIN	D
	TEMPERATURE & PRESSURE RELIEF	TRP
	FIRE SPRINKLER	FS
	PIPE CAP	
	PIPE RISER/DROP	(R)/(D)
	SHUT-OFF VALVE IN BOX	SOV
	FLOOR CLEANOUT	FCO
	CLEANOUT TO GRADE	COTG
	WALL CLEANOUT	WCO
	CLEANOUT	CO
	HOSE BIBB	HB
	OVERFLOW DRAIN OUTLET	
	BALL VALVE	BV
	GATE VALVE	GV
	CHECK VALVE	CHKV
	MIXING VALVE	TMV
	SHUT-OFF COCK	SOC
	CIRCULATION PUMP	CP
	BALANCING VALVE	BLV
	TRAP PRIMER	TP
	TYPICAL	(TYP)
	VENT THRU ROOF	VTR
	UNDERGROUND	UG
	UNDER FLOOR	UF
	ABOVE CEILING	ABC
	TO ABOVE/BELOW	TA/TB
	FROM ABOVE/BELOW	FA/TB
	CONTINUATION	CONT.
	NEW	(N)
	EXISTING	(E)
	POINT OF DIS/CONNECTION	POD/POC

PLUMBING SPECIFICATIONS

- A. THIS CONTRACTOR SHALL COMPLY WITH ALL CODES AND REGULATIONS IN EFFECT AT THE JOB SITE, INCLUDING, BUT NOT LIMITED TO:
- 2022 CALIFORNIA BUILDING CODE
 - 2022 CALIFORNIA MECHANICAL CODE
 - 2022 CALIFORNIA PLUMBING CODE
 - 2022 CALIFORNIA ELECTRICAL CODE
 - 2022 CALIFORNIA GREEN BUILDING STANDARDS
 - 2022 CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS - TITLE 24
 - NATIONAL FIRE PROTECTION ASSOCIATION CALIFORNIA STATE FIRE MARSHAL
- B. ALL MATERIALS AND EQUIPMENT INSTALLED UNDER THIS CONTRACT SHALL BE GUARANTEED FREE FROM ALL MECHANICAL, ELECTRICAL AND WORKMANSHIP DEFECTS FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ALL DAMAGED ITEMS INSTALLED UNDER THIS CONTRACT WITHOUT ADDITIONAL COST TO OWNER.
- C. THE PLUMBING CONTRACTOR SHALL PROVIDE THE OWNER COPIES OF OPERATION, MAINTENANCE AND PREVENTATIVE MAINTENANCE MANUALS FOR EACH MODEL AND TYPE OF PLUMBING EQUIPMENT.
- D. CHECK AND VERIFY EXISTING CONDITIONS AT THE JOB SITE BEFORE BEGINNING WORK. ADJUST THE LOCATION AND CONFIGURATION OF THE WORK NECESSARY TO SUIT ACTUAL CONDITIONS AND OTHER TRADES. ANY CHANGES REQUIRED MUST FIRST BE APPROVED BY THE ARCHITECT OR ENGINEER.
- E. THE LOCATIONS OF EQUIPMENT, PIPING, AND SYSTEMS SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC AND SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE. CHANGES REQUIRED TO SUIT EXISTING CONDITIONS AND DUE TO COORDINATION WITH OTHER TRADES SHALL BE MADE AT NO EXTRA COST TO THE OWNER.
- F. SUBMIT MANUFACTURER'S PRODUCT DATA INCLUDING NAME OF MANUFACTURER, TRADE NAME, MODEL, CAPACITY, OPTIONS, DIMENSIONS, WEIGHTS, INSTALLATION AND STARTUP DATA. EQUIPMENT PERFORMANCES SCHEDULED ARE MINIMUM CAPACITY, FLOW, EFFICIENCY, ETC. REQUIRED. WEIGHTS AND ELECTRICAL DATA SCHEDULED IS MAXIMUM AVAILABLE OR ALLOWABLE.
- G. ALL EQUIPMENT IS TO BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER. USING ALL ACCESSORY EQUIPMENT AVAILABLE FROM THE MANUFACTURER FOR SUPPORTS, CONTROLS, ETC. TO MAKE A COMPLETE SYSTEM. ALL EQUIPMENT OR ACCESSORIES NEEDED AND NOT SHOWN OR SPECIFIED SHALL BE FURNISHED AND INSTALLED BY THIS CONTRACTOR. ADJUST THE EQUIPMENT FOR PROPER OPERATION, CHECK ALL CONTROLS AND VERIFY THAT ALL SAFETY DEVICES ARE FUNCTIONING PROPERLY.
- H. PROVIDE ACCESS DOORS WHERE ACCESS THROUGH FLOORS, WALLS OR CEILINGS IS REQUIRED TO ACCESS PLUMBING COMPONENTS OR OTHER SYSTEMS REQUIRING ACCESS FOR MAINTENANCE, TESTING OR OBSERVATION. COORDINATE THE EXACT TYPE AND LOCATION OF ACCESS DOORS TO PROVIDE PROPER ACCESS TO THE ITEM CONCEALED.
- I. CHECK ALL SYSTEMS FOR LEAKS. CORRECT ANY DEFICIENCIES AS SOON AS DISCOVERED. OPERATE THE SYSTEMS AS A TEST AND DEMONSTRATE TO THE OWNER AND ARCHITECT OR ENGINEER THAT THE SYSTEM IS FUNCTIONING PROPERLY.
- J. BEFORE COMMENCING WORK CHECK INVERT ELEVATIONS REQUIRED FOR SEWER CONNECTIONS, CONFIRM INVERTS AND ENSURE THAT THESE CAN BE PROPERLY CONNECTED WITH SLOPE FOR DRAINAGE AND COVER TO AVOID FREEZING. VERIFY THE LOCATION OF ALL SERVICES. NO EXTRA COSTS SHALL BE ALLOWED IF SERVICES ARE NOT AS SHOWN.
- K. COORDINATE ALL NEW OR CHANGING UTILITY SERVICES WITH UTILITY PROVIDER AS SOON AS POSSIBLE. ALL WORK PERFORMED NOT IN ACCORDANCE WITH THE UTILITY COMPANIES REQUIREMENTS PRIOR TO COORDINATING WITH THE UTILITY COMPANY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- L. INSTALL PIPING TO ALLOW FOR EXPANSION AND CONTRACTION WITHOUT STRESSING PIPE, JOINTS, OR CONNECTED EQUIPMENT.
- M. MAKE ALL CONNECTIONS TO EQUIPMENT AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER AS FAR AS TRAPS, DRAINS, FLEXIBLE CONNECTIONS, ETC. AND AS REQUIRED BY THE EQUIPMENT AND LOCATION.
- N. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS, FIXTURE MOUNTING HEIGHTS AND ADA ACCESSIBILITY REQUIREMENTS.
- O. PIPING INSULATION (INTERIOR APPLICATIONS):
- GLASS FIBER INSULATION: ASTM C 547 AND ASTM C 795. 'K' ('KSI') VALUE: 0.24 AT 75 DEGREES F, WHEN TESTED IN ACCORDANCE WITH ASTM C 177. MAXIMUM SERVICE TEMPERATURE: 850 DEGREES F. MAXIMUM MOISTURE ABSORPTION: 0.20 PERCENT BY VOLUME.
 - VAPOR BARRIER JACKET: WHITE KRAFT PAPER WITH GLASS FIBER YARN, BONDED TO ALUMINIZED FILM. MOISTURE VAPOR TRANSMISSION WHEN TESTED IN ACCORDANCE WITH ASTM E 96/E 96M OF 0.02.
 - INSULATION THICKNESS SCHEDULES:
 - DOMESTIC HOT AND TEMPERED WATER SUPPLY:
 - 2 INCH THICKNESS FOR PIPING 2 INCH AND LARGER.
 - 1-1/2 INCH THICKNESS FOR PIPING 1 INCH TO 1-1/2 INCH.
 - 1 INCH THICKNESS FOR PIPING LESS THAN 1 INCH.
 - DOMESTIC COLD WATER LOCATED IN UNHEATED AREAS:
 - 1 INCH THICKNESS FOR PIPING 1-1/2 INCHES AND LARGER.
 - 3/4 INCH THICKNESS FOR PIPING 1 INCHES AND SMALLER.
- P. INSULATE DOMESTIC HOT WATER, TEMPERED WATER AND WASTE PIPING BELOW HANDICAPPED PLUMBING FIXTURES WITH MOLDED SINGLE PIECE REMOVABLE INSULATION COVERS, FOAM, FIRE RESISTANT, TRUEBERO, OR EQUAL. INSTALL INSULATION COVERS IN ACCORDANCE WITH CBC ACCESS REQUIREMENTS.
- Q. FIXTURES, DOMESTIC WATER PIPING AND COMPONENTS SHALL BE PROVIDED AND INSTALLED IN COMPLIANCE WITH CALIFORNIA AB 193 LEGISLATION WHICH LIMITS THE ALLOWABLE LEAD CONTENT IN CERTAIN DOMESTIC WATER SYSTEM COMPONENTS.
- R. PROVIDE COMPRESSION SHUTOFF CONTROL STOP VALVES WITH IPS INLETS AND THREADED BRASS NIPPLES AT PIPE CONNECTION ON WATER SUPPLIES TO EACH FIXTURE.
- S. PROVIDE CHROMIUM-PLATED FINISH ON FITTINGS AND ACCESSORIES EXPOSED TO VIEW.
- T. FIXTURE FITTINGS AND TRIM CONFORM TO ASME A112.18.1M AND ASME A112.19.5, AS APPLICABLE.
- U. PROVIDE WATER HAMMER ARRESTORS AT END OF PIPE RUNS TO TWO OR MORE FIXTURES, PROPERLY SIZED WITH SUFFICIENT DISPLACEMENT VOLUME TO DISSIPATE CALCULATED ENERGY IN THE PIPING SYSTEMS. WATER HAMMER ARRESTORS SHALL BE STAINLESS STEEL SHELL WITH STAINLESS STEEL BELLOW CONTAINED WITHIN THE CASING.
- V. PROVIDE PIPE SLEEVES WHERE PIPES AND TUBING PASS THROUGH WALLS, FLOORS, ROOFS, AND PARTITIONS. FINISH FLUSH AT BOTH ENDS. EXTEND 2 INCHES (50 MM) ABOVE FINISHED FLOORS. PACK SPACE BETWEEN PIPE OR TUBING AND SLEEVE, AND CALK.
- W. IDENTIFY PIPING WITH TAPE AND DECALS. INSTALL LABELING ON PIPE AT INTERVALS OF NOT MORE THAN 20 FEET (6 METERS) AND AT LEAST ONCE IN EACH ROOM AND EACH STORY TRAVERSED BY PIPELINE.
- X. PROVIDE NON-CONDUCTING DIELECTRIC CONNECTIONS WHEREVER JOINING DISSIMILAR METALS.
- Y. ALL PLUMBING VENTS SHALL TERMINATE NOT LESS THAN 10' FROM ANY OUTSIDE AIR INTAKE OR OPENING TO THE BUILDING.
- Z. ALL EXPOSED MATERIAL SHALL BE PREPARED WITH A PRIME COAT AND THEN PAINTED.

PLUMBING SHEET INDEX

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P0.02	PLUMBING SCHEDULES
P1.11	PLUMBING SITE PLAN
P2.11	PLUMBING DEMOLITION AND IMPROVEMENT FLOOR PLANS - BLDG 1
P2.12	PLUMBING DEMOLITION AND IMPROVEMENT FLOOR PLANS - BLDG 2
P2.14	PLUMBING DEMOLITION AND IMPROVEMENT FLOOR PLANS - BLDG 5, 6
P2.15	PLUMBING DEMOLITION AND IMPROVEMENT FLOOR PLANS - BLDG 7, 8
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P4.11	PLUMBING DEMOLITION AND IMPROVEMENT ROOF PLANS - BLDG 1
P5.11	PLUMBING ENLARGED FLOOR PLANS - BLDG 1 KITCHEN
P8.01	PLUMBING DETAILS

AGENCY APPROVAL:



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PROJECT: MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME: PLUMBING LEGEND AND NOTES

DSA SUBMITTAL

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000

SHEET:

P0.01

SEE THE DRAWING AND/OR THE
 EXPLANATION FOR THE
 SHEET ORIGINAL PAGE SIZE

KITCHEN EQUIPMENT SCHEDULE							
EQUIP. NO.	DESCRIPTION	S or W	IND. WASTE	V	CW	HW	GAS (MBH)
5	OVEN-STEAMER, COMBINATION	---	2"	---	3/4"	---	---
7	PREP SINK, 2-COMP	---	1-1/2"	---	1/2"	1/2"	---
8	HAND SINK	1-1/2"	---	1-1/2"	1/2"	1/2"	---
10	WAREWASHER	---	1-1/2"	---	3/4"	3/4"	---
11	DISH TABLE SINK	---	1-1/2"	---	1/2"	1/2"	---
12	SINK, 3-COMP	---	1-1/2"	---	3/4"	3/4"	---

NOTES:

- COORDINATE CLOSELY WITH KITCHEN EQUIPMENT COMPANY FOR EQUIPMENT LOCATIONS, CONNECTION SIZES AND REQUIREMENTS.
- SEE KITCHEN EQUIPMENT PLAN FOR EQUIPMENT SCHEDULE AND REQUIREMENTS.
- PROVIDE INDIVIDUAL SHUT-OFF VALVES AT ALL CW, HW & GAS CONNECTIONS.
- PROVIDE AND INSTALL STRAINERS ON INDIVIDUAL GAS SUPPLY LINES.
- PROVIDE QUICK DISCONNECT WITH CABLE RESTRAINT FOR ALL GAS EQUIPMENT CONNECTIONS PER KITCHEN EQUIPMENT PLAN.
- PROVIDE CHROME PLATED PIPES AND FITTINGS FOR ALL EXPOSED CONNECTIONS PER KITCHEN EQUIPMENT PLAN.
- COORDINATE WITH KITCHEN EQUIPMENT PLUMBING PLAN FOR PLUMBING ROUGH-IN DIMENSIONS.

ADD ALTERNATE #1

PLUMBING EQUIPMENT SCHEDULE						
MARK	FIXTURE	S or W	V	CW	HW	DESCRIPTION
WH-1	GAS WATER HEATER	---	---	SEE PLAN	SEE PLAN	A.O. SMITH MODEL BTH-199(A), STORAGE TANK TYPE, 100 GALLON CAPACITY, 110 VAC POWER VENT ELECTRICAL CONNECTION, 261 GPH RECOVERY AT 90°F RISE, 190,000 BTUH INPUT, 95% THERMAL EFFICIENCY, MEETS OR EXCEEDS U.S. DOE, ASHRAE 90.1 AND SOQMD RULE 1146.2 REQUIREMENTS. PROVIDE OPTIONAL POWER-DIRECT VENT AND CONCENTRIC VENT KIT TERMINATION, 3" PVC INTAKE AND EXHAUST PIPING, 120VAC/60HZ ELECTRICAL SERVICE, 2.2 F.L. AMPS BLOWER, 4.0 AMPS IGNITER, UL LISTED, OPERATING WEIGHT= 960 LBS. SET AT 120°F. PROVIDE ACID-NEUTRALIZER KIT.
ET-1	EXPANSION TANK	---	---	1/2"	---	BELL & GOSSETT MODEL PT-5, STEEL SHELL, BUTYL DIAPHRAGM TYPE EXPANSION TANK, PRE-CHARGED TO 40 PSI WITH 2.0 GALLON TANK CAPACITY, 0.9 GALLON ACCEPTANCE CAPACITY.

PLUMBING FIXTURE SCHEDULE						
MARK	FIXTURE	S or W	V	CW	HW	DESCRIPTION
TP-1	TRAP PRIMER	---	---	1/2"	---	PRECISION PLUMBING PRODUCTS, INC. #PO-500 PRIME-RITE TRAP PRIMER, PROVIDE 12 X 12 ACCESS DOOR FOR CONCEALED UNIT. COORDINATE ACCESS DOOR LOCATION WITH ARCHITECTURAL INTERIOR ELEVATIONS AND FINISHES.
TMV-1	THERMOSTATIC MIXING VALVE	---	---	3/4"	3/4"	LEONARD MODEL 270-LF, POINT OF USE LEAD-FREE THERMOSTATIC MIXING VALVE, MINIMUM 0.25 GPM FLOW, 12 GPM FLOW AT 50 PSI PRESSURE LOSS, ASSE 1017 AND 1070 LISTED, CA AB-1953 COMPLIANT. SET OUTLET TEMPERATURE TO 110°F. PROVIDE 12"x12" WALL ACCESS PANEL PER SPECIFICATIONS, FINISH BY ARCHITECT.
DW-1	DRY WELL	1-1/2"	---	---	---	NDS FLO-WELL DRY WELL, 24"Ø X 28.75" HIGH, 48 GALLON TOTAL CAPACITY, INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

PIPE HANGER SCHEDULE			
PER 2022 CPC TABLE 313.3			
MATERIALS	TYPES OF JOINTS	HORIZONTAL	VERTICAL
CAST-IRON HUBLESS	CAST-IRON HUBLESS	EVERY OTHER JOINT, UNLESS OVER 4 FEET THEN SUPPORT EACH JOINT; NOTES 1,2,3,4	BASE AND EACH FLOOR, NOT TO EXCEED 15 FEET
COPPER TUBE AND PIPE	SOLDERED OR BRAZED	1-1/2 INCHES AND SMALLER, 6 FEET; 2 INCHES AND LARGER, 10 FEET	EACH FLOOR, NOT TO EXCEED 10 FEET; NOTE 5
STEEL PIPE FOR GAS	THREADED OR WELDED	1/2 INCH, 6 FEET; 3/4 INCH AND 1 INCH, 8 FEET; 1-1/4 INCHES AND LARGER, 10 FEET; NOTE 7	1/2 INCH, 6 FEET; 3/4 INCH AND 1 INCH, 8 FEET; 1-1/4 INCHES AND LARGER, EVERY FLOOR; NOTE 7
SCHEDULE 40 PVC AND ABS DW	SOLVENT CEMENTED	ALL SIZES, 4 FEET; ALLOW FOR EXPANSION EVERY 30 FEET; NOTES 3,6	BASE AND EACH FLOOR; PROVIDE MID-STORY GUIDES; PROVIDE FOR EXPANSION EVERY 30 FEET; NOTE 6
CPVC	SOLVENT CEMENTED	1 INCH AND SMALLER, 3 FEET; 1-1/4 INCHES AND LARGER, 4 FEET	BASE AND EACH FLOOR; PROVIDE MID-STORY GUIDES; NOTE 6
PEX	COLD EXPANSION, INSERT AND COMPRESSION	1 INCH AND SMALLER, 32 INCHES; 1-1/4 INCHES AND LARGER, 4 FEET	BASE AND EACH FLOOR; PROVIDE MID-STORY GUIDES
POLYPROPYLENE (PP)	FUSION WELD	1 INCH AND SMALLER, 32 INCHES; 1-1/4 INCHES AND LARGER, 4 FEET	BASE AND EACH FLOOR; PROVIDE MID-STORY GUIDES

NOTES:

- SUPPORT ADJACENT TO JOINT, NOT TO EXCEED 18".
- BRACE NOT TO EXCEED 40 FOOT INTERVALS TO PREVENT HORIZONTAL MOVEMENT.
- SUPPORT AT EACH HORIZONTAL BRANCH CONNECTION.
- HANGERS SHALL NOT BE PLACED ON THE COUPLING.
- VERTICAL WATER LINES SHALL BE PERMITTED TO BE SUPPORTED IN ACCORDANCE WITH RECOGNIZED ENGINEERING PRINCIPLES WITH REGARD TO EXPANSION AND CONTRACTION, WHERE FIRST APPROVED BY THE AUTHORITY HAVING JURISDICTION.
- SEE THE APPROPRIATE IAPMO INSTALLATION STANDARD FOR EXPANSION AND OTHER SPECIAL REQUIREMENTS.
- NATURAL GAS PIPING TO BE SUPPORTED PER 2022 CPC TABLE 1210.3.5.1.

HANGER ROD SIZING	
PER 2022 CPC TABLE 313.6	
PIPE AND TUBE SIZE (IN)	ROD SIZE (IN)
1/2 - 4	3/8
5 - 8	1/2
10 - 12	5/8

WHA SIZING	
FIXTURE TYPE	FIXTURE UNITS (PER FIXTURE)
WATER CLOSET	8
URINAL	4
LAVATORY	2

PDI SIZE	FIXTURE UNITS (PER ARRESTOR)
A	1-11
B	12-32
C	33-60
D	61-113
E	114-154
F	155-330

NOTES:

- PROVIDE WATER HAMMER ARRESTORS AS REQUIRED IN SPECIFICATIONS.
- WATER HAMMER ARRESTOR SIZING SHALL BE THE MORE STRINGENT OF THE TABLE ABOVE AND CURRENT PDI (PLUMBING & DRAINAGE INSTITUTE) REQUIREMENTS.
- LOCATE WATER HAMMER ARRESTORS AS CLOSE TO BRANCH PIPING AS POSSIBLE.

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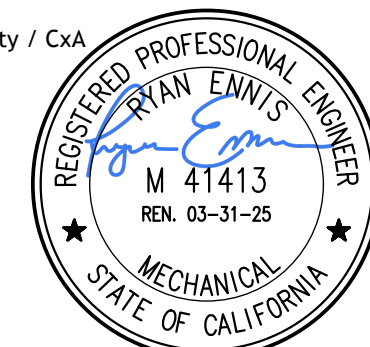
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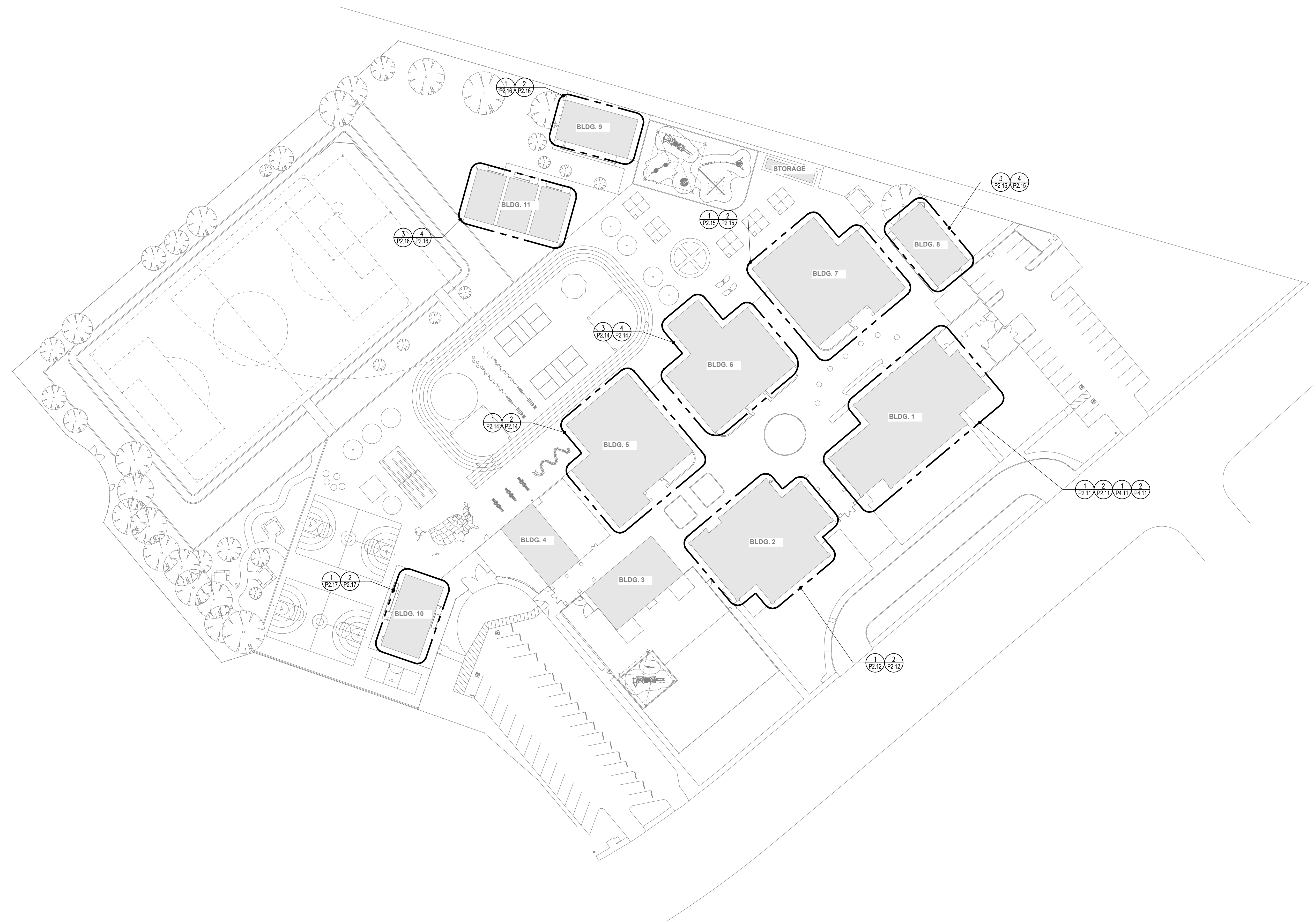
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PLUMBING SITE PLAN



1
1" = 40'-0"

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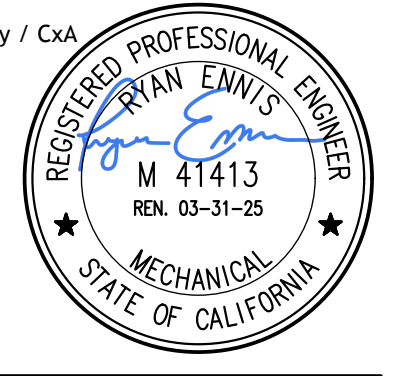
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PLUMBING SITE PLAN

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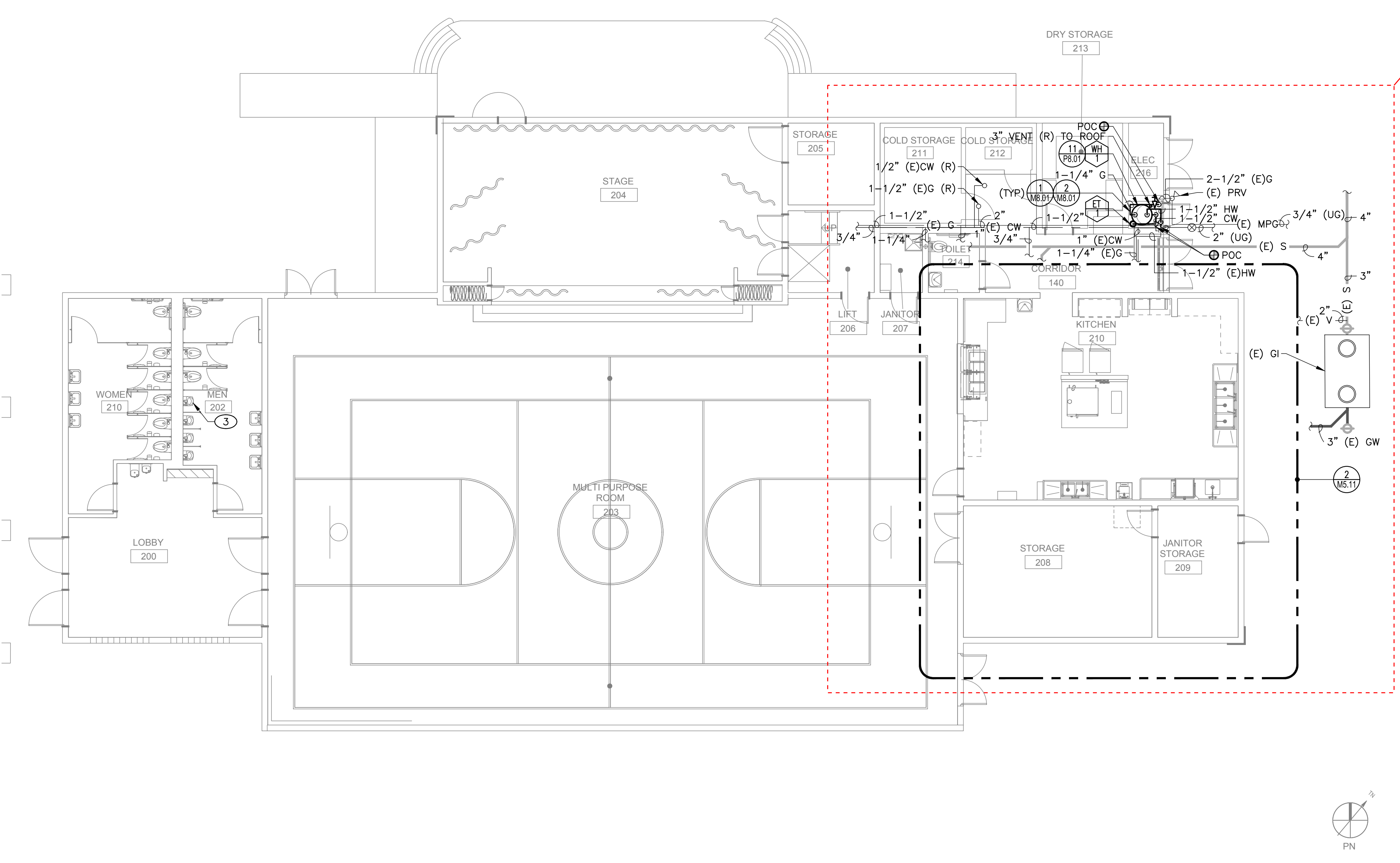
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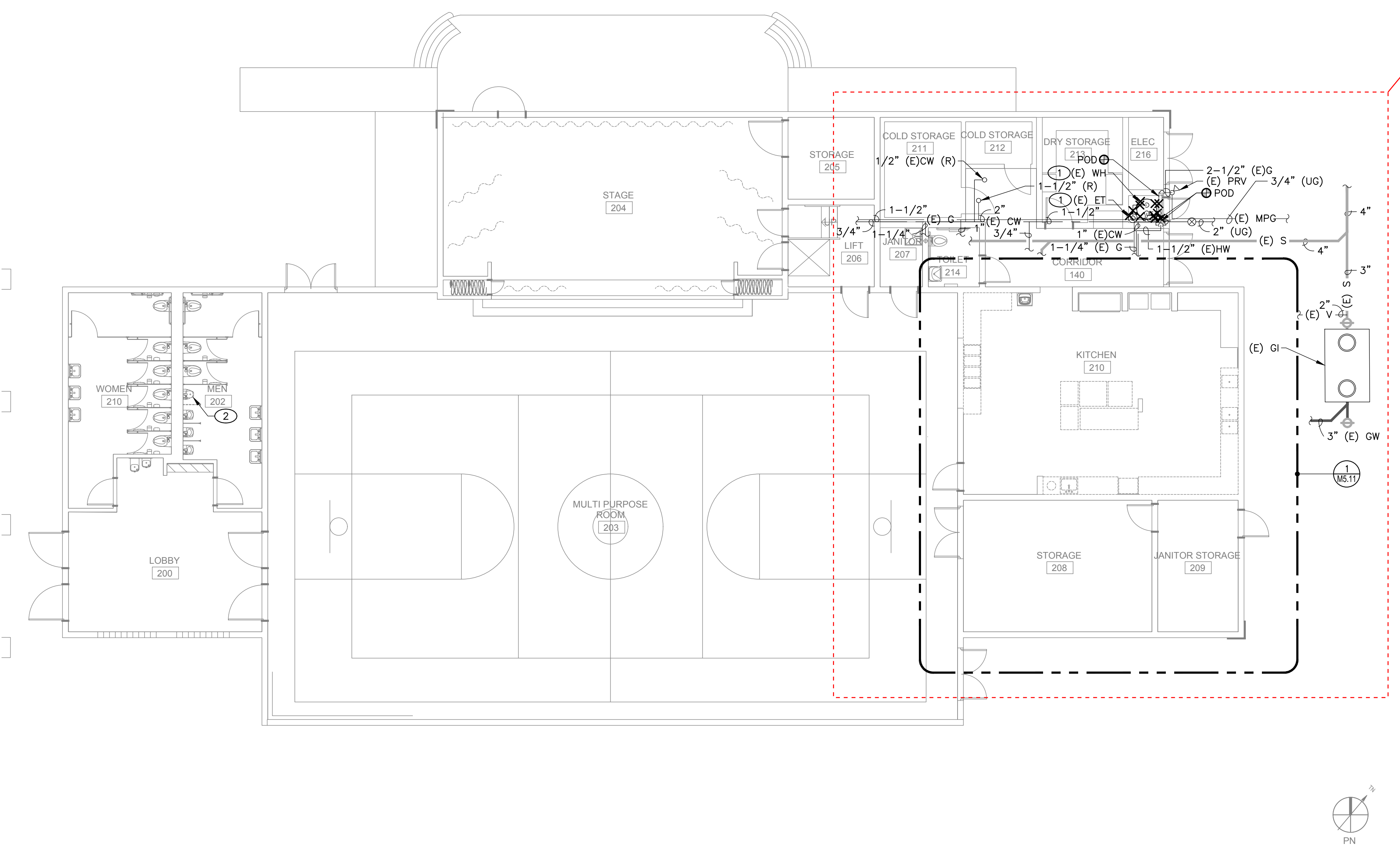
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PLUMBING IMPROVEMENT FLOOR PLAN - BLDG 1
2
 1/8" = 1'-0"



PLUMBING DEMOLITION FLOOR PLAN - BLDG 1
1
 1/8" = 1'-0"

KEY NOTES

- 1 REMOVE EXISTING WATER HEATER, EXPANSION TANK AND RELATED PIPING SHOWN HATCHED BACK TO POD.
- 2 REMOVE EXISTING PLUMBING FIXTURE, SEE NEW PLAN FOR NEW LOCATION.
- 3 EXISTING PLUMBING FIXTURE NEW LOCATION, MODIFY PIPING AS NEEDED, REFER TO ARCHITECT FOR MOUNTING HEIGHTS.

GENERAL NOTES

1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
2. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.

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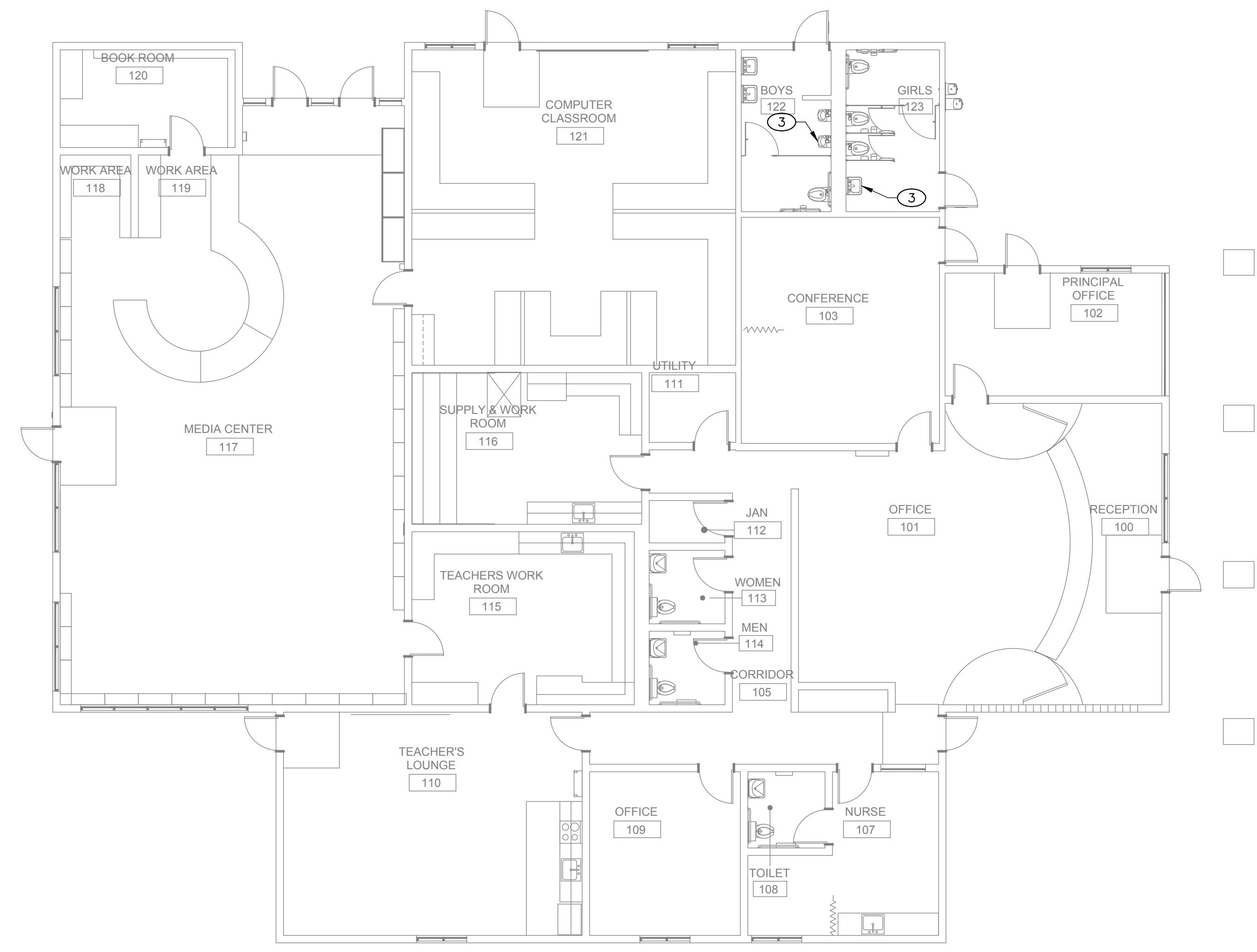
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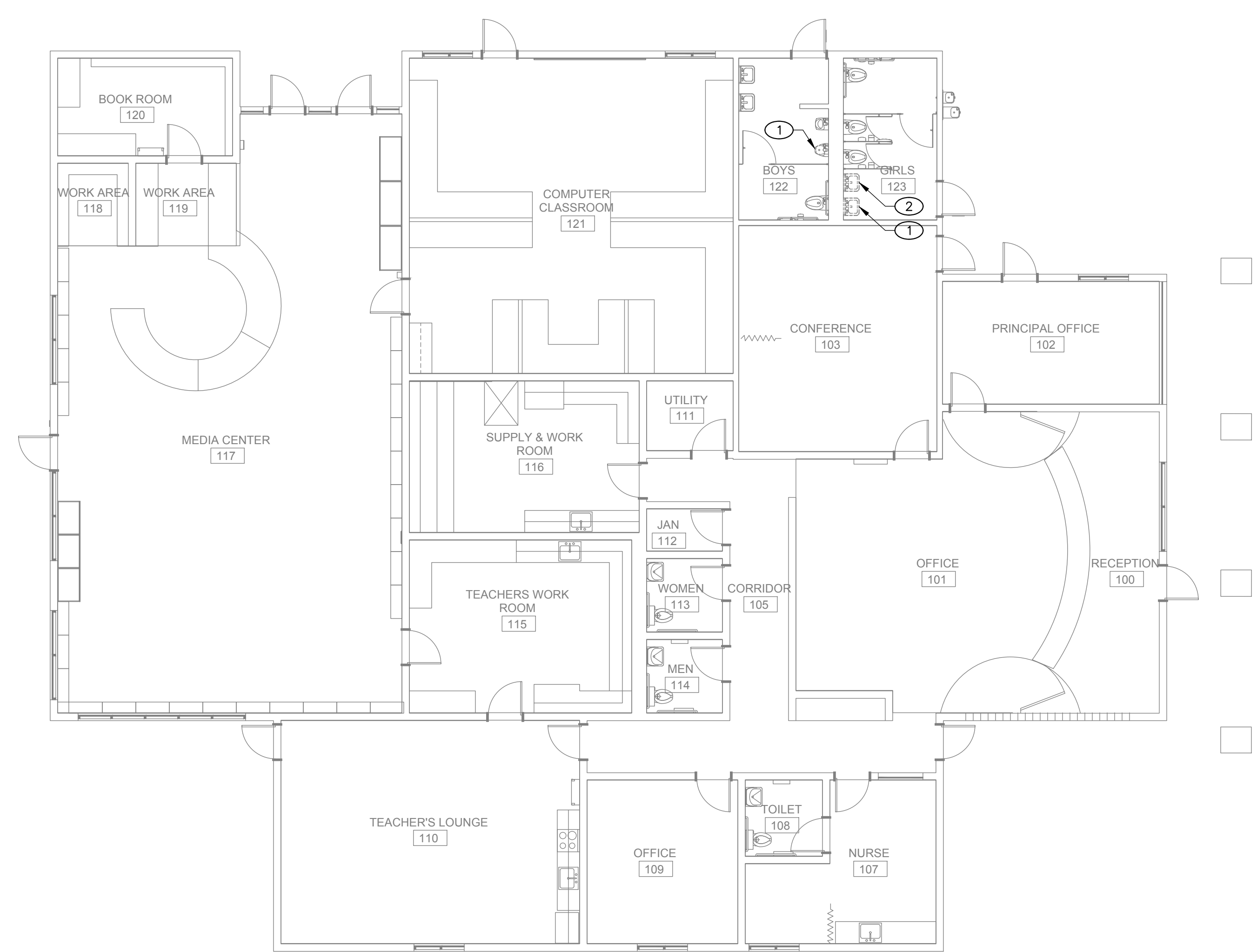
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PLUMBING IMPROVEMENT FLOOR PLAN - BLDG 2

2
 1/8" = 1'-0"



PLUMBING DEMOLITION FLOOR PLAN - BLDG 2

1
 1/8" = 1'-0"

KEY NOTES

- 1 REMOVE EXISTING PLUMBING FIXTURE, SEE NEW PLAN FOR NEW LOCATION.
- 2 REMOVE EXISTING PLUMBING FIXTURE, RETURN TO OWNER FOR SALVAGE/REUSE PER CONTRACTOR/OWNER AGREEMENT.
- 3 EXISTING PLUMBING FIXTURE NEW LOCATION, MODIFY PIPING AS NEEDED. REFER TO ARCHITECT FOR MOUNTING HEIGHTS.

GENERAL NOTES

1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
2. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.

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PLUMBING DEMOLITION AND IMPROVEMENT FLOOR PLANS - BLDG 2

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PLUMBING IMPROVEMENT FLOOR PLAN - BLDG 6 **4**
1/8" = 1'-0"



PLUMBING DEMOLITION FLOOR PLAN - BLDG 6 **3**
1/8" = 1'-0"



PLUMBING IMPROVEMENT FLOOR PLAN - BLDG 5 **2**
1/8" = 1'-0"



PLUMBING DEMOLITION FLOOR PLAN - BLDG 5 **1**
1/8" = 1'-0"

KEY NOTES

- ① REMOVE EXISTING PLUMBING FIXTURE, SEE NEW PLAN FOR NEW LOCATION.
- ② EXISTING PLUMBING FIXTURE NEW LOCATION, MODIFY PIPING AS NEEDED. REFER TO ARCHITECT FOR MOUNTING HEIGHTS.
- ③ NO WORK. FOR REFERENCE ONLY.

GENERAL NOTES

- 1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
- 2. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.

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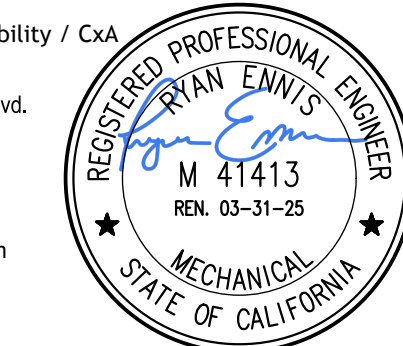


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KEY NOTES

- ① REMOVE EXISTING PIPING SHOWN HATCHED. EXISTING DRY WELL TO REMAIN FOR CONNECTION TO NEW CONDENSATE PIPING.
- ② REMOVE EXISTING PLUMBING FIXTURE, SEE NEW PLAN FOR NEW LOCATION.
- ③ EXISTING PLUMBING FIXTURE NEW LOCATION, MODIFY PIPING AS NEEDED. REFER TO ARCHITECT FOR MOUNTING HEIGHTS.

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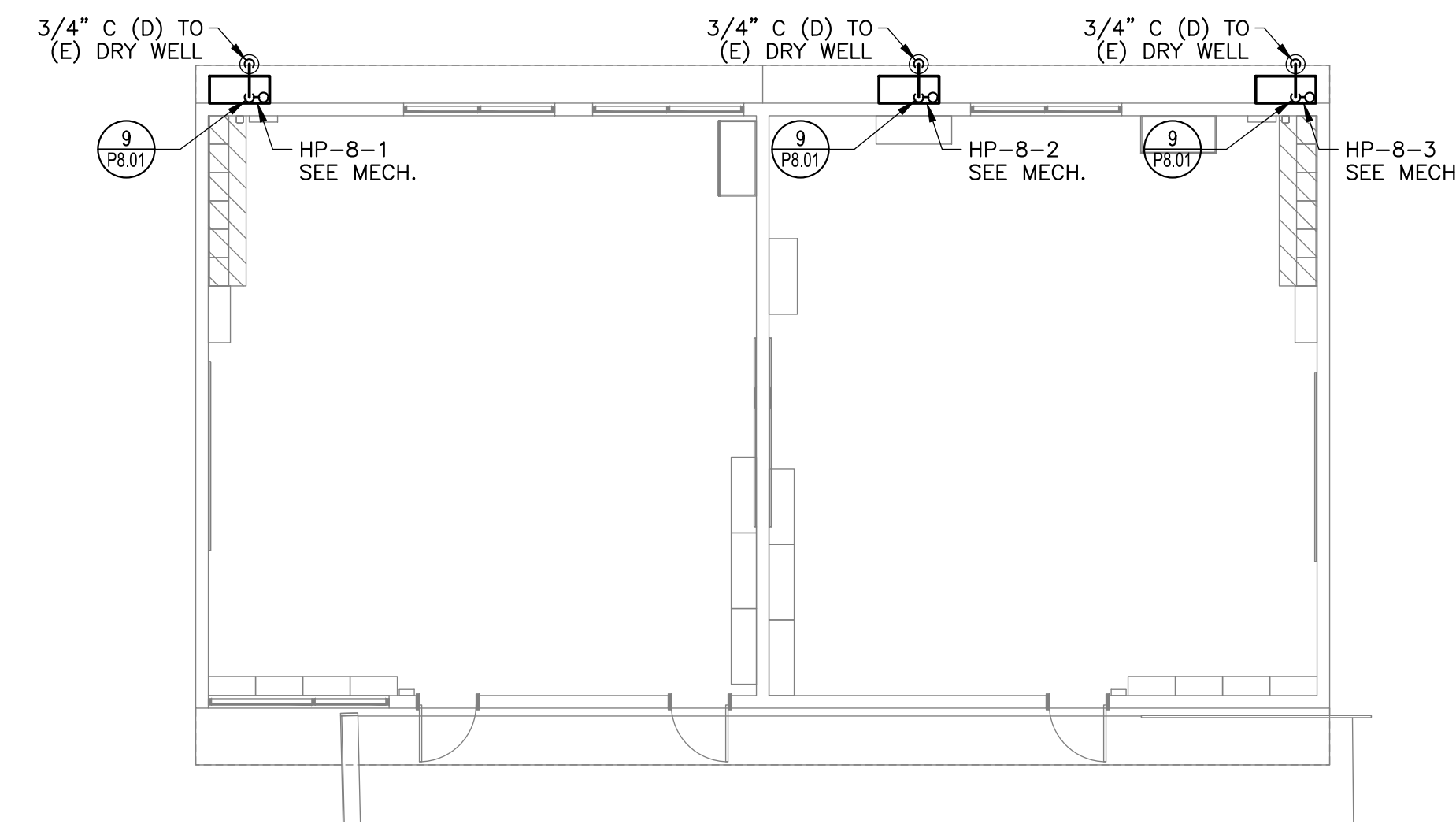


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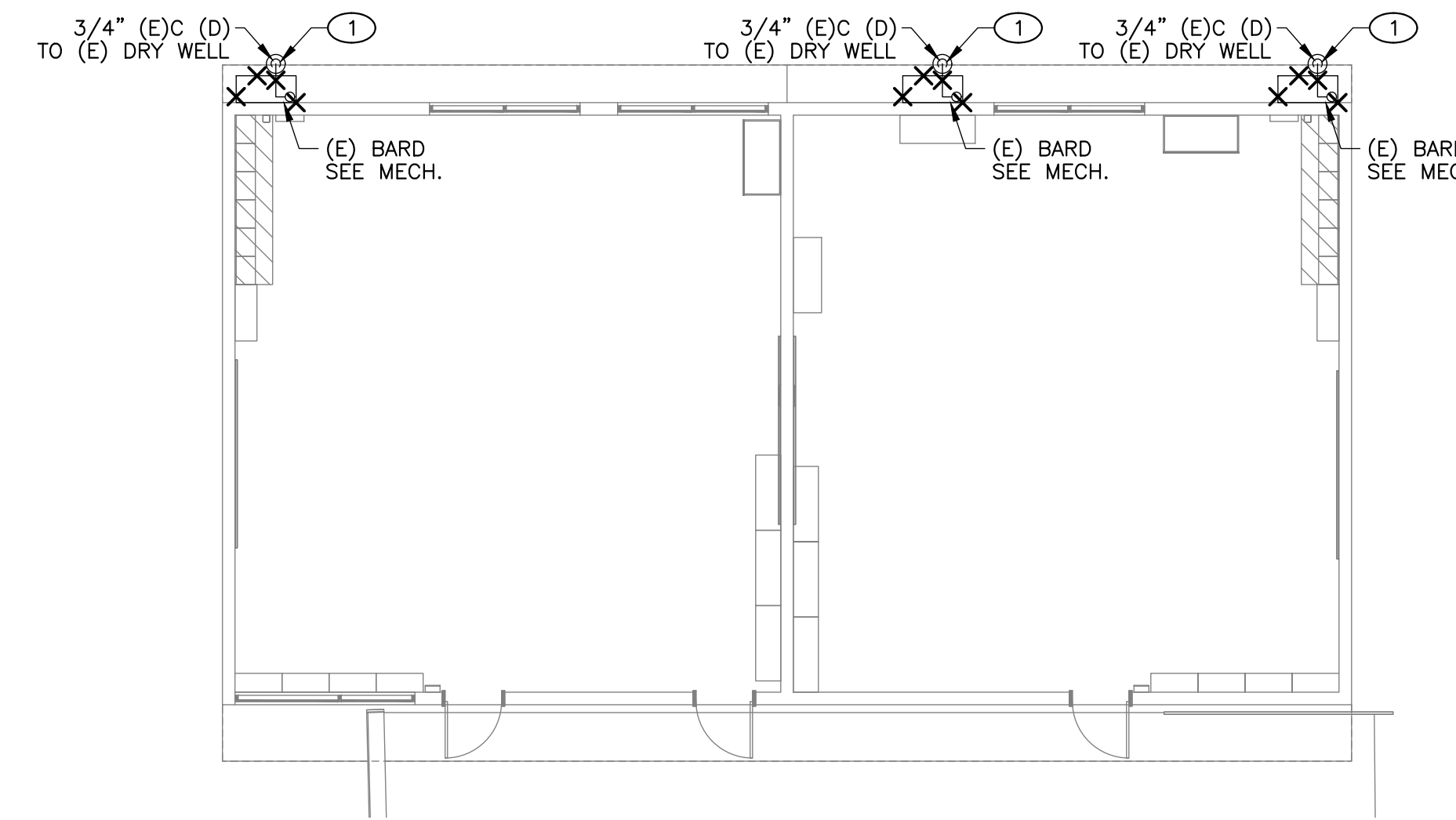
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PLUMBING IMPROVEMENT FLOOR PLAN - BLDG 8

4
1/8" = 1'-0"



PLUMBING DEMOLITION FLOOR PLAN - BLDG 8

3
1/8" = 1'-0"

GENERAL NOTES

1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
2. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.



PLUMBING IMPROVEMENT FLOOR PLAN - BLDG 7

2
1/8" = 1'-0"



PLUMBING DEMOLITION FLOOR PLAN - BLDG 7

1
1/8" = 1'-0"

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REGISTERED PROFESSIONAL ENGINEER
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 M 41413
 EBN 03-31-25
 MECHANICAL
 STATE OF CALIFORNIA

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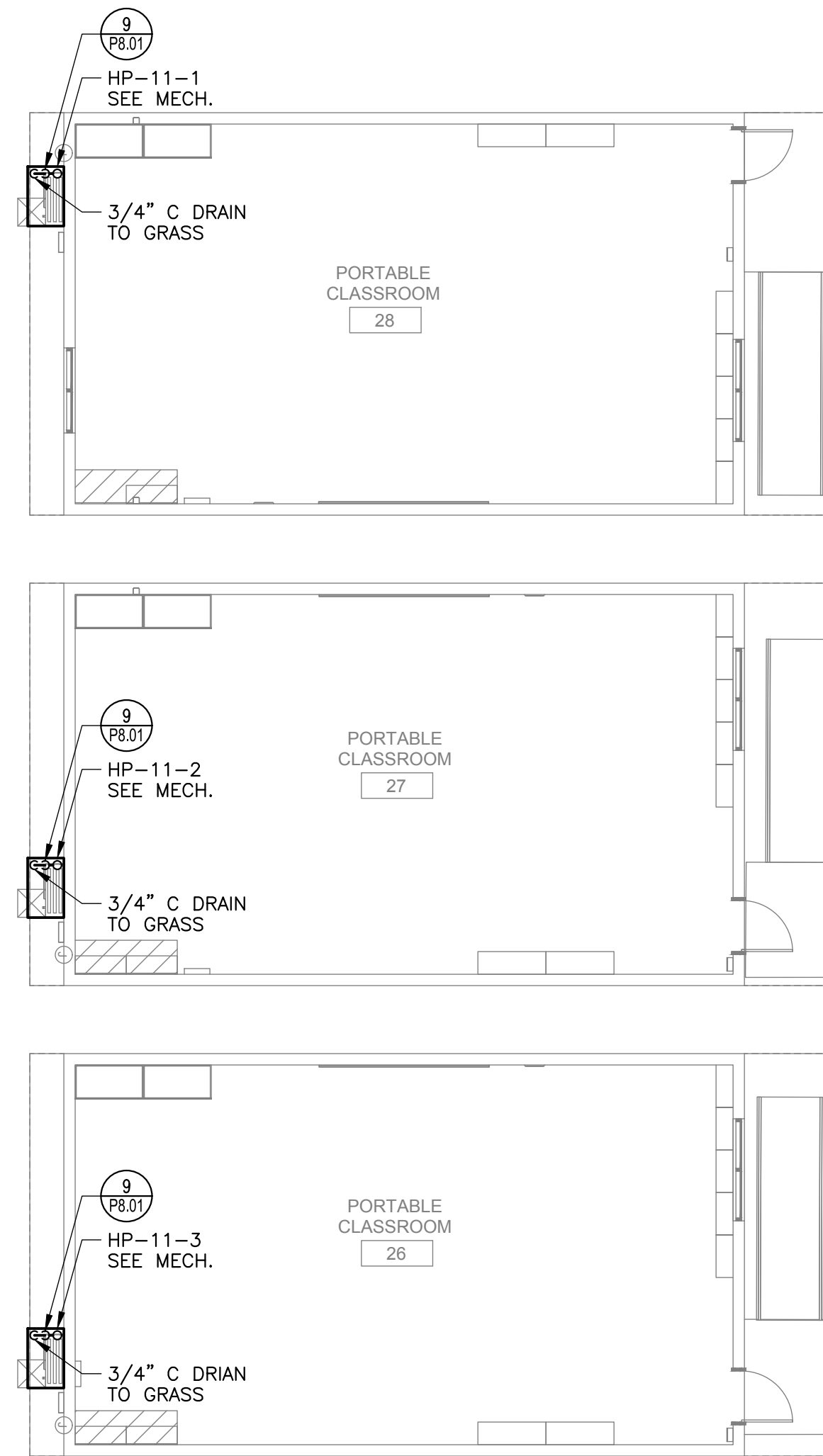
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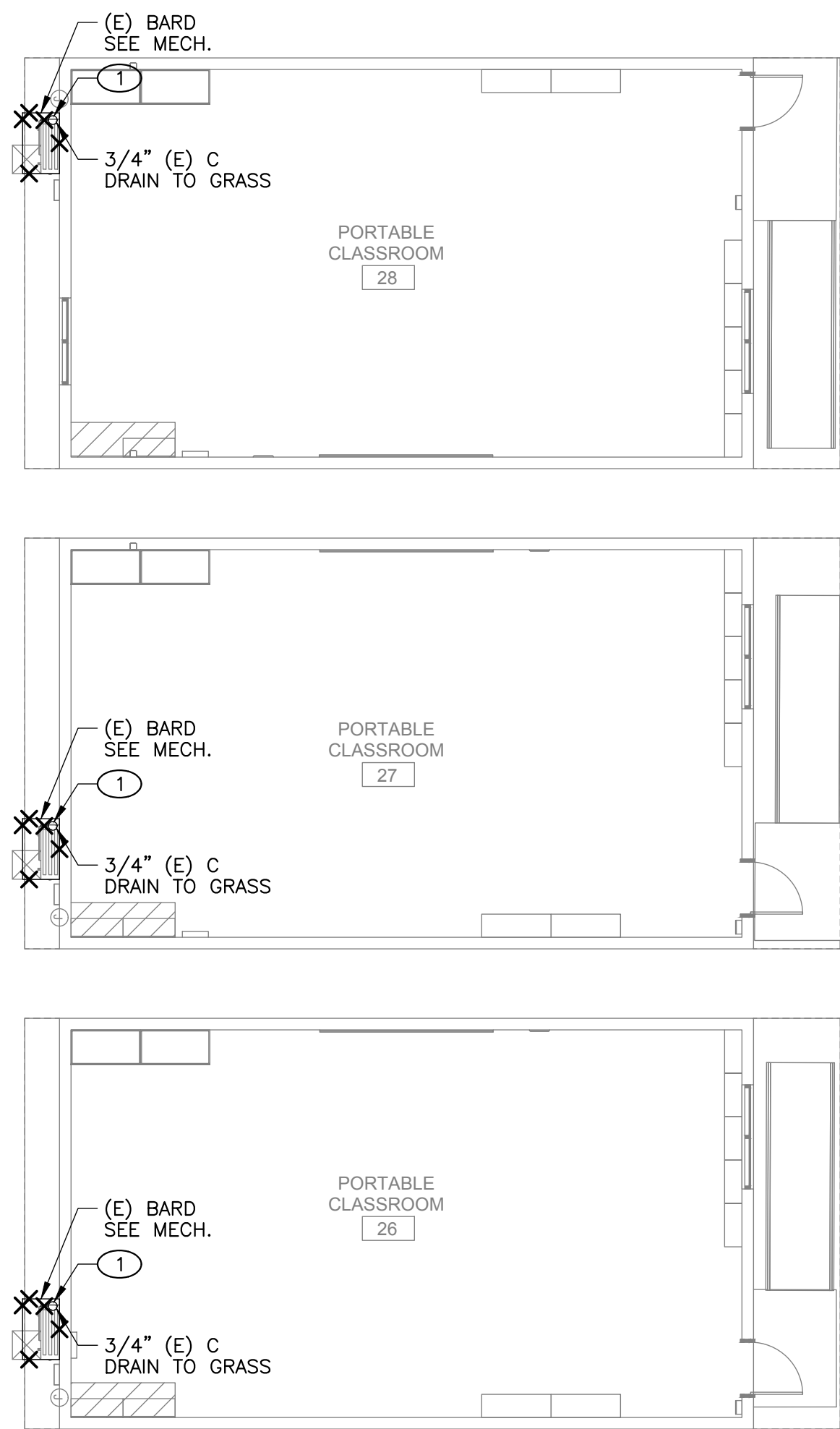
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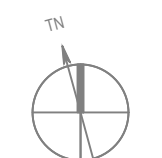
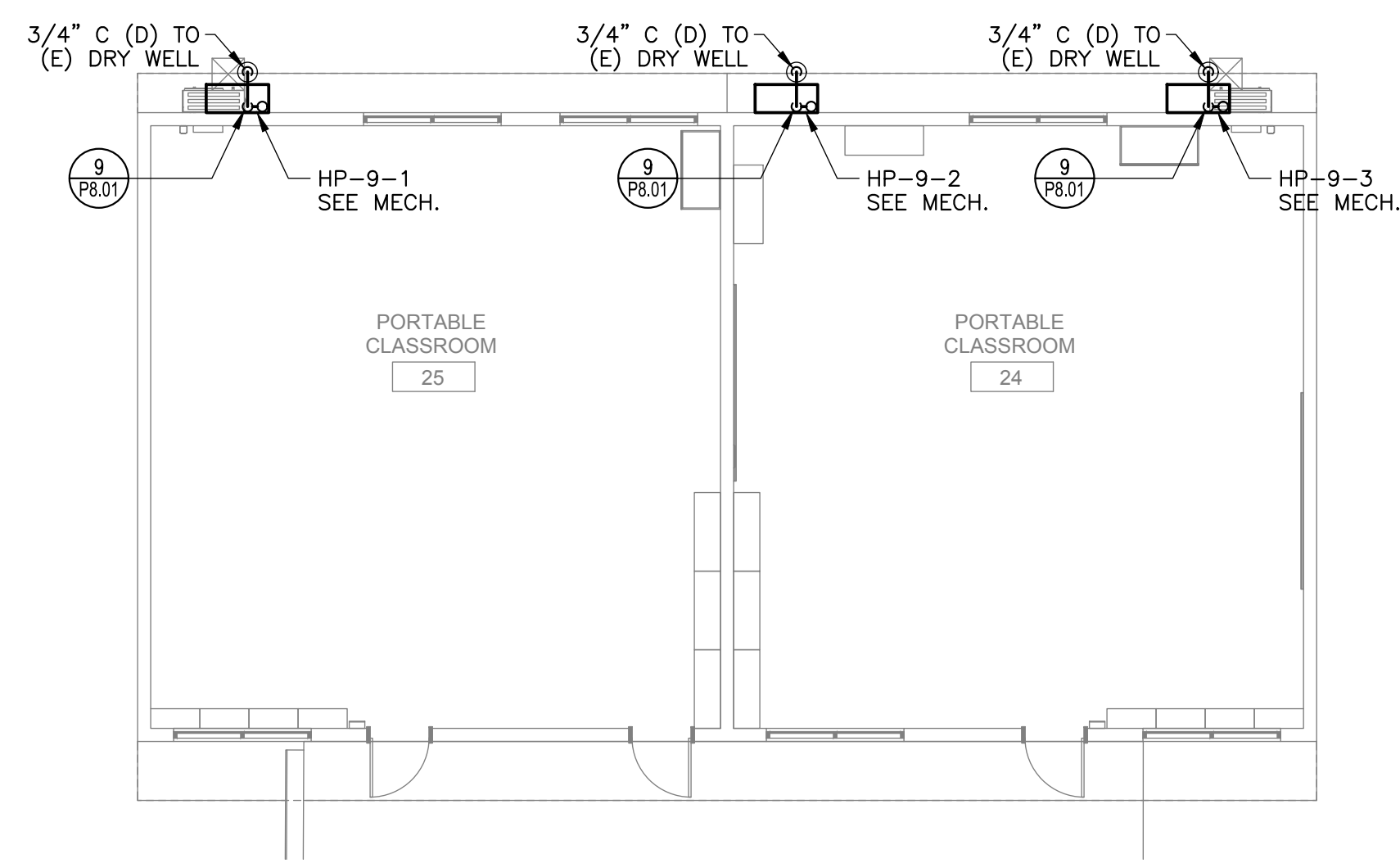
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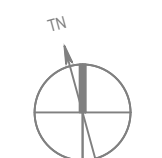
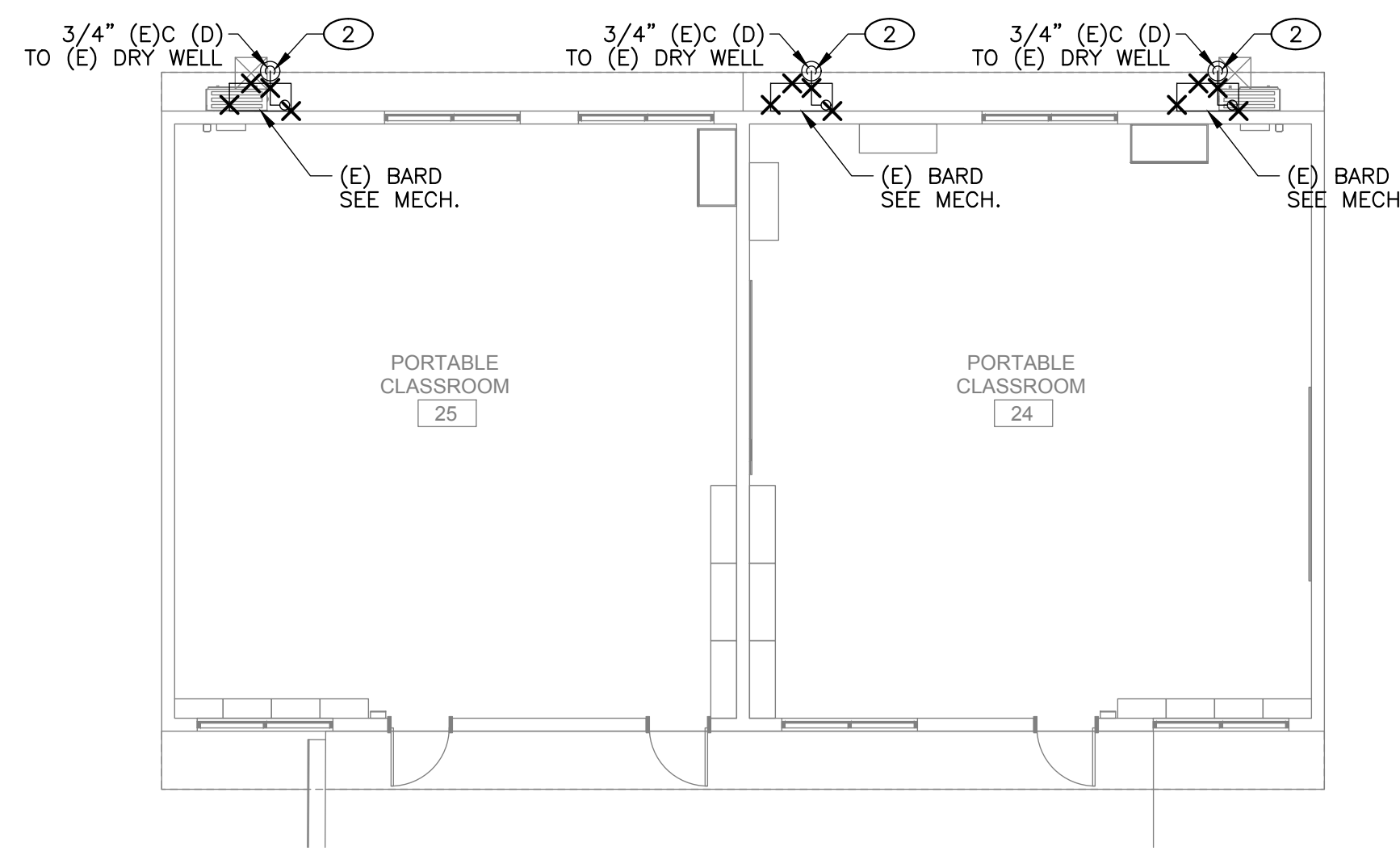
PLUMBING IMPROVEMENT FLOOR PLAN - BLDG 11 **4**
1/8" = 1'-0"



PLUMBING DEMOLITION FLOOR PLAN - BLDG 11 **3**
1/8" = 1'-0"



PLUMBING IMPROVEMENT FLOOR PLAN - BLDG 9 **2**
1/8" = 1'-0"



PLUMBING DEMOLITION FLOOR PLAN - BLDG 9 **1**
1/8" = 1'-0"

KEY NOTES

- ① REMOVE EXISTING CONDENSATE PIPING SHOWN HATCHED.
- ② REMOVE EXISTING CONDENSATE PIPING SHOWN HATCHED. EXISTING DRY WELL TO REMAIN FOR CONNECTION TO NEW CONDENSATE PIPING.

GENERAL NOTES

- 1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
- 2. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.

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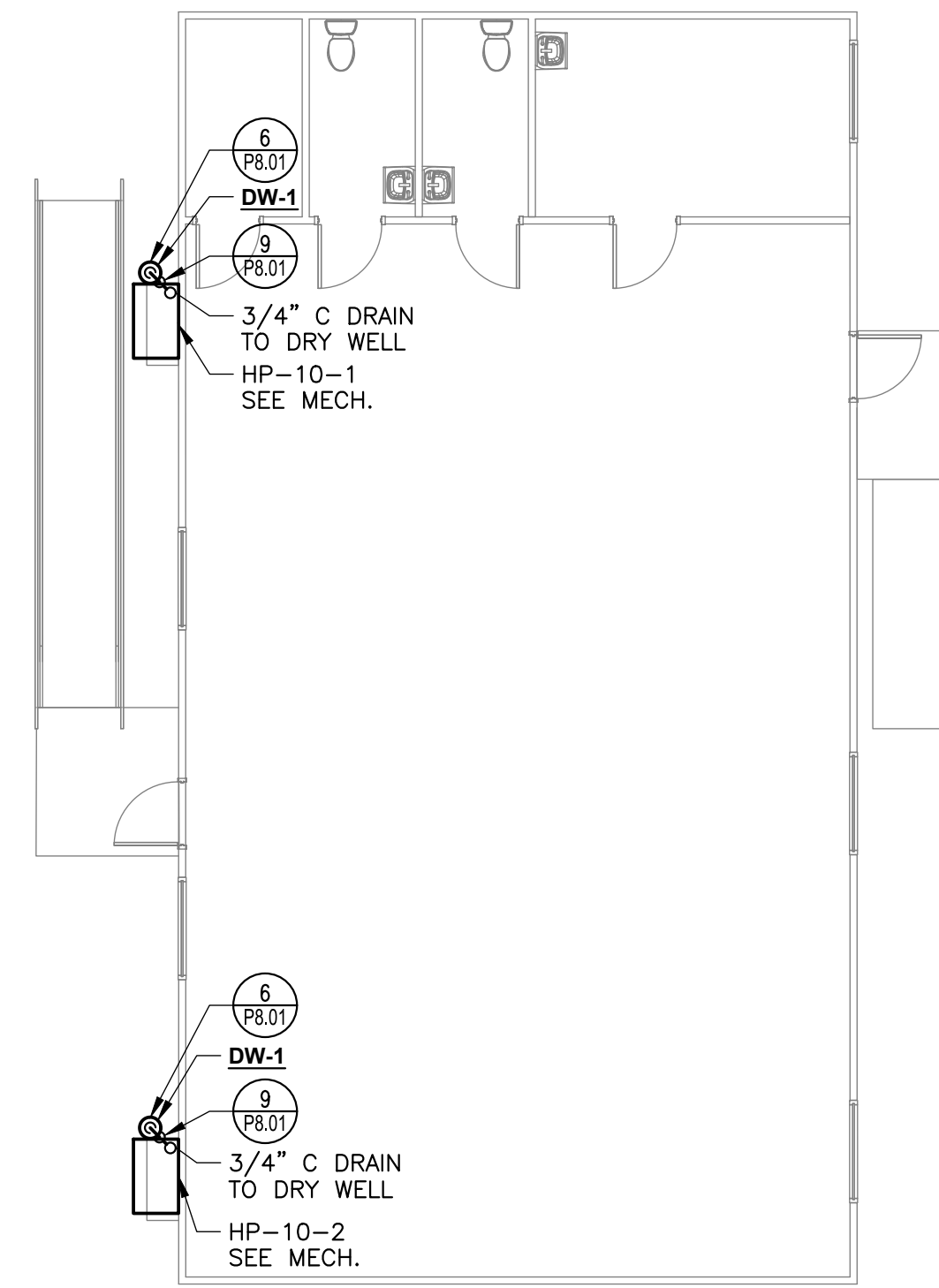
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KEY NOTES

- ① REMOVE EXISTING CONDENSATE PIPING SHOWN HATCHED.

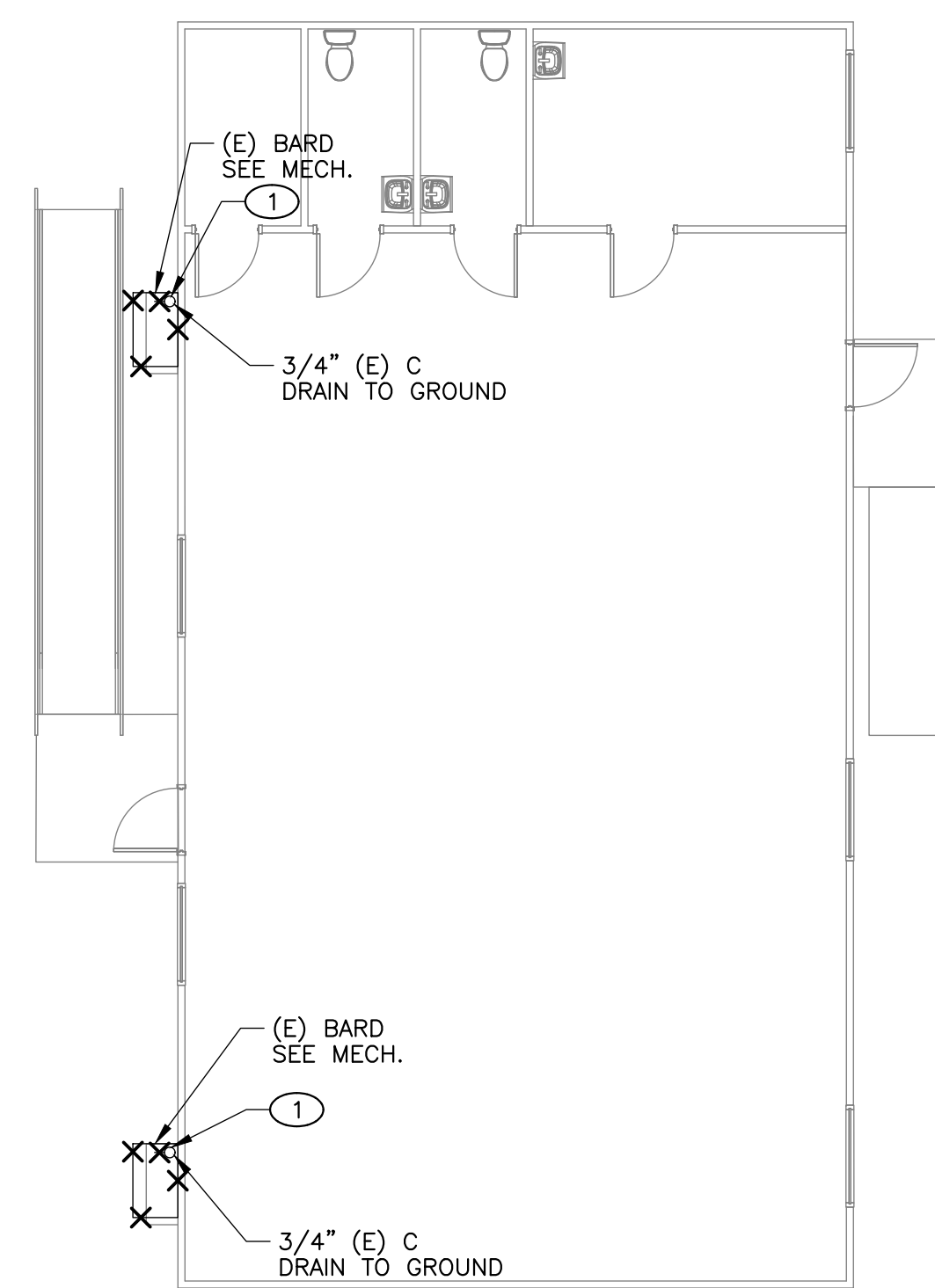


PLUMBING IMPROVEMENT FLOOR PLAN - BLDG 10

2
1/8" = 1'-0"

GENERAL NOTES

- 1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
- 2. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.



PLUMBING DEMOLITION FLOOR PLAN - BLDG 10

1
1/8" = 1'-0"

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KEY NOTES

- ① REMOVE EXISTING PIPING SHOWN HATCHED BACK TO POD.

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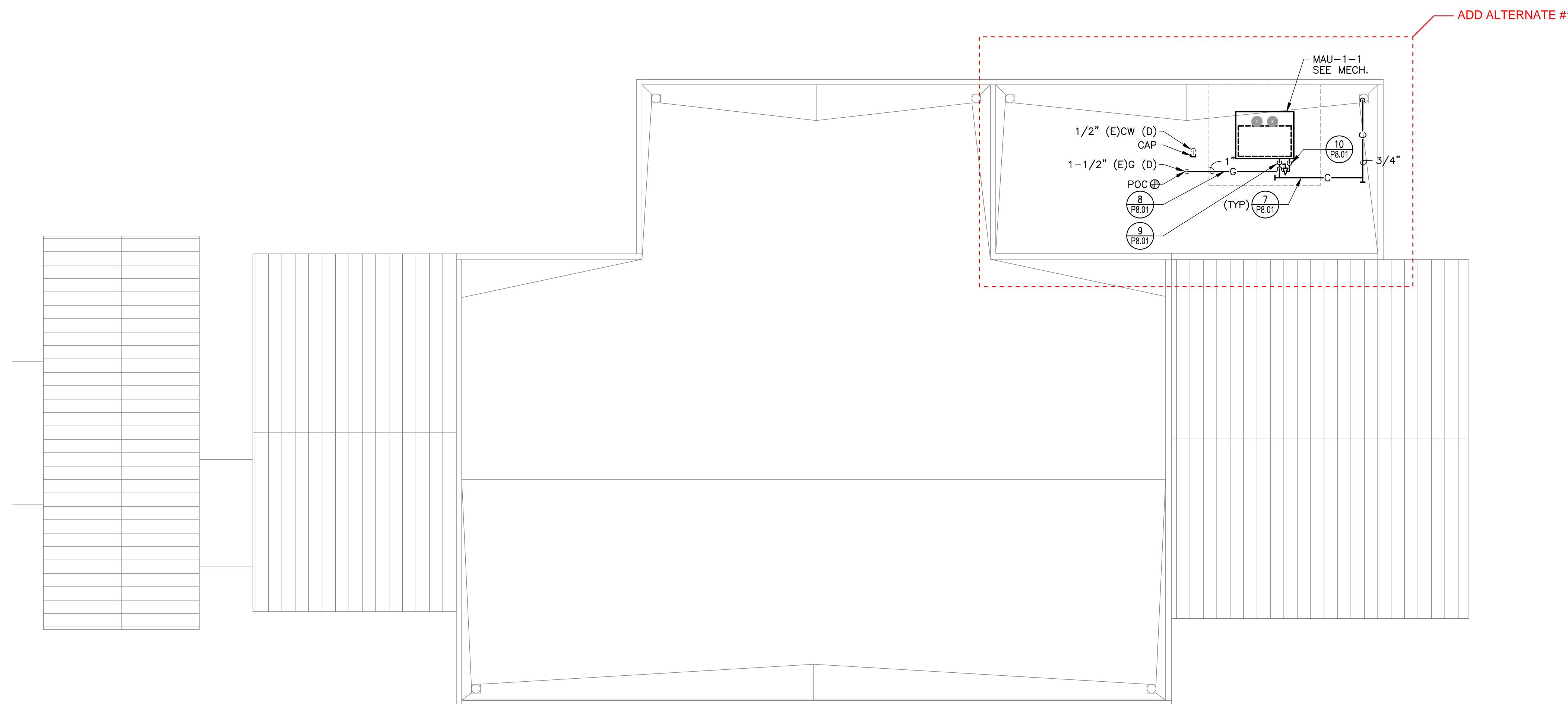


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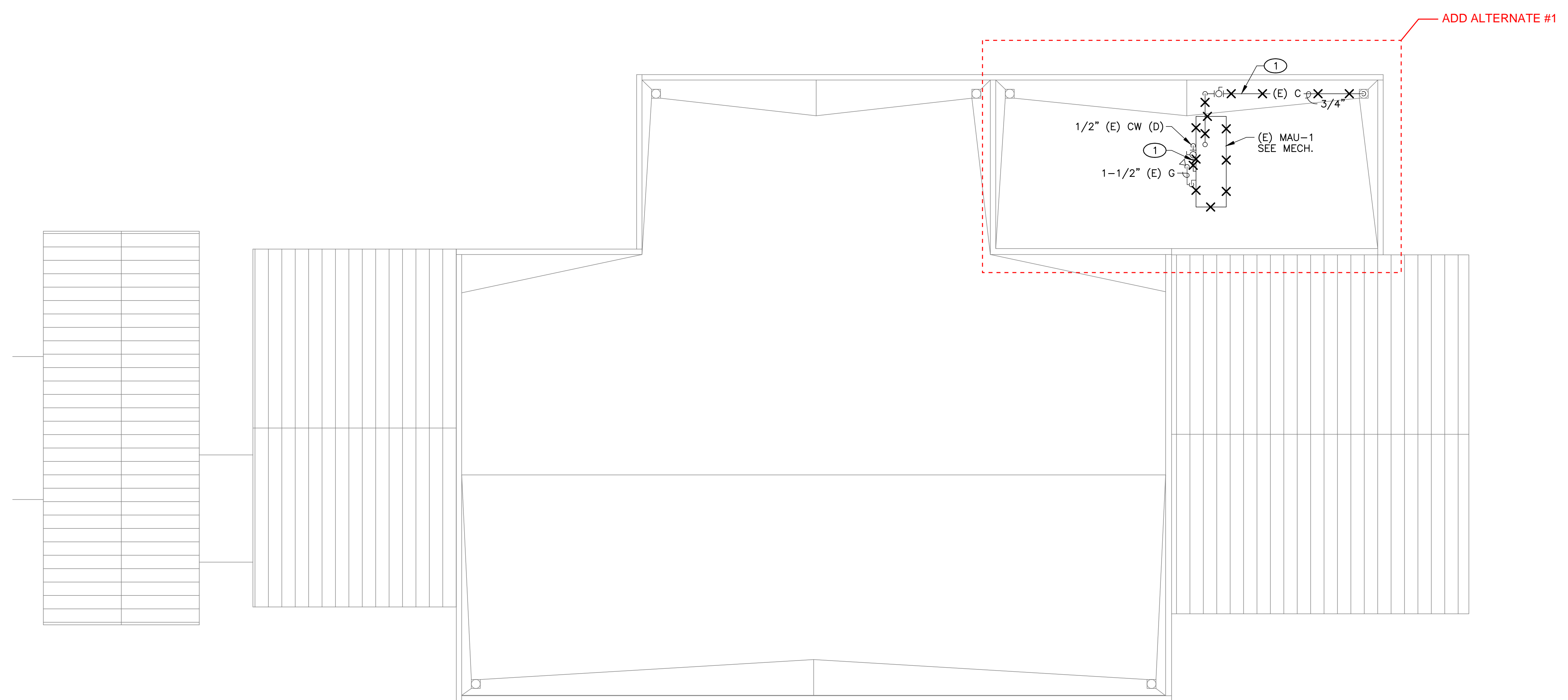


PLUMBING IMPROVEMENT ROOF PLAN - BLDG 1

2
1/8" = 1'-0"

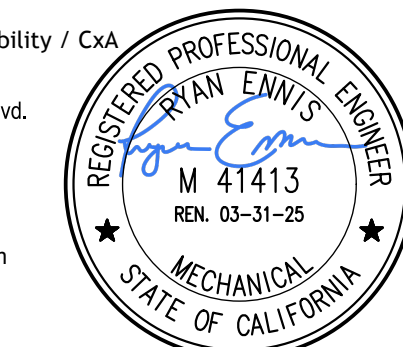
GENERAL NOTES

- 1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
- 2. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.



PLUMBING DEMOLITION ROOF PLAN - BLDG 1

1
1/8" = 1'-0"



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SACRAMENTO, CA 95831

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

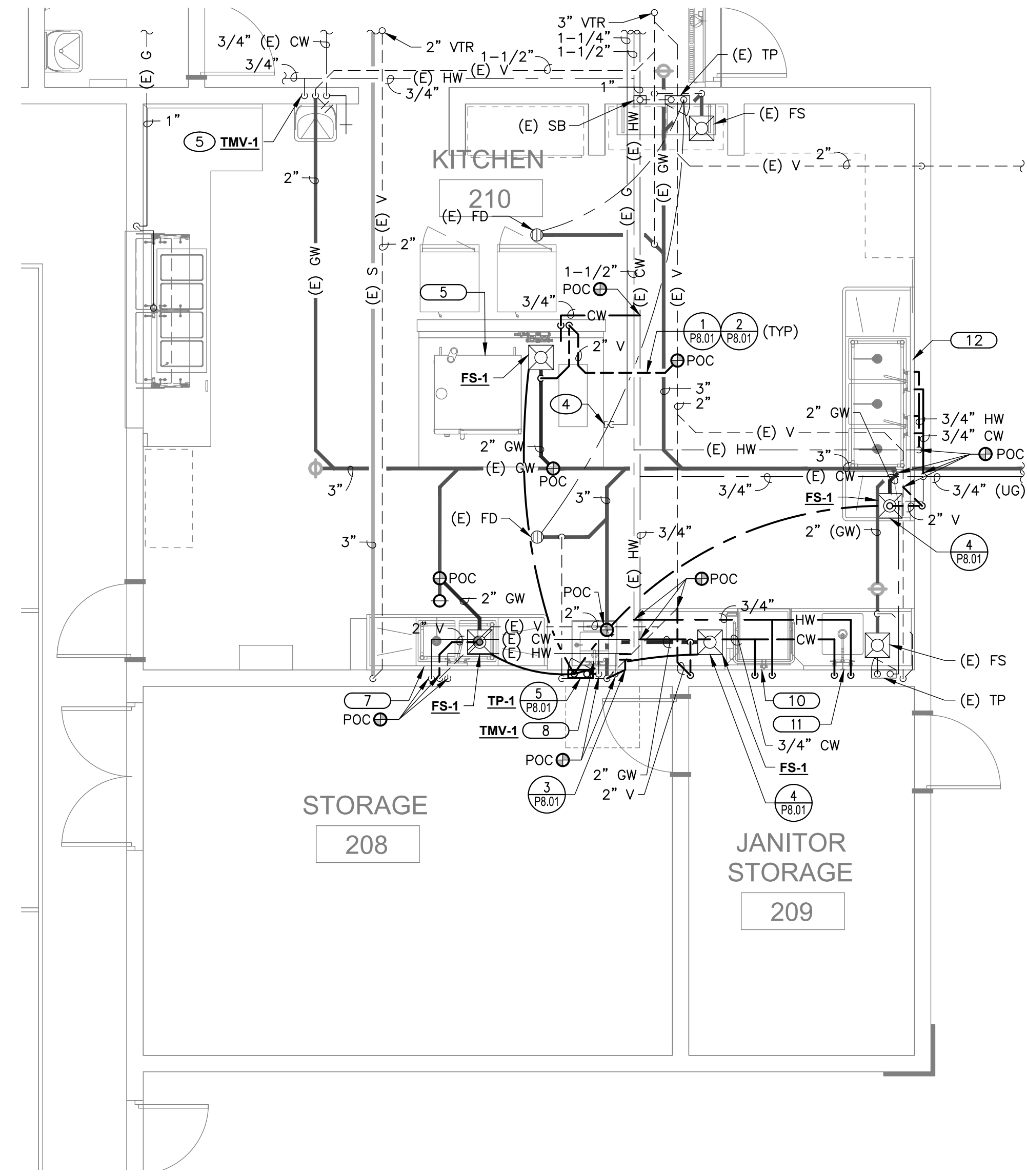
SHEET NAME:
PLUMBING DEMOLITION AND IMPROVEMENT ROOF PLANS - BLDG 1

DSA SUBMITTAL

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000
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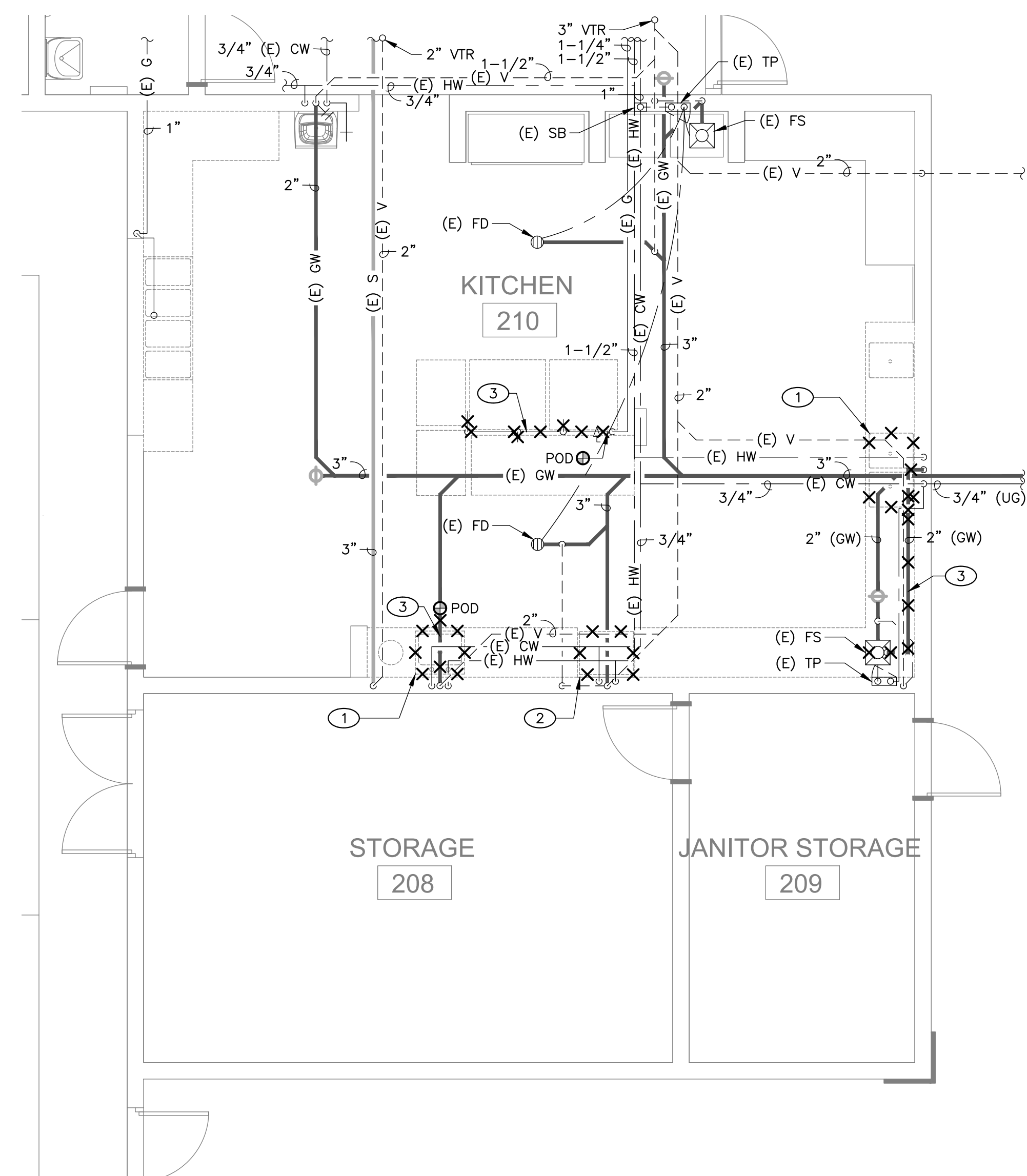
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ADD ALTERNATE #1



PLUMBING IMPROVEMENT ENLARGED FLOOR PLAN - BLDG 1 KITCHEN

2
 1/4" = 1'-0"



PLUMBING DEMOLITION ENLARGED FLOOR PLAN - BLDG 1 KITCHEN

1
 1/4" = 1'-0"

KEY NOTES

- 1 REMOVE EXISTING SINK AND RELATED PIPING BACK TO POD.
- 2 REMOVE EXISTING WARE WASHER. EXISTING PIPING TO REMAIN FOR CONNECTION TO NEW SINK.
- 3 REMOVE EXISTING PIPING SHOWN HATCHED BACK TO POD.
- 4 CAP PIPING OUTSIDE POST.
- 5 INSTALL NEW THERMOSTATIC MIXING VALVE AT EXISTING HAND SINK.

GENERAL NOTES

1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
2. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.

AGENCY APPROVAL:



HMC Architects

3186-070-000

2101 CAPITOL AVENUE, SUITE 100,
 SACRAMENTO, CA, 95816
 916 368 7990 / www.hmcarchitects.com

ISSUE	
DESCRIPTION	DATE



FACILITY:
MATSUYAMA ELEMENTARY SCHOOL
 7680 WINDBRIDGE DR.
 SACRAMENTO, CA 95831

PROJECT:
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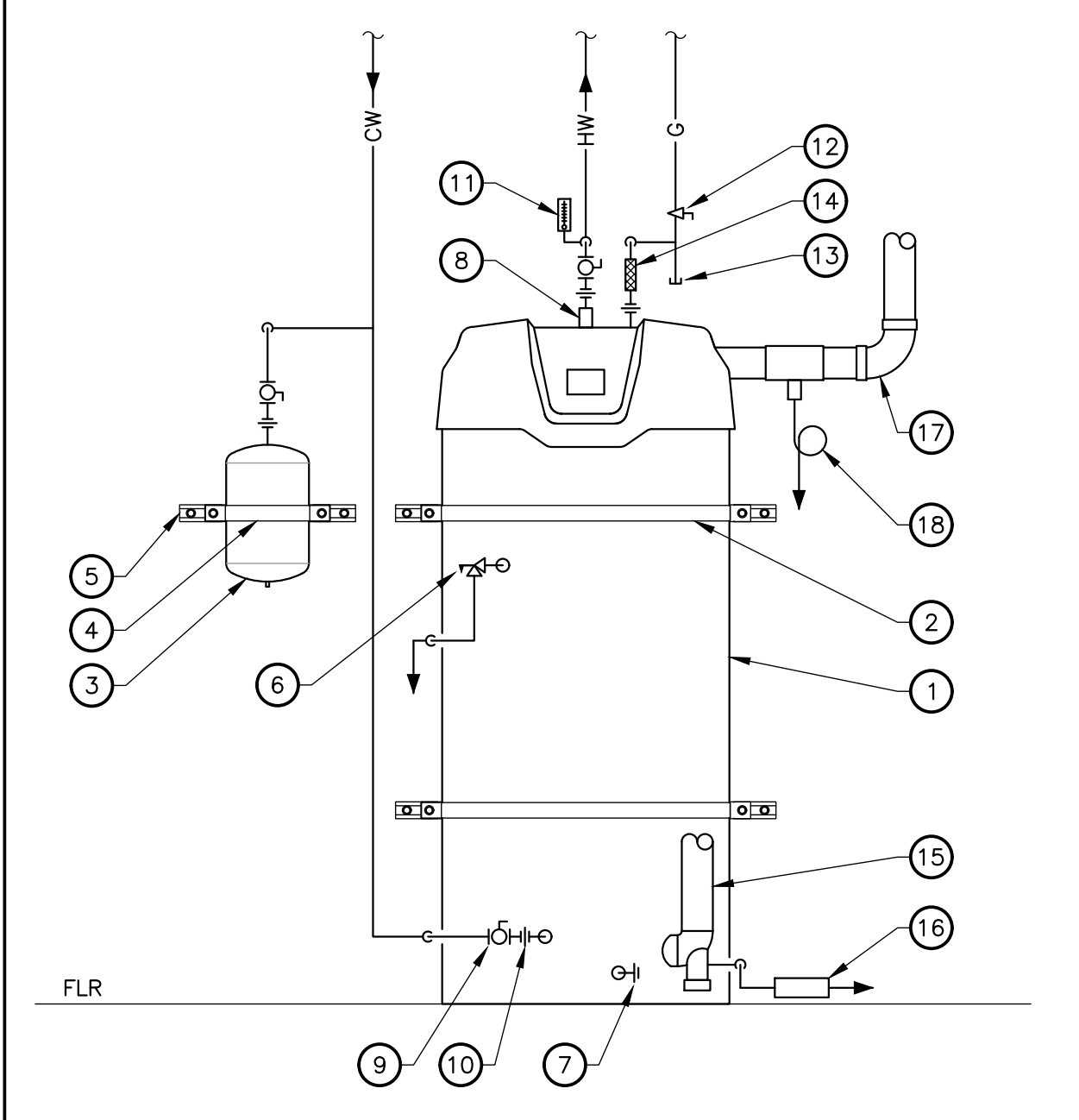
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PLUMBING ENLARGED FLOOR PLANS - BLDG 1 KITCHEN

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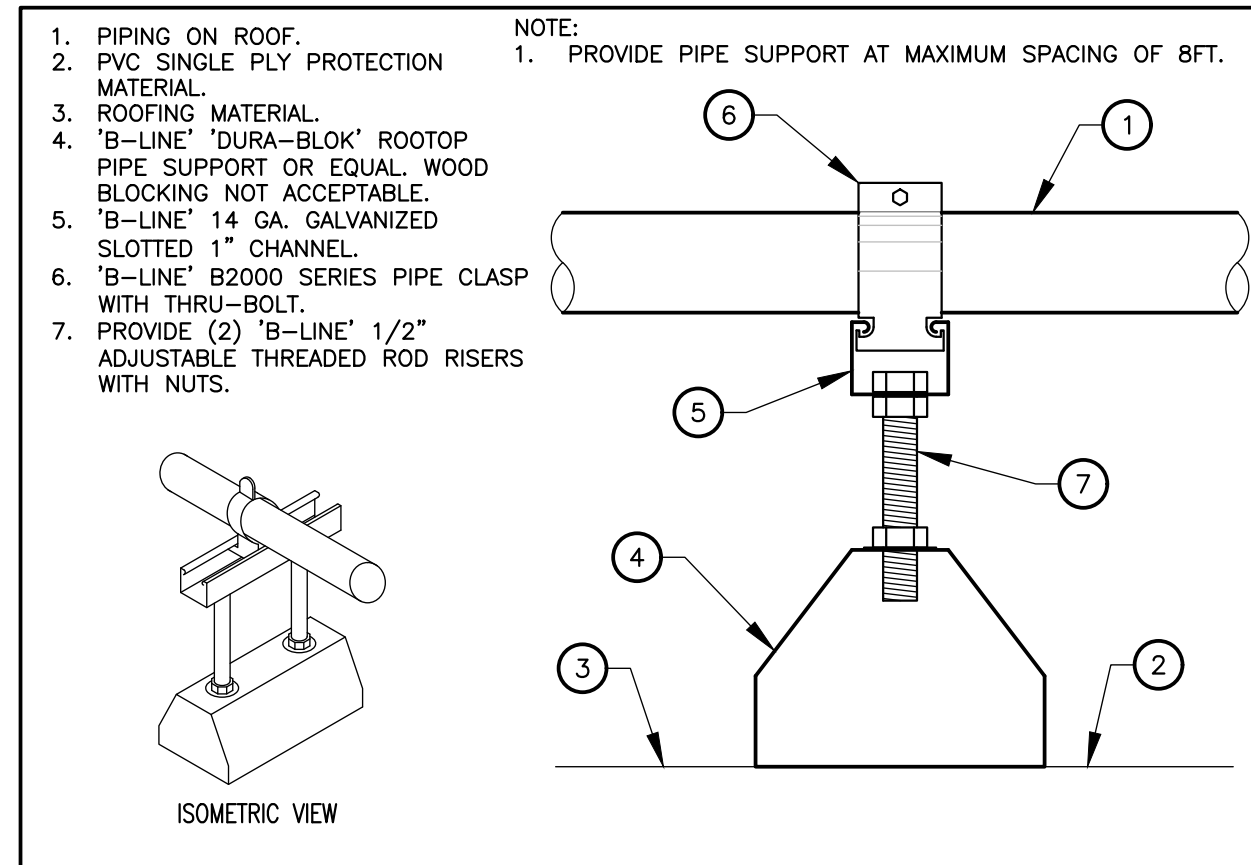
1. WATER HEATER, SEE PLUMBING SCHEDULE
2. (2) 1-1/2" WIDE, 24 GA. GALVANIZED SHEET METAL SEISMIC STRAPS AROUND WATER HEATER, (1) EACH AT UPPER AND LOWER THIRD OF WATER HEATER, SECURE TO UNISTRUT CHANNEL WITH 3/8" BOLT, UNISTRUT SQUARE WASHER AND CHANNEL NUT EACH SIDE
3. EXPANSION TANK, SEE PLUMBING SCHEDULE
4. 1-1/2" WIDE, 24 GA. GALVANIZED SHEET METAL SEISMIC STRAP AROUND EXPANSION TANK, SECURE TO UNISTRUT CHANNEL WITH 3/8" BOLT, UNISTRUT SQUARE WASHER AND CHANNEL NUT EACH SIDE
5. 1-5/8"x1-5/8"x12 GA. UNISTRUT CHANNEL, B-LINE B22 OR EQUAL, TYP. SECURE TO WALL STUDS WITH (2) 1/4" LAG SCREWS WITH MIN. 3" EMBED, (1) EACH END
6. ASME TEMPERATURE & PRESSURE RELIEF VALVE, ROUTE FULL SIZE DRAIN TO APPROVED INDIRECT RECEPTOR WITH MIN. 1" AIRGAP
7. WATER HEATER DRAIN VALVE
8. DIELECTRIC HEAT TRAP NIPPLE AT WATER HEATER HW & CW CONNECTIONS
9. ISOLATION VALVE, TYP
10. DIELECTRIC UNION, TYP
11. LEAD-FREE THERMOWELL THERMOMETER, TERTRIC BX SERIES, OR EQUAL
12. GAS COCK
13. MIN. 3" LONG SEDIMENT TRAP (DIRT LEG) WITH CAP
14. CSA LISTED FLEXIBLE GAS APPLIANCE CONNECTOR, METRAFLEX OR EQUAL
15. FLUE VENT TO APPROVED TERMINATION LOCATION AT BUILDING EXTERIOR, INSTALL PER MFGOR'S RECOMMENDATIONS
16. FLUE CONDENSATE CONNECTION, PROVIDE CONDENSATE PIPING WITH ACID NEUTRALIZER AND TERMINATE AT APPROVED INDIRECT RECEPTOR WITH MIN. 1" AIRGAP
17. COMBUSTION AIR INTAKE VENT TO APPROVED TERMINATION LOCATION AT BUILDING EXTERIOR, INSTALL PER MFGOR'S RECOMMENDATIONS
18. COMBUSTION AIR CONDENSATE CONNECTION TEE WHERE REQUIRED BY MFGOR, PROVIDE CONDENSATE PIPING WITH LOCKED TRAP AND TERMINATE AT APPROVED INDIRECT RECEPTOR WITH MIN. 1" AIRGAP



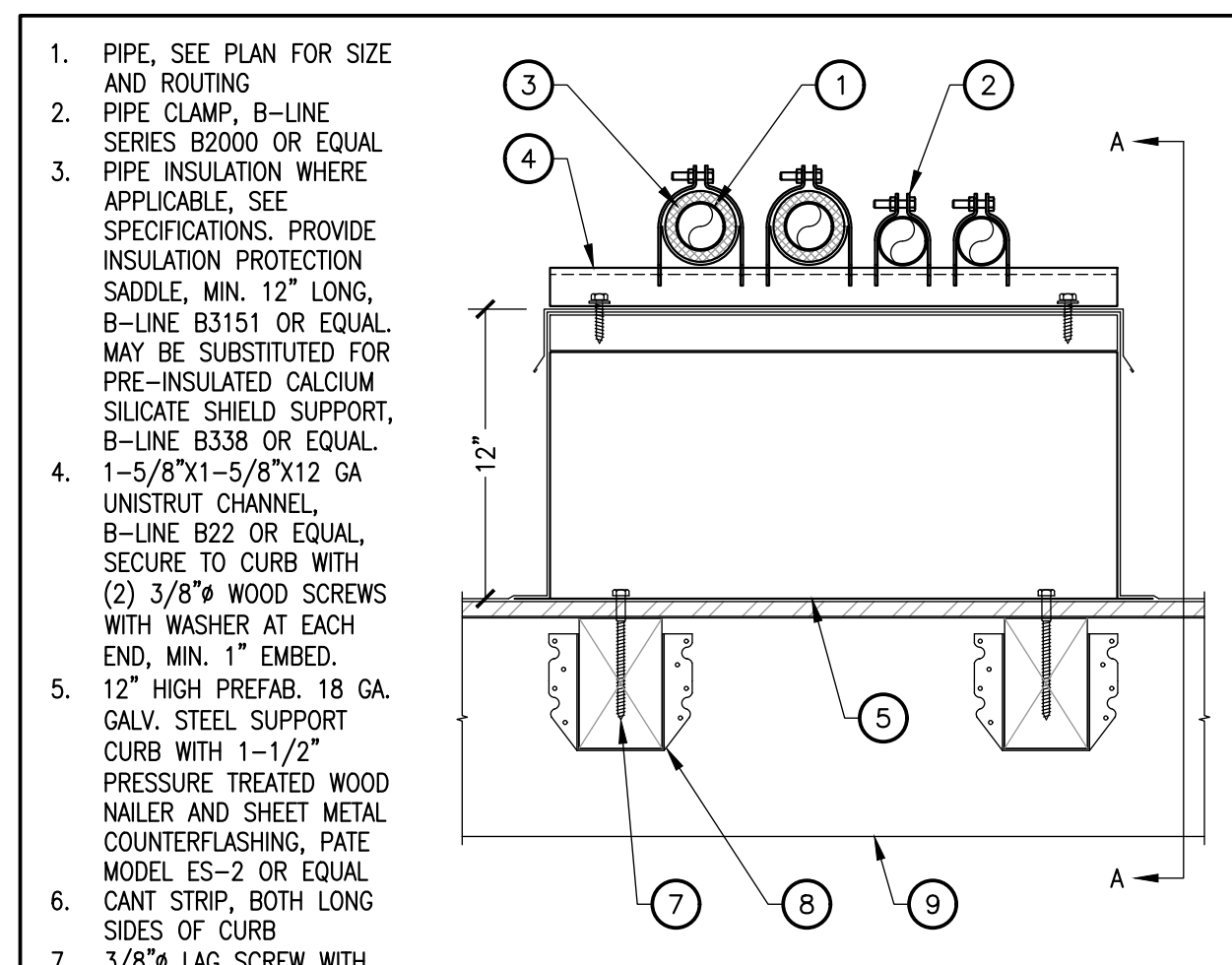
NTS
A. SEE PLANS FOR PIPE SIZES.

GAS WATER HEATER NTS 11

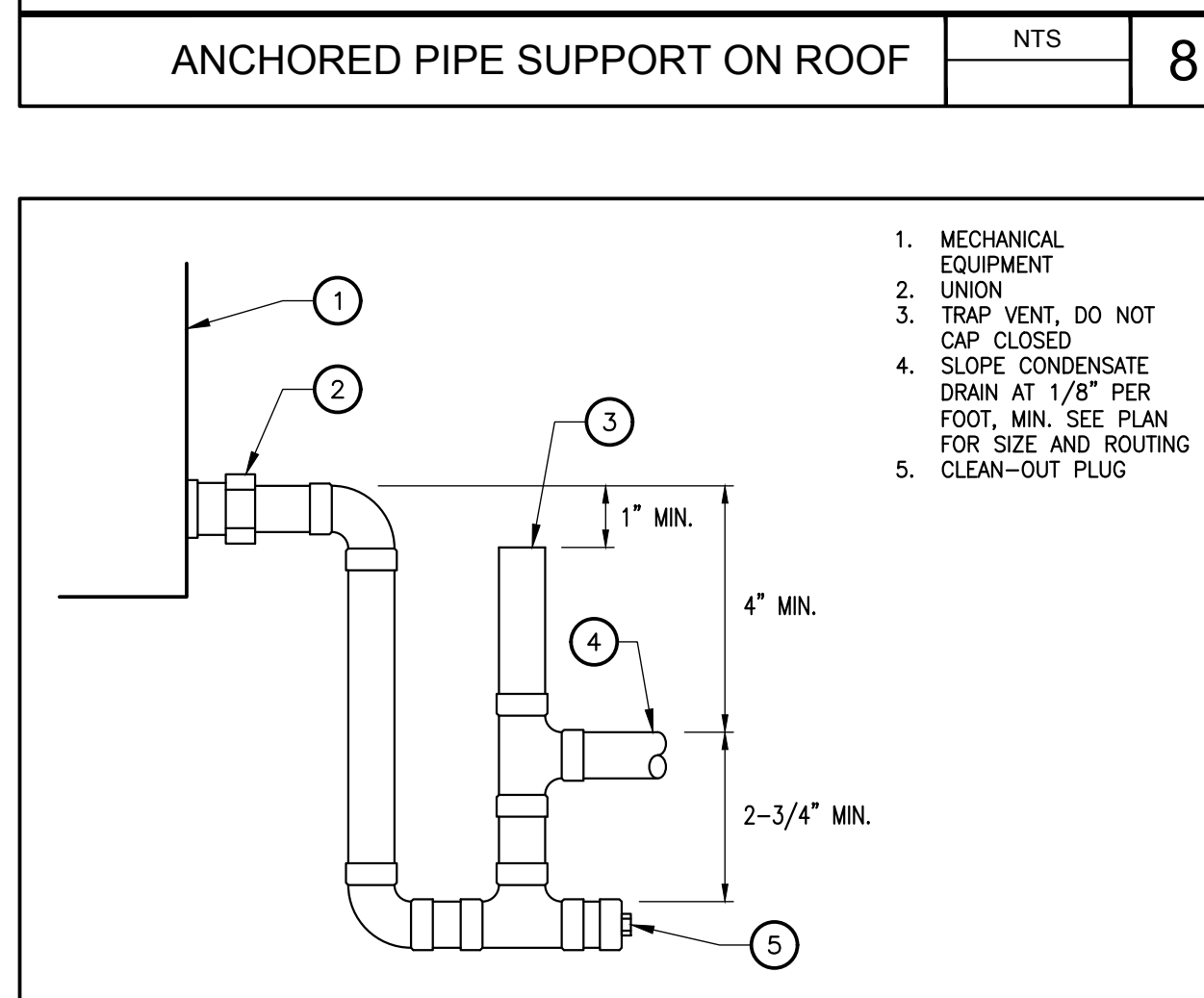
ADD ALTERNATE #1



NTS
TYP. PIPE SUPPORT ON ROOF NTS 7

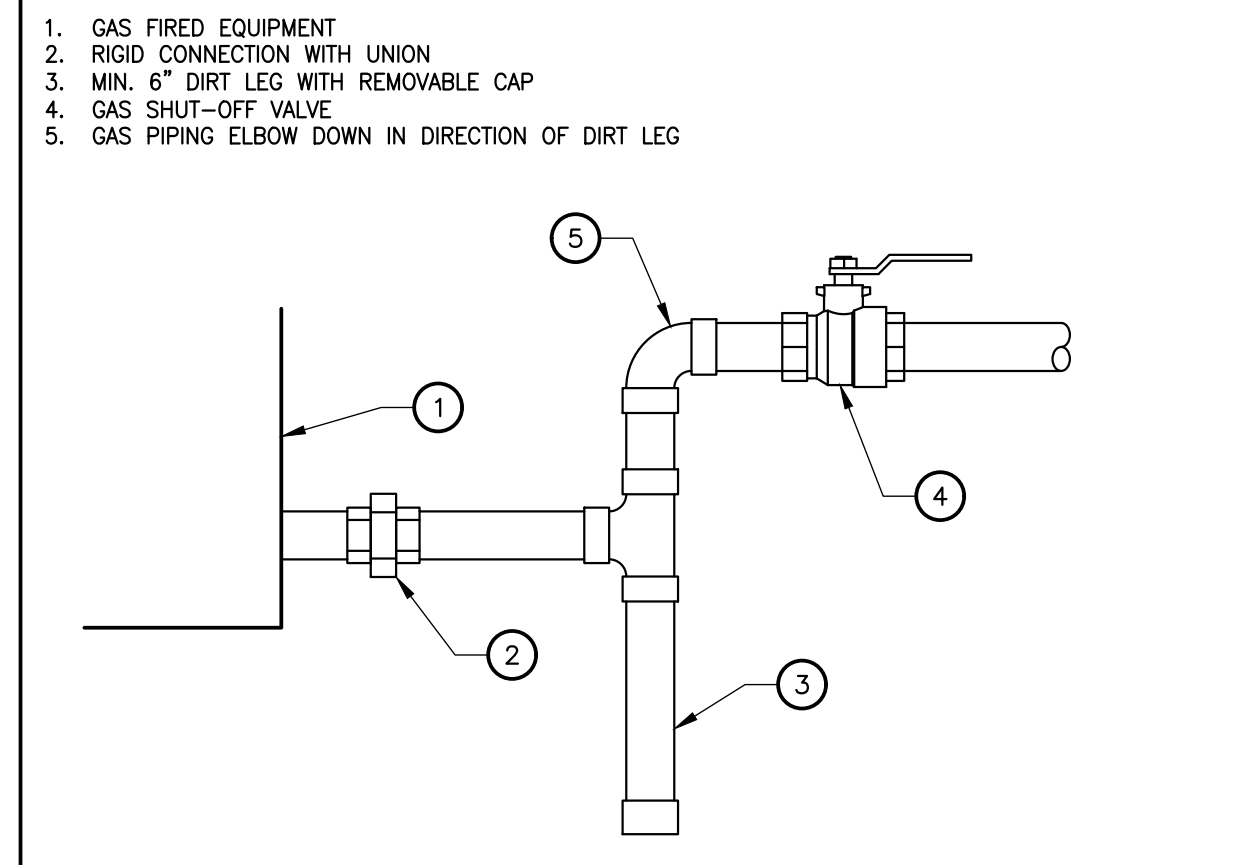


NTS
ANCHORED PIPE SUPPORT ON ROOF NTS 8

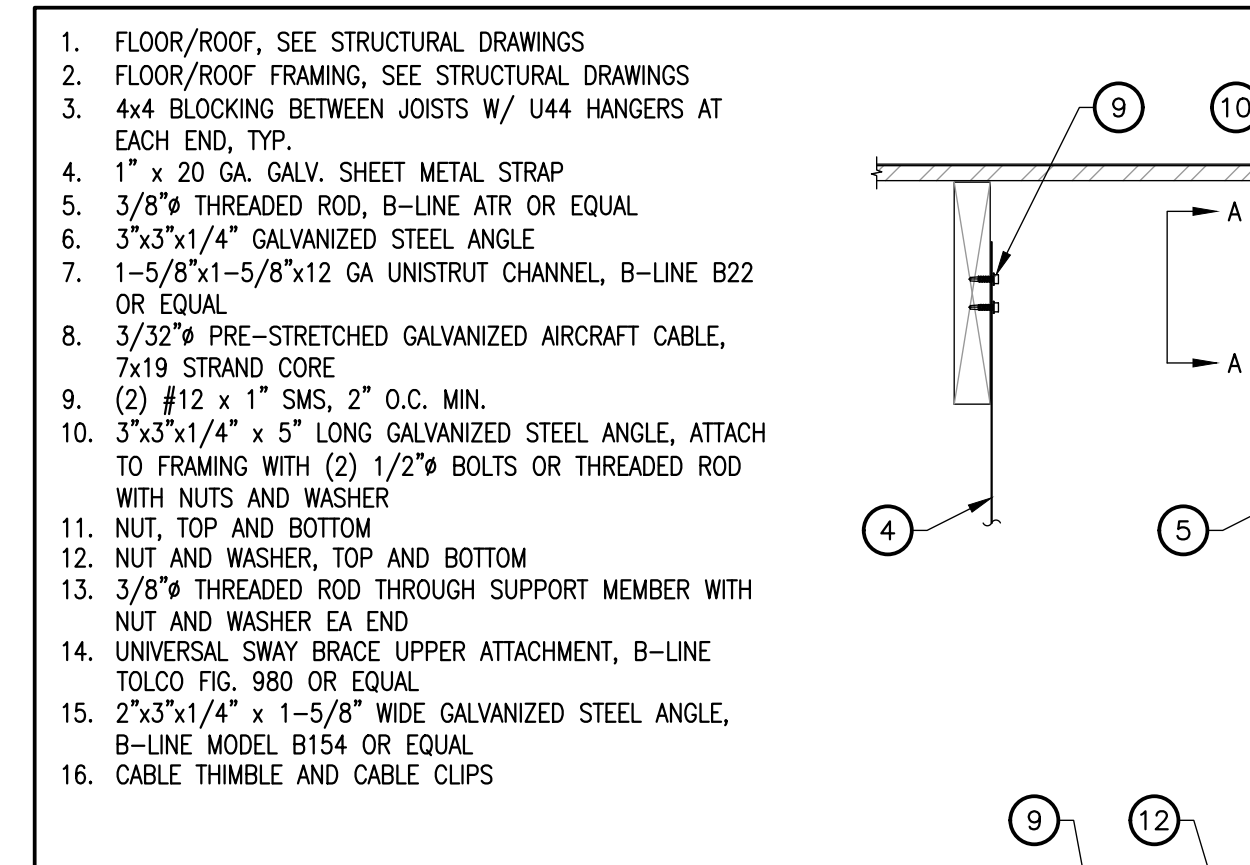


NTS
CONDENSATE DRAIN CONNECTION NTS 9

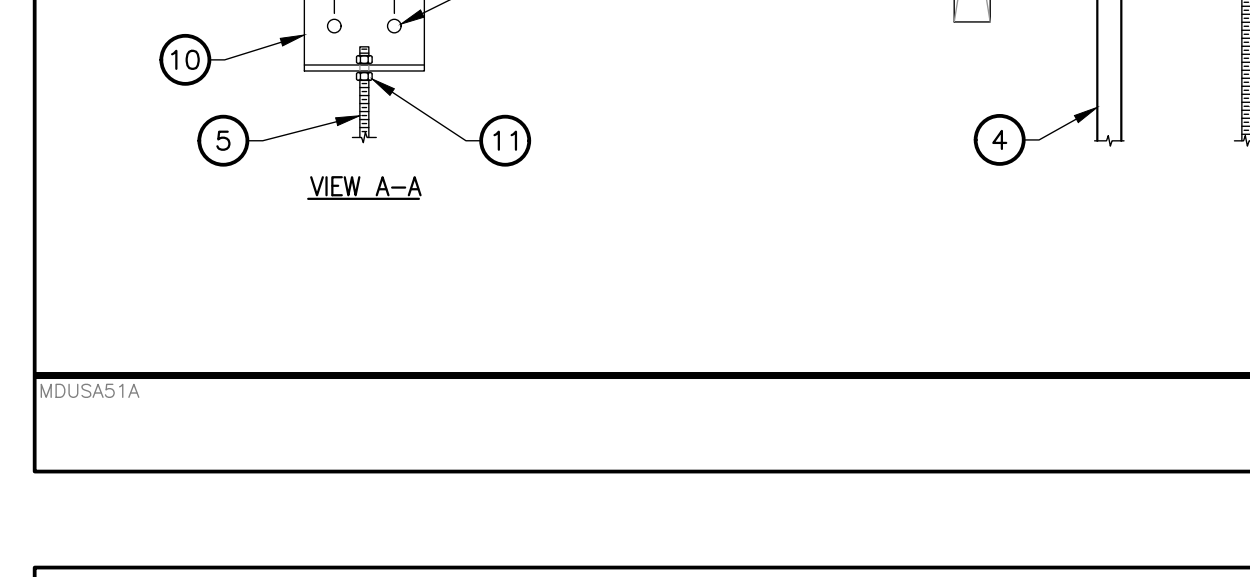
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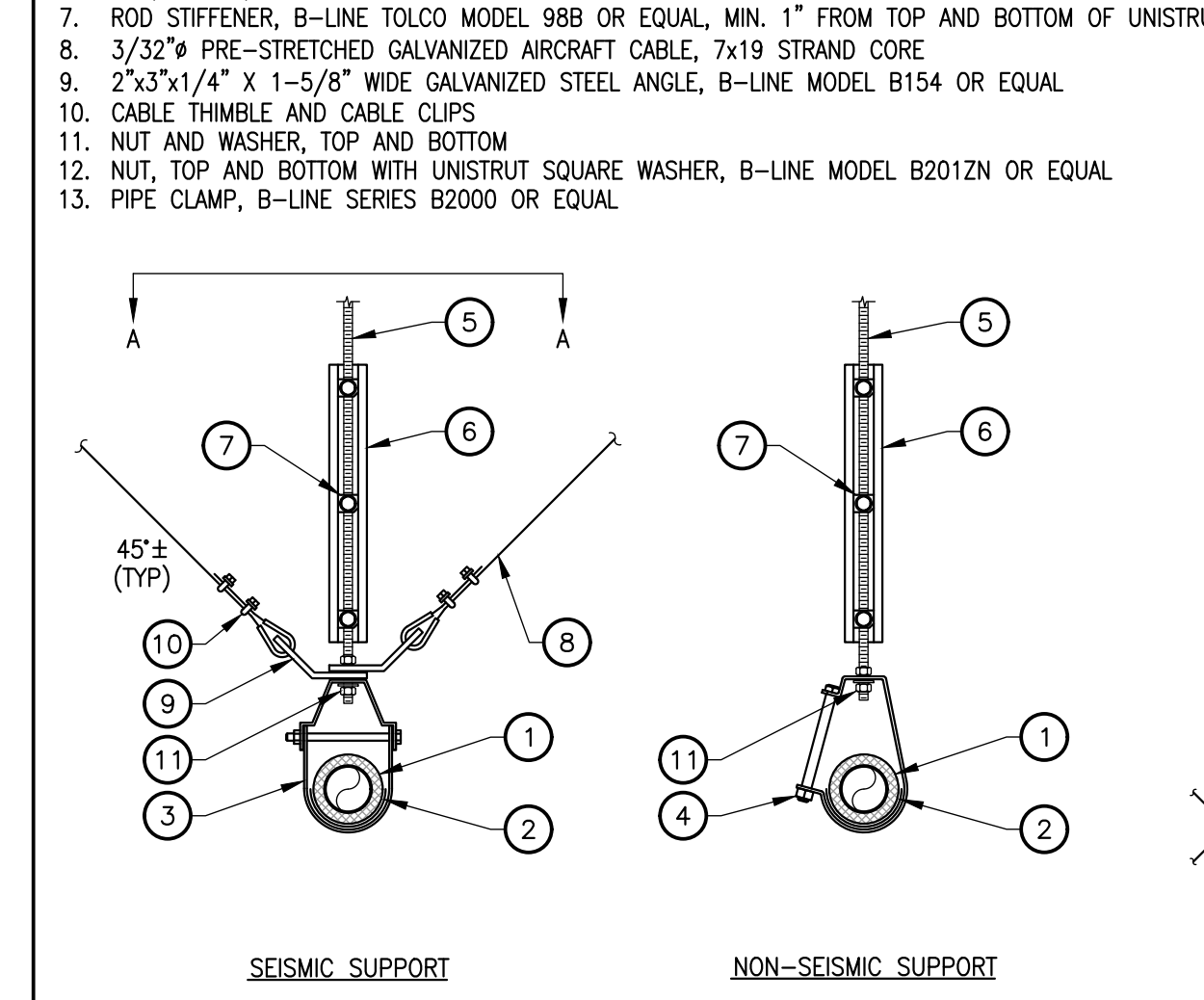
NTS
GAS CONNECTION DETAIL NTS 10



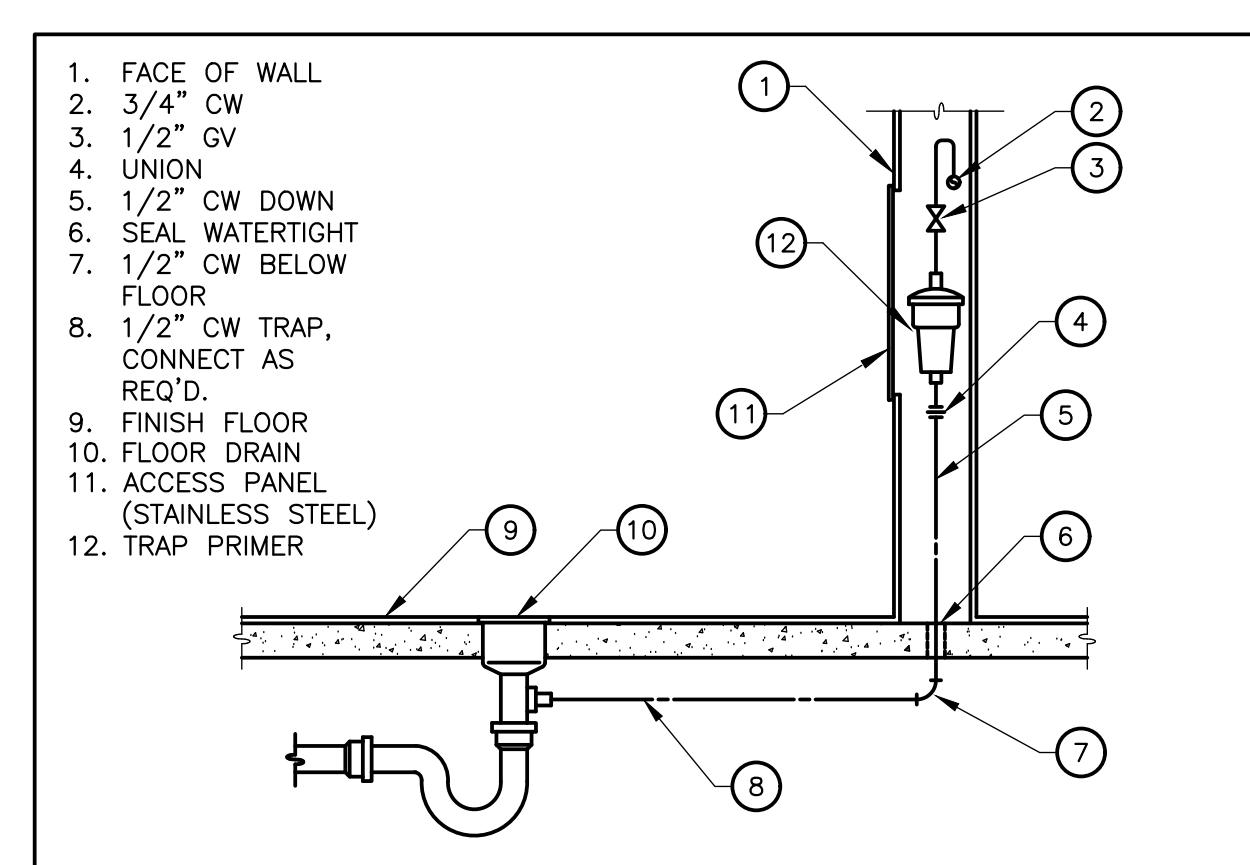
NTS
HANGER UPPER ATTACHMENTS (WOOD) NTS 1



NTS
HANGER UPPER ATTACHMENTS (WOOD) NTS 1

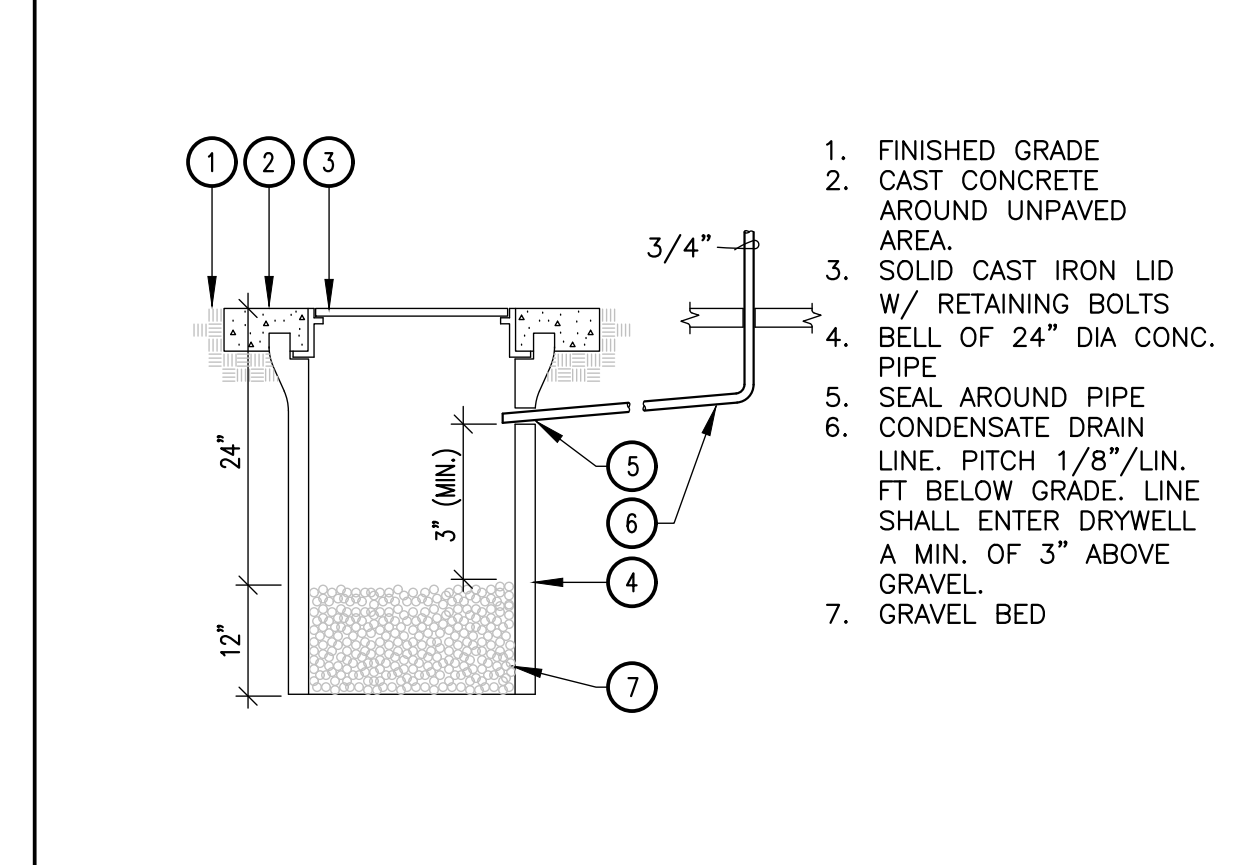


NTS
PIPE HANGER DETAIL NTS 2

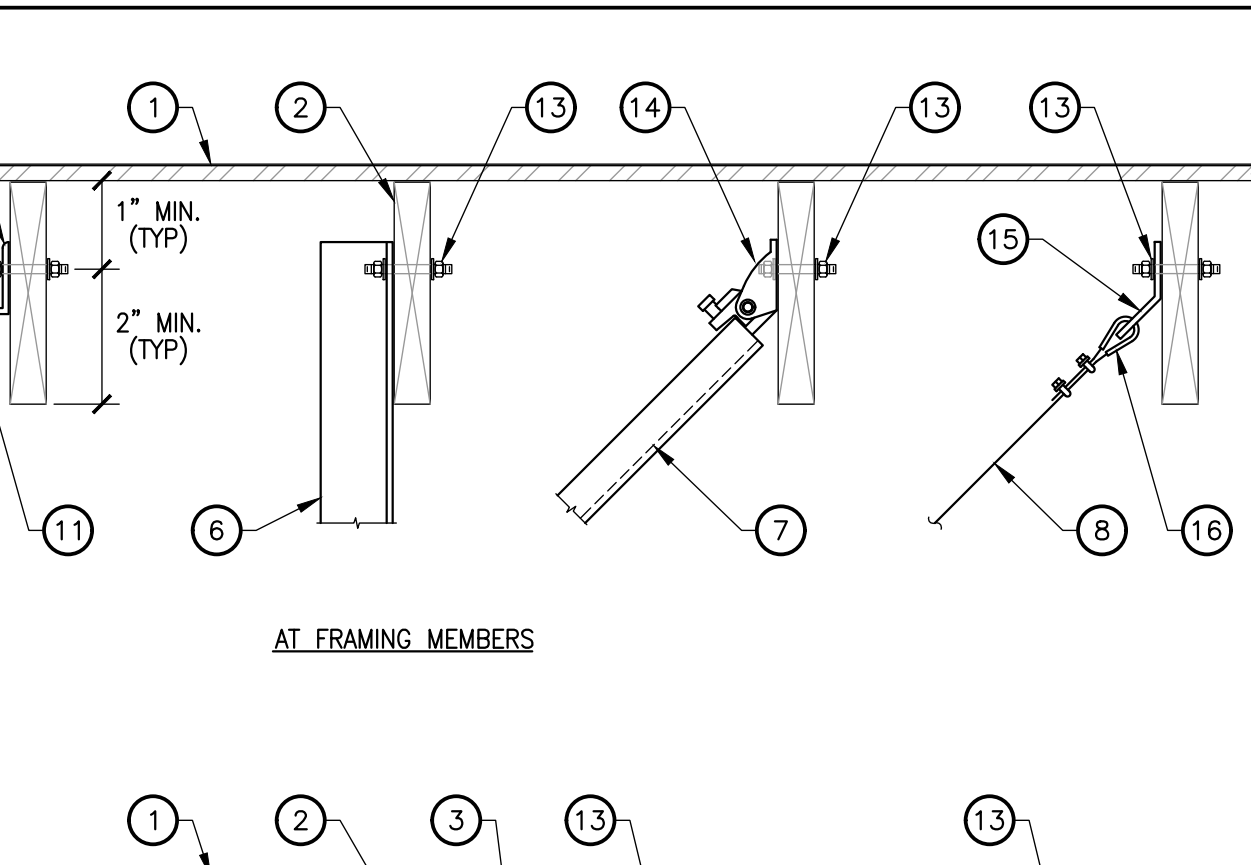


NTS
TRAP PRIMER PIPING DETAIL NTS 5

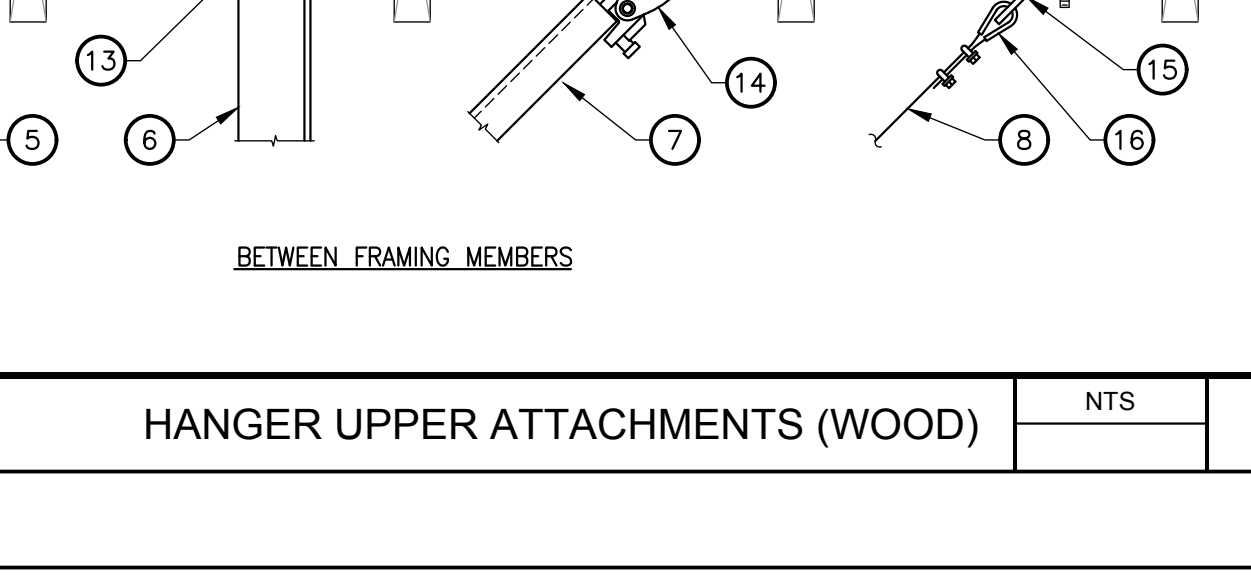
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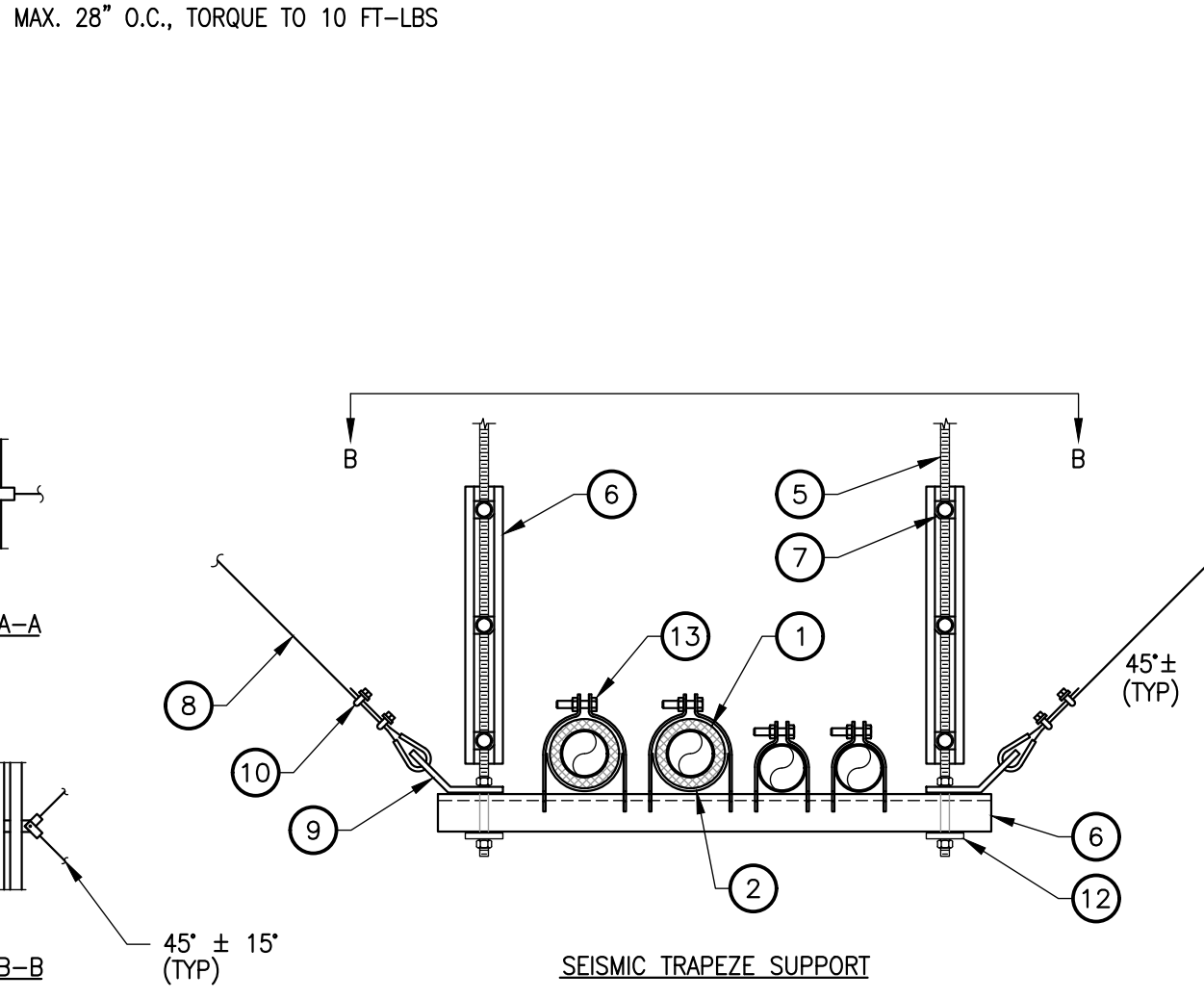
NTS
DRYWELL DETAIL NTS 6



NTS
WALL CLEANOUT (WCO) NTS 3



NTS
INDIRECT WASTE TO FLOOR DRAIN DETAIL NTS 4



NTS
DRYWELL DETAIL NTS 6

AGENCY APPROVAL:



HMC Architects

3186-070-000

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ISSUE

DESCRIPTION DATE



FACILITY: MATSUYAMA ELEMENTARY SCHOOL
7680 WINDBRIDGE DR. SACRAMENTO, CA 95831

PROJECT: MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME: PLUMBING DETAILS

DSA SUBMITTAL

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000

SHEET:

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PLEASE RECYCLE

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DEMOLITION GENERAL NOTES

- ALL DEMOLITION GENERAL NOTES SHOWN BELOW ARE NOT NECESSARILY USED ON PLANS IF NOT REQUIRED.
- ALL EXISTING EQUIPMENT, DEVICES, CONDUIT, AND WIRING, ETC., WHERE SHOWN ON PLANS ARE BASED ON AVAILABLE EXISTING DOCUMENTS AND LIMITED SITE SURVEYS AND ARE SHOWN FOR CLARITY. IT SHALL BE REGARDED AS AN APPROXIMATION ONLY. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, PRIOR TO SUBMITTING BID AND BEFORE START OF ANY ELECTRICAL WORK. CONTRACTOR SHALL VERIFY ON-SITE ALL EXISTING LOCATIONS AND CONDITIONS TO ASCERTAIN ALL WORK REQUIRED.
 - CAUSE AS LITTLE INTERFERENCE OR INTERRUPTION OF EXISTING UTILITIES AND/OR OTHER EXISTING FACILITY'S SYSTEMS AND SERVICES AS POSSIBLE. CONTRACTOR SHALL NOTIFY THE OWNER/DISTRICT'S REPRESENTATIVE AT LEAST 72 HOURS TO SCHEDULE ALL NECESSARY SHUTDOWN. SHUTDOWN WORK SHALL BE PERFORMED AFTER THE NORMAL OPERATION HOURS OF THE FACILITY, IF SO DIRECTED BY THE OWNER/DISTRICT'S REPRESENTATIVE.
 - ALL REMOVED AND/OR DEMOLISHED ELECTRICAL MATERIALS AND EQUIPMENT TO BE ACCOMPLISHED UNDER THIS CONTRACT, WHICH IN THE OPINION OF THE OWNER/DISTRICT'S REPRESENTATIVE ARE DEEMED SALVAGEABLE, SHALL REMAIN THE PROPERTY OF THE OWNER/DISTRICT. ALL ELECTRICAL MATERIAL AND EQUIPMENT CONSIDERED NOT SALVAGEABLE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR ACCORDINGLY.
 - WHERE REMOVAL OF AN EXISTING SYSTEM'S DEVICE WILL RESULT IN LOSS OF CIRCUIT CONTINUITY, THE ISOLATED PORTIONS OF THE CIRCUIT SHALL BE RECONNECTED TO PROVIDE SERVICE TO ALL REMAINING DEVICES. IF SITE CONDITIONS MAKE RECONNECTION IMPOSSIBLE, CONNECTION SHALL BE MADE FROM AN ADJACENT AVAILABLE DEVICE AS NOTED AND/OR AS DIRECTED BY THE ARCHITECT AND/OR THE OWNER/DISTRICT'S REPRESENTATIVE.
 - WHERE EXISTING CONCEALED CONDUITS, WHETHER SHOWN OR NOT, OR SPECIFIED TO BE REUSED, WHICH BECAME EXPOSED DUE TO CONSTRUCTION CHANGES, IT SHALL BE REROUTED TO THE NEAREST AVAILABLE REUSED OUTLET.
 - ALL EXISTING EXPOSED CONDUITS AND/OR WIRING THAT ARE DETERMINED BY THE DISTRICT AND ARCHITECT TO BE MAINTAINED FOR EXISTING SYSTEM FUNCTION AND CONTINUITY, WHETHER SHOWN ON PLAN OR NOT, ARE TO BE REROUTED CONCEALED IN WALL AND/OR CEILING FOR A CLEAN FINISHED SURFACE WITH NO EXPOSED CONDUITS AND/OR WIRING WITHIN THE REMODELED AREA.
 - REMOVE ALL EXISTING EXPOSED CONDUITS, WIRING, ELECTRICAL OUTLETS, DEVICES, AND EQUIPMENT THAT ARE DETERMINED BY THE DISTRICT REPRESENTATIVE/OWNER AND ARCHITECT TO BE NON FUNCTIONAL AND/OR NOT BEING USED FROM WITHIN THE REMODELED AREA FOR A CLEAN FINISHED SURFACE.
 - WHERE EXISTING WIRING OR EQUIPMENT IS ABANDONED AS A RESULT OF THIS CONTRACT, IT SHALL BE REMOVED INsofar AS POSSIBLE. THIS INCLUDES BUT IS NOT LIMITED TO:
 - REMOVE ALL WIRE AND CABLE.
 - REMOVE ALL DEVICES AND EQUIPMENT.
 - REMOVE ALL EXPOSED CONDUIT AND CONDUIT IN ACCESSIBLE CONCEALED AREAS, AS FAR AS POSSIBLE.
 - CUT OFF AND CAP ALL ABANDONED CONDUIT. STUBS SHALL NOT BE PROTRUDED ABOVE FLOOR AND/OR FINISHED WALLS AND CEILINGS.
 - WHEREVER EXISTING ELECTRICAL DEVICES, PANELS, CONDUITS, CABLES, ETC., CONFLICT WITH REMODEL WORK, WHETHER SHOWN OR NOT, RELOCATE THESE ITEMS AS DIRECTED BY THE ARCHITECT AND/OR OWNER/DISTRICT'S REPRESENTATIVE.
 - WHERE SHOWN ON PLAN FOR REMOVAL OF EXISTING CONDUITS, REMOVE ALL PORTIONS OF CONDUITS WHERE IT IS ACCESSIBLE AND ABANDON PORTIONS OF CONDUITS WHERE IT IS INACCESSIBLE. CUT OFF AND CAP ALL ABANDONED CONDUITS. STUBS SHALL NOT BE PROTRUDED ABOVE FLOOR AND/OR FINISHED WALLS AND CEILINGS.
 - CONTRACTOR SHALL UPDATE WITH NEW TYPEWRITTEN PANEL DIRECTORIES TO EXISTING PANELS INVOLVED IN THIS RENOVATION WORK THAT SHALL REFLECT ALL CHANGES TO THE CIRCUIT DESIGNATIONS.
 - PROVIDE AND INSTALL PROTECTIVE COVERING OVER EXISTING EQUIPMENT IN AREA WHEN INSTALLING ANY NEW WORK.
 - COORDINATE WITH OTHER TRADES AND PROMPTLY TRANSMIT ALL INFORMATION REQUIRED BY THEM. COORDINATE THE SEQUENCE OF DEMOLITION WITH OTHER TRADES TO ENSURE THAT ALL WORK PROCEEDS WITH A MINIMUM OF INTERFERENCE AND DELAY.
 - REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR HEATERS, EXHAUST FANS, WATER HEATERS, PUMPS, ETC., WHICH ARE REQUIRED TO BE DISCONNECTED BY THE ELECTRICAL CONTRACTOR FOR REMOVAL OR ABANDONMENT BY THE MECHANICAL AND/OR PLUMBING CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE SEQUENCE OF WORK WITH THE MECHANICAL AND/OR PLUMBING CONTRACTOR FOR REMOVAL OF ALL APPLICABLE STARTERS, DISCONNECT SWITCHES, AND ASSOCIATED CONDUIT, AND WIRING.
 - ALL LIGHT FIXTURES INDICATED AS RELOCATED SHALL BE CLEANED AND RE-LAMPED PRIOR TO THE RE-INSTALLATION.

UNDERGROUND TRENCHING NOTES

- UNDERGROUND TRENCHING:
 - USE EXTREME CAUTION WHEN DIGGING TO AVOID BURIED ELECTRICAL CABLES. CALL UNDERGROUND SERVICE ALERT (U.S.A.) 800-227-2600, 48 HOURS BEFORE DIGGING
 - BEFORE START OF ANY UNDERGROUND TRENCHING FOR CONDUIT RUNS, THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH ALL PLANS OF OTHER TRADES (ARCHITECTURAL, CIVIL, LANDSCAPE), AND SITE CONDITIONS TO AVOID CONFLICT.
 - TRENCHING AND BACKFILLING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS. COORDINATE WITH CIVIL, LANDSCAPE, AND ARCHITECTURAL SITE PLAN PRIOR TO THE TRENCHING, ETC. AND THE INSTALLATION OF THE ELECTRICAL SYSTEM.
 - ALL UNDERGROUND CONDUITS SHALL BE SCHEDULE 40 PVC, UL LISTED FOR DIRECT BURIAL, AND TERMINATED WITH FACTORY END BELL FITTINGS. ALL ELBOWS, BENDS AND TURNS TRANSITIONING TO GRADE SHALL BE INSTALLED USING PER MANUFACTURED 40-MIL PVC COATED GALVANIZED STEEL ELBOWS AND OFFSETS.
 - ALL UNDERGROUND SERVICE CONDUITS SHALL BE SEALED TO COMPLY WITH CEC 230.8.
 - PROVIDE 24" MINIMUM COVERAGE FOR UNDERGROUND CONDUITS, UNLESS OTHERWISE NOTED. THE EXCEPTION IS FOR PG&E SERVICE CONDUITS WHICH SHALL HAVE A 36" MINIMUM BURIAL DEPTH AND BE INSTALLED WITH A RED OXIDE CONCRETE CAP. MAINTAIN 12" MINIMUM SEPARATION BETWEEN THE POWER AND LOW VOLTAGE SYSTEM UNDERGROUND CONDUITS. TRENCHES SHALL ALL BE INSTALLED WITH A RED POLYETHYLENE WARNING RIBBON LABELED "ELECTRICAL", LOCATED 8" BELOW GRADE IN THE TRENCH.
 - PROVIDE UNDERGROUND TRACER WHERE NON-METAL CONDUITS ARE INSTALLED.
 - PROVIDE PARTEX IDENTIFICATION TAGS TO IDENTIFY UNDERGROUND CIRCUITS.
- ALL UNDERGROUND SPLICES SHALL BE MADE WATERPROOF BY PROVIDING WITH "SPlice-KOTE" SPLICE KITS OR OTHER ACCEPTED METHODS. ALL FUSEHOLDERS SHALL BE WATERTIGHT.
- ALL UNDERGROUND RACEWAYS SHALL BE PROVIDED WITH A #8 AWG MINIMUM SIZE COPPER EQUIPMENT GROUNDING CONDUCTOR, WHETHER SHOWN ON PLAN OR NOT, UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE UNDER THIS CONTRACT TO REPAIR AND REPLACE ANY AND ALL DAMAGES TO EXISTING PCC WALKS, AC PAVING, UTILITIES, TREES, TURF, PLANTED AREAS, AND OTHER FACILITIES RESULTING FROM THIS PROJECT. WHEN CUTTING OR TRENCHING THROUGH EXISTING CONCRETE SIDEWALKS, DRIVEWAYS, AND WALKWAYS, THE CONTRACTOR SHALL BE REQUIRED TO COMPLETELY REPLACE ENTIRE SECTIONS OF CONCRETE PANELS FROM SCOREMARK TO SCOREMARK AFFECTED BY THE CONSTRUCTION WORK. ALL SIDEWALKS, DRIVEWAYS, AND WALKWAYS SHALL BE REPLACED TO MATCH ADJACENT CONDITION AND AS DIRECTED BY THE ARCHITECT.

GENERAL NOTES

- ALL GENERAL NOTES SHOWN BELOW ARE NOT NECESSARILY USED ON PLANS IF NOT REQUIRED.
- THESE GENERAL NOTES ARE INTENDED TO ASSIST THE CONTRACTOR IN THE EXECUTION OF THE ELECTRICAL WORK AND TO BE INCLUDED IN CONJUNCTION WITH THE CONTRACT DOCUMENT DRAWINGS AND SPECIFICATION REQUIREMENTS. SOME OF THE GENERAL NOTES ARE EXCERPTS FROM THE SPECIFICATION.
 - PROSECUTE PERMITS AND LICENSES REQUIRED. PAY ALL NECESSARY FEES AND ARRANGE FOR INSPECTIONS REQUIRED BY LOCAL CODES AND ORDINANCES AND UTILITY COMPANIES.
 - COORDINATE ALL ELECTRICAL SERVICES WITH THE RESPECTIVE UTILITY COMPANIES AND PROVIDE ALL TRENCHING, CONDUITS, WIRING, METER FACILITIES AND OUTLETS REQUIRED BY THEM.
 - WORKMANSHIP SHALL BE OF THE HIGHEST GRADE. DEFECTIVE EQUIPMENT OR EQUIPMENT DAMAGED IN THE COURSE OF INSTALLATION OR TEST SHALL BE REPLACED OR REPAIRED IN A MANNER MEETING WITH THE ACCEPTANCE OF THE ARCHITECT.
 - INSTALL ALL EQUIPMENT, CONDUITS, OUTLETS, AND FIXTURES IN STRICT ACCORDANCE WITH THE CURRENT EDITION OF ALL APPLICABLE CODES (CEC, STATE, COUNTY AND CITY).
 - DO NOT SCALE PLANS FOR FIXTURES, DEVICES, OR APPLIANCE LOCATIONS. USE FIGURED DIMENSIONS IF GIVEN OR CHECK MECHANICAL AND ARCHITECTURAL PLANS. ALSO REFER TO ACTUAL ON-SITE CONDITIONS.
 - ALL MATERIAL AND EQUIPMENT IS TO BE LISTED AND INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND CEC 110.3.
 - ALL ELECTRICAL DEVICES AND EQUIPMENT, FIXTURES, CONDUITS AND WIRING SHOWN ON THESE PLANS ARE NEW, UNLESS OTHERWISE NOTED.
 - OUTLET BOXES INSTALLED IN FIRE WALLS SHALL BE ONE-PIECE STEEL AND INSTALLED IN SEPARATE (STAGGERED) STUD PENETRATIONS, MINIMUM 24 INCHES HORIZONTAL SEPARATION. FIRE WALLS SHALL BE MADE IN ACCORDANCE WITH CEC AND ELECTRICAL CODES.
 - THE FINAL LOCATION OF ALL OUTLETS SHALL BE VERIFIED WITH THE ARCHITECT AND/OR OWNER AT TIME OF CONSTRUCTION.
 - ALL OUTDOOR ELECTRICAL EQUIPMENT SHALL BE WEATHER-PROTECTED.
 - CONTRACTOR SHALL VERIFY THAT ALL LIGHTING FIXTURES, CEILING TRIMS, AND FRAMES ARE COMPATIBLE WITH CEILING SYSTEMS INSTALLED.
 - CONTRACTOR SHALL COORDINATE LIGHT FIXTURE LOCATIONS AND INSTALLATIONS WITH THE MECHANICAL CONTRACTOR. MAINTAIN REQUIRED CLEARANCES (MINIMUM 3 INCHES) BETWEEN THE LIGHT FIXTURES AND MECHANICAL DUCTS OR EQUIPMENT FOR PROPER OPERATION, INSTALLATION AND/OR REMOVAL OF FIXTURES.
 - BEFORE SUBMITTING FOR ARCHITECT'S REVIEW AND PLACING ORDER FOR THE LIGHT FIXTURES, THE CONTRACTOR SHALL VERIFY THE VOLTAGE OF ALL THE LIGHTING FIXTURES TO MATCH THE VOLTAGE OF THE SERVICE PANEL, WHETHER THE VOLTAGE FOR THE LIGHT FIXTURES ARE SHOWN ON THE PLAN OR NOT.
 - PLACEMENT AND CIRCUITING OF EXIT SIGNS AND EGRESS LIGHTING SHALL COMPLY WITH CBC REQUIREMENTS.
 - ALL CONDUIT SHALL BE ROUTED CONCEALED UNLESS NOTED ON PLAN OR ACCEPTED BY THE ARCHITECT.
 - PROVIDE ALL NECESSARY SLEEVES AND INSERTS FOR ALL WORK PASSING THROUGH OR ATTACHING TO WALLS, FLOORS, OR CEILINGS.
 - ALL WIRING SHALL BE INSTALLED IN RIGID METALLIC CONDUIT, UNLESS OTHERWISE NOTED. CONDUITS INSTALLED CONCEALED IN WALL AND CEILING MAY BE EMT WITH STEEL COMPRESSION TYPE FITTINGS. PVC WHERE INSTALLED UNDERGROUND AND/OR UNDER SLAB. ALL EXPOSED CONDUITS SHALL BE RIGID STEEL CONDUITS WITH THREADED TYPE FITTINGS. INSTALL ALL CONDUITS IN ACCORDANCE WITH CEC STANDARDS OF INSTALLATION.
 - ELECTRICAL NON-METALLIC TUBING (ENT) AND MC CABLE ARE NOT PERMITTED TO BE USED FOR THIS PROJECT, NO EXCEPTIONS.
 - WHERE EXISTING CONDUITS, CONCEALED OR EXPOSED, AND (WIREFOLD) SURFACE RACEWAY IS NOT IN PLACE AS SHOWN ON PLANS, PROVIDE NEW CONDUITS AND (WIREFOLD) SURFACE RACEWAY FOR THE NEW WORK. VERIFY EXISTING CONDITION ON SITE AND PROVIDE ALL NECESSARY NEW MATERIAL, APPARATUS, AND WORK THAT ARE REQUIRED TO BE INCLUDED IN THE BID PACKAGE.
 - CONDUCTORS, #8 AND LARGER, SHALL BE STRANDED COPPER WITH THHN/THWN INSULATION, UNLESS OTHERWISE NOTED.
 - PROVIDE WORKING CLEARANCE PER CEC 110.26 FOR SERVICE PANEL, SUBPANELS, MOTOR DISCONNECT SWITCHES, CONTROL SECTIONS, HVAC EQUIPMENT, APPLIANCES, ETC.
 - PROVIDE A WARNING LABEL (SIGN) CLEARLY VISIBLE TO QUALIFIED PERSONS TO COMPLY WITH NEC AND CEC 116.16 OF POTENTIAL ELECTRIC ARC FLASH HAZARDS AT SWITCHBOARDS, PANELBOARDS, INDUSTRIAL CONTROL PANELS AND MOTOR CONTROL CENTERS THAT ARE LIKELY TO REQUIRE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE WHILE ENERGIZED. SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED WITH THE MAXIMUM AVAILABLE FAULT CURRENT PER CEC SECTION 110.24(A).
 - BUILDING SERVICE AND SUBPANELS TO COMPLY WITH CEC 110.9 AND 110.10 INTERRUPTING RATING AND BRACING. PROVIDE A.I.C. CALCULATIONS FOR SUBPANELS IF INTERRUPTING RATING TO BE USED IS LOWER THAN MAIN SERVICE RATING.
 - ALL APPLIANCES SHALL COMPLY WITH CEC ARTICLE 422. APPLIANCE CONTROL AND PROTECTION PER CEC 422-III; BRANCH CIRCUITS PER 422-II.
 - BUILDING EXPANSION JOINTS MAY OR MAY NOT BE INDICATED ON THE ELECTRICAL DRAWINGS. VERIFY THE LOCATIONS OF ALL APPLICABLE BUILDING EXPANSION JOINTS WITH THE ARCHITECTURAL DRAWINGS. WIRING METHODS ACROSS EXPANSION JOINTS SHALL INCLUDE USE OF FLEXIBLE FITTINGS OR OTHER DEVICES AS APPROPRIATE TO EACH APPLICATION. IN NO CASE SHALL CONDUIT CROSS SUCH A JOINT IN BUILDING CONSTRUCTION WITHOUT USE OF THE APPROPRIATE WIRING METHODS.
 - CONTRACTOR SHALL SIZE ALL THE INTERIOR AND EXTERIOR BUILDING PULL BOXES AND UNDERGROUND PULL BOXES PER CEC 314.16 AND COMPLY WITH CEC 314.28 FOR INSTALLATION OF RACEWAYS AND WIRING AS REQUIRED BY CODE, UNLESS OTHERWISE NOTED.
 - WHERE ACCESSIBILITY IS NOT AVAILABLE TO ELECTRICAL OUTLETS, DEVICES AND/OR EQUIPMENT, COORDINATE WITH THE ARCHITECT FOR PROVISIONS TO PROVIDE ACCESSIBILITY TO THEM.
 - CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE MECHANICAL DRAWINGS AND PROVIDES ALL CONDUITS AND CONTROL WIRING AND POWER WIRING SHOWN ON THE MECHANICAL DRAWINGS THAT IS NOT SHOWN ON THE ELECTRICAL PLANS.
 - CONTRACTOR SHALL REFER TO THE MECHANICAL DRAWINGS AND COORDINATE FOR THE EQUIPMENT LOCATIONS. COORDINATE ROOF PENETRATION WITH THE MECHANICAL CONTRACTOR FOR MECHANICAL CONNECTIONS. ENTER ROOF MOUNTED UNITS THROUGH EQUIPMENT MOUNTING CURBS WHERE POSSIBLE. VERIFY ON-SITE.
 - PROVIDE CONVENIENCE OUTLET WITHIN 25 FEET OF MECHANICAL EQUIPMENT PER U.M.C. WHERE LOCATED OUTSIDE. PROVIDE WEATHER PROOF AND GFCI CONVENIENCE OUTLET. SECURE ROOF MOUNTED OUTLET TO THE MECHANICAL EQUIPMENT. VERIFY LOCATION IN FIELD WITH THE MECHANICAL CONTRACTOR.
 - VERIFY SINGLE-POINT CONNECTIONS TO ROOF MOUNTED HVAC UNITS WITH MECHANICAL CONTRACTOR ON-SITE PRIOR TO ELECTRICAL ROUGH-IN. PROVIDE DUAL DISCONNECTS IF TWO-POINT CONNECTIONS ARE REQUIRED, WHETHER SHOWN ON PLANS OR NOT.
 - SWITCH DEVICES CONTROLLING MECHANICAL EQUIPMENT SHALL BE SIZE AND TYPE REQUIRED AND SHALL BE SERVED WITH QUANTITY OF WIRES AS REQUIRED. REFER TO DIVISION 23 MECHANICAL PLANS AND SPECIFICATIONS.
 - COORDINATE THE HVAC EQUIPMENT FOR FUSES REQUIRE. WHERE FUSES ARE REQUIRED, VERIFY FUSE SIZE ON-SITE AND PROVIDE FOR HVAC EQUIPMENT PER UNIT NAMEPLATE SPECIFICATIONS.
 - MOTOR DISCONNECT SWITCHES SHALL COMPLY WITH CEC 430-IX AND 440.II.
 - MOTOR STARTERS FOR HVAC EQUIPMENT ARE PROVIDED BY MECHANICAL CONTRACTOR AND CONNECTED BY ELECTRICAL CONTRACTOR, UNLESS NOTED OTHERWISE.
 - ALL CONNECTIONS FROM THE DISCONNECT SWITCHES TO HVAC UNITS SHALL BE COPPER CONDUCTORS. MOTOR DISCONNECT SWITCHES SHALL COMPLY WITH CEC 430-VII, 430-VIII, AND 440-III.
 - VERIFY LOCATION AND HEIGHT OF ALL MECHANICAL OR FIXTURE EQUIPMENT OUTLETS WITH SUPPLIER PRIOR TO ANY ROUGH-IN WORK. PROVIDE ALL RUNS AND CONNECTIONS TO EQUIPMENT.
 - ALL TERMINATION PROVISIONS OF EQUIPMENT, INCLUDING CIRCUITS RATED 100 AMPERES OR LESS, SHALL BE RATED AT 60 DEGREE, CENTIGRADE PER CEC 110.14(c).
 - ALL LIGHT FIXTURES INSTALLED OVER FOOD HANDLING OR FOOD PREPARATION AREAS, OPEN FOOD STORAGE AND UTENSIL WASHING AREAS SHALL BE OF SHATTERPROOF CONSTRUCTION OR SHALL BE PROTECTED WITH SHATTERPROOF SHIELDS AND SHALL BE READILY CLEANABLE.
 - ALL CONDUITS SHALL BE CONCEALED BELOW SLAB, IN WALLS AND/OR ABOVE CEILINGS EXCEPT IN ELECTRICAL ROOMS, MECHANICAL ROOMS, AND OTHER SIMILAR UTILITY ROOMS AS APPROVED BY THE ARCHITECT. NO CONDUIT SHALL BE EXPOSED ON EXTERIOR BUILDING SURFACES WITHOUT PRIOR APPROVAL FROM THE ARCHITECT.
 - PROVIDE A CODE SIZED GROUND CONDUCTOR IN ALL CONDUITS WHETHER INDICATED ON PLANS OR NOT.

ELECTRICAL ABBREVIATIONS

ABBREV	DESCRIPTIONS	ABBREV	DESCRIPTIONS
A, AMP	AMPERES	MAX	MAXIMUM
AC	ACROSS COUNTER	MC	METAL-CLAD CABLE
AF/AT	AMPERE FRAME / AMPERE TRIP	MCA	MINIMUM CIRCUIT AMPACITY
AFCI	ARC FAULT CIRCUIT INTERRUPTER	MCB	MAIN CIRCUIT BREAKER
AFF	ABOVE FINISHED FLOOR	MCC	MOTOR CONTROL CENTER
AHJ	AUTHORITY HAVING JURISDICTION	MGB	MAIN GROUND BAR
AIC	AMPERE INTERRUPTING CAPACITY	MG SET	MOTOR-GENERATOR SET
AL	ALUMINUM	MLO	MAIN LUGS ONLY
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	MOC	MAXIMUM OVERCURRENT PROTECTION
AS/AF	AMPERE SWITCH / AMPERE FUSE	MPOE	MINIMUM POINT OF ENTRY
AT	AMPERE TRIP RATING OF BREAKER	MS	MOTION SENSOR
AUTO	AUTOMATIC	MSB	MAIN SWITCHBOARD
ATS	AUTOMATIC TRANSFER SWITCH	MTD	MOUNTED
AWG	AMERICAN WIRE GAUGE	MTS	MANUAL TRANSFER SWITCH
BMS	BUILDING MANAGEMENT SYSTEM	MV	MEDIUM VOLTAGE CABLE
C, CDT	CONDUIT	MW	MEGAWATTS
CATV	COMMUNITY ANTENNA TELEVISION	(N)	NEW
CB	CIRCUIT BREAKER	NECA	NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION
CEC	CALIFORNIA ELECTRICAL CODE	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
CFL	COMPACT FLUORESCENT	NIC	NOT IN CONTRACT
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED	NL	NIGHT LIGHT
CKT	CIRCUIT	NRTL	NATIONALLY RECOGNIZED TESTING LABORATORIES
cmil	CIRCULAR MIL	NTS	NOT TO SCALE
CO	CONDUIT ONLY w/PULL STRING	OC	ON CENTER
CSFM	CALIFORNIA STATE FIRE MARSHALL	OCPPD	OVERCURRENT PROTECTIVE DEVICE
CT	CURRENT TRANSFORMER	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
CJ	COPPER	OFOI	OWNER FURNISHED, OWNER INSTALLED
DET	DETAIL	PH, P	PHASE OR POLE
DISC	DISCONNECT	PB	PULL BOX
DIST	DISTRIBUTION	PF	POWER FACTOR
DWG	DRAWING	PFB	PROVIDER FOR FUTURE BREAKER
EC	ELECTRICAL CONTRACTOR	PIV	POST INDICATOR VALVE
ECC	EQUIPMENT GROUNDING CONDUCTOR	PLC	PROGRAMMABLE LOGIC CONTROLLERS
ELEV, EL	ELEVATION	PNL	PANEL
EM, EMERG	EMERGENCY	PoE	POWER OVER INTERNET
EMT	ELECTRICAL METALLIC TUBING	PV	PHOTOVOLTAICS
ENT	ELECTRICAL NONMETALLIC TUBING	PVC	POLYVINYL CHLORIDE
EOL	END OF LINE RESISTOR	R	POWER
EPO	EMERGENCY POWER OFF	(R)	RELOCATED
EQPT	EQUIPMENT	RCP	REFLECTED CEILING PLAN
EV	ELECTRIC VEHICLE	REC, RECP	RECEPTACLE
EVS	ELECTRIC VEHICLE SUPPLY EQUIPMENT	REQD	REQUIRED
EXH	EXHAUST	RGSC	RIGID GALVANIZED STEEL CONDUIT
(E)	EXISTING	RMC	RIGID METAL CONDUIT
(F)	FUTURE	RMS	ROOT-MEAN-SQUARE
FACP	FIRE ALARM CONTROL PANEL	SCADA	SUPERVISORY CONTROL AND DATA ACQUISITION
FBO	FURNISHED BY OTHERS	SCR	SILICON CONTROLLED RECTIFIER
FF	FINISHED FLOOR	SHLD	SHIELDED
FG	FINISHED GRADE	SPD	SURGE-PROTECTIVE DEVICE
FLA	FULL LOAD AMPS	SPECS	SPECIFICATIONS
FLEX	FLEXIBLE	SW	SWITCH
FLUOR	FLUORESCENT	T, XFMR	TRANSFORMER
FMC	FLEXIBLE METAL CONDUIT	TEMP	TEMPORARY
FMT	FLEXIBLE METAL TUBING	THHN	THERMOPLASTIC, HEAT RESISTANT CABLE, NYLON
GEC	GROUNDING ELECTRODE CONDUCTOR	THWN	THERMOPLASTIC, HEAT AND MOISTURE RESISTANT
GFCI	GROUND-FAULT CURRENT INTERRUPTER		CABLE, NYLON JACKET OUTER SHEATH
GFCPE	GROUND-FAULT PROTECTION OF EQUIPMENT		TAMPER-RESISTANT
OFFE	OFFER	TR	TAMPER SWITCH
GND	GROUND	TS/TAT	THERMOSTAT
HID	HIGH INTENSITY DISCHARGE	TYP	TYPICAL
HP	HORSEPOWER	UG	UNDERGROUND
HVAC	HEATING, VENTILATION & AIR CONDITIONING	UGPS	UNDERGROUND PULL SECTION
Hz	HERTZ (cycle per second)	UL	UNDERWRITERS LABORATORIES
IEEC	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS	UNO	UNLESS NOTED OTHERWISE
IG	ISOLATED GROUND	UPS	UNINTERRUPTIBLE POWER SUPPLY
IMC	INTERMEDIATE METAL CONDUIT	USB	UNIVERSAL SERIAL BUS
ISC, SC	SHORT CIRCUIT	VFD	VARIABLE FREQUENCY DRIVE
ISOL	ISOLATED	V	VOLTS
JBOX	JUNCTION BOX	VA	VOLT-AMPERE
1000th	ONE THOUSAND CIRCULAR MILS	Vac	VOLTS ALTERNATING CURRENT
kv	KILOVOLTS	Vdc	VOLTS DIRECT CURRENT
kw	KILOWATTS	VNEM	VIRTUAL NET ENERGY METERING
LED	LIGHT-EMITTING DIODE	W	WATTS
LCP	LIGHTING CONTROL PANEL	W-hr	WATT-HOUR
LPG	LIQUEFIED PETROLEUM GAS	w/	WITH
LRC	LOCKED-ROTOR CURRENT	WP	WEATHERPROOF
LTG	LIGHTING	WPL	WEATHERPROOF LOCKING
		WPU	WEATHERPROOF WHILE IN USE
		WR	WEATHER RESISTANT
		(X)	REMOVE OR DEMO

ELECTRICAL SHEET INDEX

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E1.13	ELECTRICAL LIGHTING SITE PLAN
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E8.01	ELECTRICAL DETAILS

AGENCY APPROVAL:



HMC Architects

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ISSUE	DESCRIPTION	DATE



FACILITY: MATSUYAMA ELEMENTARY SCHOOL 7680 WINBRIDGE DR. SACRAMENTO, CA 95831

PROJECT: MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME: ELECTRICAL NOTES

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000

SHEET: E0.01

ELECTRICAL SYMBOL LEGEND			
ALL SYMBOLS SHOWN IN THIS LEGEND ARE NOT NECESSARILY USED ON PLANS IF NOT REQUIRED.			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
POWER			
	MAIN SWITCHBOARD OR DISTRIBUTION BOARD, PAD OR FLOOR MOUNTED AS NOTED.		LED LUMINAIRE - T-BAR LAY-IN
	RECESSED MOUNTED LIGHTING OR DISTRIBUTION PANEL		LED LUMINAIRE - RECESSED IN GYPBOARD
	SURFACE MOUNTED LIGHTING OR DISTRIBUTION PANEL		LED LUMINAIRE - SURFACE
	RECESSED TERMINAL CABINET WITH 3/4" PLYWOOD BACKBOARD, DUPLEX RECEPTACLE & #6 CU GND, UNO.		LED LUMINAIRE - SUSPENDED
	SURFACE MOUNTED TERMINAL CABINET WITH 3/4" PLYWOOD BACKBOARD, DUPLEX RECEPTACLE & #6 CU GND, UNO.		LED STRIP LIGHT - SURFACE OR SUSPENDED
	DISTRIBUTION TRANSFORMER, MOUNTING AND SIZE AS NOTED		LED LANIER LIGHT - WALL
	NON-FUSED DISCONNECT SWITCH		DOWNLIGHT LUMINAIRE - RECESSED
	ENCLOSED CIRCUIT BREAKER DISCONNECT SWITCH		WALLWASH LUMINAIRE - RECESSED
	FUSED DISCONNECT SWITCH; SIZE DISCONNECT AND FUSES PER UNIT LABEL		LUMINAIRE - SURFACE
	NON-FUSED / FUSED DISCONNECT; SEE DISCONNECT SWITCH SCHEDULE		LUMINAIRE - WALL
	MOTOR STARTER/CONTROLLER		LUMINAIRE - PENDANT
	COMBINATION CIRCUIT BREAKER DISCONNECT/MOTOR STARTER		TRACK LIGHT - SUSPENDED OR SURFACE MOUNTED
	COMBINATION FUSIBLE DISCONNECT/MOTOR CONTROLLER; PROVIDE FUSES PER MANUFACTURER'S REQUIREMENTS. N.F. INDICATES NON-FUSED.		CONTINUOUS LINEAR LED TAPE OR LED COVE LIGHT
	POWER POINT OF CONNECTION		HATCHED LUMINAIRE INDICATES AN EMERGENCY LUMINAIRE CONNECTED TO A EMERGENCY POWER DISTRIBUTION SYSTEM, OR INTEGRAL EMERGENCY BATTERY BACKUP.
	DUPLEX RECEPTACLE OUTLET 20A, 125V, @ +16" TO BOTTOM OF BOX, UNO. SPLIT-WIRED CIRCUIT, TOP RECEPTACLE SWITCHED CONTROLLED.		SINGLE FACE EXIT SIGN. SEE LIGHTING FIXTURE SCHEDULE FOR SPECIFICATION.
	DUPLEX RECEPTACLE OUTLET 20A, 125V, @ +16" TO BOTTOM OF BOX, UNO.		DOUBLE FACE EXIT SIGN. SEE LIGHTING FIXTURE SCHEDULE FOR SPECIFICATION.
	DUPLEX RECEPTACLE OUTLET 20A, 125V, WITH "LC" LOCKING COVER @ +16" TO BOTTOM OF BOX, UNO.		DIRECTIONAL ARROW AS INDICATED ON PLANS. (CEILING OR WALL)
	DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER TOP AND/OR SINK BACKSPLASH. [1]		COMBINATION EMERGENCY EXIT SIGN WITH DUAL HEAD LIGHTS WITH EMERGENCY BATTERY BACK-UP.
	ISOLATED GROUND DUPLEX RECEPTACLE, 20A, 125V @ +16" TO BOTTOM OF BOX, UNO.		BATTERY POWERED EMERGENCY EGRESS LUMINAIRE - SURFACE MOUNTED
	DEDICATED DUPLEX RECEPTACLE OUTLET 20A, 125V, @ +16" TO BOTTOM OF BOX, UNO.		SPOT/FLOOD LUMINAIRE - GROUND MOUNTED. FOR BLDG WALL MOUNTED AS WELL.
	GFCI DUPLEX RECEPTACLE OUTLET 20A, 125V, @ +16" TO BOTTOM OF BOX, UNO.		EXTERIOR POLE FIXTURE - SINGLE HEAD
	GFCI DUPLEX RECEPTACLE OUTLET 20A, 125V, WITH "LC" LOCKING COVER @ +16" TO BOTTOM OF BOX, UNO.		EXTERIOR POLE FIXTURE - TWIN HEAD
	GFCI DUPLEX RECEPTACLE OUTLET MOUNTED ABOVE COUNTER TOP AND/OR SINK BACKSPLASH.[1]		EXTERIOR PATHWAY POST TOP POLE FIXTURE
	ISOLATED GROUND GFCI DUPLEX RECEPTACLE 20A, 125V @ +16" TO BOTTOM OF BOX, UNO.		BOLLARD FIXTURE
	DEDICATED GFCI DUPLEX RECEPTACLE OUTLET 20A, 125V, @ +16" TO BOTTOM OF BOX, UNO.		STEP LUMINAIRE
	DOUBLE DUPLEX RECEPTACLE OUTLET 20A, 125V, @ +16" TO BOTTOM OF BOX, UNO.		LIGHTING CONTROLS
	DOUBLE DUPLEX MOUNTED ABOVE COUNTER TOP AND/OR SINK BACKSPLASH. [1]		SINGLE POLE TOGGLE SWITCH, 20A, 120-277V @ +46" TO TOP OF BOX, UNO.
	ISOLATED GROUNDED DOUBLE DUPLEX RECEPTACLE 20A, 125V @ +16" TO BOTTOM OF BOX, UNO.		THREE WAY TOGGLE SWITCH 20A,120-277V @ +46" TO TOP OF BOX, UNO.
	DEDICATED DOUBLE DUPLEX RECEPTACLE OUTLET 20A, 125V, @ +16" TO BOTTOM OF BOX, UNO.		SUBSCRIPTS "a,b,c" DESIGNATE THE QUANTITY OF SWITCHES AT EACH LOCATION (TYPICAL FOR ALL SWITCH TYPES).
	CONTROLLED/UNCONTROLLED DOUBLE DUPLEX RECEPTACLE		SINGLE POLE KEYED BARREL SWITCH 20A, 120-277 @ +46" TO TOP OF BOX, UNO.
	GFCI DOUBLE DUPLEX RECEPTACLE OUTLET 20A, 125V, @ +16" TO BOTTOM OF BOX, UNO.		PUSH BUTTON
	GFCI DOUBLE DUPLEX RECEPTACLE OUTLET MOUNTED ABOVE COUNTER TOP AND/OR SINK BACKSPLASH. [1]		WALL DIMMER SEE CONTROL DRAWINGS FOR TYPE.
	ISOLATED GROUND GFCI DOUBLE DUPLEX RECEPTACLE OUTLET 20A, 125V, @ +16" TO BOTTOM OF BOX, UNO.		DIGITAL WALL CONTROL OVERRIDE SWITCH. RUN CABLING BACK TO LIGHTING CONTROL PANEL
	DEDICATED GFCI DOUBLE DUPLEX RECEPTACLE OUTLET 20A, 125V, @ +16" TO BOTTOM OF BOX, UNO.		OCCUPANCY SENSOR. SEE OCCUPANCY SENSOR & CONTROL SCHEDULE AND CONTROL DRAWINGS FOR TYPE.
	SPECIAL RECEPTACLE OUTLET, SIZE AND NEMA CONFIGURATION AS NOTED, MOUNTED @ +16" TO BOTTOM OF BOX, UNO.		CORNER MOUNT MOTION SENSOR. DUAL TECHNOLOGY. PIR OR ULTRASONIC. SEE OCCUPANCY SENSOR & CONTROL SCHEDULE AND CONTROL DRAWING FOR TYPE.
	FLOOR MOUNTED DUPLEX RECEPTACLE, 20A, 125V FLUSH IN FINISHED FLOOR		PHOTOCONTROL DAYLIGHT SENSOR. SEE OCCUPANCY SENSOR & CONTROL SCHEDULE AND CONTROL DRAWINGS FOR TYPE.
	FLOOR MOUNTED DOUBLE DUPLEX RECEPTACLE, 20A, 125V FLUSH IN FINISHED FLOOR		TAGS
	CEILING MOUNTED DUPLEX RECEPTACLE, 20A, 125V		KEYNOTE SHOWN ON SAME SHEET
	CEILING MOUNTED DOUBLE DUPLEX RECEPTACLE, 20A, 125V		LIGHT FIXTURE TAG: FIXTURE TAG, PANEL, CIRCUIT NUMBER, SWITCH LEG
	THERMAL OVERLOAD SWITCH		FEEDER DESIGNATION TAG
	MOTOR RATED SWITCH		FOOD SERVICE EQUIPMENT DESIGNATION TAG
	WALL MOUNTED JUNCTION BOX - SIZE AS REQUIRED BY CODE.		DETAIL DESIGNATION: TOP LETTER INDICATES DETAIL, BOTTOM LETTER/NUMBER INDICATES SHEET
	CEILING MOUNTED JUNCTION BOX - SIZE AS REQUIRED BY CODE.		MECHANICAL EQUIPMENT I.D. TAG - MP&S
	FLOOR MOUNTED JUNCTION BOX - SIZE AS REQUIRED BY CODE.		ONE LINE DIAGRAM
	PLUGMOLD		PANEL IDENTIFICATION
	POWER POLE		CIRCUIT BREAKER
	FLOOR MOUNTED COMBO DUPLEX RECEPTACLE / TELEPHONE/DATA		FUSED SWITCH
	FLOOR MOUNTED COMBO DOUBLE DUPLEX RECEPTACLE / TELEPHONE/DATA		GROUND FAULT CIRCUIT INTERRUPTER
	PRODUCTION LIGHTING DEVICE		GROUND
	ELECTRIC VEHICLE CHARGING STATION, DUAL PORT & SINGLE PORT		UNDERGROUND TERMINATION SERVICE LUG
	CIRCUITS		UTILITY METER WITH CURRENT TRANSFORMER COMPARTMENT METER SOCKET
	STUB		CUSTOMER-OWNED MULTIFUNCTION METER WITH CURRENT TRANSFORMERS
	CONDUIT RISER - UP		MOTOR
	CONDUIT DROP - DOWN		TRANSFORMER WITH GROUND
	CONDUIT CONCEALED IN CEILING OR WALL.		UFER GROUND
	CONDUIT CONCEALED IN UNDERFLOOR OR UNDERGROUND		BOND TO COLD WATER PIPE, GAS PIPE, BUILDING STEEL
	EXISTING CONDUIT TO REMAIN.		AUTOMATIC TRANSFER SWITCH
	CONDUIT & CONDUCTORS FOR LOW VOLTAGE MOTION SENSORS		NEUTRAL LINK
	EXISTING CONDUIT & CONDUCTORS TO REMAIN FOR LOW VOLTAGE MOTION SENSORS		SURGE PROTECTIVE DEVICE
	EXISTING CONDUIT AND/OR CONDUCTORS TO BE REMOVED. UNDERGROUND CONDUIT MAY BE ABANDONED IN PLACE.		
	HOMERUN TO PANELBOARD OR TERMINAL CABINET WITH CONDUCTORS AS NOTED		
	CIRCUIT CONDUCTORS: LONG TICK INDICATES NEUTRAL CONDUCTOR; SHORT TICKS INDICATE PHASE CONDUCTORS; CURVED TICK INDICATES EQUIPMENT GROUNDING CONDUCTOR; ADDITIONAL CURVED TICK INDICATES ISOLATED GROUNDING CONDUCTOR. NUMBER BY TICKS INDICATE WIRE GAUGE OTHER THAN 12 AWG CU. NO TICKS INDICATE 2#12 CU, 1#12 CU GND, IN 1/2" CONDUIT. OTHERS AS NOTED ON PLAN. NOTE: PROVIDE A CODE SIZED EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS FOR THIS PROJECT, WHETHER SHOWN ON PLAN OR NOT.		
	FLEXIBLE CONDUIT, 6"-0" LONG MAX. WITH #12 CU GROUND, UNO.		
	LEADERS		
	BRACKET		
	LEADERS		
FOOTNOTE: [1] PROVIDE 44" MAX. TO TOP OF BOX AT AREAS WITH FORWARD ACCESSIBLE APPROACH KNEE CLEARANCE, OR PROVIDE 46" MAX. TO TOP OF BOX AT AREAS WITH PARALLEL ACCESSIBLE APPROACH (PER CBC 11B-308).			

AGENCY APPROVAL:



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PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
ELECTRICAL LEGENDS

DSA SUBMITTAL

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000

SHEET:

E0.02