US Army Corps
of Engineers®

*The **CAD/BIM** Technology Center*
for Facilities, Infrastructure, and Environment

A/E/C Details Guide

Version 1.0

The A/E/C Details Guide is a Department of Defense (DoD) implementation of various industry and national standards, including but not limited to, the U.S. National CAD Standard®(NCS); the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE); and the National Fire Protection Association **(NFPA)**.

The A/E/C Details Guide and Associated resource files contain Supplemental materials and DoD Specific requirements/interpretations not addressed in industry/national Standards.

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Table of Contents

Introduction..... Page 1.1

Details

02_Hazardous Materials D201 – Plumbing Fixtures .....Page 2.1
02_Hazardous Materials D603 – Supports .....Page 2.2
02_Hazardous Materials G104 – Hazardous Waste Remediation ..... Page 2.3
02_Hazardous Materials G301 – Water Supply ..... Page 2.53
02_Hazardous Materials G309 - Other Site Mechanical Utilities ..... Page 2.65
02_Hazardous Materials G902 – Other Site Systems and Equipment..... Page 2.102
05_Civil G103 – Site Earthwork ..... Page 2.111
05_Civil G201 - Roadways ..... Page 2.117
05_Civil G202 – Parking Lots .....Page 2.142
05_Civil G203 - Pedestrian Paving ..... Page 2.150
05_Civil G204 – Site Development ..... Page 2.156
05_Civil G301 – Water Supply ..... Page 2.203
05_Civil G302 - Sanitary Sewer ..... Page 2.206
05_Civil G303 – Storm Sewer ..... Page 2.211
05_Civil G305 – Cooling Distribution ..... Page 2.227
05_Civil G306 – Fuel Distribution .....Page 2.228
05_Civil G402 – Site Lighting ..... Page 2.229
06_Landscape G203 – Pedestrian Paving ..... Page 2.235
06_Landscape G204 – Site Development ..... Page 2.237
06_Landscape 205 – Landscaping ..... Page 2.241
07_Structural A101 – Standard Foundations ..... Page 2.249
07_Structural B101 – Floor Construction ..... Page 2.260
07_Structural B102 – Roof Construction ..... Page 2.263
07_Structural B103 – Typical Structural ..... Page 2.305
07_Structural B201 – Exterior Walls ..... Page 2.424
07_Structural B203 – Exterior Doors ..... Page 2.428
07_Structural C303 – Ceiling Finishes ..... Page 2.430
07_Structural F101 – Special Structures ..... Page 2.431
07_Structural G103 – Site Earthwork ..... Page 2.437
08_Architectural B201 – Exterior Walls ..... Page 2.438
08_Architectural B202 – Exterior Windows ..... Page 2.470
08_Architectural B203 – Exterior Doors ..... Page 2.498
08_Architectural B301 – Roof Coverings ..... Page 2.581
08_Architectural C101 – Interior Partitions ..... Page 2.632
08_Architectural C102 – Interior Doors ..... Page 2.717
08_Architectural C103 – Interior Specialties ..... Page 2.747
08_Architectural C201 – Stair Construction ..... Page 2.770
08_Architectural C202 – Stair Finishes ..... Page 2.793
08_Architectural C302 – Interior Floor Finishes ..... Page 2.794
08_Architectural C303 – Interior Ceiling Finishes ..... Page 2.805
08_Architectural D403 – Fire Protection Specialties ..... Page 2.824
08_Architectural E103 – Vehicular Equipment ..... Page 2.830
08_Architectural E201 – Fixed Furnishings ..... Page 2.832
09_Interiors C103 – Interior Specialties ..... Page 2.851
09_Interiors C202 – Stair Finishes ..... Page 2.871
09_Interiors D201 – Plumbing Fixtures ..... Page 2.873
09_Interiors E101 - Commercial Equipment ..... Page 2.874
09_Interiors E109 – Other Equipment ..... Page 2.876
09_Interiors E201 – Fixed Furnishings ..... Page 2.882
09_Interiors E202 – Movable Furnishings ..... Page 2.886

Details Continued

10_Fire Protection D401 – Sprinkler Systems ..... Page 2.892
10_Fire Protection D409 – Special Systems ..... Page 2.899
11_Plumbing D201 – Plumbing Fixtures ..... Page 2.915
11_Plumbing D202 - Domestic Water Distribution ..... Page 2.945
11_Plumbing D203 – Sanitary Sewer Systems ..... Page 2.985
11_Plumbing D204 – Rainwater Drainage Systems ..... Page 2.1011
11_Plumbing D205 – Special Systems ..... Page 2.1014
11_Plumbing D206 – Compressed Air Systems ..... Page 2.1032
12_Mechanical D103 – Material Handling ..... Page 2.1045
12_Mechanical D301 – Fuel Energy Supply Systems ..... Page 2.1049
12_Mechanical D302 – Heat Generation Systems ..... Page 2.1050
12_Mechanical D303 – Heat Rejection Systems ..... Page 2.1086
12_Mechanical D304 – Heat Distribution Systems ..... Page 2.1092
12_Mechanical D305 – Heat Transfer ..... Page 2.1243
12_Mechanical D306 – HVAC Controls and Instrumentation ..... Page 2.1279
12_Mechanical D309 – Special HVAC Systems and Equipment ..... Page 2.1287
12_Mechanical D601 – Fuels and Lubricants ..... Page 2.1289
12_Mechanical D602 – Auxiliary Emergency Power ..... Page 2.1301
12_Mechanical D603 – Supports ..... Page 2.1307
12_Mechanical E103 – Vehicular Equipment ..... Page 2.1340
12_Mechanical G202 – Parking Lots ..... Page 2.1341
12_Mechanical G301 – Water Supply ..... Page 2.1342
12_Mechanical G302 – Sanitary Sewer ..... Page 2.1350
12_Mechanical G304 – Heat Distribution Systems ..... Page 2.1351
13_Electrical D501 - Service and Distribution ..... Page 2.1399
13_Electrical D502 - Lighting and Branch Wiring ..... Page 2.1425
13_Electrical D504 - Special Electrical Systems ..... Page 2.1607
13_Electrical D505 - Electrical Controls ..... Page 2.1627
14_Telecommunications D503 – Telecommunications ..... Page 2.1629

Introduction

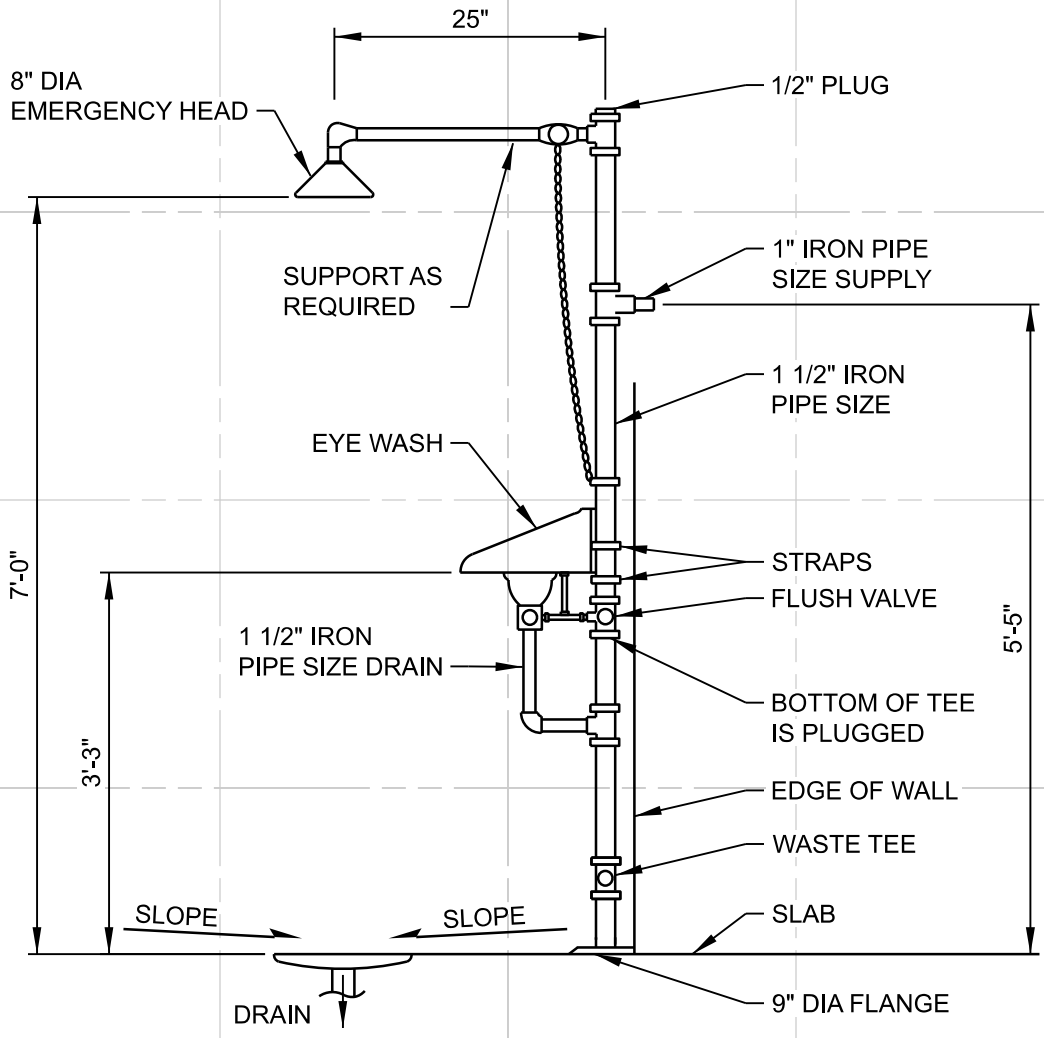
This document is a descriptive list of all the Details contained in the A/E/C Work Structure.

Details: each image shows three items:

1. The graphics showing what the detail looks like on a drawing.
2. The name of the Detail.
3. The detail library that contains the detail.

The Details are organized by Discipline and UniFormat division number and are placed in their respective library. Each detail is only listed once. The details are designed to be placed in Sheet models in a 1.5”x1.5” grid. The majority of the Details not to scale and are intended to be edited for the respective project in which they are placed. The Drawing Block Titles are designed to use fields and be linked to their respective callouts.

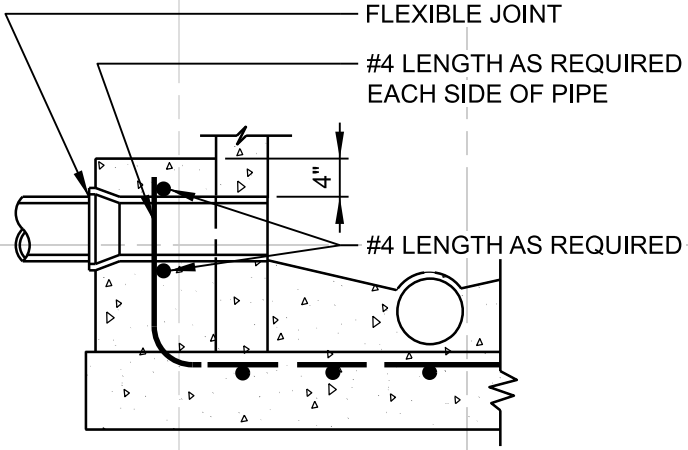
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A1

DETAIL: EMERGENCY SHOWER AND EYE WASH

SCALE: NTS

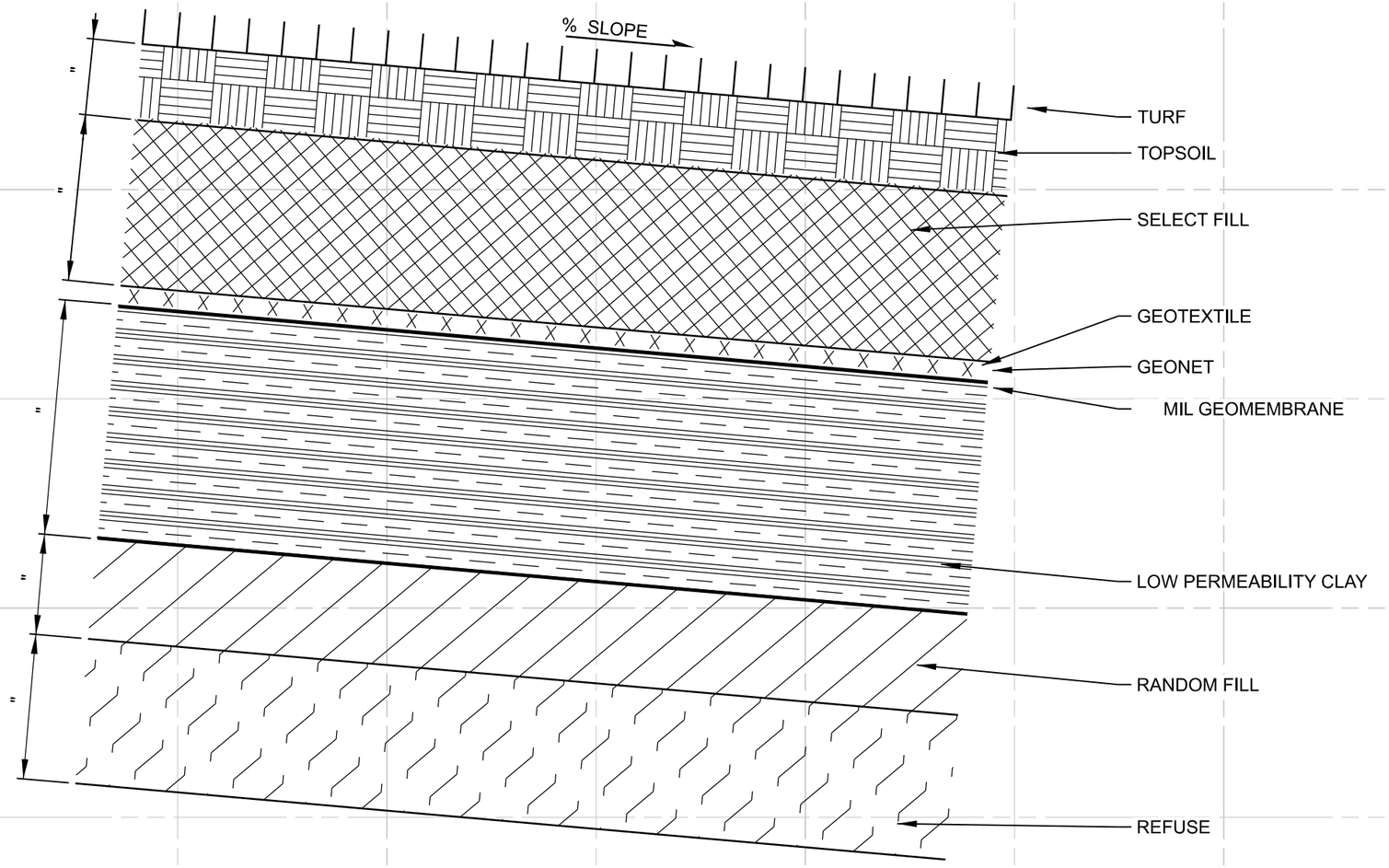


NOTE:
RECTANGULAR SEISMIC BASE EXTENSION.
SIZED AS REQUIRED WITH ONE FOOT MINIMUM
BASE EXTENSION.

A1

DETAIL: MANHOLE SEISMIC

SCALE: NTS

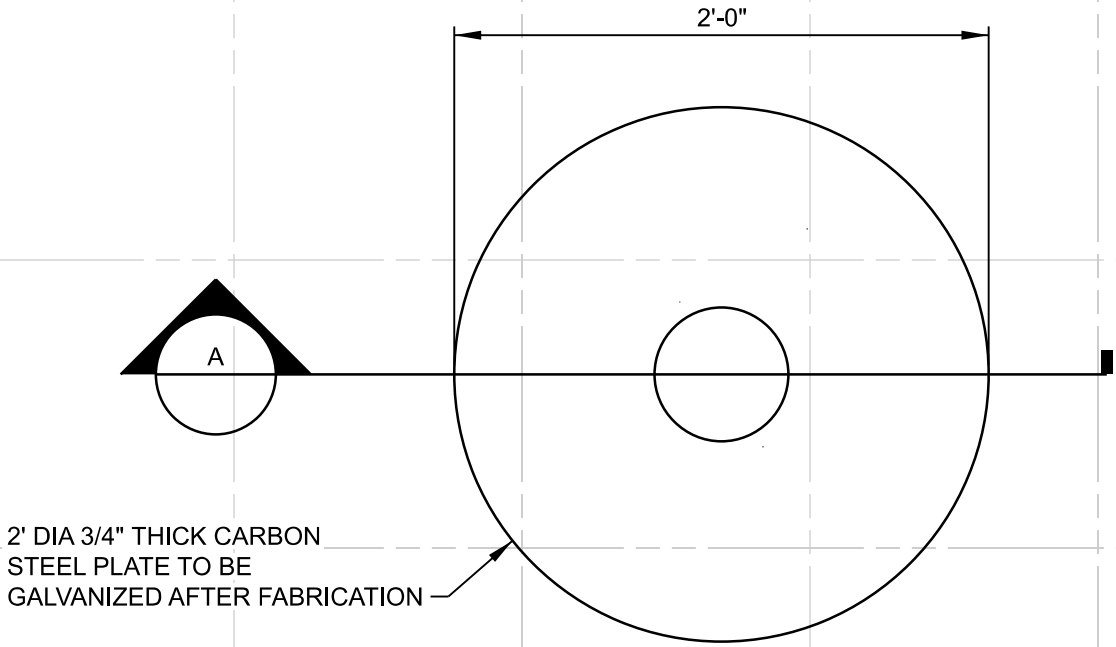


A1 DETAIL: CAP

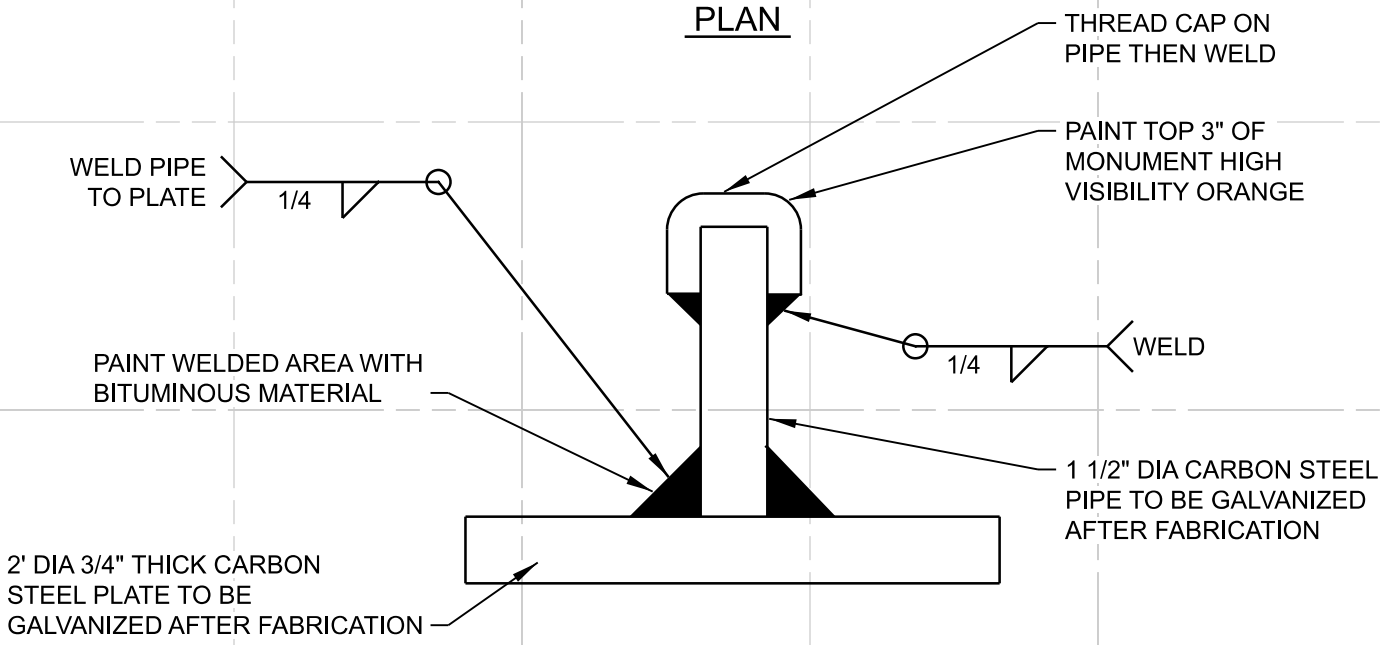
SCALE: NTS

Detail G1041H-DT001E

Details-US-HAZMAT-G104-HazardousWasteRemediation



PLAN



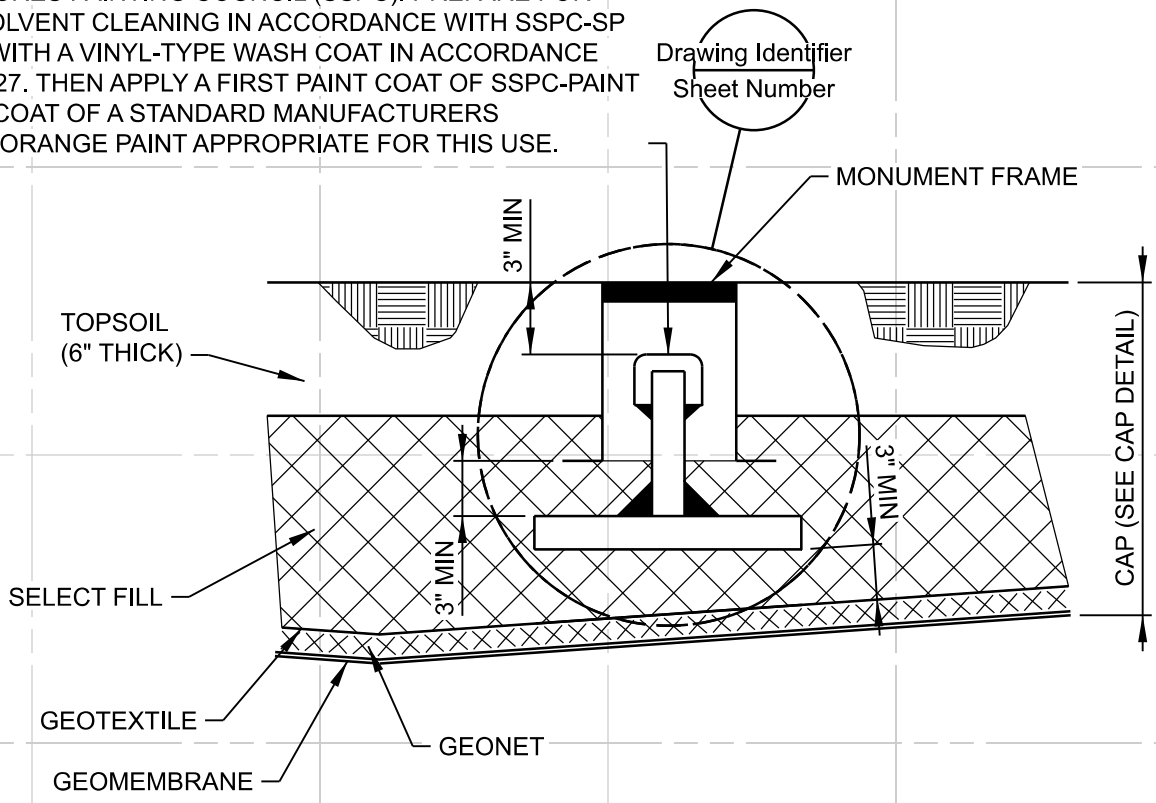
SECTION A

A1

DETAIL: SETTLEMENT PLATE

SCALE: NTS

APPLY A PAINT FINISH TO THE TOP 3" OF THE SETTLEMENT MONUMENTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE STEEL STRUCTURES PAINTING COUNCIL (SSPC). PREPARE FOR PAINTING BY SOLVENT CLEANING IN ACCORDANCE WITH SSPC-SP 1, AND TREAT WITH A VINYL-TYPE WASH COAT IN ACCORDANCE WITH SSPC-SP 27. THEN APPLY A FIRST PAINT COAT OF SSPC-PAINT 5, AND A FINAL COAT OF A STANDARD MANUFACTURERS FLUORESCENT ORANGE PAINT APPROPRIATE FOR THIS USE.



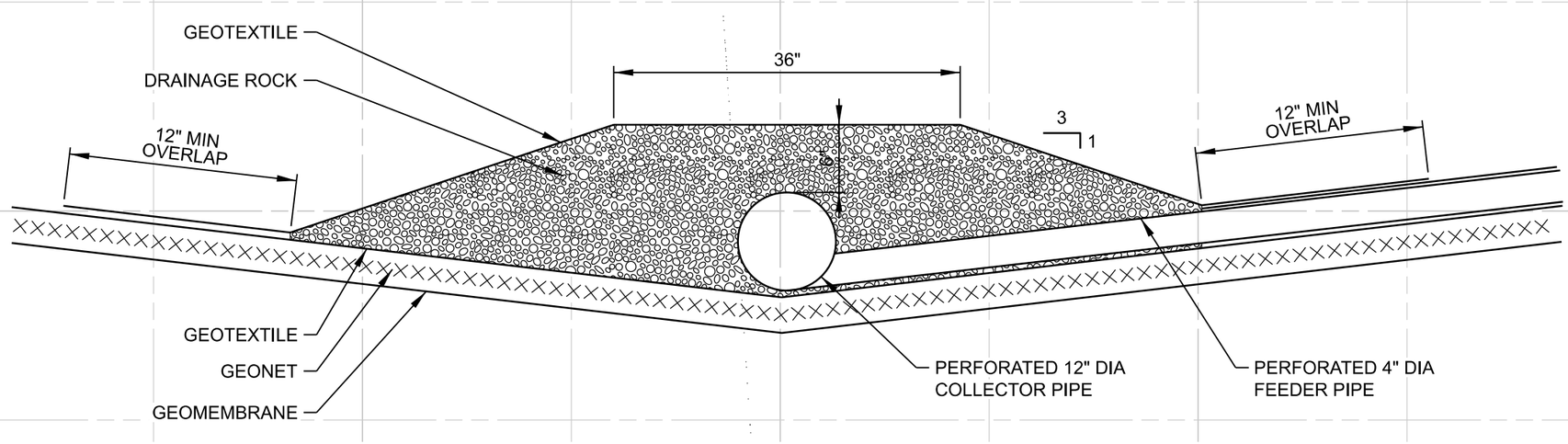
NOTES:

1. CONTRACTOR SHALL RECORD ELEVATIONS OF SETTLEMENT MONUMENTS BOTH PRIOR TO INTRODUCTION OF SELECT FILL OVER MONUMENT BASE PLATE AND IMMEDIATELY AFTER TOPSOIL PLACEMENT. ALL SURVEYS SHALL BE PERFORMED BY A LICENSED SURVEYOR.
2. THE CONTRACTOR SHALL PLACE A MOMUMENT FRAME AND LID OVER EACH SETTLEMENT MONUMENT. THE MONUMENT FRAMES SHALL BE FLUSH WITH THE TOPSOIL. A PAINT FINISH SHALL BE APPLIED TO THE LID OF EACH MONUMENT FRAME AS SPECIFIED FOR SETTLEMENT MONUMENT DETAIL.

A1

SECTION: SETTLEMENT MONUMENT

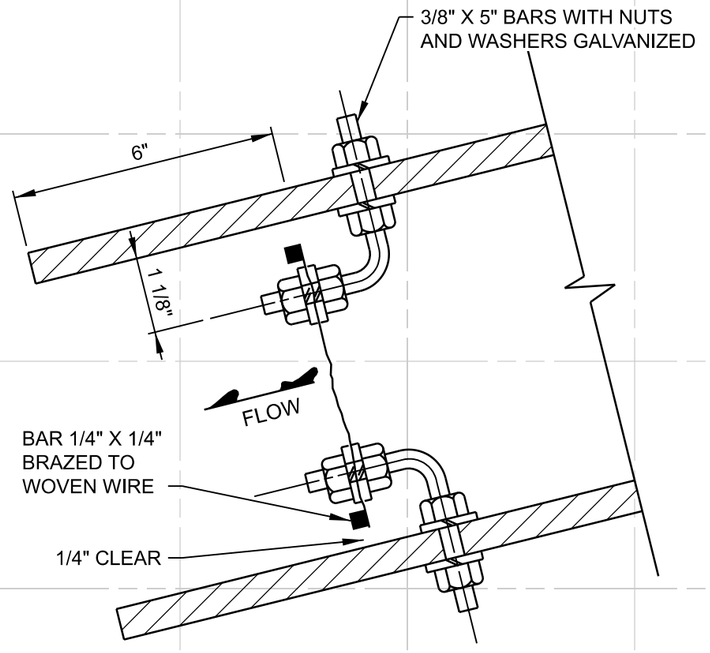
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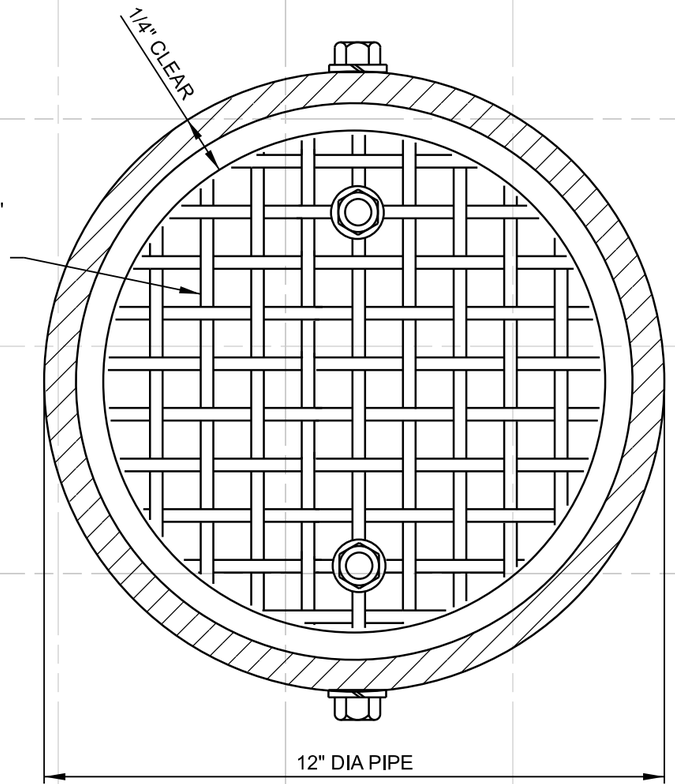
A1

DETAIL: DRAINAGE PIPE

SCALE: NTS



SECTION

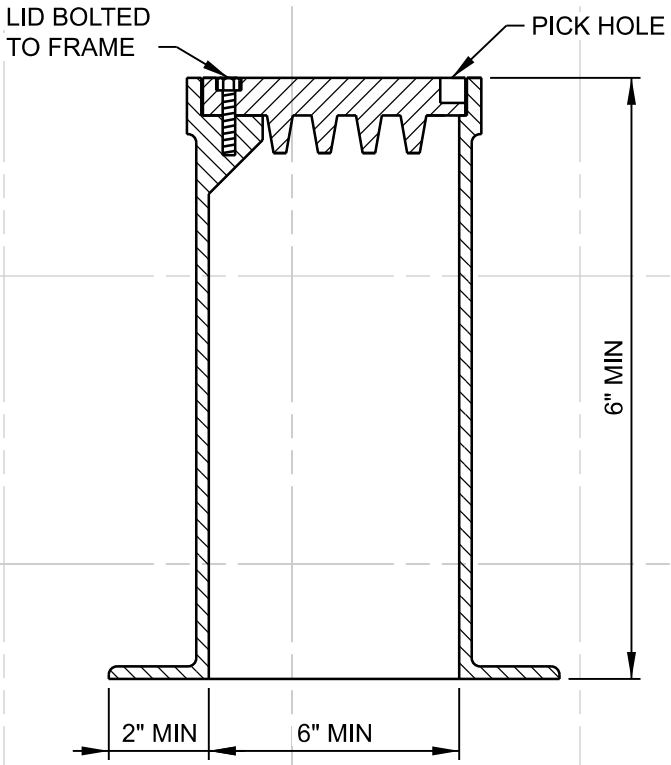


ELEVATION

A1

DETAIL: RODENT SCREEN

SCALE: NTS

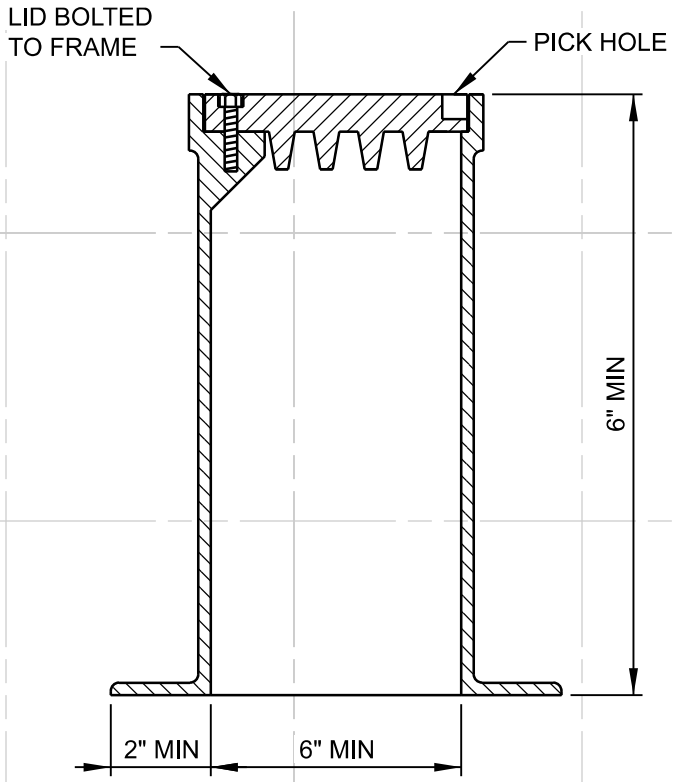


NOTES:
1. CONTRACTOR SHALL INSTALL A FRAME AND LID OVER EACH DRAINAGE PIPE OBSERVATION RISER. THE FRAMES SHALL BE FLUSH WITH THE TOPSOIL.

A1

DETAIL: DRAINAGE PIPE OBSERVATION RISER FRAME

SCALE: NTS



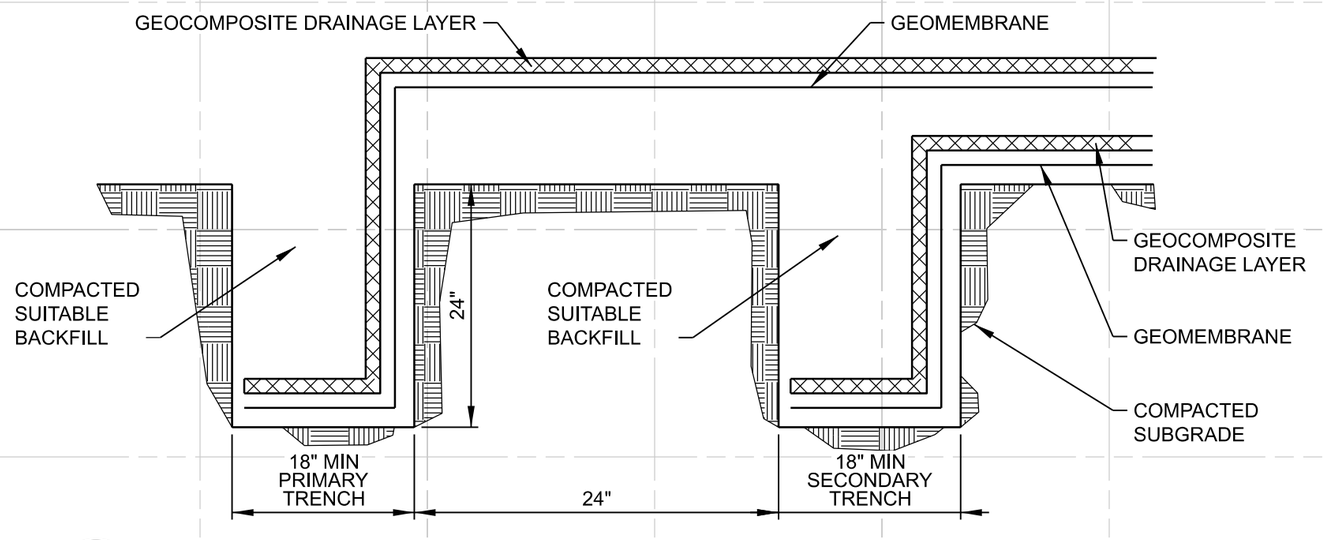
NOTES:

1. CONTRACTOR SHALL RECORD ELEVATIONS OF SETTLEMENT MONUMENTS BOTH PRIOR TO INTRODUCTION OF SELECT FILL OVER MONUMENT BASE PLATE AND IMMEDIATELY AFTER TOPSOIL PLACEMENT. ALL SURVEYS SHALL BE PERFORMED BY A LICENSED SURVEYOR.
2. THE CONTRACTOR SHALL PLACE A MOMUMENT FRAME AND LID OVER EACH SETTLEMENT MONUMENT. THE MONUMENT FRAMES SHALL BE FLUSH WITH THE TOPSOIL. A PAINT FINISH SHALL BE APPLIED TO THE LID OF EACH MONUMENT FRAME AS SPECIFIED FOR SETTLEMENT MONUMENT DETAIL.

A1

DETAIL: MONUMENT FRAME

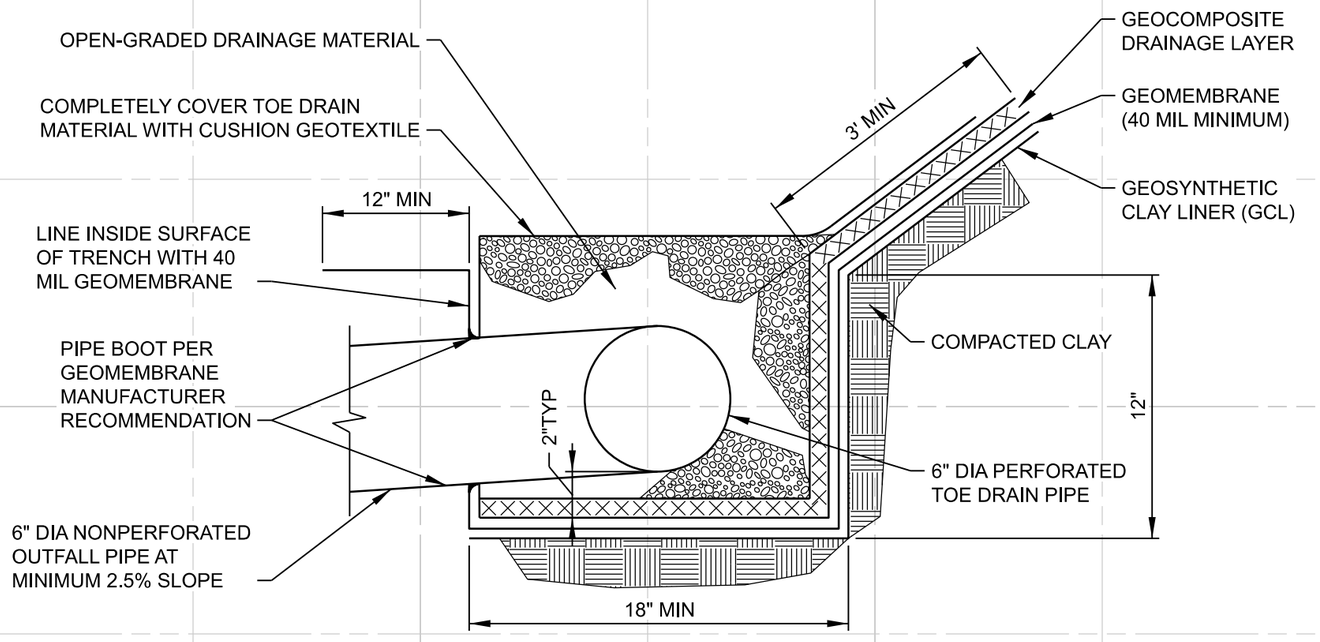
SCALE: NTS



A1

DETAIL: LANDFILL LINER ANCHOR TRENCH

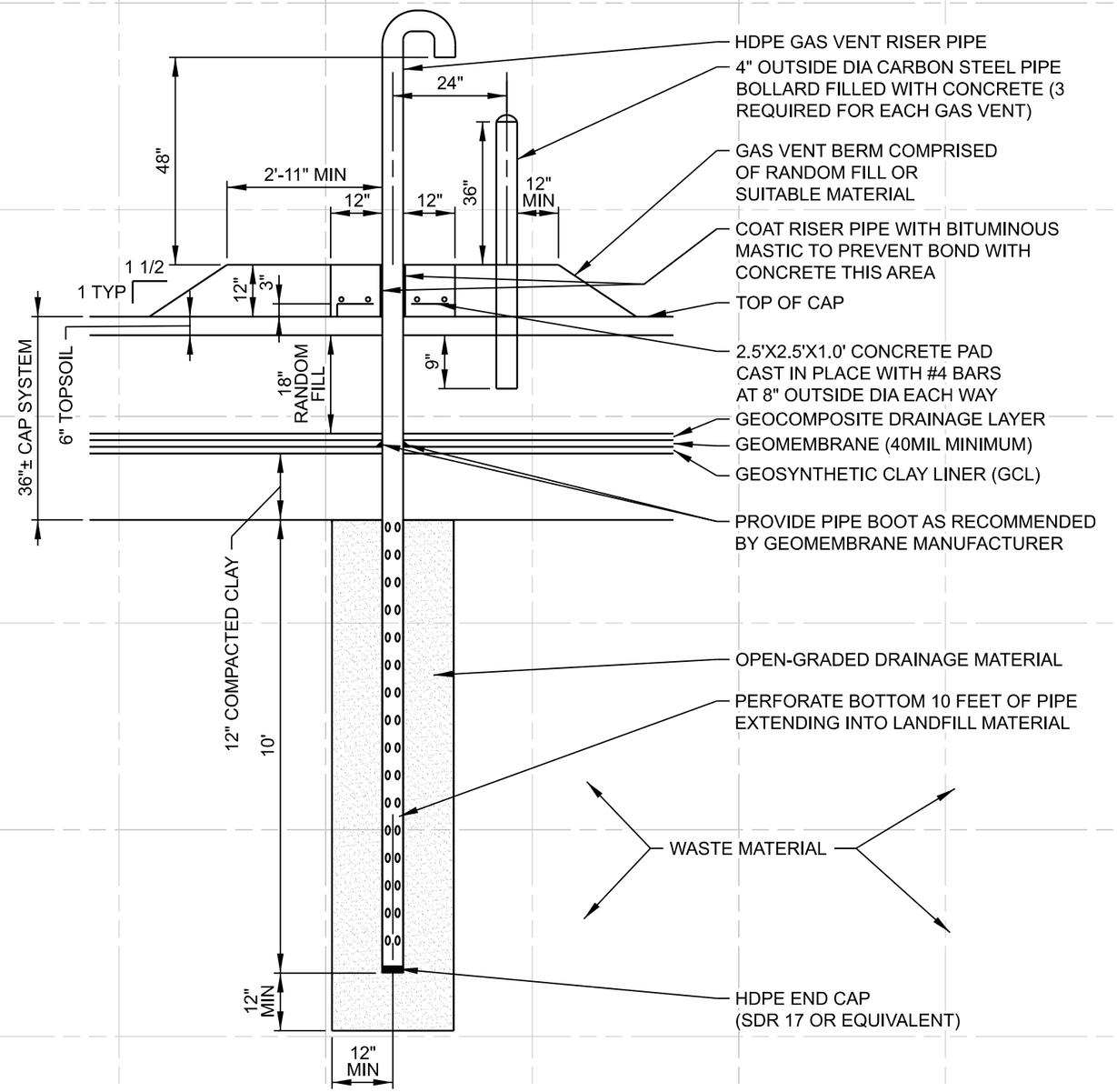
SCALE: NTS



A1

DETAIL: LANDFILL COVER TOE DRAIN

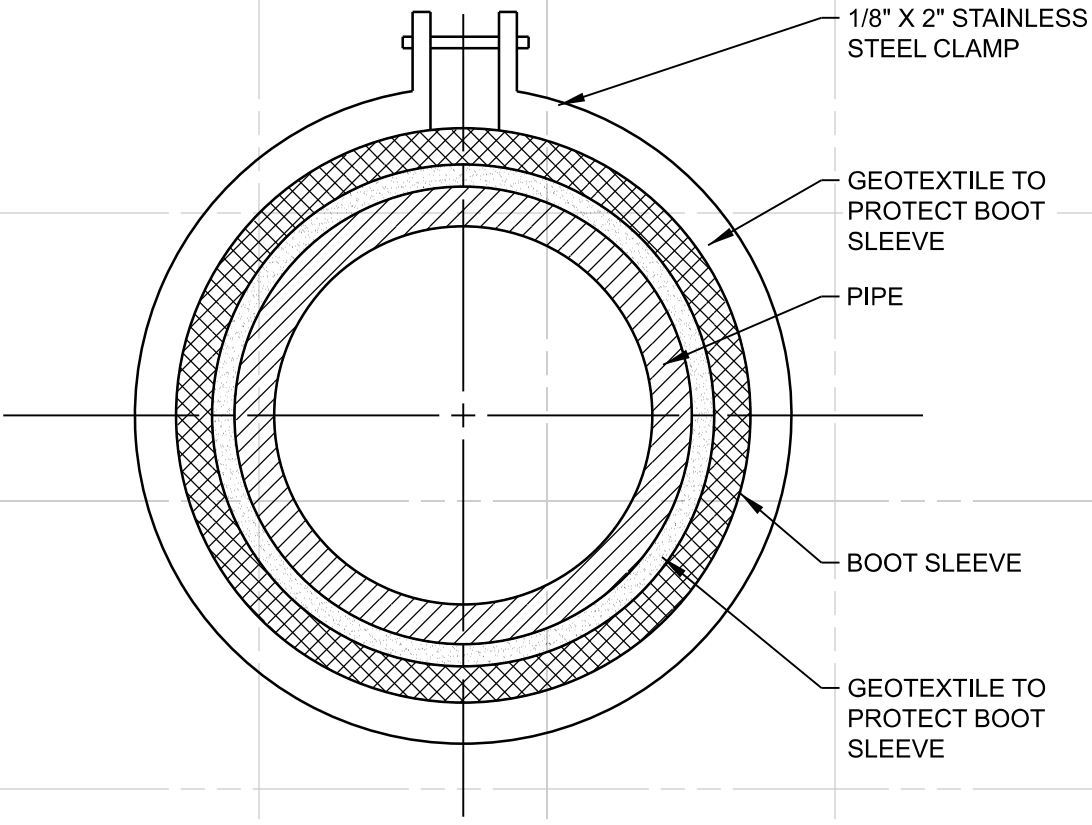
SCALE: NTS



A1 DETAIL: GAS VENT

SCALE: NTS

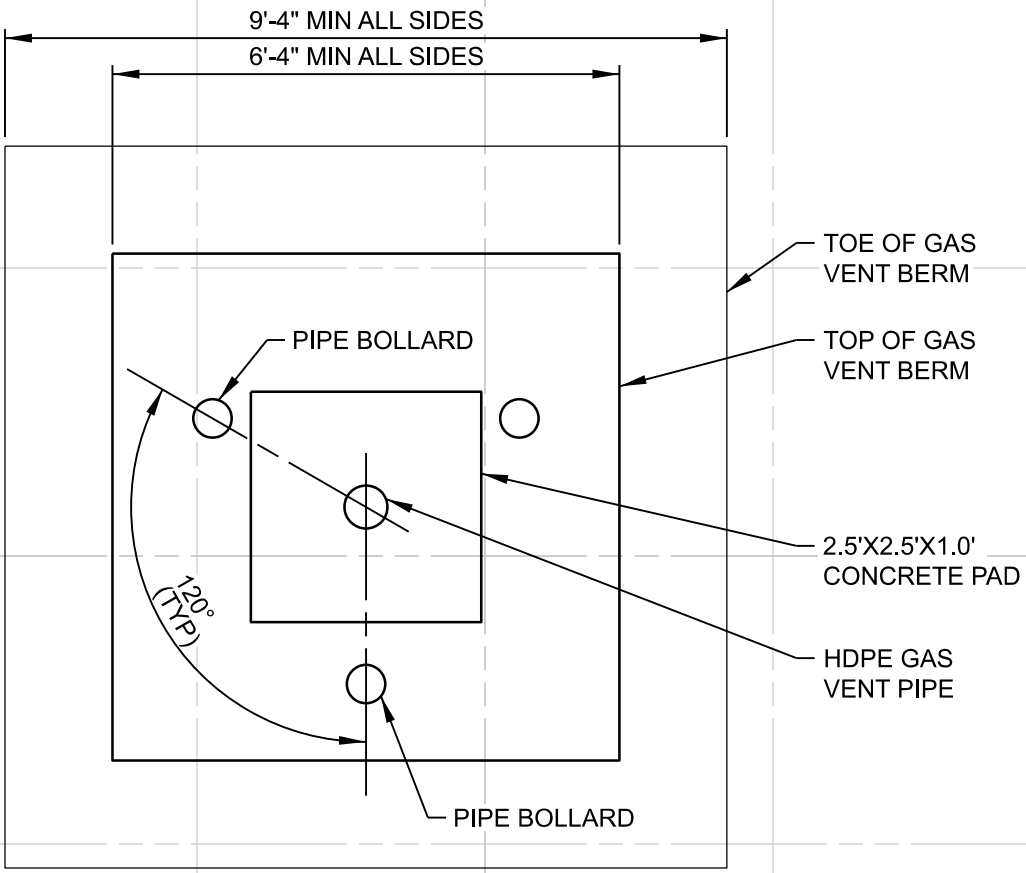
Detail G1041H-DT009E



A1

DETAIL: BOOT SLEEVE CLAMPING

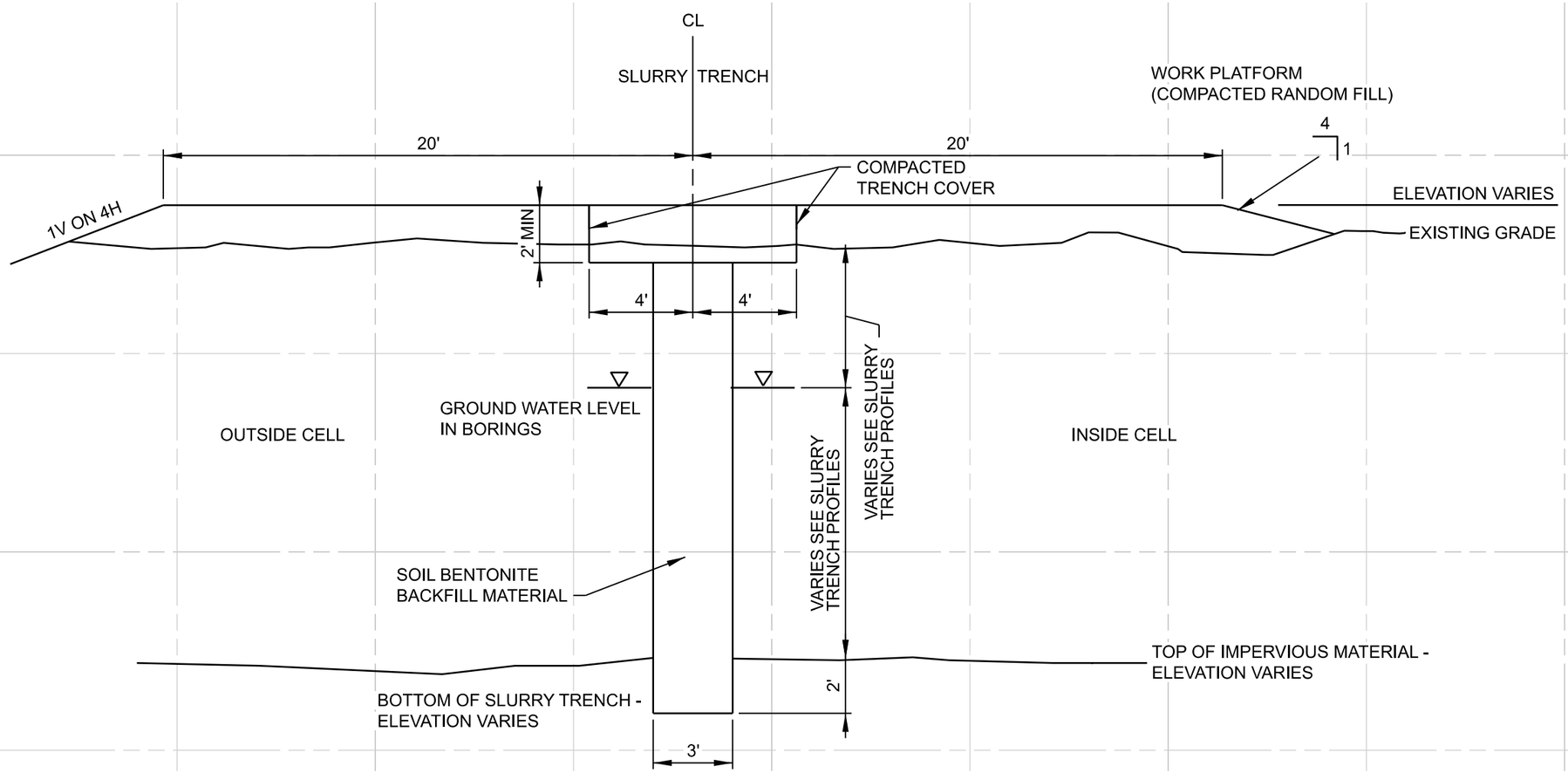
SCALE: NTS



A1

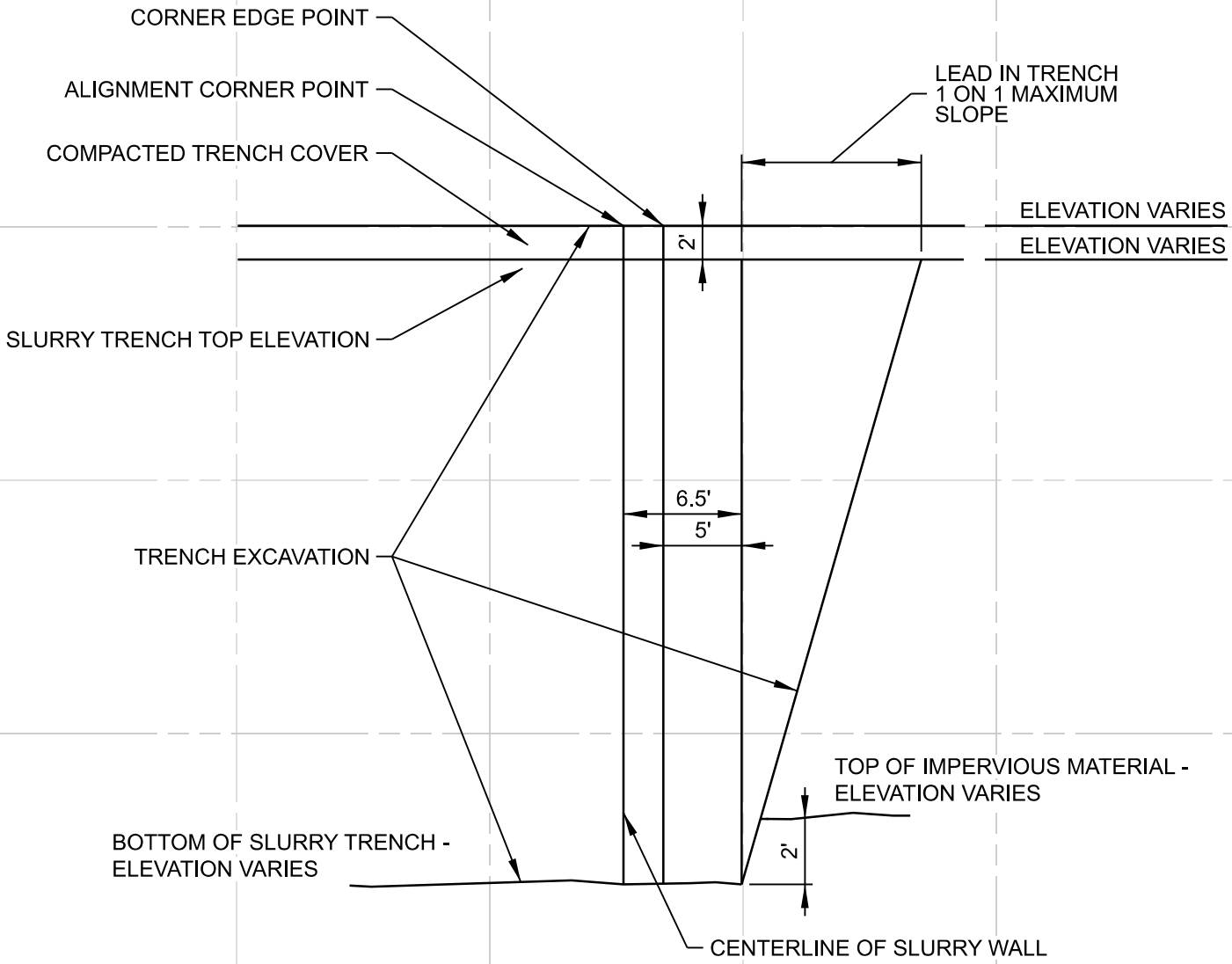
PLAN: PIPE BOLLARD NEAR GAS VENT

SCALE: NTS



A1 DETAIL: SLURRY TRENCH

SCALE: NTS

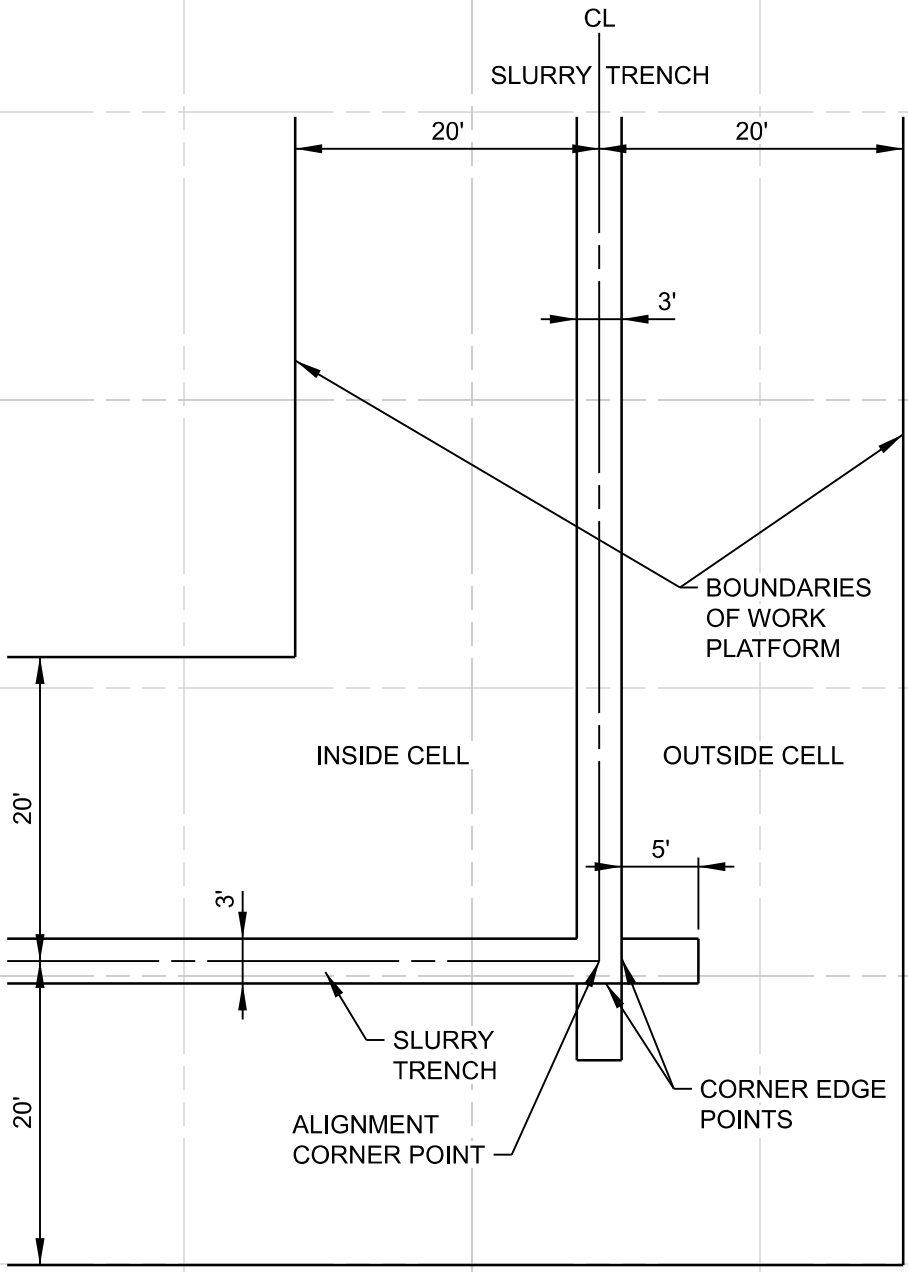


NOTE:
MINIMUM 5' EXTENSION OF FULL TRENCH DEPTH OUTSIDE THE CONTAINMENT CELL.

DETAIL: SLURRY TRENCH CORNER EXCAVATION

A1

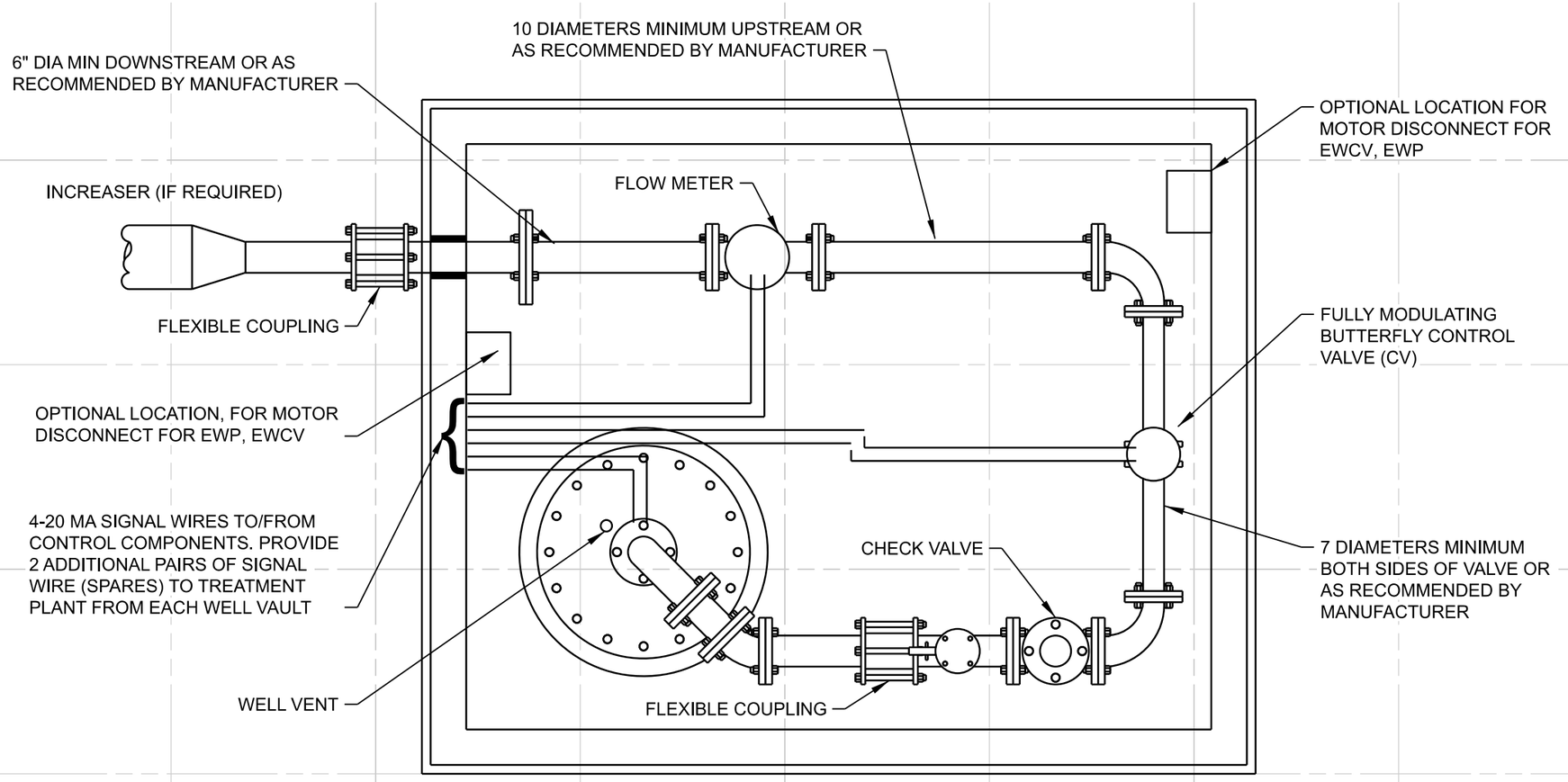
SCALE: NTS



A1

DETAIL: SLURRY TRENCH CORNER

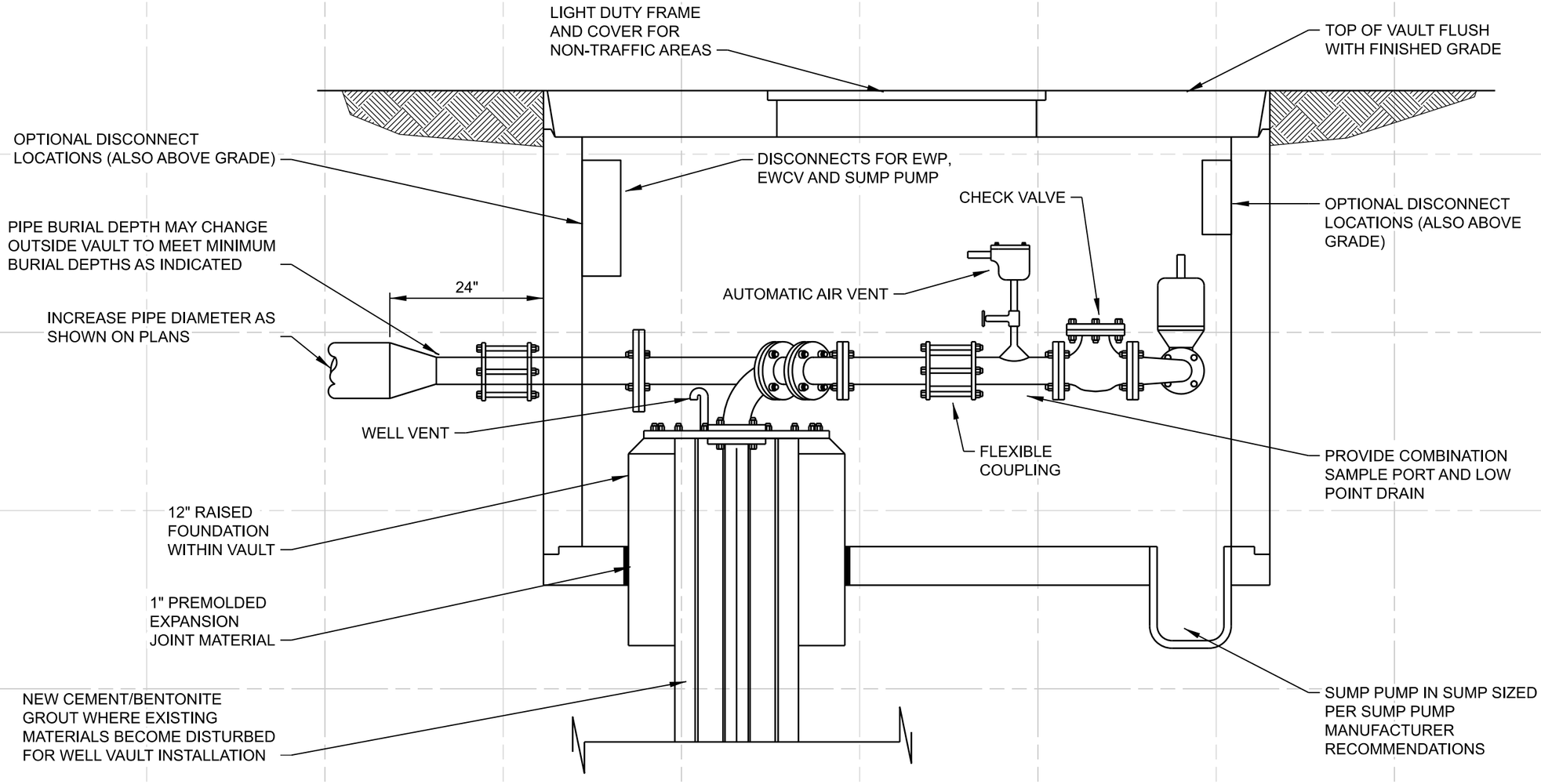
SCALE: NTS



A1

DETAIL: EXTRACTION WELL VAULT

SCALE: NTS



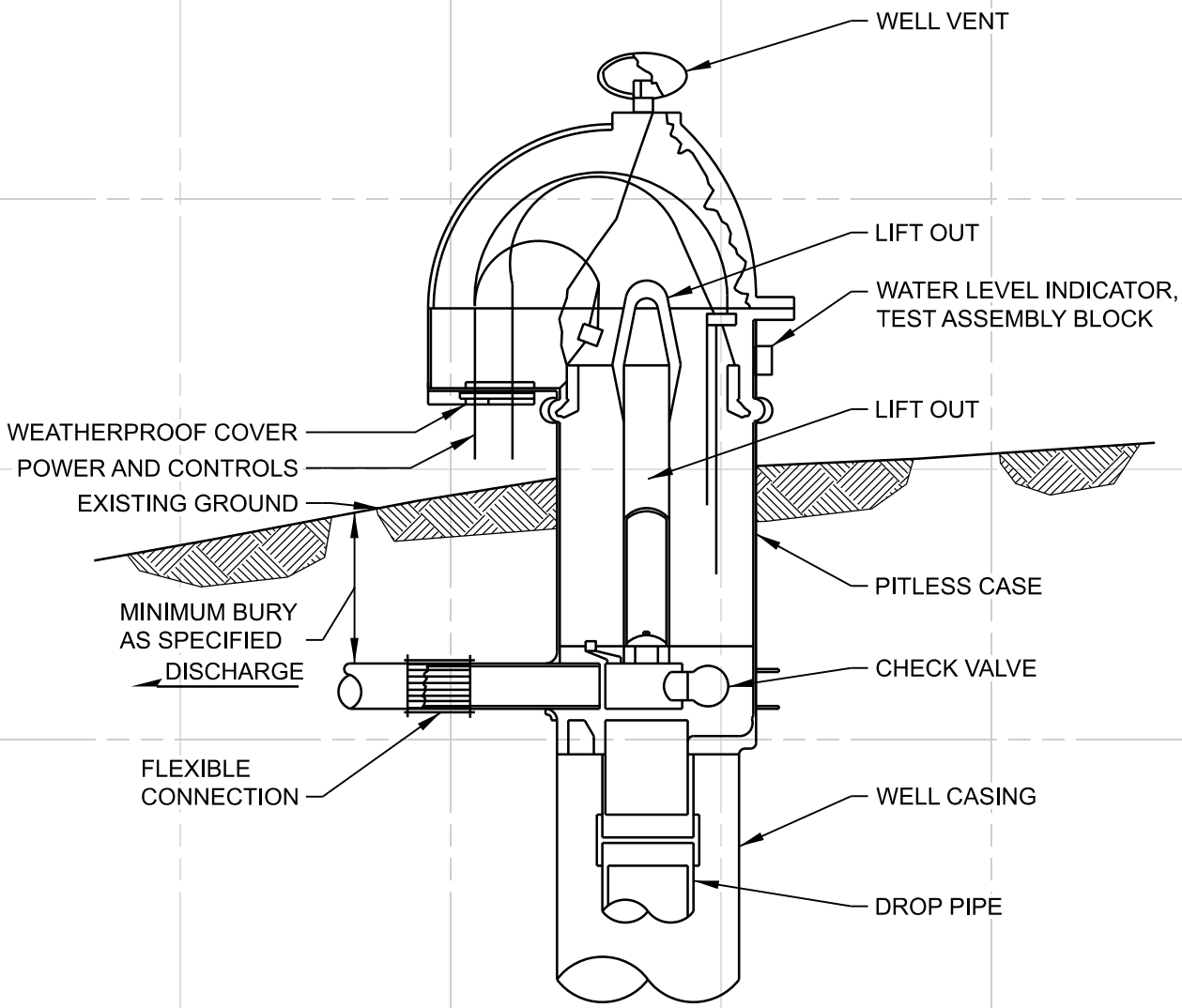
EWP = EXTRACTION WELL PUMP
EWCV = EXTRACTION WELL CONTROL VALVE

NOTE:
SEE FOR EXISTING WELL DEVELOPMENT CONDITIONS.

A1

SECTION: EXTRACTION WELL VAULT

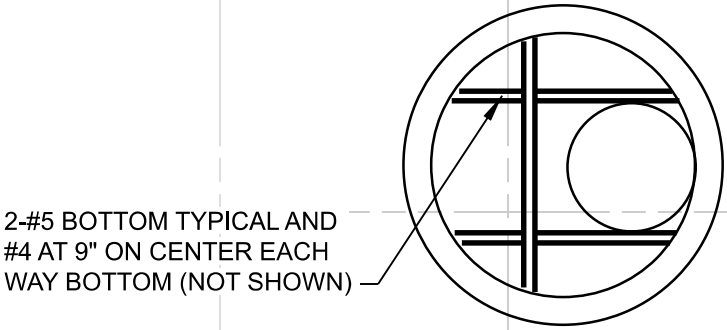
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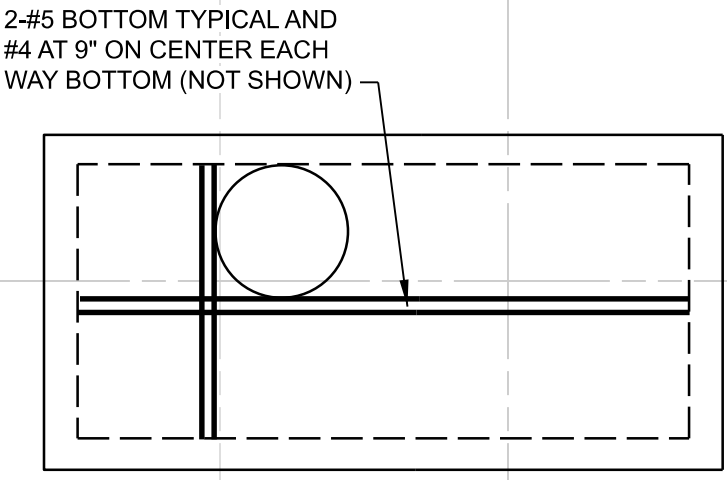
A1

DETAIL: PITLESS ADAPTER

SCALE: NTS



ROUND TOP SLAB REINFORCEMENT

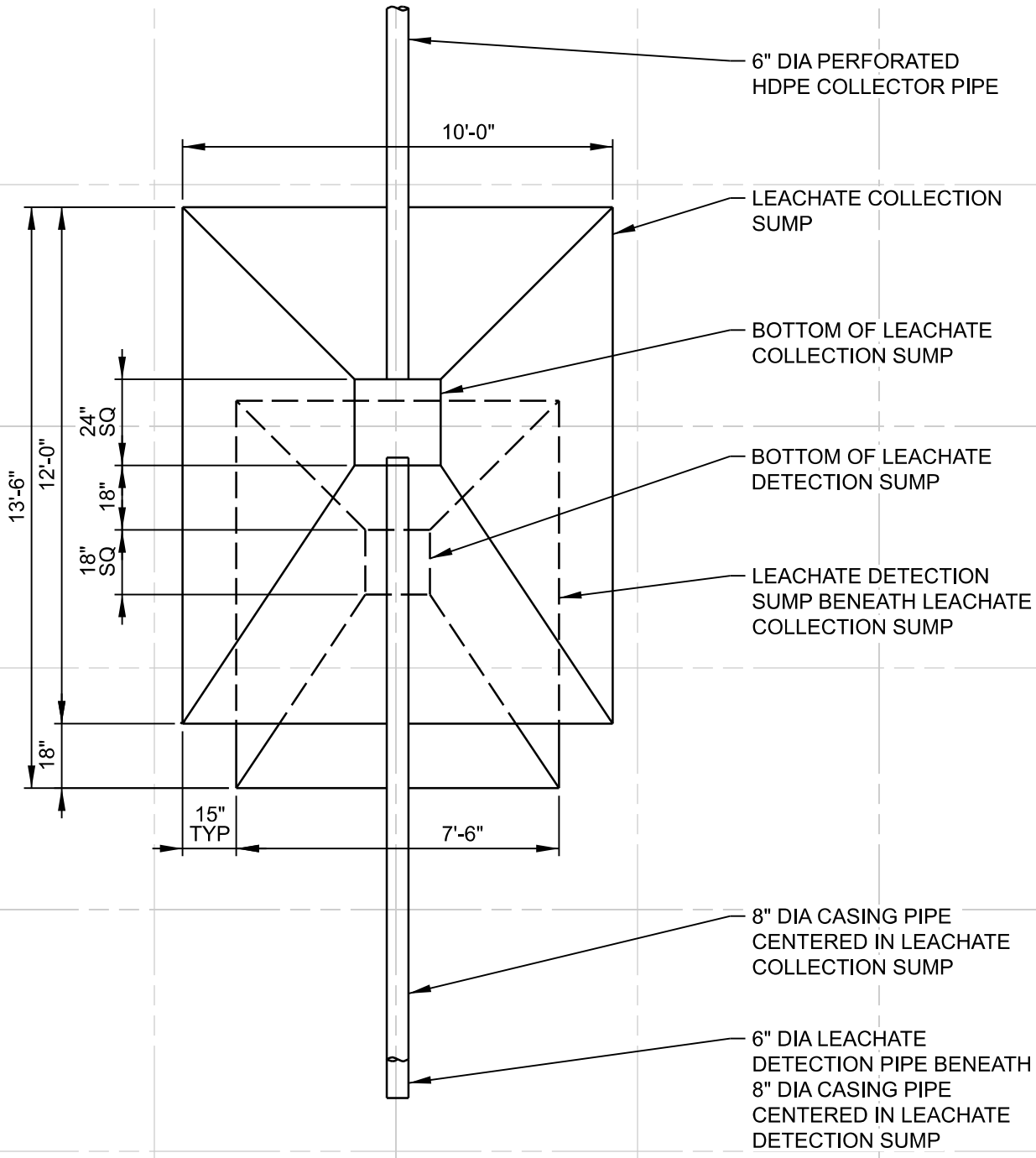


RECTANGULAR TOP SLAB REINFORCEMENT

DETAIL: WELL VAULT TOP SLAB REINFORCEMENT

A1

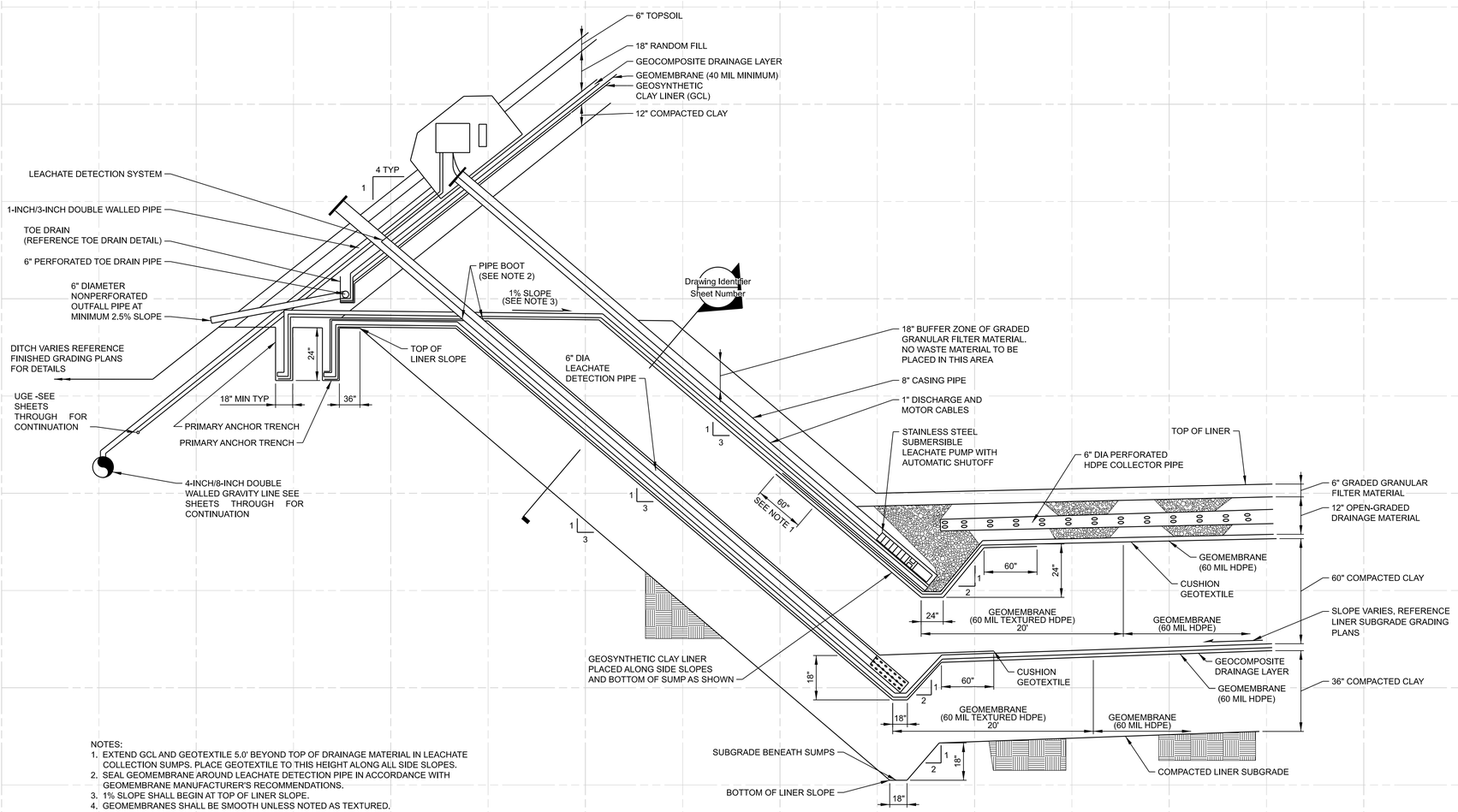
SCALE: NTS



DETAIL: LEACHATE COLLECTION AND LEACHATE DETECTION SUMP

A1

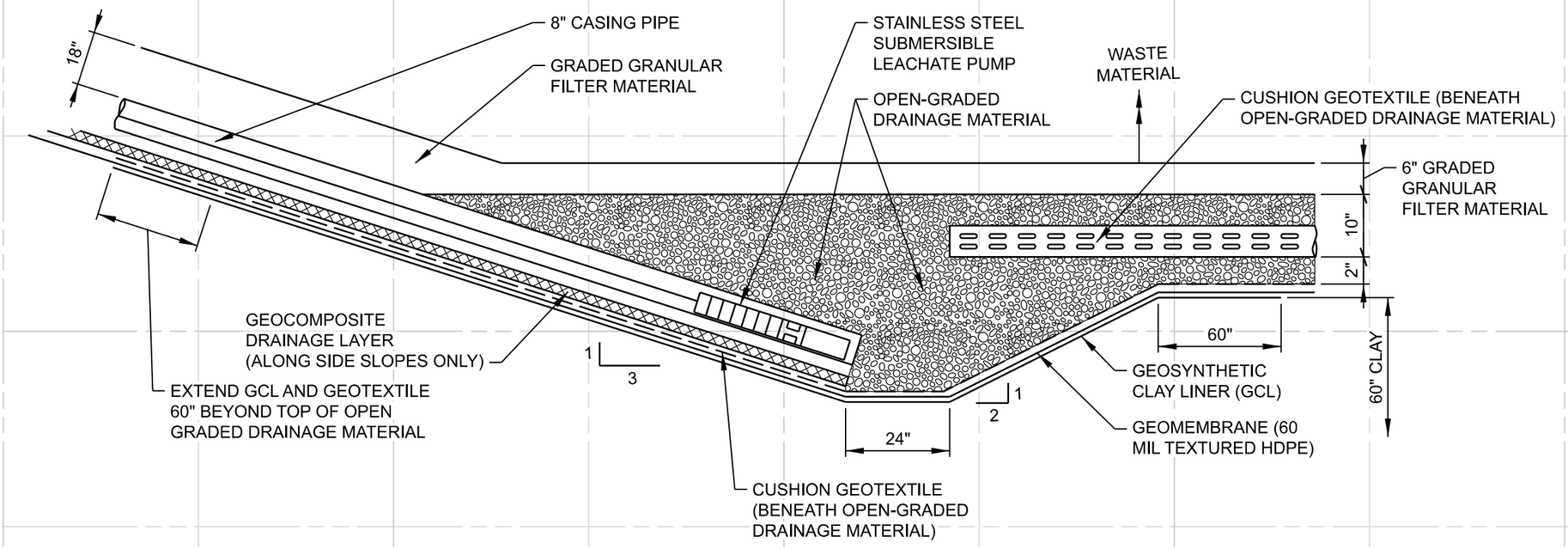
SCALE: NTS



NOTES:
1. EXTEND GCL AND GEOTEXTILE 5.0' BEYOND TOP OF DRAINAGE MATERIAL IN LEACHATE COLLECTION SUMPS. PLACE GEOTEXTILE TO THIS HEIGHT ALONG ALL SIDE SLOPES.
2. SEAL GEOMEMBRANE AROUND LEACHATE DETECTION PIPE IN ACCORDANCE WITH GEOMEMBRANE MANUFACTURER'S RECOMMENDATIONS.
3. 1% SLOPE SHALL BEGIN AT TOP OF LINER SLOPE.
4. GEOMEMBRANES SHALL BE SMOOTH UNLESS NOTED AS TEXTURED.

A1 ELEVATION: LEACHATE COLLECTION AND LEACHATE DETECTION SUMP

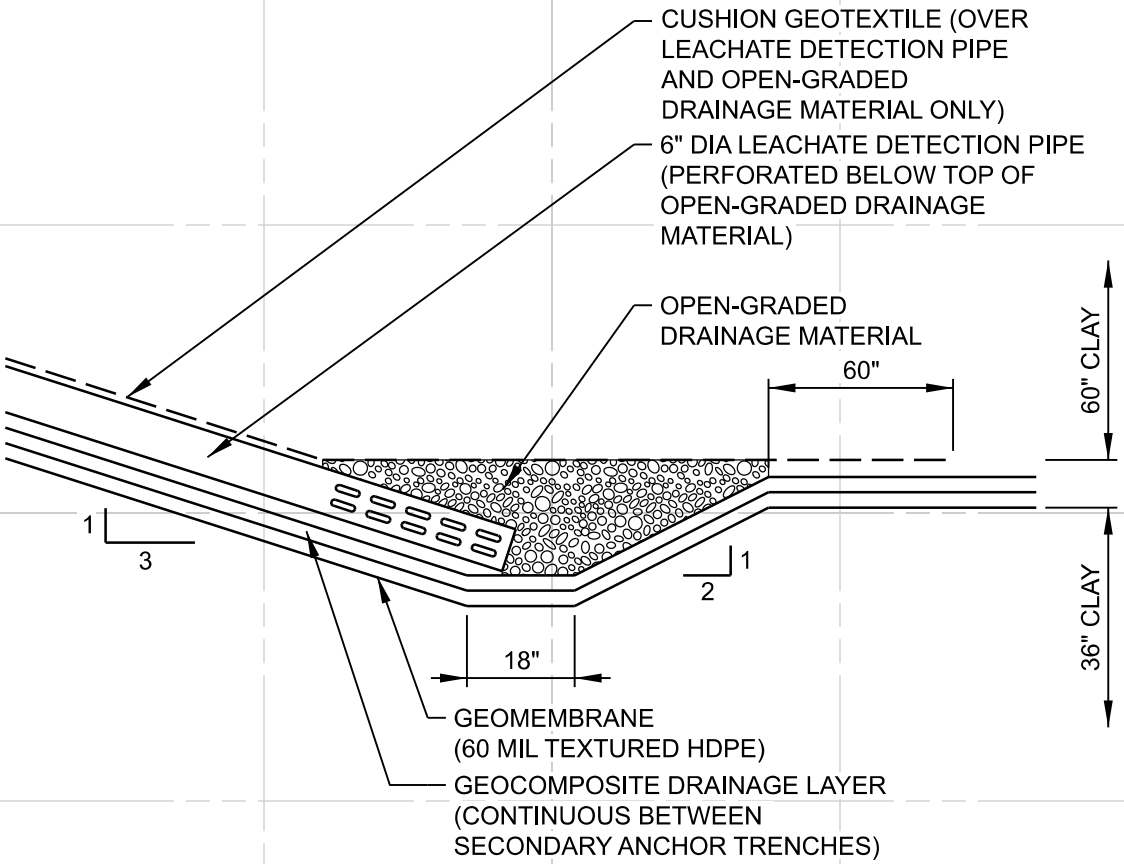
SCALE: NTS



A1

DETAIL: LEACHATE COLLECTION SUMP

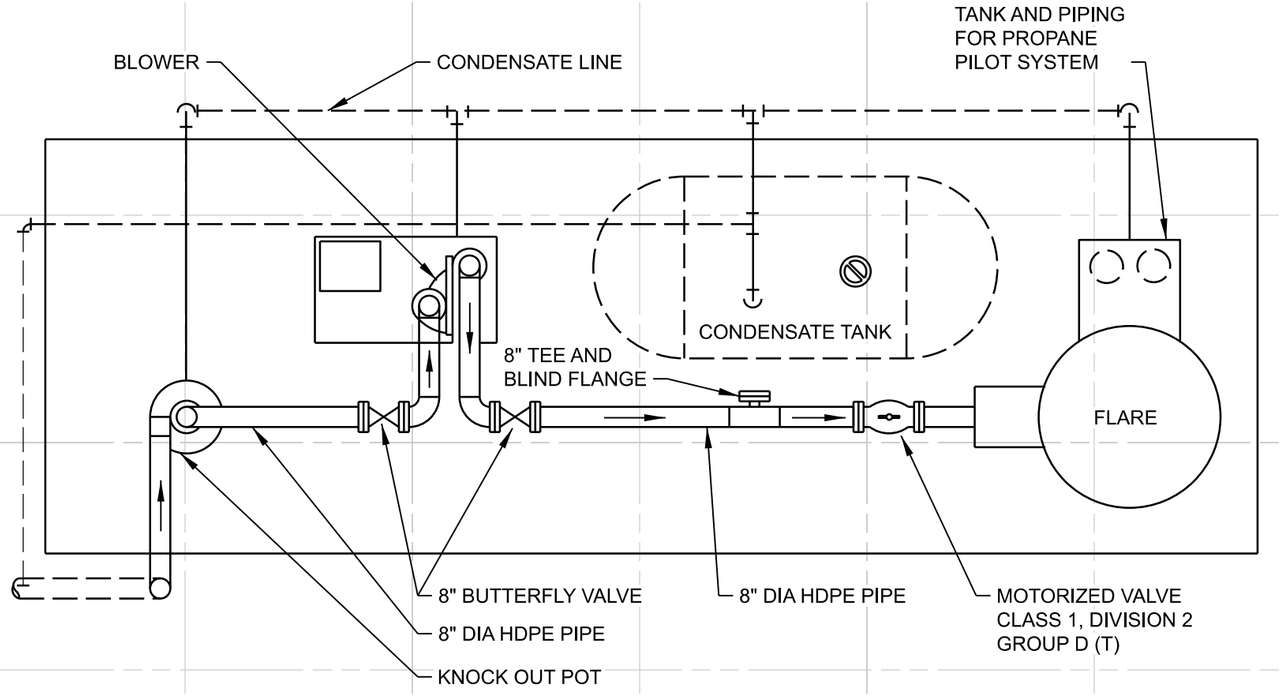
SCALE: NTS



A1

DETAIL: LEACHATE DETECTION SUMP

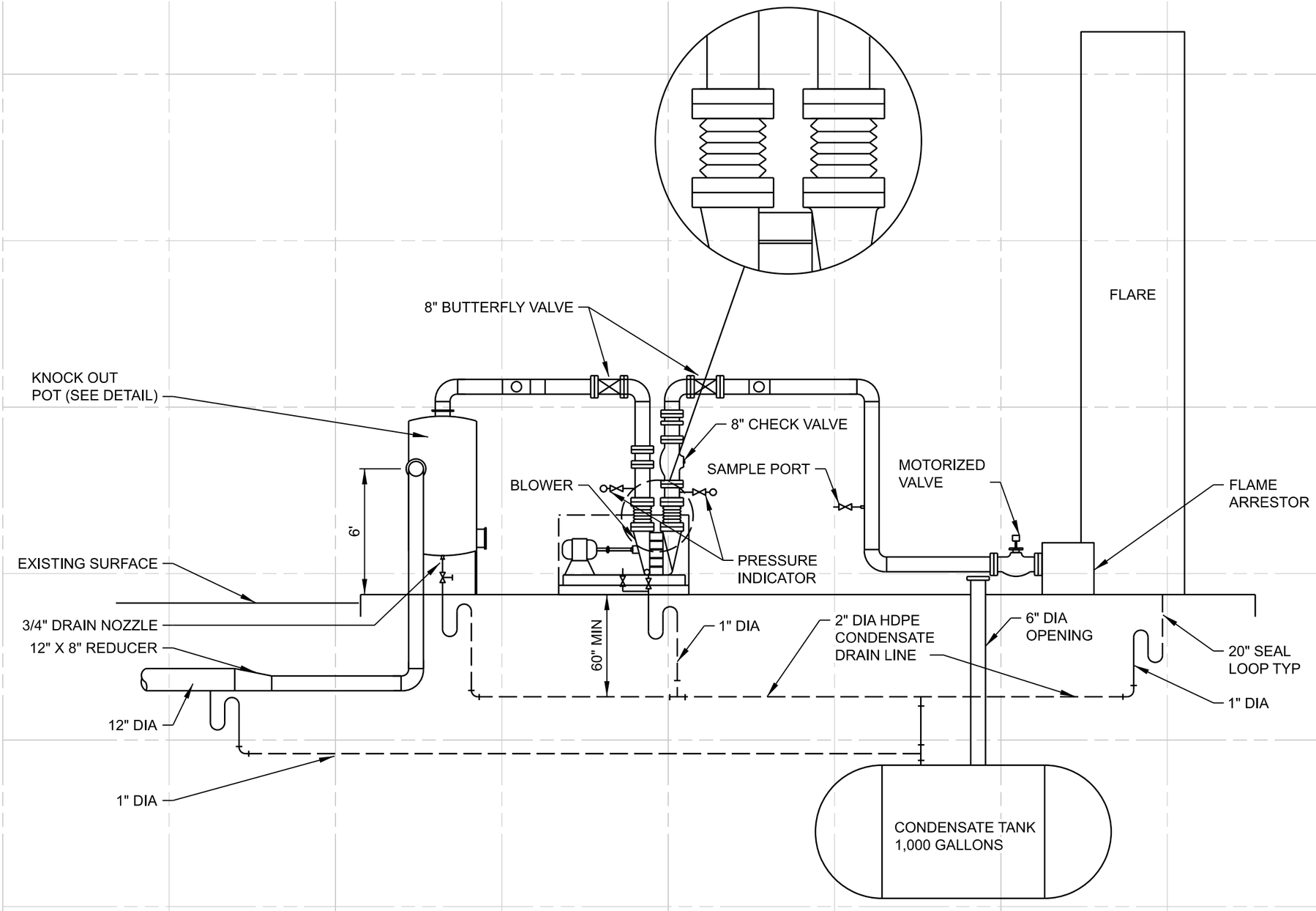
SCALE: NTS



A1

DETAIL: BLOWER, FLARE, PIPING PLAN

SCALE: NTS

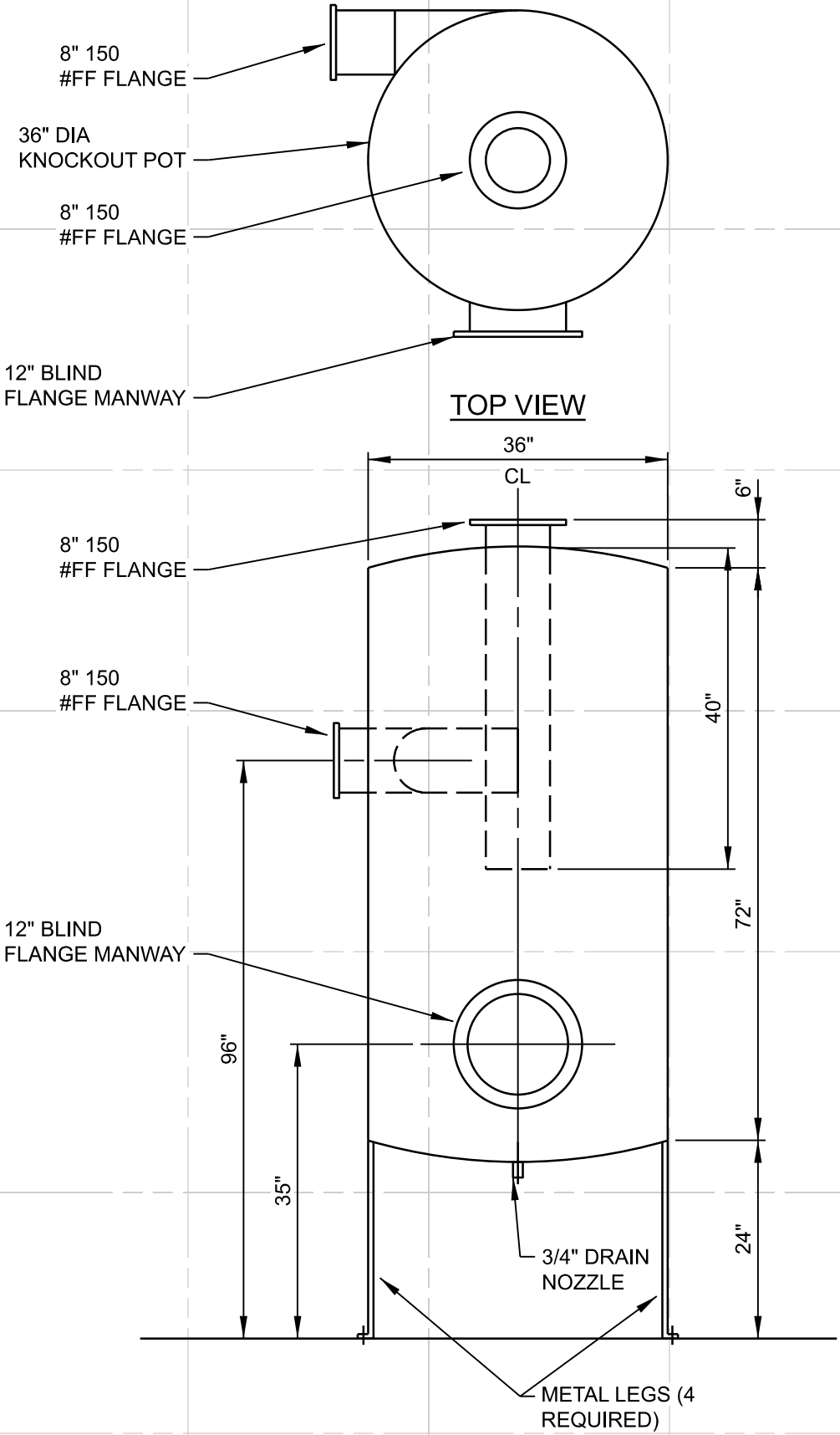


NOTE:
ALL PIPING INSULATED TO 48" BELOW GRADE.

A1

DETAIL: BLOWER, FLARE, PIPING SECTION

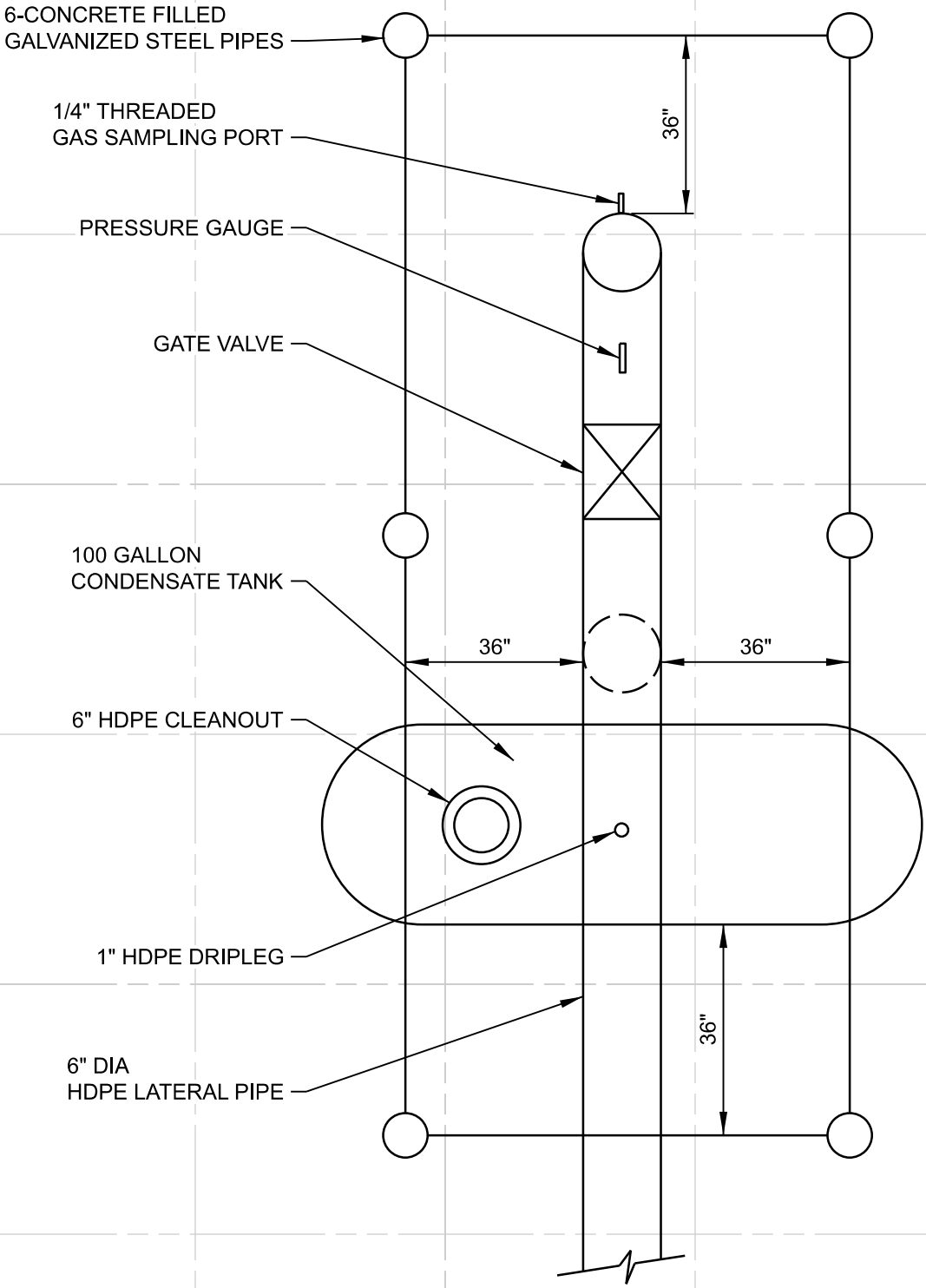
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A1

DETAIL: KNOCK OUT POT

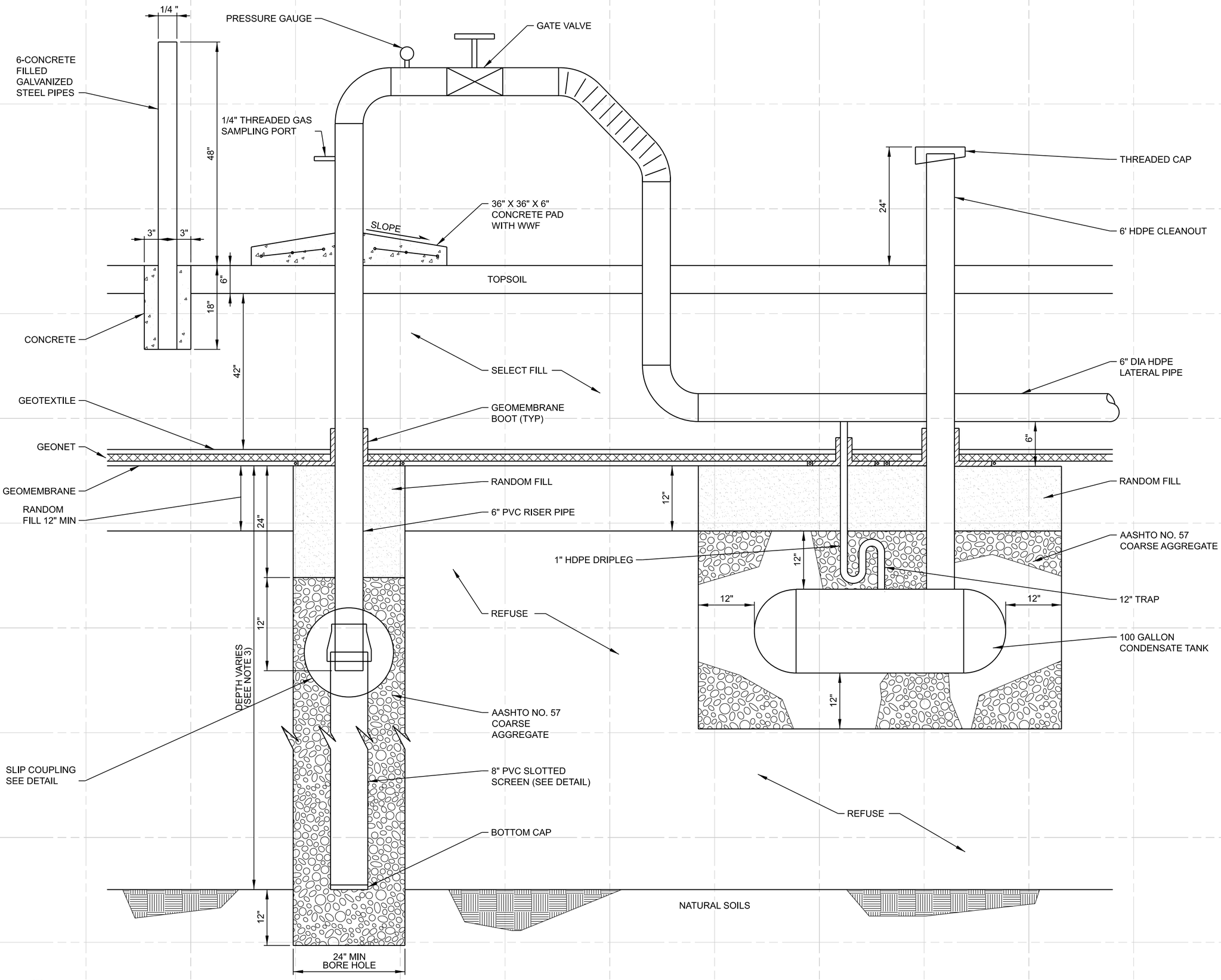
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A1

DETAIL: GAS EXTRACTION WELL PLAN

SCALE: NTS

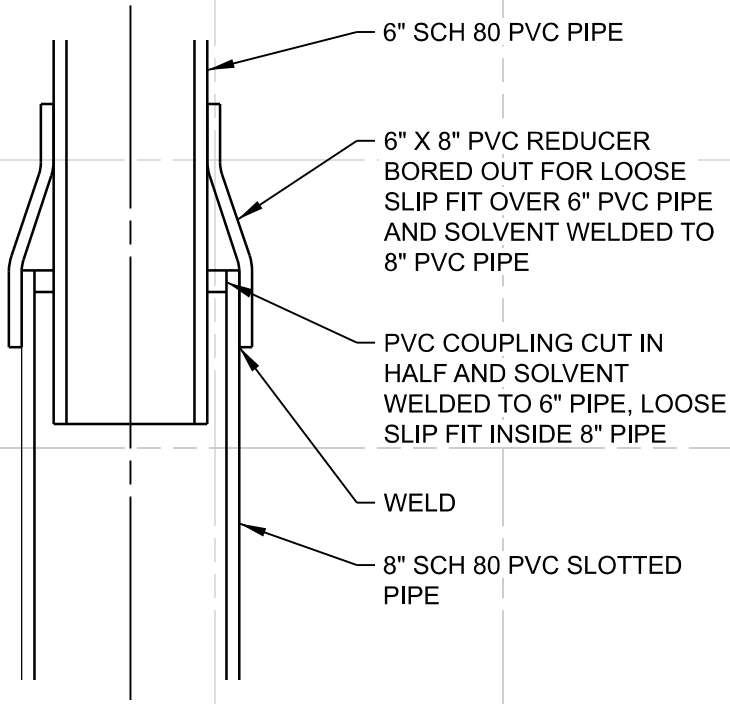


A1 DETAIL: GAS EXTRACTION WELL INSTALLATION

SCALE: NTS

Detail G1042H-DT013E

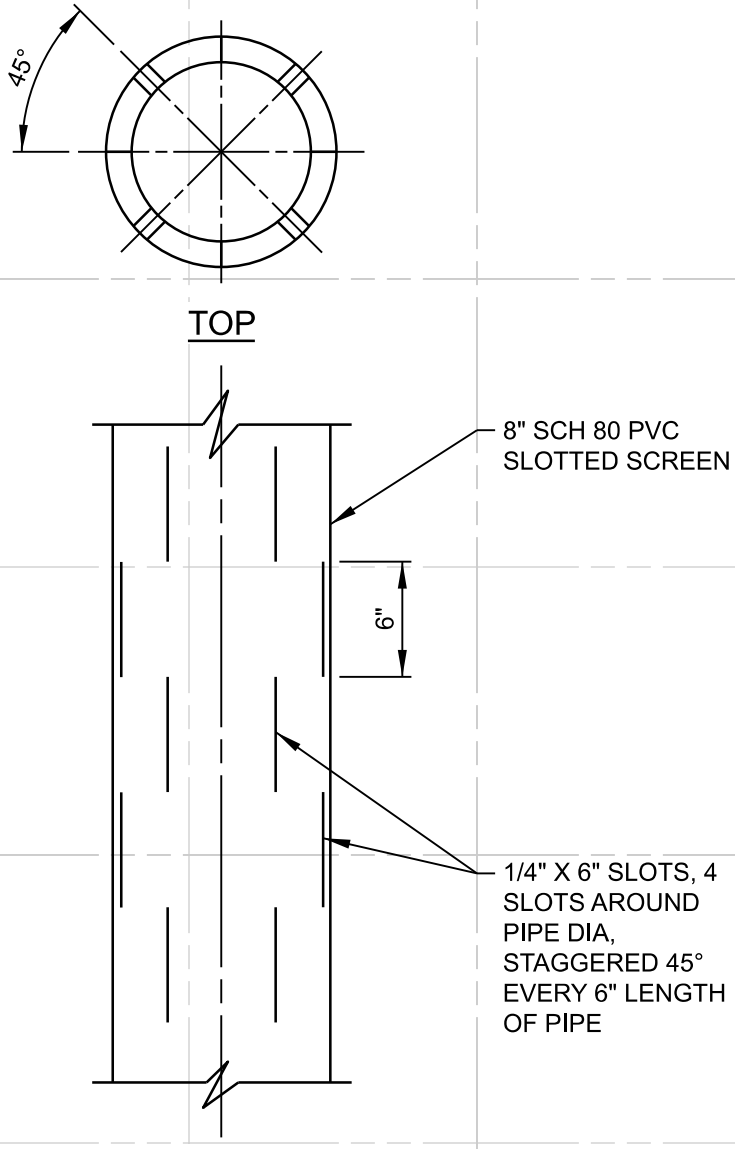
Details-US-HAZMAT-G104-HazardousWasteRemediation



A1

DETAIL: SLIP COUPLING

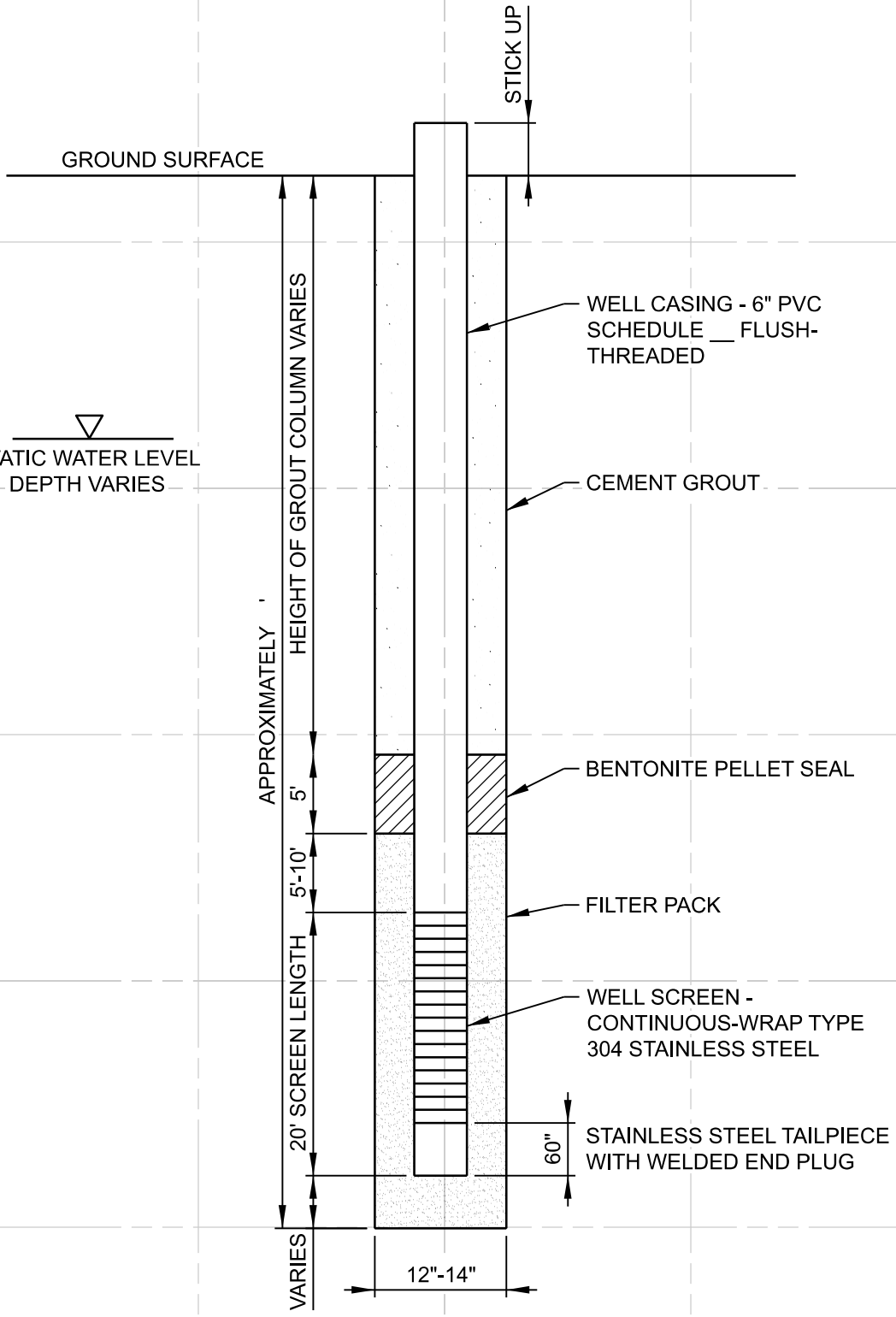
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A1

DETAIL: PERFORATION

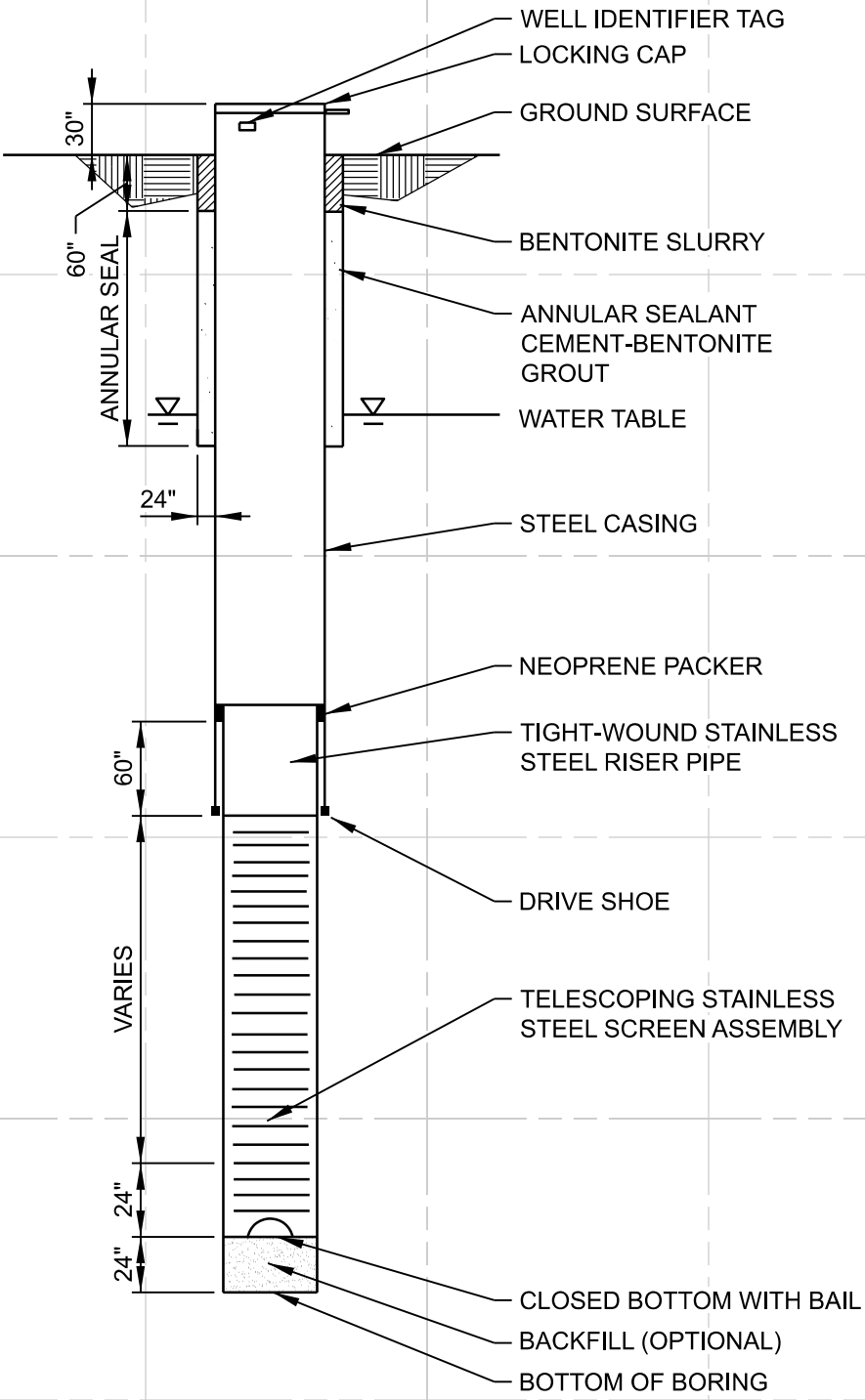
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A1

DETAIL: WATER WELL

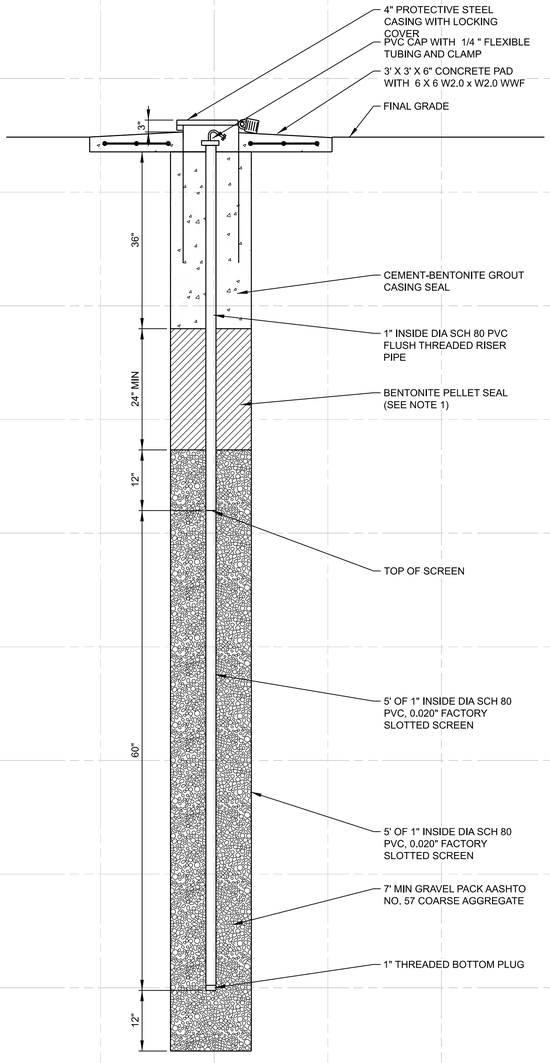
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DETAIL: RECHARGE WELL AND EXTRACTION WELL TELESCOPING SCREEN

A1

SCALE: NTS

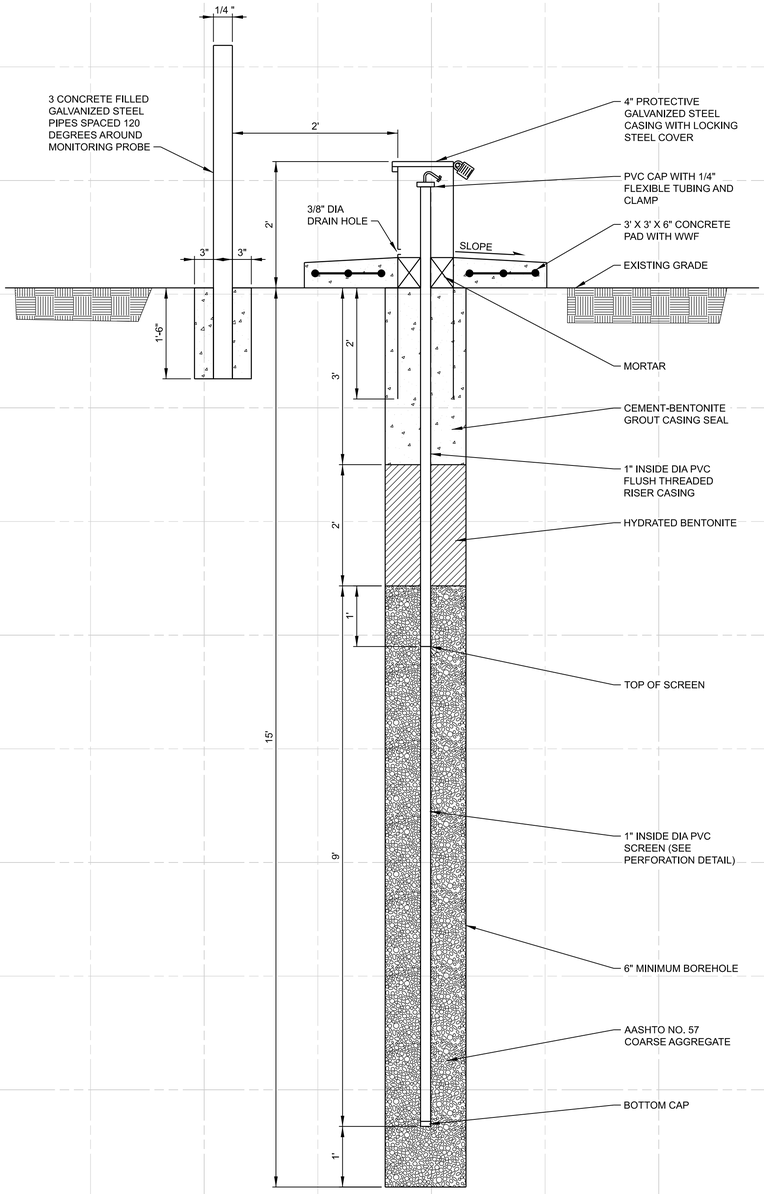


NOTE:
1. BENTONITE SEAL SHALL BE 2' MINIMUM THICKNESS. THIS SEAL SHALL BE 0.25" PELLETS TREMIED INTO PLACE IN 6" LIFTS. THE PELLETS SHALL BE HYDRATED IN PLACE BETWEEN LIFTS.

A1

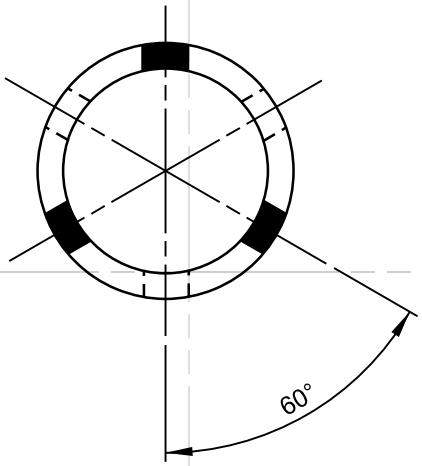
DETAIL: GAS MONITORING PROBE, FLUSH MOUNT

SCALE: NTS

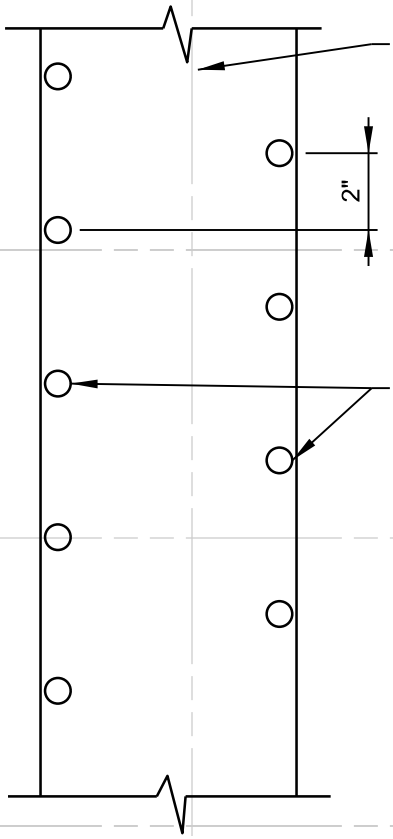


A1 DETAIL: GAS MONITORING PROBE, ABOVE-GRADE COMPLETION

SCALE: NTS



TOP



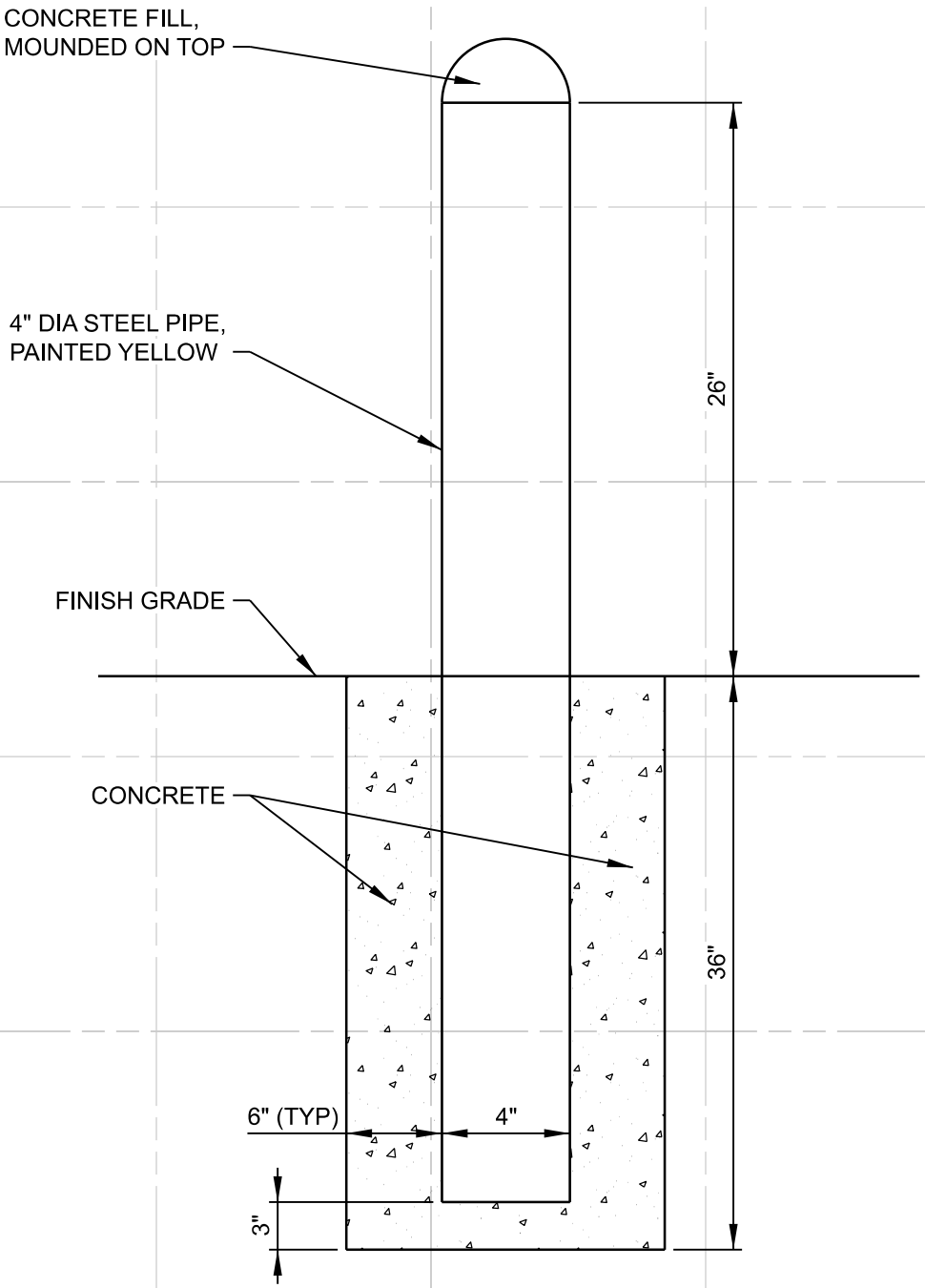
FRONT

NOTE:
1. ALL PVC PIPING FOR GAS MONITORING PROBES SHALL BE SCHEDULE 40.

A1

DETAIL: PERFORATION

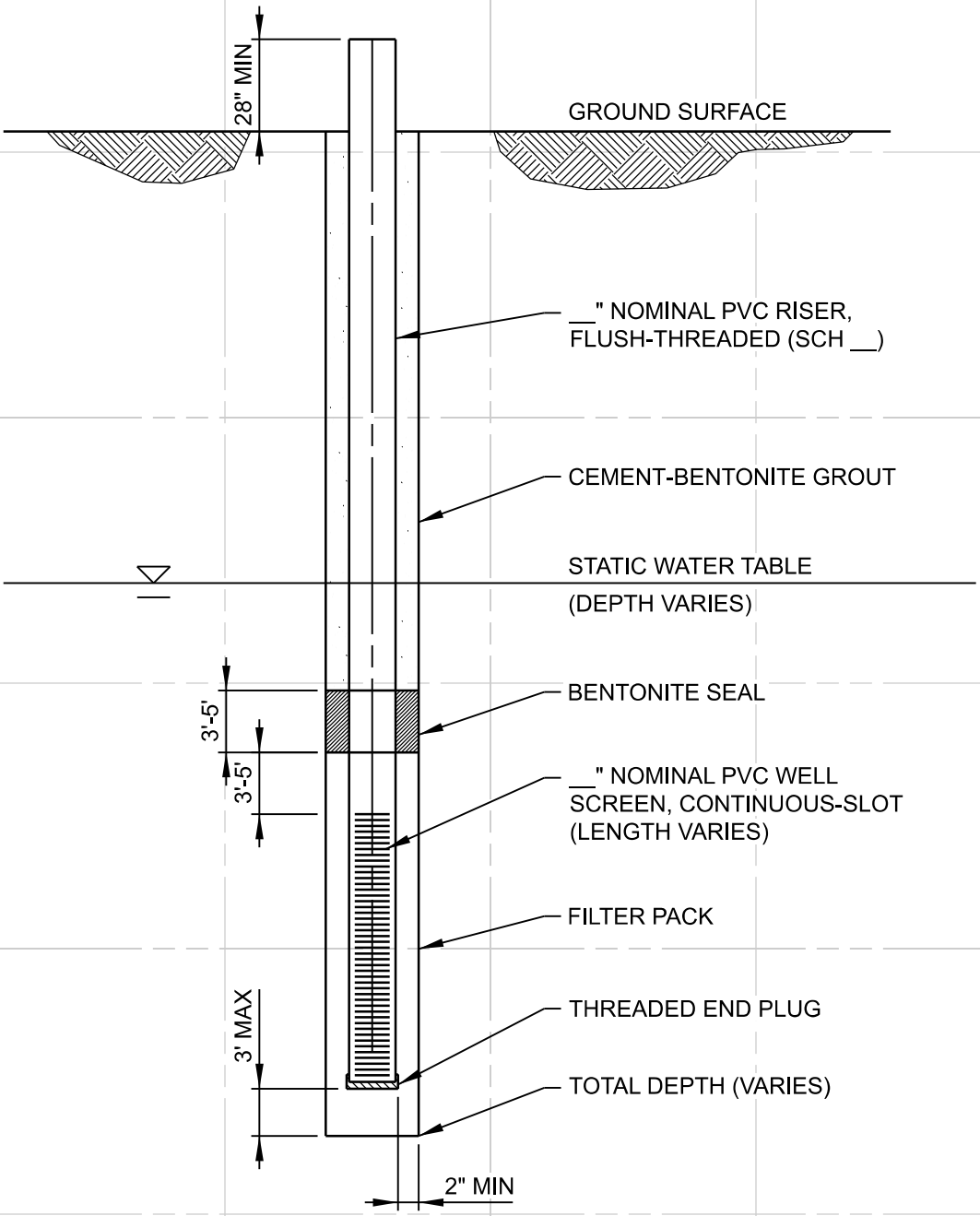
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A1

DETAIL: BOLLARD

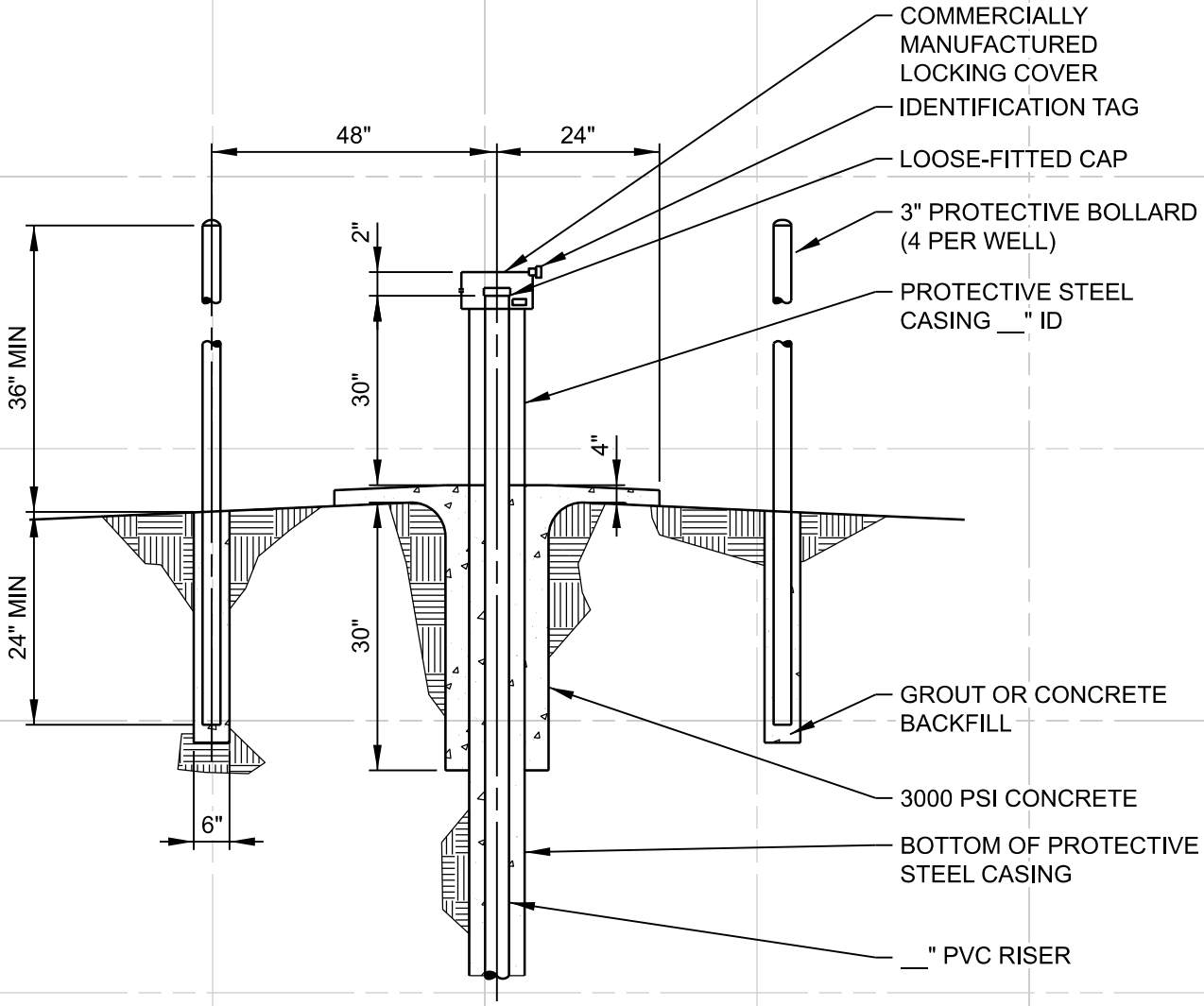
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A1

DETAIL: MONITORING WELL CONSTRUCTION

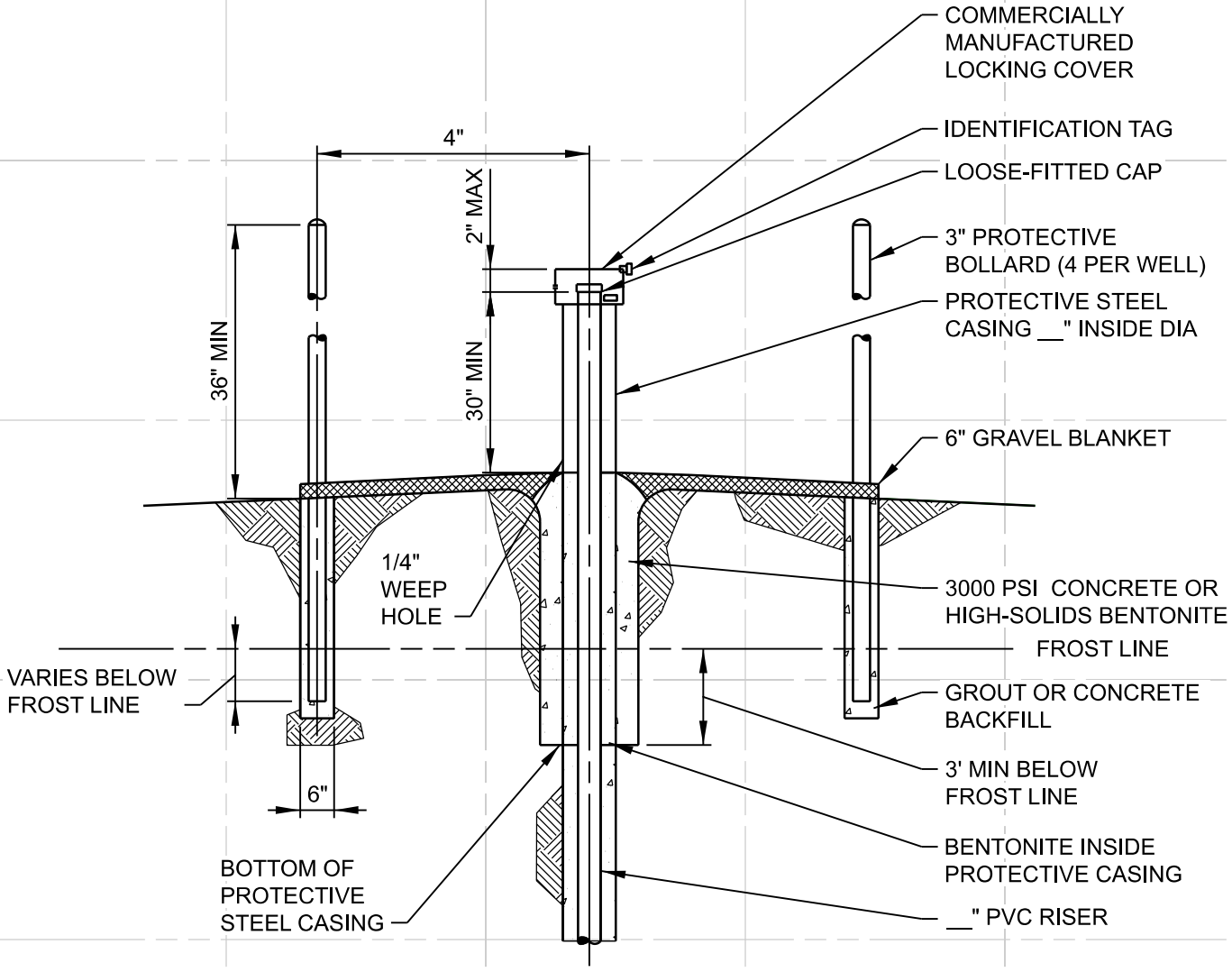
SCALE: NTS



A1

DETAIL: SURFACE COMPLETION FOR MONITORING WELLS

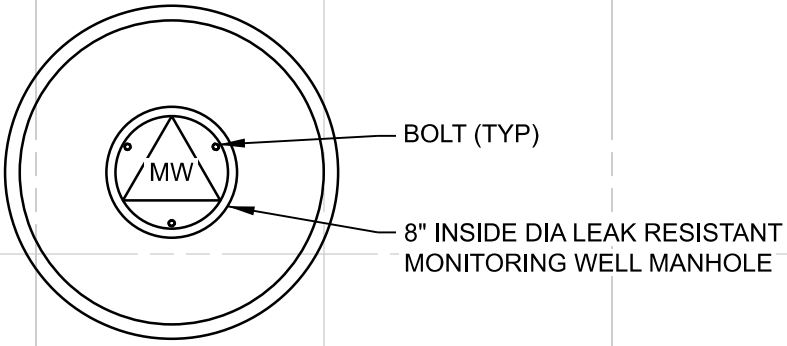
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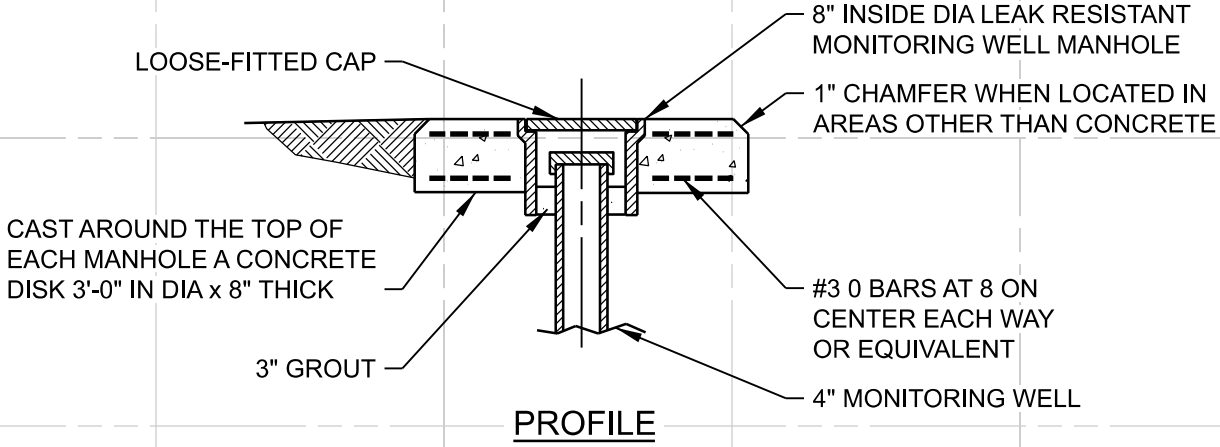
A1

DETAIL: MONITORING WELL SURFACE COMPLETION FOR FROST PROTECTION

SCALE: NTS



PLAN

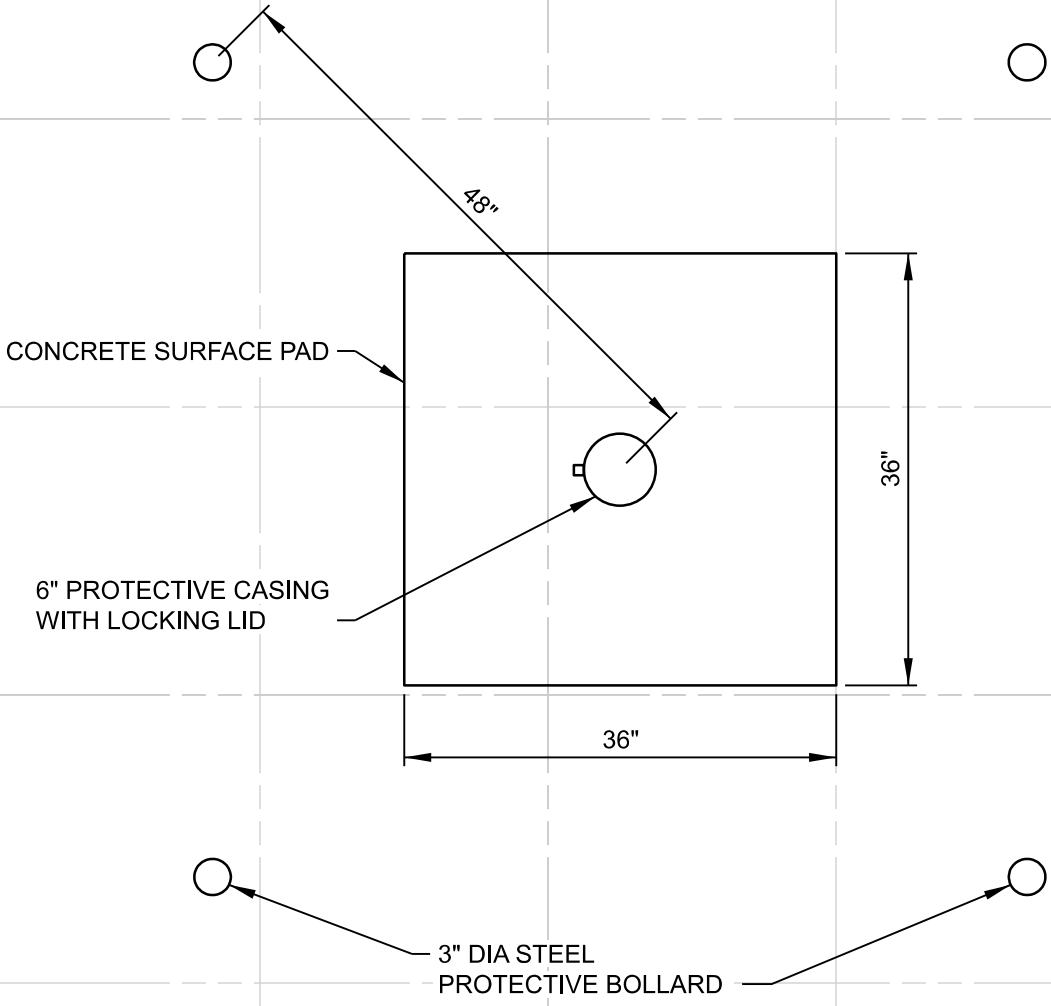


PROFILE

A1

DETAIL: MONITORING WELL FLUSH MOUNT COMPLETION

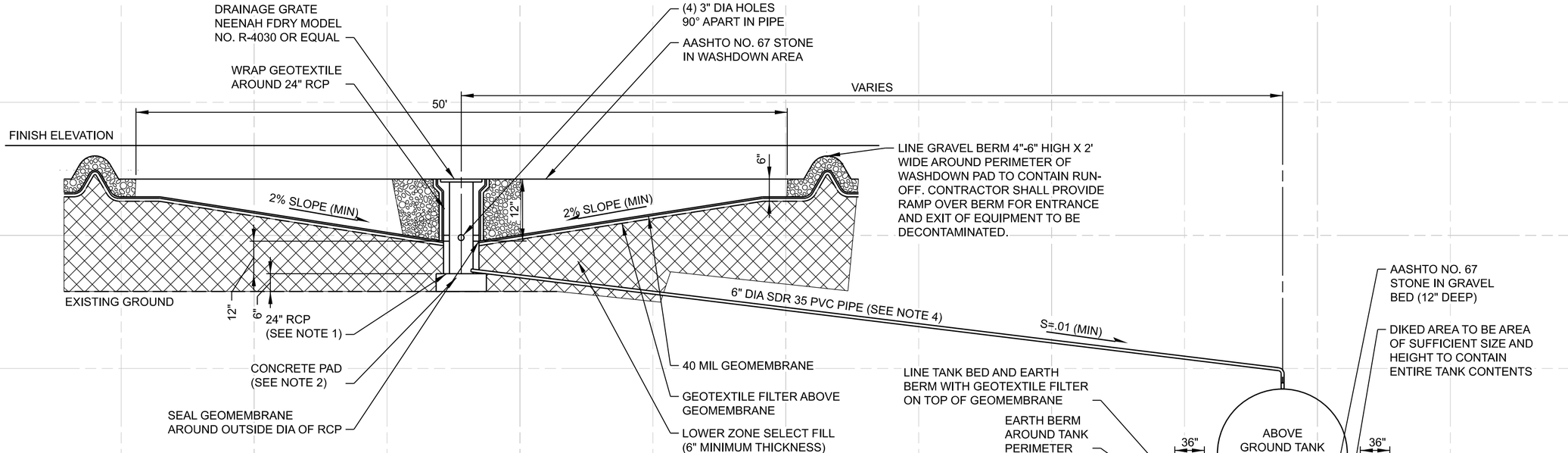
SCALE: NTS



A1

DETAIL: MONITORING WELL SURFACE COMPLETION PLAN

SCALE: NTS

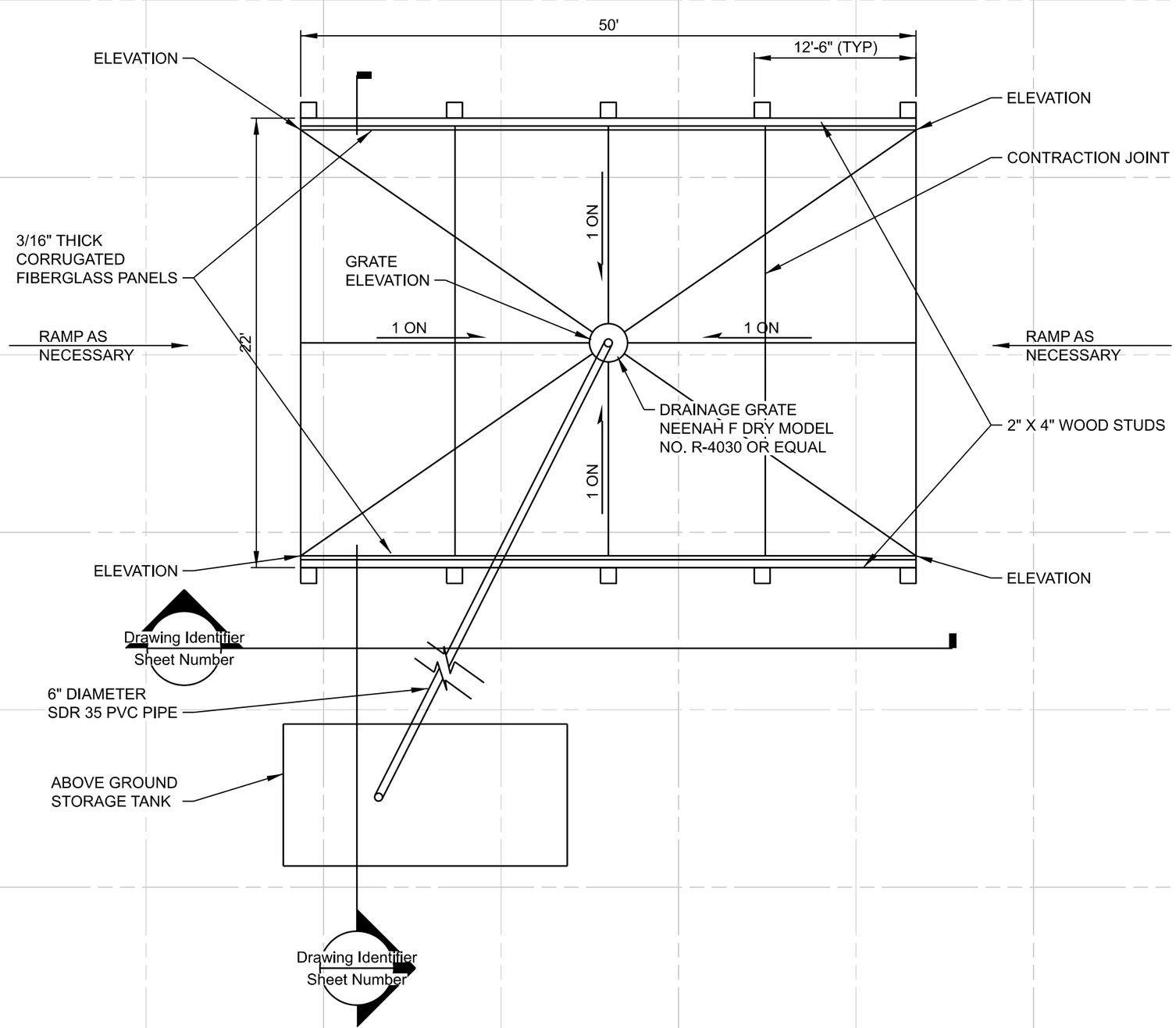


NOTES:
1. REINFORCED CONCRETE PIPE SHALL CONFORM TO ASTM C76 CLASS IV.
2. CONCRETE SHALL CONFORM TO ASTM C94, USING 3/4 INCH MAXIMUM SIZED AGGREGATE AND SHALL DEVELOP A COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. SEAL CONCRETE PAD TO 24" RCP USING AN EXTRUDED RUBBER FILLER.
3. PRECAST CONCRETE MANHOLE SHALL CONFORM TO ASTM C478. JOINTS SHALL BE FILLED WITH PREMOLDED MASTIC OR WITH MORTAR.
4. PVC PIPE SHALL BE SDR 35 AND SHALL CONFORM TO ASTM D1785 AND D1784. JOINTS SHALL BE CEMENTED SOCKET TYPE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
5. ABOVE GROUND TANK MUST MEET STATE REGULATORY REQUIREMENTS FOR STORAGE OF HAZARDOUS MATERIALS.
6. ALL PENETRATION DETAILS THROUGH THE GEOMEMBRANE SHALL BE AS DETAILED BY THE MANUFACTURER.
7. CONTRACTOR SHALL REMOVE THE CONCRETE PAD AND 24" RCP PRIOR TO PLACEMENT OF FINAL SELECT FILL.

A1

DETAIL: TEMPORARY EQUIPMENT WASHDOWN AREA

SCALE: NTS

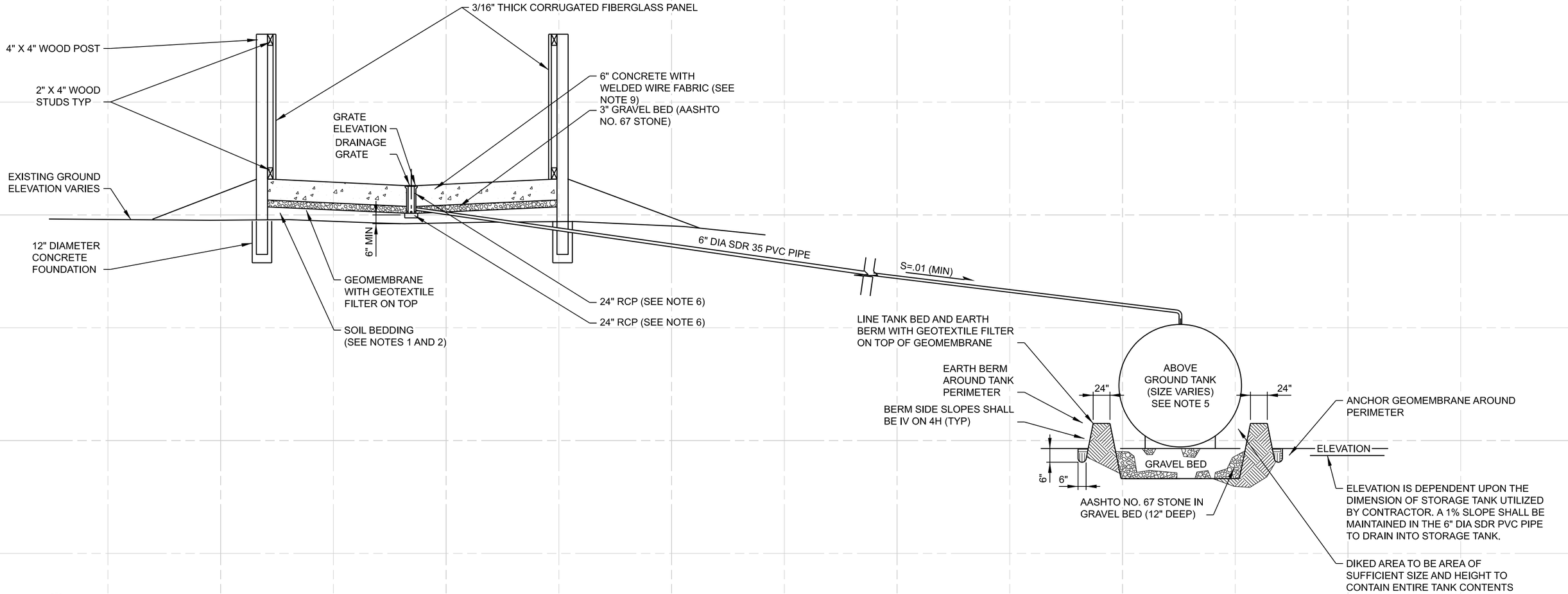


NOTE:
THE CONTRACTOR MAY CHANGE THE LOCATION OF THE DECONTAMINATION FACILITY FROM THAT SHOWN ON THE SITE CONTROL PLAN TO ACCOMODATE HIS OPERATION WITH APPROVAL FROM THE CONTRACTING OFFICER, BUT FUTURE REMEDIATION AND HEALTH AND SAFETY SHALL BE CONSIDERED IN THE RELOCATION.

A1

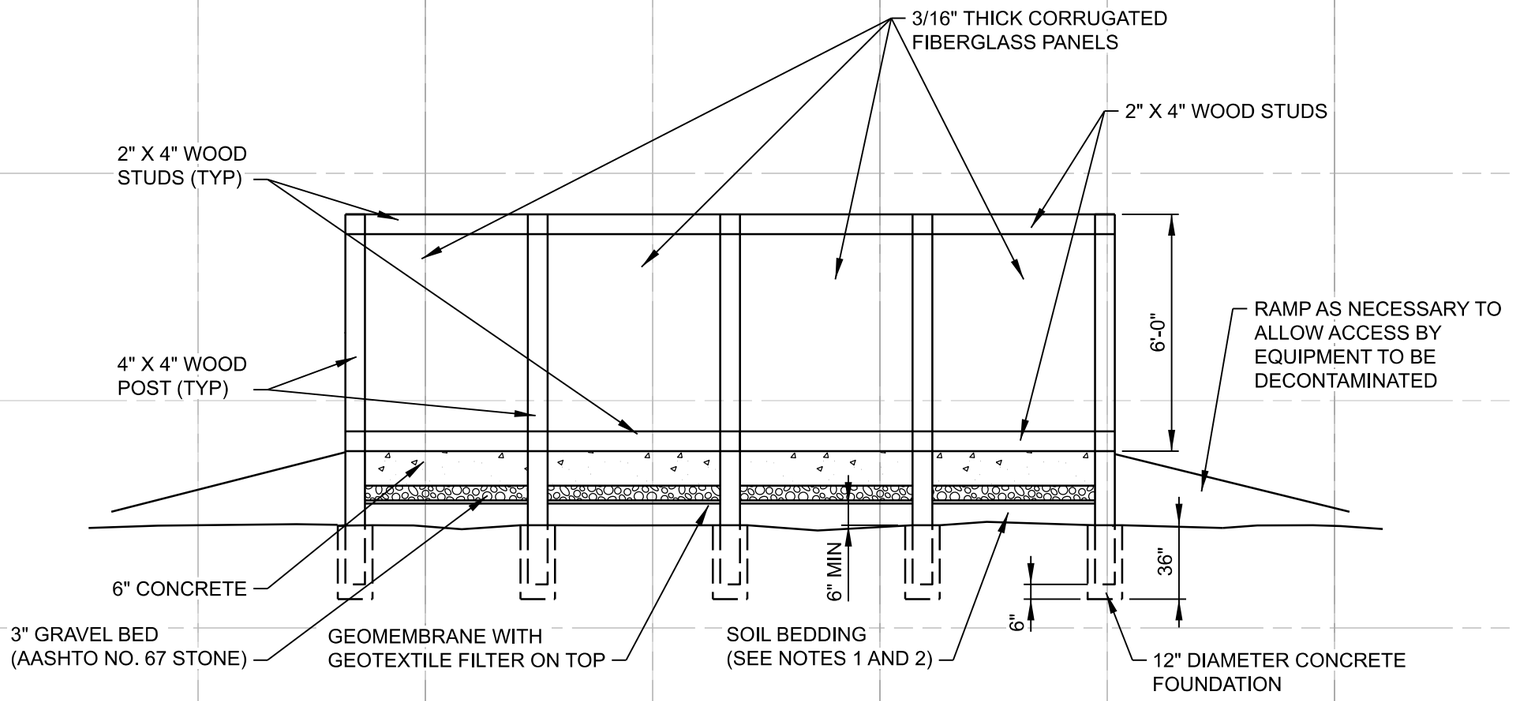
DETAIL: DECONTAMINATION FACILITY PLAN

SCALE: NTS



A1 DETAIL: DECONTAMINATION FACILITY SECTION

SCALE: NTS



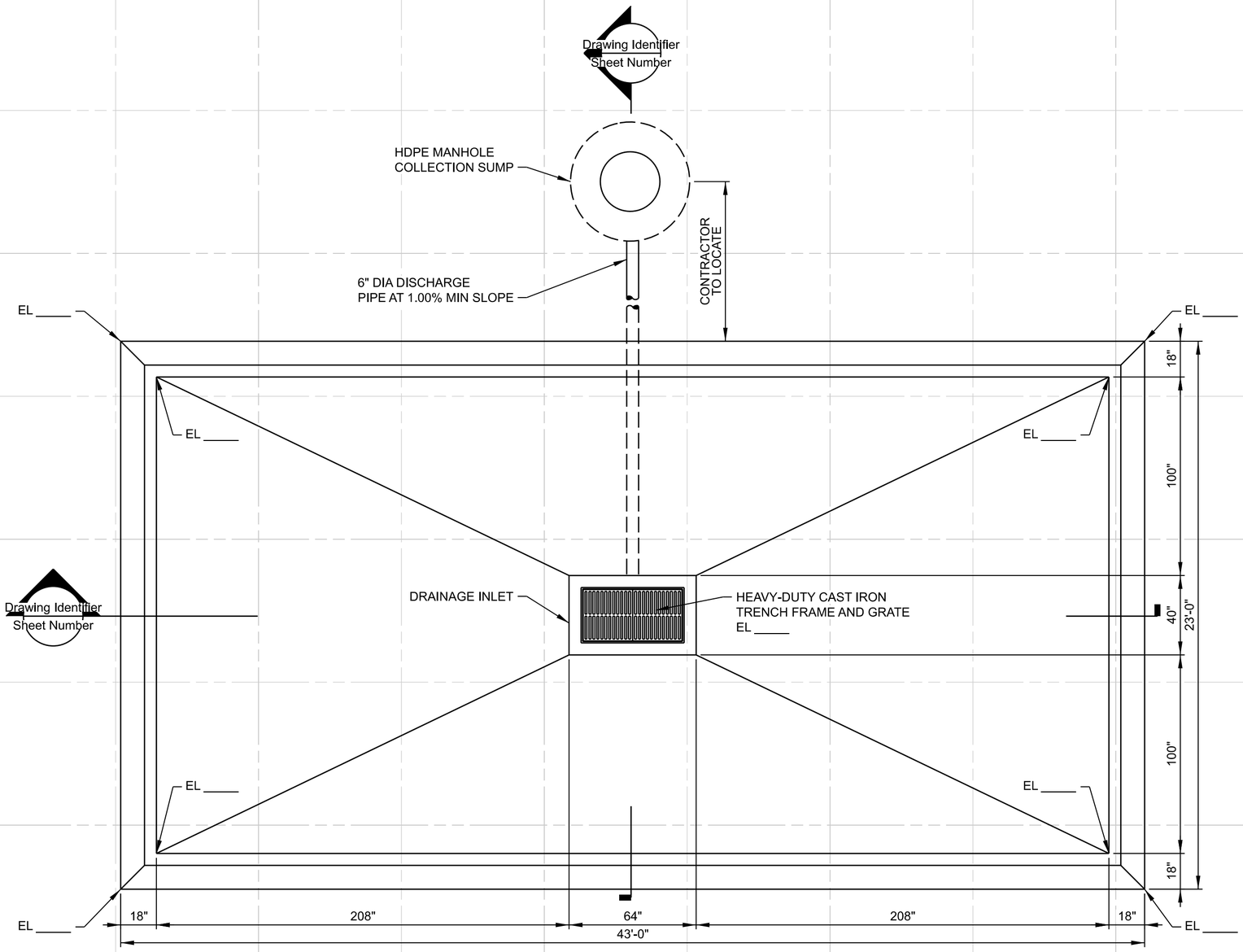
NOTES:

1. CONTRACTOR SHALL EXCAVATE AND FILL AS REQUIRED TO ESTABLISH WASTE PILE ELEVATIONS. CONTRACTOR SHALL PLACE AT LEAST 6" OF SOIL BEDDING MATERIAL UNDER ALL GEOMEMBRANES
2. SOIL BEDDING SHALL CONSIST OF SUITABLE BACK FILL CLASSIFIED IN ASTM D2487 AS CL, CH, SC AND SHALL BE FREE OF DEBRIS, ROOTS, ORGANIC OR FROZEN MATERIAL AND STONE HAVING A MAXIMUM DIMENSION OF 1 INCH OR ANY OTHER MATERIAL THAT COULD PUNCTURE THE GEOMEMBRANE
3. CONTRACTOR SHALL CONSTRUCT DRAINAGE SWALES AS NECESSARY TO PREVENT SURFACE RUNOFF FROM ENTERING THE DECONTAMINATION FACILITY.
4. PVC PIPE SHALL BE SDR AND SHALL CONFORM TO ASTM D1785 AND D1784. JOINTS SHALL BE CEMENTED SOCKET TYPE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
5. ABOVE GROUND TANK SHALL MEET STATE REGULATORY REQUIREMENTS FOR STORAGE OF HAZARDOUS MATERIAL.
6. REINFORCED CONCRETE PIPE SHALL CONFORM TO ASTM C 76 CLASS IV
7. CONCRETE SHALL BE AS SPECIFIED IN SECTION _____ PORTLAND CEMENT CONCRETE. AND CURBS TO ADJACENT SURFACES USING AN EXTRUDED RUBBER FILLER OR MORTAR. SEAL CONTRACTION JOINTS WITH SEALANT SPECIFIED IN SECTION TITLED "PORTLAND CEMENT CONCRETE".
8. PRECAST CONCRETE MANHOLE SHALL CONFORM TO ASTM C478. JOINTS SHALL BE FILLED WITH PREMOLDED MASTIC OR WITH MORTAR.
9. WELDED WIRE FARIC SHALL BE WWF 6 X 6-W2.9 X W2.9. (SEE SLAB REINFORCING DETAIL ON SHEET ___.)
10. CONTRACTOR SHALL LEAVE THE DECONTAMINATION FACILITY IN PLACE UPON COMPLETION OF THE PROJECT TO BE USED FOR FUTURE REMEDIATION WORK.
11. CONTRACTOR SHALL NOT ALLOW PRECIPITATION OR OTHER WATER OTHER THAN DECONTAMINATION WATER TO ENTER THE DECONTAMINATION FACILITY TANK.
12. CONTRACTOR SHALL PROVIDE PERFORATIONS IN THE RCP TO ALLOW DECONTAMINATION WATER COLLECTED ON THE GEOMEMBRANE TO DRAIN. SEAL GEOMEMBRANE TO 24" RCP TO PREVENT INFILTRATION INTO SURFACE BELOW.

A1

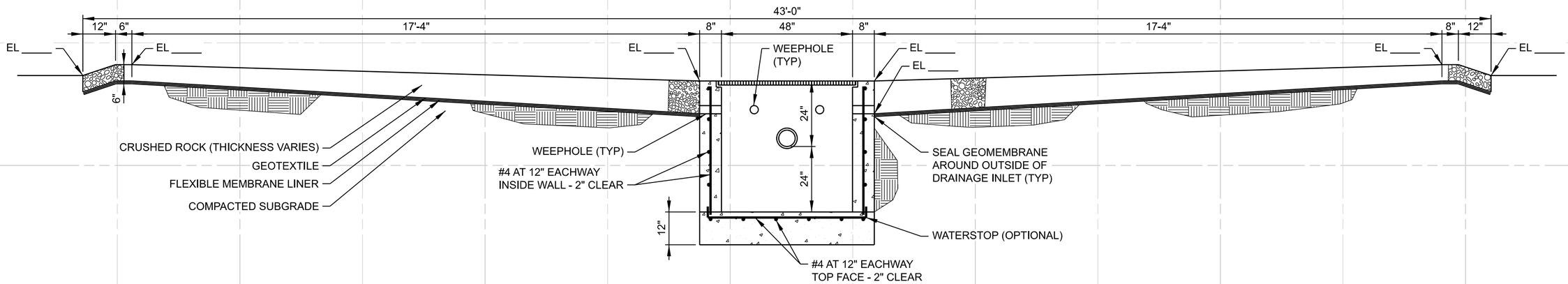
DETAIL: DECONTAMINATION FACILITY SECTION

SCALE: NTS



A1 DETAIL: EQUIPMENT DECONTAMINATION PAD PLAN

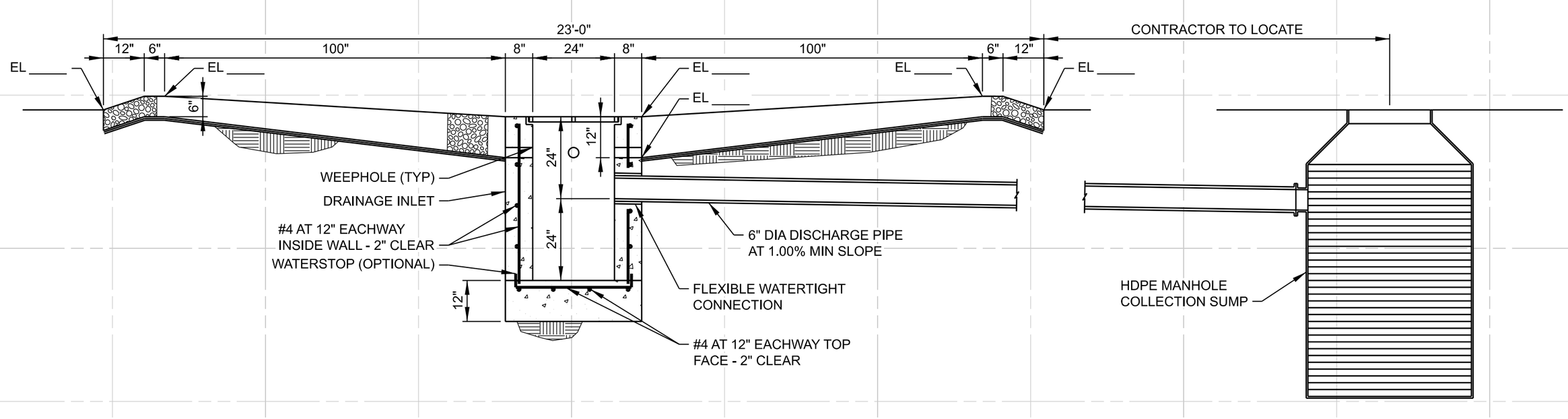
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A1

DETAIL: EQUIPMENT DECONTAMINATION PAD SECTION

SCALE: NTS



A1 DETAIL: EQUIPMENT DECONTAMINATION PAD SECTION

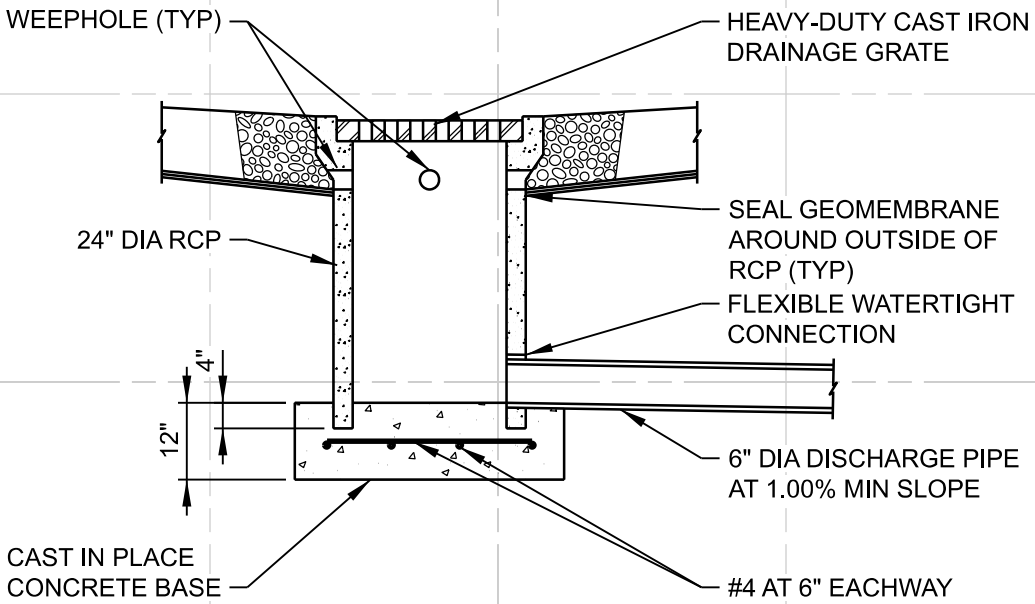
SCALE: NTS

COLLECTION SUMP NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE SIZE OF COLLECTION SUMP REQUIRED TO CONTAIN DECONTAMINATION WATER.
2. THE CONTRACTOR MAY USE AN UNDERGROUND STORAGE TANK IN LIEU OF HDPE MANHOLE SHOWN. THE TYPE OF COLLECTION SUMP USED SHALL BE WATERTIGHT.
3. THE COLLECTION SUMP SHALL BE ANCHORED TO PREVENT FLOTATION AS NEEDED.

DECONTAMINATION PAD NOTES

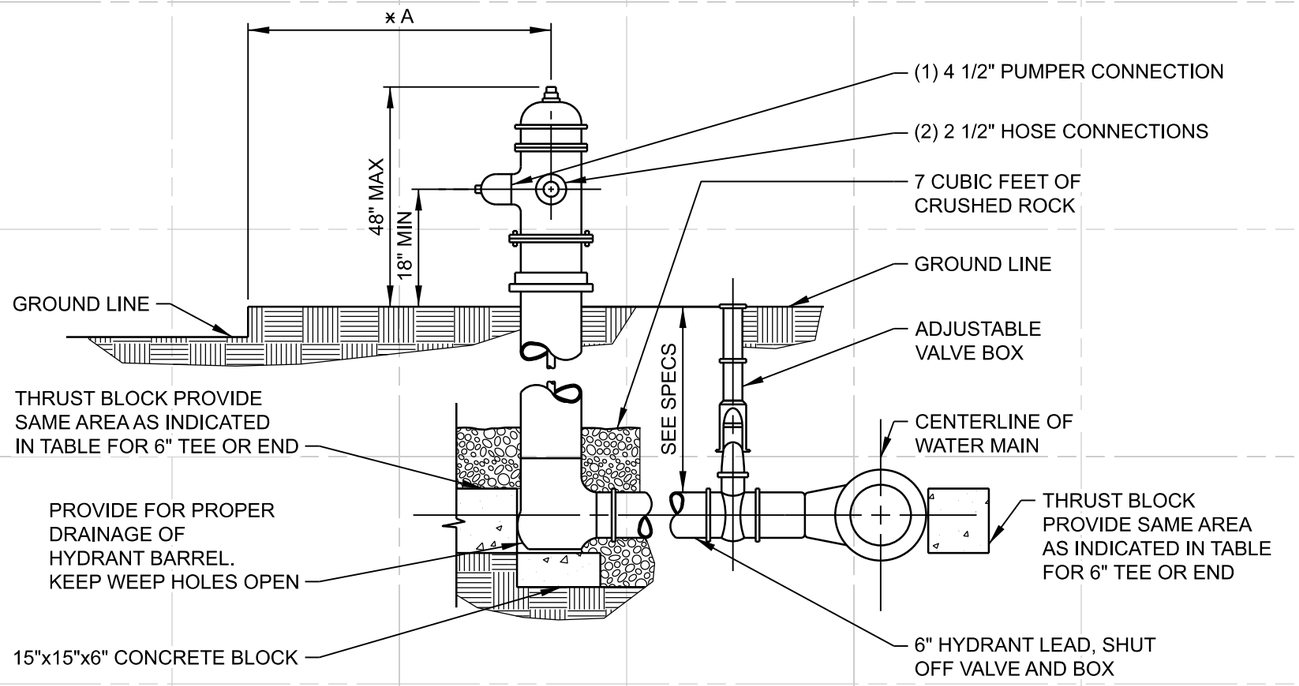
1. TRENCH FRAME AND GRATE SHALL BE CAST IRON, CLASS 35, FOR HEAVY DUTY USE. DIMENSIONS SHALL BE SHOWN ON DETAILS.
2. REINFORCING STEEL FY = 60 KSI.
3. THE MINIMUM CLEAR COVER OF CONCRETE OVER REINFORCING STEEL SHALL BE 3" FOR CONCRETE PLACED DIRECTLY AGAINST THE SOIL.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE DECONTAMINATION PAD THROUGHOUT THE DURATION OF THE CONTRACT.
5. THE CONTRACTOR MAY ADJUST THE SIZE OF THE DECONTAMINATION PAD SHOWN AS NEEDED FOR HIS OPERATIONS.
6. THE CONTRACTOR MAY DELETE DISCHARGE PIPE AND SUMP MANHOLE SHOWN AND MAY INSTALL A SUMP IN THE DRAINAGE INLET. THE SUMP SHALL DISCHARGE INTO AN ABOVEGROUND STORAGE TANK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE SIZE OF TANK REQUIRED.
7. WATERSTOPS SHALL BE INSTALLED BETWEEN BOTTOM SLAB AND SIDE WALLS OF DRAINAGE INLET IF CONSTRUCTION JOINT IS USED.
8. THE CONTRACTOR MAY USE THE OPTIONAL RCP DRAINAGE INLET IN LIEU OF REINFORCED CONCRETE INLET SHOWN.
9. THE CONTRACTOR SHALL INSTALL WEEPHOLES IN DRAINAGE STRUCTURE AS SHOWN.
10. ACTUAL FIELD LOCATION OF DECON PAD SHALL BE APPROVED BY THE CONTRACTING OFFICER.
11. UPON COMPLETION OF THE CONTRACT, THE ENTIRE DECONTAMINATION PAD SHALL BE REMOVED AND DISPOSED BY THE CONTRACTOR. THE AREA SHALL BE RESTORED TO CONDITIONS PRIOR TO THE CONTRACT.
12. ALL MEMBRANE SEALS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.



A1

DETAIL: OPTIONAL DECON PAD DRAINAGE INLET

SCALE: NTS

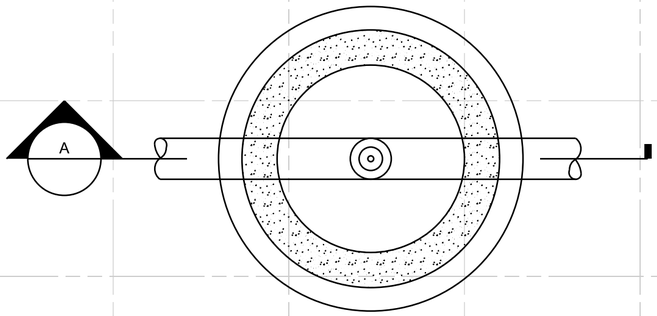


* A =7'-0" FROM BACK OF PAVEMENT WHERE NO CURB EXISTS OR 4'-0" FROM BACK OF CURB.

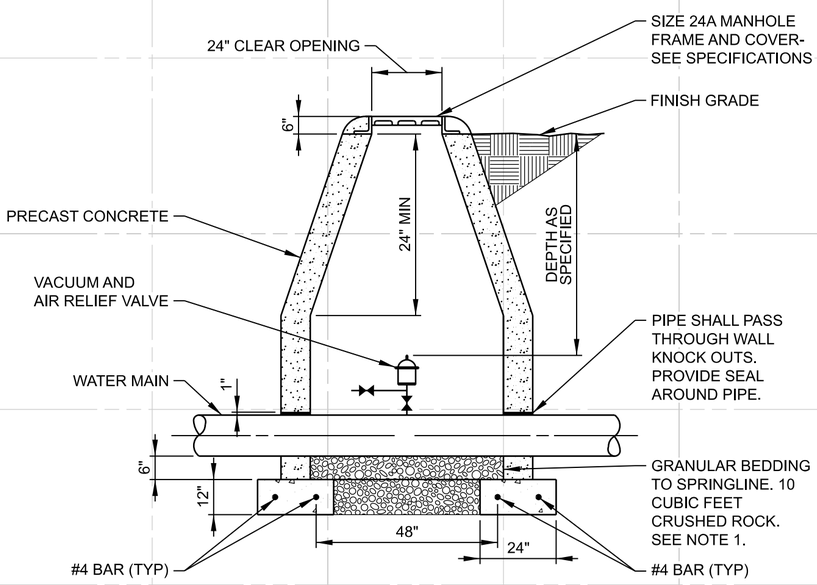
A1

DETAIL: FIRE HYDRANT SETTING

SCALE: NTS



PLAN

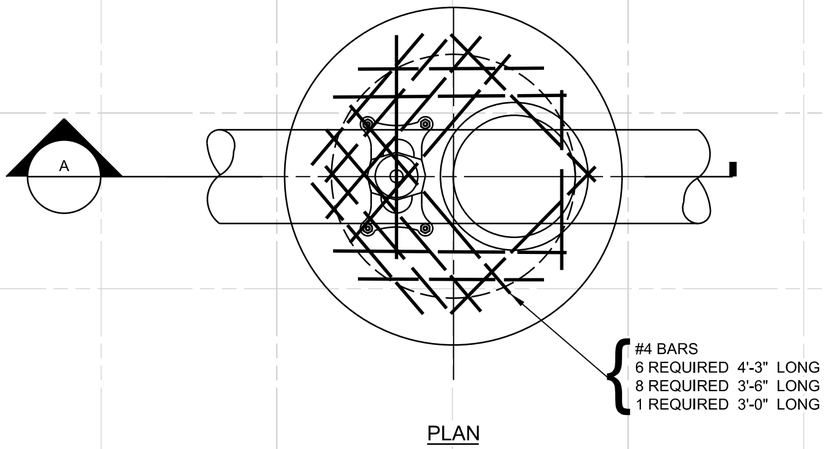


SECTION A

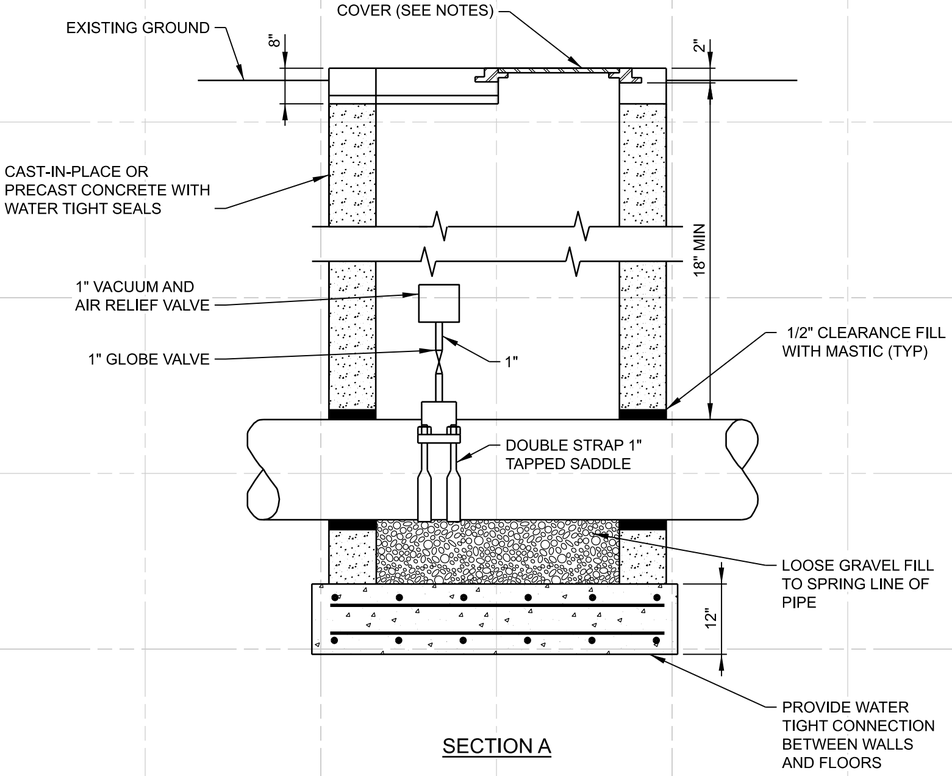
NOTES:
1. PROVIDE SUITABLE SUPPORT TO RELIEVE STRESS ON PIPE AND FITTINGS WITH GRANULAR BEDDING TO SPRING LINE OF PIPE.
2. PROVIDE NON-RIGID JOINT A DISTANCE FROM 1 TO 2 FEET ON EACH SIDE OF THE MANHOLE.
3. A FLAT TOP MANHOLE MAY BE USED.

A1 DETAIL: TYPICAL VACUUM AND AIR RELIEF VALVE MANHOLE, DRY CONDITIONS

SCALE: NTS



PLAN



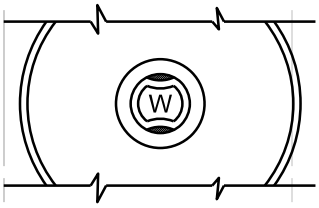
SECTION A

NOTES:
1. USE 24" FRAME AND COVER FOR TRAFFIC LOADINGS OR DEEP INSTALLATIONS.
2. USE LIGHT-DUTY FRAME AND COVER AND LARGER DIAMETERS FOR SHALLOW INSTALLATIONS AND NON-TRAFFIC AREAS.

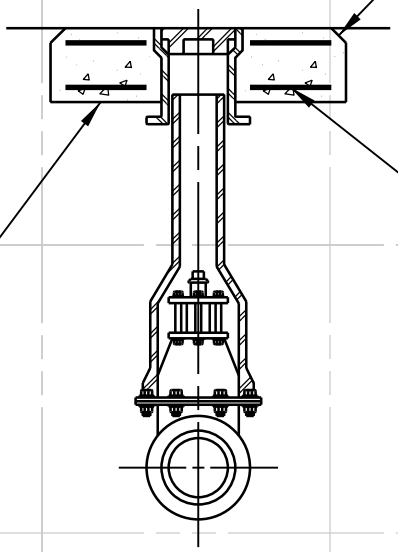
A1

DETAIL: VACUUM AND AIR RELIEF VALVE MANHOLE HIGH GROUNDWATER CONDITIONS

SCALE: NTS



PLAN



1" CHAMFER WHEN LOCATED IN AREAS OTHER THAN CONCRETE

#3 DIA BARS AT 8 ON CENTER EACH WAY OR EQUIVALENT

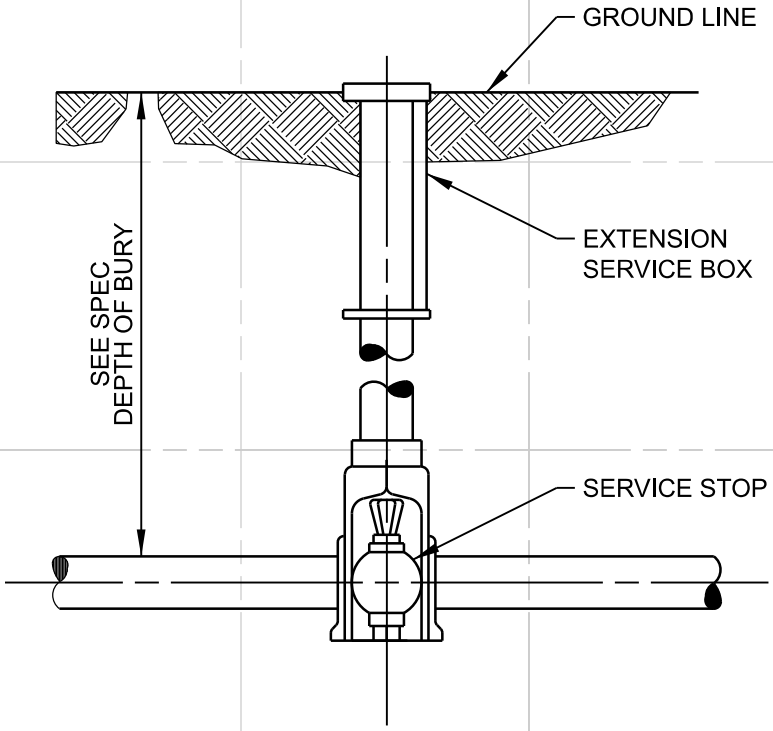
CAST AROUND THE TOP OF EACH VALVE BOX A CONCRETE DISK 3'-0" IN DIA x 8" THICK WHEN VALVES ARE LOCATED IN ROADS, SIDEWALKS, OR OTHER PAVED AREAS

NOTE:
CONCRETE DISK MAY BE USED IN NON PAVED AREAS AS A VALVE MARKER.

A1

DETAIL: VALVE BOX

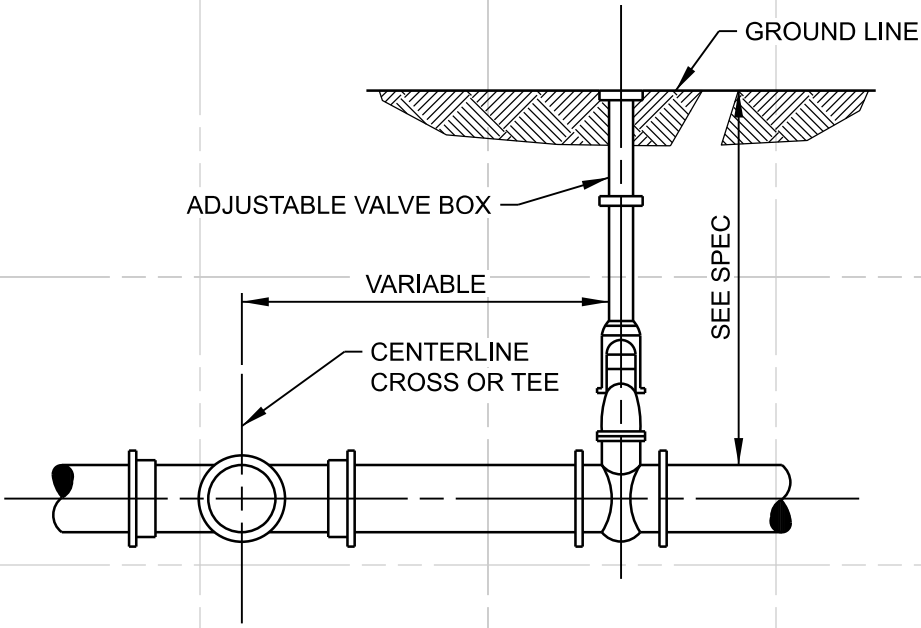
SCALE: NTS



A1

DETAIL: SERVICE BOX SETTING

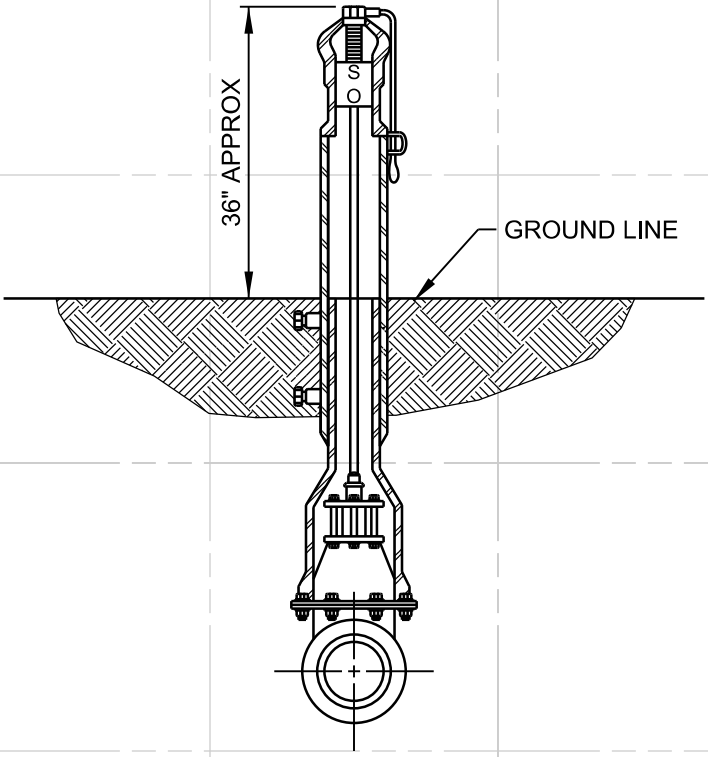
SCALE: NTS



A1

DETAIL: VALVE SETTING

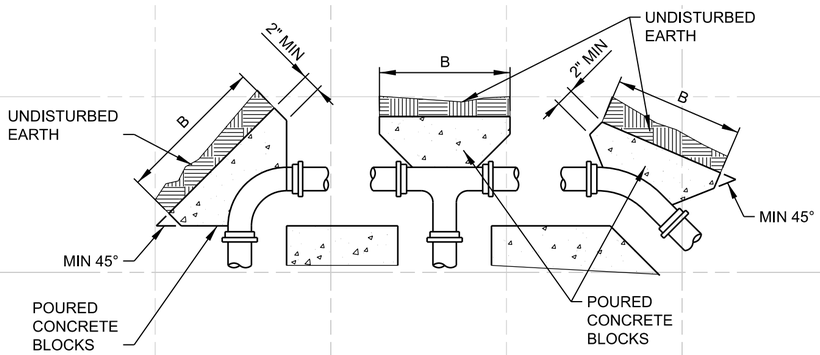
SCALE: NTS

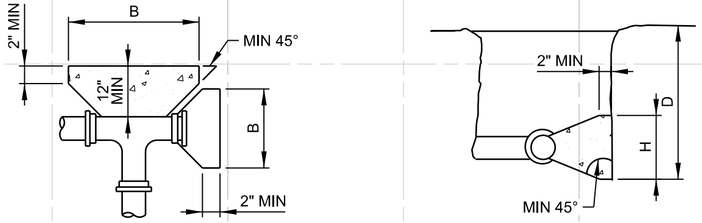


A1

DETAIL: POST INDICATOR VALVE

SCALE: NTS





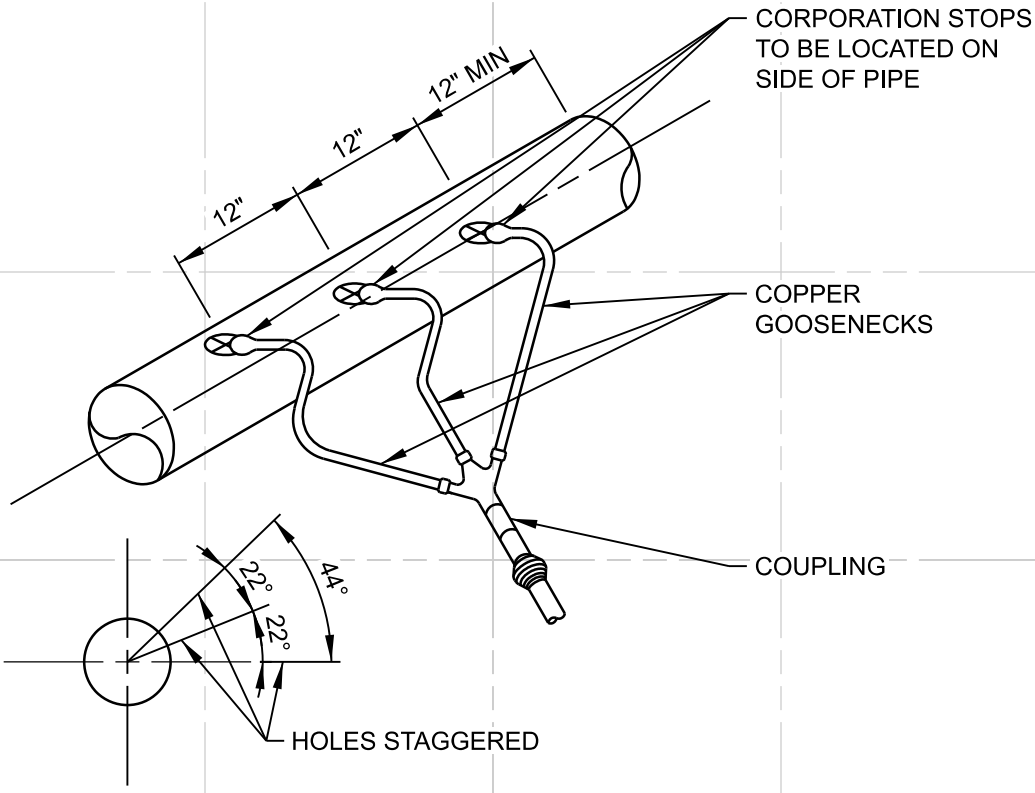
BEARING AREA OF BLOCK IN SQ FT (B x H)					
FITTING SIZES	TEE AND END	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND

NOTES:
1. PLACE 4 ml. POLYETHYLENE BETWEEN CONCRETE AND FITTING (CONCRETE SHALL NOT INTERFERE WITH JOINT.)
2. MINIMUM CONCRETE THICKNESS SHALL BE 12 INCHES.
3. THE HORIZONTAL DIMENSION (b) OF THE BEARING AREA SHALL BE BETWEEN 1.0 AND 2.0 TIMES THE VERTICAL DIMENSION (h). (h <= b <= 2h)
4. THE VERTICAL DIMENSION (h) OF THE BEARING AREA SHALL BE EQUAL TO ONE-HALF THE TOTAL DEPTH (D) TO THE BOTTOM OF THE THRUST BLOCK BUT NOT LESS THAN THE OUTSIDE DIAMETER (Do) OF THE FITTING (Do < h <= D/2).
5. THRUST BLOCK ORIENTATION SHALL BE SUCH THAT THE CENTER OF THE FITTING CORRESPONDS WITH THE CENTER OF THE THRUST BLOCK.
6. THE MINIMUM ALLOWABLE ANGLE (EITHER VERTICAL OR HORIZONTAL) SHALL BE 45 DEGREES.

A1

DETAIL: THRUST BLOCKING

SCALE: NTS

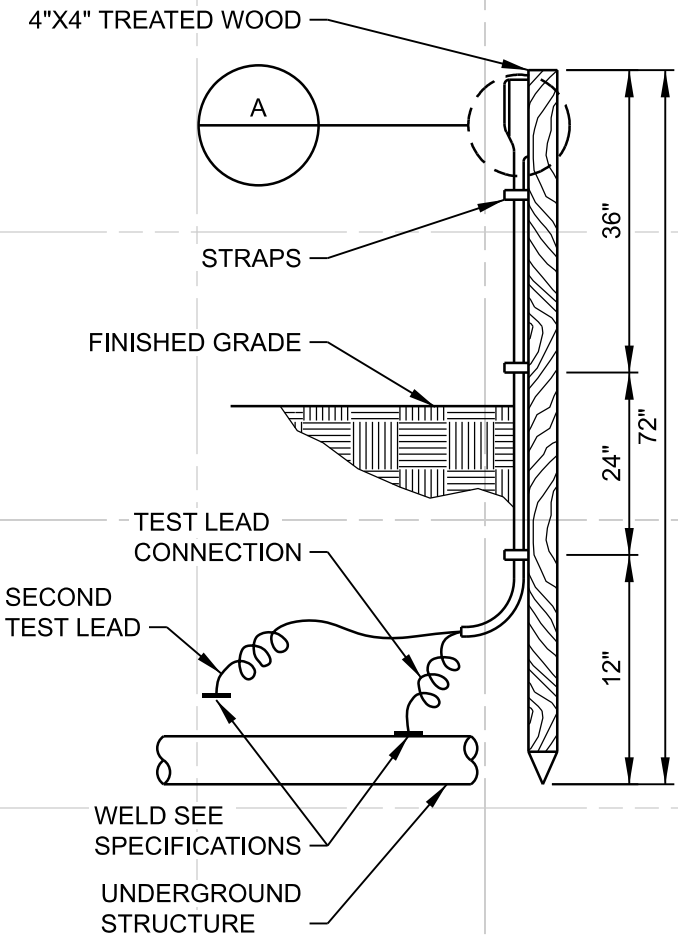


NOTE:
WHERE CONNECTIONS ARE MADE BETWEEN FERROUS AND COPPER PIPE, A DIELECTRIC UNION SHALL BE PROVIDED.

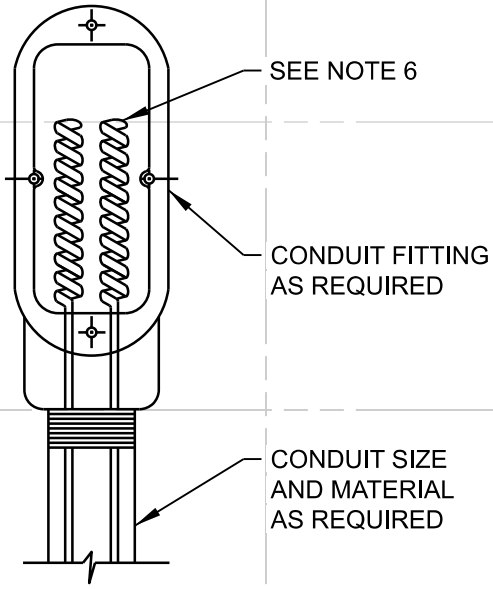
A1

DETAIL: GOOSENECK CONNECTION

SCALE: NTS



ELEVATION



DETAIL A

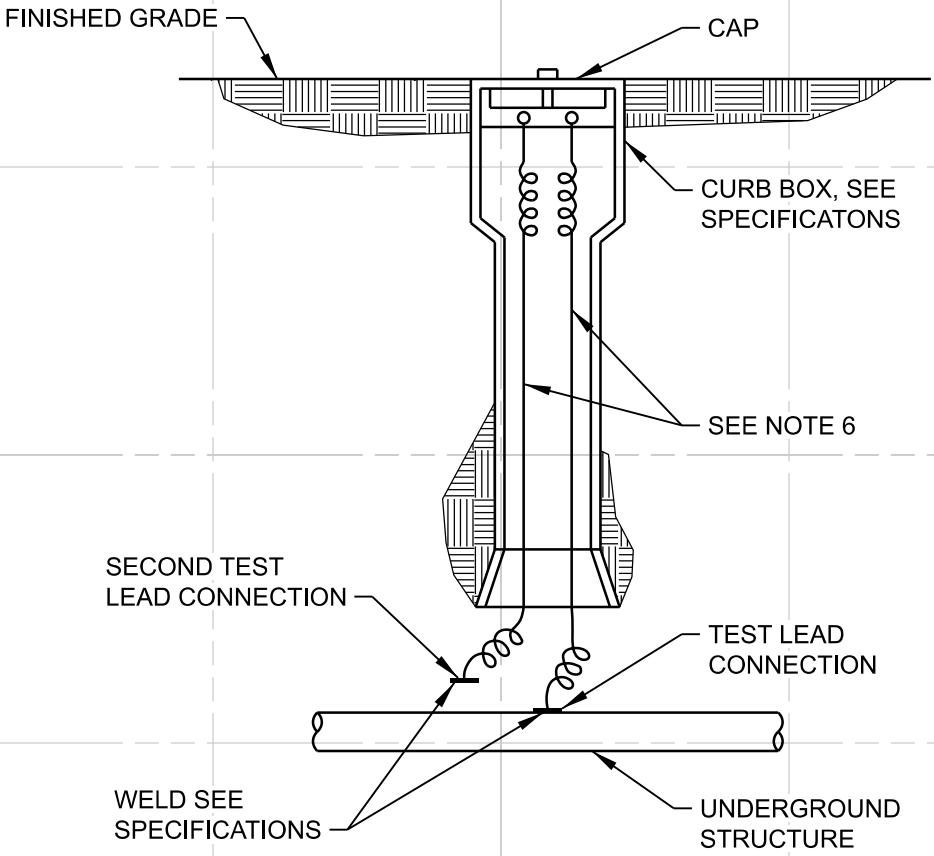
NOTES:

1. TYPE OF TEST STATION AND LOCATION TO BE DETERMINED BY CONTRACTING OFFICER.
2. TEST LEAD BOX TO CONSIST OF CROUSE-HINDS E57 CONDULET WITH COVER AND GASKET OR APPROVED EQUAL.
3. 12" OF SLACK TEST LEAD WIRE TO BE LEFT IN TEST LEAD BOX AND WIRE CONNECTOR OR ELECTRICAL TAPE TO BE PLACED OVER THE END OF THE TEST LEAD, ALL TEST LEADS TO BE OF NO. 12 TW SOLID COPPER WIRE.
4. EARTH AROUND TEST STATION SUPPORTING POST WILL BE THOROUGHLY COMPACTED AT THE TIME OF INSTALLATION.
5. PROVIDE THIS TEST STATION WHEN SPECIFIED ON THE CONTRACT DRAWINGS, OR IN THE SPECIFICATIONS, OR AS DIRECTED.
6. PROVIDE ONE TEST LEAD UNLESS OTHERWISE NOTED. LEADS SHALL BE COLOR CODED.

A1

DETAIL: POST MOUNTED TEST LEAD STATION

SCALE: NTS



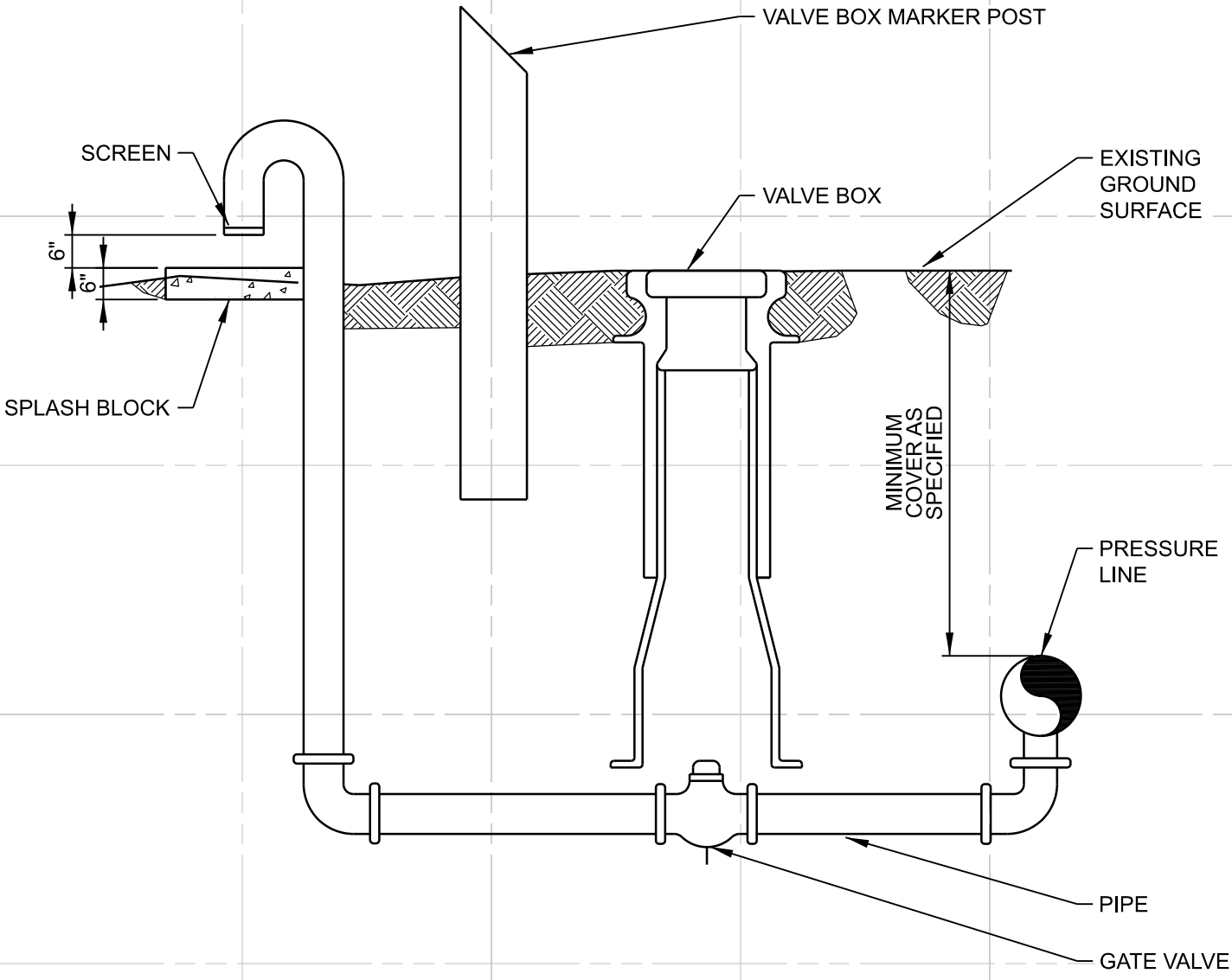
NOTES:

1. TYPE OF TEST STATION AND LOCATION TO BE DETERMINED BY CONTRACTING OFFICER.
2. TEST LEADS TO BE INSTALLED IN CURB BOXES (OF CURB INLET OR PLASTIC).
3. CURB BOXES TO BE INSTALLED FLUSH WITH GROUND AND LOCATED OVER OR NEAR PIPE LINE TO WHICH TEST LEAD IS ATTACHED.
4. TEST LEADS TO CONSIST OF NO. 12 TW WIRE WITH ADEQUATE SLACK LEFT IN EXCAVATION AND CURB BOX.
5. PROVIDE THIS TEST STATION WHEN SPECIFIED ON THE CONTRACT DRAWINGS, OR IN THE SPECIFICATIONS, OR AS DIRECTED.
6. PROVIDE ONE TEST LEAD UNLESS OTHERWISE NOTED. LEADS SHALL BE COLOR CODED.

A1

DETAIL: CURB BOX TEST LEAD STATION

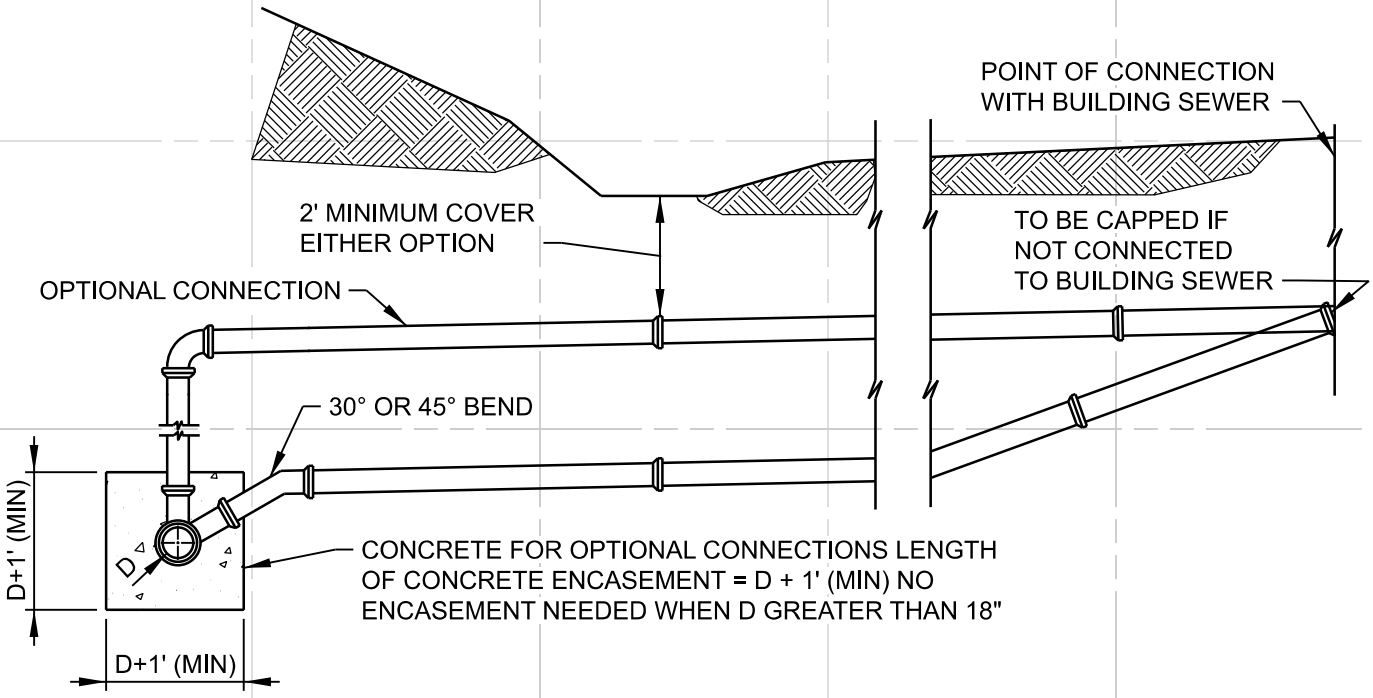
SCALE: NTS



A1

DETAIL: BLOW-OFF ASSEMBLY

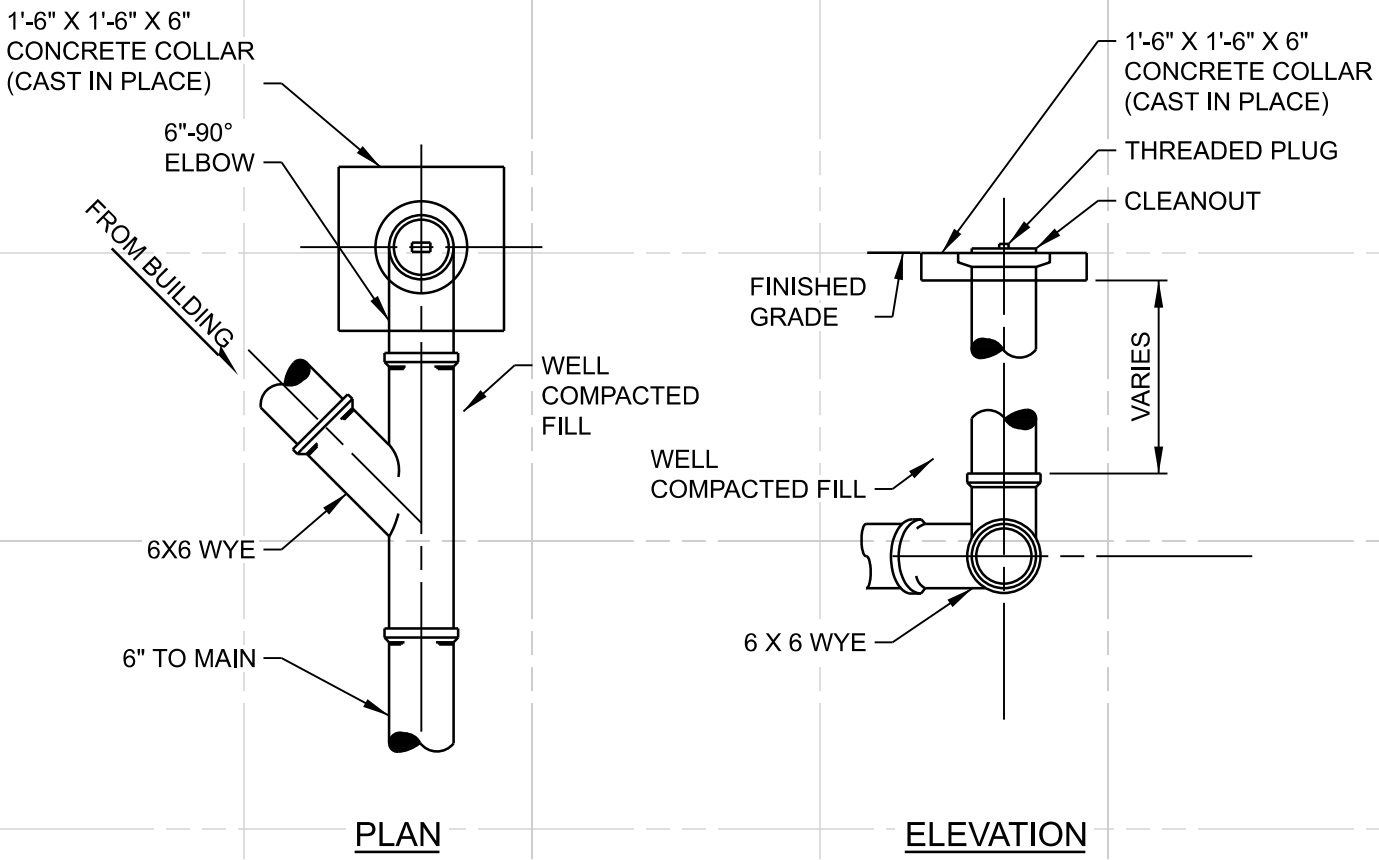
SCALE: NTS



A1

DETAIL: STANDARD SANITARY/INDUSTRIAL WASTE SEWER BUILDING CONNECTIONS

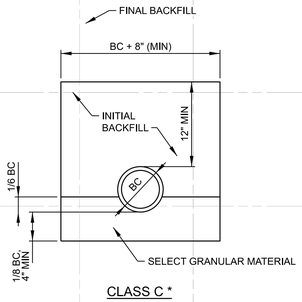
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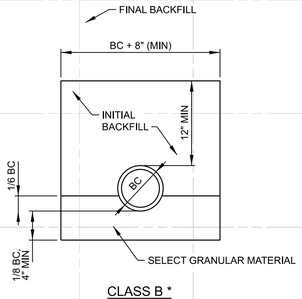
A1

DETAIL: BUILDING SEWER CLEANOUT

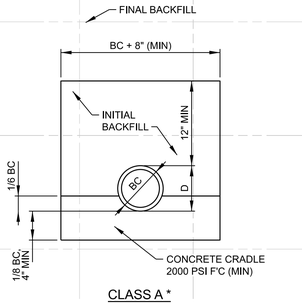
SCALE: NTS



CLASS C *



CLASS B *



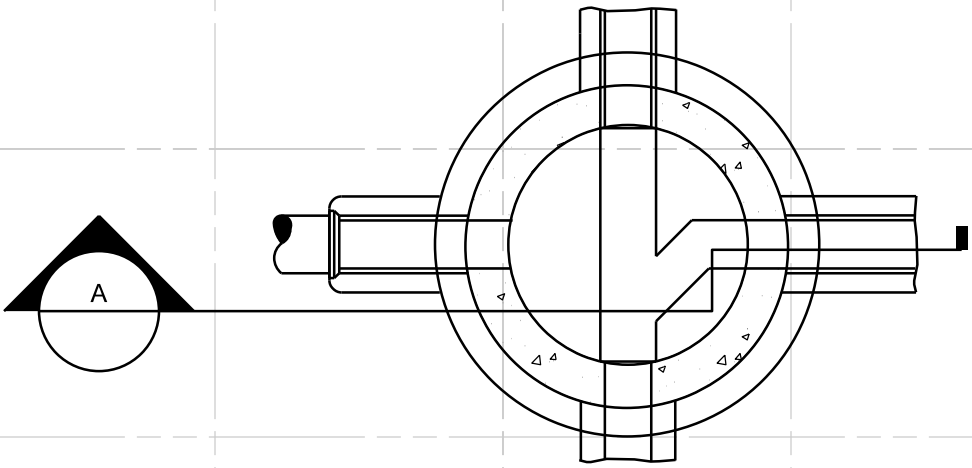
CLASS A *

INITIAL BACKFILL	
PIPE MATERIAL	MAX PARTICLE SIZE
PLASTIC	1/2"
COATED OR WRAPPED	1/2"
OTHER	1 1/2"

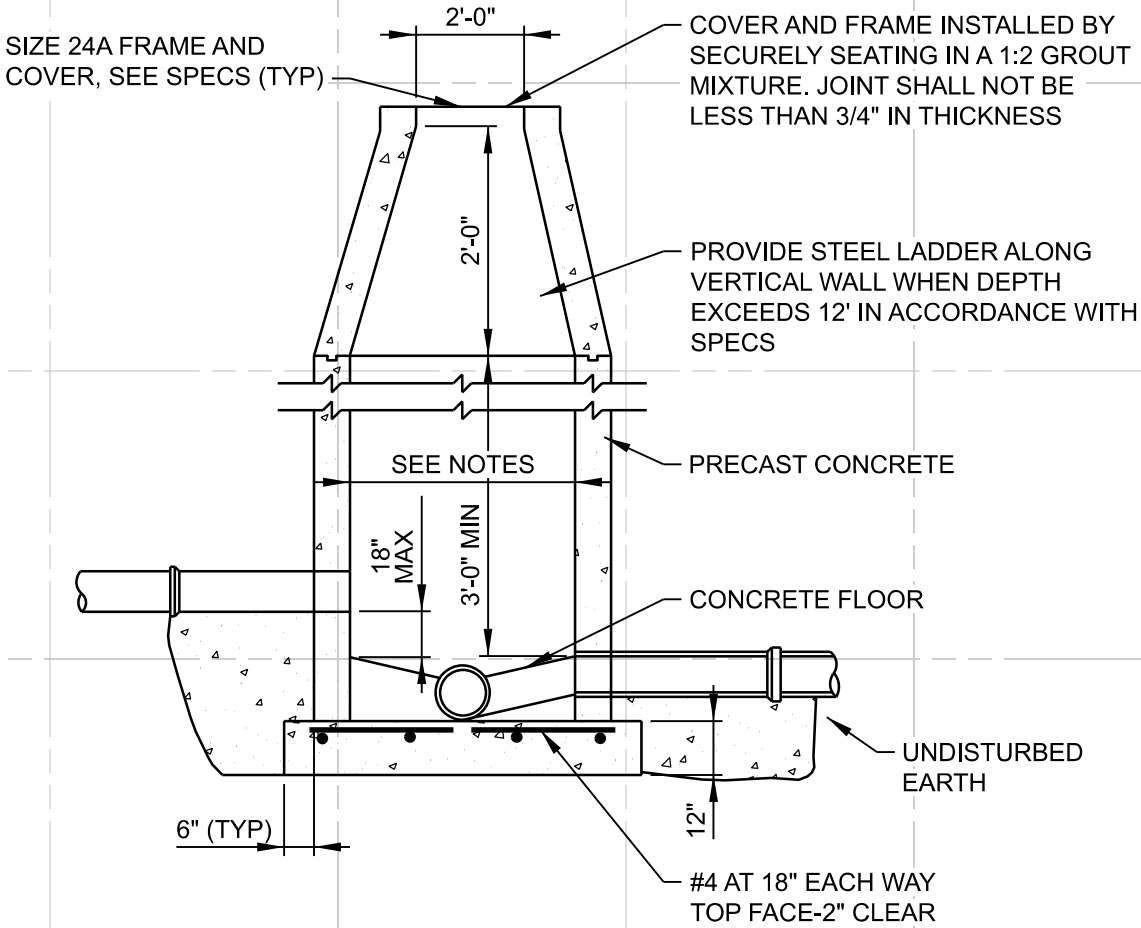
* SEE SPECS FOR COMPACTION MATERIAL REQUIREMENTS

A1 DETAIL: BEDDING

SCALE: NTS



PLAN

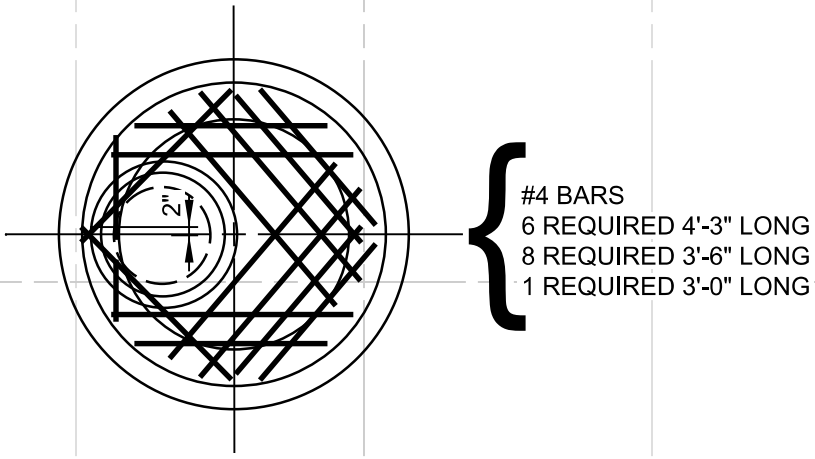


SECTION A

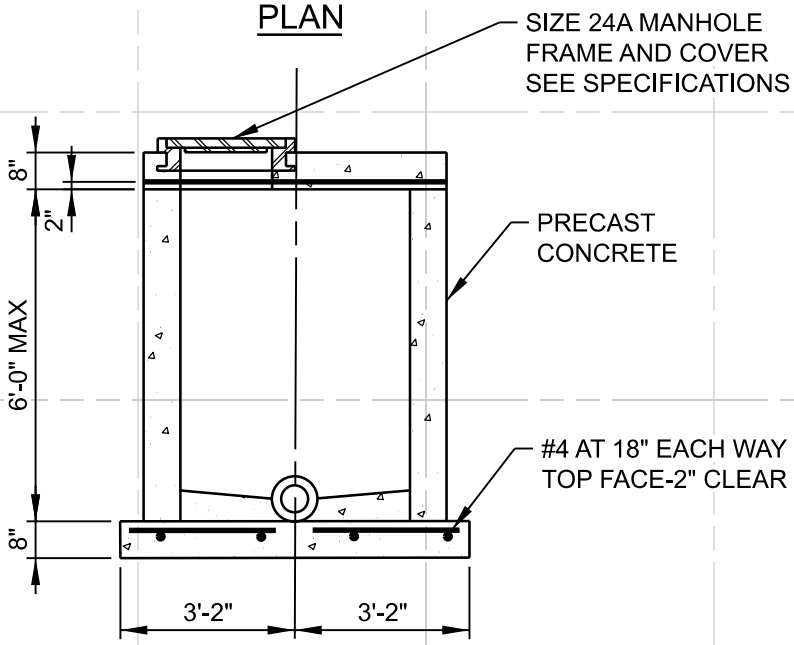
A1

DETAIL: PRECAST CONCENTRIC MANHOLE

SCALE: NTS



PLAN

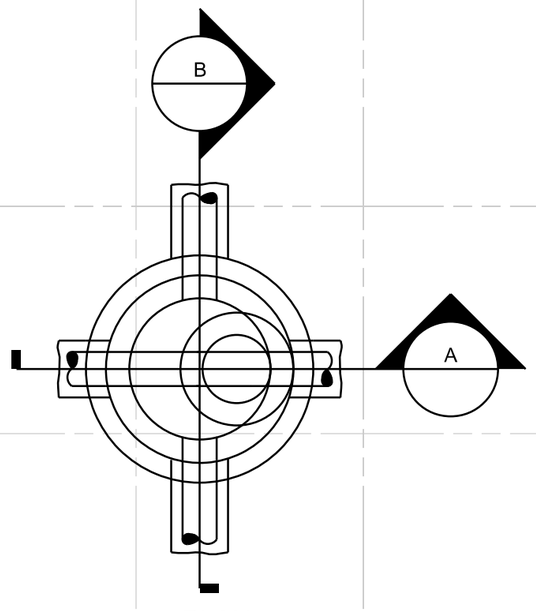


SECTION

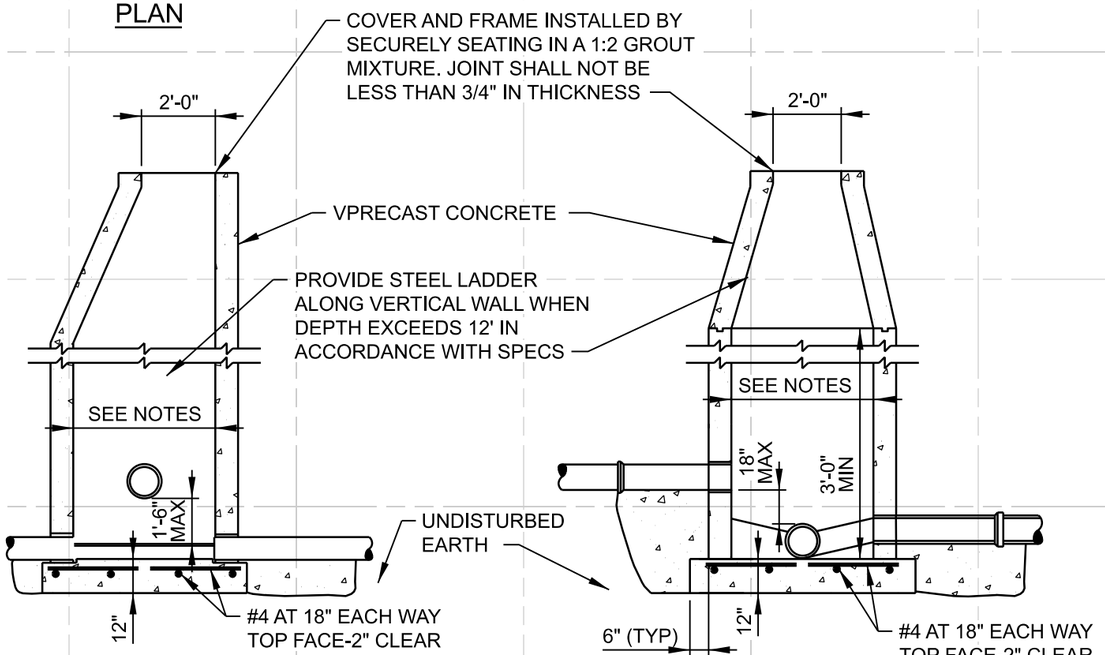
A1

DETAIL: SHALLOW MANHOLE

SCALE: NTS



PLAN

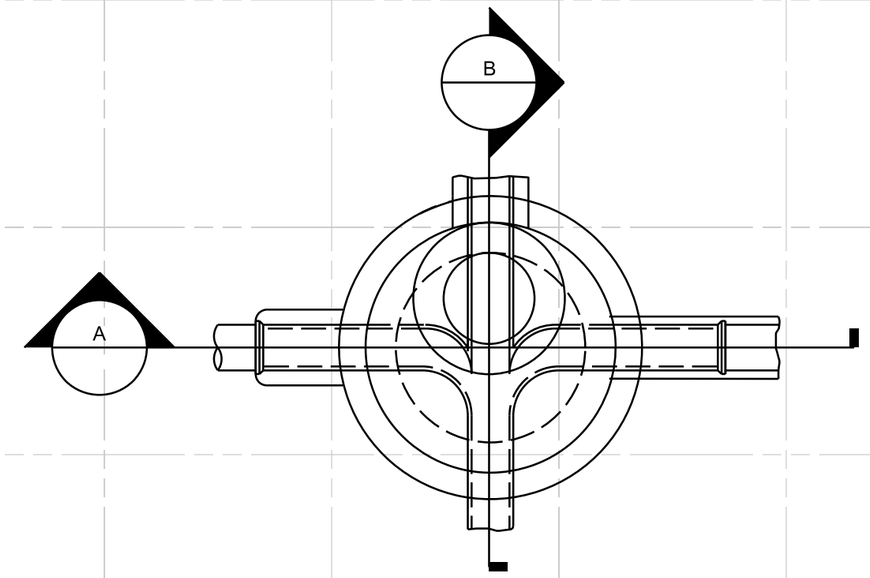


SECTION A

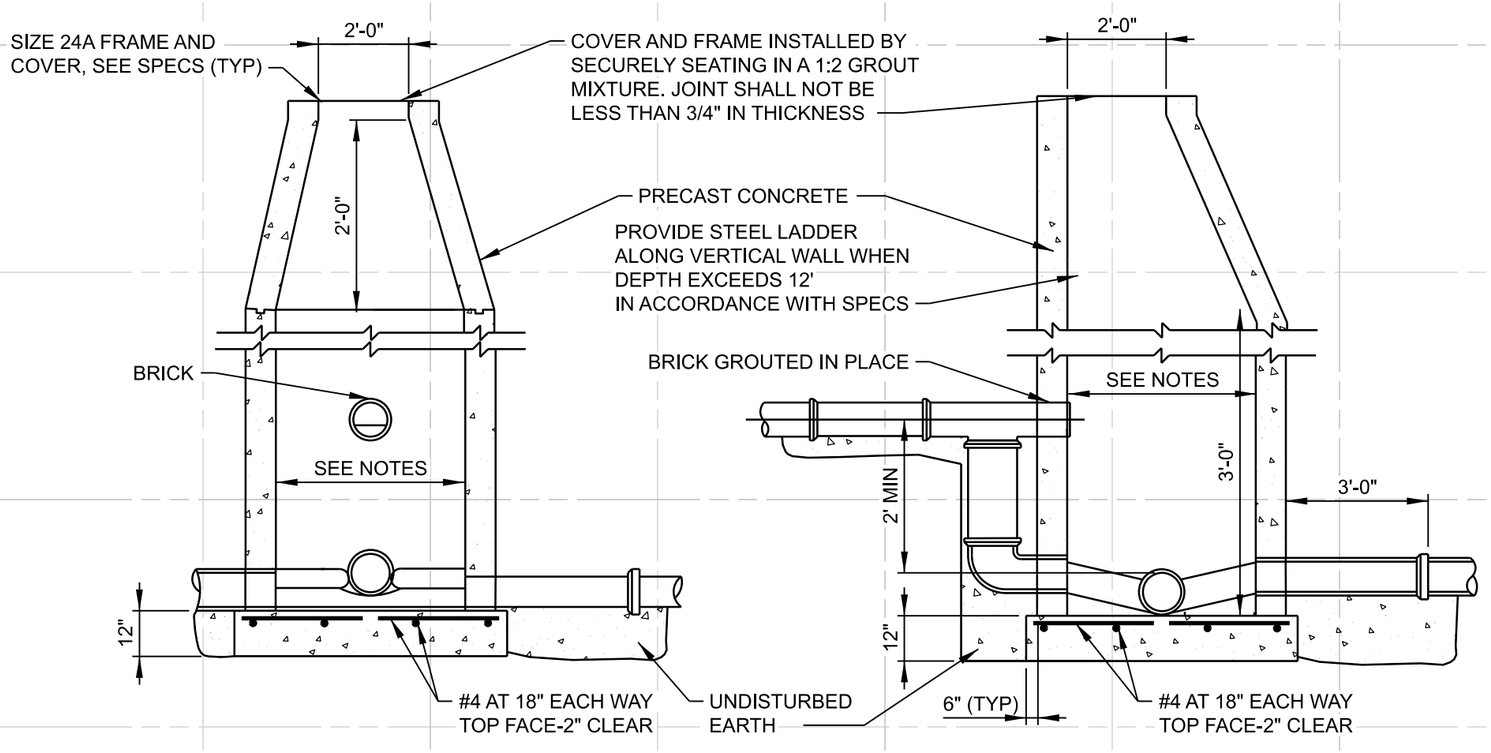
SECTION B

A1 DETAIL: PRECAST ECCENTRIC MANHOLE

SCALE: NTS



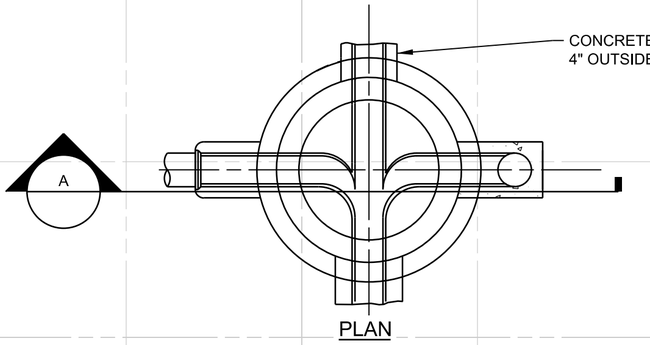
PLAN



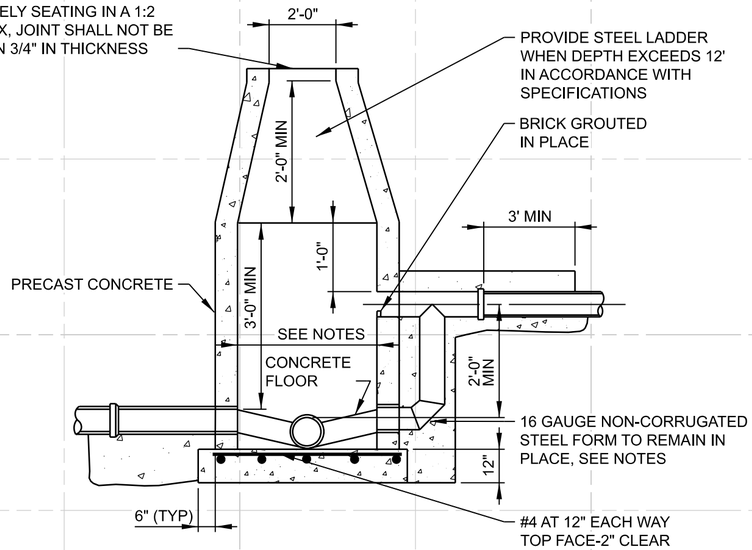
A1

DETAIL: PRECAST ECCENTRIC DROP-MANHOLE

SCALE: NTS



PLAN



SECTION A - WITH DROP CONNECTIONS

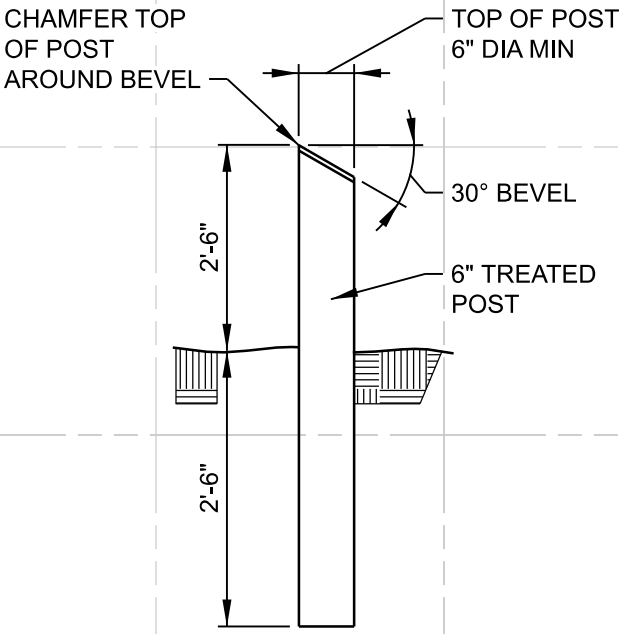
NOTES:

1. INSIDE DIAMETER OF MANHOLES TO BE 4'-0" FOR PIPE THROUGH 24", 5'-0" FOR PIPE 27" THROUGH 36", AND 6'-0" FOR PIPE 42" THROUGH 48" IN SIZE UNLESS OTHERWISE REQUIRED.
2. THIS SHEET DOES NOT APPLY TO SEWERS OVER 48" IN SIZE, OR TO SEWERS OVER 24" IN SIZE WHICH REQUIRE A CHANGE IN DIRECTION OF FLOW.
3. ANY MATERIAL EXCAVATED BENEATH PIPE ENTERING OR LEAVING MANHOLES SHALL BE REPLACED WITH CONCRETE. SUCH CONCRETE FILL SHALL EXTEND TO THE CENTER OF THE PIPE FOR A DISTANCE OF AT LEAST 3'-0" FROM FACE OF MANHOLE AND SHALL TERMINATE AT A BELL.
4. FITTINGS FOR DROP-MANHOLE CONNECTIONS MAY BE OF STANDARD SEWER PIPE MATERIALS OTHER THAN THAT OF THE INCOMING PIPE IF APPROVED TRANSITION IS PROVIDED.
5. 16 GAUGE STEEL FORMS MAY BE USED AT DROP-MANHOLE CONNECTION WHEN STANDARD FITTINGS ARE NOT READILY AVAILABLE.
6. SEISMIC DETAIL TO BE USED IN SEISMIC ZONES 2, 3 AND 4.

A1

DETAIL: PRECAST CONCENTRIC DROP-MANHOLE

SCALE: NTS

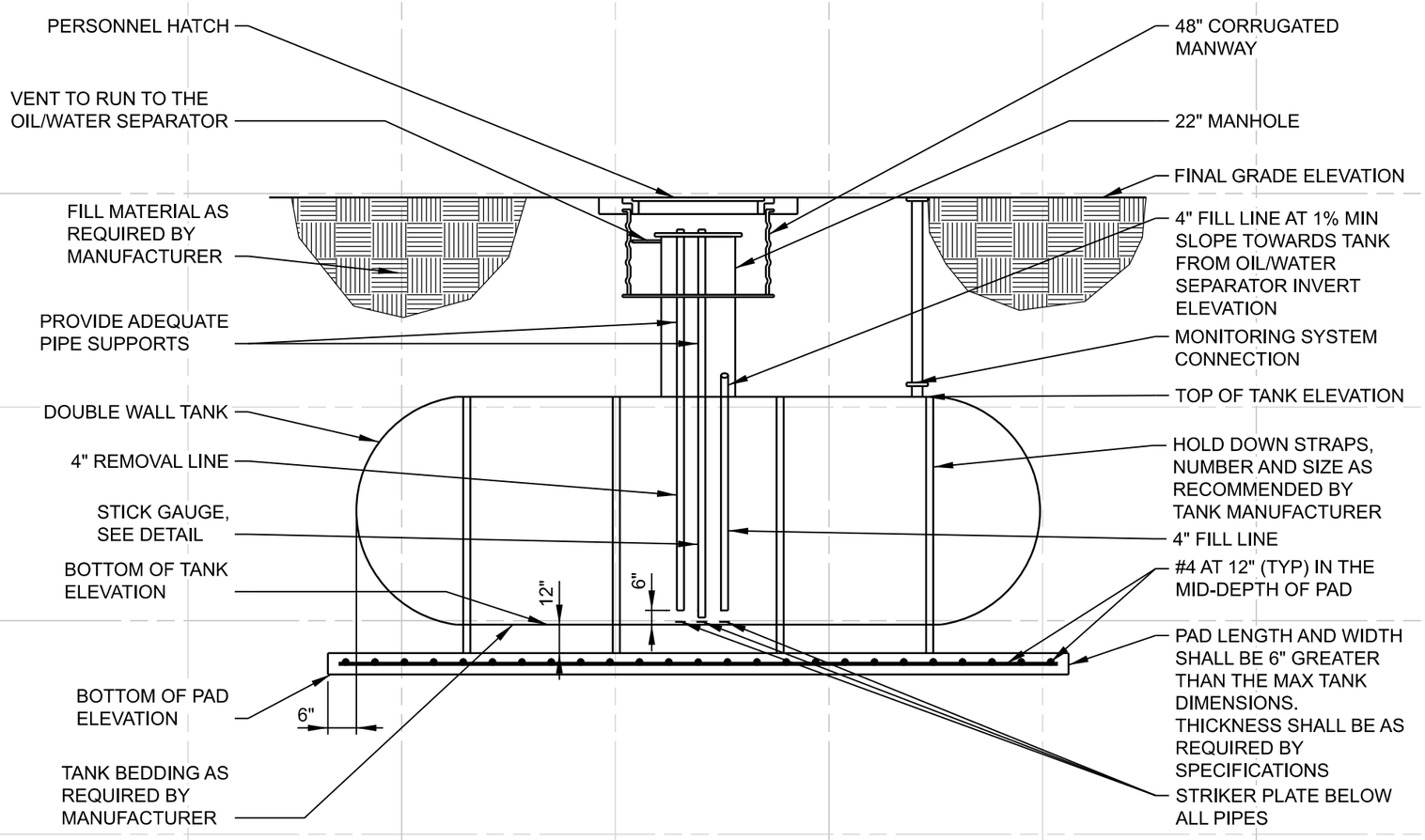


NOTE:
SPACE MARKED AS SHOWN ON LAYOUT.

A1

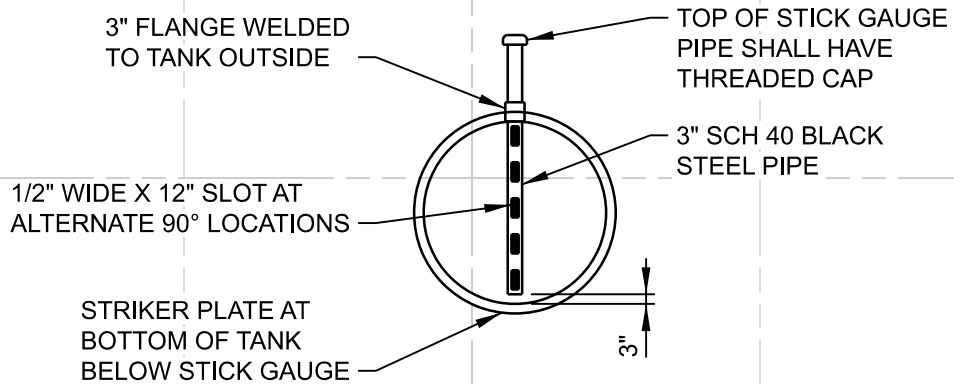
DETAIL:
MARKING POST

SCALE: NTS



A1 DETAIL: DOUBLE WALL WASTE OIL STORAGE TANK

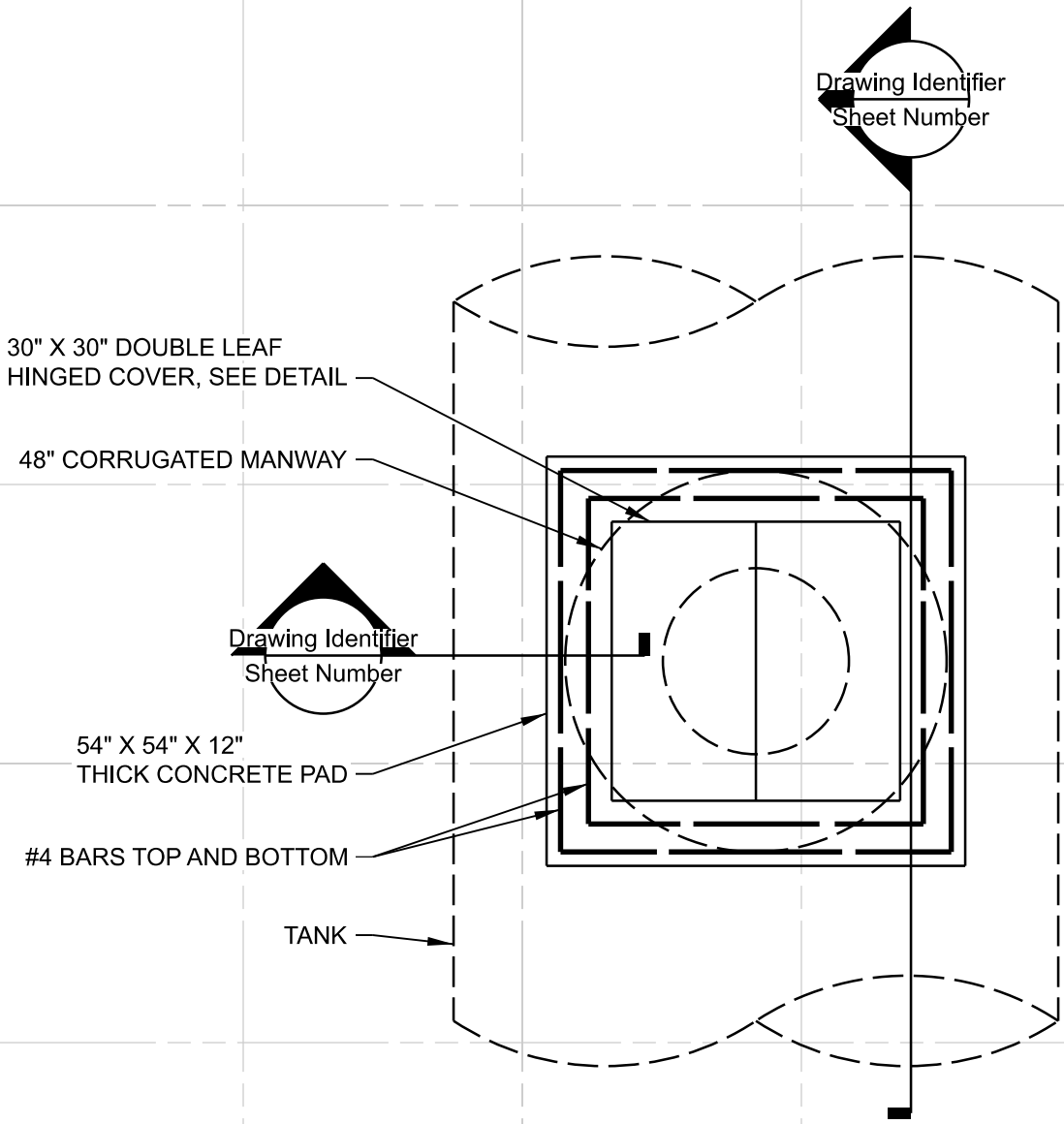
SCALE: NTS



A1

DETAIL: 3" STICK GAUGE

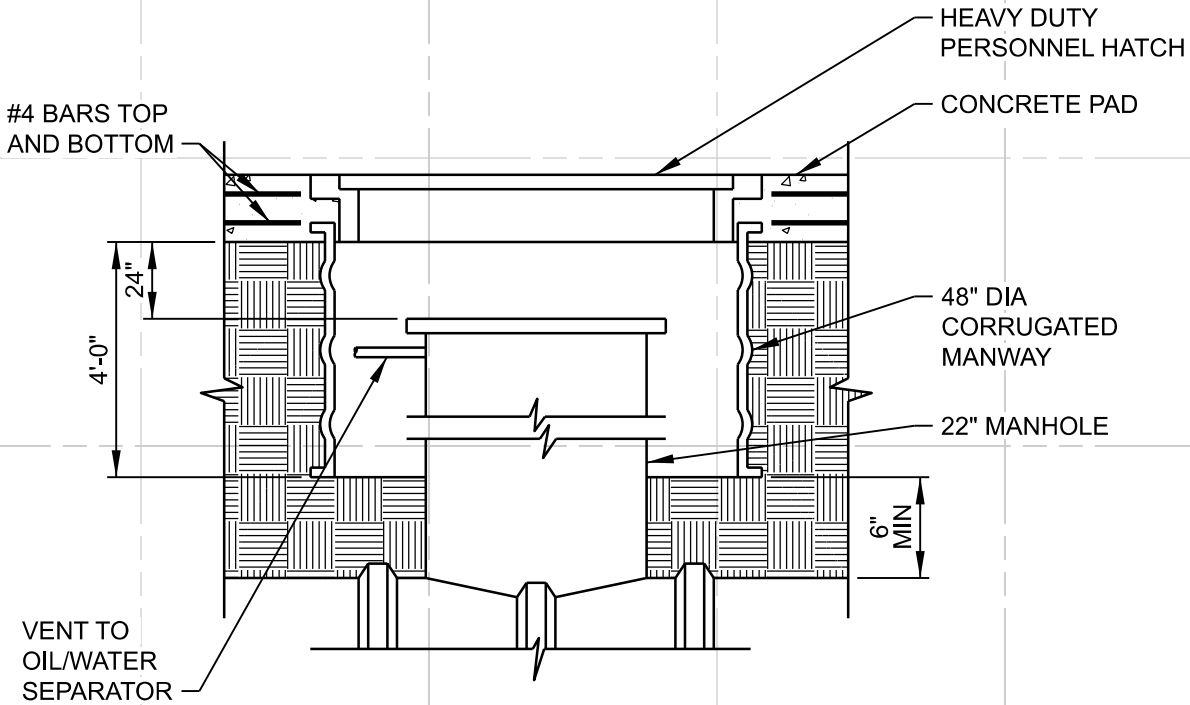
SCALE: NTS



A1

DETAIL: TANK MANHOLE HATCH

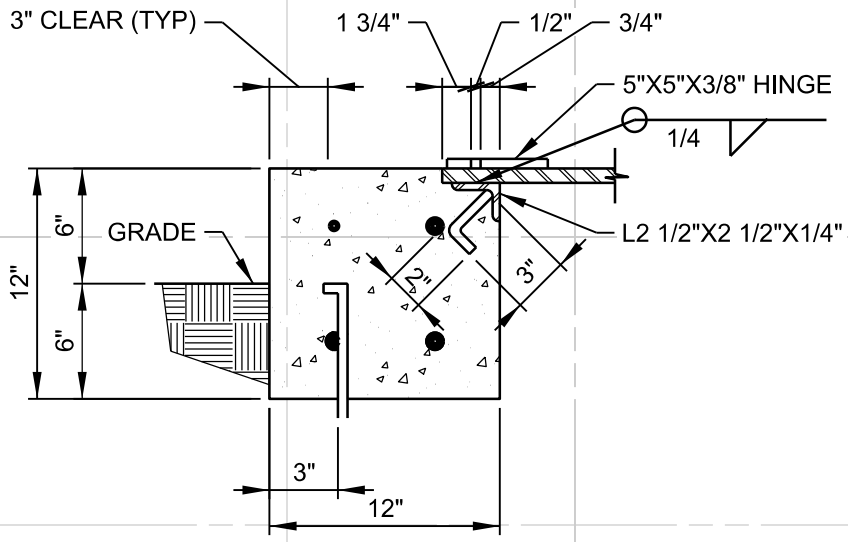
SCALE: NTS



A1

DETAIL: PERSONNEL HATCH

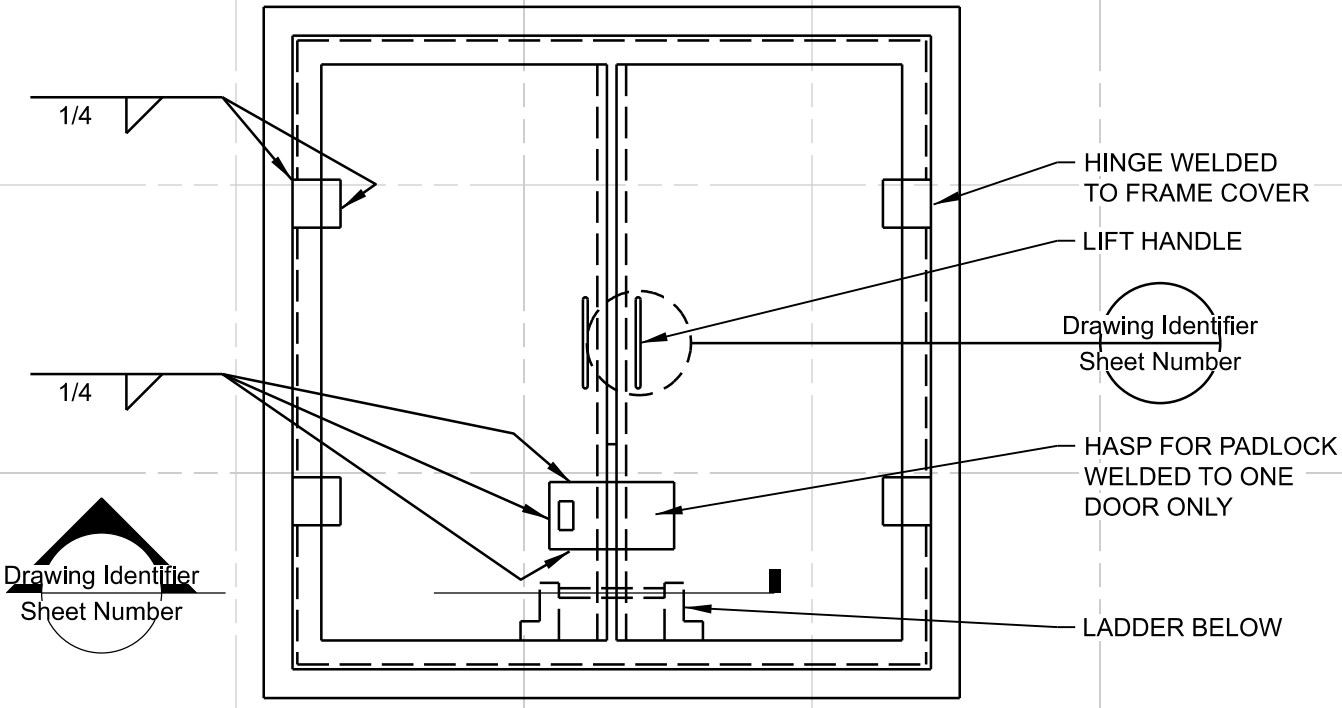
SCALE: NTS



A1

DETAIL: HINGE

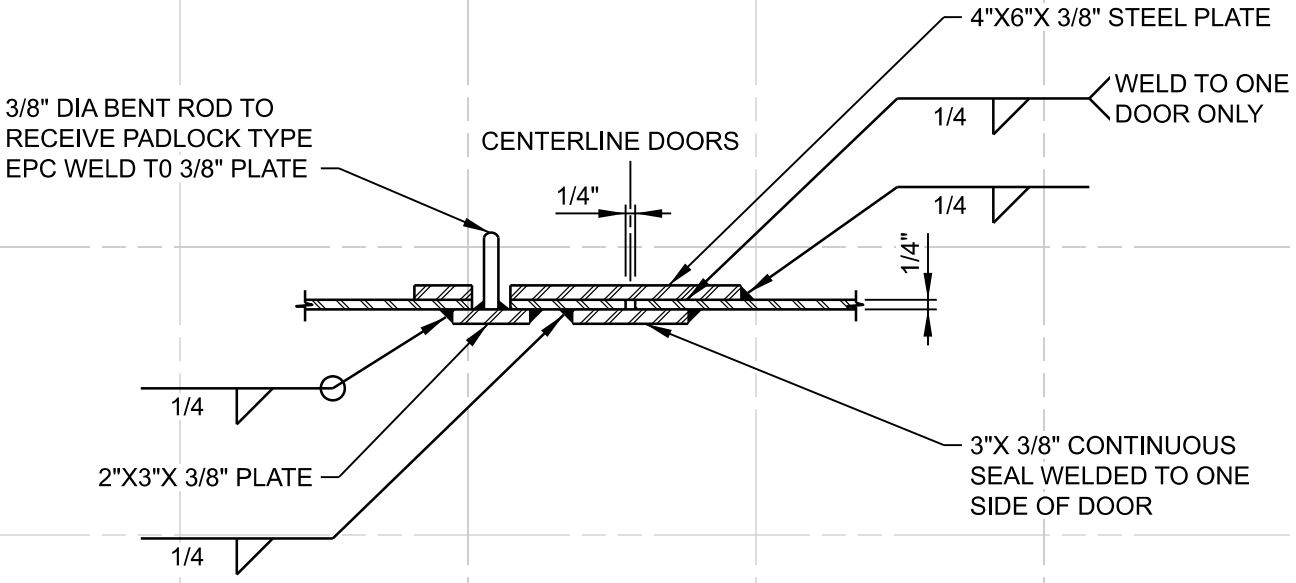
SCALE: NTS



DETAIL: 30" X 30" DOUBLE LEAF HATCH COVER

A1

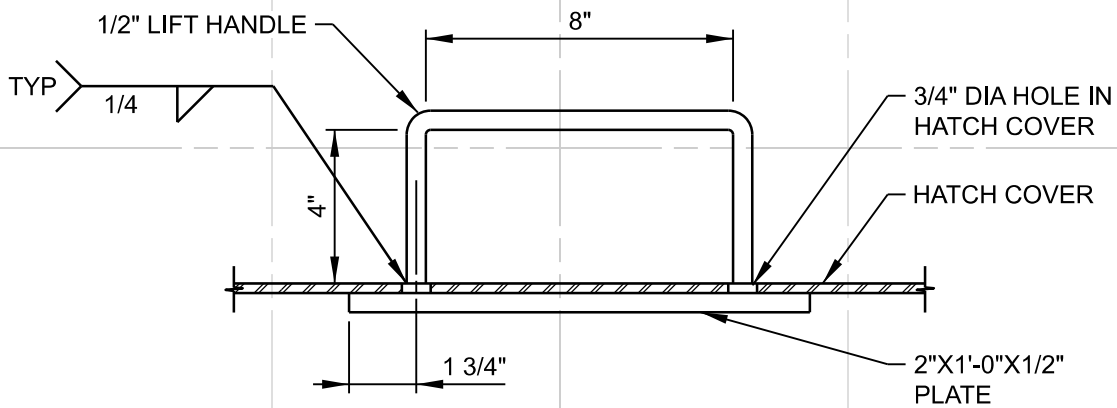
SCALE: NTS



A1

DETAIL: DOUBLE LEAF HATCH SECTION

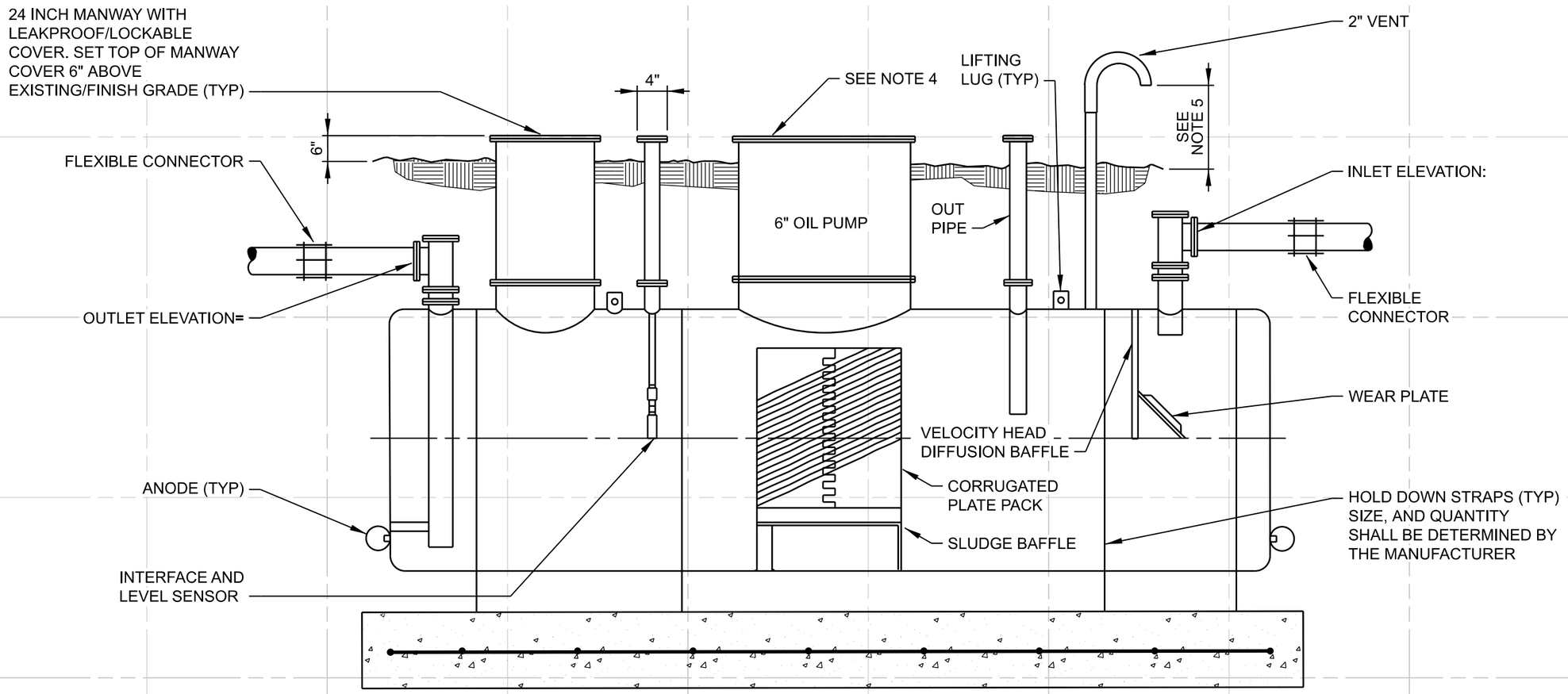
SCALE: NTS



A1

DETAIL: LIFT HANDLE

SCALE: NTS



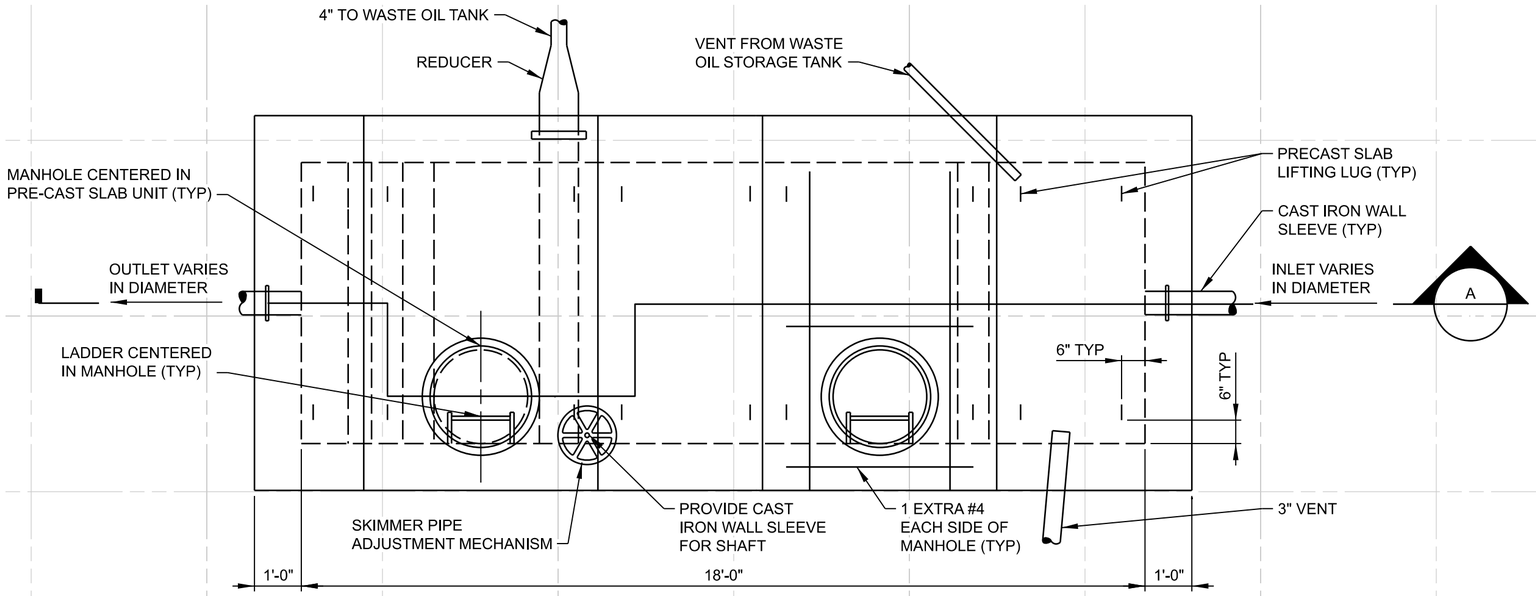
NOTES:

1. THIS DETAIL SHOWS CHARACTERISTICS OF A TYPICAL O/W INTERCEPTOR: SEE SPECIFICATIONS FOR FURTHER INFORMATION AND PERFORMANCE REQUIREMENTS.
2. CONTRACTOR SHALL PROVIDE CONCRETE HOLD DOWN PAD, TIE DOWN STRAPS, AND OTHER MISCELLANEOUS EQUIPMENT. INSTALLATION SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.
3. PROVIDE SUITABLE TRANSITION FITTINGS BETWEEN INLET AND OUTLET TO THE OIL/WATER INTERCEPTOR.
4. CORRUGATED PLATE PACK SHALL BE REMOVABLE FOR ROUTINE CLEANING. MANWAY SHALL BE SIZED FOR REMOVING PLATE PACK.
5. A FLAMMABLE ATMOSPHERE (AS DEFINED BY NFPA30) REQUIRES A 12 FT HEIGHT.

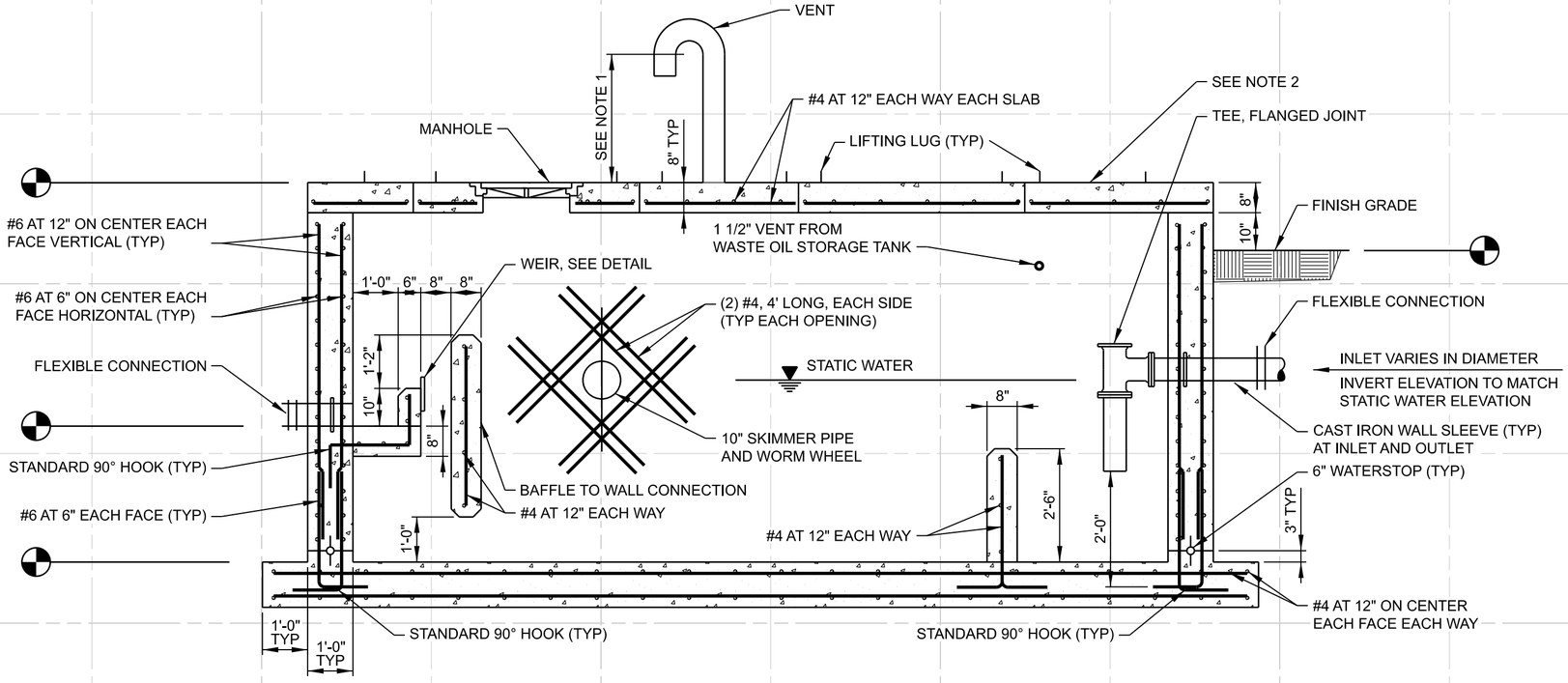
A1

DETAIL: DOUBLE WALLED OIL/WATER INTERCEPTOR

SCALE: NTS



PLAN



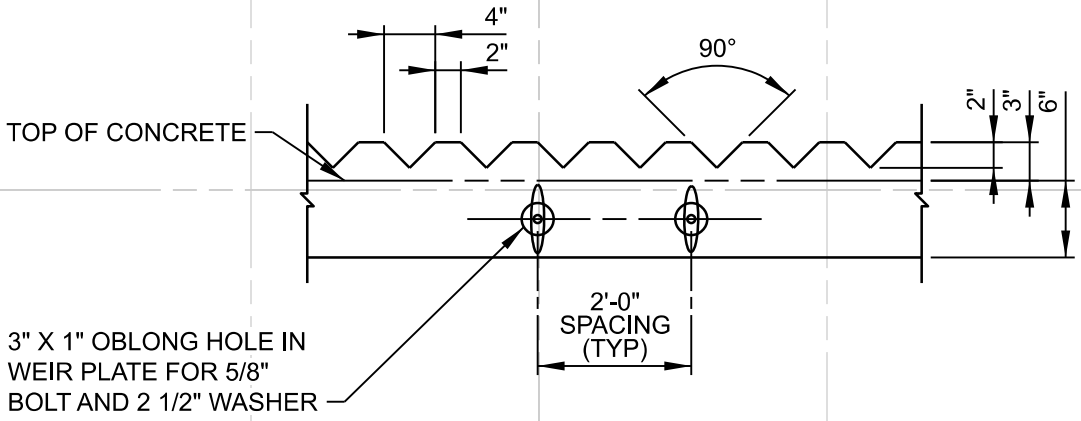
SECTION A

NOTES:
1. HEIGHT OF VENT DEPENDS ON EXPECTED WASTE WATER. FLAMMABLE ATMOSPHERE WILL REQUIRE 12FT HEIGHT.
2. PROVIDE ALUMINUM HANDRAILS AROUND OPEN TANKAGE IN ACCORDANCE WITH OSHA REQUIREMENTS.

A1

DETAIL: CONCRETE OIL/WATER SEPARATOR

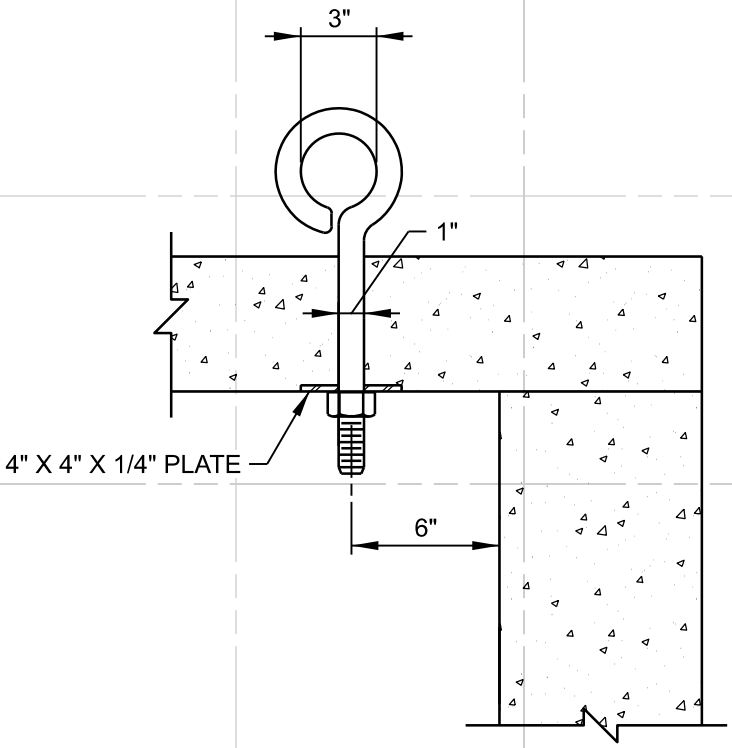
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A1

DETAIL: WEIR

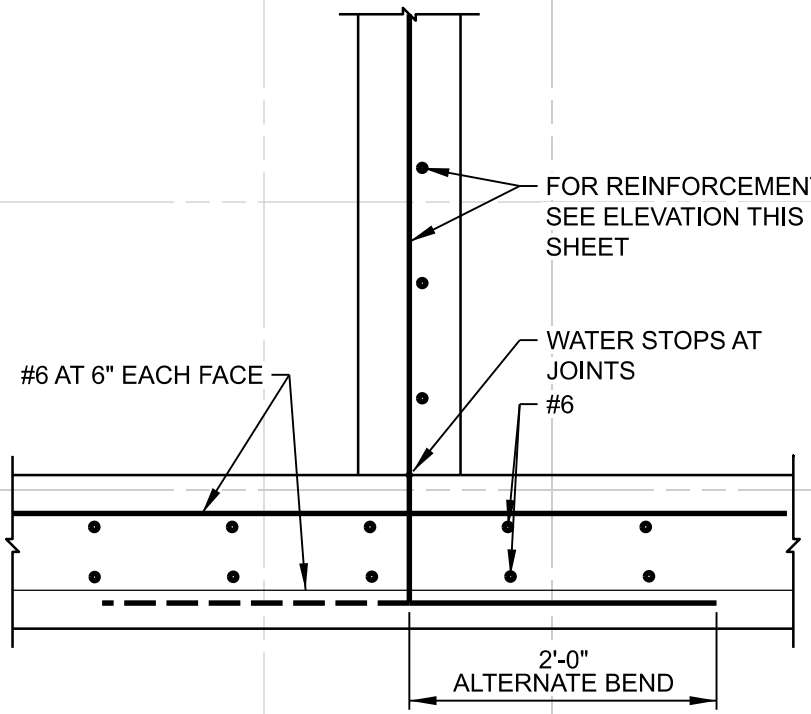
SCALE: NTS



A1

DETAIL: LIFTING LUG

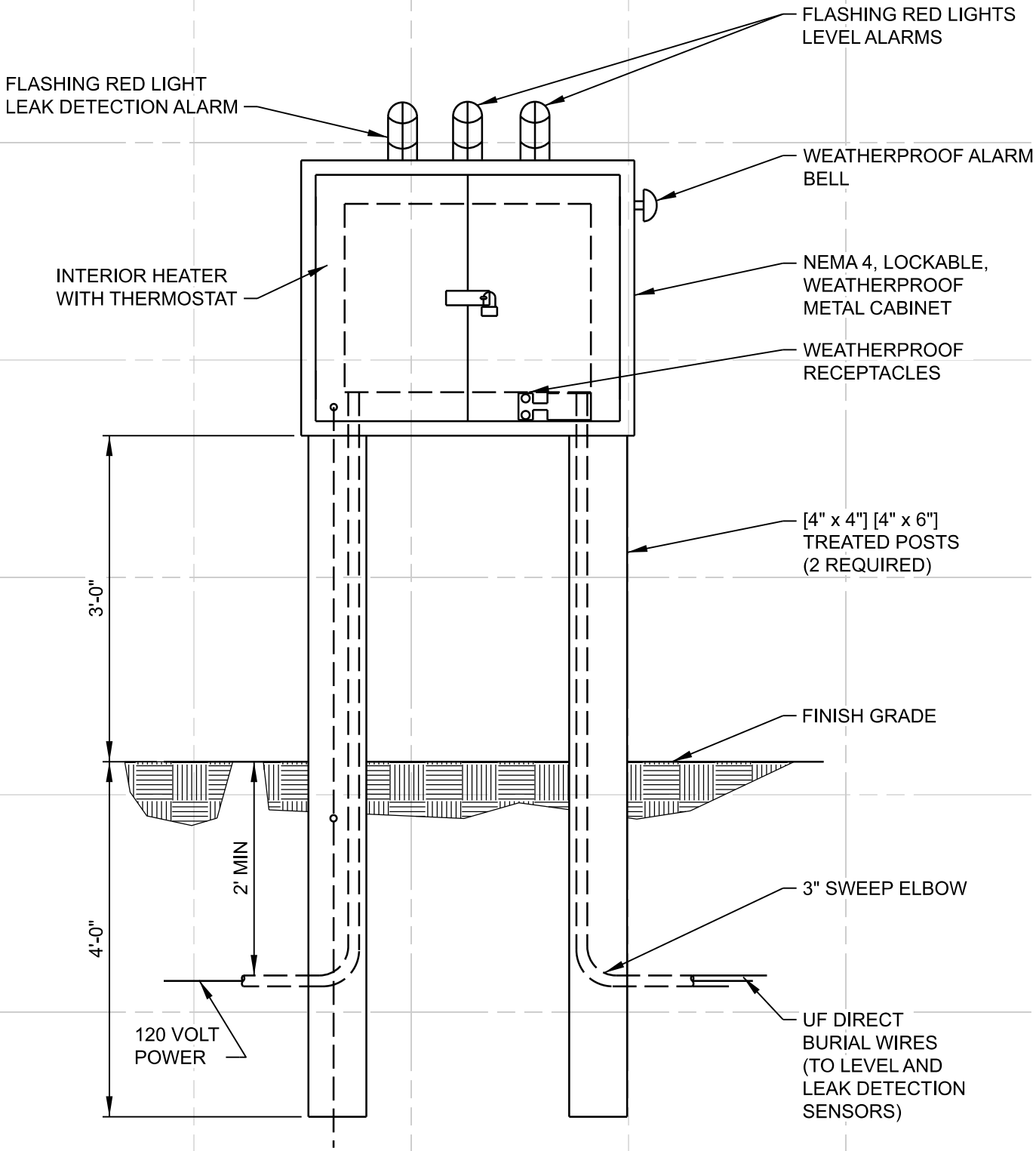
SCALE: NTS



A1

DETAIL: BAFFLE TO WALL

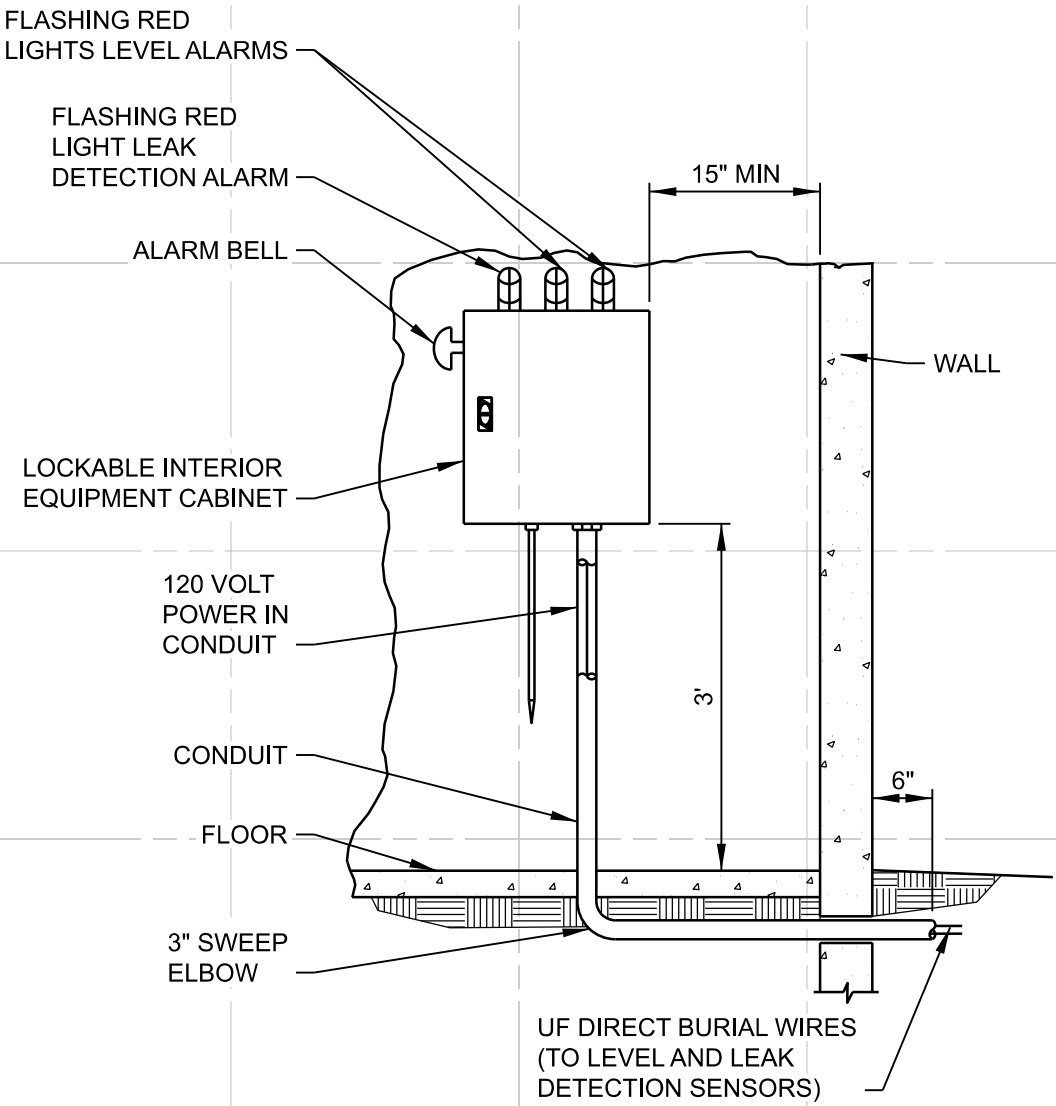
SCALE: NTS



A1

DETAIL: EXTERIOR EQUIPMENT CABINET

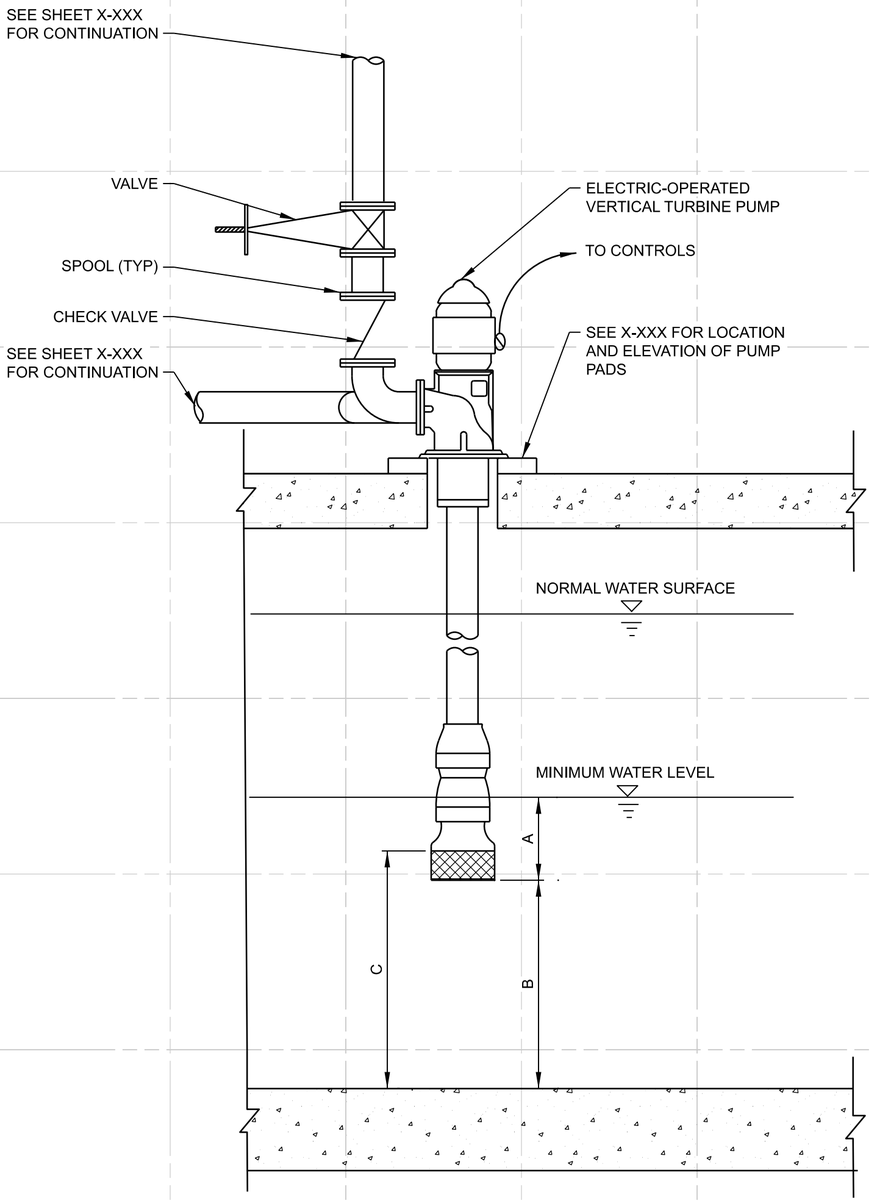
SCALE: NTS



A1

DETAIL: INTERIOR EQUIPMENT CABINET

SCALE: NTS

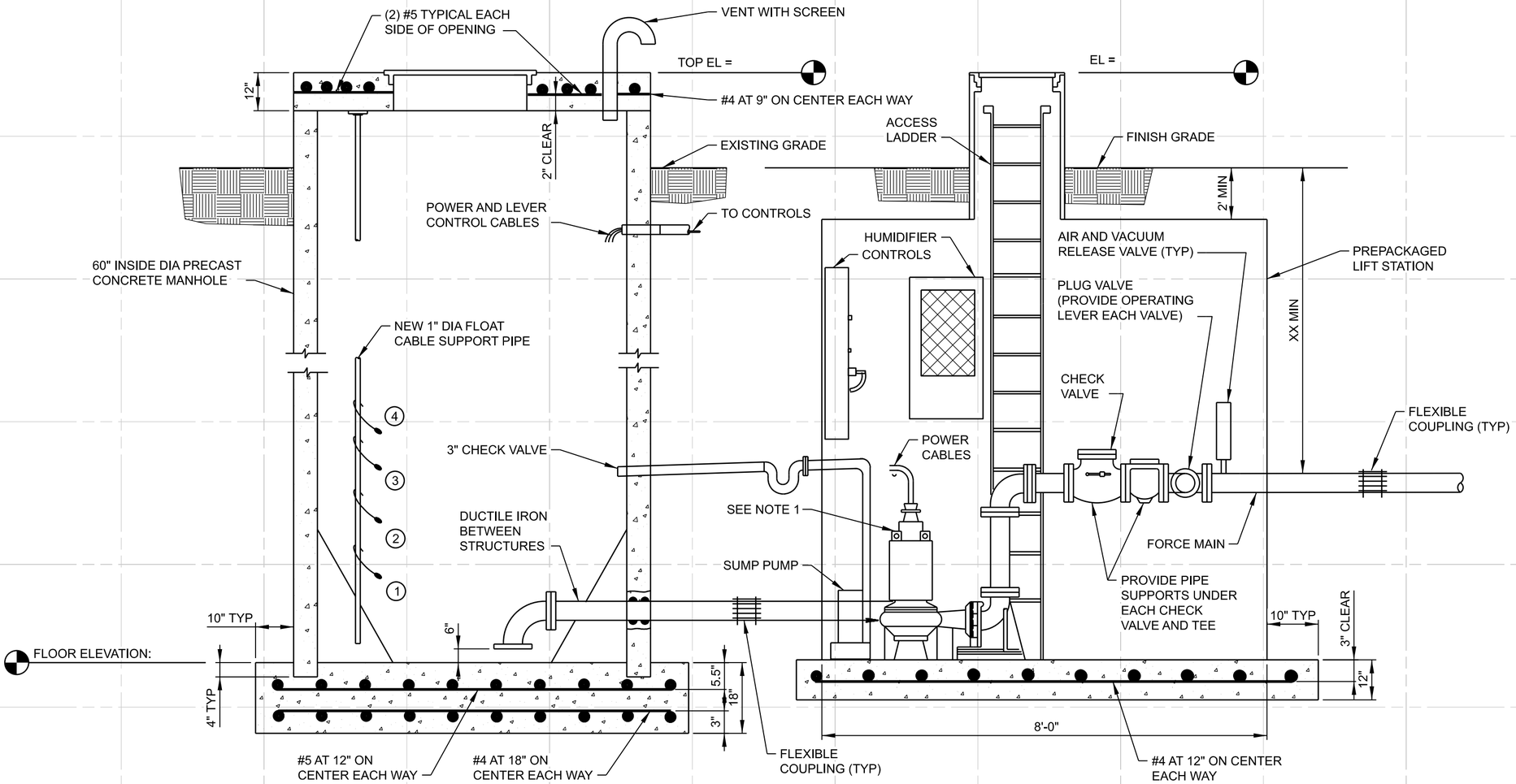


CONTROL ELEVATIONS	
	HIGH WATER ALARM (ALL PUMPS ON)
	STAND-BY PUMP ON
	LAG PUMP ON
	LEAD PUMP ON
	LOW WATER ALARM (ALL PUMPS OFF)

NOTE:
1. PIPING SIZES MAY VARY AT EACH LOCATION.
   SEE SCHEDULE FOR ACTUAL PIPING SIZES.

A1 DETAIL: VERTICAL TURBINE PUMP SETTING

SCALE: NTS



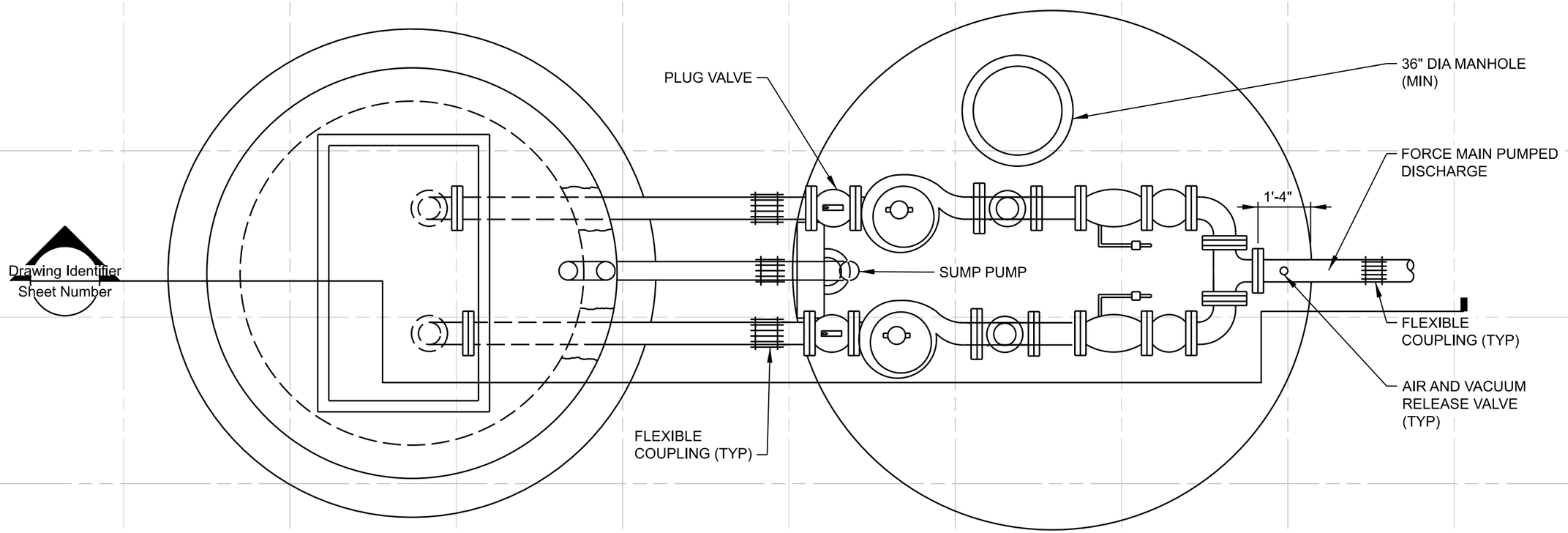
CONTROL LEVEL SWITCHES		
LEVEL	ACTION	ELEVATION
1	PUMP OFF	
2	PUMP NO. 1 START	
3	PUMP NO. 2 START	
4	HIGH WATER ALARM	

NOTE:
1. PUMPS WILL BE POSITIONED IN MANHOLE AS RECOMMENDED BY THE MANUFACTURER.

NOTE:
AT LEVEL 1, PUMP OFF, THE PUMPS WILL ALTERNATE AUTOMATICALLY.

A1 DETAIL: LIFT STATION

SCALE: NTS

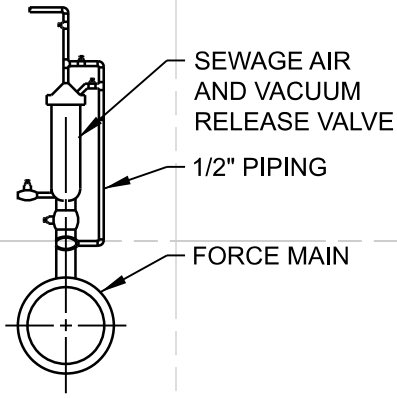


NOTES:
1. INSTALLATION OF PUMPS, MOTORS AND ASSOCIATED HARDWARE, INCLUDING CABLES AND PUMP MOUNTS SHALL BE DONE IN CONFORMANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. OPENING SIZE SHALL BE 36-INCHES MINIMUM. EACH SHALL BE EQUIPPED WITH HASPS SO THEY MAY BE PADLOCKED CLOSED.
3. PUMPS WILL BE POSITIONED IN MANHOLE AS RECOMMENDED BY THE MANUFACTURER.
4. PIPE GASKETS SHALL CONFORM TO MANUFACTURER'S RECOMMENDATIONS.

A1

DETAIL: LIFT STATION PLAN

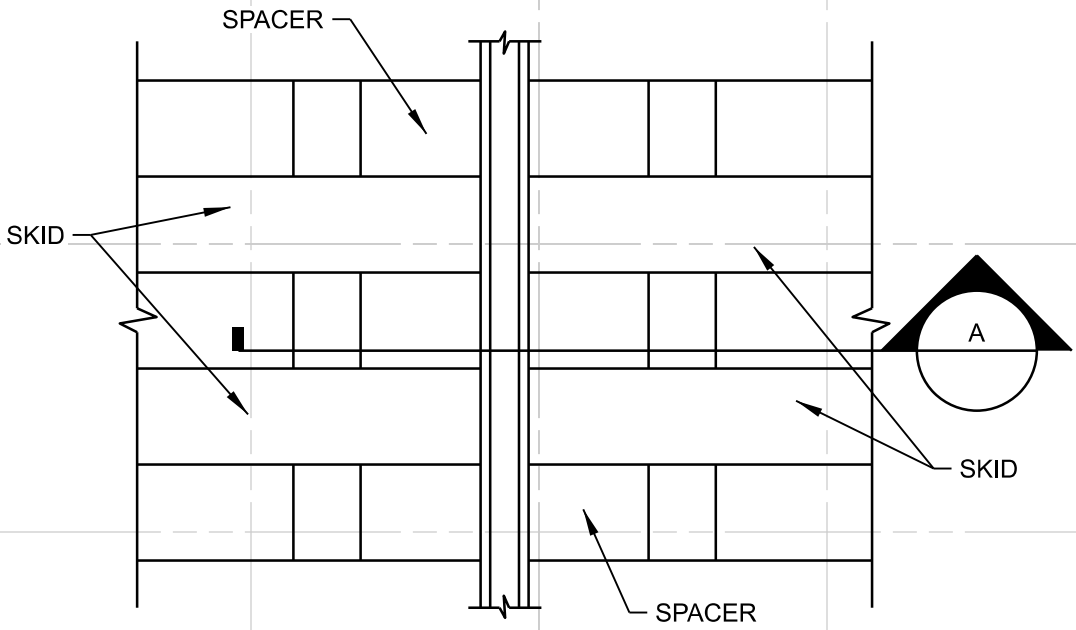
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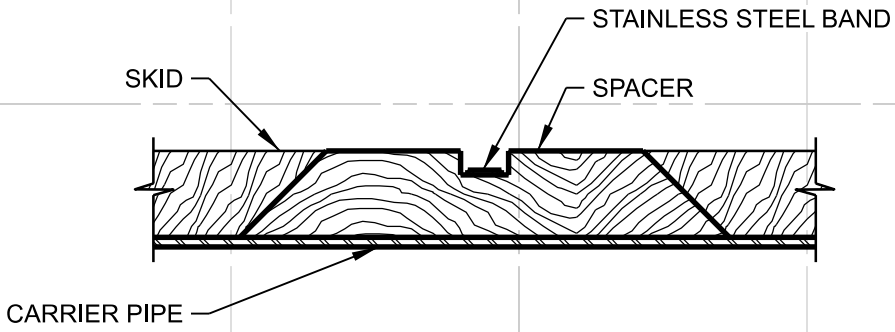
DETAIL: AIR AND VACUUM RELEASE VALVE

A1

SCALE: NTS



PLAN

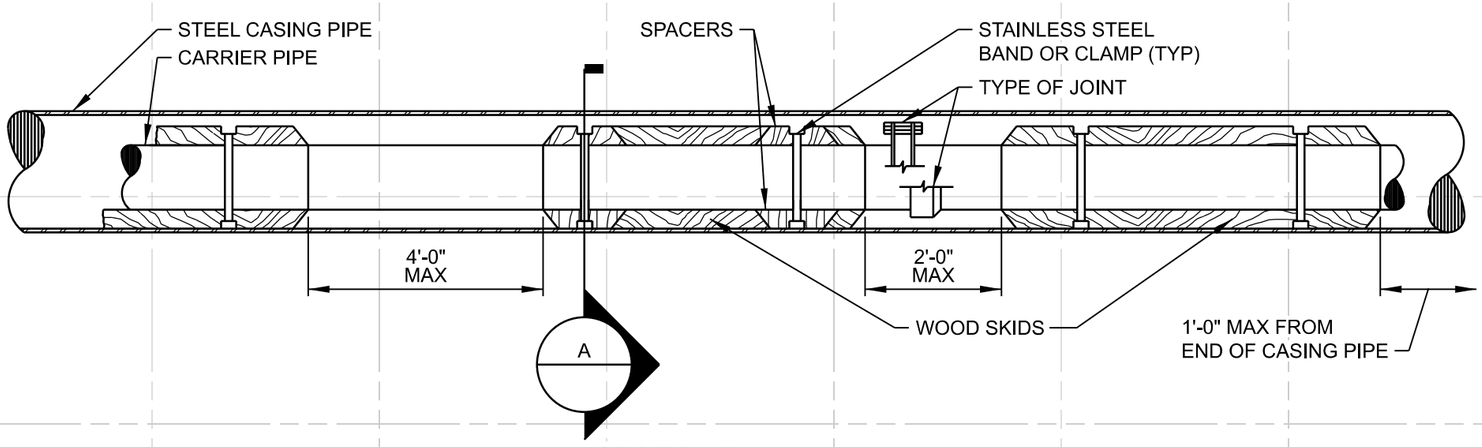


SECTION A

A1

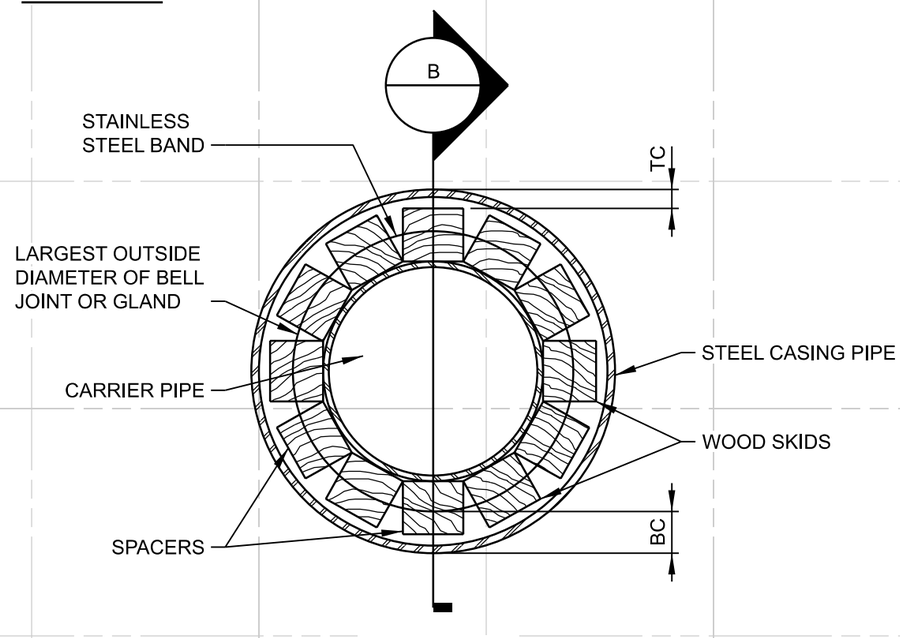
DETAIL: WOOD SKID

SCALE: NTS



SECTION B

CLEARANCE DISTANCE		
CARRIER PIPE SIZE	BC	TC
6" OR LESS	1/2"	3/4" - 1"
8"	3/4"	1" - 1 1/2"
10"	3/4"	1" - 1 1/2"
12"	3/4"	1" - 1 1/2"
14"	1"	1" - 1 1/2"
16"	1"	2" - 3"

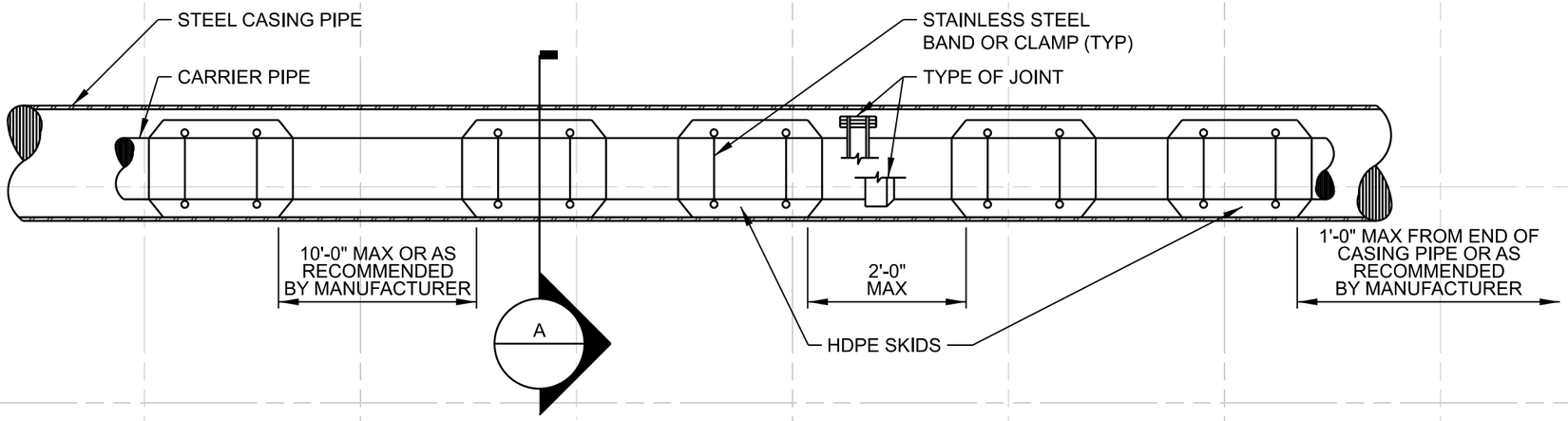


SECTION A

A1 DETAIL: PIPE CASING

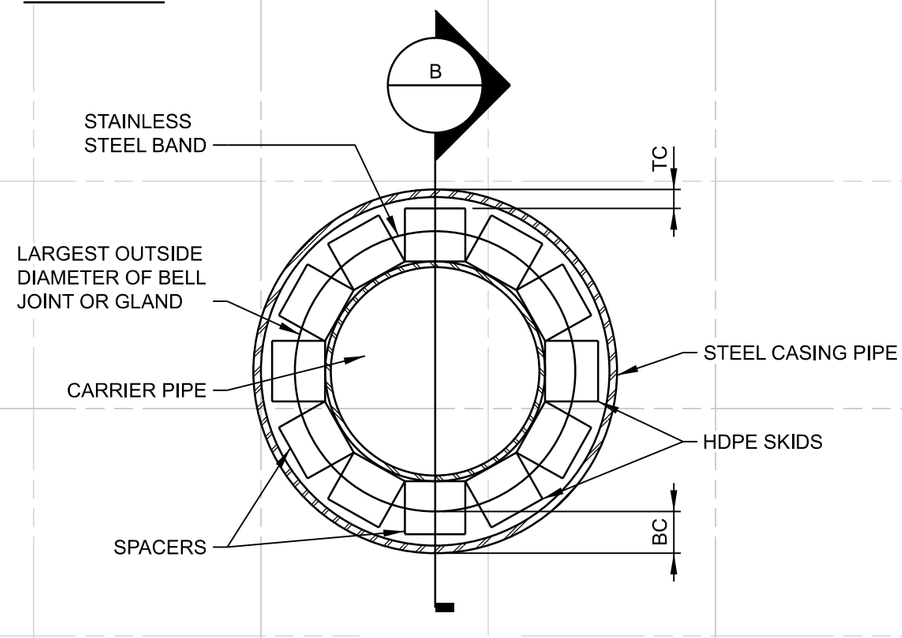
SCALE: NTS

Detail G3091H-DT030X



SECTION B

CLEARANCE DISTANCE		
CARRIER PIPE SIZE	BC	TC
6" OR LESS	1/2"	3/4" - 1"
8"	3/4"	1" - 1 1/2"
10"	3/4"	1" - 1 1/2"
12"	3/4"	1" - 1 1/2"
14"	1"	1" - 1 1/2"
16"	1"	2" - 3"



SECTION A

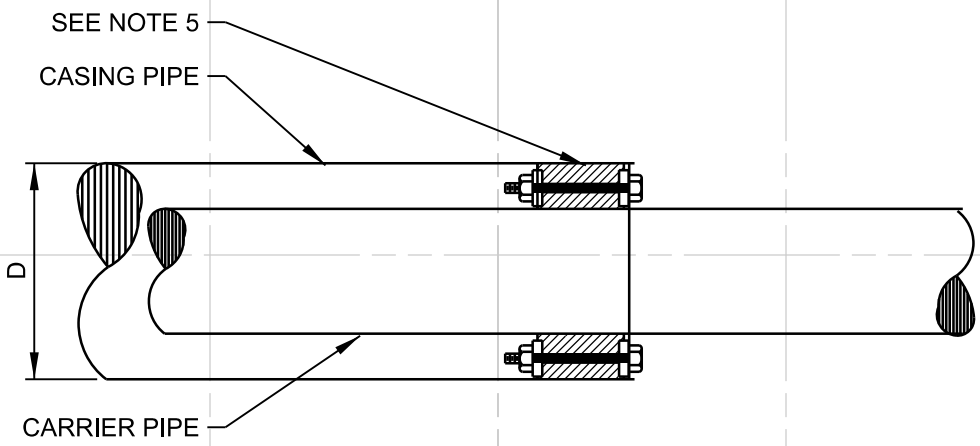
A1 DETAIL: HDPE PIPE CASING

SCALE: NTS

Detail G3091H-DT031X

PIPE CASING NOTES

1. BC-MINIMUM BOTTOM CLEARANCE BETWEEN OUTSIDE DIAMETER OF BELL, JOINT, OR GLAND AND CASING PIPE.
2. TC-RANGE FOR CLEARANCE BETWEEN SKIDS AND CASING PIPE AT THE TOP.
3. WOOD FOR THE SKIDS SHALL BE REDWOOD OR TREATED FIR. SEE SPECIFICATION FOR PRESERVATIVE TREATMENT. SKIDS SHALL BE OF THE LENGTH REQUIRED TO PROVIDE A MAXIMUM OF 4 FEET SPAN BETWEEN SKIDS ON THE SAME PIPE SECTION AND A MAXIMUM OF 2 FEET SPAN BETWEEN SKIDS ON ADJACENT PIPE SECTIONS (AT THE JOINT). MINIMUM SKIDS LENGTH SHALL BE 2-1/2 FEET.
4. SKID ENDS EDGES SHALL BE BEVELED AT 45 DEGREES. IF LUBRICATION IS USED FOR EASIER PUSHING OR PULLING THE CARRIER PIPE, LUBRICANT SHALL BE APPLIED TO THE CASING PIPE AND NOT THE SKIDS. LUBRICANT SHALL NOT COME INTO CONTACT WITH THE CARRIER PIPE.
5. THE SKIDS SHALL BE SQUARE BUT THE WIDTH OF ONE SKID MAY BE VARIED TO PROVIDE PROPER SPACING. THE SKIDS SHALL BE OF SUFFICIENT HEIGHT TO PERMIT MINIMUM BC CLEARANCE BETWEEN THE PIPE BELL, JOINT, OR GLAND AND THE CASING WALL IF PIPE ROTATED INSIDE OF THE CASING. A MINIMUM OF 4 SKIDS SHALL BE PROVIDED FOR CARRIER PIPE OF 6 INCHES OR LESS.
6. ALTERNATING SKIDS MAY BE REPLACED WITH SPACERS. THE SPACERS SHALL BE POSITIONED UNDER THE HANDS OR STRAPS SO THAT THEY ARE SECURELY FASTENED INTO PLACE TO PREVENT MOVEMENT.
7. THE SKIDS SHALL BE SECURELY FASTENED TO THE PIPE BY 1 INCH WIDE STAINLESS STEEL STRAPS OR BANDS WITH SUITABLE CORROSION PROOF FASTENERS. THE FASTENERS SHALL NOT EXTEND BEYOND THE OUTSIDE DIAMETER OF THE SKIDS. THE STRAPS OR BANDS SHALL BE POSITIONED IN 1/4 TO 1/2 INCH DEEP NOTCHES IN THE WOOD SKIDS OR SPACERS. TWO STRAPS OR BANDS SHALL BE PROVIDED AT EACH END OF SKIDS FOR PIPES 12 INCHES OR LARGER.

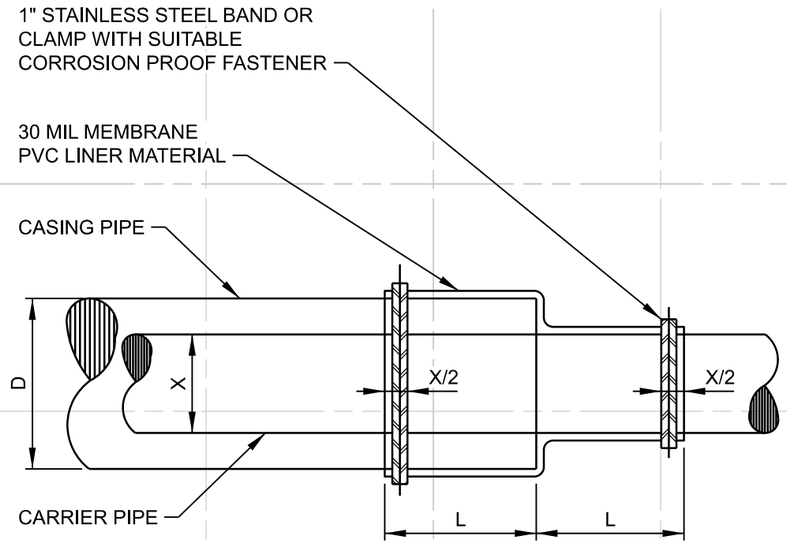


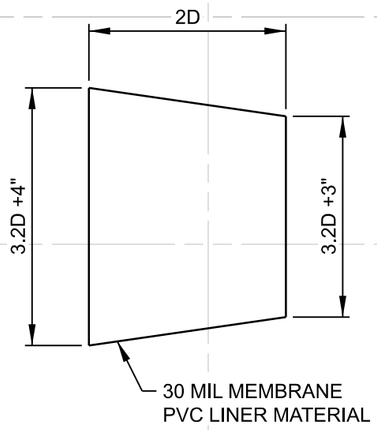
NOTES:
1. L=D WITH L MAX=16"
2. BEVEL END OF CASING PIPE TO REMOVE ALL SHARP EDGES.
3. DAMAGED OR DEFECTIVE END SEAL SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE GOVERNMENT.
4. THE SEAL SHALL BE ATTACHED TO THE PIPE AND CASING SO AS TO PROVIDE A TIGHT END SEAL.
5. THE ANNULAR SPACE BETWEEN THE PIPE AND CASING SHALL BE SEALED BY MEANS OF A MECHANICALLY ADJUSTABLE SEGMENTED ELASTOMERIC SEAL.
6. SOLVENT CEMENT SEAMS SHALL PROVIDE A MINIMUM OF 2" OVERLAP.

A1

DETAIL: END SEAL FOR CASING PIPE

SCALE: NTS



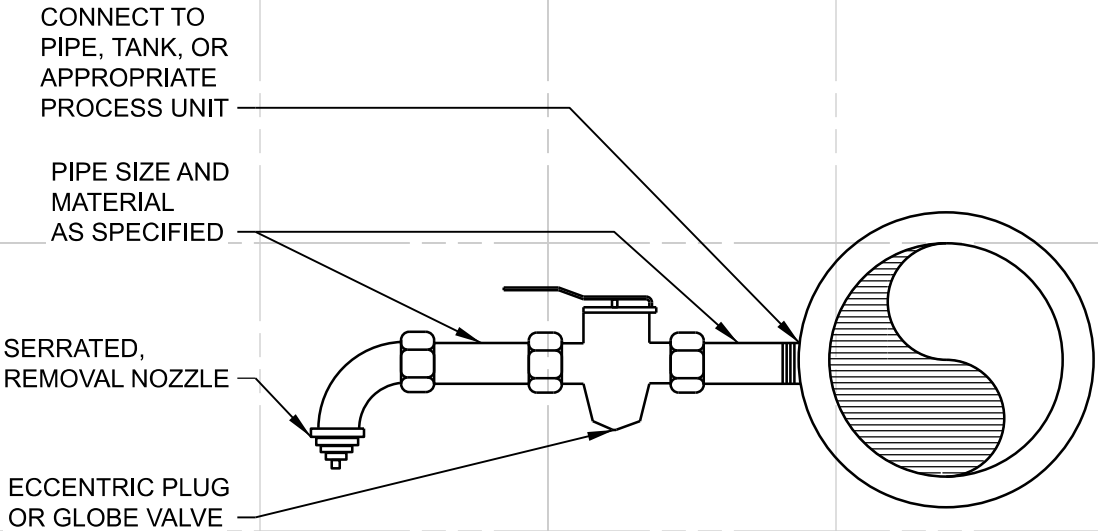


NOTES:
1. L=D WITH L MAX =16".
2. BEVEL END OF CASING PIPE TO REMOVE ALL SHARP EDGES TO PREVENT DAMAGE TO THE LINER MATERIAL.
3. DAMAGED OR DEFECTIVE END SEAL SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE GOVERNMENT.
4. THE SEAL SHALL BE ATTACHED TO THE PIPE AND CASING SO AS TO PROVIDE A TIGHT END SEAL.
5. FILL THE ANNULAR SPACE BETWEEN THE PIPE AND CASING A MINIMUM OF 6" BACK FROM THE END OF THE CASING WITH EXPANDED POLYURETHANE FOAM.
6. SOLVENT CEMENT SEAMS SHALL PROVIDE A MINIMUM OF 2 INCHES OVERLAP. USE SOLVENT CEMENT AS APPROVED BY THE LINER MANUFACTURER.
7. FOR CASINGS OVER 12 INCHES IN DIAMETER, PROVIDE 2 CLAMPS OR BANDS ON EACH END OF EACH SEAL.

A1

DETAIL: END SEAL FOR CASING PIPE

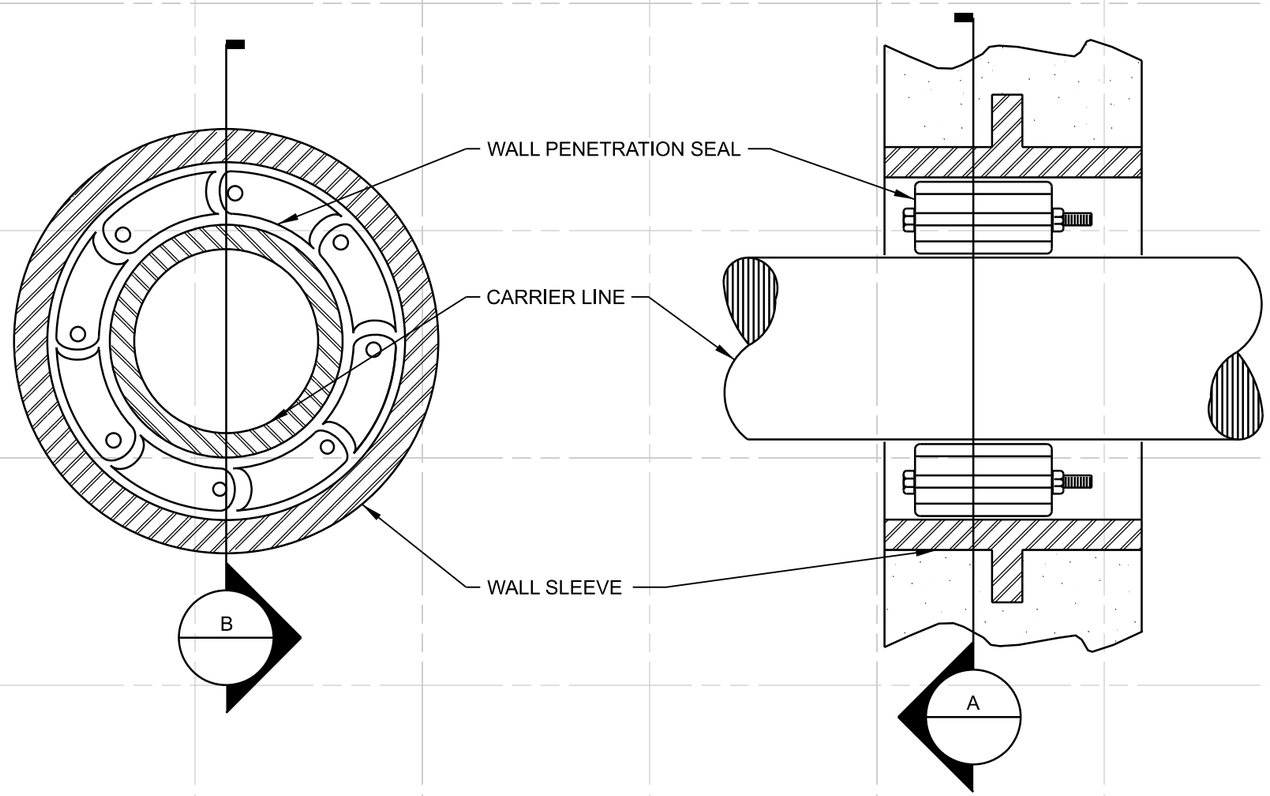
SCALE: NTS



A1

DETAIL: SAMPLING VALVE

SCALE: NTS



SECTION A

SECTION B

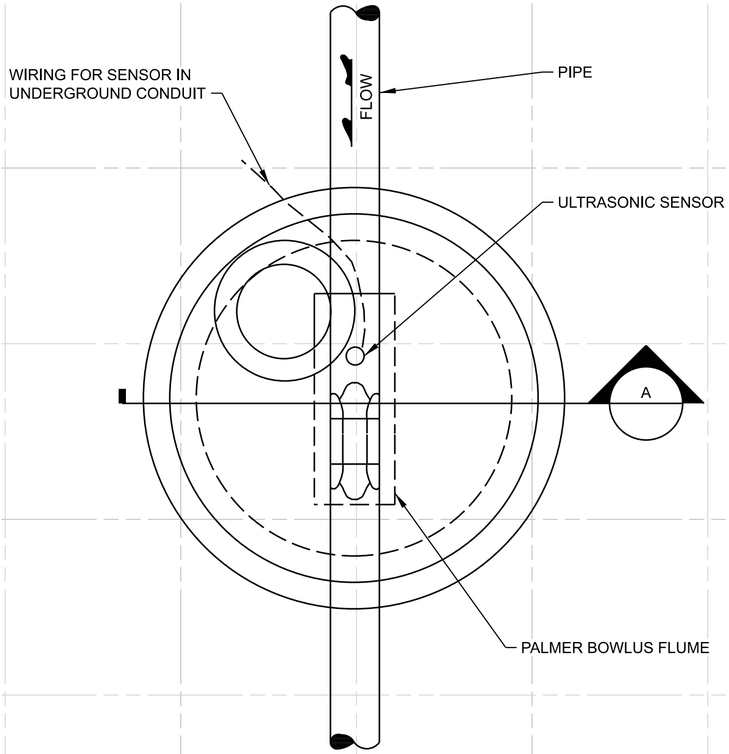
NOTES:

1. PIPE PASSING THROUGH THE CONCRETE WALL SHALL BE PROVIDED WITH A CAST-IRON WALL SLEEVE. THE SLEEVE SHALL BE LONG ENOUGH TO PASS THROUGH THE ENTIRE WALL AND SHALL BE LARGE ENOUGH TO PROVIDE A MINIMUM CLEAR DISTANCE OF 1 1/4 -INCH BETWEEN THE PIPE AND SLEEVE. THE SLEEVE SHALL BE ACCURATELY LOCATED ON CENTER WITH THE PIPE AND SHALL BE SECURELY FASTENED IN PLACE.
2. A MODULAR MECHANICAL TYPE SEALING ASSEMBLY SHALL BE INSTALLED IN ANNULAR SPACE BETWEEN THE PIPE AND SLEEVE. THE SEALS SHALL CONSIST OF INTERLOCKING SYNTHETIC RUBBER LINKS SHAPED TO CONTINUOUSLY FILL THE ANNULAR SPACE BETWEEN THE PIPE AND SLEEVE WITH CORROSION-PROTECTED CARBON STEEL BOLTS, NUTS, AND PRESSURE PLATES. THE LINKS SHALL BE LOOSELY ASSEMBLED WITH BOLTS TO FORM A CONTINUOUS RUBBER BELT AROUND THE PIPE WITH A PRESSURE PLATE UNDER EACH BOLT HEAD AND EACH NUT. AFTER THE SEAL ASSEMBLY IS PROPERLY POSITIONED IN THE SLEEVE, TIGHTENING OF THE BOLT SHALL CAUSE THE RUBBER SEALING ELEMENTS TO EXPAND AND PROVIDE A WATERTIGHT SEAL BETWEEN THE PIPE AND SLEEVE.

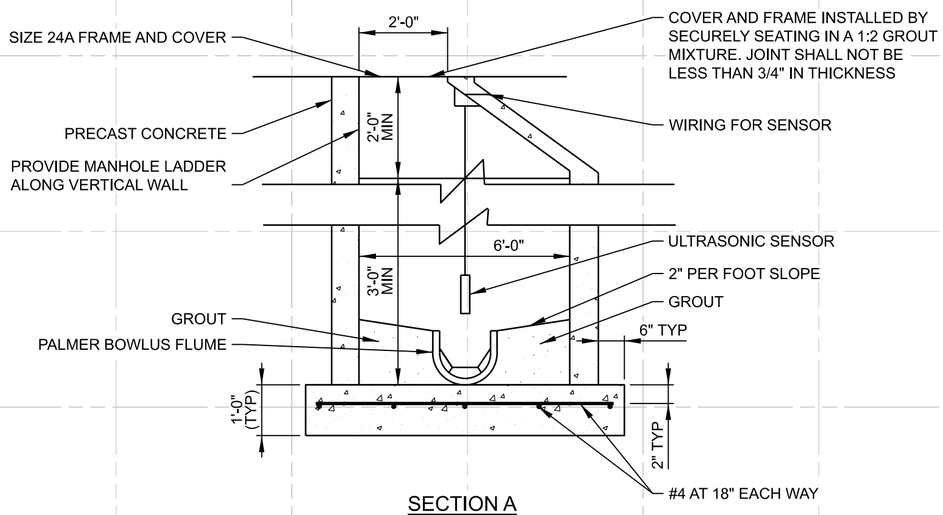
A1

DETAIL: WALL SLEEVE

SCALE: NTS



PLAN



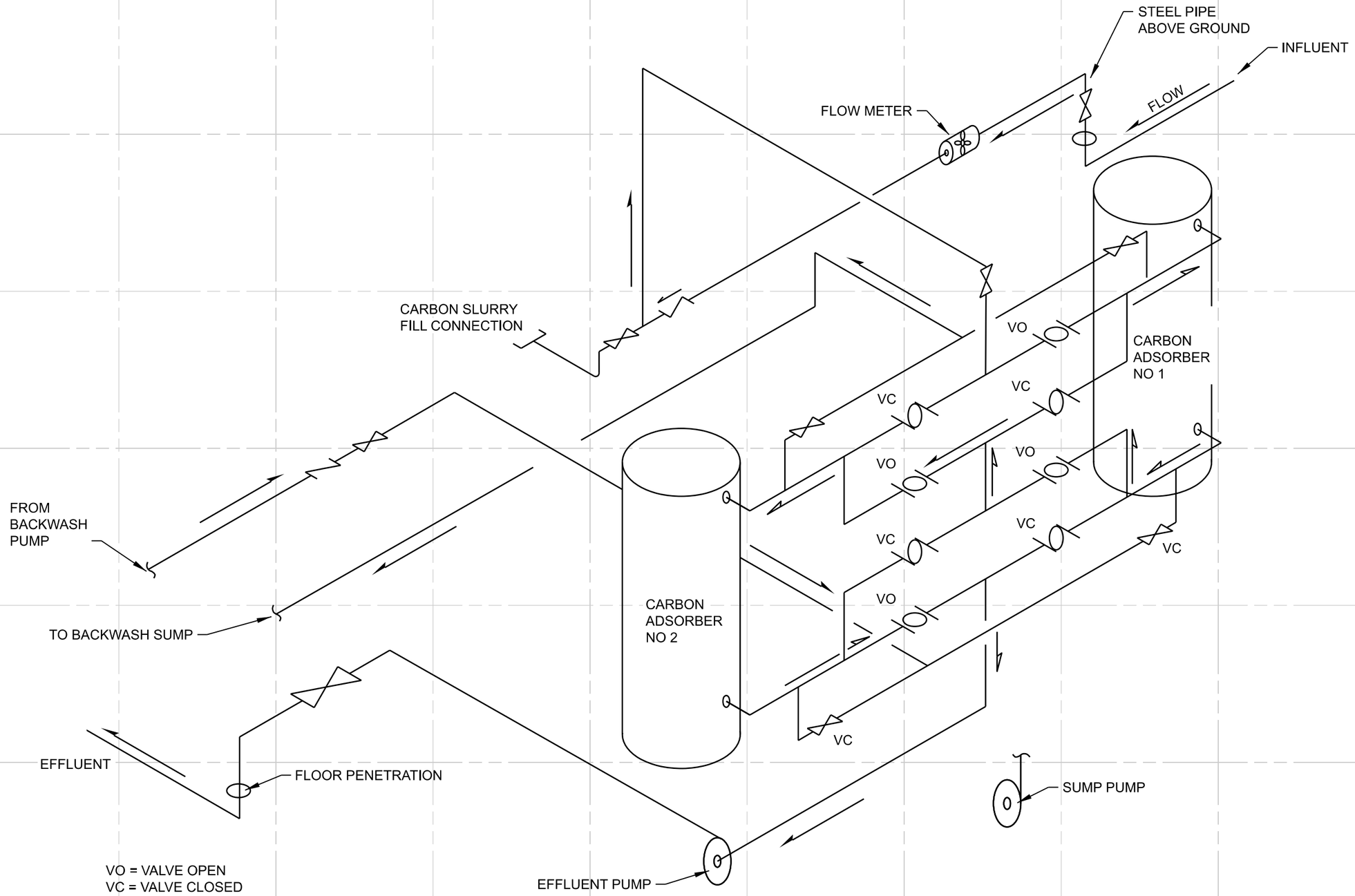
SECTION A

NOTES:
1. CONSTRUCTION REQUIREMENTS FOR THIS MANHOLE SHALL BE AS PER SPECIFICATION SECTION _____.
2. ANY MATERIAL EXCAVATED BENEATH PIPE ENTERING OR LEAVING MANHOLE SHALL BE REPLACED WITH CONCRETE. SUCH CONCRETE FILL SHALL EXTEND TO THE CENTER OF THE PIPE FOR A DISTANCE OF AT LEAST 3'-0" FROM THE FACE OF THE MANHOLE AND SHALL TERMINATE AT A BELL.

A1

DETAIL: GRAVITY FLOW METERING MANHOLE

SCALE: NTS



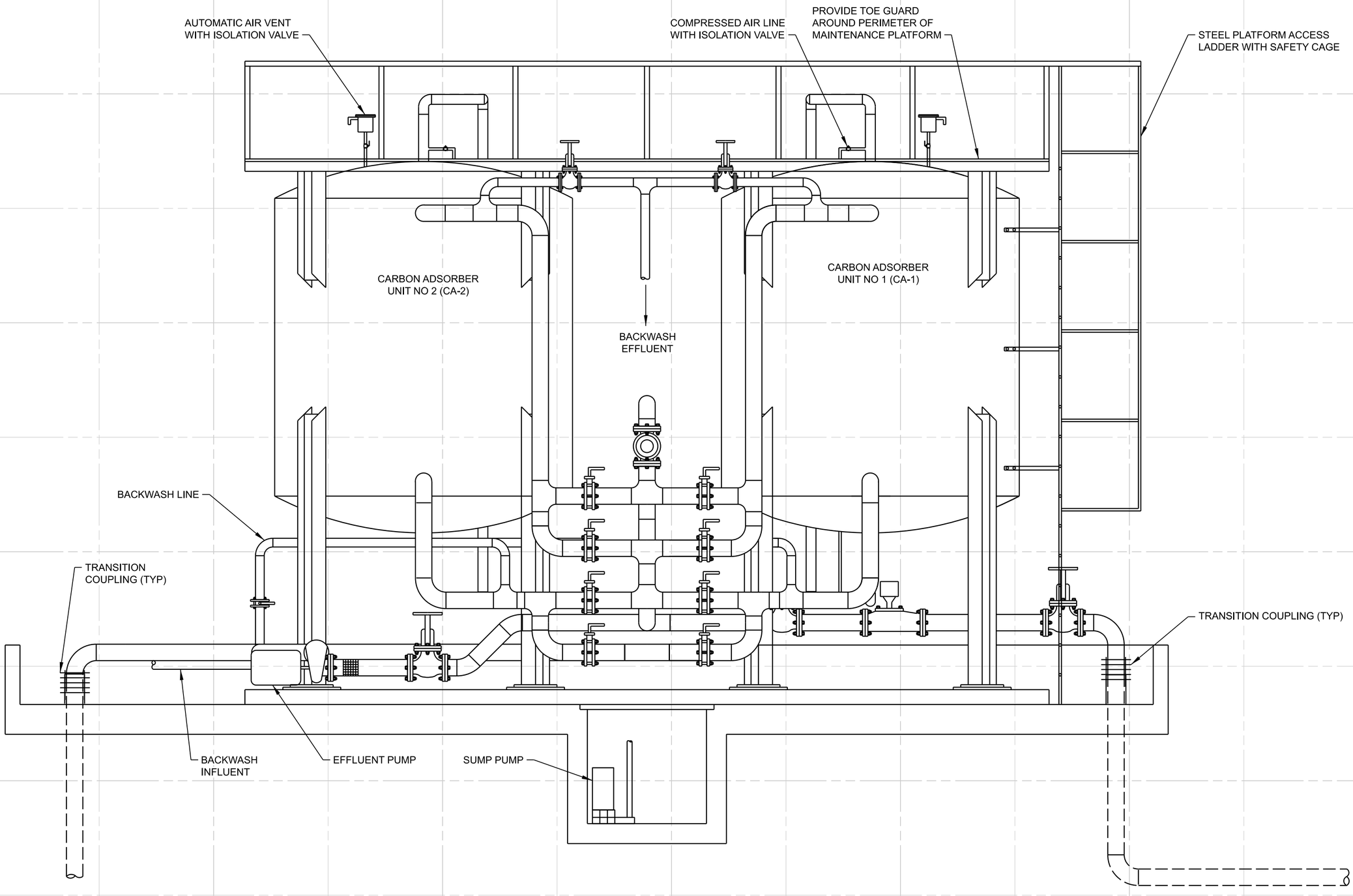
VO = VALVE OPEN
VC = VALVE CLOSED

NOTE:
OPERATIONAL ARRANGEMENT SHOWS #1 CONTACTOR IN THE LEAD.

DETAIL: ACTIVATED CARBON PROCESS UNITS (ADSORBER NO. 1 LEAD) FOR DOWNFLOW SERIES OPERATION ISOMETRIC

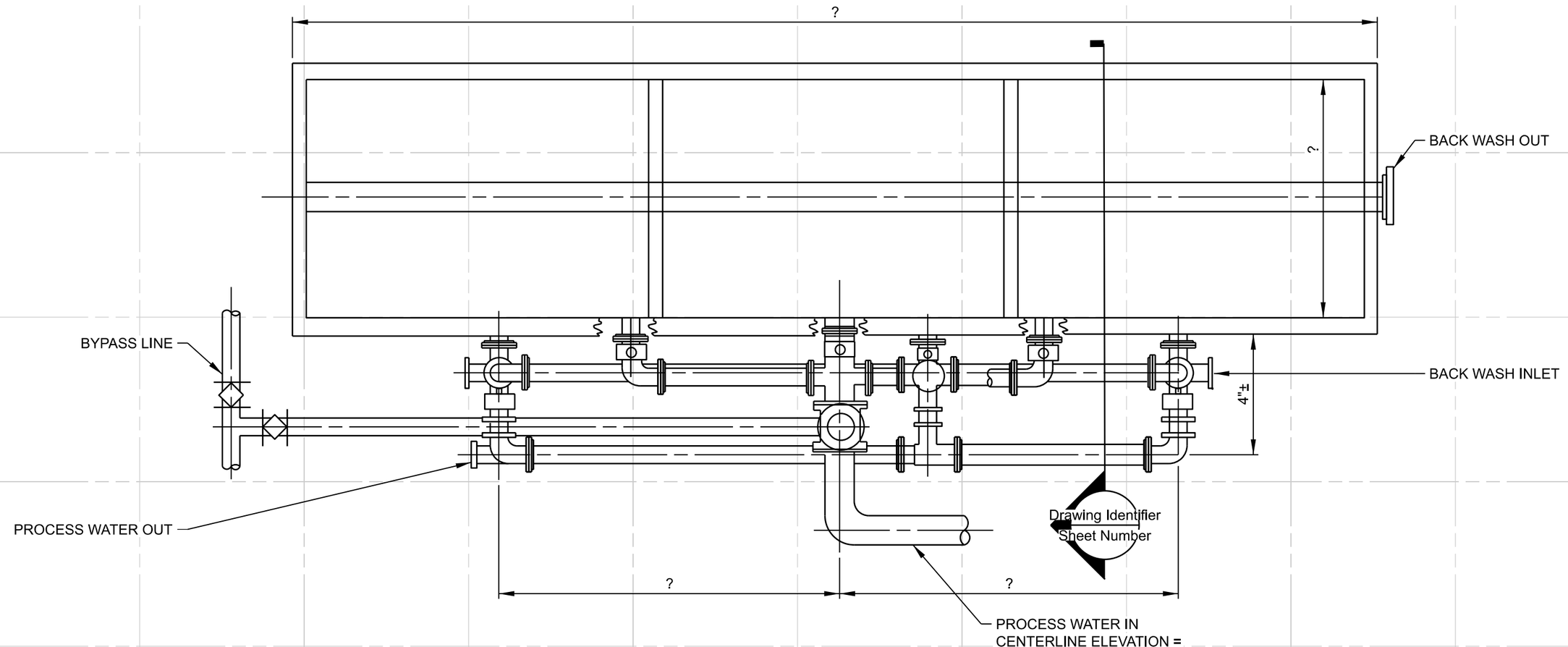
A1

SCALE: NTS



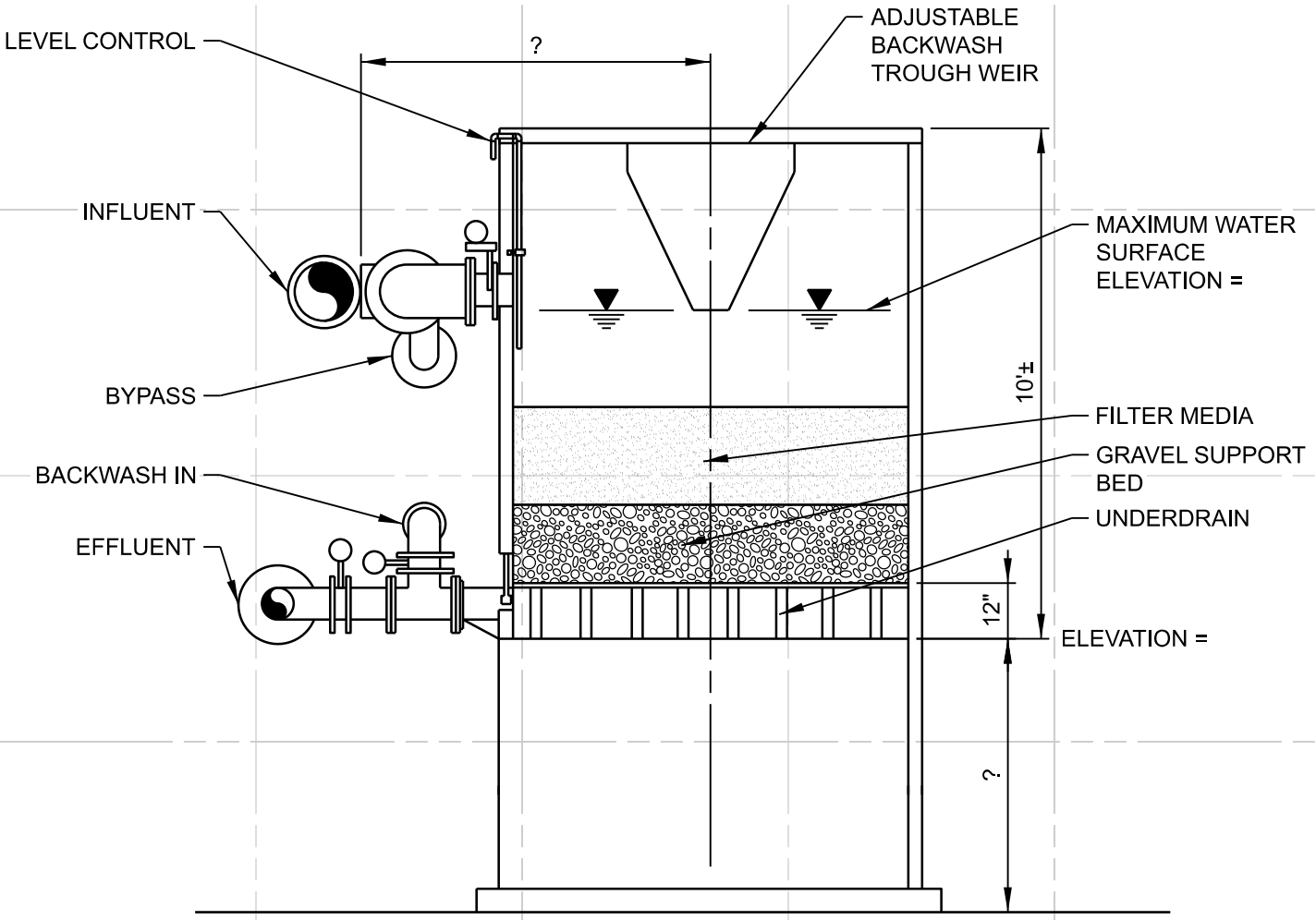
A1 DETAIL: ACTIVATED CARBON PROCESS UNITS ELEVATION

SCALE: NTS



A1 DETAIL: GRAVITY FILTER PLAN

SCALE: NTS

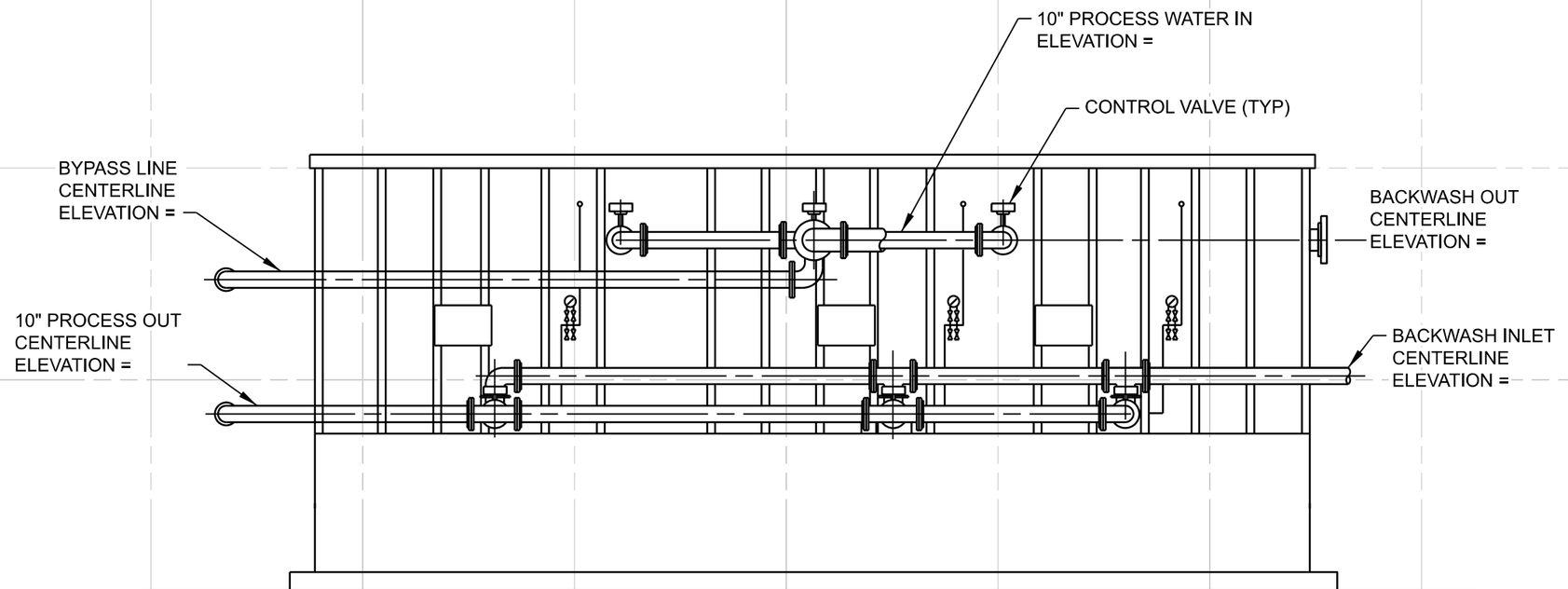


NOTES:
1. SEE SPECIFICATIONS FOR OPERATIONAL REQUIREMENTS.
2. ALL CONTROL VALVES GREATER THAN 4 INCHES SHALL BE BUTTERFLY VALVES.
3. FILTER MEDIA AND GRAVEL SUPPORT GRADATION AND DEPTH AS SPECIFIED.

A1

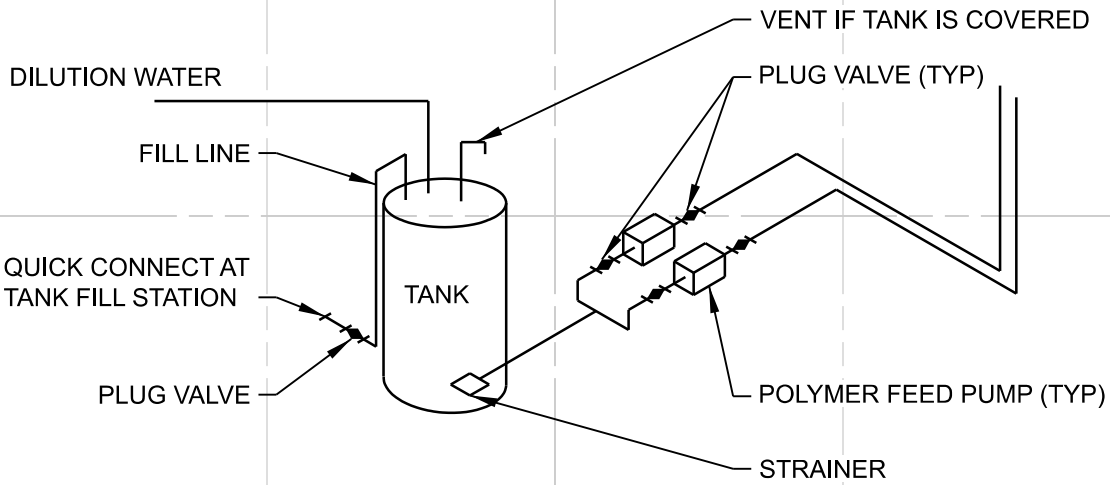
DETAIL: GRAVITY FILTER SECTION

SCALE: NTS



A1 DETAIL: GRAVITY FILTER ELEVATION

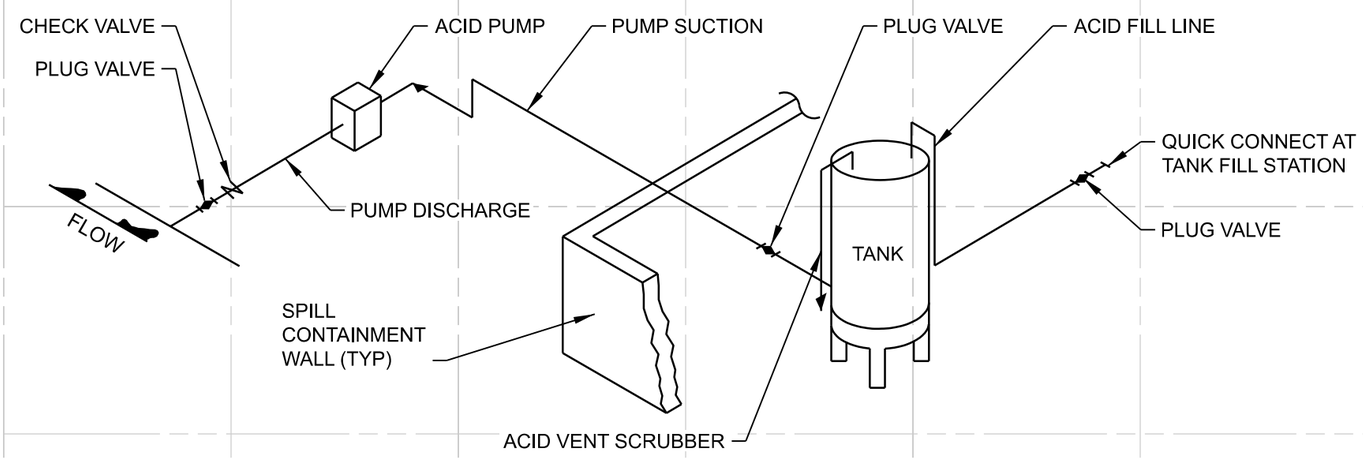
SCALE: NTS



A1

DETAIL: POLYMER FEED SYSTEM

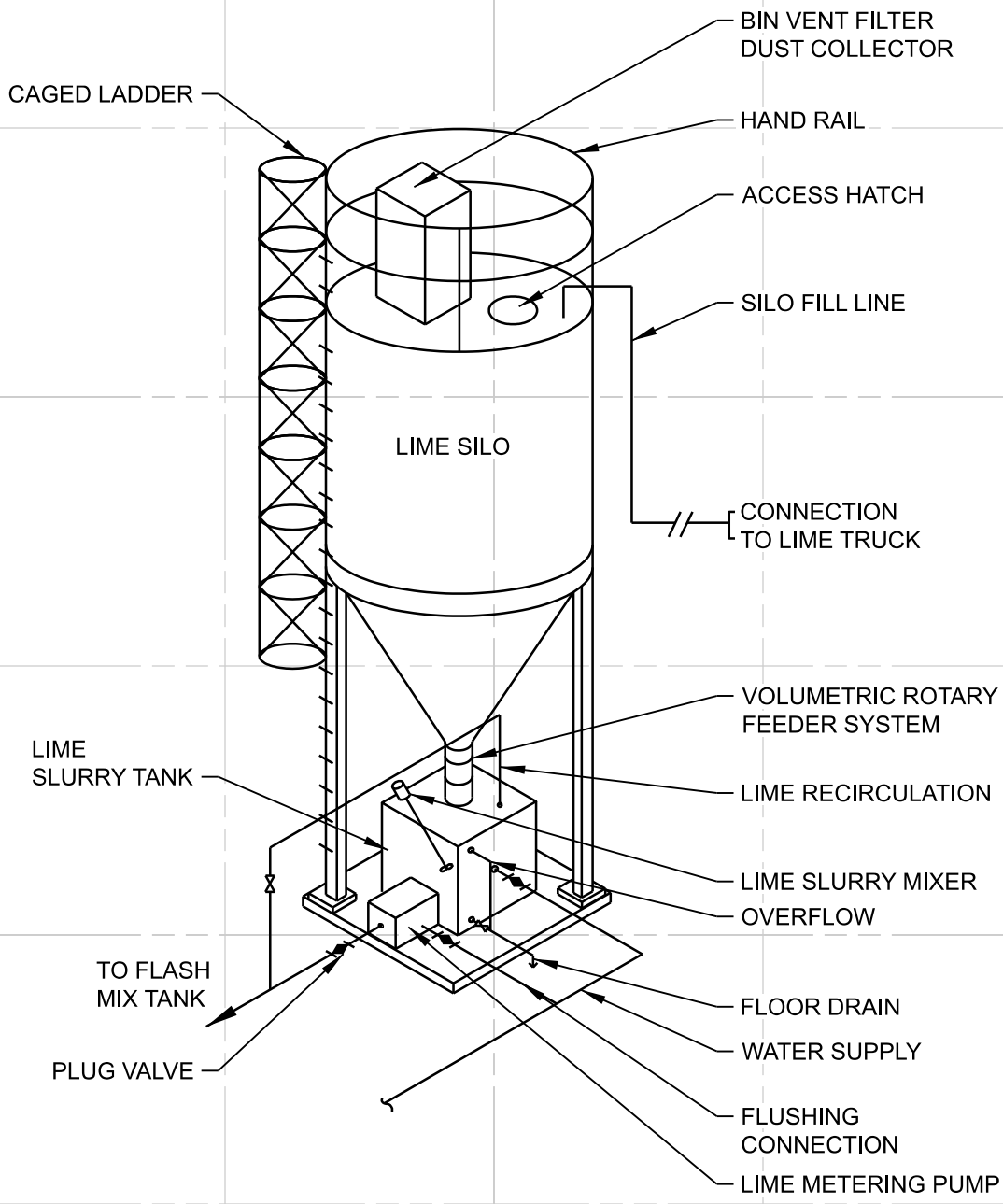
SCALE: NTS



A1

DETAIL: HYDROCHLORIC ACID FEED SYSTEM

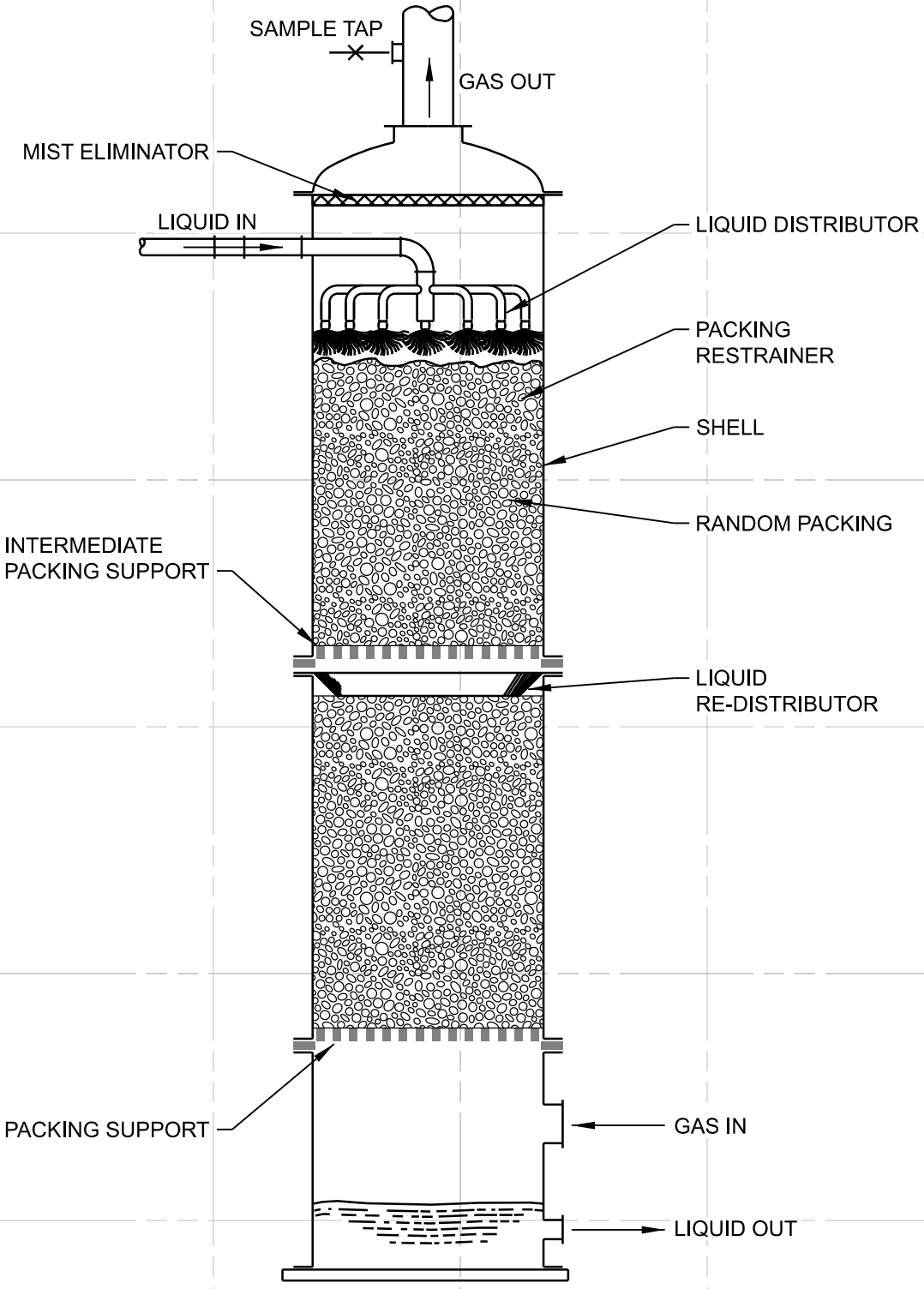
SCALE: NTS



A1

DETAIL: LIME FEED SYSTEM

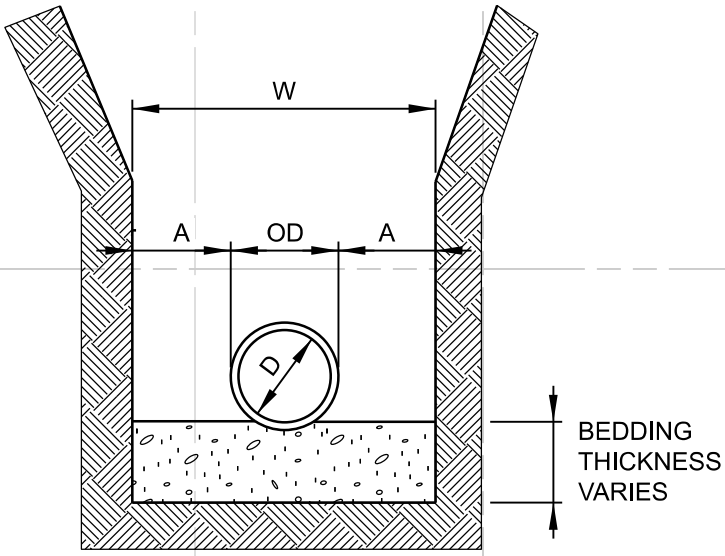
SCALE: NTS



A1

DETAIL: AIR STRIPPER

SCALE: NTS



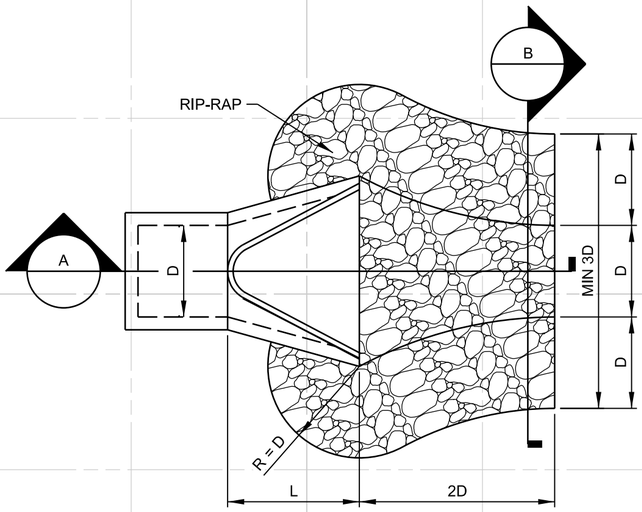
PIPE DIA "D"	MAXIMUM "A"
6" TO 15"	8"
16" TO 21"	10"
24" TO 30"	12"
33" TO 42"	15"
48" AND LARGER	18"

NOTE:
1. PROVIDE BEDDING IN ACCORDANCE WITH THE SPECIFICATIONS.
2. MAXIMUM TRENCH WIDTH "W" TAKEN AT TOP OF PIPE.

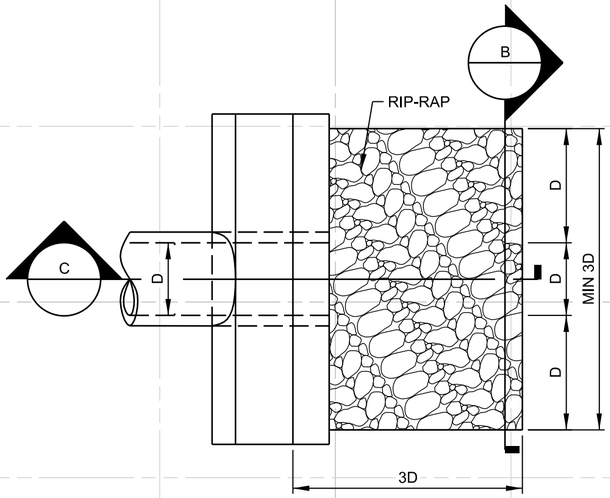
A1

DETAIL: STANDARD PIPE TRENCH WIDTH

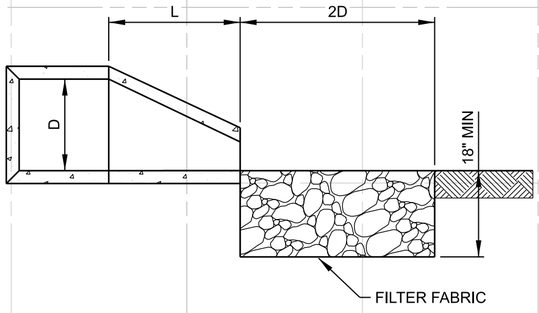
SCALE: NTS



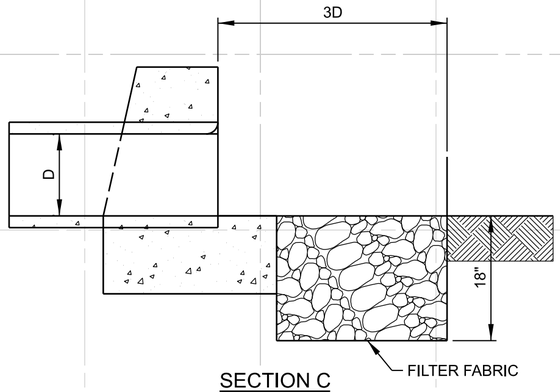
FLARED END PLAN



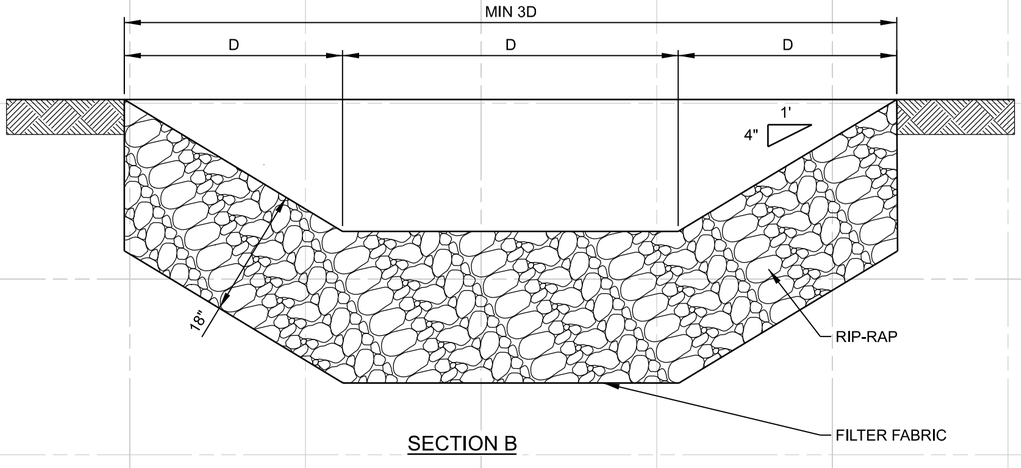
HEADWALL PLAN



SECTION A



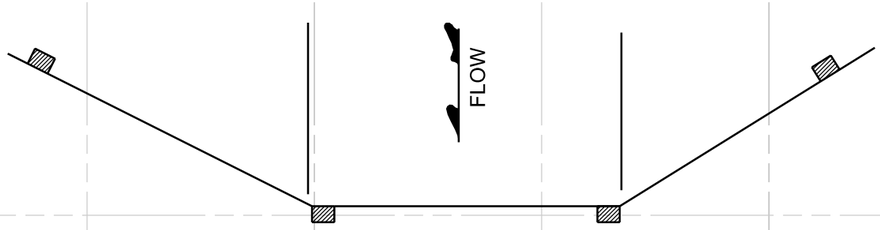
SECTION C



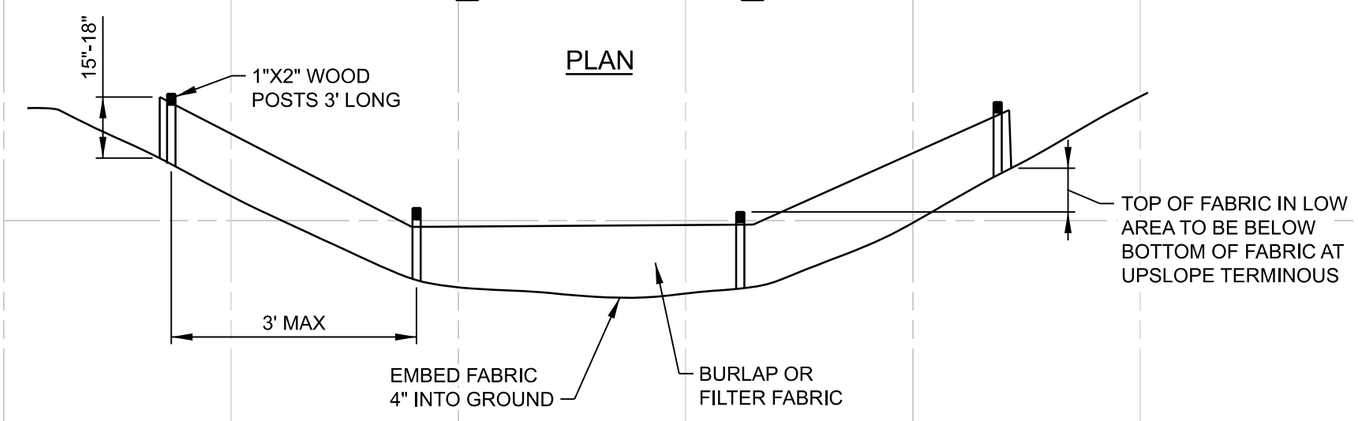
SECTION B

A1 DETAIL: DISCHARGE AREA EROSION CONTROL

SCALE: 1"=1" FULL SIZE



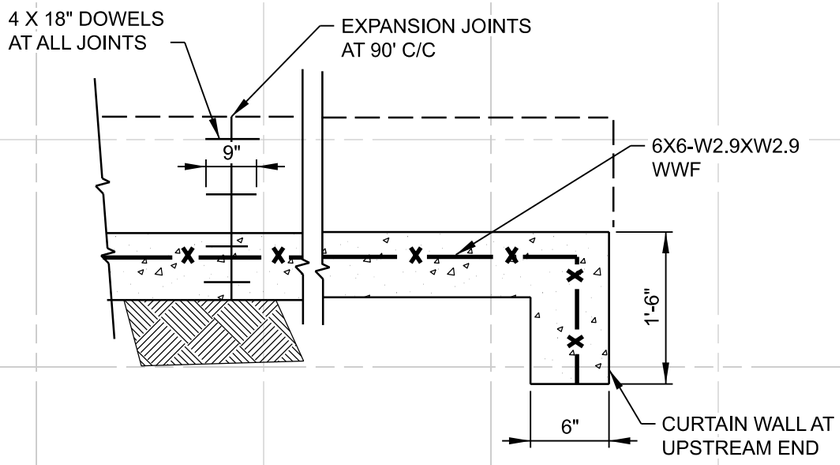
PLAN



NOTE:
FILTER BARRIER MAY BE USED IN LIEU OF STRAW BALE BARRIER. DO NOT USE IN DITCHES CONTAINING MAJOR WATER FLOWS.

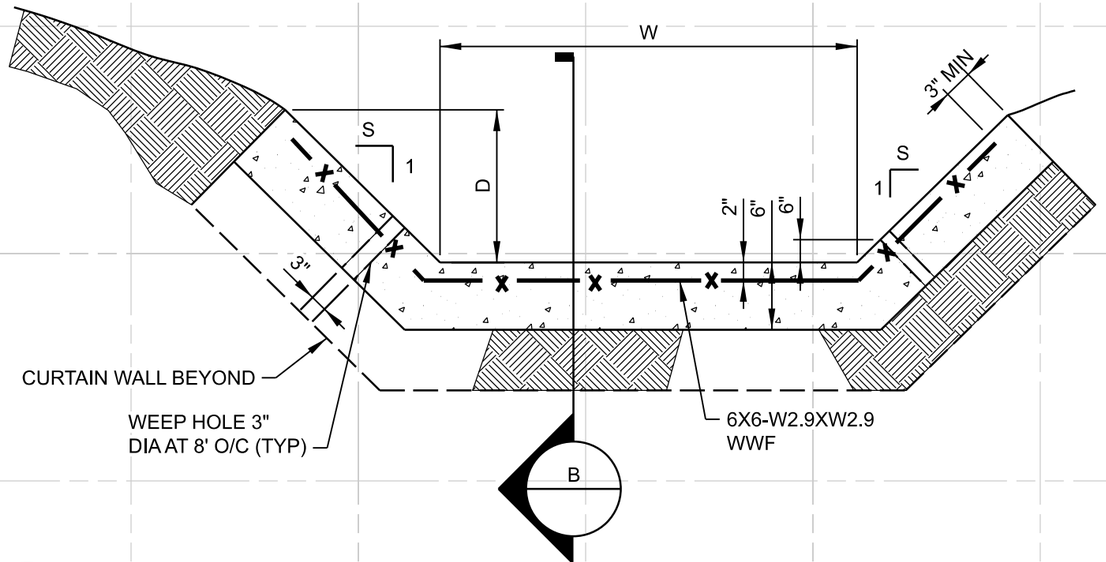
A1 DETAIL: FILTER BARRIER

SCALE: NTS



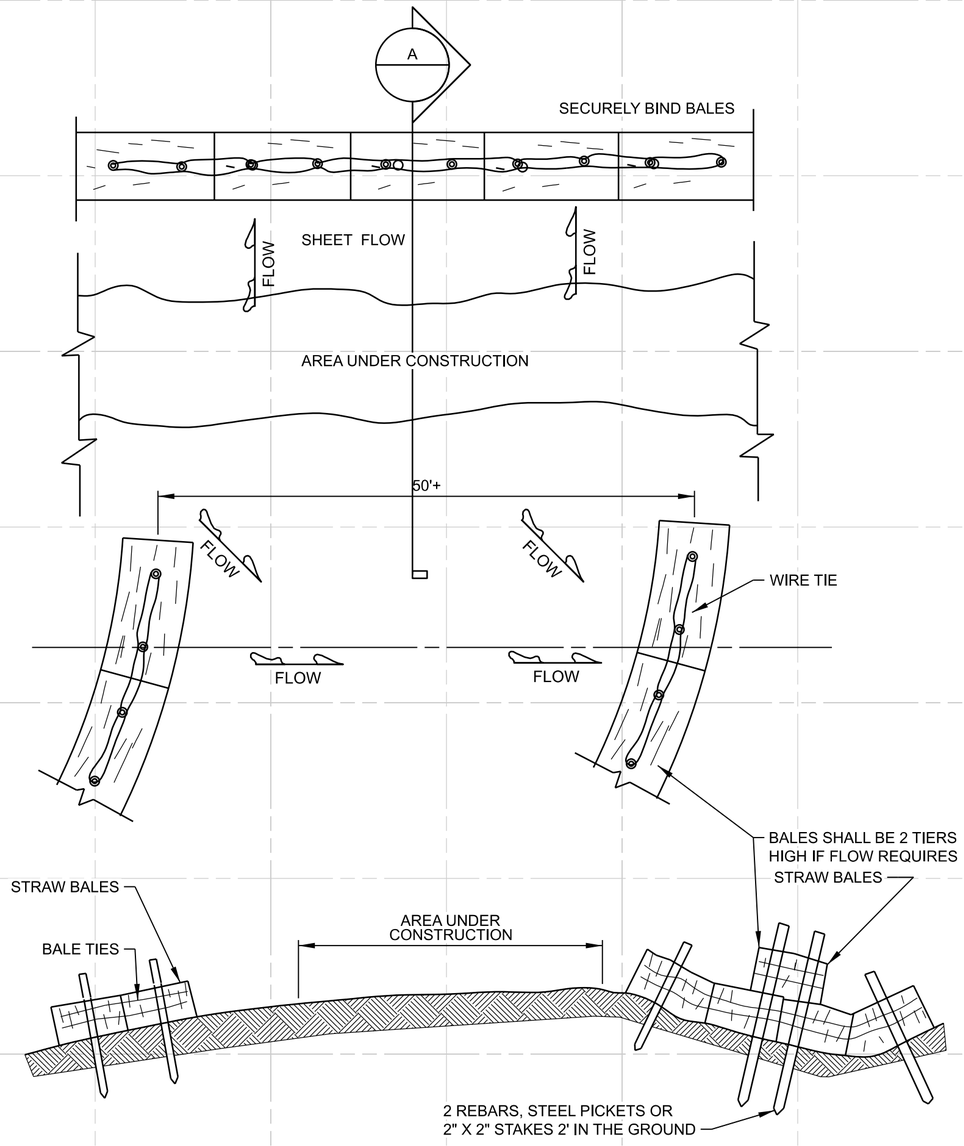
SECTION B

W =
D =
S =



A1 DETAIL: PAVED DITCH

SCALE: NTS

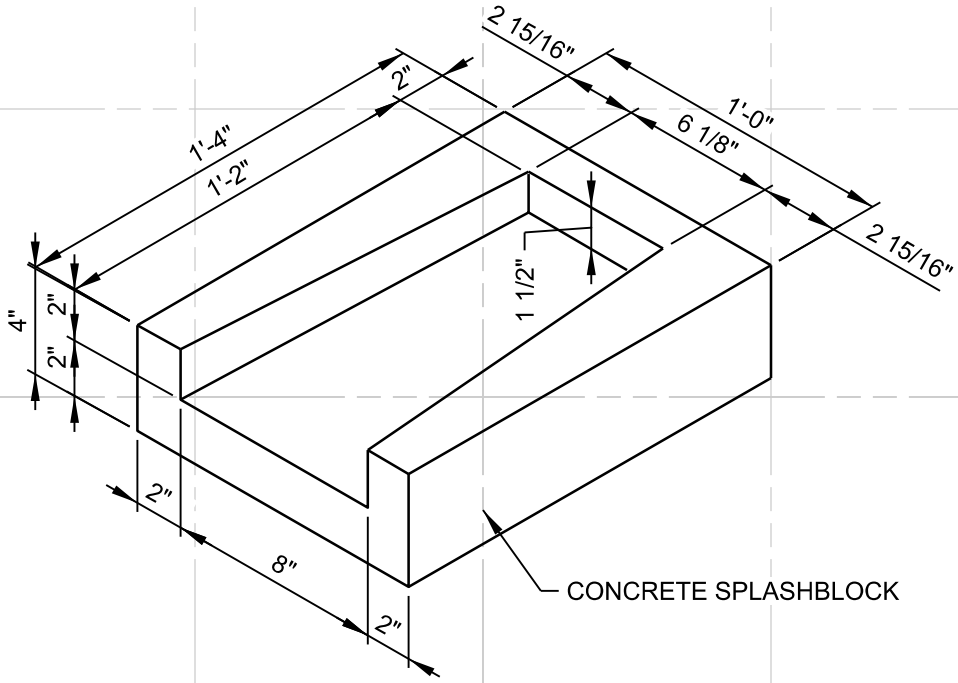


SECTION A

NOTE:
ADJOINING BALES SHALL BE SECURELY TIED TOGETHER AND STAKED TO PREVENT MOVEMENT.

A1 DETAIL: STRAW BALE SEDIMENT BARRIER

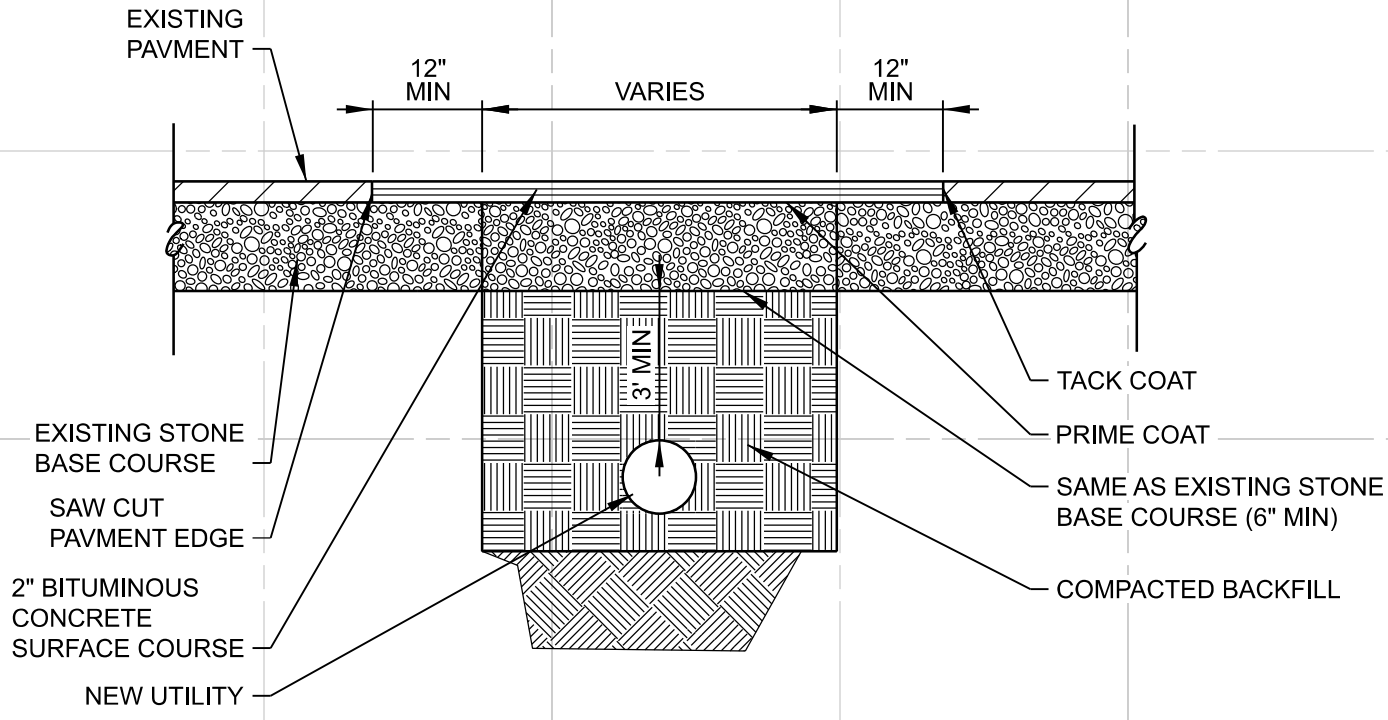
SCALE: NTS



DETAIL: CONCRETE SPLASH BLOCK

A1

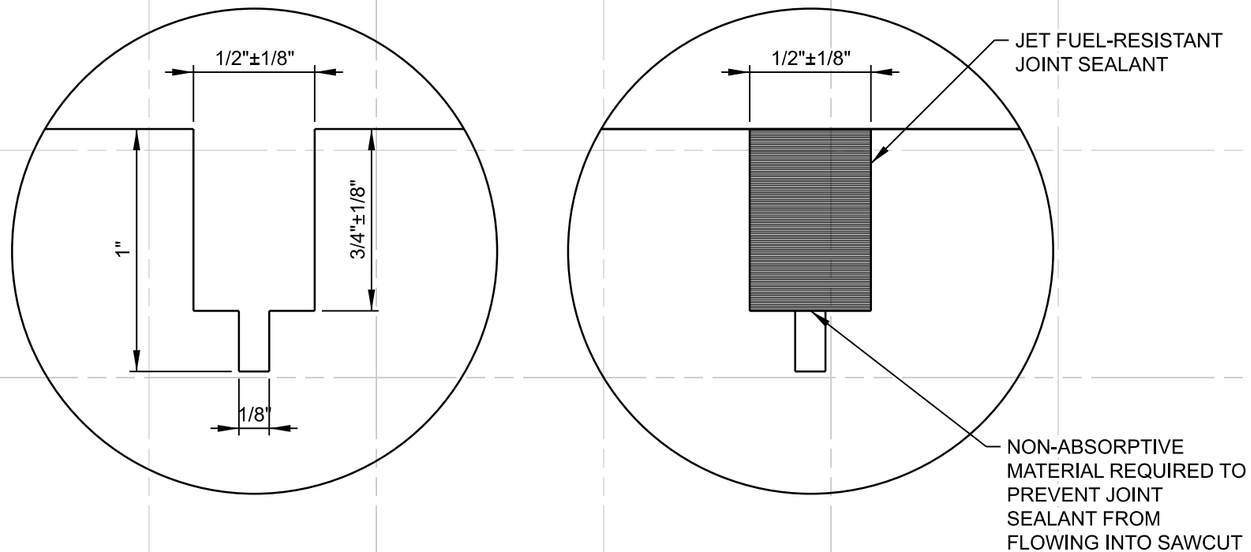
SCALE: NTS



A1

DETAIL: BITUMINOUS PAVEMENT PATCHING

SCALE: NTS

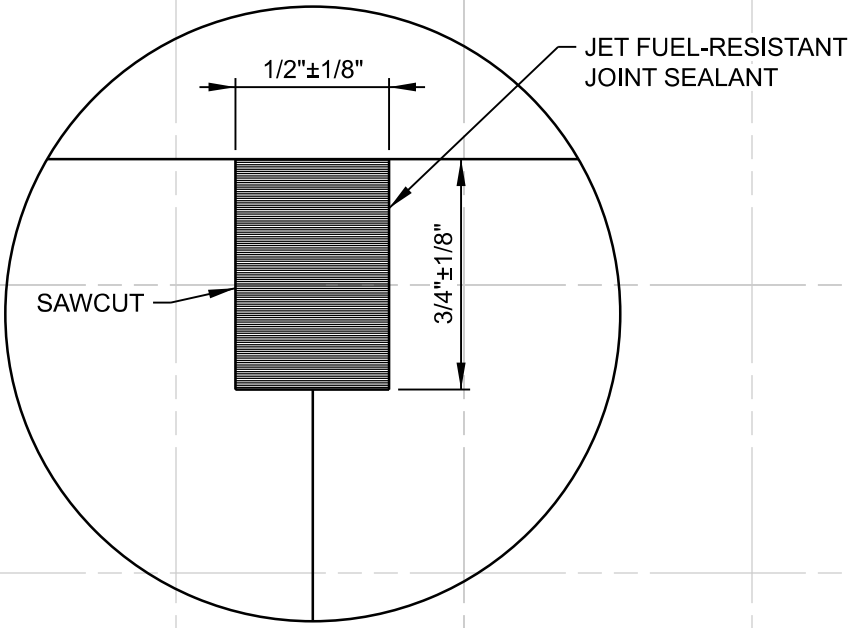


SAWCUT

COMPLETED SAWCUT JOINT

A1 DETAIL: CONTRACTION JOINT

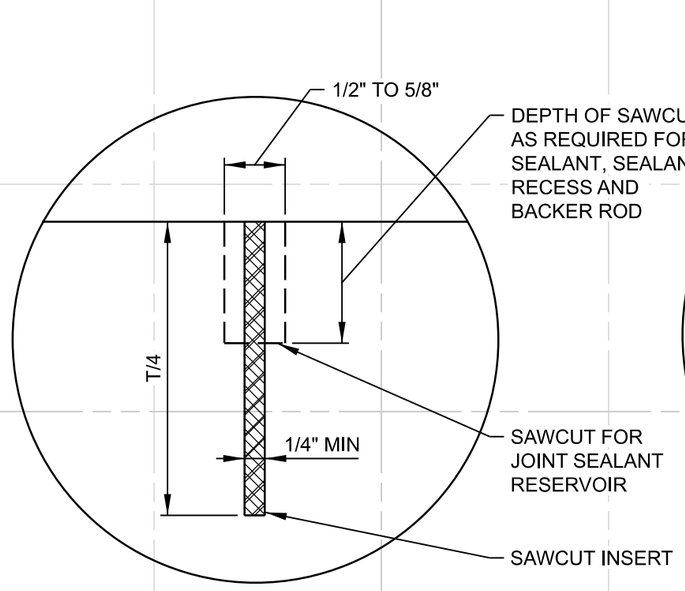
SCALE: NTS



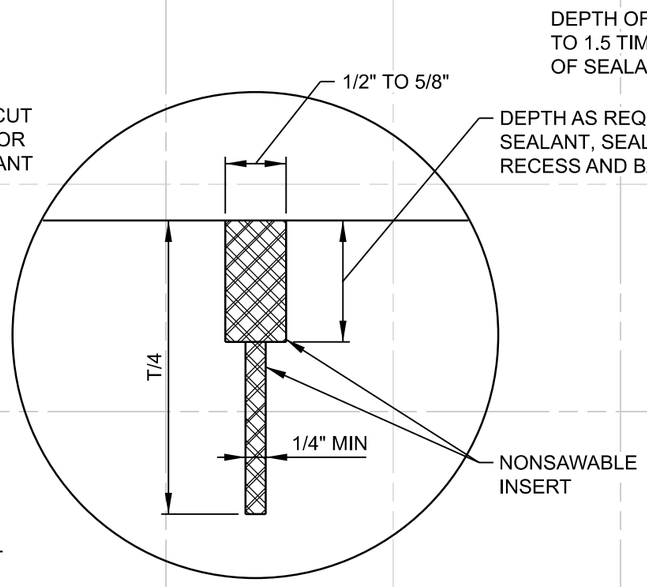
A1

DETAIL: CONSTRUCTION JOINT SEALANT

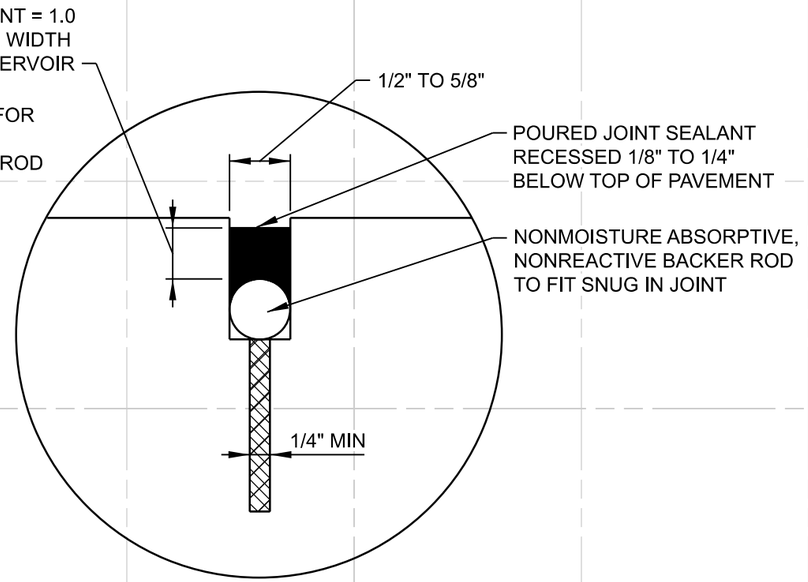
SCALE: NTS



SAWABLE INSERT INSTALLATION



NONSAWABLE INSERT INSTALLATION



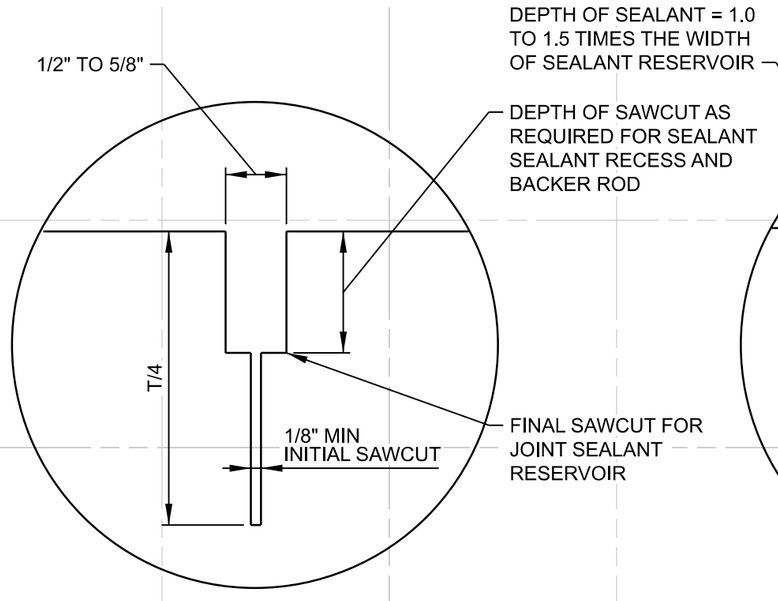
COMPLETED INSERT INSTALLATION

NOTE:
T = PAVEMENT THICKNESS

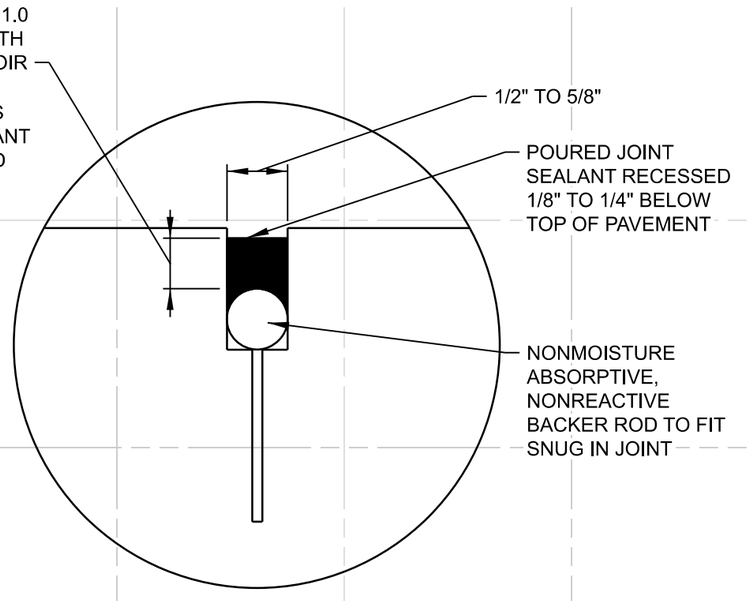
A1

DETAIL: CONTRACTION JOINT SEALANT (INSERT TYPE)

SCALE: NTS



SAWCUT



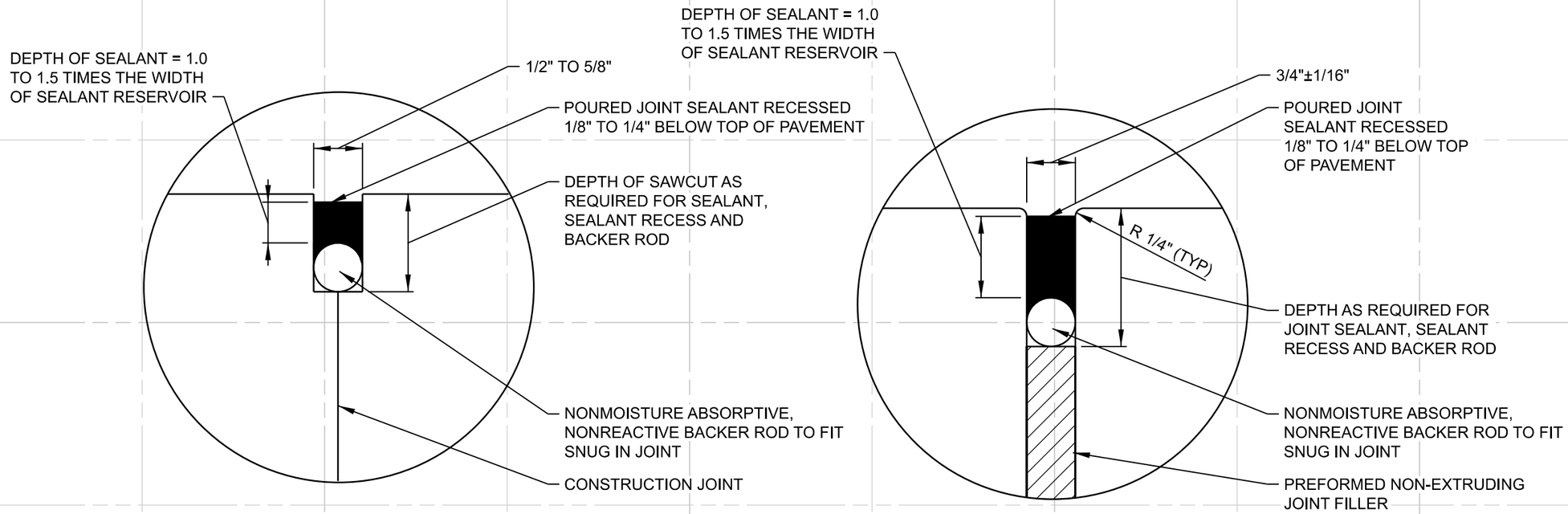
COMPLETED SAWCUT JOINT

NOTE:
T = PAVEMENT THICKNESS

A1

DETAIL: CONTRACTION JOINT SEALANT (SAWED TYPE)

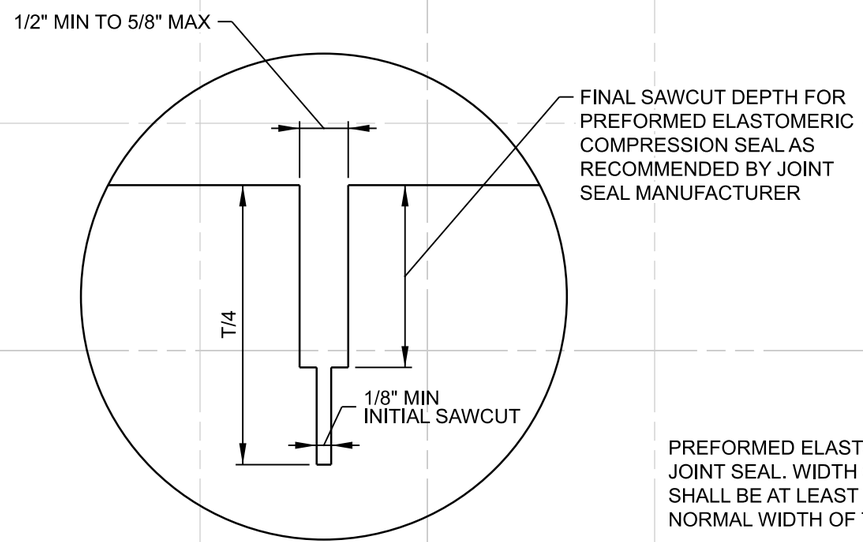
SCALE: NTS



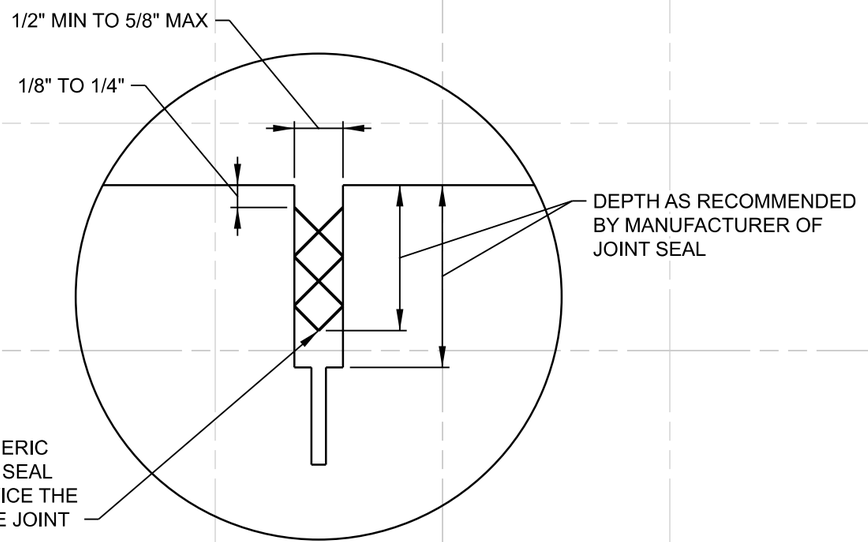
A1

DETAIL: POURED JOINT SEALANT

SCALE: NTS



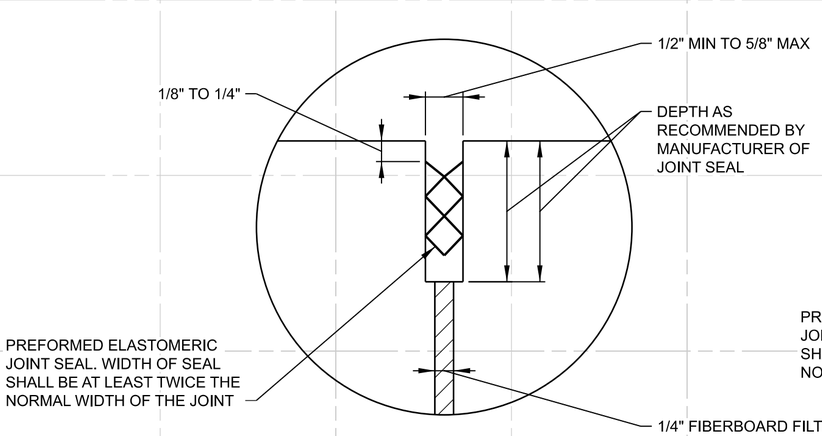
SAWCUT



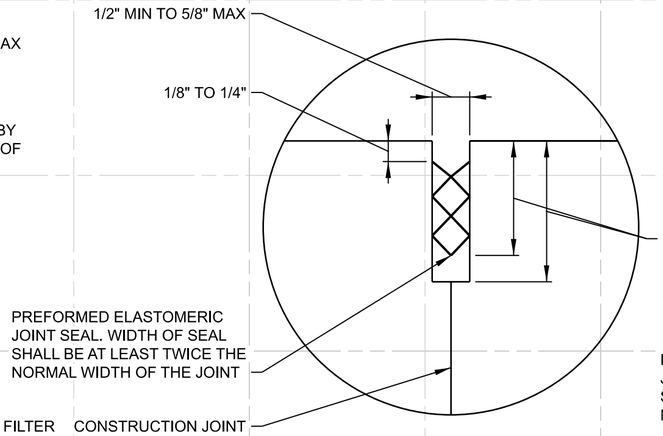
COMPLETED JOINT

A1 DETAIL: CONTRACTION JOINT SEAL (SAWED TYPE)

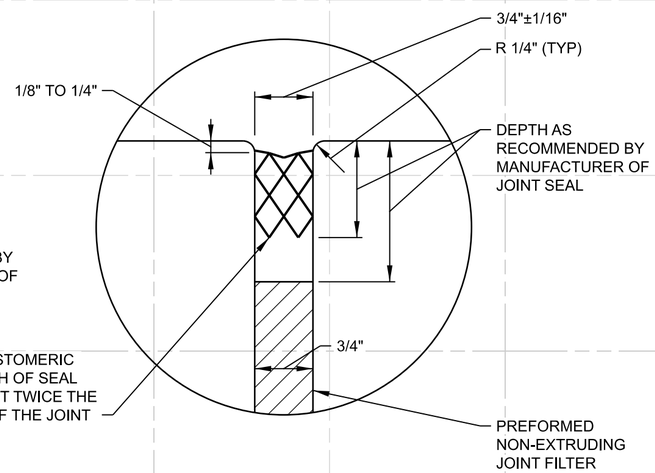
SCALE: NTS



SLIP JOINT SEAL INSTALLATION



CONSTRUCTION JOINT SEAL

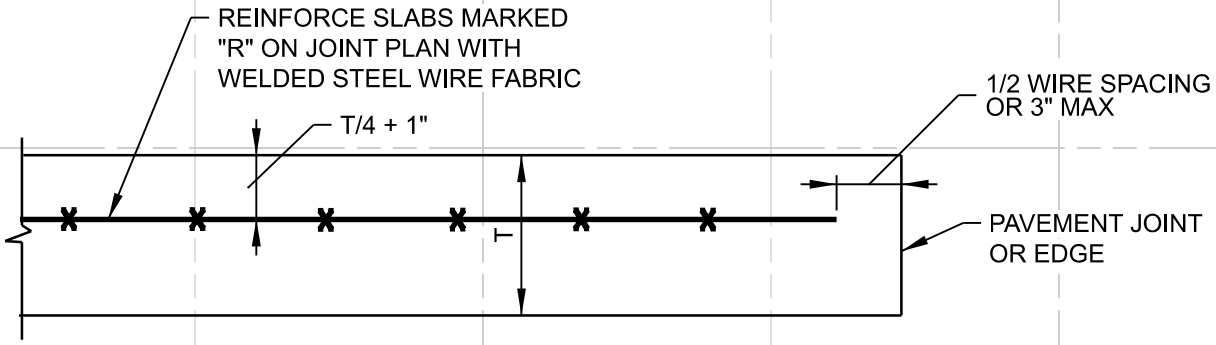


EXPANSION JOINT SEAL INSTALLATION

A1

DETAIL: PREFORMED JOINT SEAL

SCALE: NTS

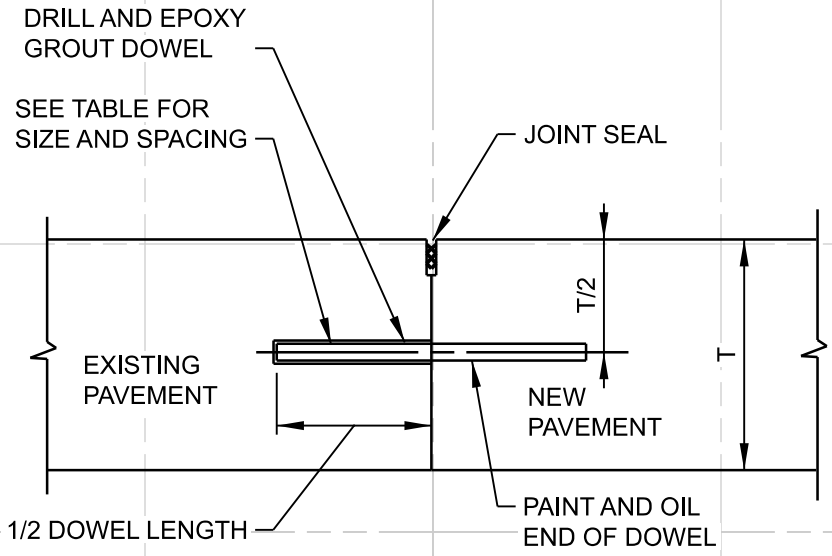


NOTE:
T = PAVEMENT THICKNESS

A1

DETAIL: SLAB REINFORCING

SCALE: NTS



T = PAVEMENT THICKNESS

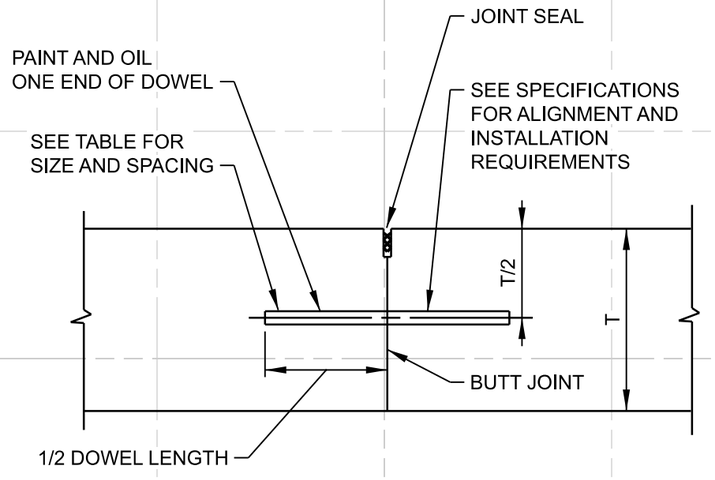
NOTE:

1. HOLES APPROXIMATELY 1/8 INCH GREATER IN DIAMETER THAN THE DOWELS SHALL BE DRILLED IN THE EXISTING CONCRETE AND THE DOWELS SHALL BE BONDED IN THE DRILLED HOLES USING AN EPOXY RESIN GROUT.

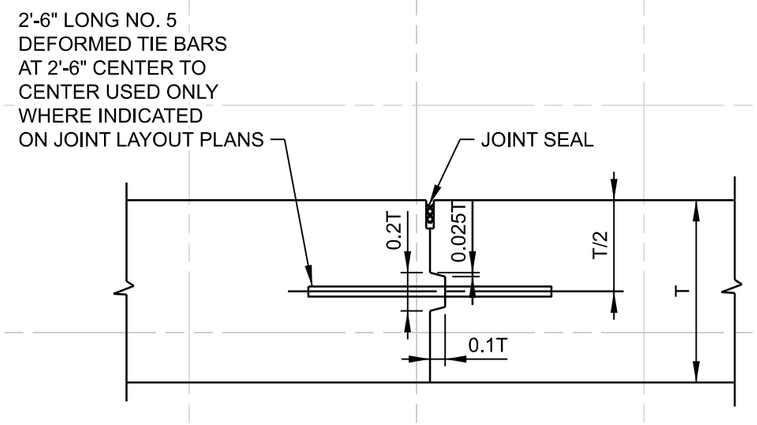
DETAIL: DOWELED JOINT BETWEEN NEW AND EXISTING PAVEMENT

A1

SCALE: NTS



TRANSVERSE OR LONGITUDINAL DOWELED JOINT



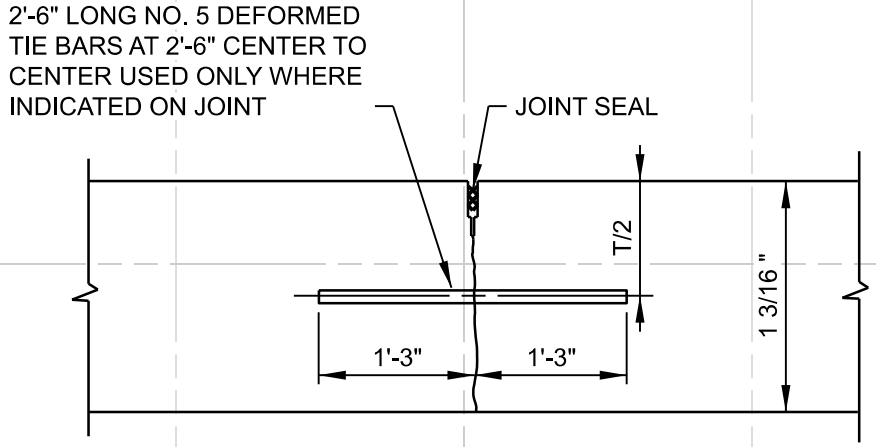
LONGITUDINAL KEYED JOINT

T = PAVEMENT THICKNESS

A1

DETAIL: CONSTRUCTION JOINT

SCALE: NTS

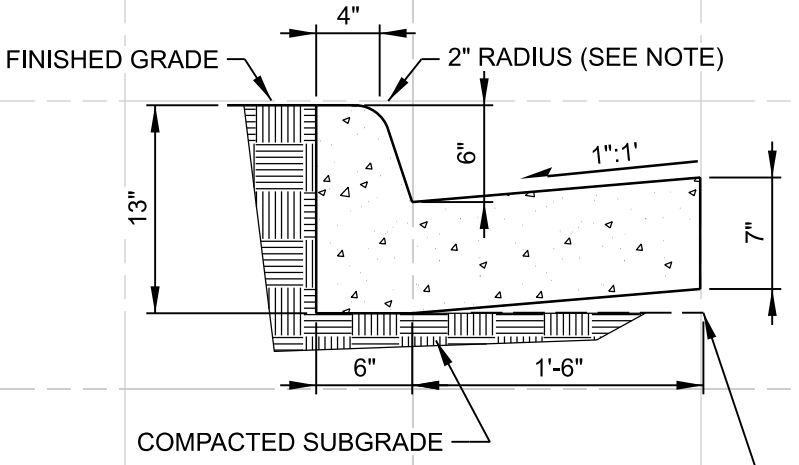


T = PAVEMENT THICKNESS

A1

DETAIL: DUMMY GROOVE CONTRACTION JOINT

SCALE: 1"=1" FULL SIZE

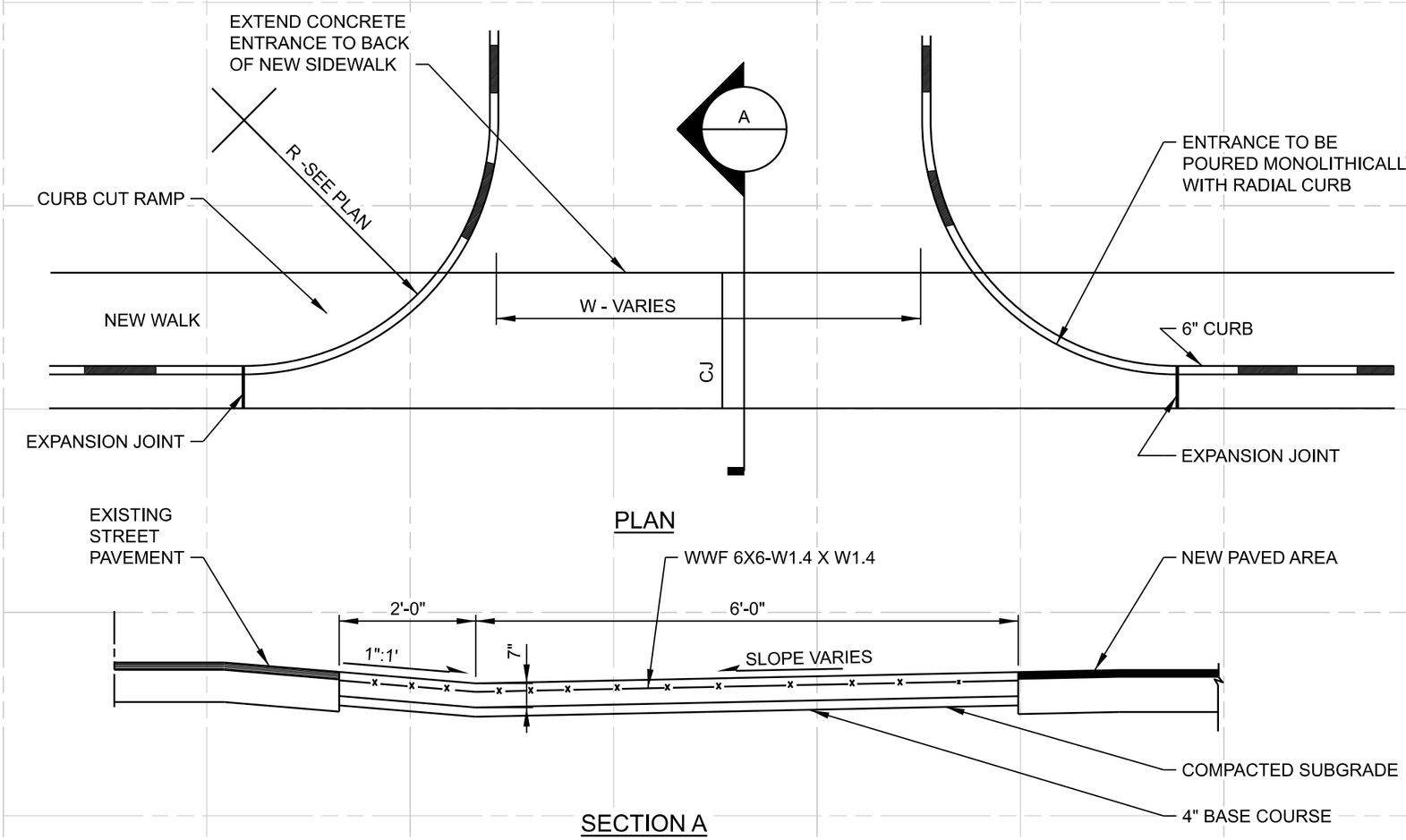


NOTE:
STANDARD CURB SHAPE OF THE STATE IN WHICH THE PROJECT IS LOCATED MAY BE SUBSTITUTED.

A1

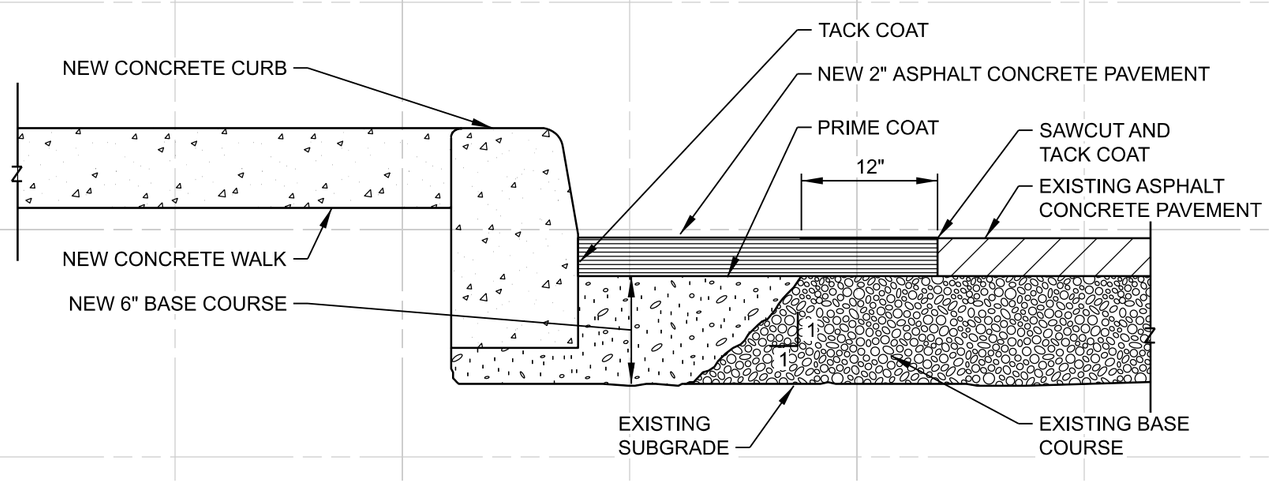
DETAIL: CURB AND GUTTER

SCALE: NTS



A1 DETAIL: CONCRETE ENTRANCE

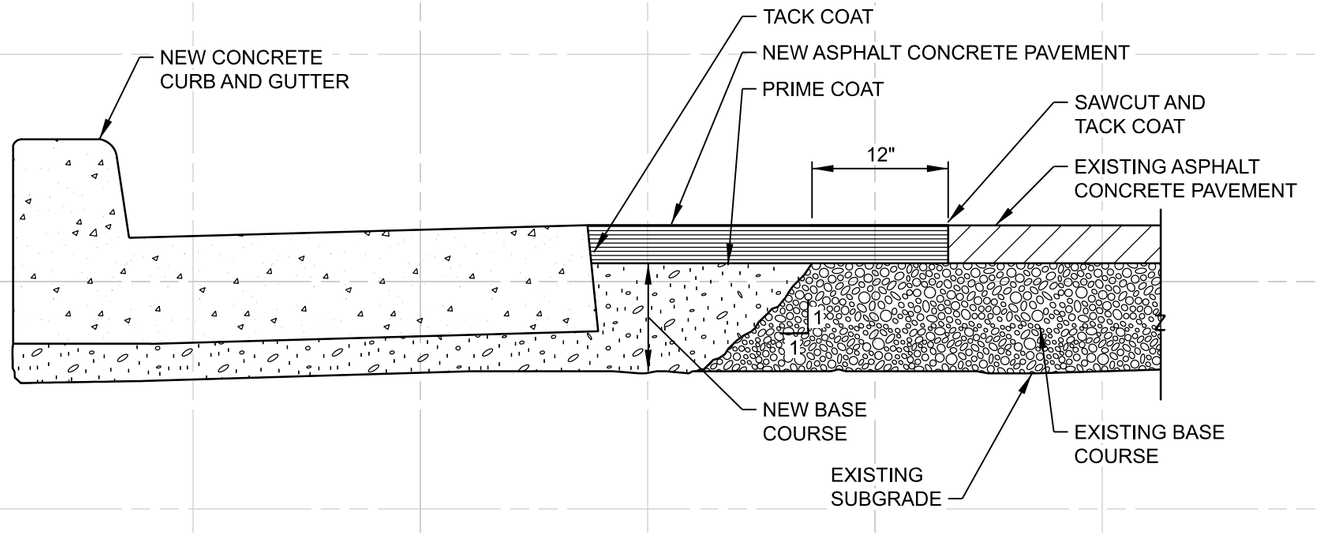
SCALE: NTS



A1

DETAIL: NEW ASPHALT CONCRETE PAVEMENT AT NEW CONCRETE CURB

SCALE: NTS

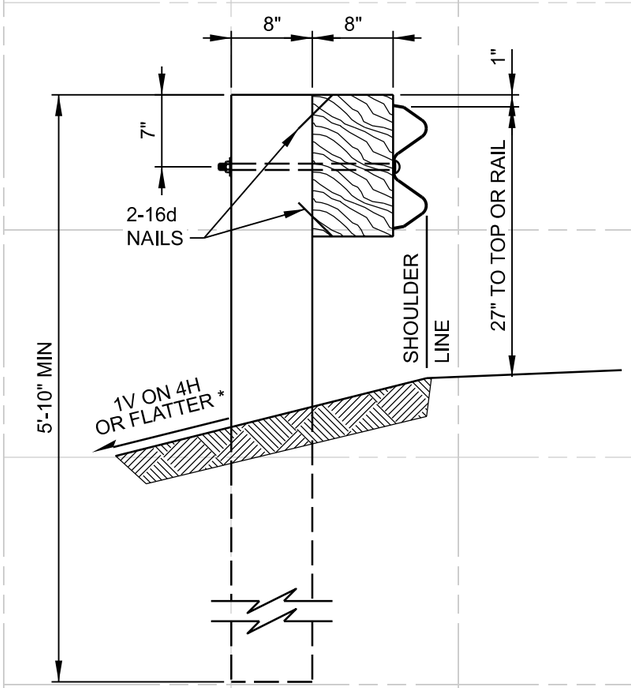


DETAIL: NEW ASPHALT CONCRETE PAVEMENT AT NEW CONCRETE CURB AND GUTTER

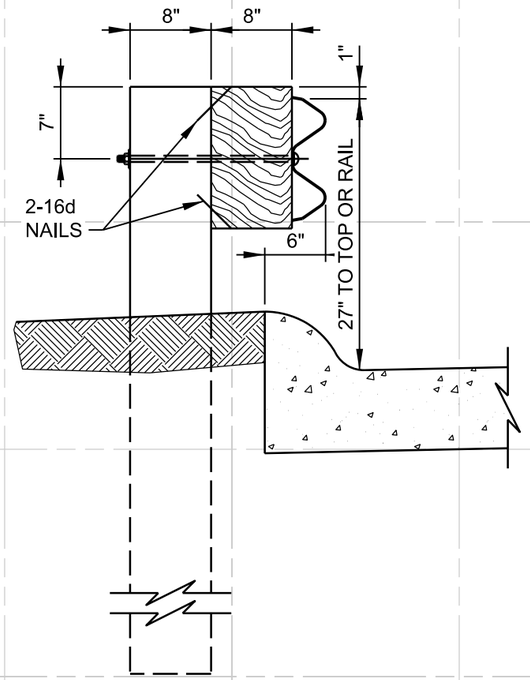
A1

SCALE: NTS

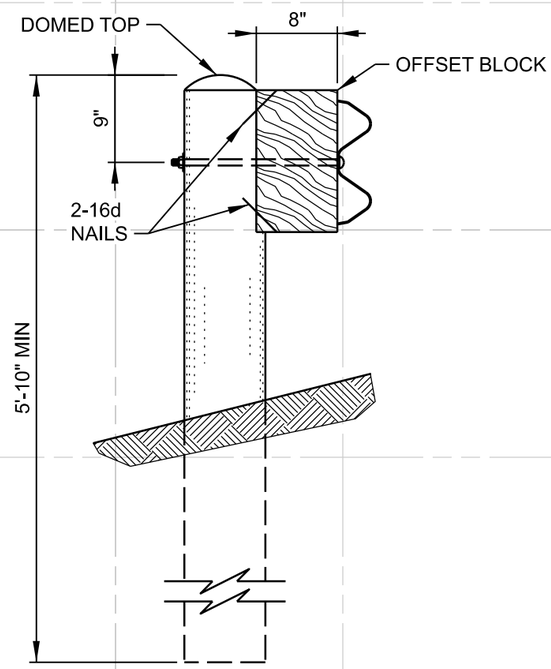
Detail G2015C-DT006X



NON-CURBED LOCATIONS



CURBED LOCATIONS



ALTERNATE ROUND WOOD POST

SAWN WOOD POST

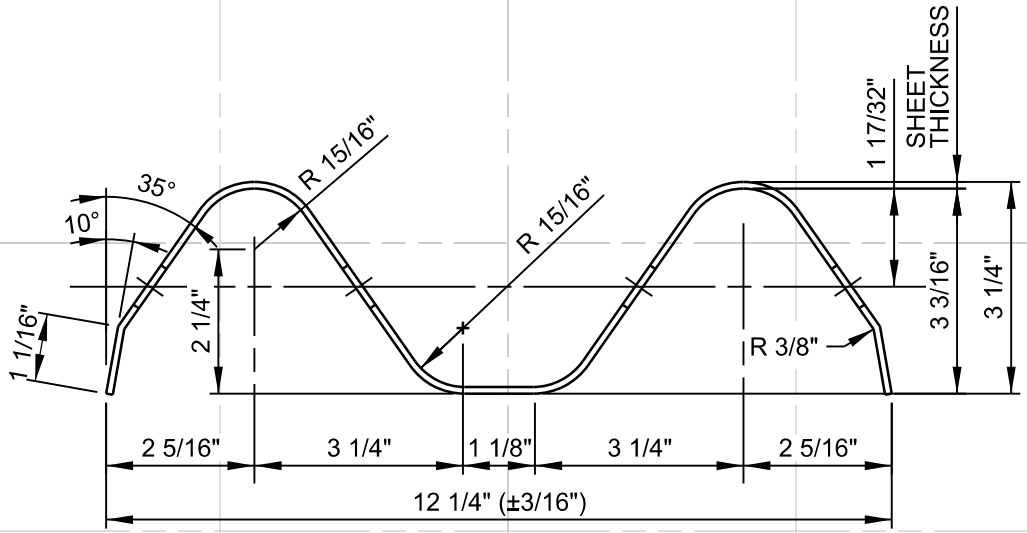
* FOR SLOPES STEEPER THAN 1V ON 4H, EXTEND THE SHOULDER TO TWO FEET BEYOND BACK OF POST.

NOTE:
SAWED TREATED TIMBER POSTS 6"x8"x6' AND SAWED TREATED TIMBER OFFSET BLOCKS 6"x8"x14" SHALL BE USED.

A1

DETAIL: GUARDRAIL POST

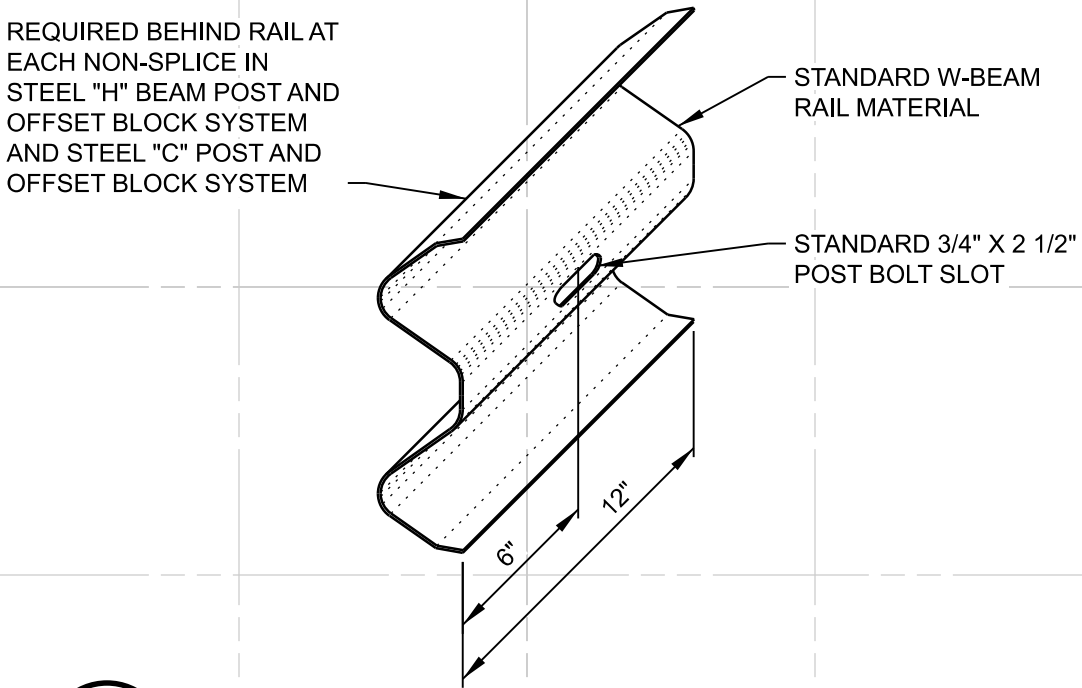
SCALE: NTS



A1

DETAIL: SECTION THRU SAFETY BEAM GUARDRAIL

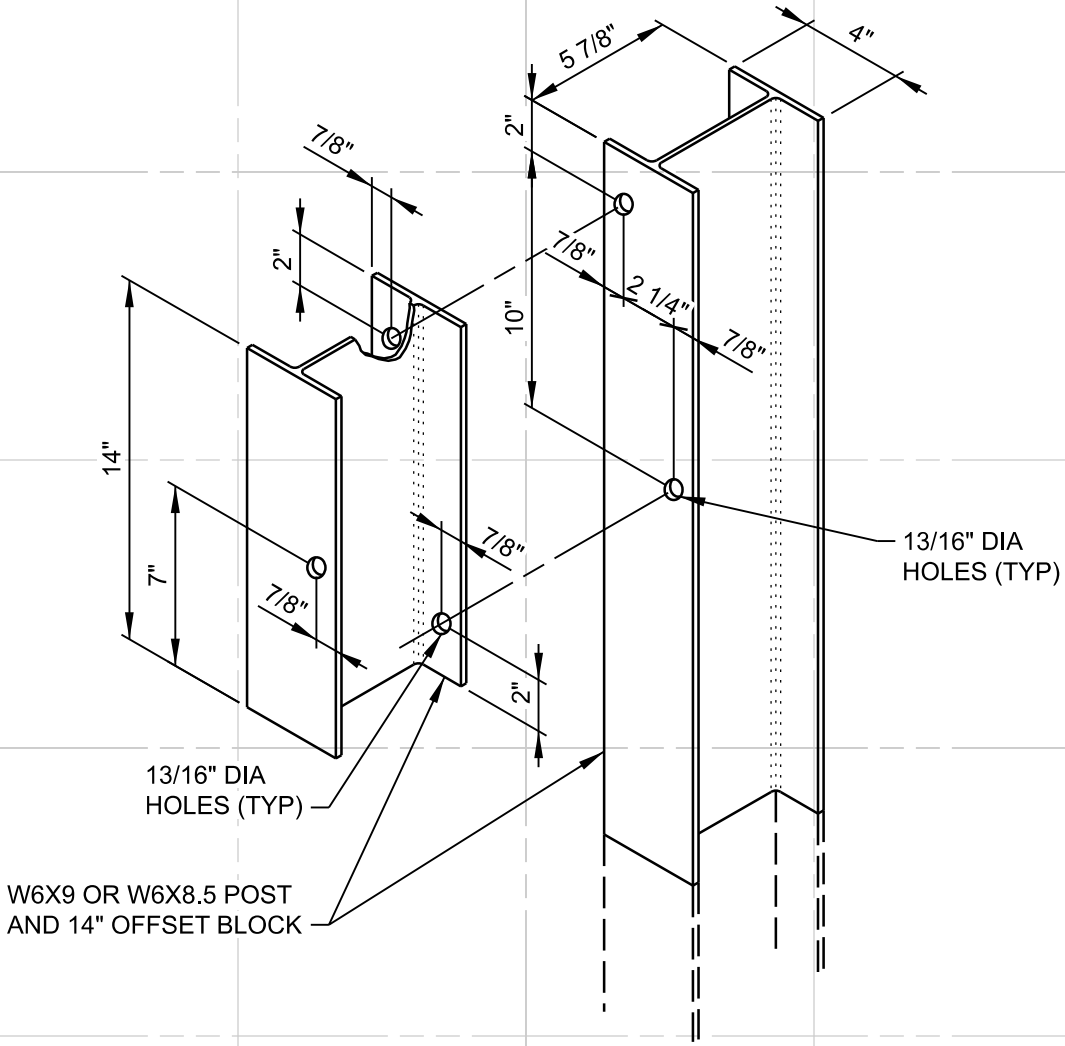
SCALE: NTS



A1

DETAIL: BACK-UP PLATE

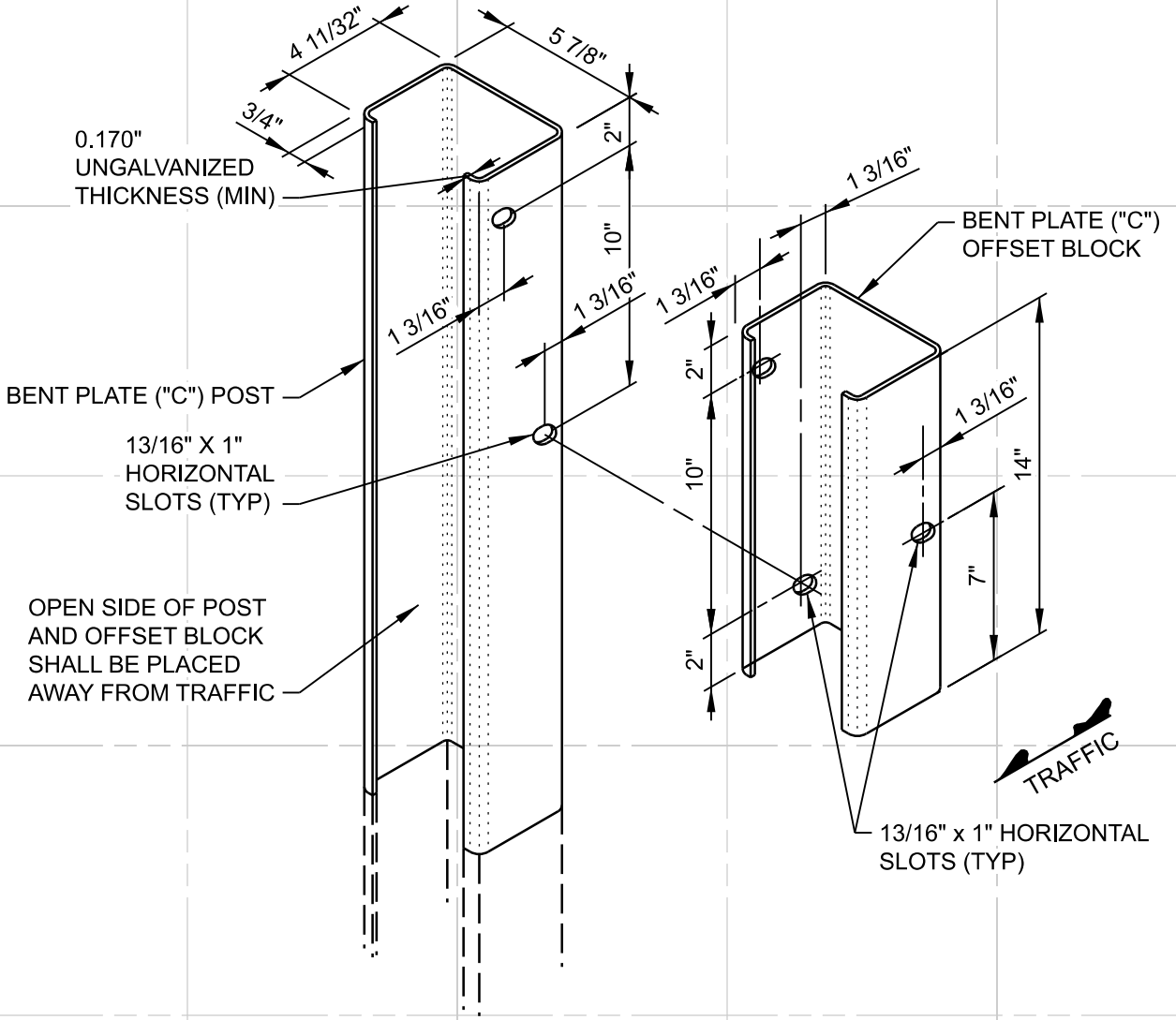
SCALE: NTS



DETAIL: ALTERNATE STEEL "H" BEAM POST AND OFFSET BLOCK

A1

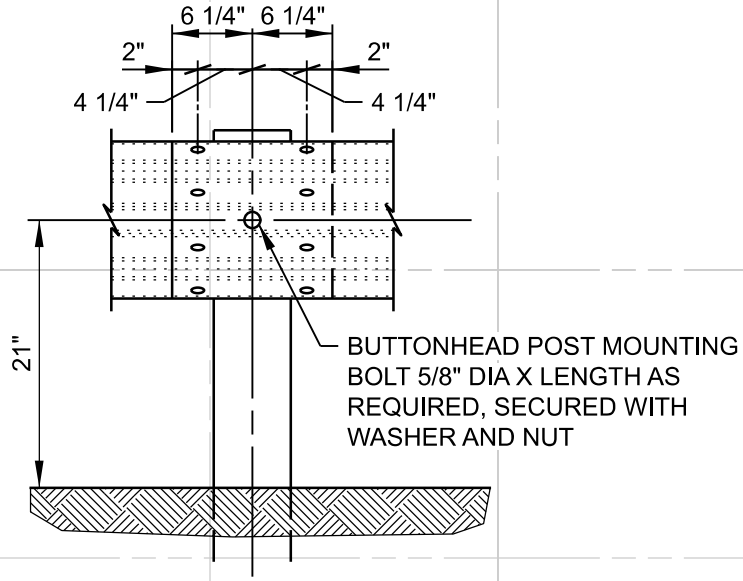
SCALE: NTS



A1

DETAIL: ALTERNATE STEEL "C" POST AND OFFSET BLOCK

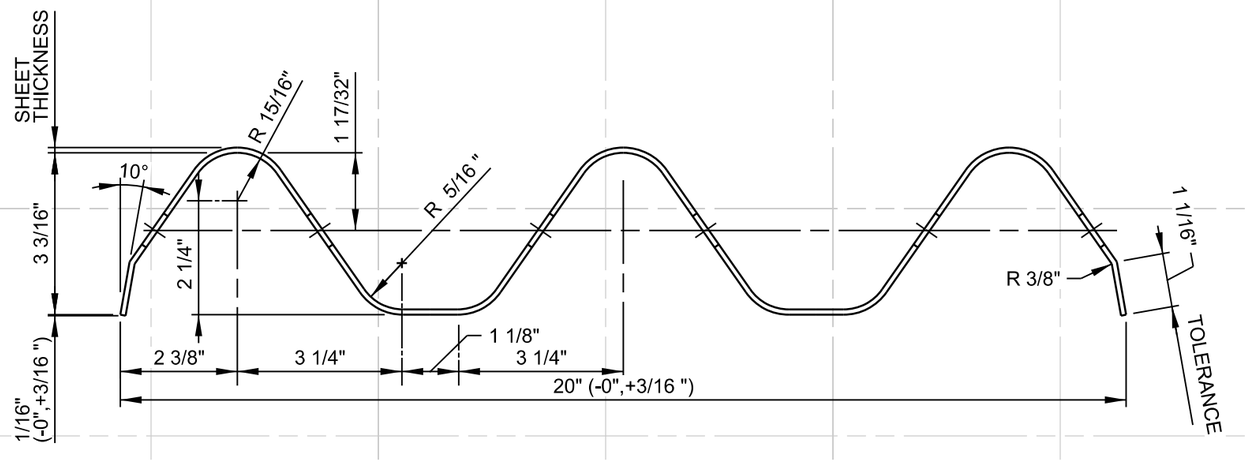
SCALE: NTS



DETAIL: RAIL ELEMENT SPLICING AND POST MOUNTING

A1

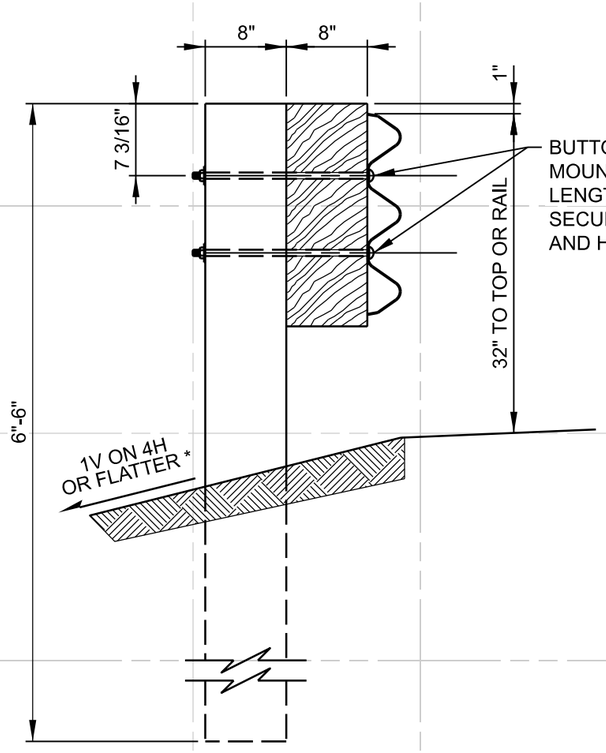
SCALE: NTS



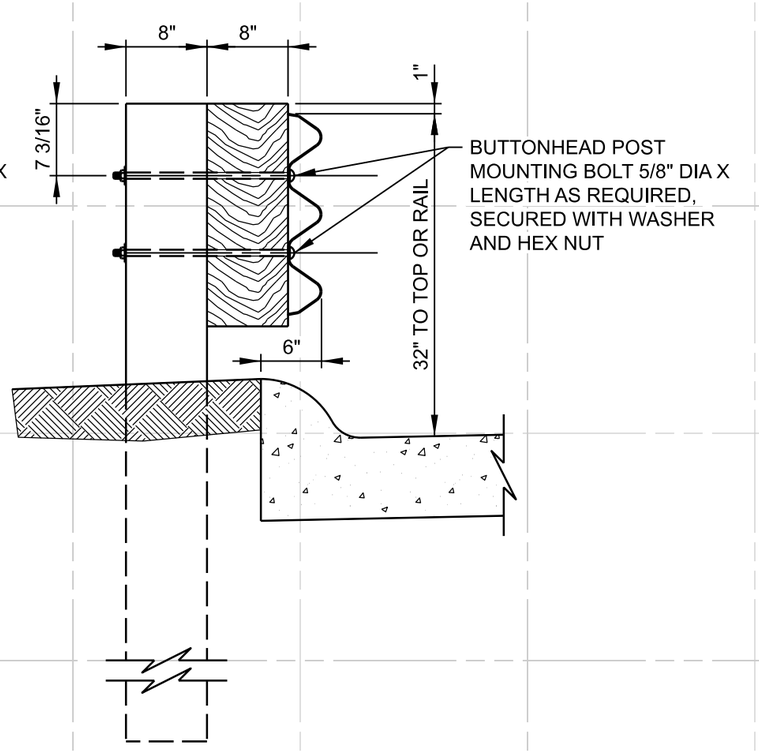
A1

DETAIL: SECTION THRU SAFETY BEAM GUARDRAIL, TYPE "C"

SCALE: NTS



NON-CURBED LOCATIONS



CURBED LOCATIONS

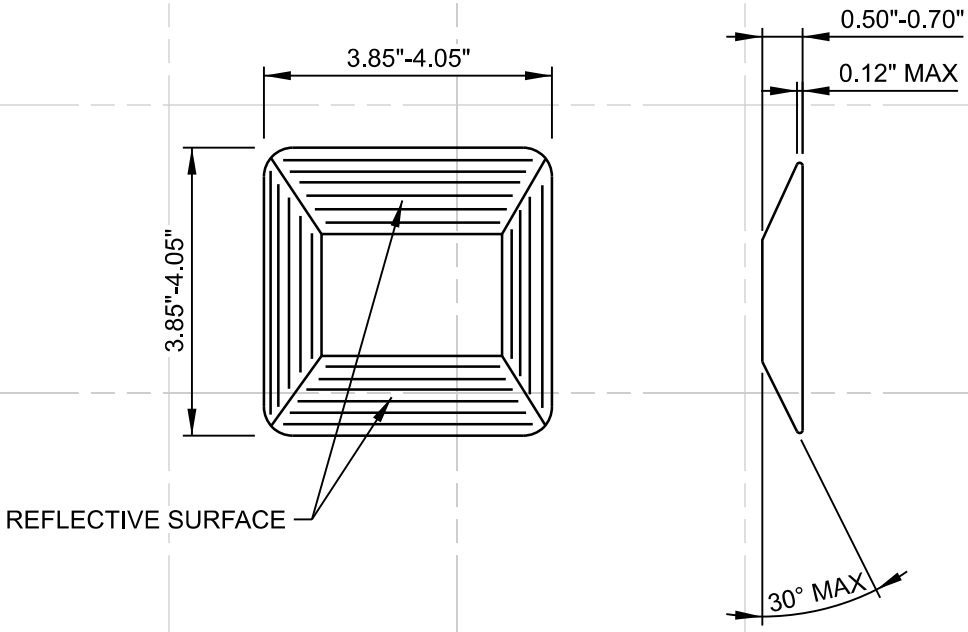
* FOR SLOPES STEEPER THAN 1V ON 4H, EXTEND THE SHOULDER TO TWO FEET BEYOND BACK OF POST.

NOTE:
SAWED TREATED TIMBER POSTS 6"X8"X6'-6" AND SAWED TREATED TIMBER OFFSET BLOCKS 6"X8"X22" SHALL BE USED.

A1

DETAIL: SAWN WOOD POST

SCALE: NTS

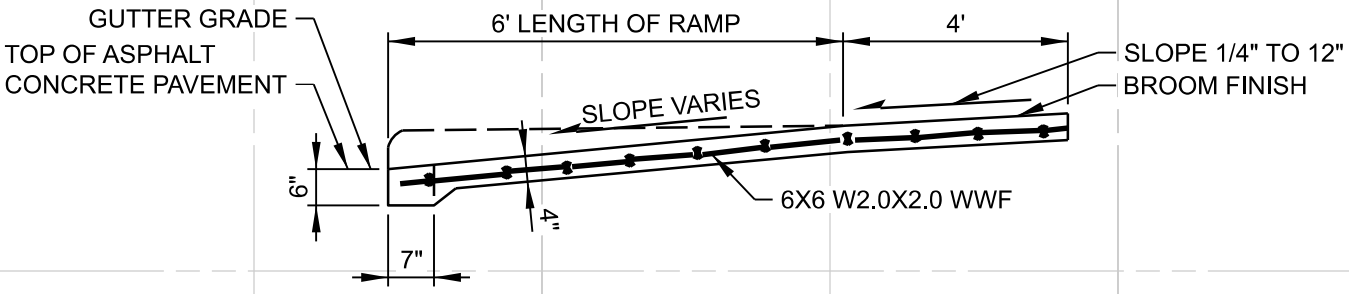


NOTE:
PAVEMENT MARKER AND ADHESIVE EPOXY SHALL CONFORM TO ASTM D 4280.

A1

DETAIL: TWO-WAY REFLECTIVE RAISED PAVEMENT MARKER

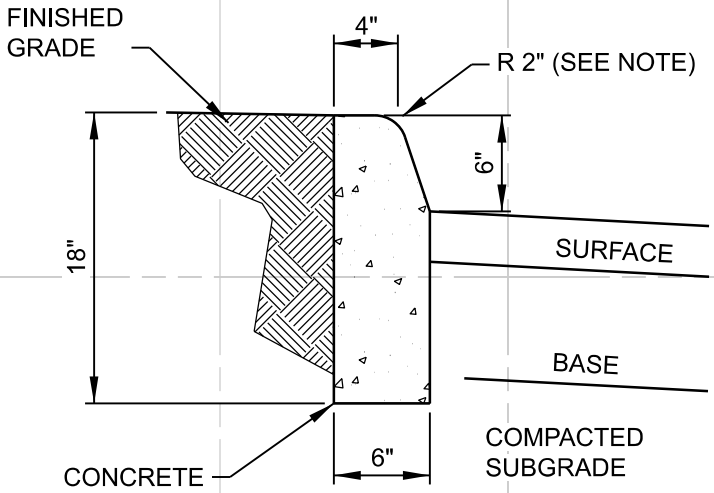
SCALE: NTS



A1

DETAIL: RAMP

SCALE: NTS

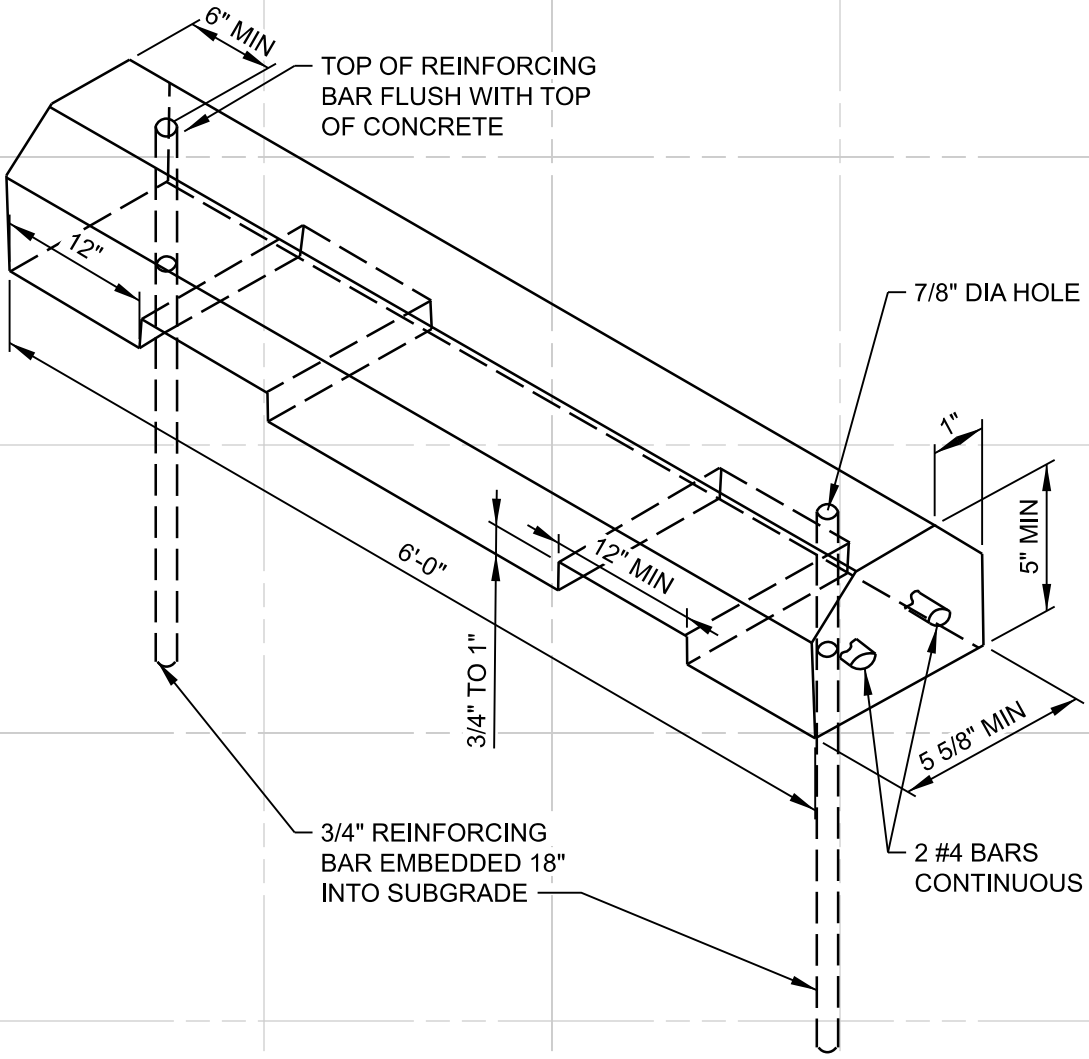


NOTE:
STANDARD CURB SHAPE OF THE STATE IN WHICH THE PROJECT IS LOCATED MAY BE SUBSTITUTED.

A1

DETAIL: CURB

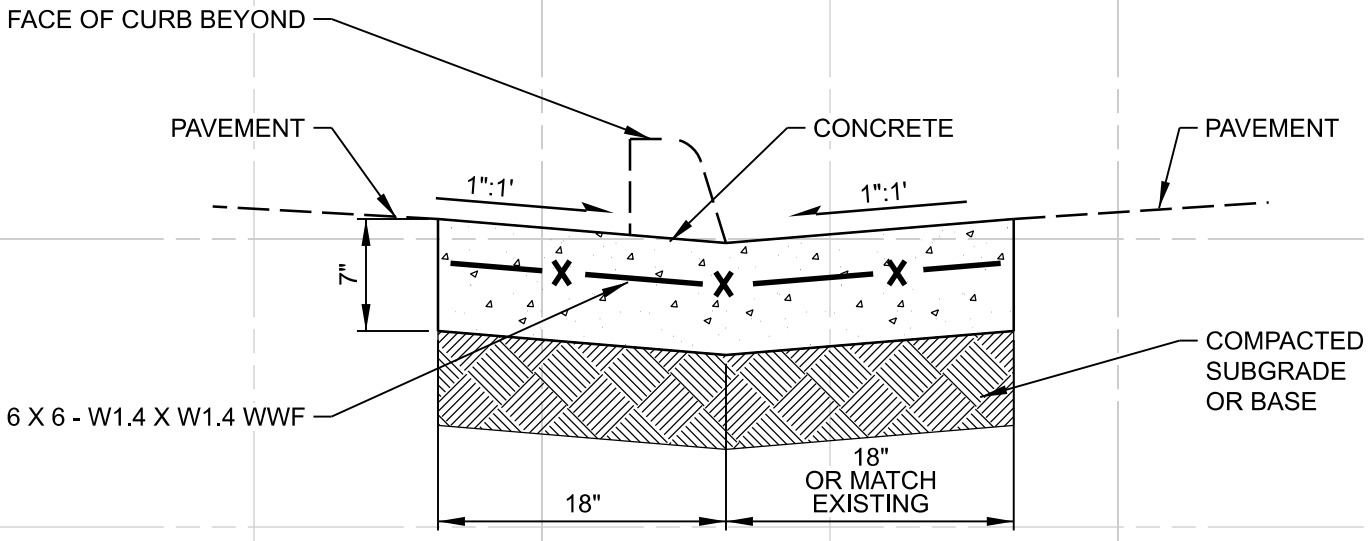
SCALE: NTS



A1

DETAIL: PARKING BUMPER (PRECAST CONCRETE)

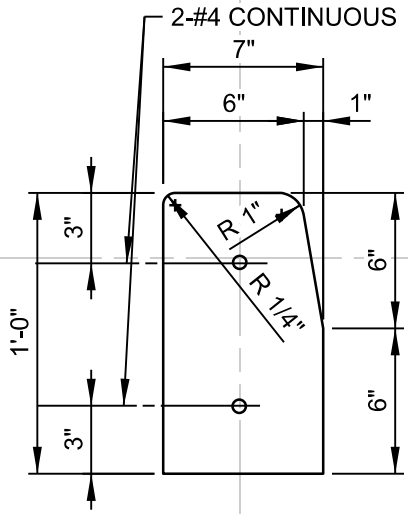
SCALE: NTS



A1

DETAIL: VALLEY GUTTER

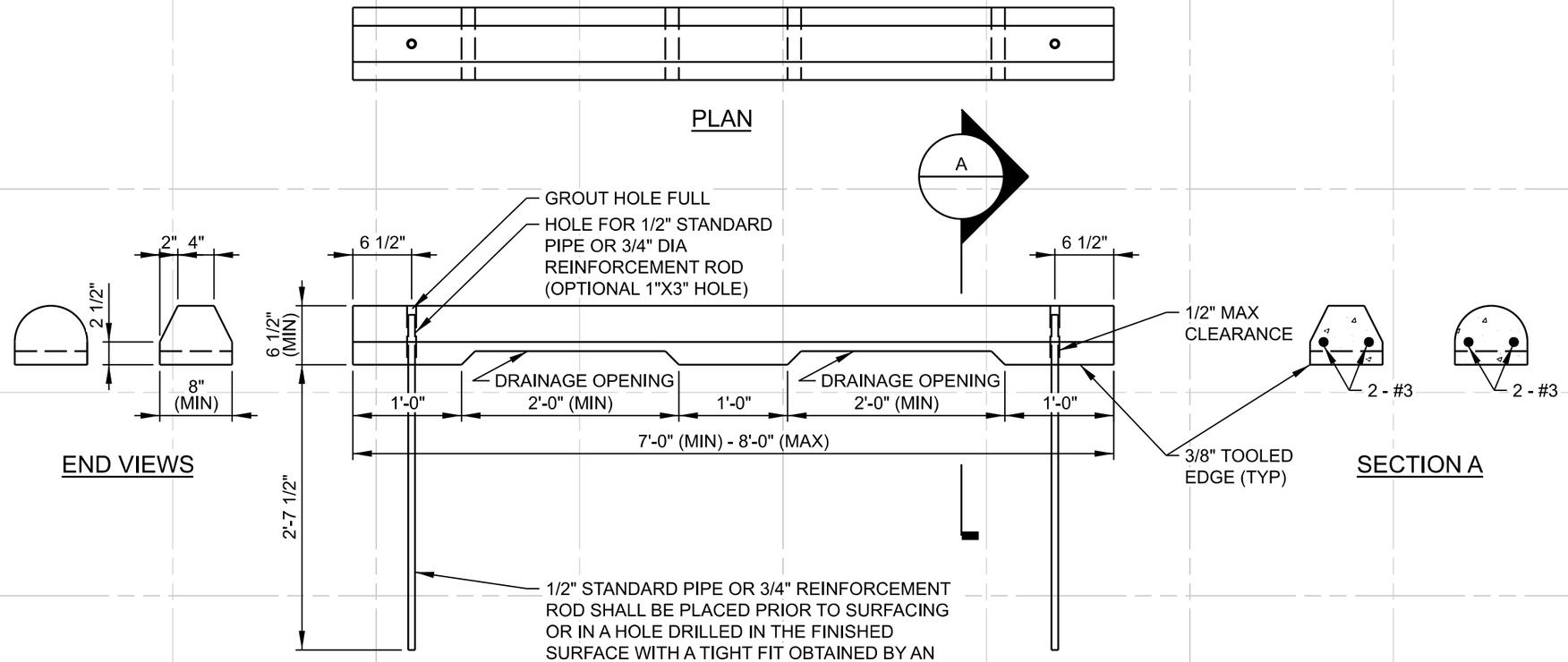
SCALE: NTS

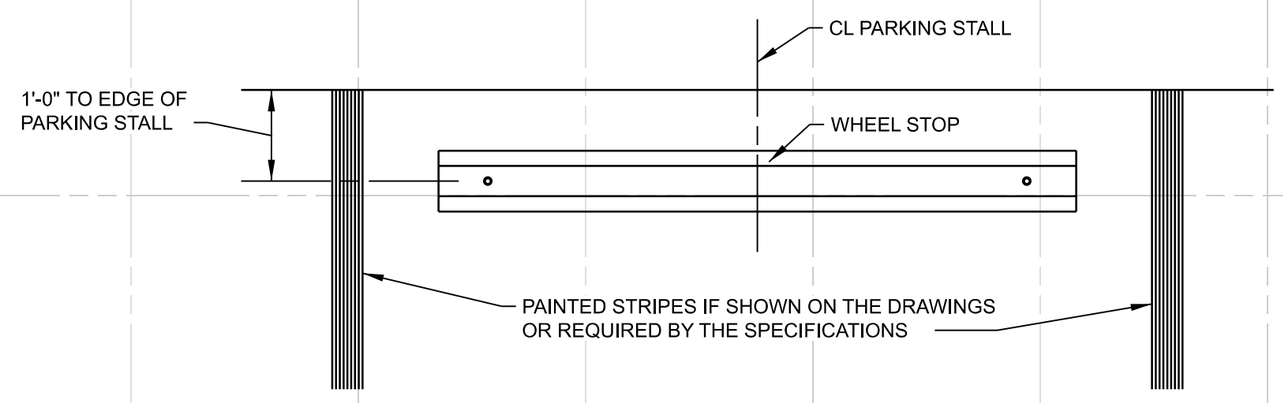


DETAIL: CAST-IN-PLACE CONCRETE CURB

A1

SCALE: NTS

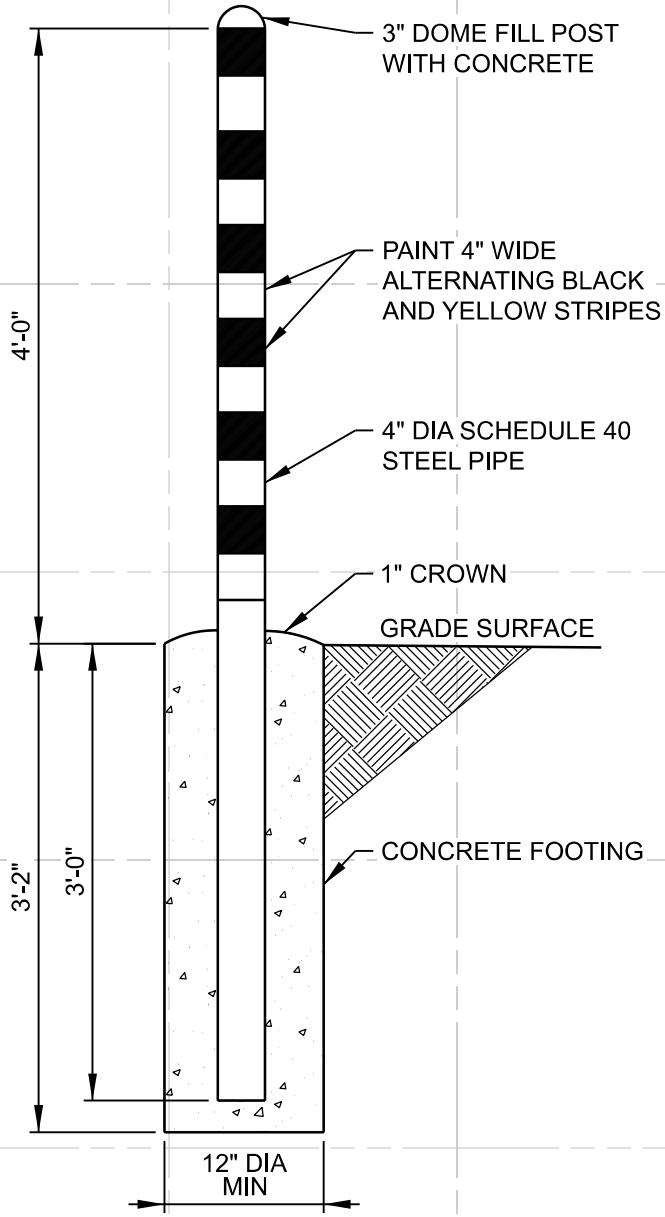




A1

DETAIL: PRECAST CONCRETE WHEEL STOP

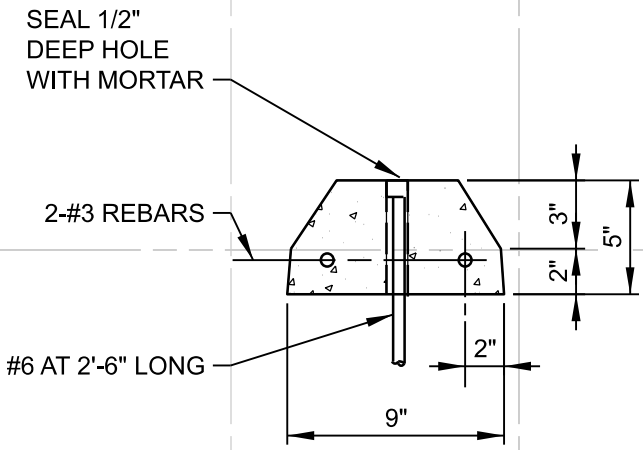
SCALE: NTS



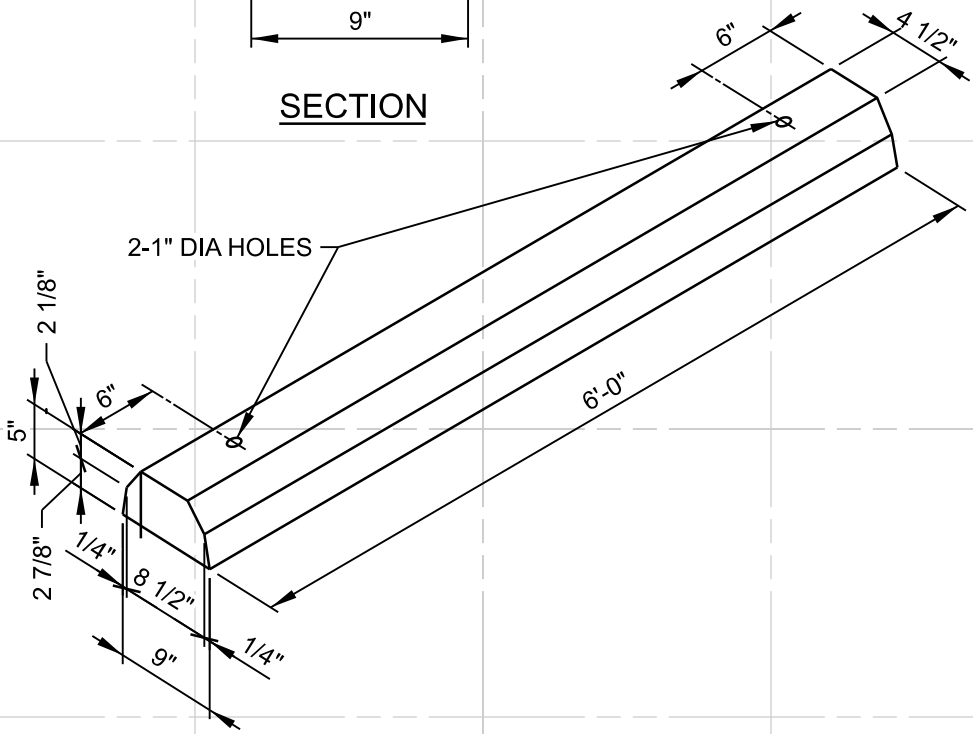
A1

DETAIL: GUARD POST

SCALE: NTS



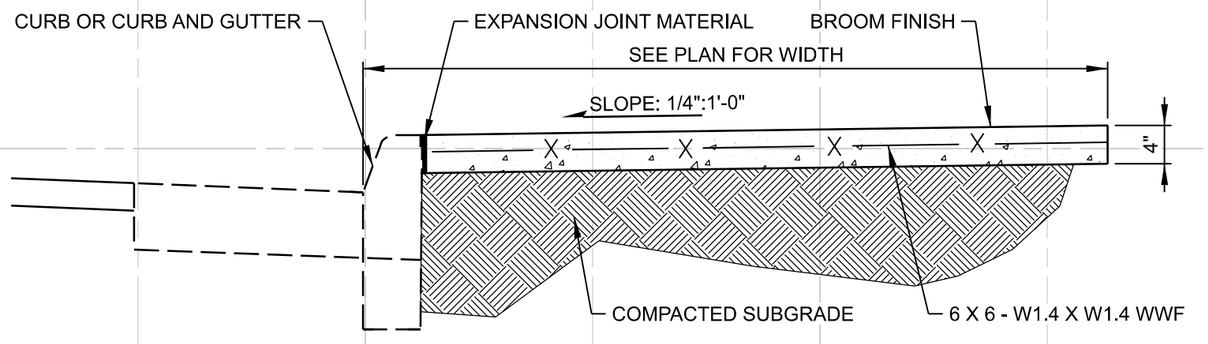
SECTION



DETAIL: PRECAST CONCRETE WHEEL STOP

A1

SCALE: NTS



NOTE:
TO BE USED WHERE ADJACENT TO CURB OR CURB AND GUTTER.

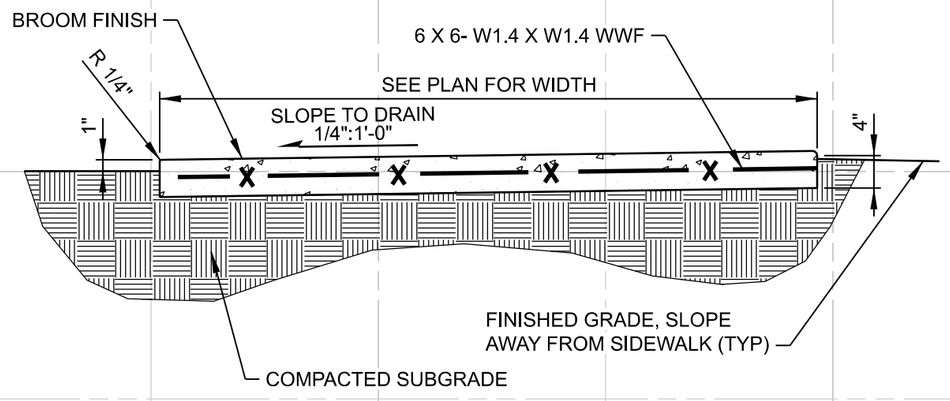
A1

DETAIL: CONCRETE SIDEWALK

SCALE: 3/4" = 1'-0"

0 1' 2' 4'

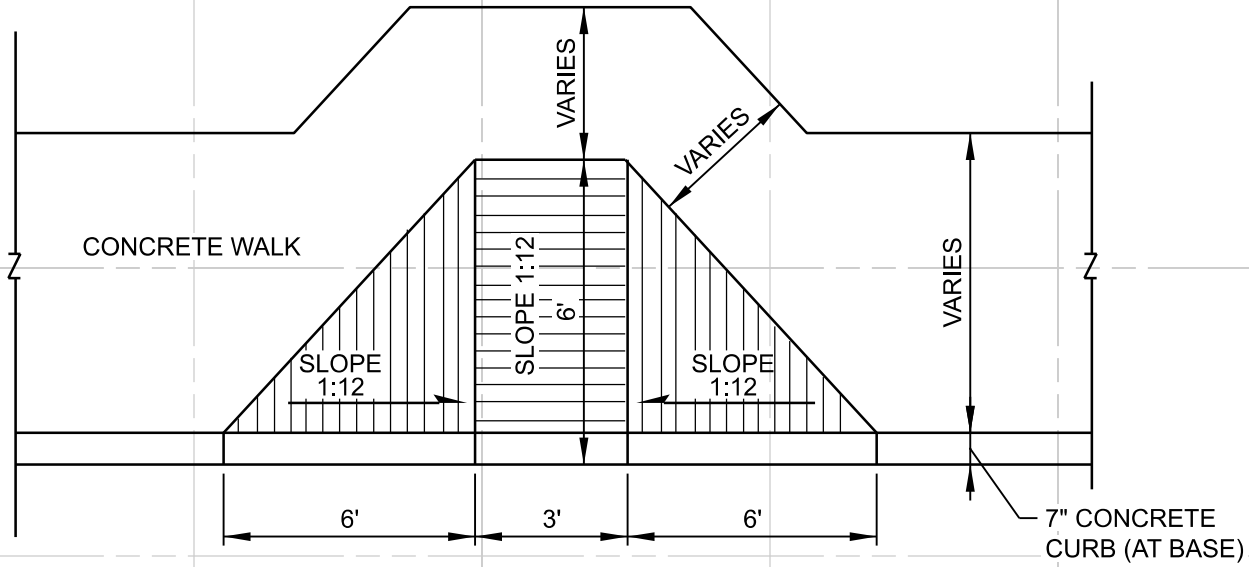
Detail G2034C-DT001X



A1

DETAIL: CONCRETE SIDEWALK

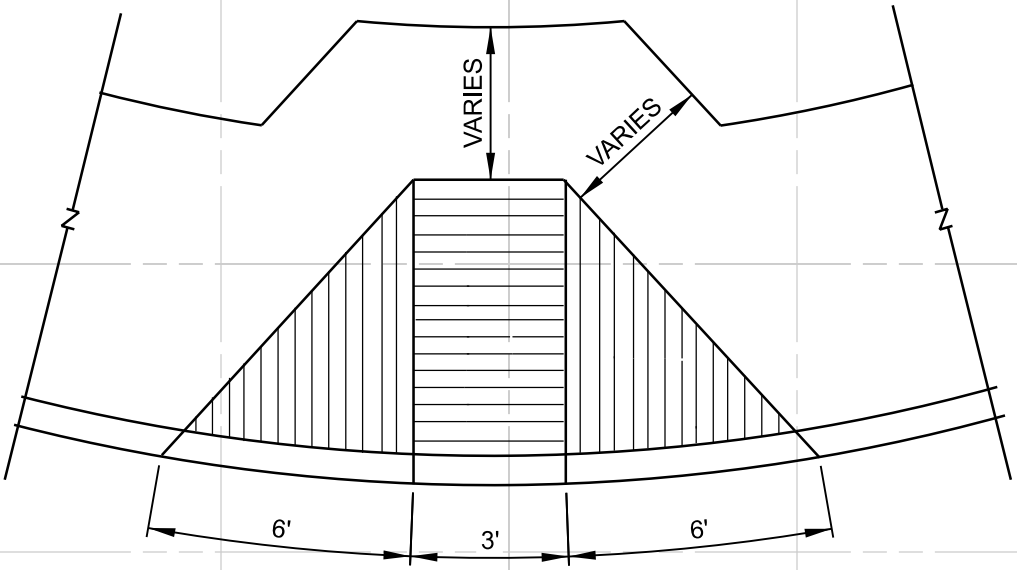
SCALE: 1"=1" FULL SIZE



A1

DETAIL: RAMP ON TANGENT

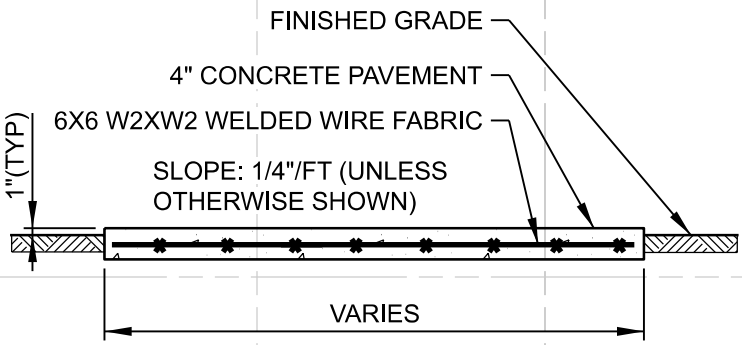
SCALE: NTS



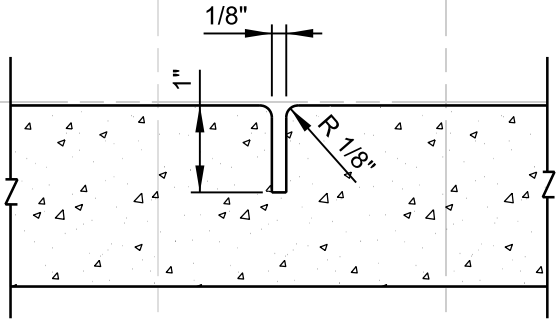
A1

DETAIL: RAMP ON CURVE

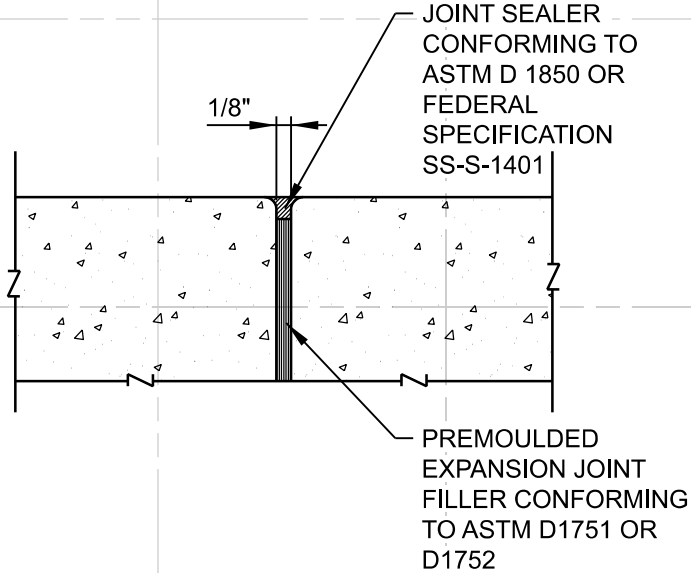
SCALE: NTS



CONCRETE WALK SECTION



CONTRACTION JOINT

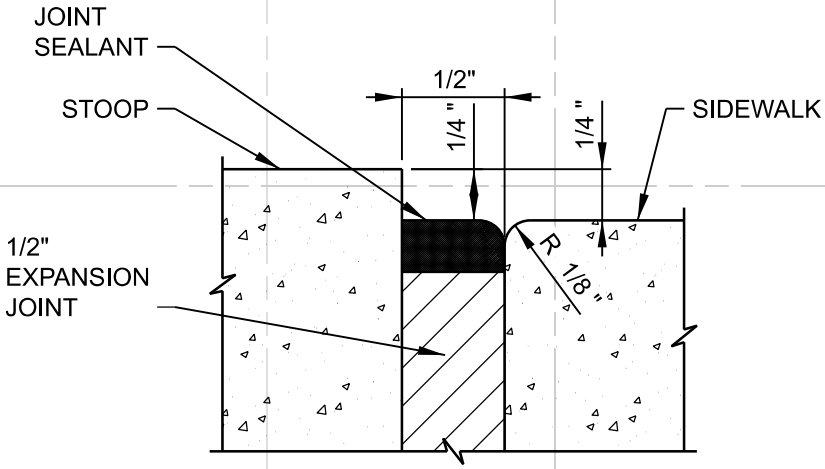


EXPANSION JOINT

A1

DETAIL: CONCRETE WALK

SCALE: NTS



A1

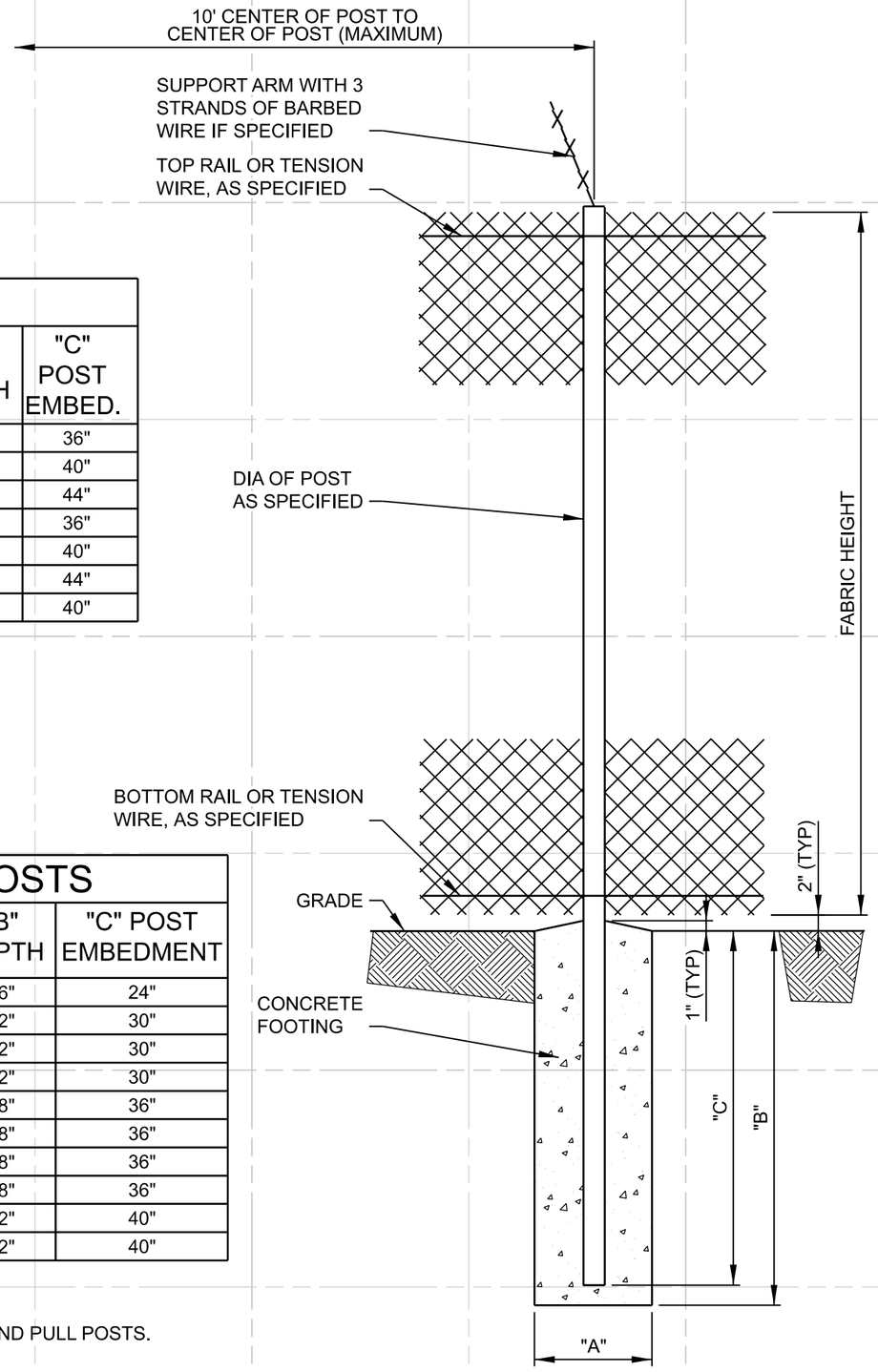
DETAIL: SIDEWALK-STOOP INTERFACE

SCALE: NTS

GATE POST					
GATE LEAF WIDTH	GATE POST (OD)	FABRIC HEIGHT	"A" DIA	"B" DEPTH	"C" POST EMBED.
3' TO 6'	2.875"	3' TO 5'	12"	38"	36"
		6' TO 9'	14"	42"	40"
		10' TO 12'	16"	46"	44"
7' TO 12'	4.000"	3' TO 5'	14"	38"	36"
		6' TO 9'	16"	42"	40"
		10' TO 12'	18"	46"	44"
13'	6.625"	8'-0"	16"	42"	40"

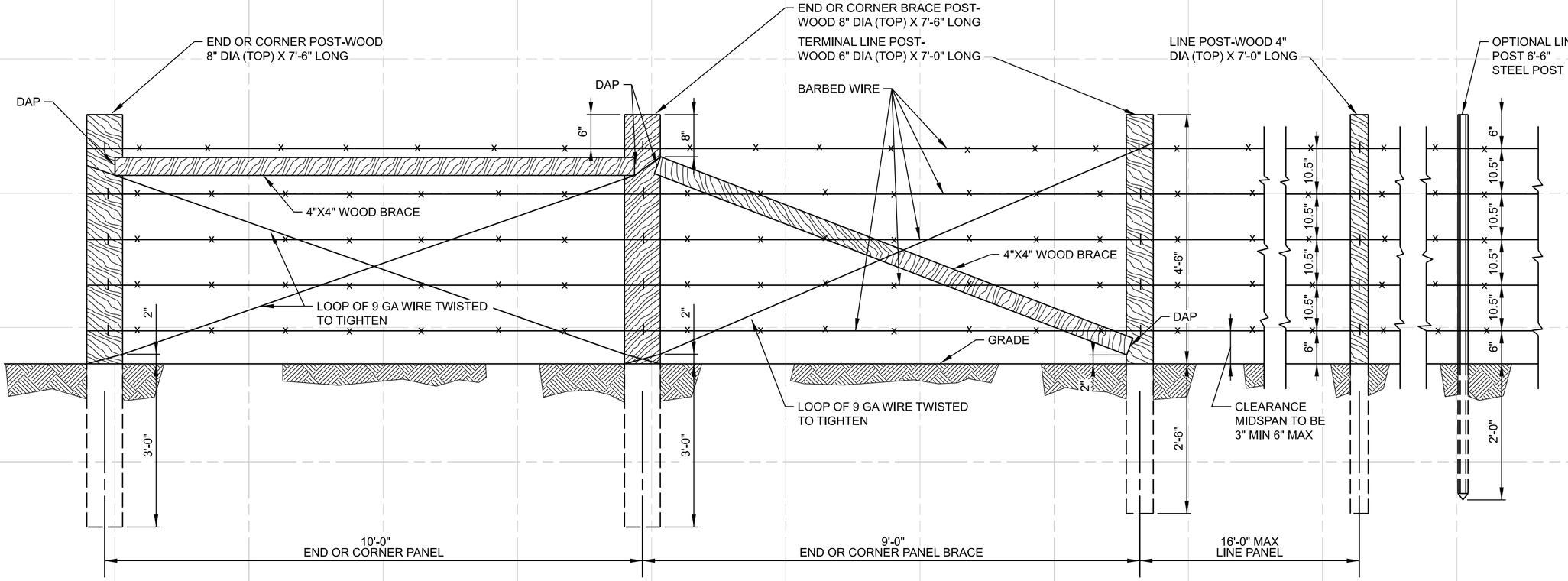
LINE AND TERMINAL POSTS				
FABRIC HEIGHT	TYPE POST	"A" DIA	"B" DEPTH	"C" POST EMBEDMENT
3'-0" TO 4'-0"	LINE	6"	26"	24"
	TERMINAL	10"	32"	30"
5'-0"	LINE	8"	32"	30"
	TERMINAL	10"	32"	30"
6'-0" TO 9'-0"	LINE	12"	38"	36"
	TERMINAL	12"	38"	36"
10'-0" TO 12'-0"	LINE	18"	38"	36"
	TERMINAL	18"	38"	36"
13'-0" TO 18'-0"	LINE	24"	42"	40"
	TERMINAL	24"	42"	40"

NOTE:
TERMINAL POSTS INCLUDE END, CORNER, AND PULL POSTS.



A1 DETAIL: CHAIN LINK FENCE FOUNDATION

SCALE: NTS

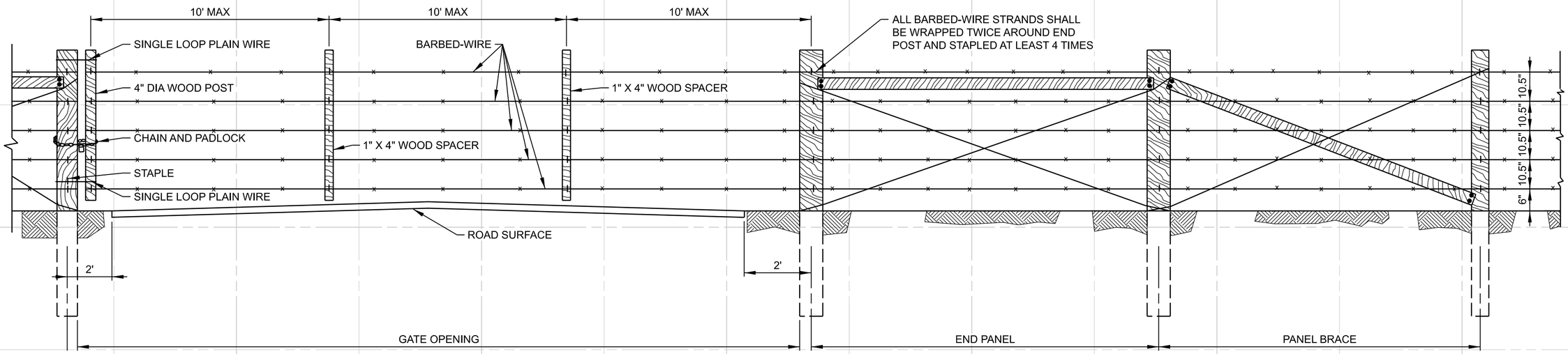


NOTE:
TERMINAL POSTS INCLUDE END, CORNER, AND PULL POSTS.

A1

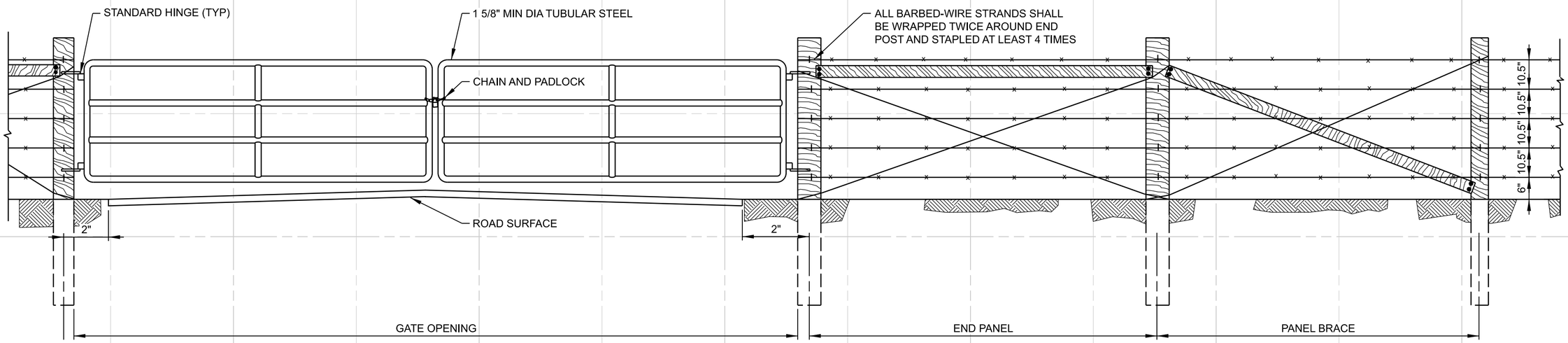
DETAIL: LAYOUT-5 STRAND BARBED-WIRE FENCE

SCALE: NTS



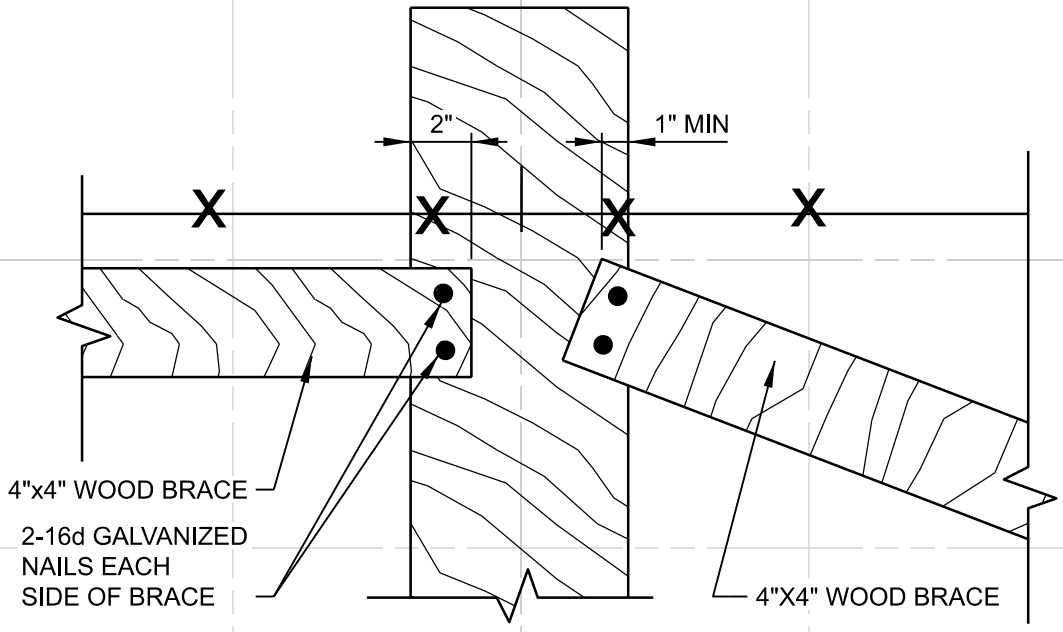
A1 DETAIL: BARBED-WIRE DROP GATE

SCALE: NTS



A1 DETAIL: PANEL GATE

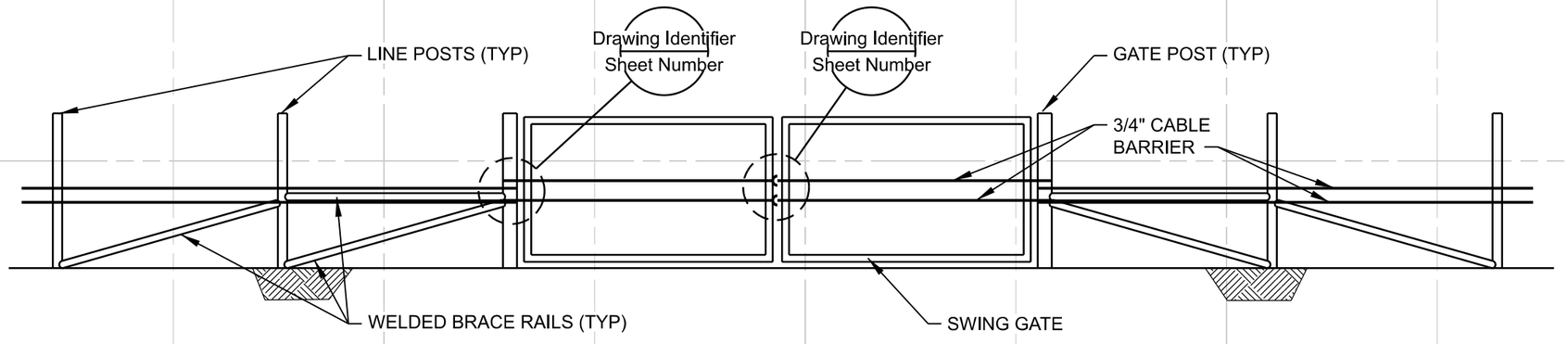
SCALE: NTS



A1

DETAIL: DAP

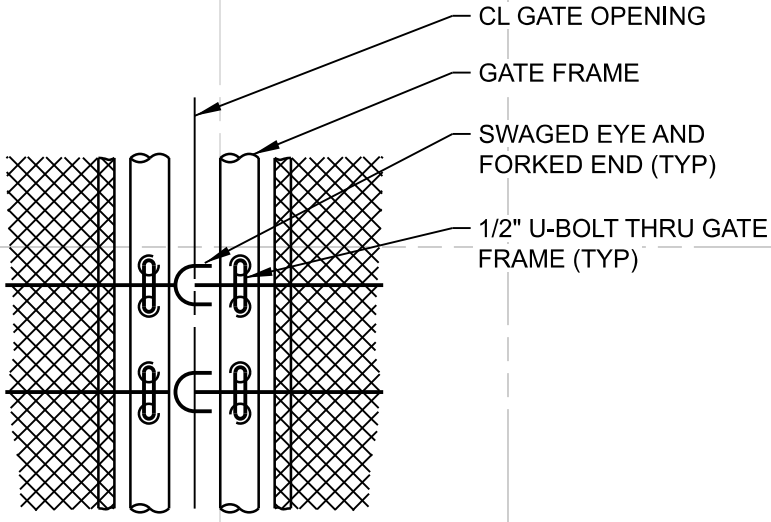
SCALE: NTS



A1 DETAIL: GATE

SCALE: NTS

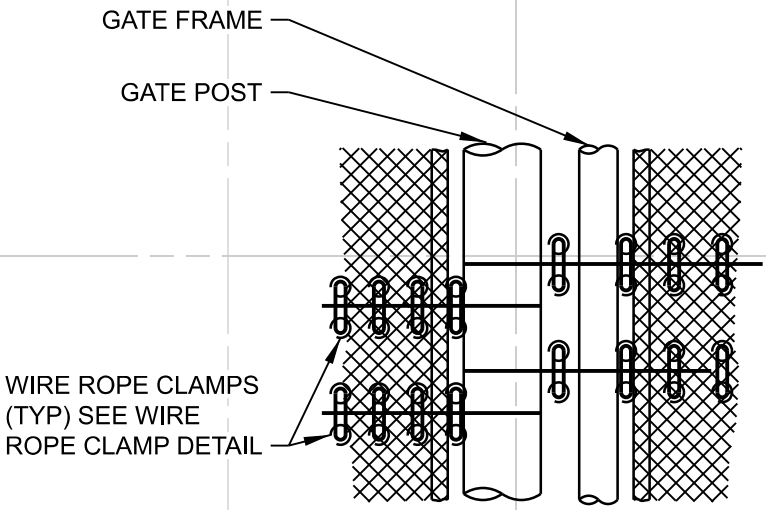
Detail G2042C-DT006E



DETAIL: CABLE BARIRIER AT GATE OPENING

A1

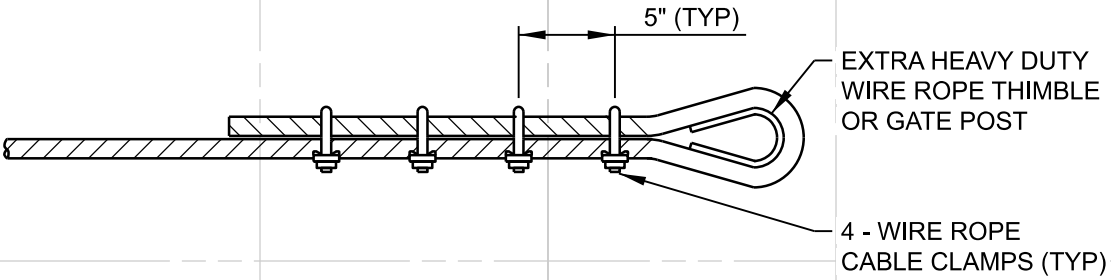
SCALE: NTS



DETAIL: CABLE BARRIER AT GATE POST

A1

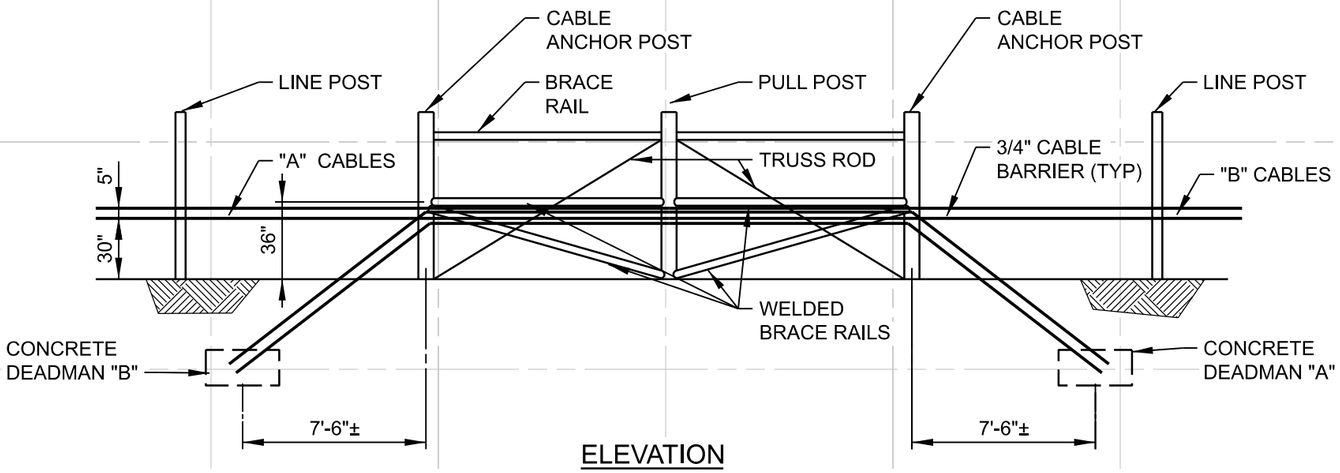
SCALE: NTS



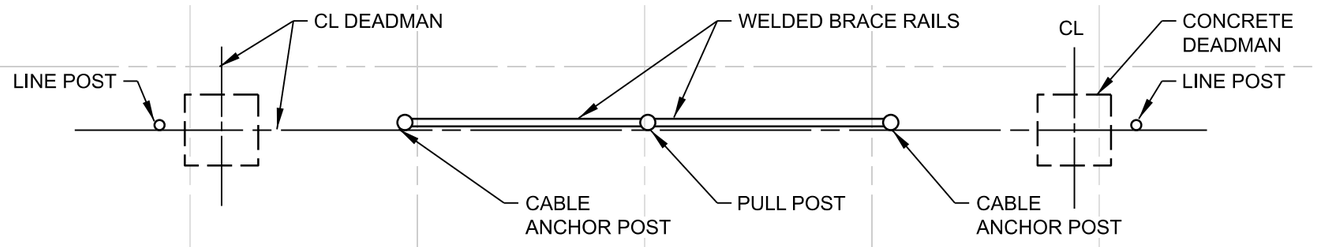
A1

DETAIL: WIRE ROPE CLAMP

SCALE: NTS



ELEVATION



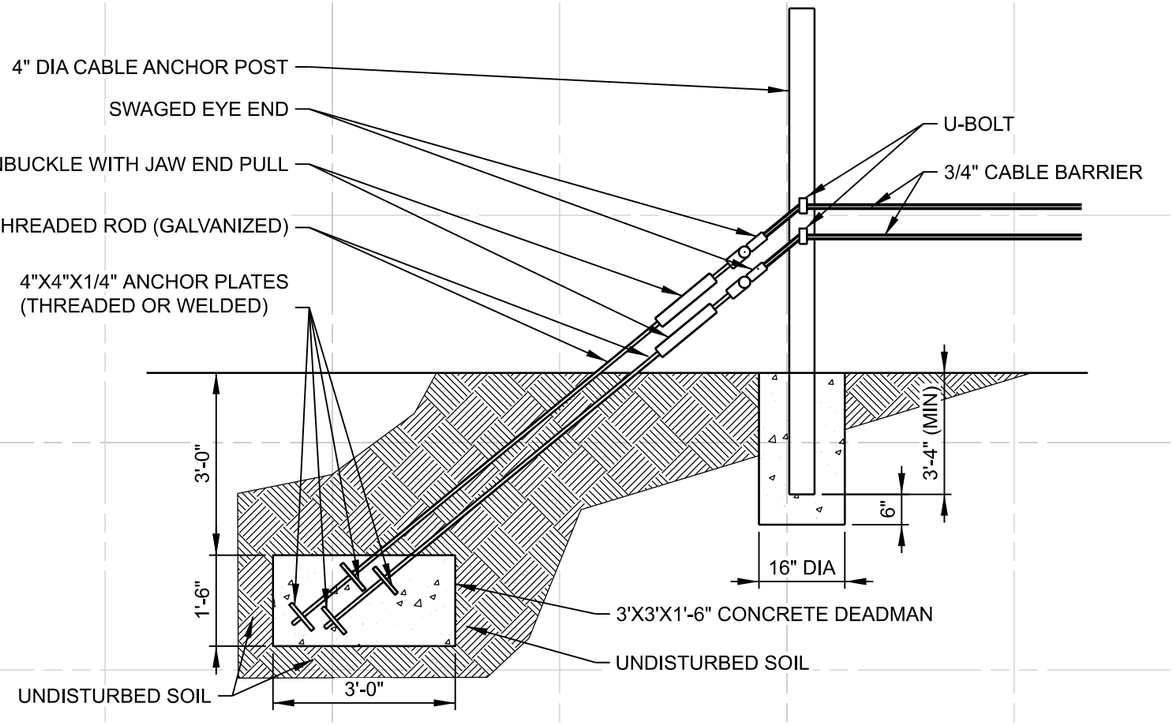
PLAN

NOTE:
CABLE "A" AND "B" DESIGNATION IS FOR CLARIFICATION OF ROUTING OF CABLES.

A1

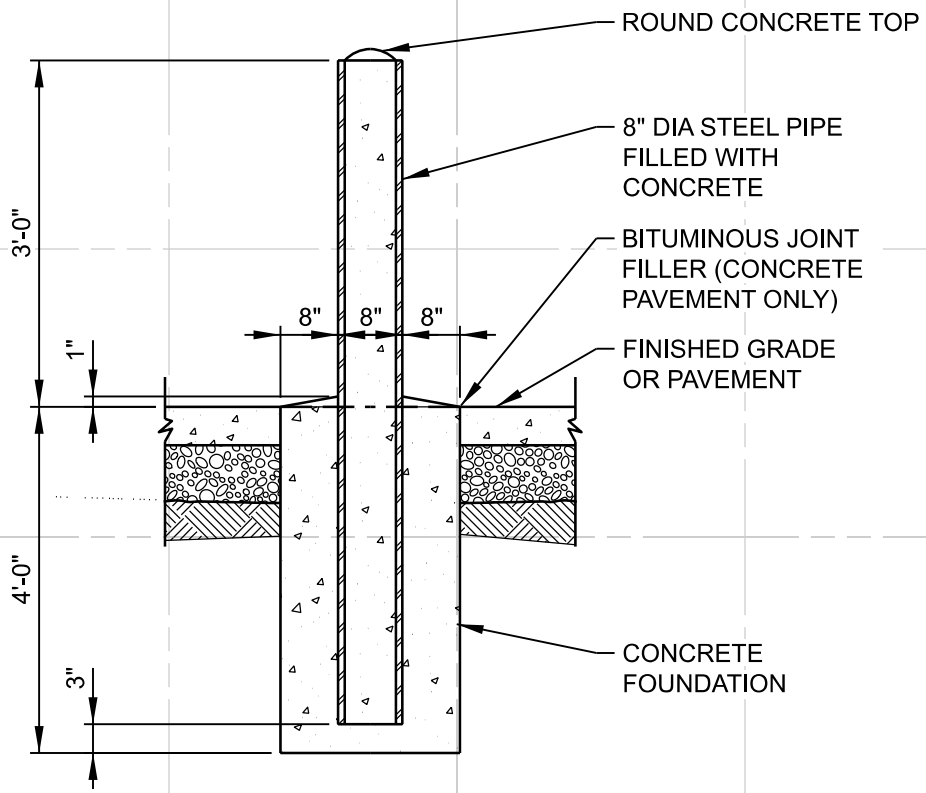
DETAIL: BRACE PANEL WITH DEADMEN

SCALE: NTS



A1 DETAIL: DEADMAN

SCALE: NTS

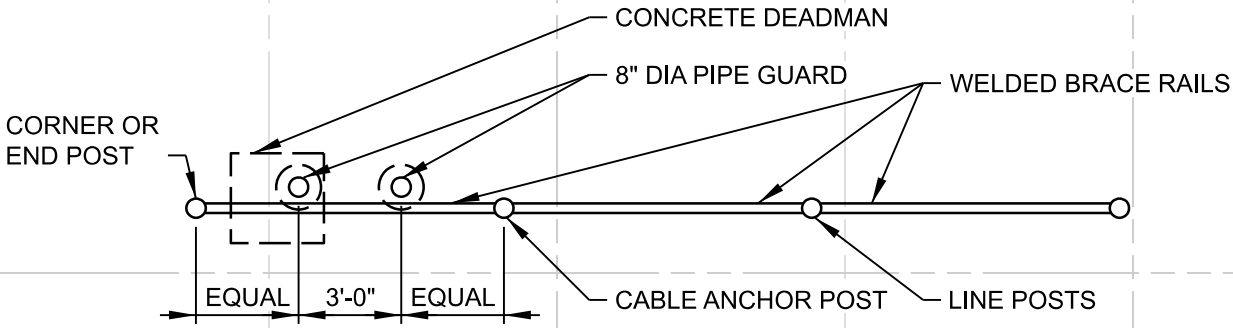


NOTE:
STEEL PIPE SHALL BE GALVANIZED (2.0 OZ ZINC/SQ FT) AND HAVE A MINIMUM WALL THICKNESS OF 0.322 INCHES.

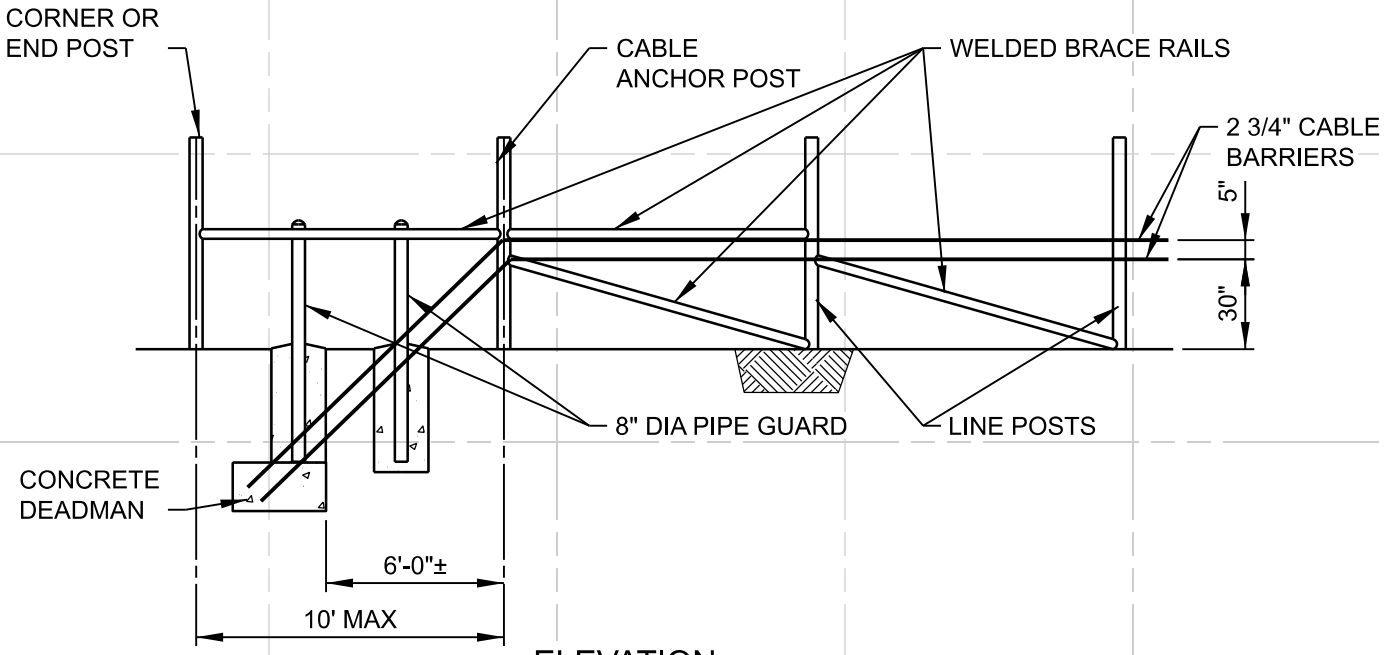
A1

DETAIL: PIPE GUARD

SCALE: NTS



PLAN



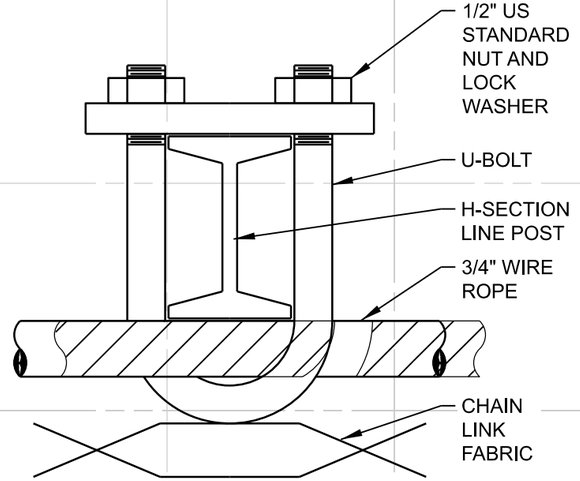
ELEVATION

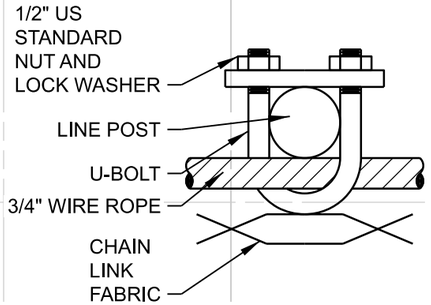
NOTE:
PIPE GUARD FOUNDATION AND CONCRETE DEADMAN MAY BE PLACED AS ONE CONCRETE FOUNDATION.

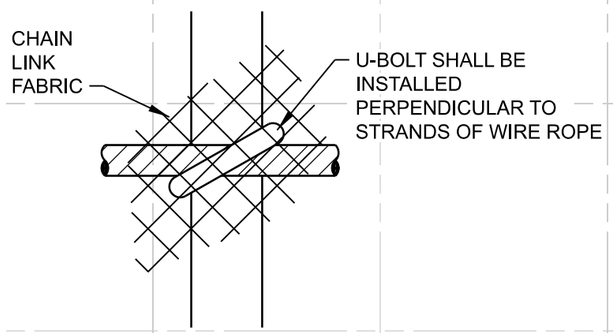
A1

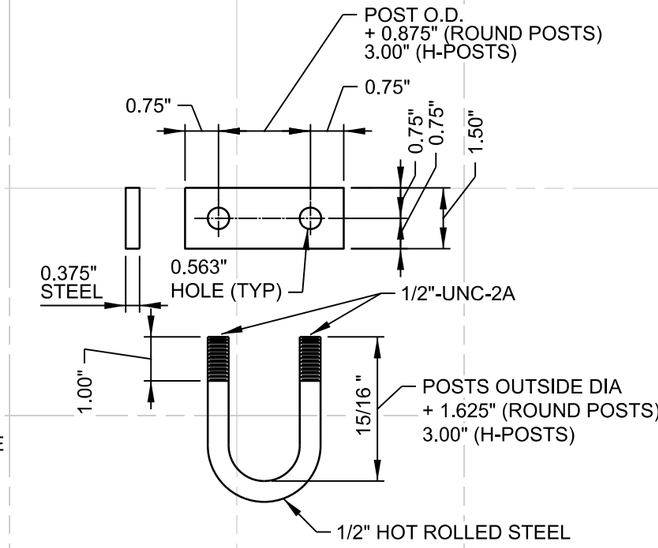
DETAIL: CORNER OR END WITH DEADMAN

SCALE: NTS





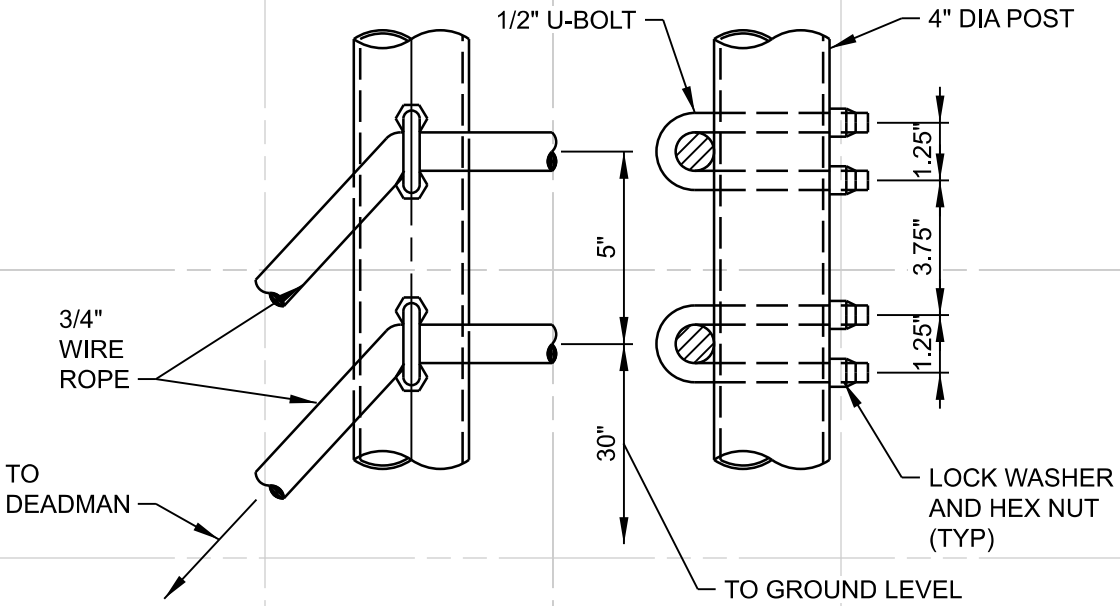




A1

DETAIL: U-BOLT AT LINE POST

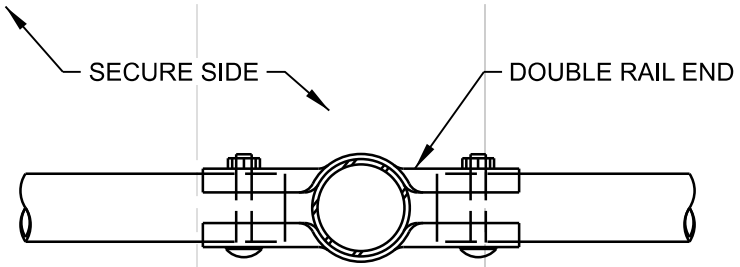
SCALE: NTS



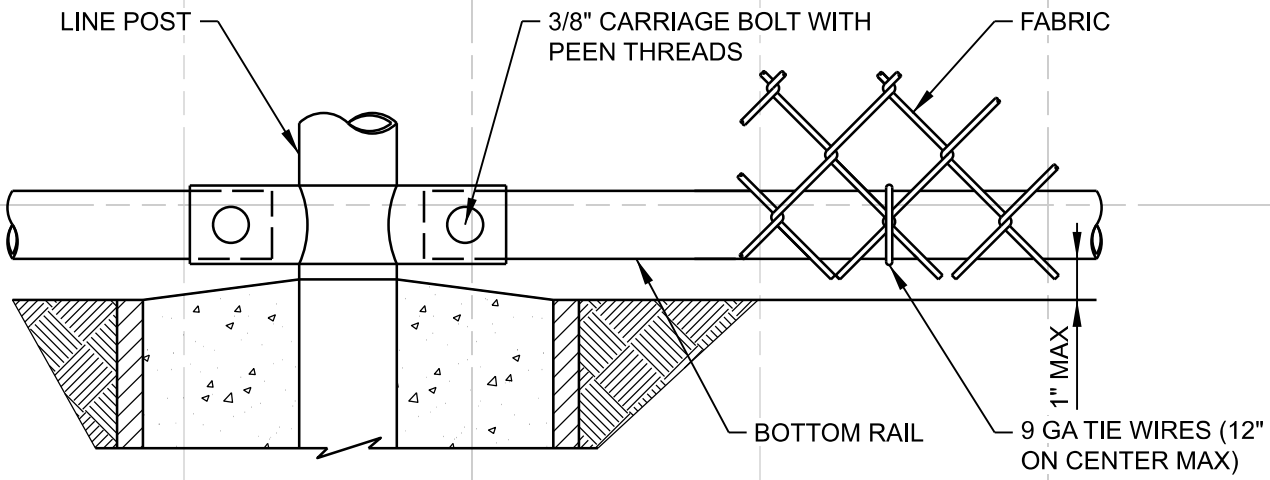
A1

DETAIL: U-BOLT AT CABLE ANCHOR POST

SCALE: NTS



PLAN

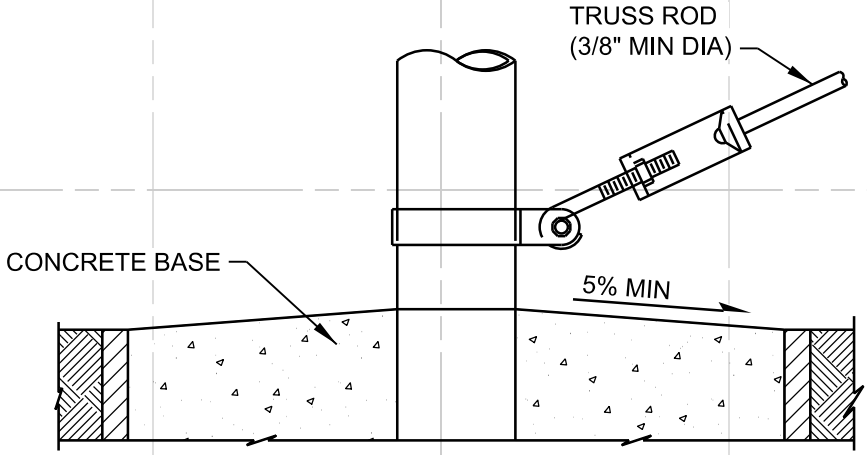


ELEVATION

A1

DETAIL: BOTTOM RAIL

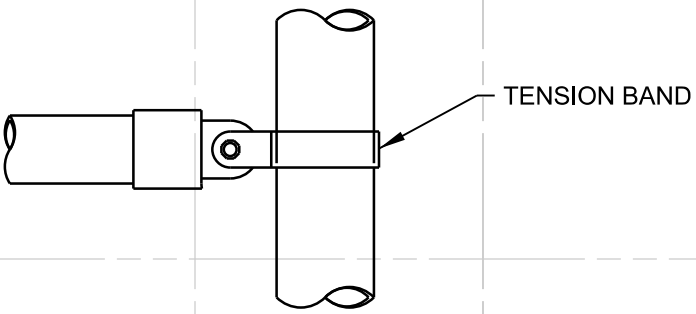
SCALE: NTS



A1

DETAIL: TRUSS ROD AND BAND

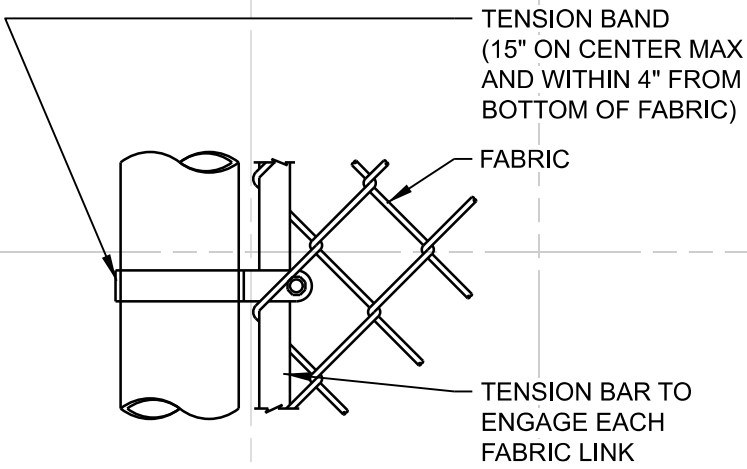
SCALE: NTS

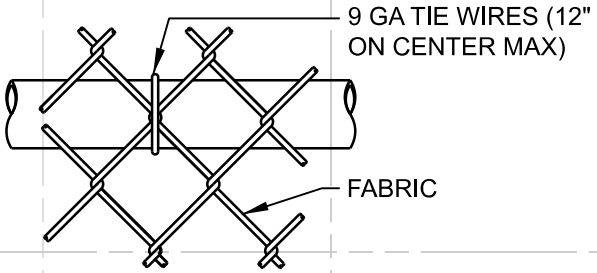


A1

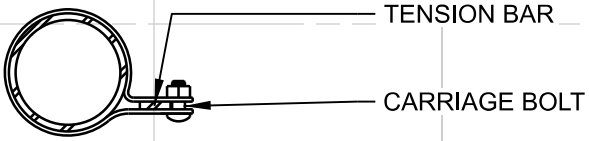
DETAIL: BRACE RAIL CLAMP

SCALE: NTS

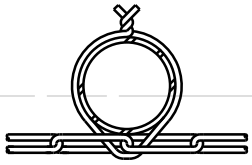


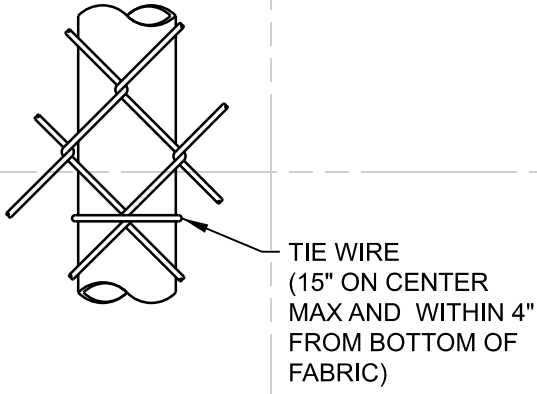


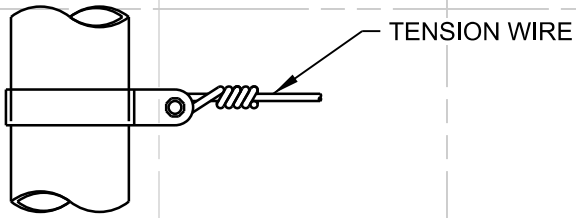
BRACE RAIL ATTACHMENT



END OR GATE POST DETAIL







TENSION BAND DETAIL

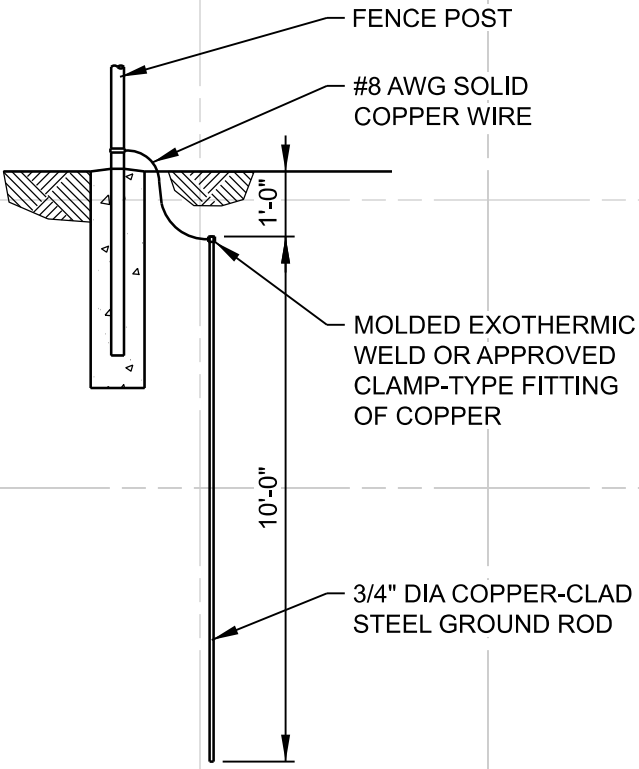
LINE POST ATTACHMENTS

A1

DETAIL: FASTENING

SCALE: NTS

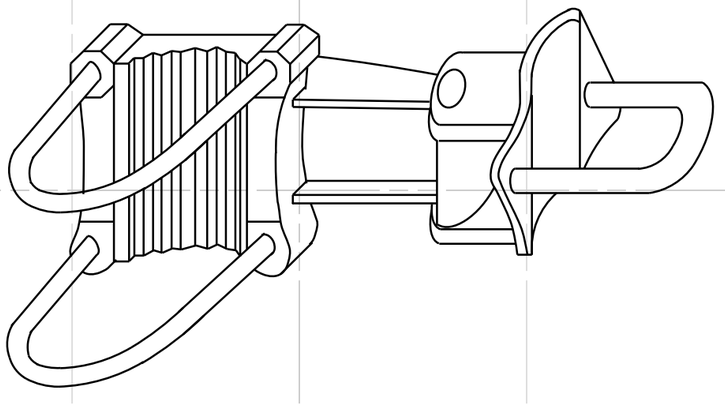
Detail G2042C-DT019E

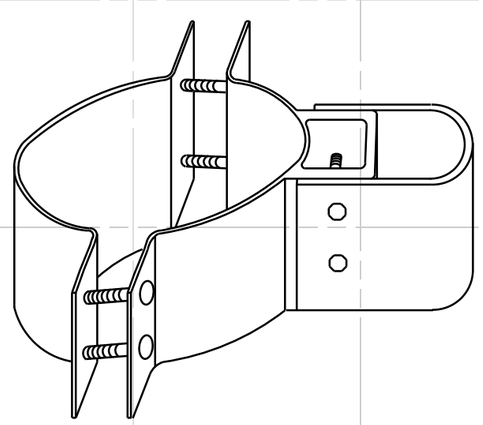


A1

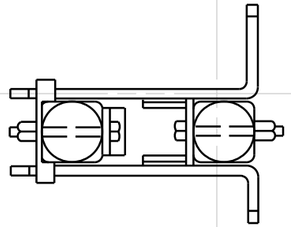
DETAIL: GROUNDING

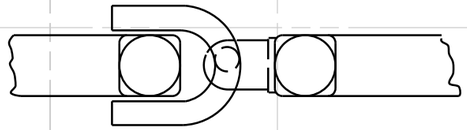
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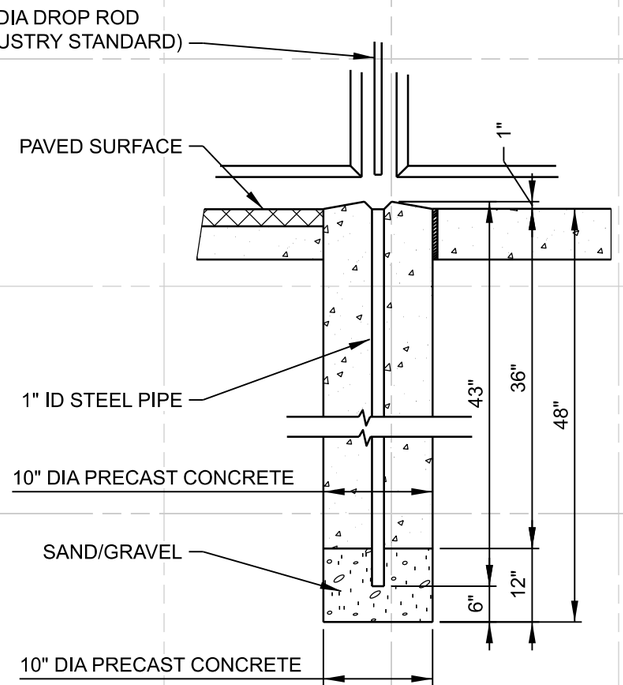




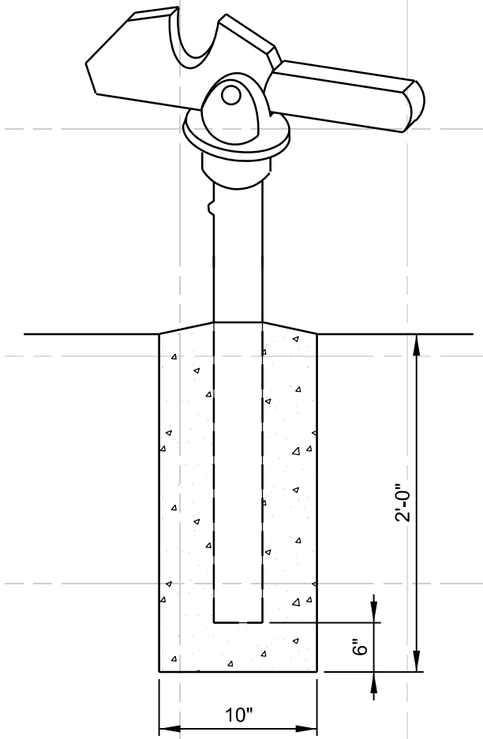
STANDARD HINGE



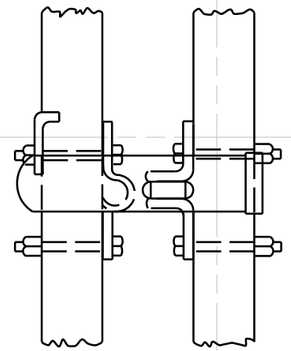




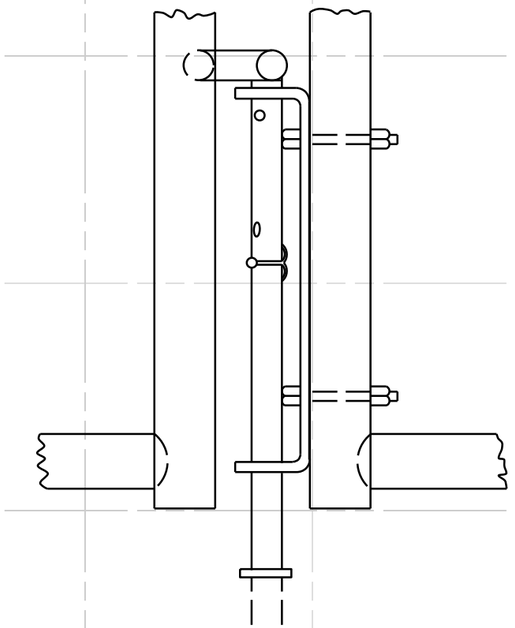
DROP ROD FOUNDATION



GATE KEEPER
(TO HOLD GATE OPEN)



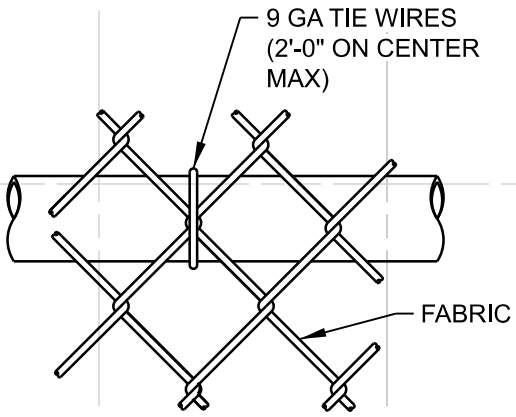
LATCH ASSEMBLY



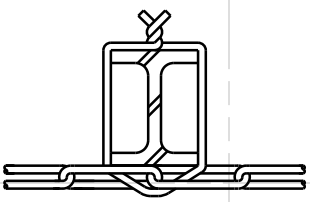
DROP ROD ASSEMBLY

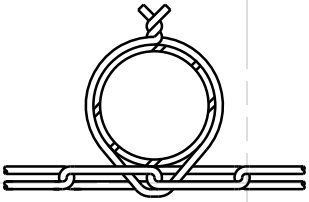
A1 DETAIL: SWING GATE

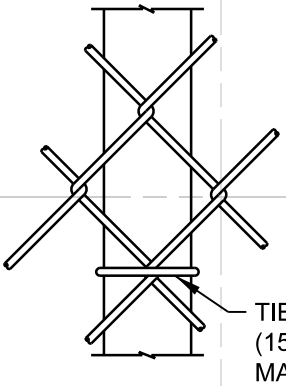
SCALE: NTS



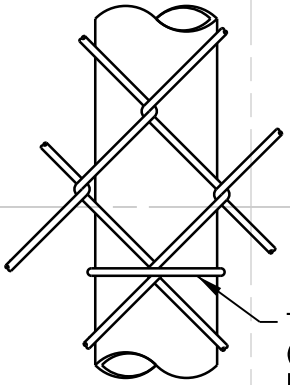
TOP OR BRACE RAIL ATTACHMENT







H-BEAM

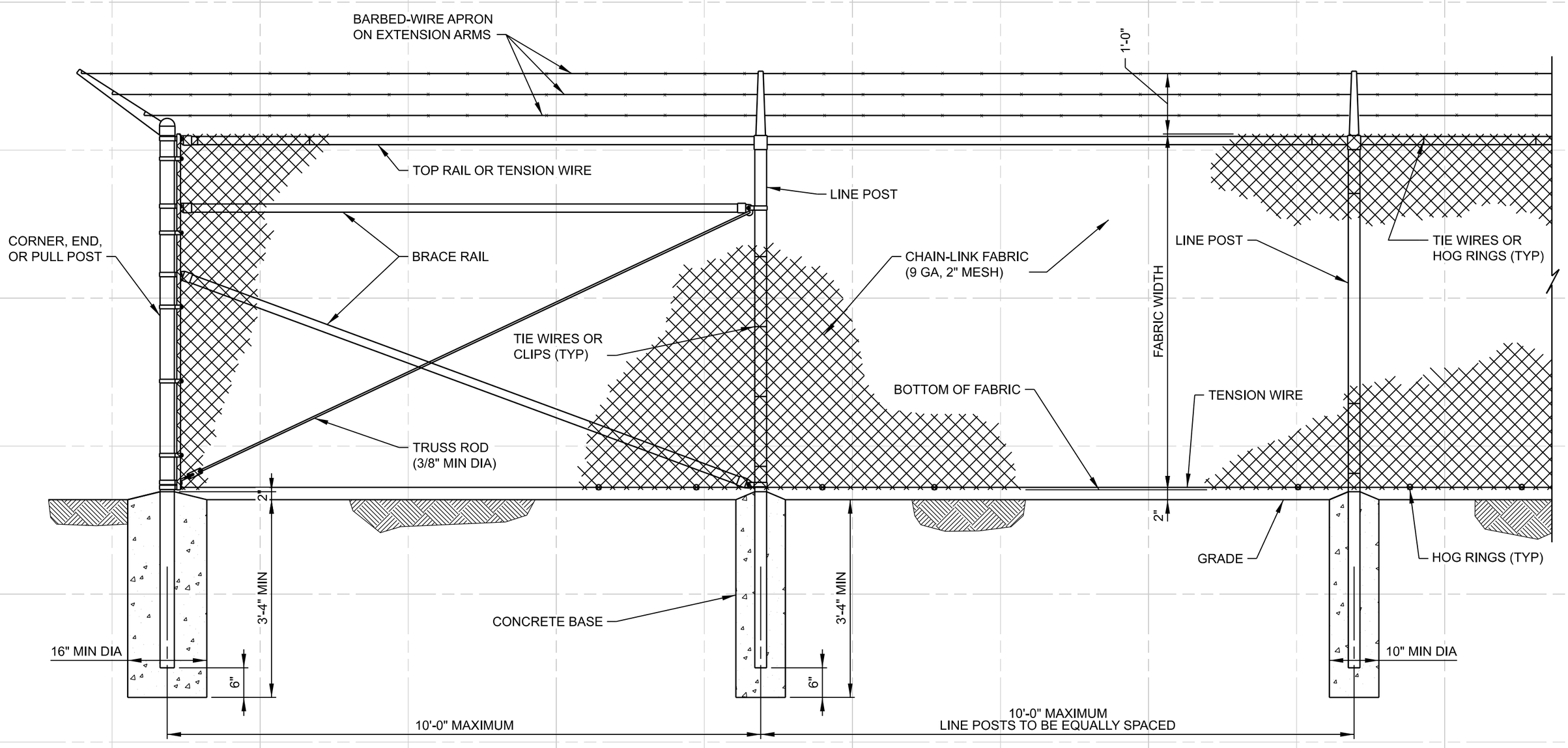


ROUND POST

A1

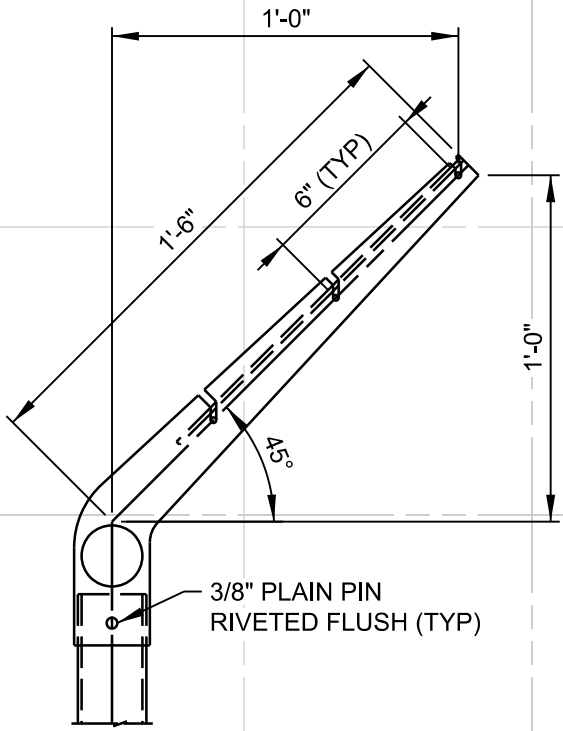
DETAIL: LINE POST ATTACHMENTS

SCALE: NTS

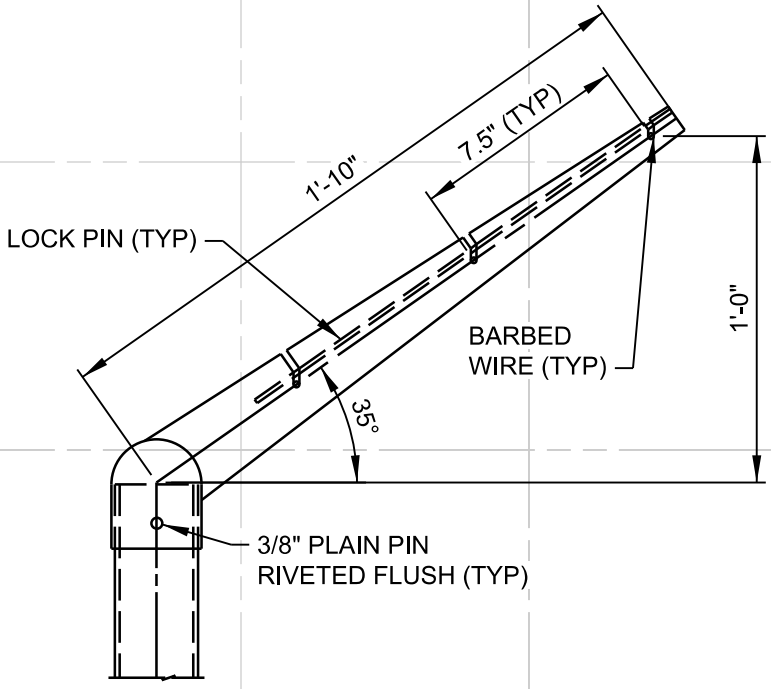


A1 DETAIL: CHAIN-LINK SECURITY FENCE

SCALE: NTS



LINE POST

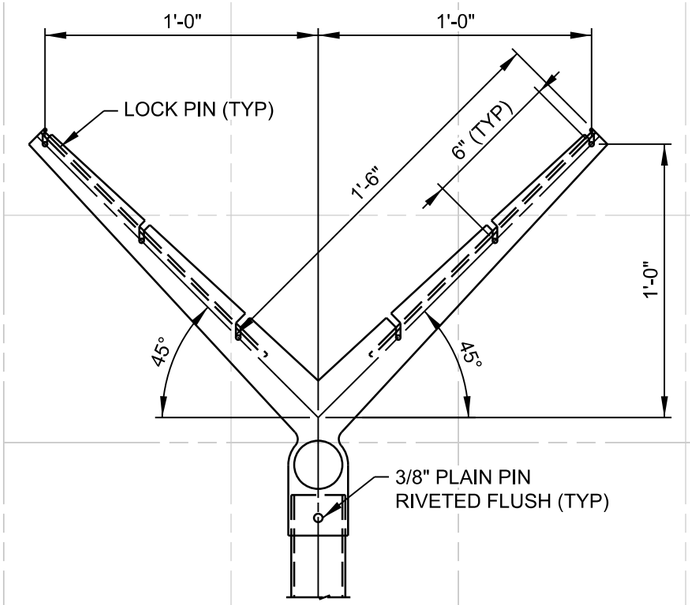


CORNER POST

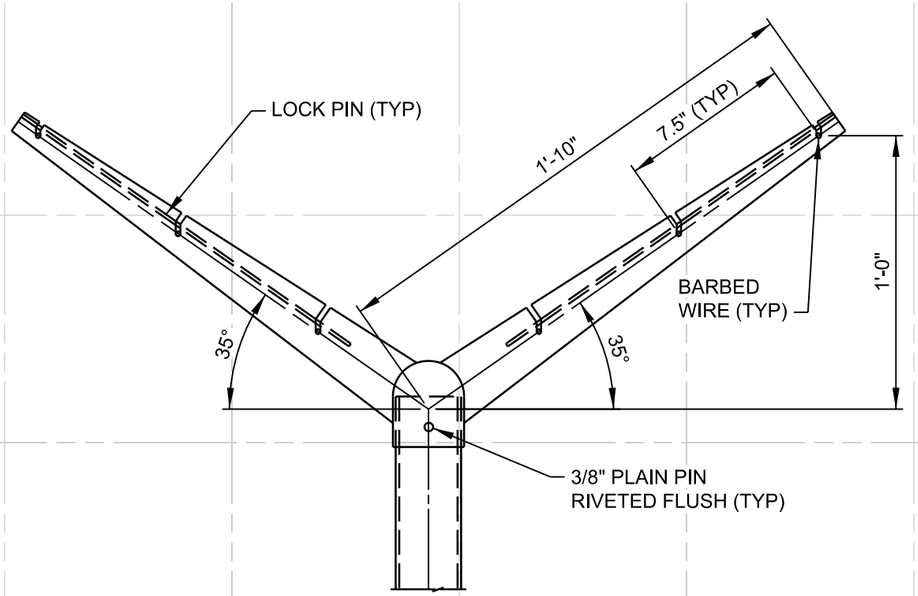
A1

DETAIL: EXTENSION ARM

SCALE: NTS



LINE POST

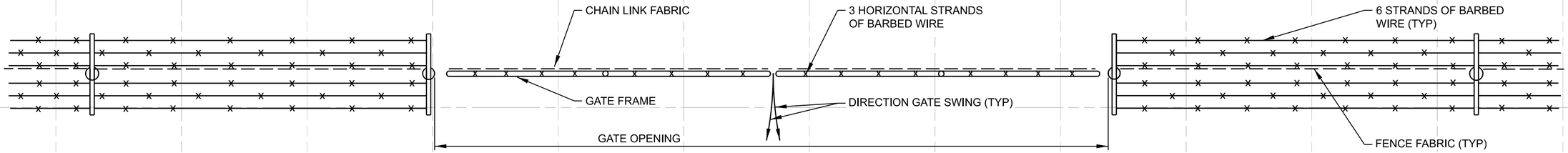


CORNER POST

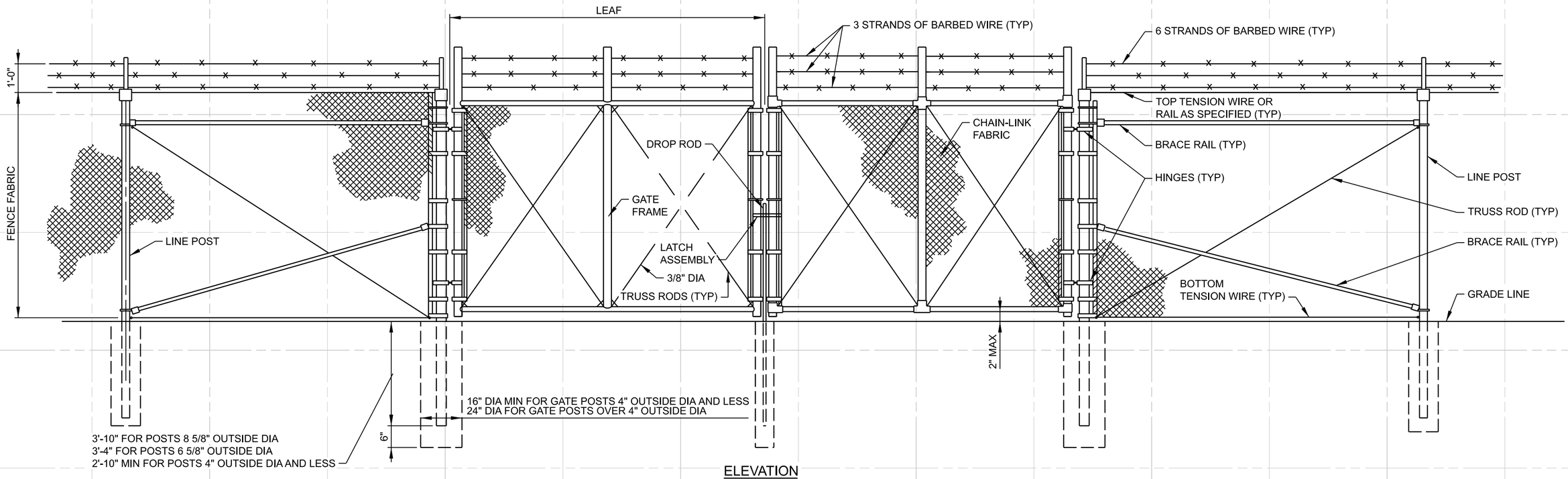
A1 DETAIL: EXTENSION ARM

SCALE: NTS

Detail G2042C-DT025E



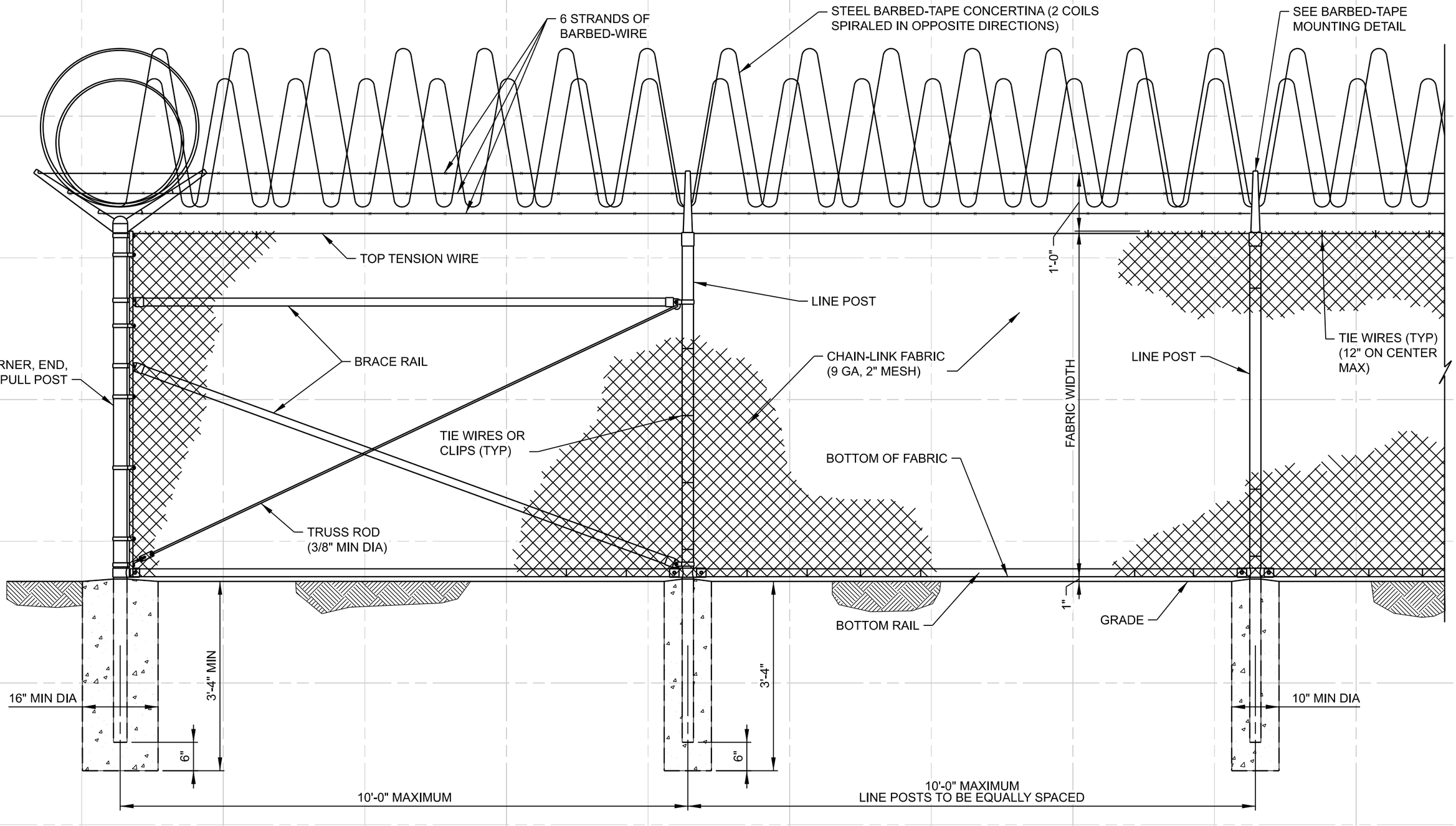
PLAN



ELEVATION

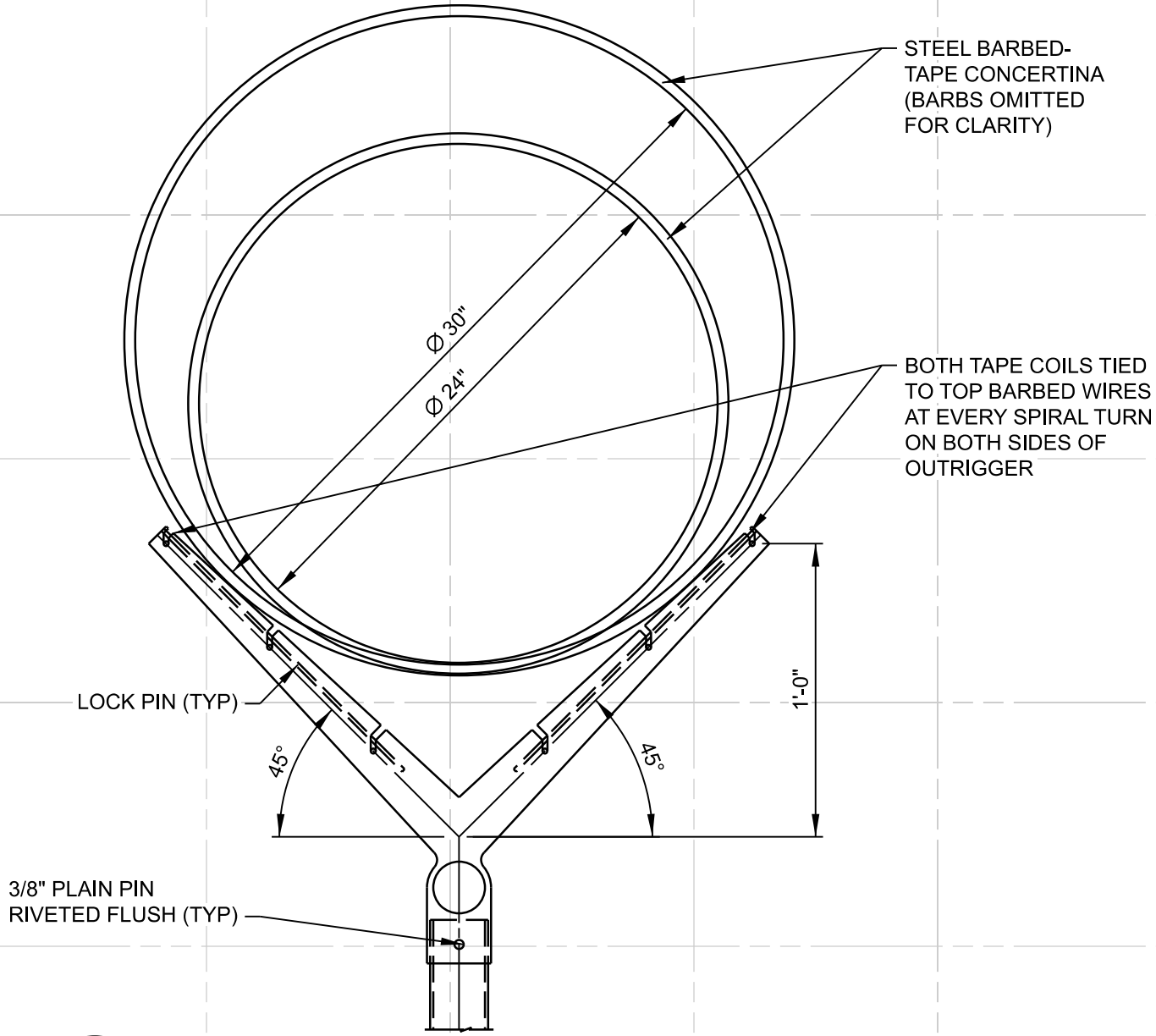
A1 DETAIL: DOUBLE SWING GATE (TYPE FE7 FENCE)

SCALE: NTS



A1 DETAIL: CHAIN-LINK SECURITY FENCE

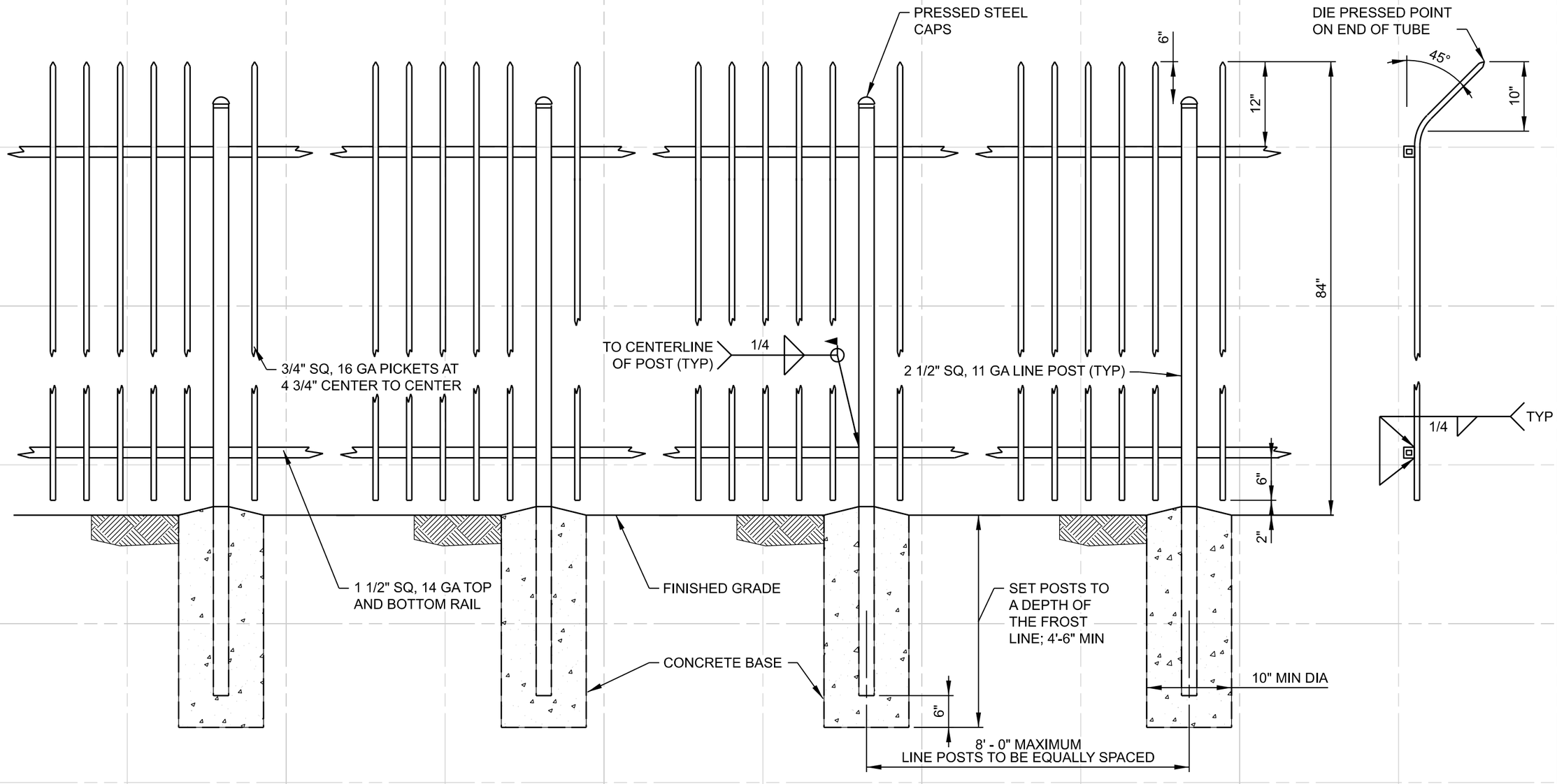
SCALE: NTS



A1

DETAIL: BARBED-TAPE MOUNTING

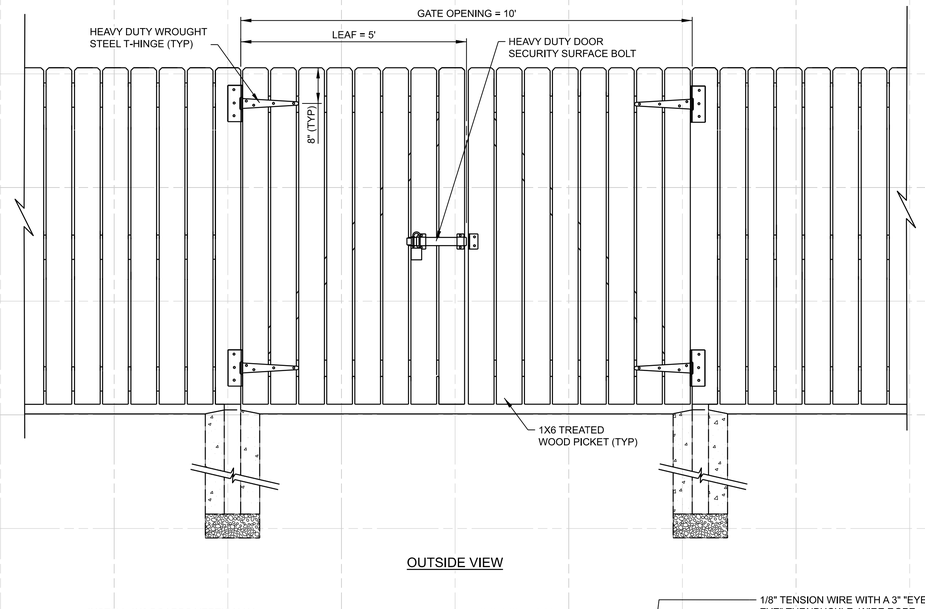
SCALE: NTS



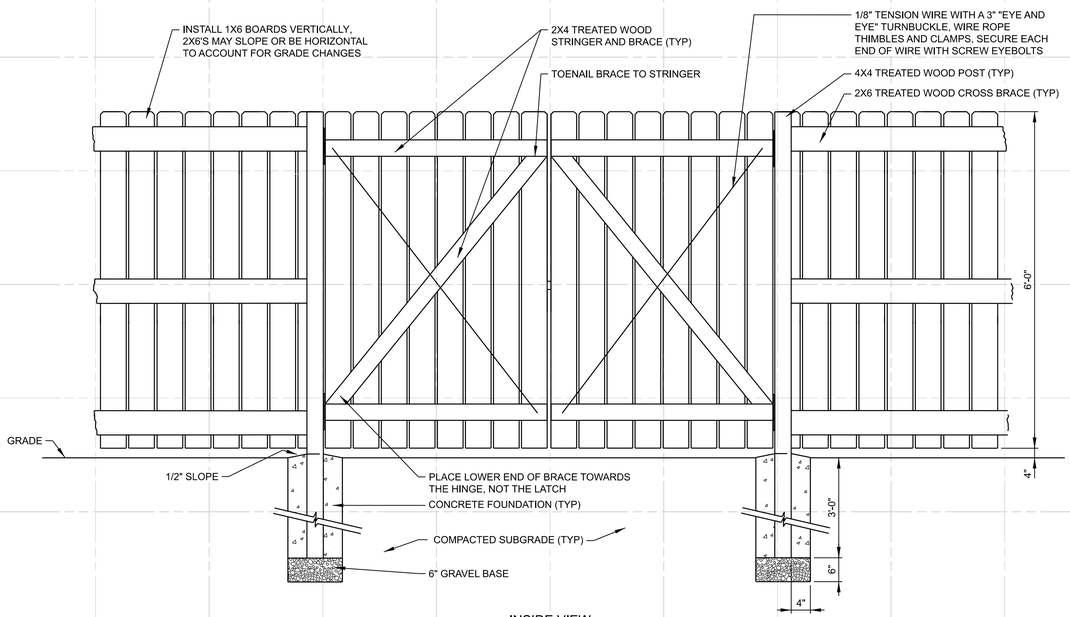
A1

DETAIL: ORNAMENTAL IRON FENCE

SCALE: NTS



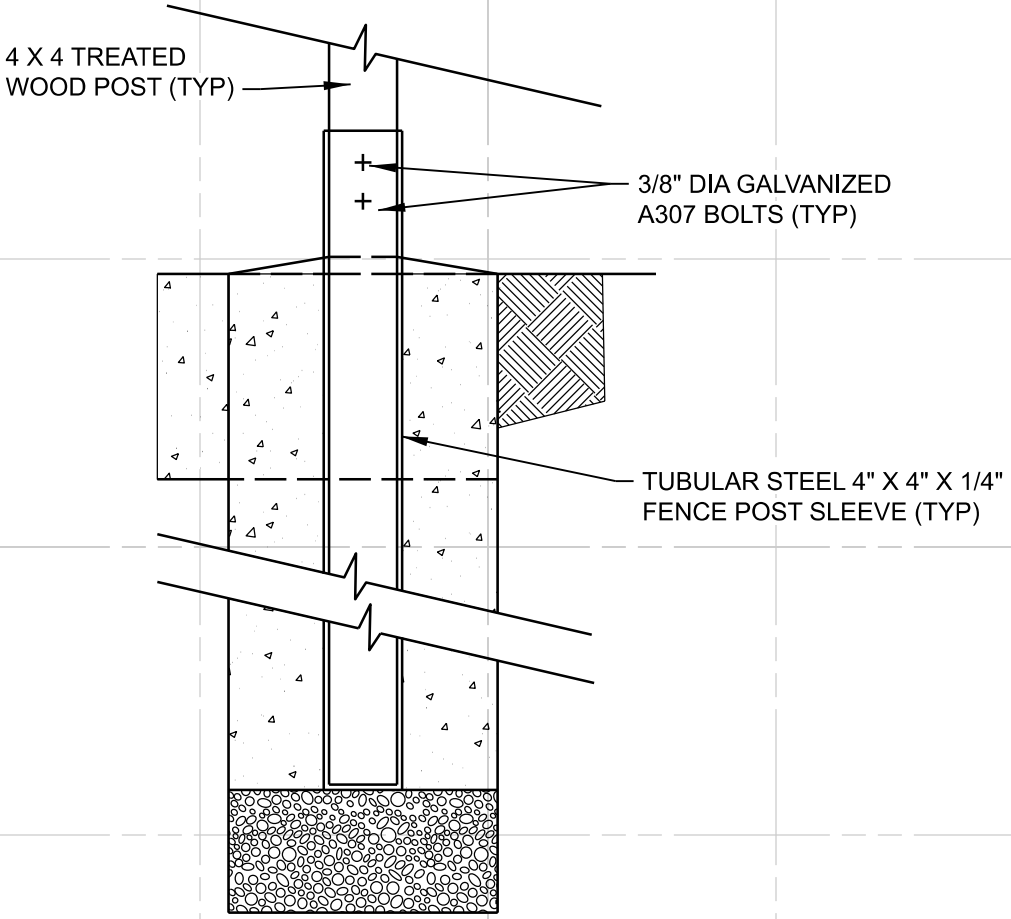
OUTSIDE VIEW



INSIDE VIEW

A1 DETAIL: WOOD FENCE GATE

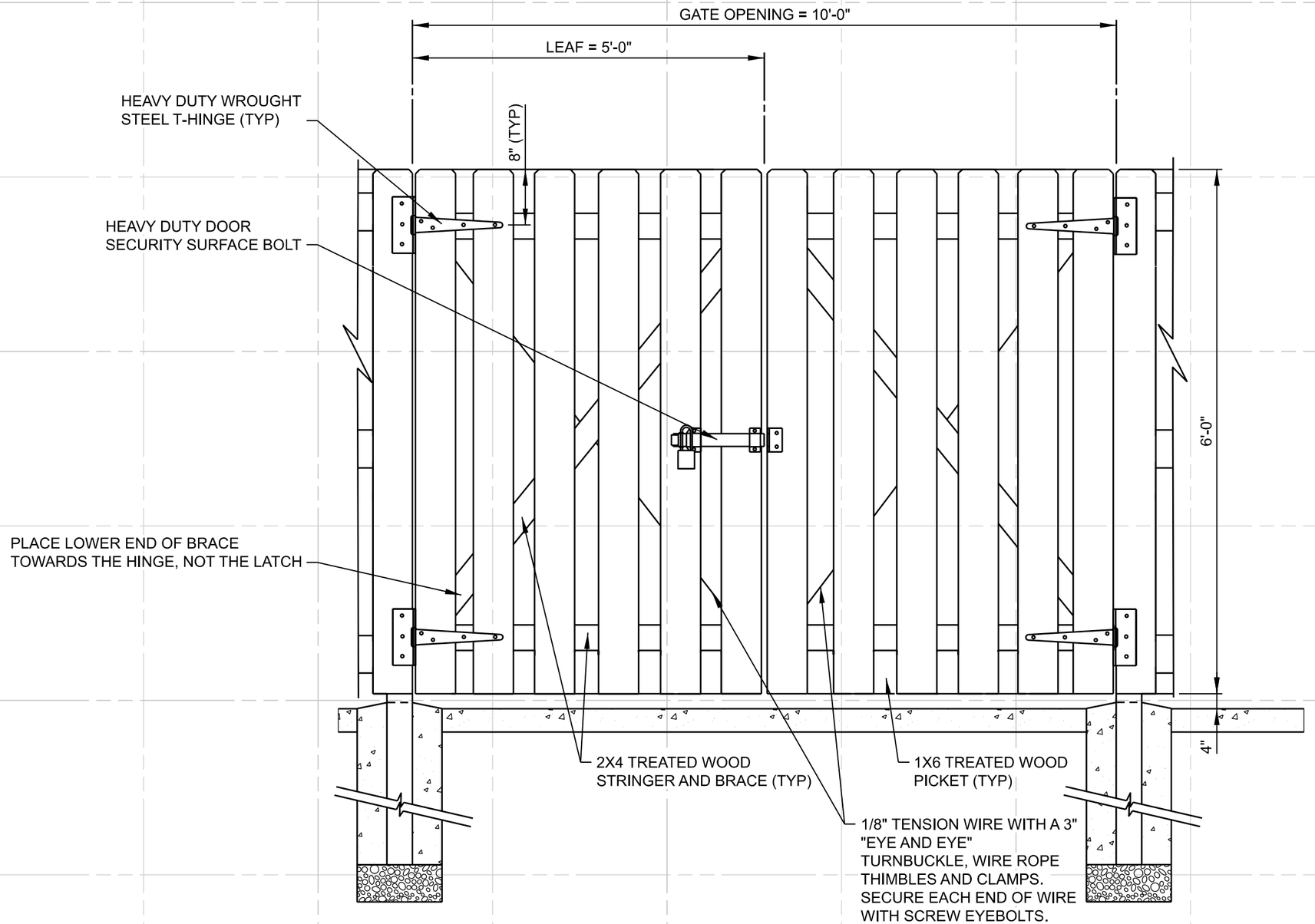
SCALE: NTS



A1

DETAIL: WOOD POST

SCALE: NTS

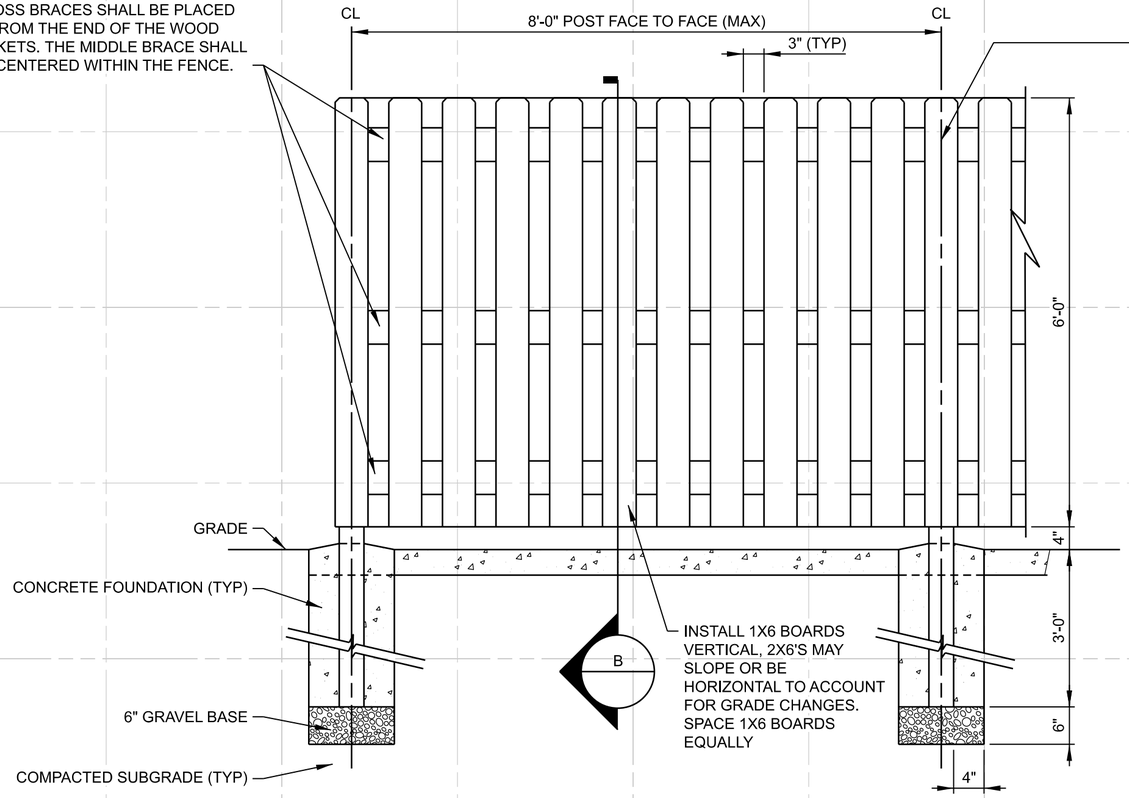


A1

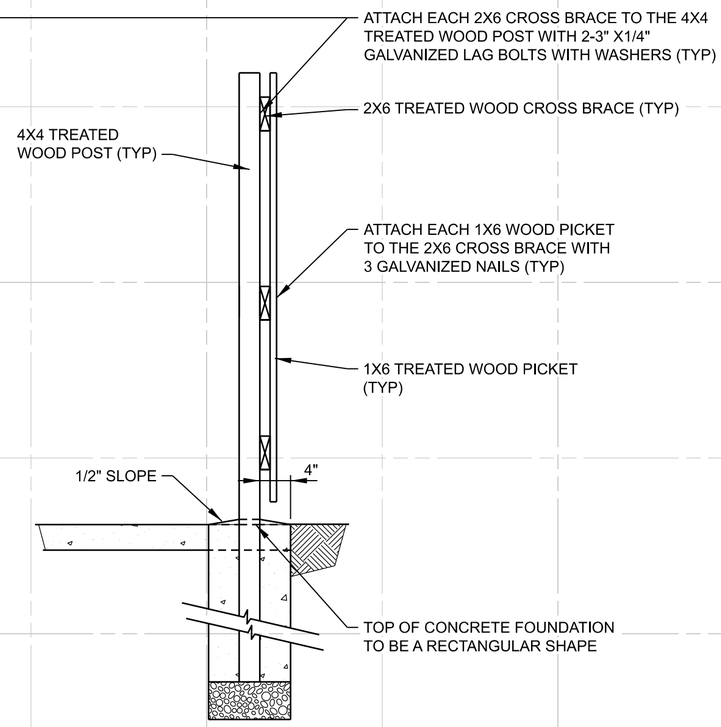
DETAIL: WOOD FENCE GATE

SCALE: NTS

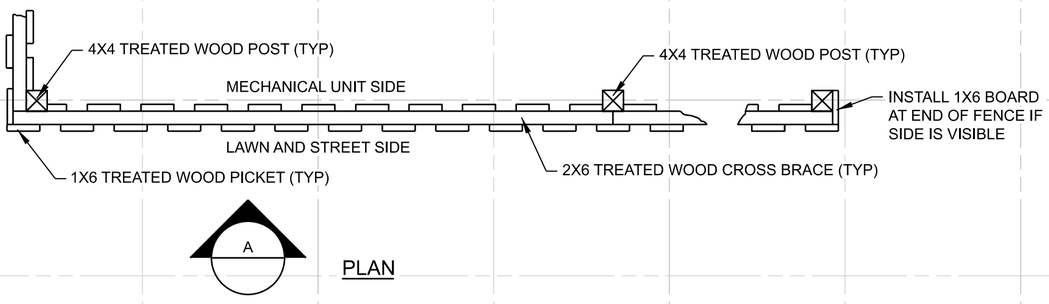
THE TOP AND BOTTOM WOOD CROSS BRACES SHALL BE PLACED 6" FROM THE END OF THE WOOD PICKETS. THE MIDDLE BRACE SHALL BE CENTERED WITHIN THE FENCE.



ELEVATION A



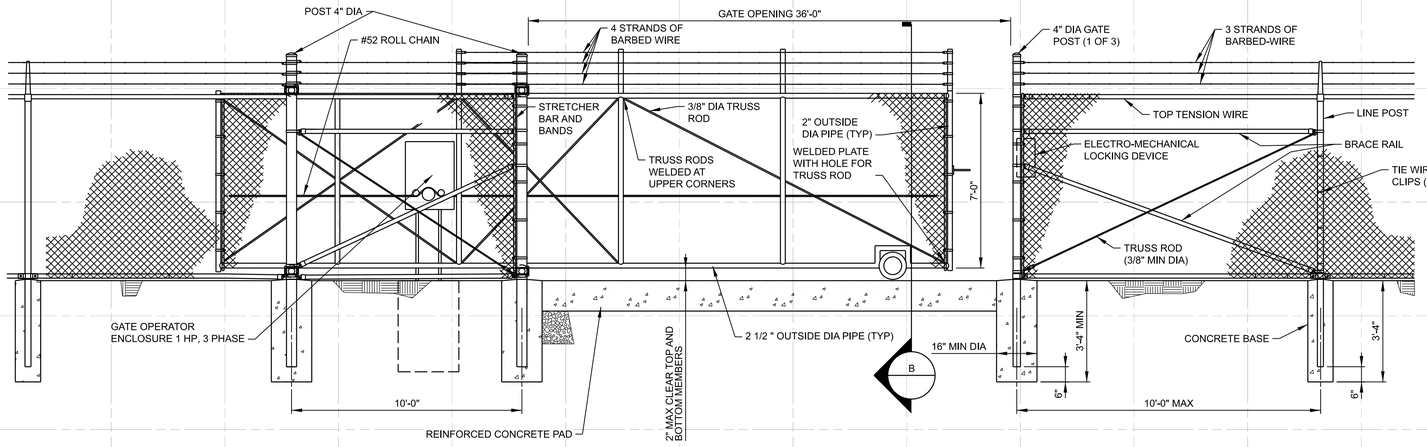
SECTION B



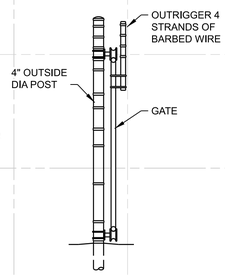
PLAN

A1 DETAIL: WOOD FENCE

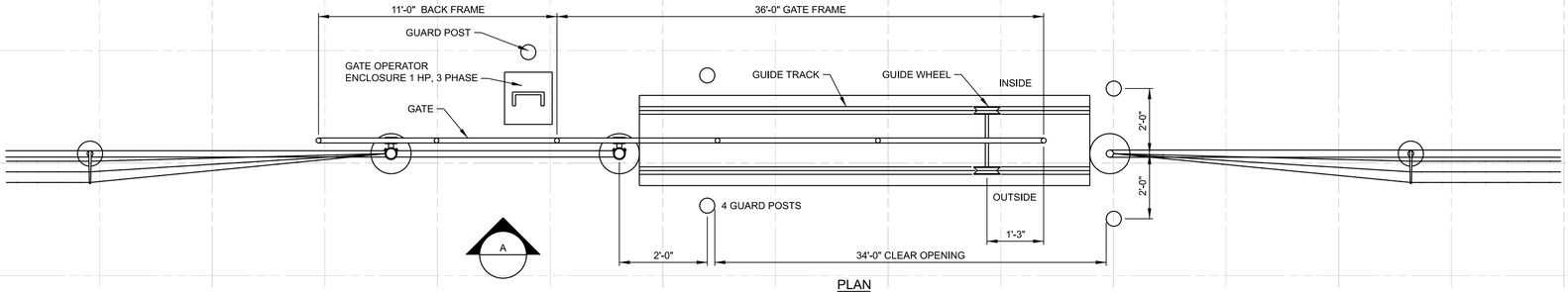
SCALE: NTS



ELEVATION A



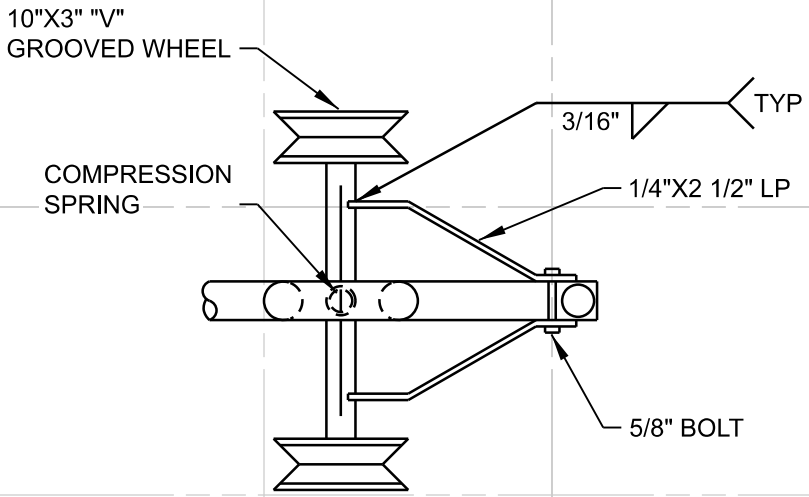
SECTION B



PLAN

A1 DETAIL: SLIDING GATE

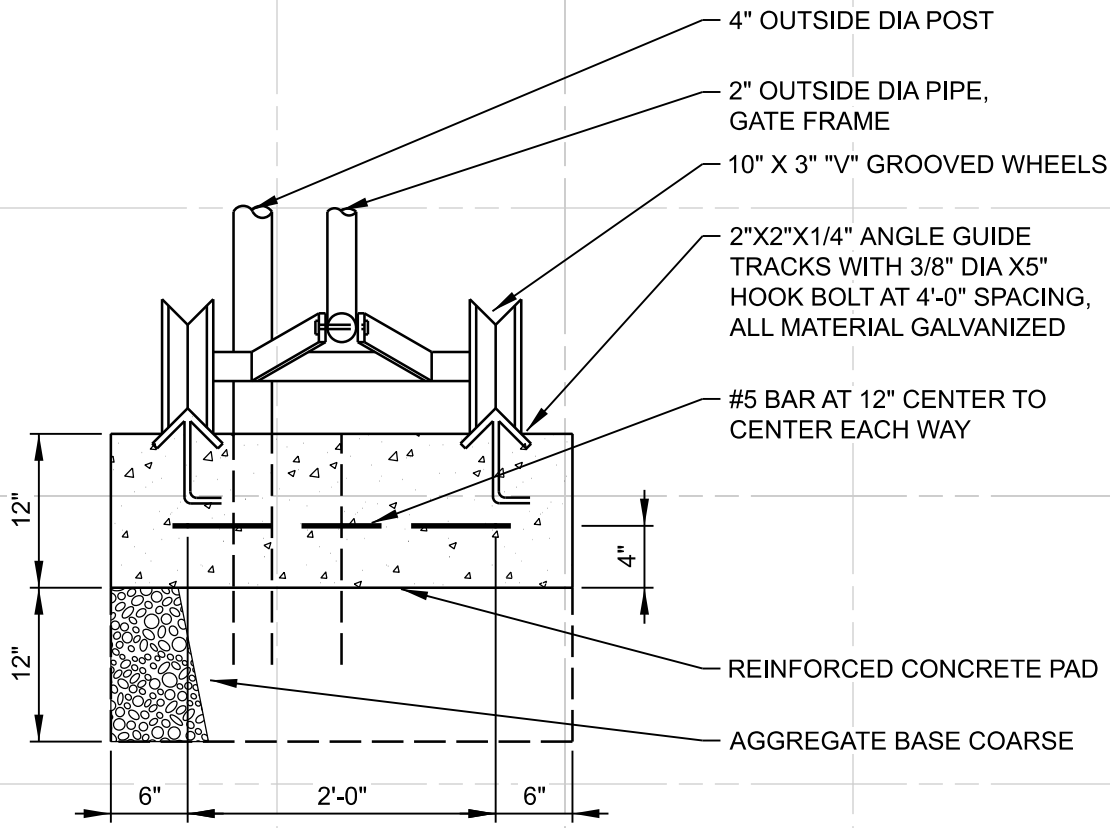
SCALE: NTS



A1

DETAIL:
GUIDE WHEEL

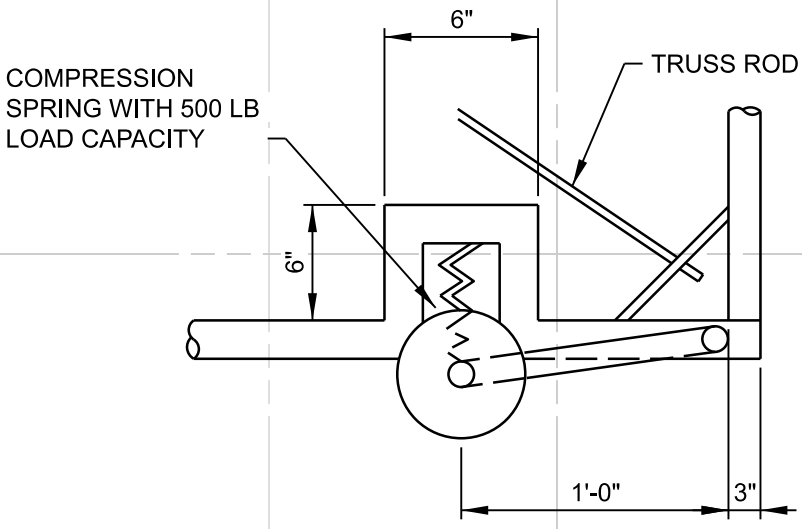
SCALE: NTS



A1

DETAIL: SLIDE GATE

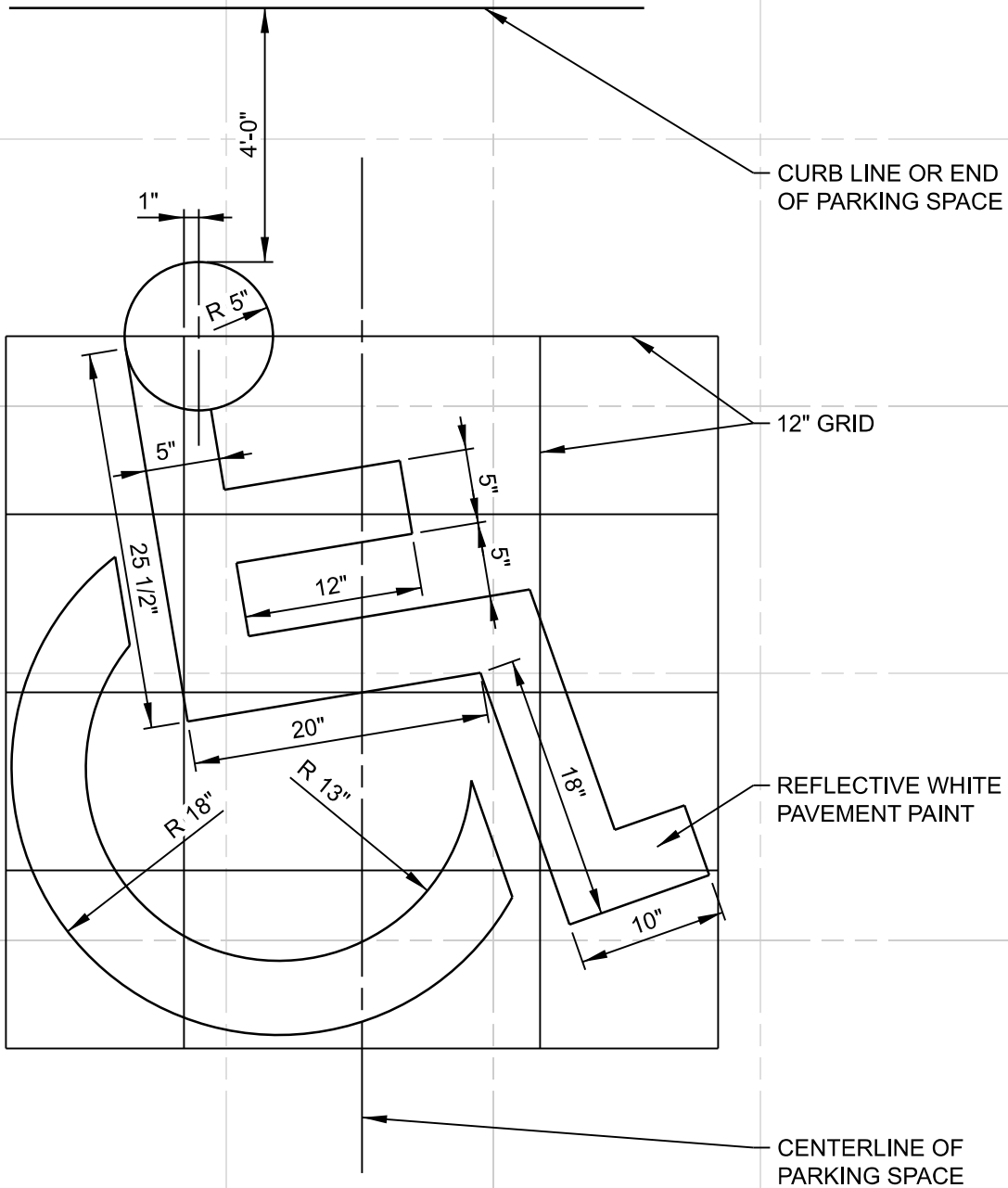
SCALE: NTS



A1

DETAIL:
GUIDE WHEEL

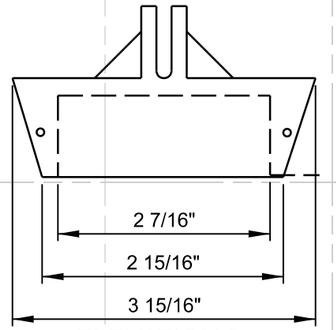
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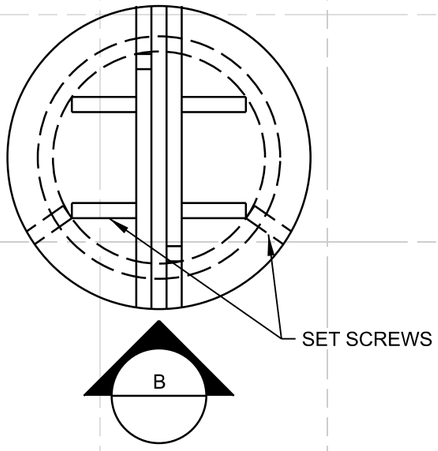
A1

DETAIL: HANDICAP PARKING SYMBOL

SCALE: NTS

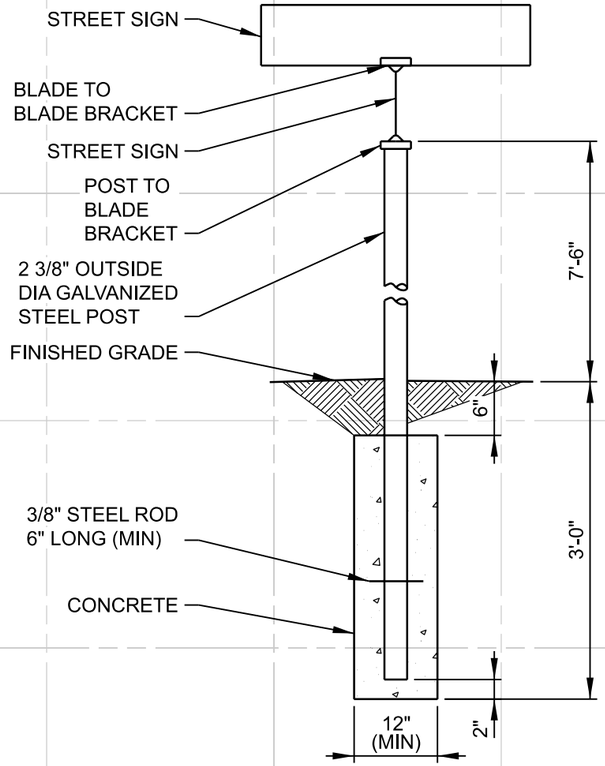


ELEVATION B

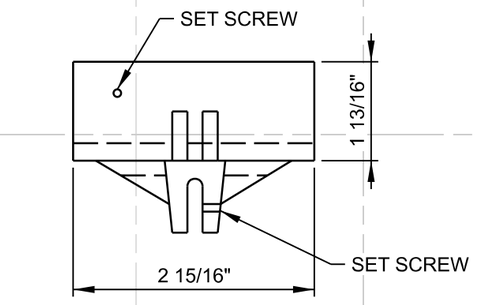


PLAN

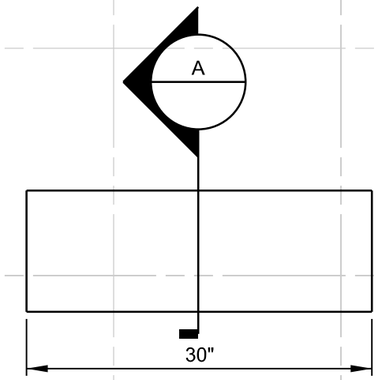
POST TO BLADE BRACKET



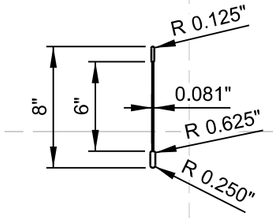
STREET SIGN POST



BLADE TO BLADE BRACKET



STREET SIGN

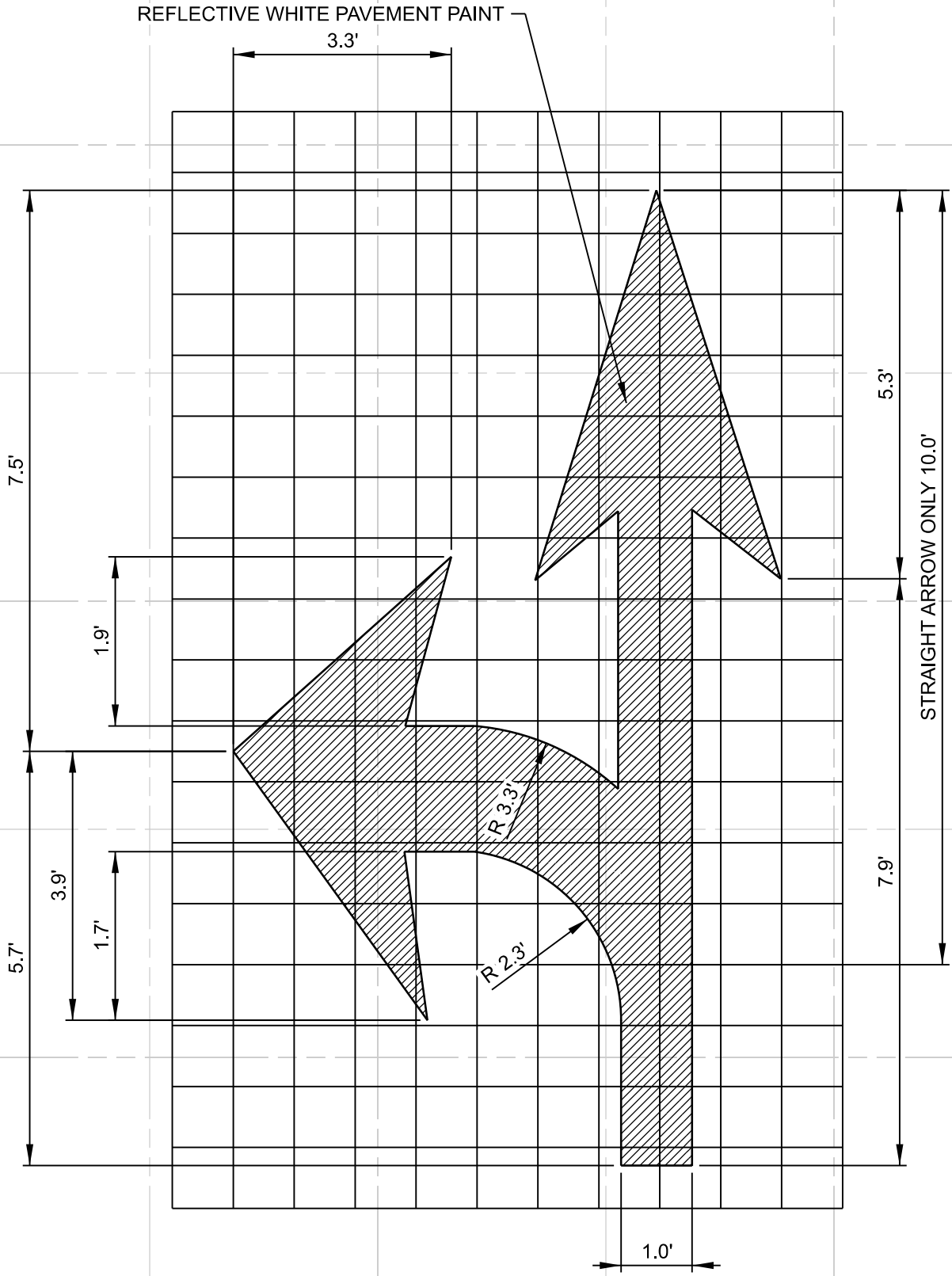


SECTION A

A1 DETAIL: STREET SIGN POST

SCALE: NTS

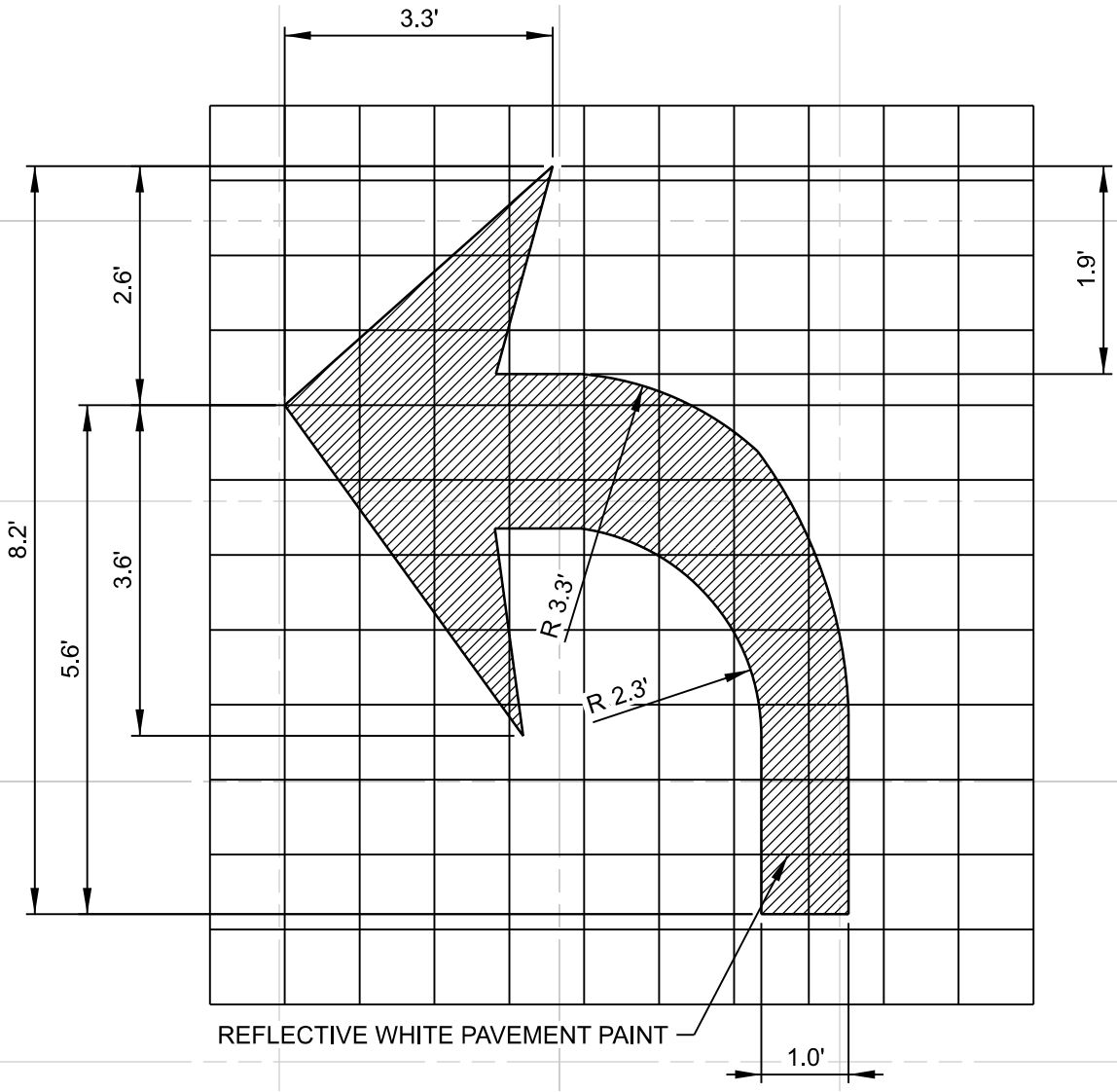
Detail G2045C-DT002X



A1

DETAIL: TURN AND STRAIGHT ARROW

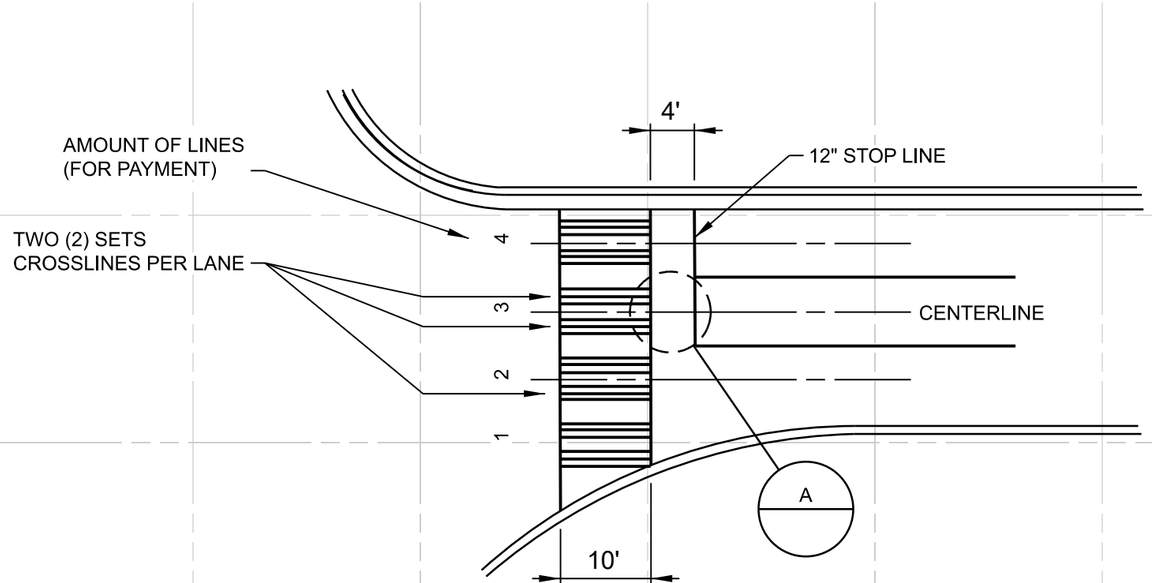
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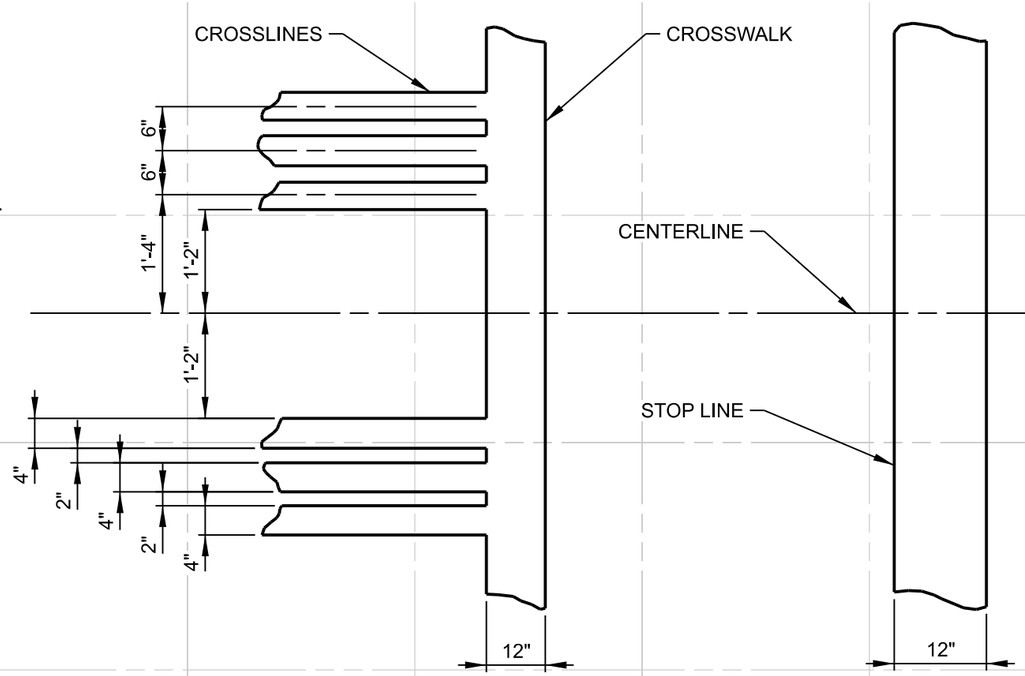
A1

DETAIL: TURN ARROW

SCALE: NTS



PLAN

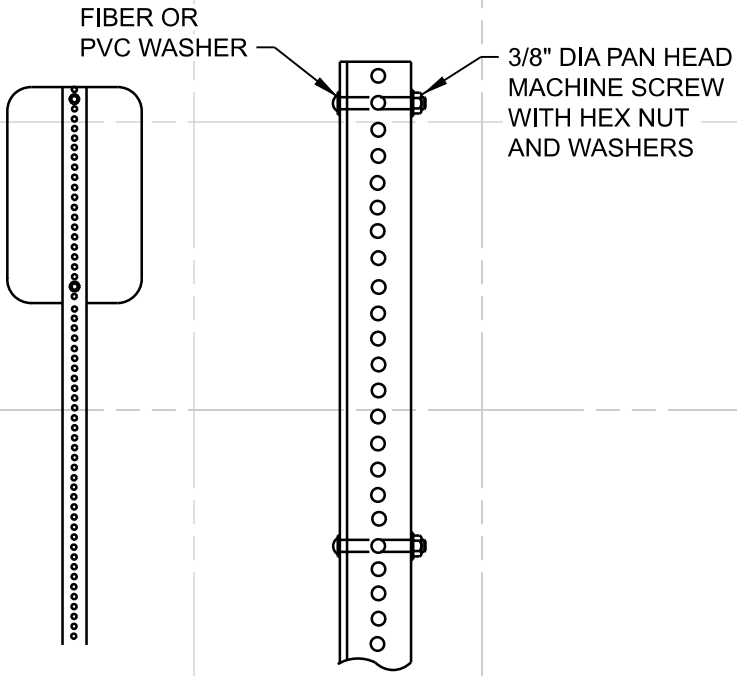


DETAIL A

A1

DETAIL: CROSSWALK AND STOP LINE

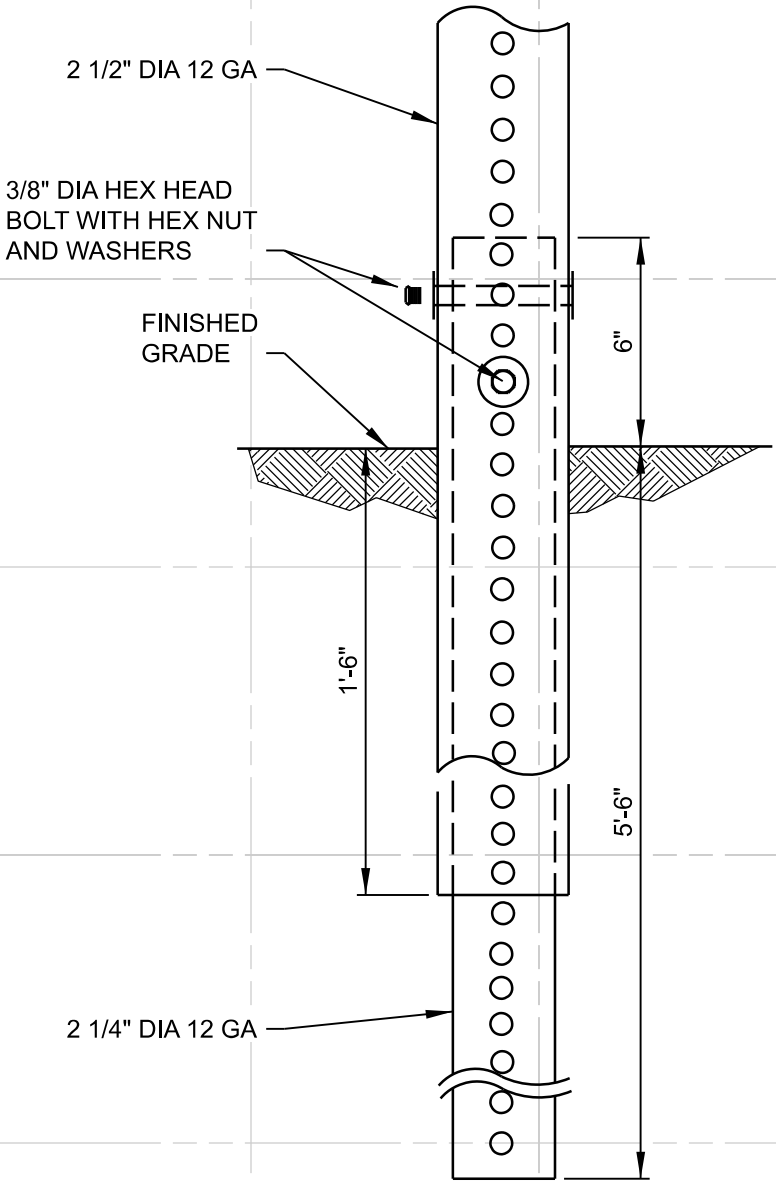
SCALE: NTS



A1

DETAIL: SIGN PANEL ATTACHMENT

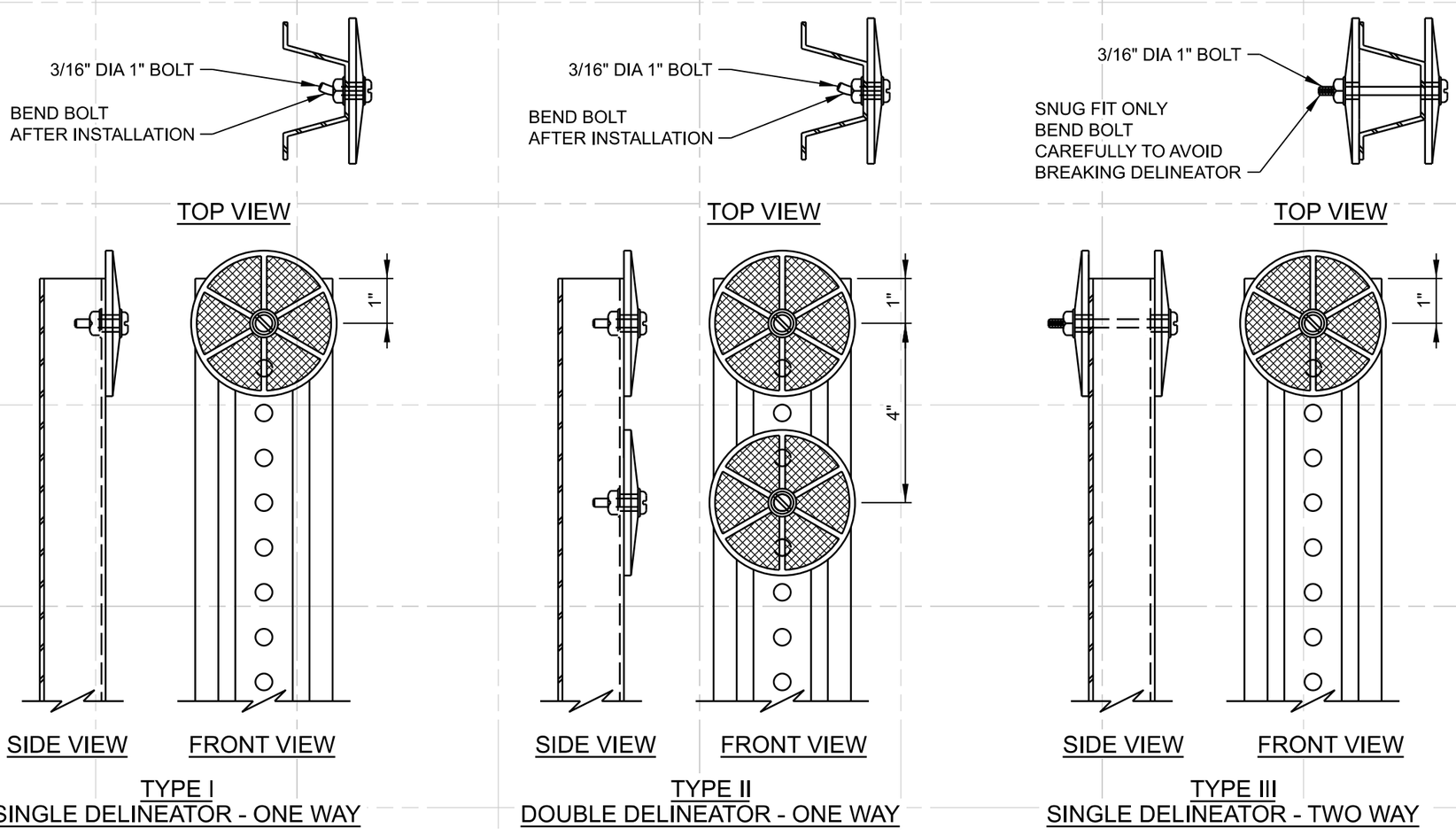
SCALE: NTS



A1

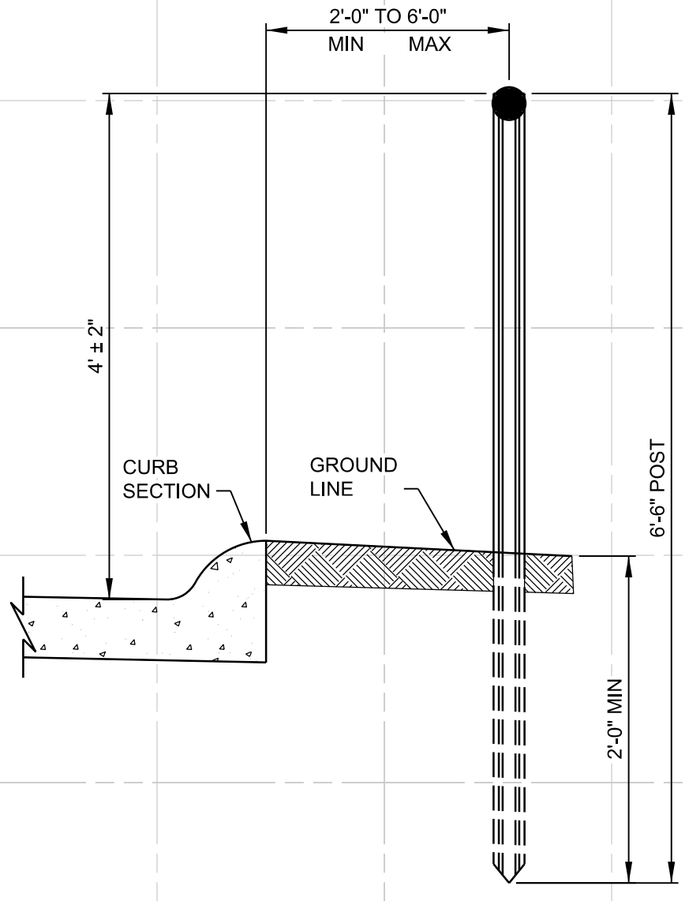
DETAIL: BREAK-AWAY

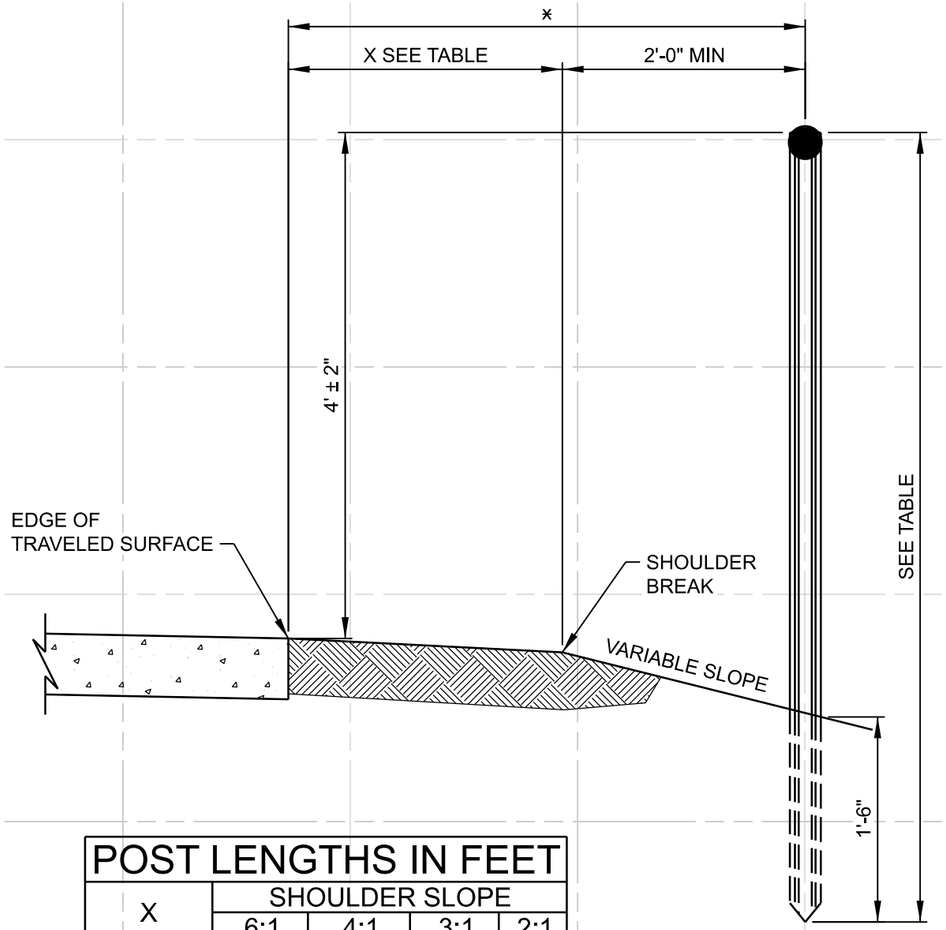
SCALE: NTS



A1 DETAIL: DELINEATOR TYPES AND MOUNTINGS

SCALE: NTS





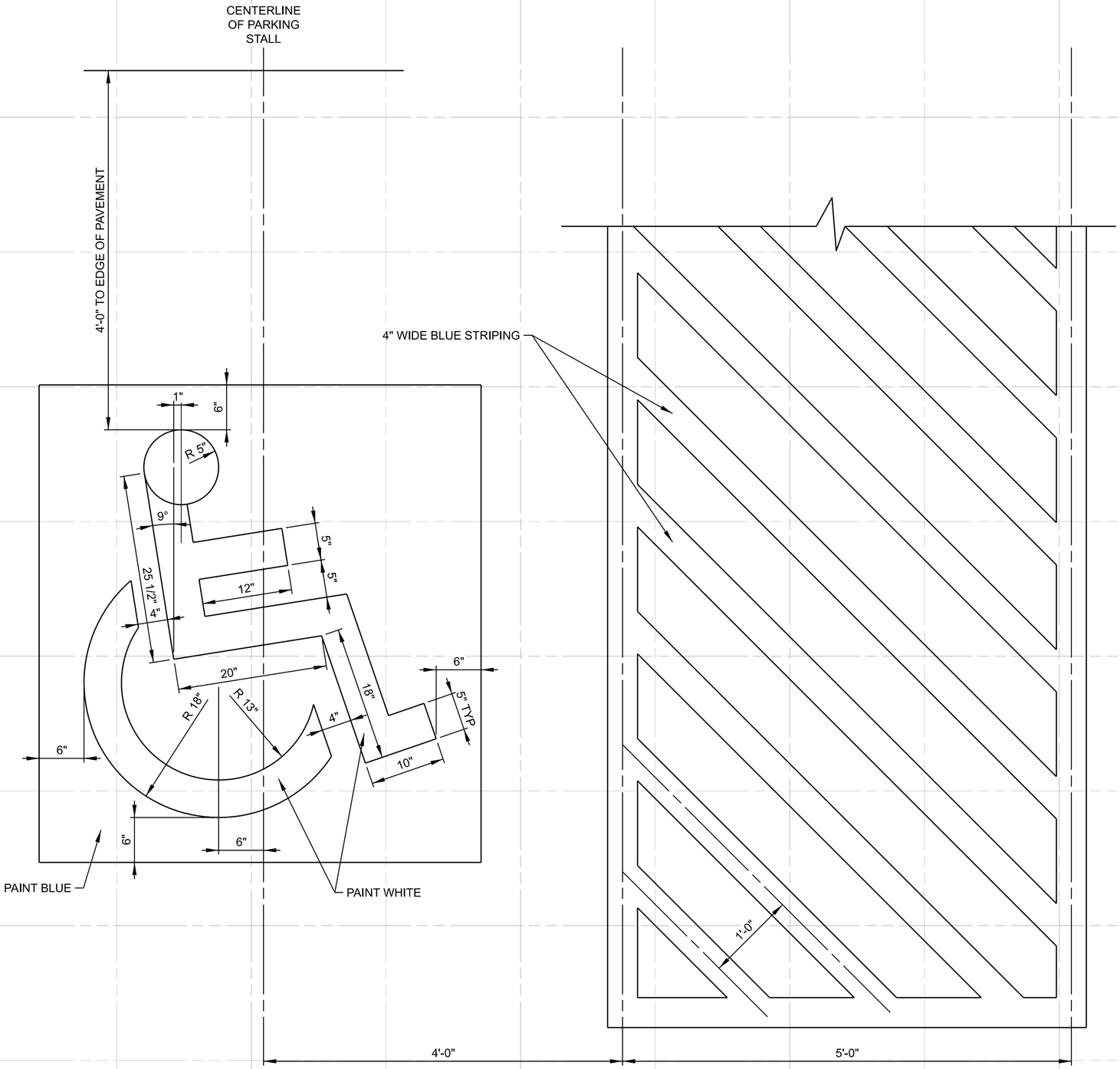
POST LENGTHS IN FEET				
X	SHOULDER SLOPE			
	6:1	4:1	3:1	2:1
2'	6-1/2	6-1/2	8	8
4' to 12'	6-1/2	6-1/2	6-1/2	8

NOTE:
* 6'-0" MIN OR 2'-0" BEYOND SHOULDER BREAK, WHICHEVER IS GREATER

A1

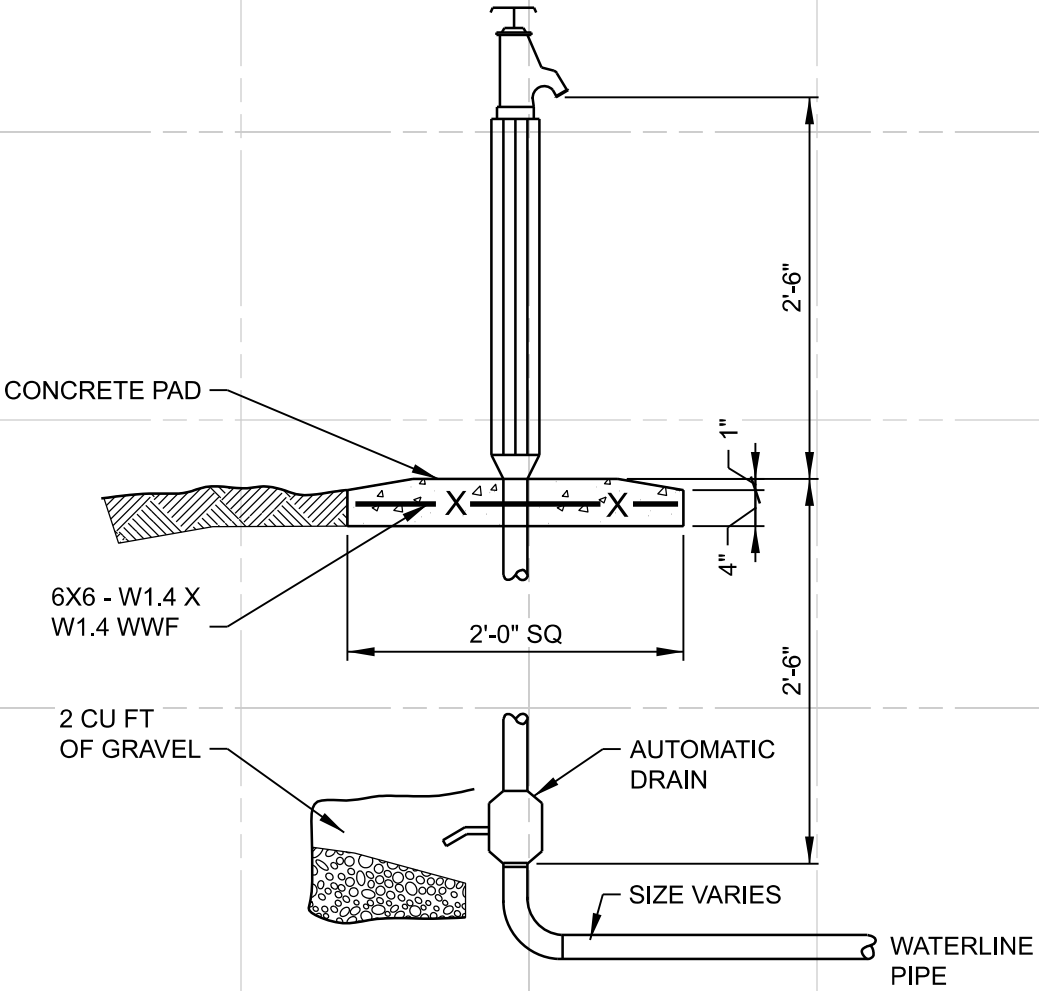
DETAIL: DELINEATOR POST LOCATIONS

SCALE: NTS



A1 DETAIL: HANDICAPPED PARKING

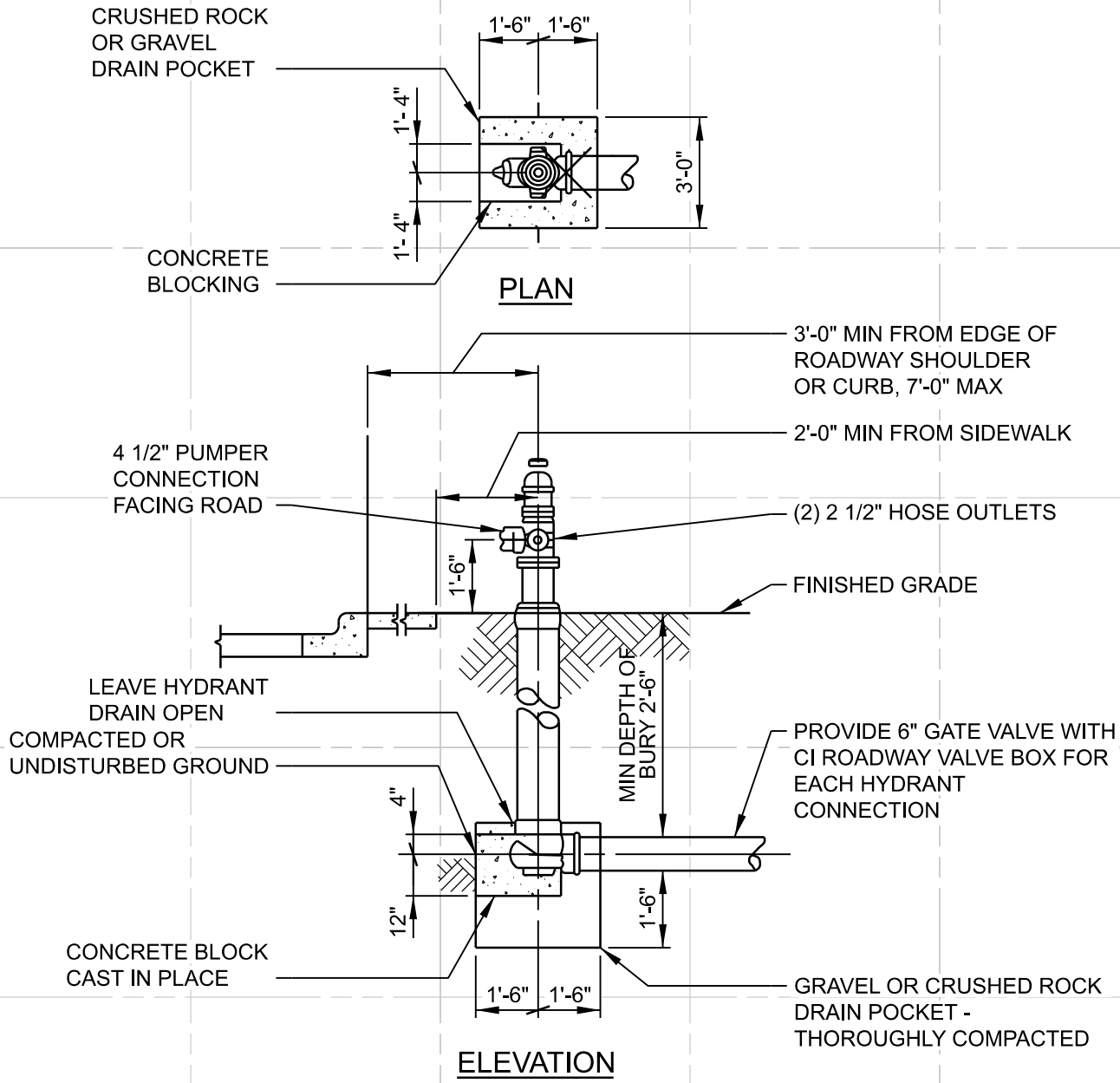
SCALE: NTS



A1

DETAIL: YARD HYDRANT

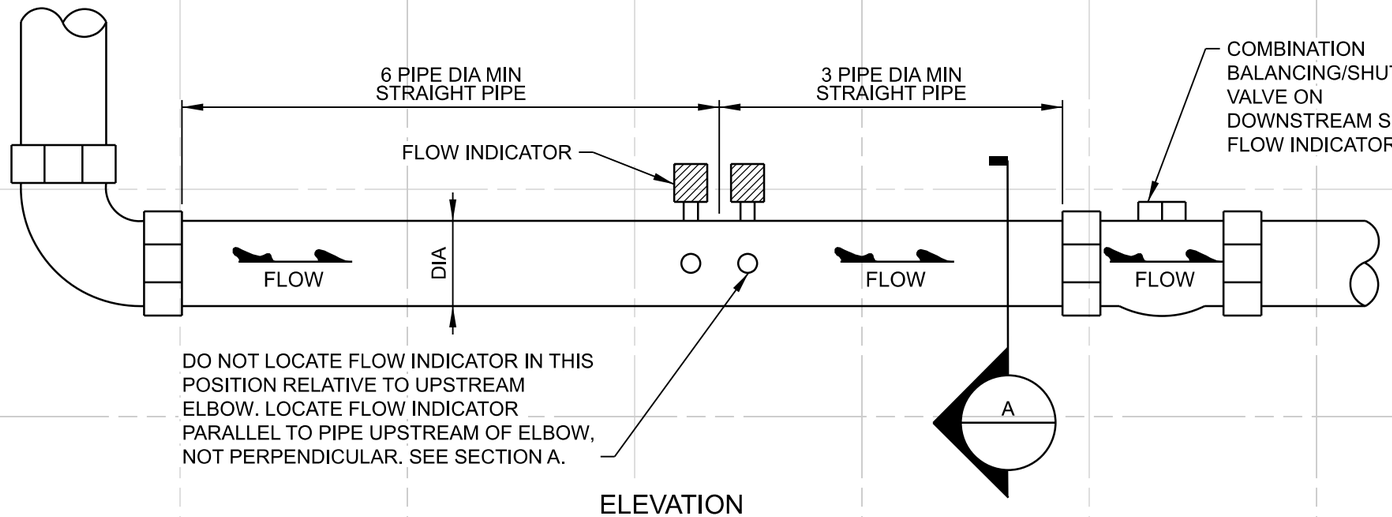
SCALE: NTS



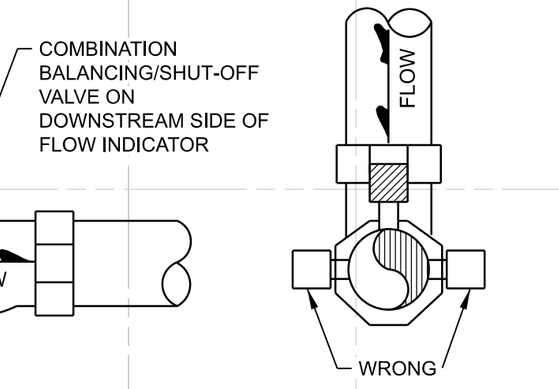
A1

DETAIL: FIRE HYDRANT - WET TYPE

SCALE: NTS



ELEVATION



(SHOWING RELATIONSHIP OF FLOW INDICATOR TO UPSTREAM ELBOW)

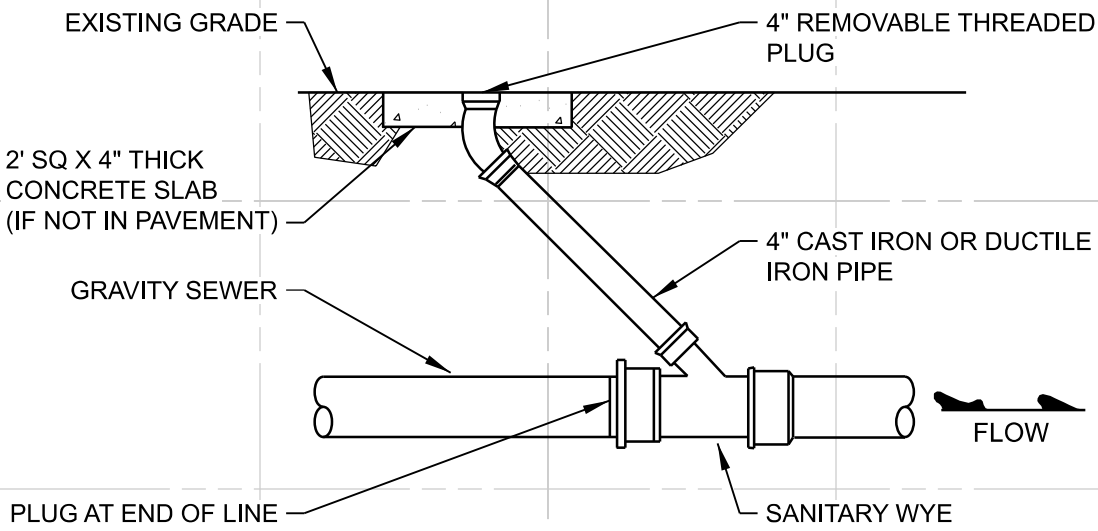
SECTION A

NOTES:
1. ONLY STRAIGHT PIPE IS TO BE WITHIN MINIMUM UPSTREAM AND DOWNSTREAM DIMENSIONS, NO FITTINGS OR VALVES ARE ALLOWED.
2. FLOW INDICATOR AND VALVES SHALL BE ORIENTED FOR EASY ACCESS. IF TOP OF PIPE IS CLOSE TO STRUCTURE OR OBSTRUCTIONS, ARRANGE PIPING TO LOCATE VALVE OPERATOR AND FLOW INDICATOR CONNECTIONS ON SIDE OF PIPE. NO VALVE SHALL BE INSTALLED WITH THE OPERATOR BELOW THE HORIZONTAL.

A1

DETAIL: FLOW INDICATOR

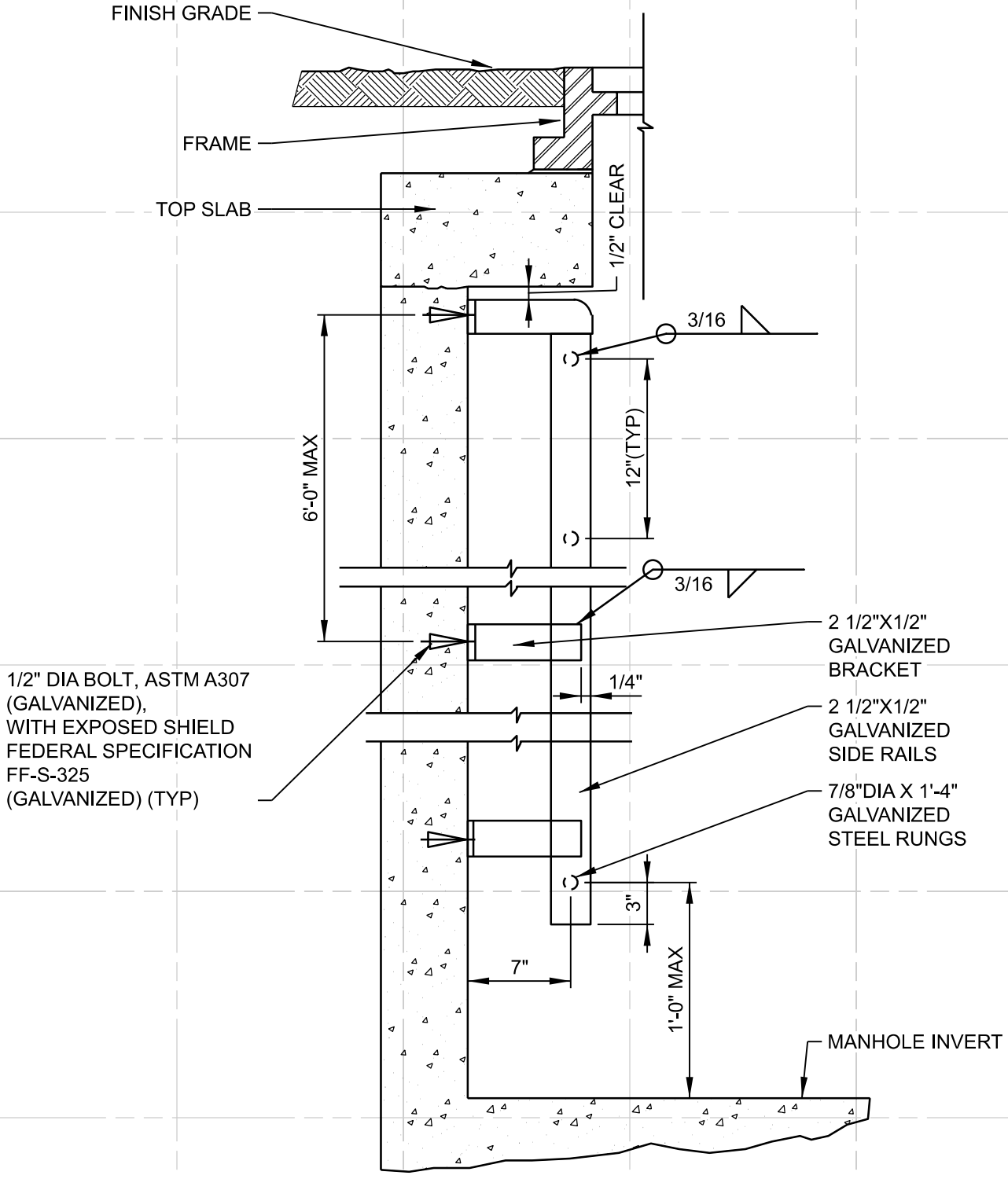
SCALE: NTS



A1

DETAIL: THROUGH FLOW CLEANOUT

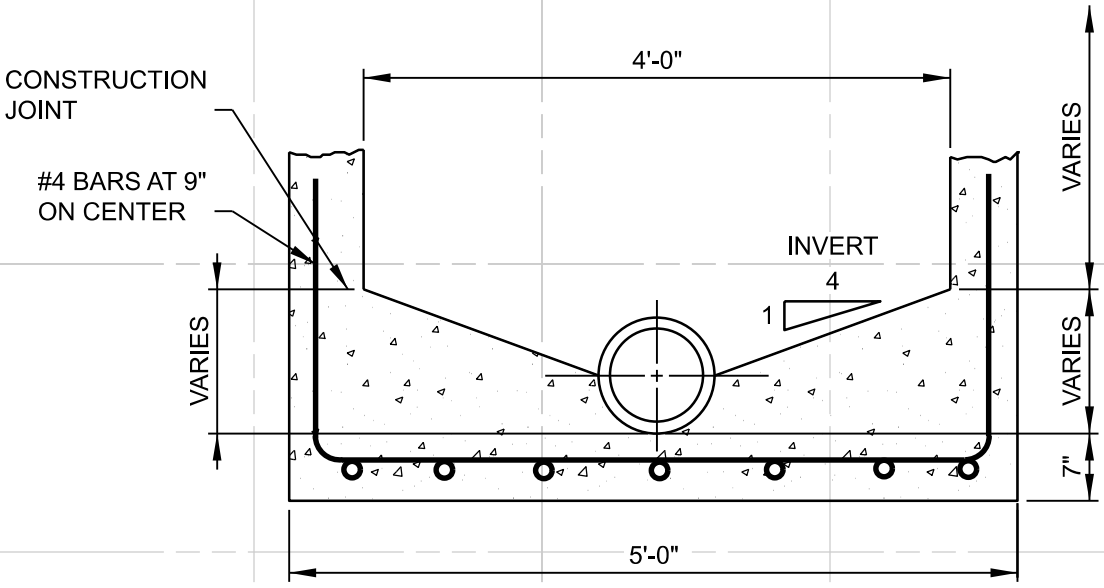
SCALE: NTS



A1

DETAIL: GALVANIZED STEEL LADDER

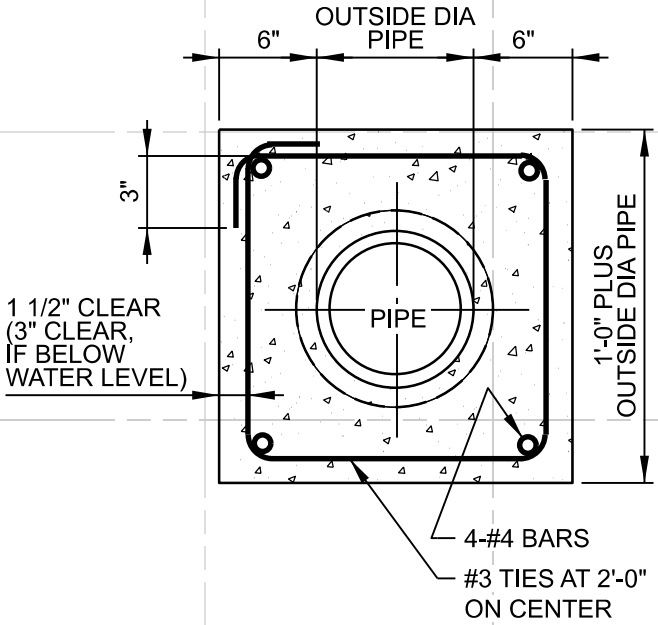
SCALE: NTS



A1

SECTION: BASE OF STANDARD MANHOLE

SCALE: NTS

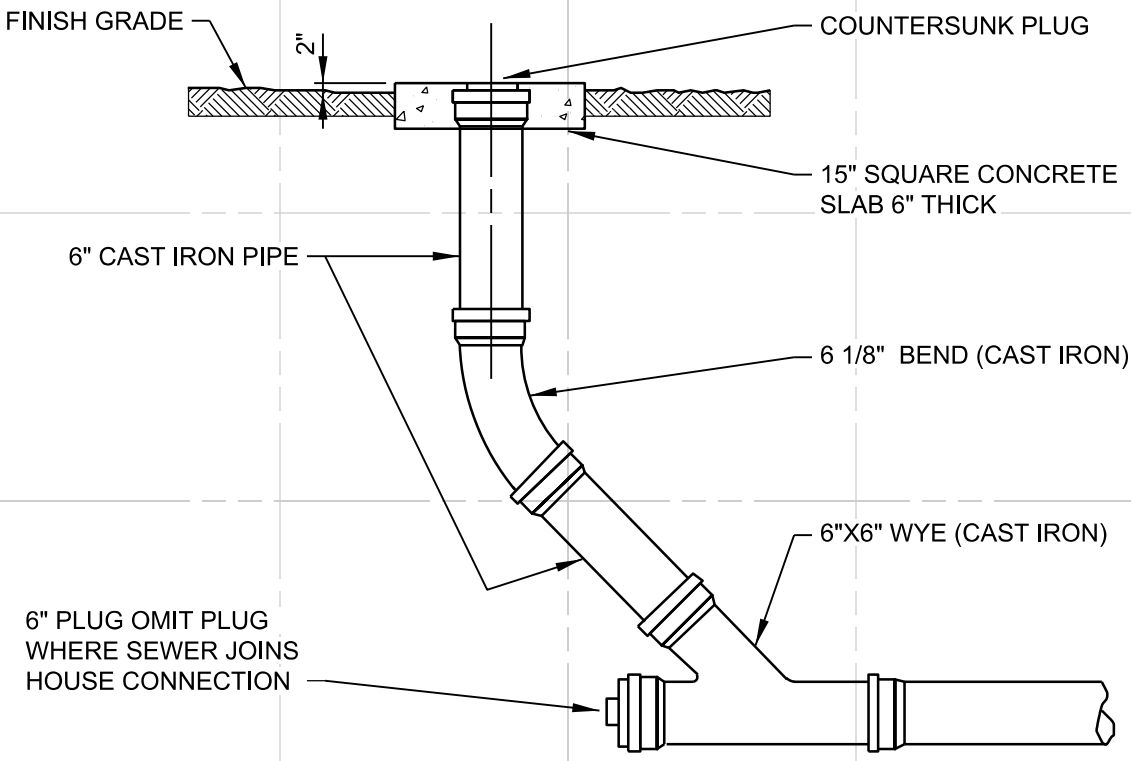


NOTE:
ALL REINFORCING STEEL TO BE DEFORMED BARS AND LAPPED 14 INCHES AT SPLICES.

A1

DETAIL: CONCRETE ENCASEMENT

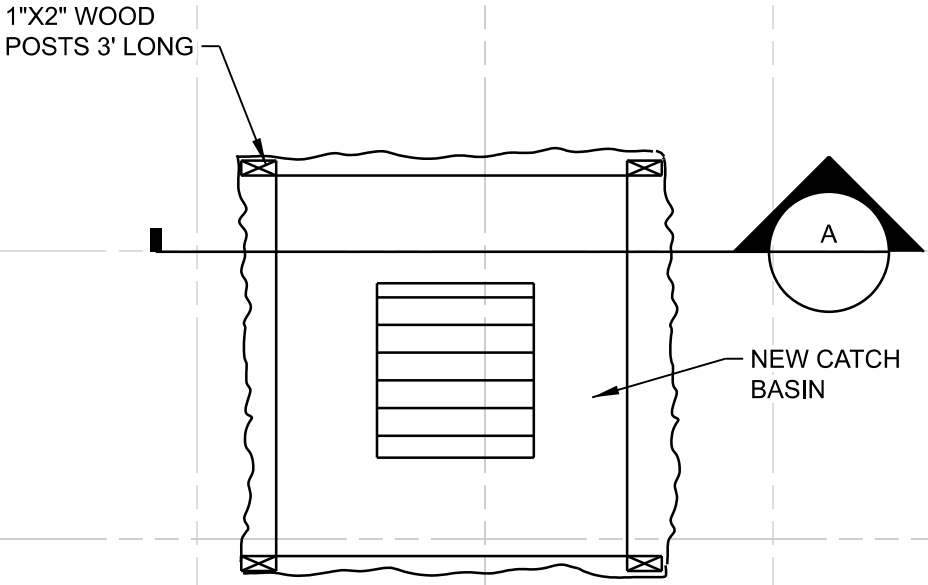
SCALE: NTS



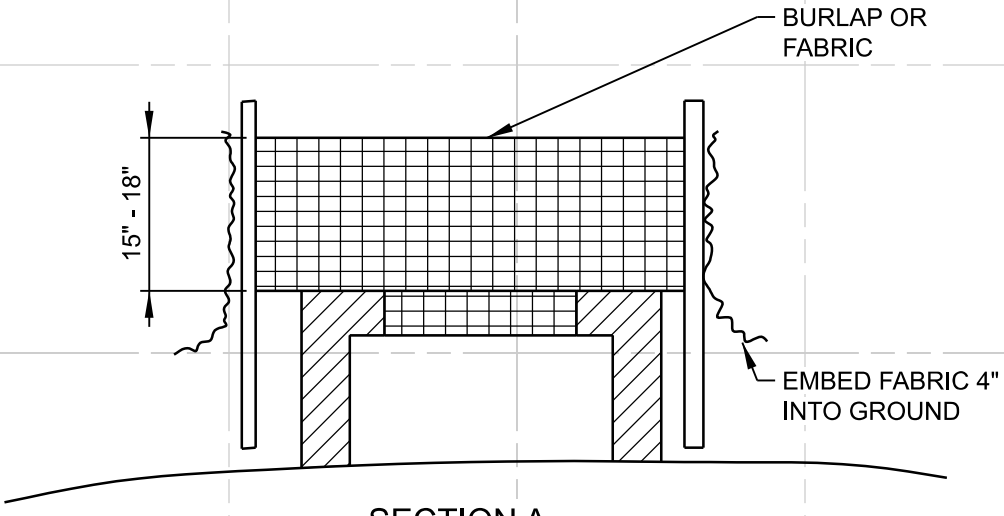
A1

DETAIL: CLEANOUT TO GRADE

SCALE: NTS



PLAN



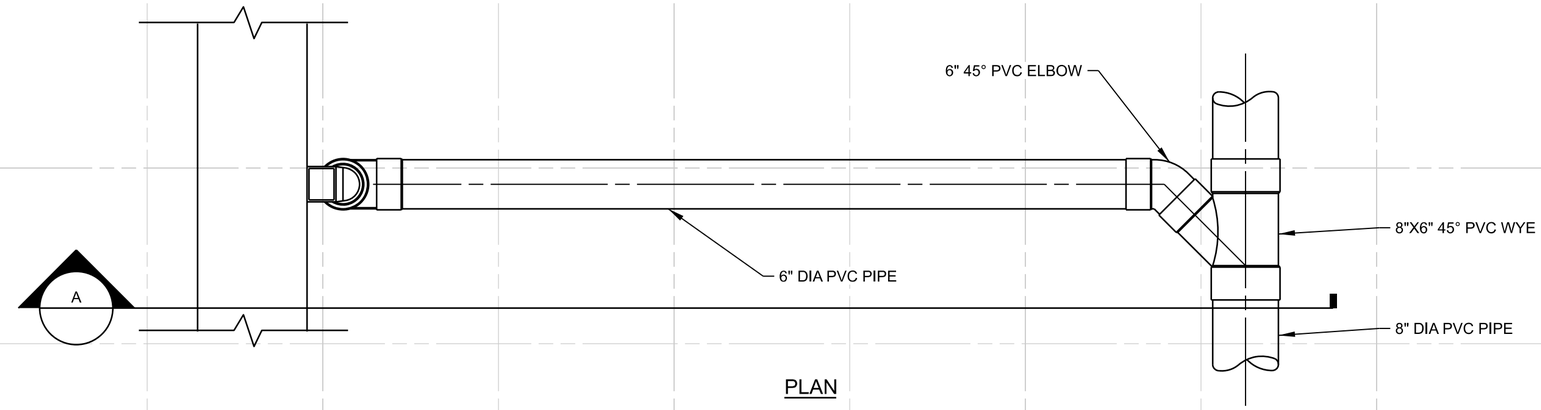
SECTION A

NOTE:
STRAW BALES MAY BE USED IN LIEU OF FABRIC AROUND CATCH BASINS. BALES SHALL BE EMBEDDED 4" INTO GROUND AND SECURELY STAKED IN PLACE.

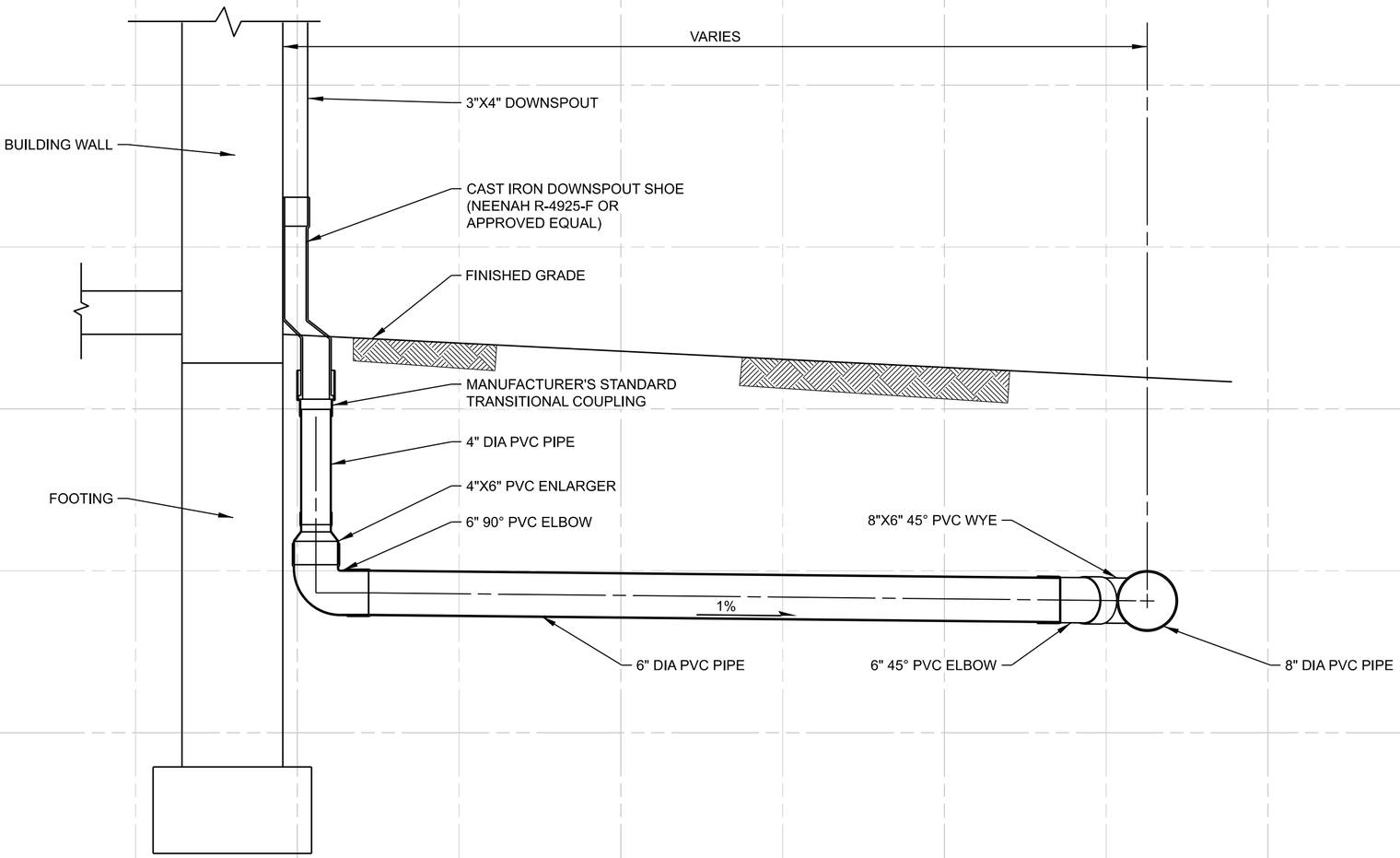
A1

DETAIL: CATCH BASIN PROTECTION

SCALE: NTS



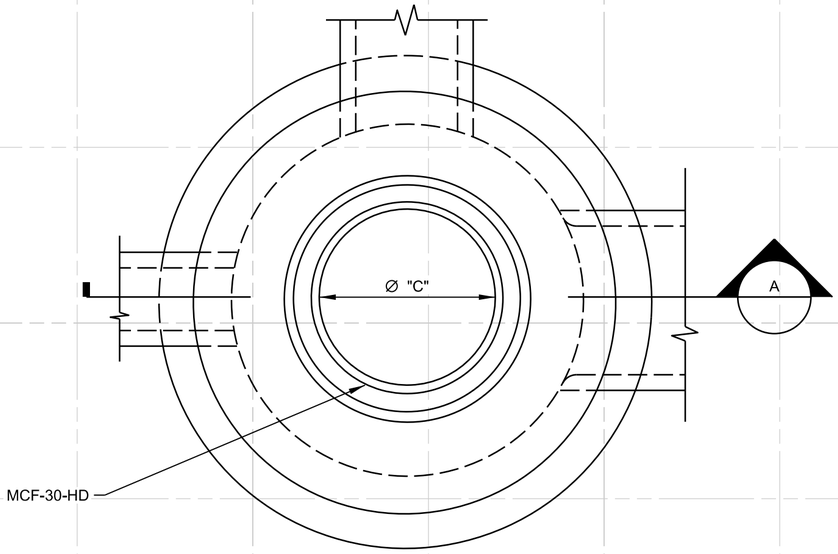
PLAN



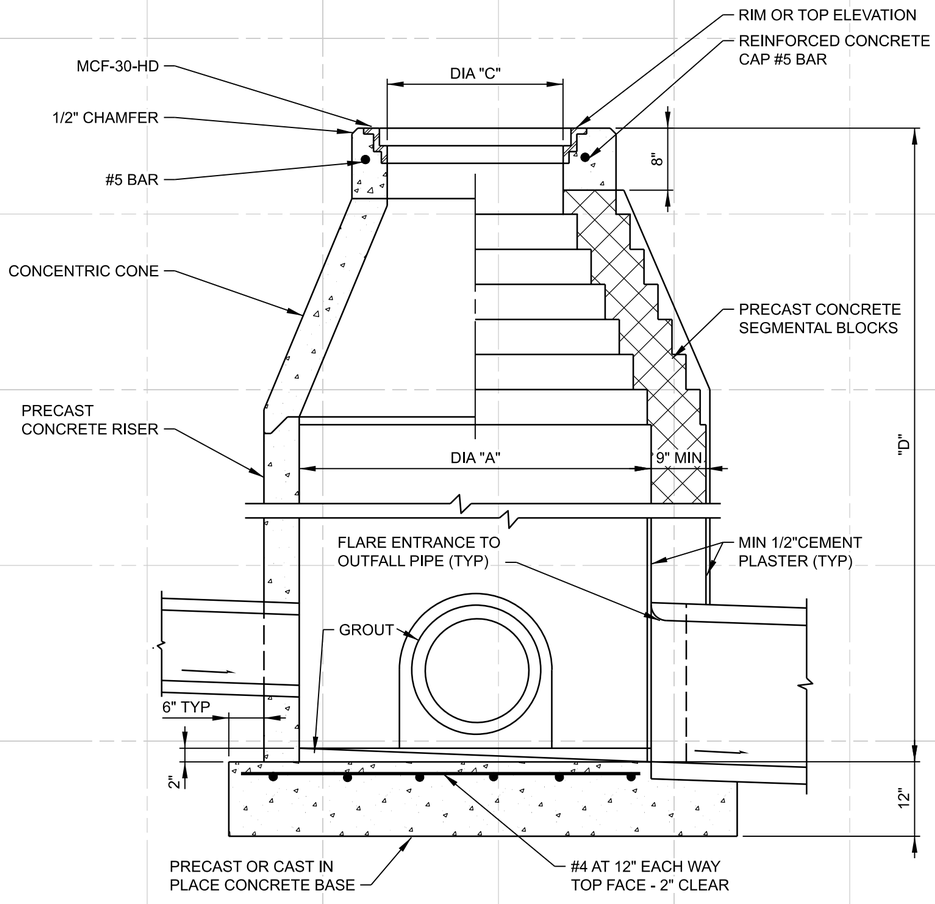
SECTION A

A1 DETAIL: ROOF DRAIN

SCALE: NTS



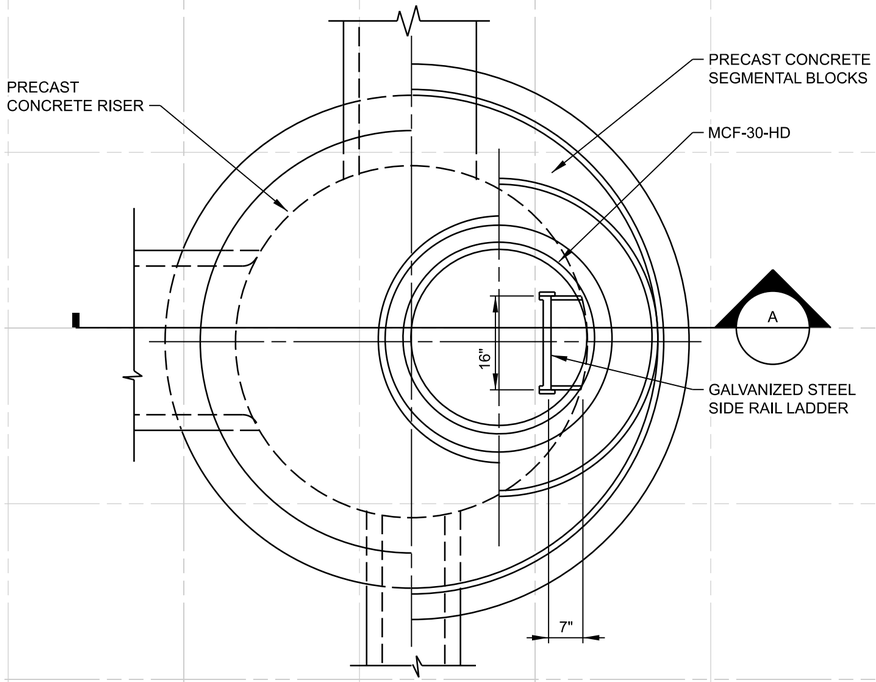
PLAN



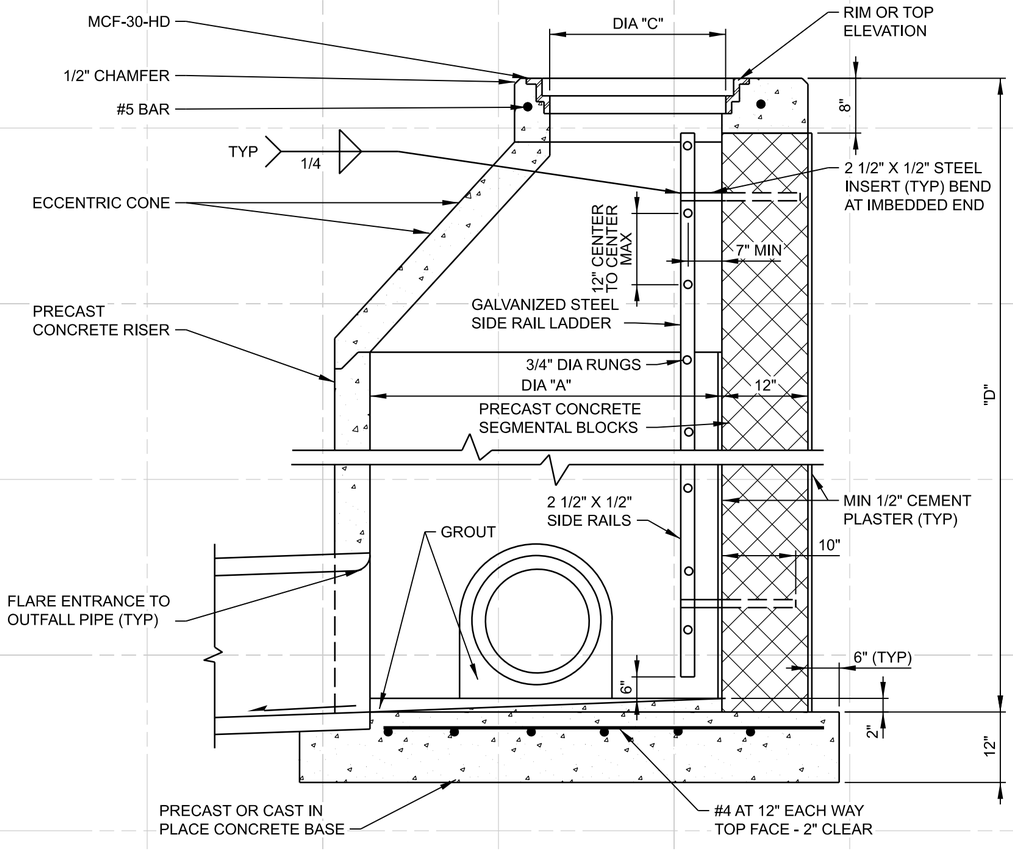
SECTION A

A1 DETAIL: CONCENTRIC MANHOLE

SCALE: NTS



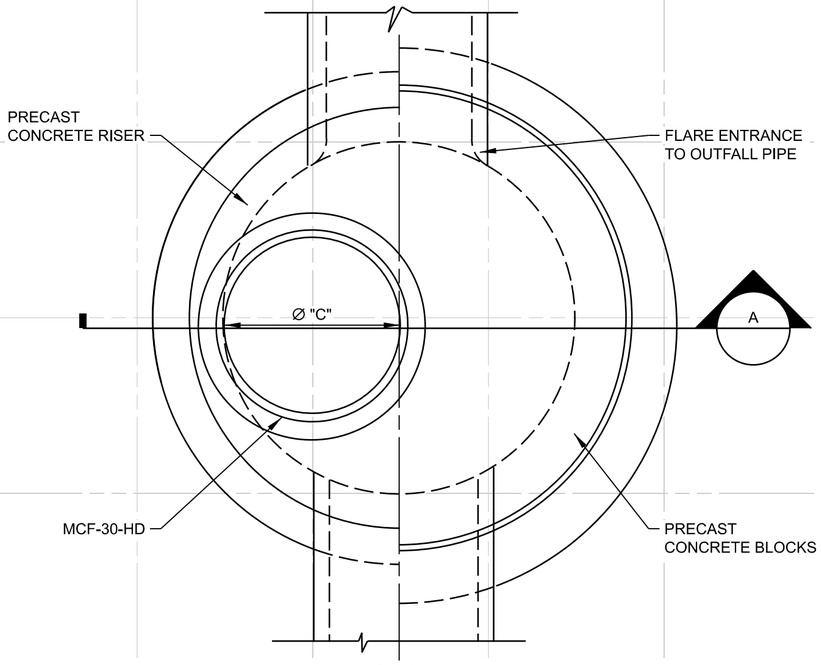
PLAN



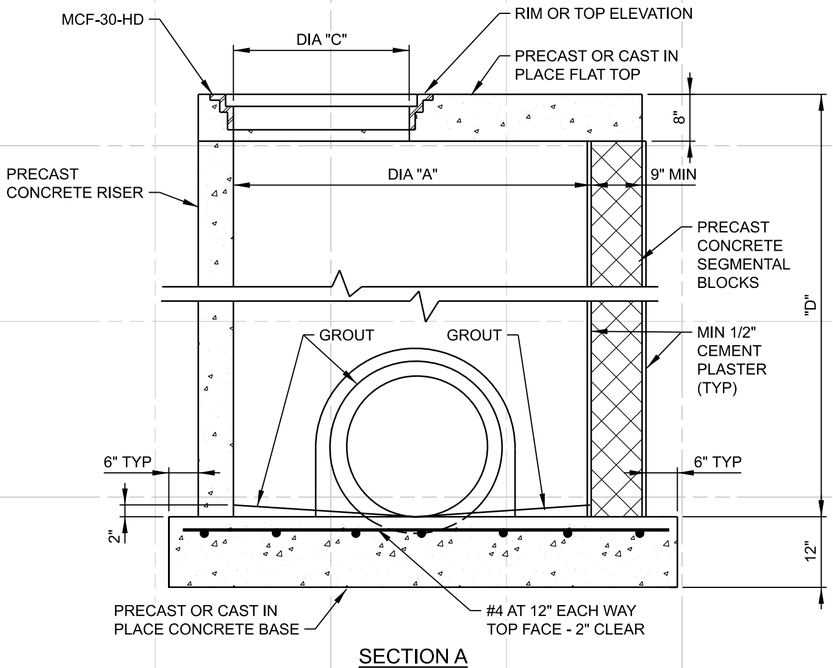
SECTION A

A1 DETAIL: ECCENTRIC MANHOLE

SCALE: NTS



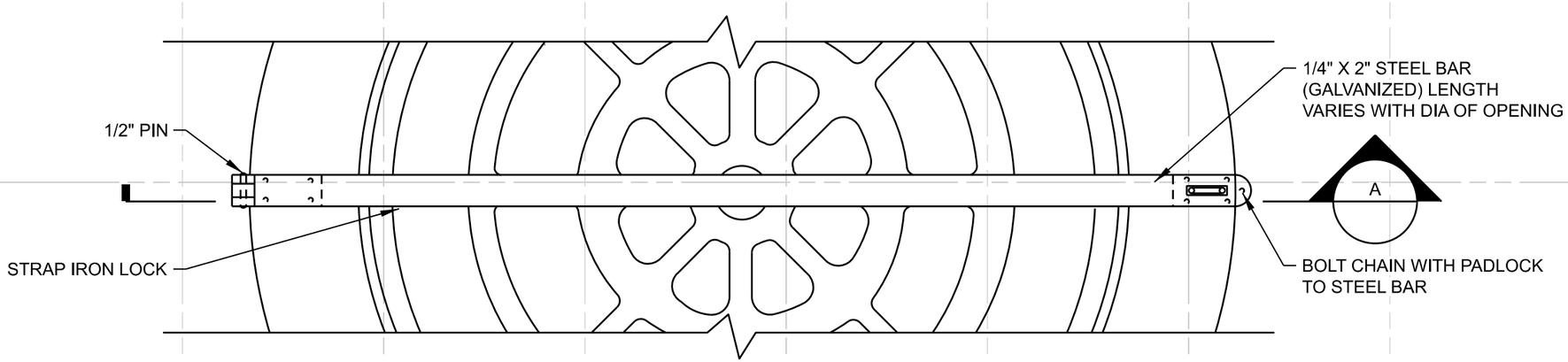
PLAN



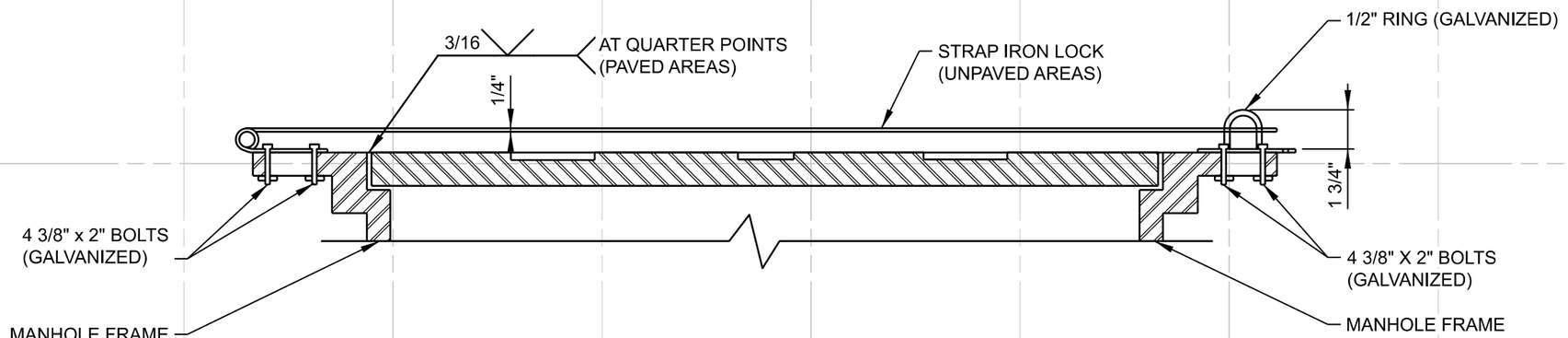
SECTION A

A1 DETAIL: PRECAST SHALLOW MANHOLE

SCALE: NTS



PLAN

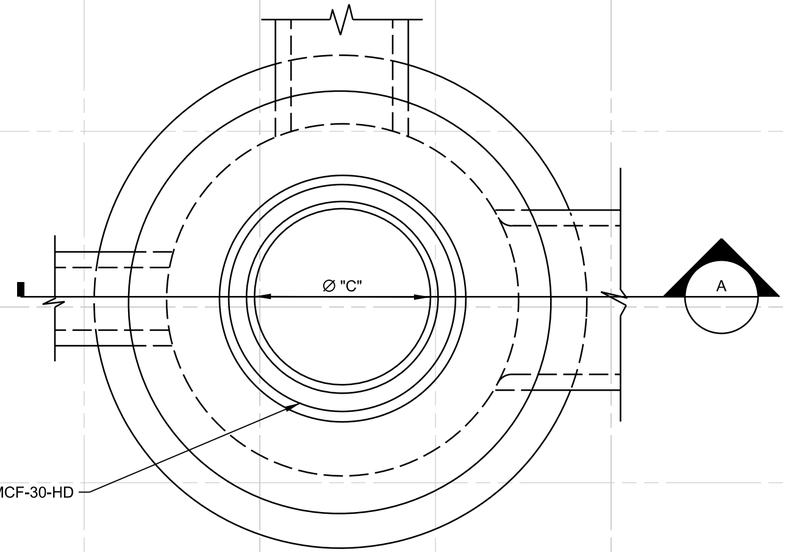


SECTION A

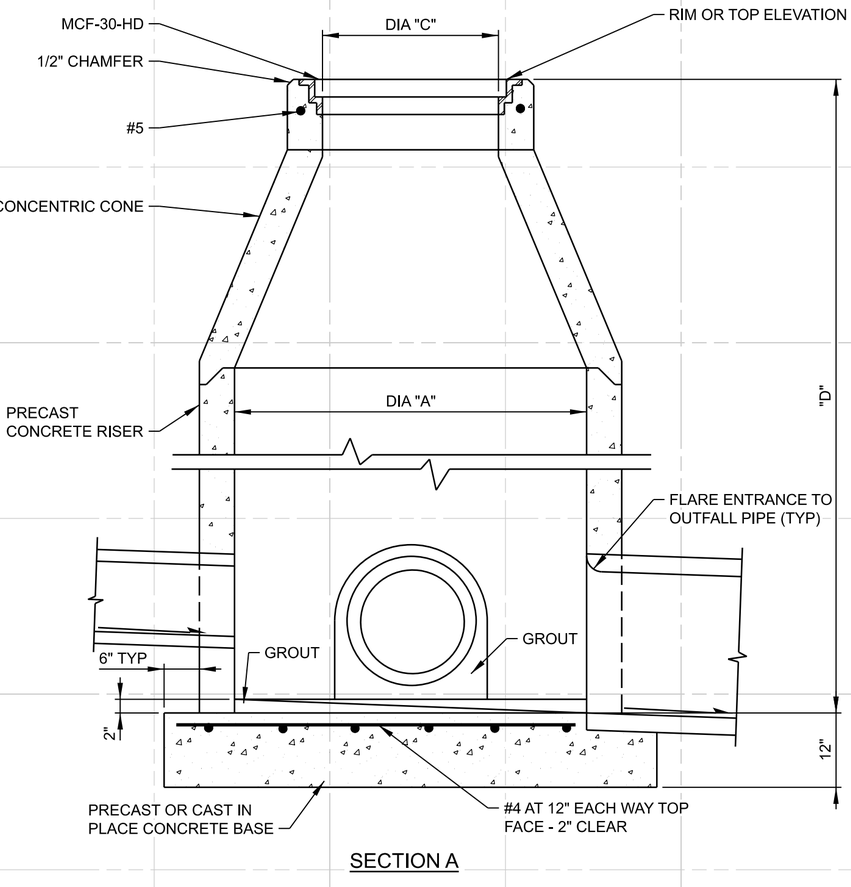
A1 DETAIL: MANPROOFING

SCALE: NTS

Detail G3031C-DT006P



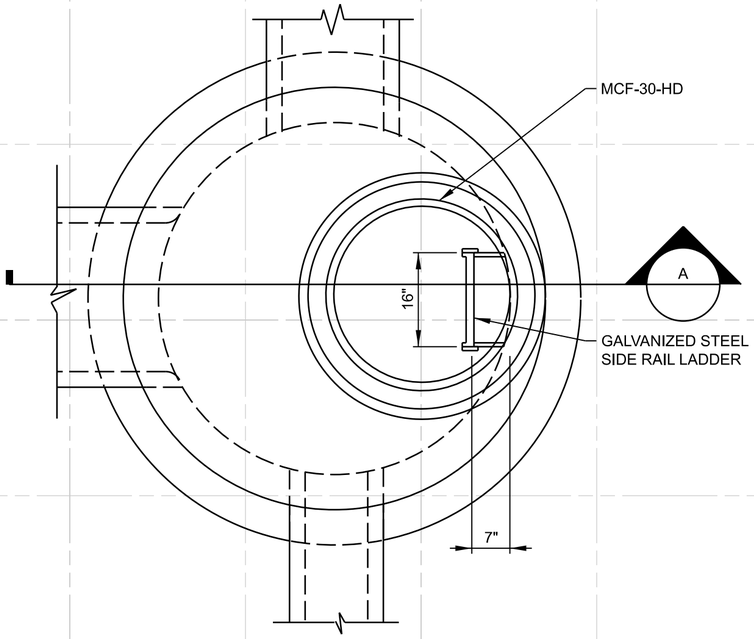
PLAN



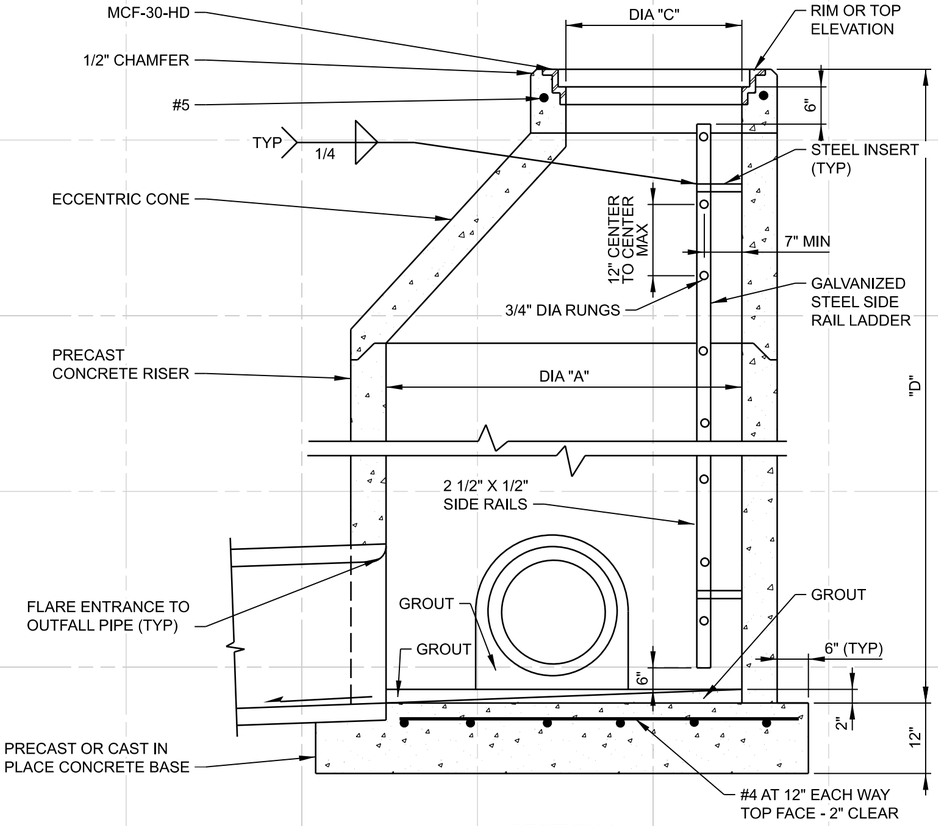
SECTION A

A1 DETAIL: PRECAST CONCENTRIC MANHOLE

SCALE: NTS



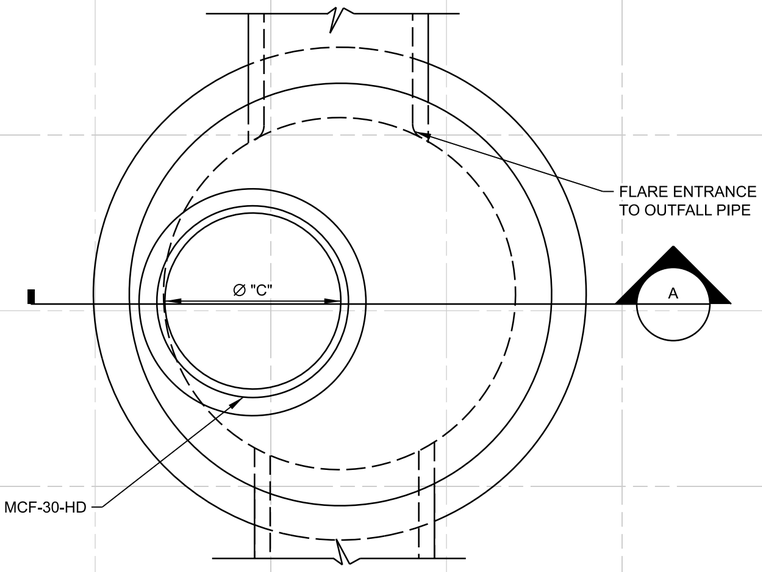
PLAN



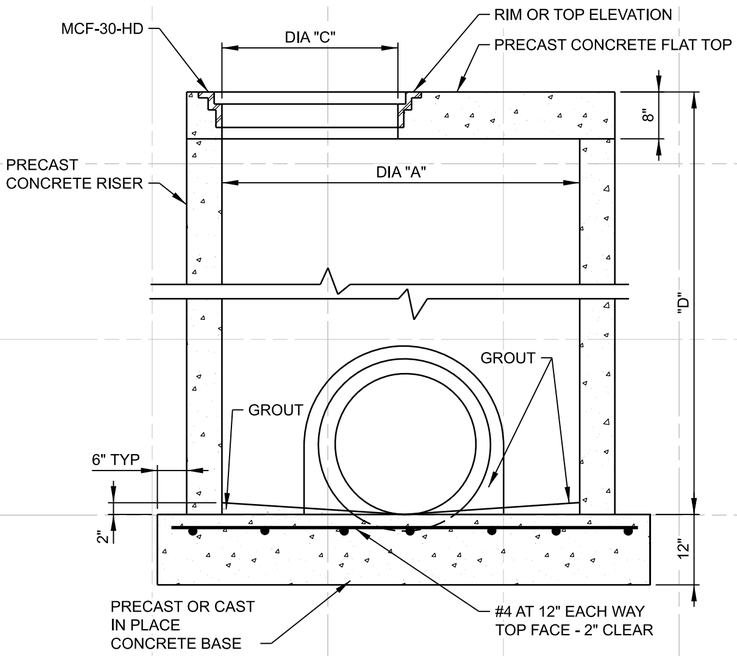
SECTION A

A1 DETAIL: PRECAST ECCENTRIC MANHOLE

SCALE: NTS



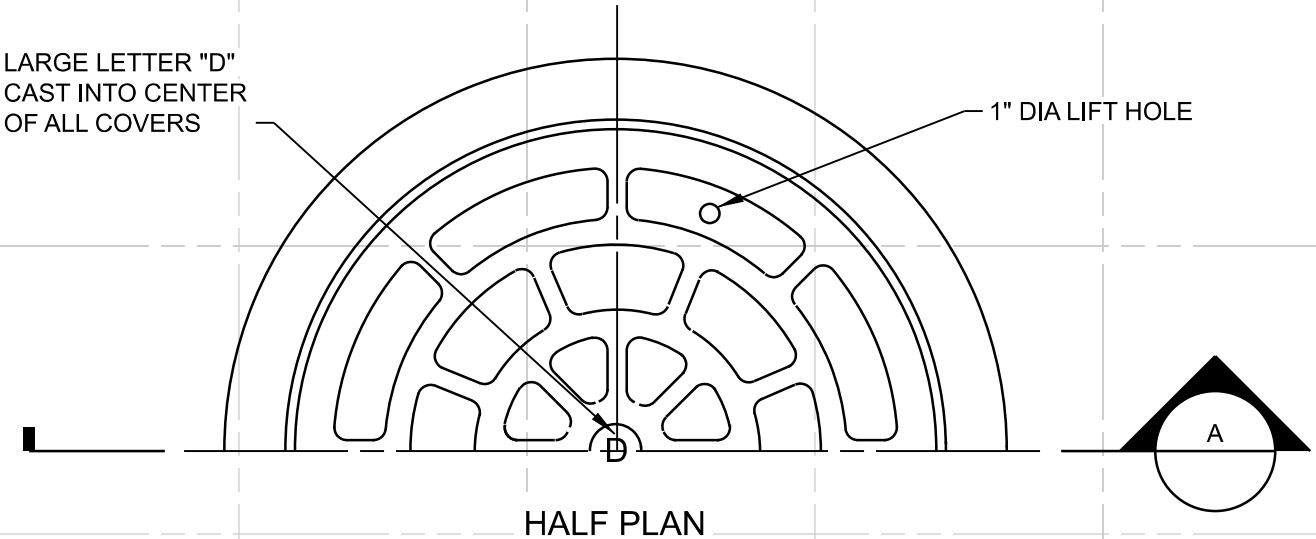
PLAN



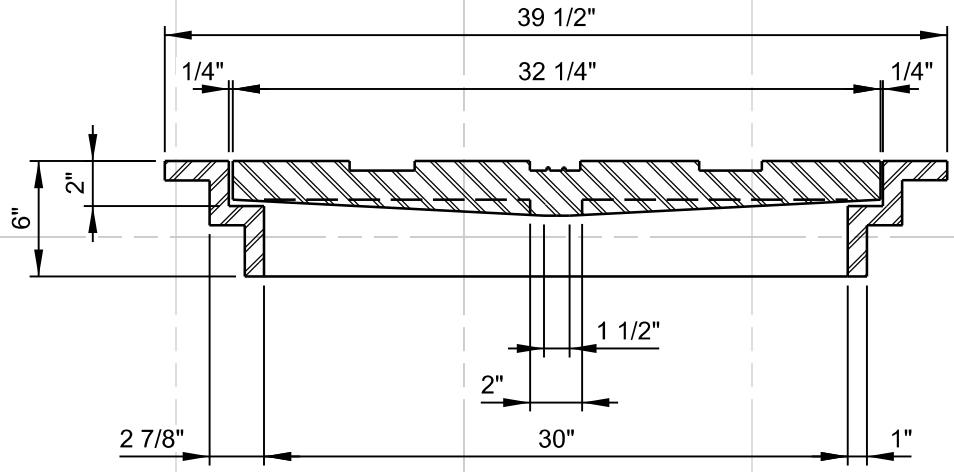
SECTION A

A1 DETAIL: PRECAST SHALLOW MANHOLE

SCALE: NTS



HALF PLAN



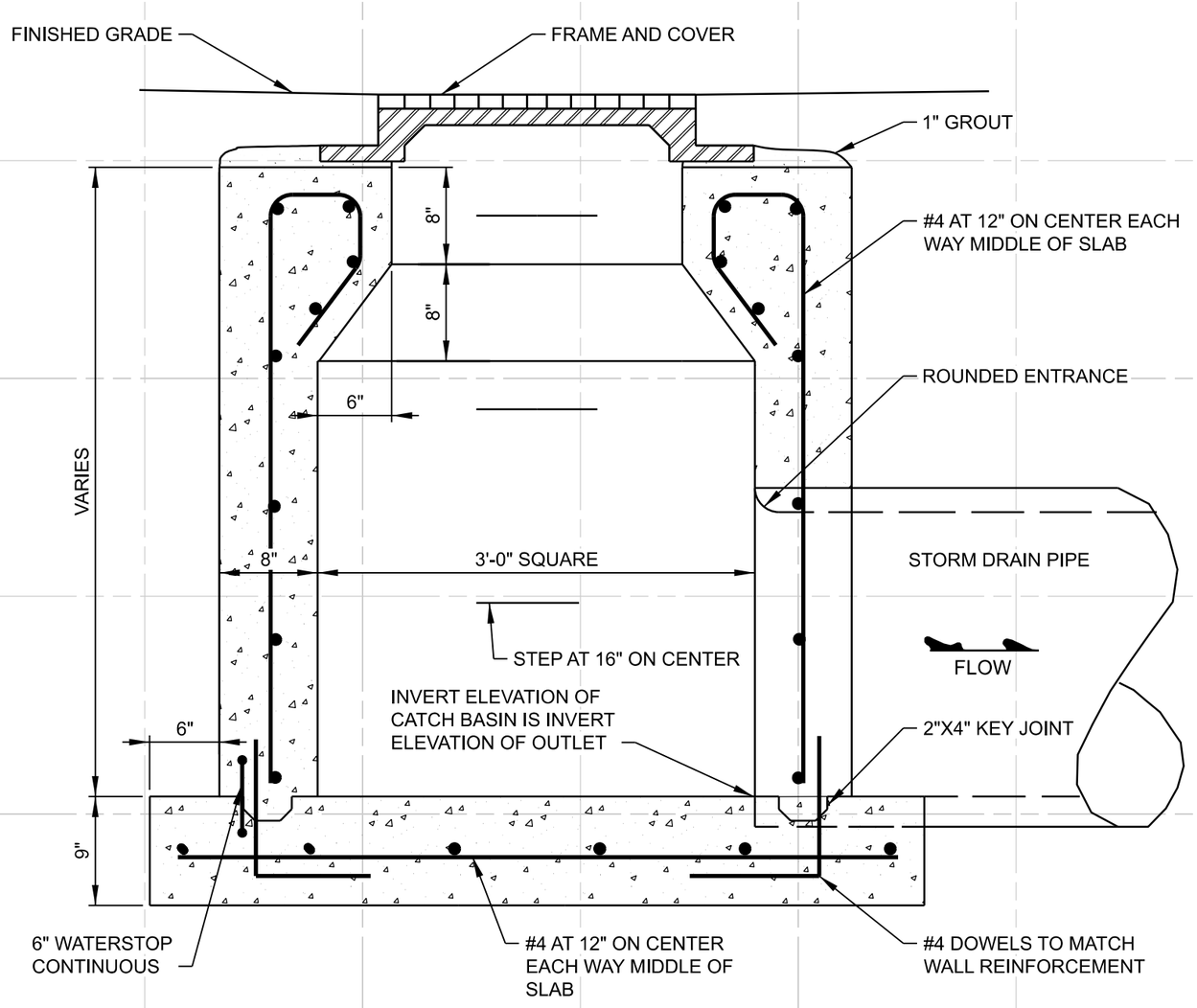
SECTION A

NOTE:
APPROXIMATE WEIGHT - 565 LBS.

DETAIL: MANHOLE COVER AND FRAME MCF-30-HD

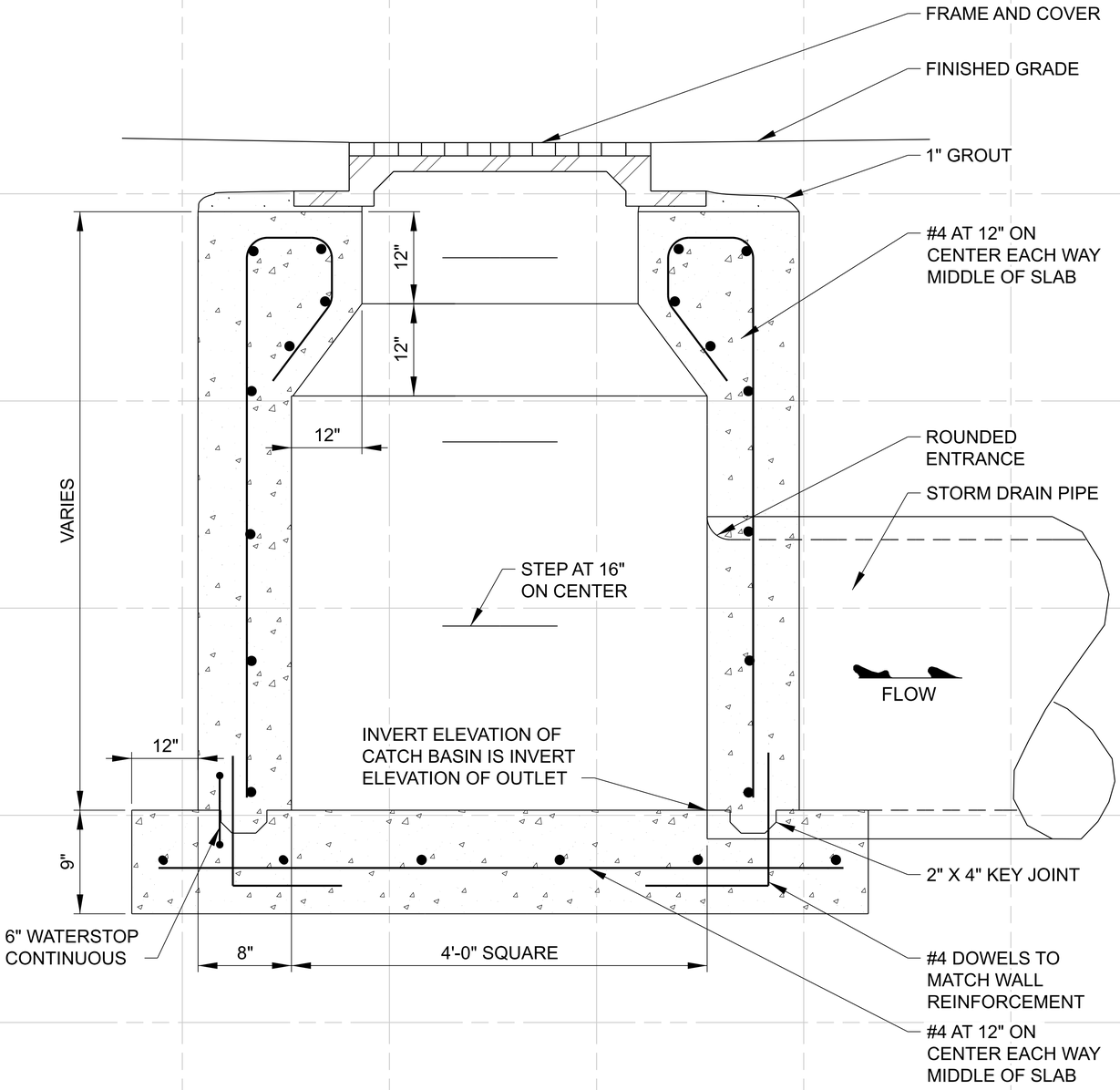
A1

SCALE: NTS



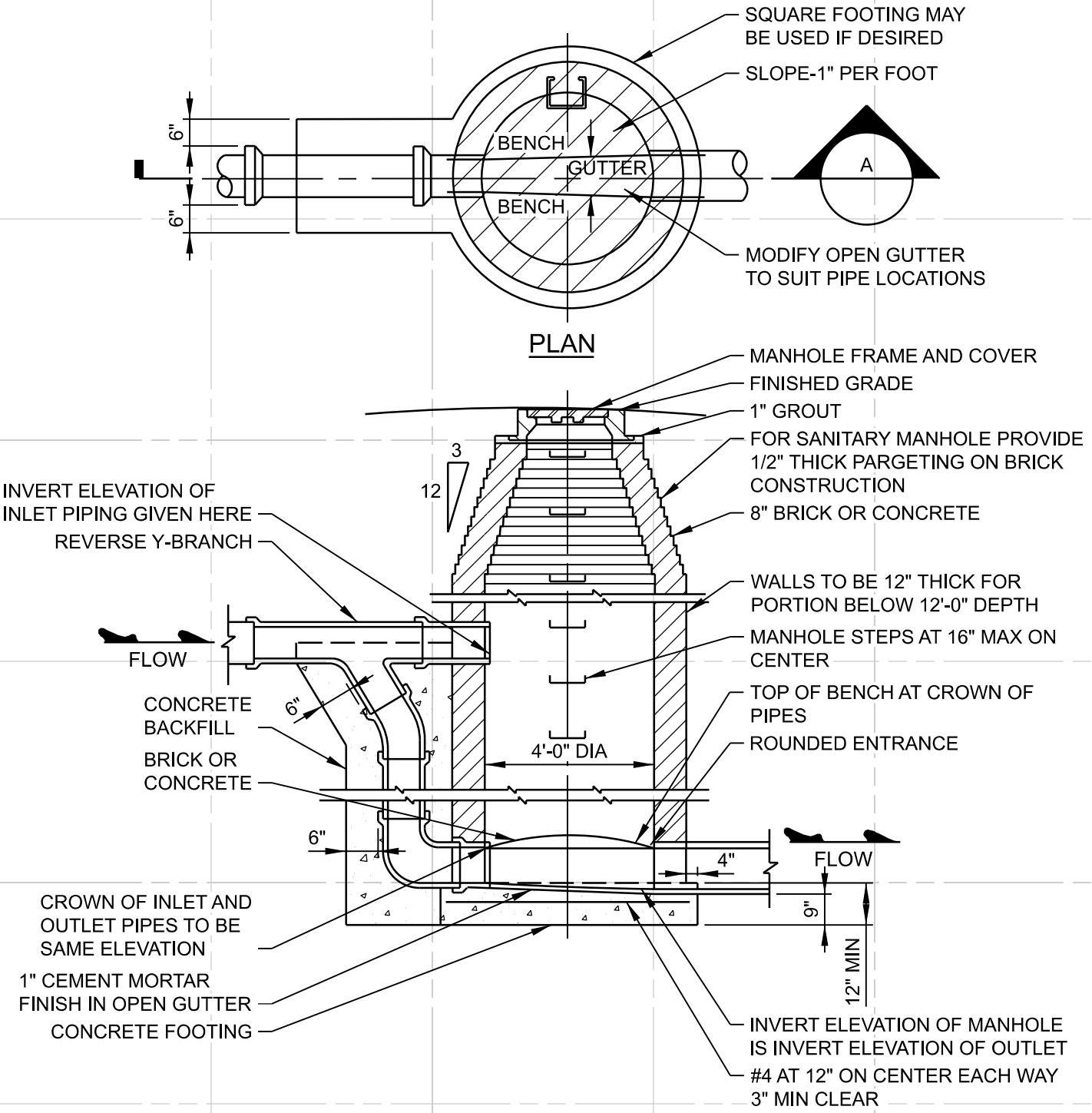
A1 DETAIL: CATCH BASIN

SCALE: NTS



A1 CATCH BASIN (30" AND 36" PIPE)

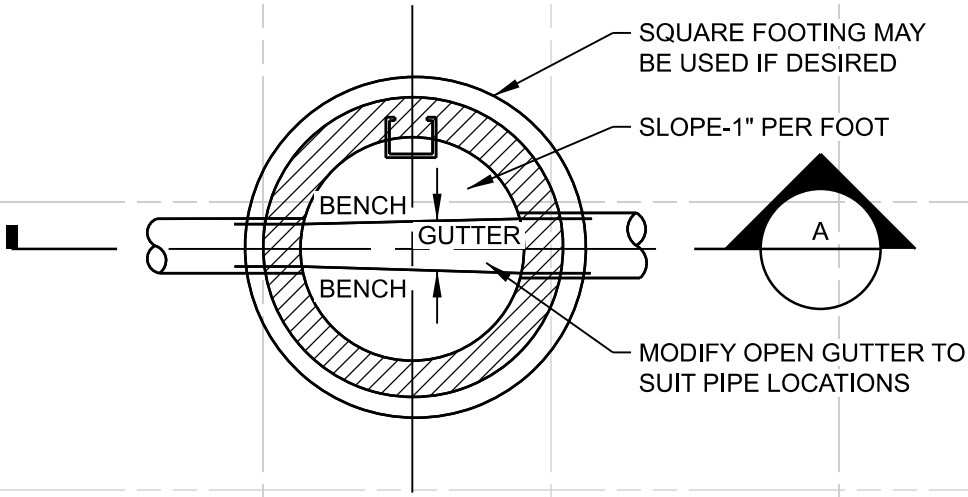
SCALE: NTS



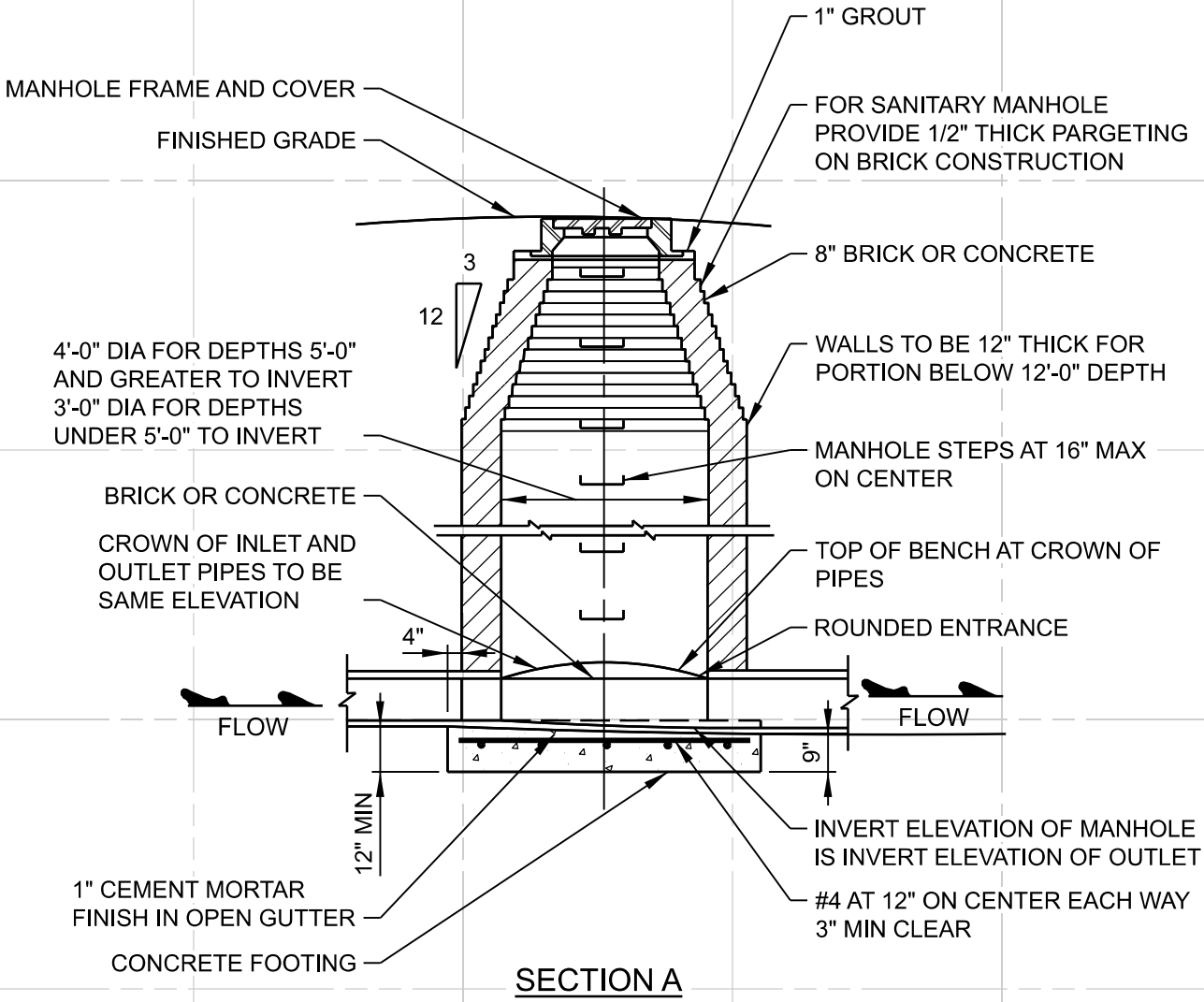
A1

DETAIL: DROP MANHOLE

SCALE: NTS



PLAN

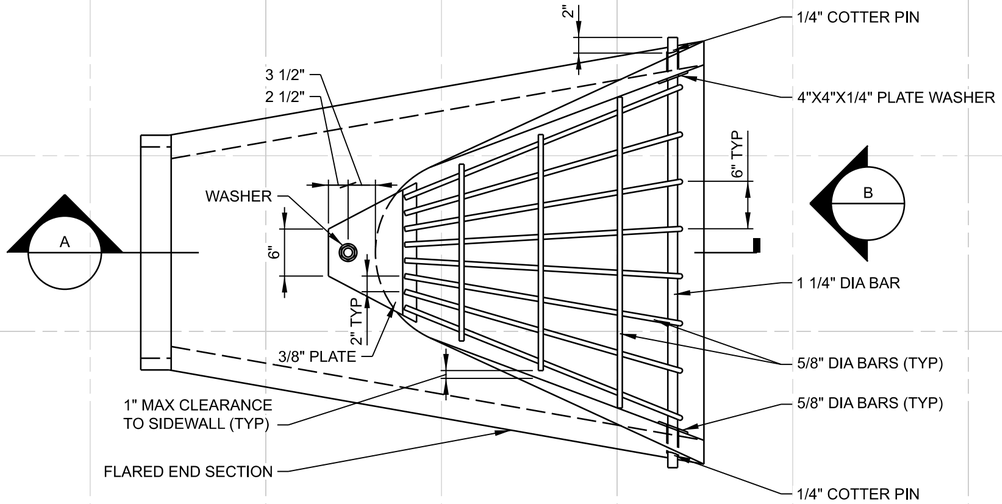


SECTION A

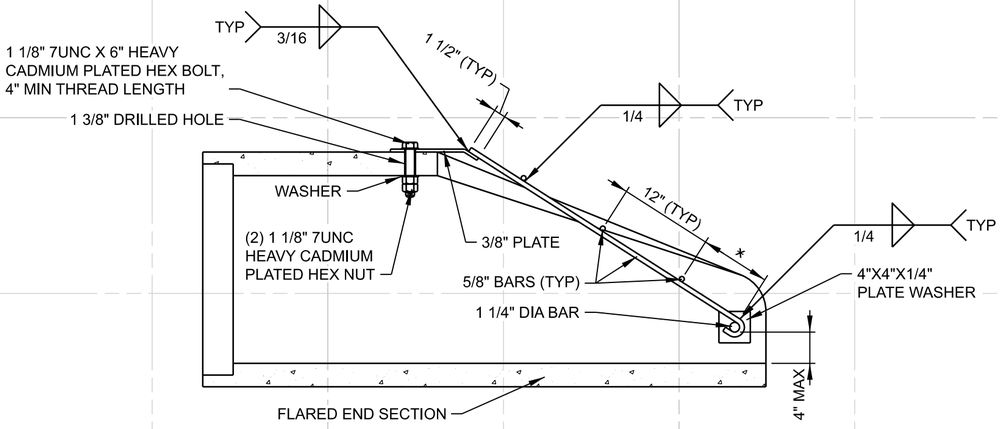
A1

DETAIL: MANHOLE

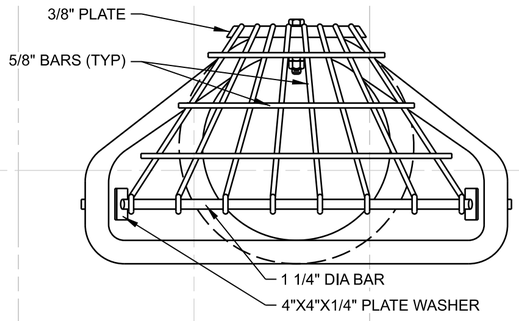
SCALE: NTS



PLAN



SECTION A



ELEVATION B

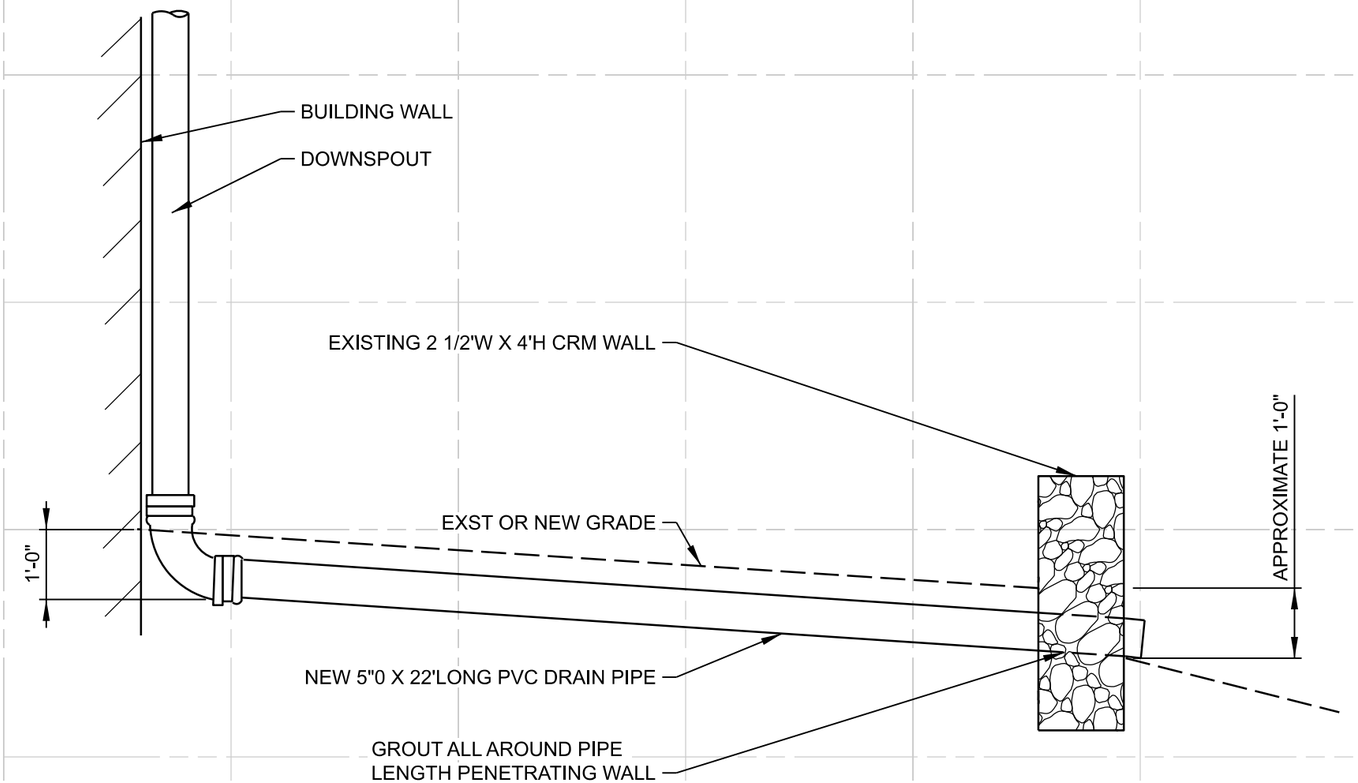
* 6" FOR 12" THROUGH 18" DIA END SECTIONS
9" FOR 24" THROUGH 30" DIA END SECTIONS

NOTES:
1. MANPROOFING SHOWN FOR RCP ALSO APPLIES FOR CMP FLARED END SECTIONS.
2. TACK WELD WASHER TO PLATE AND BOLT TO WASHER. TACK WELD NUT TO BOLT ON UNDERSIDE.
3. ALL STEEL BARS AND PLATES SHALL BE GALVANIZED WITH 2.0 OUNCES OF ZINC PER SQUARE FOOT.
4. ALL5/8" DIAMETER STEEL BARS SHALL BE WELDED TOGETHER. EACH 5/8" STEEL BAR SHALL ALSO BE WELDED TO THE 3/8" STEEL PLATE AND 1 1/4" STEEL BAR AS SHOWN.

A1

DETAIL: FLARED END SECTION STEEL BARRIER MANPROOFING

SCALE: NTS

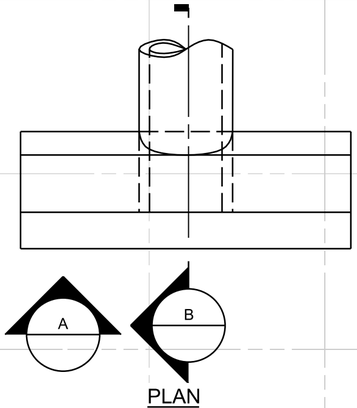


A1

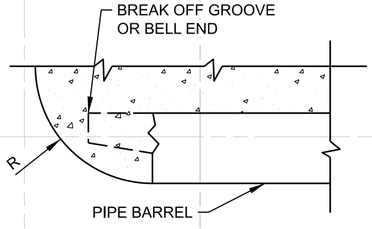
DETAIL: DRAIN PIPE

SCALE: NTS

Detail G3032C-DT007E

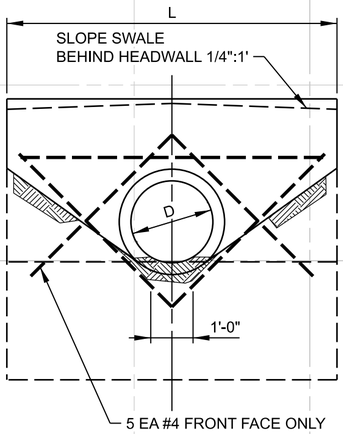


PLAN

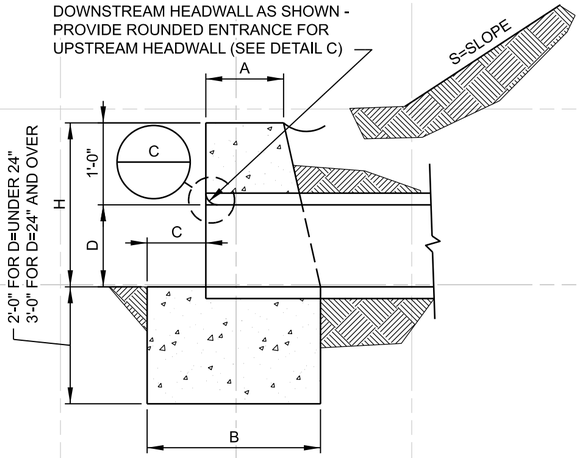


(UPSTREAM HEADWALLS ONLY)

ROUNDED ENTRANCE DETAIL C



ELEVATION A



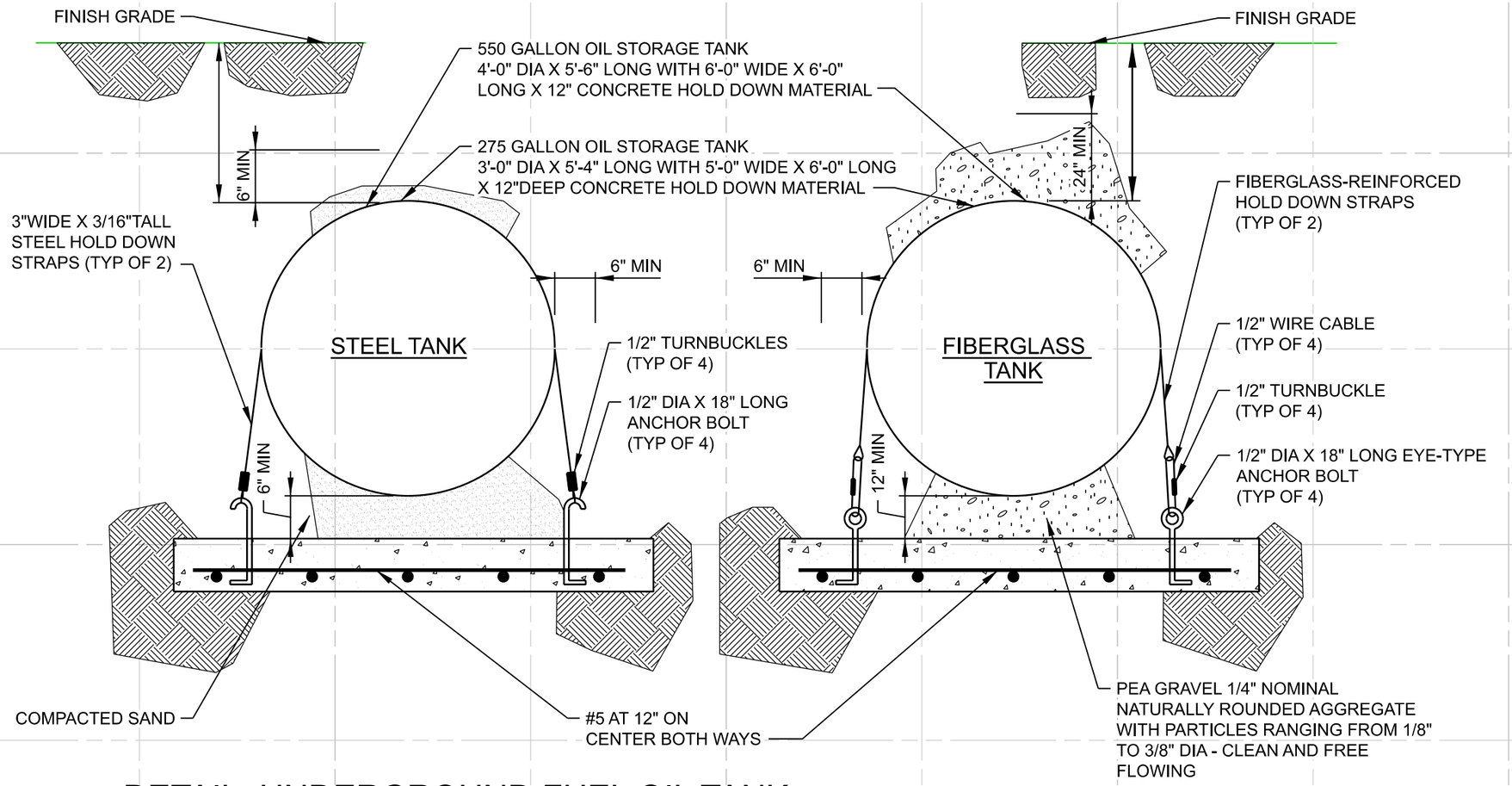
SECTION B

ALL SLOPES						S=1-1/2:1	S=2:1	S=3:1
D	H	A	B	C	R	L	L	L
8"	1'-8"	8"	1'-0"	0	——	3'-6"	4'-2"	5'-6"
10"	1'-10"	8"	1'-0"	0	——	4'-0"	4'-10"	6'-6"
12"	2'-0"	10"	1'-4"	4"	——	4'-6"	5'-6"	7'-6"
15"	2'-3"	10"	1'-4"	4"	2 1/4"	5'-3"	6'-6"	9'-0"
18"	2'-6"	10"	1'-7"	6"	2 3/4"	6'-0"	7'-6"	10'-6"
21"	2'-9"	1'-0"	1'-8"	6"	3 1/8"	6'-9"	8'-6"	12'-0"
24"	3'-0"	1'-0"	1'-9"	6"	3 5/8"	7'-6"	9'-6"	13'-6"
27"	3'-3"	1'-2"	2'-0"	8"	4"	8'-3"	10'-6"	15'-0"
30"	3'-6"	1'-3"	2'-1"	8"	4 1/2"	9'-0"	11'-6"	16'-6"
36"	4'-0"	1'-6"	2'-4"	10"	5 1/2"	10'-6"	13'-6"	19'-6"
42"	4'-6"	1'-6"	2'-7"	12"	6 3/8"	12'-0"	15'-6"	22'-6"

A1

DETAIL: CONCRETE HEADWALL

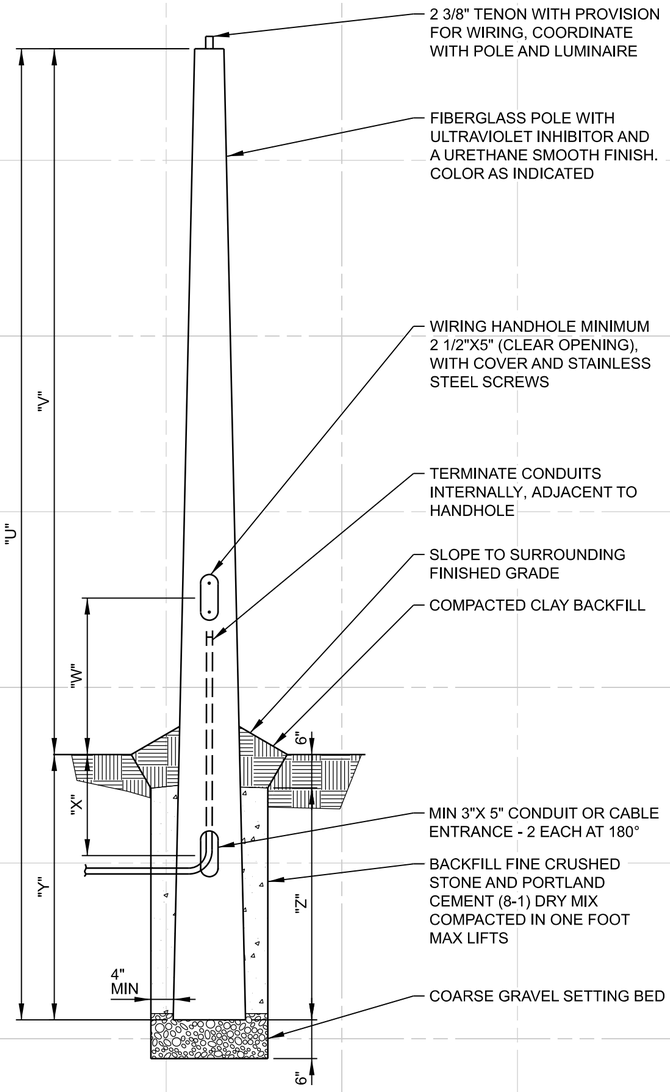
SCALE: NTS



DETAIL: UNDERGROUND FUEL OIL TANK ANTI-FLOTATION PAD AND ANCHORAGE

A1

SCALE: NTS



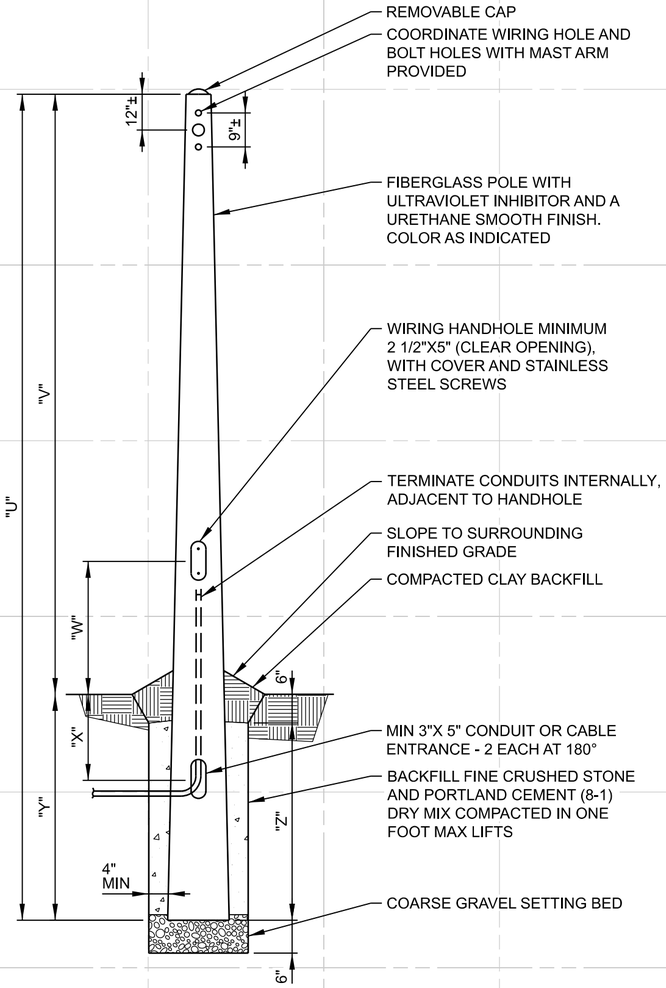
POLE TYPE	DIMENSIONS (FT)					
	"U"	"V"	"W"	"X"	"Y"	"Z"
XL-20 A	14	10	2	2	4	3.5
XL-20 B	20	16	2	2	4	3.5
XL-20 C	25	20	2	2	5	4.5
XL-20 D	30	25	2	2	5	4.5
XL-20 E	35	30	2	2	5	4.5
XL-20 F	40	33	2	2	7	6.5
XL-20 G	45	38	2	2	7	6.5

NOTES:
1. PROVIDE ANTI-ROTATIONAL DEVICE ON EACH POLE.
2. COORDINATE TOTAL EFFECTIVE PROJECTED AREA WITH POLE SPECIFICATIONS.

A1

DETAIL: FIBERGLASS POLE DIRECT SET TENON MOUNT STYLE XL-20

SCALE: NTS



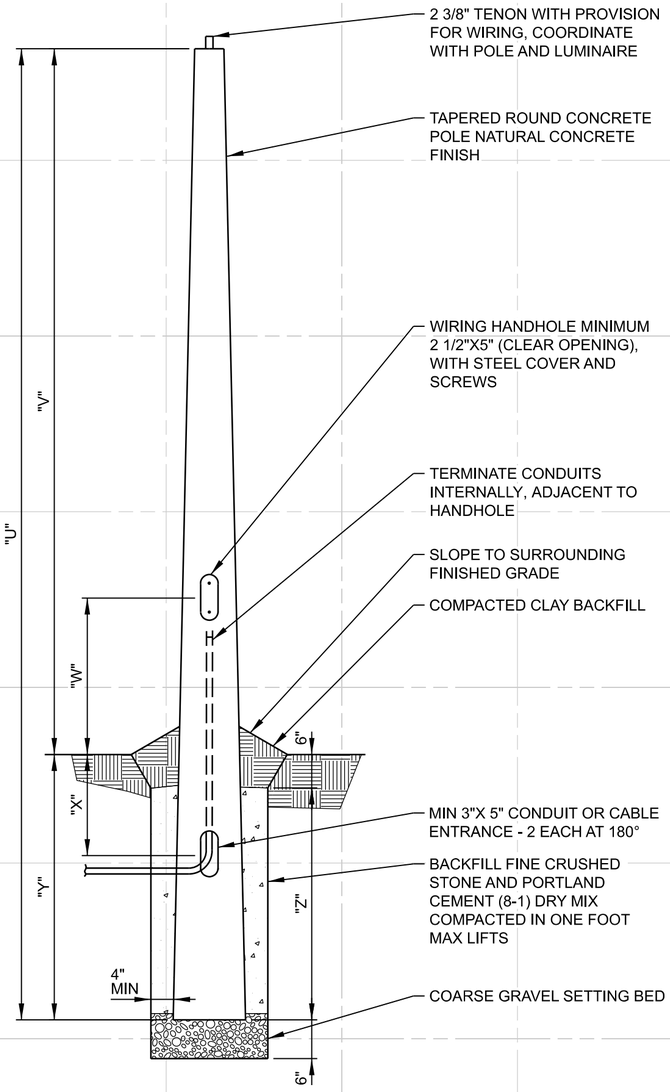
POLE TYPE	DIMENSIONS (FT)					
	"U"	"V"	"W"	"X"	"Y"	"Z"
XL-21 A	14	10	2	2	4	3.5
XL-21 B	20	16	2	2	4	3.5
XL-21 C	25	20	2	2	5	4.5
XL-21 D	30	25	2	2	5	4.5
XL-21 E	35	30	2	2	5	4.5
XL-21 F	40	33	2	2	7	6.5
XL-21 G	45	38	2	2	7	6.5

NOTES:
1. PROVIDE ANTI-ROTATIONAL DEVICE ON EACH POLE.
2. COORDINATE TOTAL EFFECTIVE PROJECTED AREA WITH POLE SPECIFICATIONS.

A1

DETAIL: FIBERGLASS POLE DIRECT SET MAST ARM MOUNT STYLE XL-21

SCALE: NTS



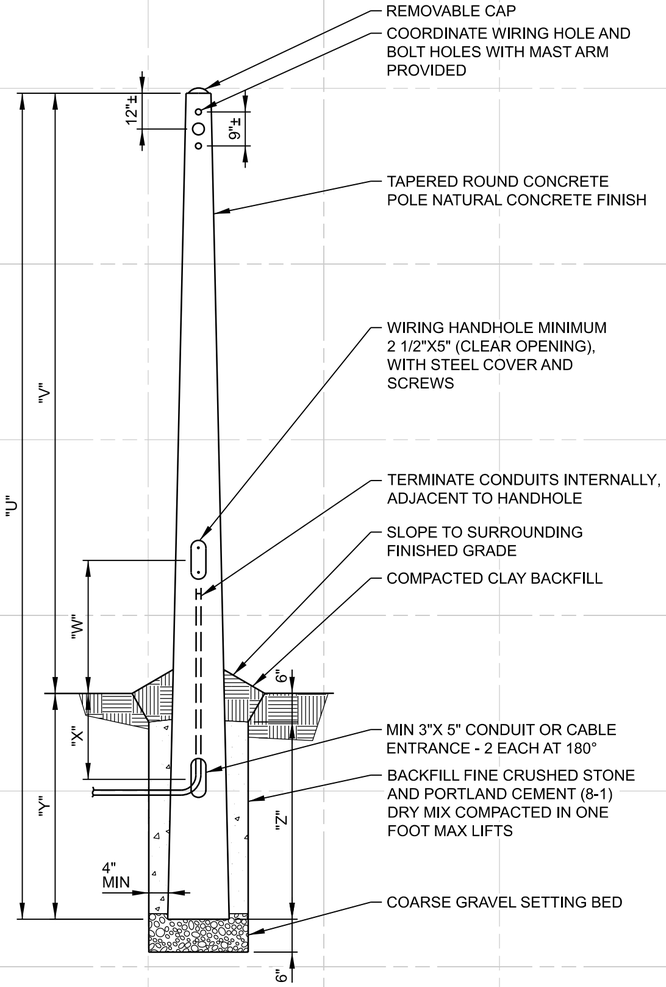
POLE TYPE	DIMENSIONS (FT)					
	"U"	"V"	"W"	"X"	"Y"	"Z"
XL-22 A	14	10	2	2	4	3.5
XL-22 B	20	16	2	2	4	3.5
XL-22 C	25	20	2	2	5	4.5
XL-22 D	30	25	2	2	5	4.5
XL-22 E	35	30	2	2	5	4.5
XL-22 F	40	33	2	2	7	6.5
XL-22 G	45	38	2	2	7	6.5

NOTES:
1. PROVIDE ANTI-ROTATIONAL DEVICE ON EACH POLE.
2. COORDINATE TOTAL EFFECTIVE PROJECTED AREA WITH POLE SPECIFICATIONS.

DETAIL: CONCRETE POLE DIRECT SET TENON MOUNT STYLE XL-22

A1

SCALE: NTS



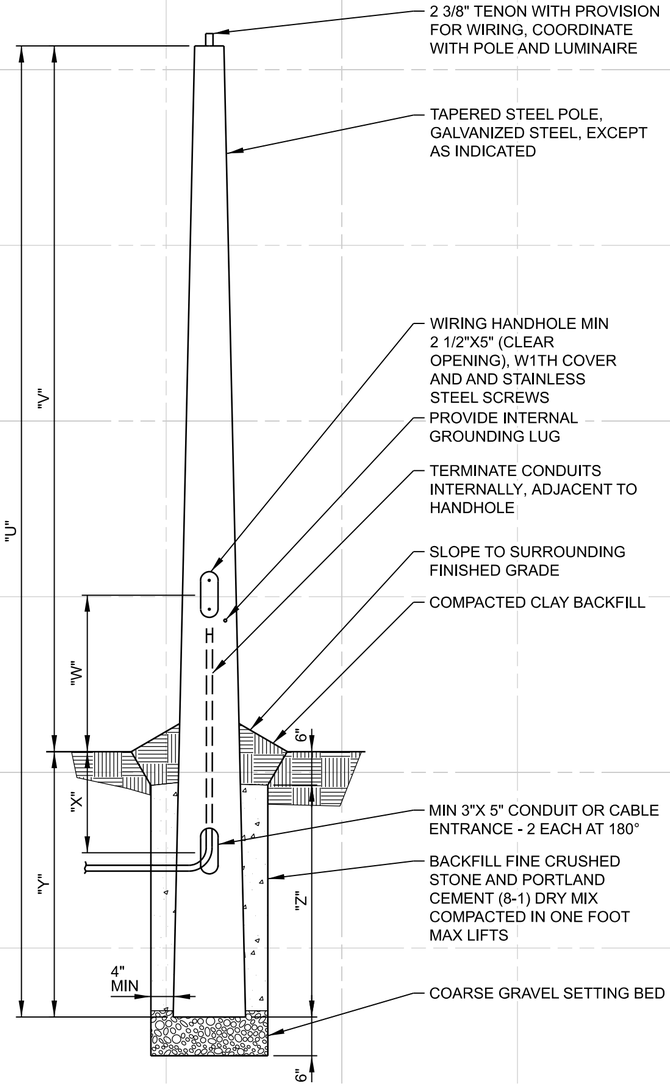
POLE TYPE	DIMENSIONS (FT)					
	"U"	"V"	"W"	"X"	"Y"	"Z"
XL-23 A	14	10	2	2	4	3.5
XL-23 B	20	16	2	2	4	3.5
XL-23 C	25	20	2	2	5	4.5
XL-23 D	30	25	2	2	5	4.5
XL-23 E	35	30	2	2	5	4.5
XL-23 F	40	33	2	2	7	6.5
XL-23 G	45	38	2	2	7	6.5

NOTES:
1. PROVIDE ANTI-ROTATIONAL DEVICE ON EACH POLE.
2. COORDINATE TOTAL EFFECTIVE PROJECTED AREA WITH POLE SPECIFICATIONS.

A1

DETAIL: CONCRETE POLE DIRECT SET MAST ARM MOUNT STYLE XL-23

SCALE: NTS



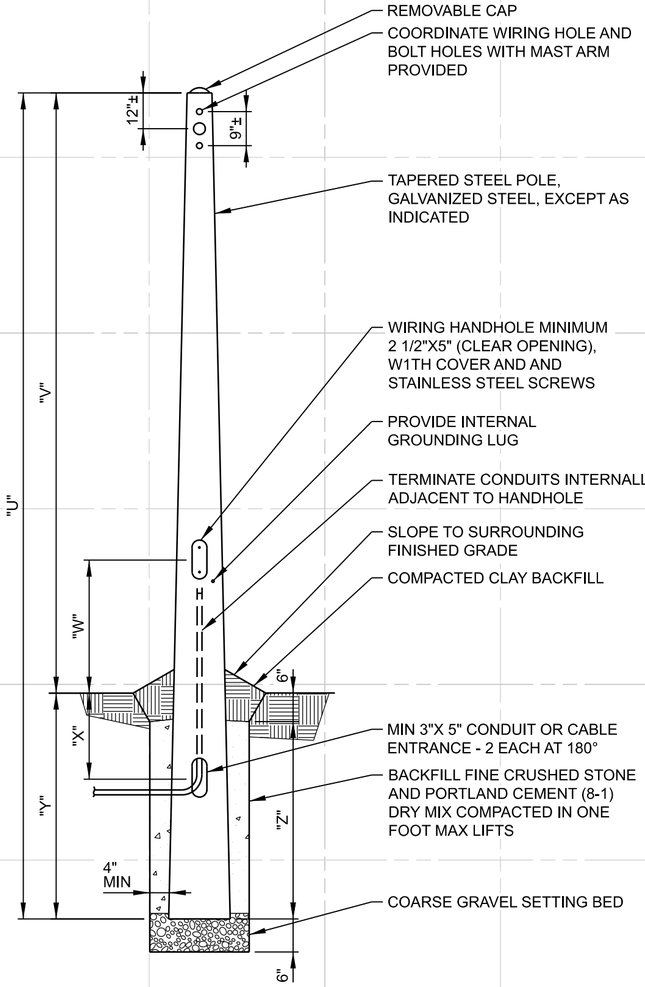
POLE TYPE	DIMENSIONS (FT)					
	"U"	"V"	"W"	"X"	"Y"	"Z"
XL-24 A	14	10	2	2	4	3.5
XL-24 B	20	16	2	2	4	3.5
XL-24 C	25	20	2	2	5	4.5
XL-24 D	30	25	2	2	5	4.5
XL-24 E	35	30	2	2	5	4.5
XL-24 F	40	33	2	2	7	6.5
XL-24 G	45	38	2	2	7	6.5

NOTES:
1. PROVIDE ANTI-ROTATIONAL DEVICE ON EACH POLE.
2. COORDINATE TOTAL EFFECTIVE PROJECTED AREA WITH POLE SPECIFICATIONS.
3. PROVIDE POLE VIBRATION DAMPER ON INTERIOR OF ALL POLES 20 FT AND LONGER.
4. SECTIONAL WELDABLE POLES OF EQUAL STRENGTH ARE ACCEPTABLE.

A1

DETAIL: STEEL POLE DIRECT SET TENON MOUNT STYLE XL-24

SCALE: NTS



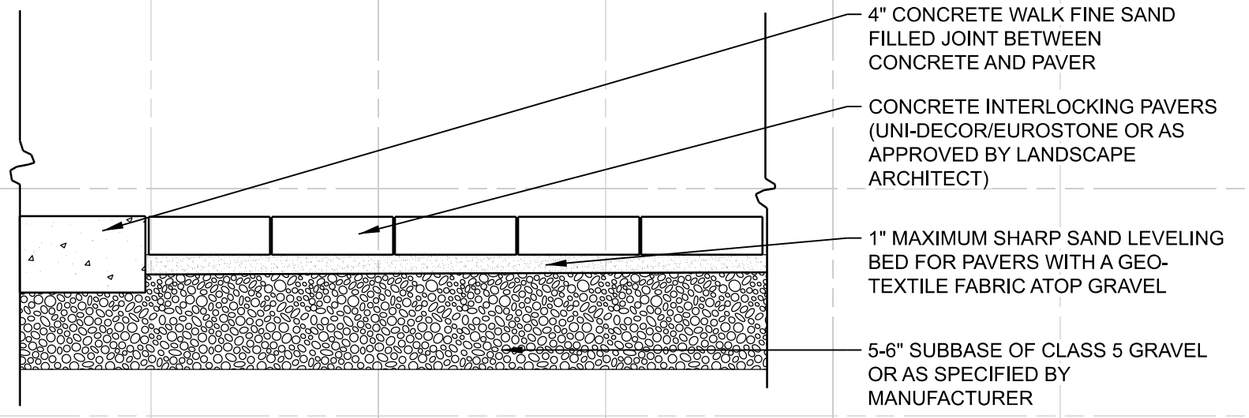
POLE TYPE	DIMENSIONS (FT)					
	"U"	"V"	"W"	"X"	"Y"	"Z"
XL-25 A	14	10	2	2	4	3.5
XL-25 B	20	16	2	2	4	3.5
XL-25 C	25	20	2	2	5	4.5
XL-25 D	30	25	2	2	5	4.5
XL-25 E	35	30	2	2	5	4.5
XL-25 F	40	33	2	2	7	6.5
XL-25 G	45	38	2	2	7	6.5

NOTES:
1. PROVIDE ANTI-ROTATIONAL DEVICE ON EACH POLE.
2. COORDINATE TOTAL EFFECTIVE PROJECTED AREA WITH POLE SPECIFICATIONS.
3. PROVIDE POLE VIBRATION DAMPER ON INTERIOR OF ALL POLES 20 FT. AND LONGER.
4. SECTIONAL WELDABLE POLES OF EQUAL STRENGTH ARE ACCEPTABLE.

A1

DETAIL: STEEL POLE DIRECT SET MAST ARM MOUNT STYLE XL-25

SCALE: NTS



A1

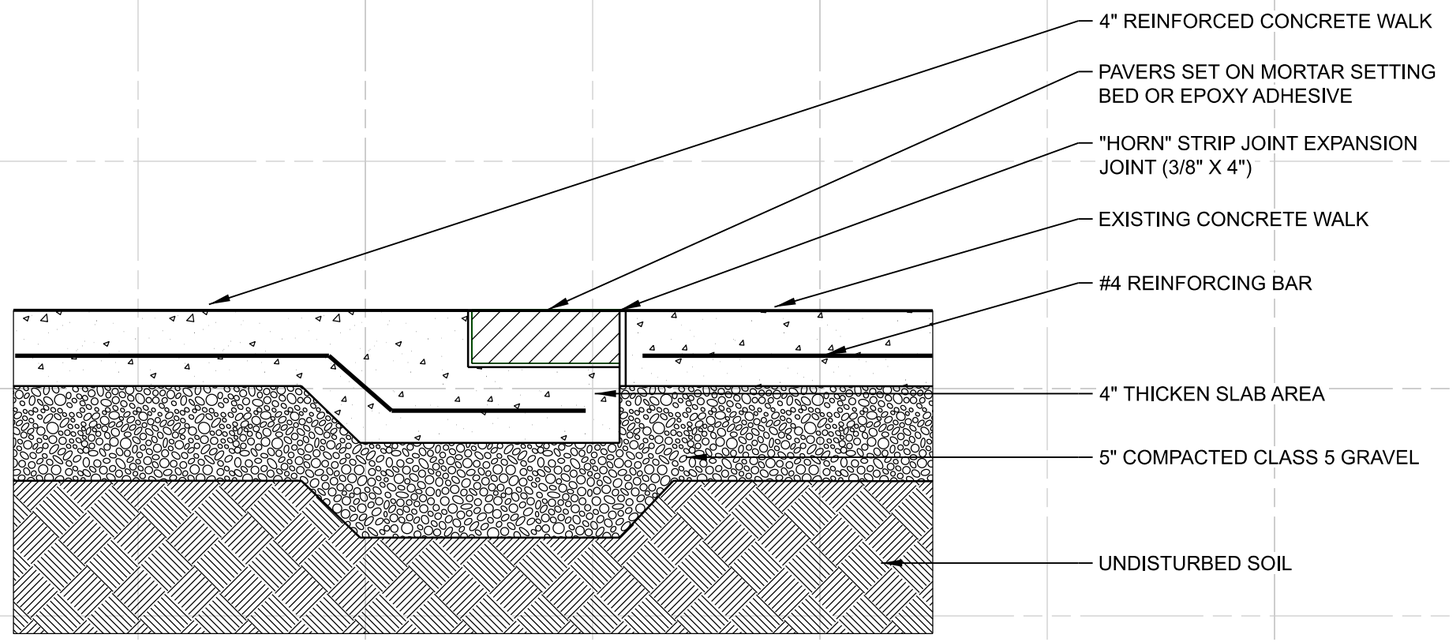
DETAIL: CONCRETE INTERLOCKING PAVER

SCALE: 1-1/2" = 1'-0"

0 6" 1' 2'

Detail G2033L-DT001X

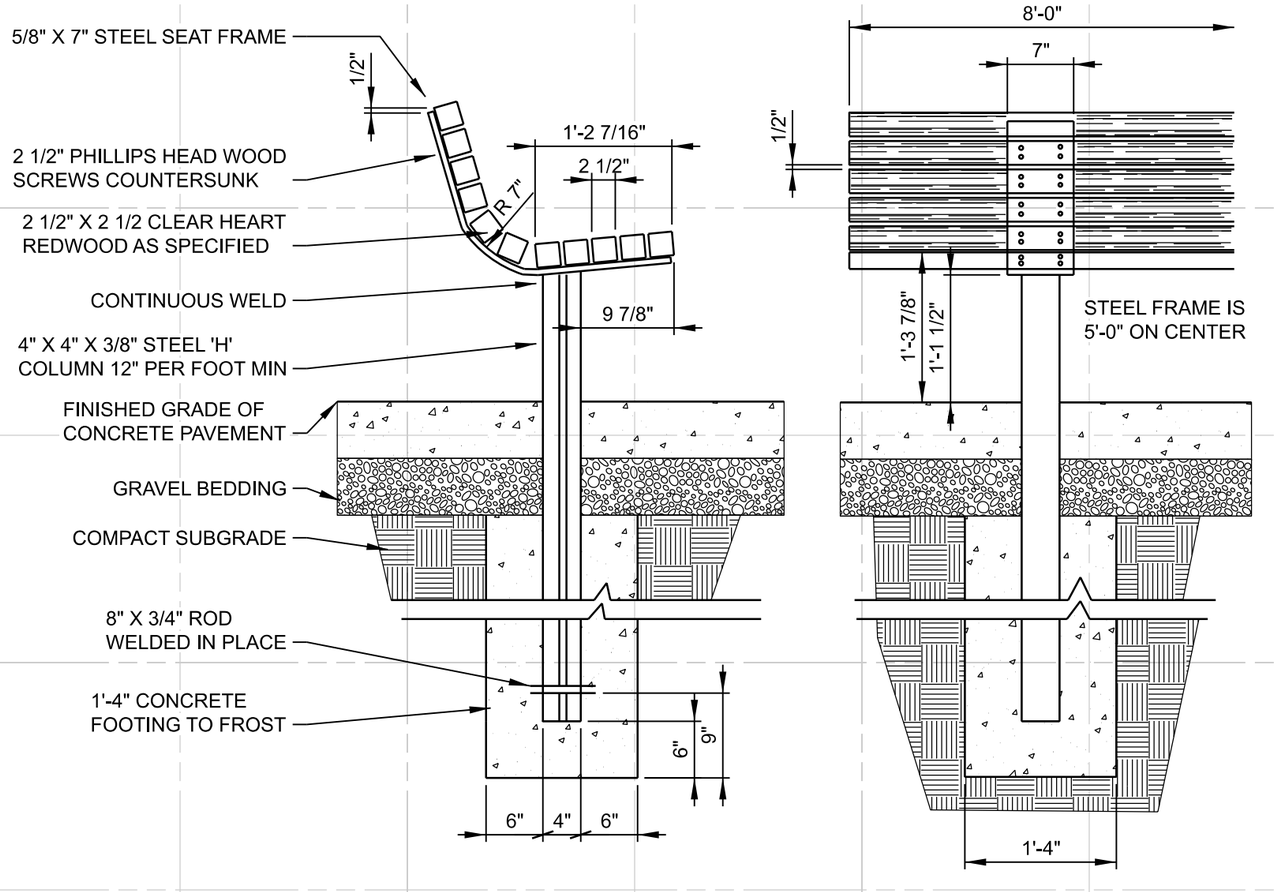
Details-US-Landscape-G203-PedestrianPaving



A1 DETAIL: ROWLOCK PAVER

SCALE: 1-1/2" = 1'-0"

0 6" 1' 2'



SECTION

HALF ELEVATION

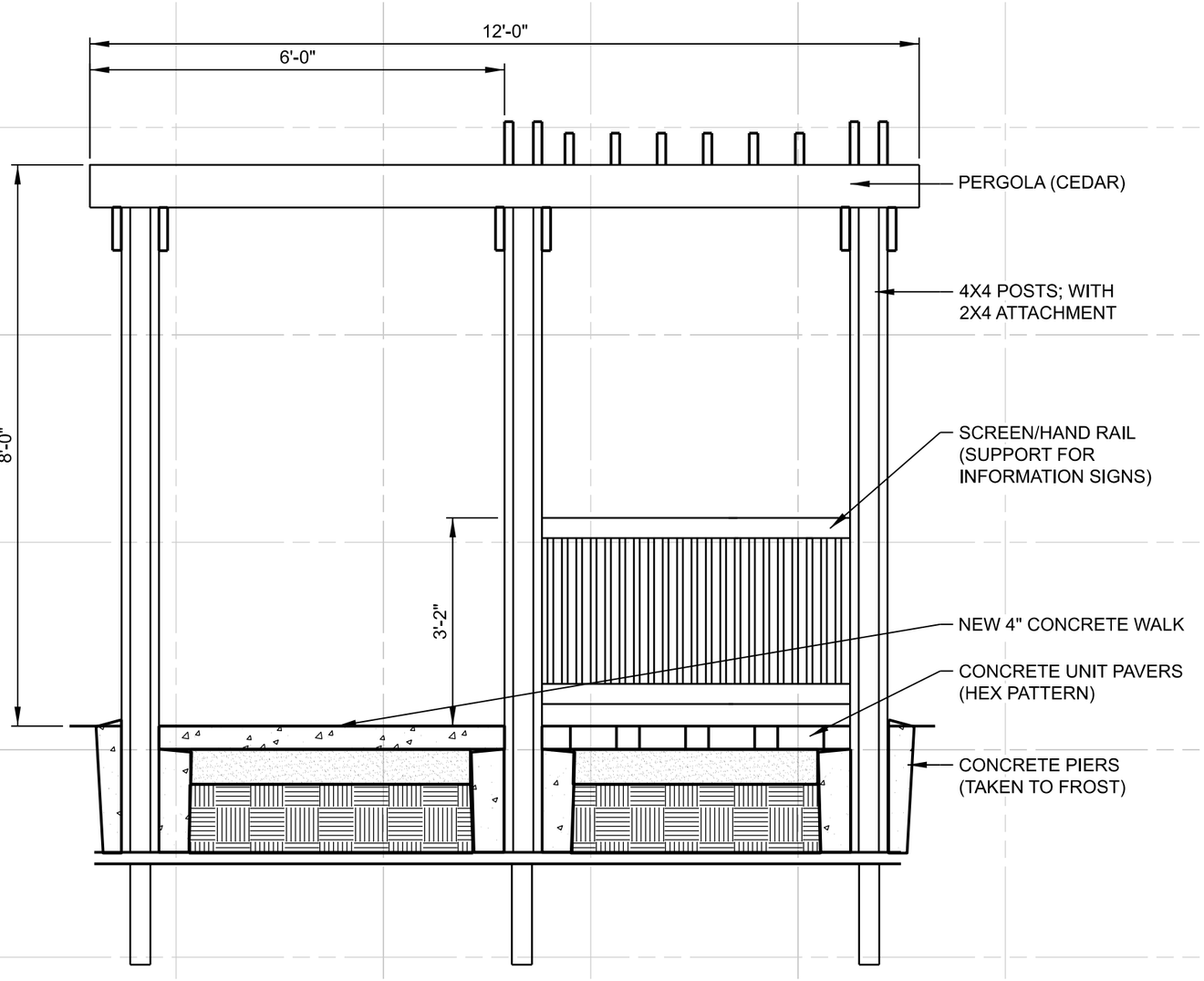
A1

DETAIL: BENCH

SCALE: 3/4"=1'-0"

0 1' 2' 4'

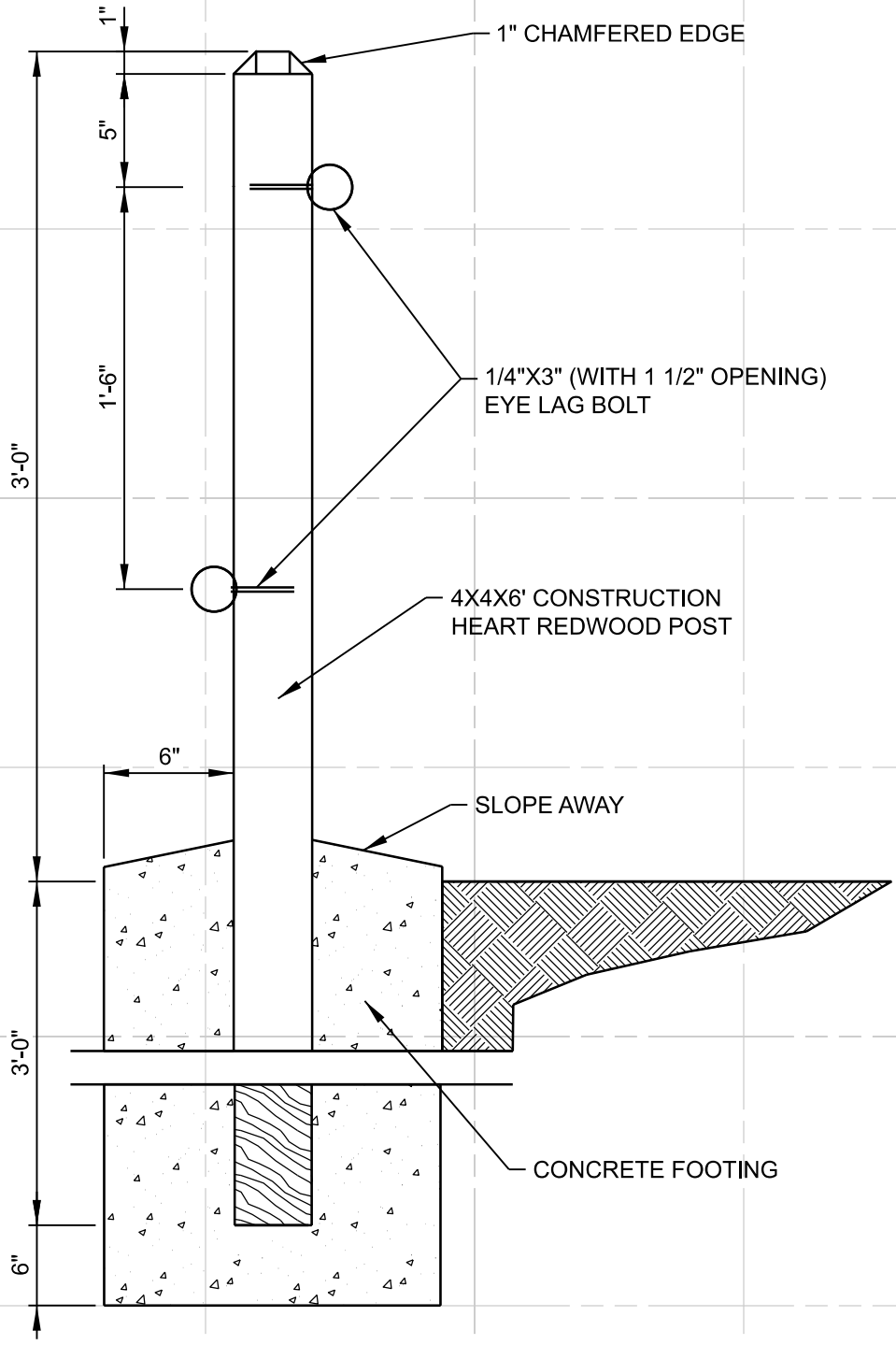
Detail G2044L-DT003X



A1 SECTION: PERGOLA

SCALE: 1/2"=1'-0"

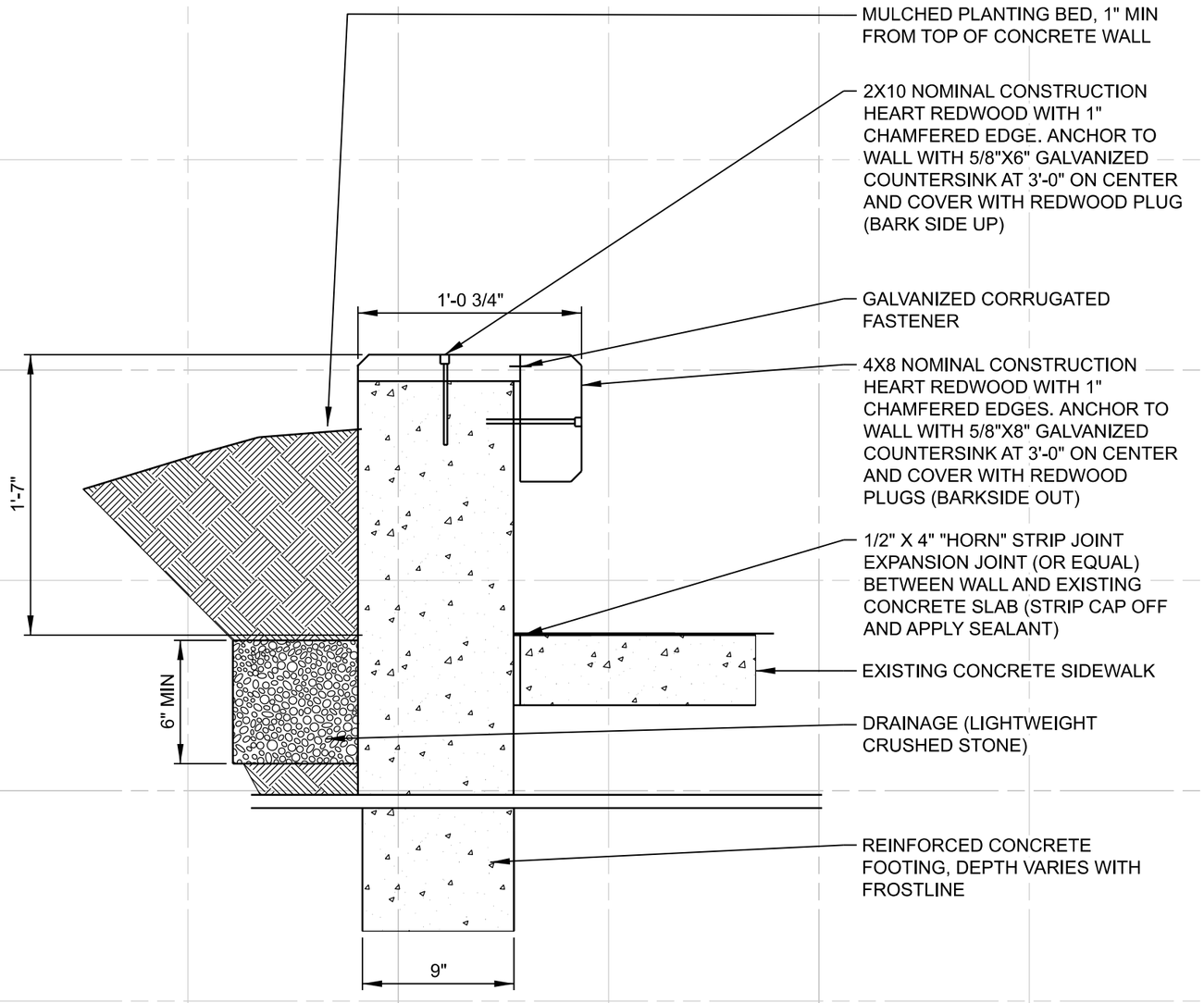
0 1' 2' 4'



A1

DETAIL: PET POST

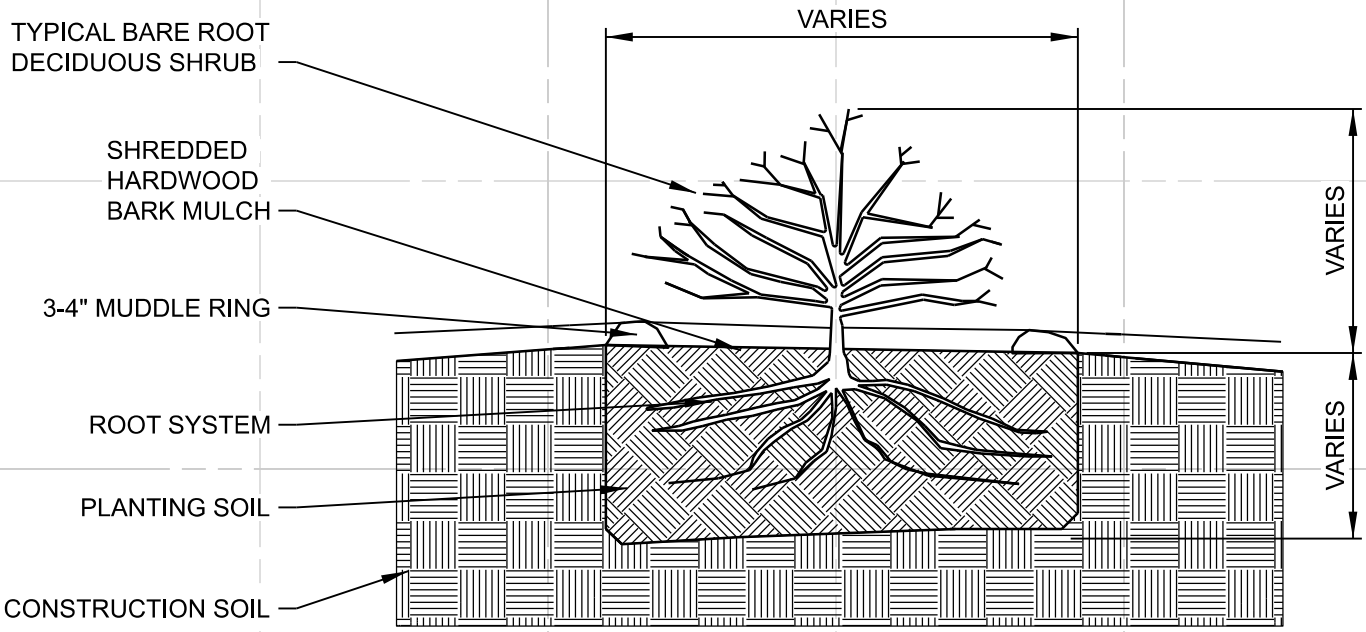
SCALE: 1-1/2"=1'-00 0 6" 1' 2'



A1 SECTION: SEATWALL

SCALE: 1-1/2"=1'-0"

0 6" 1' 2'

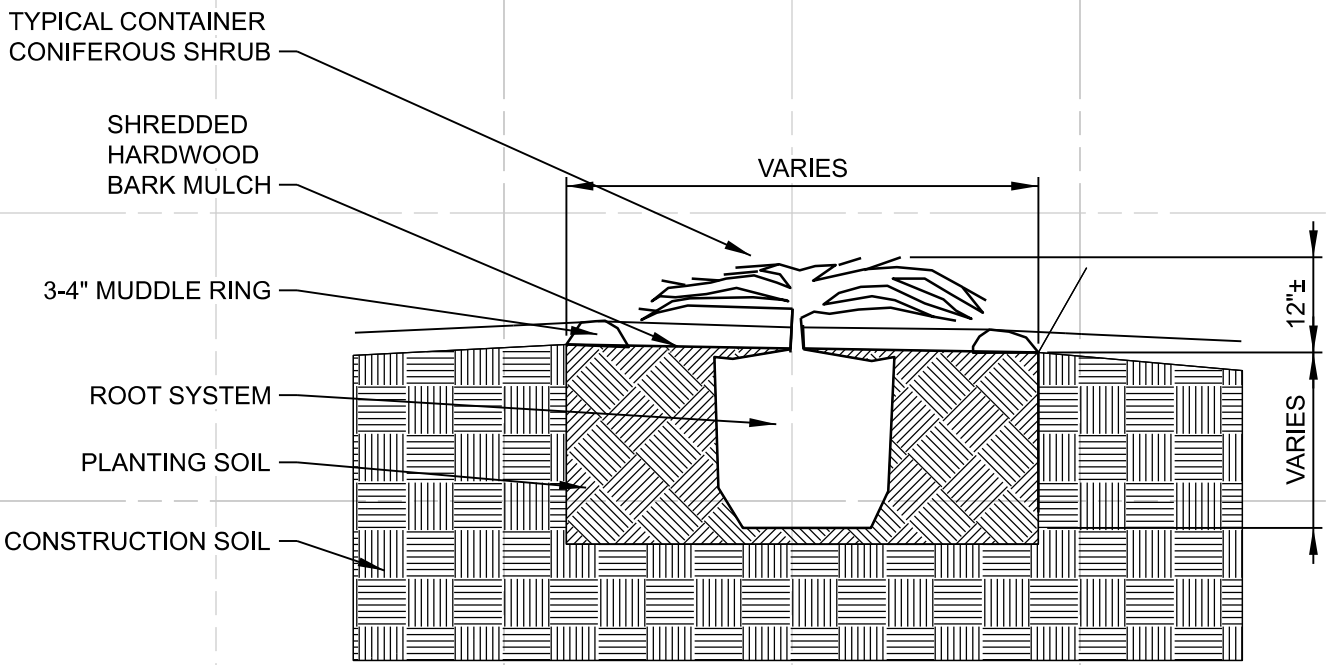


NOTES:
1. IN SOME CASES THE MULCH IS ONLY A SPECIFIED DIAMETER - SEE PLANS AND SPECIFICATION FOR FURTHER COORDINATION OF MULCHING.
2. SHRUB PIT TO COMPLY WITH DEPTHS AND WIDTHS FOUND IN THE SPECIFICATIONS.

A1

DETAIL: BARE ROOT PLANTING

SCALE: NTS

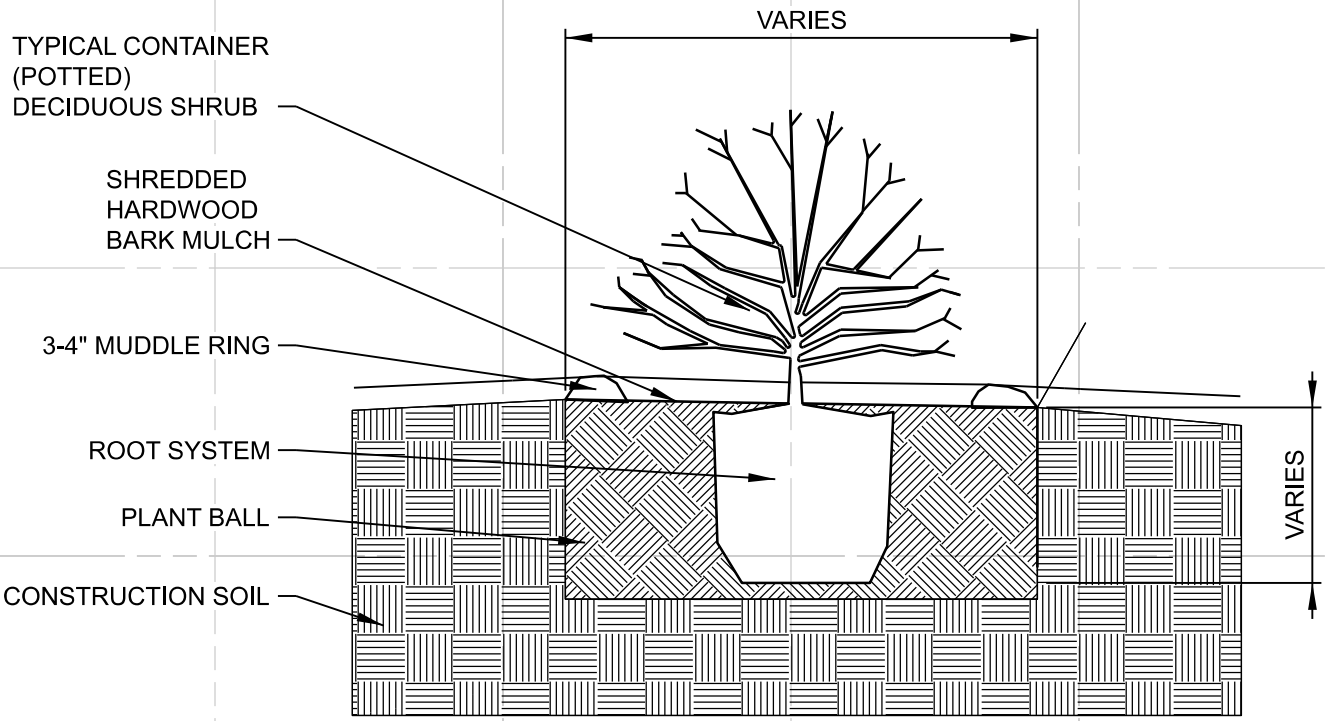


NOTES:
1. IN SOME CASES THE MULCH IS ONLY A SPECIFIED DIAMETER - SEE PLANS AND SPECIFICATIONS FOR FURTHER COORDINATION OF MULCHING.
2. SHRUB PIT TO COMPLY WITH DEPTHS AND WIDTHS FOUND IN THE SPECIFICATIONS.

A1

DETAIL: CONTAINER CONIFEROUS SHRUB

SCALE: NTS

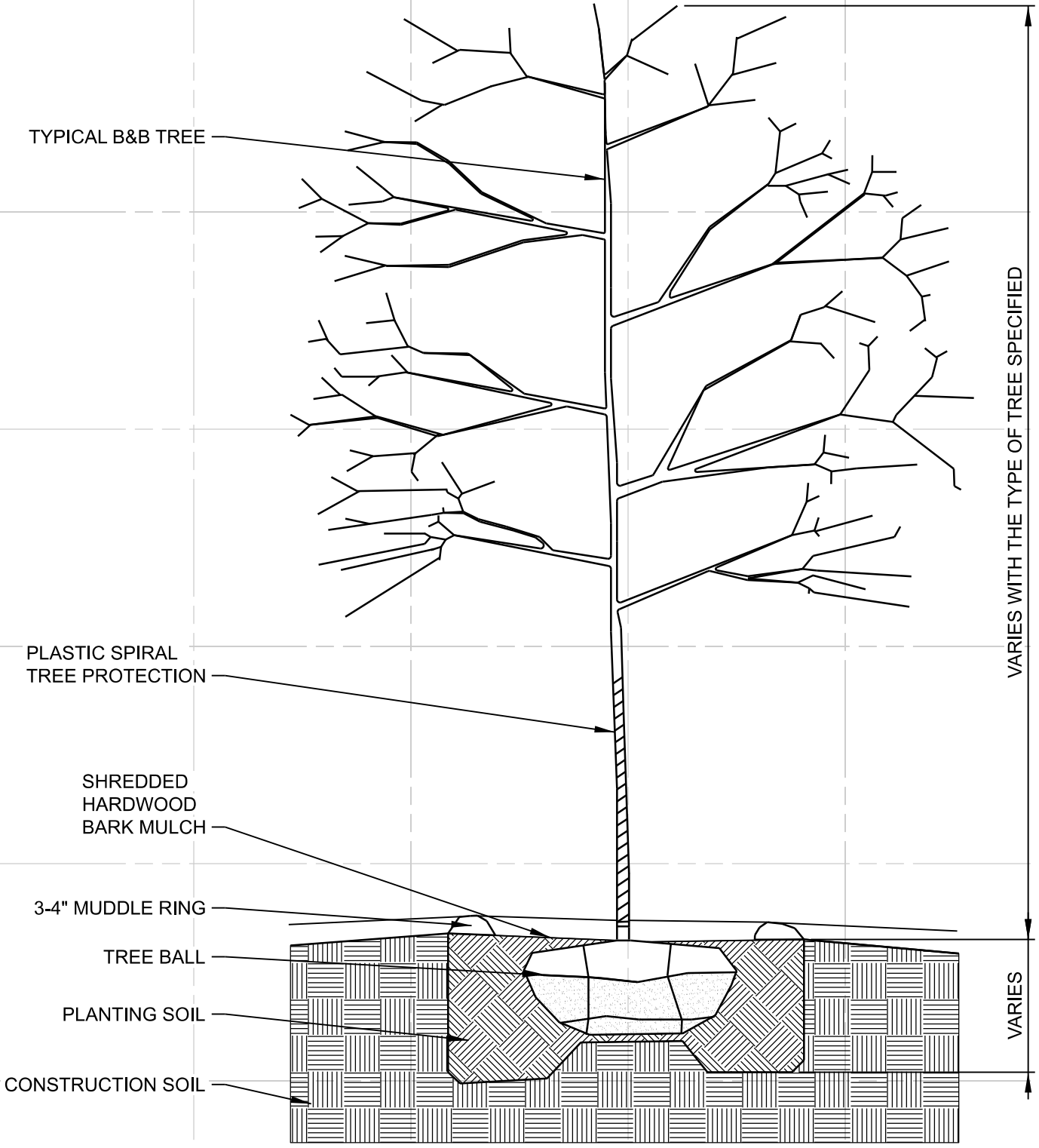


NOTES:
1. IN SOME CASES THE MULCH IS ONLY A SPECIFIED DIAMETER - SEE PLANS AND SPECIFICATIONS FOR FURTHER COORDINATION OF MULCHING.
2. SHRUB PIT TO COMPLY WITH DEPTHS AND WIDTHS FOUND IN THE SPECIFICATIONS.
3. PRUNE SHRUB AS RECOMMENDED BY GROWER ONLY AFTER THE PLANT HAS BEEN WATERED IN TO THE PLANTING SOIL.

A1

DETAIL: CONTANER SHRUB PLANTING

SCALE: NTS



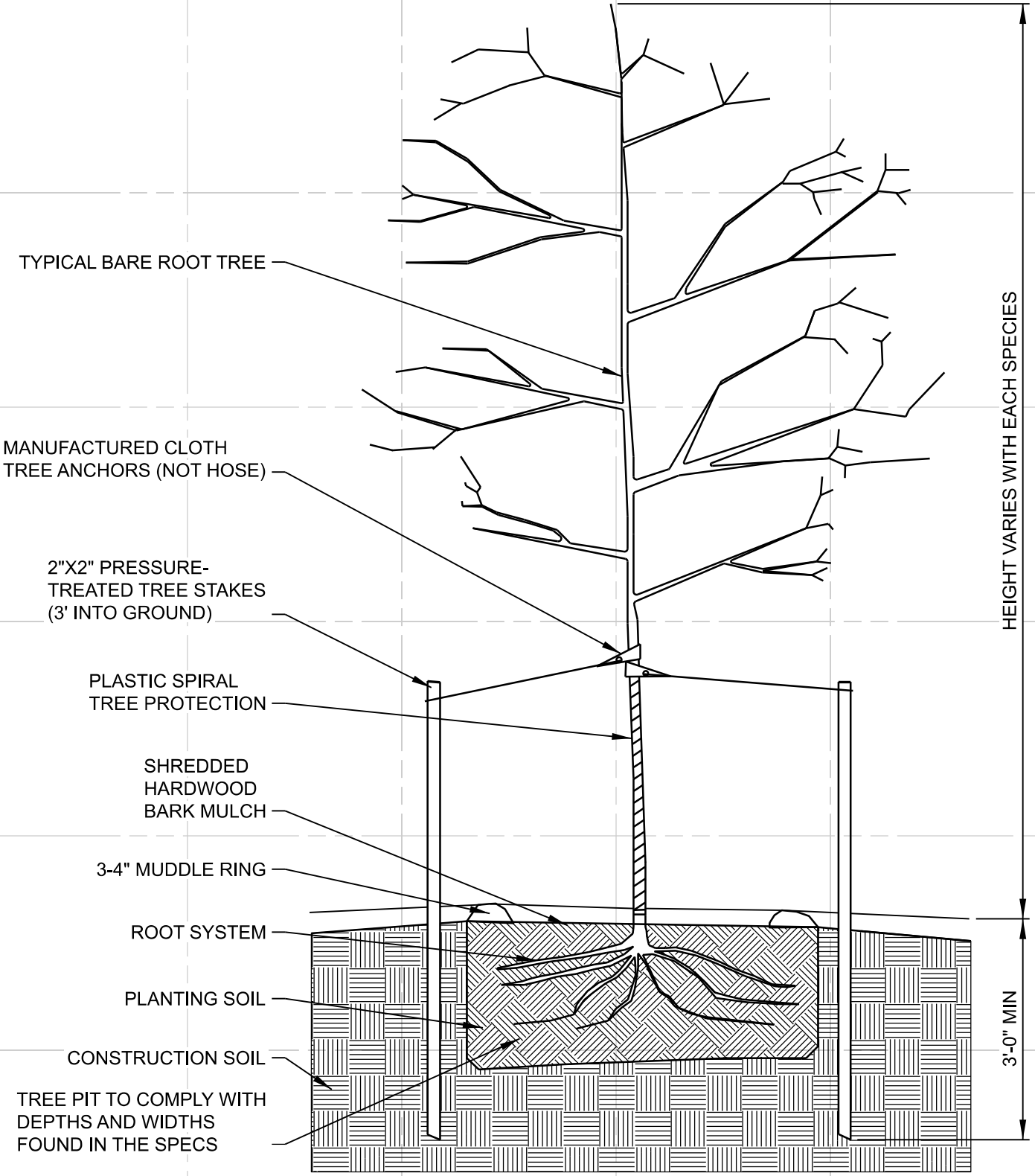
NOTES:

1. NONE OF THE B&B TREES ARE TO BE STAKED UNLESS INDICATED.
2. ALL TREES SHOULD BE PRUNED ONLY AFTER INSTALLATION AND WATERING-IN THE THE TREE - PRUNE TO GROWERS SPECIFICATIONS.
3. ALL TREES SHALL COMPLY WITH THE AMERICAN STANDARDS FOR NURSERY STOCK - INCLUDING TREE PIT DEPTH AND WIDTH.
4. IN SOME CASES THE MULCH IS ONLY A SPECIFIED DIAMETER - SEE PLANS AND SPECIFICATION FOR FURTHER COORDINATION OF MULCHING.

A1

DETAIL: BALLED AND BURLAPPED DECIDUOUS TREE

SCALE: NTS

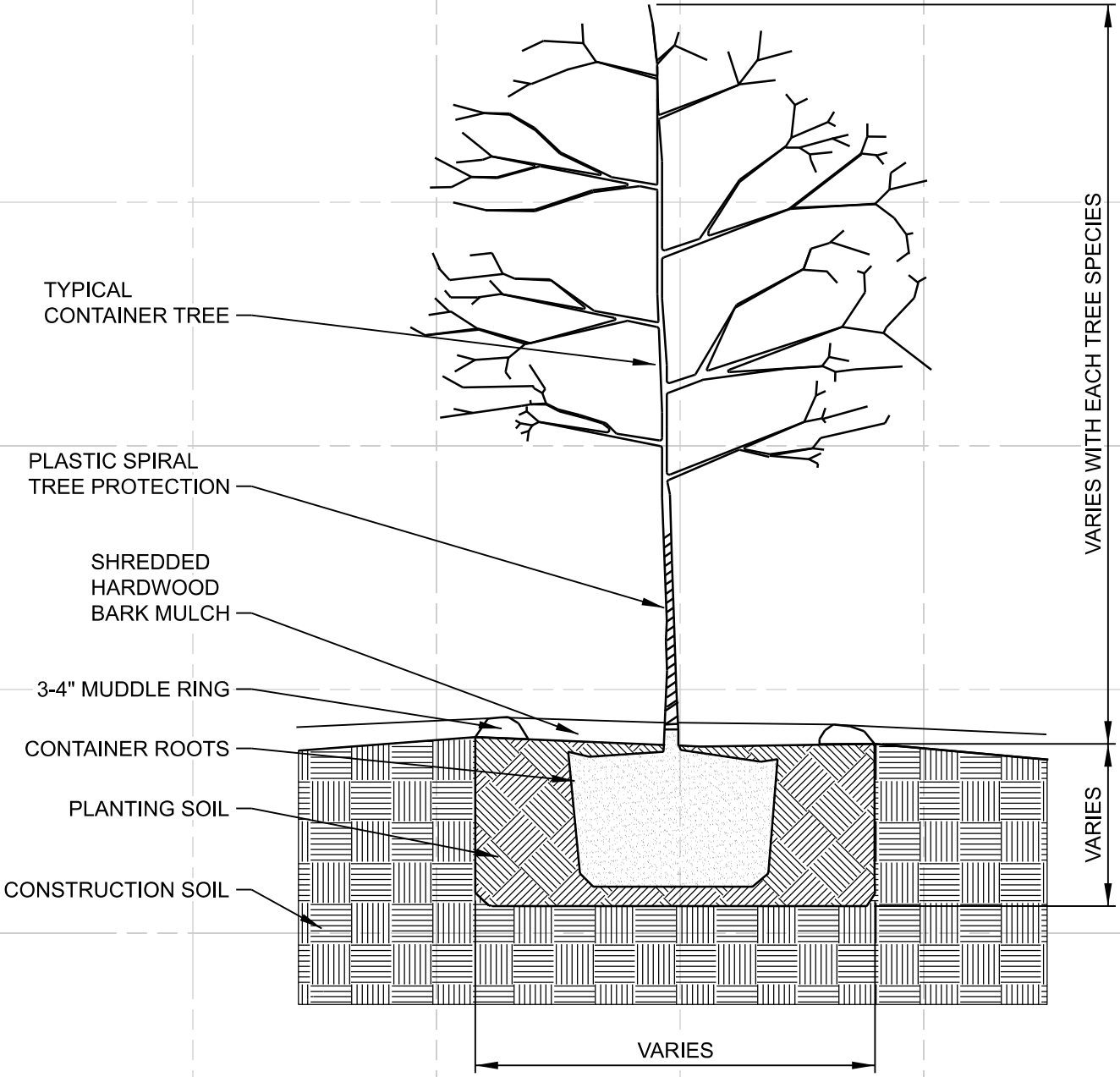


NOTES:
1. ALL TREES OVER 1 1/4" ARE TO BE STAKED (2 PER TREE) AS SPECIFIED, UNDER 1 1/4" CALIPER NOT STAKED.
2. IN SOME CASES THE MULCH IS ONLY A SPECIFIED DIAMETER - SEE PLANS AND SPECIFICATION FOR FURTHER COORDINATION OF MULCHING.

A1

DETAIL: BARE ROOT DECIDUOUS TREE PLANTING

SCALE: NTS

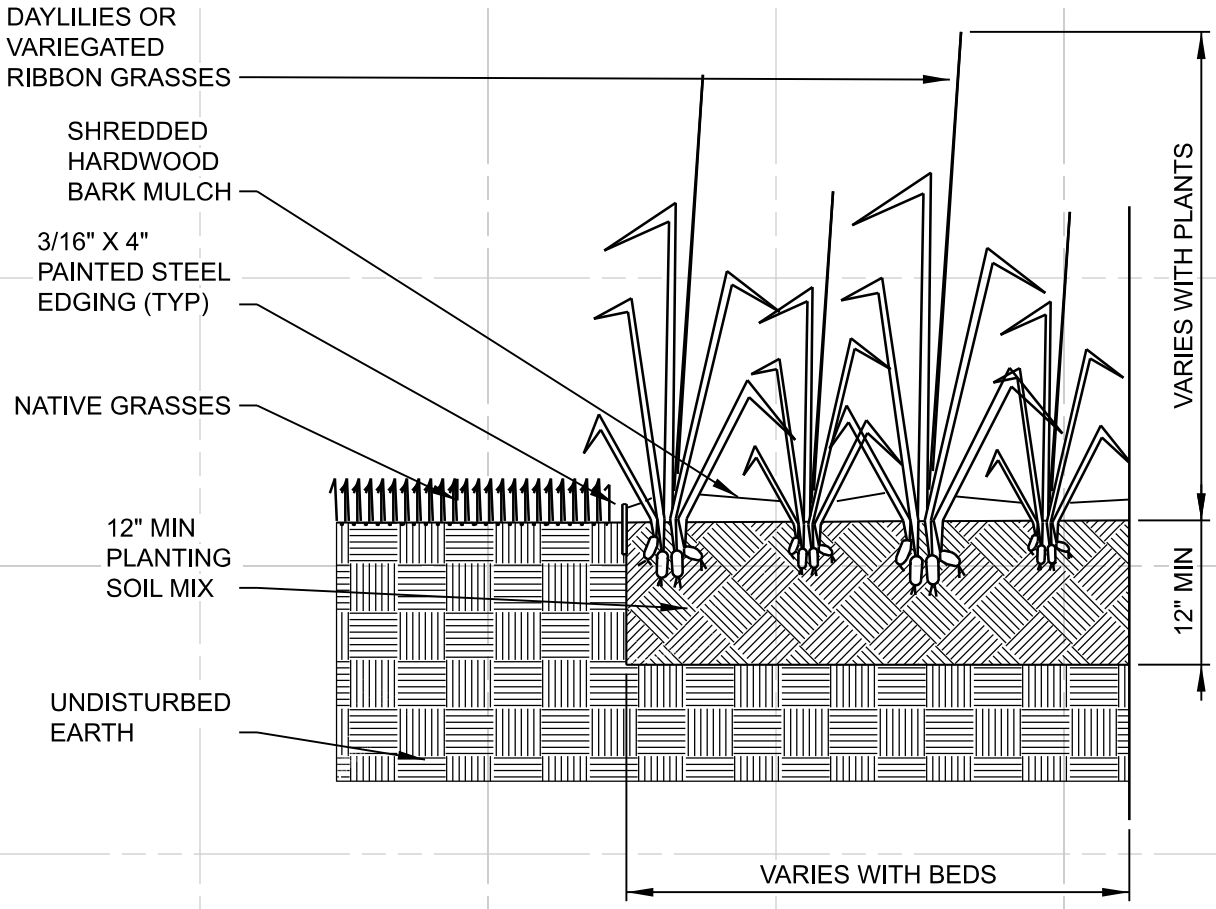


NOTE:
1. NONE OF THE CONTAINER TREES ARE TO BE STAKED UNLESS INDICATED.
2. IN SOME CASES THE MULCH IS ONLY A SPECIFIED DIAMETER - SEE PLANS AND SPECIFICATION FOR FURTHER COORDINATION OF MULCHING.

A1

DETAIL: CONTAINER/POTTED DECIDUOUS TREE

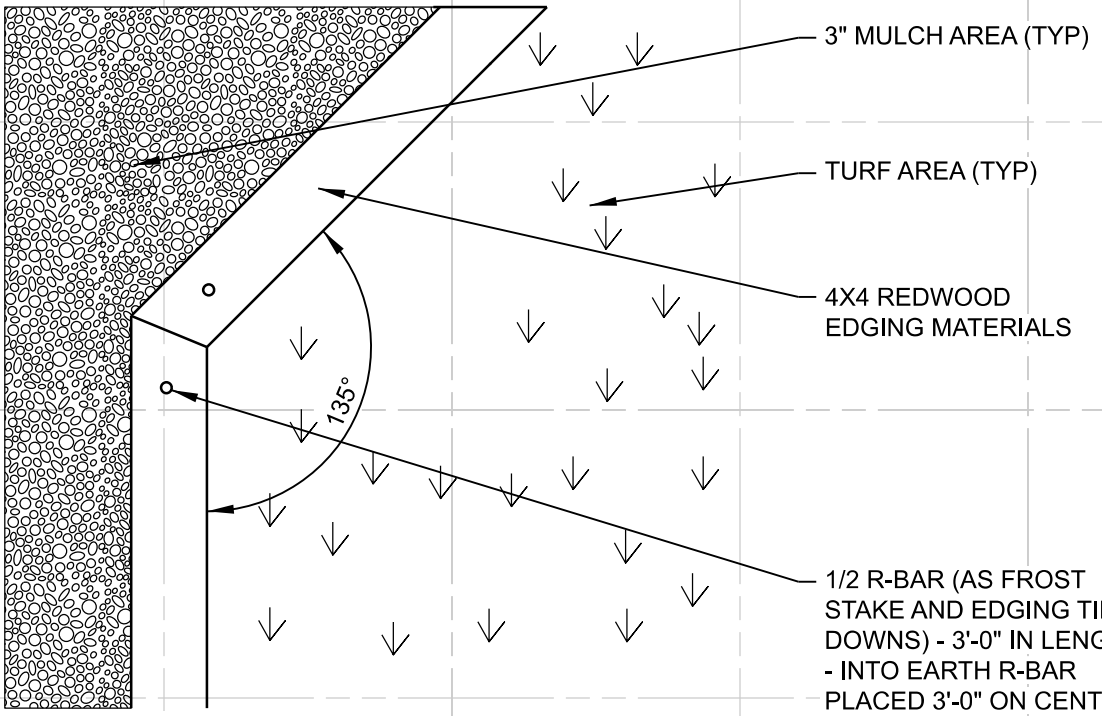
SCALE: NTS



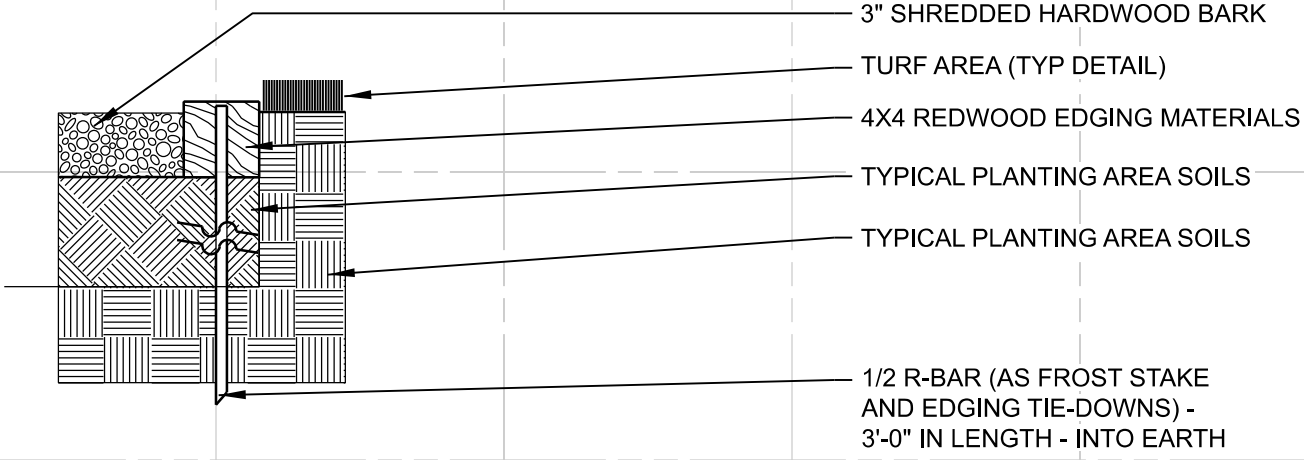
A1

DETAIL: PERENNIAL BED PLANTING

SCALE: NTS



PLAN



SECTION

A1

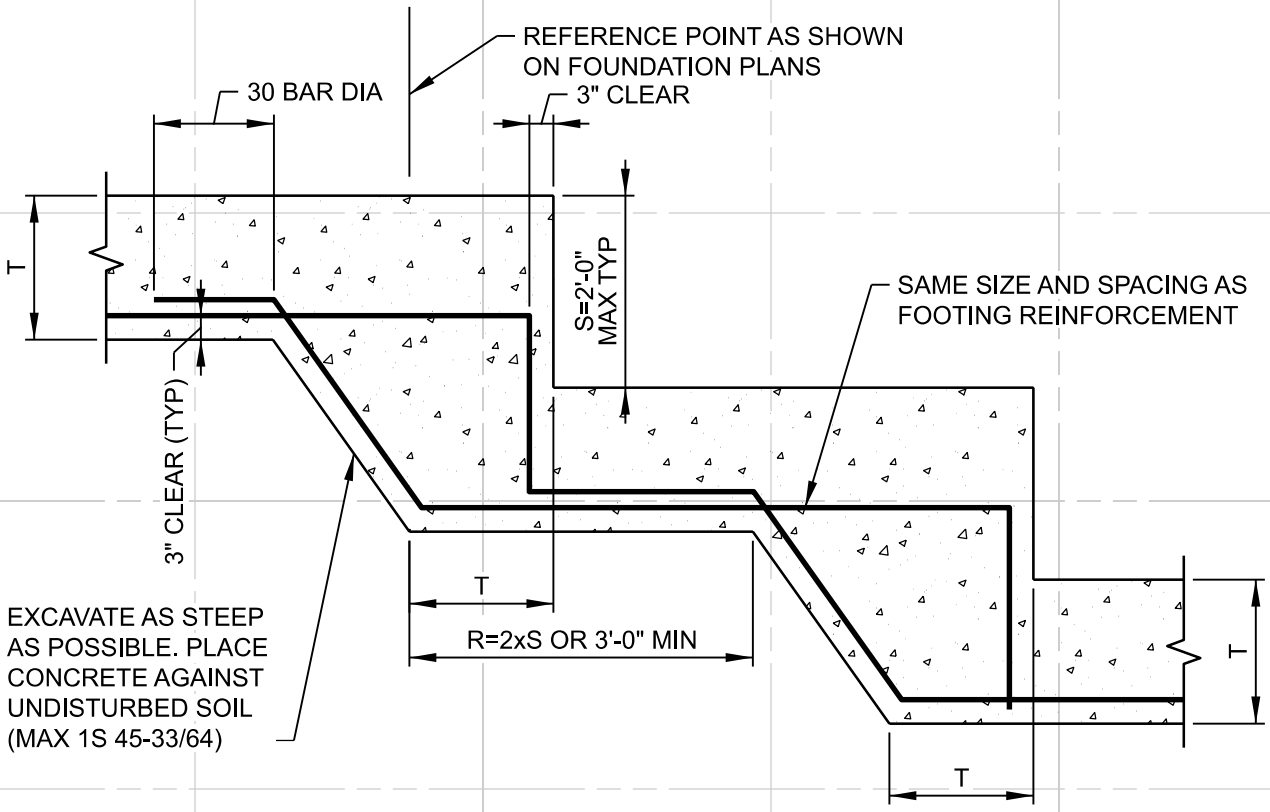
DETAIL: REDWOOD EDGING

SCALE: 1-1/2"=1'-0"

0 6" 1' 2'

Detail G2056L-DT003X

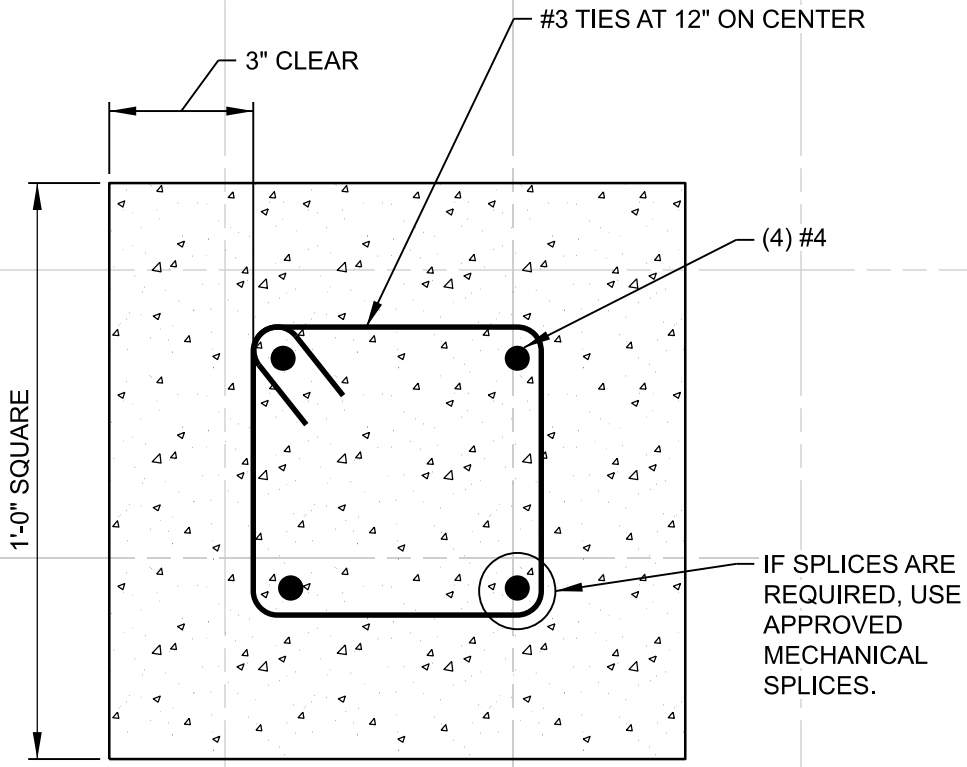
Details-US-Landscape-G205-Landscaping



A1

DETAIL: STEPPED FOOTING

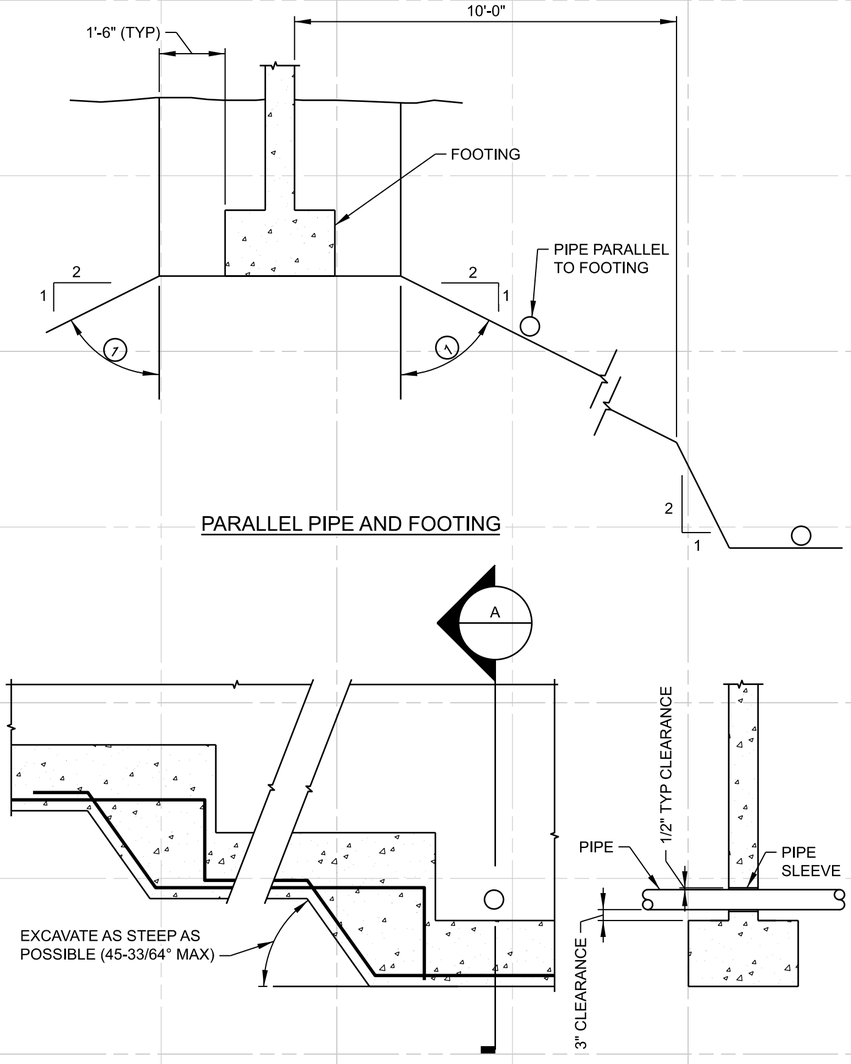
SCALE: NTS



A1

DETAIL: GRADE BEAM

SCALE: NTS



PARALLEL PIPE AND FOOTING

PERPENDICULAR PIPE AND FOOTING

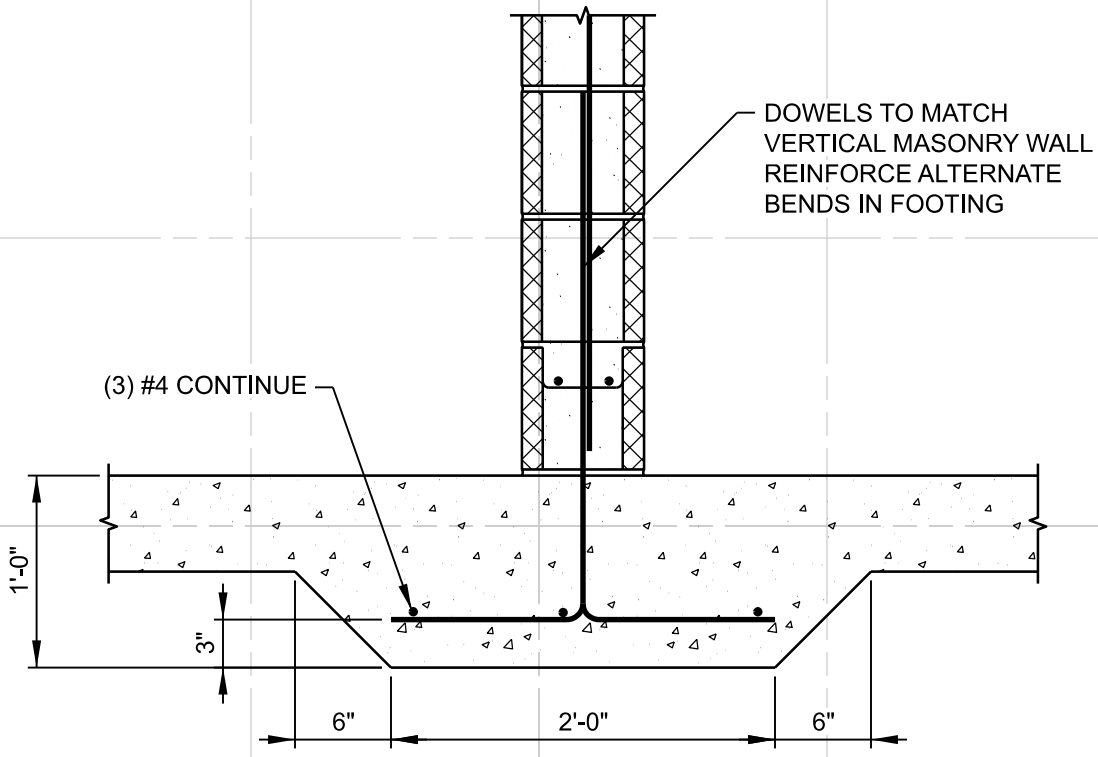
SECTION A

(1) TRENCHING FOR PIPE PARALLEL TO FOOTING MUST PASS OUTSIDE THESE LINES.

NOTE:
1. FOR PERPENDICULAR PIPE, FOOTING MUST BE STEPPED DOWN TO ALLOW PIPE PENETRATION TO PASS ABOVE FOOTING.
2. SEE STEPPED FOOTING DETAIL.

A1 DETAIL: BURIED PIPE AT FOOTING

SCALE: NTS

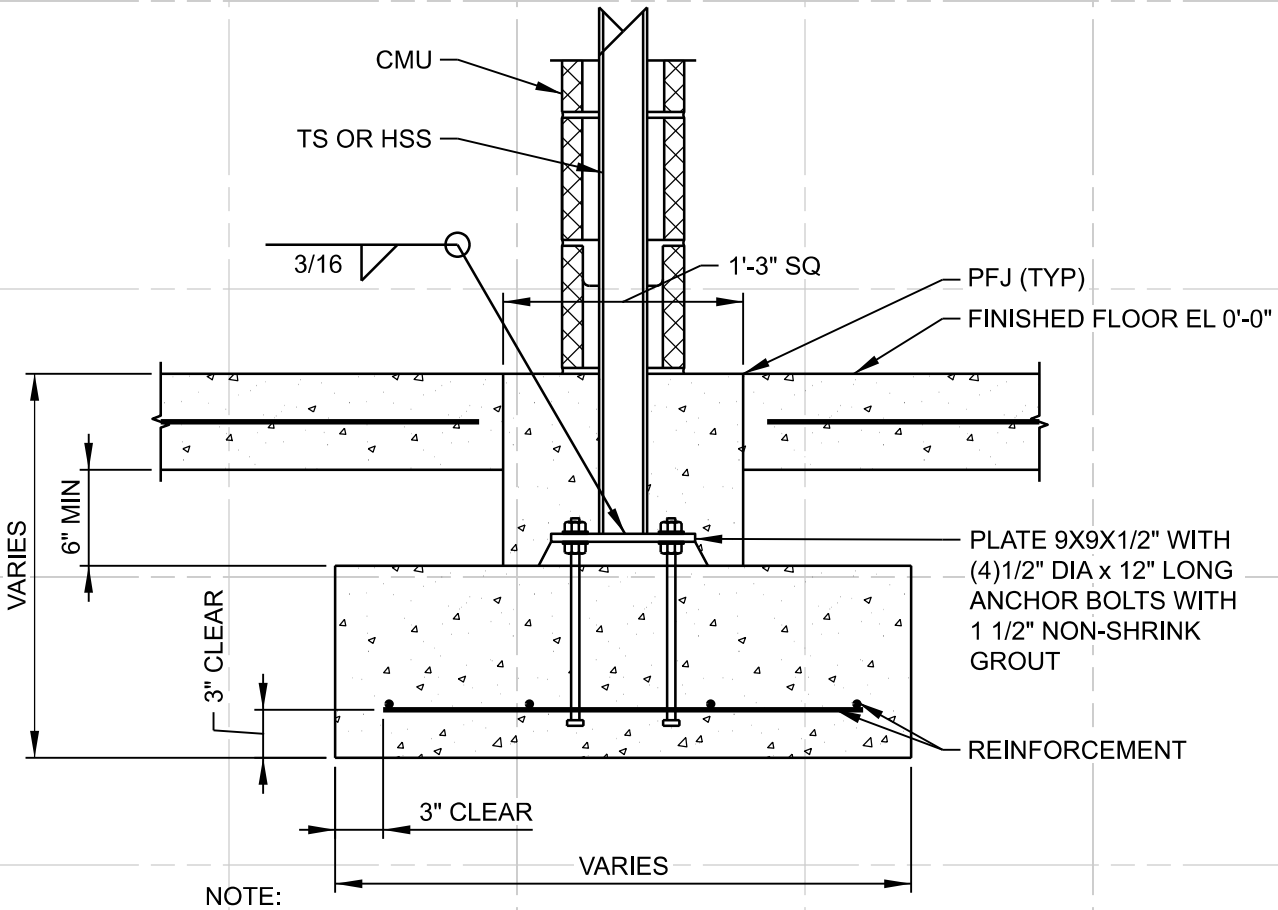


NOTE:
SEE ARCHITECTURAL DRAWINGS FOR LOCATION OF ALL NONBEARING MASONRY WALLS

DETAIL: CMU THICKENED SLAB FOOTING

A1

SCALE: NTS

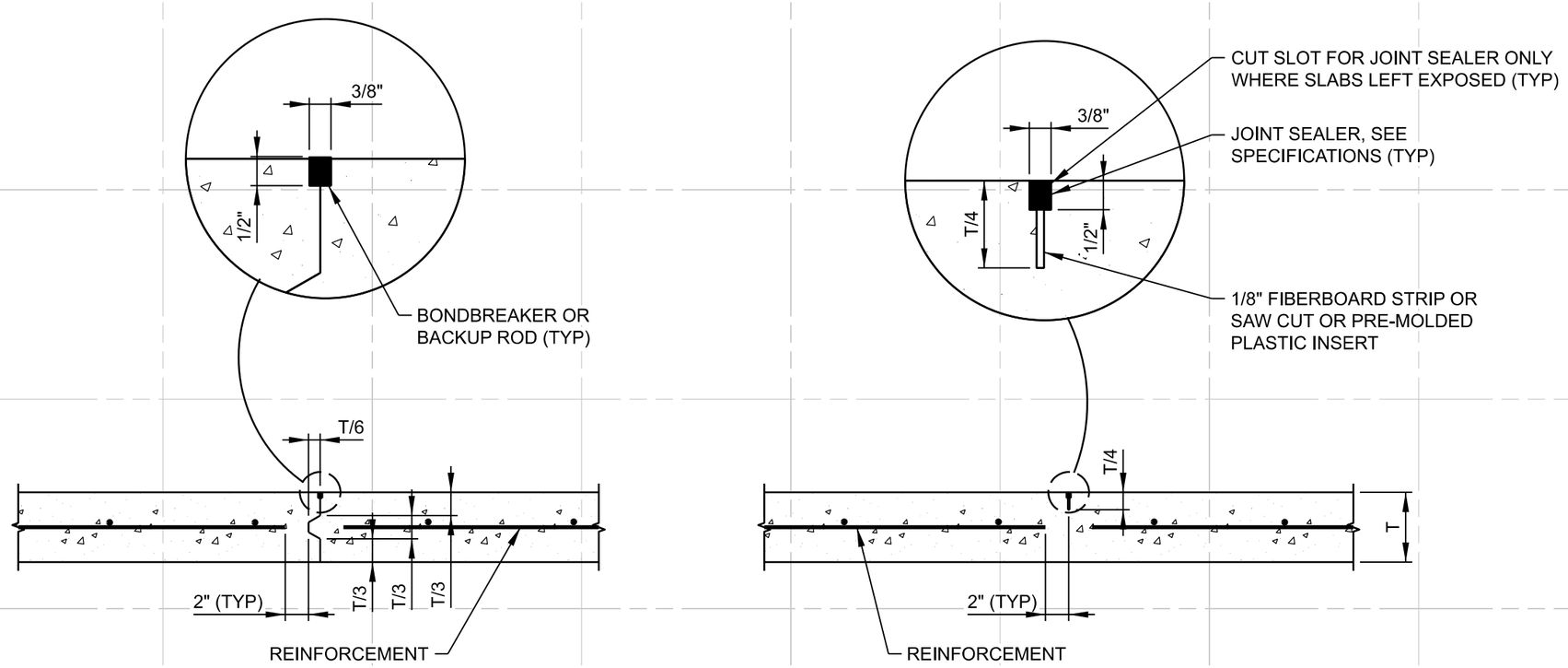


NOTE:
REINFORCEMENT IN BOND BEAM NOT SHOWN FOR CLARITY.

A1

DETAIL: PIPE COLUMN FOOTING

SCALE: NTS



CONSTRUCTION JOINT (CJ)

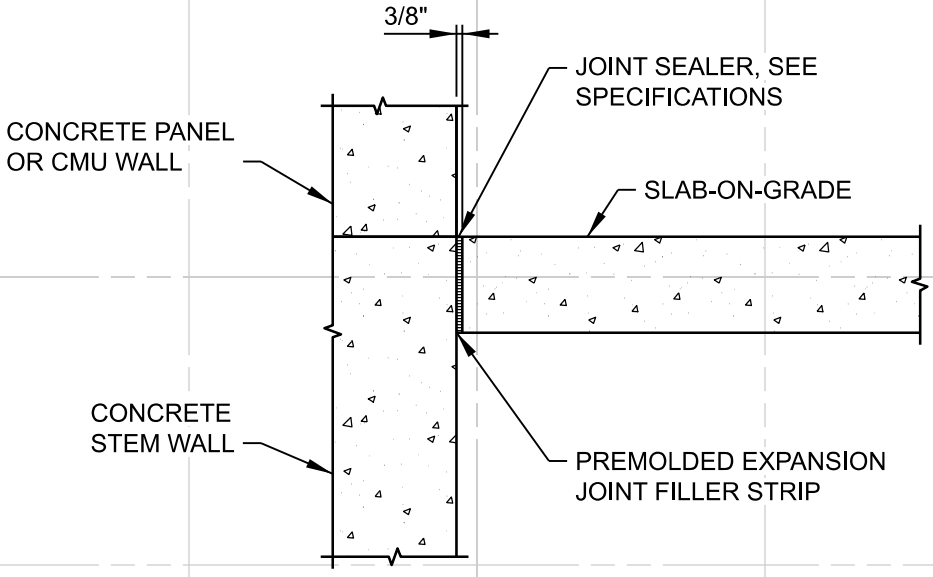
CONTRACTION JOINT (CTJ)

NOTE:
DO NOT PROVIDE CUT SLOT AND SEALANT WHERE SLAB HAS A FLOOR COVERING. SEE ARCHITECTURAL DRAWINGS FOR FINISH LOCATIONS.

A1

DETAIL: SLAB CONTROL JOINTS (NON-VEHICULAR)

SCALE: NTS

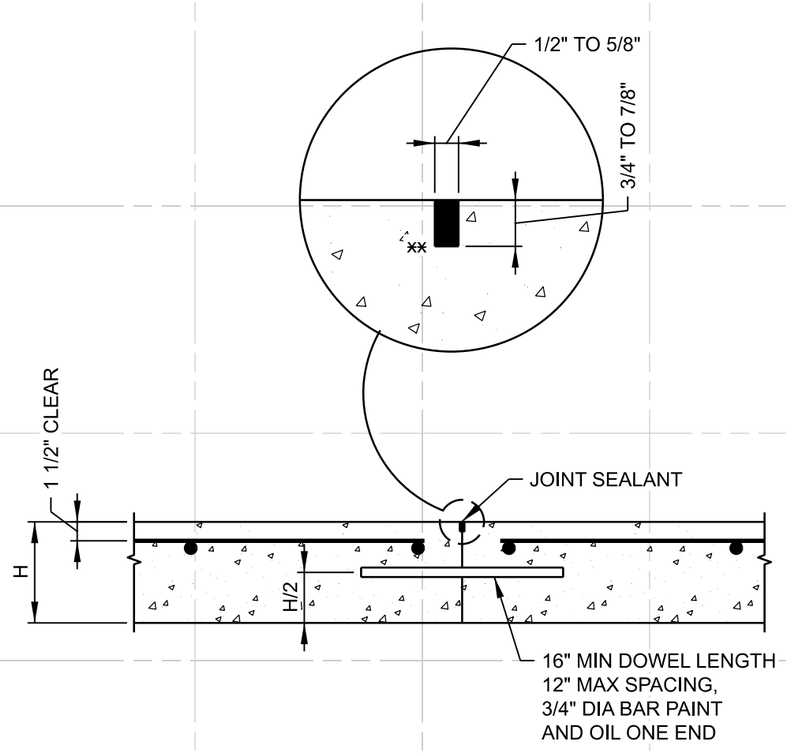


NOTE:
SLAB-ON-GRADE REINFORCEMENT NOT SHOWN FOR CLARITY.

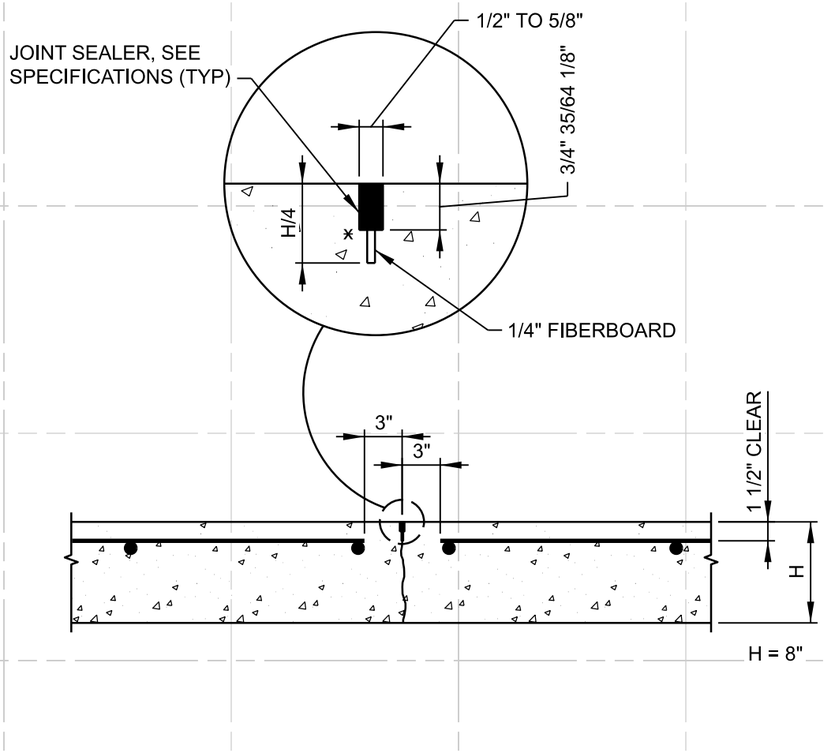
A1

DETAIL: SLAB EXPANSION JOINT

SCALE: NTS



CONSTRUCTION JOINT (CJ)



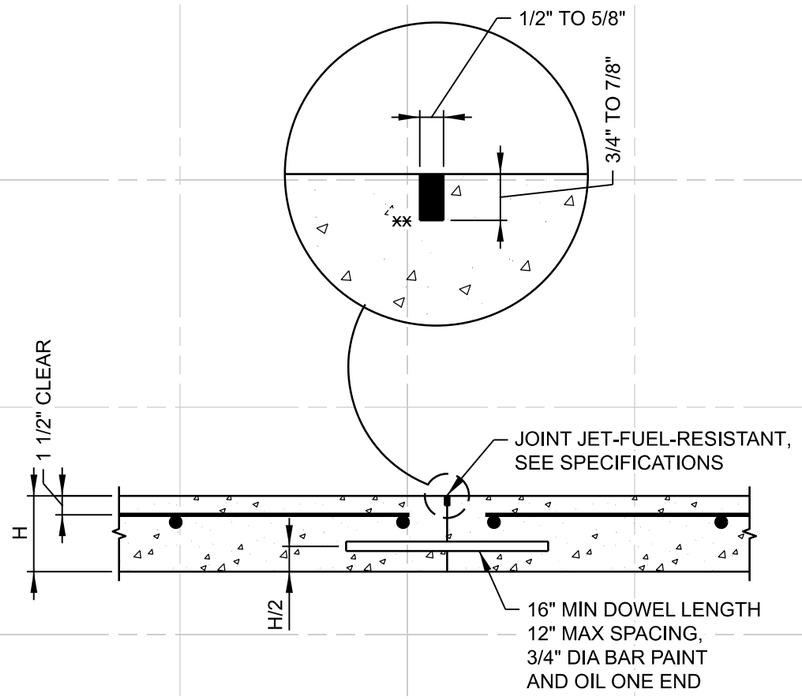
CONTRACTION JOINT (CTJ)

NOTE:
* NON-ABSORBTIVE SEPARATION MEDIUM WILL BE USED BETWEEN JOINT SEALANT AND UNDERLYING MATERIAL.
** NON-ABSORBTIVE MATERIAL REQUIRED TO PREVENT BOND.

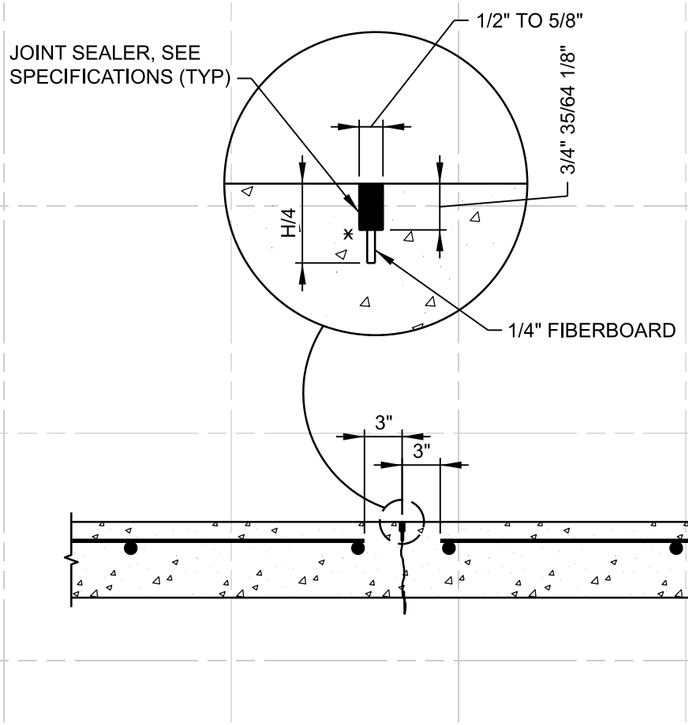
DETAIL: SLAB CONTROL JOINTS (VEHICULAR FORK LIFT), 8" THICK INTERIOR SLAB

A1

SCALE: NTS



CONSTRUCTION JOINT (CJ)



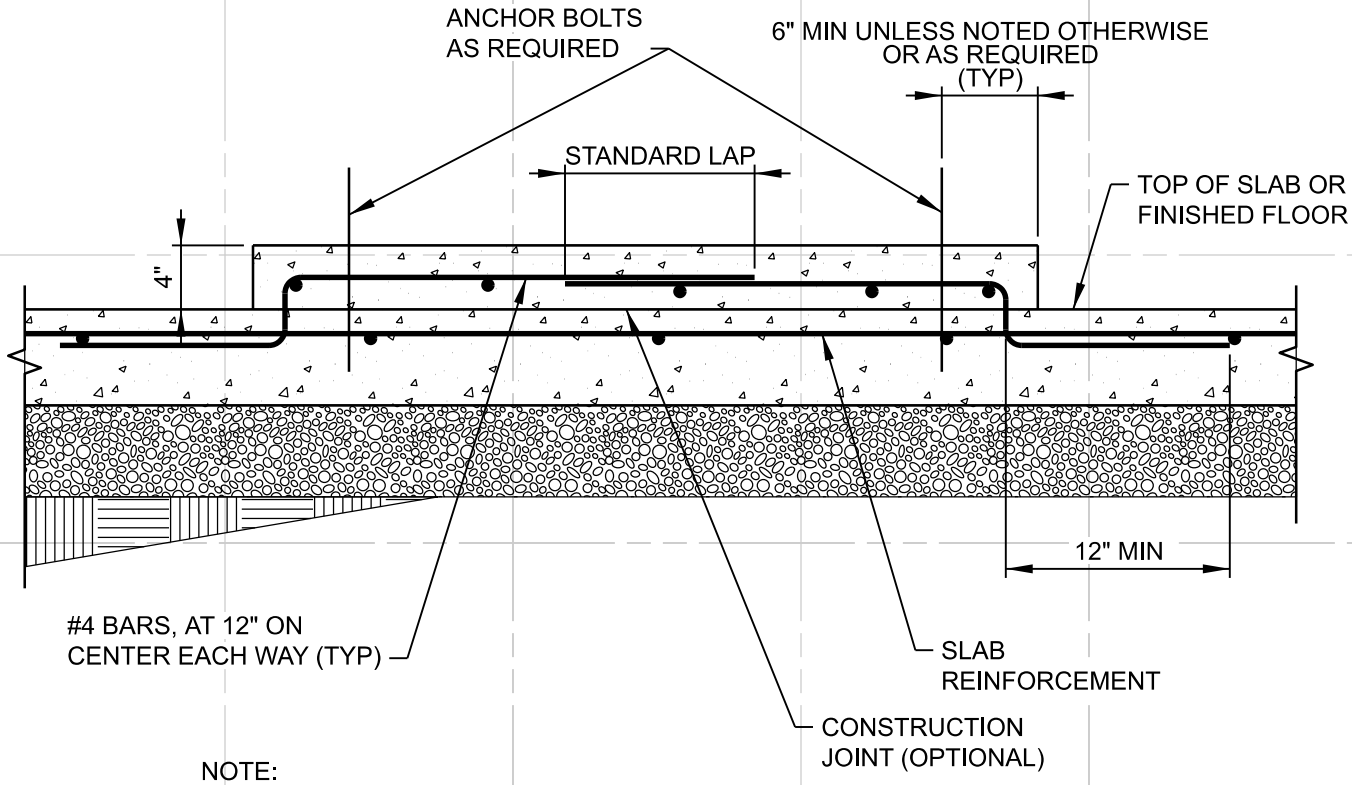
CONTRACTION JOINT (CTJ)

NOTE:
* NON-ABSORBTIVE SEPARATION MEDIUM WILL BE USED BETWEEN JOINT SEALANT AND UNDERLYING MATERIAL.
** NON-ABSORBTIVE MATERIAL REQUIRED TO PREVENT BOND.

DETAIL: SLAB CONTROL JOINTS (VEHICULAR FORK LIFT), 6" THICK INTERIOR SLAB

A1

SCALE: NTS

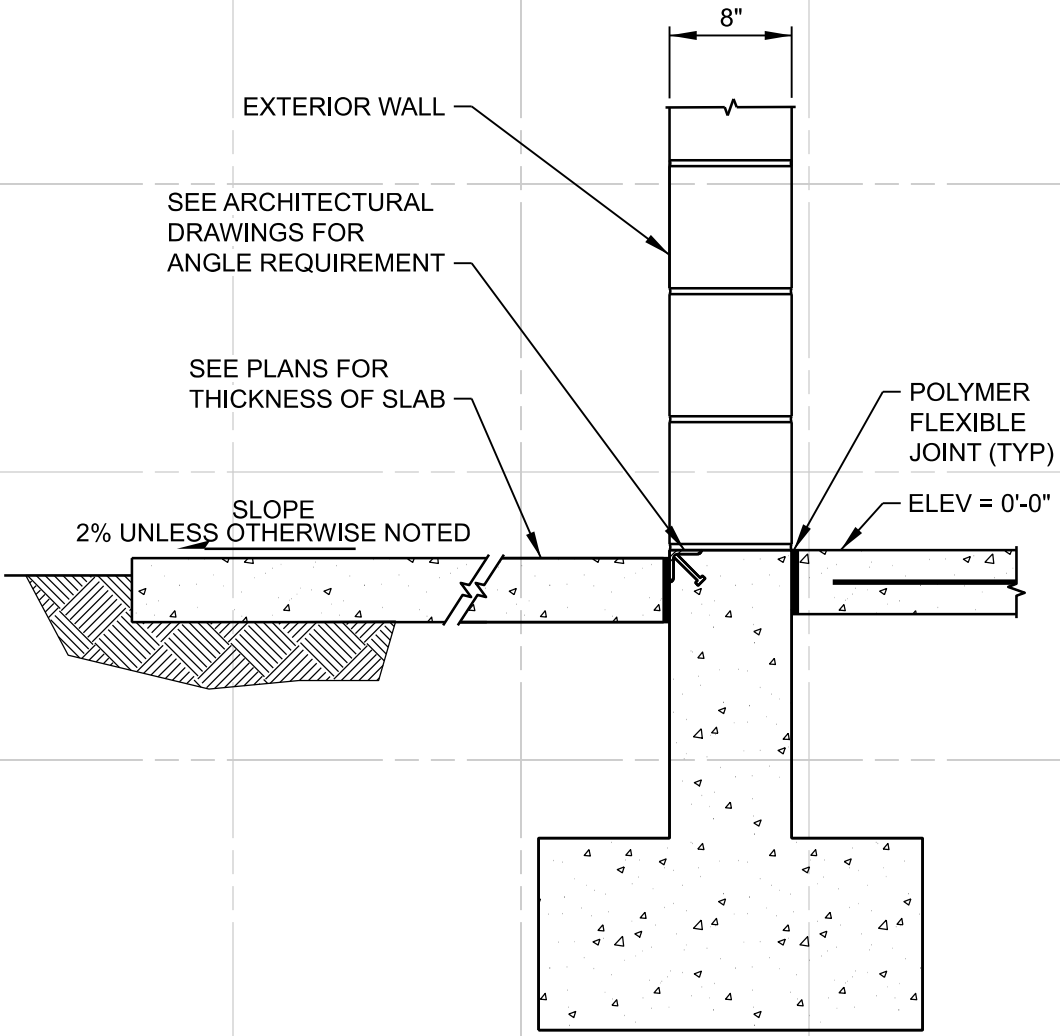


NOTE:
PAD DIMENSIONS, ANCHOR BOLT SIZES AND LOCATIONS, AND OTHER EMBEDDED ITEMS SHALL CONFORM TO EQUIPMENT MANUFACTURER'S REQUIREMENTS.

A1

DETAIL: RAISE SLAB-EQUIPMENT PAD (INTERIOR)

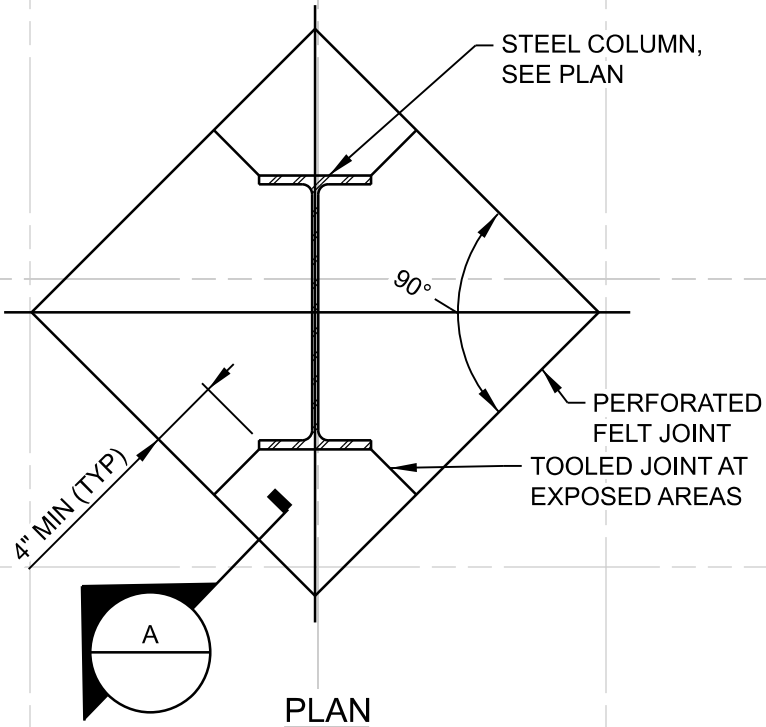
SCALE: NTS



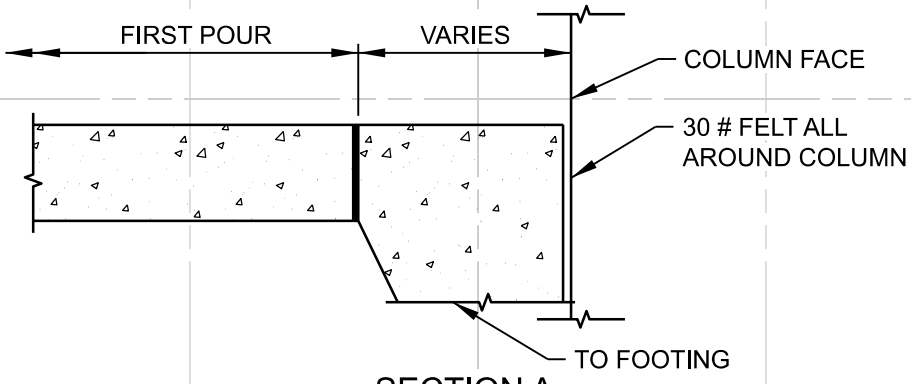
A1

DETAIL: EXTERIOR DOOR/ SIDEWALK SILL

SCALE: NTS



PLAN

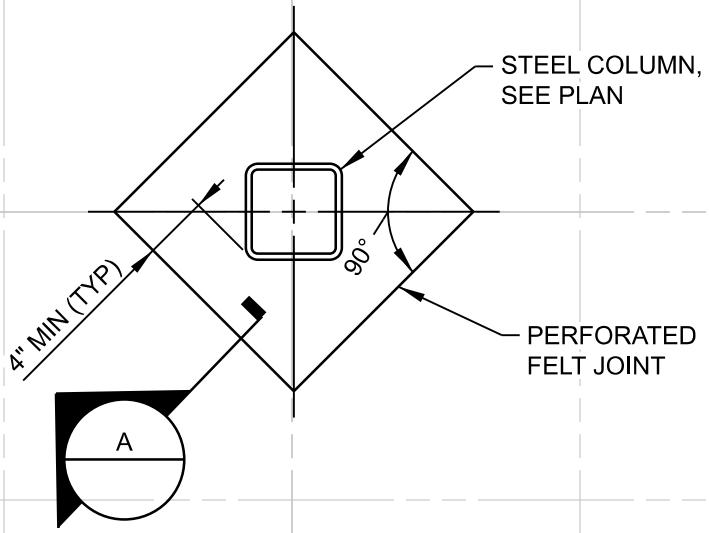


SECTION A

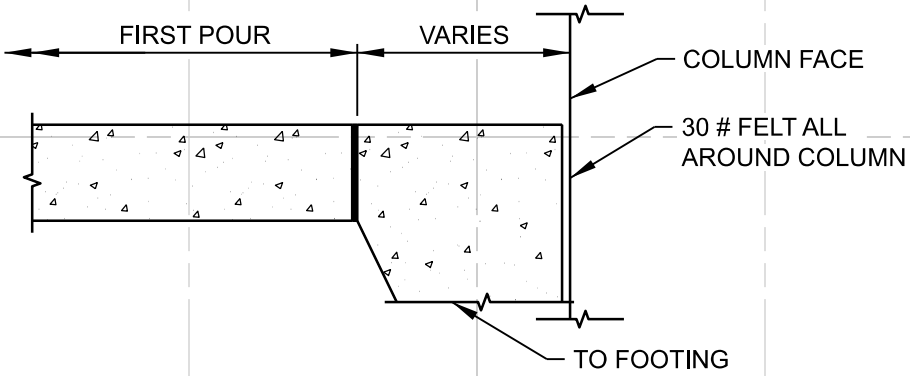
DETAIL: FLOOR ISOLATION JOINT AT COLUMN

A1

SCALE: NTS



PLAN

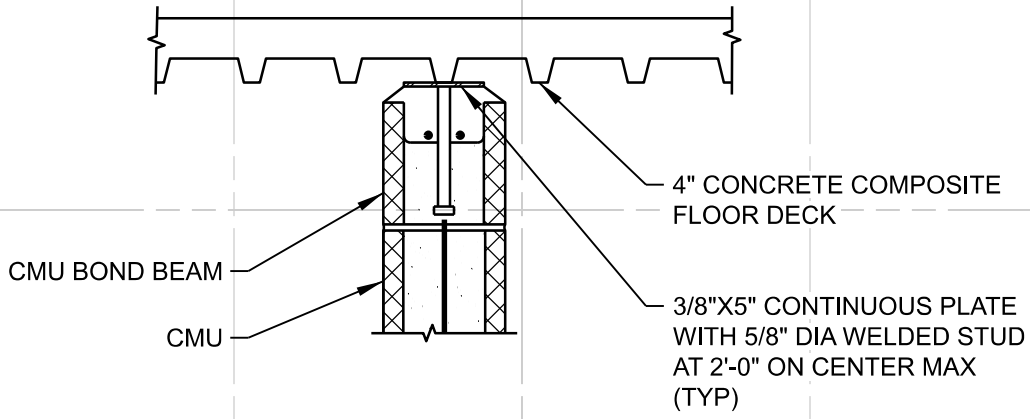


SECTION A

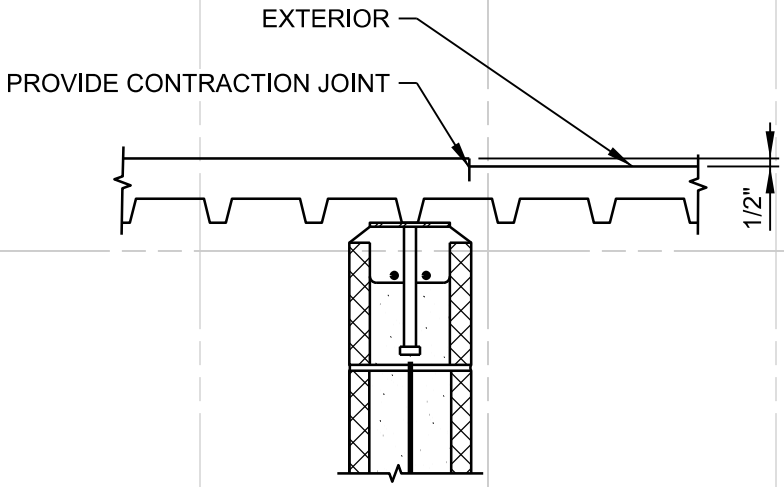
A1

DETAIL: FLOOR ISOLATION JOINT AT COLUMN

SCALE: NTS



INTERIOR

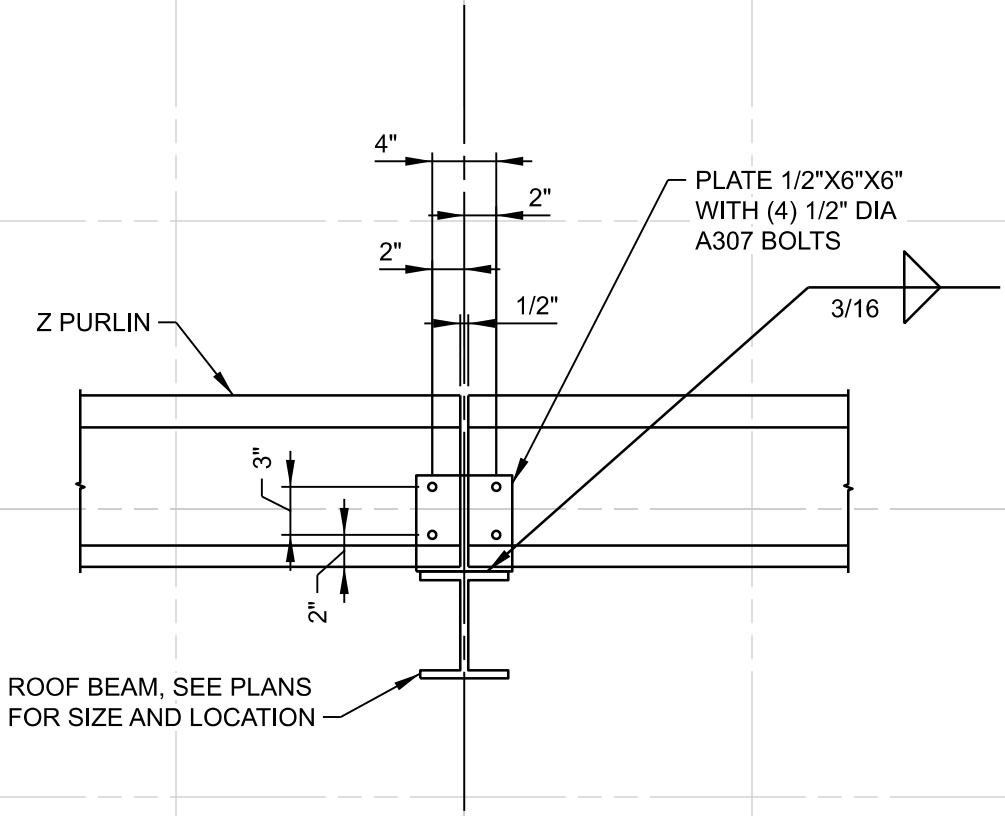


EXTERIOR

DETAIL: SECOND FLOOR DOOR OPENING

A1

SCALE: NTS

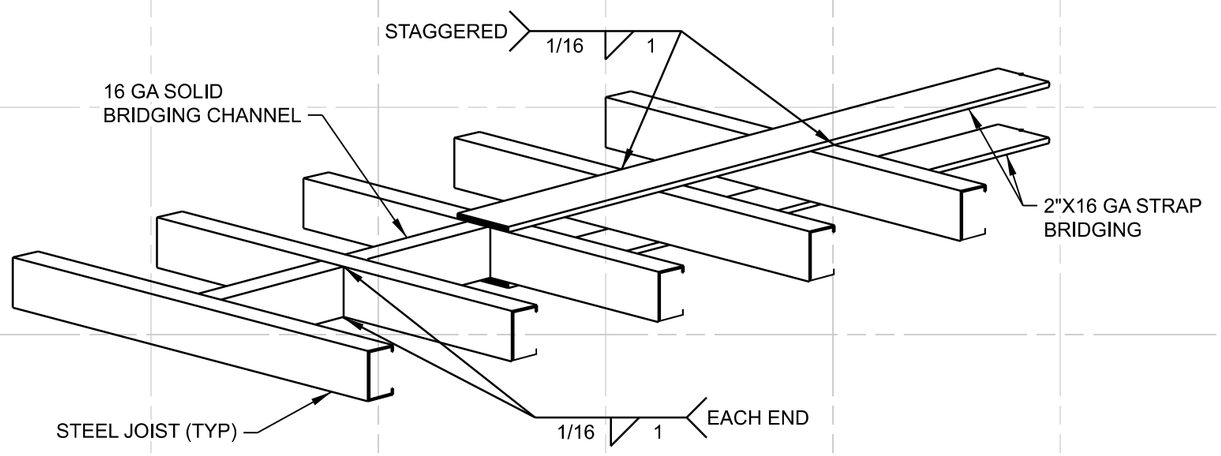


A1

DETAIL: PURLIN TO BEAM CONNECTION

SCALE: 1"=1'-0"

0 6" 1' 2'

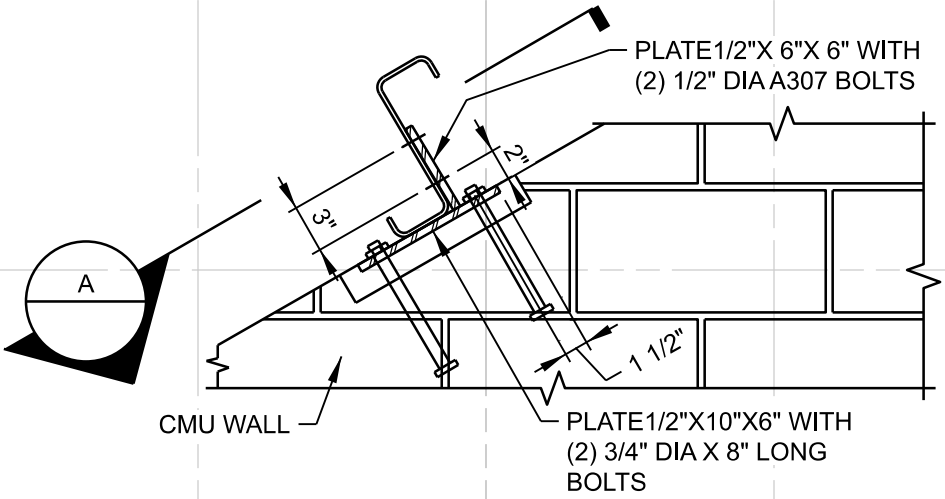


NOTE:
INSTALL SOLID BRIDGING CHANNEL IN FIRST TWO AND LAST TWO JOIST SPACES. STARTING AT THIRD SPACE INSTALL STRAP BRIDGING TOP AND BOTTOM. EXTEND STRAP BRIDGING A MAXIMUM OF FIVE SPACES, THEN ONE SPACE OF SOLID BRIDGING BEFORE CONTINUING STRAP B RIDGING. REPEAT AS REQUIRED.

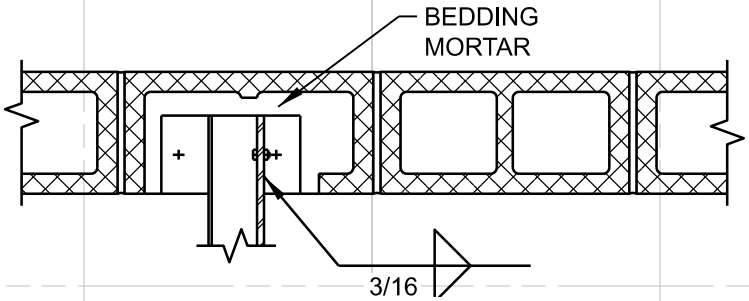
A1

DETAIL: PURLIN BRIDGING

SCALE: NTS



ELEVATION



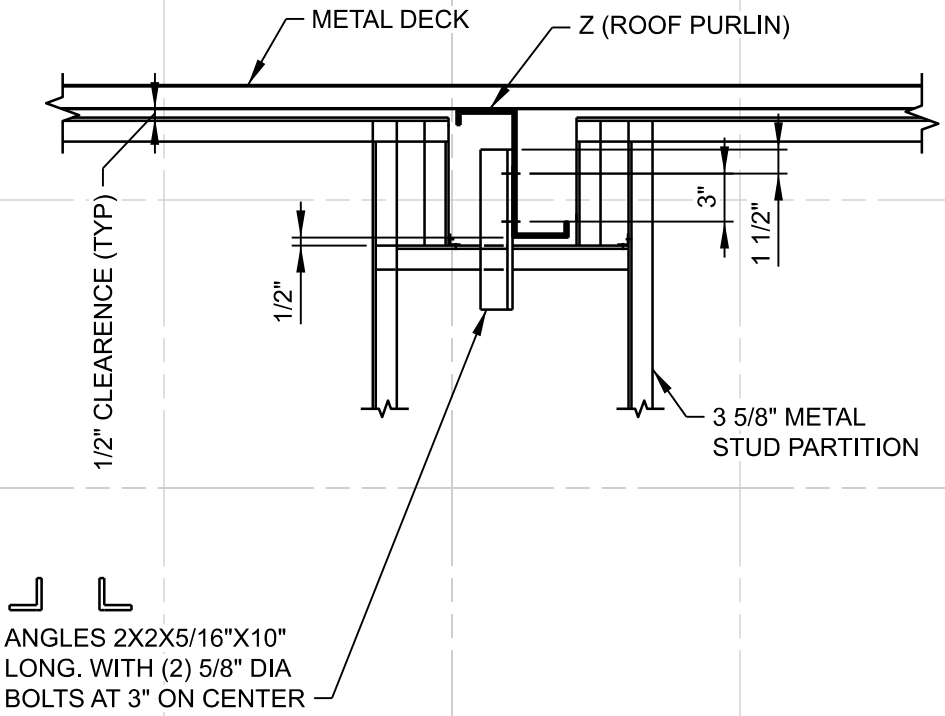
SECTION A

DETAIL: PURLIN SUPPORT AT CMU WALL

A1

SCALE: 1"=1'-0"

0 6" 1' 2'



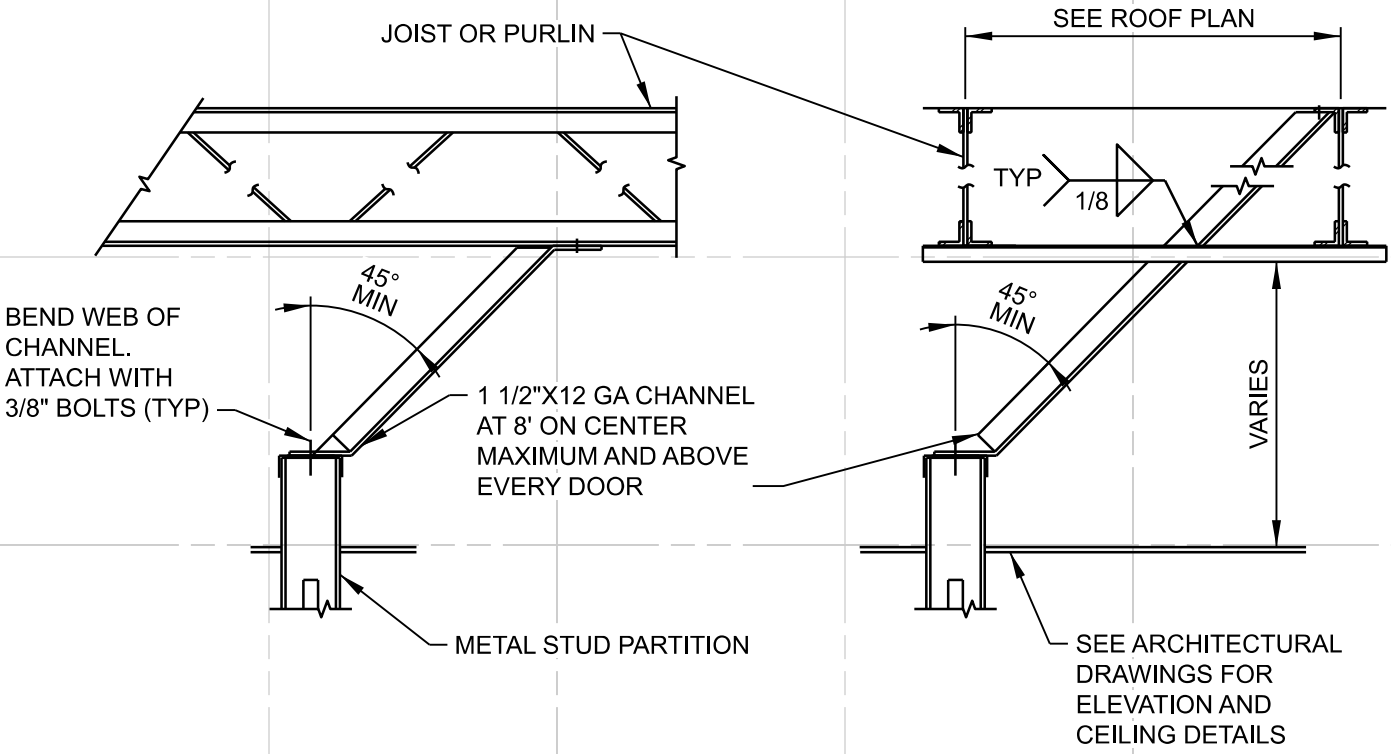
NOTE:
EXTEND GYPSUM WALL BOARD UP TO "Z" PURLIN

A1

DETAIL: LATERAL SUPPORT OF STUD PARTITION

SCALE: 1"=1'-0"

0 6" 1' 2'



PERPENDICULAR TO JOIST

PARALLEL TO JOIST

DETAIL: LATERAL SUPPORT OF STUD PARTITION

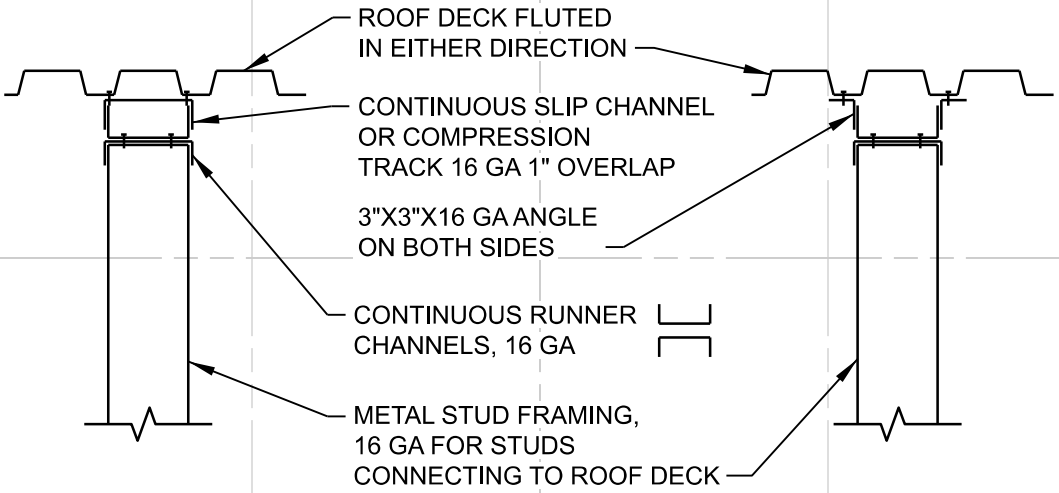
A1

SCALE: 1"=1'-0"

0 6" 1' 2'

Detail B1021S-DT005X

Details-US-Structural-B102-RoofConstruction



ALTERNATE #1

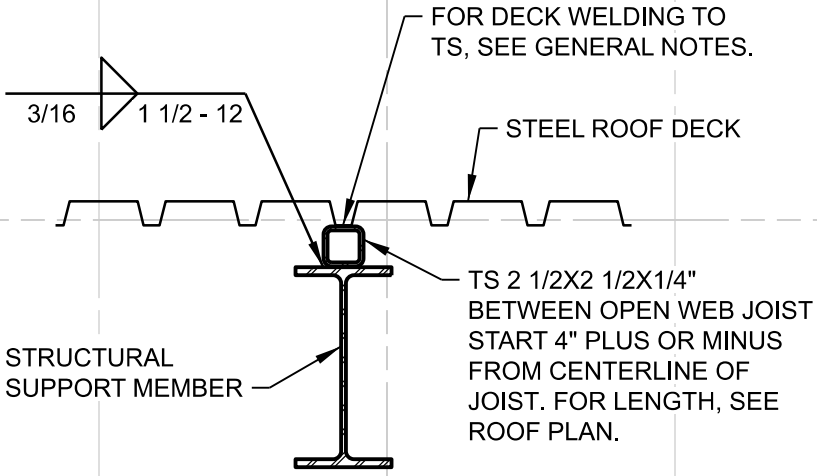
ALTERNATE #2

A1

DETAIL: STUD WALL TO DECK CONNECTION

SCALE: 1"=1'-0"

0 6" 1' 2'



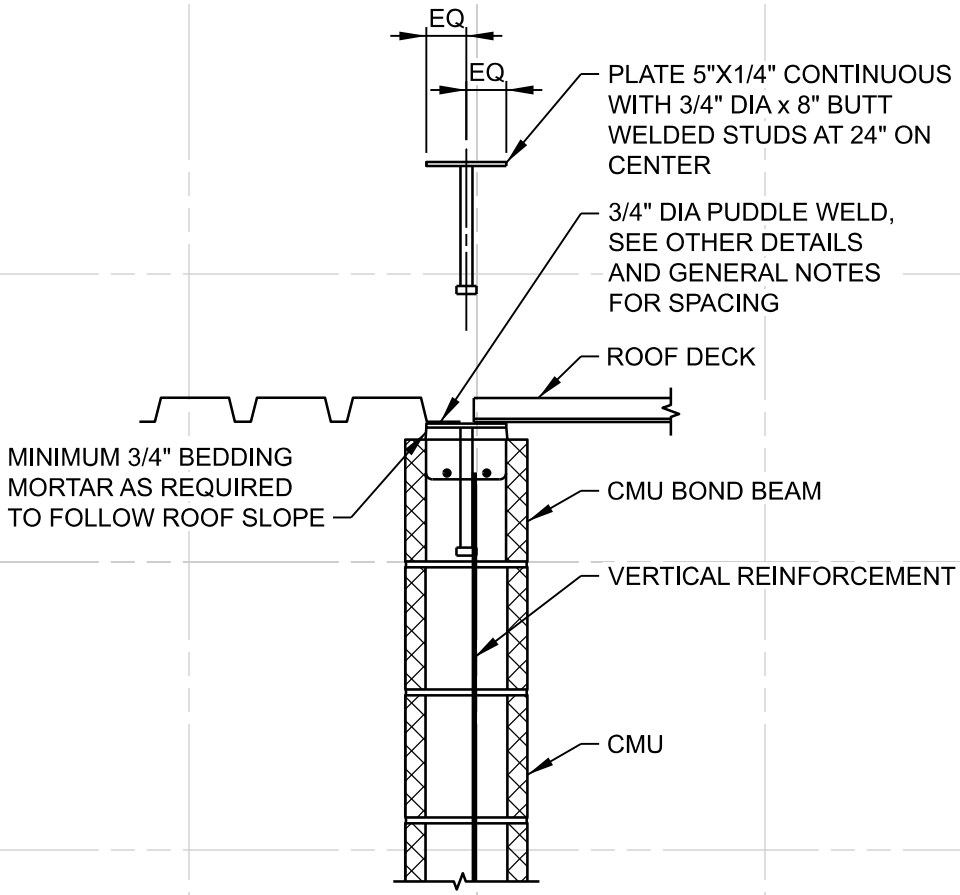
A1

DETAIL: ROOF DECK SHEAR TRANSFER

SCALE: 1"=1'-0"

0 6" 1' 2'

Detail B1021S-DT007X



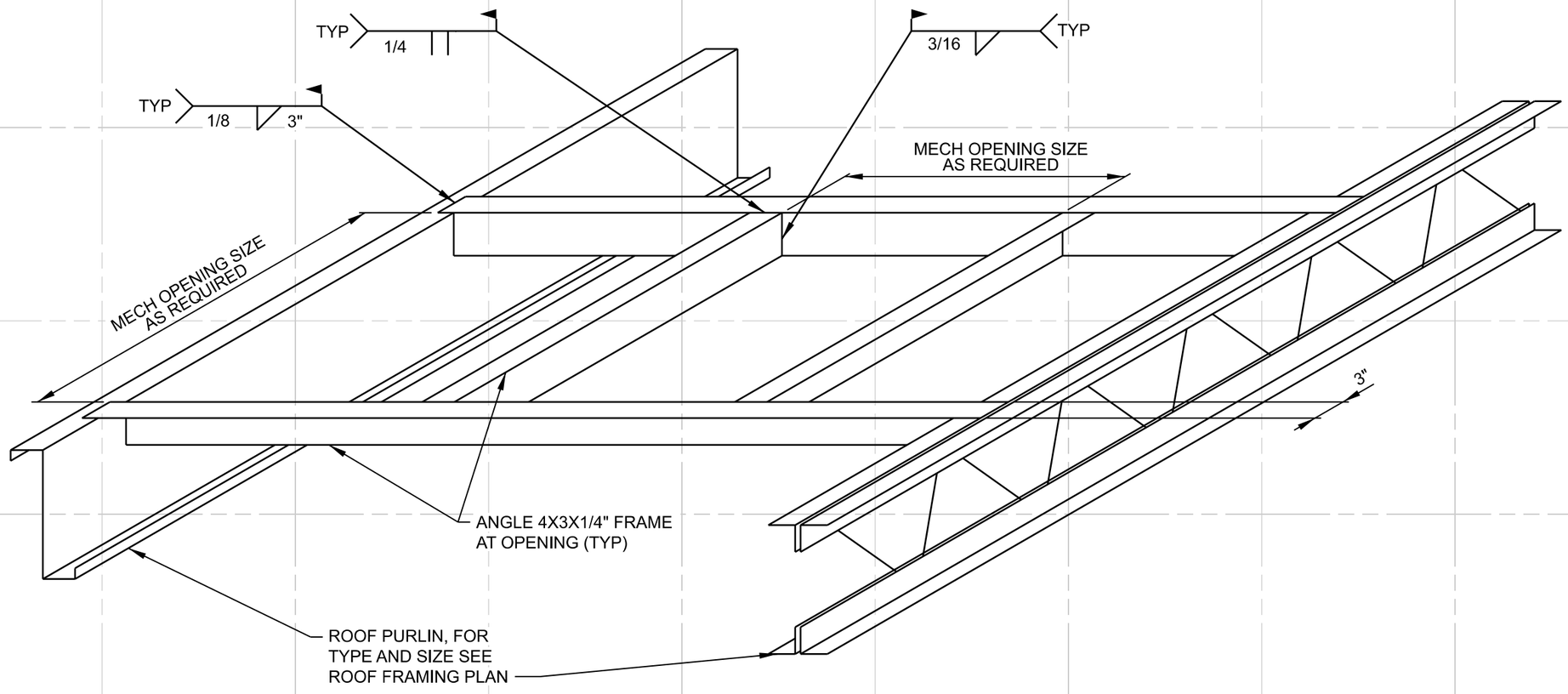
A1

DETAIL: CMU/ROOF DECK CONNECTION

SCALE: 1"=1'-0"

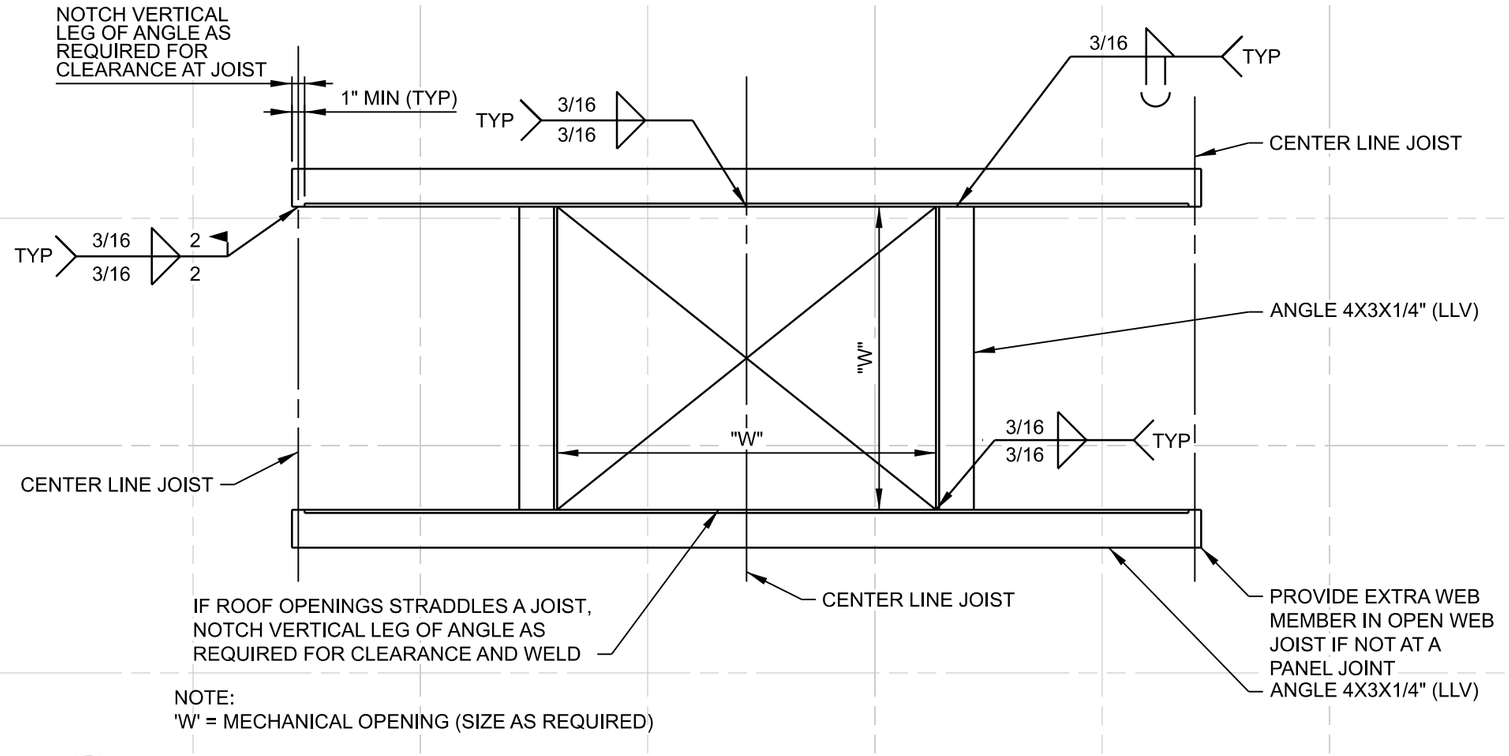
0 6" 1' 2'

Detail B1021S-DT008X



A1 DETAIL: FRAMING FOR ROOF DECK OPENING > 12 INCH

SCALE: NTS

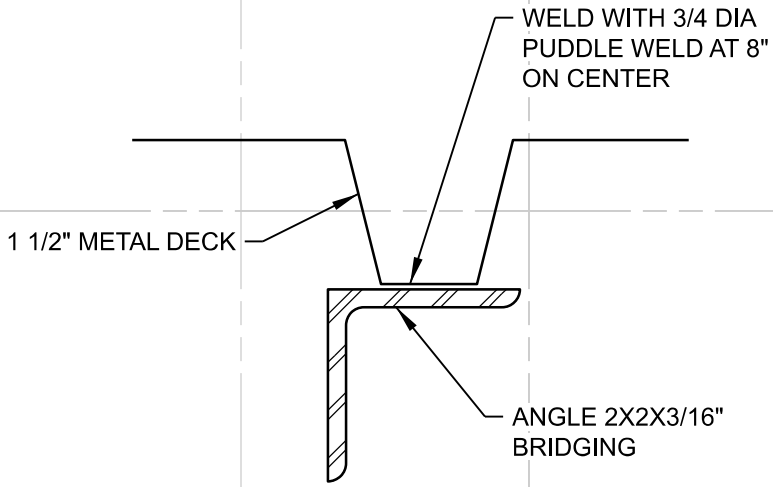


NOTE:
'W' = MECHANICAL OPENING (SIZE AS REQUIRED)

A1 DETAIL: FRAMING FOR ROOF DECK OPENING > 12 INCH

SCALE: 1"=1'-0"

0 6" 1' 2'

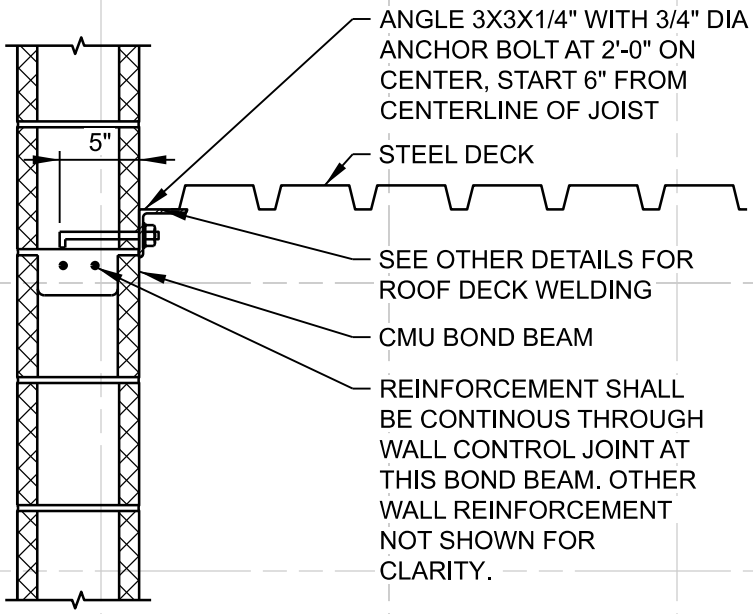


DETAIL: OWJ BRIDGING TO ROOF DECK

A1

SCALE: 6"=1'-0"

0 1-1/2" 3" 6"

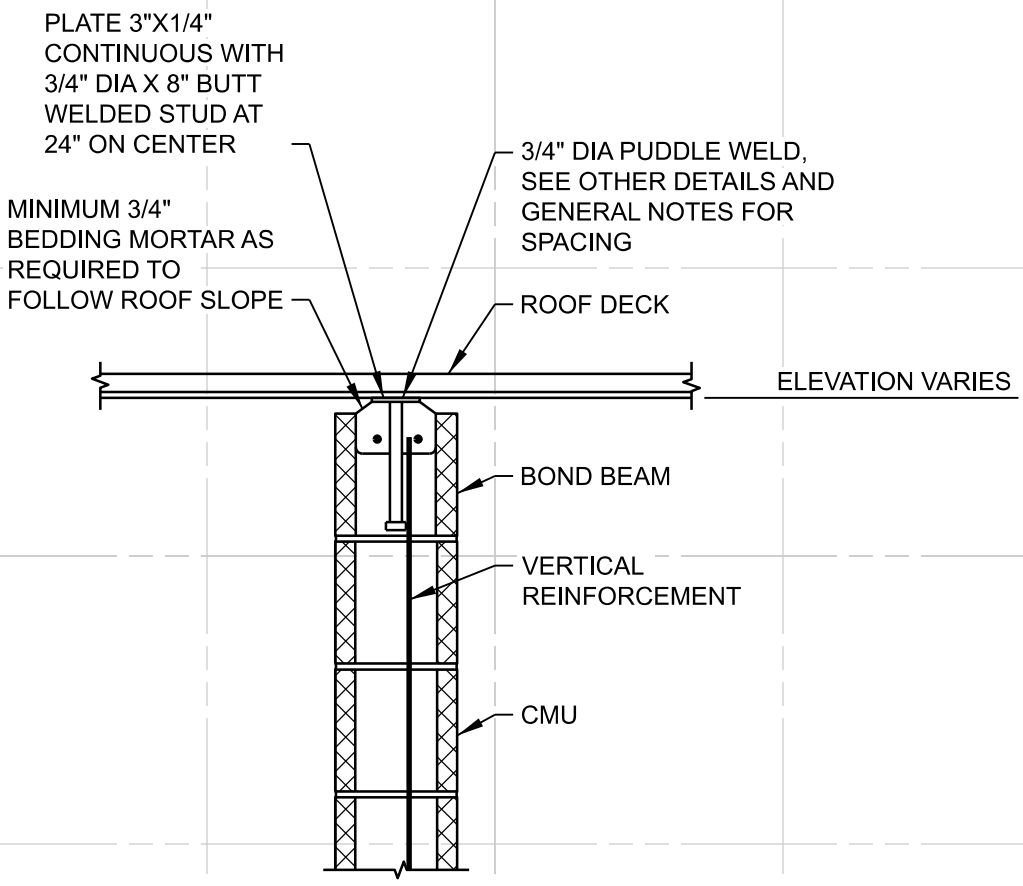


A1

DETAIL: ROOF LEDGER BETWEEN OWJ

SCALE: 1"=1'-0"

0 6" 1' 2'

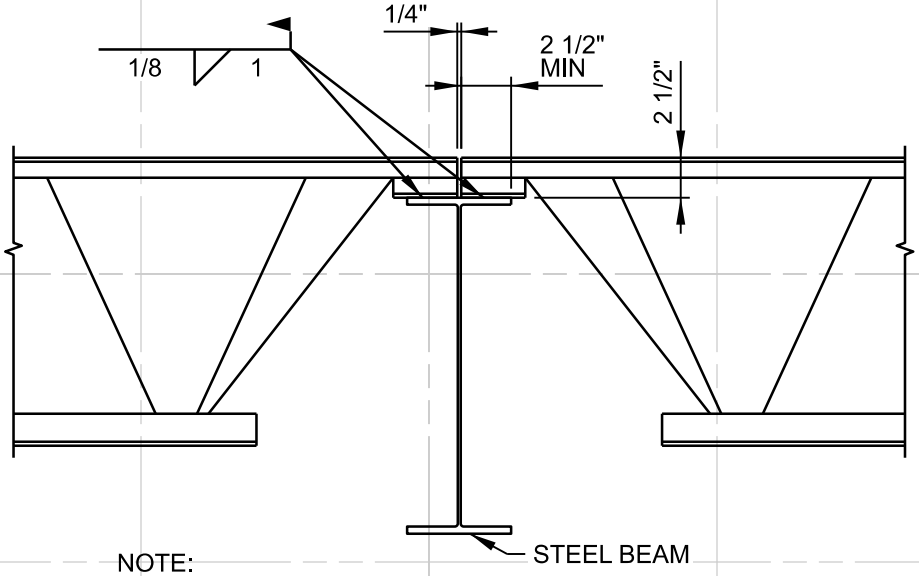


A1

DETAIL: CMU/ROOF DECK CONNECTION

SCALE: 1"=1'-0"

0 6" 1' 2'



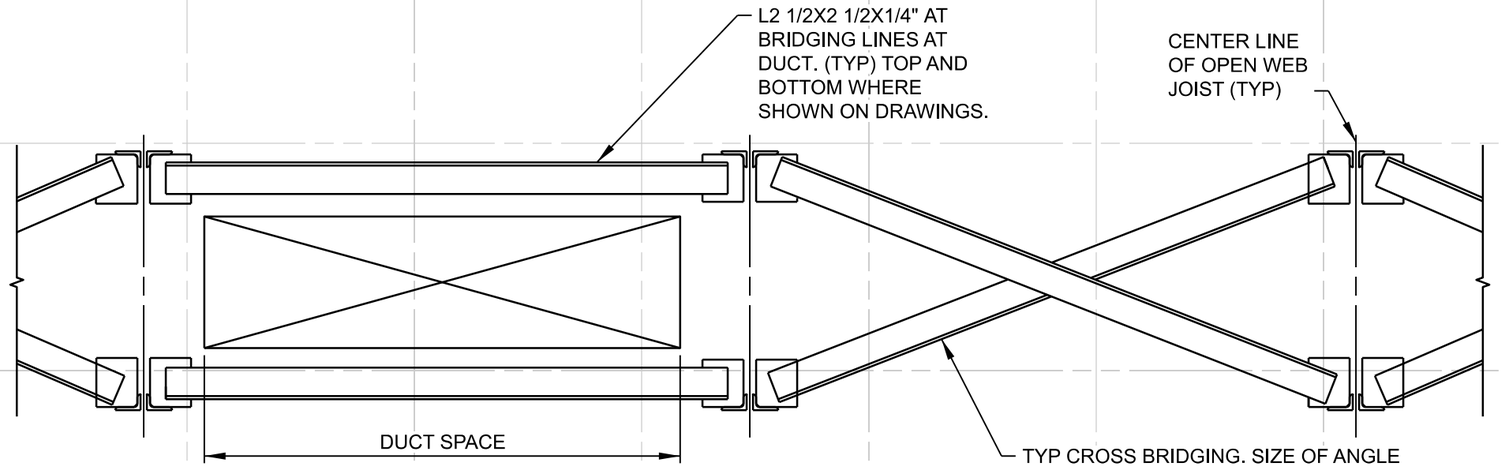
NOTE:
WHERE OWJ SLOPES, PROVIDE SLOPED BEARING SHOES.

A1

DETAIL: OWJ SUPPORT AT BEAM

SCALE: 1"=1'-0"

0 6" 1' 2'



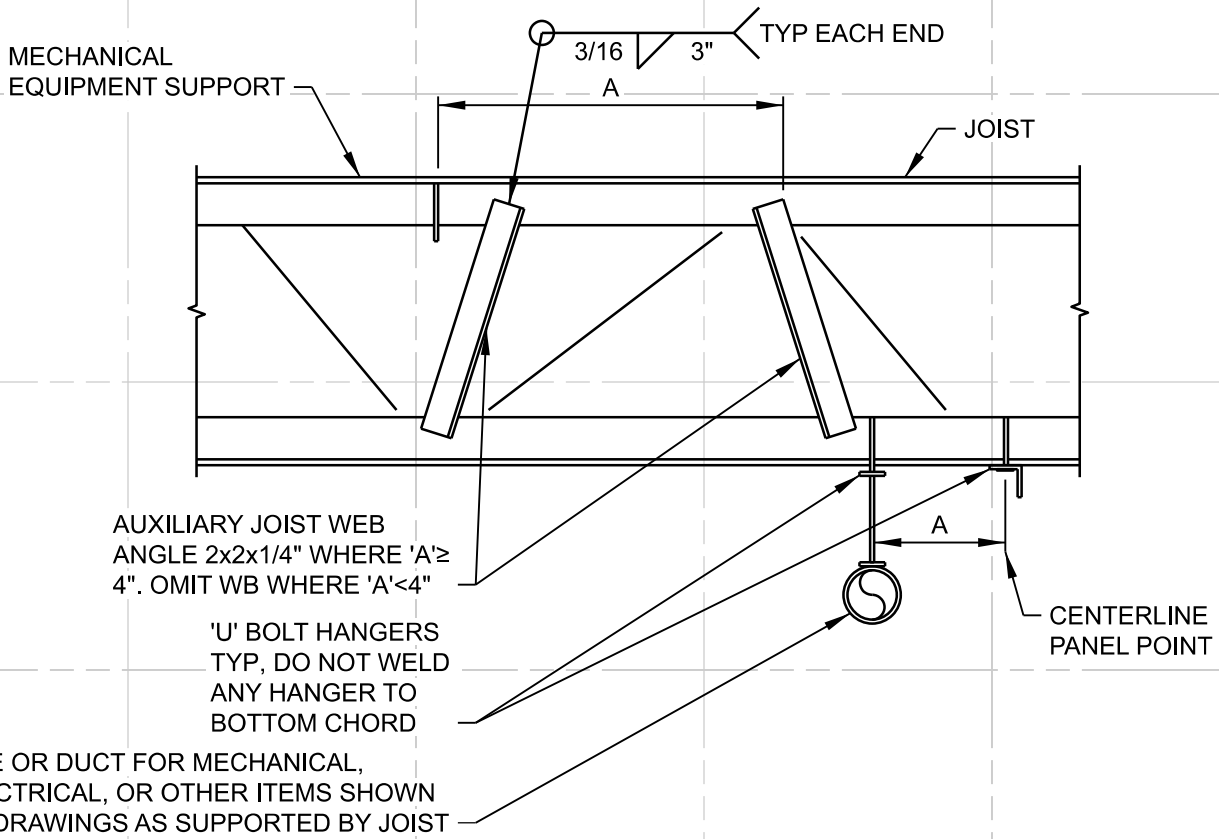
NOTE:
DO NOT SUSPEND CEILING, LIGHT FIXTURES, DUCTS, PIPE OR OTHER UTILITIES FROM JOIST BRIDGING.

A1

DETAIL: OWJ BRIDGING AT MECHANICAL DUCTS

SCALE: 1"=1'-0"

0 6" 1' 2'



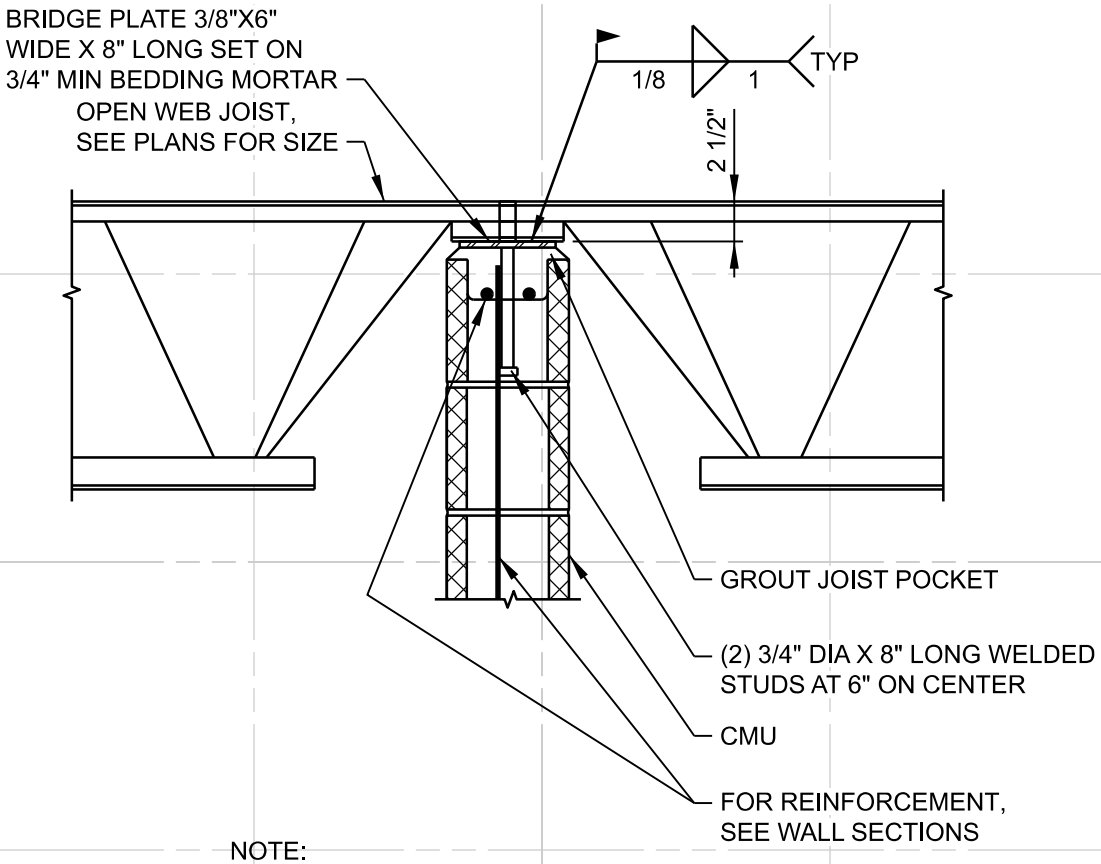
NOTE:
DO NOT SUSPEND CEILING, LIGHT FIXTURES, DUCTS,
PIPE OR OTHER UTILITIES FROM JOIST BRIDGING.

A1

DETAIL: OWJ AUXILIARY MEMBER AND HANGER

SCALE: 1"=1'-0"

0 6" 1' 2'



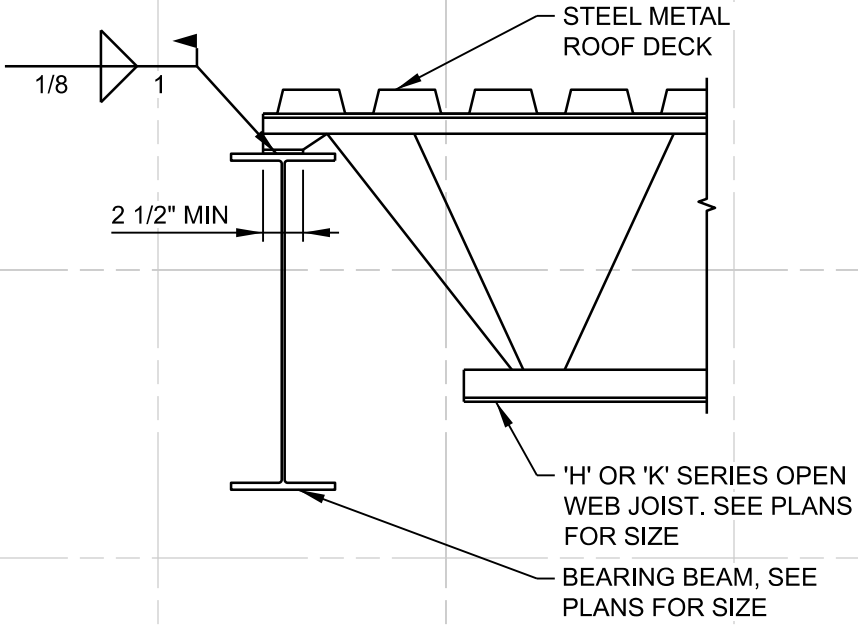
NOTE:
WHERE OPEN WEB JOIST SLOPES PROVIDE SLOPE BEARING SHOES.

DETAIL: OPEN WEB JOIST BEARING ON CMU

A1

SCALE: 1"=1'-0"

0 6" 1' 2'

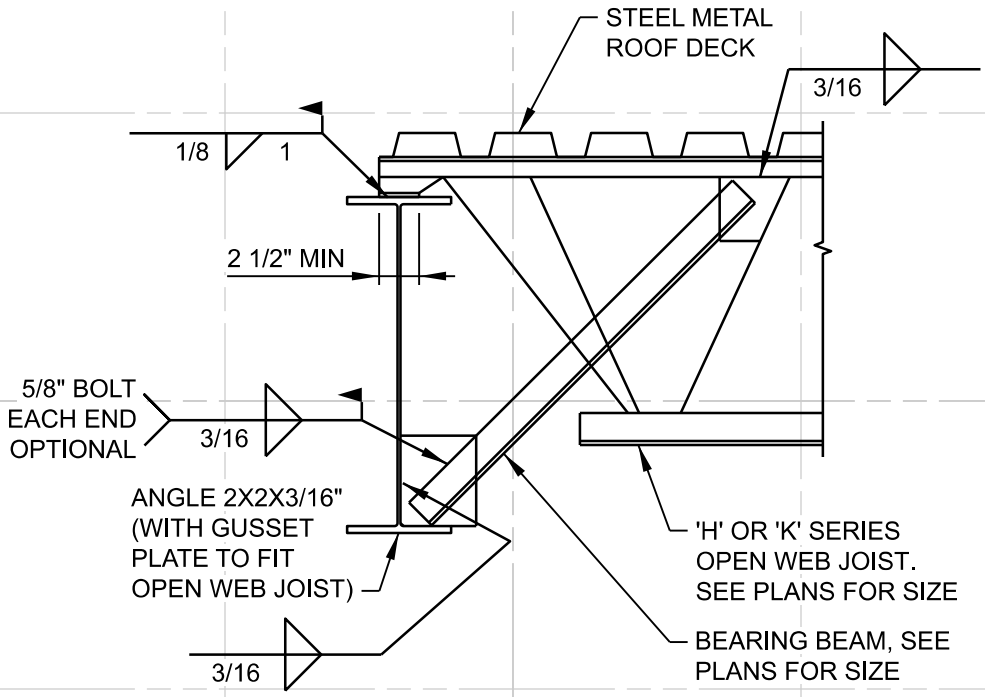


A1

DETAIL: OWJ BEARING ON BEAM

SCALE: 1"=1'-0"

0 6" 1' 2'

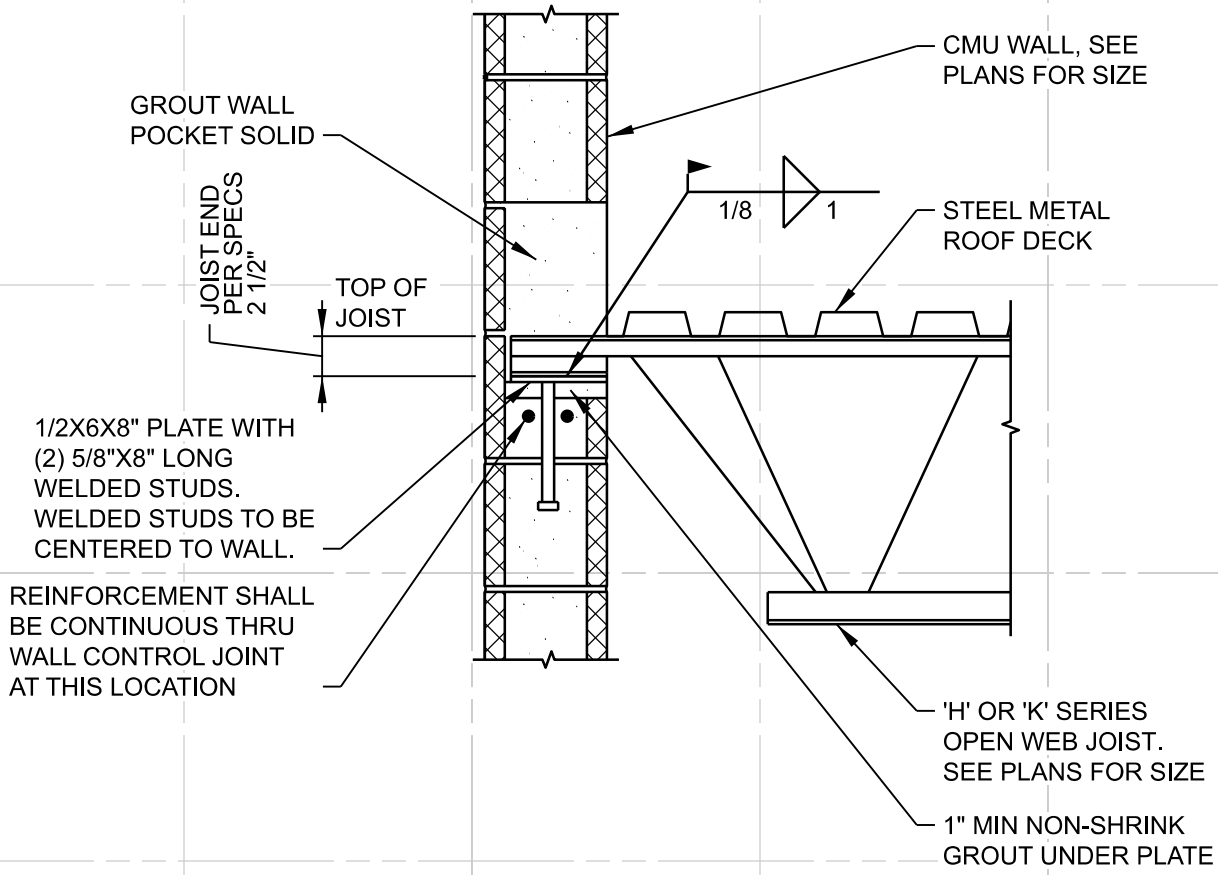


A1

DETAIL: BOTTOM FLANGE BRACE FROM OWJ

SCALE: 1"=1'-0"

0 6" 1' 2'



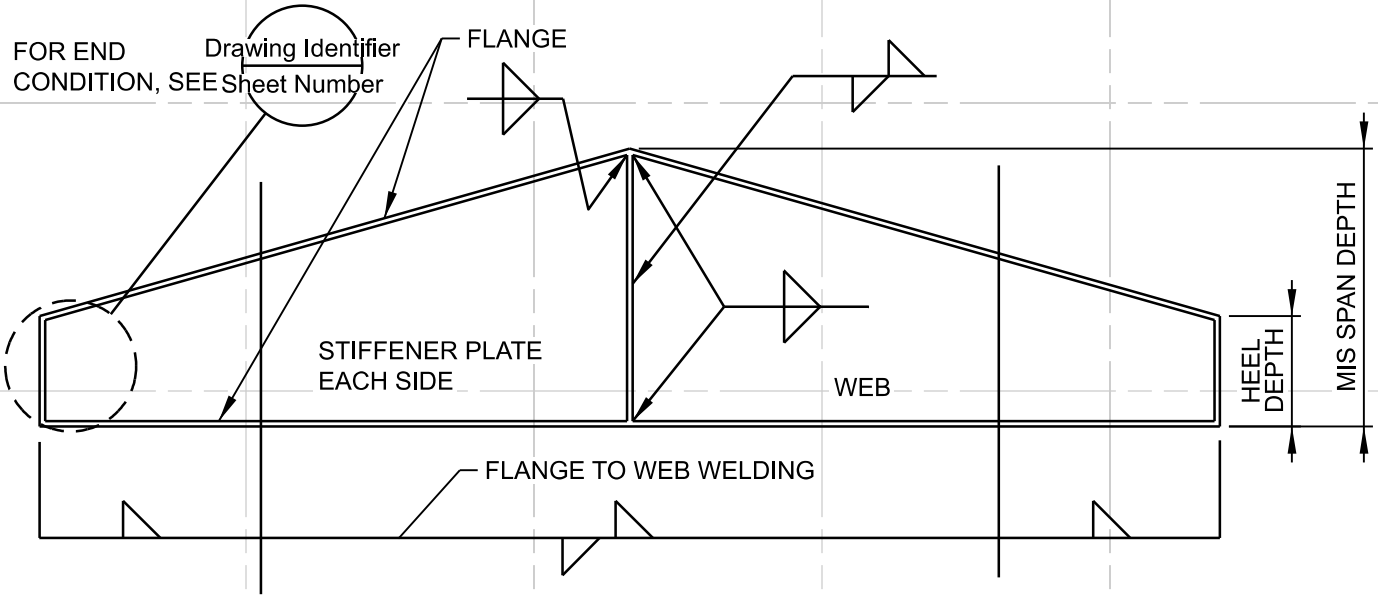
NOTE:
WALL REINFORCEMENT NOT SHOWN FOR CLARITY

A1

DETAIL: OPEN WEB JOIST/CMU SEAT

SCALE: 1"=1'-0"

0 6" 1' 2'

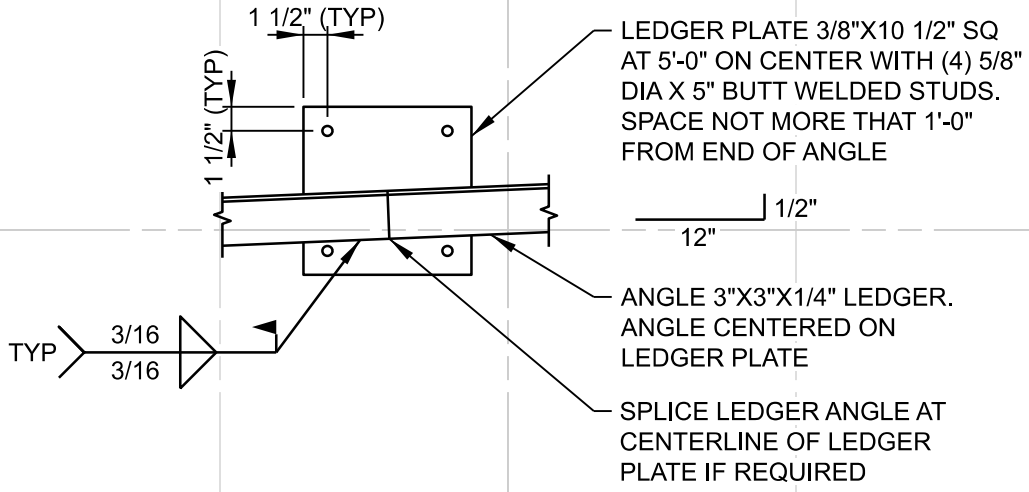


BEAM	MID SPAN DEPTH	HEEL DEPTH	WEB THICKNESS	FLANGE WIDTH	FLANGE THICKNESS
X	X	X	X	X	X
X	X	X	X	X	X
X	X	X	X	X	X

A1

DETAIL: TAPERED STEEL GIRDER SCHEDULE

SCALE: NTS



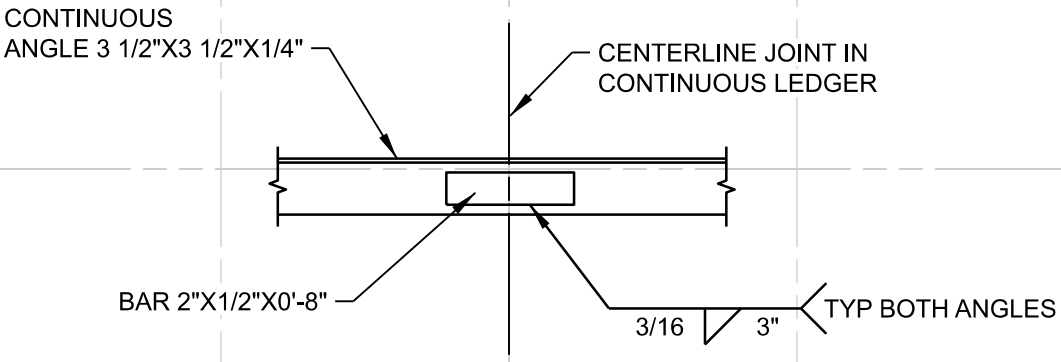
A1

DETAIL: LEDGER ANGLE

SCALE: 1"=1'-0"

0 6" 1' 2'

Detail B1021S-DT021E

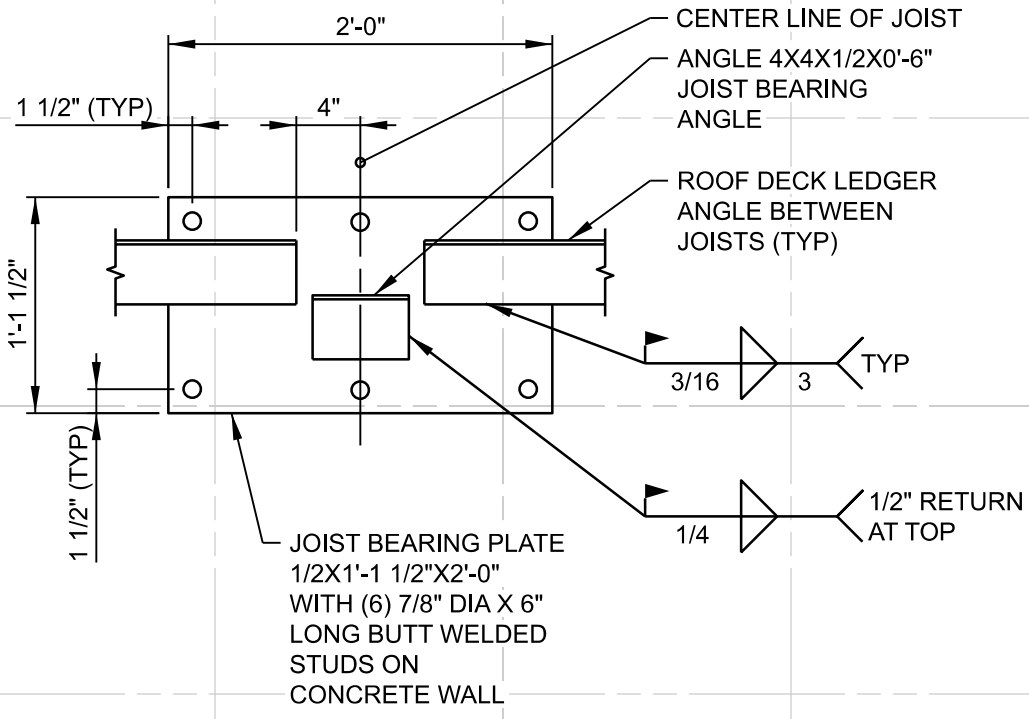


A1

DETAIL: CONTINUOUS LEDGER SPLICE

SCALE: 1"=1'-0"

0 6" 1' 2'

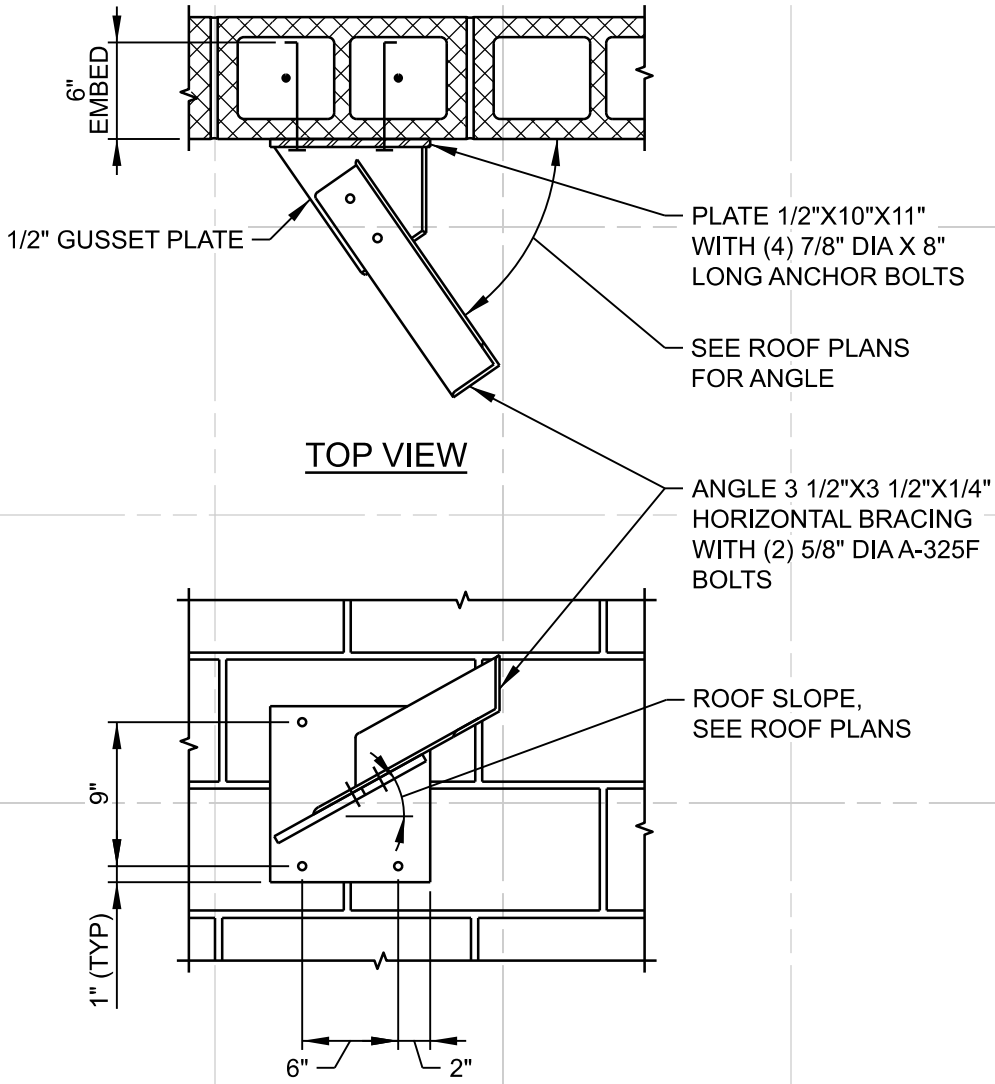


DETAIL: JOIST AND ROOF DECK LEDGER

A1

SCALE: 1"=1'-0"

0 6" 1' 2'

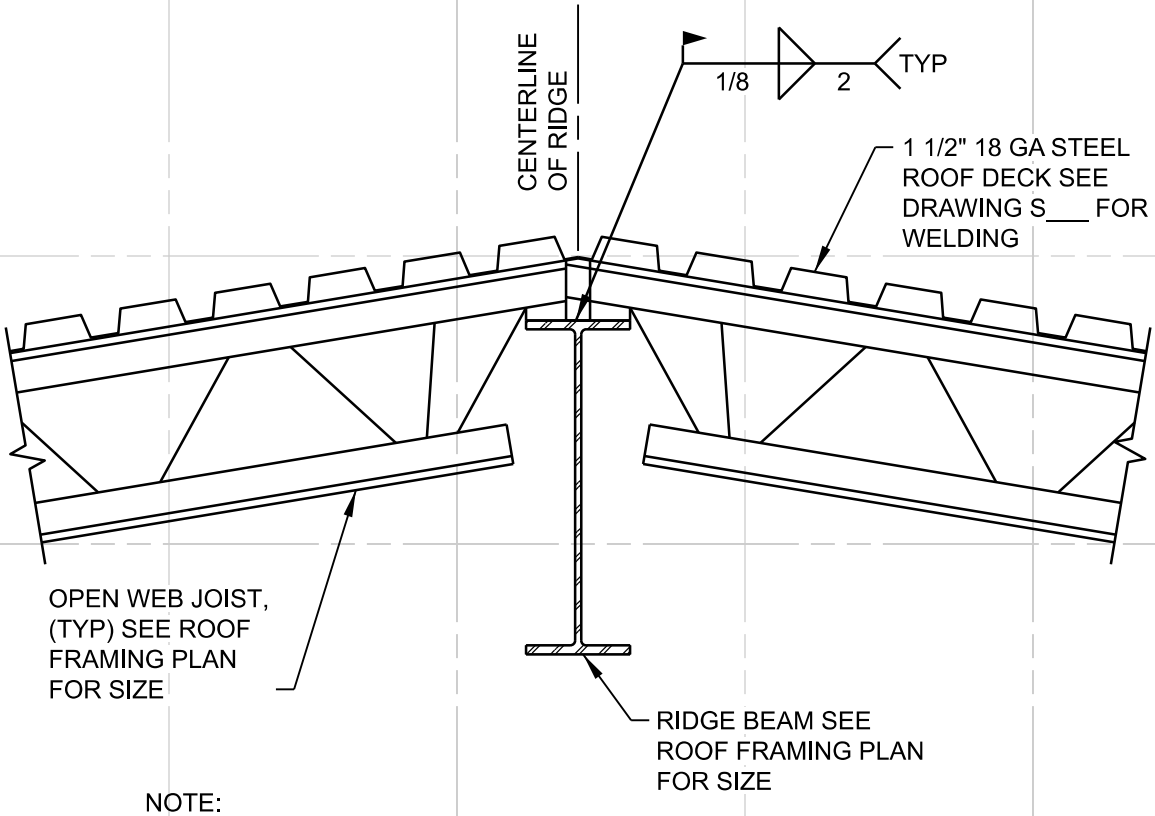


A1

DETAIL: ROOF BRACING TO CMU

SCALE: 1"=1'-0"

0 6" 1' 2'

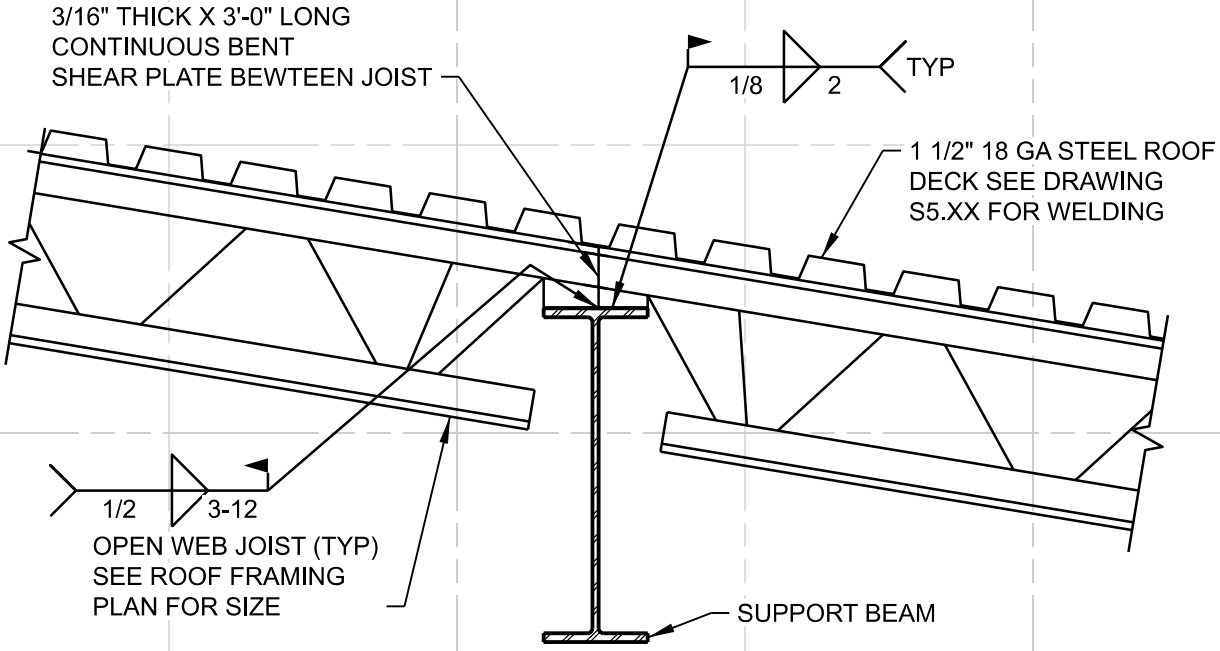


NOTE:
1. OFFSET OPEN WEB JOIST SO BEARING IS THROUGH CENTROID OF RIDGE BEAM IF REQUIRED.
2. SEE SHEET S___ FOR DECK SUPPORT PLATE BETWEEN JOIST AND RIDGE.

A1

DETAIL: RIDGE BEAM OWJ SEAT

SCALE: NTS



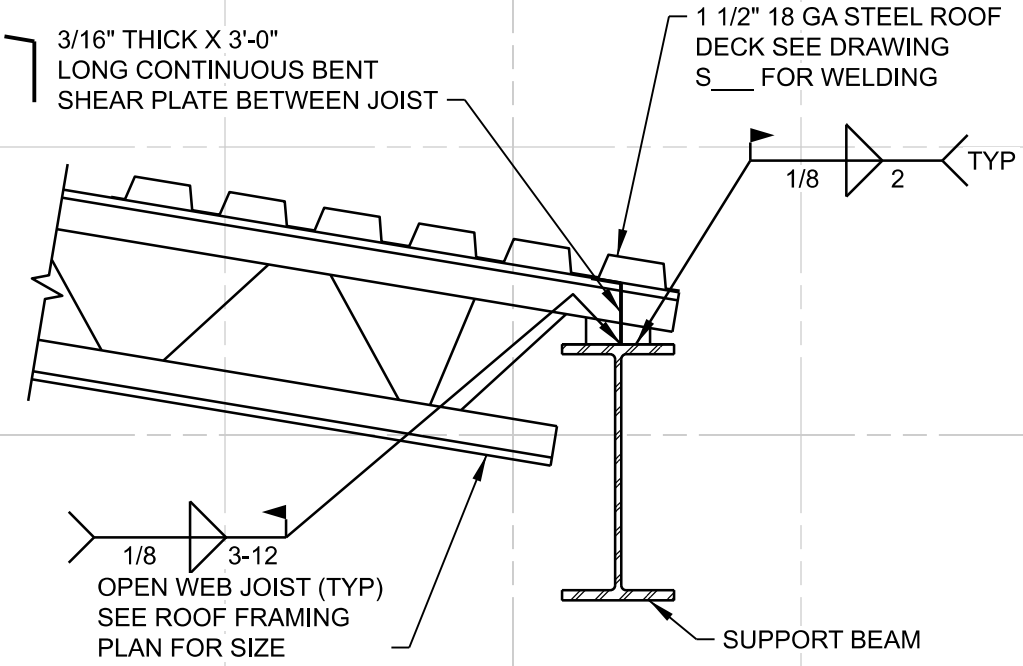
NOTE:
1. OFFSET OWJ SO BEARING IS THROUGH CENTERLINE OF BEAM IF REQUIRED.

A1

DETAIL: OPEN WEB JOIST SUPPORT OVER BEAM

SCALE: 1"=1'-0"

0 6" 1' 2'

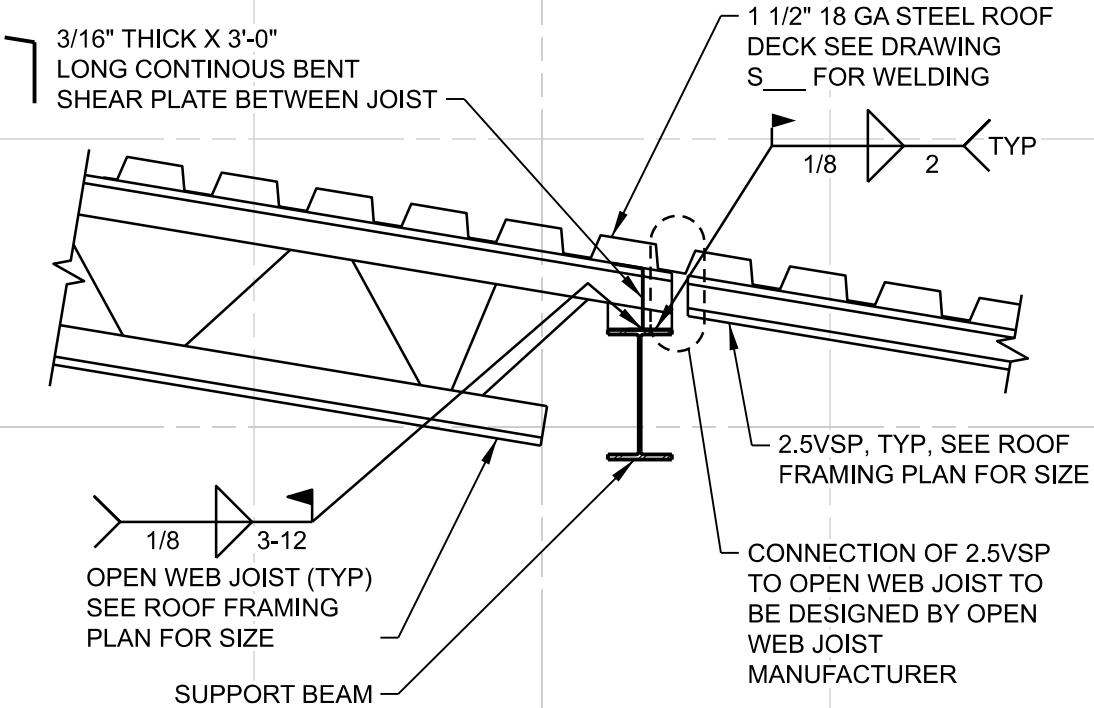


A1

DETAIL: OPEN WEB JOIST SUPPORT OVER BEAM

SCALE: 1"=1'-0"

0 6" 1' 2'

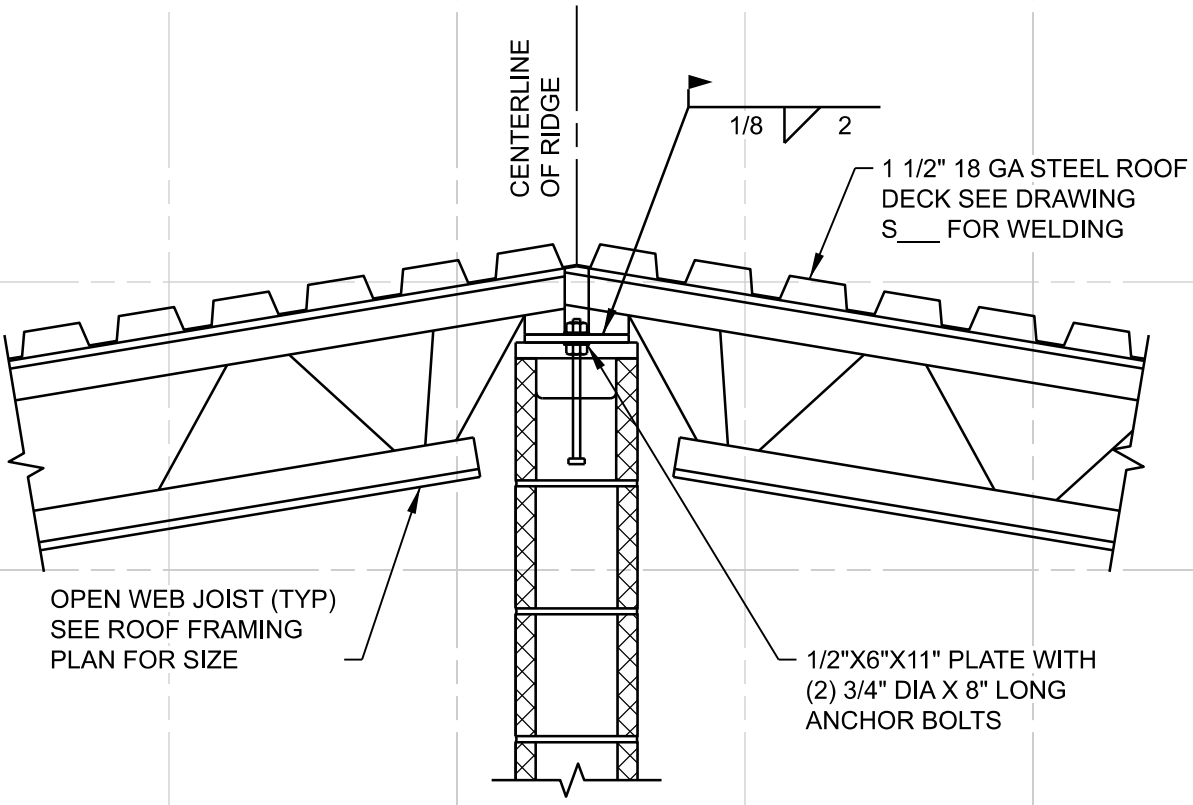


A1

DETAIL: 2.5VSP TO OPEN WEB JOIST CONNECTION

SCALE: 1"=1'-0"

0 6" 1' 2'



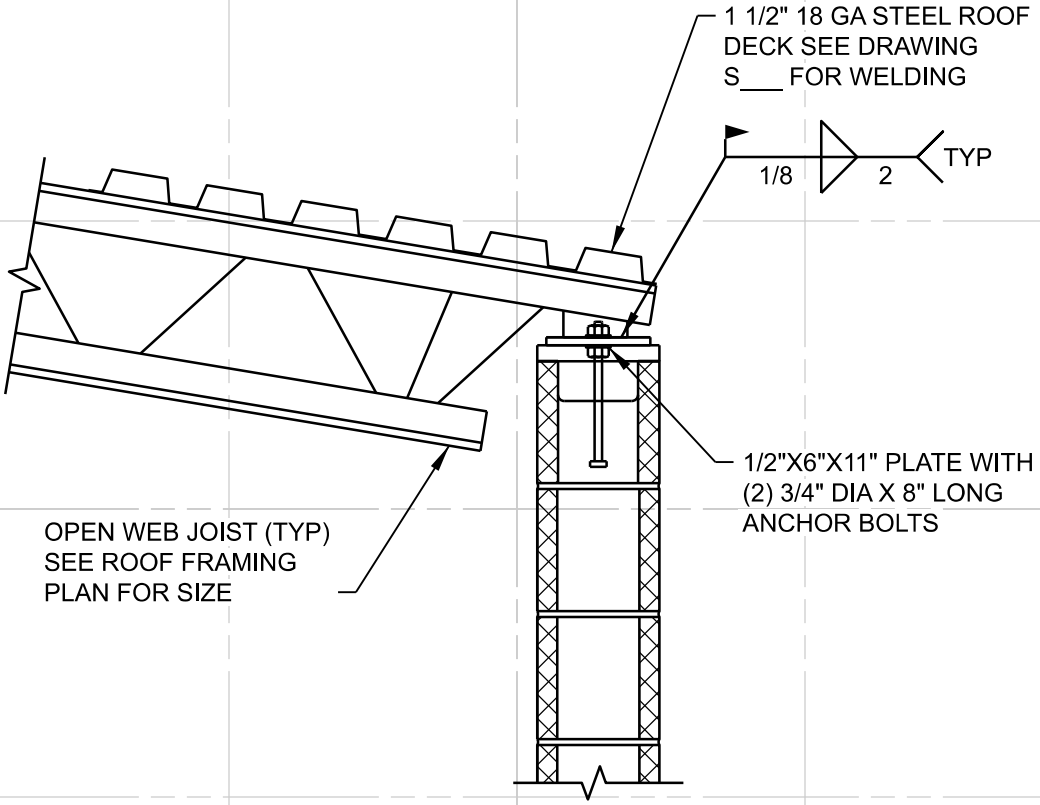
NOTE:
1. OFFSET OPEN WEB JOIST SO BEARING IS THROUGH CENTER OF CMU WALL.
2. CMU WALL REINFORCEMENT NOT SHOWN FOR CLARITY.

A1

DETAIL: CMU WALL JOIST SUPPORT AT RIDGE

SCALE: 1"=1'-0"

0 6" 1' 2'



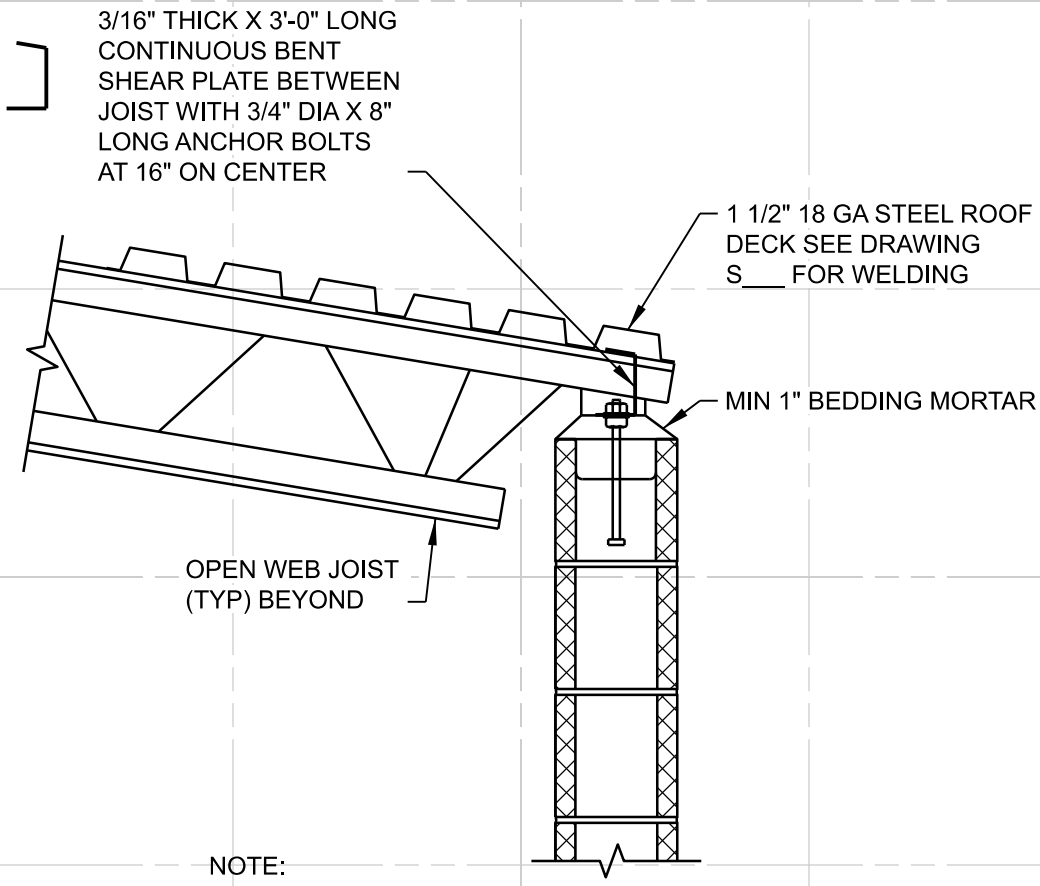
NOTE:
1. CMU WALL REINFORCEMENT NOT SHOWN FOR CLARITY.

A1

DETAIL: CMU WALL JOIST SEAT

SCALE: 1"=1'-0"

0 6" 1' 2'



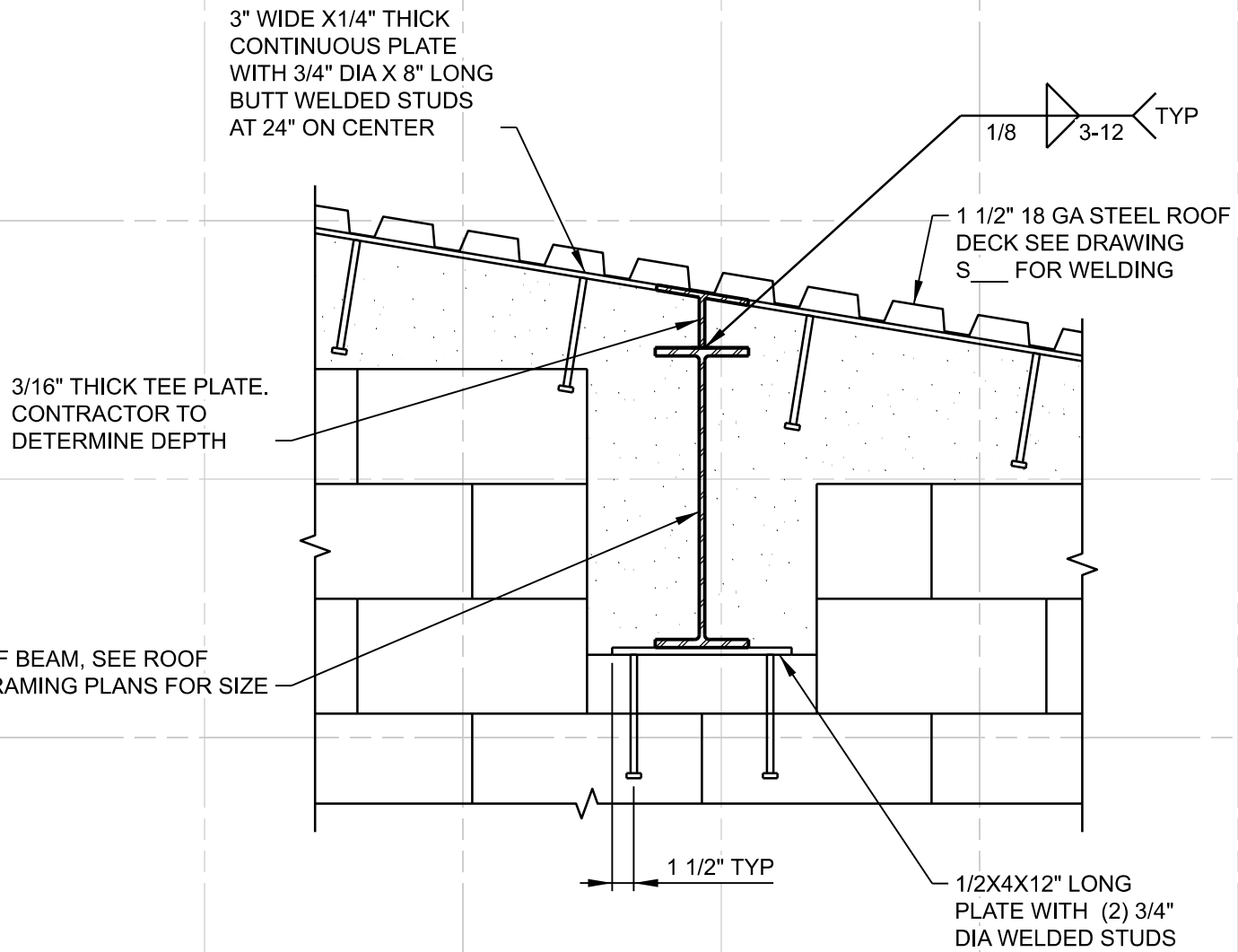
NOTE:
1. CMU WALL REINFORCEMENT NOT SHOWN FOR CLARITY.

A1

DETAIL: CMU WALL JOIST SEAT WITH SHEAR PLATE

SCALE: 1"=1'-0"

0 6" 1' 2'



NOTE:
1. CMU WALL REINFORCEMENT NOT SHOWN FOR CLARITY.

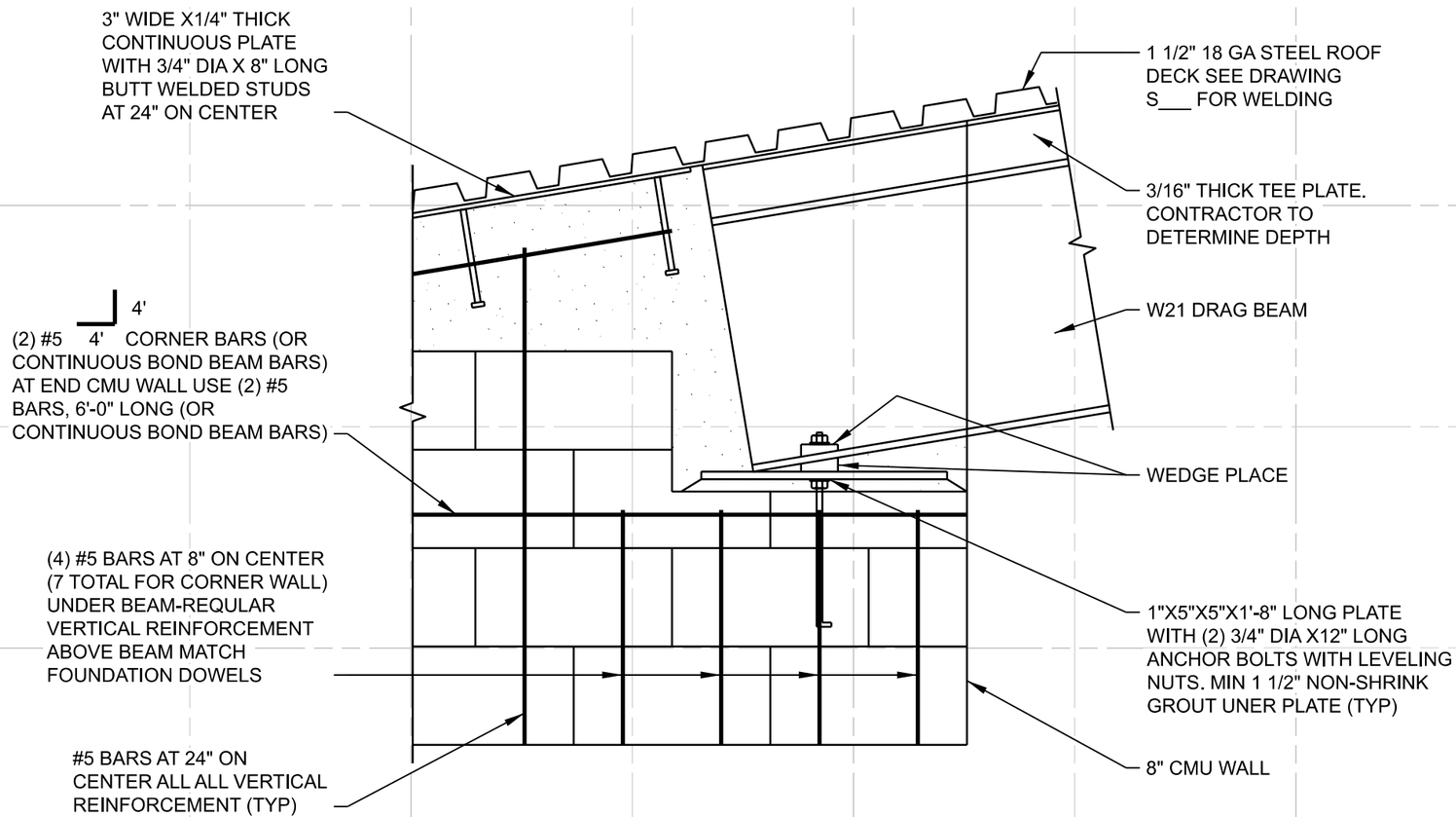
A1

DETAIL: BEAM SUPPORT ON CMU WALL

SCALE: 1"=1'-0"

0 6" 1' 2'

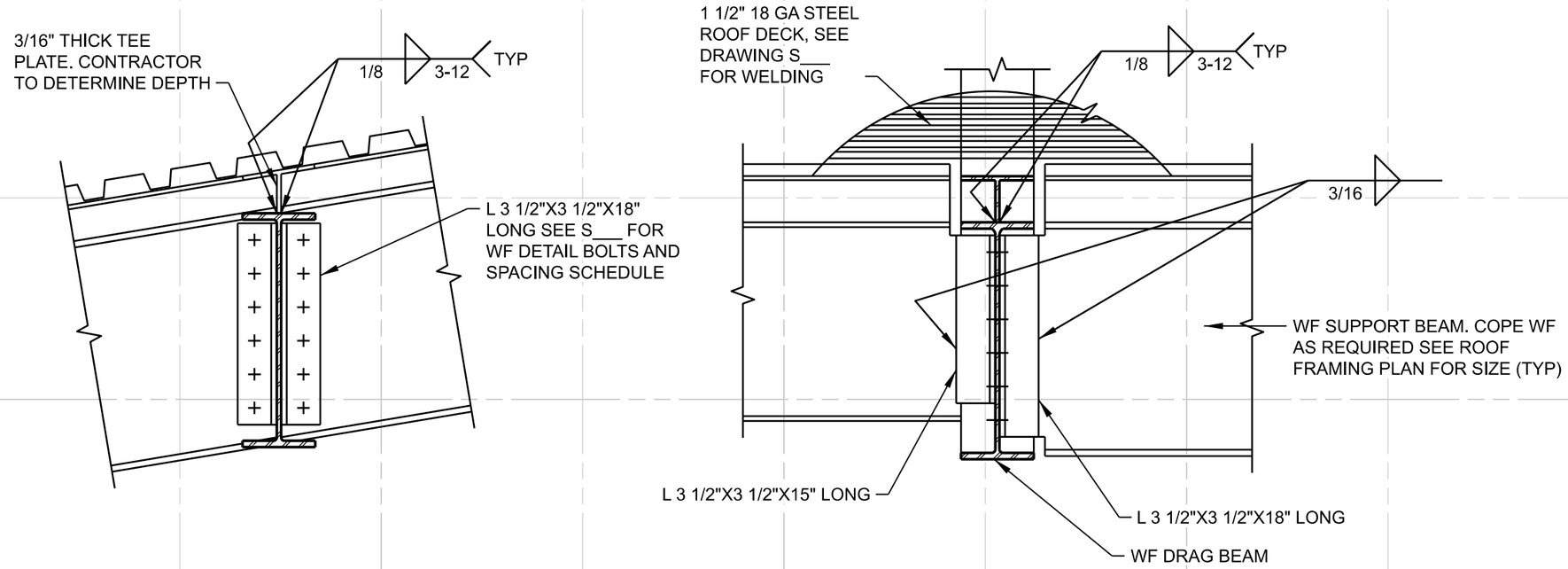
Detail B1021S-DT032X



A1 DETAIL: DRAG BEAM CONNECTION AT CMU WALL

SCALE: 1"=1'-0"

0 6" 1' 2'



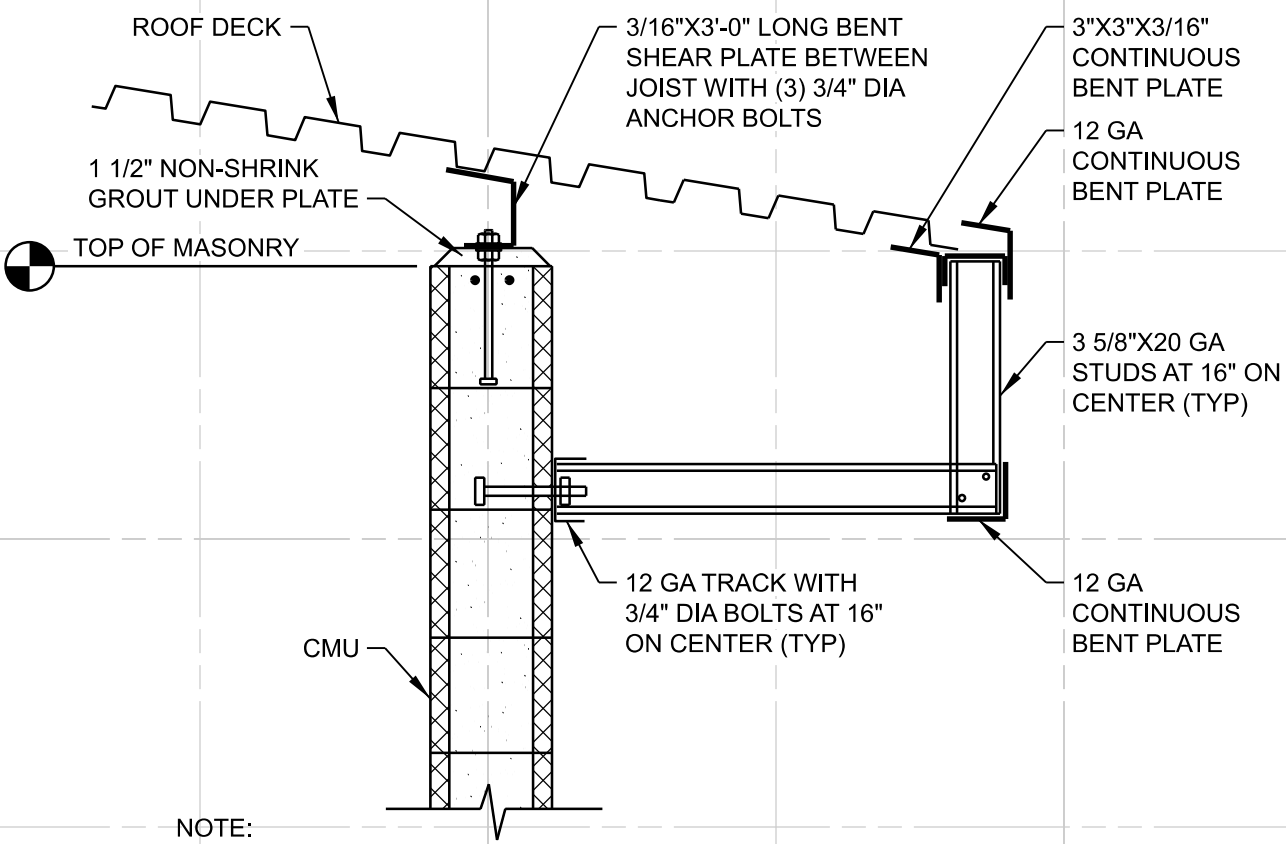
SECTION A

A1 DETAIL: BEAMS TO DRAG BEAM CONNECTION

SCALE: 1"=1'-0"

0 6" 1' 2'

Detail B1021S-DT034X



NOTE:
SEE ARCHITECTURAL DRAWINGS FOR DEPTH OF FASCIA AND SOFFIT.

DETAIL: WALL/FASCIA BETWEEN OWJ OR GABLE JOIST

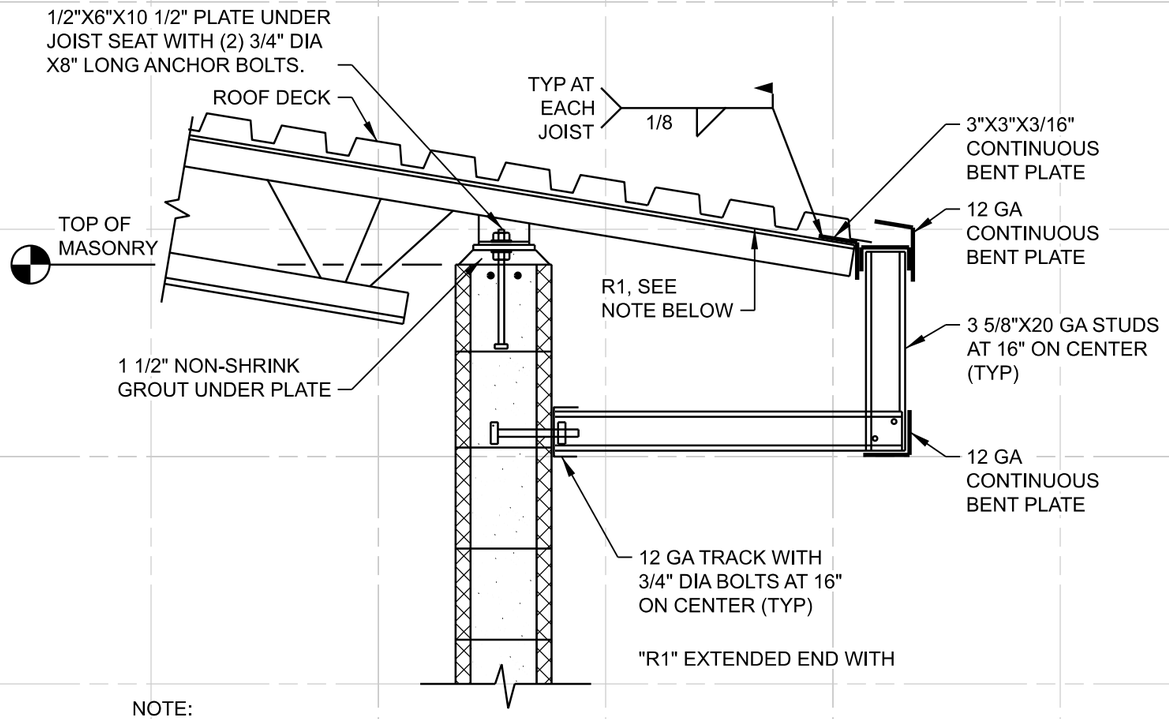
A1

SCALE: 1"=1'-0"

0 6" 1' 2'

Detail B1021S-DT035X

Details-US-Structural-B102-RoofConstruction



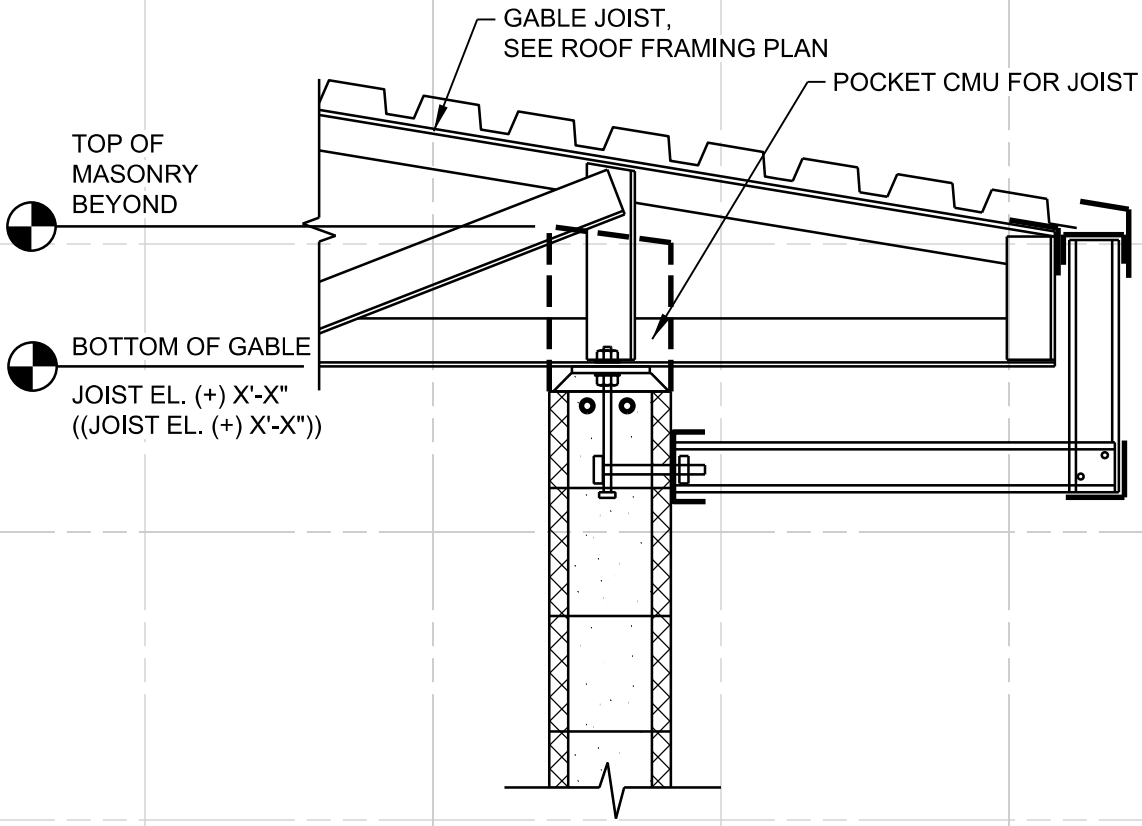
NOTE:
SEE ARCHITECTURAL DRAWINGS FOR DEPTH OF FASCIA AND SOFFIT.

A1 DETAIL: WALL/FASCIA AT CMU

SCALE: 1"=1'-0"

0 6" 1' 2'

Detail B1021S-DT036X



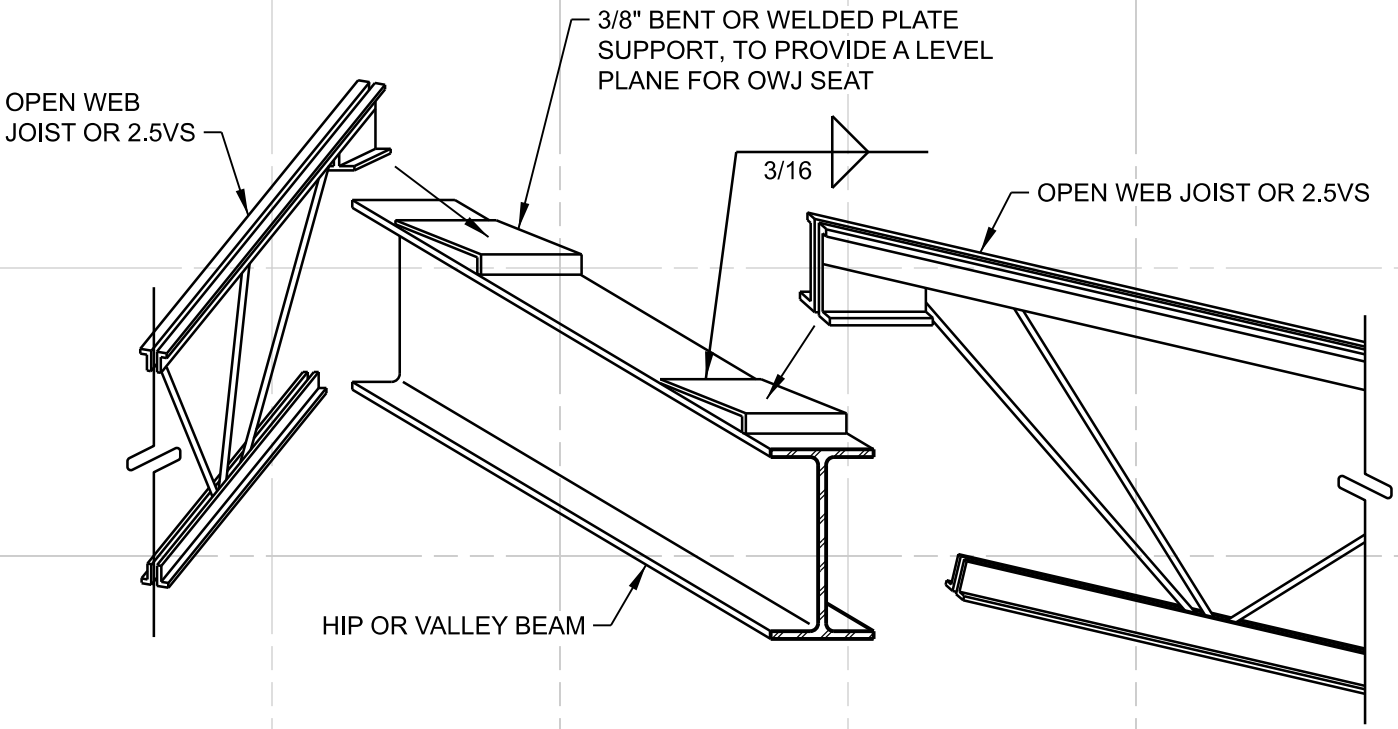
NOTE:
FOR ADDITIONAL INFORMATION SEE DETAIL __.

A1

DETAIL: WALL/FASCIA AT GABLE JOIST

SCALE: 1"=1'-0"

0 6" 1' 2'

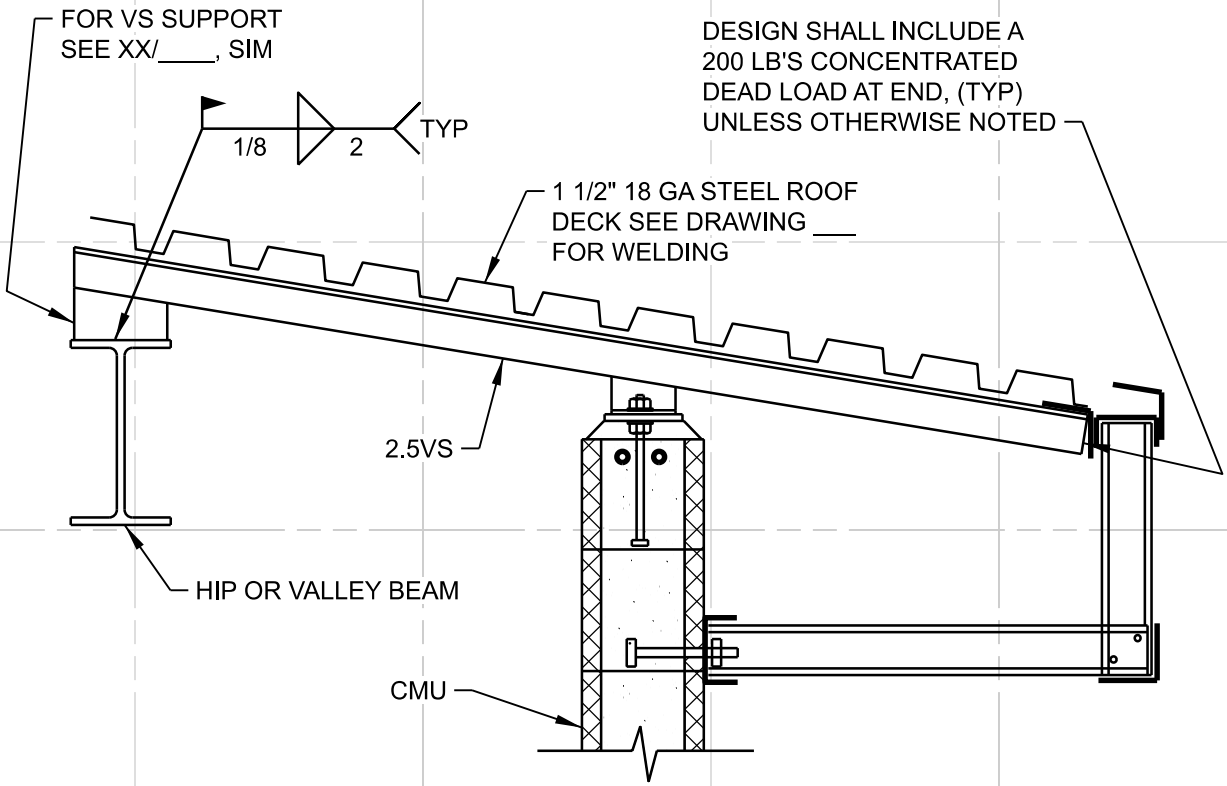


NOTES:
1. STAGGER OPEN WEB JOIST'S SO EACH JOIST REACTION IS THROUGH THE CENTROID OF THE BEAM. FABRICATOR SHALL COORDINATE WITH OPEN WEB JOIST MANUFACTURER TO ESTABLISH TOP OF STEEL OF THE BEAM.
2. SEE DRAWING ___ FOR DECK SUPPORT PLATE BETWEEN JOIST AT HIPS.

DETAIL: HIP AND VALLEY BEAM TO OWJ SUPPORT

A1

SCALE: NTS



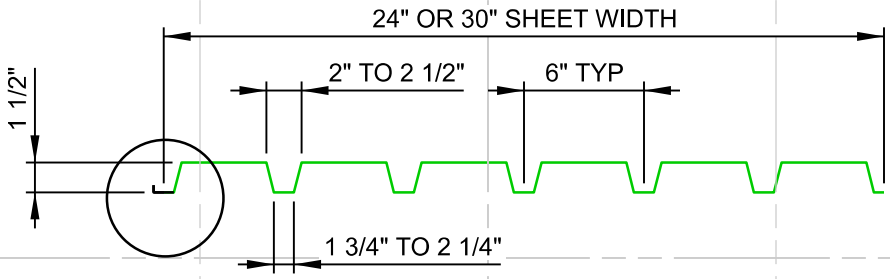
NOTES:
1. FOR ADDITIONAL INFORMATION SEE DETAILS __ AND __.
2. SEE ARCHITECTURAL DRAWINGS FOR DEPTH OF FASCIA AND SOFFIT.

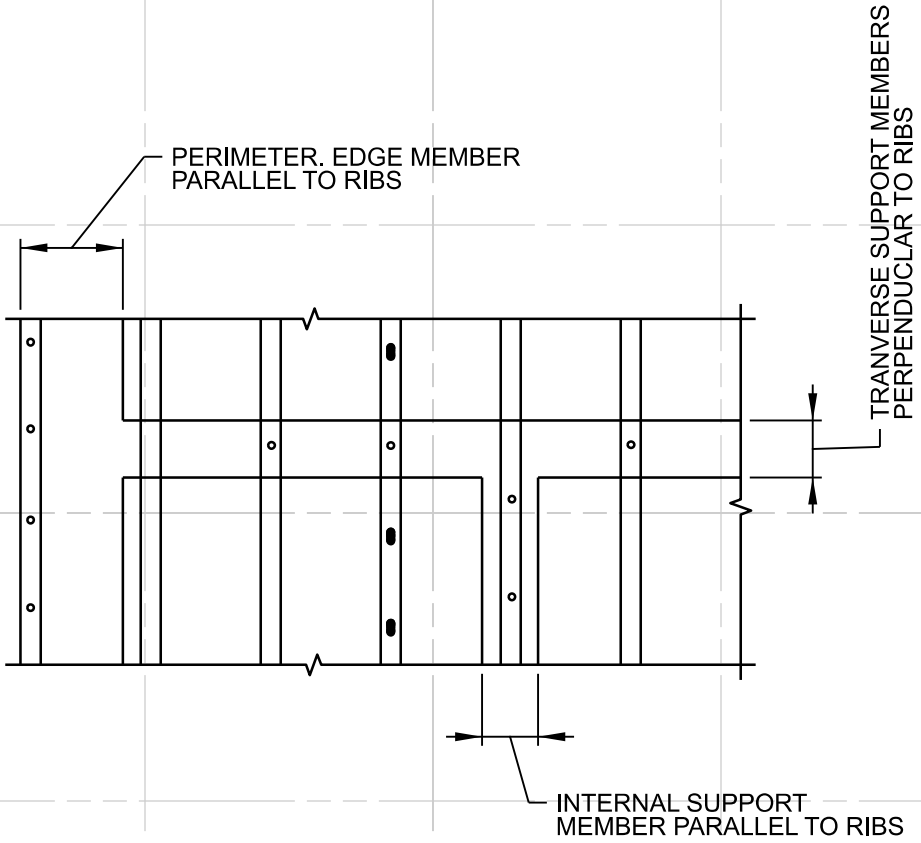
A1

DETAIL: 2.5VS SUPPORT AT CMU WALL

SCALE: 1"=1'-0"

0 6" 1' 2'





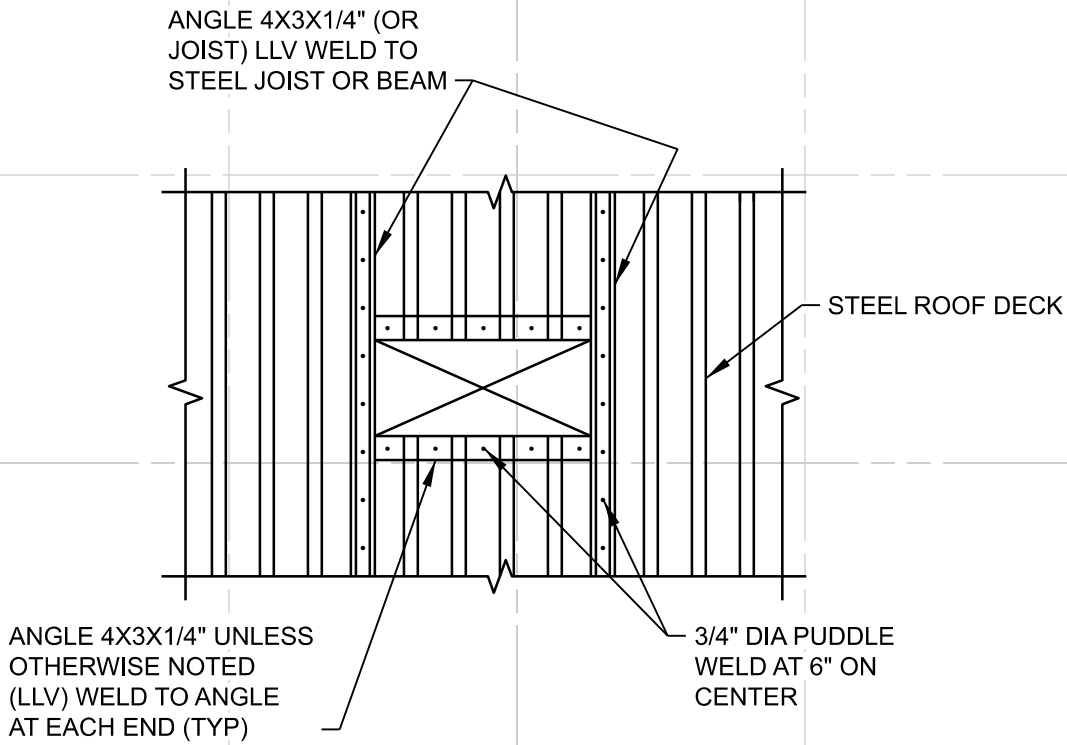
A1

DETAIL: WIDE RIBBED DECKING

SCALE: 1"=1'-0"

0 6" 1' 2'

Detail B1023S-DT001X

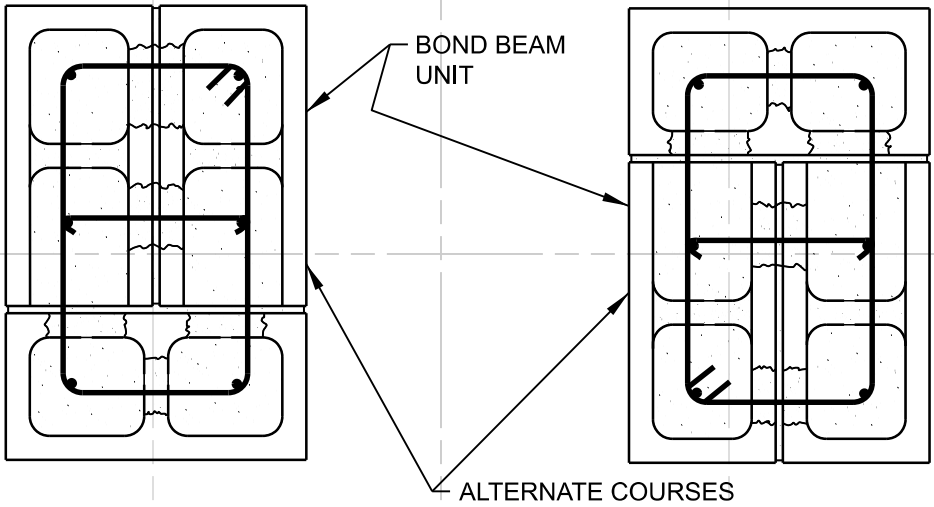


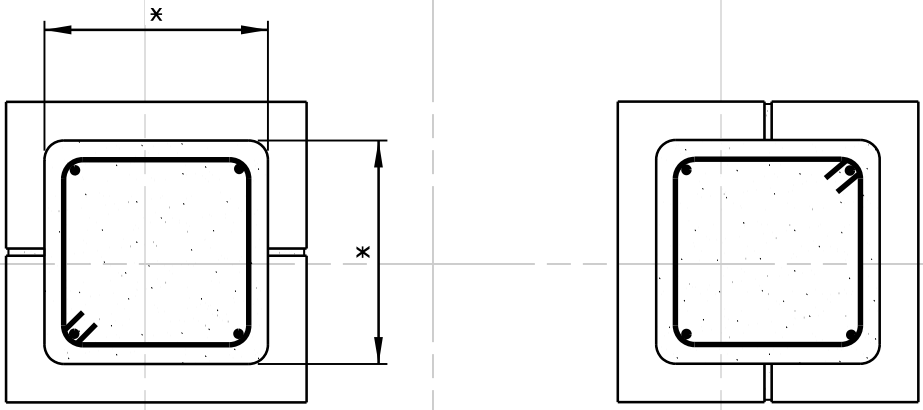
A1

DETAIL: ROOF DECK OPENING ≥ TO 12 INCH

SCALE: 1/2"=1'-0"

0 1' 2' 4'





(B) BUILT WITH PILASTER UNITS.

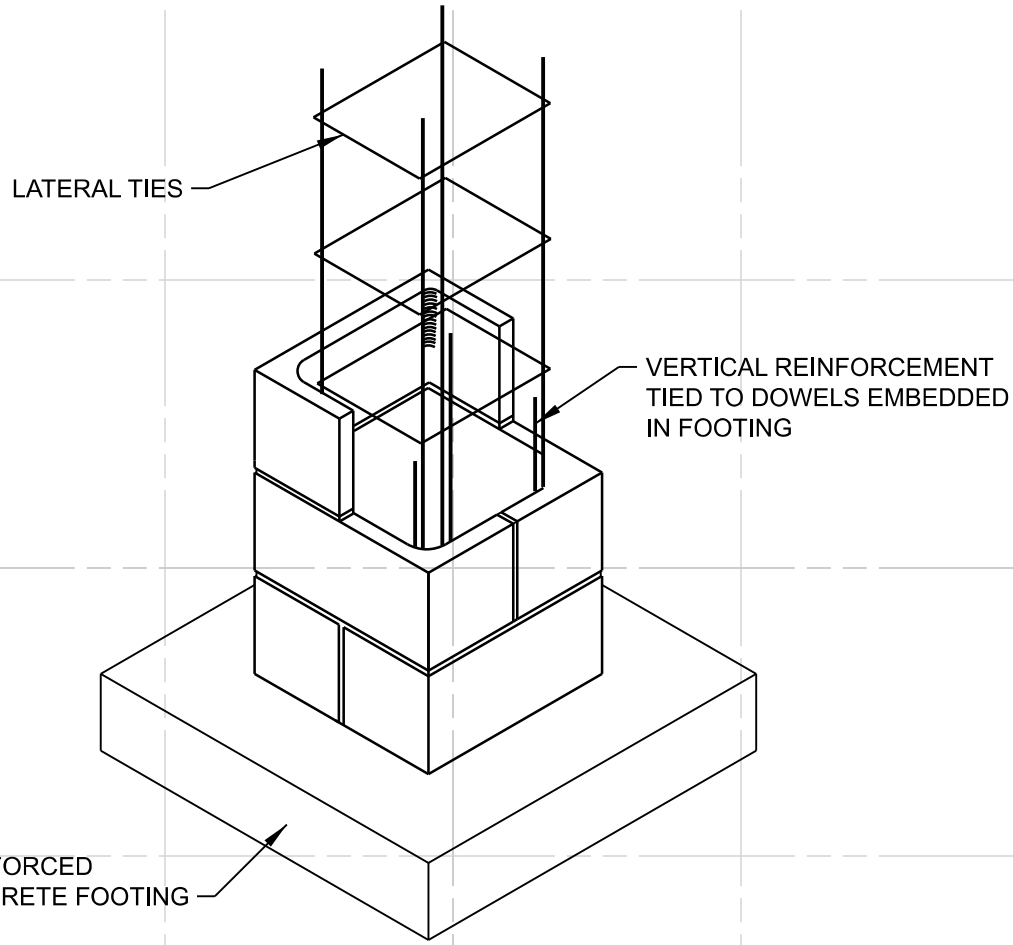
* 8" MIN-12x12 COLUMN
* 12" MIN-16x16 COLUMN

NOTES:
REMOVE WEBS AS NEEDED FOR TIES AND GROUTING

A1

DETAIL: COLUMN SECTIONS

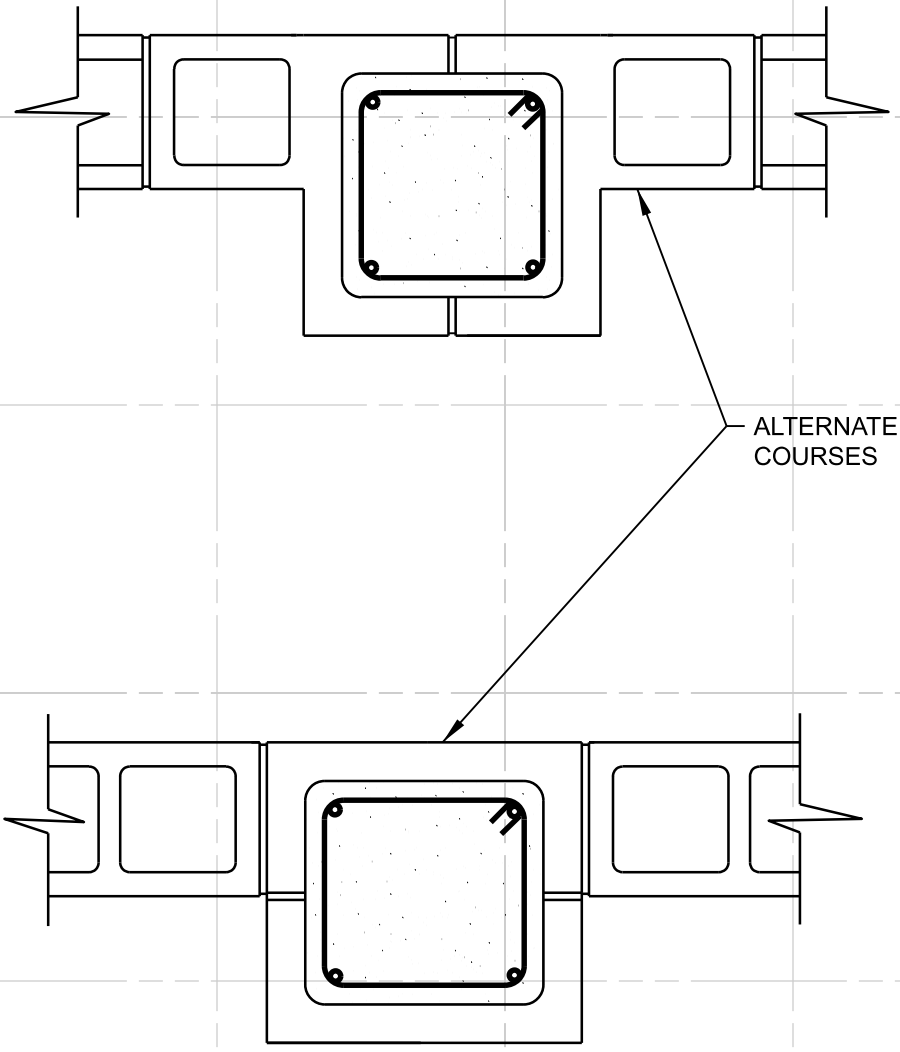
SCALE: NTS



A1

DETAIL: COLUMN

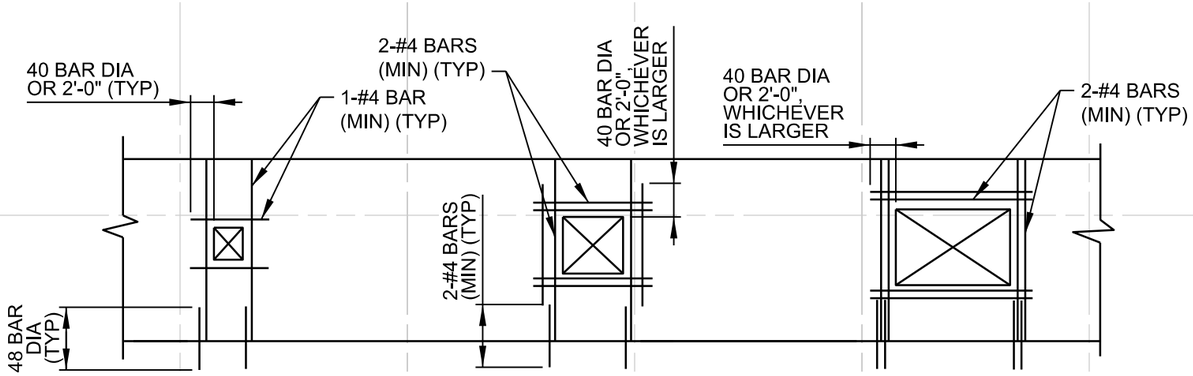
SCALE: NTS



A1

DETAIL: PILASTER SECTIONS

SCALE: NTS



CASE I: APPLIES TO (1) ALL OPENINGS IN NON-STRUCTURAL PARTITIONS OVER 100 SQ IN, AND (2) ANY OPENING 2 FEET OR LESS BOTH WAYS BUT OVER 100 SQ. IN. IN STRUCTURAL OR EXTERIOR WALLS.

CASE II: APPLIES TO STRUCTURAL AND EXTERIOR WALL WHEN OPENING EXCEEDS 2 FEET BUT NOT MORE THAN 4 FEET IN EITHER DIRECTION.

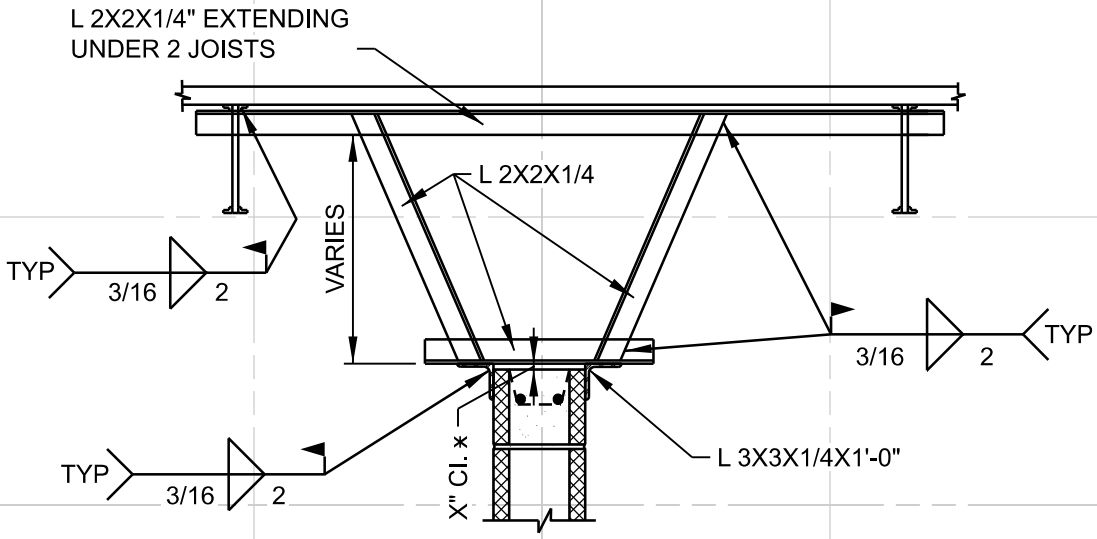
CASE III: APPLIES TO STRUCTURAL AND EXTERIOR WALLS WHEN OPENING EXCEEDS 4 FEET IN EITHER DIRECTION.

NOTES:
1. VERTICAL REINFORCEMENT OF 2 BARS, EACH BAR MAY BE PLACED IN A SEPARATE CELL.
2. VERTICAL BARS SHALL BE OF THE SAME SIZE, EXTENT, AND ANCHORAGE AS THE TYPICAL REINFORCEMENT IN THAT WALL UNLESS OTHERWISE INDICATED.
3. VERTICAL BARS CAN BE PART OF NORMAL REINFORCEMENT IN THE WALL.
4. REINFORCEMENT AT TOP OF OPENINGS SHALL BE NOT LESS THAN THAT REQUIRED BY THE LINTEL DESIGN.

A1

DETAIL: REINFORCING AROUND WALL OPENINGS

SCALE: NTS



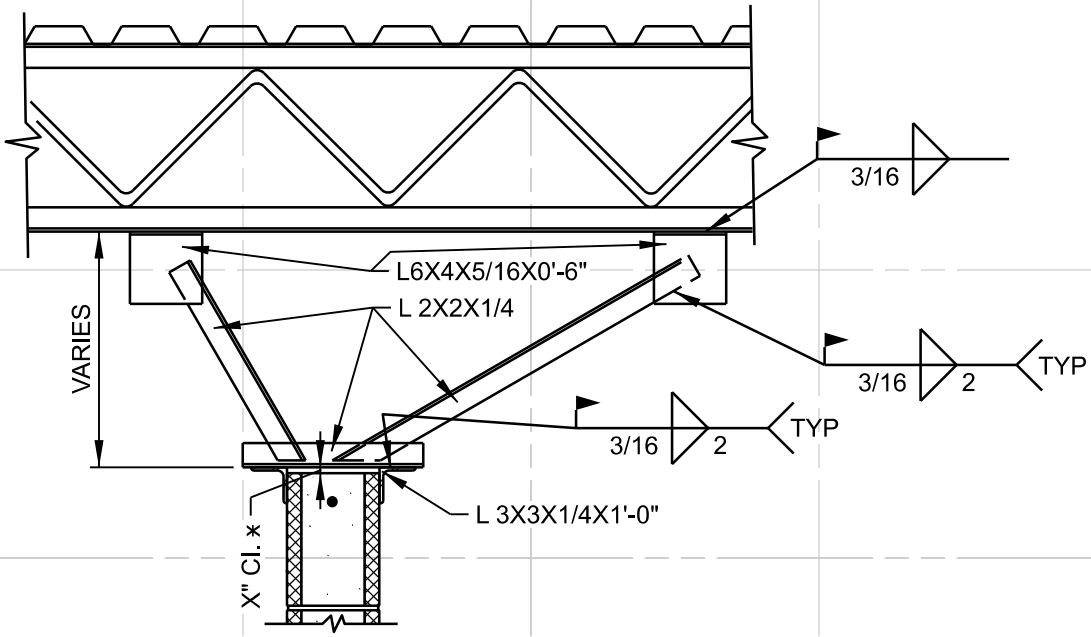
* X CLEAR DIMENSION SHALL BE AS REQUIRED BY JOIST DEFLECTION, BUT NOT LESS THAN 1-INCH.

NOTE:
SPACE AT A MAXIMUM OF 8'-0" ON CENTER USING A MIN OF TWO PER WALL IN ANY ONE DIRECTION.

DETAIL: PARTITION SUPPORTS, PARTIAL HEIGHT WALL PARALLEL TO JOISTS

A1

SCALE: NTS



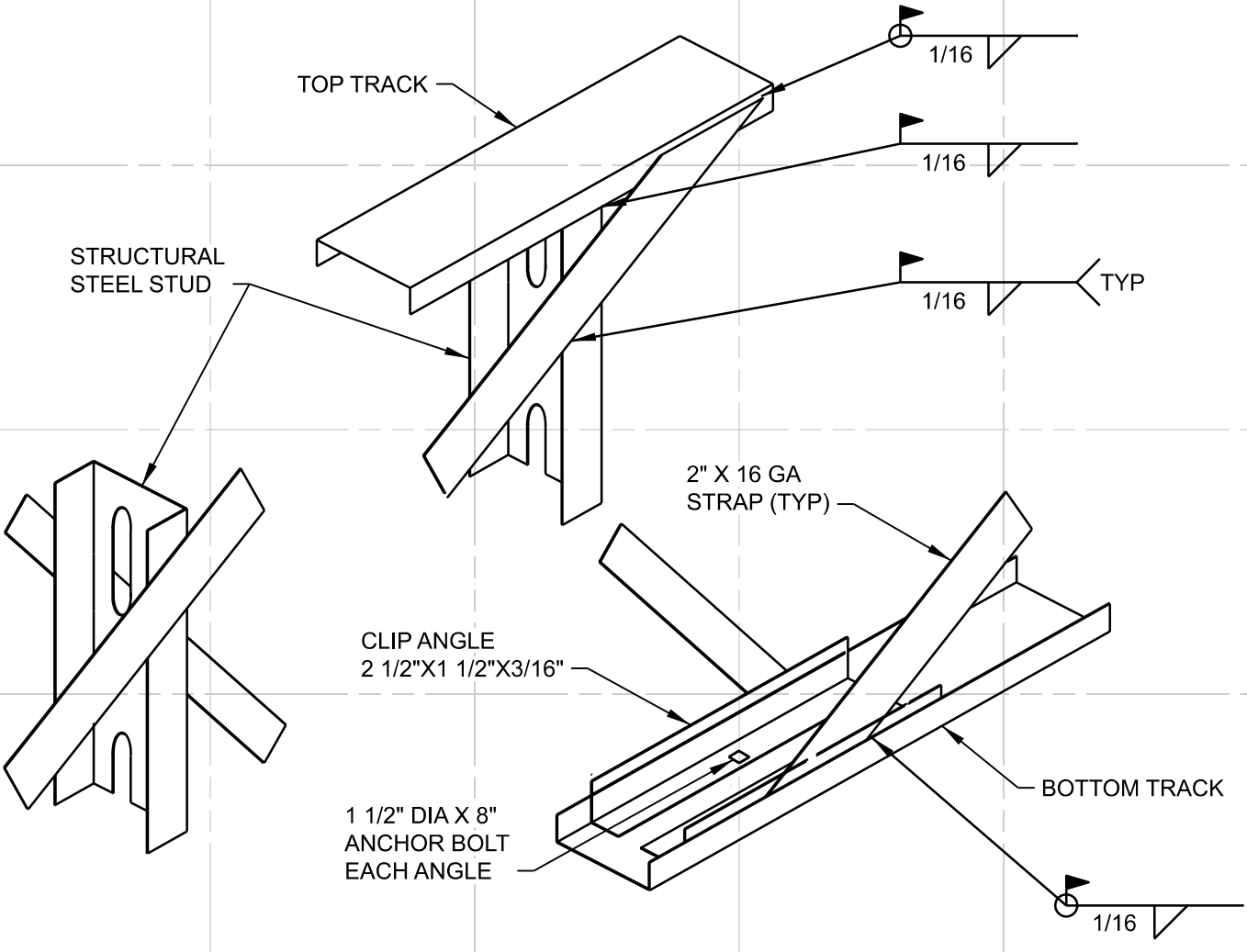
*X CLEAR DIMENSION SHALL BE AS REQUIRED BY JOIST DEFLECTION, BUT NOT LESS THAN 1-INCH.

NOTE: SPACE AT A MAXIMUM OF 8'-0" ON CENTER USING A MIN OF TWO PER WALL IN ANY ONE DIRECTION.

DETAIL: PARTITION SUPPORTS, PARTIAL HEIGHT WALL PERPENDICULAR TO JOISTS

A1

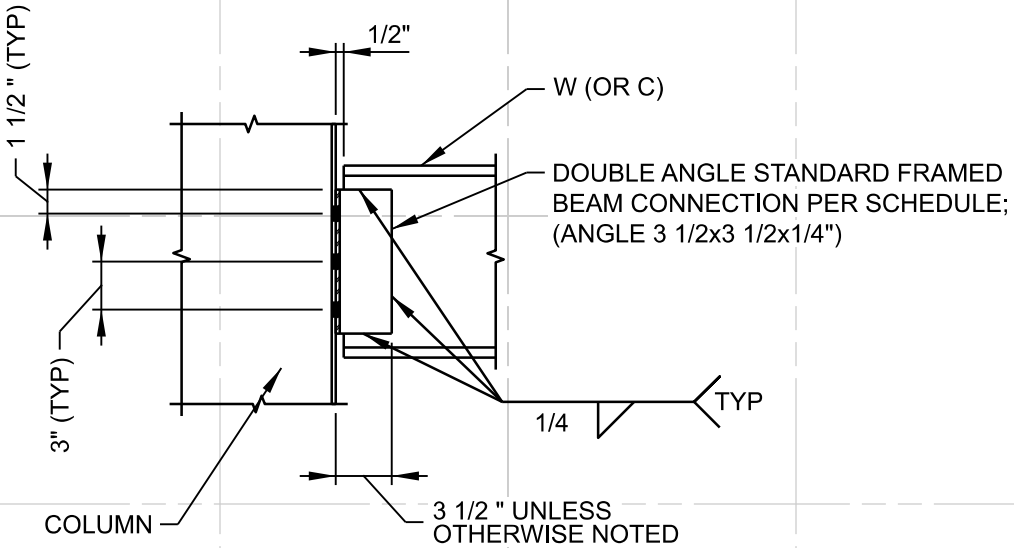
SCALE: NTS



A1

DETAIL: METAL STUD BRACING

SCALE: NTS

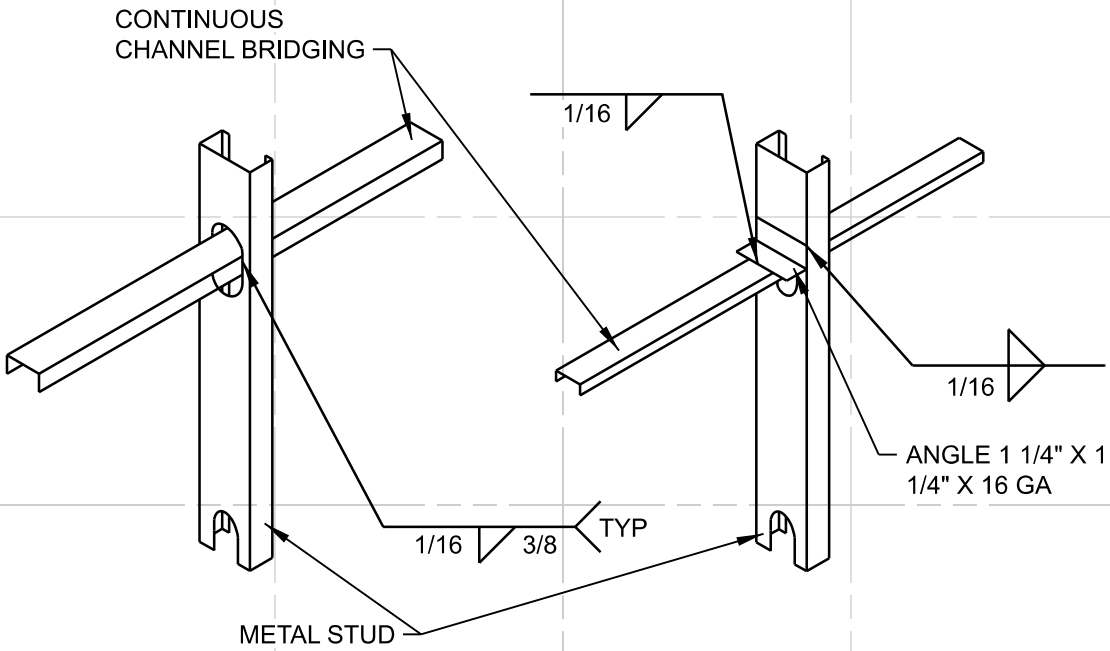


A1

DETAIL: BEAM TO COLUMN FLANGE CONNECTION

SCALE: 1"=1'-0"

0 6" 1' 2'

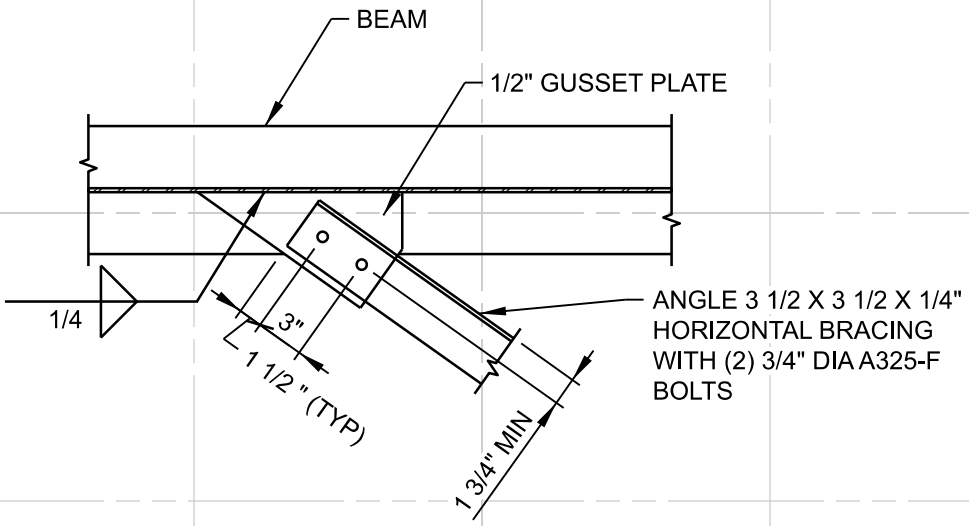


MINIMUM BRIDGING
WALLS < 10'-0": 2
ROWS EQUAL SPACED
WALLS > 10'-0":
3'-4" ON CENTER MAXIMUM.

A1

DETAIL: METAL STUD BRACING

SCALE: NTS

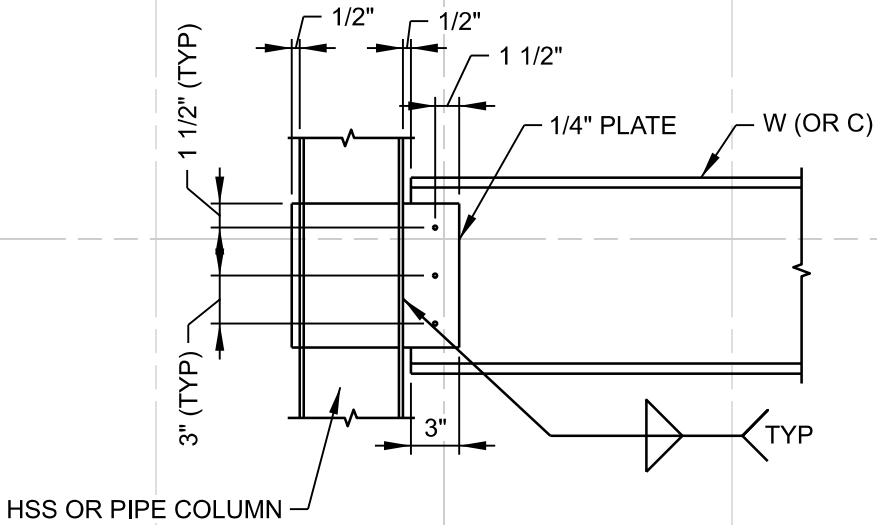


A1

DETAIL: HORIZ BRACING TO BEAM CONNECTION

SCALE: 1"=1'-0"

0 6" 1' 2'

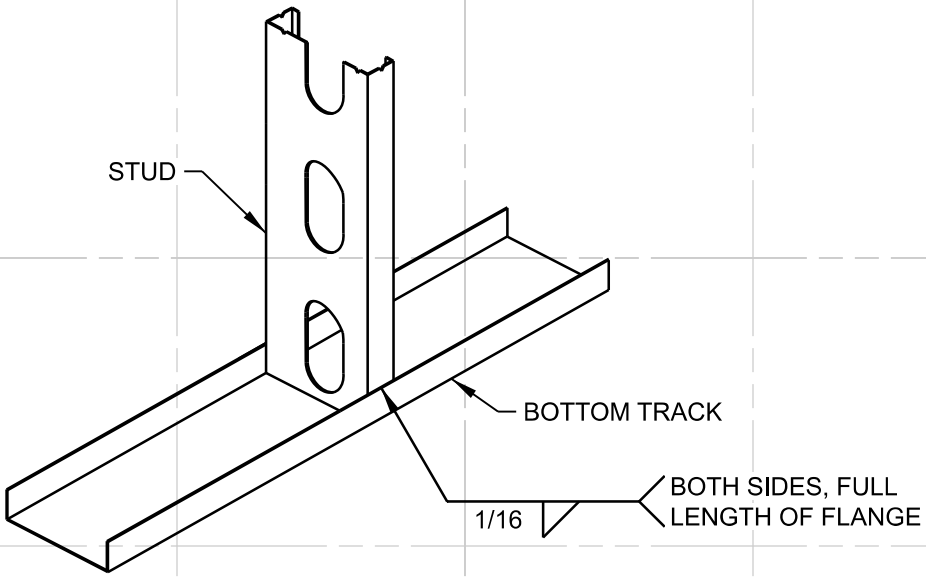


A1

DETAIL: BEAM TO PIPE OR HSS COLUMN

SCALE: 1"=1'-0"

0 6" 1' 2'



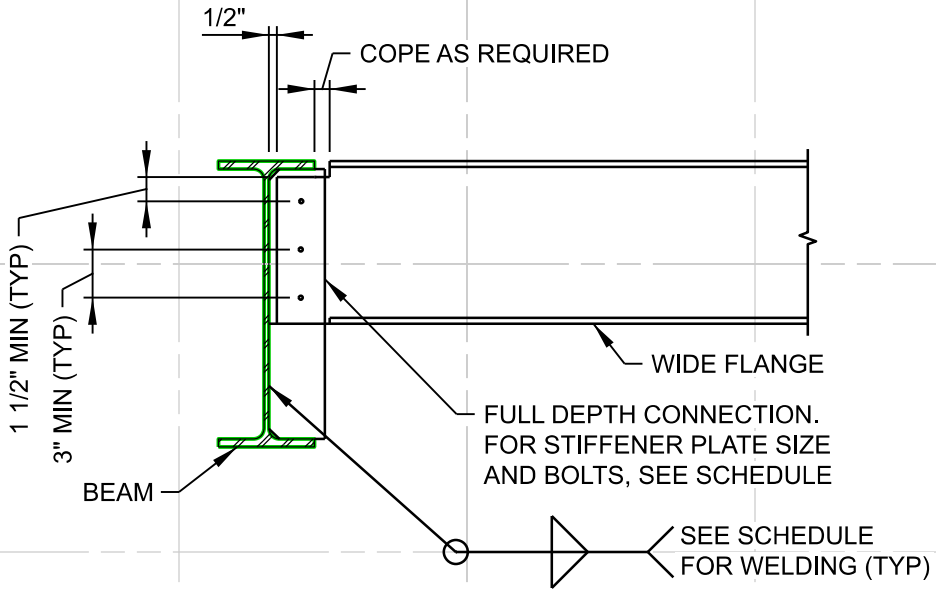
A1

DETAIL: METAL STUD TRACK

SCALE: NTS

CONNECTION SCHEDULE

BEAM SIZE (CHANNEL SIZE SIMILAR)	BEAM TO BEAM CONNECTION				REMARKS
	PLATE THICKNESS	FILLET WELD	NO. OF BOLTS IN ONE VERT. ROW	A325-N BOLT DIA	
W8 TO W10	3/8"	5/16"	2	3/4" DIA	
W12 TO W14	3/8"	5/16"	3	7/8" DIA	
W16	3/8"	5/16"	4	7/8" DIA	
W18	3/8"	5/16"	5	7/8" DIA	
W21	3/8"	5/16"	6	7/8" DIA	
W24 TO W27	1/2"	5/16"	7	7/8" DIA	
W30	5/8"	3/8"	8	1" DIA	
W36	5/8"	3/8"	9	1" DIA	

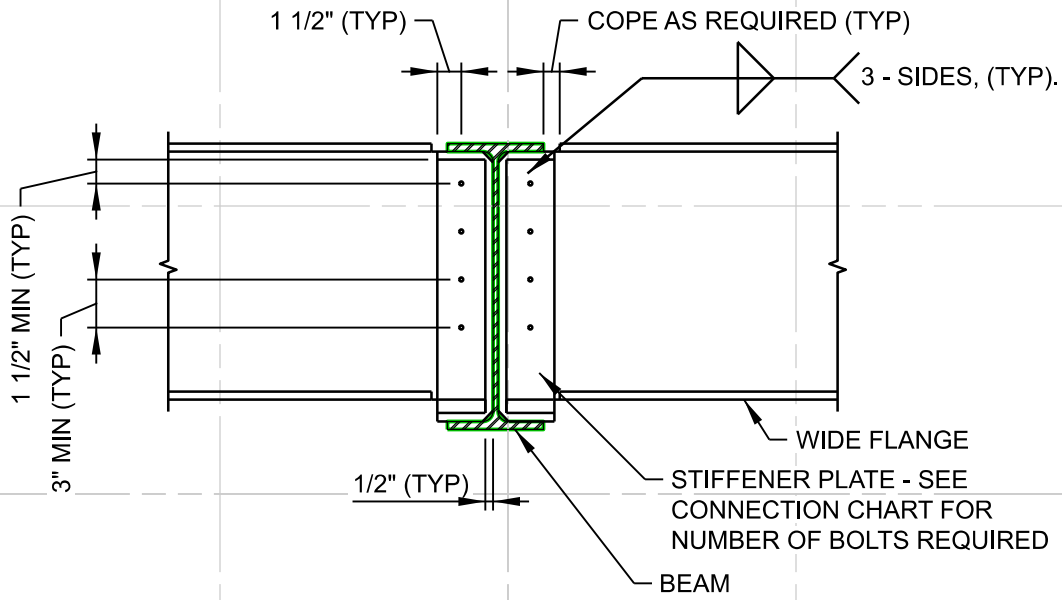


A1

DETAIL: SINGLE BEAM CONNECTION

SCALE: 1"=1'-0"

0 6" 1' 2'



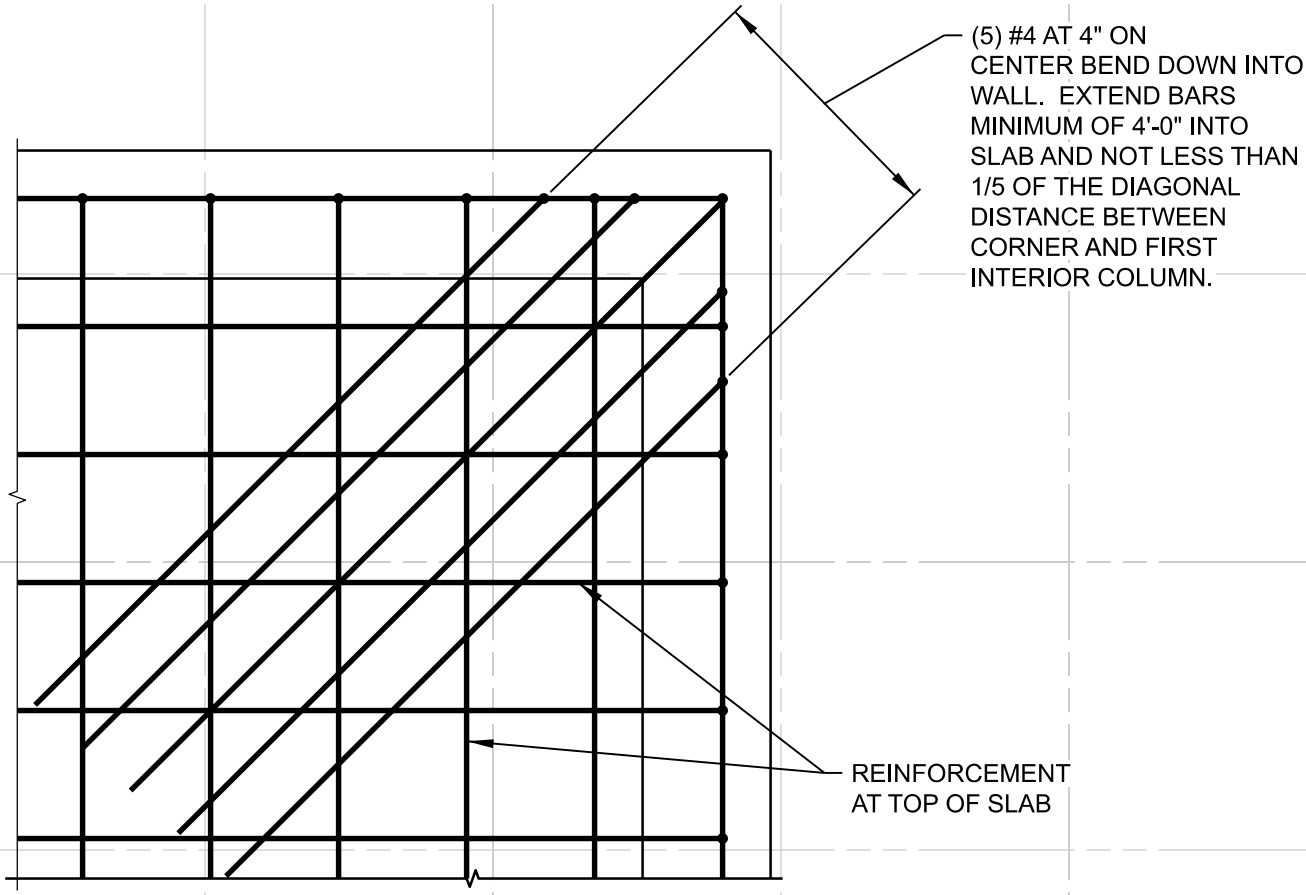
NOTE:
1. CONNECTIONS SHOWN ARE (TYP). UNLESS SPECIFICALLY DETAILED OTHERWISE.
2. WHERE DEPTH OF CONNECTED BEAM AND SUPPORTING BEAM DIFFER BY 9" OR MORE, SHEAR PLATE MAY BE TERMINATED A DISTANCE OF 2" BELOW THE LOWEST BOLT.

A1

DETAIL: DOUBLE BEAM CONNECTION

SCALE: 1"=1'-0"

0 6" 1' 2'

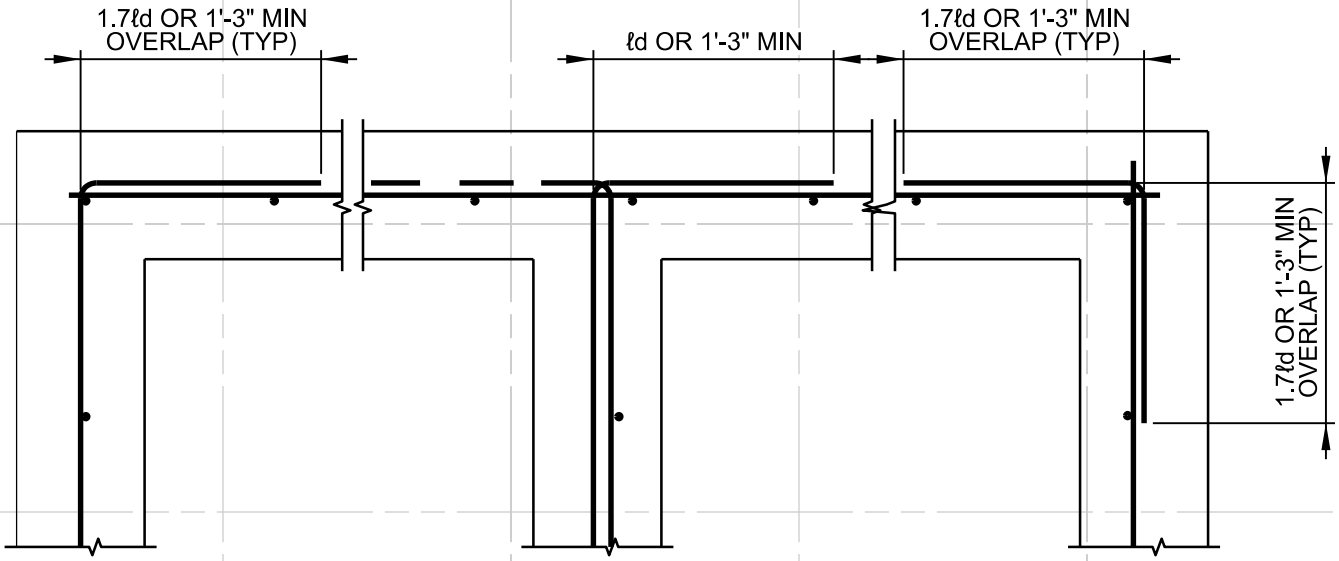


A1

DETAIL: ELEVATED SLAB CORNER REINFORCEMENT

SCALE: 1"=1'-0"

0 6" 1' 2'

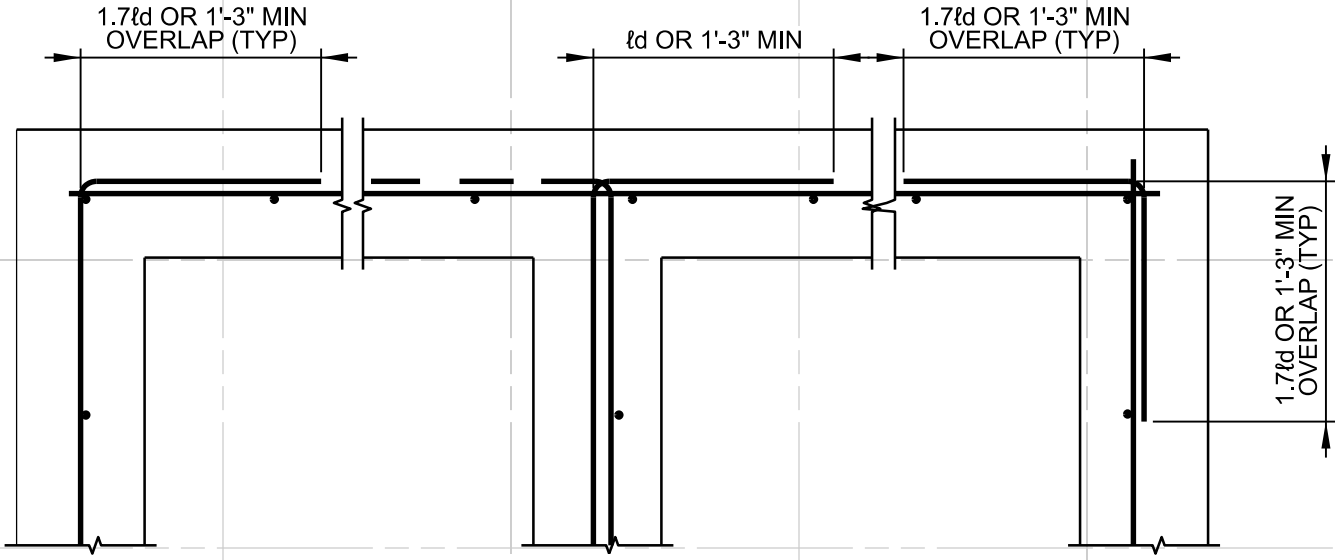


DETAIL: WALL REINFORCING (DOUBLE LAYER)

A1

SCALE: 1"=1'-0"

0 6" 1' 2'

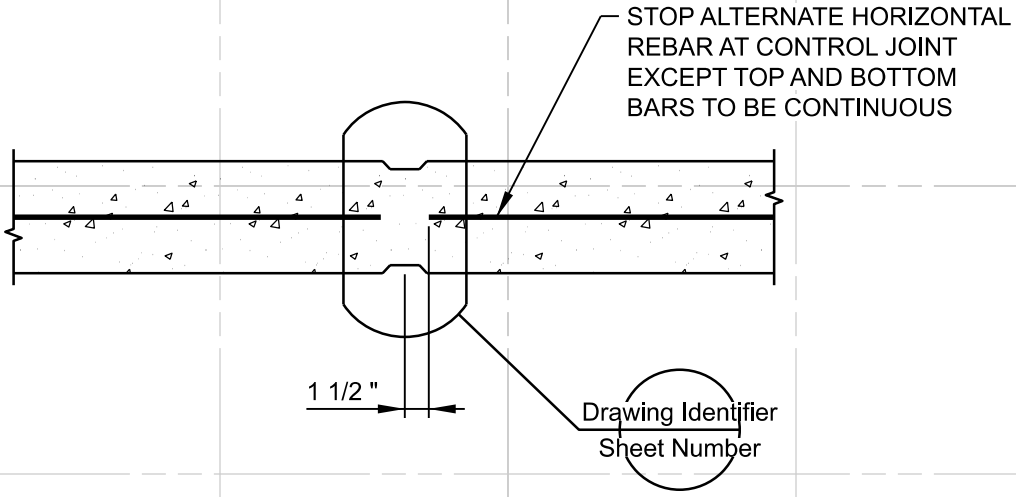


A1

DETAIL: WALL REINFORCING (DOUBLE LAYER)

SCALE: 1"=1'-0"

0 6" 1' 2'

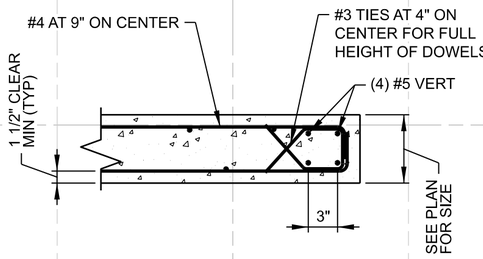


A1

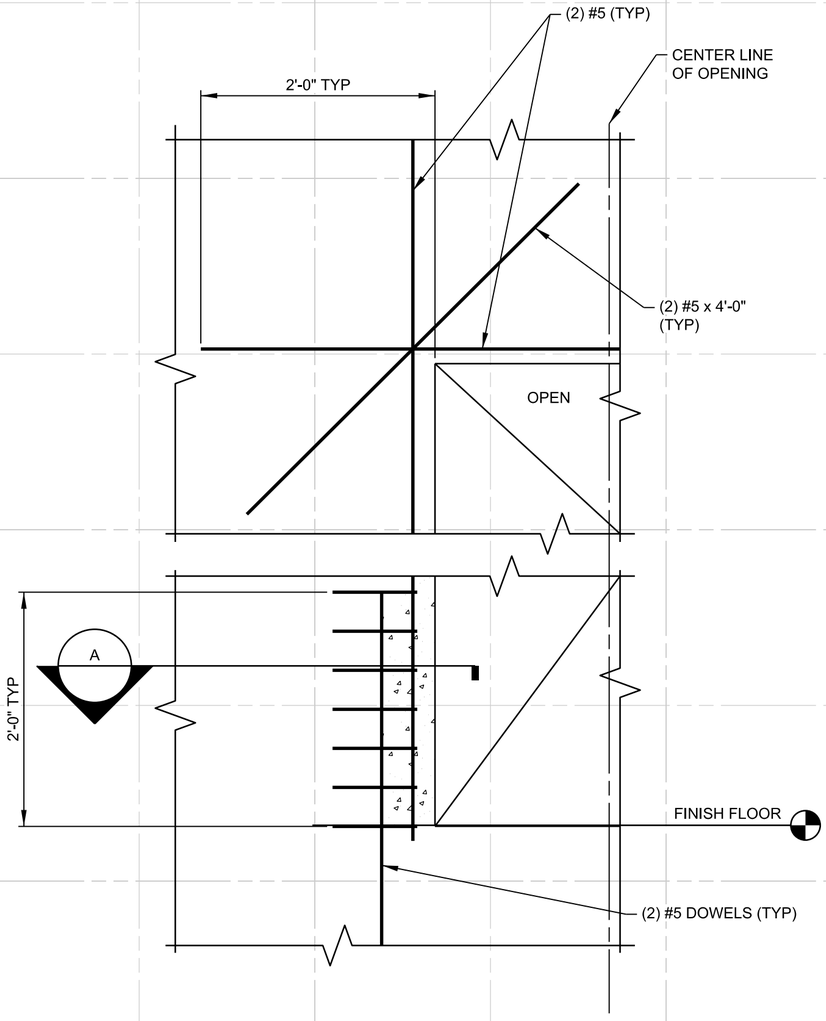
DETAIL: CONCRETE WALL CONTROL JOINT

SCALE: 1"=1'-0"

0 6" 1' 2'



SECTION A



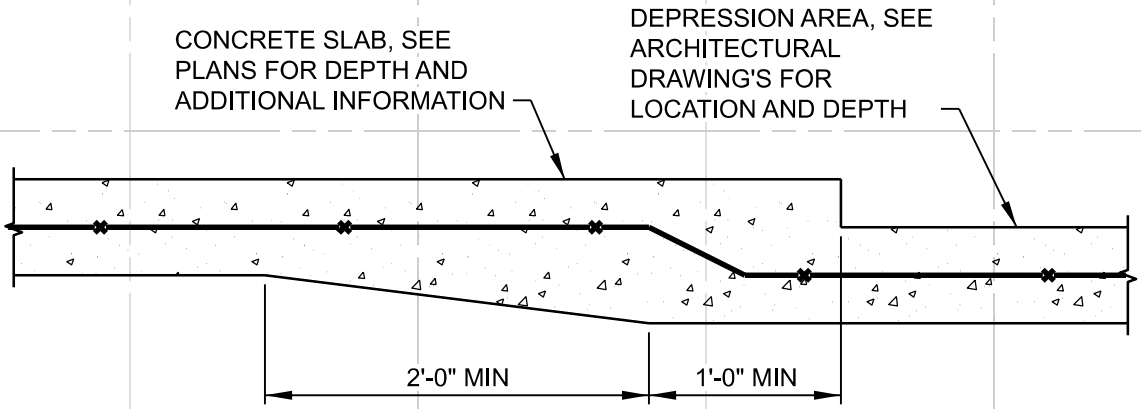
NOTE:
TYPICAL WALL REINFORCEMENT NOT SHOWN FOR CLARITY.

DETAIL: CONCRETE WALL OPENING REINFORCEMENT

A1

SCALE: 1"=1'-0"

0 6" 1' 2'



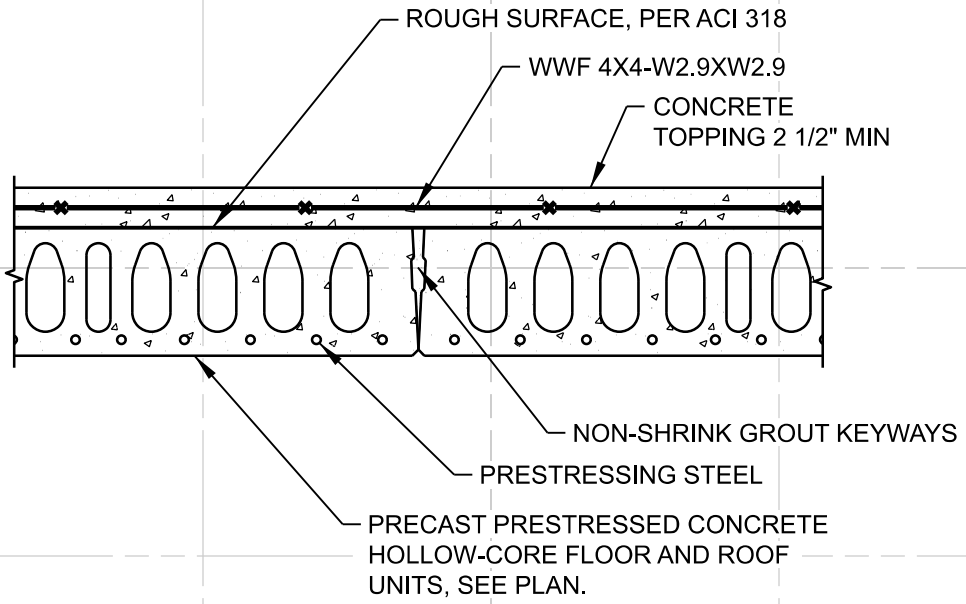
A1

DETAIL: DEPRESSED SLAB

SCALE: 1"=1'-0"

0 6" 1' 2'

Detail B1032S-DT006X

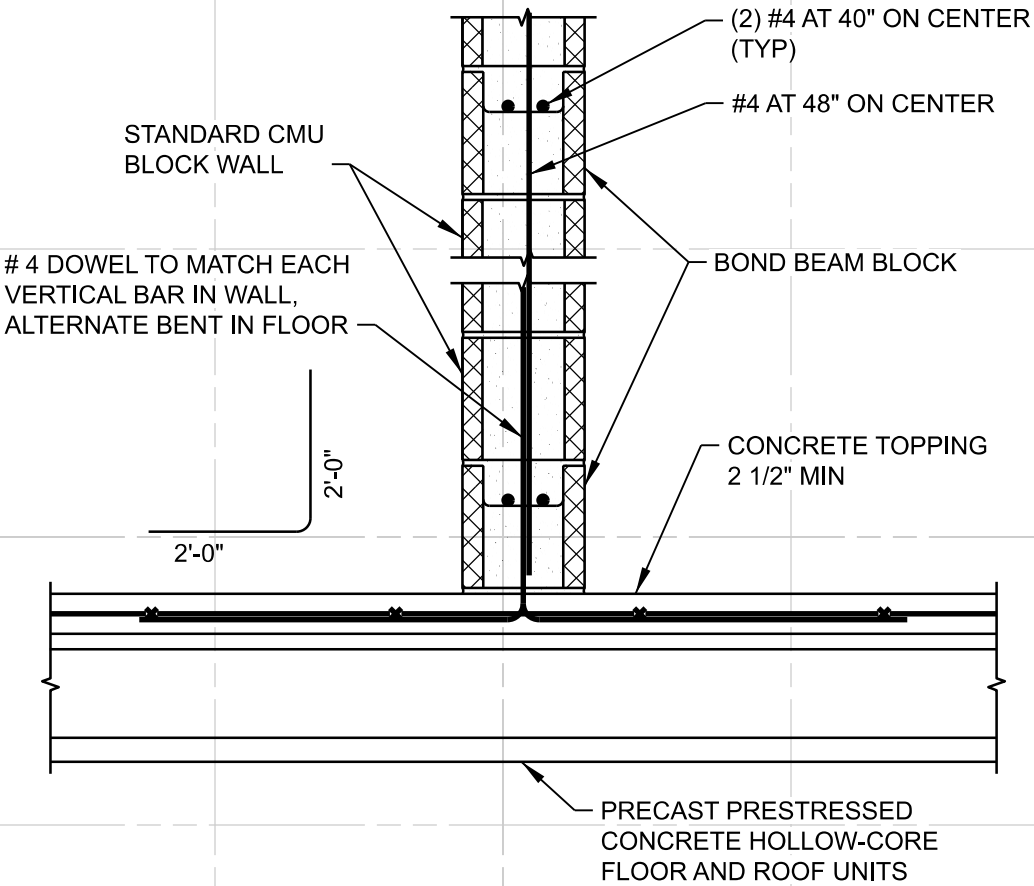


A1

DETAIL: PRESTRESSED HOLLOW-CORE SLAB

SCALE: 1"=1'-0"

0 6" 1' 2'

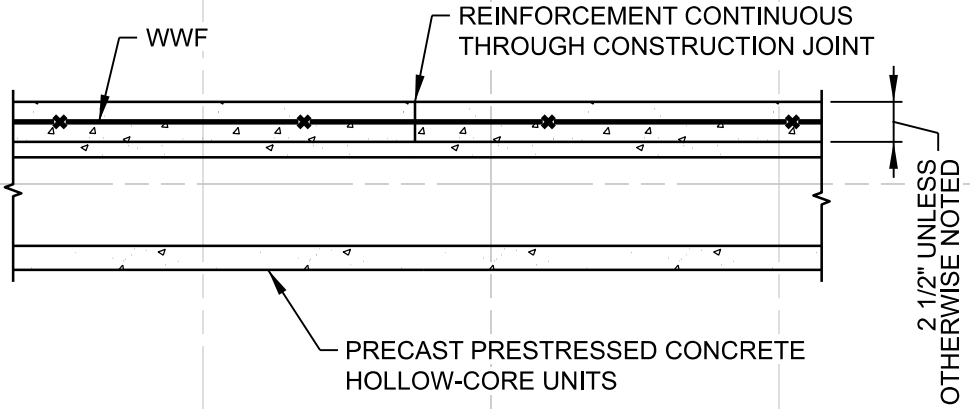


A1

DETAIL: CMU SUPPORT BY HOLLOW-CORE SLAB

SCALE: 1"=1'-0"

0 6" 1' 2'

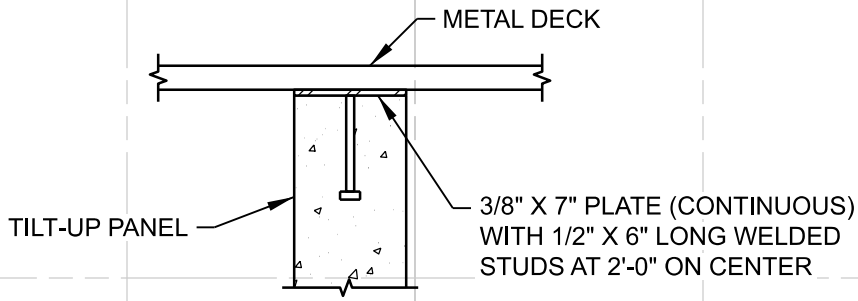


A1

DETAIL: CONTROL JOINT IN HOLLOW-CORE SLAB TOPPING

SCALE: 1"=1'-0"

0 6" 1' 2'

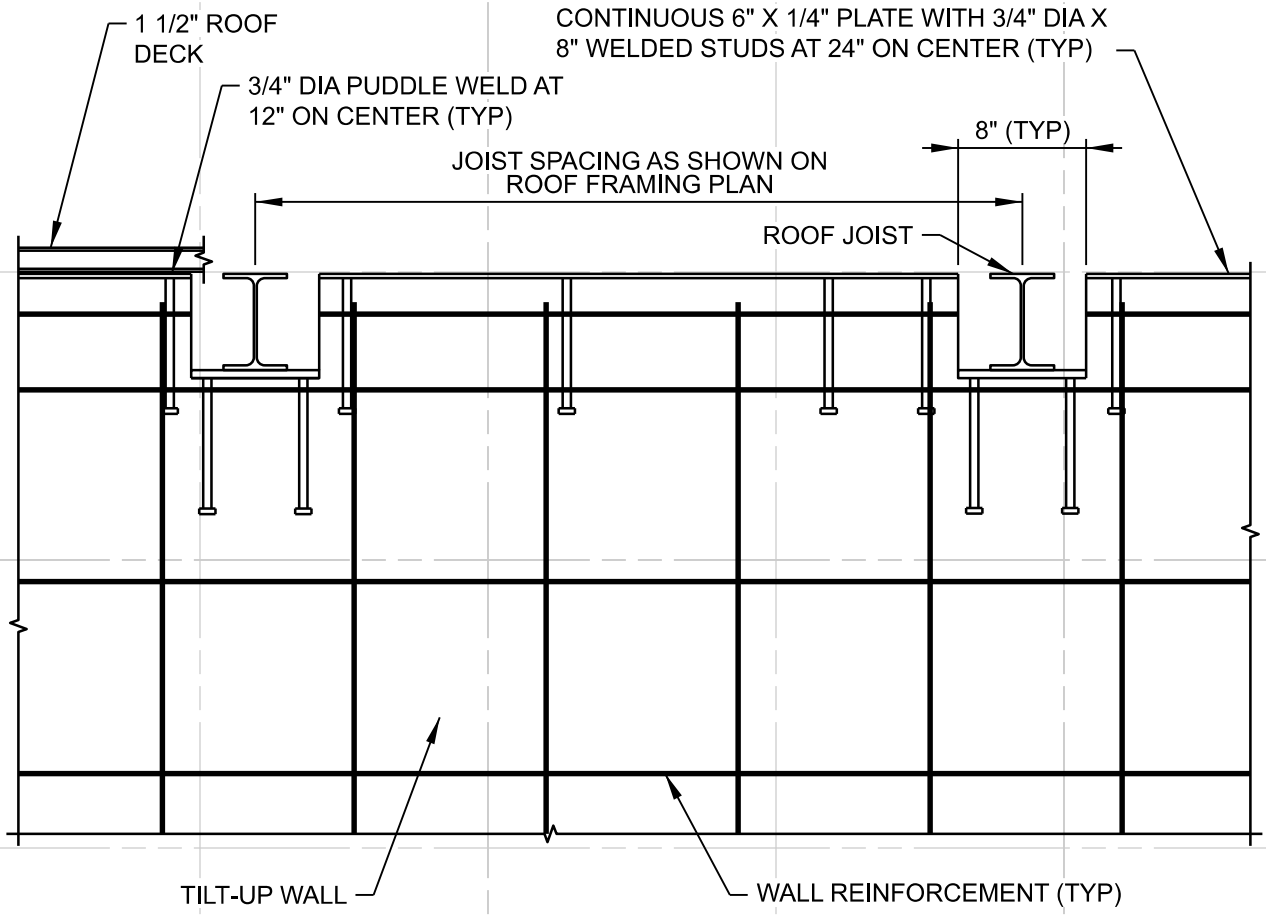


A1

DETAIL: TILT-UP WALL TO DECK CONNECTION

SCALE: 1"=1'-0"

0 6" 1' 2'



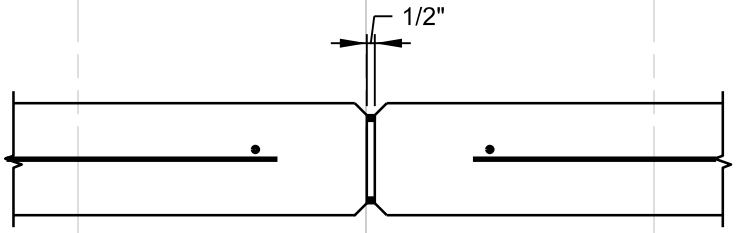
A1

DETAIL: TILT UP PANEL JOIST SEAT

SCALE: 1"=1'-0"

0 6" 1' 2'

Detail B1032S-DT107E

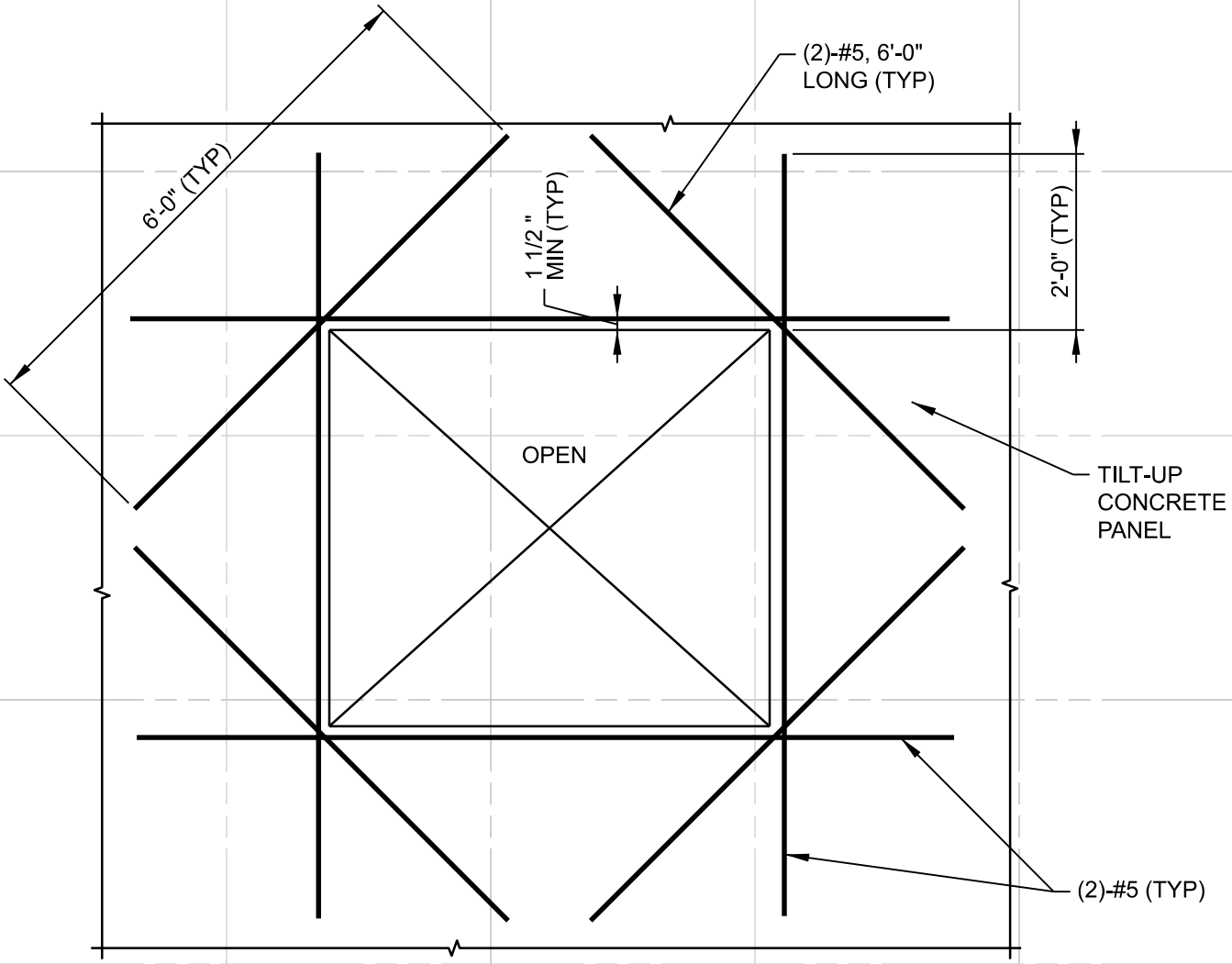


A1

DETAIL: TILT-UP PANEL CONTROL JOINT

SCALE: 1"=1'-0"

0 6" 1' 2'

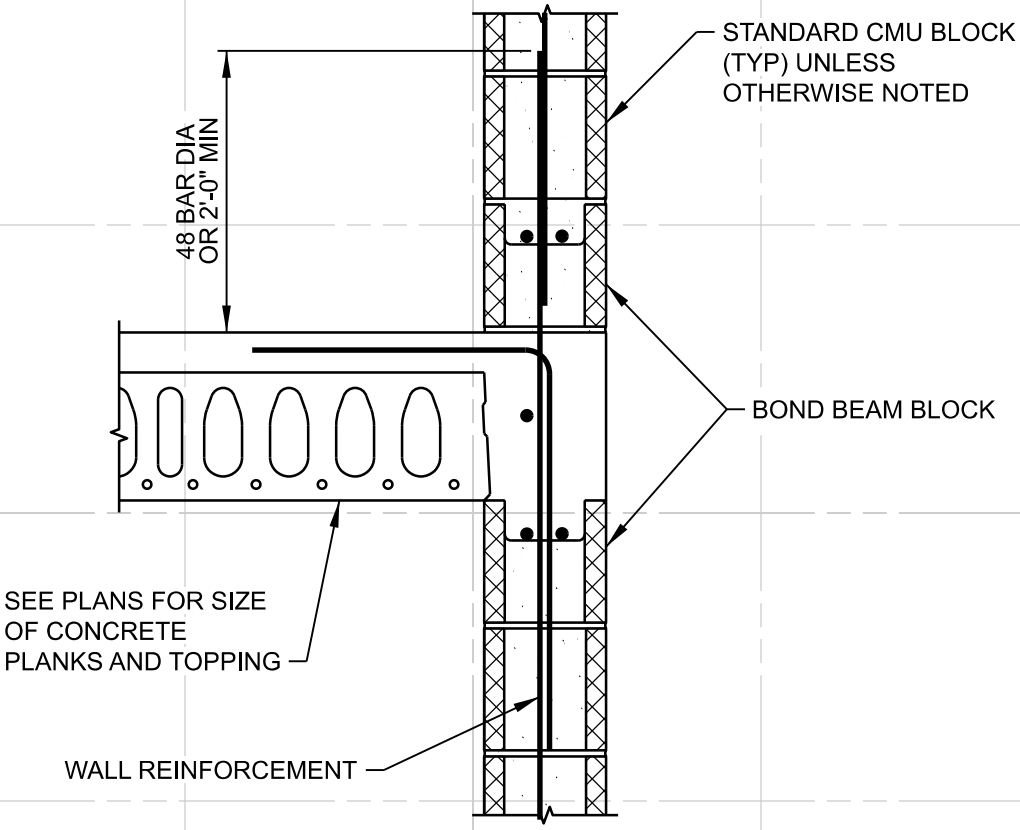


A1

DETAIL: TILT-UP PANEL OPENING

SCALE: 1/2"=1'-0"

0 1' 2' 4'

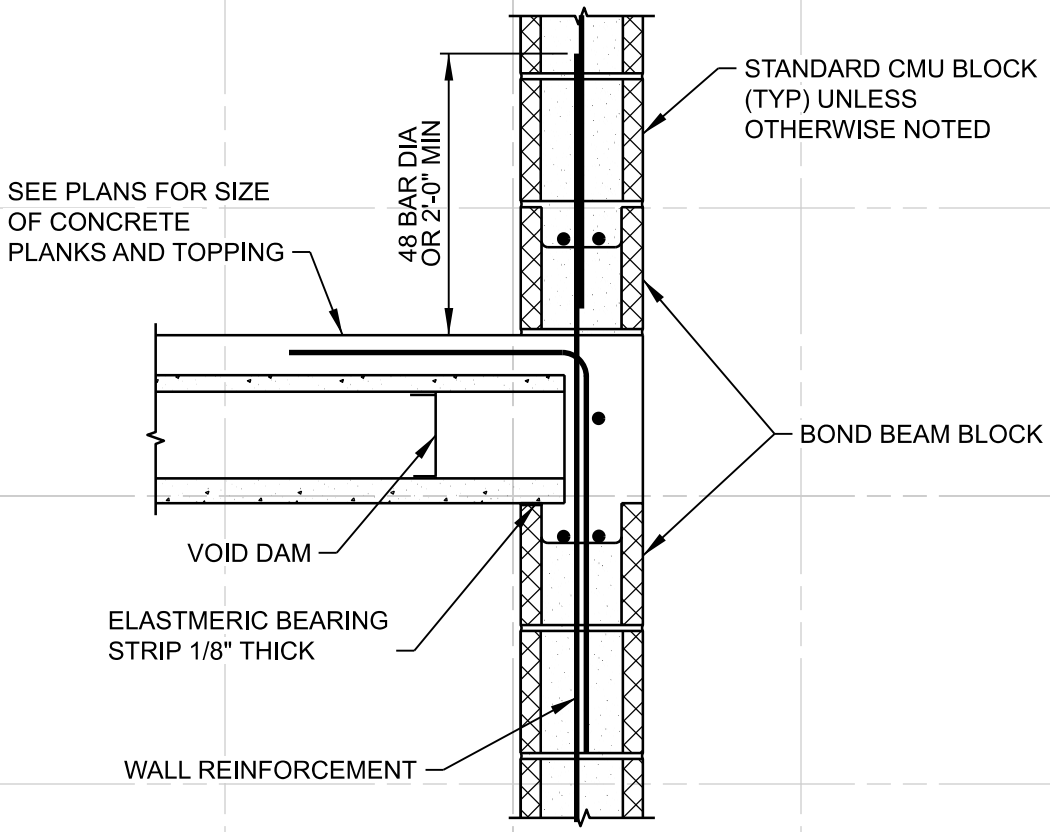


A1

DETAIL: PLANK AT CMU WALL-END VIEW

SCALE: 1"=1'-0"

0 6" 1' 2'

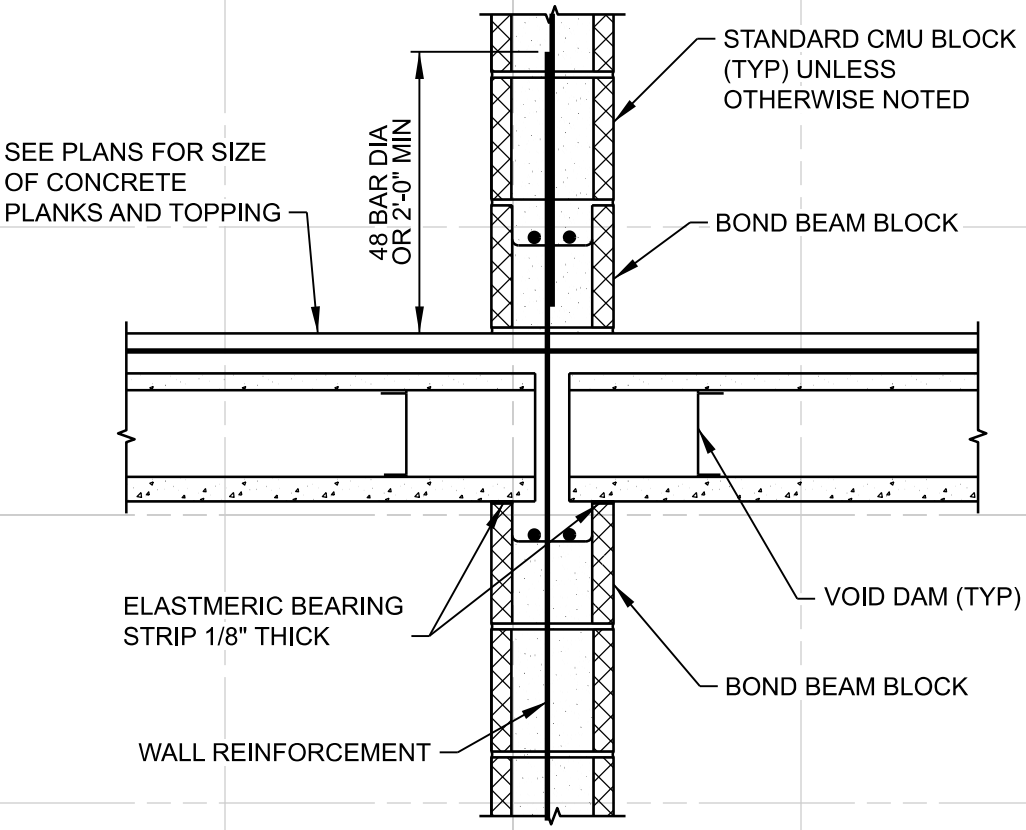


A1

DETAIL: PLANK AT CMU WALL-SIDE VIEW

SCALE: 1"=1'-0"

0 6" 1' 2'

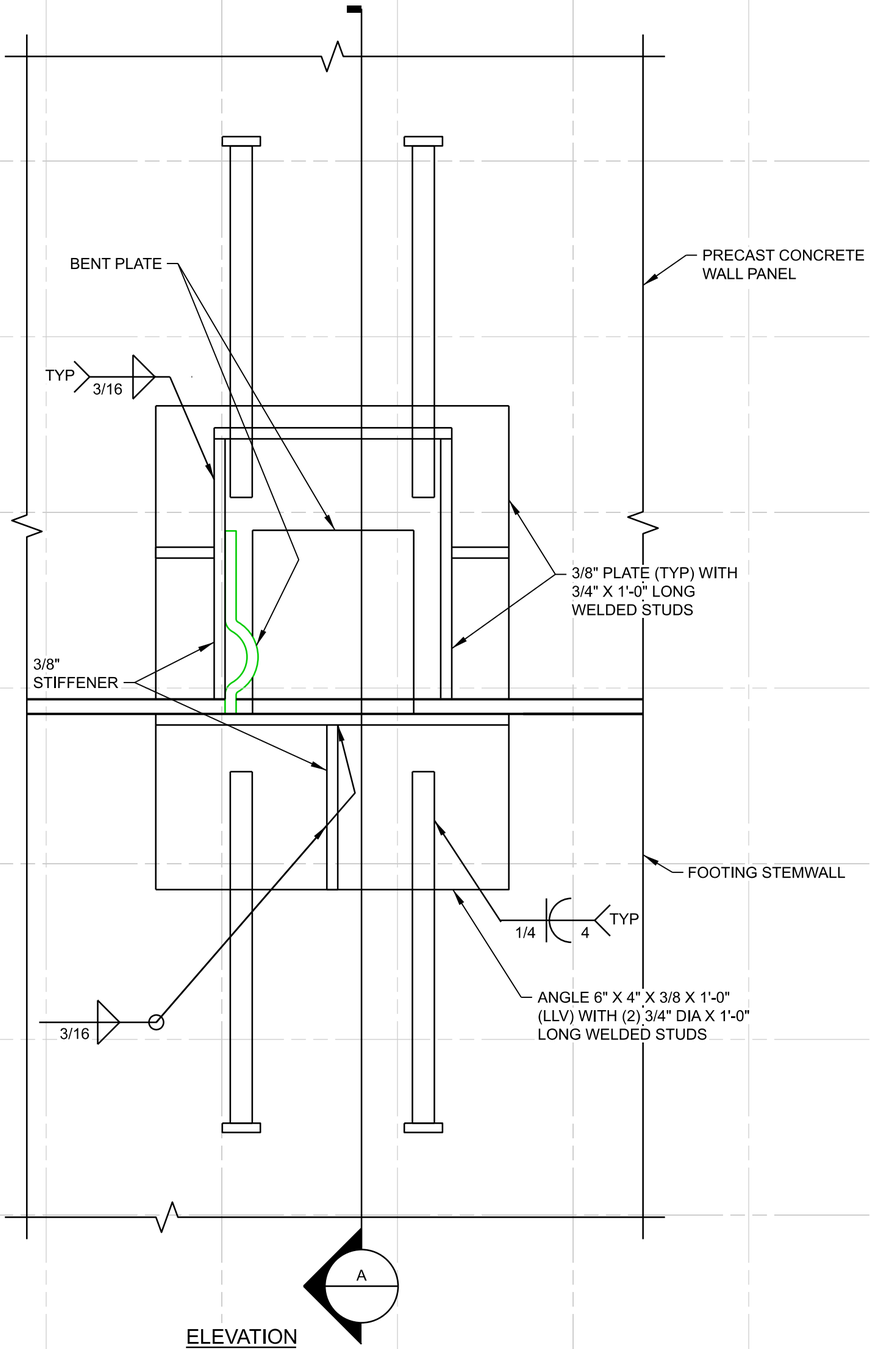


A1

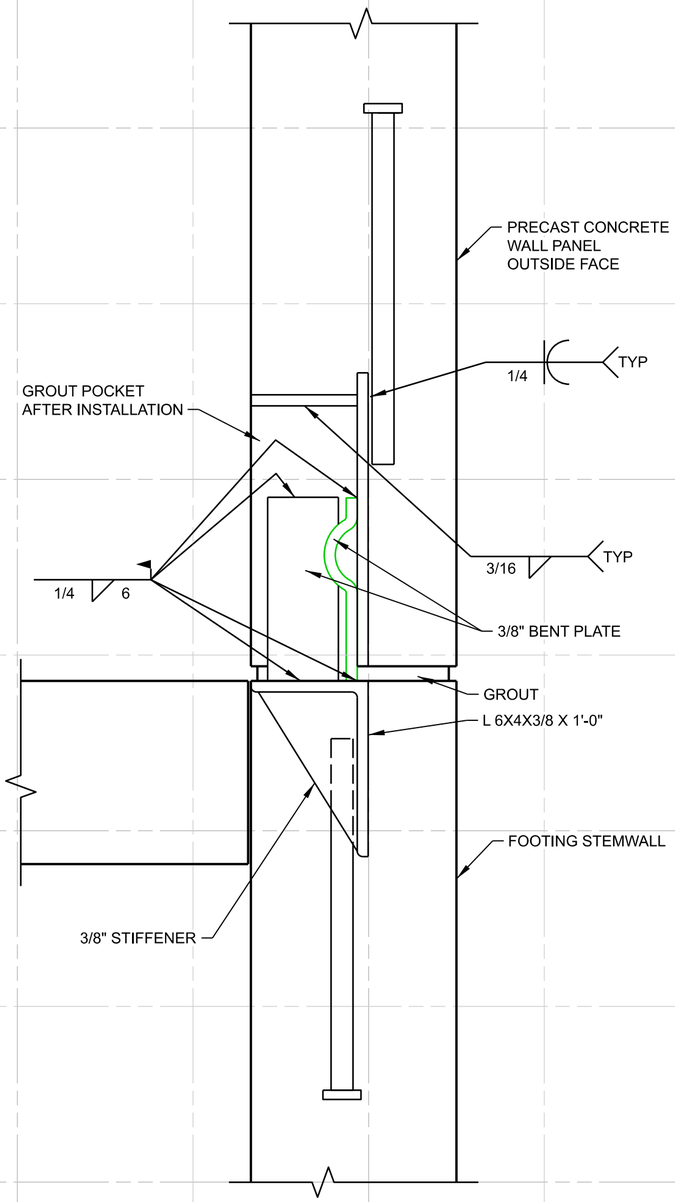
DETAIL: PLANKS CROSSING AT CMU WALL-SIDE VIEW

SCALE: 1"=1'-0"

0 6" 1' 2'



ELEVATION



SECTION A

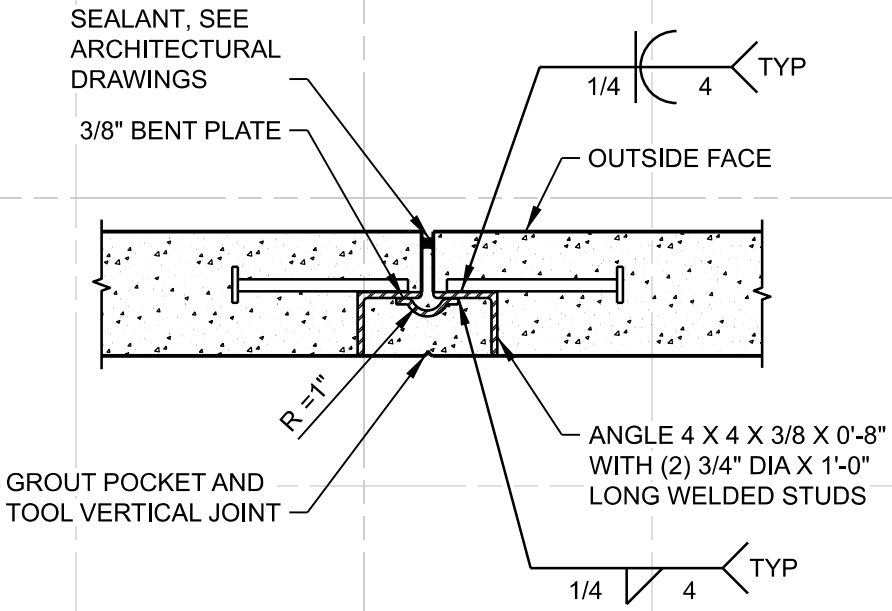
NOTE:
PROVIDE CONNECTIONS AT 4'-0" ON CENTER, MAX SPACING WITH A CONNECTION 1'-0" FROM EACH EDGE OF PANEL TO CENTER LINE OF CONNECTION BOX.

A1 DETAIL: PRECAST CONCRETE PANEL TO FOOTING STEMWALL CONNECTION

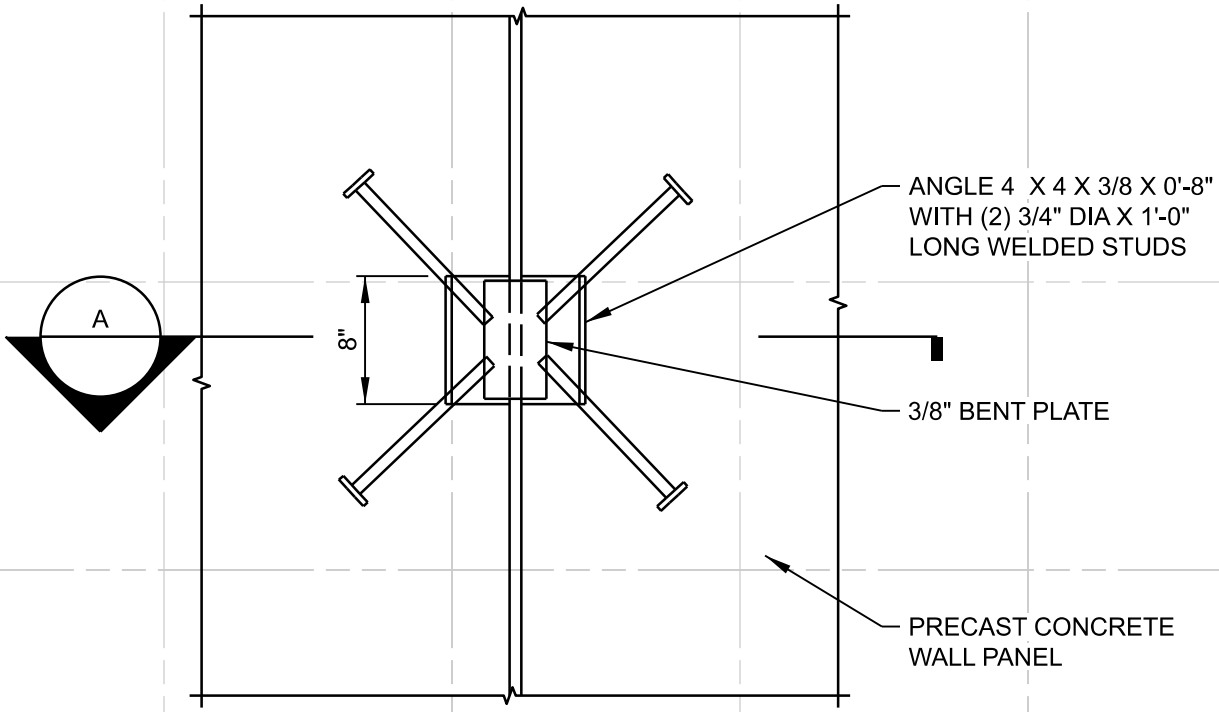
SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B1032S-DT115X



SECTION A



ELEVATION

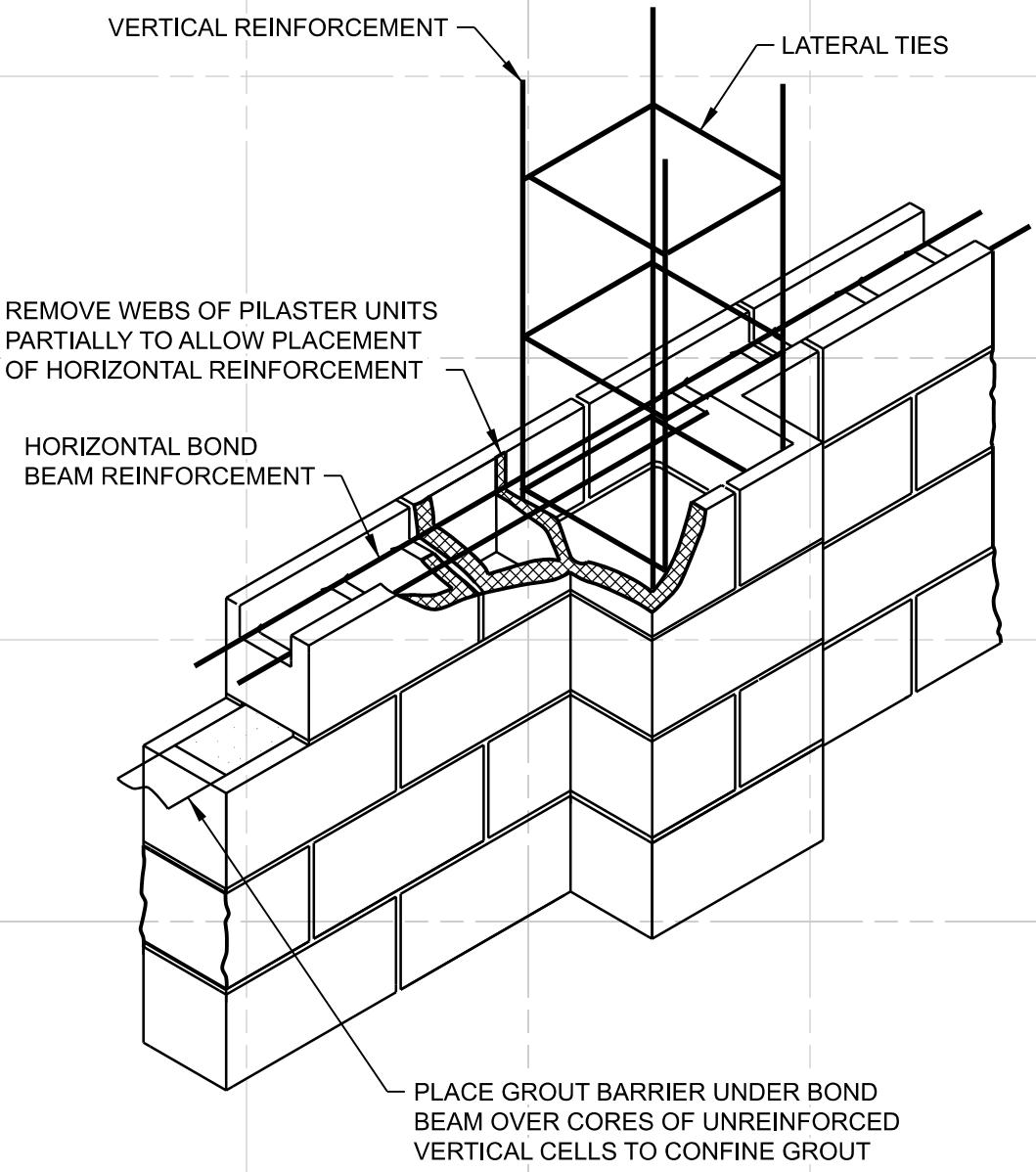
NOTES:
1. AT CORNERS USE SIMILAR CONNECTION DETAILS.
2. SPACE CONNECTIONS VERTICALLY 4'-0" ON CENTER WITH BOTTOM OF FIRST CONNECTION AT ELEVATION 1'-0"

A1

DETAIL: PRECAST CONCRETE PANEL TO PANEL VERTICAL CONNECTION

SCALE: 1"=1'-0"

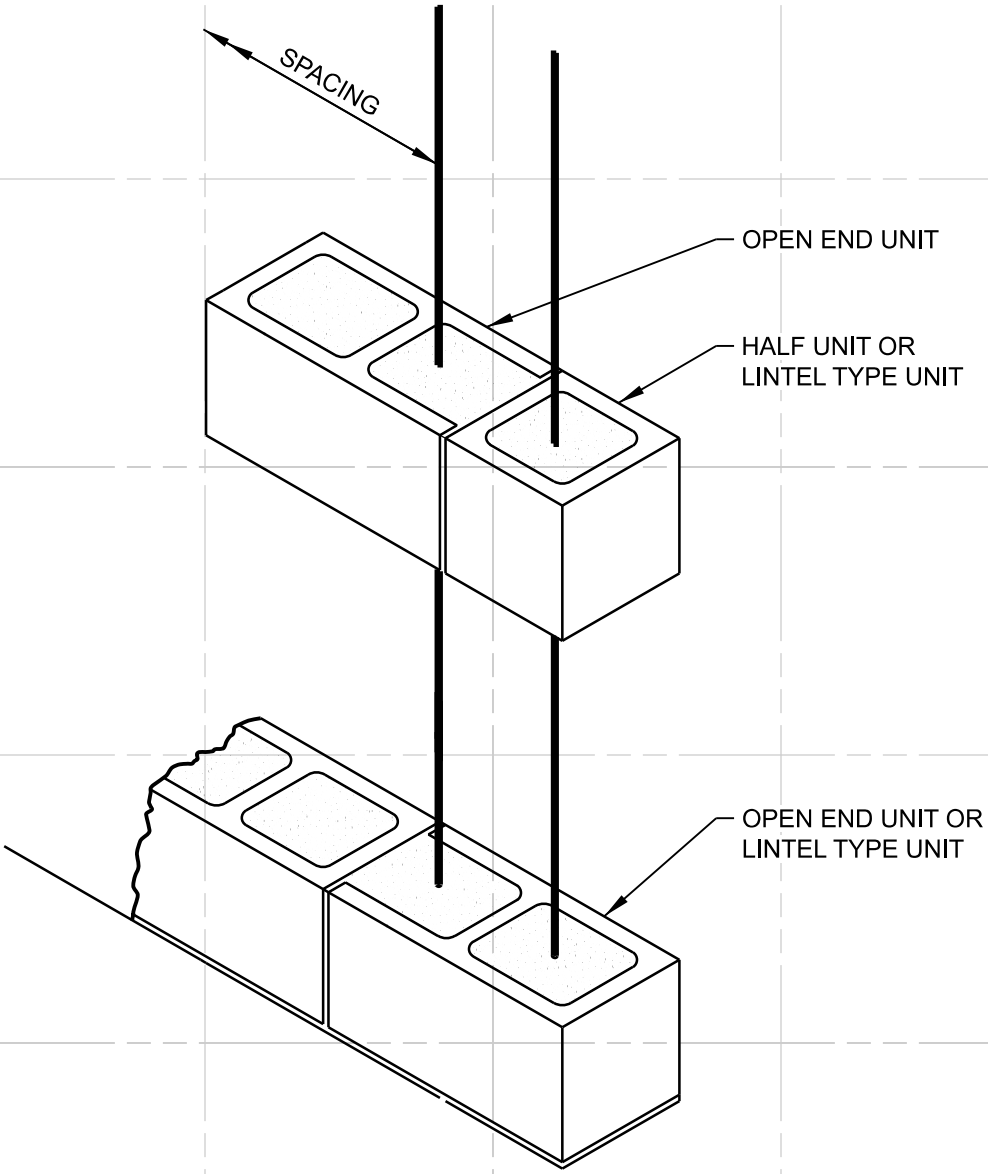
0 6" 1' 2'



A1

DETAIL: PILASTER

SCALE: NTS

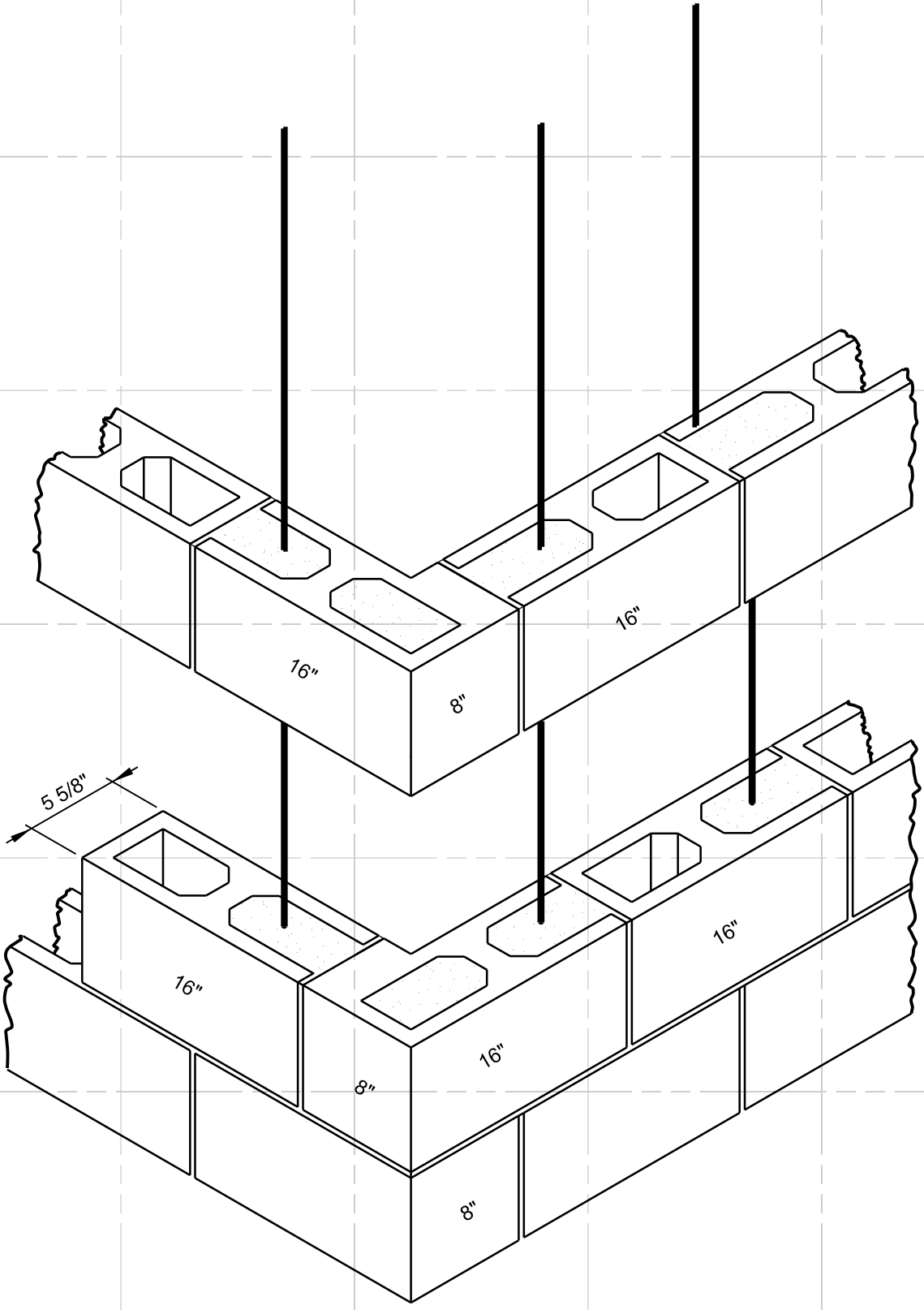


NOTES:
1. LINTEL TYPE UNITS MAY BE CUT FROM OPEN END UNITS
2. ALTERNATE ARRANGEMENT OF UNITS-STEEL FOR PARTIALLY OR FULLY GROUTED WALLS WHEN VERTICAL WALL REINFORCEMENT IS REQUIRED IN THE END CELL

A1

DETAIL: ALTERNATE END CELL GROUTED WALL

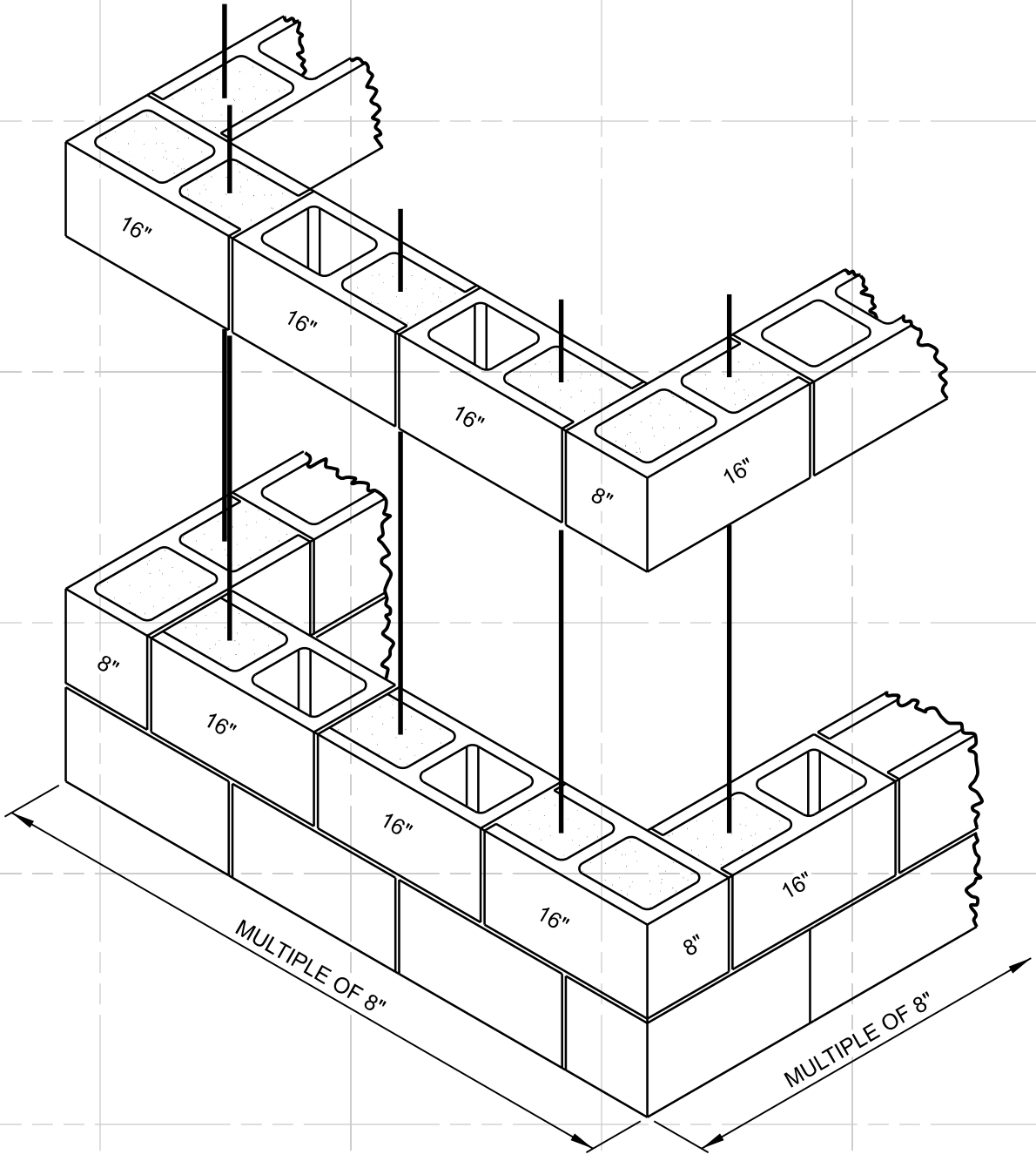
SCALE: NTS



A1

DETAIL: CORNER, 6-INCH CMU WALL

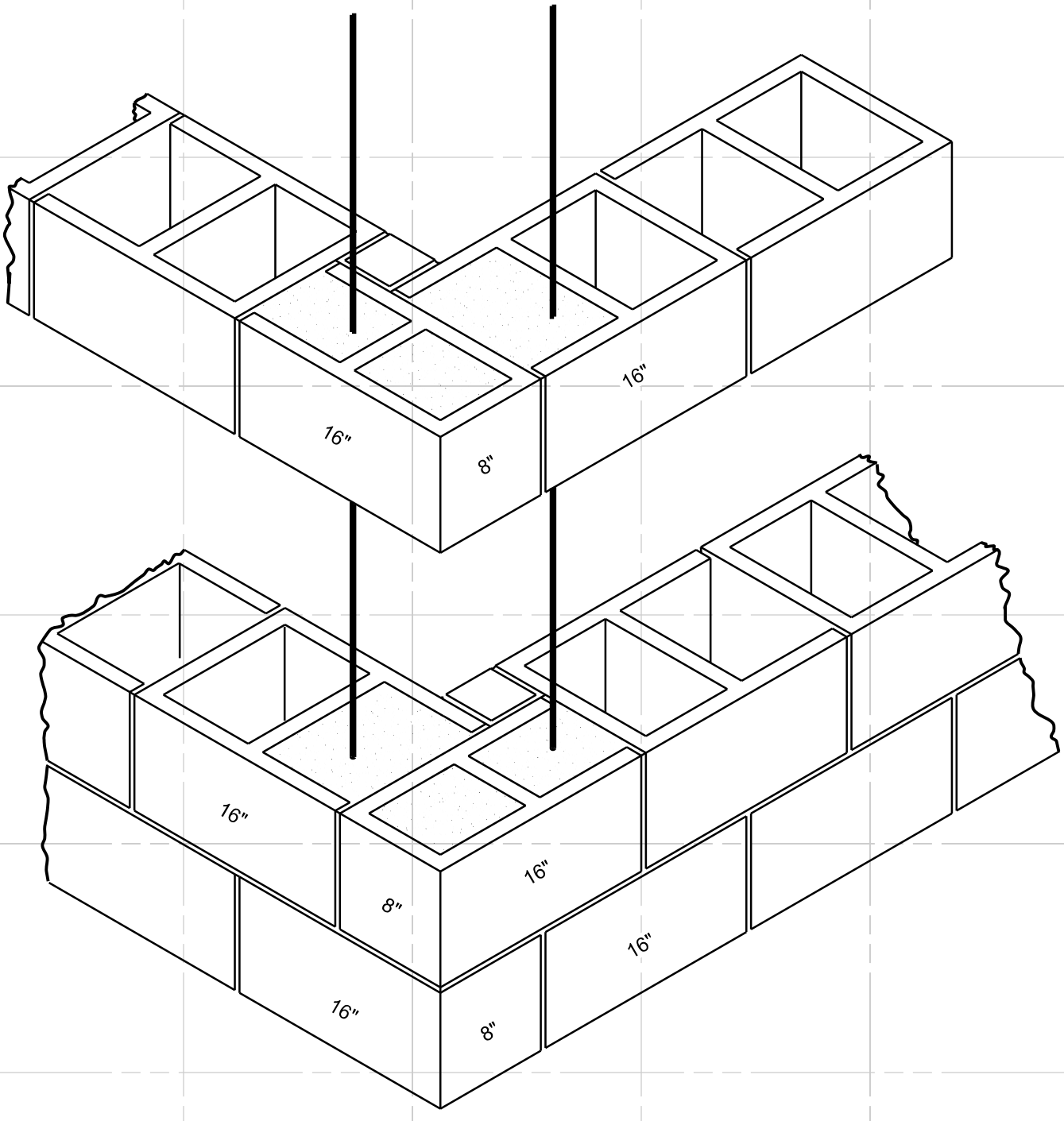
SCALE: NTS



A1

DETAIL: CORNER, 8-INCH CMU WALL

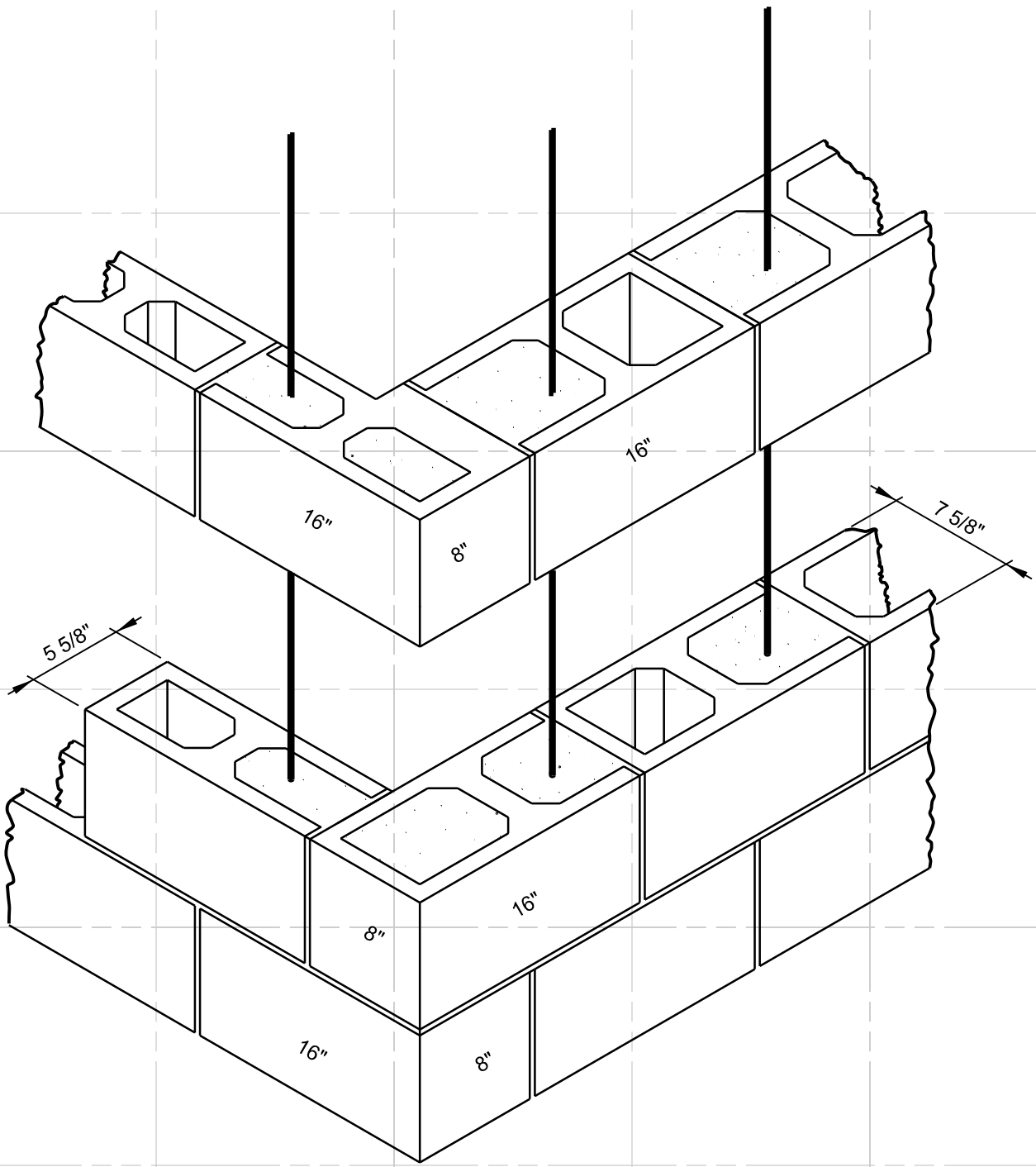
SCALE: NTS



A1

DETAIL: CORNER, 12-INCH CMU WALL

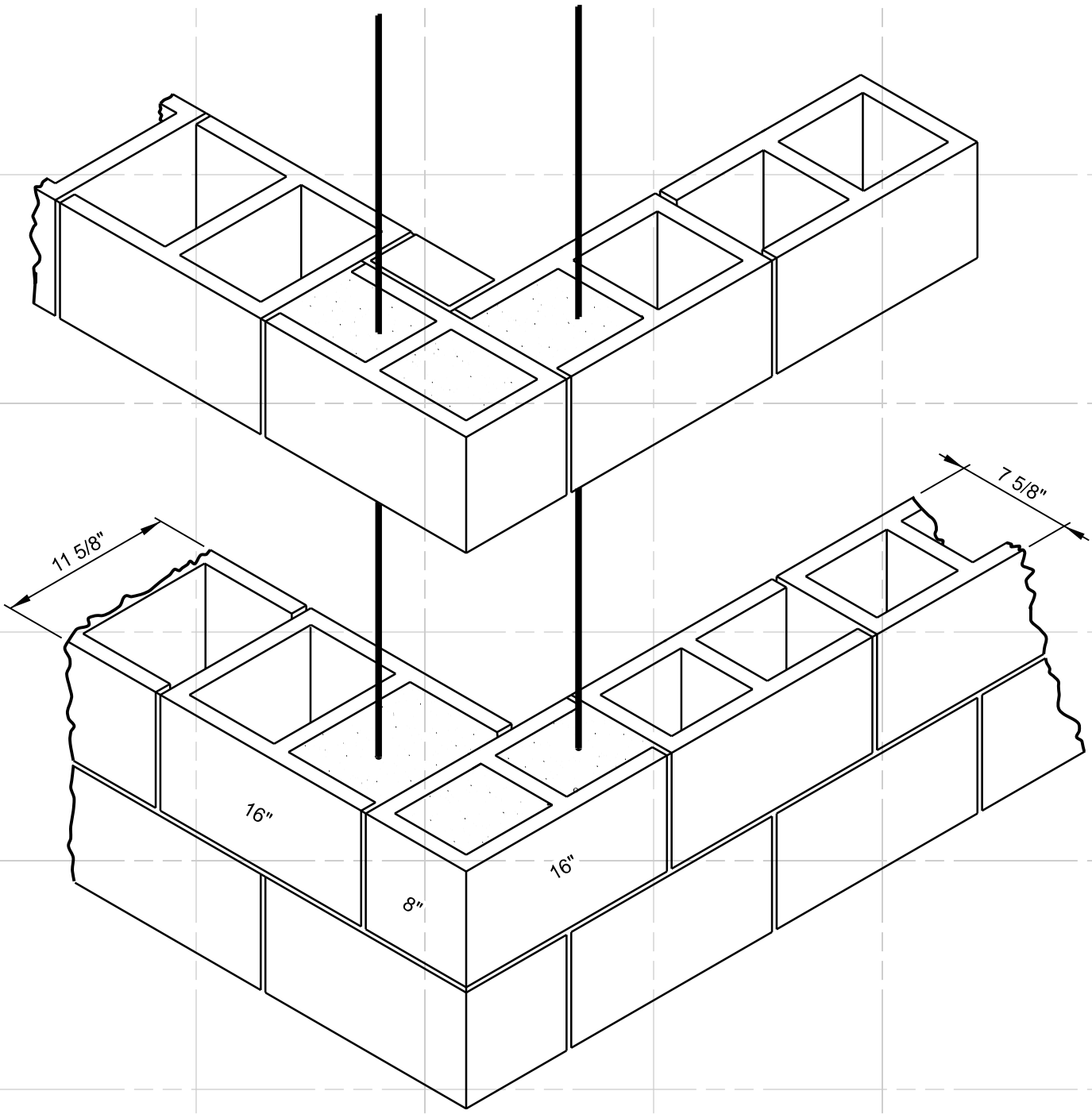
SCALE: NTS



DETAIL: CORNER, 6-INCH TO 8-INCH CMU WALL

A1

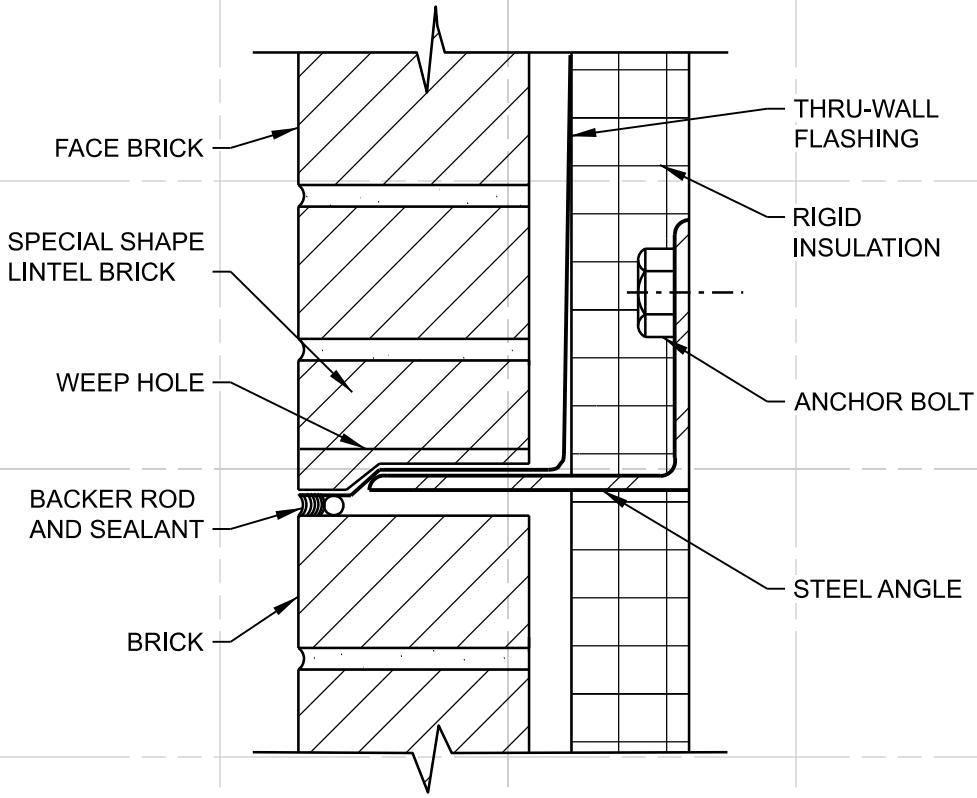
SCALE: NTS



DETAIL: CORNER, 8-INCH TO 12-INCH CMU WALL

A1

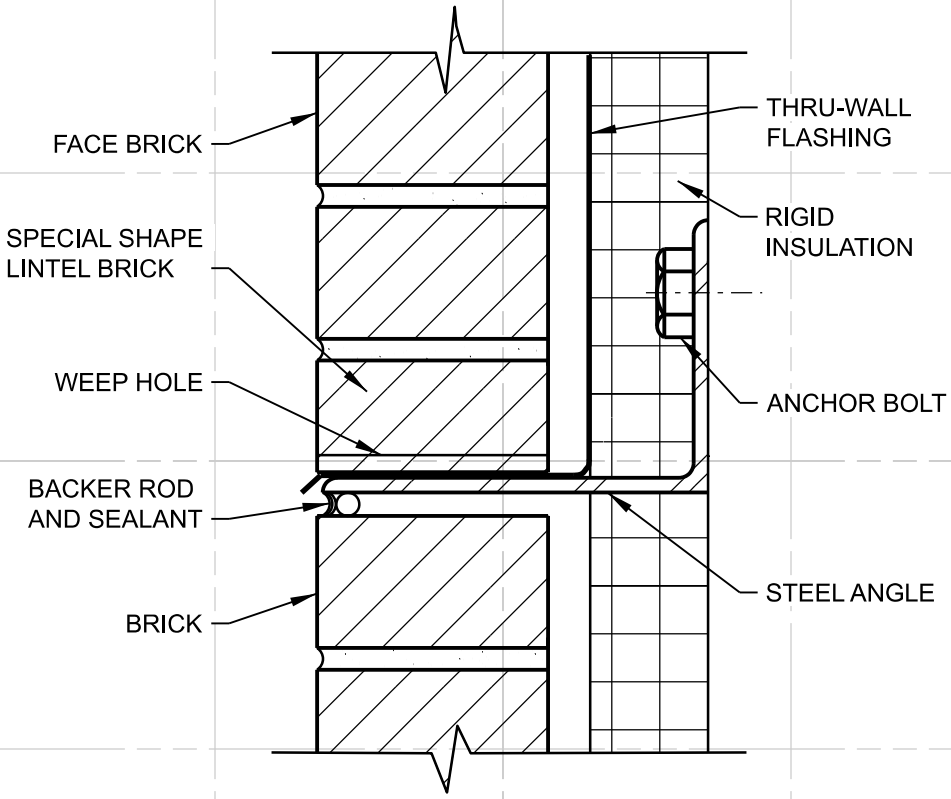
SCALE: NTS



A1

DETAIL: SHELF ANGLE

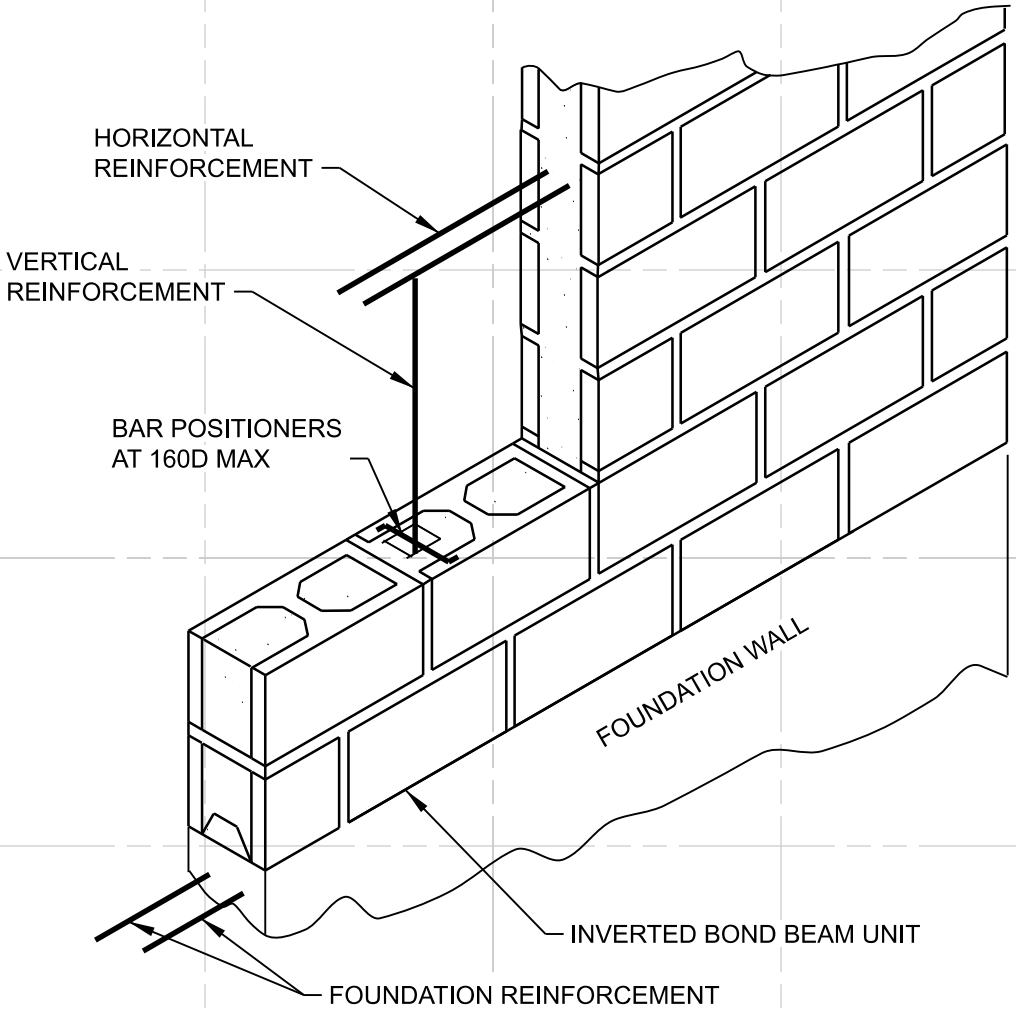
SCALE: NTS

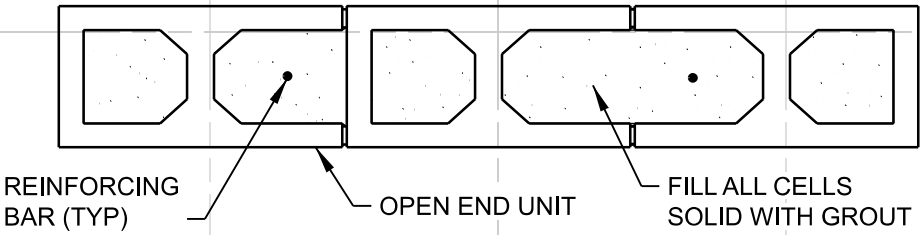


A1

DETAIL: SHELF ANGLE OPTION

SCALE: NTS



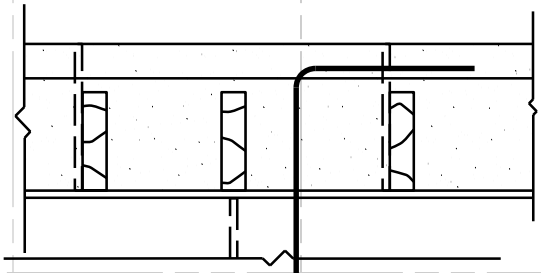


PLAN VIEW

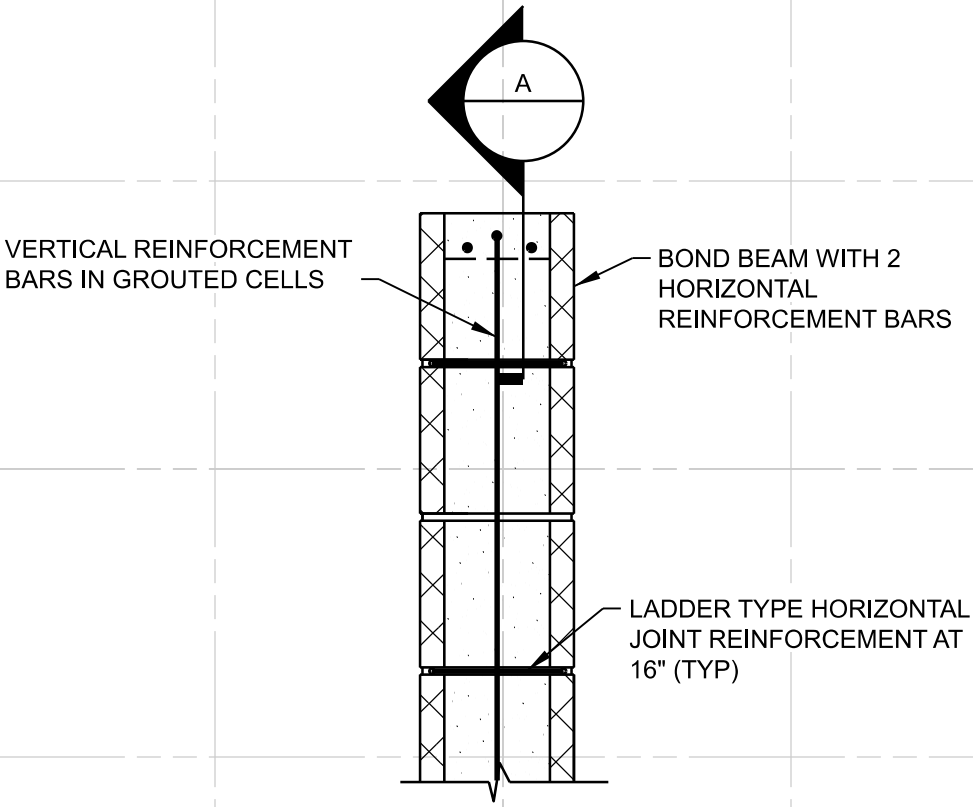
A1

DETAIL: SINGLE WYTHE WALL FULLY GROUTED

SCALE: NTS



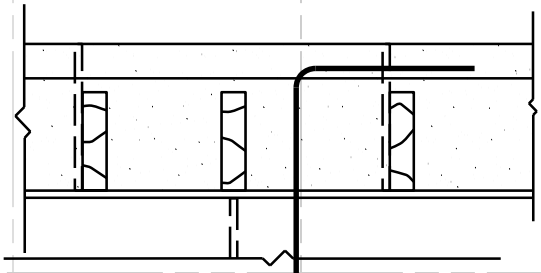
SECTION A



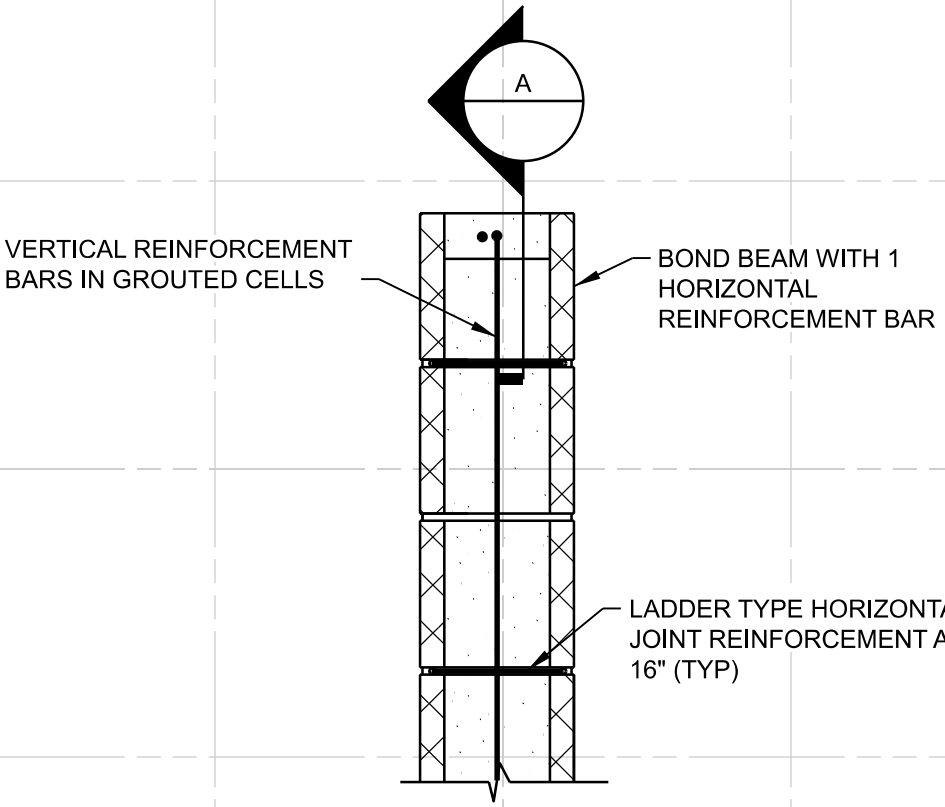
A1

DETAIL: SINGLE WYTHE WALL SECTION AT TOP OF WALL

SCALE: NTS



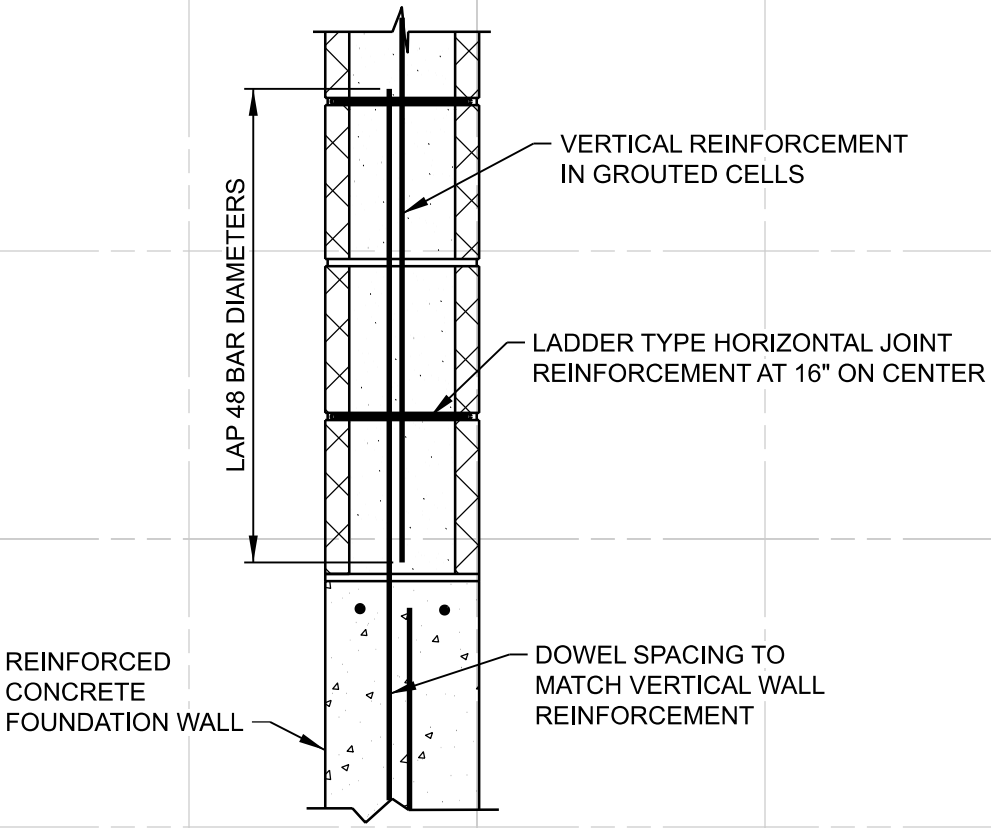
SECTION A



DETAIL: SINGLE WYTHE WALL SECTION AT TOP OF WALL

A1

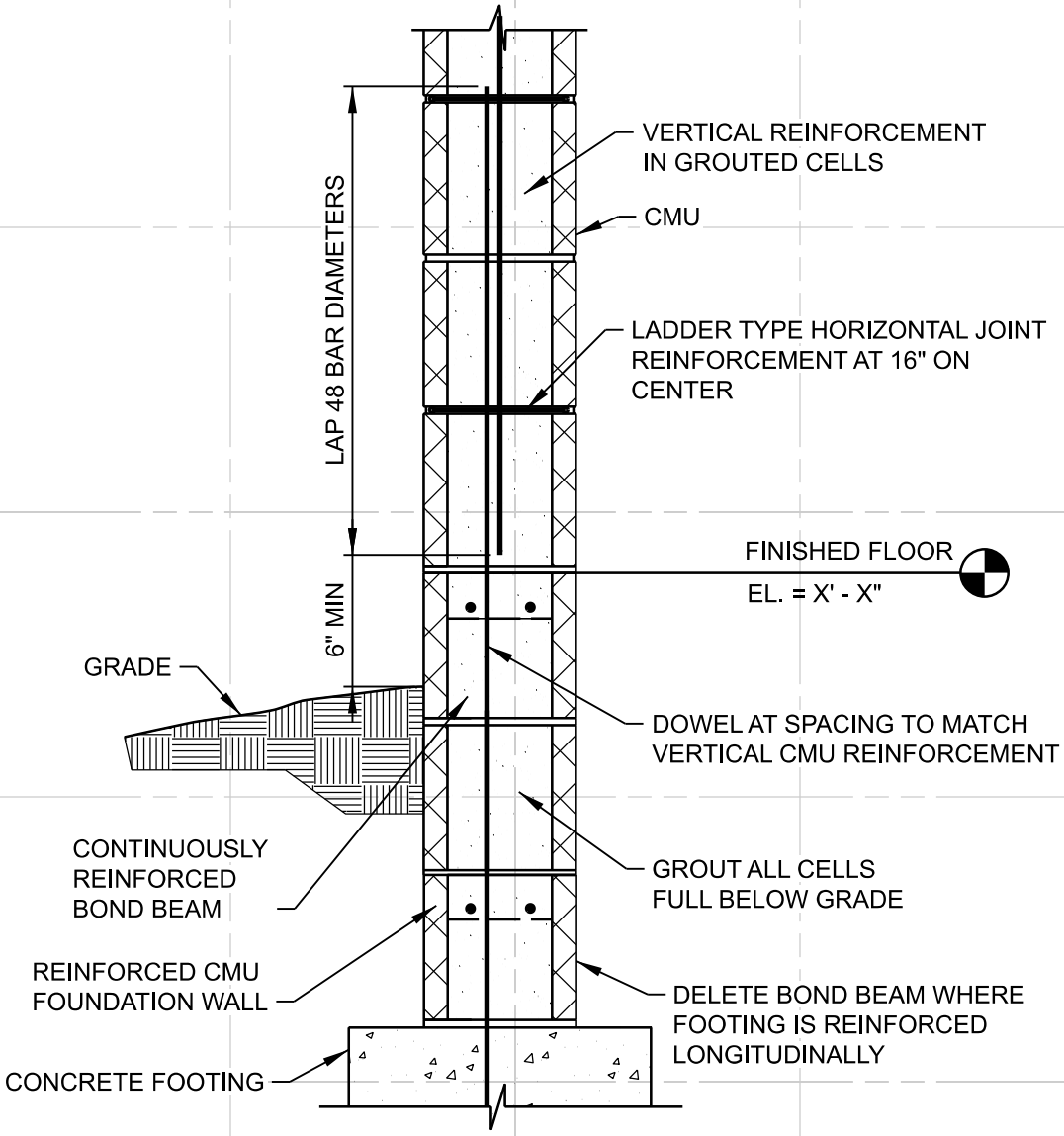
SCALE: NTS



DETAIL: SINGLE WYTHE WALL SECTION AT BASE (CONCRETE FOUNDATION)

A1

SCALE: NTS

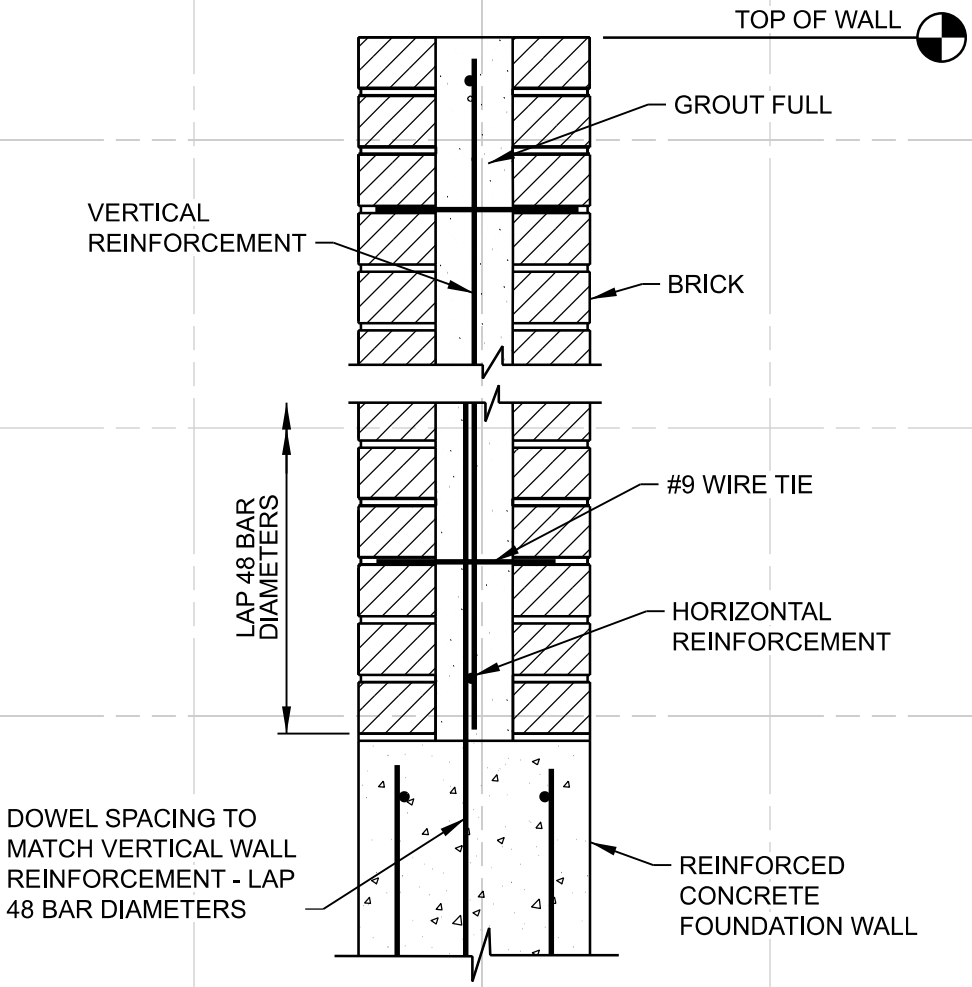


NOTE:
TOP OF DOOR FRAME MUST MATCH COURSING TO PREVENT CUTTING CMU. OPTIONS ARE: VARYING DOOR FRAME HEAD OR VARYING DOOR HEIGHT. STARTING COURSING AT OTHER THAN FINISH FLOOR LEVEL IS NOT RECOMMENDED SINCE INTERIOR MASONRY WALLS PLACED ON THE FINISHED FLOOR MAY NEED TO COURSE WITH THE OTHER WALLS.

DETAIL: SINGLE WYTHE WALL SECTION AT BASE (CMU FOUNDATION)

A1

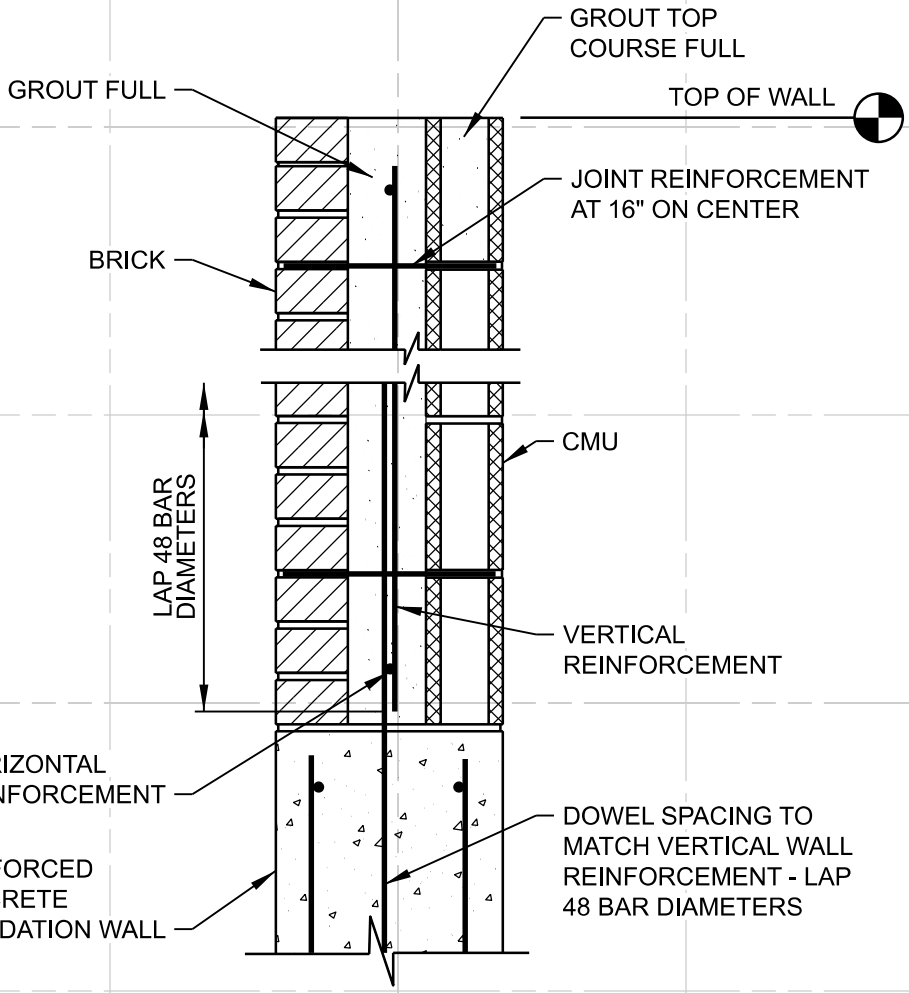
SCALE: NTS



A1

DETAIL: GROUTED MASONRY WALL SECTION (BRICK/BRICK)

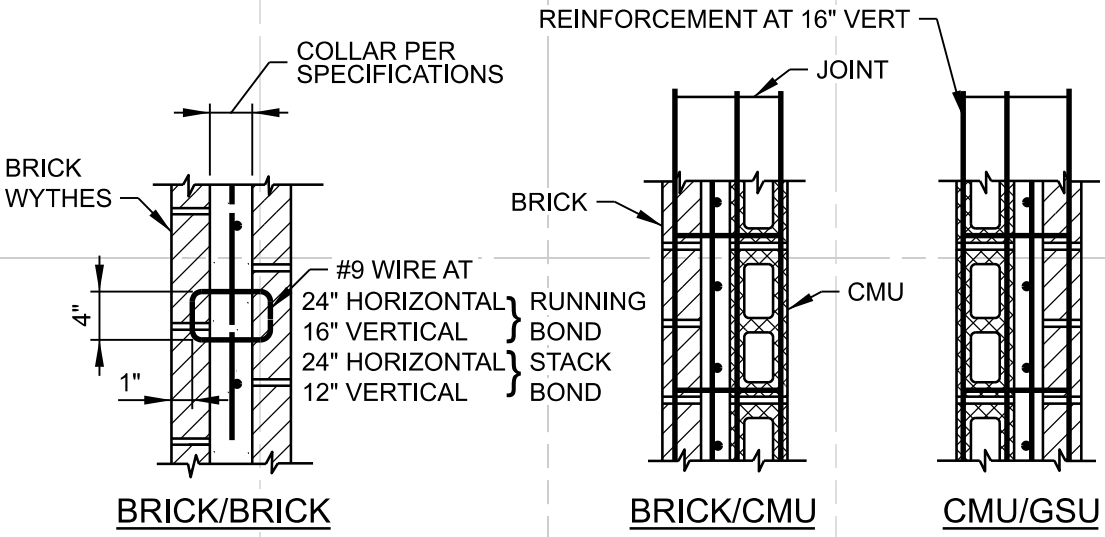
SCALE: NTS

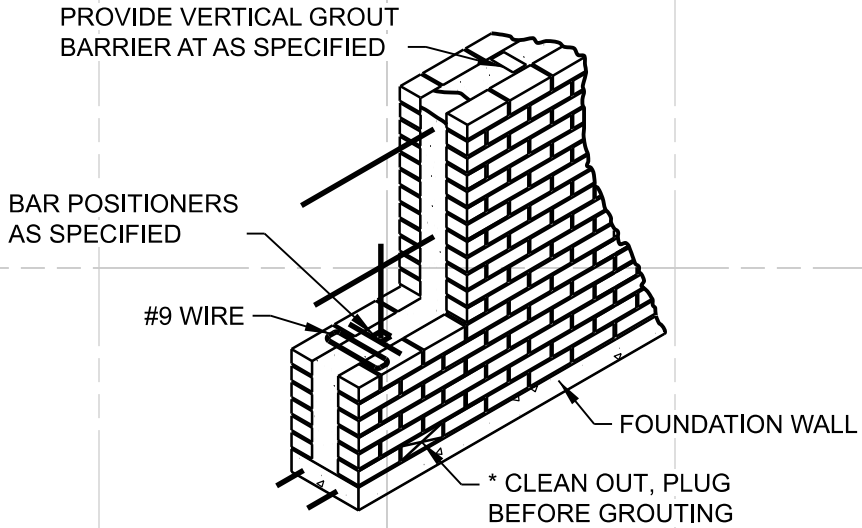


A1

DETAIL: GROUTED MASONRY WALL SECTION (BRICK/CMU)

SCALE: NTS



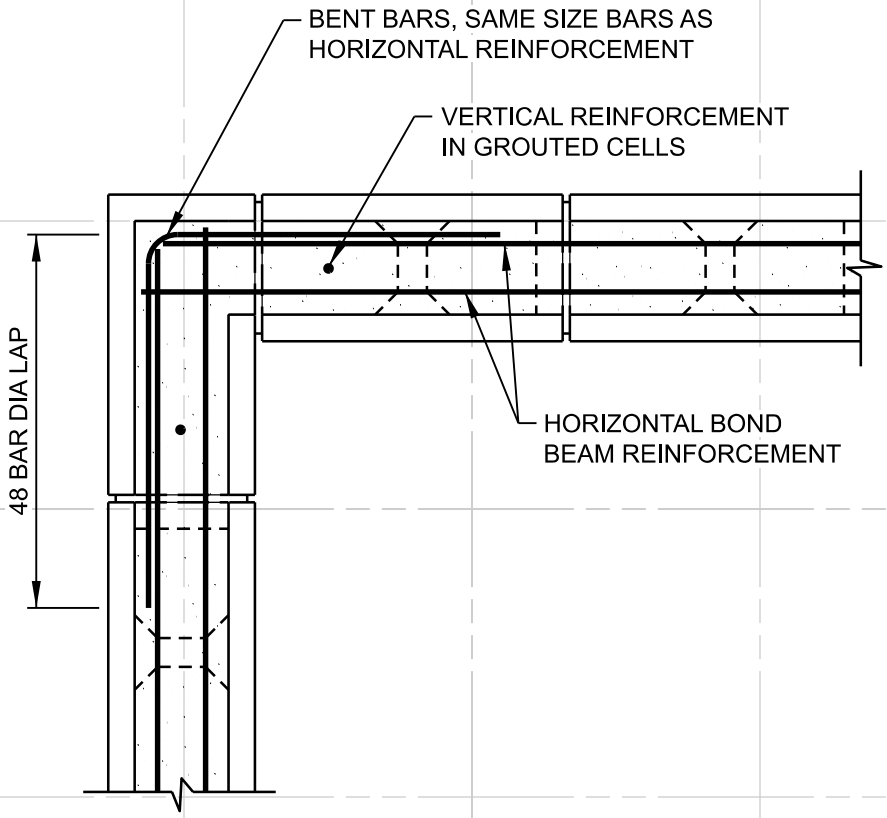


NOTE:
* APPLIES TO HIGH LIFT CONSTRUCTION METHOD ONLY

A1

DETAIL: GROUTED MASONRY

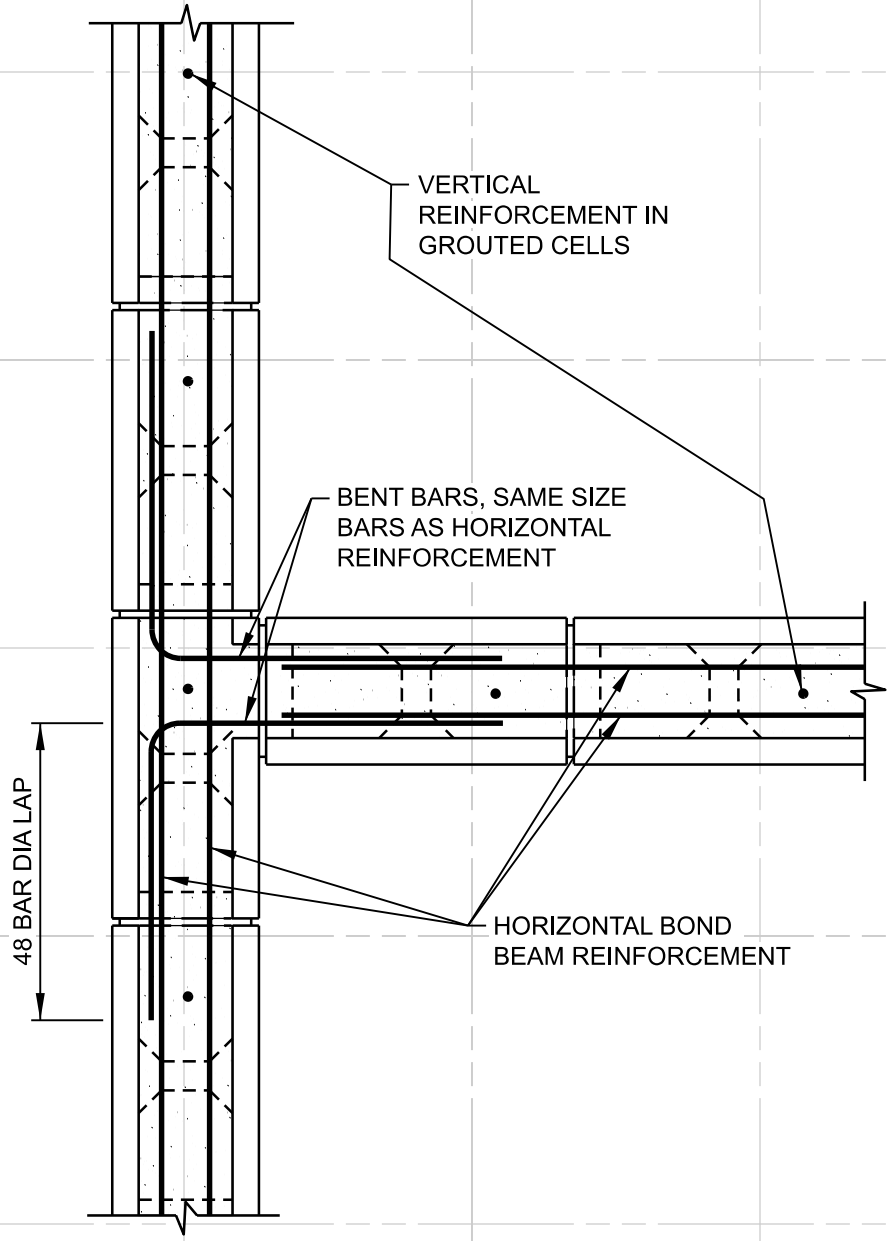
SCALE: NTS



A1

DETAIL: BOND BEAM CORNER

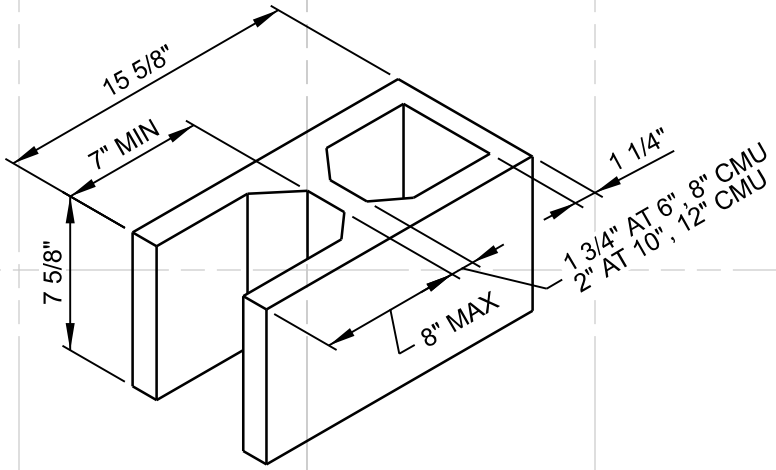
SCALE: NTS



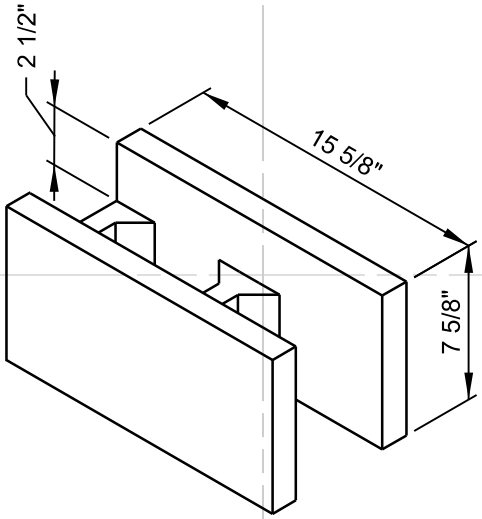
A1

DETAIL: BOND BEAM INTERSECTION

SCALE: NTS



OPEN END UNIT



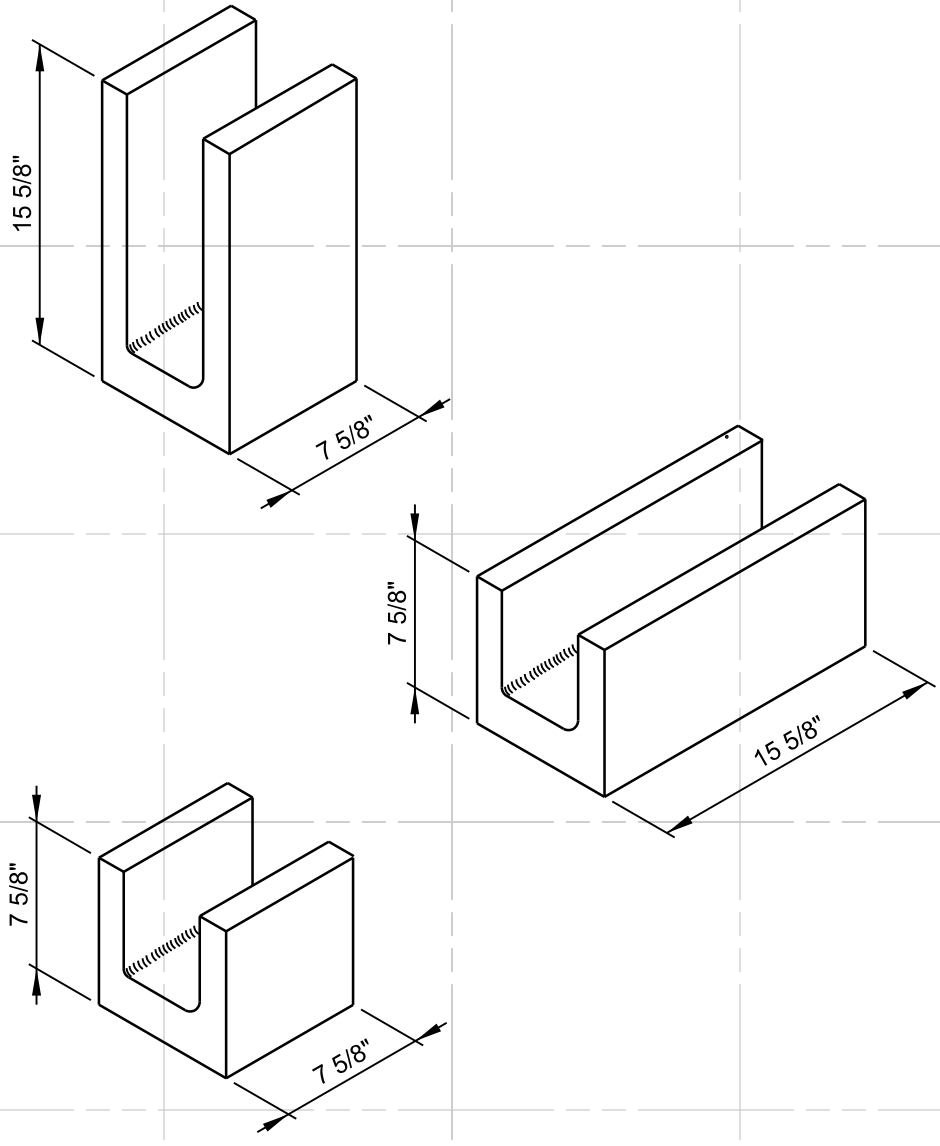
OPEN END BOND BEAM UNIT

NOTE:
1. BOND BEAM UNITS MAY BE CUT FROM OPEN END UNITS.
2. WEB THICKNESSES SHOWN SATISFY ASTM C90 REQUIREMENTS. UNIT DIMENSIONS AND CONFIGURATION MAY VARY, BUT MUST SATISFY ASTM C90 REQUIREMENTS. THICKNESSES OF WEBS AND FACE SHELLS MAY BE REDUCED UNDER CERTAIN CONDITIONS AS ALLOWED BY ASTM C90. KNOCKOUT WEBS ARE PERMITTED TO FACILITATE HANDLING AND SHIPPING.

A1

DETAIL: OPEN END UNITS

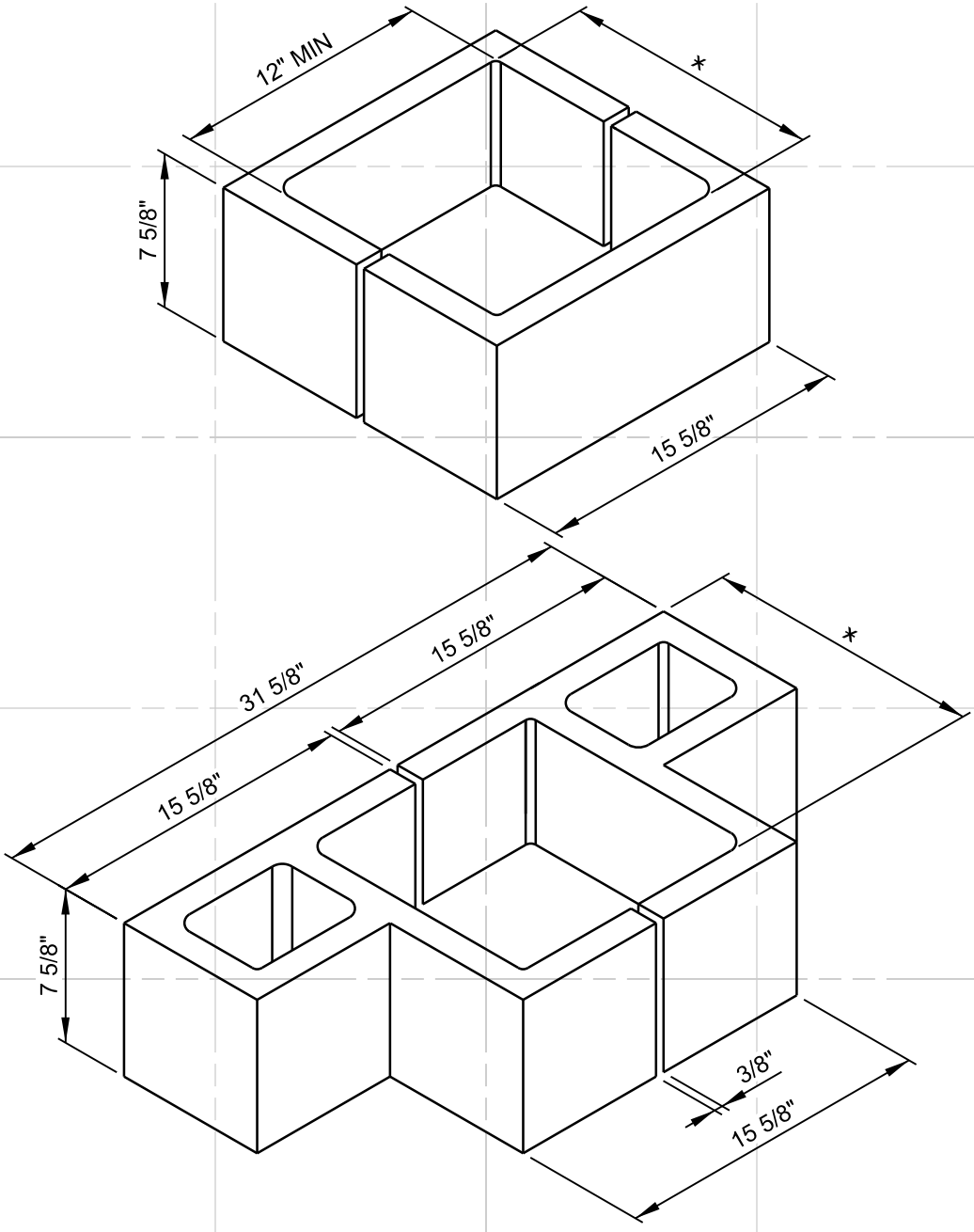
SCALE: NTS



A1

DETAIL: LINTEL UNITS

SCALE: NTS

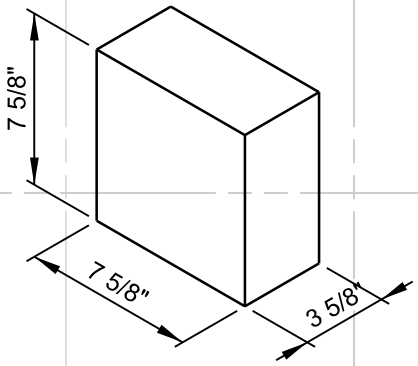


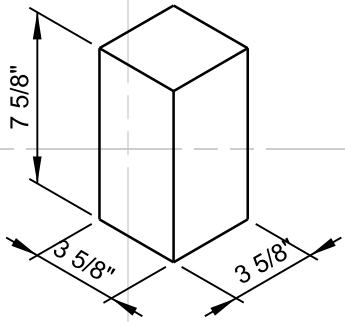
* 8" MIN - 12X16X16 PILASTER
* 12" MIN - 16X16X16 PILASTER

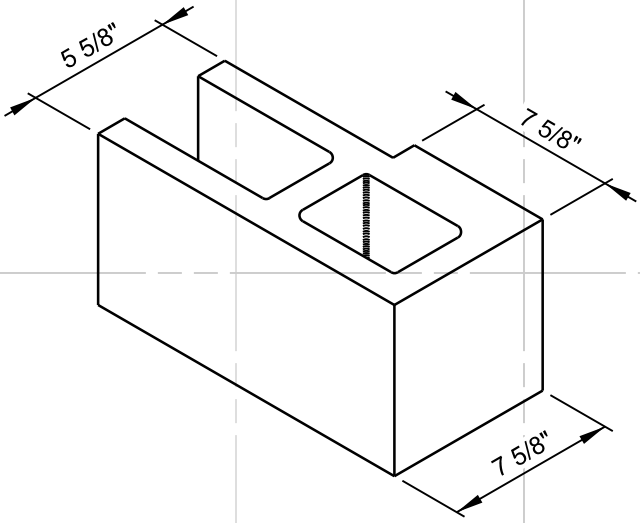
A1

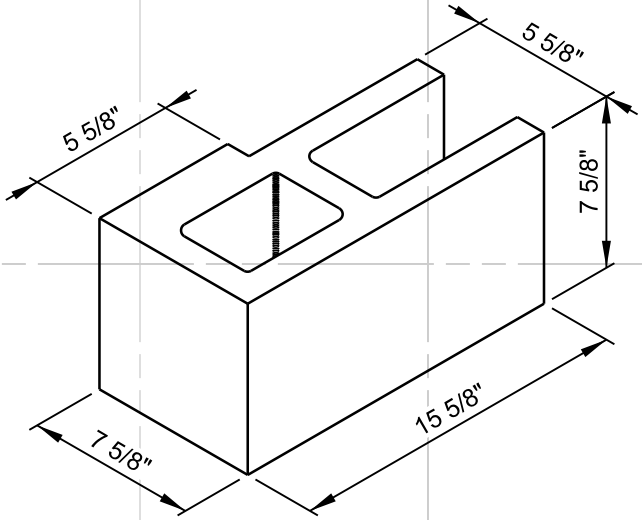
DETAIL: PILASTER UNITS

SCALE: NTS







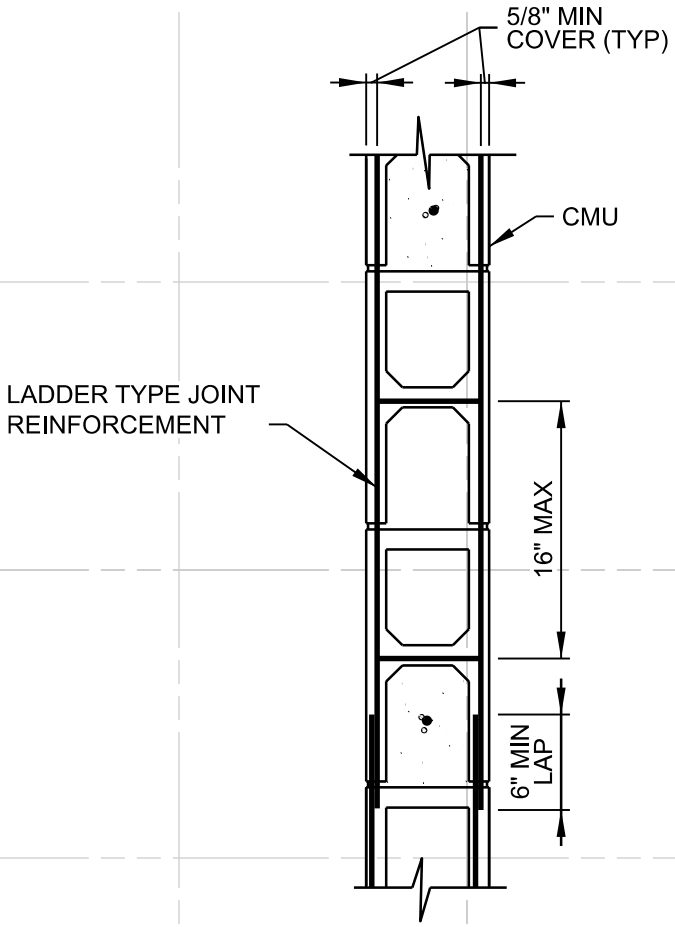


NOTE:
BOND BEAM UNITS NOT SHOWN

A1

DETAIL: CORNER TRANSITION UNITS

SCALE: NTS

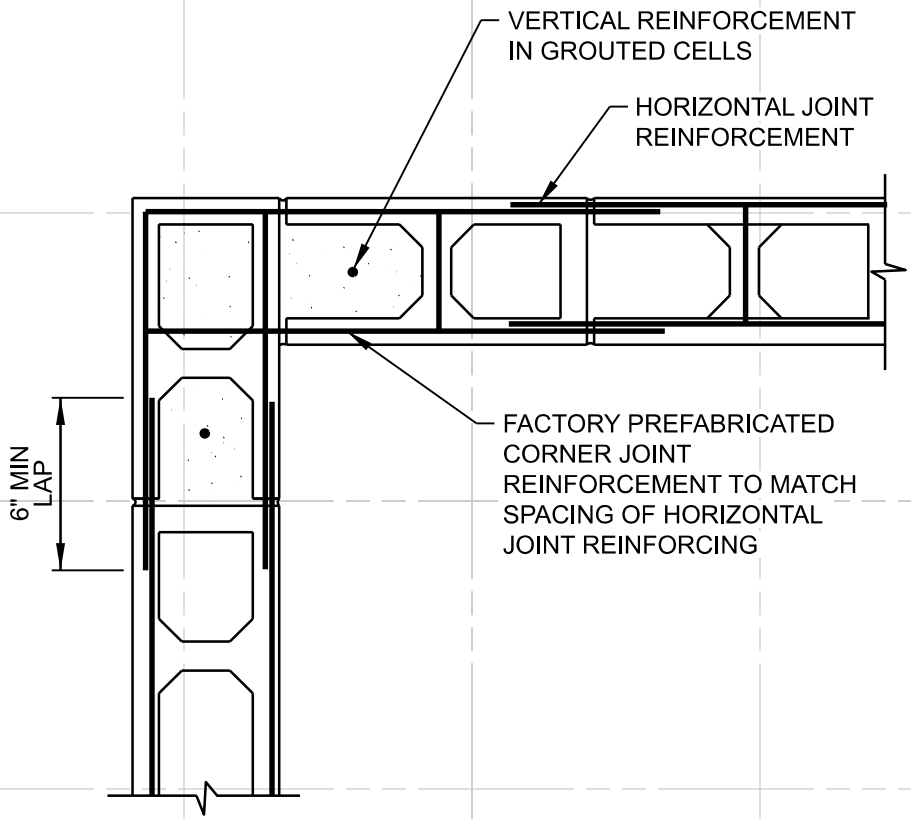


DETAIL: JOINT REINFORCEMENT SINGLE WYTHE WALL

A1

SCALE: 1"=1'-0"

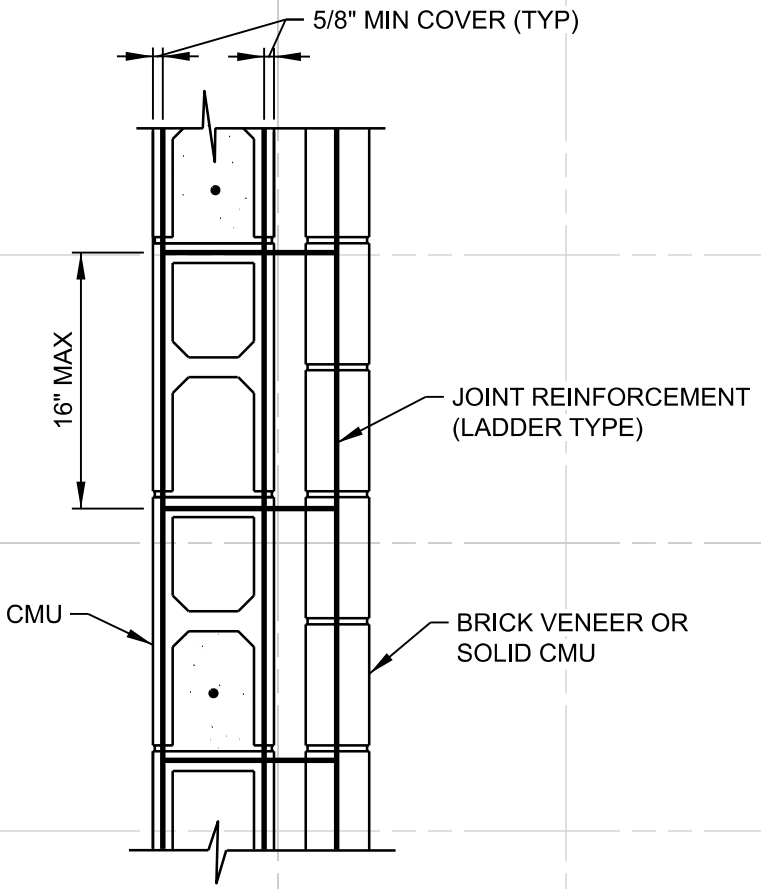
0 6" 1' 2'



A1

DETAIL: JOINT REINFORCEMENT SINGLE WYTHE CORNER

SCALE: NTS

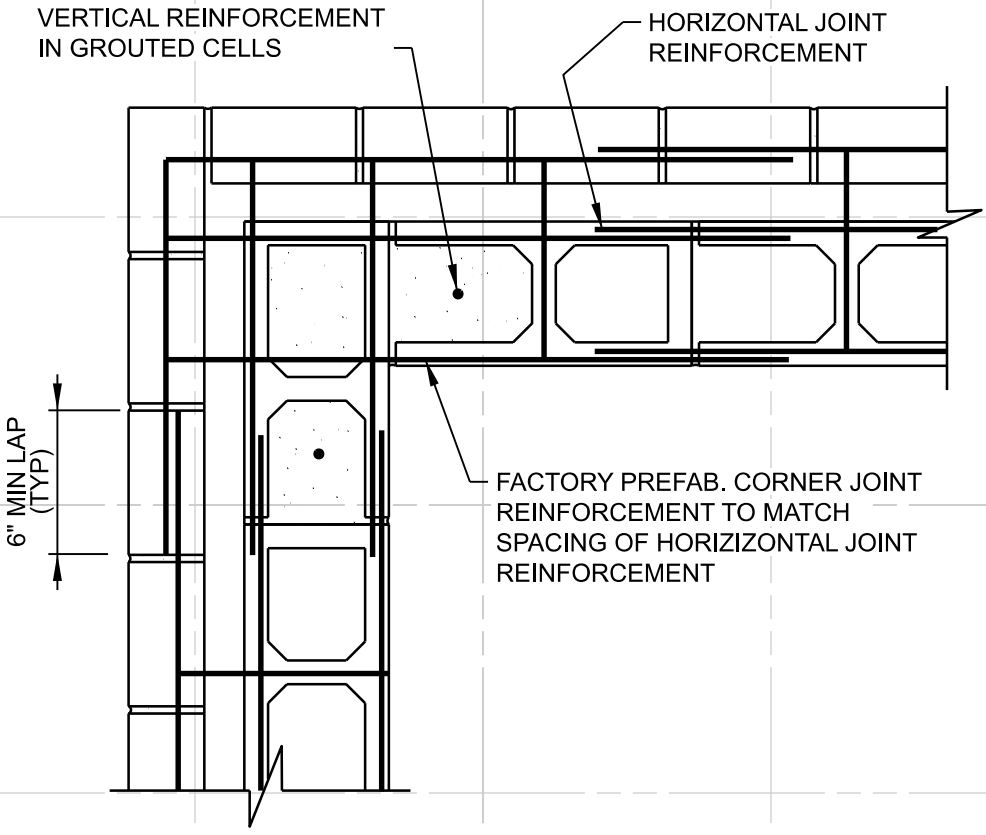


DETAIL: JOINT REINFORCEMENT MULTIPLE WYTHE WALL

A1

SCALE: 1"=1'-0"

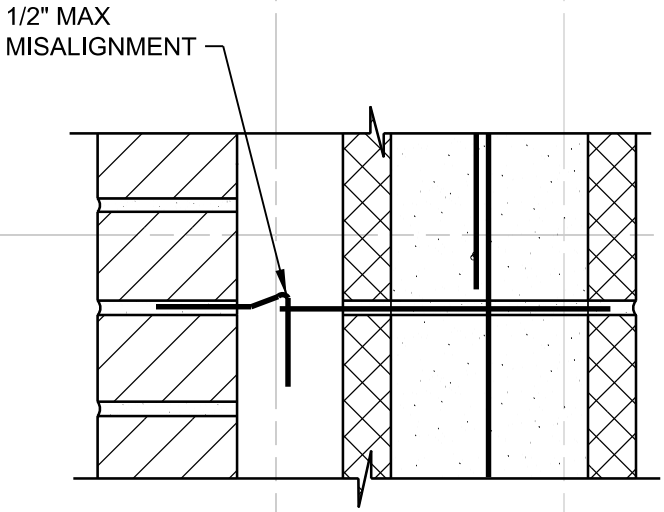
0 6" 1' 2'



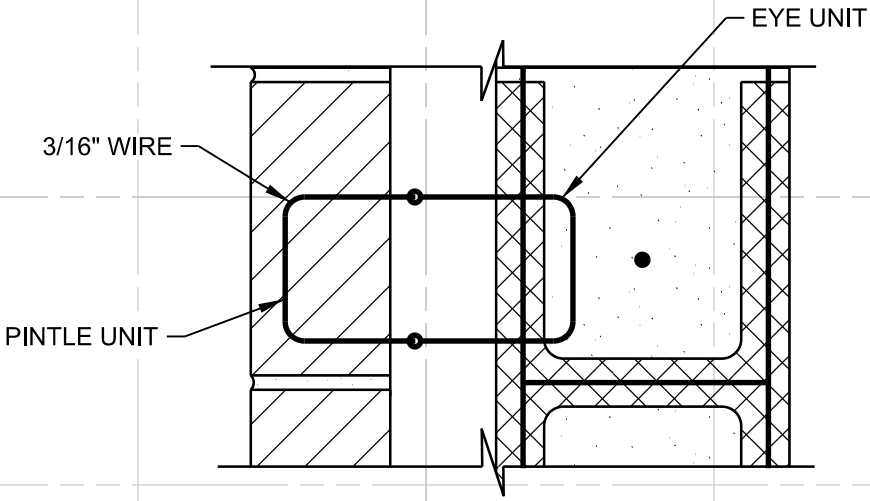
A1

DETAIL: JOINT REINFORCEMENT MULTIPLE WYTHE CORNER

SCALE: NTS



ELEVATION

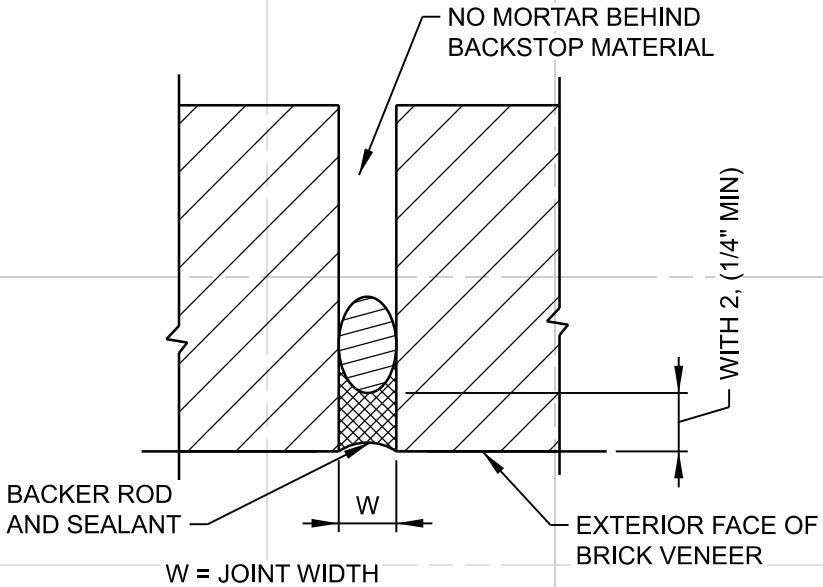


PLAN

A1

DETAIL: ADJUSTABLE TIES

SCALE: NTS

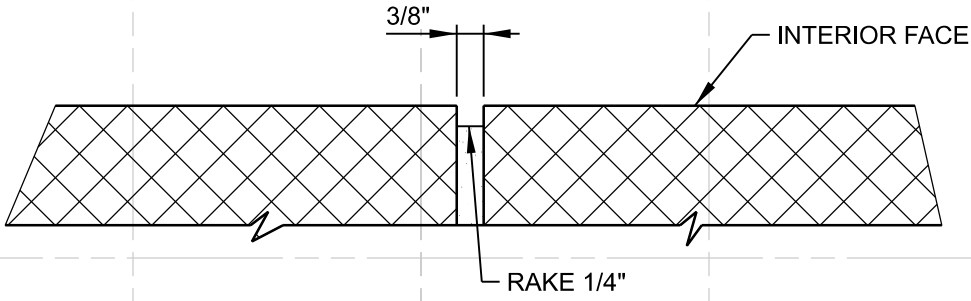


W = JOINT WIDTH

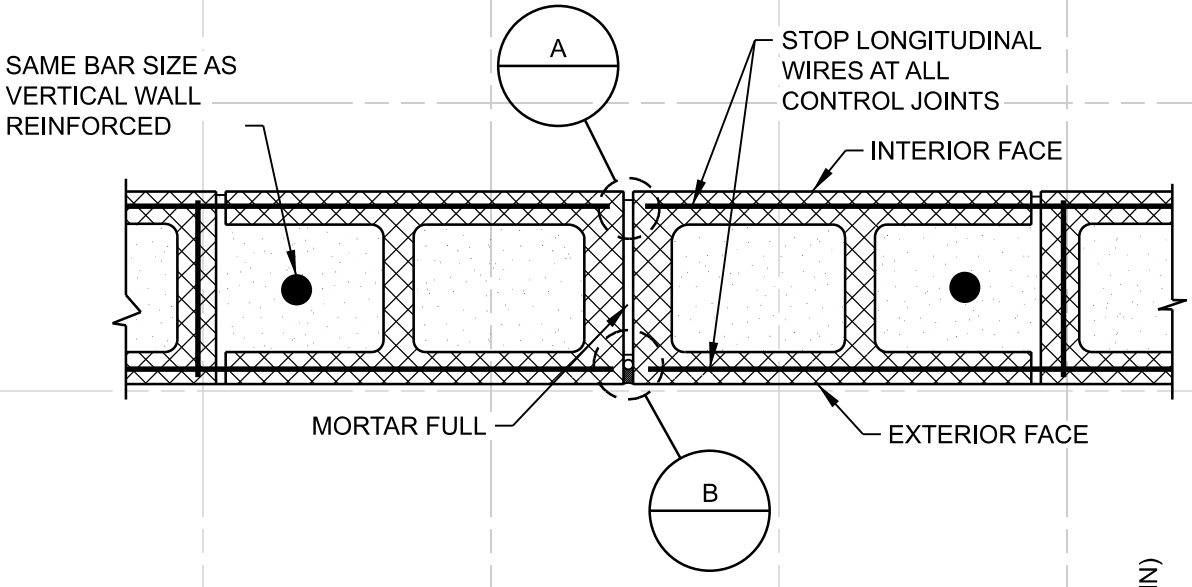
DETAIL: BRICK EXPANSION JOINT (BEJ)

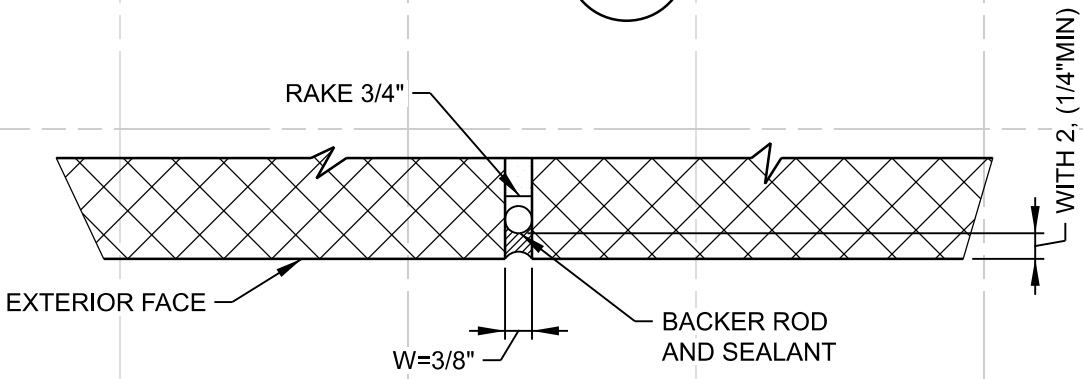
A1

SCALE: NTS



DETAIL A



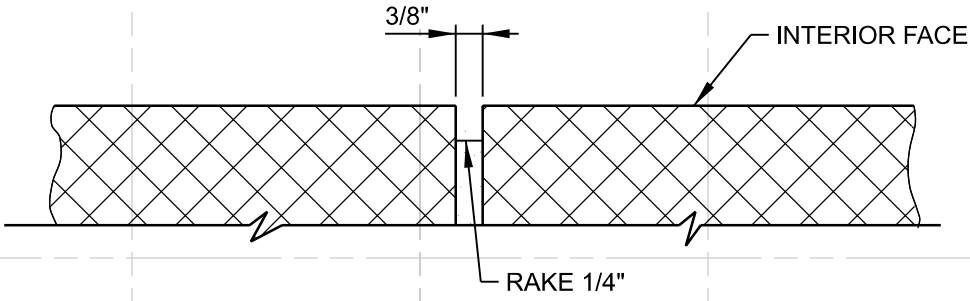


DETAIL B

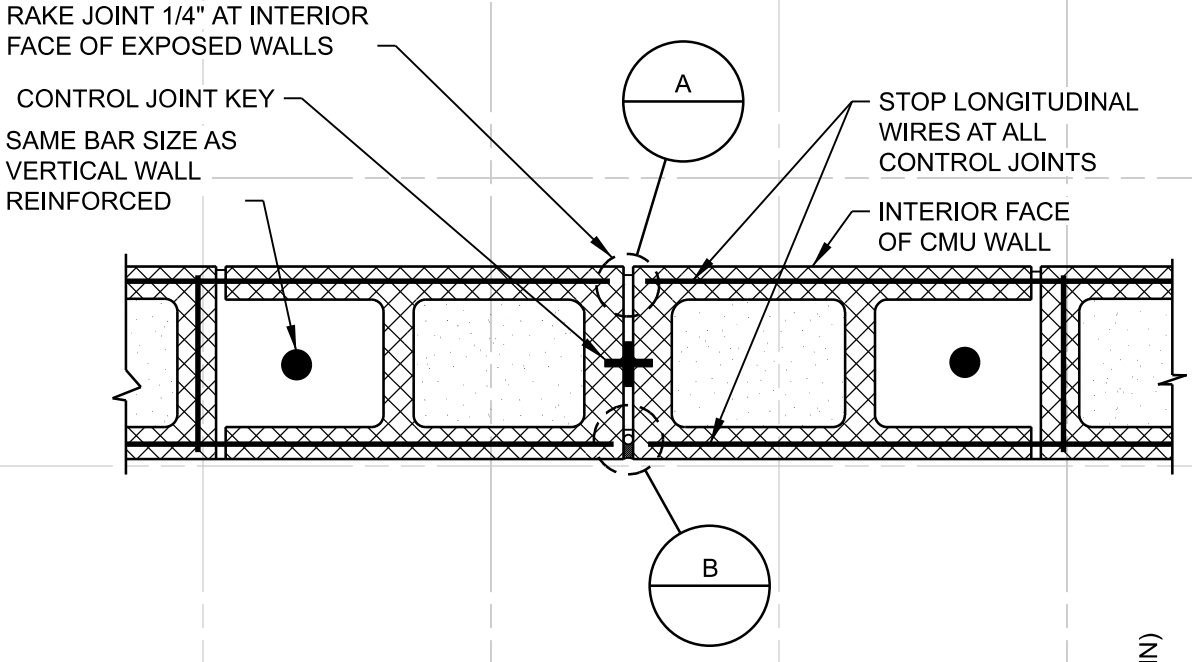
A1

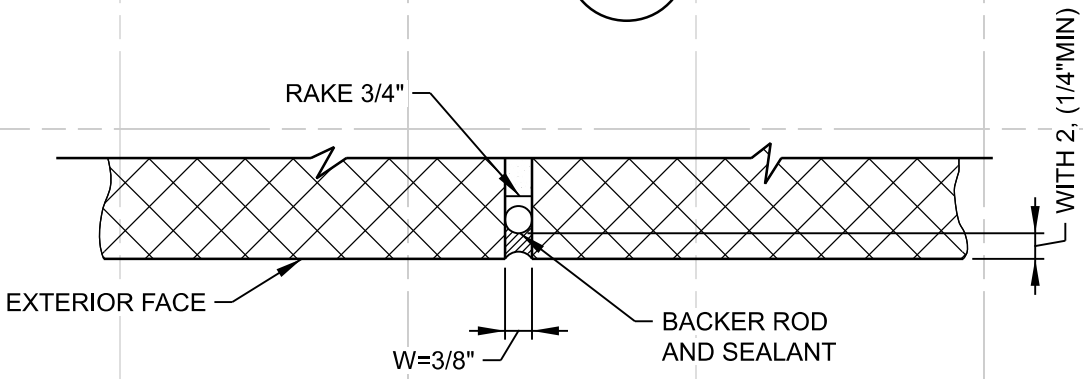
DETAIL: CMU CONTROL JOINT (CJ)

SCALE: NTS



DETAIL A



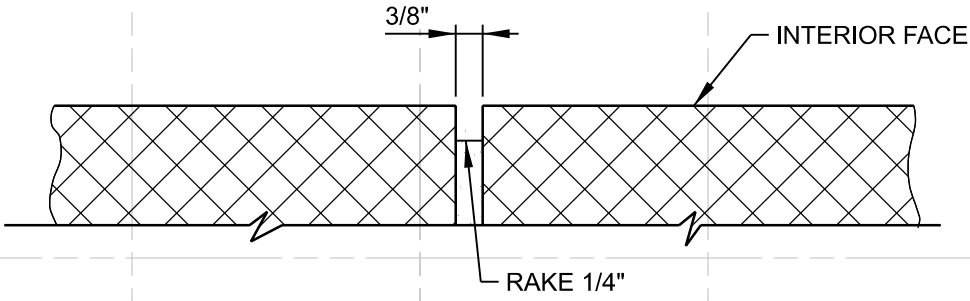


DETAIL B

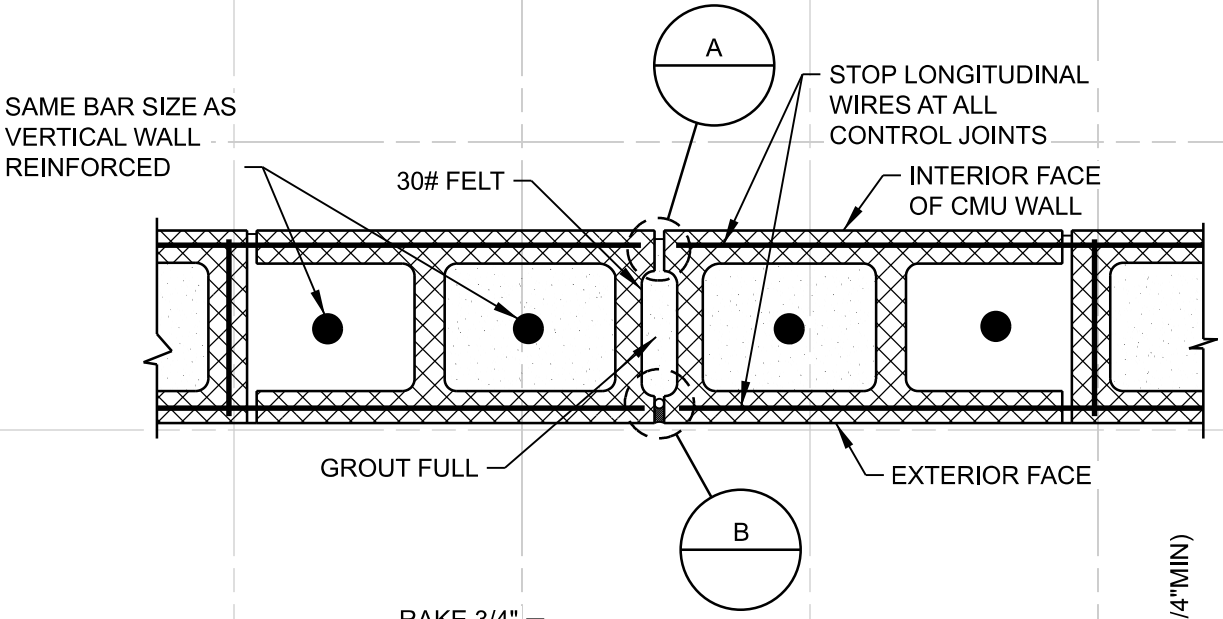
DETAIL: CMU CONTROL JOINT WITH RUBBER KEY

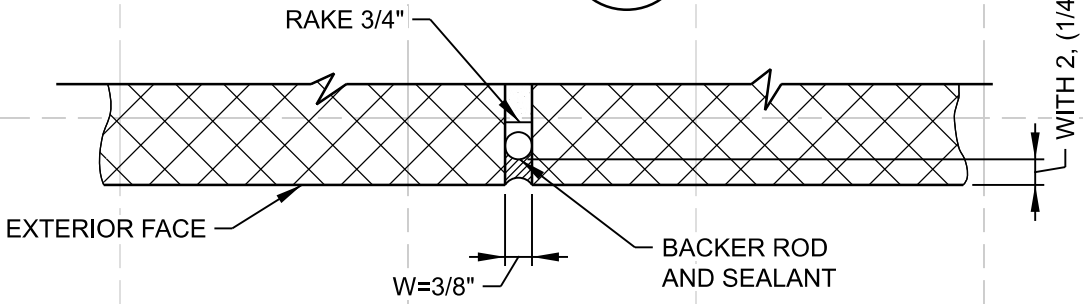
A1

SCALE: NTS



DETAIL A





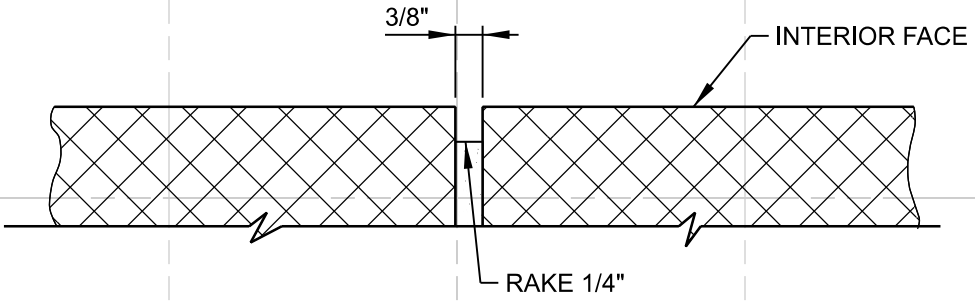
DETAIL B

NOTE:
THE USE OF STANDARD AND HALF UNITS WITH 30# FELT OR SASH BLOCK UNITS WITH KEY IS A CONTRACTOR'S OPTION.

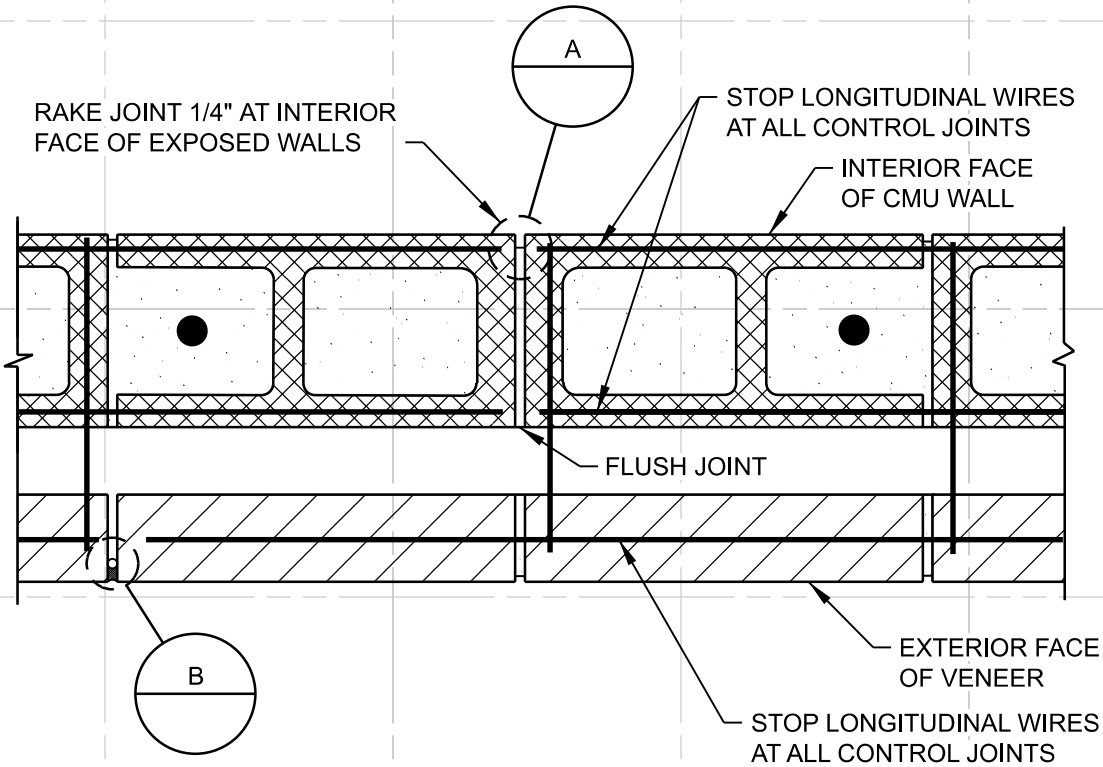
DETAIL: CMU CONTROL JOINT WITH GROUT KEY

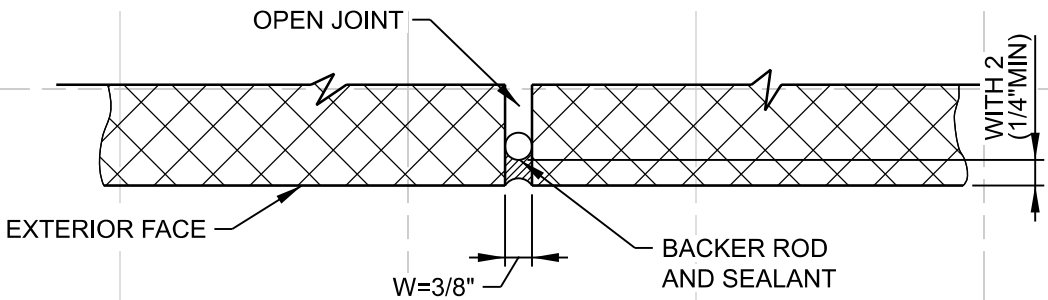
A1

SCALE: NTS



DETAIL A



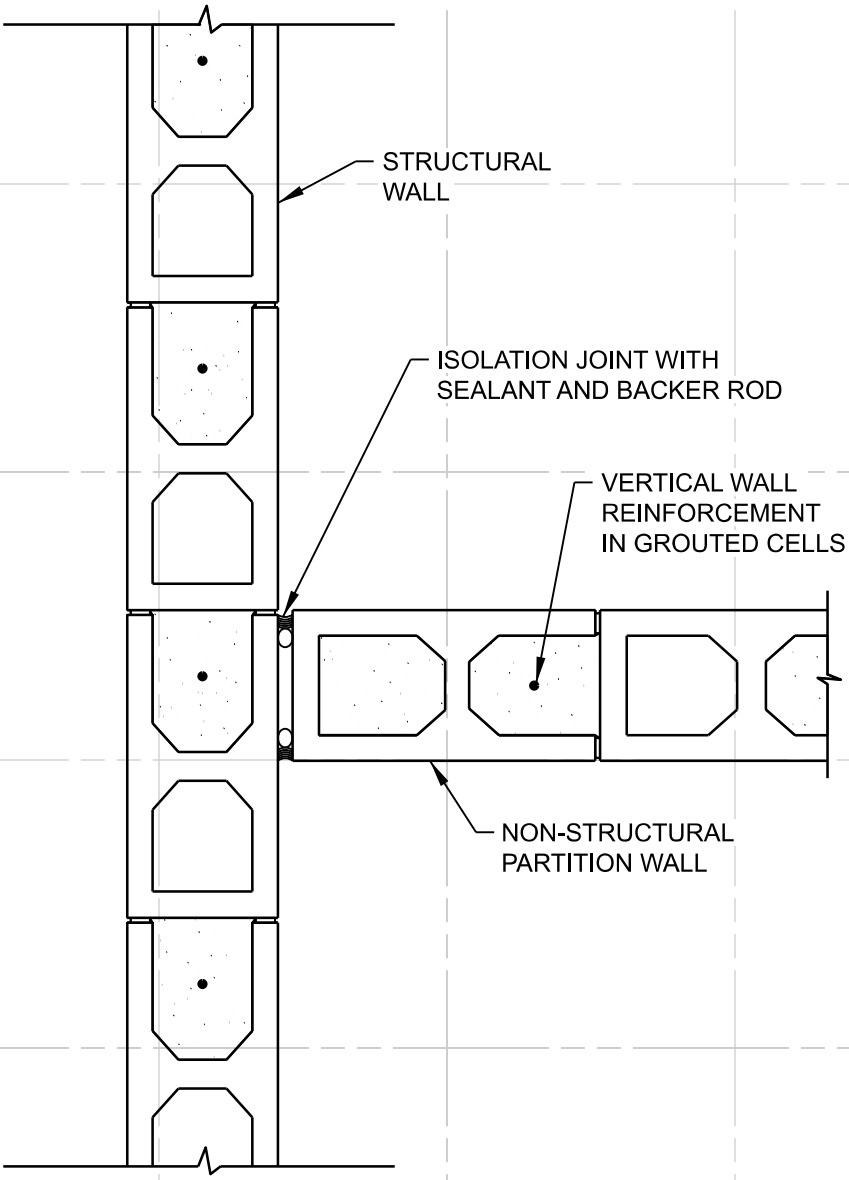


DETAIL B

A1

DETAIL: ANCHORED VENEER JOINT

SCALE: NTS

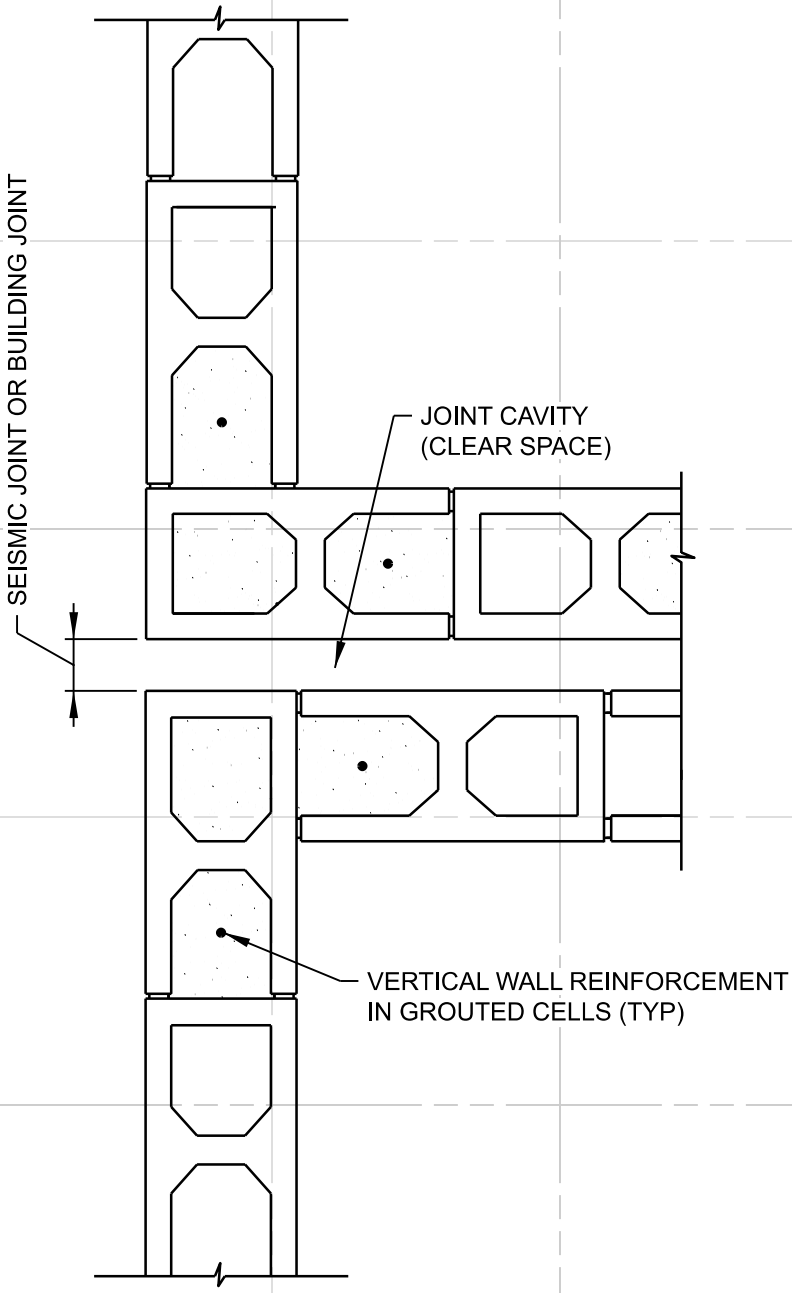


NOTE:
3/4 INCH ISOLATION JOINT (OR AS REQUIRED BY DRIFT) IN SEISMIC ZONES 3 AND 4. OTHERWISE, USE A 3/8 INCH ISOLATION JOINT

A1

DETAIL: ISOLATION JOINT (PARTITION-STRUCTURAL WALL)

SCALE: NTS

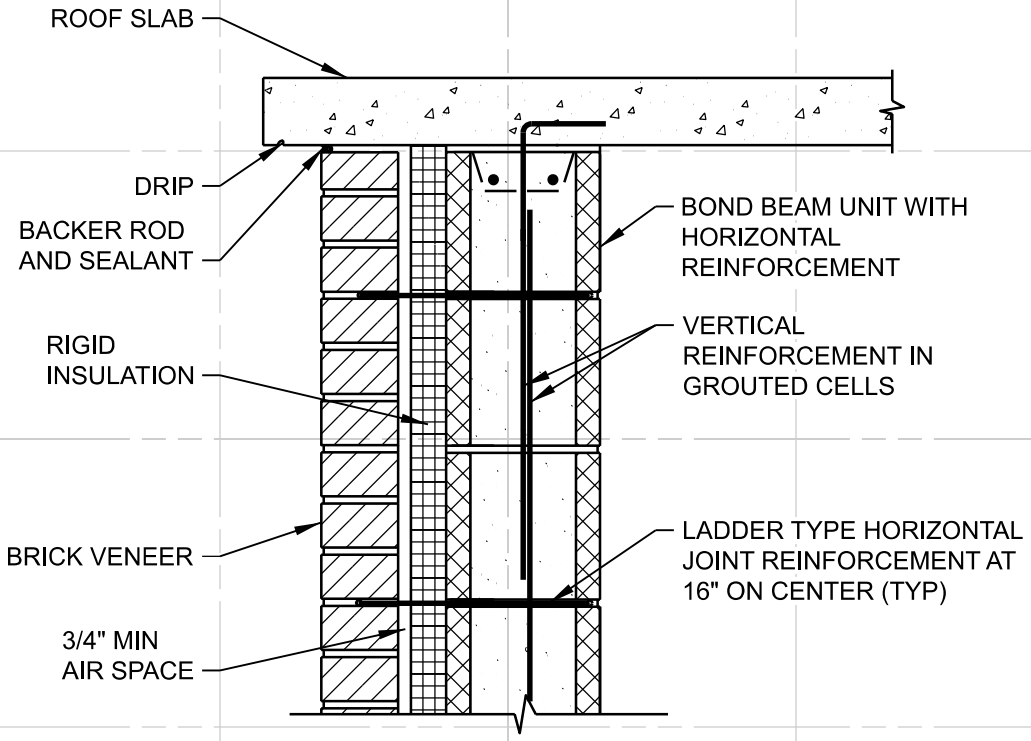


NOTE:
SEISMIC JOINT OR BULDING JOINT AS REQUIRED BY DESIGN (2" MIN)

DETAIL: SEISMIC JOINT OR BUILDING JOINT

A1

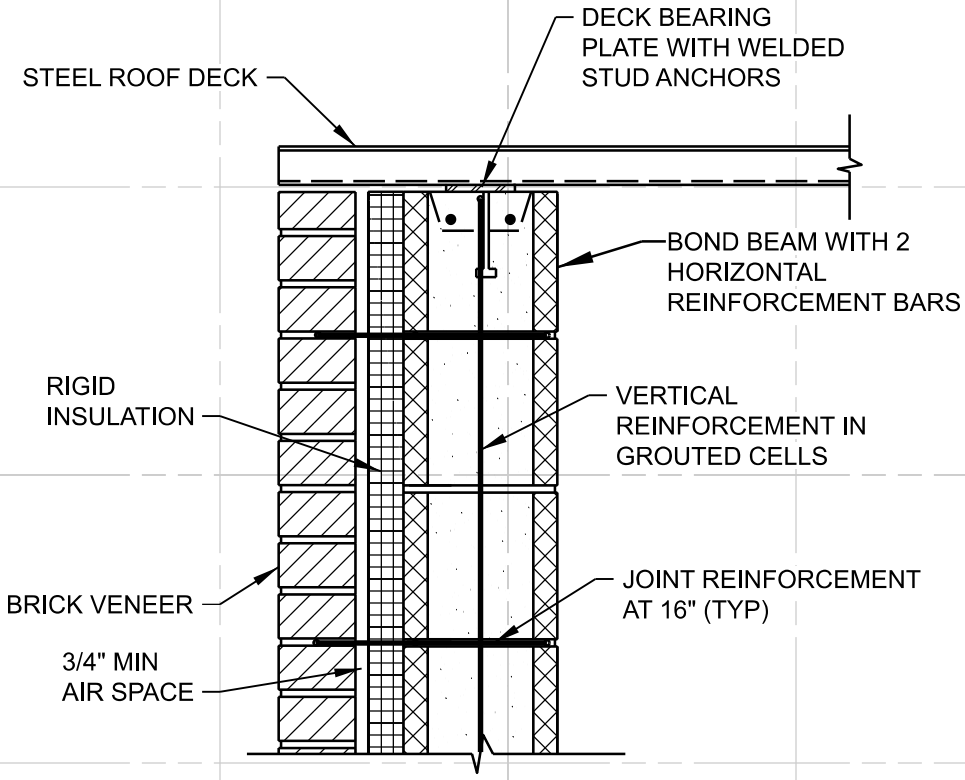
SCALE: NTS



A1

DETAIL: ROOF CONNECTION ROOF SLAB

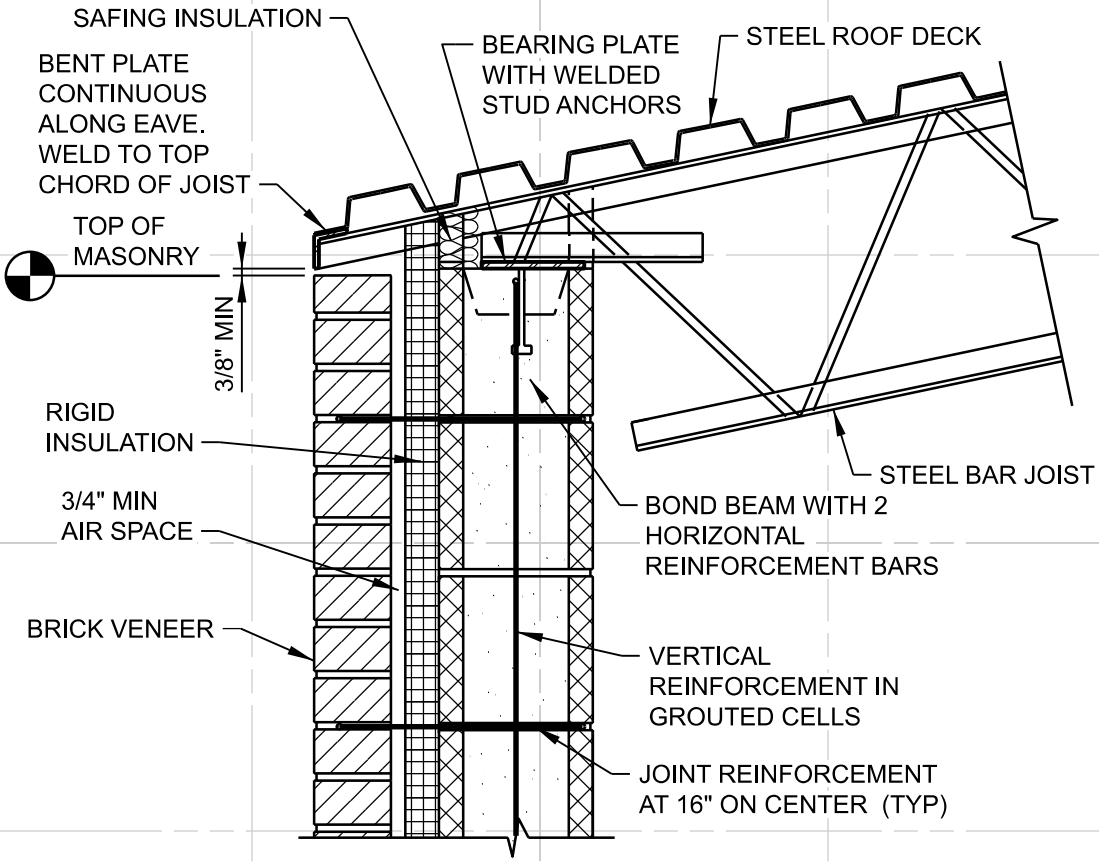
SCALE: NTS



A1

DETAIL: ROOF CONNECTION ROOF DECK

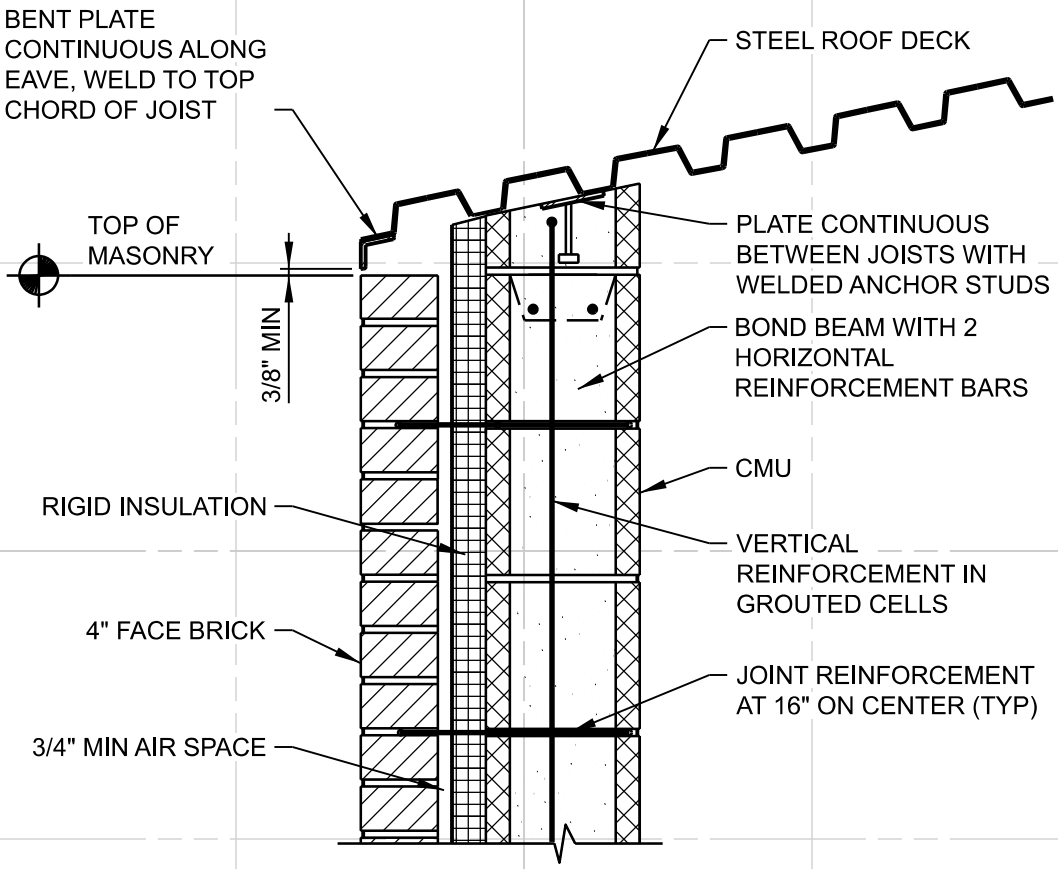
SCALE: NTS



A1

DETAIL: ROOF CONNECTION BAR JOIST

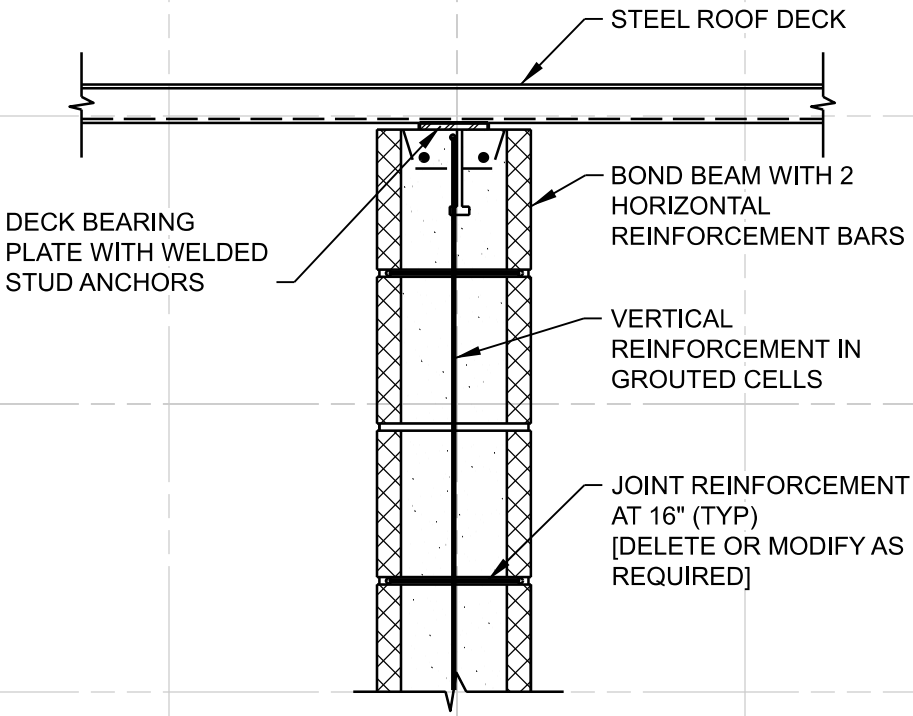
SCALE: NTS



A1

DETAIL: ROOF CONNECTION BETWEEN JOISTS

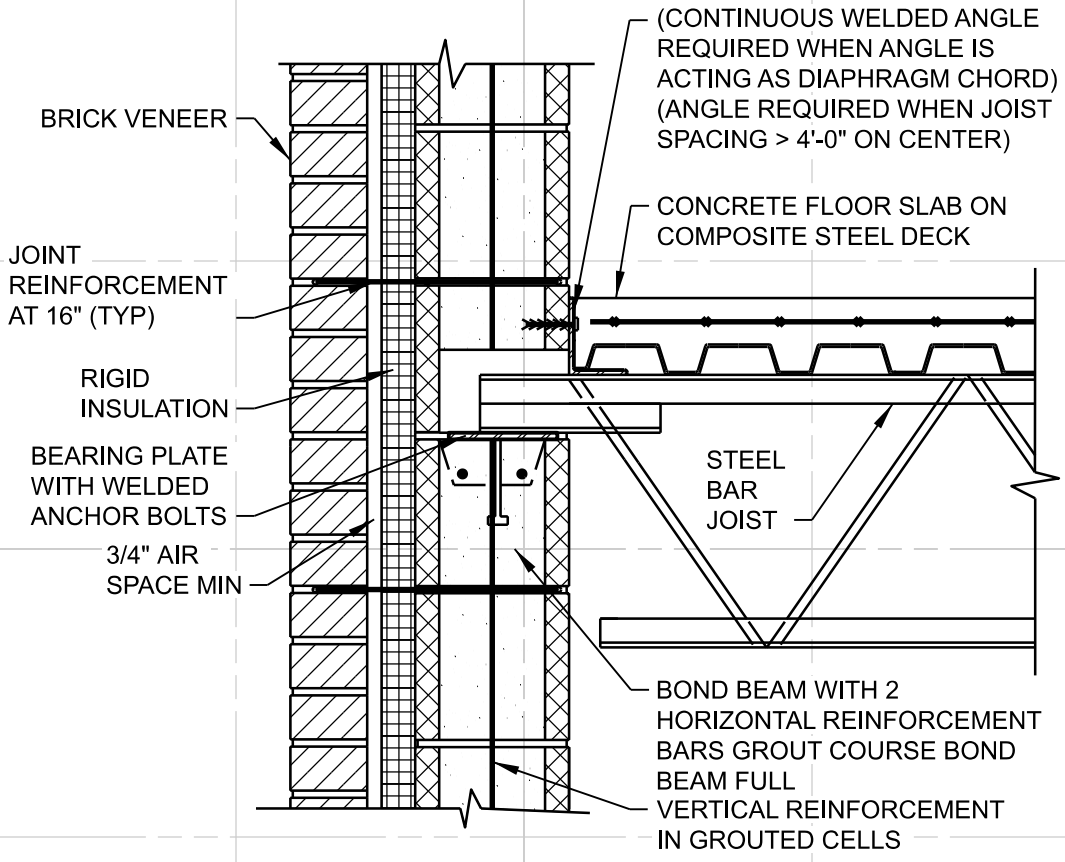
SCALE: NTS



DETAIL: INTERIOR ROOF CONNECTION SHEAR WALL TO ROOF DECK

A1

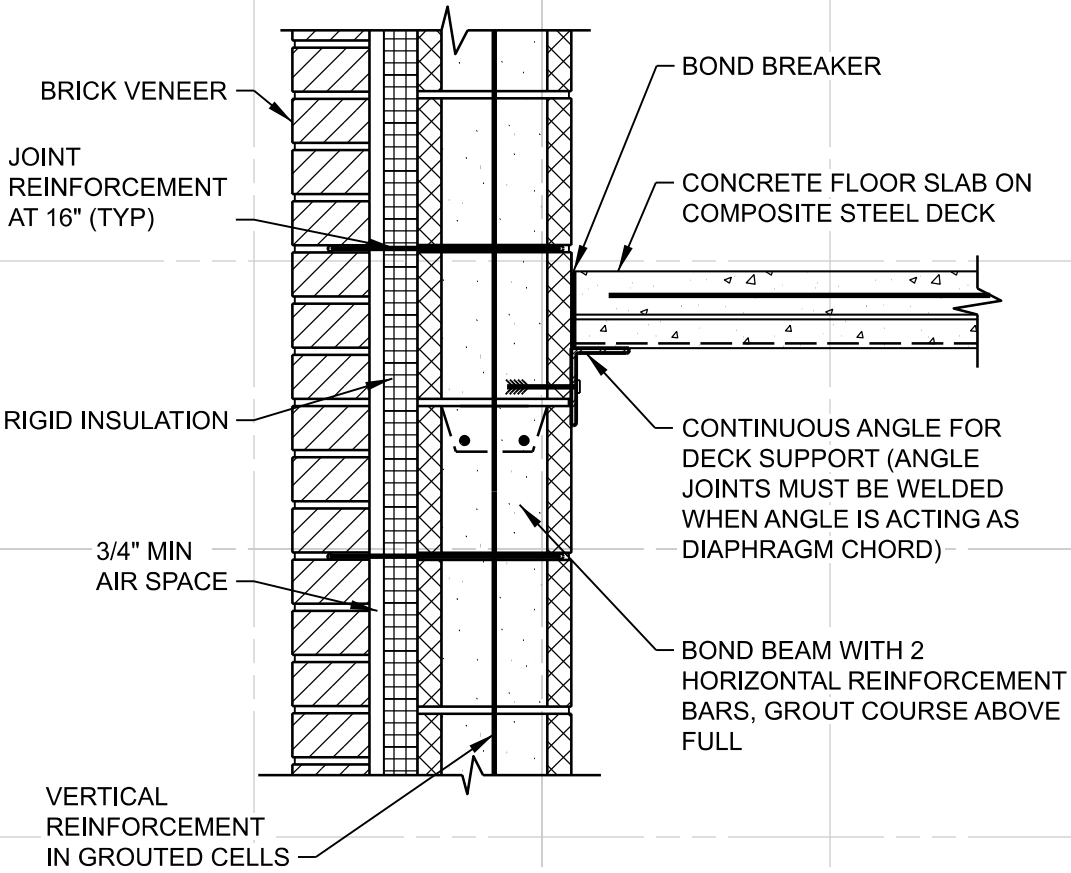
SCALE: NTS



A1

DETAIL: BAR JOIST-FLOOR CONNECTION

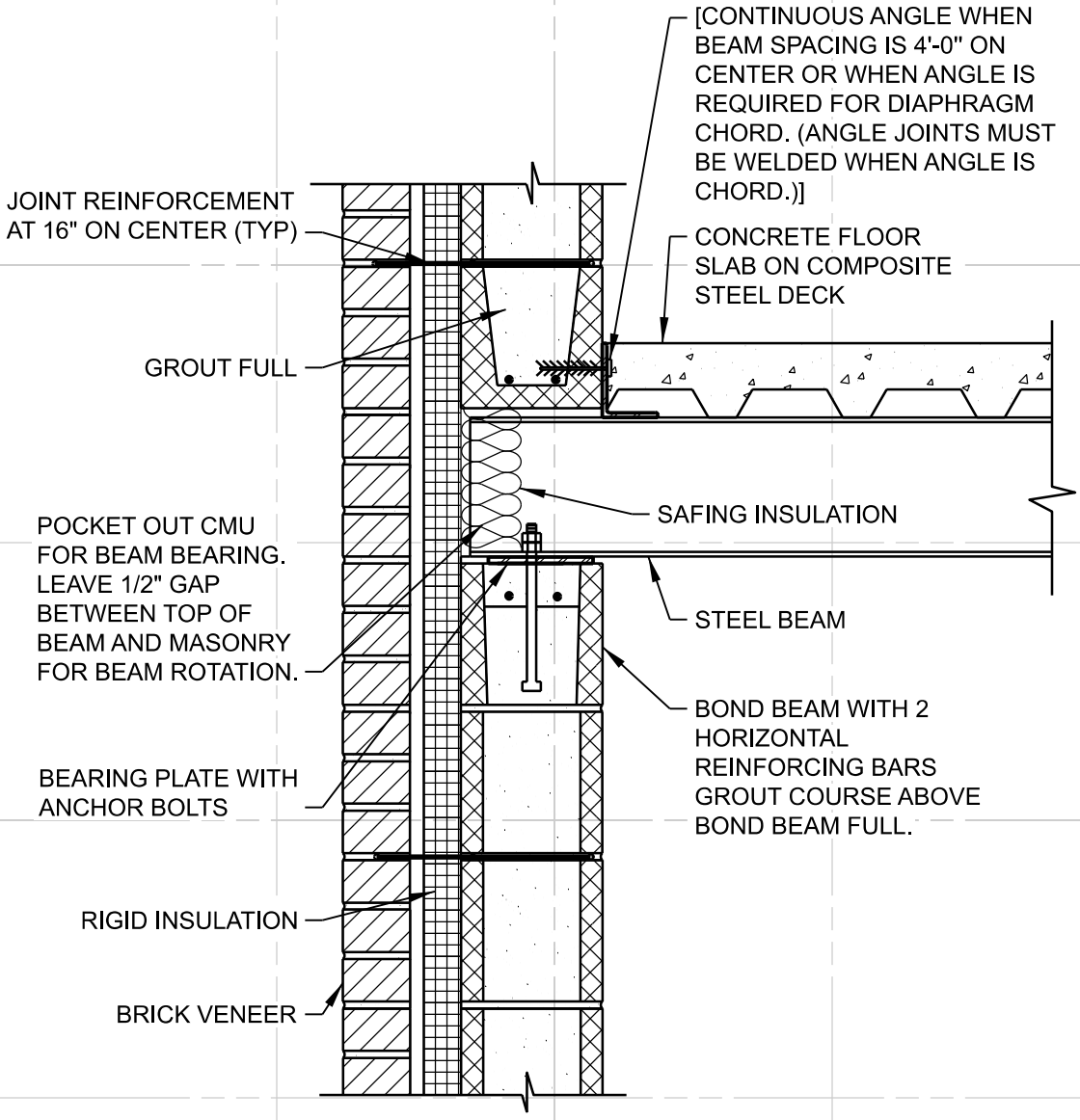
SCALE: NTS



A1

DETAIL: FLOOR DECK-FLOOR CONNECTION

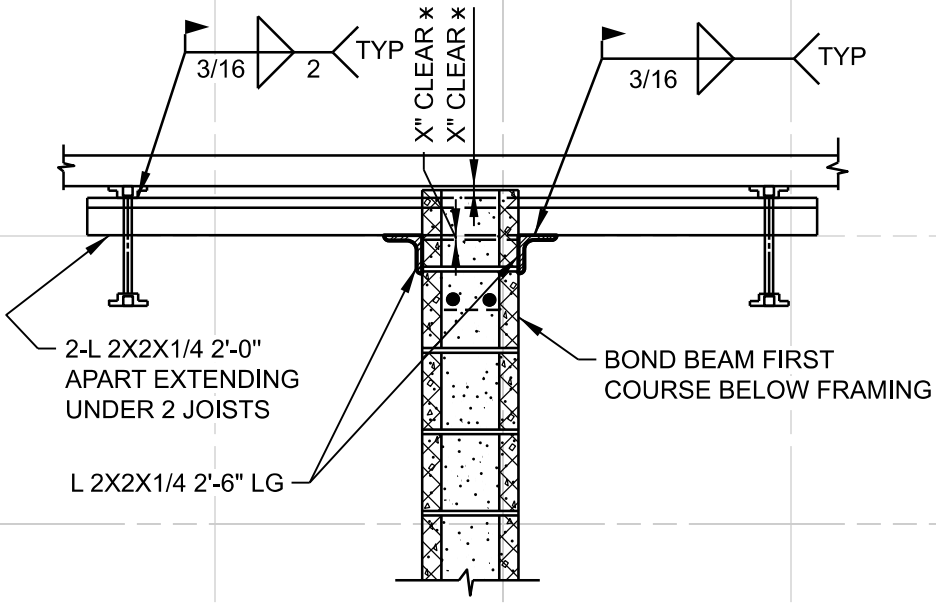
SCALE: NTS



A1

DETAIL: STEEL BEAM FLOOR CONNECTION

SCALE: NTS



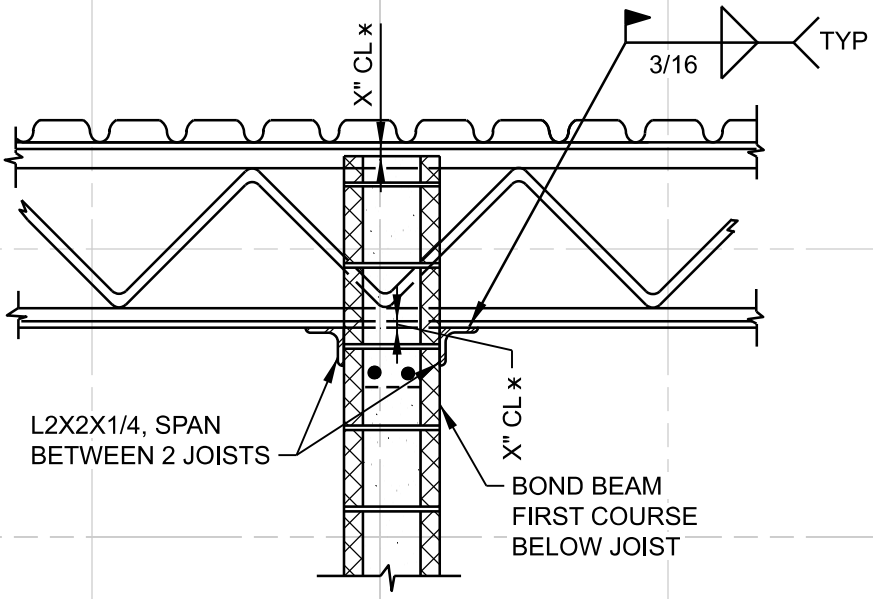
* X CLEAR DIMENSION SHALL BE AS REQUIRED BY JOIST DEFLECTION, BUT NOT LESS THAN 1 INCH.

NOTE:
SPACE AT A MAXIMUM OF 8'-0" ON CENTER USING A MIN OF TWO PER WALL IN ANY ONE DIRECTION.

DETAIL: PARTITION SUPPORTS FULL HEIGHT WALL PARALLEL TO JOISTS

A1

SCALE: NTS



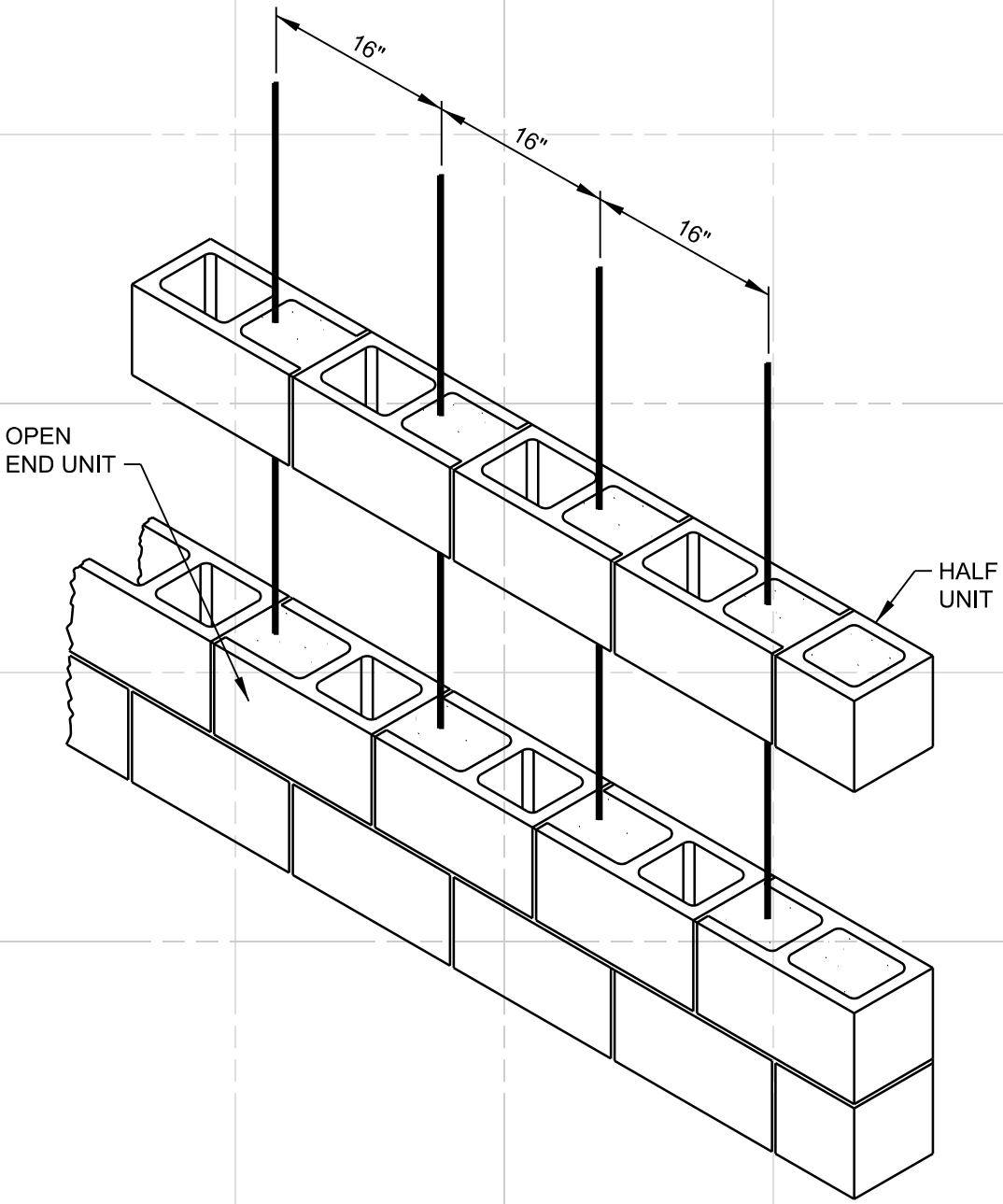
⁎ X CLEAR DIMENSION SHALL BE AS REQUIRED BY JOIST DEFLECTION, BUT NOT LESS THAN 1 INCH.

NOTE:
SPACE AT A MAXIMUM OF 8'-0" ON CENTER USING A MIN OF TWO PER WALL IN ANY ONE DIRECTION.

DETAIL: PARTITION SUPPORTS, FULL HEIGHT WALL PERPENDICULAR TO JOISTS

A1

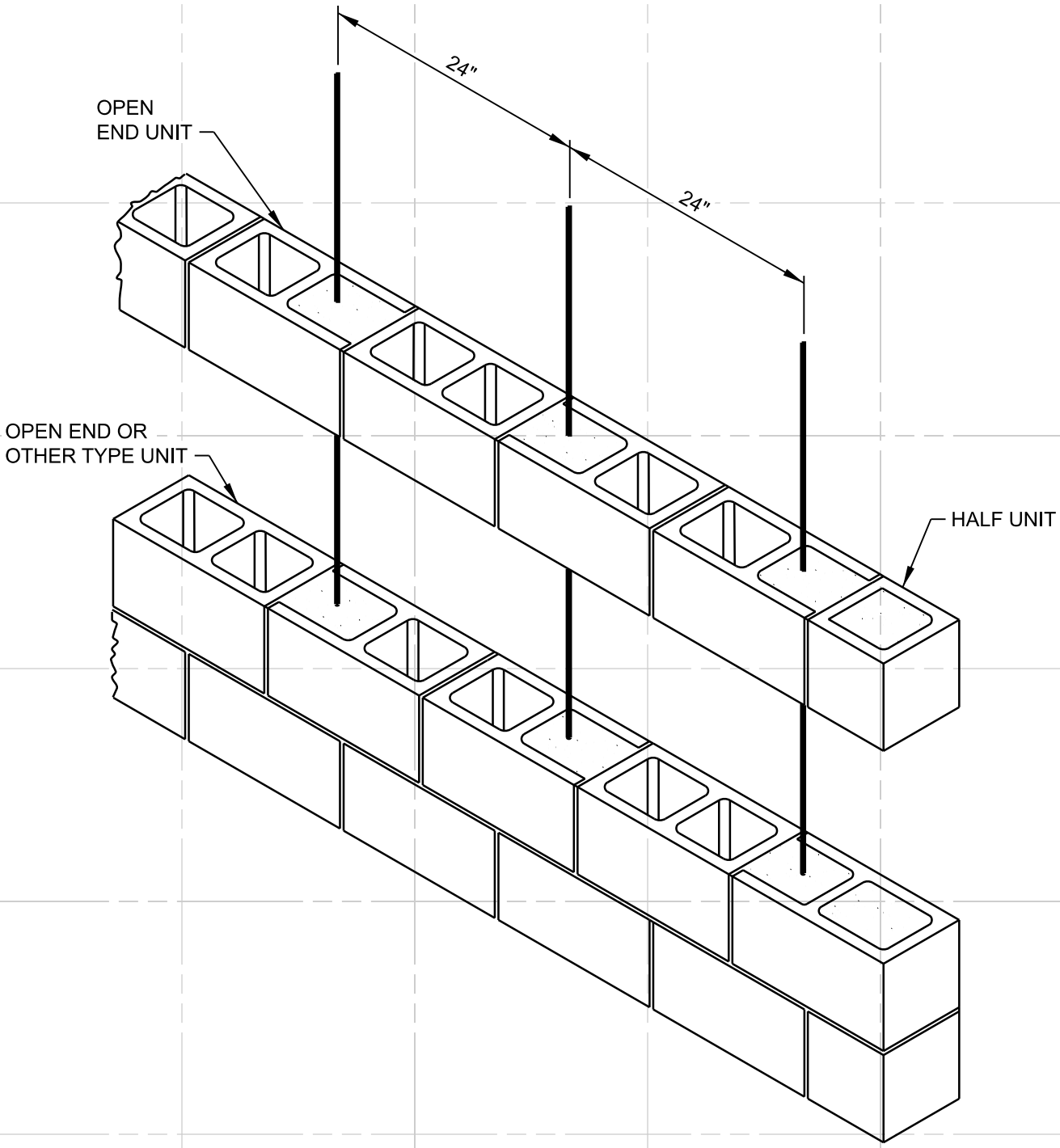
SCALE: NTS



DETAIL: PARTIALLY GROUTED CMU 16-INCH REINFORCEMENT SPACING

A1

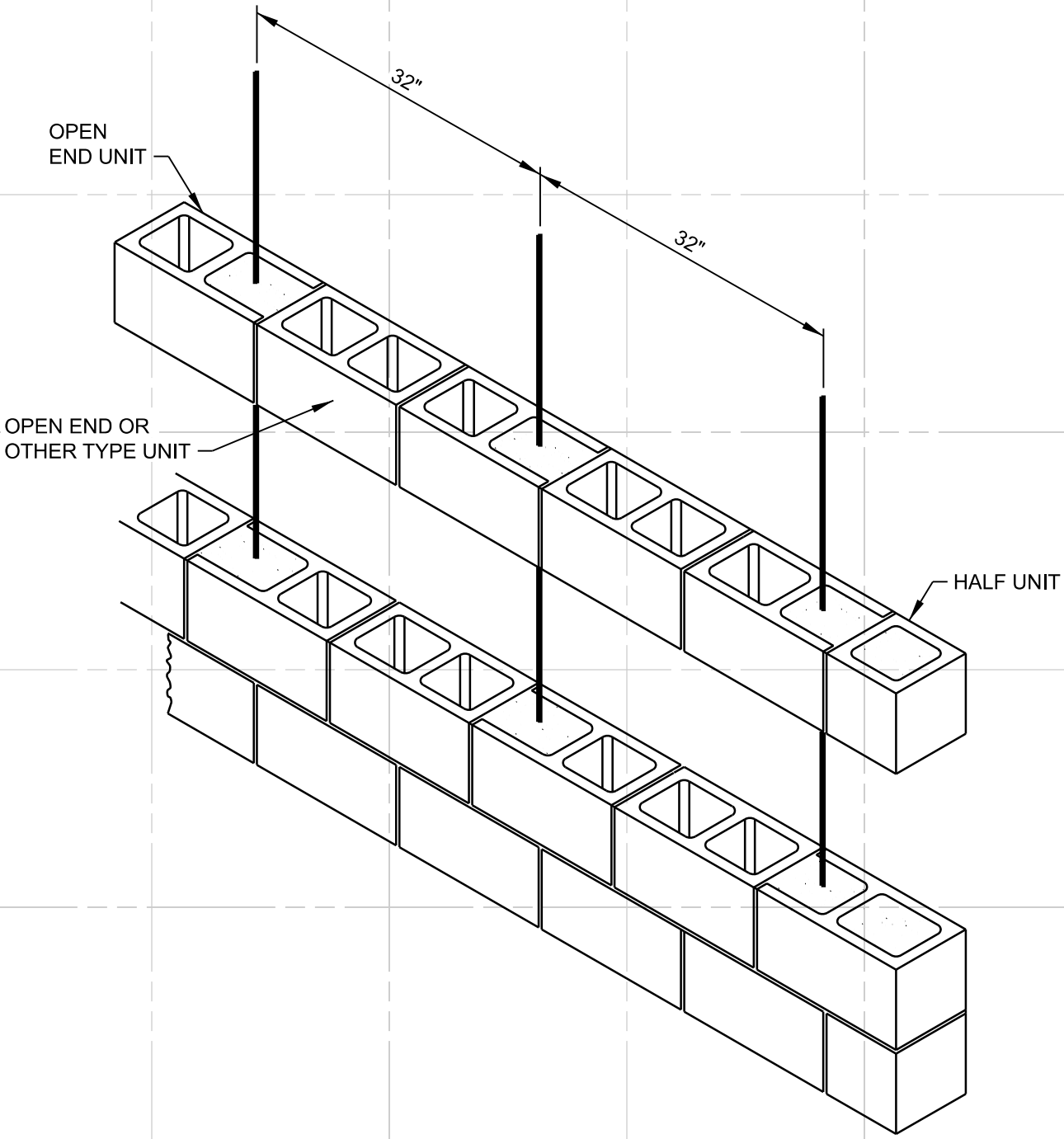
SCALE: NTS



A1

DETAIL: PARTIALLY GROUTED CMU 24-INCH REINFORCEMENT SPACING

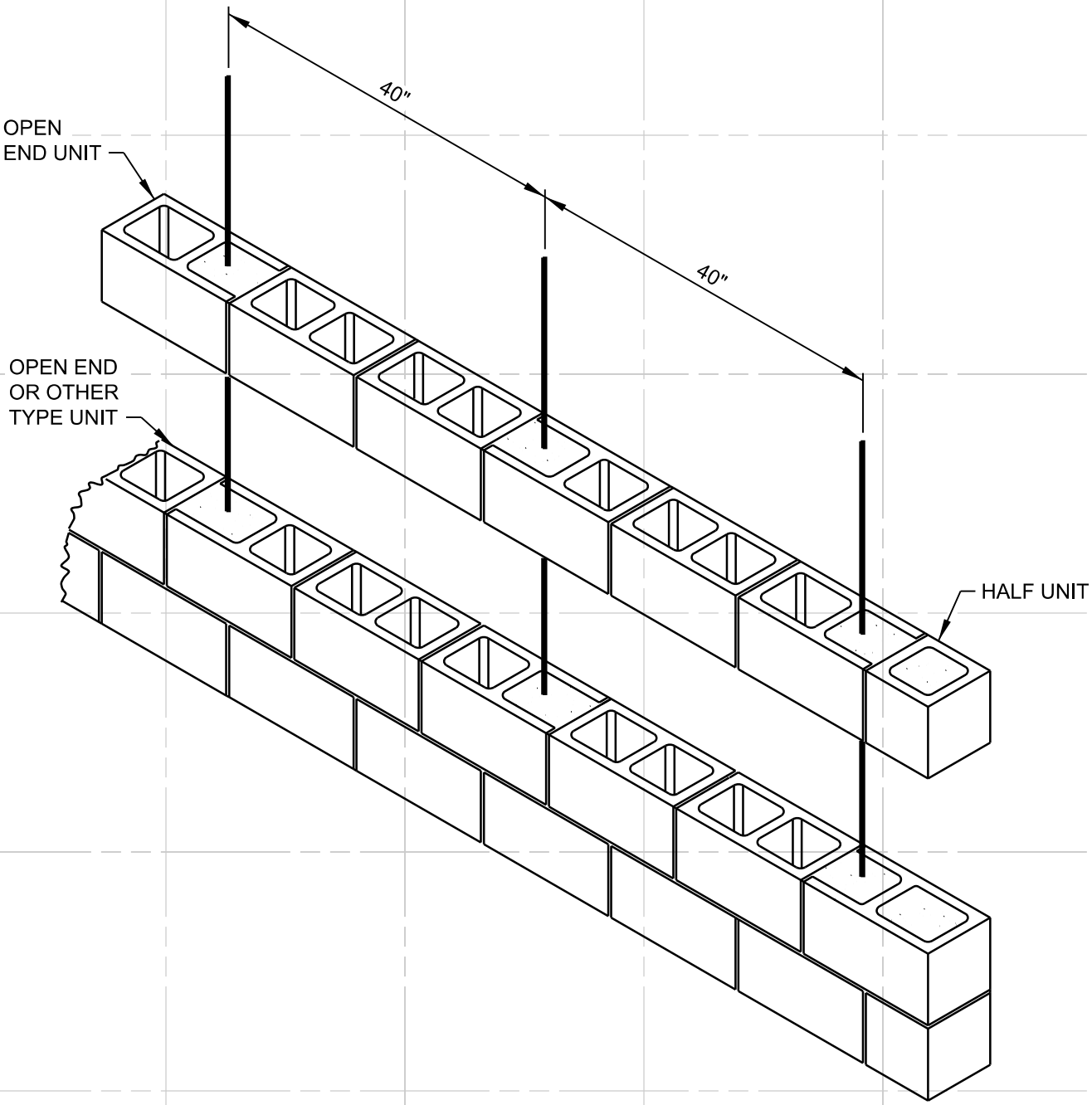
SCALE: NTS



DETAIL: PARTIALLY GROUTED CMU 32-INCH REINFORCEMENT SPACING

A1

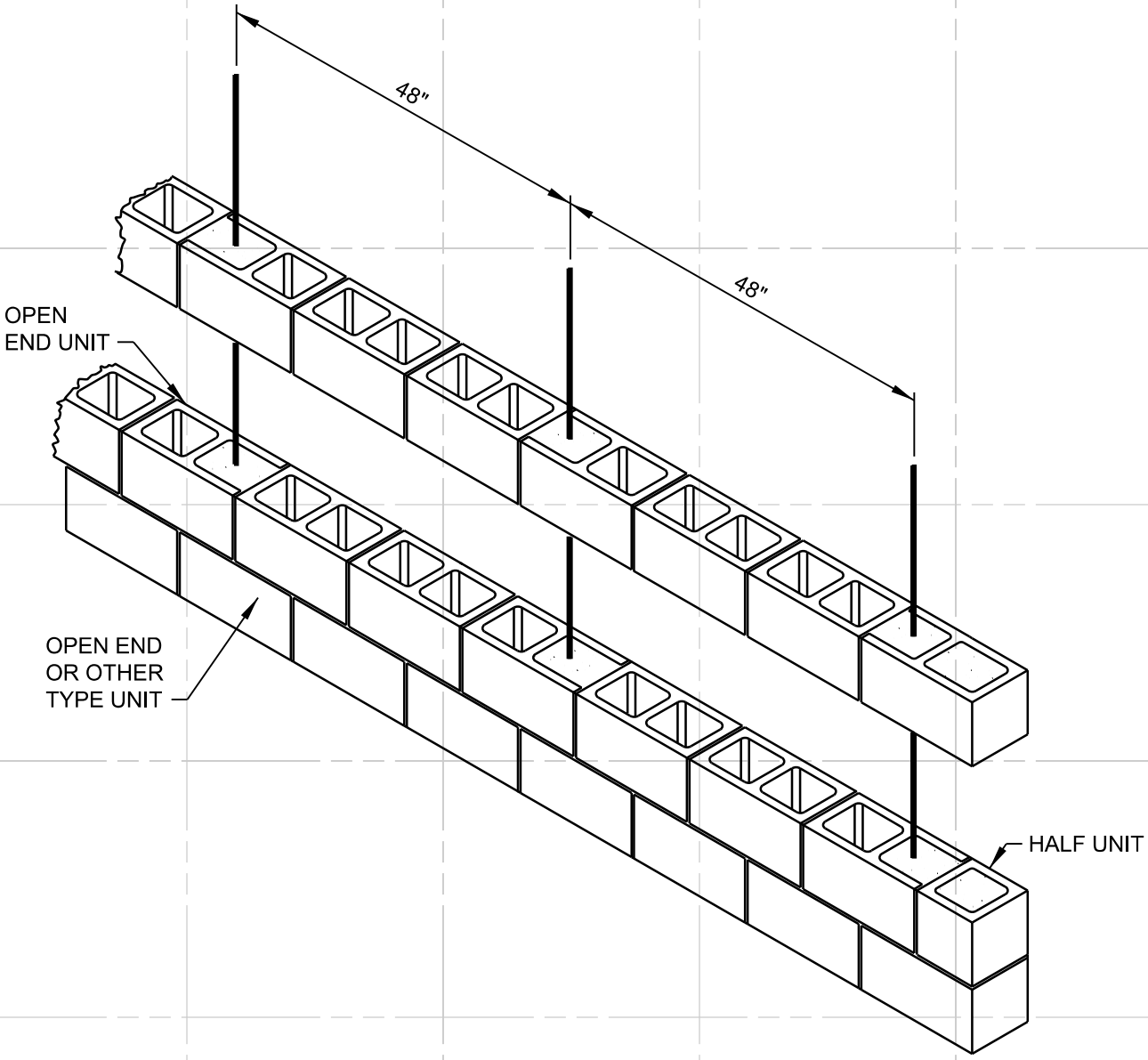
SCALE: NTS



DETAIL: PARTIALLY GROUTED CMU 40-INCH REINFORCEMENT SPACING

A1

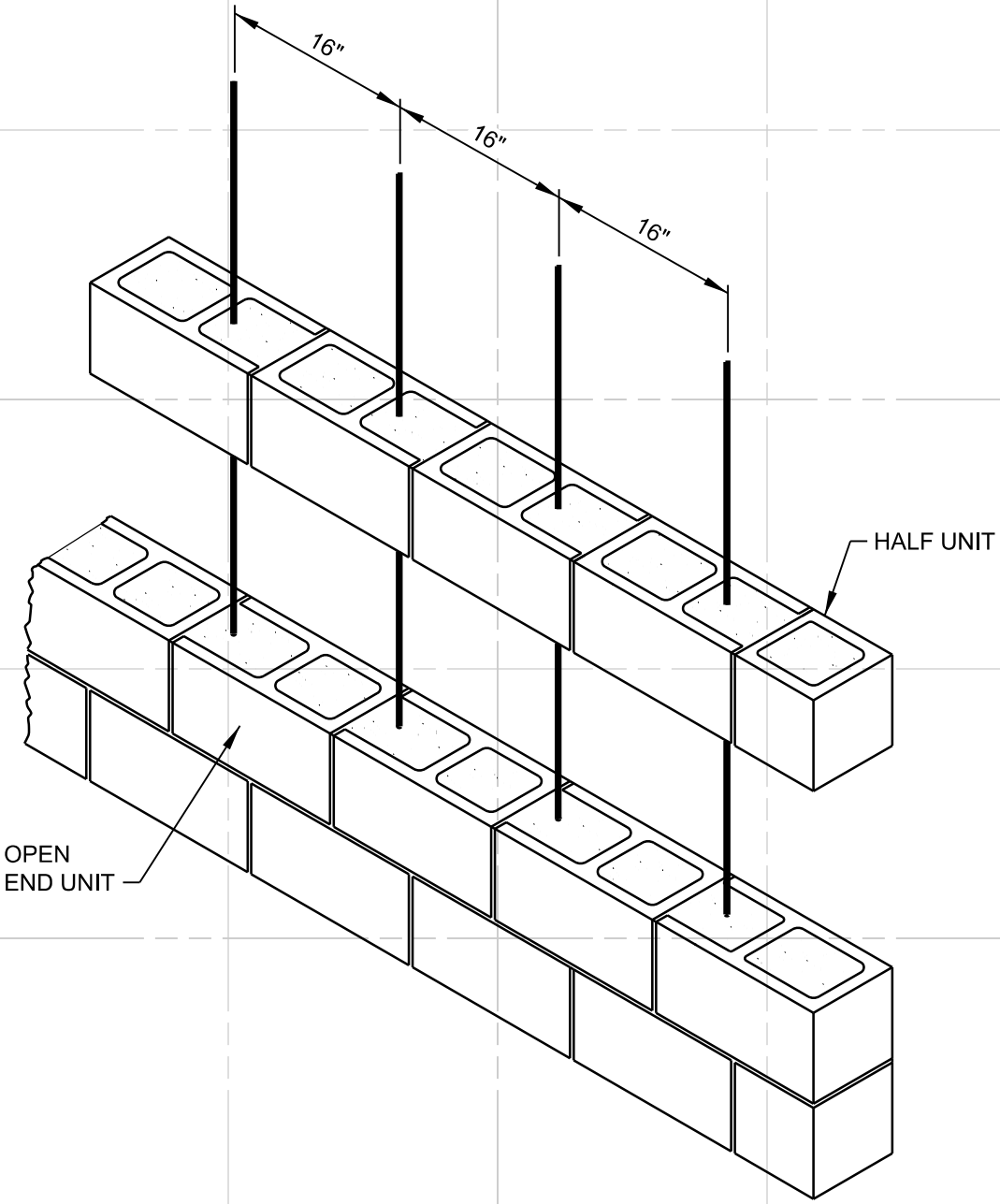
SCALE: NTS



DETAIL: PARTIALLY GROUTED CMU 48-INCH REINFORCEMENT SPACING

A1

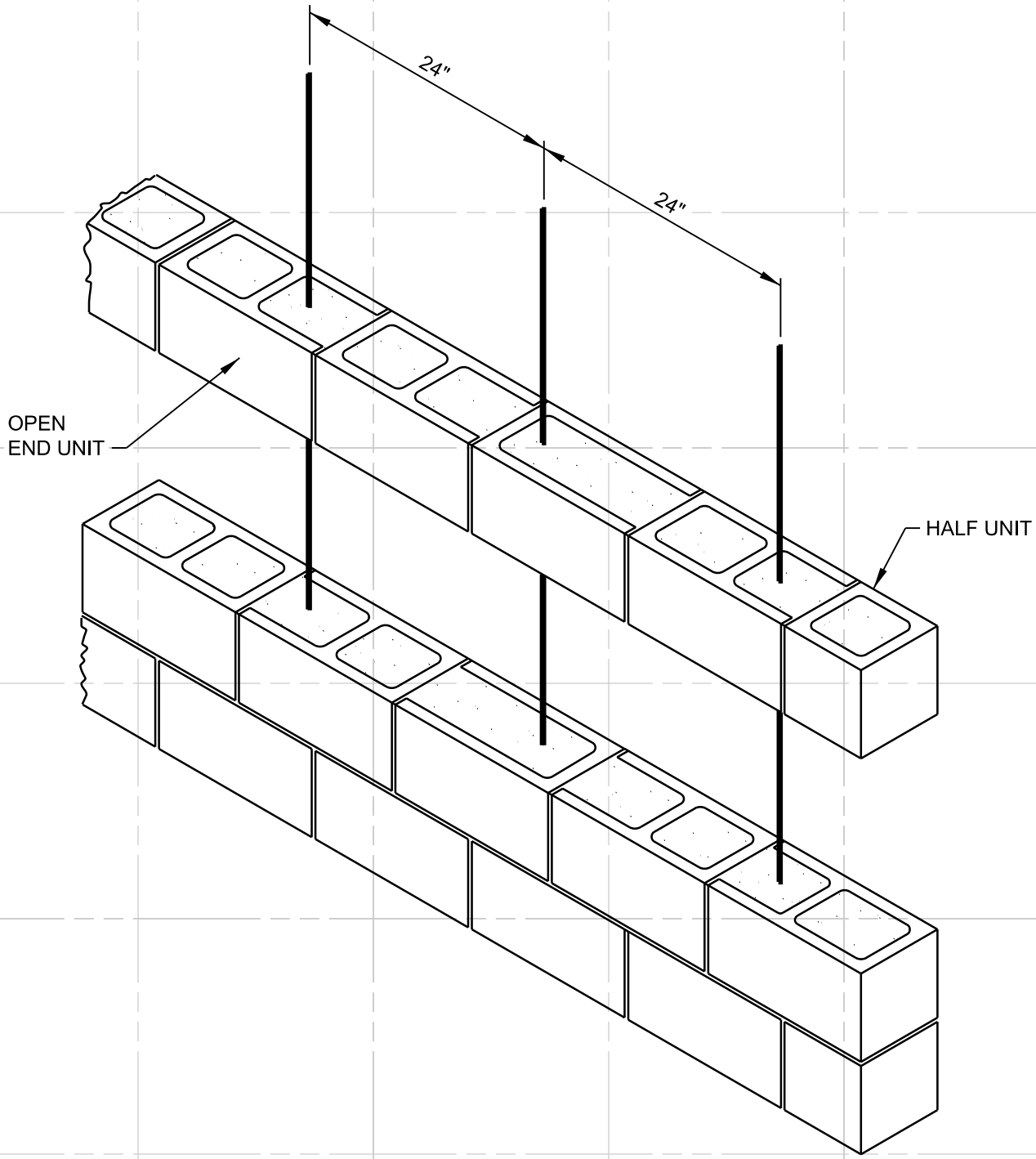
SCALE: NTS



DETAIL: FULLY GROUTED CMU 16-INCH REINFORCEMENT SPACING

A1

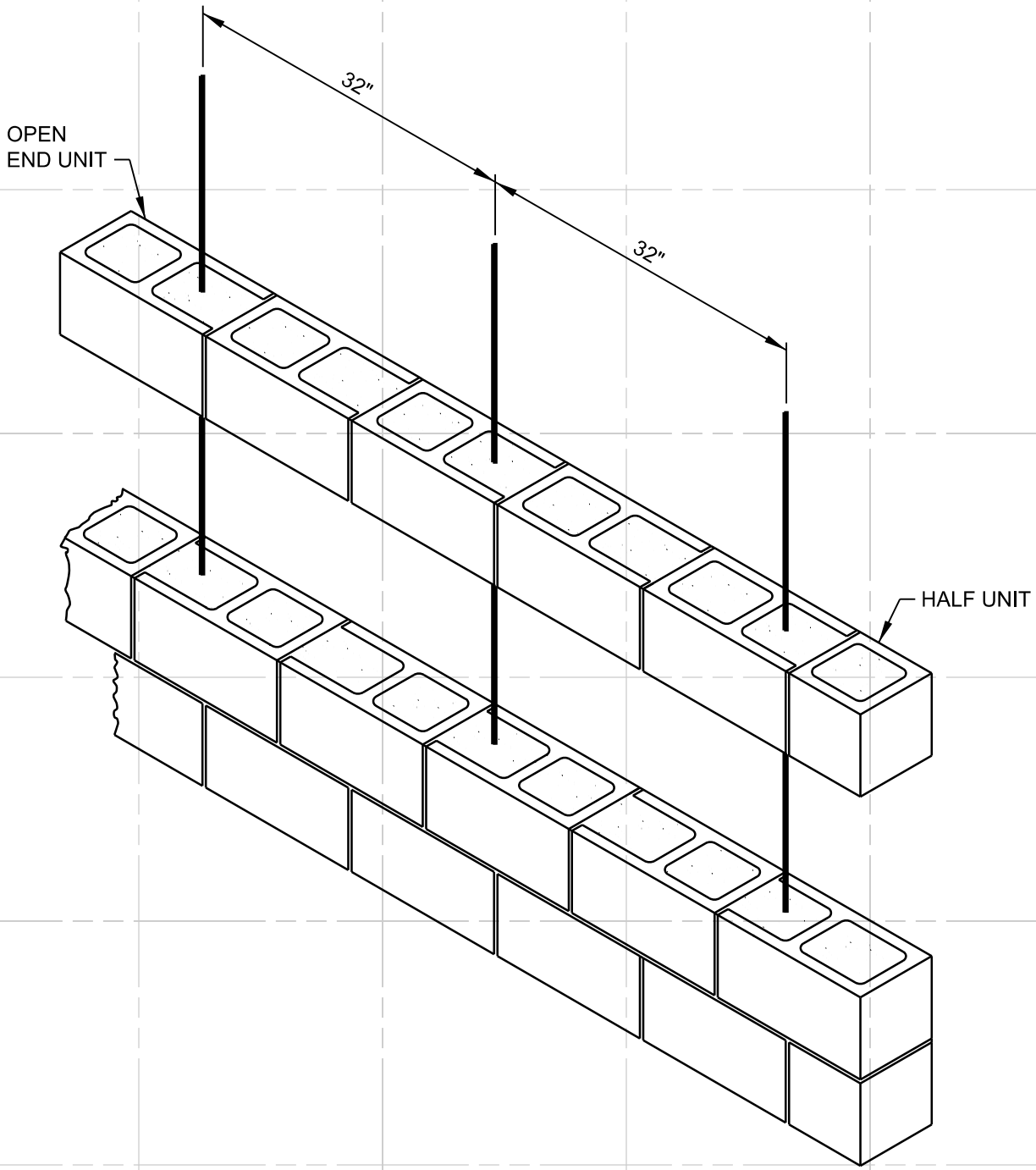
SCALE: NTS



DETAIL: FULLY GROUTED CMU 24-INCH REINFORCEMENT SPACING

A1

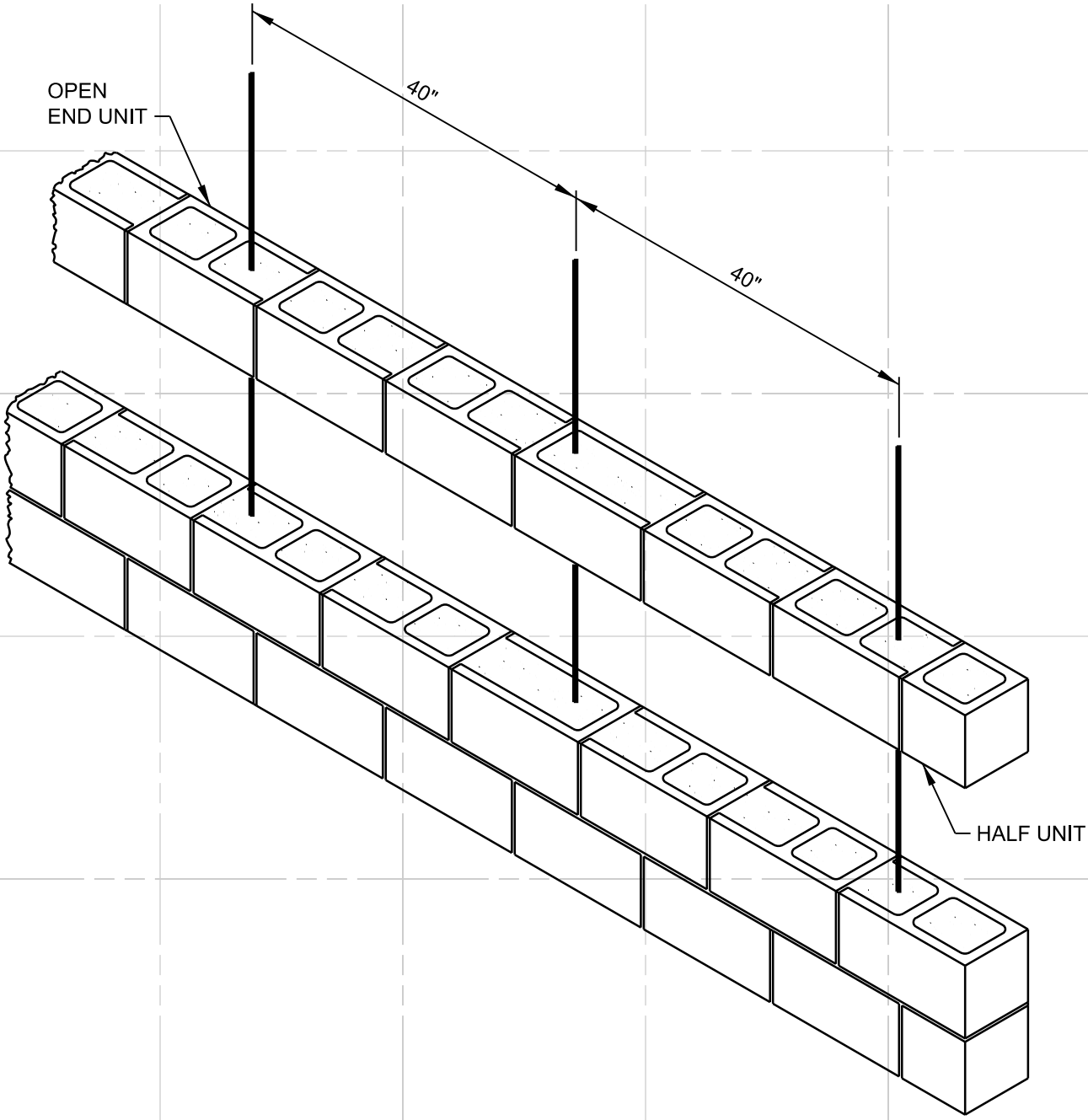
SCALE: NTS



A1

DETAIL: FULLY GROUTED CMU 32-INCH REINFORCEMENT SPACING

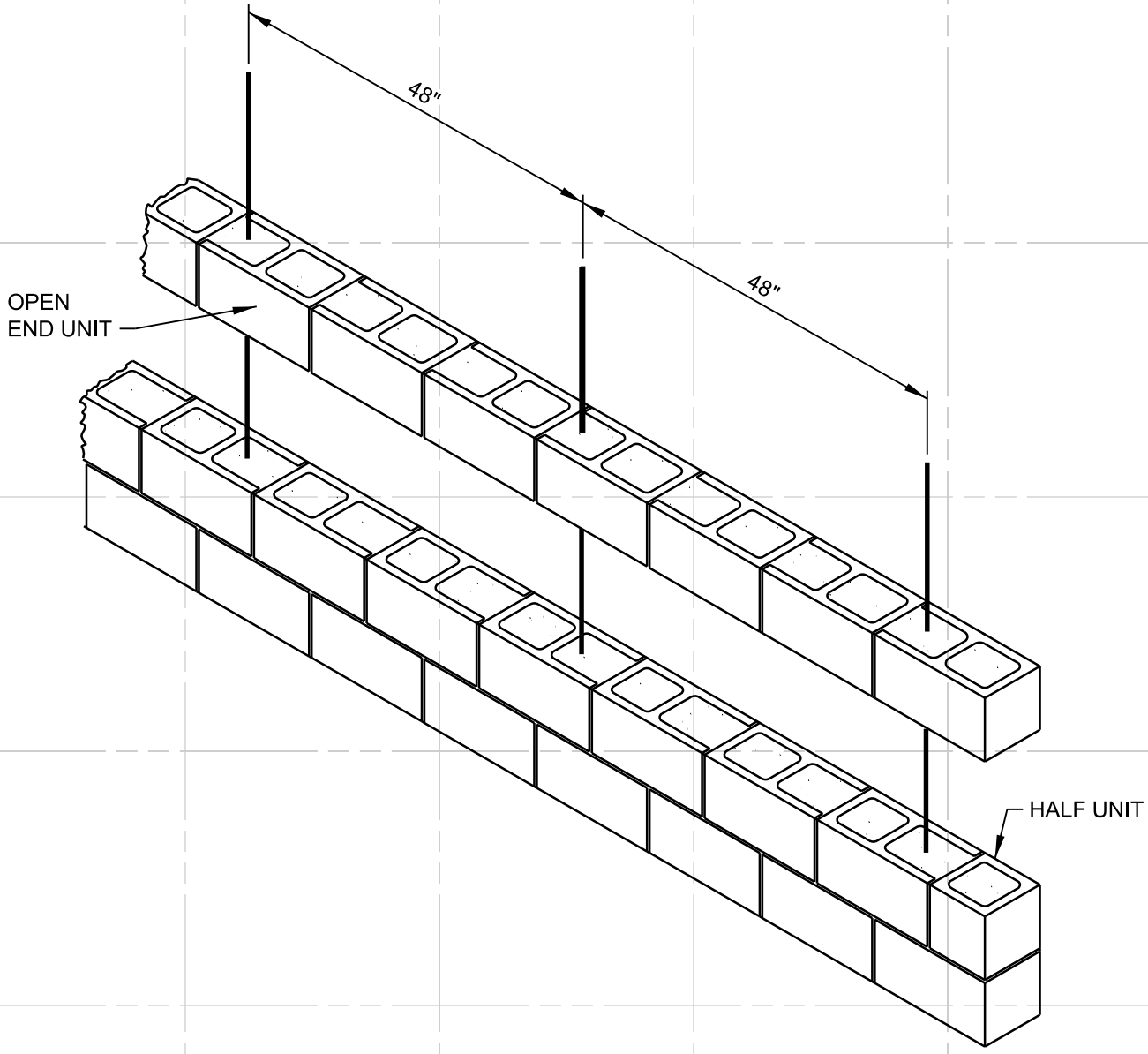
SCALE: NTS



DETAIL: FULLY GROUTED CMU 40-INCH REINFORCEMENT SPACING

A1

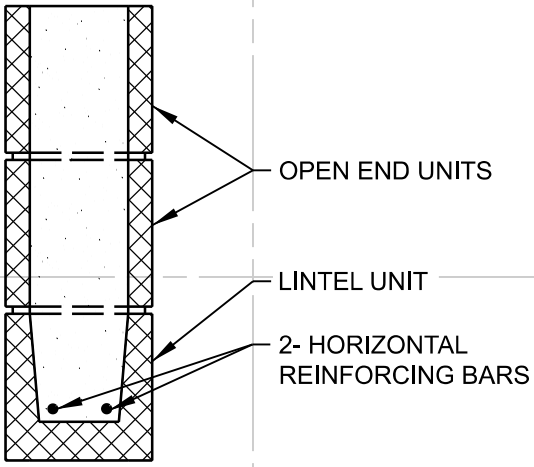
SCALE: NTS



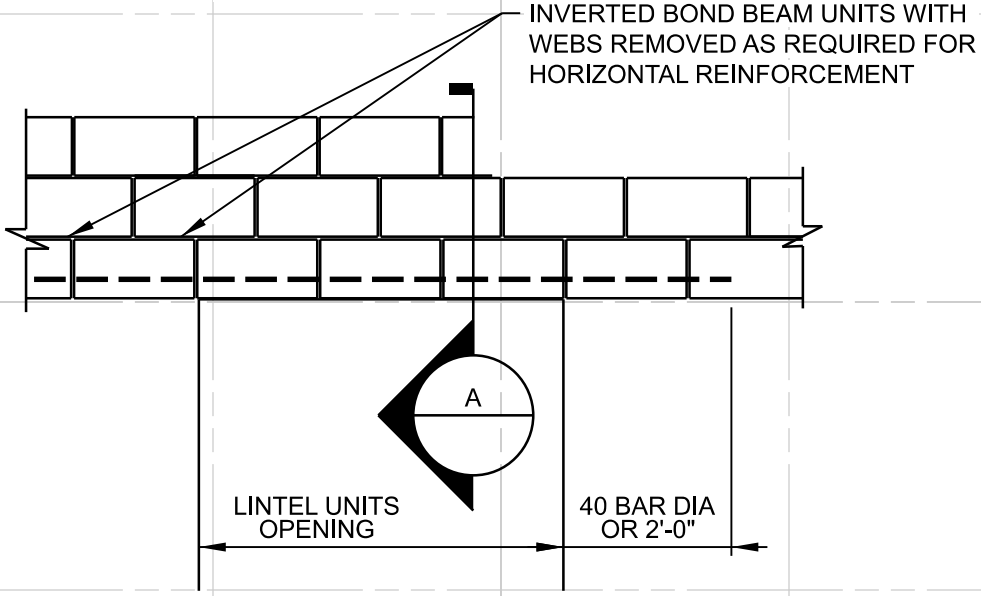
DETAIL: FULLY GROUTED CMU 48-INCH REINFORCEMENT SPACING

A1

SCALE: NTS



SECTION A

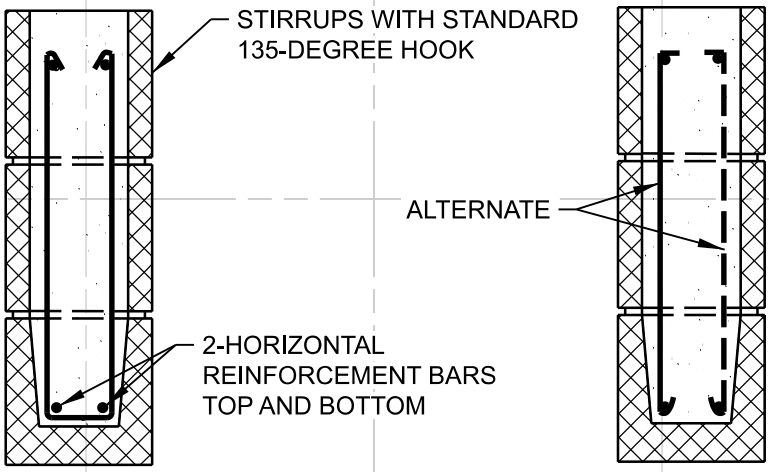


ELEVATION

A1

DETAIL: LINTEL

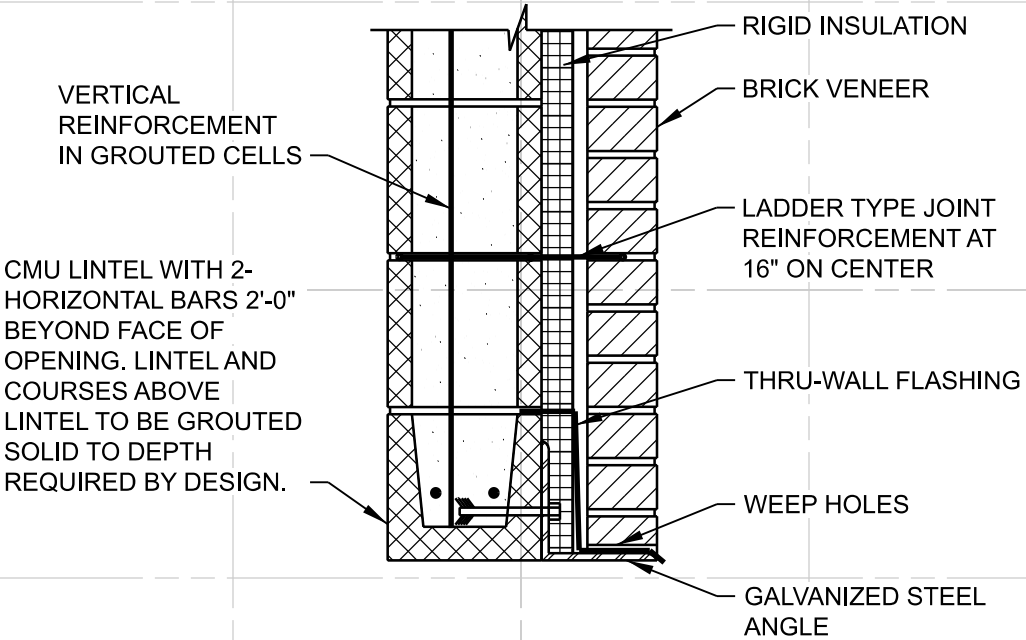
SCALE: NTS



A1

DETAIL: LINTEL SECTIONS WITH STIRRUPS

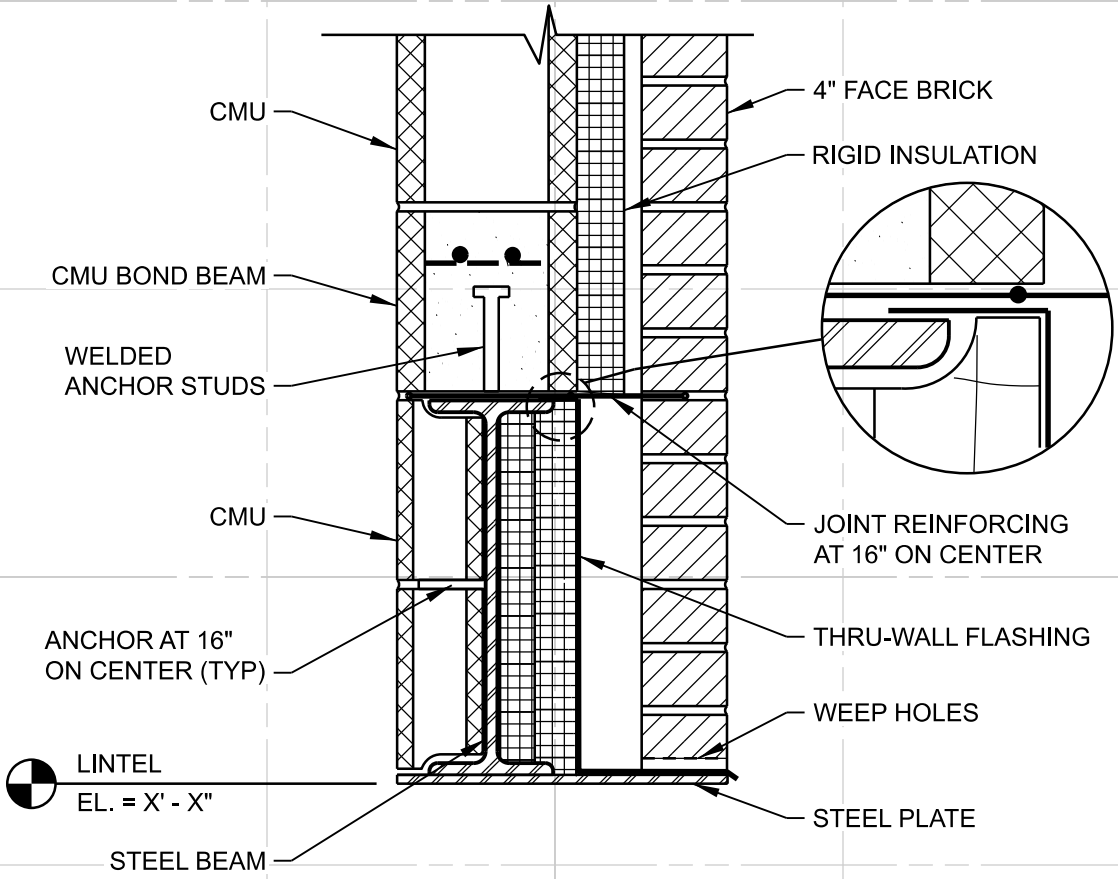
SCALE: NTS



A1

DETAIL: LINTEL SECTION FOR ANCHORED VENEER

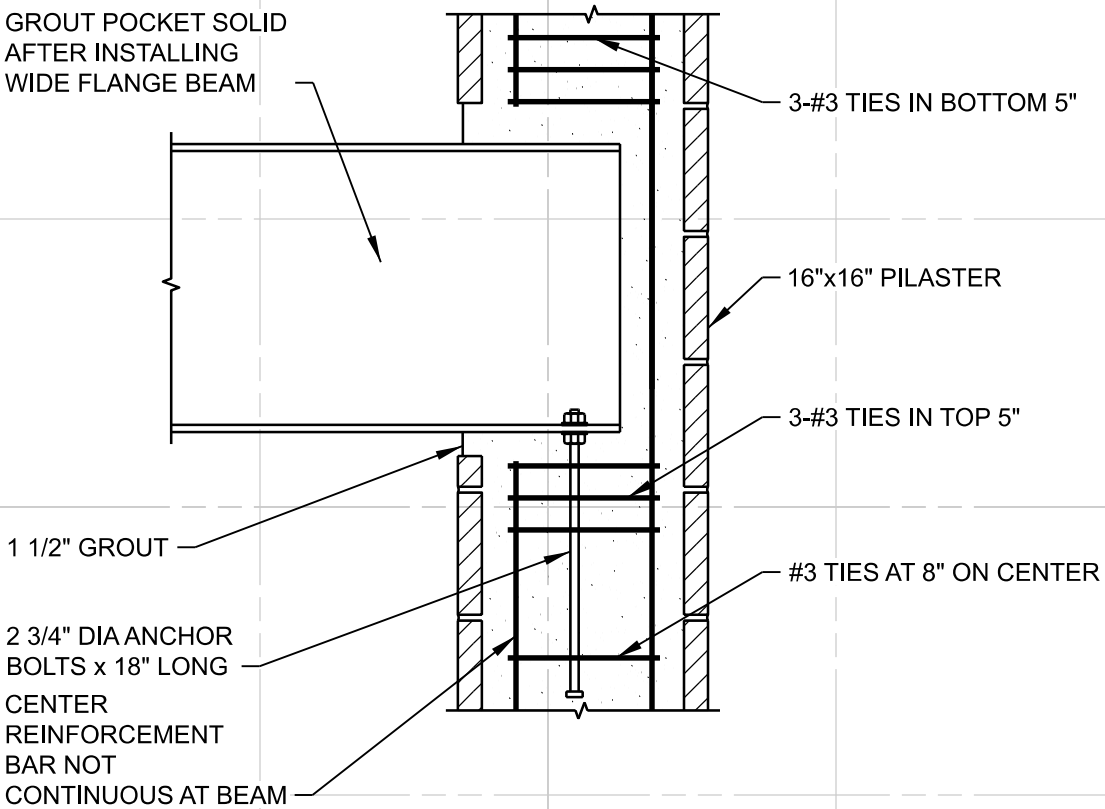
SCALE: NTS



DETAIL: W-SHAPE LINTEL SECTION FOR ANCHORED VENEER

A1

SCALE: NTS

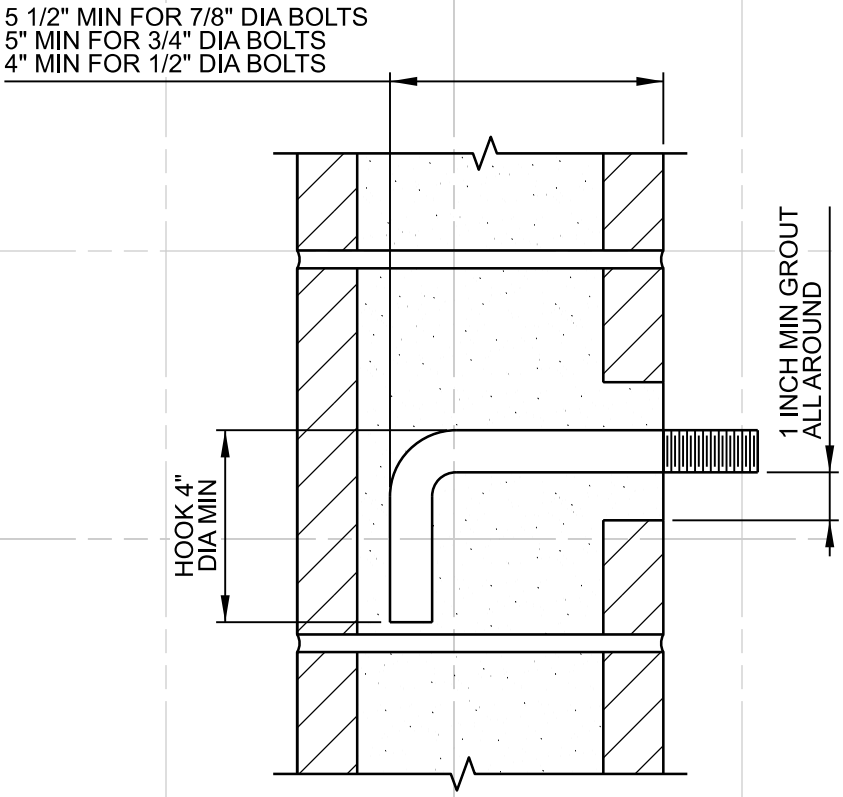


A1

DETAIL: PILASTER BEAM SUPPORT

SCALE: 1"=1'-0"

0 6" 1' 2'

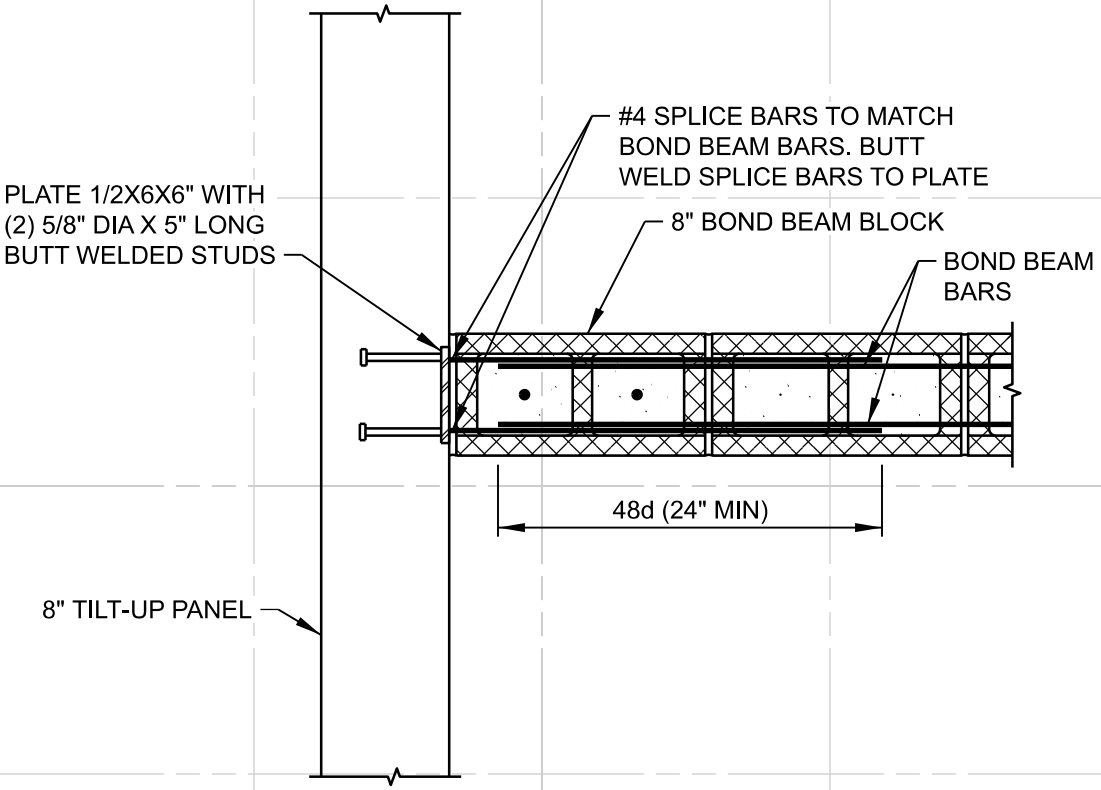


NOTE:
WALL REINFORCEMENT NOT SHOWN FOR CLARITY

A1

DETAIL: ANCHOR BOLT

SCALE: 3"=1'-0" 0 3" 6" 1'

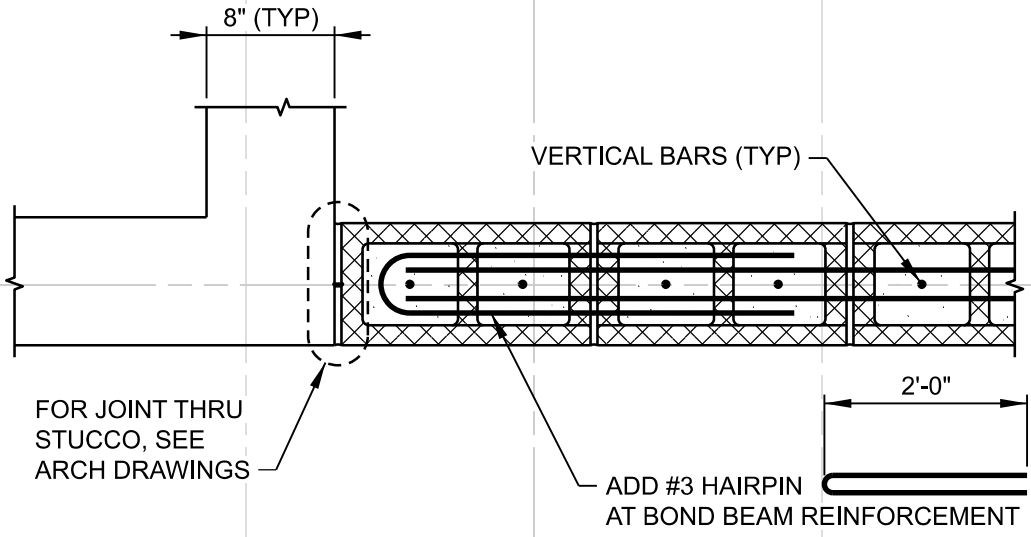


A1

DETAIL: CMU TO TILT-UP WALL CONNECTION

SCALE: 1"=1'-0"

0 6" 1' 2'



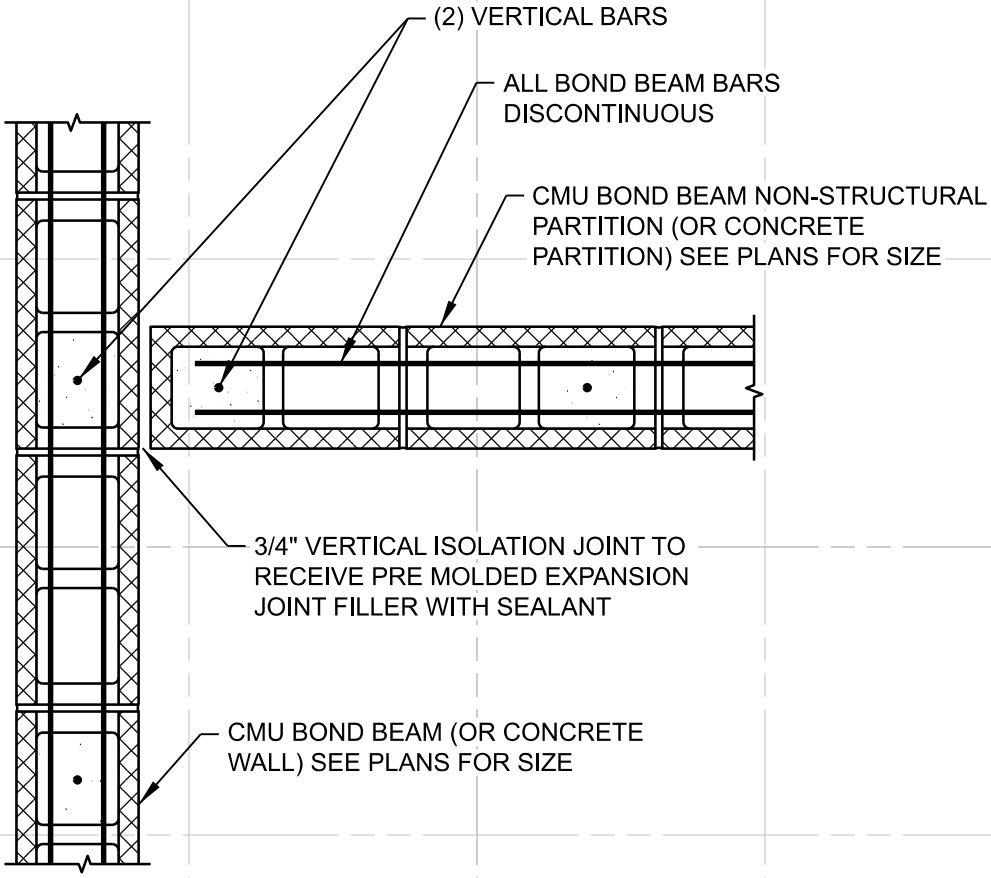
NOTE:
BOND BEAM REINFORCEMENT SHALL BE
DISCONTINUOUS EXCEPT AT ROOF AND FLOORS

A1

DETAIL: CMU CONTROL JOINT

SCALE: 1"=1'-0"

0 6" 1' 2'

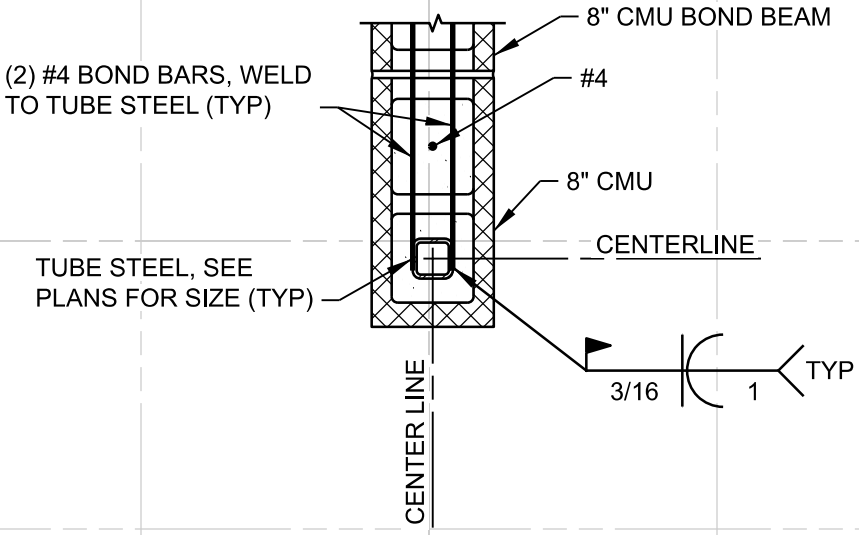


A1

DETAIL: CMU ISOLATION JOINT

SCALE: 1"=1'-0"

0 6" 1' 2'

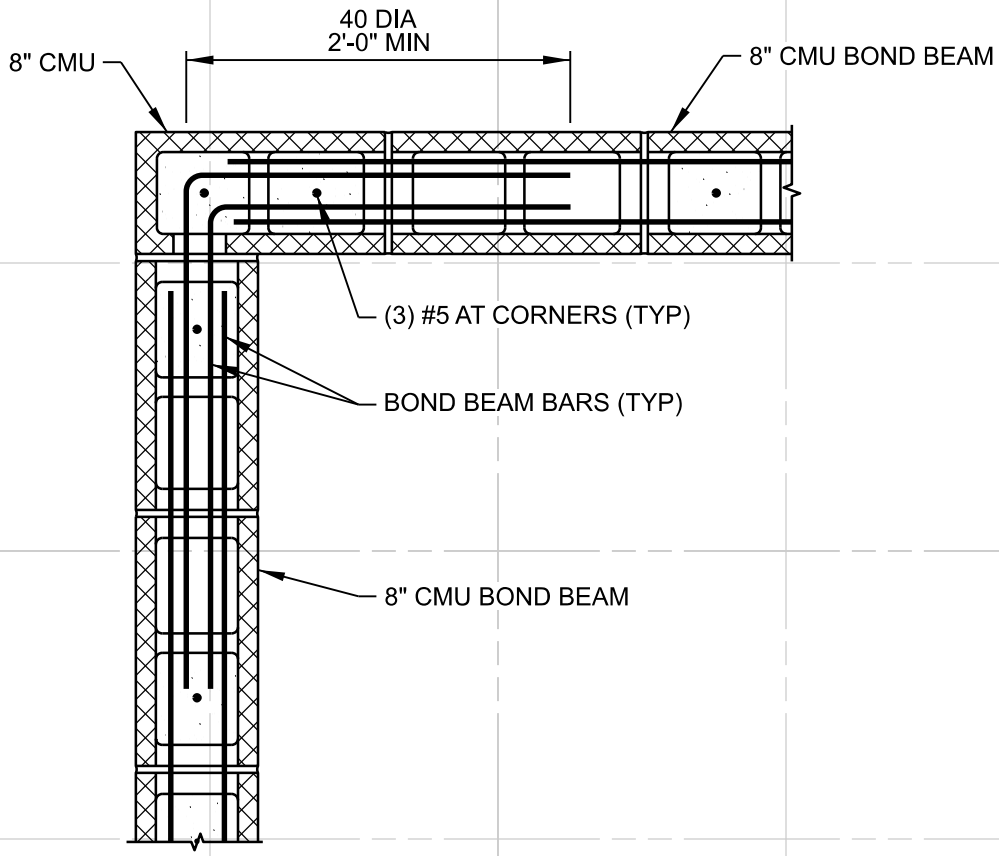


DETAIL: TUBE STIFFENER AT END OF CMU WALL

A1

SCALE: 1"=1'-0"

0 6" 1' 2'

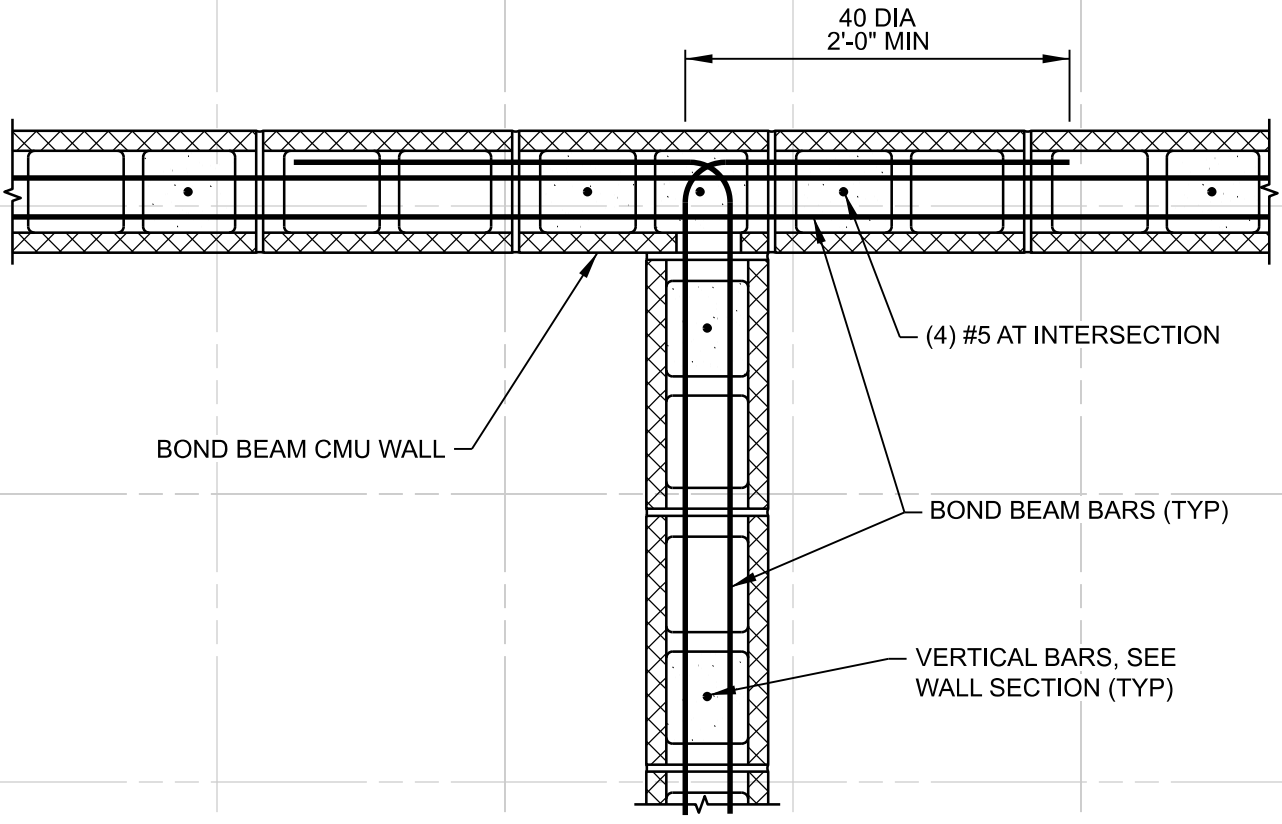


A1

DETAIL: CMU CORNER REINFORCEMENT

SCALE: 1"=1'-0"

0 6" 1' 2'

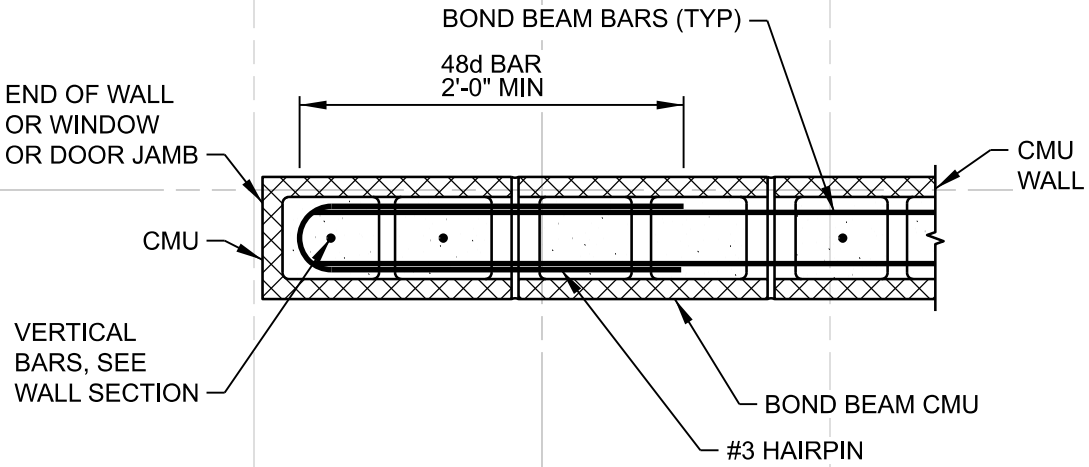


A1

DETAIL: CMU INTERSECTION REINFORCEMENT

SCALE: 1"=1'-0"

0 6" 1' 2'

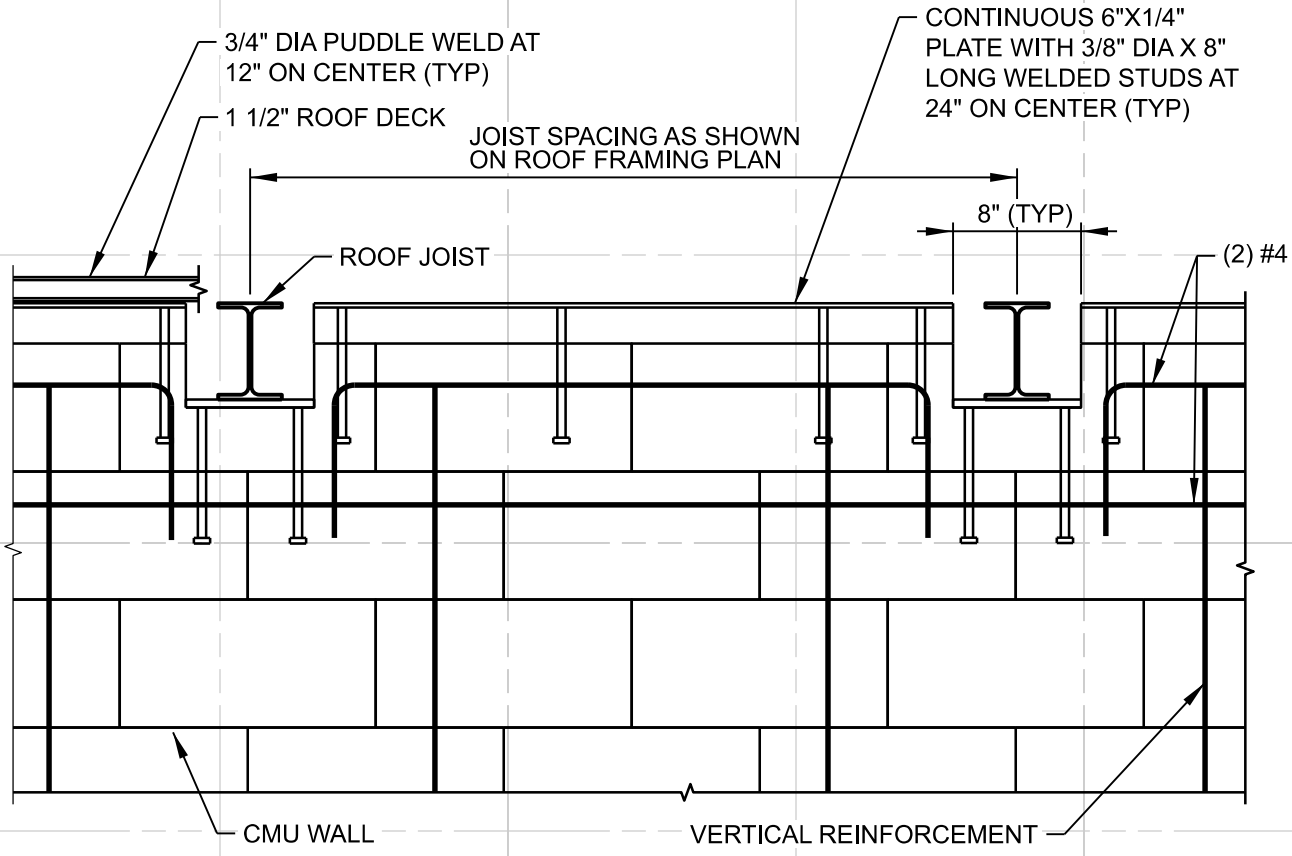


A1

DETAIL: CMU EDGE STIFFENER

SCALE: 1"=1'-0"

0 6" 1' 2'



A1

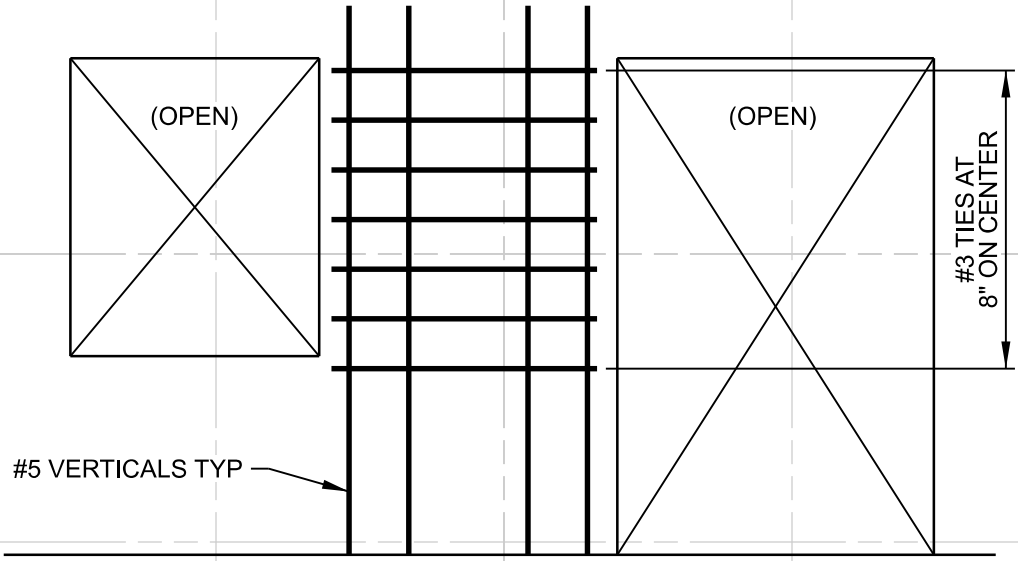
DETAIL: CMU WALL JOIST SEAT

SCALE: 1"=1'-0"

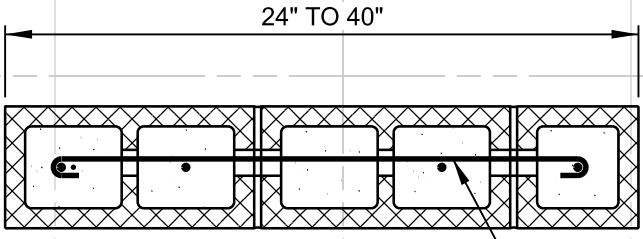
0 6" 1' 2'

Detail B1033S-DT110E

Details-US-Structural-B103-TypicalStructural



PIER ELEVATION



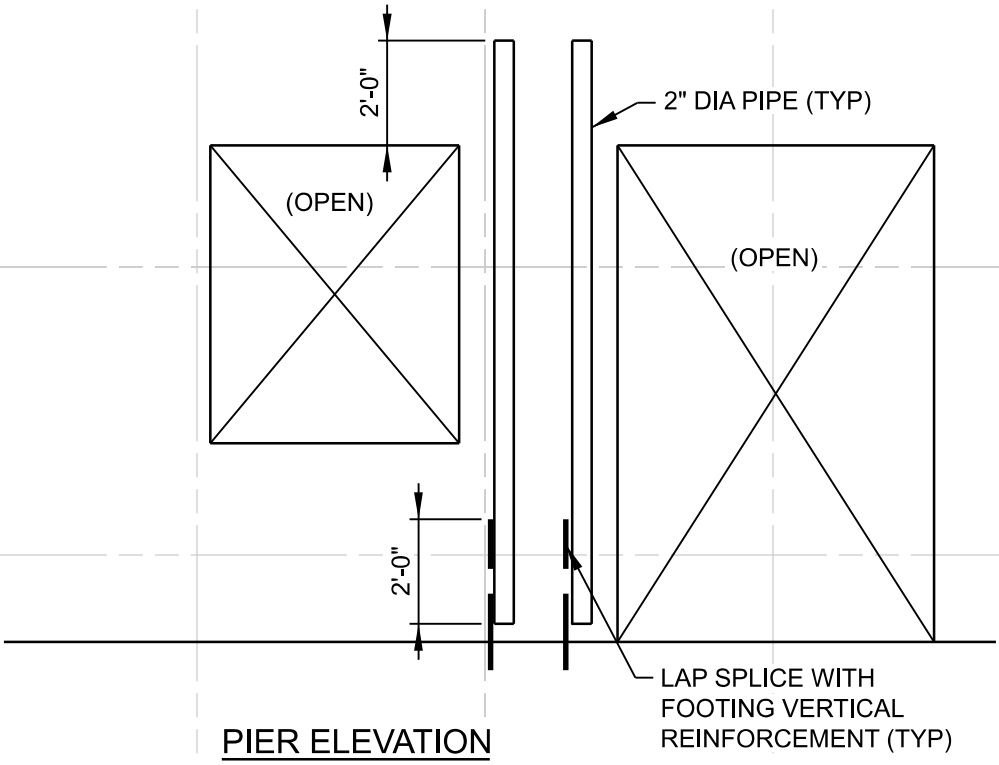
PIER SECTION

NOTE:
FOR PIERS 24" TO 40" WIDE ONLY.

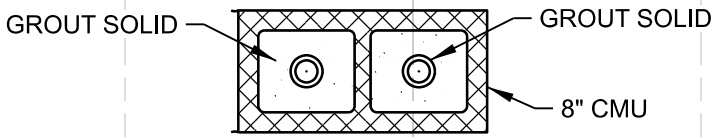
A1

DETAIL: CMU PIER REINFORCEMENT

SCALE: NTS



PIER ELEVATION



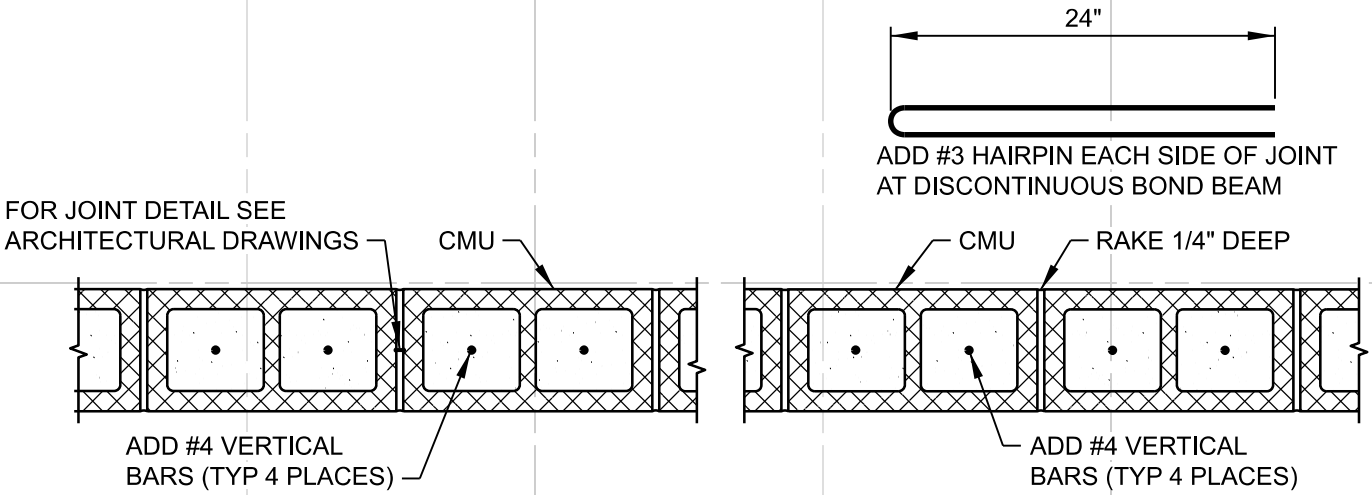
PIER SECTION

NOTE:
FOR PIERS LESS THAN 24" WIDE

DETAIL: CMU PIER REINFORCEMENT

A1

SCALE: NTS

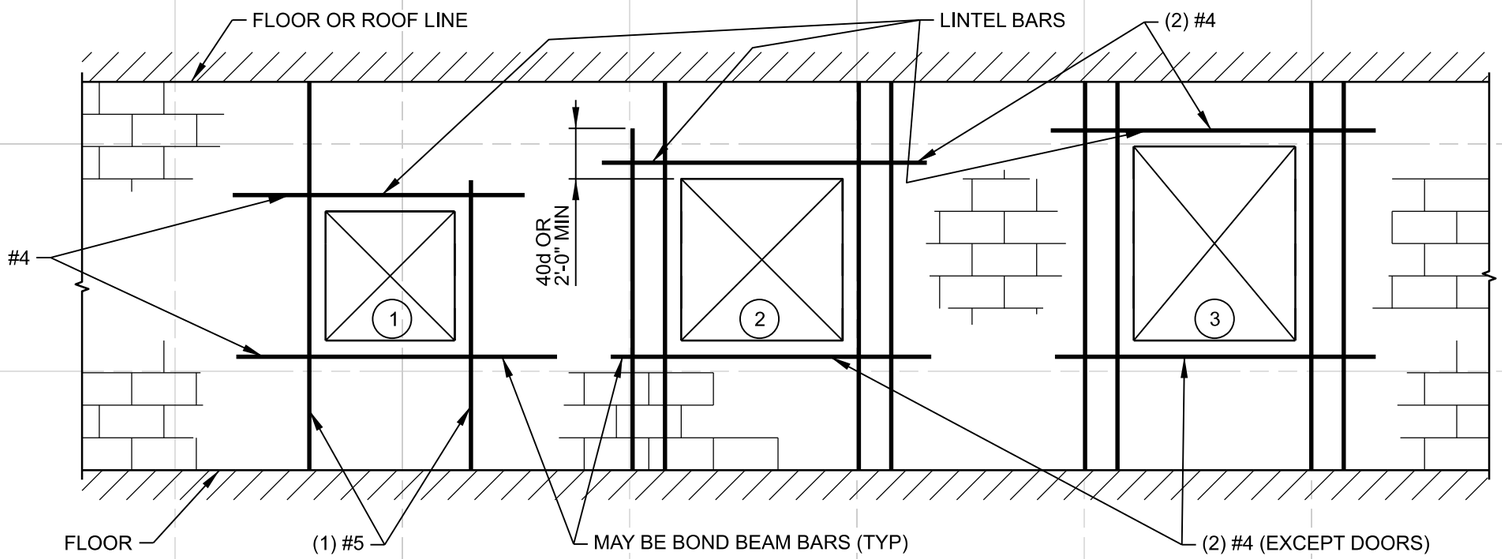


NOTE:
BOND BEAM REINFORCEMENT AT OR NEAREST TO ROOF AND
FLOORS ABOVE GRADE SHALL BE CONTINUOUS THROUGH JOINT.

A1

DETAIL: CMU WALL CONTROL JOINTS

SCALE: NTS

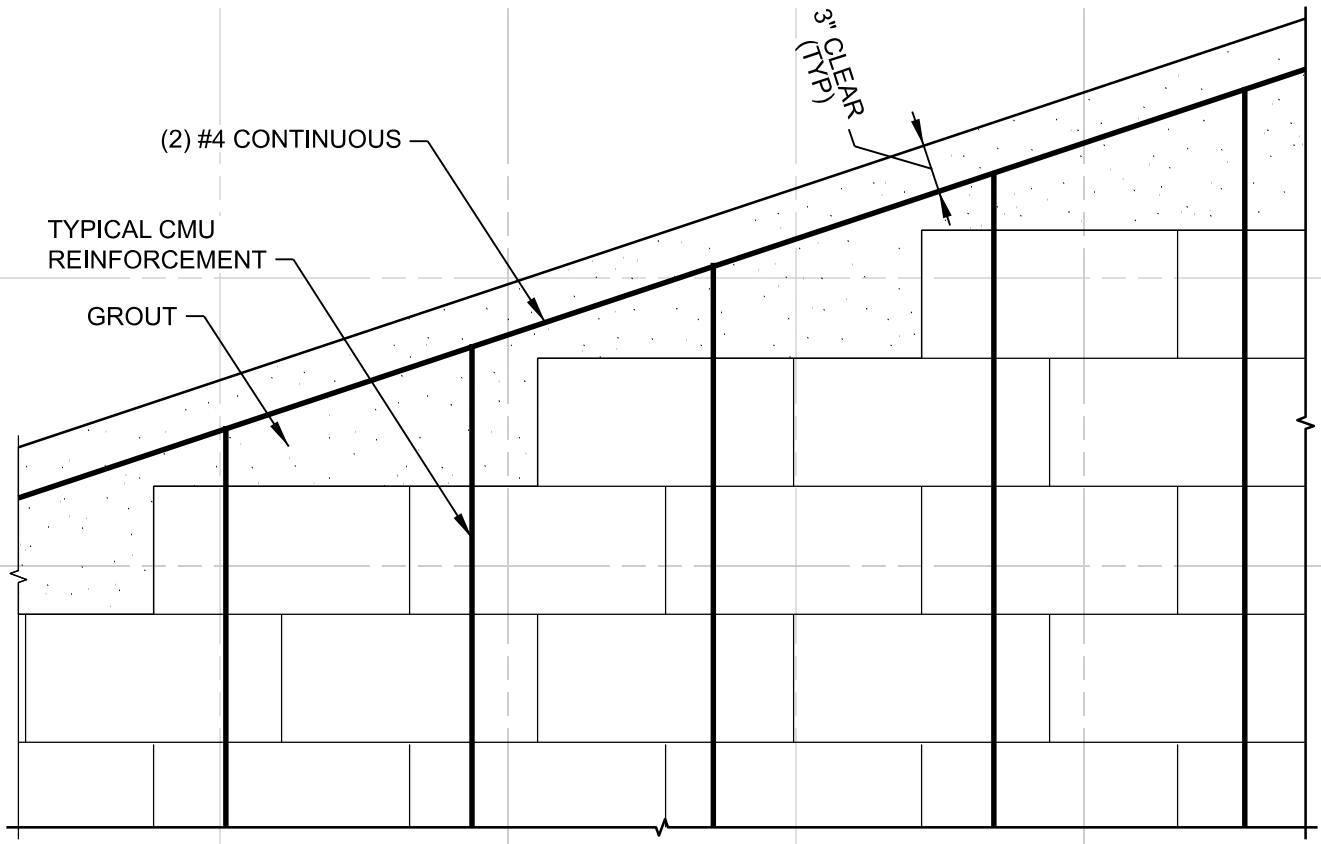


① BOTH EDGES 2'-0" OR LESS
② EITHER EDGES EXCEED 2'-0" BUT LESS THAN 4'-0"
③ EITHER EDGE EXCEEDS OR EQUALS 4'-0"

NOTE:
1. GROUT LINTELS SOLID FOR 1' (MIN) BEYOND OPENING
2. FOR ① OPENINGS, CMU LINTEL IS 8" DEEP
   FOR ② OPENINGS, CMU LINTEL IS 16" DEEP
   FOR ③ OPENINGS, CMU LINTEL IS 24" DEEP,
   UNLESS OTHERWISE NOTED.
3. BOND BEAM REINFORCEMENT NOT SHOWN FOR CLARITY.

A1 DETAIL: CMU OPENING REINFORCEMENT

SCALE: NTS



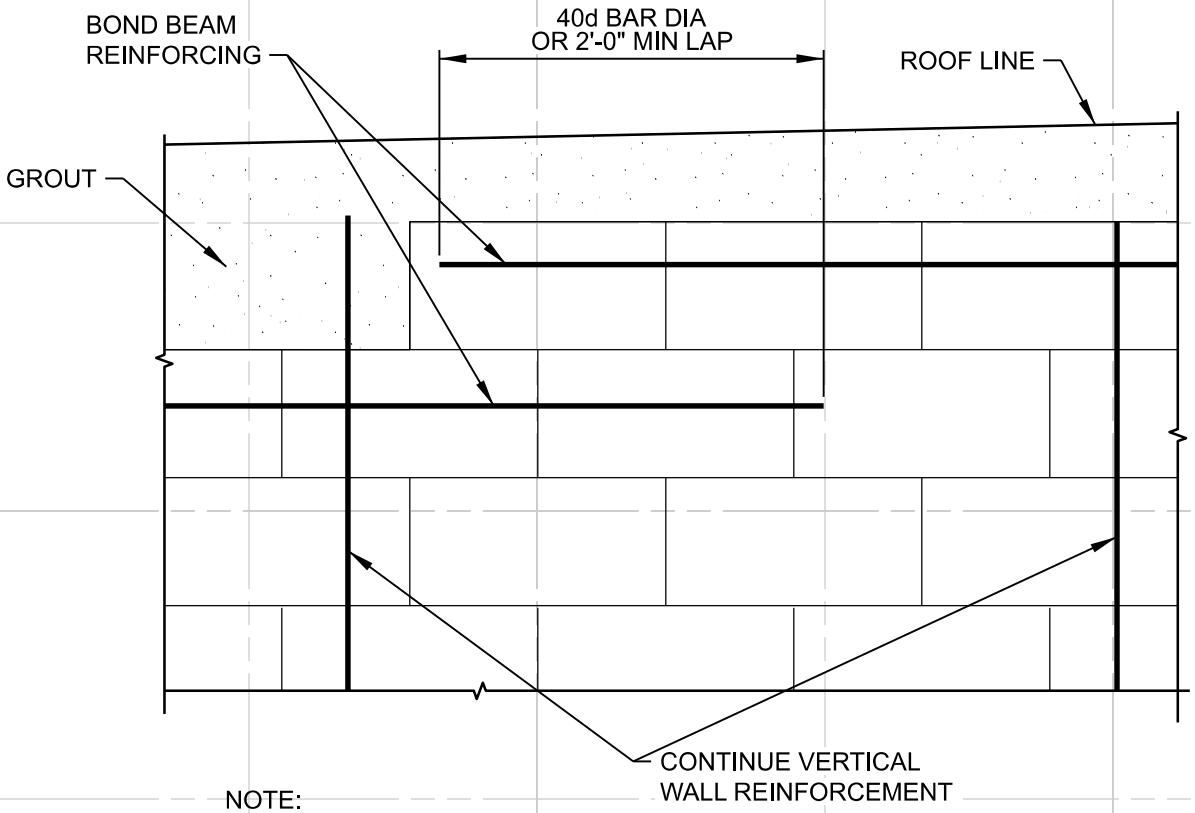
NOTE:
FOR SLOPES > 1/4 IN 12

DETAIL: CMU BOND BEAM (SLOPE) > 1/4 IN 12

A1

SCALE: 1"=1'-0"

0 6" 1' 2'



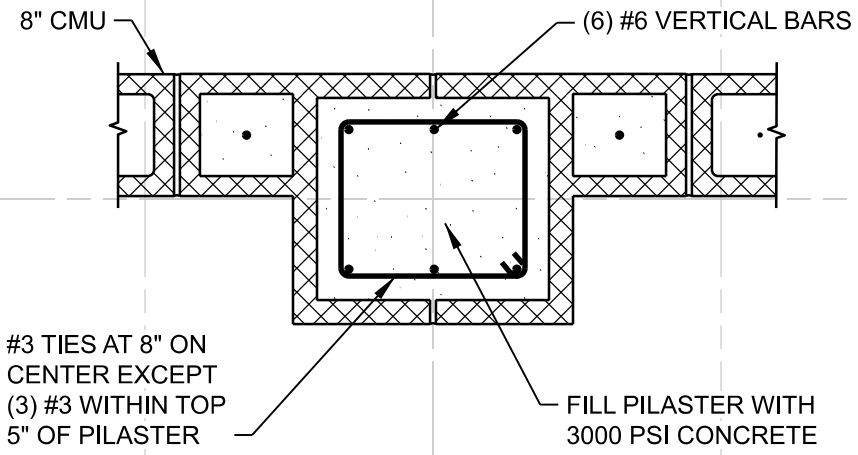
NOTE:
FOR < OR EQUAL 1/4 IN 12

DETAIL: CMU BOND BEAM (SLOPE) < OR EQUAL 1/4 IN 12

A1

SCALE: 1"=1'-0"

0 6" 1' 2'

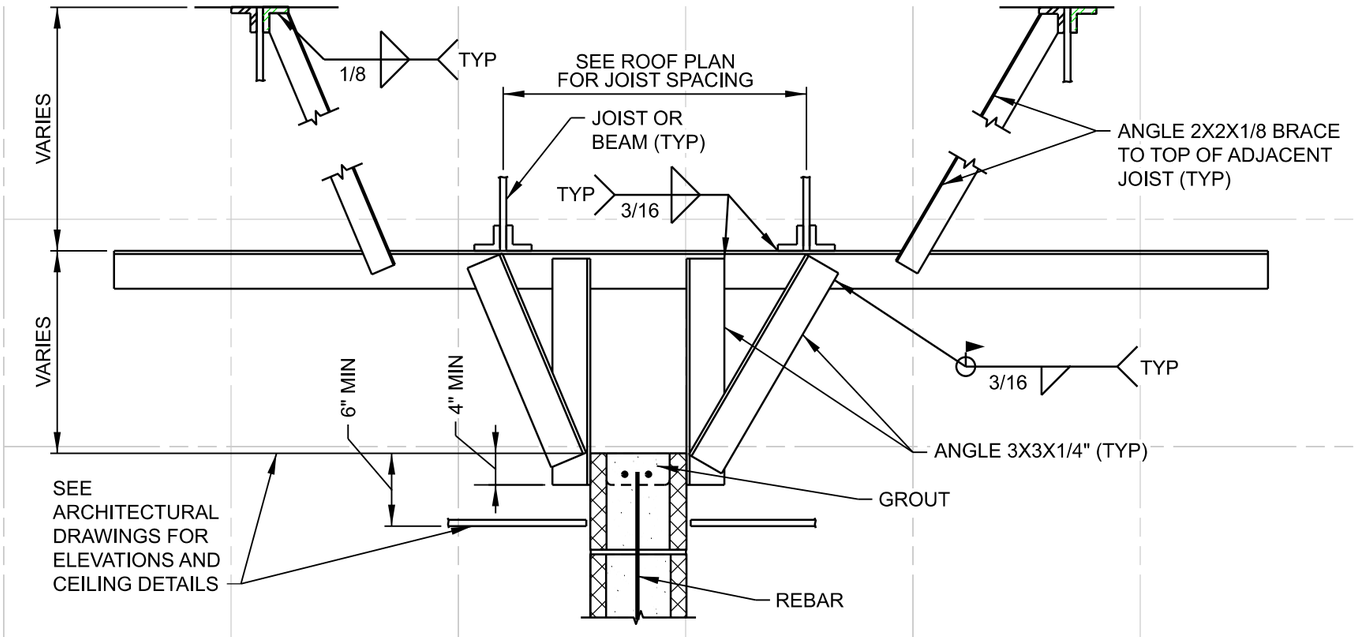


A1

DETAIL: CMU PILASTER

SCALE: 1"=1'-0"

0 6" 1' 2'



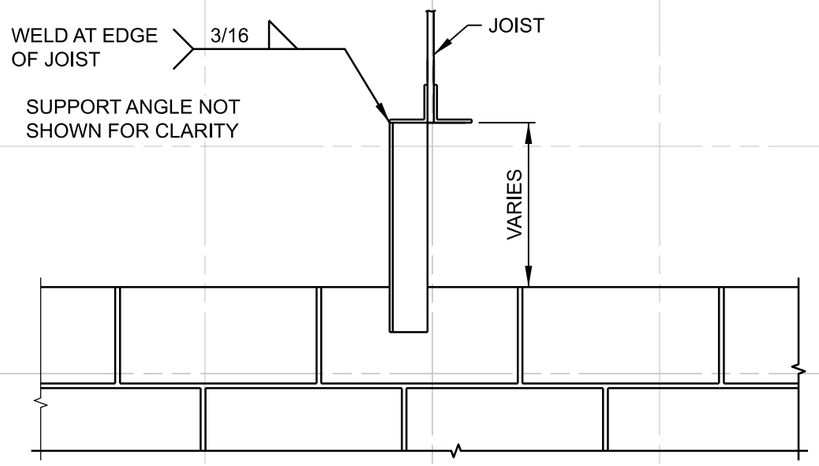
NOTE:
LATERAL SUPPORT AT 8'-0" ON CENTER AND 4'-0" FROM END OF PARTITION

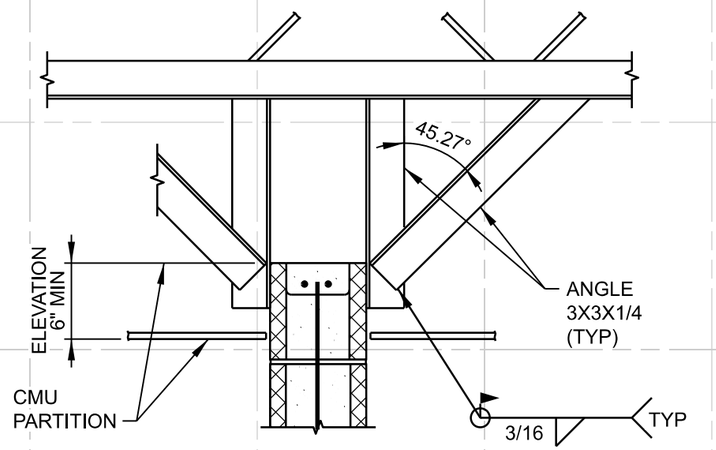
A1

DETAIL: LATERAL SUPPORT OF CMU PARTITION

SCALE: 1"=1'-0"

0 6" 1' 2'





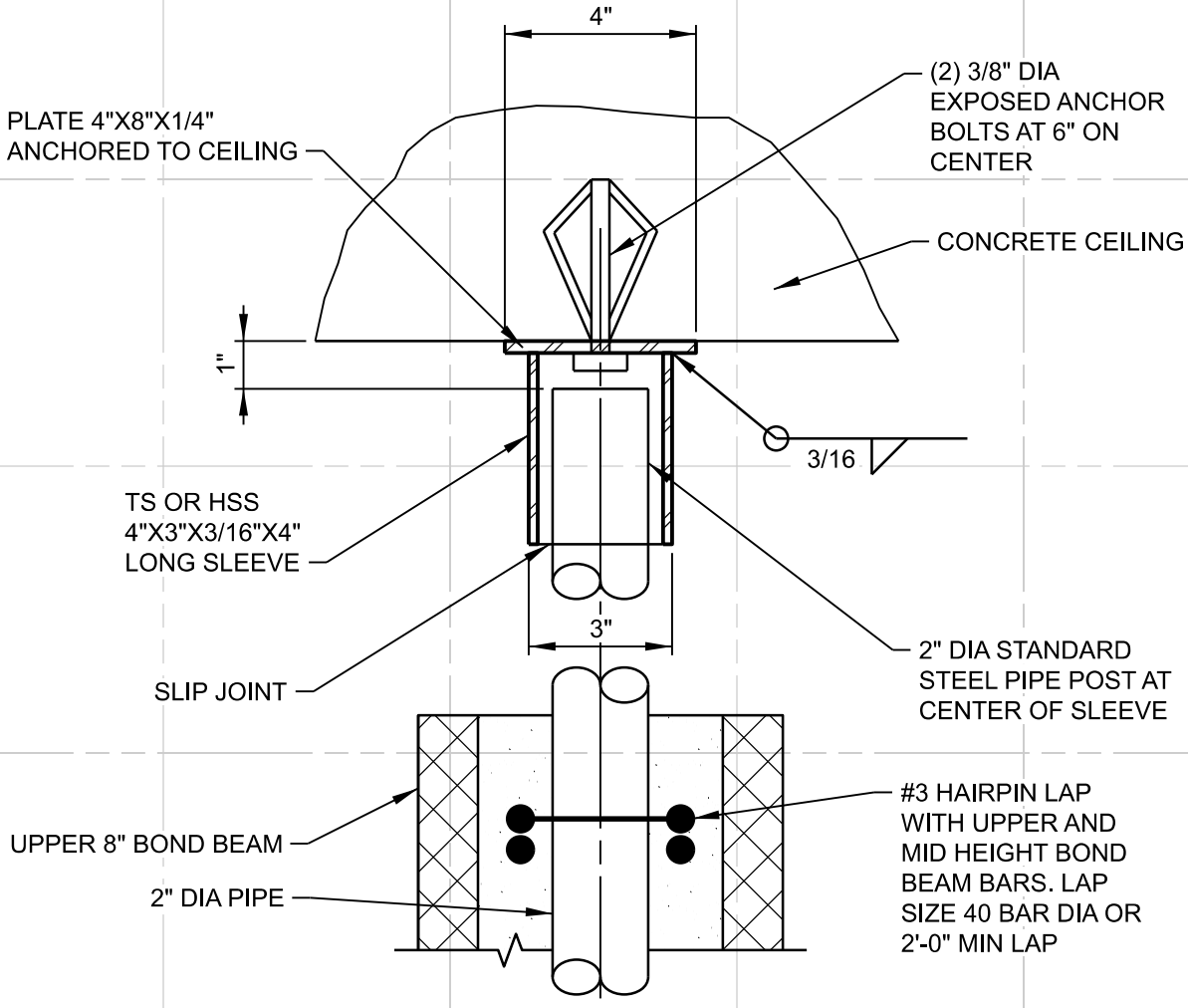
NOTE:
1. LATERAL SUPPORT EVERY SECOND JOIST STARTING WITH END JOIST
2. SEE ARCHITECTURAL DRAWINGS FOR ELEVATION AND CEILING DETAILS

A1

DETAIL: LATERAL SUPPORT OF CMU PARTITION

SCALE: 1"=1'-0"

0 6" 1' 2'

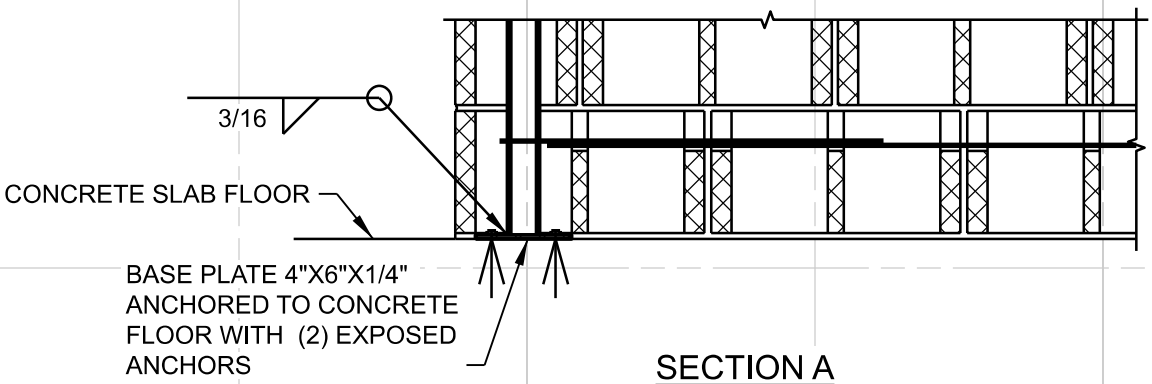


A1

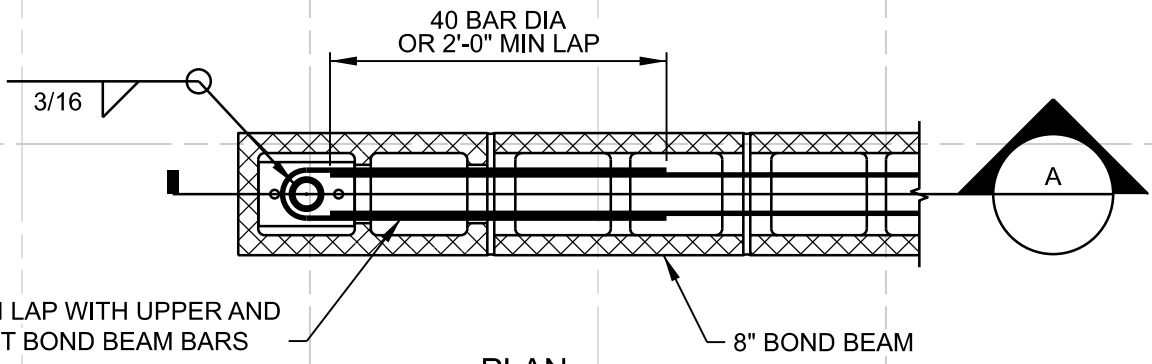
DETAIL: LATERAL SUPPORT OF CMU PARTITION - PIPE TOP MOUNTING

SCALE: 3"=1'-0"

0 3" 6" 1'



SECTION A



PLAN

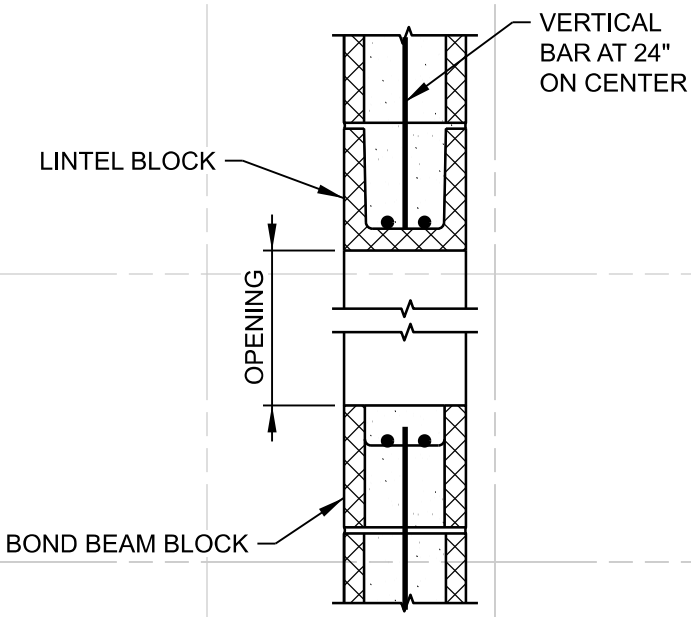
NOTE:
GROUT NOT SHOWN FOR CLARITY

DETAIL: LATERAL SUPPORT OF CMU PARTITION - PIPE BOTTOM MOUNTING

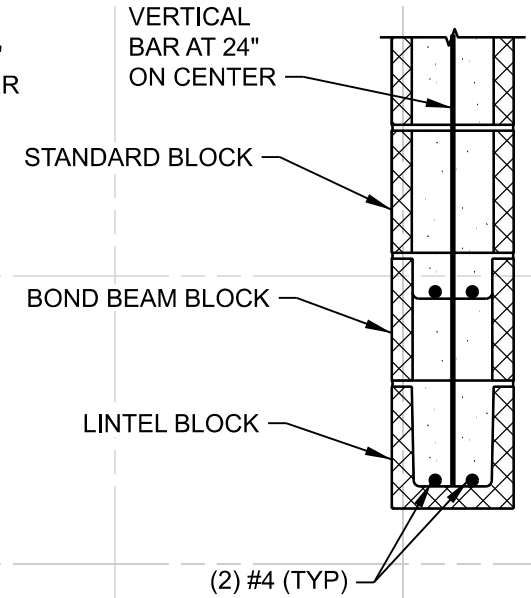
A1

SCALE: 1"=1'-0"

0 6" 1' 2'



DUCT OPENING



LINTEL

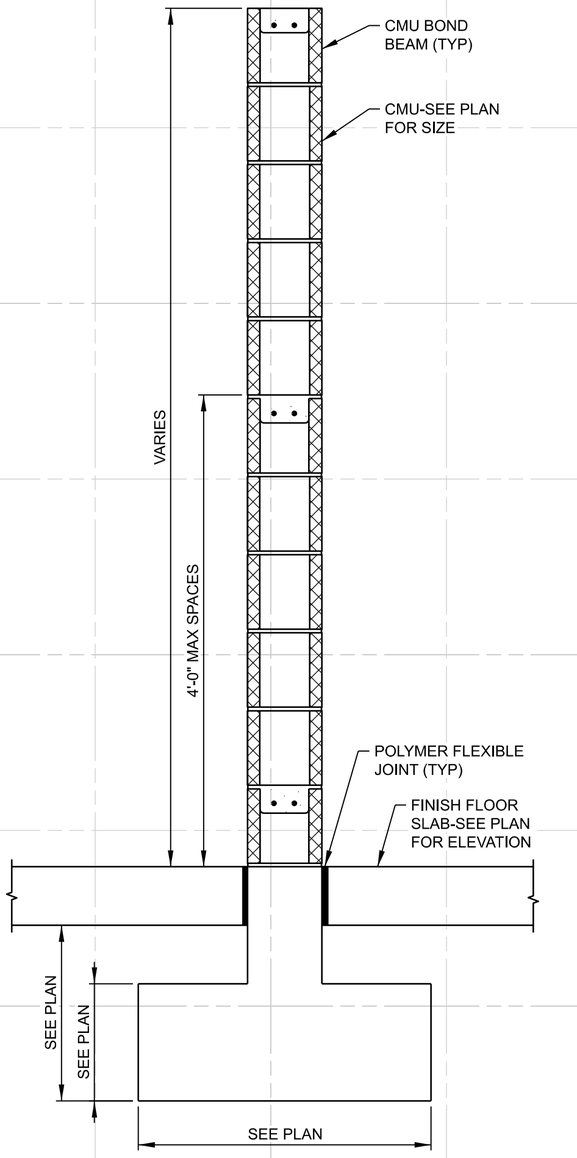
NOTE:
GROUT NOT SHOWN FOR CLARITY EXTEND ALL HORIZONTAL BARS A MIN OF 2'-0" BEYOND MASONRY OPENING

A1

DETAIL: CMU LINTEL

SCALE: 1"=1'-0"

0 6" 1' 2'



NOTE:
FOOTING AND WALL REINFORCEMENT NOT SHOWN FOR CLARITY

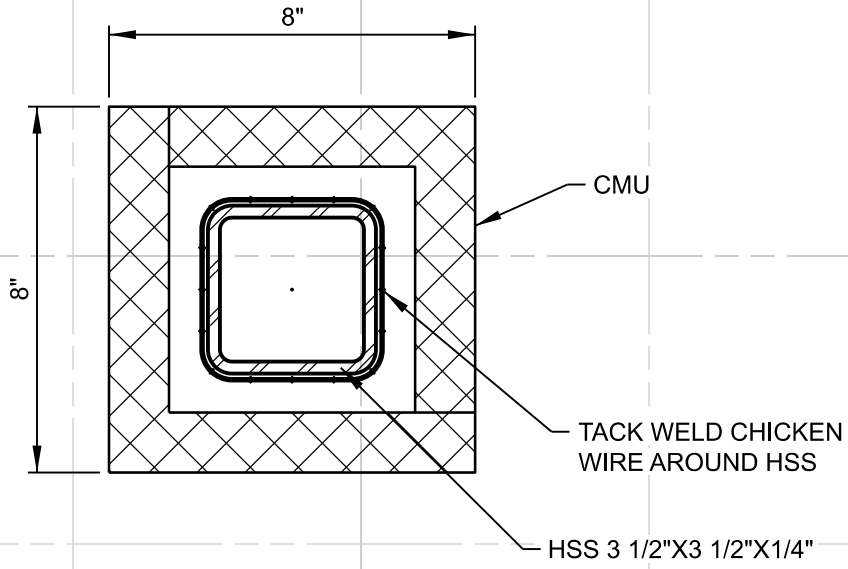
A1

DETAIL: TYPICAL BEAM BOND PLACEMENT IN CMU WALL

SCALE: 1"=1'-0"

0 6" 1' 2'

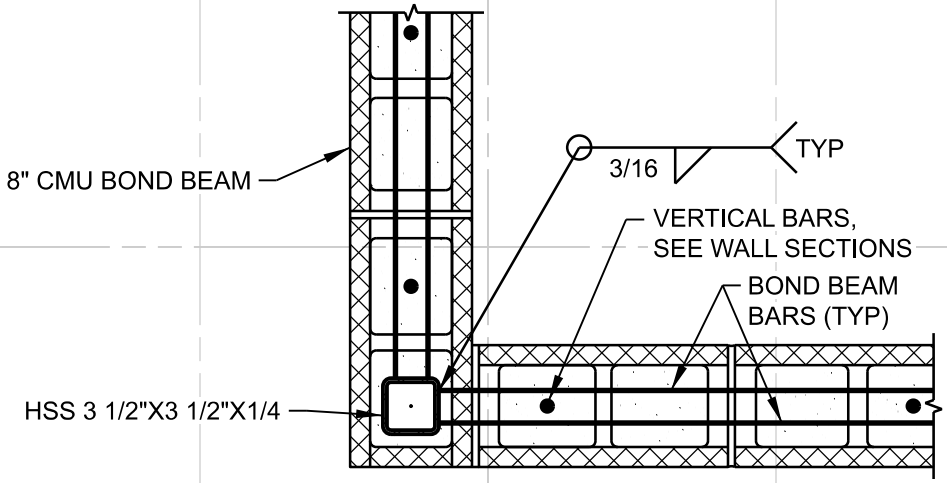
Detail B1033S-DT124X



A1

DETAIL: MASONRY/HSS COLUMN DETAIL AT WINDOW LEVEL

SCALE: 3"=1'-0" 0 3" 6" 1'

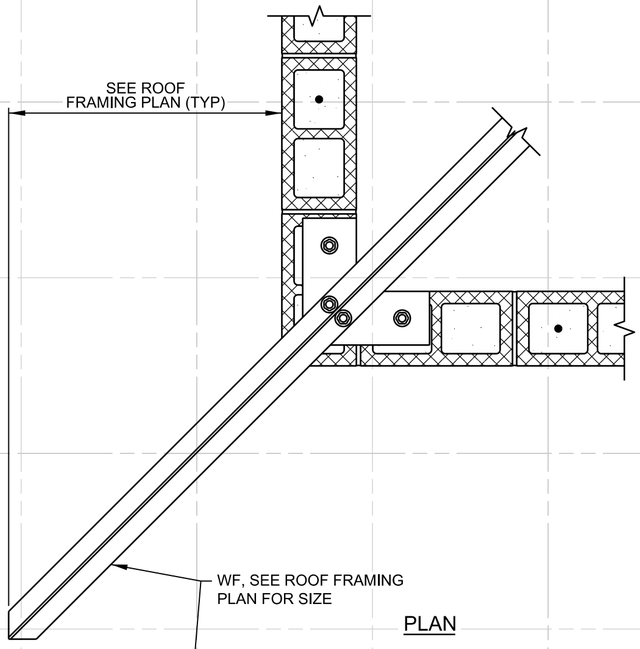


DETAIL: MASONRY/HSS COLUMN DETAIL BELOW OR ABOVE WINDOW

A1

SCALE: 1"=1'-0"

0 6" 1' 2'



PLAN

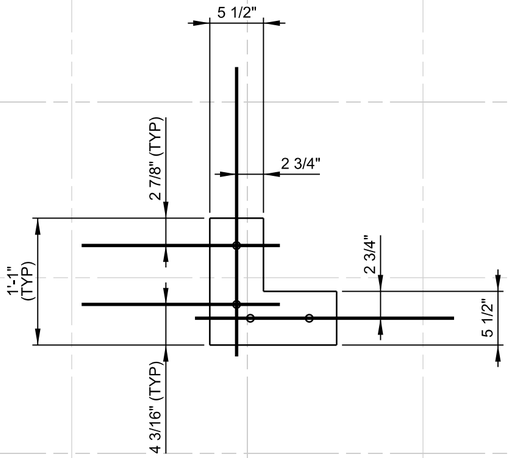
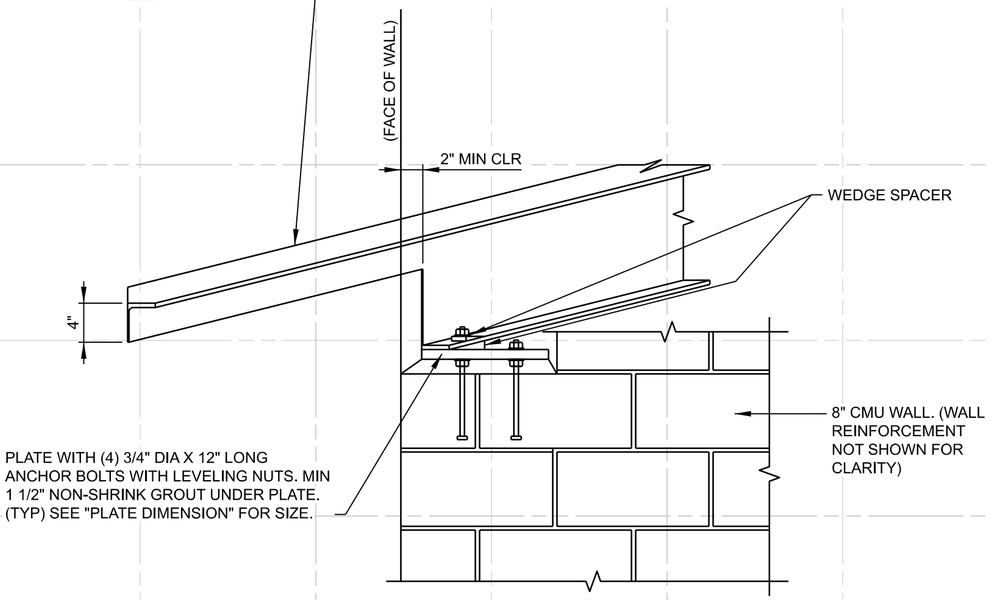


PLATE DIMENSIONS



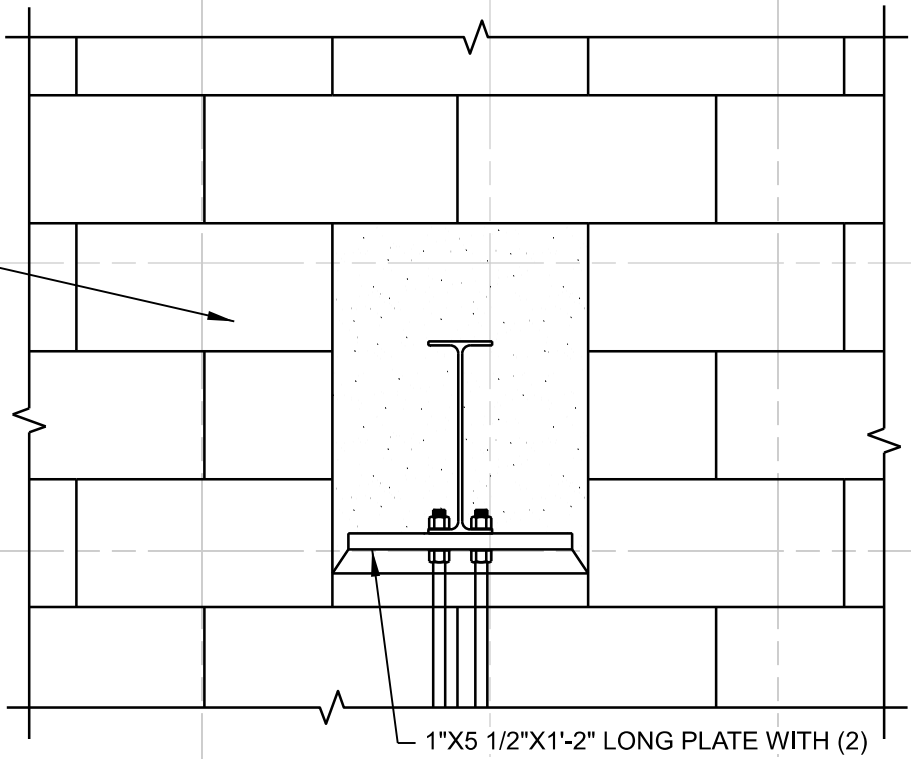
ELEVATION

A1 DETAIL: HIP BEAM CONNECTION AT CMU WALL CORNER

SCALE: 1"=1'-0"

0 6" 1' 2'

Detail B1033S-DT127X



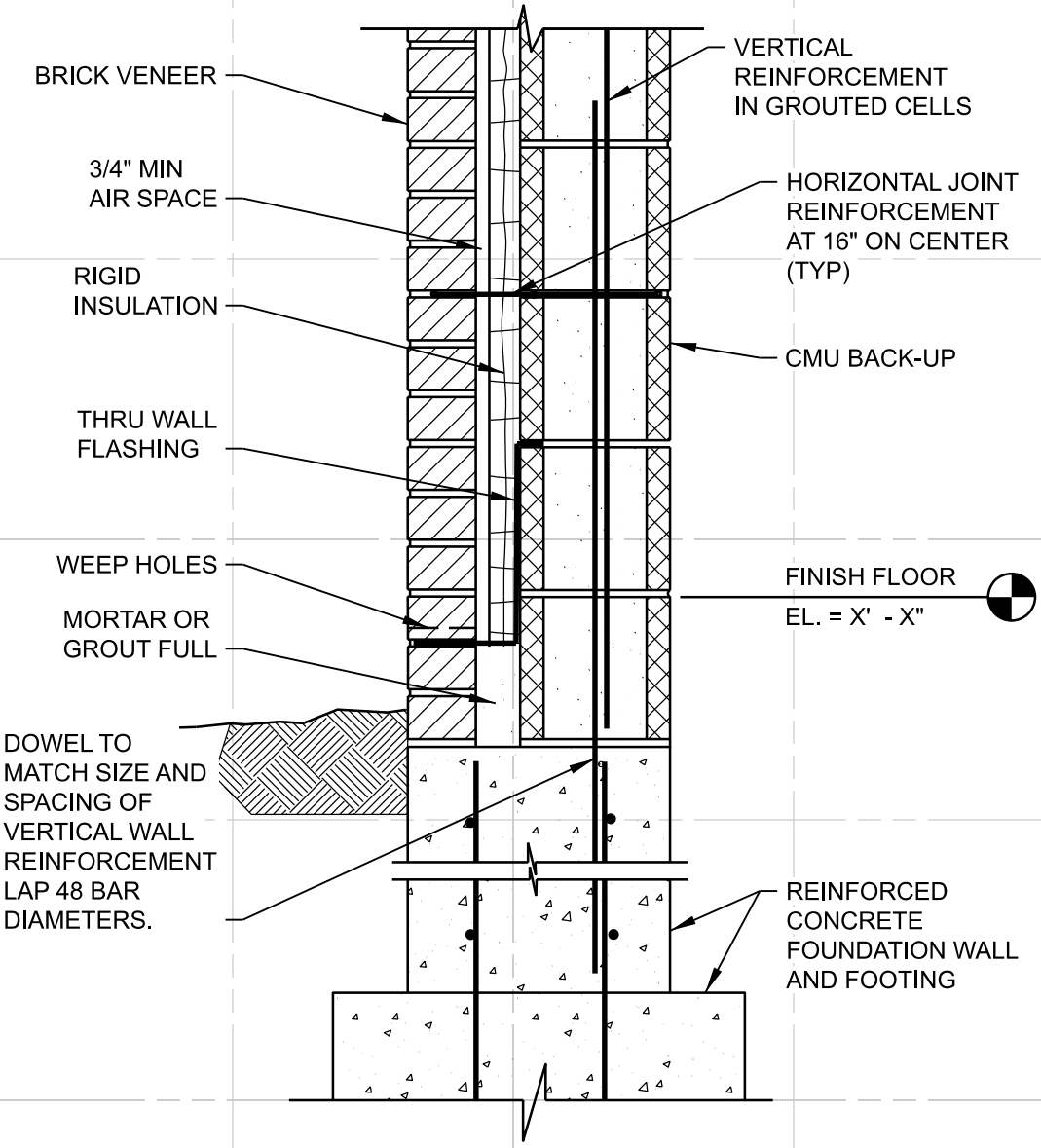
NOTE:
CMU WALL REINFORCEMENT NOT SHOWN FOR CLARITY

A1

DETAIL: BEAM SUPPORT ON CMU WALL

SCALE: 1"=1'-0"

0 6" 1' 2'

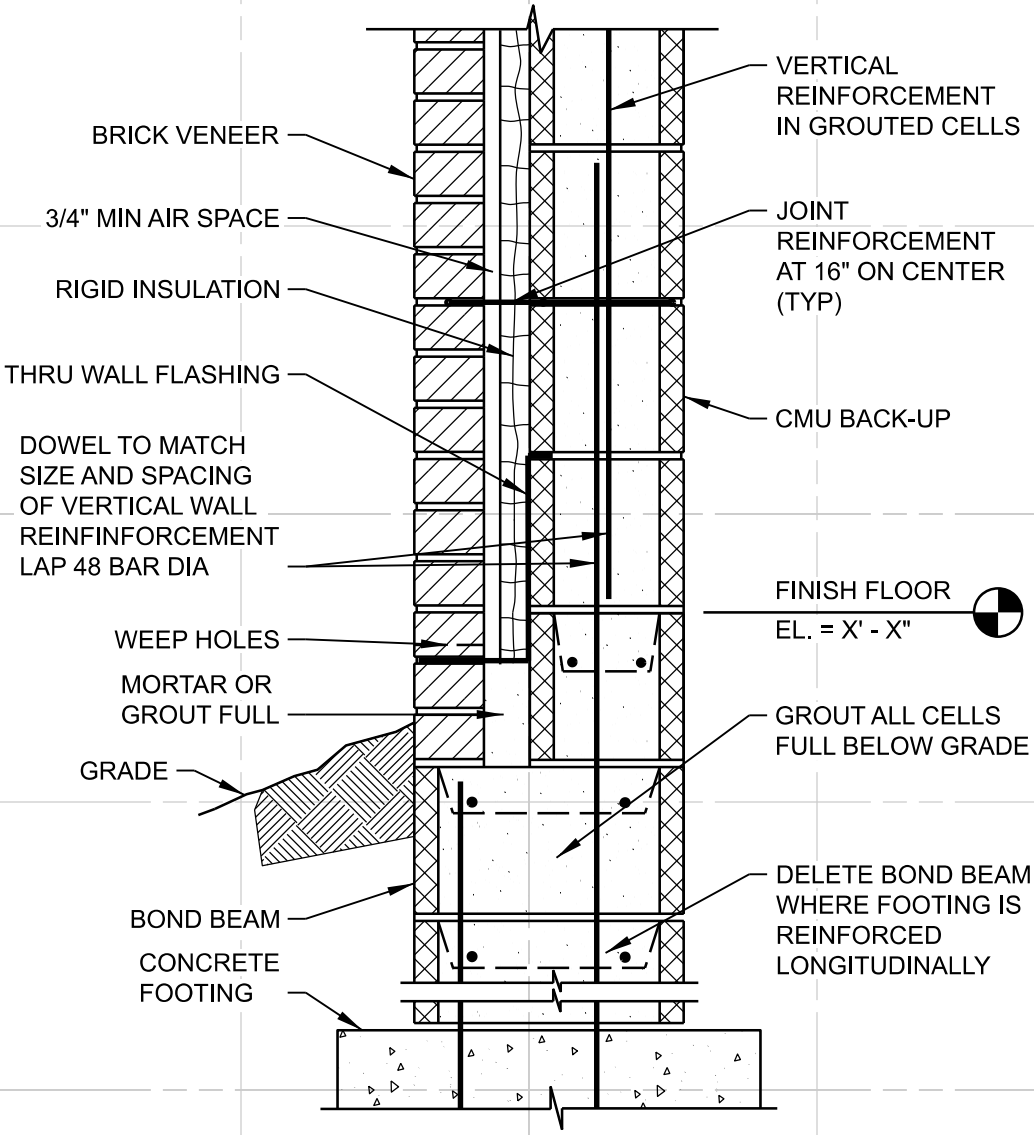


NOTE:
TOP OF DOOR FRAME MUST MATCH COURSING TO PREVENT CUTTING CMU. OPTIONS ARE: VARYING DOOR FRAME HEAD OR VARYING DOOR HEIGHT. STARTING COURSING AT OTHER THAN FINISH FLOOR LEVEL IS NOT RECOMMENDED SINCE INTERIOR MASONRY WALLS PLACED ON THE FINISHED FLOOR MAY NEED TO COURSE WITH THE OTHER WALLS.

DETAIL: ANCHORED VENEER SECTION AT BASE (CONCRETE FOUNDATION)

A1

SCALE: NTS

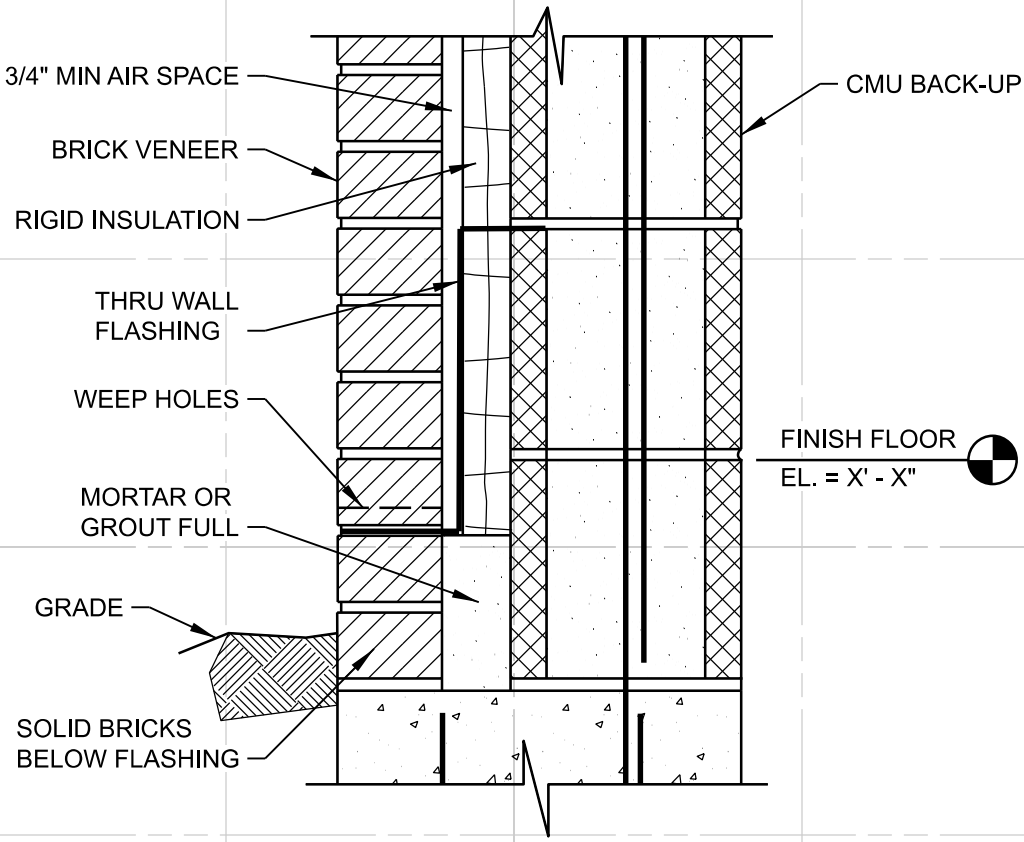


NOTE:
TOP OF DOOR FRAME MUST MATCH COURSING TO PREVENT CUTTING CMU. OPTIONS ARE: VARYING DOOR FRAME HEAD OR VARYING DOOR HEIGHT. STARTING COURSING AT OTHER THAN FINISH FLOOR LEVEL IS NOT RECOMMENDED SINCE INTERIOR MASONRY WALLS PLACED ON THE FINISHED FLOOR MAY NEED TO COURSE WITH THE OTHER WALLS.

DETAIL: ANCHORED VENEER SECTION AT BASE (CMU FOUNDATION)

A1

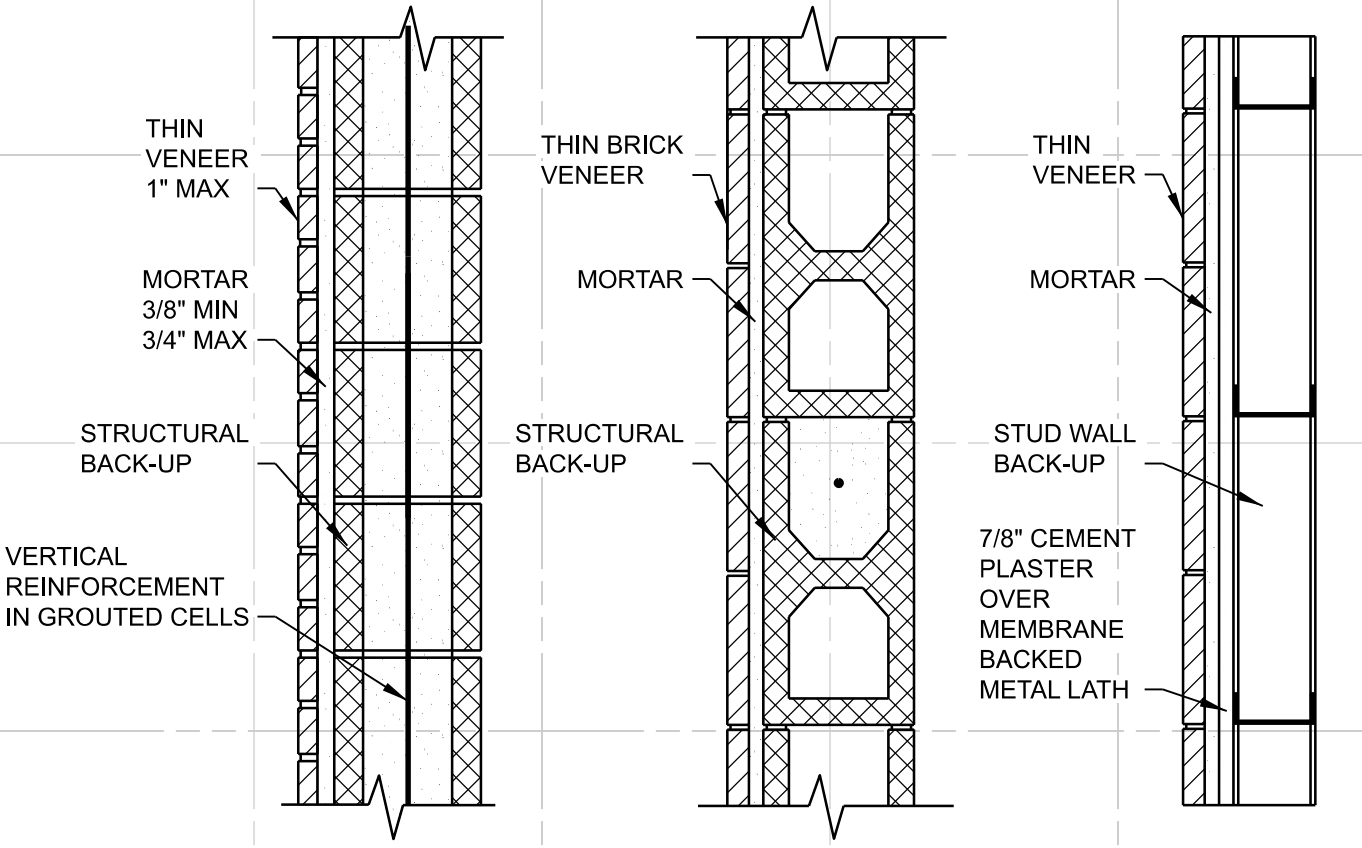
SCALE: NTS



A1

DETAIL: THRU-WALL FLASHING OPTION

SCALE: NTS



REINFORCED MASONRY BACK-UP PROFILE

REINFORCED MASONRY BACK-UP PLAN

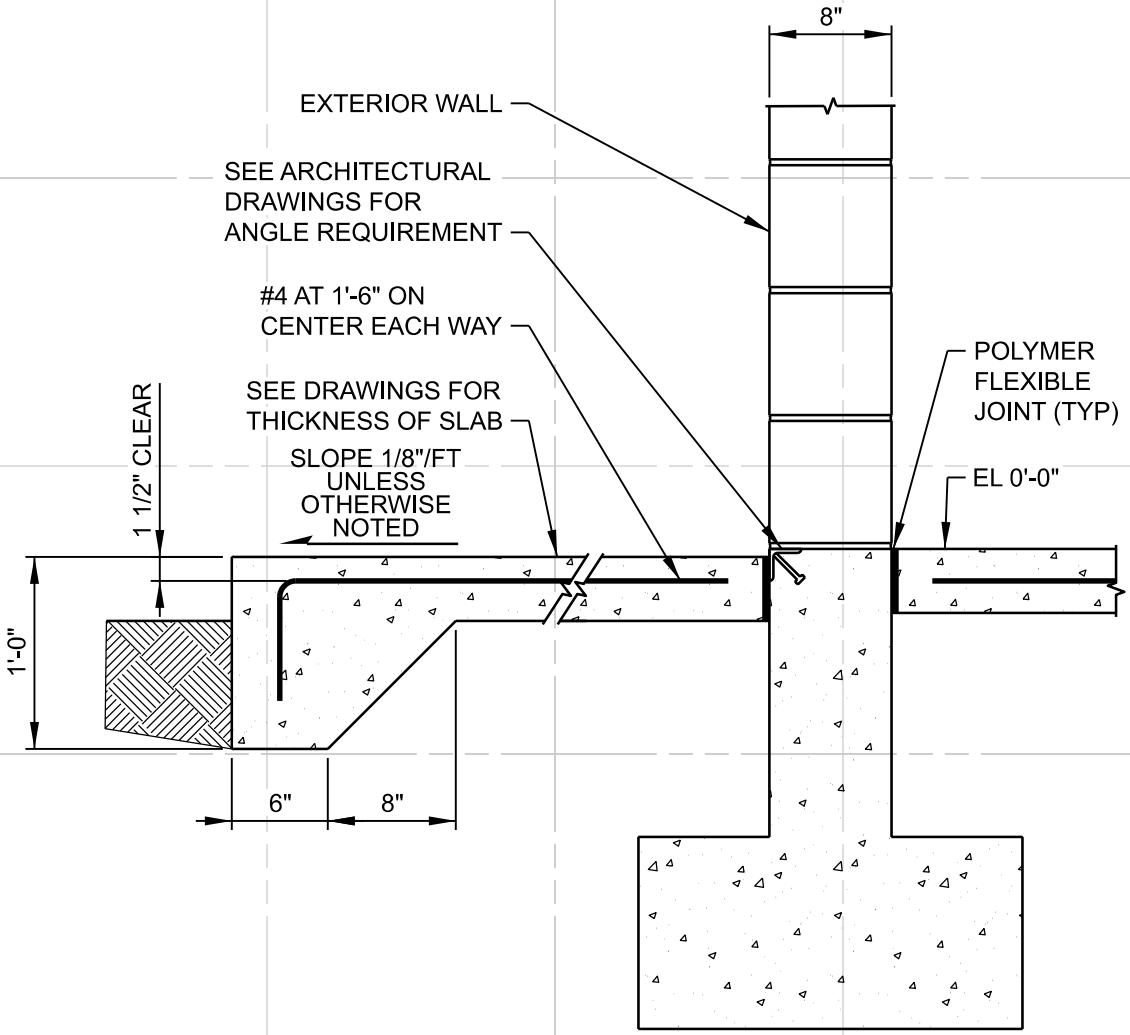
STUDWALL BACK-UP PLAN

NOTE:
LIMIT WALL DEFLECTION TO L/720

A1

DETAIL: ADHERED THIN VENEERS

SCALE: NTS

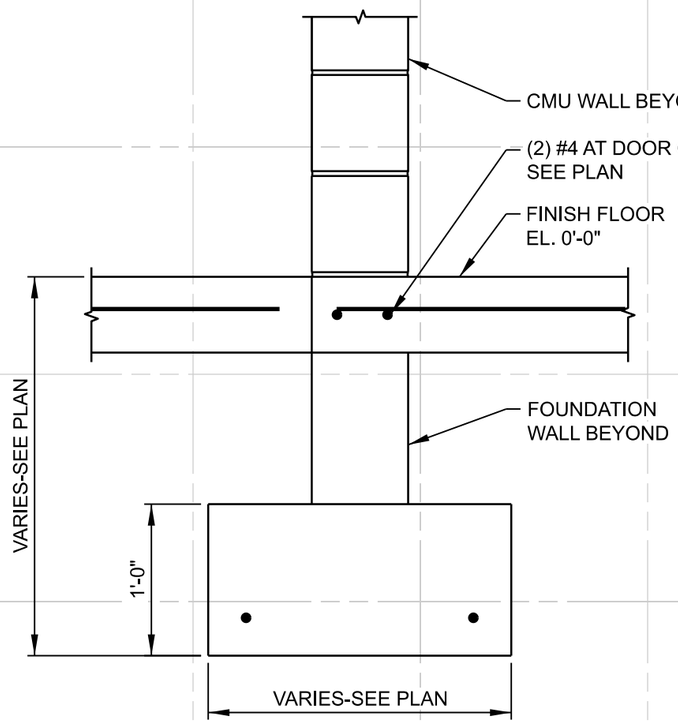


A1

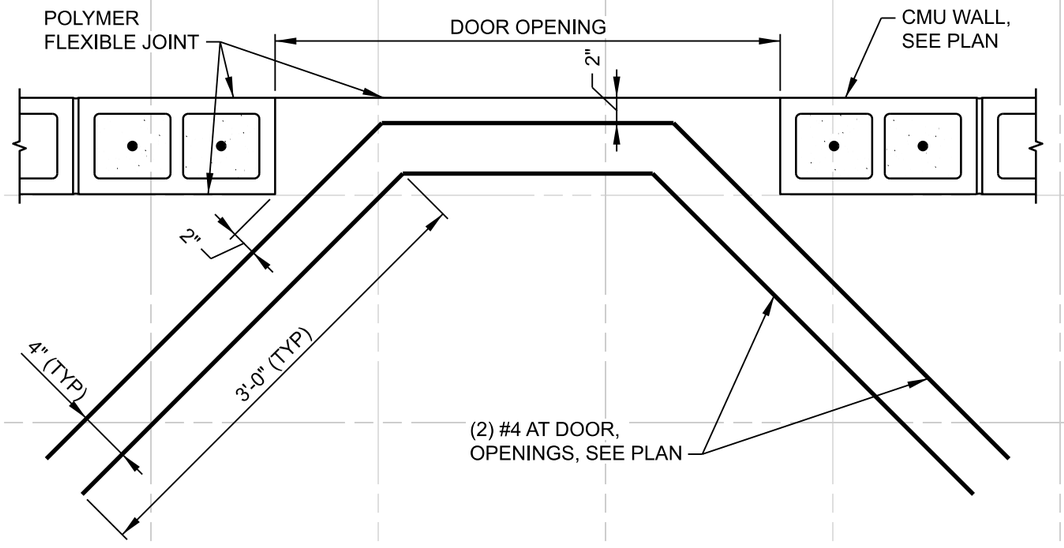
DETAIL: EXTERIOR DOOR SILL

SCALE: 1"=1'-0"

0 6" 1' 2'



SECTION

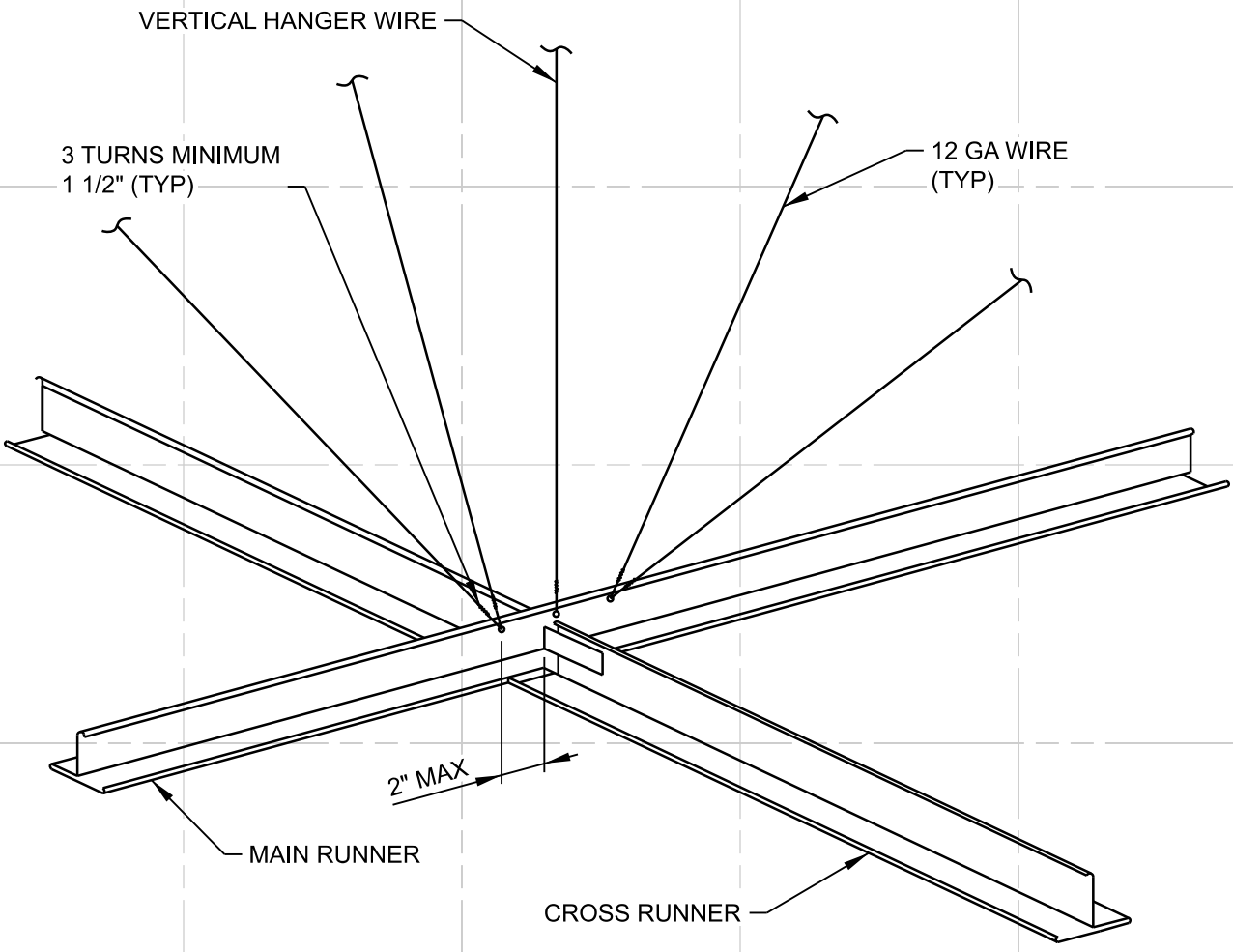


PLAN

A1 DETAIL: EXTERIOR DOOR SILL WITHOUT THRESHOLD

SCALE: 1"=1'-0"

0 6" 1' 2'



NOTE:
45° SPLAY WIRE BRACING IN PLANES OF MAIN RUNNER, ALL WIRES ATTACHED TO MAIN RUNNER. FOUR DIRECTIONS AT 144 SF OF CEILING WITH MAXIMUM SPACING OF 12'-0"

A1

DETAIL: SUSPENDED CEILING SPLAY BRACING

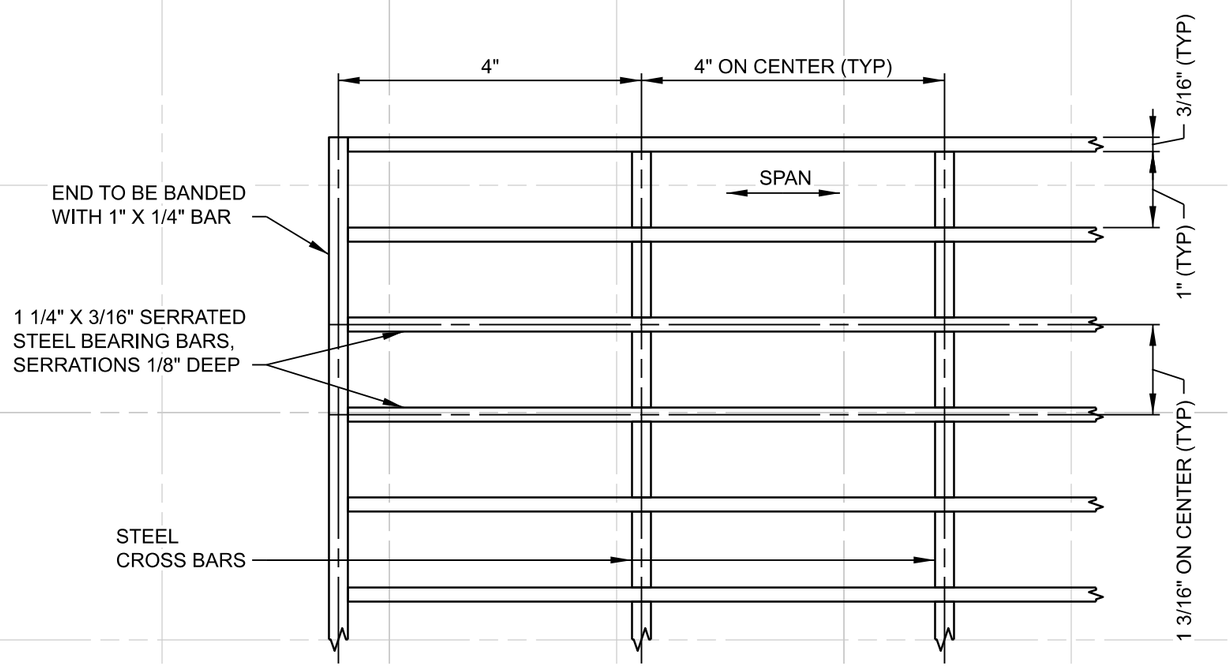
SCALE: NTS

GENERAL STRUCTURAL NOTES

1. GRATING AND MISCELLANEOUS METALS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION.

2. UNLESS OTHERWISE NOTED, MISCELLANEOUS METALS SHOWN SHALL BE STEEL.

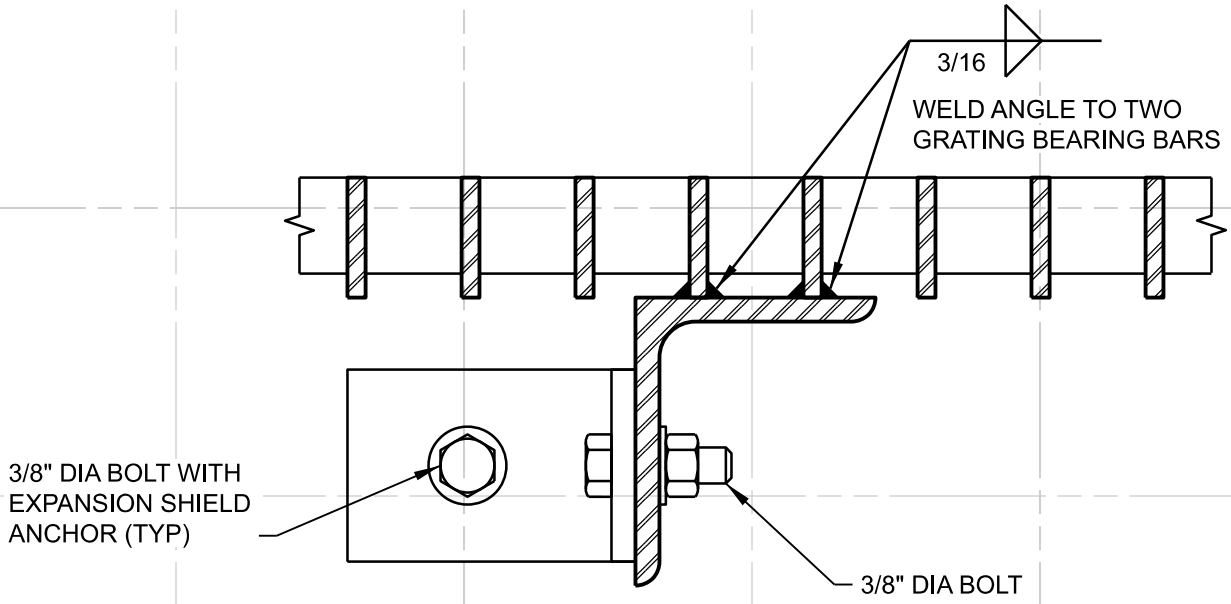
3. CHAIN MAY BE WELDED TO GRATING AT CONTRACTOR'S OPTION.



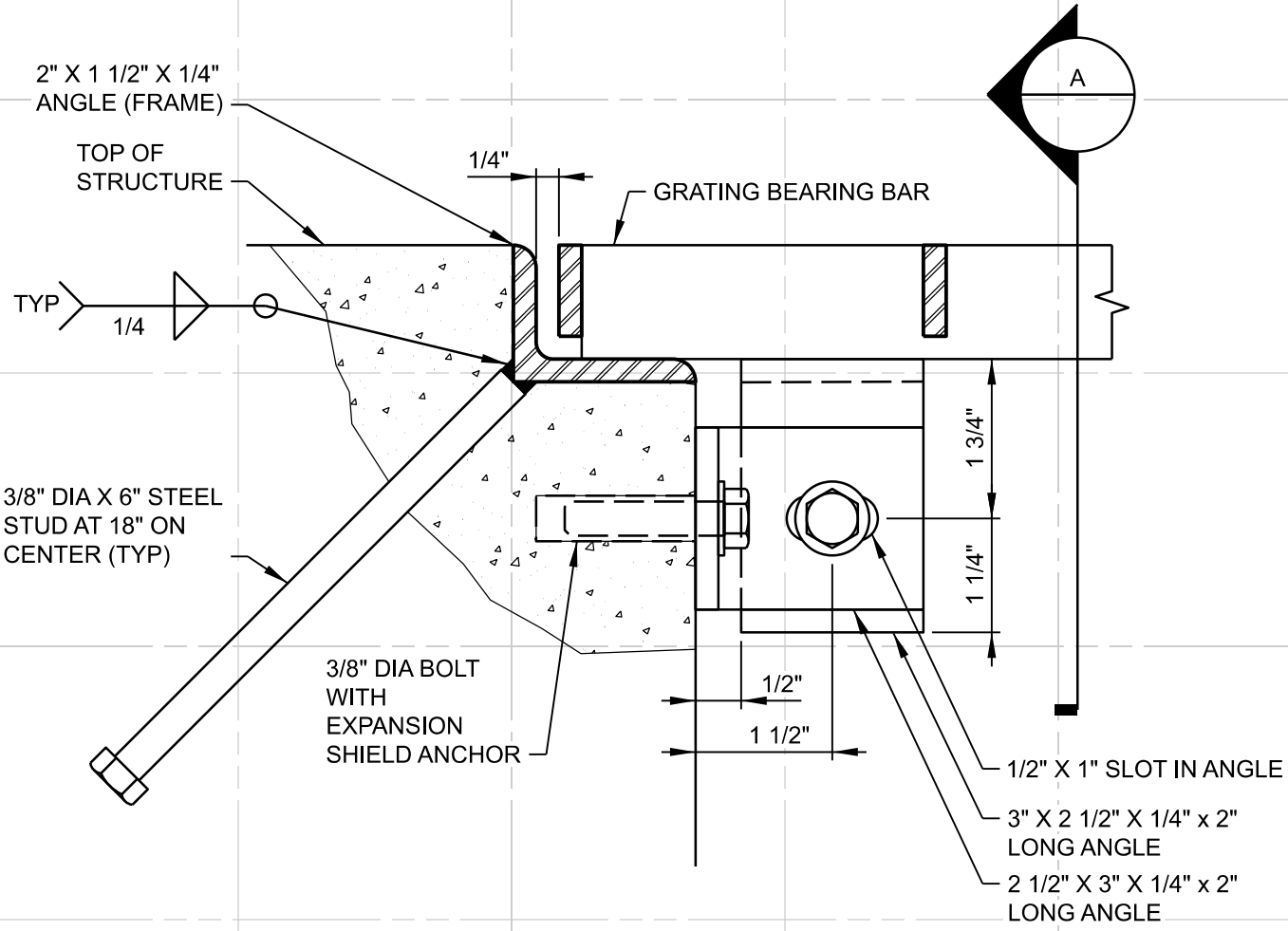
A1 DETAIL: GRATING PARTIAL PLAN

SCALE: 6"=1'-0"

0 1-1/2" 3" 6"



SECTION A

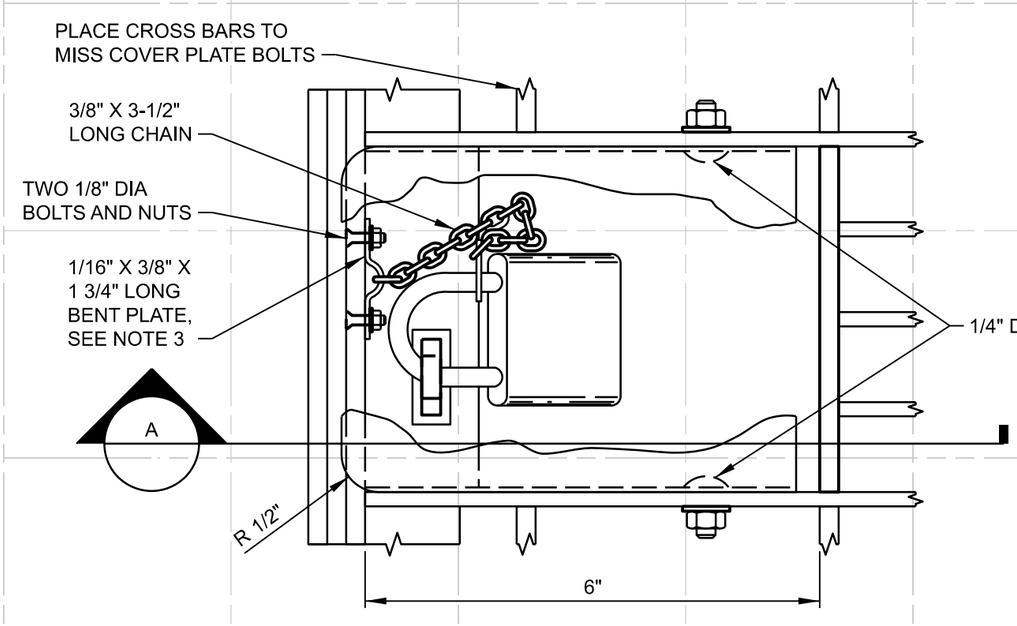


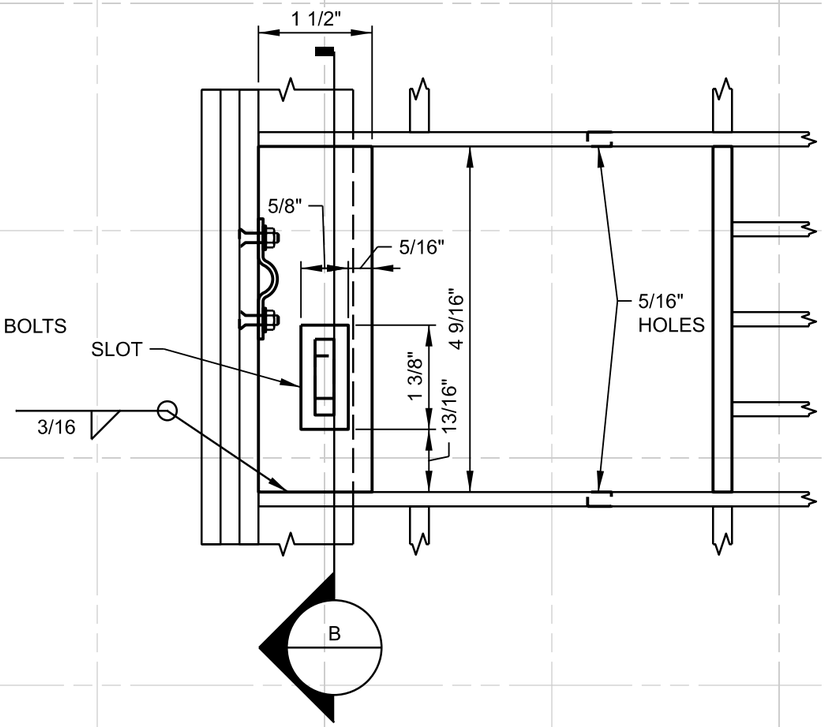
A1

DETAIL: GRATING SECTION

SCALE: 6"=1'-0"

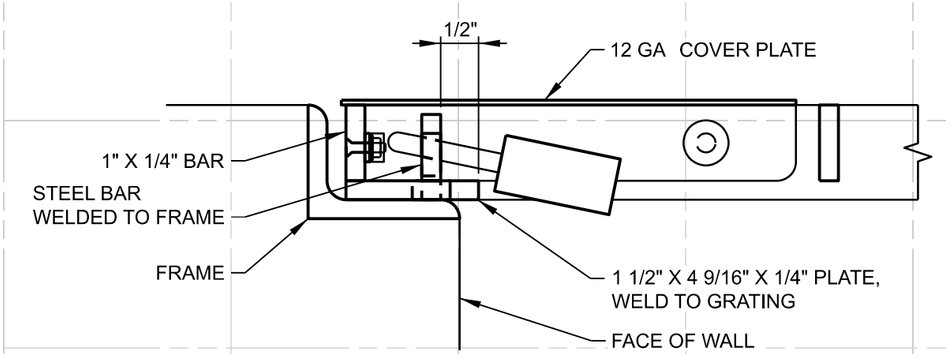
0 1-1/2" 3" 6"



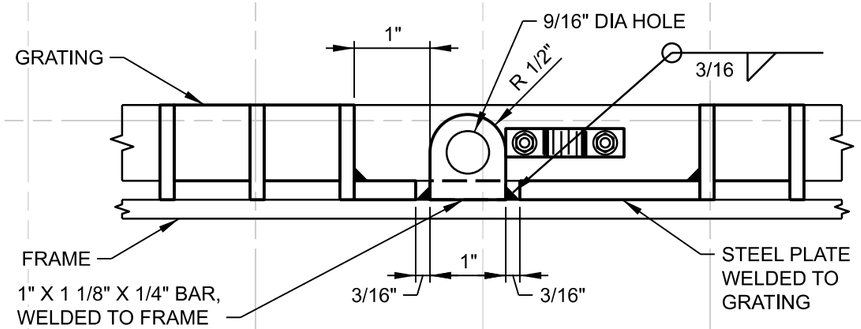


PLAN SHOWING COVER, LOCK, AND CHAIN

PLAN NOT SHOWING COVER, LOCK AND CHAIN



SECTION A

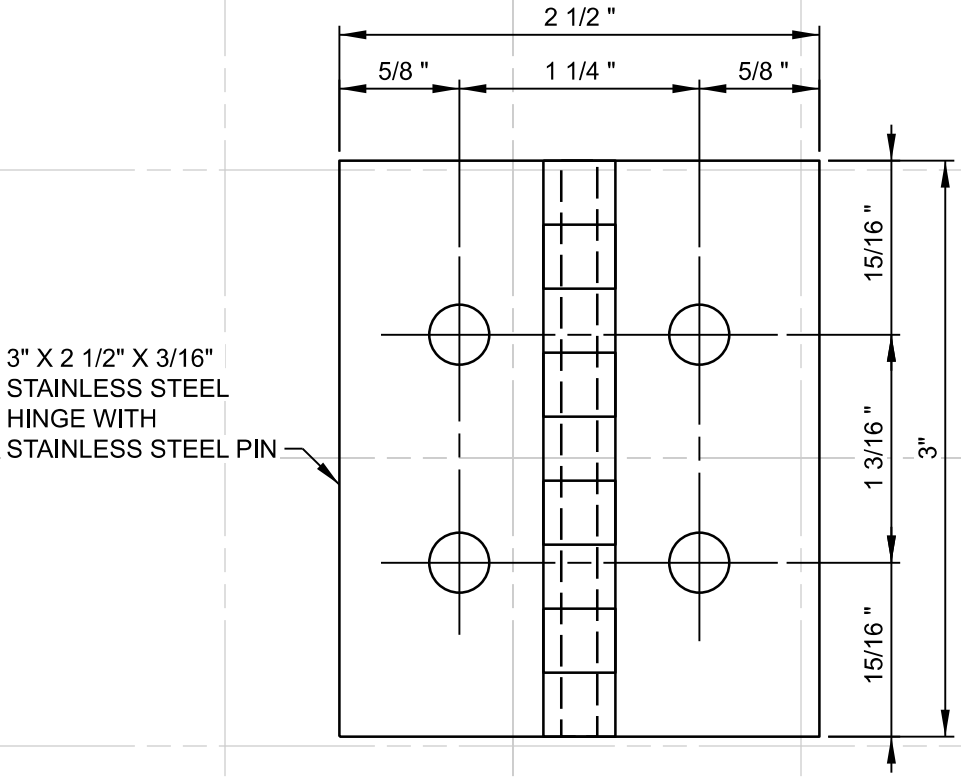


SECTION B

A1 DETAIL: GRATING LOCK ASSEMBLY

SCALE: 6"=1'-0"

0 1-1/2" 3" 6"

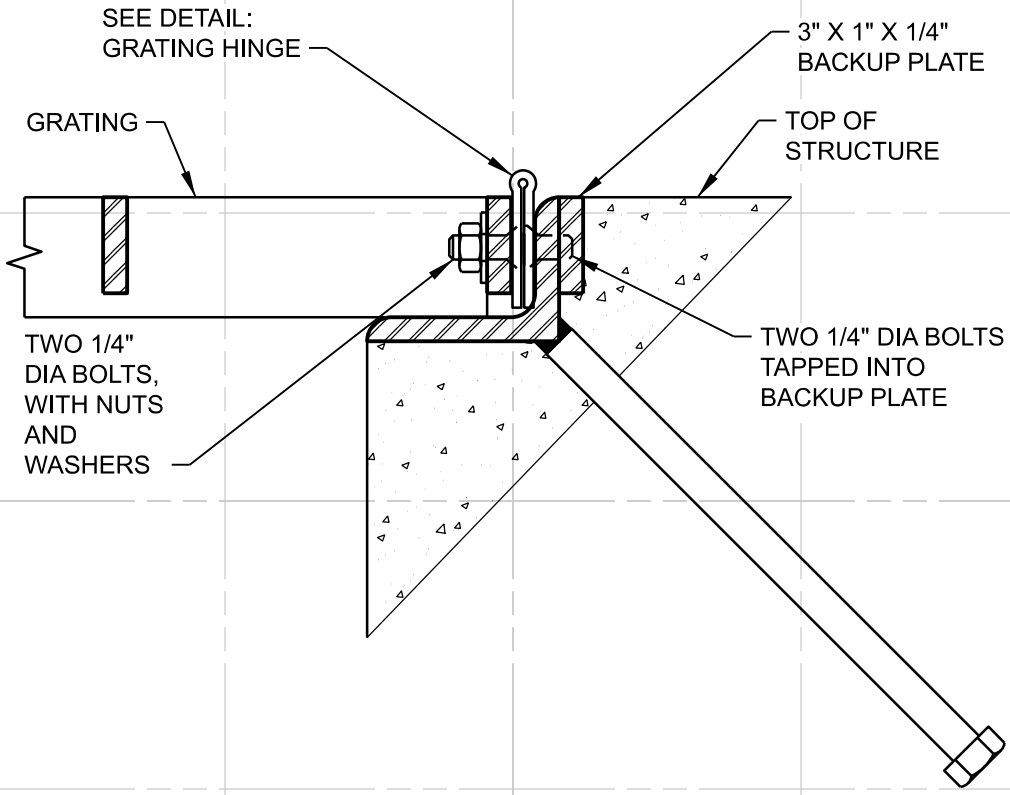


A1

DETAIL: GRATING HINGE

SCALE: 1"=1" FULL SIZE

0 1/2" 1" 2"

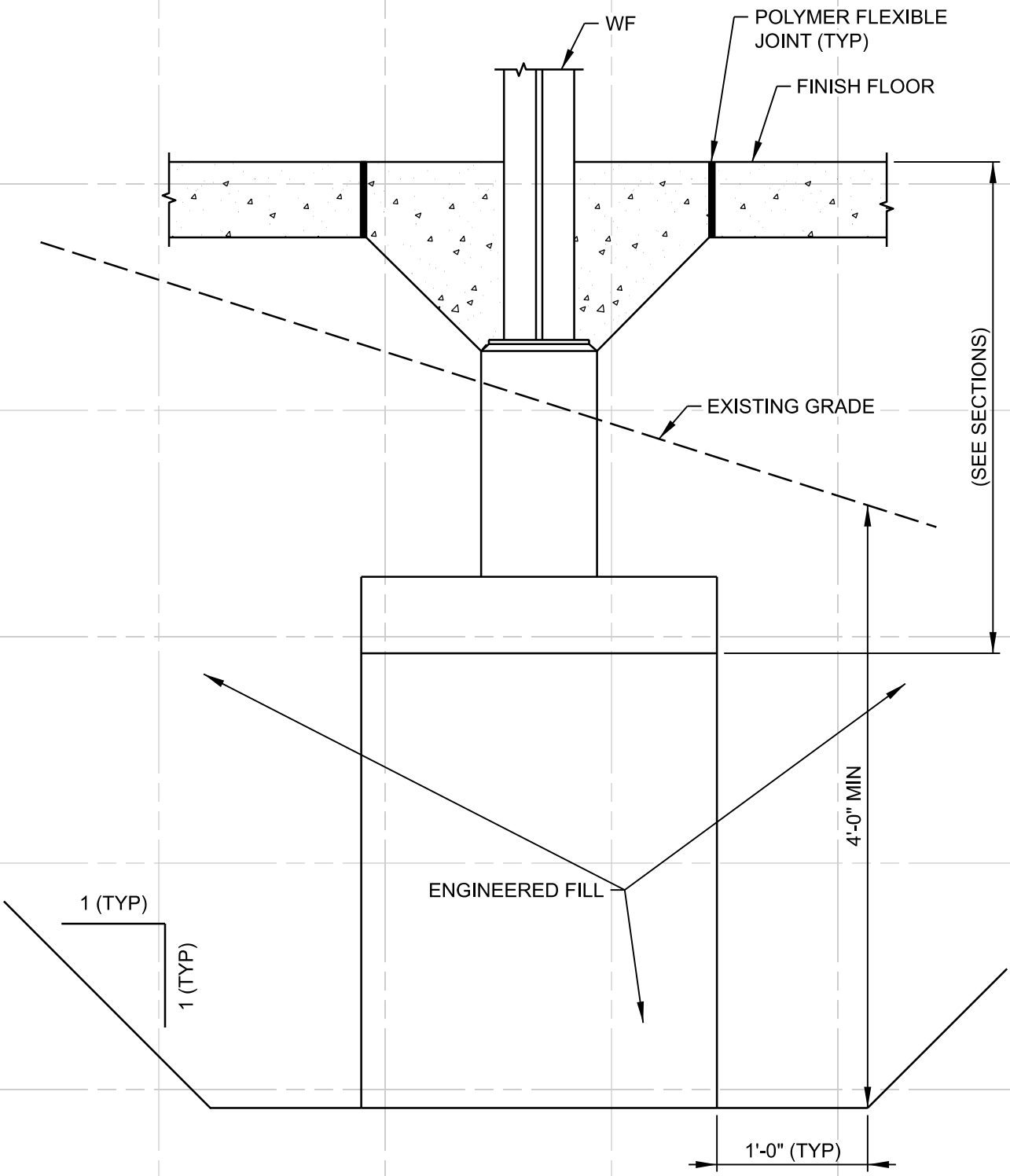


A1

DETAIL: GRATING HINGE SECTION

SCALE: 6"=1'-0"

0 1-1/2" 3" 6"

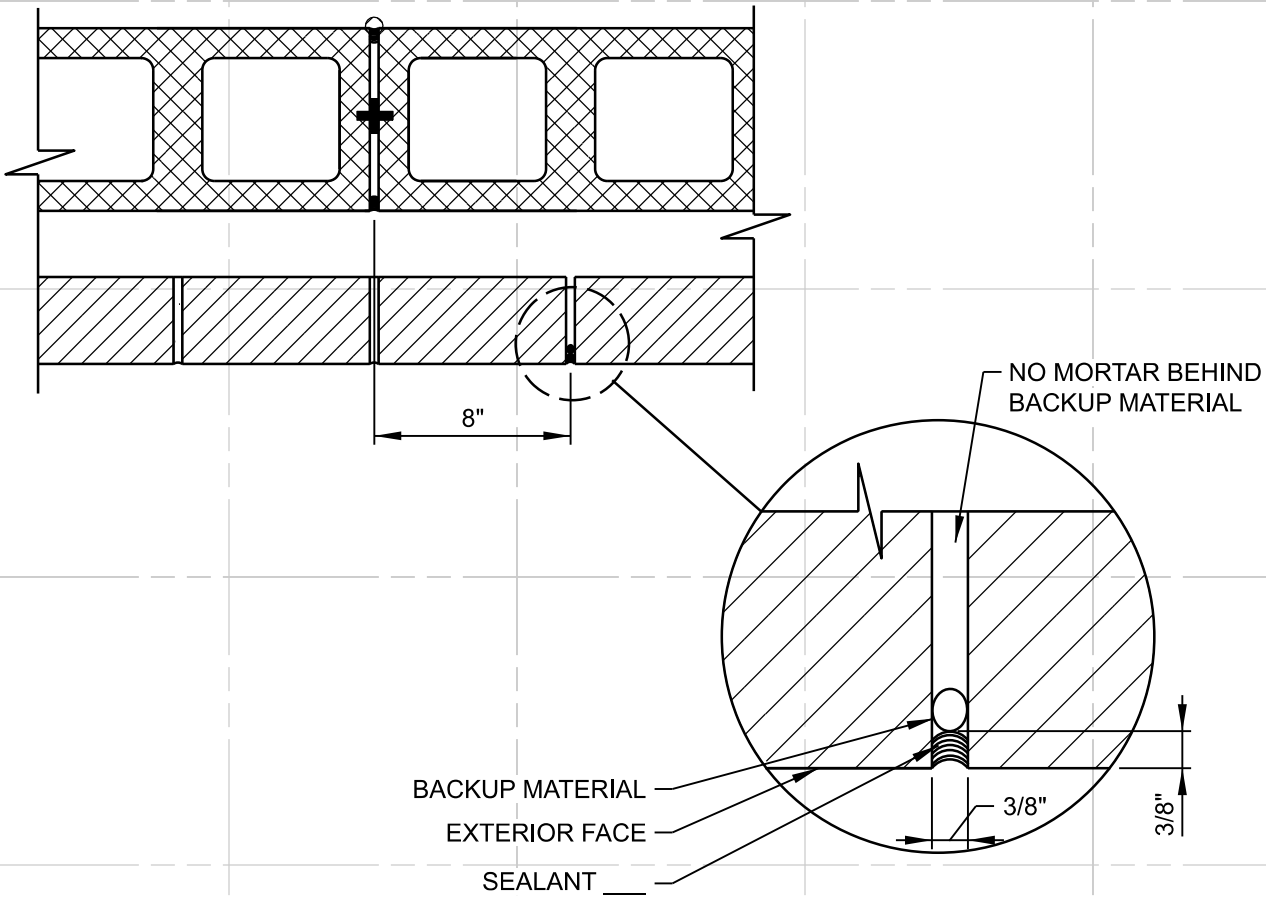


NOTE:
FOOTINGS WILL BE ON 4'-0" MIN ENGINEERED FILL OR EXCAVATION WILL BE 4'-0" BELOW EXISTING GRADE AND BACKFILLED WITH ENGINEERED FILL AS SHOWN.

A1

DETAIL: FOOTING EXCAVATION

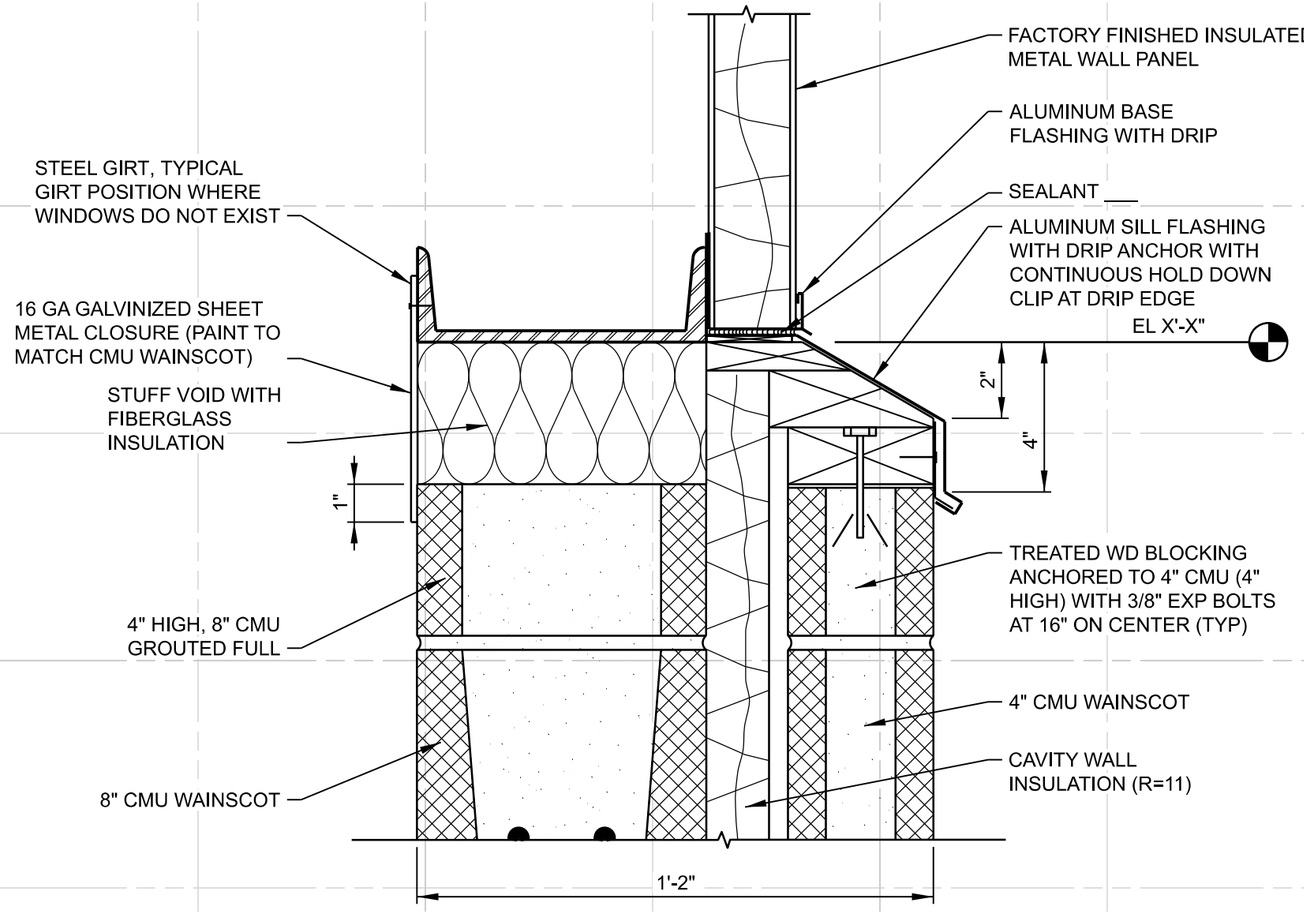
SCALE: NTS



A1

DETAIL: SEALANT JOINT

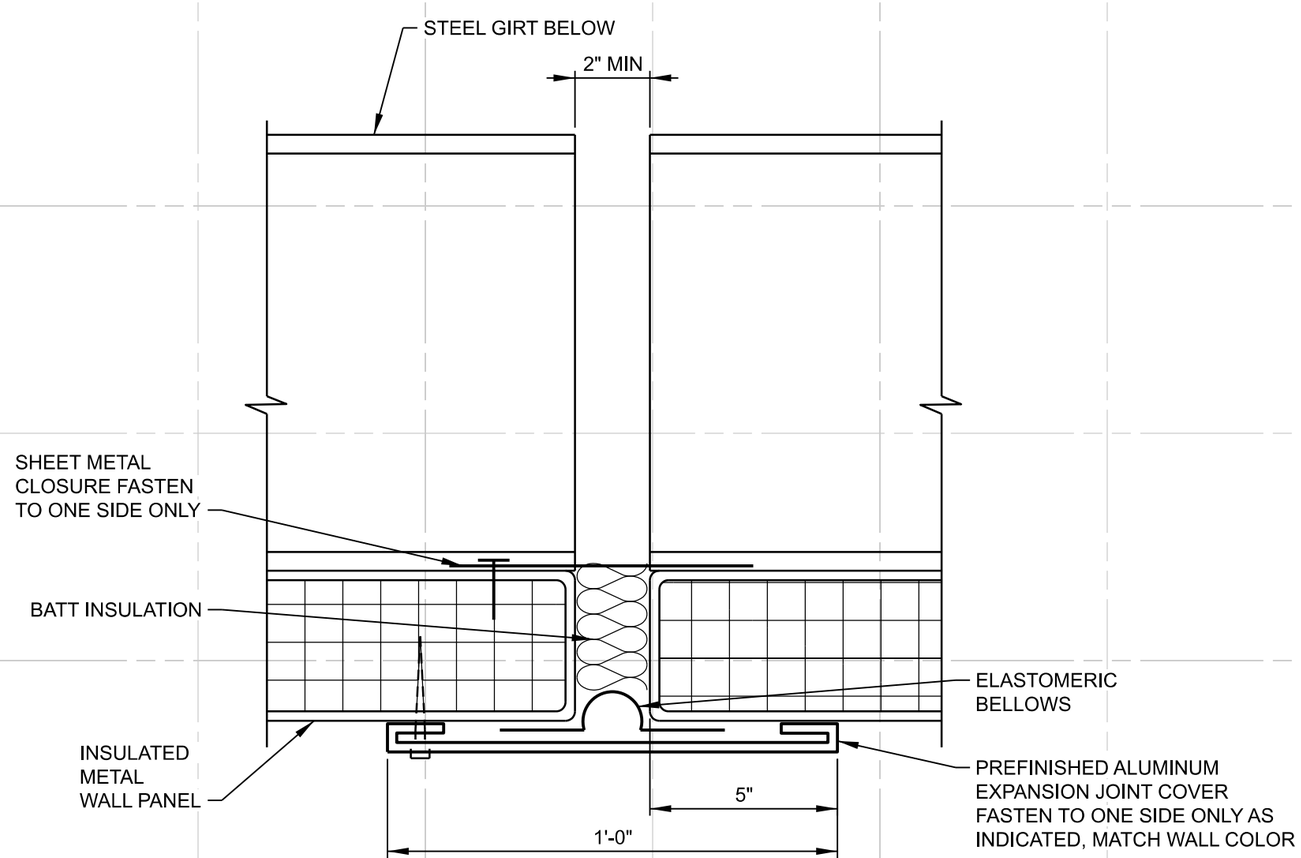
SCALE: NTS



DETAIL: METAL WALL PANEL TO CMU WAINSCOT CONNECTION

A1

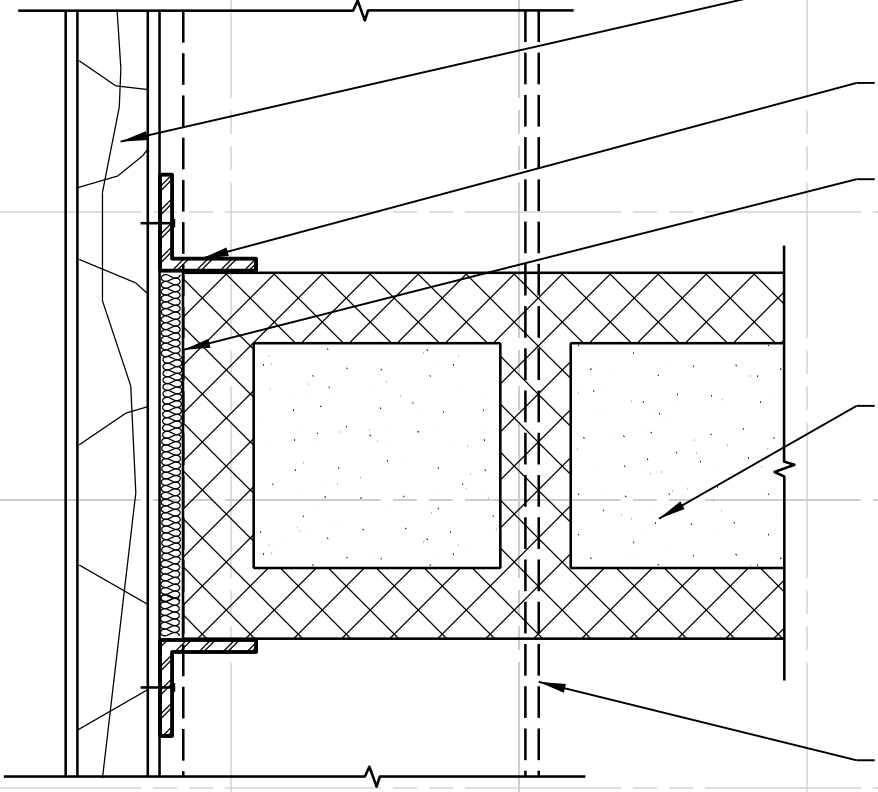
SCALE: NTS



A1 DETAIL: WALL PANEL EXPANSION JOINT

SCALE: NTS

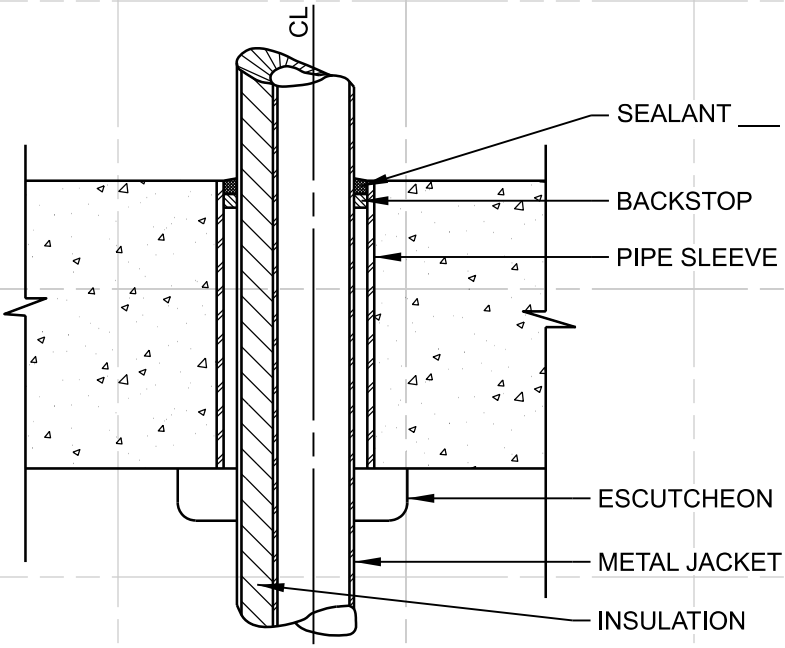
Detail B2010A-DT004X



A1

DETAIL: CMU TO METAL WALL PANEL CONNECTION

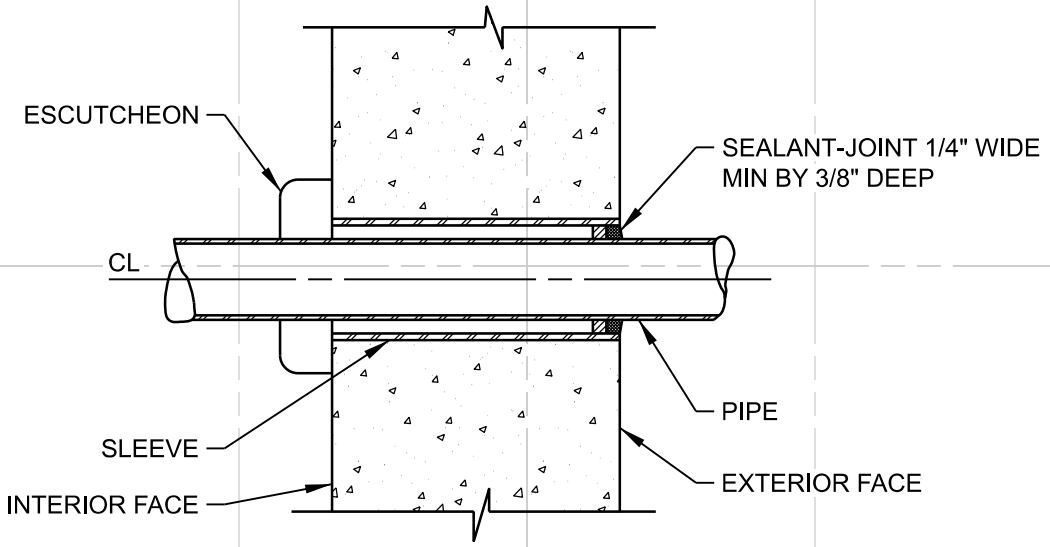
SCALE: NTS



A1

DETAIL: INSULATED PIPE SEALANT JOINT

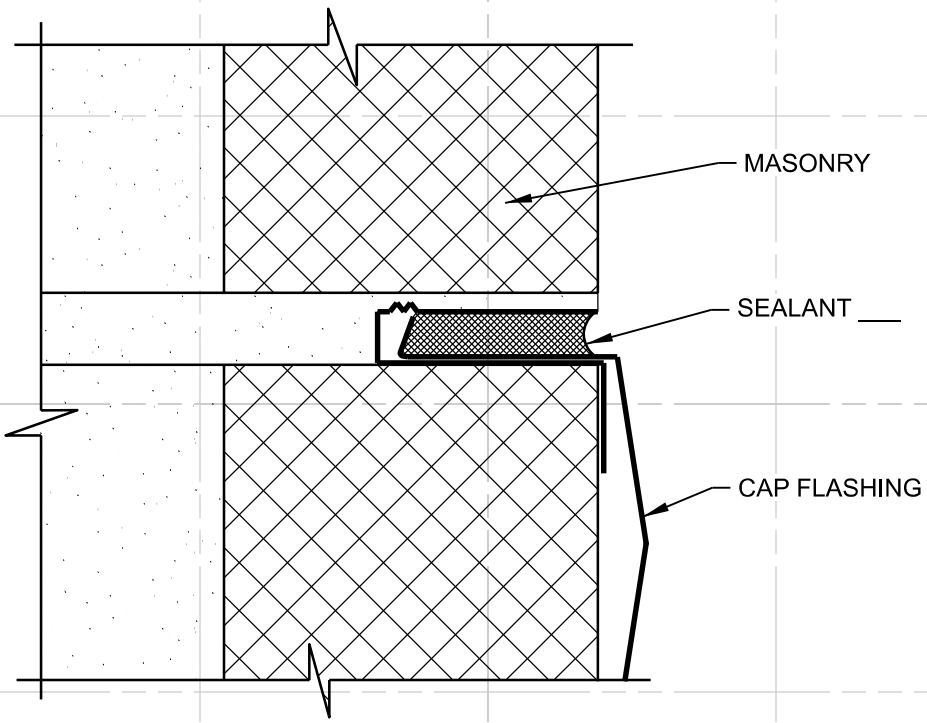
SCALE: NTS



A1

DETAIL: PIPE SEALANT JOINT

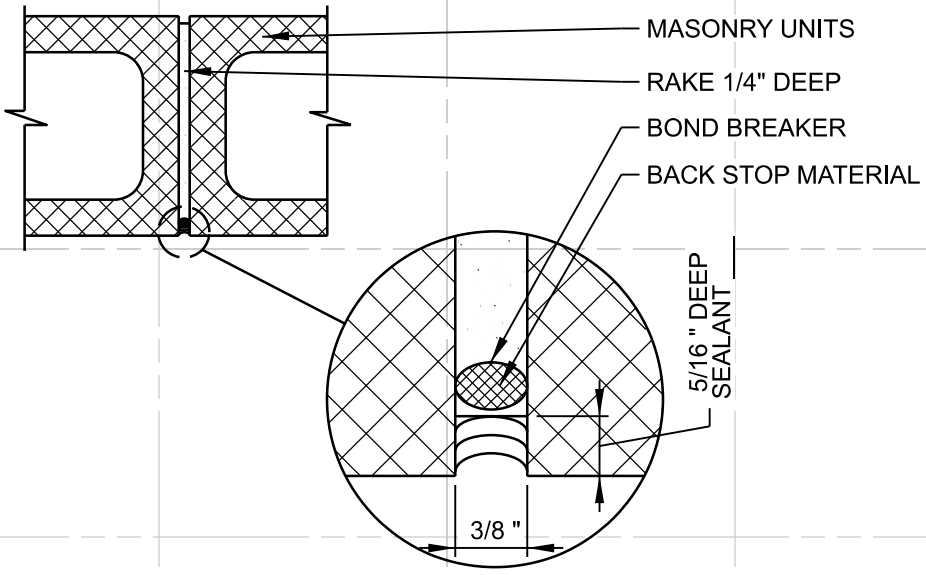
SCALE: NTS



A1

DETAIL: CAP FLASHING SEALANT JOINT

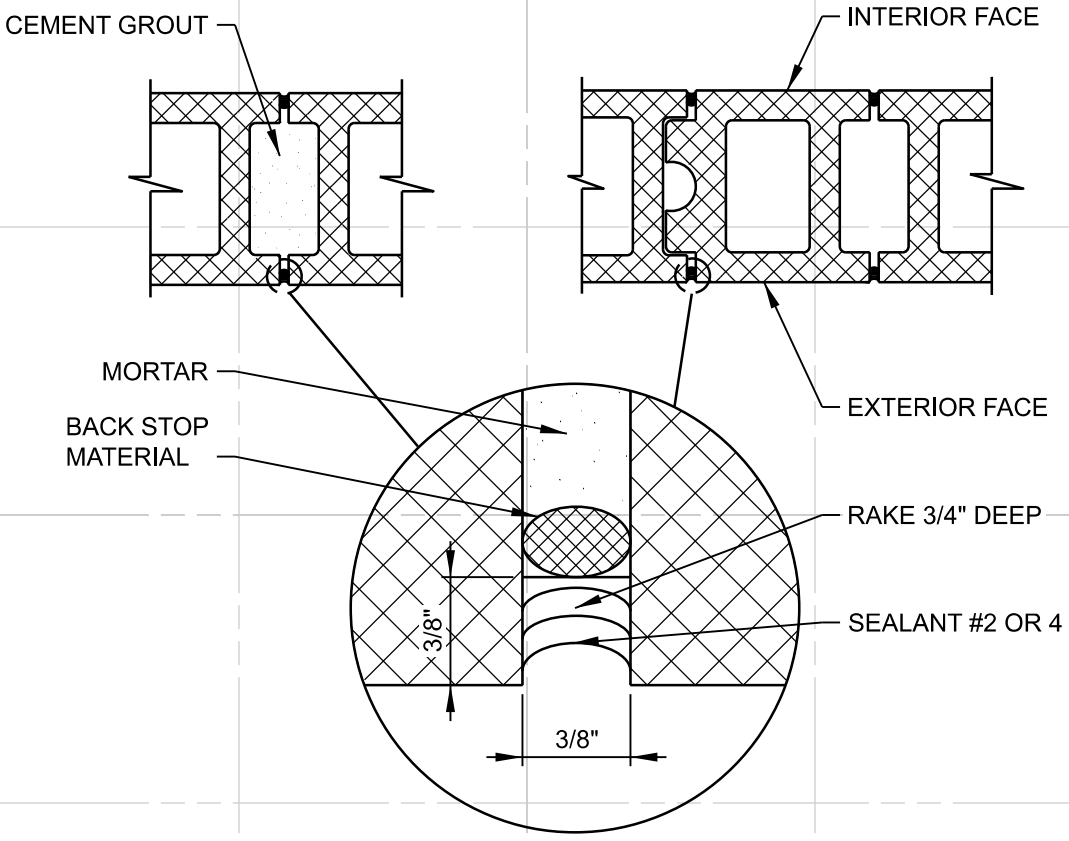
SCALE: NTS



A1

DETAIL: MASONRY SEALANT JOINT

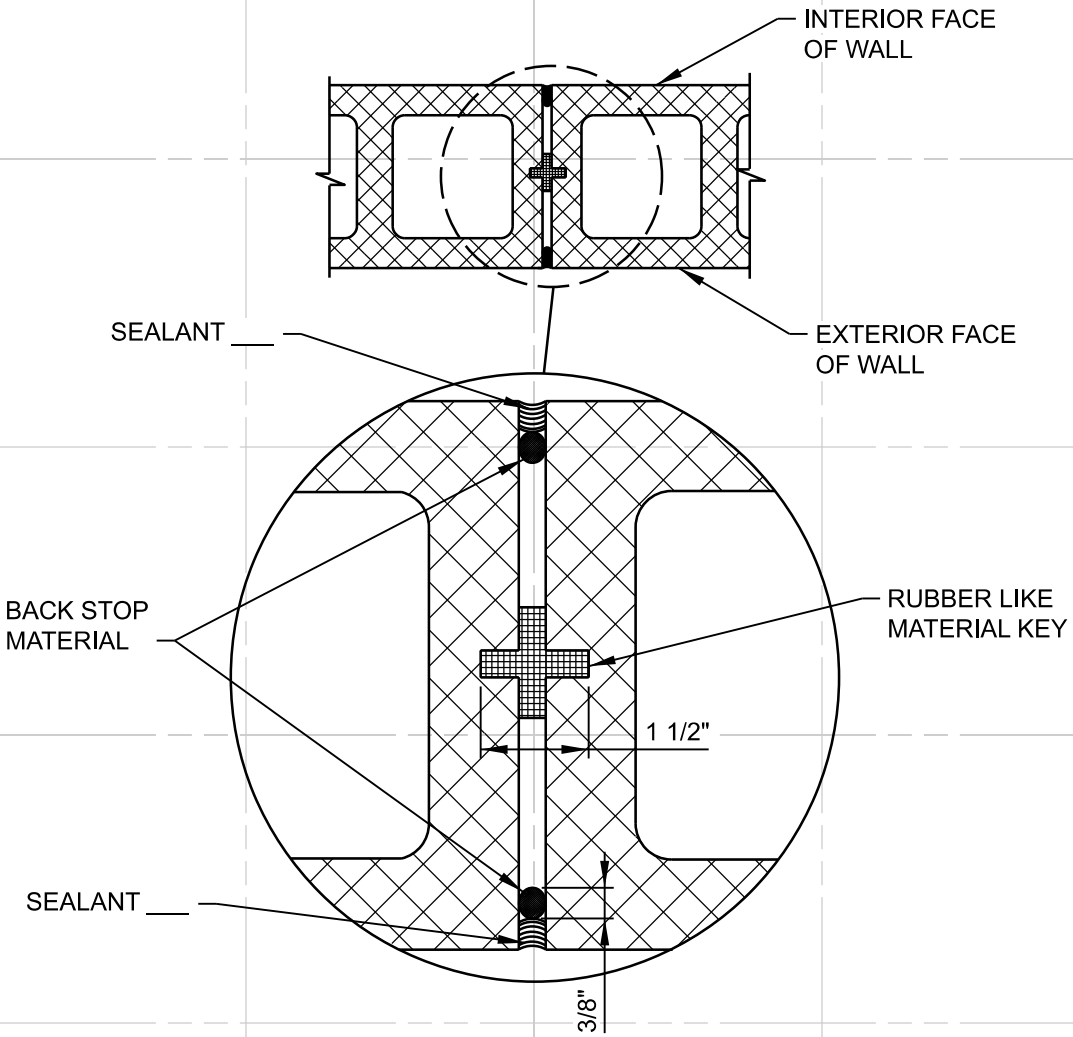
SCALE: NTS



A1

DETAIL: SEALANT JOINT MJA

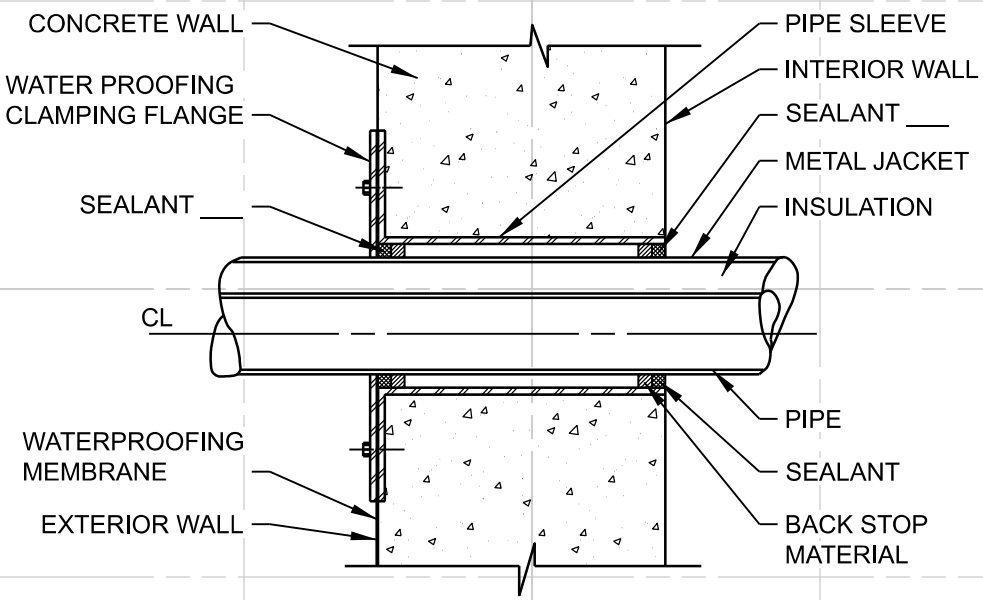
SCALE: NTS



A1

DETAIL: SEALANT JOINT

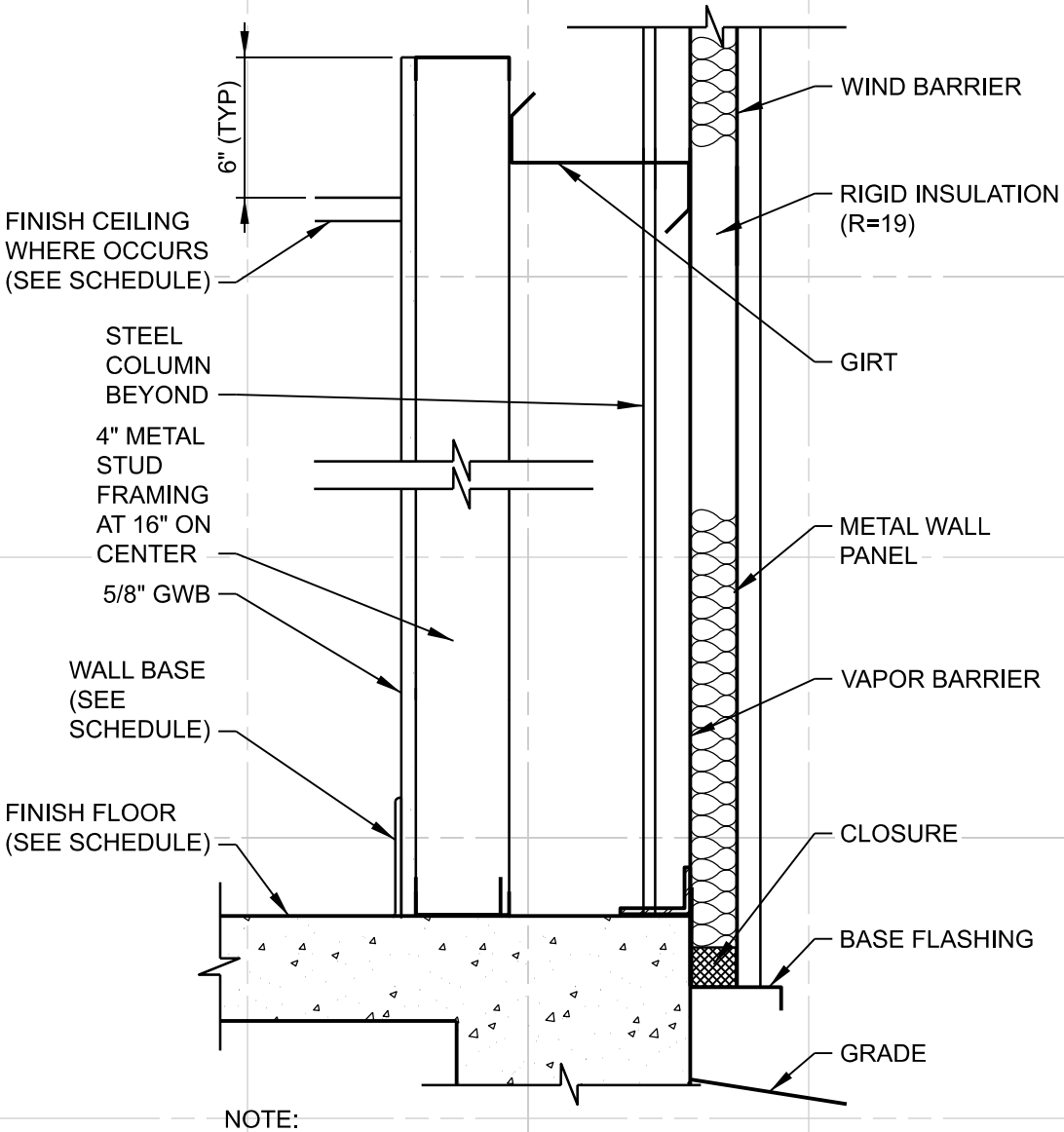
SCALE: NTS



A1

DETAIL: WATERPROOF PIPE SEALANT JOINT

SCALE: NTS

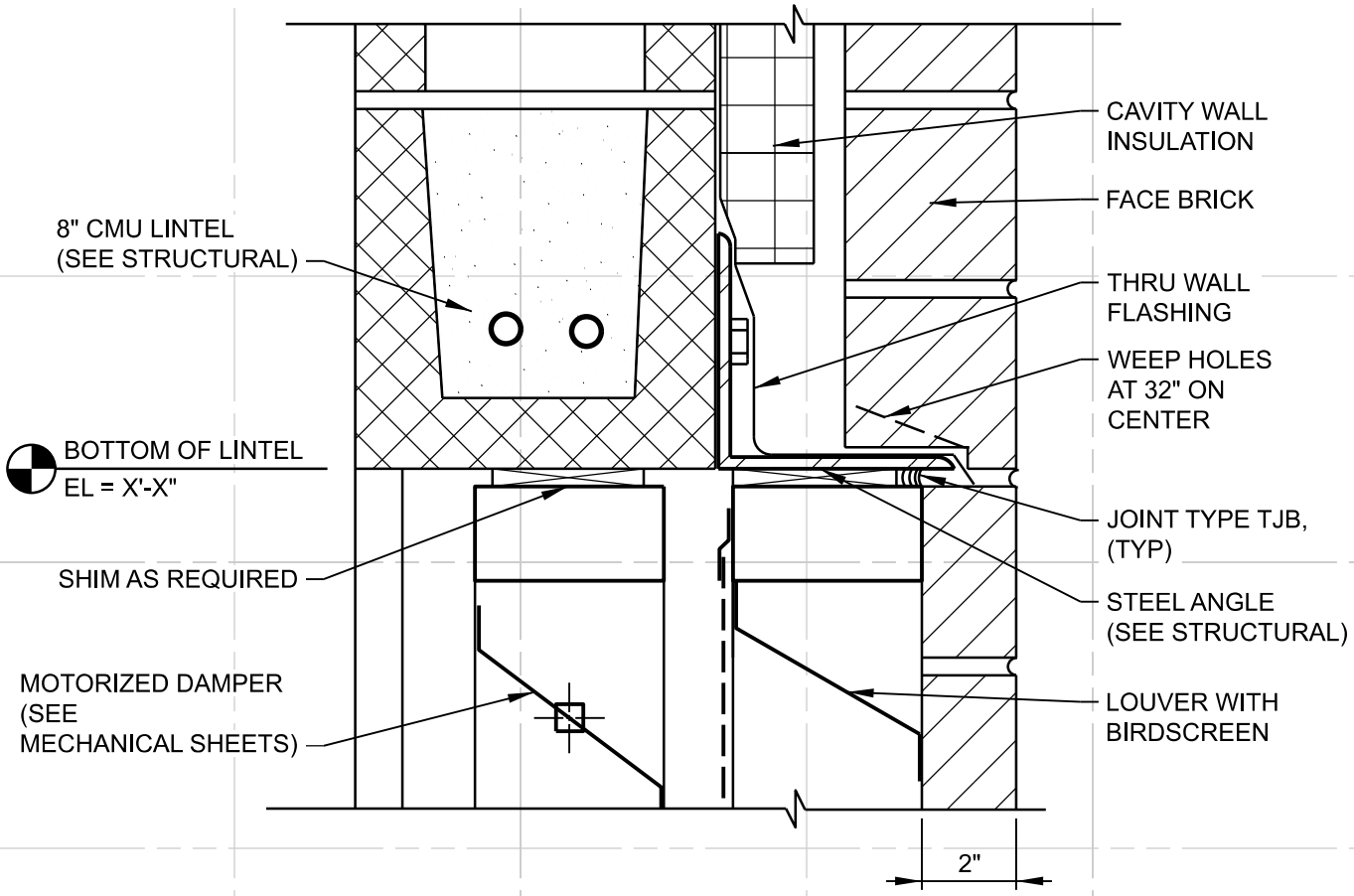


NOTE:
METAL WALL PANEL EXTERIOR
GYPSUM WALL BOARD ONE SIDE

A1

DETAIL: METAL STUD PARTITION

SCALE: 1-1/2" = 1' 0 6" 1' 2'



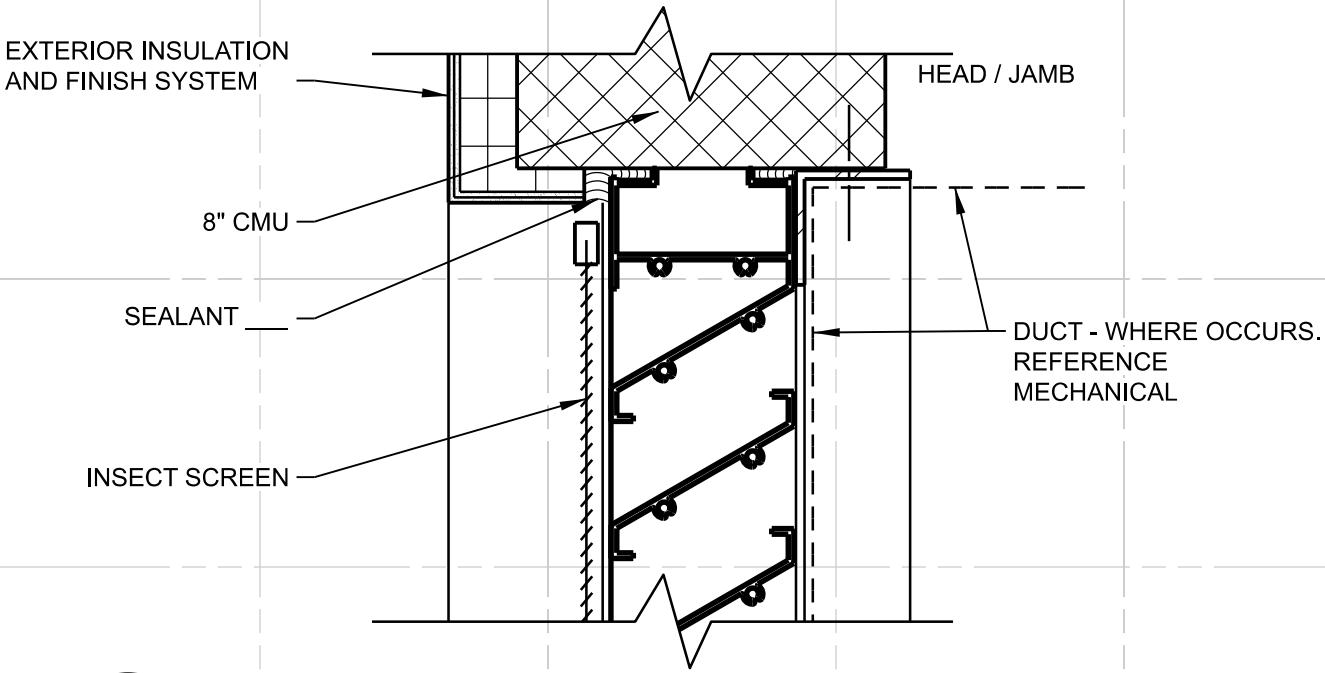
A1

DETAIL: LOUVER HEAD

SCALE: 3" = 1'-O"

0 3" 6" 1'

Detail B2016A-DT001X



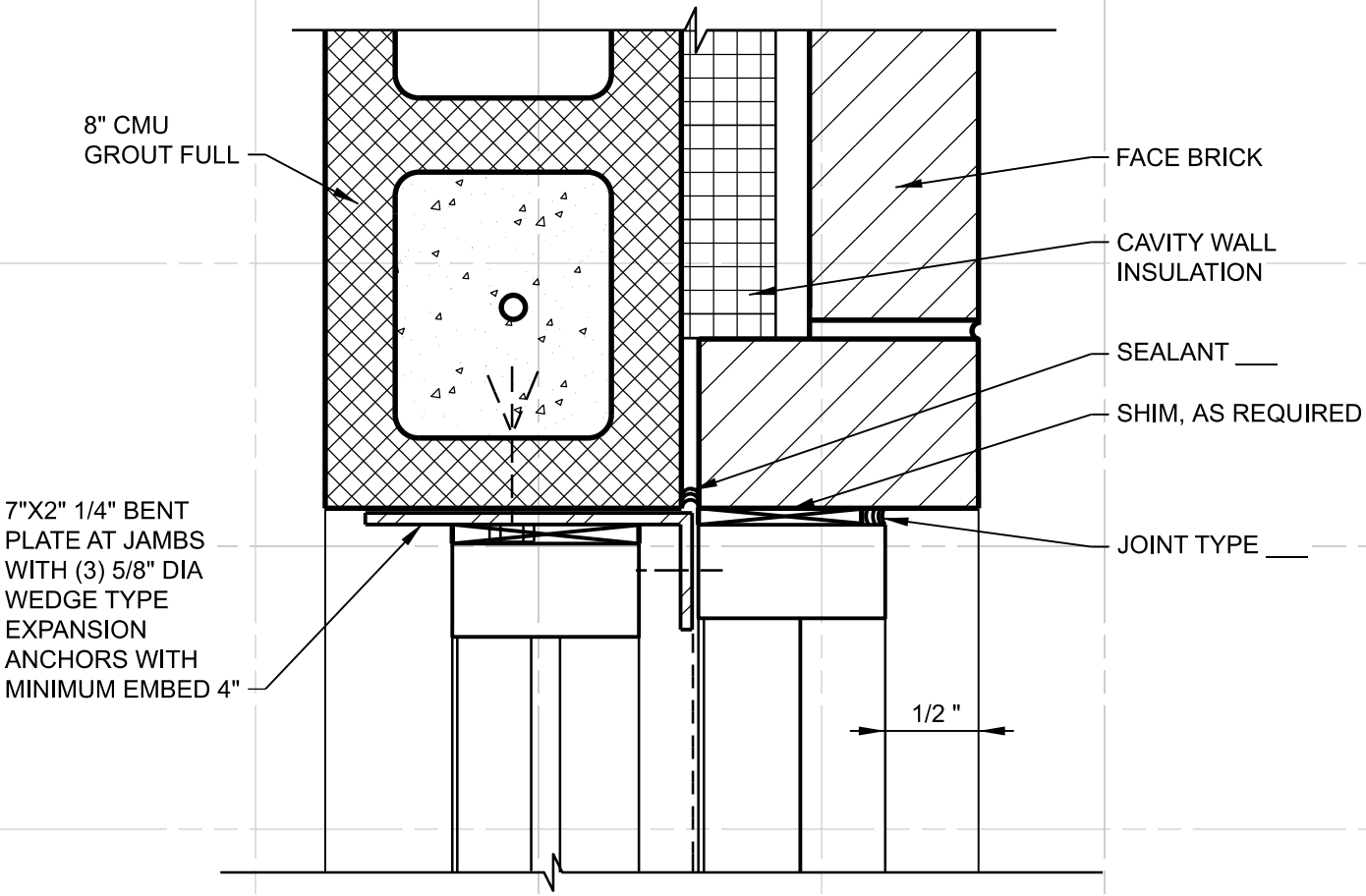
A1

DETAIL: LOUVER

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2016A-DT002X



A1

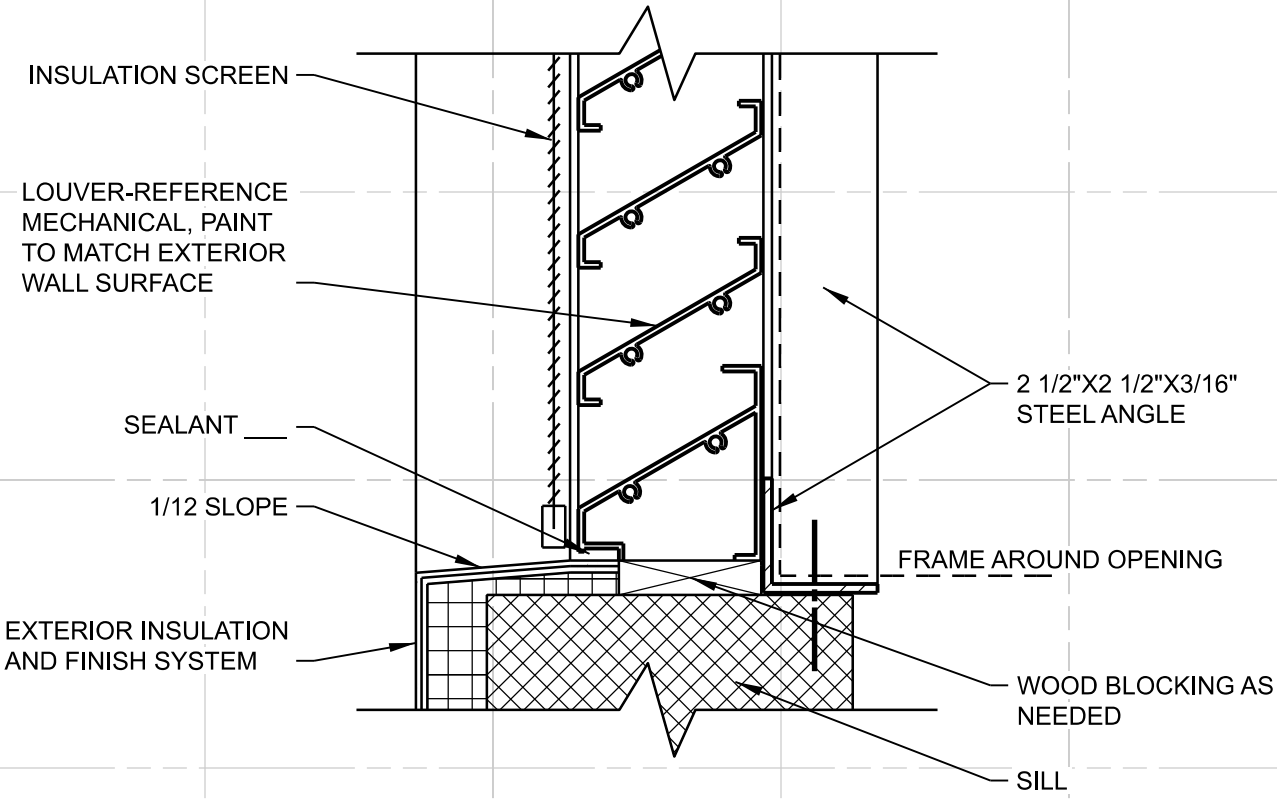
DETAIL: LOUVER JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2016A-DT004X

Details-US-Architectural-B201-ExteriorWalls

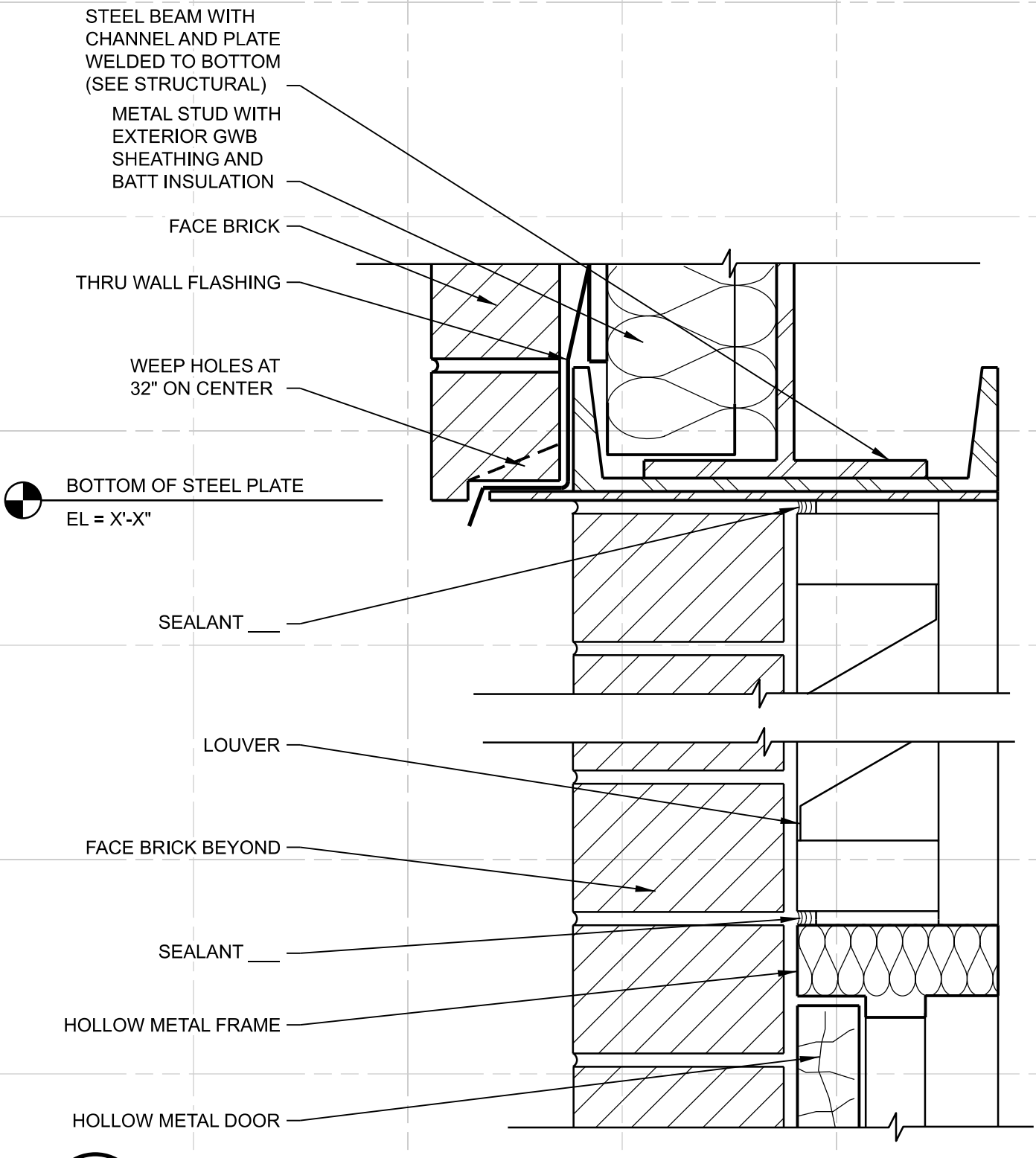


A1

DETAIL: LOUVER

SCALE: 3"=1'-0"

0 3" 6" 1'

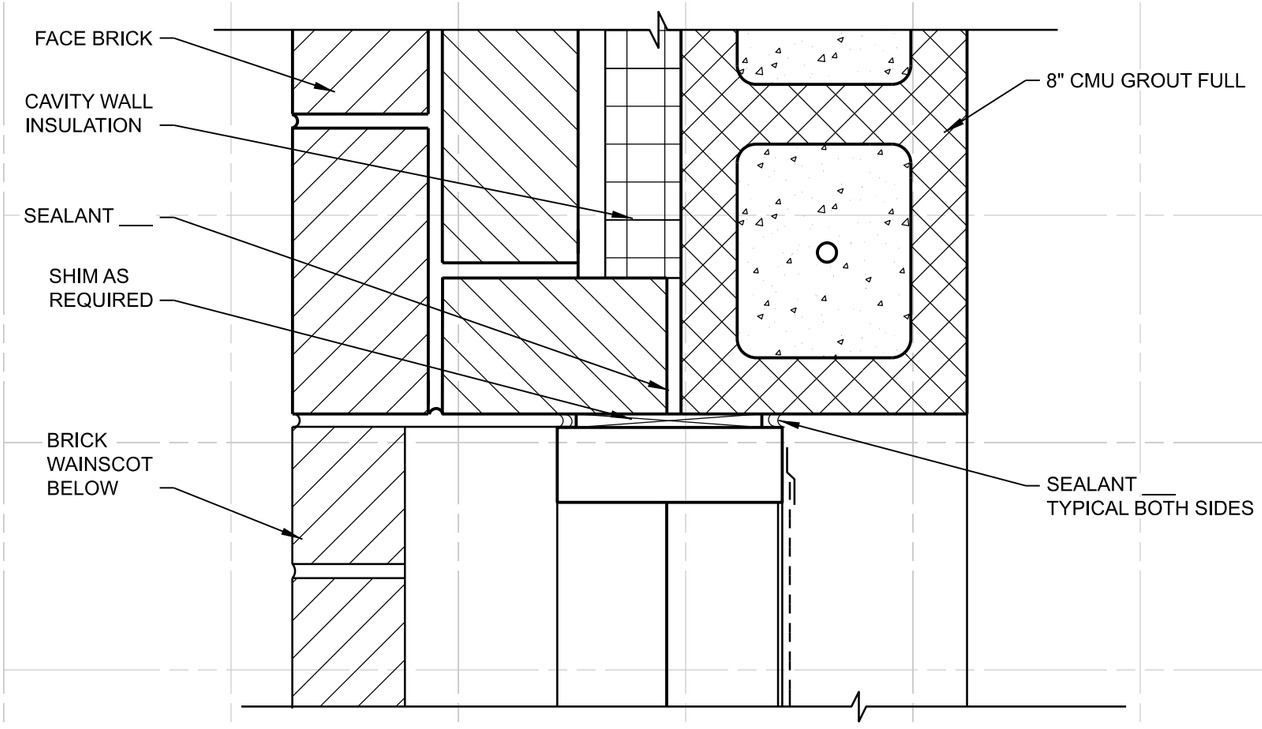


A1 DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2016A-DT006X

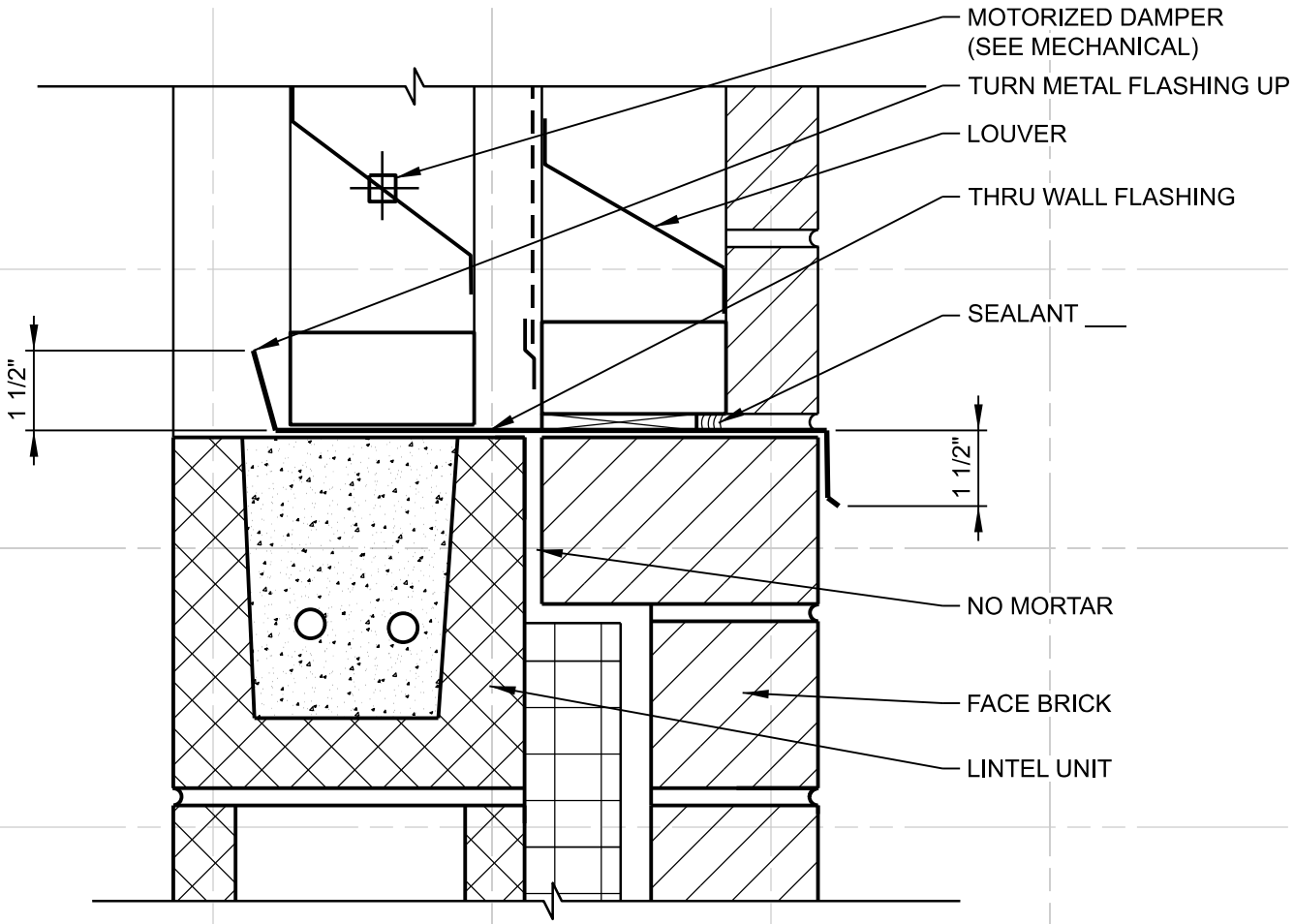


A1 DETAIL: LOUVER JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2016A-DT007X

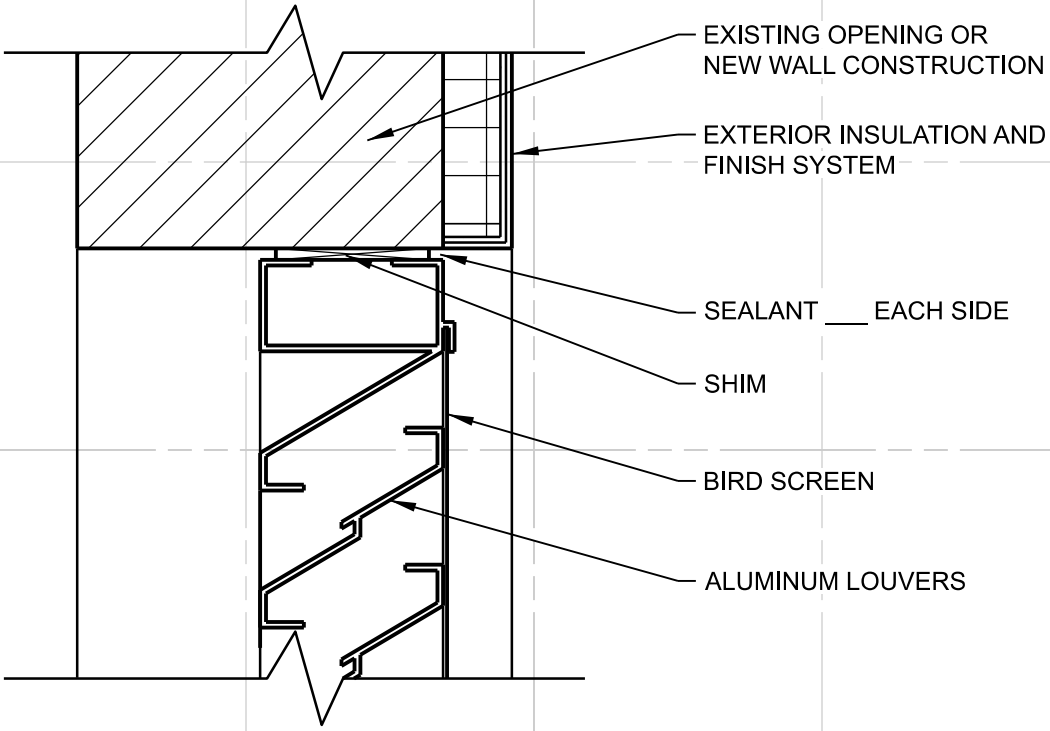


A1

DETAIL: LOUVER SILL

SCALE: 3"=1'-0"

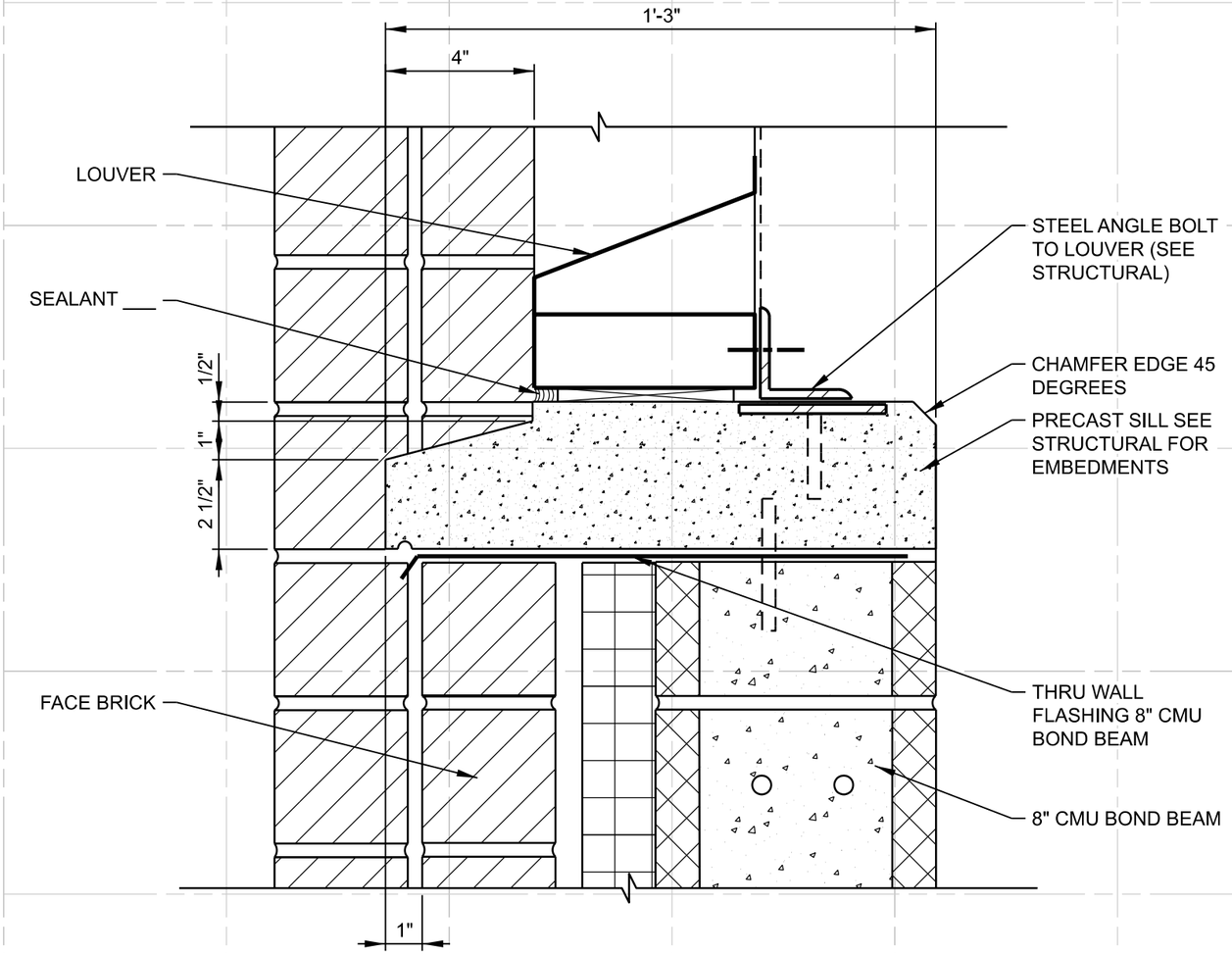
0 3" 6" 1'



A1

DETAIL: HEAD (LOUVER)

SCALE: 3"=1'-0" 0 3" 6" 1'

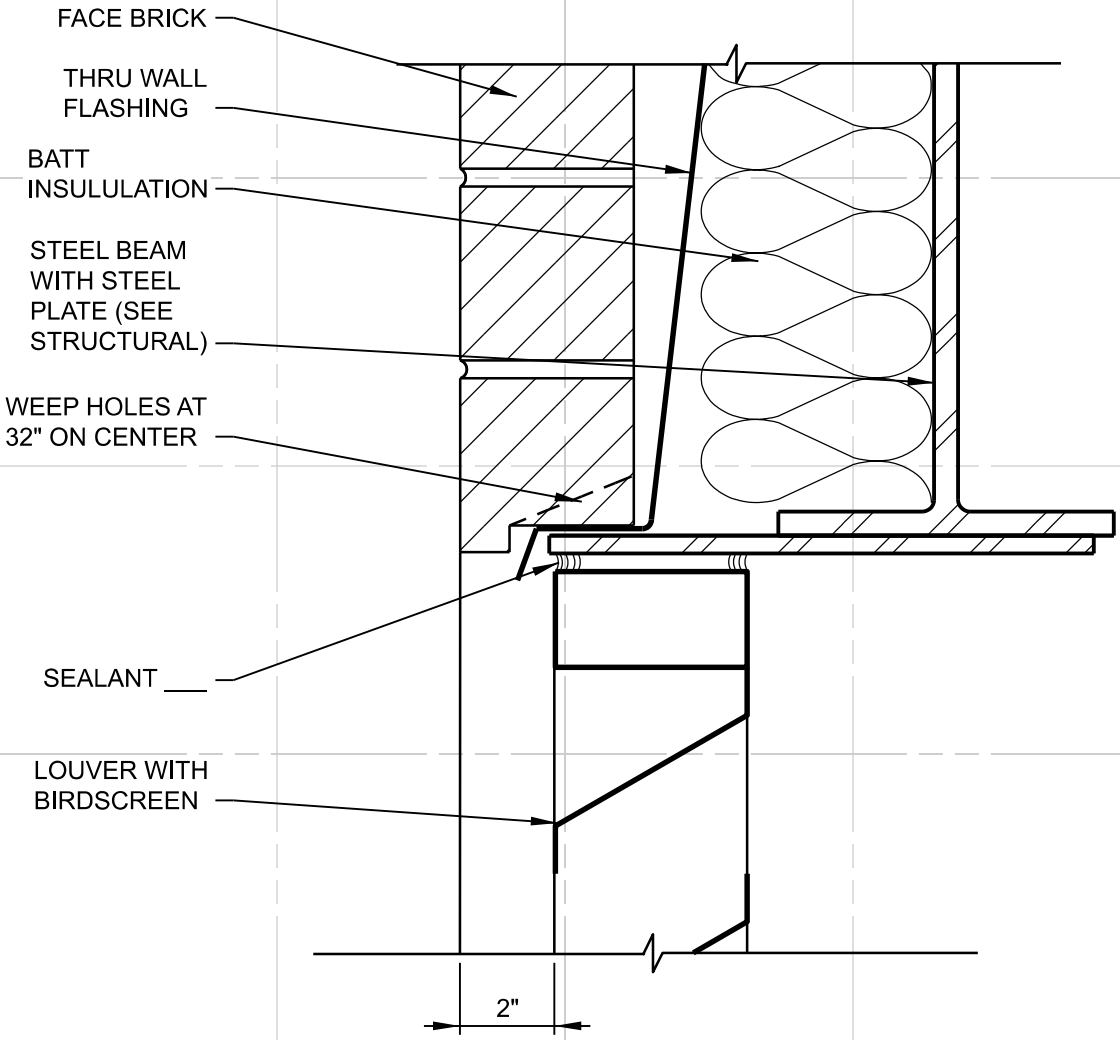


A1 DETAIL: LOUVER SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

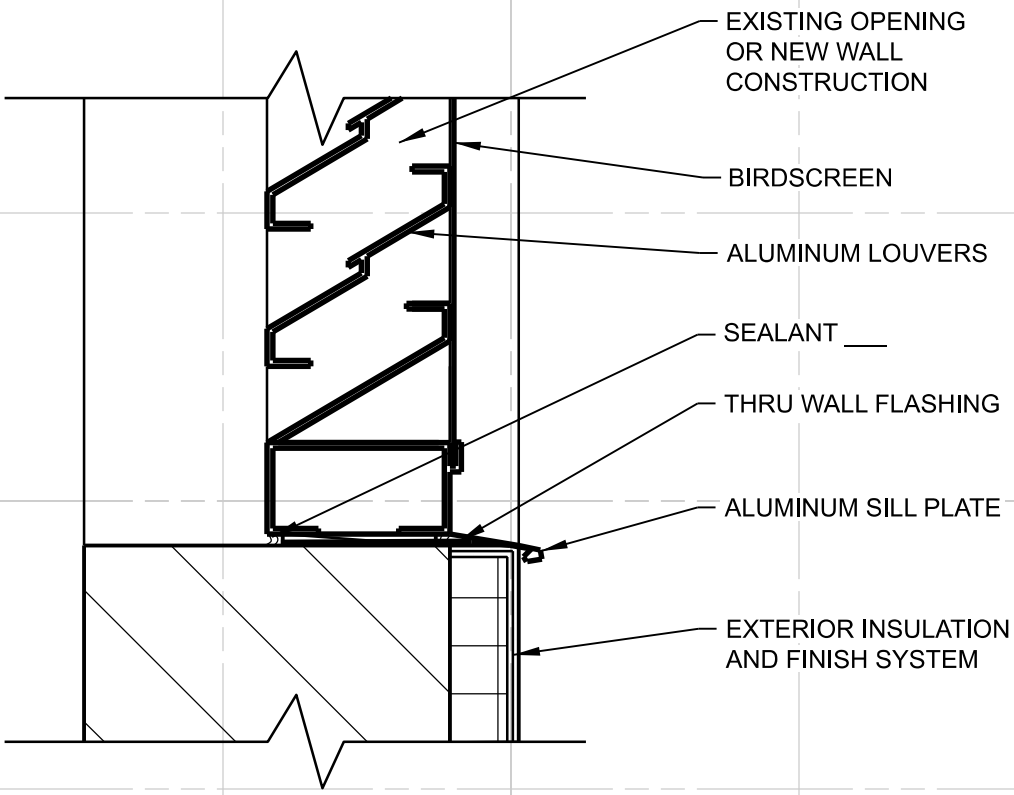
Detail B2016A-DT010X



A1 DETAIL: HEAD

SCALE: 3"=1'-0" 0 3" 6" 1'

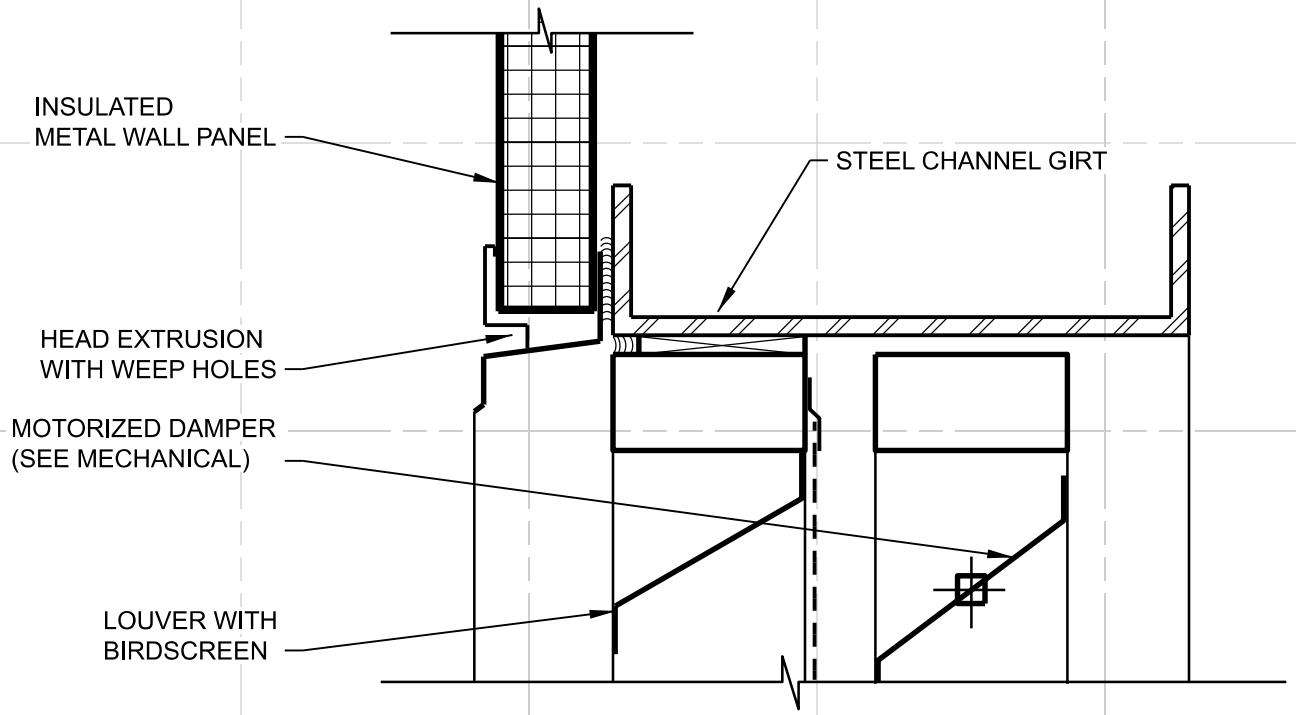
Detail B2016A-DT011X



A1

DETAIL: SILL (LOUVER)

SCALE: 3"=1'-0" 0 3" 6" 1'

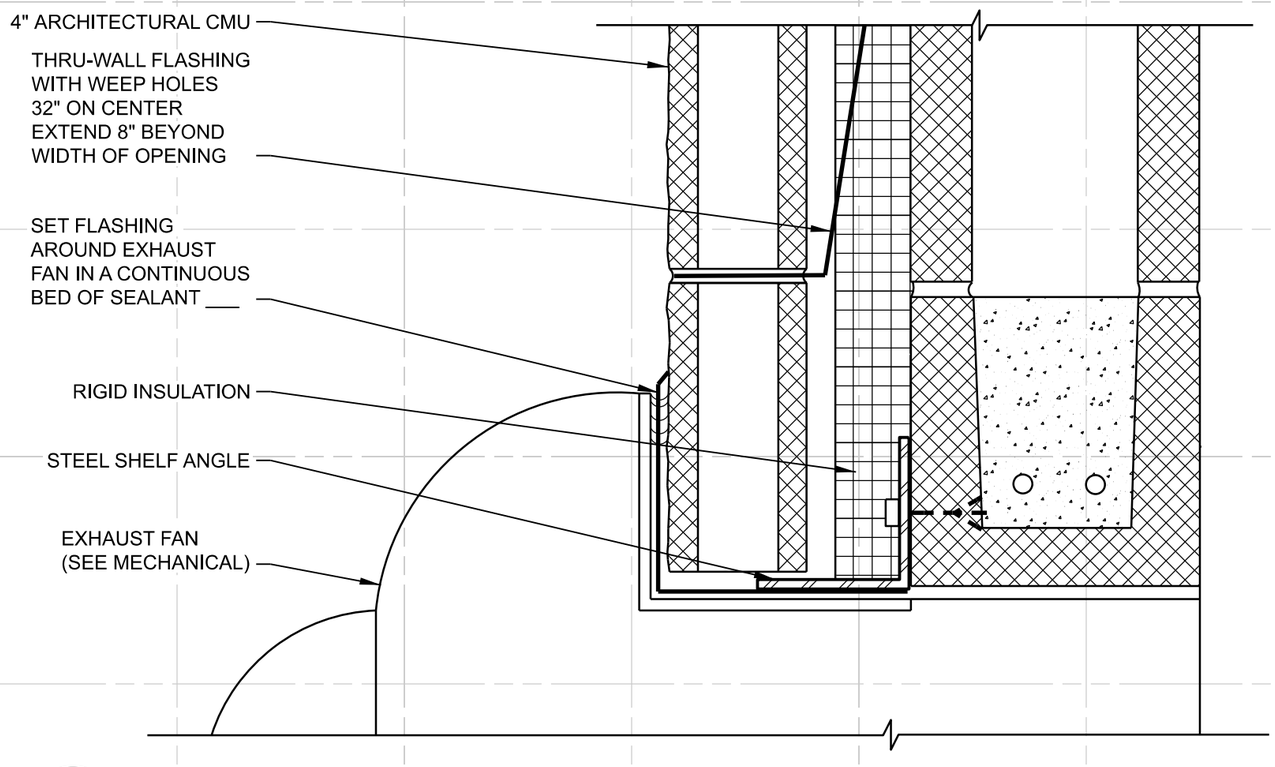


A1

DETAIL: LOUVER HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

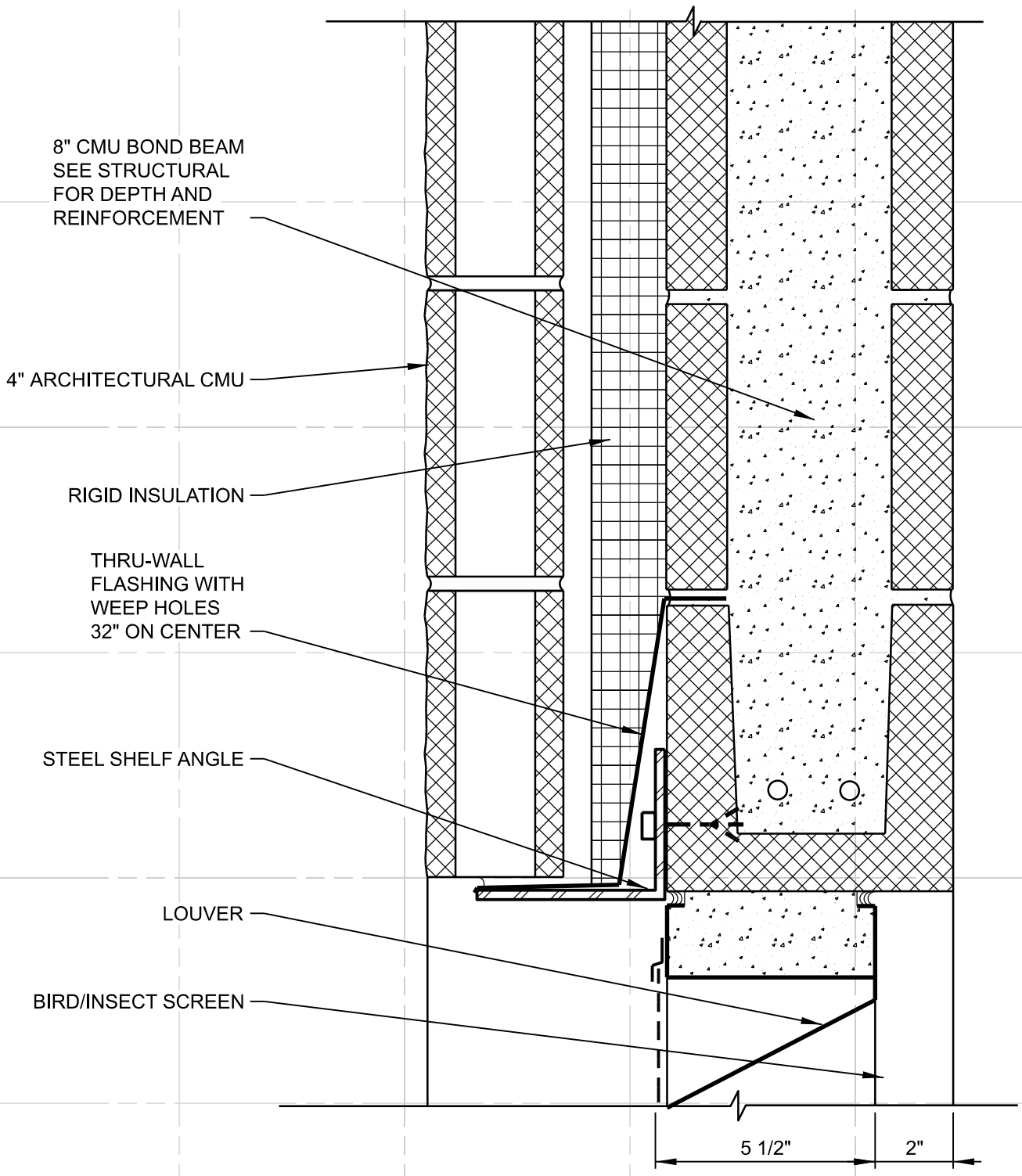


A1 DETAIL: HEAD/JAMB/SILL SIMILAR

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2016A-DT014X



A1

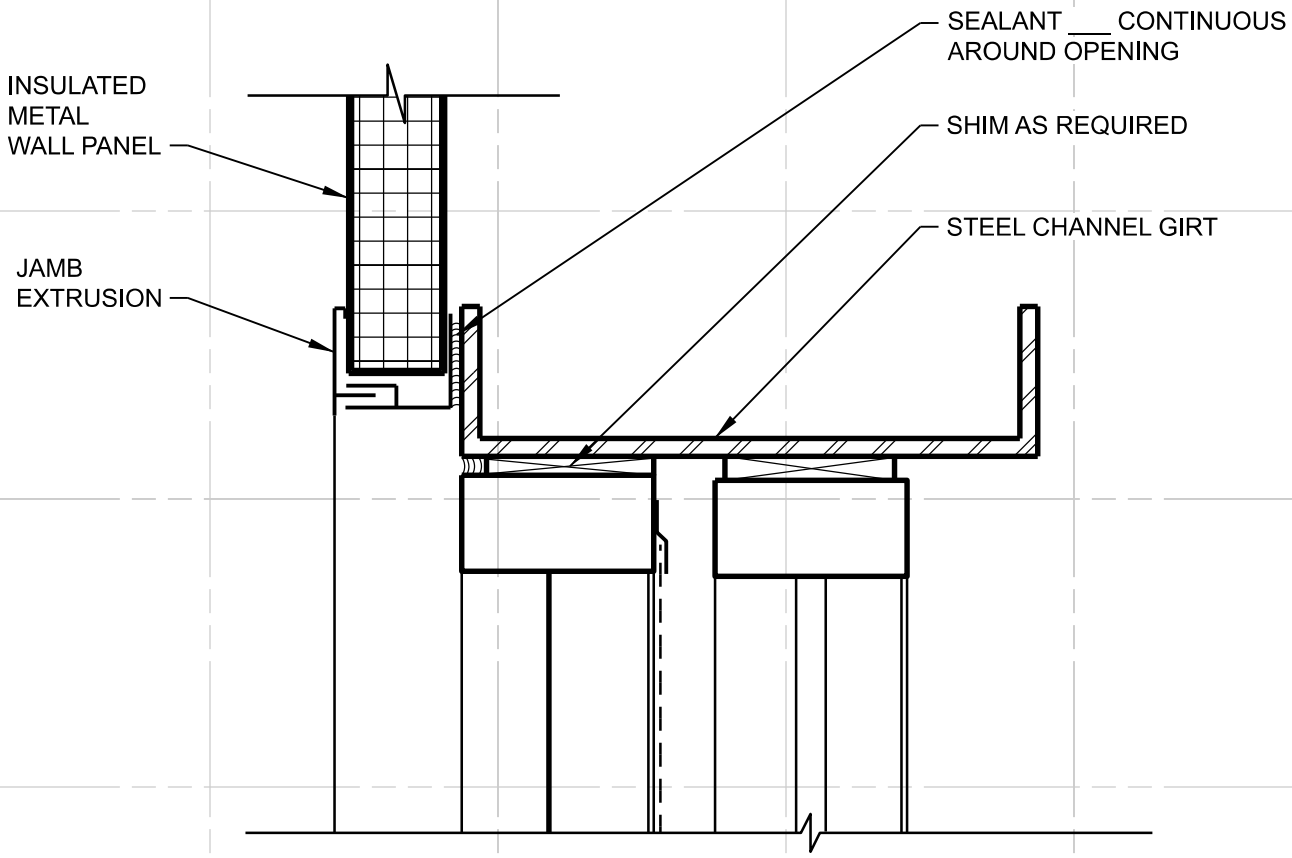
DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2016A-DT015X

Details-US-Architectural-B201-ExteriorWalls



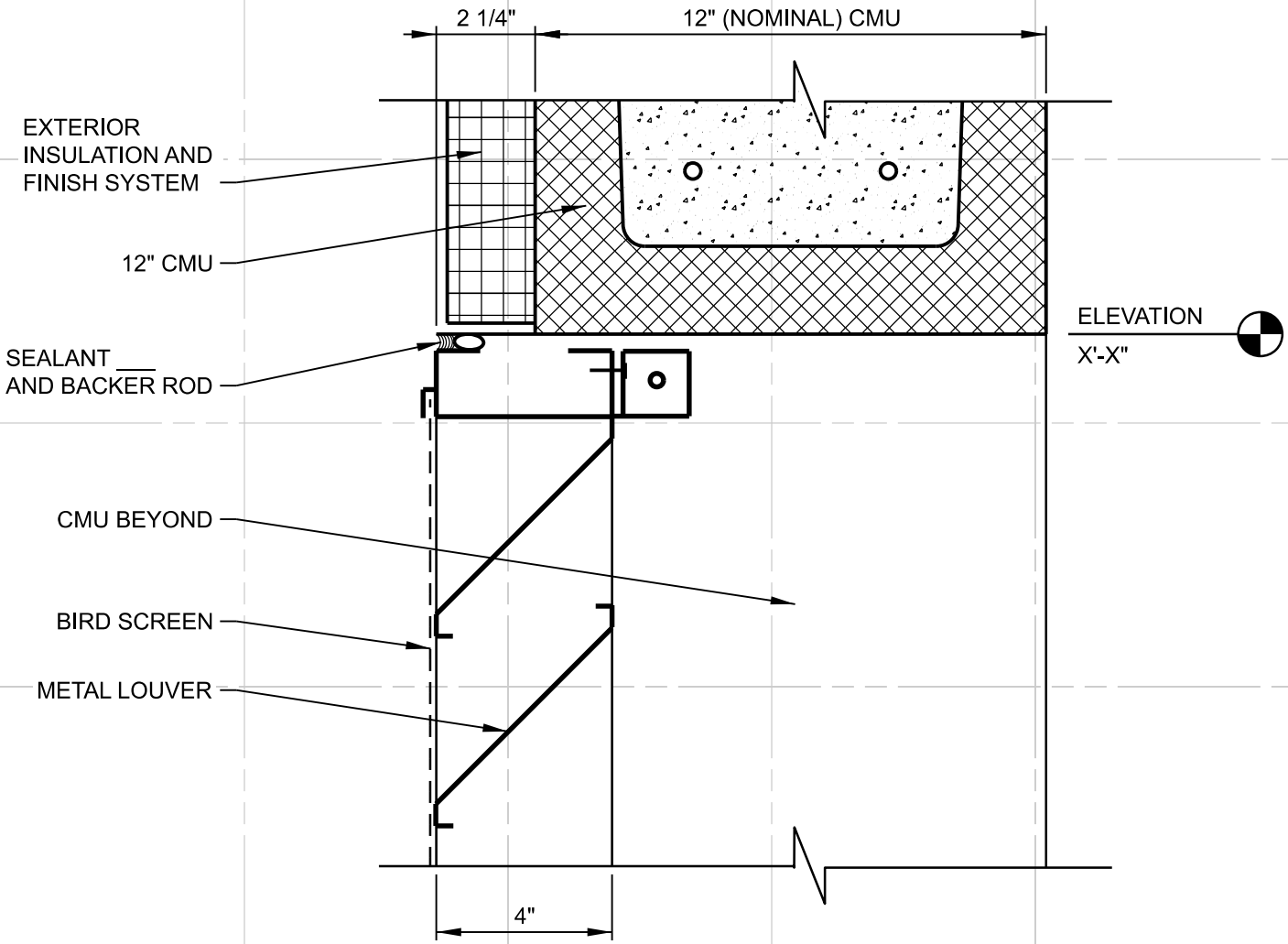
A1

DETAIL: LOUVER JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2016A-DT016X



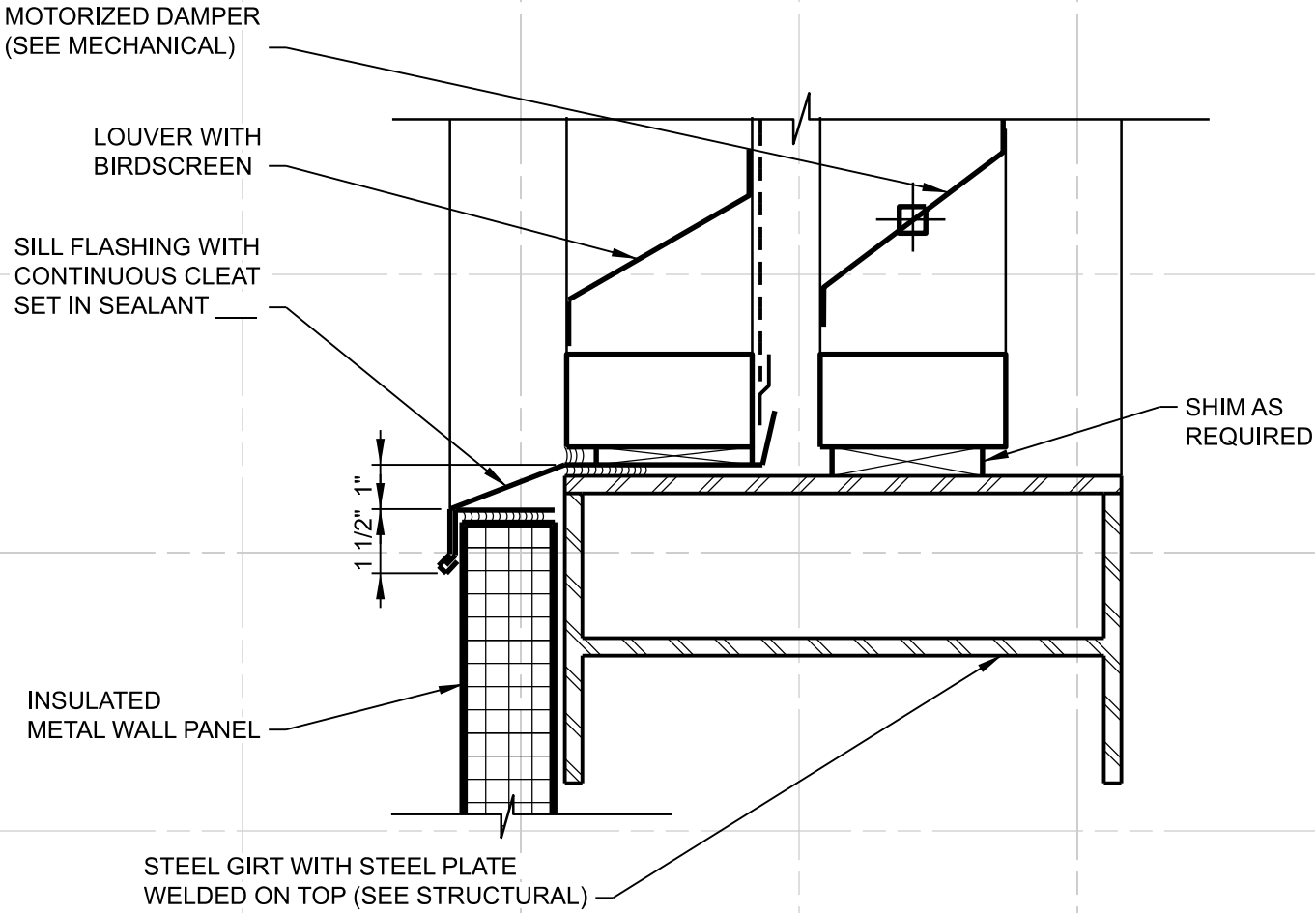
A1

DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2016A-DT017X



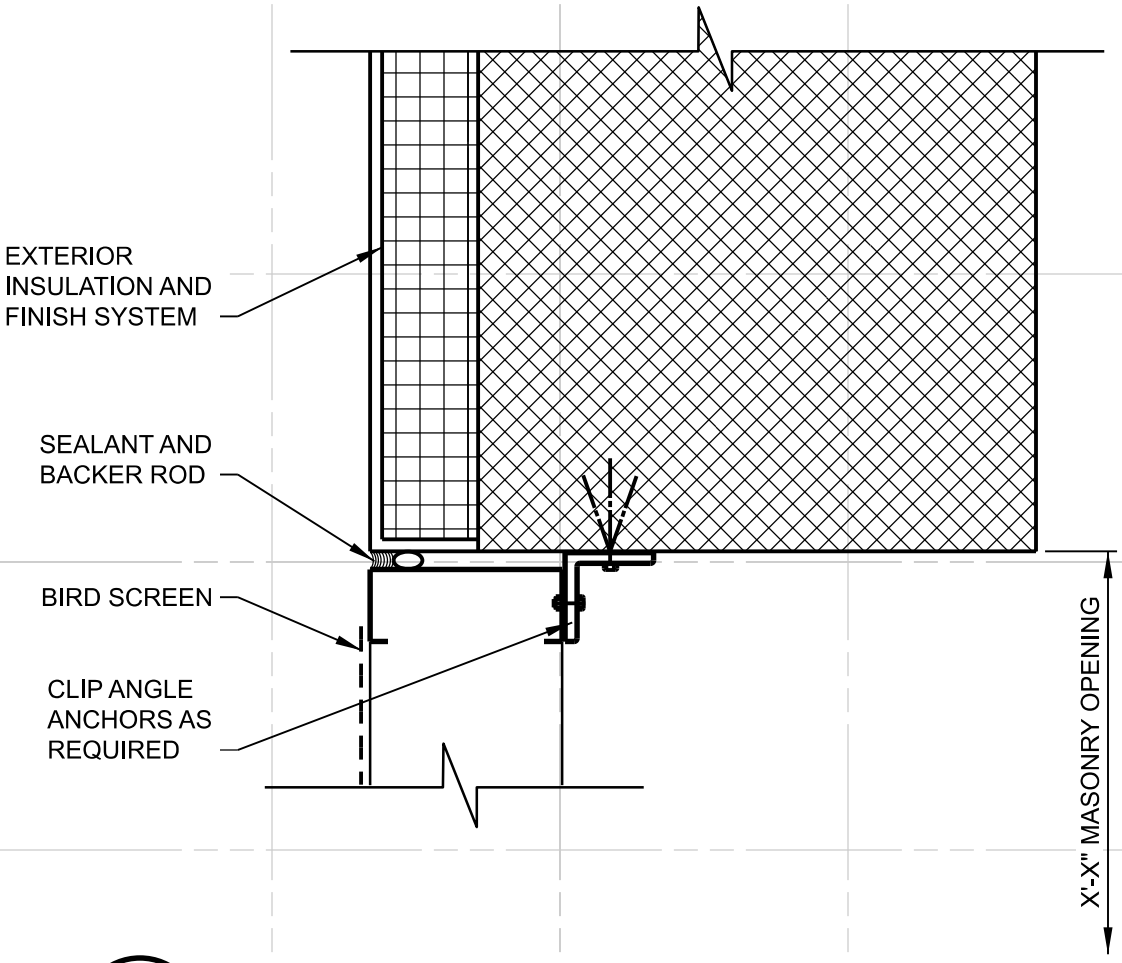
A1

DETAIL: LOUVER SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2016A-DT018X



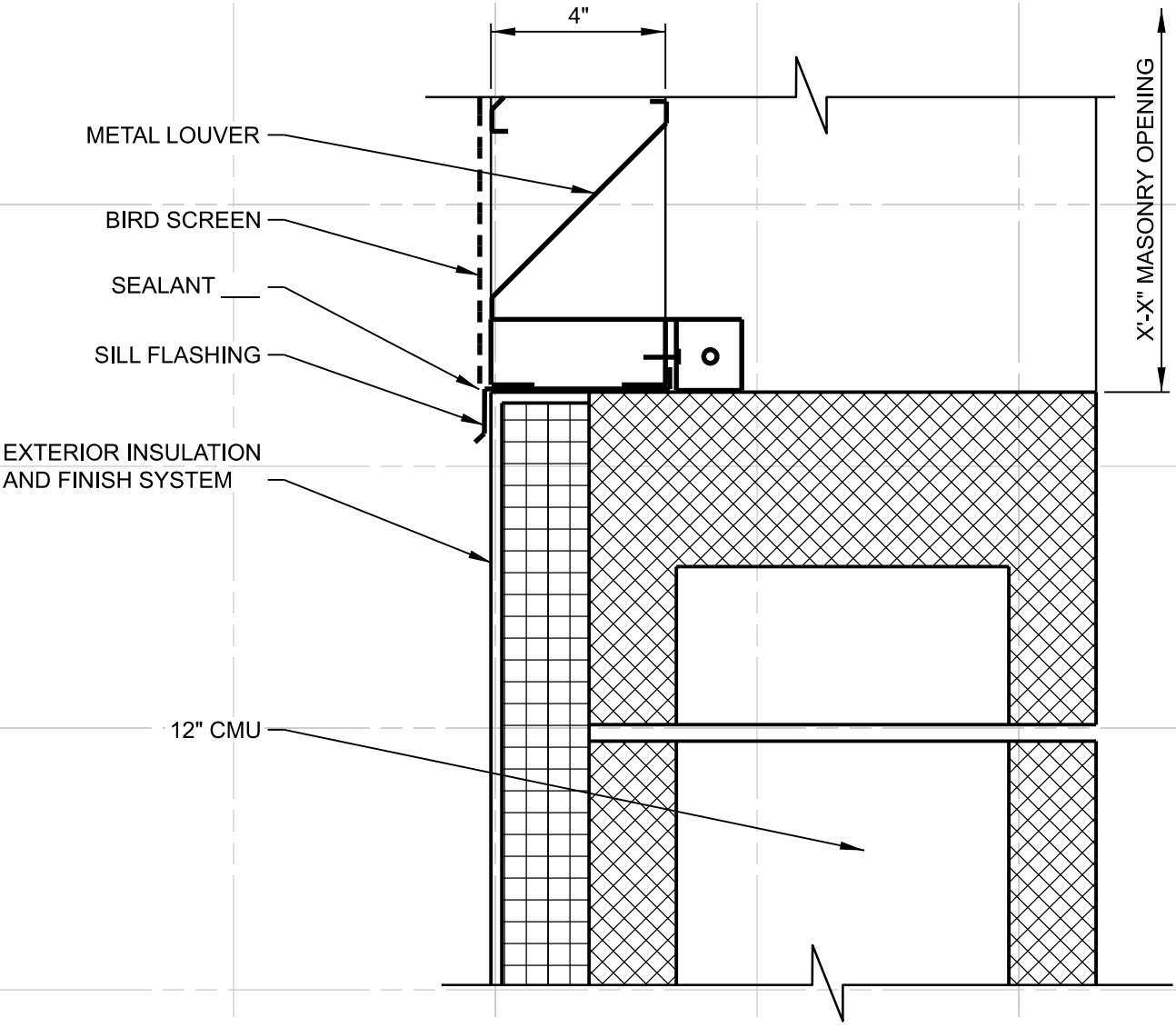
A1

DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2016A-DT019X



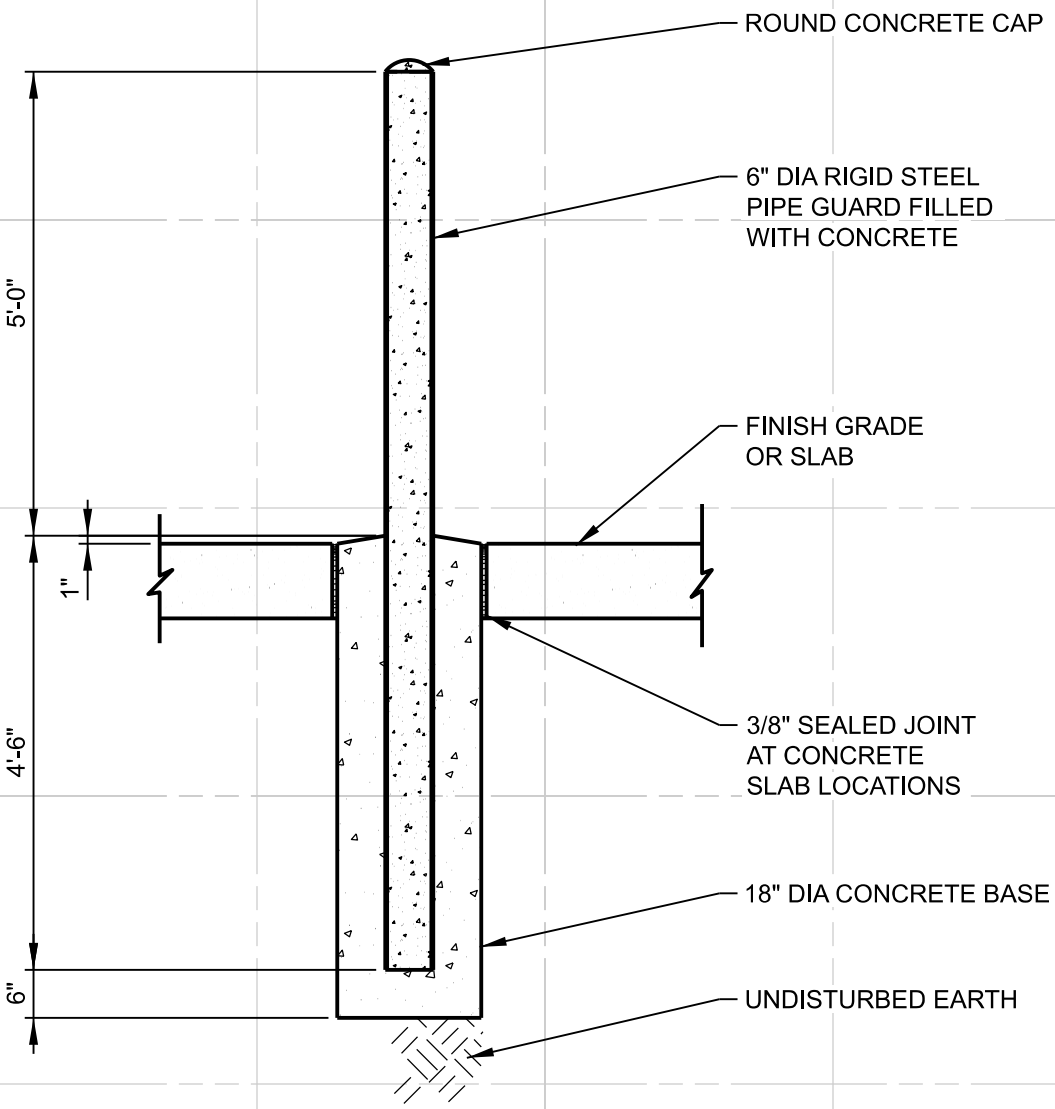
A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2016A-DT020X

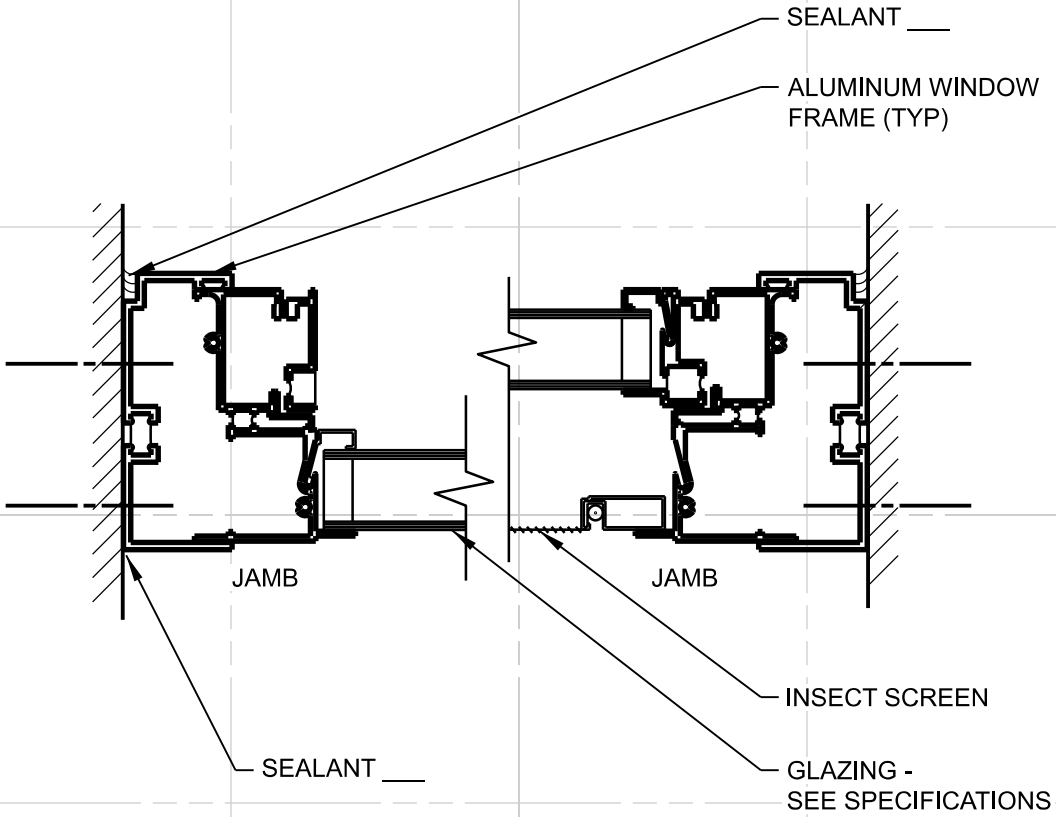


A1

DETAIL: PIPE GUARD DETAIL (TYP)

SCALE: 1/2"=1'-0"

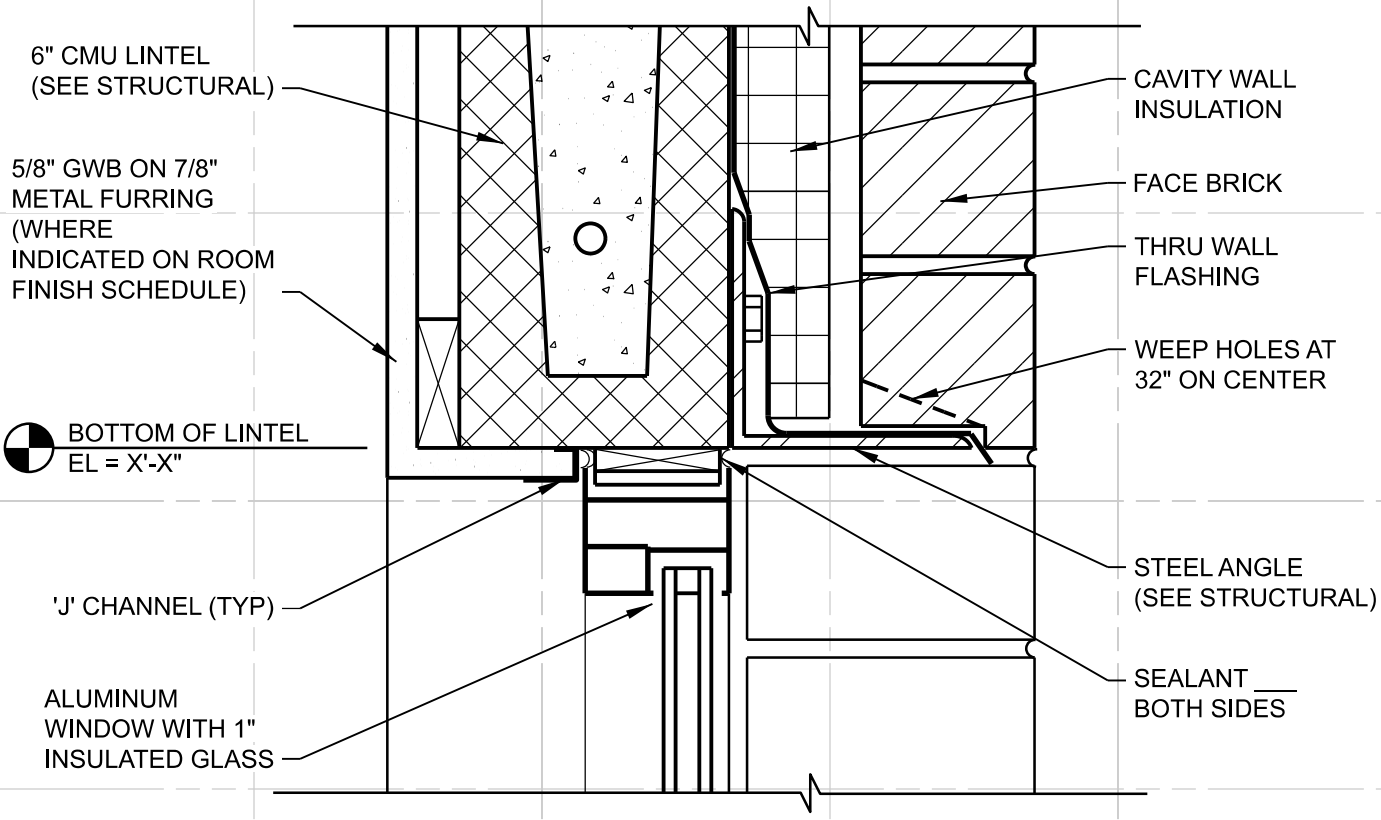
0 1' 2' 4'



A1

DETAIL: ALUMINUM WINDOW JAMB

SCALE: 3"=1'-0" 0 3" 6" 1'



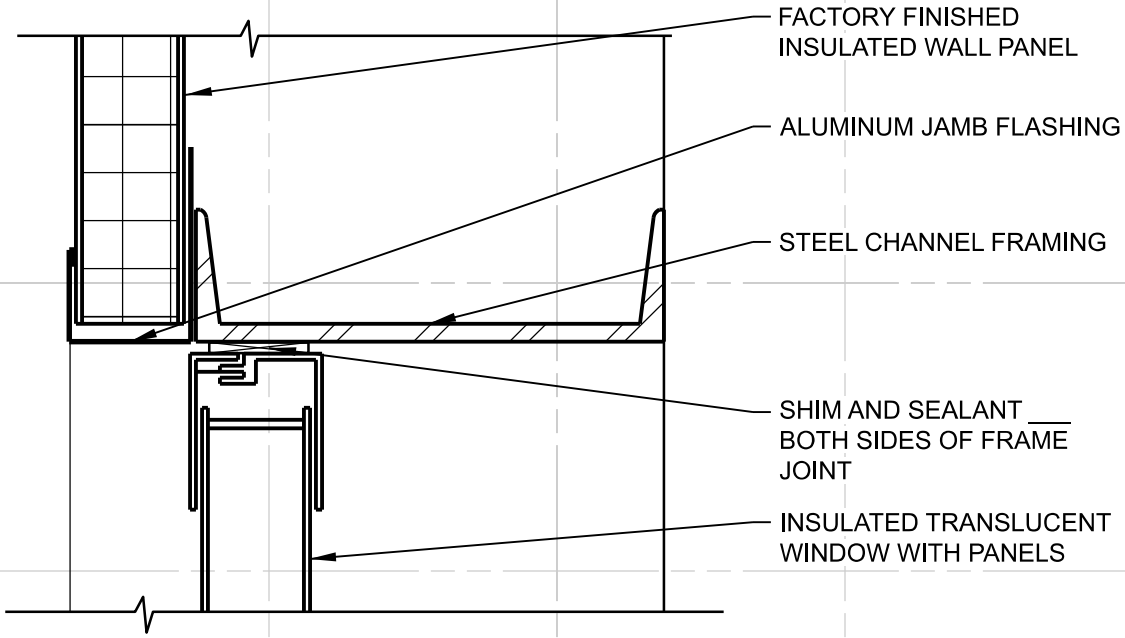
A1

DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2020A-DT002X



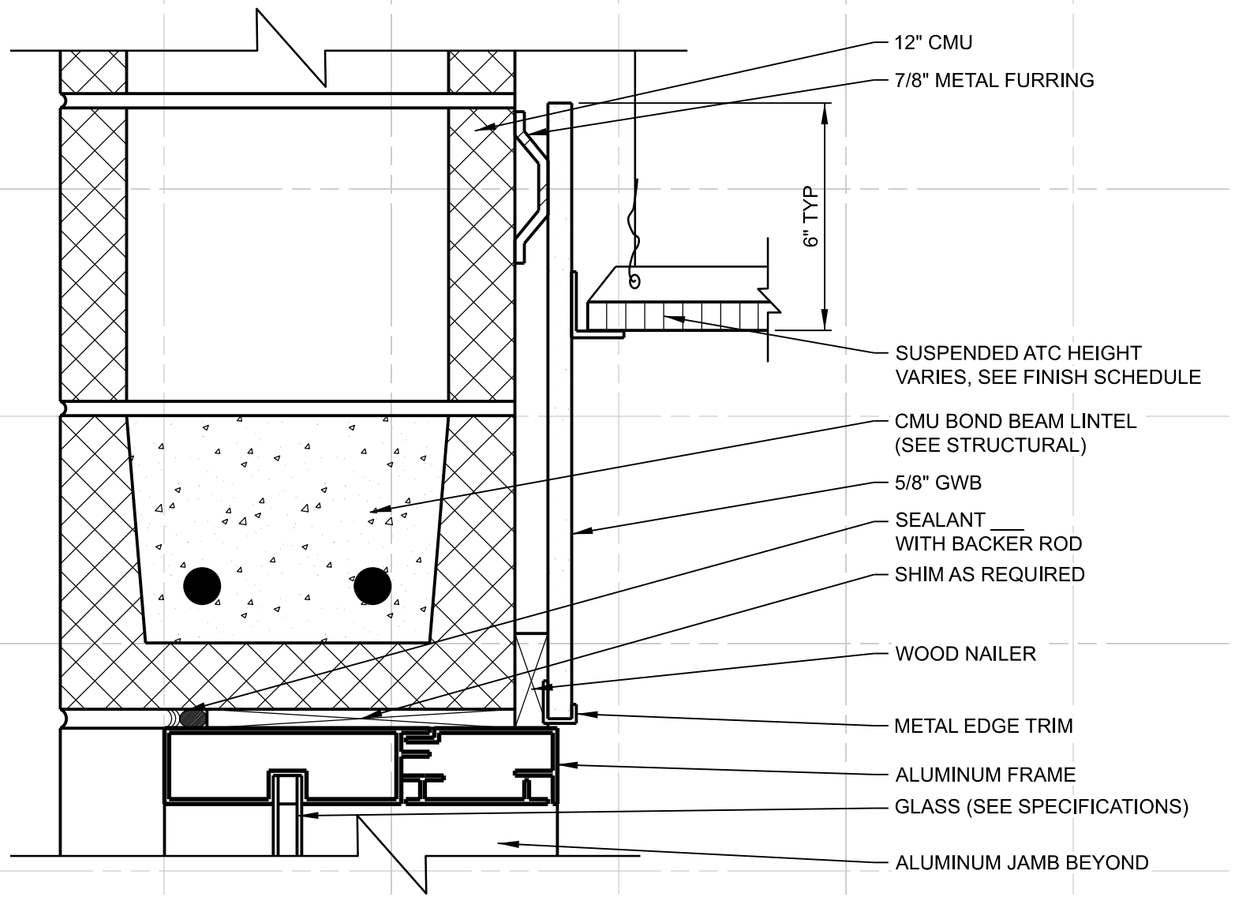
A1

DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2020A-DT003X

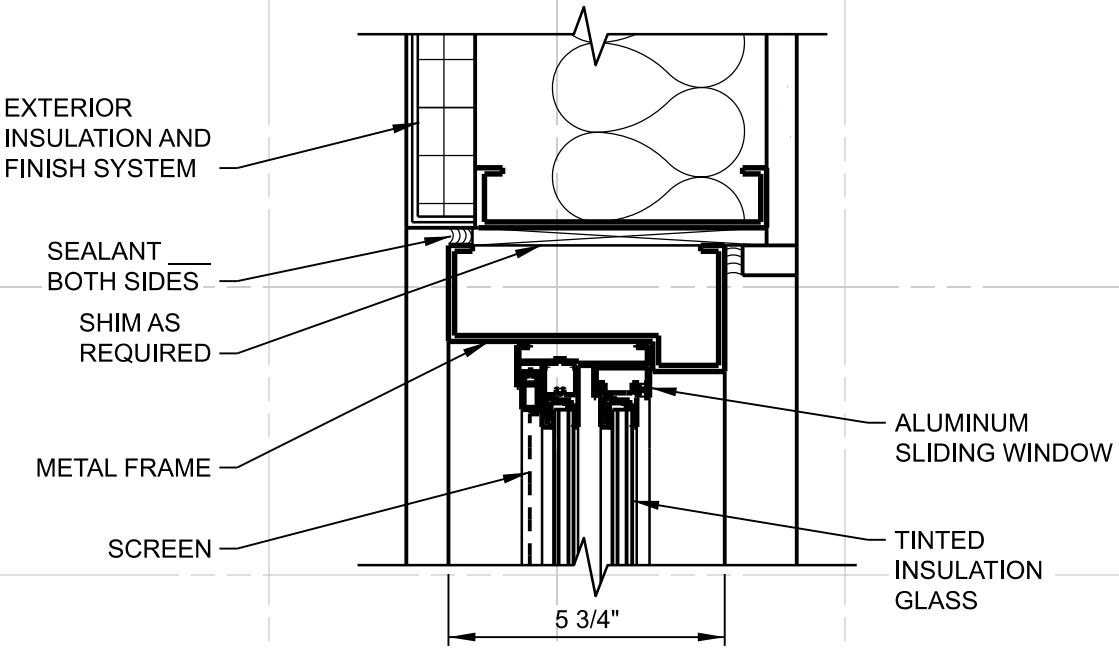


A1 DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

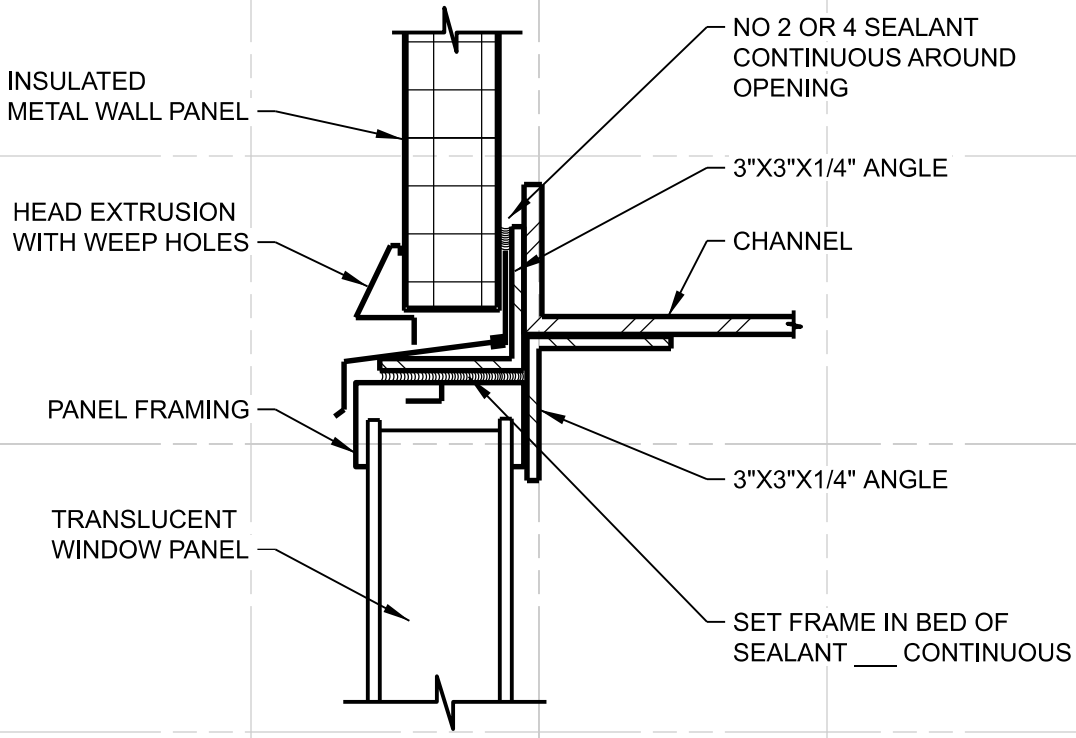
Detail B2020A-DT004X



A1 DETAIL: HEAD / JAMB

SCALE: 3"=1'-0" 0 3" 6" 1'

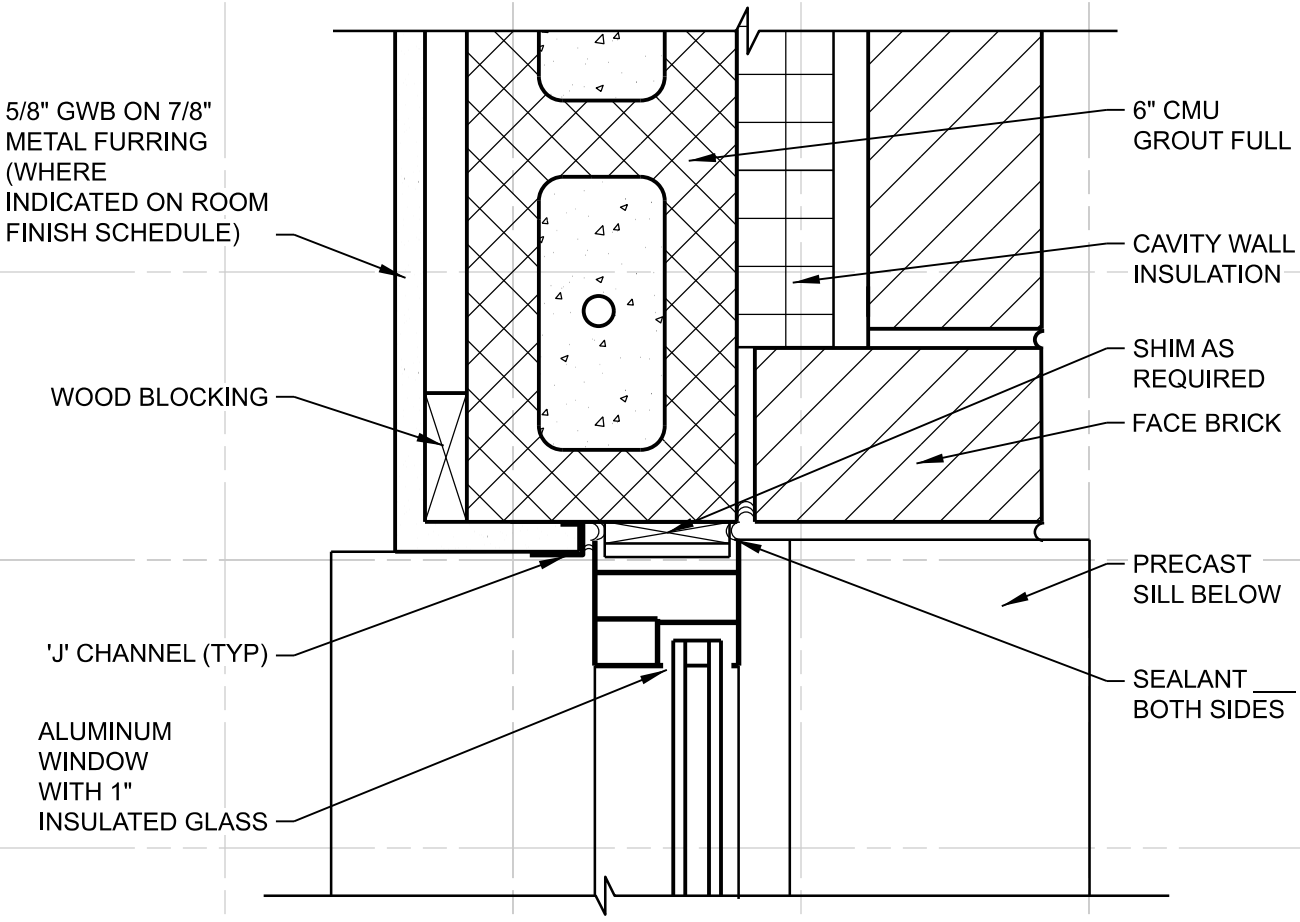
Detail B2020A-DT005X



A1 DETAIL: HEAD

SCALE: 3"=1'-0" 0 3" 6" 1'

Detail B2020A-DT006X

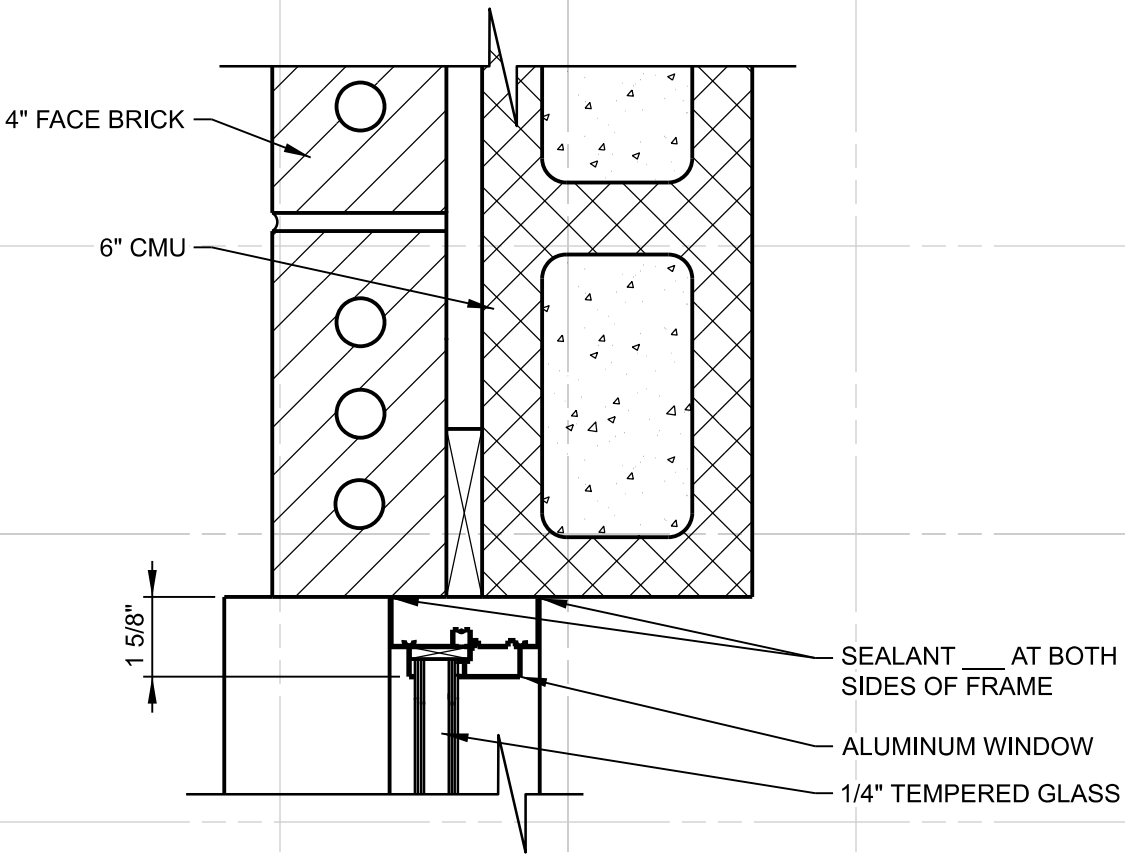


A1

DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'



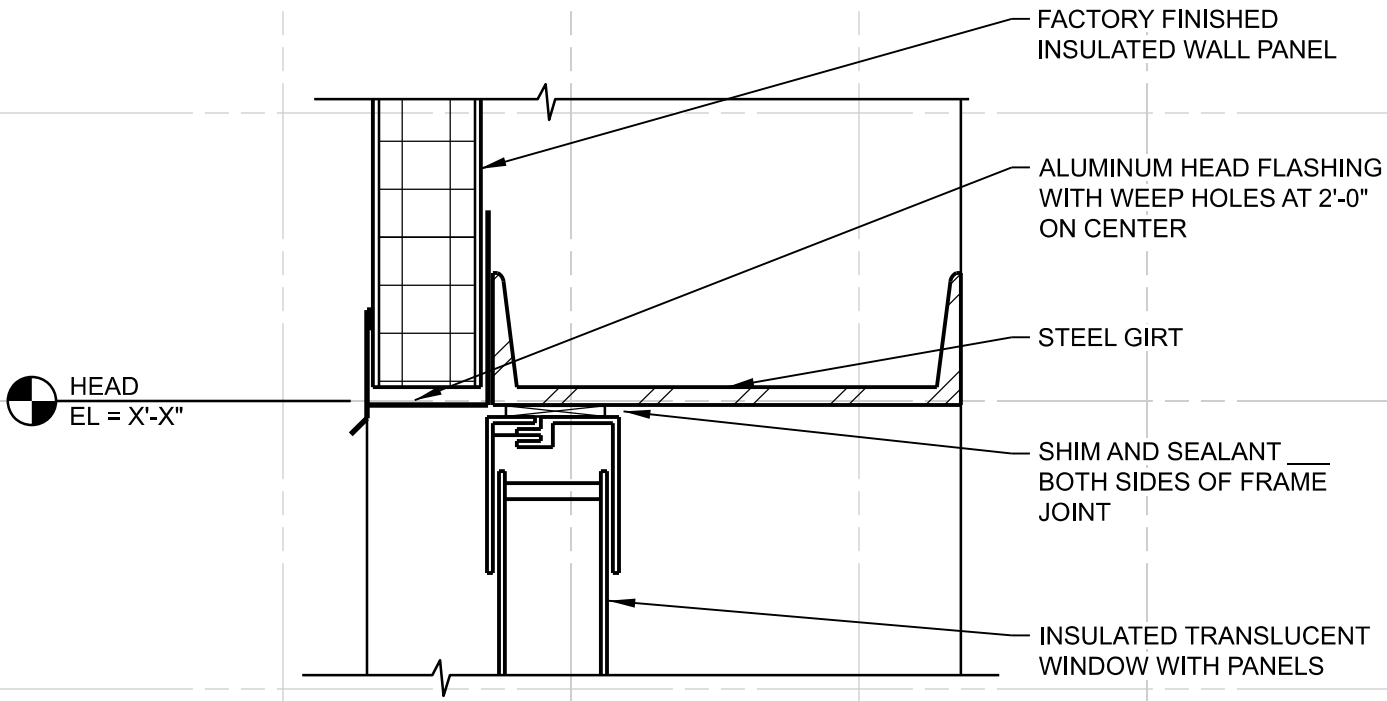
A1

DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2020A-DT008X



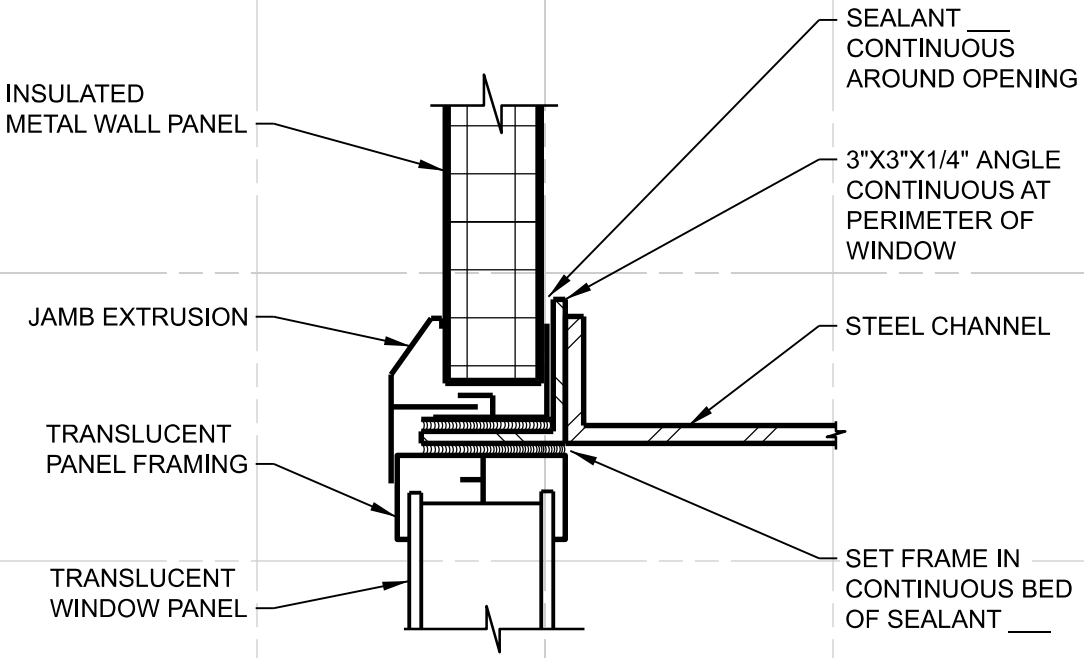
A1

DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

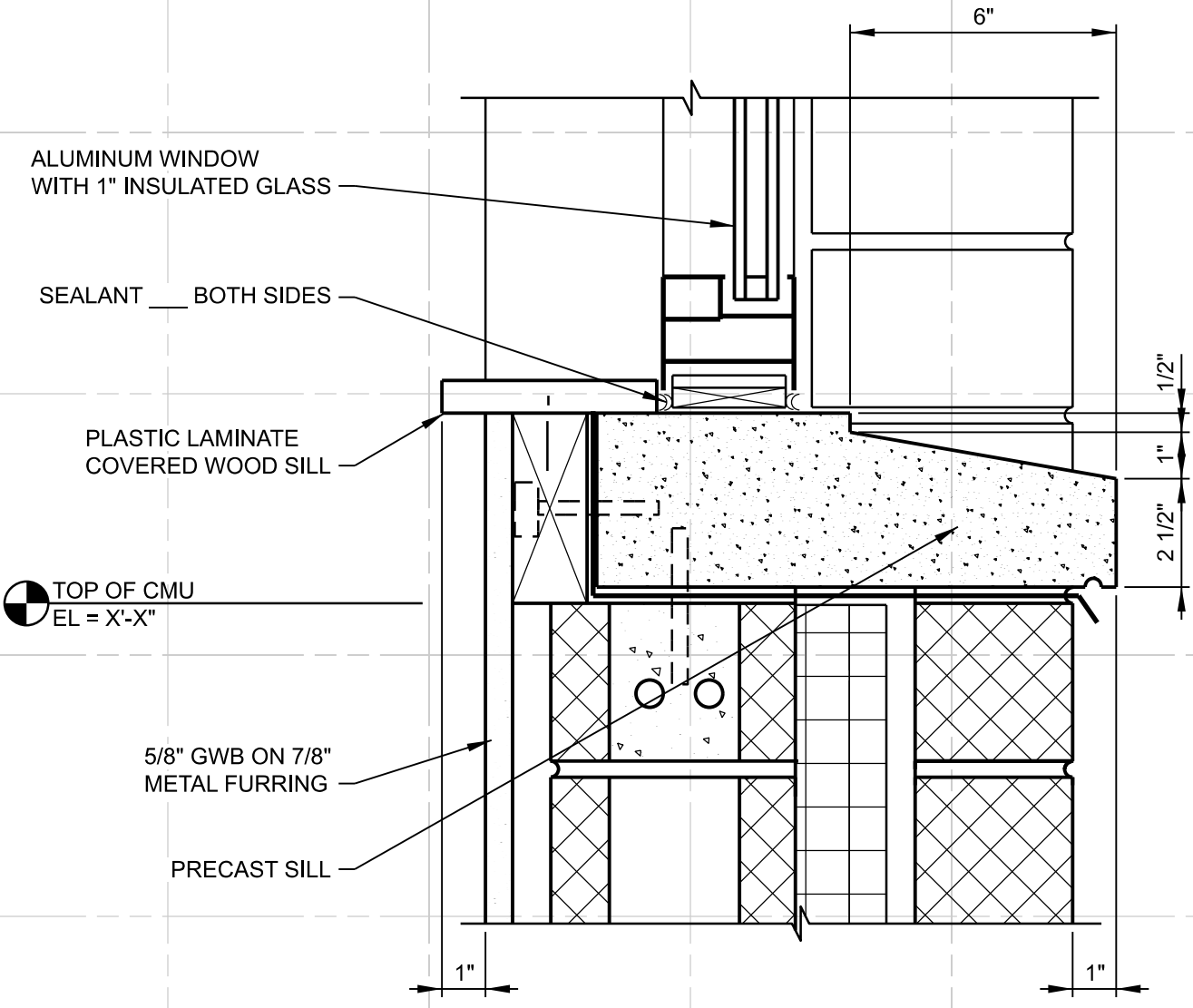
Detail B2020A-DT009X



A1 DETAIL: JAMB

SCALE: 3"=1'-0" 0 3" 6" 1'

Detail B2020A-DT010X



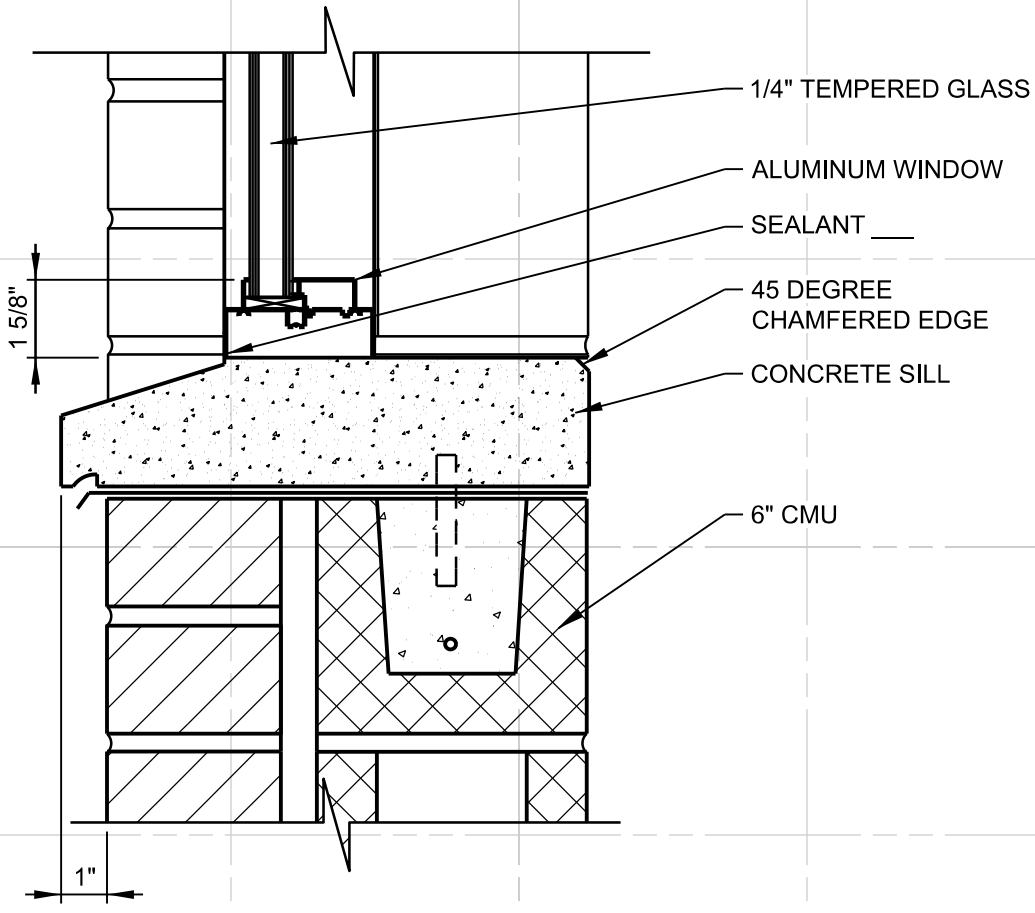
A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

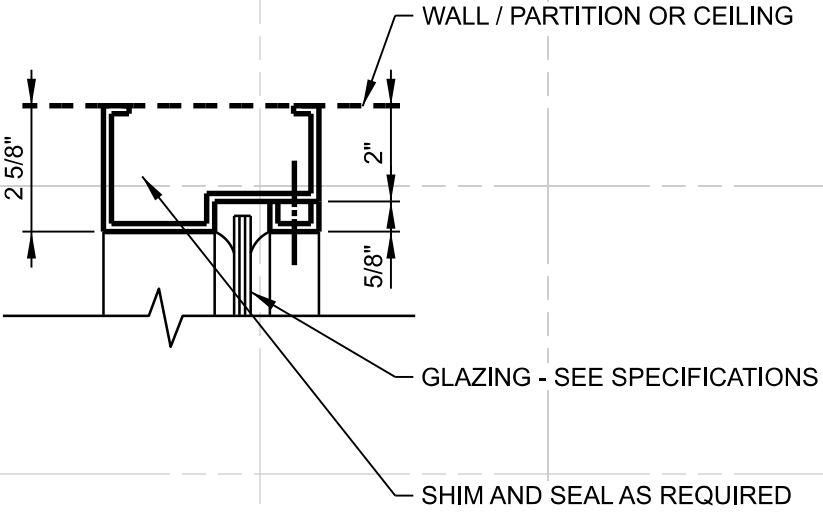
Detail B2020A-DT011X



A1 DETAIL: SILL

SCALE: 3"=1'-0" 0 3" 6" 1'

Detail B2020A-DT012X



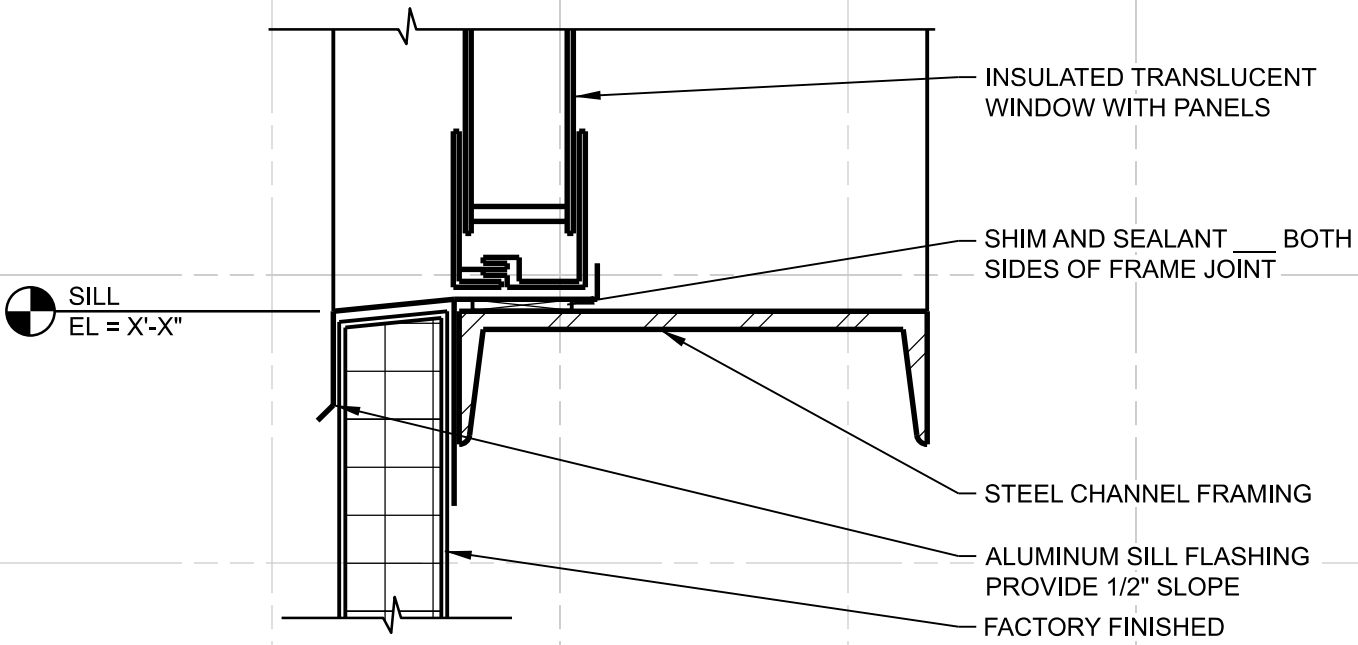
A1

DETAIL: HEAD / SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2020A-DT013X



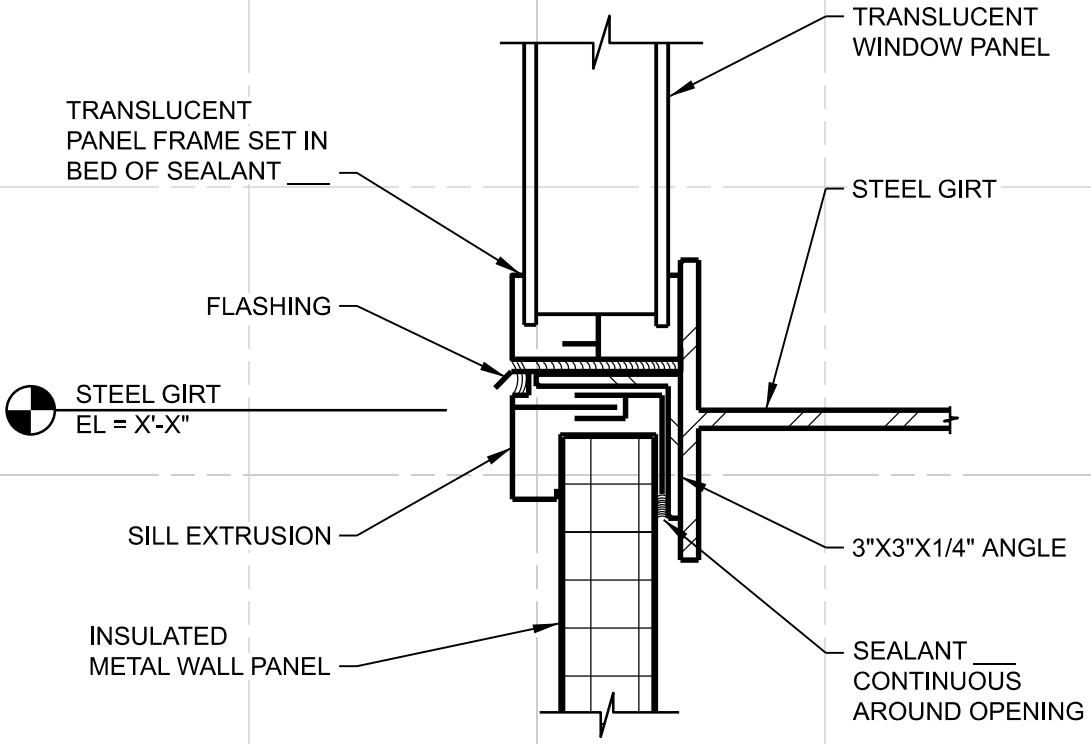
A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

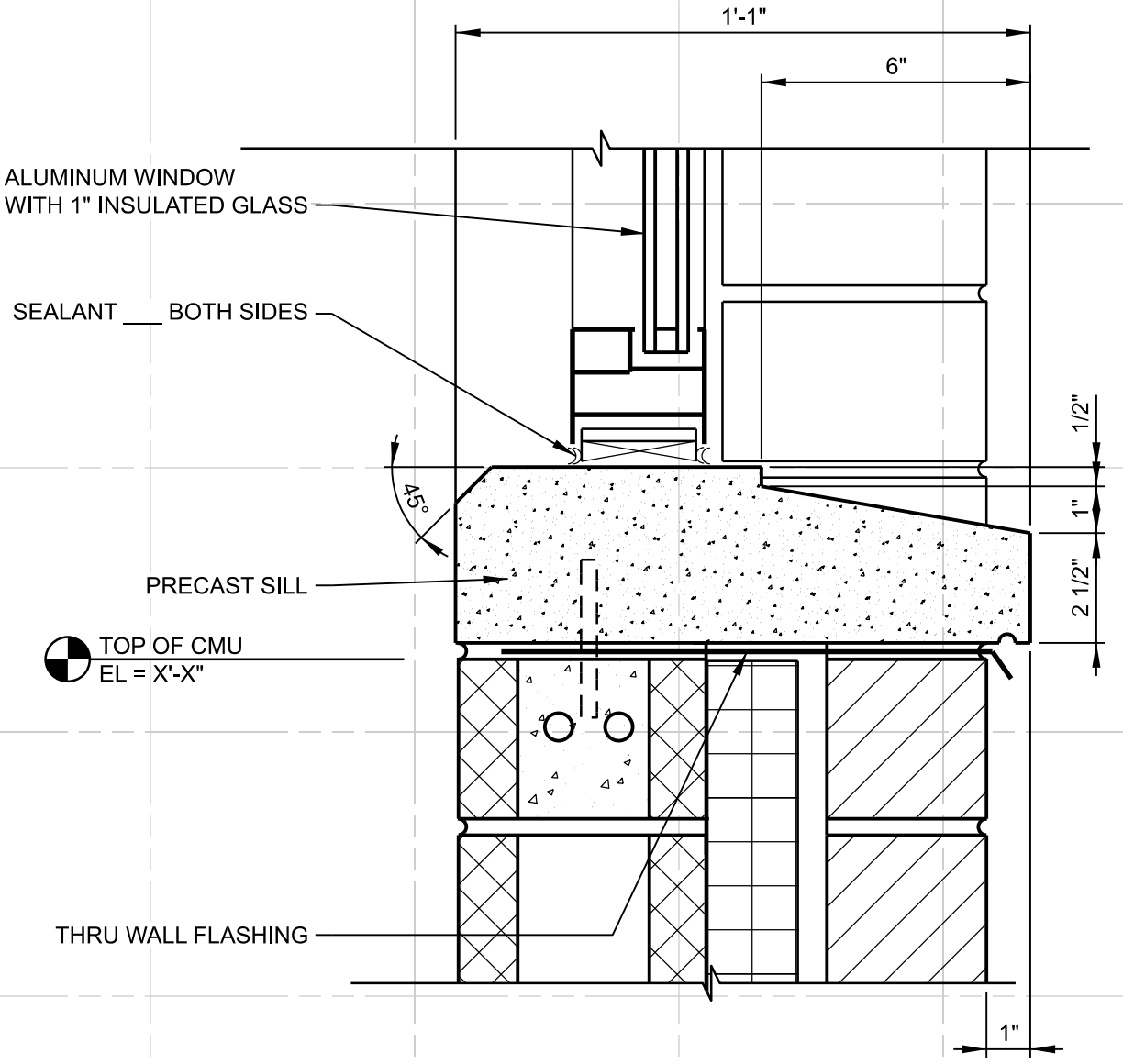
Detail B2020A-DT014X



A1 DETAIL: SILL

SCALE: 3"=1'-0" 0 3" 6" 1'

Detail B2020A-DT015X



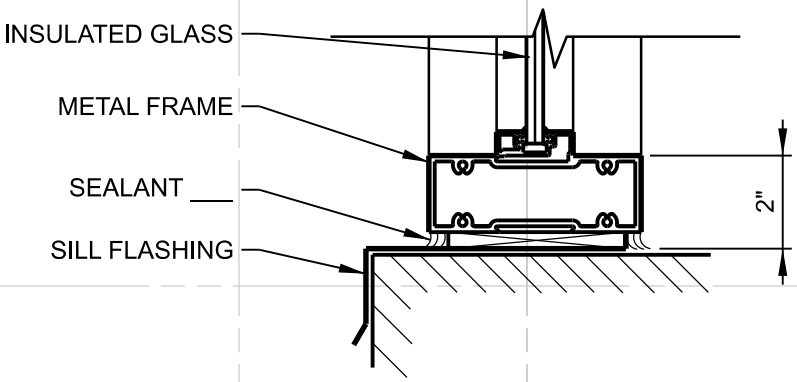
A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2020A-DT016X



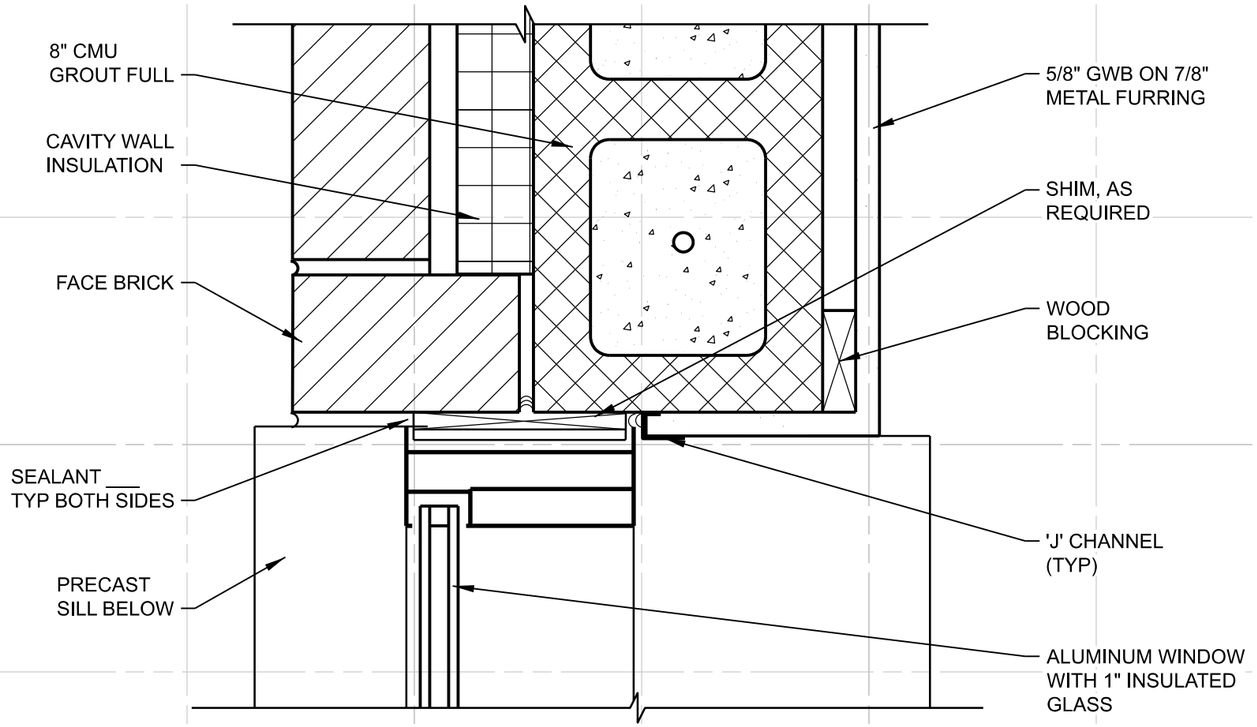
A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2020A-DT017X

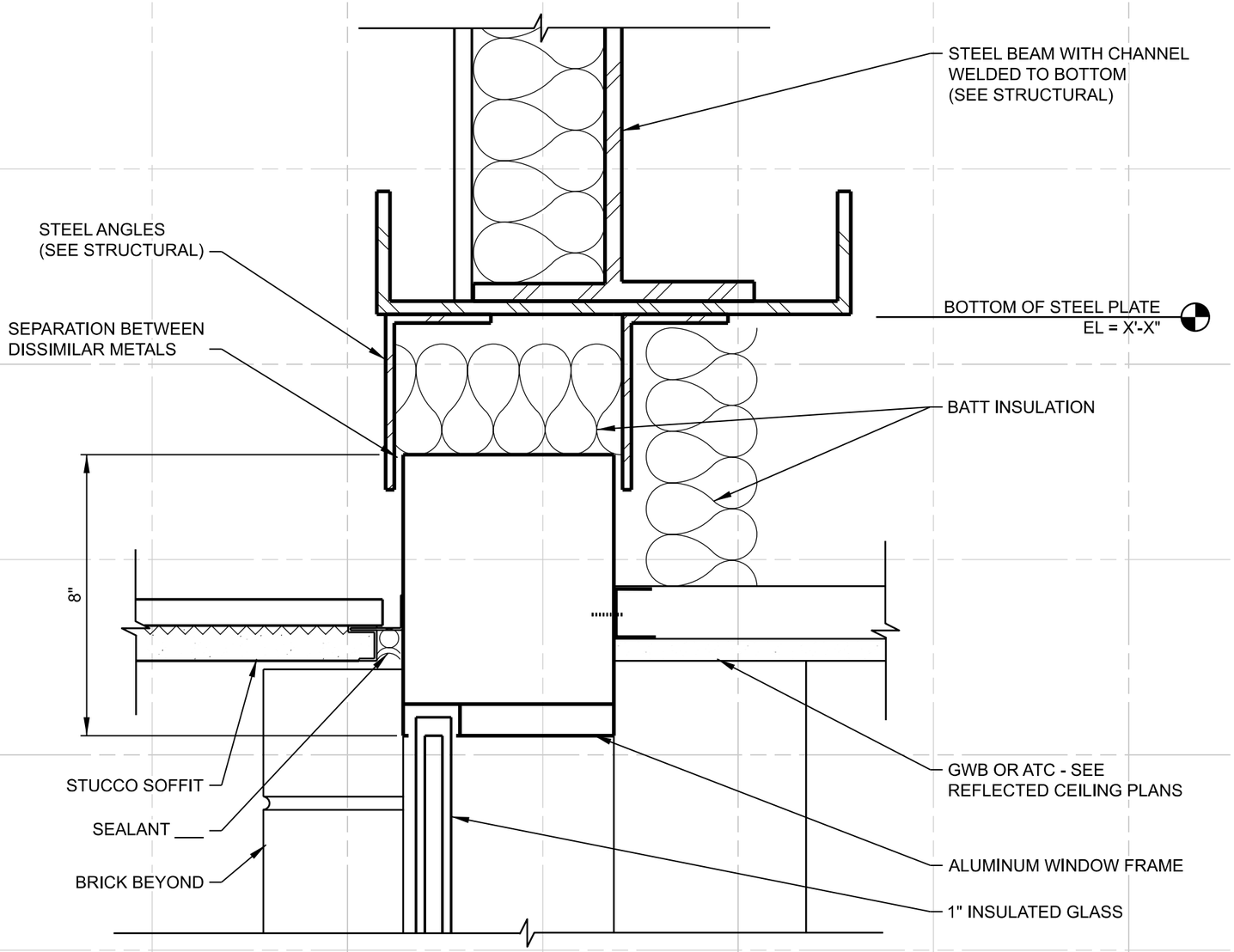


A1 DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2020A-DT018X

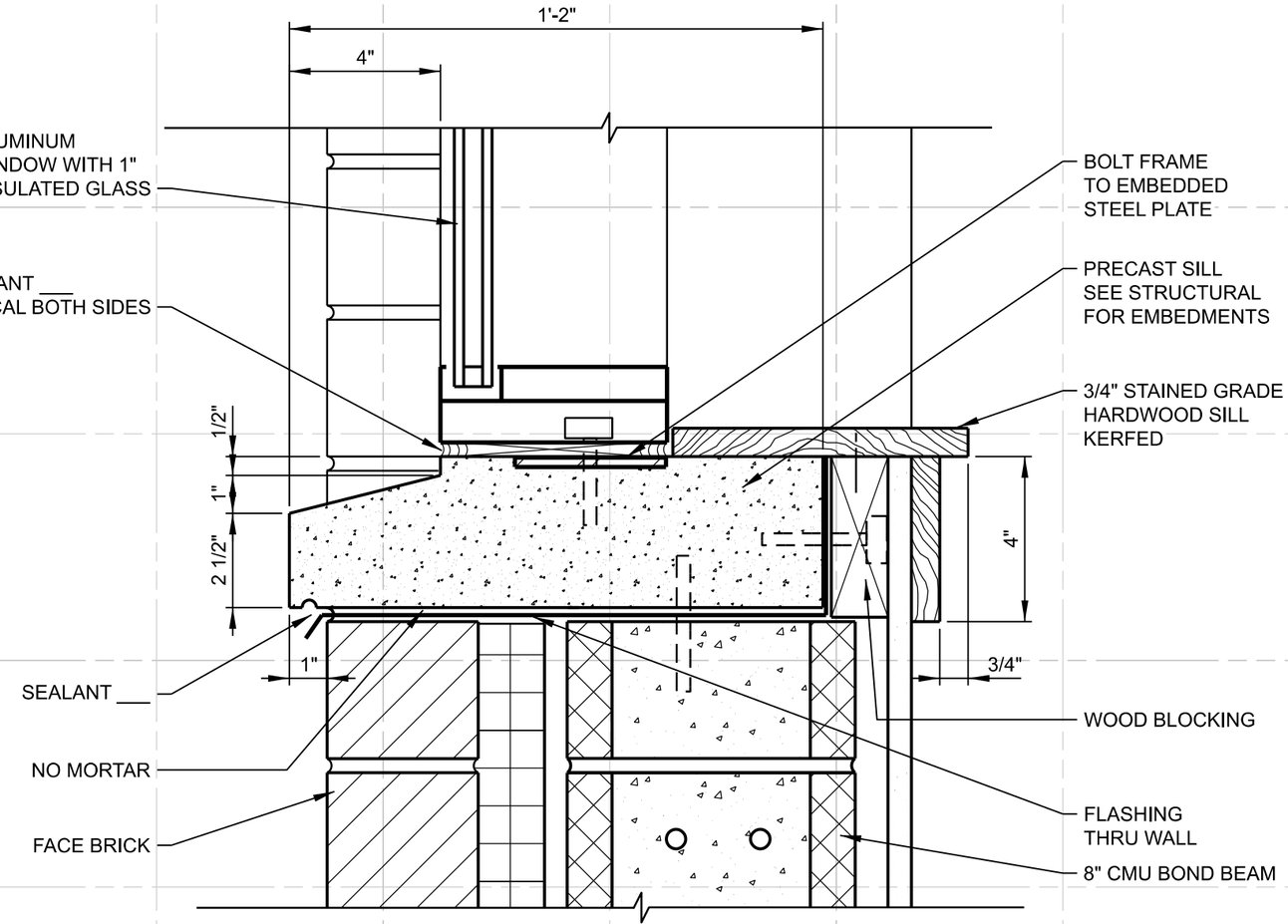


A1 DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2020A-DT019X

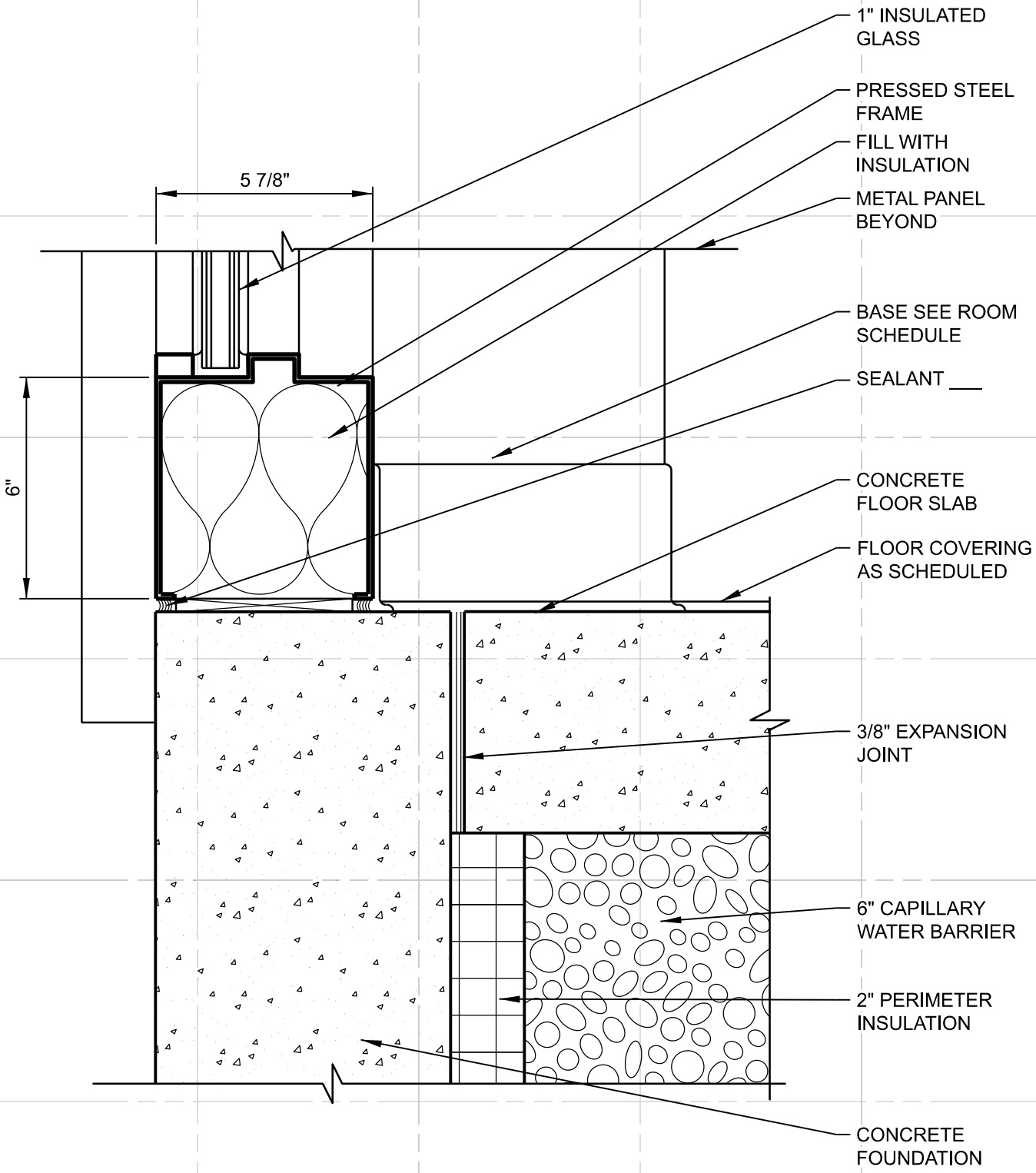


A1 DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2020A-DT020X



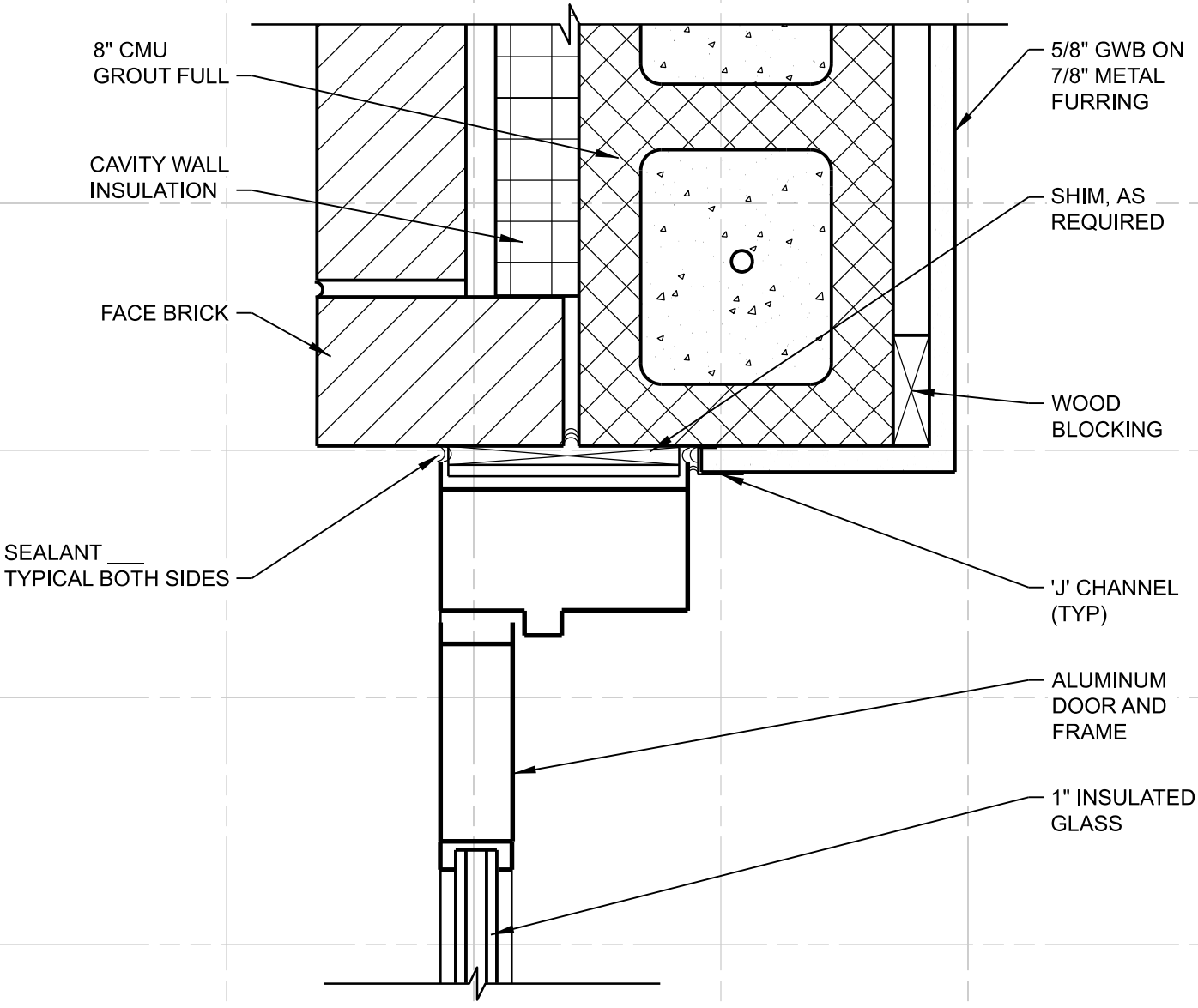
A1

DETAIL: WINDOW SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2020A-DT021X



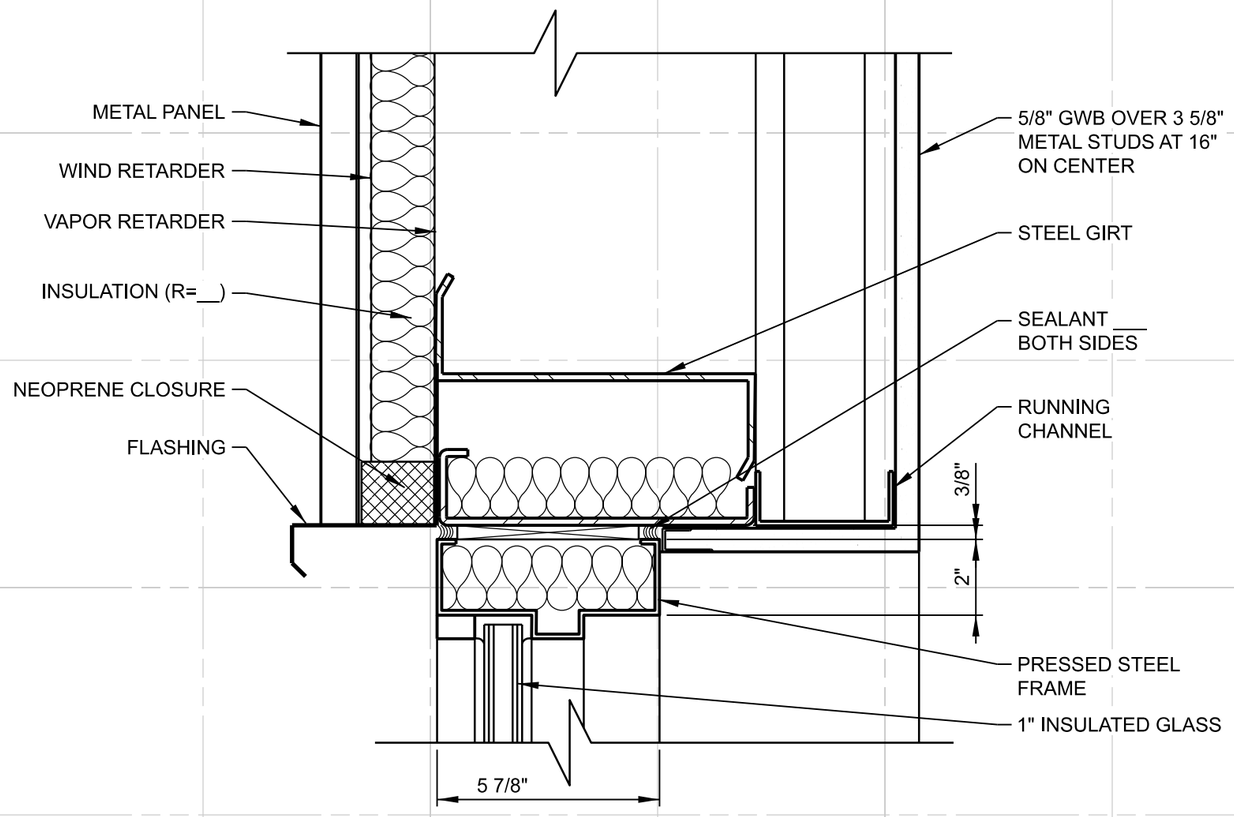
A1

DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2020A-DT022X

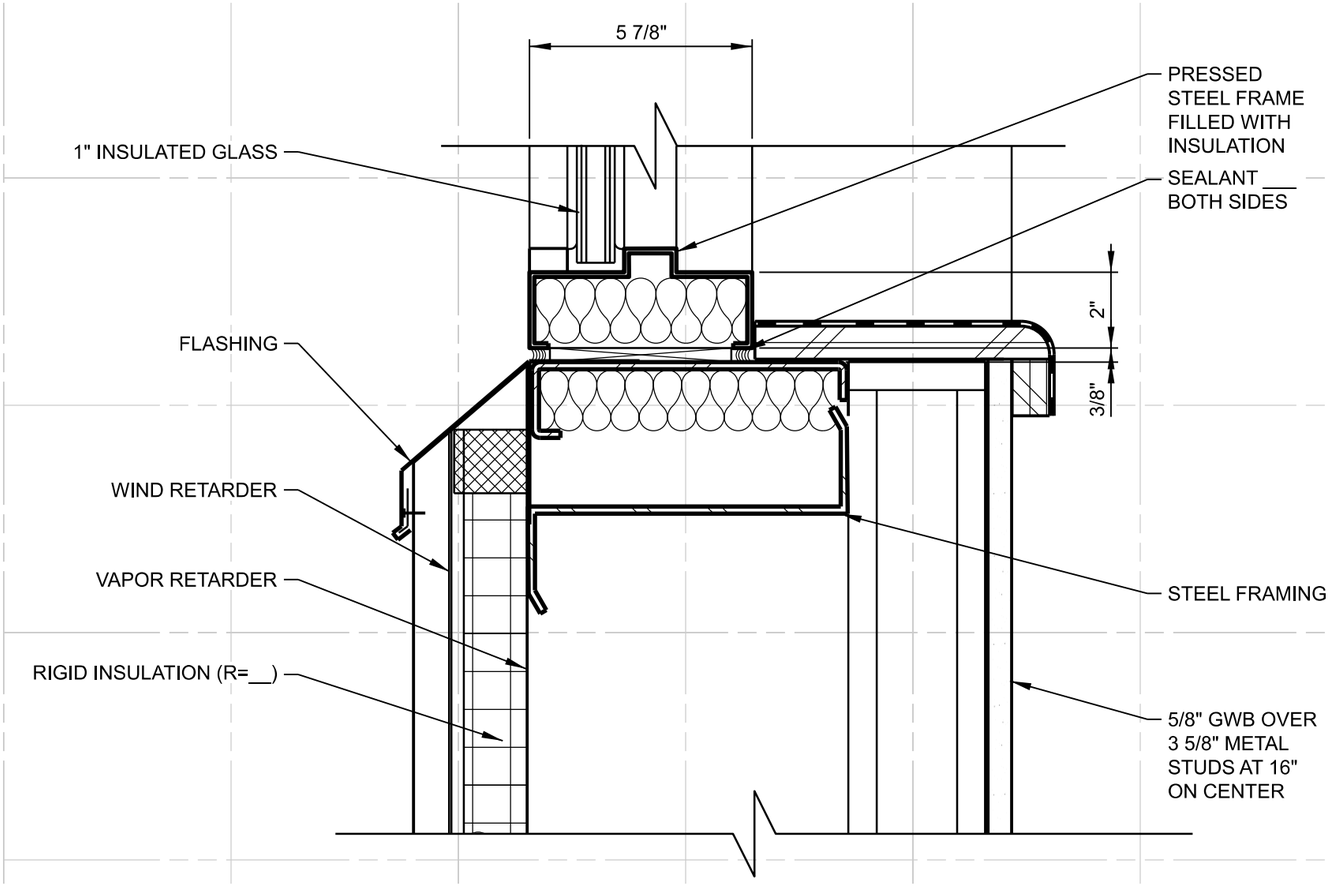


A1 DETAIL: WINDOW HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2020A-DT023X

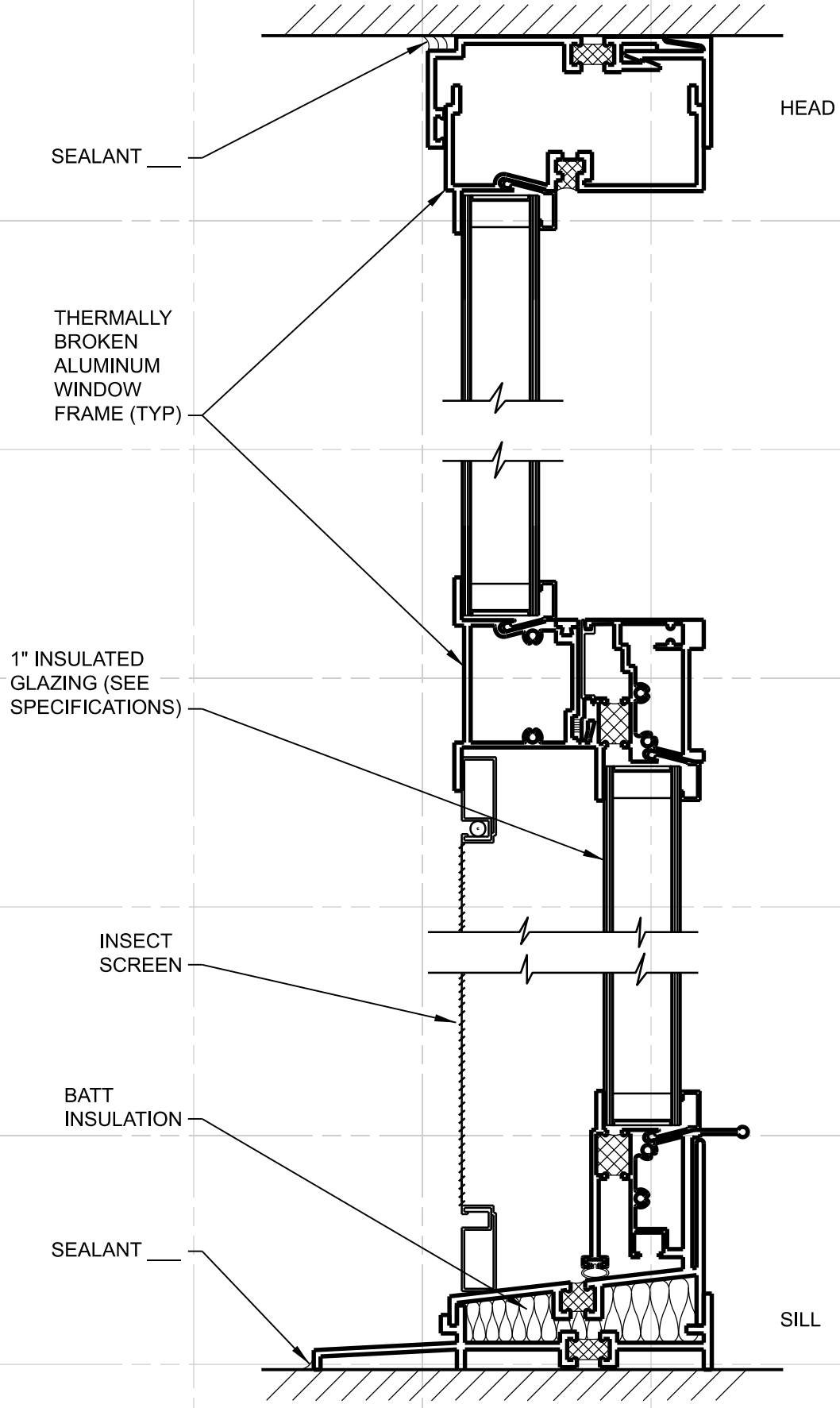


A1 DETAIL: WINDOW SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2020A-DT024X

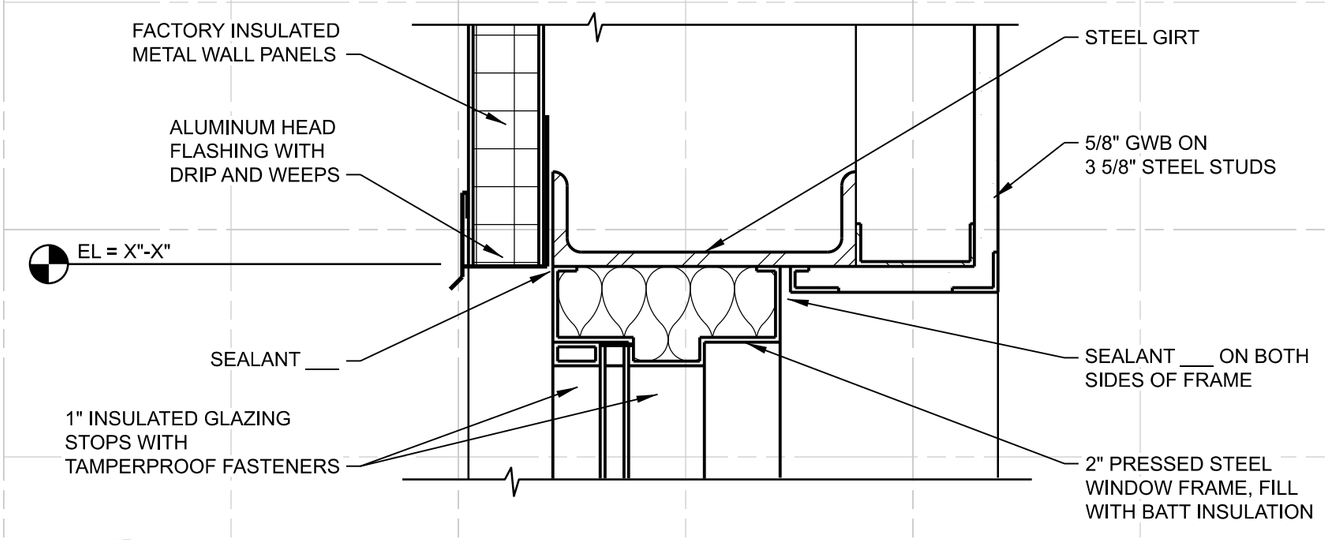


A1

DETAIL: ALUMINUM WINDOW

SCALE: 6"=1'-0" 0 1-1/2" 3" 6"

Detail B2020A-DT025X

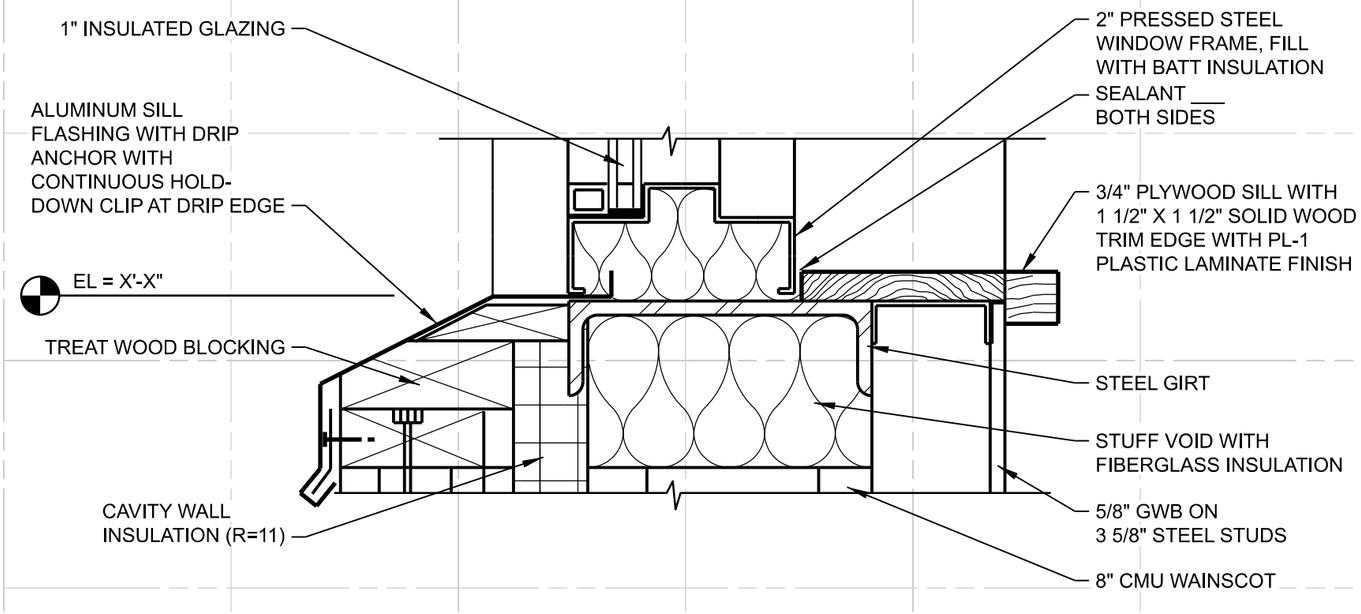


A1 DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2020A-DT026X

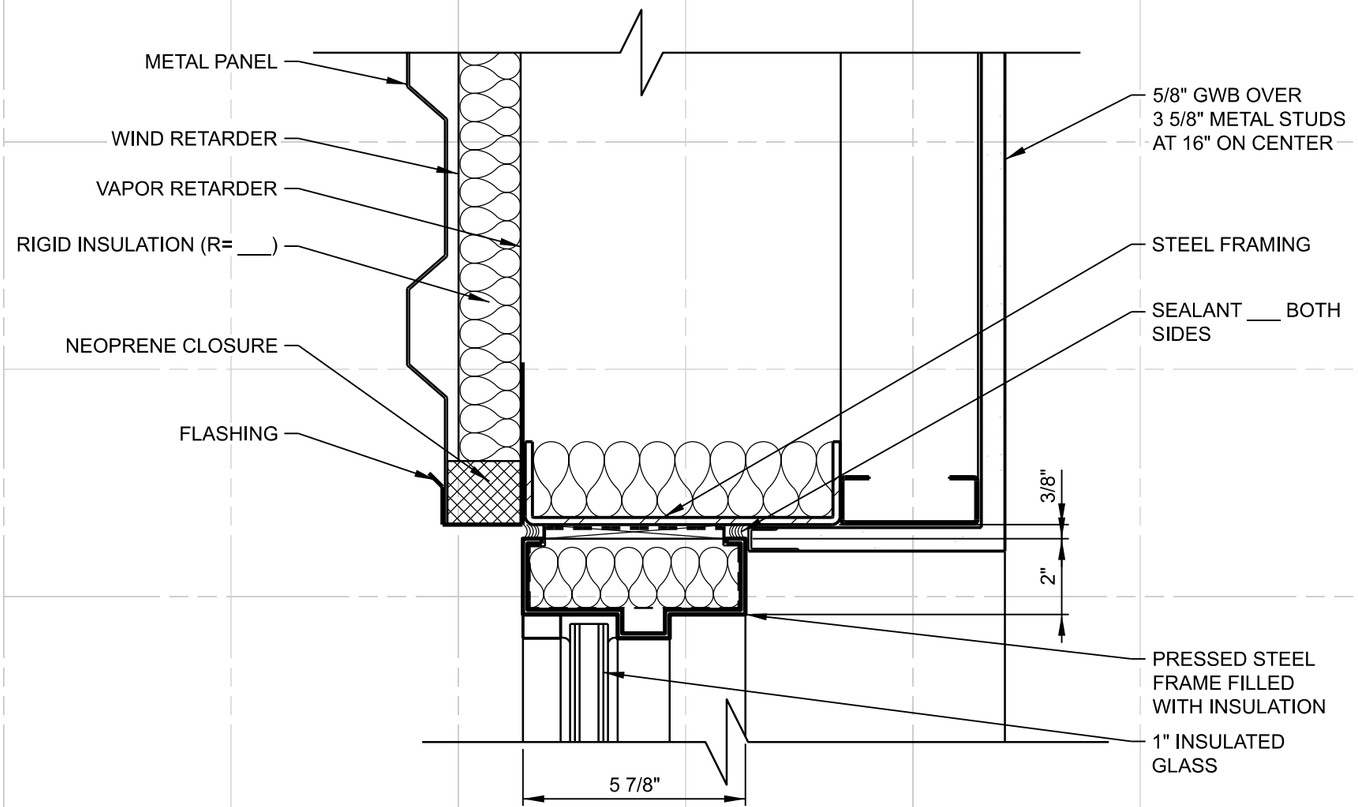


A1 DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2020A-DT027X

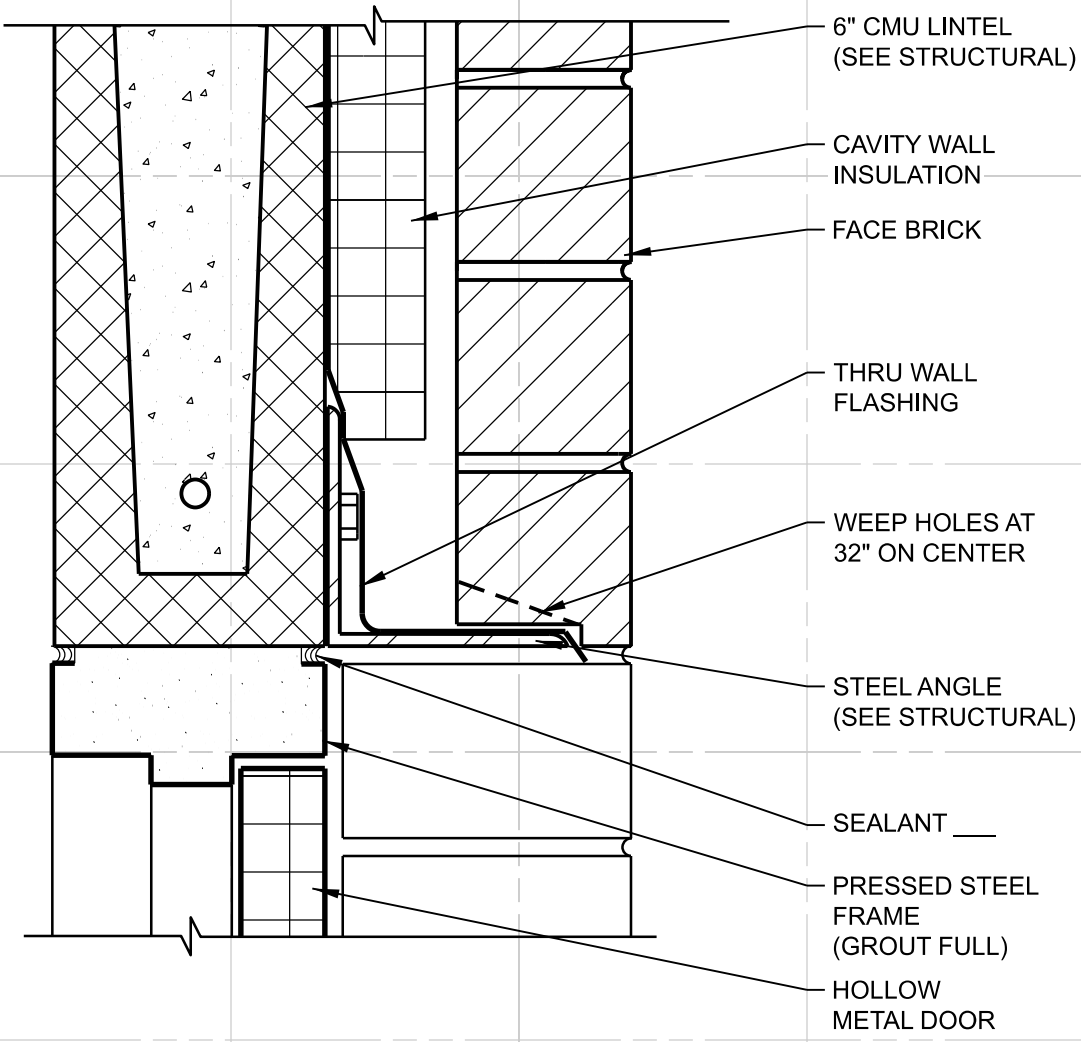


A1 DETAIL: WINDOW JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2020A-DT028X



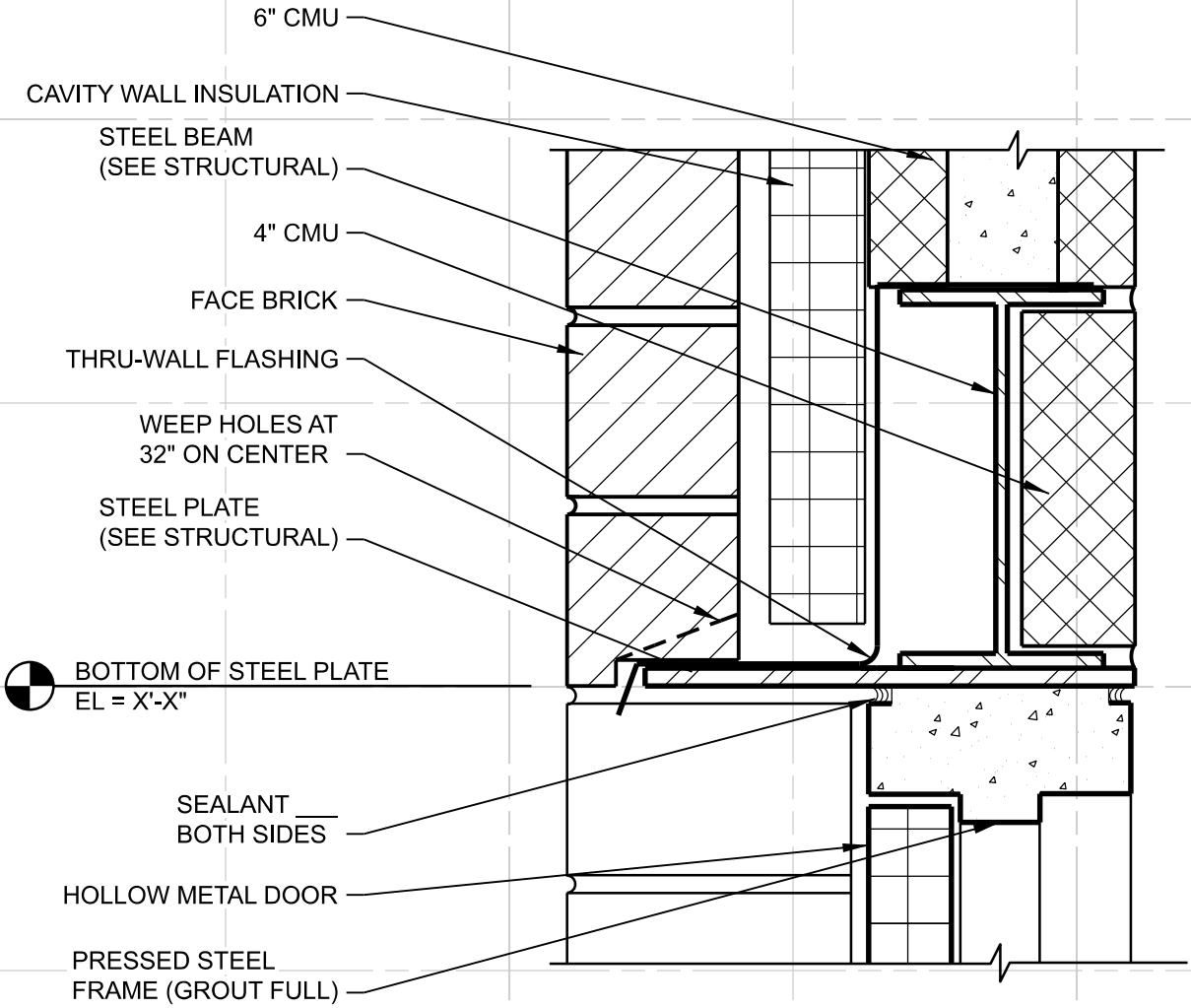
A1

DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT001X

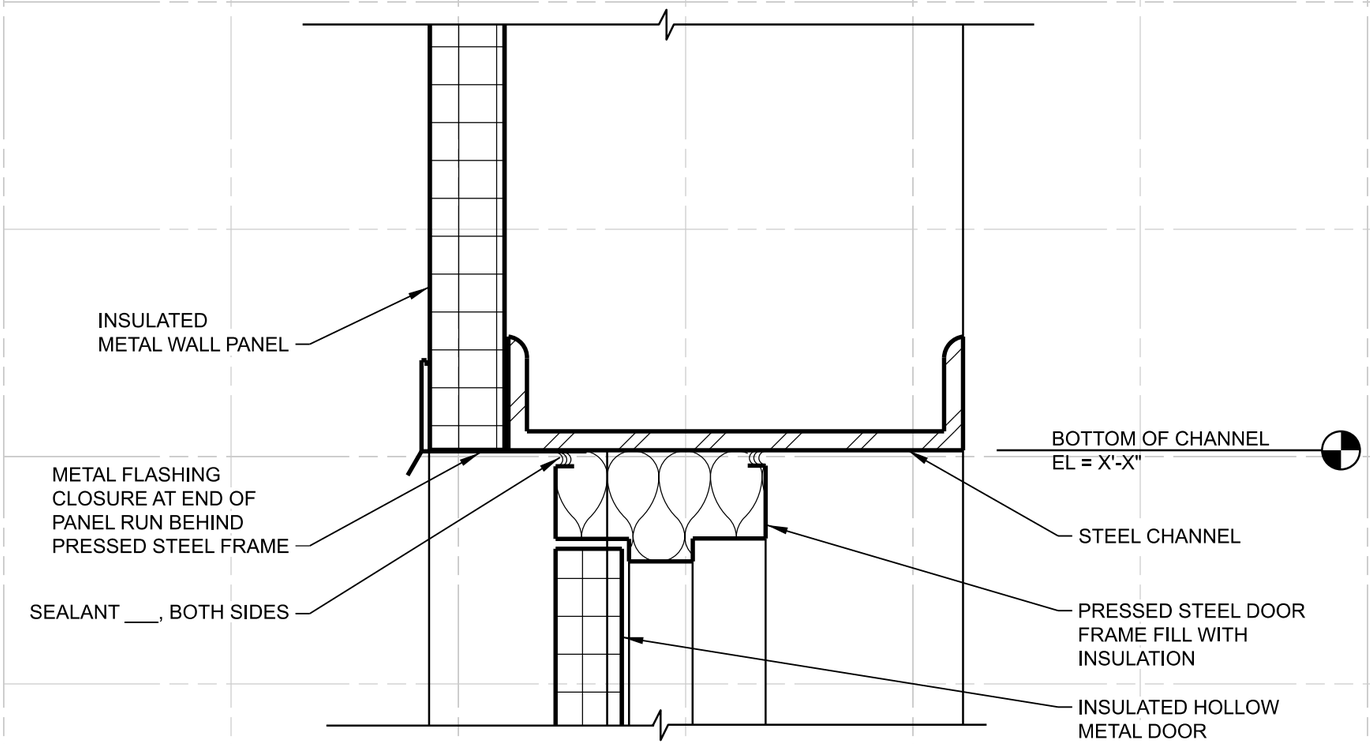


A1

DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

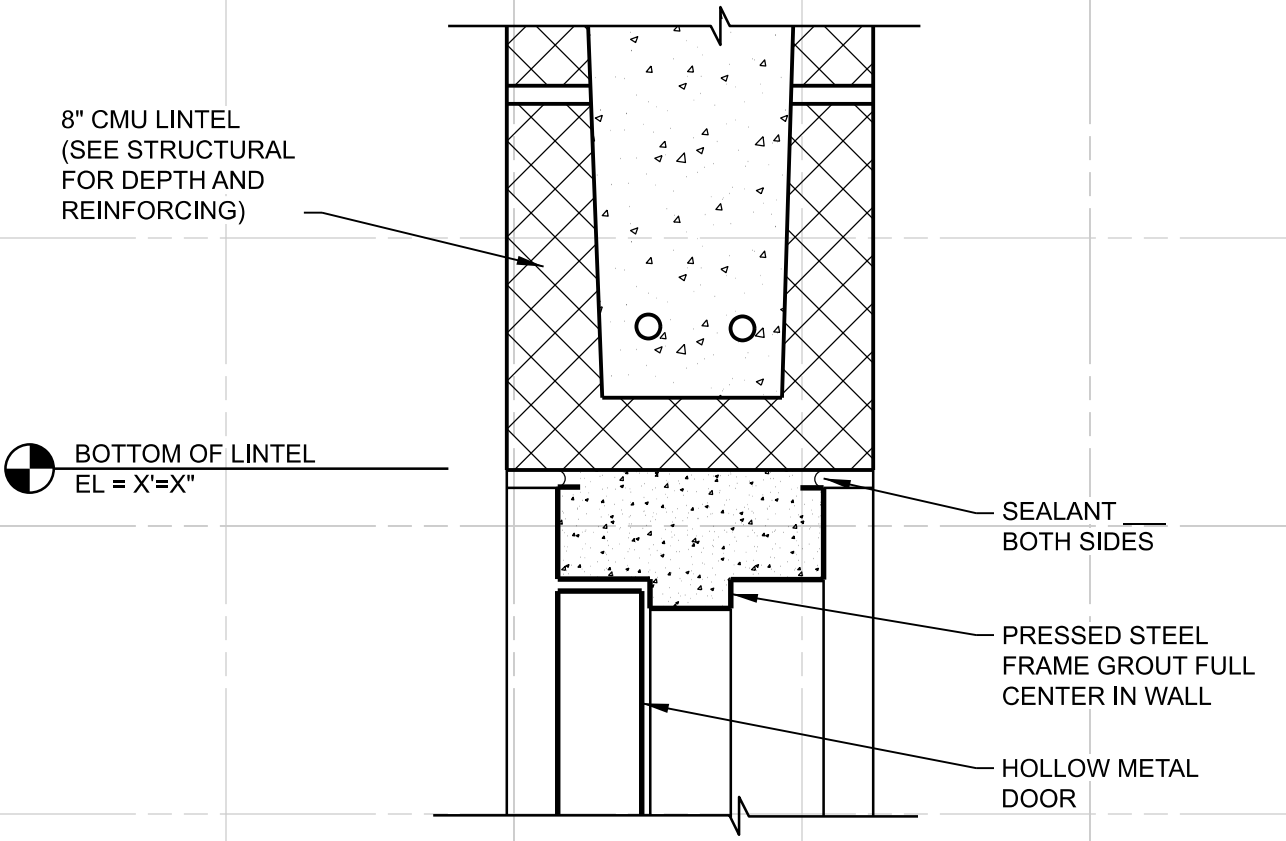


A1 DETAIL: HEAD (JAMB SIMILAR)

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT003X



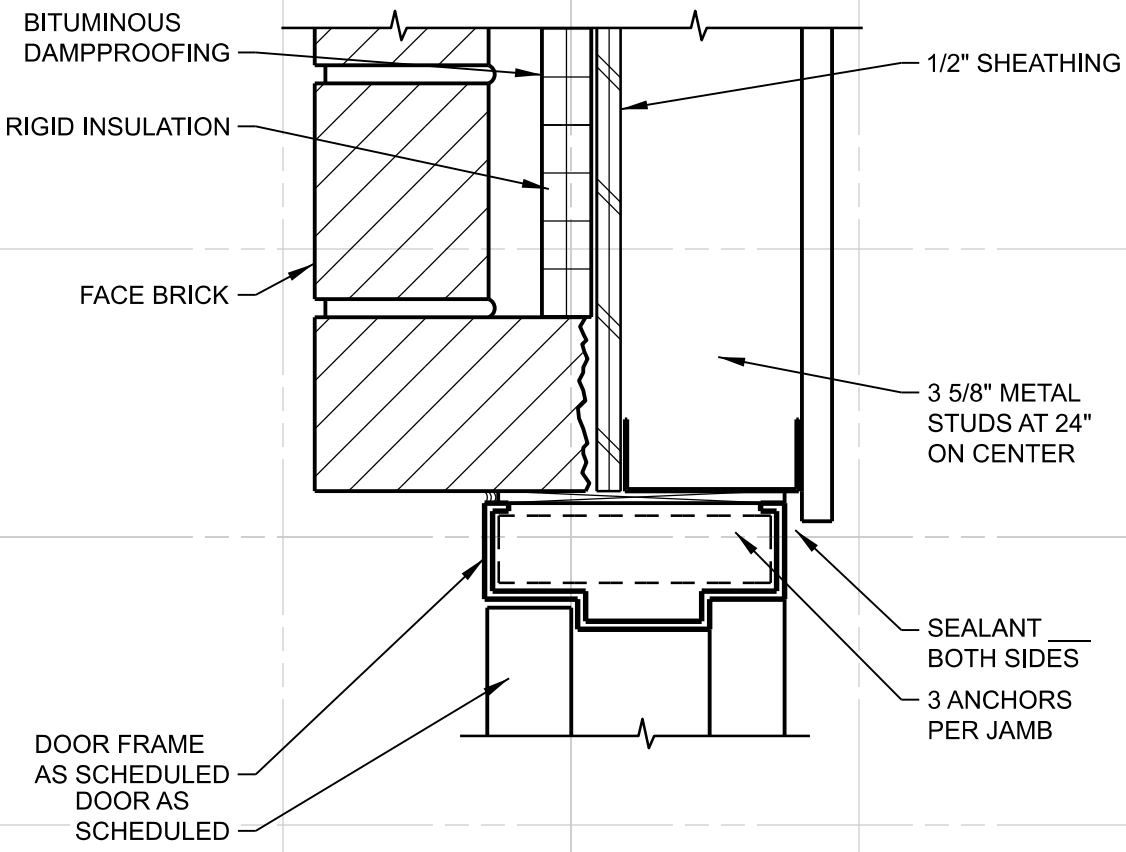
A1

SECTION: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

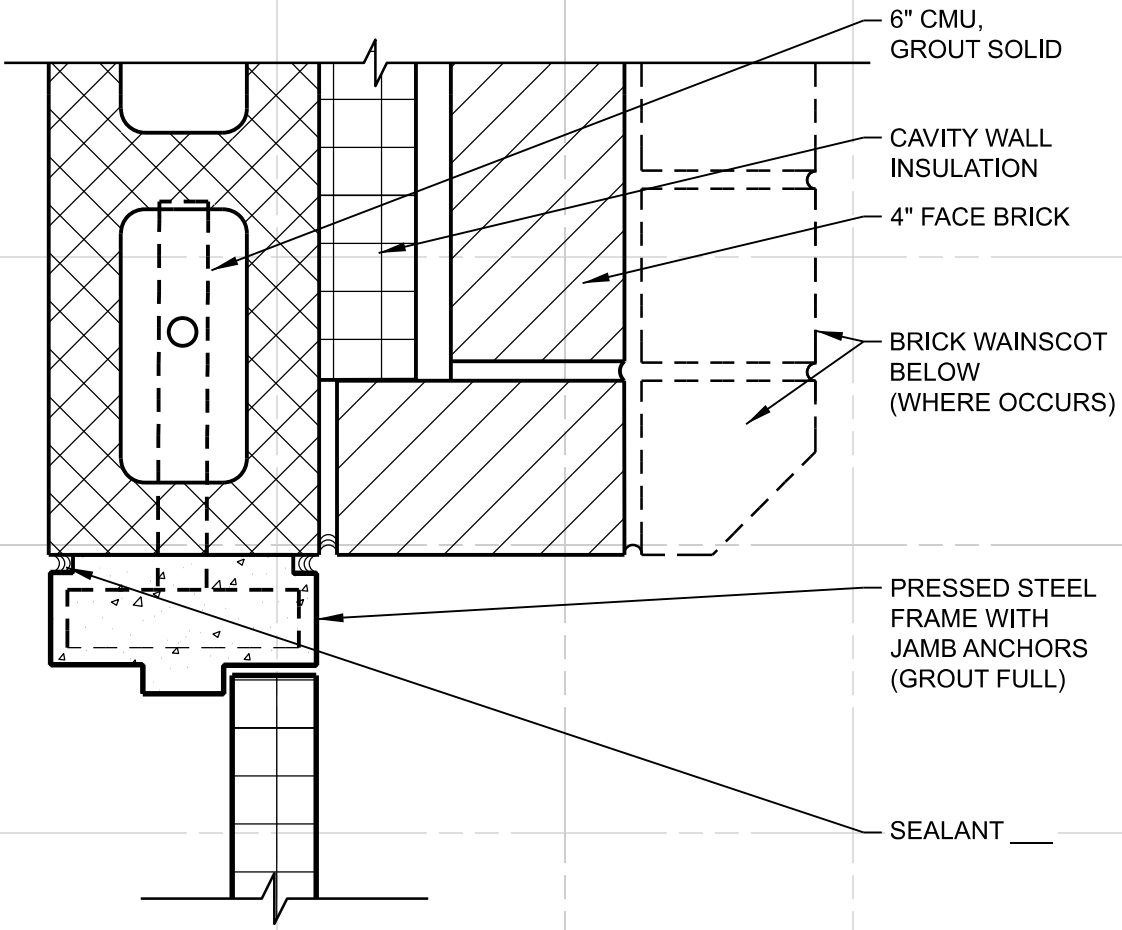
Detail B2030A-DT004X



A1 DETAIL: JAMB

SCALE: 3"=1'-0" 0 3" 6" 1'

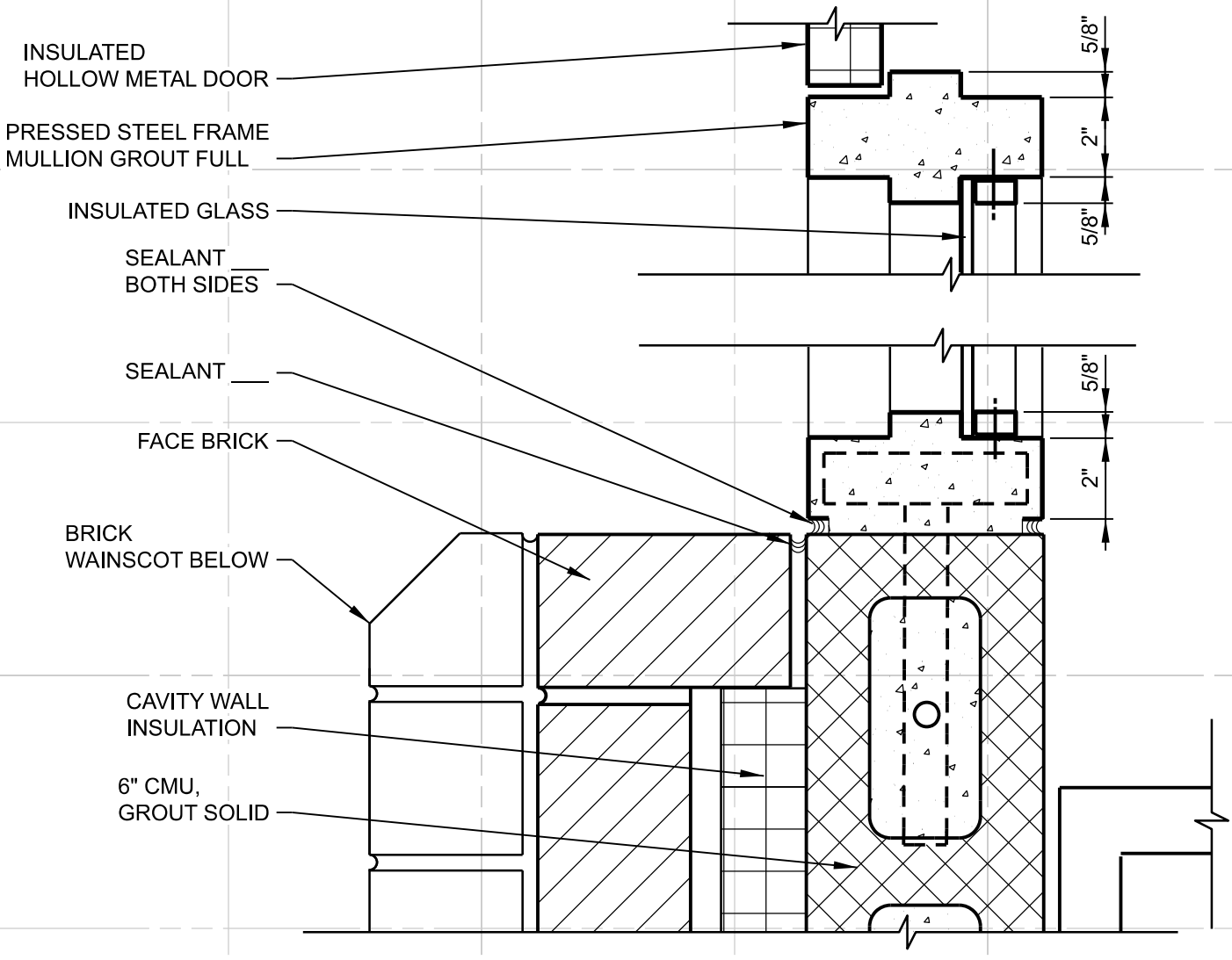
Detail B2030A-DT005X



A1

DETAIL: JAMB

SCALE: 3"=1'-0" 0 3" 6" 1'



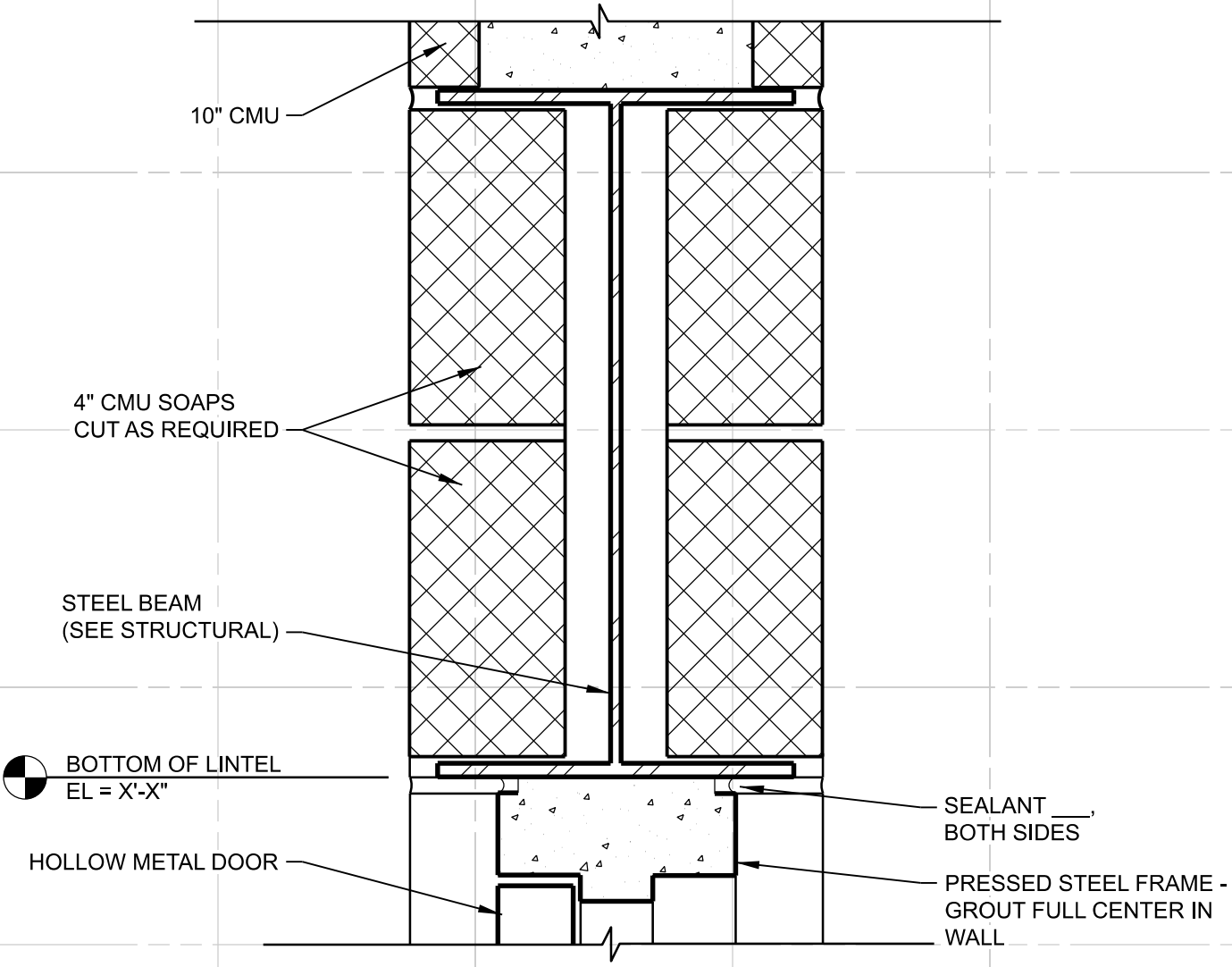
A1

DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT007X



A1

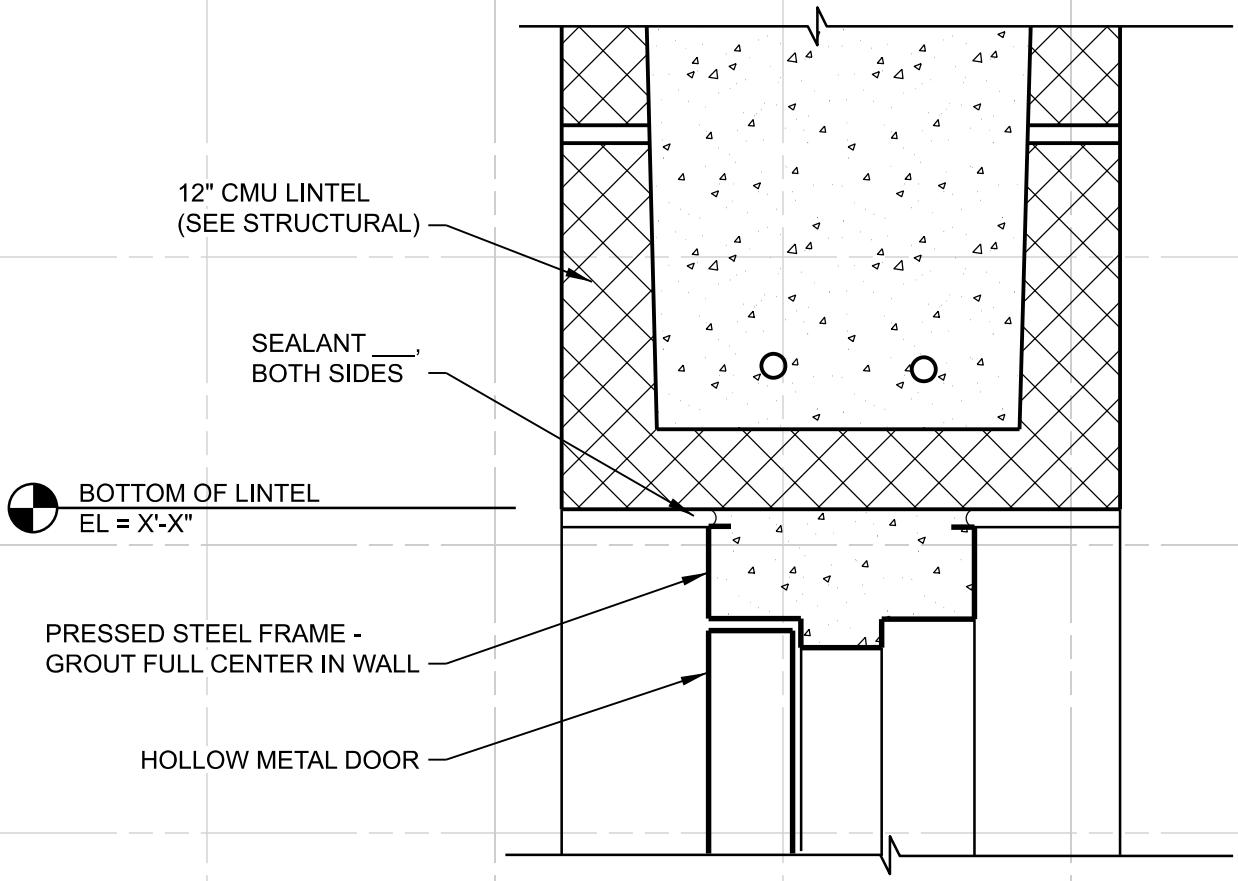
DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT008X

Details-US-Architectural-B203-ExteriorDoors

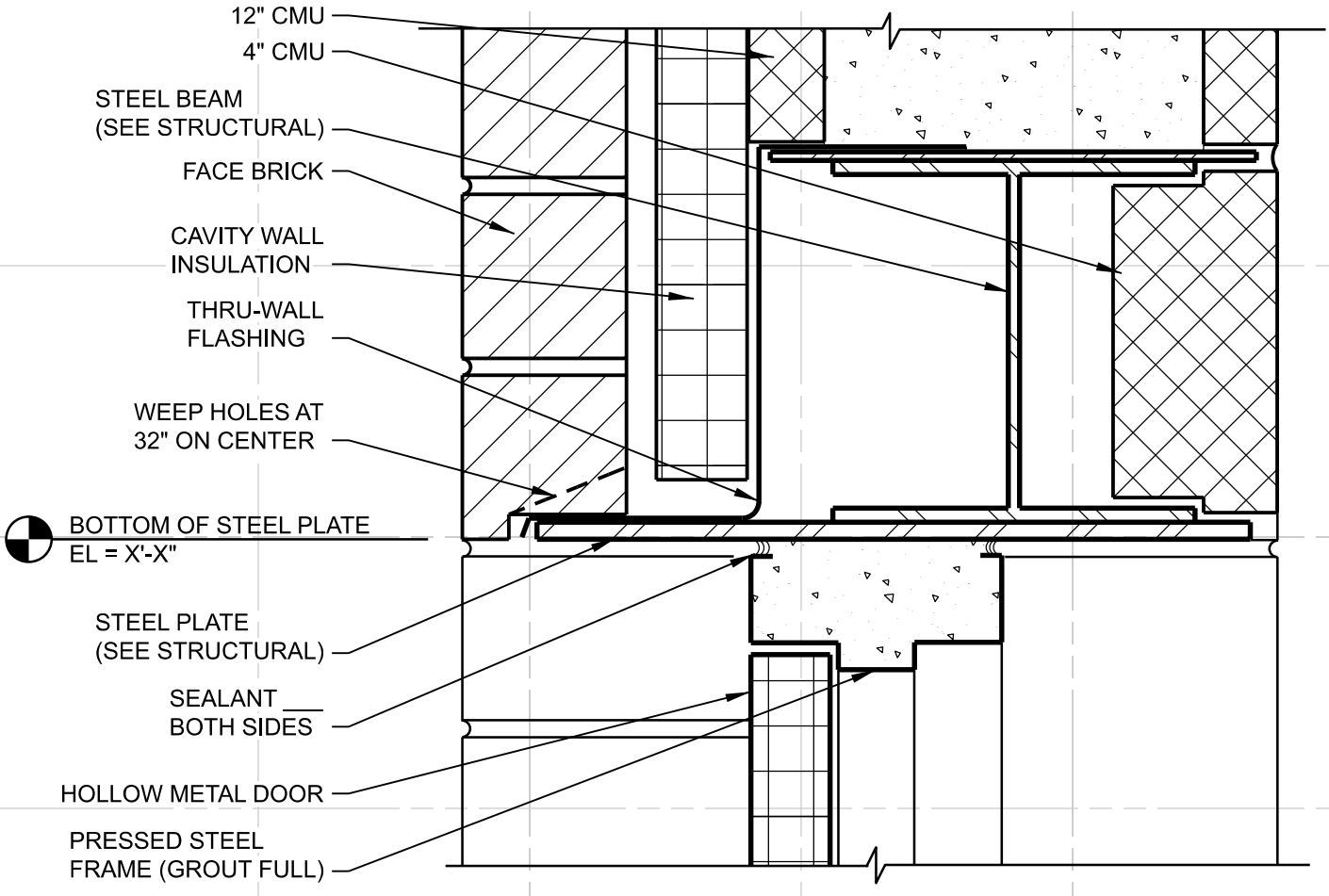


A1

DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'



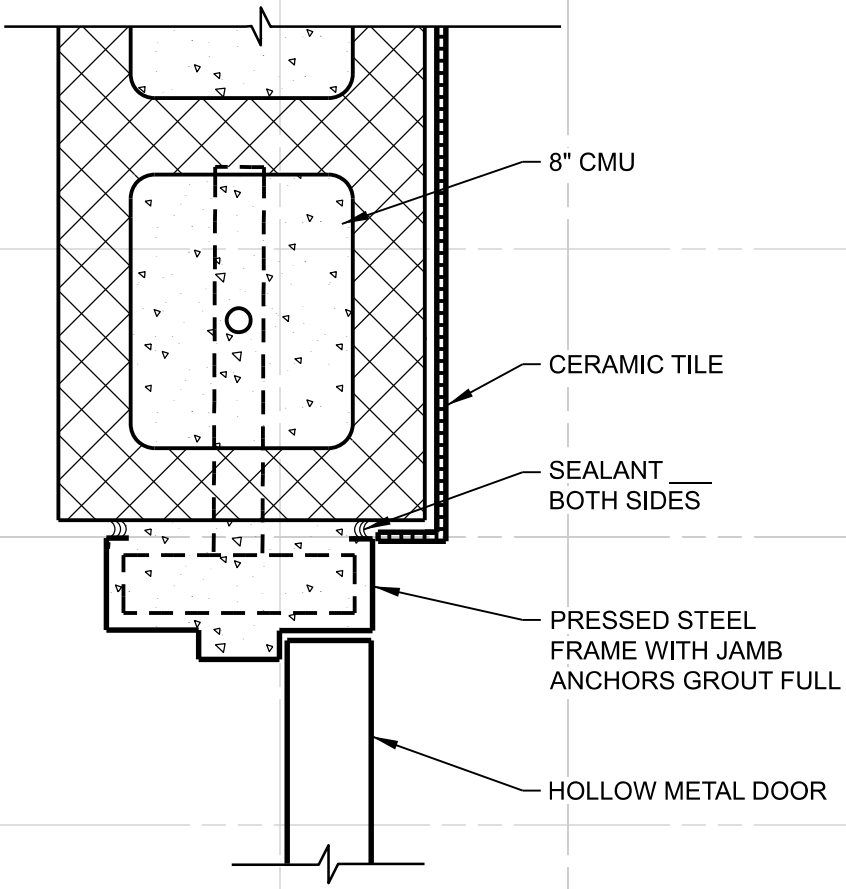
A1

DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT010X



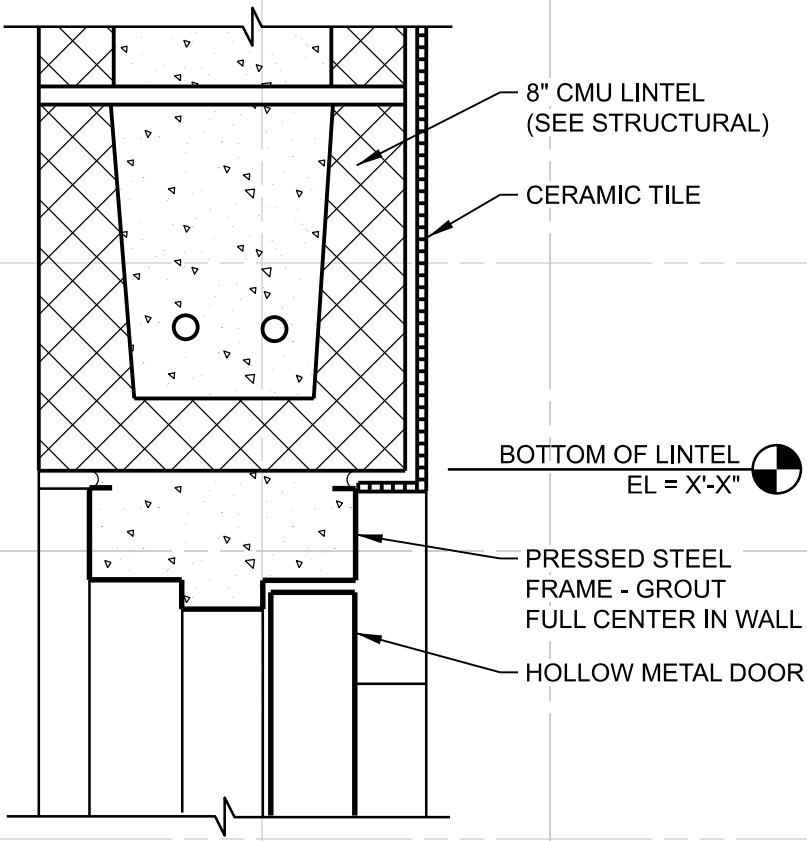
A1

DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT012X



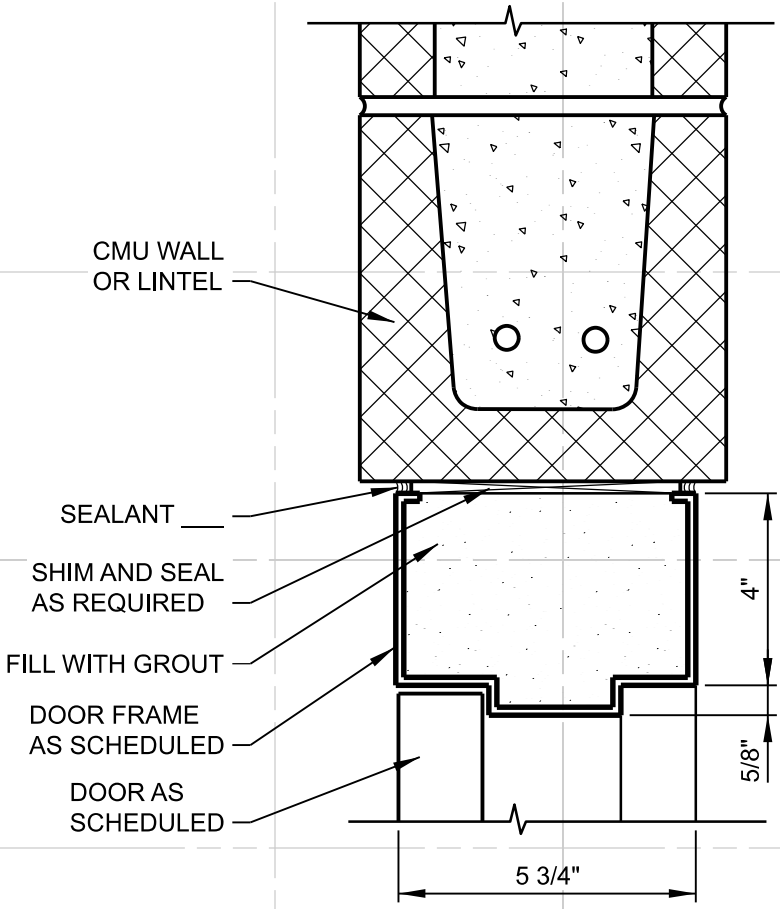
A1

DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT013X



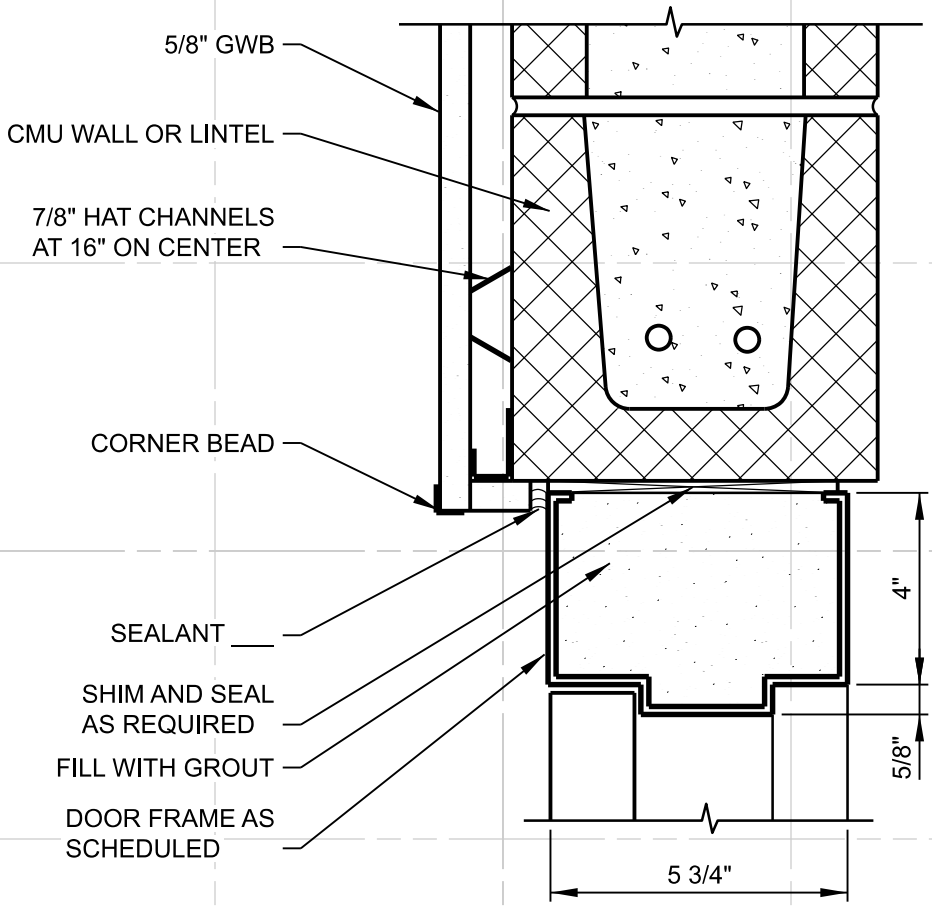
A1

DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT014X

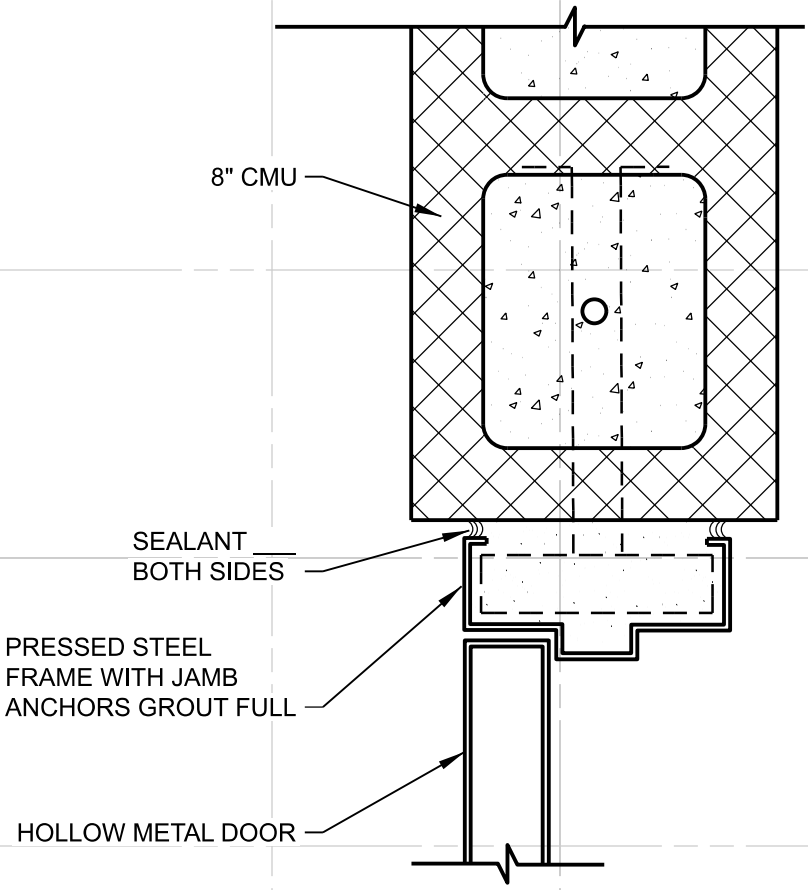


A1

DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'



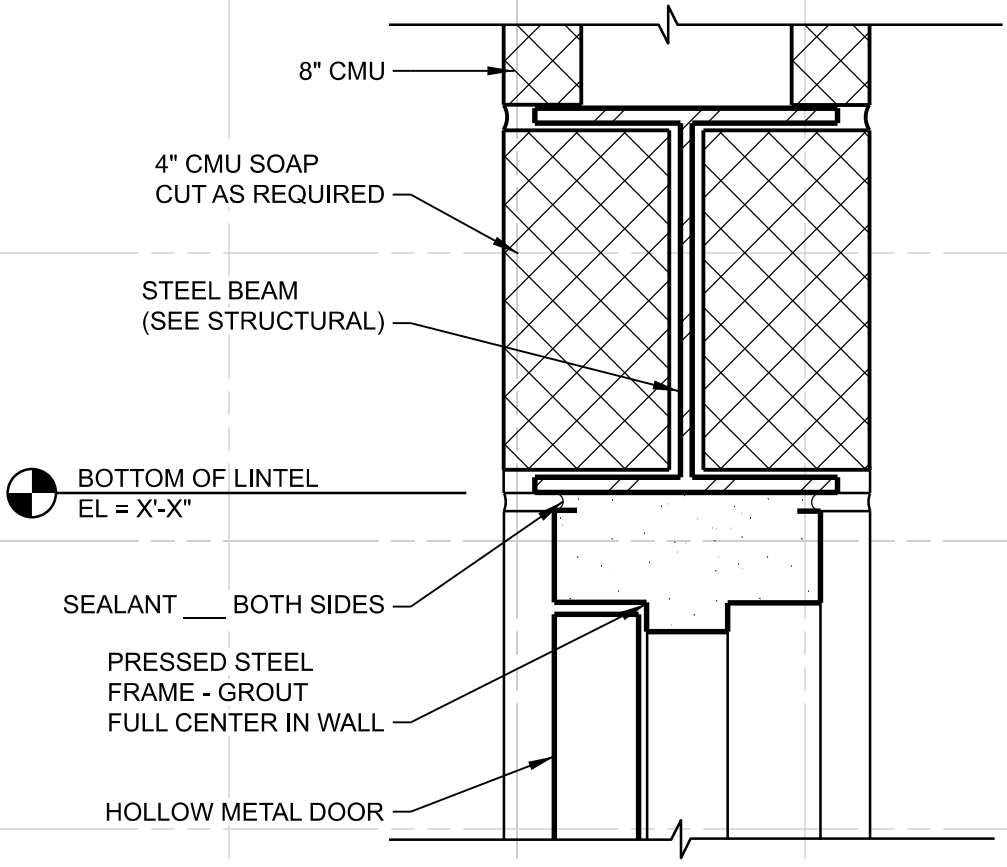
A1

DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT016X

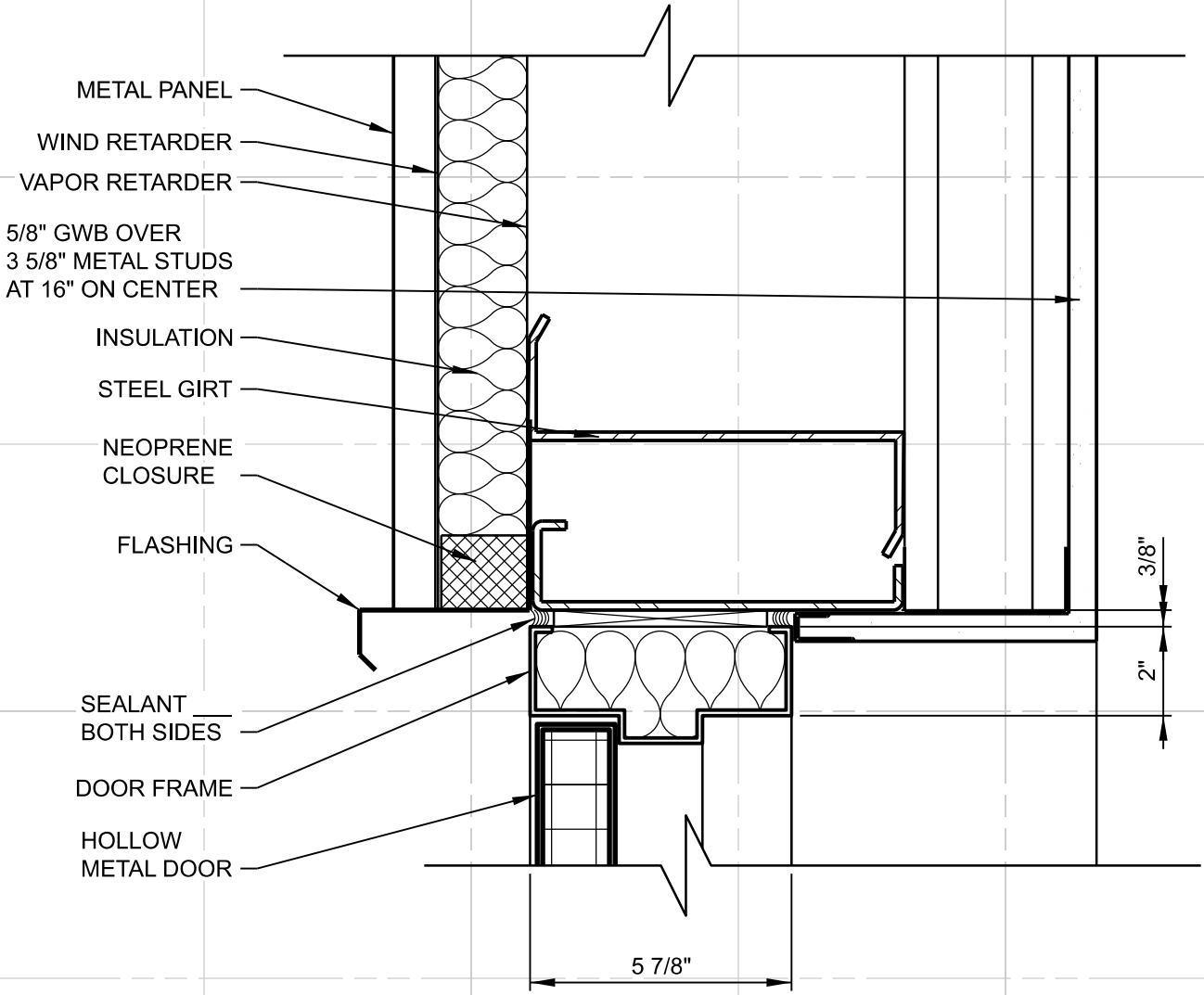


A1

DETAIL: HEAD

SCALE: 3"=1'-0" 0 3" 6" 1'

Detail B2030A-DT017X



A1

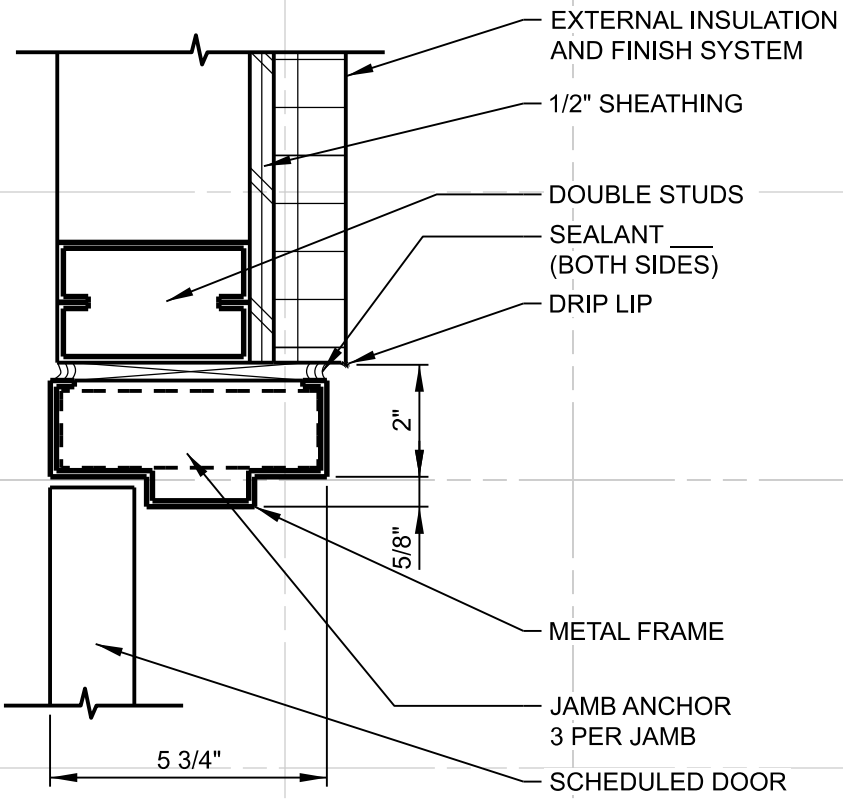
DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT018X

Details-US-Architectural-B203-ExteriorDoors

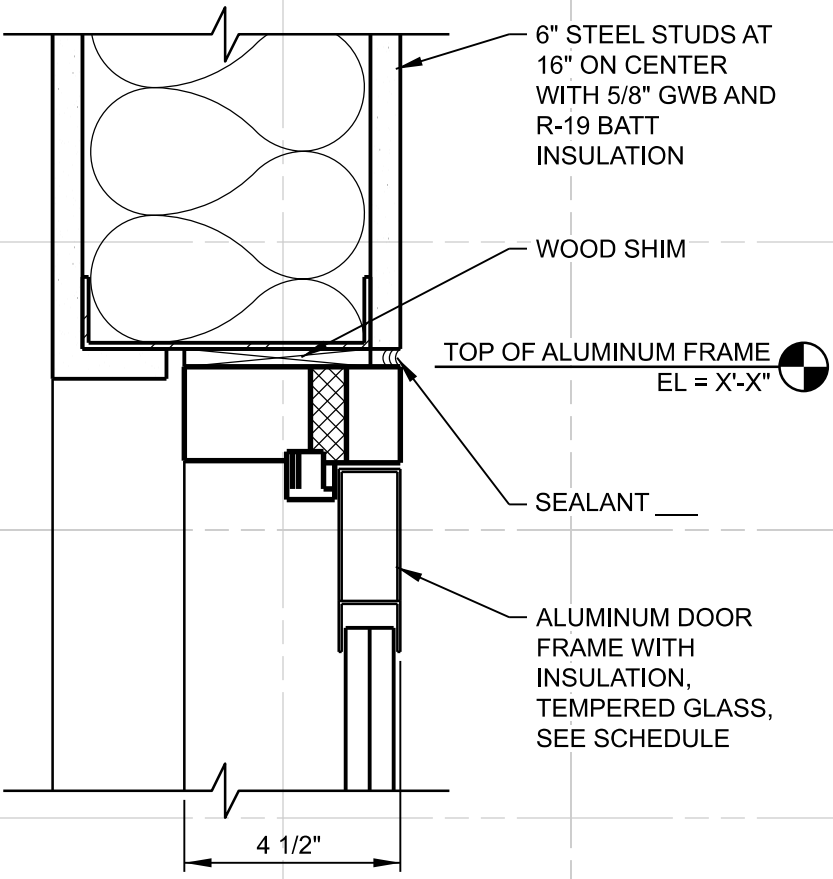


A1

DETAIL: HEAD (JAMB SIMILAR)

SCALE: 3"=1'-0"

0 3" 6" 1'

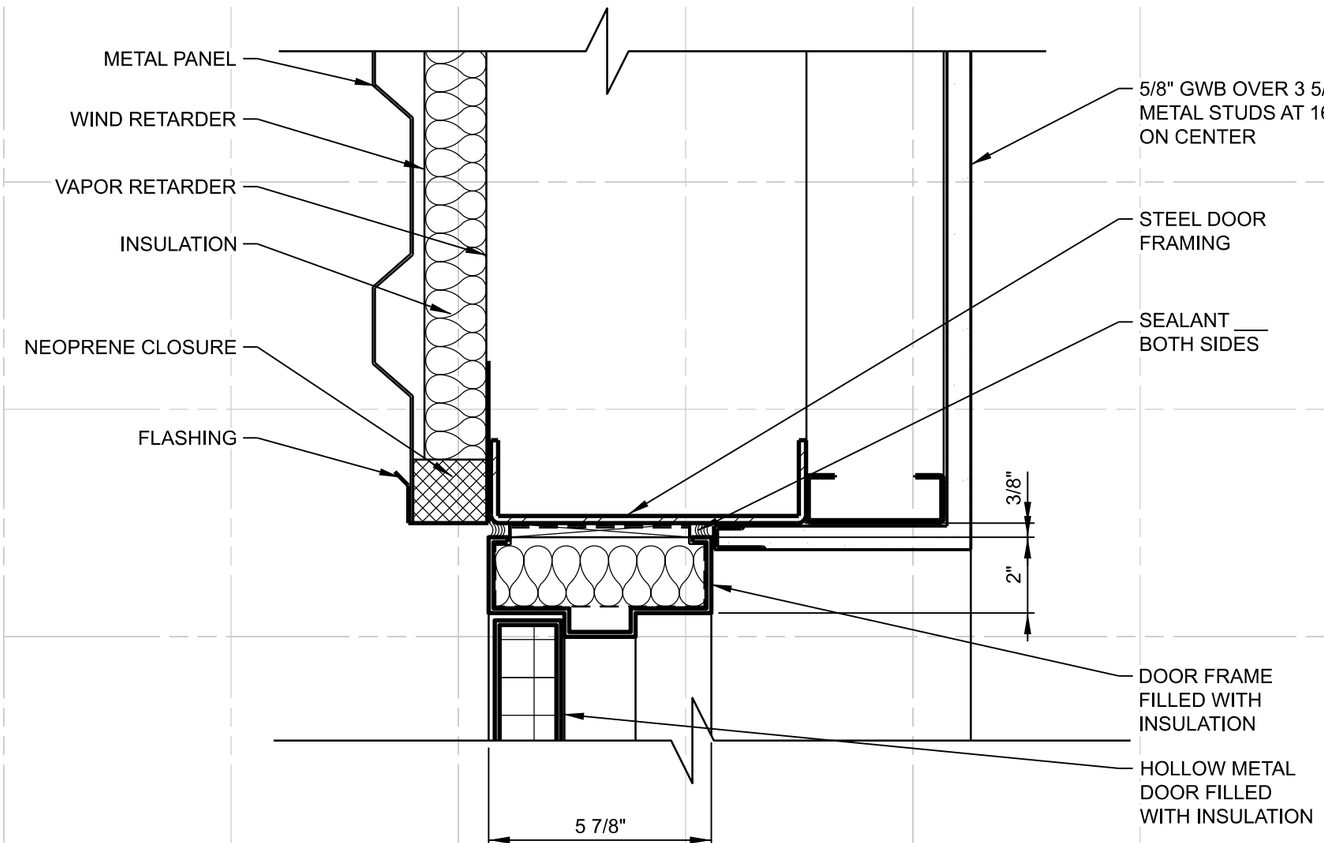


A1 DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT021X

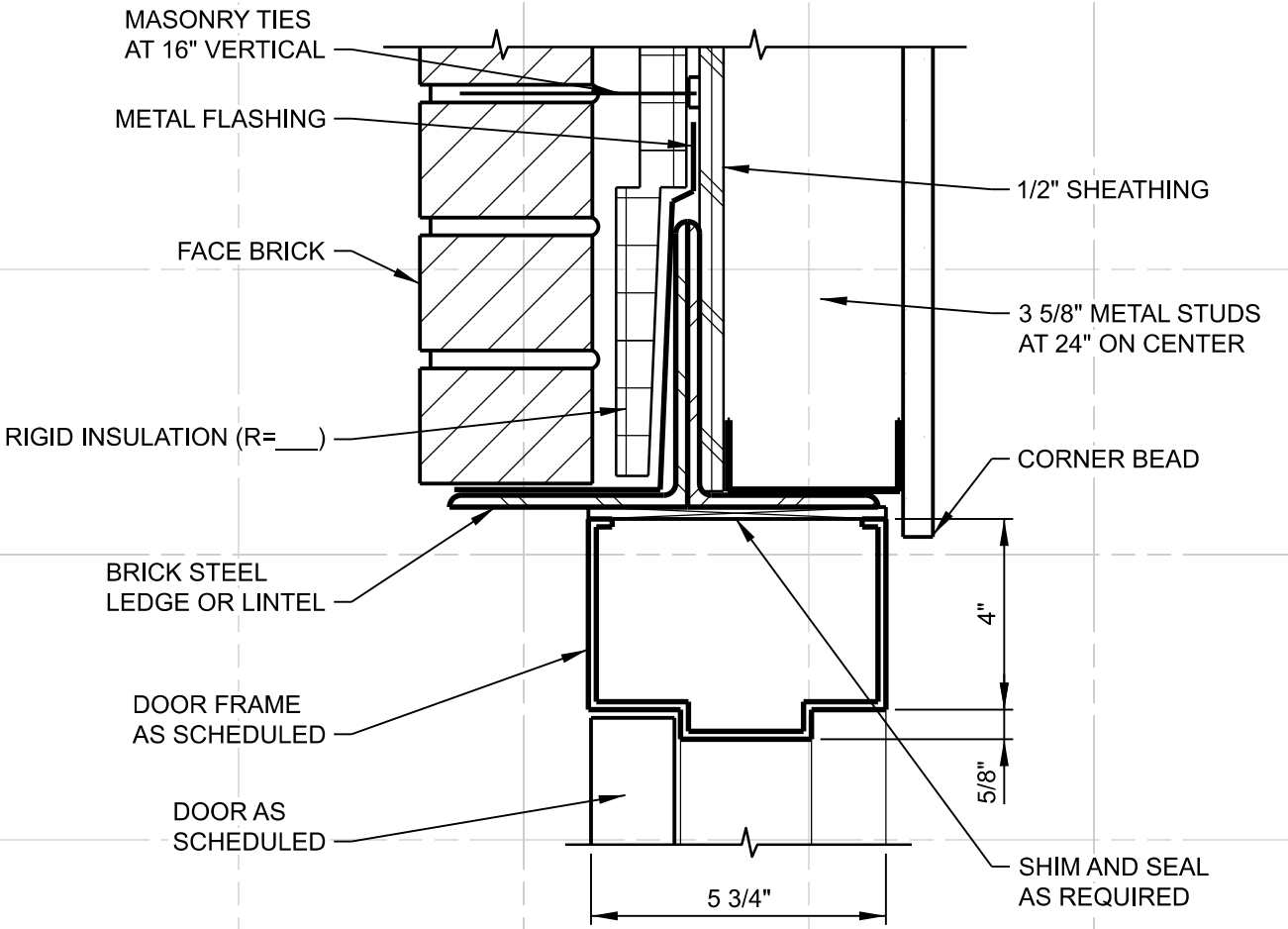


A1 DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT022X



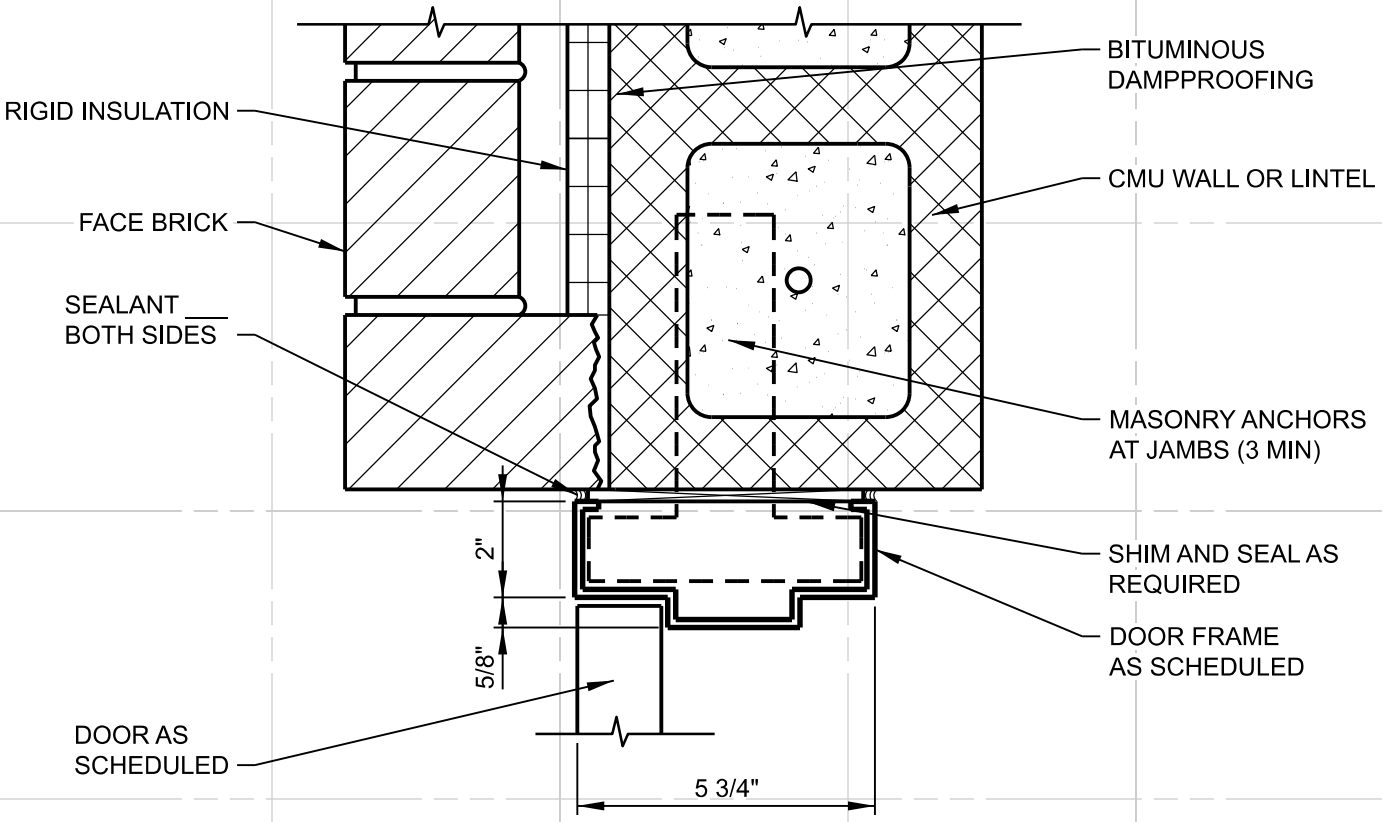
A1

DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT023X

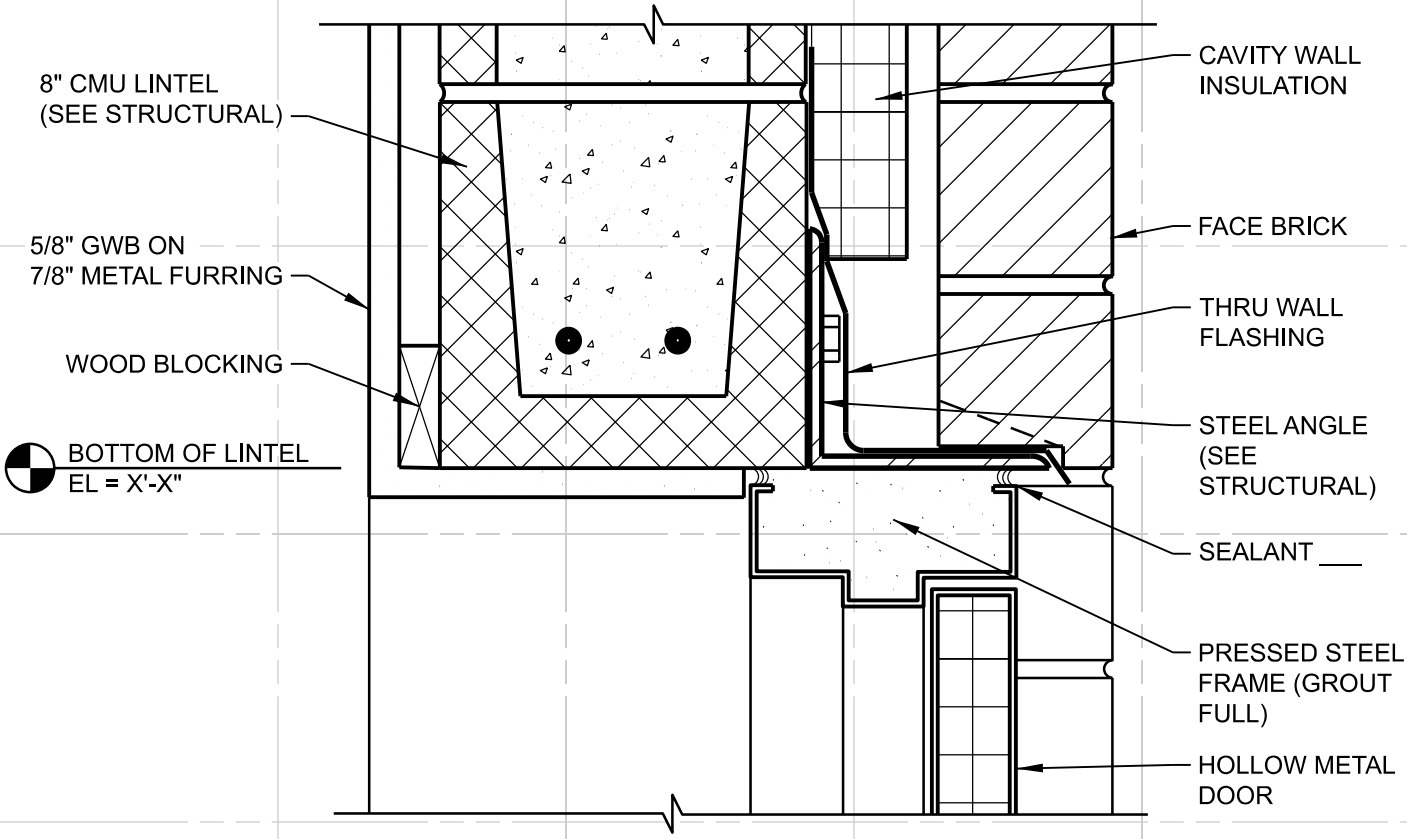


A1

DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'



A1

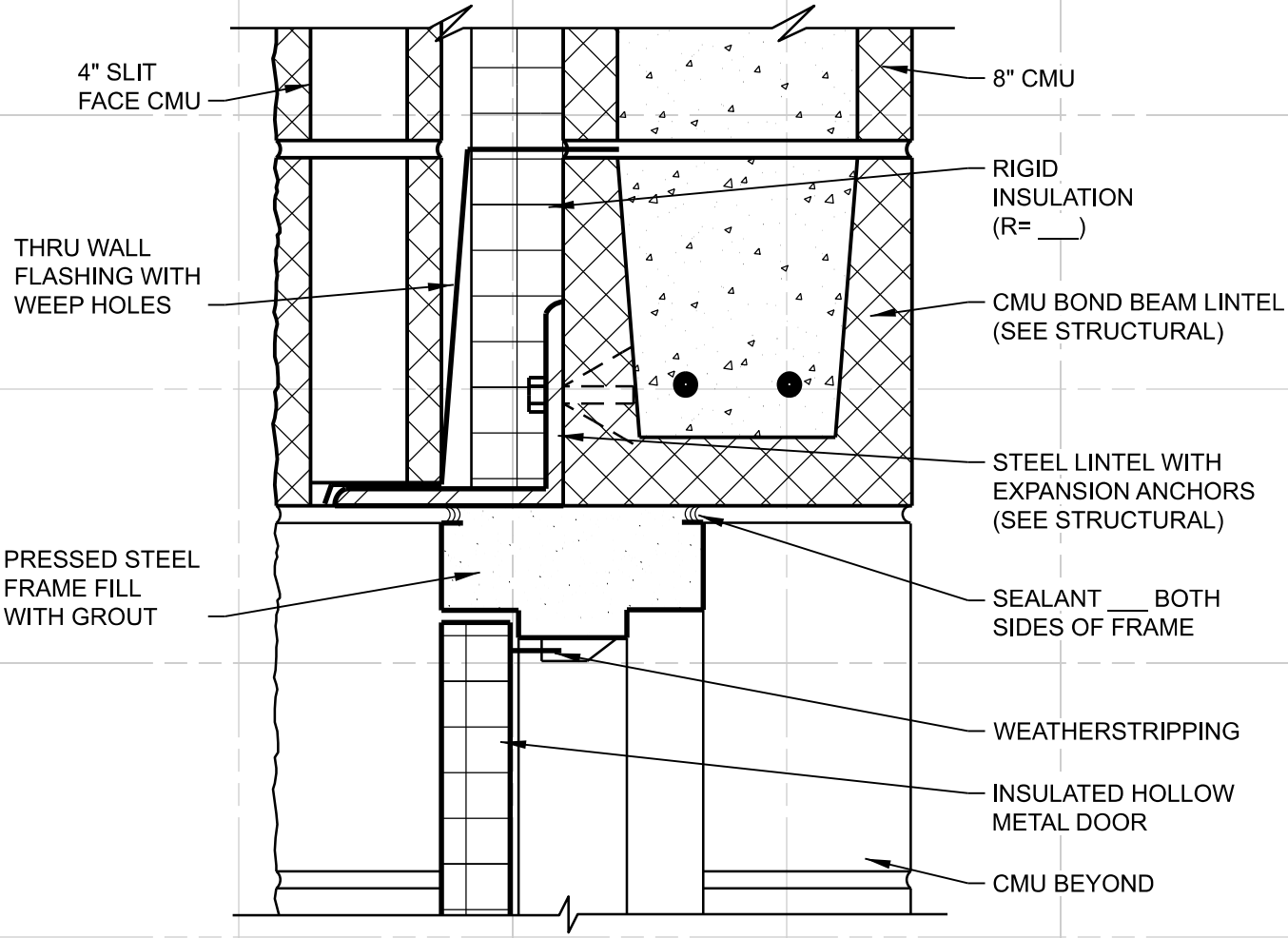
DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT026X

Details-US-Architectural-B203-ExteriorDoors



A1

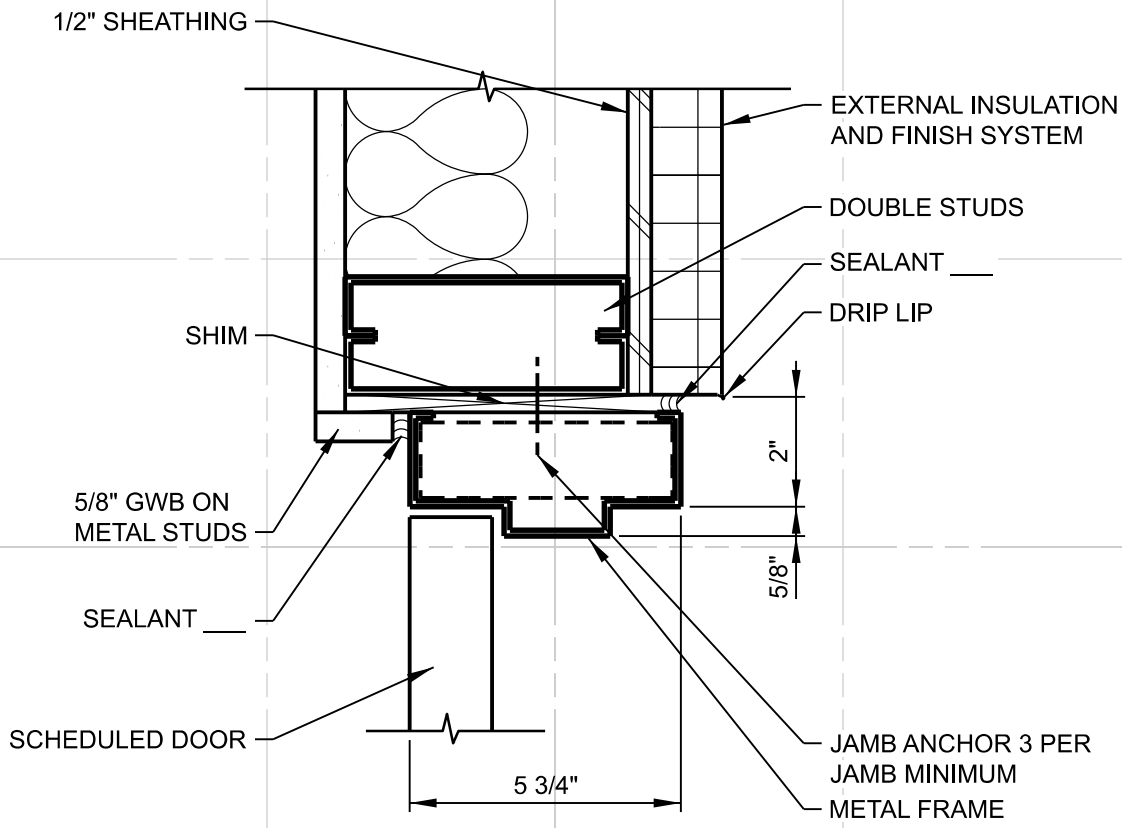
DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT027X

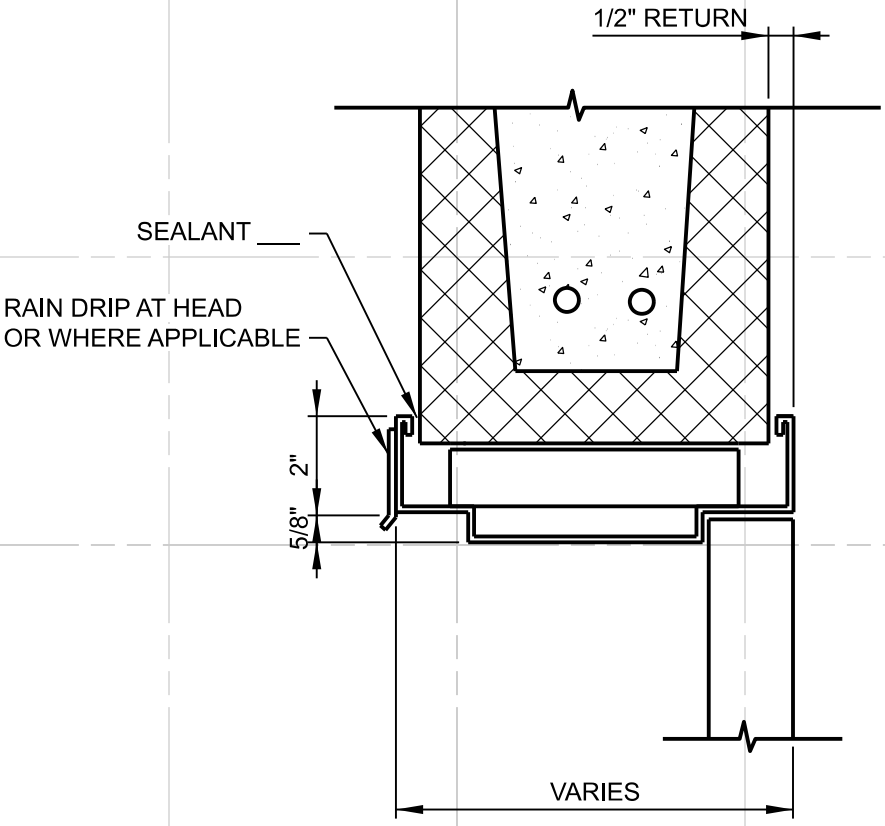
Details-US-Architectural-B203-ExteriorDoors



A1

DETAIL: HEAD/JAMB

SCALE: 3"=1'-0" 0 3" 6" 1'

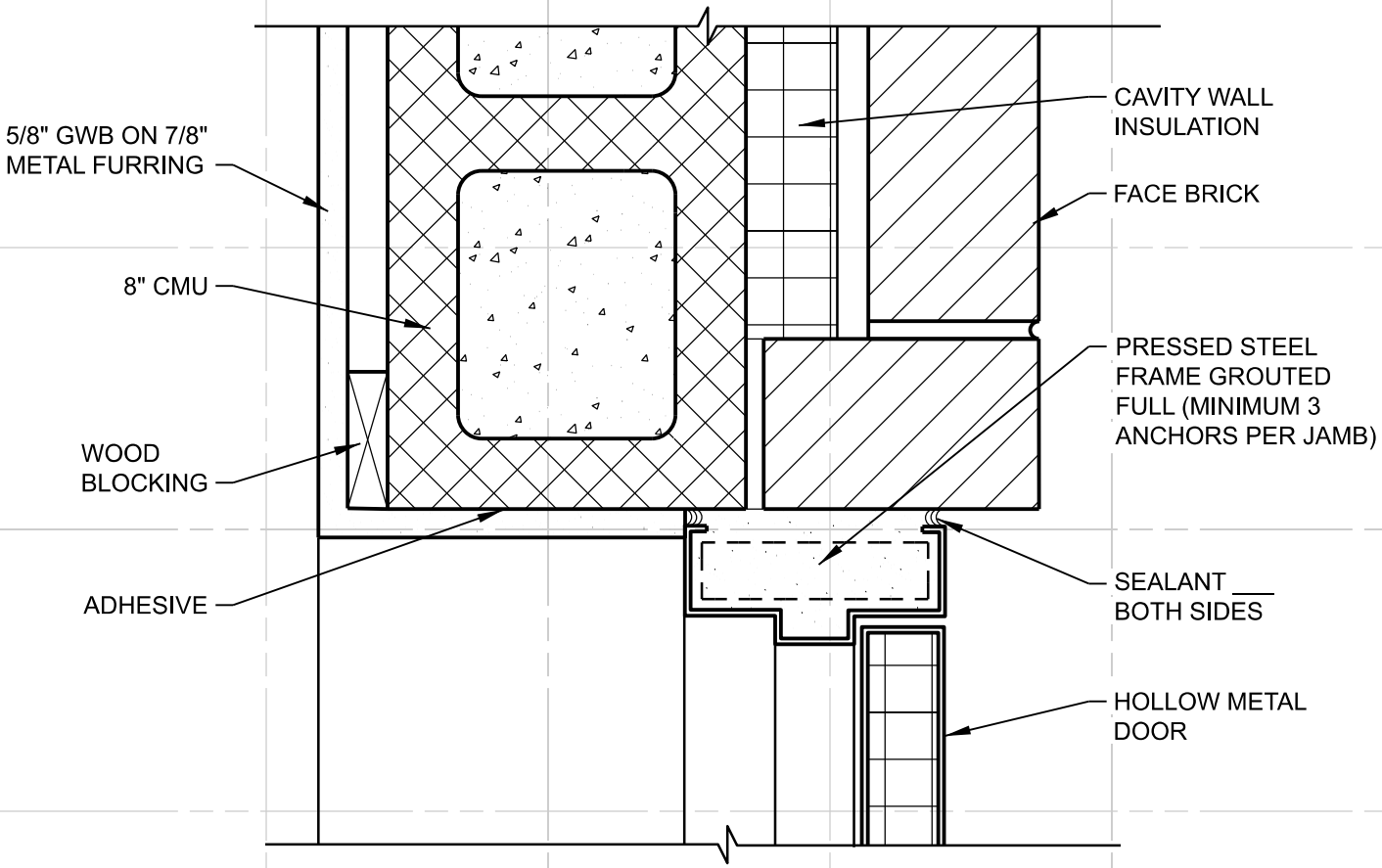


A1

DETAIL: HEAD/JAMB SIMILAR

SCALE: 3"=1'-0" 0 3" 6" 1'

Detail B2030A-DT029X



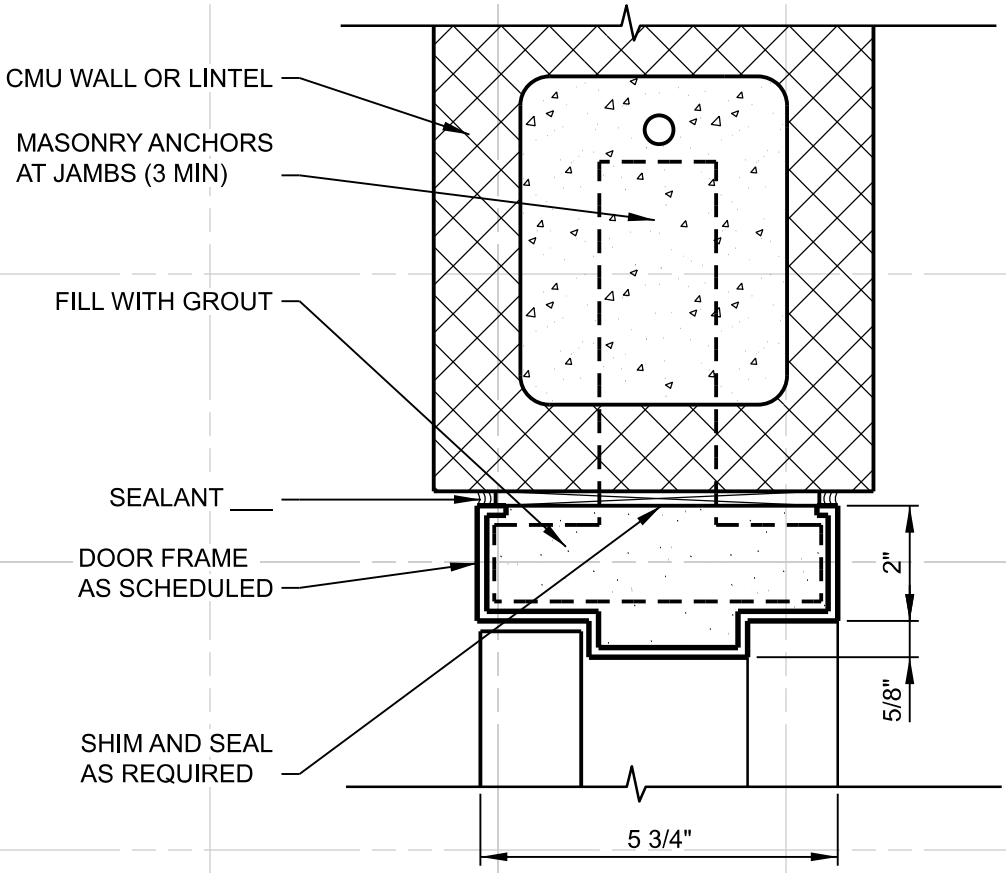
A1

DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT030X

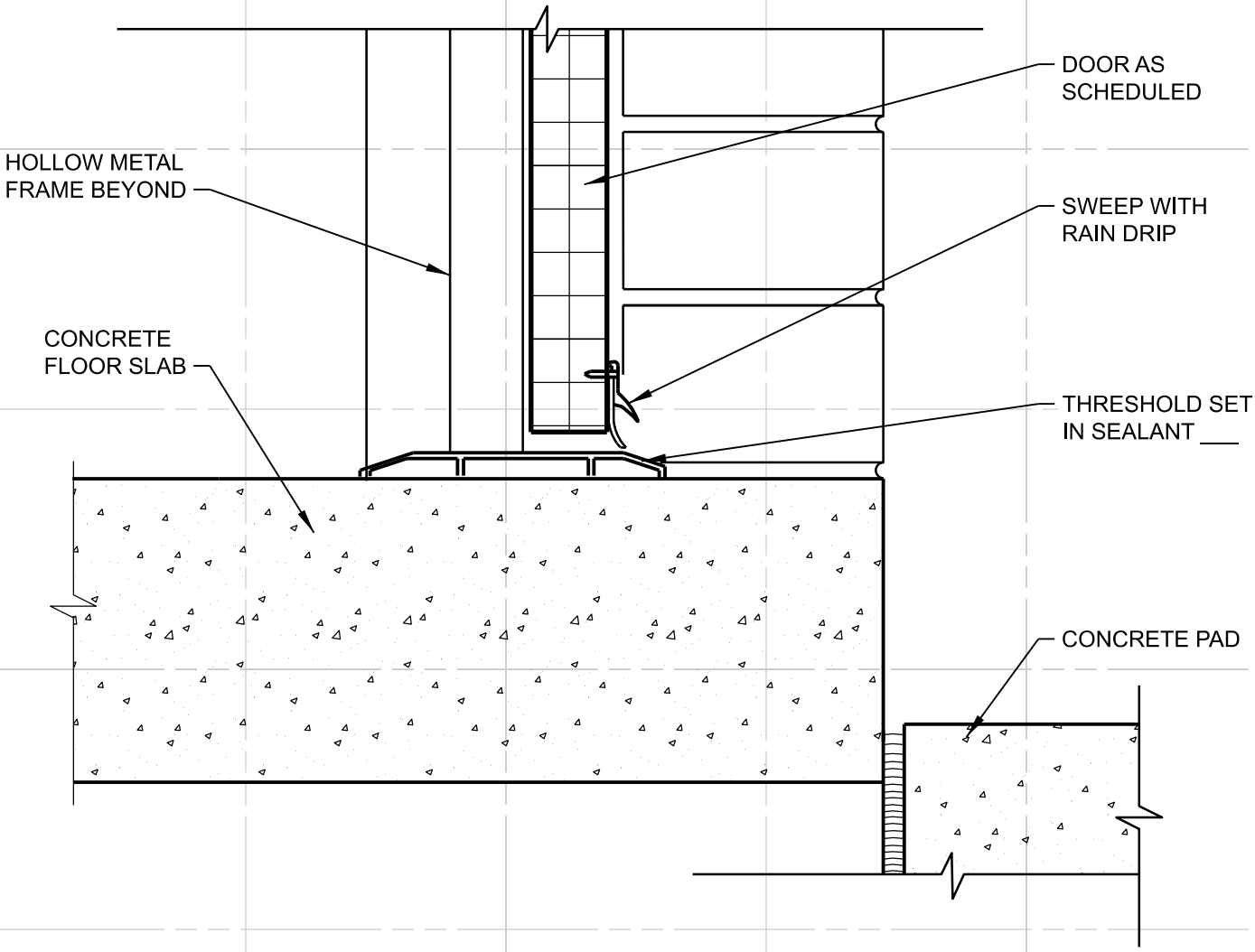


A1

DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'



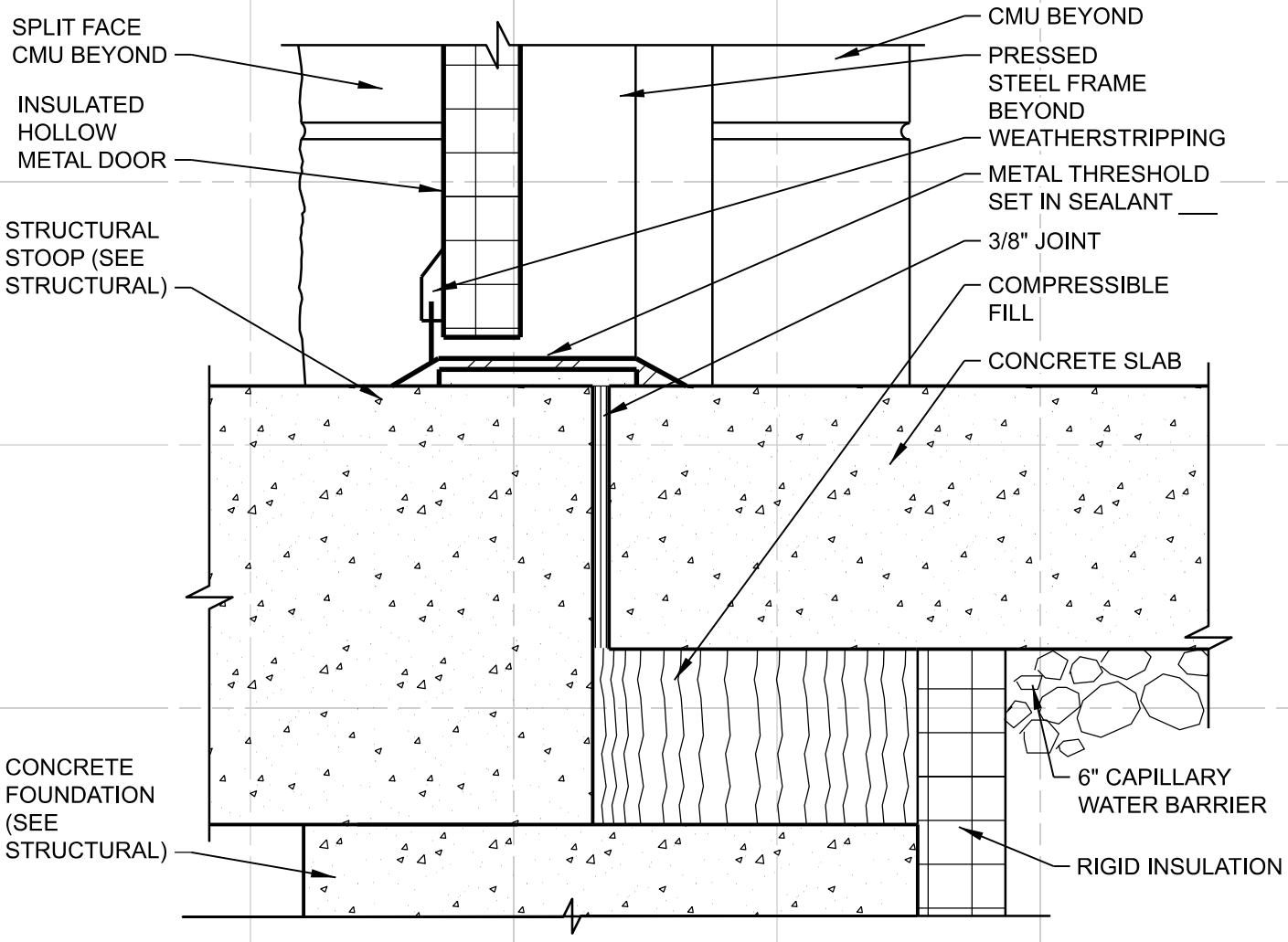
A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT032X



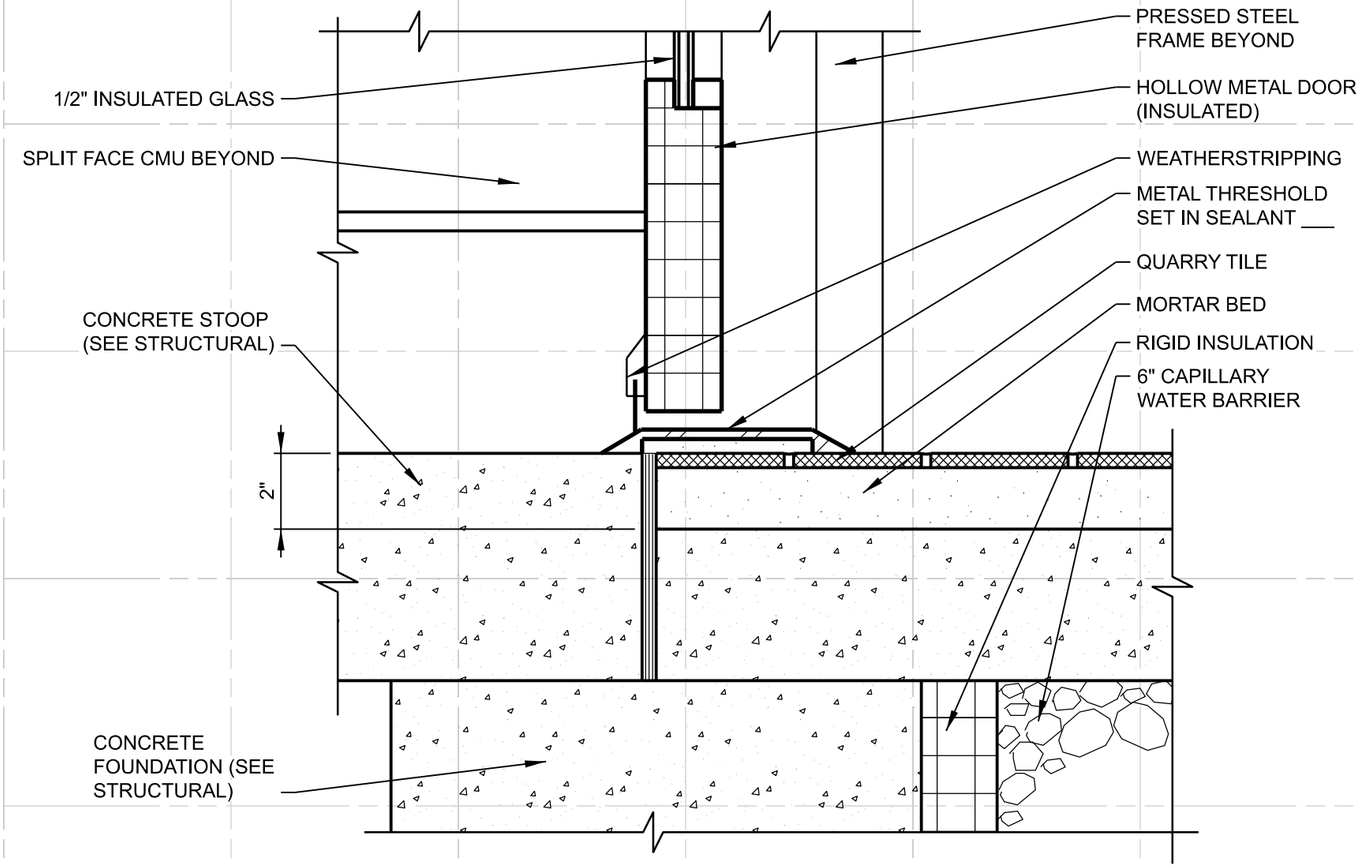
A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT033X

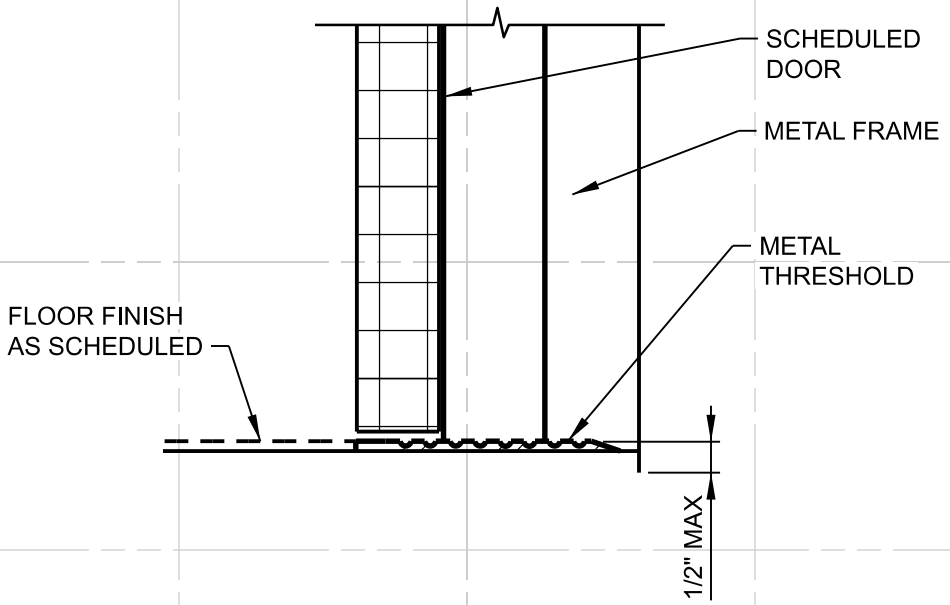


A1 DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT034X

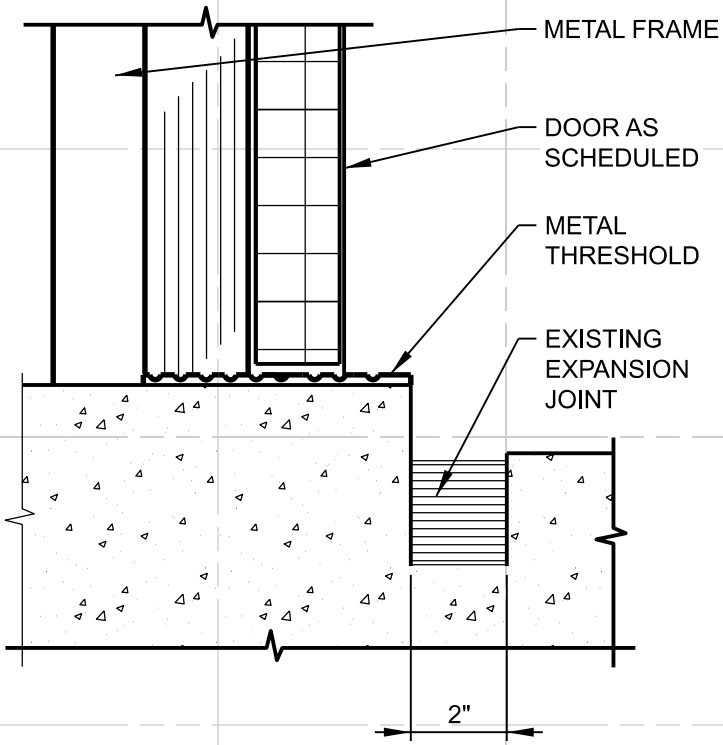


A1

DETAIL: SILL

SCALE: 3"=1'-0" 0 3" 6" 1'

Detail B2030A-DT035X



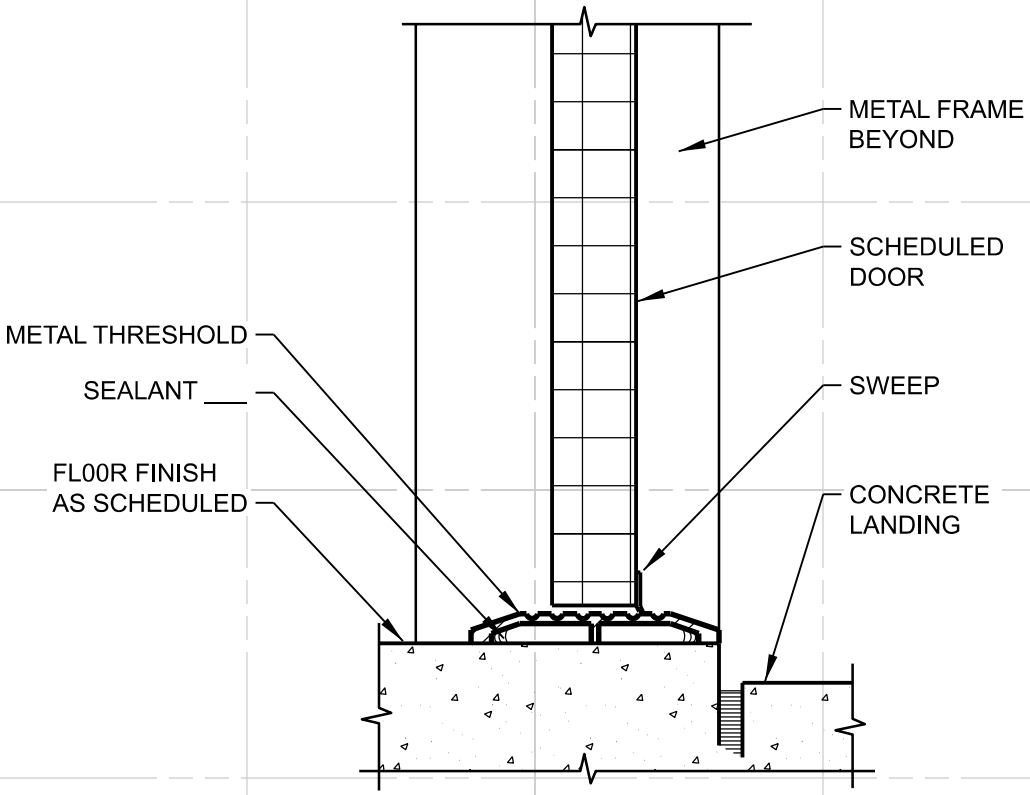
A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT036X

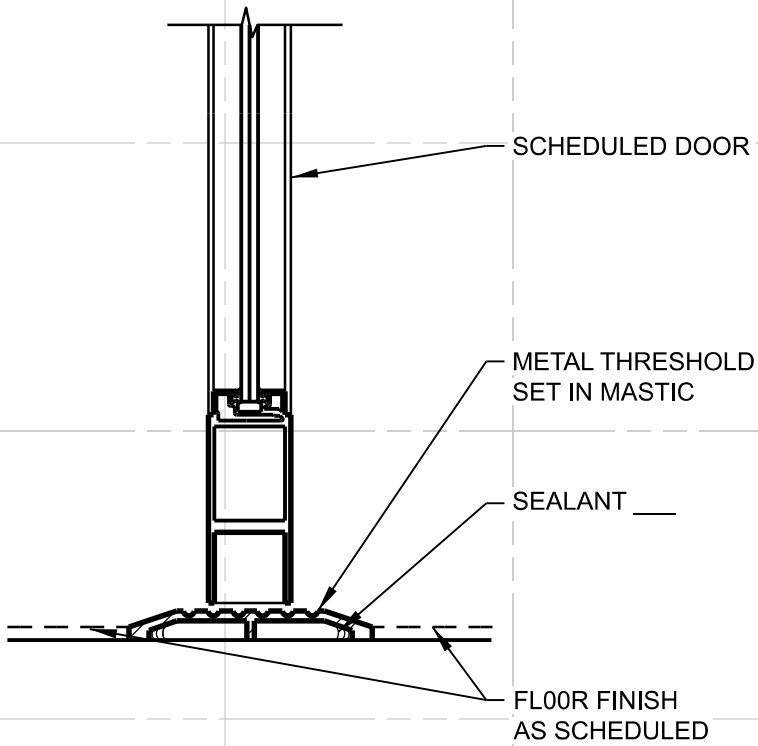


A1

DETAIL: SILL

SCALE: 3"=1'-0" 0 3" 6" 1'

Detail B2030A-DT037X



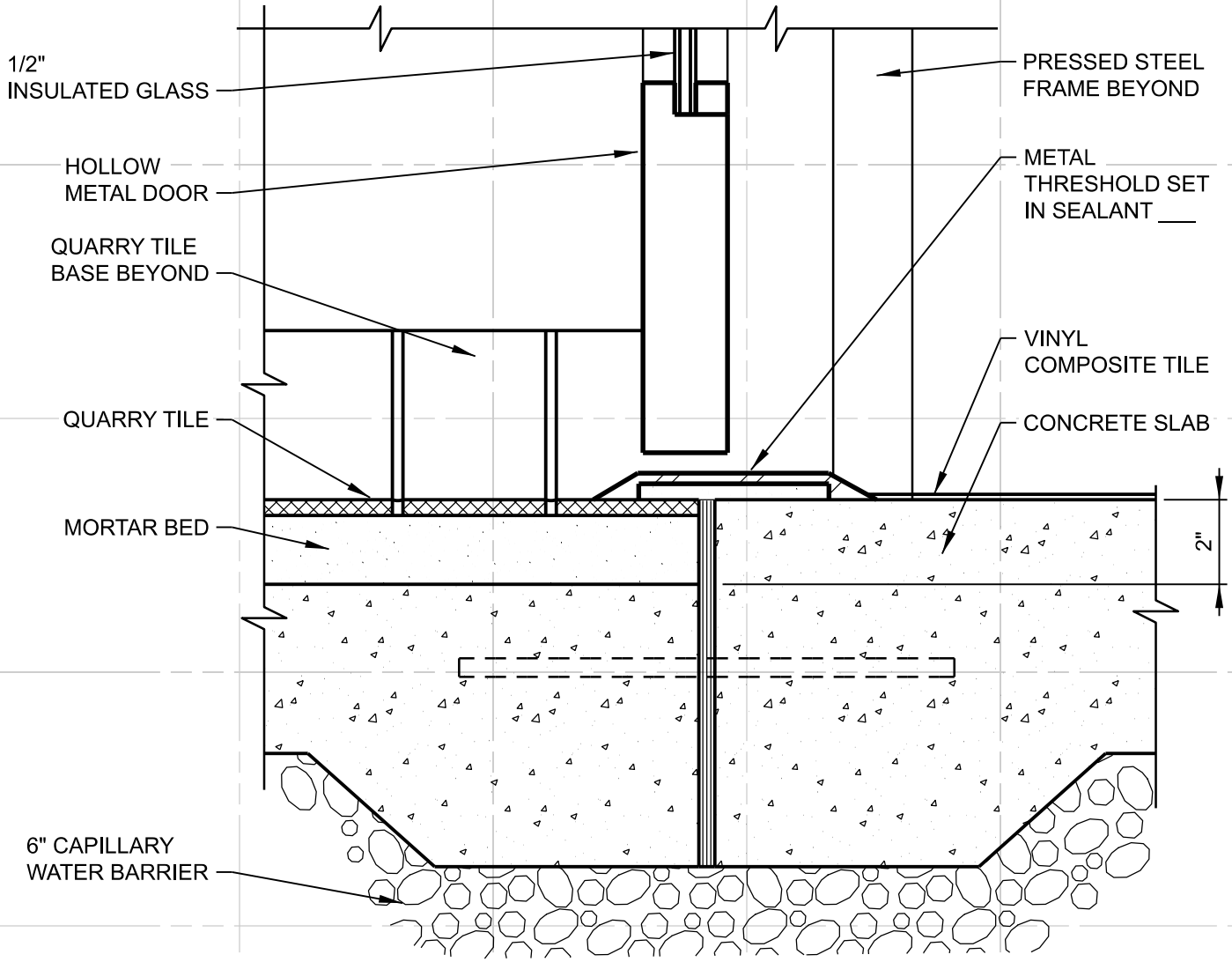
A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT038X



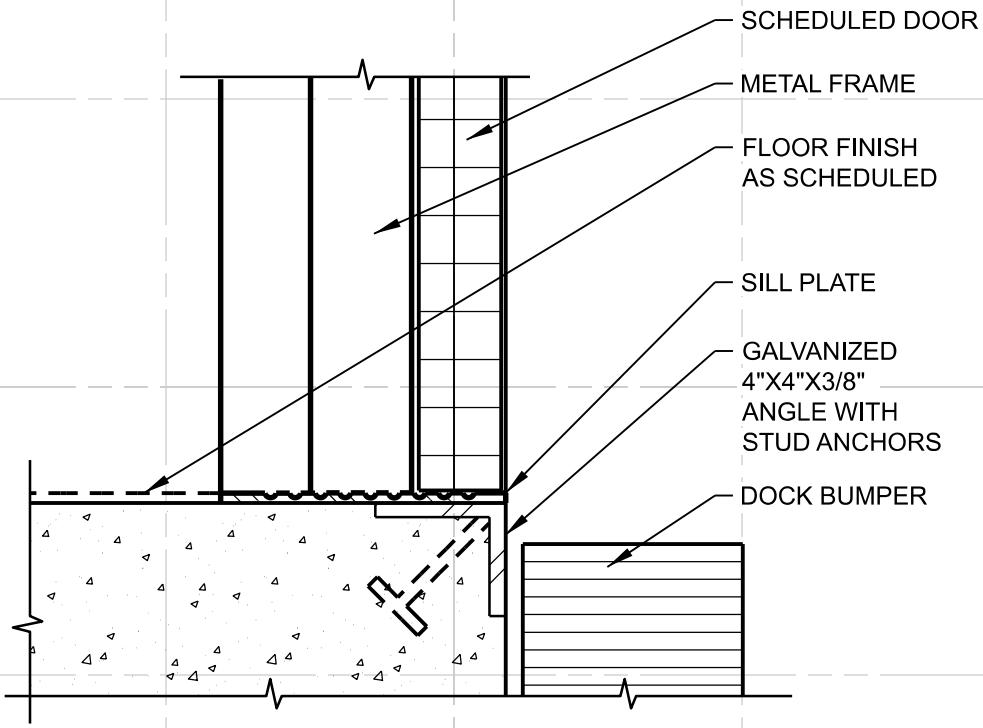
A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

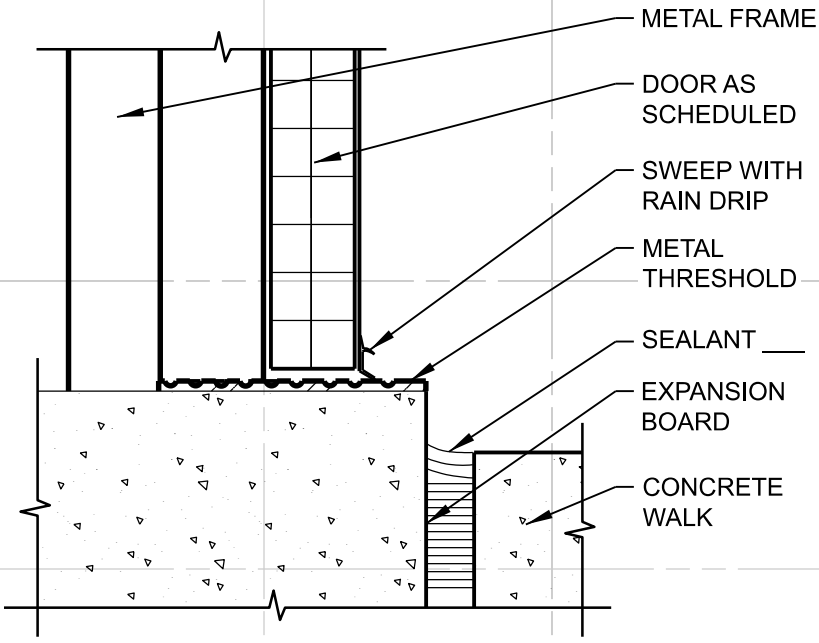
Detail B2030A-DT039X



A1 DETAIL: SILL

SCALE: 3"=1'-0" 0 3" 6" 1'

Detail B2030A-DT040X



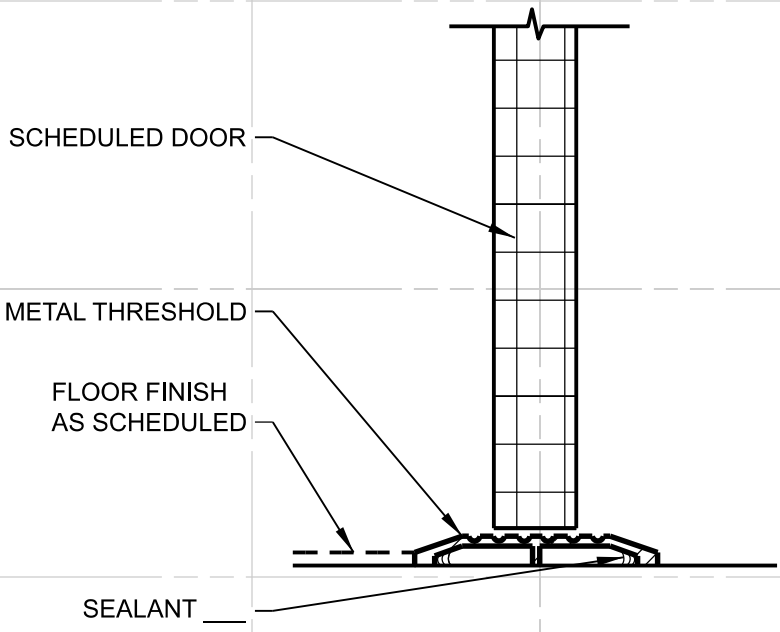
A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT041X



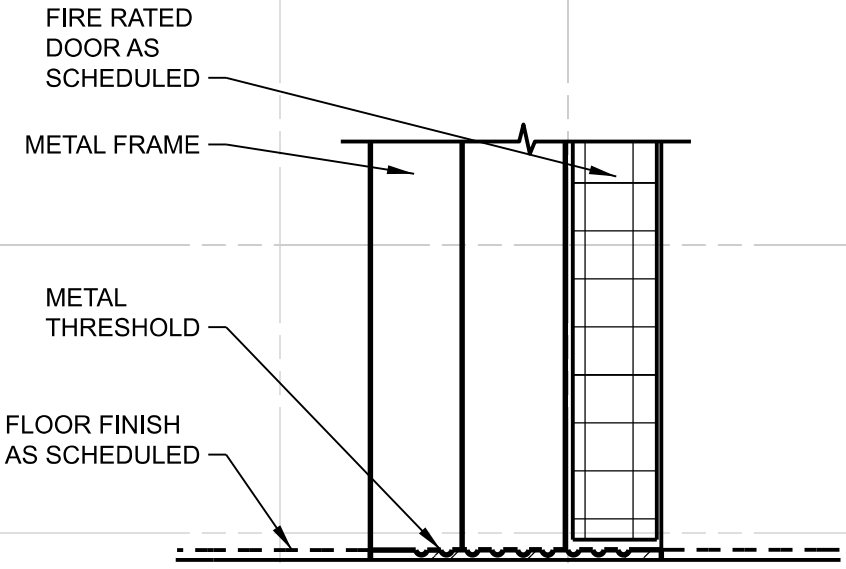
A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT042X



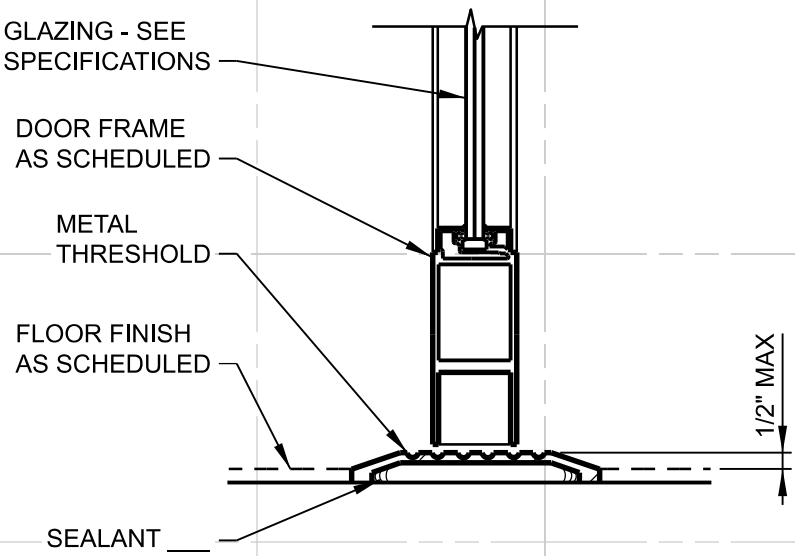
A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT043X



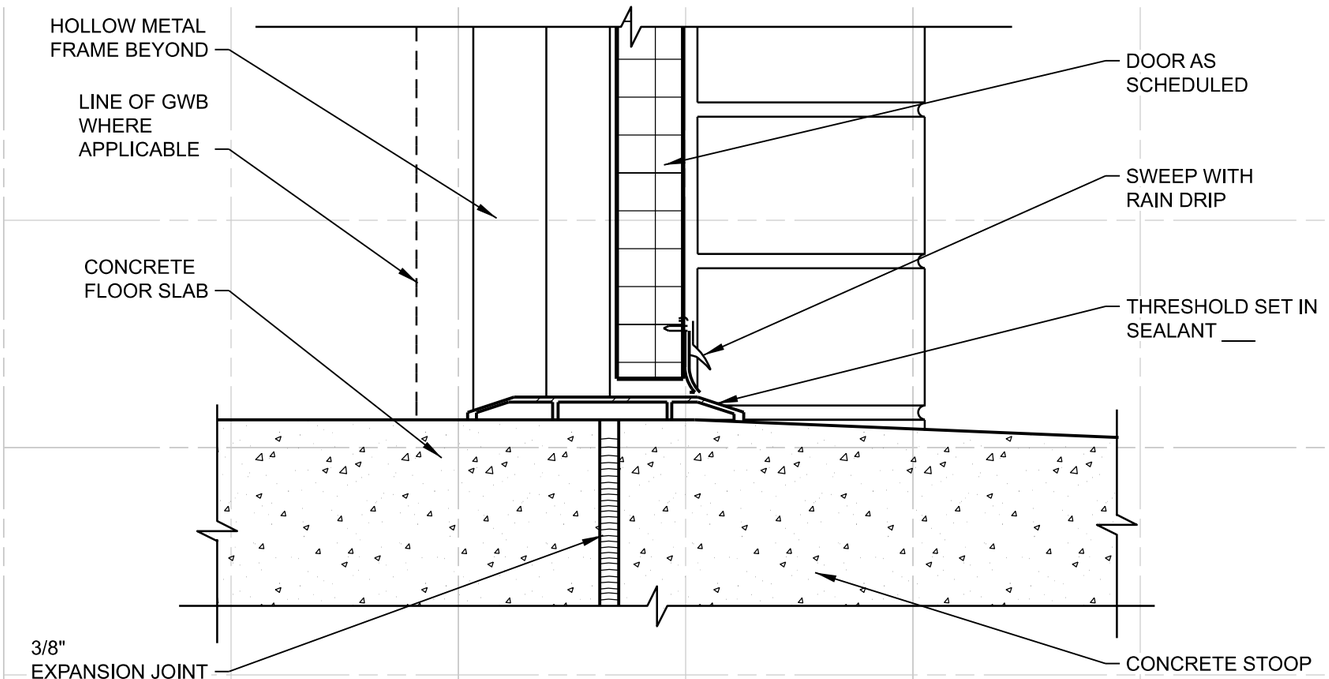
A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT044X

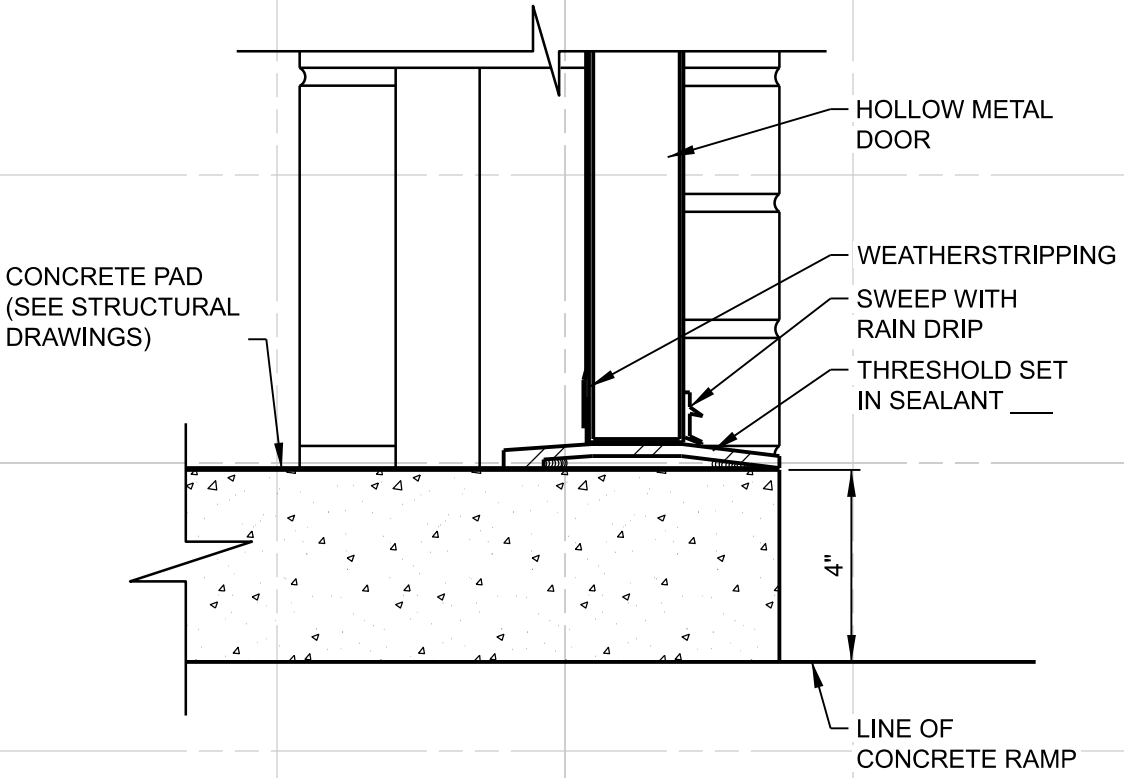


A1 DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT045X

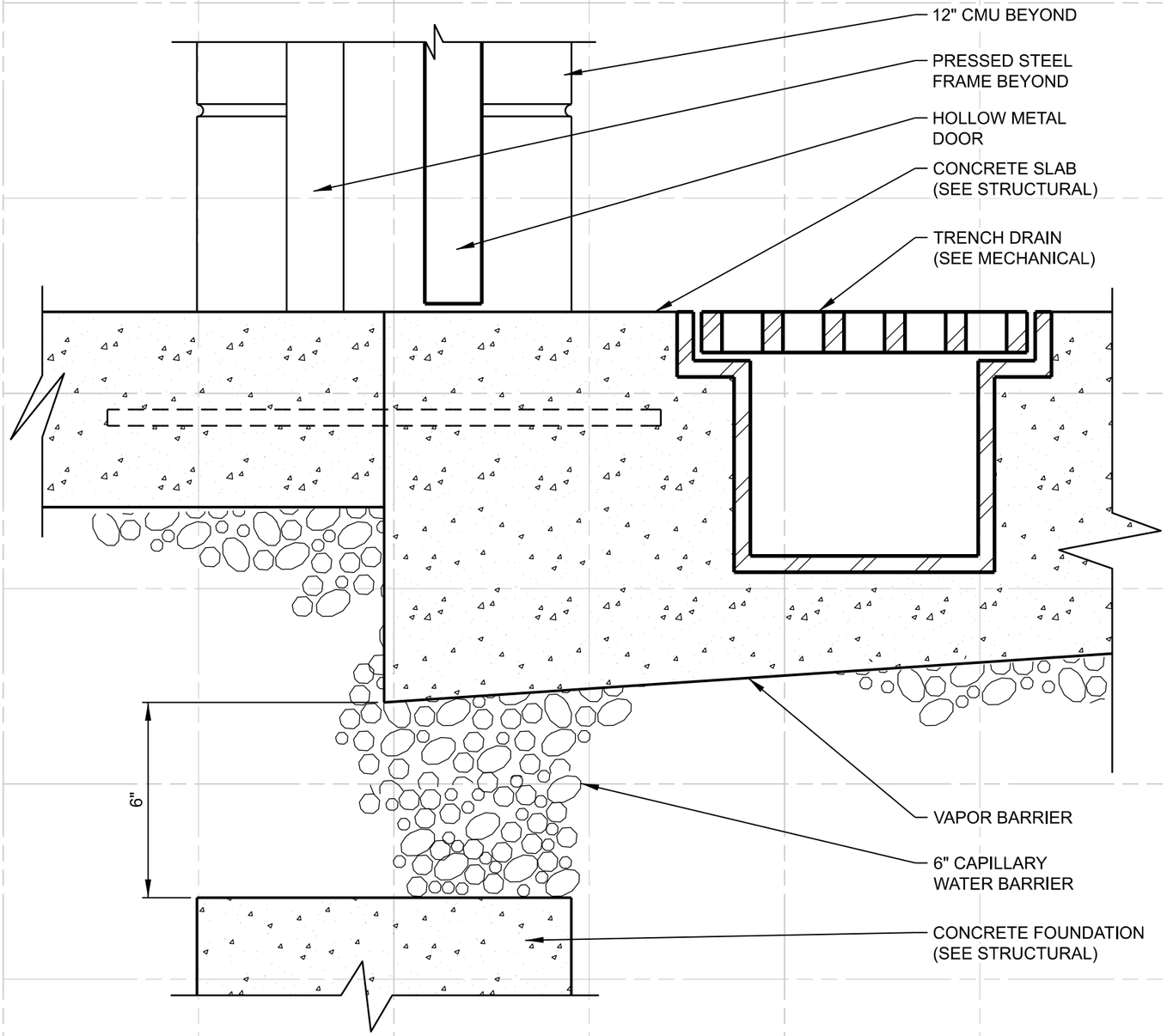


A1

DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

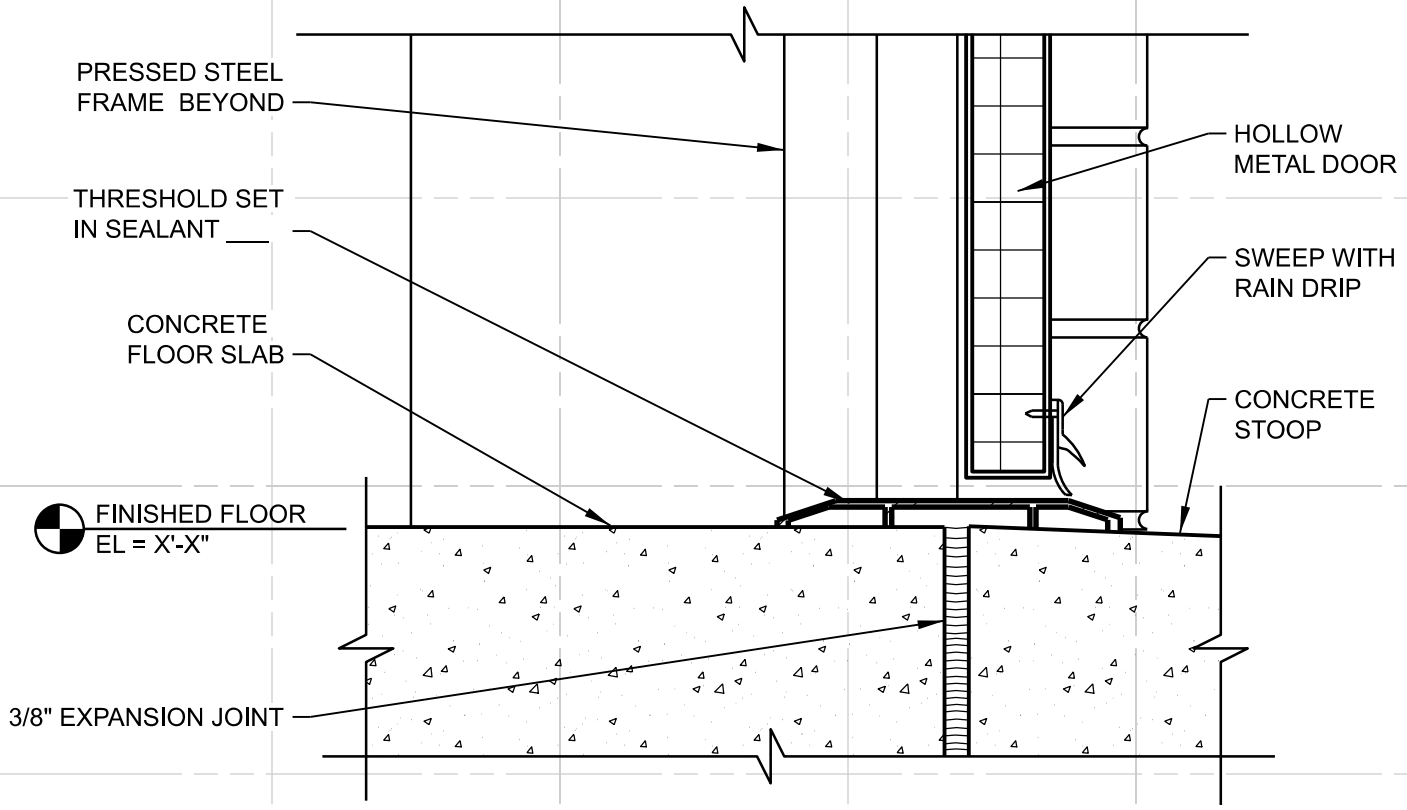


A1 DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT048X

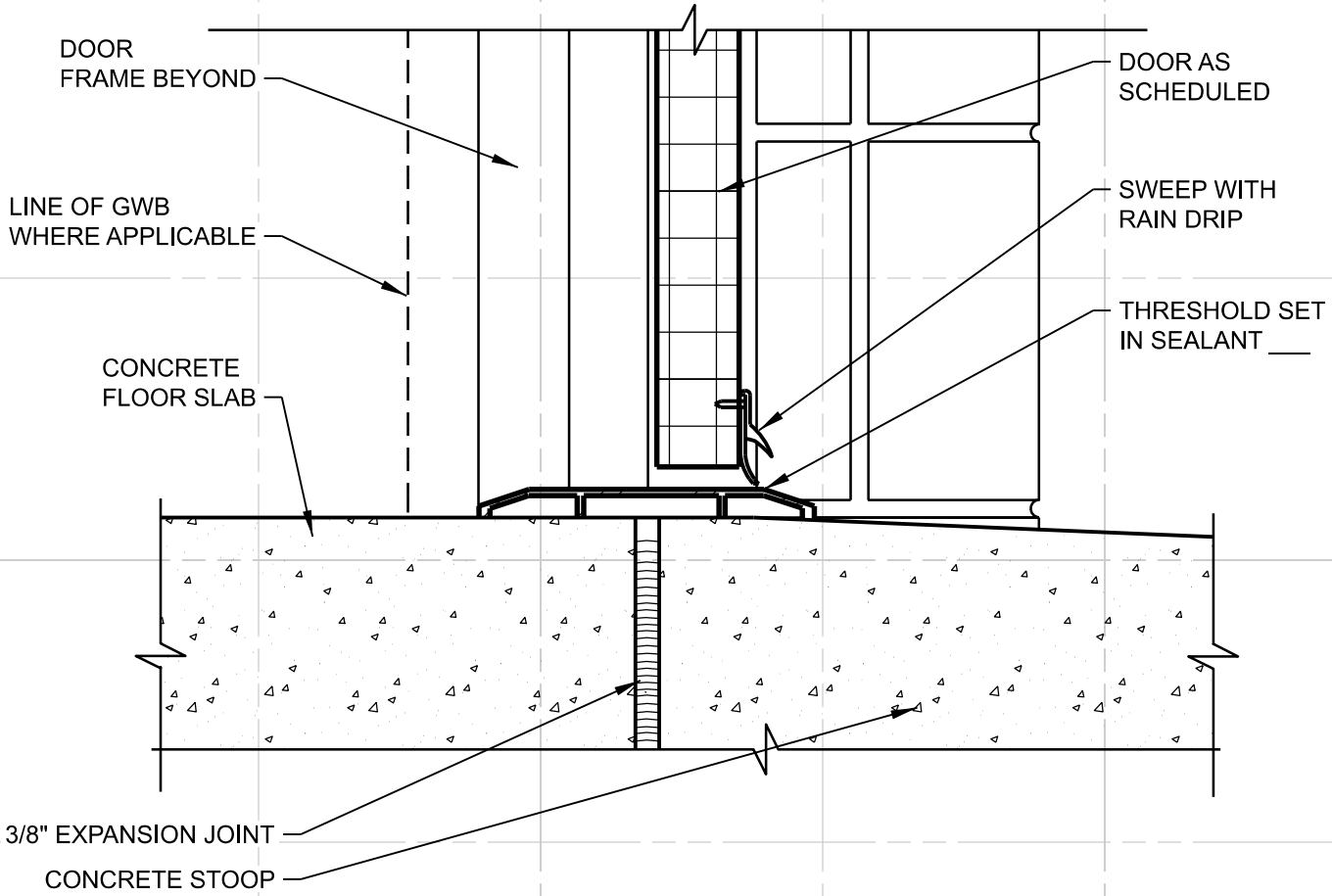


A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'



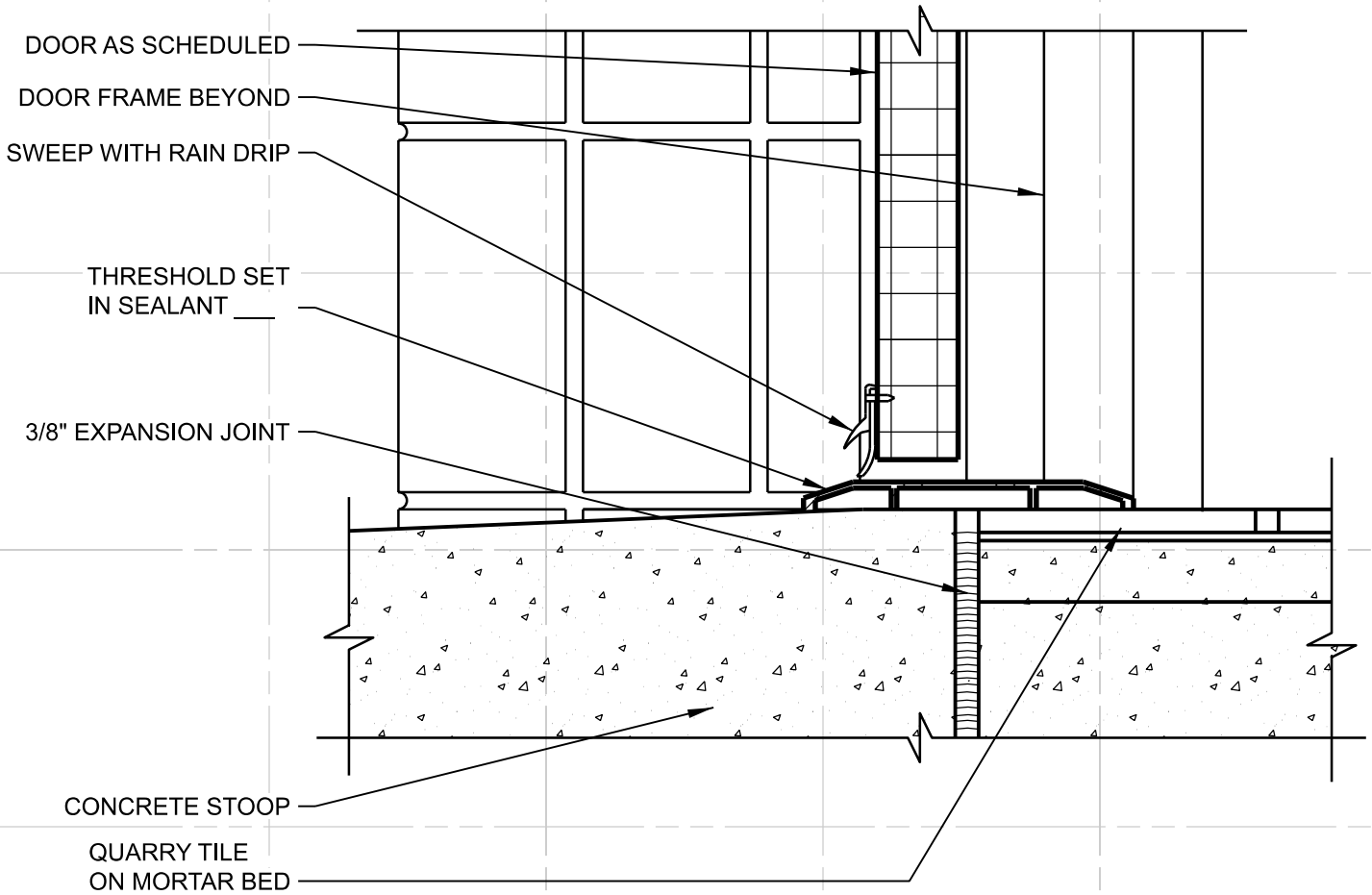
A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2030A-DT050X



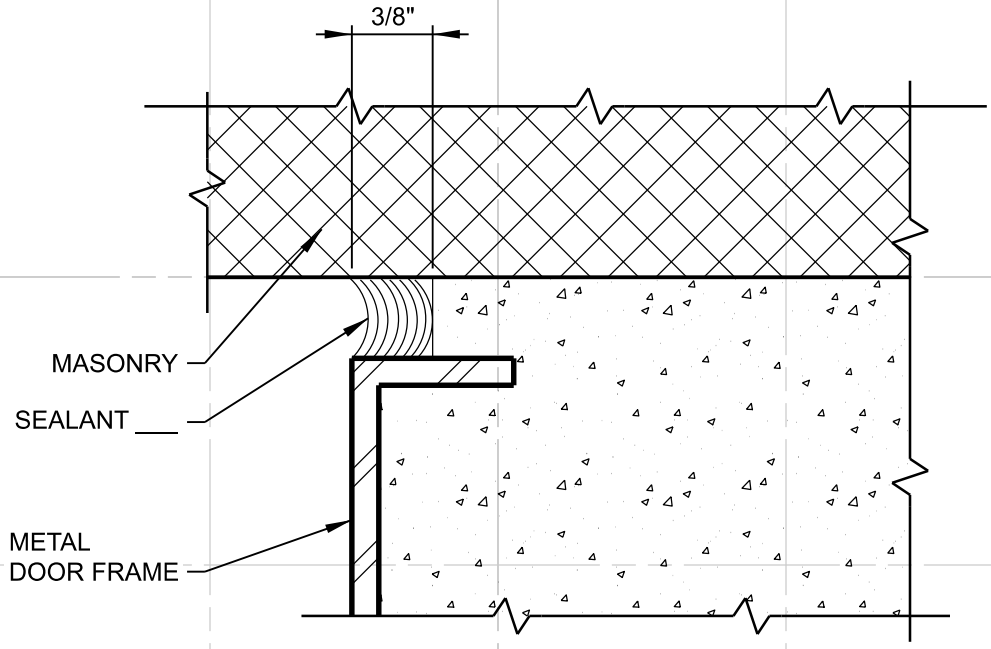
A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

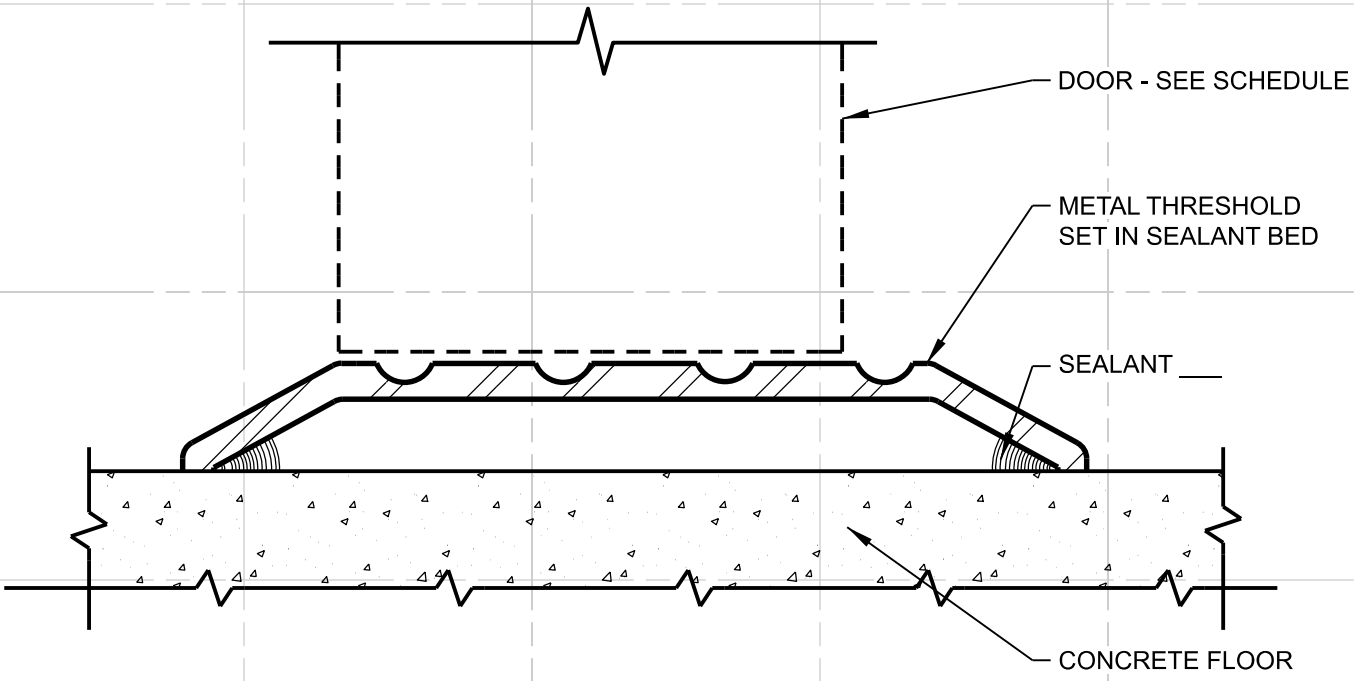
Detail B2030A-DT051X



A1

DETAIL: SEALANT JOINT

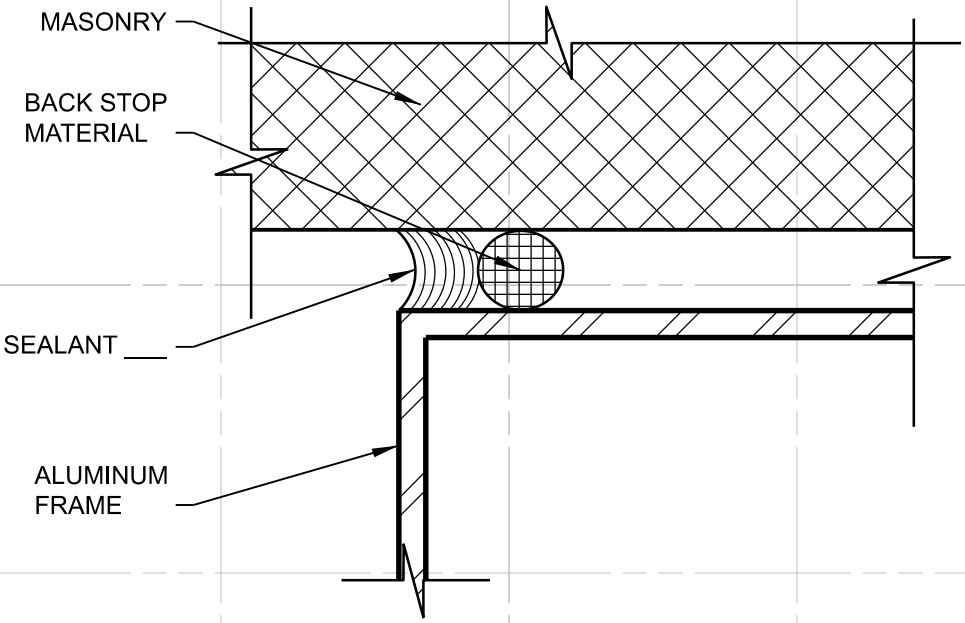
SCALE: NTS



A1

DETAIL: SEALANT JOINT

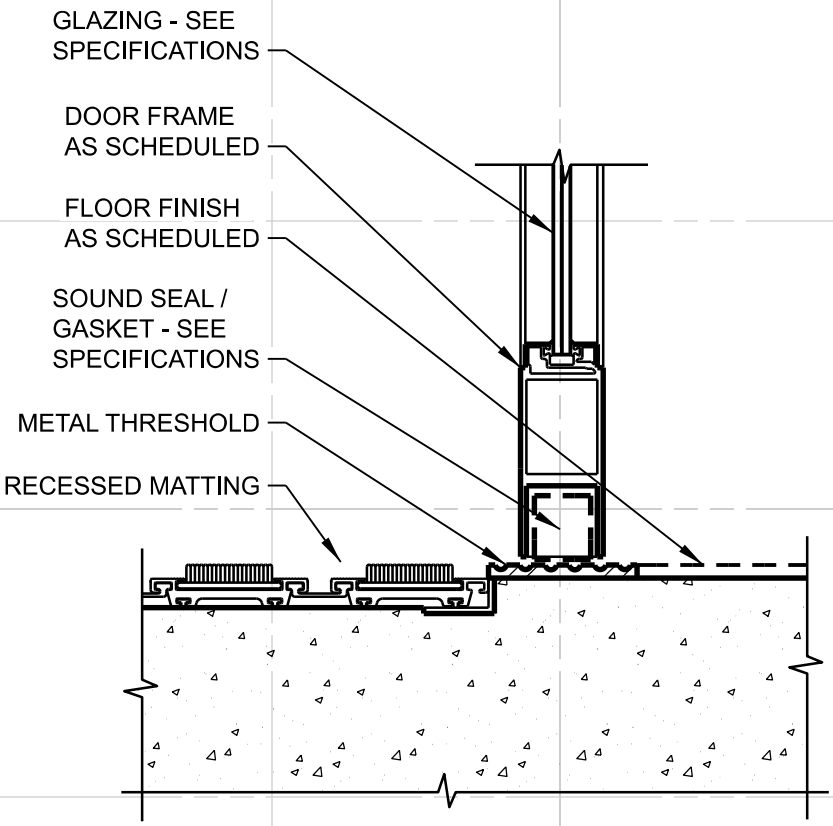
SCALE: NTS



A1

DETAIL: SEALANT JOINT

SCALE: NTS



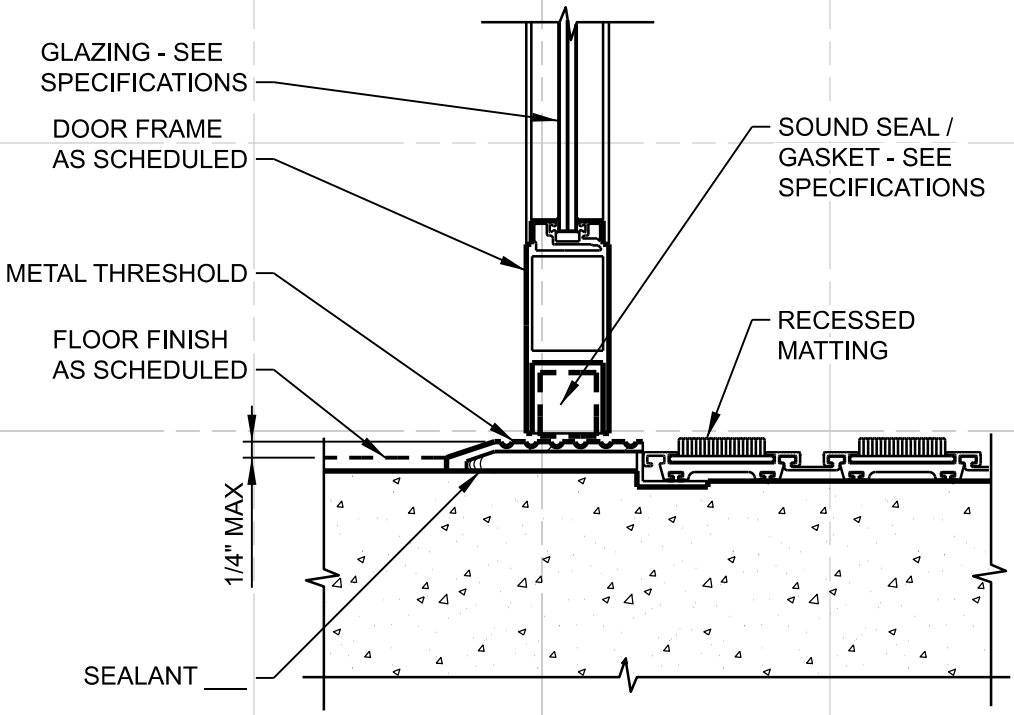
A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

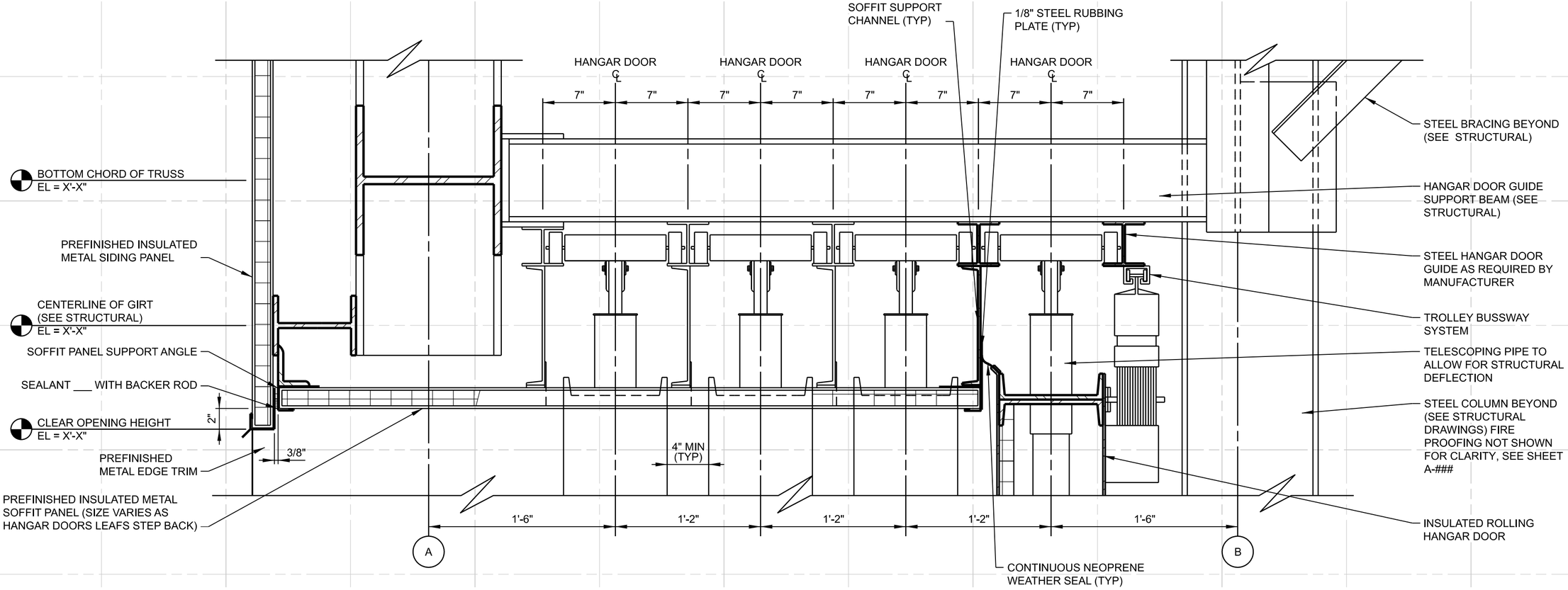
Detail B2030A-DT055X



A1 DETAIL: SILL

SCALE: 3"=1'-0" 0 3" 6" 1'

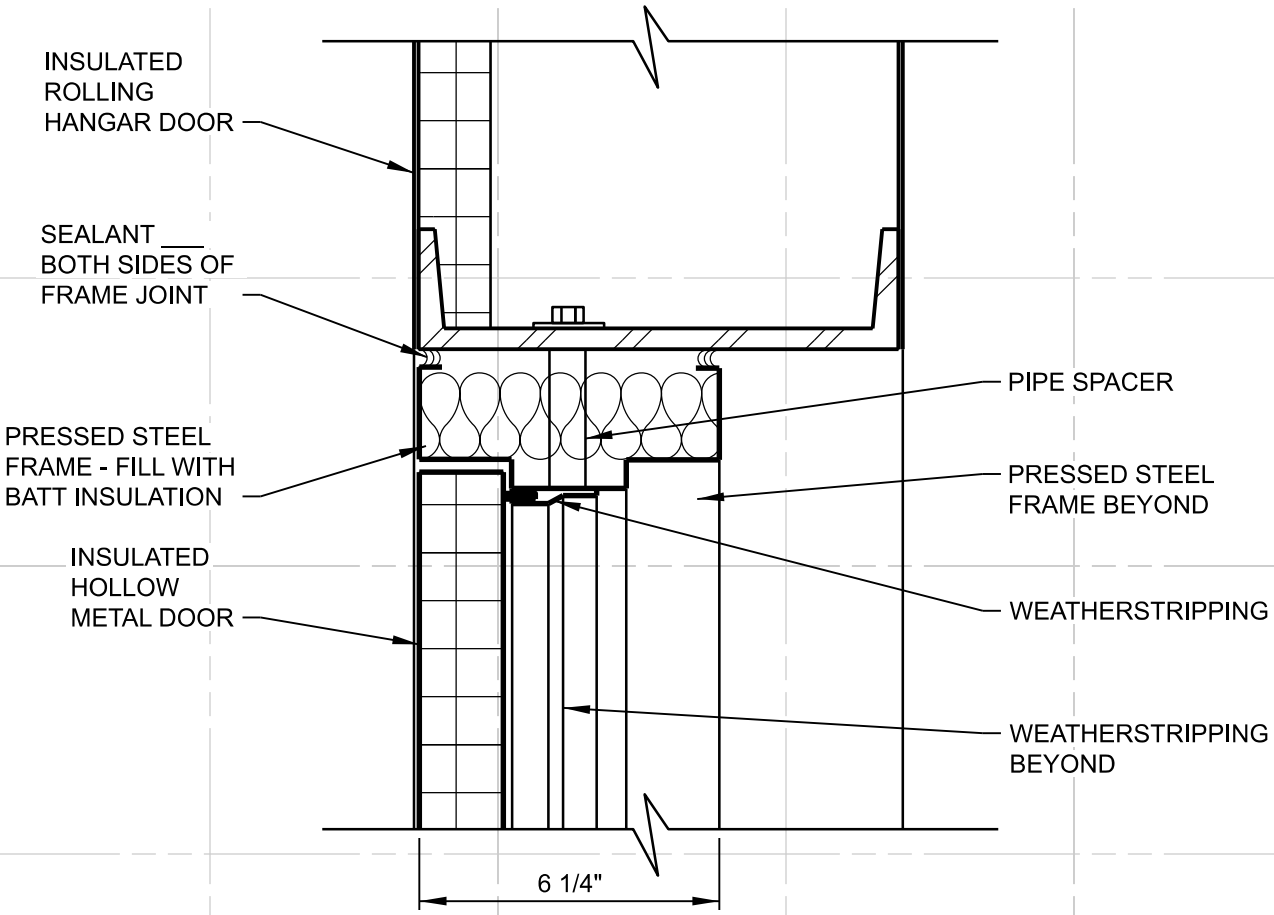
Detail B2030A-DT056X



A1 DETAIL: HANGAR DOOR HEAD

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

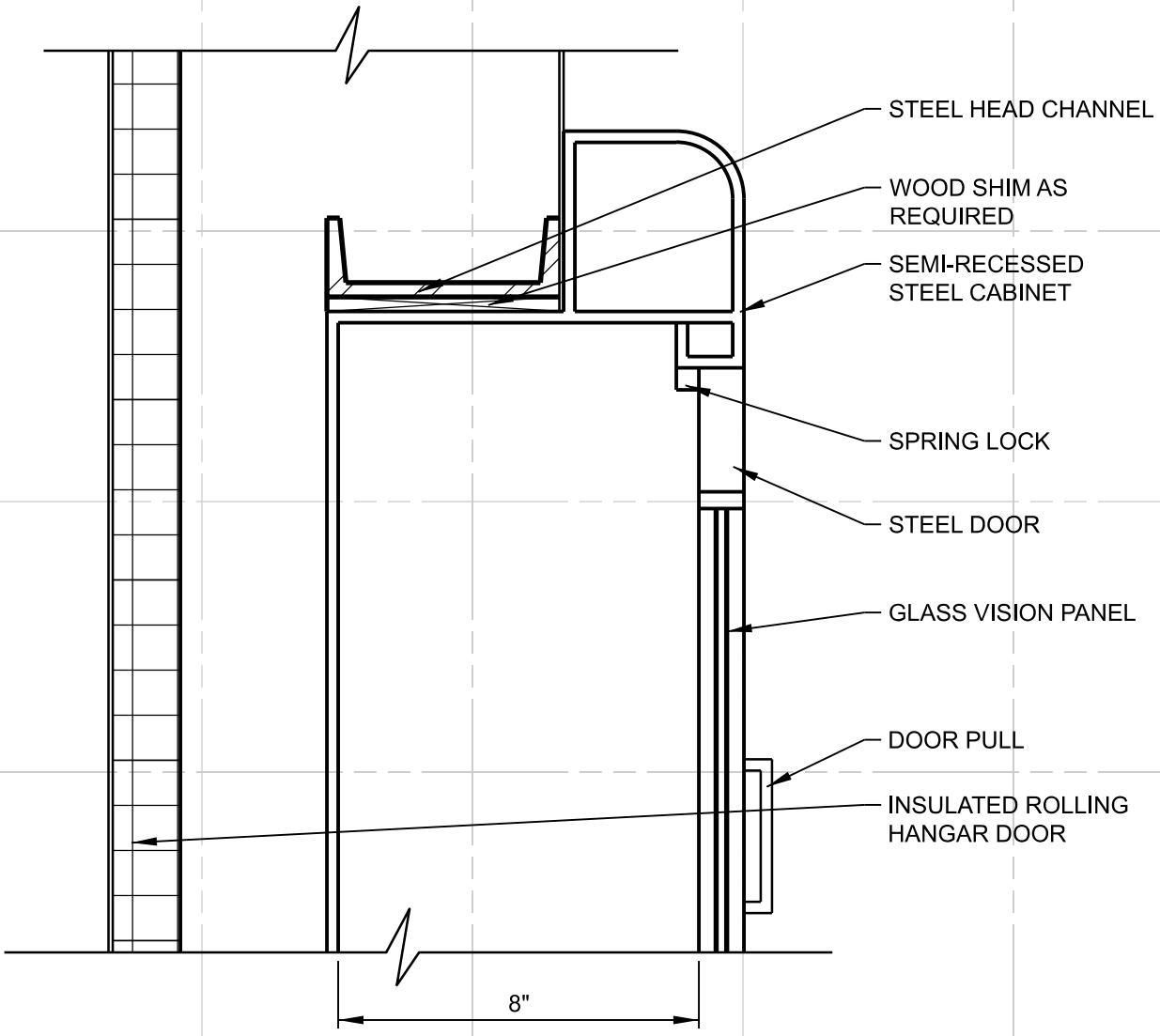


A1

DETAIL: PILOT DOOR HEAD (JAMB SIMILAR)

SCALE: 3"=1'-0"

0 3" 6" 1'

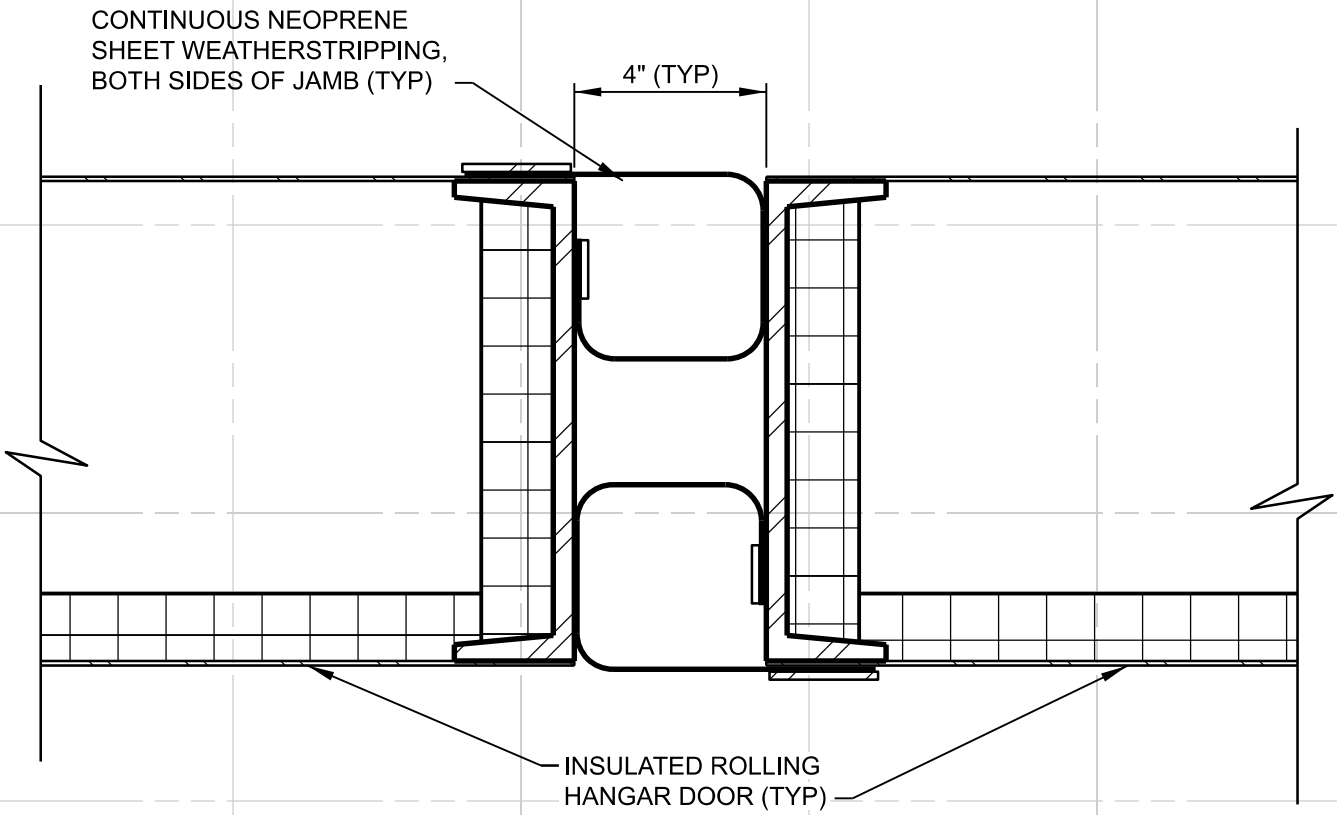


DETAIL: SEMI-RECESSED FIRE EXTINGUISHER CABINET HEAD (SILL SIMILAR)

A1

SCALE: 3"=1'-0"

0 3" 6" 1'

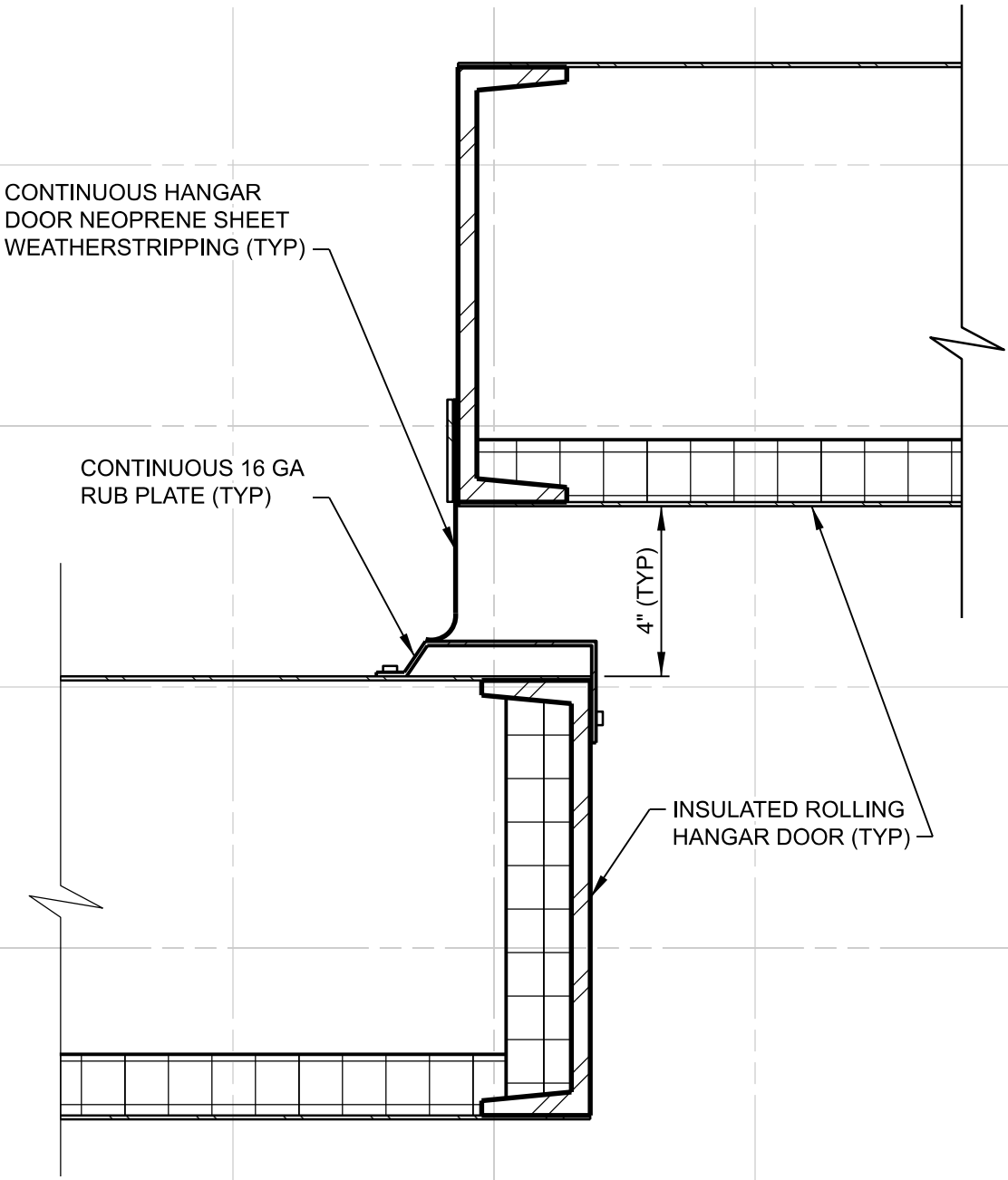


A1

DETAIL: HANGAR DOOR MEETING EDGE

SCALE: 3"=1'-0"

0 3" 6" 1'

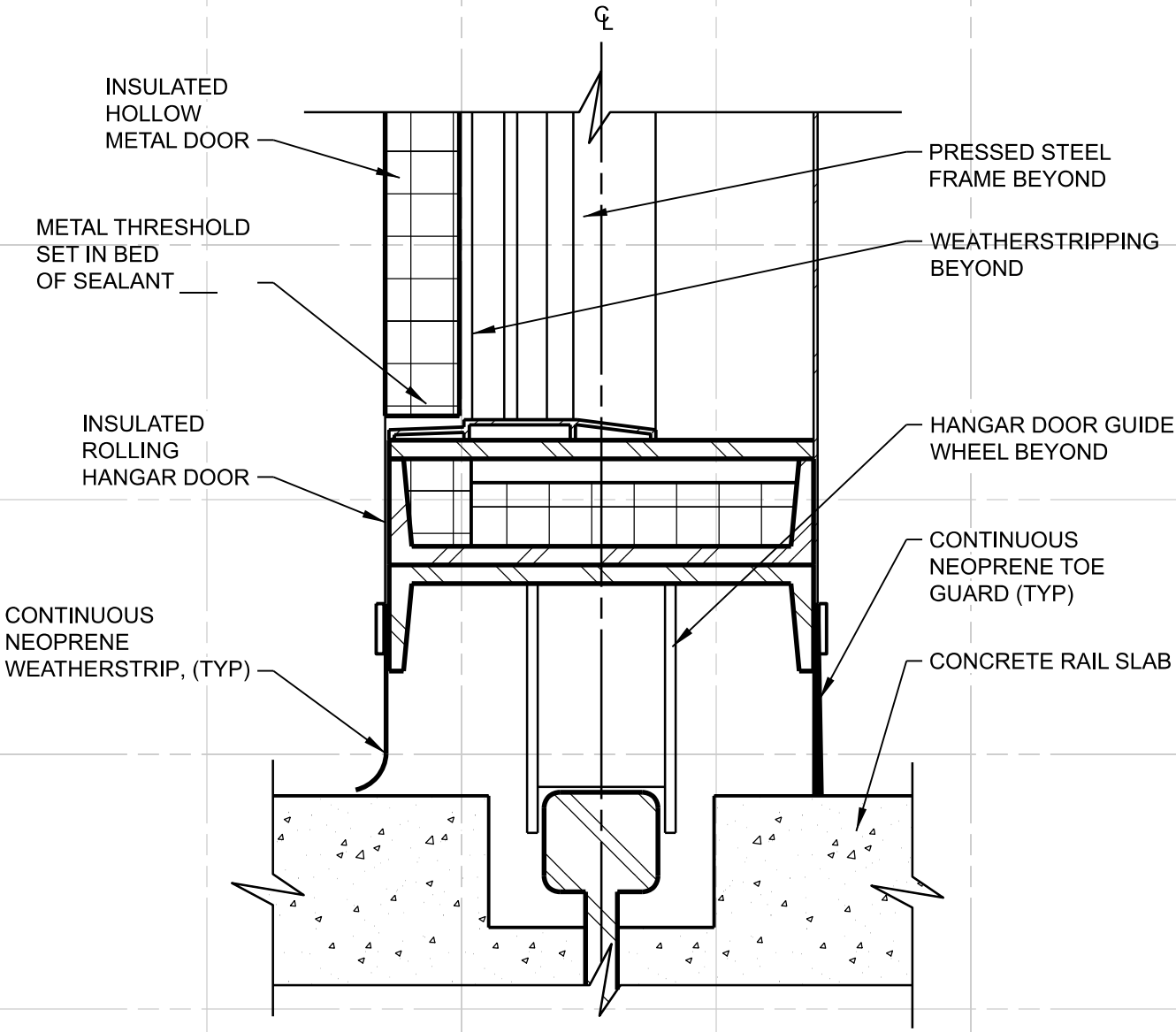


A1

DETAIL: HANGAR DOOR WEATHERSEAL

SCALE: 3"=1'-0"

0 3" 6" 1'



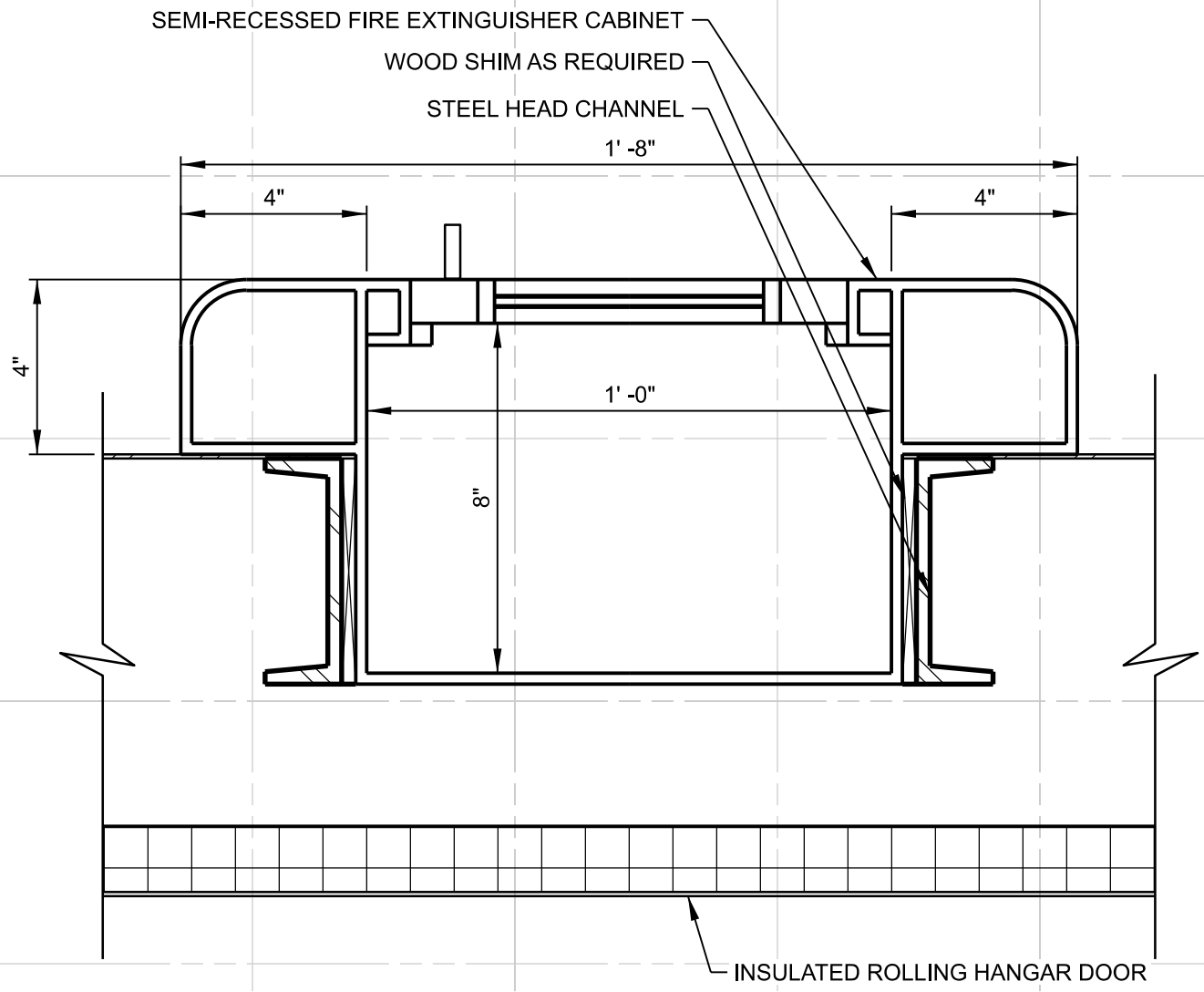
A1

DETAIL: PILOT DOOR SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2032A-DT006X



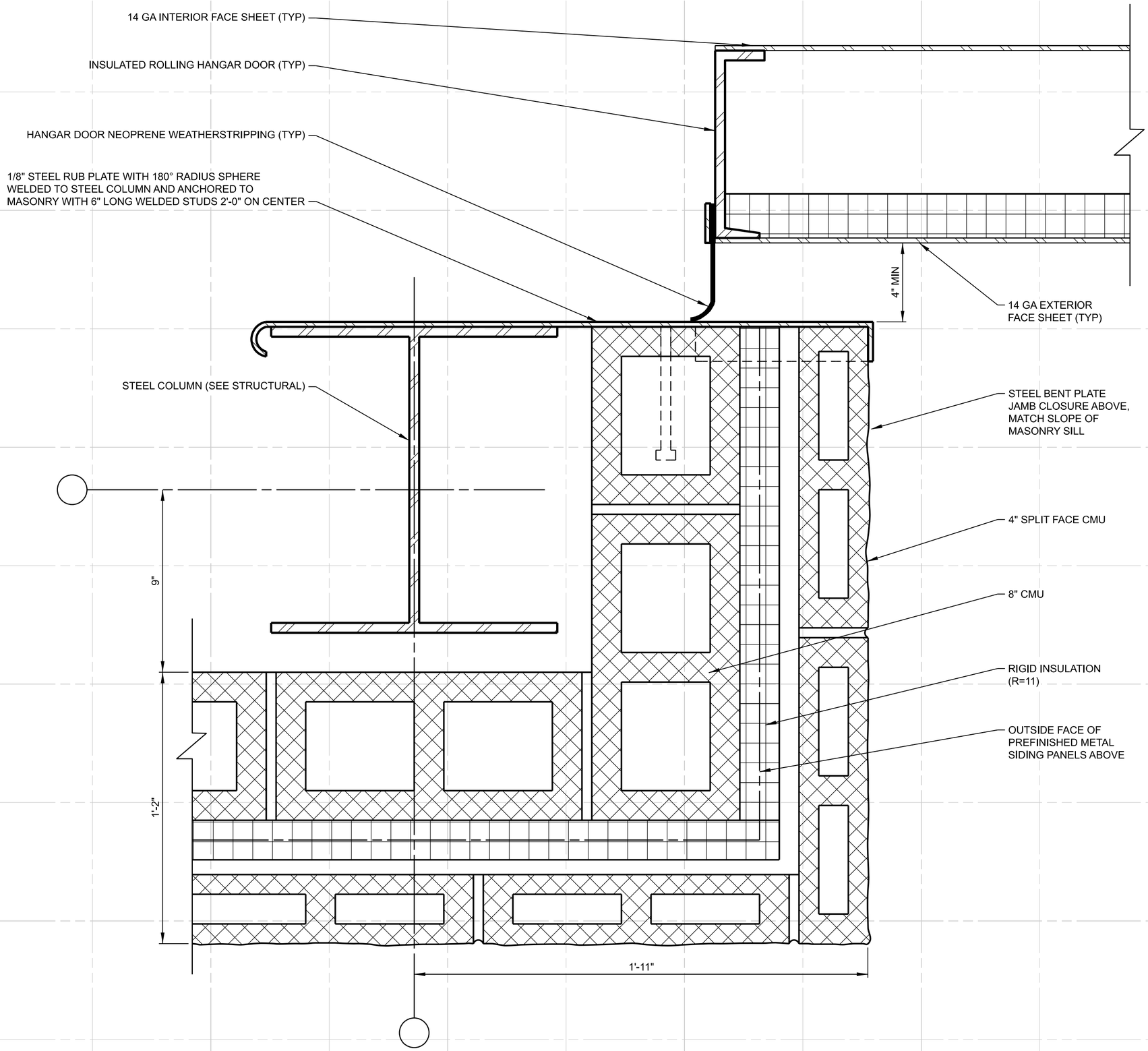
DETAIL: SEMI-RECESSED FIRE EXTINGUISHER CABINET

A1

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2032A-DT007X

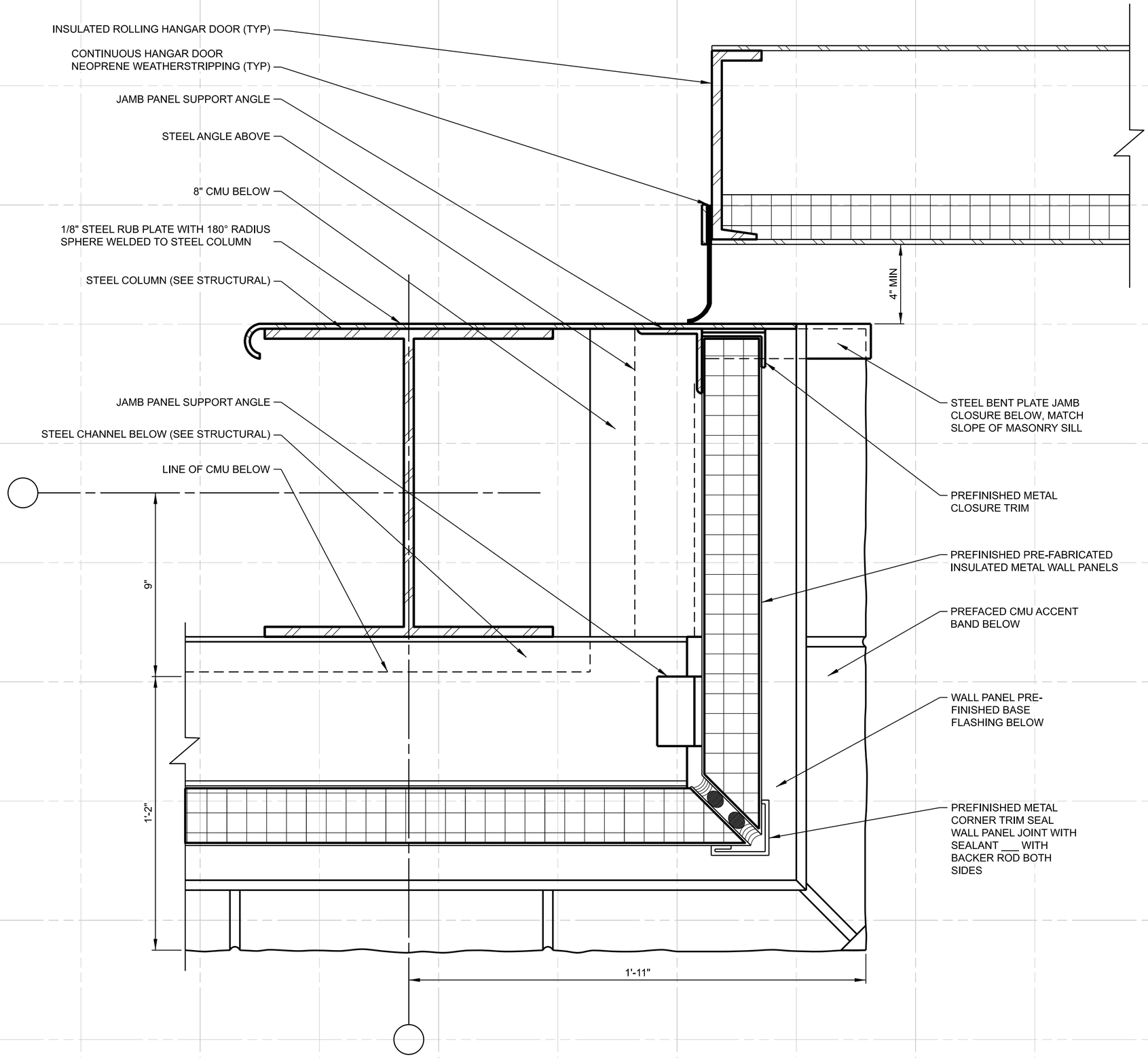


A1 DETAIL: HANGAR DOOR JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

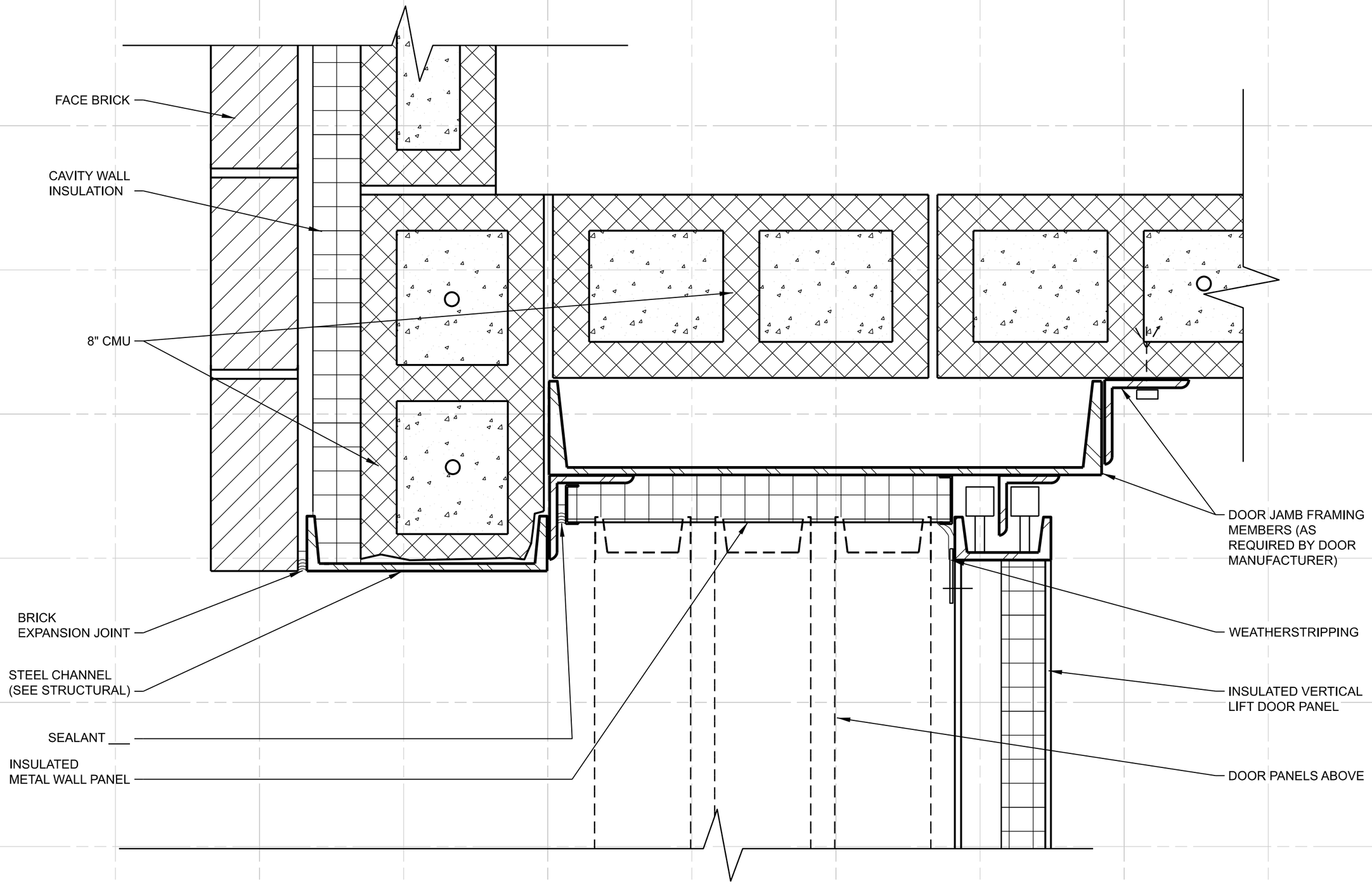
Detail B2032A-DT008X



A1 DETAIL: HANGAR DOOR JAMB ABOVE CMU WAINSCOT

SCALE: 3"=1'-0"

0 3" 6" 1'

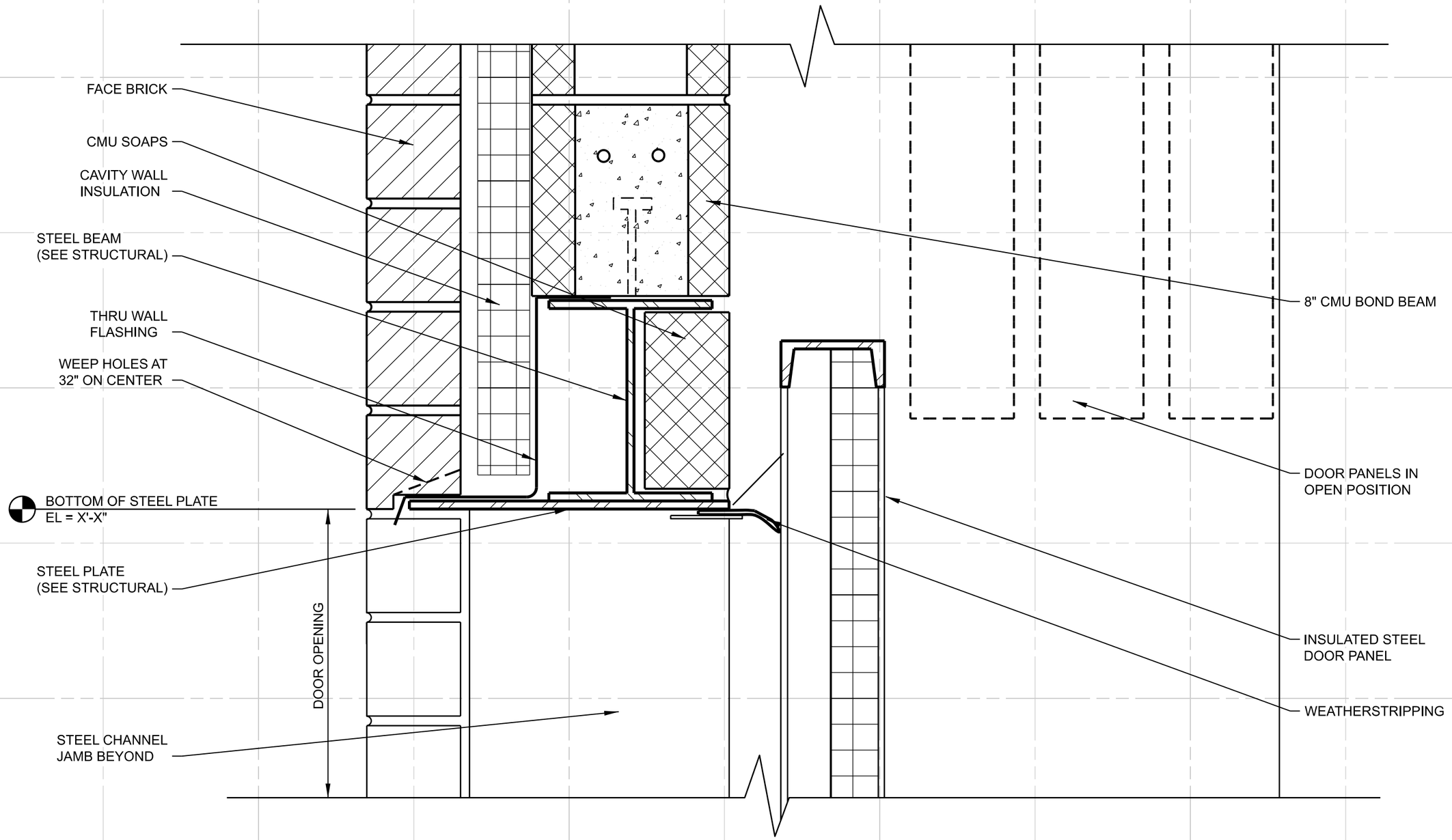


A1 DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

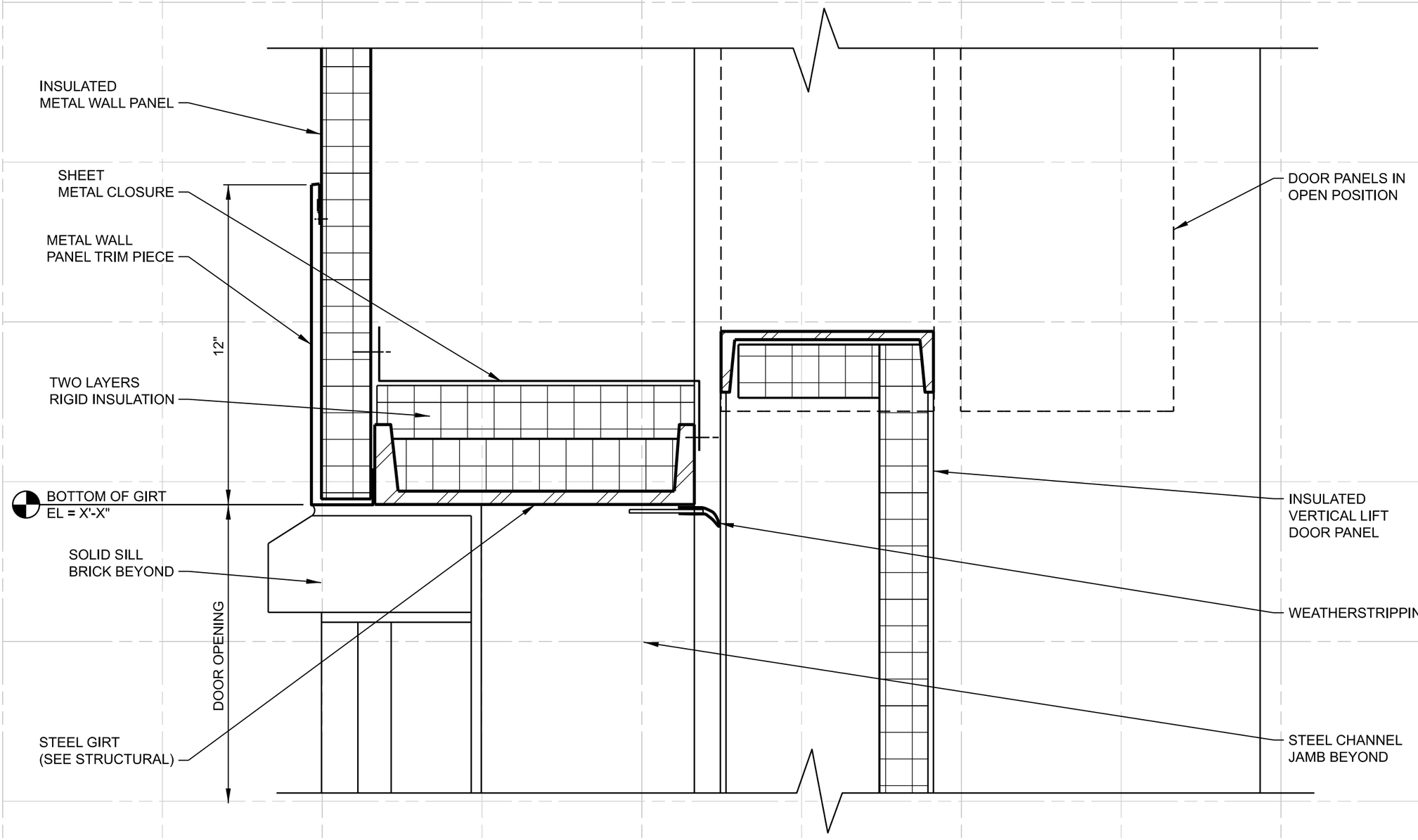
Detail B2032A-DT010X



A1 DETAIL: VERTICAL LIFT DOOR HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

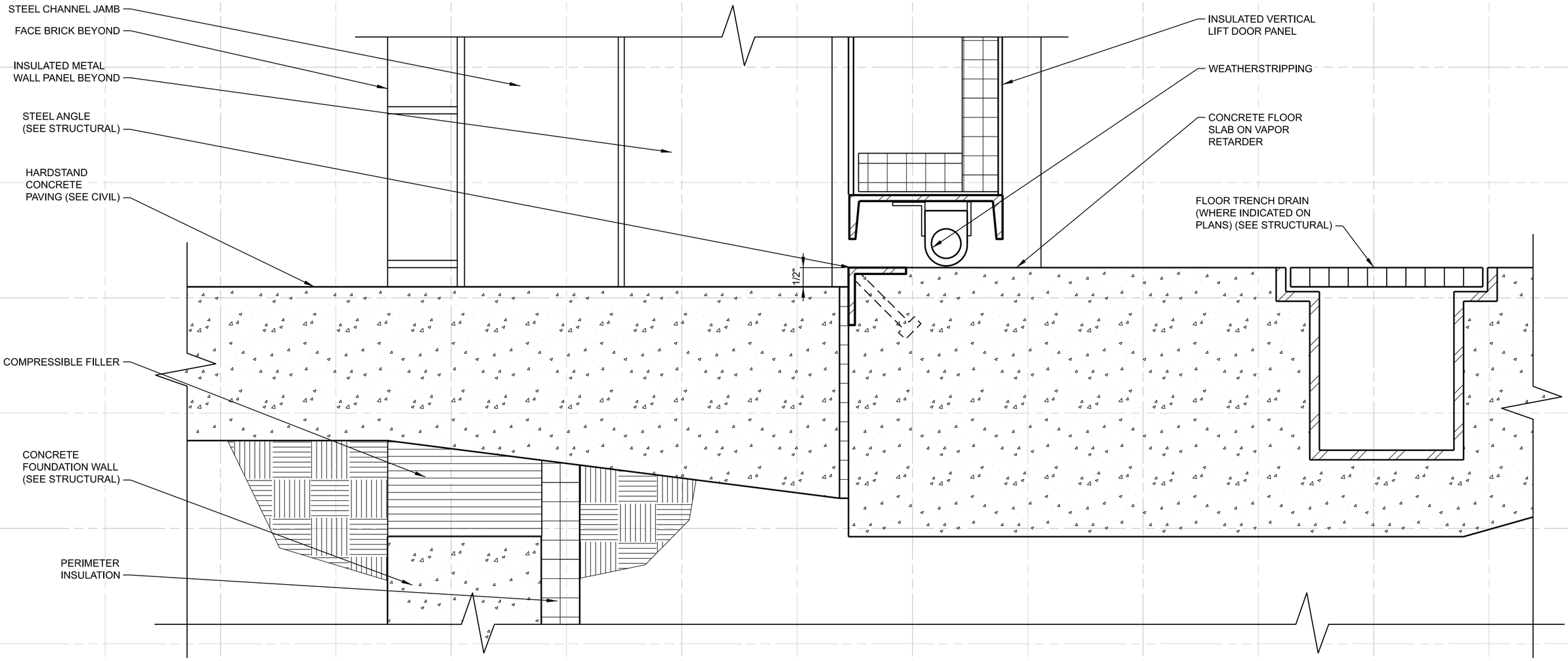


A1 DETAIL: VERTICAL LIFT DOOR HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2032A-DT012X



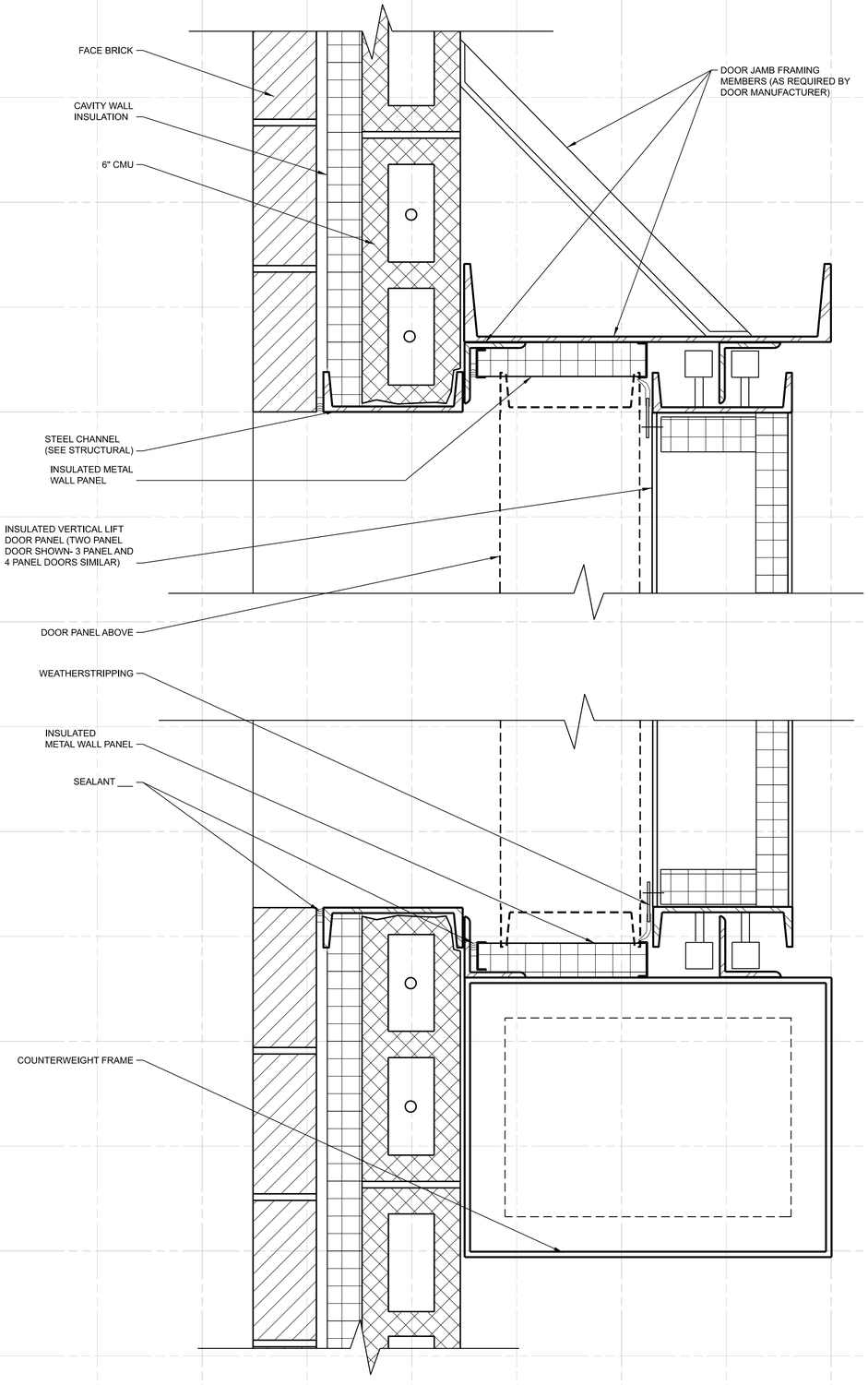
A1 DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2032A-DT013X

Details-US-Architectural-B203-ExteriorDoors



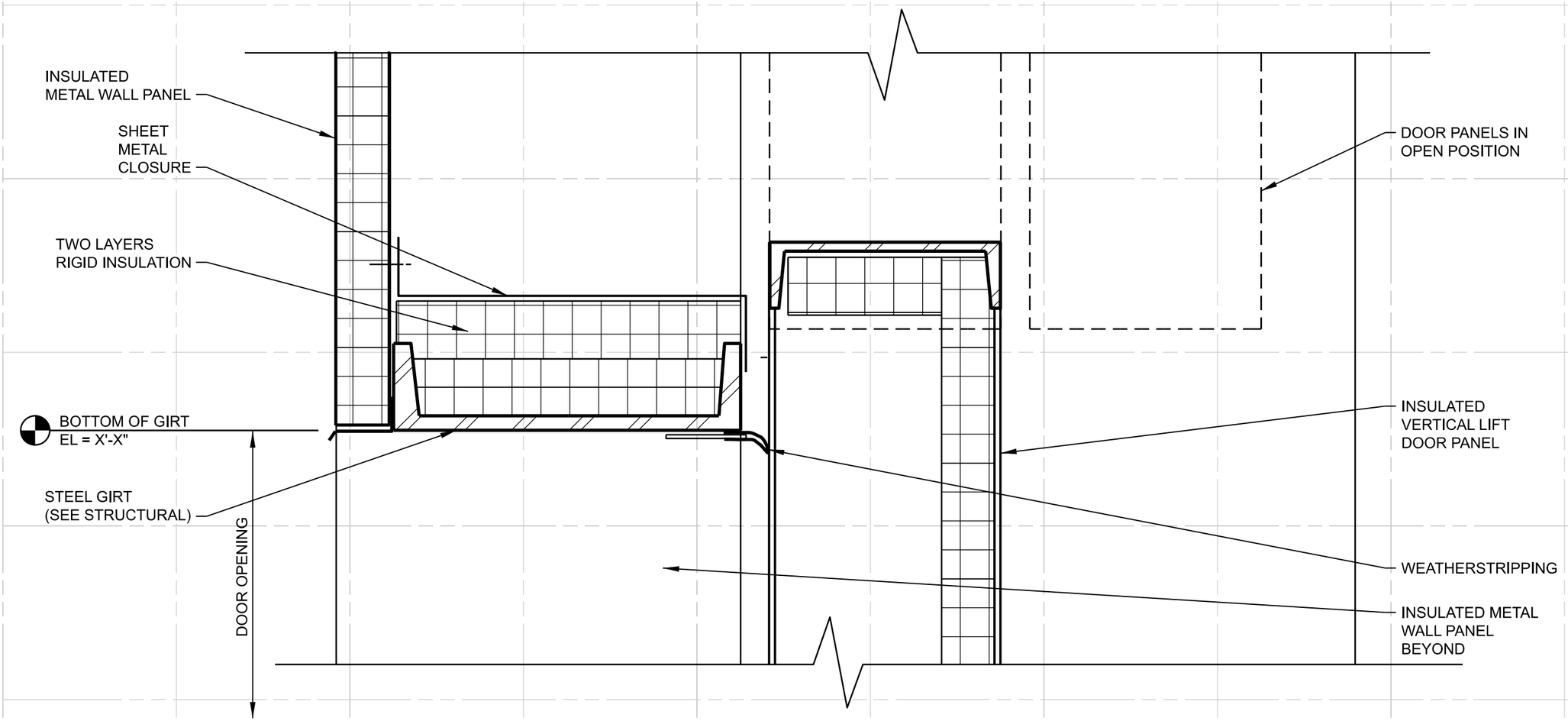
A1 DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2032A-DT014X

Details-US-Architectural-B203-ExteriorDoors

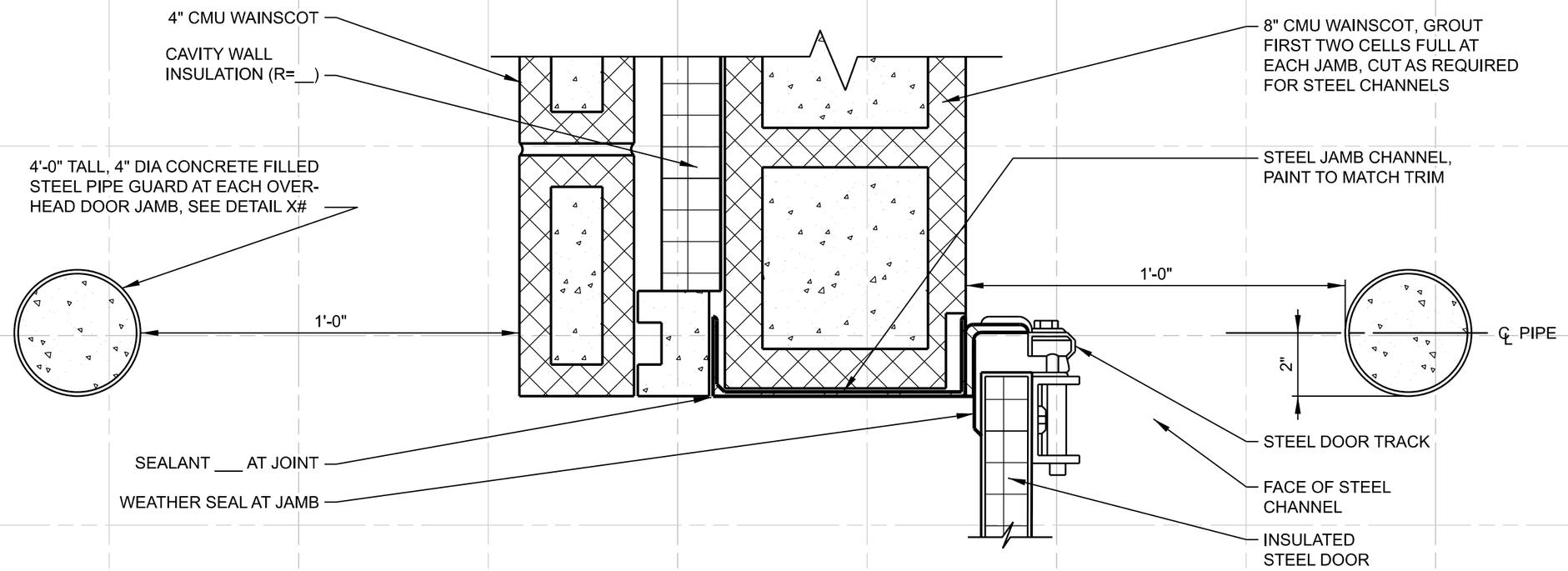


A1 DETAIL: VERTICAL LIFT DOOR HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2032A-DT015X

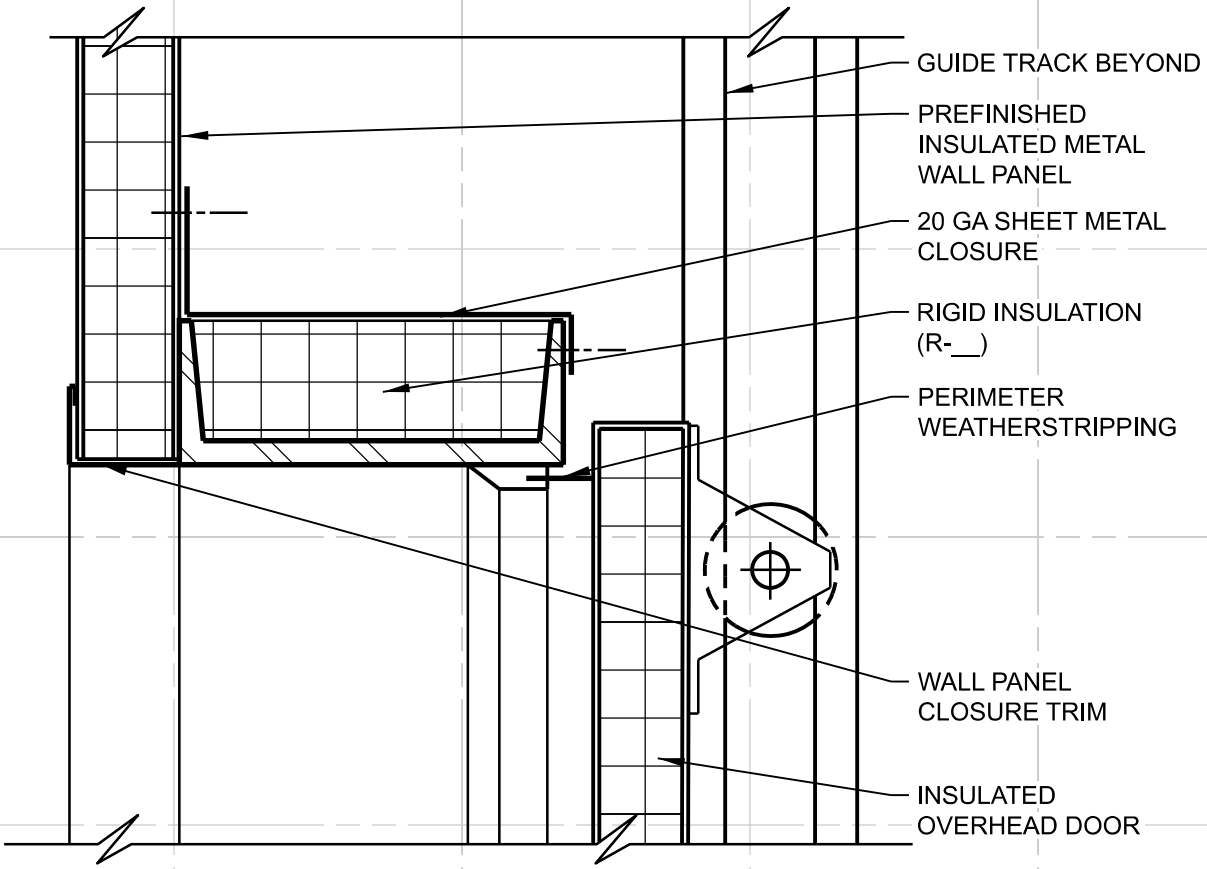


A1 DETAIL: DOOR JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2032A-DT016X



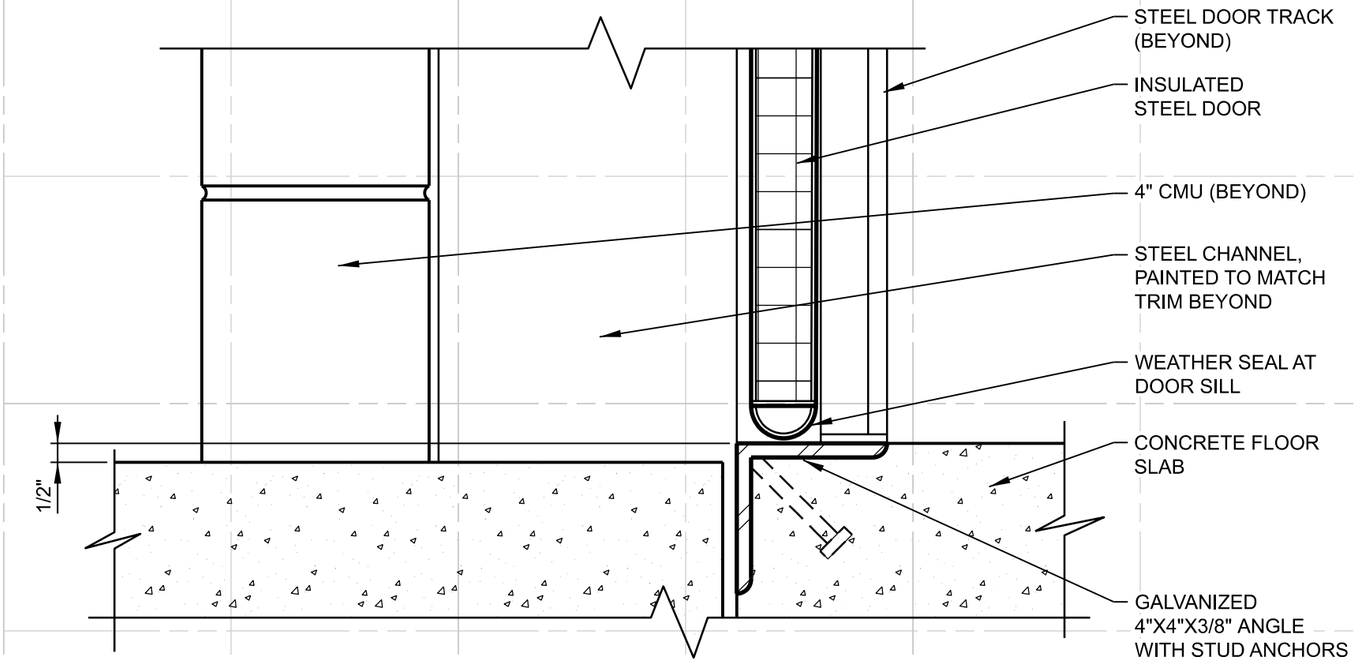
A1

DETAIL: DOOR HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2032A-DT017X

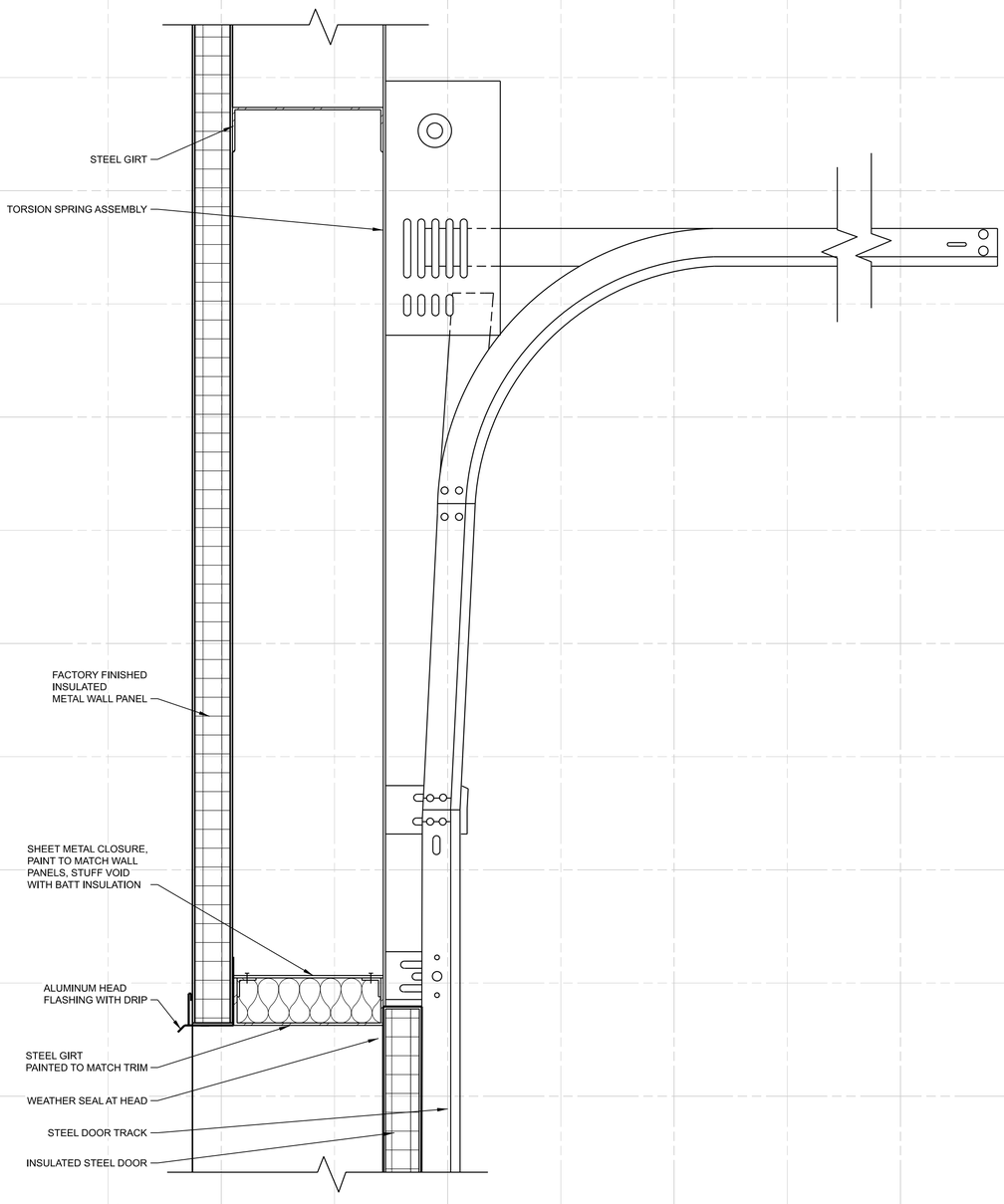


A1 DETAIL: DOOR SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2032A-DT018X



NOTE:
1. PROVIDE ADDITONAL GIRTS AND STEEL FRAMING AS REQUIRED TO INSTALL DOORS.
2. PROVIDE HIGHLIFT TRACKS AT EACH OVERHEAD DOOR, PROVIDE MAXIMUM CLEARANCE POSSIBLE WITH PROVISIONS FOR STRUCTURAL STEEL AND MECHANICAL SYSTEMS.

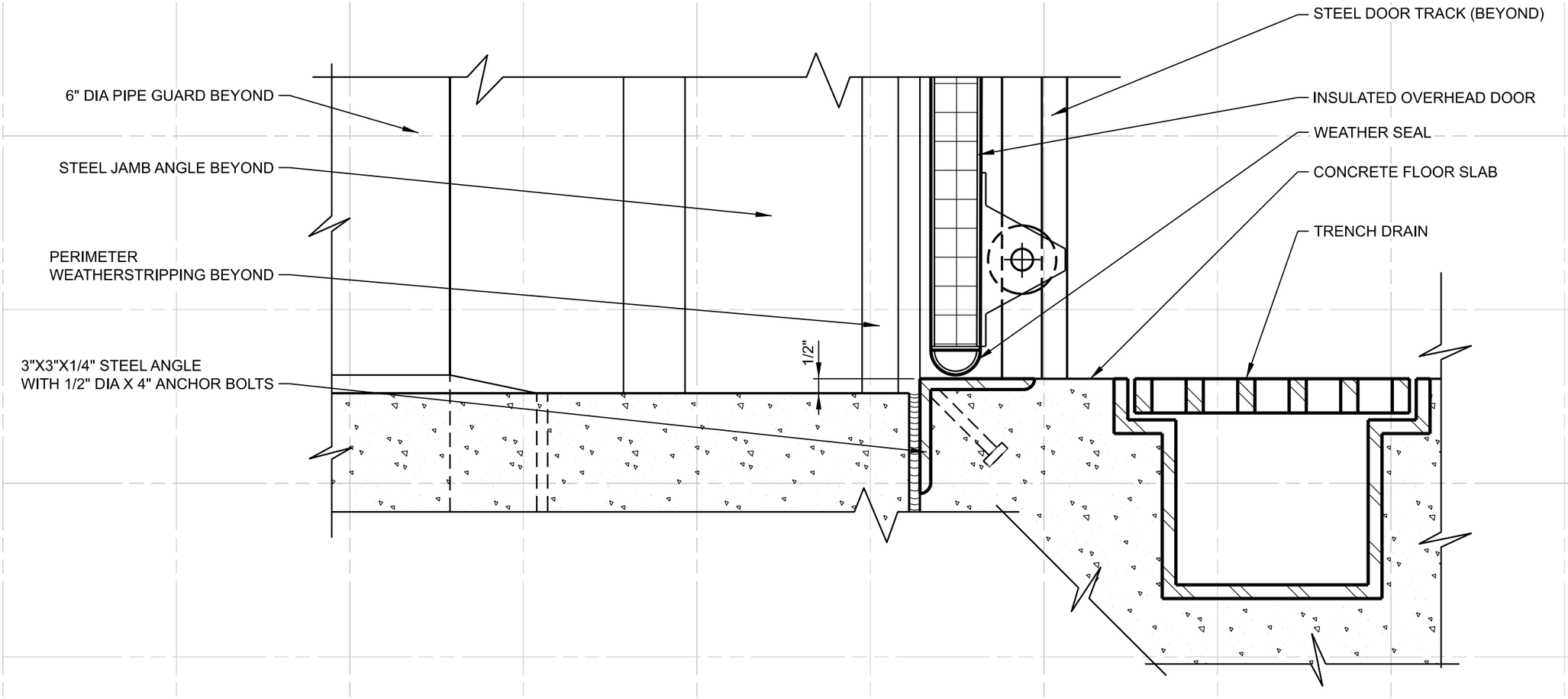
A1 DETAIL: DOOR HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2032A-DT019X

Details-US-Architectural-B203-ExteriorDoors

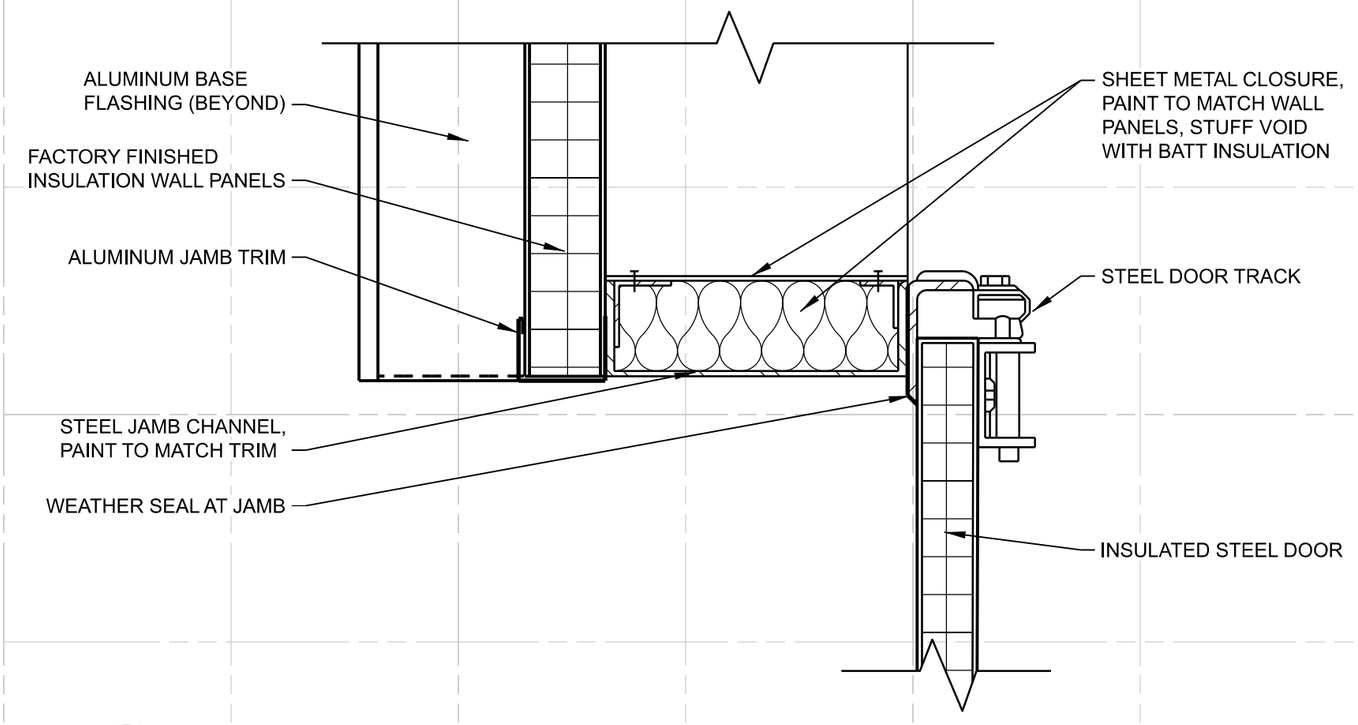


A1 DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2032A-DT020X

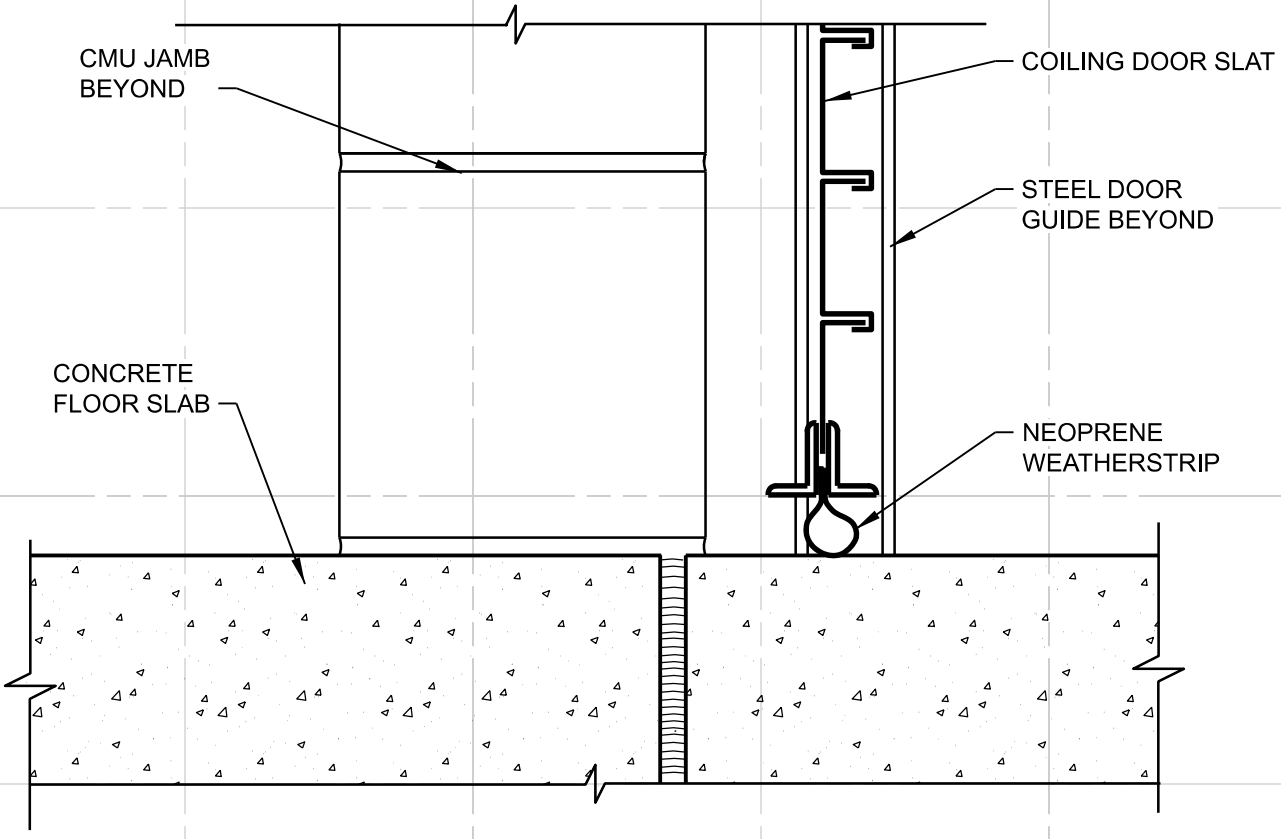


A1 DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2032A-DT021X



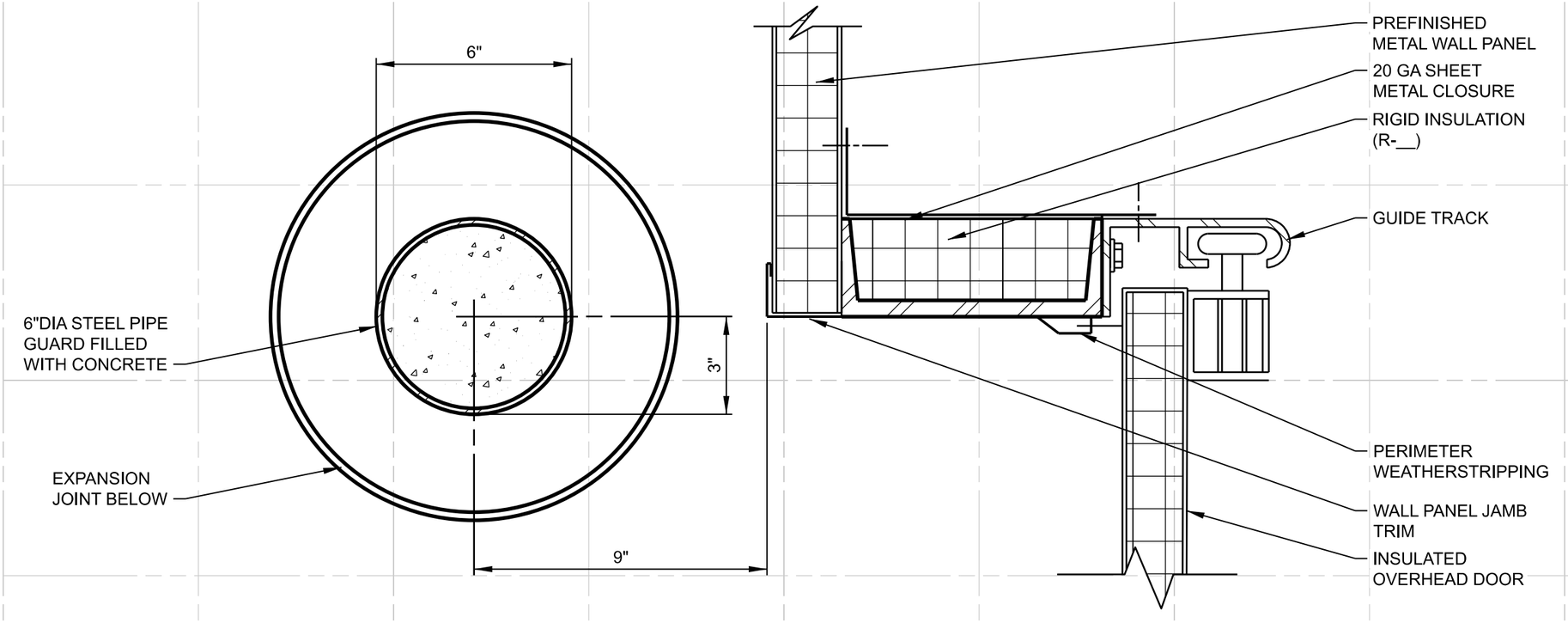
A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2032A-DT022X

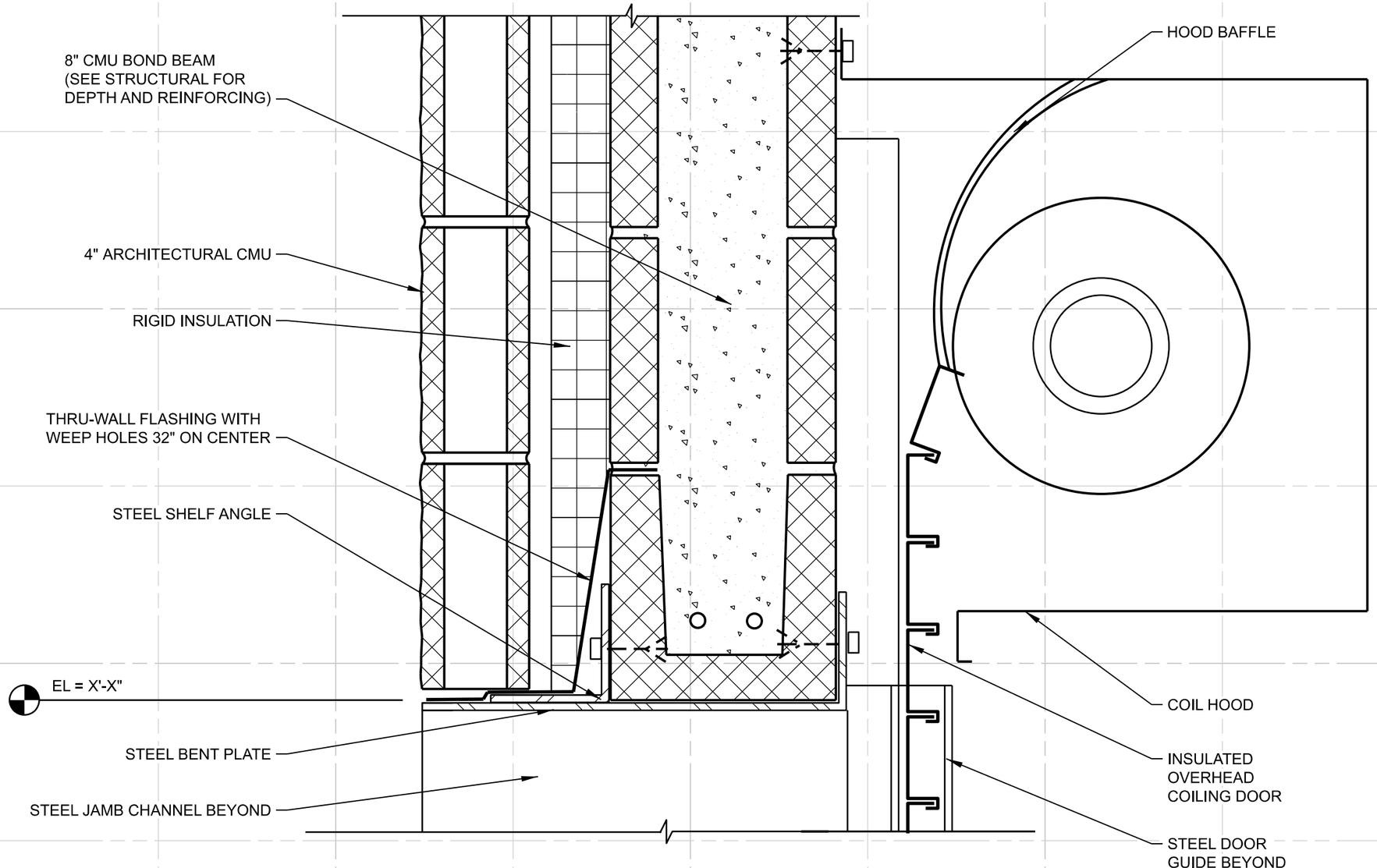


A1 DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2032A-DT023X

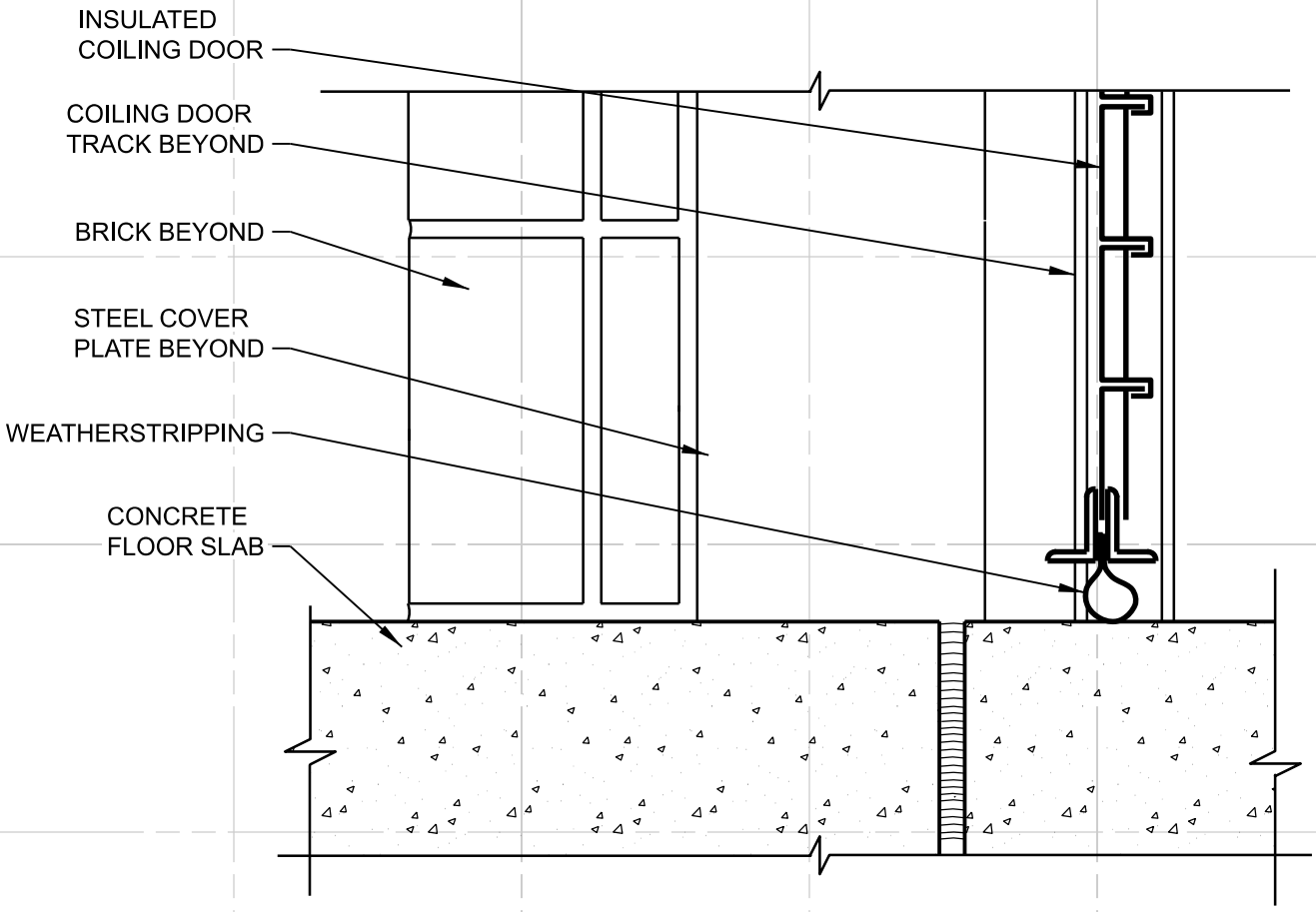


A1 DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2032A-DT024X



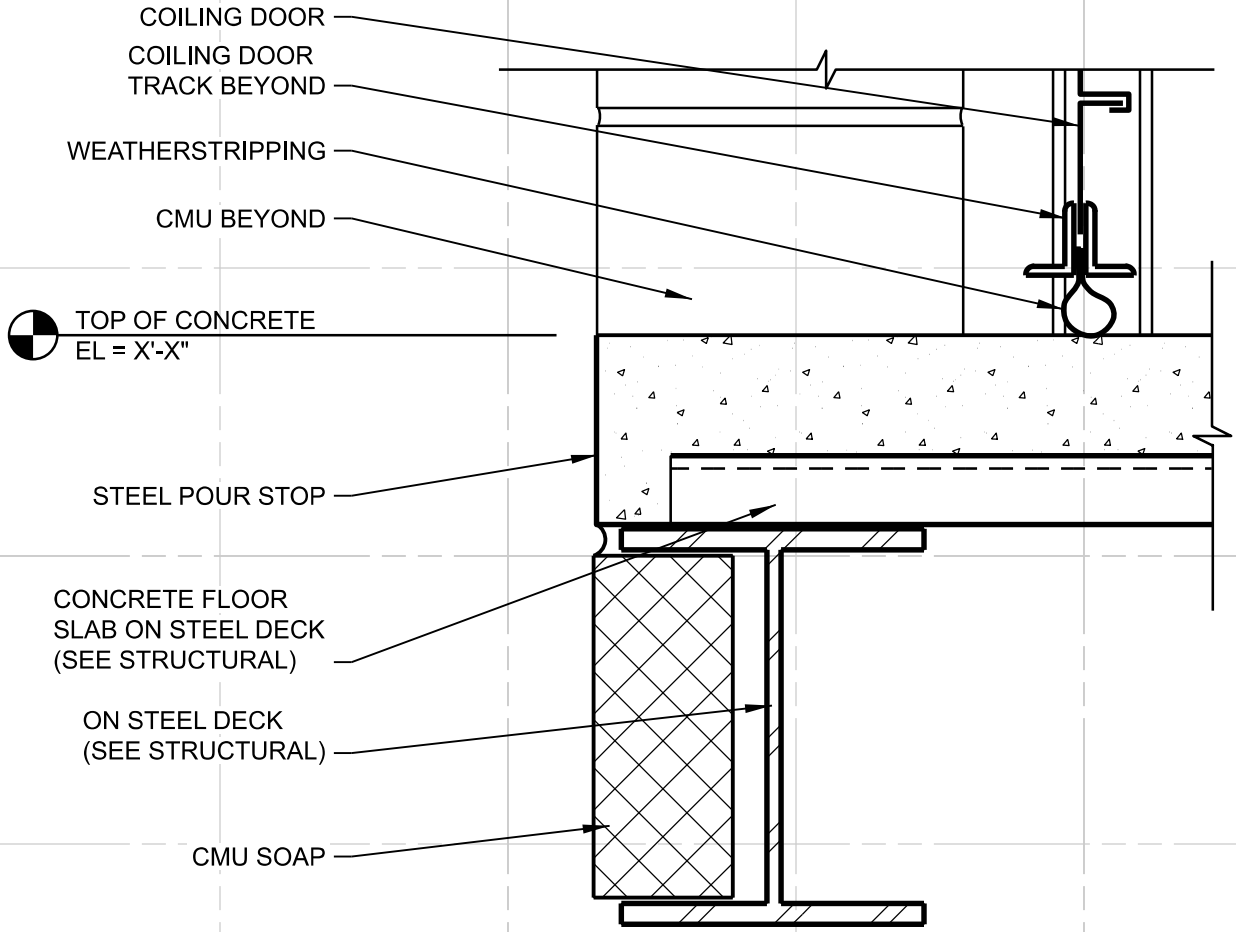
A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2032A-DT025X

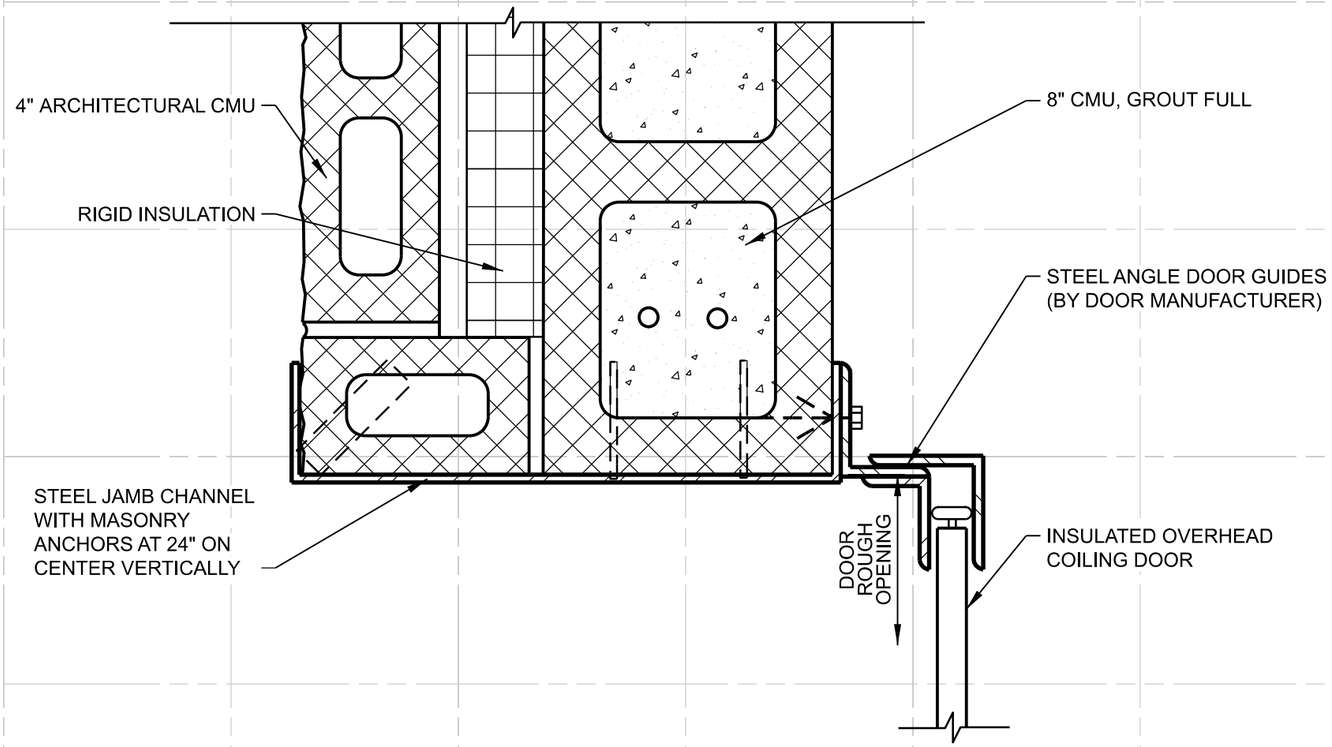


A1 DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2032A-DT026X

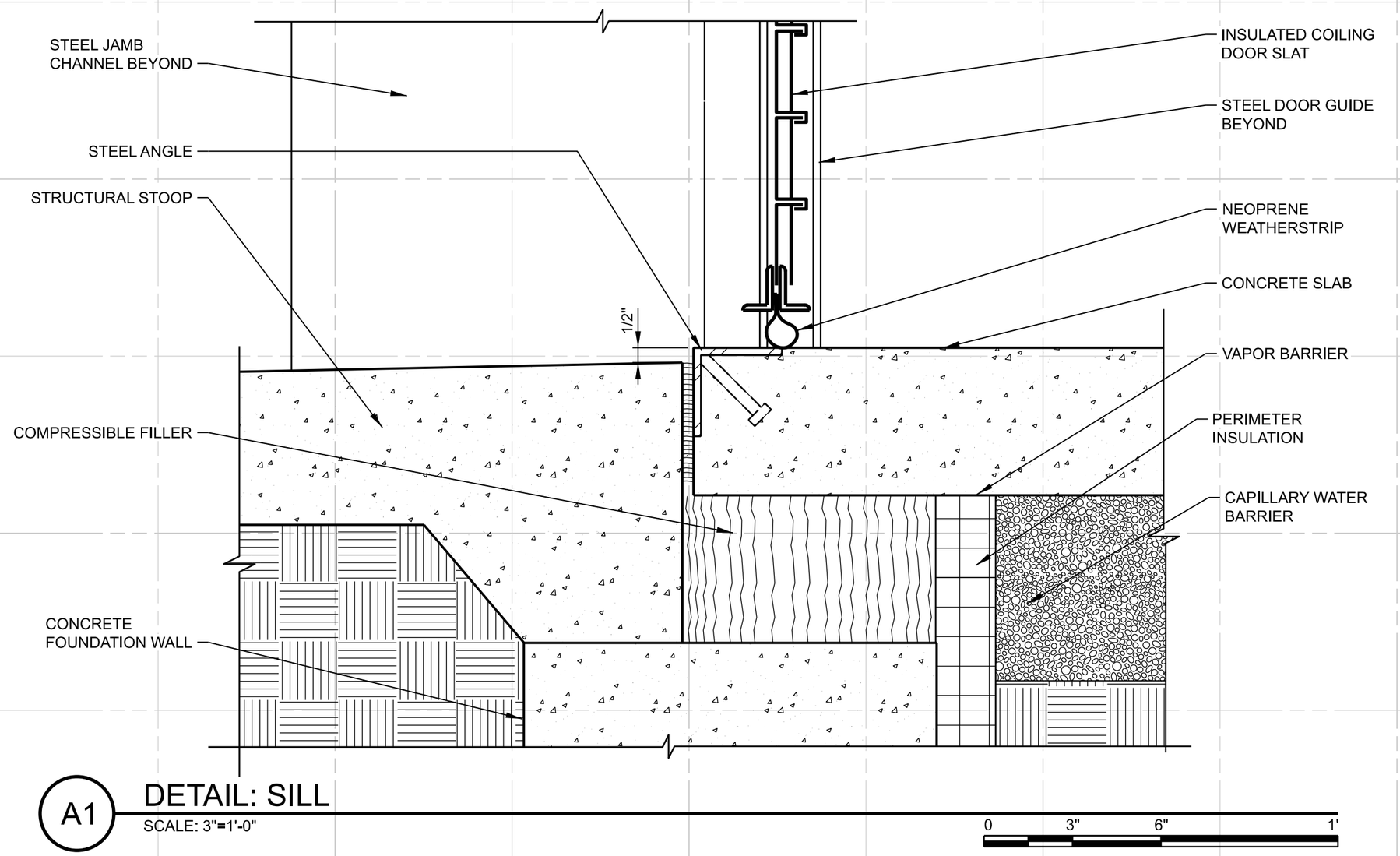


A1 DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

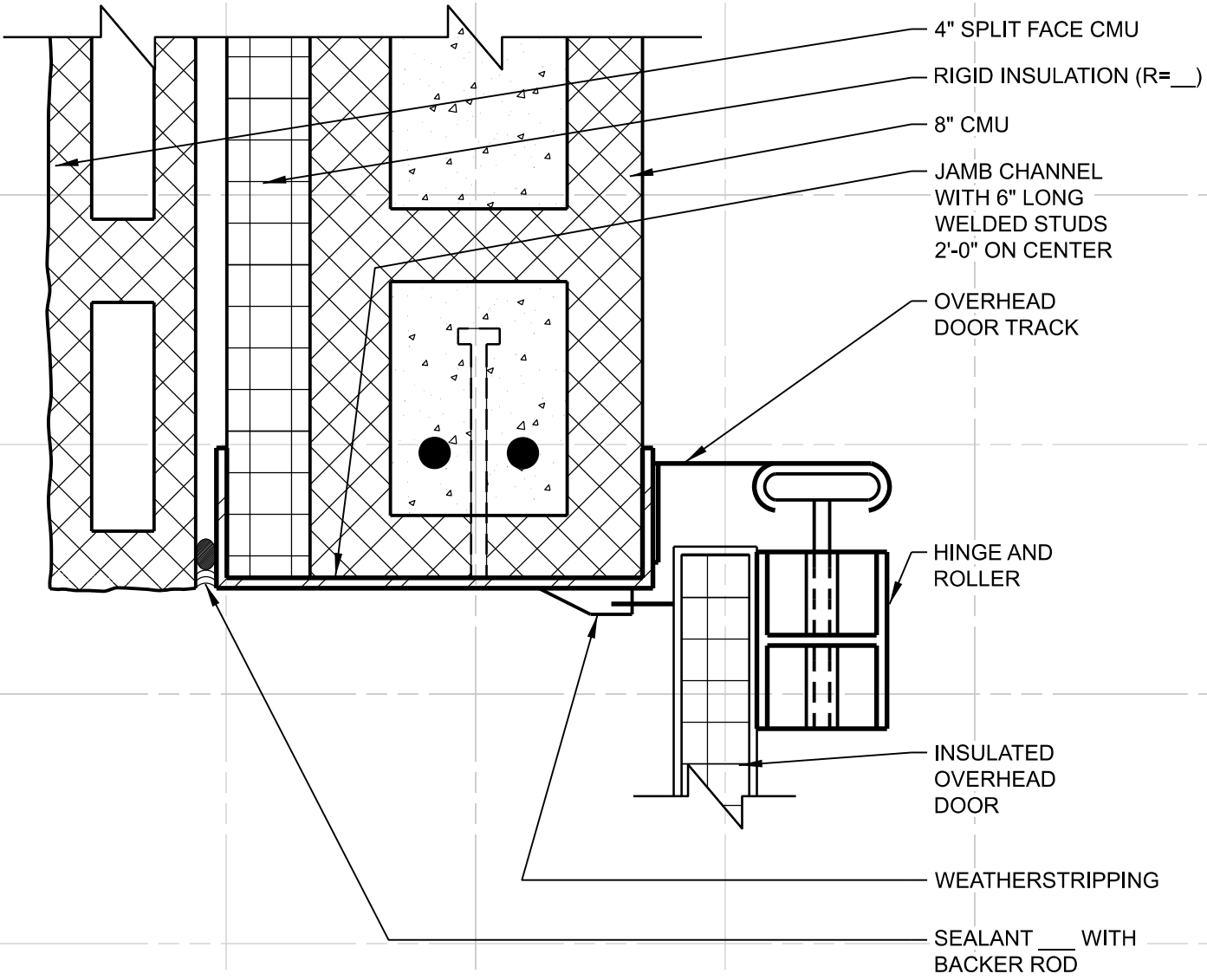
Detail B2032A-DT027X



A1 DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'



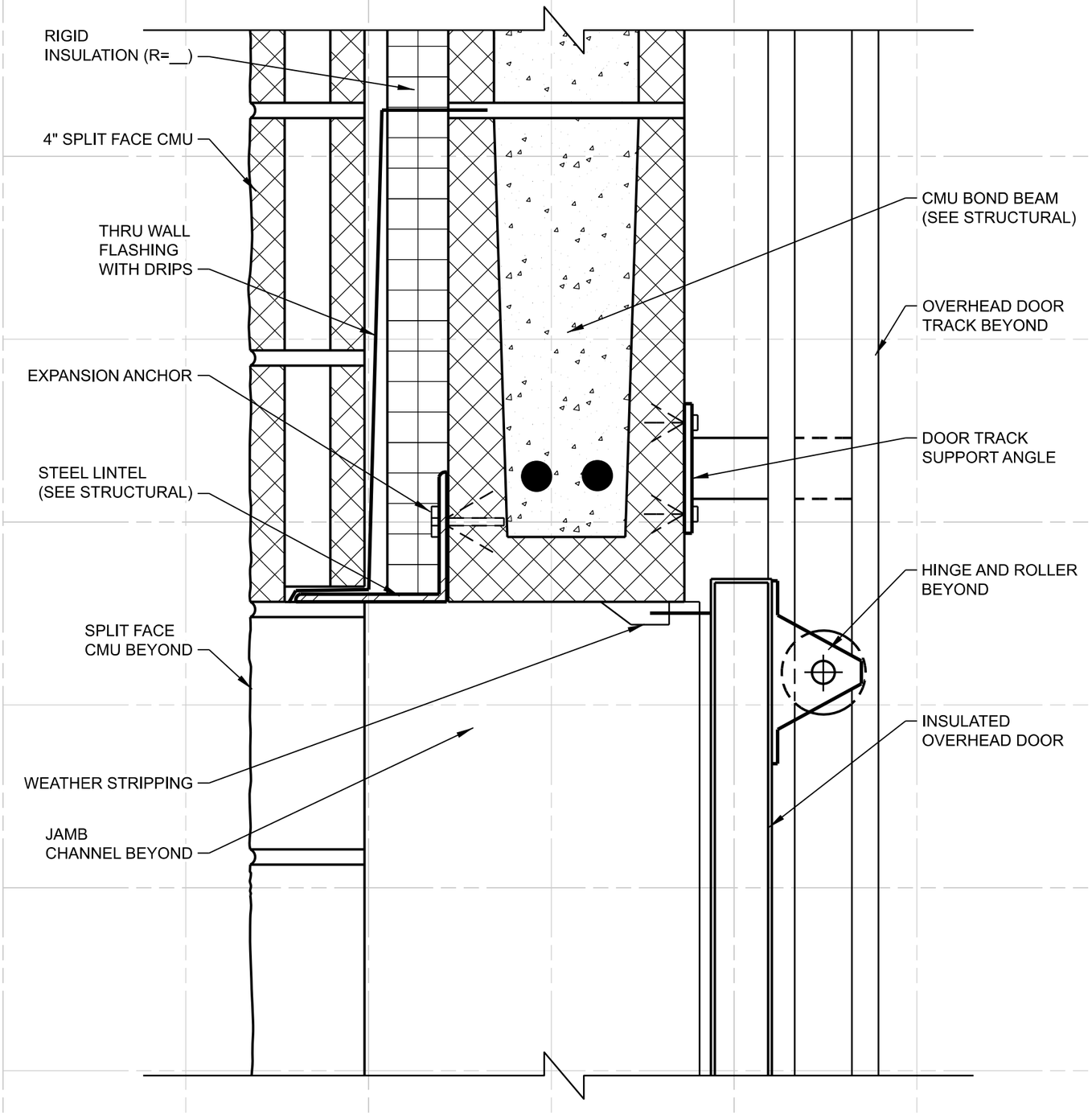
A1

DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B2032A-DT029X

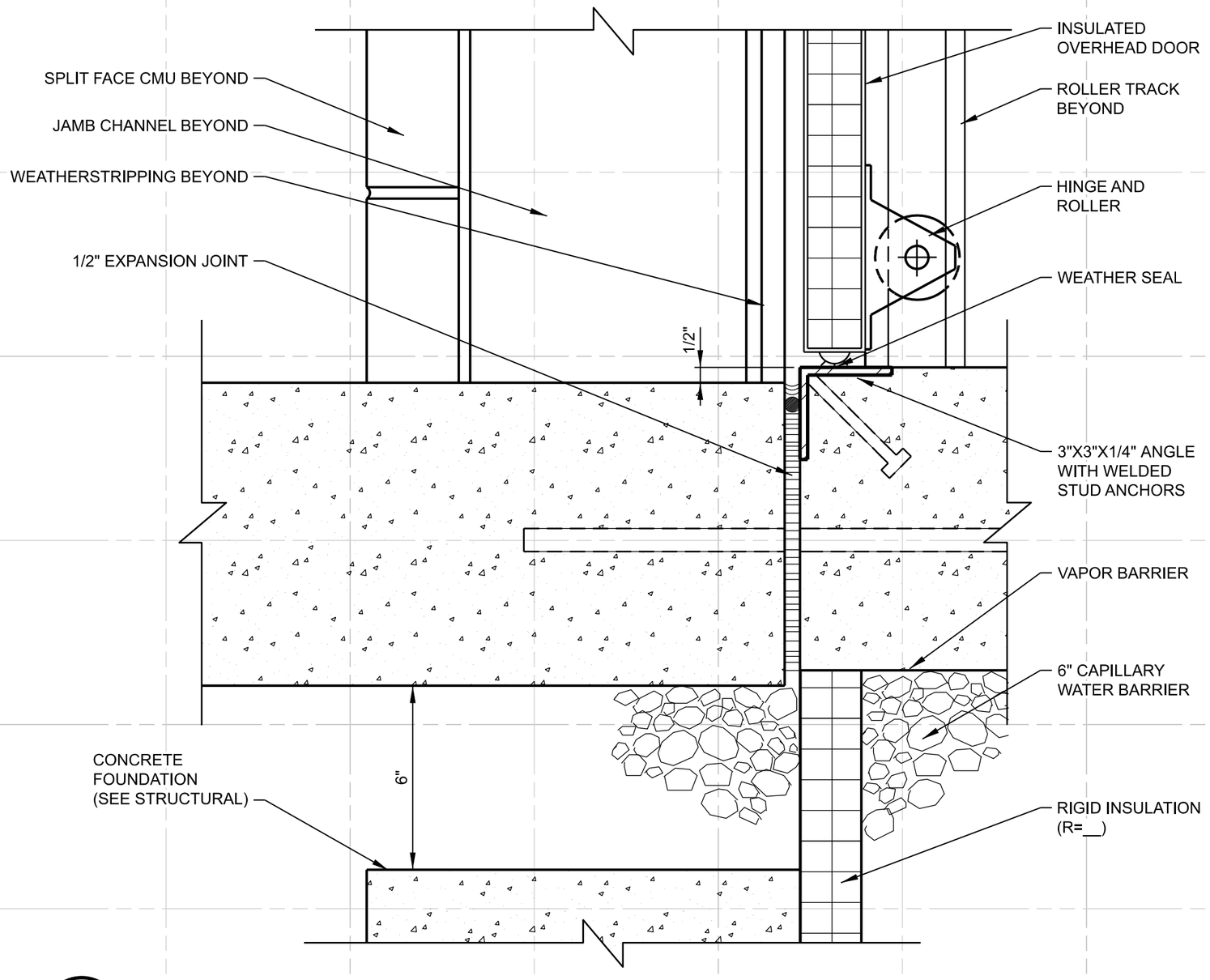


A1 DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

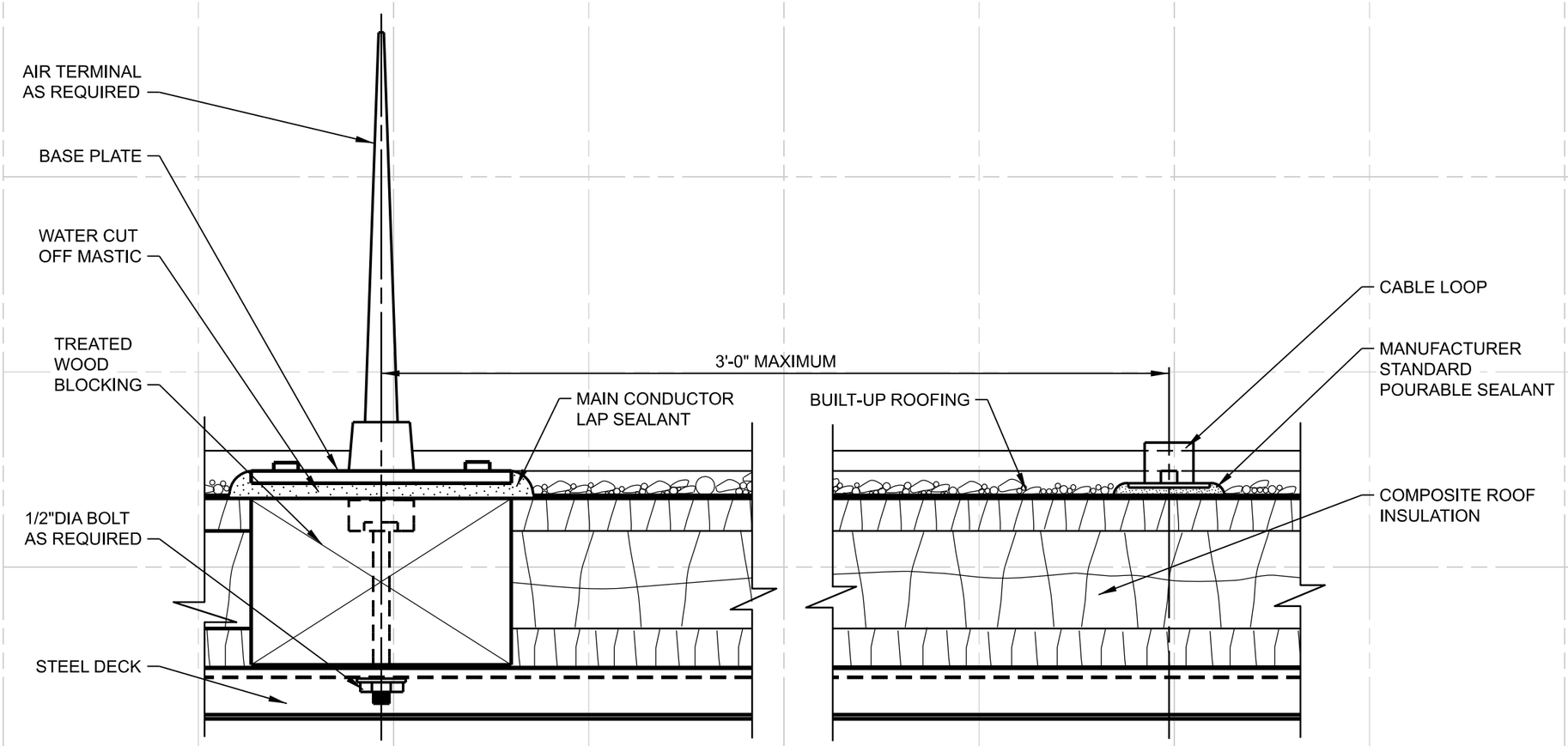
Detail B2032A-DT030X



A1 DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'



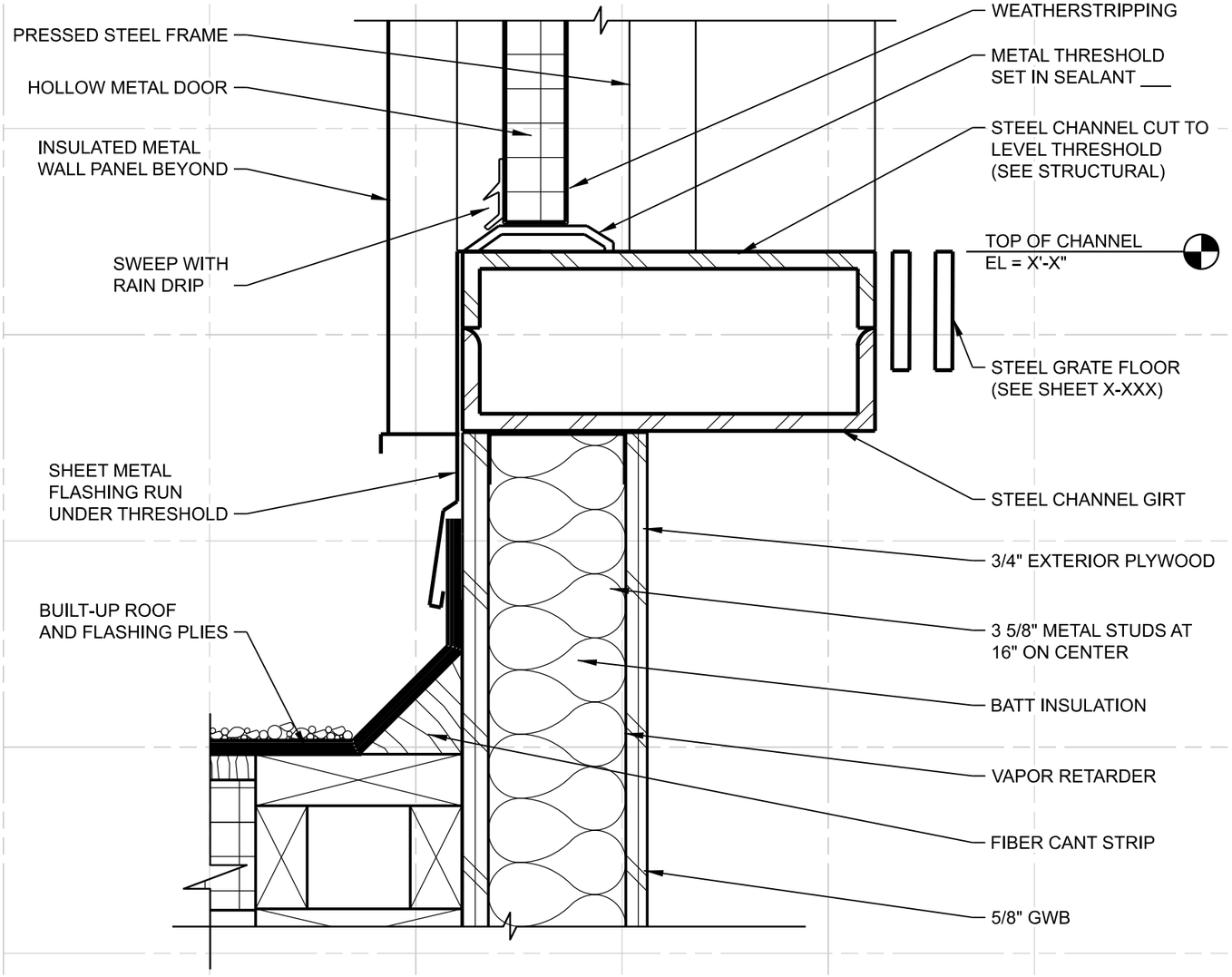
NOTE:
SEE ELECTRICAL DRAWINGS FOR LOCATION OF AIR TERMINAL

A1

DETAIL: LIGHTNING PROTECTION-AIR TERMINAL

SCALE: 3"=1'-0"

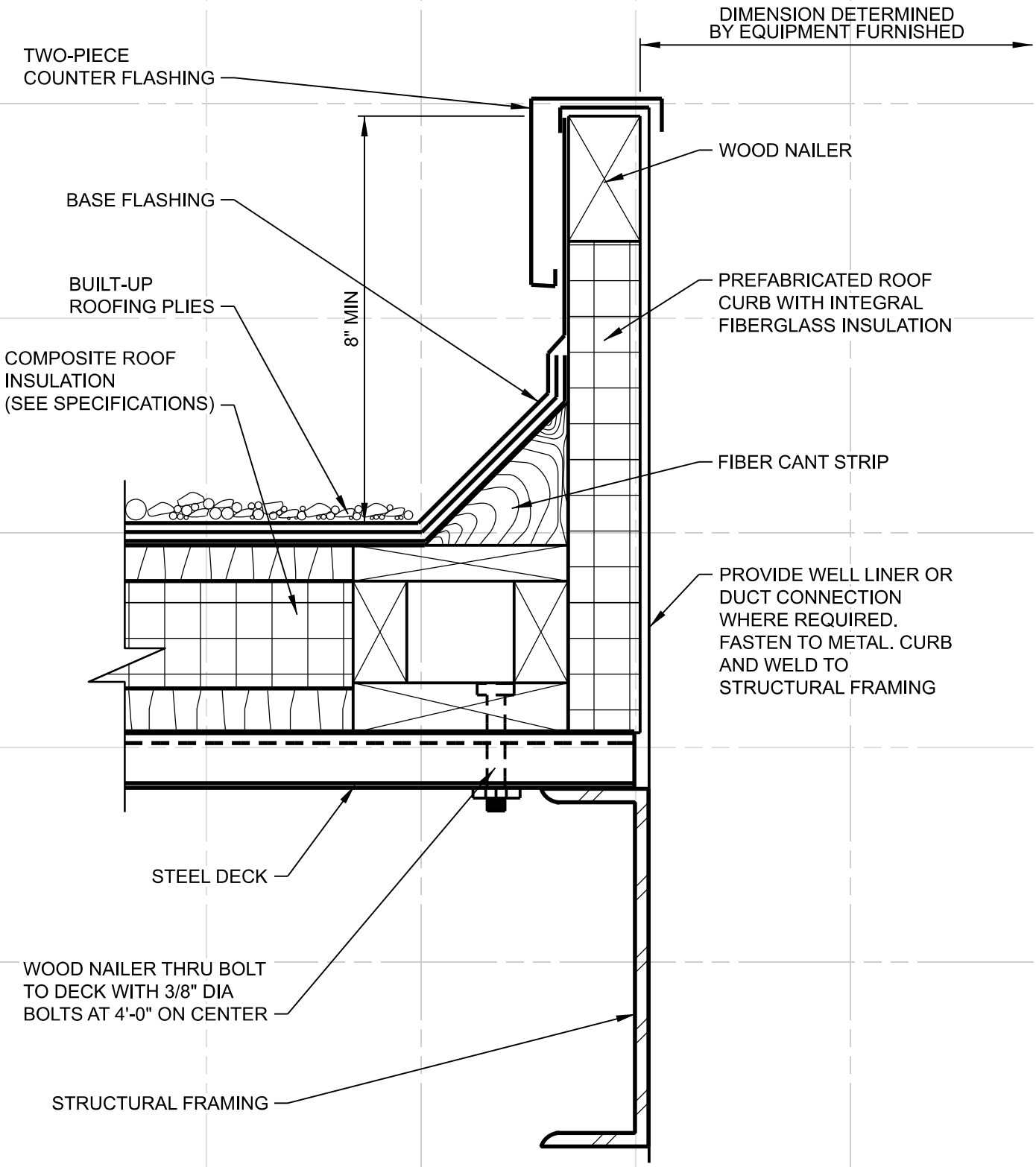
0 3" 6" 1'



A1 DETAIL: AT ROOF ACCESS DOOR

SCALE: 3"=1'-0"

0 3" 6" 1'

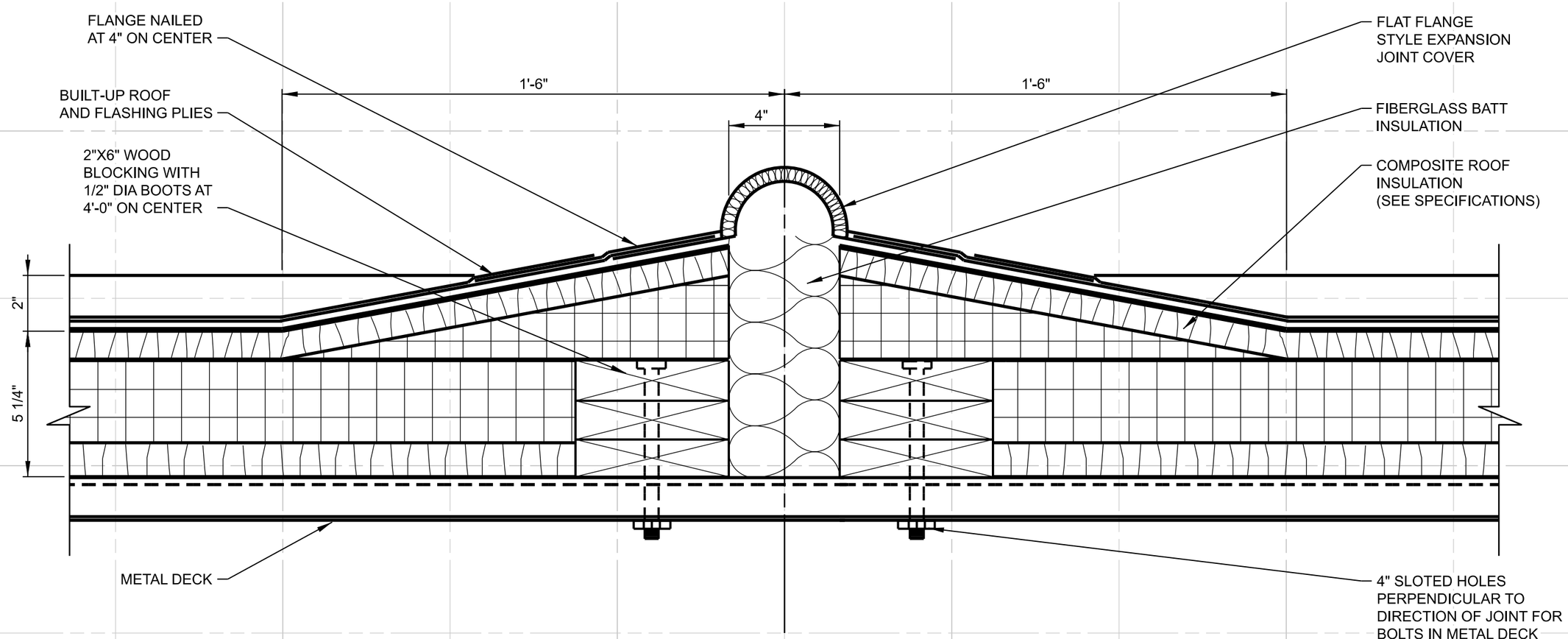


A1

DETAIL: CURB

SCALE: 3"=1'-0"

0 3" 6" 1'



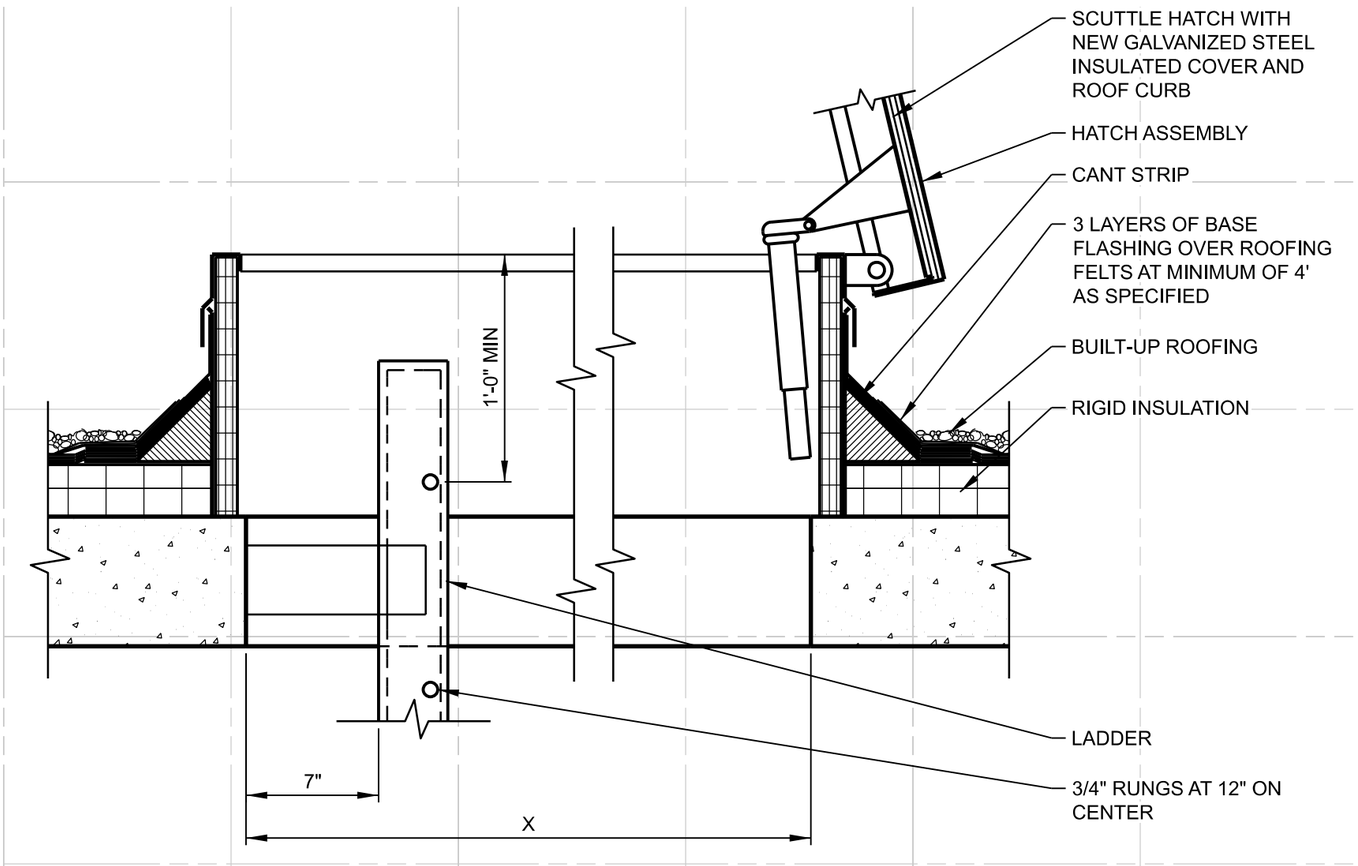
A1

DETAIL: ROOF RELIEF JOINT

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B3010A-DT005X



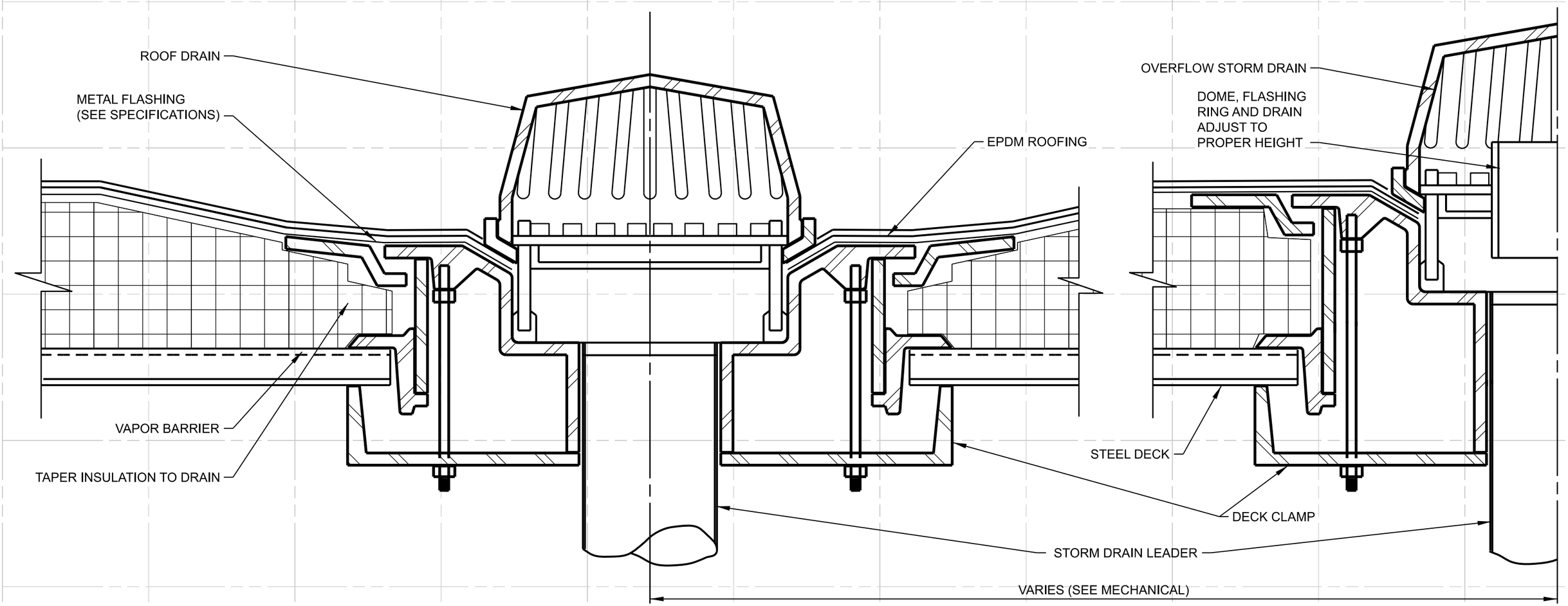
A1 DETAIL: ROOF SCUTTLE

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

Detail B3010A-DT006X

Details-US-Architectural-B301-RoofCoverings



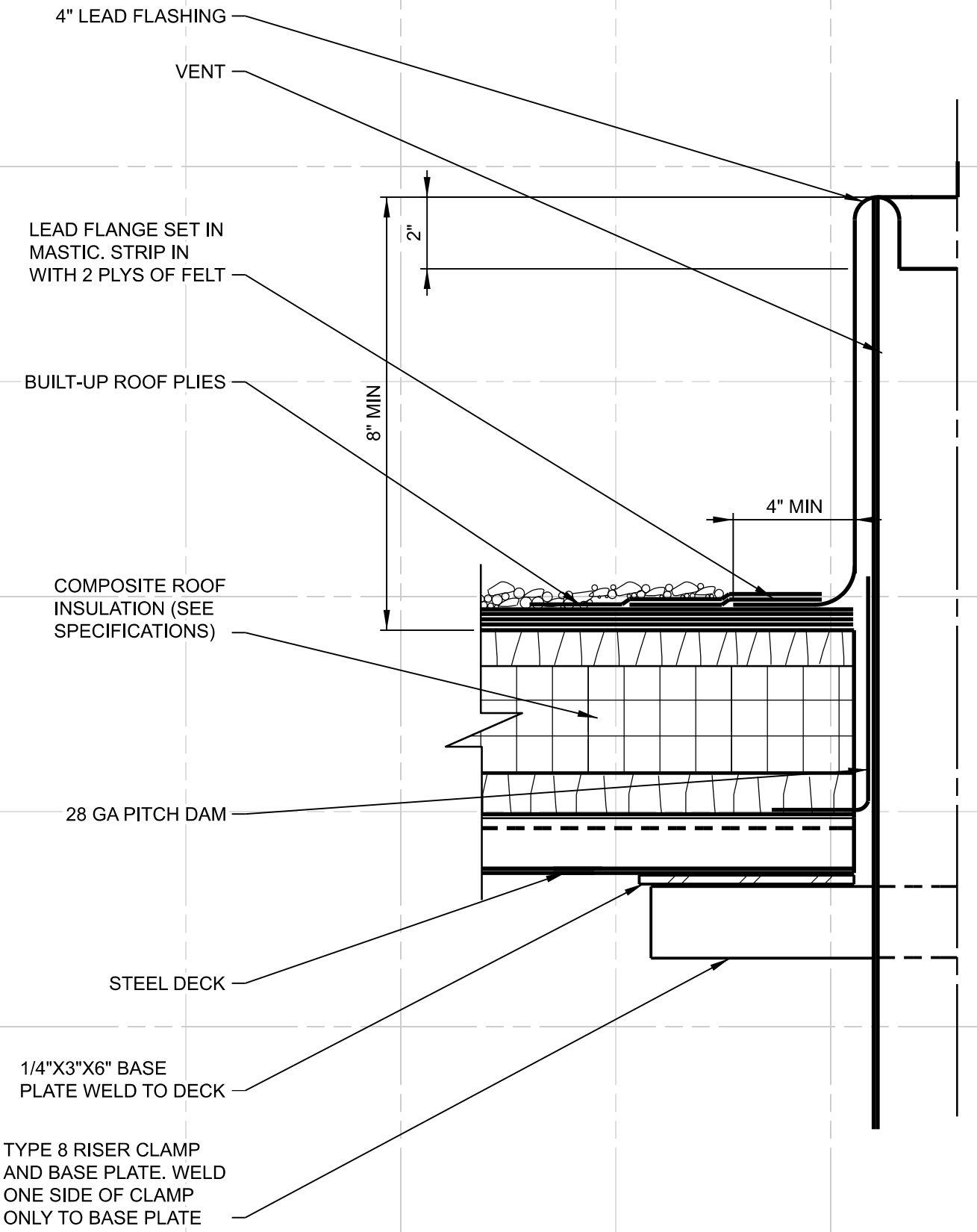
A1 DETAIL: ROOF DRAIN

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B3010A-DT007X

Details-US-Architectural-B301-RoofCoverings



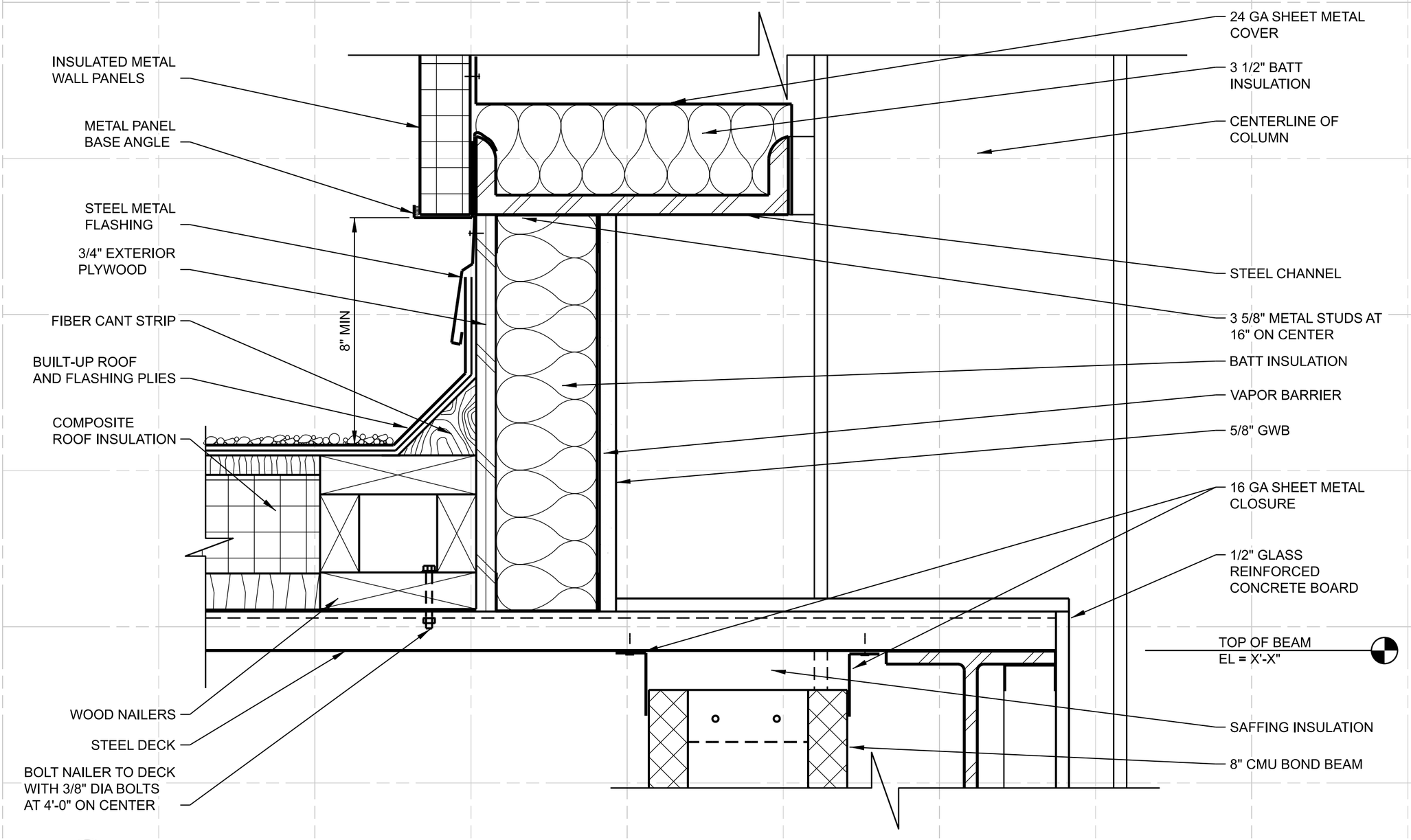
A1

DETAIL: PLUMBING VENT

SCALE: 3"=1'-0"

0 3" 6" 1'

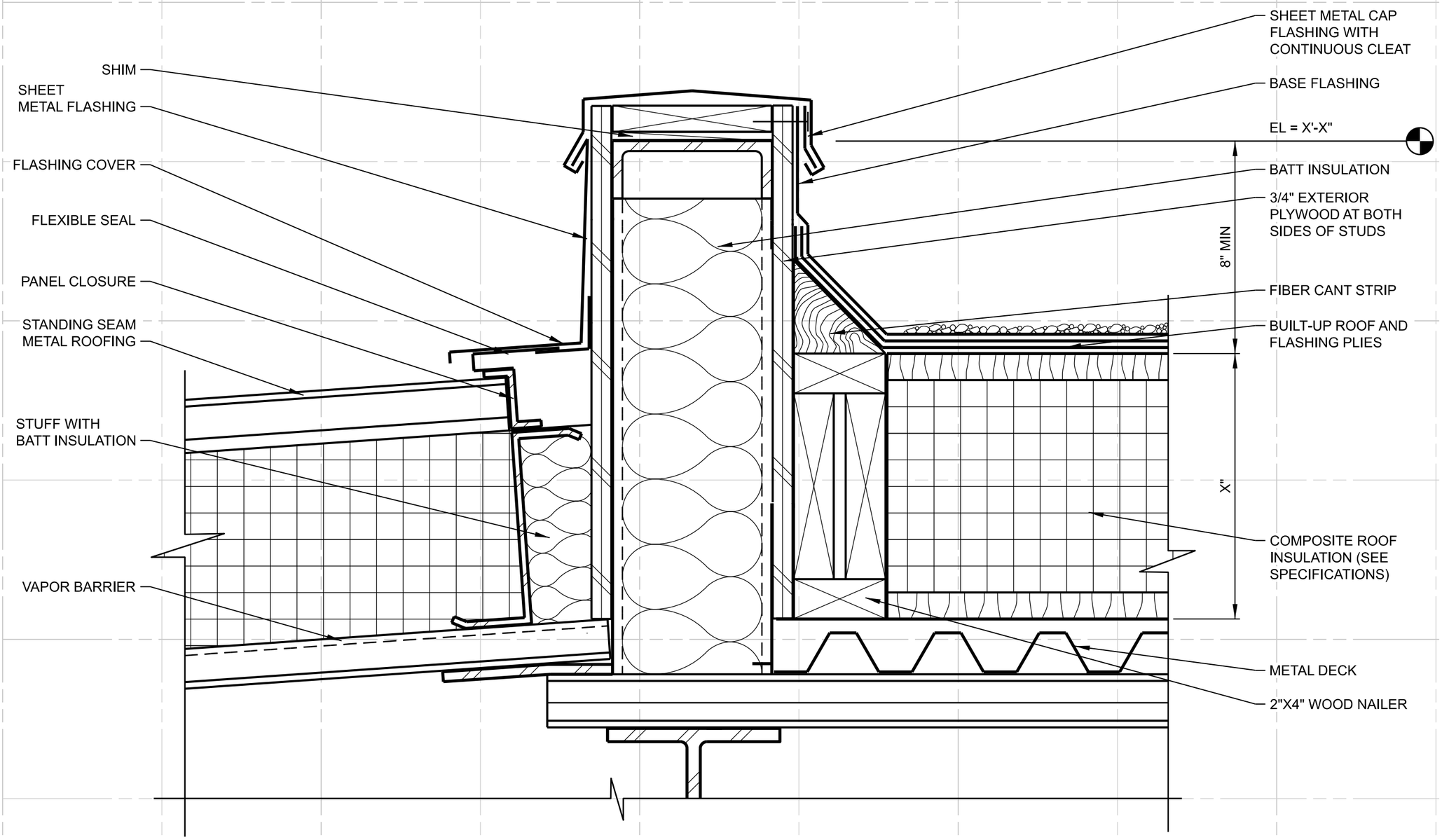
Detail B3010A-DT009X



A1 DETAIL: ROOF

SCALE: 3"=1'-0"

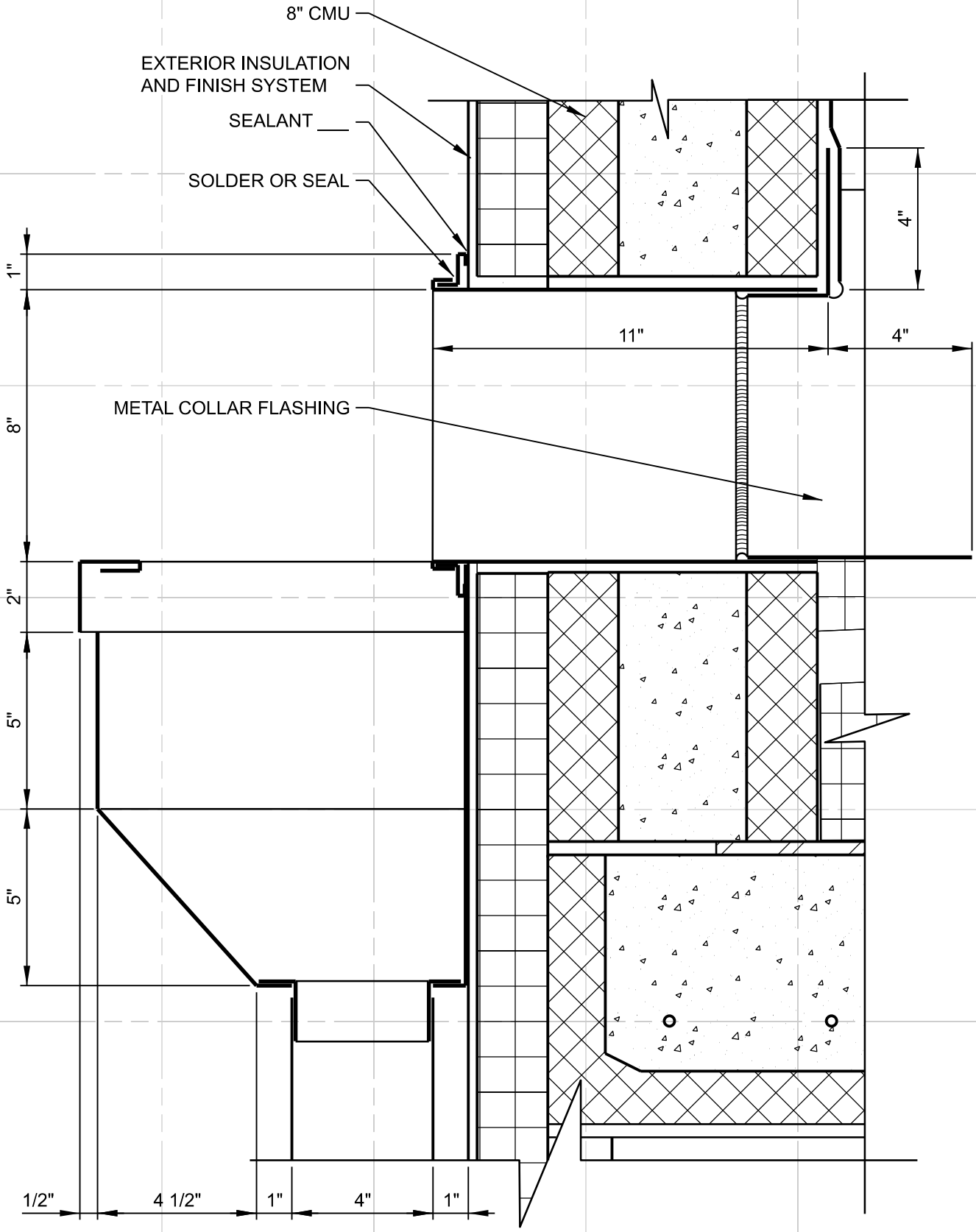
0 3" 6" 1'



A1 DETAIL: ROOF

SCALE: 3"=1'-0"

0 3" 6" 1'



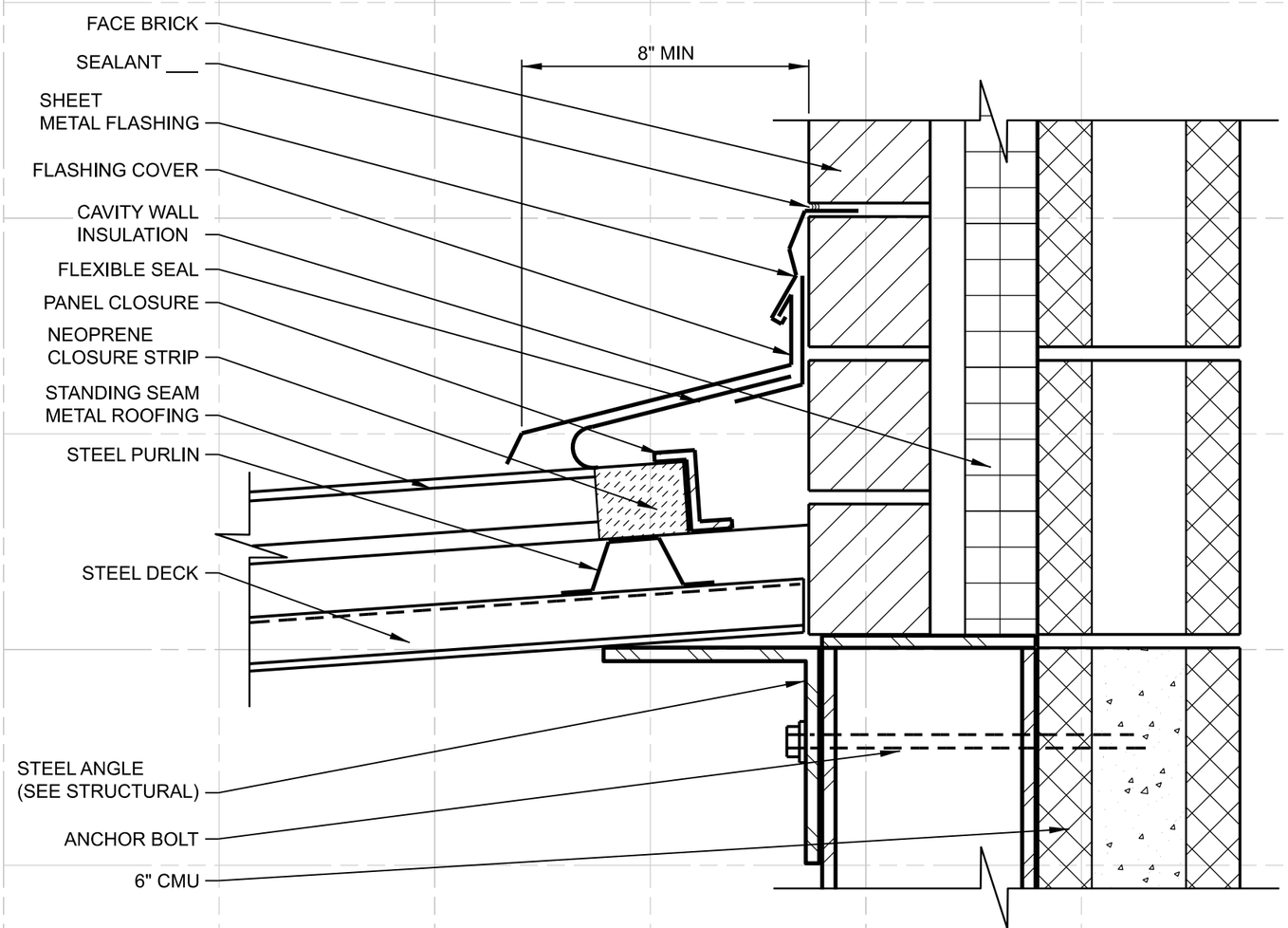
A1

DETAIL: CONDUCTER HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B3010A-DT012X

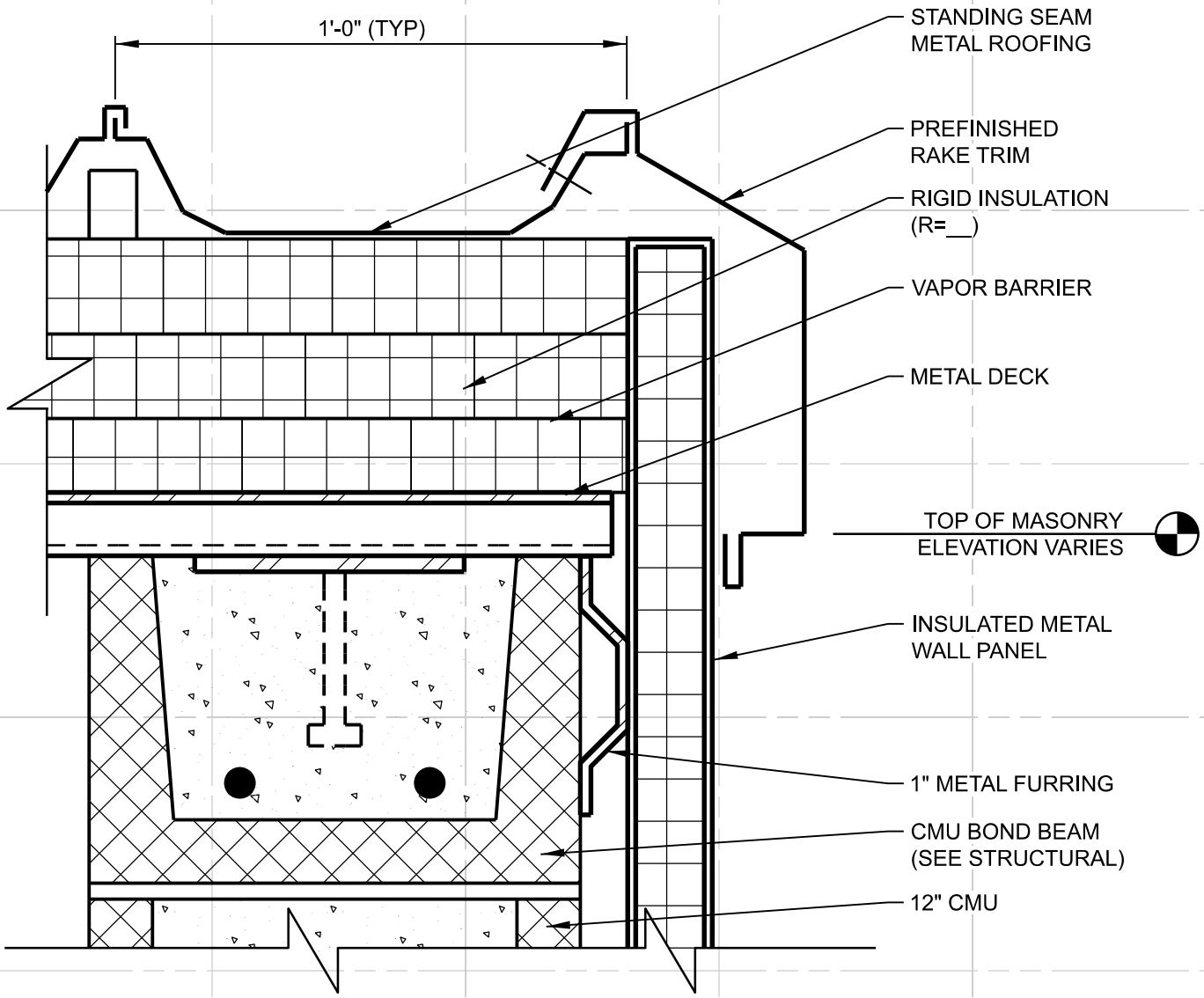


A1 DETAIL: ROOF

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B3010A-DT013X



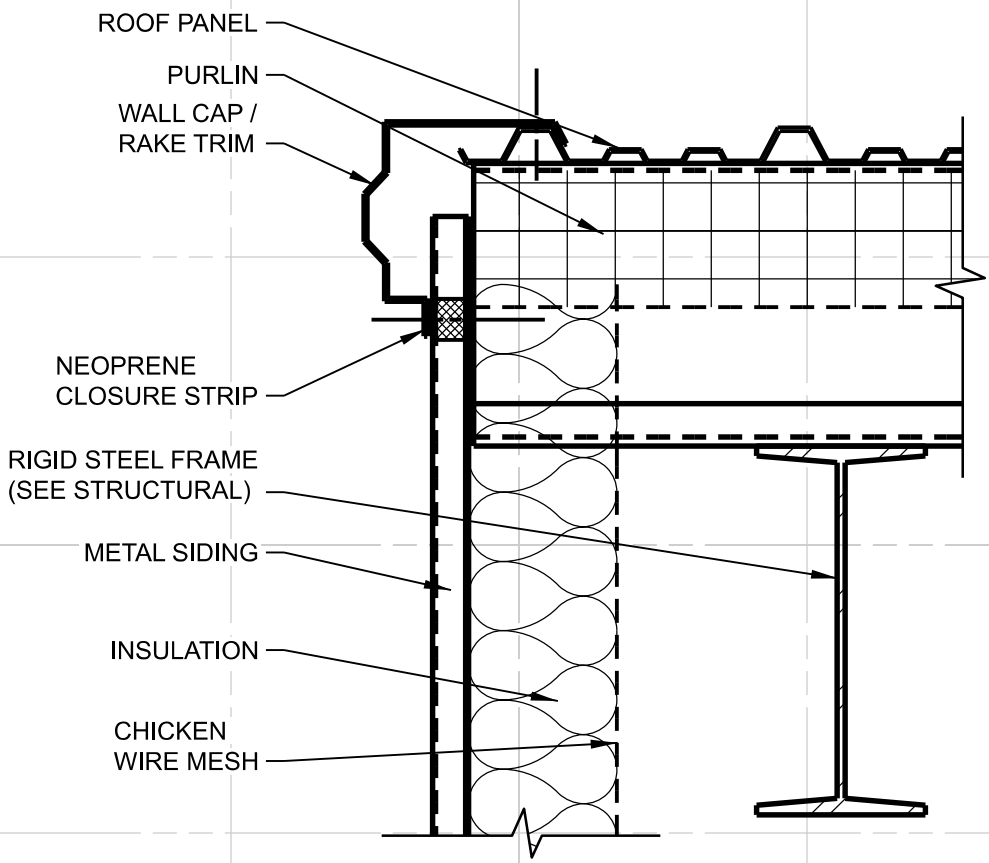
A1

DETAIL: RAKE

SCALE: 3"=1'-0"

0 3" 6" 1'

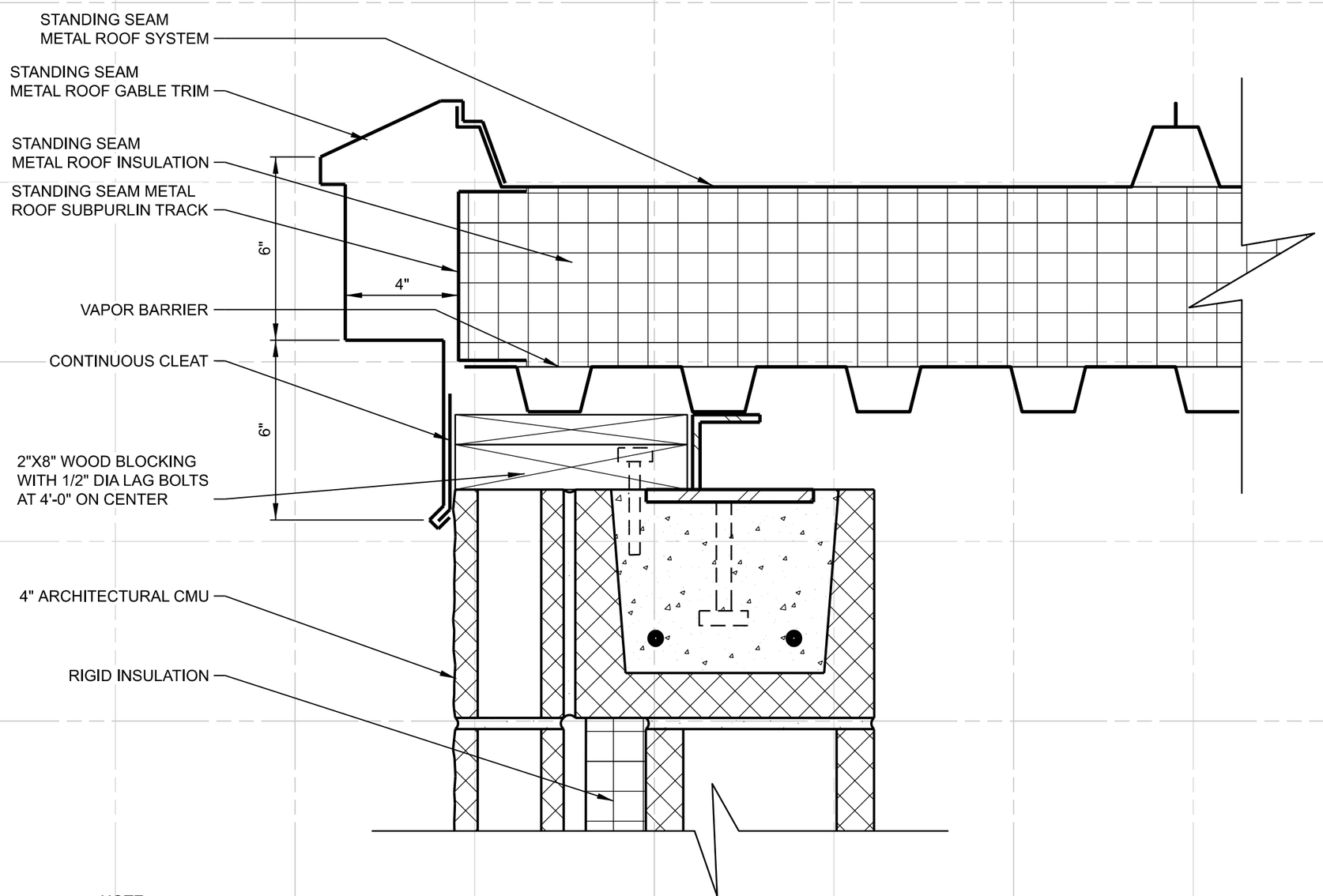
Detail B3010A-DT014X



A1

DETAIL: RAKE

SCALE:1 1/2"=1'-0" 0 6" 1' 2'



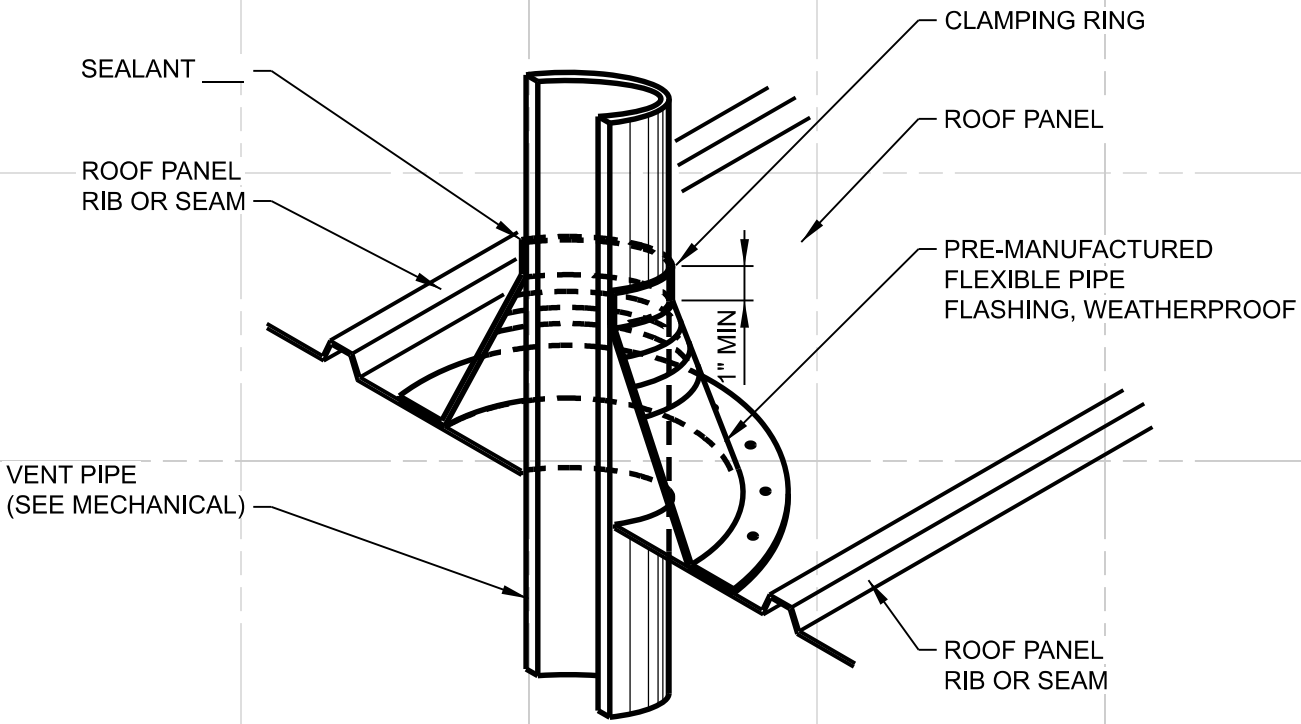
NOTE:
DISTANCE BETWEEN STANDING SEAM METAL ROOF PANALS AND BOTTOM OF THE EAVE CLOSURE SHALL BE CONSTANT AT BOTH GABLE AND EAVE LOCATIONS.

A1

DETAIL: GABLE RAKE

SCALE: 3"=1'-0"

0 3" 6" 1'



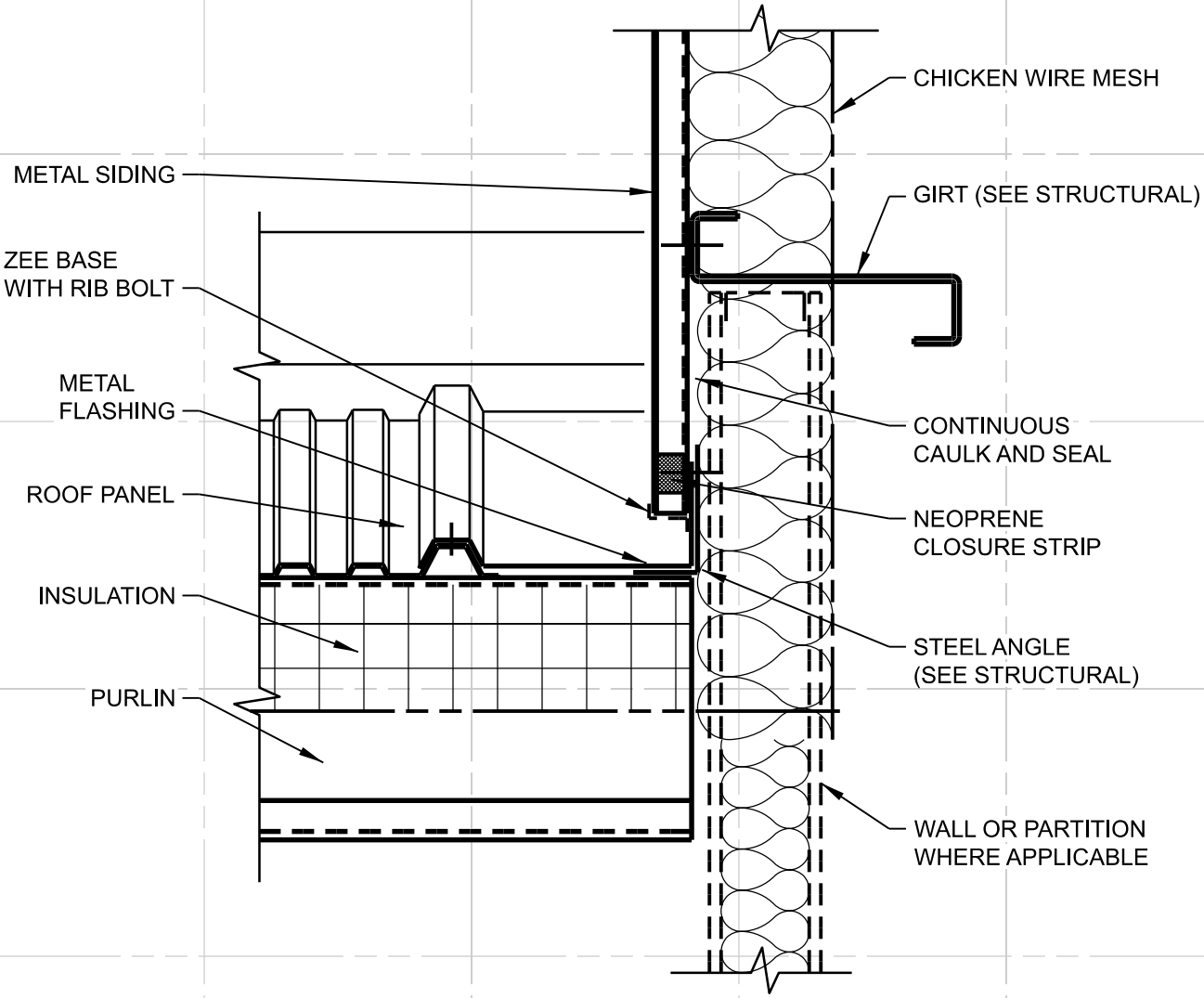
A1

DETAIL: ROOF VENT

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

Detail B3010A-DT017X

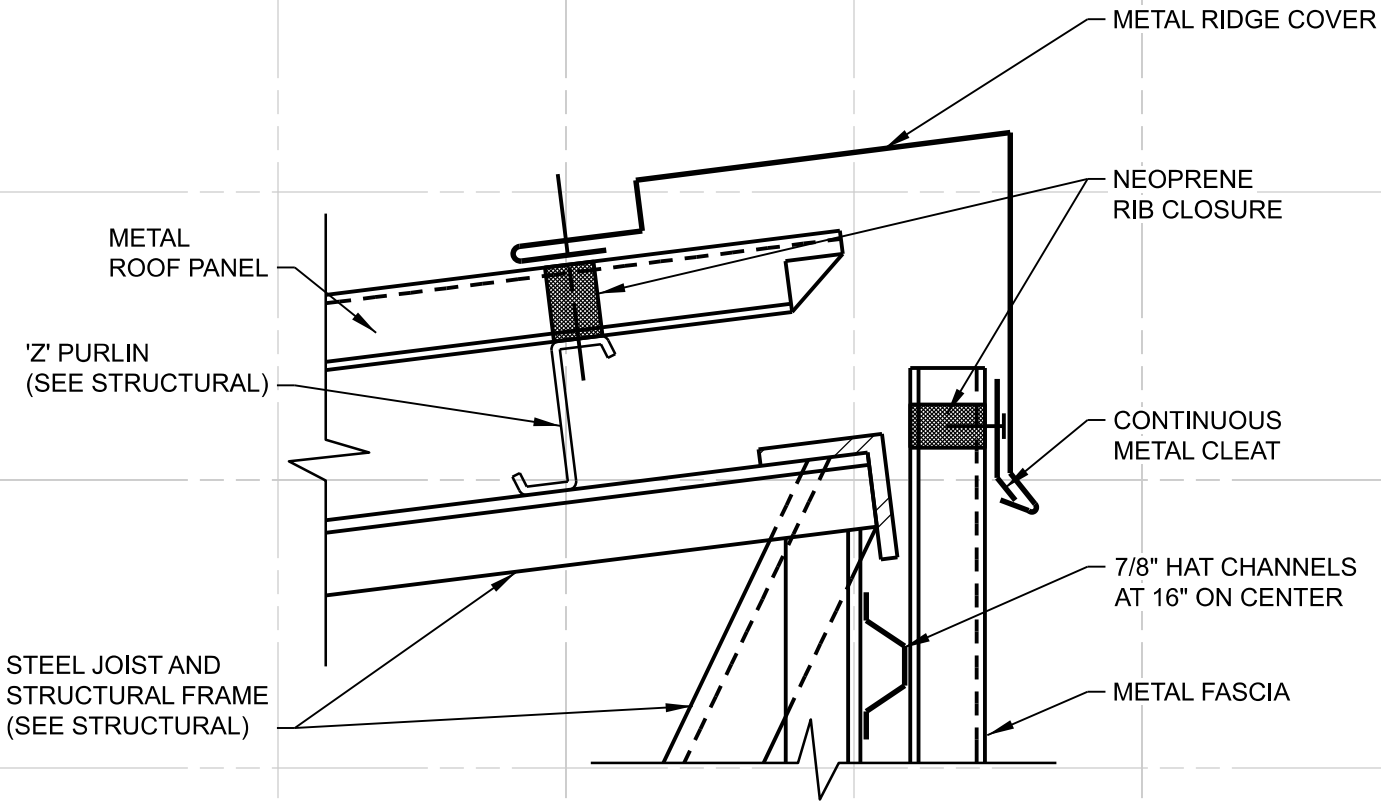


A1

DETAIL: RAKE

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

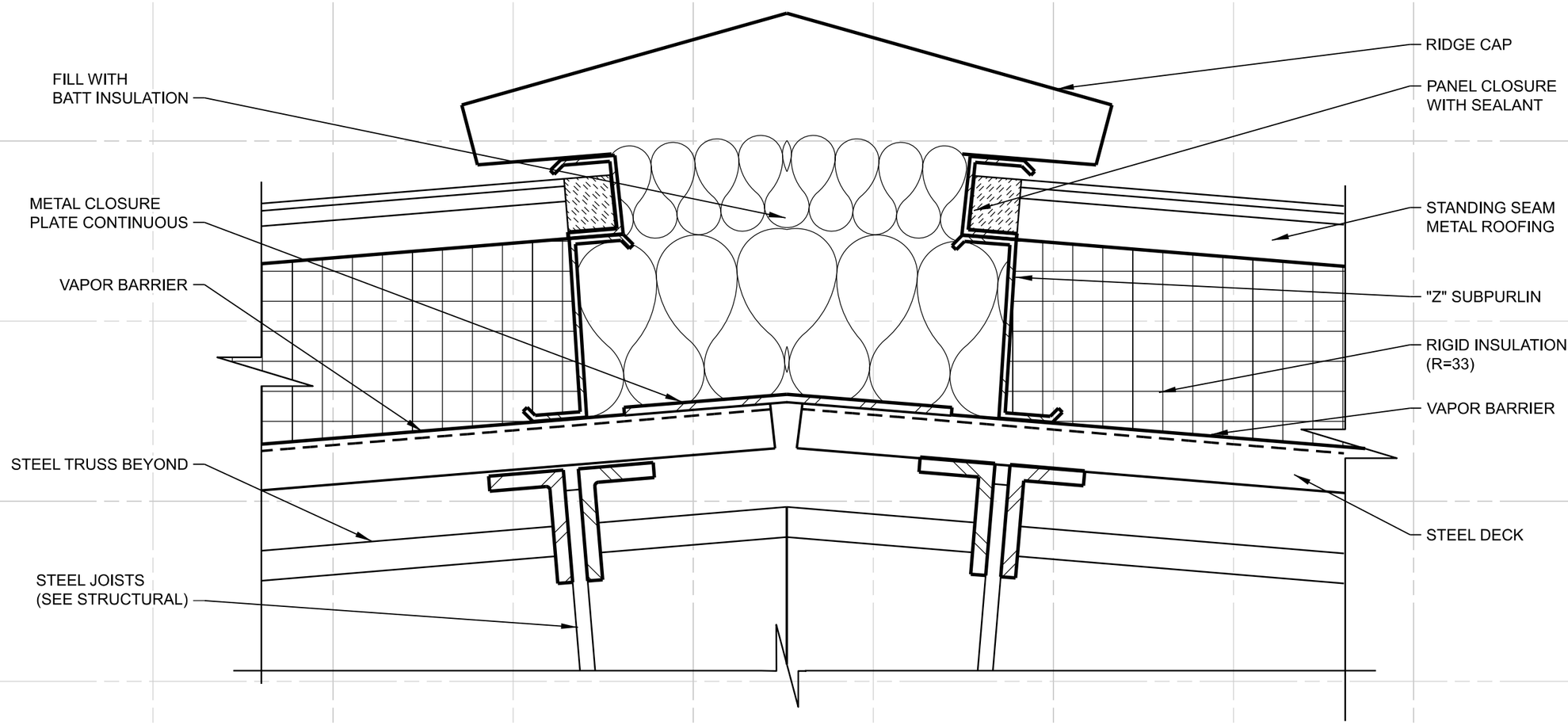


A1

DETAIL: METAL RIDGE COVER

SCALE: 6"=1'-0"

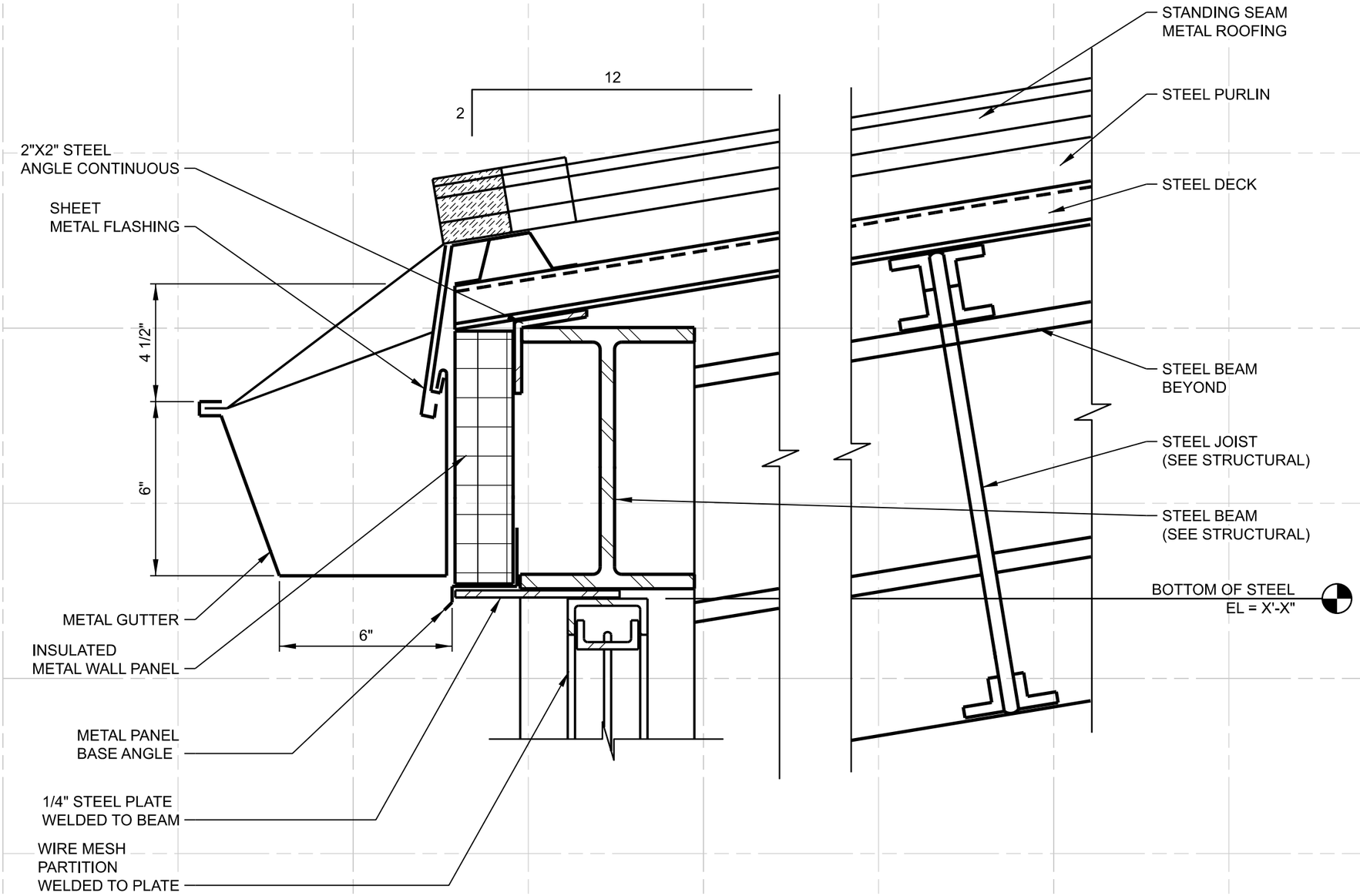
0 1-1/2" 3" 6"



A1 DETAIL: ROOF RIDGE

SCALE: 3"=1'-0"

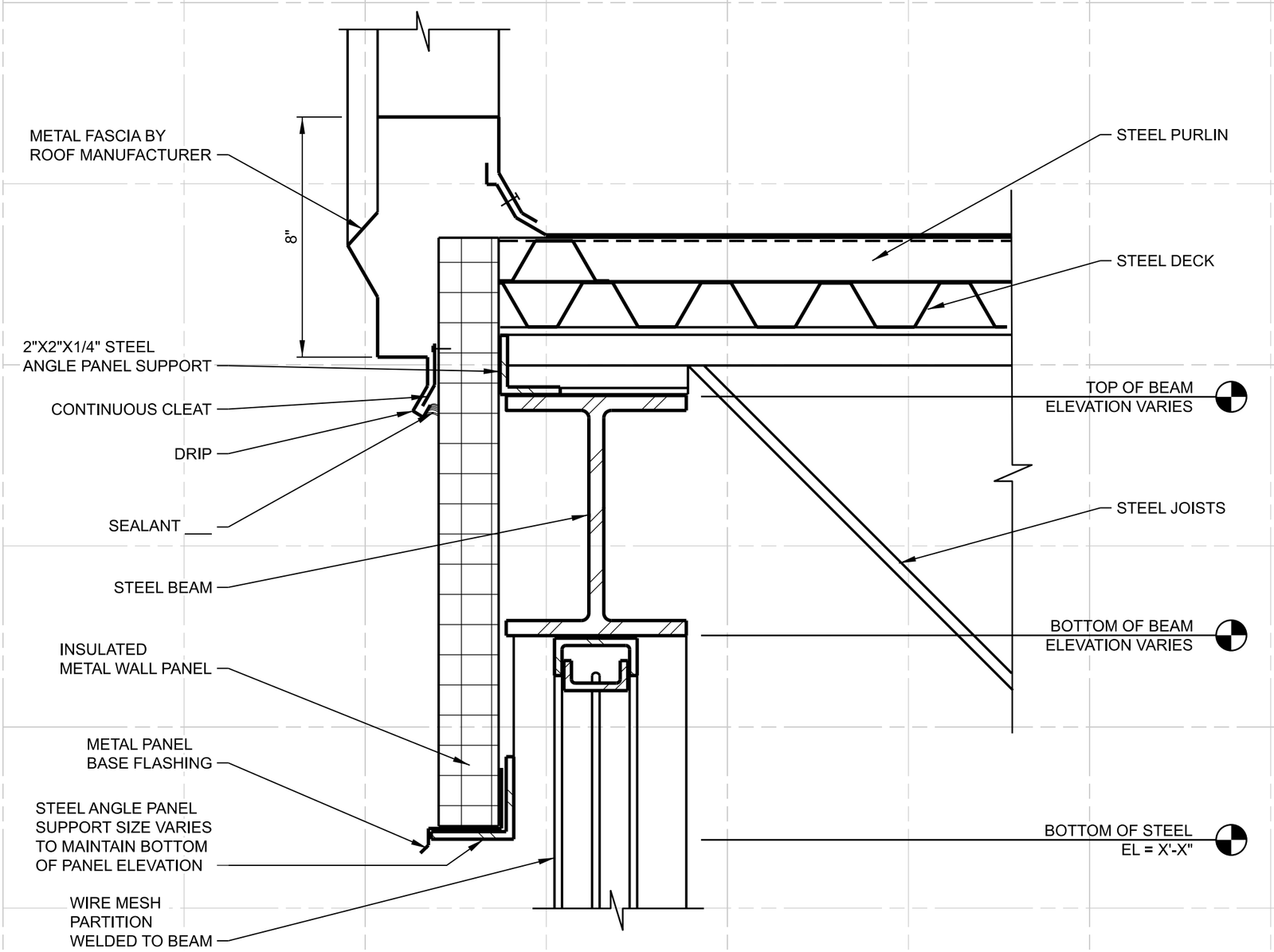
0 3" 6" 1'



A1 DETAIL: ROOF EDGE

SCALE: 3"=1'-0"

0 3" 6" 1'

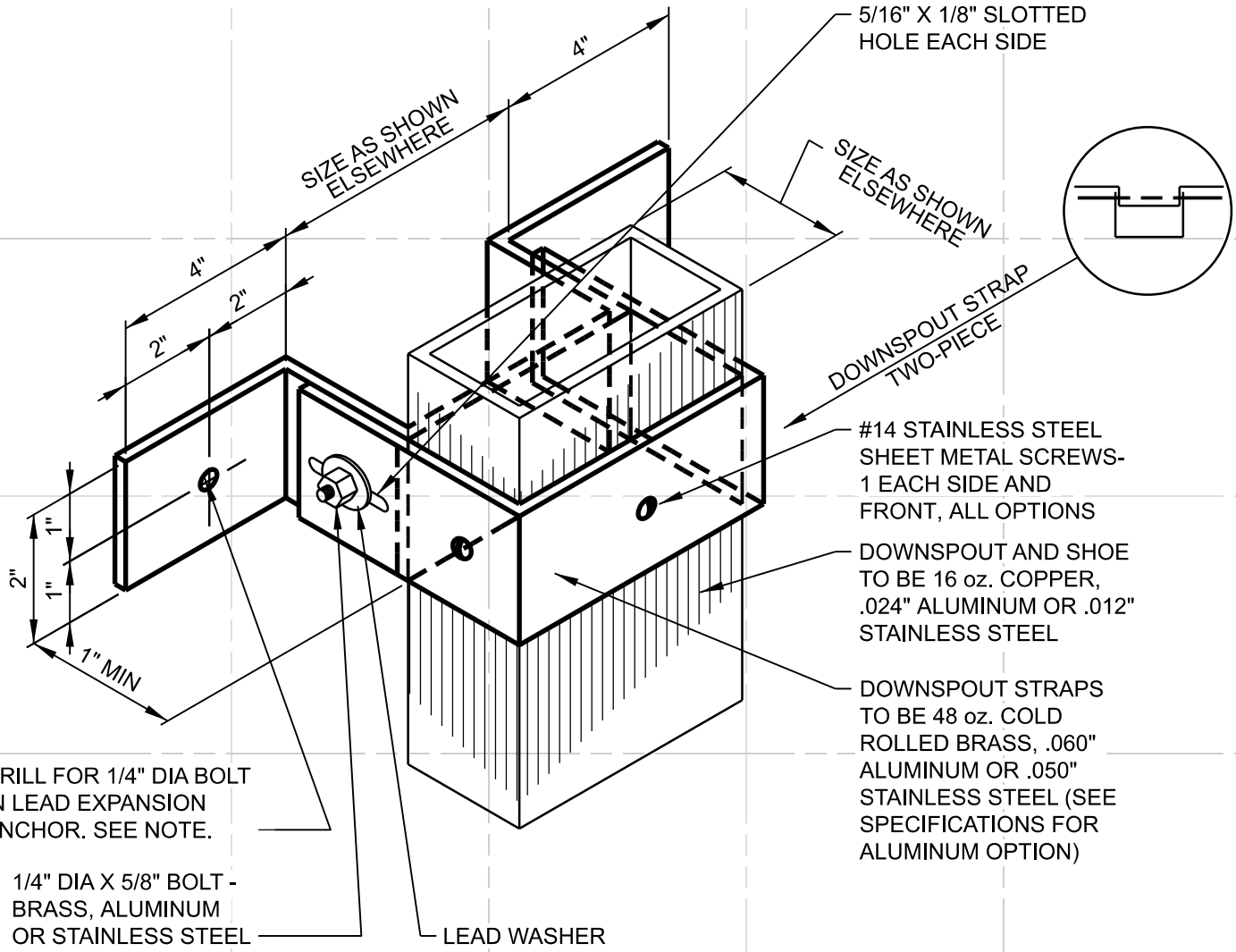


A1 DETAIL: RAKE

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B3010A-DT023X

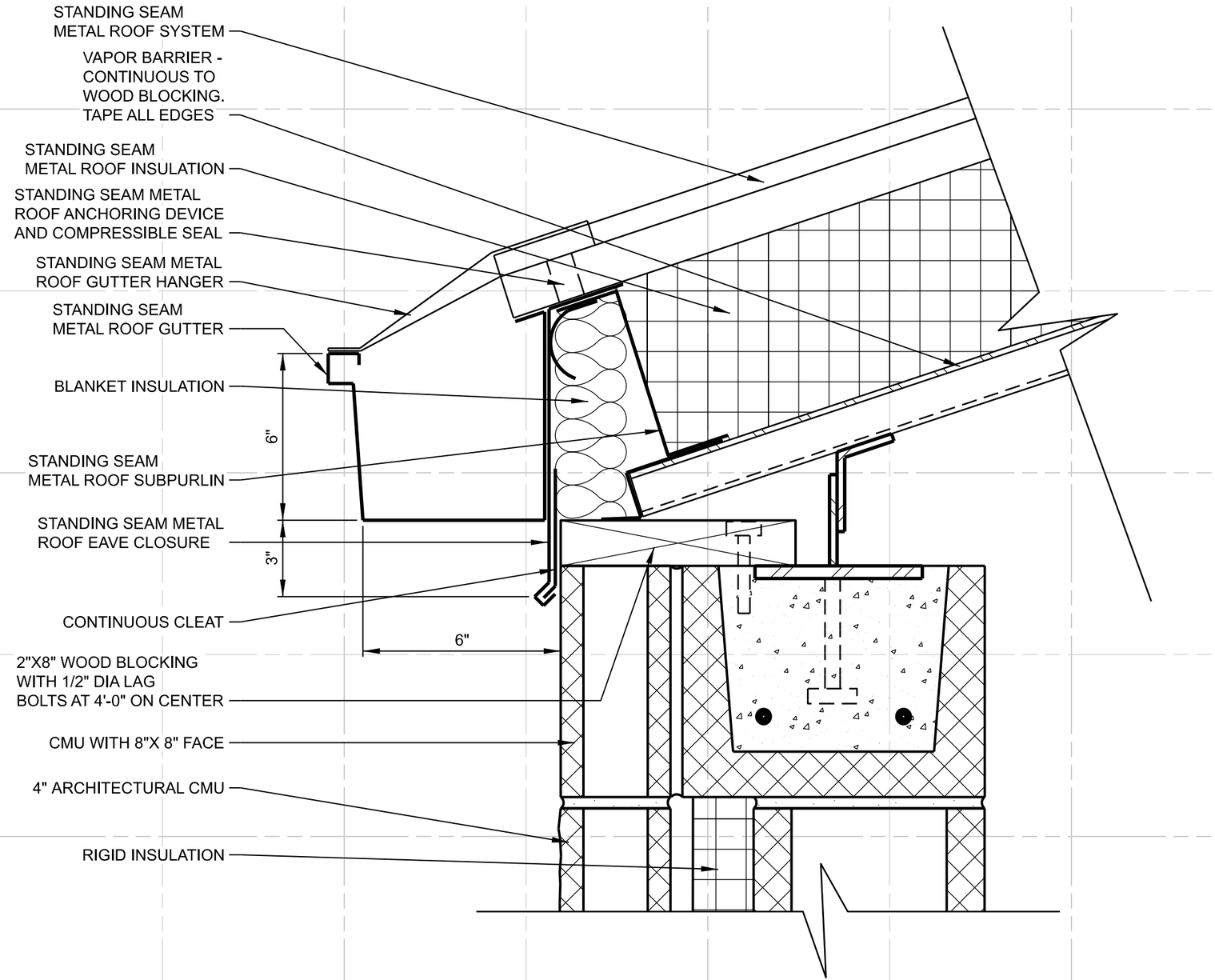


NOTE:
THIS DETAIL FOR CMU INSTALLATION ONLY. FOLLOW MANUFACTURER'S DETAIL FOR ATTACHMENT TO METAL PANEL SIDING OR FASCIA.

A1

DETAIL: DOWNSPOUT STRAP

SCALE: NTS



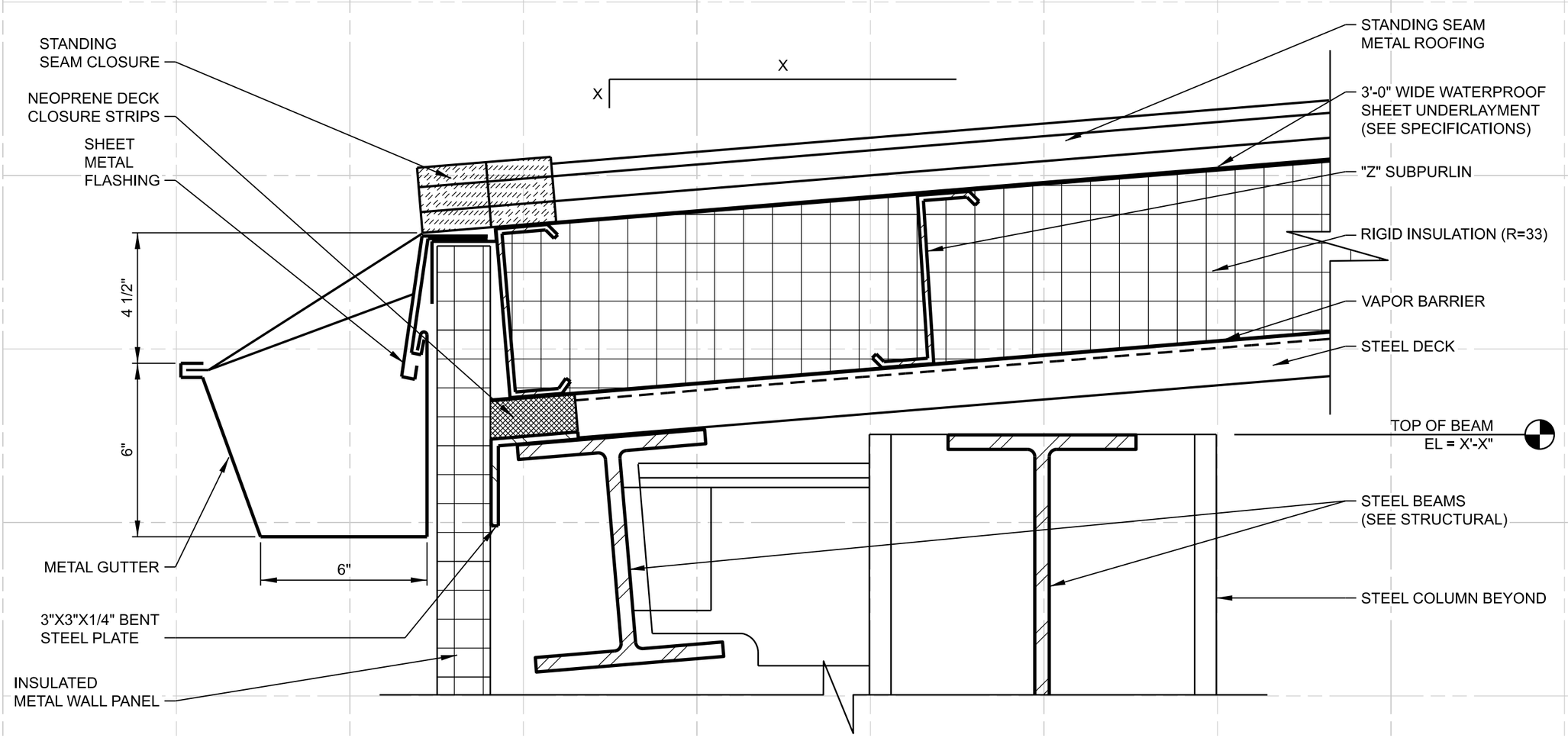
NOTE:
DISTANCE BETWEEN STANDING SEAM METAL ROOF PANEL AND BOTTOM OF STANDING SEAM METAL ROOF EAVE CLOSURE SHALL BE CONSTANT AT BOTH GABLE AND EAVE LOCATIONS.

A1

DETAIL: EAVE

SCALE: 3"=1'-0"

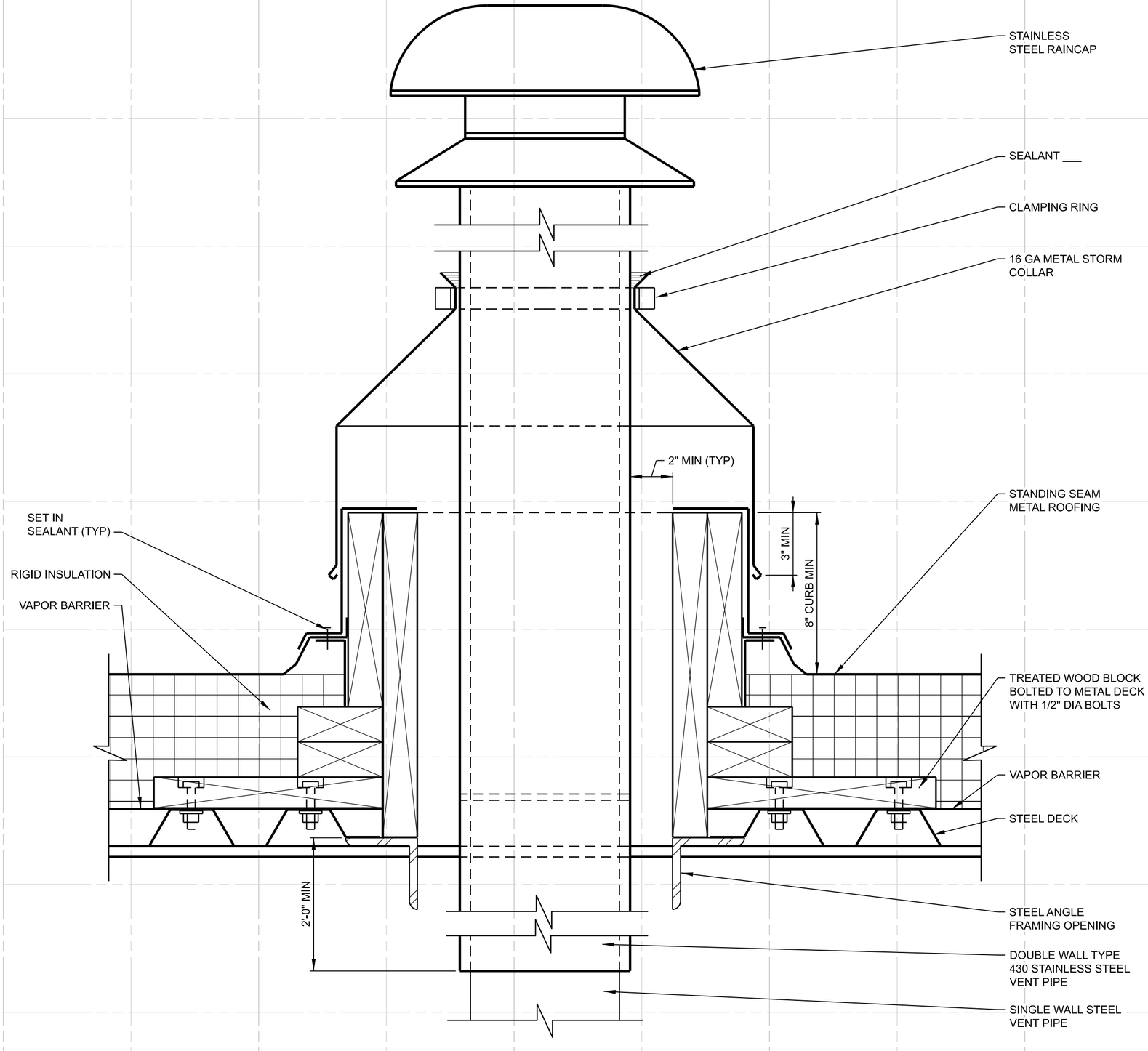
0 3" 6" 1'



A1 DETAIL: ROOF EDGE

SCALE: 3"=1'-0"

0 3" 6" 1'

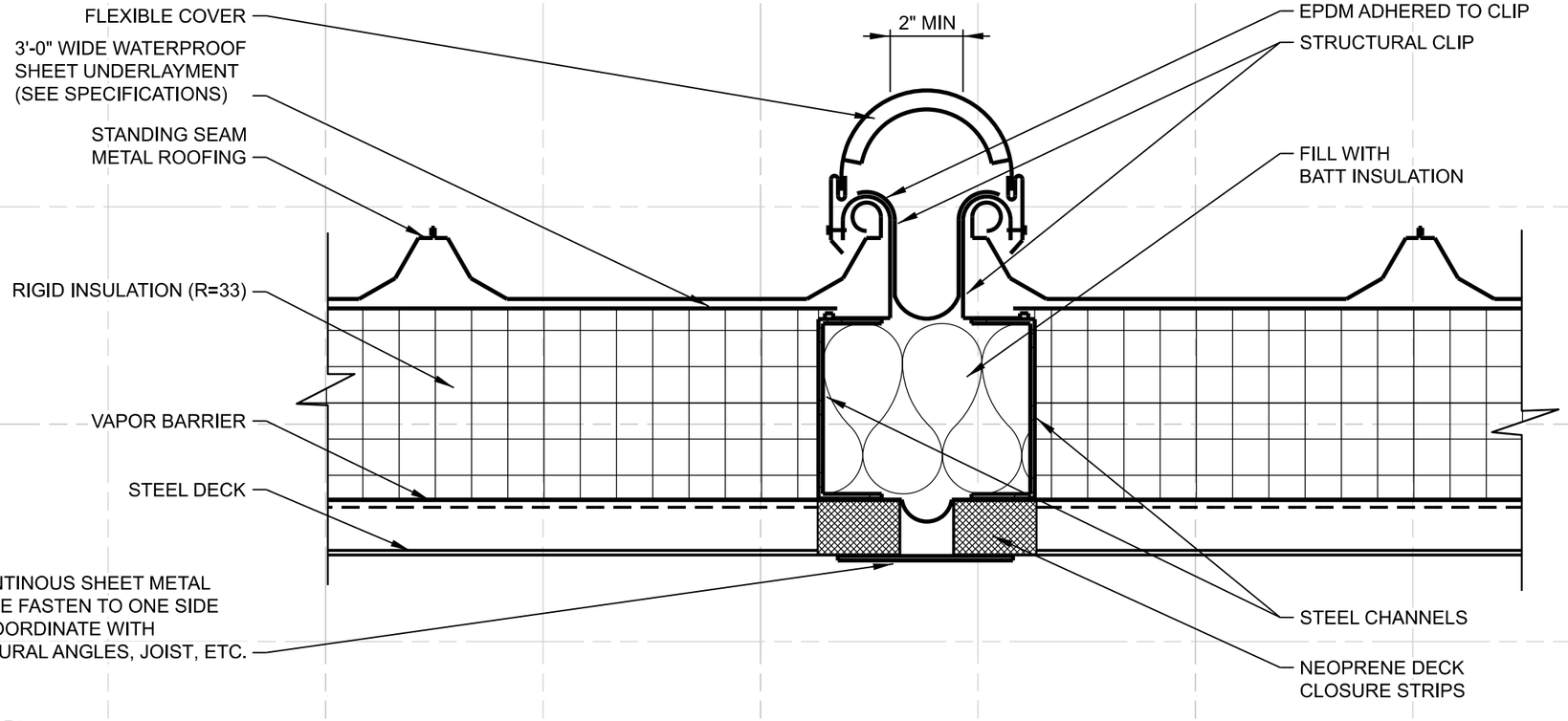


A1 DETAIL: BOILER STACK

SCALE: 3"=1'-0"

0 3" 6" 1'

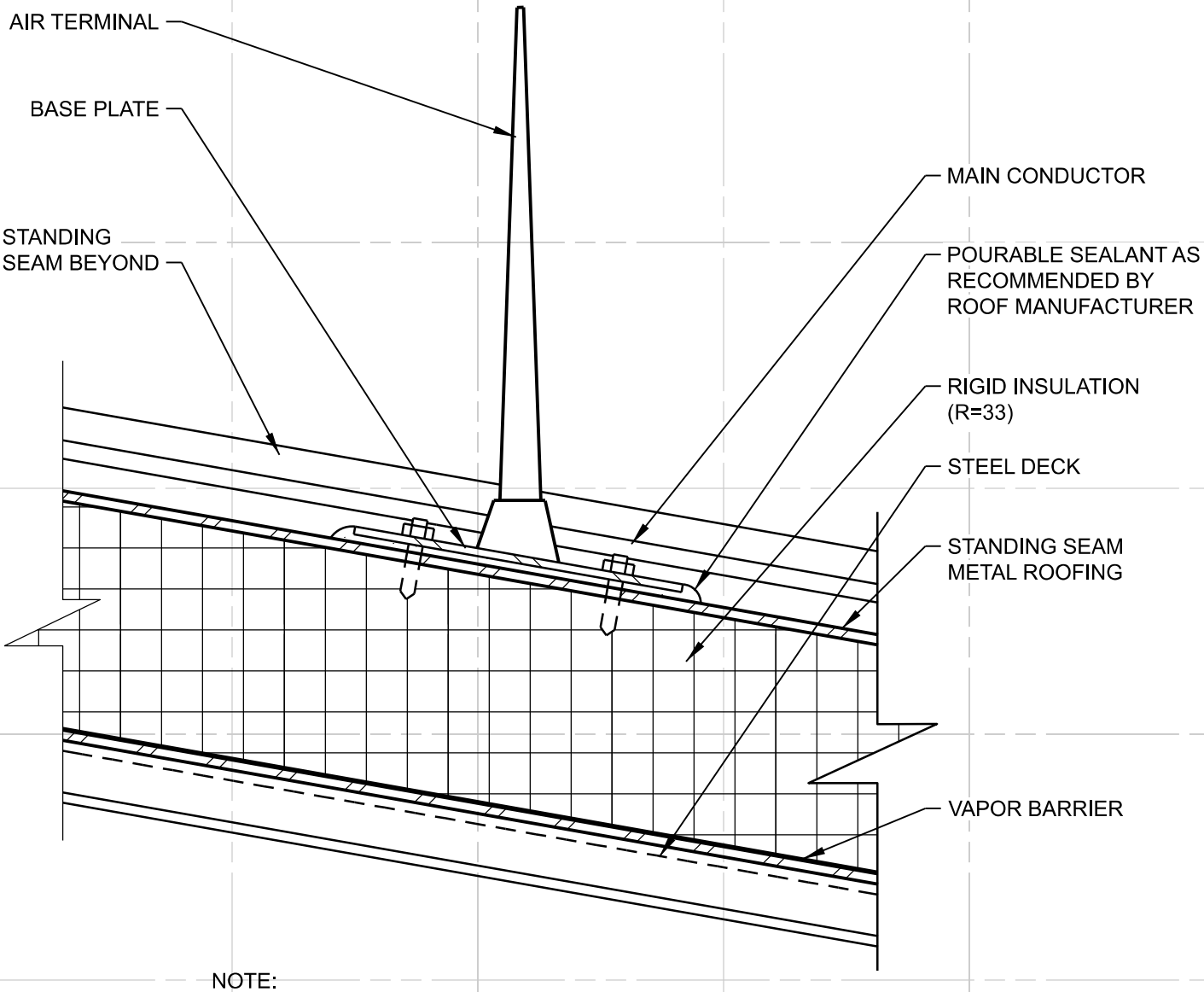
Detail B3010A-DT027X



A1 DETAIL: EXPANSION JOINT

SCALE: 3"=1'-0"

0 3" 6" 1'



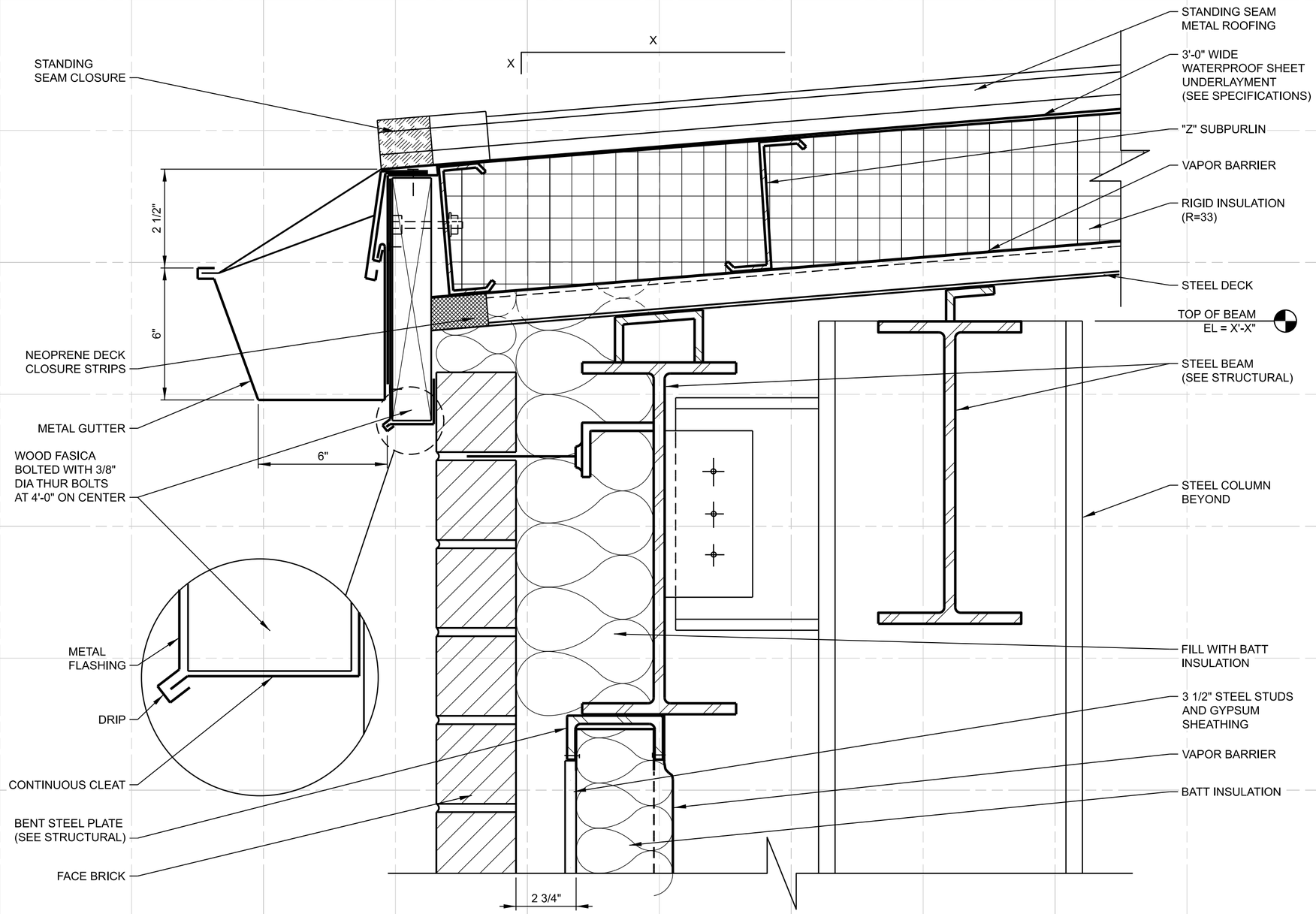
NOTE:
SEE ELECTRICAL DRAWINGS FOR LOCATION OF AIR TERMINAL.

DETAIL: LIGHTNING PROTECTION-AIR TERMINAL

A1

SCALE: 3"=1'-0"

0 3" 6" 1'



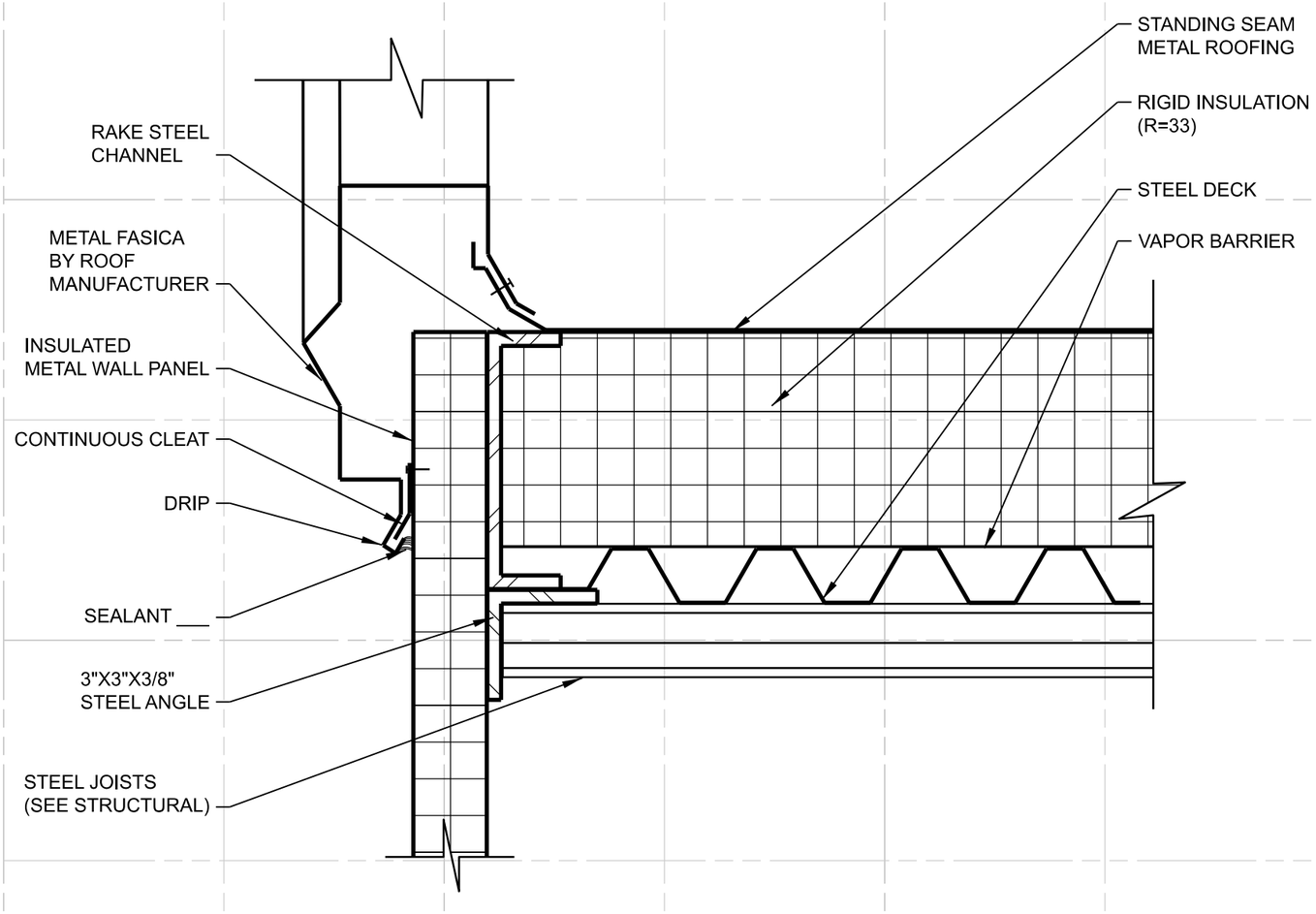
A1 DETAIL: ROOF EDGE

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B3010A-DT030X

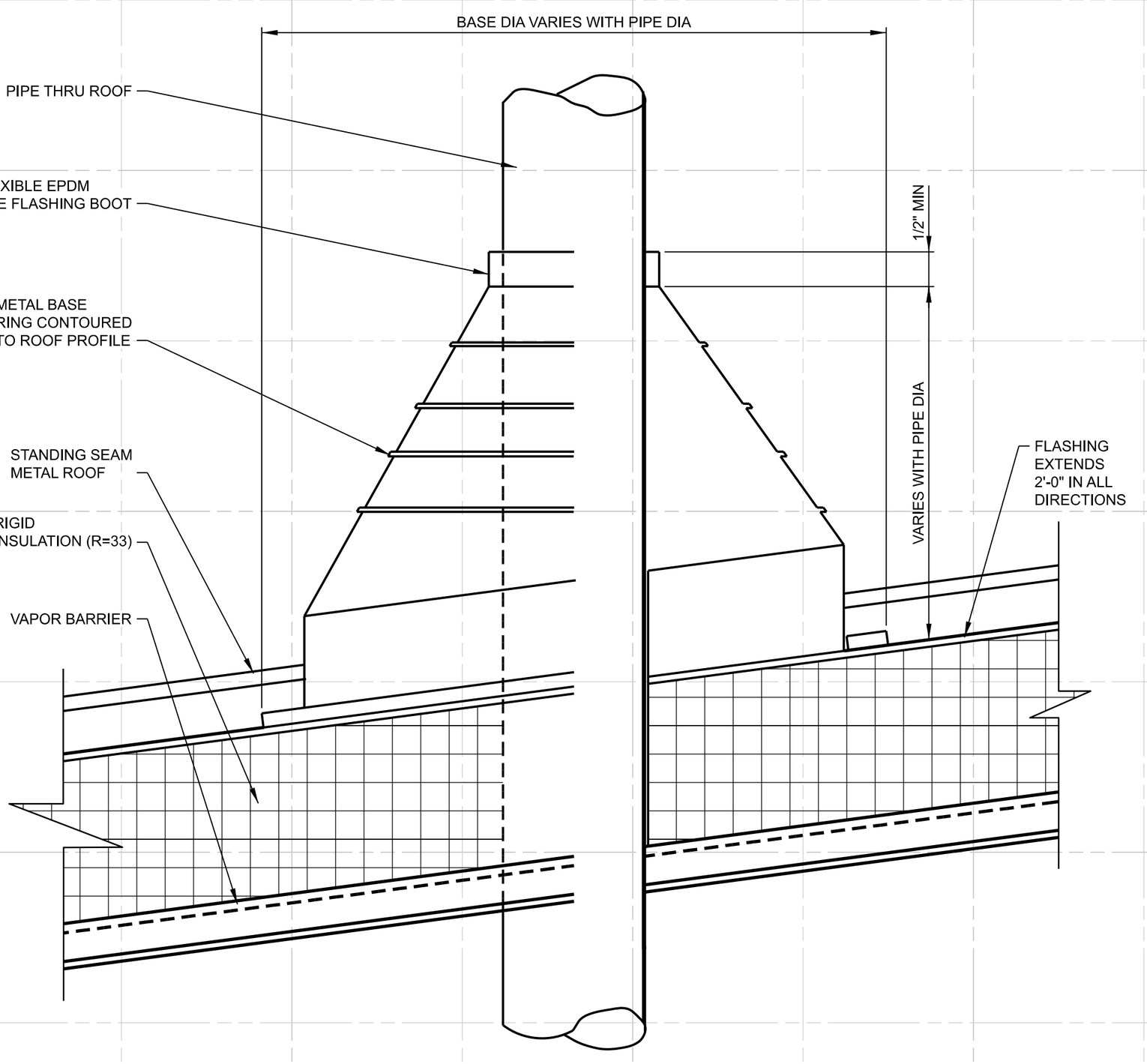
Details-US-Architectural-B301-RoofCoverings



A1 DETAIL: RAKE

SCALE: 3"=1'-0"

0 3" 6" 1'

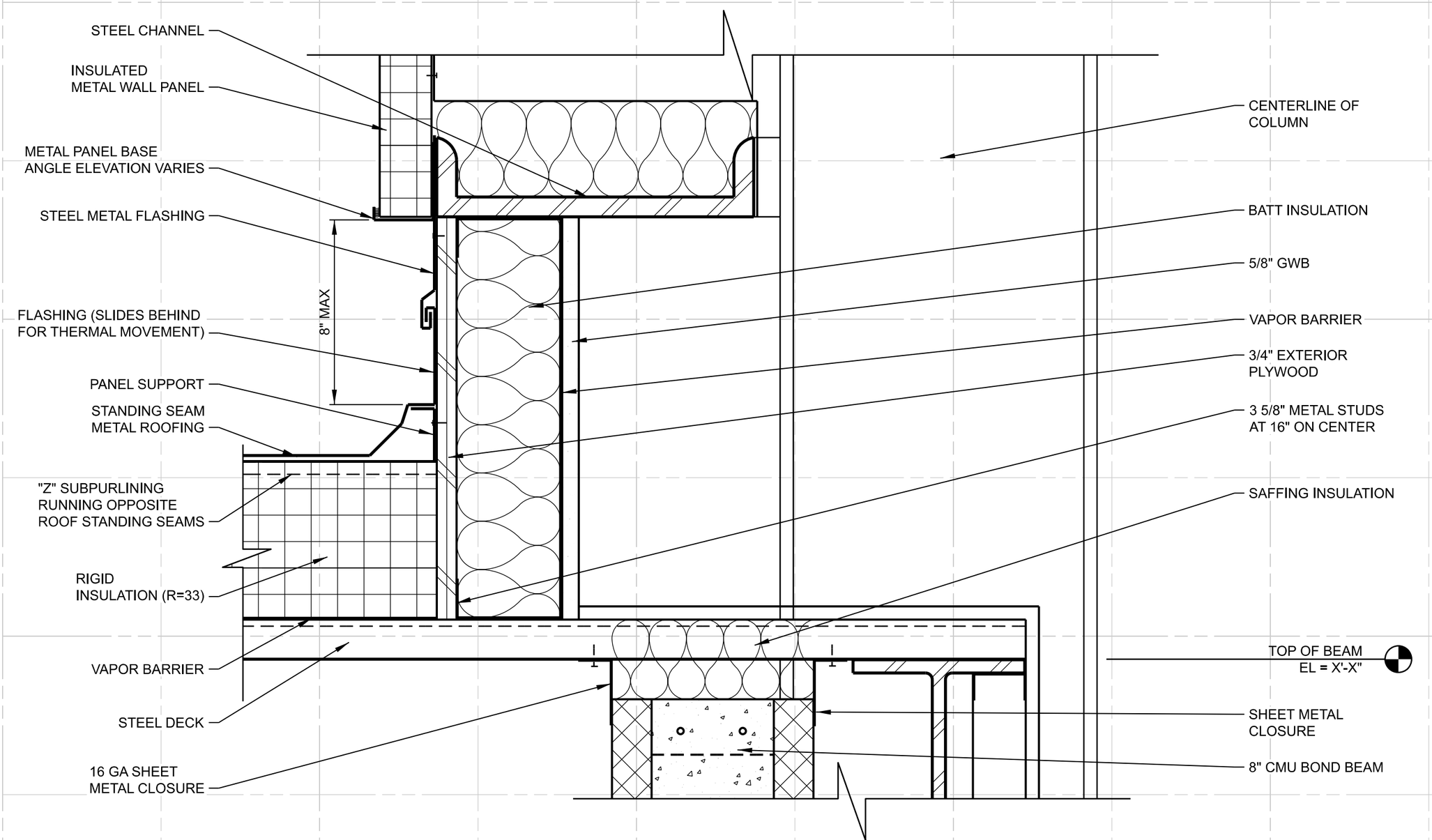


A1 DETAIL: PLUMBING VENT

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B3010A-DT032X

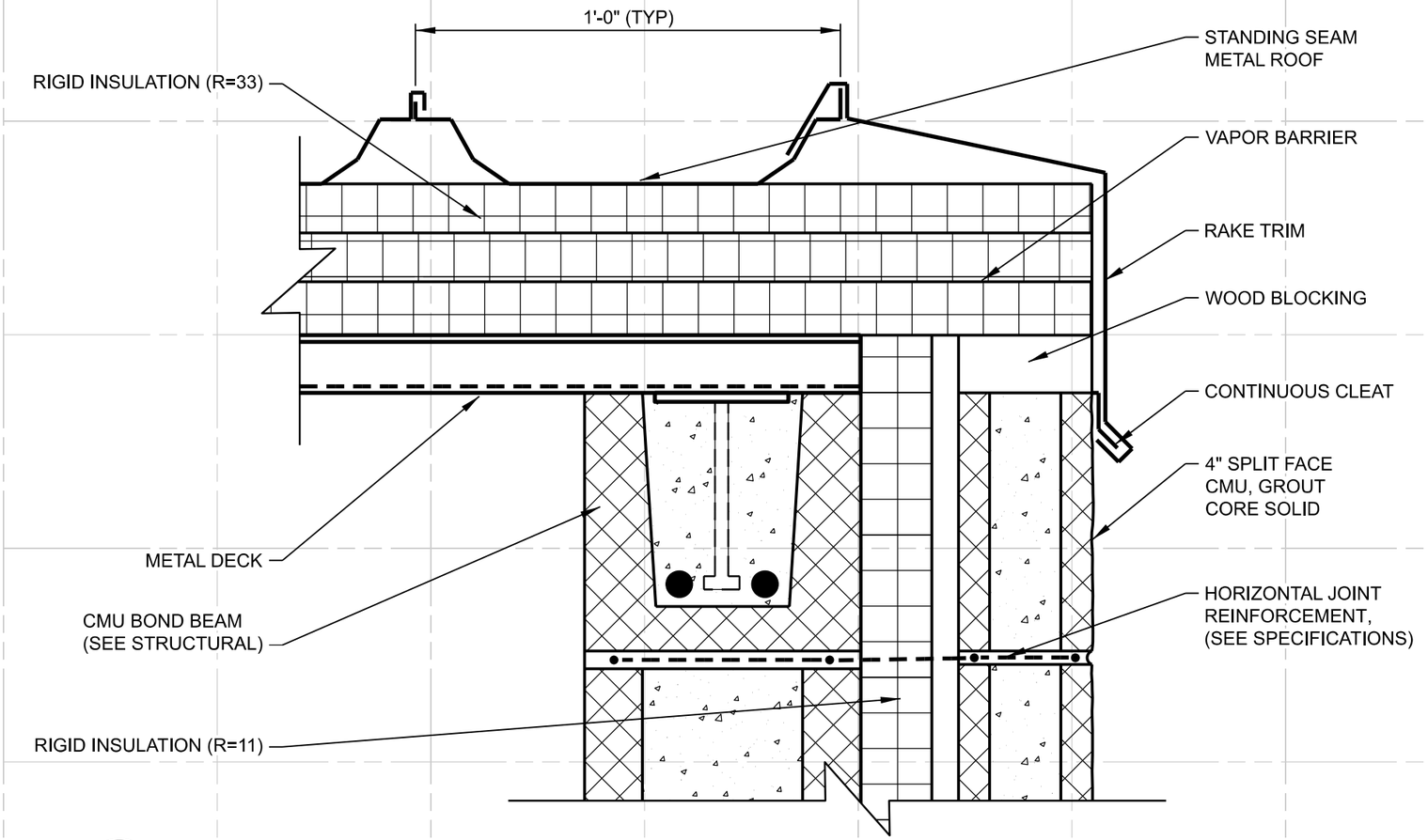


A1 DETAIL: ROOF

SCALE: 3"=1'-0"

0 3" 6" 1'

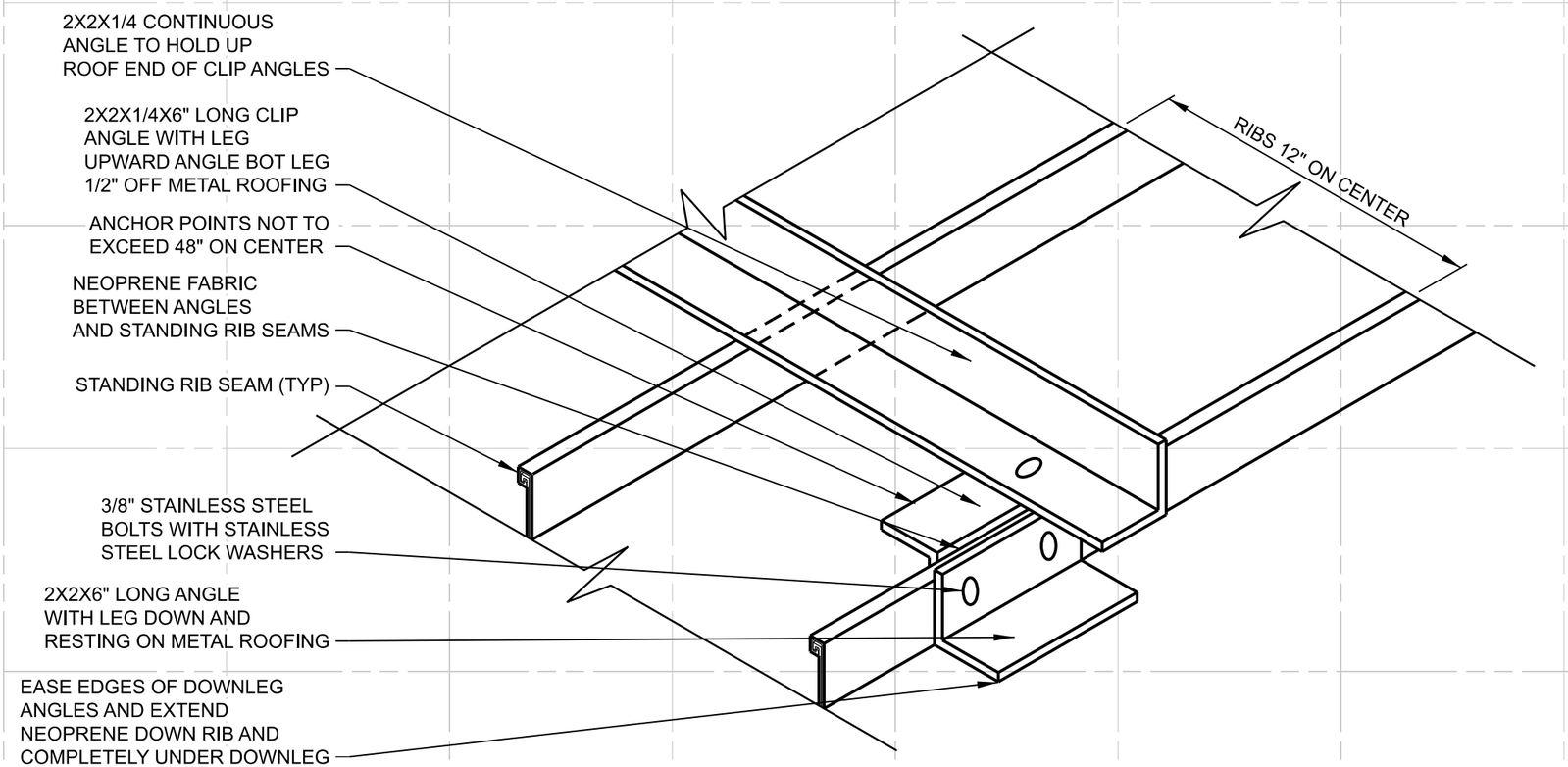
Detail B3010A-DT033X



A1 DETAIL: FASCIA

SCALE: 3"=1'-0"

0 3" 6" 1'

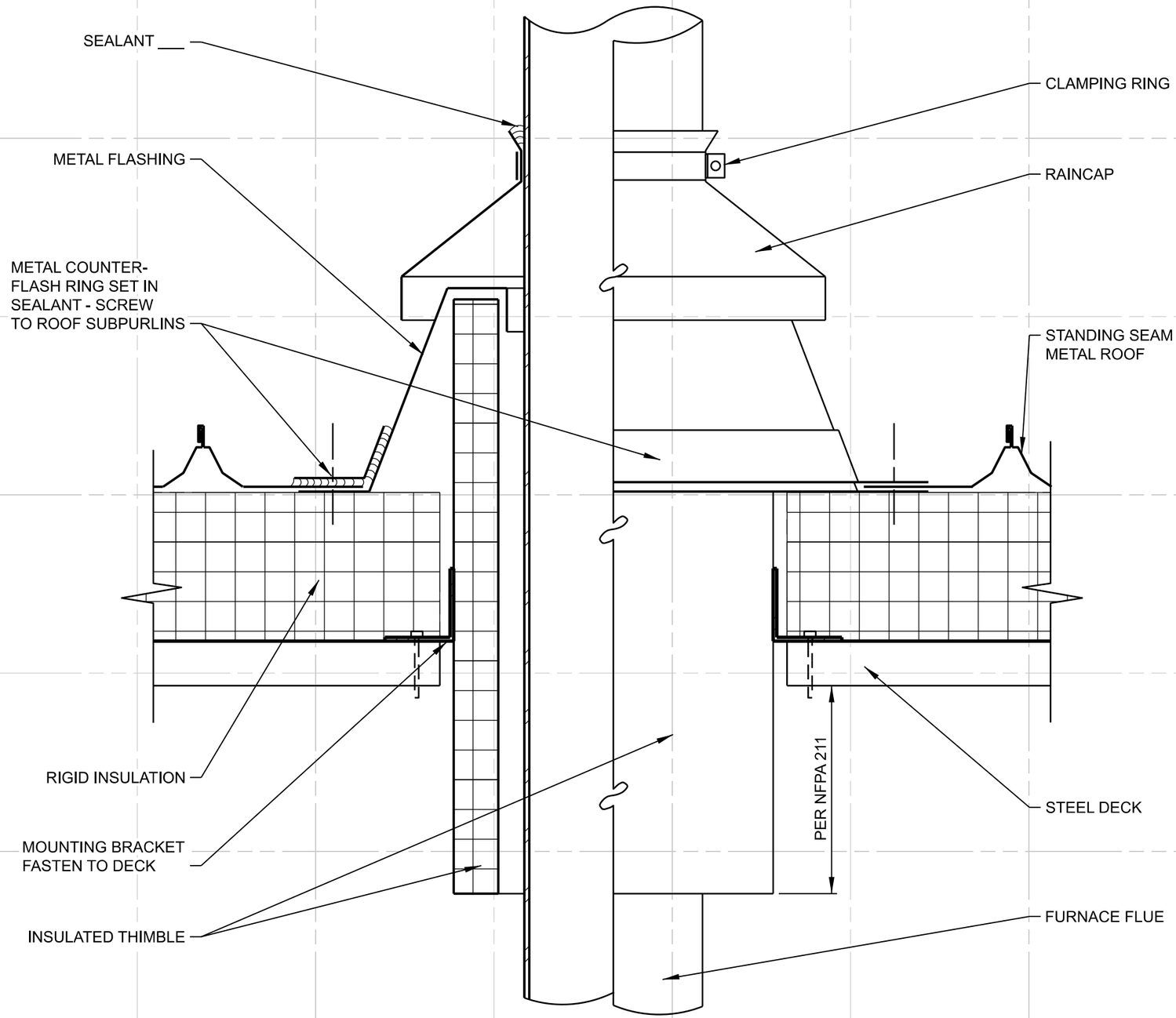


NOTE:
THE NEOPRENE FABRIC SHALL BE PLACED THE FULL WIDTH BETWEEN THE ANGLES AND THE STANDING RIB SEAM AND EXTENDED UNDER THEFULL WIDTH OF THE ANGLE LEG RESTING ON THE ROOF PANEL. THE CONTRACTOR SHALL USE EXTREME CARE IN DRILLING THE HOLES THROUGH THE SEAM TO AVOID ANY DAMAGE TO THE ROOF. THE CONTRACTOR SHALL INSPECT EACH CONNECTION THROUGH THE ROOF SEAM TO INSURE THE BOLTED CONNECTION IS WATERTIGHT AND FIRMLY SECURED. IT IS RECOMMENDED THAT THE HOLE THROUGH THE NEOPRENE FABRIC BE UNDERSIZED TO PROVIDE A POSITIVE SEAL AROUND THE BOLTED CONNECTION.

A1

DETAIL: SNOWGUARD

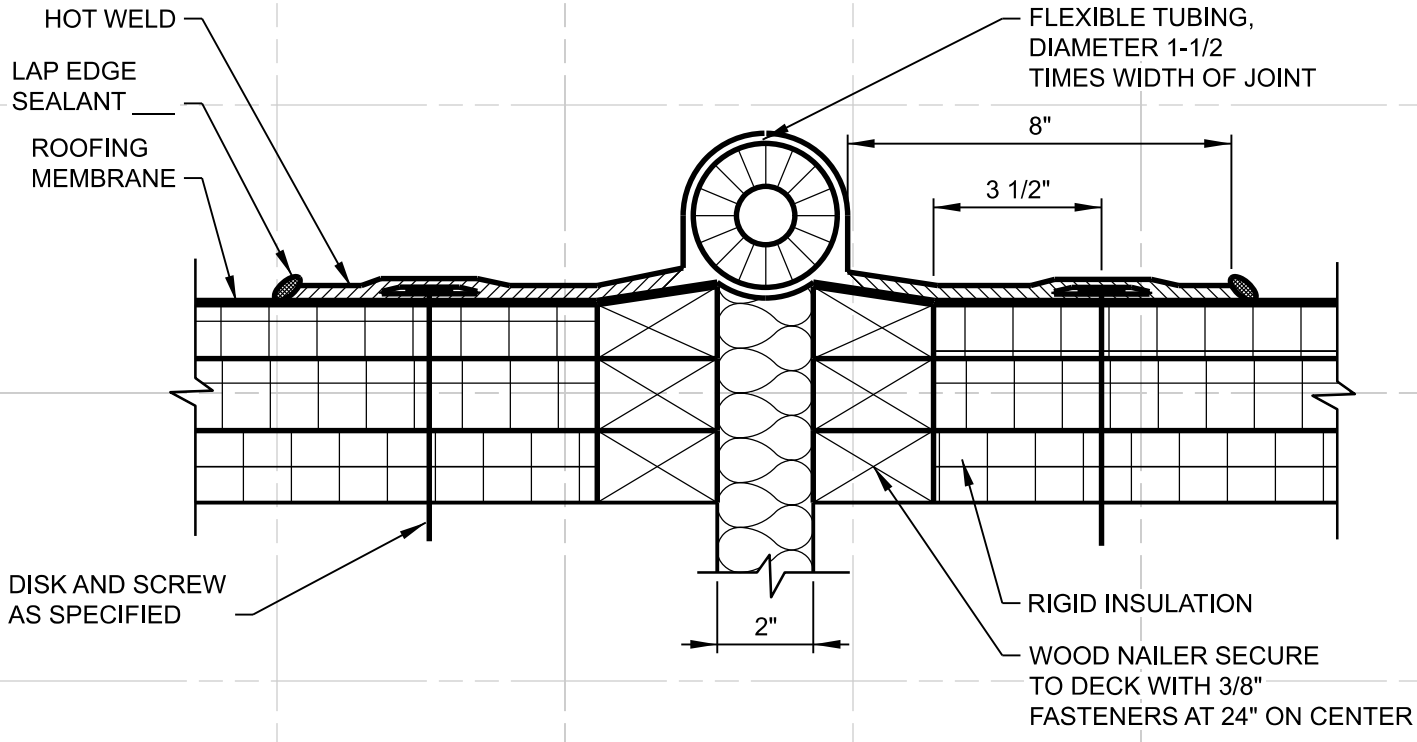
SCALE: NTS



A1 DETAIL: FURNACE FLUE

SCALE: 3"=1'-0"

0 3" 6" 1'



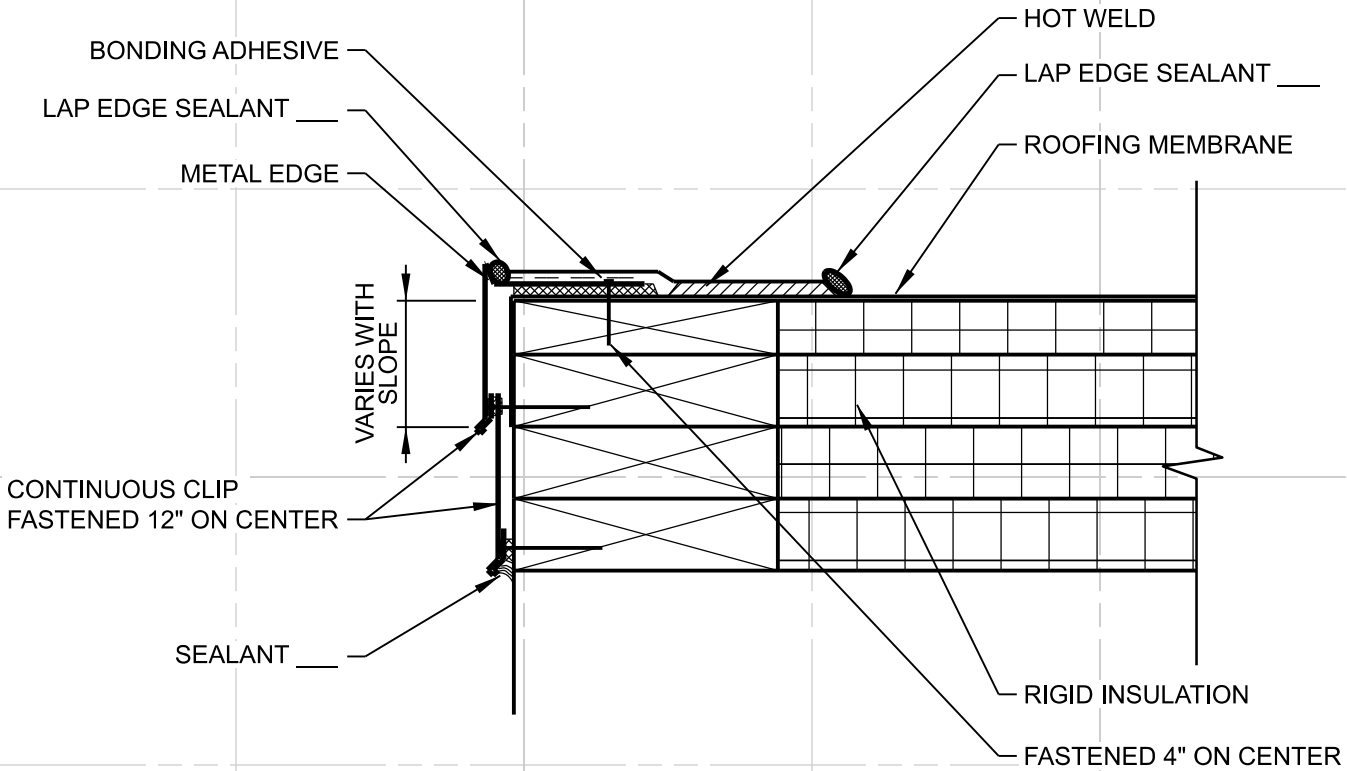
A1

DETAIL: EXPANSION JOINT

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B3010A-DT037X

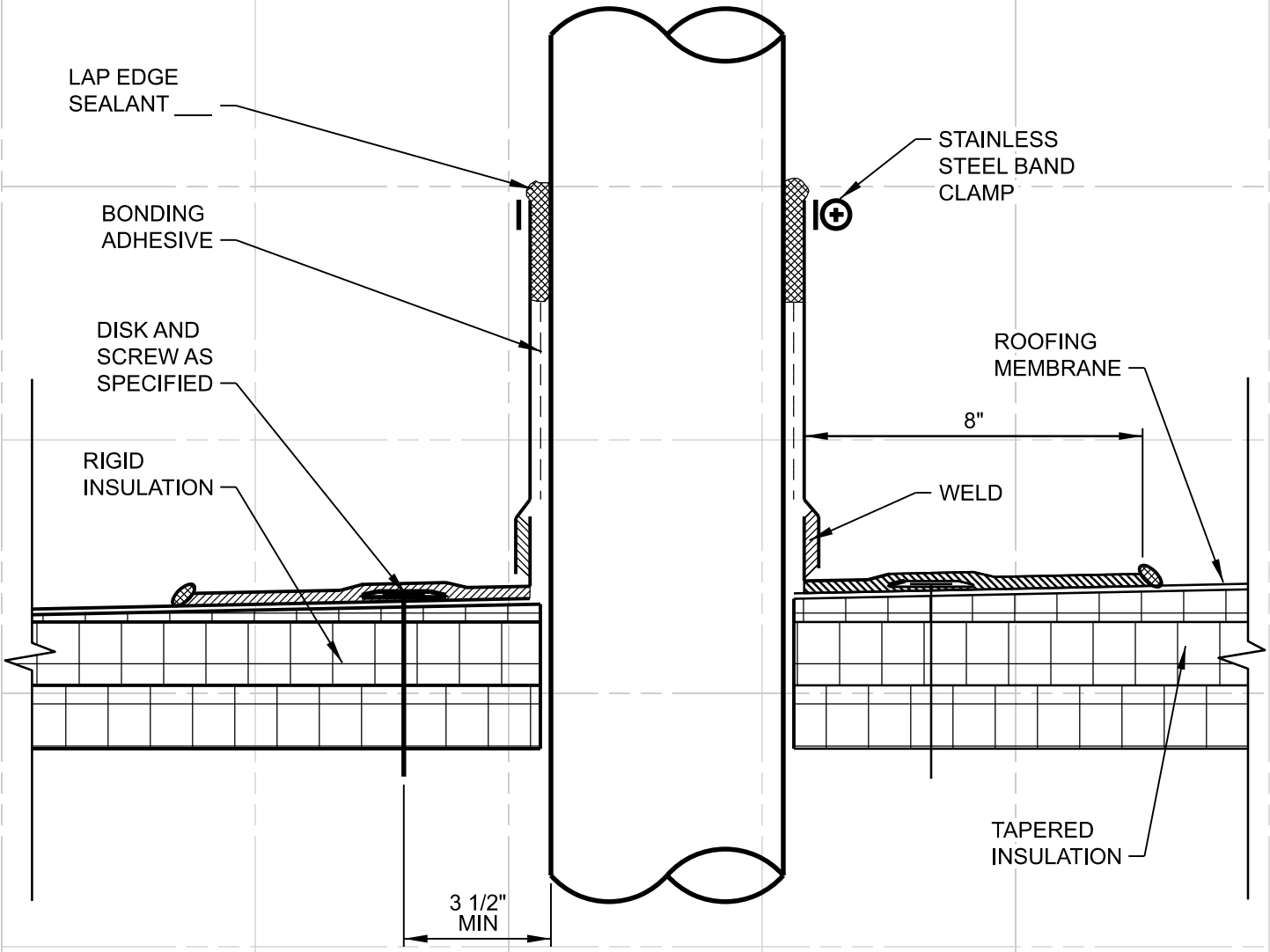


A1

DETAIL: EDGE

SCALE: 3"=1'-0"

0 3" 6" 1'



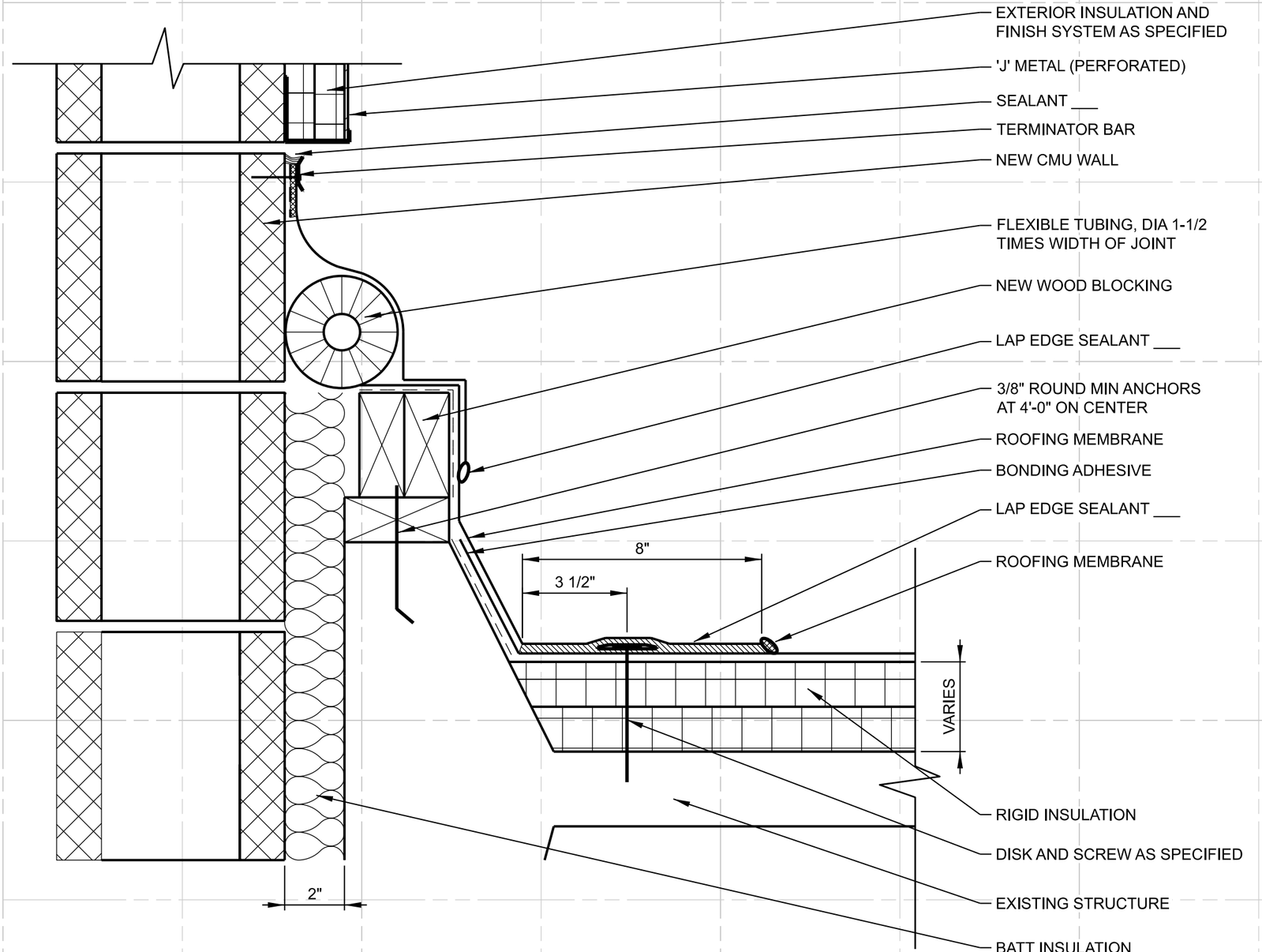
A1

DETAIL: VENT STACK

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B3010A-DT039X

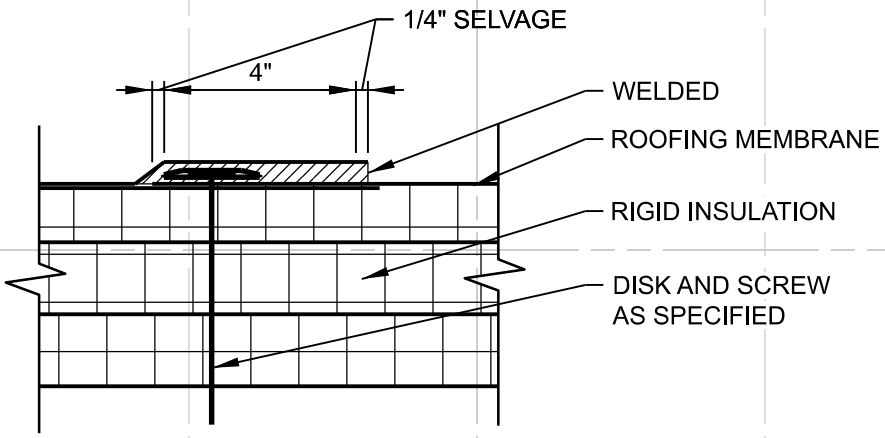


A1 DETAIL: EXPANSION JOINT

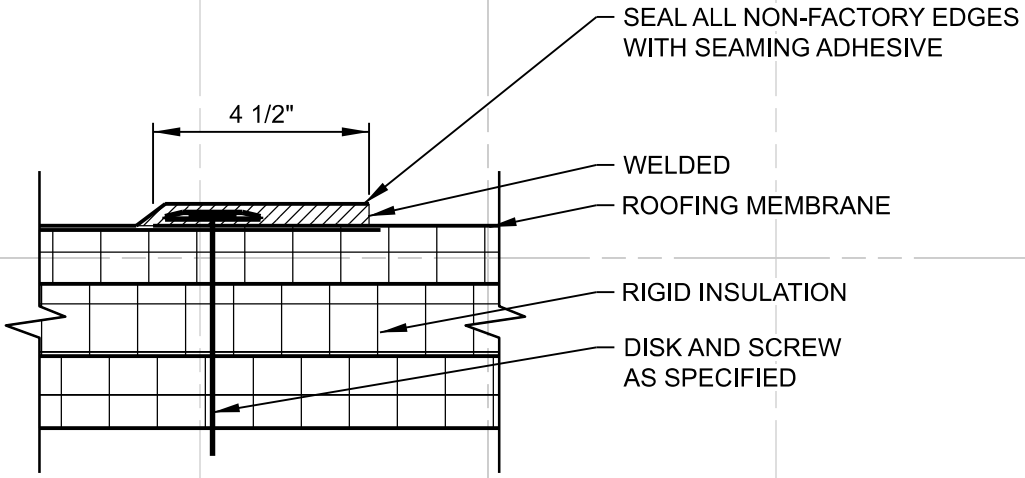
SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B3010A-DT040X



LAP SEAM



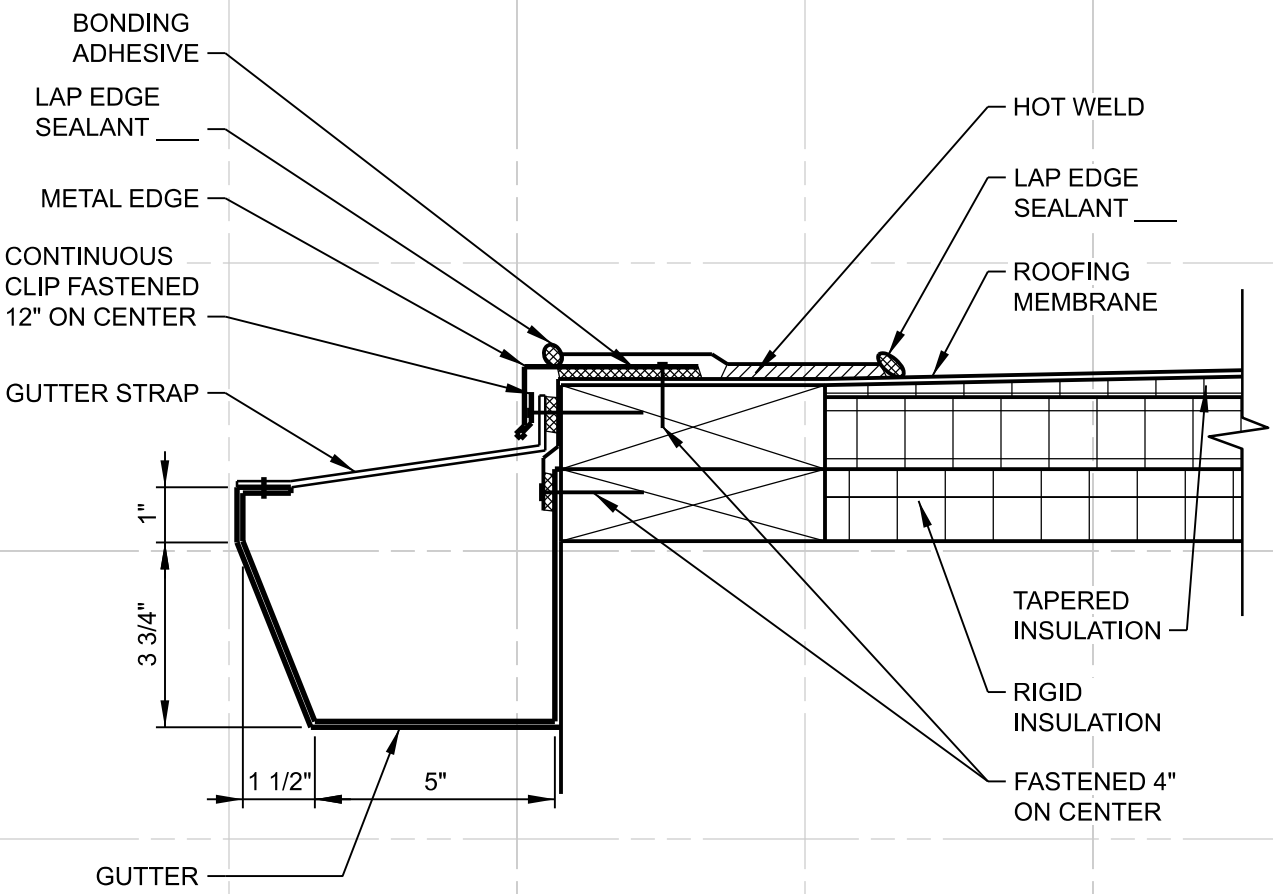
LAP SPLICE (NO SELVAGE)

A1

DETAIL: SEAM LAP

SCALE: 3"=1'-0"

0 3" 6" 1'



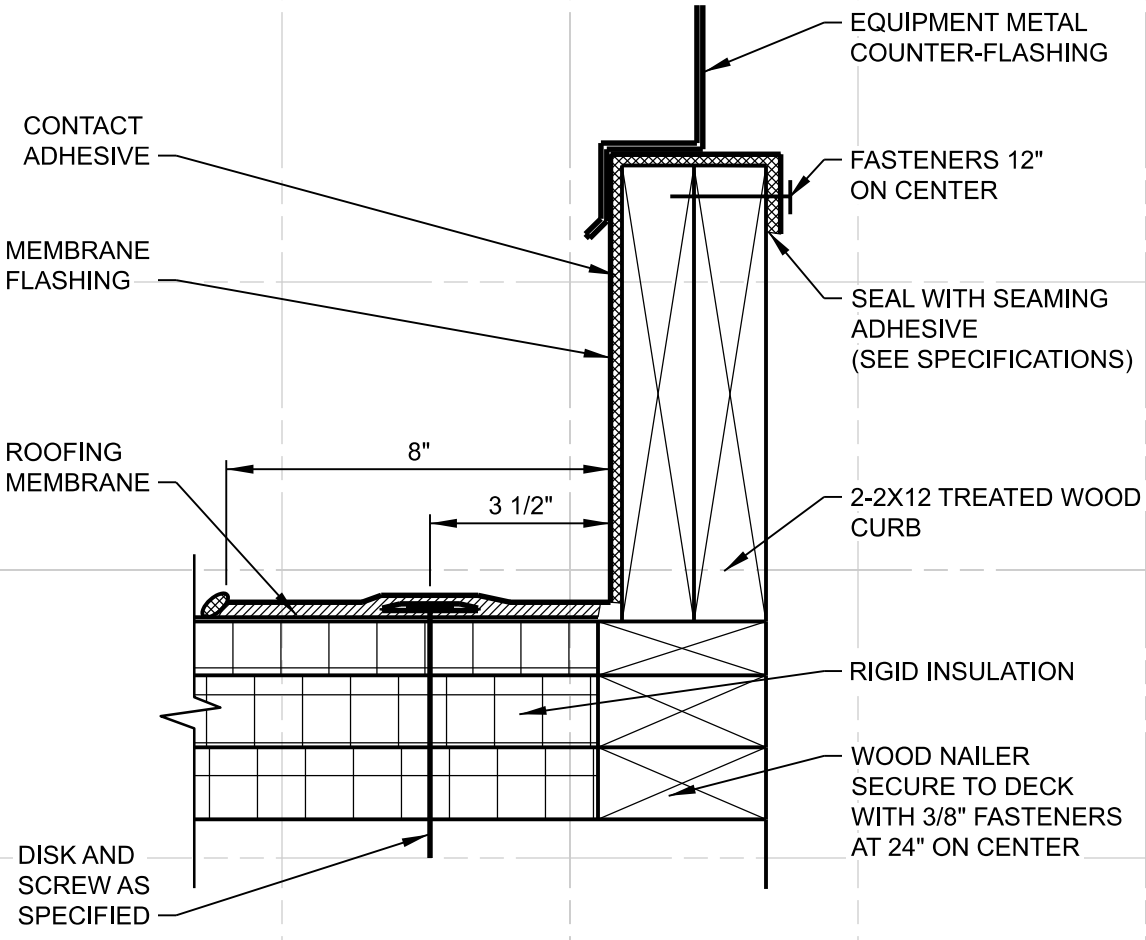
A1

DETAIL: GUTTER

SCALE: 3"=1'-0"

0 3" 6" 1'

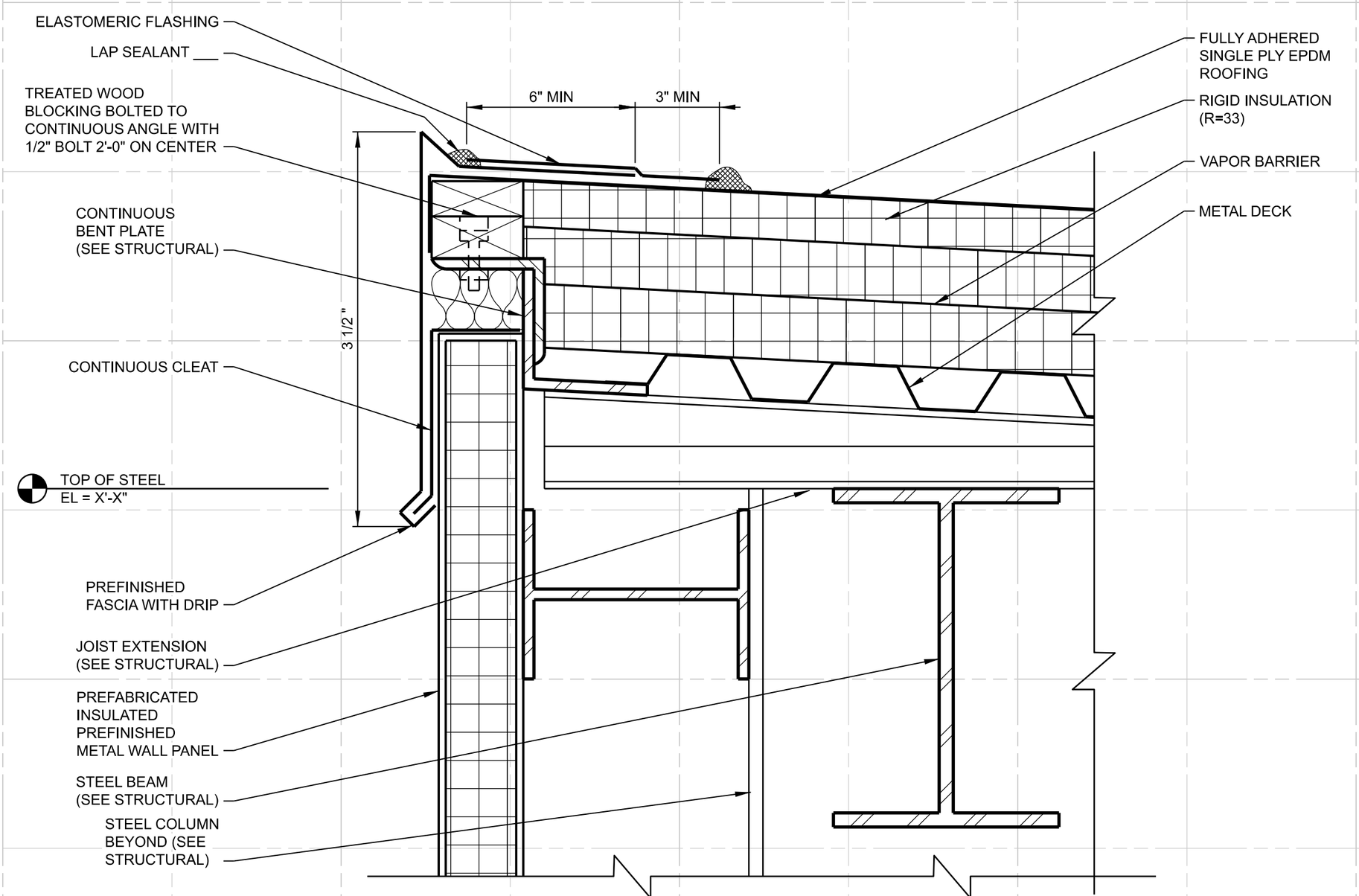
Detail B3010A-DT042X



A1

DETAIL: CURB FLASHING

SCALE: 3"=1'-0" 0 3" 6" 1'

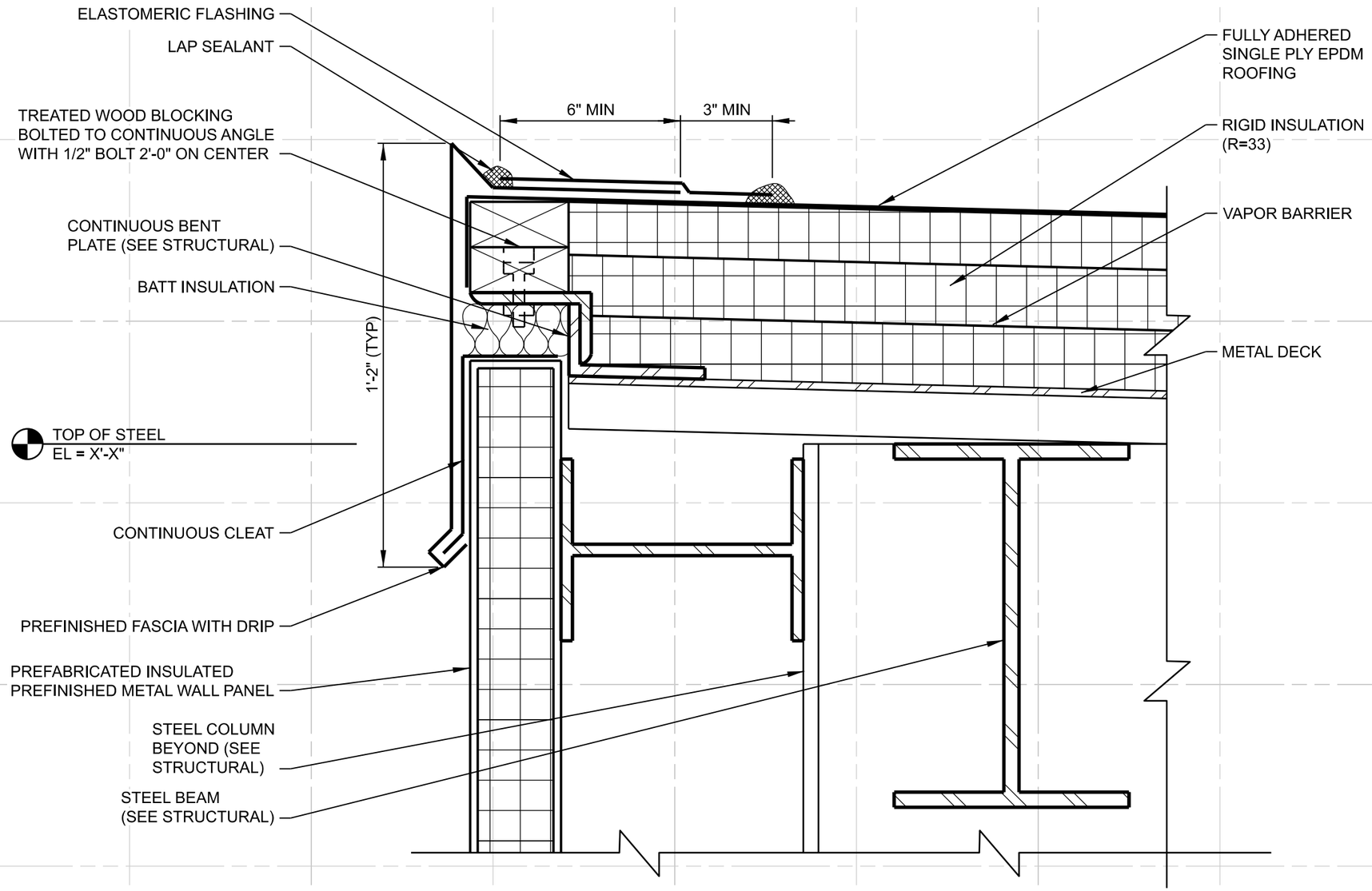


A1 DETAIL: ROOF EDGE

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B3010A-DT044X

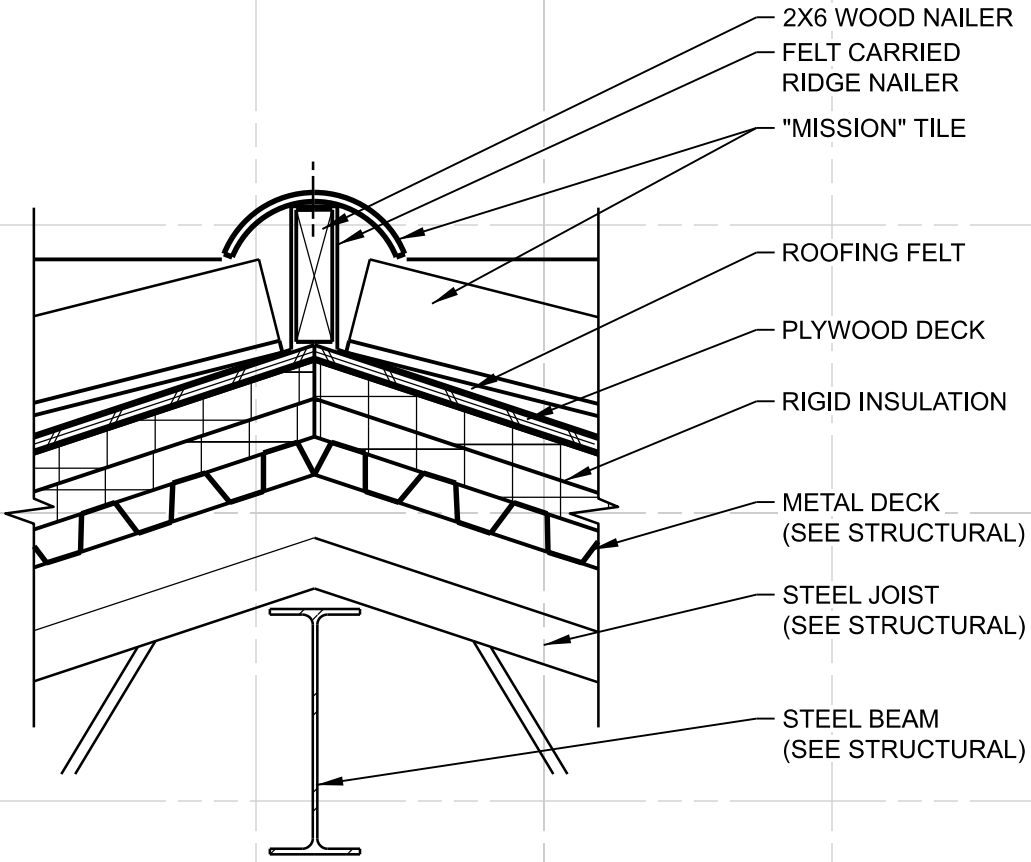


A1 DETAIL: ROOF EDGE

SCALE: 3"=1'-0"

0 3" 6" 1'

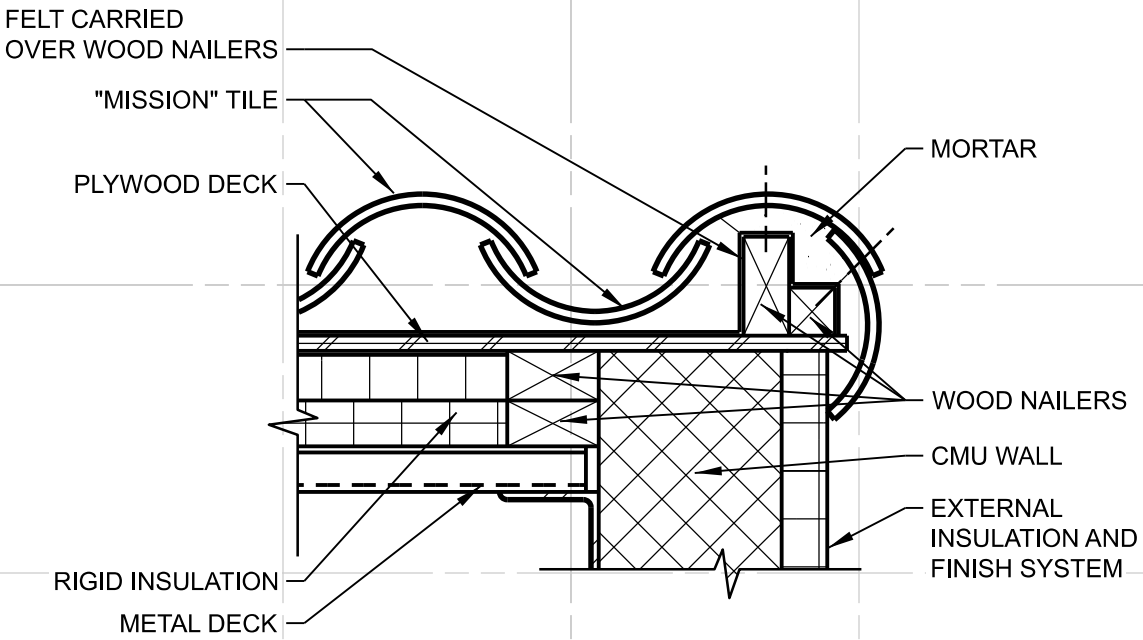
Detail B3010A-DT045X



A1

DETAIL: RIDGE

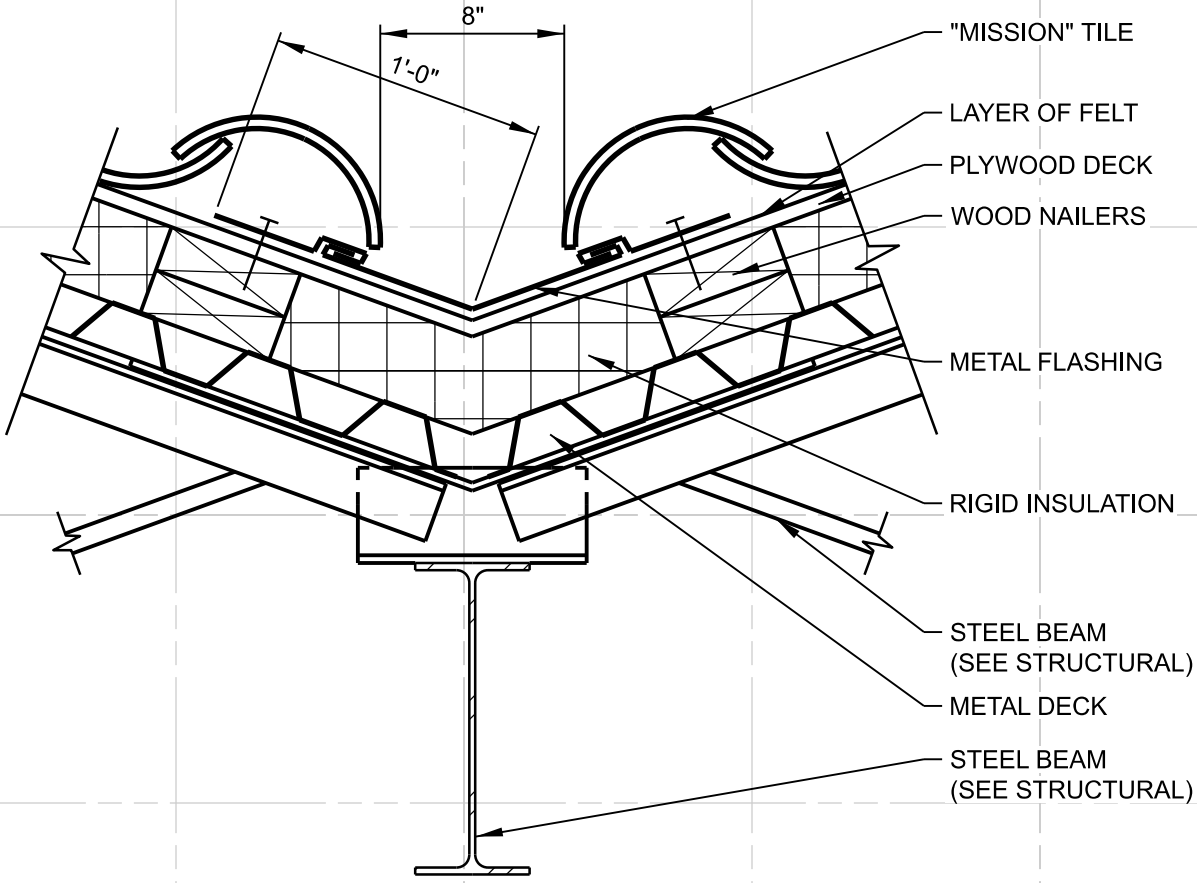
SCALE:1 1/2"=1'-0" 0 6" 1' 2'



A1

DETAIL: RAKE

SCALE:1 1/2"=1'-0" 0 6" 1' 2'

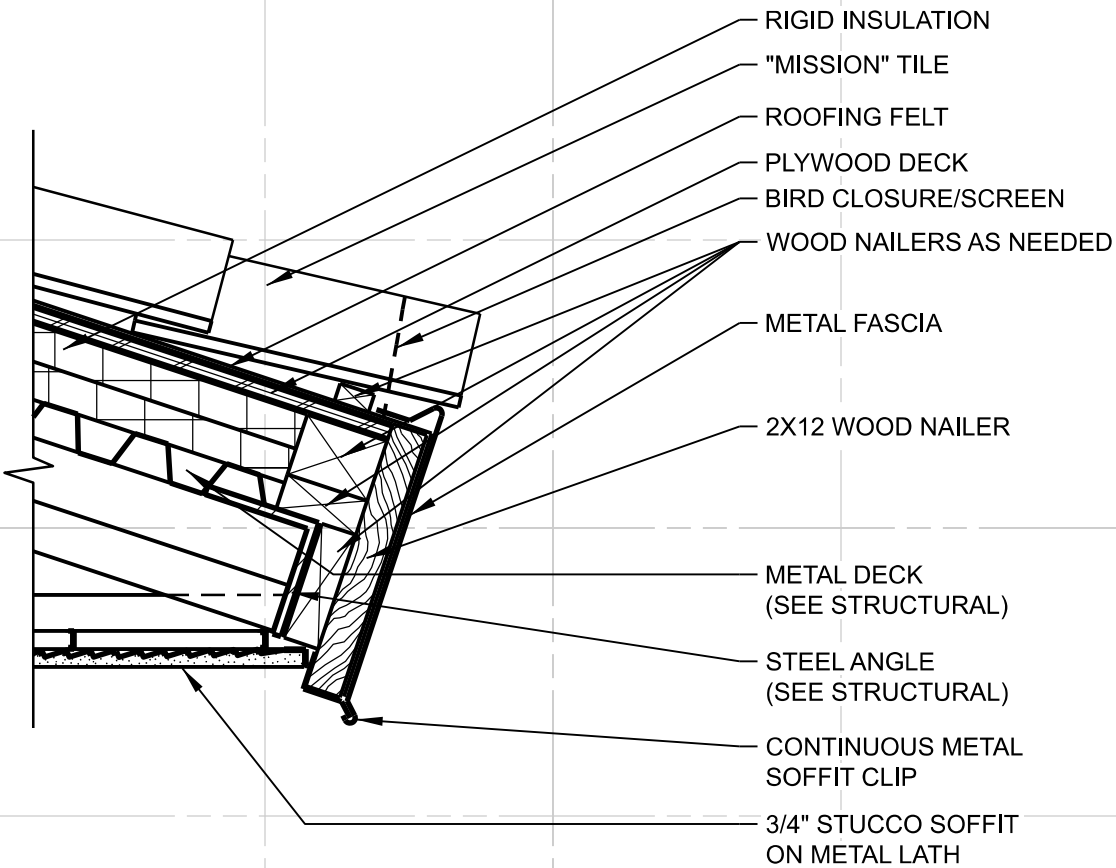


A1

DETAIL: VALLEY

SCALE: 1 1/2"=1'-0"

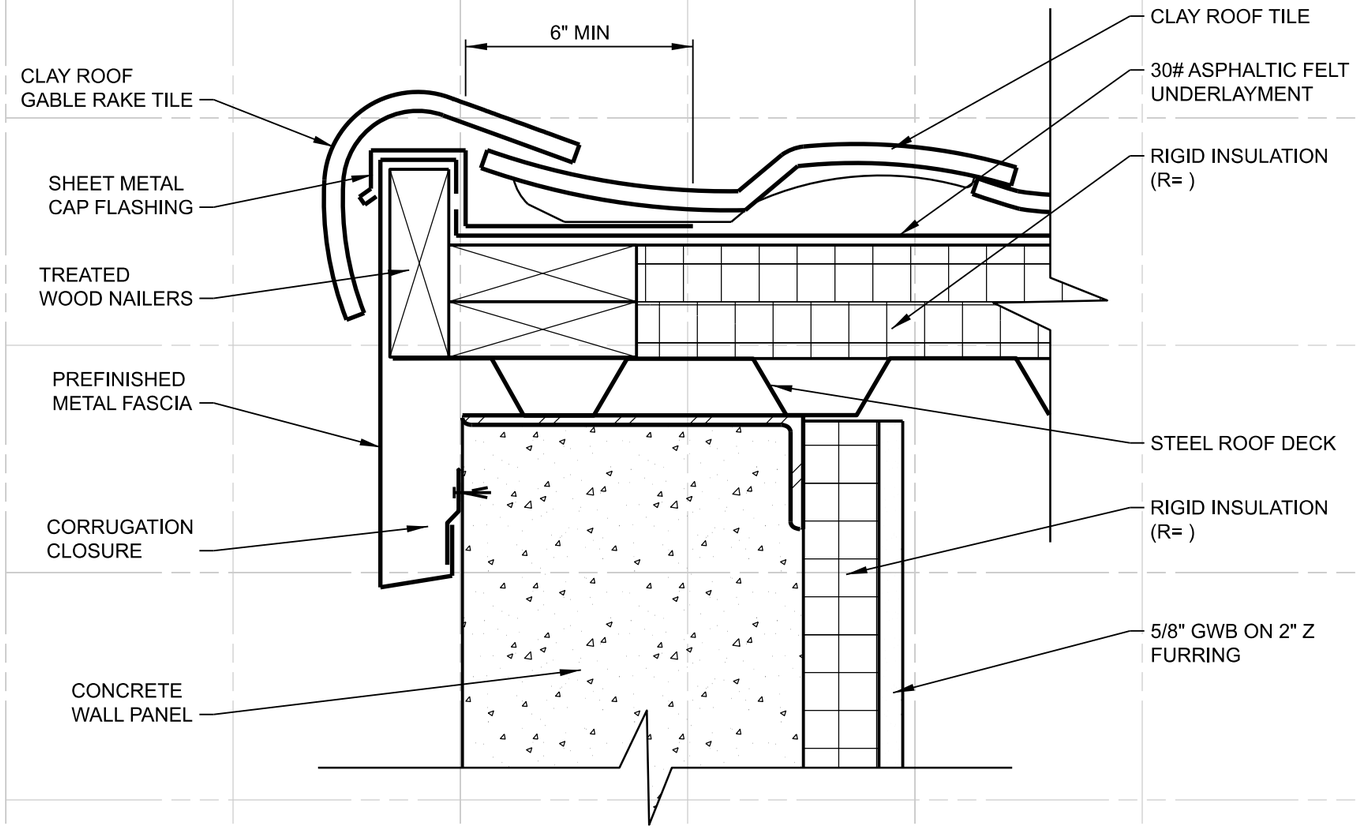
0 6" 1' 2'



A1

DETAIL: FASCIA

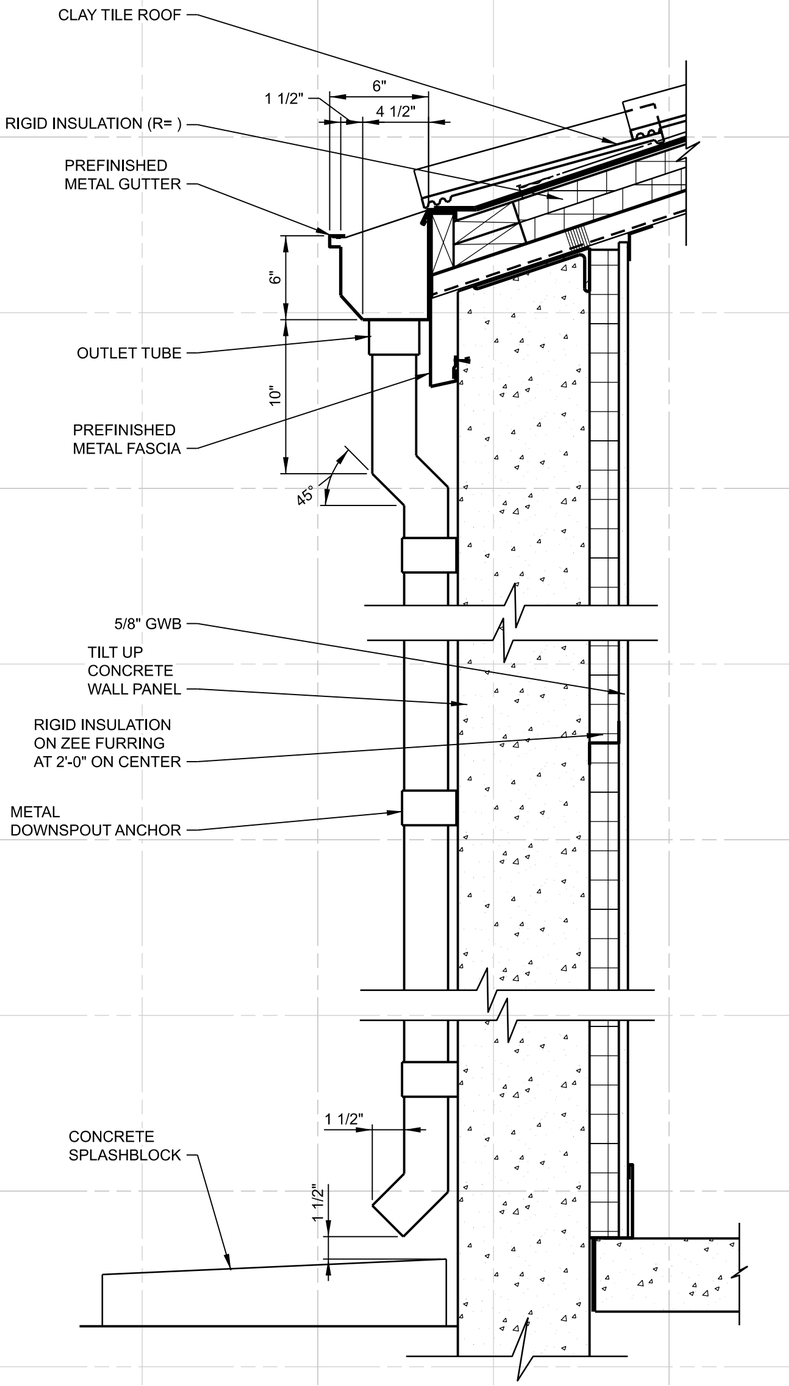
SCALE:1 1/2"=1'-0" 0 6" 1' 2'



A1 DETAIL: FASCIA

SCALE: 3"=1'-0"

0 3" 6" 1'

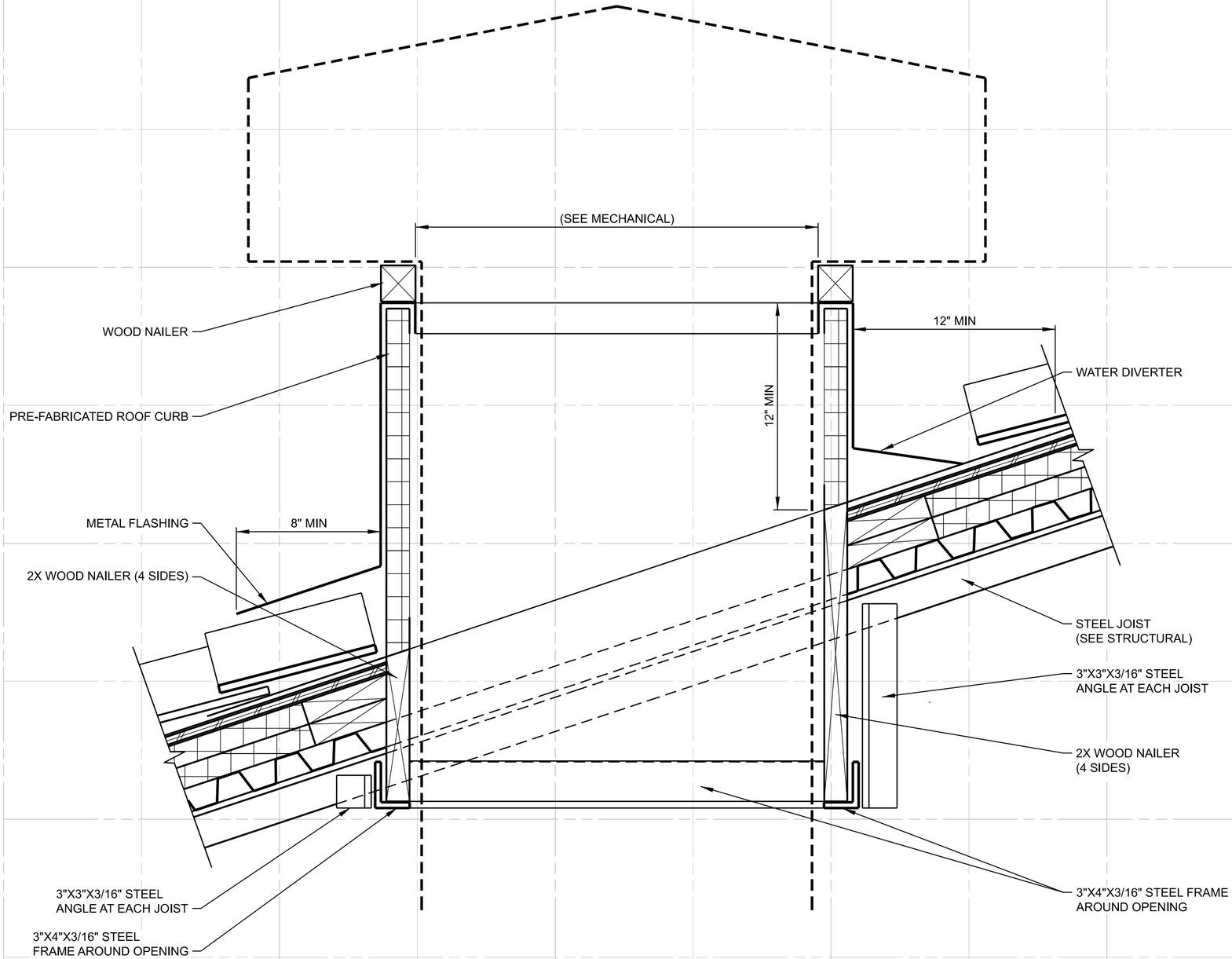


A1 DETAIL: FASCIA

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

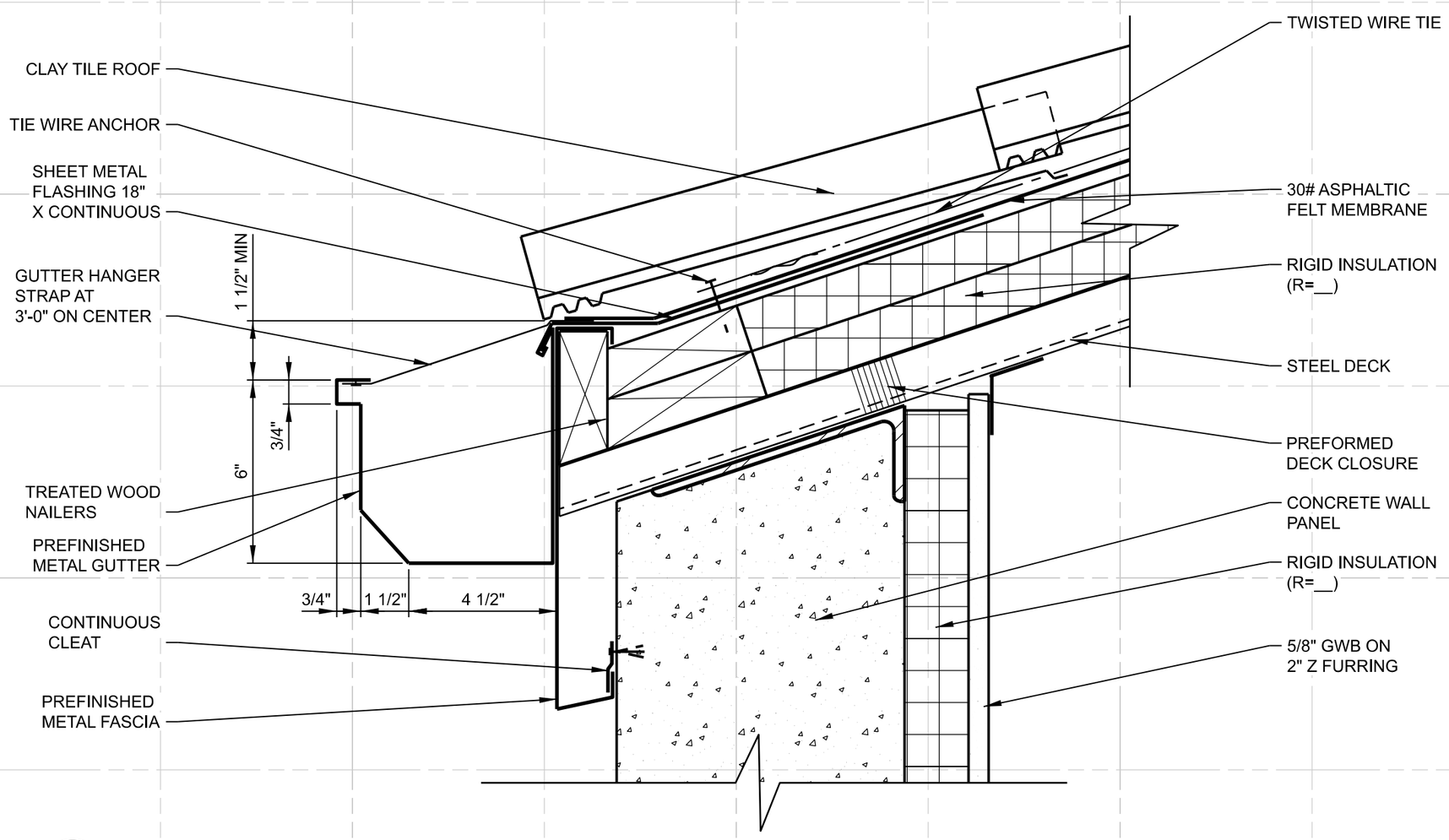
Detail B3010A-DT051X



A1 DETAIL: CURB

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

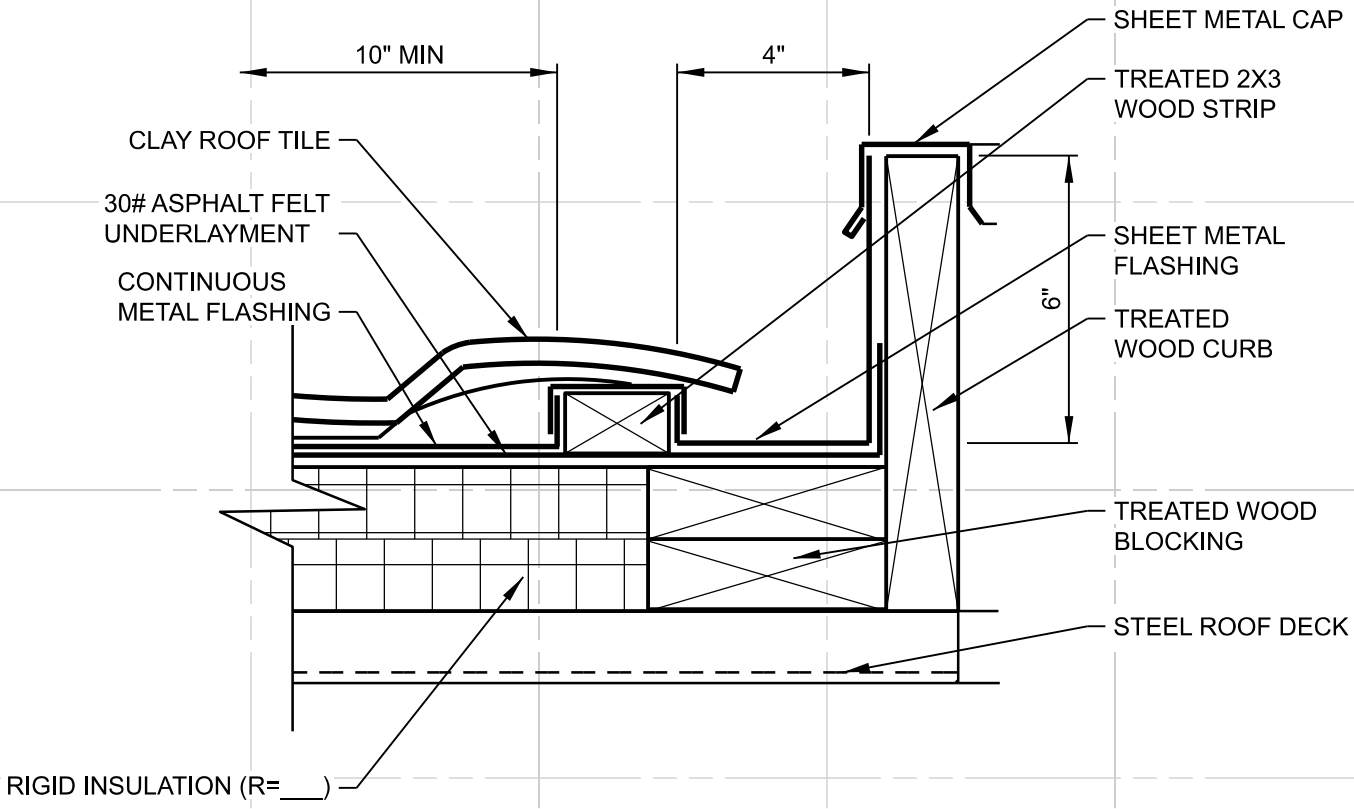


A1 DETAIL: EAVE

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail B3010A-DT053X



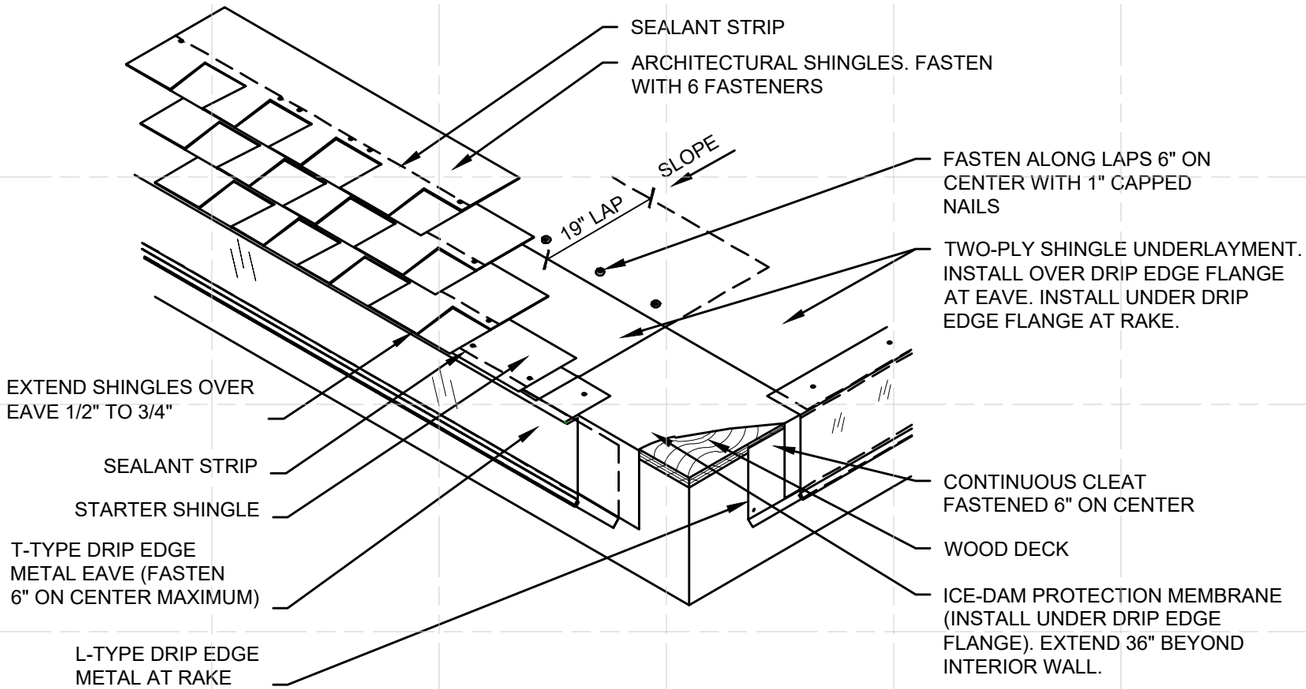
A1

DETAIL: CURB

SCALE: 3"=1'-0"

0 3" 6" 1'

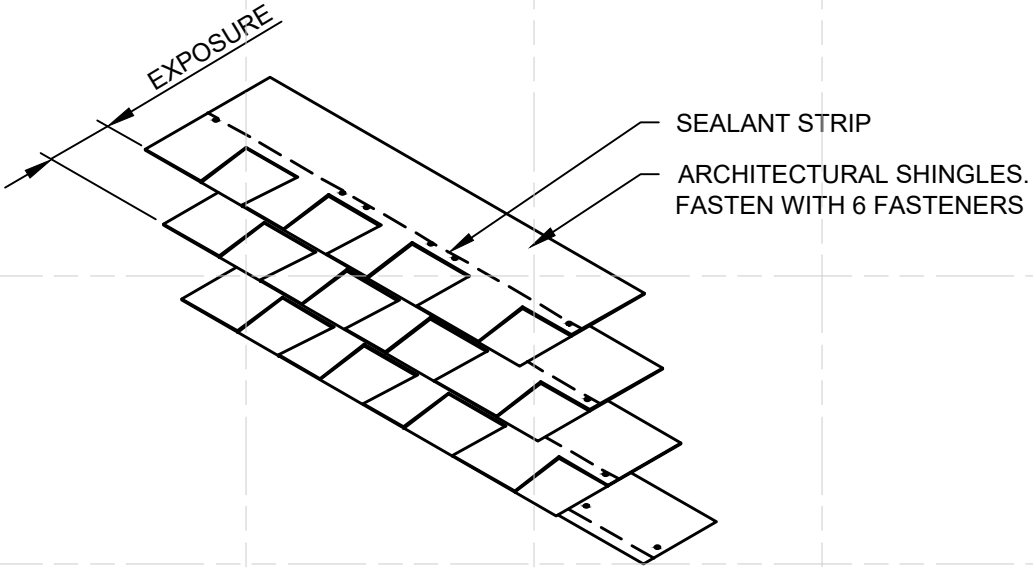
Detail B3010A-DT054X



A1

DETAIL: EAVE AND RAKE FLASHINGS

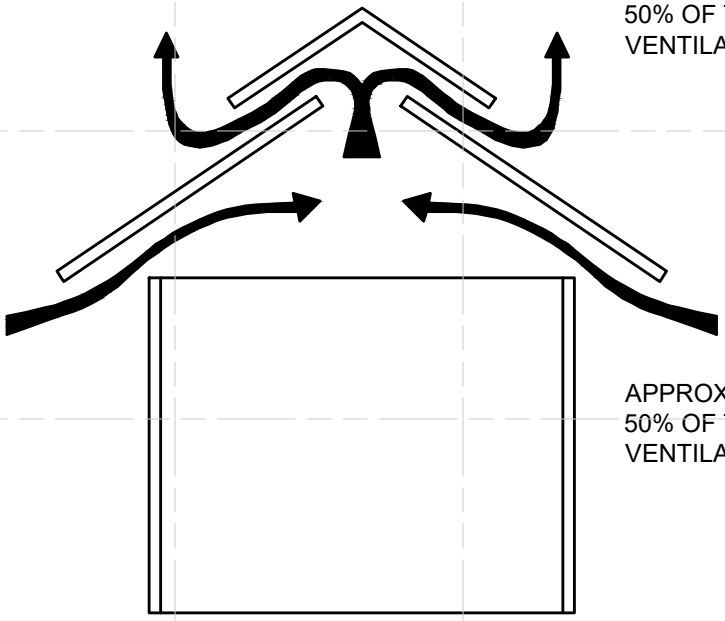
SCALE: NTS



A1

DETAIL: SHINGLE EXPOSURE

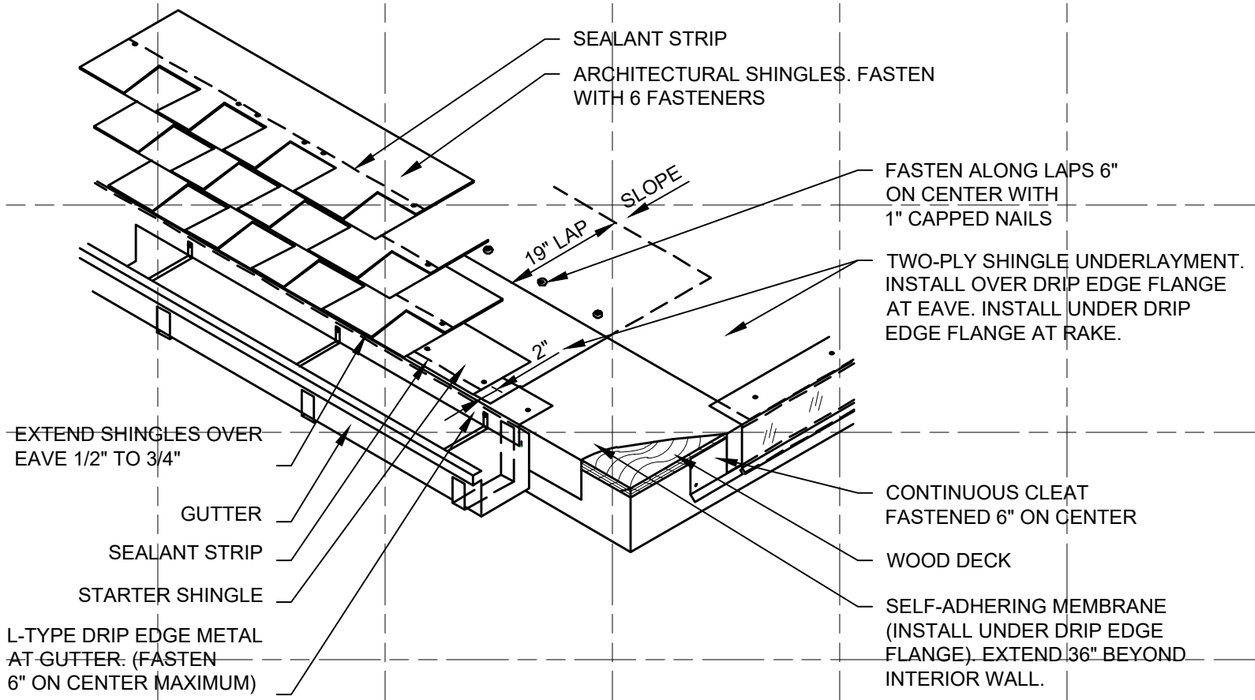
SCALE: NTS



DETAIL: BALANCED VENTILATION

A1

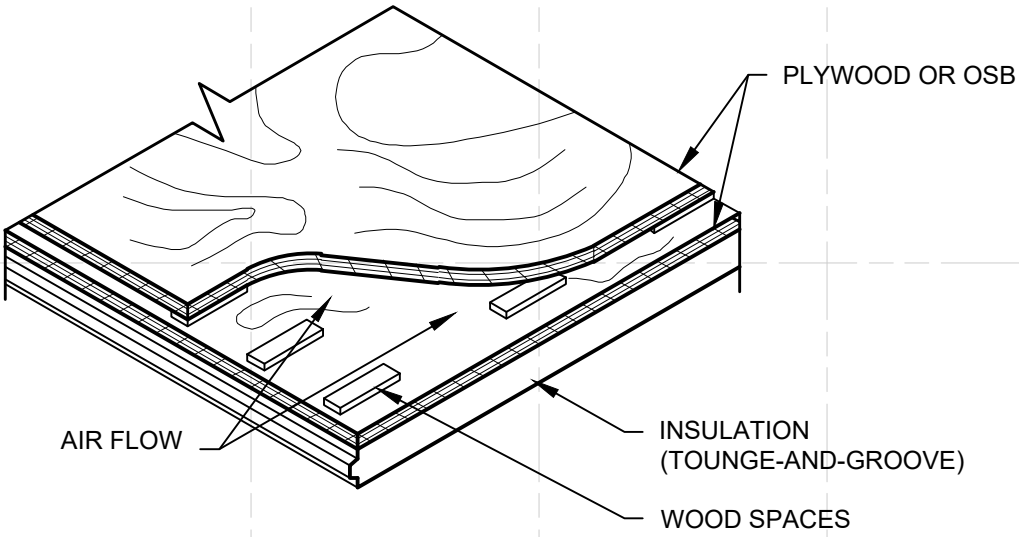
SCALE: NTS



A1

DETAIL: EAVE AND RAKE FLASHINGS WITH GUTTER

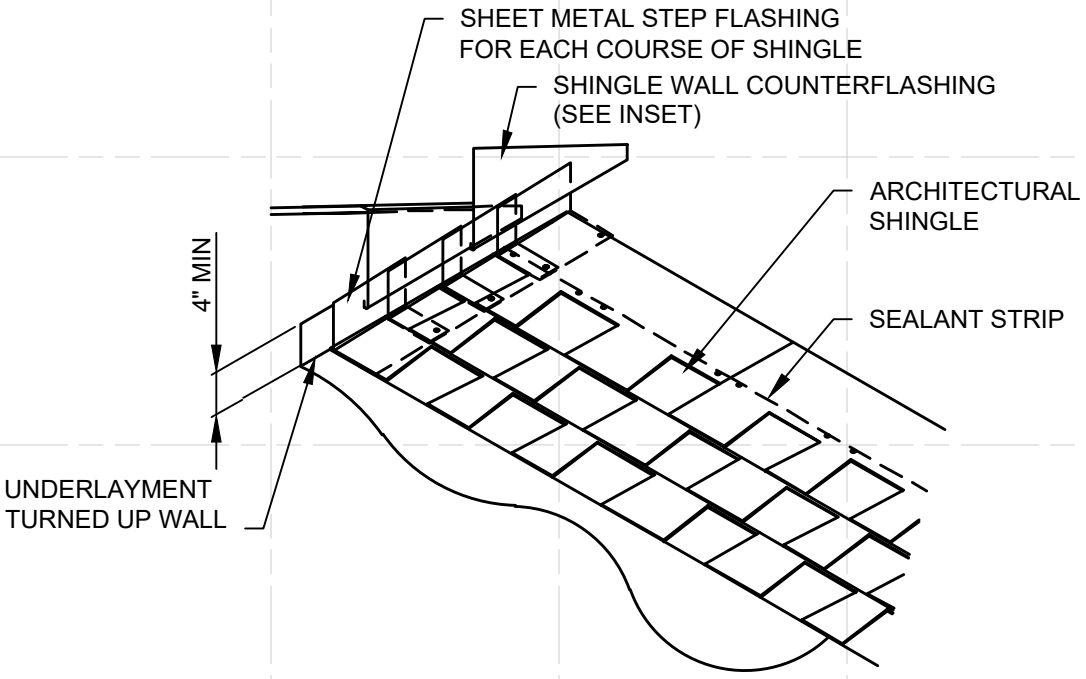
SCALE: NTS



A1

DETAIL: VENTILATED NAILBASE

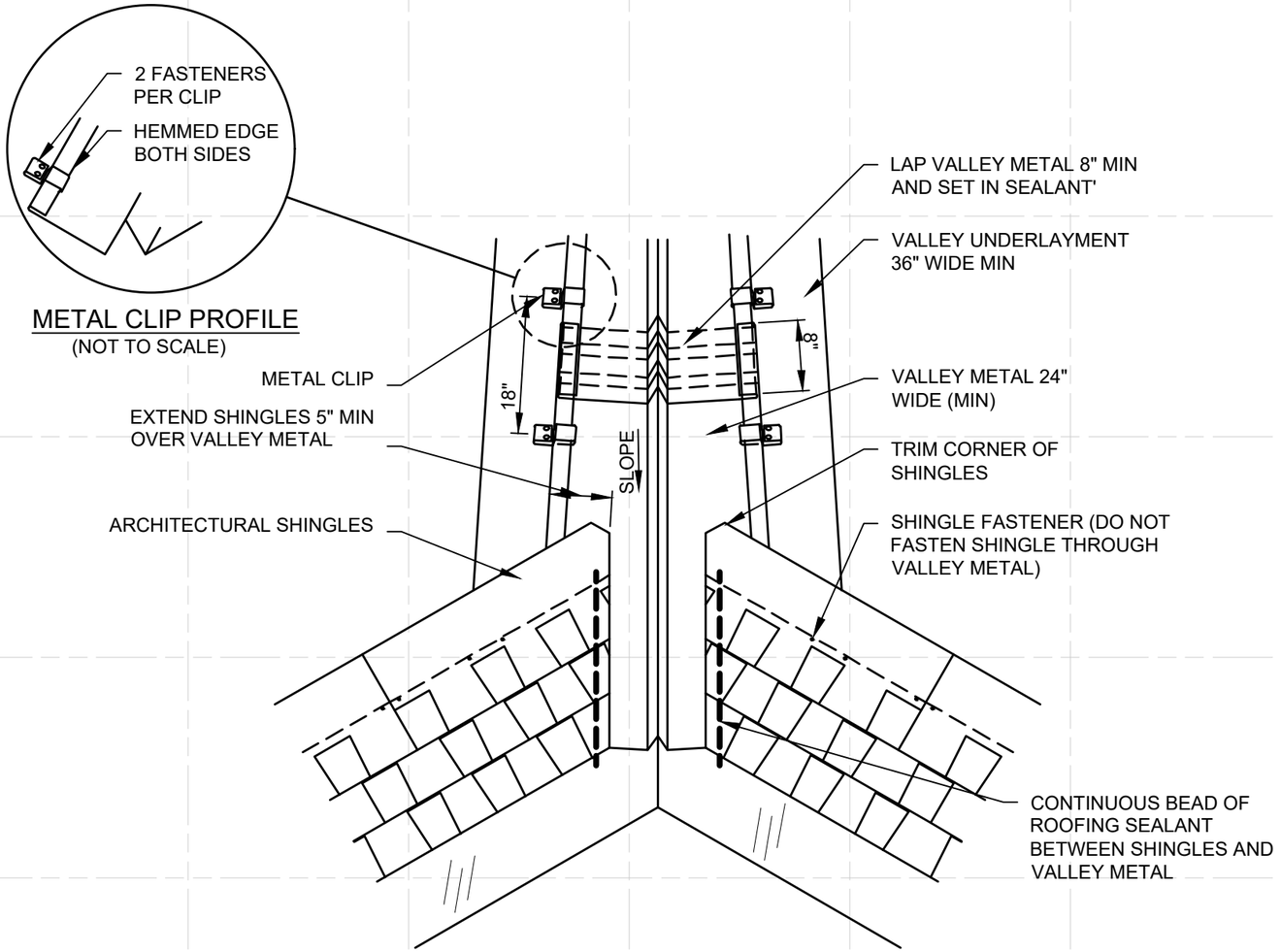
SCALE: NTS



A1

DETAIL: STEP FLASHINGS

SCALE: NTS

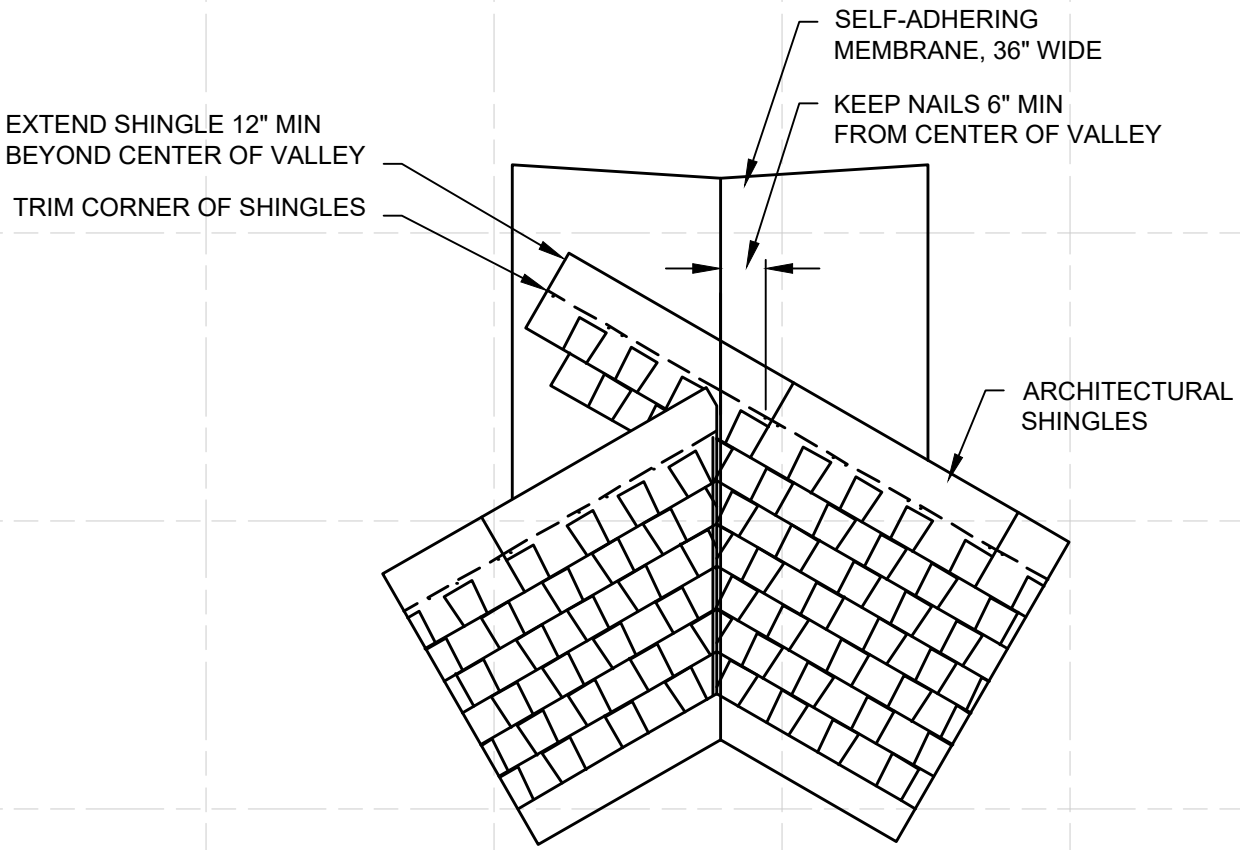


A1 DETAIL: OPEN VALLEY

SCALE: 1-1/2"=1'-0"

0 6" 1' 2'

Detail B3010A-DT107P

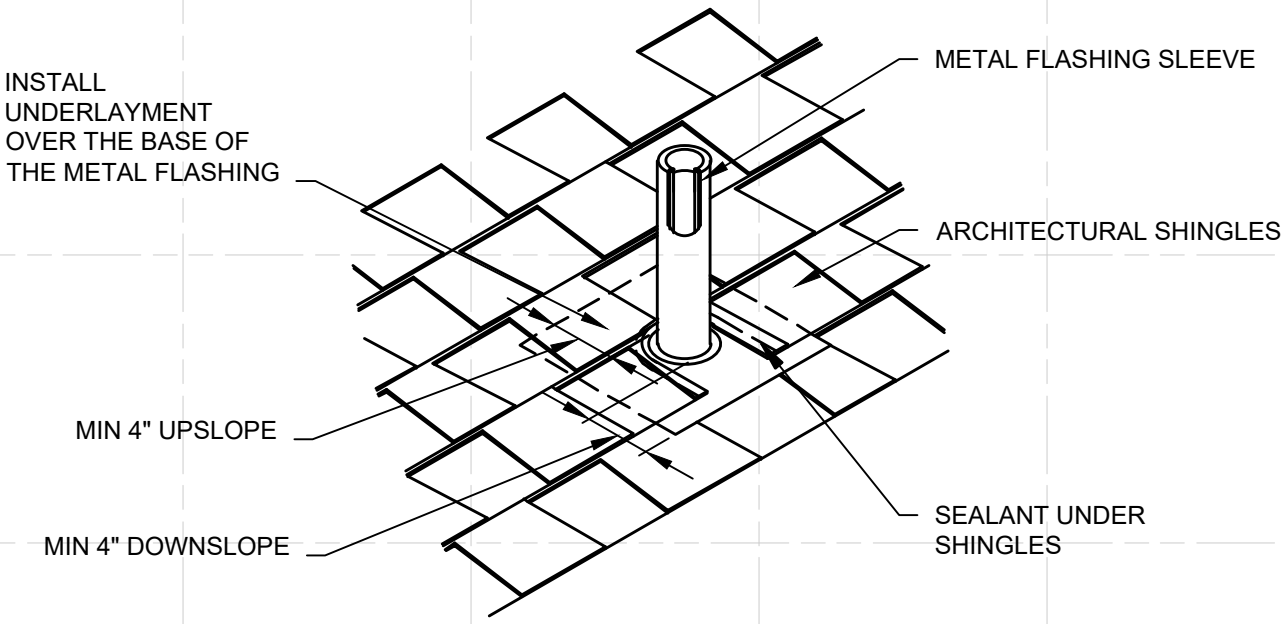


A1

DETAIL: CLOSED CUT VALLEY

SCALE: 1-1/2"=1'-0"

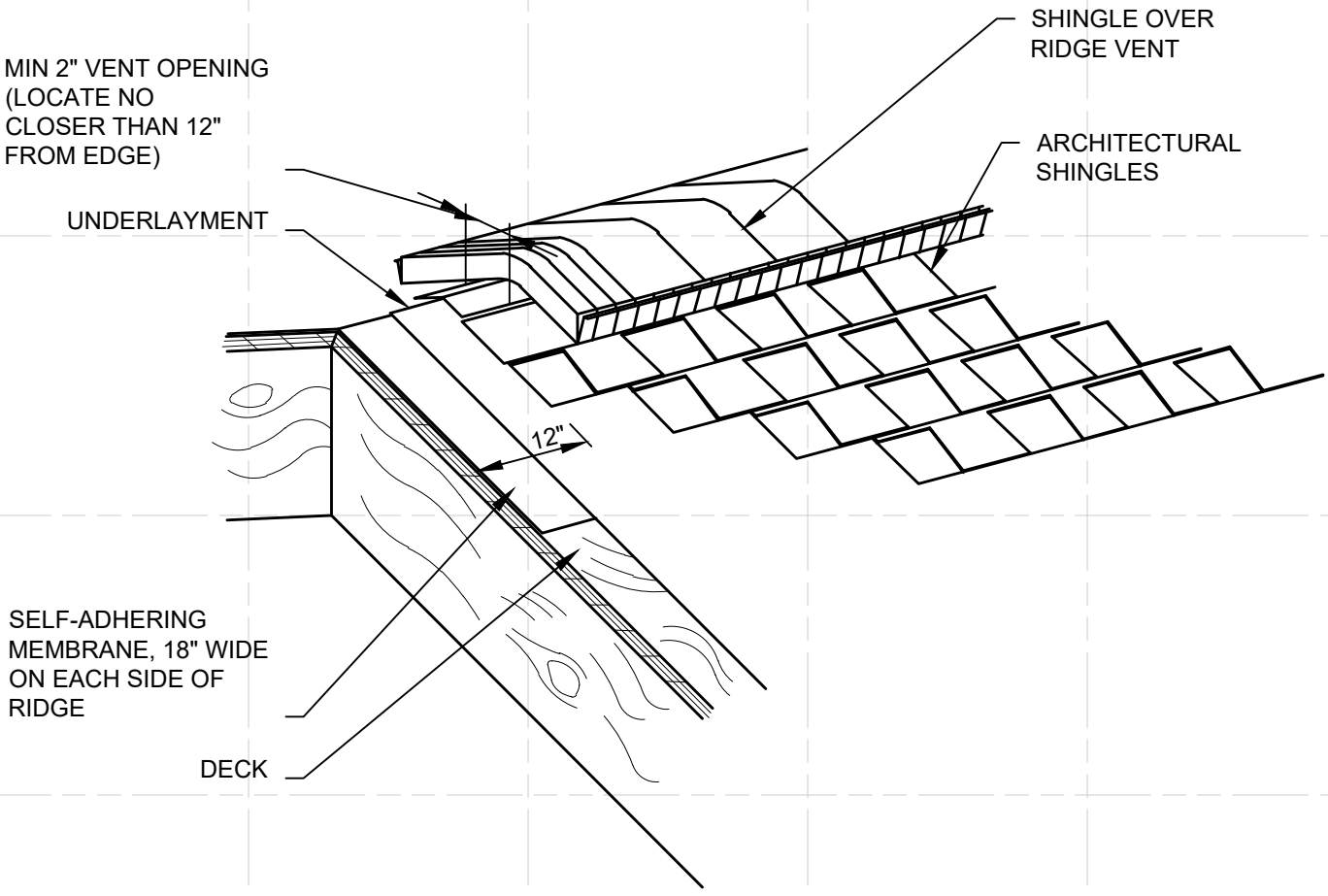
0 6" 1' 2'



A1

DETAIL: PIPE PENETRATION

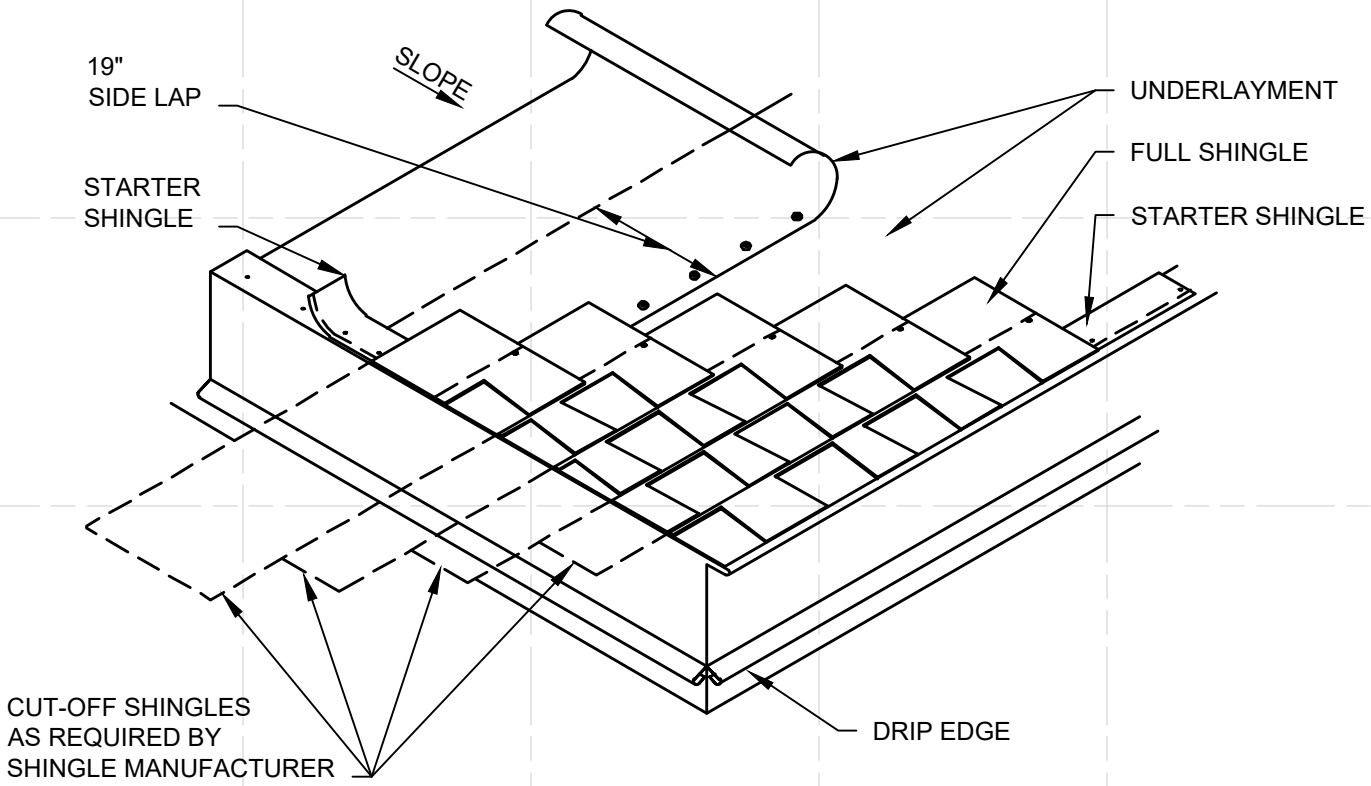
SCALE: NTS



A1

DETAIL: RIDGE VENT

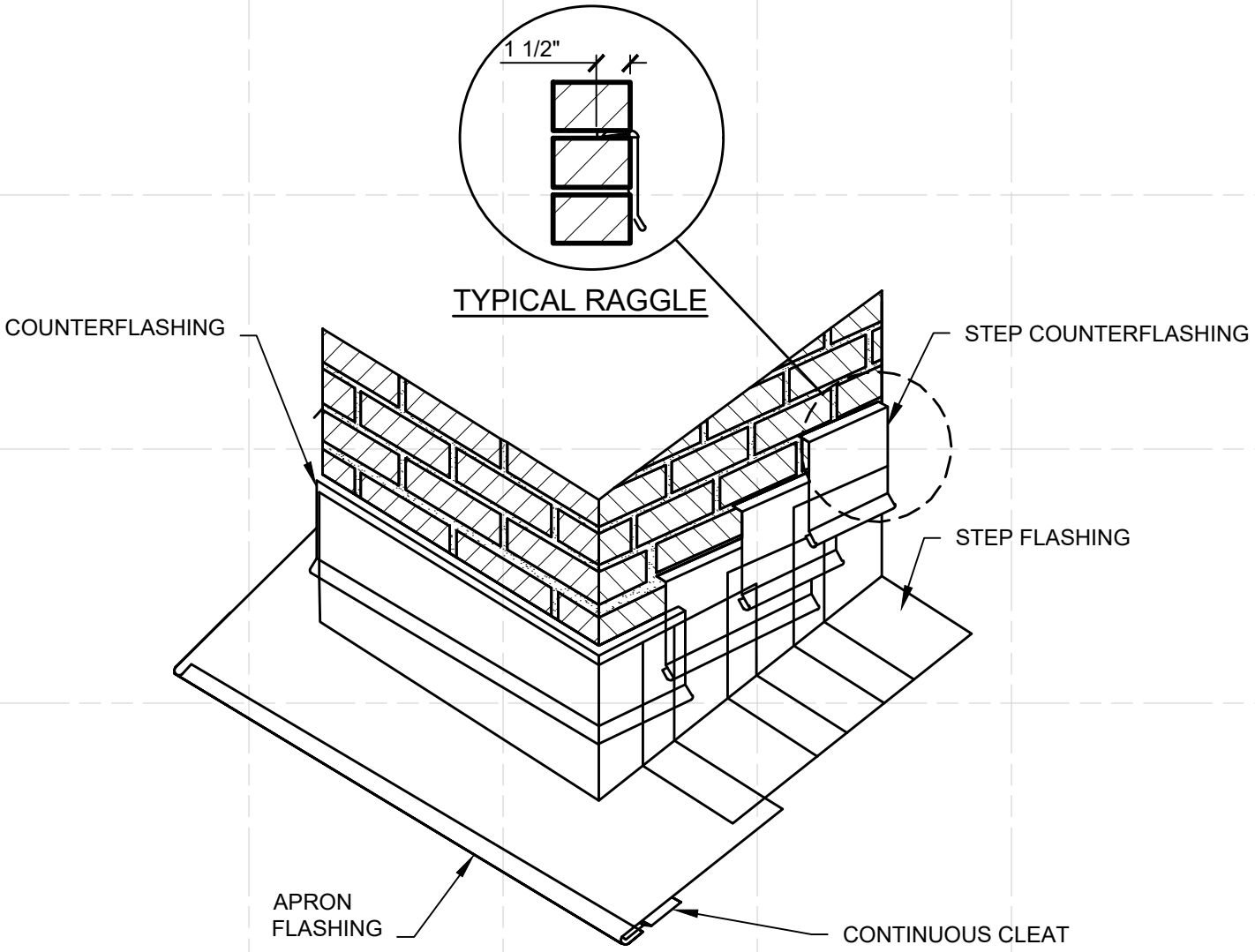
SCALE: NTS



A1

DETAIL: STARTER SHINGLE INSTALLATION

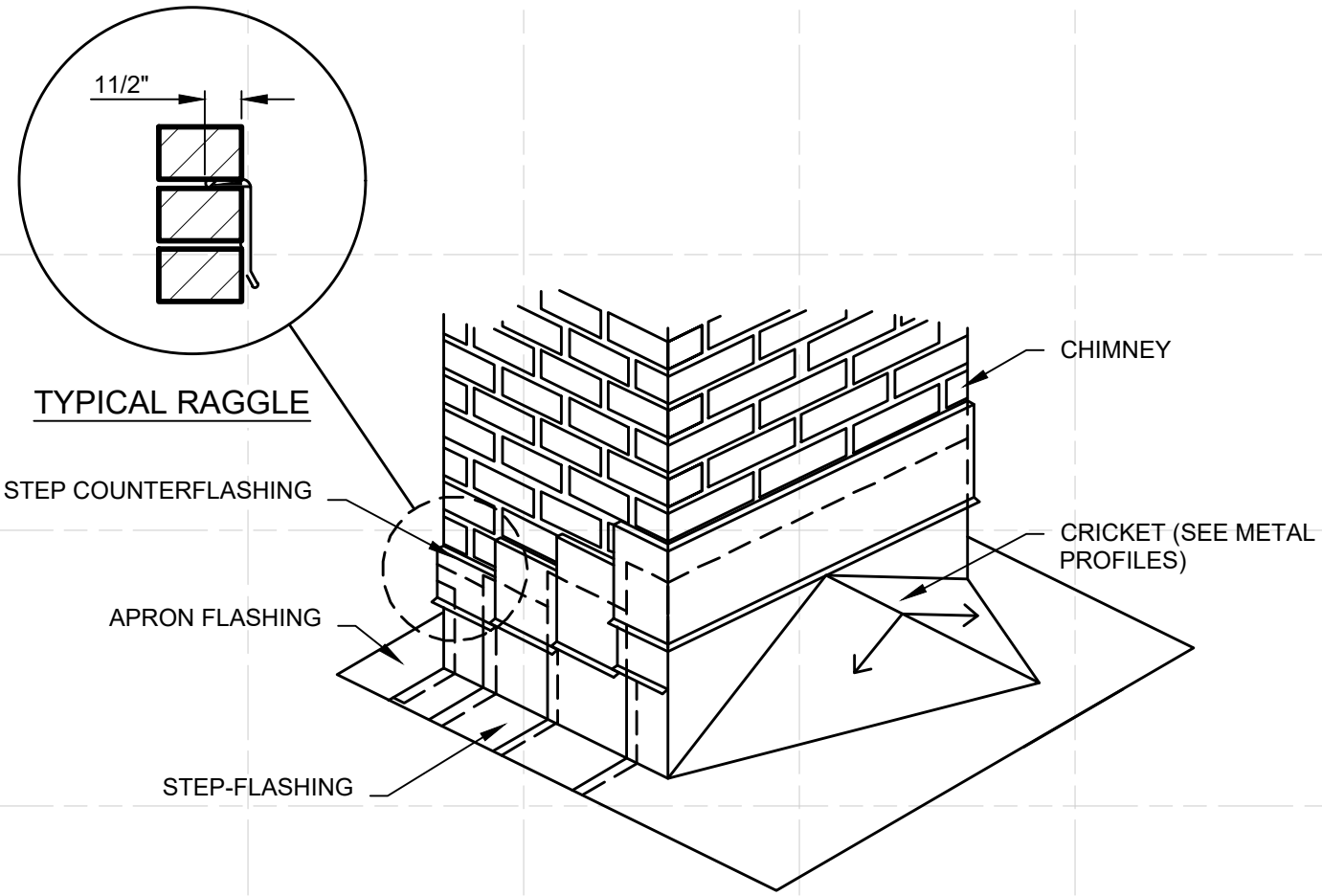
SCALE: NTS



A1

DETAIL: APRON FLASHING - CHIMNEY

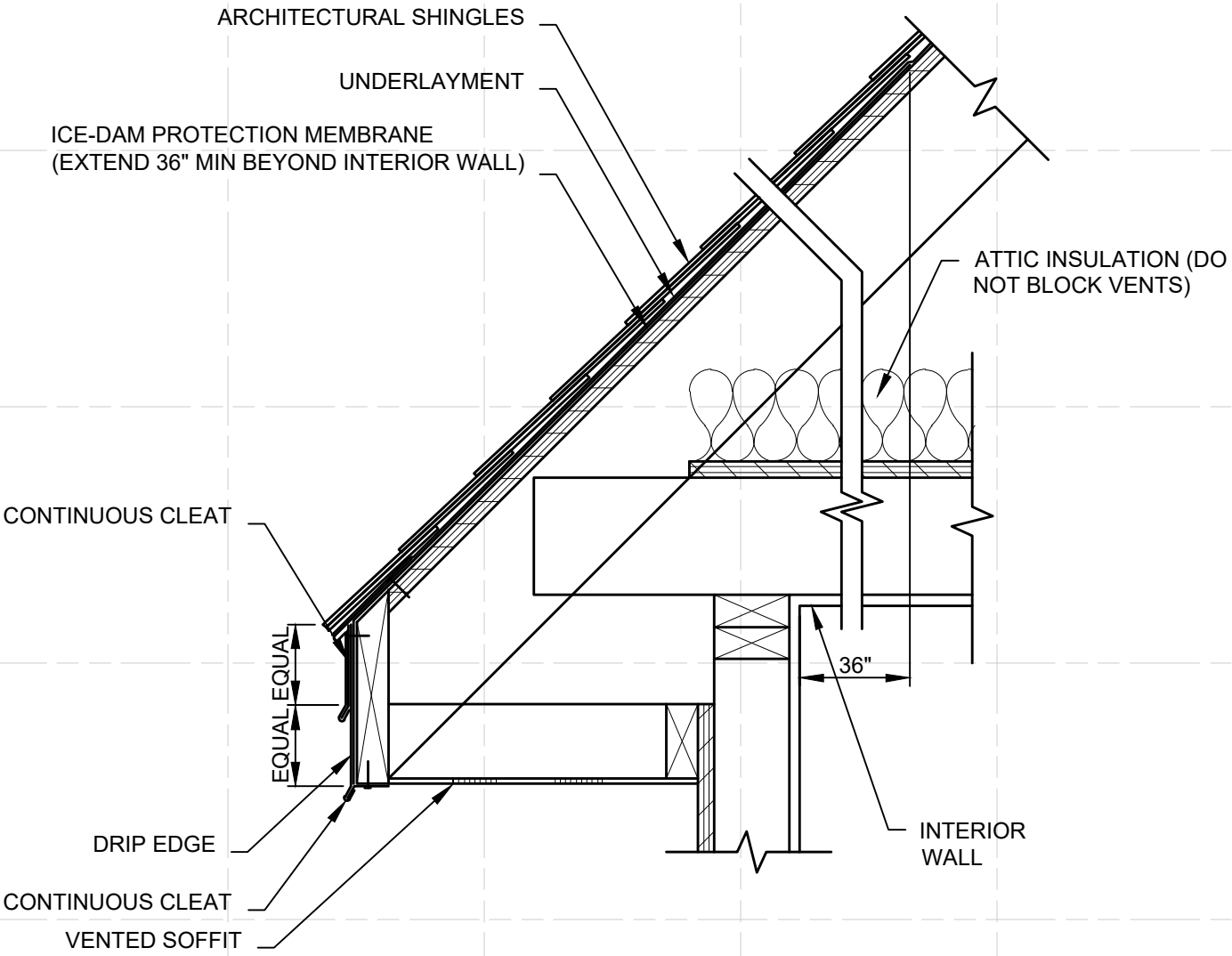
SCALE: NTS



A1

DETAIL: CRICKET AT CHIMNEY

SCALE: NTS



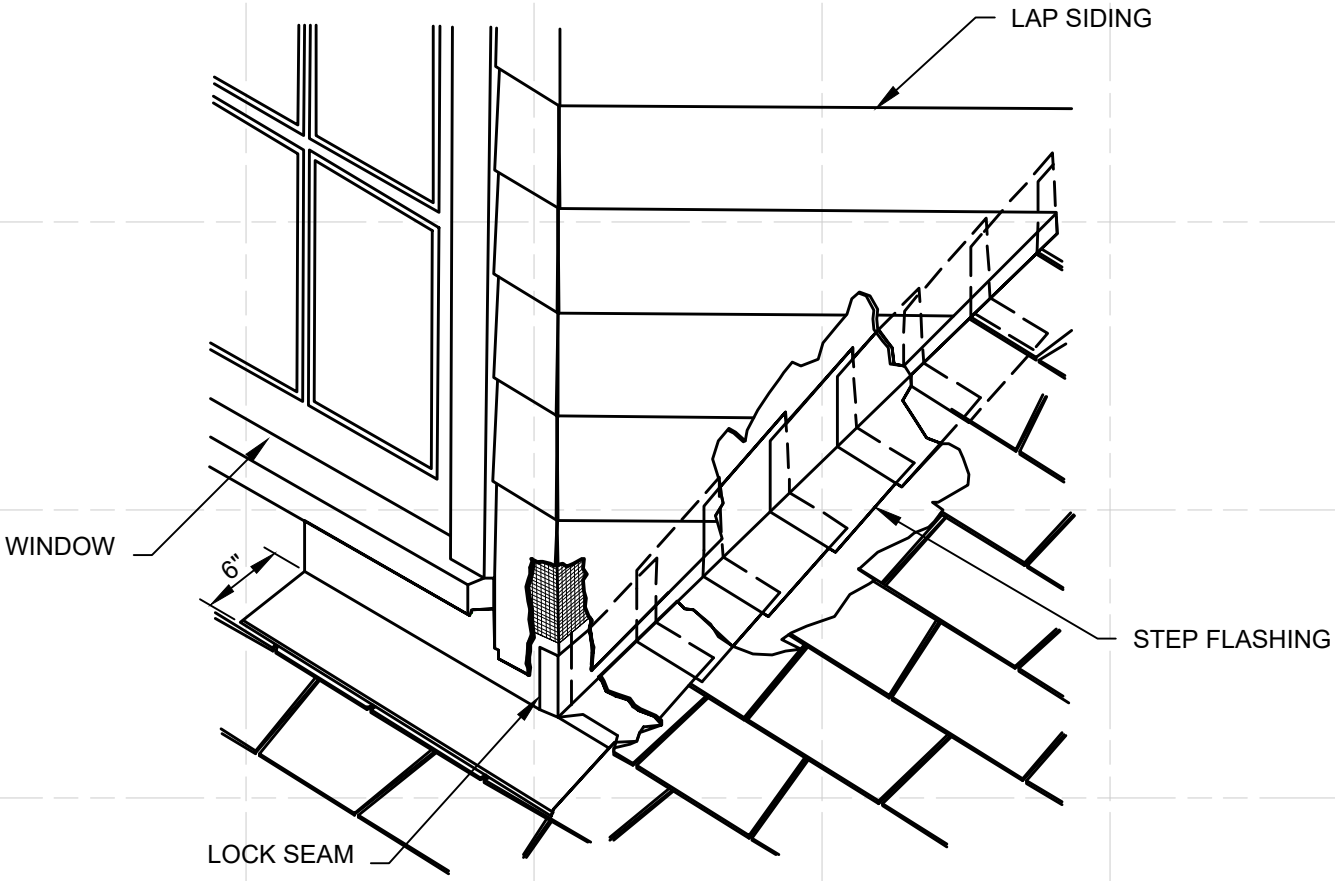
DETAIL: EAVE OVERHANG WITH VENTED SOFFIT

A1

SCALE: 1-1/2"=1'-0"

0 6" 1' 2'

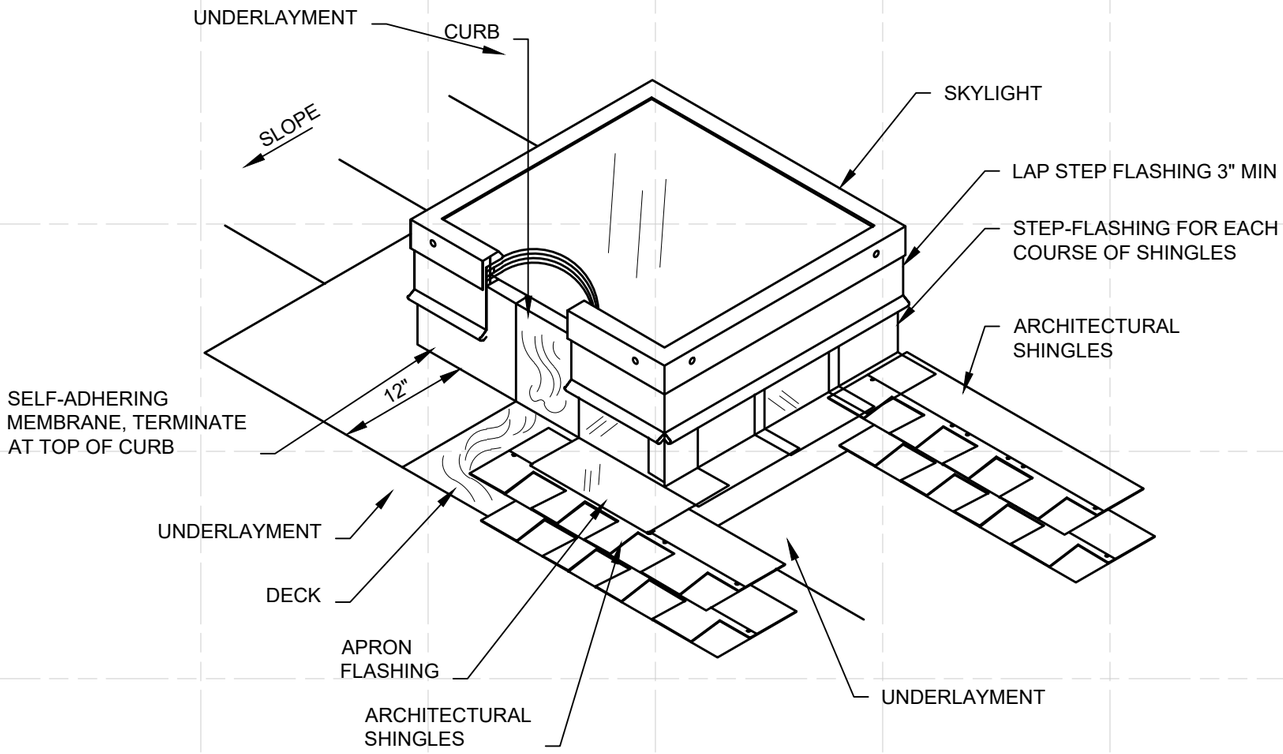
Detail B3010A-DT114X



A1

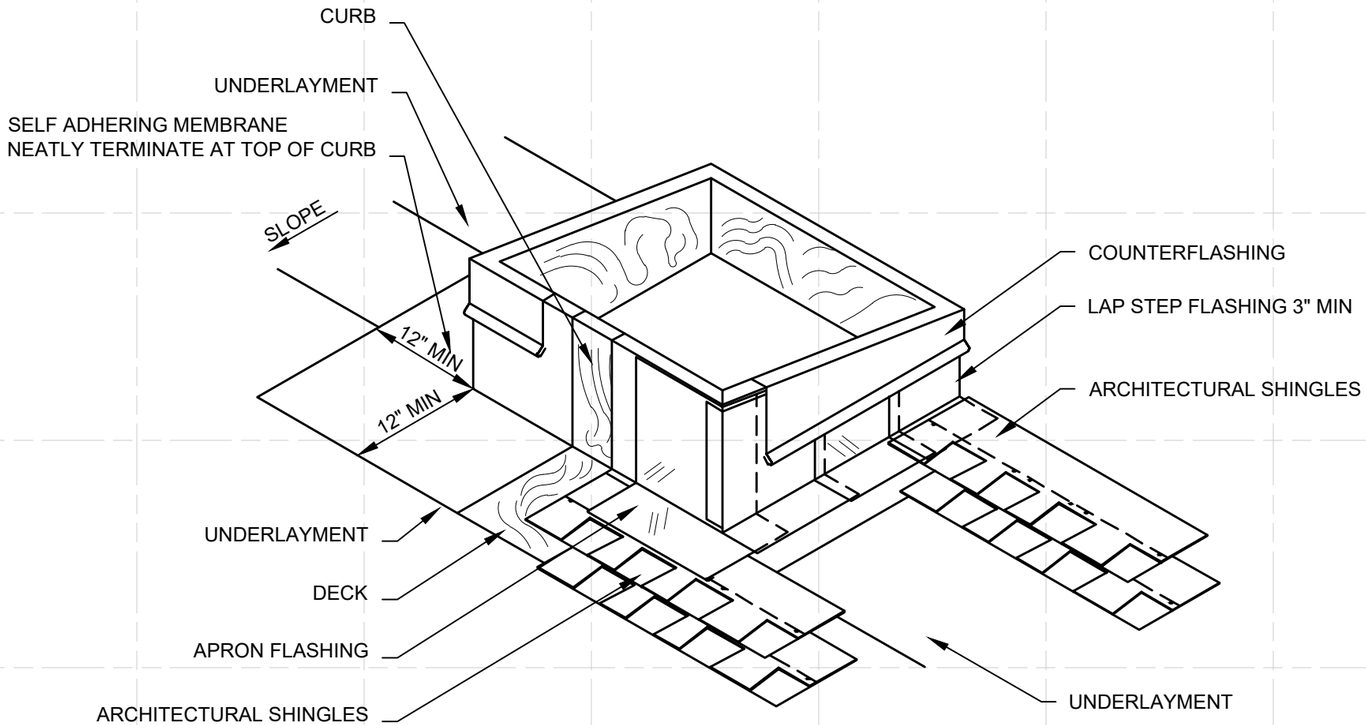
DETAIL: DORMER FLASHING

SCALE: NTS



A1 DETAIL: SKYLIGHT

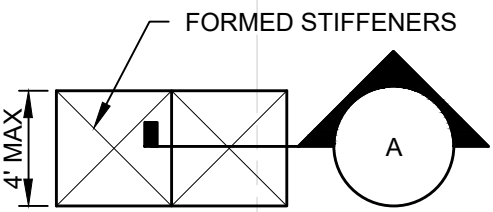
SCALE: NTS



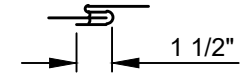
A1

DETAIL: CURBED PENETRATION

SCALE: NTS

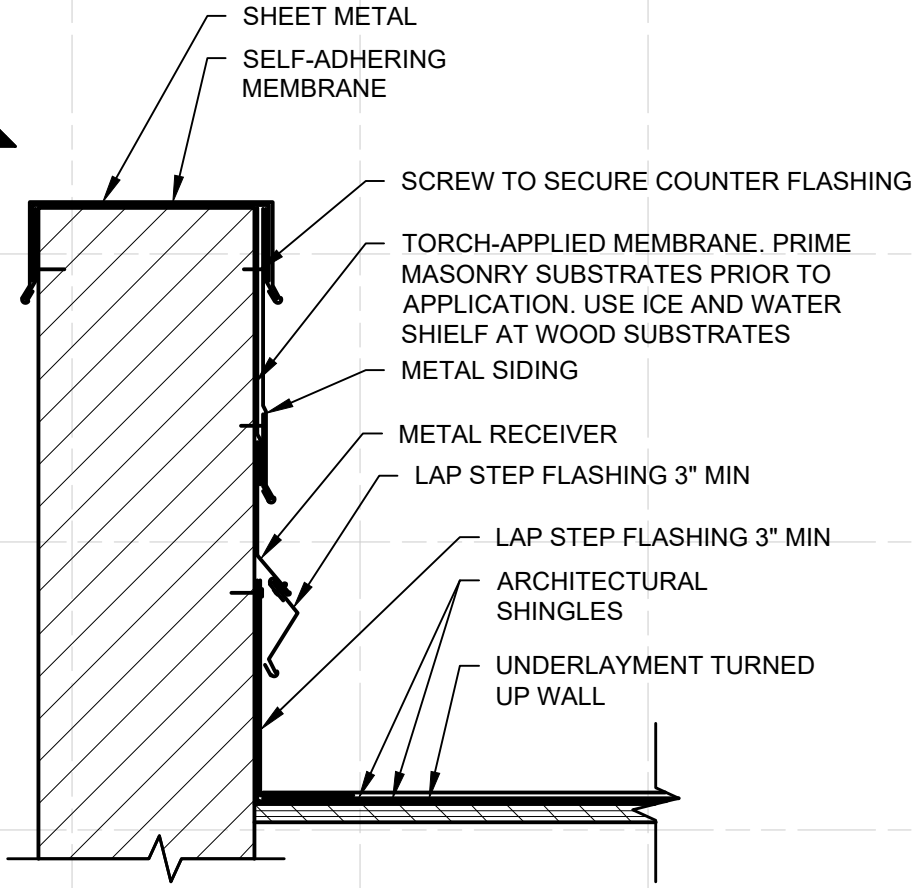


SIDING ELEVATION
(NOT TO SCALE)



VERTICAL SEAM
"S" POCKET

SECTION A
(NOT TO SCALE)

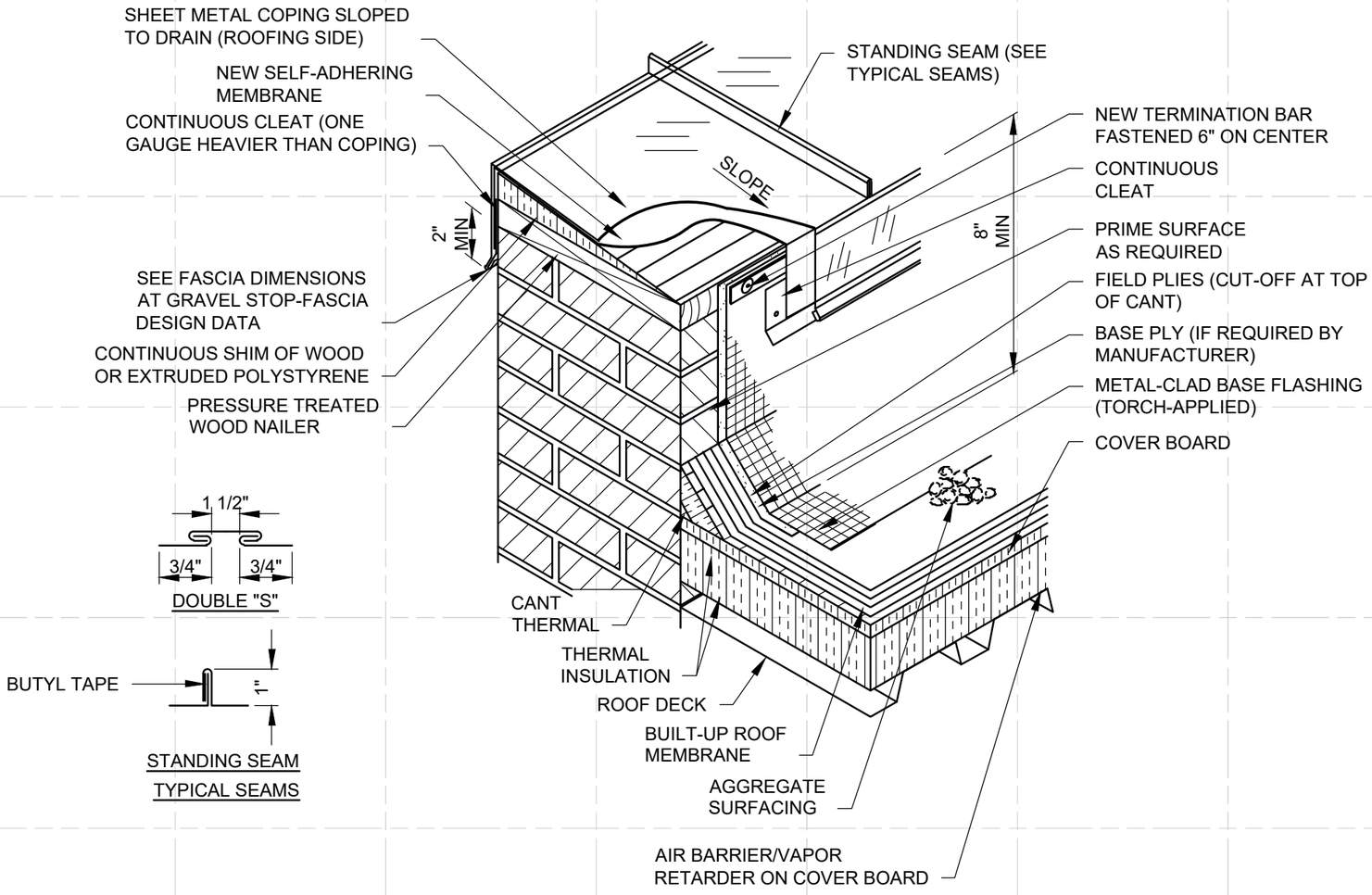


A1 DETAIL: FIREWALL - PARAPET

SCALE: 1-1/2"=1'-0"

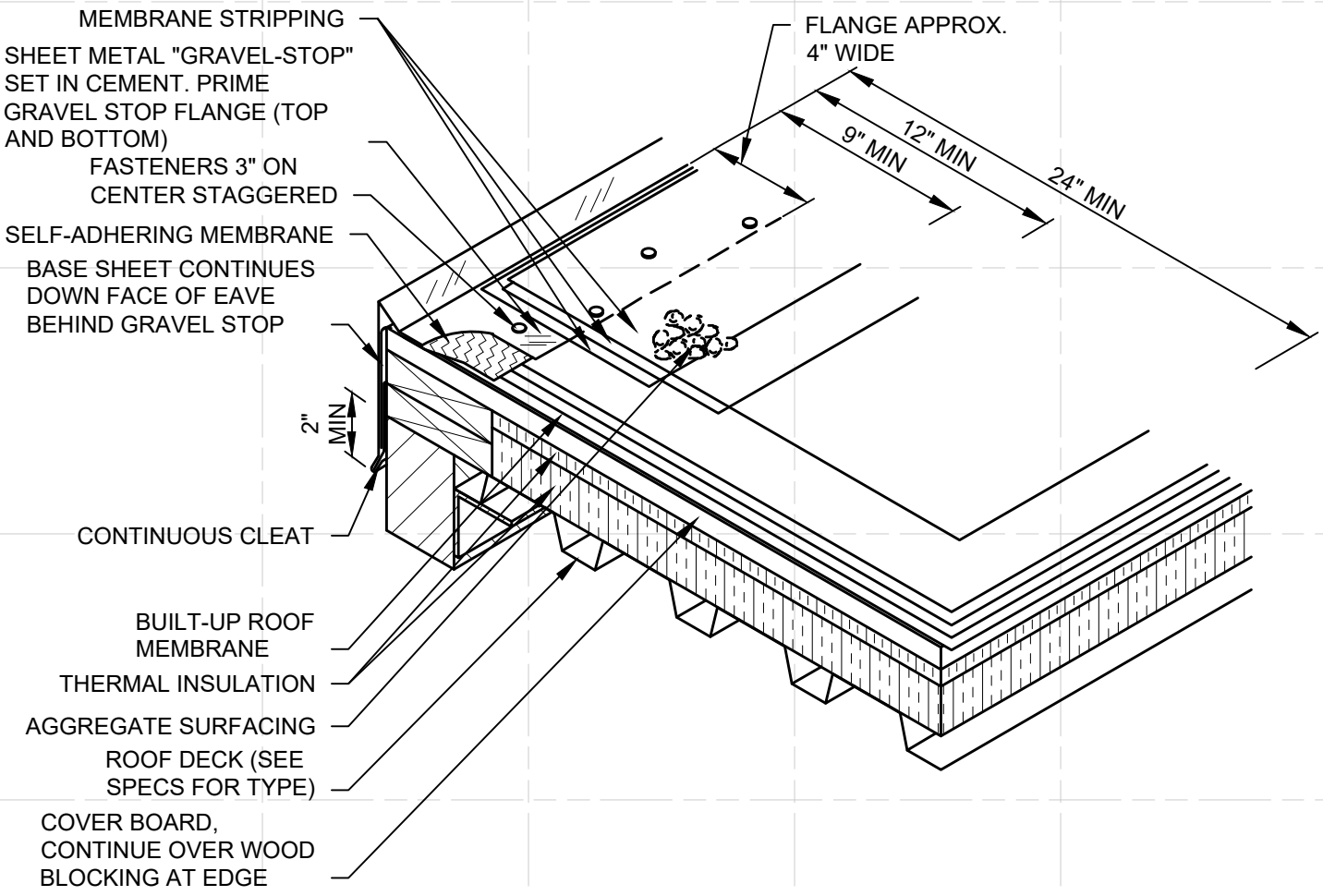
0 6" 1' 2'

Detail B3010A-DT118X



A1 DETAIL: METAL COPING CAP AND BASE FLASHING

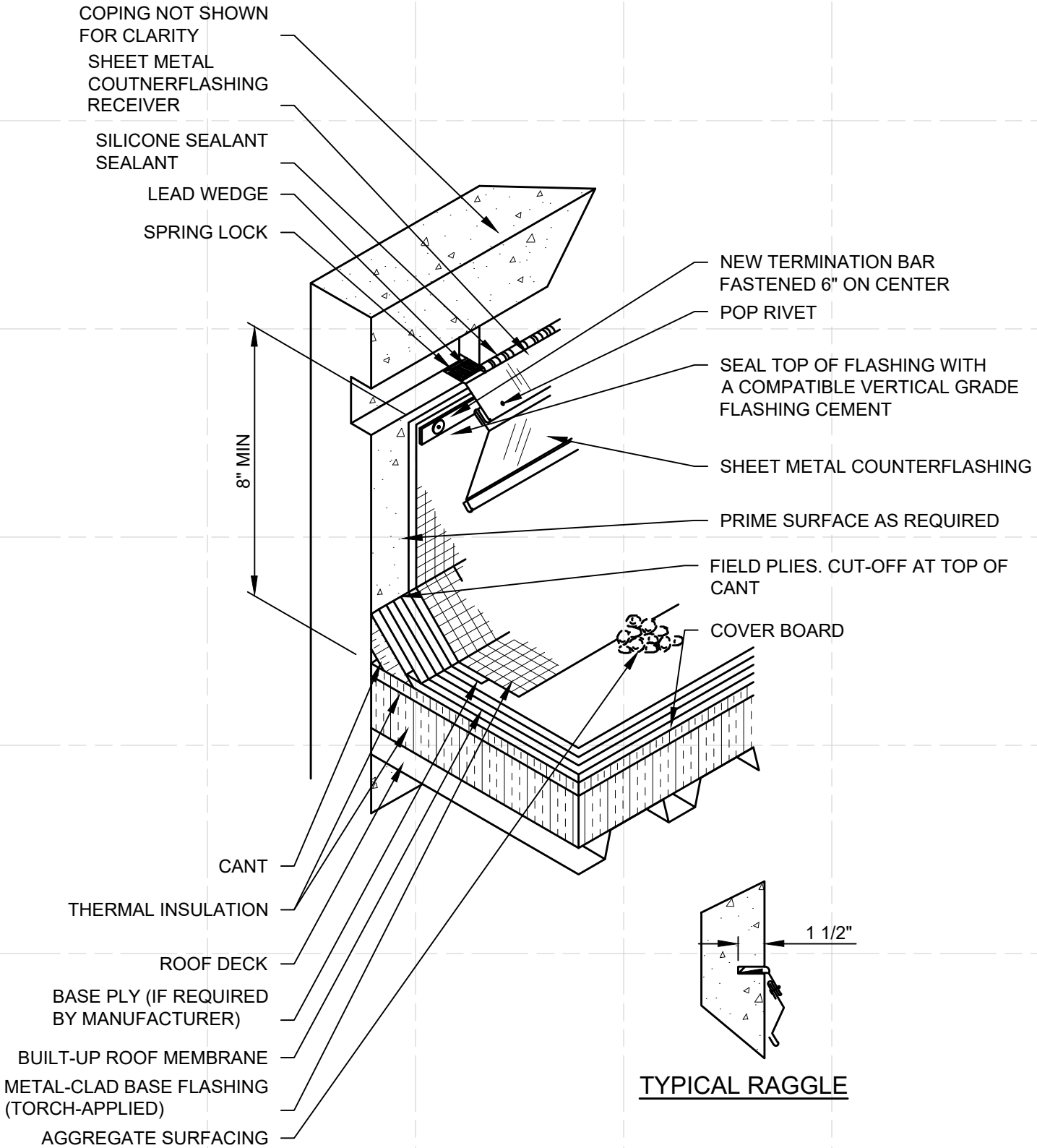
SCALE: NTS



A1

DETAIL: GRAVEL STOP-FASCIA

SCALE: NTS

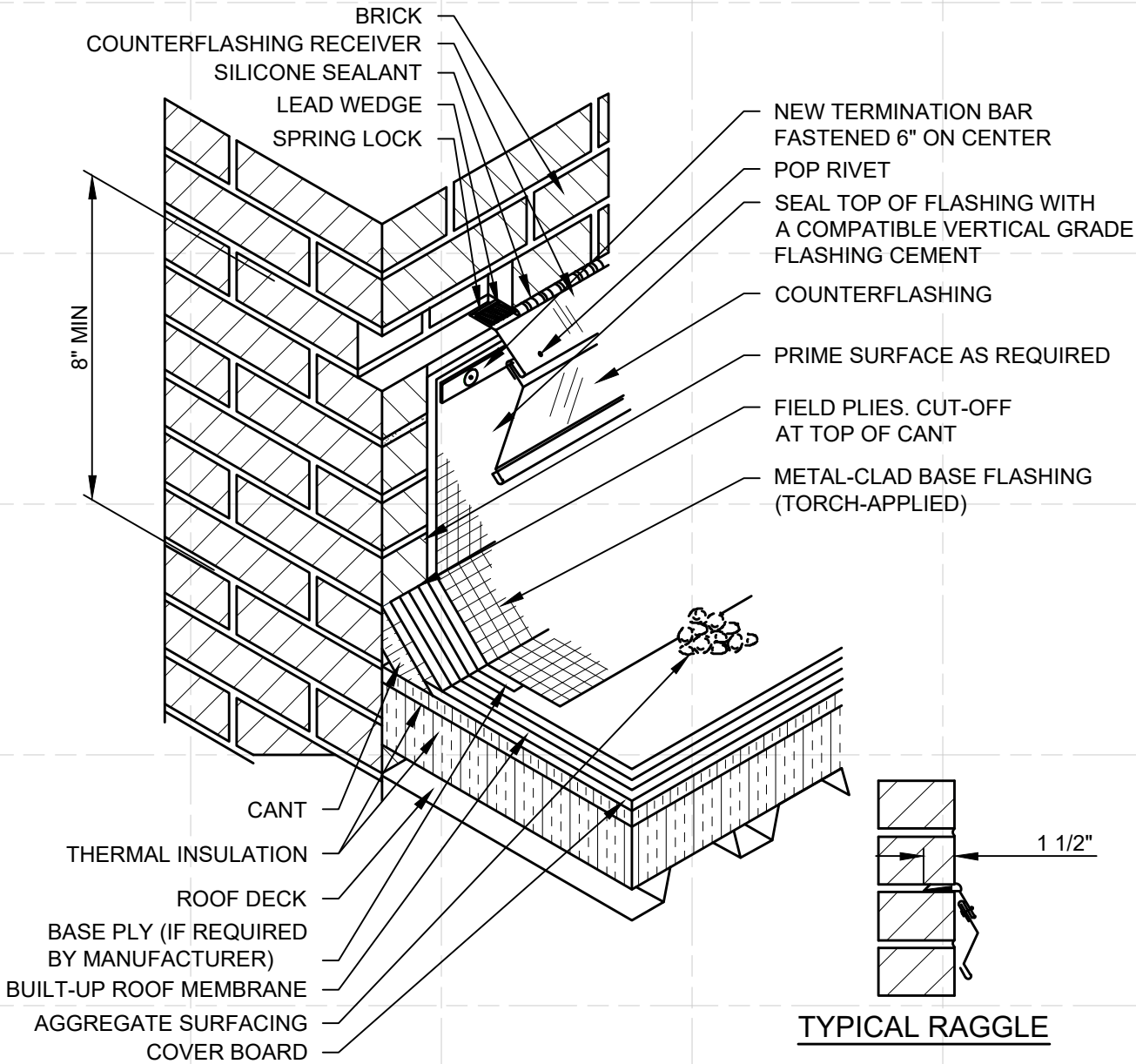


TYPICAL RAGGLE

DETAIL: SAW-CUT REGLET COUNTERFLASHING FOR CONCRETE WALLS

A1

SCALE: NTS

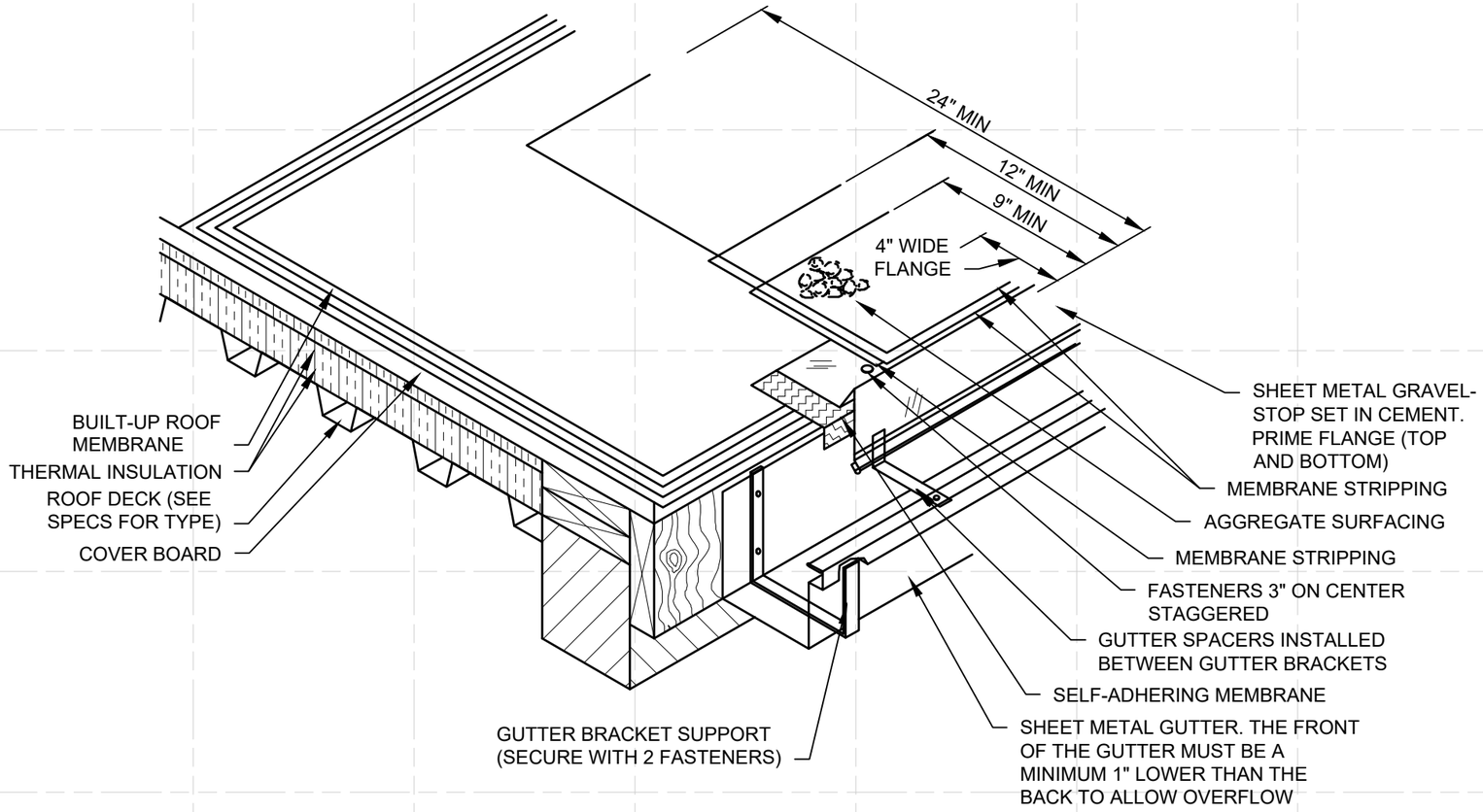


TYPICAL RAGGLE

A1

DETAIL: COUNTERFLASHING IN RAGGLE

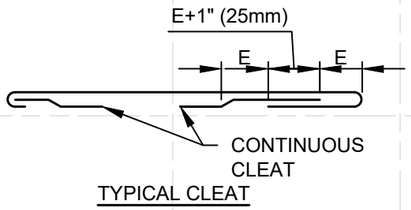
SCALE: NTS



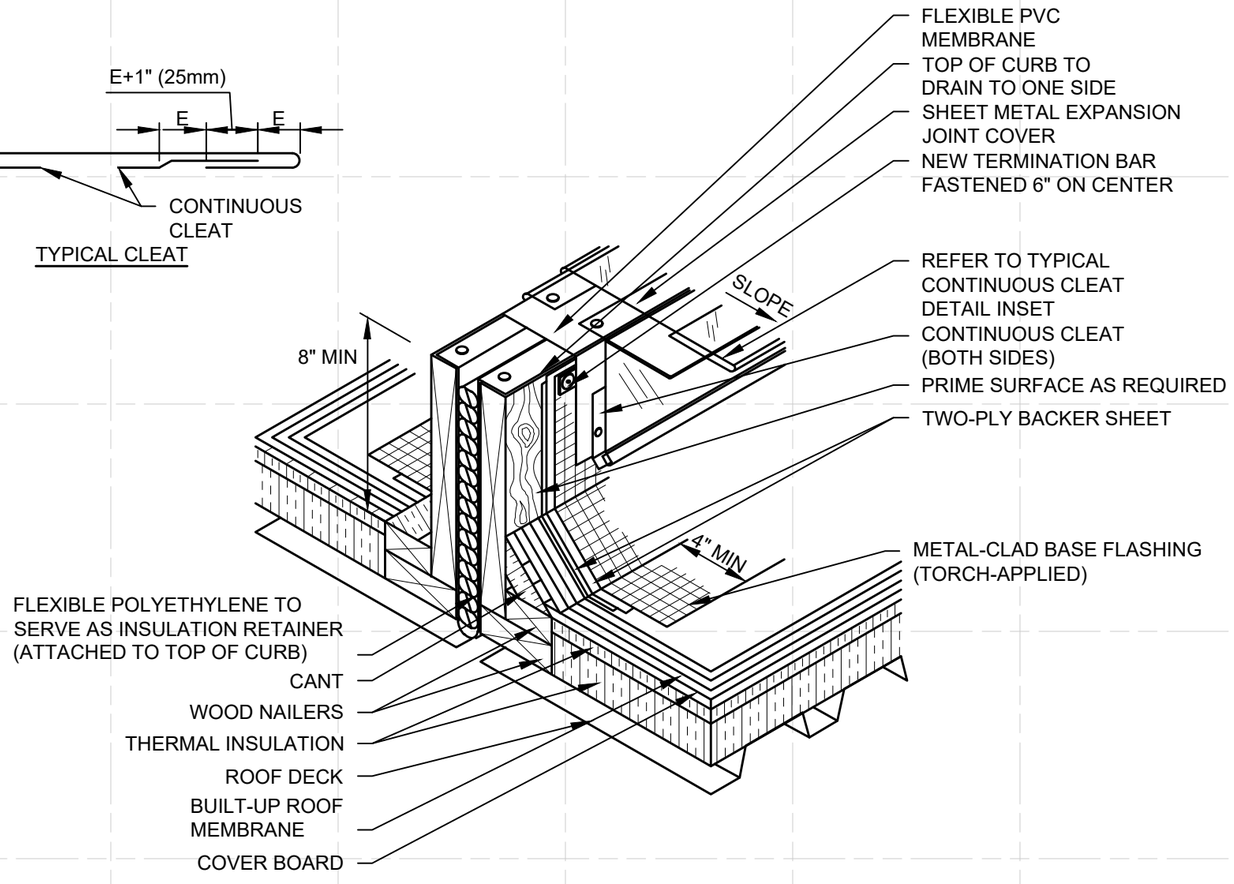
A1

DETAIL: GRAVEL STOP-FASCIA WITH GUTTER

SCALE: NTS



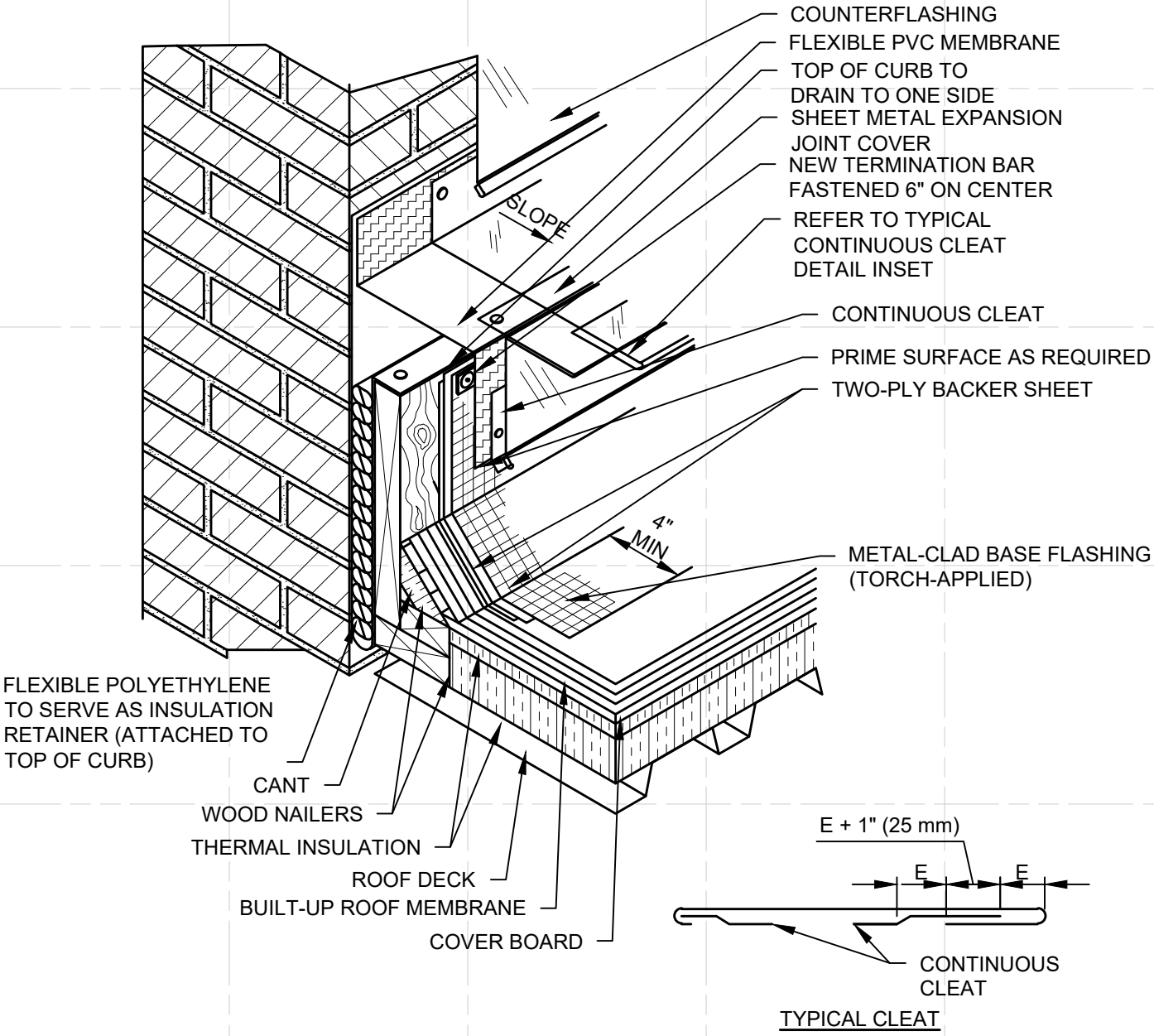
TYPICAL CLEAT



DETAIL: ROOF-TO-ROOF EXPANSION JOINT WITH SHOP-FORMED METAL COVER

A1

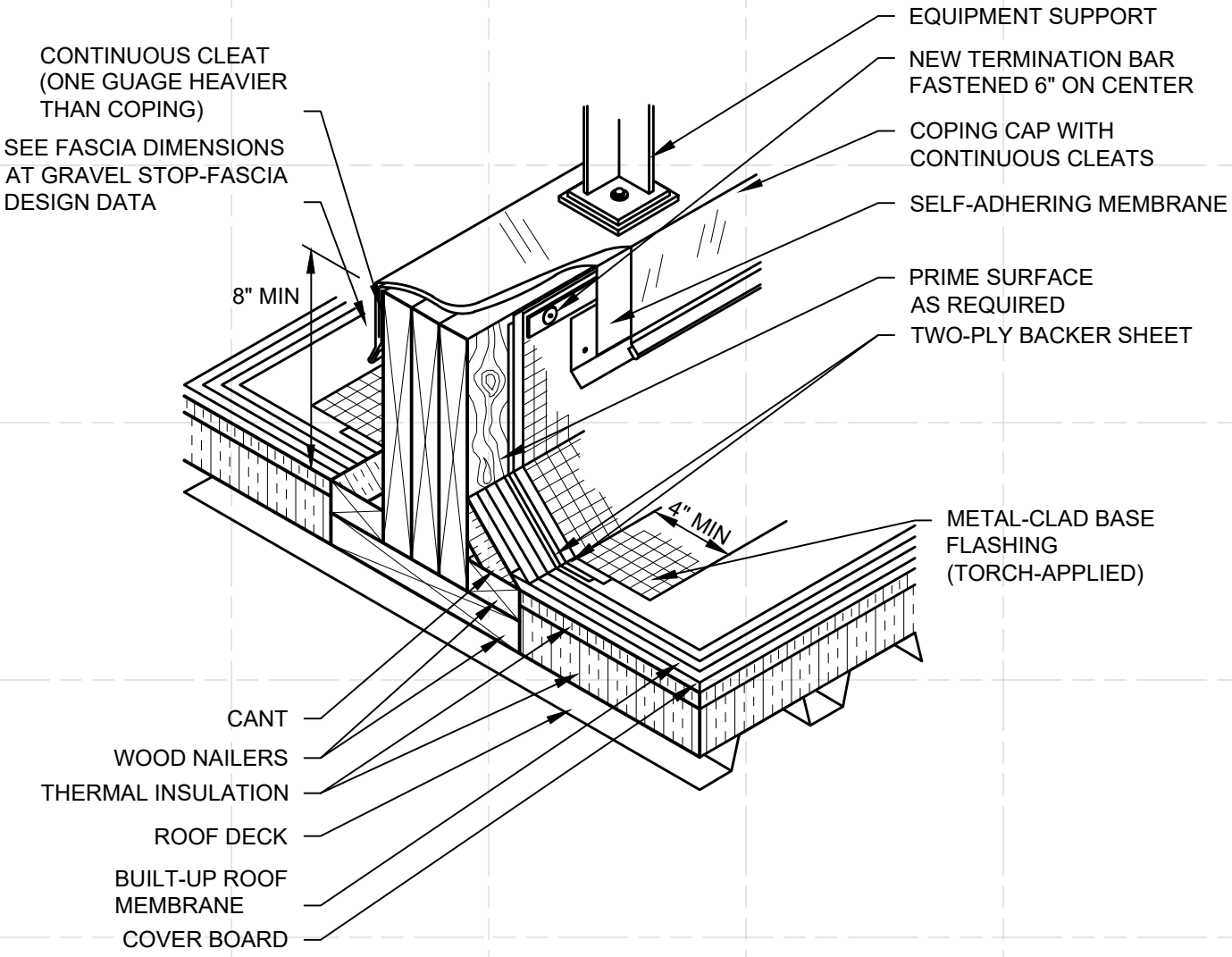
SCALE: NTS



DETAIL: ROOF-TO-WALL EXPANSION JOINT WITH SHOP-FORMED METAL COVER

A1

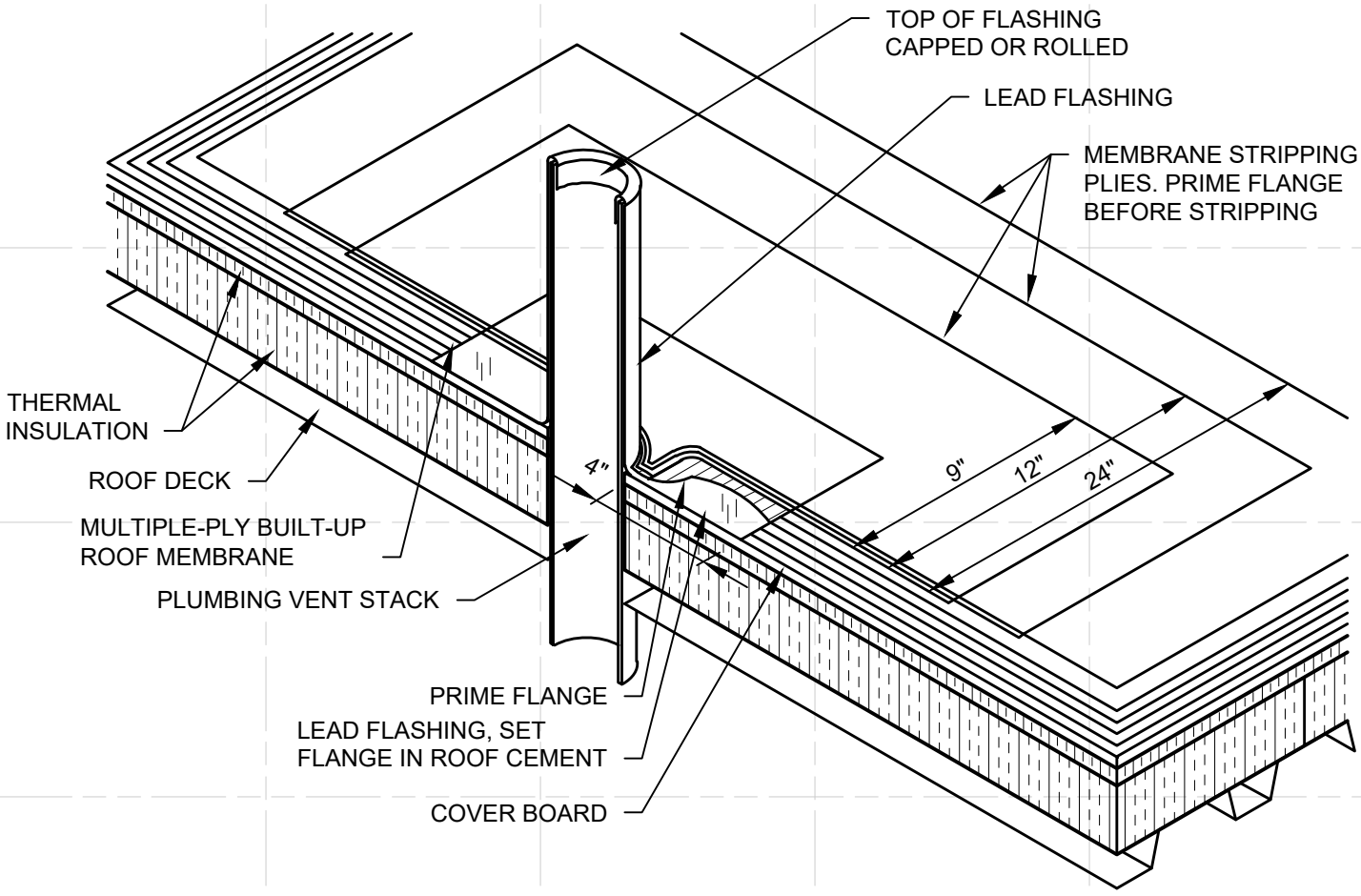
SCALE: NTS



A1

DETAIL: EQUIPMENT CURB SUPPORT

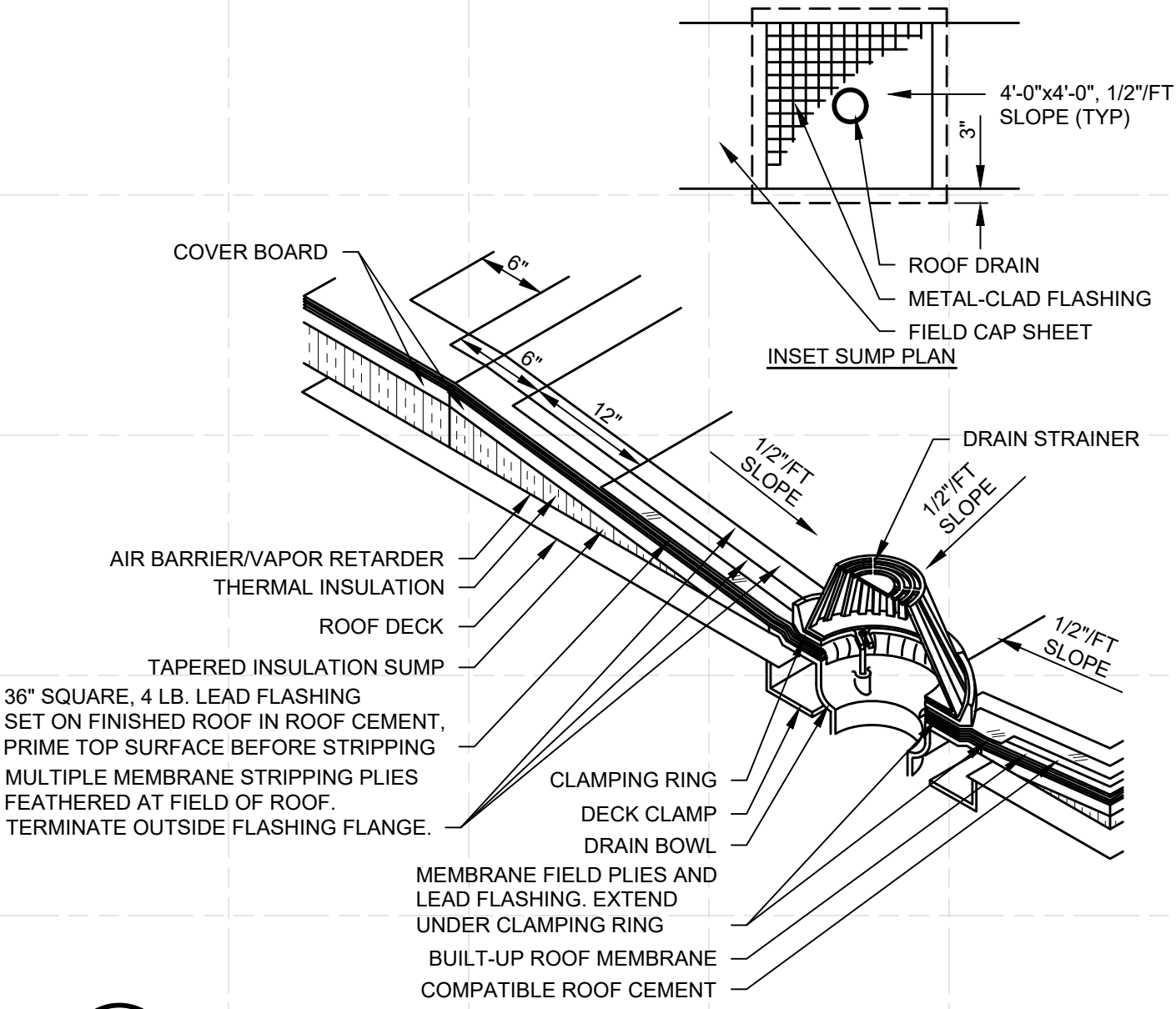
SCALE: NTS



A1

DETAIL: PLUMBING VENT

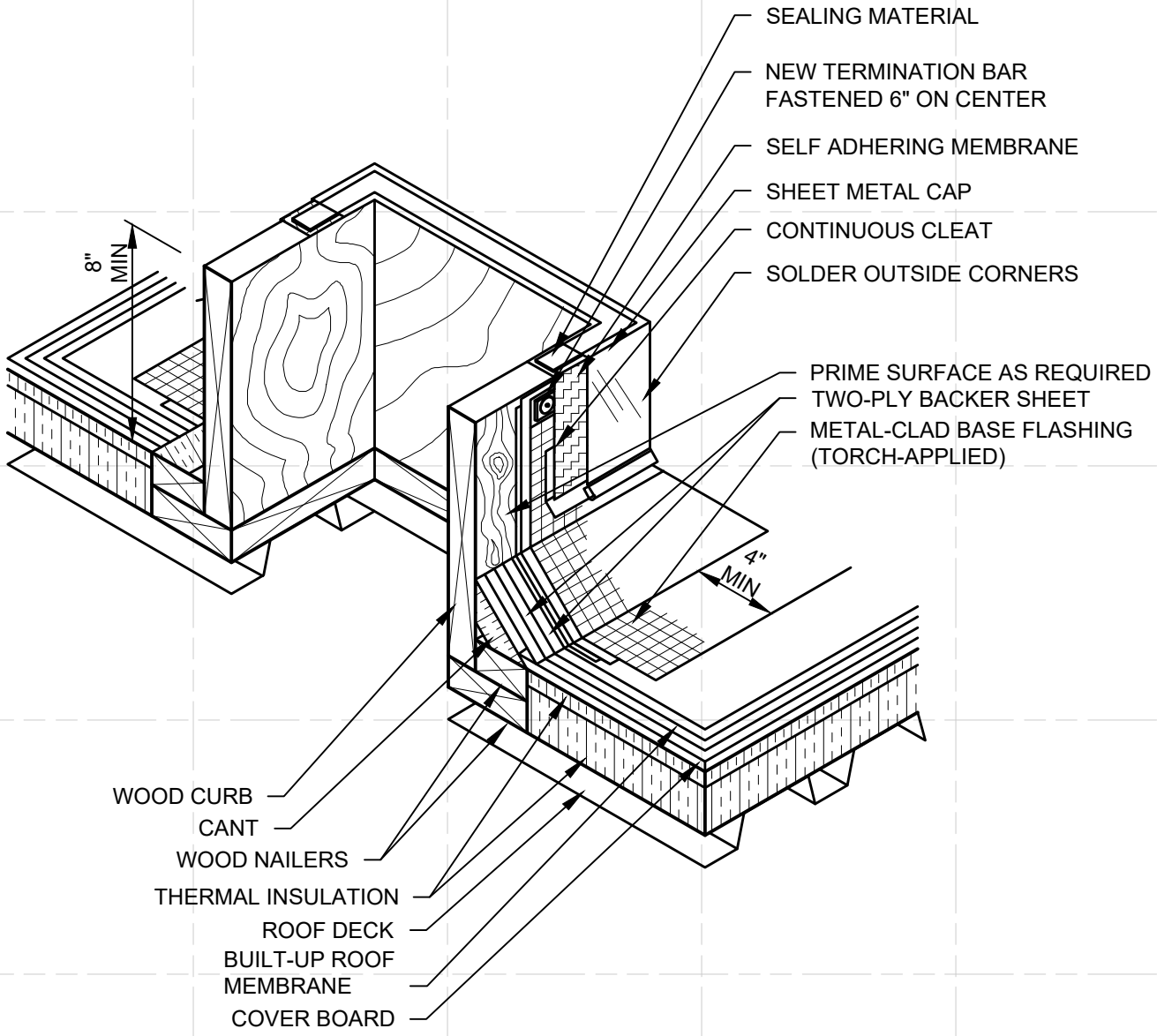
SCALE: NTS



A1

DETAIL: ROOF DRAIN

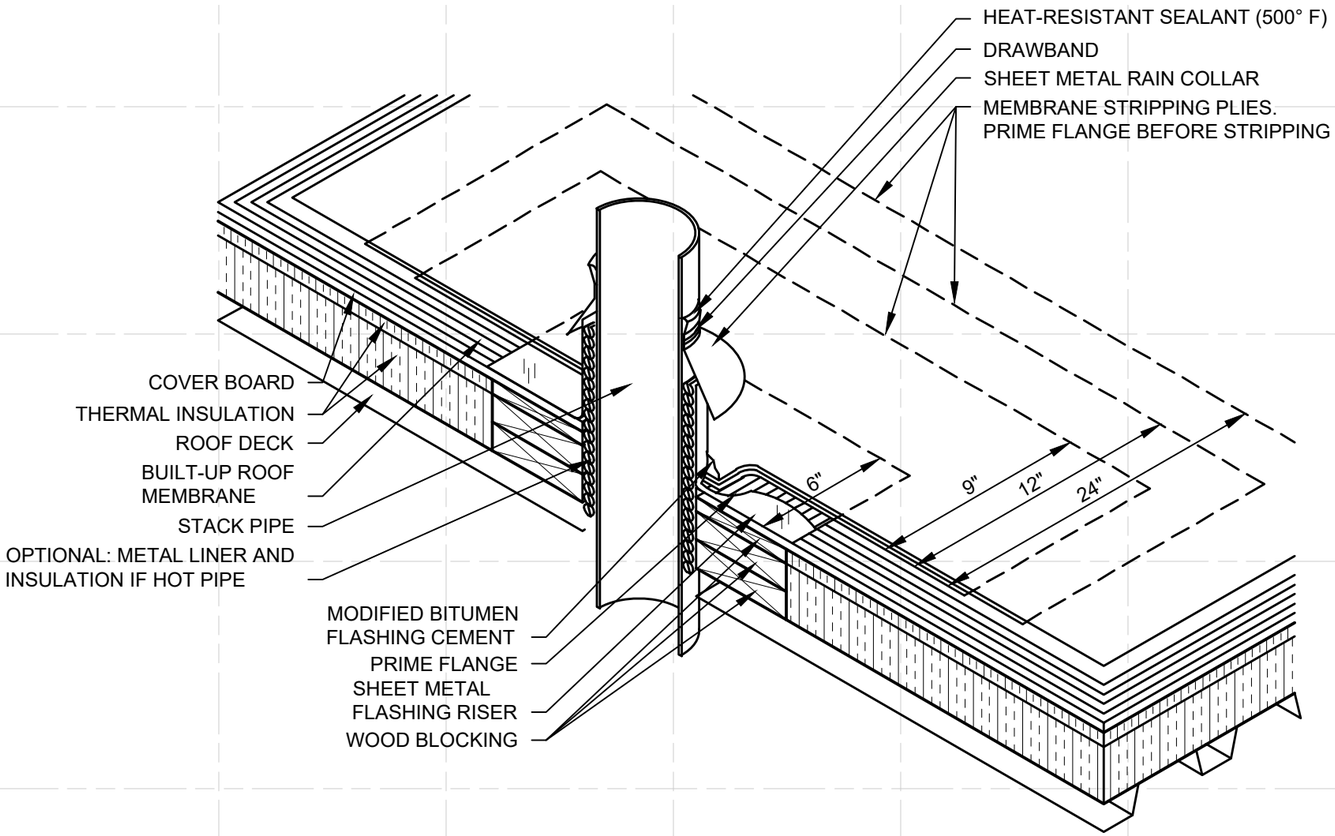
SCALE: NTS



A1

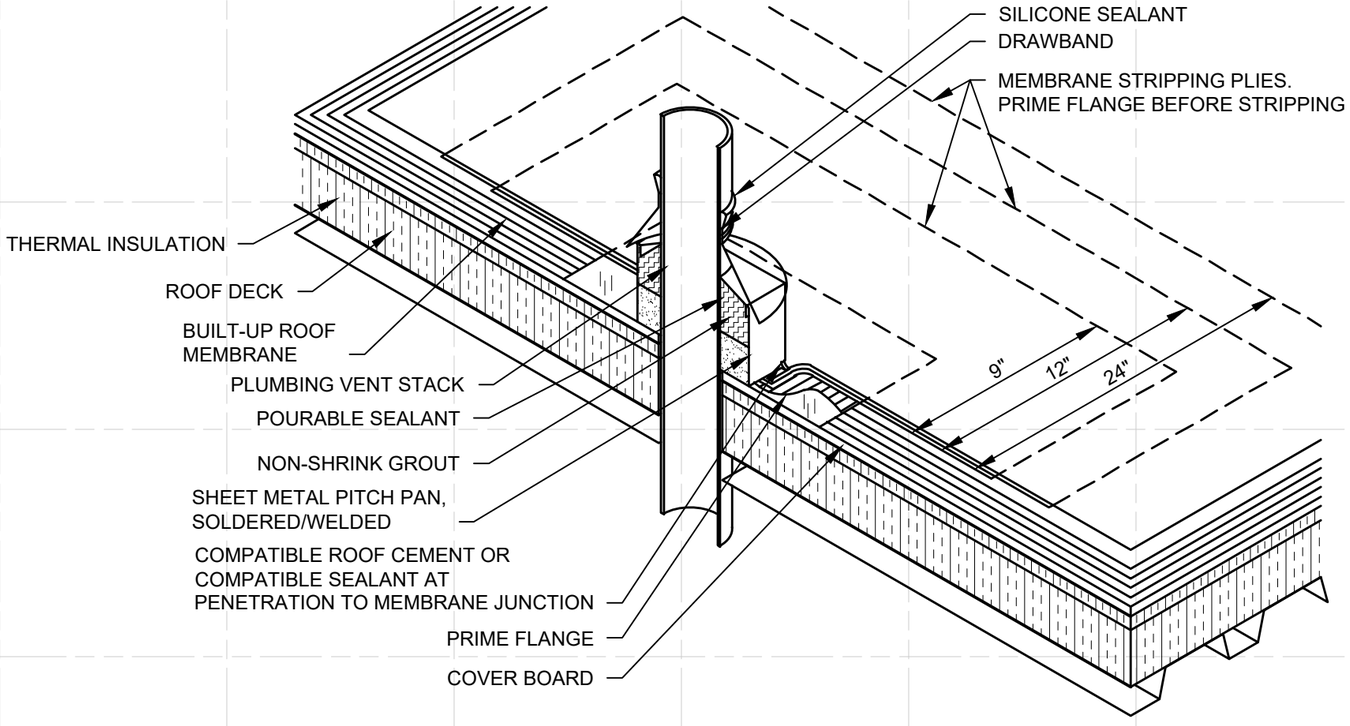
DETAIL: CURBED PENETRATION

SCALE: NTS



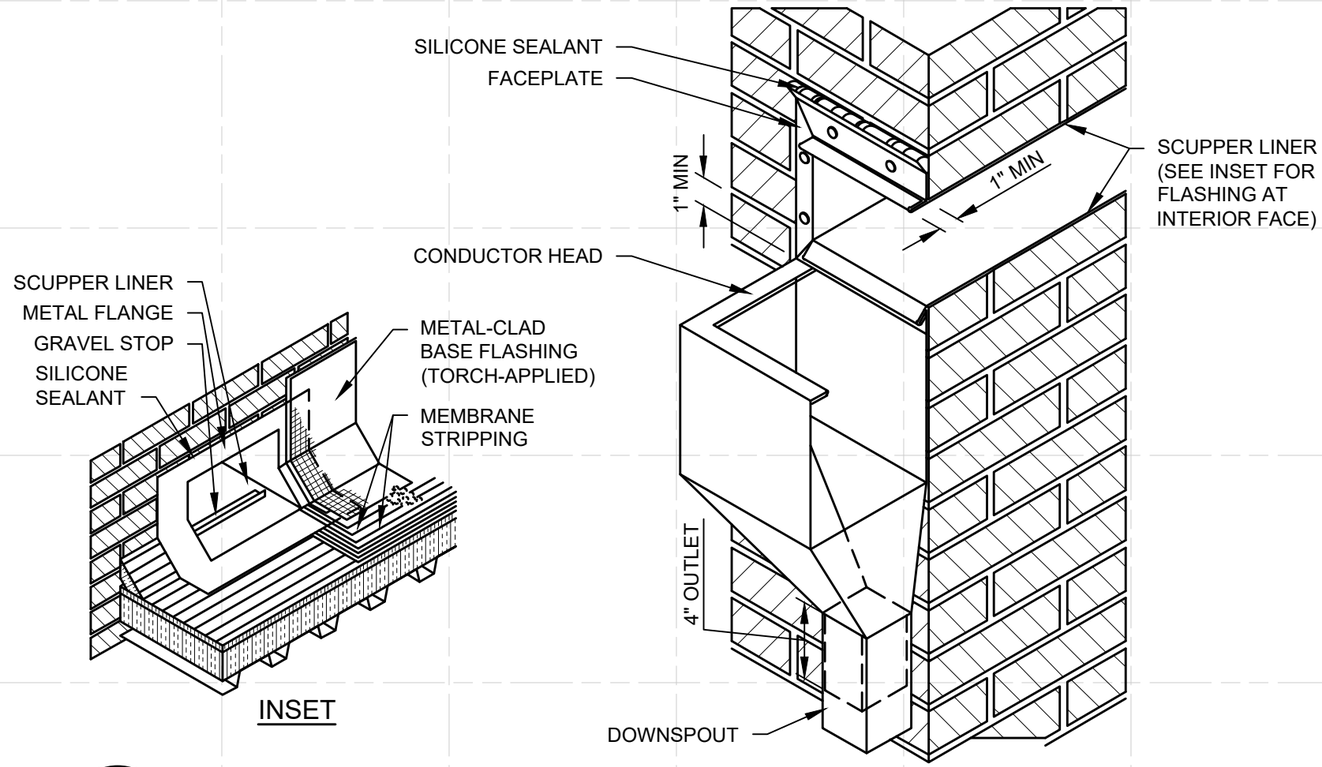
A1 DETAIL: STACK PIPE

SCALE: NTS



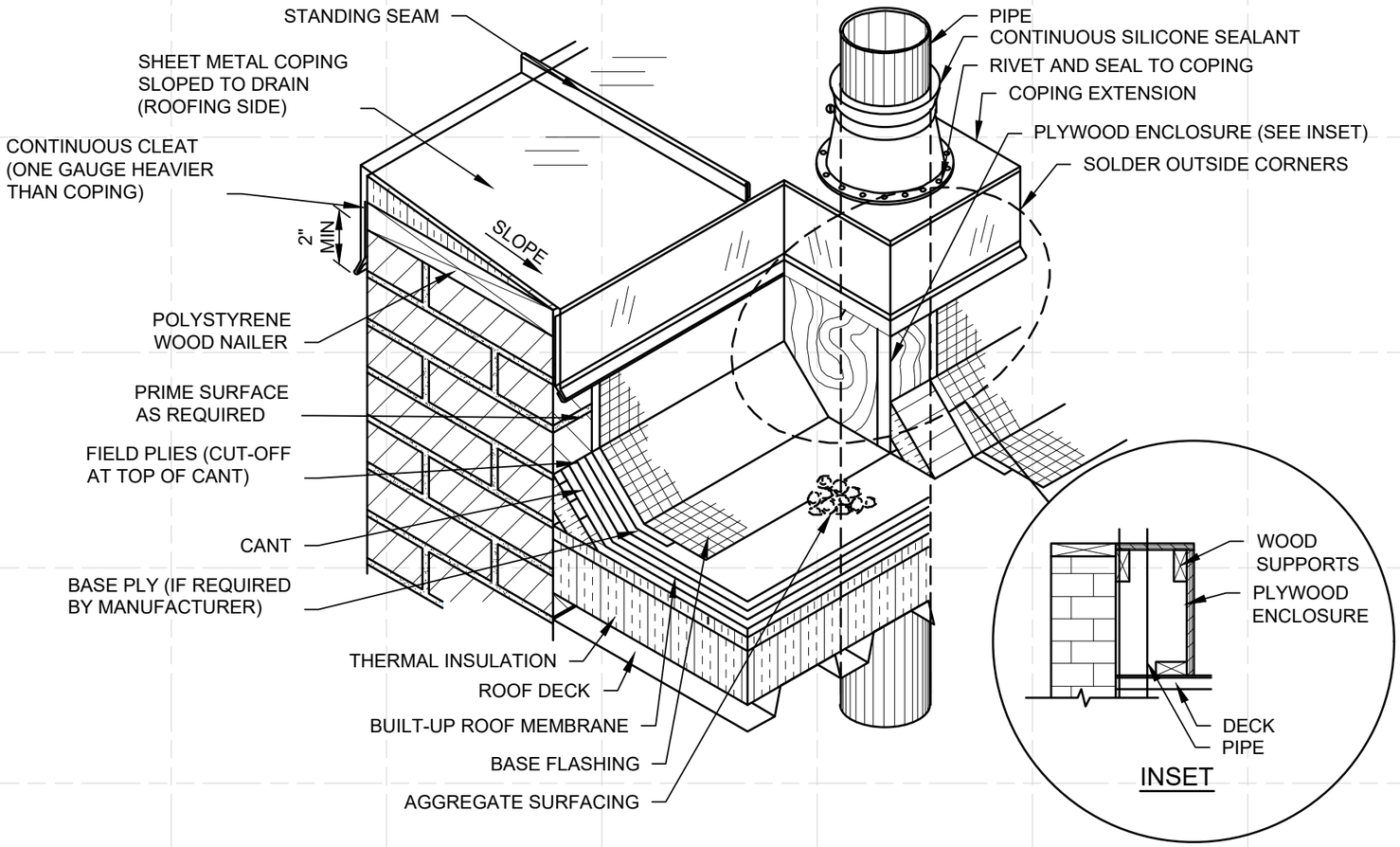
A1 DETAIL: PITCH PAN

SCALE: NTS



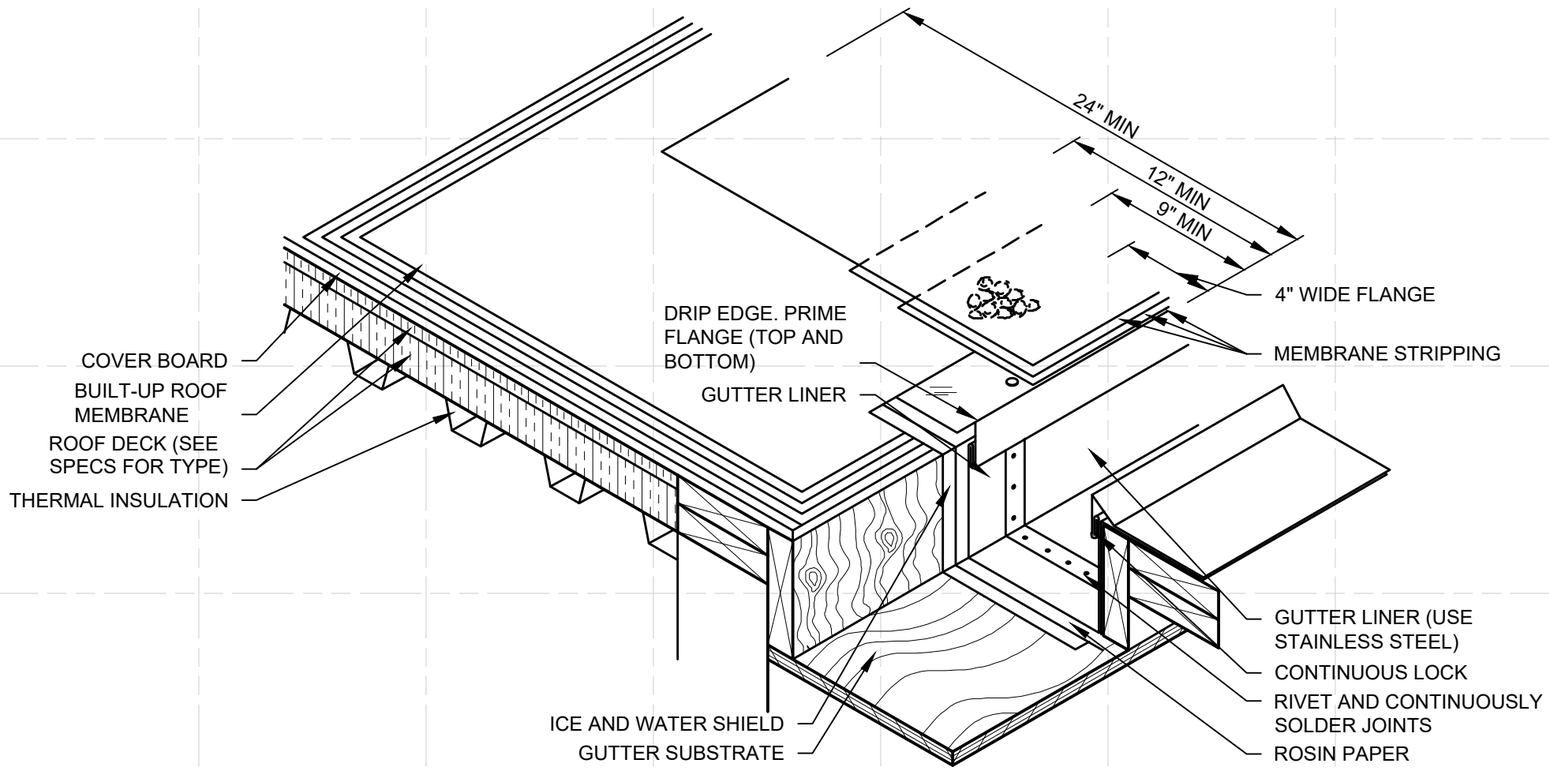
A1 DETAIL: DRAIN SCUPPER WITH CONDUCTOR HEAD

SCALE: NTS



A1 DETAIL: PIPE ADJACENT TO PARAPET

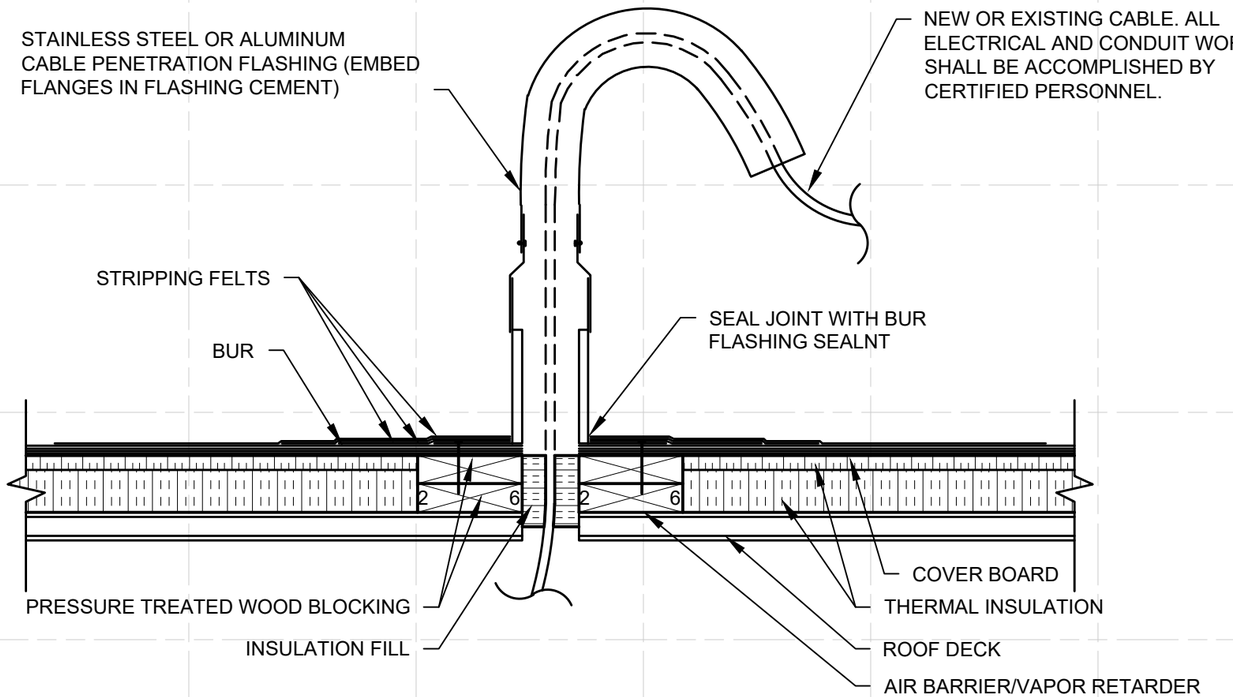
SCALE: NTS



A1

DETAIL: GRAVEL STOP-FASCIA WITH BUILT-IN GUTTER

SCALE: NTS

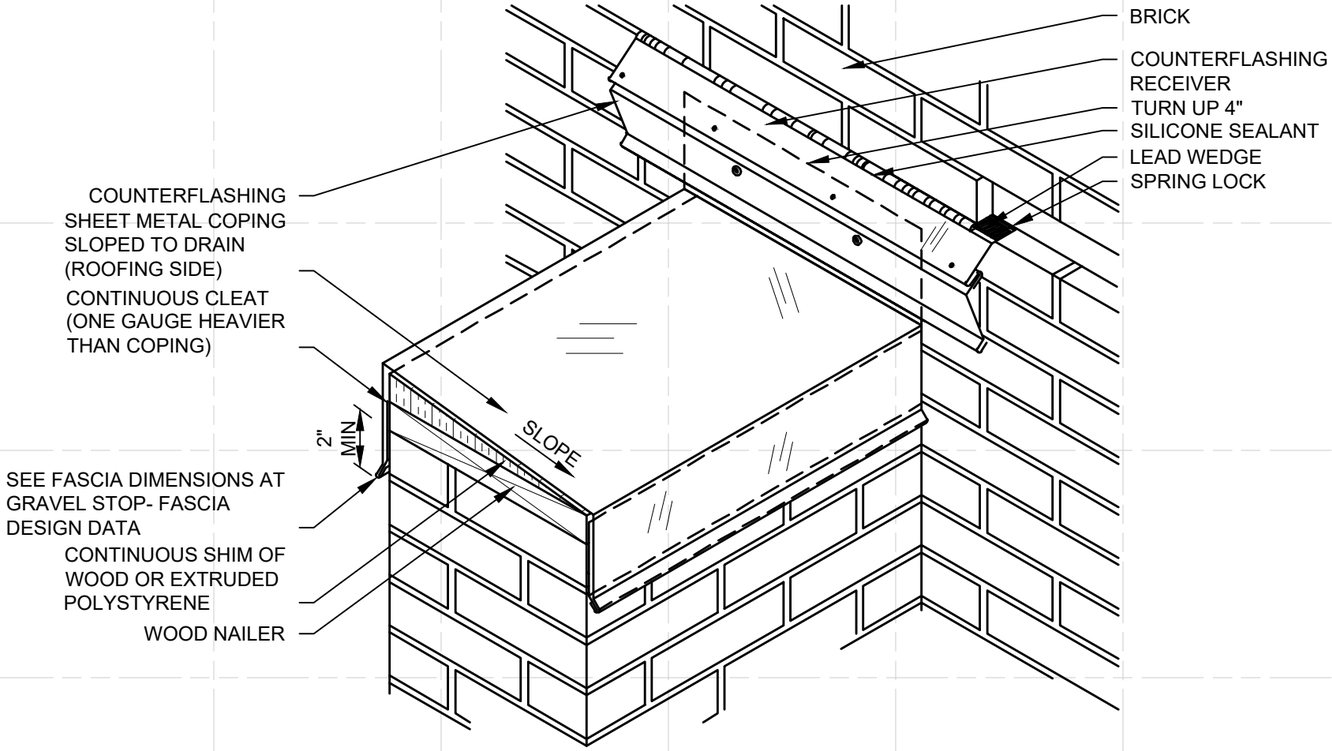


A1 DETAIL: CABLE PENETRATION FLASHING

SCALE: 1 1/2"=1'-0"

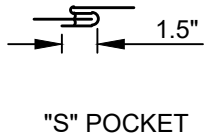
0 6" 1' 2'

Detail B3010A-DT217X



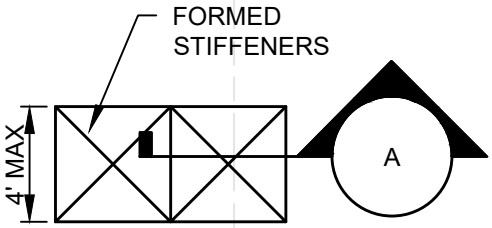
A1 DETAIL: COPING TERMINATION

SCALE: NTS

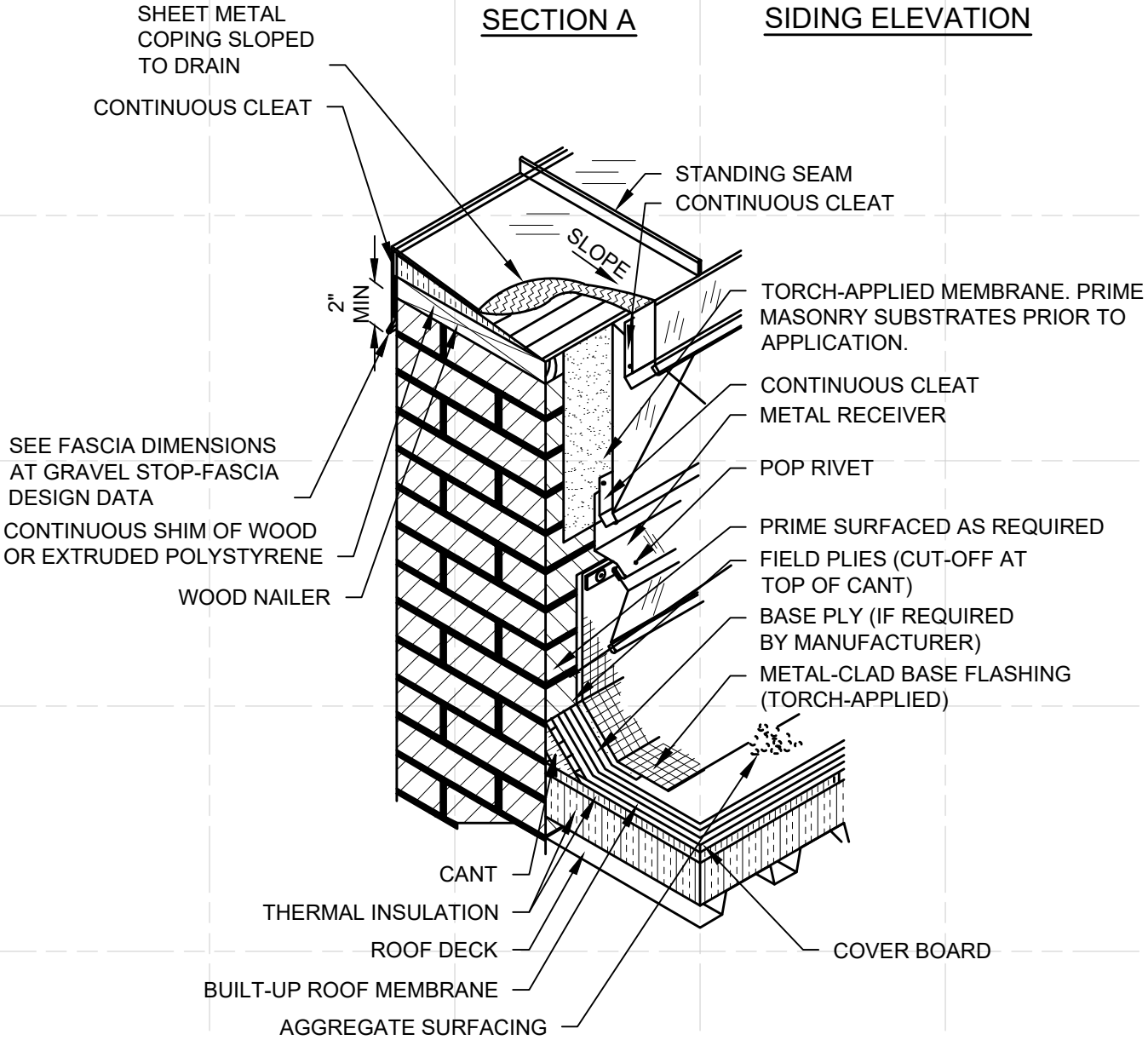


"S" POCKET
VERTICAL SEAM

SECTION A



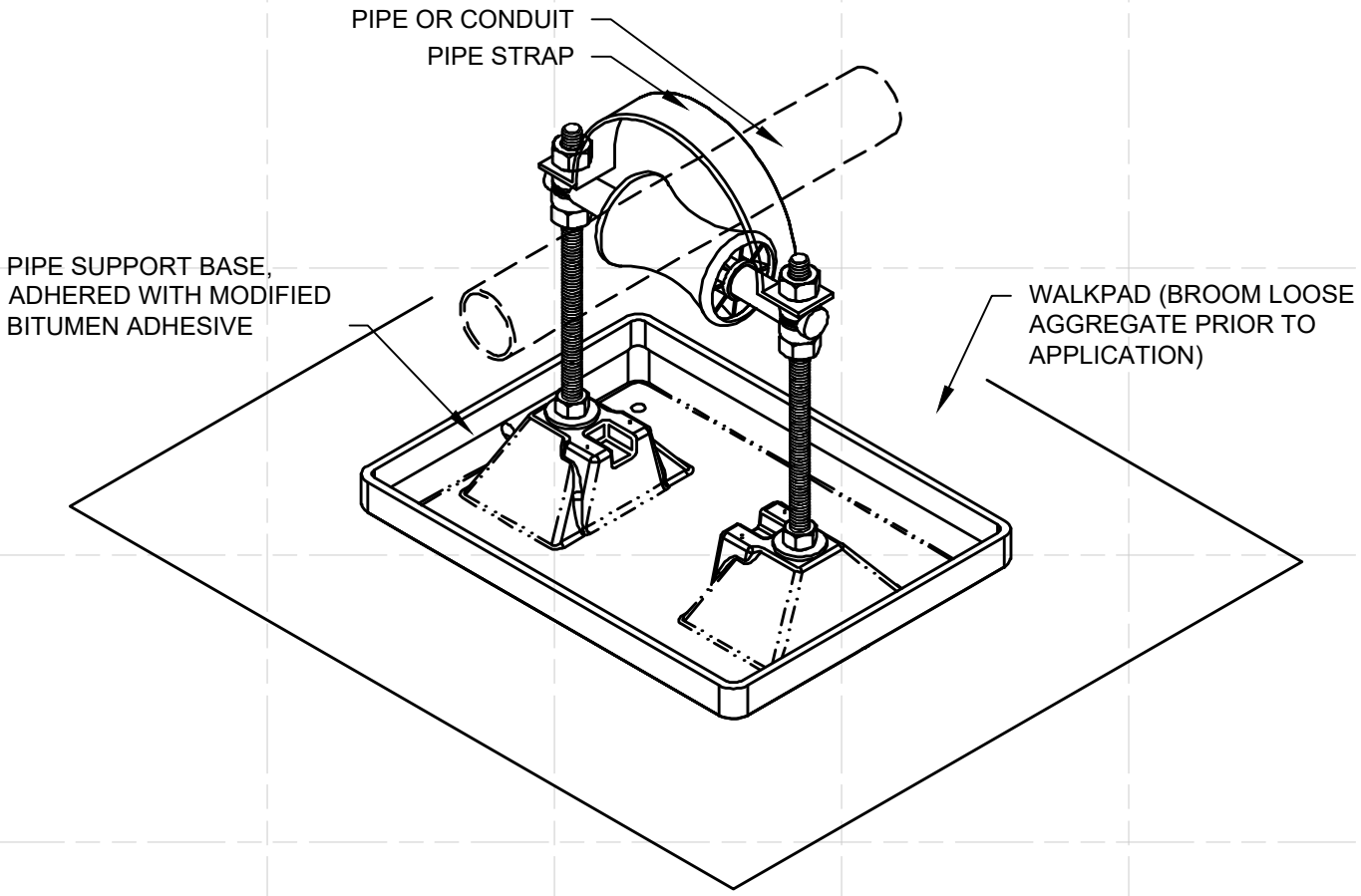
SIDING ELEVATION



A1

DETAIL: METAL SIDING

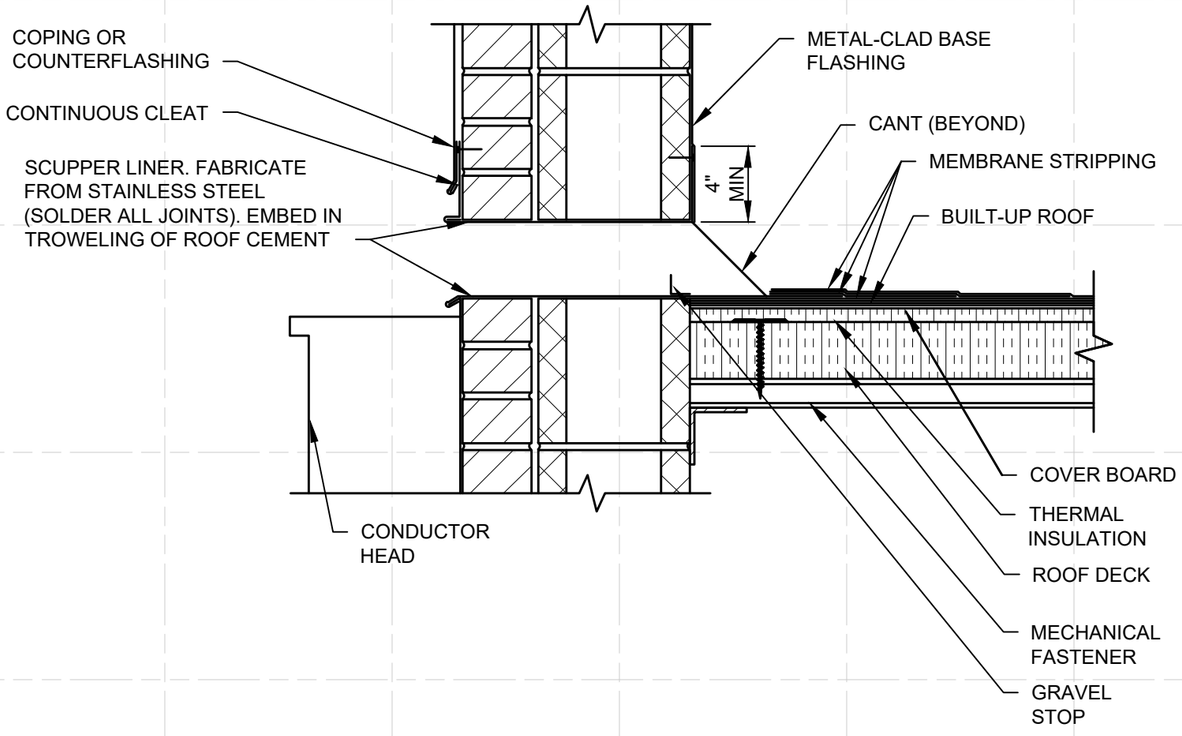
SCALE: NTS



A1

DETAIL: PIPE STAND

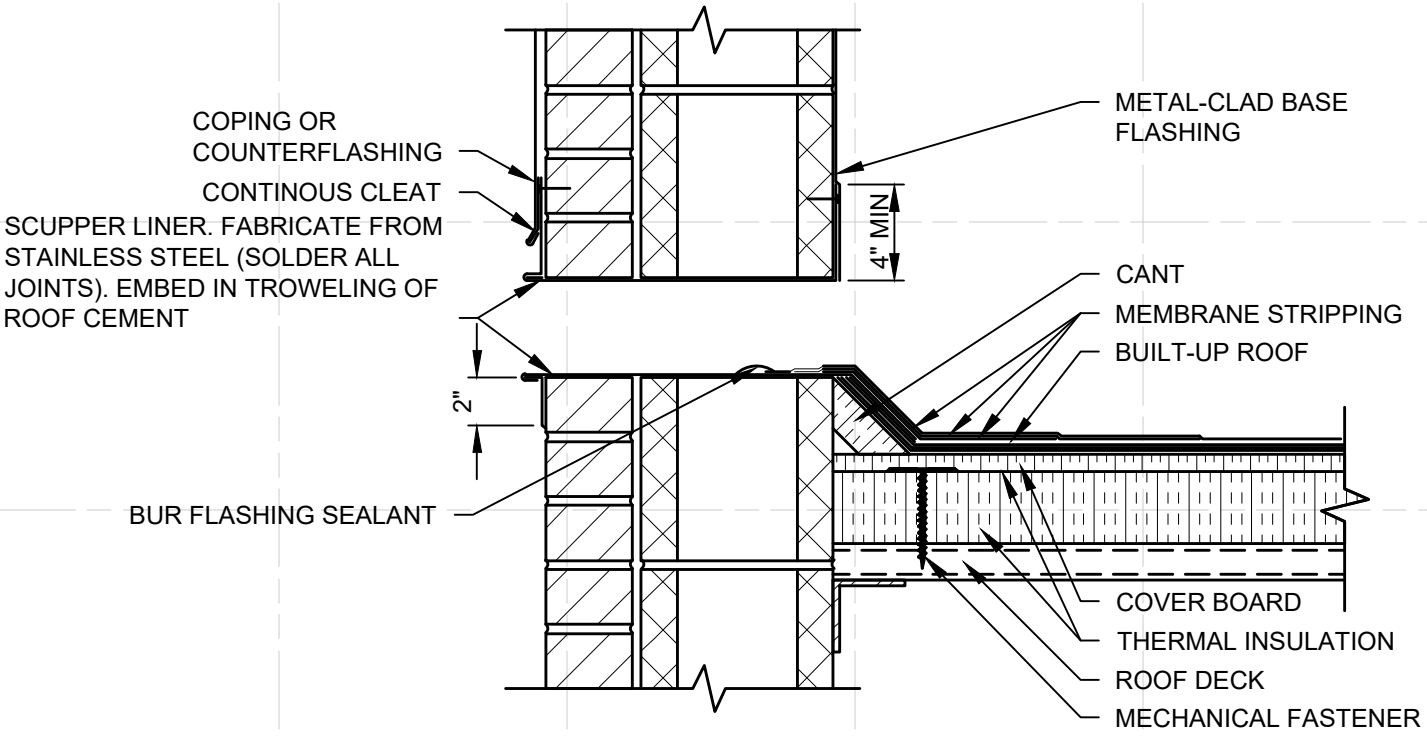
SCALE: NTS



A1 DETAIL: DRAIN SCUPPER WITH CONDUCTOR HEAD

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'



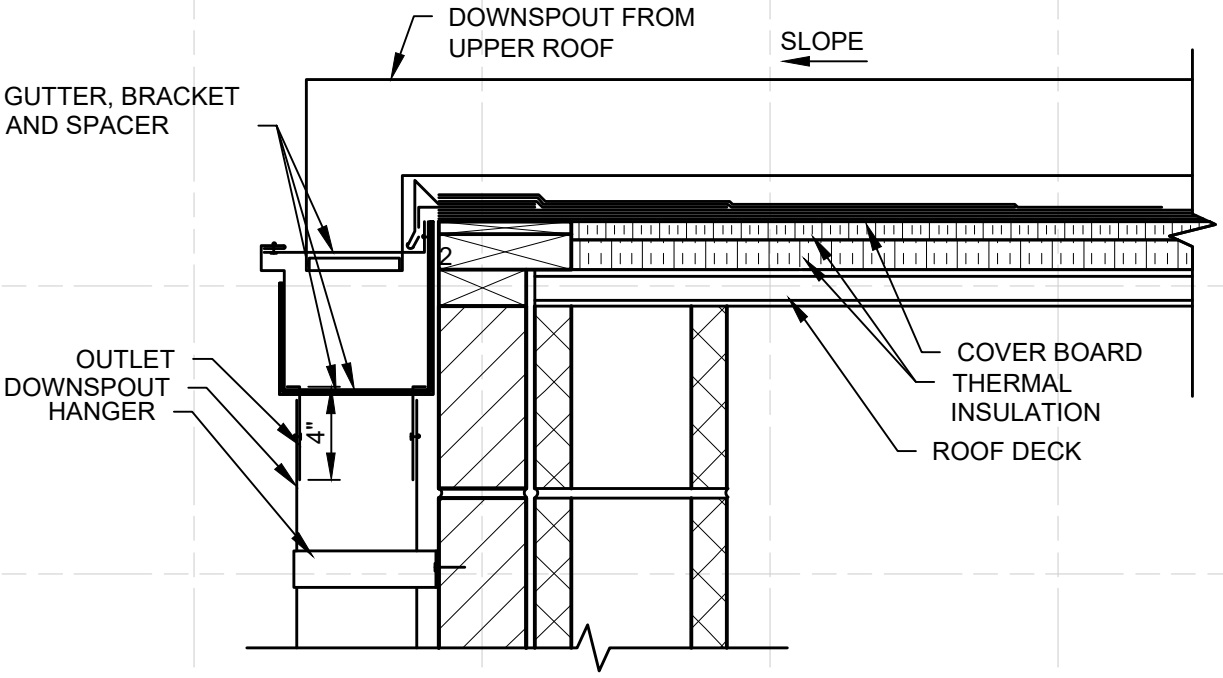
A1

DETAIL: OVERFLOW DRAIN SCUPPER

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

Detail B3010A-DT222X



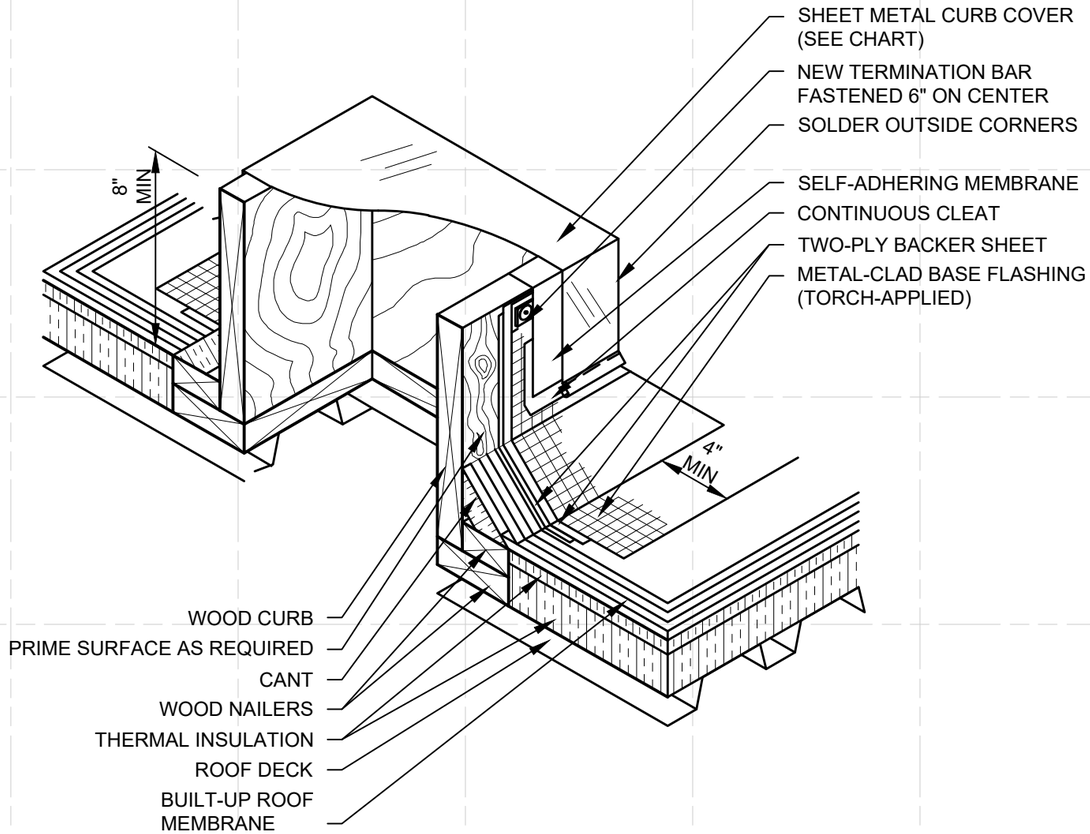
A1

DETAIL: GUTTER/DOWNSPOUT DETAIL

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

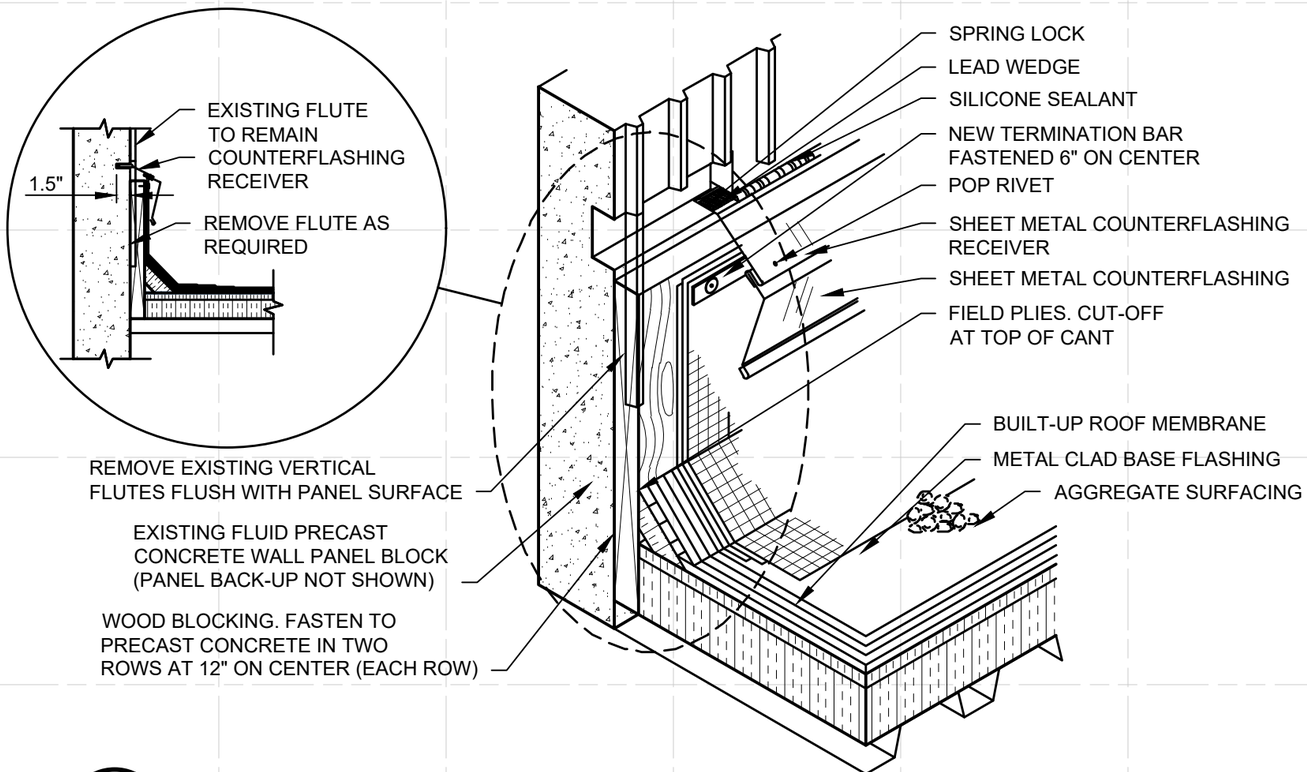
Detail B3010A-DT223X



GAUGE METAL
UP TO 18" SQUARE: 22 GA
OVER 18" SQUARE: 18 GA

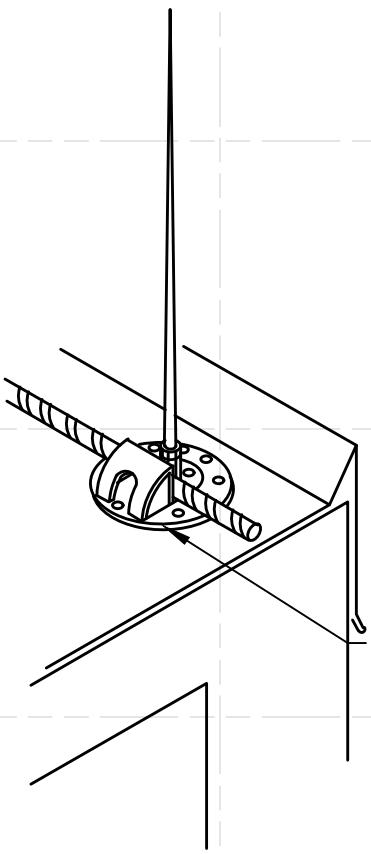
A1 DETAIL: CURB COVER

SCALE: NTS



A1 DETAIL: FLUTED PRECAST CONCRETE WALL PANEL

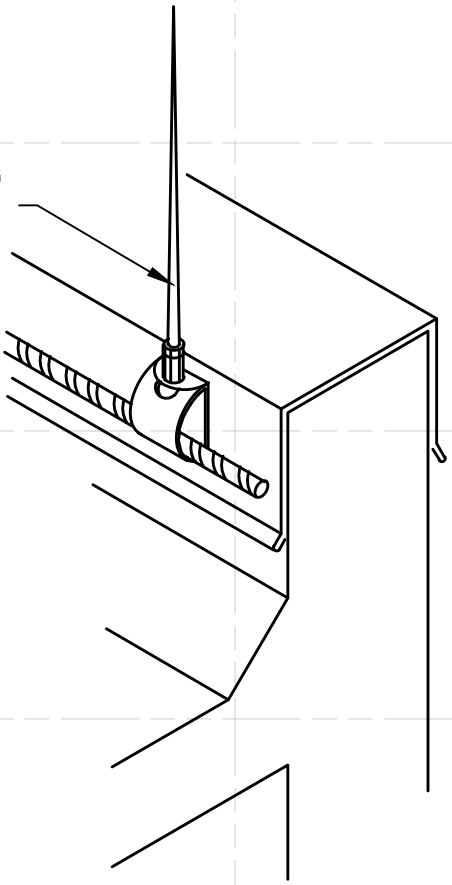
SCALE: NTS



TYPICAL ROOF-MOUNTED AIR TERMINAL COMPONENTS SECURED BY SPECIAL ADHESIVE TO BUILT-UP ROOF

BUR-026A
(EAVE CONDITION)

TYPICAL PARAPET AIR TERMINAL SECURED BY BOLTS AND ANCHORS OR SCREWS DEPENDING ON PARAPET DESIGN



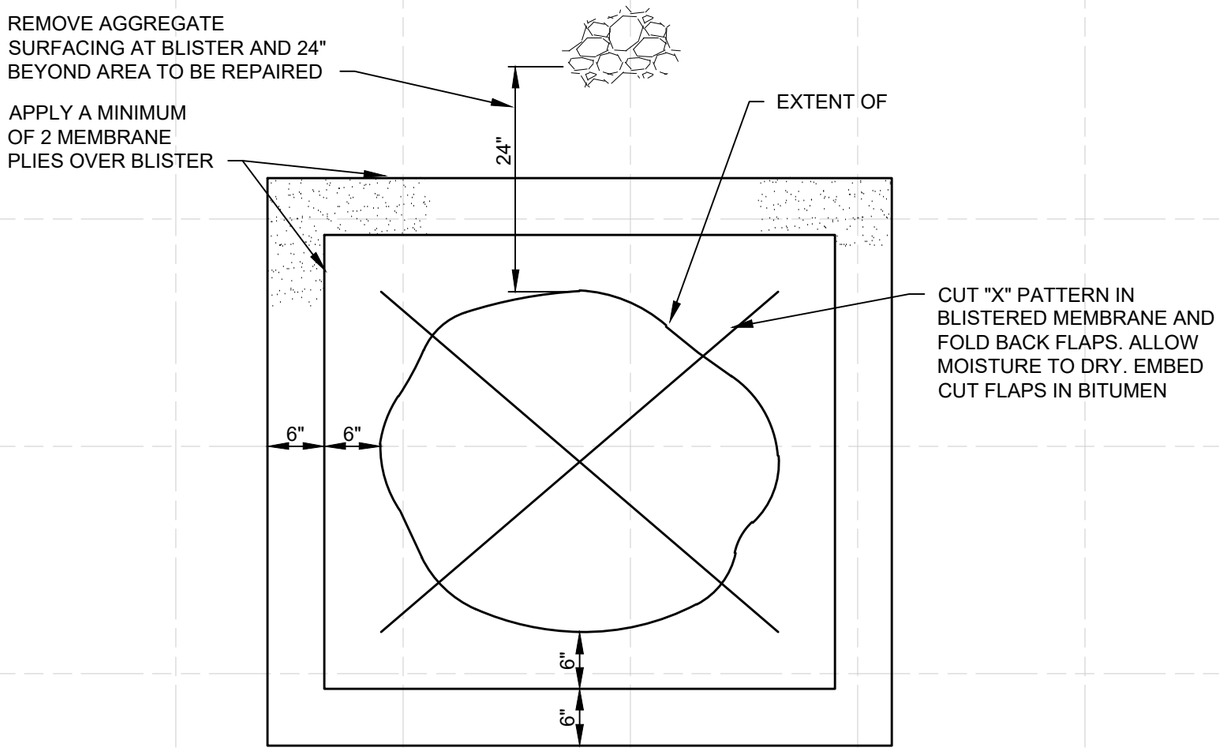
BUR-026B
(PARAPET CONDITION)

NOTE:
ROOFING, FLASHINGS, ETC. NOT SHOWN FOR CLARITY

DETAIL: TYPICAL LIGHTING PROTECTION AIR TERMINAL MOUNTS

A1

SCALE: NTS

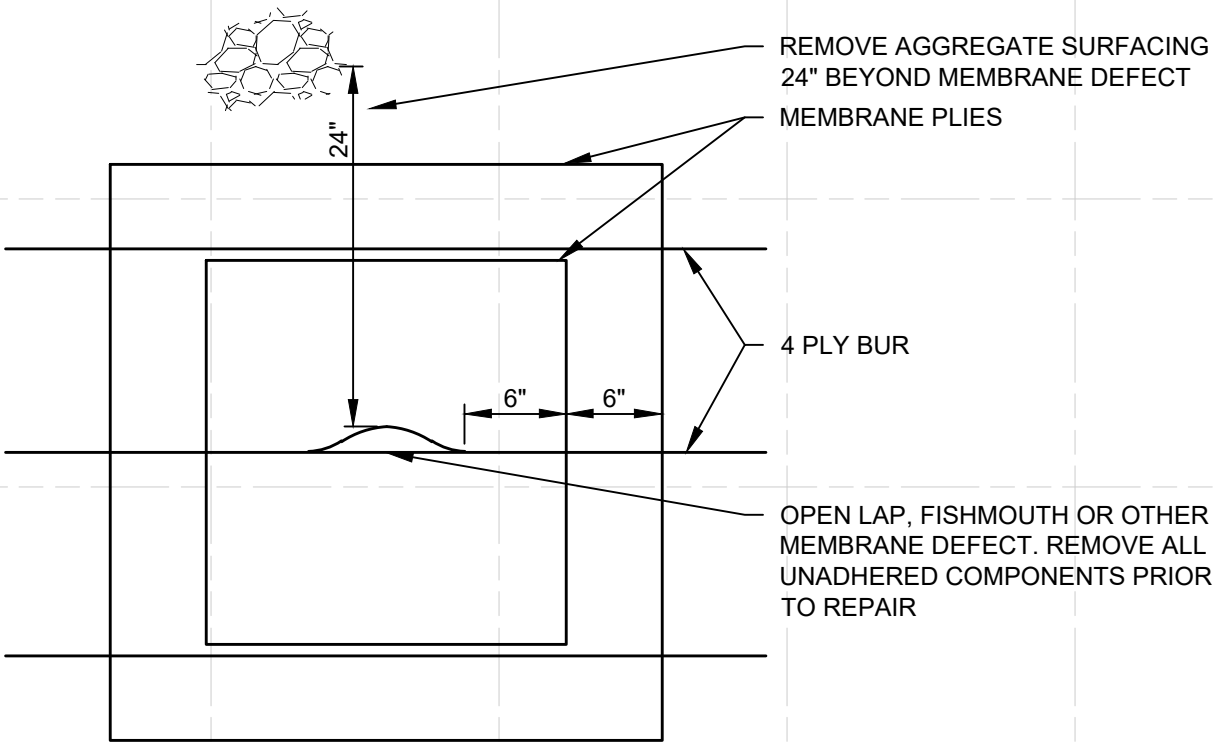


A1 DETAIL: BLISTER REPAIR

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

Detail B3010A-DT227P



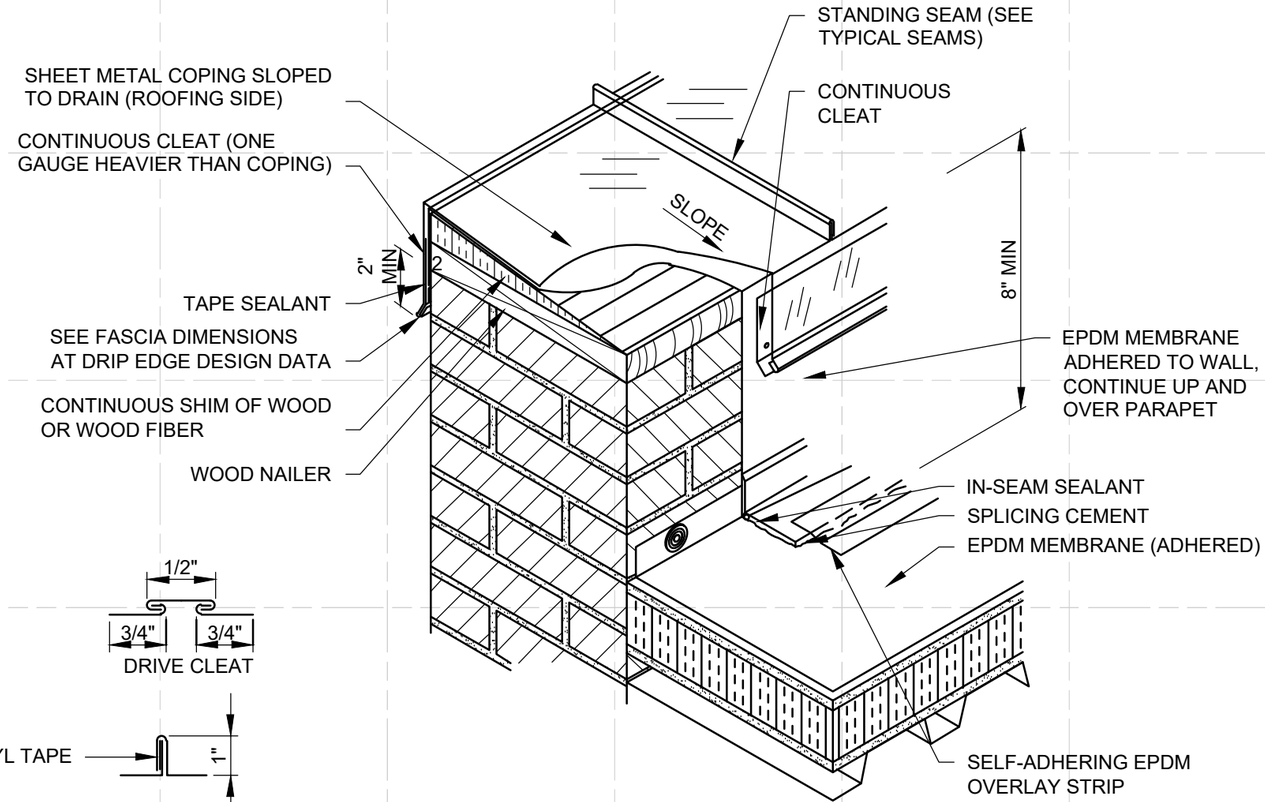
A1

DETAIL: ISOLATED DEFECT REPAIR

SCALE: 1 1/2"=1'-0"

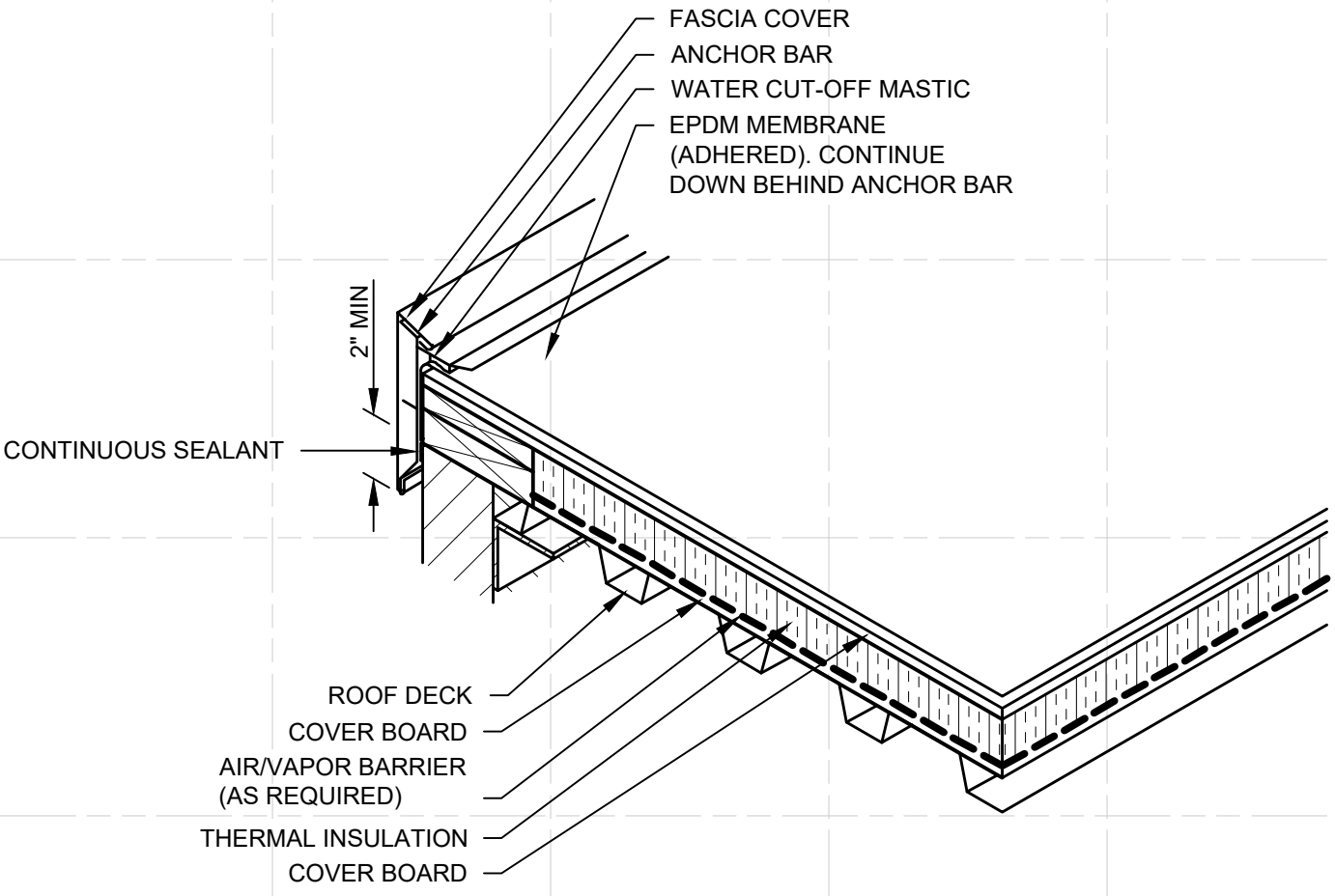
0 6" 1' 2'

Detail B3010A-DT228P



A1 DETAIL: METAL COPING CAP AND BASE FLASHING

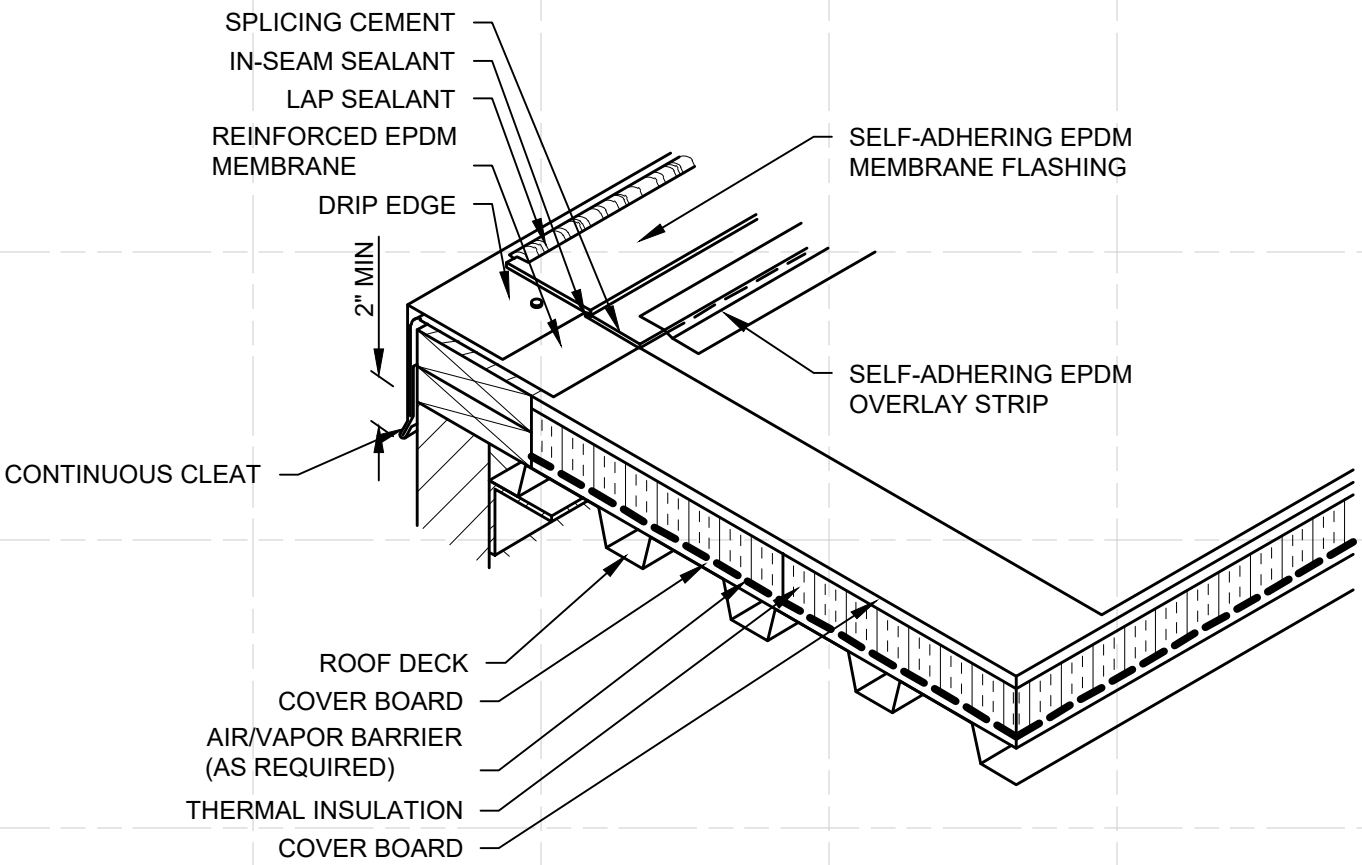
SCALE: NTS



A1

DETAIL: PRE-ENGINEERED EDGE FLASHING

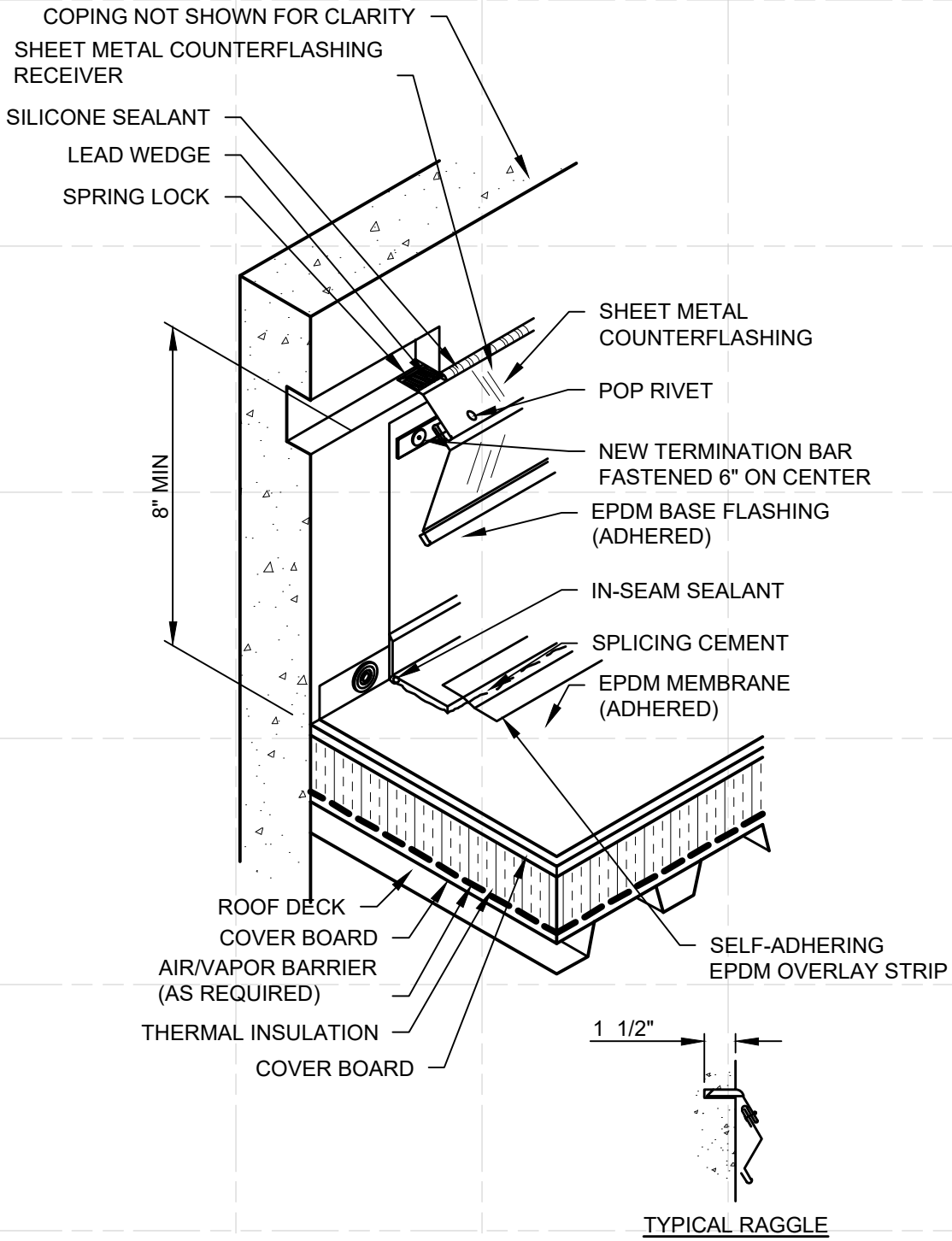
SCALE: NTS



A1

DETAIL: PRE-ENGINEERED EDGE FASCIA

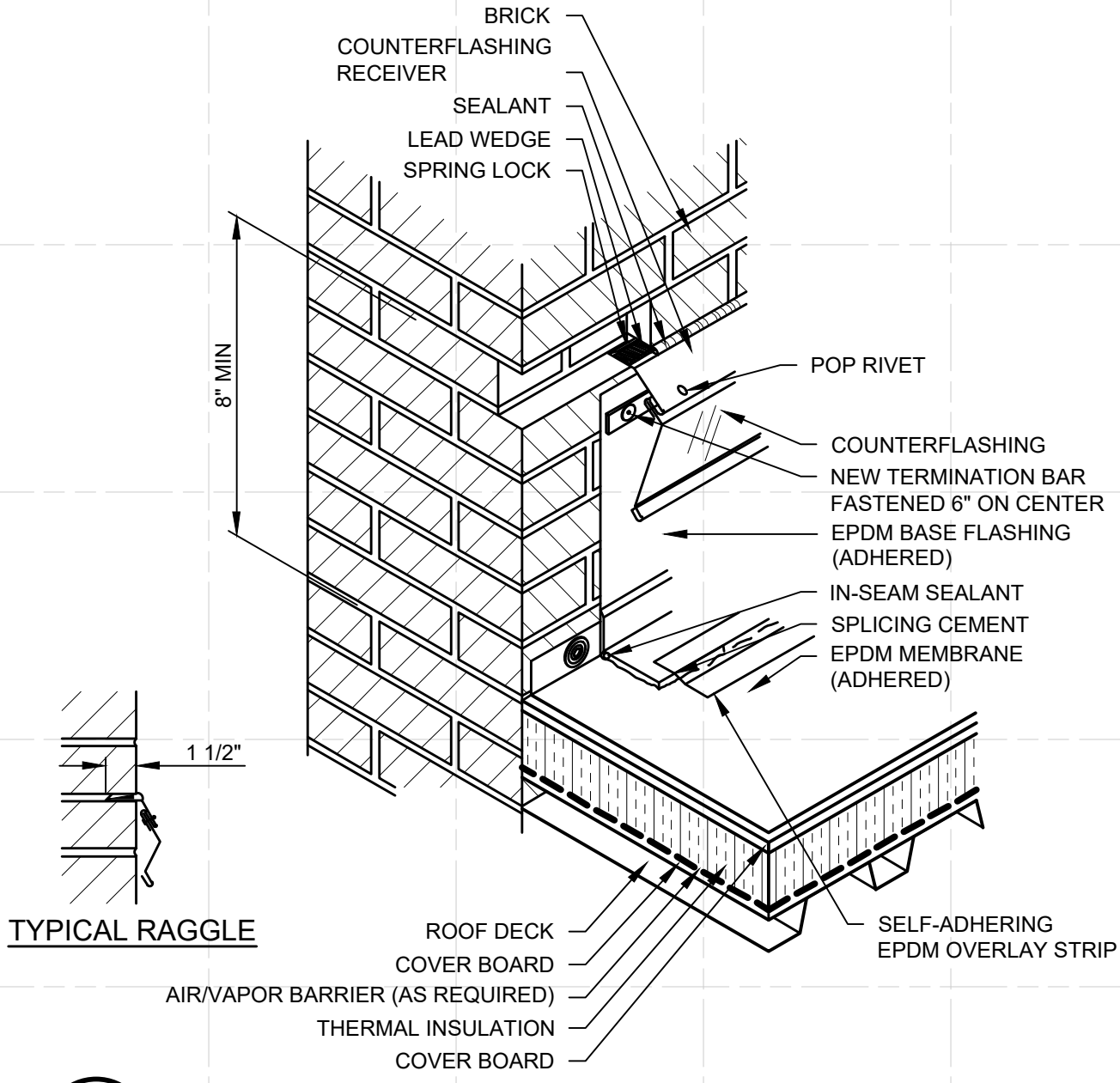
SCALE: NTS



DETAIL: COUNTERFLASHING IN SAWED REGLET

A1

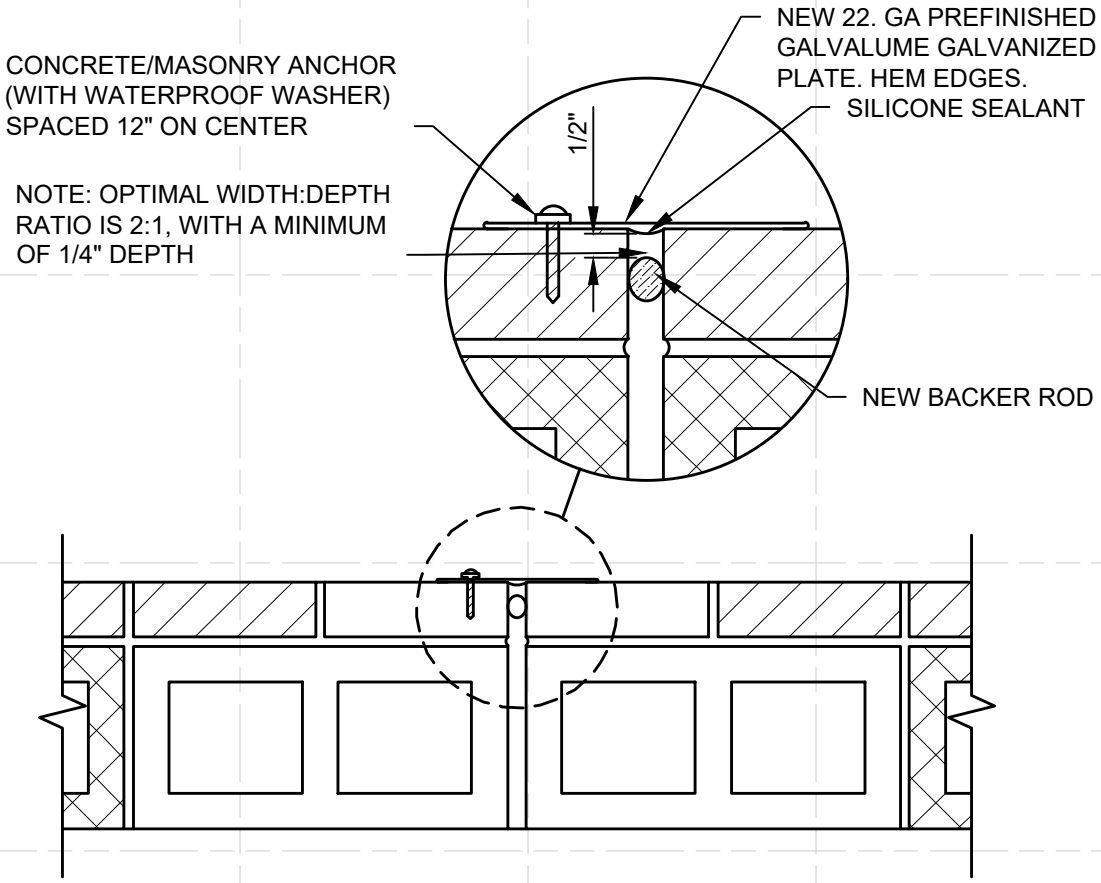
SCALE: NTS



A1

DETAIL: COUNTERFLASHING IN RAGGLE

SCALE: NTS



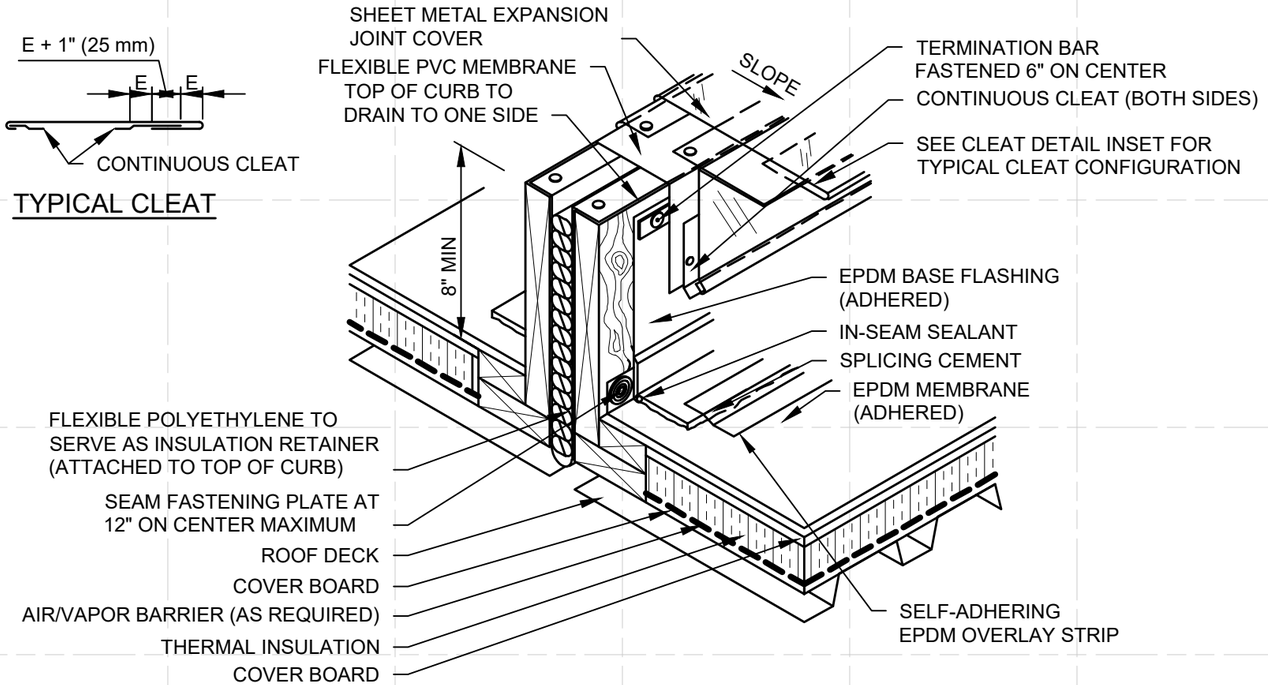
DETAIL: WALL EXPANSION JOINT PLAN

A1

SCALE: 1 1/2"=1'-0" 0 6" 1' 2'

Detail B3010A-DT306P

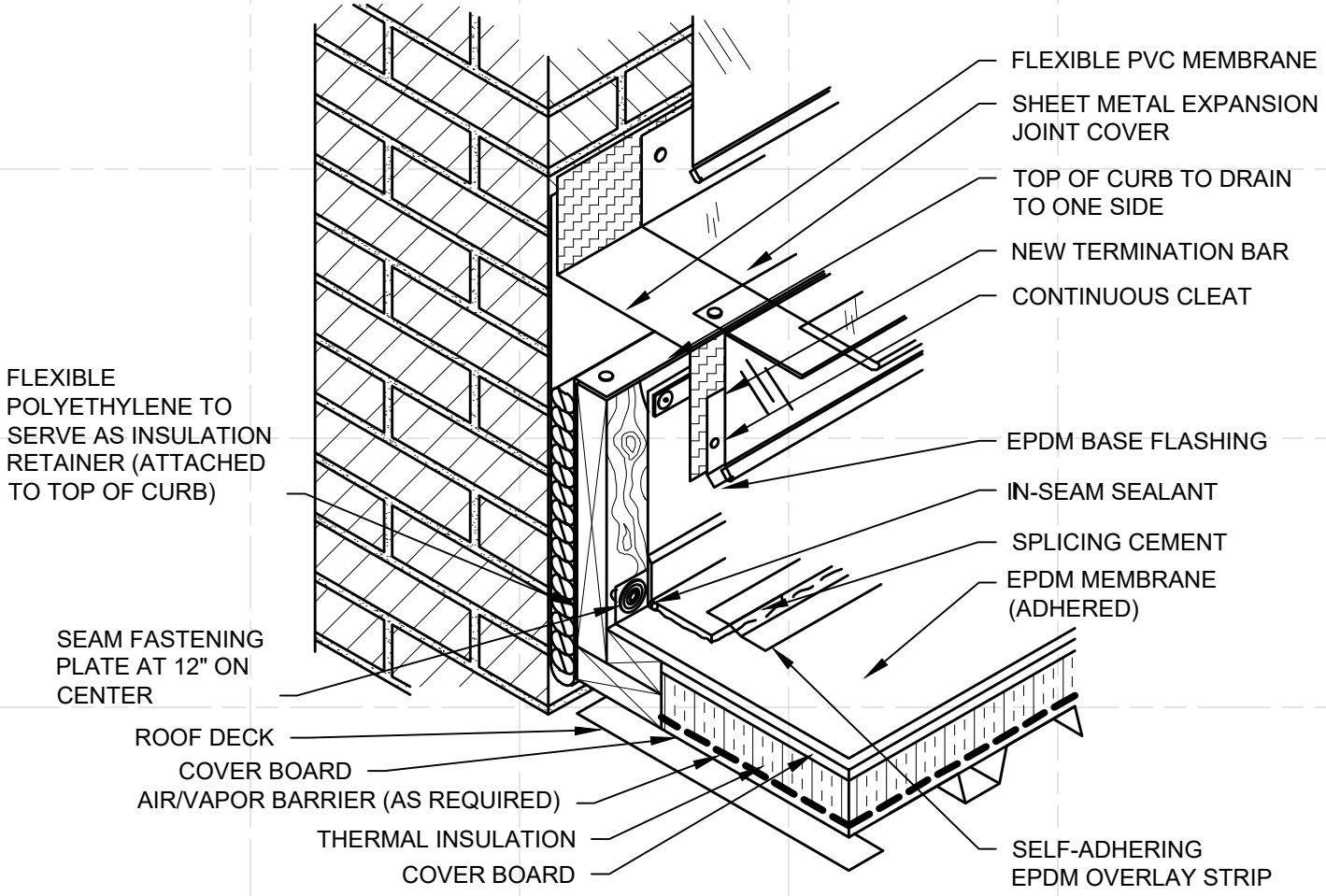
TYPICAL CLEAT



DETAIL: ROOF-TO-ROOF EXPANSION JOINT WITH SHOP-FORMED METAL COVER

A1

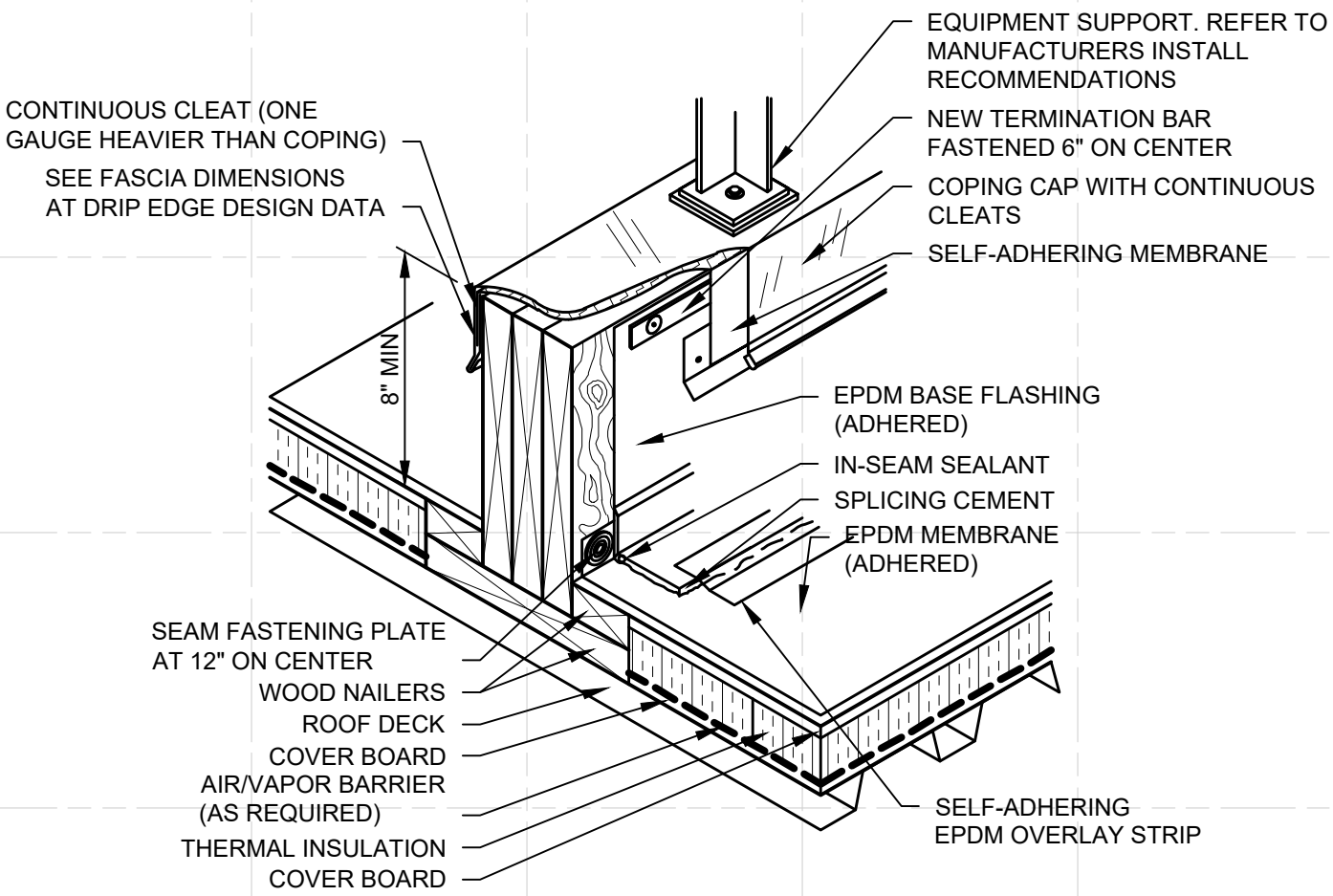
SCALE: NTS



DETAIL: ROOF-TO-WALL EXPANSION JOINT WITH SHOP-FORMED METAL COVER

A1

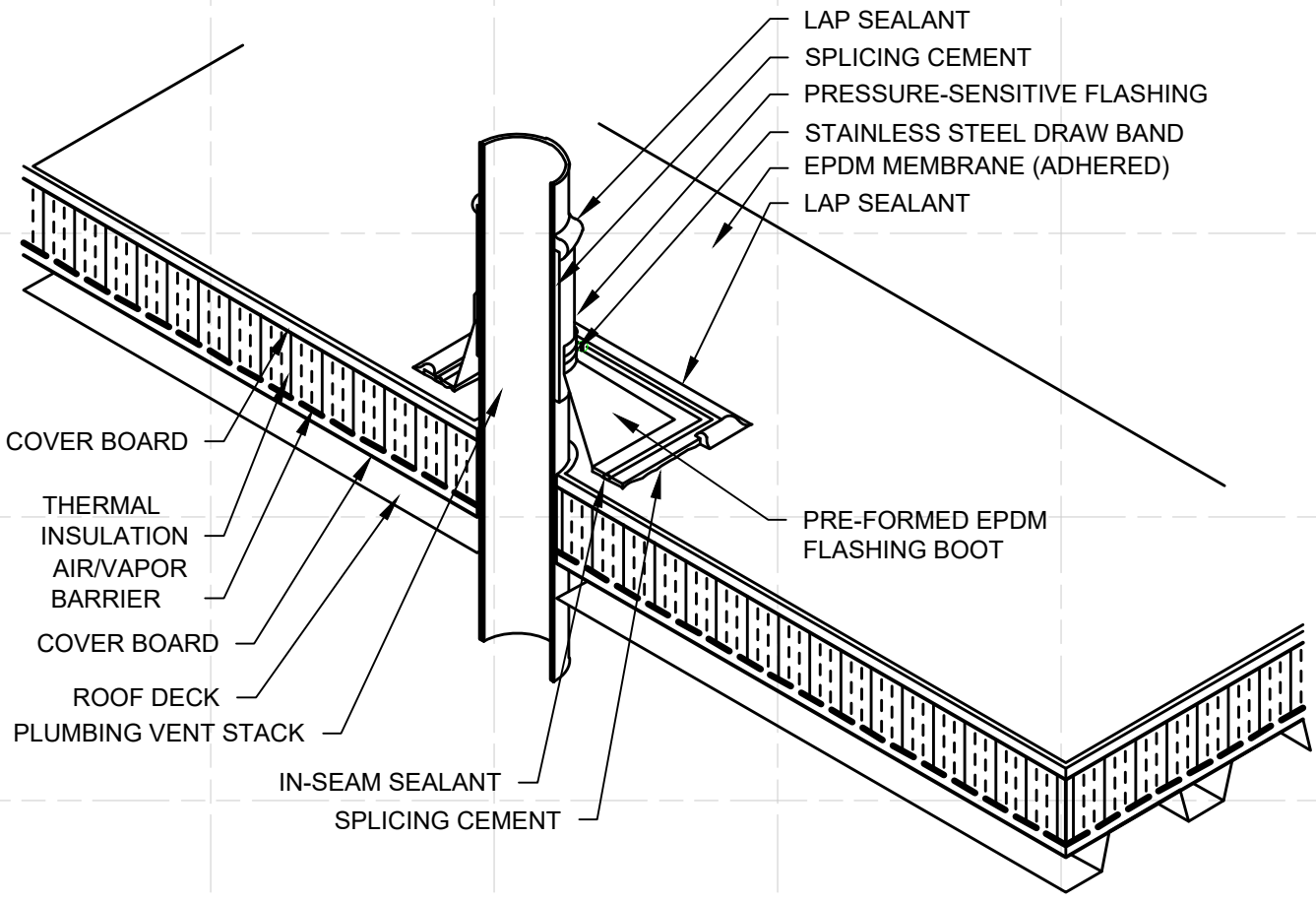
SCALE: NTS



A1

DETAIL: EQUIPMENT CURB SUPPORT

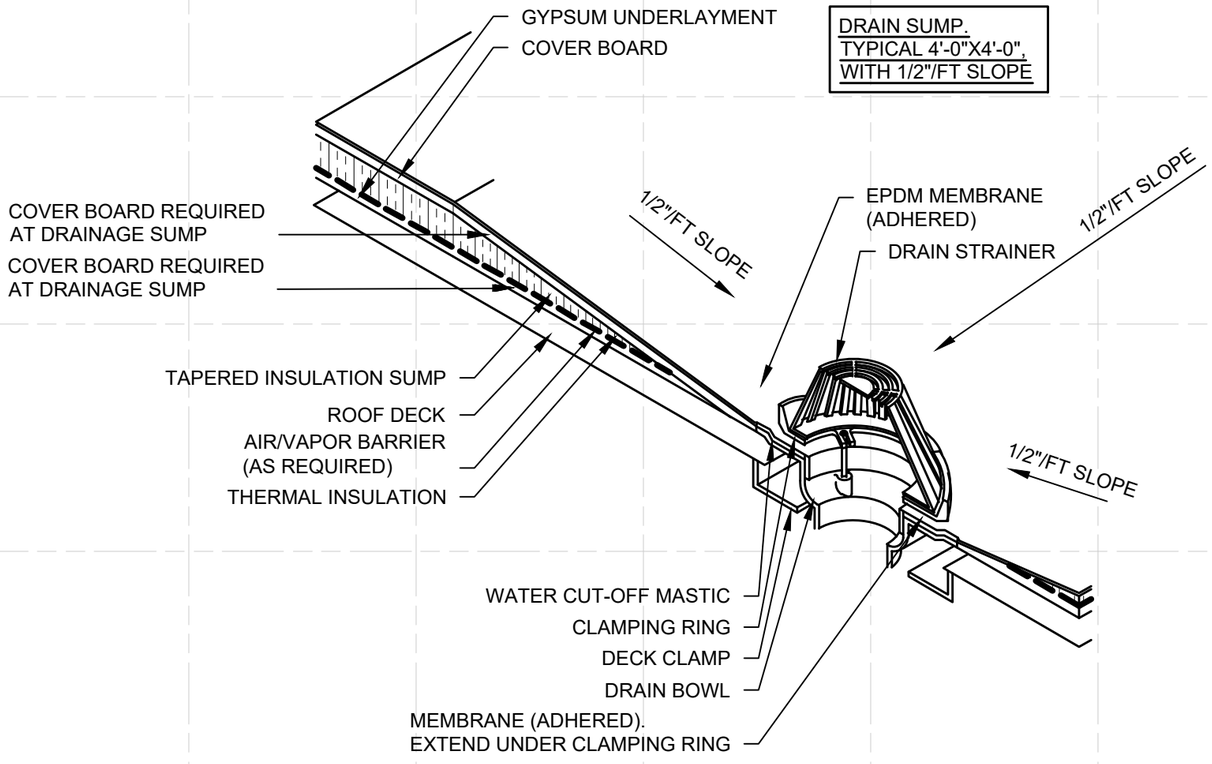
SCALE: NTS



A1

DETAIL: PLUMBING VENT

SCALE: NTS

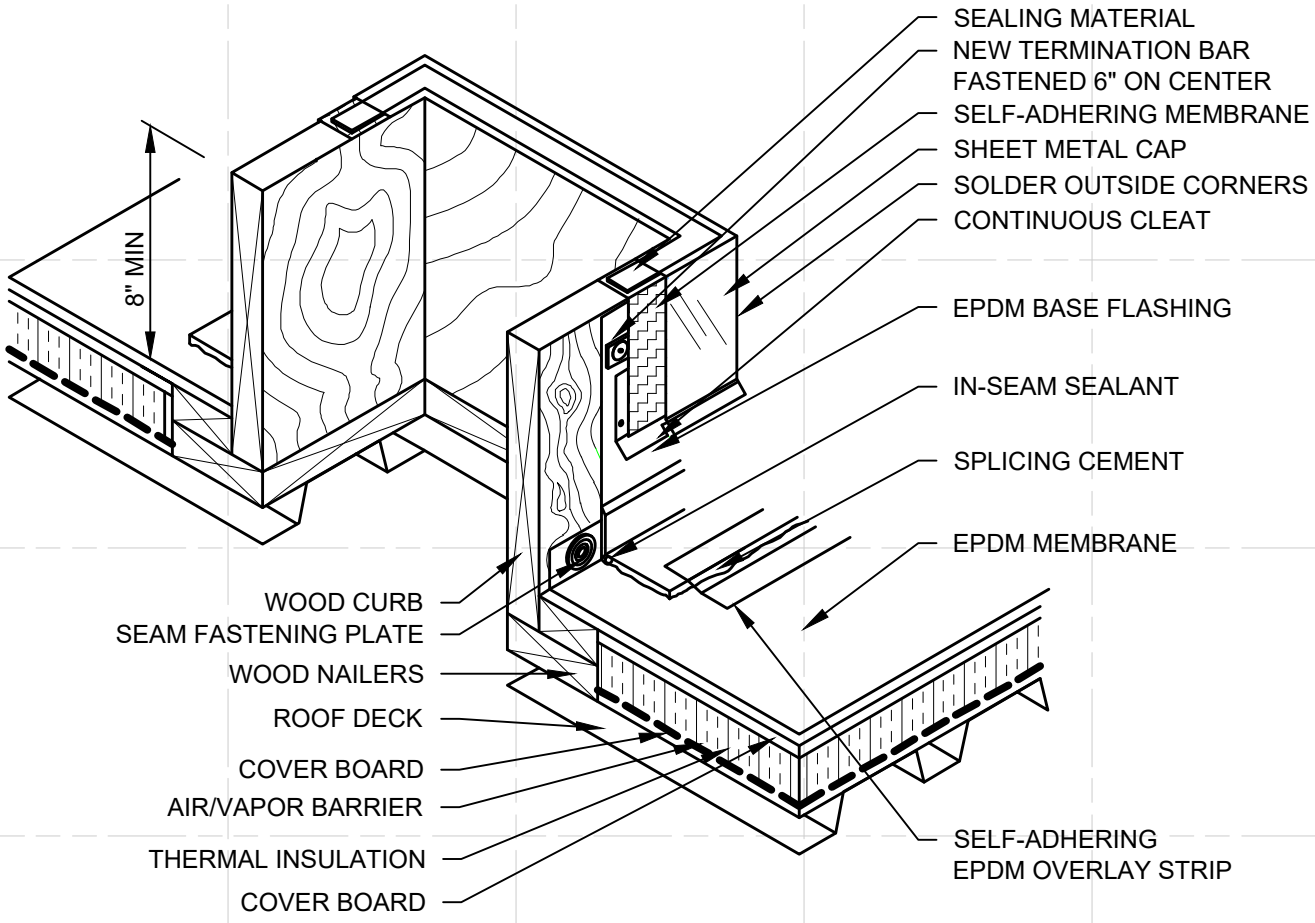


DRAIN SUMP.
TYPICAL 4'-0"X4'-0",
WITH 1/2"/FT SLOPE

NOTE:
FIELD SPLICES MUST BE LOCATED 6" OUTSIDE DRAIN SUMP

A1 DETAIL: ROOF DRAIN

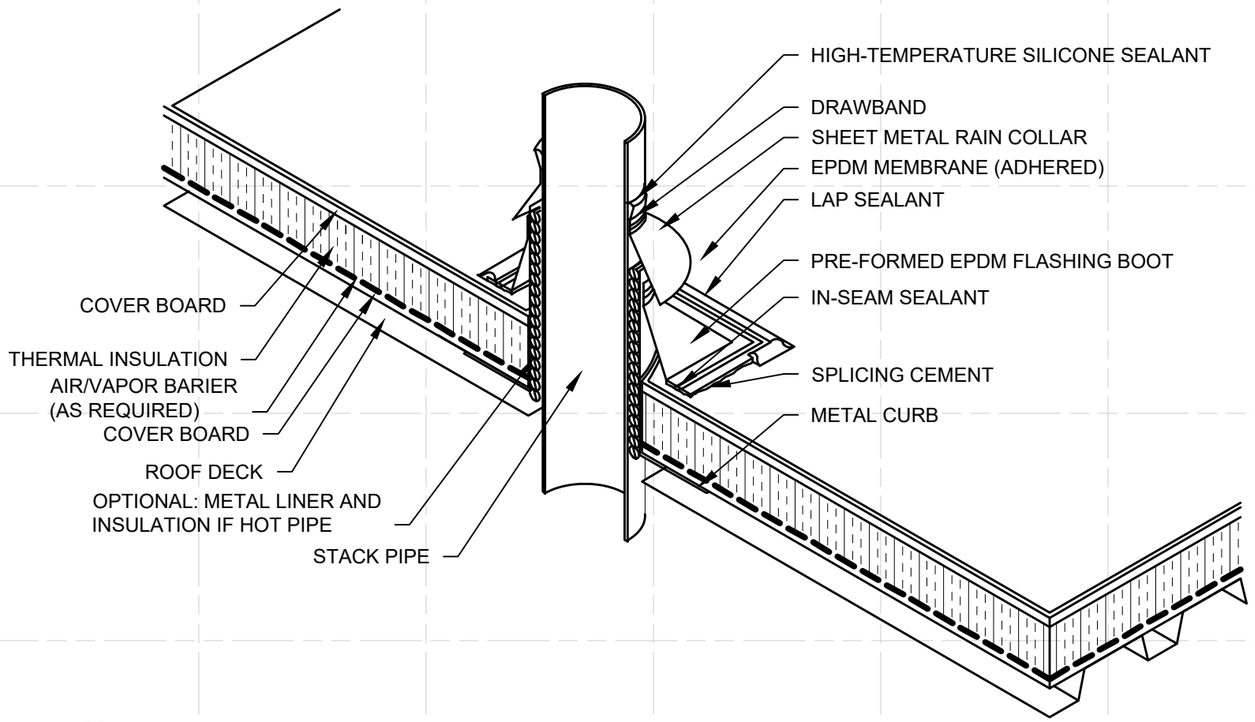
SCALE: NTS



A1

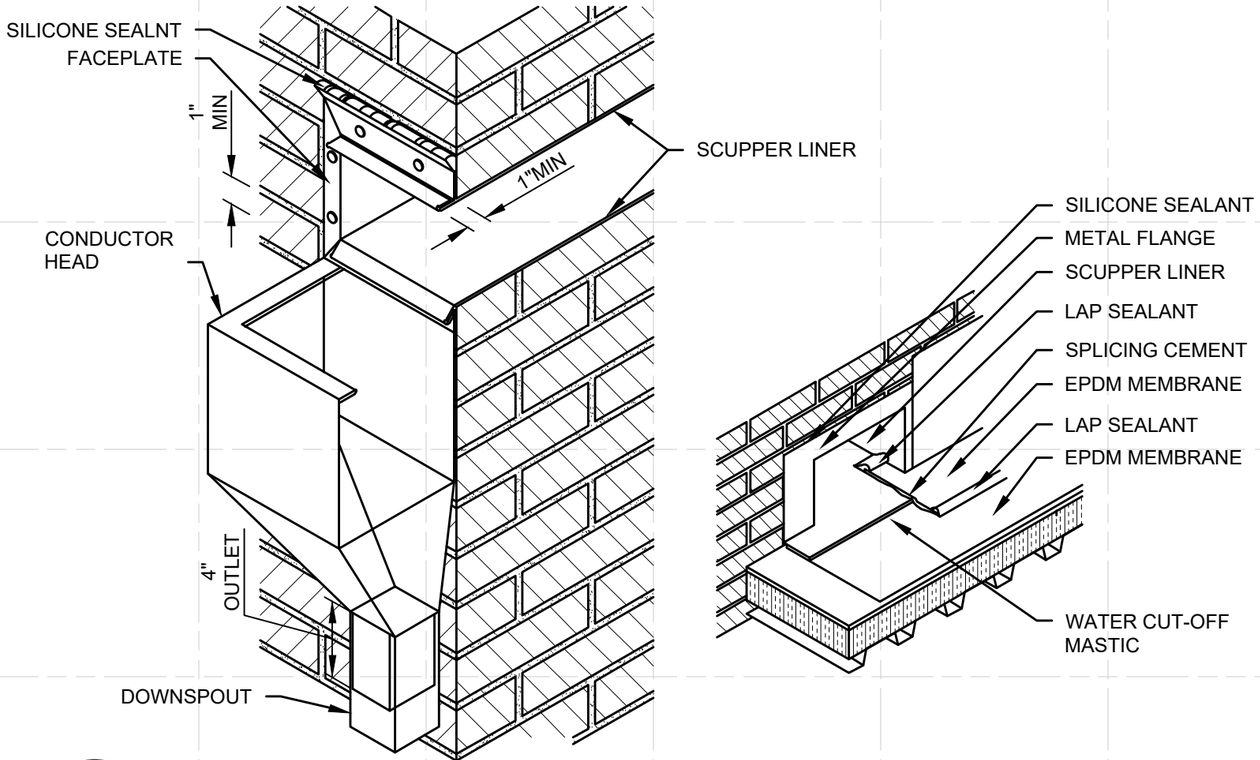
DETAIL: CURB PENETRATION

SCALE: NTS



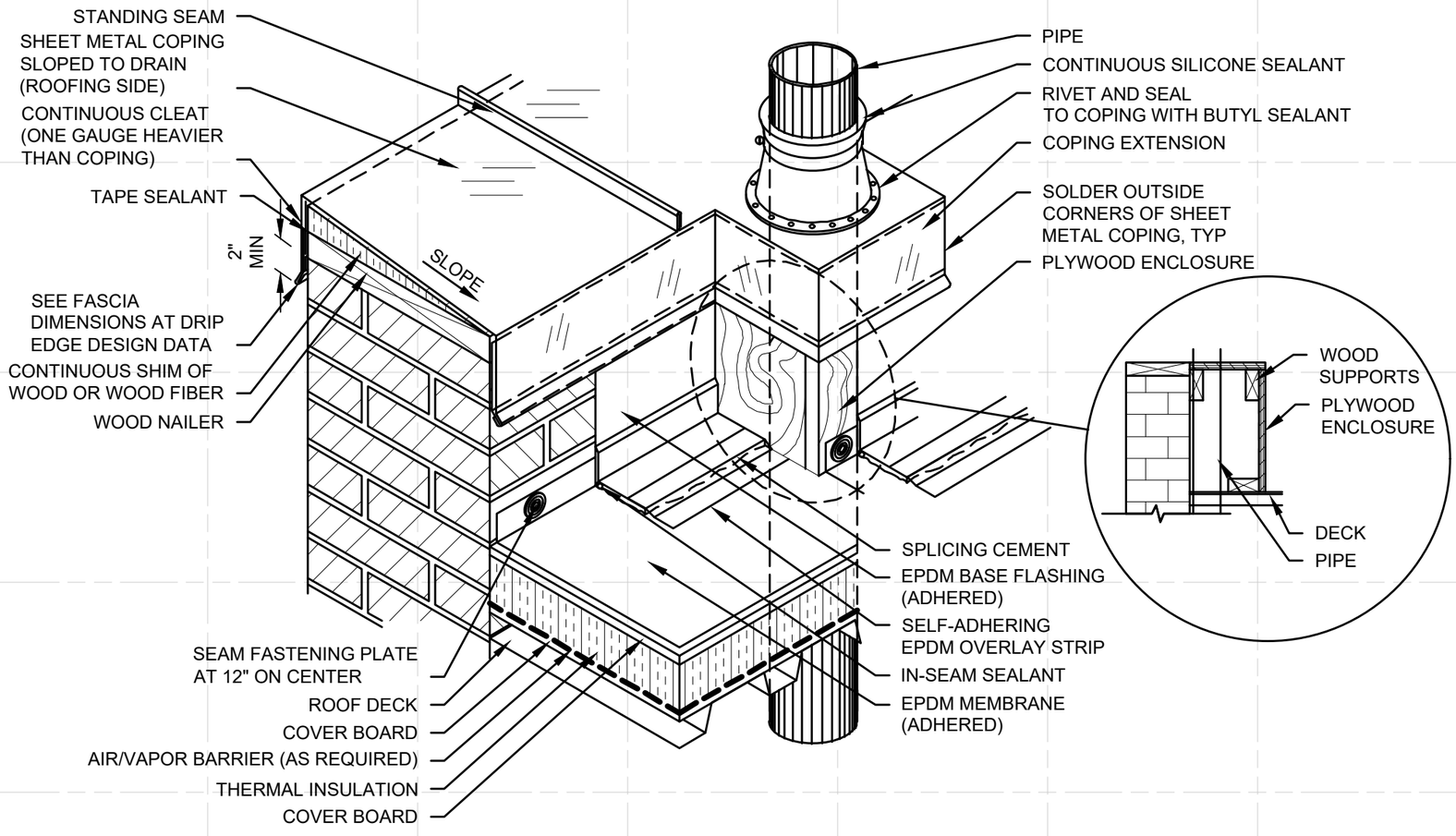
A1 DETAIL: STACK PIPE

SCALE: NTS



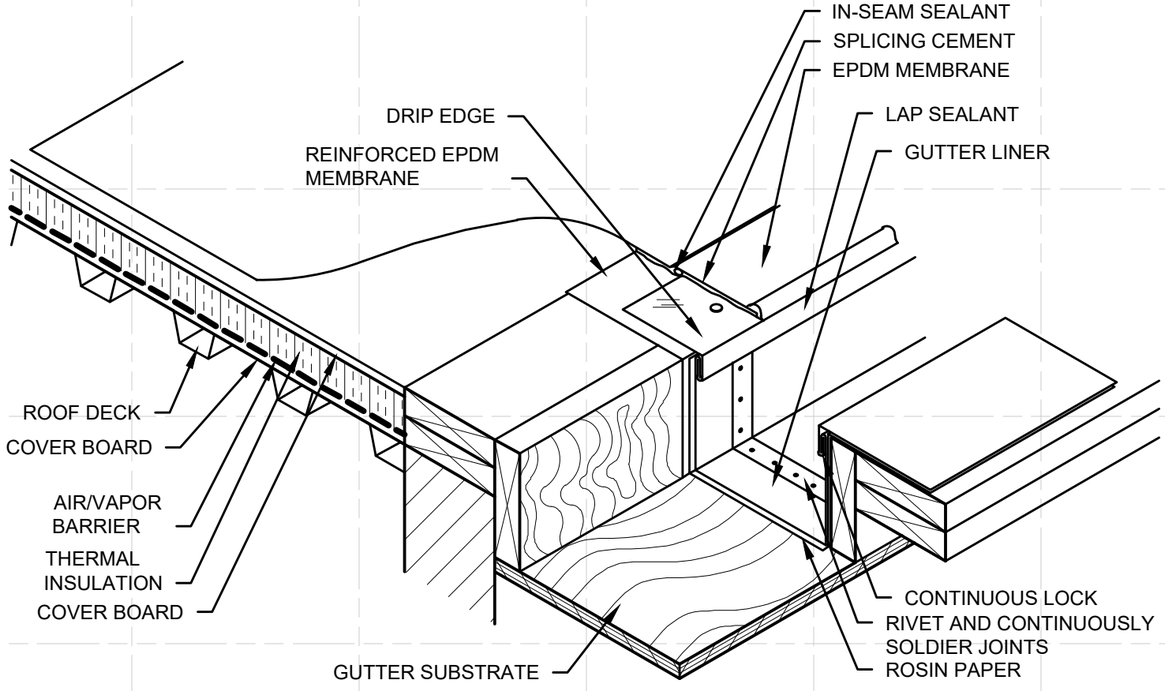
A1 DETAIL: DRAIN SCUPPER WITH CONDUCTOR HEAD

SCALE: NTS



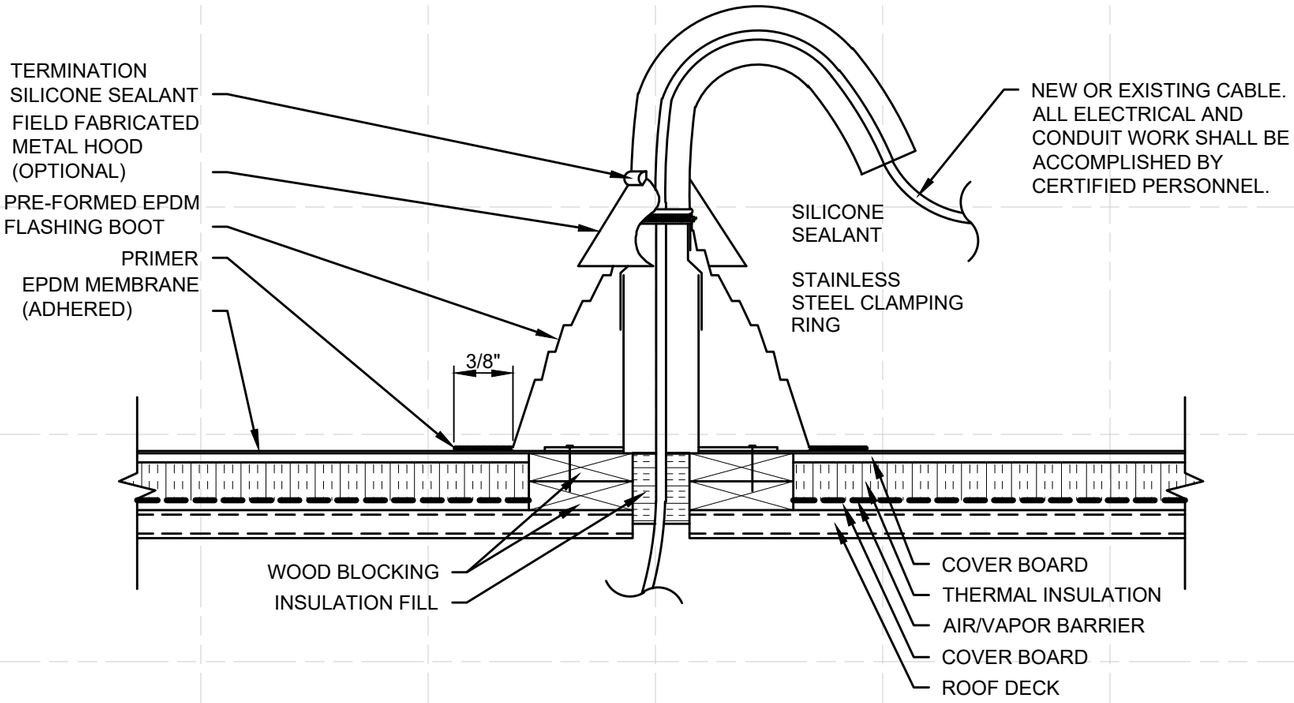
A1 DETAIL: PIPE ADJACENT TO PARAPET

SCALE: NTS



A1 DETAIL: DRIP EDGE WITH INTERNAL GUTTER

SCALE: NTS

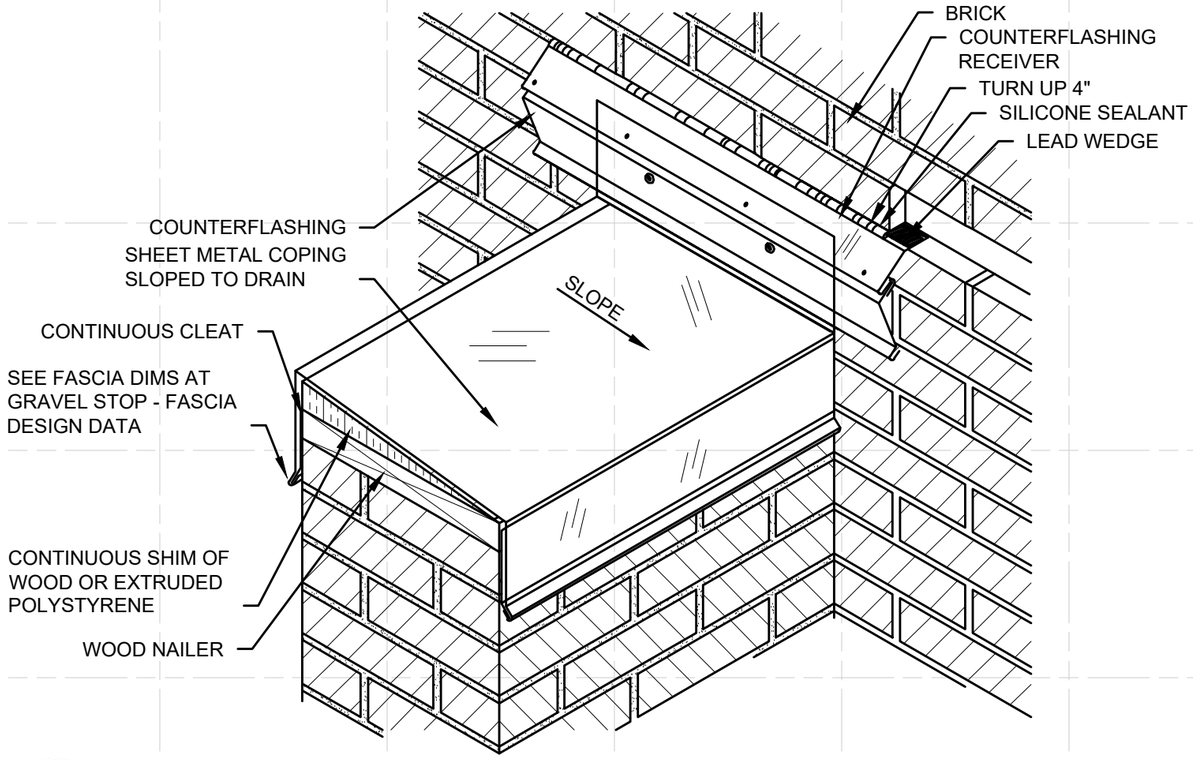


A1 DETAIL: CABLE PENETRATION FLASHING

SCALE: 1 1/2"=1'-0"

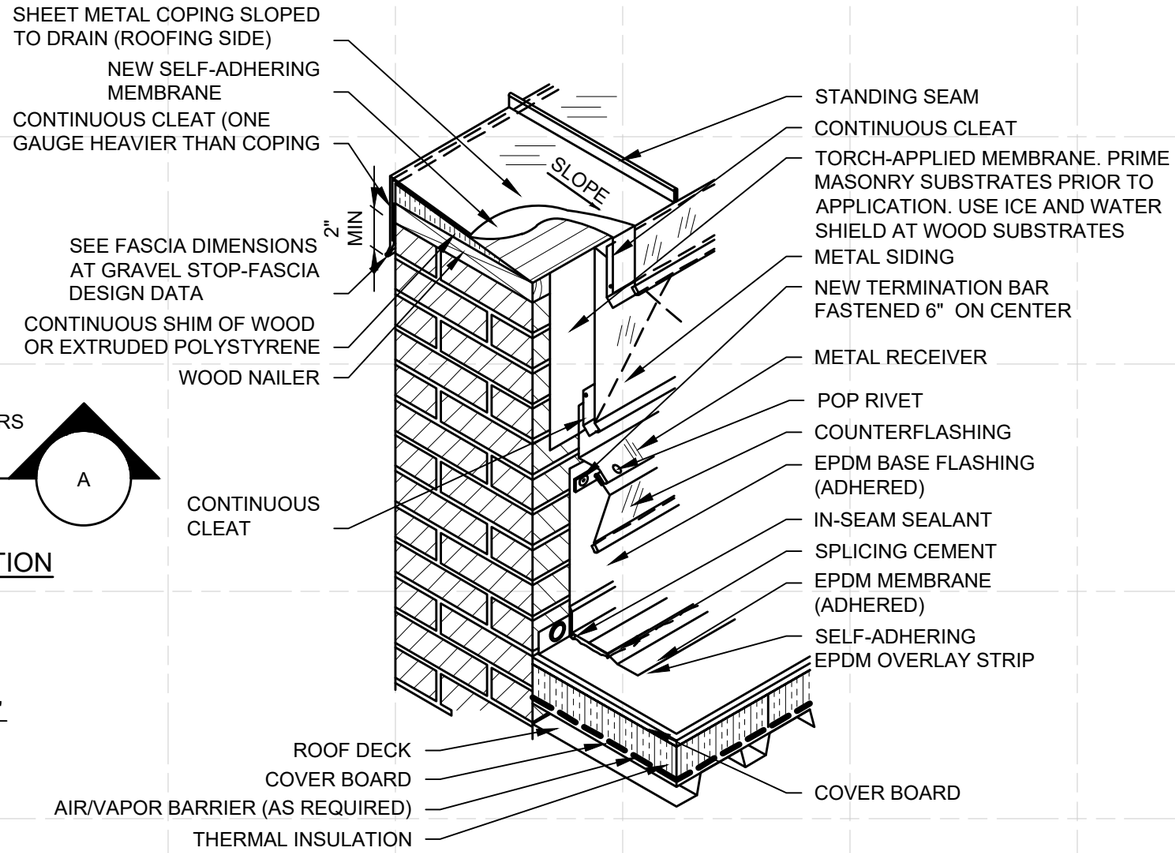
0 6" 1' 2'

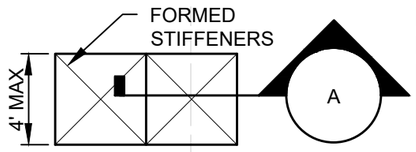
Detail B3010A-DT317X



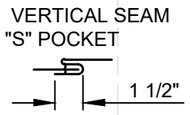
A1 DETAIL: COPING TERMINATION

SCALE: NTS





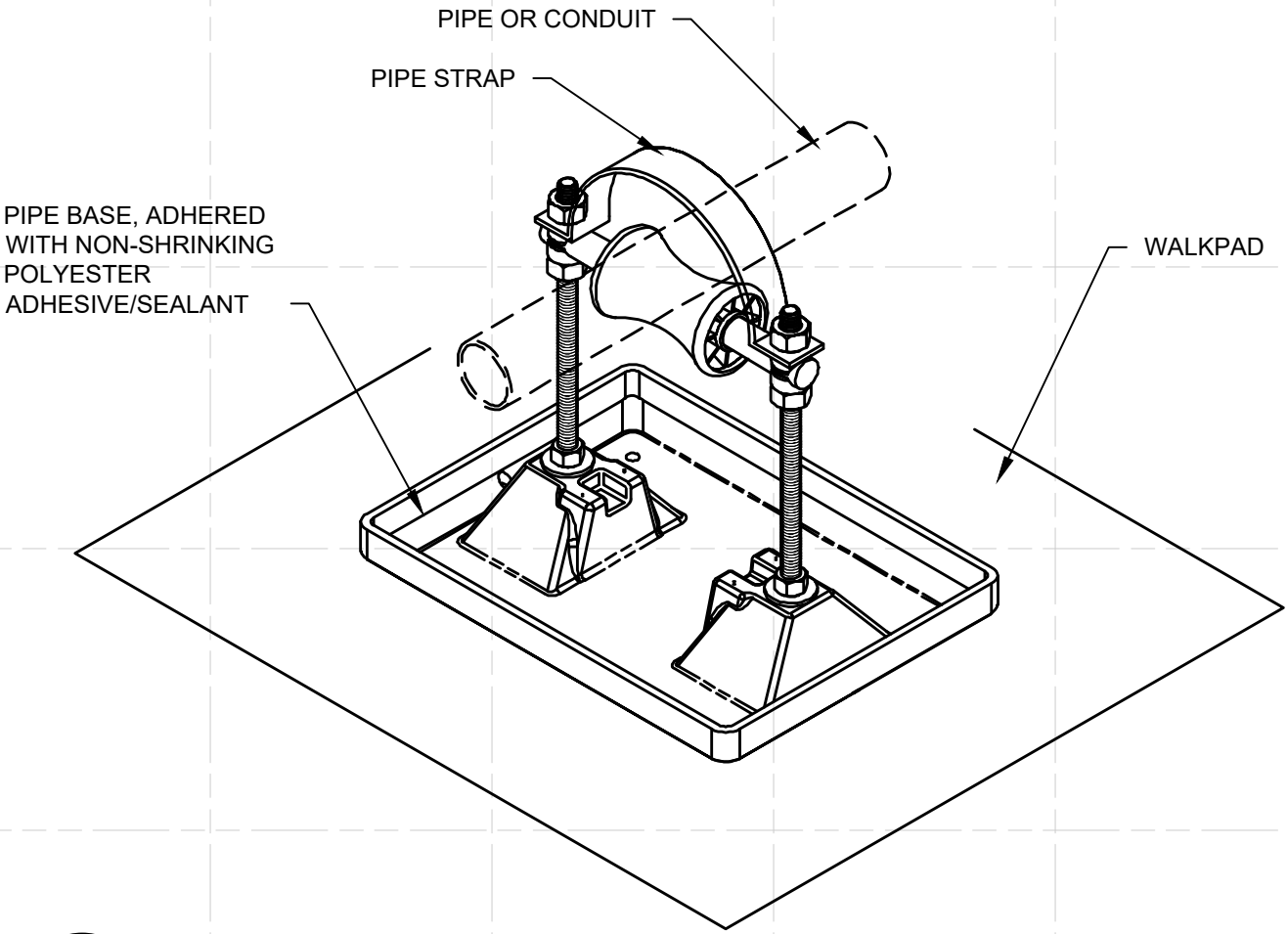
SIDING ELEVATION
(NOT TO SCALE)



SECTION A
(NOT TO SCALE)

A1 DETAIL: METAL SIDING

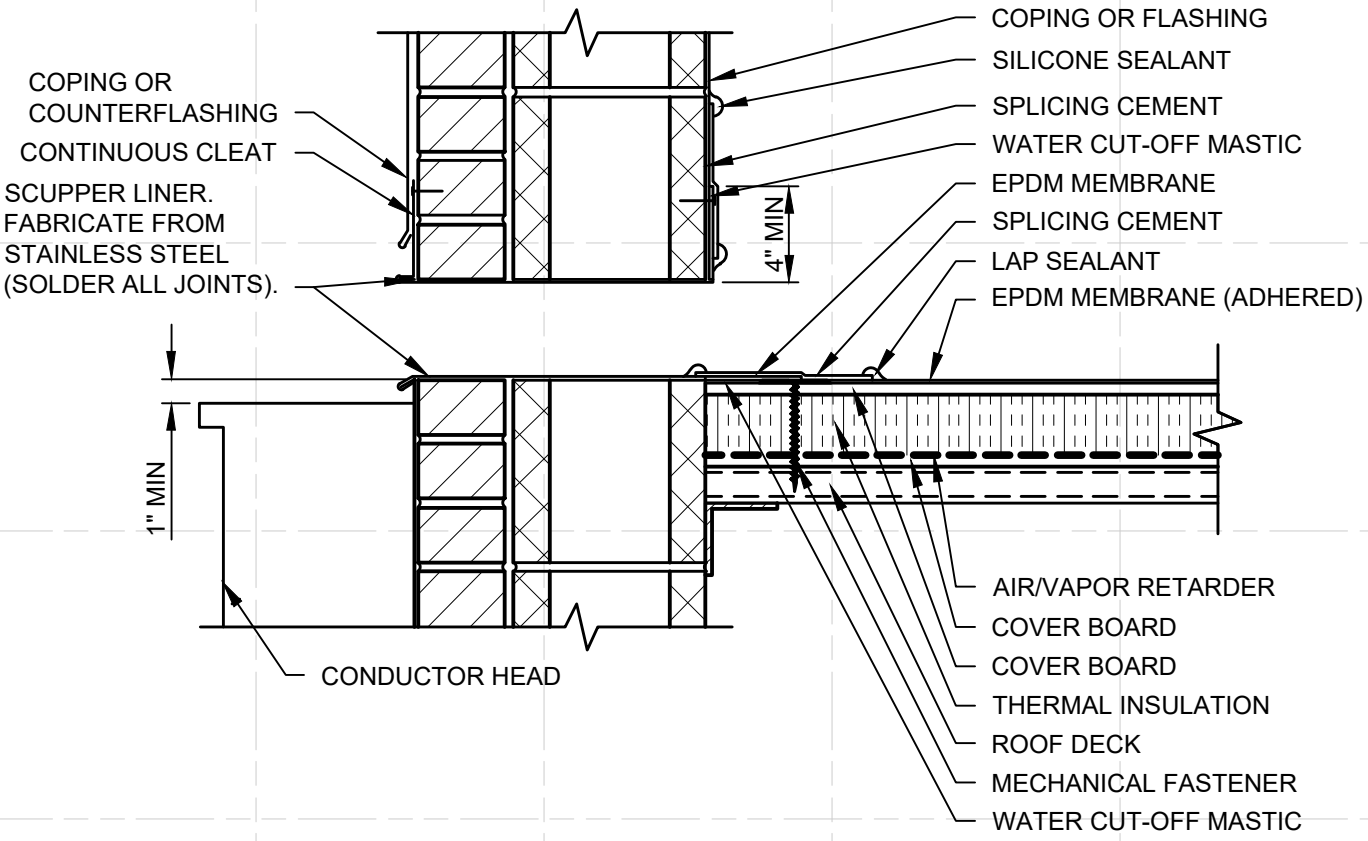
SCALE: NTS



A1

DETAIL: PIPE STAND

SCALE: NTS



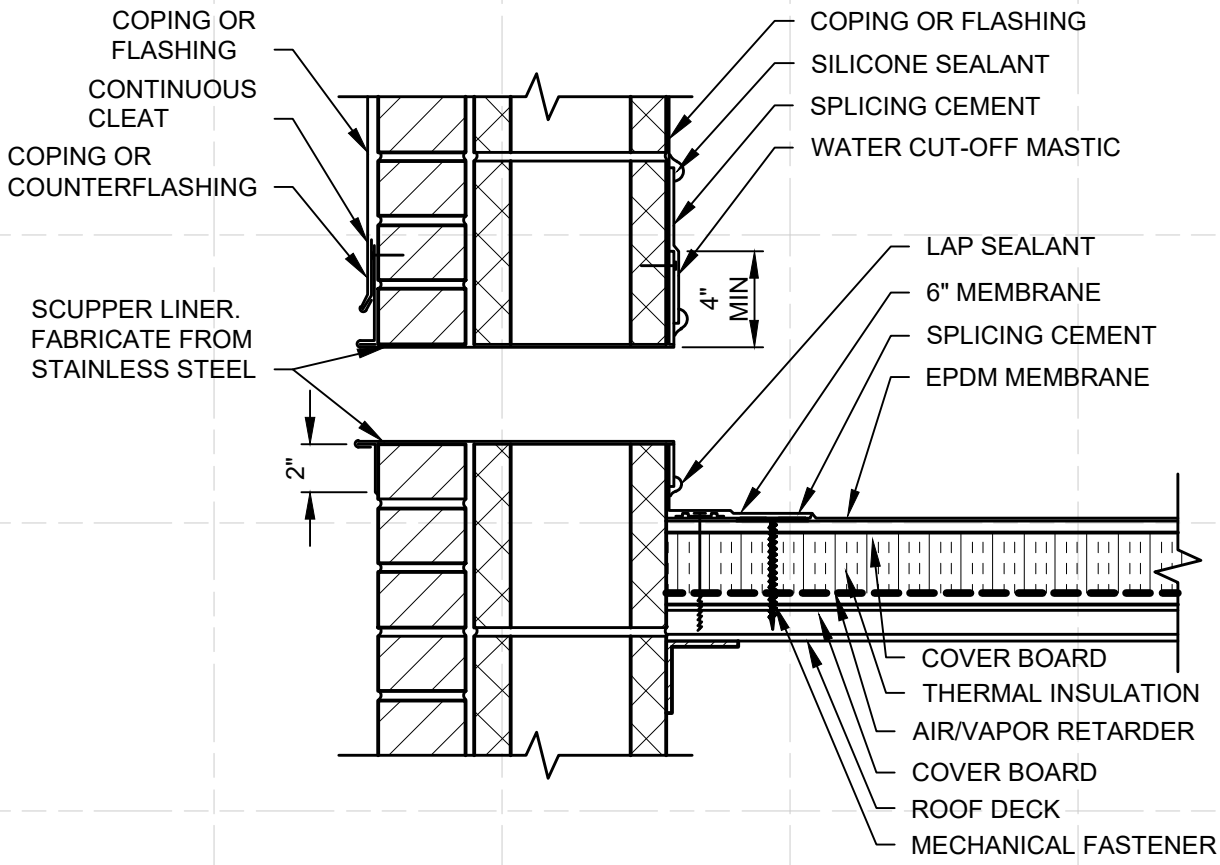
DETAIL: DRAIN SCUPPER WITH CONDUCTOR HEAD (SECTION)

A1

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

Detail B3010A-DT321X



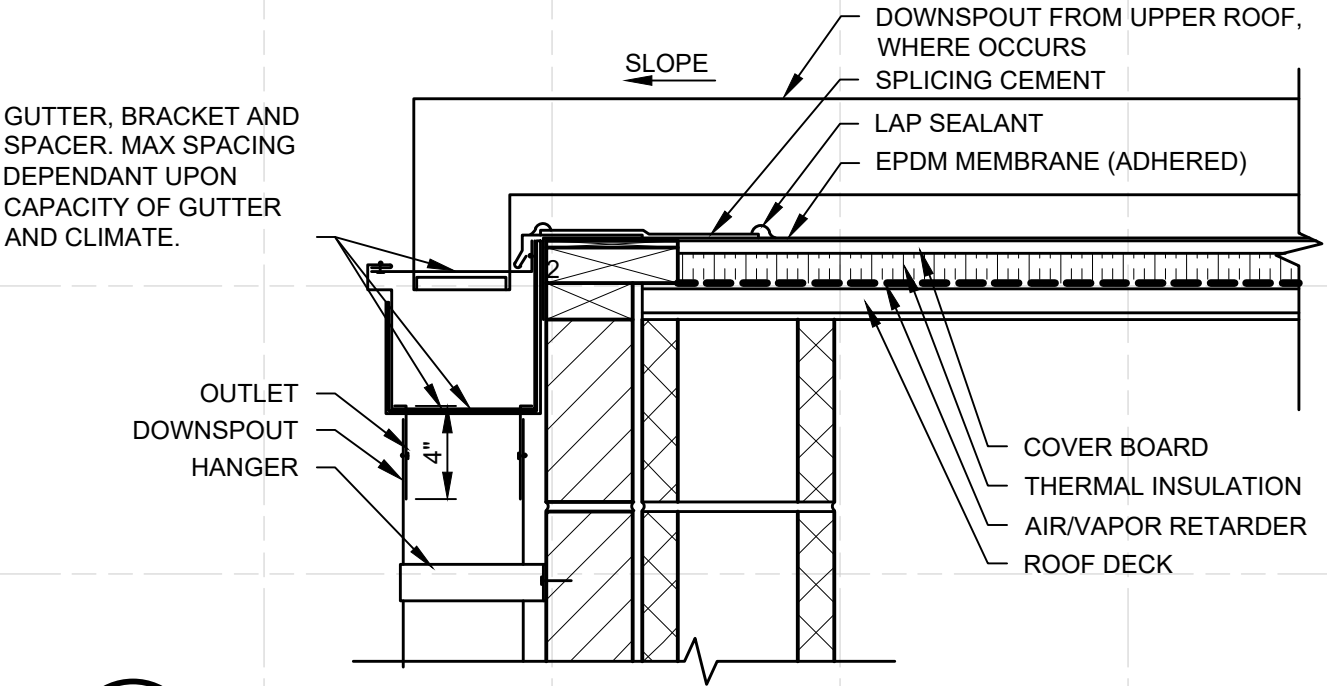
A1

DETAIL: OVERFLOW DRAIN SCUPPER

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

Detail B3010A-DT322X



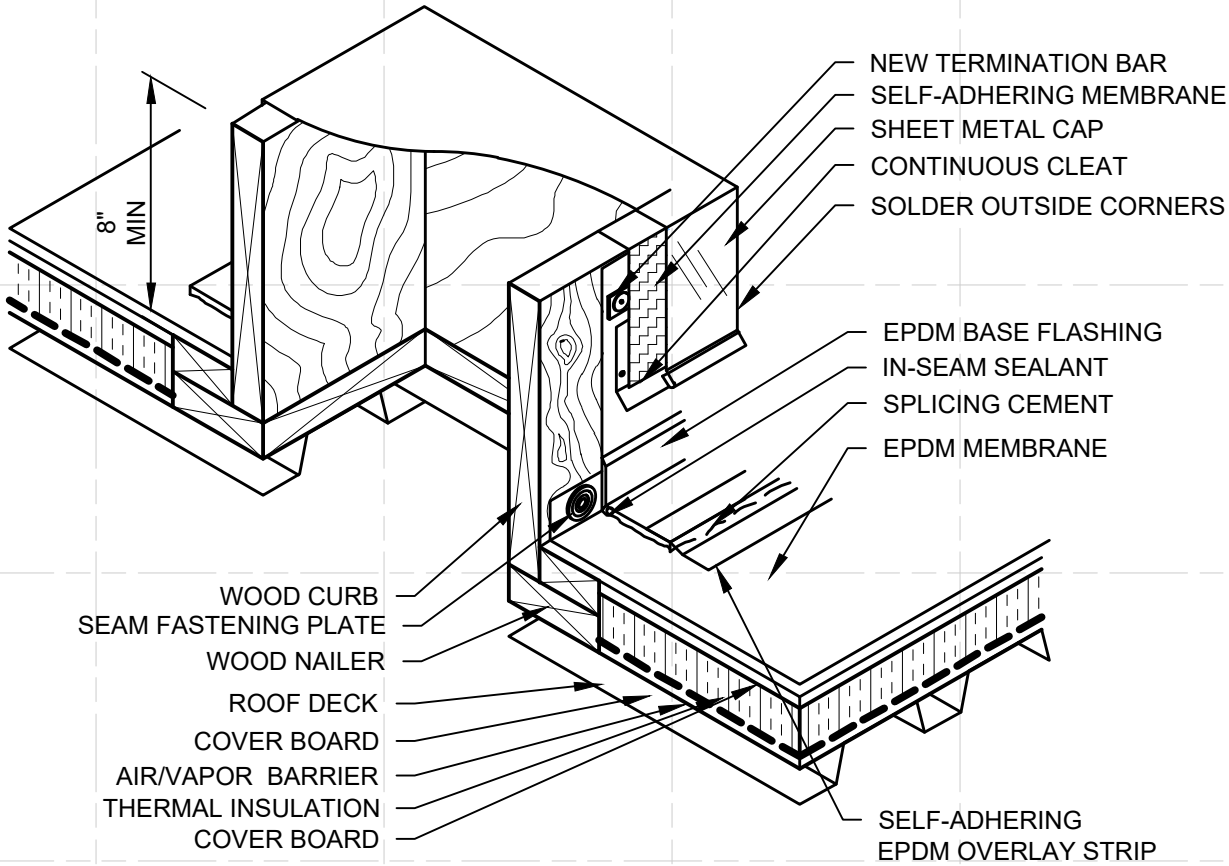
A1

DETAIL: GUTTER/DOWNSPOUT DETAIL

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

Detail B3010A-DT323X

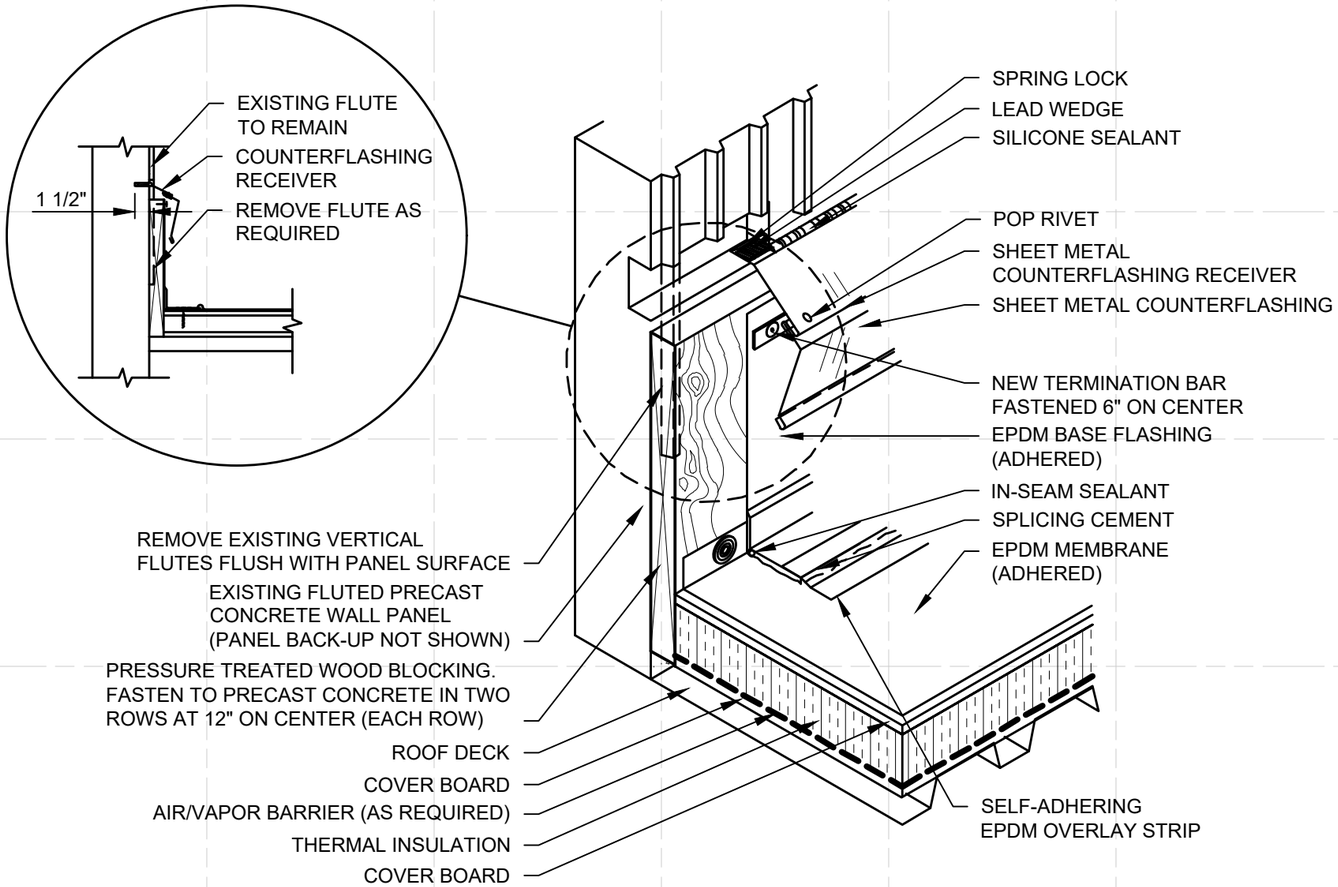


GAUGE METAL
UP TO 18" SQUARE: 22 GA
OVER 18" SQUARE: 18 GA

A1

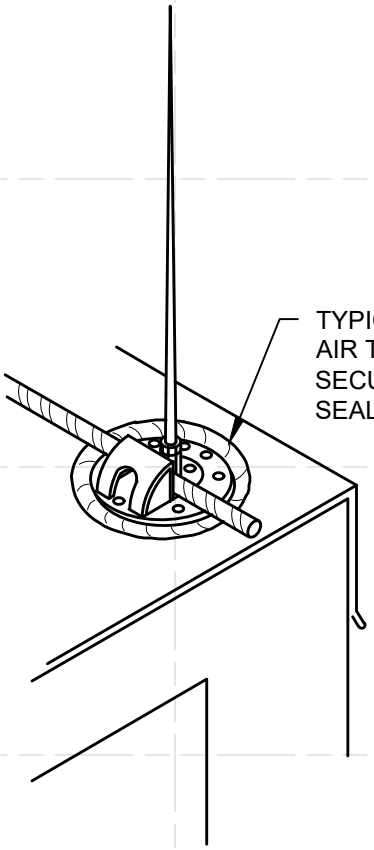
DETAIL: CURB COVER

SCALE: NTS



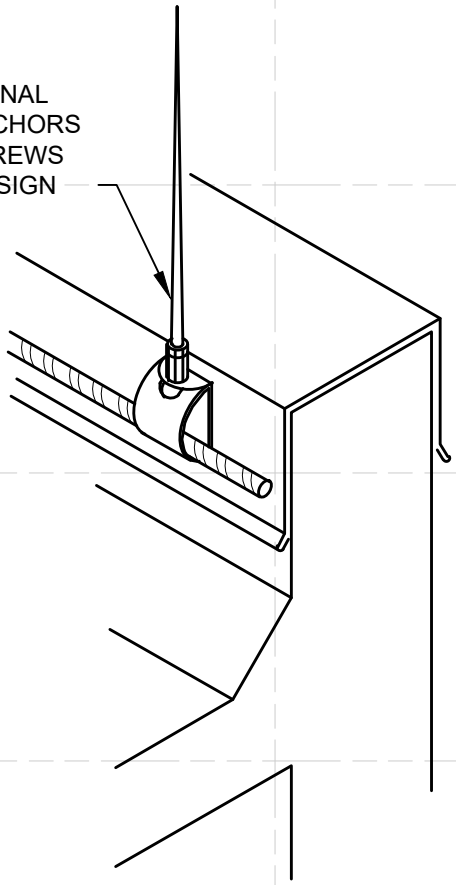
A1 DETAIL: FLUTED PRECAST CONCRETE WALL PANEL

SCALE: NTS



TYPICAL ROOF-MOUNTED
AIR TERMINAL COMPONENTS
SECURED BY POURABLE
SEALER TO MEMBRANE

(EAVE CONDITION)
EPDM-025A



TYPICAL PARAPET AIR TERMINAL
SECURED BY BOLTS AND ANCHORS
OR SCREWS DEPENDING SCREWS
DEPENDING ON PARAPET DESIGN

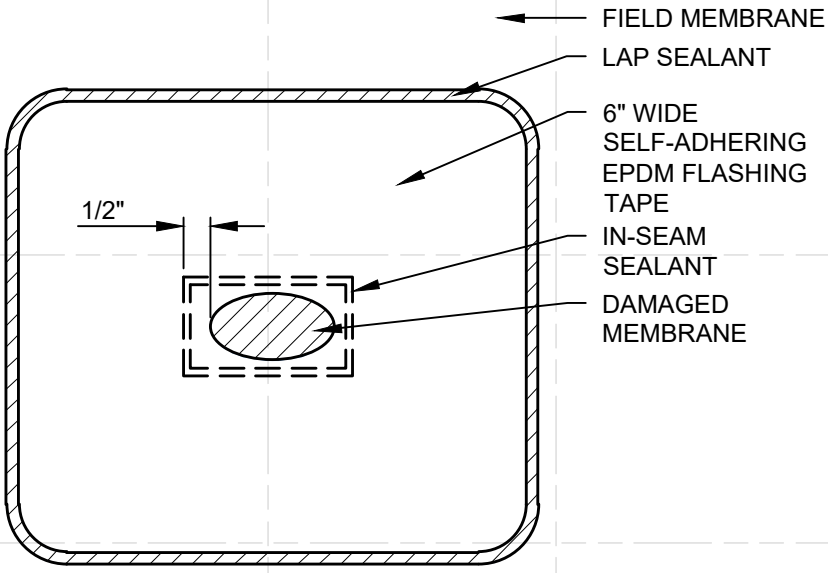
(PARAPET CONDITION)
EPDM-025B

NOTE:
ROOFING, FLASHINGS, ETC. NOT SHOWN FOR CLARITY

DETAIL: TYPICAL LIGHTNING PROTECTION AIR TERMINAL MOUNTS

A1

SCALE: NTS



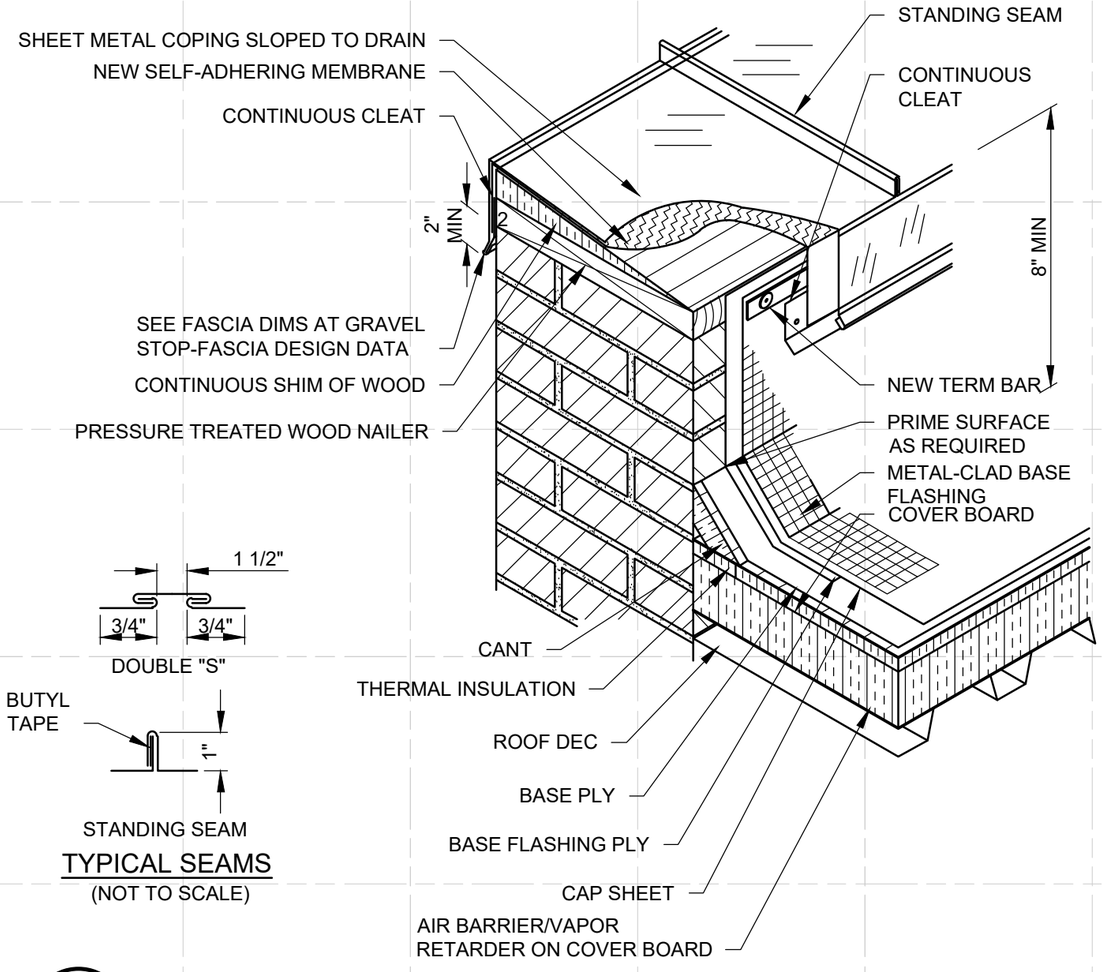
DETAIL: ISOLATED MEMBRANE REPAIR

A1

SCALE:1 1/2"=1'-0"

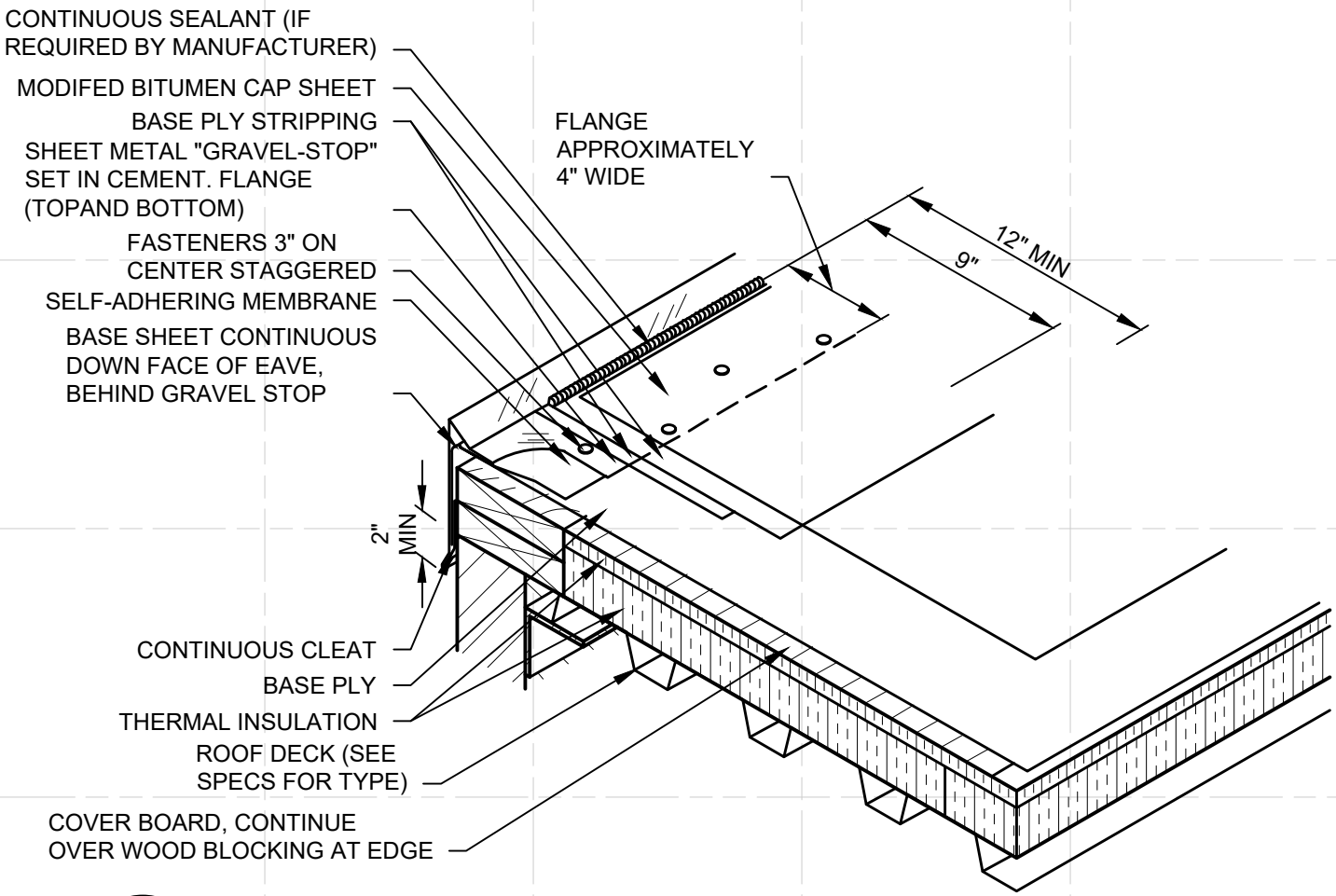
0 6" 1' 2'

Detail B3010A-DT327P



TYPICAL SEAMS
(NOT TO SCALE)

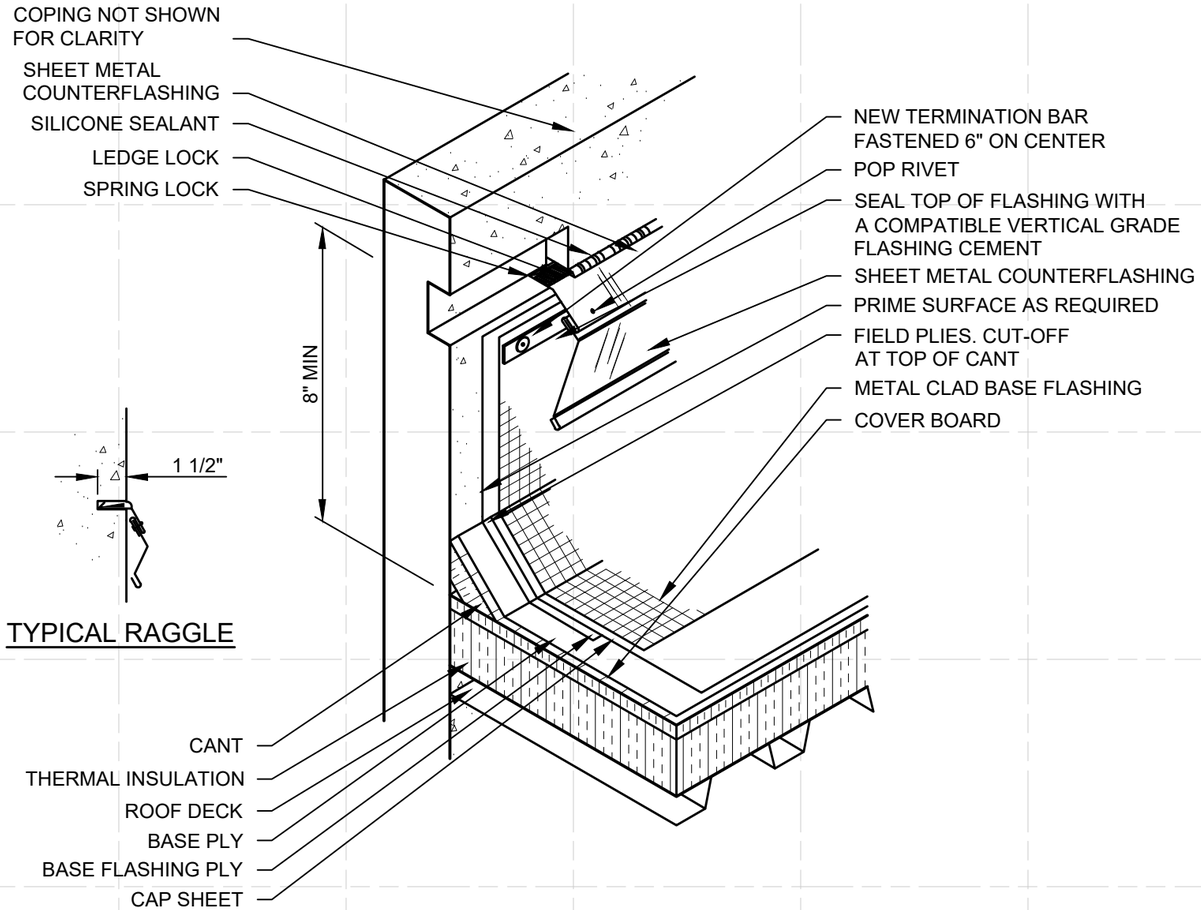
A1 DETAIL: METAL COPING CAP AND BASE FLASHING
SCALE: NTS



A1

DETAIL: GRAVEL STOP - FASCIA

SCALE: NTS

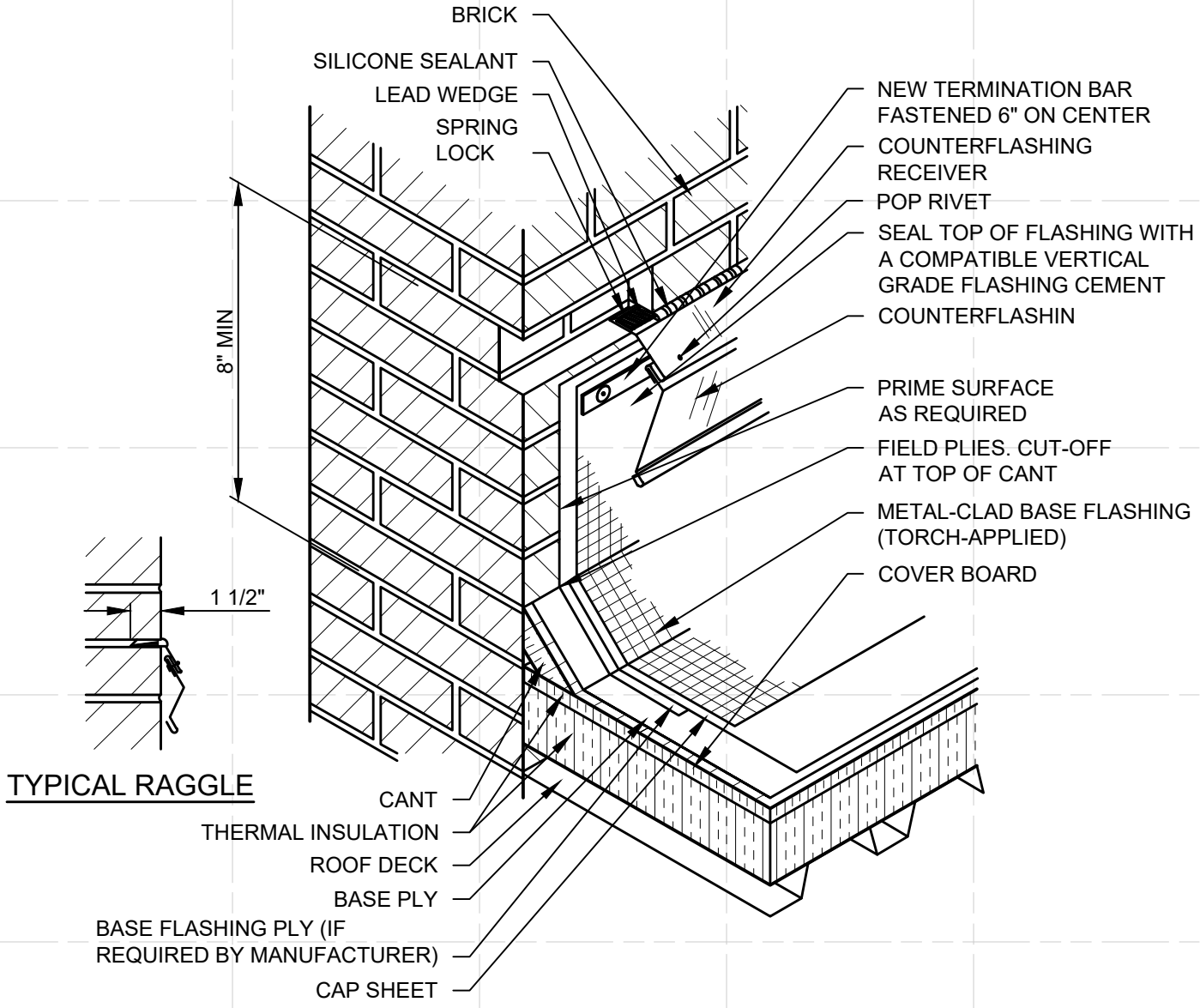


TYPICAL RAGGLE

DETAIL: SURFACE-MOUNTED COUNTERFLASHING FOR CONCRETE WALLS

A1

SCALE: NTS

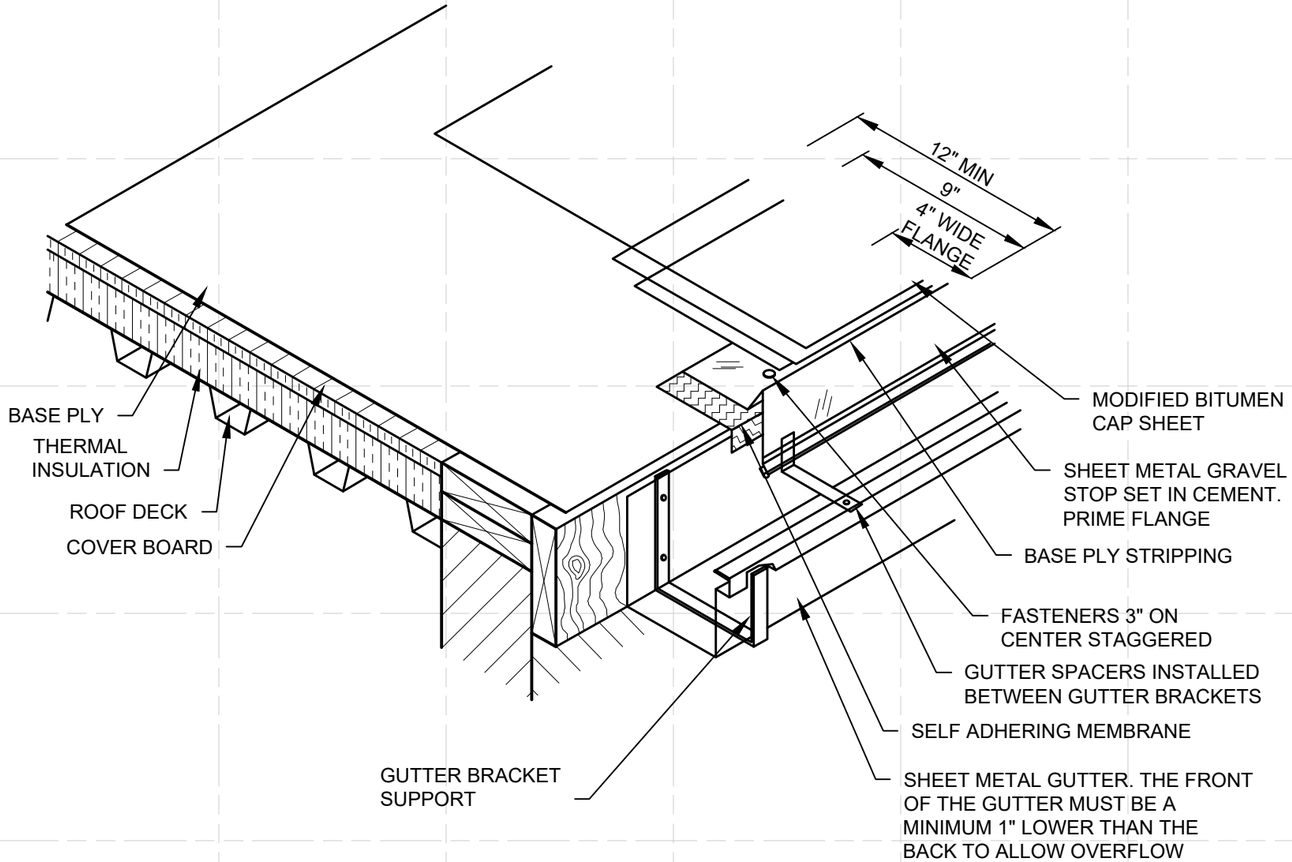


TYPICAL RAGGLE

A1

DETAIL: COUNTERFLASHING IN RAGGLE

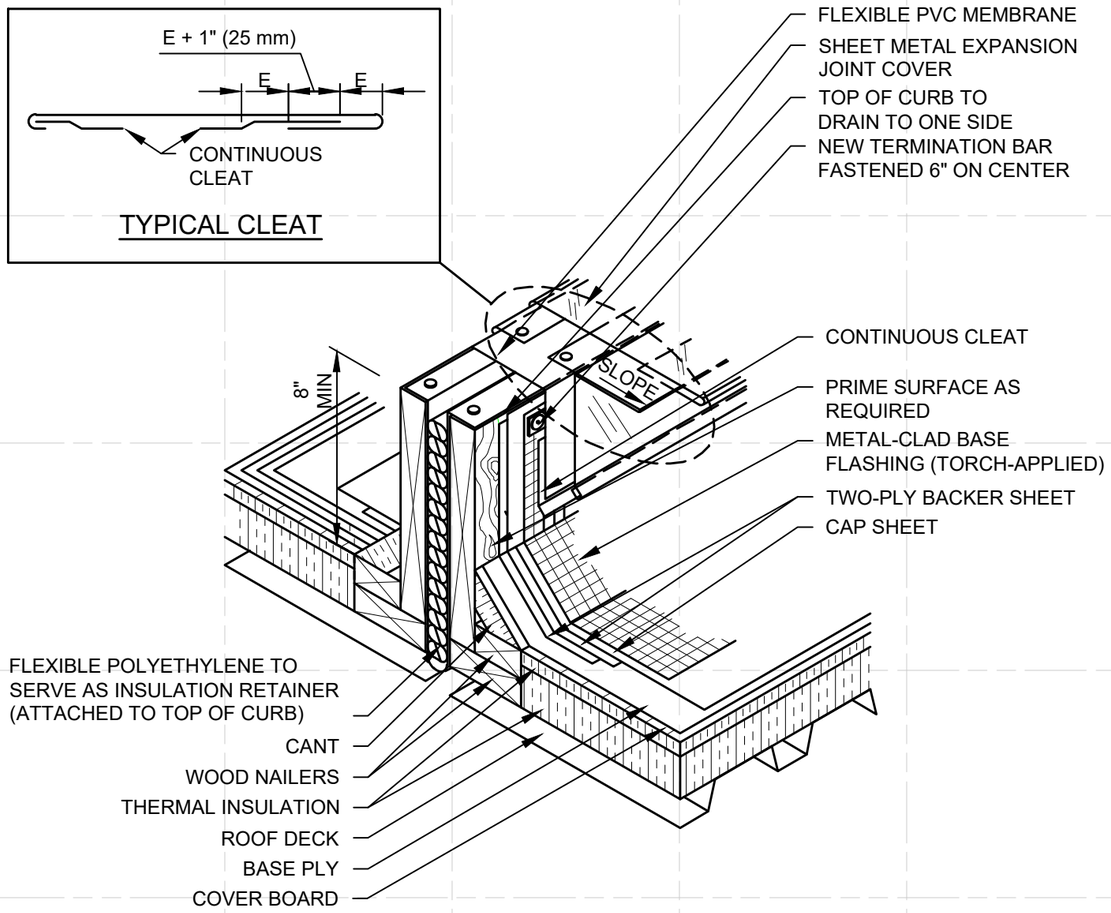
SCALE: NTS



A1

DETAIL: GRAVEL STOP - FASCIA WITH GUTTER

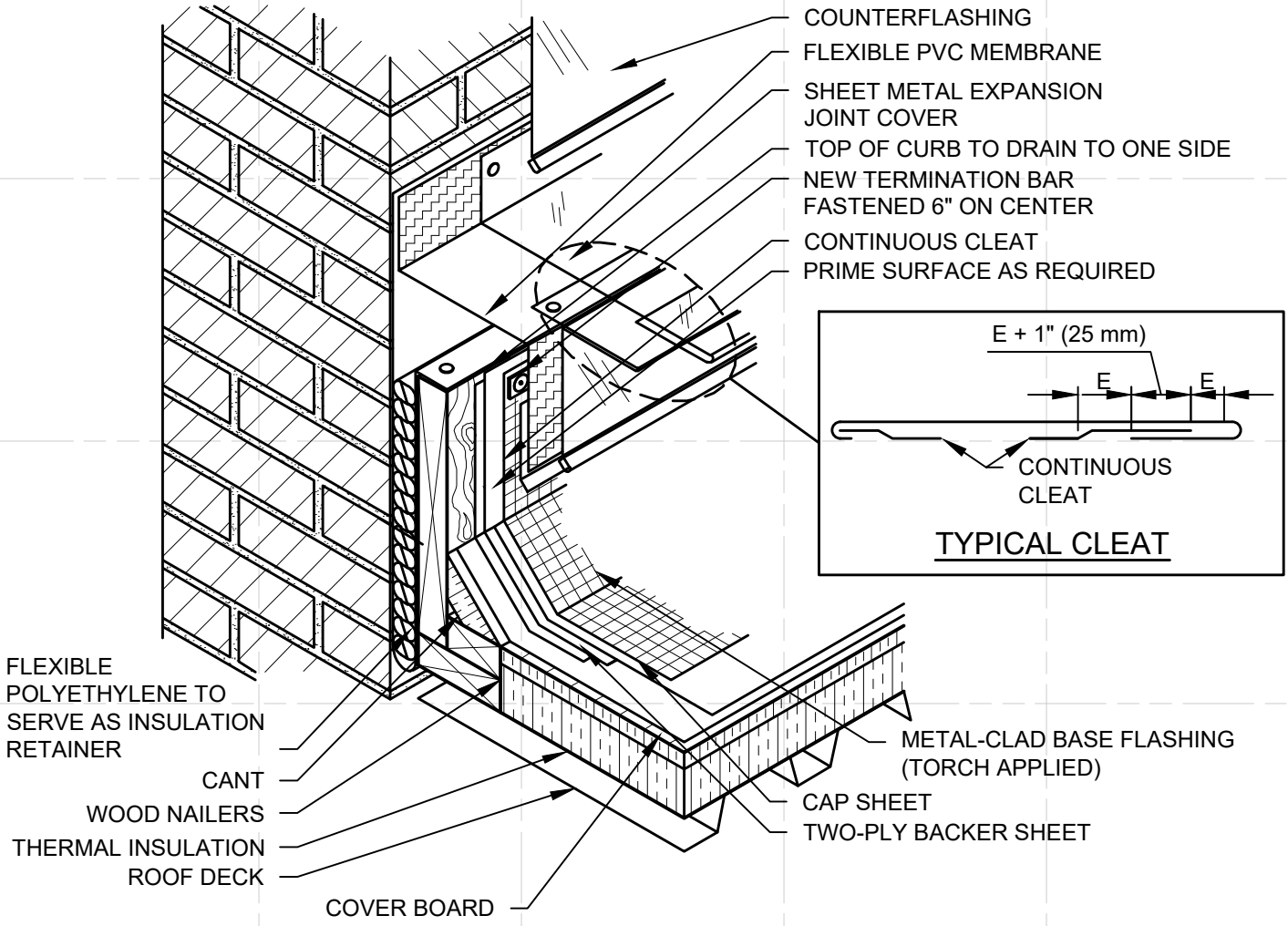
SCALE: NTS



DETAIL: ROOF-TO-ROOF EXPANSION JOINT WITH SHOP-FORMED METAL COVER

A1

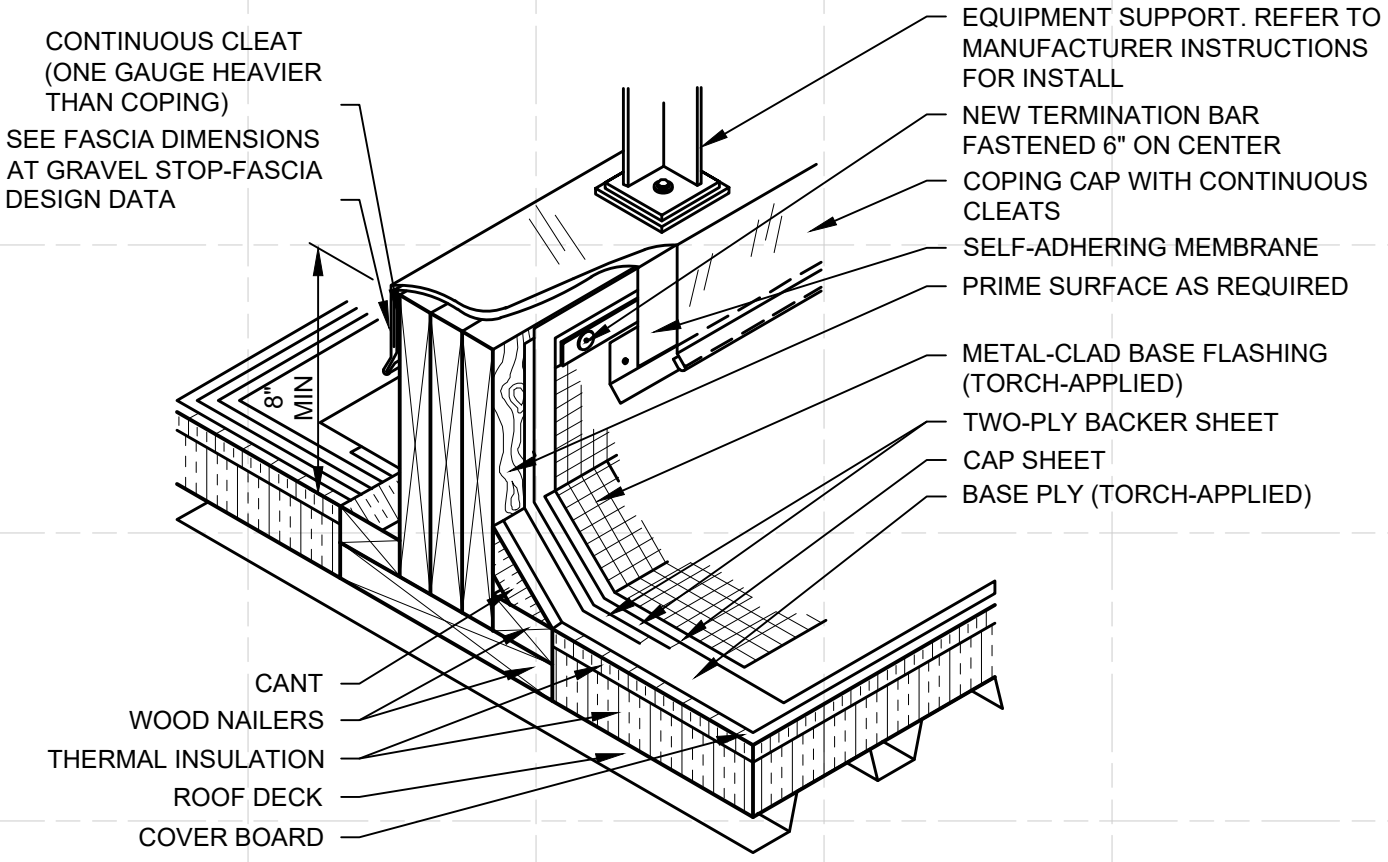
SCALE: NTS



DETAIL: ROOF-TO-WALL EXPANSION JOINT WITH SHOP-FORMED METAL COVER

A1

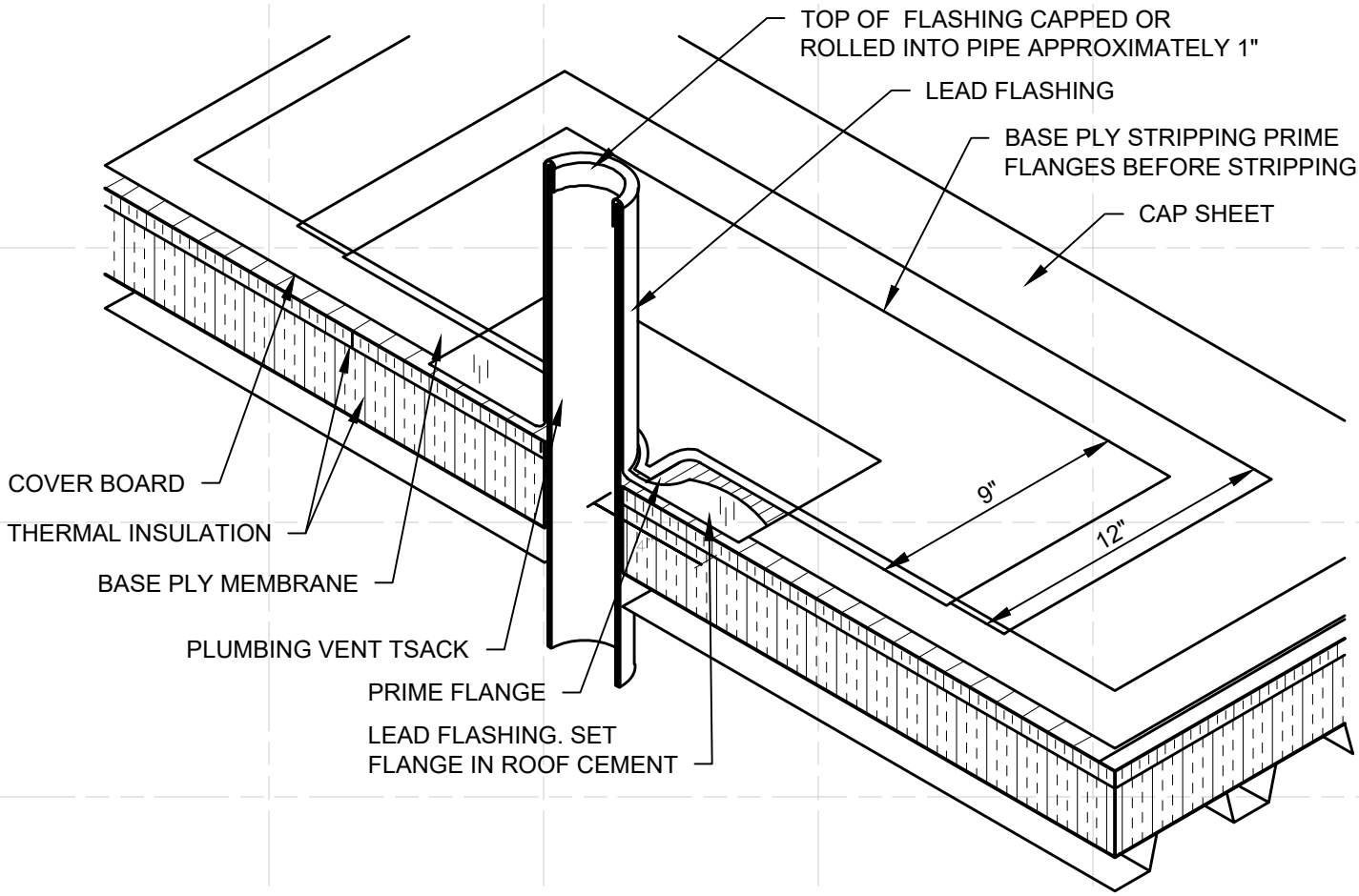
SCALE: NTS



A1

DETAIL: EQUIPMENT CURB SUPPORT

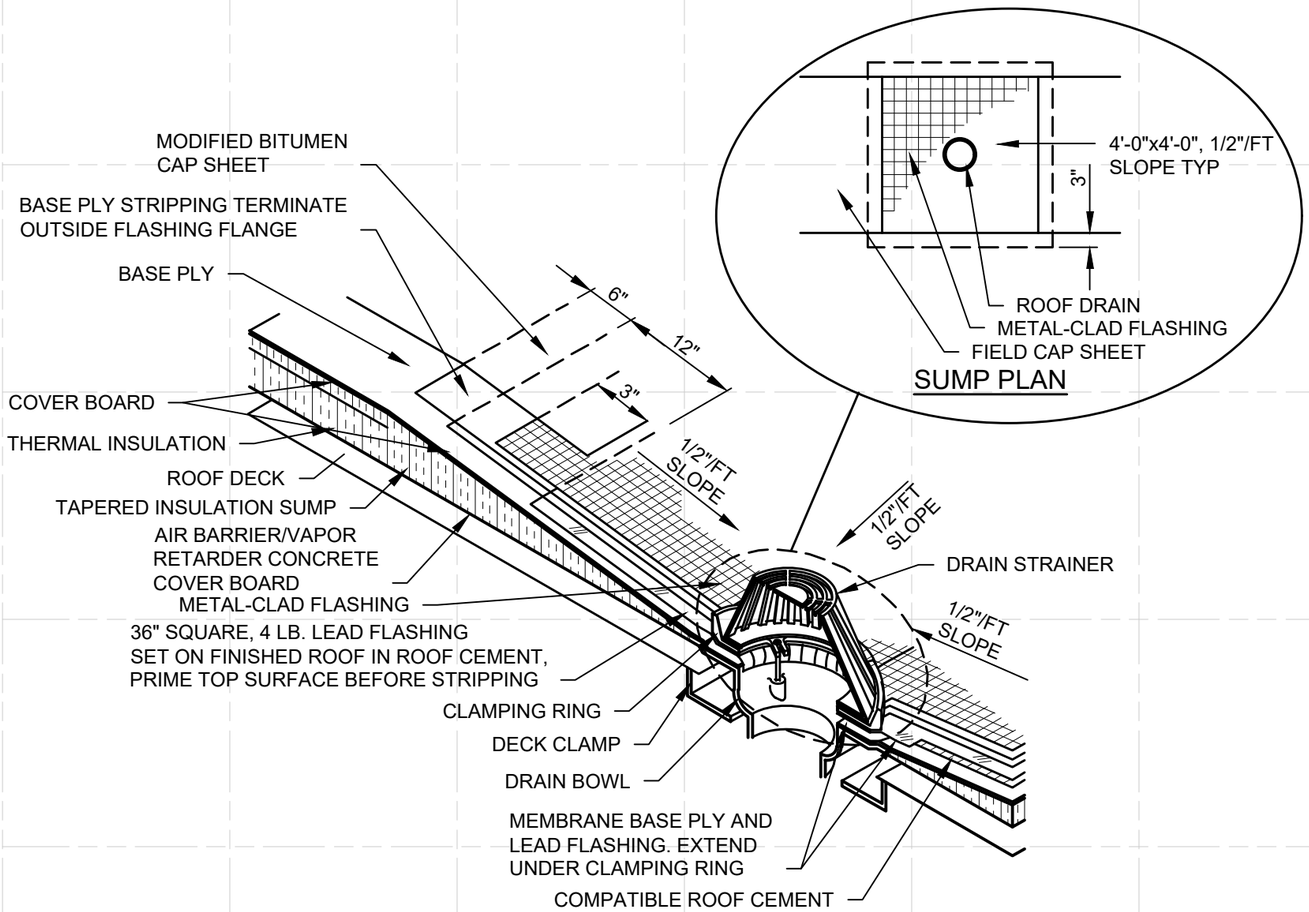
SCALE: NTS



A1

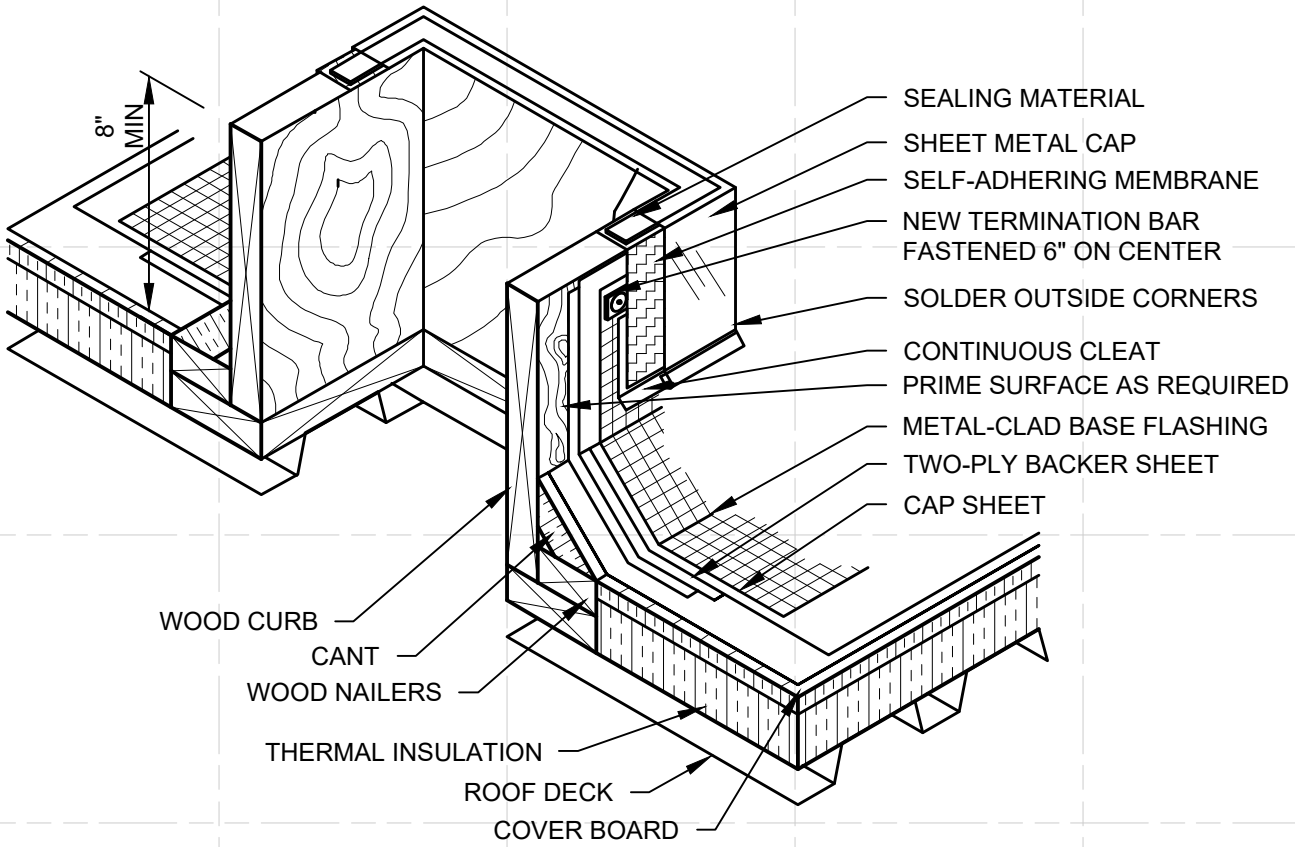
DETAIL: PLUMBING VENT

SCALE: NTS



A1 DETAIL: ROOF DRAIN

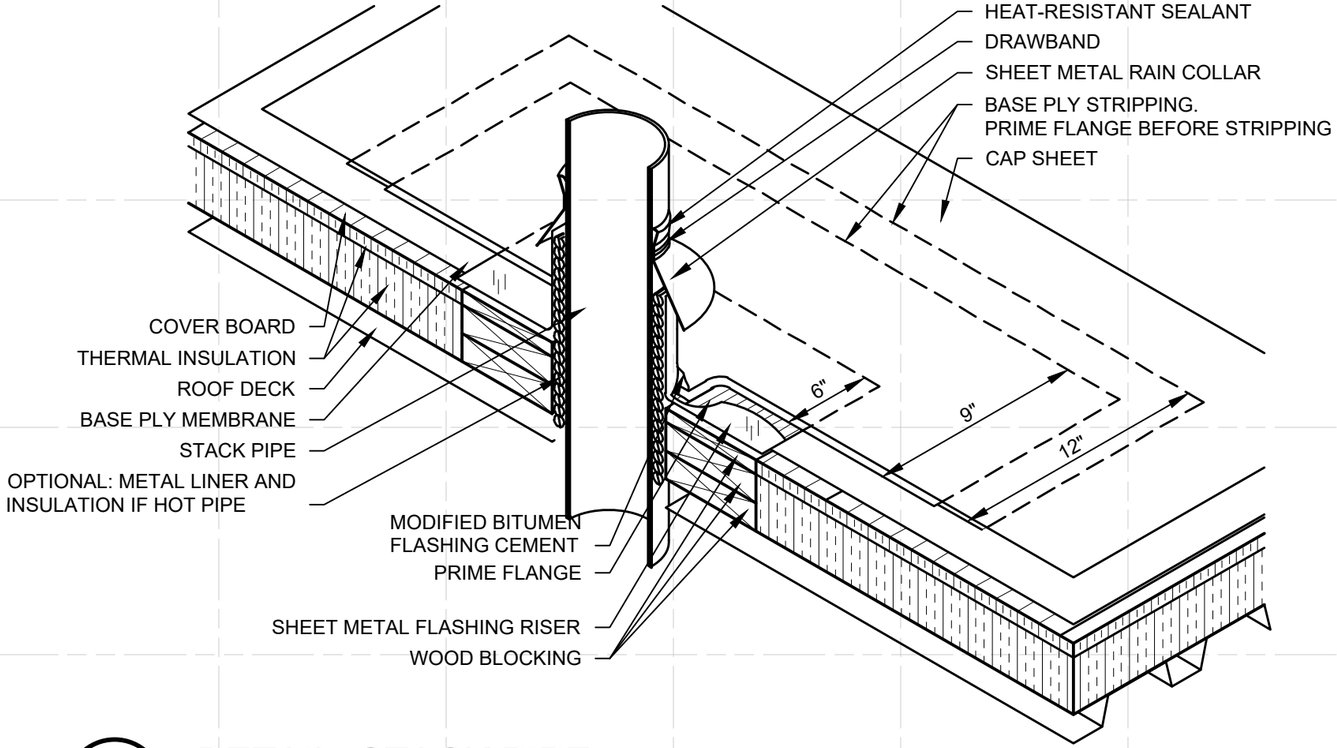
SCALE: NTS



A1

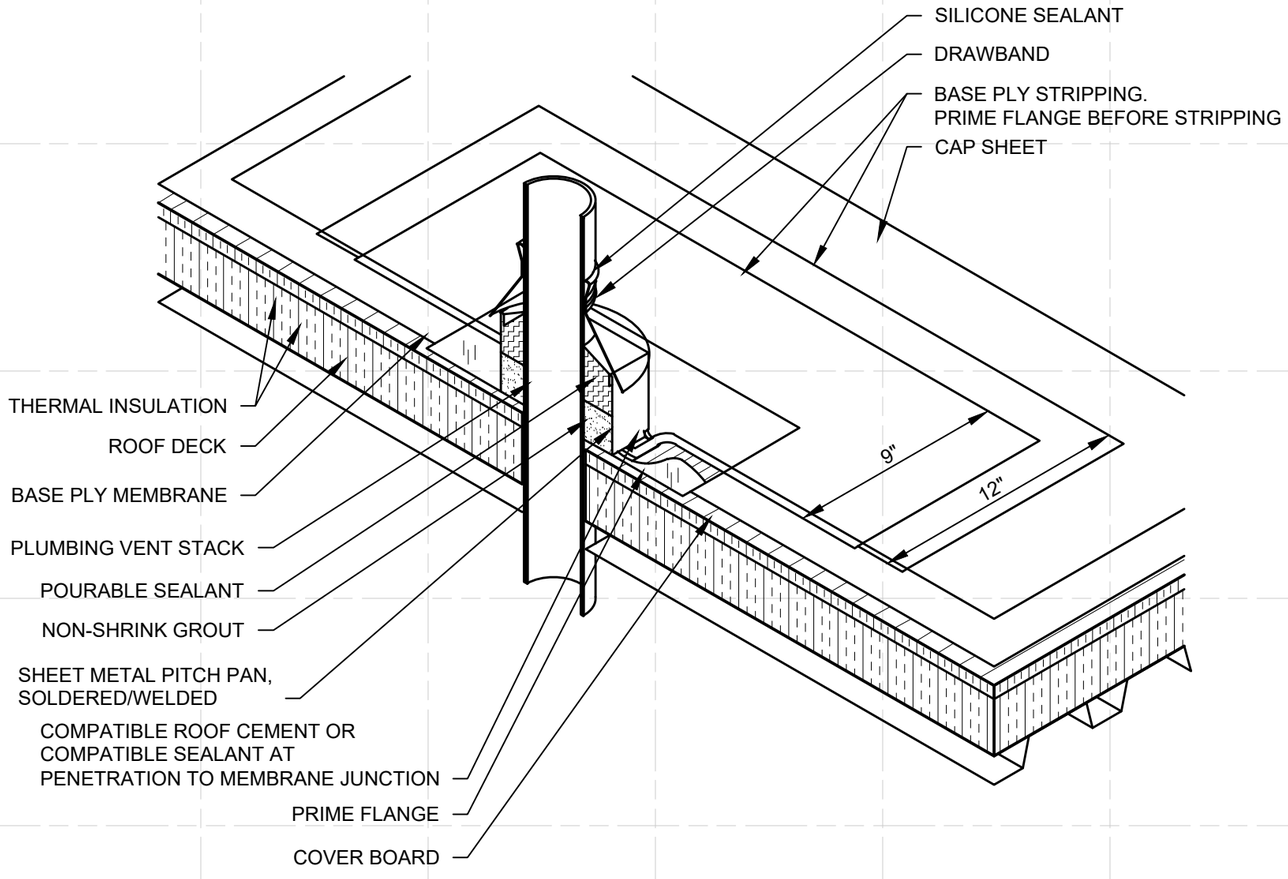
DETAIL: CURBED PENETRATION

SCALE: NTS



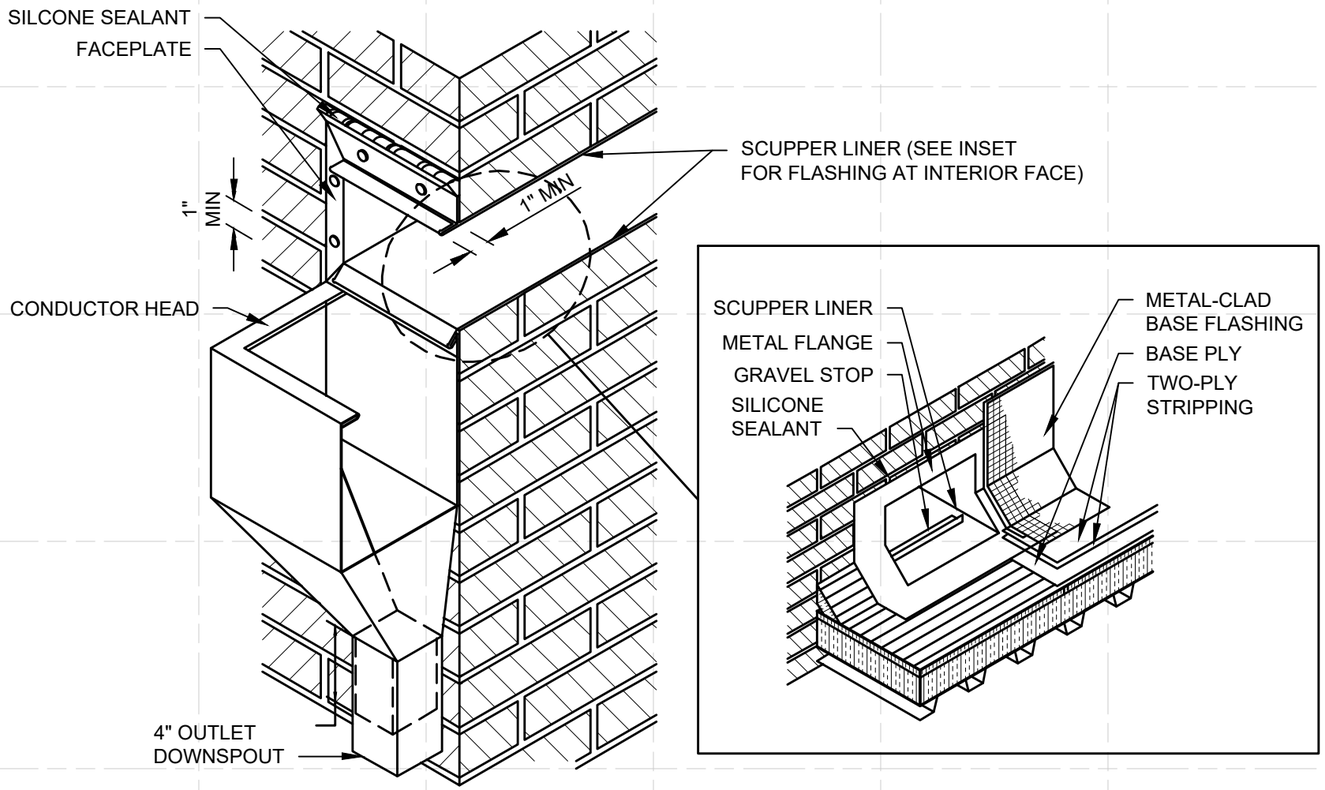
A1 DETAIL: STACK PIPE

SCALE: NTS



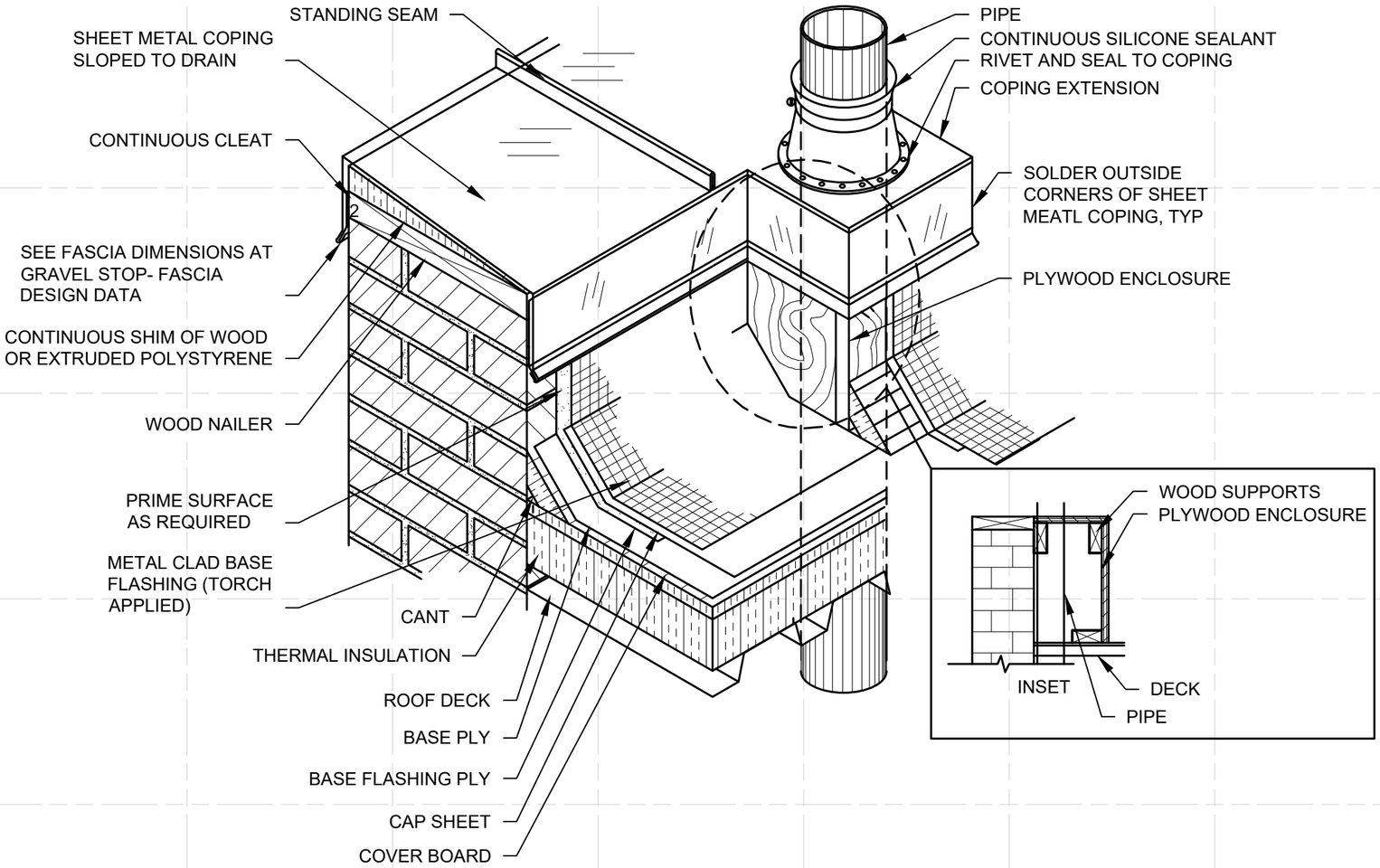
A1 DETAIL: PITCH PAN

SCALE: NTS



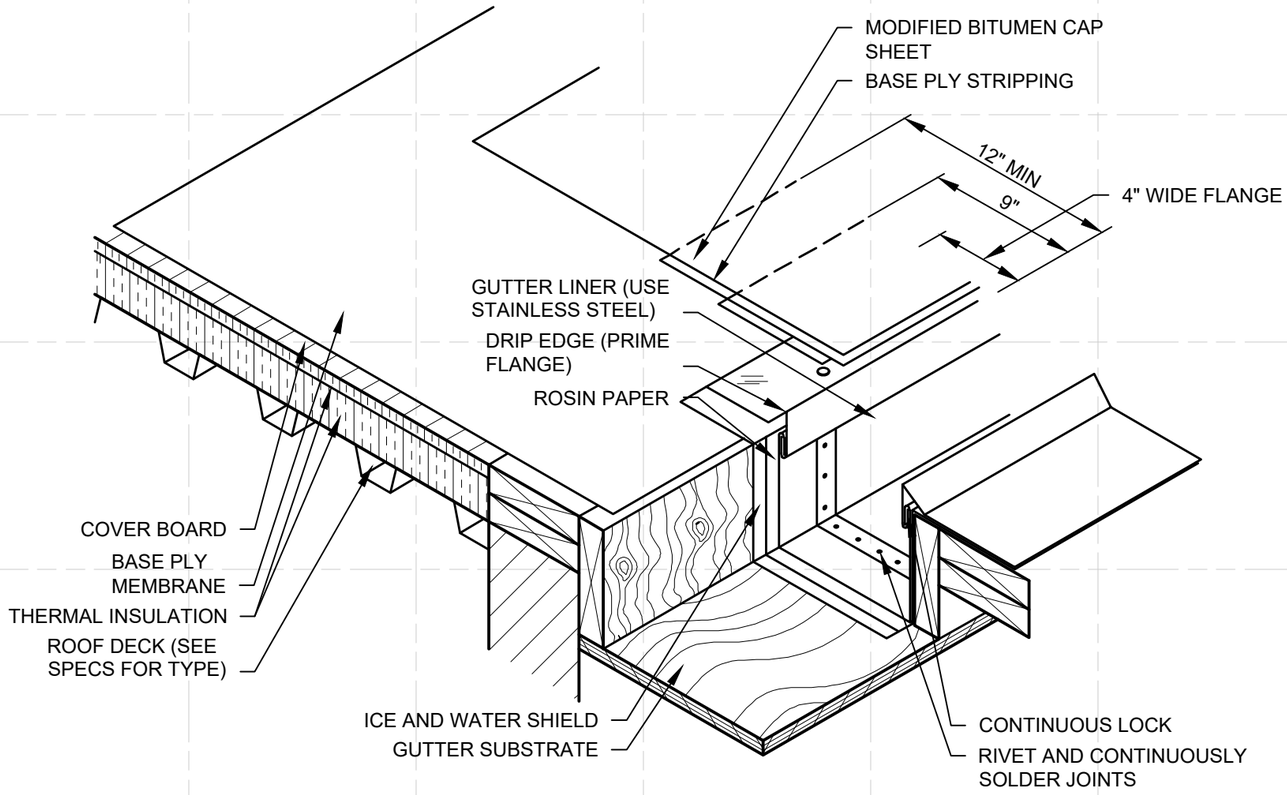
A1 DETAIL: DRAIN SCUPPER WITH CONDUCTOR HEAD

SCALE: NTS



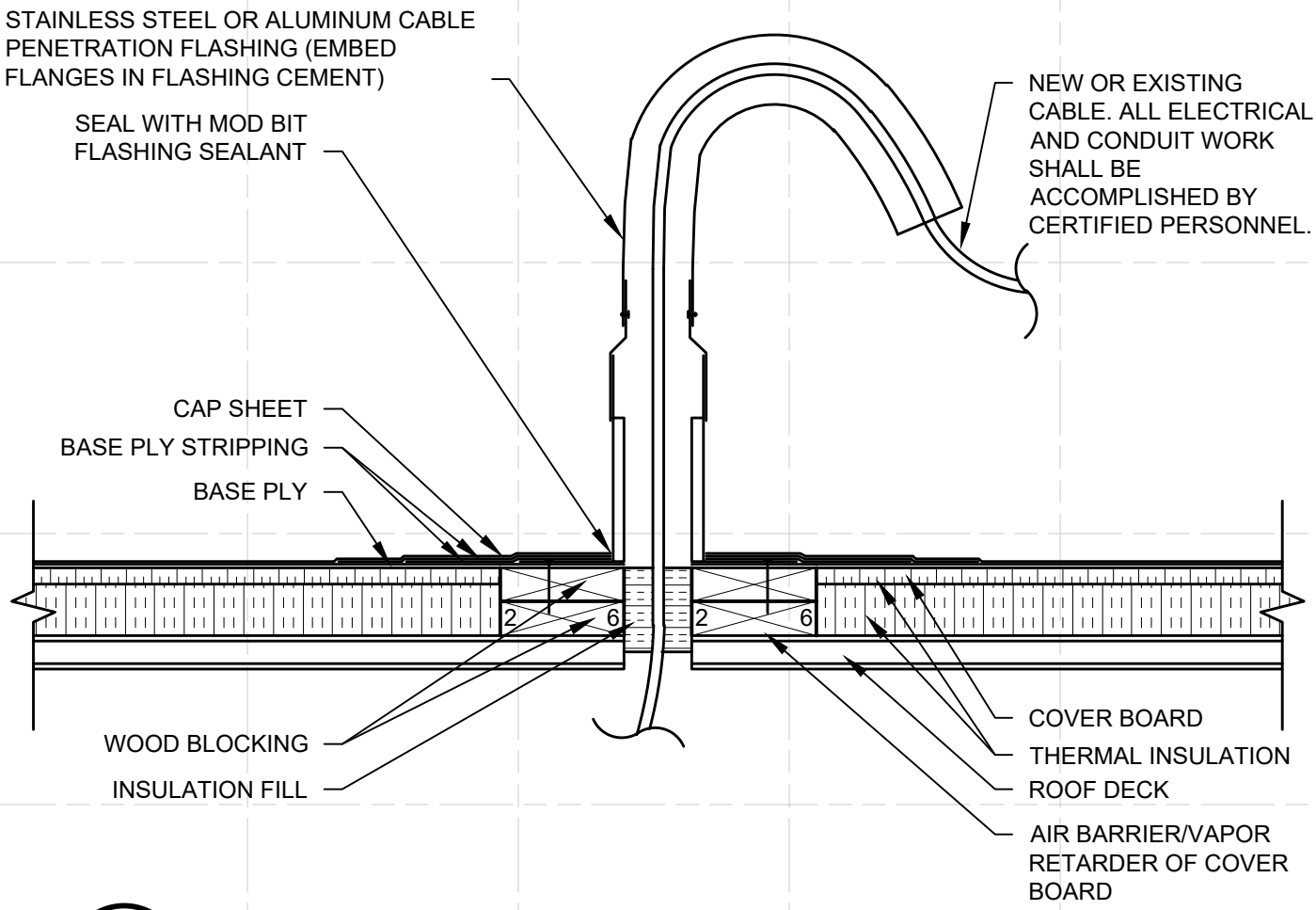
A1 DETAIL: PIPE ADJACENT TO PARAPET

SCALE: NTS



A1 DETAIL: GRAVEL STOP - FASCIA WITH BUILT-IN GUTTER

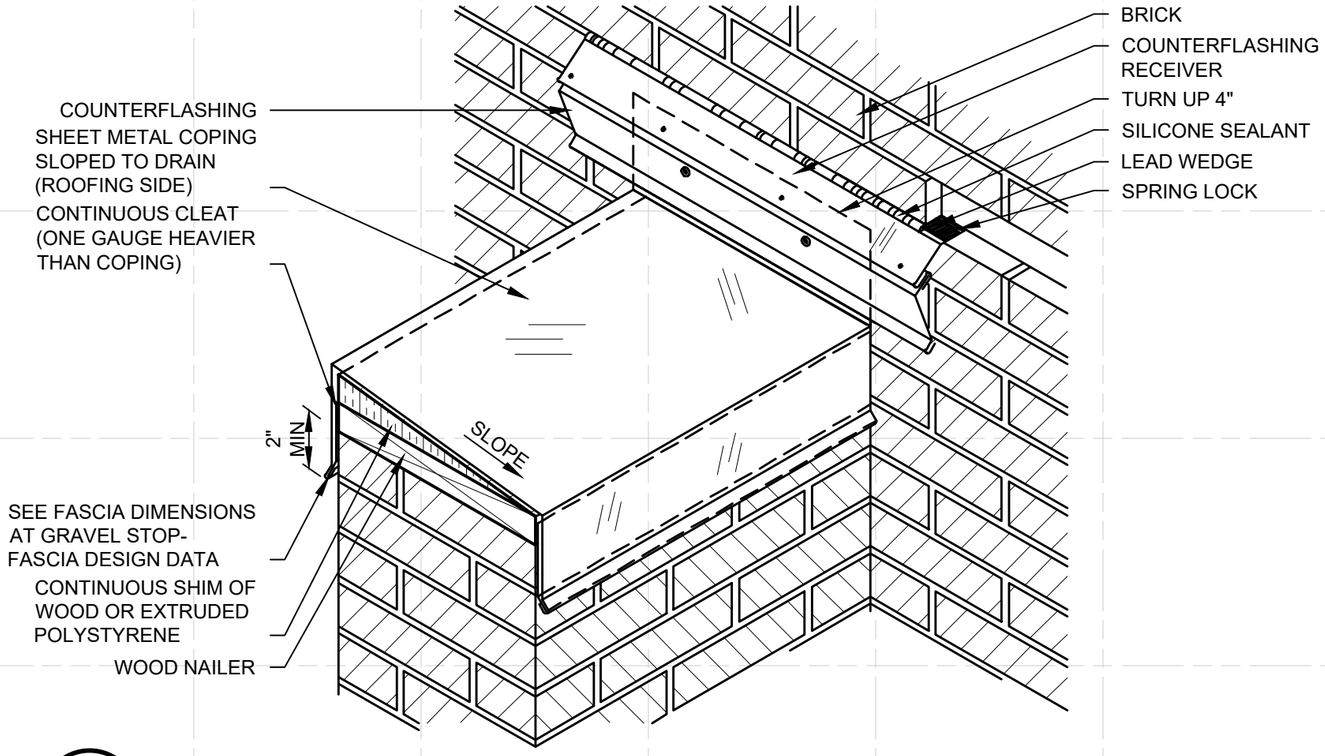
SCALE: NTS



A1

DETAIL: CABLE PENETRATION FLASHING

SCALE: NTS

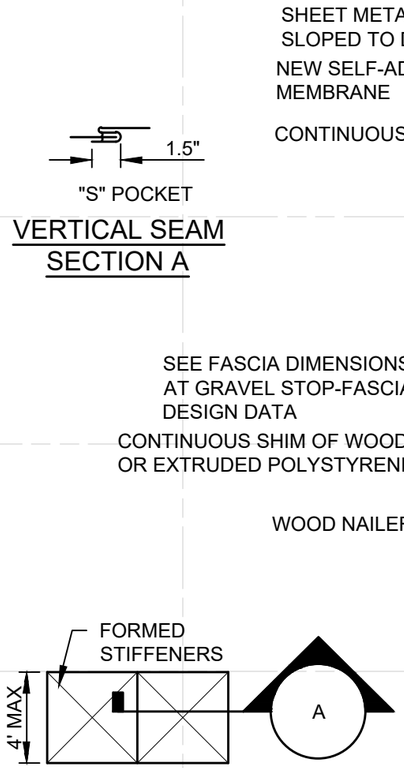


A1 DETAIL: COPING TERMINATION

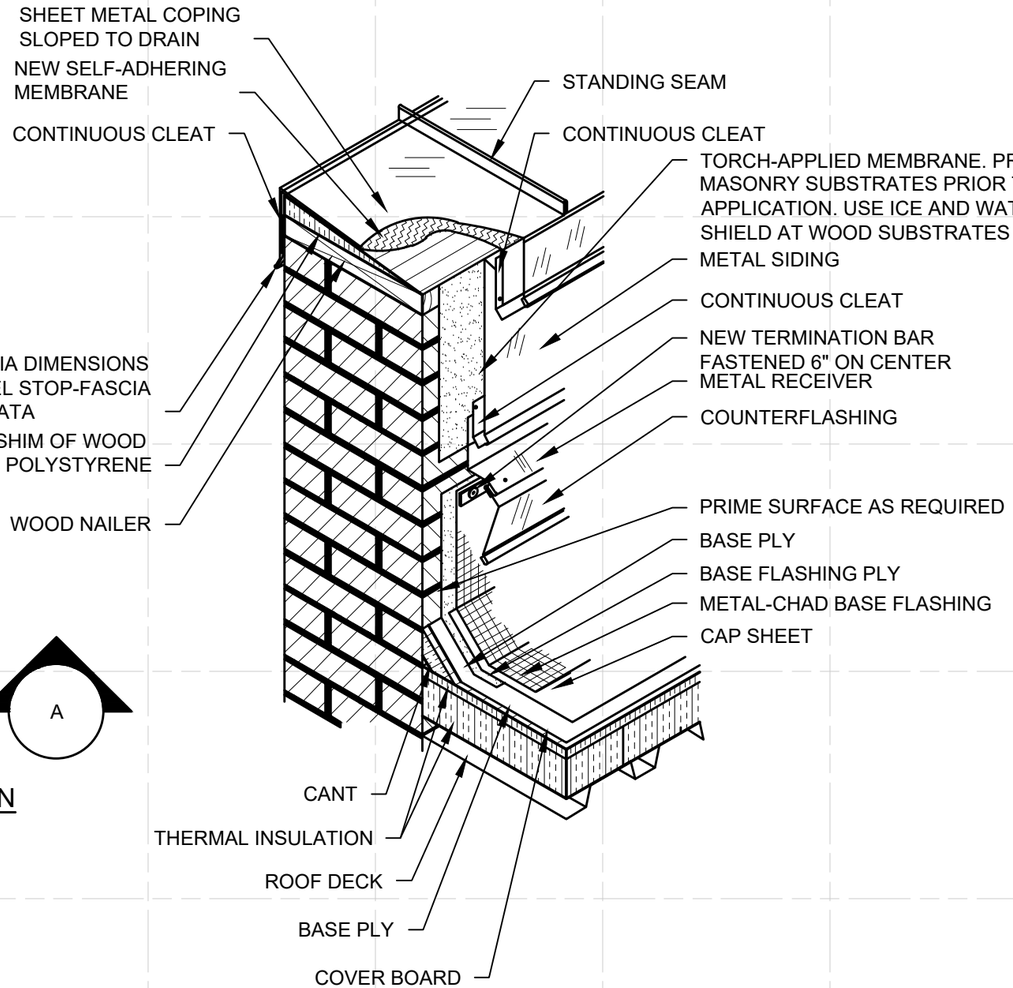
SCALE: NTS

"S" POCKET

VERTICAL SEAM
SECTION A

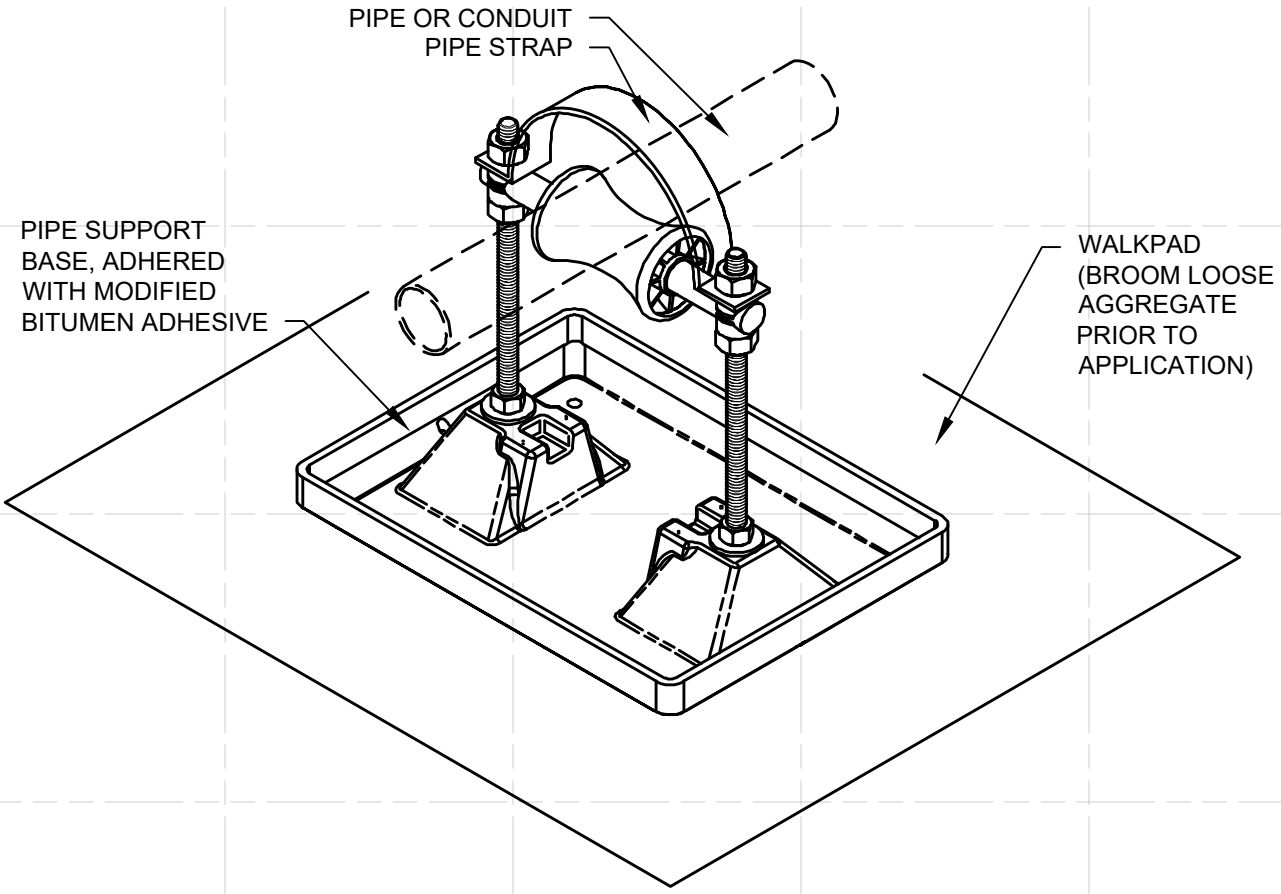


SIDING ELEVATION



A1 DETAIL: METAL SIDING

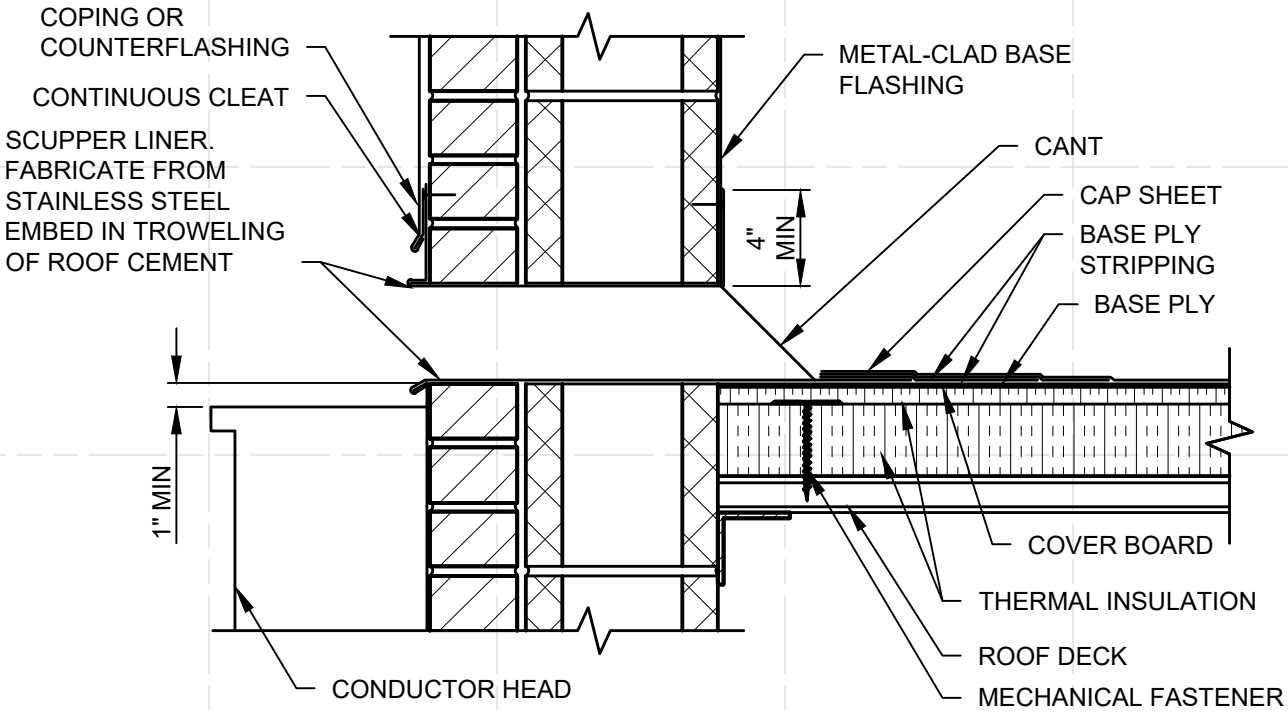
SCALE: NTS



A1

DETAIL: PIPE STAND

SCALE: NTS



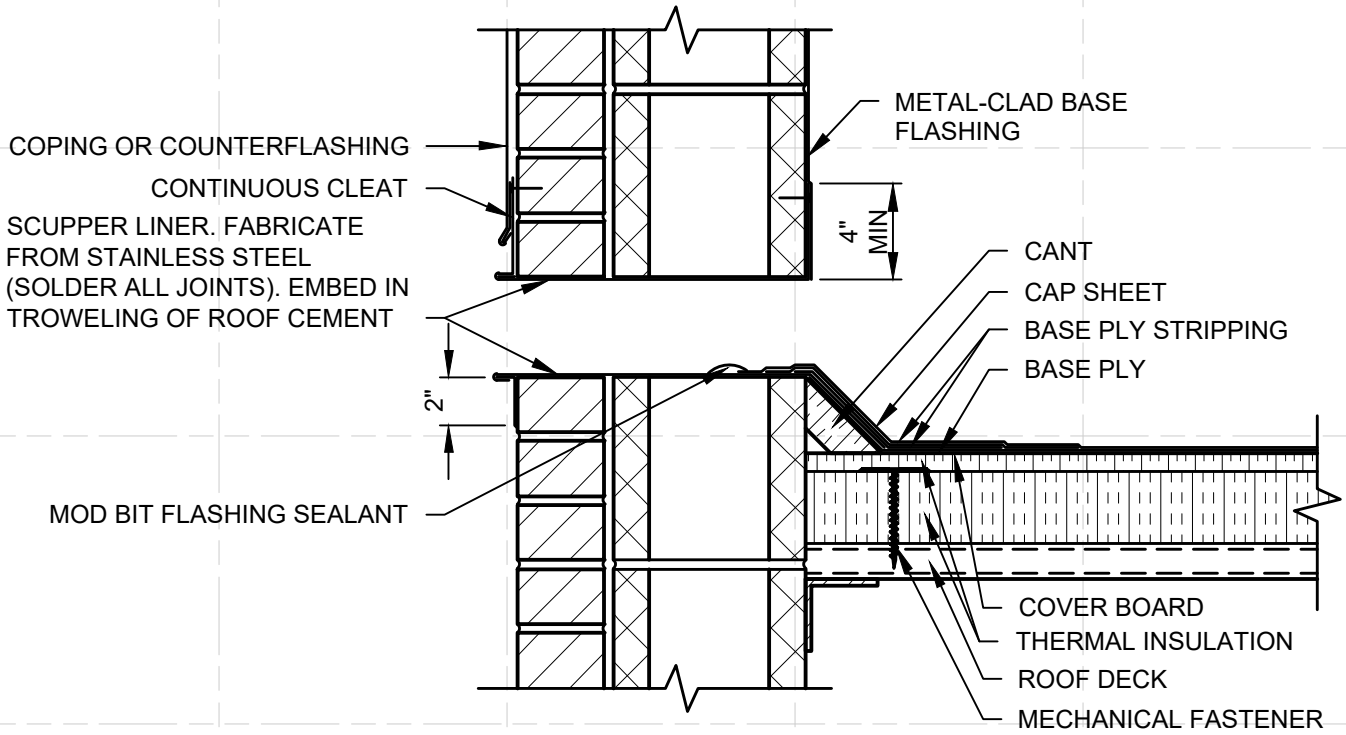
DETAIL: DRAIN SCUPPER WITH CONDUCTOR HEAD (SECTION)

A1

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

Detail B3010A-D T421X



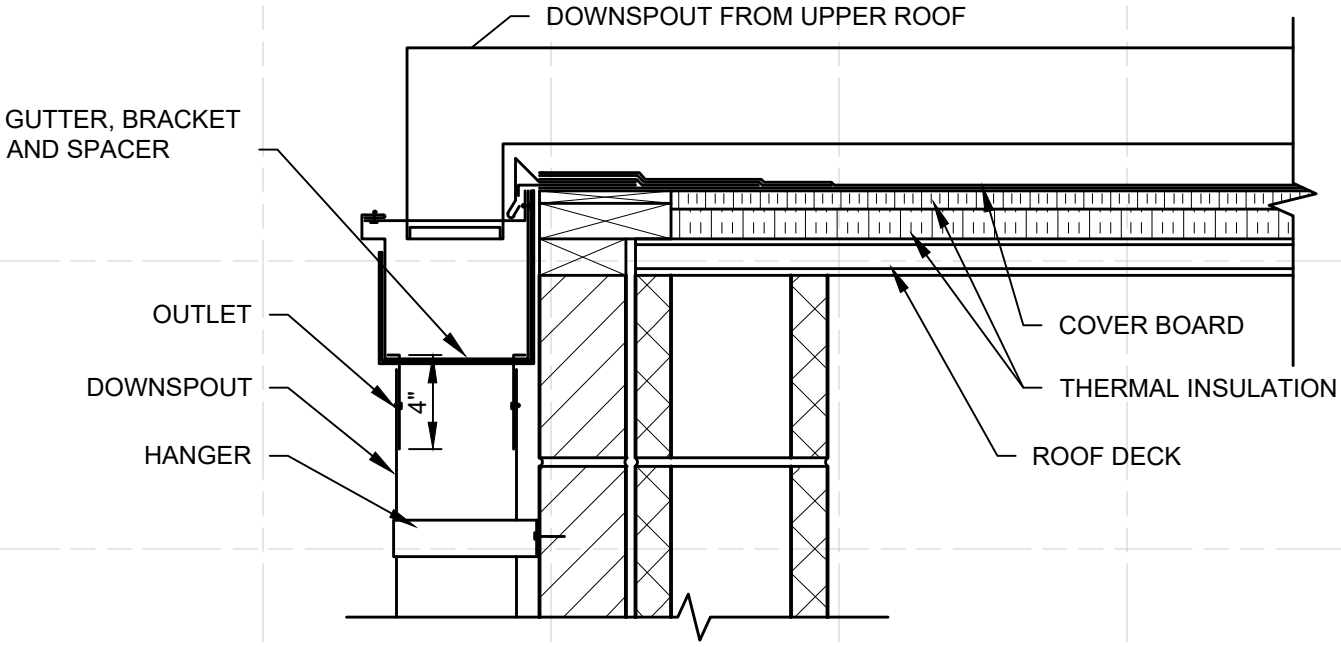
A1

DETAIL: OVERFLOW DRAIN SCUPPER

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

Detail B3010A-DT422X



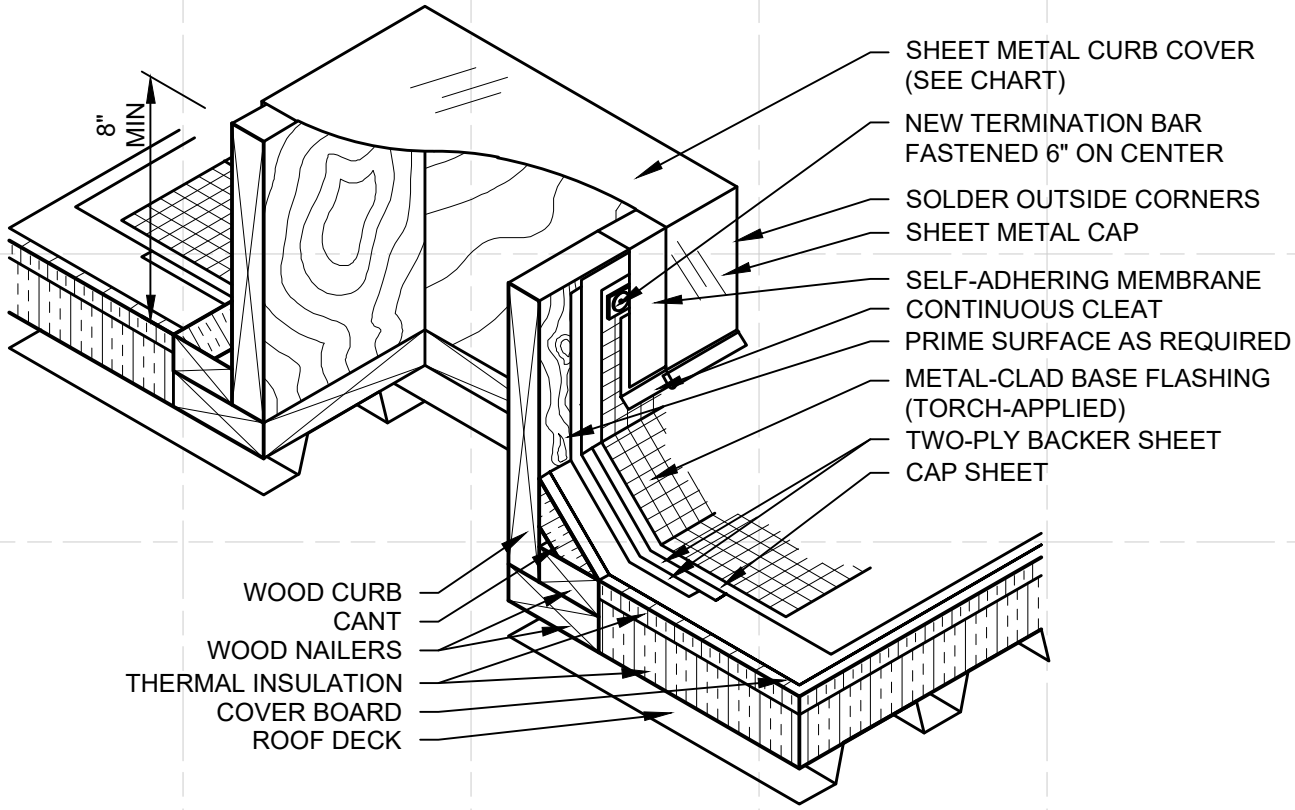
A1

DETAIL: GUTTER/DOWNSPOUT DETAIL

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

Detail B3010A-DT423X

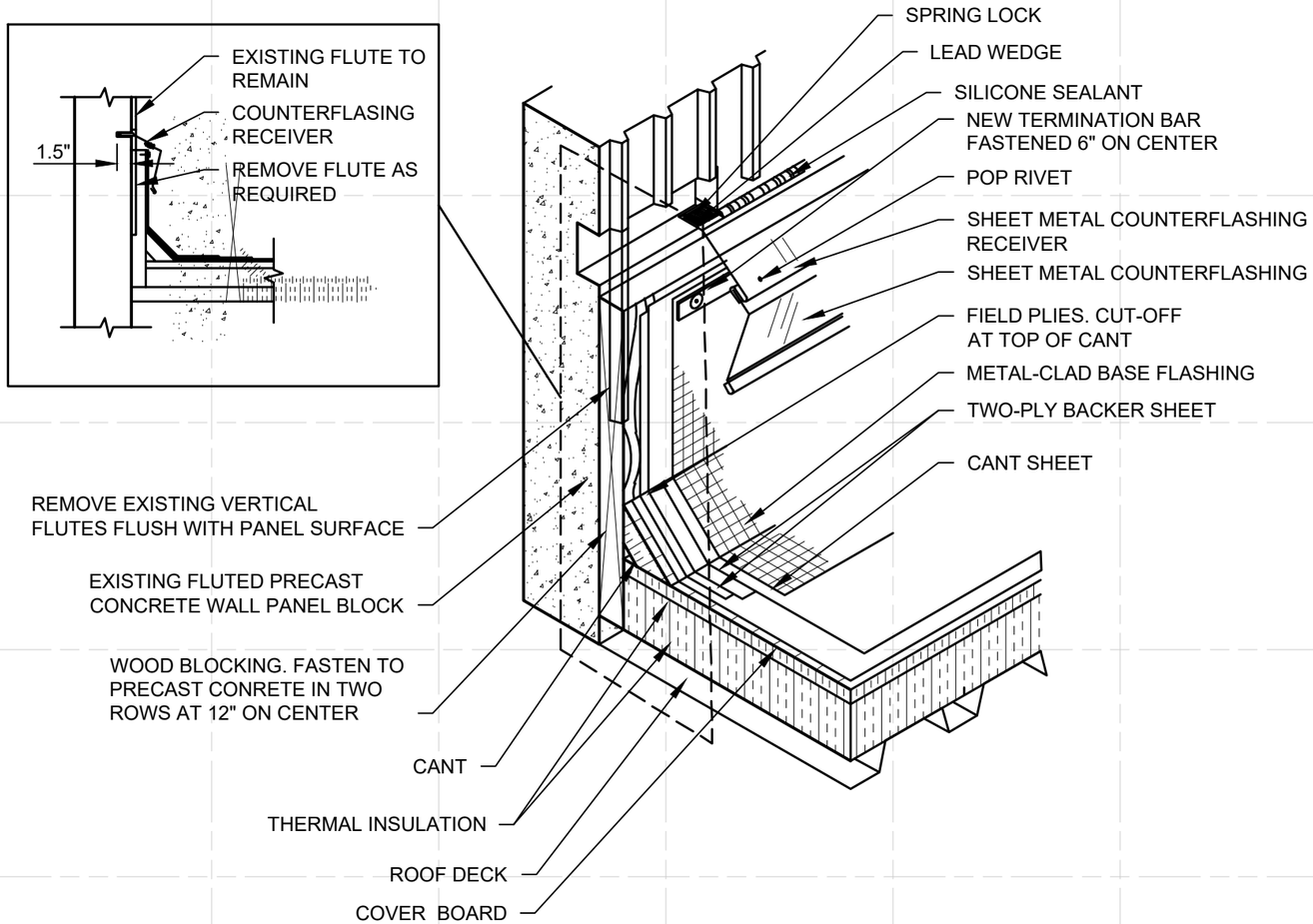


GAUGE METAL
UP TO 18" SQUARE: 22 GA
OVER 18" SQUARE: 18 GA

A1

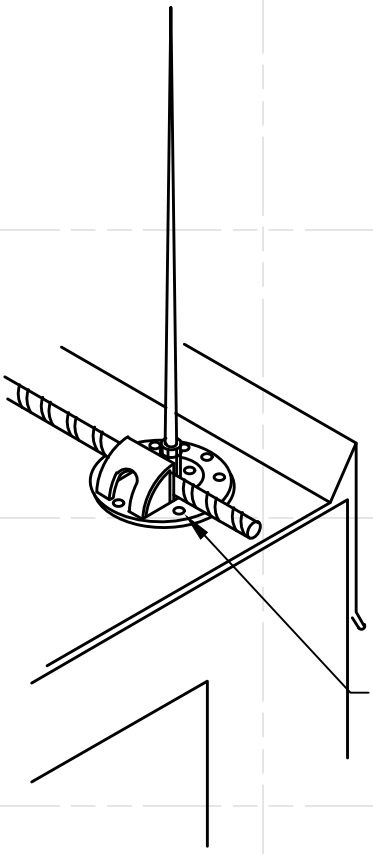
DETAIL: CURB COVER

SCALE: NTS



A1 DETAIL: FLUTED PRECAST CONCRETE WALL PANEL

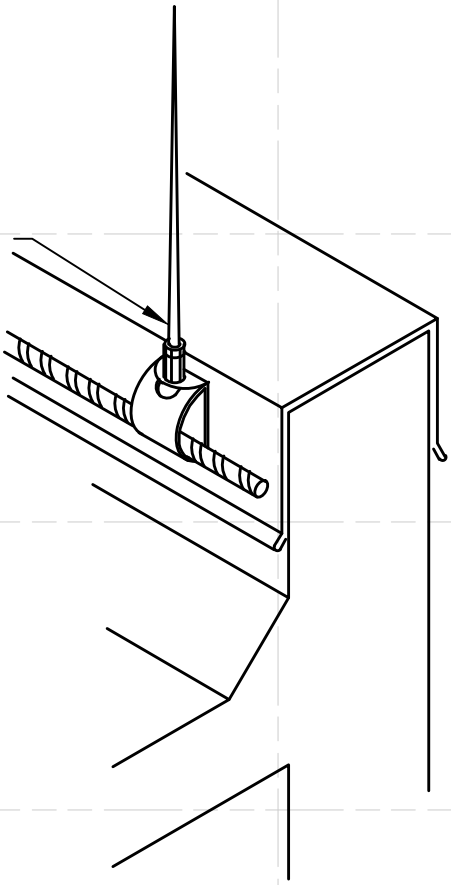
SCALE: NTS



TYPICAL ROOF-MOUNTED AIR TERMINAL COMPONENTS SECURED BY SPECIAL ADHESIVE TO BUILT-UP ROOF

BUR-026A
(EAVE CONDITION)

TYPICAL PARAPET AIR TERMINAL SECURED BY BOLTS AND ANCHORS OR SCREWS DEPENDING ON PARAPET DESIGN



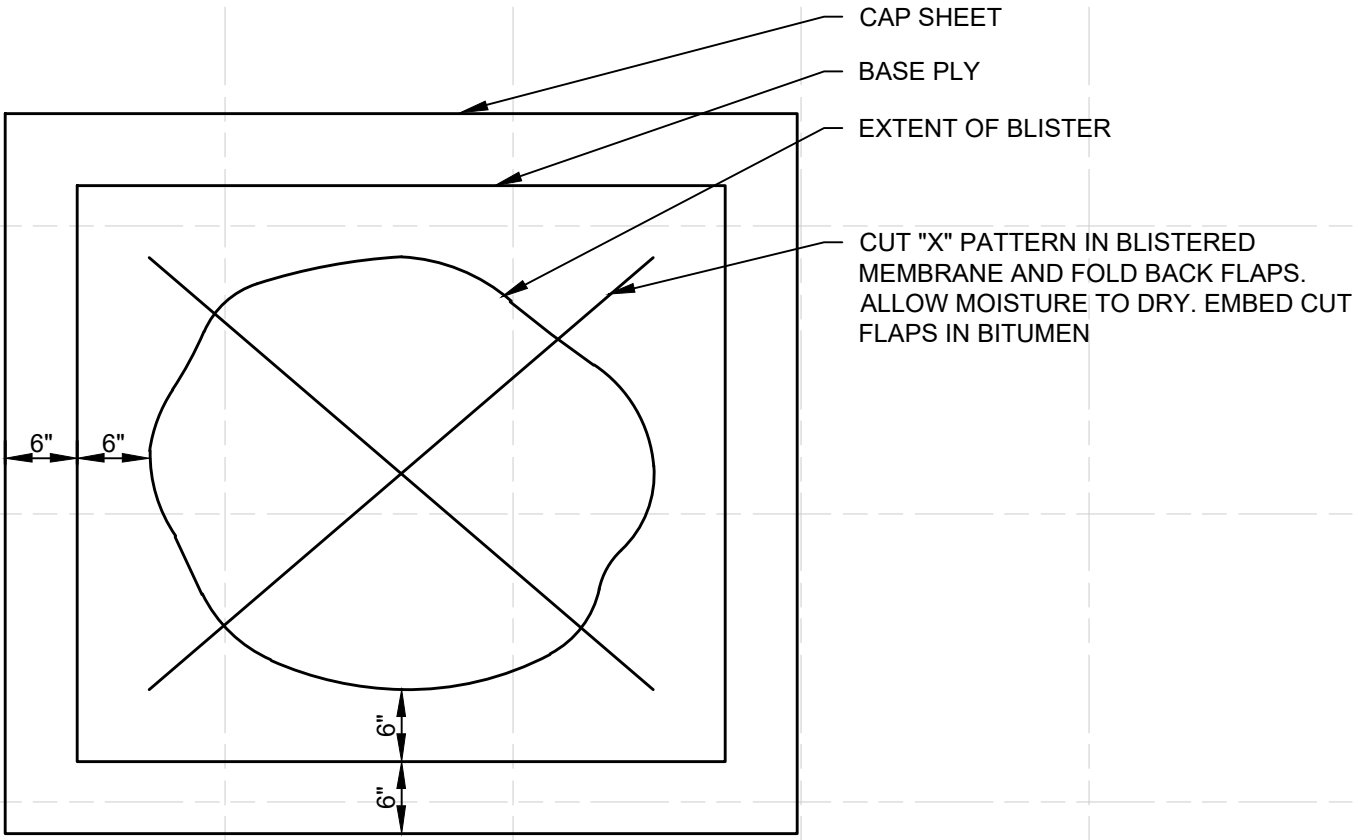
BUR-026B
(PARAPET CONDITION)

NOTE:
ROOFING, FLASHINGS, ETC. NOT SHOWN FOR CLARITY

DETAIL: TYPICAL LIGHTNING PROTECTION AIR TERMINAL MOUNTS

A1

SCALE: NTS



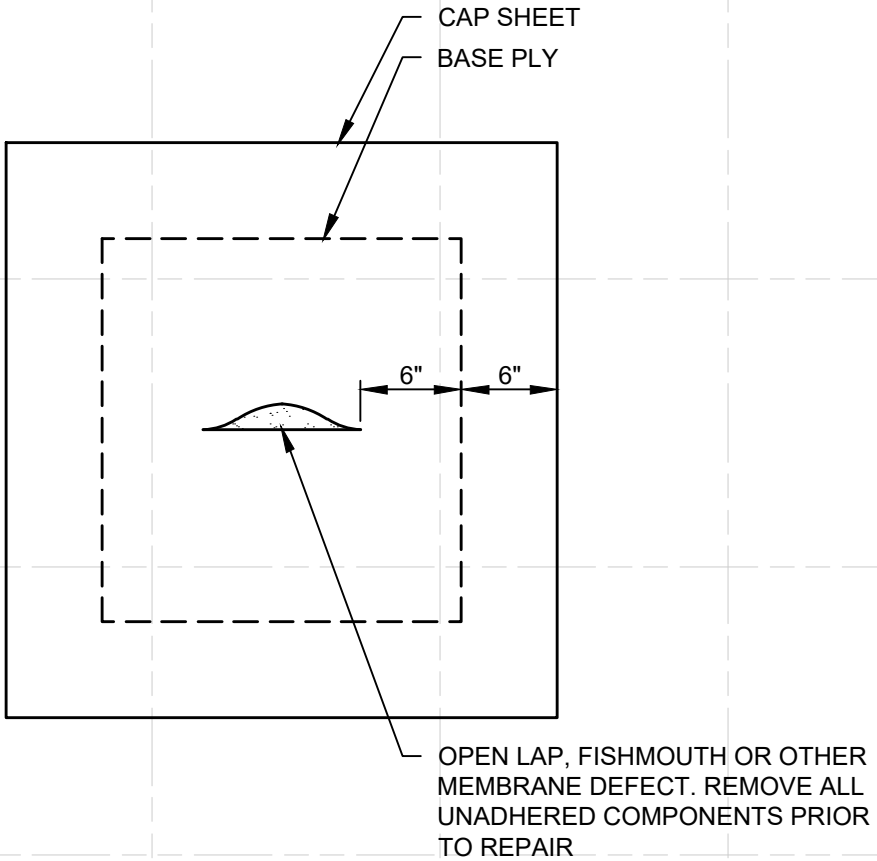
A1

DETAIL: ISOLATED DEFECT REPAIR

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

Detail B3010A-DT427P



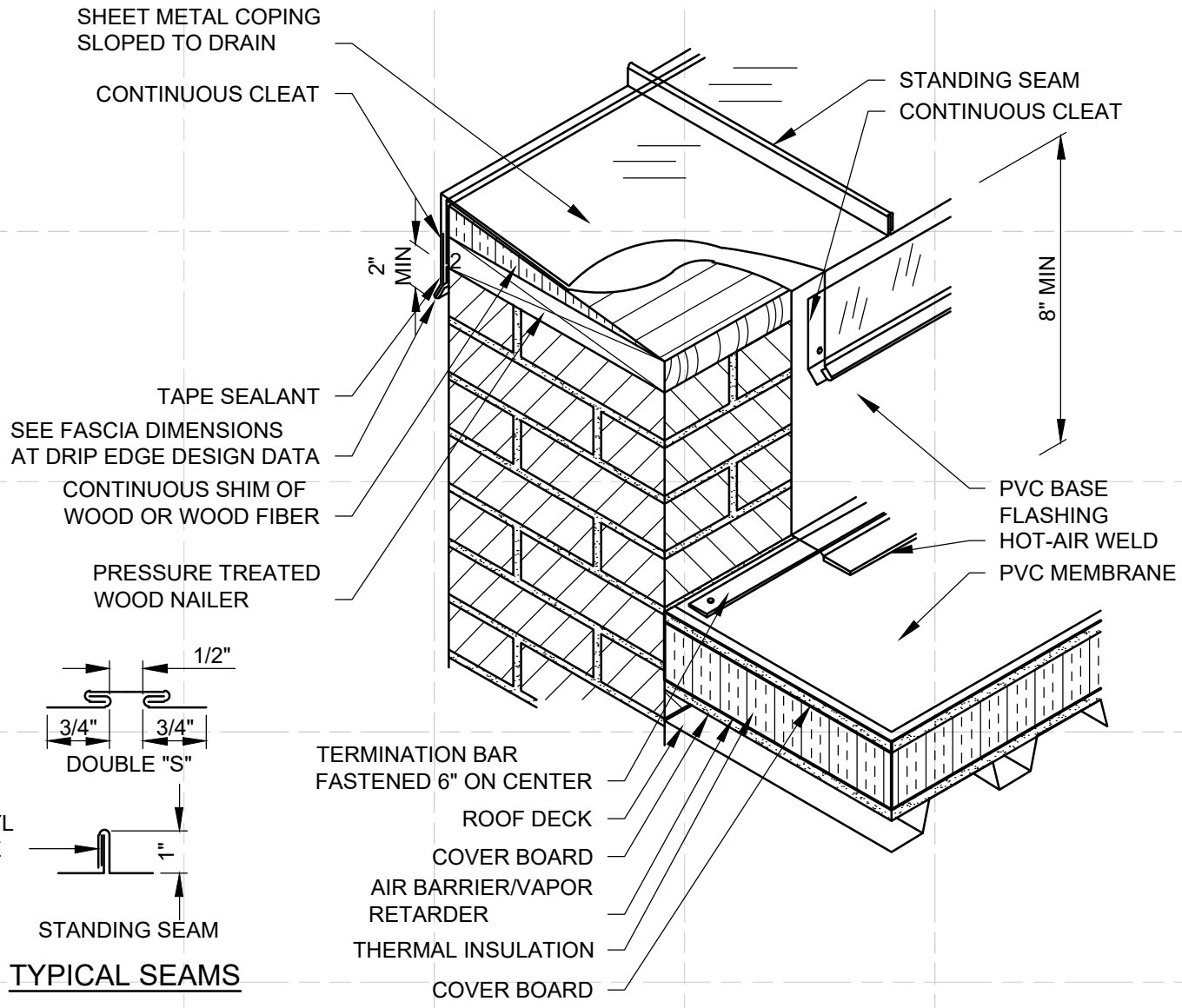
ISOLATED DEFECT REPAIR

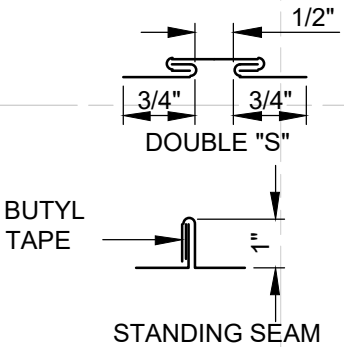
A1

DETAIL: BLISTER REPAIR

SCALE:1 1/2"=1'-0"

0 6" 1' 2'



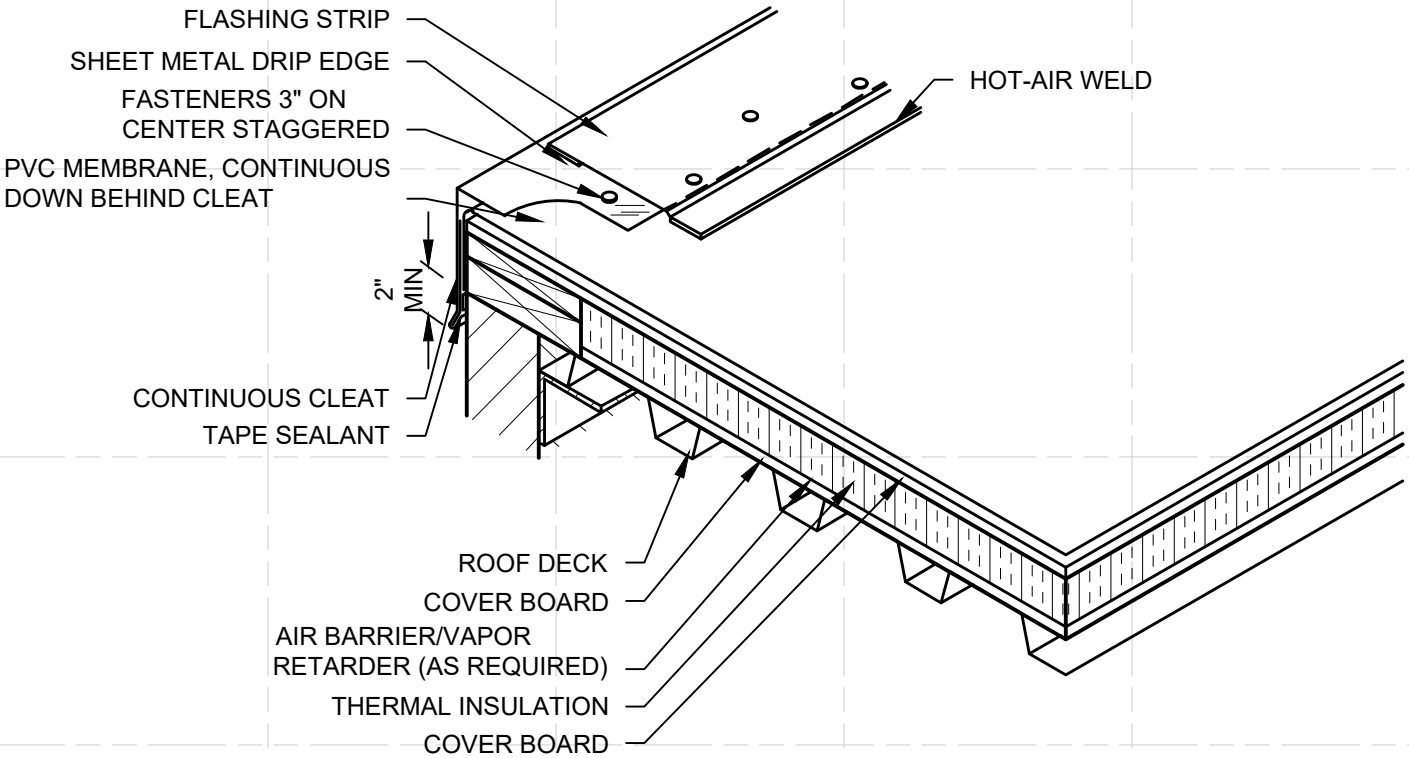


TYPICAL SEAMS

DETAIL: METAL COPING CAP AND BASE FLASHING

A1

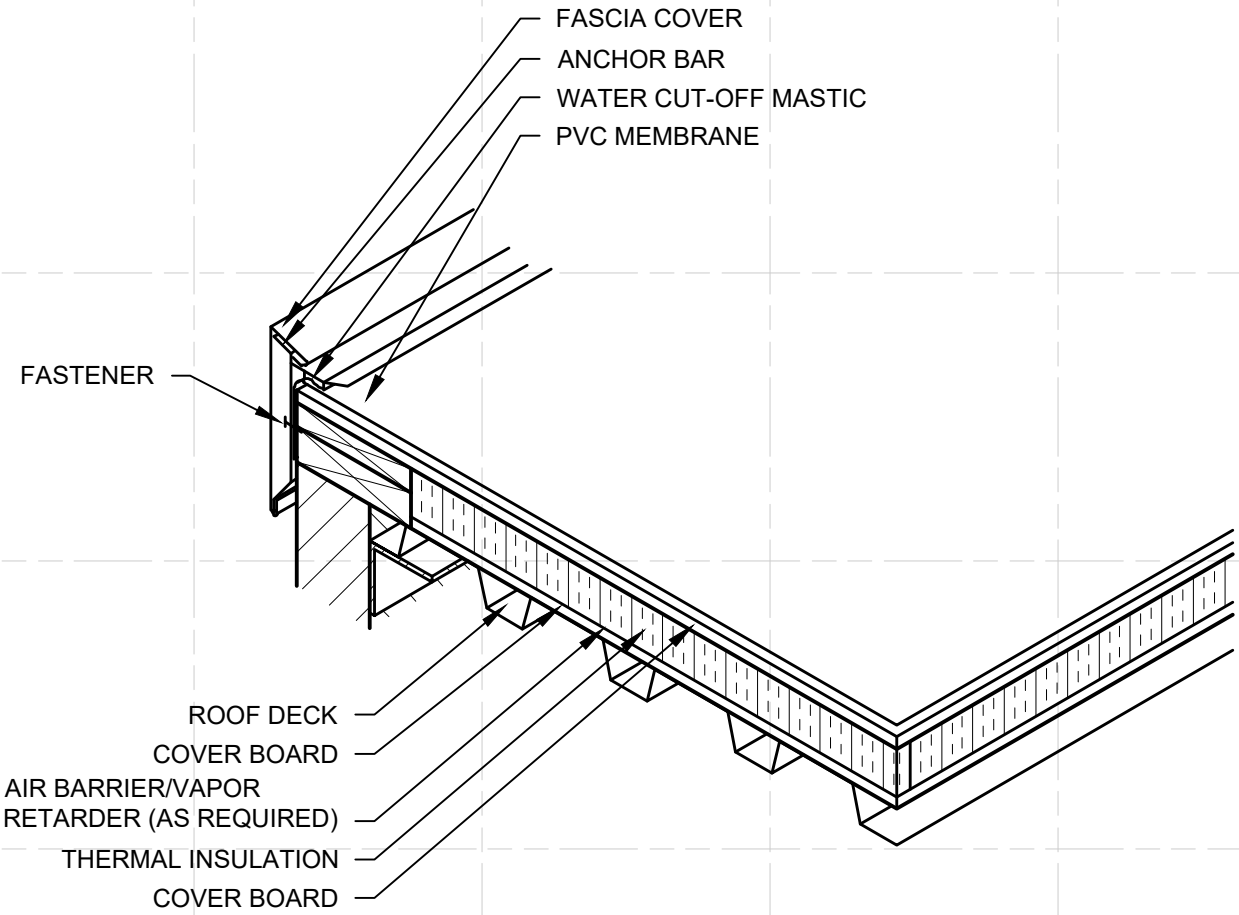
SCALE: NTS



A1

DETAIL: DRIP EDGE

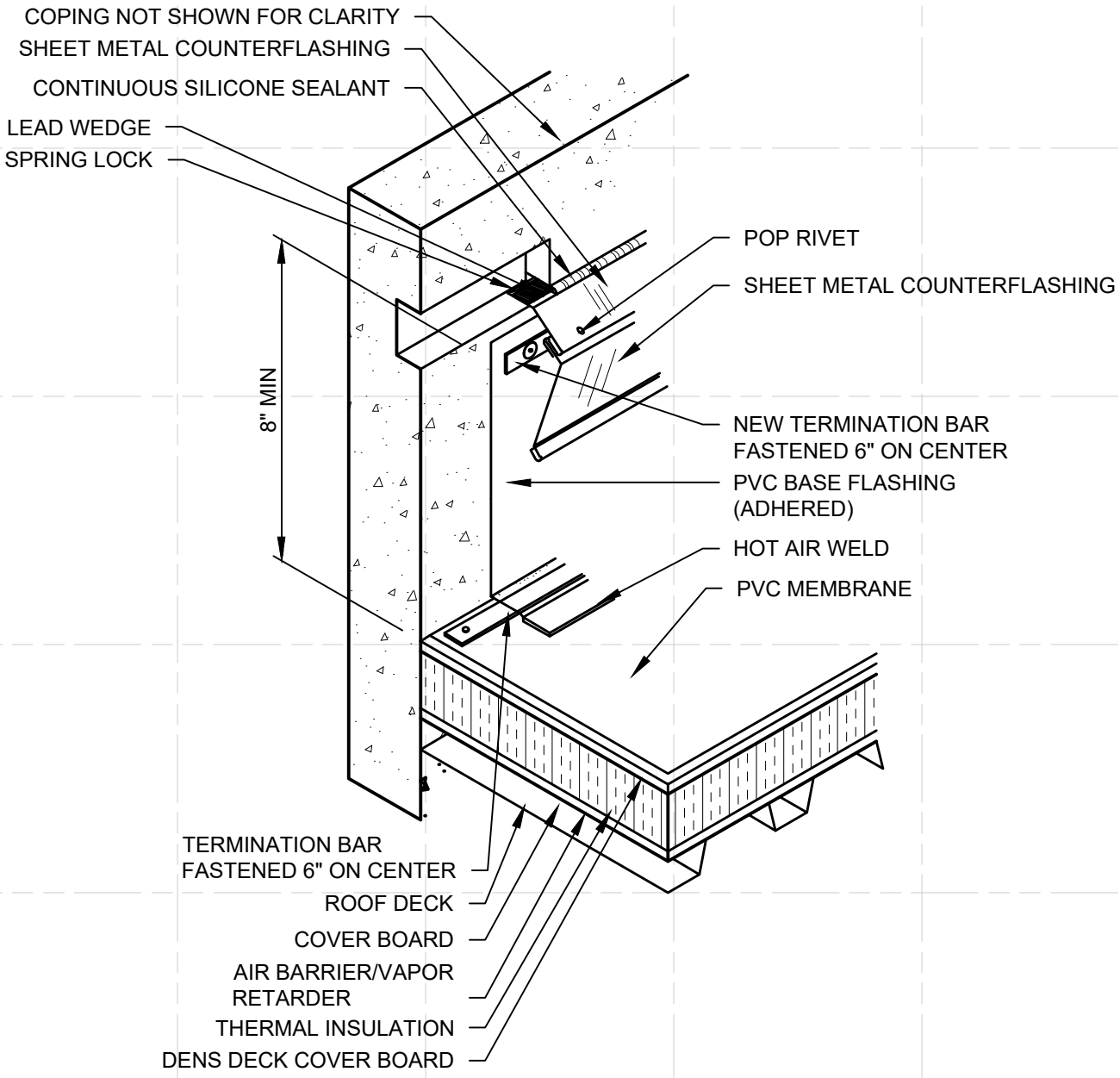
SCALE: NTS



A1

DETAIL: PRE-ENGINEERED EDGE FLASHING

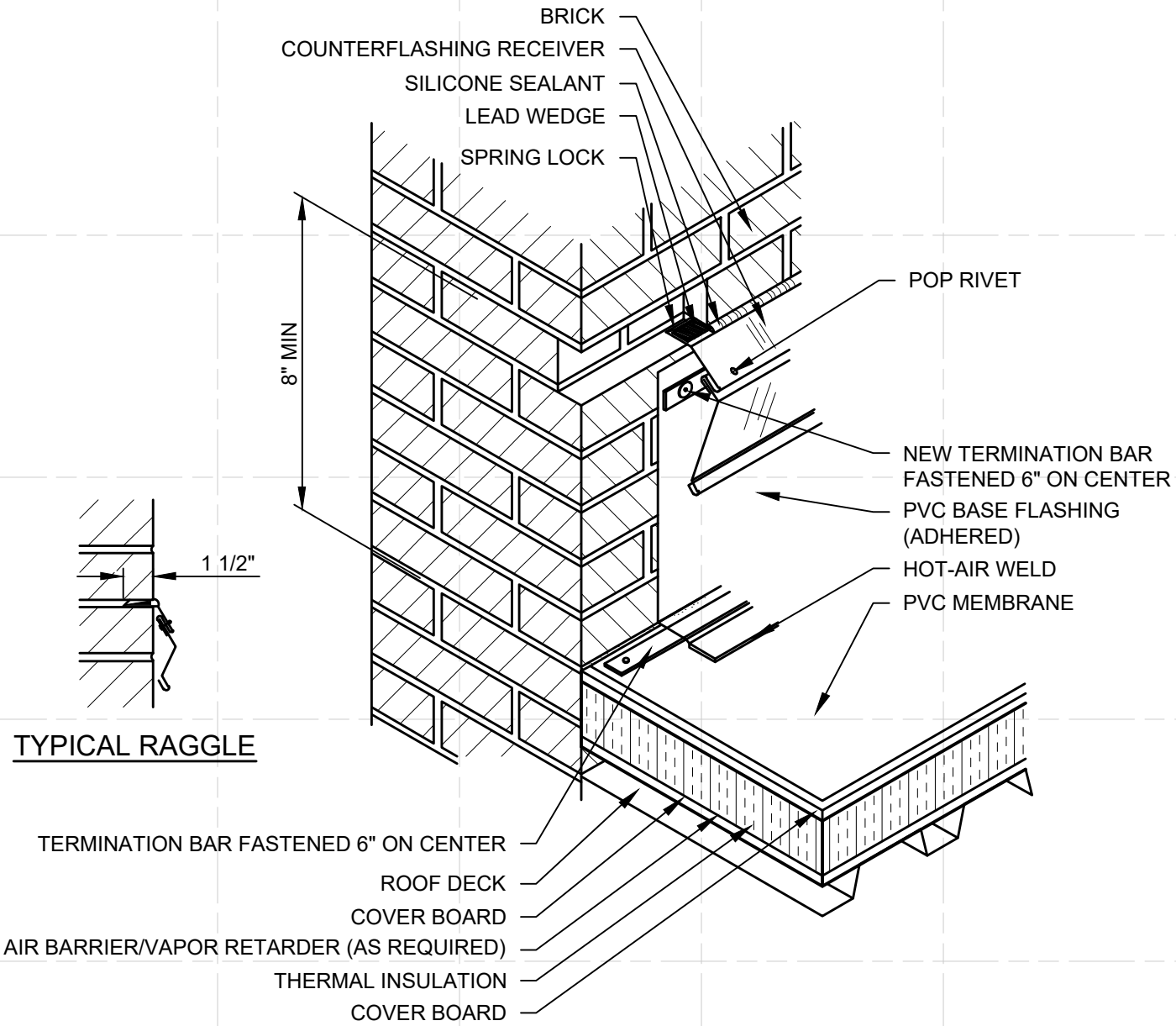
SCALE: NTS



DETAIL: SURFACE-MOUNTED COUNTERFLASHING FOR CONCRETE WALLS

A1

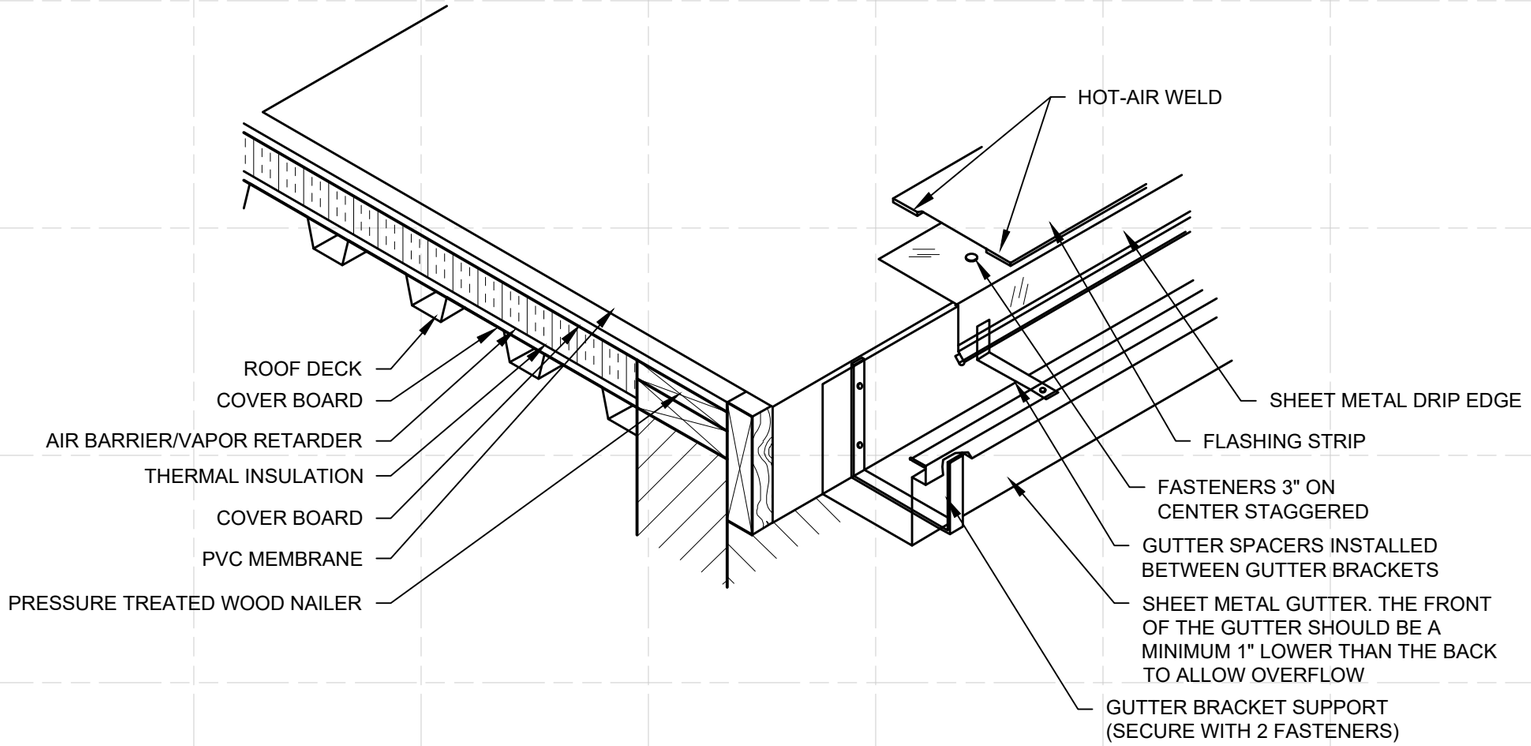
SCALE: NTS



A1

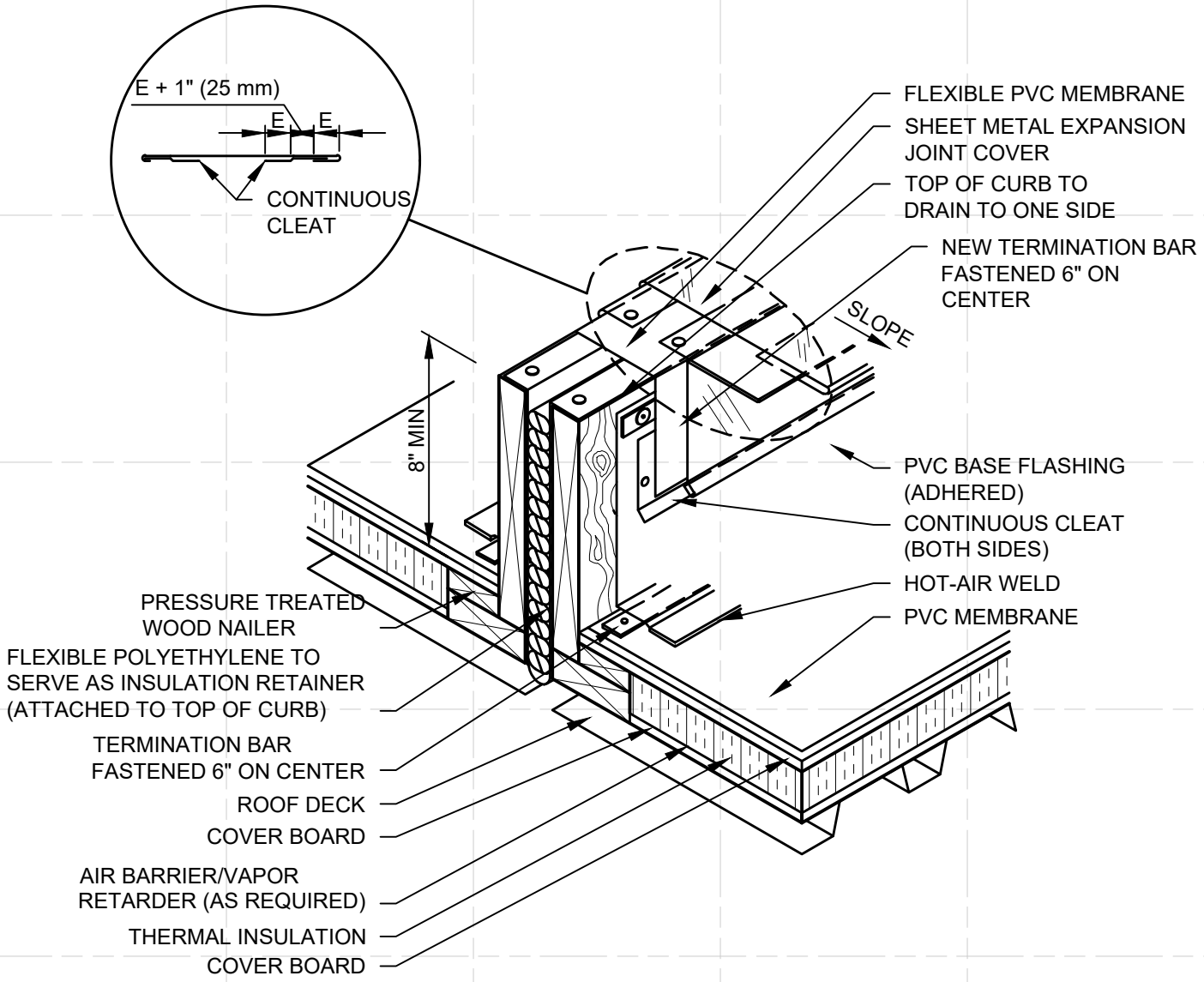
DETAIL: COUNTERFLASHING IN RAGGLE

SCALE: NTS



A1 DETAIL: DRIP EDGE WITH GUTTER

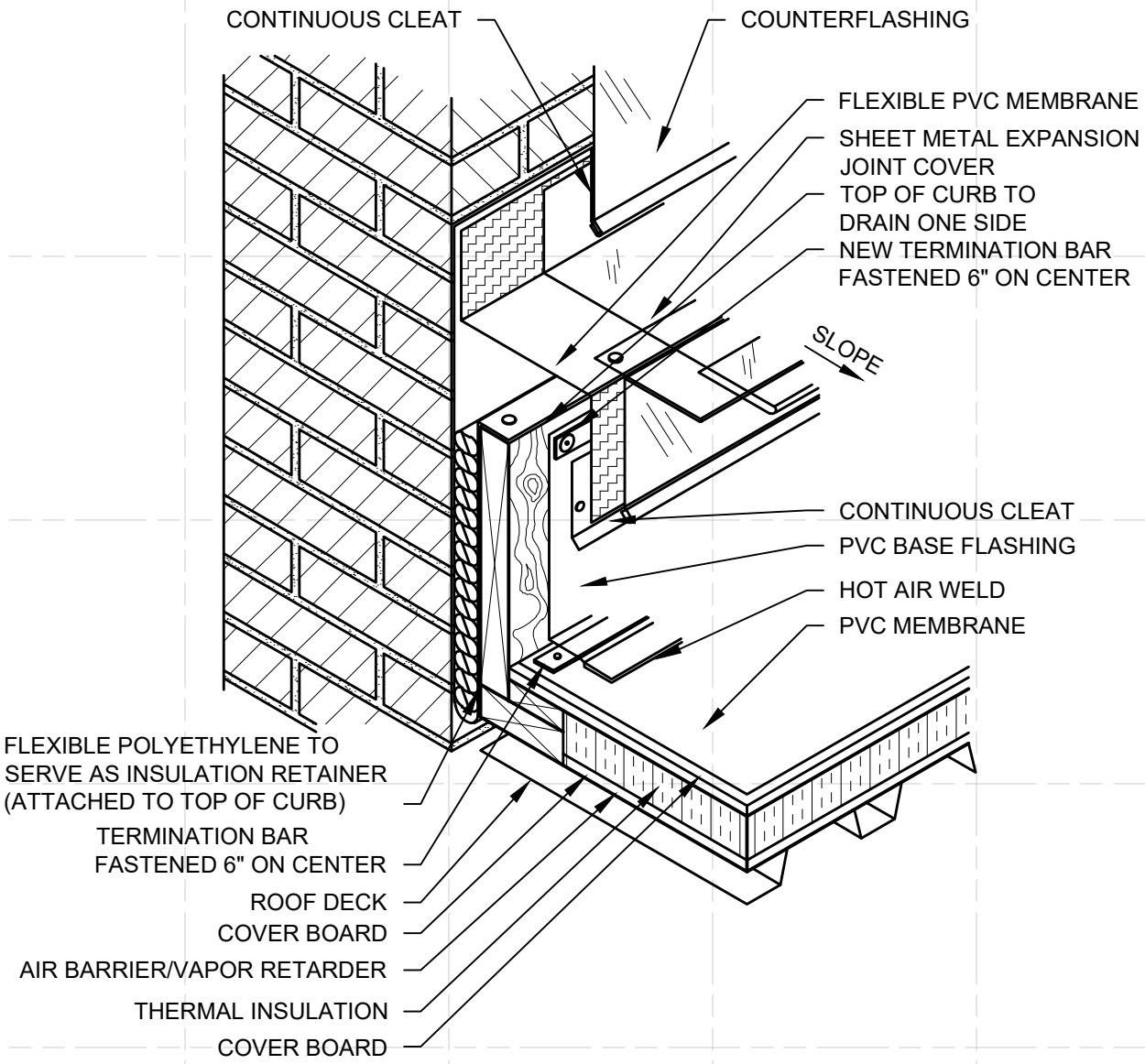
SCALE: NTS



DETAIL: ROOF-TO-ROOF EXPANSION JOINT WITH SHOP-FORMED METAL COVER

A1

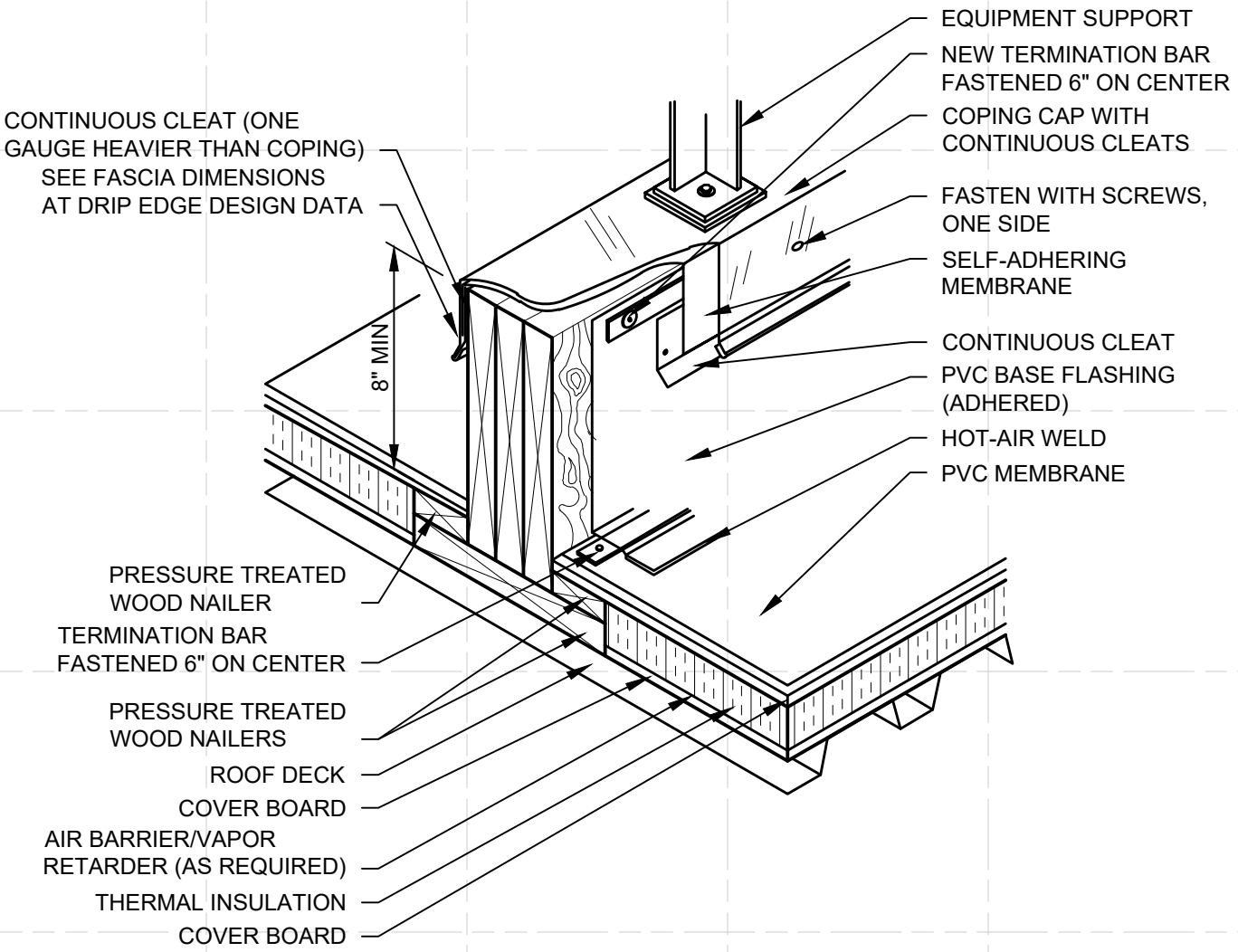
SCALE: NTS



DETAIL: ROOF-TO-WALL EXPANSION JOINT WITH SHOP-FORMED METAL COVER

A1

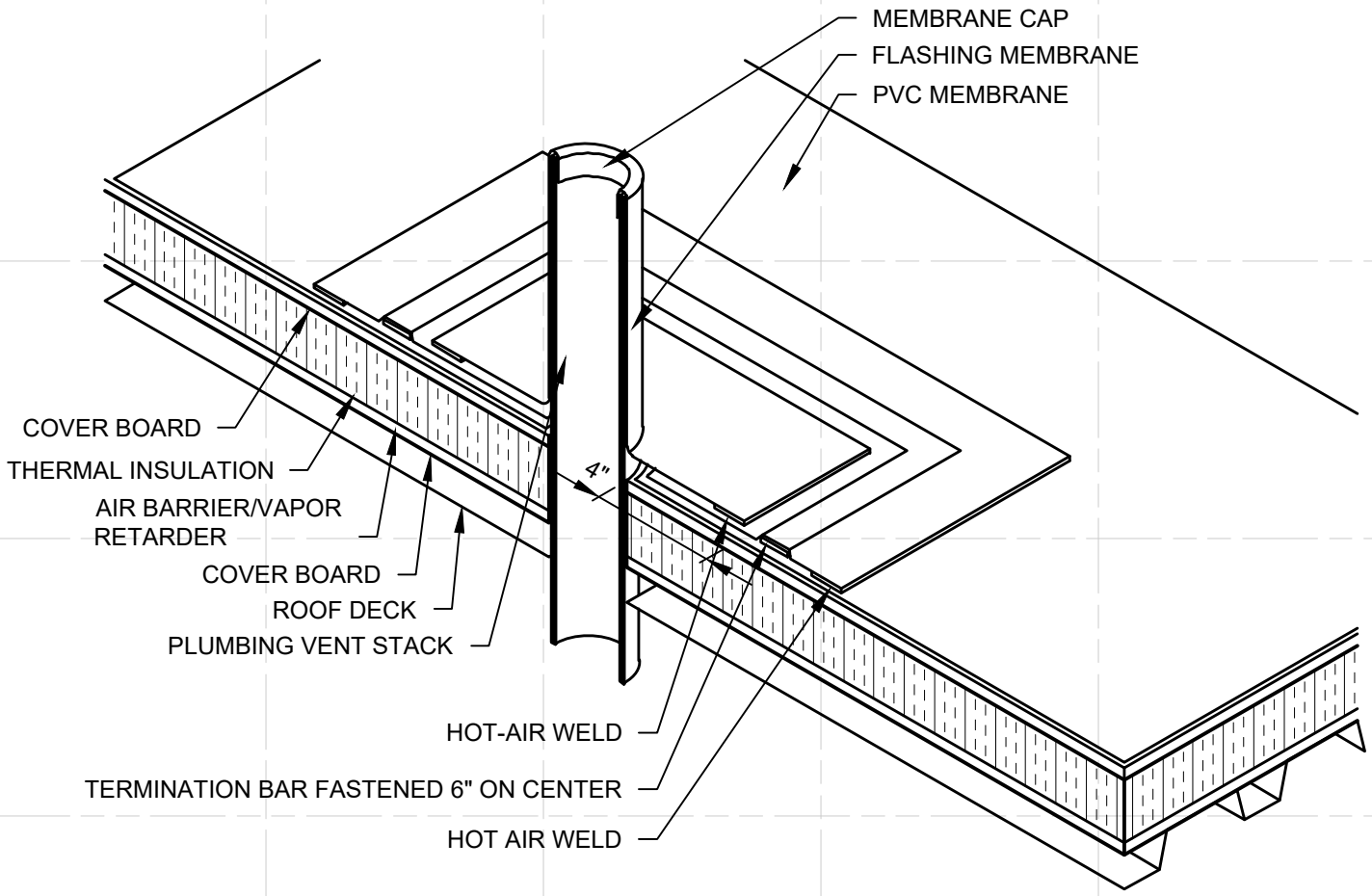
SCALE: NTS



A1

DETAIL: EQUIPMENT CURB SUPPORT

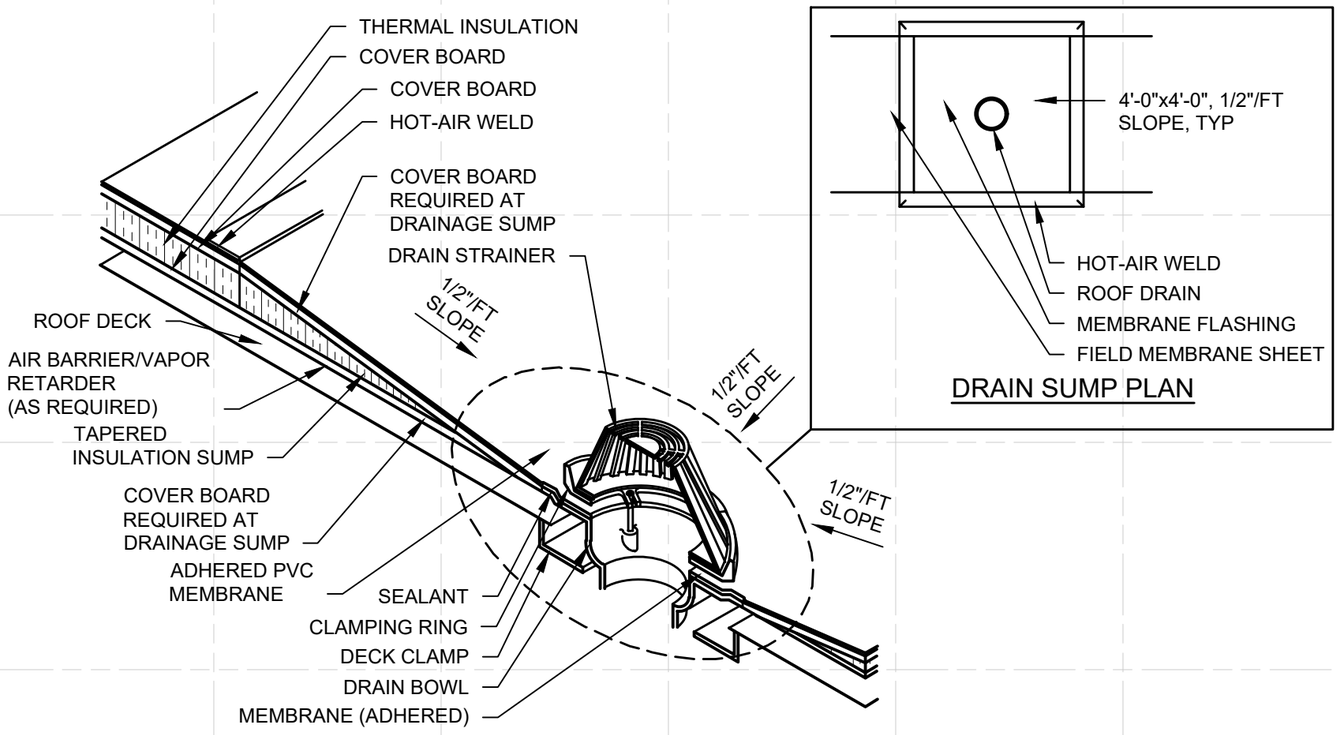
SCALE: NTS



A1

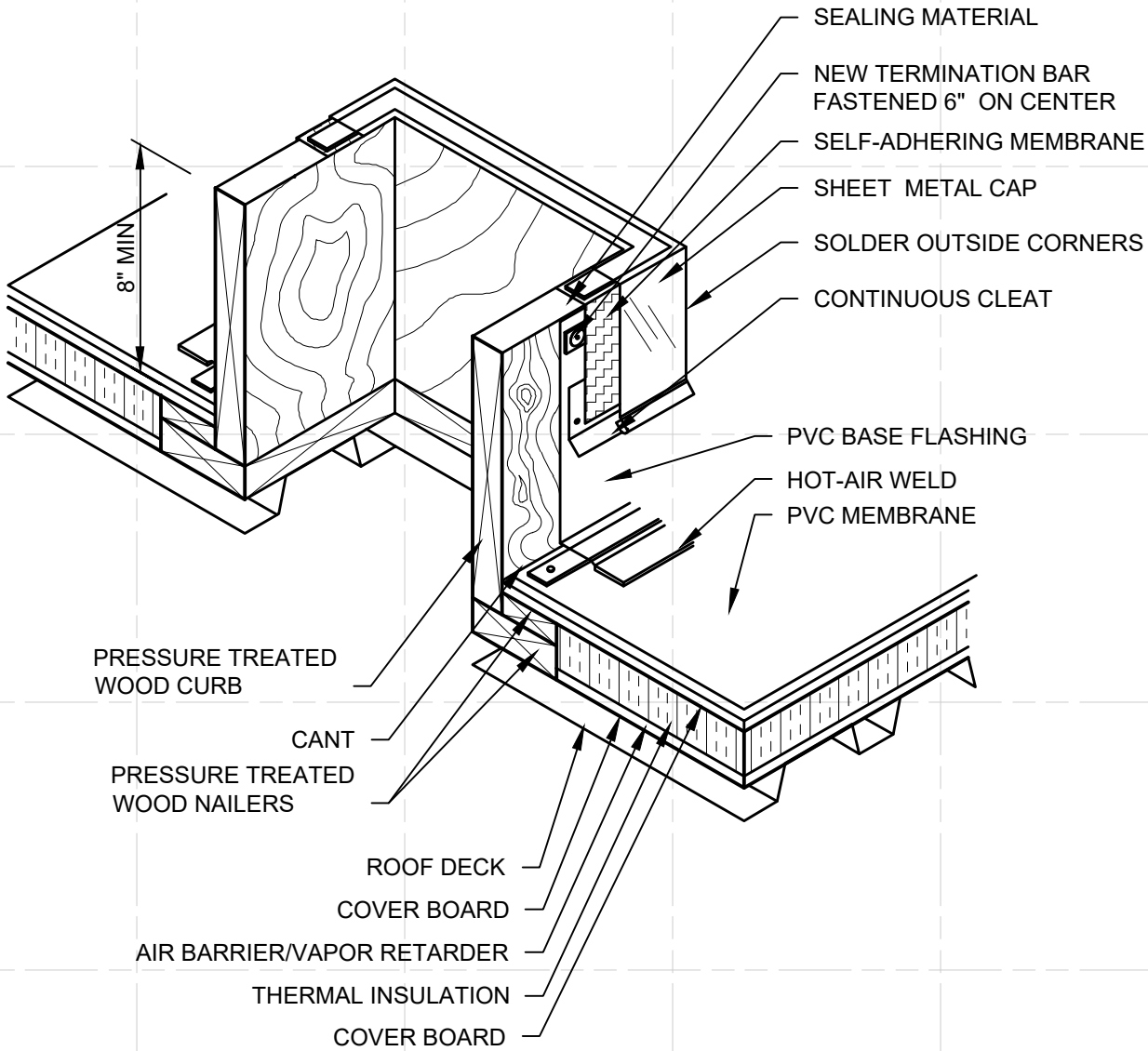
DETAIL: PLUMBING VENT

SCALE: NTS



A1 DETAIL: ROOF DRAIN

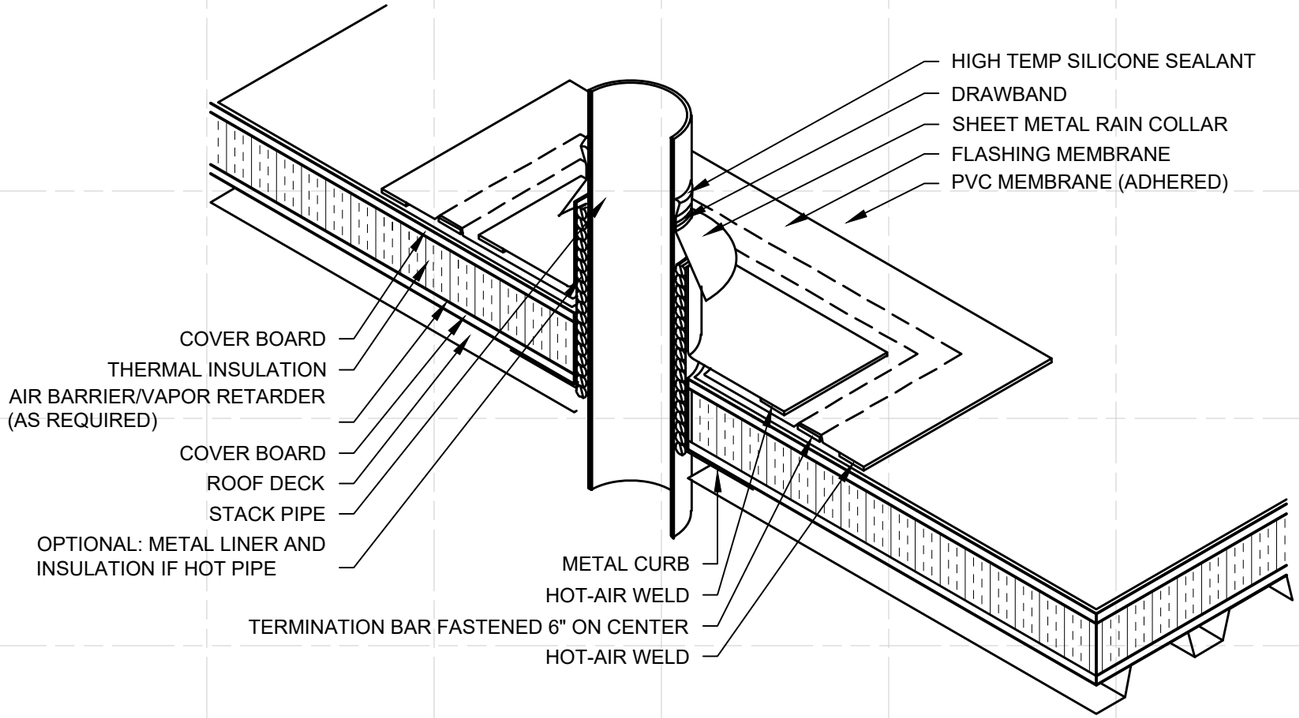
SCALE: NTS



A1

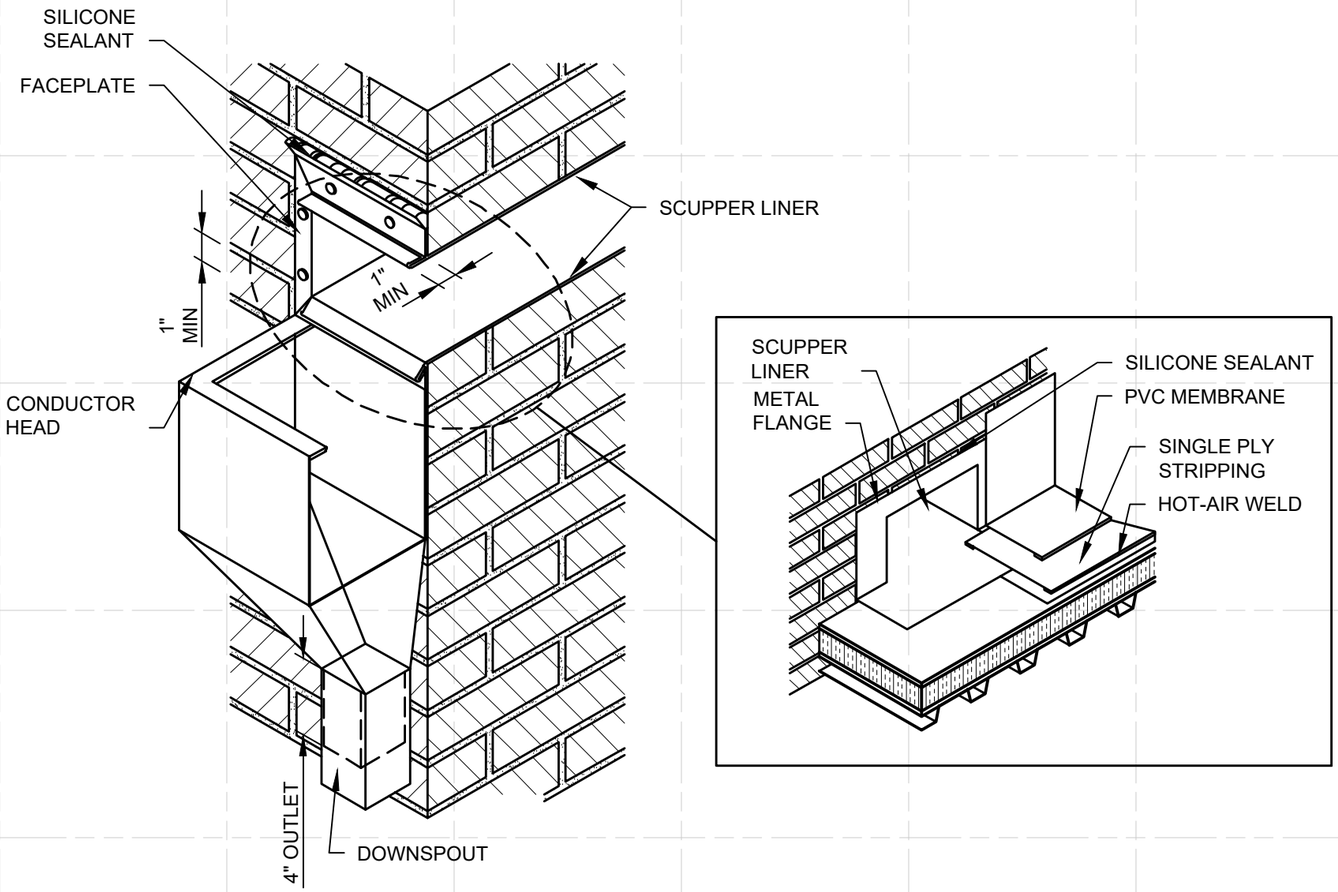
DETAIL: CURBED PENETRATION

SCALE: NTS



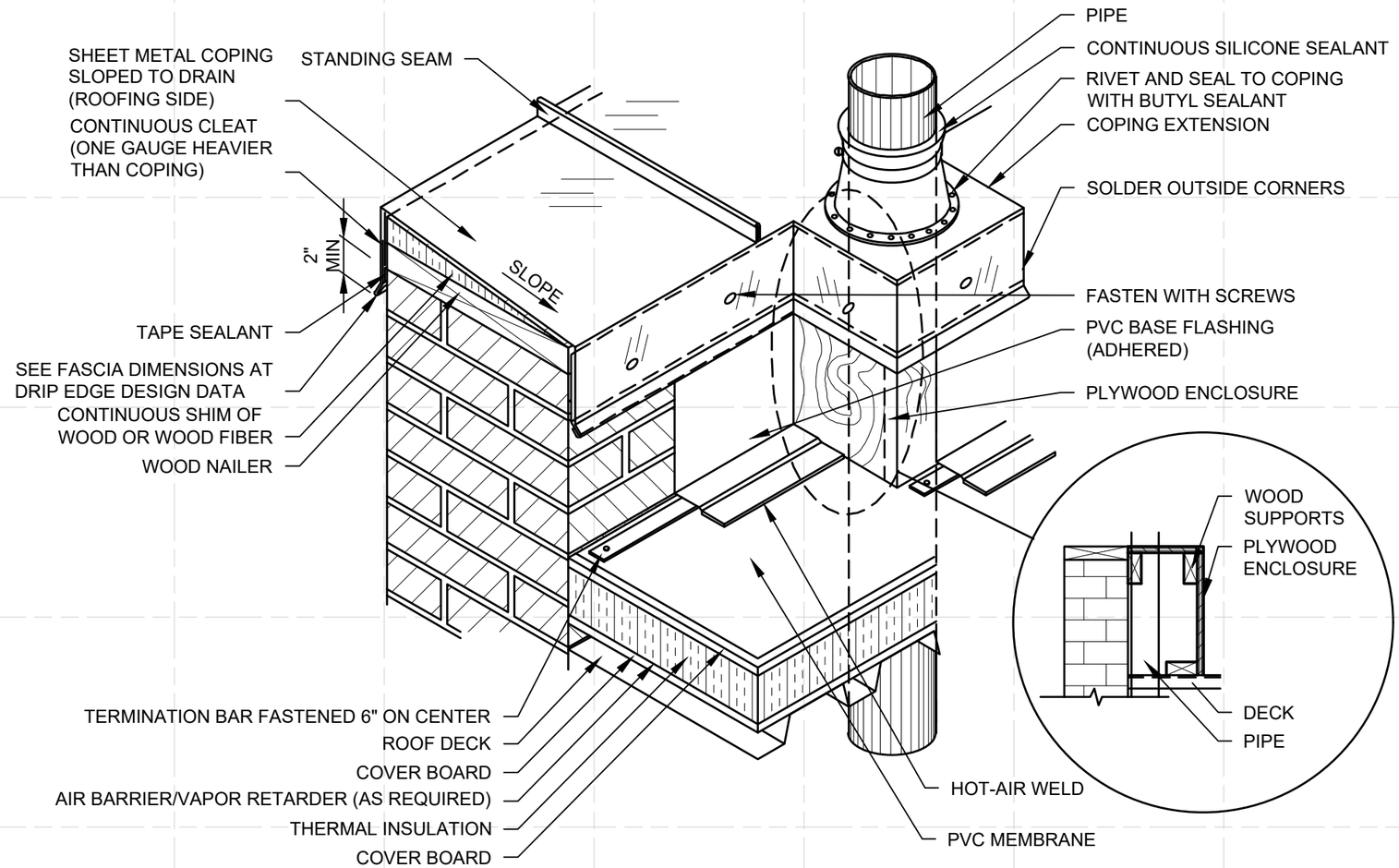
A1 DETAIL: STACK PIPE

SCALE: NTS



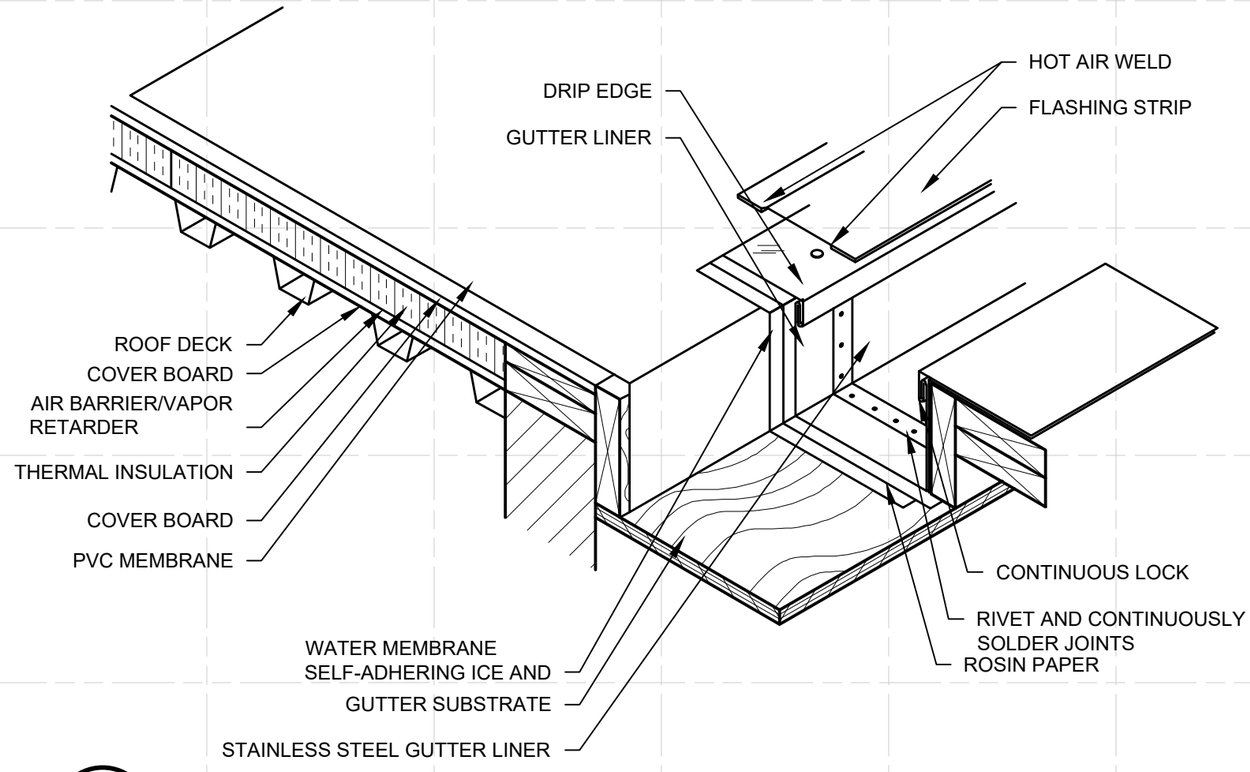
A1 DETAIL: DRAIN SCUPPER WITH CONDUCTOR HEAD

SCALE: NTS



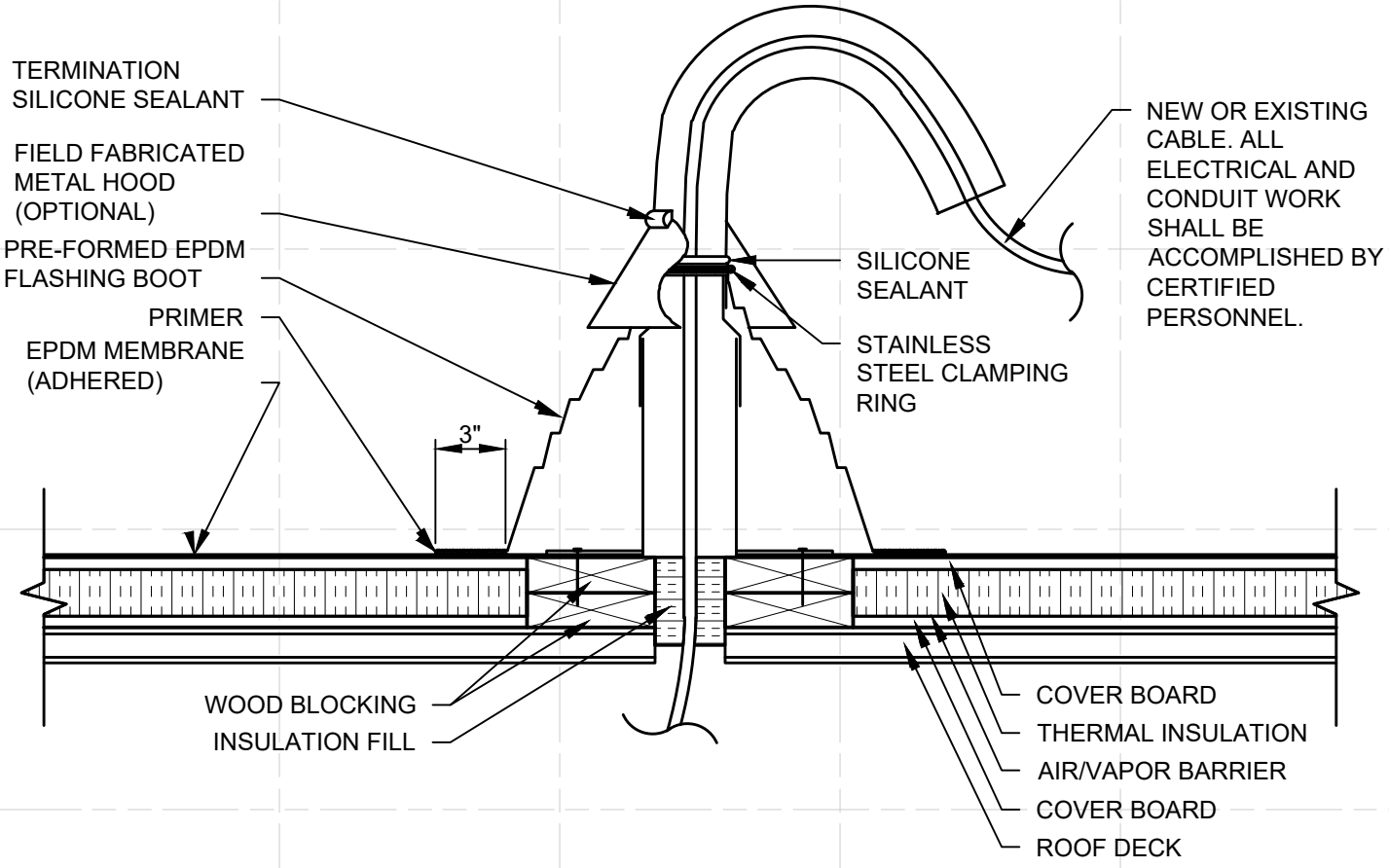
A1 DETAIL: PIPE ADJACENT TO PARAPET

SCALE: NTS



A1 DETAIL: DRIP EDGE WITH INTERNAL GUTTER

SCALE: NTS



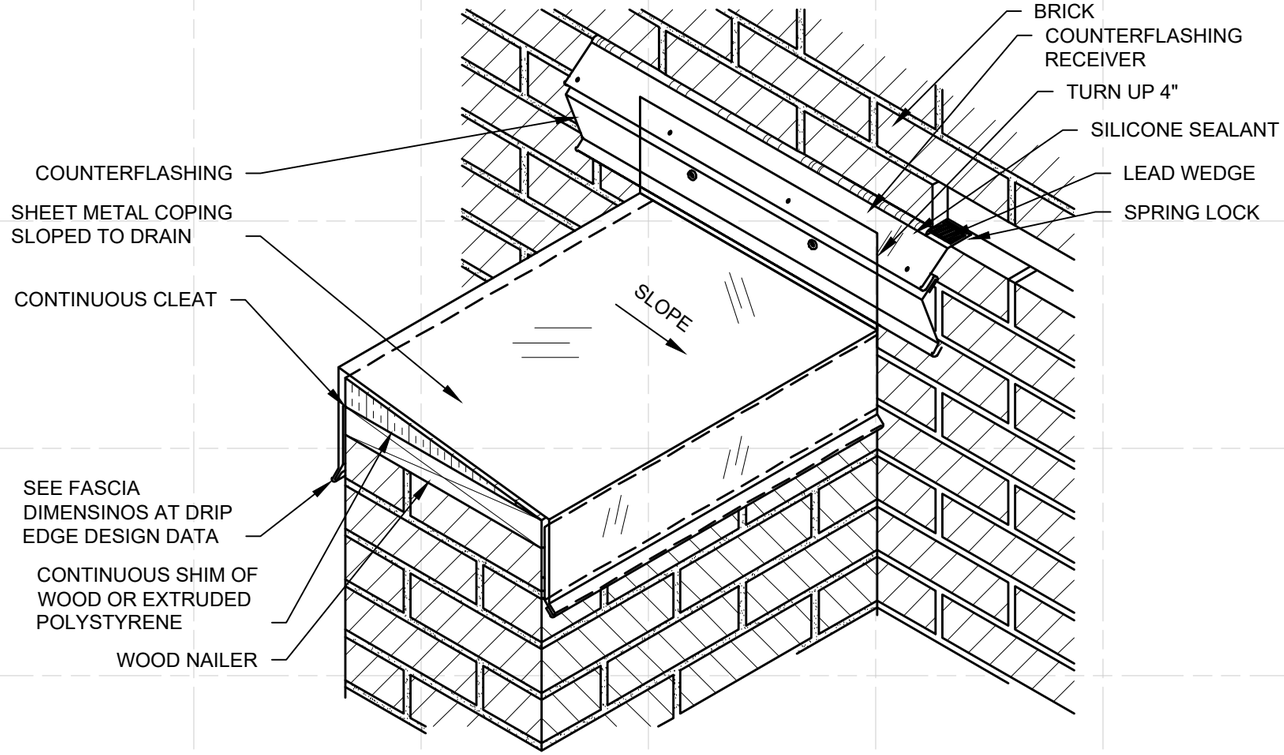
A1

DETAIL: CABLE PENETRATION FLASHING

SCALE: 1 1/2"=1'-0"

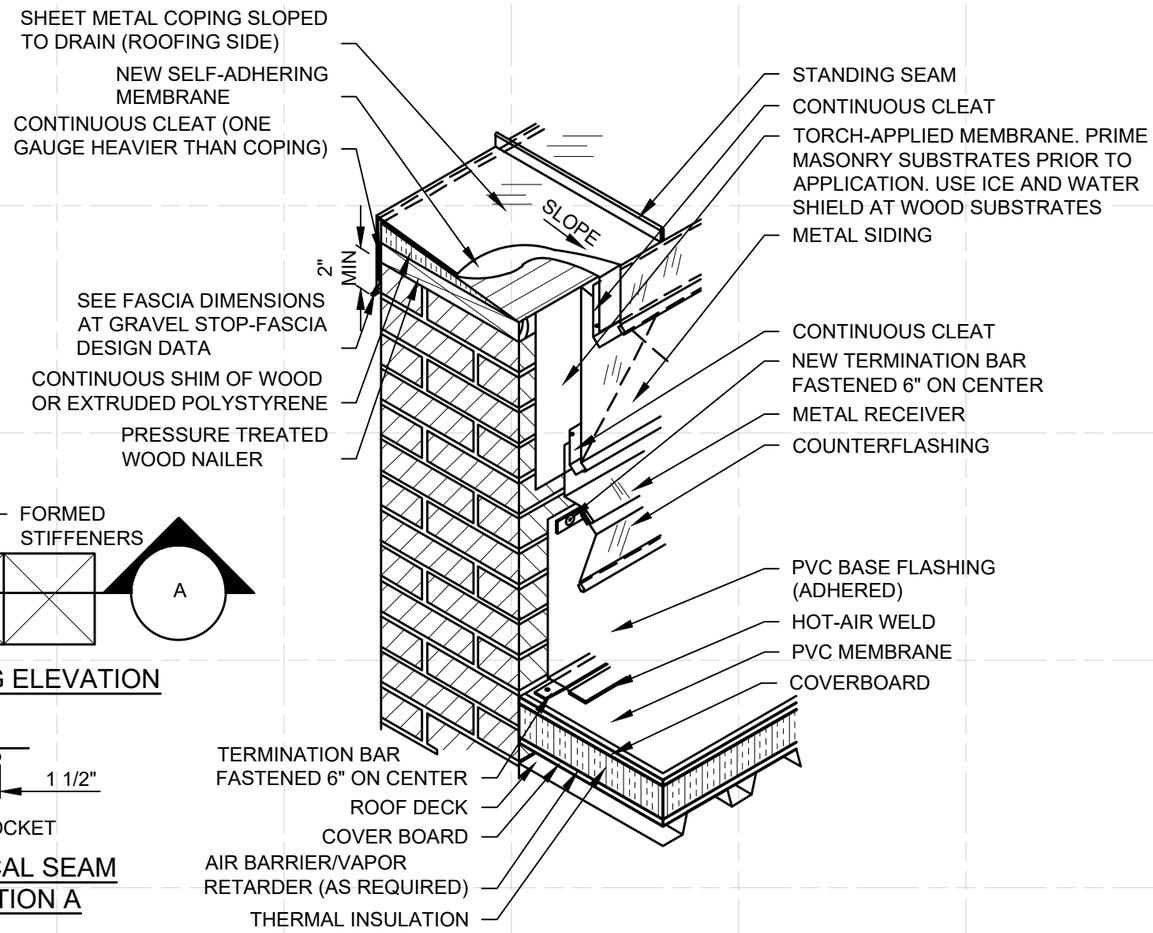
0 6" 1' 2'

Detail B3010A-DT517X



A1 DETAIL: COPING TERMINATION AT WALL

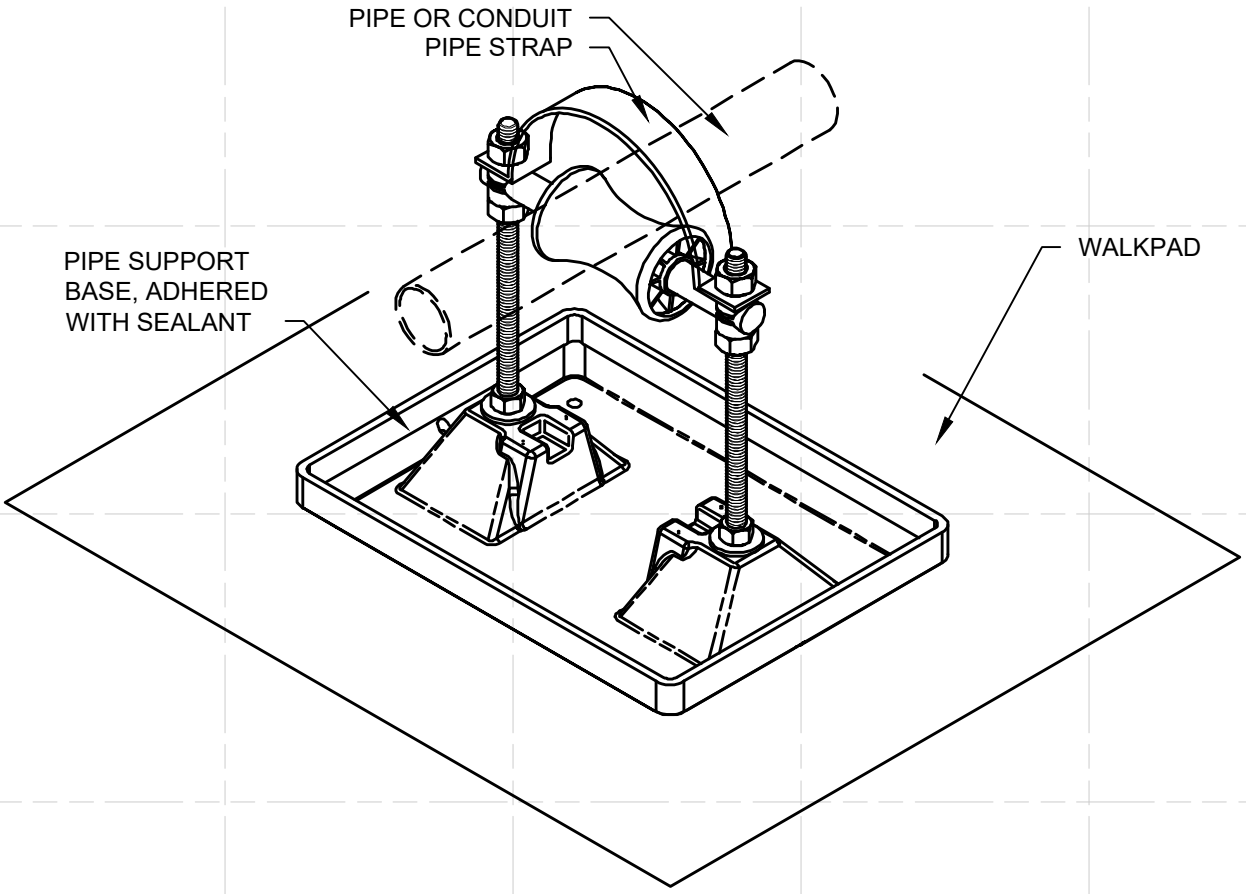
SCALE: NTS



A1 DETAIL: METAL SIDING

SCALE: NTS

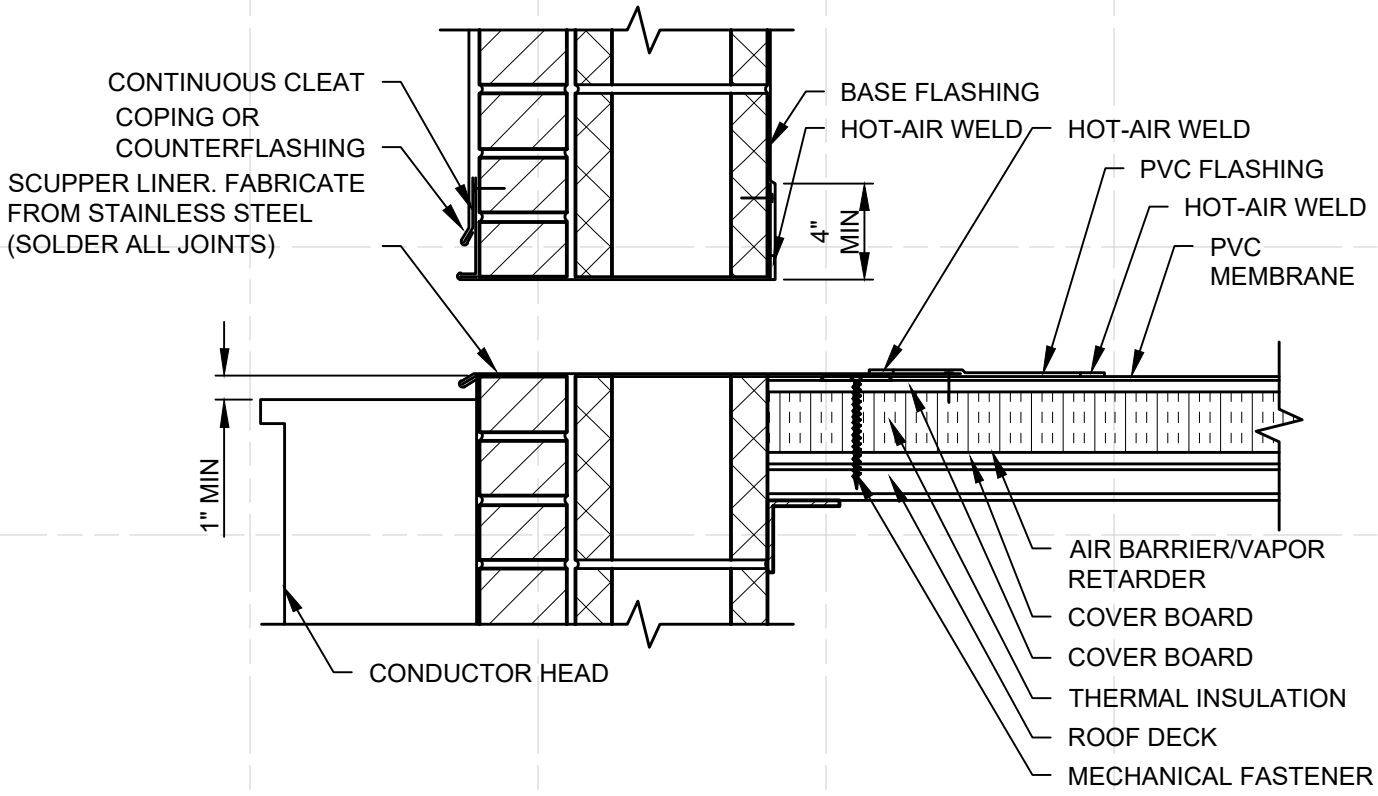
Detail B3010A-DT519I



A1

DETAIL: PIPE STAND

SCALE: NTS

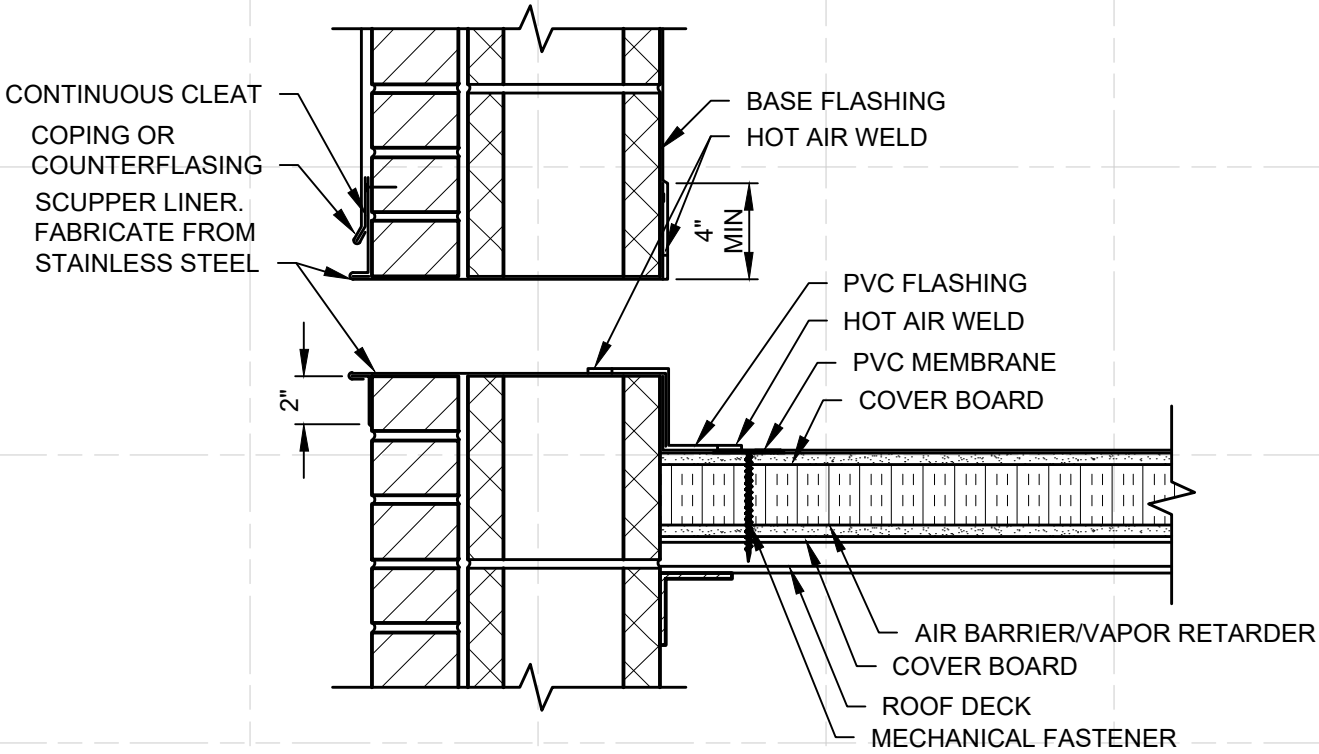


DETAIL: DRAIN SCUPPER WITH CONDUCTOR HEAD (SECTION)

A1

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

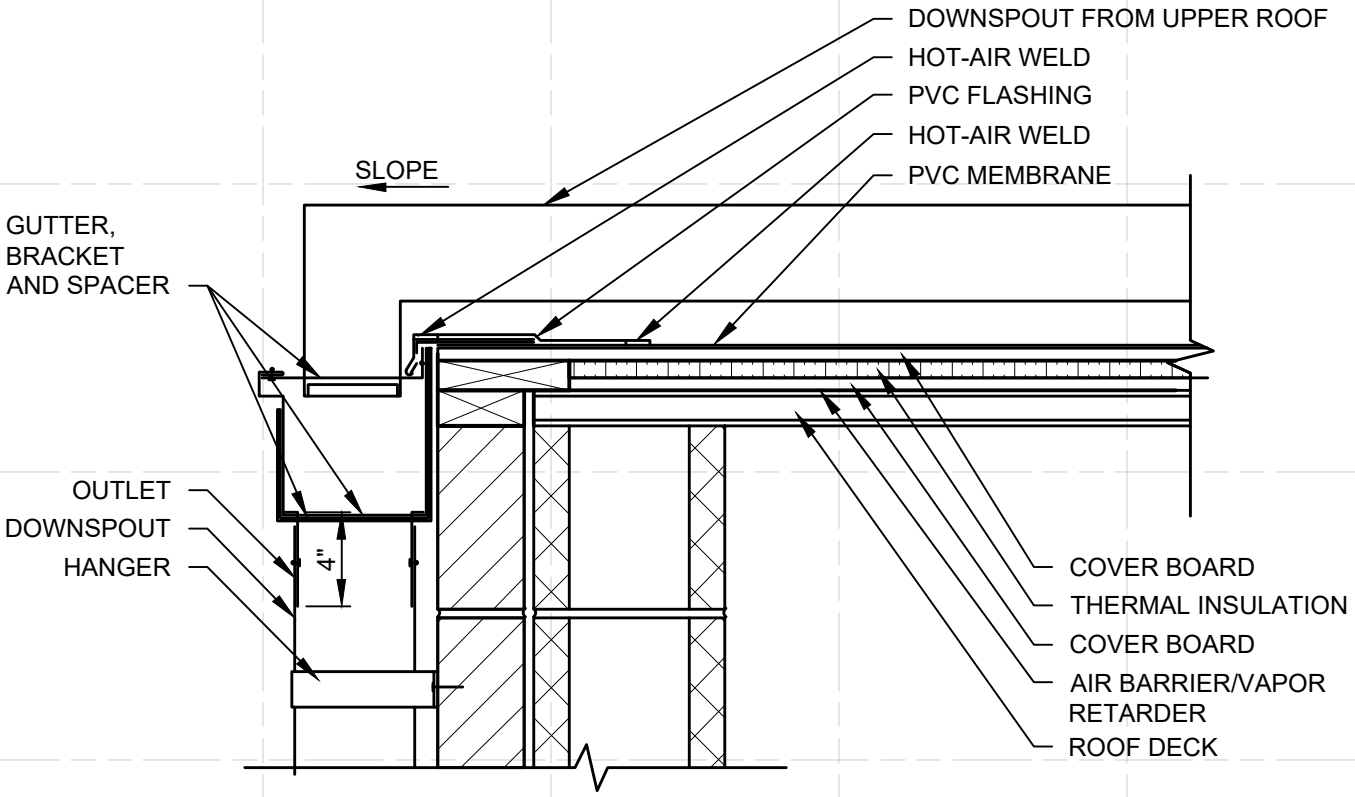


A1

DETAIL: OVERFLOW DRAIN SCUPPER

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'



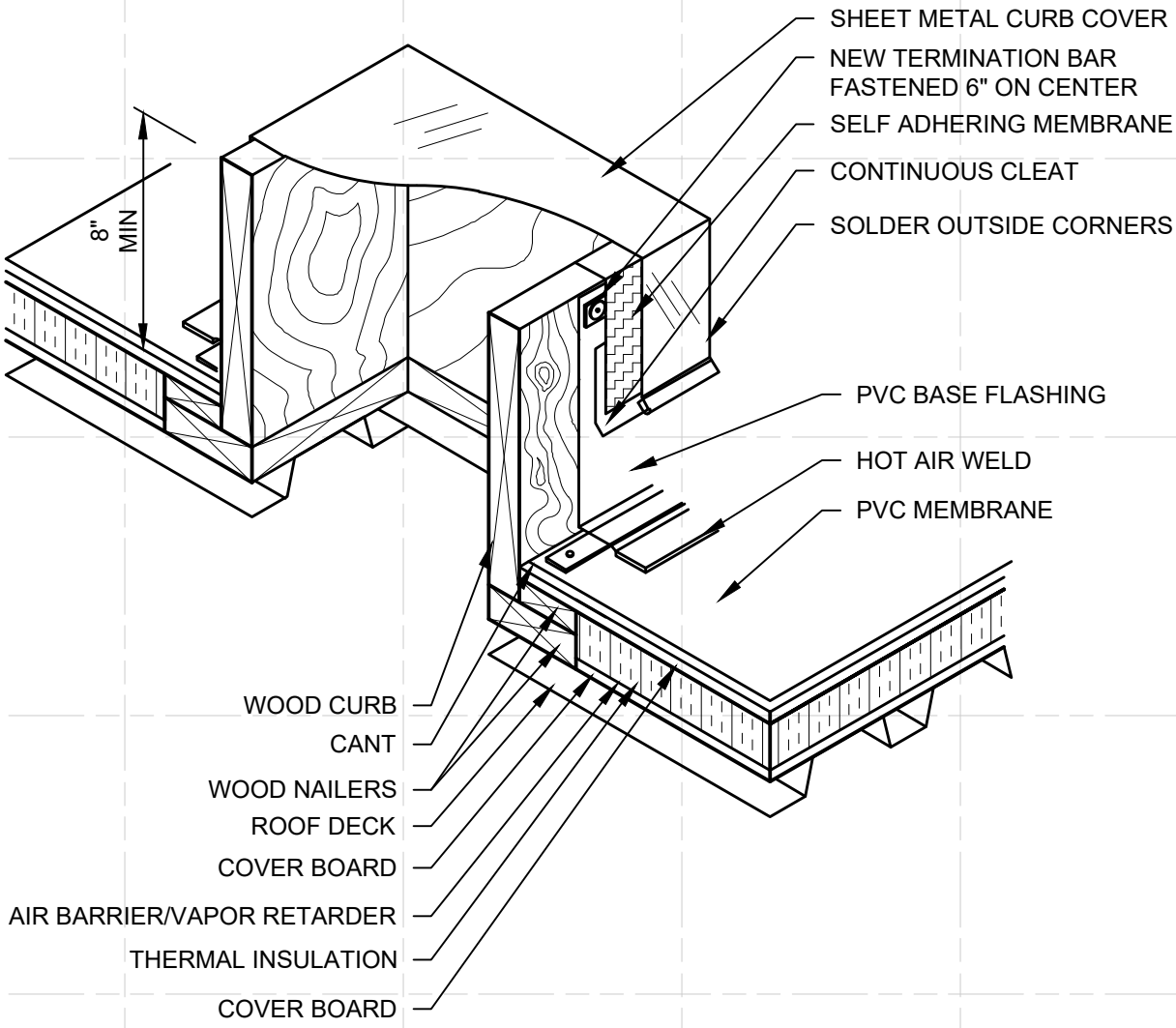
A1

DETAIL: GUTTER/DOWNSPOUT DETAIL

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

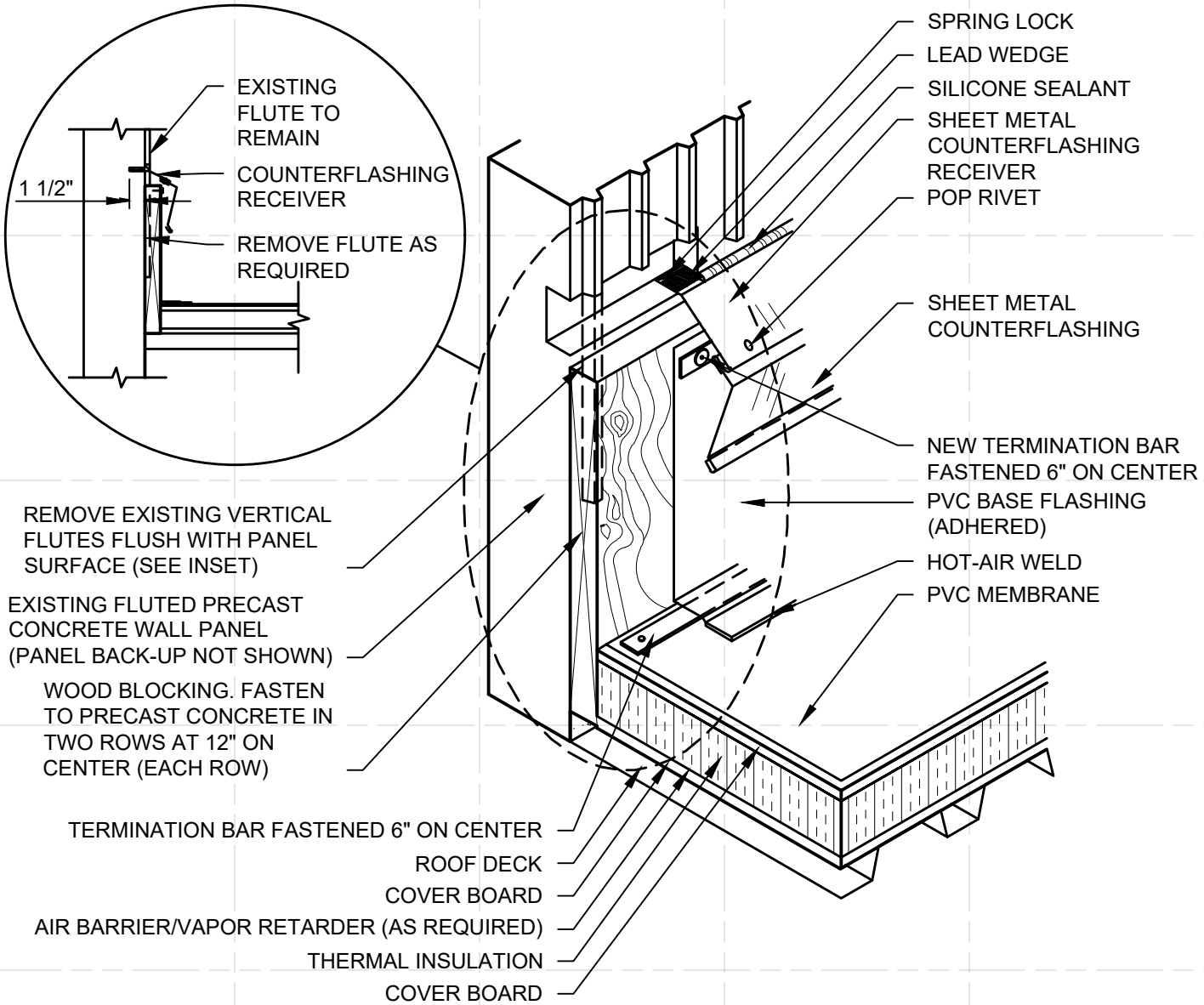
Detail B3010A-DT523X



A1

DETAIL: CURB COVER

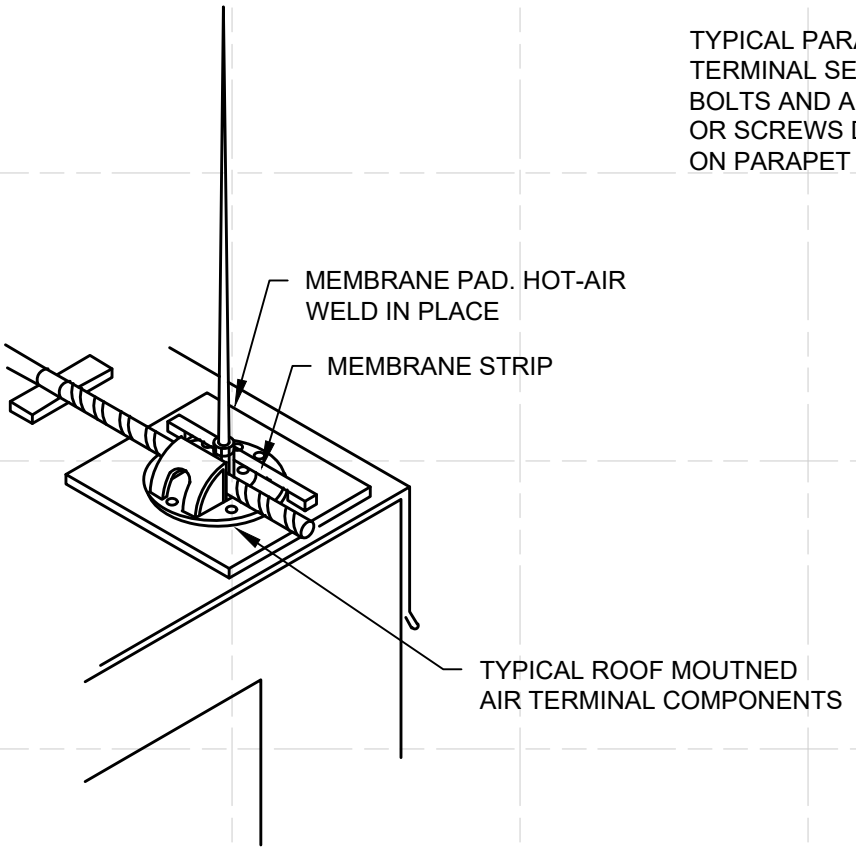
SCALE: NTS



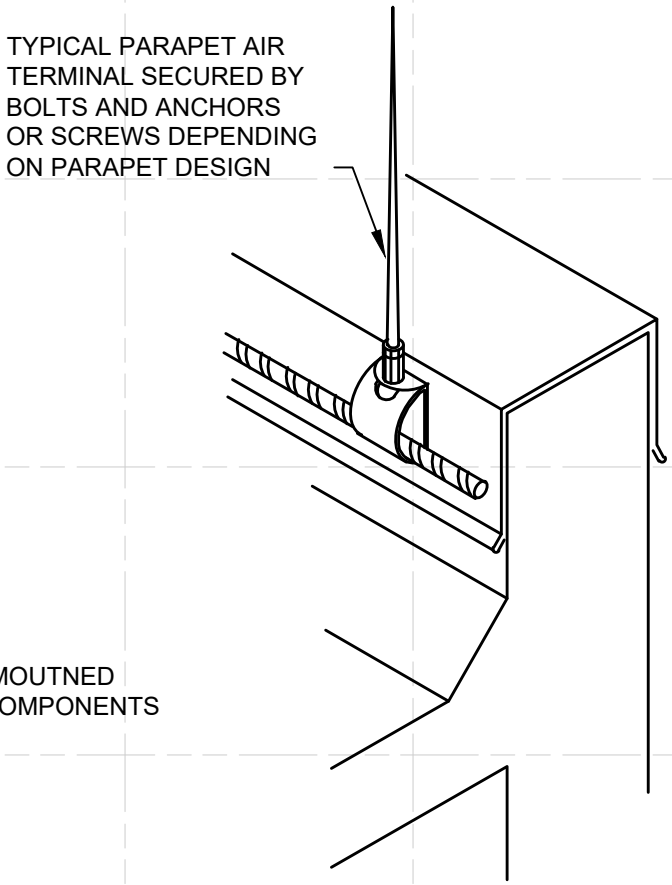
DETAIL: FLUTED PRECAST CONCRETE WALL PANEL

A1

SCALE: NTS



PVC-025A
(EAVE CONDITION)



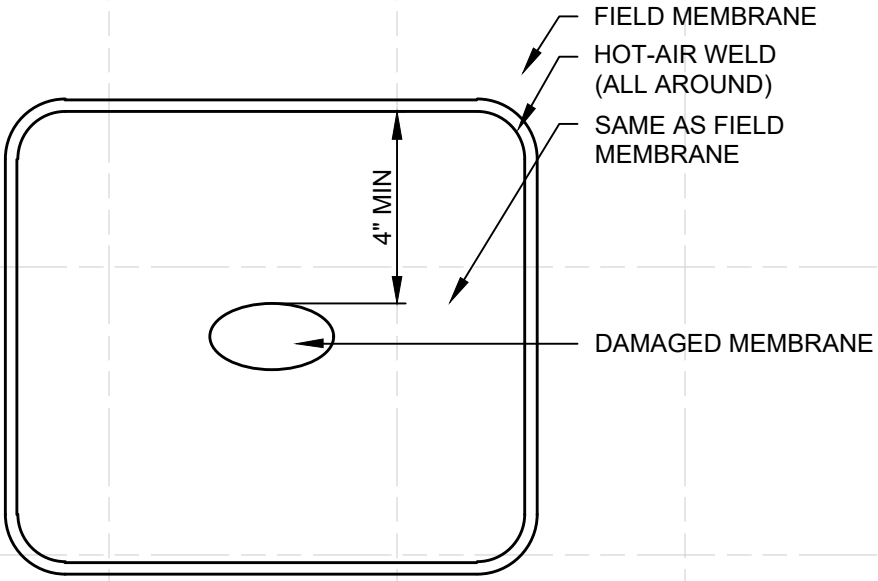
PVC-025B
(PARAPET CONDITION)

NOTE:
ROOFING, FLASHINGS, NOT SHOWN FOR CLARITY.

DETAIL: TYPICAL LIGHTNING PROTECTION AIR TERMINAL MOUNTS

A1

SCALE: NTS

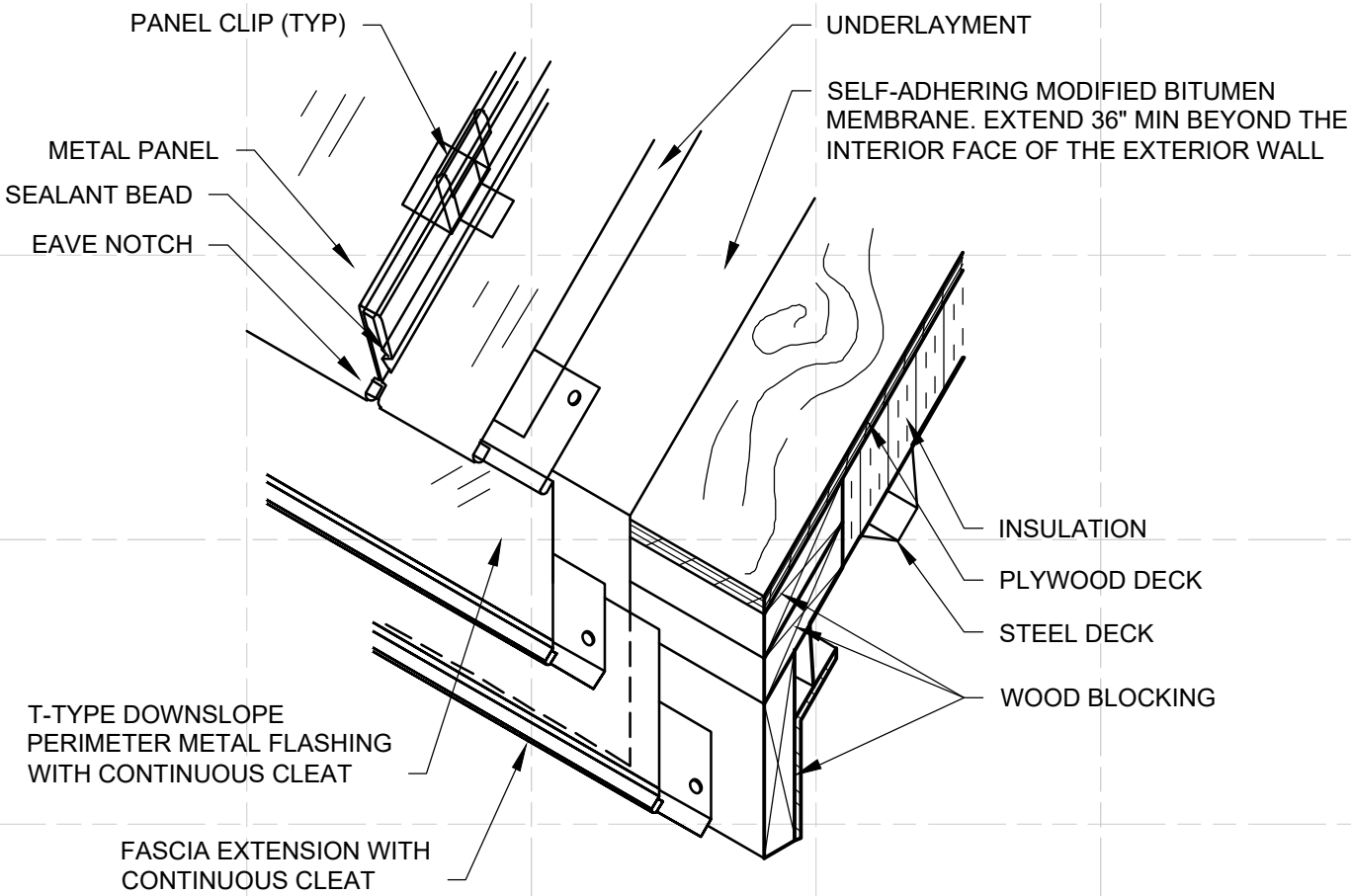


DETAIL: ISOLATED MEMBRANE REPAIR

A1

SCALE:1 1/2"=1'-0"

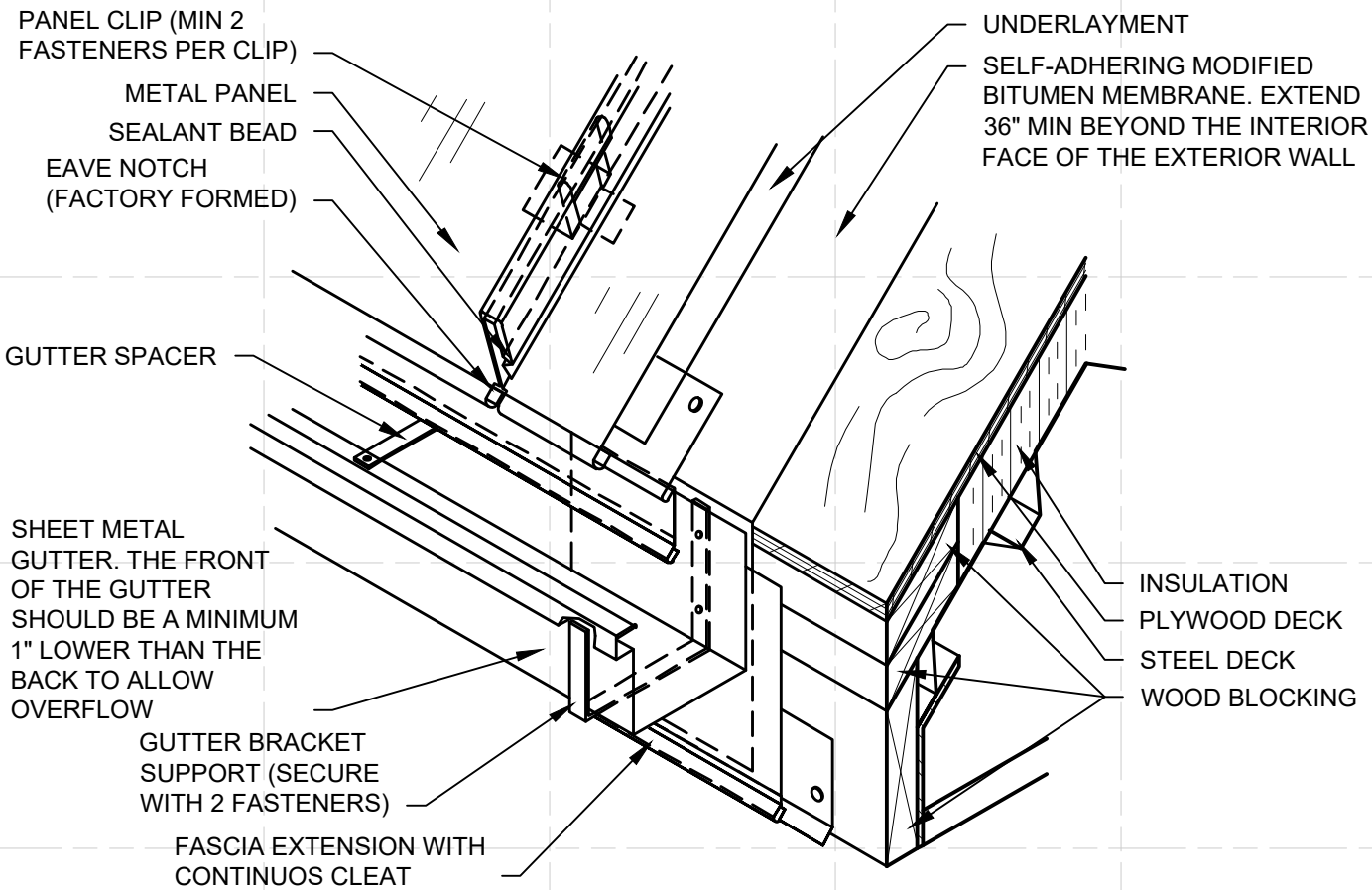
0 6" 1' 2'



A1

DETAIL: DOWNSLOPE EDGE METAL

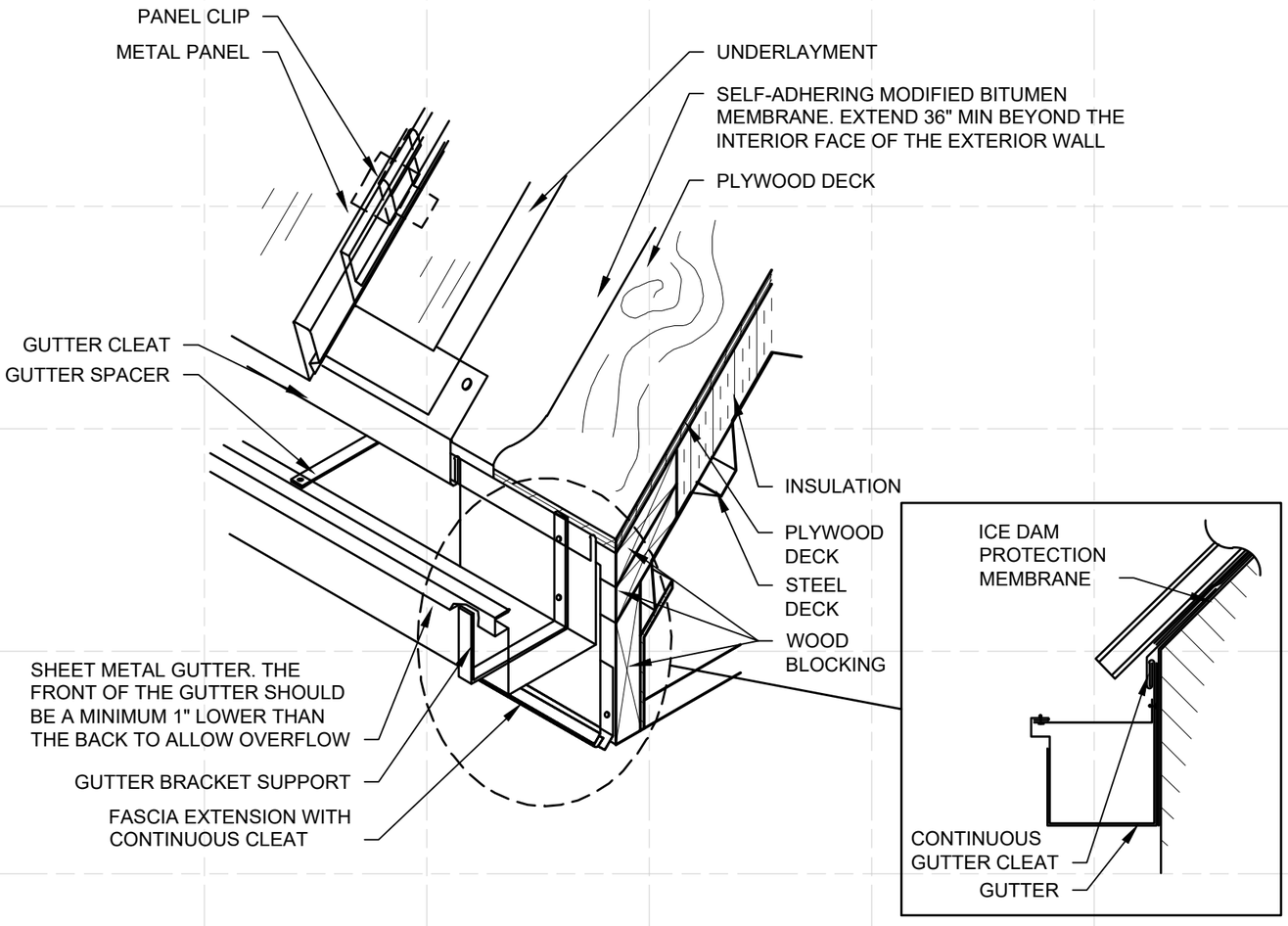
SCALE: NTS



DETAIL: DOWNSLOPE EDGE METAL WITH GUTTER

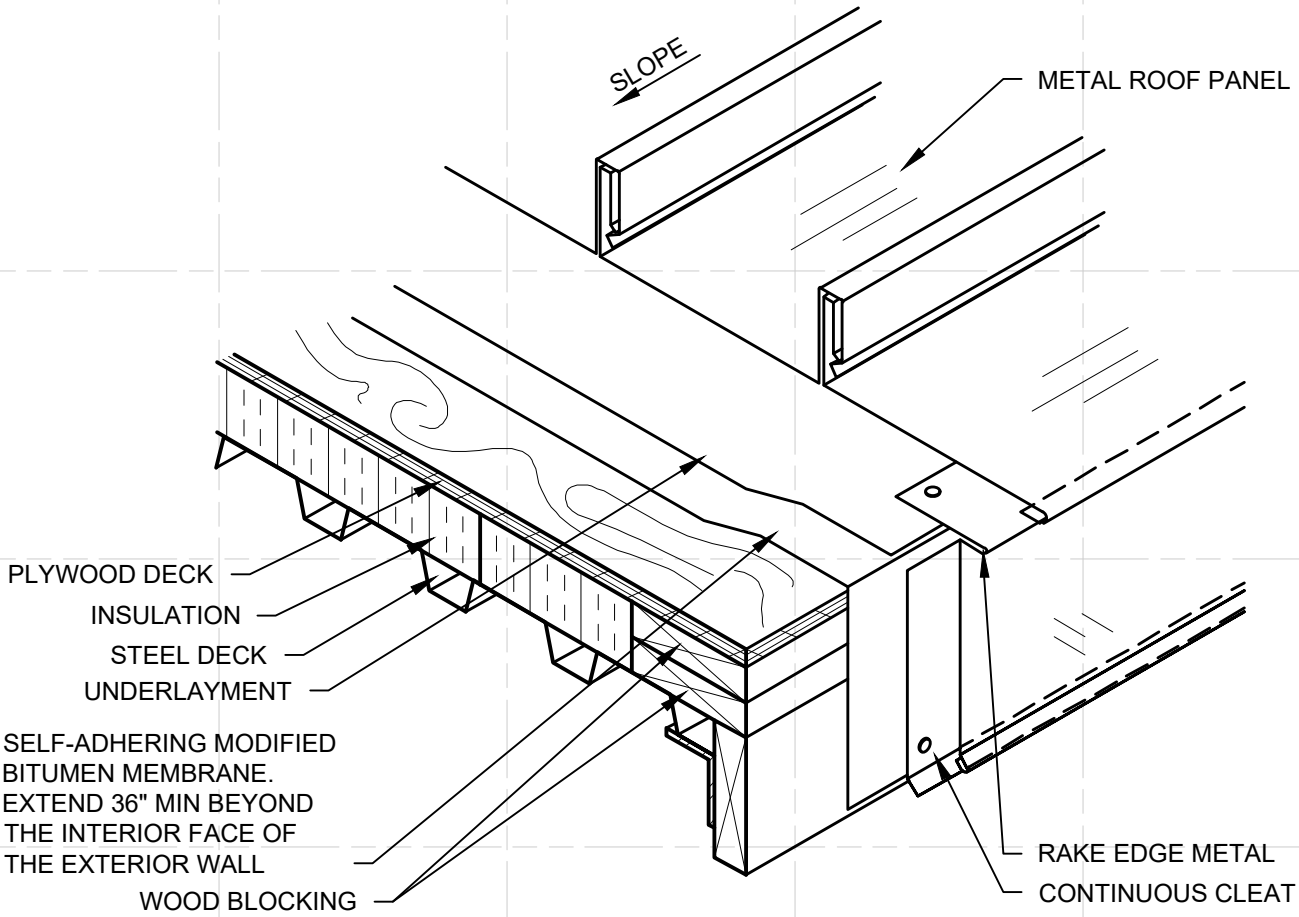
A1

SCALE: NTS



A1 DETAIL: DOWNSLOPE EDGE METAL WITH GUTTER

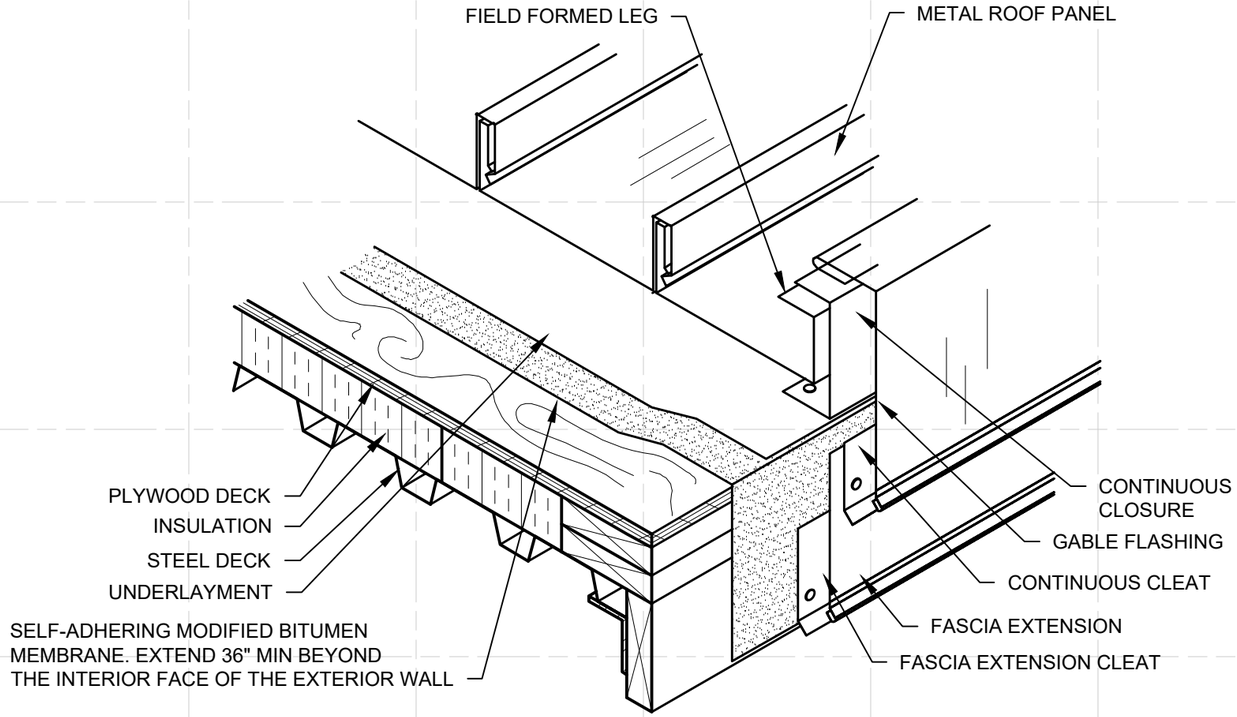
SCALE: NTS



A1

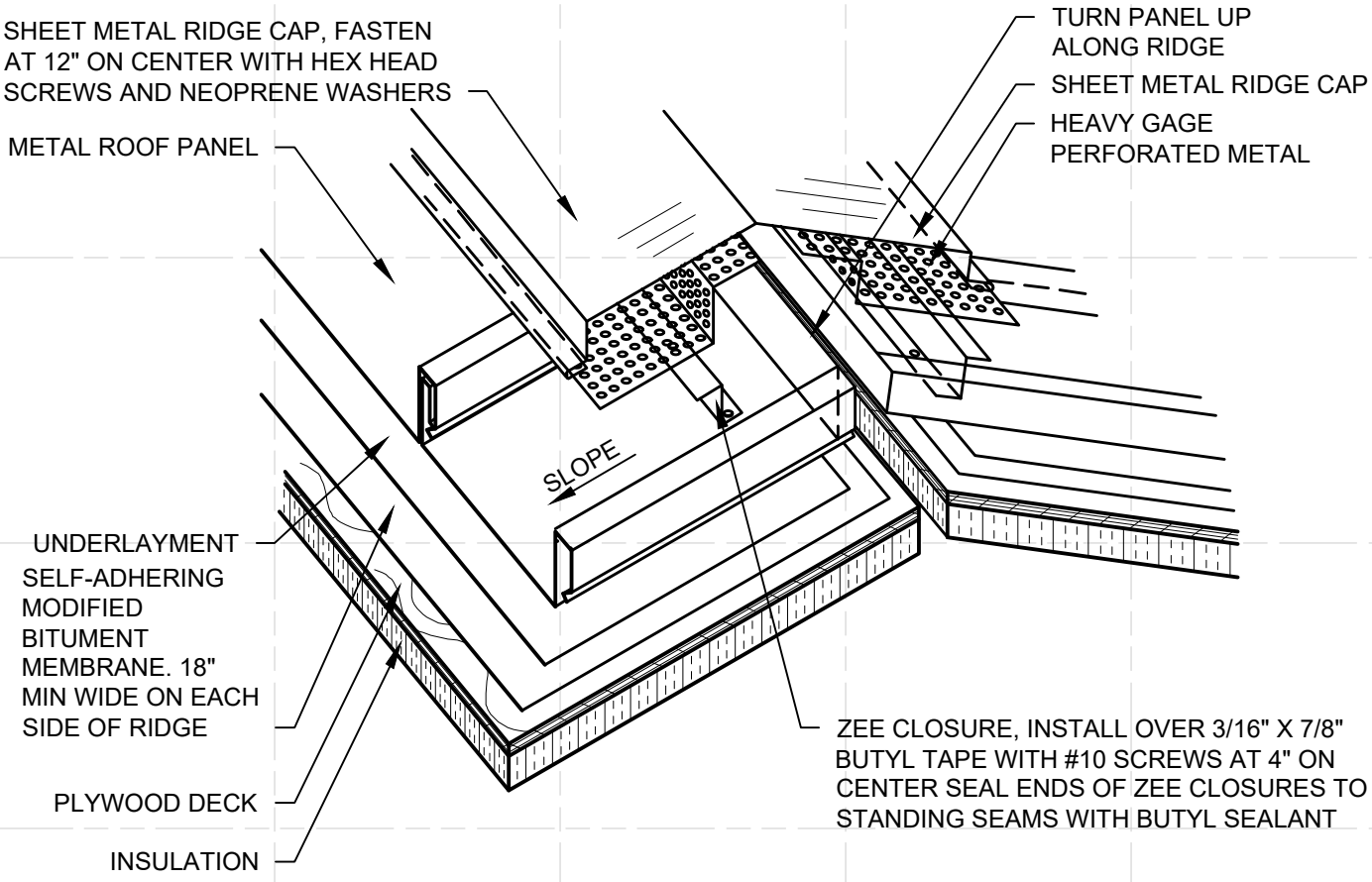
DETAIL: RAKE EDGE

SCALE: NTS



A1 DETAIL: RAKE EDGE

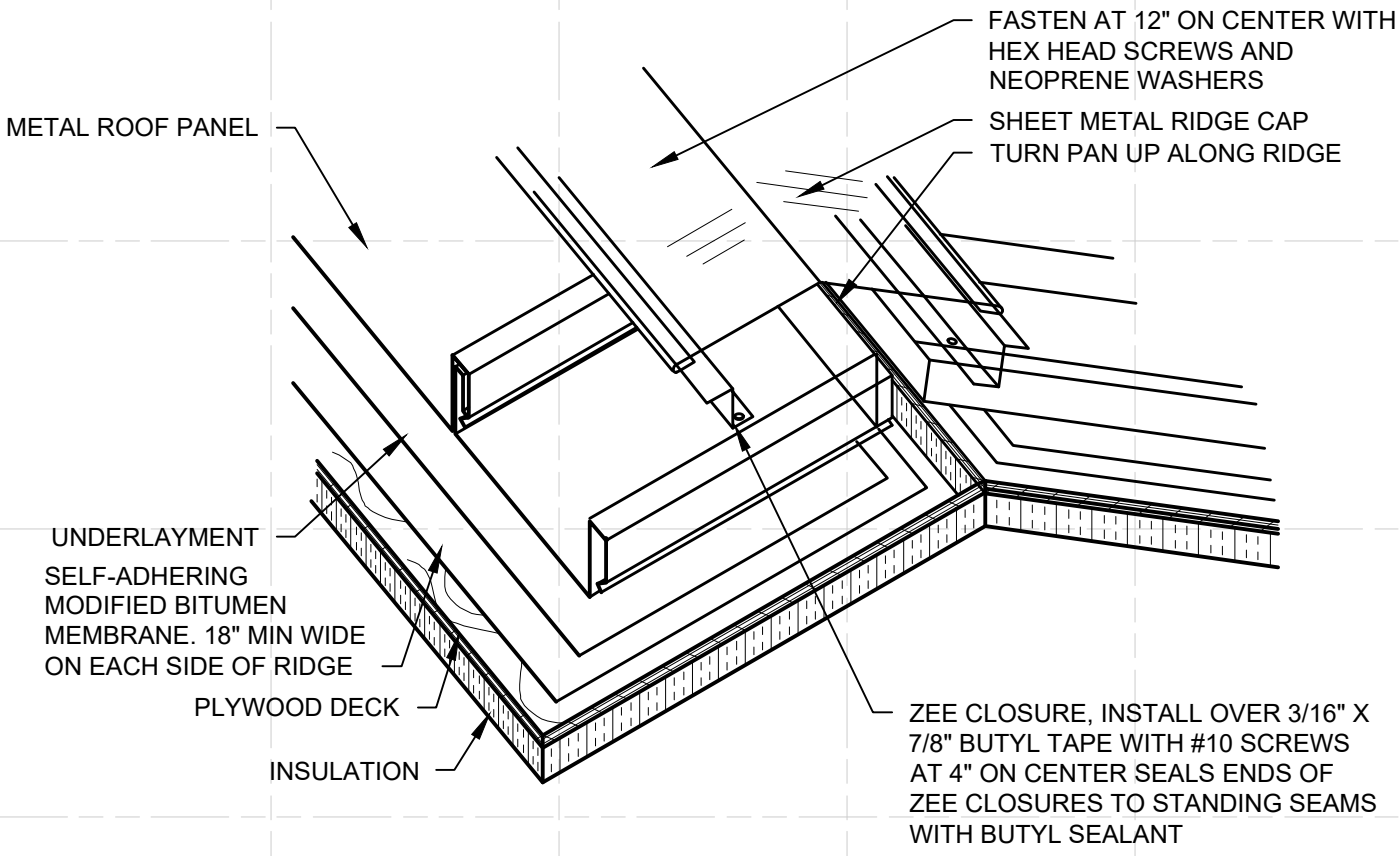
SCALE: NTS



A1

DETAIL: RIDGE CAP (VENTING)

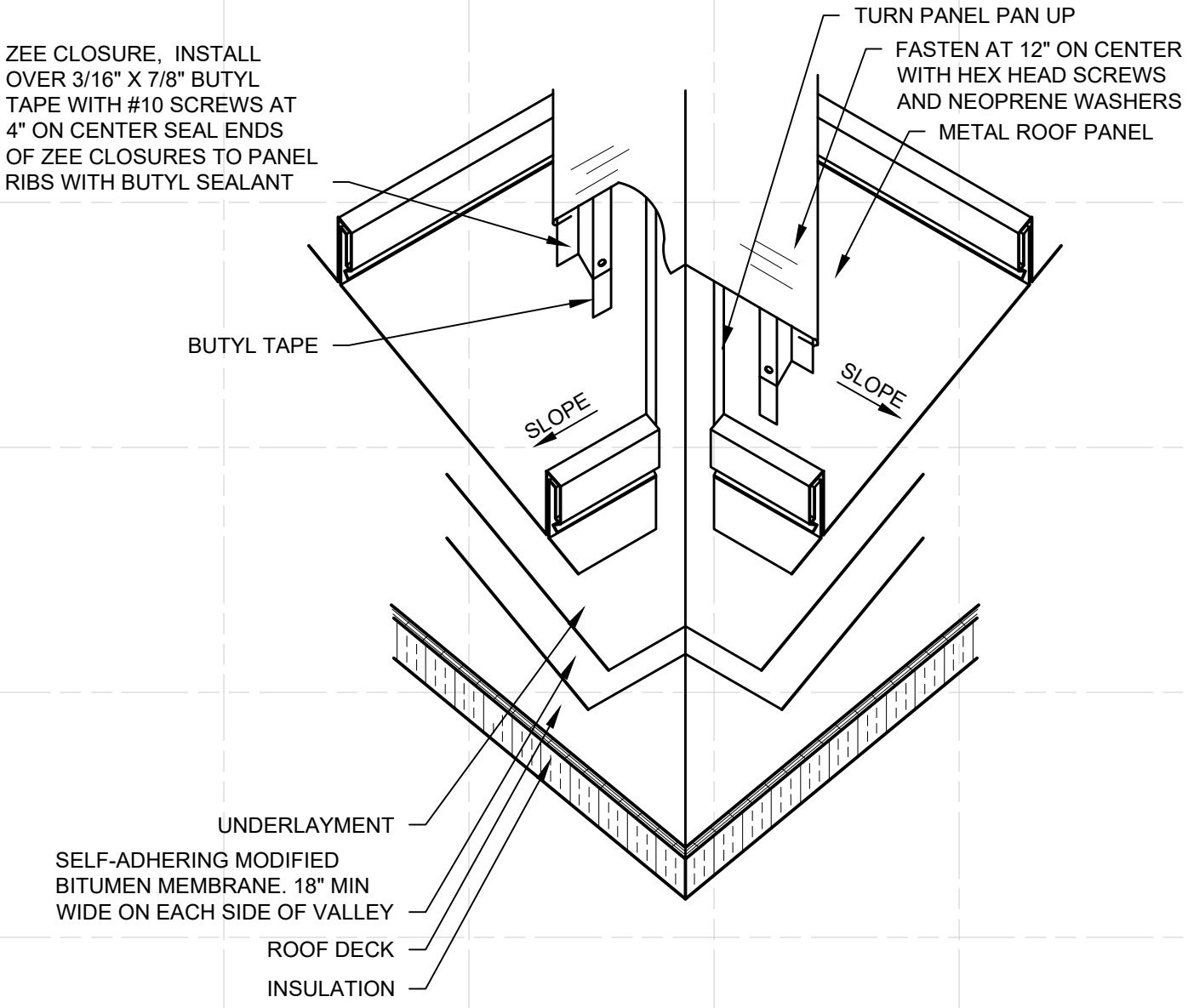
SCALE: NTS



A1

DETAIL: RIDGE CAP (NON-VENTING)

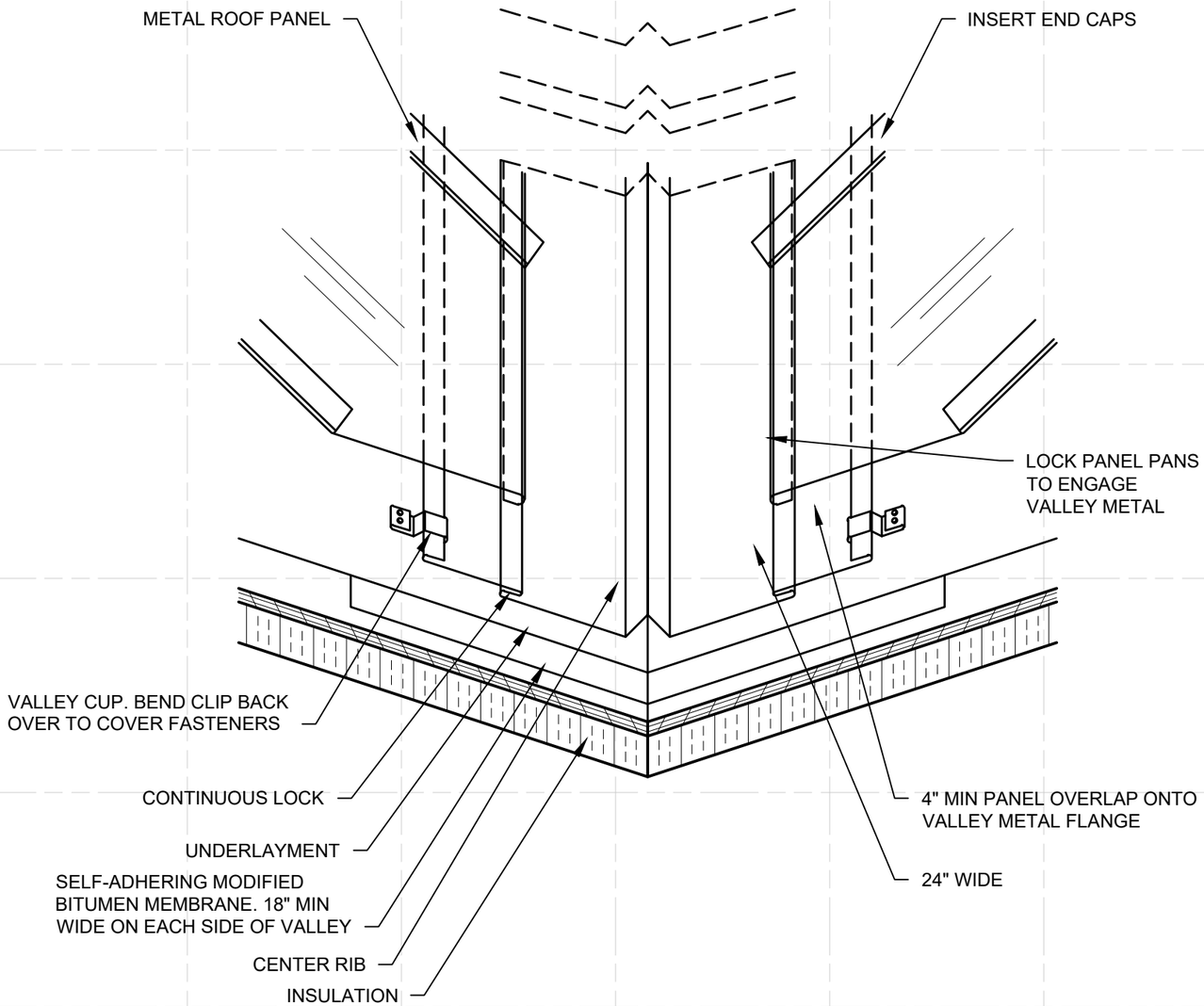
SCALE: NTS



A1

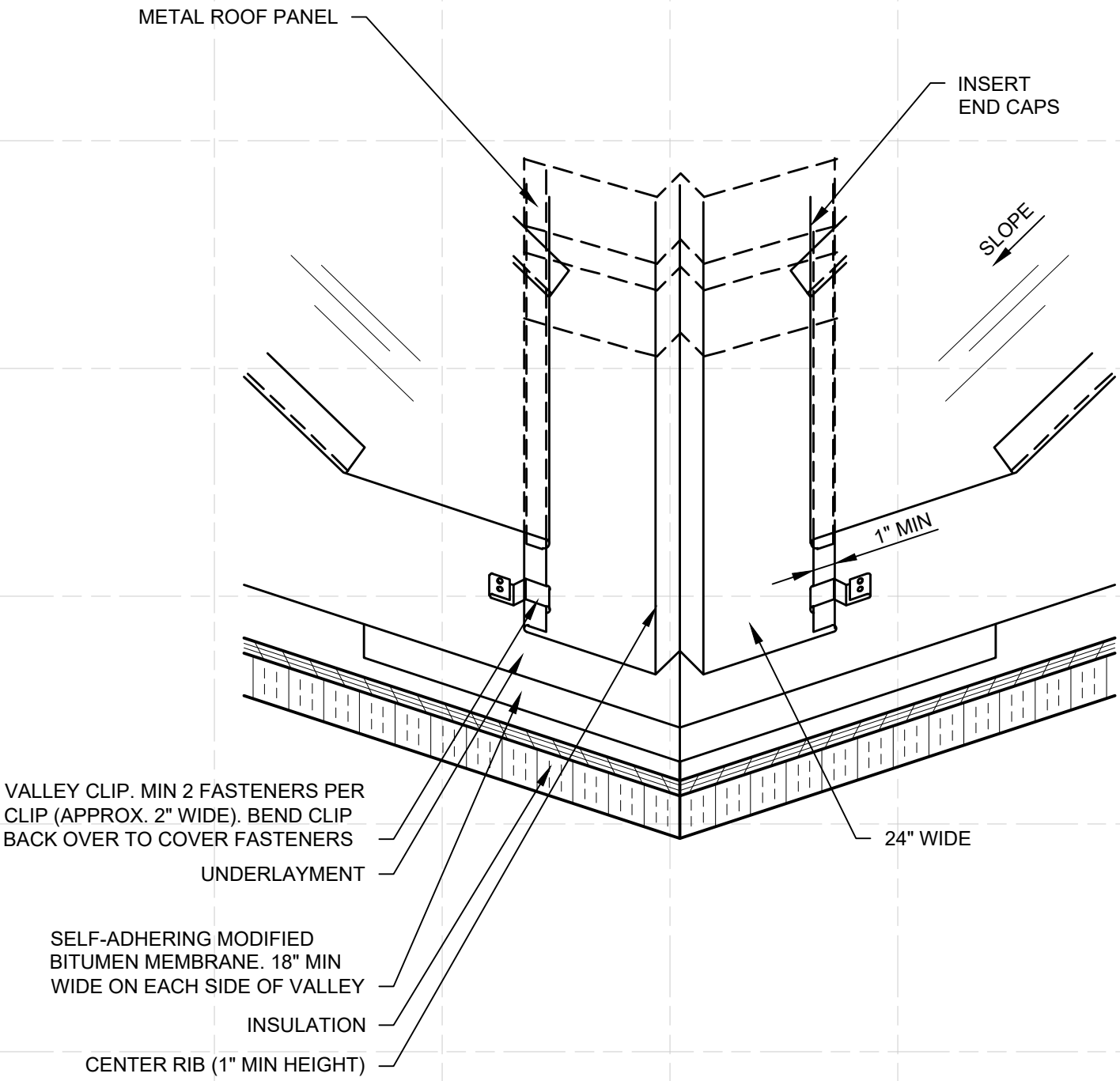
DETAIL: HIP CAP FLASHING

SCALE: NTS



A1 DETAIL: OPEN METAL VALLEY WITH SIDE LOCKS

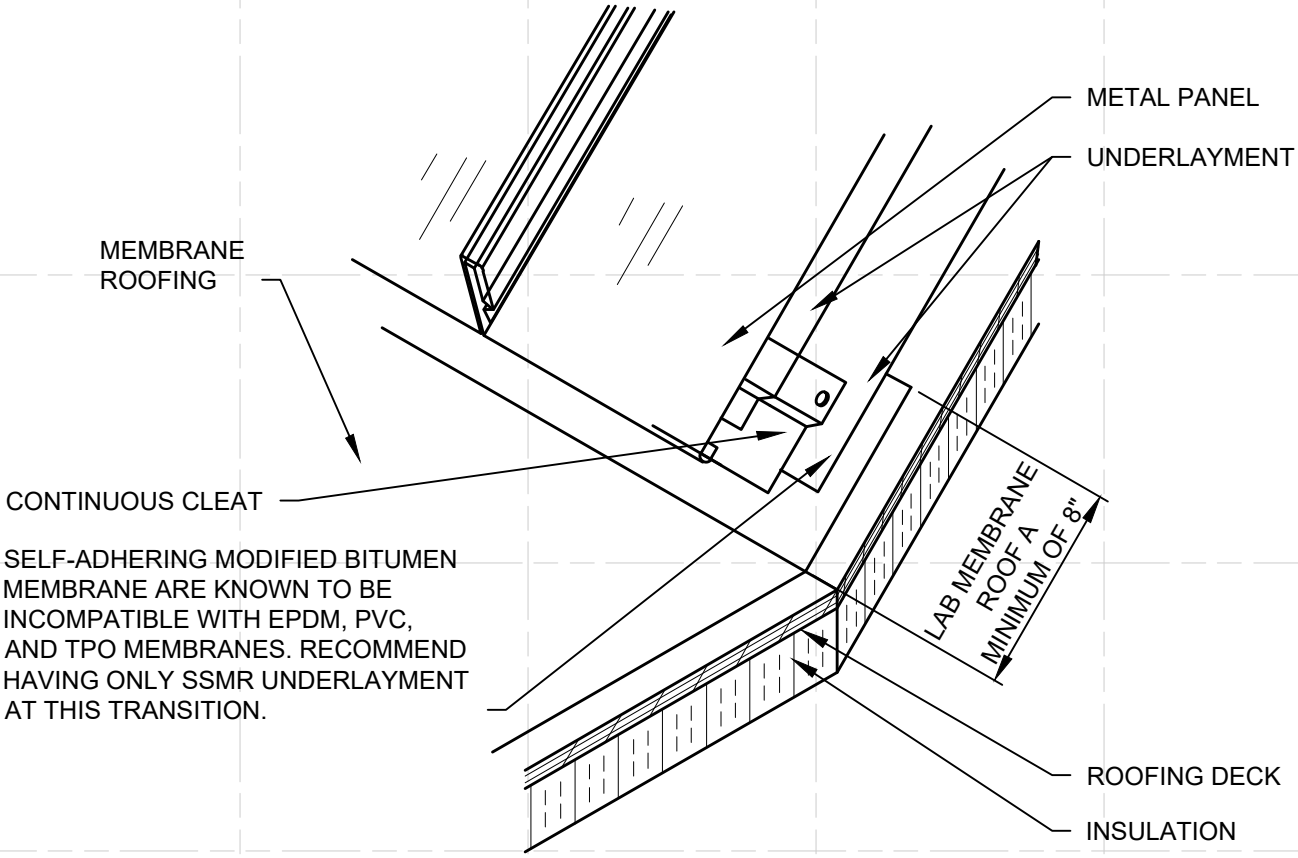
SCALE: NTS



A1

DETAIL: OPEN METAL VALLEY

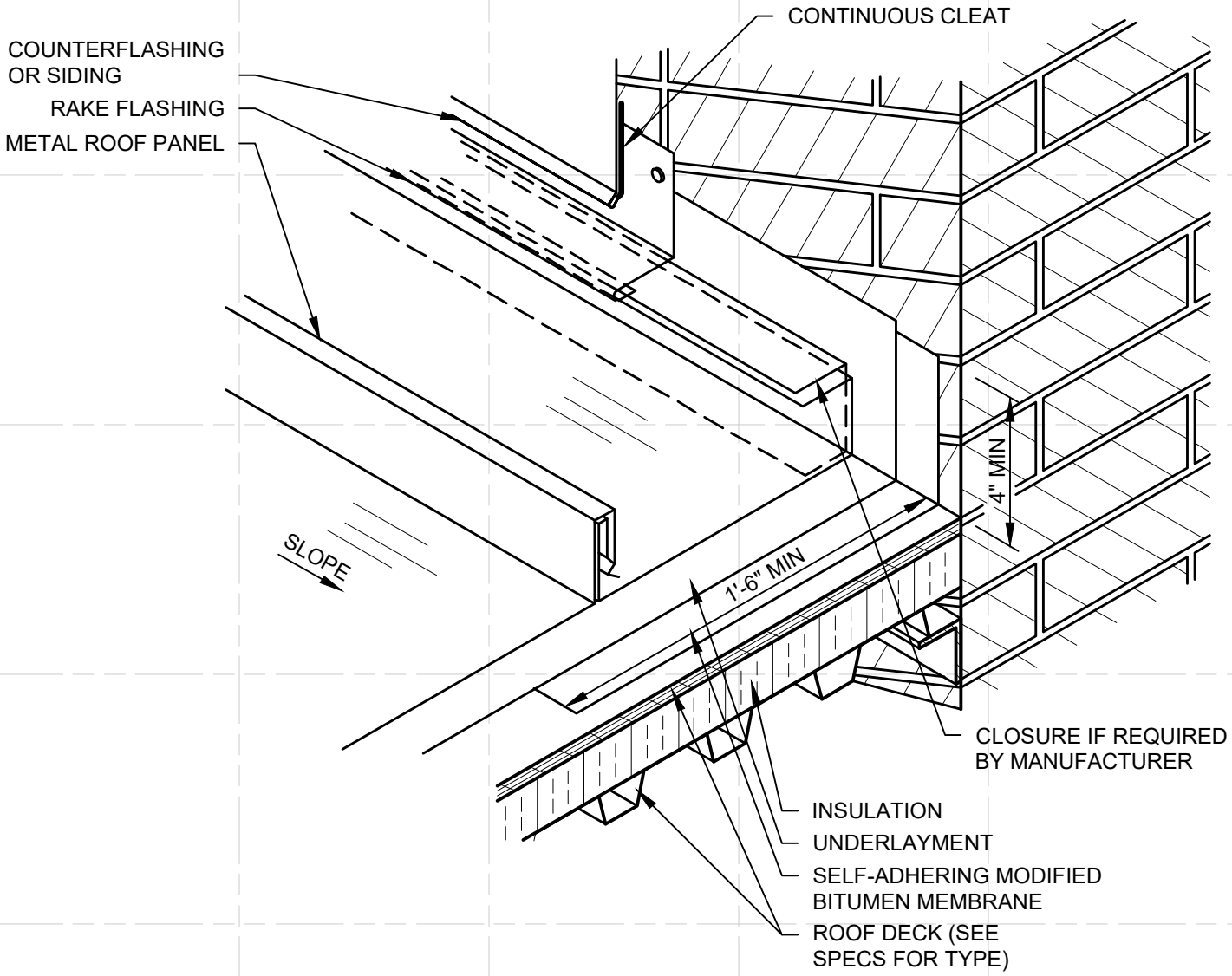
SCALE: NTS



DETAIL: LOW-SLOPE MEMBRANE-TO-METAL METAL ROOF TRANSITION

A1

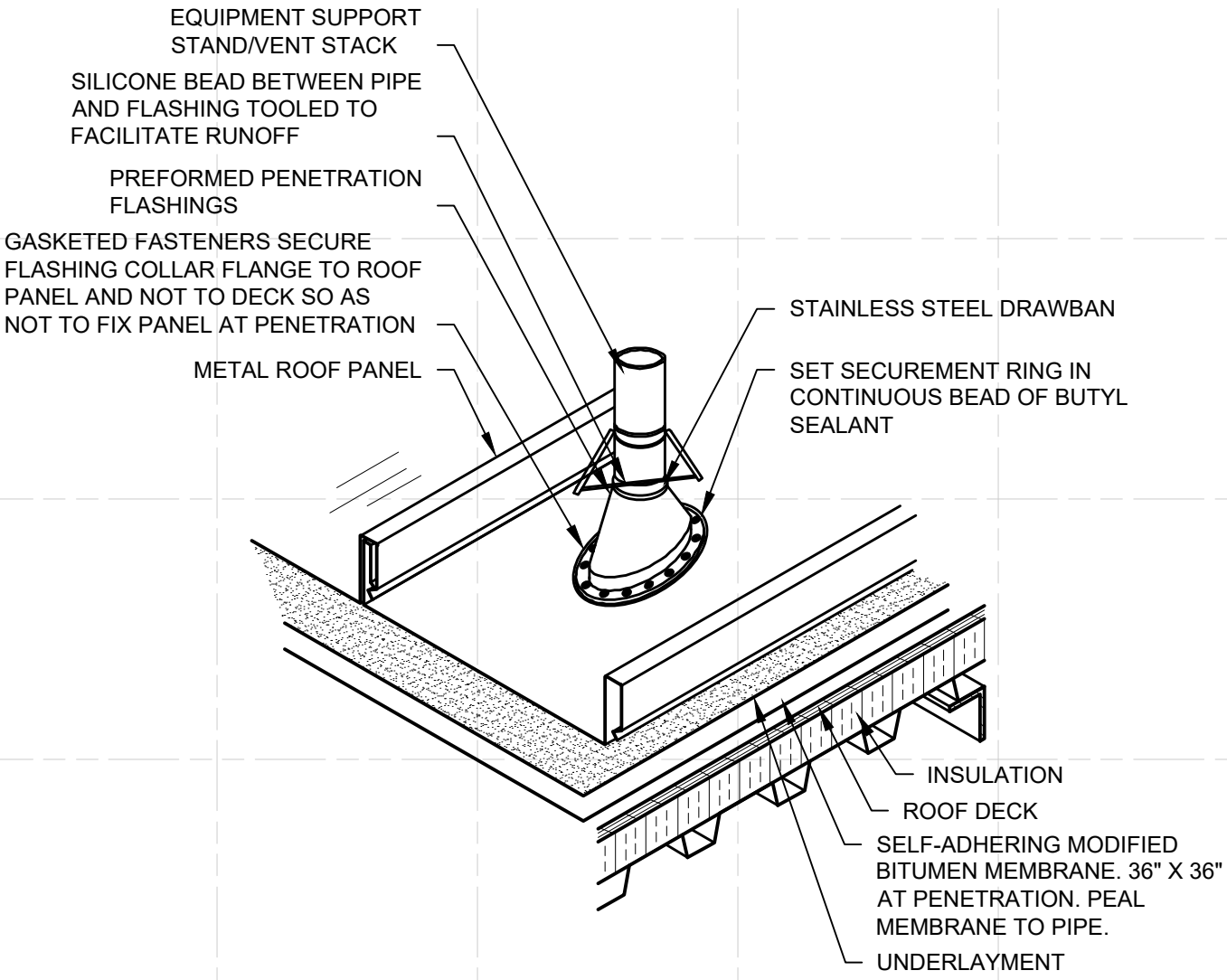
SCALE: NTS



A1

DETAIL: ROOF-TO-WALL TRANSITION (RAKE)

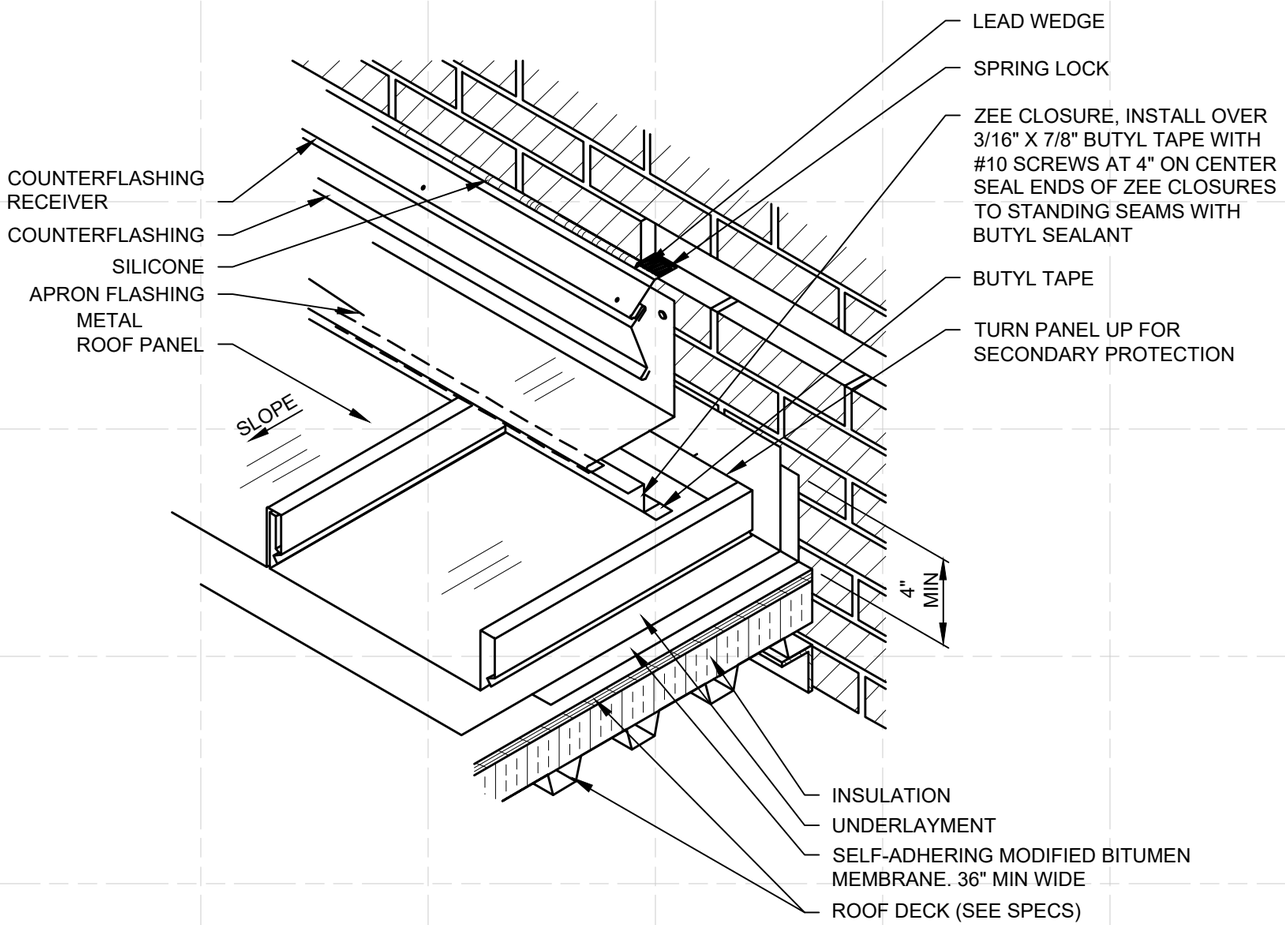
SCALE: NTS



DETAIL: EQUIPMENT SUPPORT STAND/VENT STACK FLASHING WITH PREFORMED FLASHING

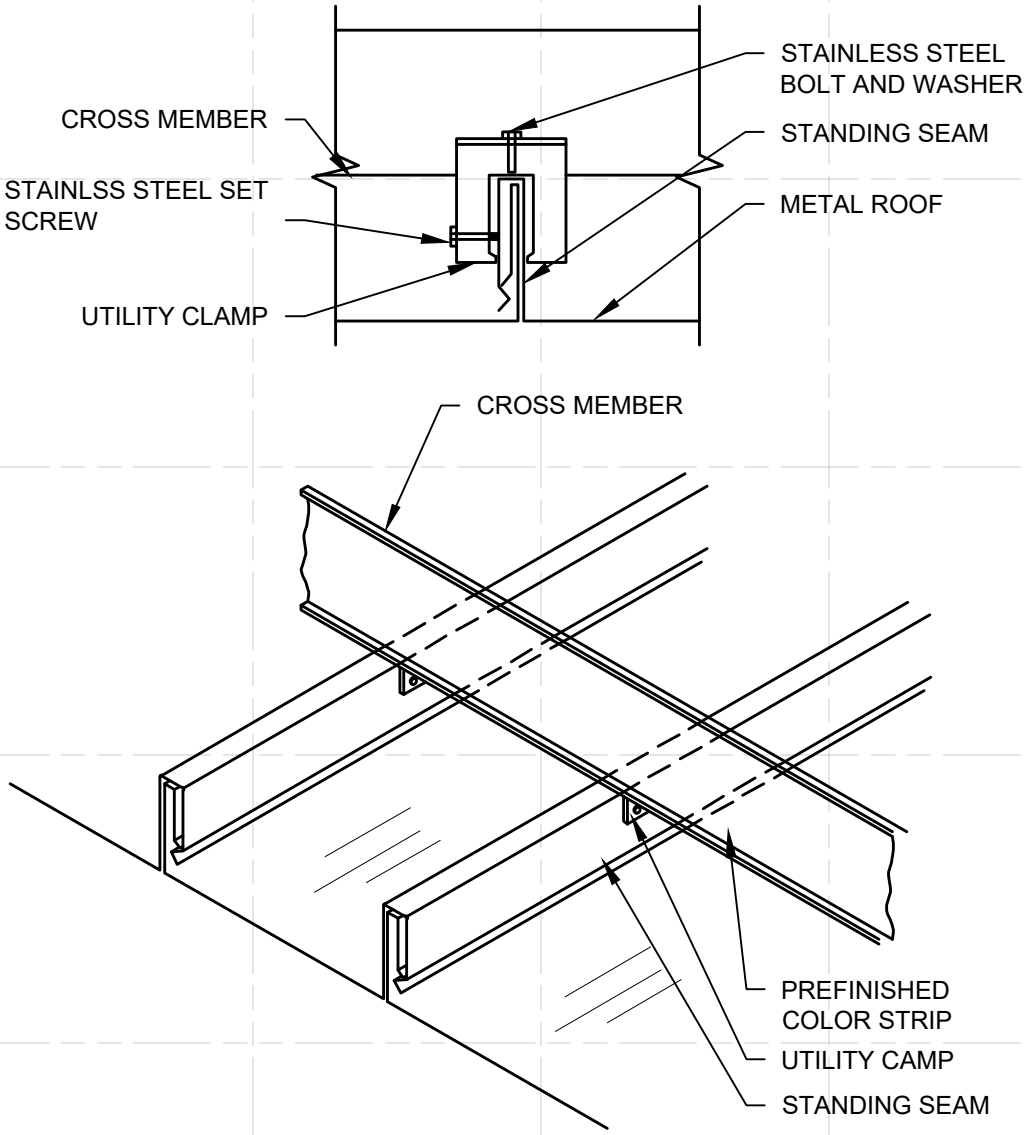
A1

SCALE: NTS



A1 DETAIL: HEAD WALL FLASHING

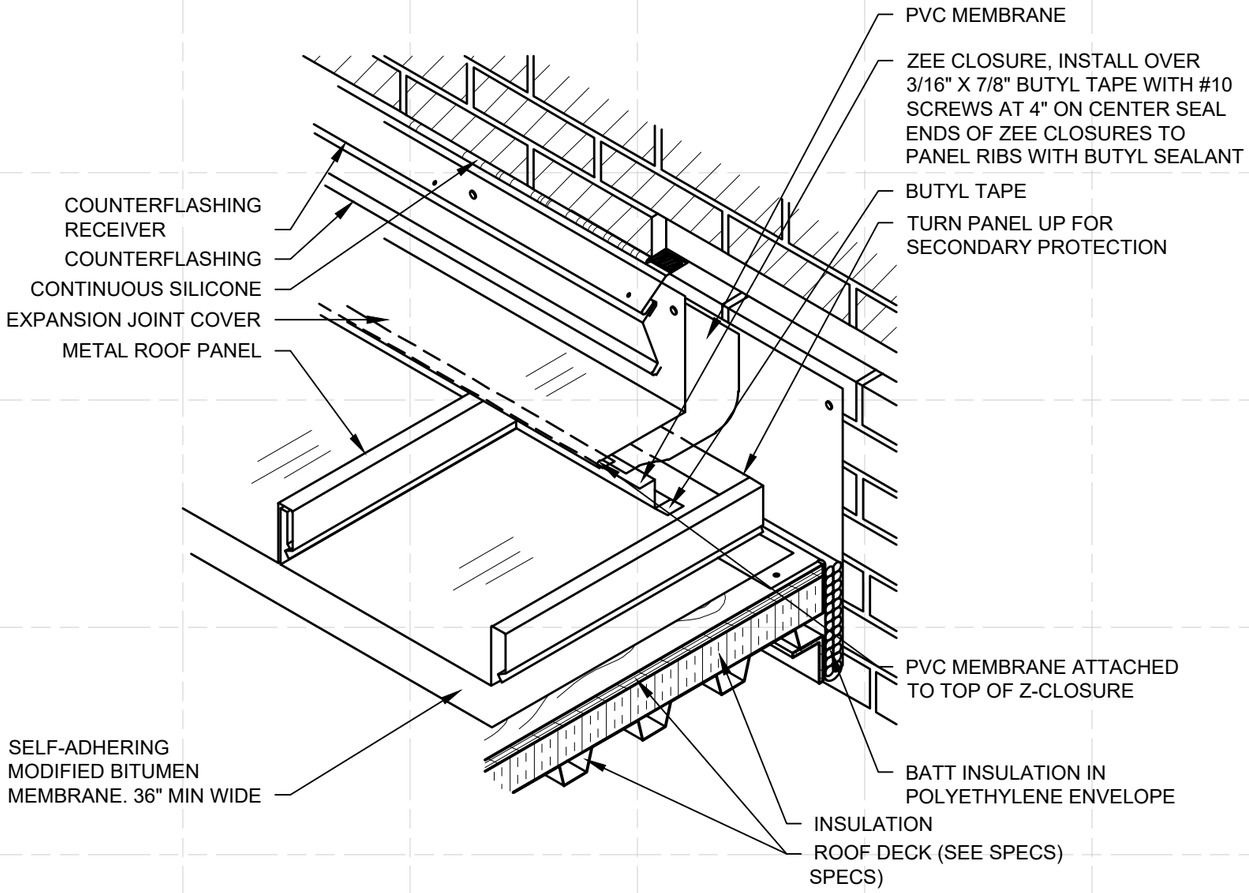
SCALE: NTS



A1

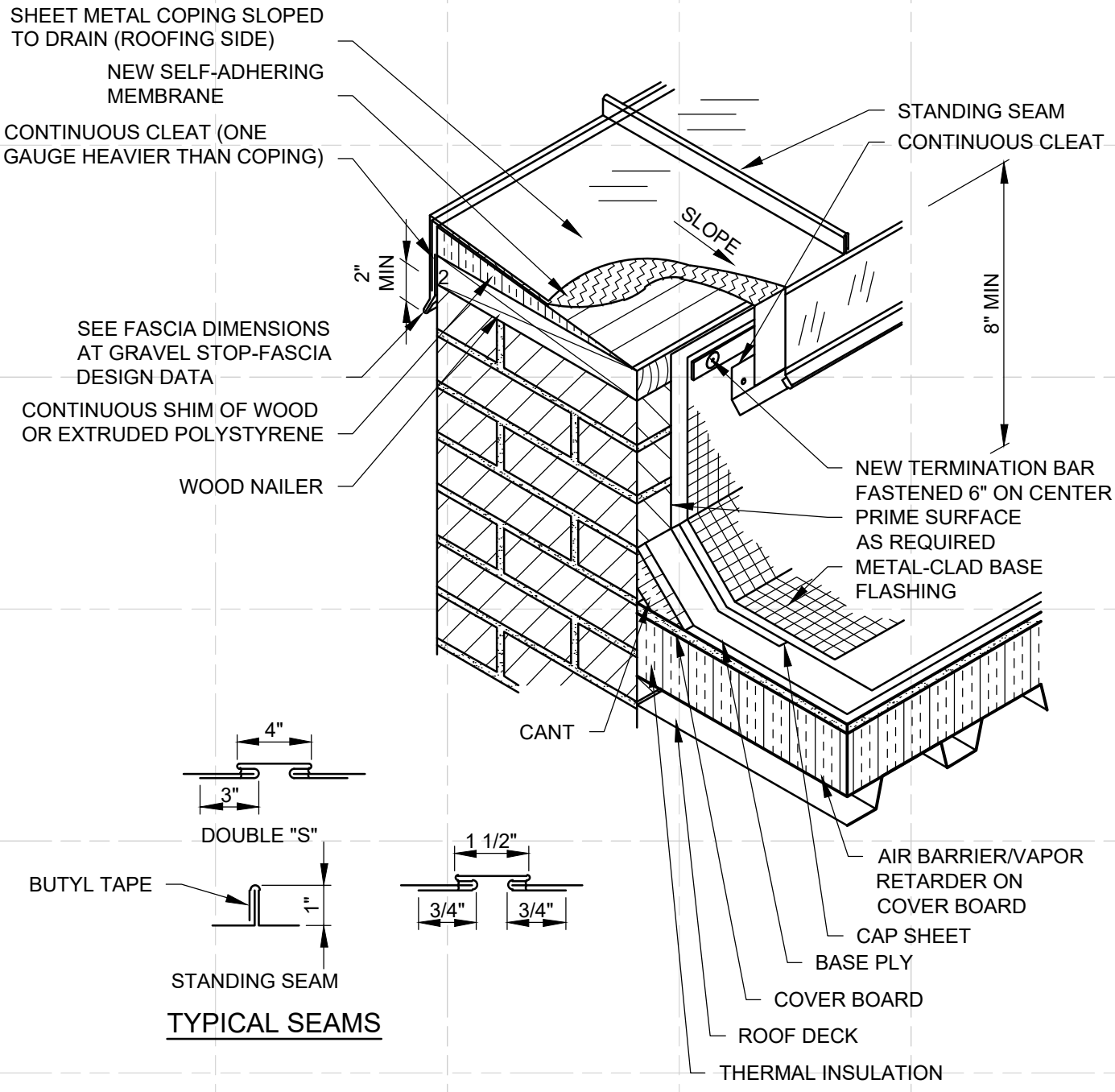
DETAIL: SNOW GUARD

SCALE: NTS



A1 DETAIL: EXPANSION JOINT AT WALL

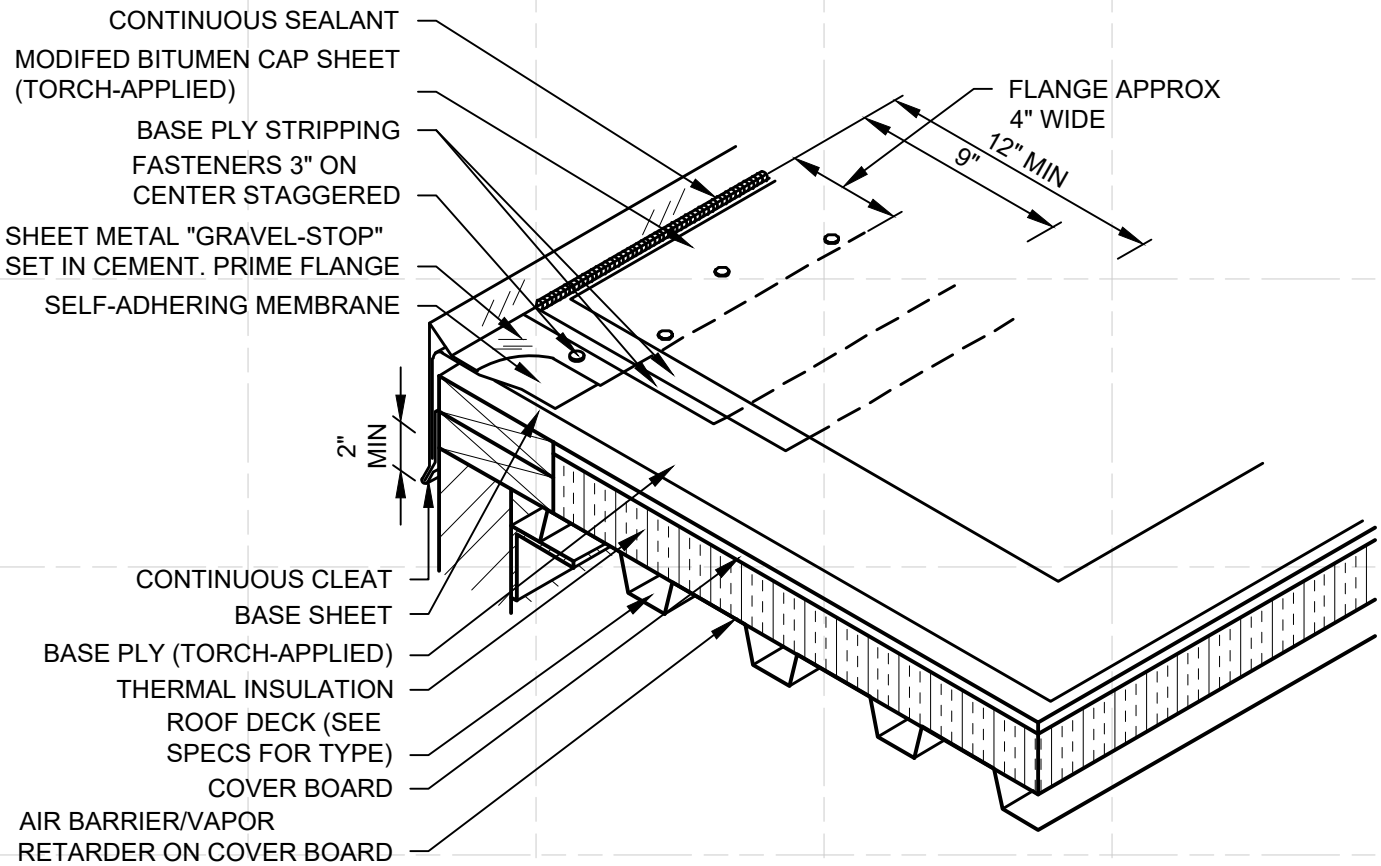
SCALE: NTS



DETAIL: METAL COPING CAP AND BASE FLASHING (MODIFIED BITUMEN)

A1

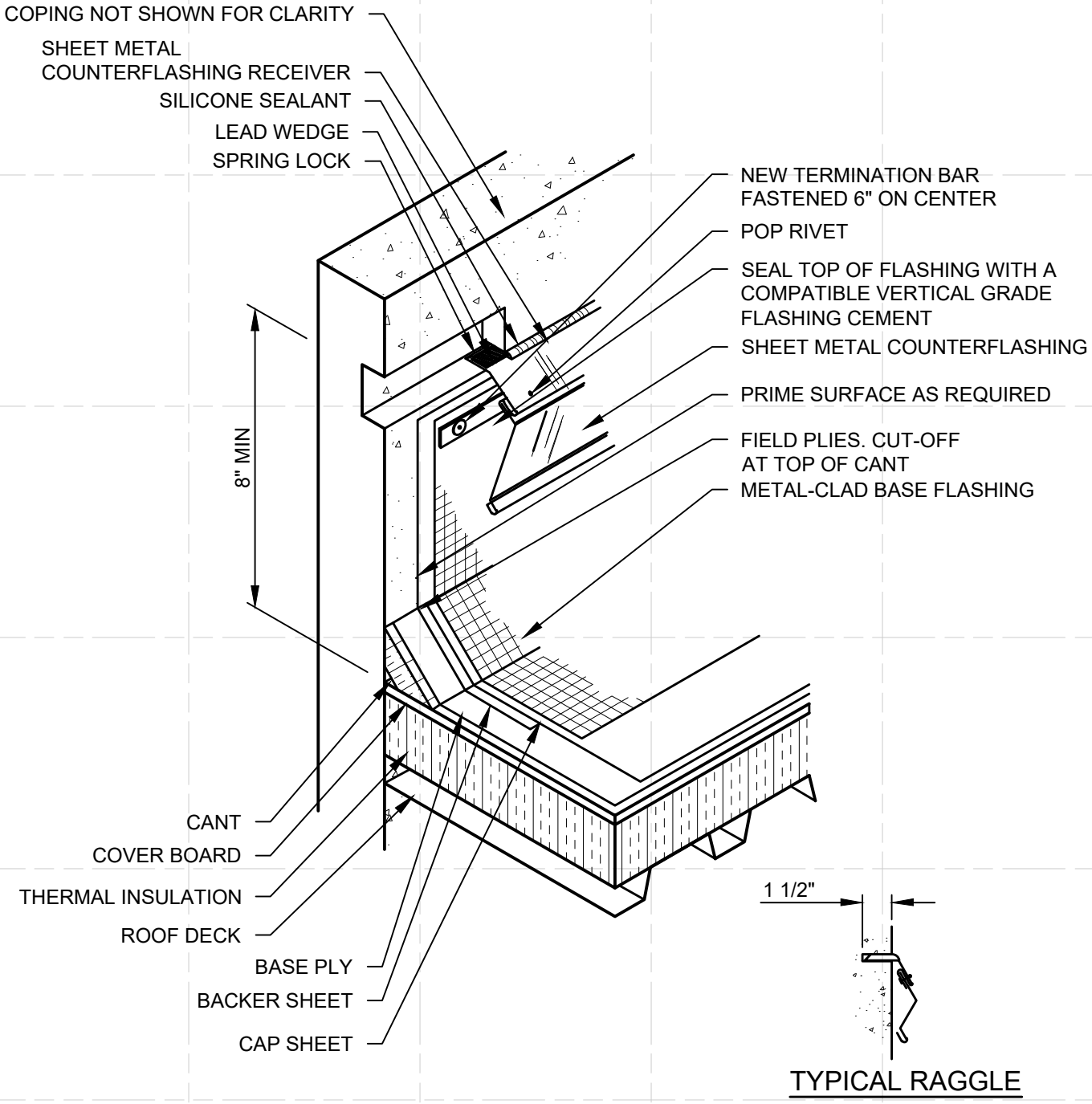
SCALE: NTS



DETAIL: GRAVEL STOP-FASCIA (MODIFIED BITUMEN)

A1

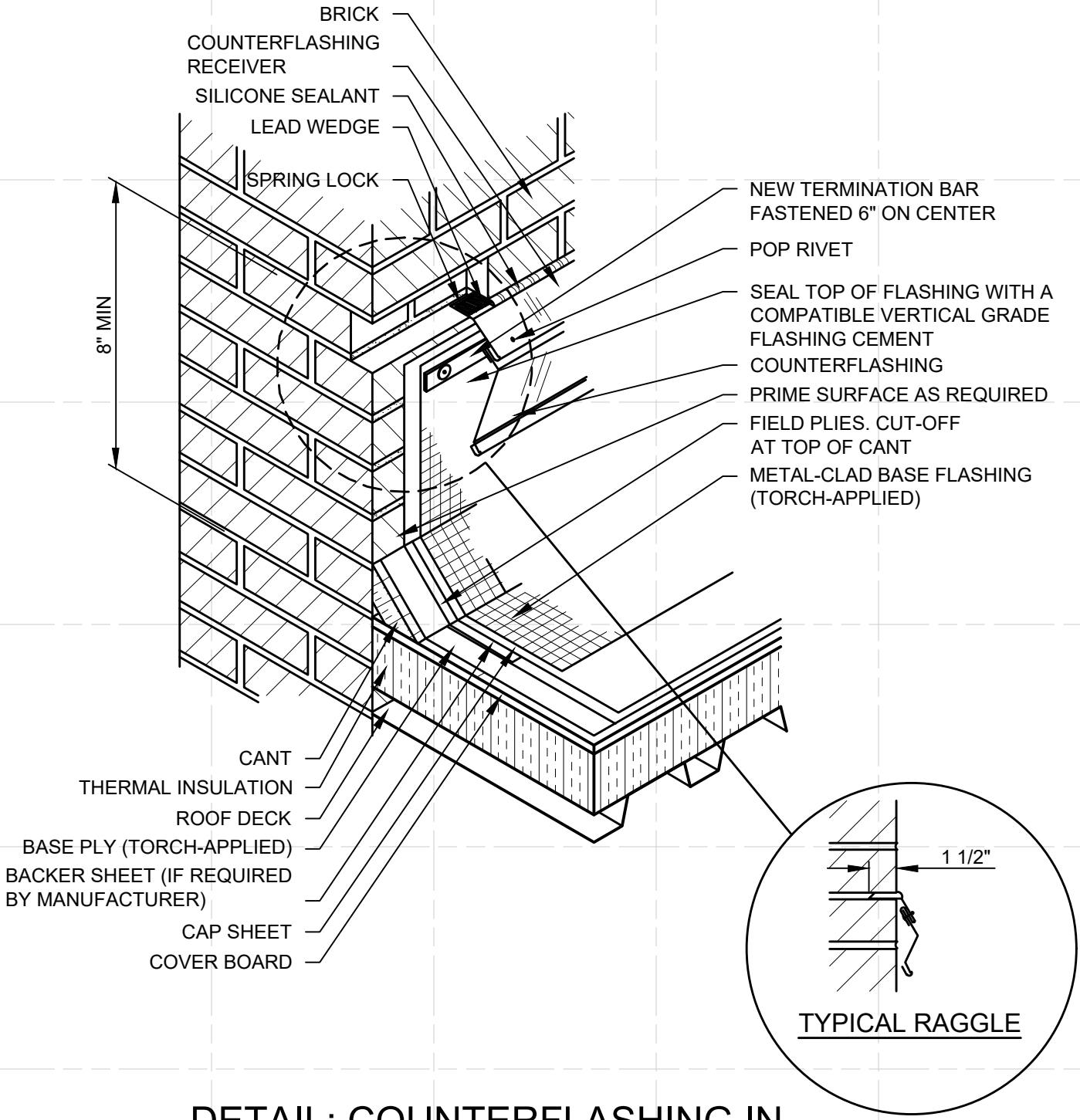
SCALE: NTS



DETAIL: SAW-CUT REGLET COUNTERFLASHING FOR CONCRETE WALLS

A1

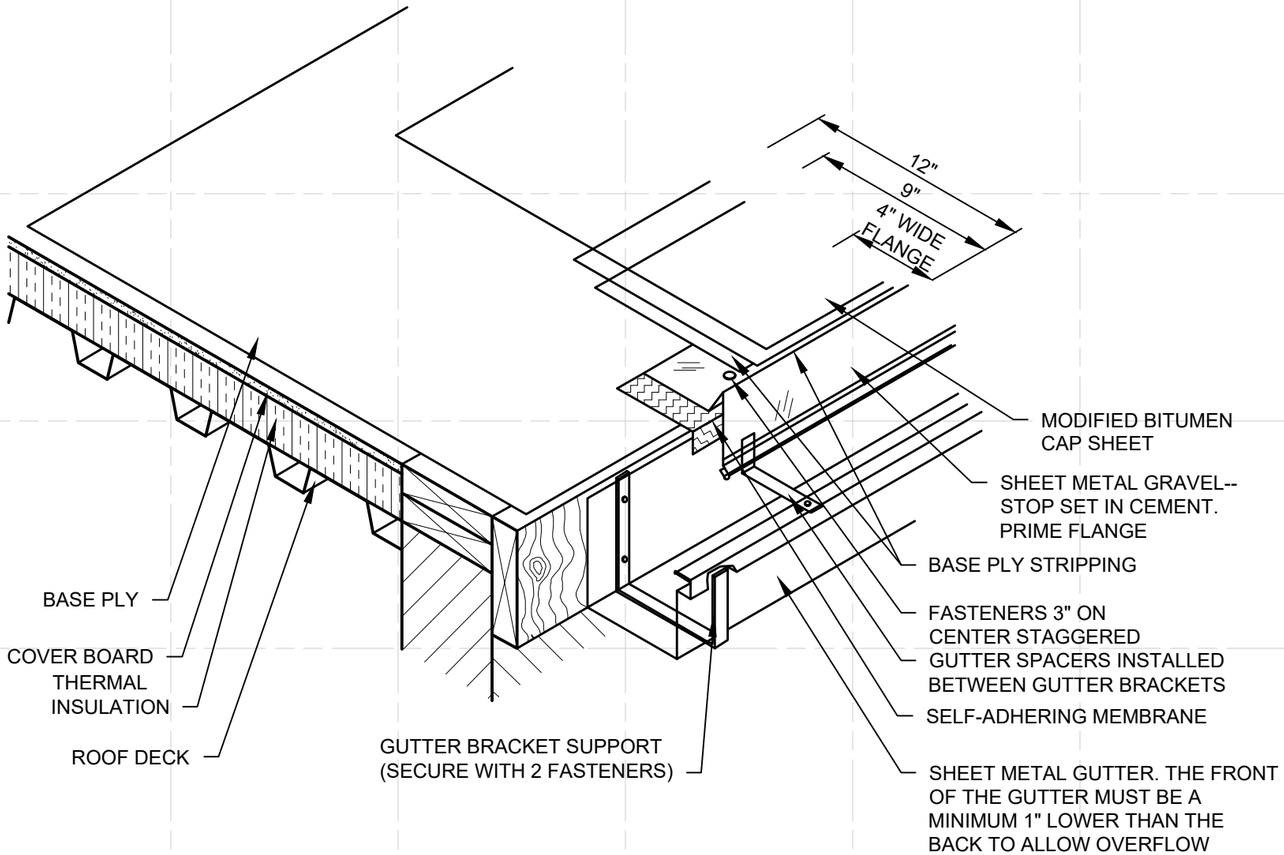
SCALE: NTS



DETAIL: COUNTERFLASHING IN RAGGLE (MODIFIED BITUMEN)

A1

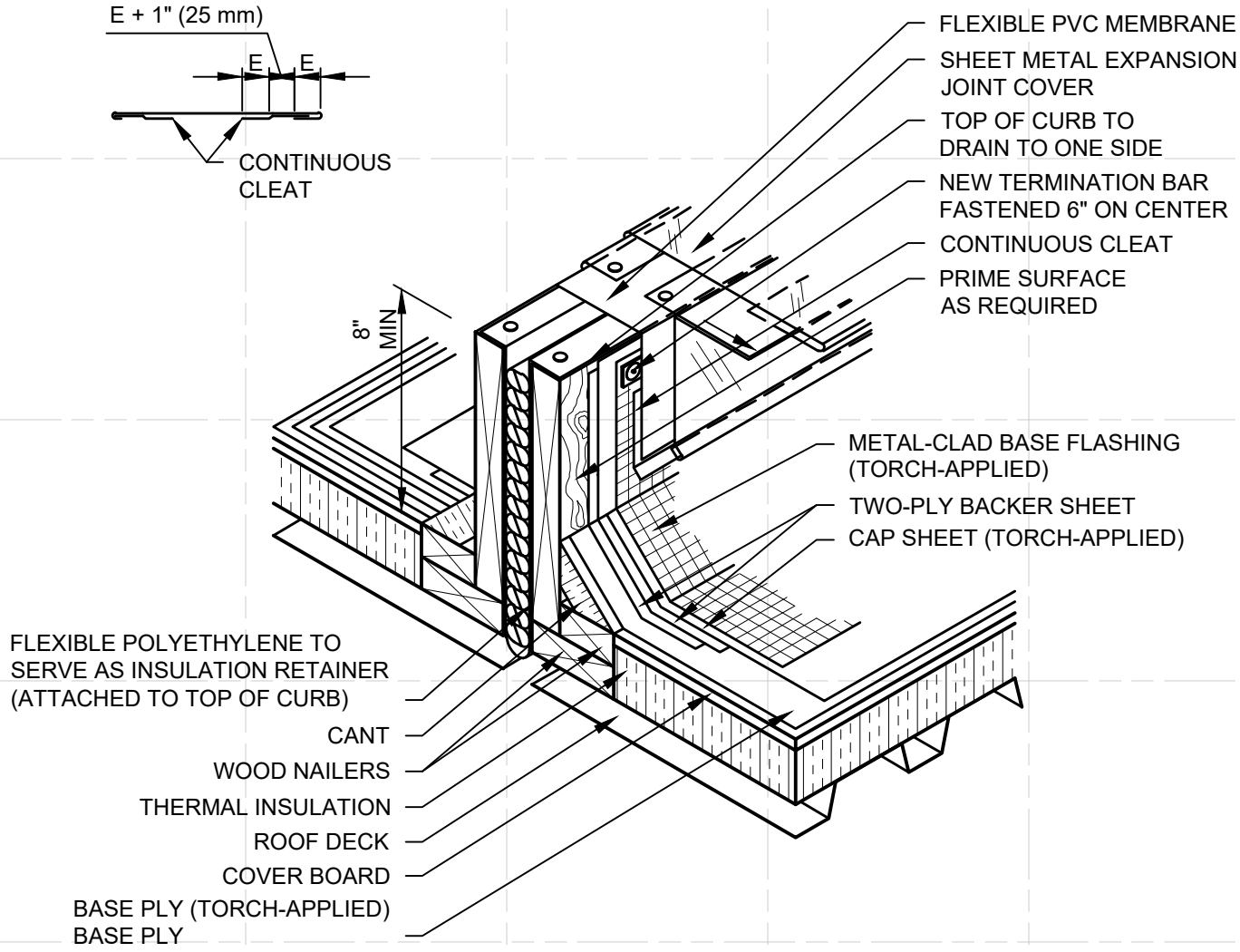
SCALE: NTS



DETAIL: GRAVEL STOP-FASCIA WITH GUTTER (MODIFIED BITUMEN)

A1

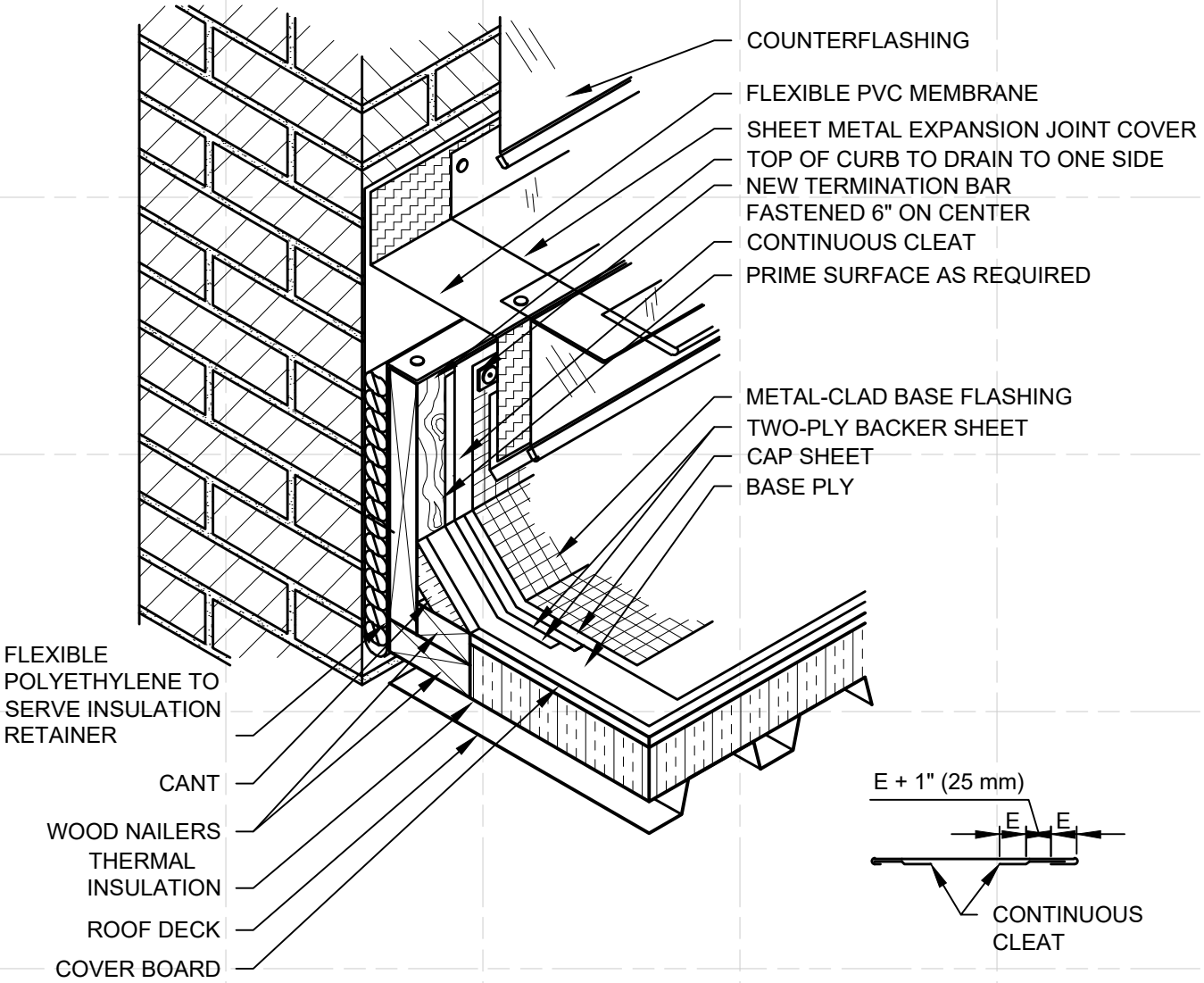
SCALE: NTS



DETAIL: ROOF-TO-ROOF EXPANSION JOINT WITH SHOP-FORMED METAL COVER

A1

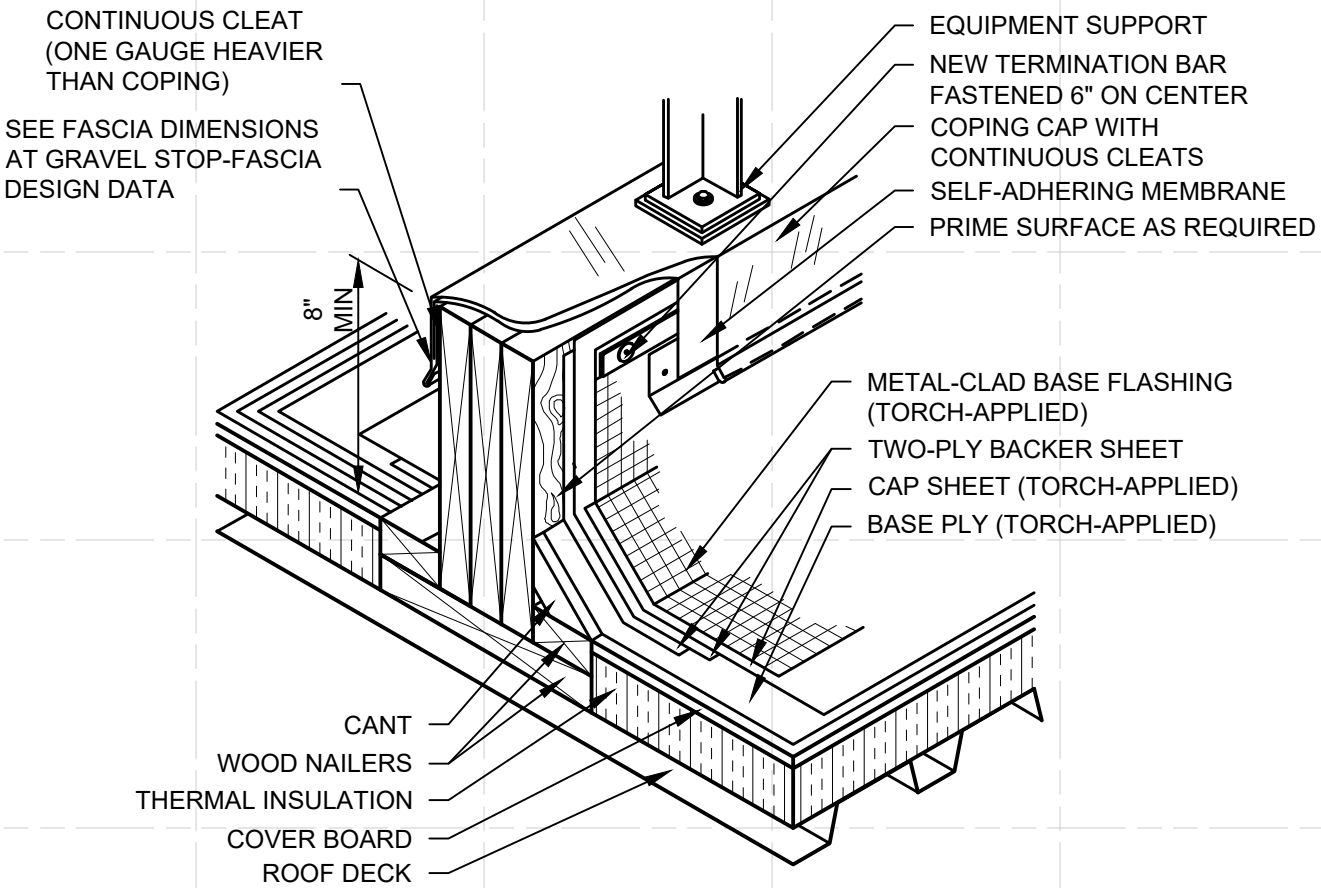
SCALE: NTS



DETAIL: ROOF-TO-WALL EXPANSION JOINT WITH SHOP-FORMED METAL COVER

A1

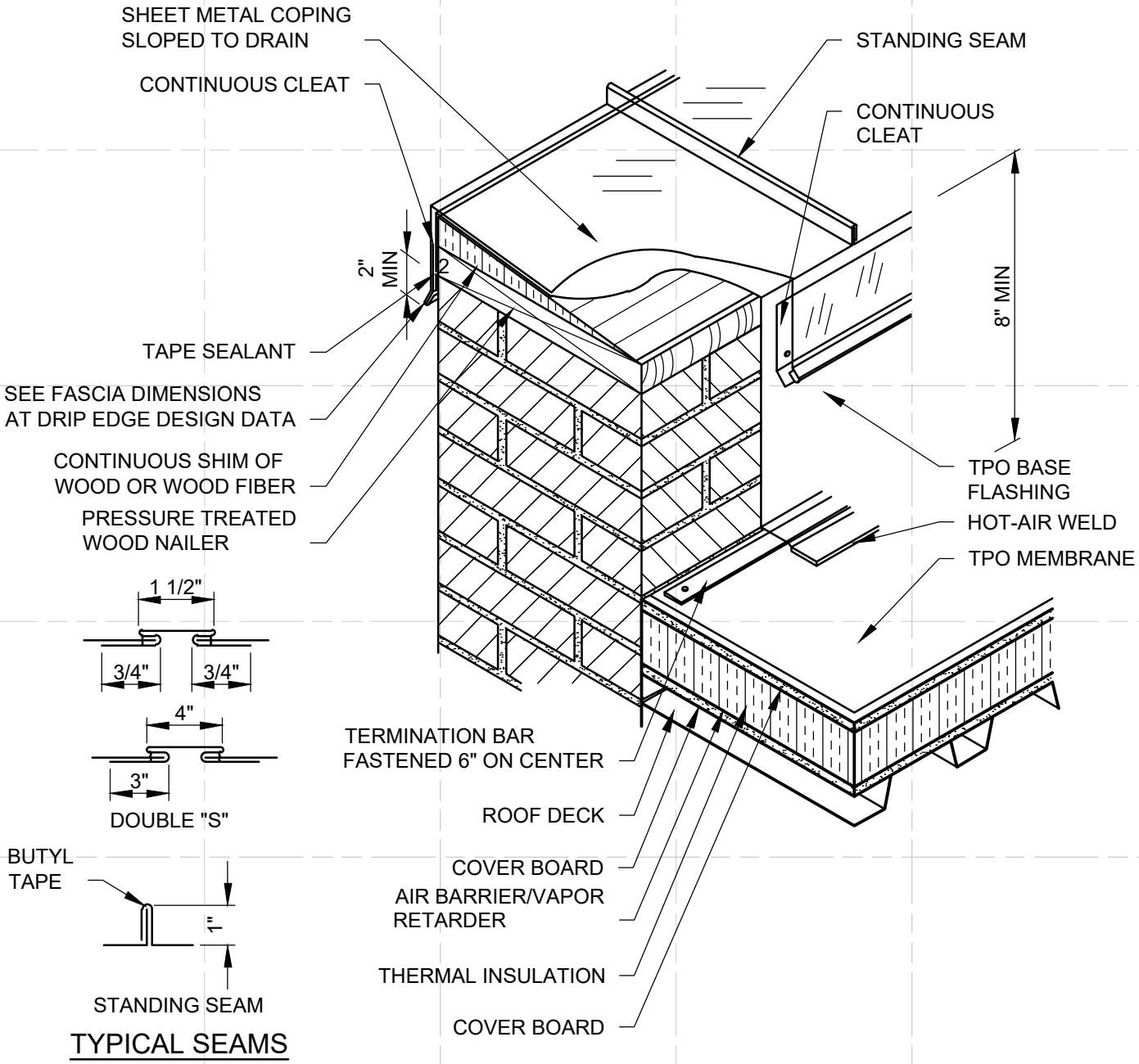
SCALE: NTS



A1

DETAIL: EQUIPMENT CURB SUPPORT

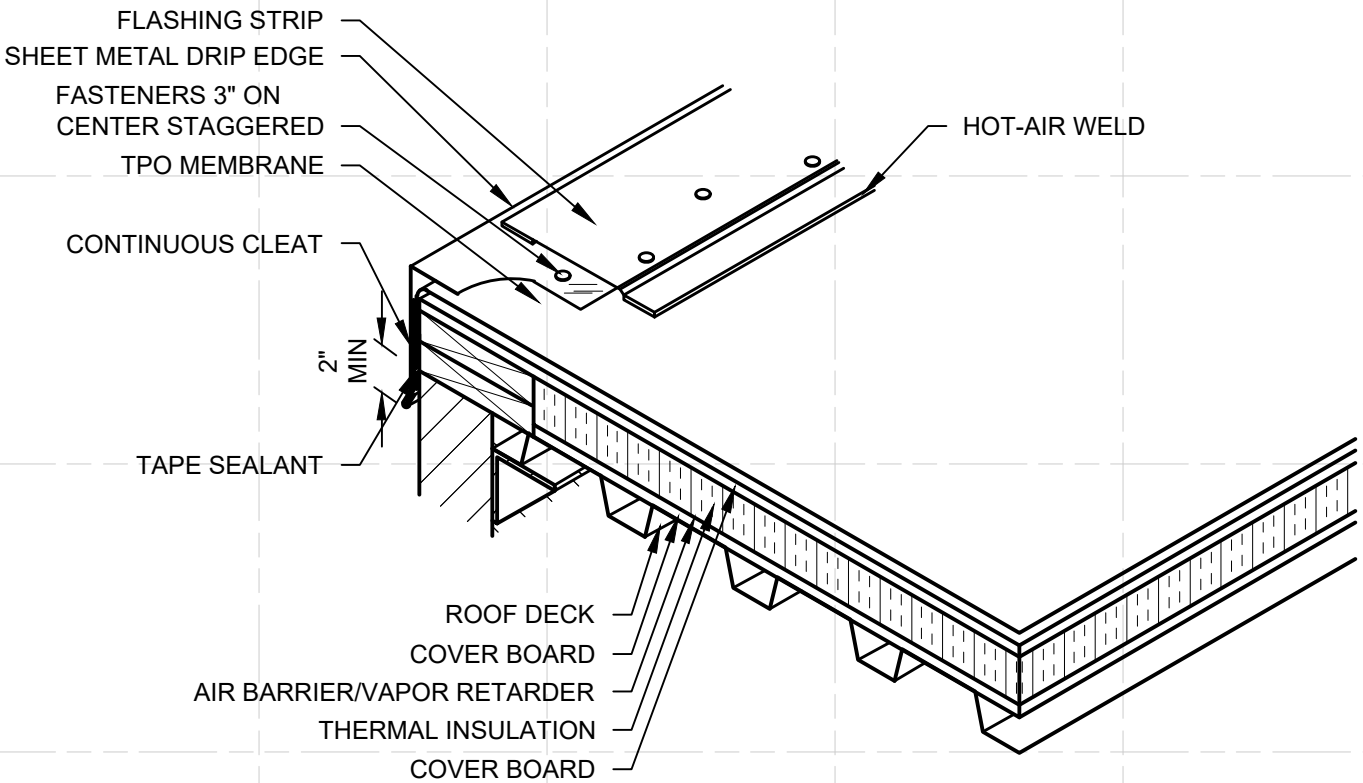
SCALE: NTS



DETAIL: METAL COPING CAP AND BASE FLASHING

A1

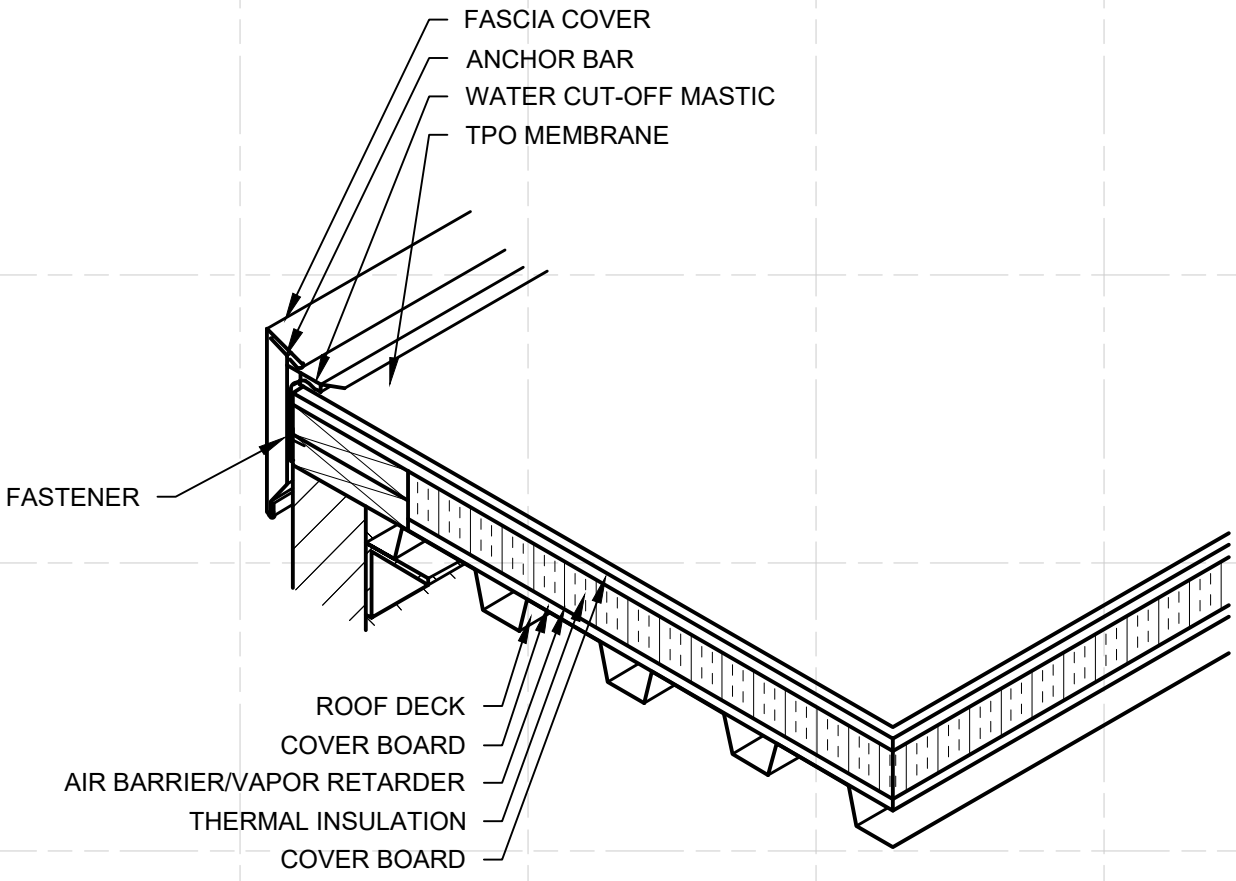
SCALE: NTS



A1

DETAIL: DRIP EDGE

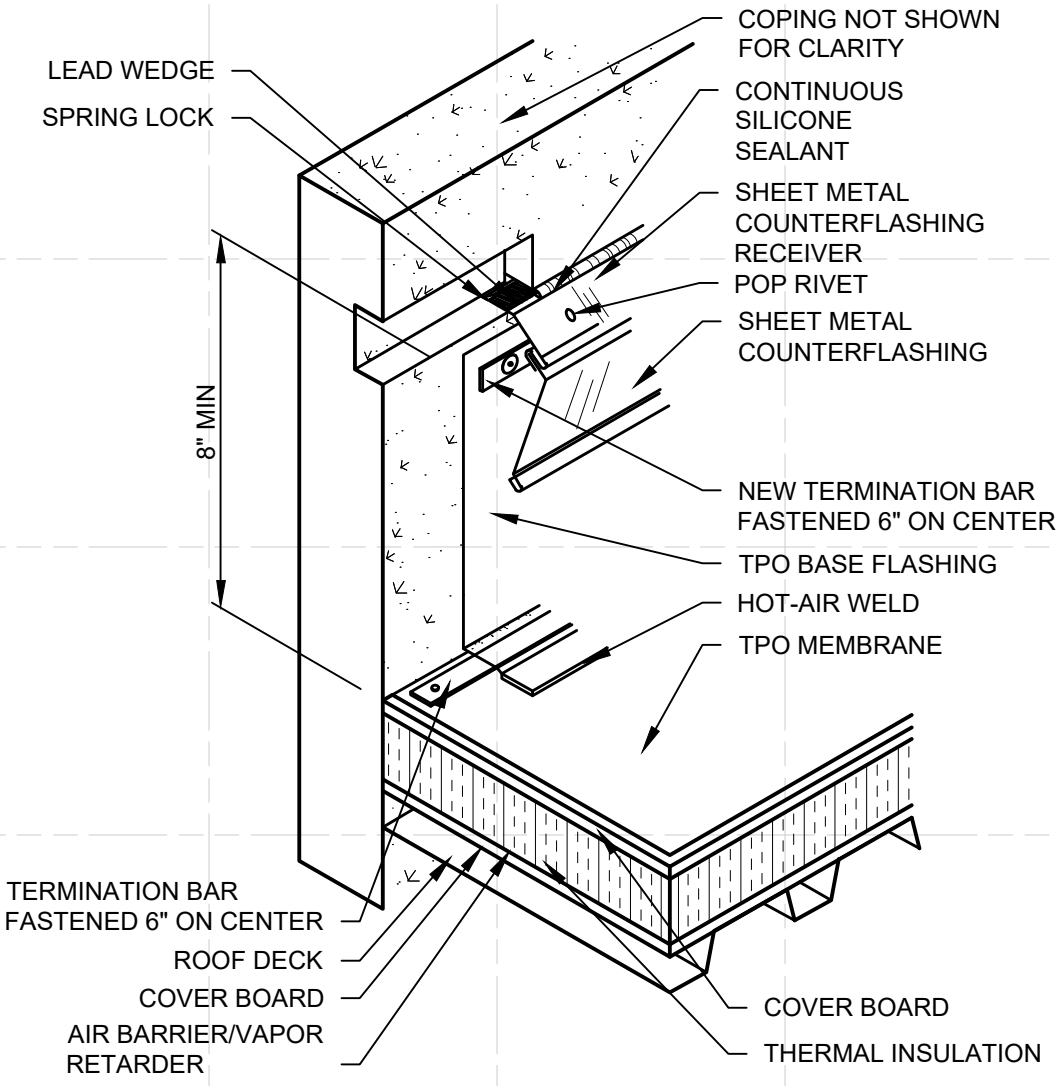
SCALE: NTS



DETAIL: PRE-ENGINEERED EDGE FASCIA

A1

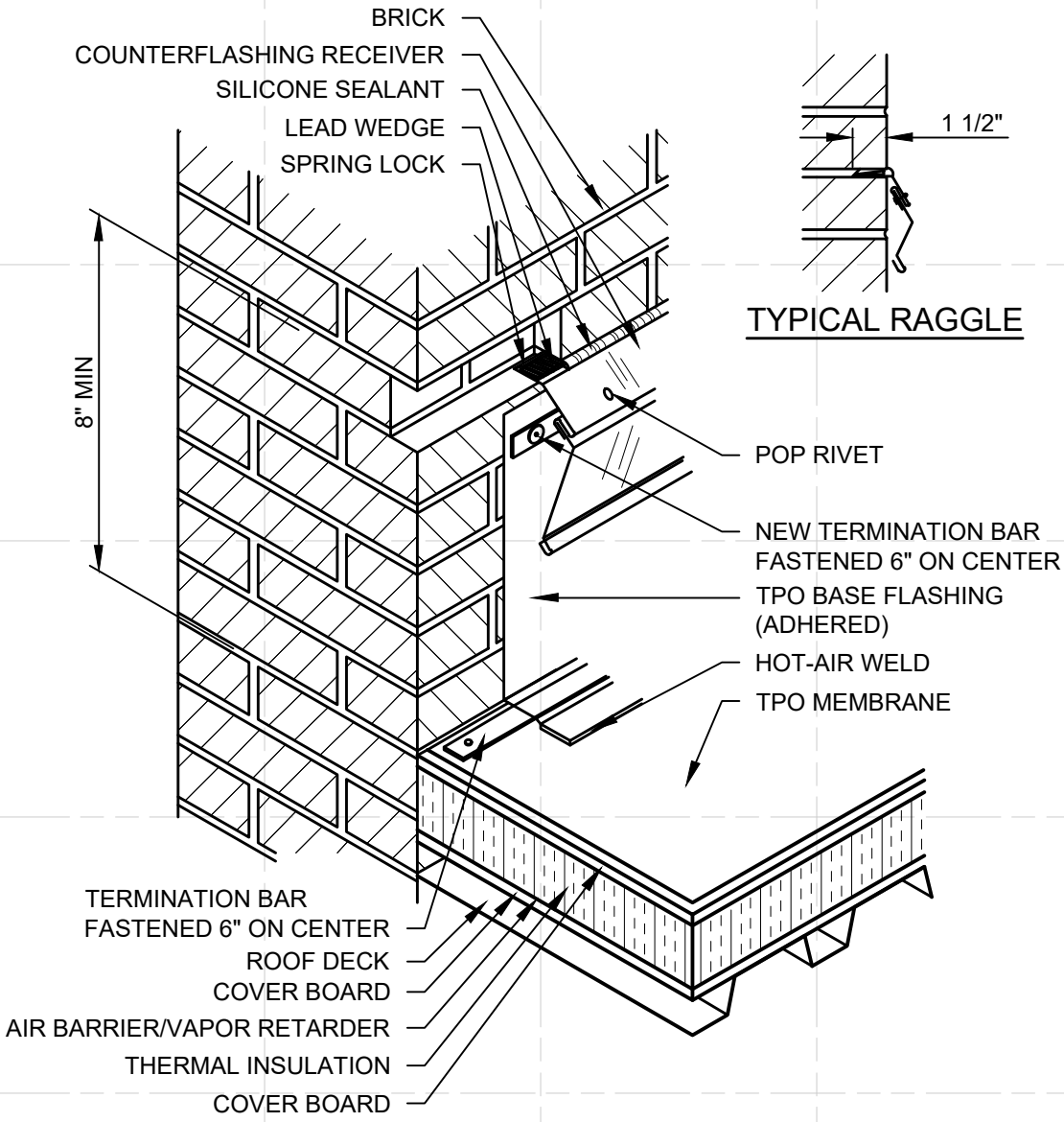
SCALE: NTS



DETAIL: SURFACE-MOUNTED COUNTERFLASHING FOR CONCRETE WALLS

A1

SCALE: NTS

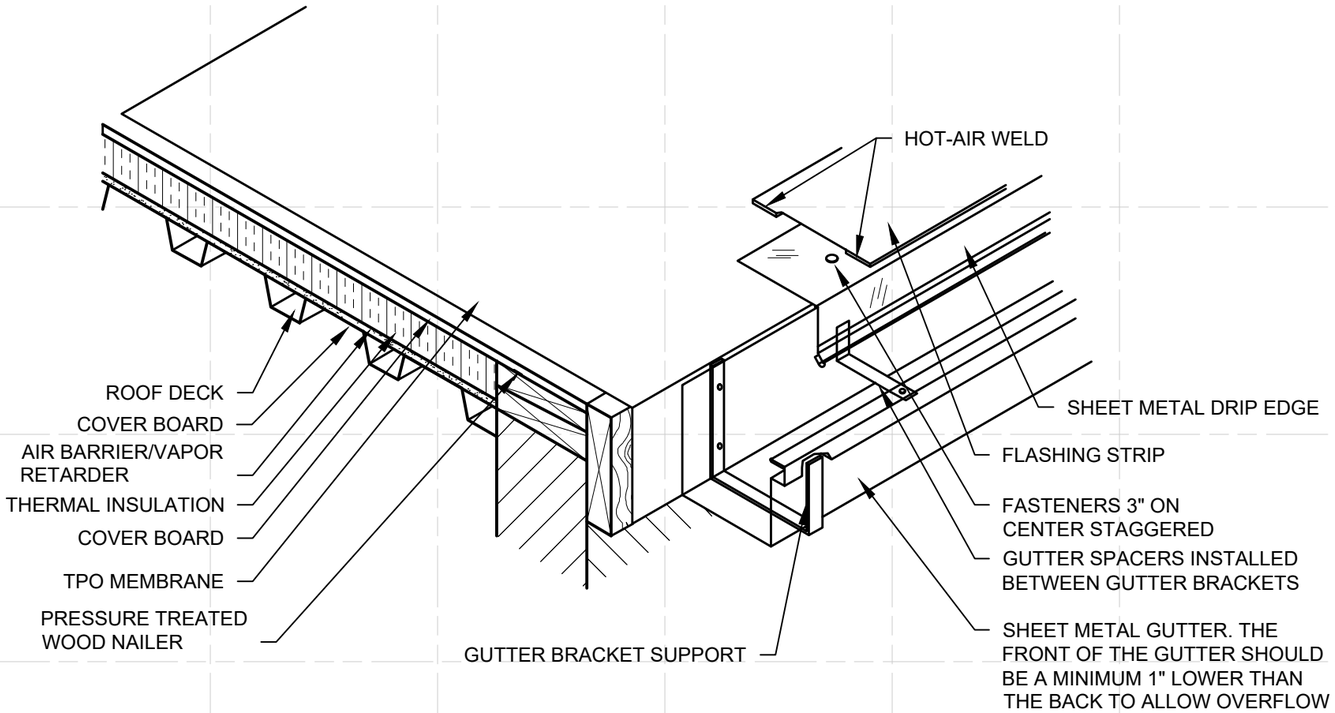


TYPICAL RAGGLE

DETAIL: COUNTERFLASHING IN RAGGLE

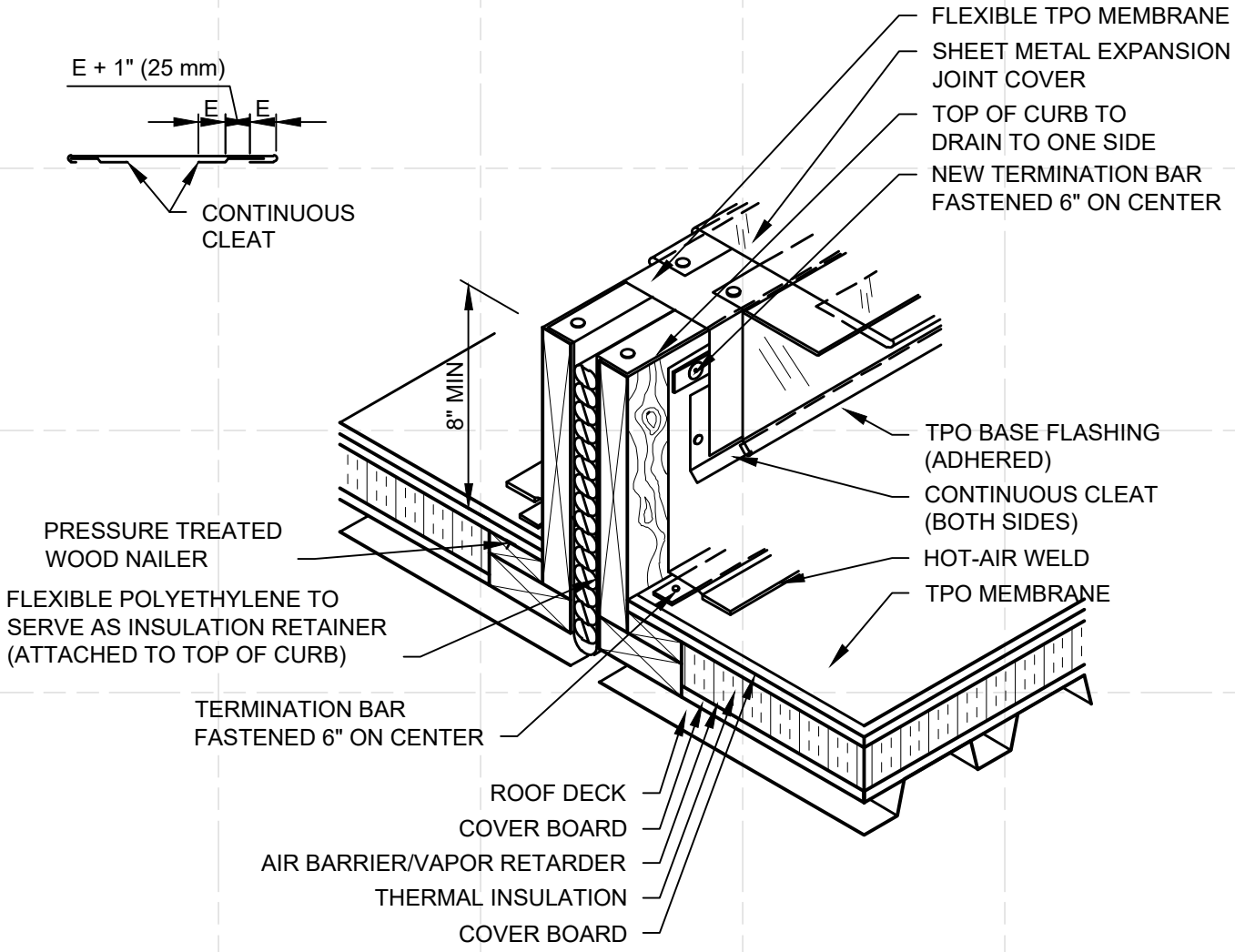
A1

SCALE: NTS



A1 DETAIL: DRIP EDGE WITH GUTTER

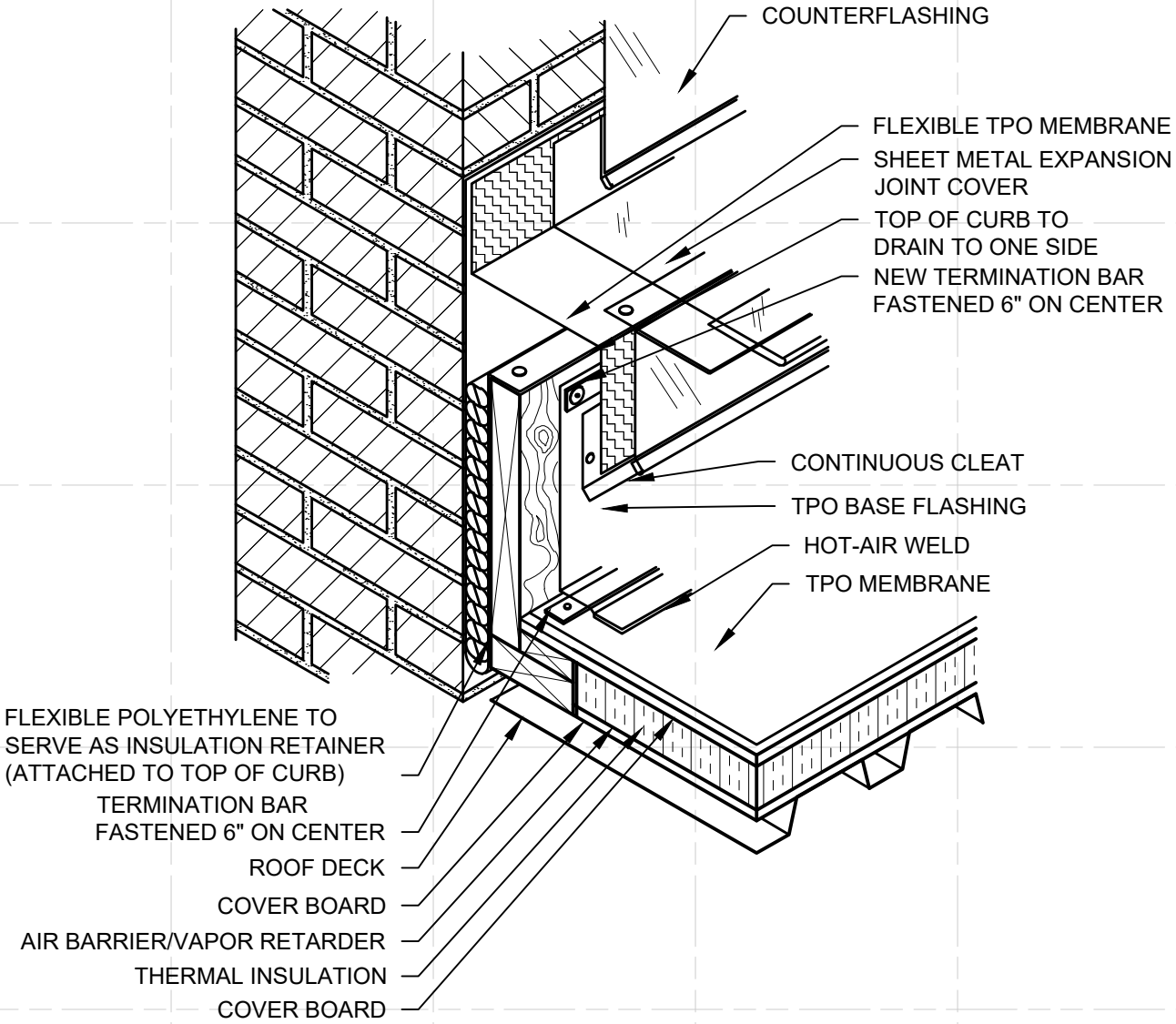
SCALE: NTS



DETAIL: ROOF-TO-ROOF EXPANSION JOINT WITH SHOP-FORMED METAL COVER

A1

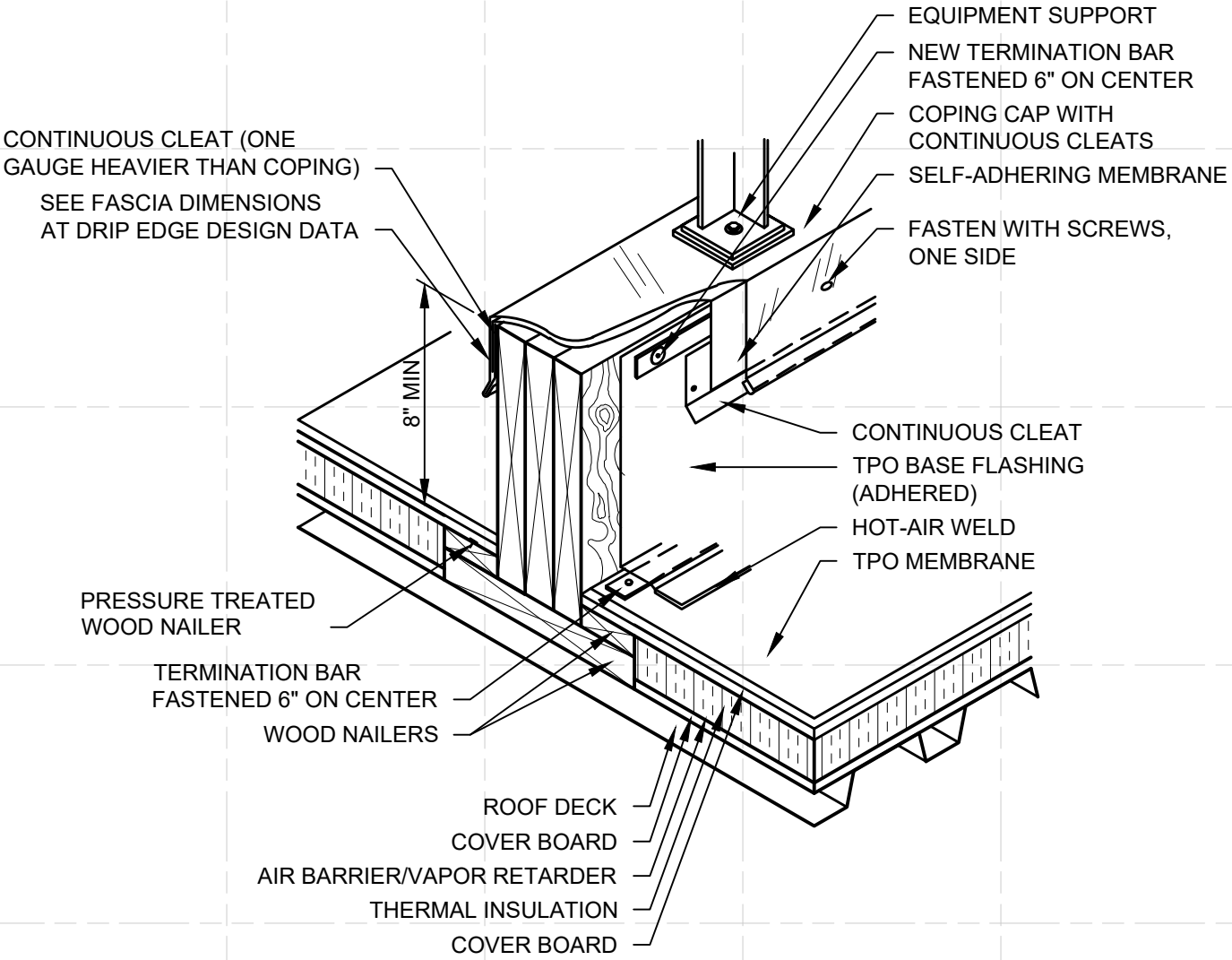
SCALE: NTS



DETAIL: ROOF-TO-WALL EXPANSION JOINT WITH SHOP-FORMED METAL COVER

A1

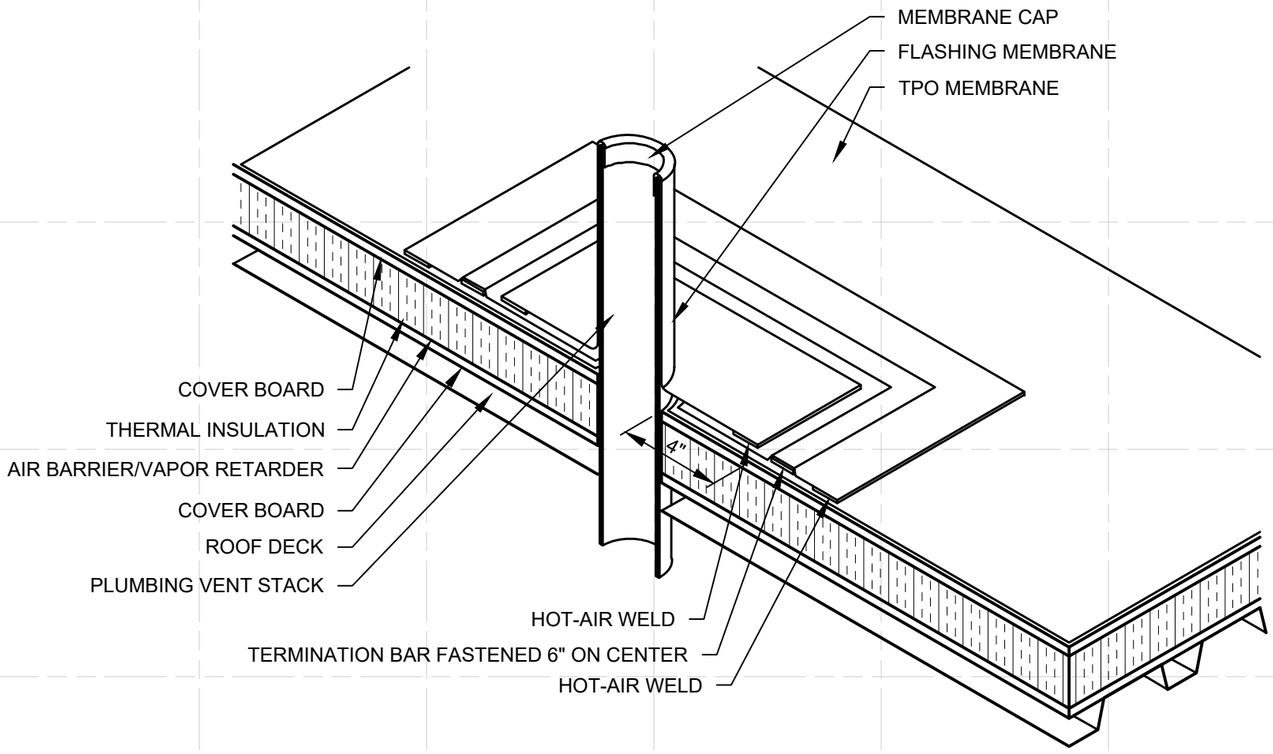
SCALE: NTS



A1

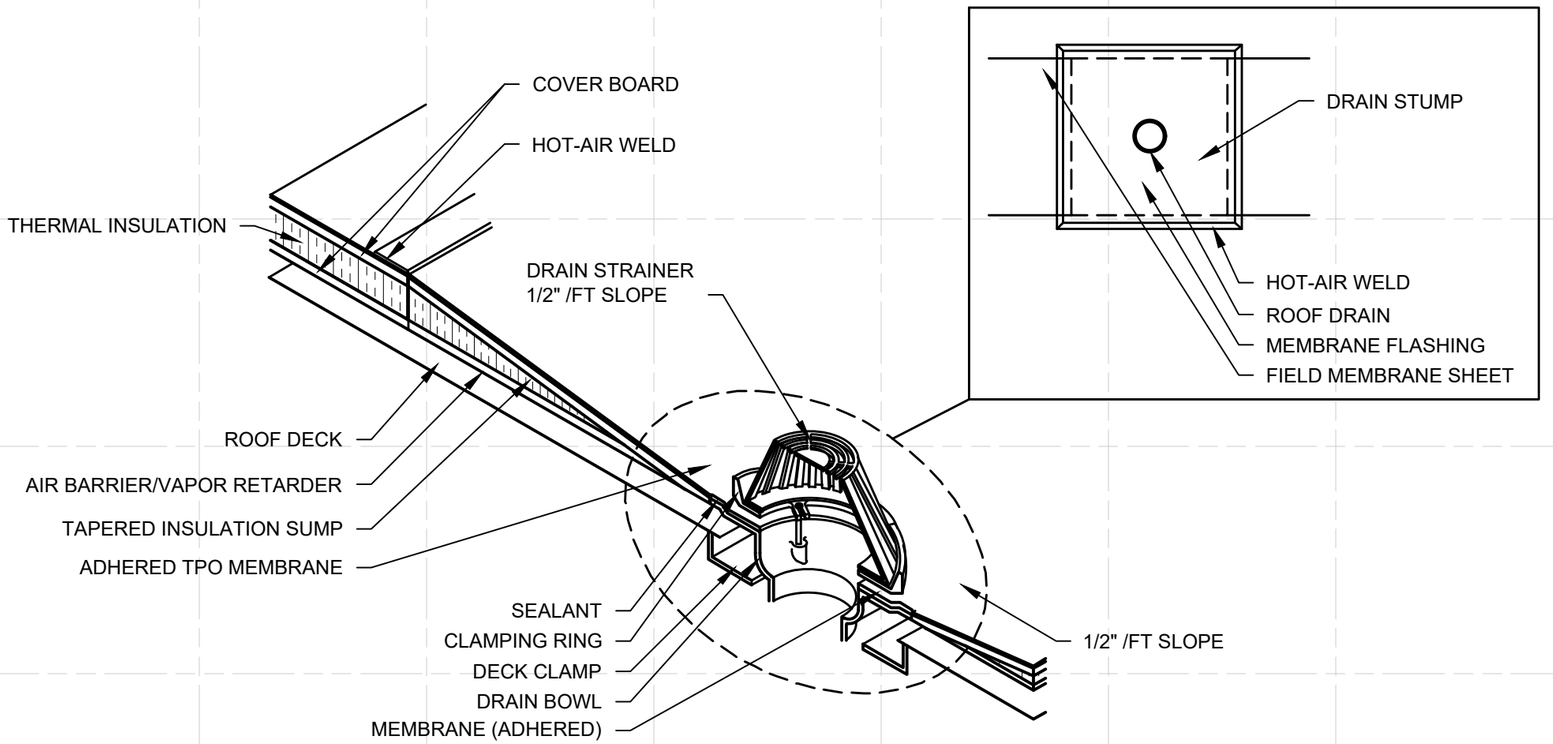
DETAIL: EQUIPMENT CURB SUPPORT

SCALE: NTS



A1 DETAIL: PLUMBING VENT

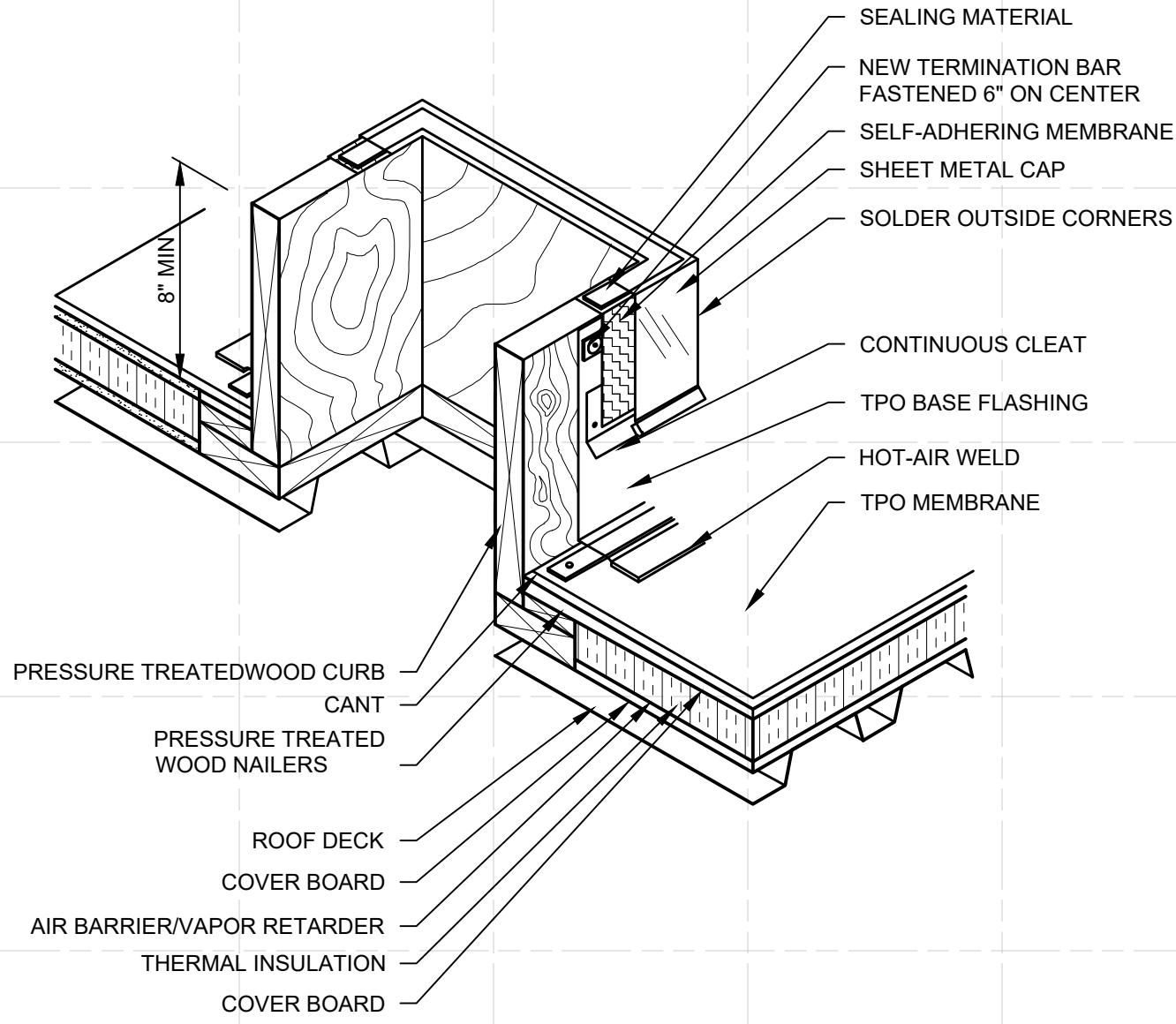
SCALE: NTS



A1 DETAIL: ROOF DRAIN

SCALE: NTS

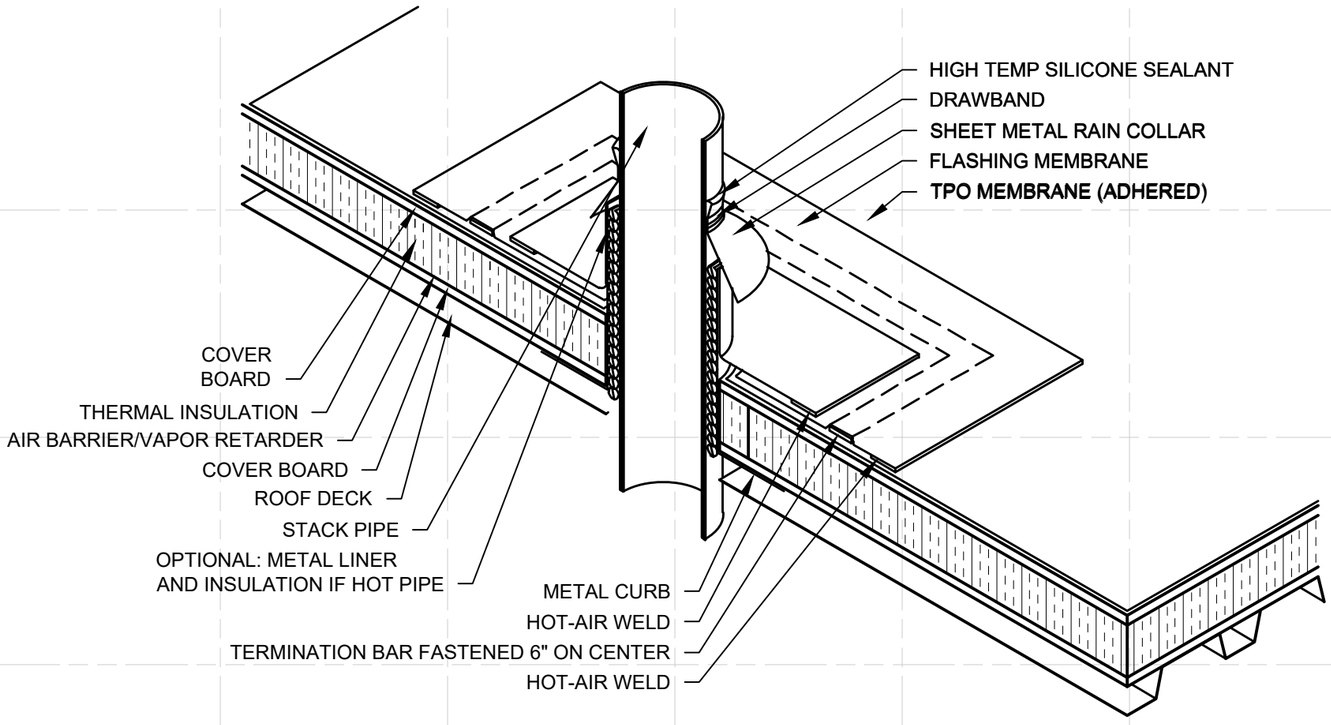
Detail B3010A-DT811I



A1

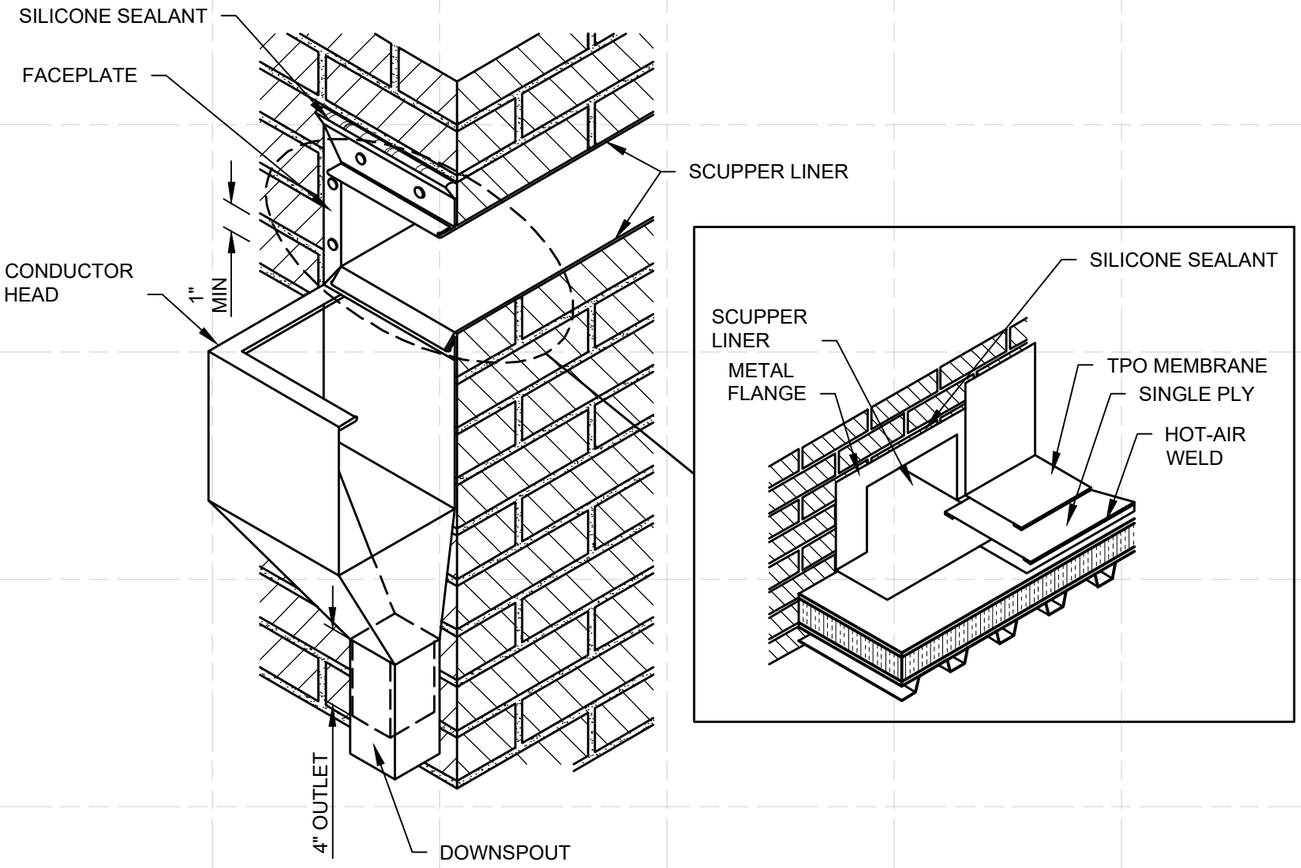
DETAIL: CURBED PENETRATION

SCALE: NTS



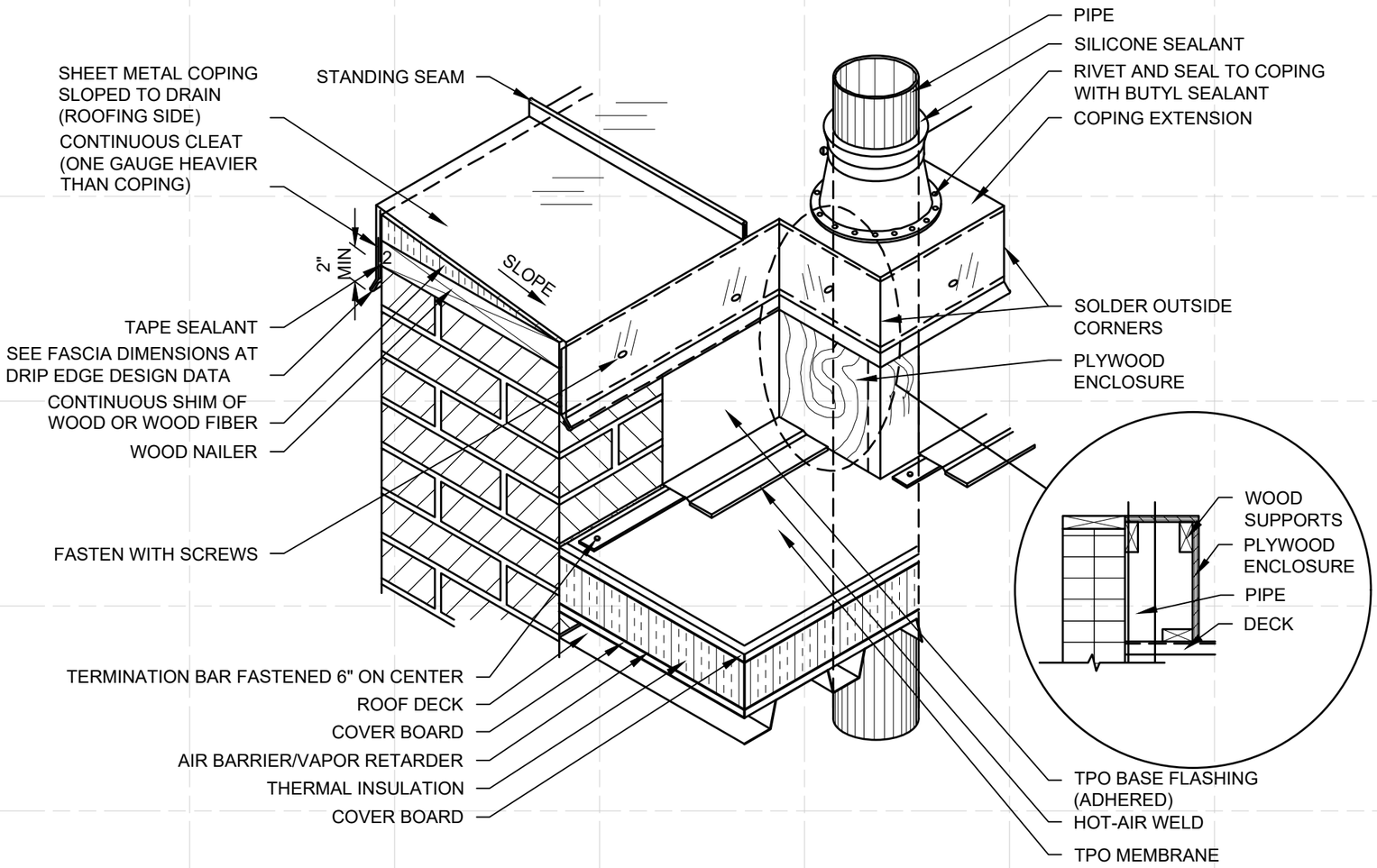
A1 DETAIL: STACK PIPE

SCALE: NTS



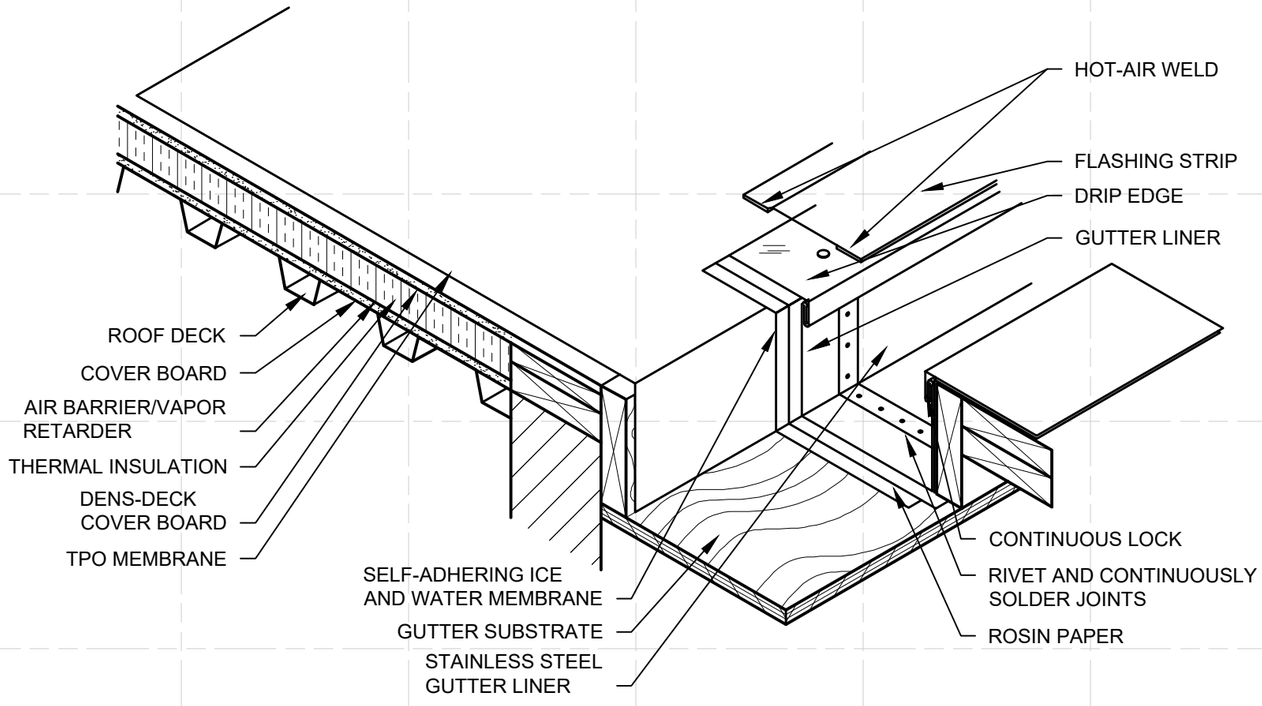
A1 DETAIL: DRAIN SCUPPER WITH CONDUCTOR HEAD

SCALE: NTS



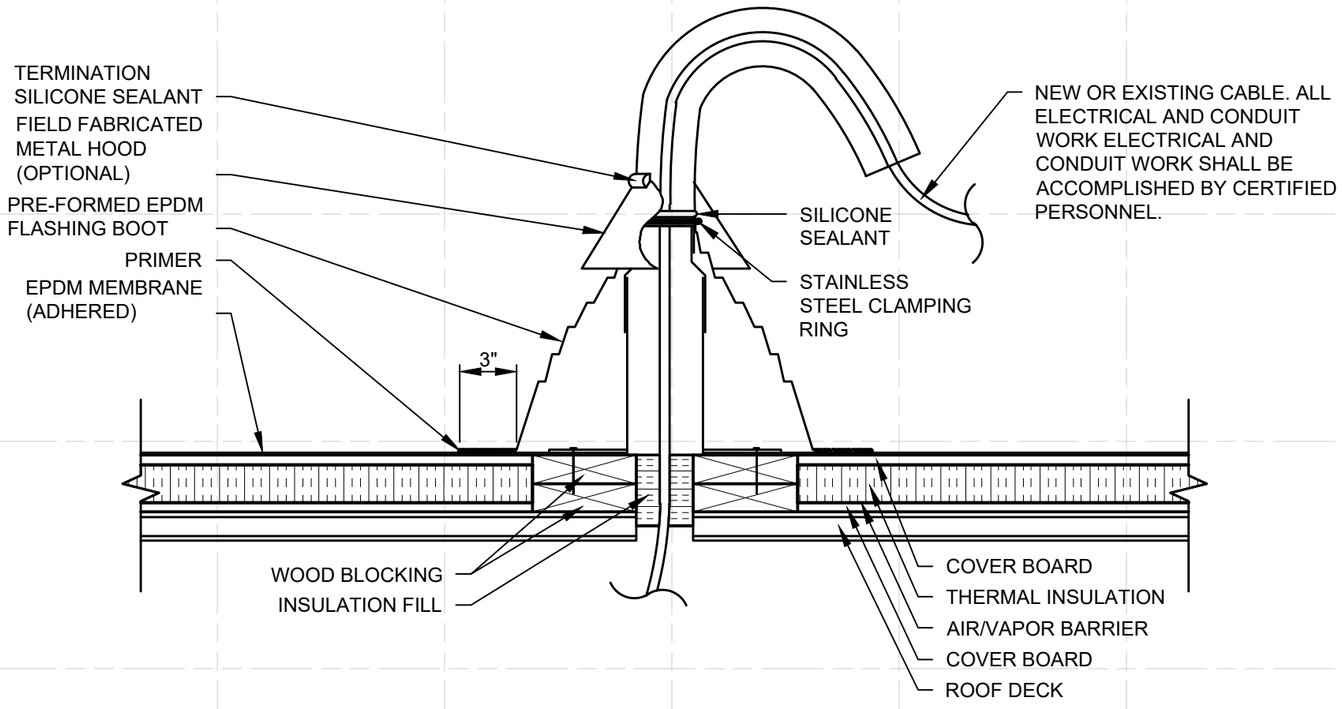
A1 DETAIL: PIPE ADJACENT TO PARAPET

SCALE: NTS



A1 DETAIL: DRIP EDGE WITH INTERNAL GUTTER

SCALE: NTS

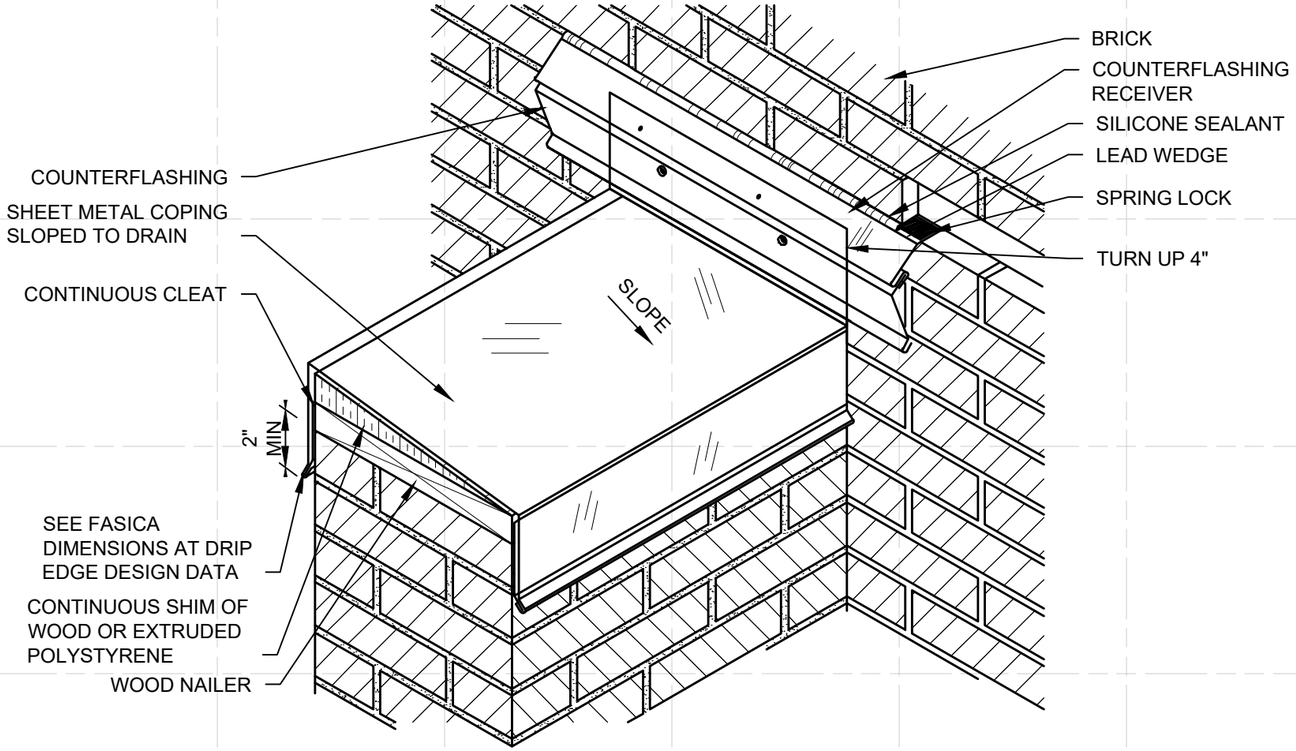


A1 DETAIL: CABLE PENETRATION FLASHING

SCALE: NTS

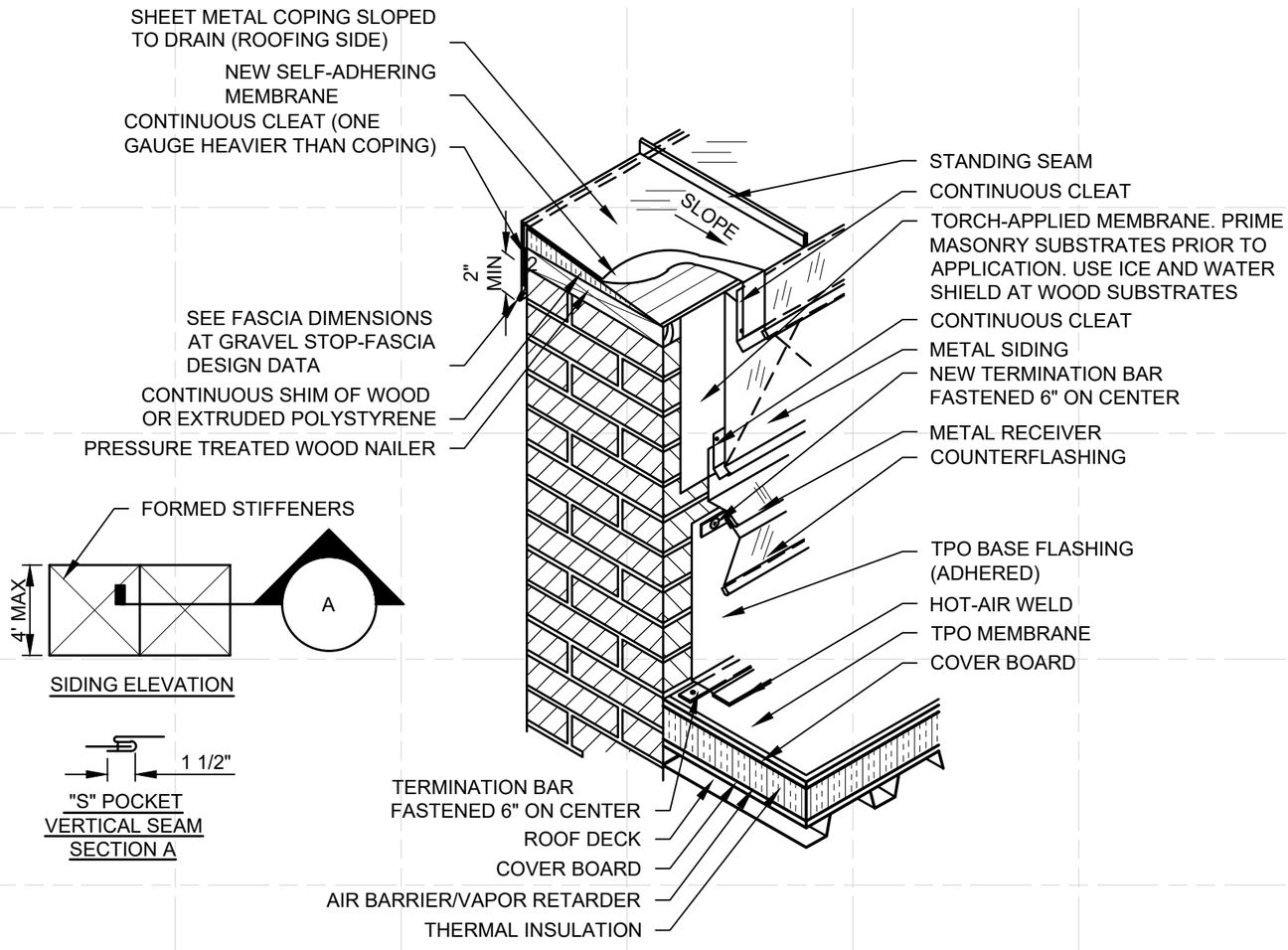
0 6" 1' 2'

Detail B3010A-DT817I



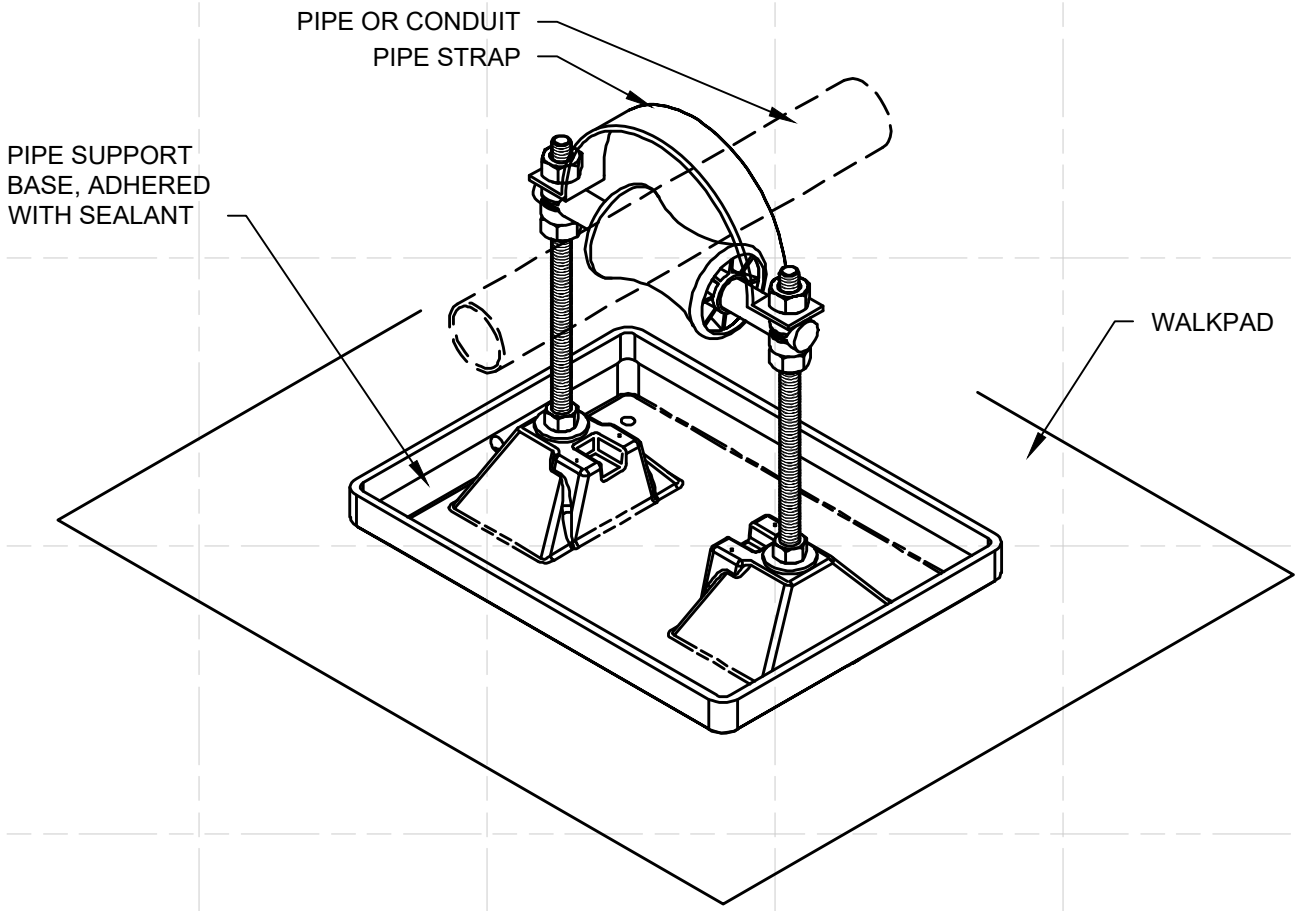
A1 DETAIL: COPING TERMINATION AT WALL

SCALE: NTS



A1 DETAIL: METAL SIDING

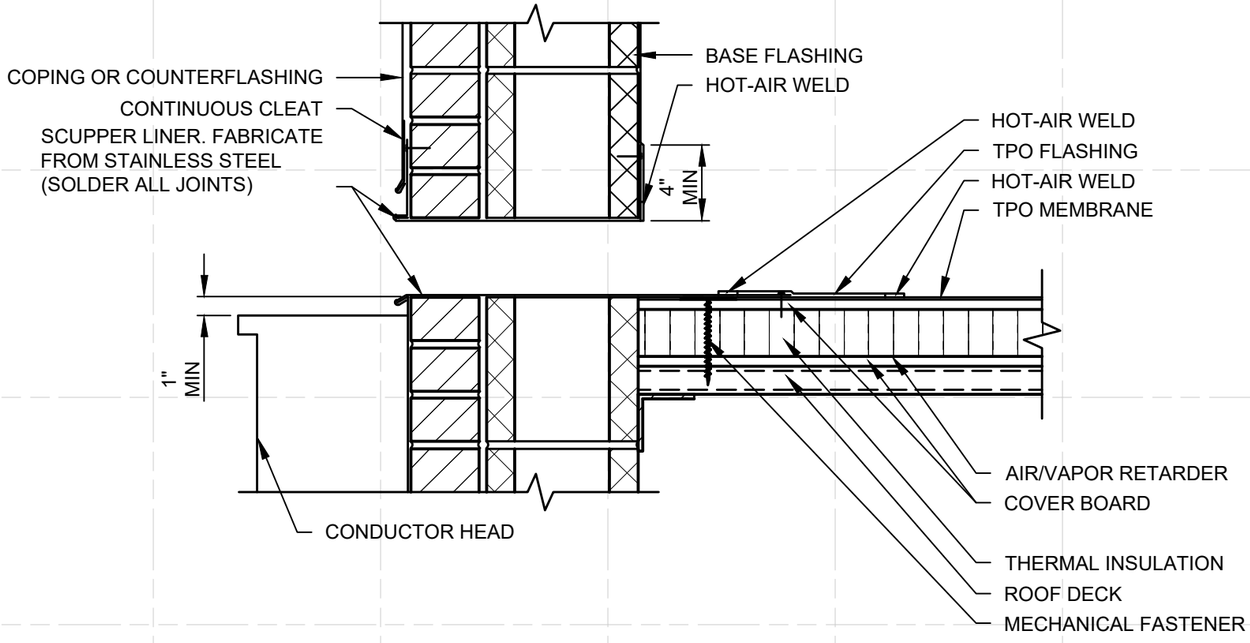
SCALE: NTS



A1

DETAIL: PIPE STAND

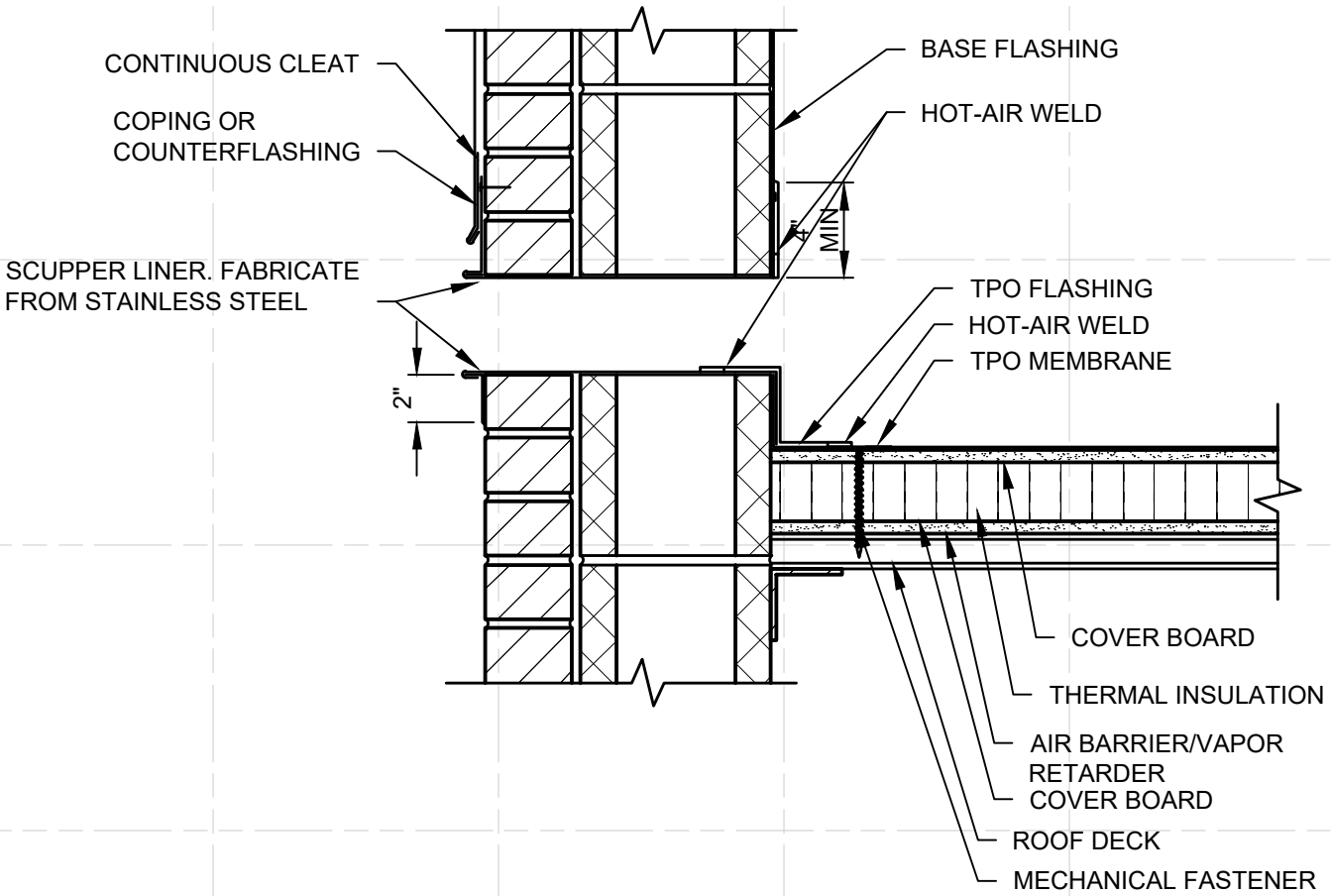
SCALE: NTS



A1 DETAIL: DRAIN SCUPPER WITH CONDUCTOR HEAD

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'



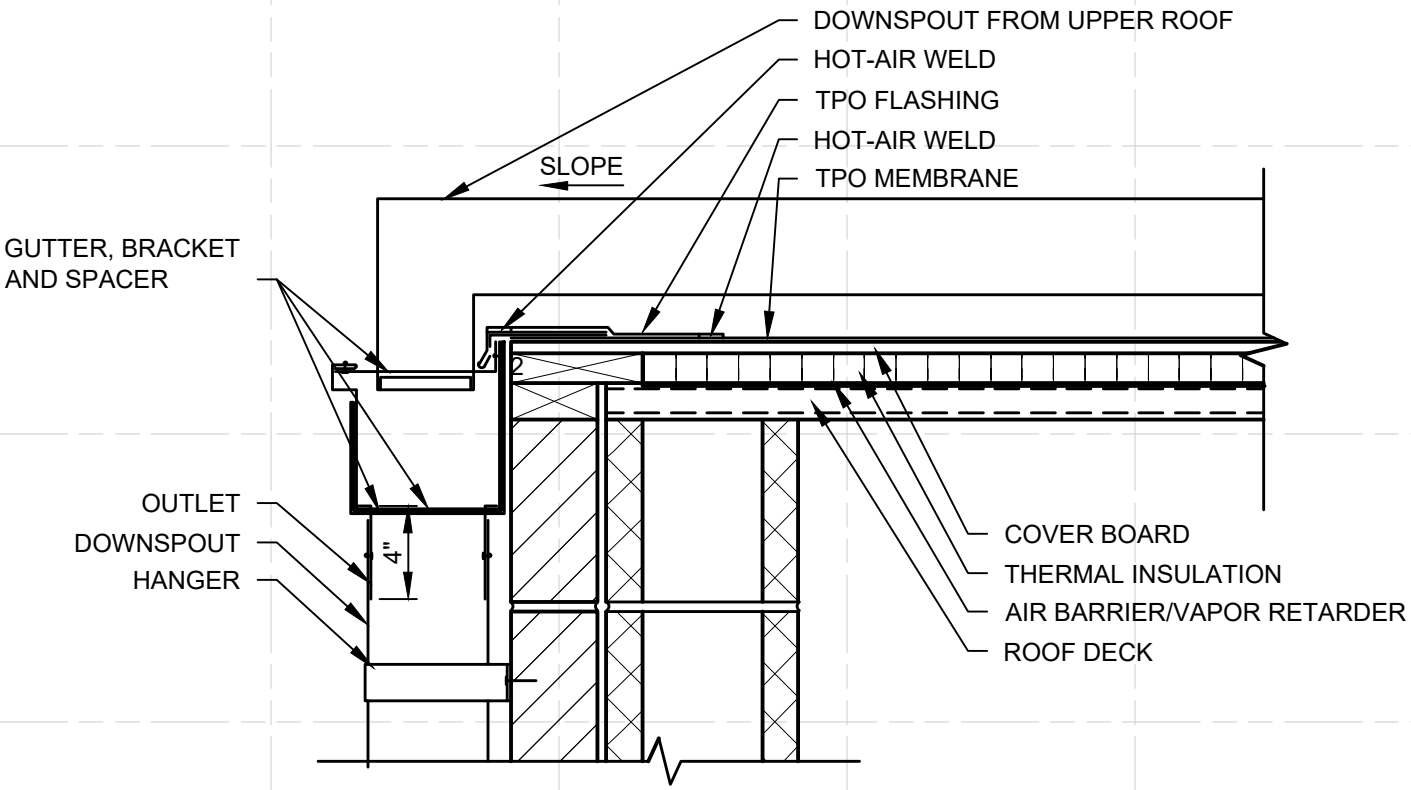
A1

DETAIL: OVERFLOW DRAIN SCUPPER

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

Detail B3010A-DT822X



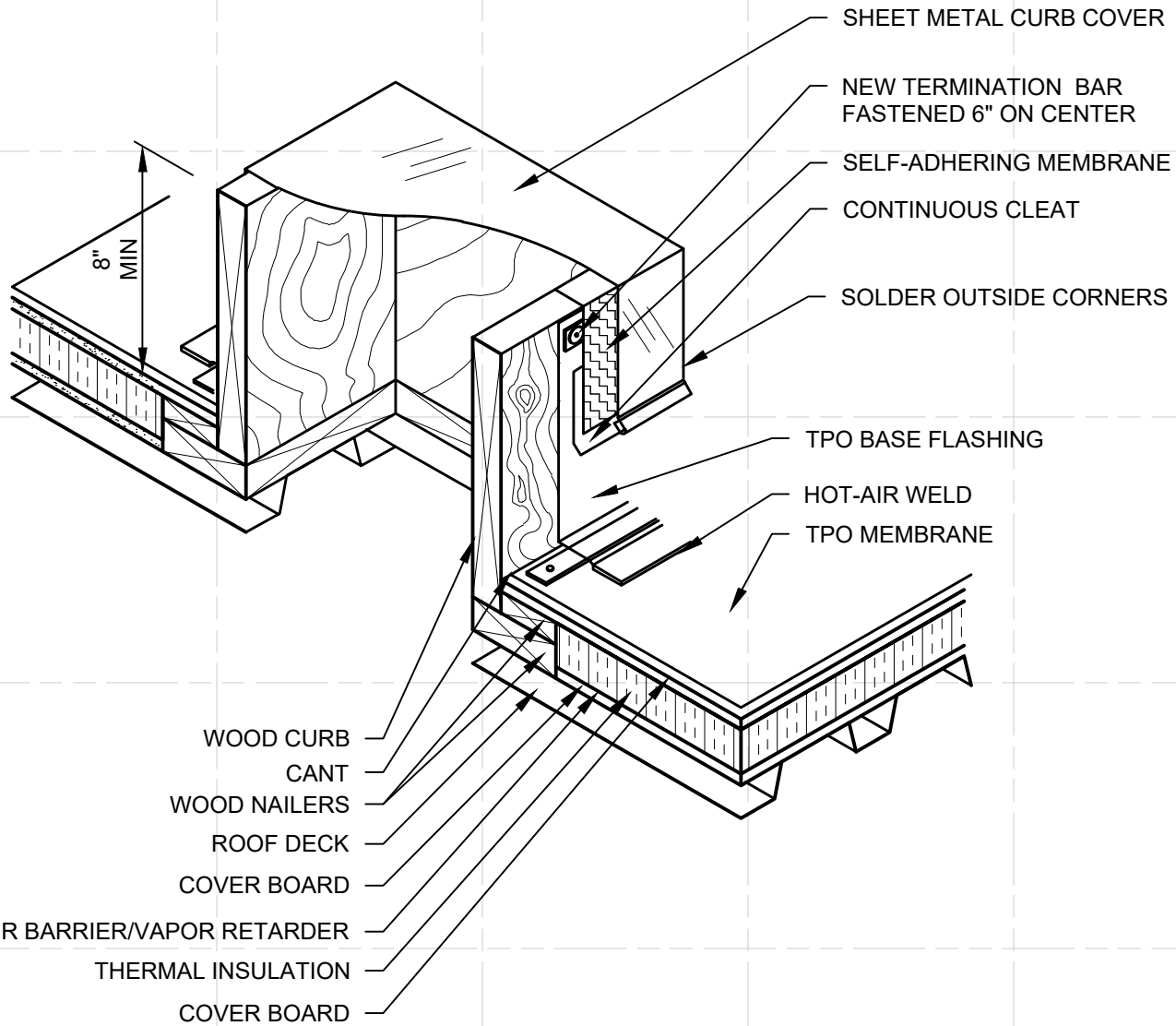
A1

DETAIL: GUTTER/DOWNSPOUT DETAIL

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

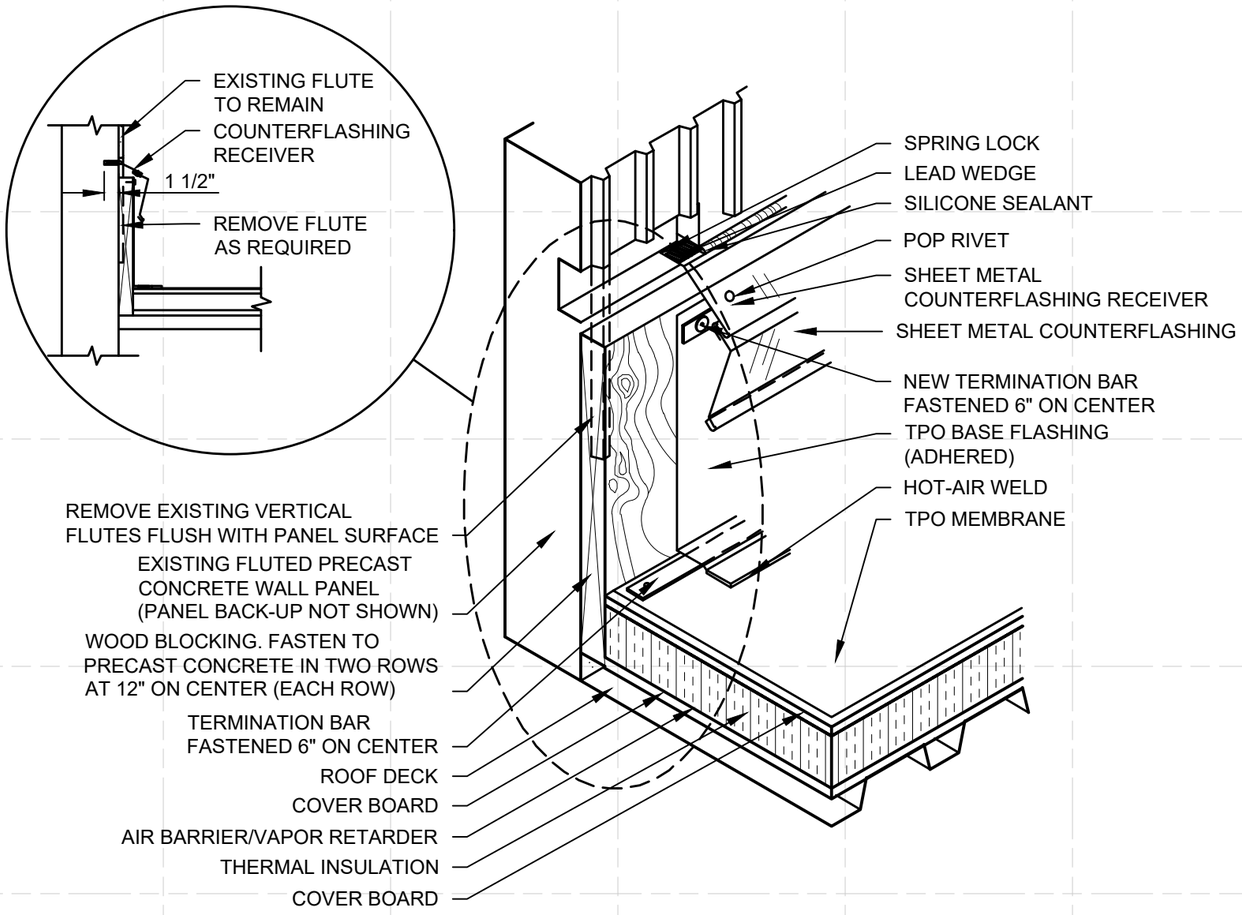
Detail B3010A-DT823X



A1

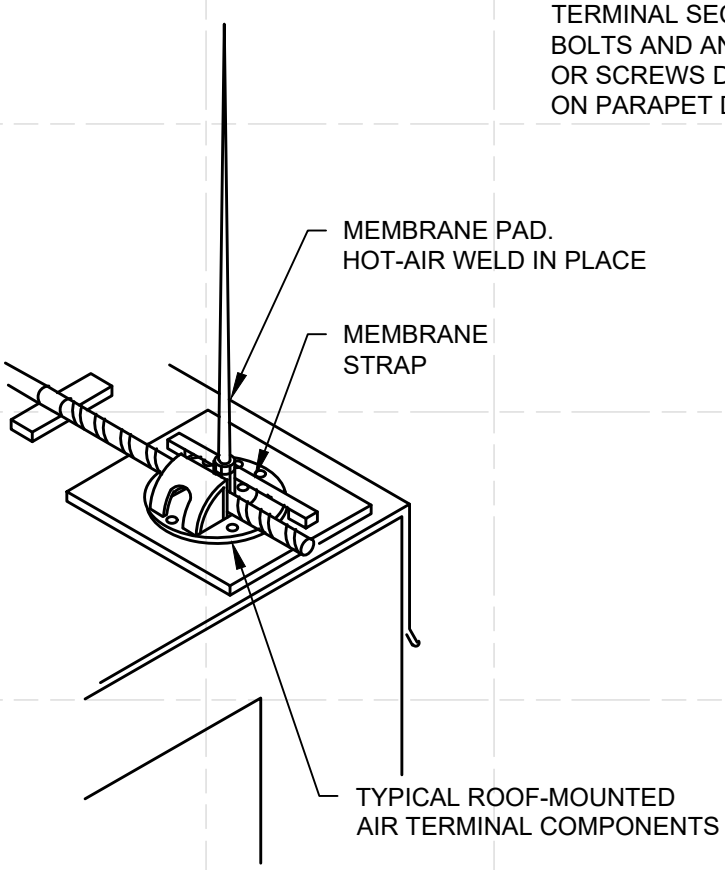
DETAIL: CURB COVER

SCALE: NTS

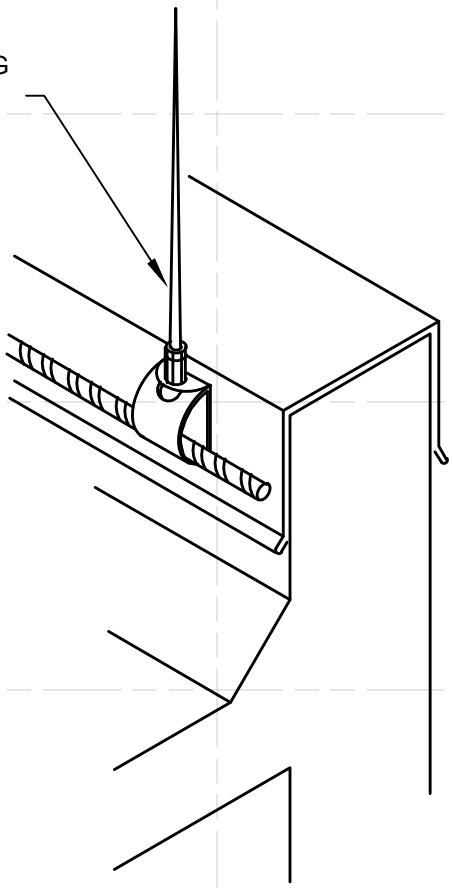


A1 DETAIL: FLUTED PRECAST CONCRETE WALL PANEL

SCALE: NTS



TPO-025A
(EAVE CONDITION)

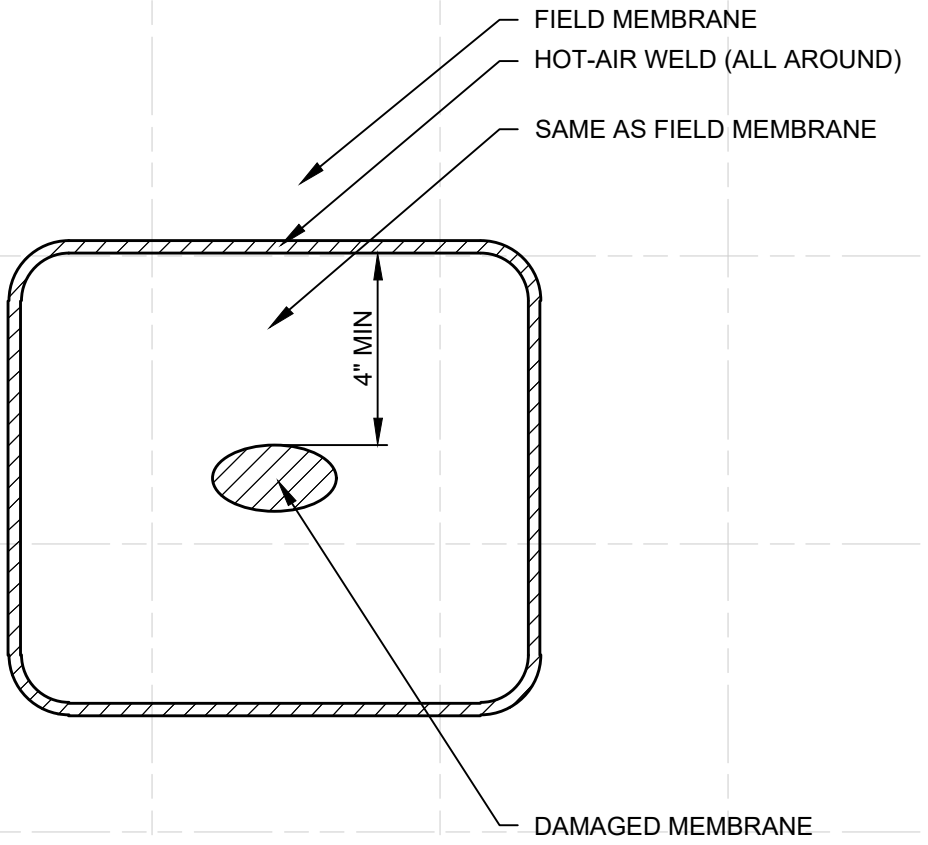


TPO-025B
(PARAPET CONDITION)

DETAIL: TYPICAL LIGHTNING PROTECTION AIR TERMINAL MOUNTS

A1

SCALE: NTS



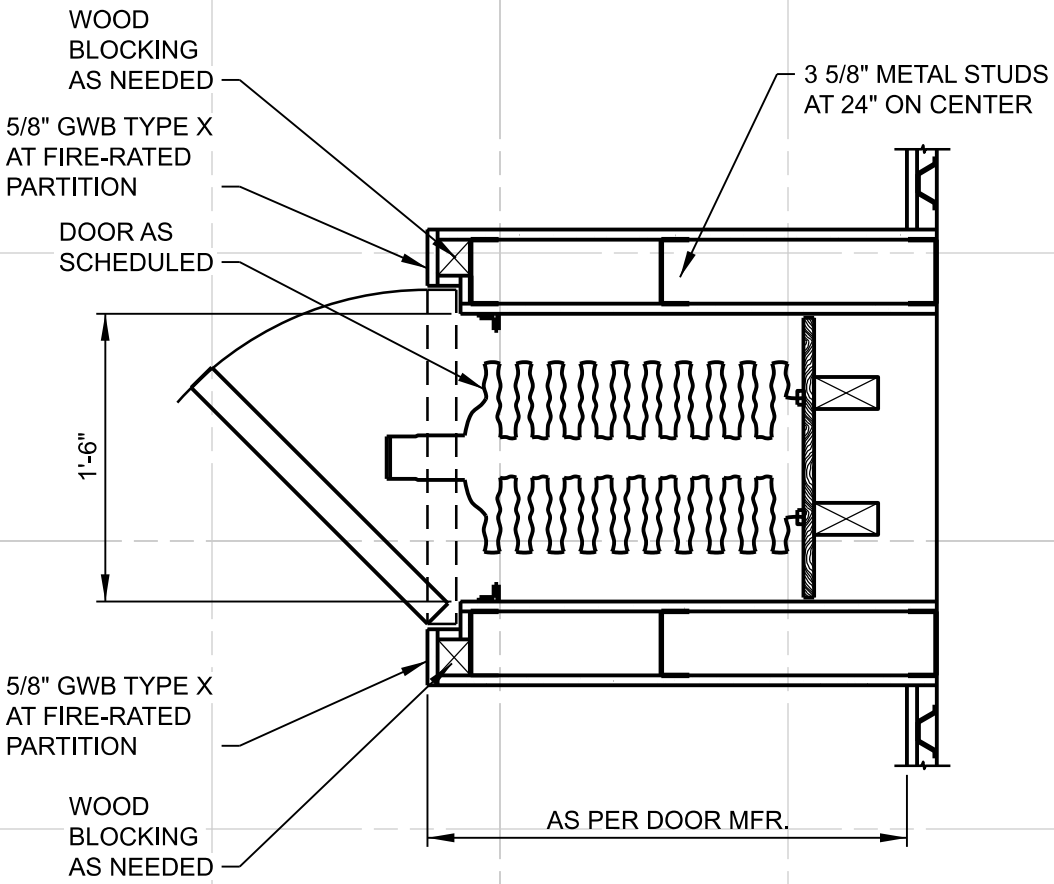
DETAIL: ISOLATED MEMBRANE REPAIR

A1

SCALE:1 1/2"=1'-0"

0 6" 1' 2'

Detail B3010A-DT827P

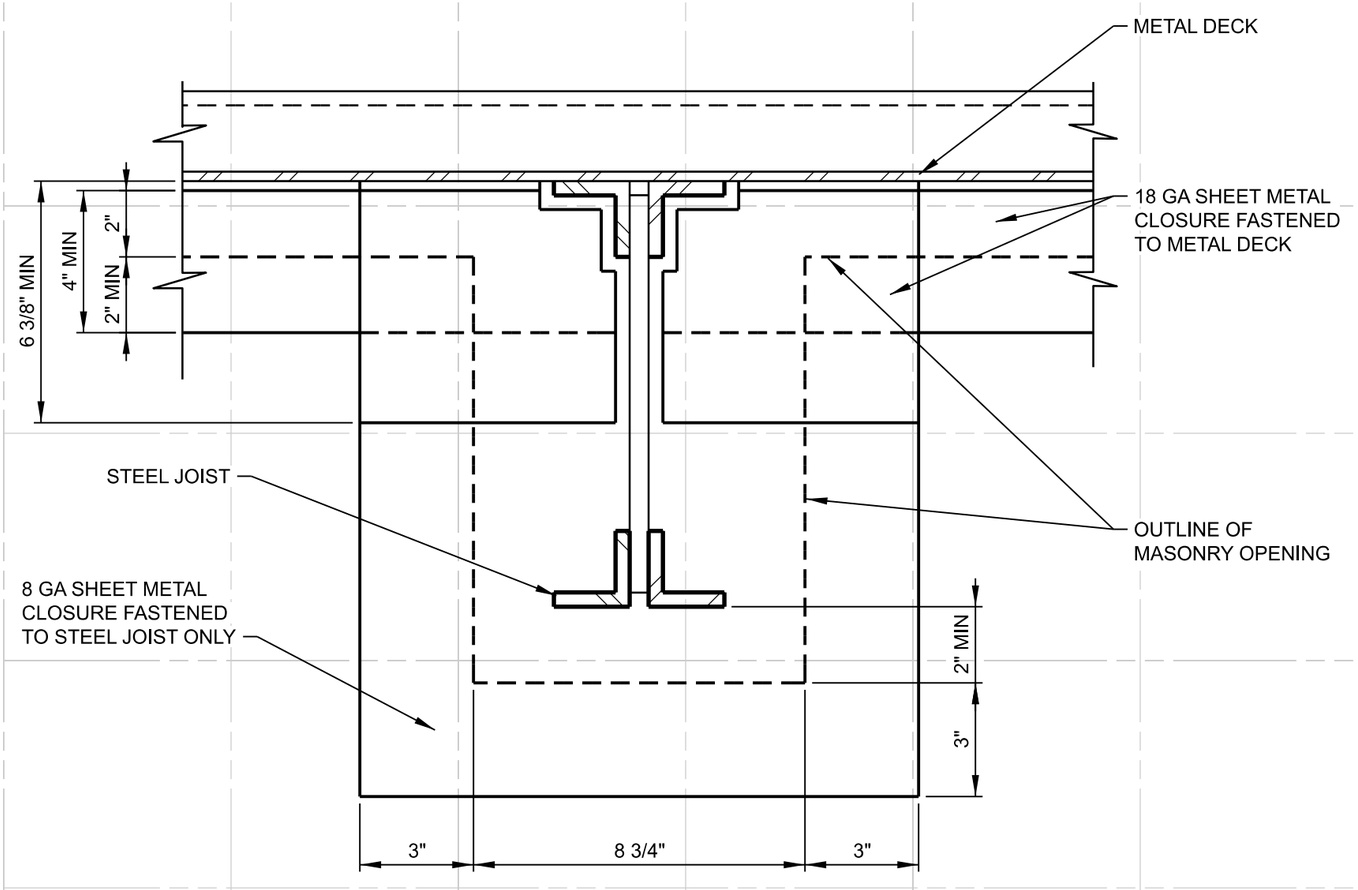


A1

DETAIL: DOOR POCKET

SCALE: 1"=1'-0"

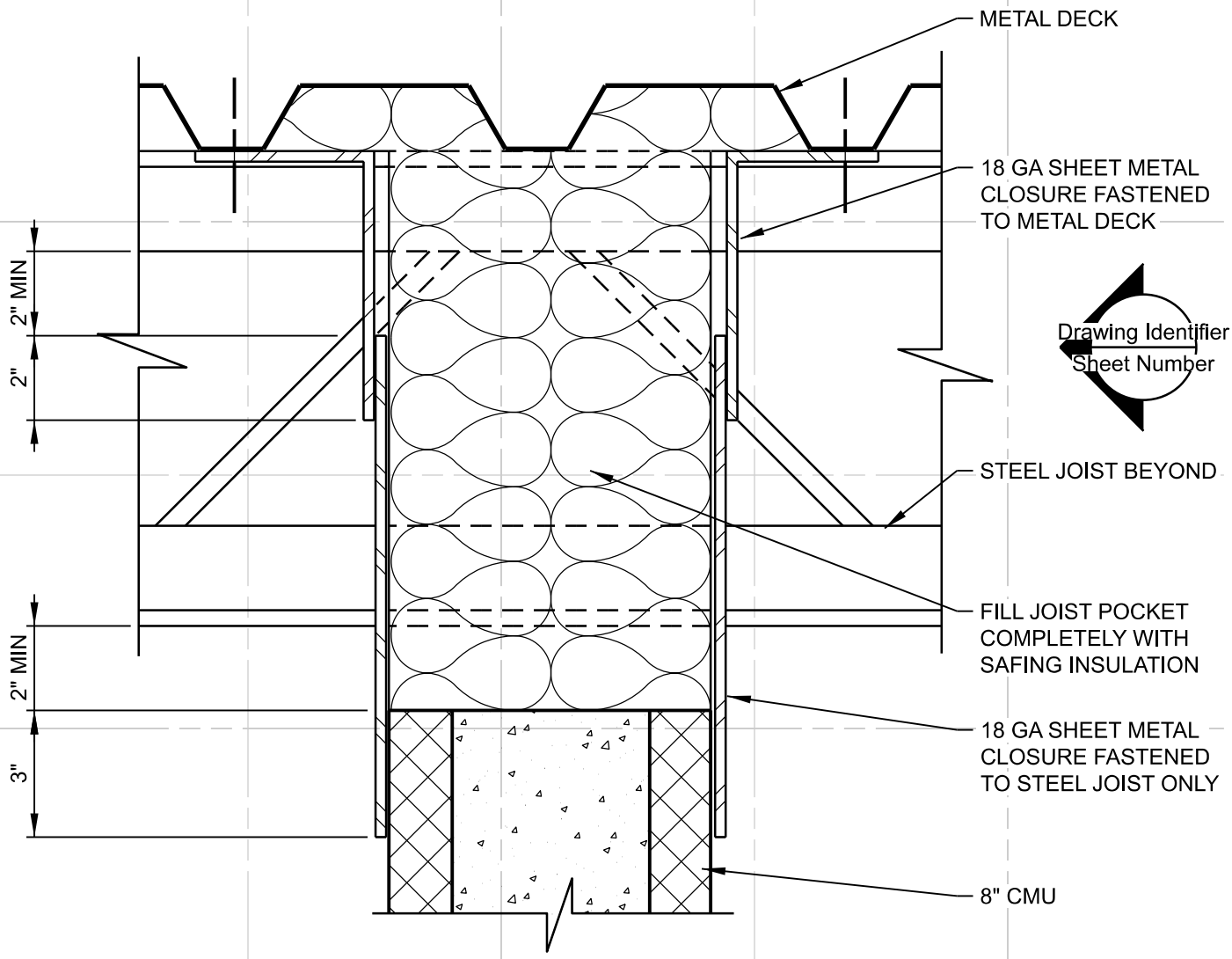
0 6" 1' 2'



A1 ELEVATION: AT JOIST POCKET

SCALE: 3"=1'-0"

0 3" 6" 1'



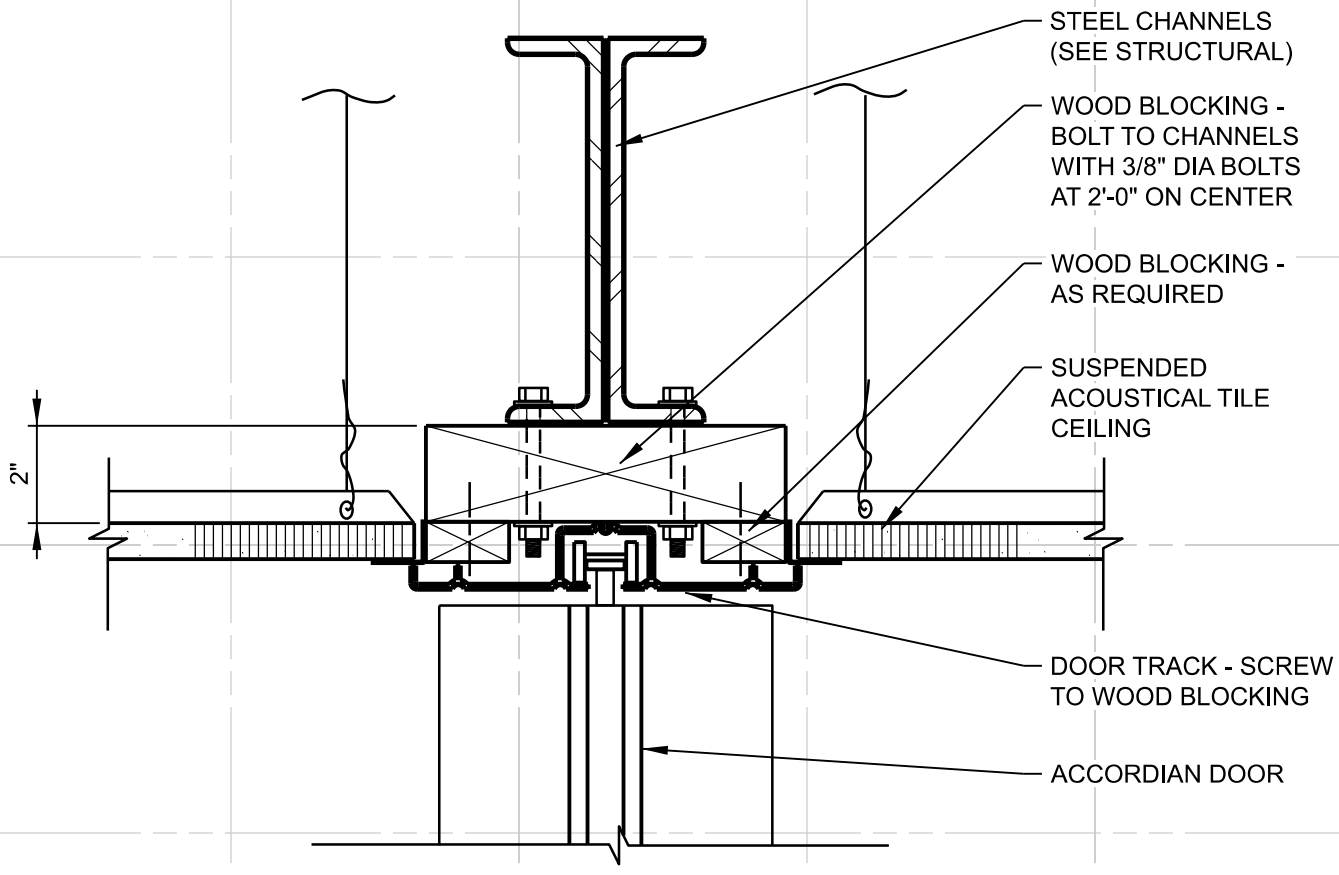
A1

DETAIL: WALL AT JOIST POCKET

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT004X



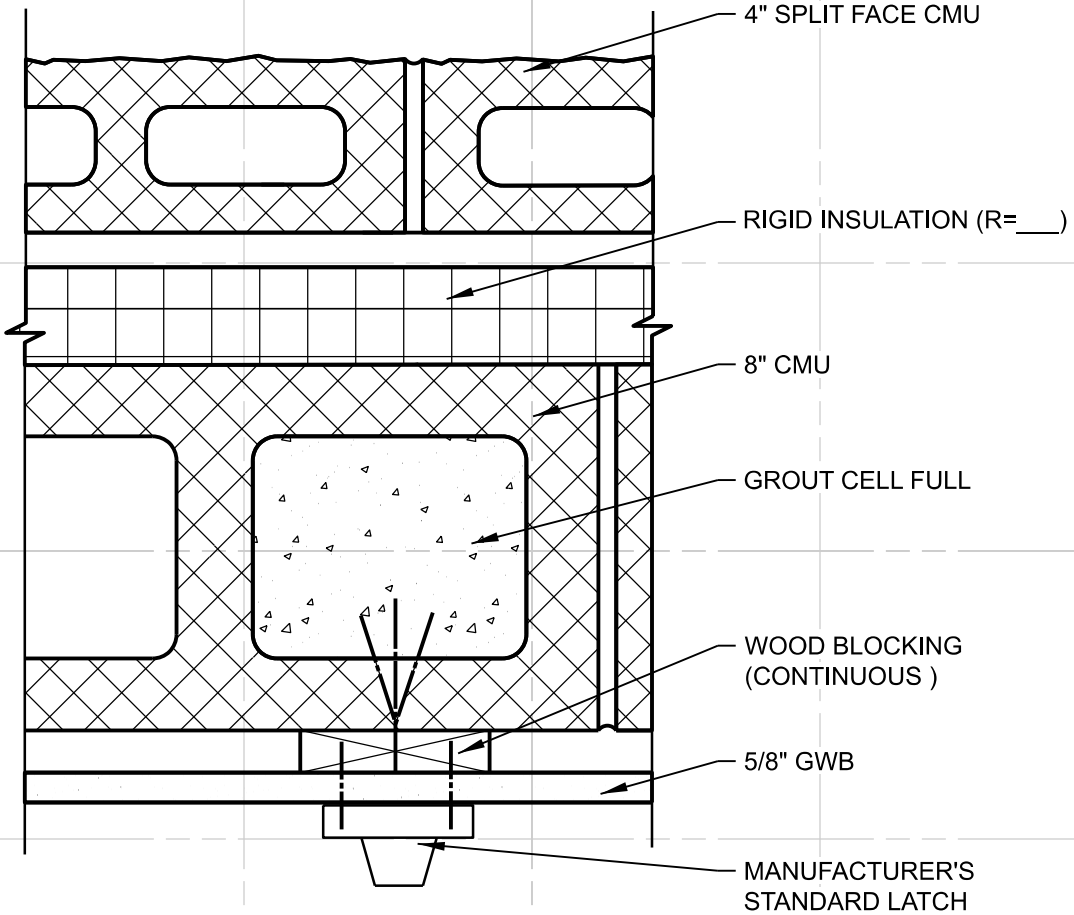
A1

DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

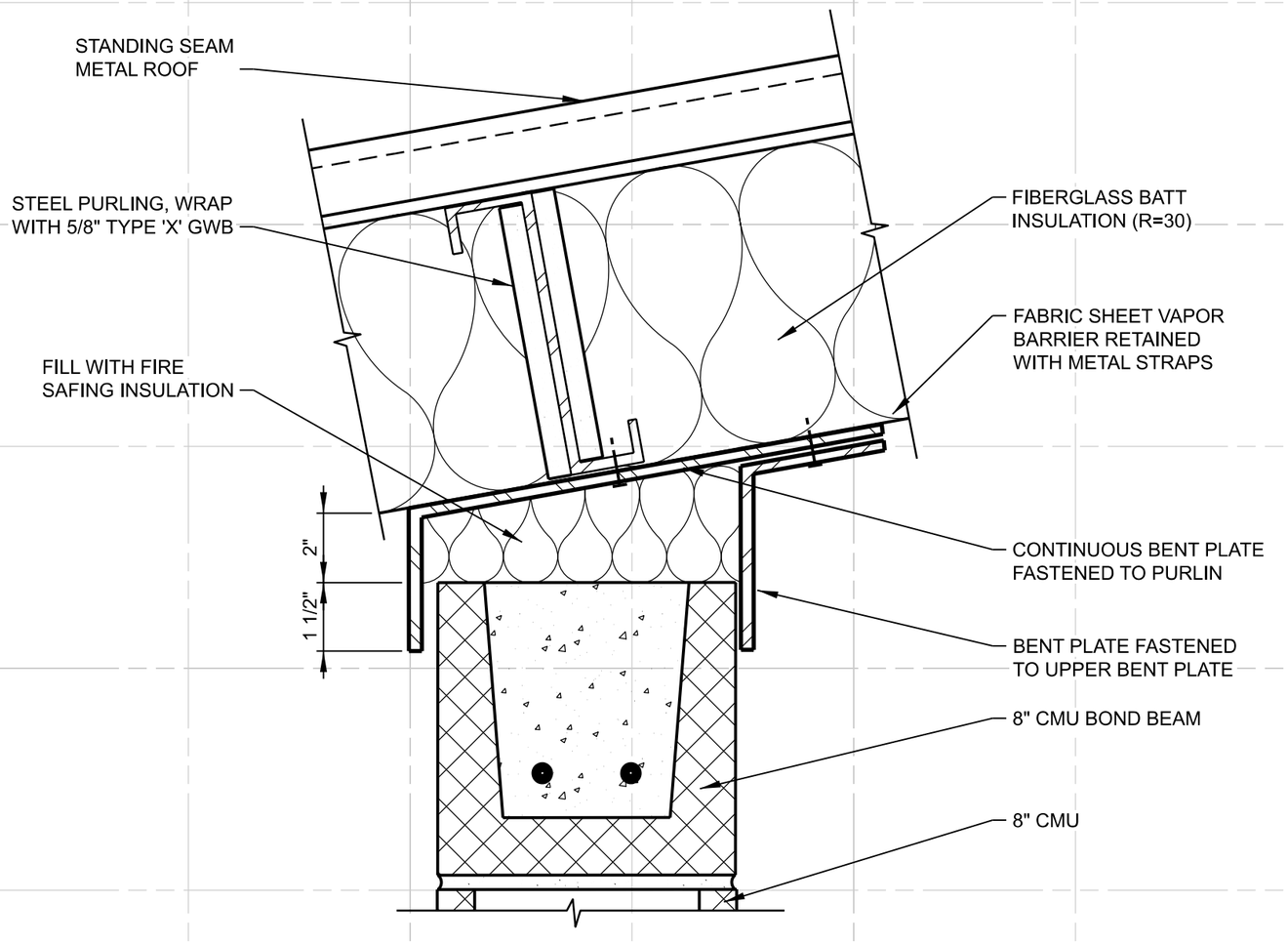
Detail C1010A-DT005X



A1

DETAIL: WALL LATCH

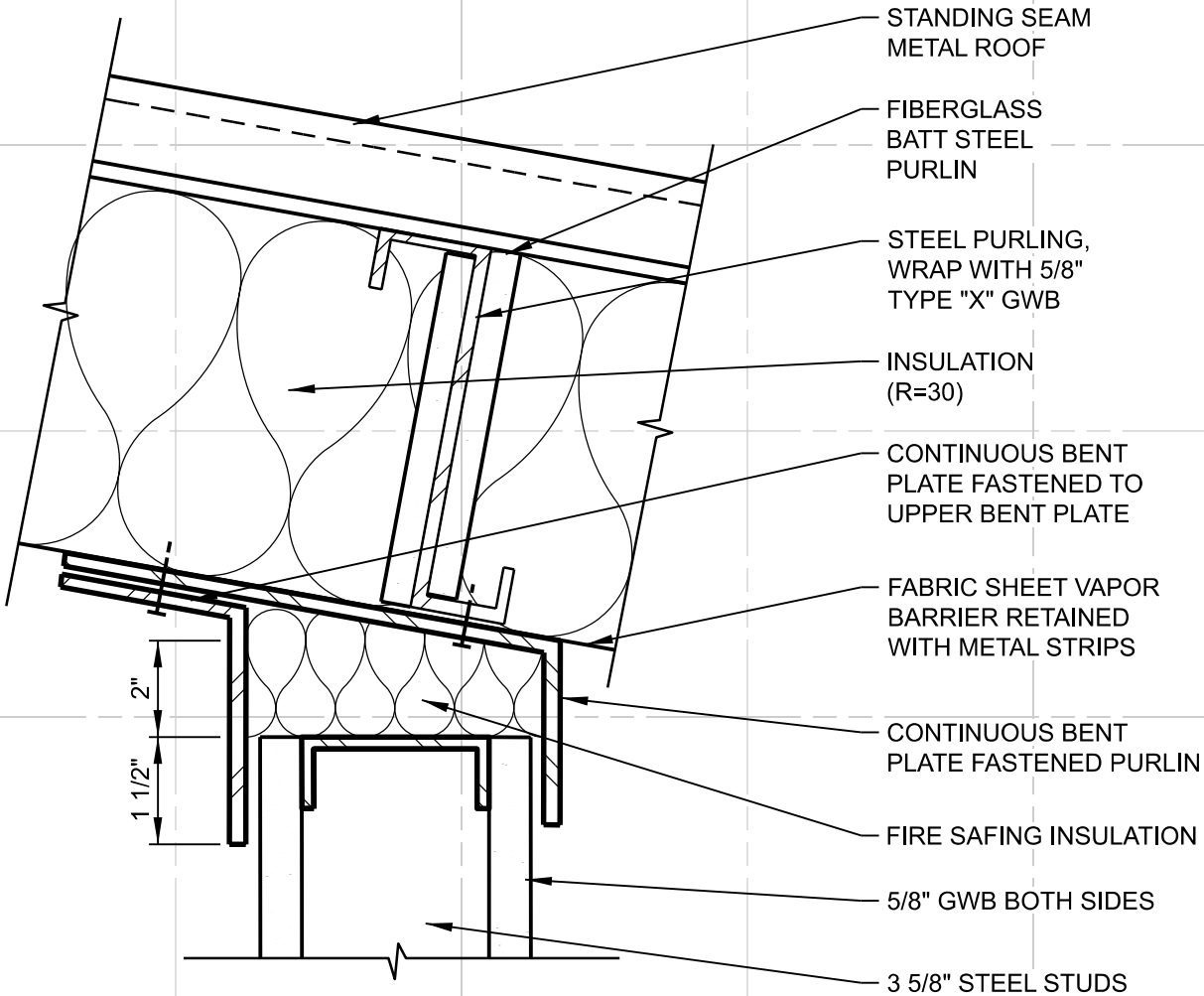
SCALE: 3"=1'-0" 0 3" 6" 1'



A1 DETAIL: CMU PARTITION BRACING

SCALE: 3"=1'-0"

0 3" 6" 1'



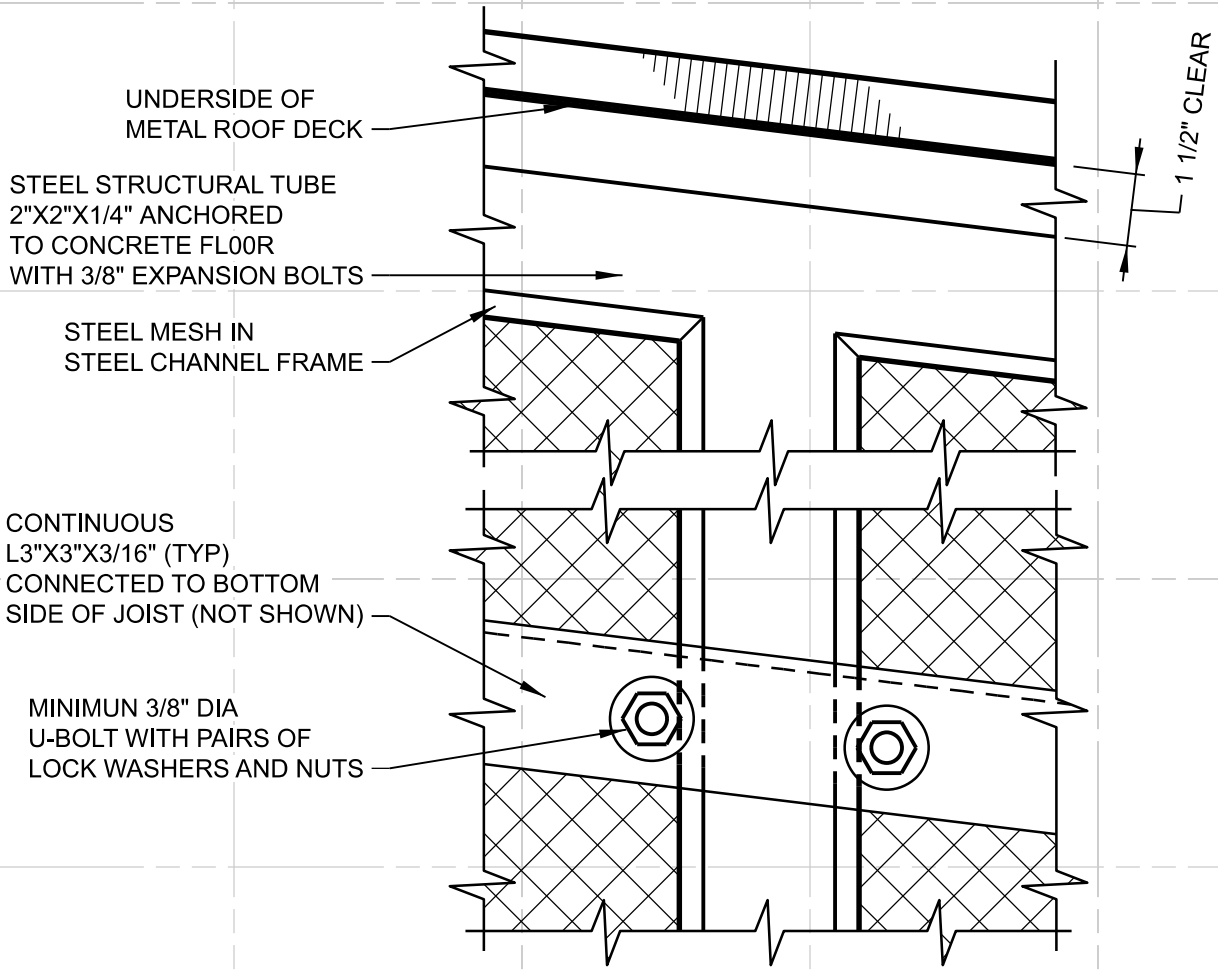
A1

DETAIL: PARTITION WALL BRACING

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT008X



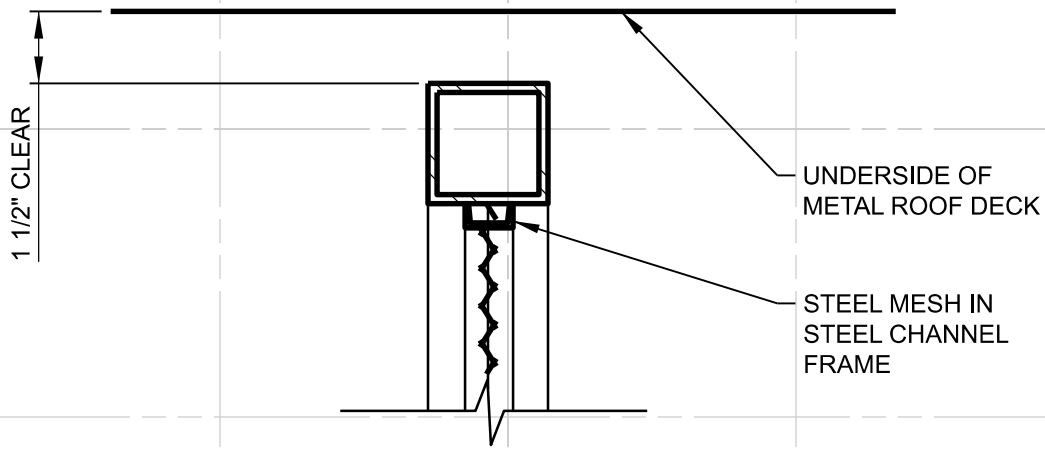
A1

DETAIL: CAGING

SCALE: 3"=1'-0"

0 3" 6" 1'

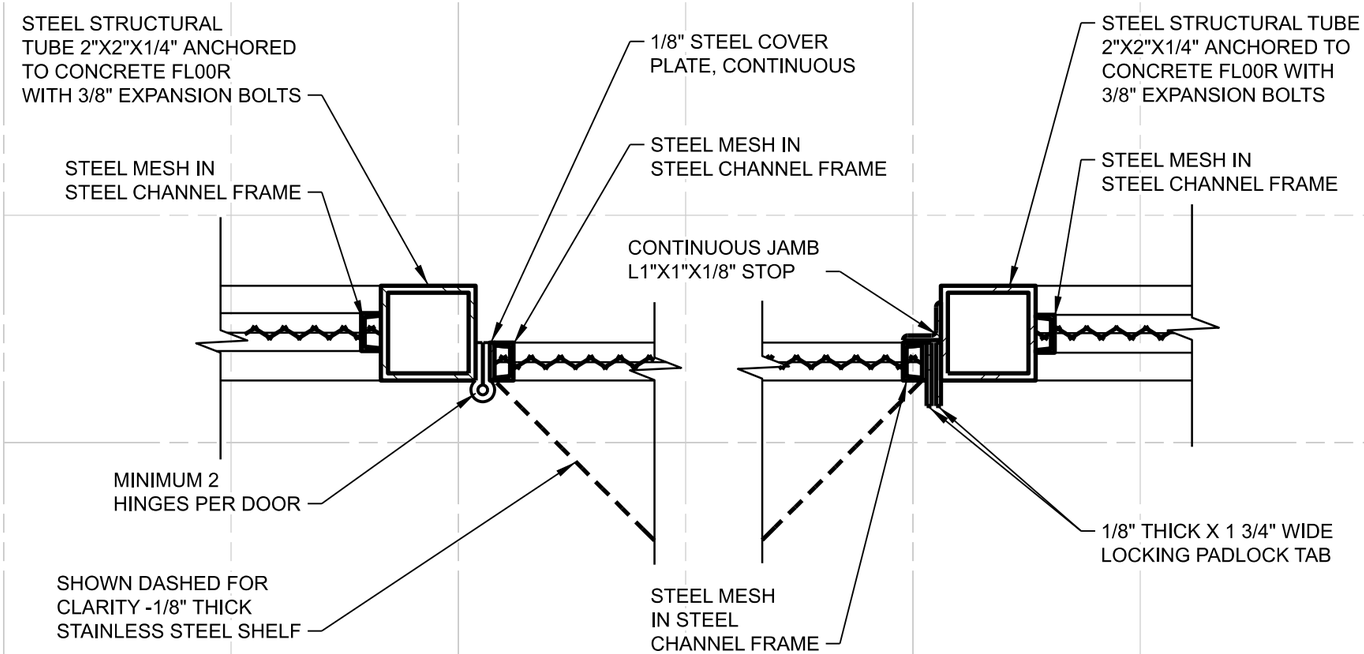
Detail C1010A-DT009X



A1

DETAIL: CAGING

SCALE: 3"=1'-0" 0 3" 6" 1'

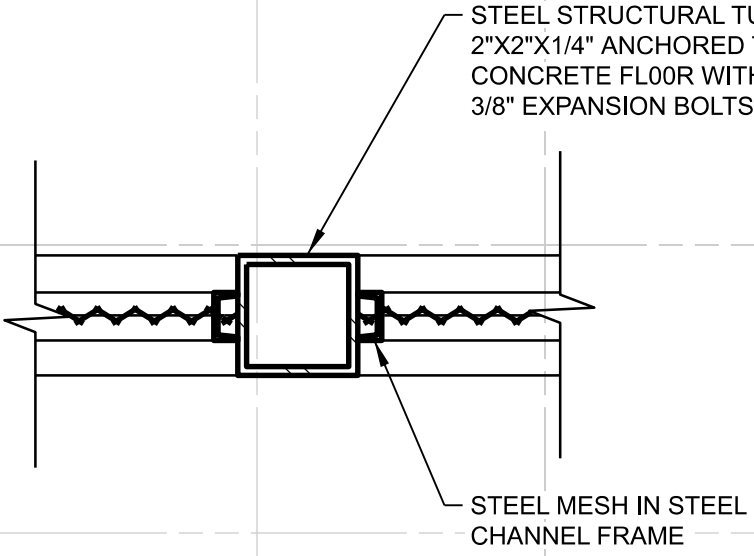


A1 DETAIL: CAGING DOOR

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT011X



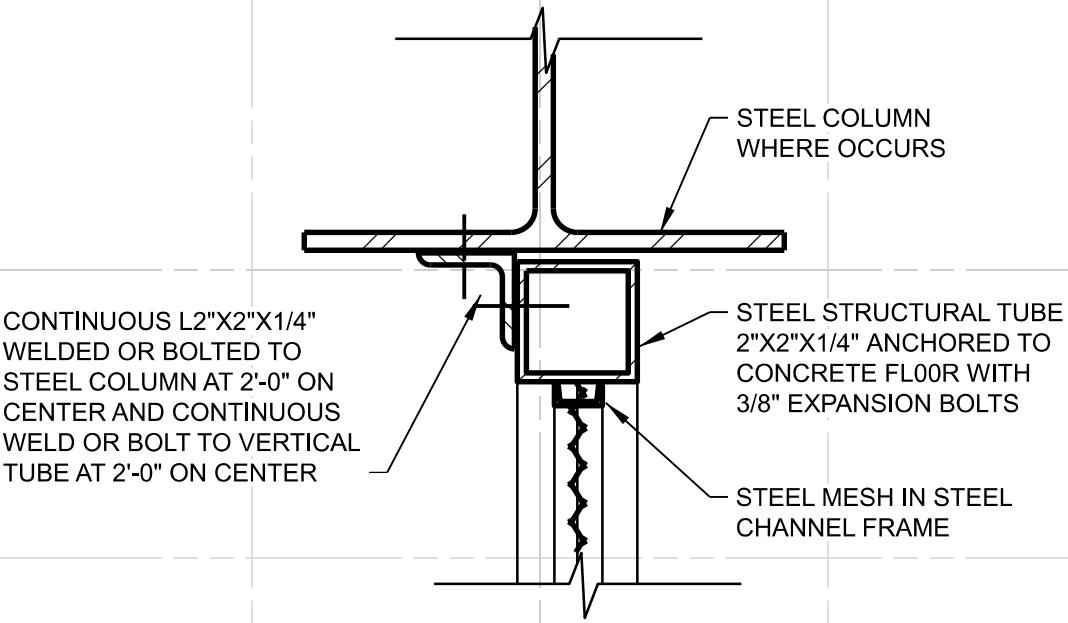
A1

DETAIL:
CAGING DOOR

SCALE: 3"=1'-0"

0 3" 6" 1'

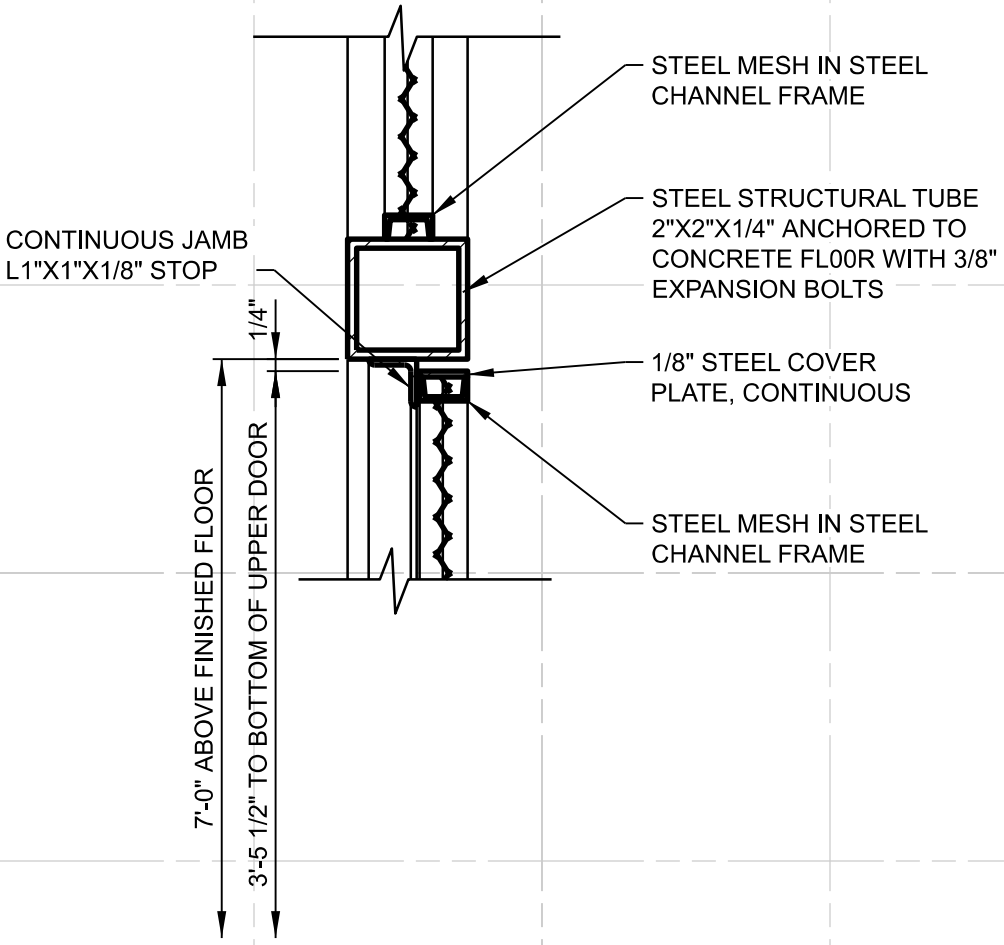
Detail C1010A-DT012X



A1

DETAIL: CAGING DOOR

SCALE: 3"=1'-0" 0 3" 6" 1'

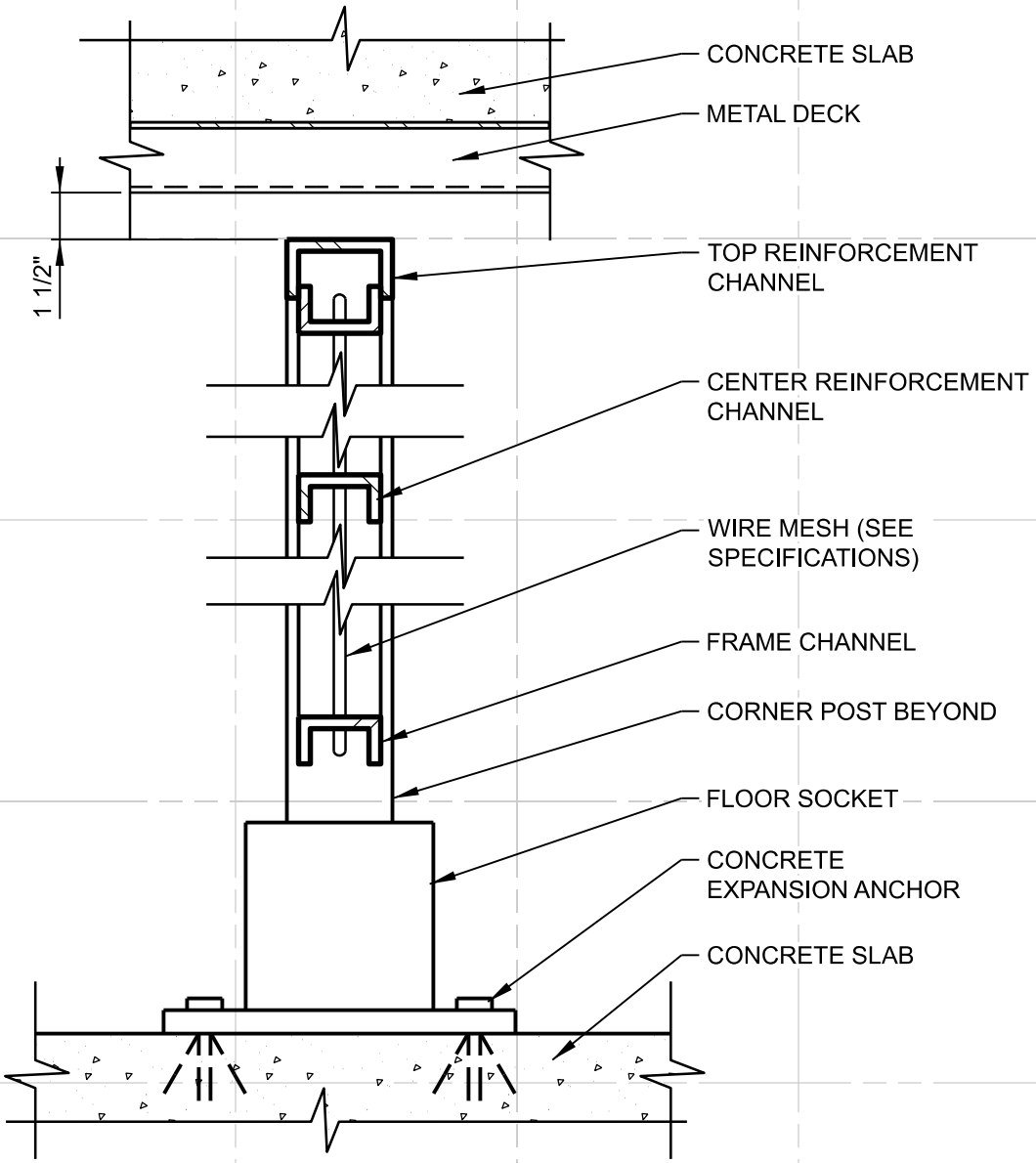


A1

DETAIL: CAGING DOOR

SCALE: 3"=1'-0"

0 3" 6" 1'

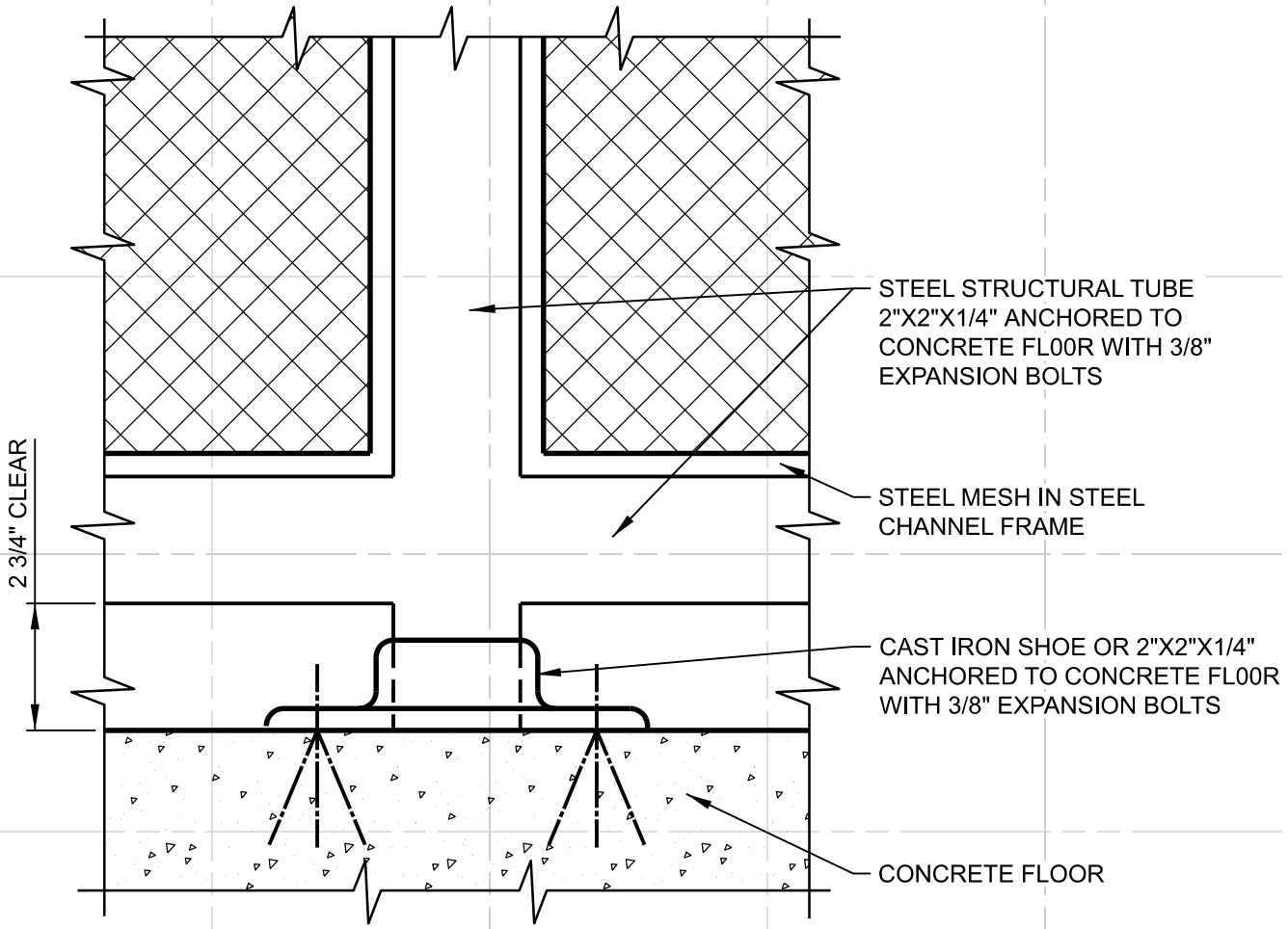


A1

DETAIL: WIRE MESH

SCALE: 3"=1'-0"

0 3" 6" 1'



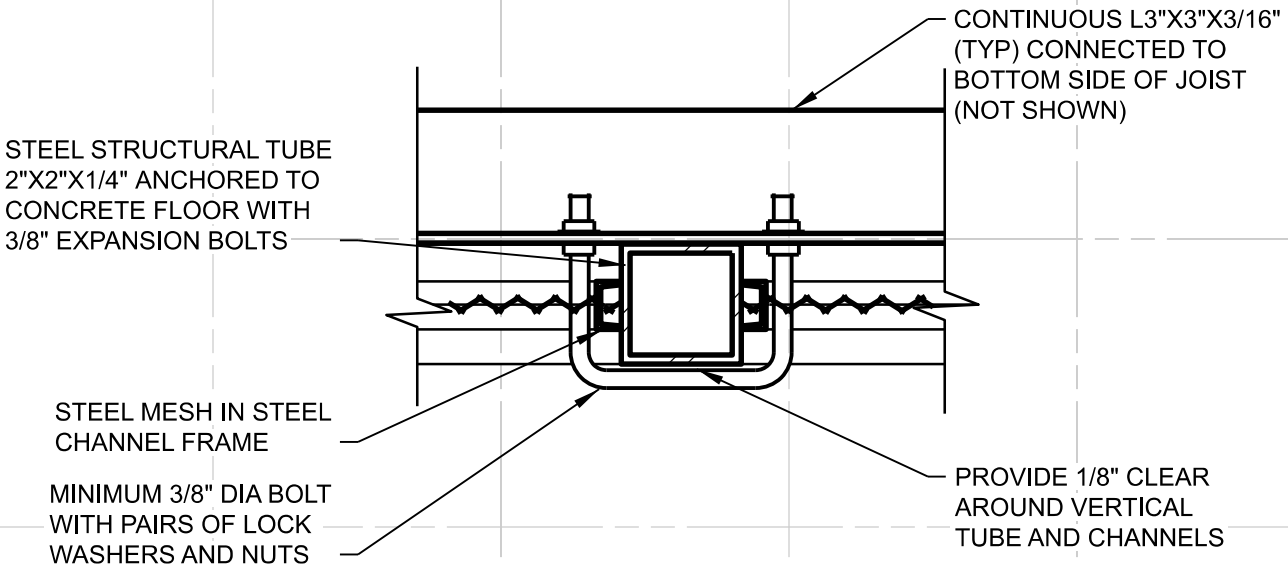
A1

DETAIL: WIRE MESH

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT016E

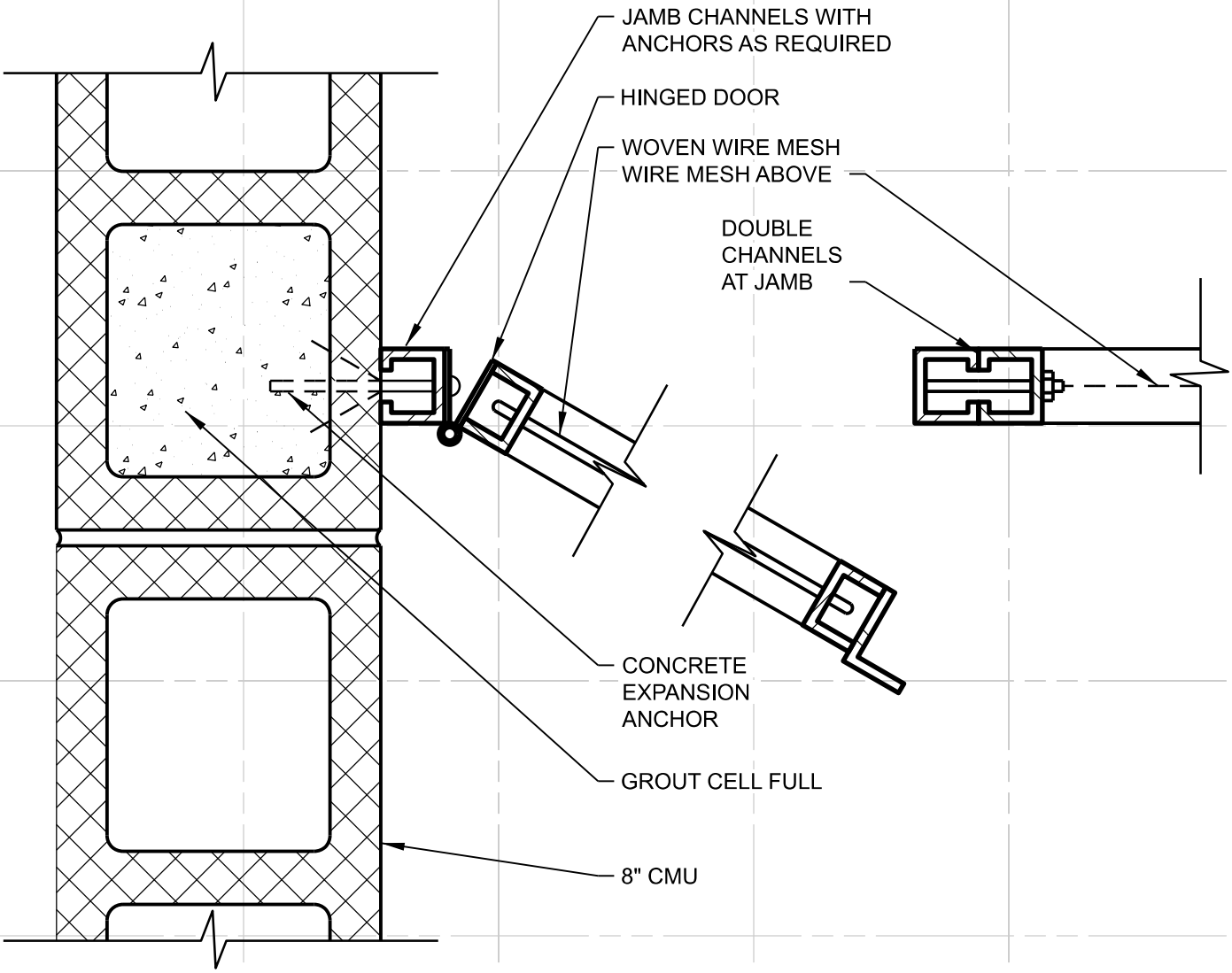


A1

DETAIL: WIRE MESH

SCALE: 3"=1'-0"

0 3" 6" 1'



A1

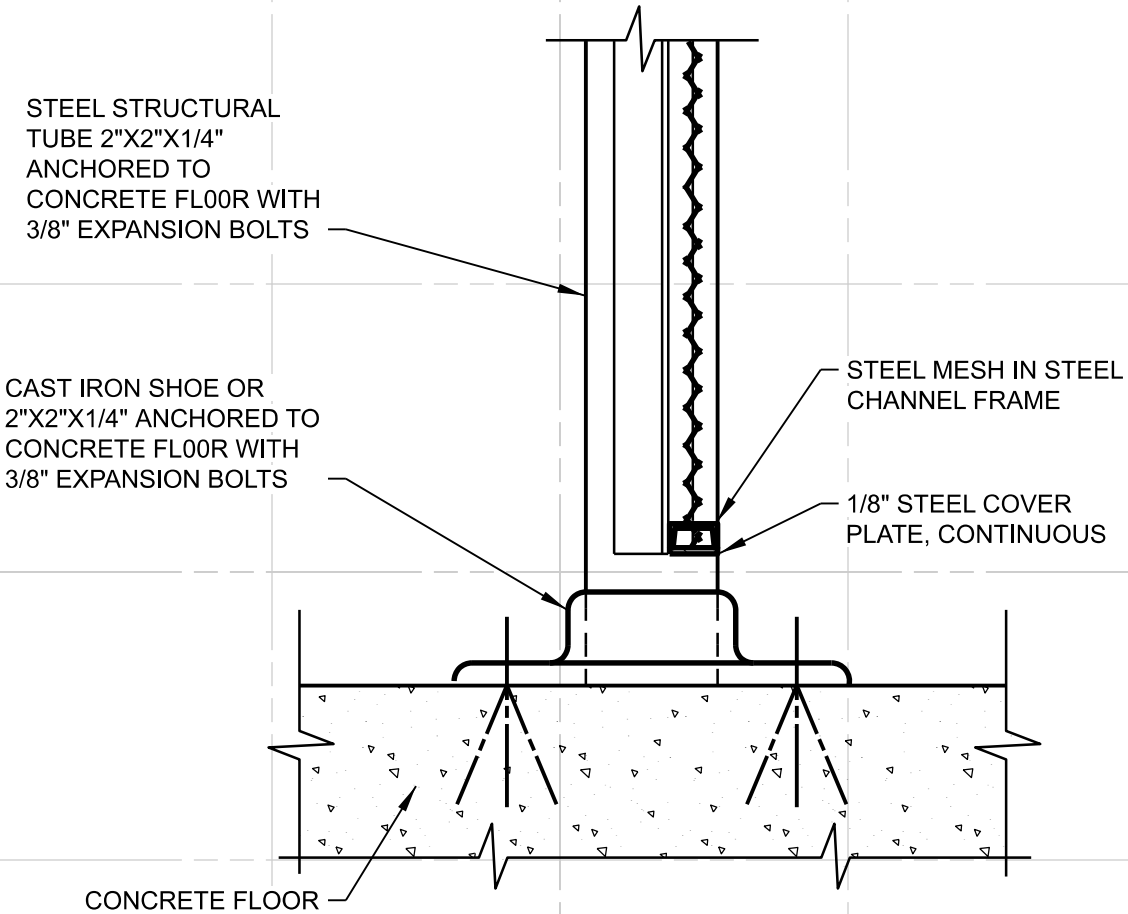
DETAIL: WIRE MESH DOOR JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT018X

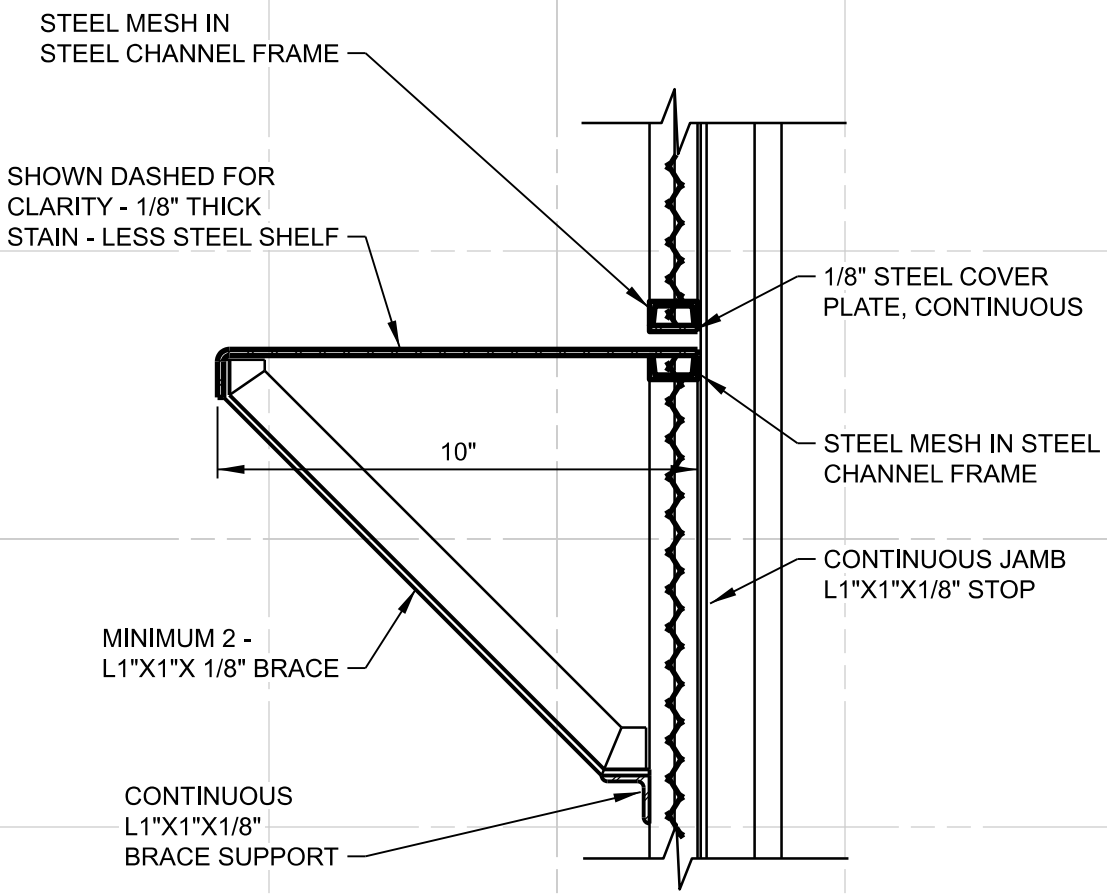
Details-US-Architectural-C101-InteriorPartitions



A1 DETAIL: WIRE MESH

SCALE: 3"=1'-0" 0 3" 6" 1'

Detail C1010A-DT019X

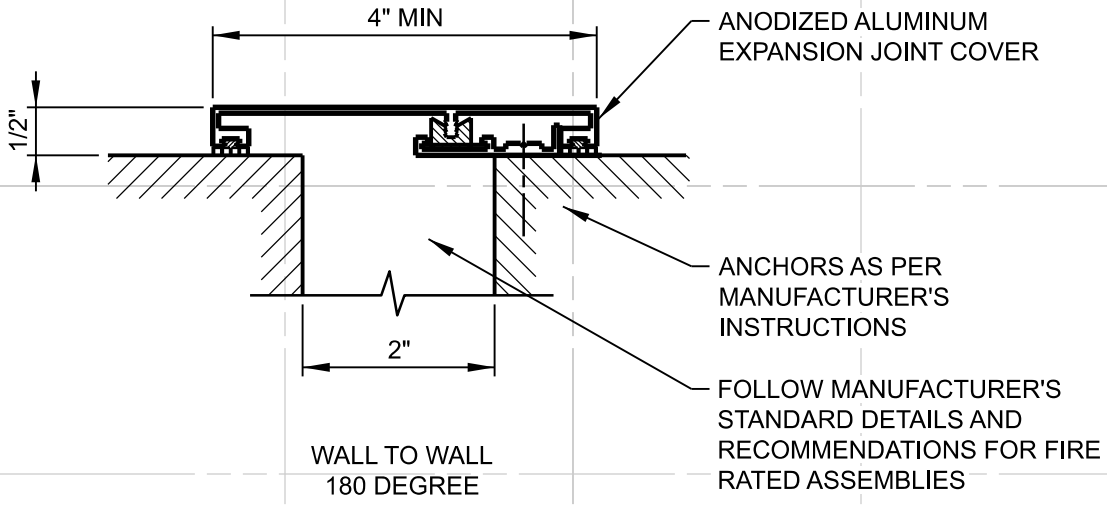


A1

DETAIL: WIRE MESH SHELVING

SCALE: 3"=1'-0"

0 3" 6" 1'

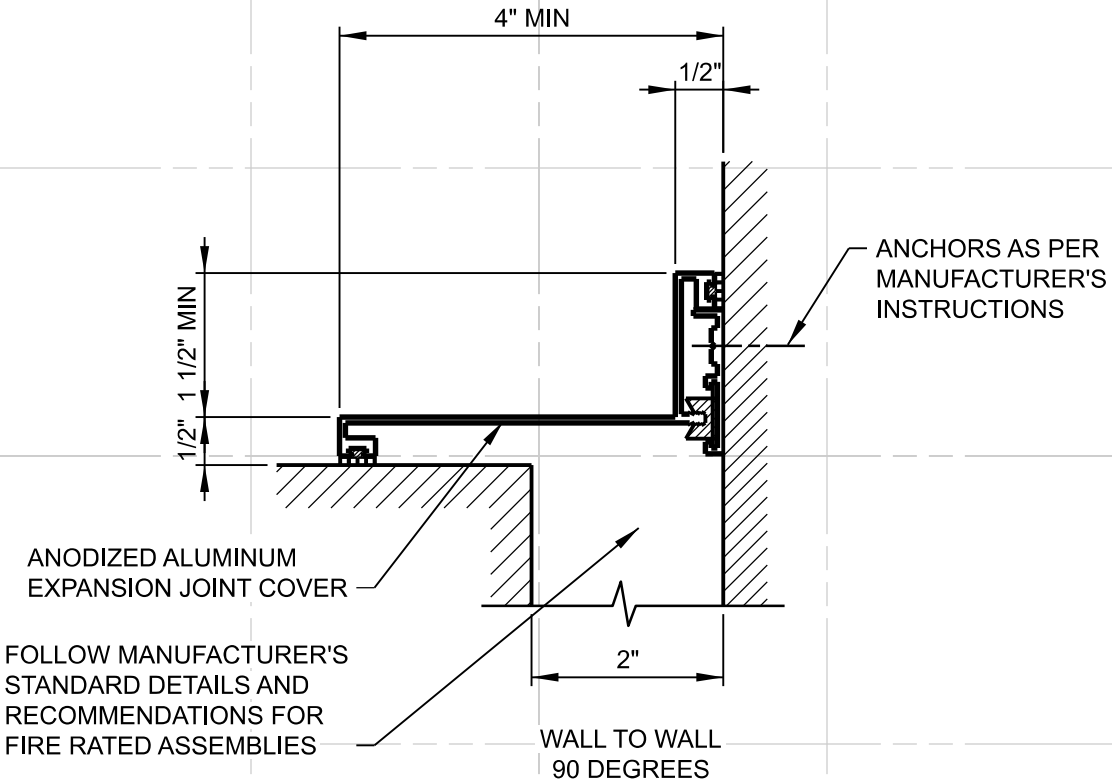


A1

DETAIL: EXPANSION JOINT

SCALE: 6"=1'-0" 0 1-1/2" 3" 6"

Detail C1010A-DT021X

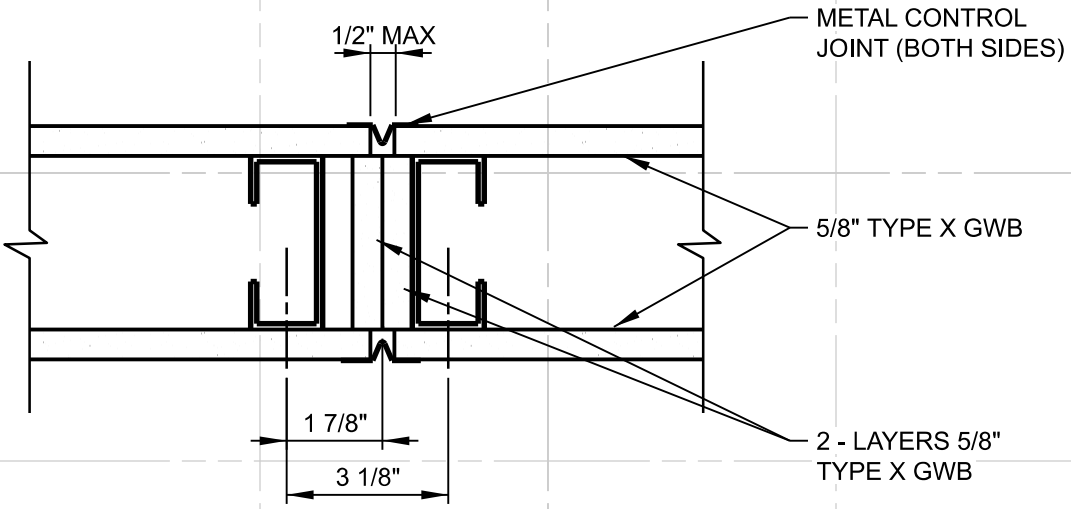


A1

DETAIL: EXPANSION JOINT

SCALE: 6"=1'-0" 0 1-1/2" 3" 6"

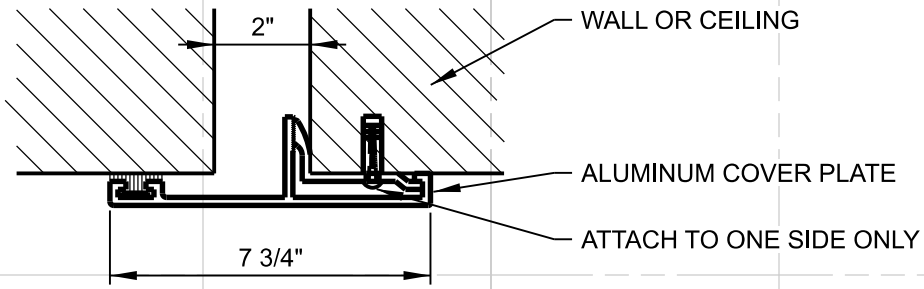
Detail C1010A-DT022X



A1

DETAIL: FIRE RATED GYPSUM

SCALE: 3"=1'-0" 0 3" 6" 1'

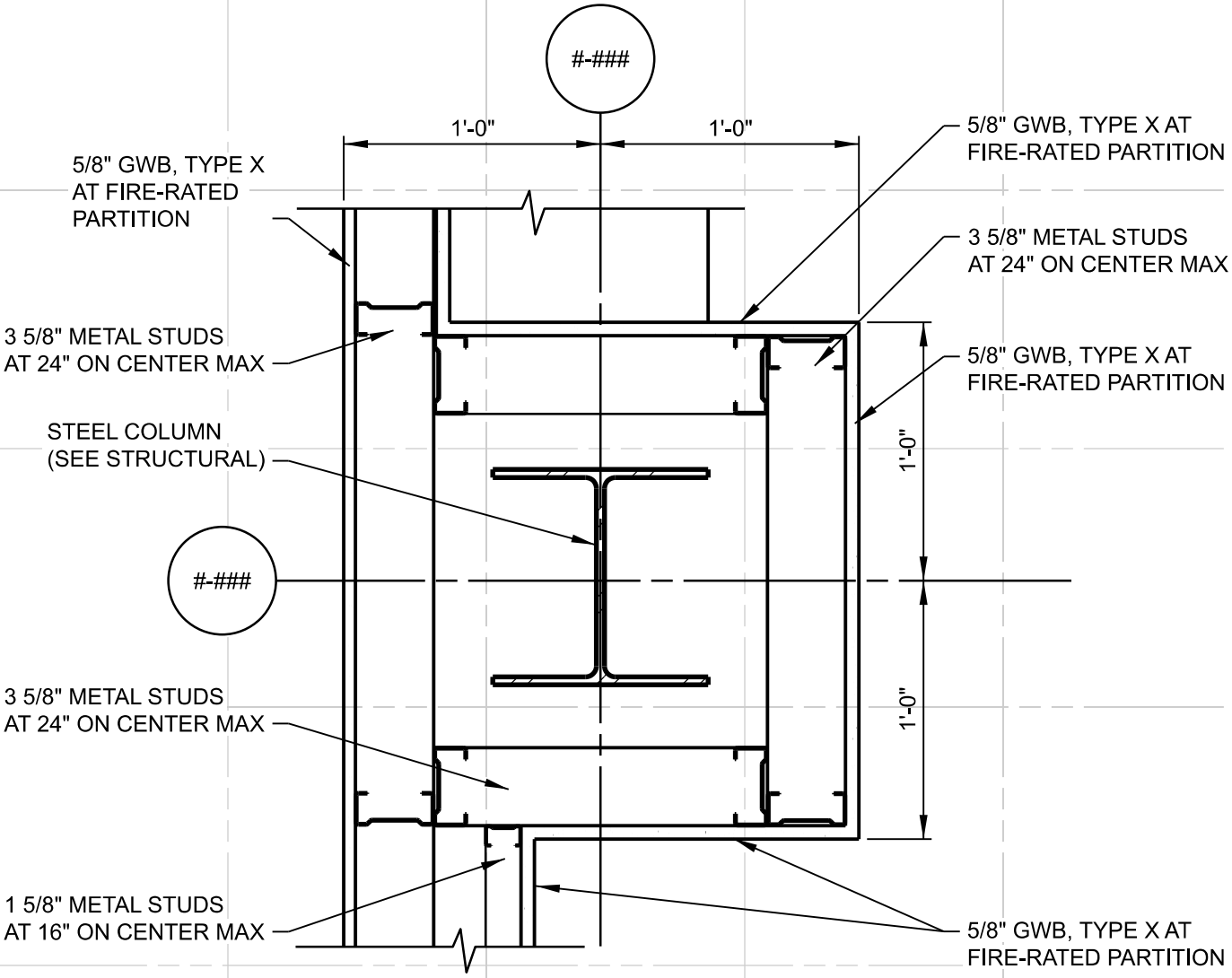


A1

DETAIL: TYPICAL EXPANSION JOINT

SCALE: 3"=1'-0"

0 3" 6" 1'



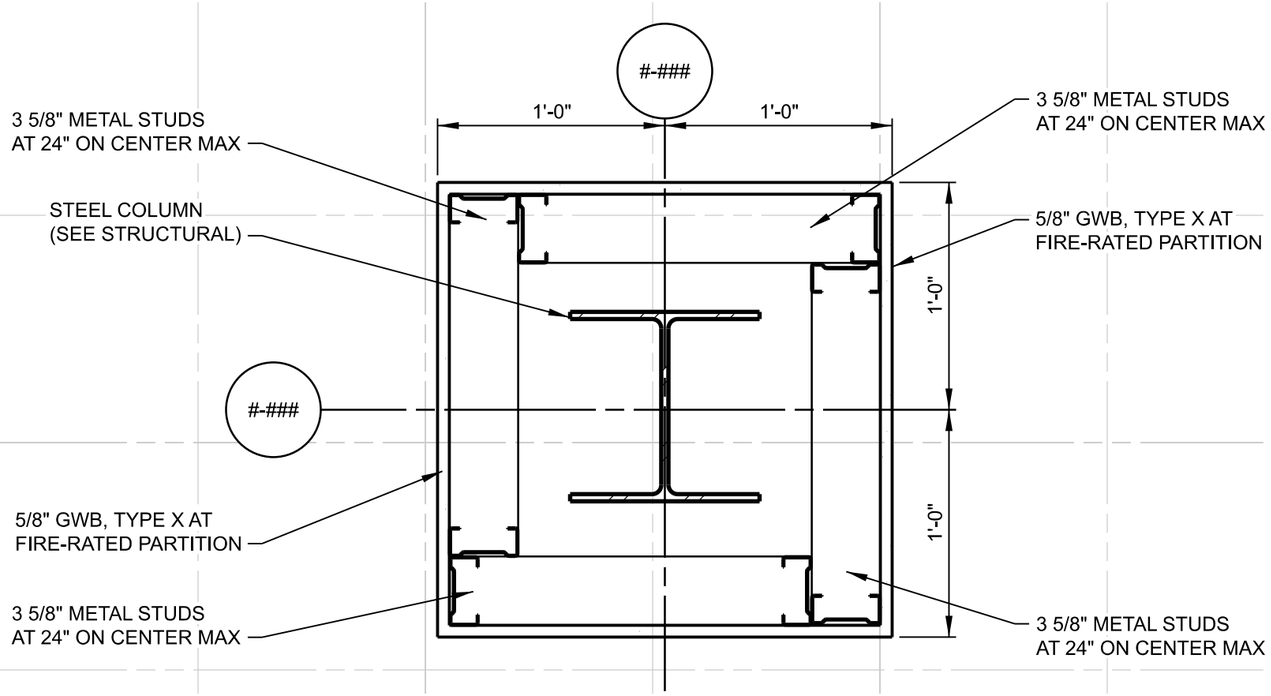
A1

DETAIL: FIRE RATED COLUMN

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

Detail C1010A-DT025X

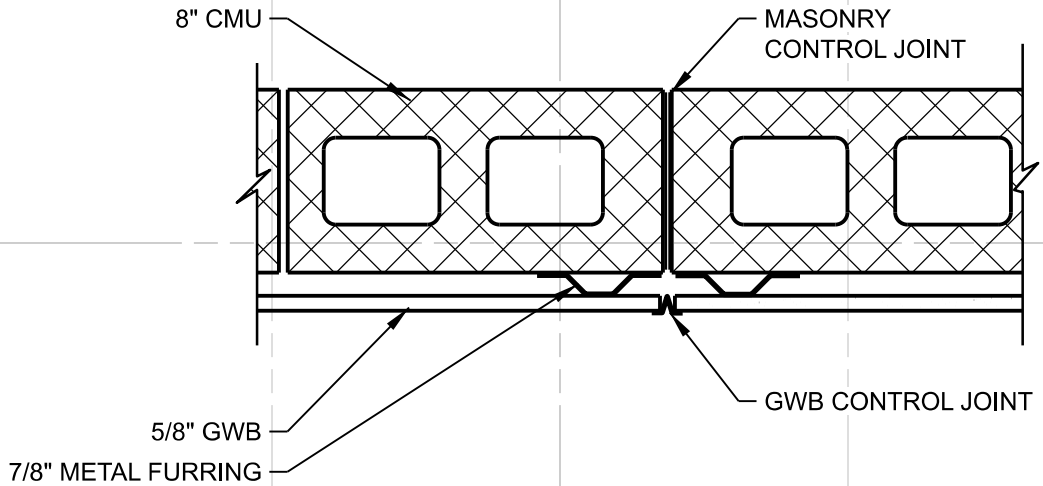


A1 DETAIL: FIRE RATED COLUMN

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

Detail C1010A-DT026X

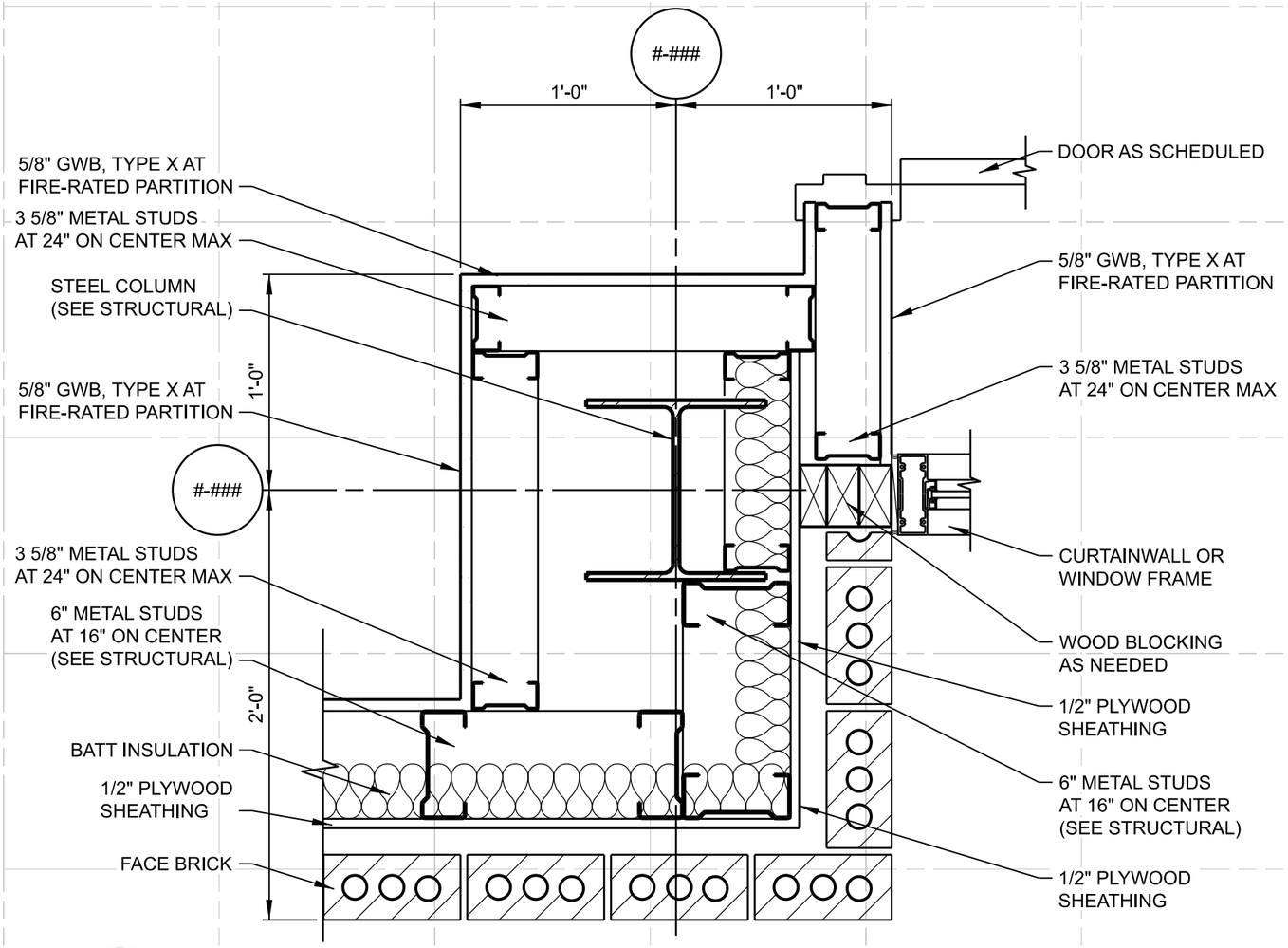


NOTE:
GWB CONTROL JOINT SHALL BE PROVIDED AT
ALL MASONRY CONTROL JOINT LOCATIONS.

A1

DETAIL: WALL (TYPICAL)

SCALE:1 1/2"=1'-0" 0 6" 1' 2'

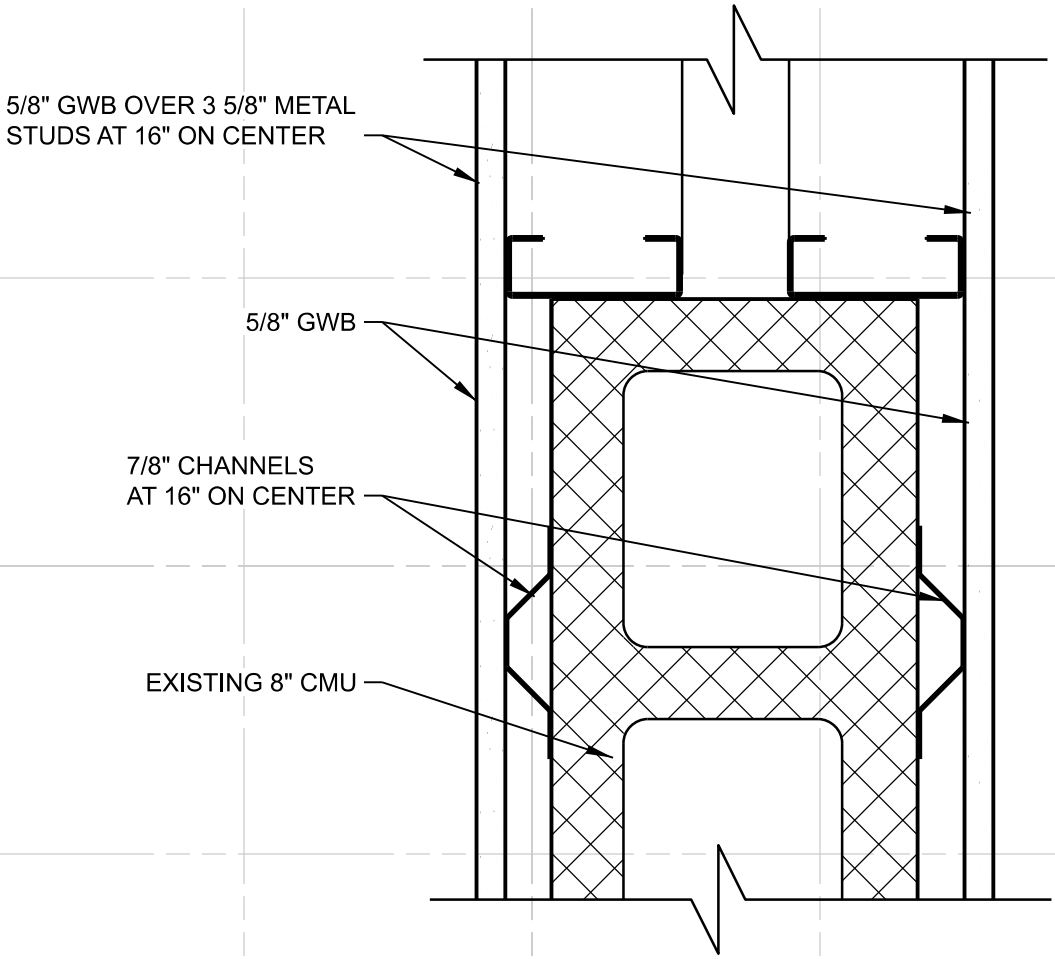


A1 DETAIL: FIRE RATED WALL

SCALE:1 1/2"=1'-0"

0 6" 1' 2'

Detail C1010A-DT028X

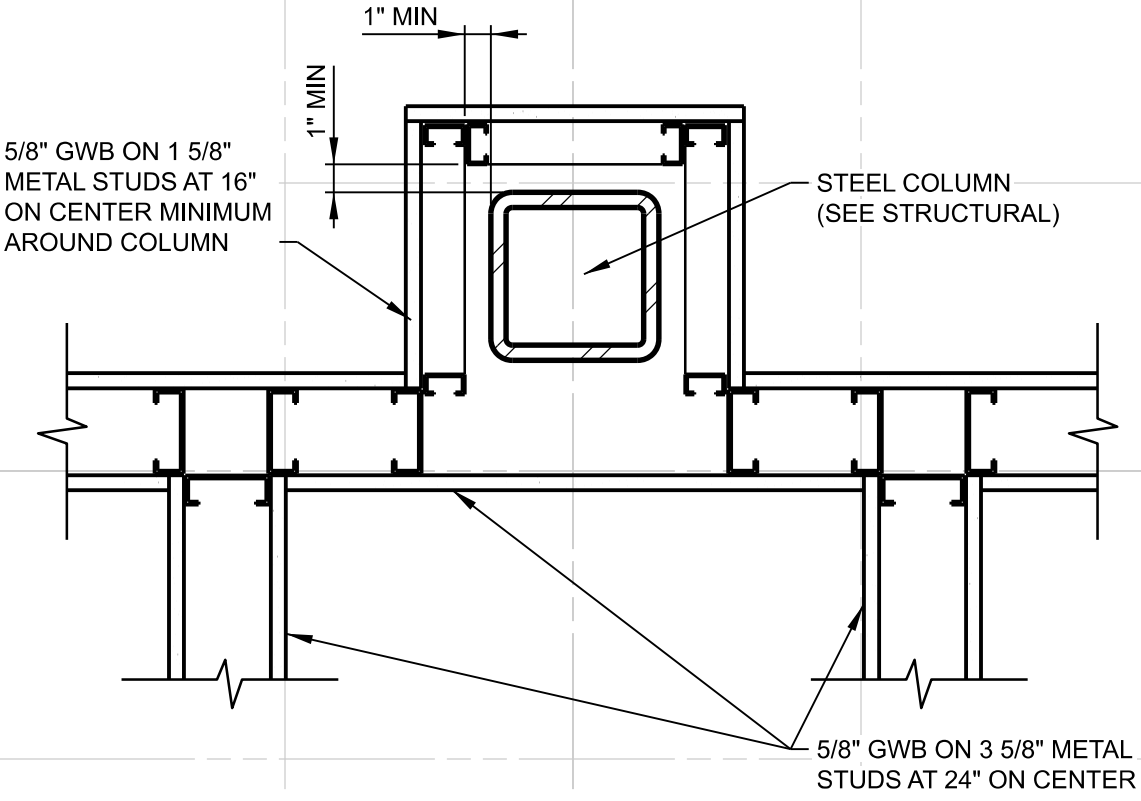


A1

DETAIL: GYPSUM WALL

SCALE: 3"=1'-0" 0 3" 6" 1'

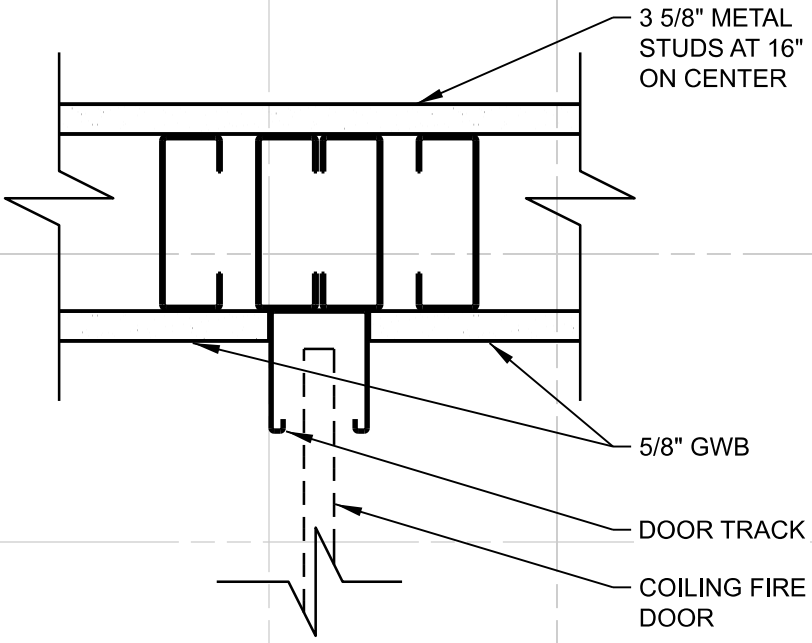
Detail C1010A-DT029X



A1

DETAIL: GYPSUM WALL

SCALE:1 1/2"=1'-0" 0 6" 1' 2'



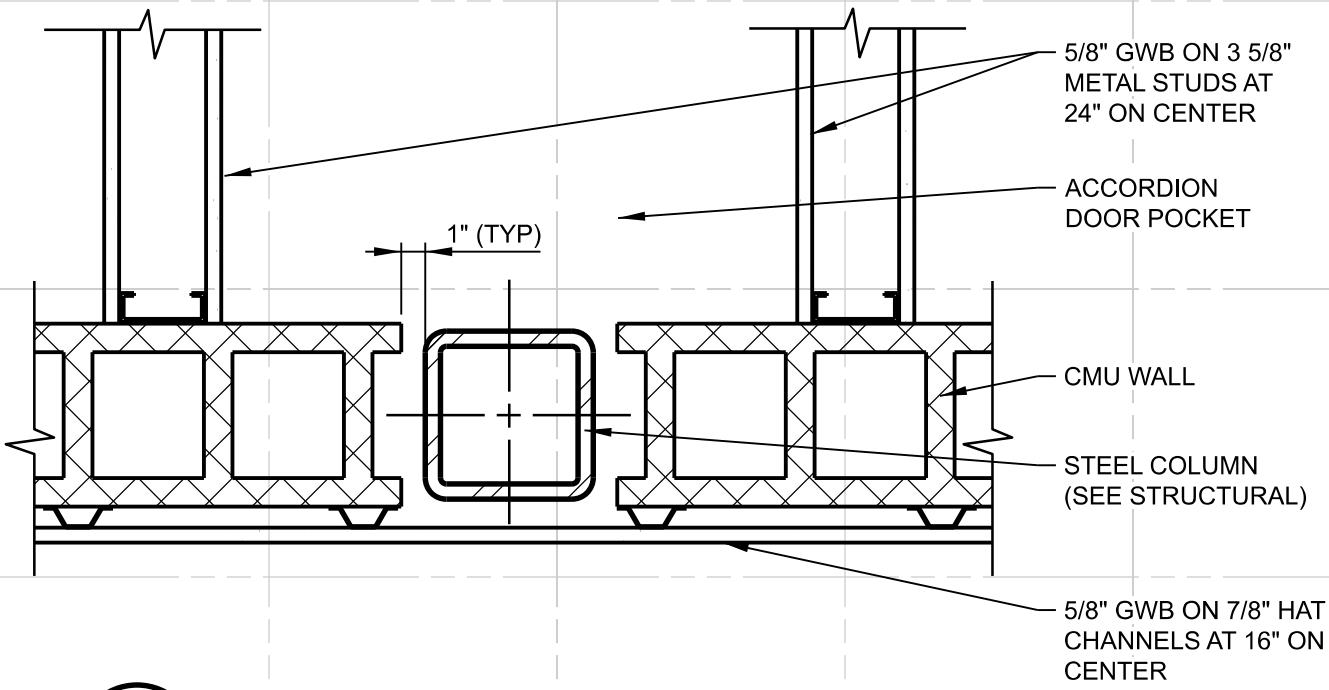
A1

DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT031X



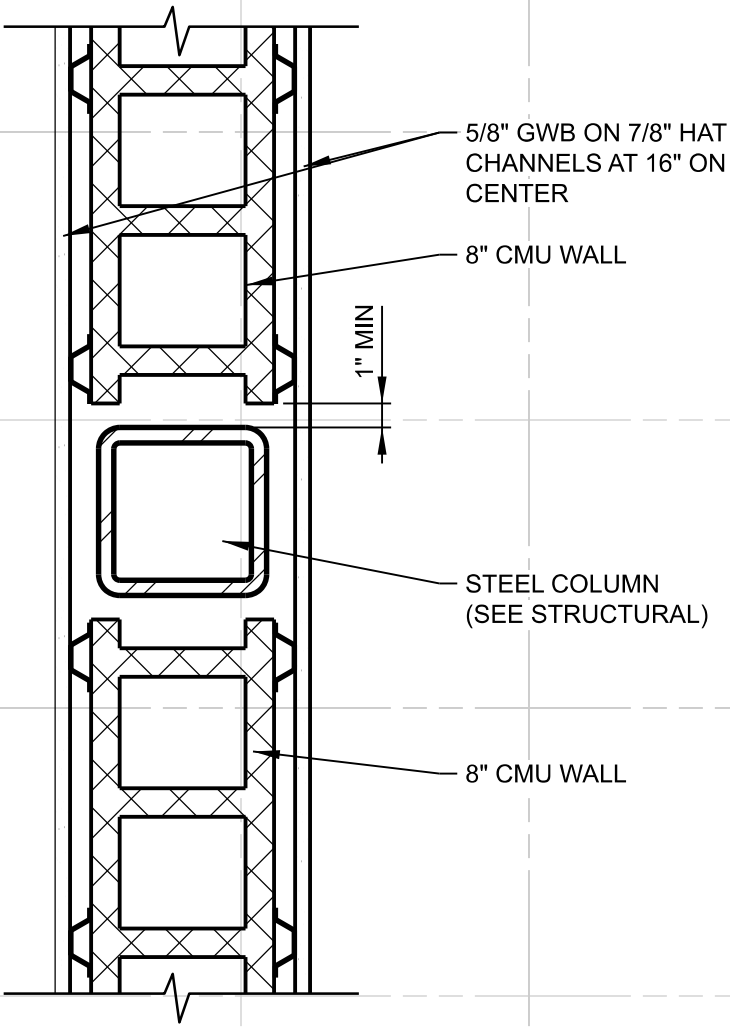
A1

DETAIL: GYPSUM WALL

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

Detail C1010A-DT032X



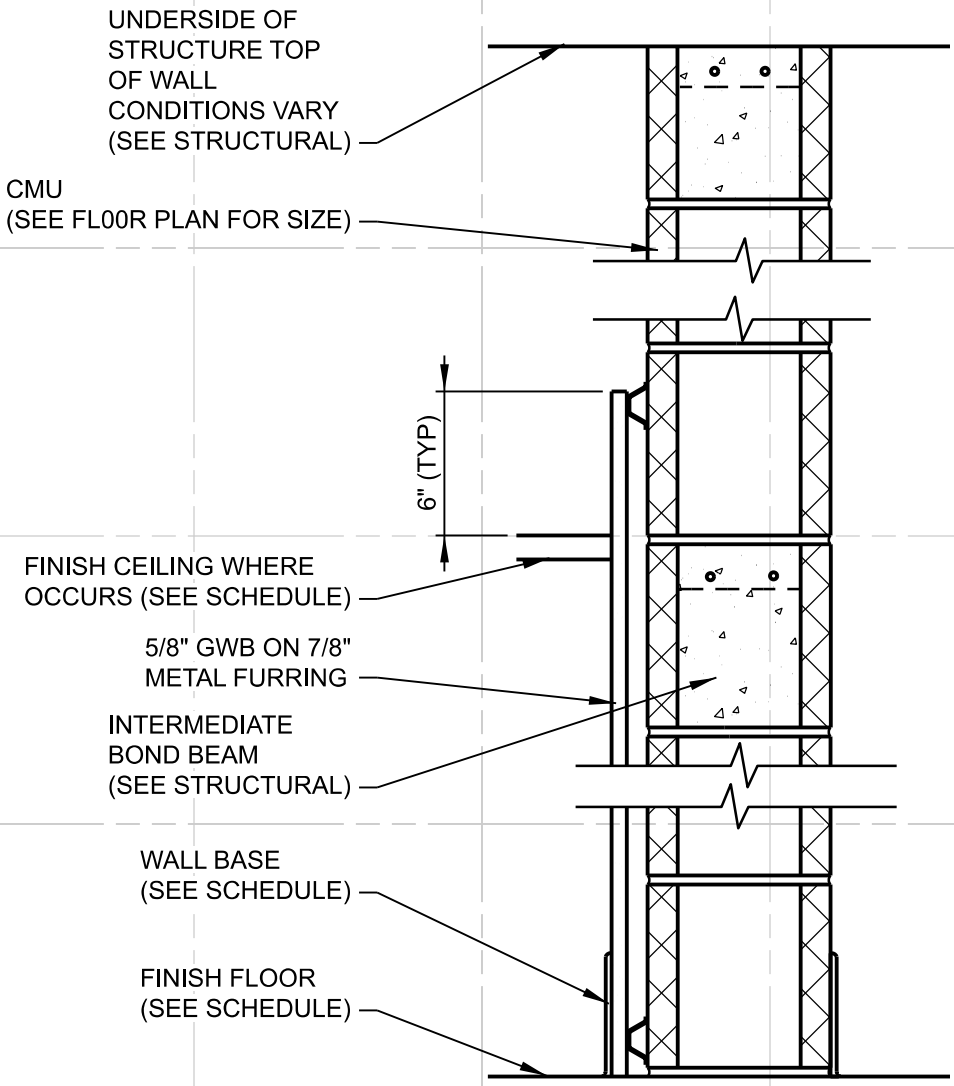
DETAIL: GYPSUM WALL

A1

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

Detail C1010A-DT033X

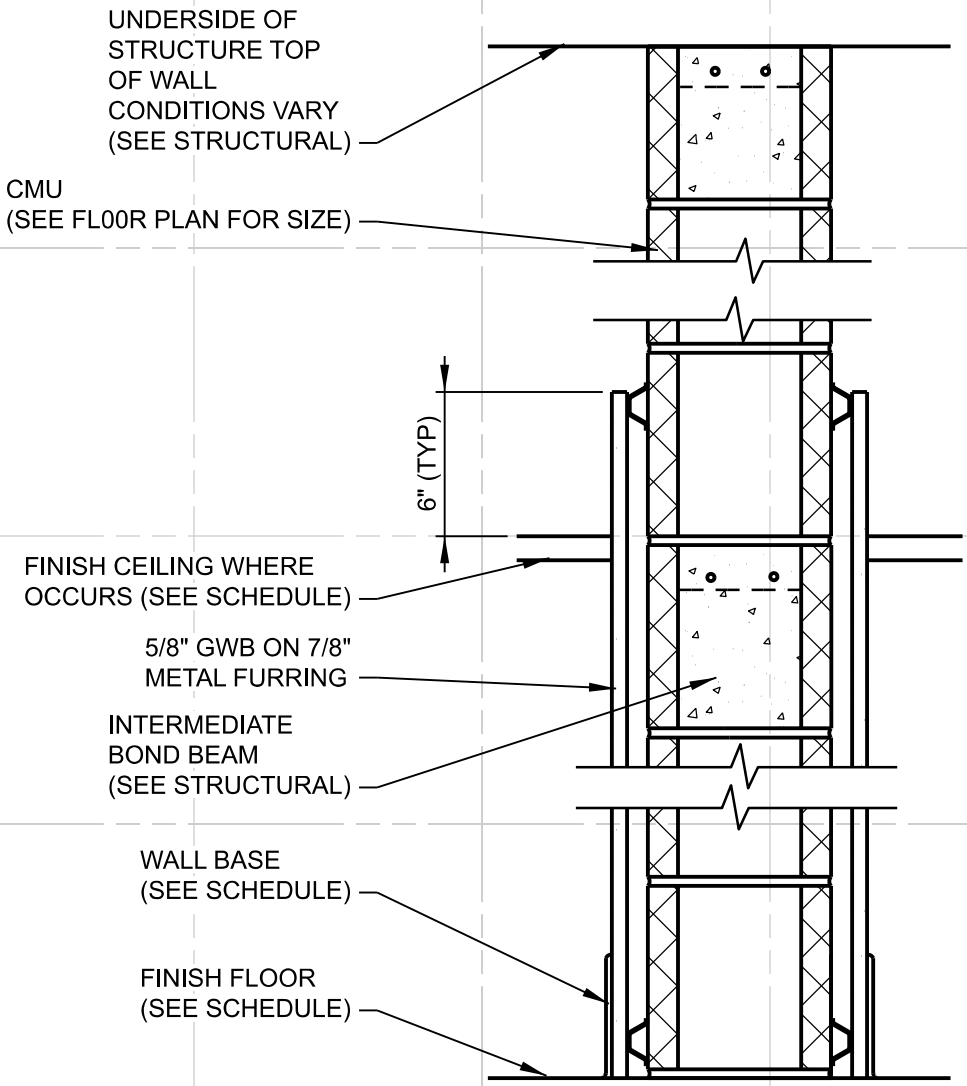


A1

DETAIL: CONCRETE MASONRY UNIT (GWB ONE SIDE)

SCALE:1 1/2"=1'-0"

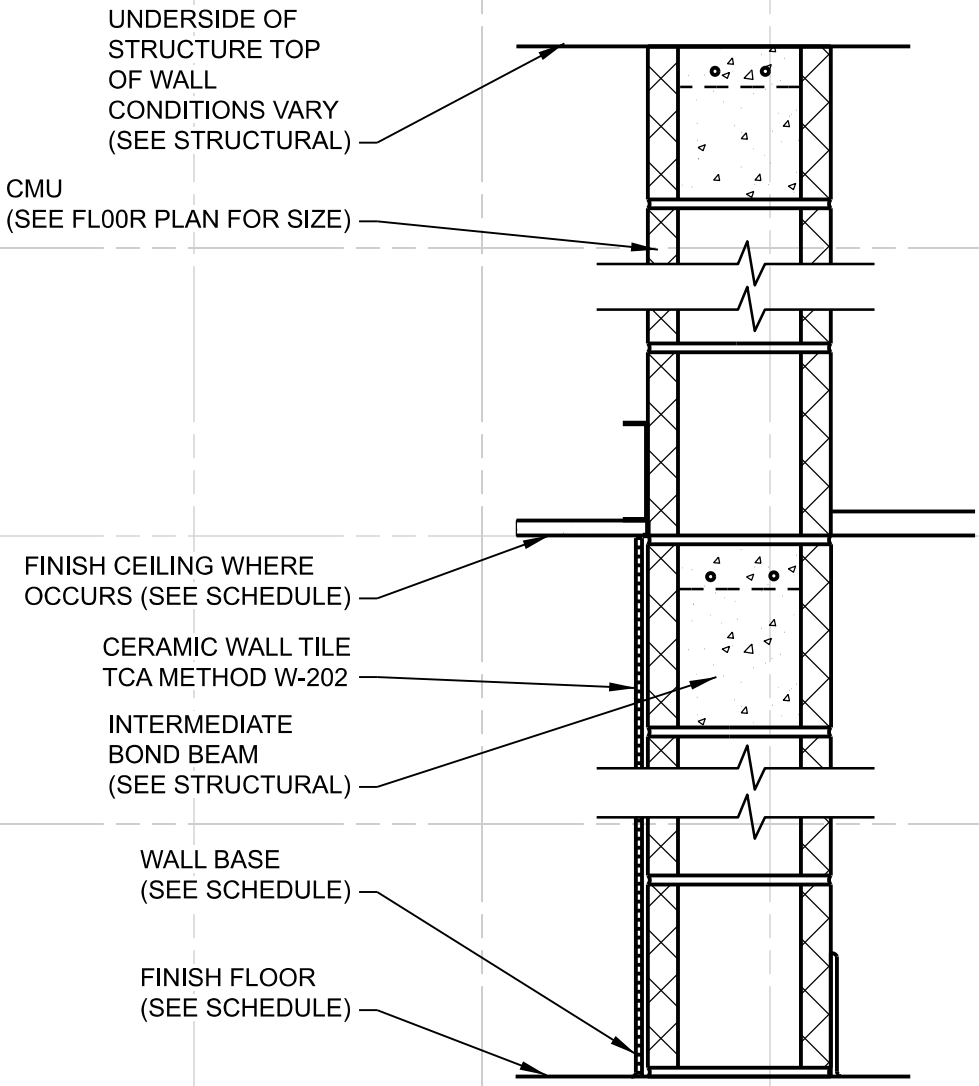
0 6" 1' 2'



A1

DETAIL: CONCRETE MASONRY UNIT (GWB EACH SIDE)

SCALE:1 1/2"=1'-0" 0 6" 1' 2'

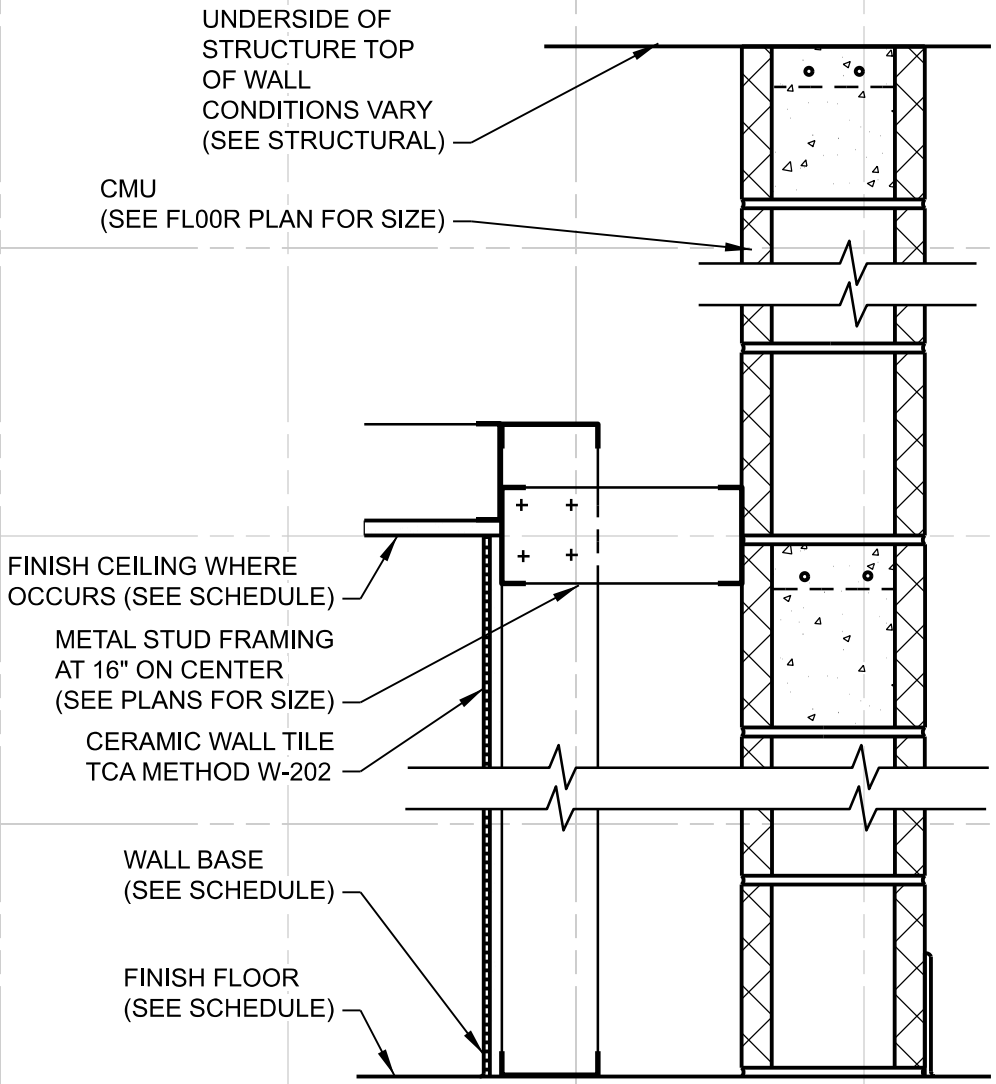


A1

DETAIL: CONCRETE MASONRY UNIT (CERAMIC TILE ONE SIDE)

SCALE:1 1/2"=1'-0" 0 6" 1' 2'

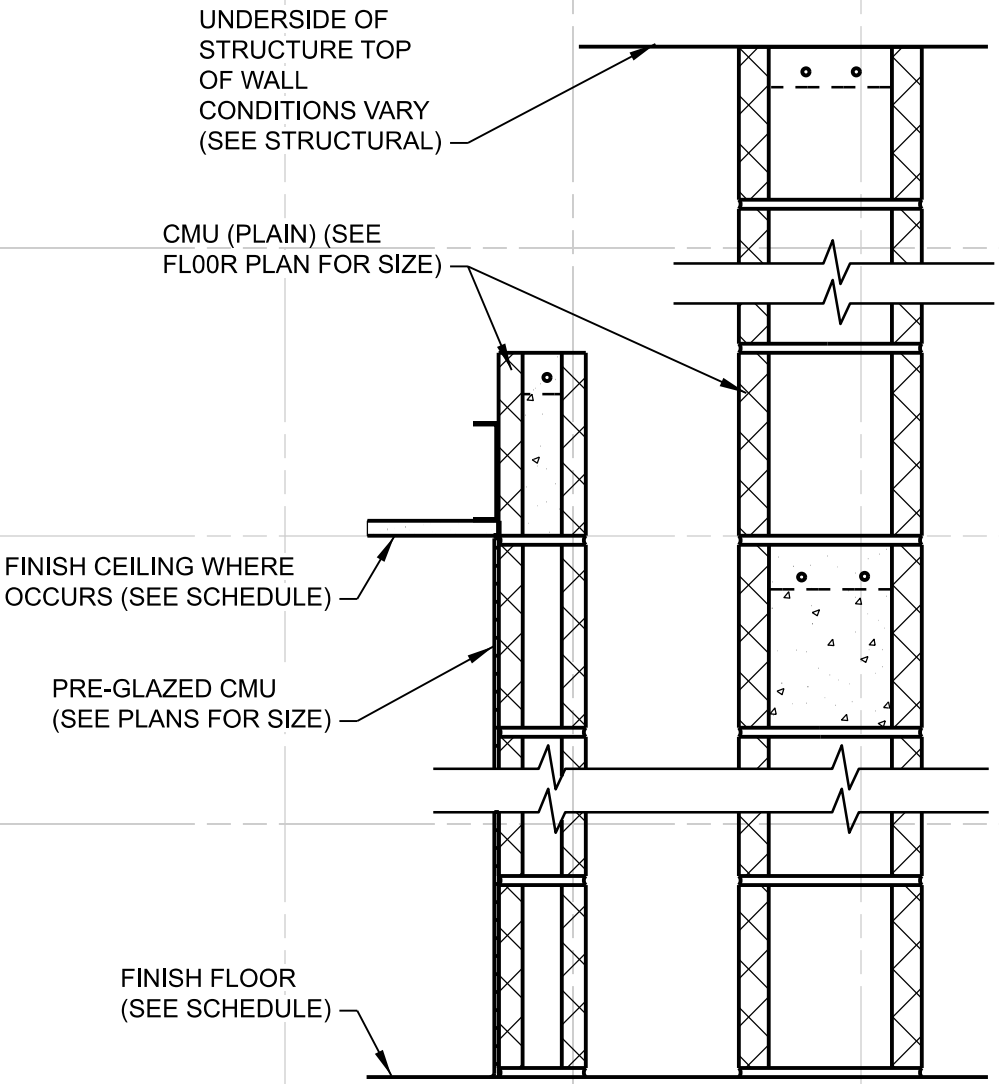
Detail C1010A-DT037X



DETAIL: PLUMBING CHASE (CERAMIC TILE ONE SIDE)

A1

SCALE:1 1/2"=1'-0" 0 6" 1' 2'

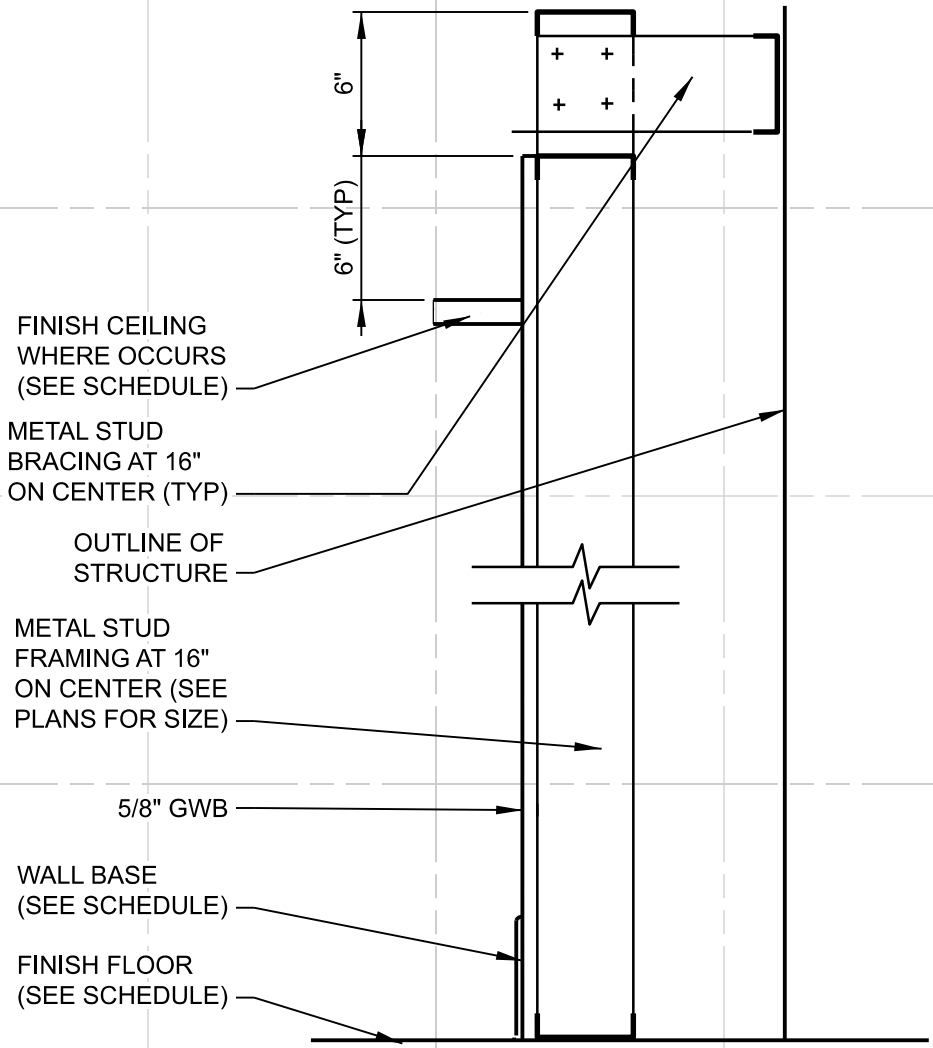


A1

DETAIL: PLUMBING CHASE (PRE-GLAZED ONE SIDE)

SCALE:1 1/2"=1'-0"0 6" 1' 2'

Detail C1010A-DT040X

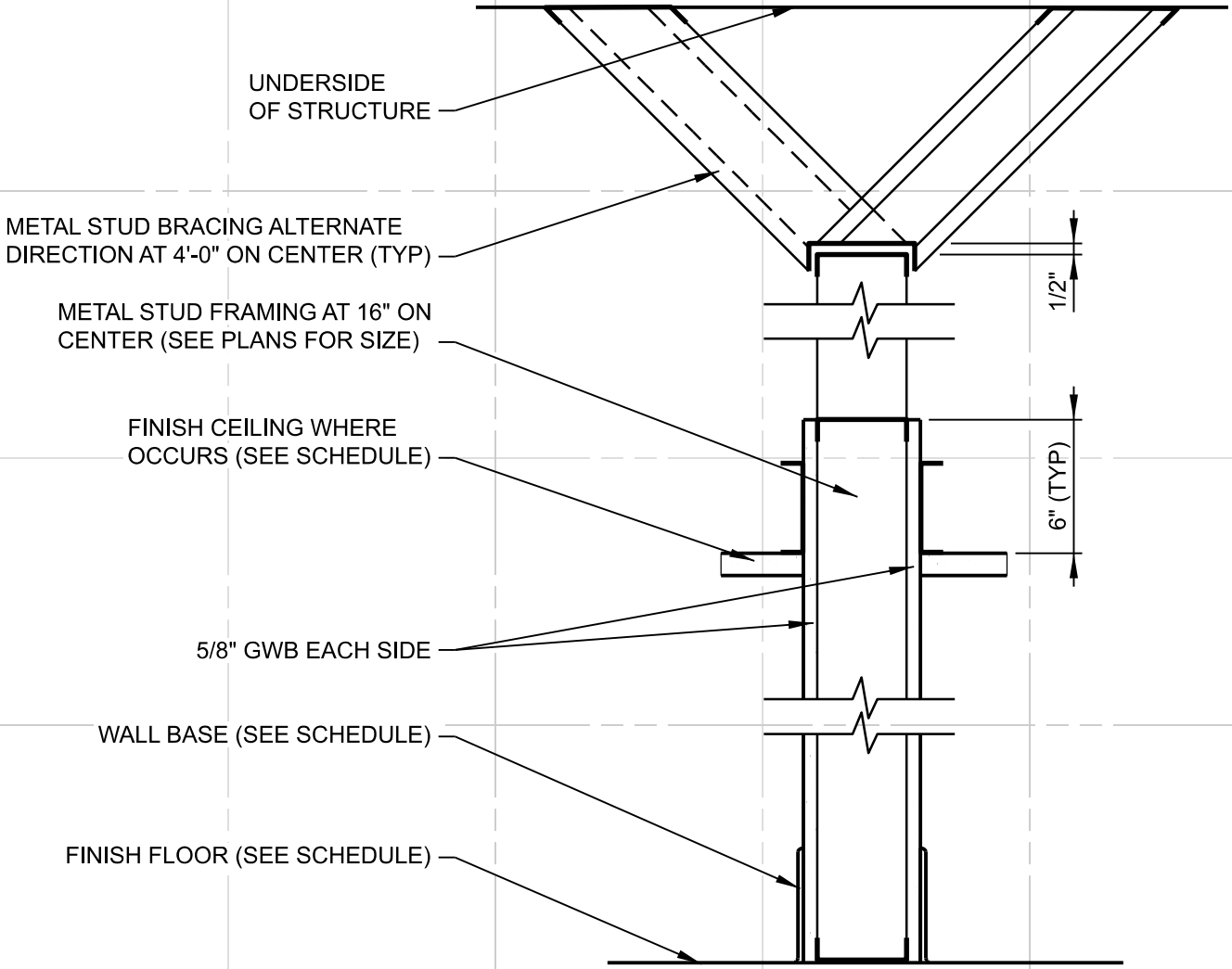


A1

DETAIL: METAL STUD PARTITION (GWB ONE SIDE)

SCALE:1 1/2"=1'-0"

0 6" 1' 2'



DETAIL: METAL STUD PARTITION (GWB EACH SIDE)

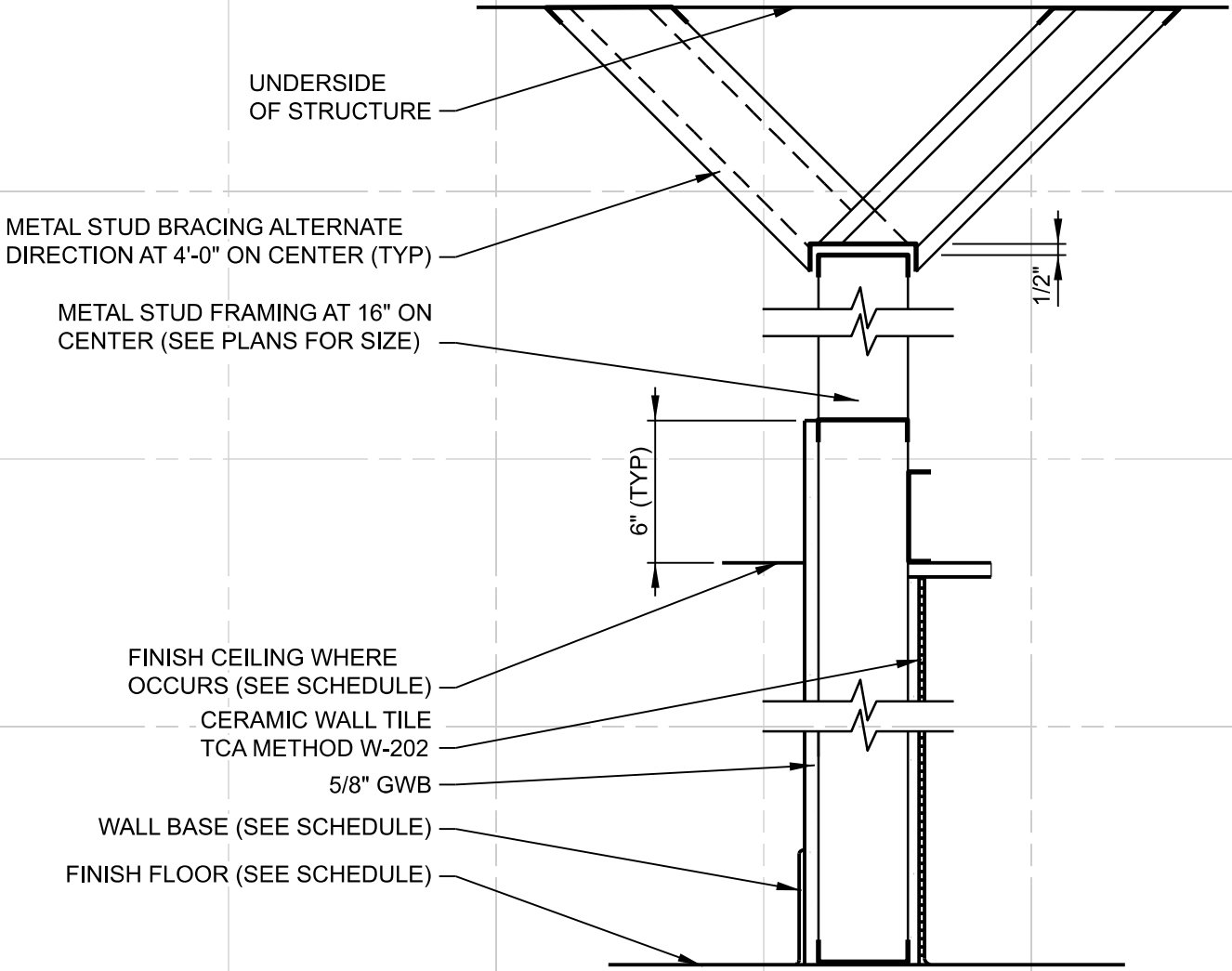
A1

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

Detail C1010A-DT044X

Details-US-Architectural-C101-InteriorPartitions

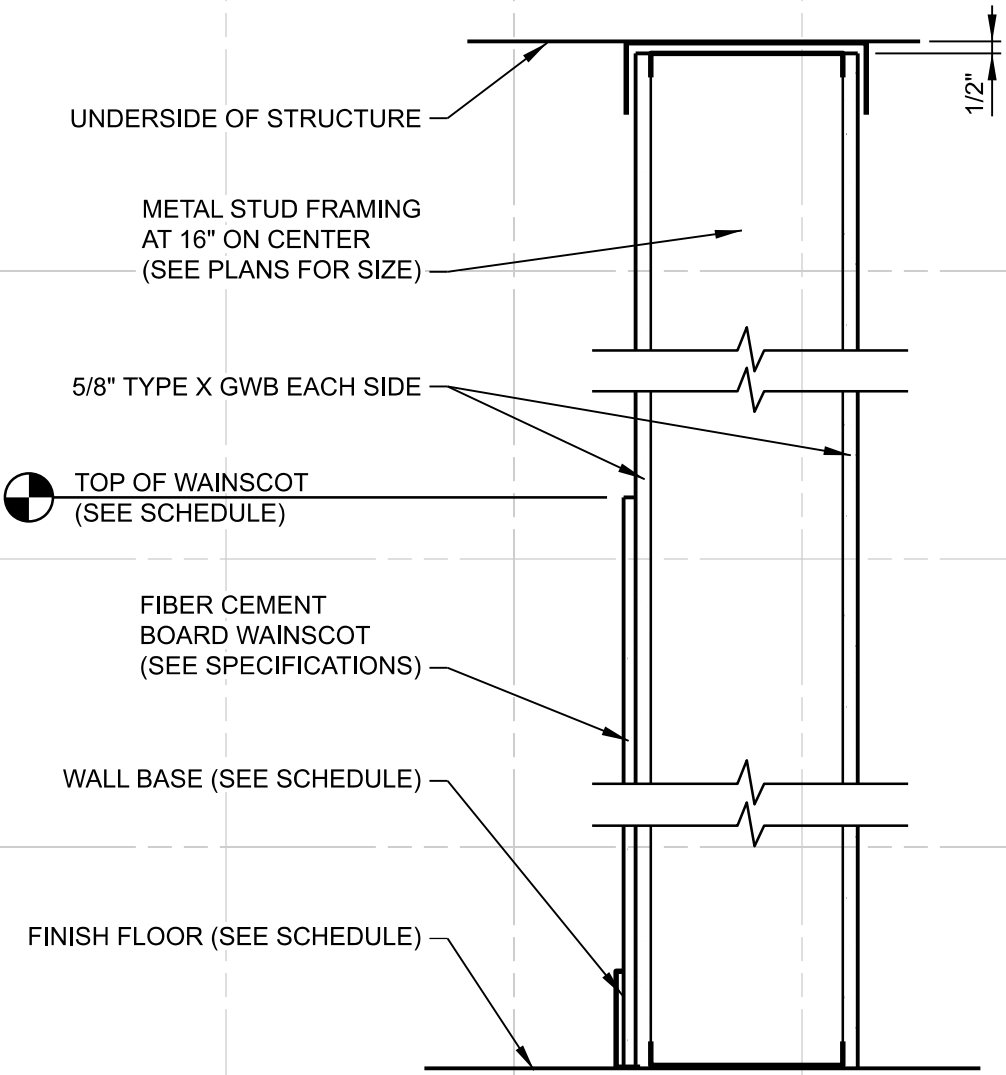


DETAIL: METAL STUD PARTITION (CERAMIC TILE ONE SIDE, GWB ONE SIDE)

A1

SCALE: 1 1/2"=1'-0"

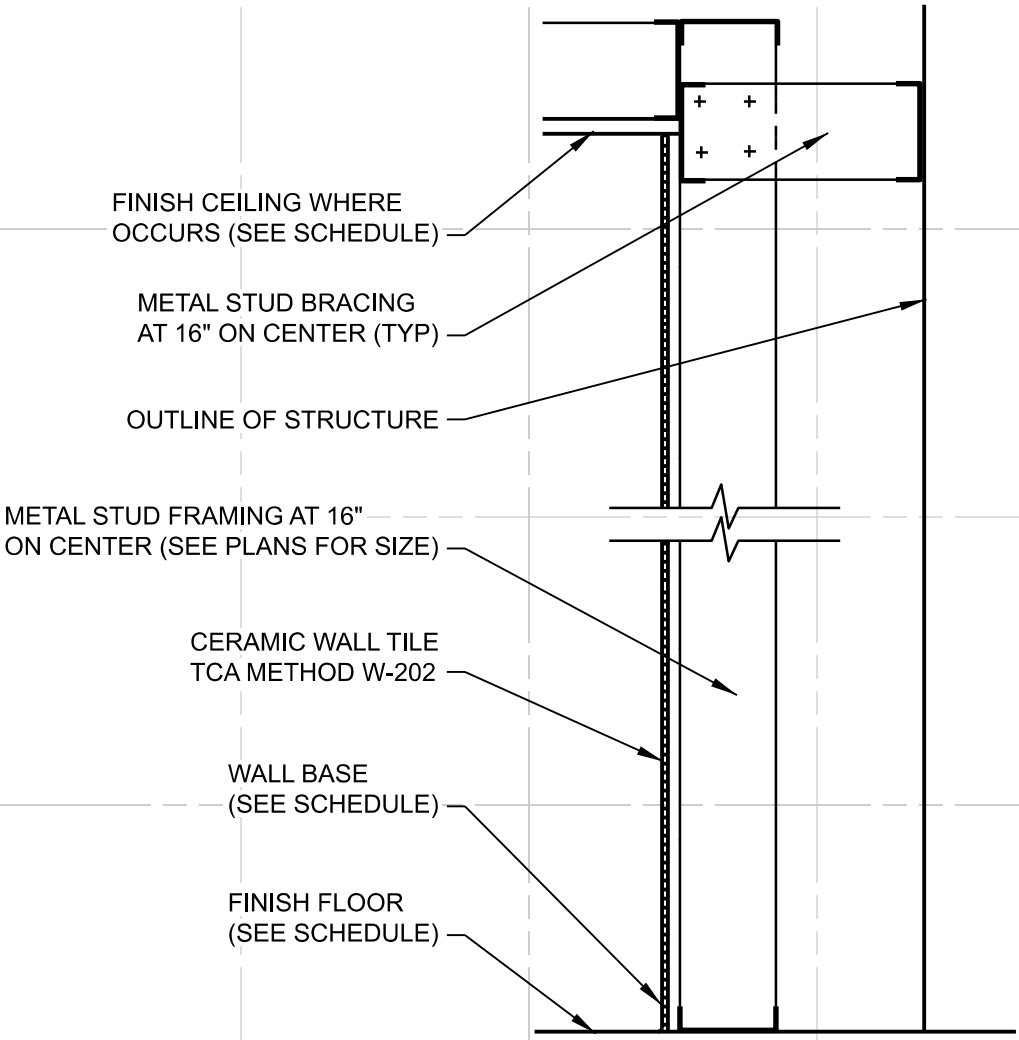
0 6" 1' 2'



DETAIL: METAL STUD PARTITION (TYPE X GWB EACH SIDE, FIBER CEMENT BOARD ONE SIDE)

A1

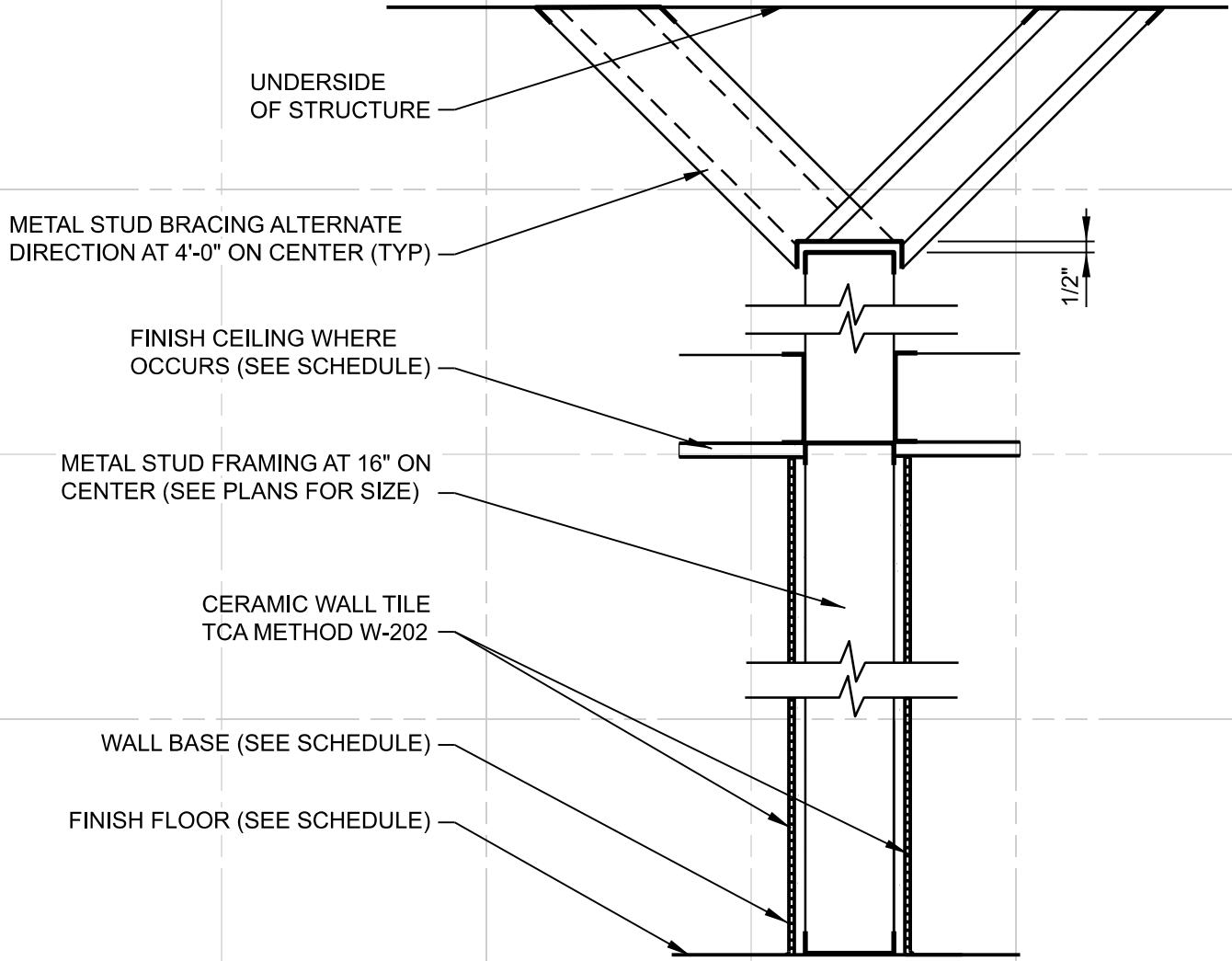
SCALE:1 1/2"=1'-0" 0 6" 1' 2'



DETAIL: METAL STUD PARTITION (CERAMIC TILE ONE SIDE)

A1

SCALE:1 1/2"=1'-0" 0 6" 1' 2'

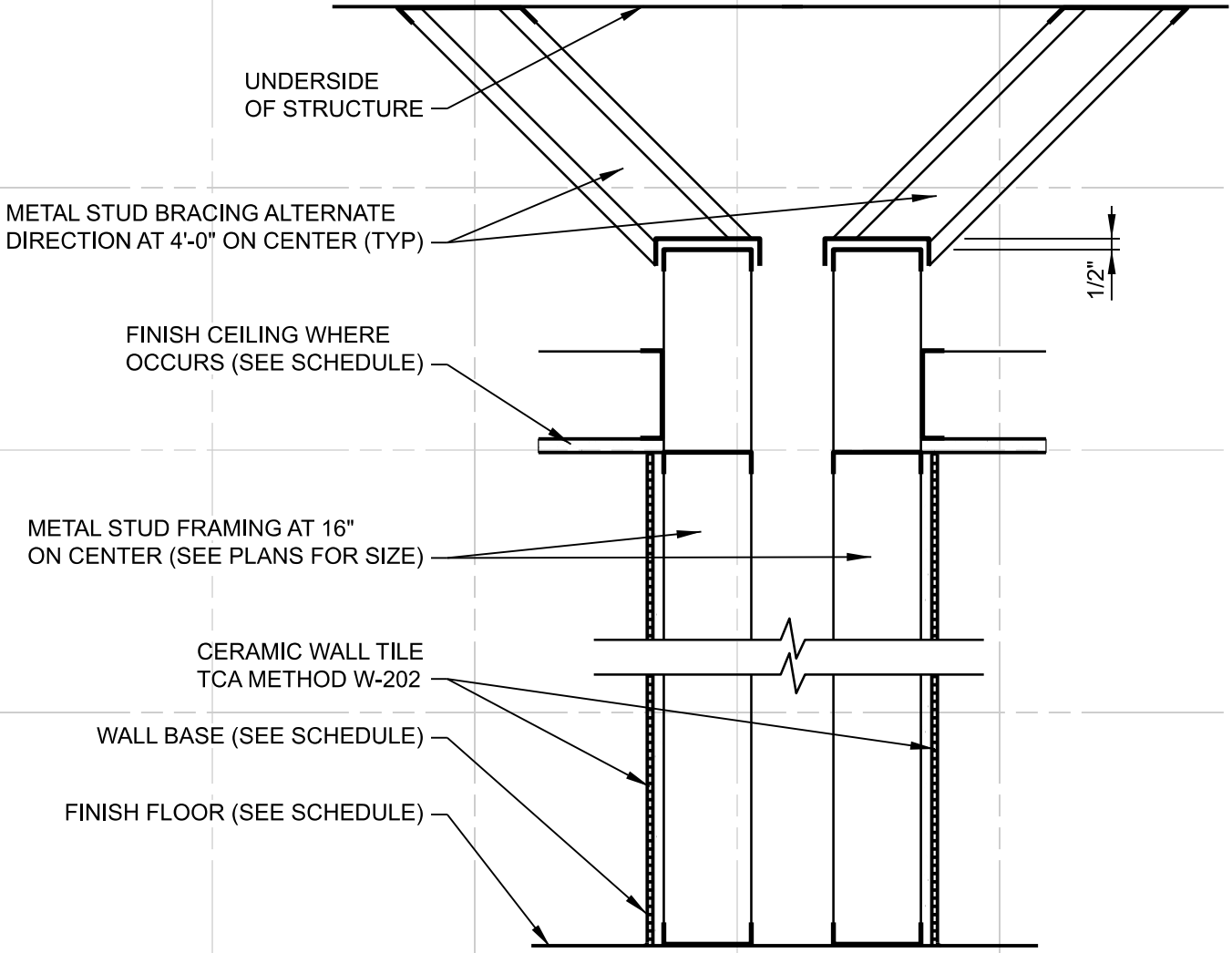


DETAIL: METAL STUD PARTITION (CERAMIC TILE EACH SIDE)

A1

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

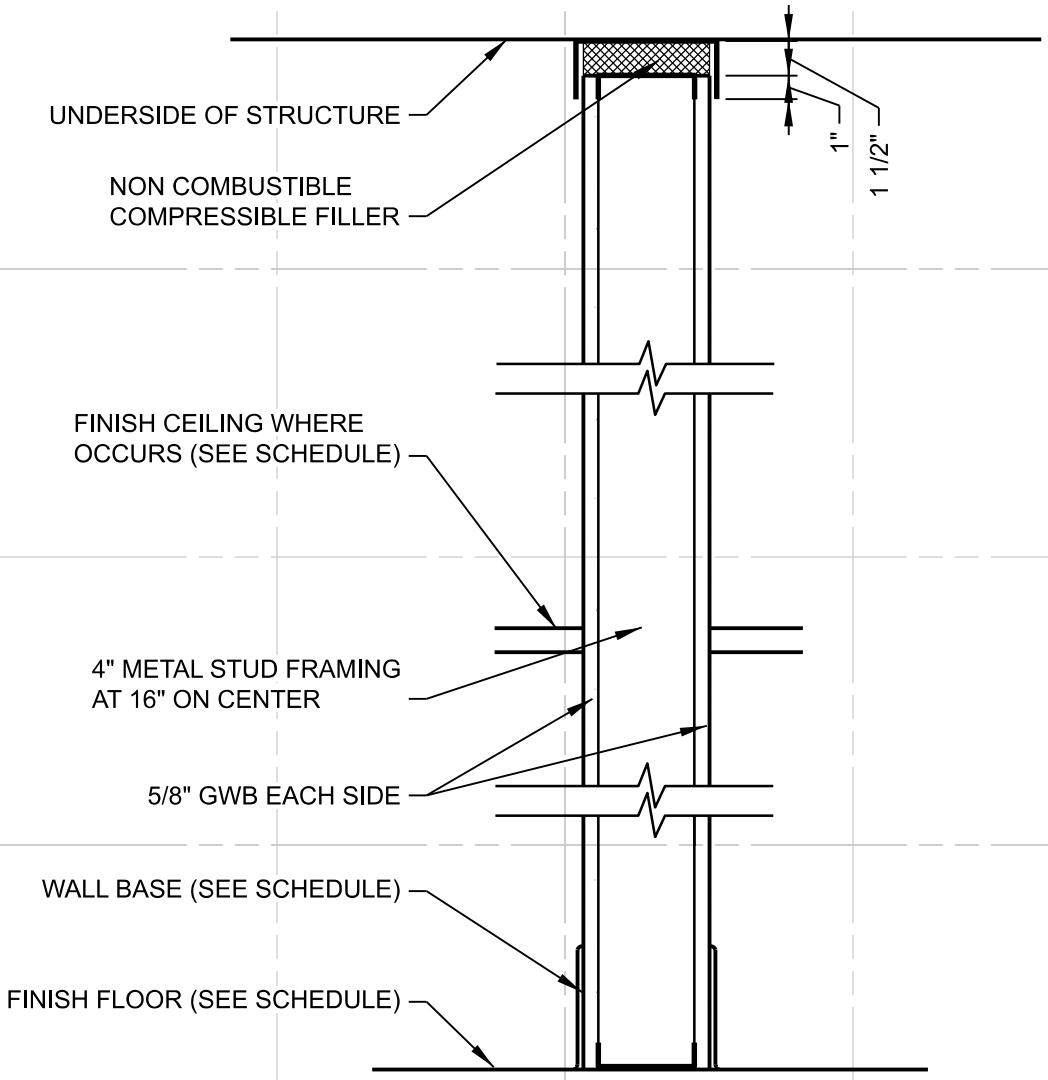


DETAIL: PLUMBING CHASE (CERAMIC TILE ROOM SIDE)

A1

SCALE: 1 1/2"=1'-0"

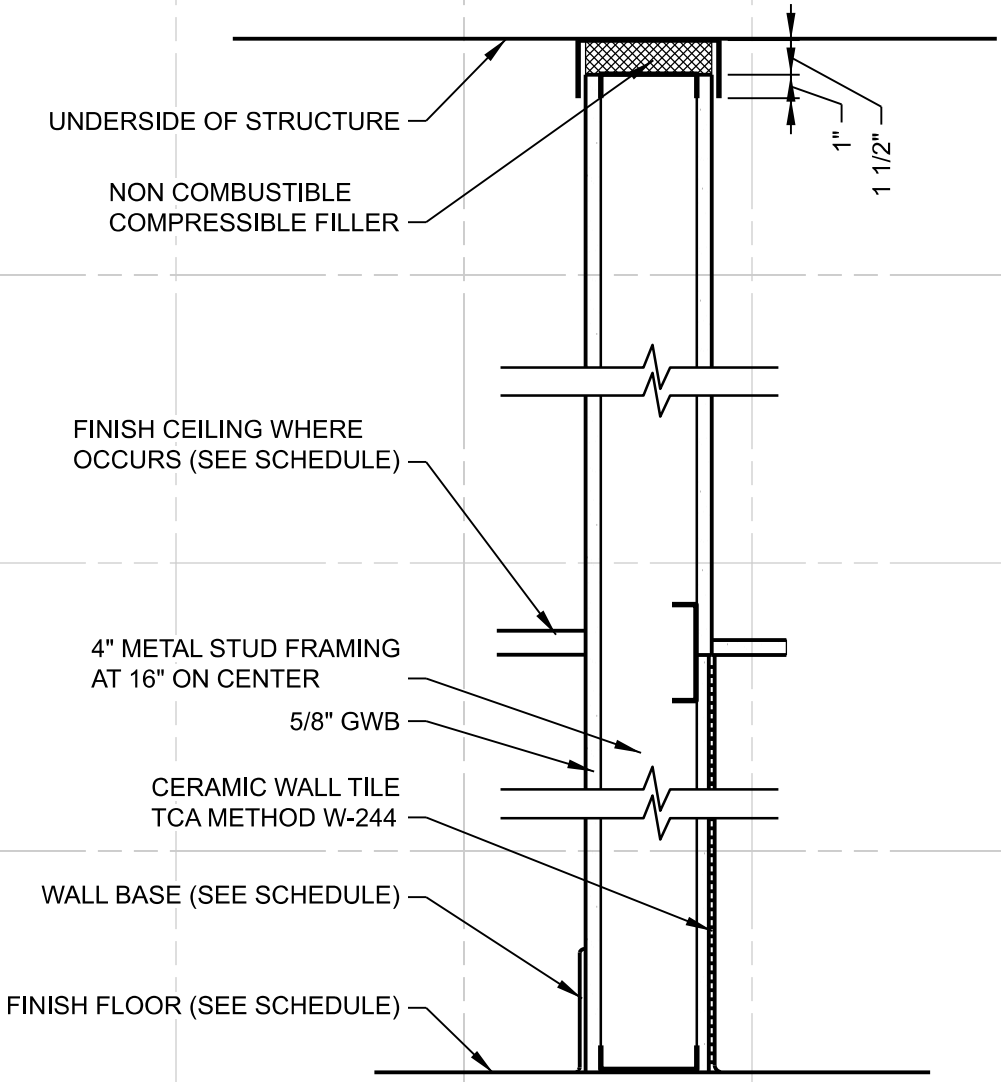
0 6" 1' 2'



DETAIL: METAL STUD PARTITION (GWB EACH SIDE)

A1

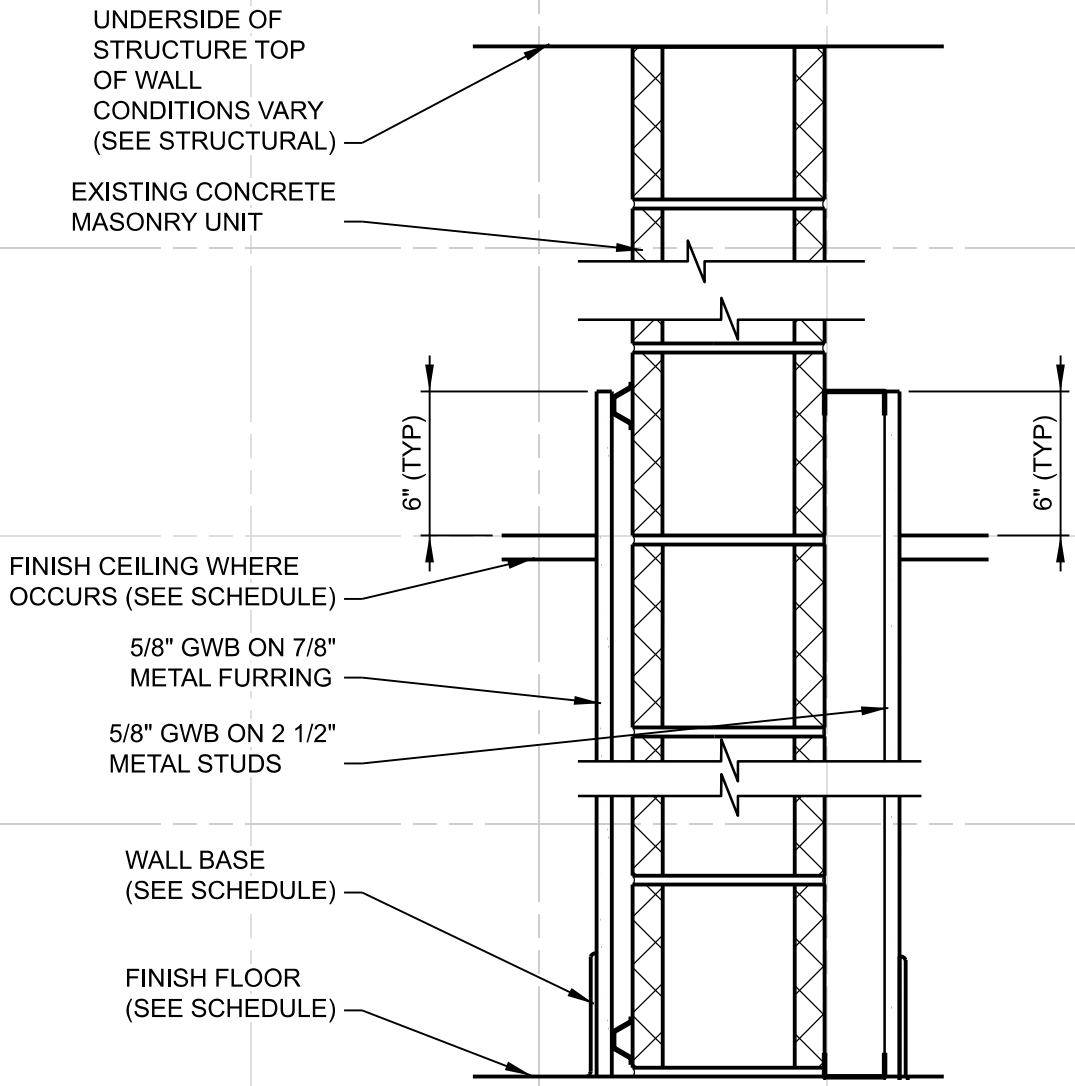
SCALE:1 1/2"=1'-0" 0 6" 1' 2'



DETAIL: METAL STUD PARTITION (CERAMIC TILE ONE SIDE, GWB ONE SIDE)

A1

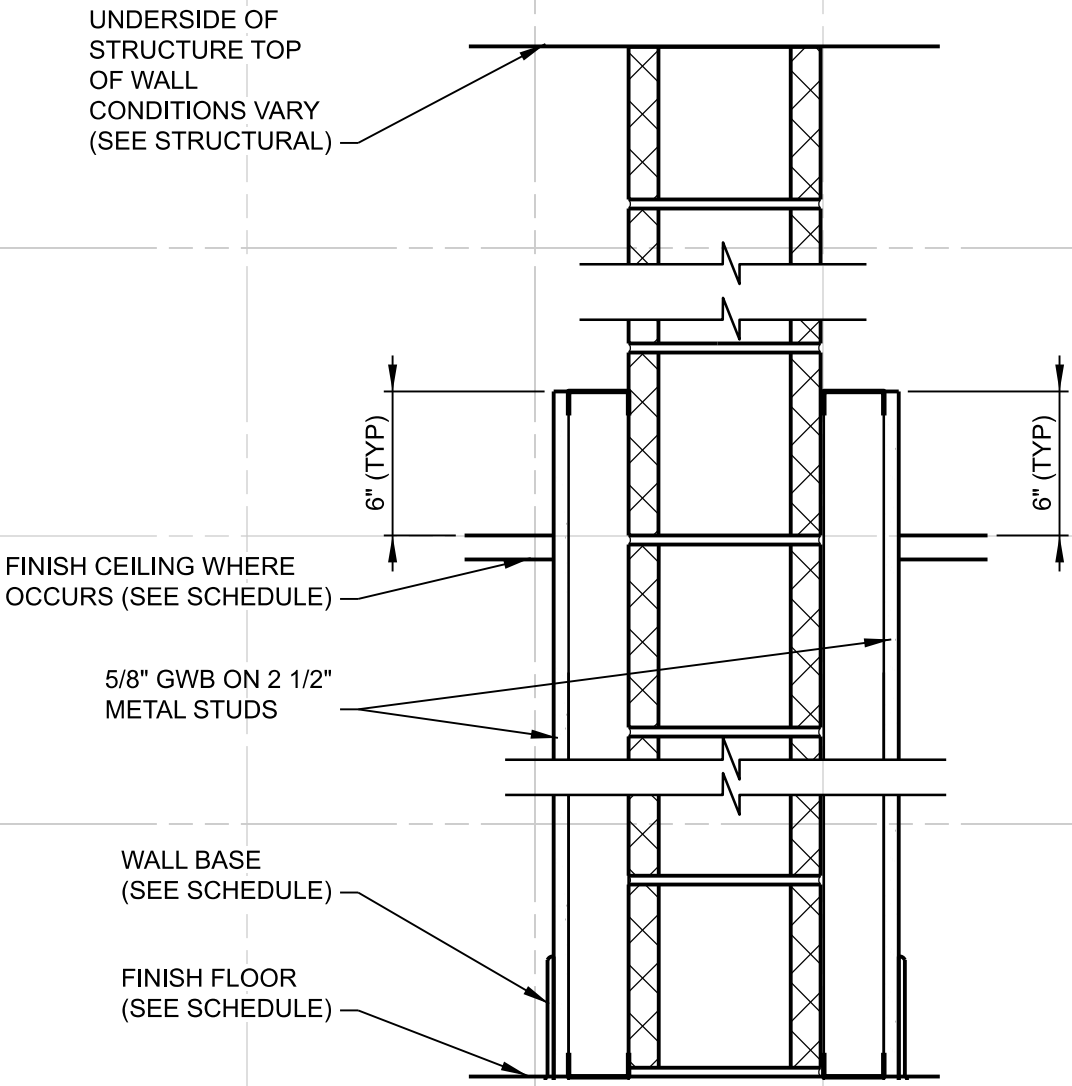
SCALE:1 1/2"=1'-0" 0 6" 1' 2'



DETAIL: EXISTING CMU (GWB EACH SIDE)

A1

SCALE:1 1/2"=1'-0" 0 6" 1' 2'

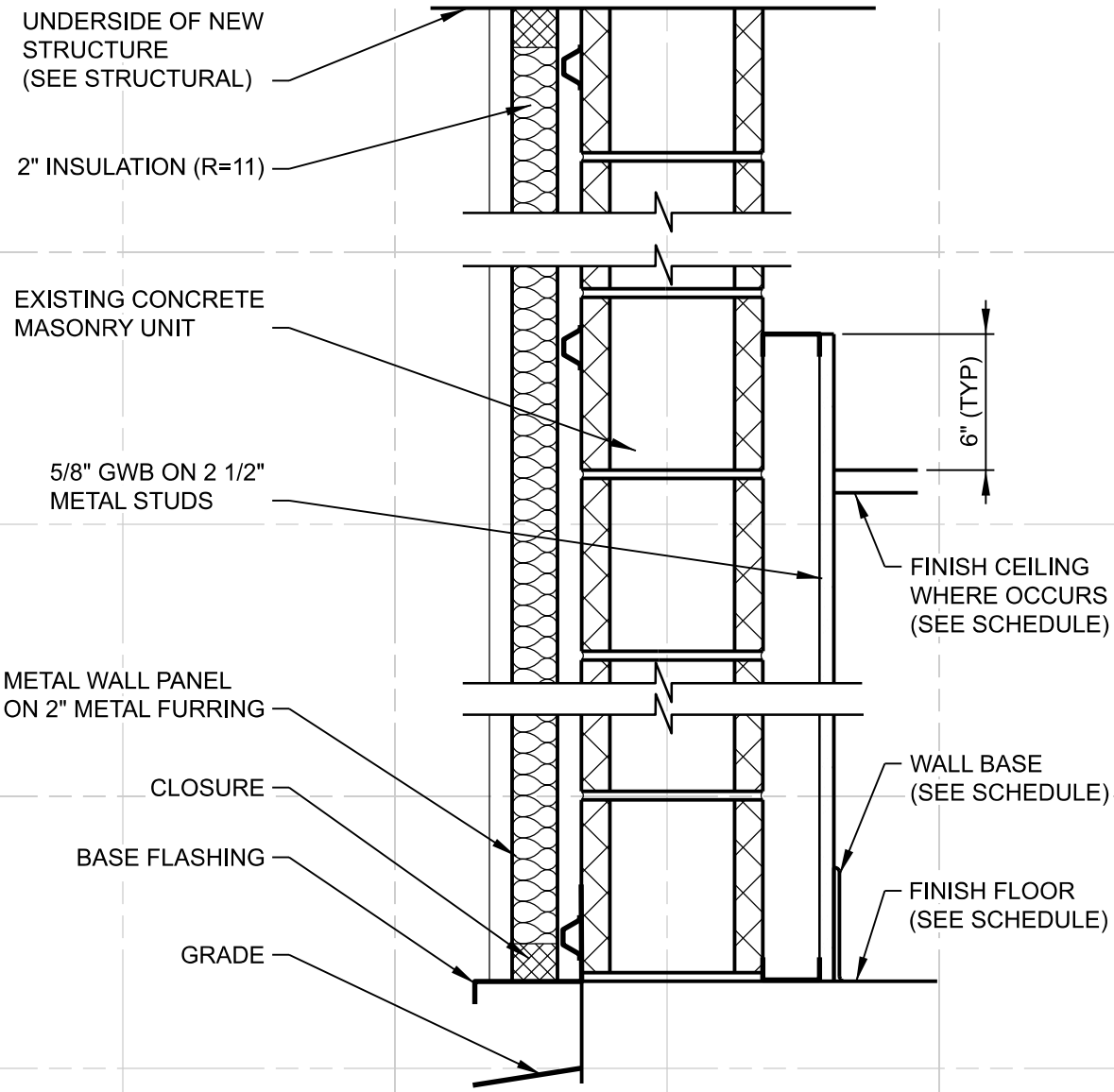


A1

DETAIL: EXISTING CMU (GWB EACH SIDE)

SCALE:1 1/2"=1'-0" 0 6" 1' 2'

Detail C1010A-DT053X



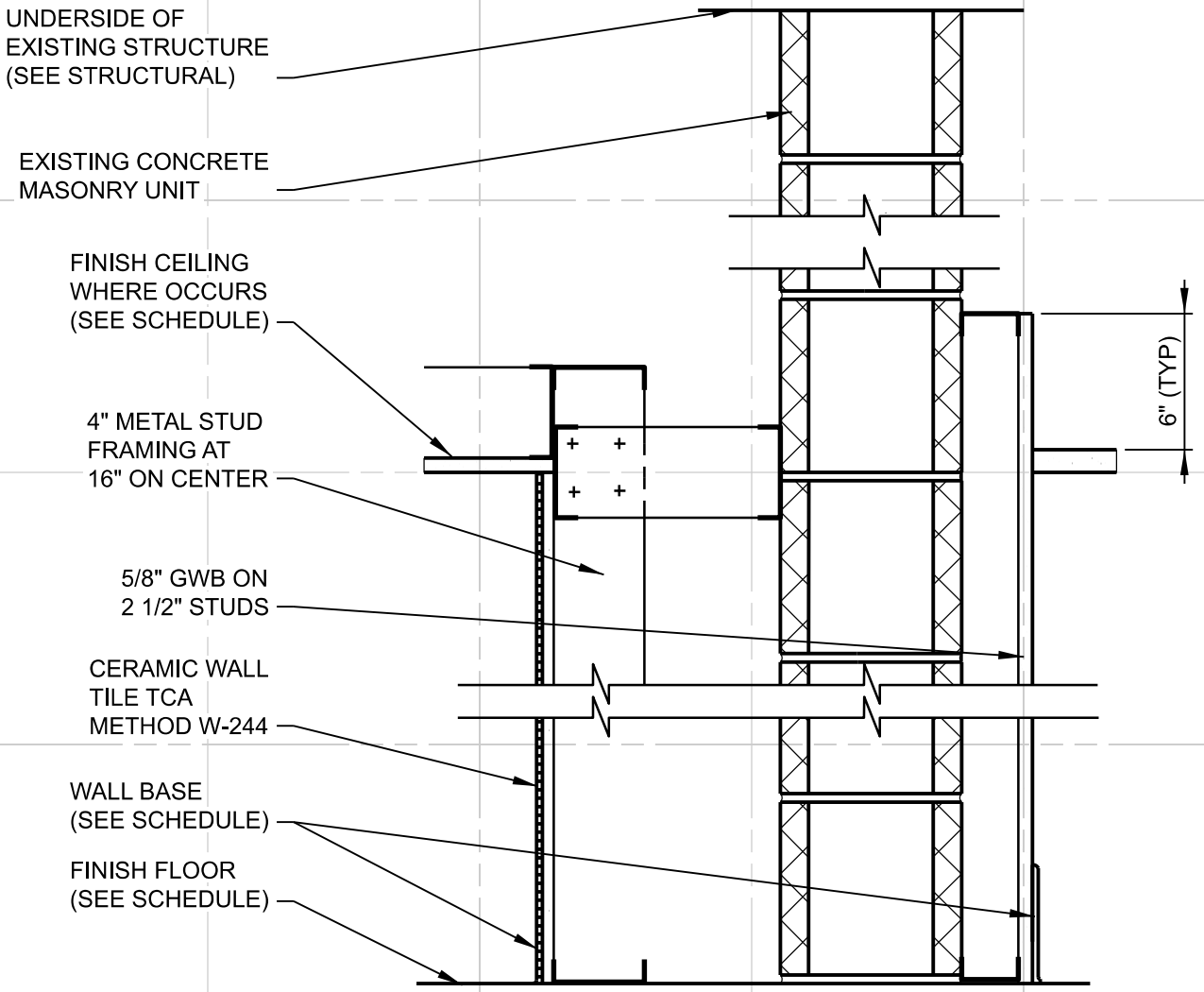
DETAIL: EXISTING CMU (GWB ONE SIDE, METAL WALL PANEL EXTERIOR)

A1

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

Detail C1010A-DT054X

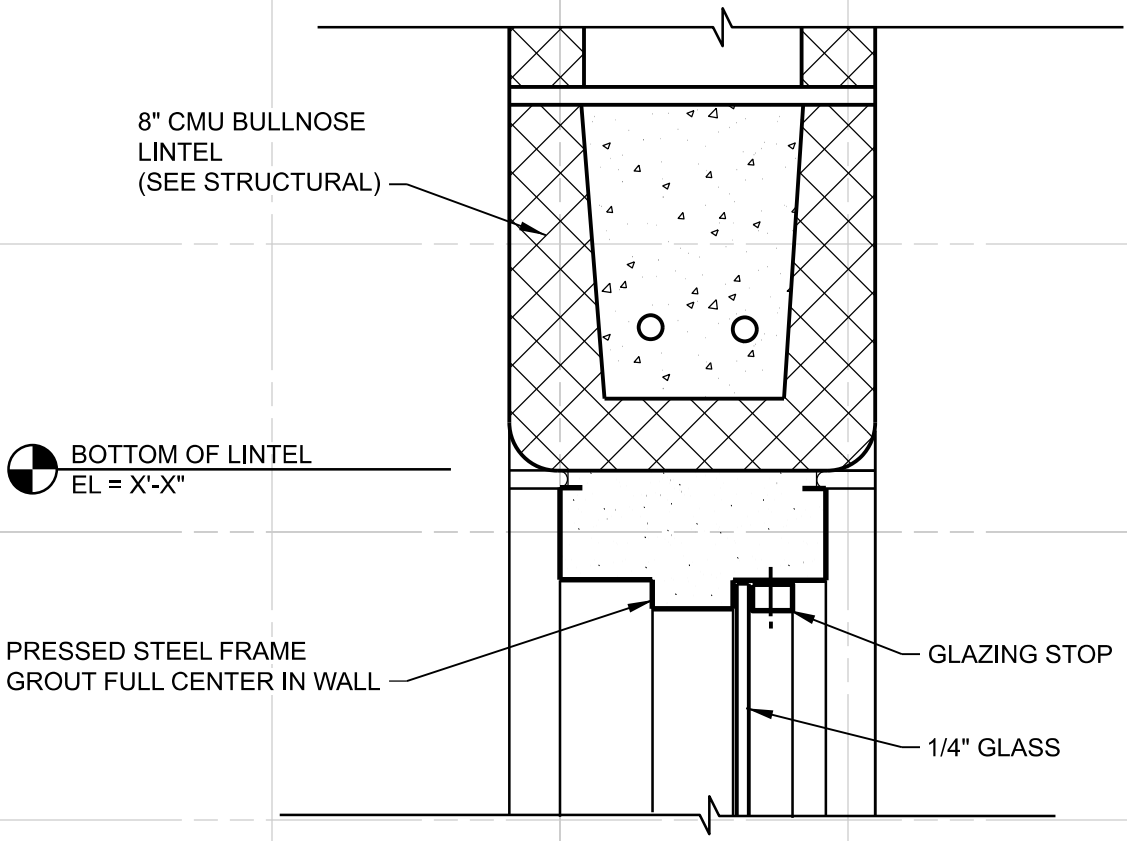


DETAIL: PLUMBING CHASE (CERAMIC TILE ONE SIDE)

A1

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

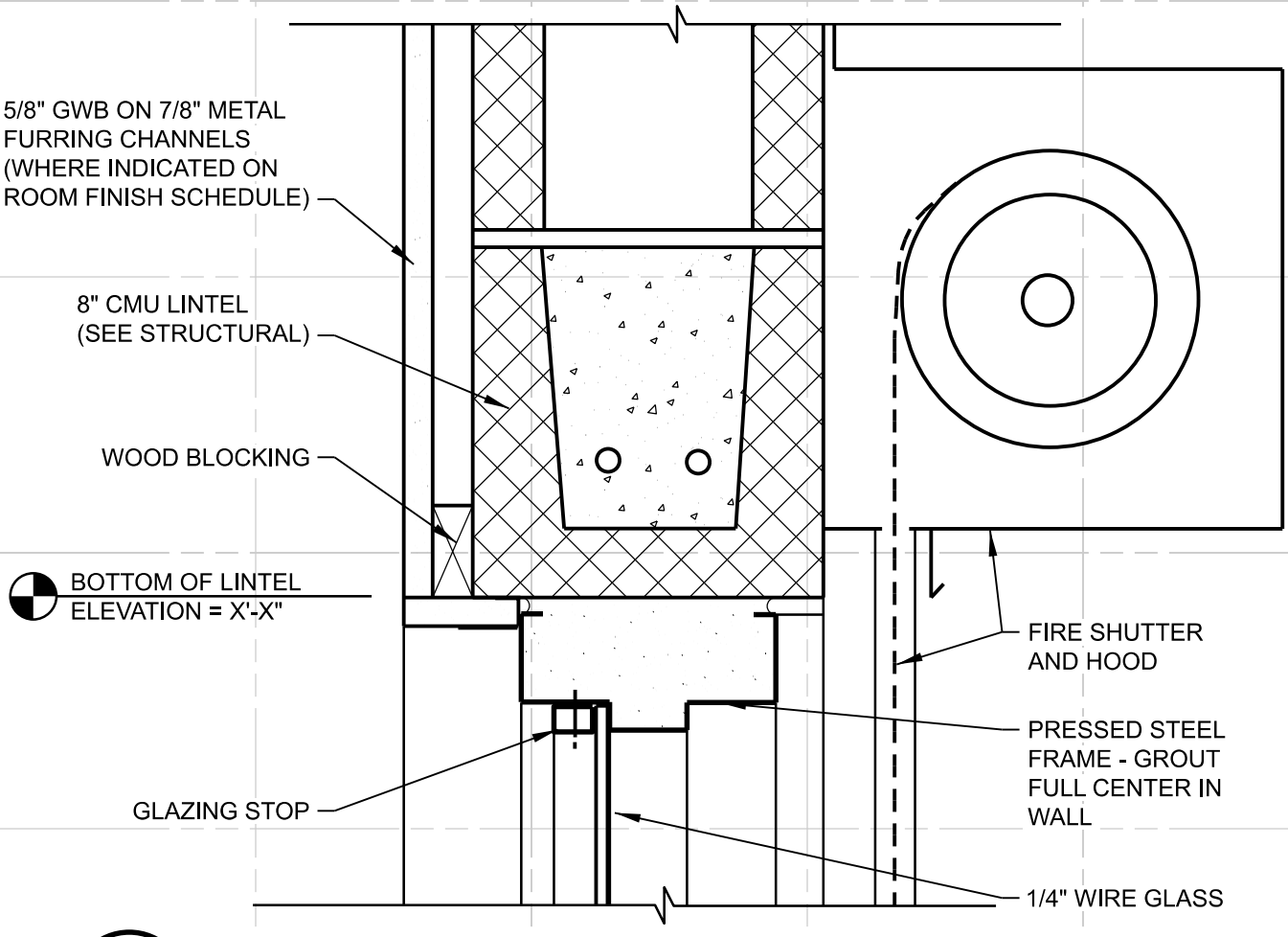


A1

DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'



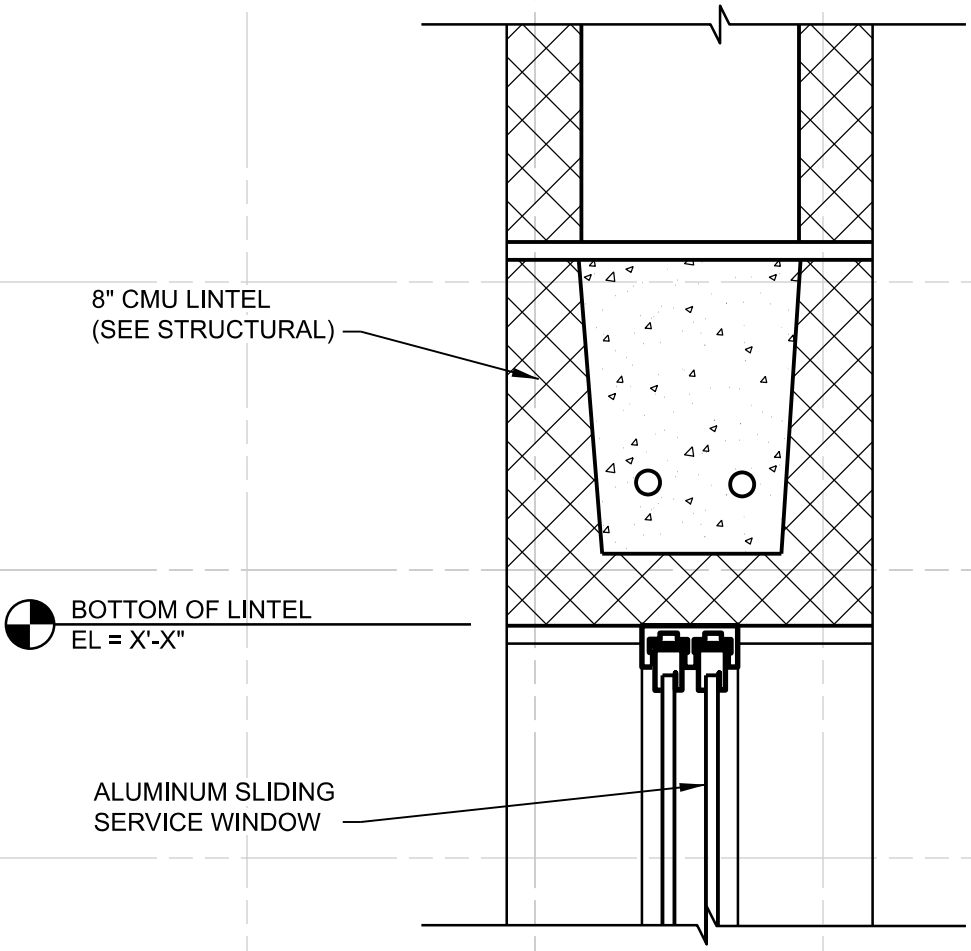
A1 DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT057X

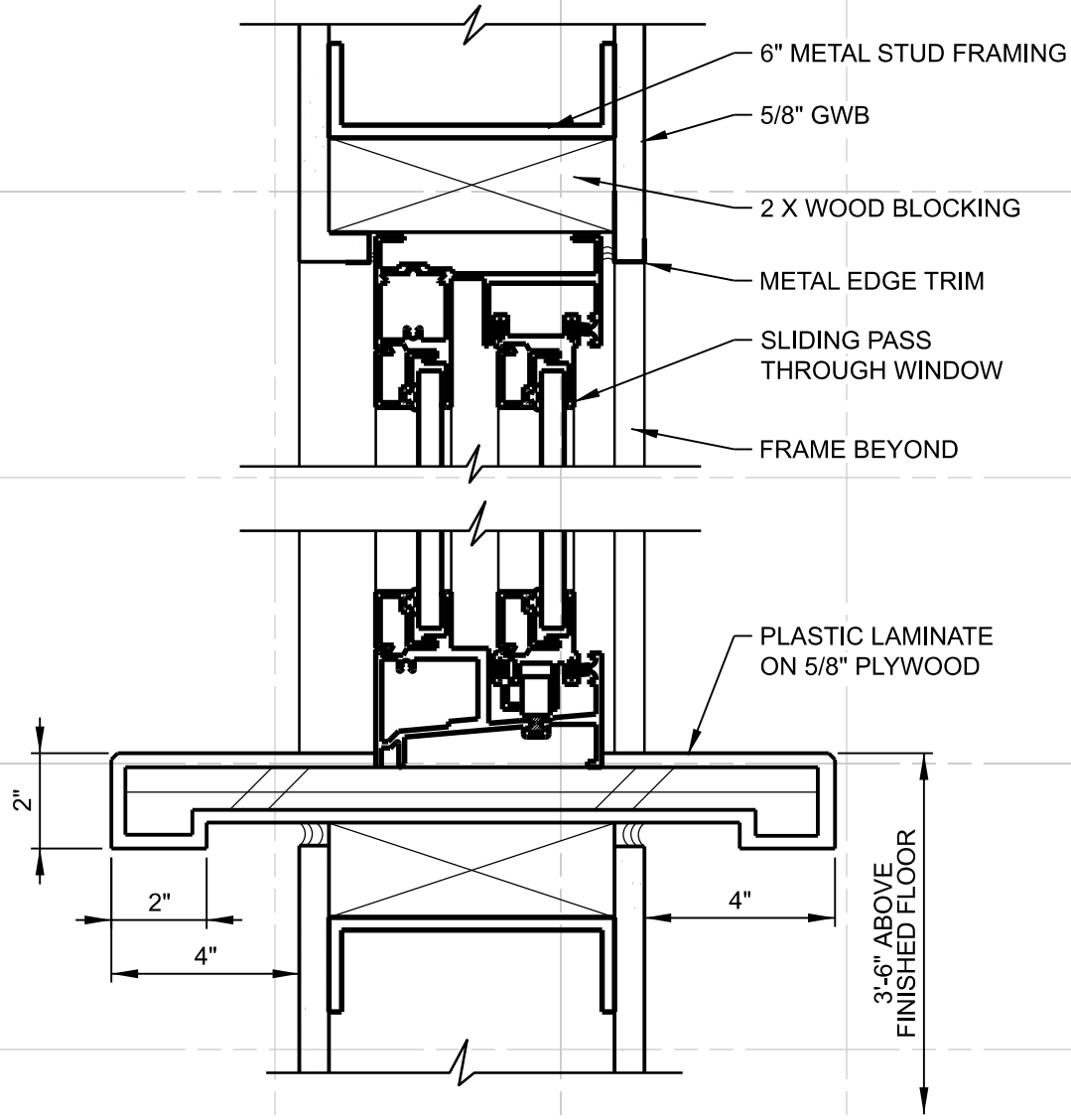
Details-US-Architectural-C101-InteriorPartitions



A1 DETAIL: HEAD

SCALE: 3"=1'-0" 0 3" 6" 1'

Detail C1010A-DT058X

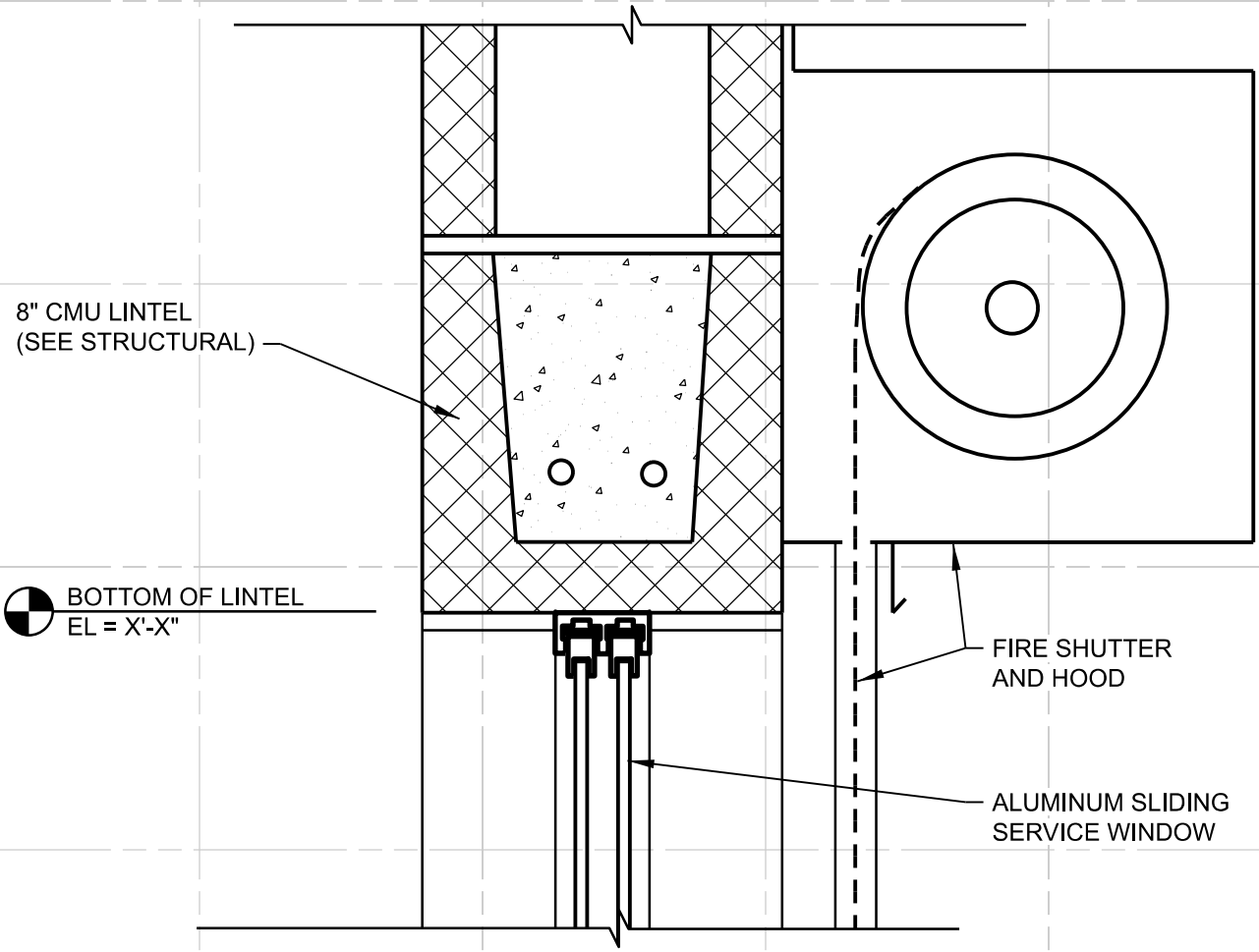


A1

DETAIL: HEAD/SILL

SCALE: 3"=1'-0" 0 3" 6" 1'

Detail C1010A-DT059X

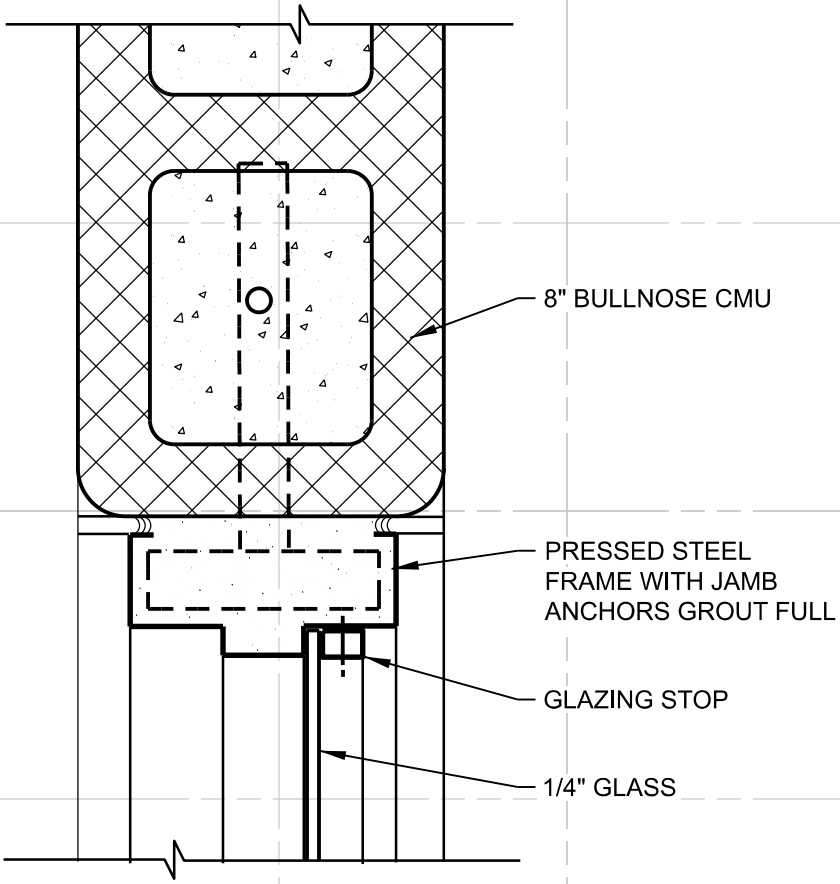


A1

DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'



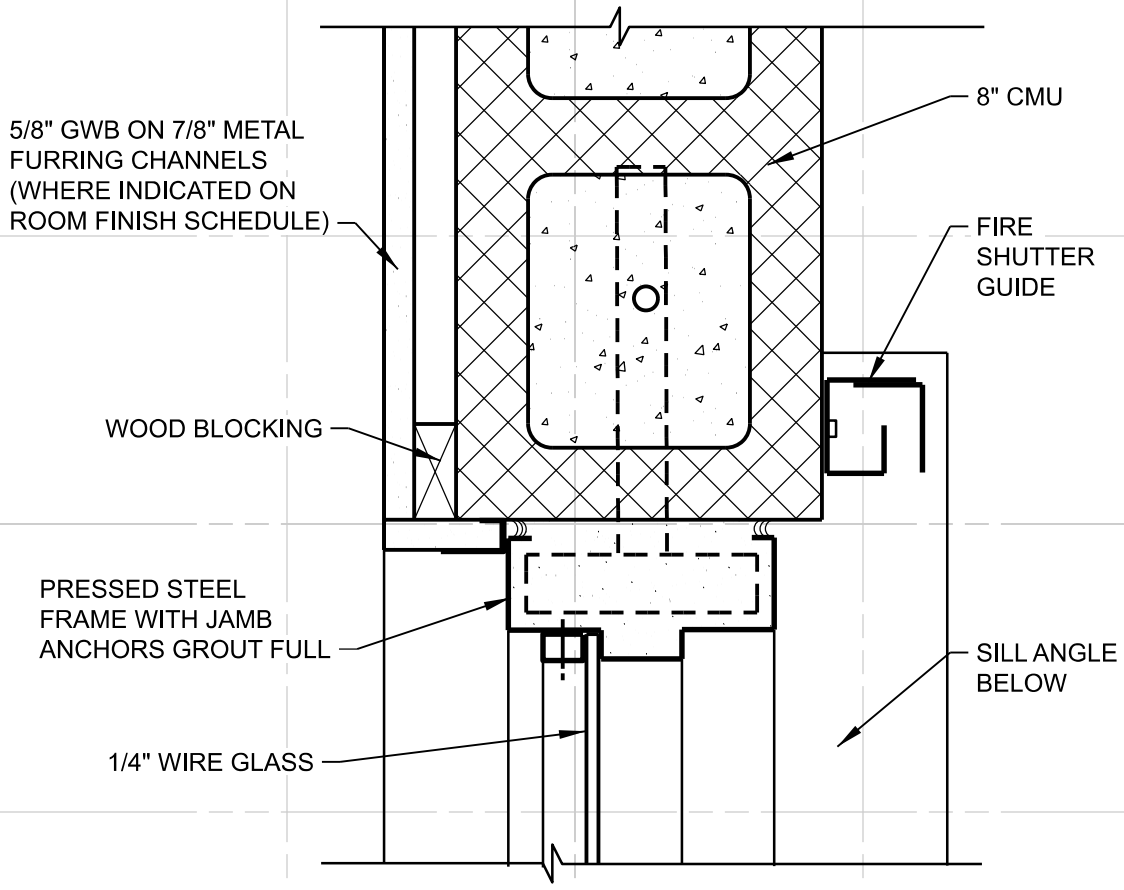
A1

DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT061X



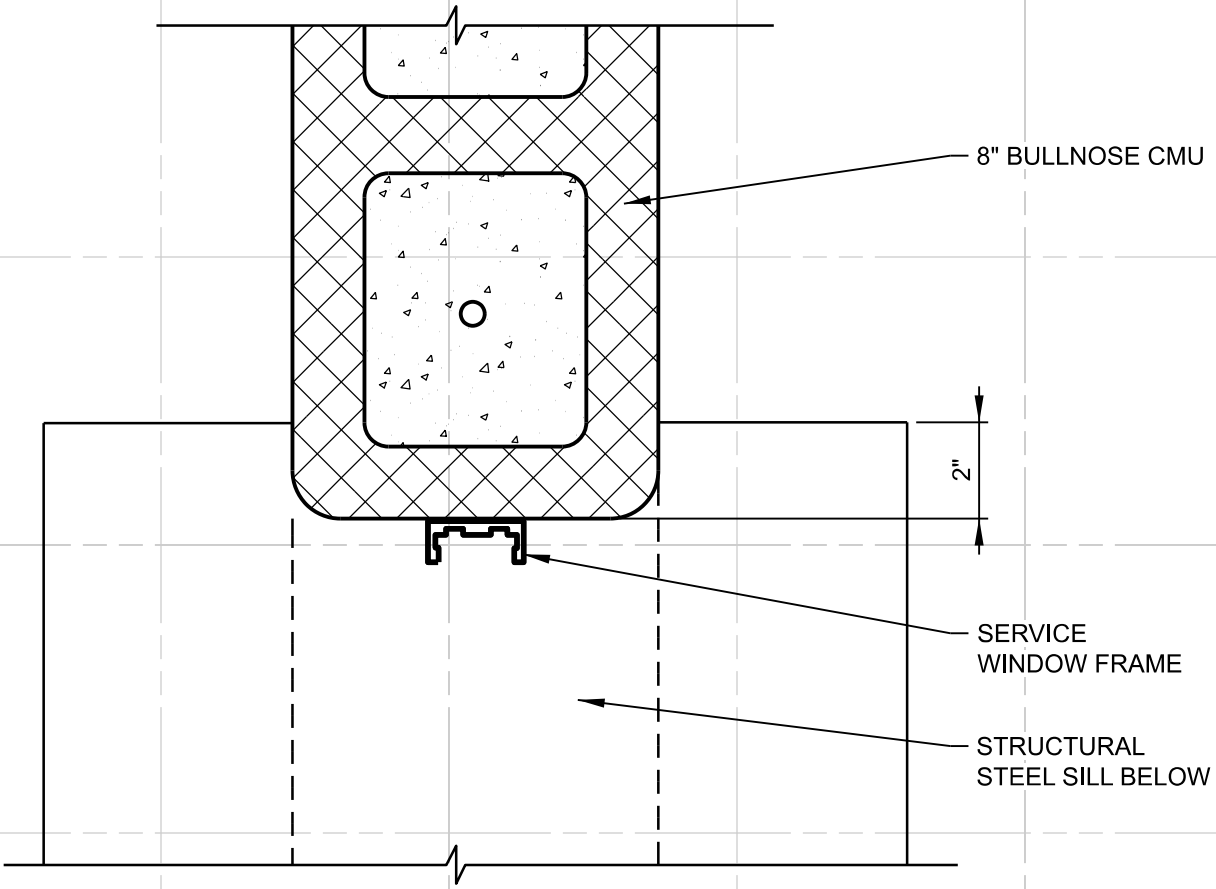
A1

DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT062X



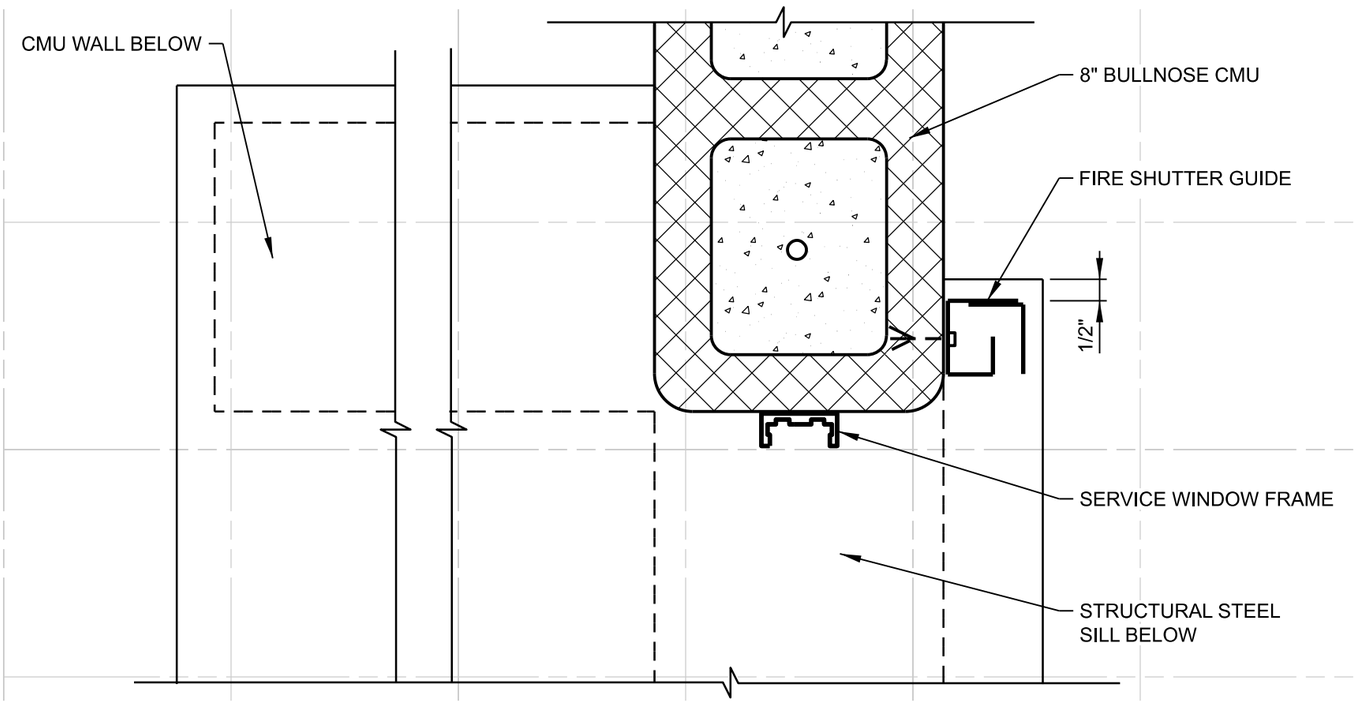
A1

DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT063X

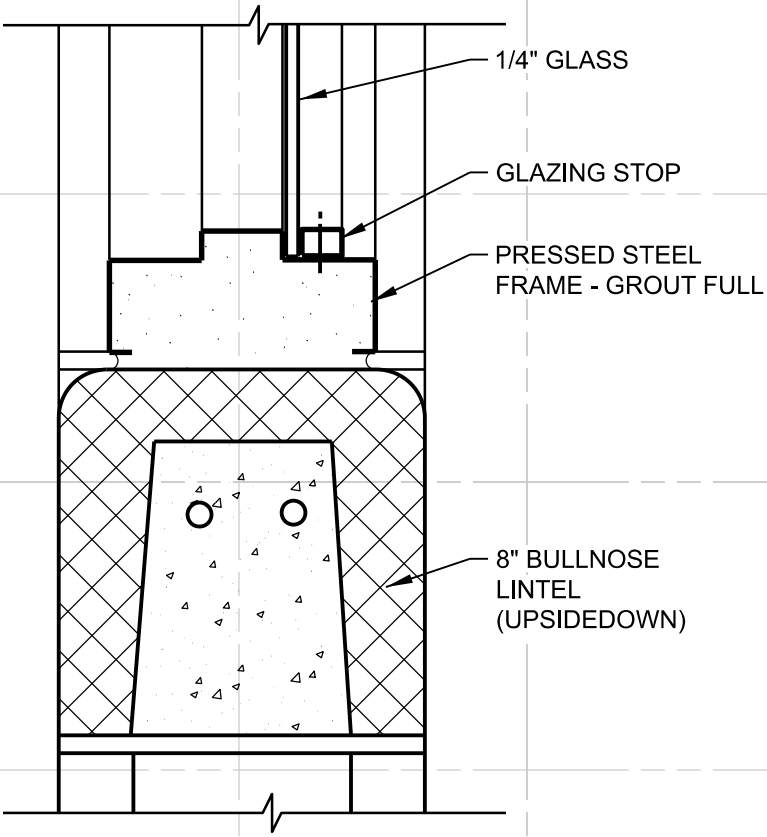


A1 DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT064X



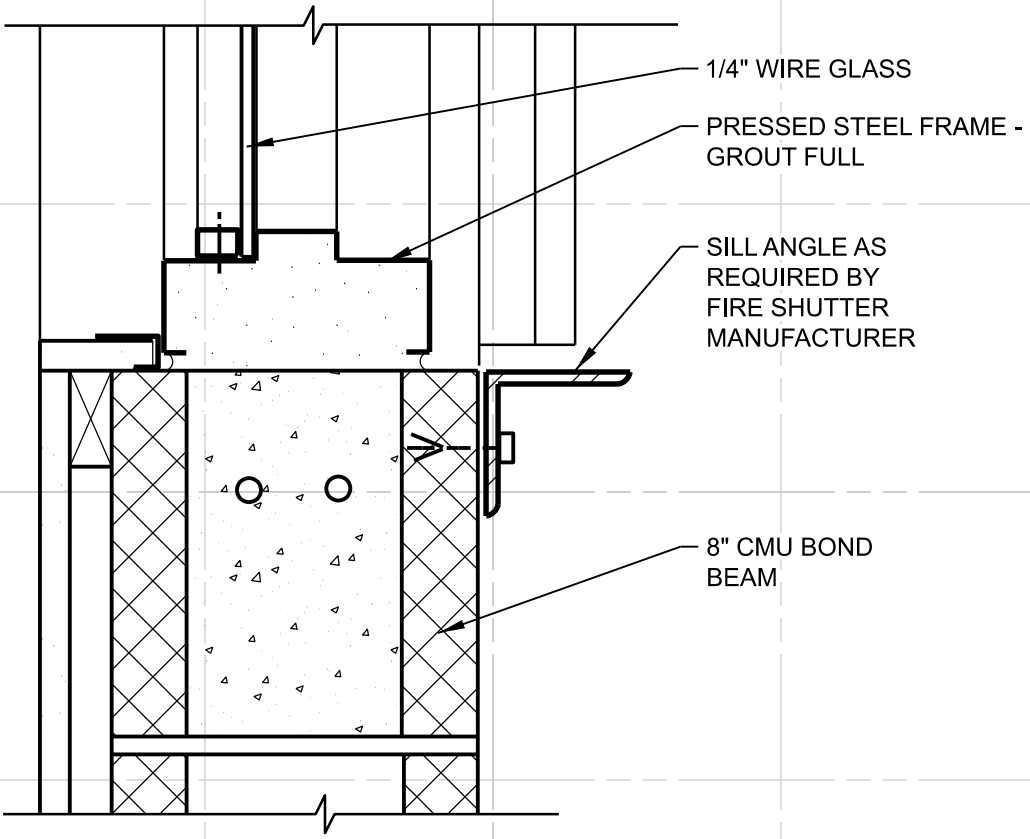
A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT065X

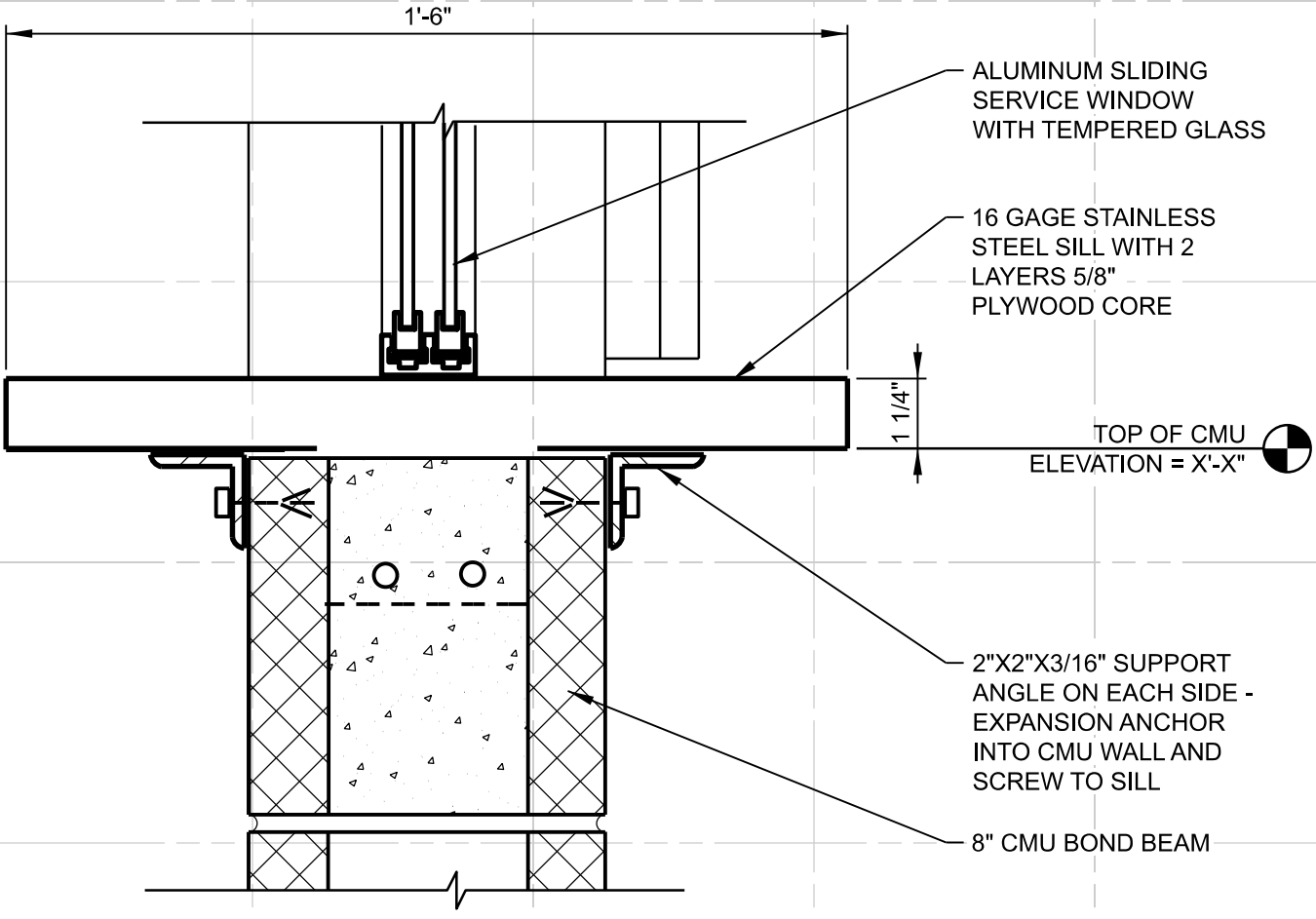


A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'



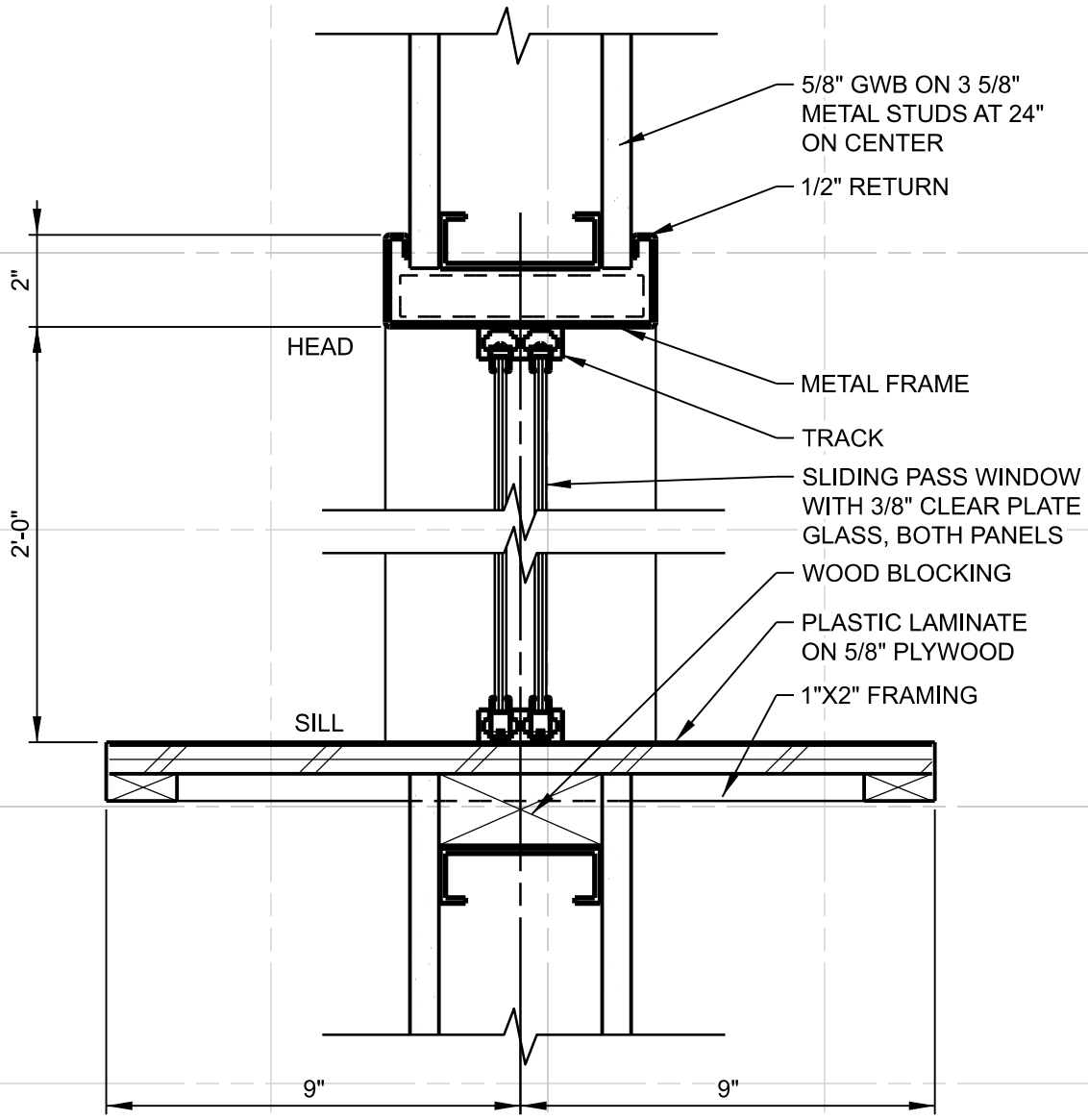
A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT067X



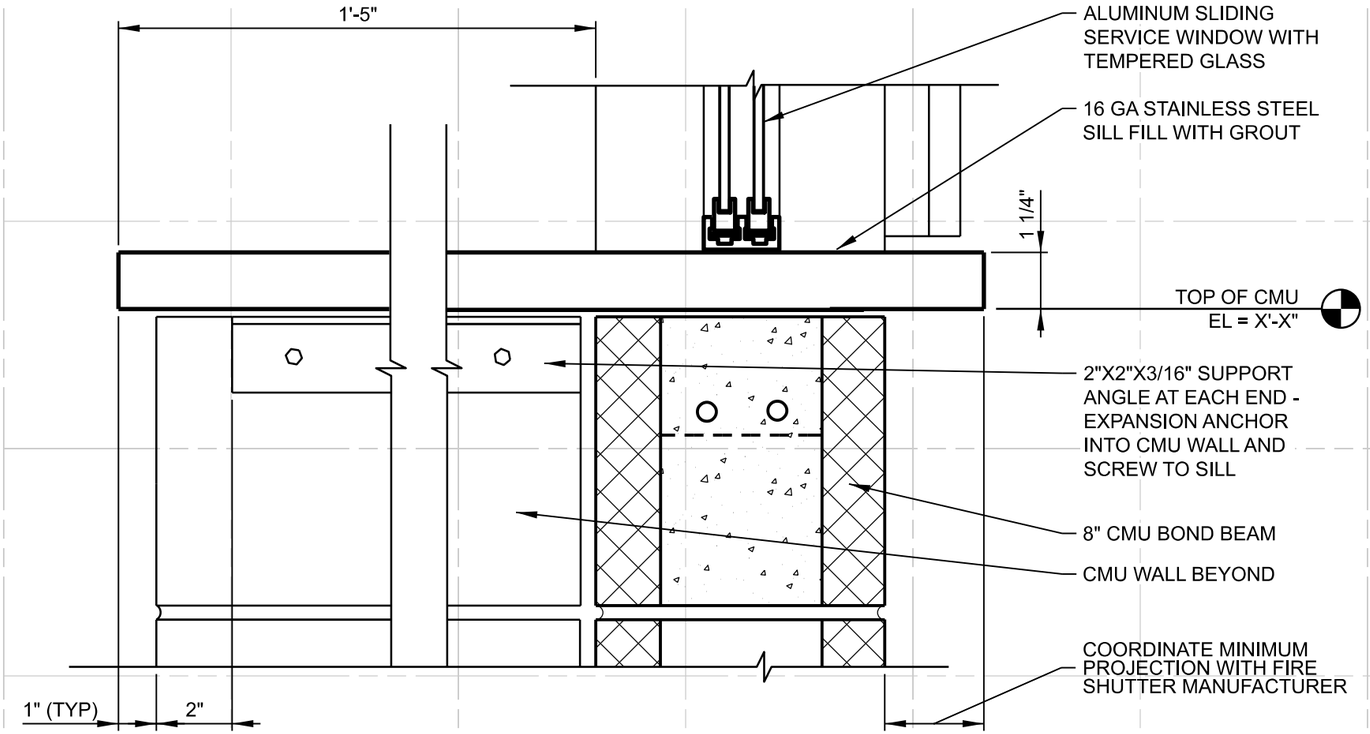
A1

DETAIL: SERVICE WINDOW SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT068X

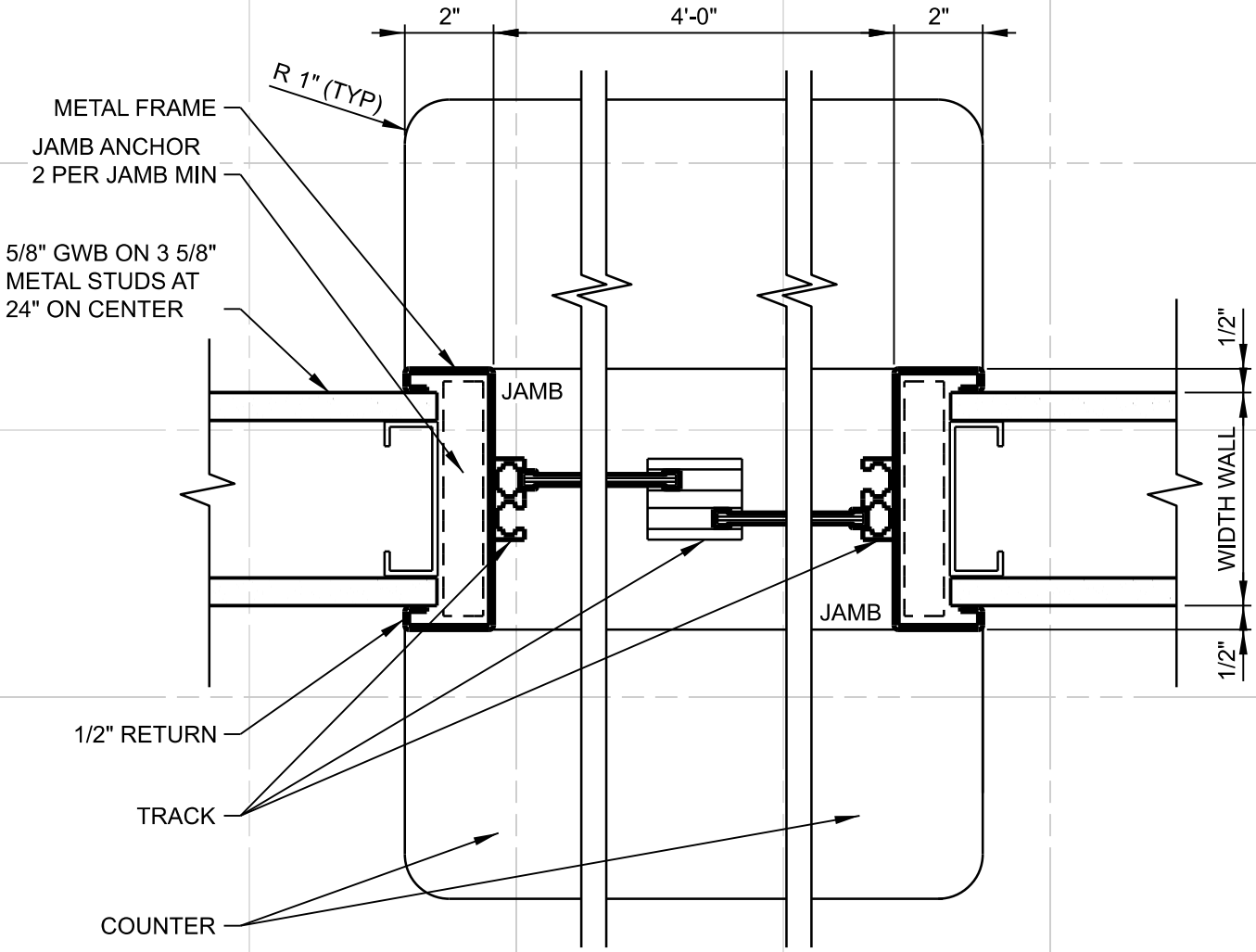


A1 SECTION: SERVICE WINDOW WITH COUNTER

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT069X



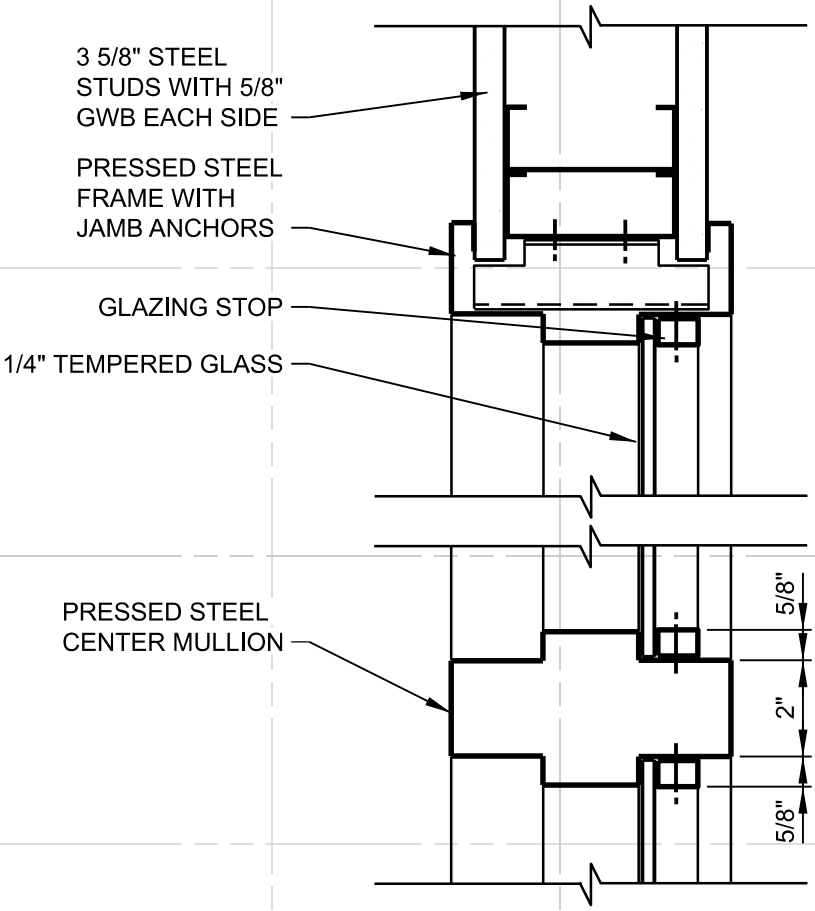
A1

SECTION: SERVICE WINDOW

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT070X



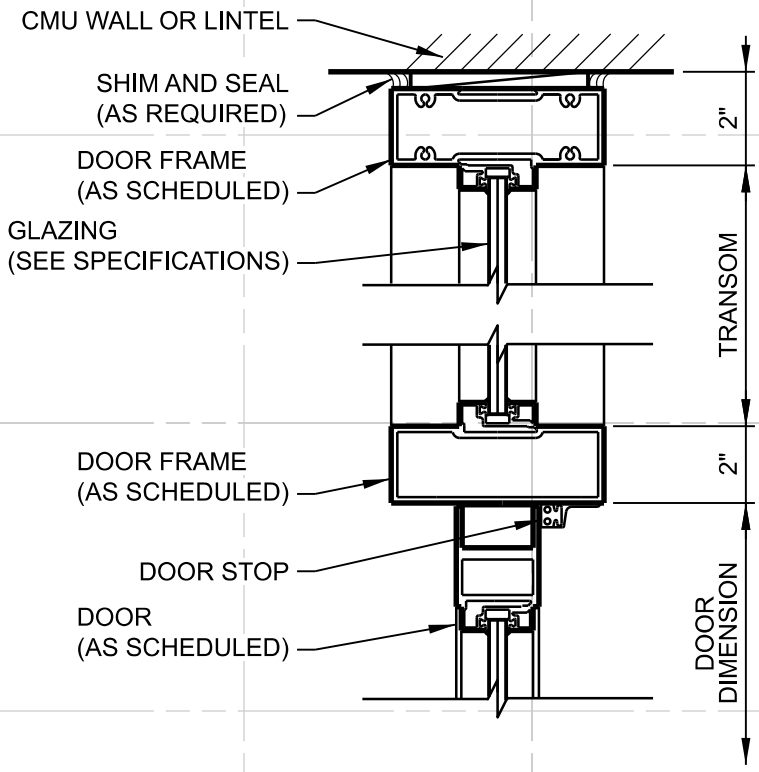
A1

DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT072X



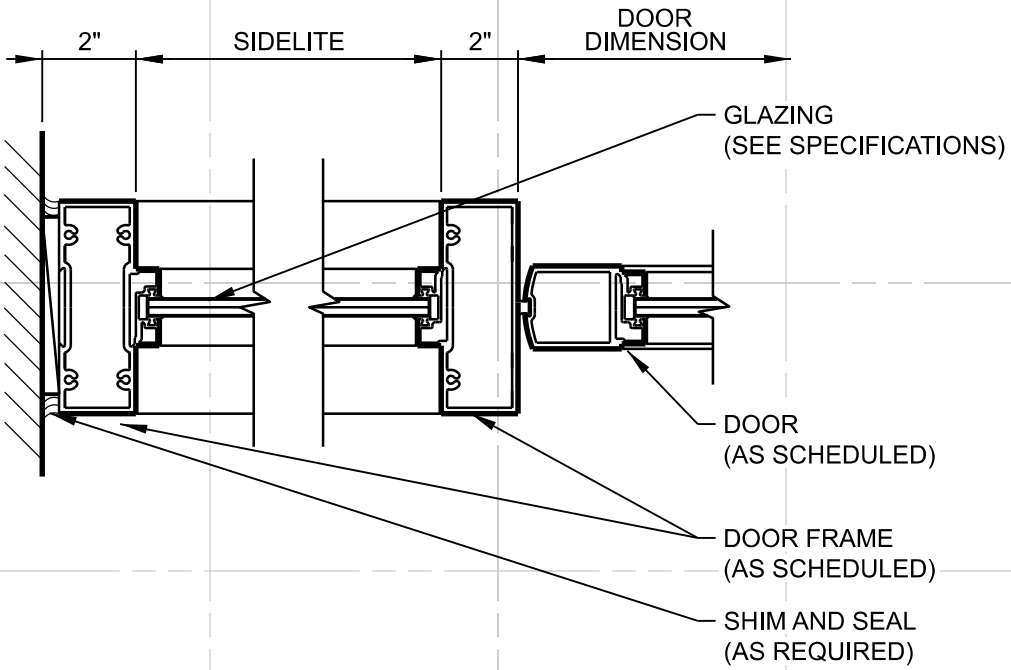
A1

DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

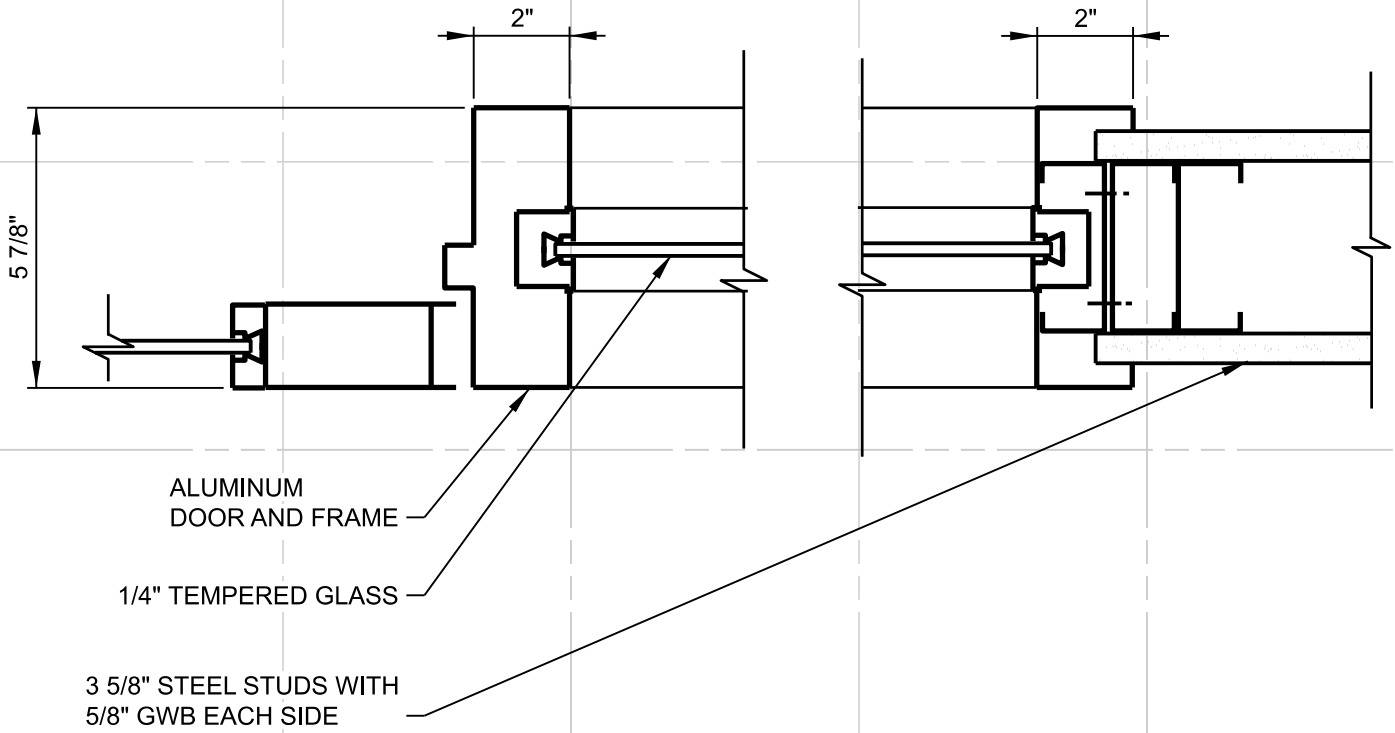
Detail C1010A-DT073X



A1

DETAIL: JAMB

SCALE: 3"=1'-0" 0 3" 6" 1'



A1

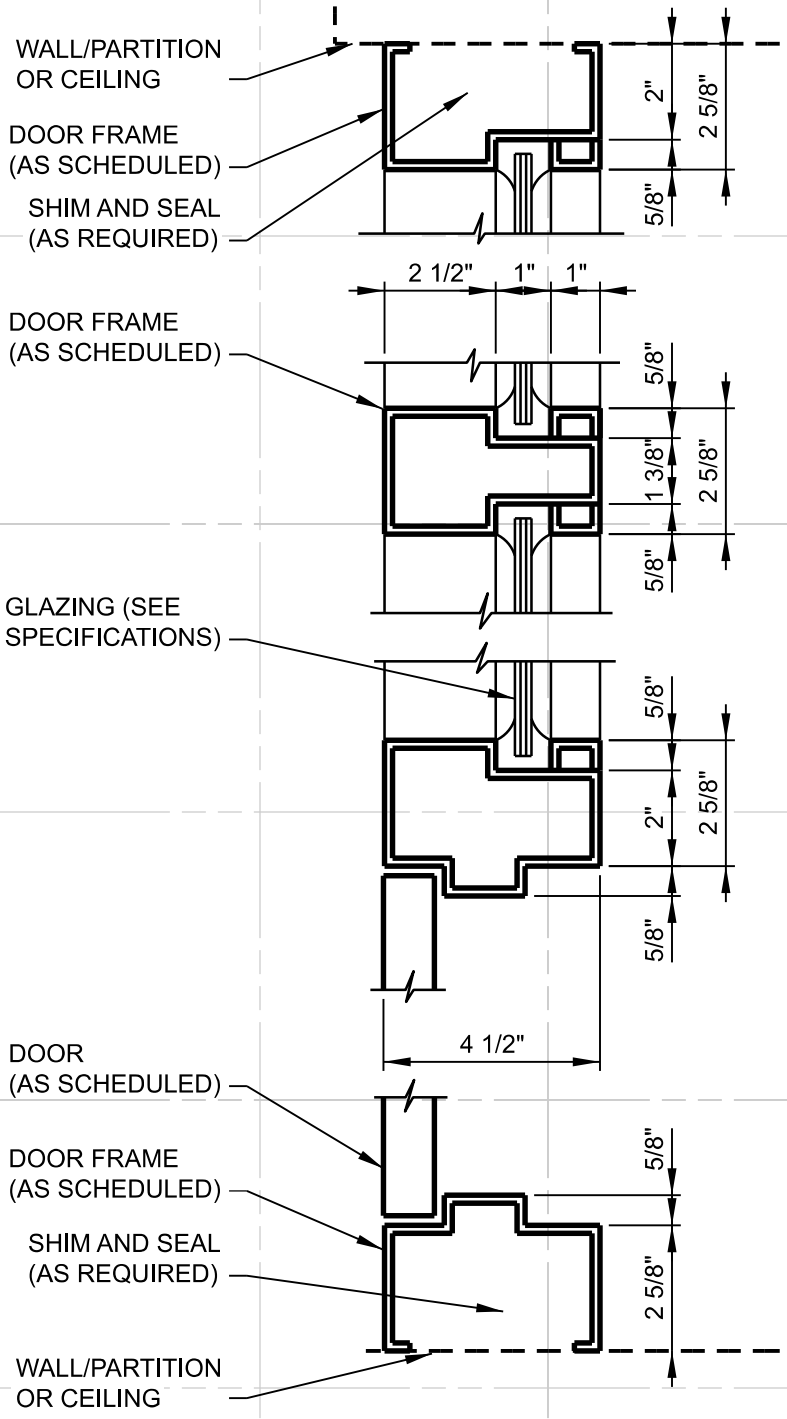
DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT075X

Details-US-Architectural-C101-InteriorPartitions



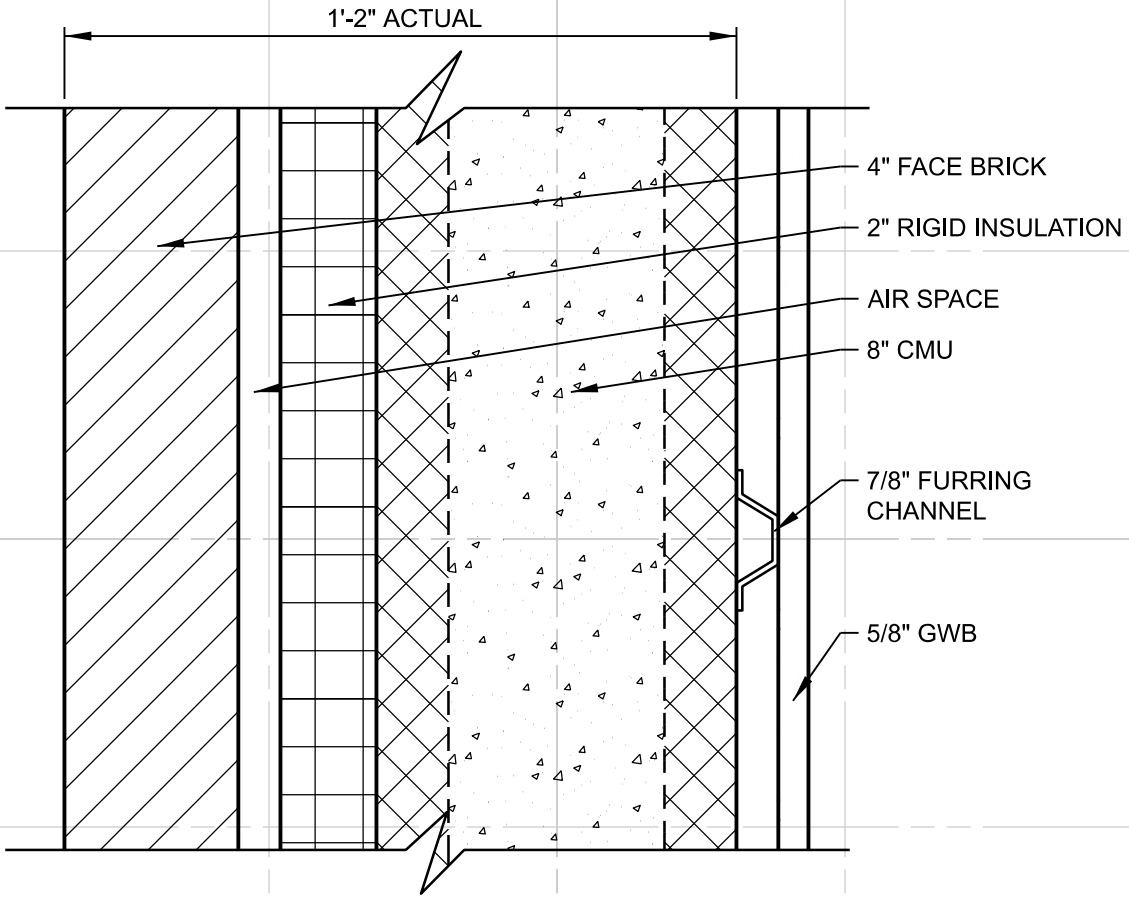
A1

DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

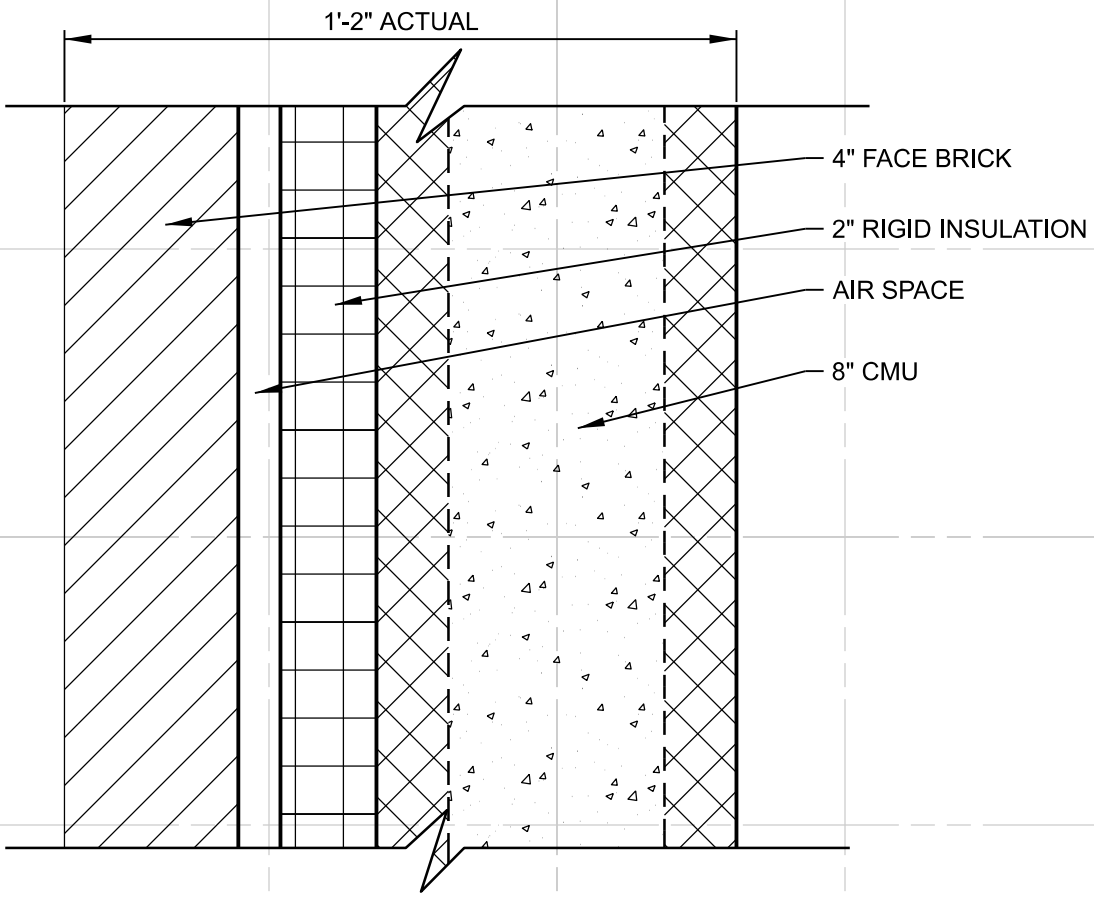
Detail C1010A-DT077X



A1

DETAIL: WALL TYPE

SCALE: 3"=1'-0" 0 3" 6" 1'



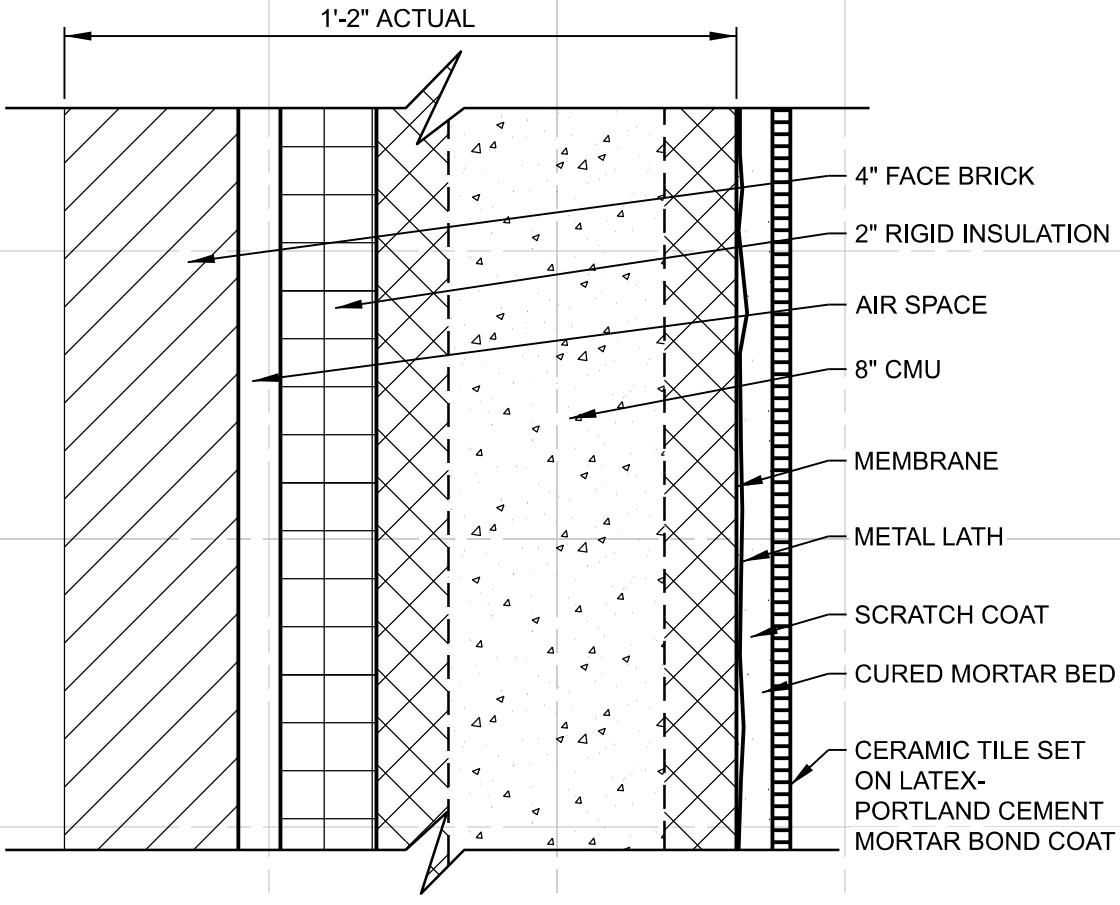
A1

DETAIL: WALL TYPE

SCALE: 3"=1'-0"

0 3" 6" 1'

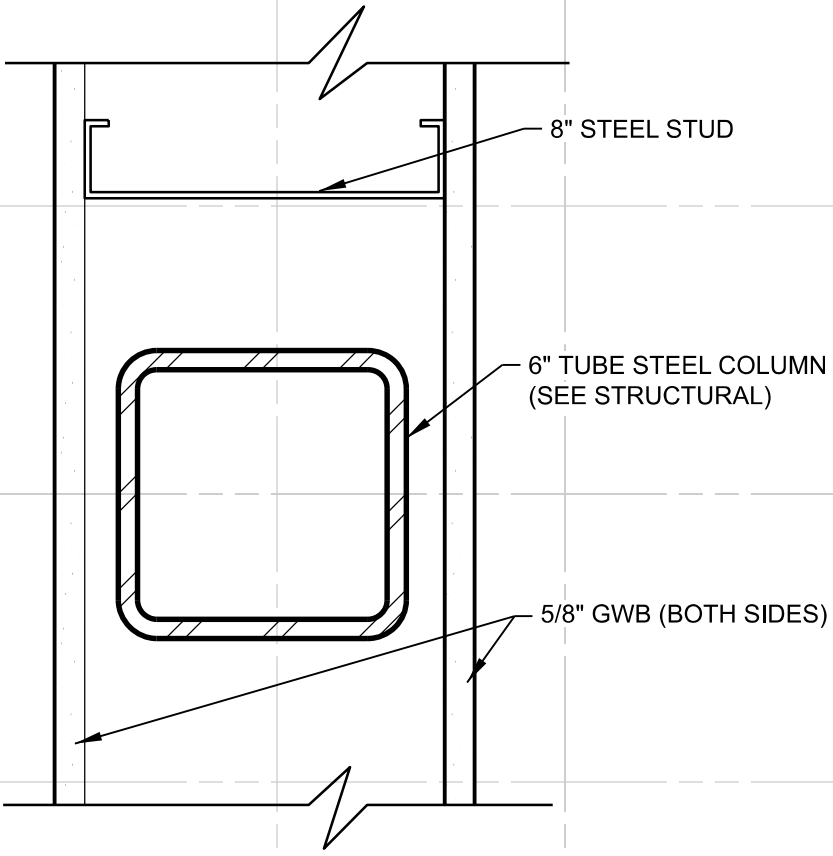
Detail C1010A-DT079X



A1

DETAIL: WALL TYPE

SCALE: 3"=1'-0" 0 3" 6" 1'



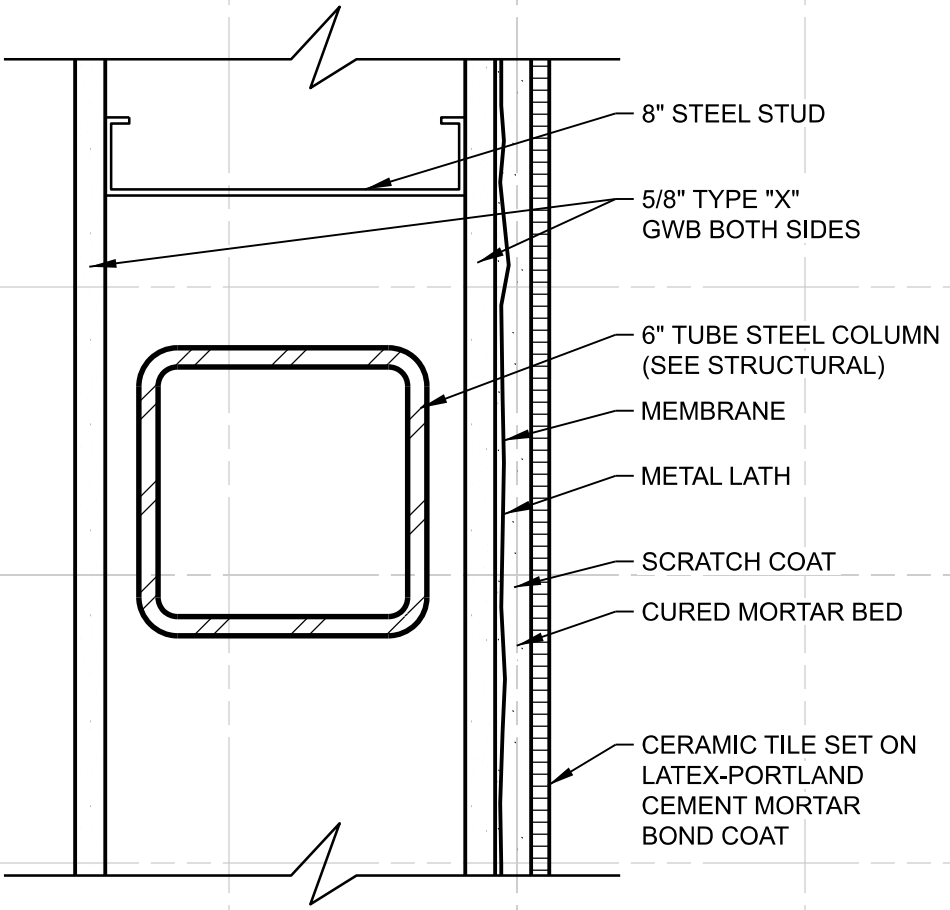
A1

DETAIL: WALL TYPE

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT081X



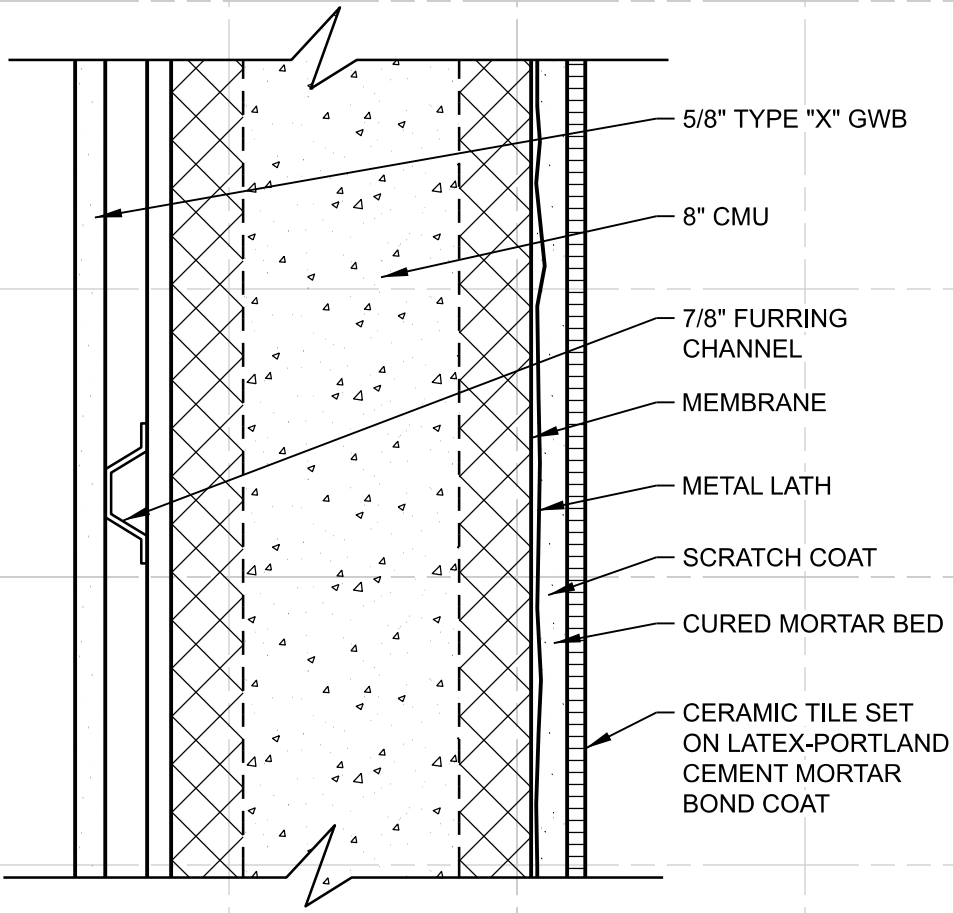
DETAIL: WALL TYPE
1 HOUR FIRE RATED

A1

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT082X

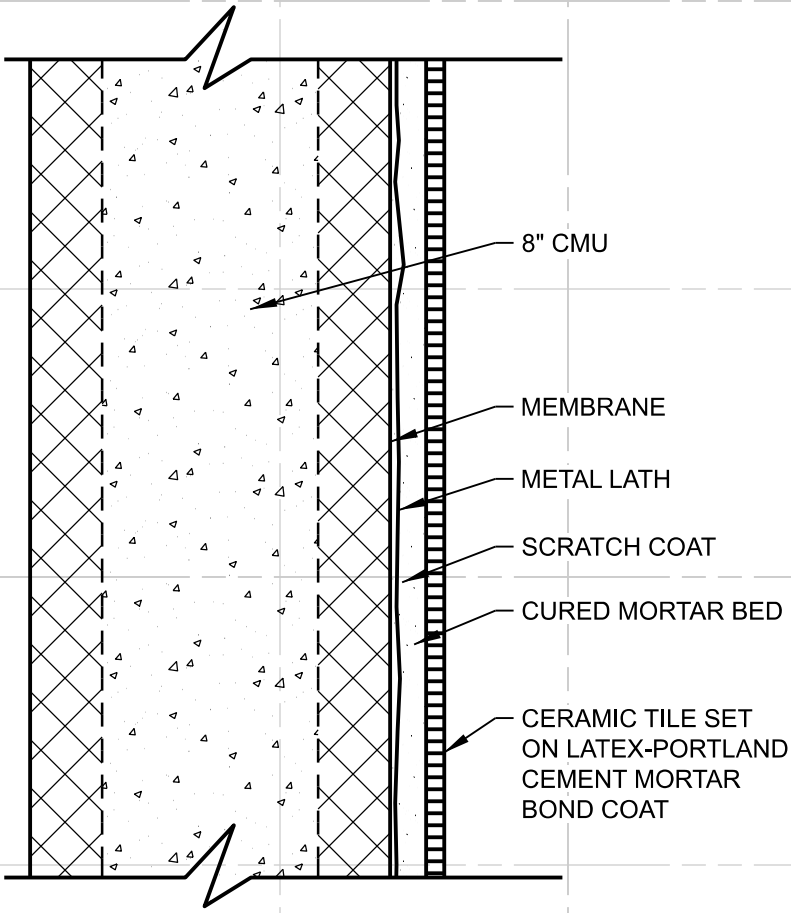


DETAIL: WALL TYPE 1 HOUR FIRE RATED

A1

SCALE: 3"=1'-0"

0 3" 6" 1'



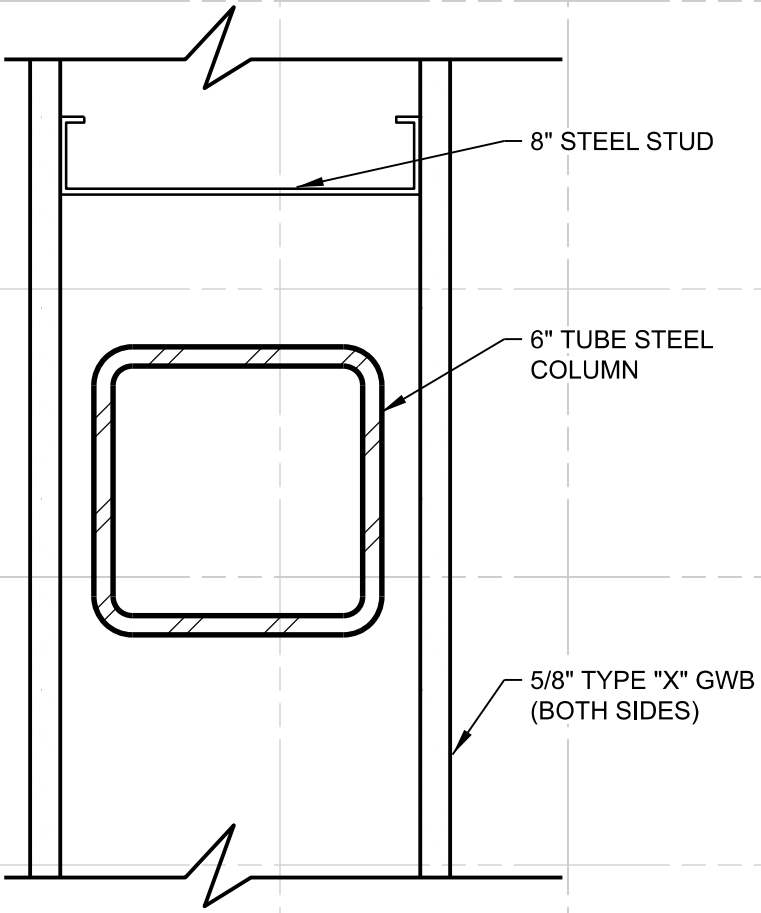
DETAIL: WALL TYPE
1 HOUR FIRE RATED

A1

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT084X



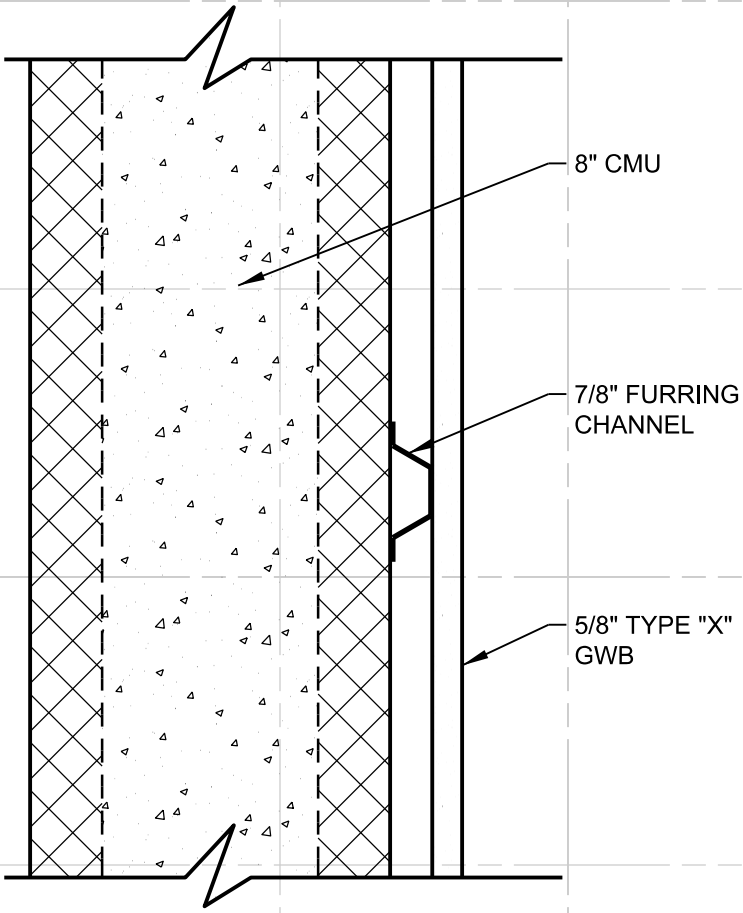
DETAIL: WALL TYPE
1 HOUR FIRE RATED

A1

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT086X



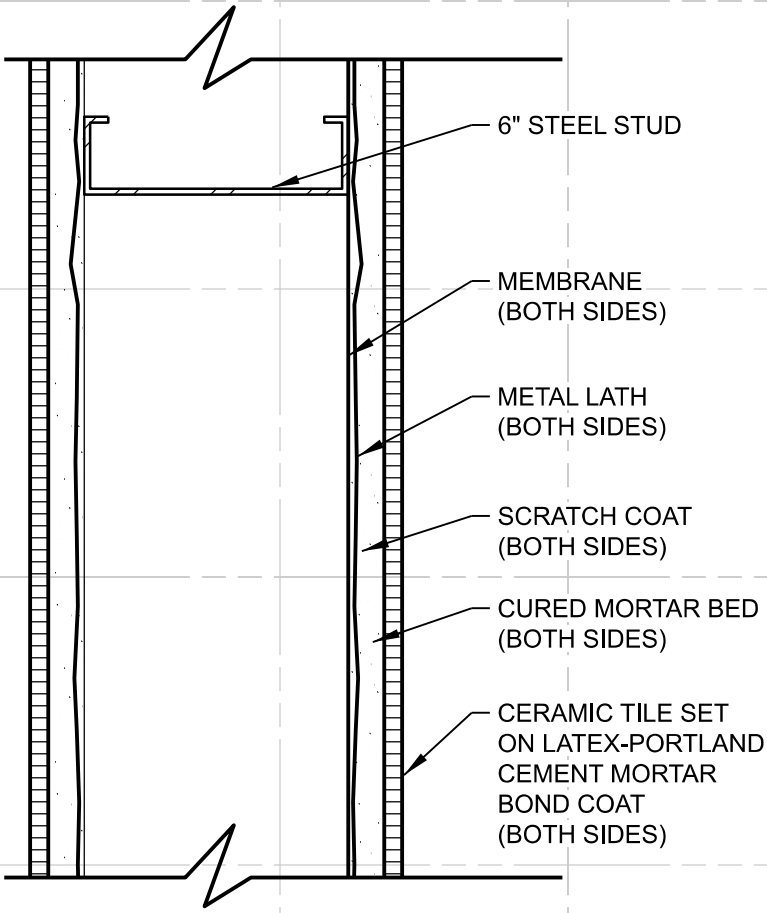
DETAIL: WALL TYPE 1 HOUR FIRE RATED

A1

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT087X



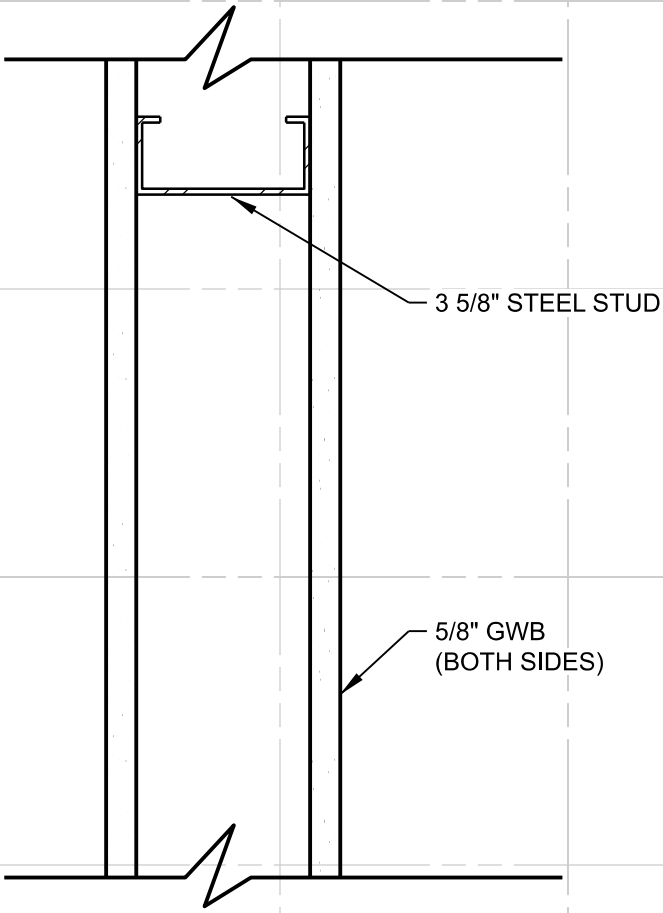
A1

DETAIL: WALL TYPE

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT088X



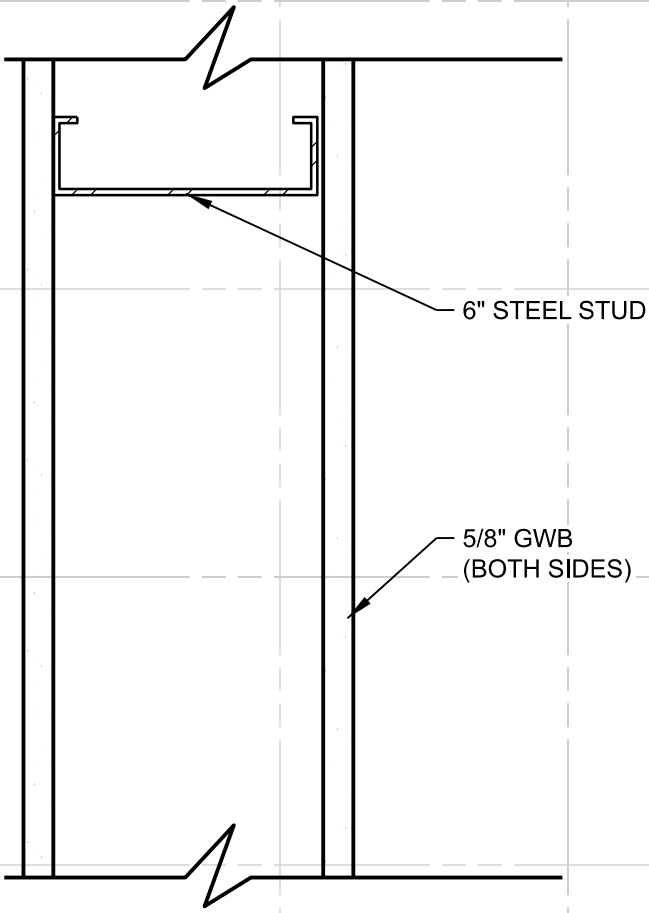
A1

DETAIL: WALL TYPE

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT089X

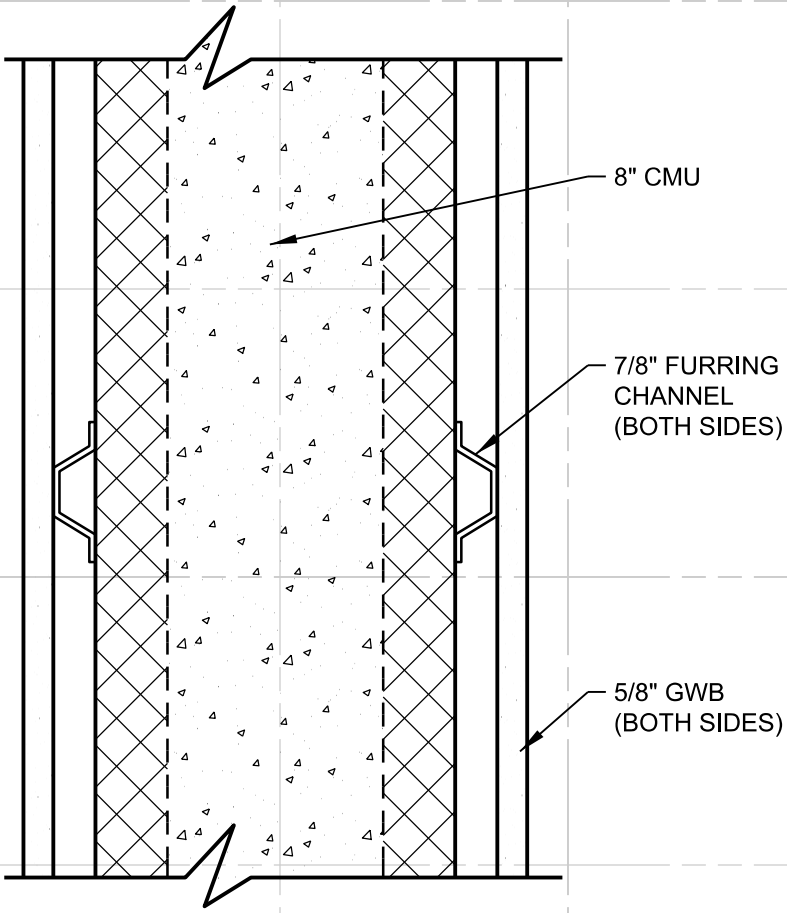


A1 DETAIL: WALL TYPE

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT090X



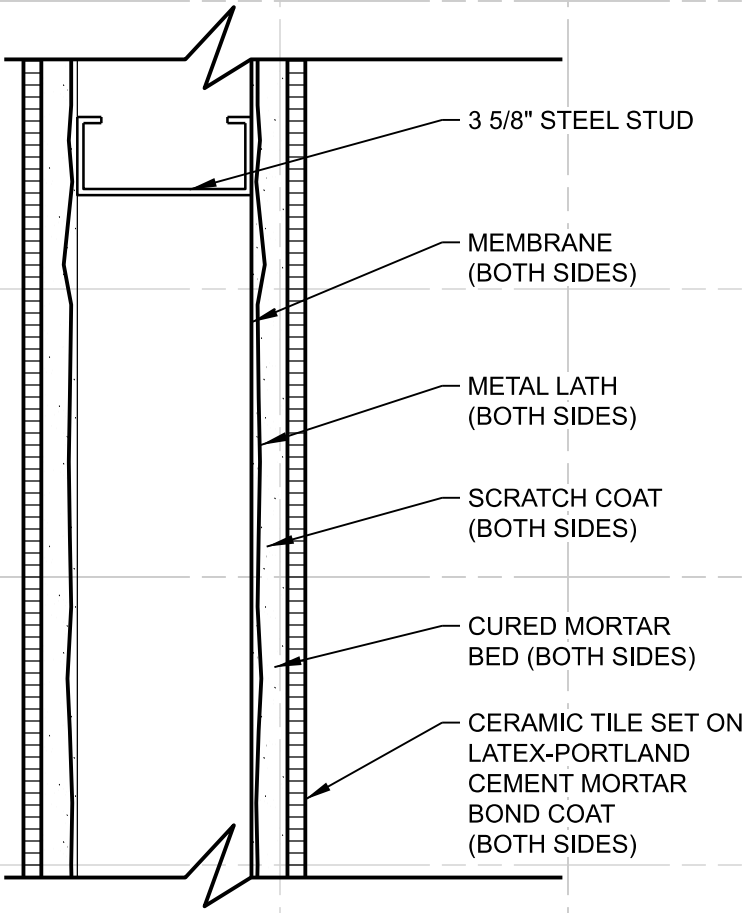
A1

DETAIL: WALL TYPE

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT091X



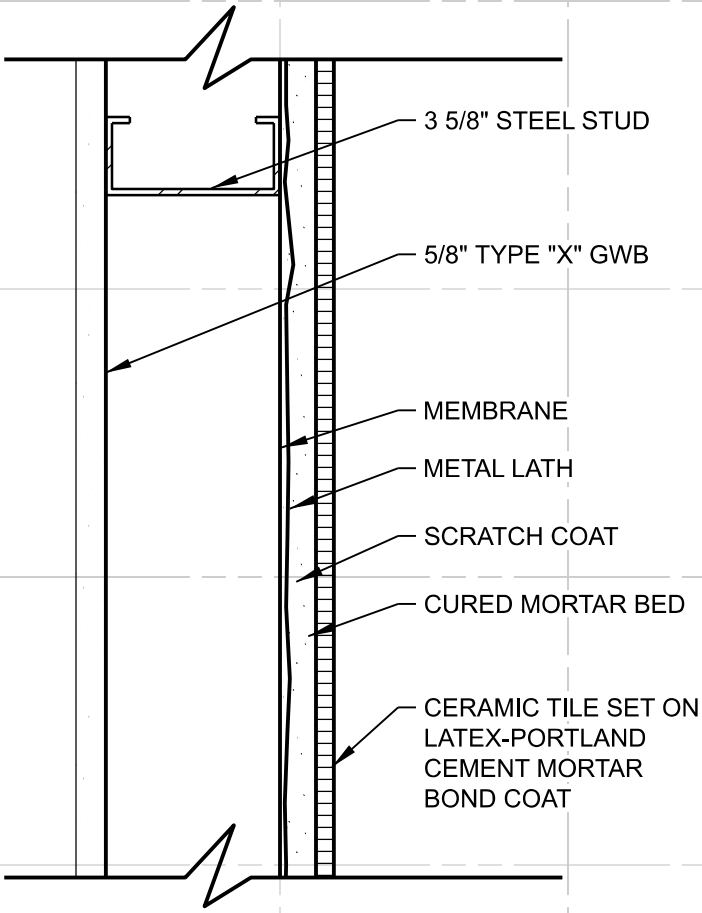
A1

DETAIL: WALL TYPE

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT092X



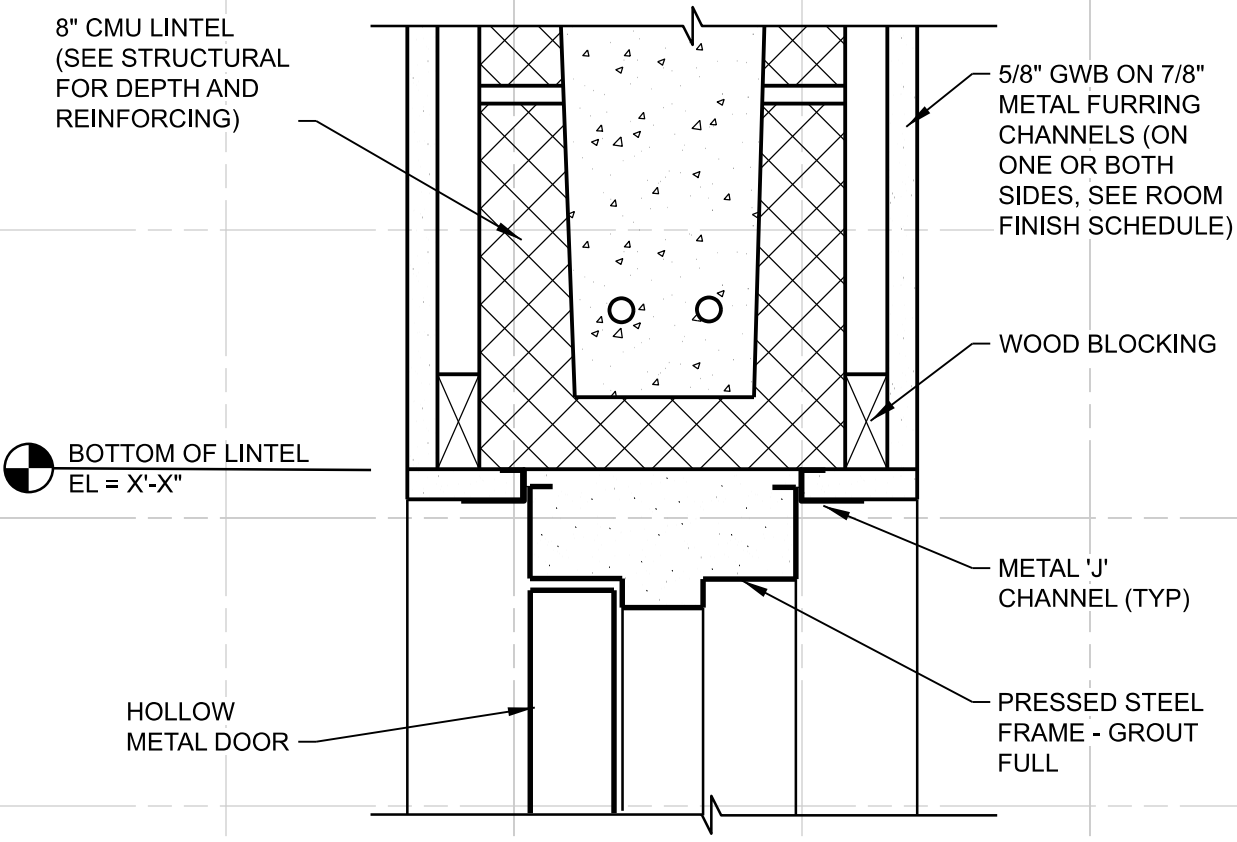
DETAIL: WALL TYPE
1 HOUR FIRE RATED

A1

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1010A-DT093X



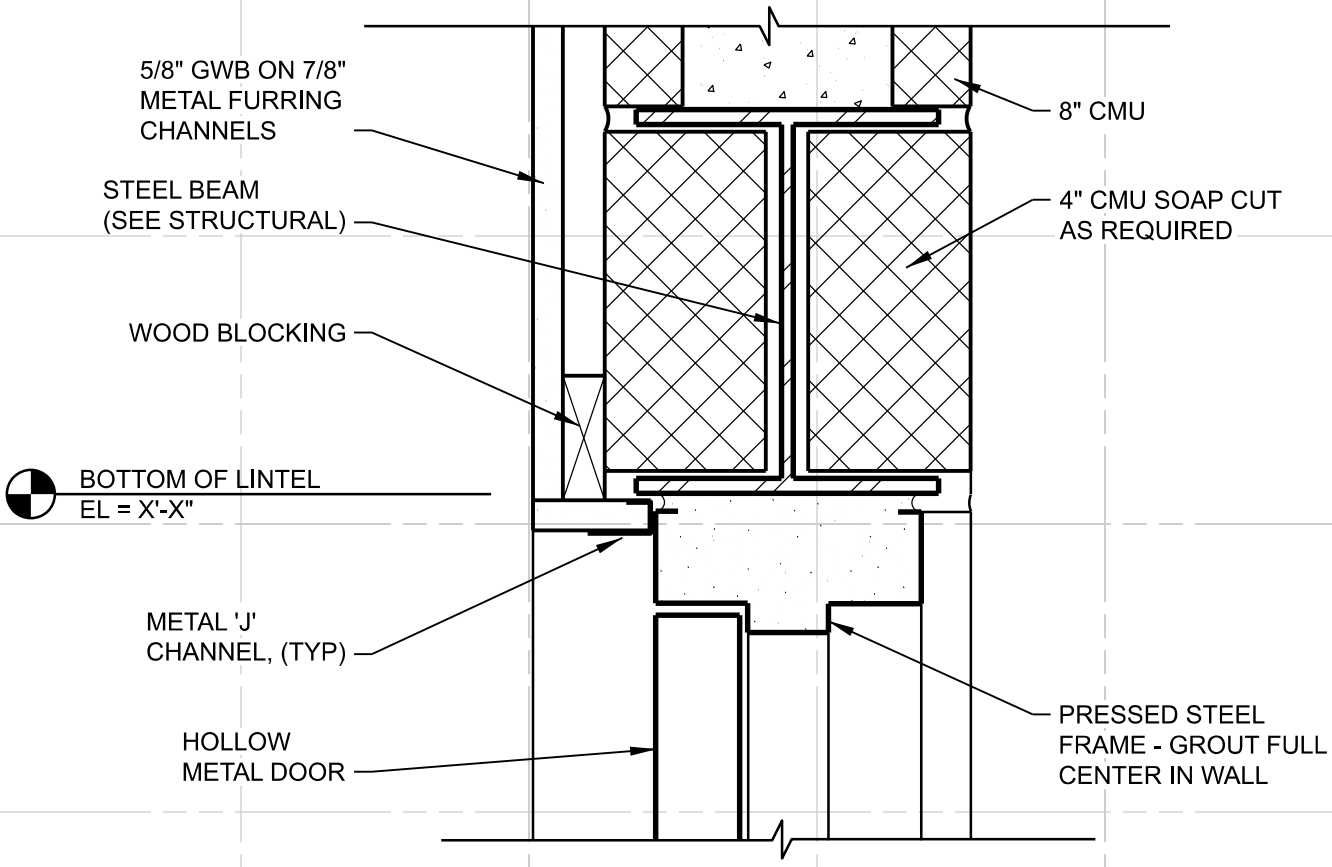
A1

DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1020A-DT001X



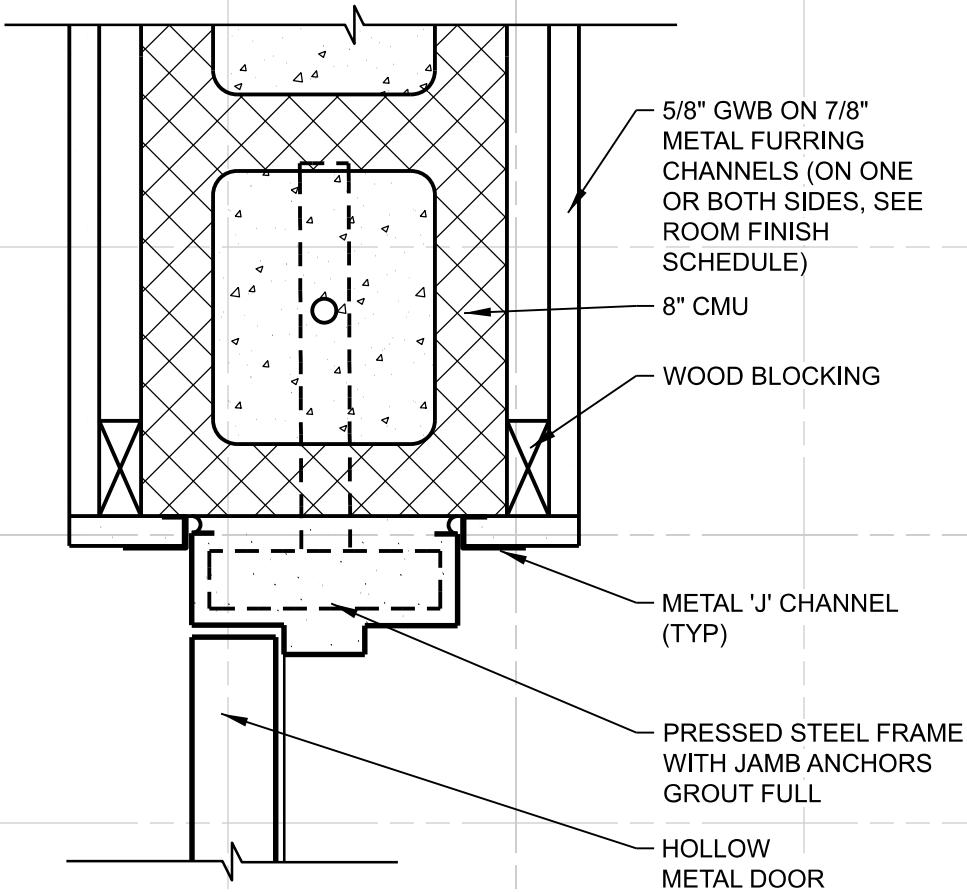
A1

DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1020A-DT002X



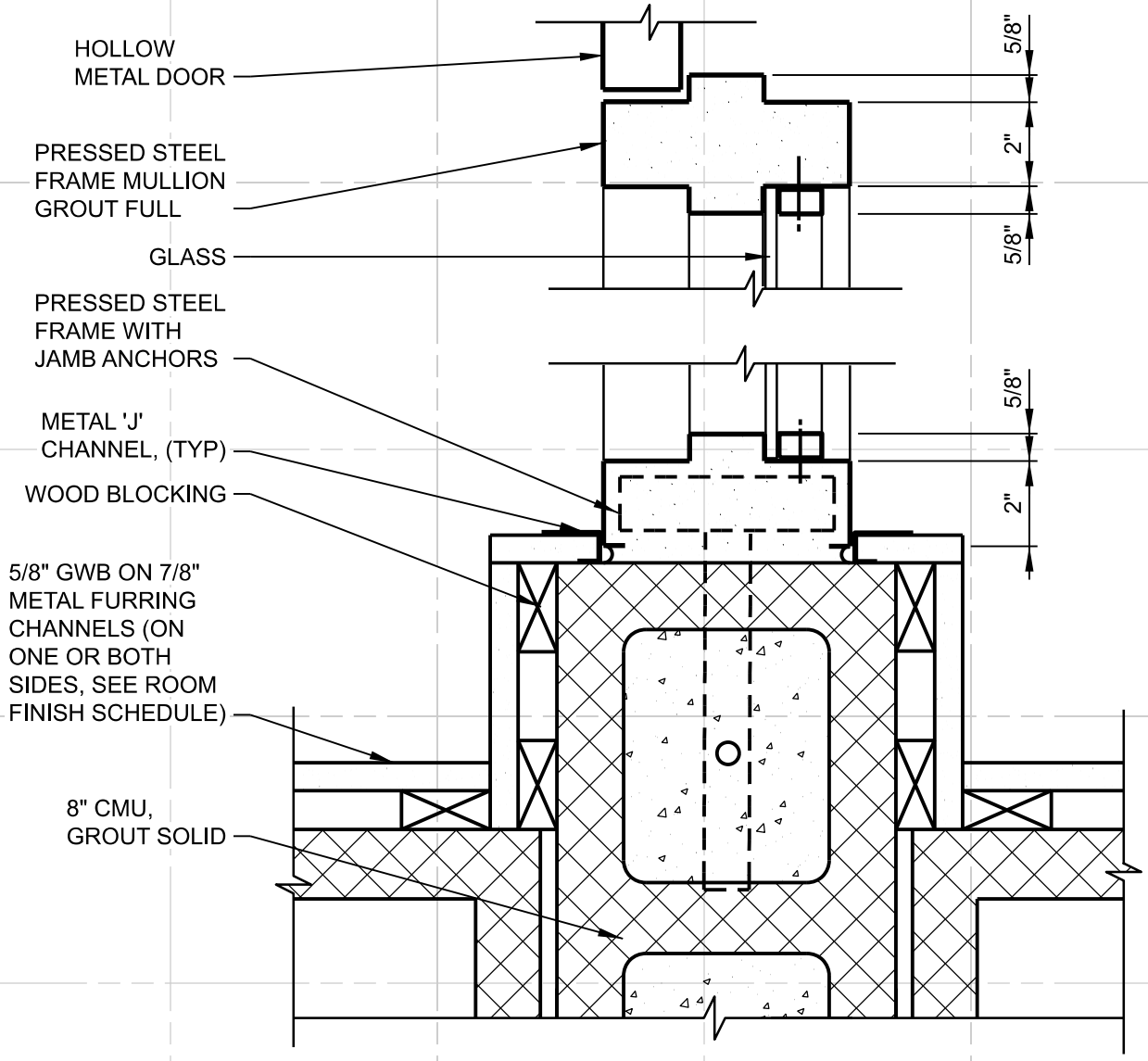
A1

DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1020A-DT003X



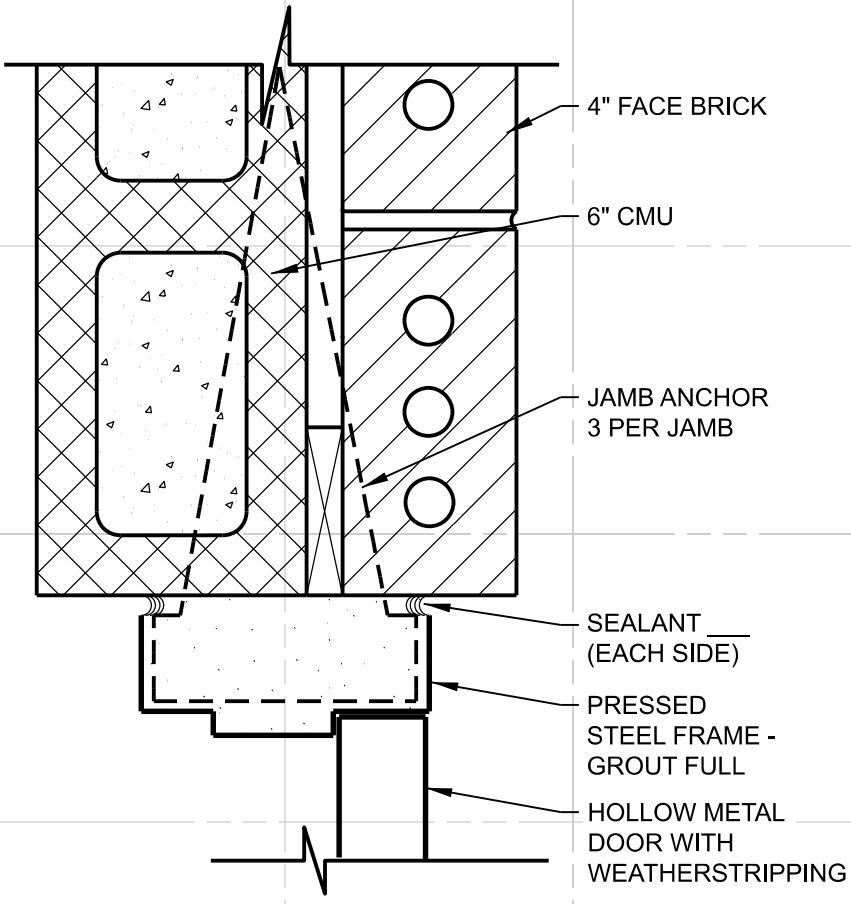
A1

DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1020A-DT004X

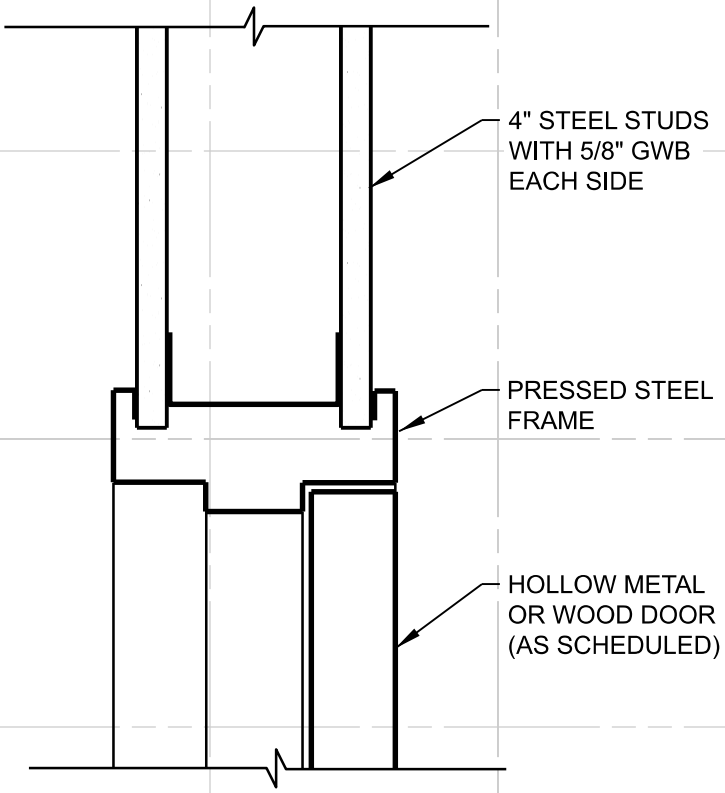


A1 DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1020A-DT005X



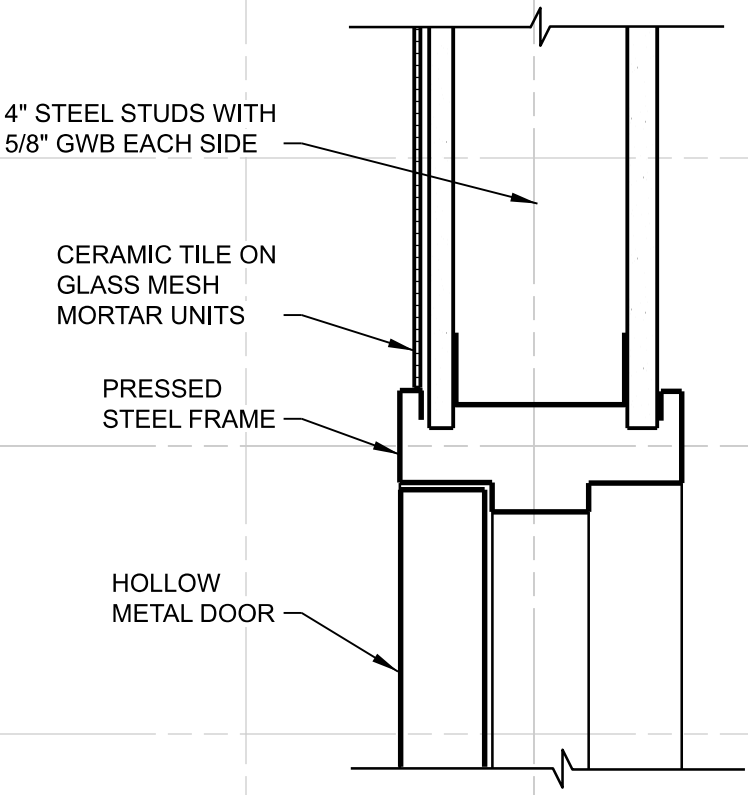
A1

DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1020A-DT006X



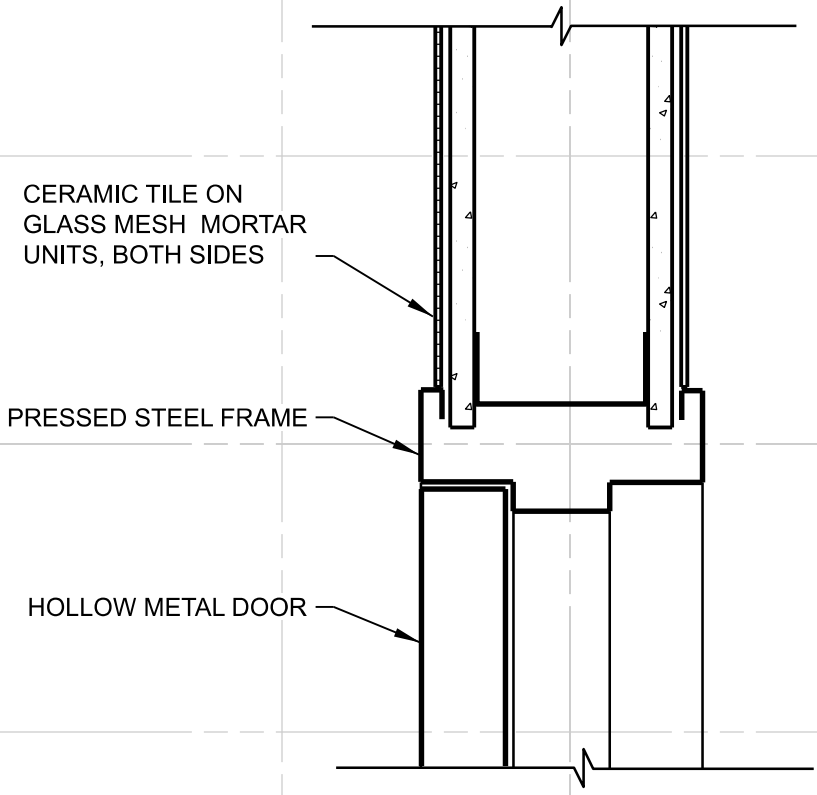
A1

DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1020A-DT007X



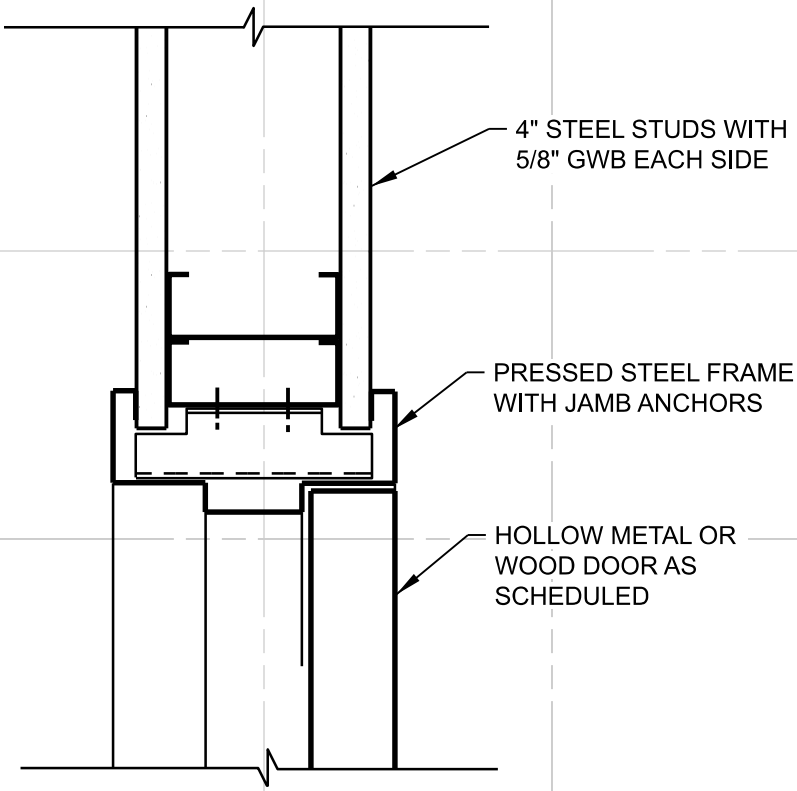
A1

DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1020A-DT008X



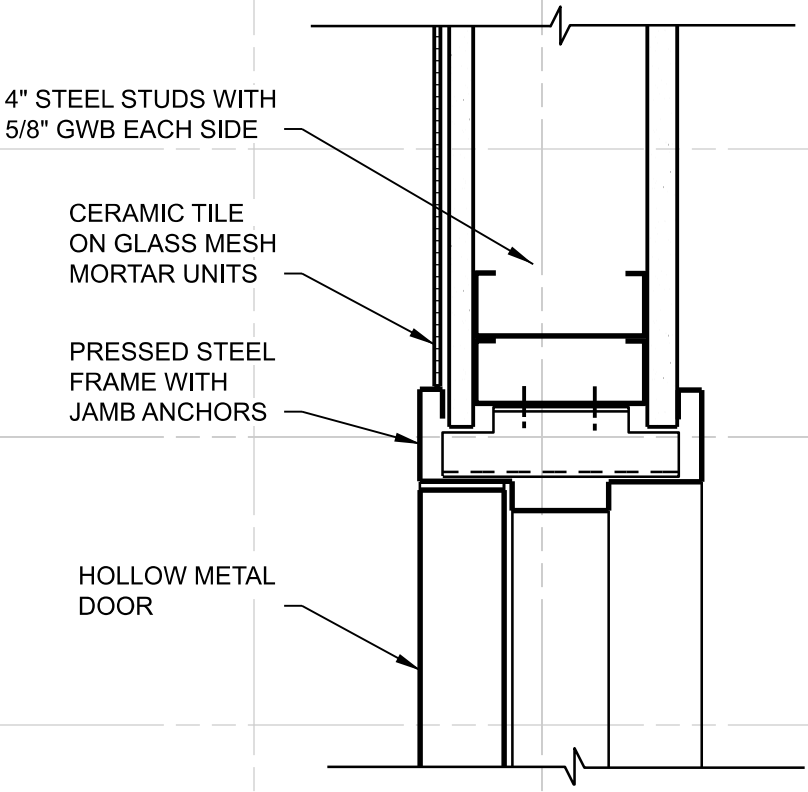
A1

DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1020A-DT009X



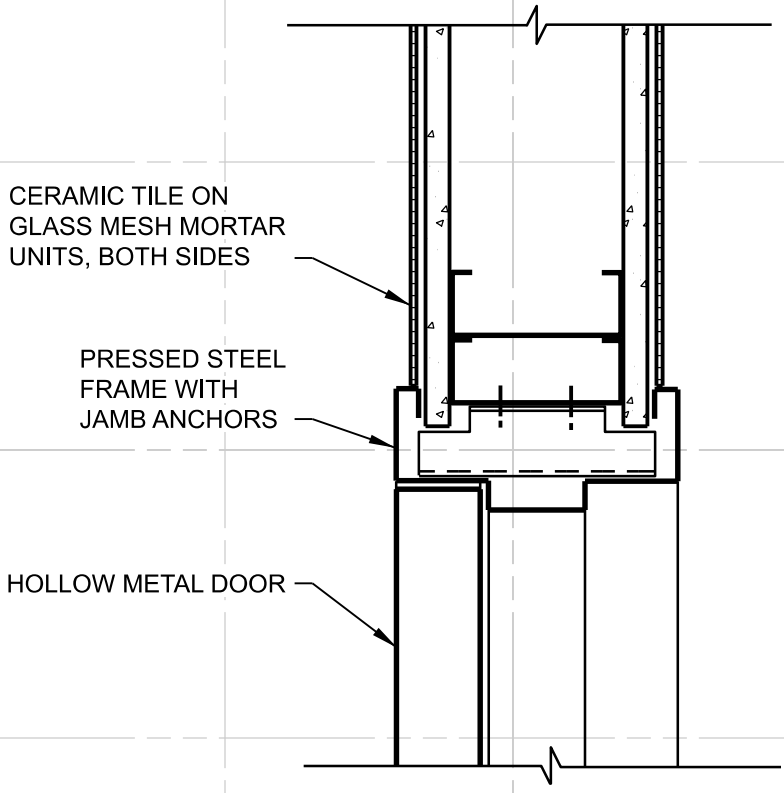
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DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1020A-DT010X



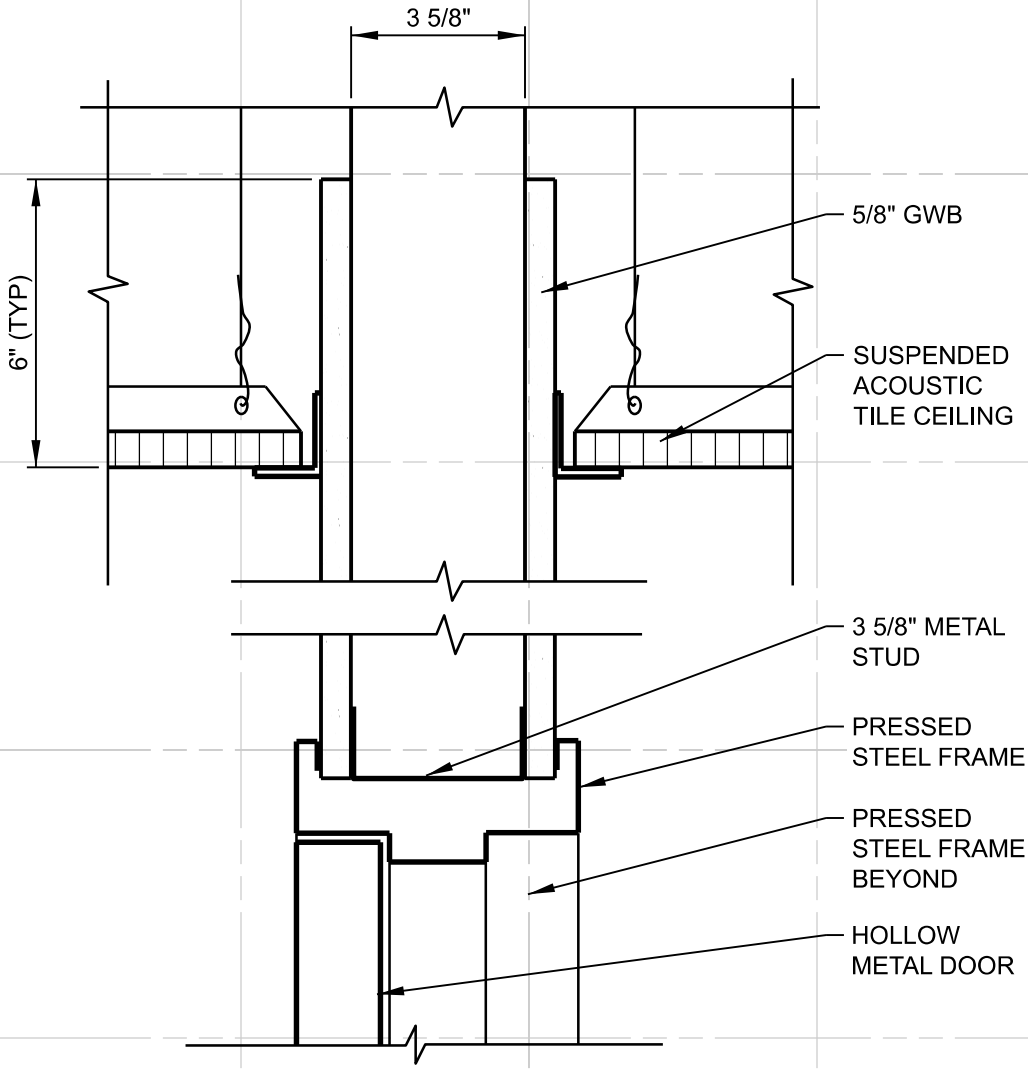
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DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1020A-DT011X

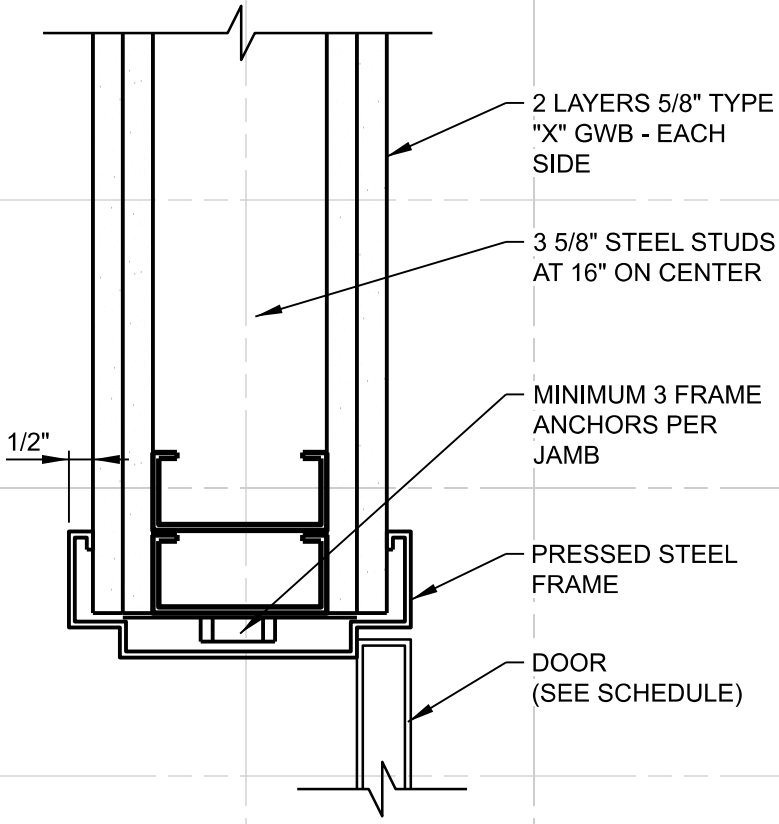


A1

DETAIL: HEAD

SCALE: 3"=1'-0" 0 3" 6" 1'

Detail C1020A-DT012X



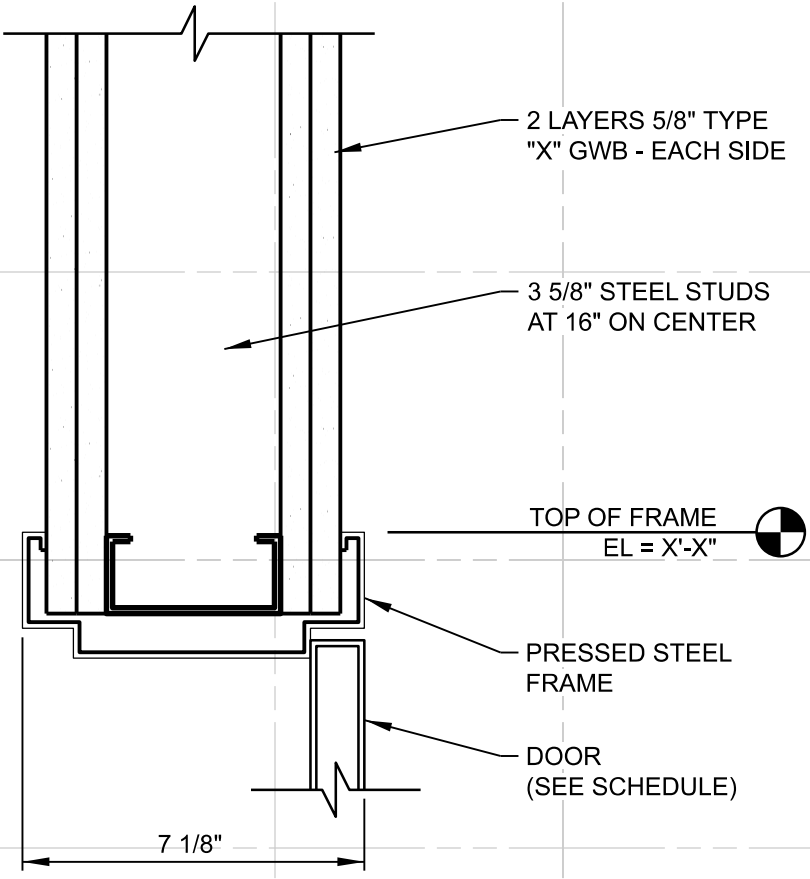
A1

DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1020A-DT013X

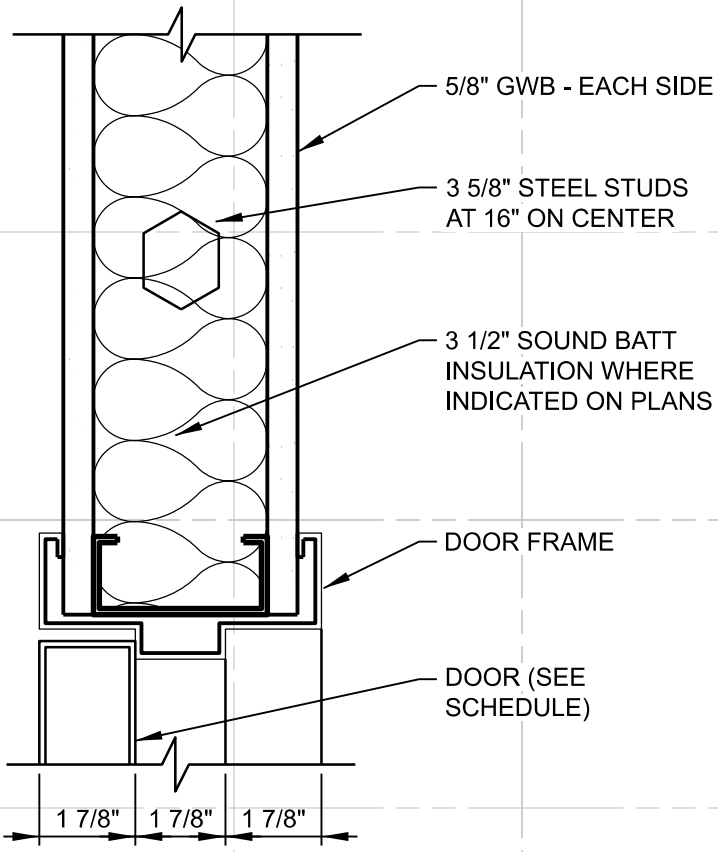


A1 DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1020A-DT014X



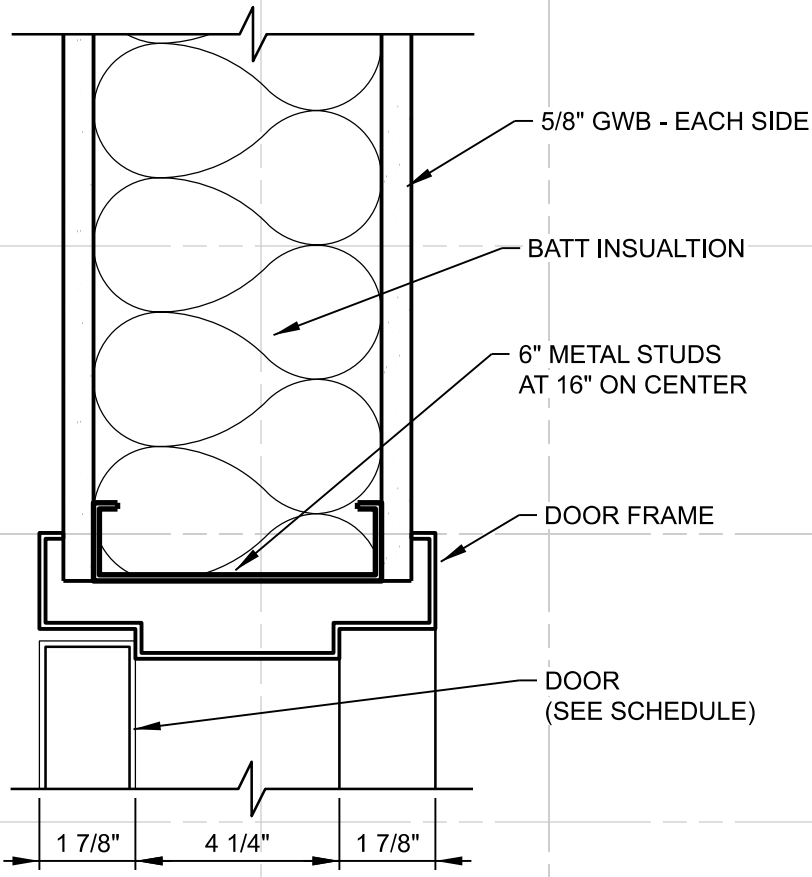
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DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1020A-DT016X



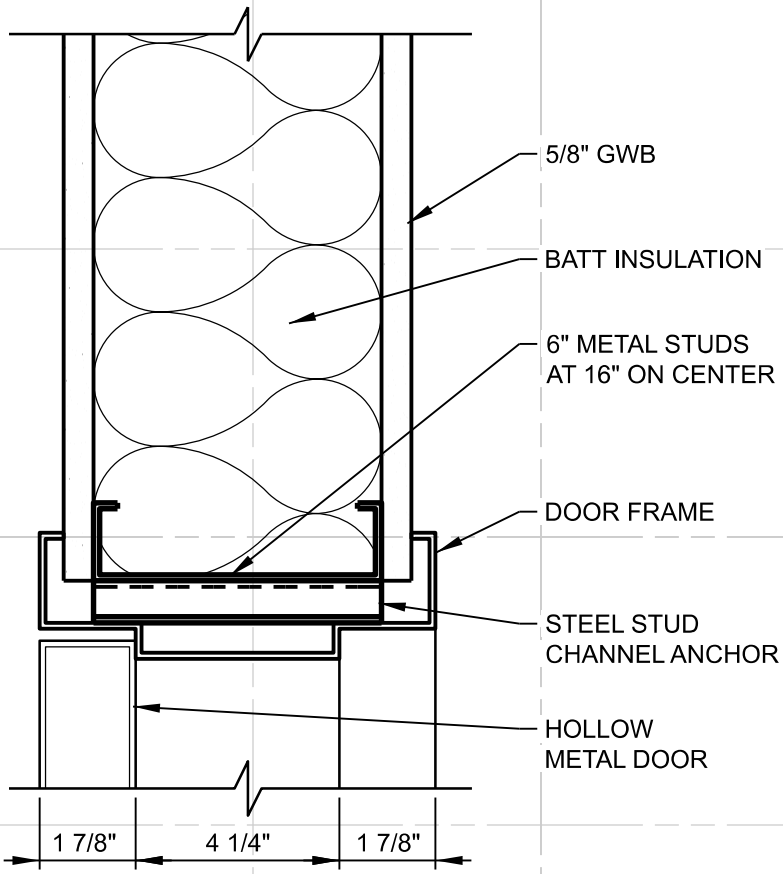
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DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1020A-DT017X



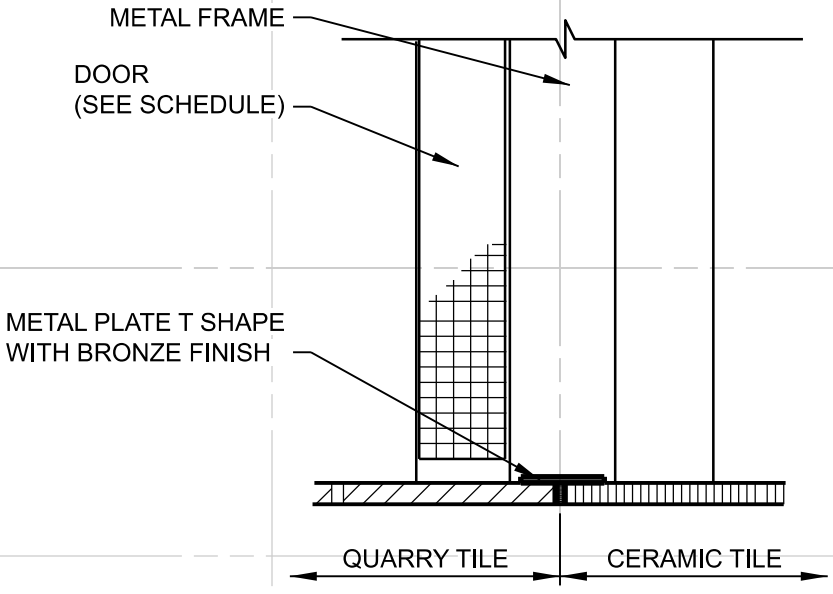
A1

DETAIL: JAMB

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1020A-DT018X



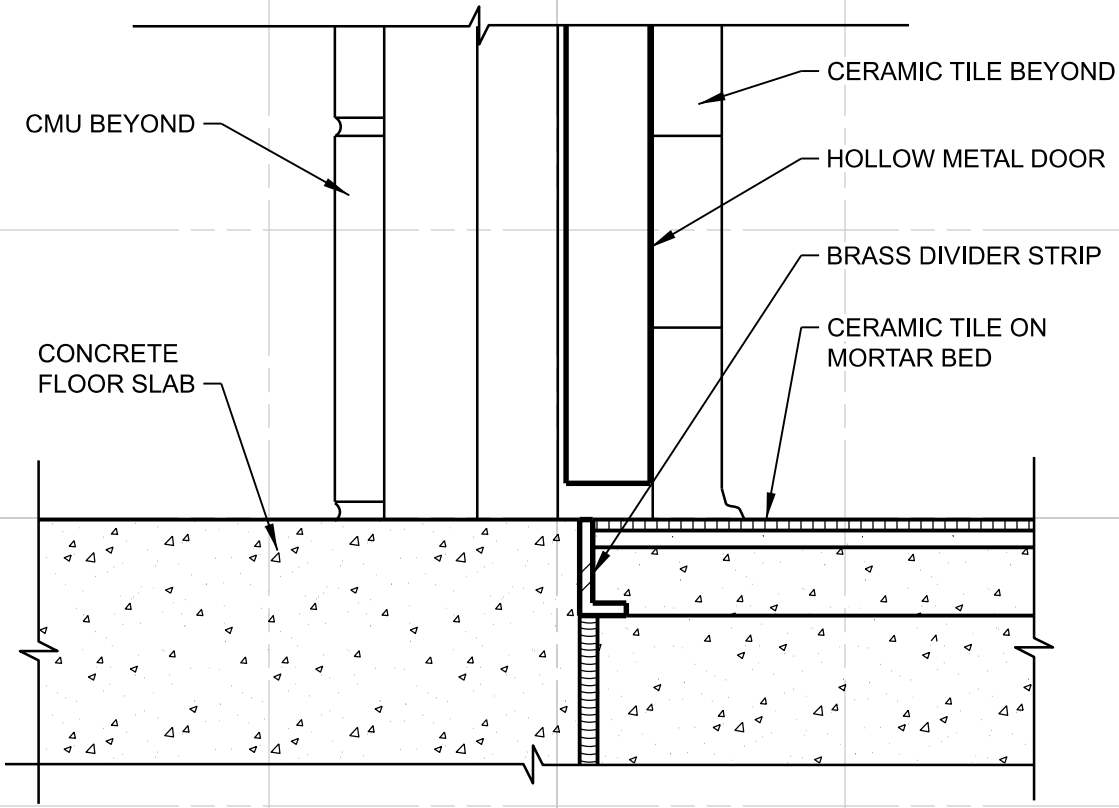
A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1020A-DT019X

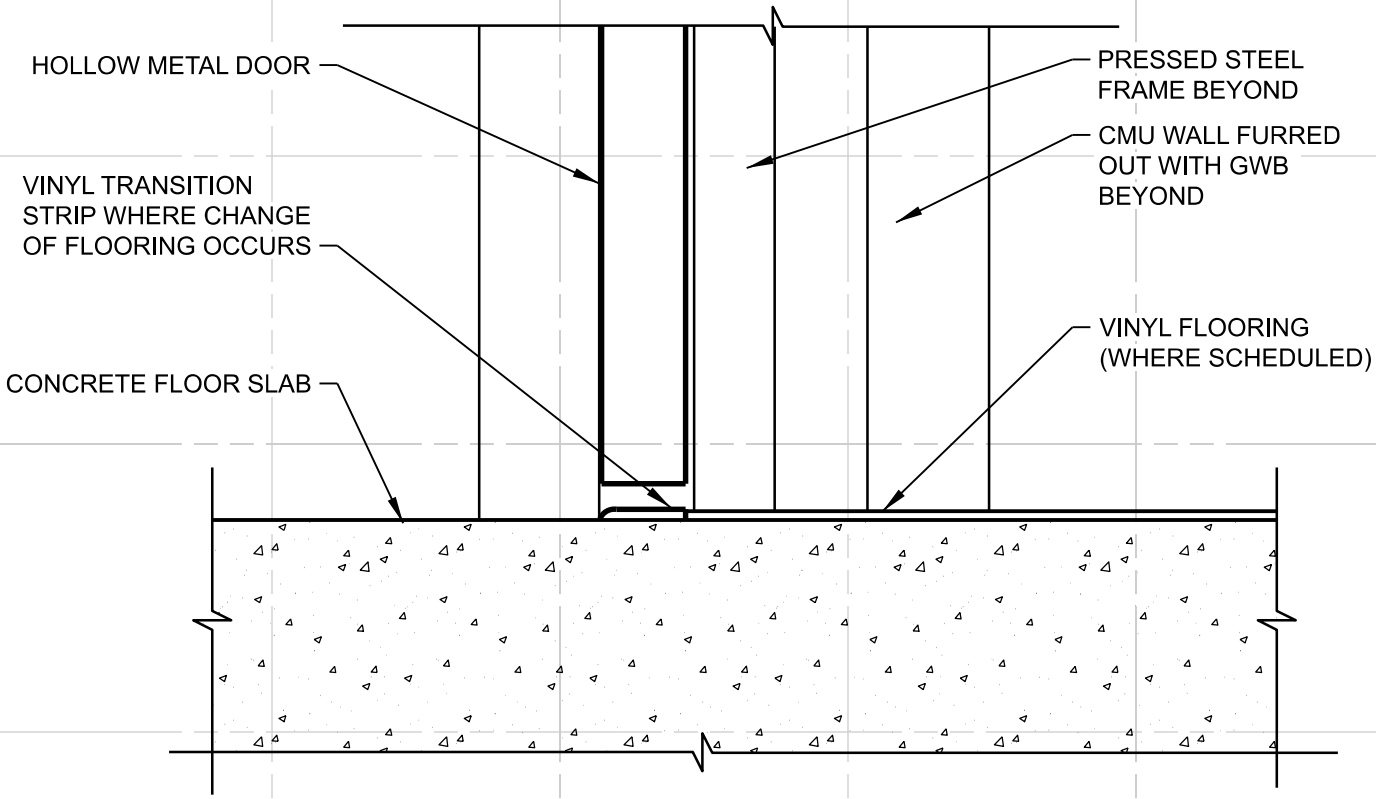


A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

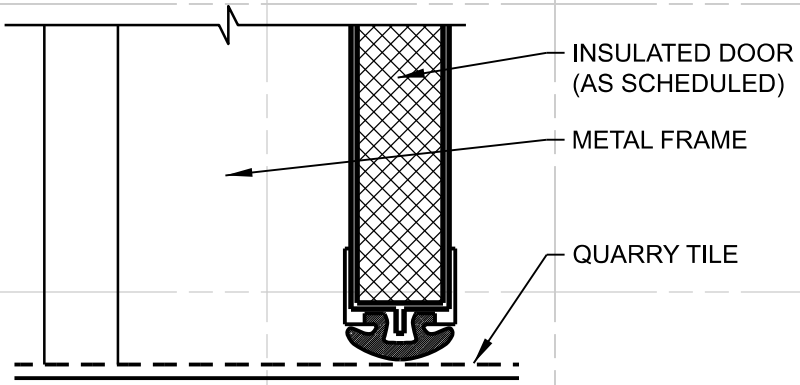


A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

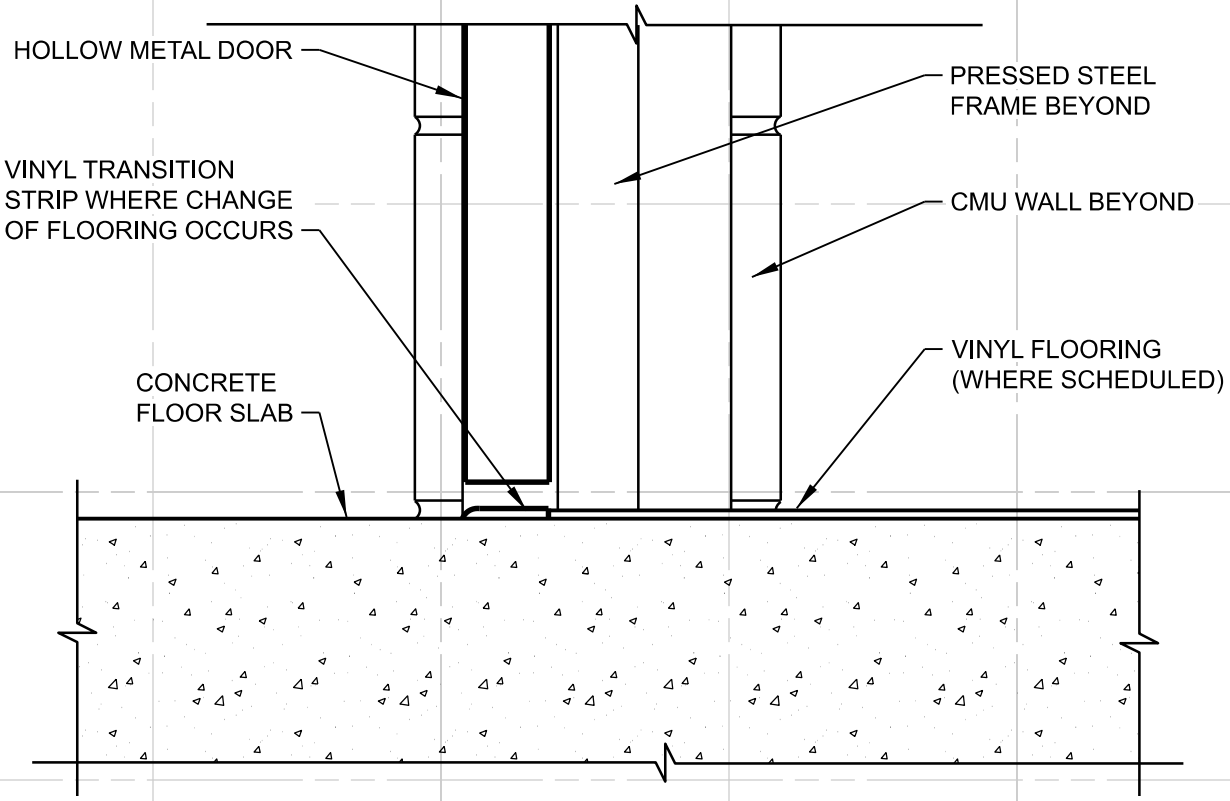


A1 DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1020A-DT023X



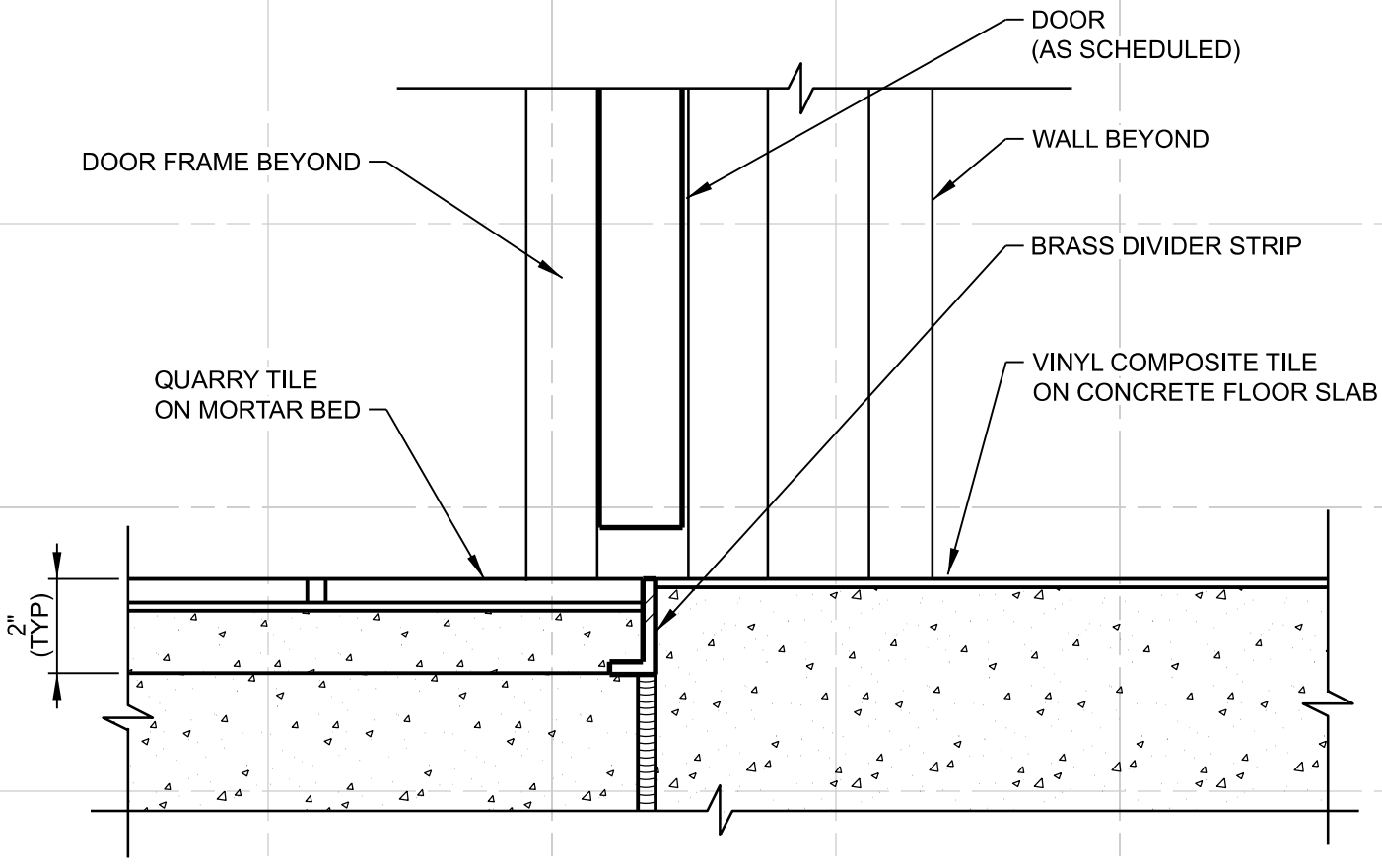
A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1020A-DT024X



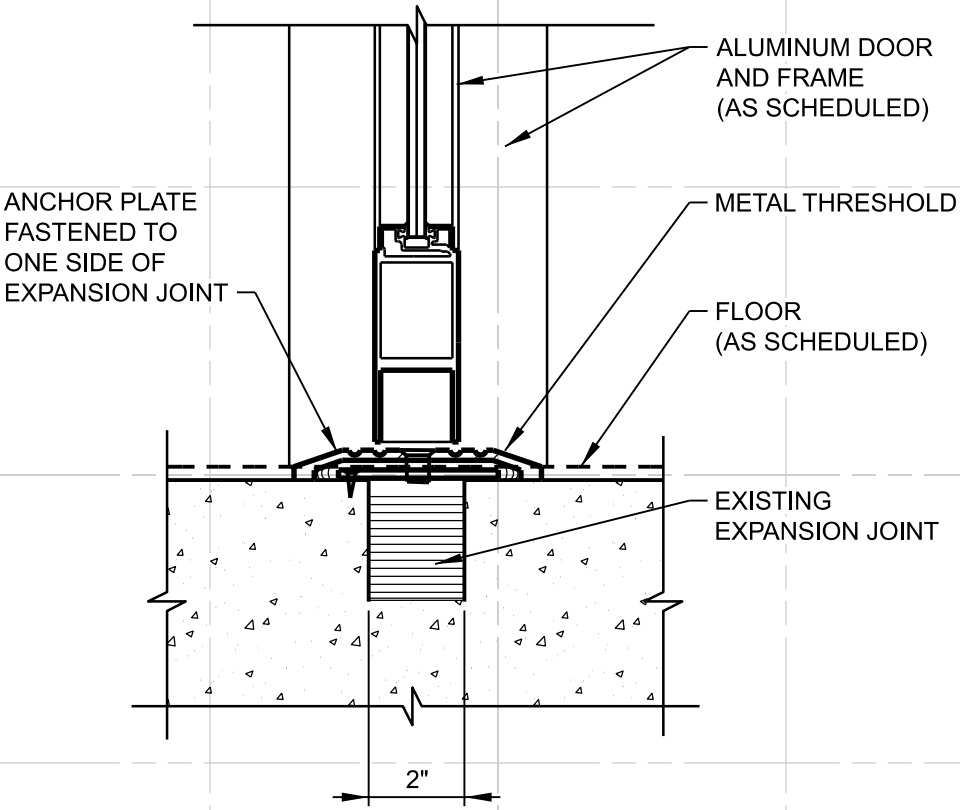
A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

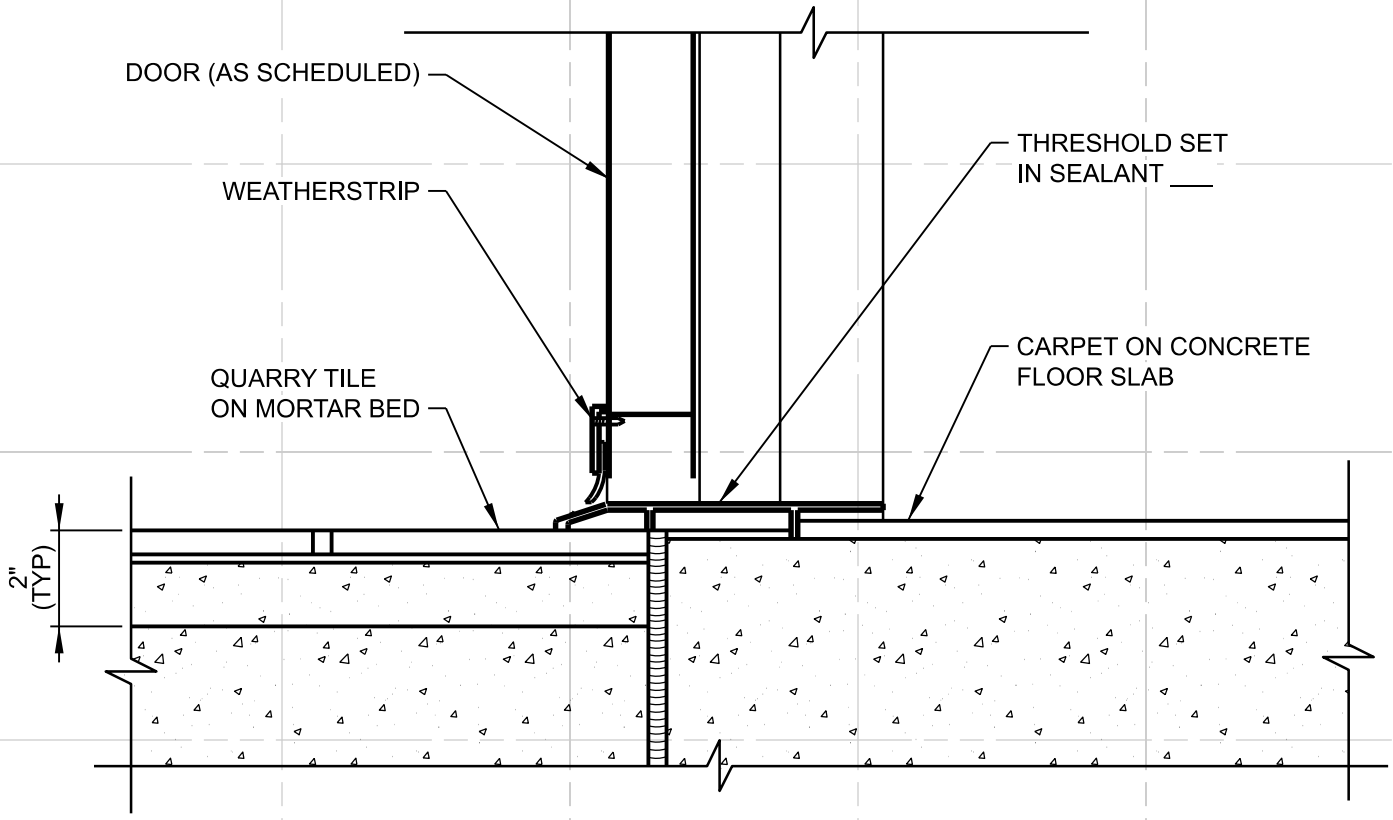
Detail C1020A-DT025X



A1 DETAIL: SILL

SCALE: 3"=1'-0" 0 3" 6" 1'

Detail C1020A-DT027X



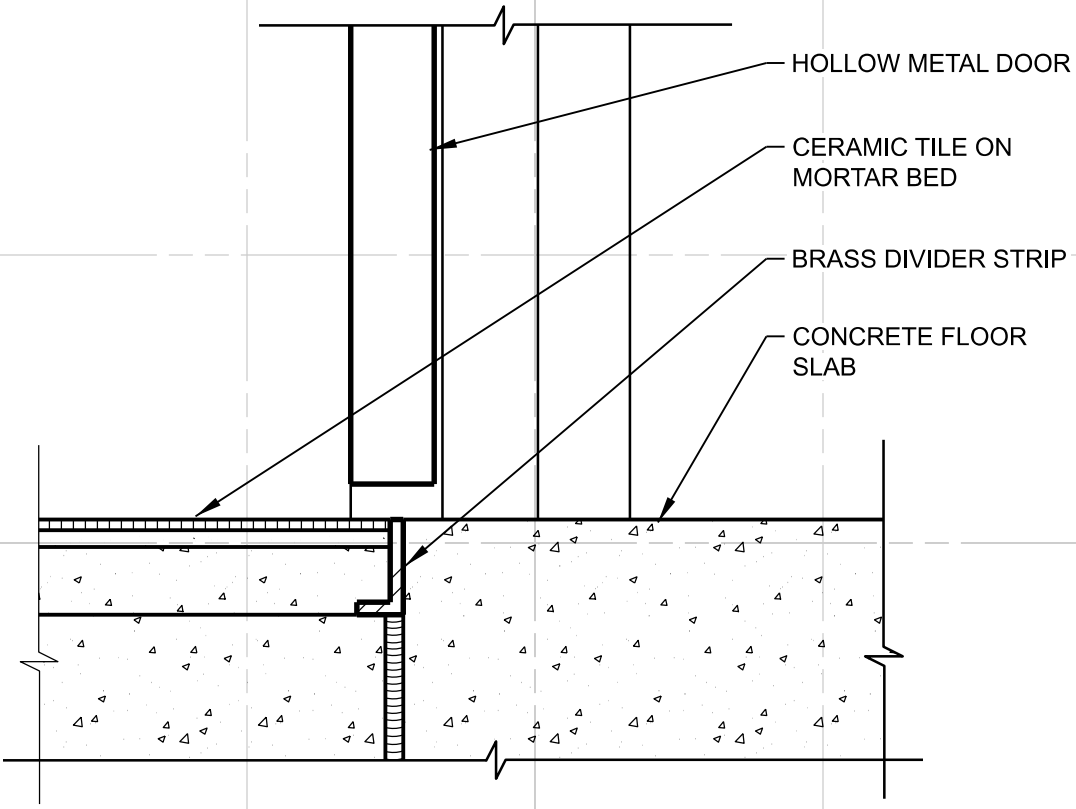
A1

DETAIL: SILL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1020A-DT029X

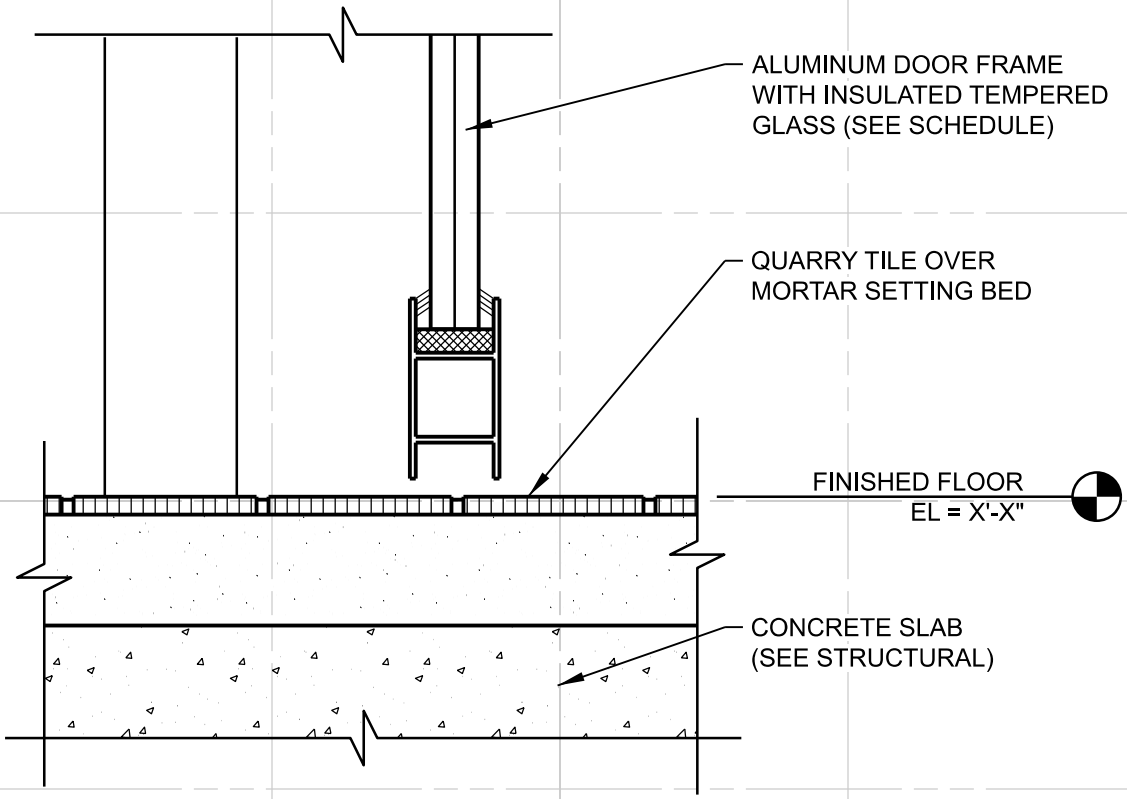


A1

DETAIL: SILL

SCALE: 3"=1'-0"

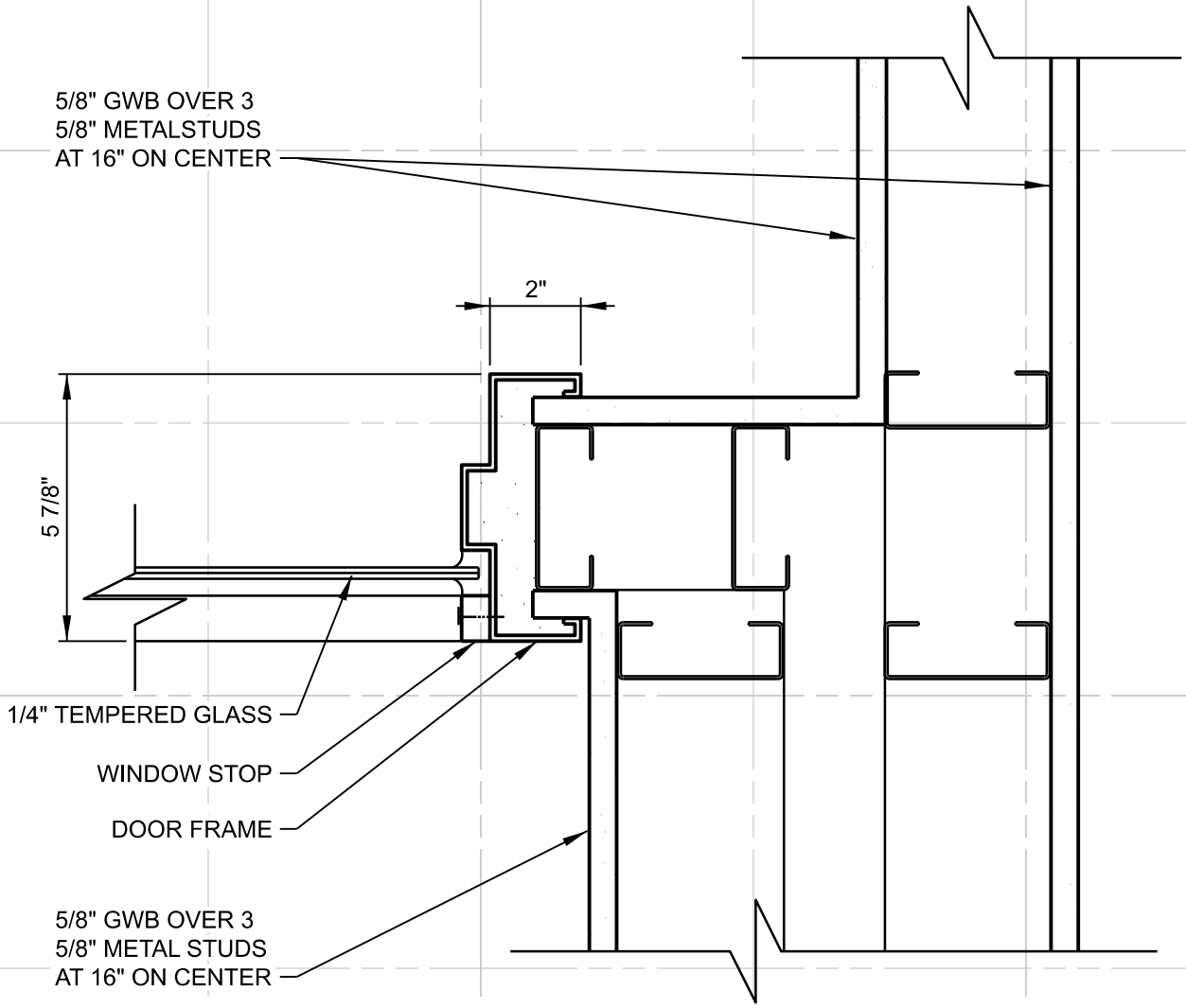
0 3" 6" 1'



A1 DETAIL: SILL

SCALE: 3"=1'-0" 0 3" 6" 1'

Detail C1020A-DT034X



A1

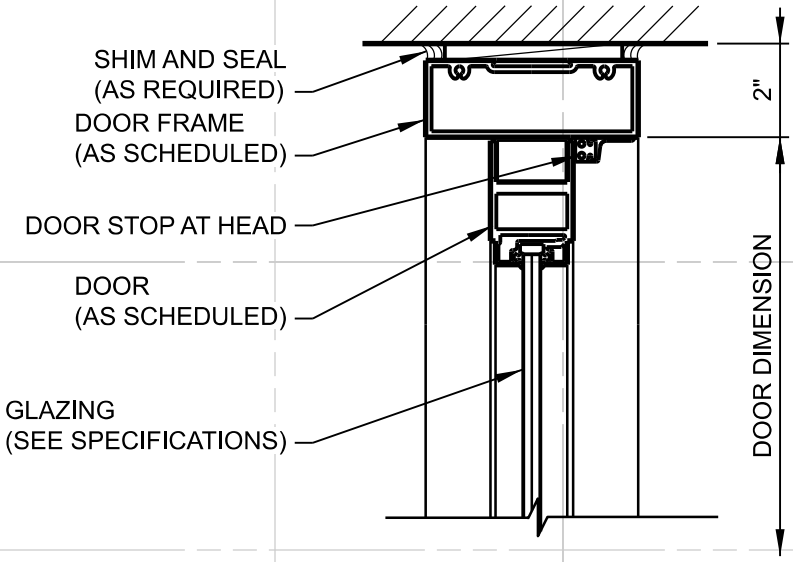
DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1020A-DT036X

Details-US-Architectural-C102-InteriorDoors



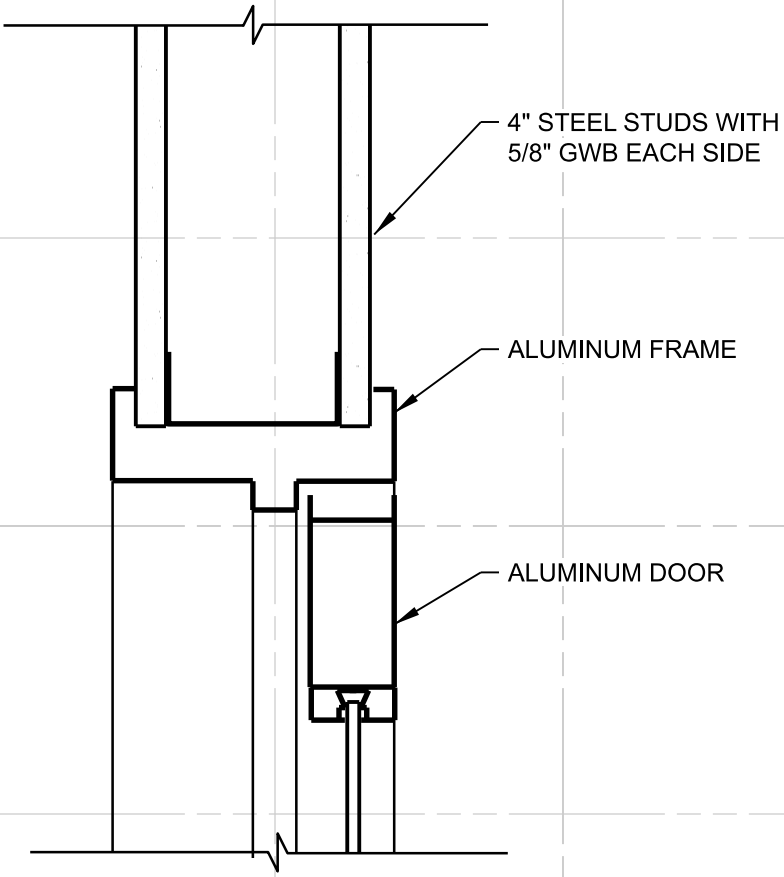
A1

DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1020A-DT038X



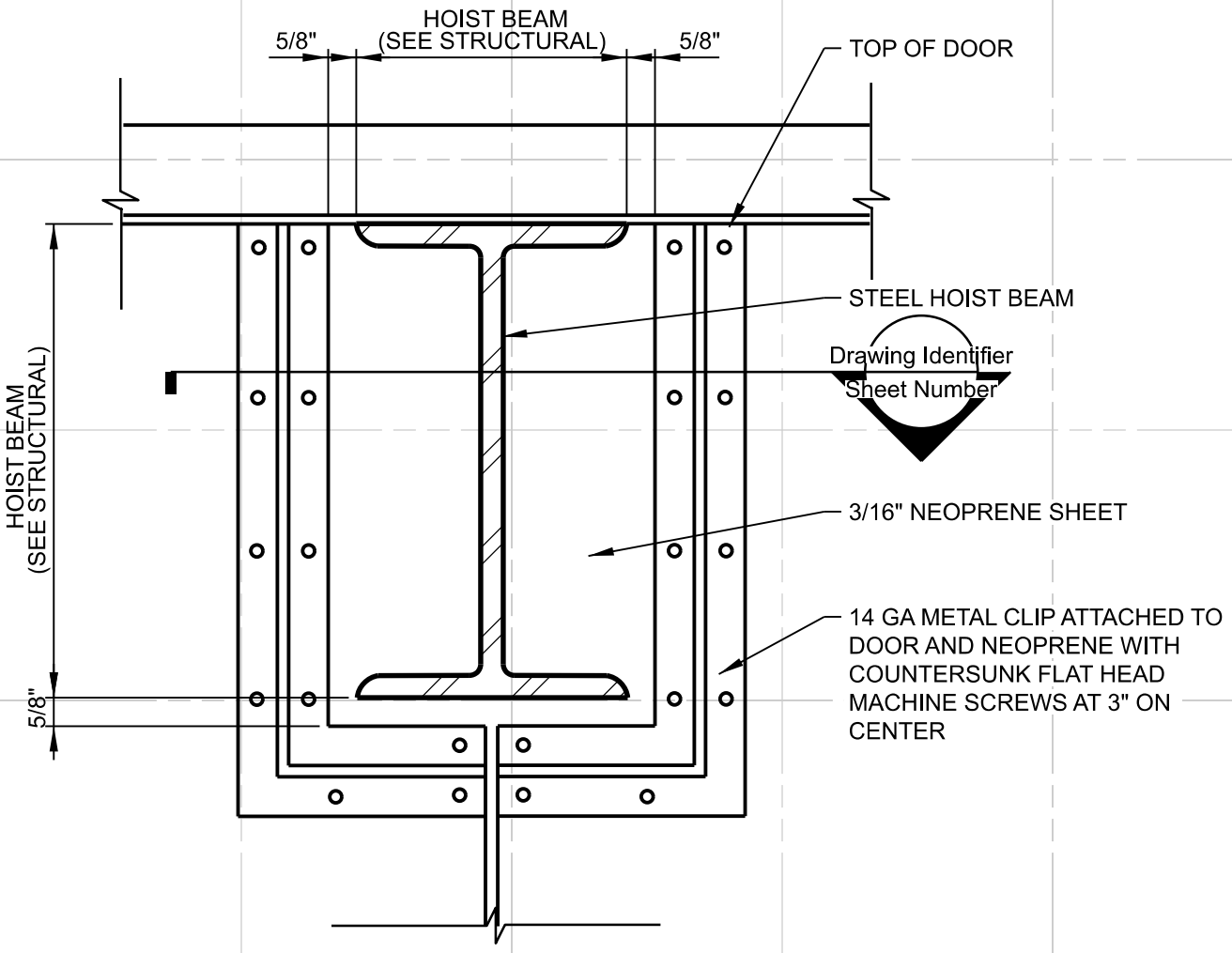
A1

DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1020A-DT039X

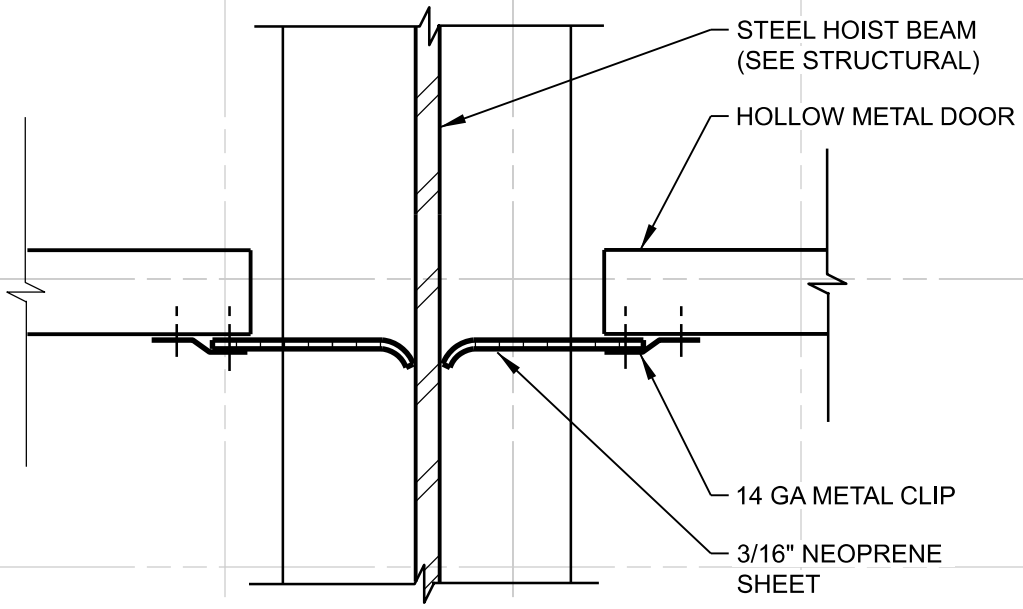


A1

DETAIL: DOOR ELEVATION AT HOIST BEAM

SCALE: 3"=1'-0"

0 3" 6" 1'

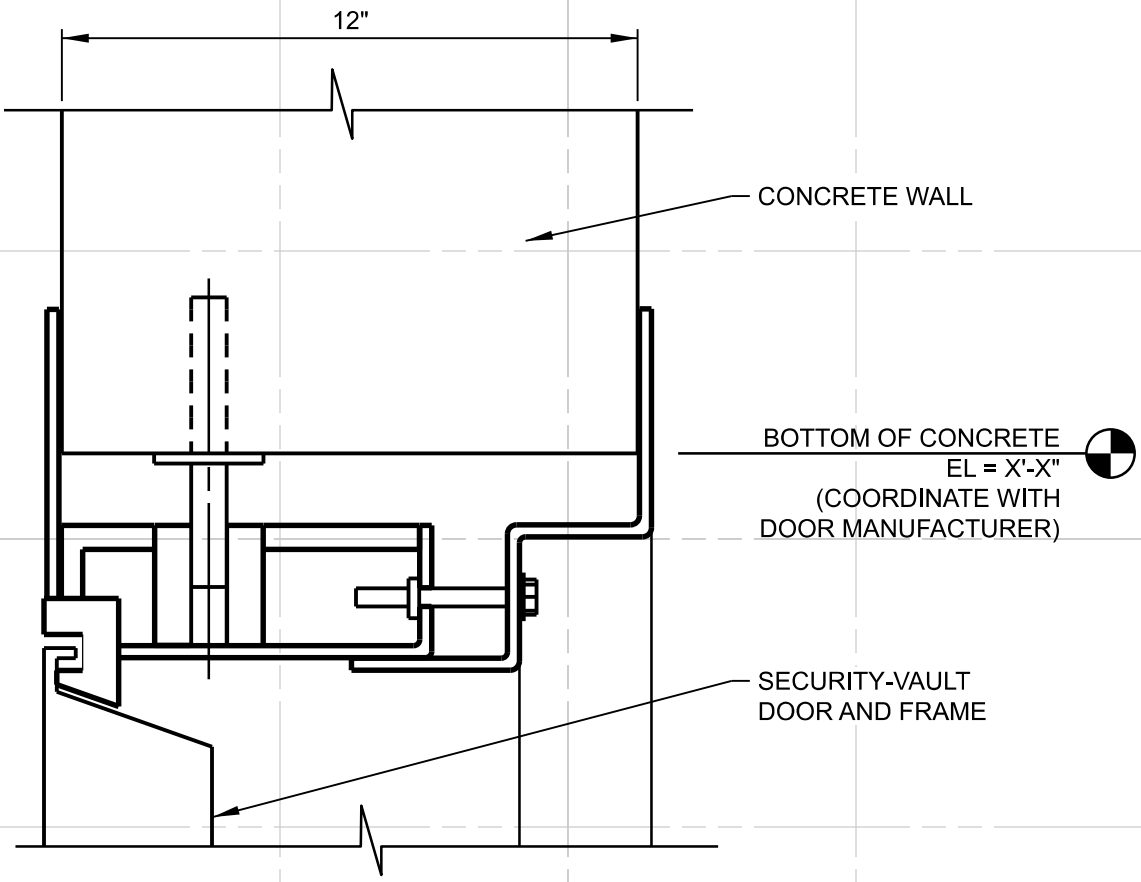


DETAIL: HOIST BEAM PENETRATION

A1

SCALE: 3"=1'-0"

0 3" 6" 1'

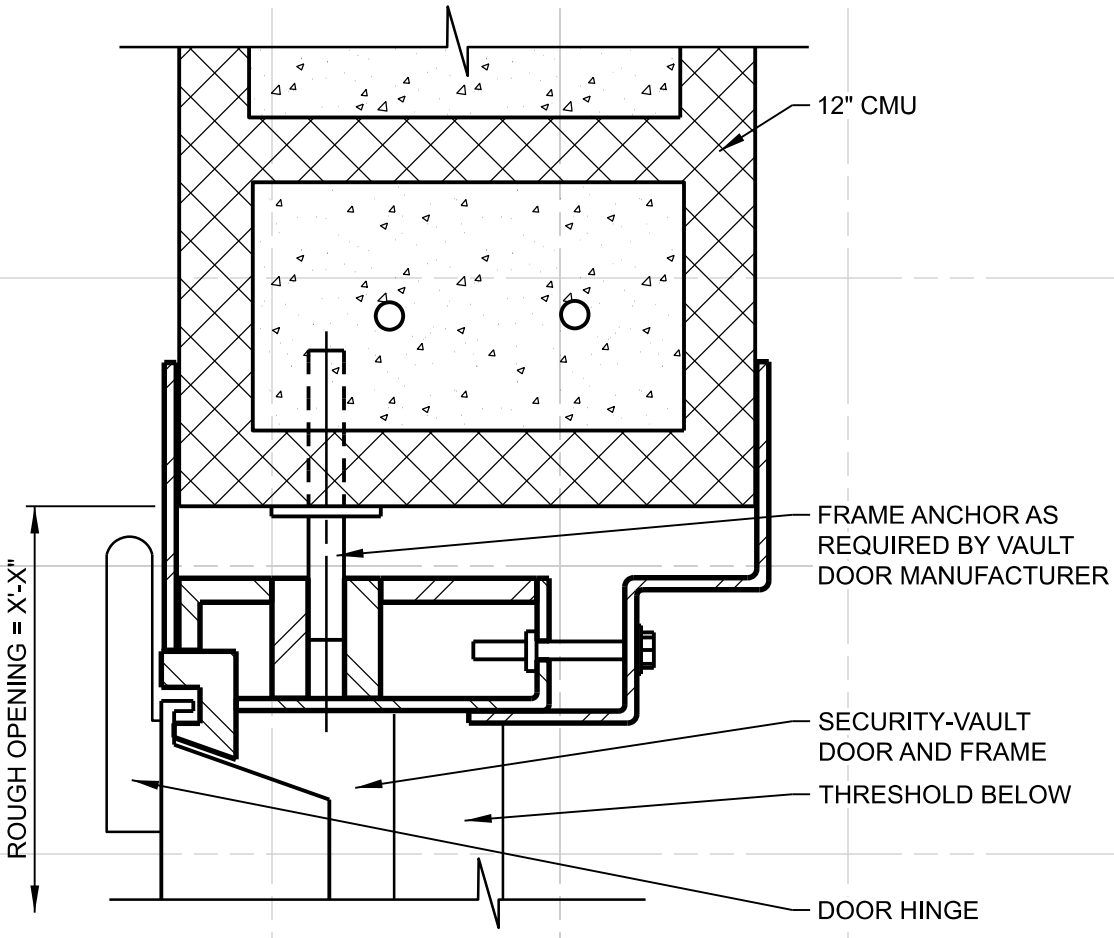


A1

DETAIL: HEAD

SCALE: 3"=1'-0"

0 3" 6" 1'

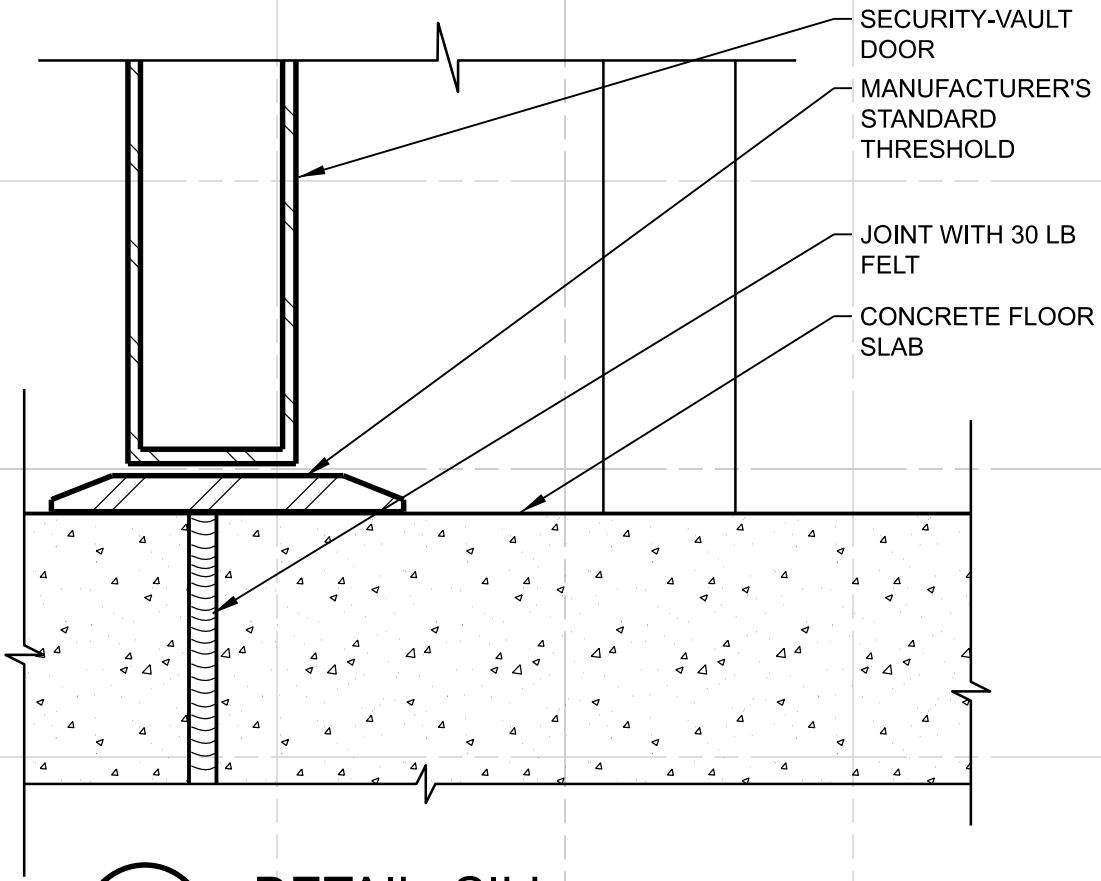


A1

DETAIL: JAMB

SCALE: 3"=1'-0"

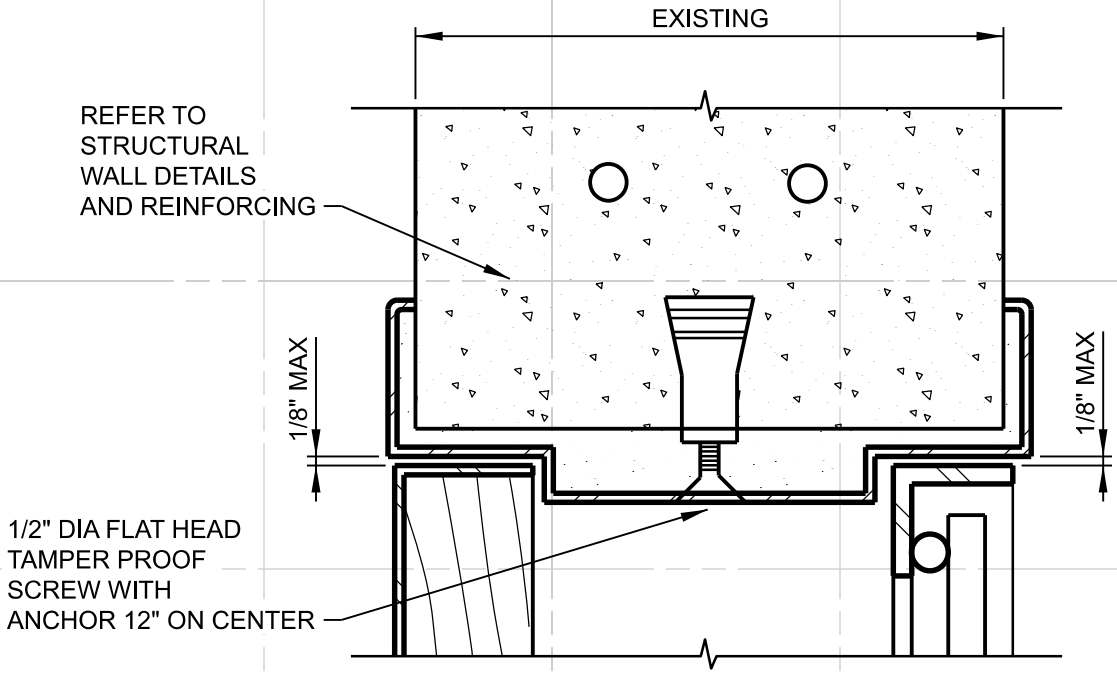
0 3" 6" 1'



A1 DETAIL: SILL

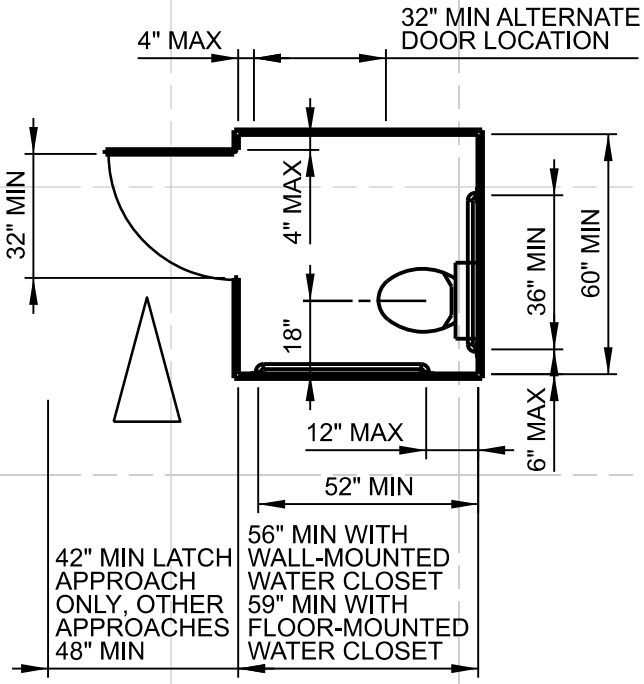
SCALE: 3"=1'-0" 0 3" 6" 1'

Detail C1030A-DT005X

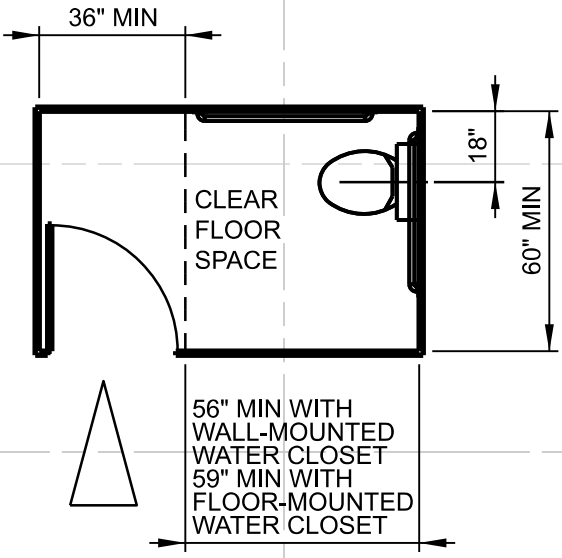


A1 DETAIL: HEAD

SCALE: 3"=1'-0" 0 3" 6" 1'



STANDARD STALL



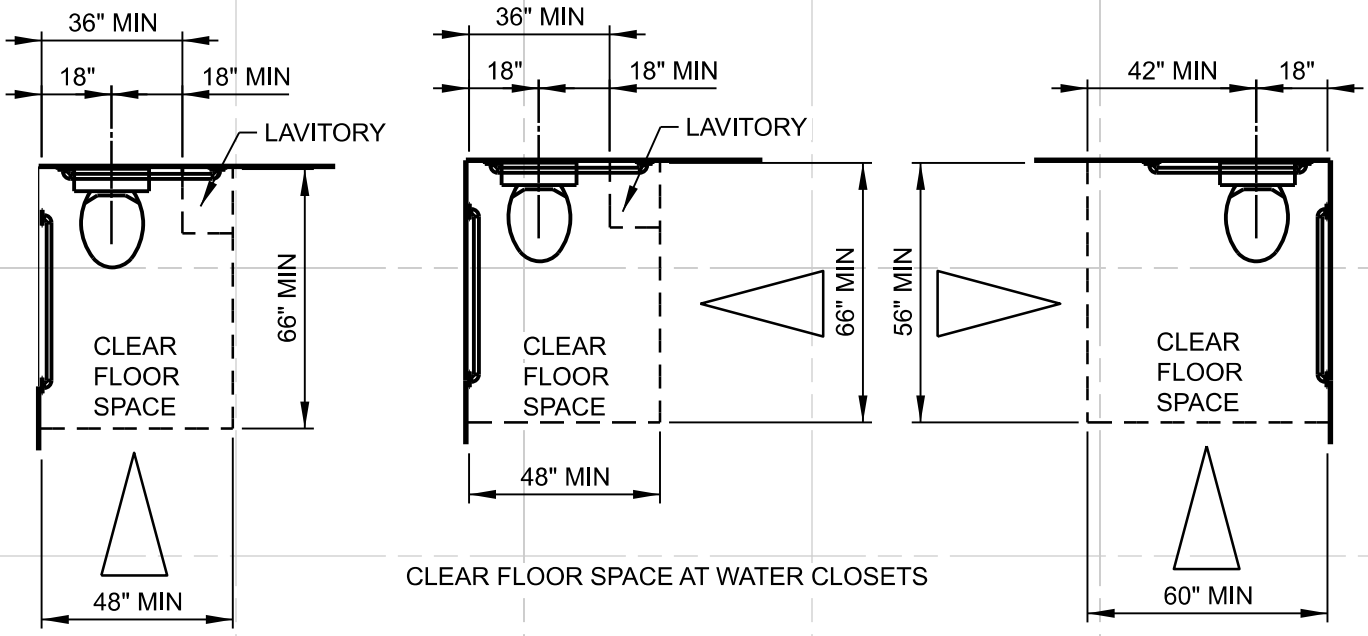
STANDARD STALL (END OF ROW)

A1

DETAIL: TOILET ROOMS (STALLS)

SCALE: 1/4"=1'-0"

0 2' 4' 8'



CLEAR FLOOR SPACE AT WATER CLOSETS

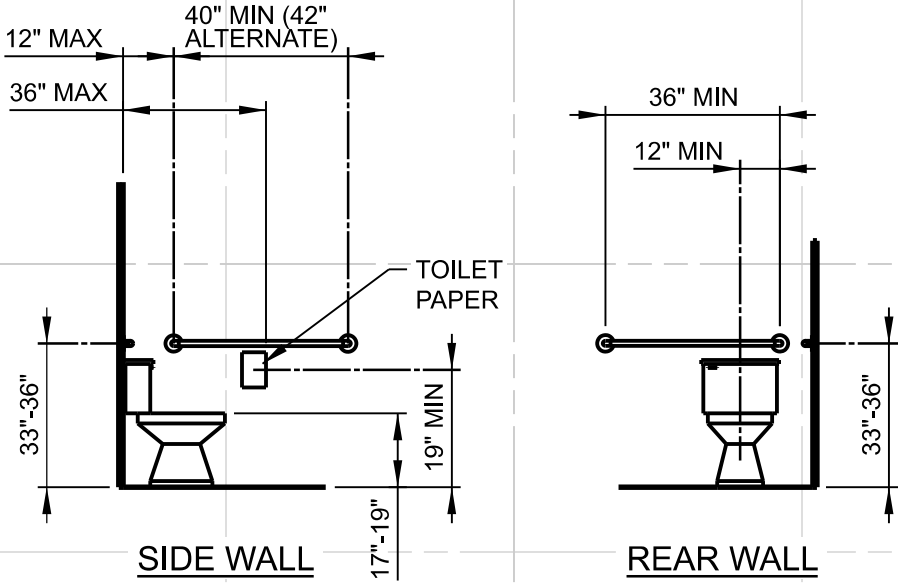
A1

TOILET ROOMS (OPEN)

SCALE: 1/4"=1'-0"

0 2' 4' 8'

Detail C1030A-DT008P

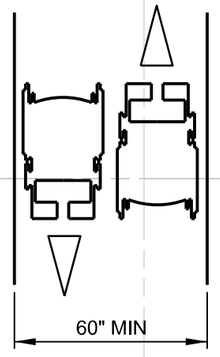


DETAIL: TOILET ROOM ELEVATIONS

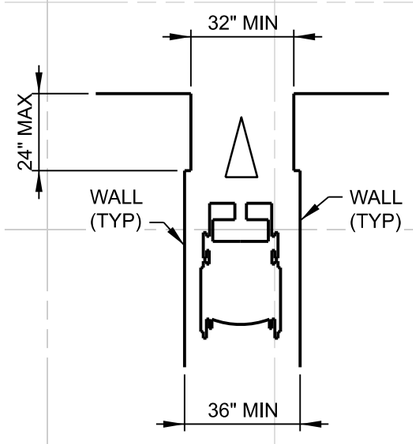
A1

SCALE: 1/4"=1'-0"

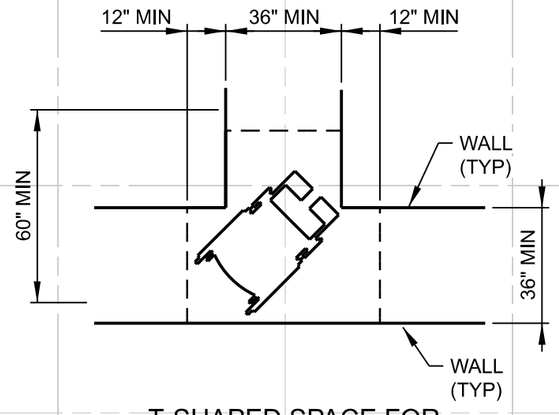
0 2' 4' 8'



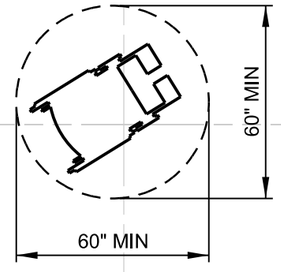
MIN CLEAR WIDTH FOR TWO WHEELCHAIRS



MIN CLEAR WIDTH FOR SINGLE WHEELCHAIR



T-SHAPED SPACE FOR 180-DEGREE TURNS

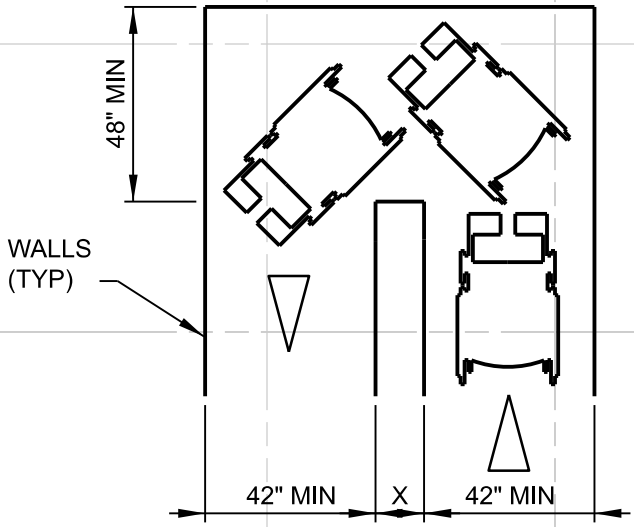


MIN 60" TURNING DIA FOR WHEELCHAIR

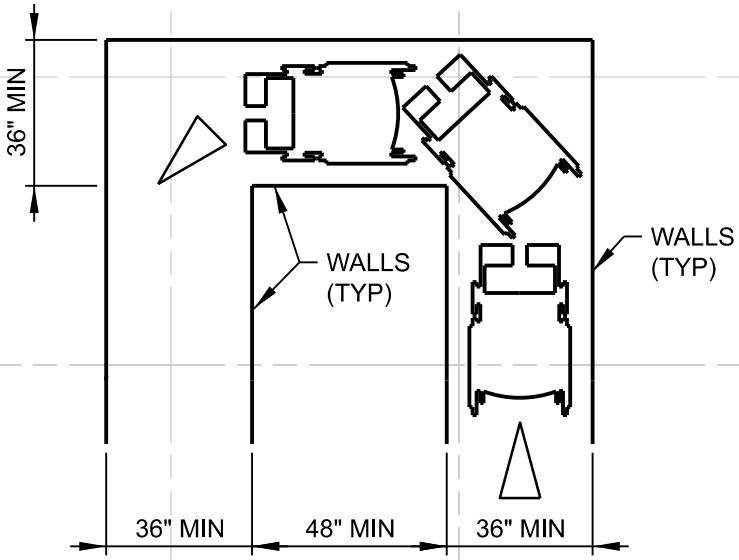
A1 DETAIL: WHEELCHAIR TURNING LAYOUTS

SCALE: 1/4"=1'-0"

0 2' 4' 8'



TURNS AROUND AN OBSTRUCTION



90-DEGREE TURN

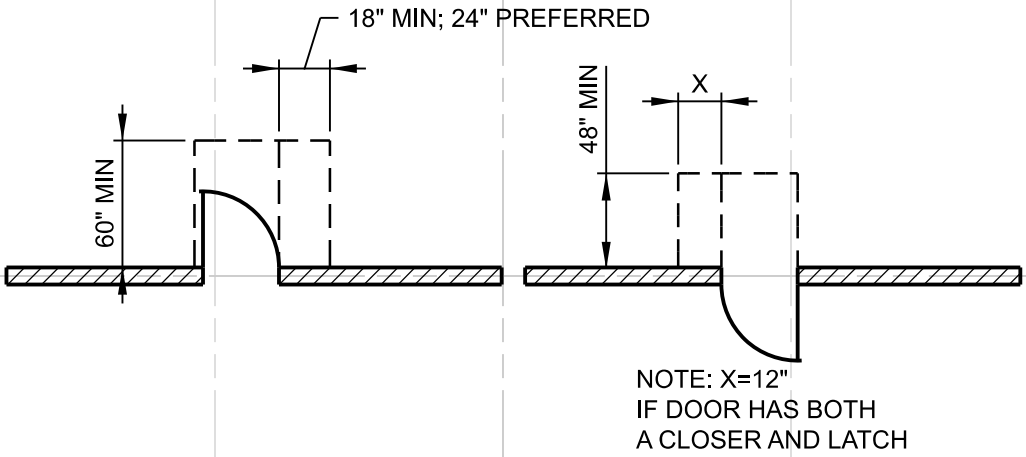
NOTE:
DIMENSIONS SHOWN APPLY WHEN 'X' IS LESS THAN 48"

A1

DETAIL: WHEELCHAIR TURNING LAYOUTS

SCALE: 1/4"=1'-0"

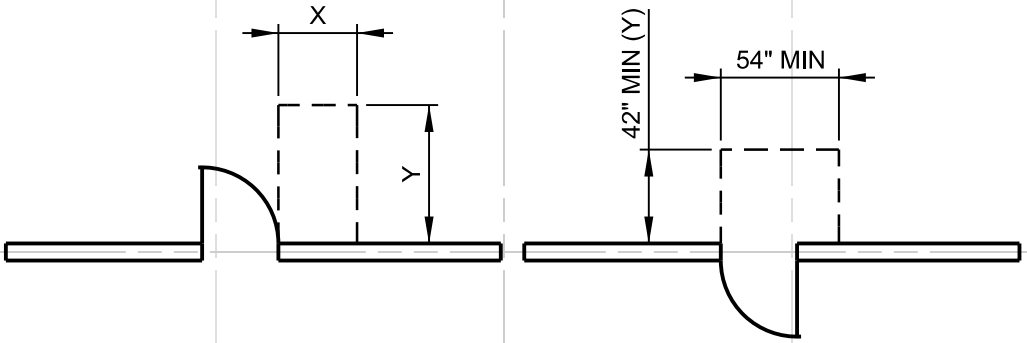
0 2' 4' 8'



NOTE: X=12"
IF DOOR HAS BOTH
A CLOSER AND LATCH

PULL SIDE PUSH SIDE

(A) FRONT APPROACHES -- SWINGING DOORS

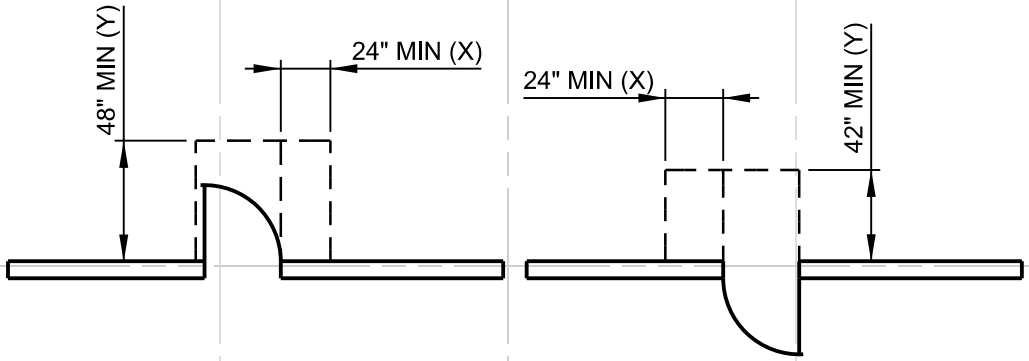


NOTE:
X=36" MIN IF Y=60";
X=42" MIN IF Y=54"

NOTE: Y=48" MIN
IF DOOR HAS BOTH
A LATCH AND CLOSER.

PULL SIDE PUSH SIDE

(B) HINGE SIDE APPROACHES -- SWINGING DOORS



NOTE: Y=54" MIN
IF DOOR HAS CLOSER

NOTE: Y=48" MIN
IF DOOR HAS CLOSER

PULL SIDE PUSH SIDE

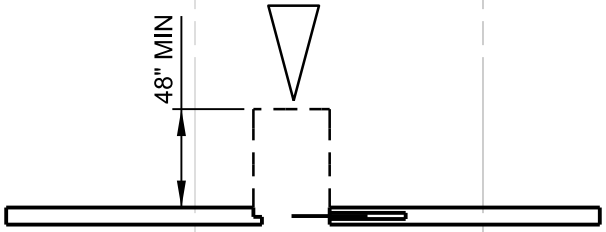
(C) LATCH SIDE APPROACHES -- SWINGING DOORS

A1

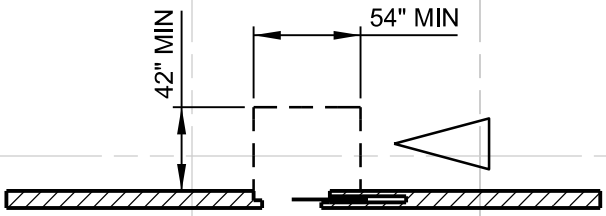
DETAIL: SWINGING DOOR LAYOUT

SCALE: 1/4"=1'-0"

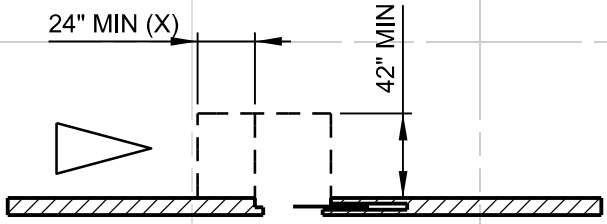
0 2' 4' 8'



(D) FRONT APPROACH - SLIDING DOORS AND FOLDING DOORS



(E) SLIDE SIDE APPROACH - SLIDING DOORS AND FOLDING DOORS



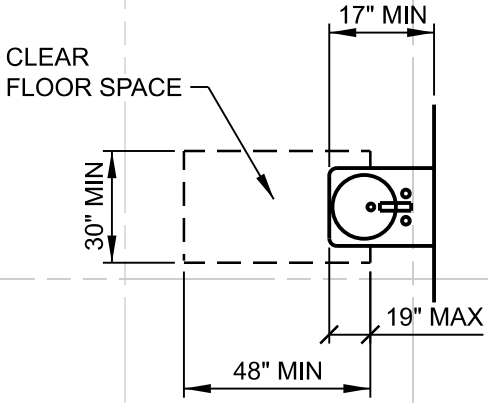
(F) LATCH SIDE APPROACH - SLIDING DOORS AND FOLDING DOORS

A1

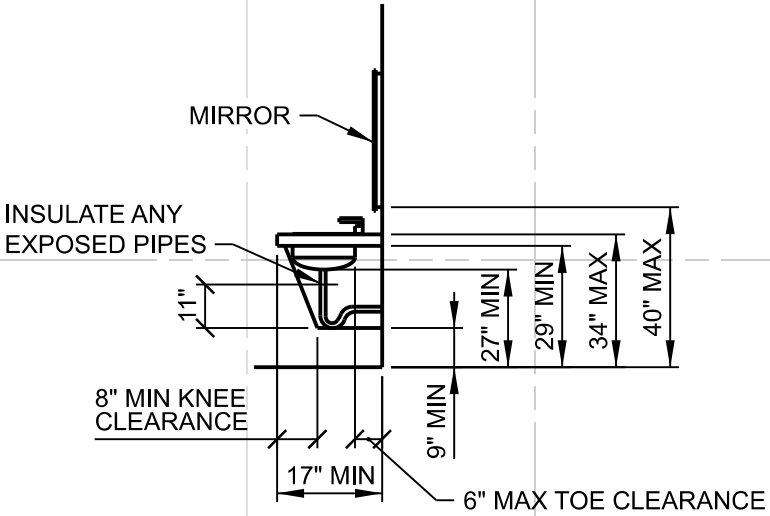
DETAIL: SLIDING DOOR LAYOUT

SCALE: 1/4"=1'-0"

0 2' 4' 8'



CLEAR FLOOR SPACE AT LAVATORIES



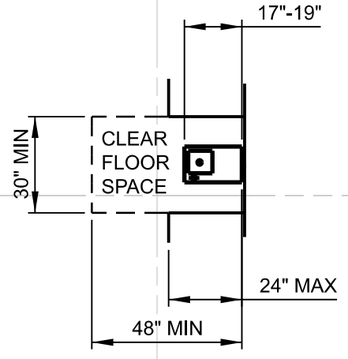
LAVATORY CLEARANCES

A1

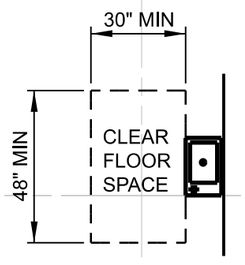
DETAIL: LAVATORIES

SCALE: 1/4"=1'-0"

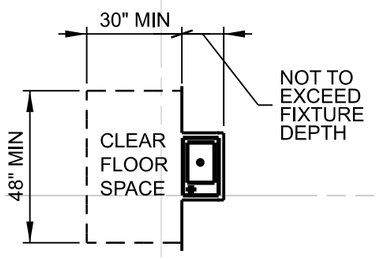
0 2' 4' 8'



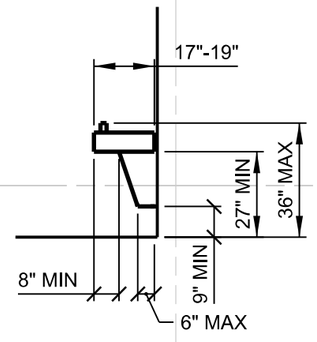
CLEAR FLOOR SPACE
AT DRINKING FOUNTAIN



FREE-STANDING
DRINKING FOUNTAIN
OR COOLER



BUILT-IN DRINKING FOUNTAIN
OR COOLER



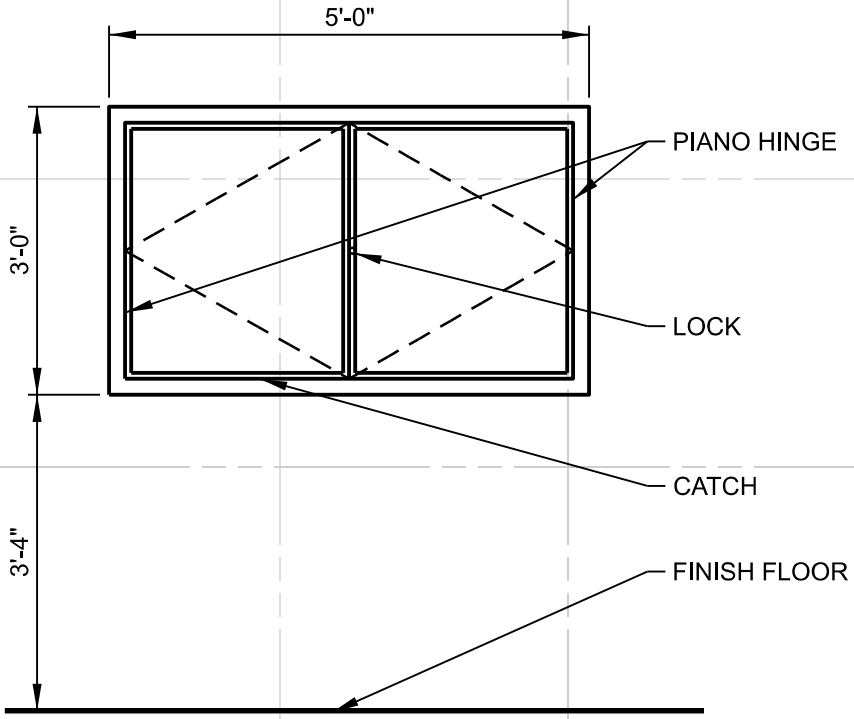
SPOUT HEIGHT AND
KNEE CLEARANCE
AT DRINKING FOUNTAIN

A1 DETAIL: DRINKING FOUNTAINS

SCALE: 1/4"=1'-0"

0 2' 4' 8'

Detail C1030A-DT015P

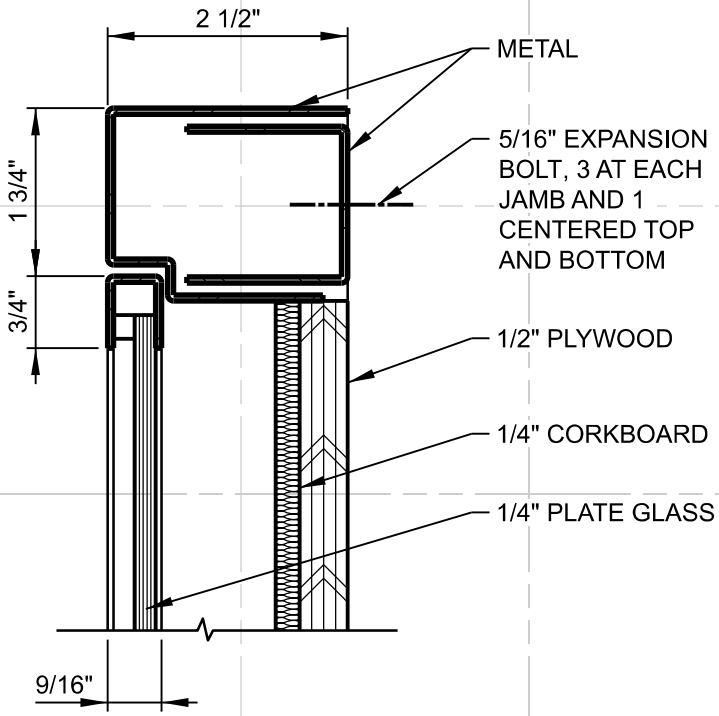


DETAIL: BULLETIN BOARD ELEVATION

A1

SCALE: 1/2"=1'-0"

0 1' 2' 4'

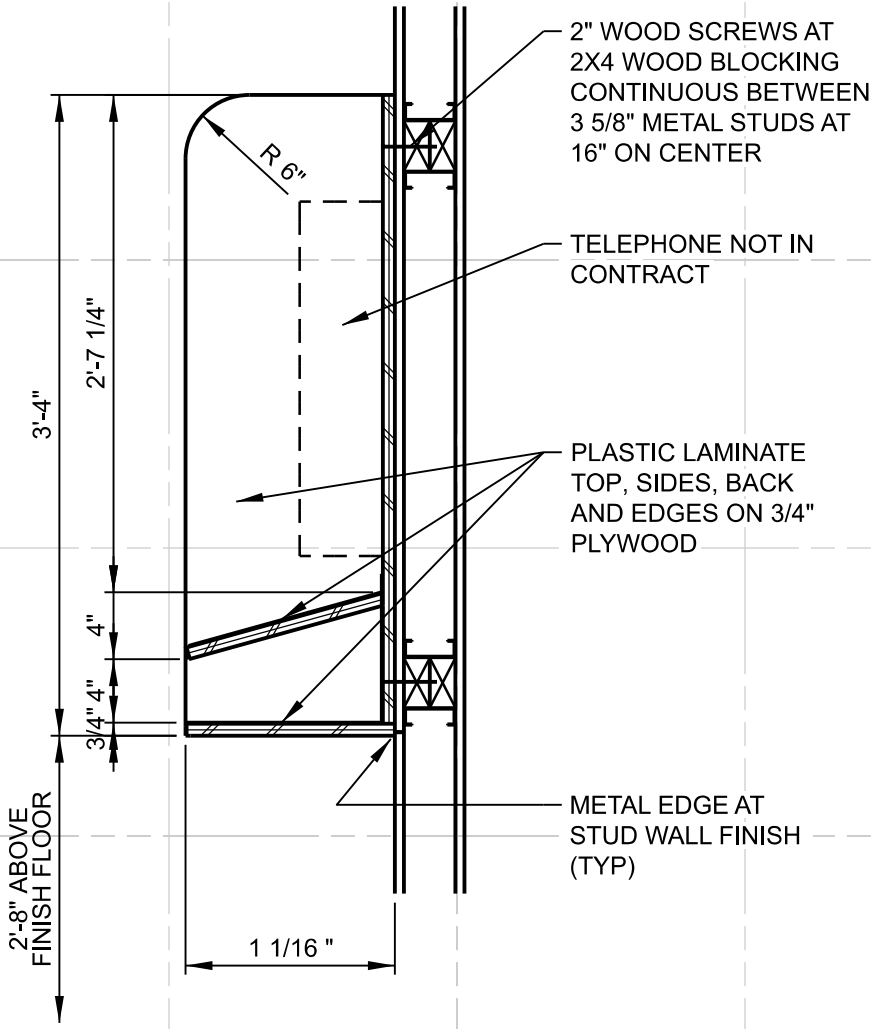


A1

DETAIL: BULLETIN BOARD SECTION

SCALE: 6"=1'-0"

0 1-1/2" 3" 6"



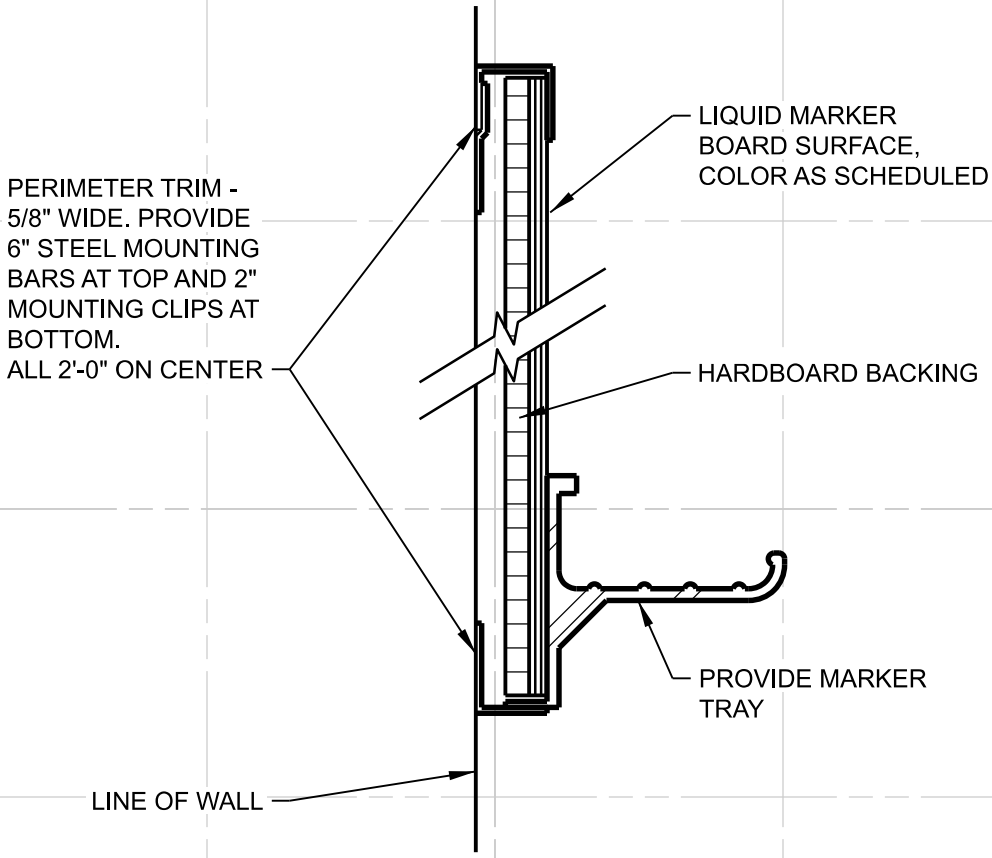
NOTE:
CONTRACTOR MAY CHOOSE TO PURCHASE A PRE-ASSEMBLED UNIT FROM AREA PHONE COMPANY, SIMILAR TO THAT REPRESENTED HERE.

A1

DETAIL: TELEPHONE CABINATE

SCALE: 1"=1'-0"

0 6" 1' 2'

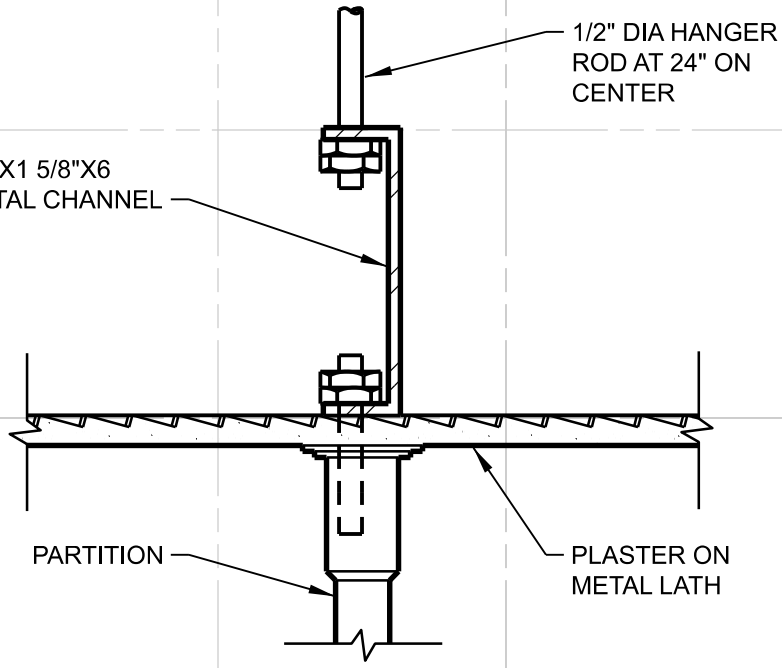


A1

DETAIL: MARKER BOARD

SCALE: 3"=1'-0"

0 3" 6" 1'



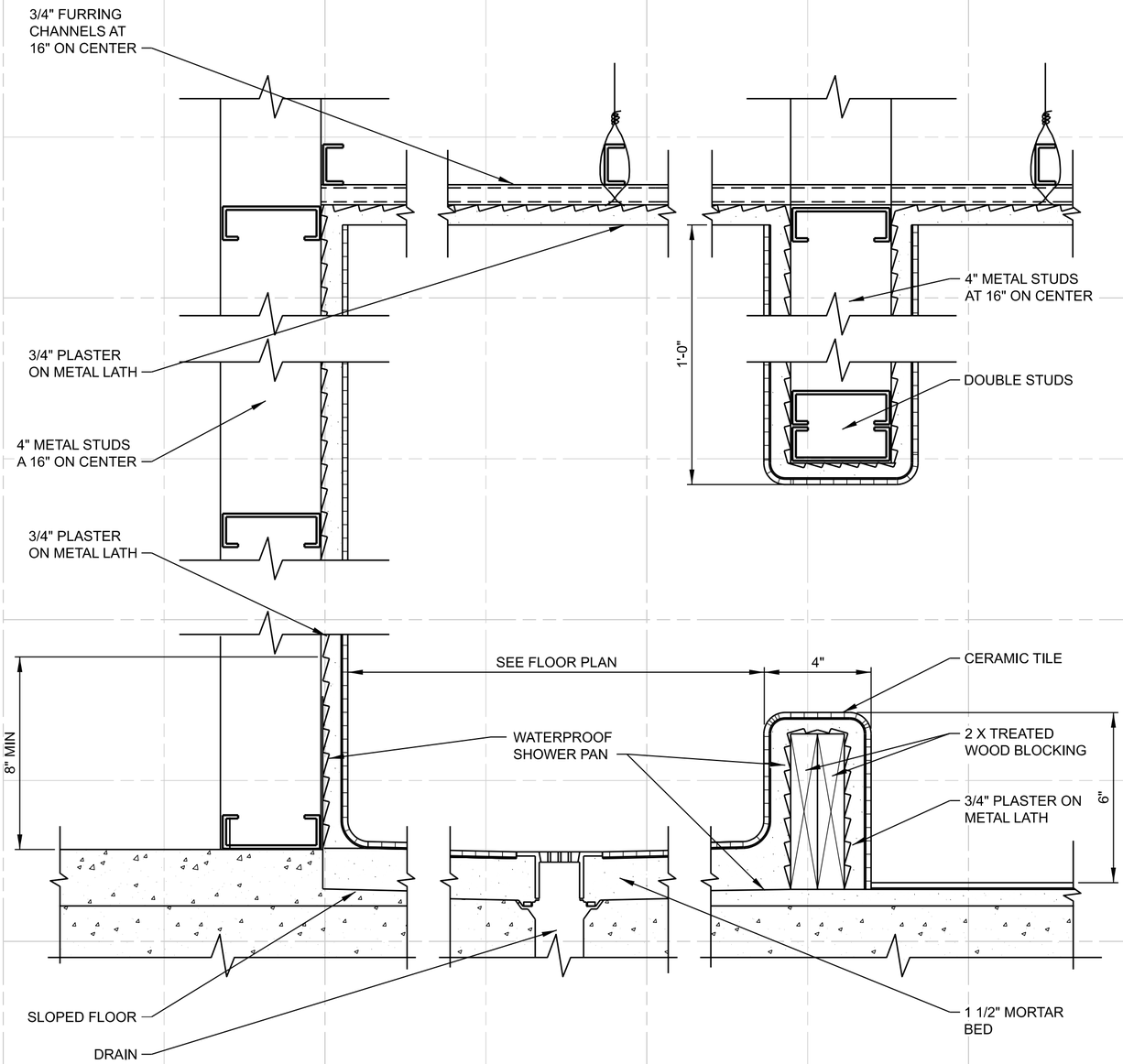
A1

DETAIL: TOILET PARTITION HANGER

SCALE: 3"=1'-0"

0 3" 6" 1'

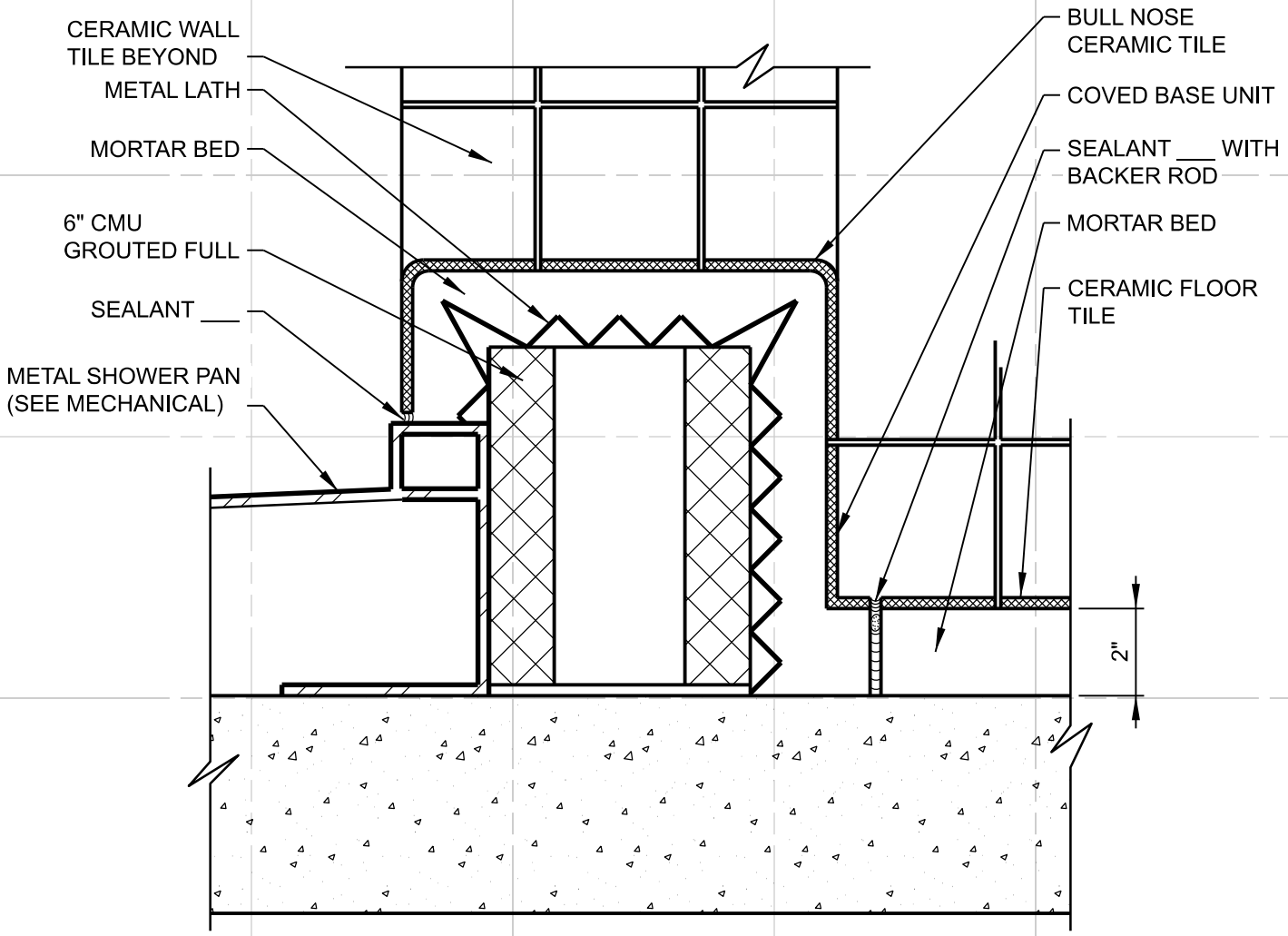
Detail C1032A-DT001X



A1 DETAIL: SHOWER

SCALE: 3"=1'-0"

0 3" 6" 1'

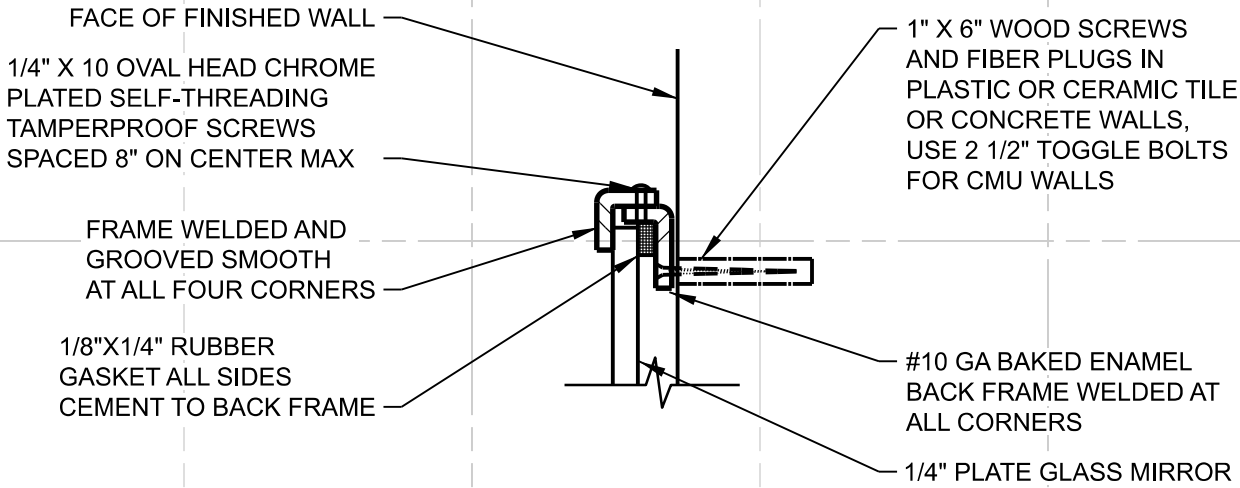


A1

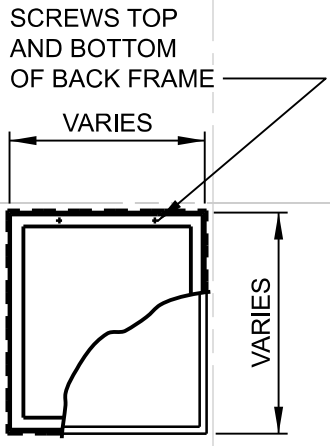
DETAIL: WALL

SCALE: 3"=1'-0"

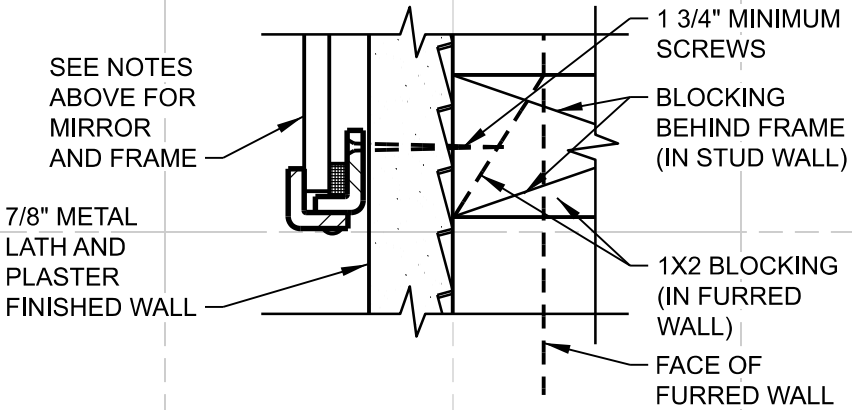
0 3" 6" 1'



SECUREMENT TO MASONRY OR CONCRETE WALL



ELEVATION



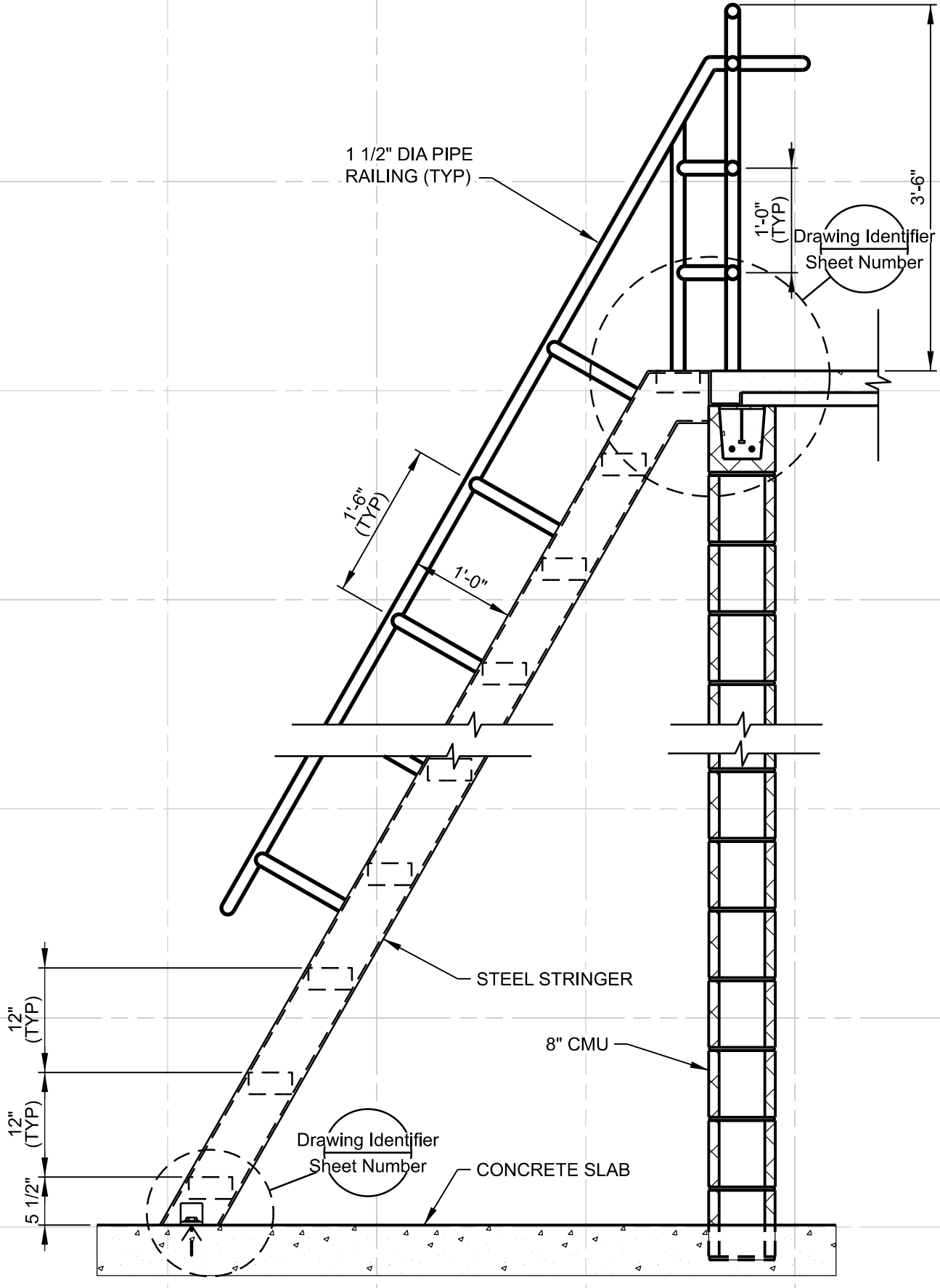
SECUREMENT TO STUD OR FURRED WALL

A1

DETAIL: MIRROR

SCALE: 3"=1'-0"

0 3" 6" 1'



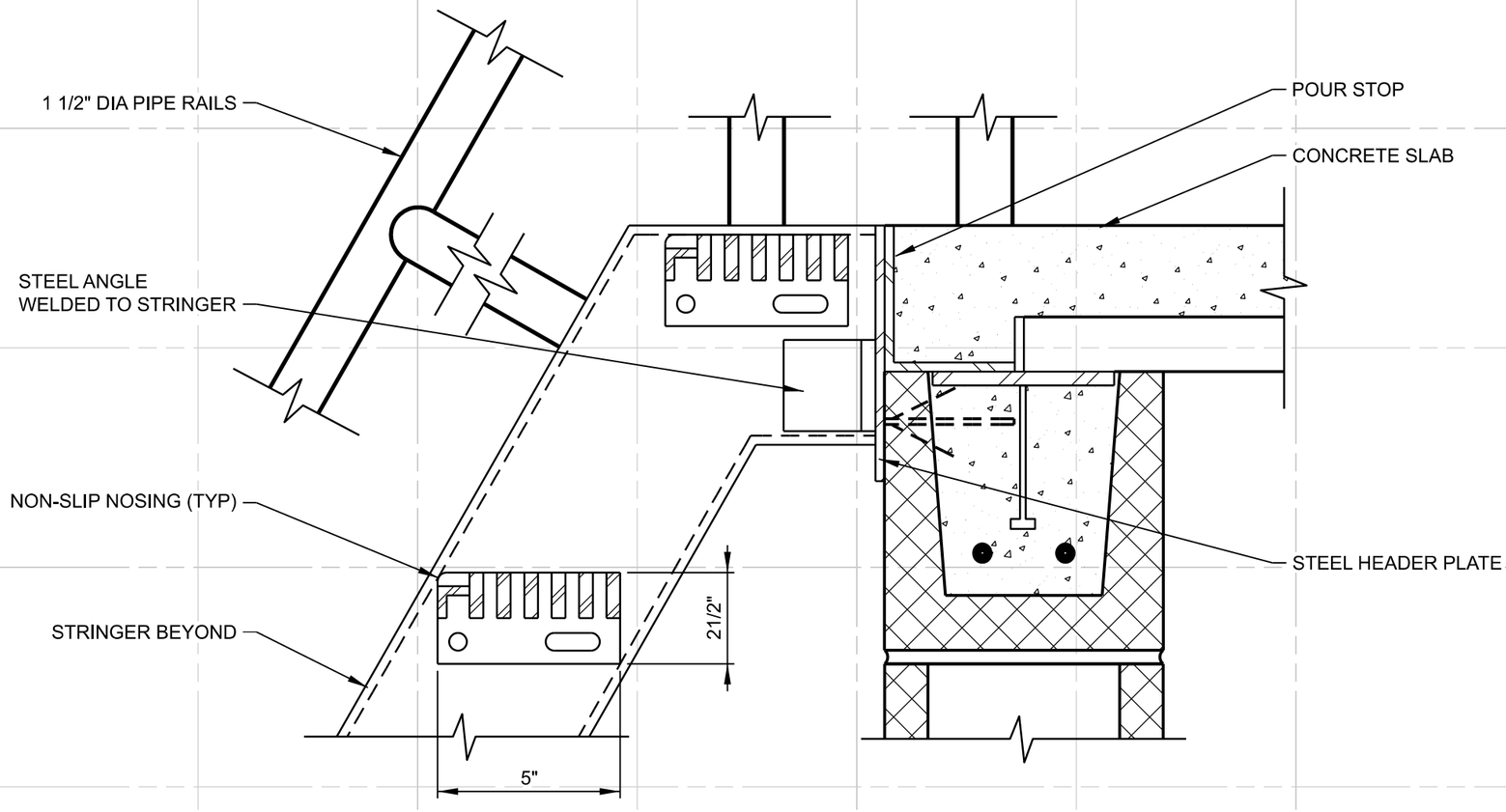
A1

DETAIL: FIXED LADDER ELEVATION

SCALE: 3/4"=1'-0"

0 1' 2' 4'

Detail C2010A-DT001E

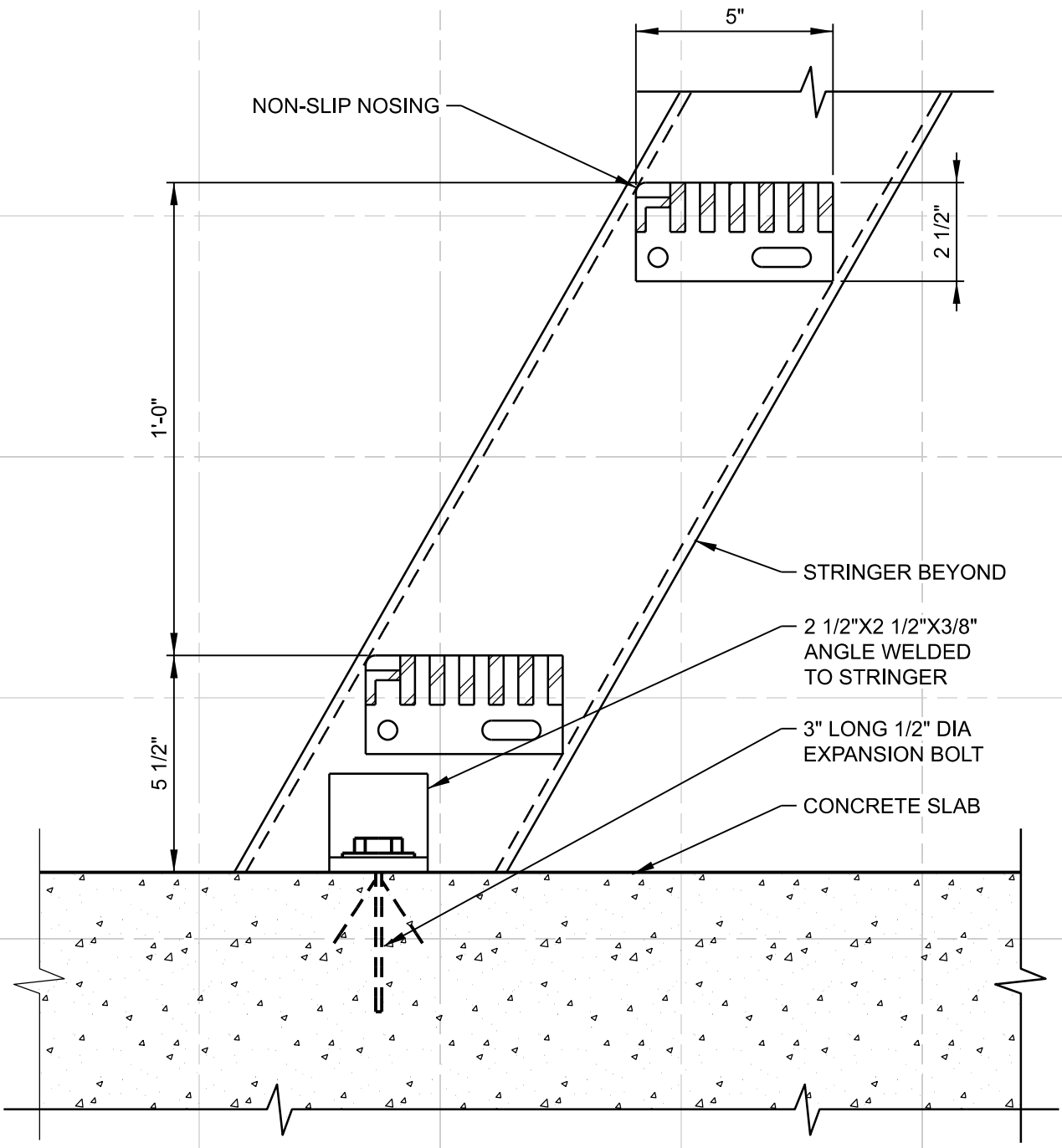


A1 DETAIL: METAL STAIR LANDING

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C2010A-DT001X



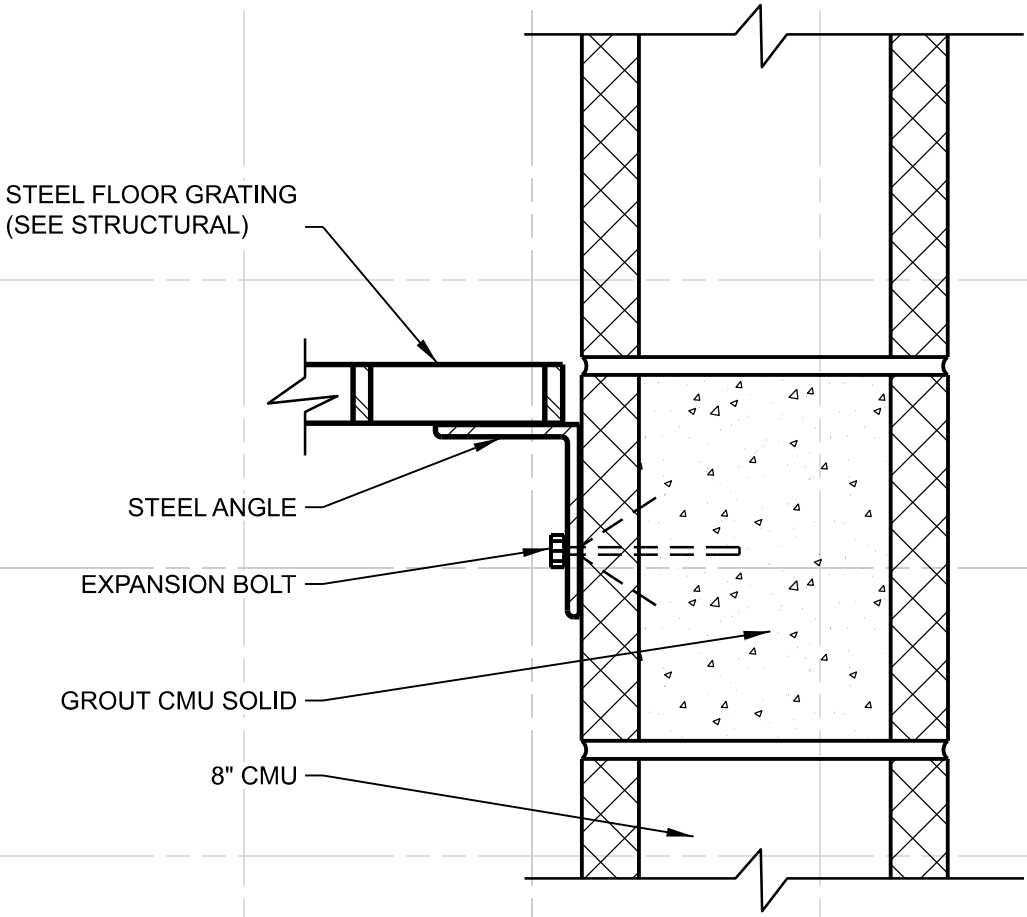
A1

DETAIL: METAL STAIR TREAD

SCALE: 3"=1'-0"

0 3" 6" 1'

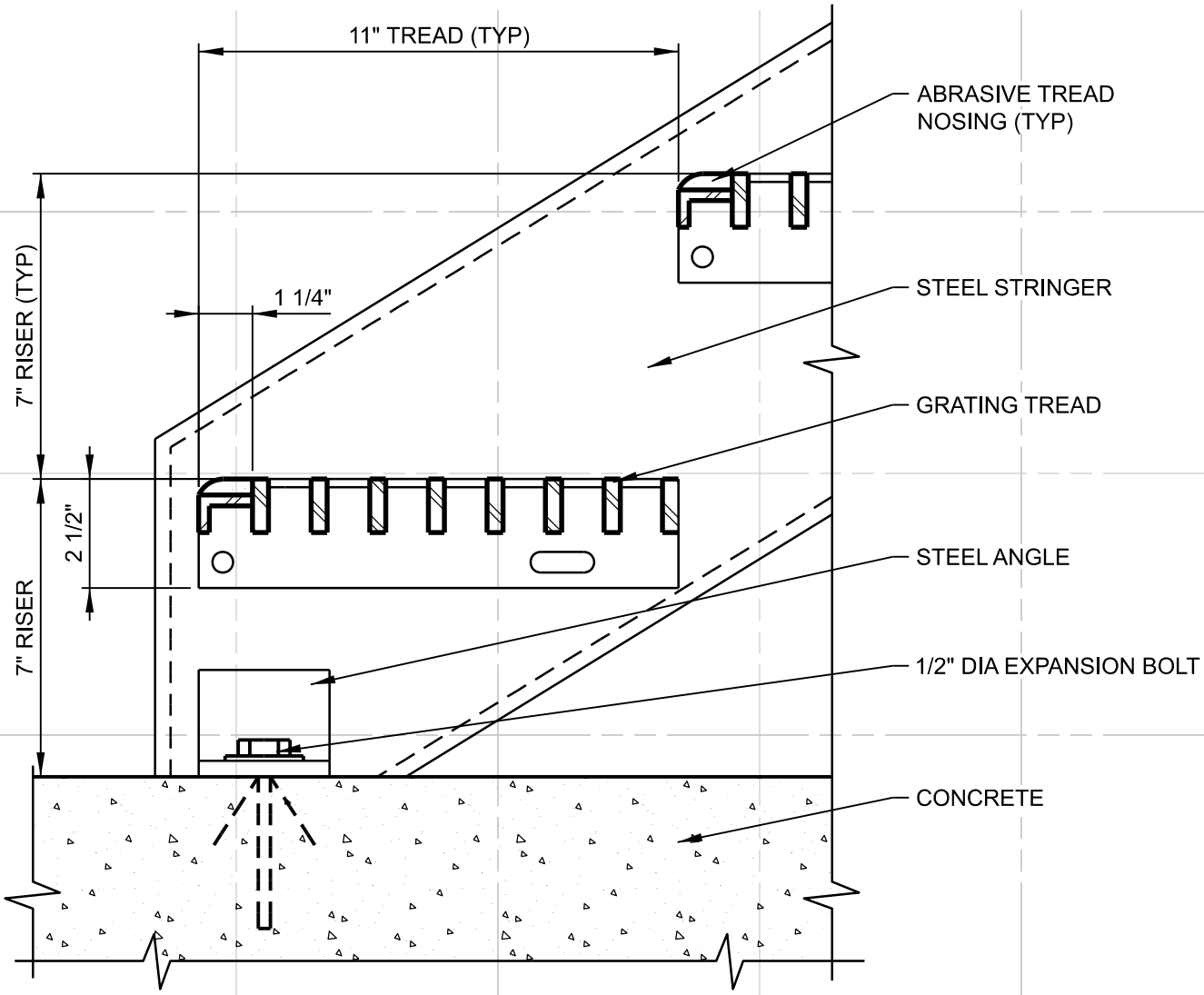
Detail C2010A-DT002X



A1

DETAIL: STAIR LANDING

SCALE: 3"=1'-0" 0 3" 6" 1'



A1

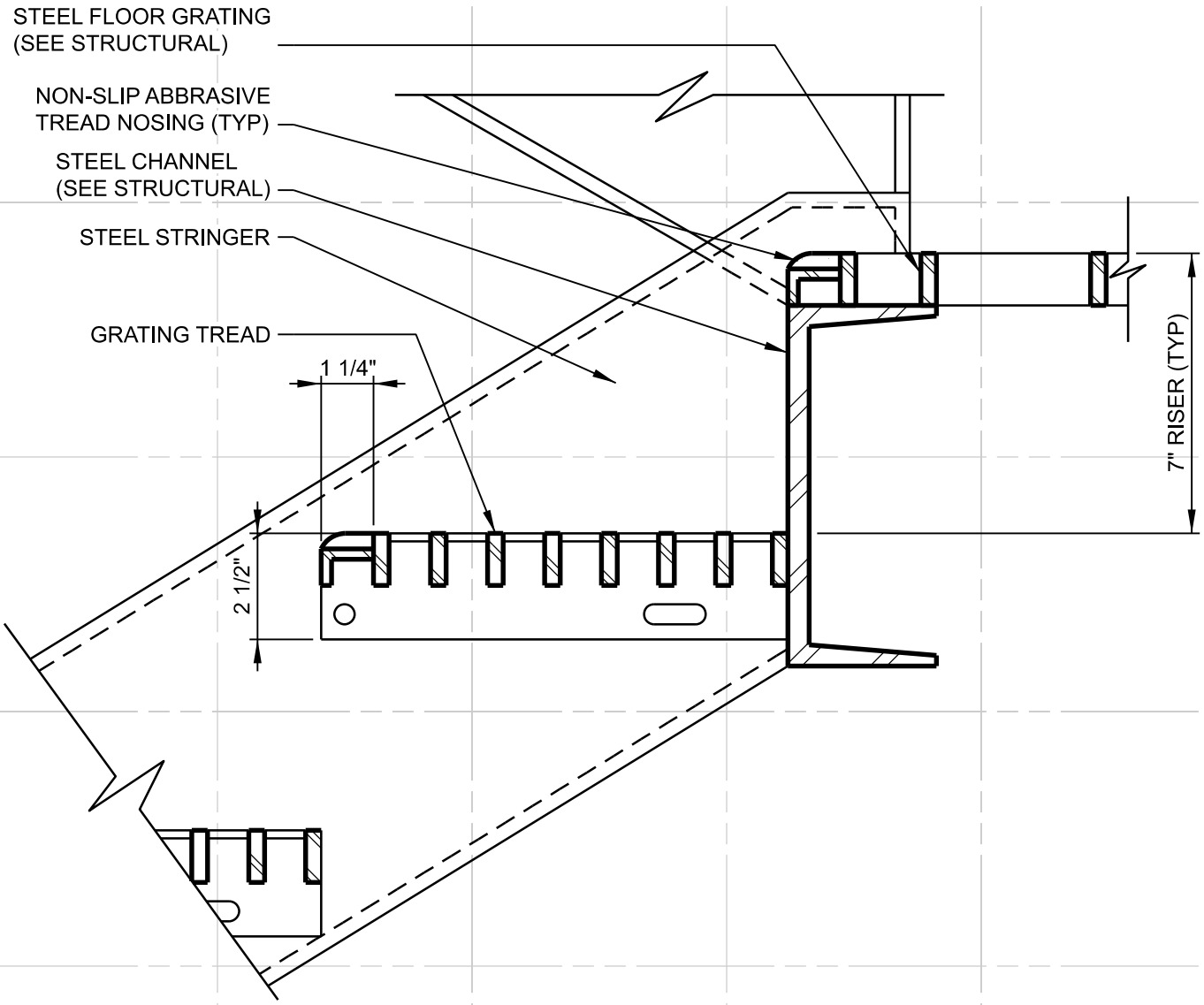
DETAIL: STAIR

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C2010A-DT004X

Details-US-Architectural-C201-StairConstruction



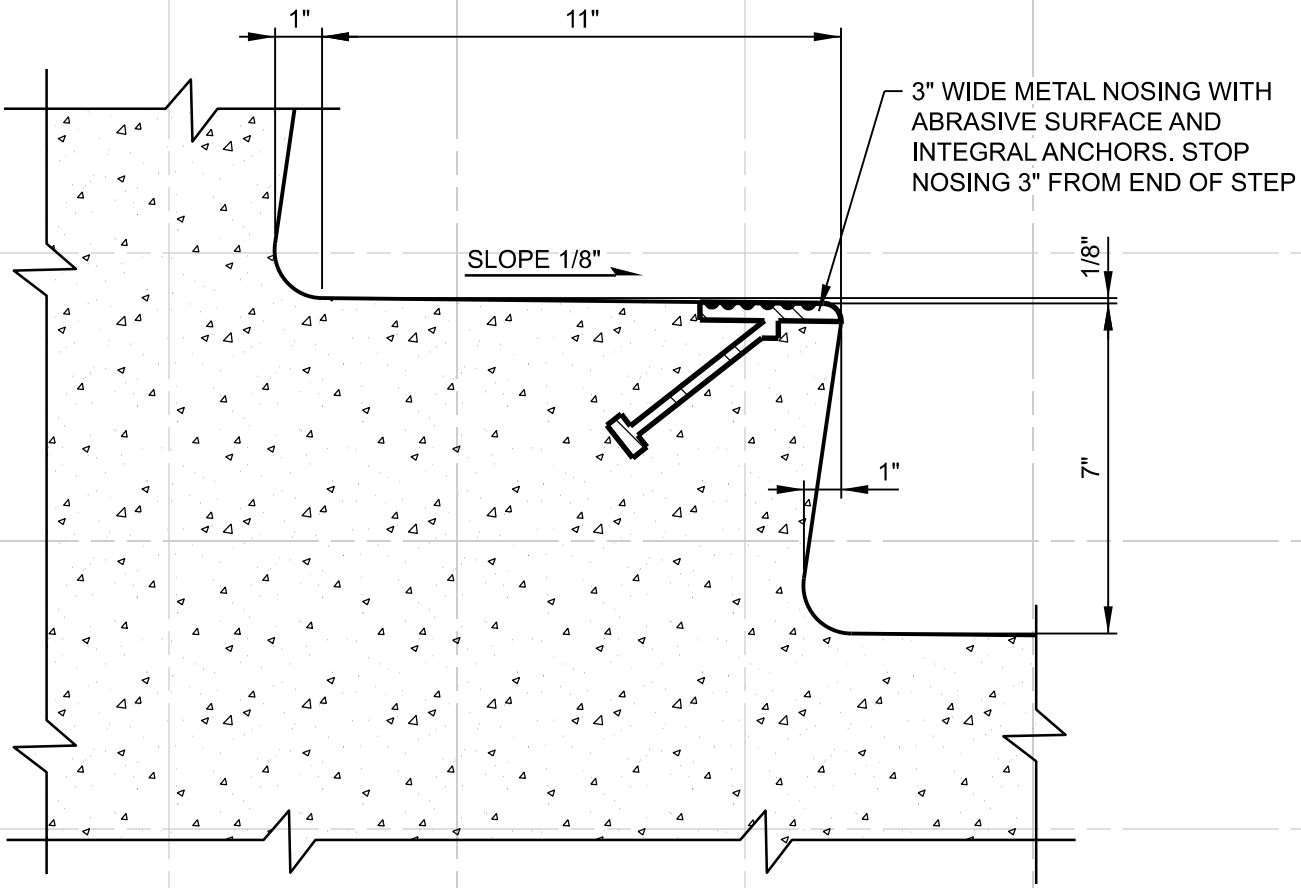
A1

DETAIL: STAIR

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C2010A-DT005X



A1

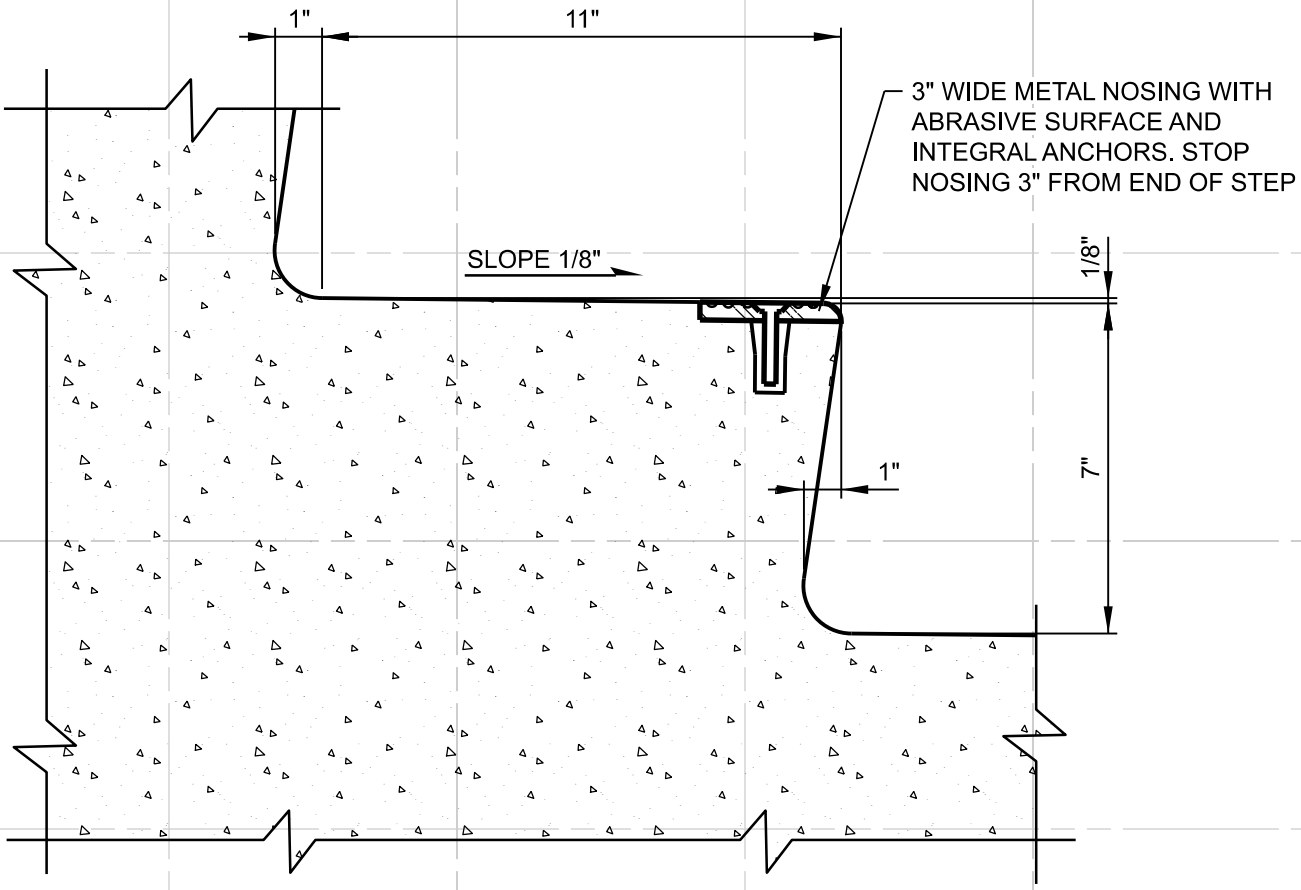
DETAIL: STAIR

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C2012A-DT001X

Details-US-Architectural-C201-StairConstruction



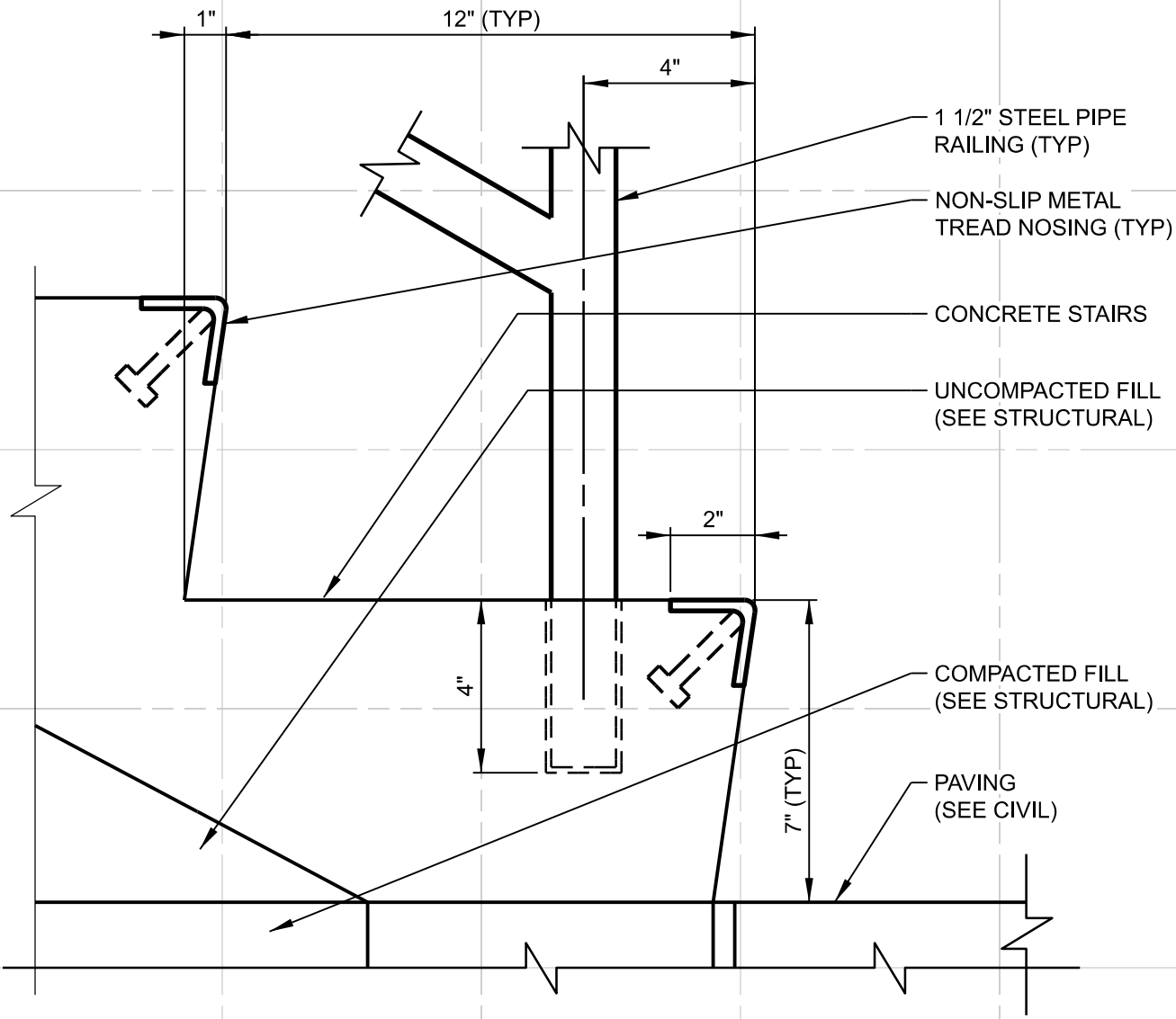
A1

DETAIL: STAIR

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C2012A-DT002X



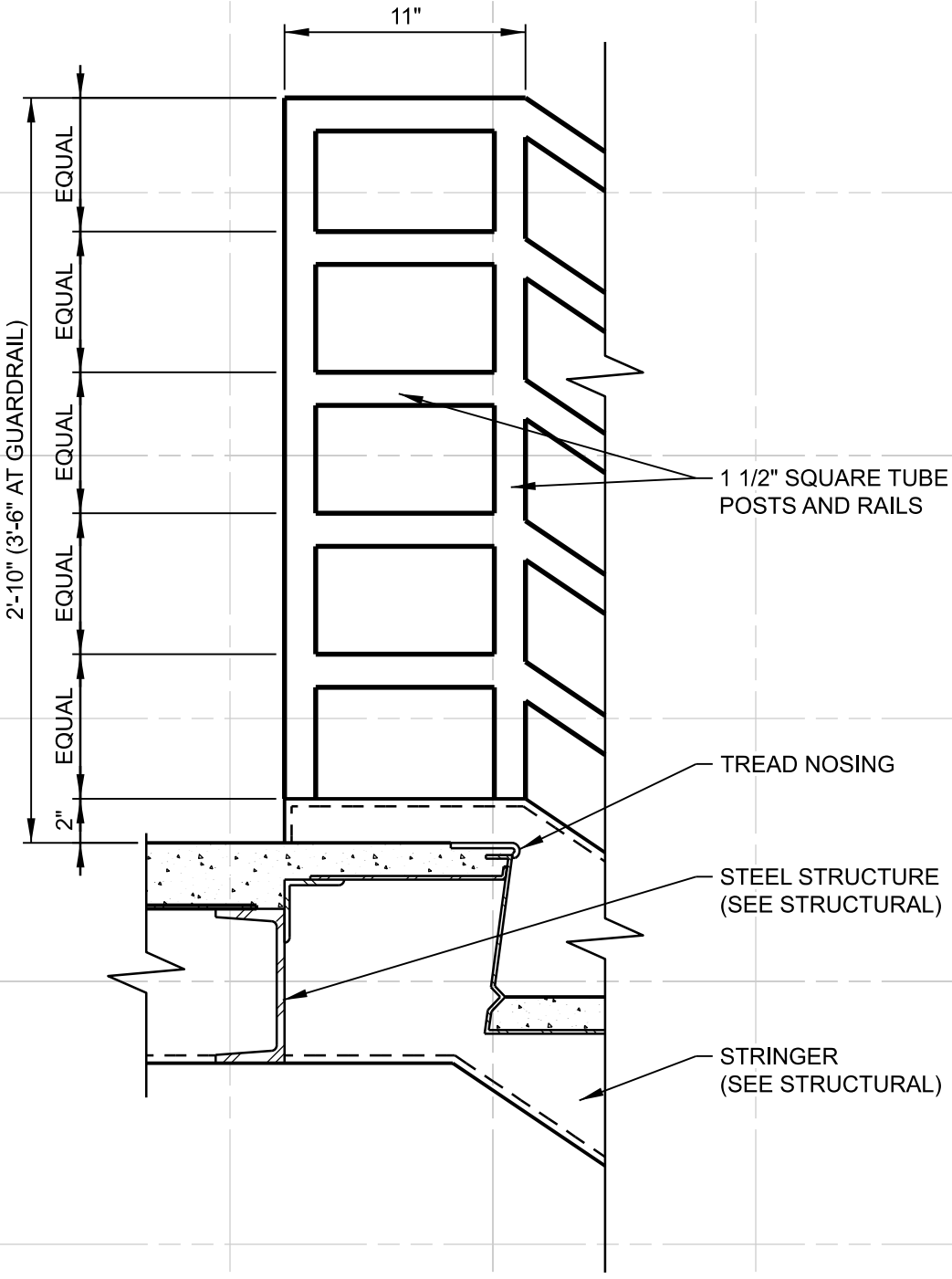
A1

DETAIL: BOTTOM STAIR

SCALE: 3"=1'-0"

0 3" 6" 1'

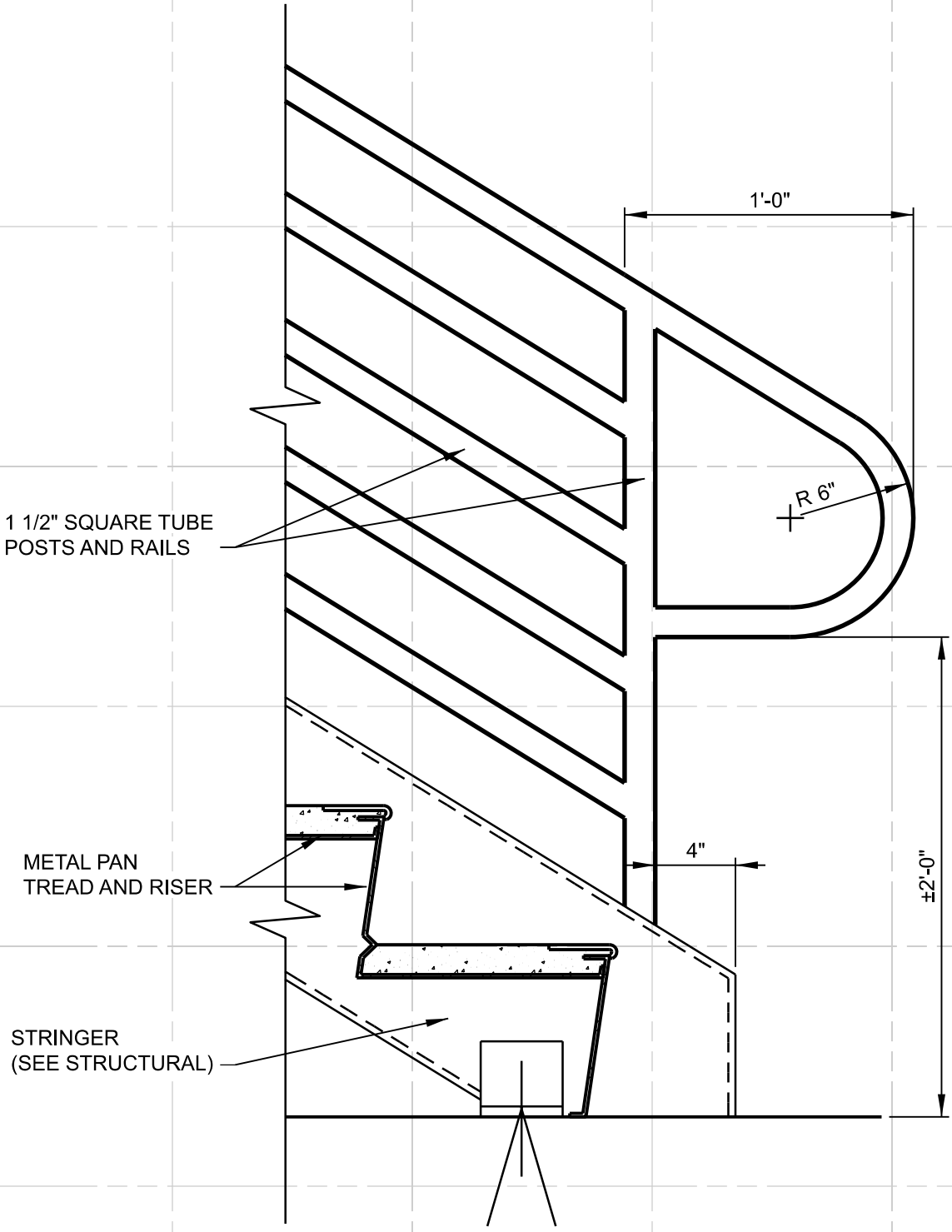
Detail C2012A-DT003X



A1

DETAIL: TOP METAL STAIR

SCALE:1 1/2"=1'-0" 0 6" 1' 2'

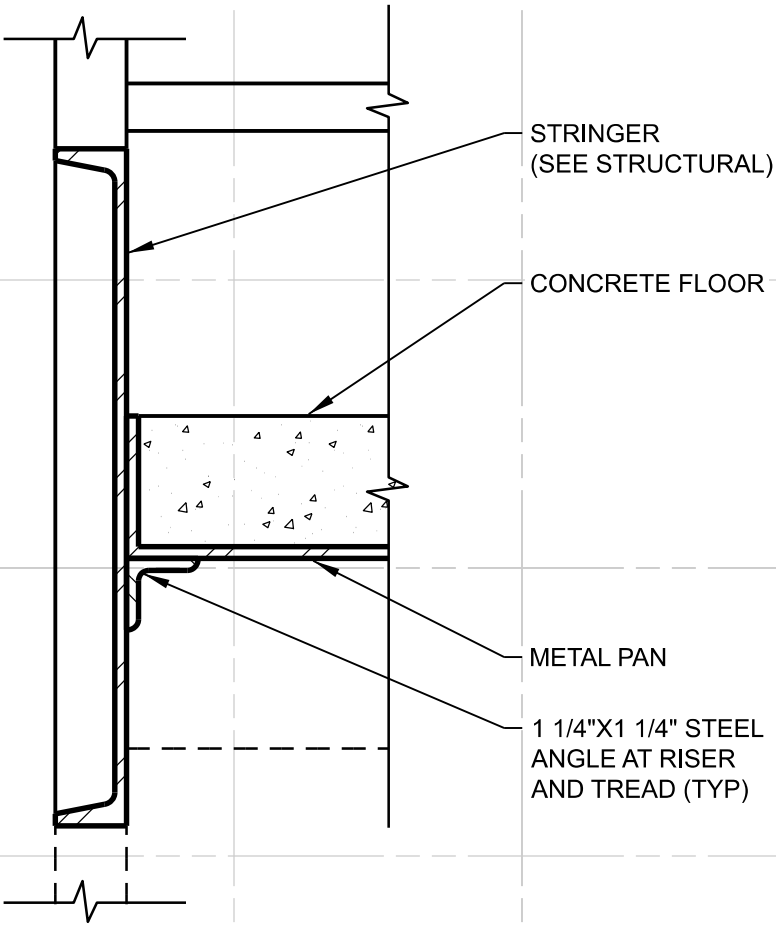


A1

DETAIL: BOTTOM METAL STAIR

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

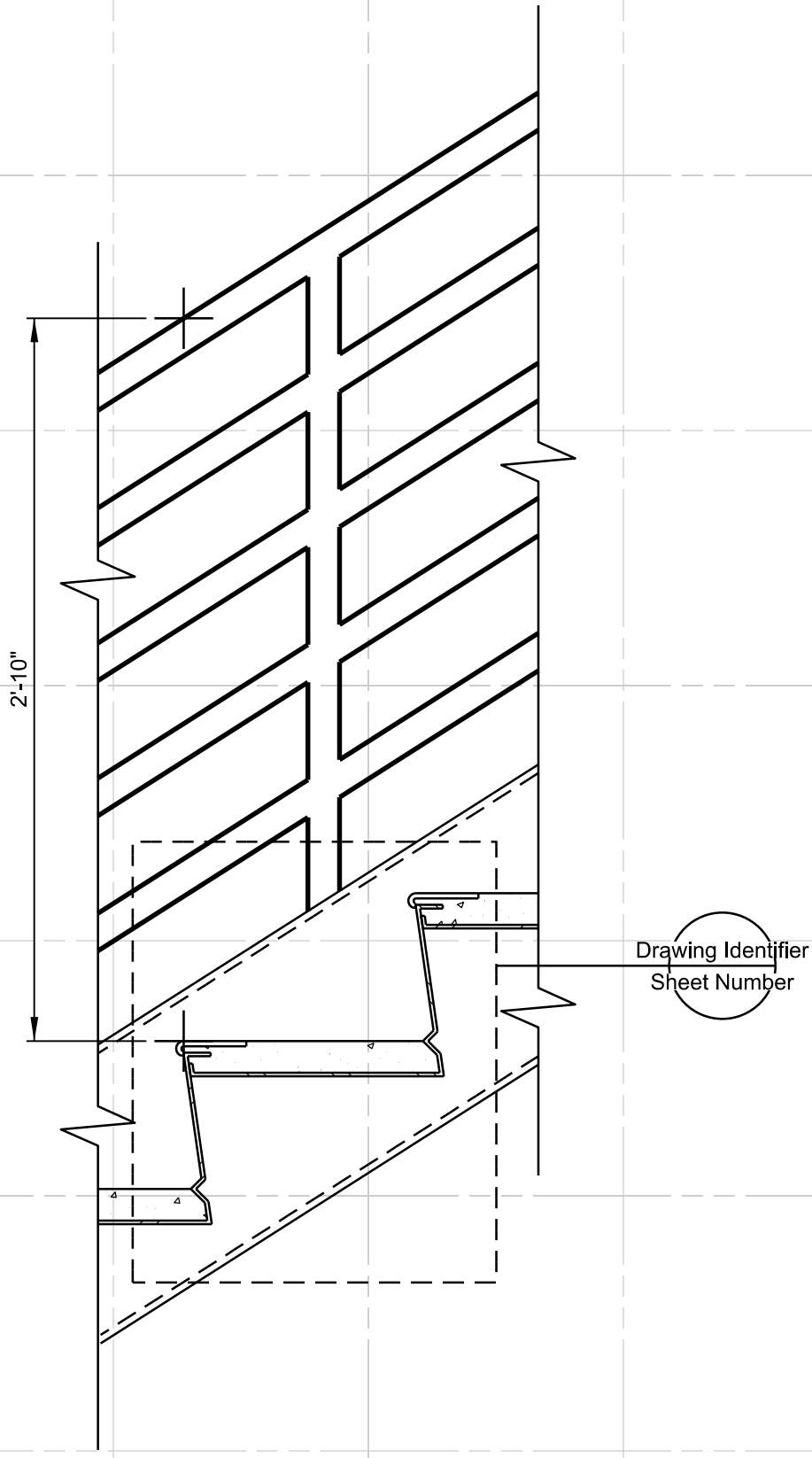


A1 DETAIL: LANDING

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C2013A-DT002X

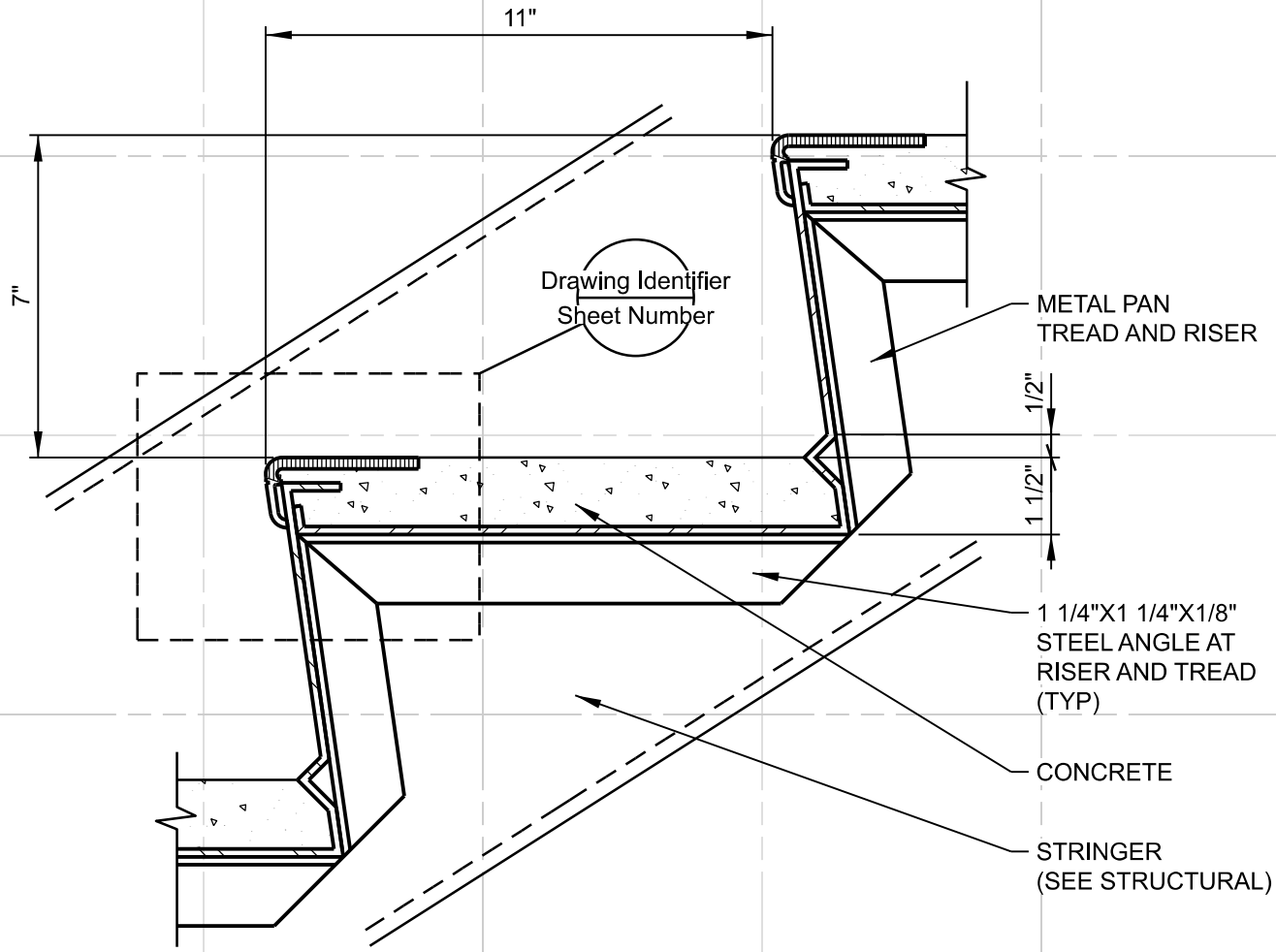


A1 DETAIL: METAL STAIR

SCALE:1 1/2"=1'-0" 0 6" 1' 2'

Detail C2013A-DT003E

Details-US-Architectural-C201-StairConstruction

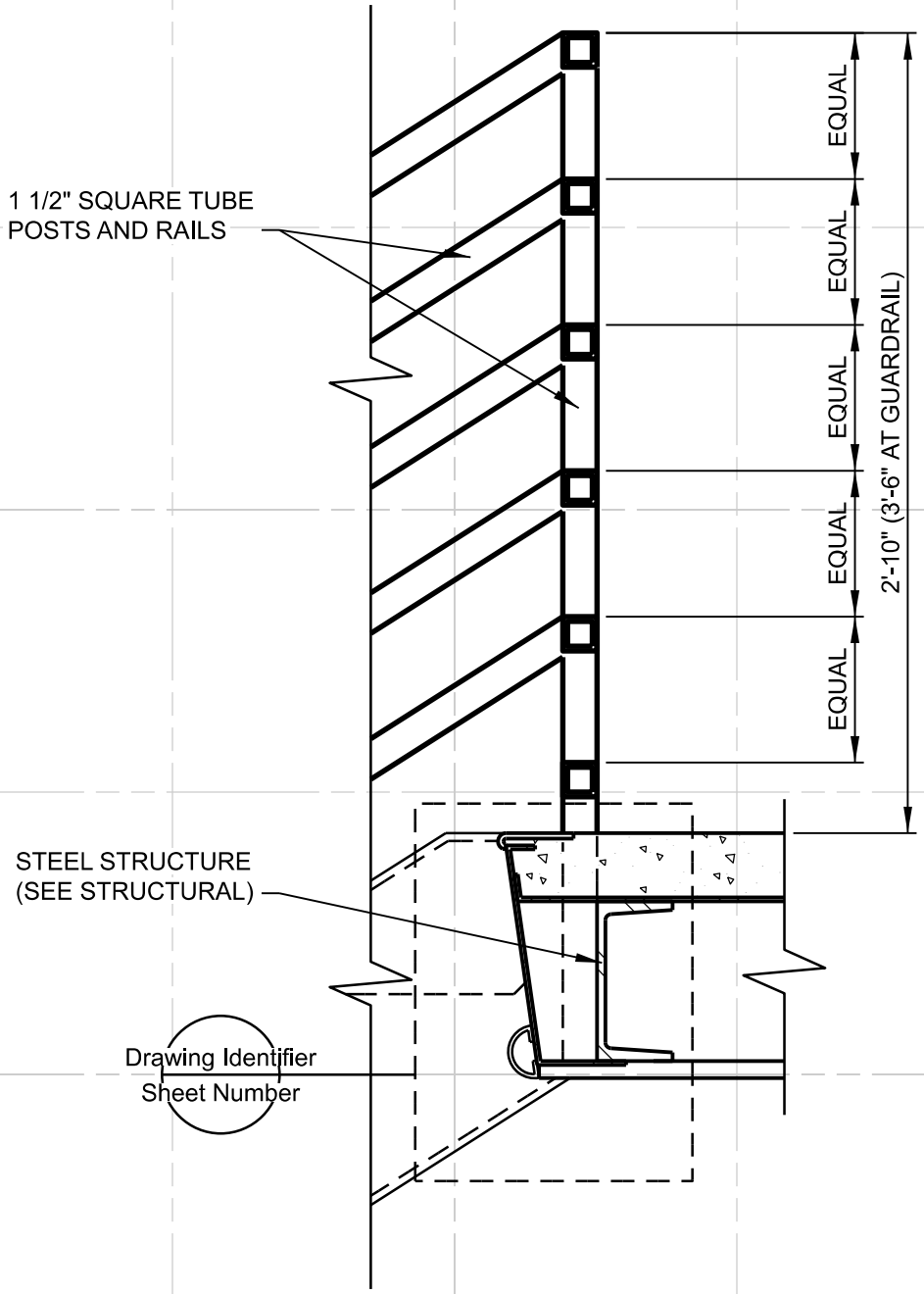


A1

DETAIL: METAL STAIR

SCALE: 3"=1'-0"

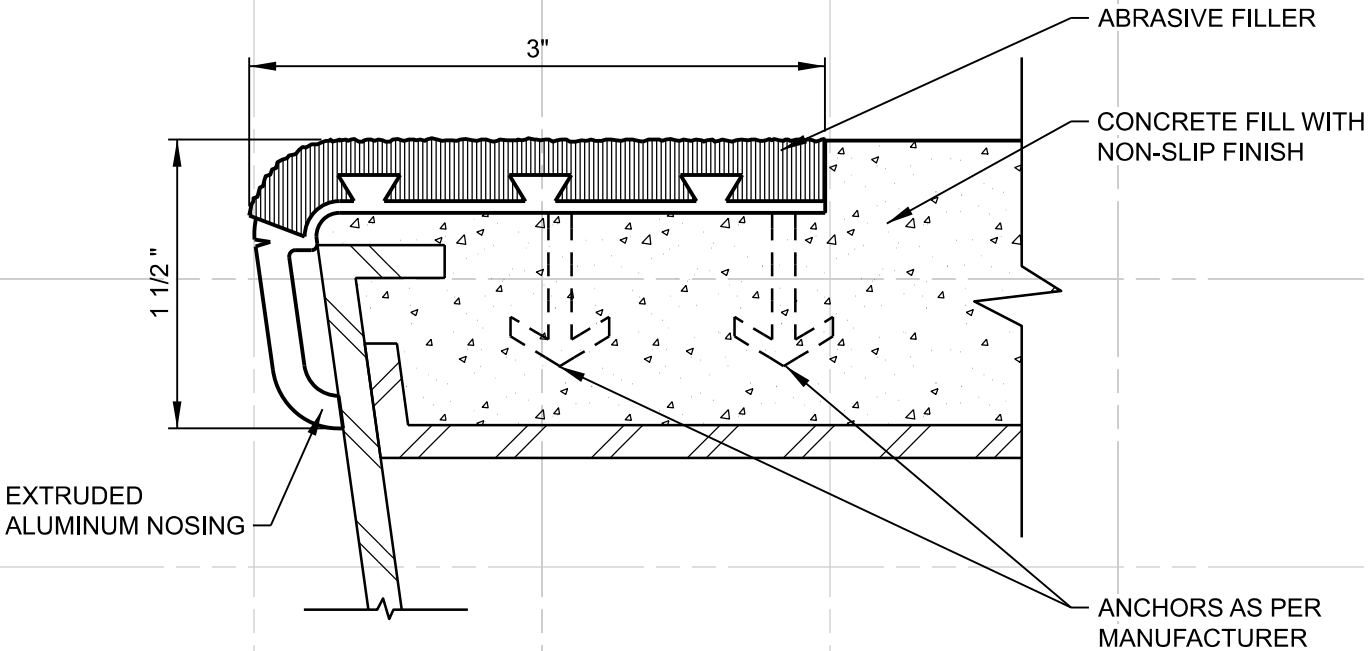
0 3" 6" 1'



DETAIL: TOP METAL STAIR WITH SQUARE TUBE POSTS AND RAILS

A1

SCALE:1 1/2"=1'-0"0 6" 1' 2'

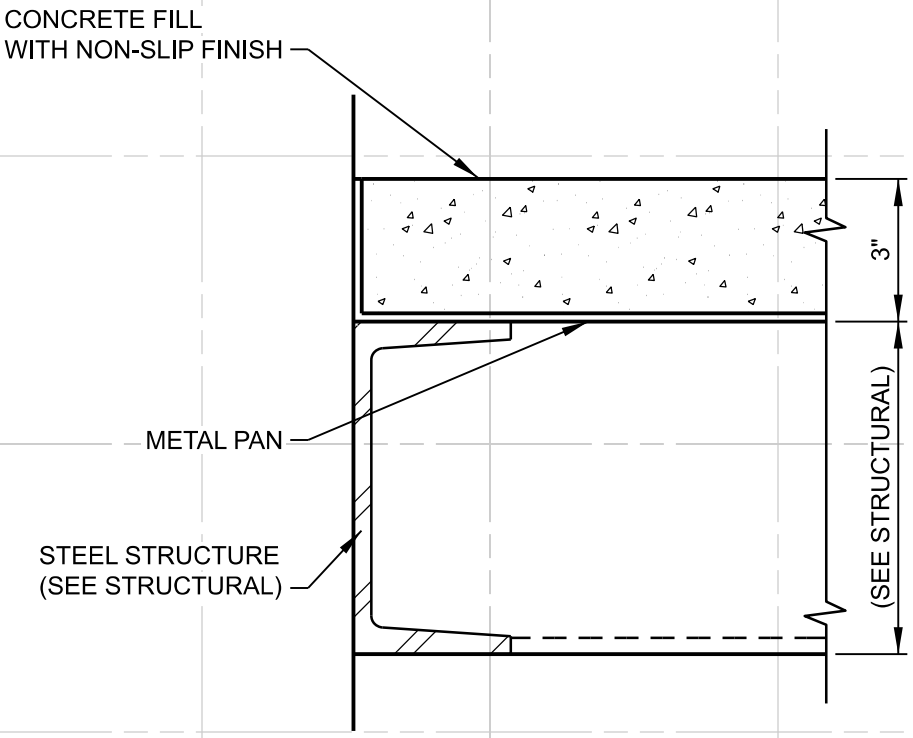


A1

DETAIL: METAL STAIR

SCALE: 12"=1'-0" FULL SCALE

0 1/2" 1" 2"

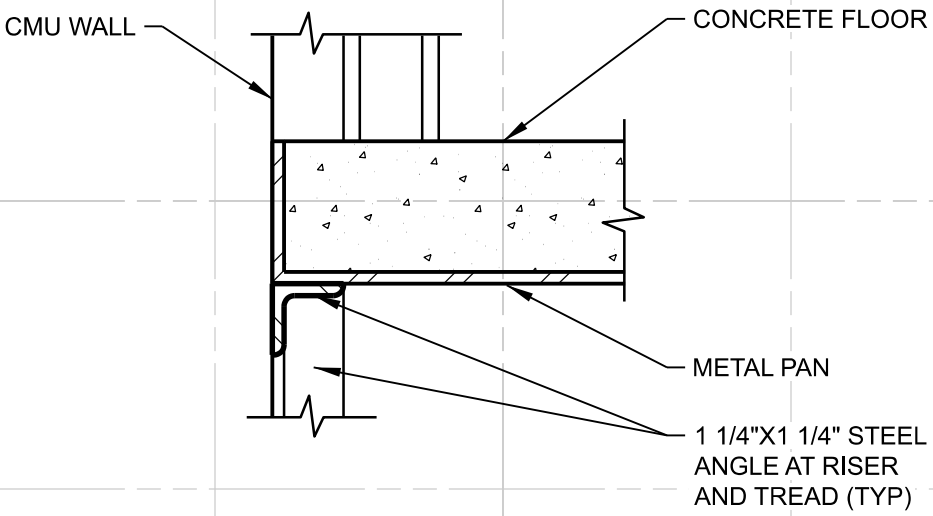


A1

DETAIL: LANDING

SCALE: 3"=1'-0"

0 3" 6" 1'

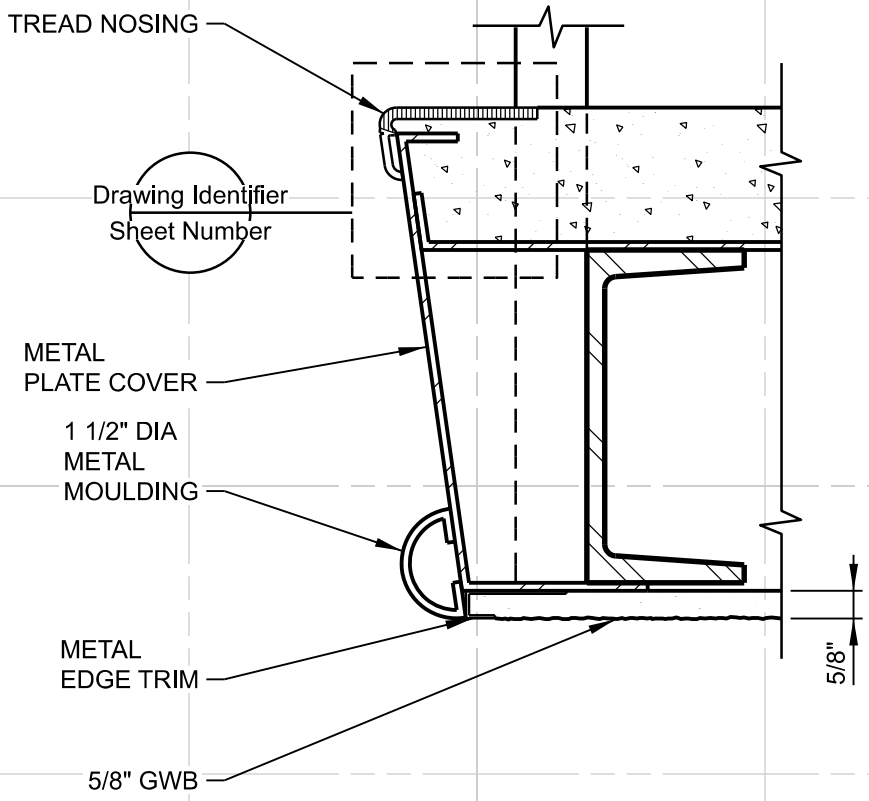


A1

DETAIL: LANDING

SCALE: 3"=1'-0"

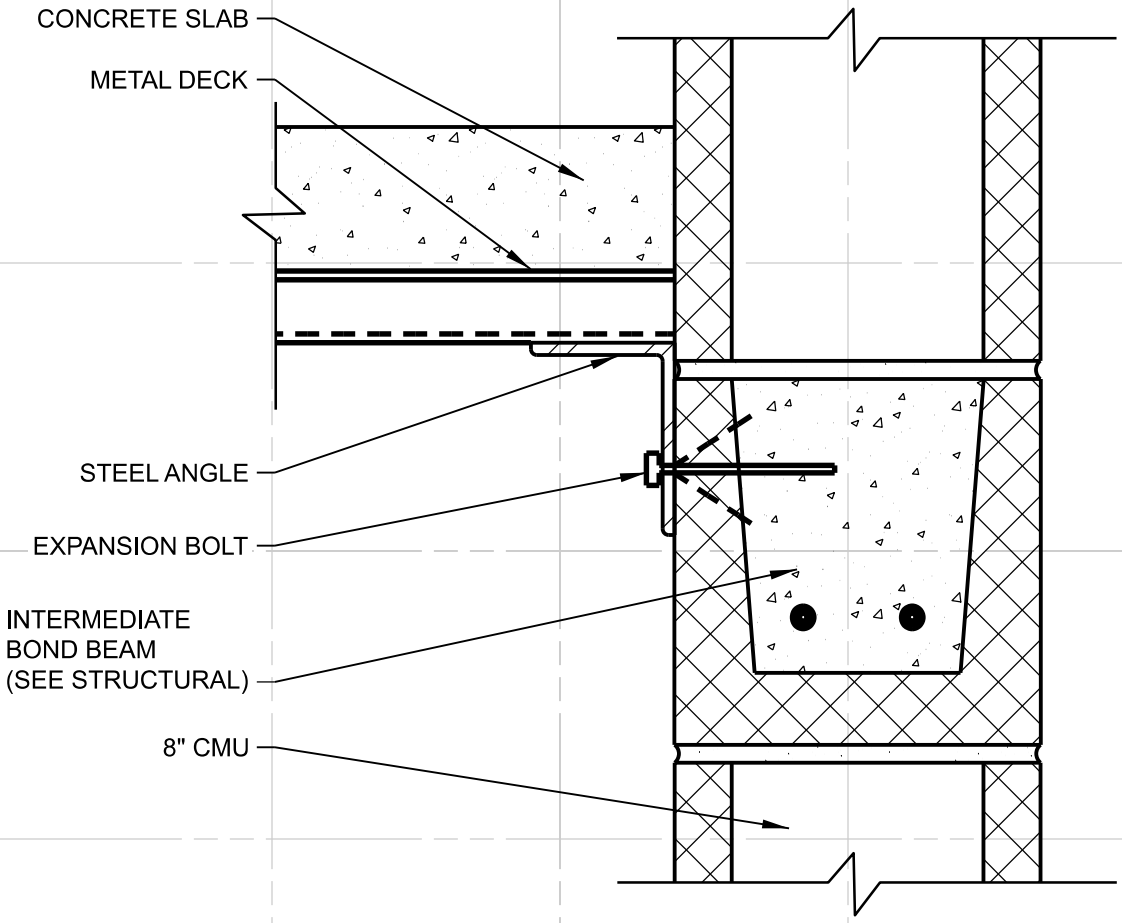
0 3" 6" 1'



A1 DETAIL: LANDING

SCALE: 3"=1'-0" 0 3" 6" 1'

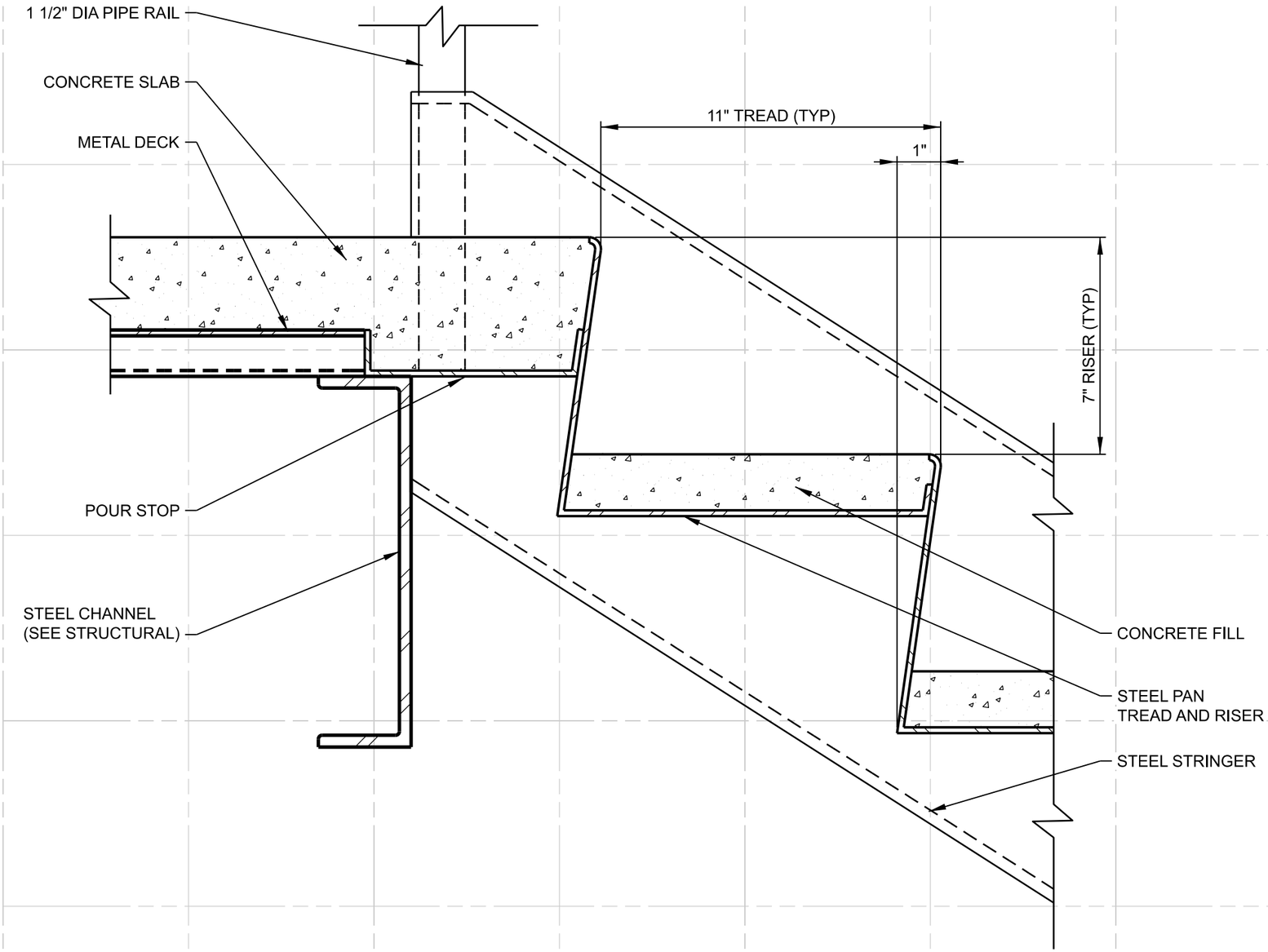
Detail C2013A-DT008X



A1

DETAIL: LANDING

SCALE: 3"=1'-0" 0 3" 6" 1'

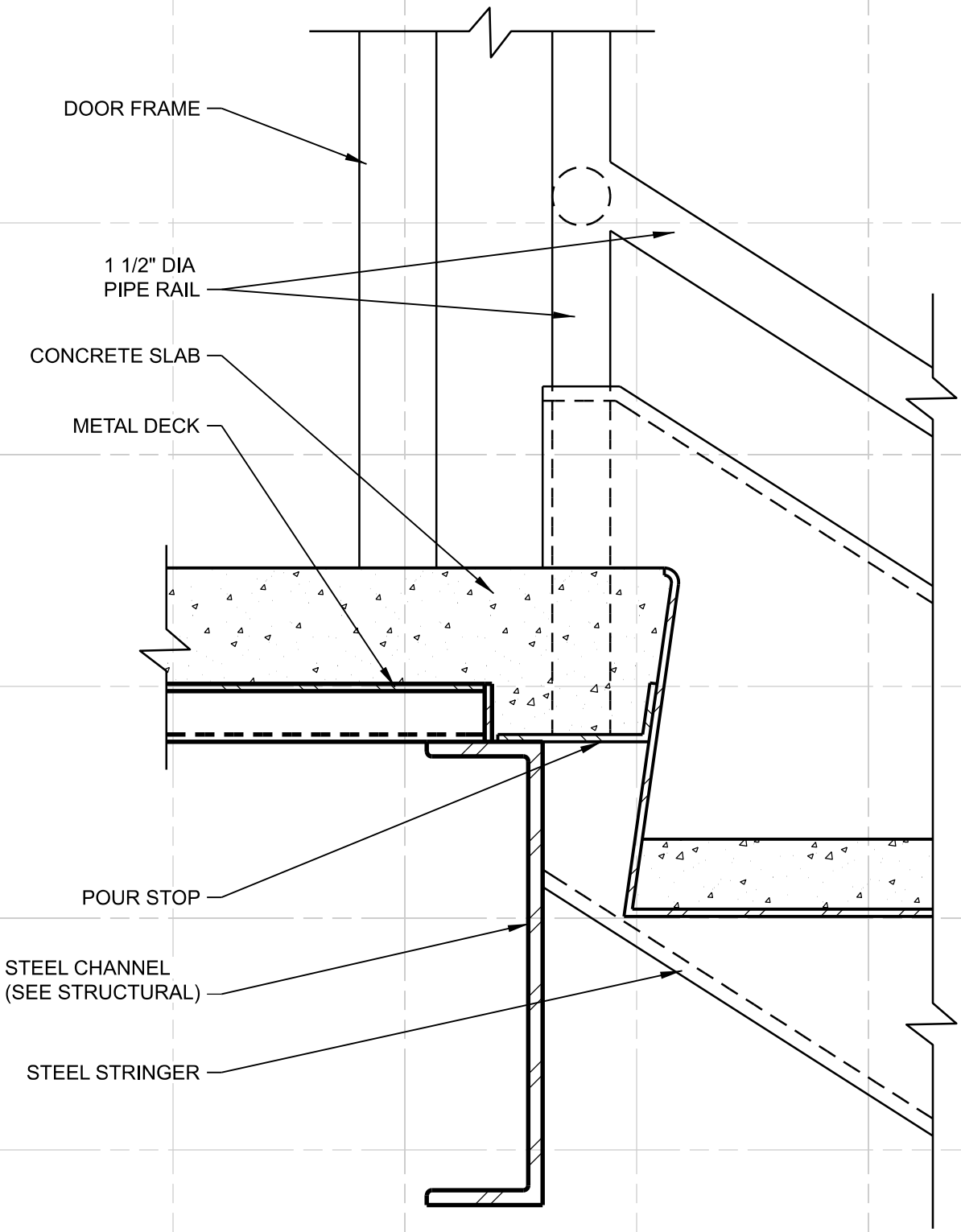


A1 DETAIL: METAL STAIR

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C2013A-DT010X

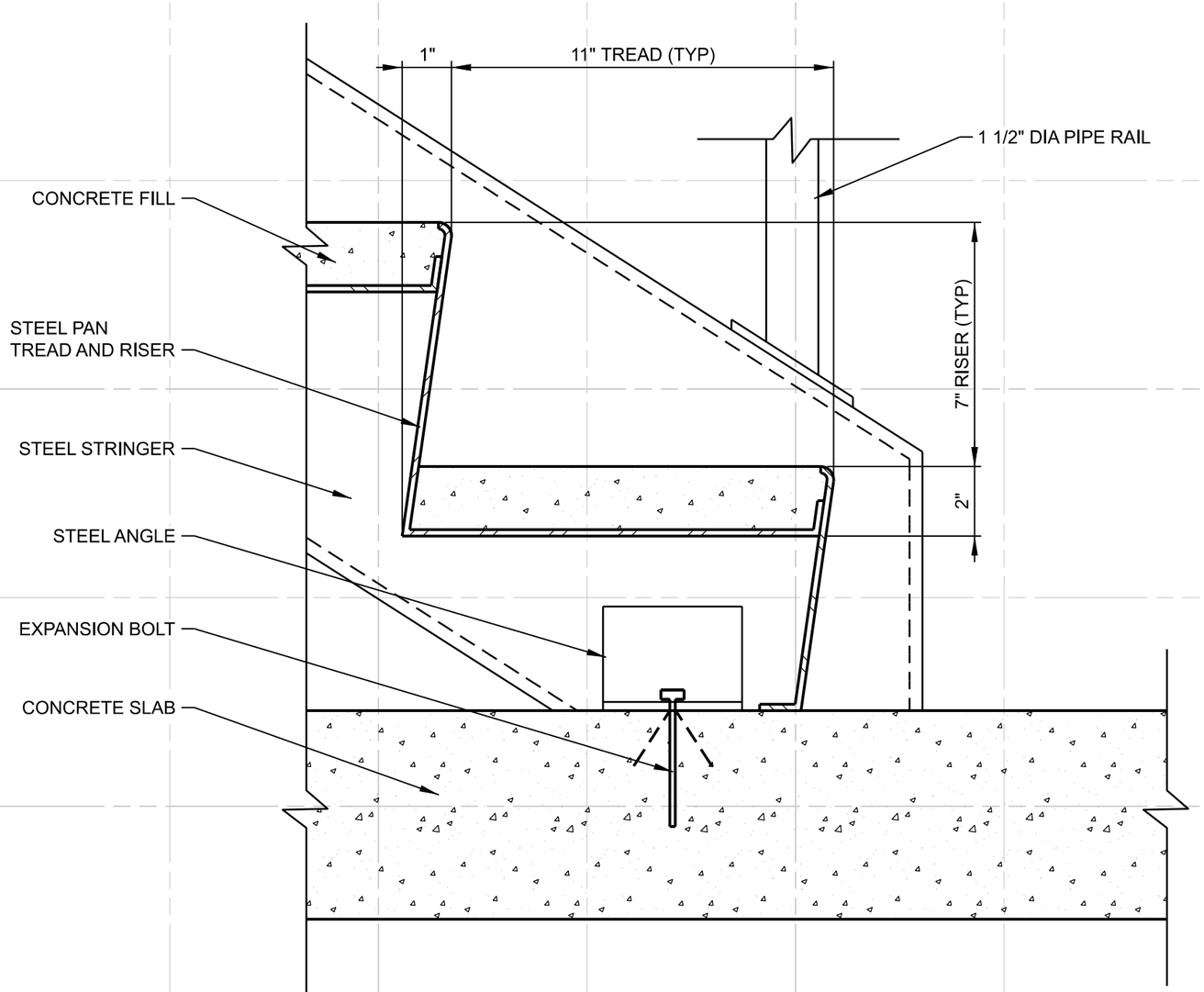


A1

DETAIL: LANDING

SCALE: 3"=1'-0"

0 3" 6" 1'

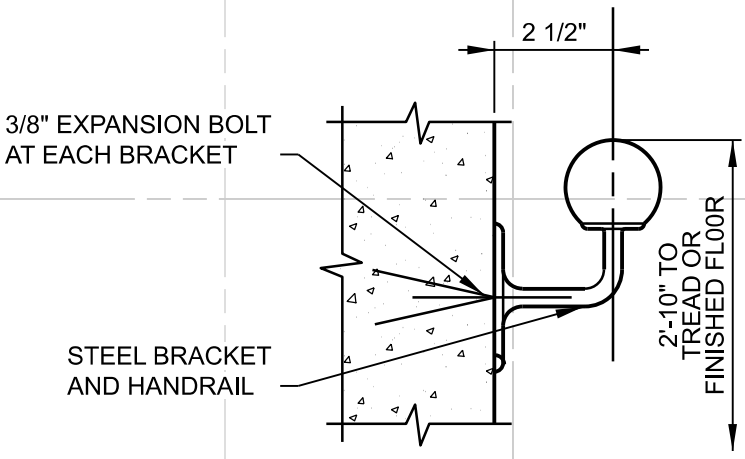


A1 DETAIL: TREAD

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C2013A-DT012X



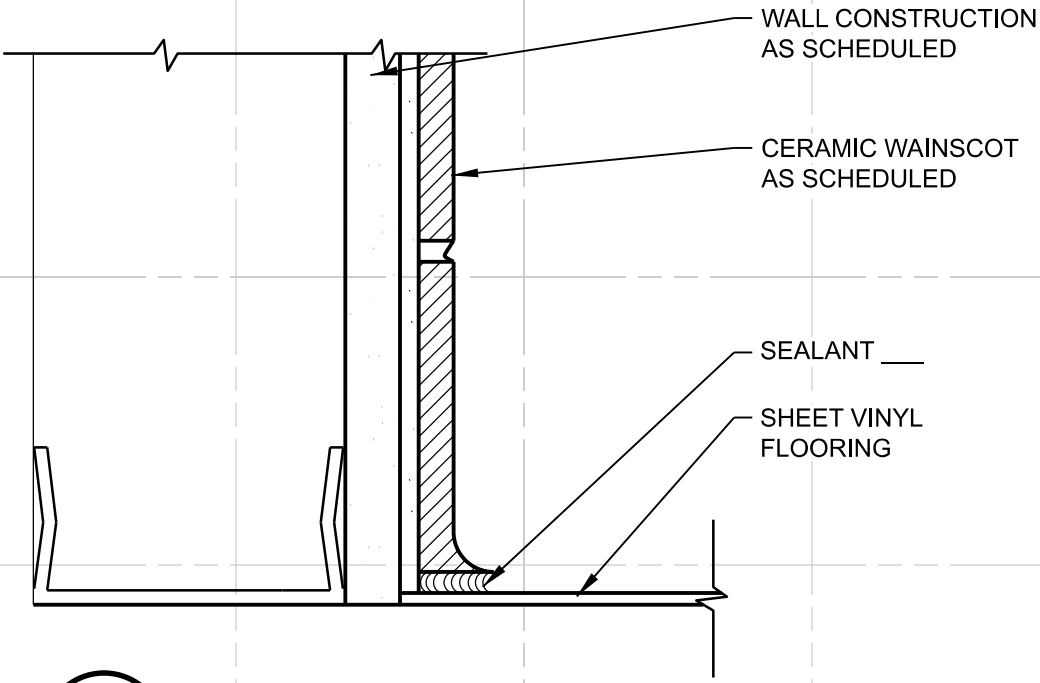
A1

DETAIL: HANDRAIL MOUNTING

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C2029A-DT001X

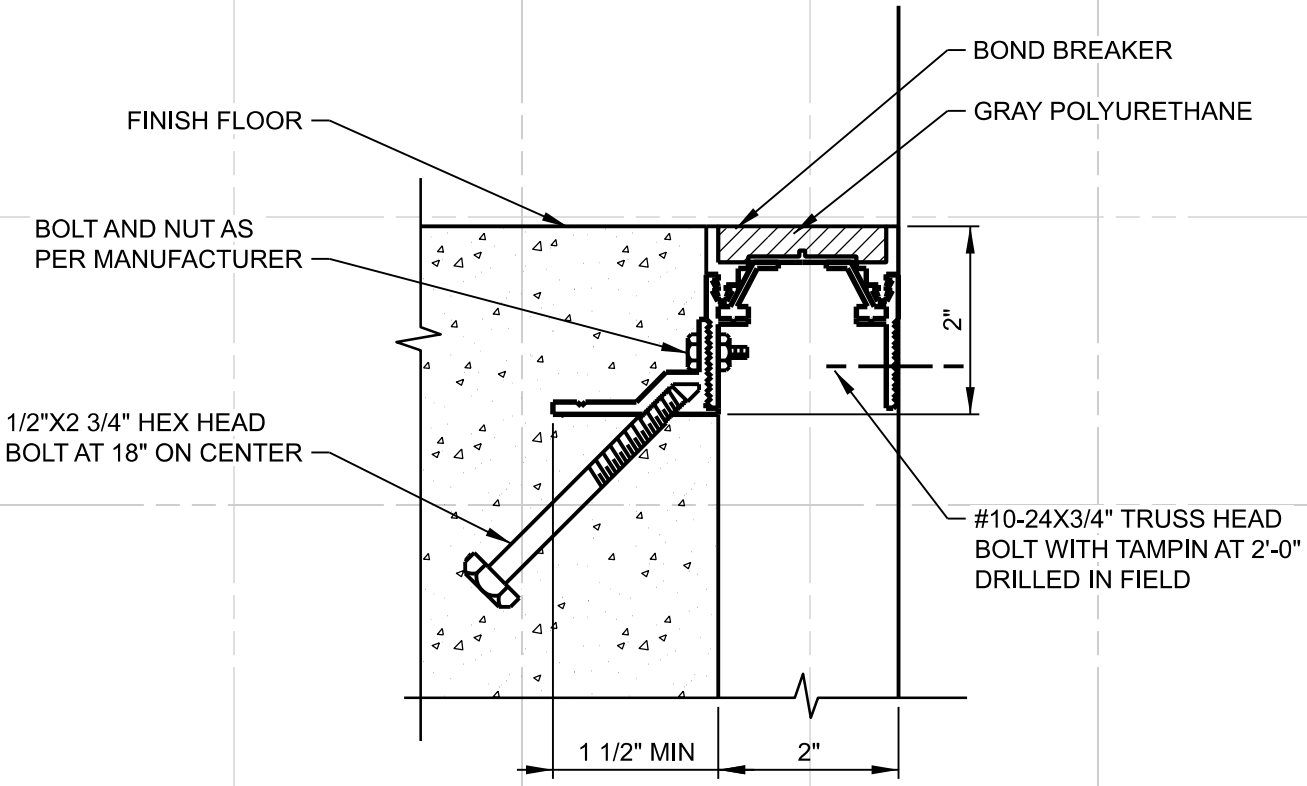


A1

DETAIL: BASE

SCALE: 3"=1'-0" 0 3" 6" 1'

Detail C3020A-DT001X



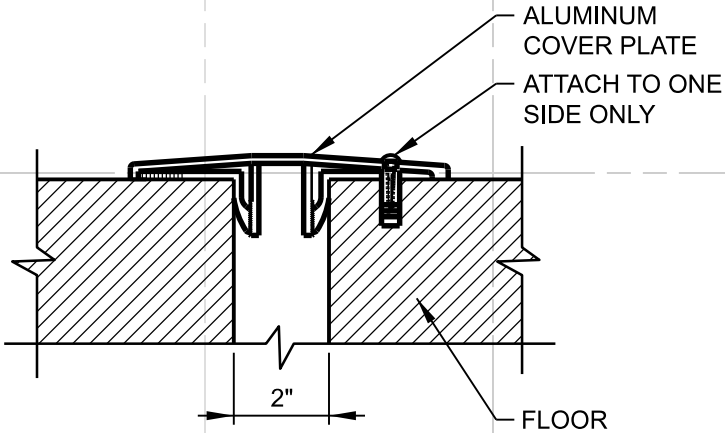
FLOOR TO WALL

A1

DETAIL: EXPANSION JOINT

SCALE: 6"=1'-0"

0 1-1/2" 3" 6"



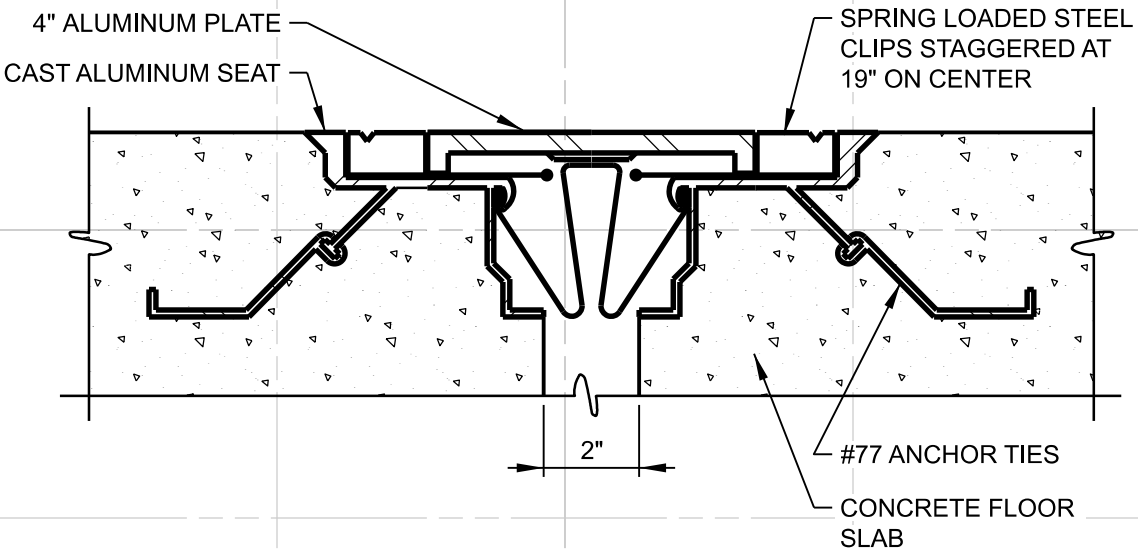
A1

DETAIL:
EXPANSION JOINT

SCALE: 3"=1'-0"

0 3" 6" 1'

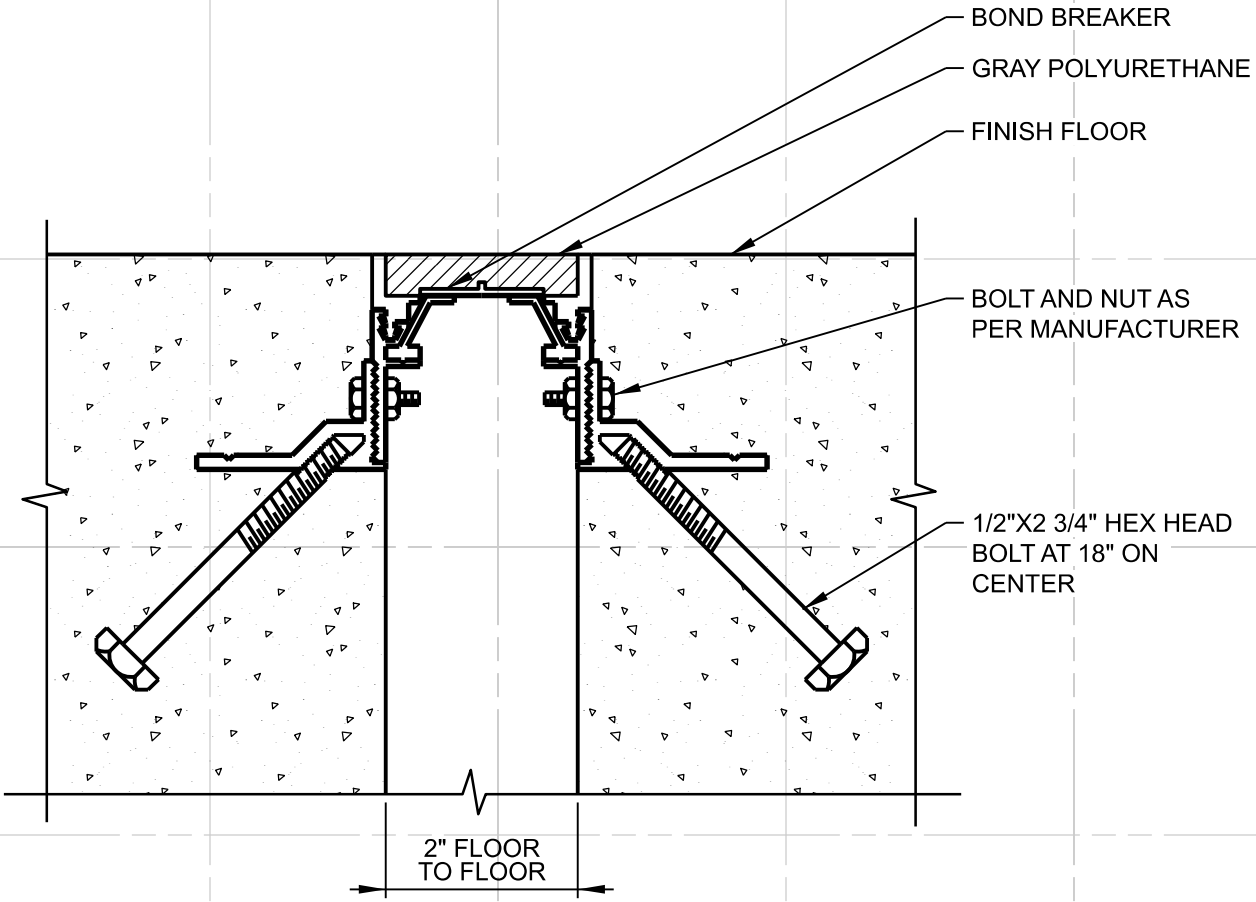
Detail C3020A-DT003X



A1

DETAIL: EXPANSION JOINT

SCALE: 3"=1'-0" 0 3" 6" 1'



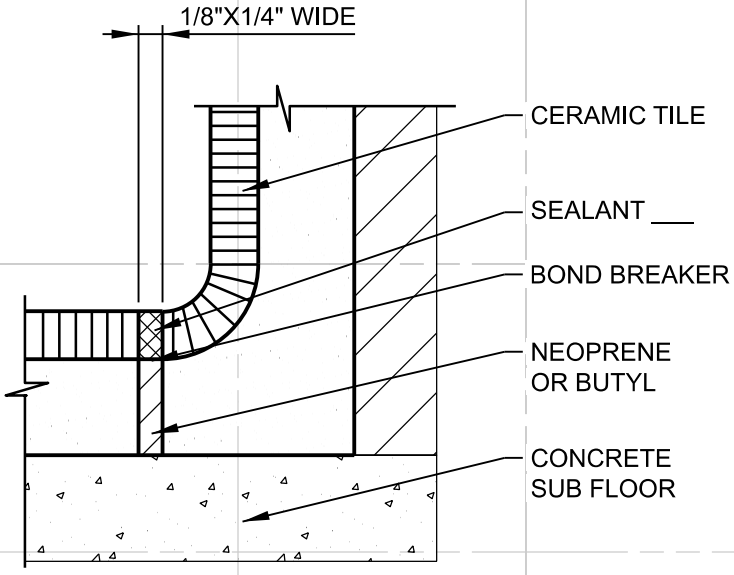
A1

DETAIL: EXPANSION JOINT

SCALE: 6"=1'-0"

0 1-1/2" 3" 6"

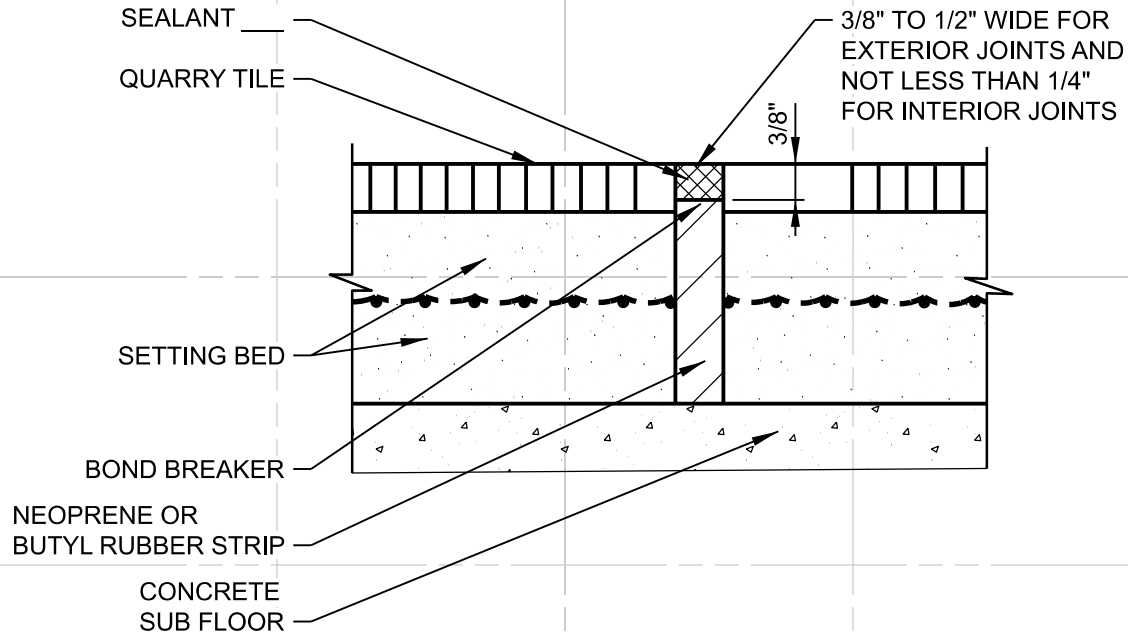
Detail C3020A-DT005X



A1

DETAIL:
SEALANT JOINT

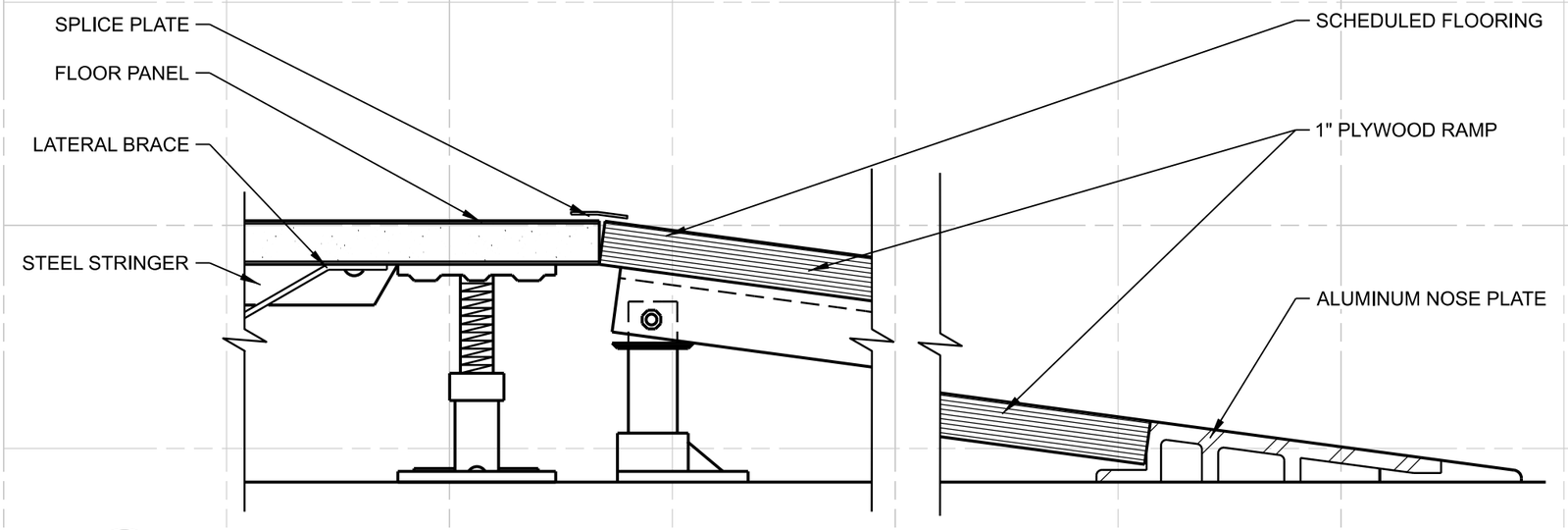
SCALE: NTS



A1

DETAIL: SEALANT JOINT

SCALE: NTS

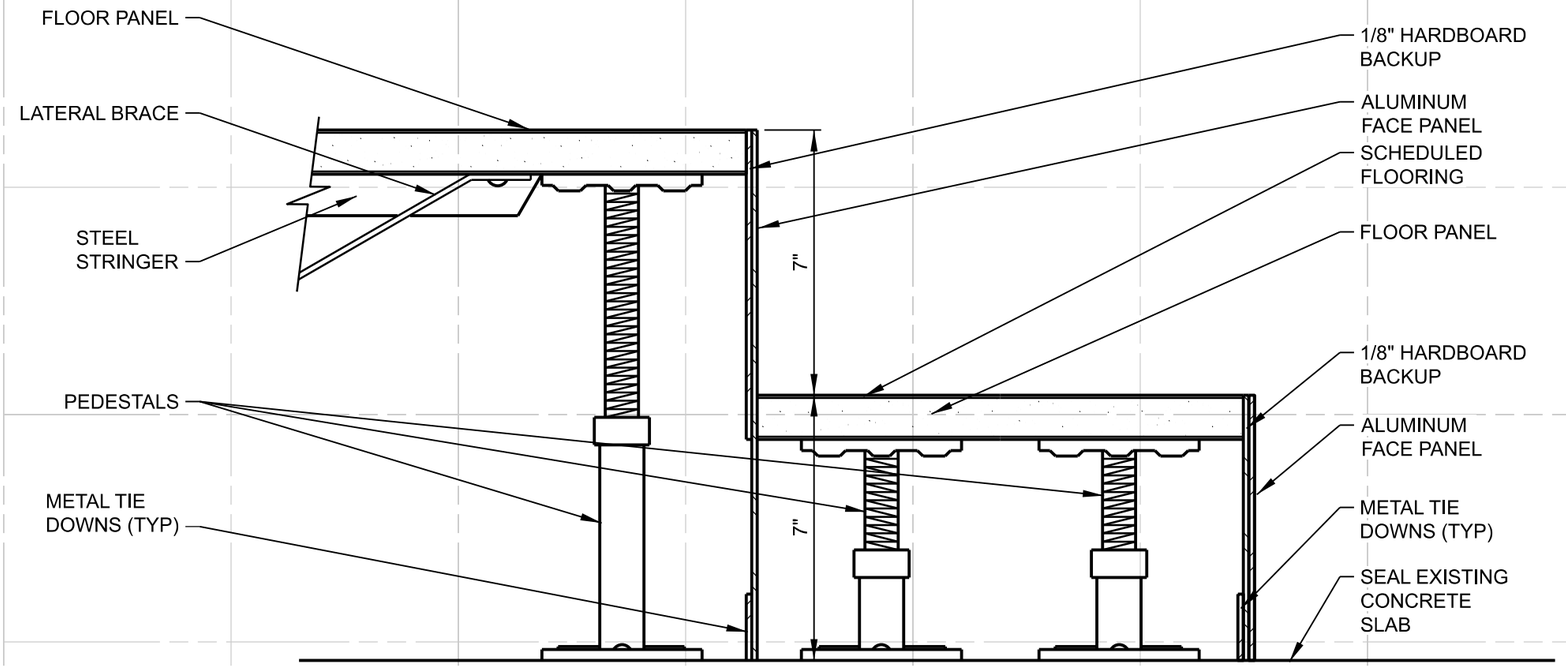


A1 DETAIL: RAMP

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C3029A-DT001X

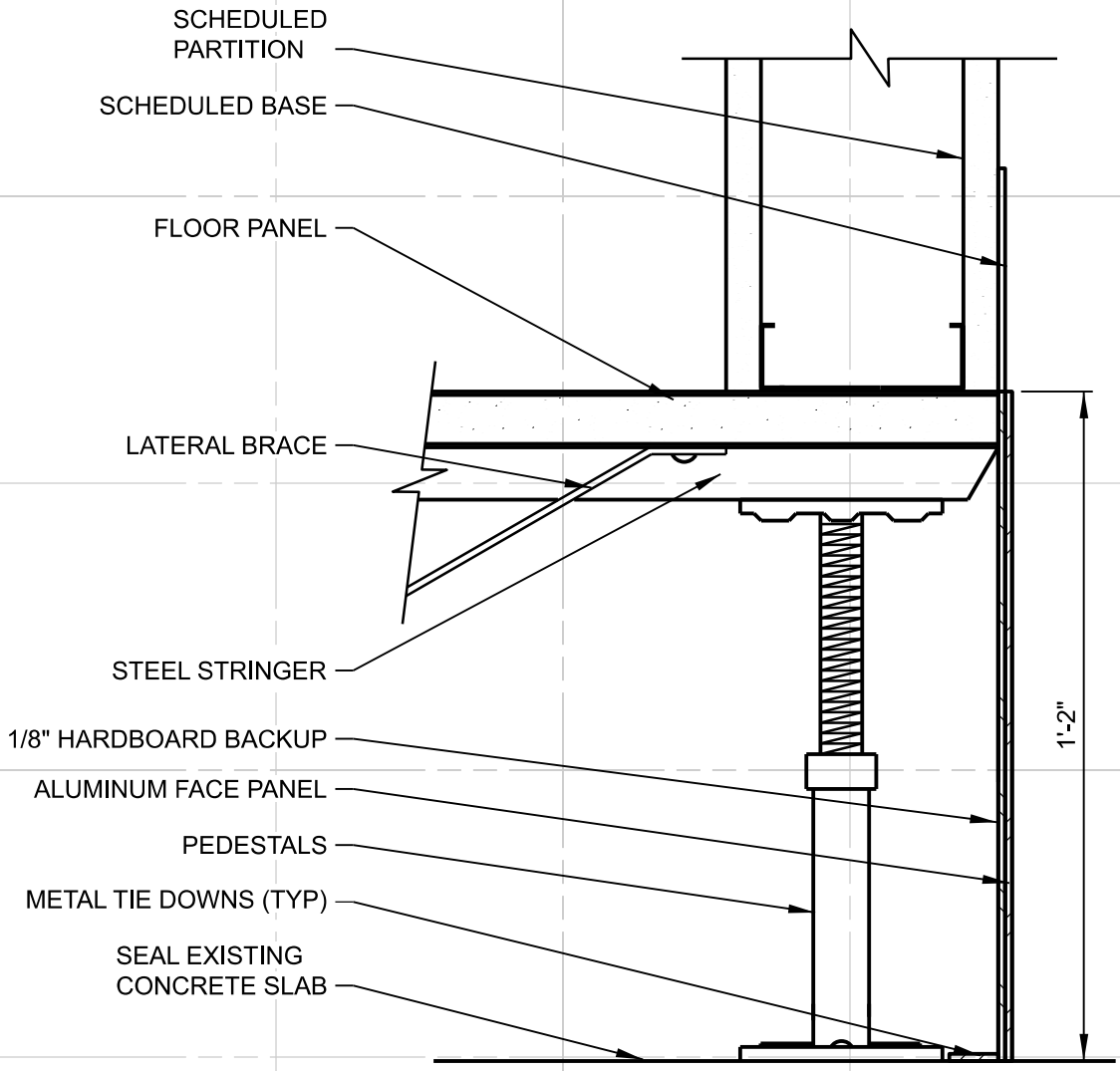


A1 DETAIL: RAISED FLOOR

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C3029A-DT002X

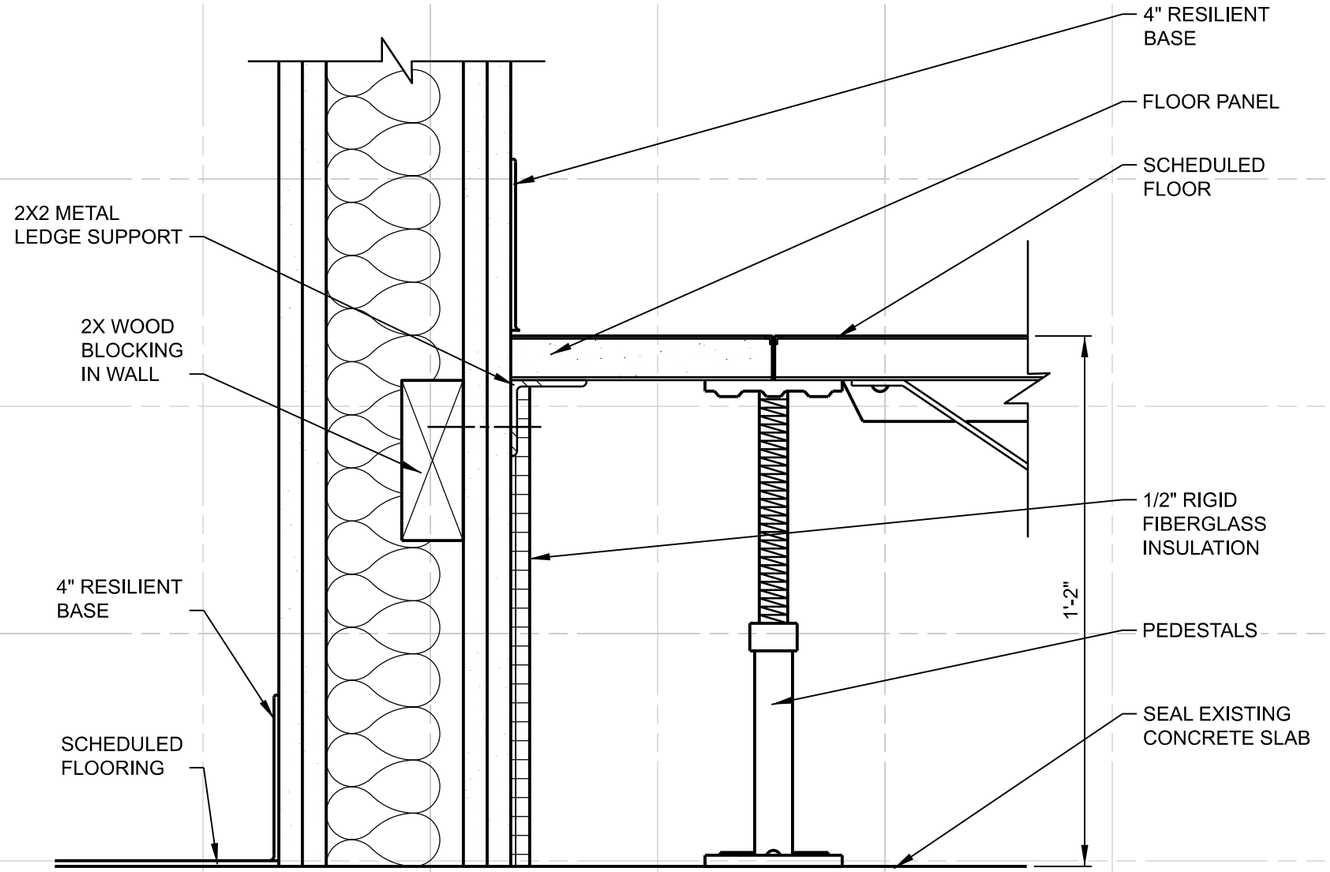


A1

DETAIL: RAISED FLOOR

SCALE: 3"=1'-0" 0 3" 6" 1'

Detail C3029A-DT003X

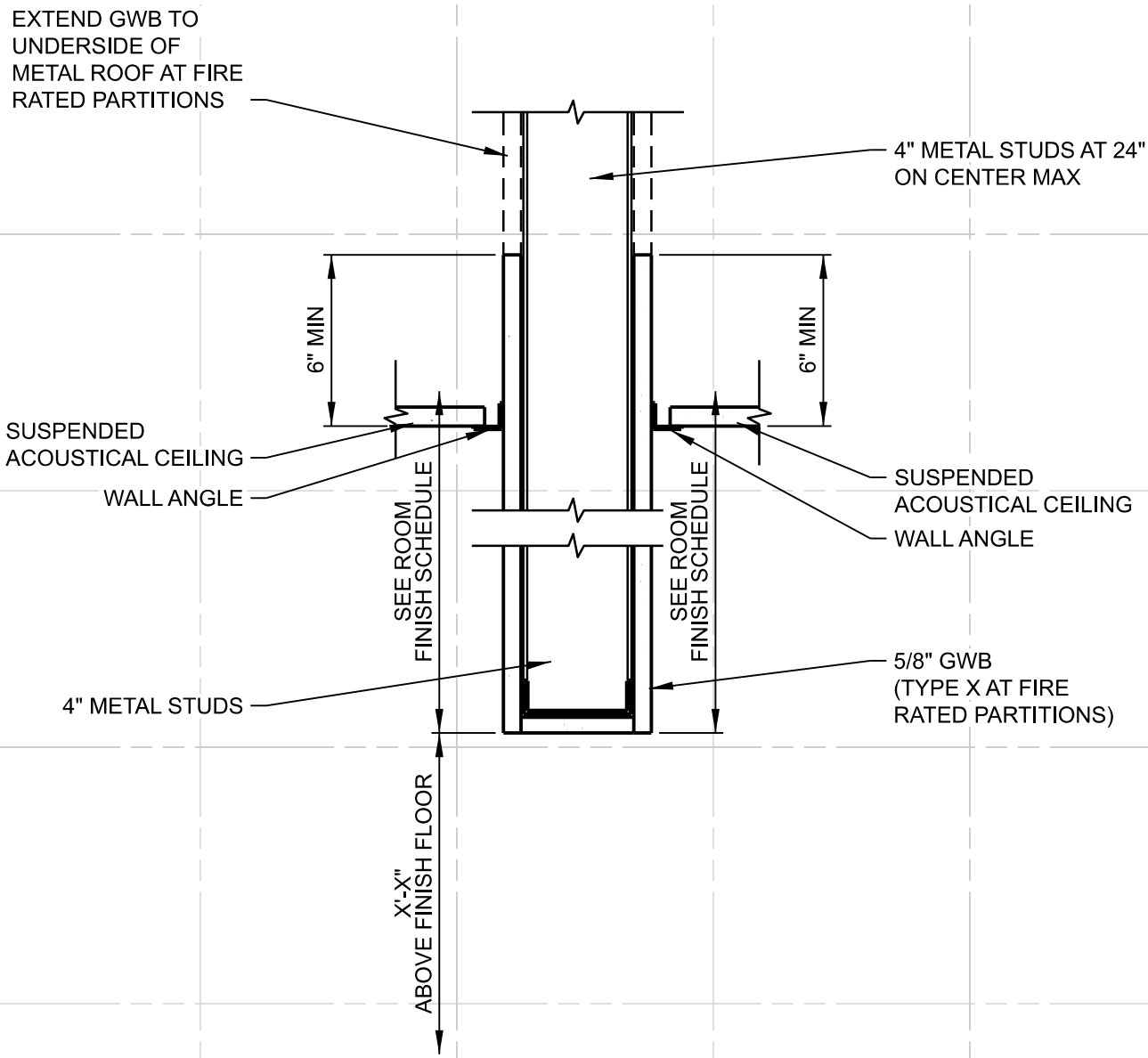


A1 DETAIL: RAISED FLOOR ACOUSTICAL WALL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C3029A-DT004X



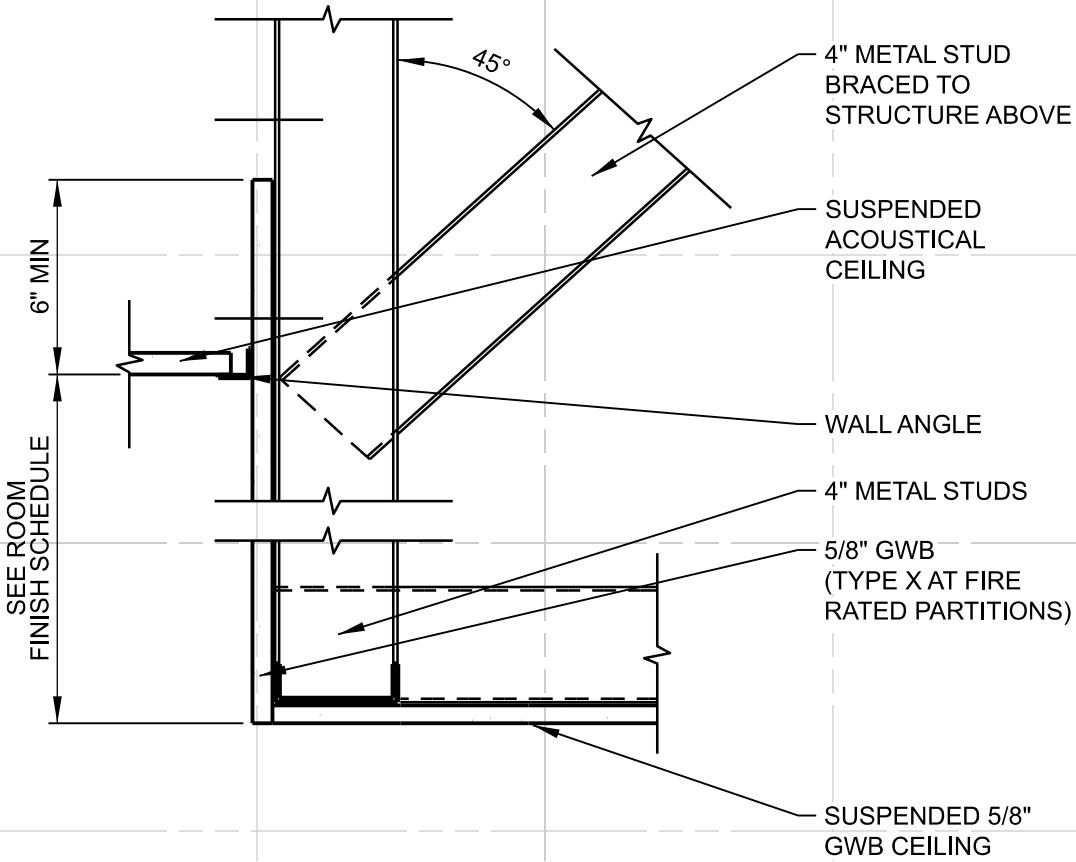
A1

DETAIL: LAY-IN CEILING

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

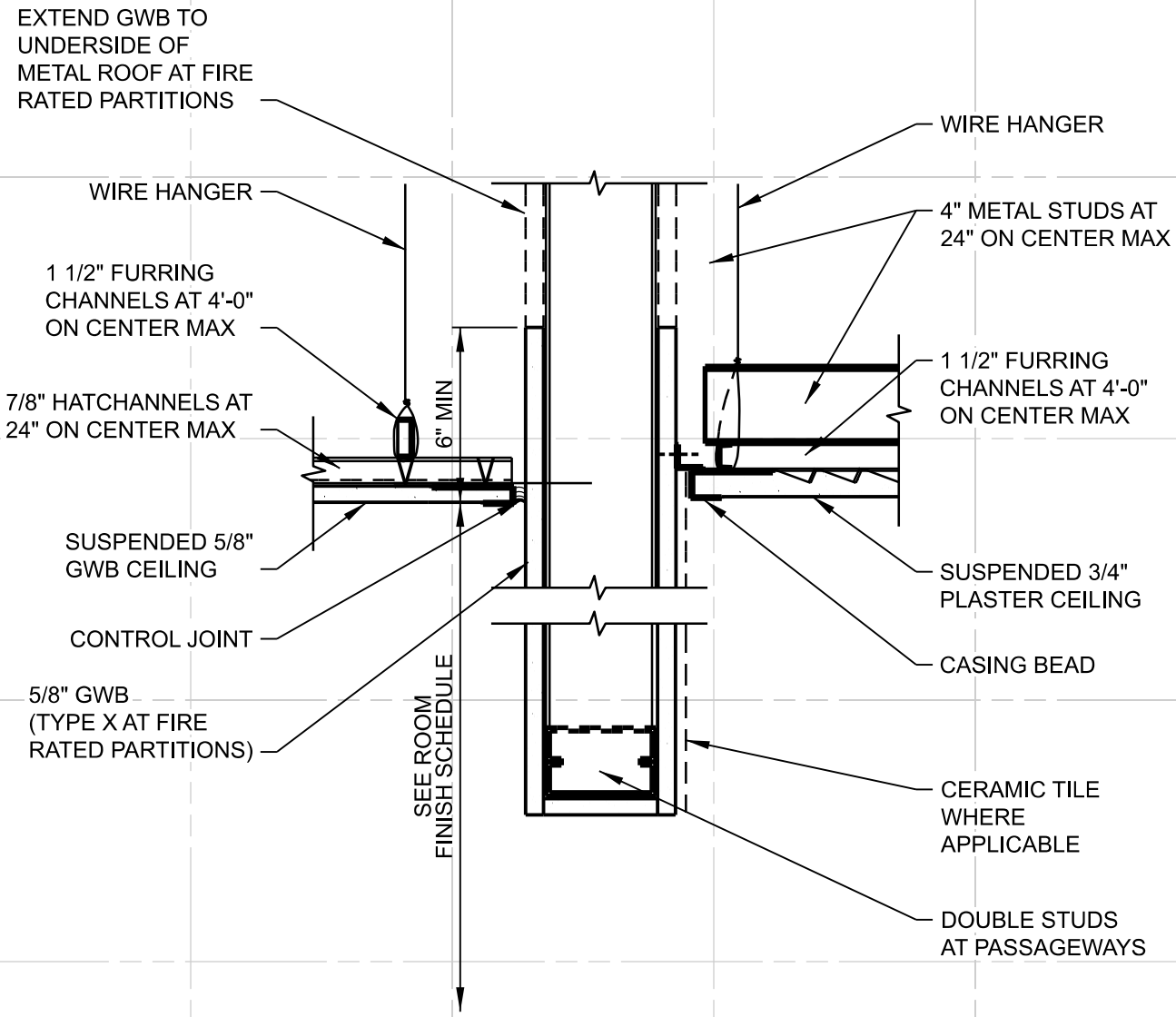
Detail C3030A-DT001X



A1

DETAIL: LAY-IN CEILING

SCALE:1 1/2"=1'-0" 0 6" 1' 2'

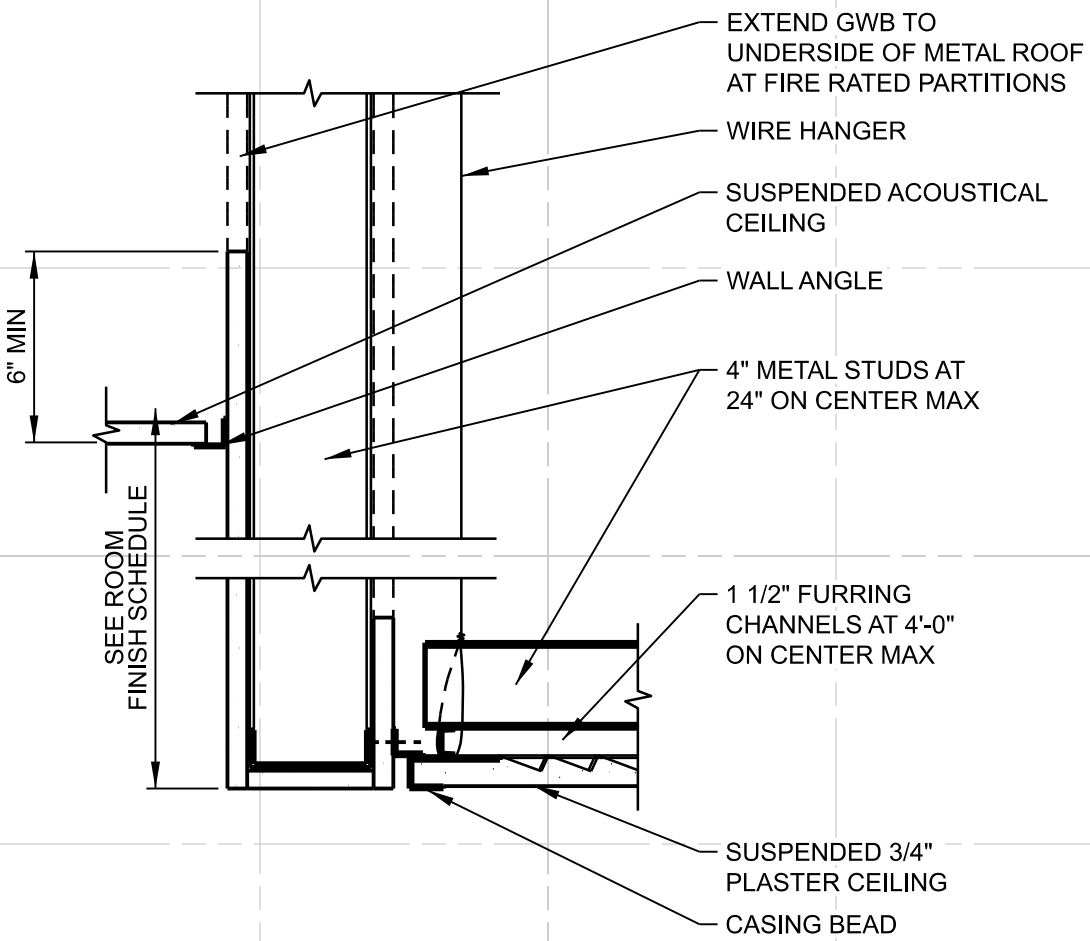


A1

DETAIL: LAY-IN CEILING

SCALE: 1 1/2"=1'-0"

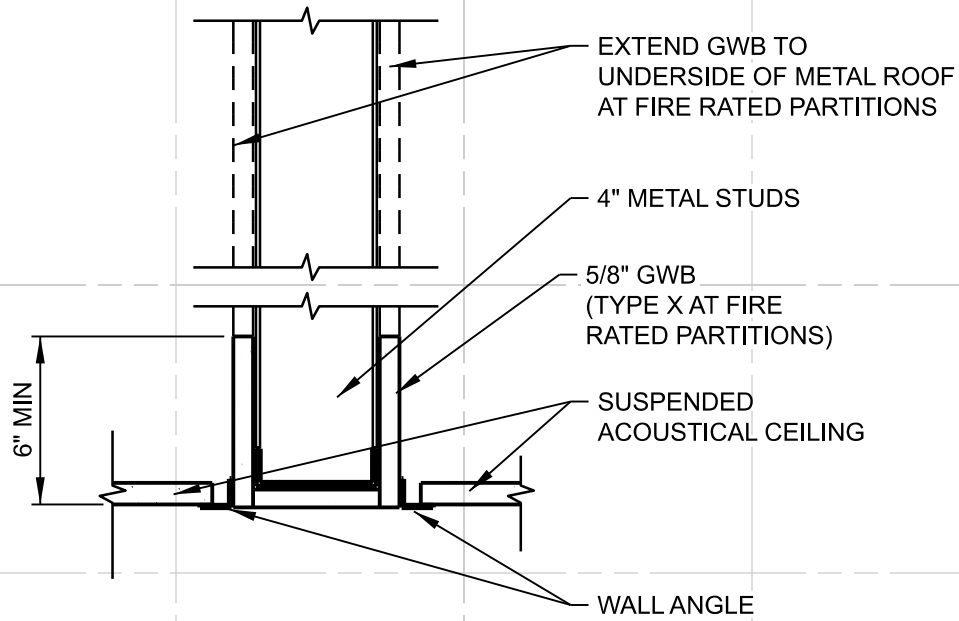
0 6" 1' 2'



A1

DETAIL: LAY-IN CEILING

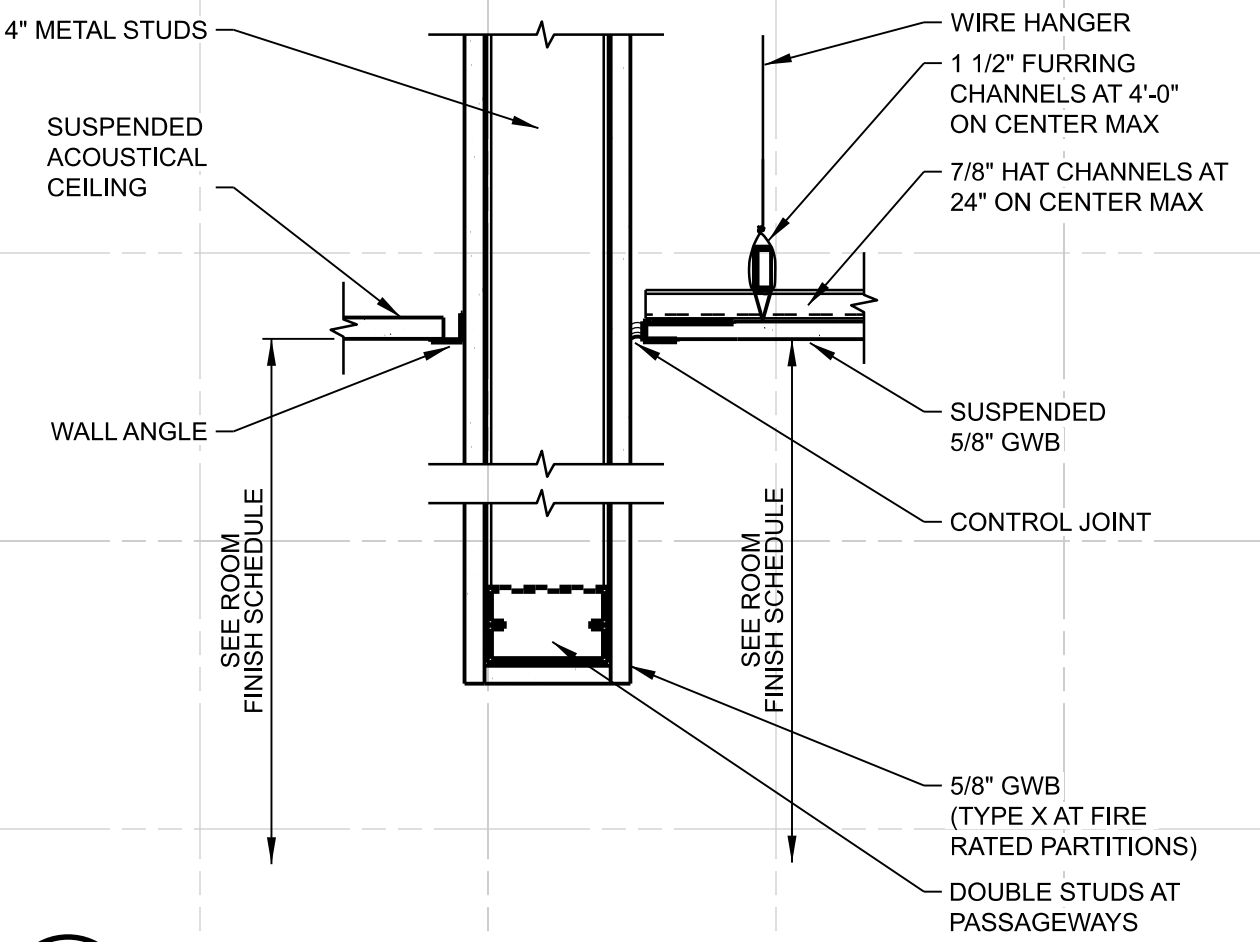
SCALE:1 1/2"=1'-0" 0 6" 1' 2'



A1

DETAIL: LAY-IN CEILING

SCALE:1 1/2"=1'-0" 0 6" 1' 2'

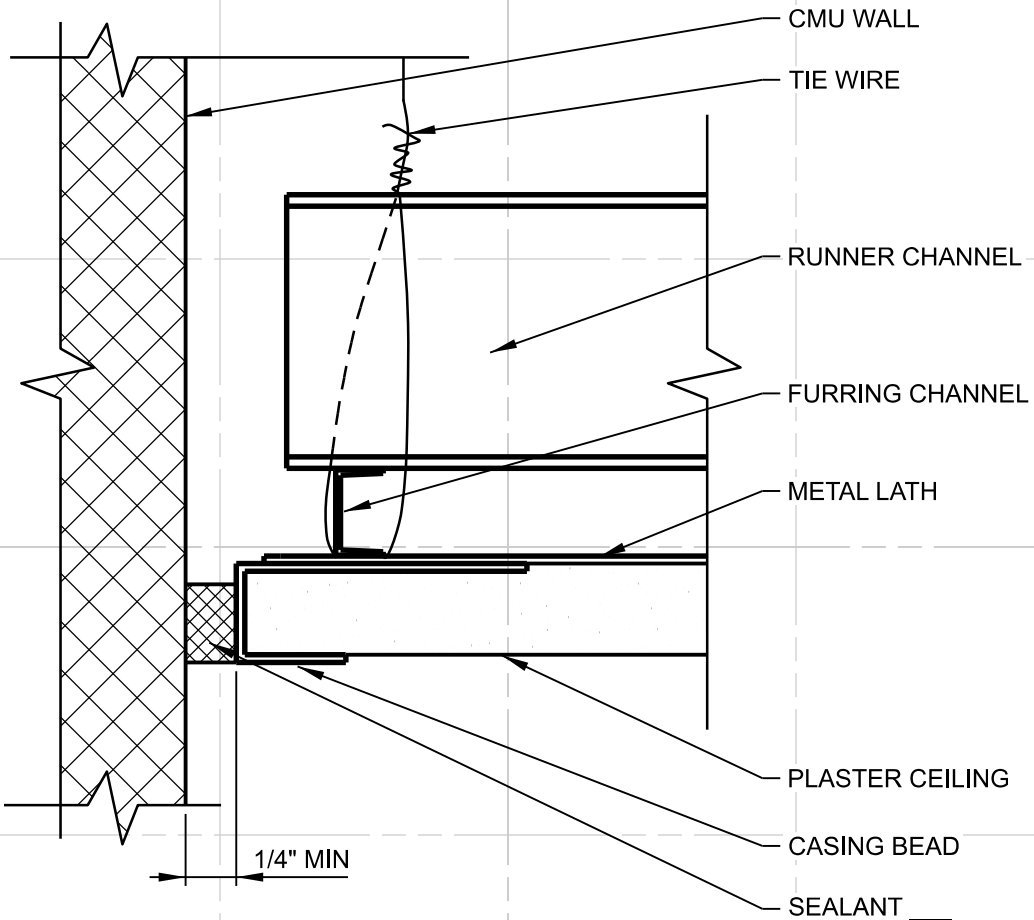


A1

DETAIL: LAY-IN CEILING

SCALE: 1 1/2"=1'-0"

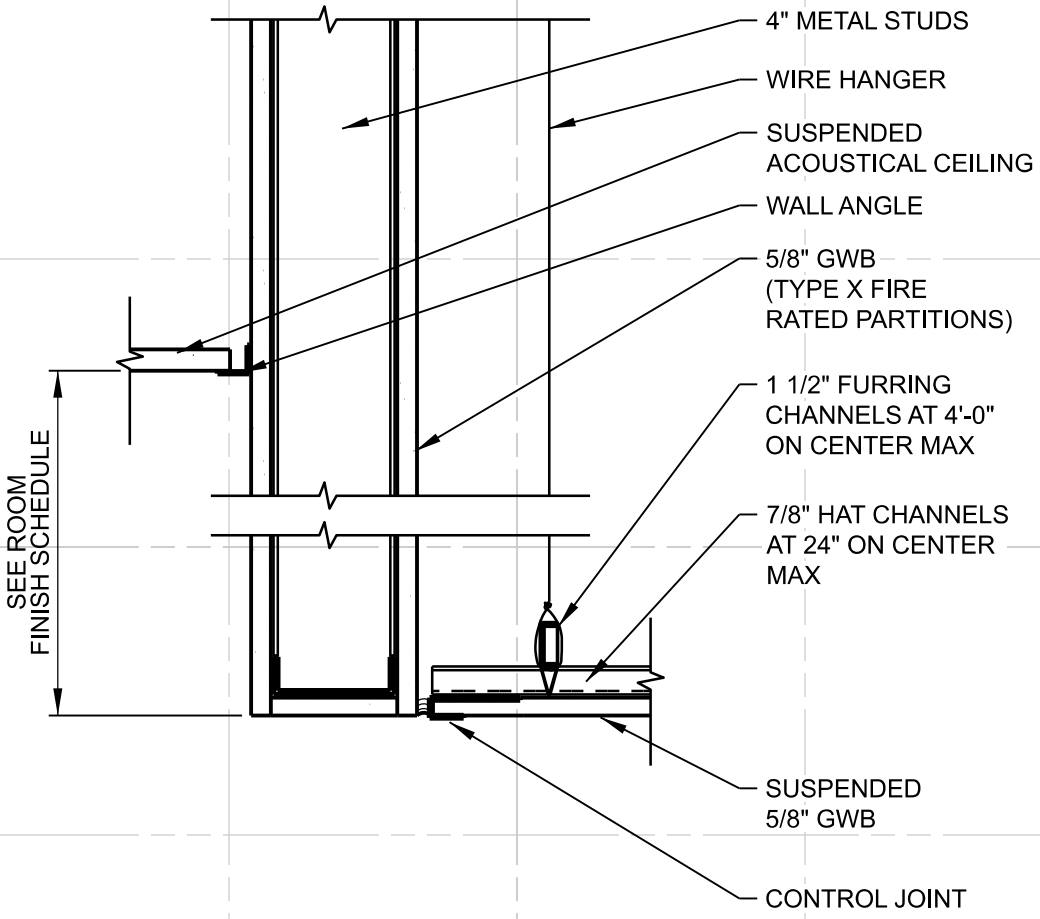
0 6" 1' 2'



A1

DETAIL: PLASTER CEILINGS

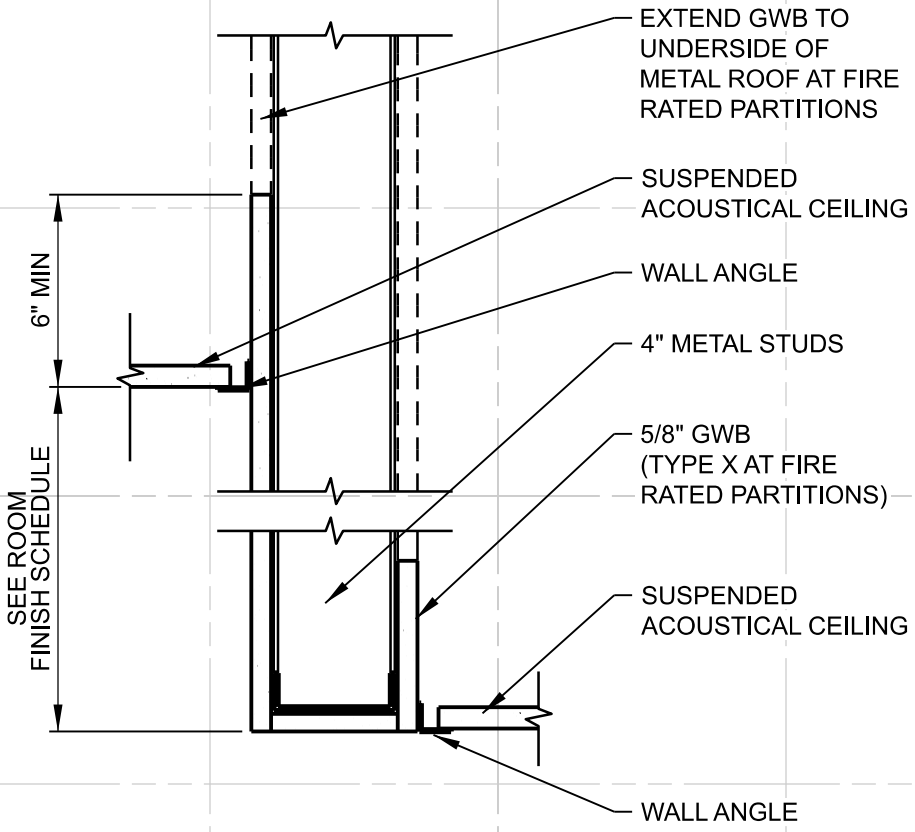
SCALE:1 1/2"=1'-0" 0 6" 1' 2'



A1

DETAIL: PLASTER CEILINGS

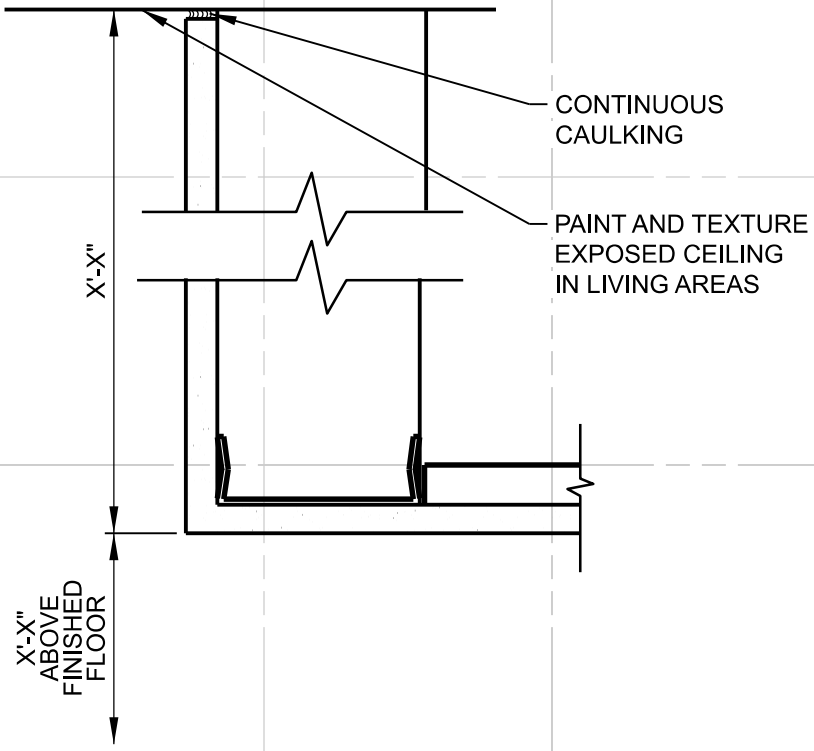
SCALE:1 1/2"=1'-0" 0 6" 1' 2'



A1

DETAIL: LAY-IN CEILING

SCALE:1 1/2"=1'-0" 0 6" 1' 2'

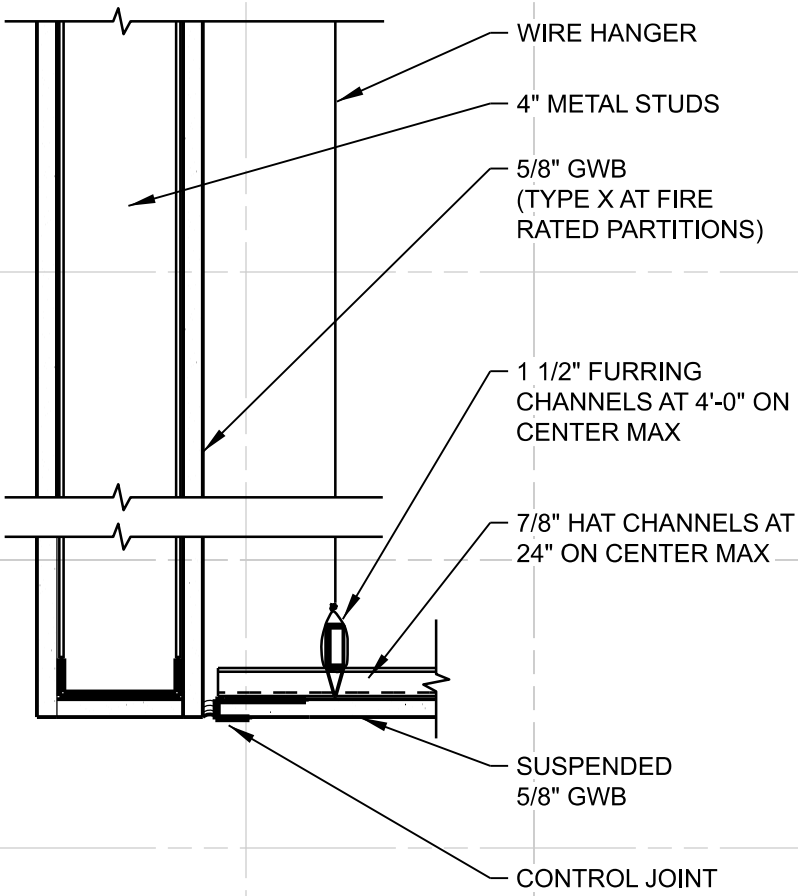


DETAIL: LAY-IN CEILING

A1

SCALE:1 1/2"=1'-0"

0 6" 1' 2'



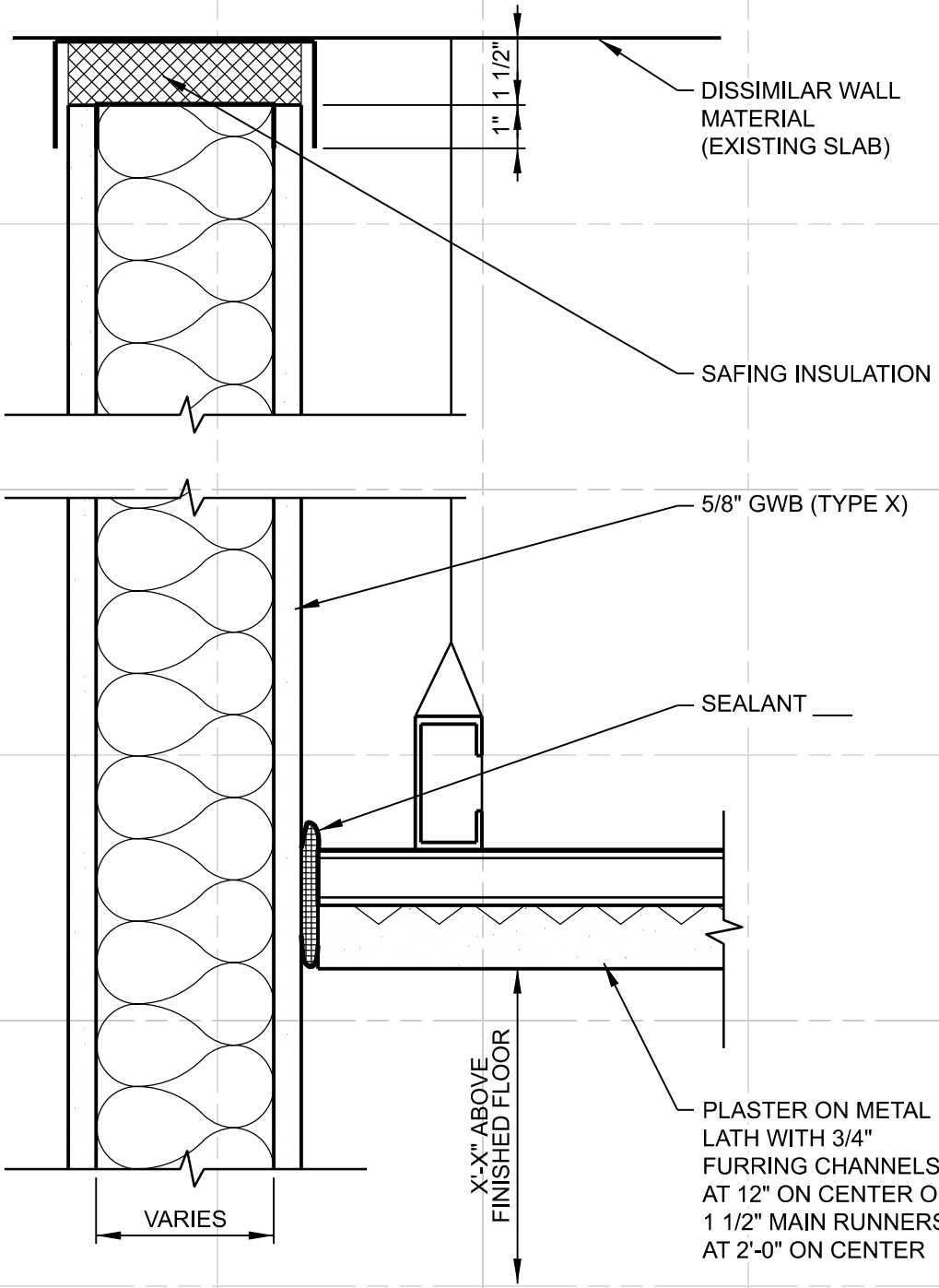
DETAIL: GYPSUM CEILING

A1

SCALE:1 1/2"=1'-0"

0 6" 1' 2'

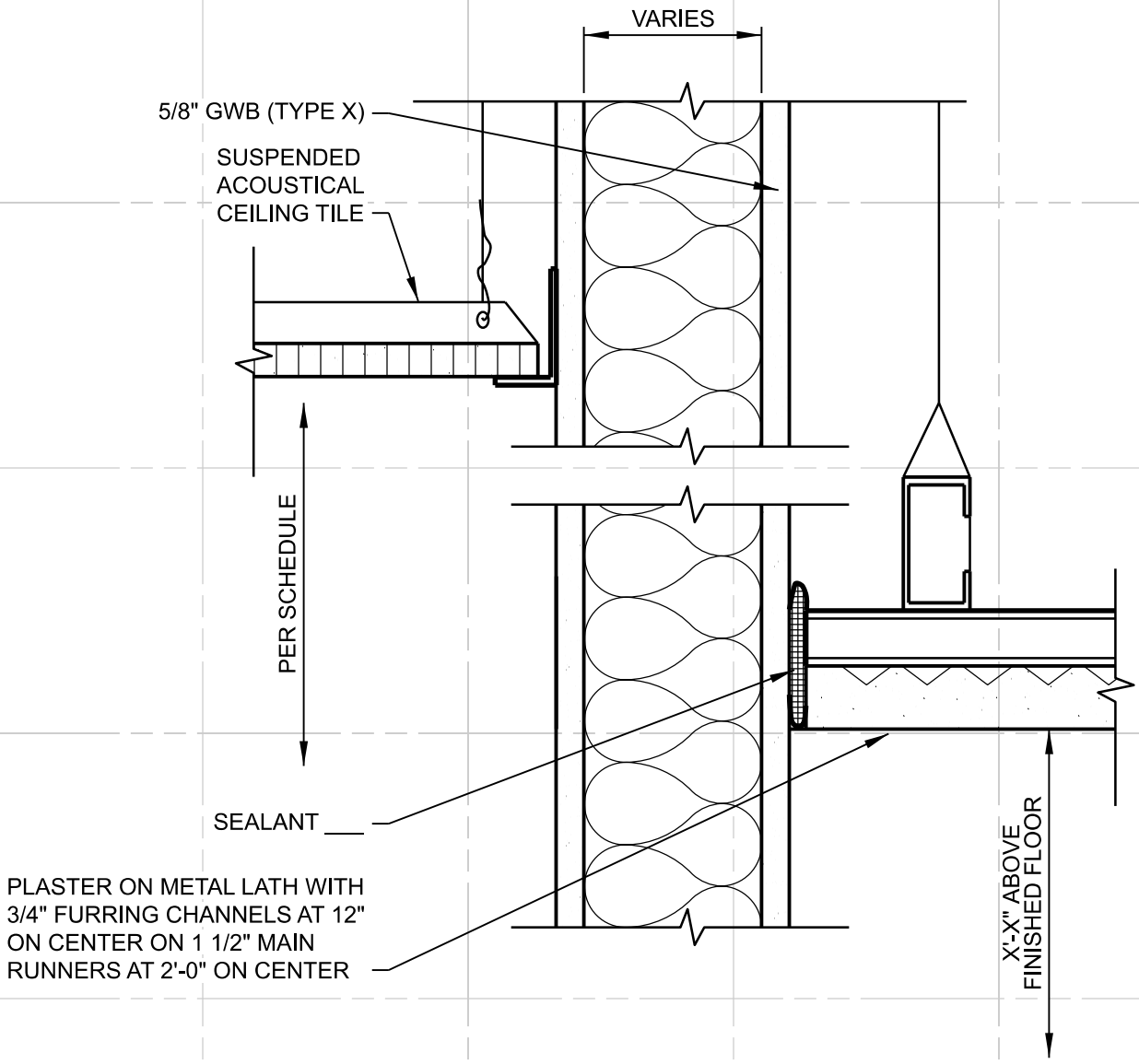
Detail C3030A-DT011X



A1

DETAIL: PLASTER CEILING

SCALE: 3"=1'-0" 0 3" 6" 1'

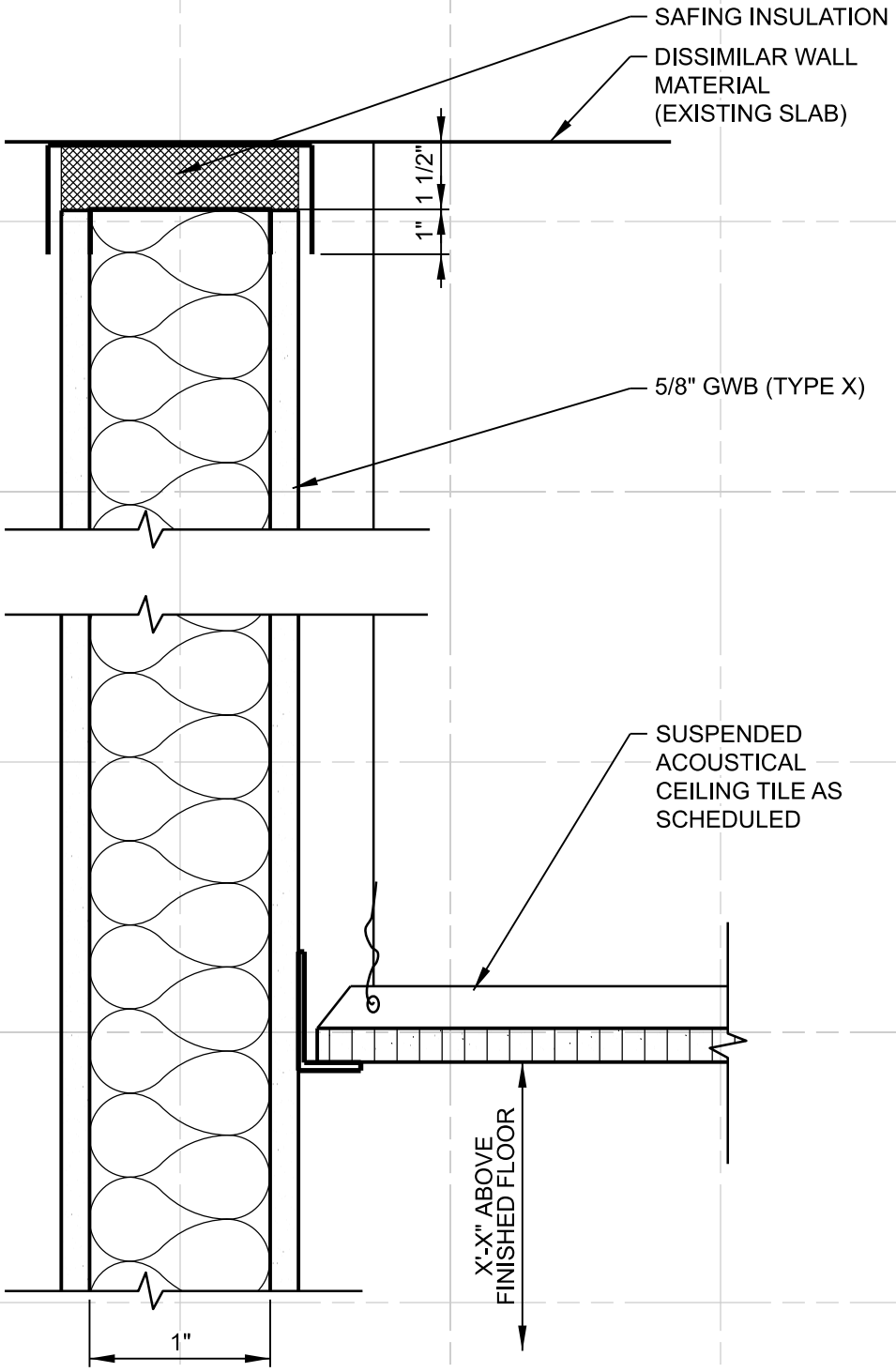


A1

DETAIL: PLASTER CEILING

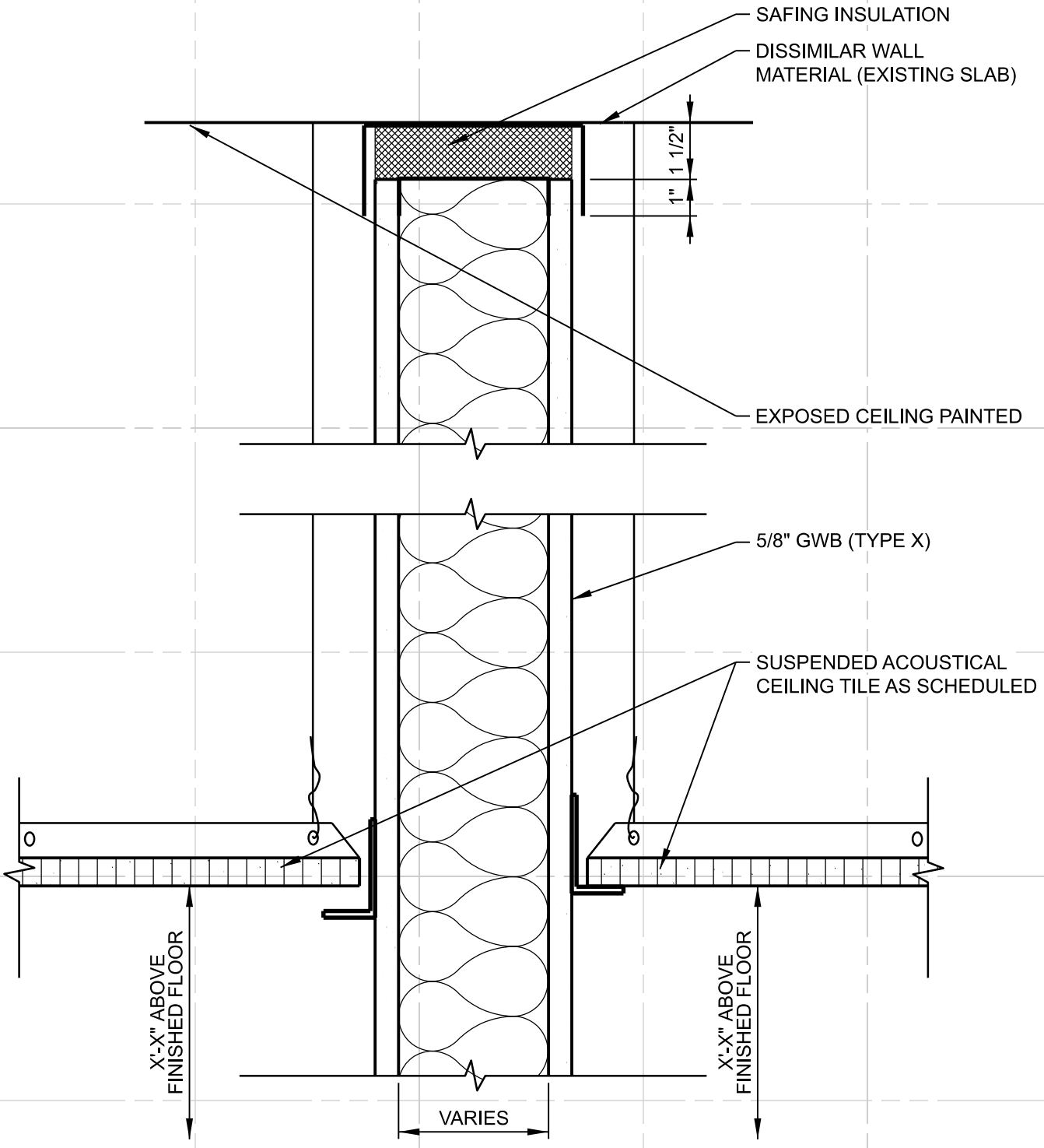
SCALE: 3"=1'-0"

0 3" 6" 1'



A1 DETAIL: LAY-IN CEILING

SCALE: 3"=1'-0" 0 3" 6" 1'

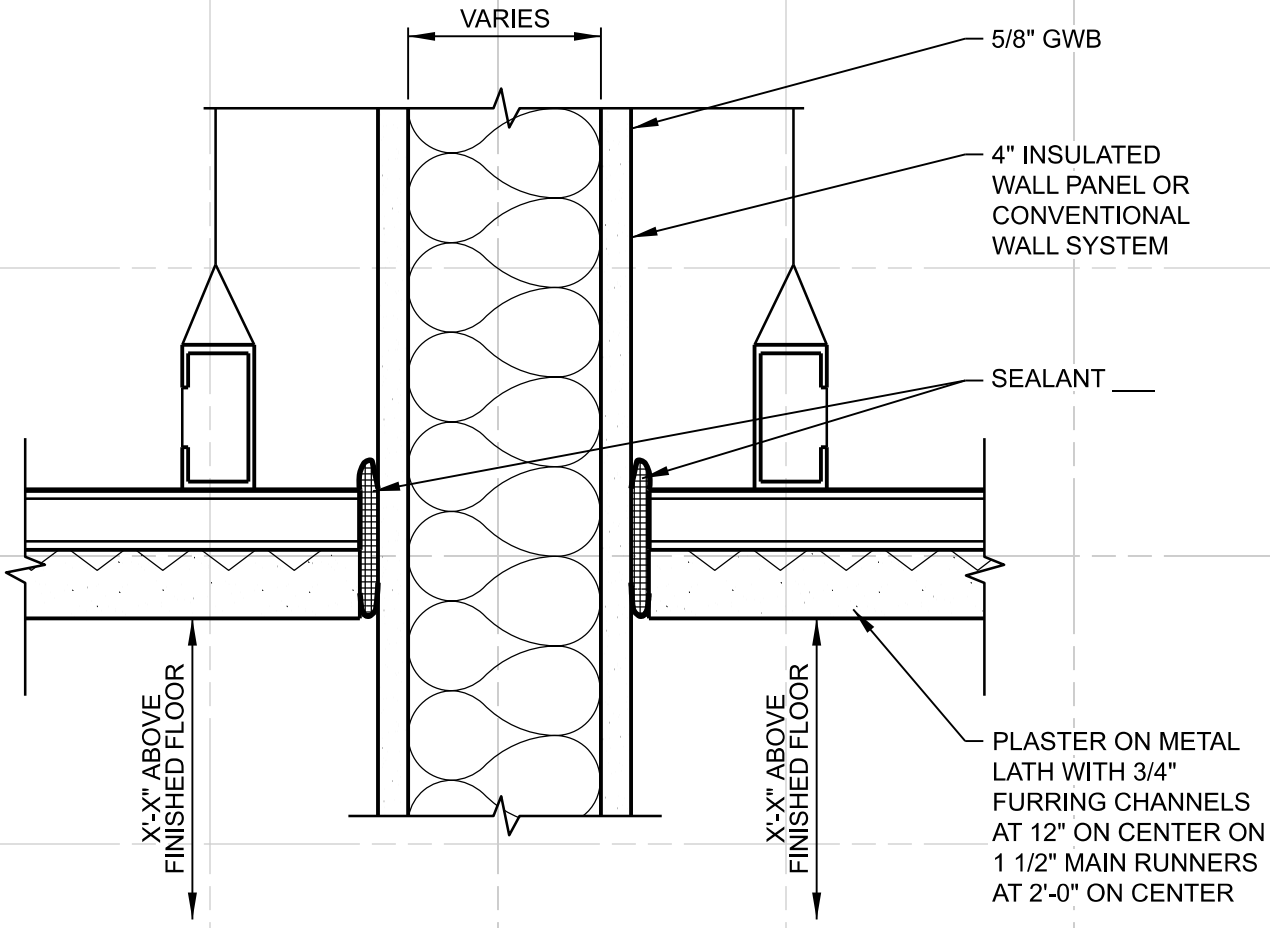


A1

DETAIL: LAY-IN CEILING

SCALE: 3"=1'-0"

0 3" 6" 1'

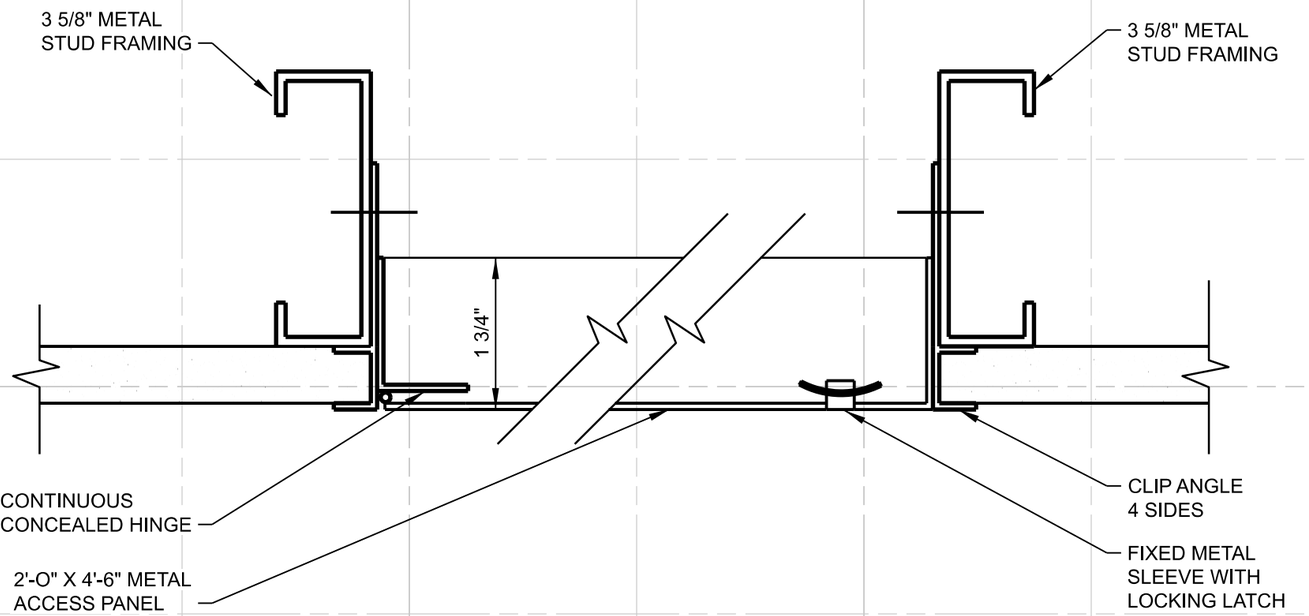


A1

DETAIL: PLASTER CEILING

SCALE: 3"=1'-0"

0 3" 6" 1'

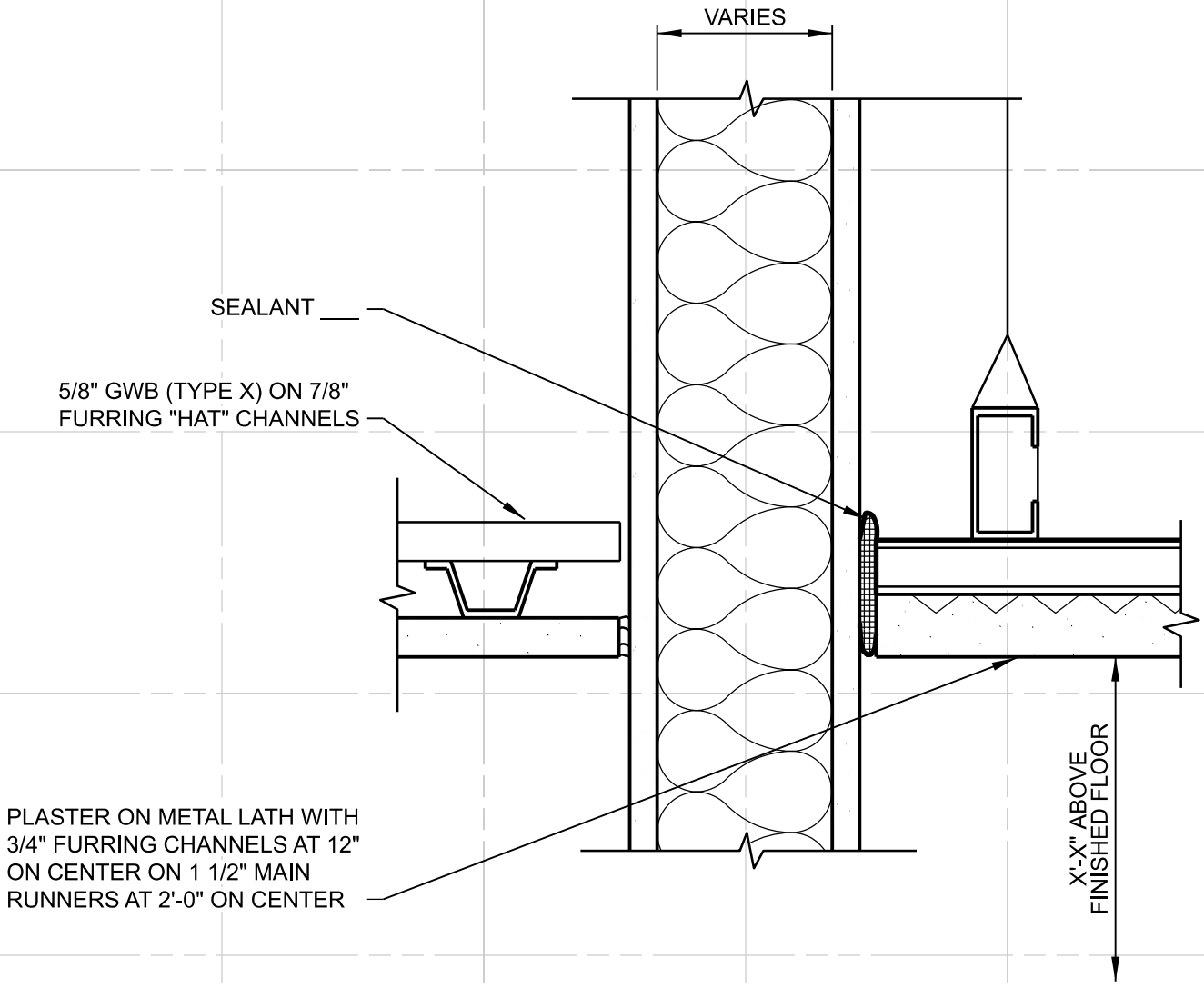


A1 DETAIL: CEILING ACCESS PANEL

SCALE: 6"=1'-0"

0 1-1/2" 3" 6"

Detail C3030A-DT017X

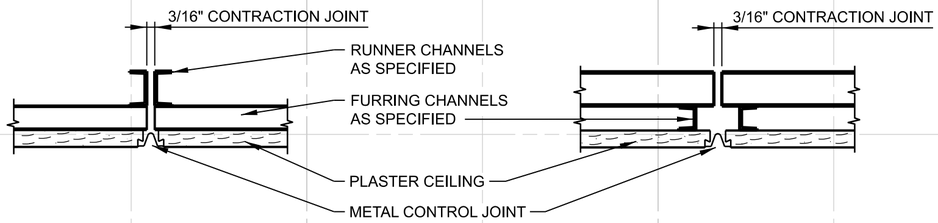


A1

DETAIL: PLASTER CEILING

SCALE: 3"=1'-0"

0 3" 6" 1'

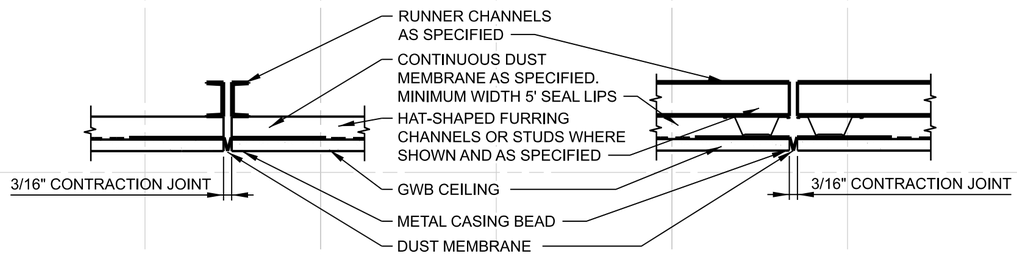


PERPENDICULAR TO FURRING

PARALLEL WITH FURRING

NOTE:
CONTROL OR EXPANSION JOINTS IN PLASTER WORK SHALL BE INSTALLED TO CONTINUE EXPANSION OR CONTROL JOINTS IN STRUCTURAL FRAME AND TO DIVIDE PLASTER AREAS INTO NOT MORE THAN 144 SQUARE FEET FOR PORTLAND CEMENT PLASTER AND 300 SQUARE FEET FOR GYPSUM OR LIME PLASTER. INTERVAL BETWEEN JOINTSSHALL BE REDUCED IN LONG NARROW AREAS SUCH AS CORRIDOR CEILINGS TO 12 FEET FOR PORTLAND CEMENT PLASTER AND 30 FEET FOR GYPSUM OR LIME PLASTER. UNRESTRICTED CEILING DESIGN SHALL BE INSTALLED WHEN TOTAL CEILING AREA EXCEEDS INTERVAL LIMITATIONS AS SPECIFIED ABOVE. CONTROL JOINTS FOR WALLS SHALL BE AS DETAILED ABOVE WITH METAL CONTROL JOINT APPLIED TO TWO WALL STUDS OR FURRING MEMBERS SPACED 3/16" APART. ALL CEILING AND WALL JOINTS SHALL BE INSTALLED WHERE SHOWN ON THE ARCHITECTURAL WALL ELEVATIONS AND THE FLOOR AND REFLECTED CEILING PLANS.

PLASTER



PERPENDICULAR TO FURRING

PARALLEL WITH FURRING

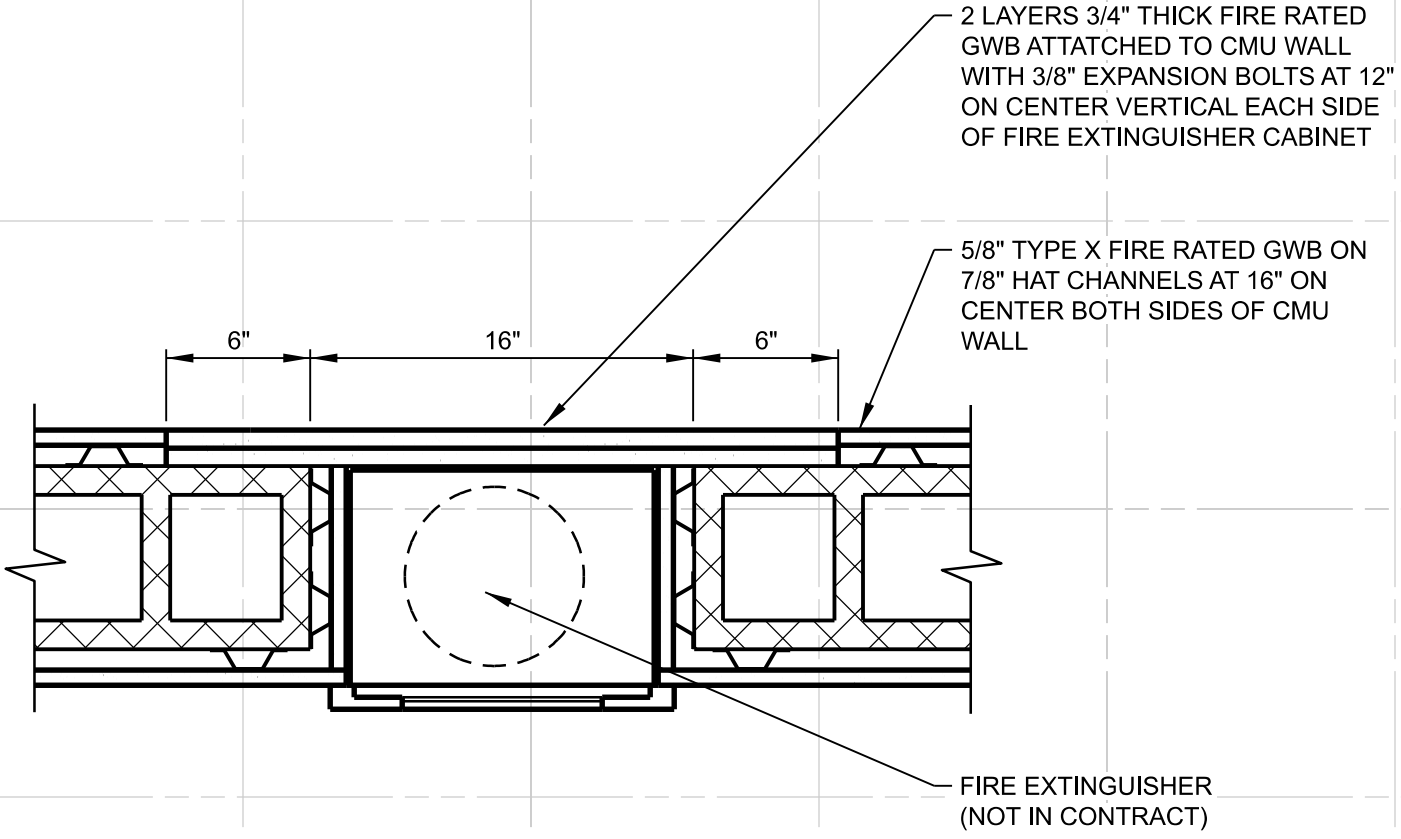
NOTE:
CONTROL JOINTS SHALL BE INSTALLED TO DIVIDE LONG NARROW AREAS OF GYPSUM WALLBOARD, SUCH AS OCCURE ON CORRIDOR CEILINGS, INTO LENGTHS OF NOT MORE THAN 40 FEET AND SHALL BE INSTALLED AT EXPANSION OR CONTRACTION JOINTS IN THE STRUCTURAL FRAMEWORK OVER WHICH GYPSUM BOARD IS REQUIRED. CONTROL JOINTS FOR WALLS SHALL BE INSTALLED AS DETAILED ABOVE WITH DUST MEMBRANE AND METAL CASING BEADS APPLIED TO TWO WALL STUDS OR FURRING MEMBERS SPACED3/4" APART. ALL CEILING AND WALL JOINTS SHALL BE INSTALLED WHERE SHOWN ON THE ARCHITECTURAL WALL ELEVATIONS AND THE FLOOR AND REFLECTED CEILING PLANS.

GYPSUM BOARD

A1

DETAIL: CEILING CONTROL JOINT

SCALE: NTS

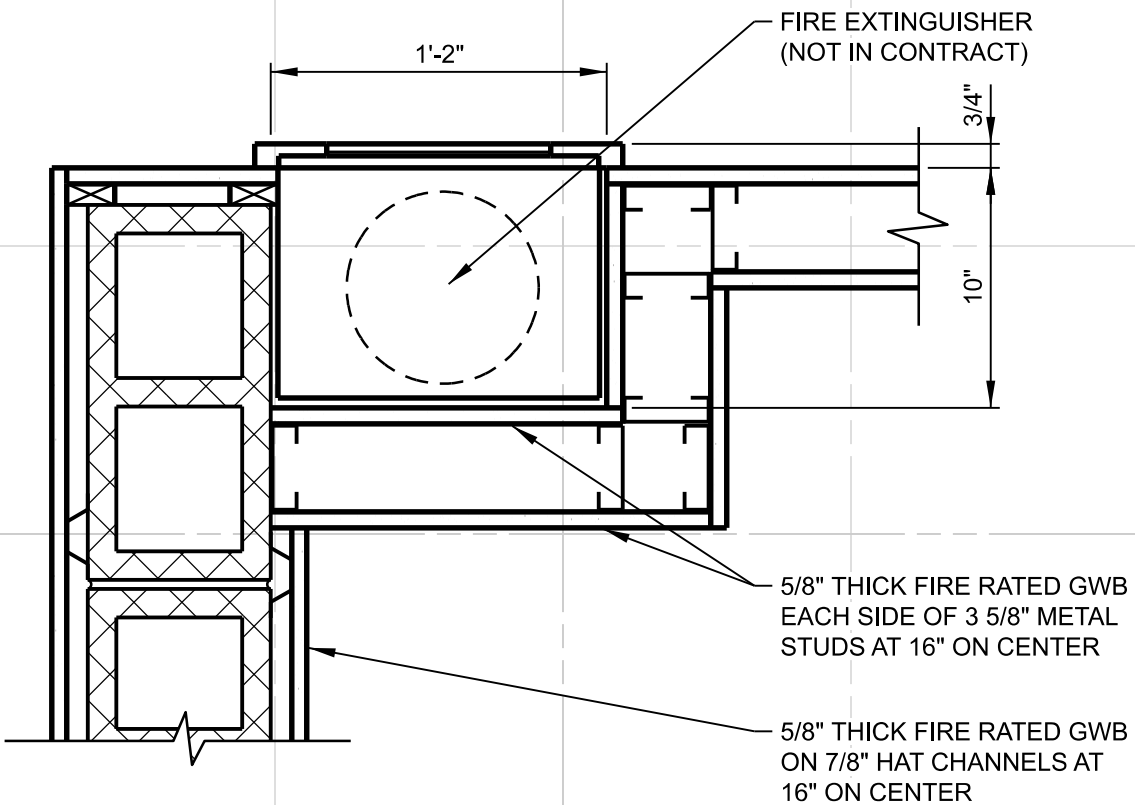


A1

DETAIL: FIRE EXTINGUISHER CABINET

SCALE: 1 1/2"=1'-0"

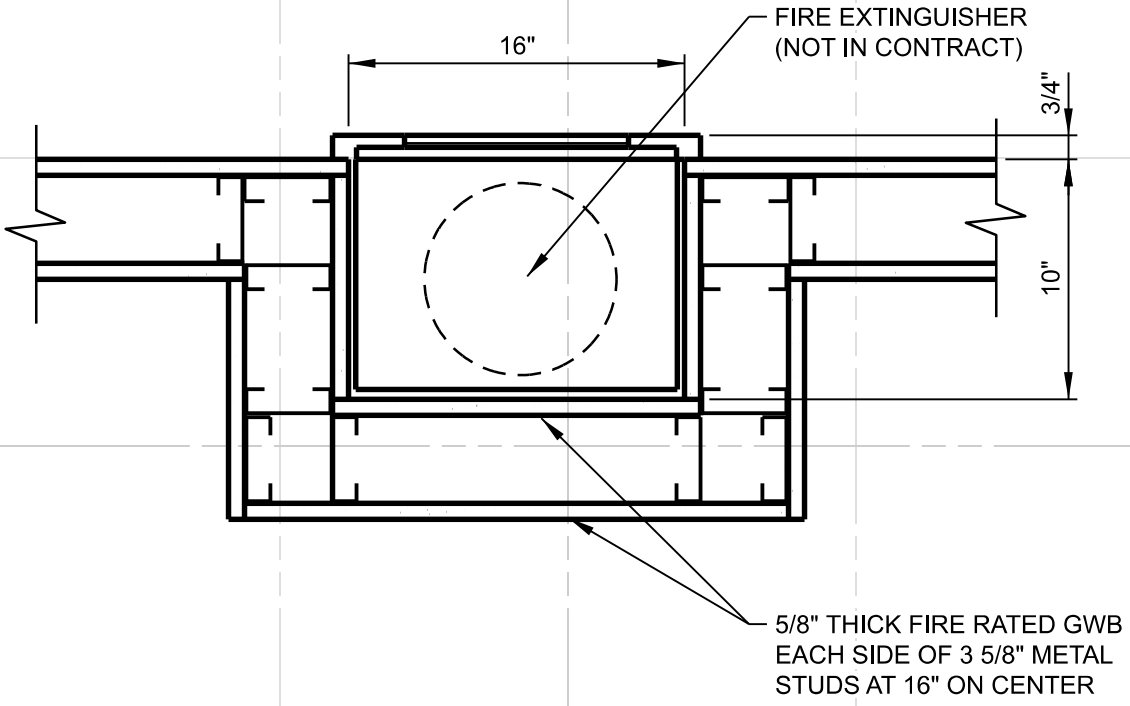
0 6" 1' 2'



DETAIL: FIRE EXTINGUISHER CABINET

A1

SCALE:1 1/2"=1'-0" 0 6" 1' 2'

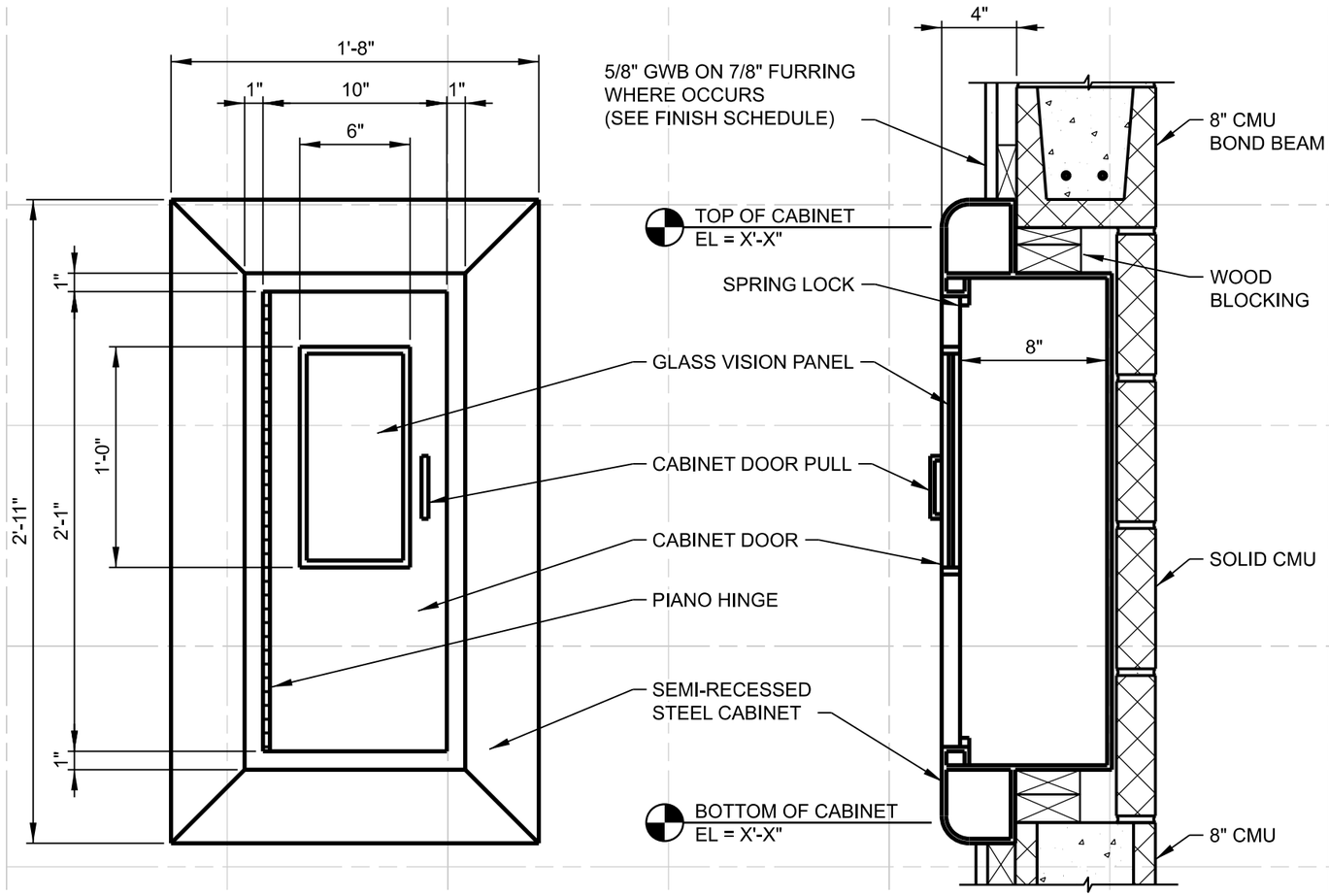


DETAIL: FIRE EXTINGUISHER CABINET

A1

SCALE:1 1/2"=1'-0"

0 6" 1' 2'

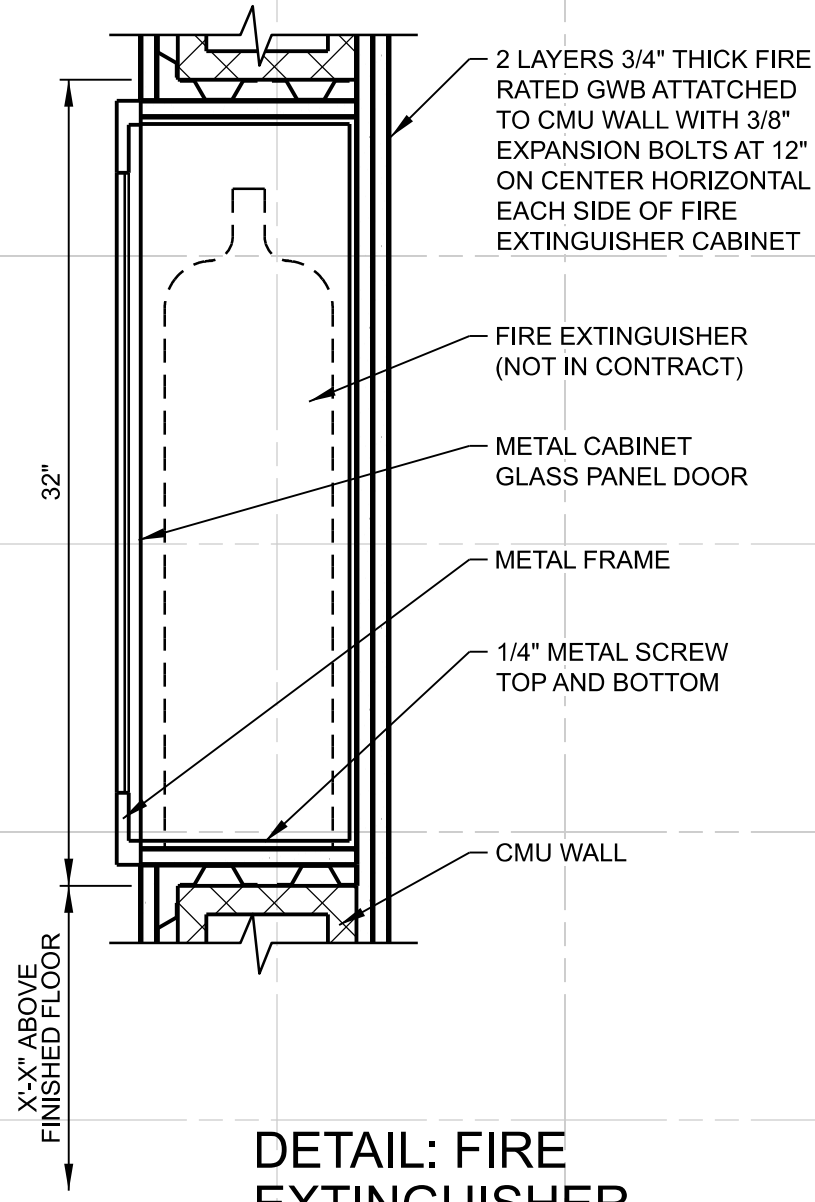


A1 DETAIL: FIRE EXTINGUISHER CABINET ELEVATION

SCALE:1 1/2"=1'-0"

0 6" 1' 2'

Detail D4030A-DT004X



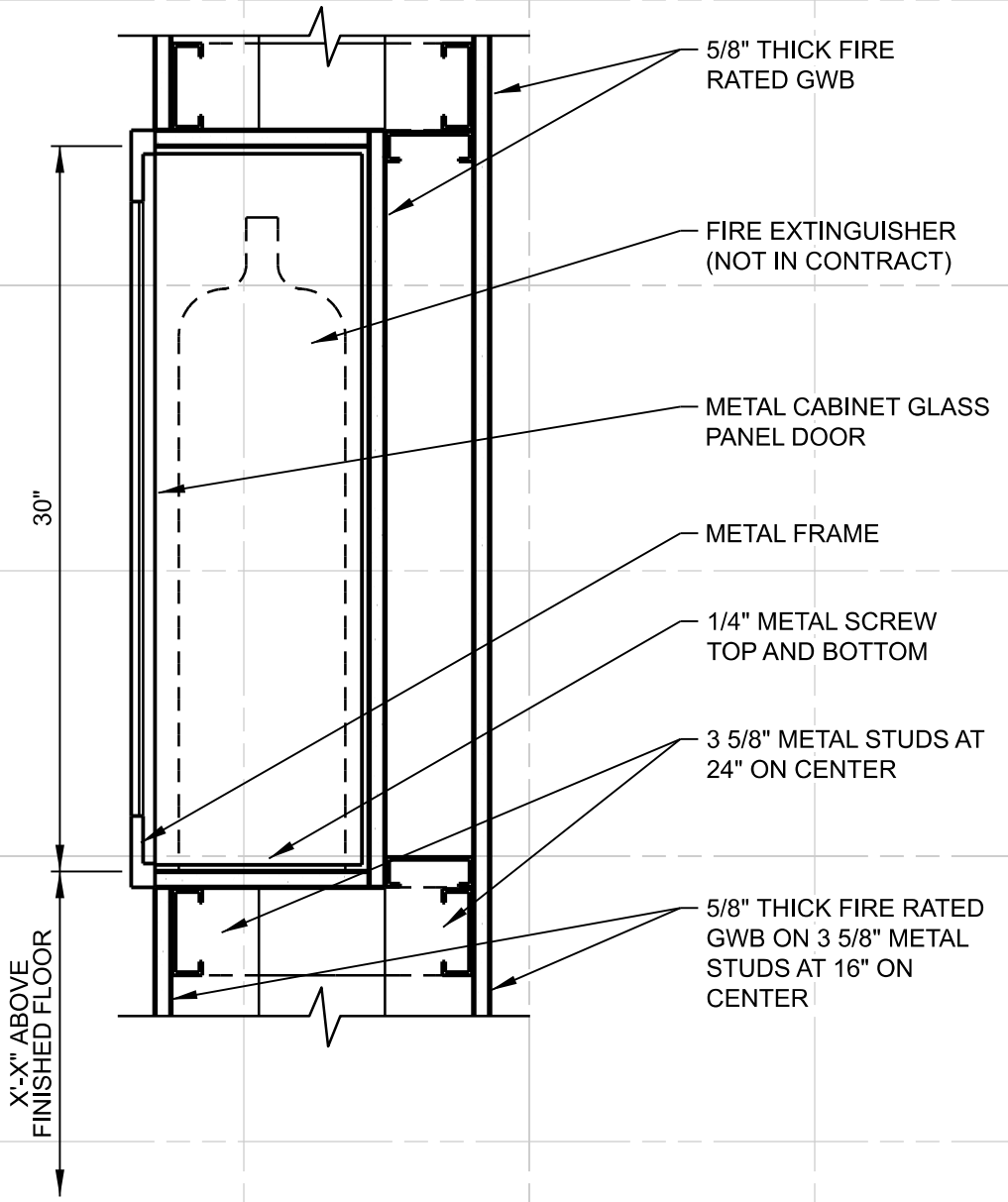
DETAIL: FIRE EXTINGUISHER CABINET SECTION

A1

SCALE:1 1/2"=1'-0"

0 6" 1' 2'

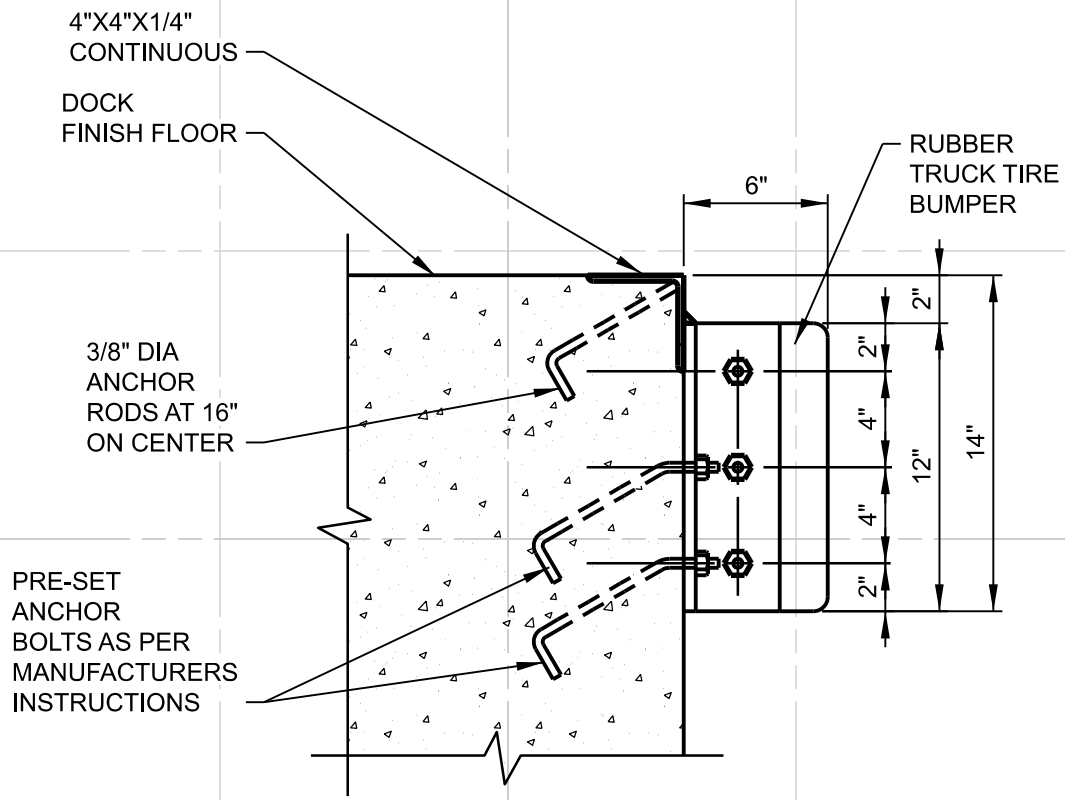
Detail D4030A-DT005X



DETAIL: FIRE EXTINGUISHER CABINET SECTION

A1

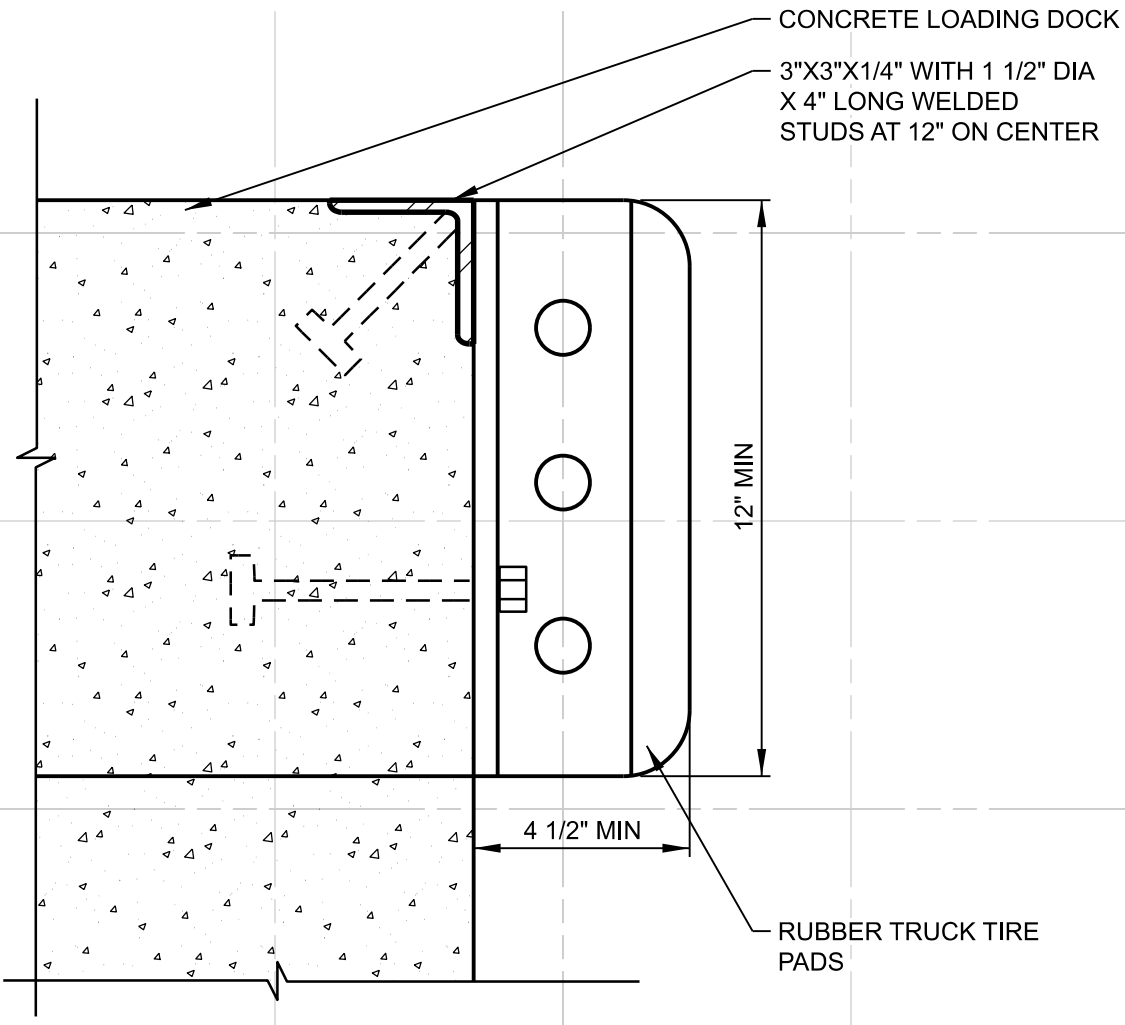
SCALE:1 1/2"=1'-0" 0 6" 1' 2'



A1

DETAIL: DOCK BUMPER

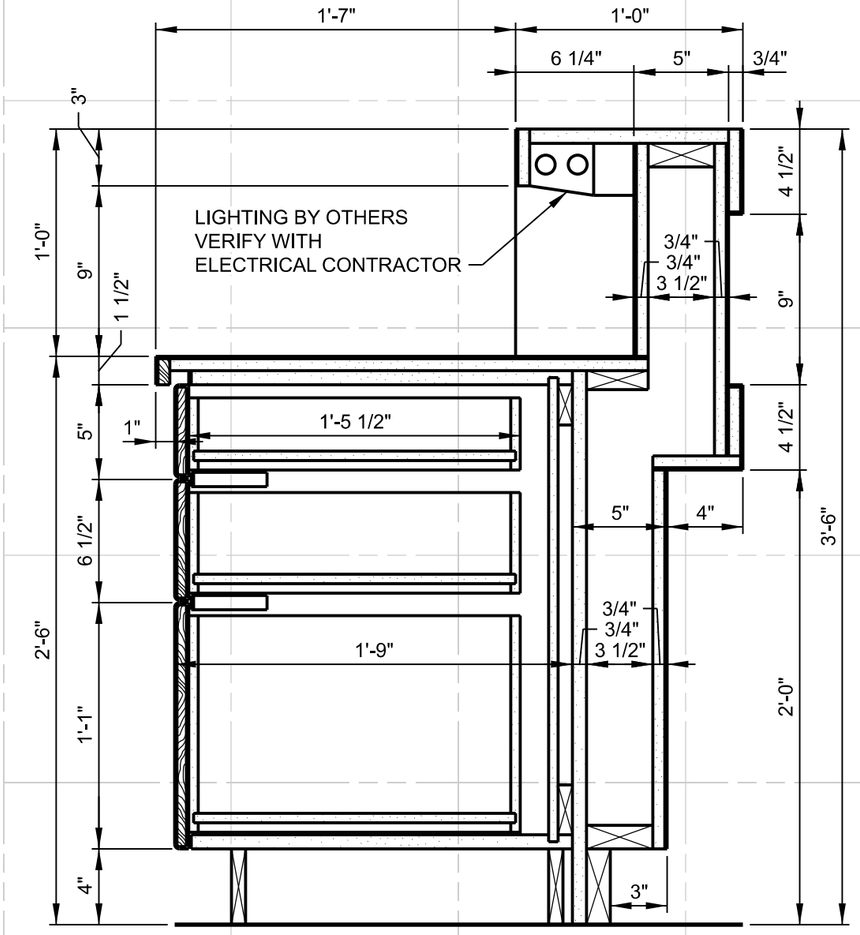
SCALE:1 1/2"=1'-0" 0 6" 1' 2'

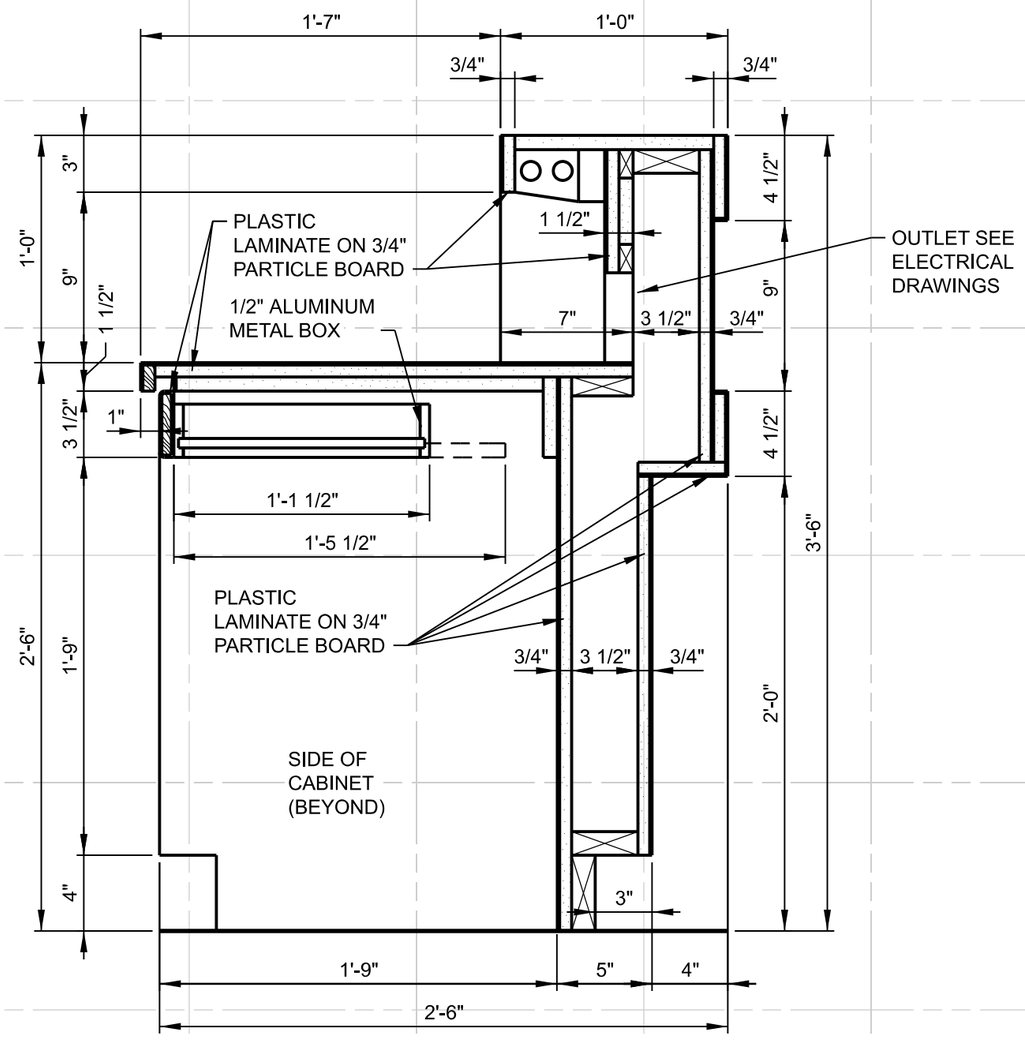


A1

DETAIL: DOCK BUMPER

SCALE: 3"=1'-0" 0 3" 6" 1'



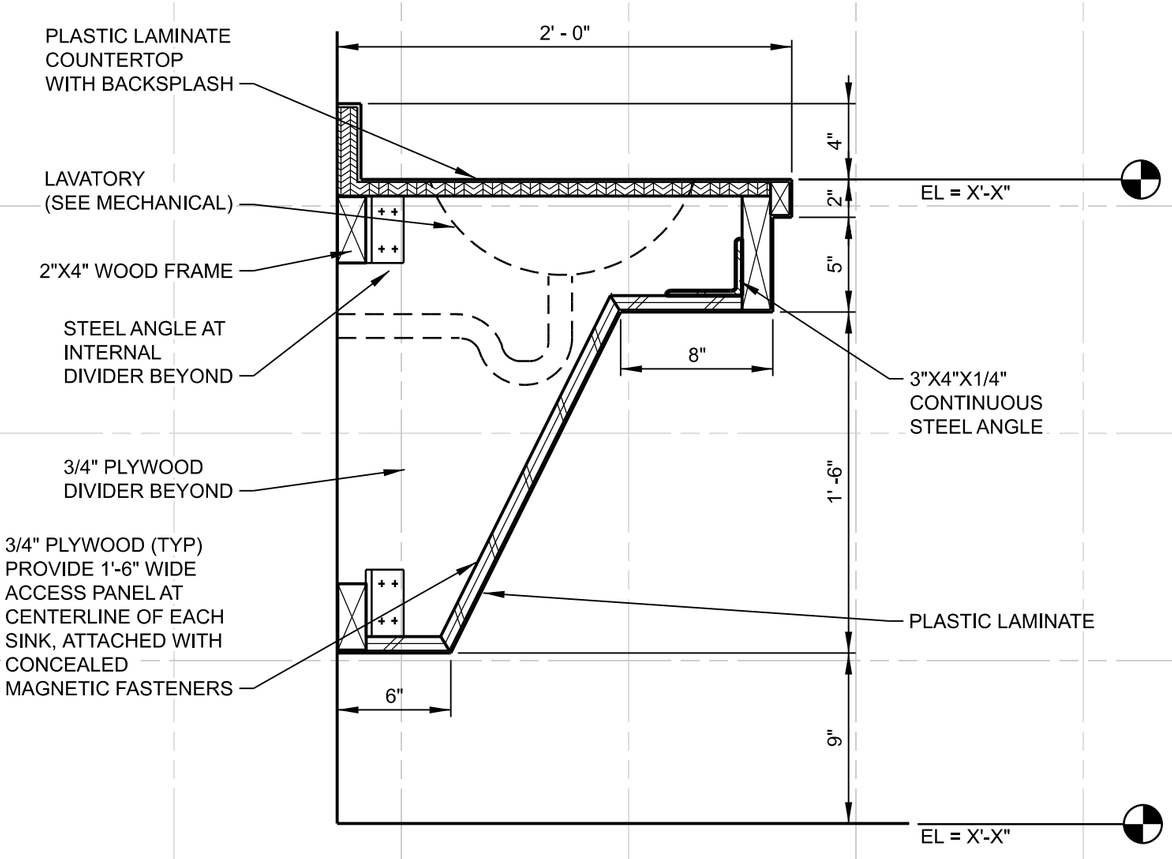


A1

DETAIL: RECEPTION COUNTER

SCALE: 1 1/2"=1'-0"

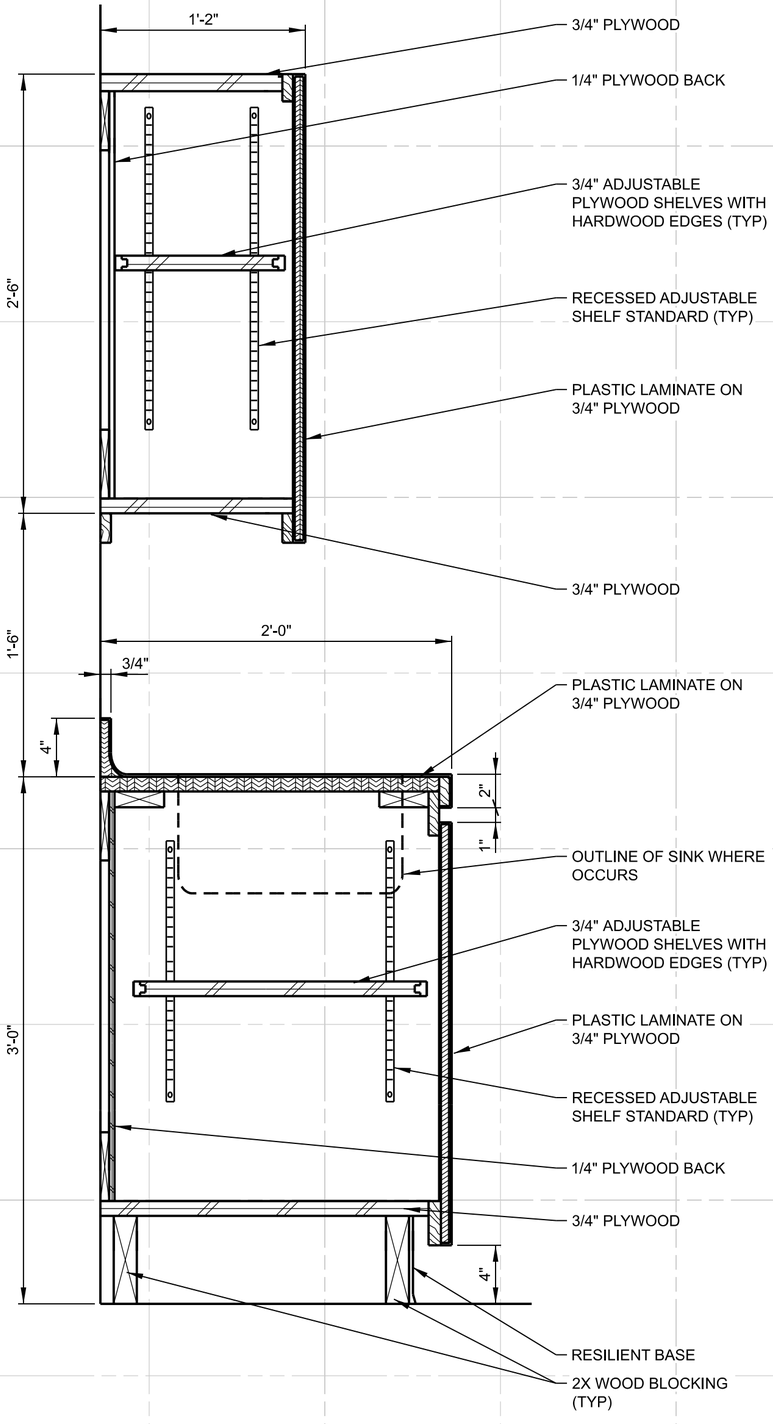
0 6" 1' 2'



A1 DETAIL: COUNTER/LAVATORY

SCALE: 1 1/2"=1'-0"

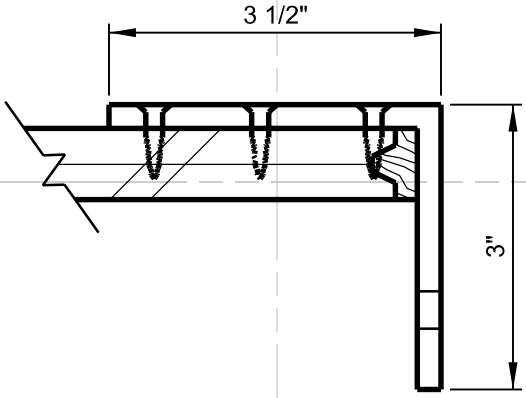
0 6" 1' 2'



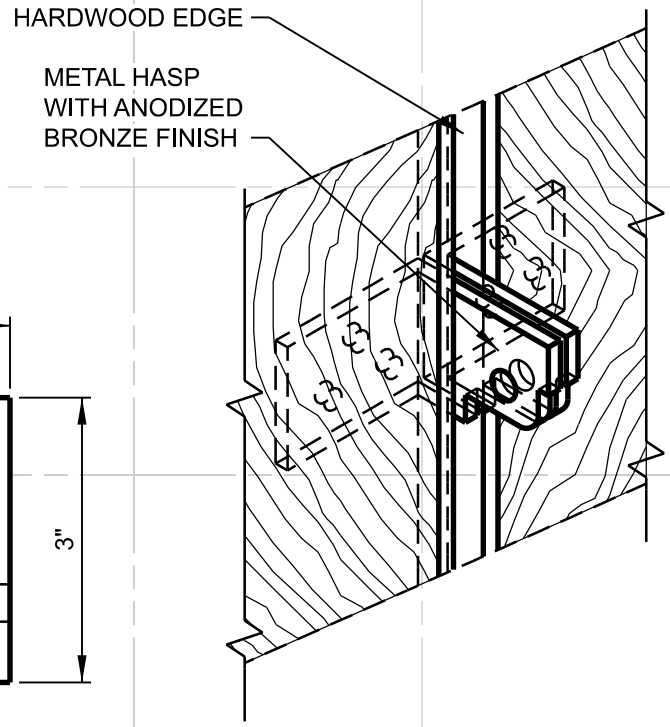
A1 DETAIL: BASE CABINET

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'



PLAN

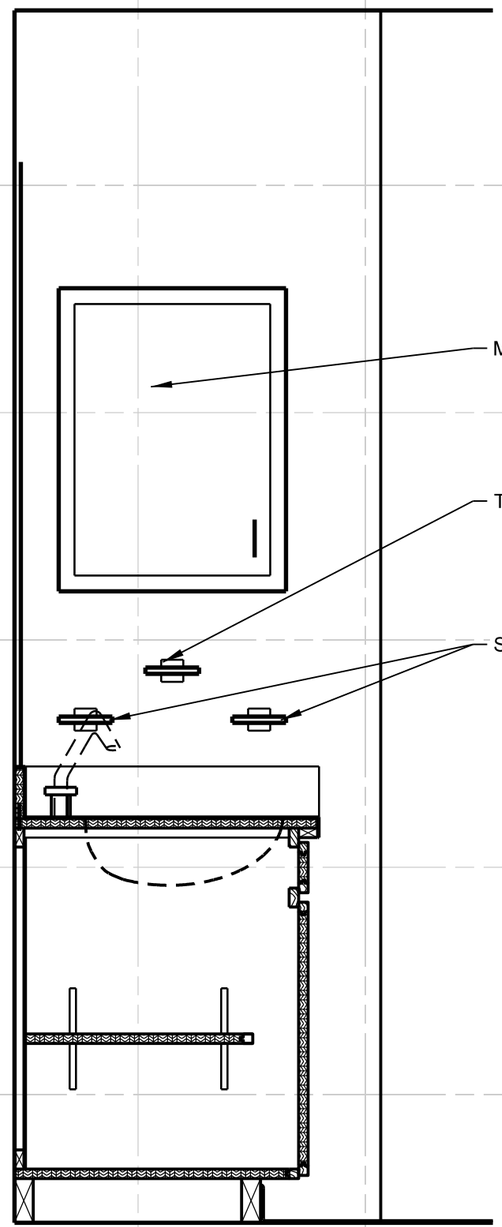


ISOMETRIC VIEW

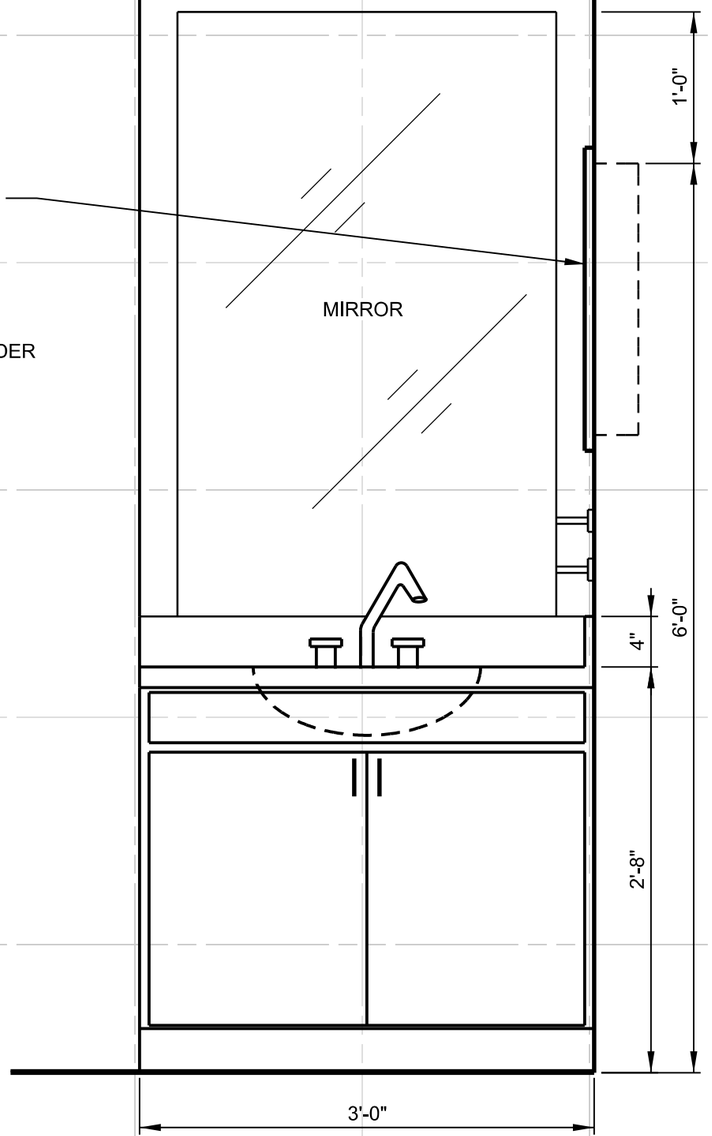
A1

DETAIL: HASP

SCALE: NTS



SIDE VIEW



FRONT VIEW

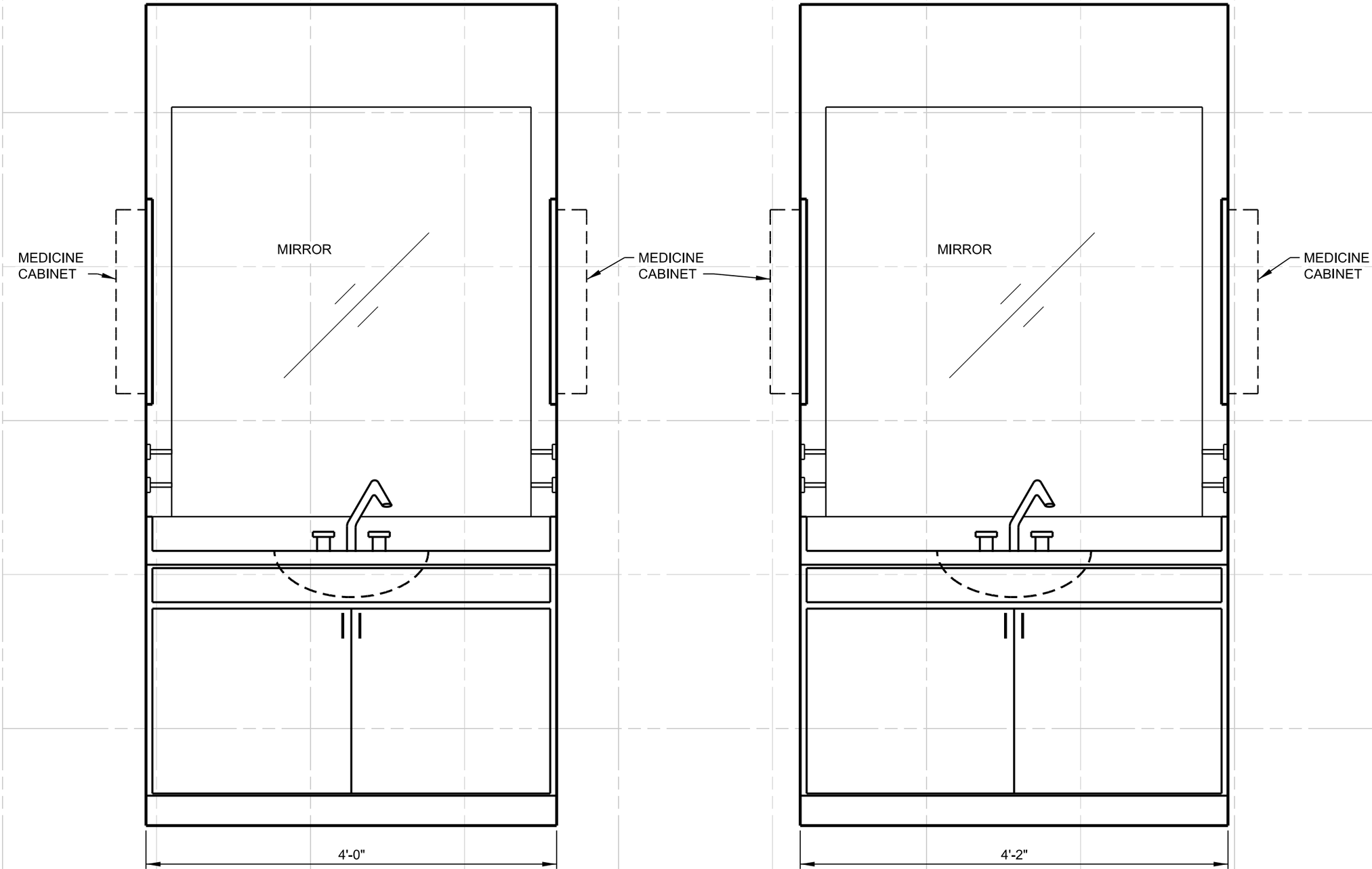
A1

DETAIL: LAVATORY CABINET

SCALE: 1"=1'-0"

0 6" 1' 2'

Detail E2010A-DT013E

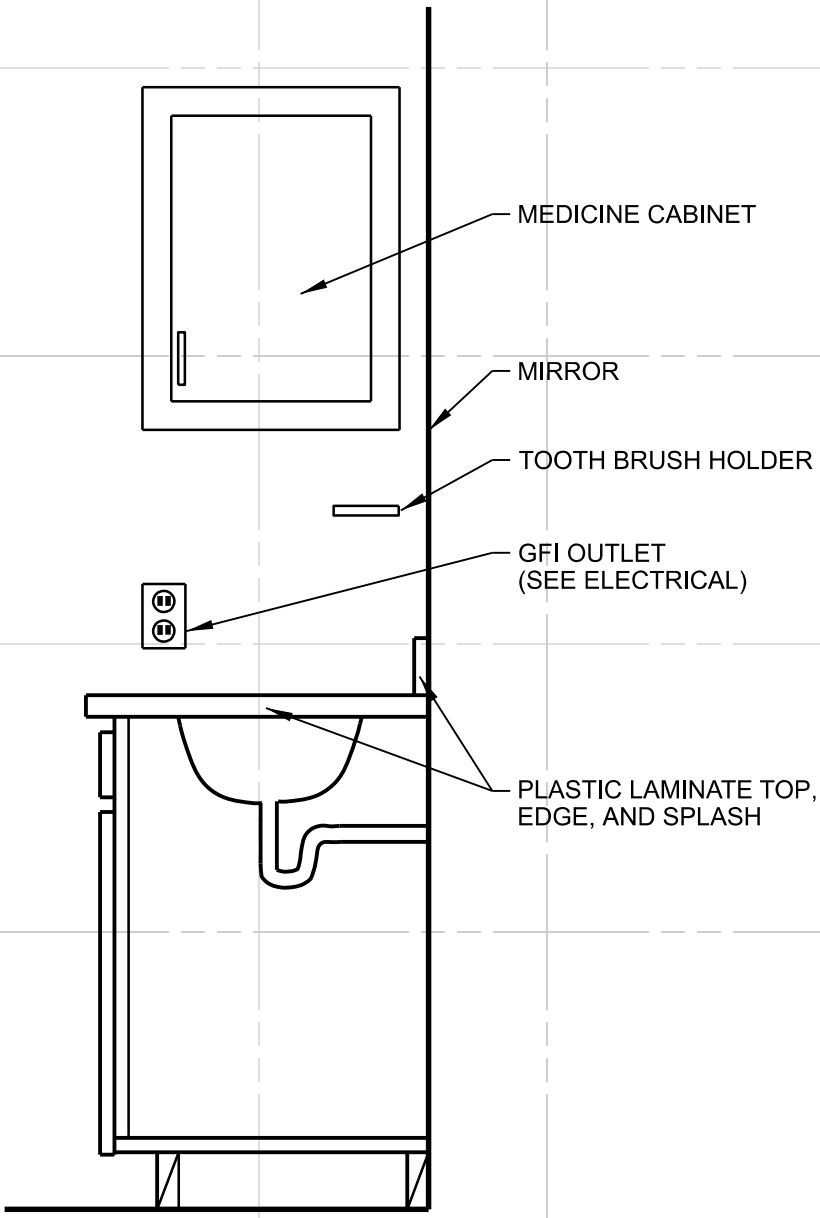


A1 DETAIL: LAVATORY CABINET

SCALE: 1"=1'-0"

0 6" 1' 2'

Detail E2010A-DT014E

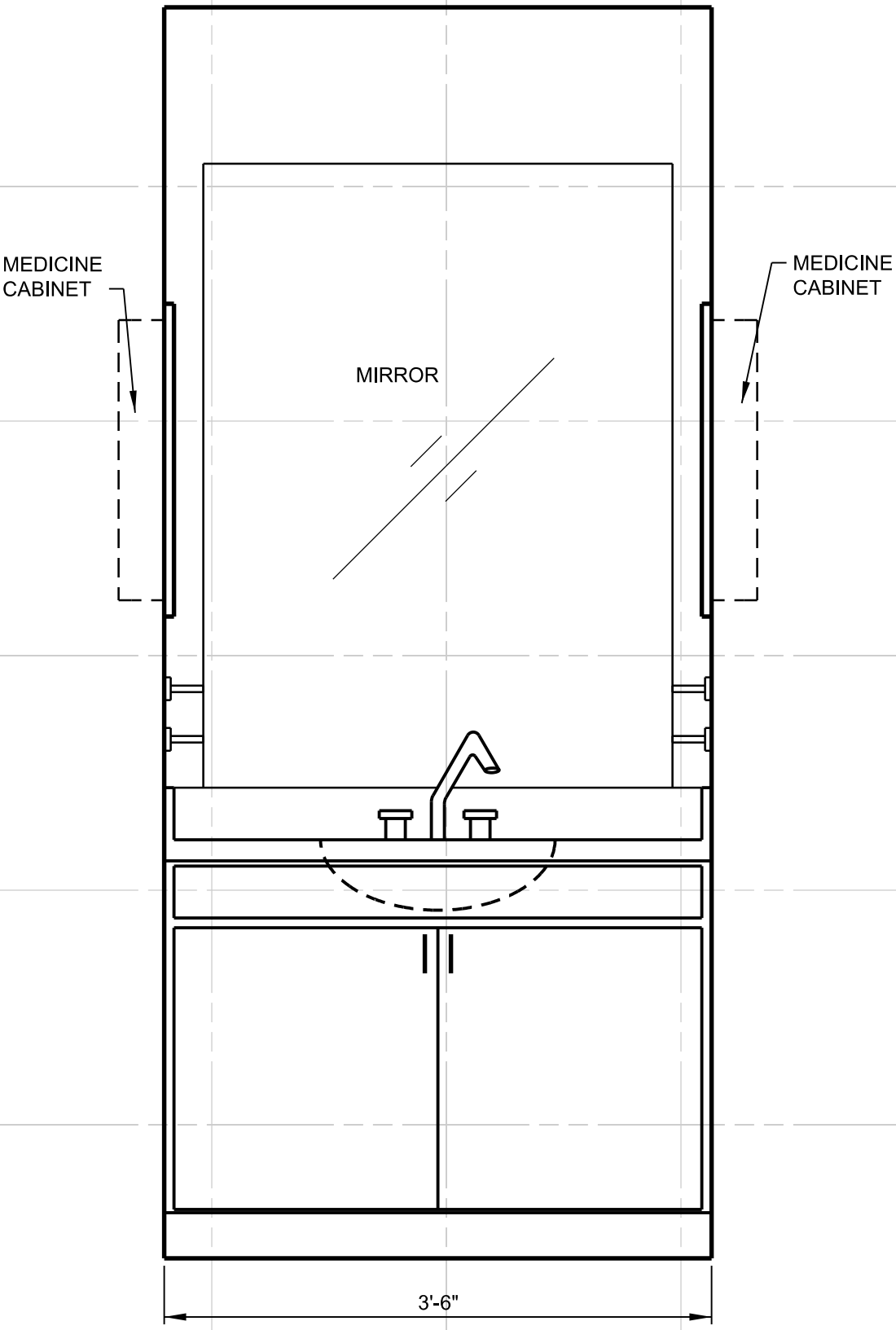


DETAIL: LAVATORY CABINET

A1

SCALE: 1"=1'-0"

0 6" 1' 2'

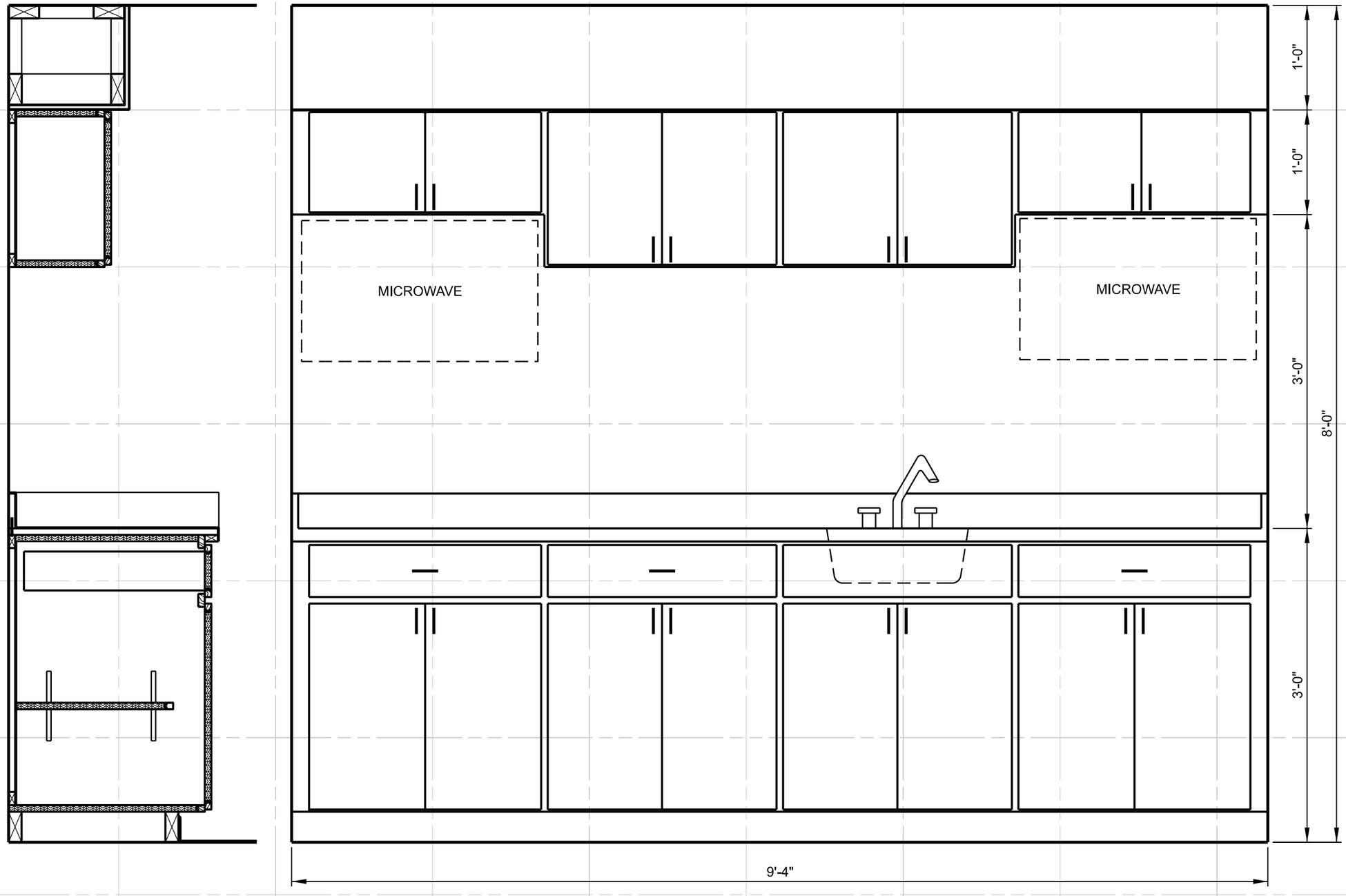


A1

DETAIL: LAVATORY CABINET

SCALE: 1"=1'-0"

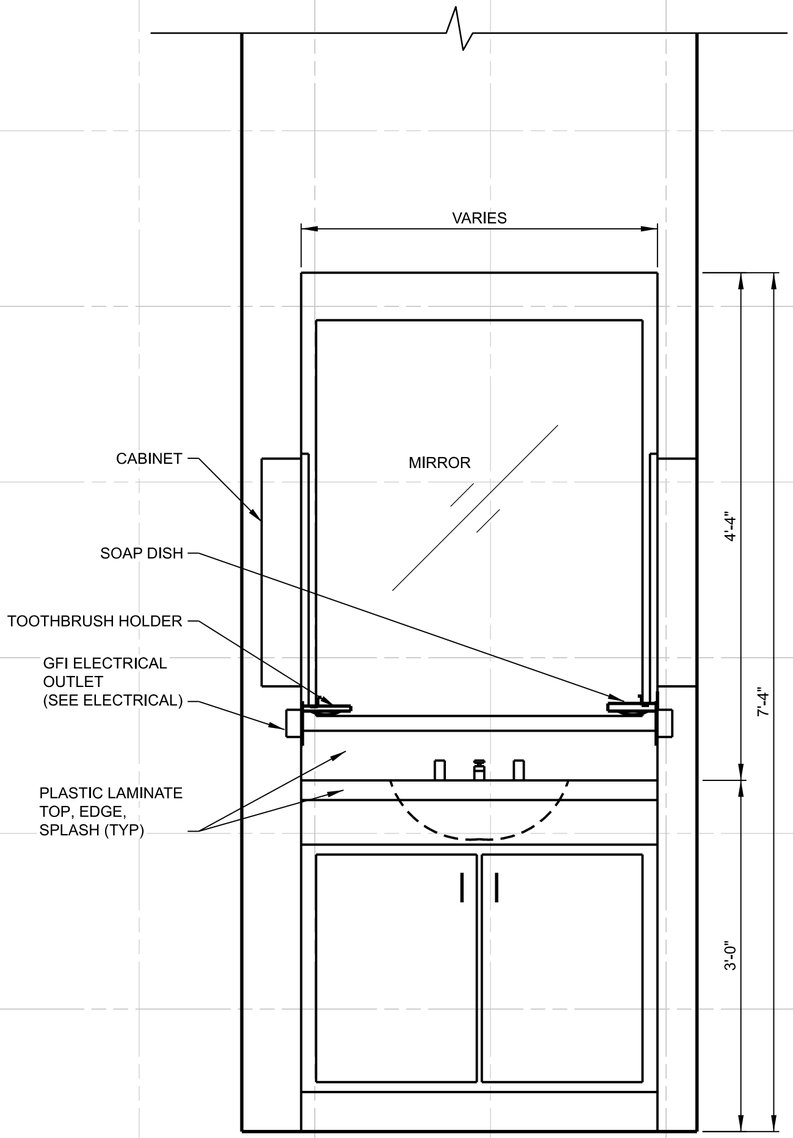
0 6" 1' 2'



A1 DETAIL: KITCHEN/BREAK ROOM COUNTER

SCALE: 1"=1'-0"

0 6" 1' 2'

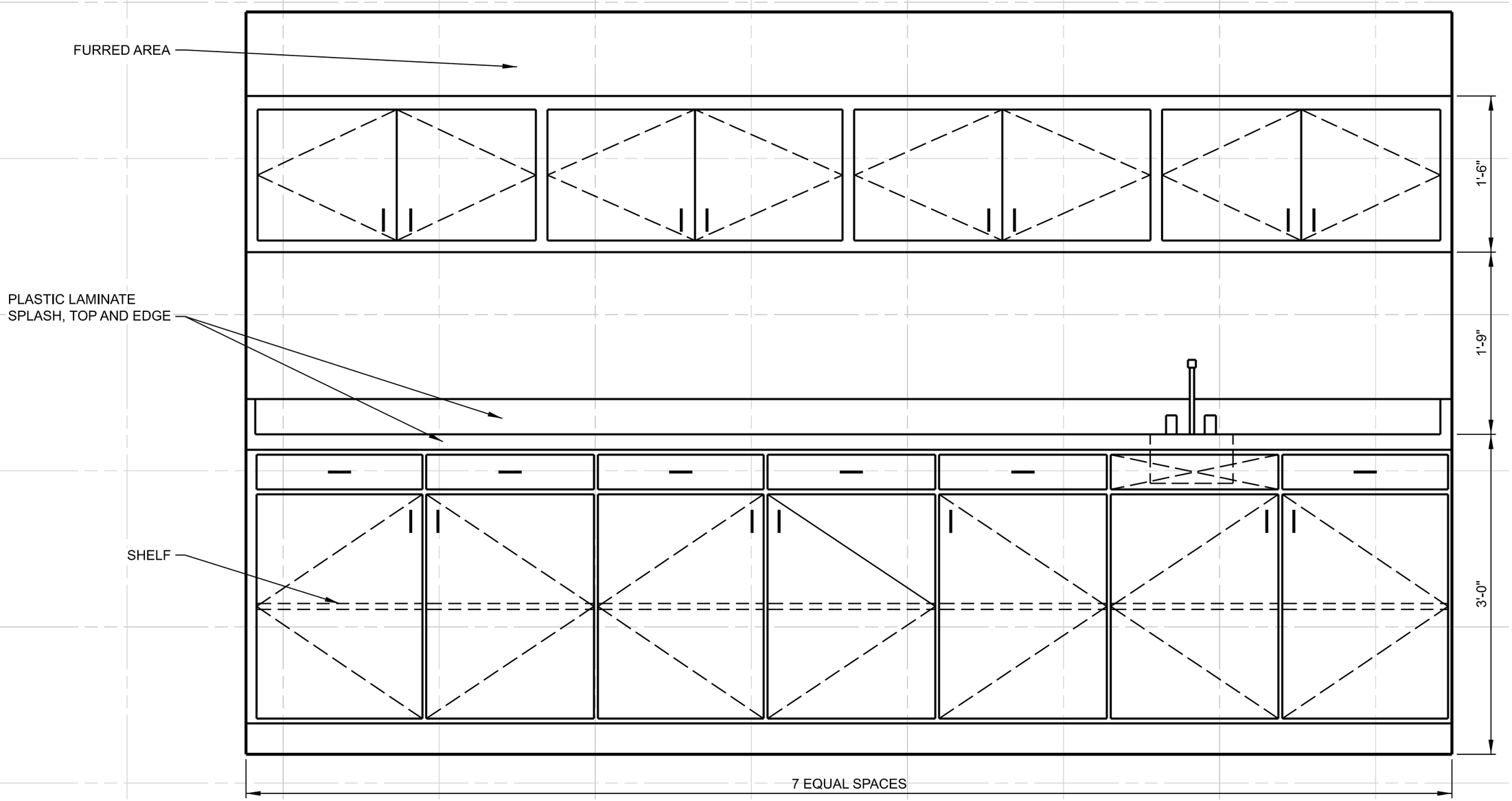


NOTE:
WHERE COUNTER IS LONGER, ENSURE DOOR PANELS DO NOT EXCEED 20" IN WIDTH.

A1 DETAIL: LAVATORY CABINET

SCALE: 1"=1'-0"

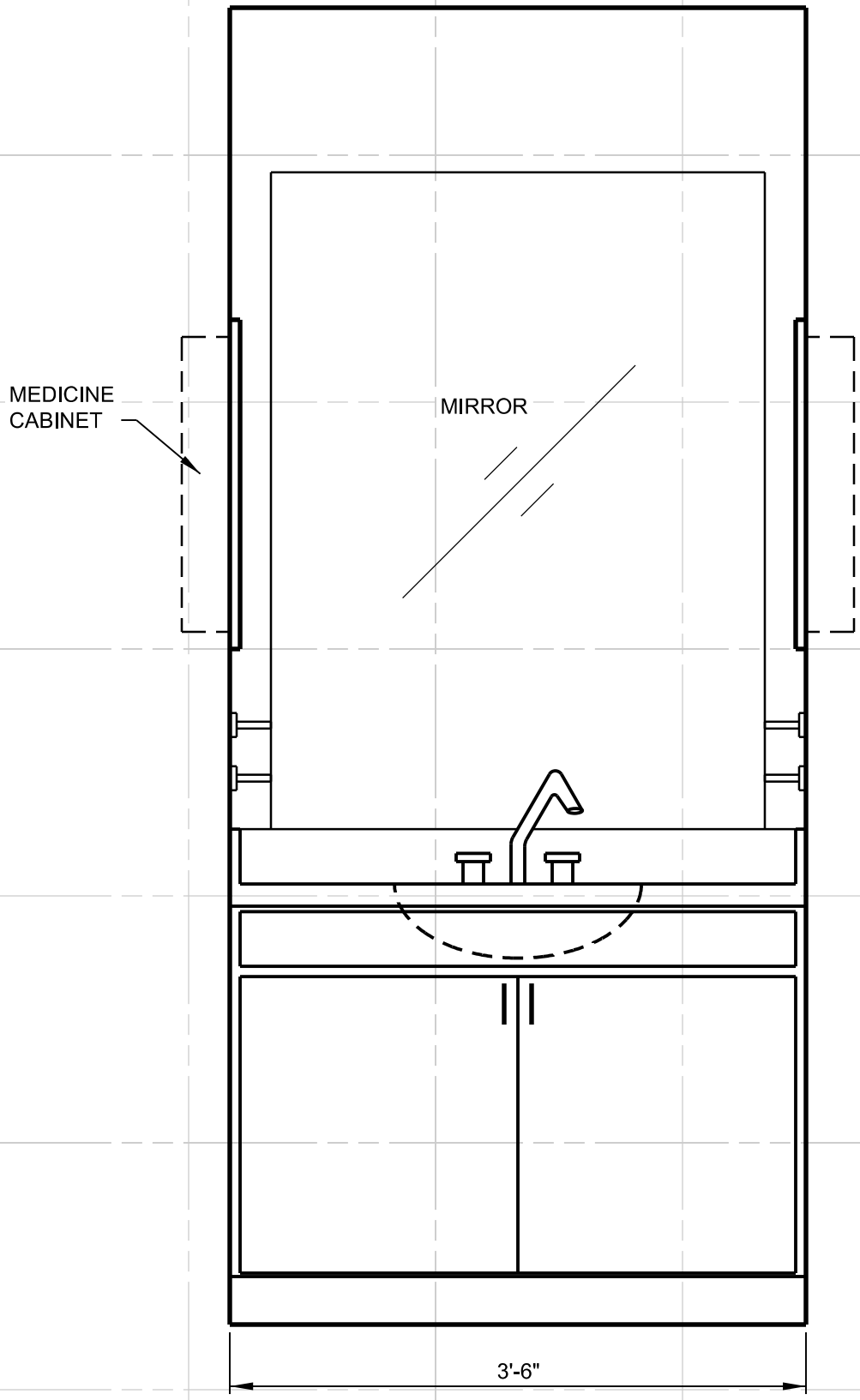
0 6" 1' 2'



A1 DETAIL: KITCHEN/BREAK ROOM COUNTER

SCALE: 1"=1'-0"

0 6" 1' 2'

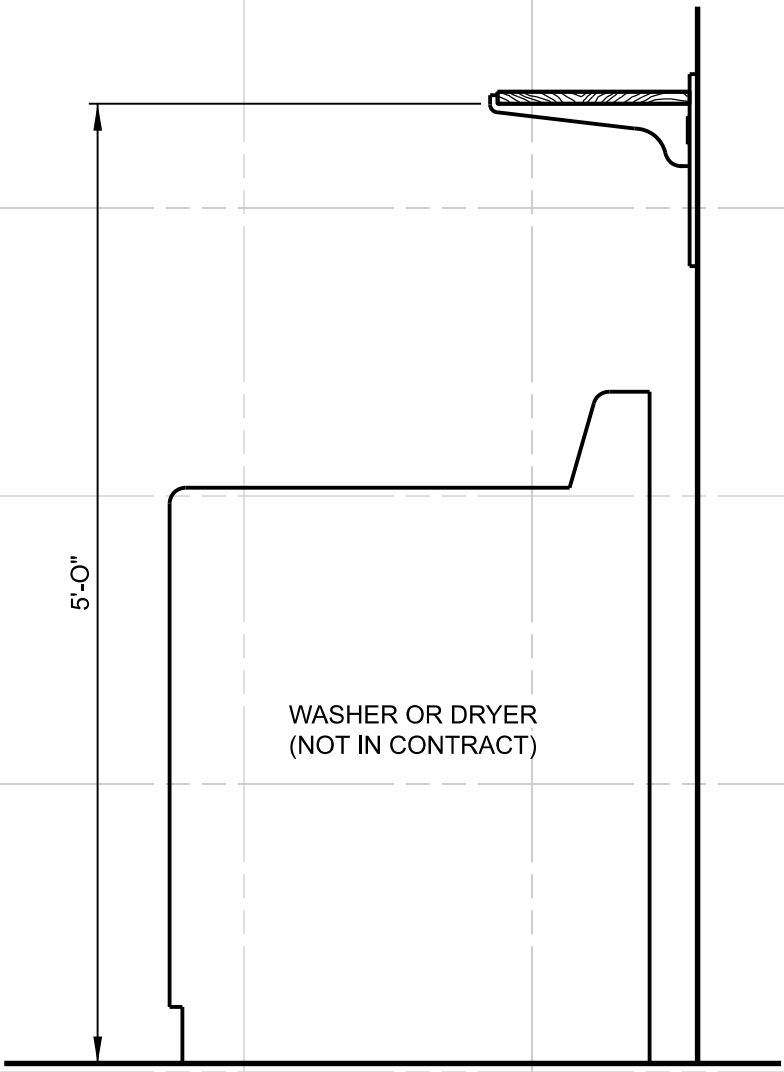


A1

DETAIL: LAVATORY CABINET

SCALE: 1"=1'-0"

0 6" 1' 2'



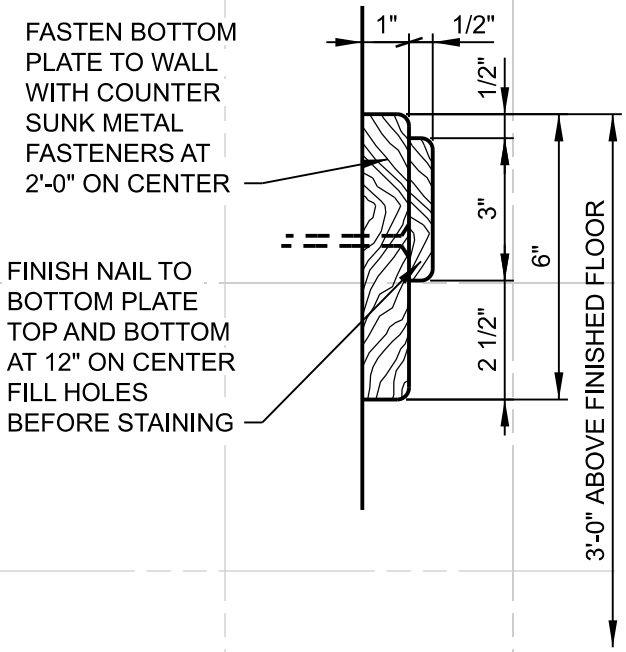
A1

DETAIL: SHELF

SCALE: 1"=1'-0"

0 6" 1' 2'

Detail E2010A-DT021E



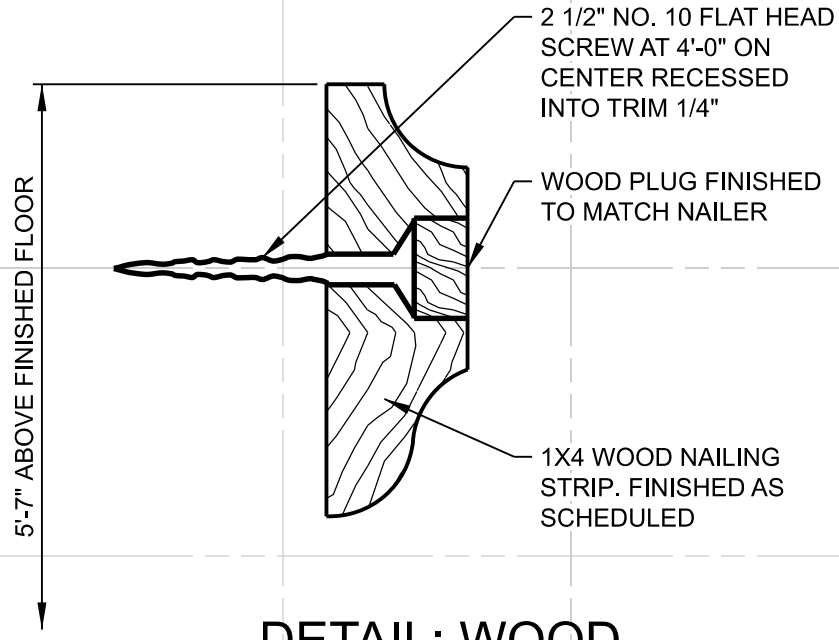
A1

DETAIL: CHAIR RAIL

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail E2010A-DT022X



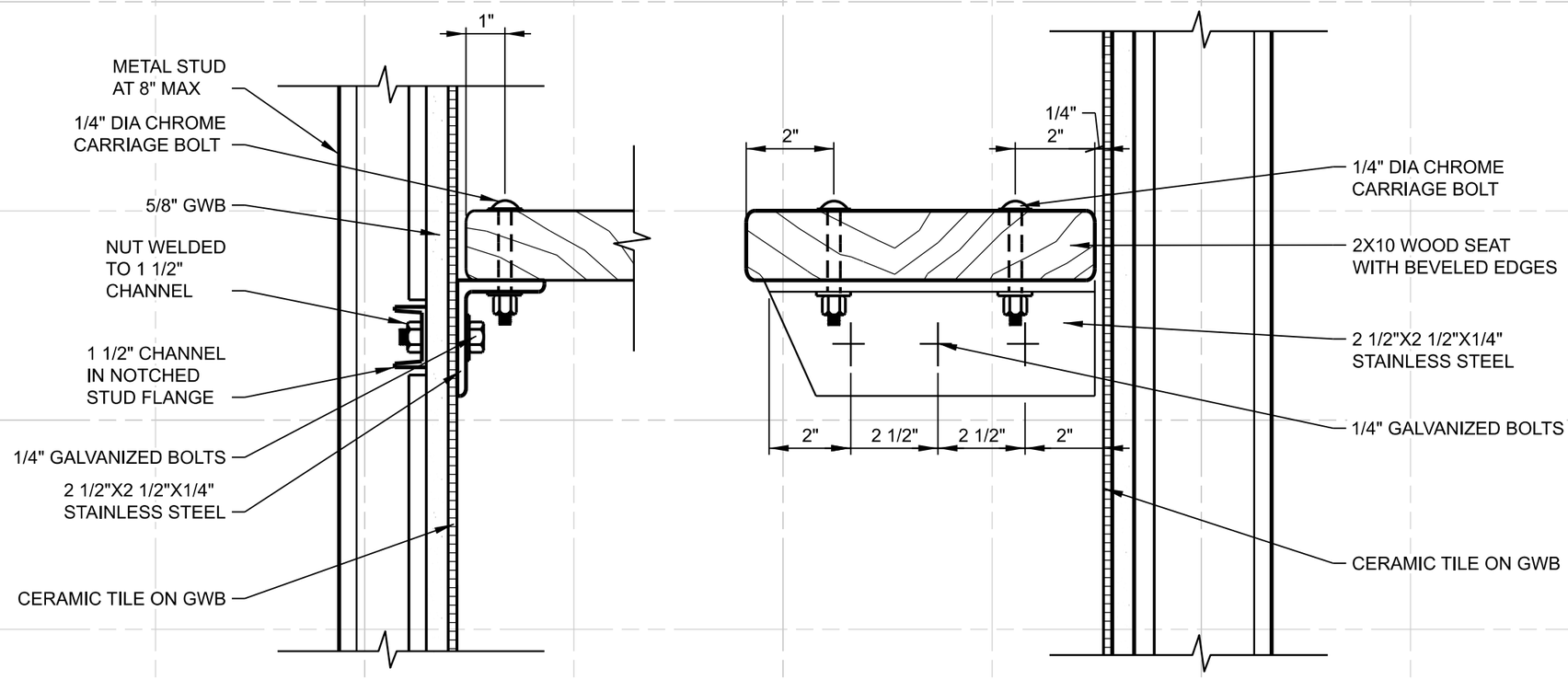
DETAIL: WOOD NAILER

A1

SCALE: 3"=1'-0"

0 3" 6" 1'

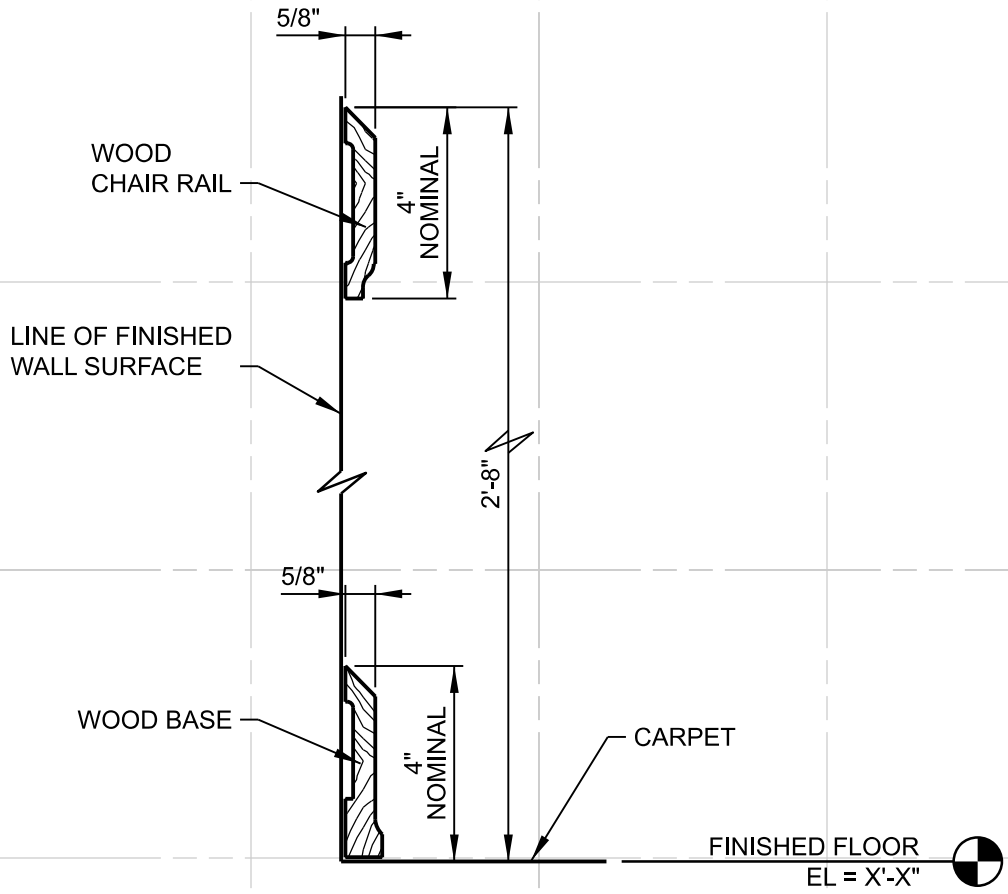
Detail E2010A-DT023X



A1 DETAIL: WOOD SEATS (WALL MOUNTED)

SCALE: 3"=1'-0"

0 3" 6" 1'

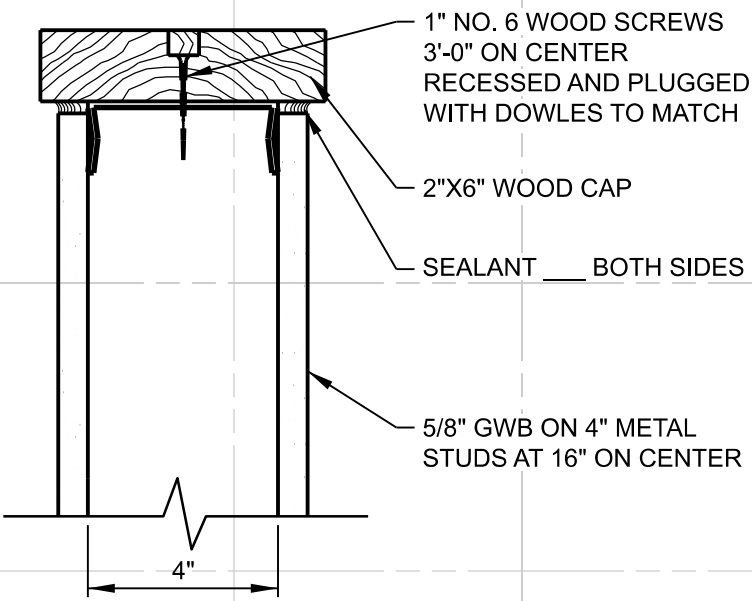


DETAIL: WOOD BASE AND CHAIR RAIL

A1

SCALE: 3"=1'-0"

0 3" 6" 1'

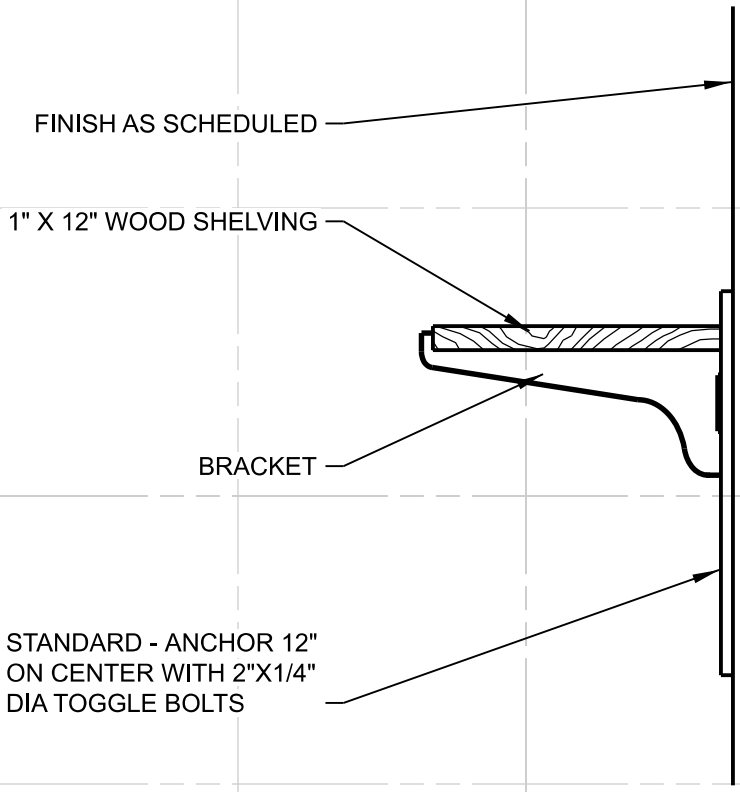


A1

DETAIL: HALF HEIGHT WALL CAP

SCALE: 3"=1'-0"

0 3" 6" 1'



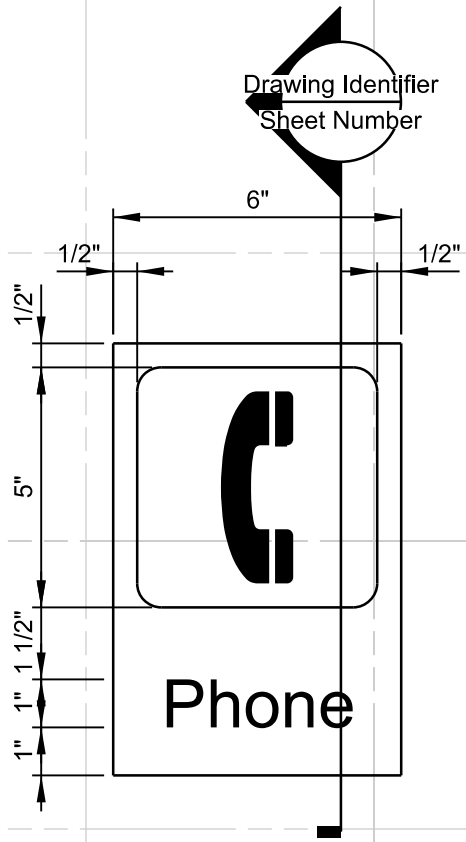
A1

DETAIL: SHELF

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'

Detail E2010A-DT027E



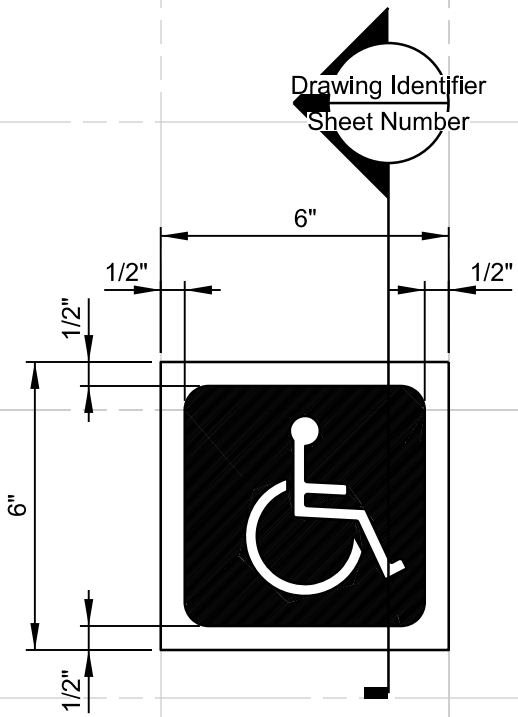
A1

DETAIL:
PHONE SIGN

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1030I-DT016AE



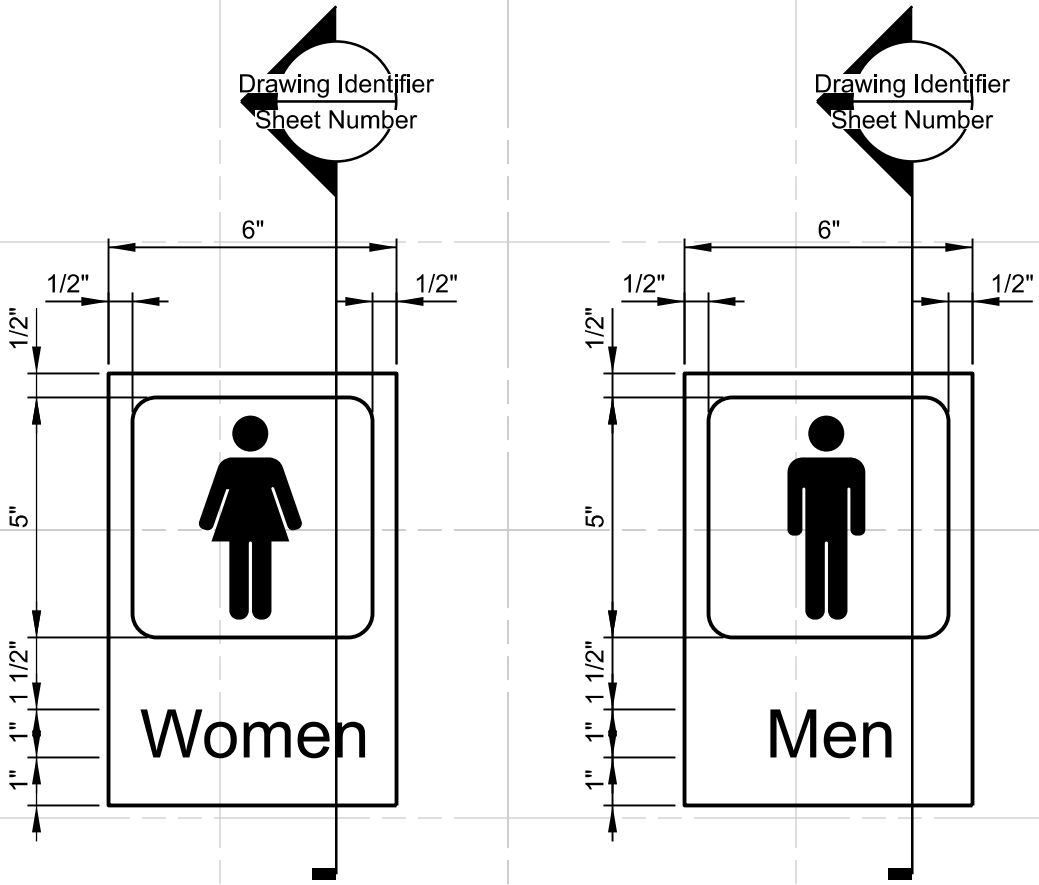
A1

DETAIL: HANDICAP SIGN

SCALE: 3"=1'-0"

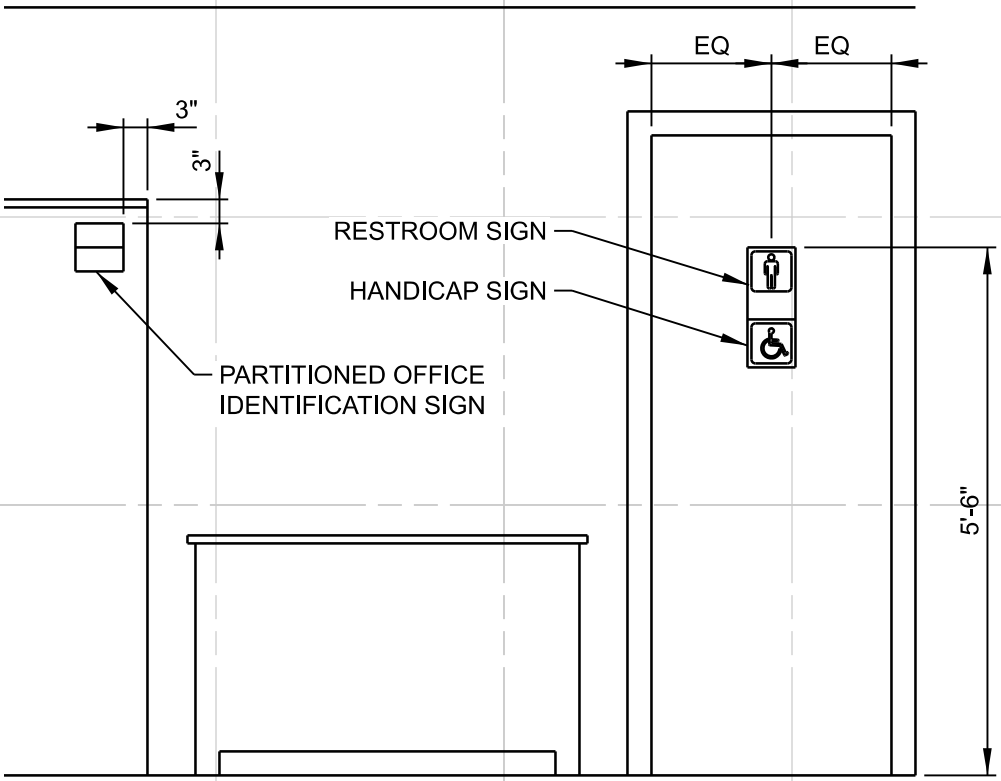
0 3" 6" 1'

Detail C1030I-DT016BE



A1 DETAIL: REST ROOM SIGNS

SCALE: 3"=1'-0" 0 3" 6" 1'

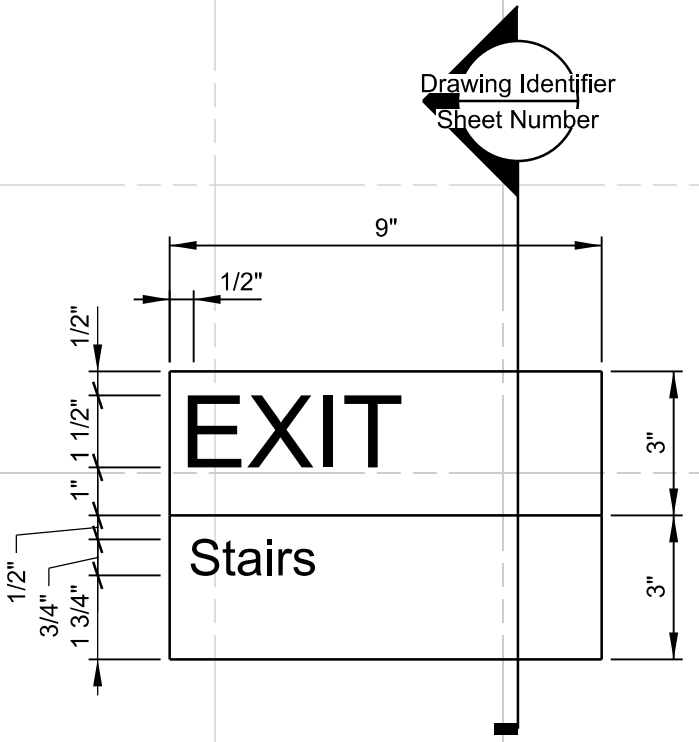


DETAIL: SIGNAGE MOUNTING HEIGHTS

A1

SCALE: 1/2"=1'-0"

0 1' 2' 4'



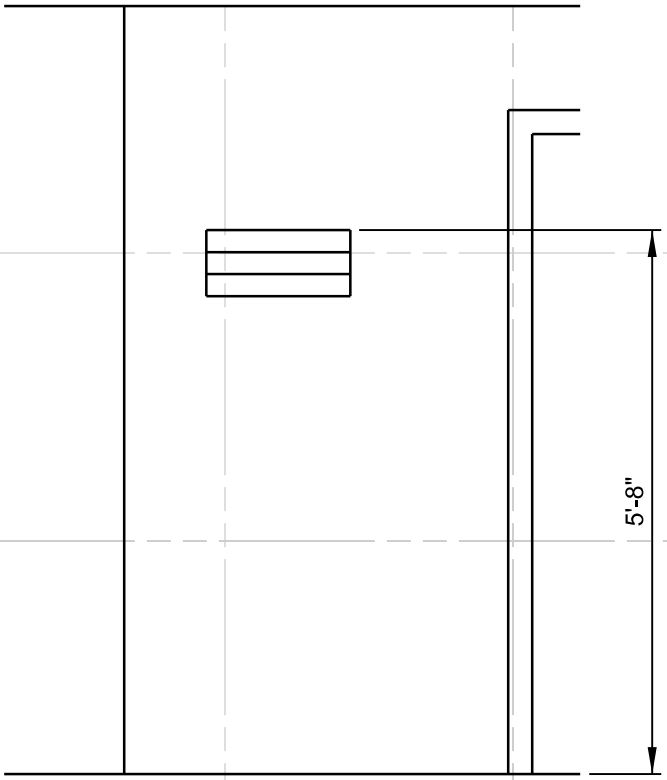
DETAIL: NON-ILLUMINATED EXIT SIGN

A1

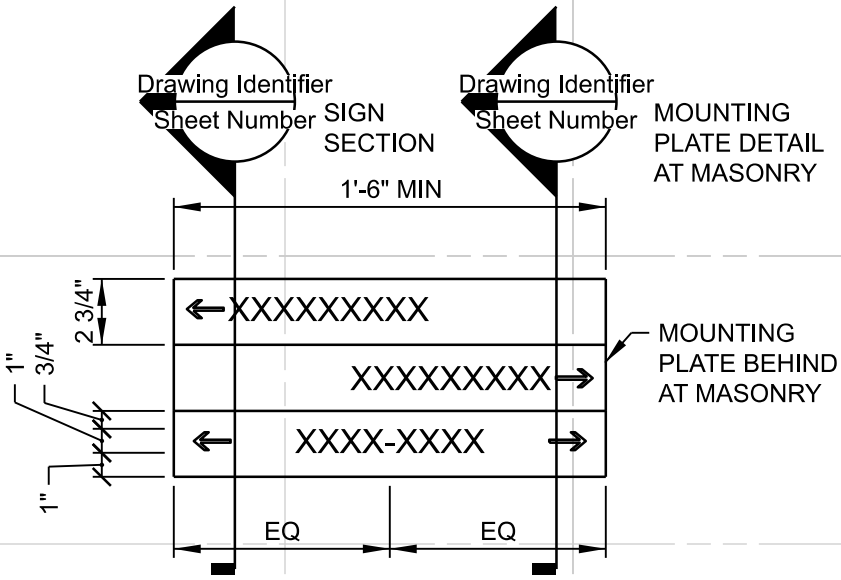
SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1030I-DT019E



ELEVATION - NTS

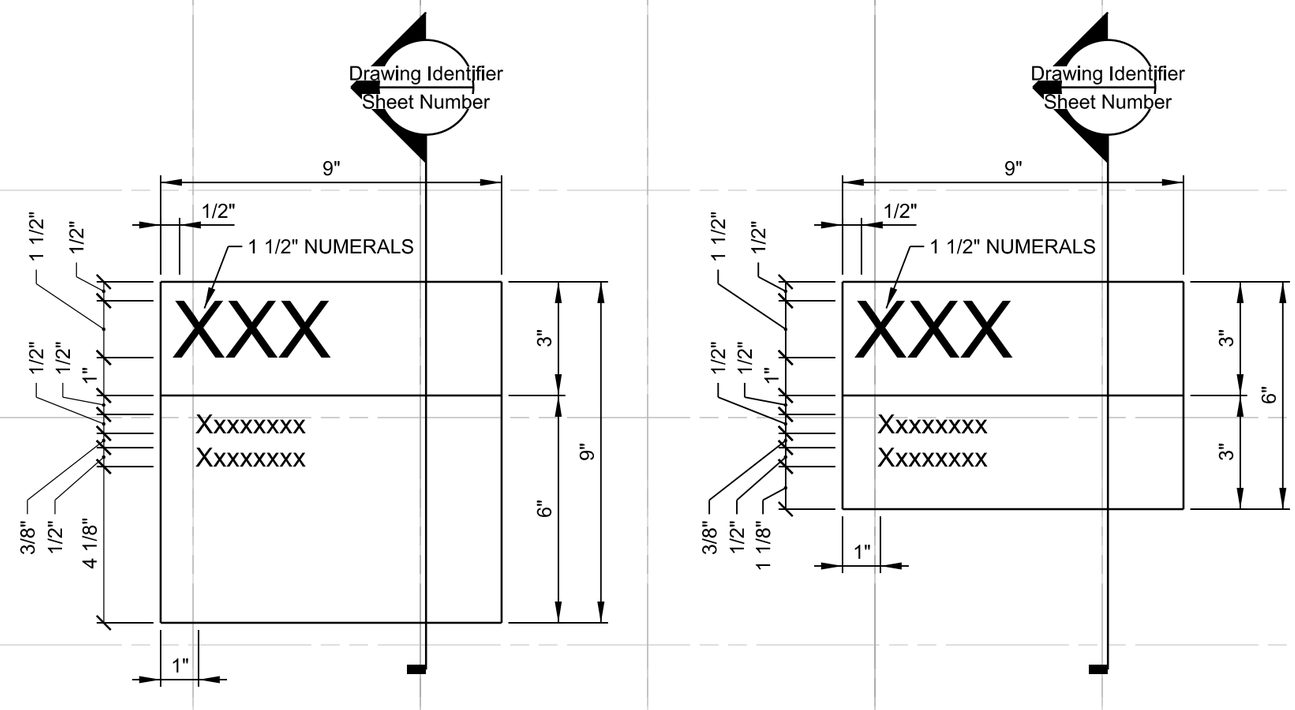


DETAIL: DIRECTIONAL SIGN

A1

SCALE:1 1/2"=1'-0"

0 6" 1' 2'

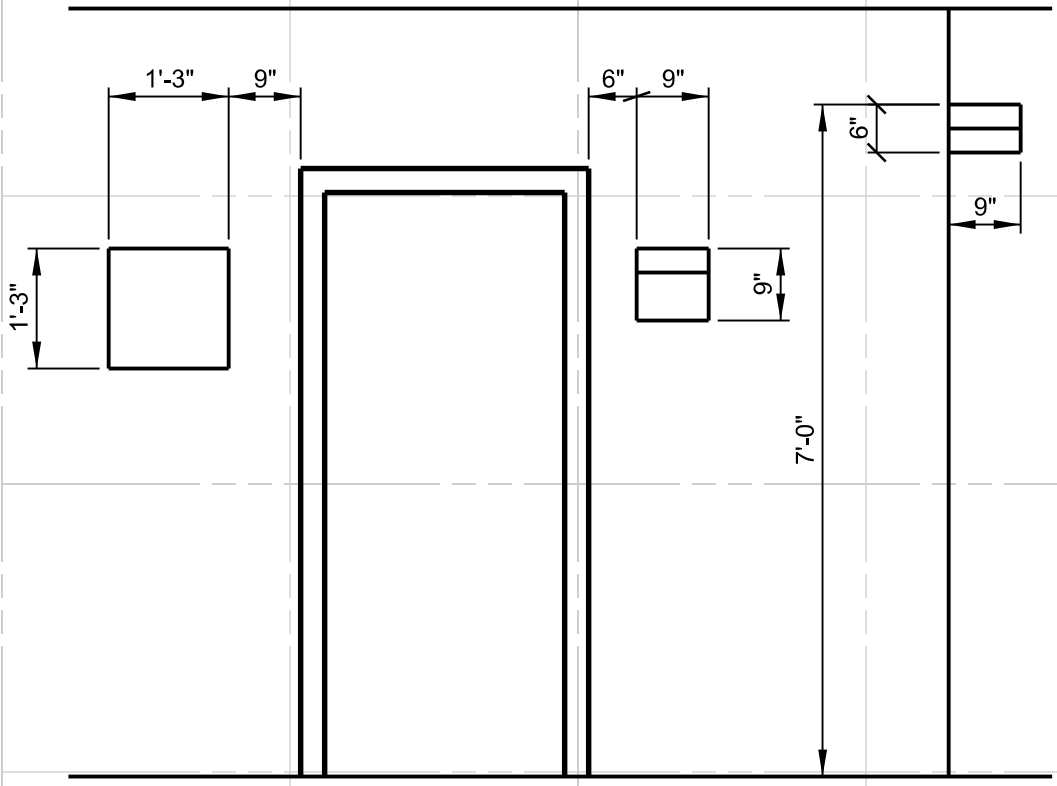


A1 DETAIL: OFFICE IDENTIFICATION SIGNS

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1030I-DT021E

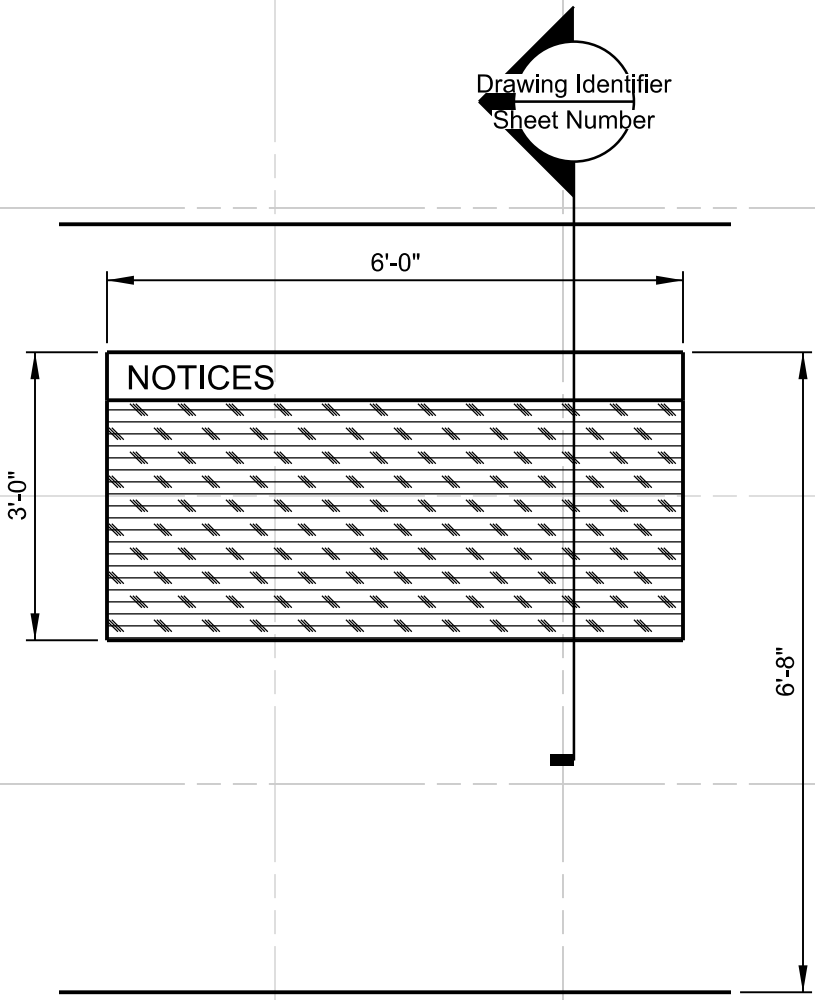


DETAIL: MOUNTING HEIGHTS - IDENTIFICATION SIGNS

A1

SCALE: 1/2"=1'-0"

0 1' 2' 4'



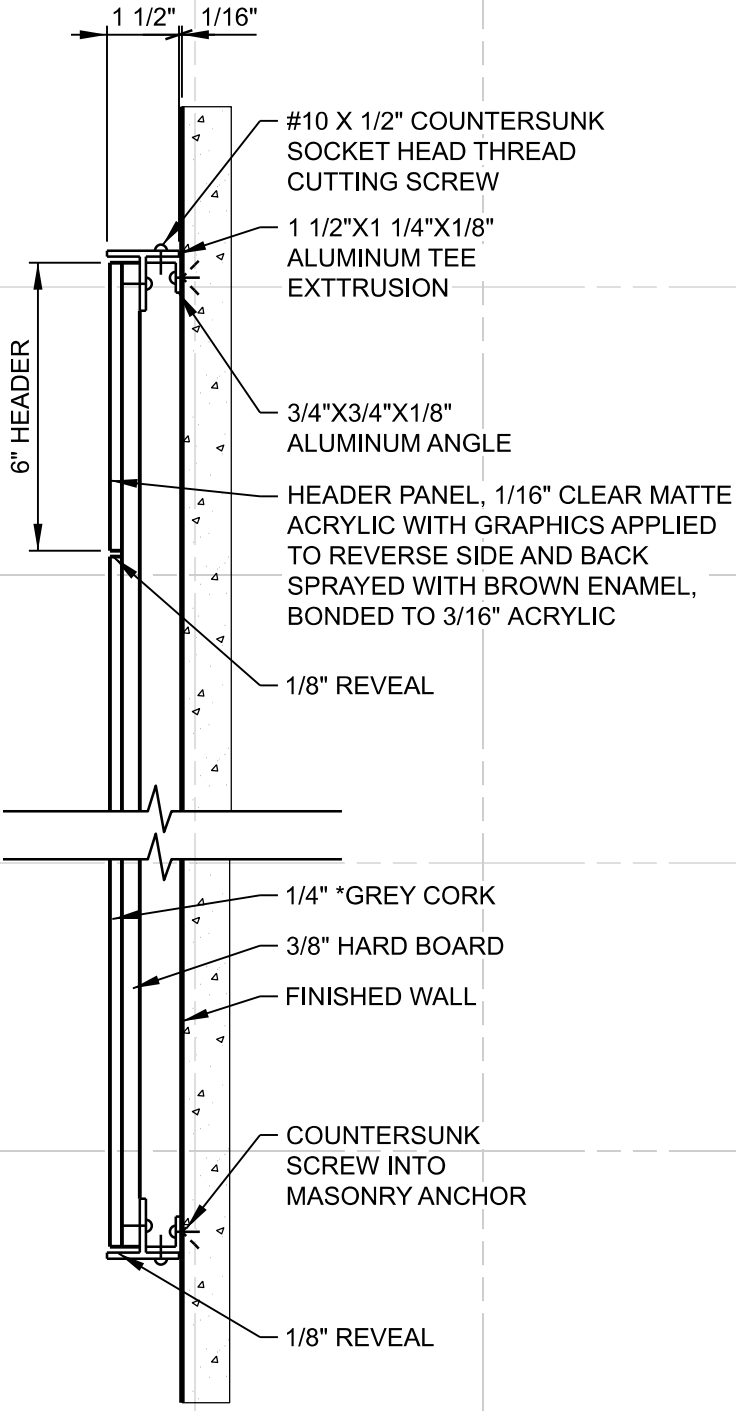
DETAIL: BULLETIN/ TACK BOARD

A1

SCALE: 1/2"=1'-0"

0 1' 2' 4'

Detail C1030I-DT023E

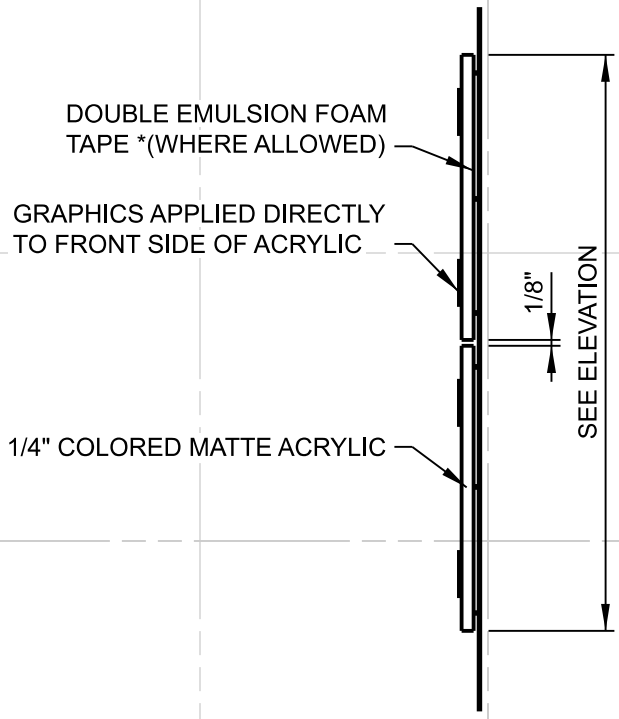


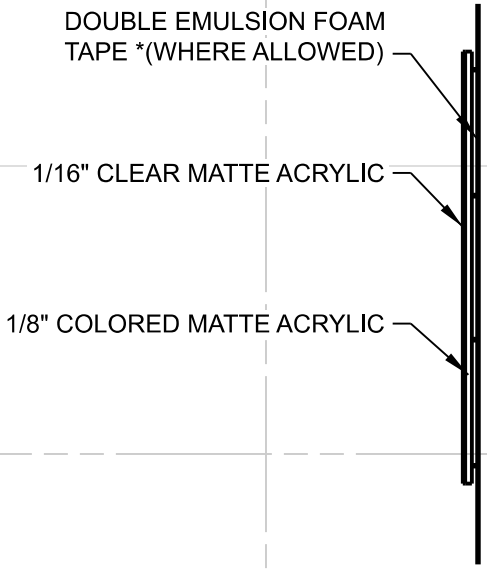
DETAIL: SECTION THRU BULLETIN BOARD

A1

SCALE: 3"=1'-0"

0 3" 6" 1'





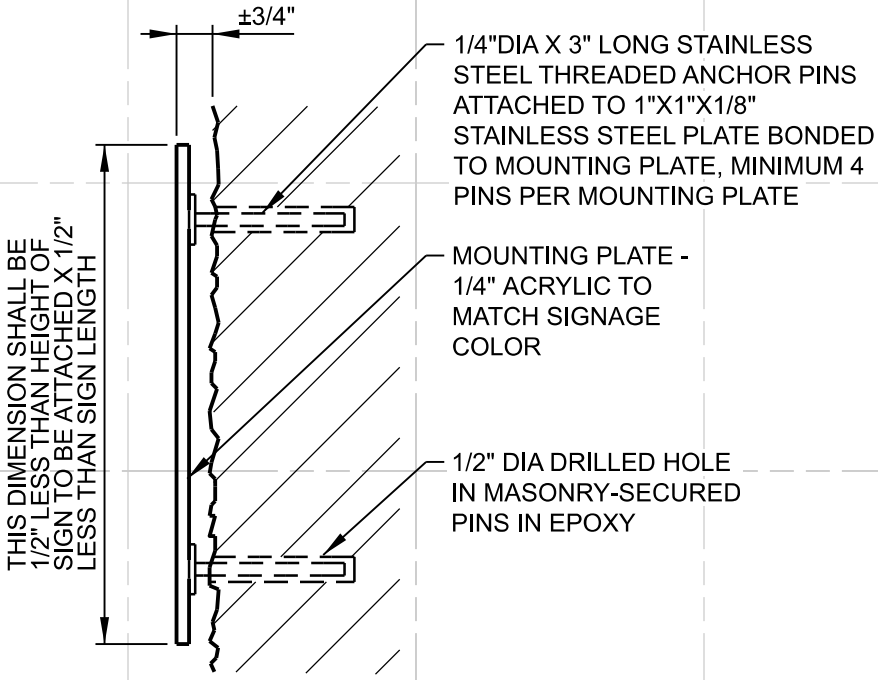
NOTES:
GRAPHICS APPLIED TO REVERSE SIDE AND BACK SPRAYED, BONDED TO 1/8" WHITE ACRYLIC.
*WHERE TAPE IS NOT ALLOWED SHOW MECHANICAL FASTENERS

A1

DETAIL: SIGN SECTIONS

SCALE: 3"=1'-0"

0 3" 6" 1'



DETAIL: EXTERIOR BUILDING MOUNTED SIGN - MOUNTING PLATE

A1

SCALE: 3"=1'-0"

0 3" 6" 1'

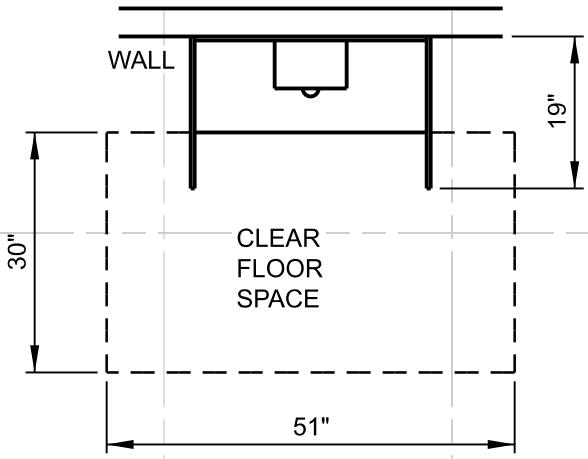
SIGNAGE SCHEDULE

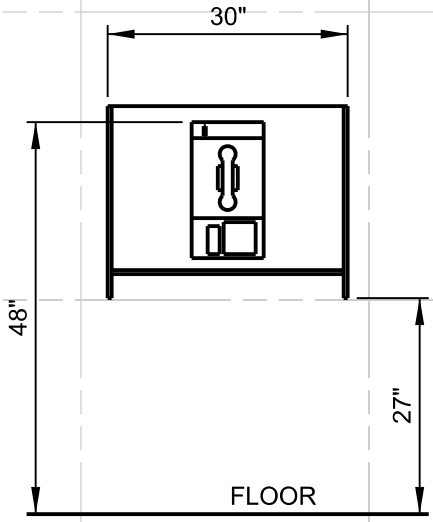
SIGN/ SYMB.	TYPE	SIGN SIZE	TEXT/ DESCRIPTION	MOUNTING		NOTES
				HT/AFF	W/D	

REMARKS:

A. MOUNTING-HT/AFF: INDICATES MOUNTING HEIGHT ABOVE FINISHED FLOOR

B. MOUNTING-W/D: INDICATES MOUNTING LOCATION (W = WALL; D = DOOR)



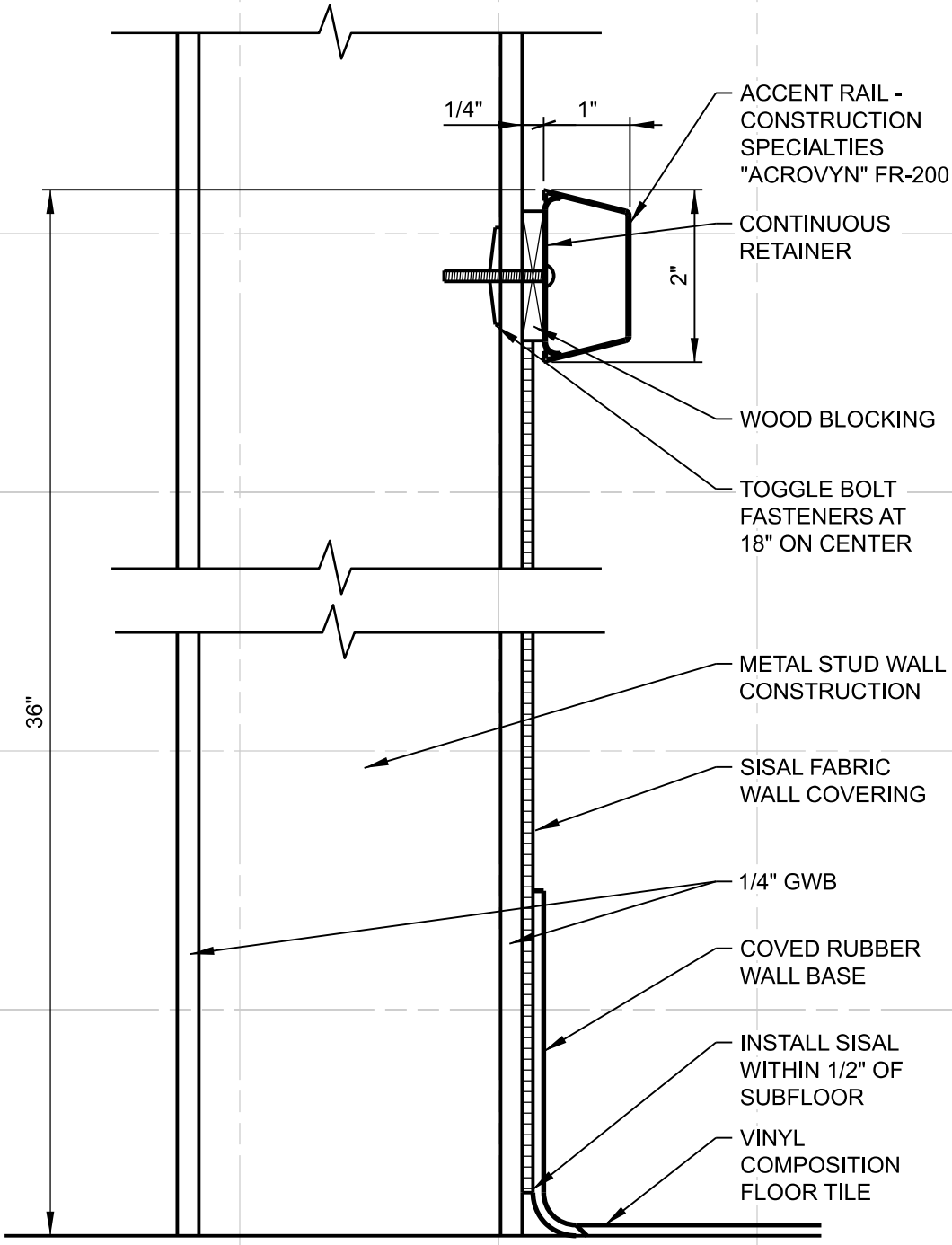


A1

DETAIL: TELEPHONE STATION

SCALE: 1/2"=1'-0"

0 1' 2' 4'

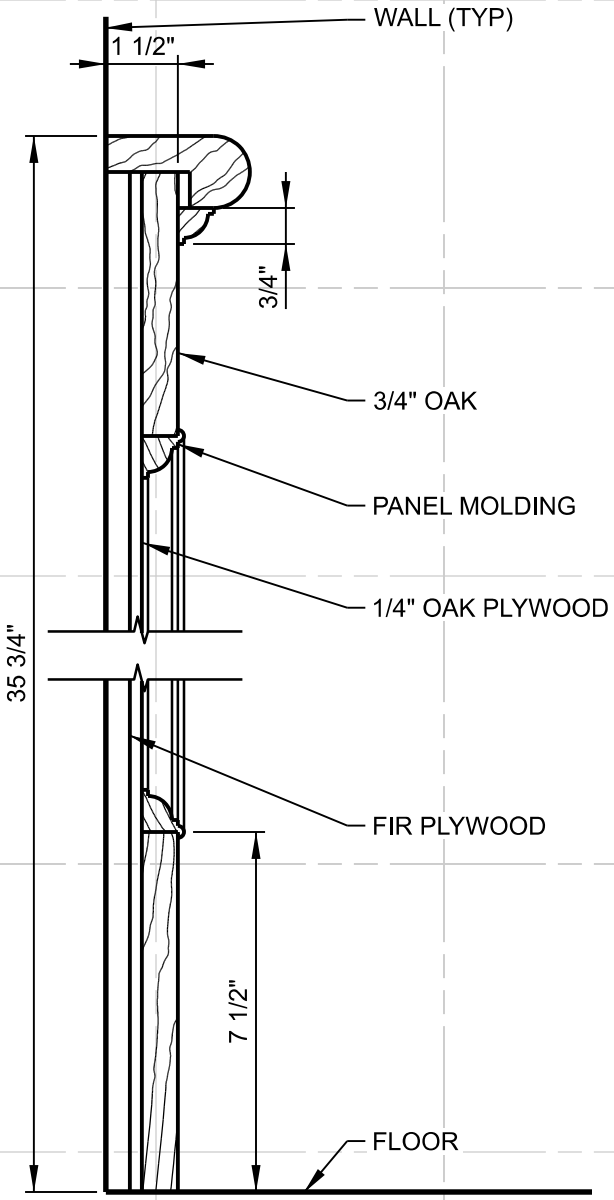


DETAIL: WAINSCOT WITH VINYL CHAIR RAIL

A1

SCALE: 6"=1'-0"

0 1-1/2" 3" 6"



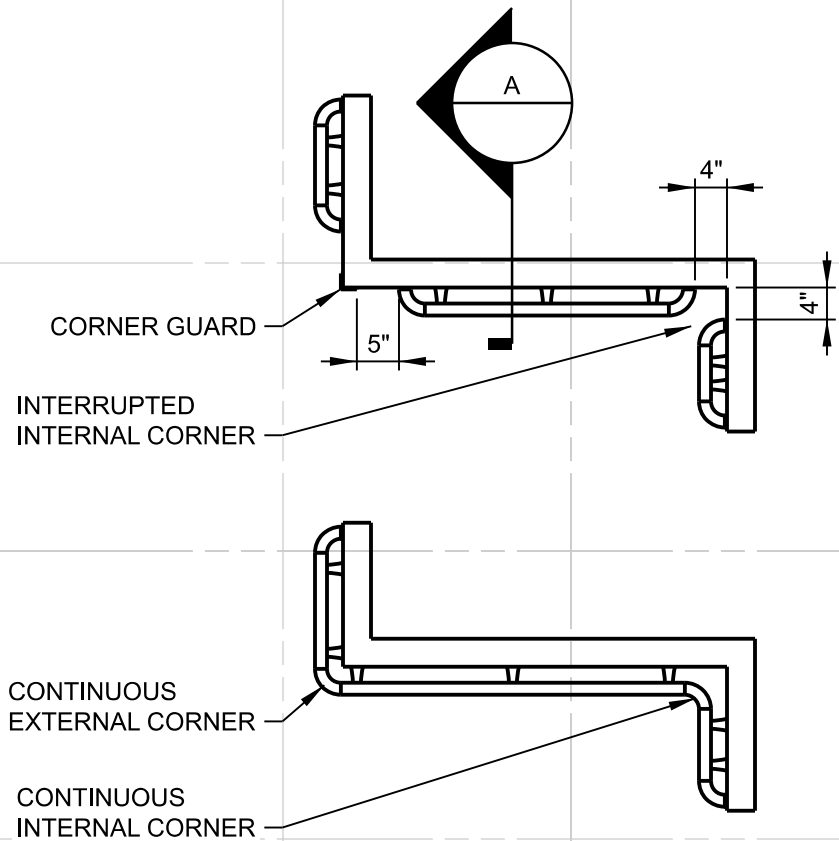
DETAIL: WOOD WAINSCOT

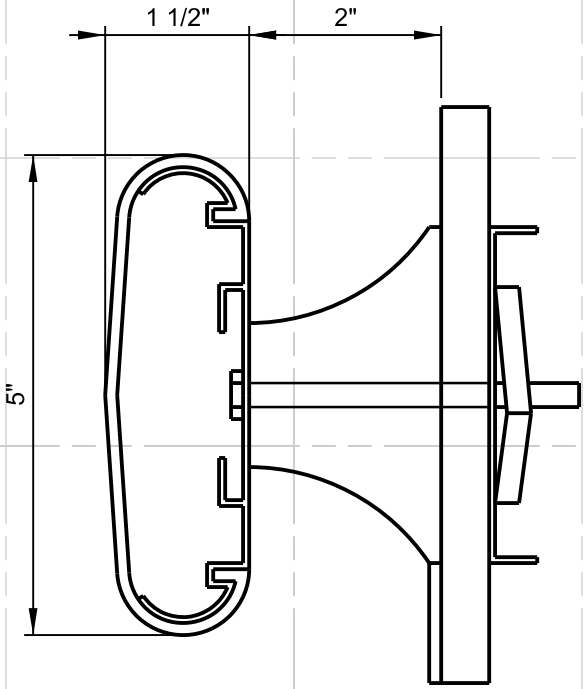
A1

SCALE: 3"=1'-0"

0 3" 6" 1'

Detail C1034I-DT002X





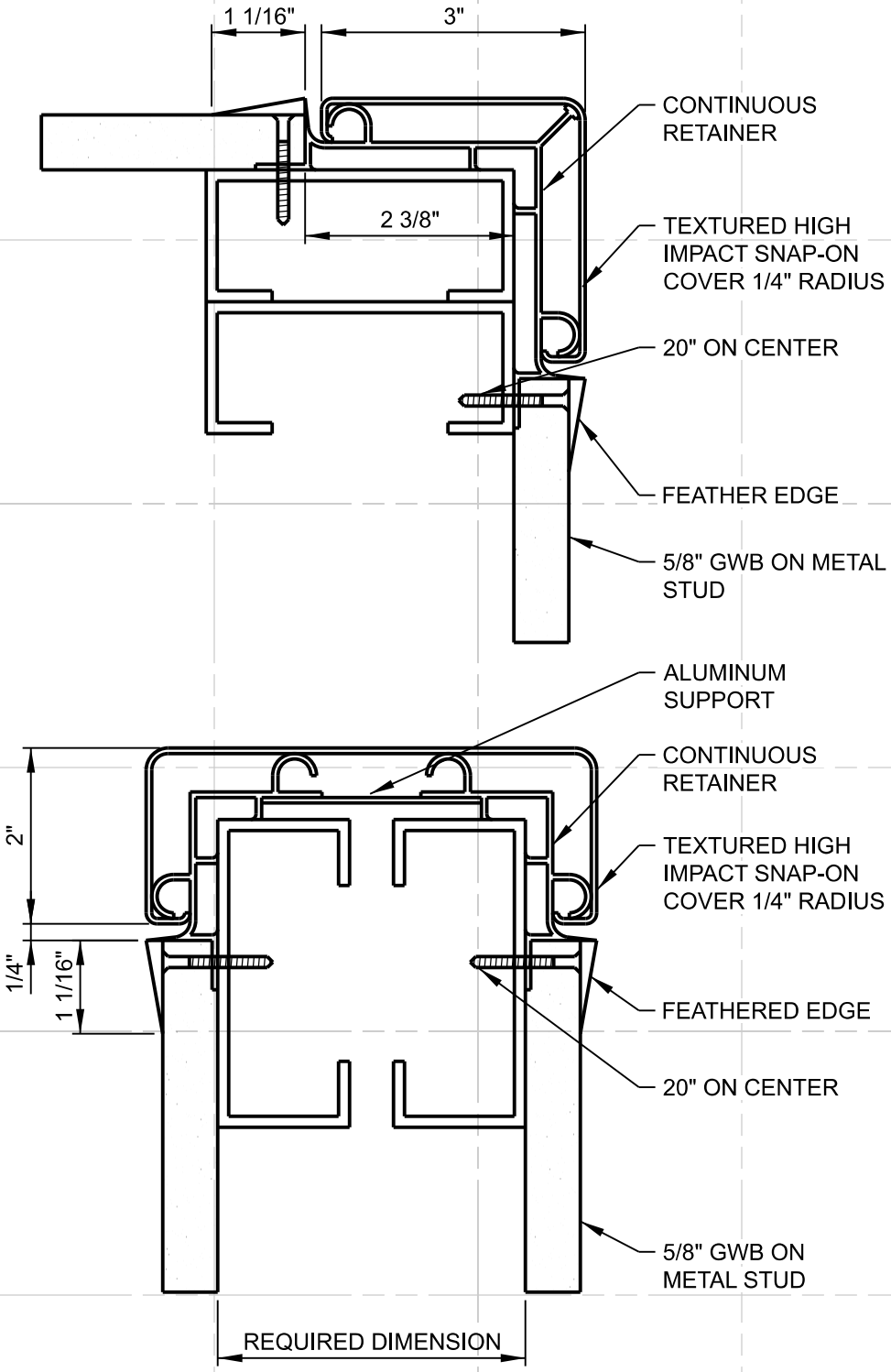
SECTION A
SCALE: NTS

A1

DETAIL: BUMPER RAILS

SCALE: 1/2"=1'-0"

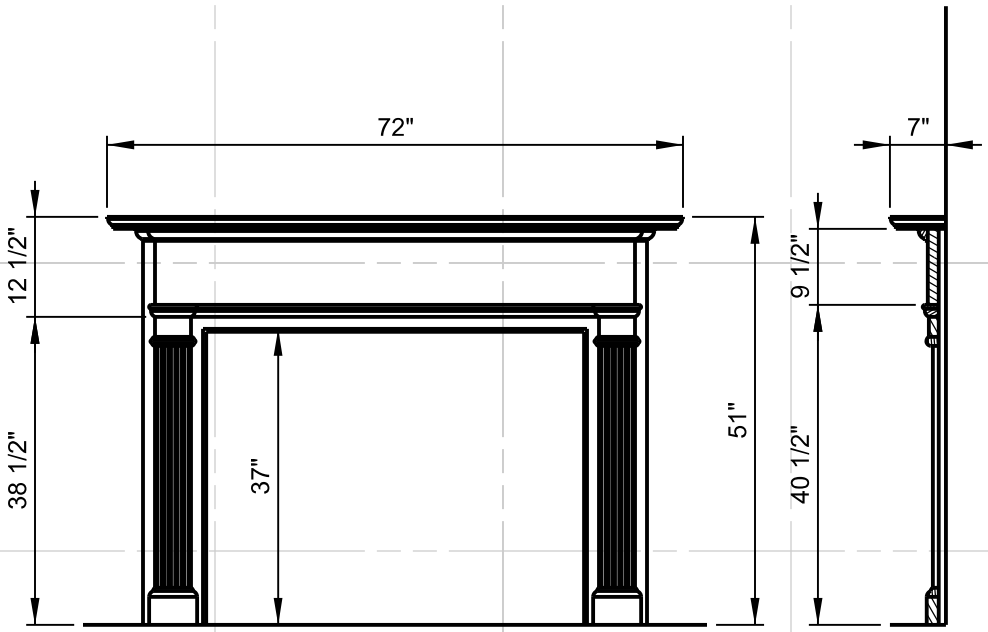
0 1' 2' 4'



A1

DETAIL: CORNER GUARDS

SCALE: 6"=1'-0" 0 1-1/2" 3" 6"



FRONT

SIDE



PLAN

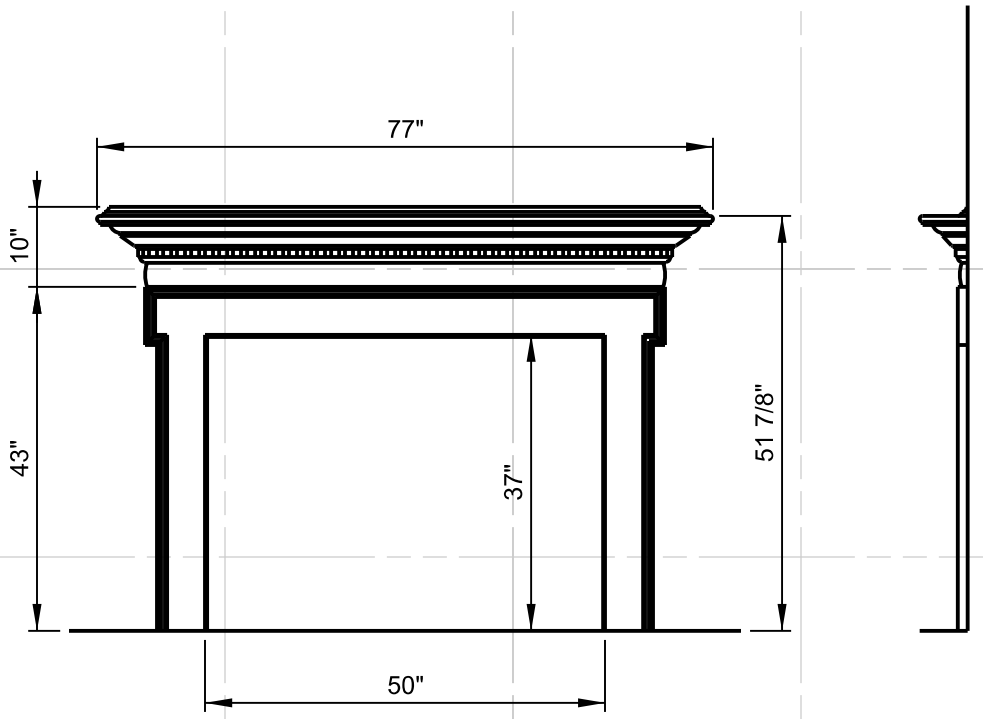
NOTES:
1. BRACE LARGE MEMBERS TO WALL BEHIND APPLIED TRIM.
2. FASTEN APPLIED TRIM WITH FINISH NAILS, SINK AND FILL FINISH NAIL HOLES.

A1

DETAIL: FIREPLACE FINISH

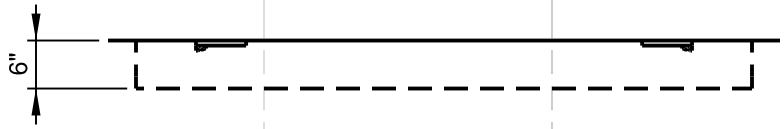
SCALE: 1/2"=1'-0"

0 1' 2' 4'



FRONT

SIDE



PLAN

NOTES:
1. BRACE LARGE MEMBERS TO WALL BEHIND APPLIED TRIM.
2. FASTEN APPLIED TRIM WITH FINISH NAILS, SINK AND FILL FINISH NAIL HOLES.

A1

DETAIL: FIREPLACE FINISH

SCALE: 1/2"=1'-0"

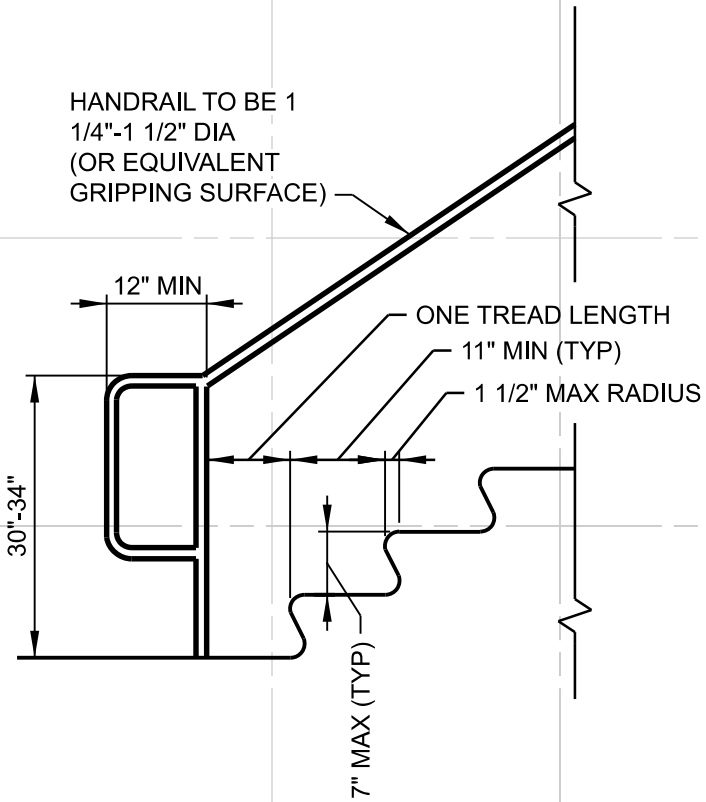
0 1' 2' 4'



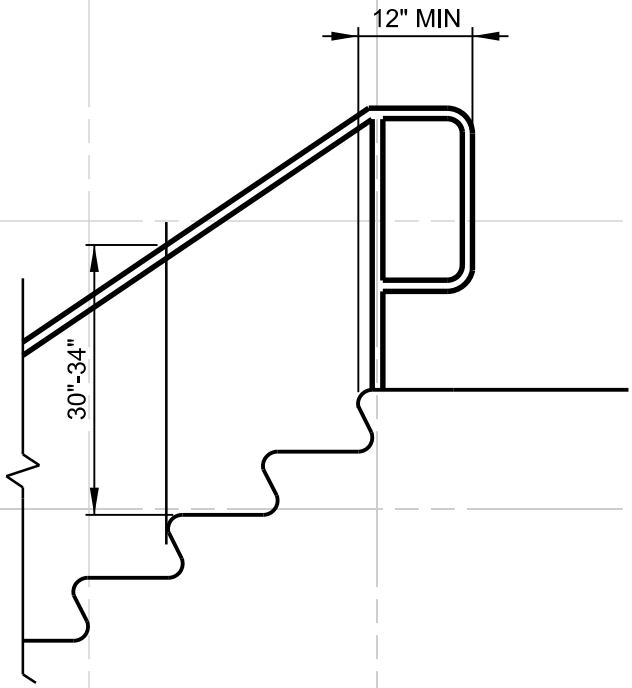
(A) GRAB BAR (B) HANDRAIL (C) HANDRAIL (D) HANDRAIL (E) HANDRAIL

A1 DETAIL: HANDRAIL SECTIONS

SCALE: NTS



EXTENSION AT BOTTOM OF RUN



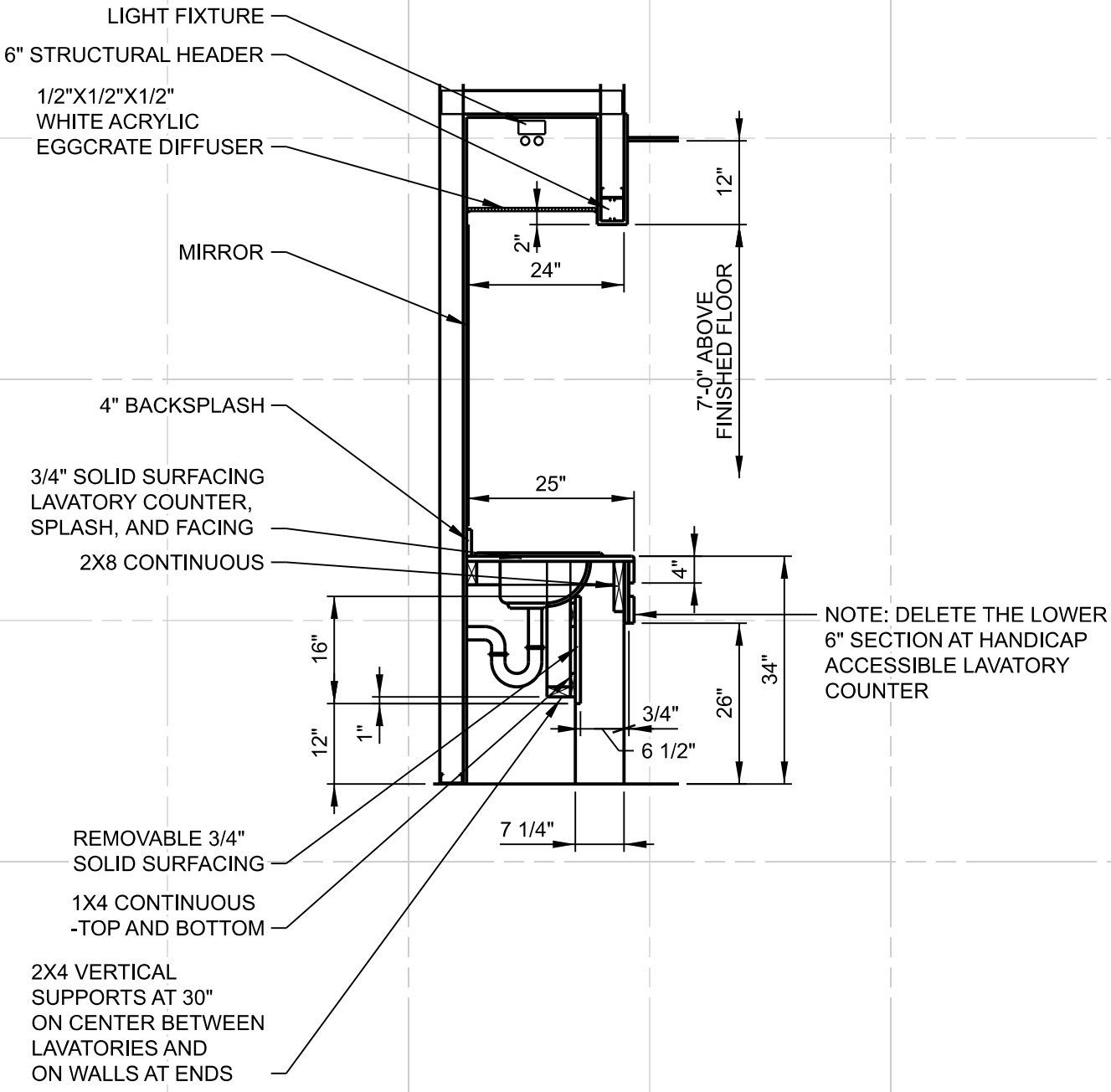
NOTE: FOR OTHER DIMENSIONS SEE EXTENSION AT BOTTOM OF RUN.

EXTENSION AT TOP OF RUN

A1

DETAIL: HANDRAIL AT STAIRS

SCALE: NTS



A1

DETAIL: LAVATORY WITH RECESSED LIGHT

SCALE: 1/2"=1'-0"

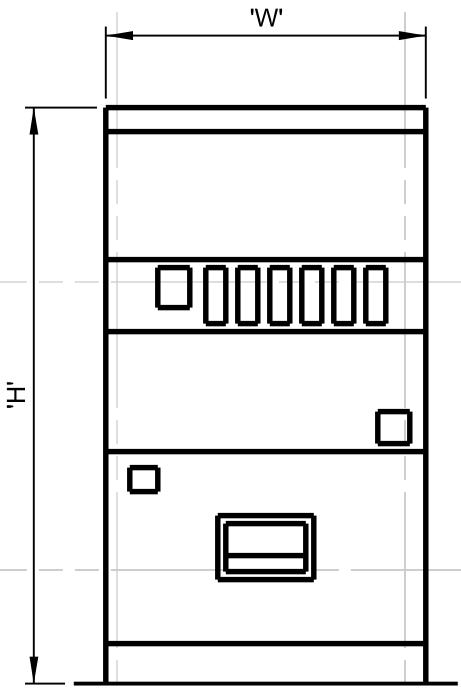
0 1' 2' 4'

Detail D2014I-DT002X

Details-US-Interiors-D201-PlumbingFixtures



TOP



FRONT

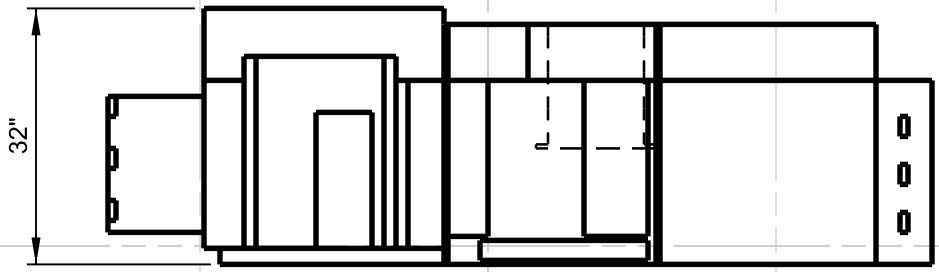
NOTE:
AVAILABLE SIZES
'W' = 36", 40", 42"
'H' = 72", 51"

A1

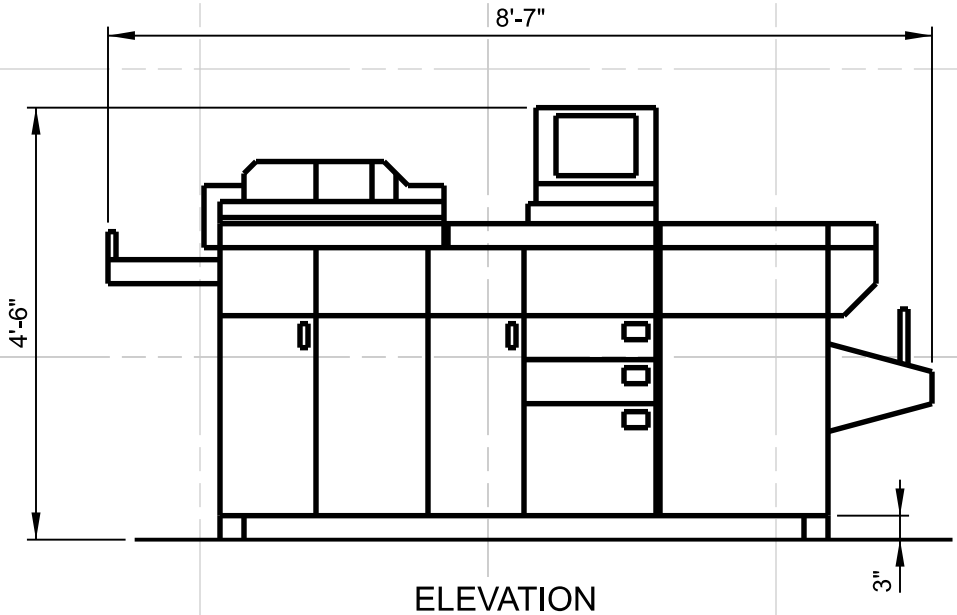
DETAIL: VENDING MACHINES

SCALE: 1 1/2"=1'-0"

0 6" 1' 2'



PLAN



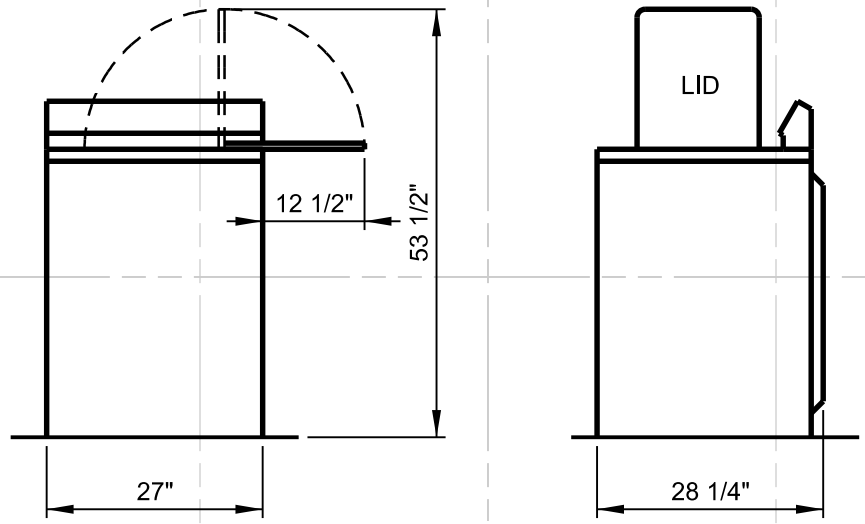
ELEVATION

A1

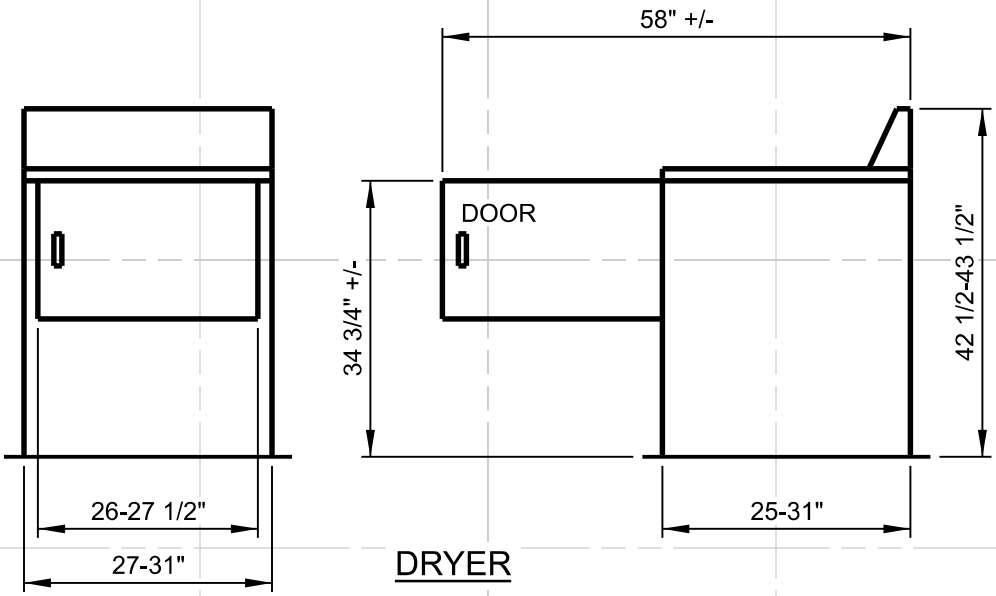
DETAIL: FLOOR COPY MACHINE

SCALE: 1/2"=1'-0"

0 1' 2' 4'



WASHER



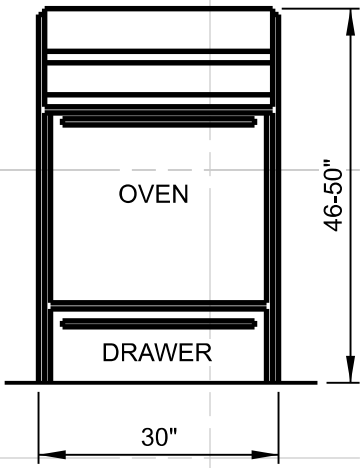
DRYER

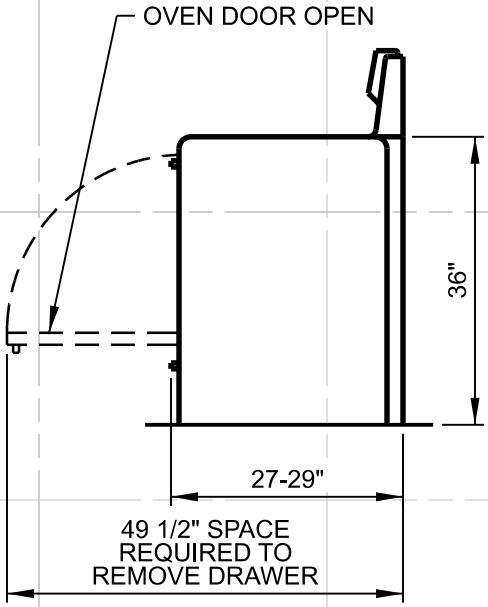
A1

DETAIL: WASHER AND DRYER

SCALE: 1/2"=1'-0"

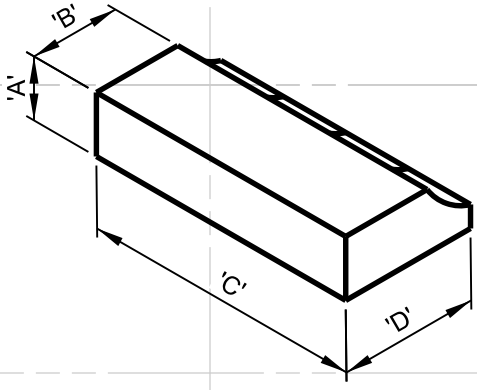
0 1' 2' 4'





HOOD DIMENSIONS

'A' (")	'B' (")	'C' (")	'D' (")
6	12	42	20 1/4
6	12	36	20 1/4
7 3/8	11 5/8	30	18
8	11 3/4	36	18
8	11 3/4	36	18

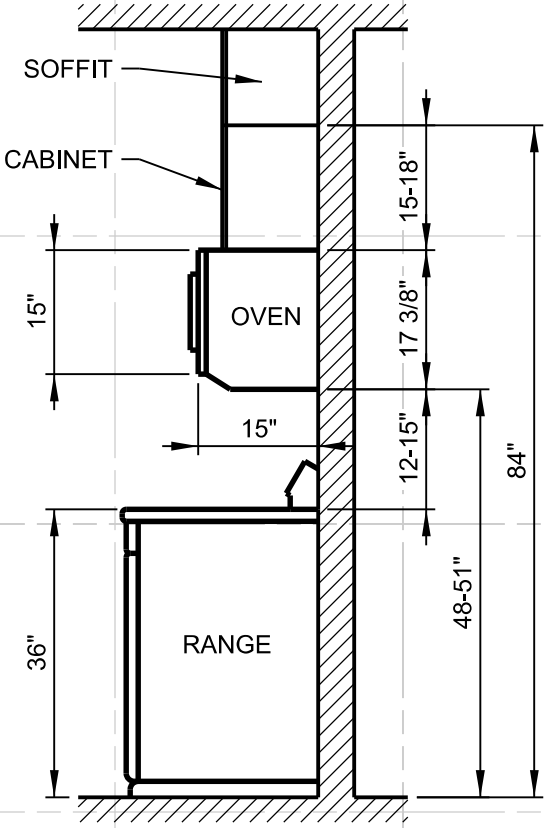


A1

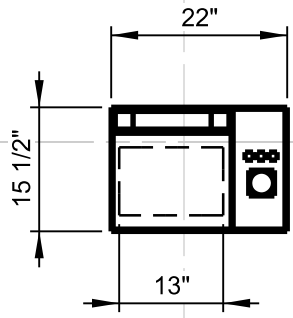
DETAIL: GAS RANGES AND HOOD

SCALE: 1/2"=1'-0"

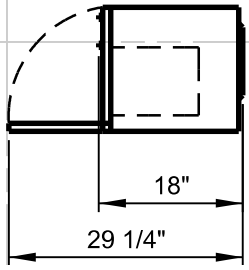
0 1' 2' 4'



STANDARD MICROWAVE



FRONT ELEVATION



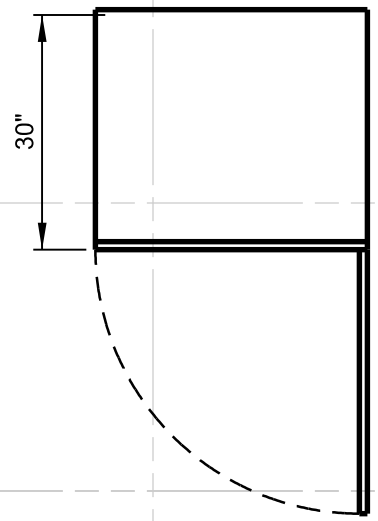
SIDE ELEVATION

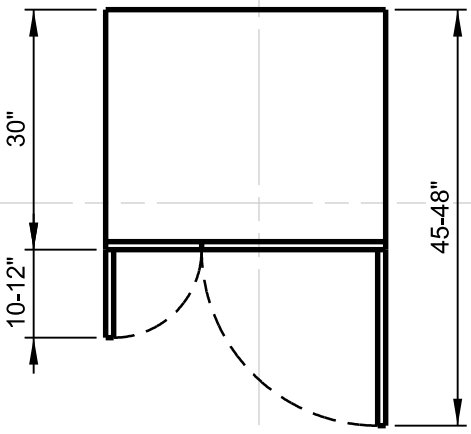
A1

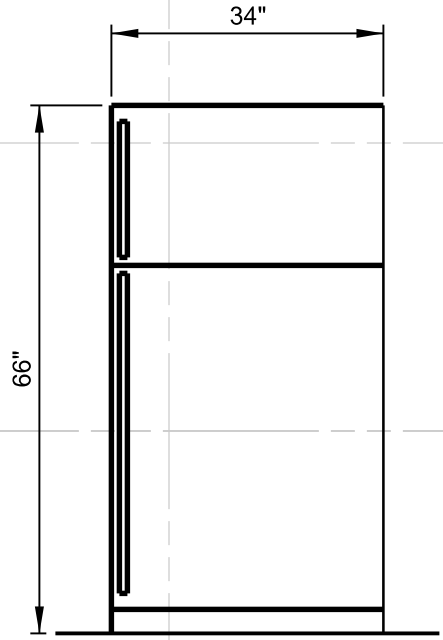
DETAIL: GAS RANGES AND HOOD

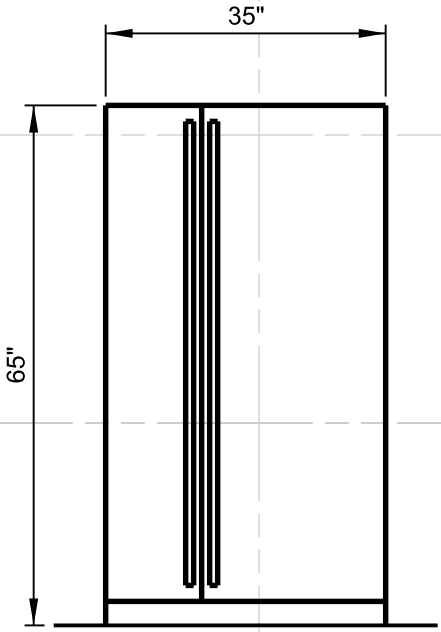
SCALE: 1/2"=1'-0"

0 1' 2' 4'









TOP FREEZER

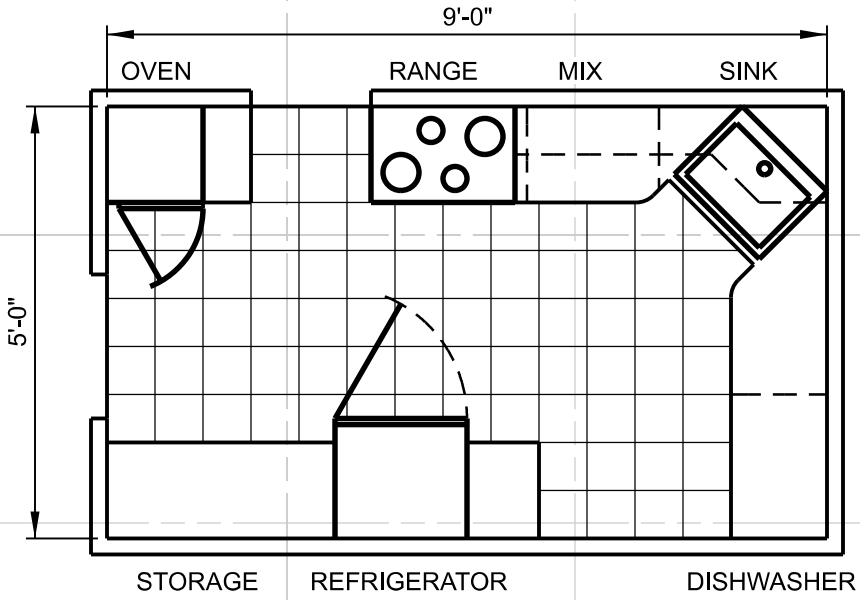
SIDE BY SIDE

A1

DETAIL: REFRIGERATOR

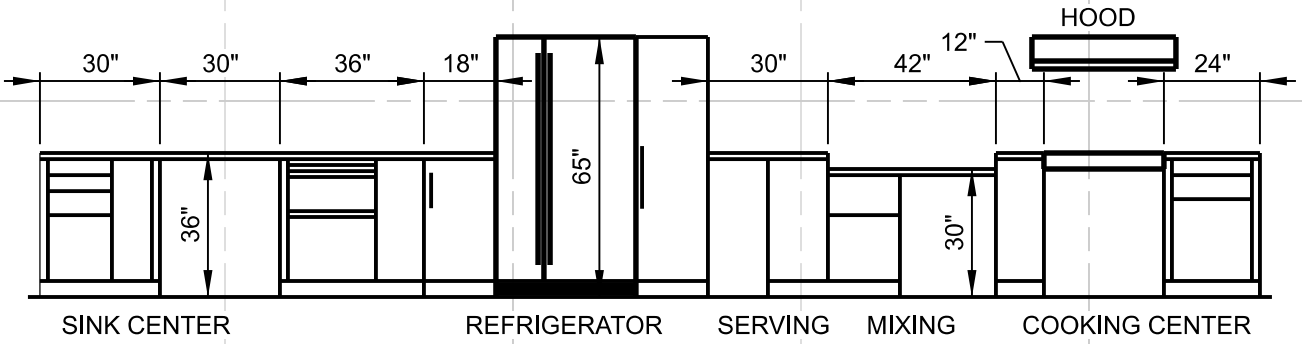
SCALE: 1/2"=1'-0"

0 1' 2' 4'



PLAN

NOT TO SCALE

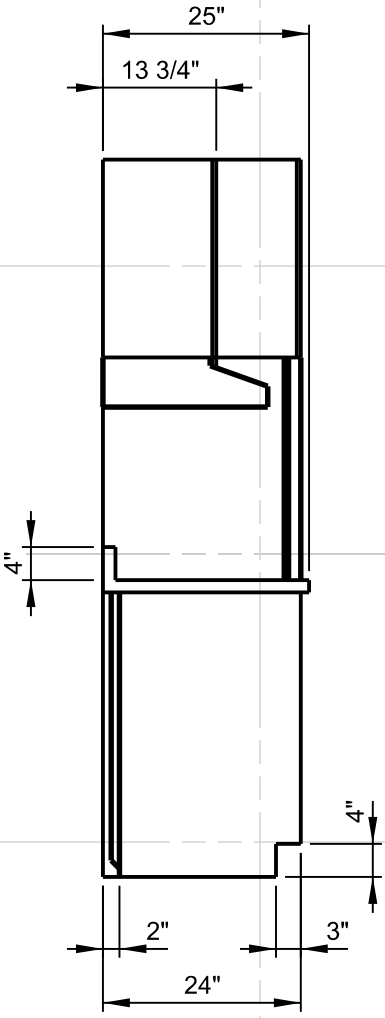


A1

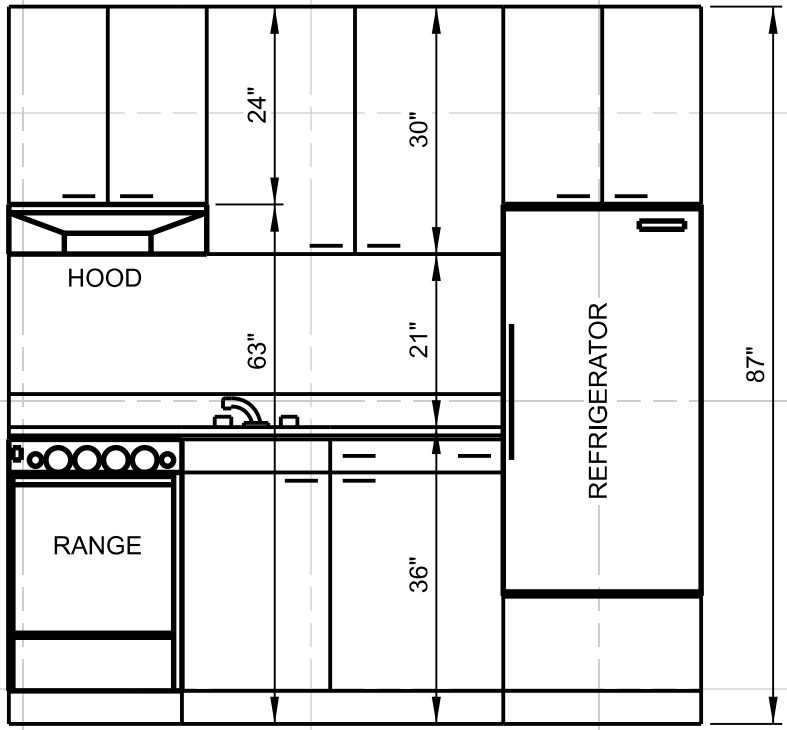
DETAIL: TYPICAL RESIDENTIAL KITCHEN

SCALE: 1/4"=1'-0"

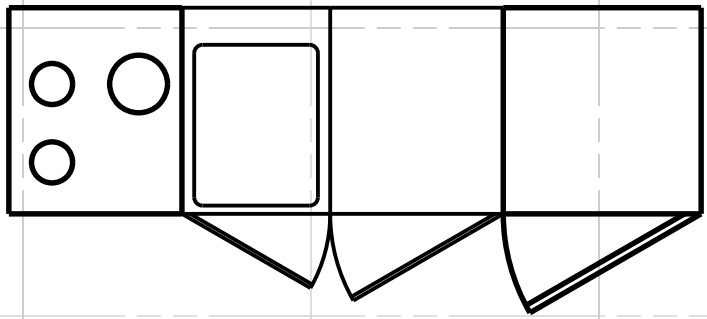
0 2' 4' 8'



SIDE ELEVATION



ELEVATION



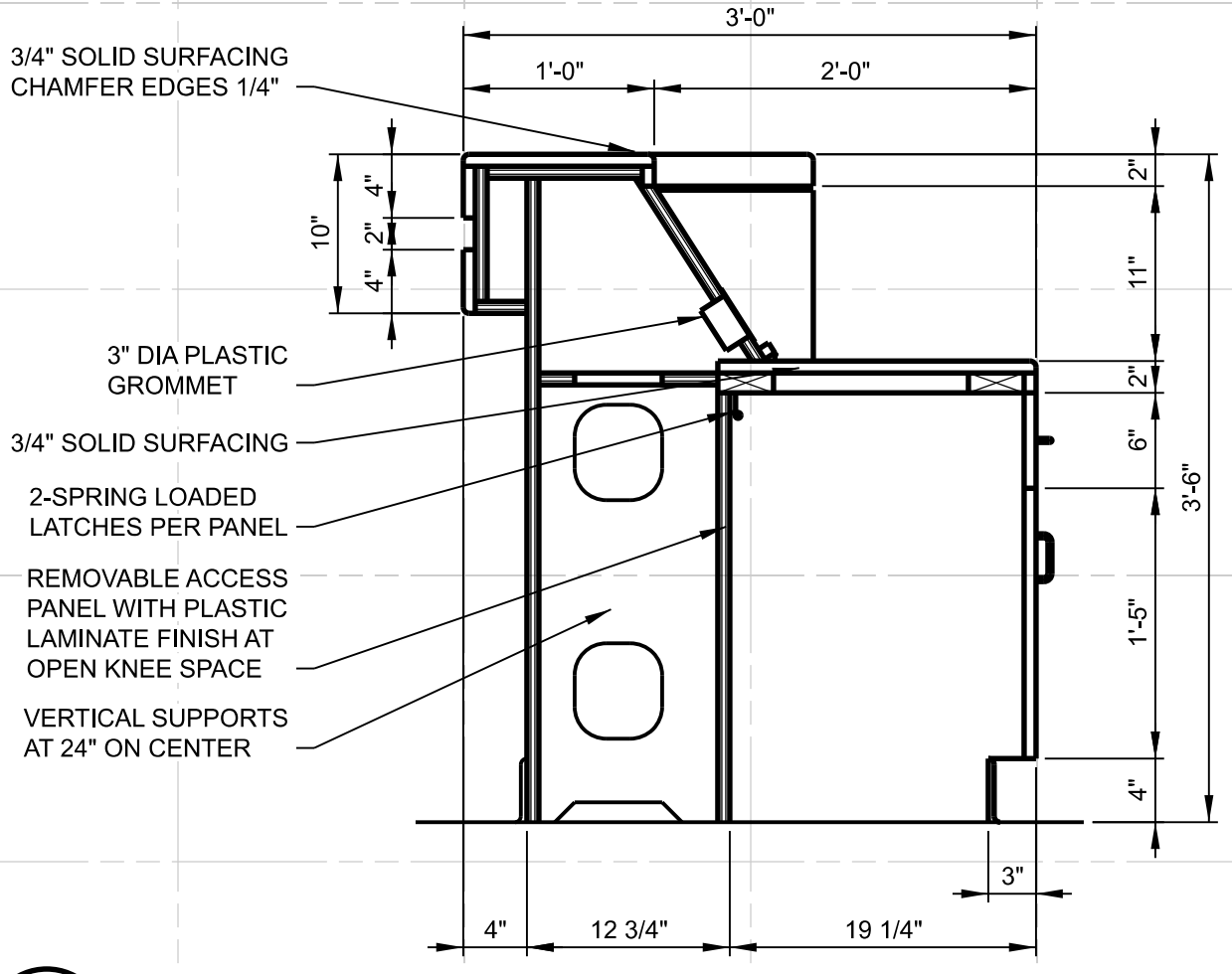
PLAN

A1

DETAIL: UNIT KITCHEN

SCALE: 1/2"=1'-0"

0 1' 2' 4'

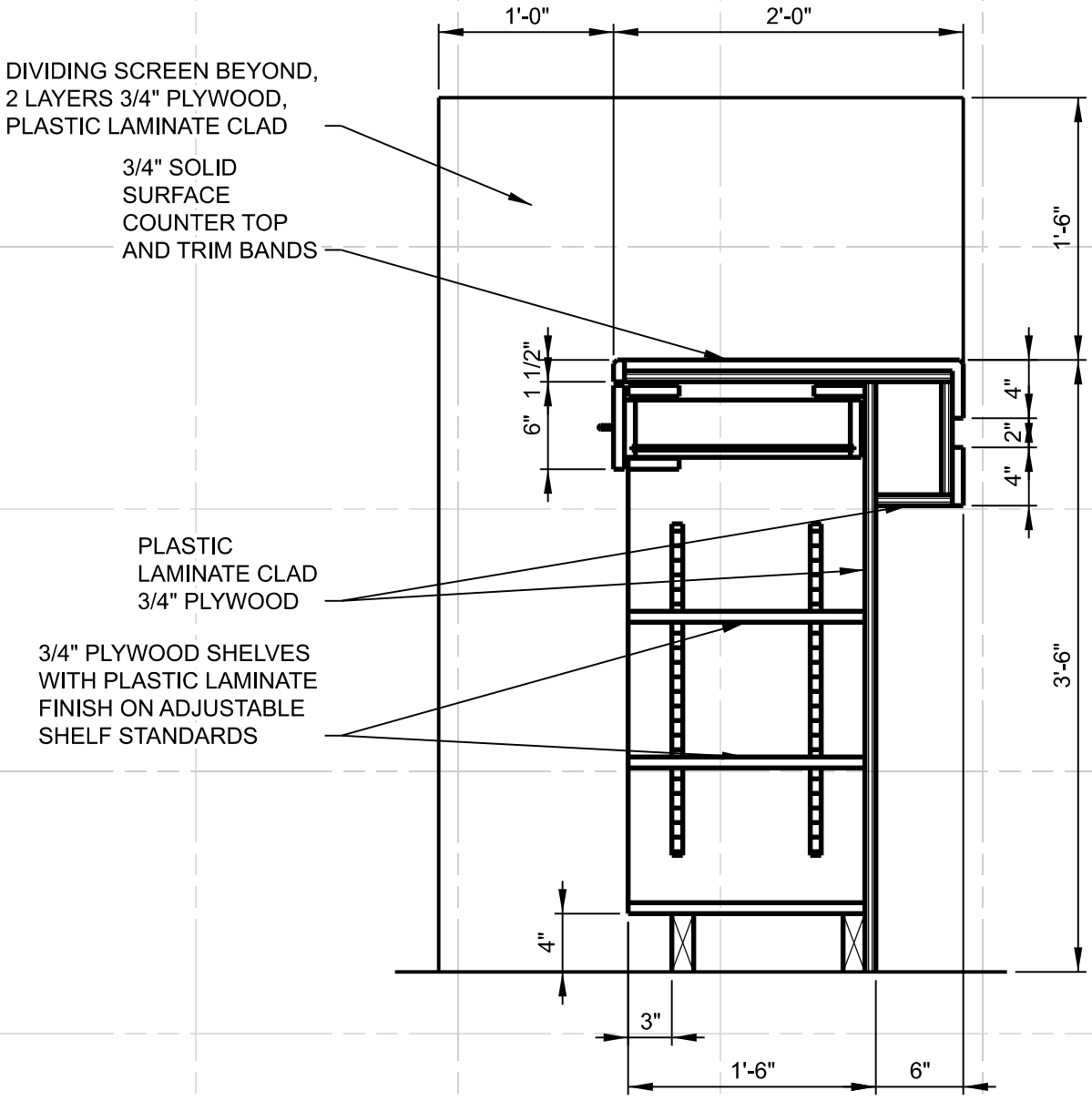


A1

DETAIL: RECEPTION COUNTER

SCALE: 1"=1'-0"

0 6" 1' 2'

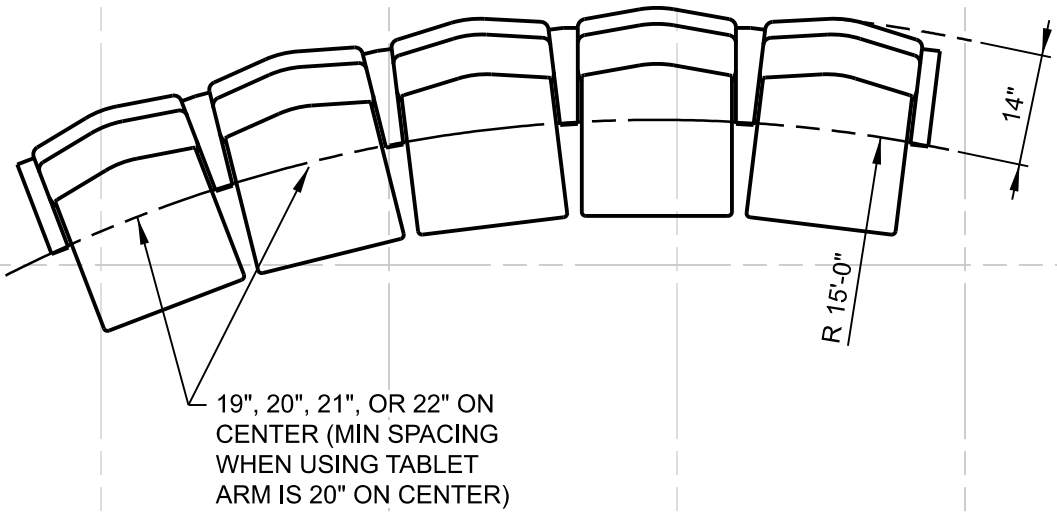


A1

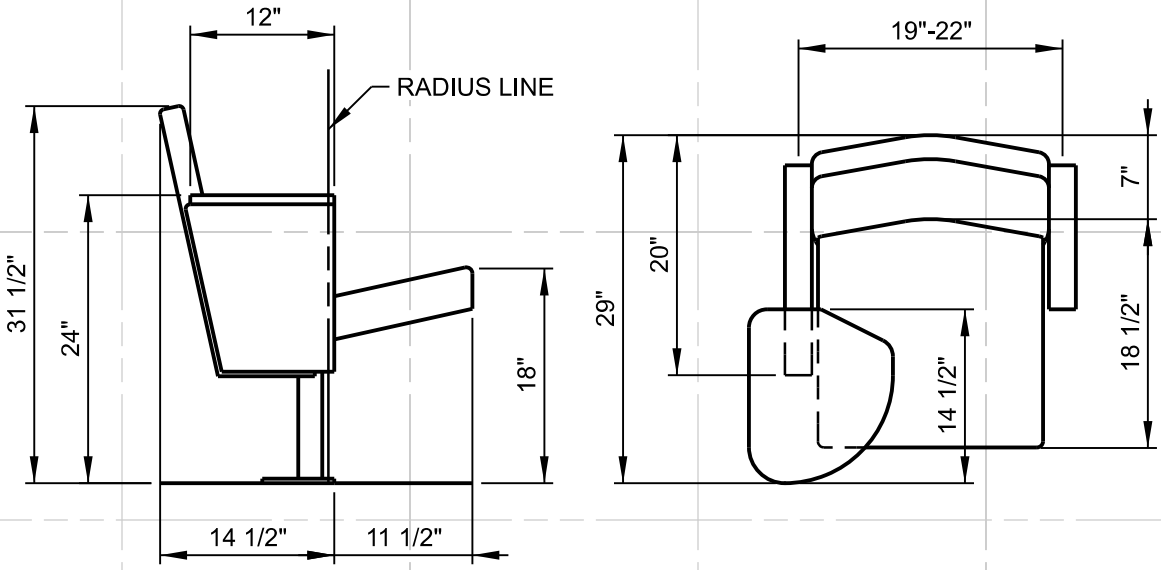
DETAIL: STANDING HEIGHT COUNTER

SCALE: 1"=1'-0"

0 6" 1' 2'



NOT TO SCALE

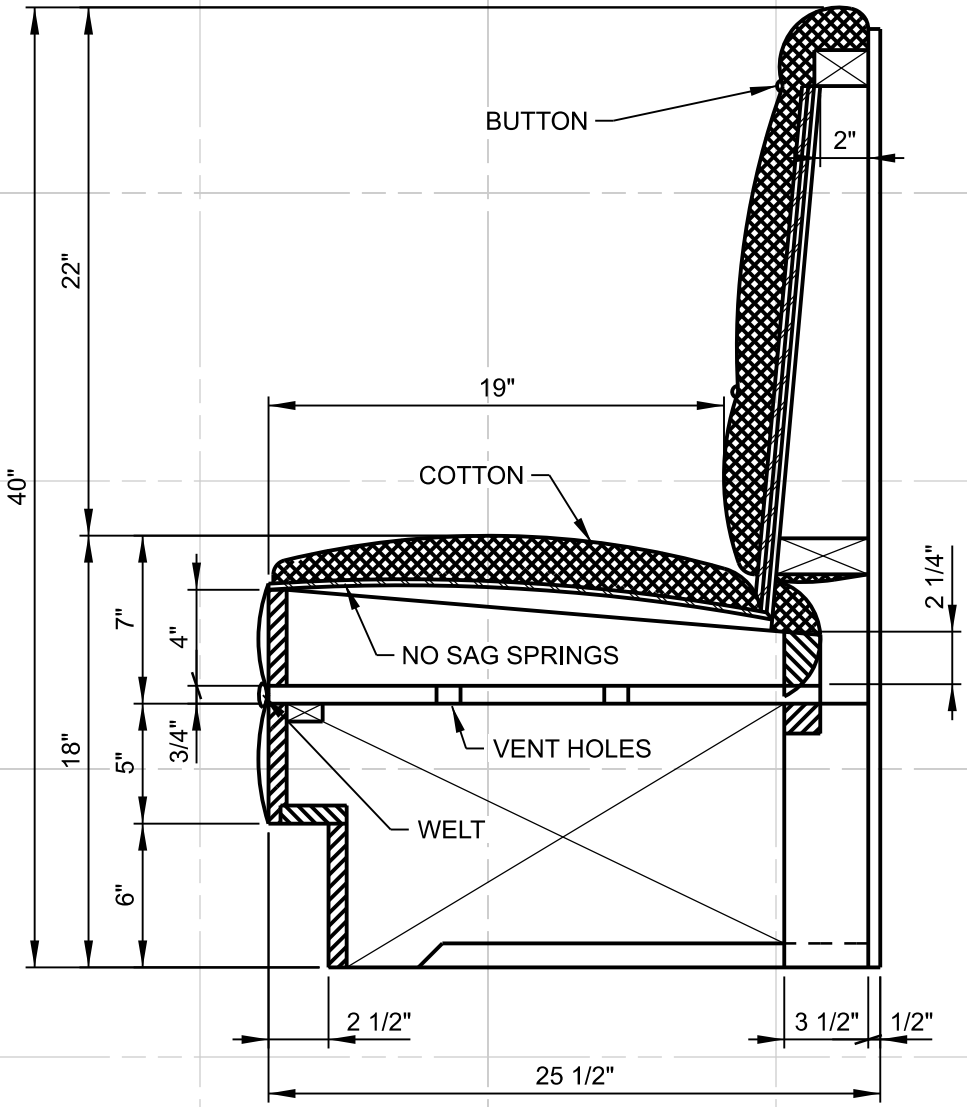


A1

DETAIL: AUDITORIUM SEATING

SCALE: 3/4"=1'-0"

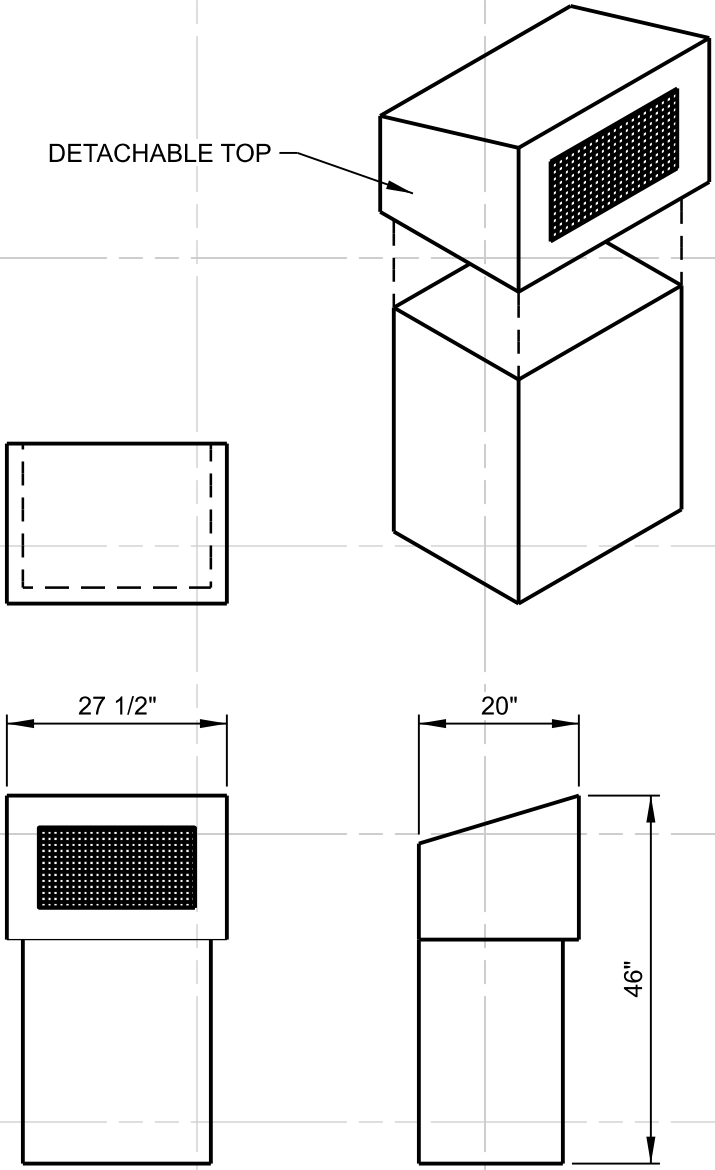
0 1' 2' 4'



A1

DETAIL: BOOTH SEATING

SCALE:1 1/2"=1'-0" 0 6" 1' 2'

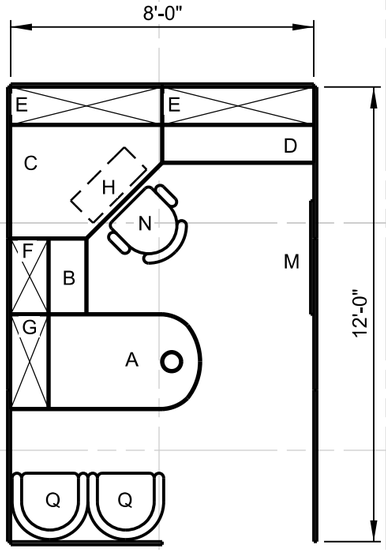


A1

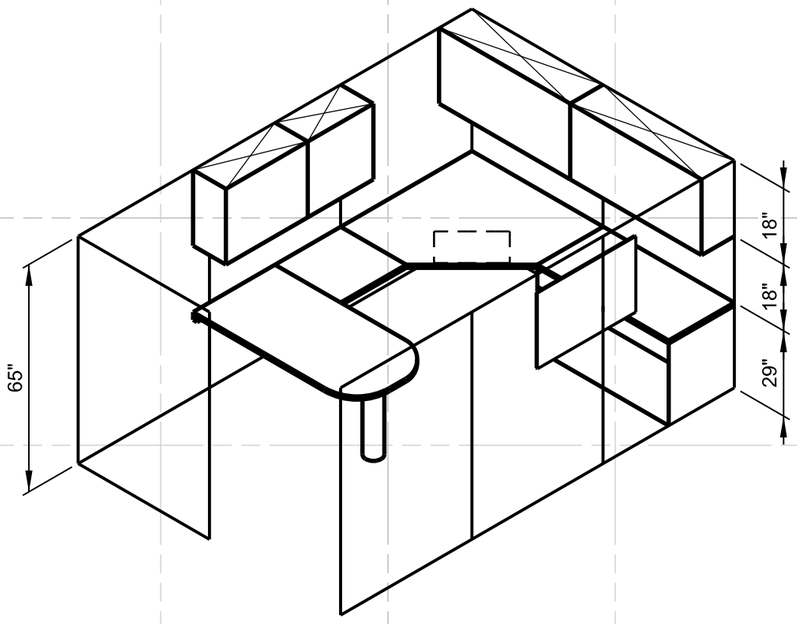
DETAIL: LECTERN

SCALE: 1/2"=1'-0"

0 1' 2' 4'



PLAN VIEW



ISOMETRIC VIEW

NOT TO SCALE

RECOMMENDED COMPONENTS:

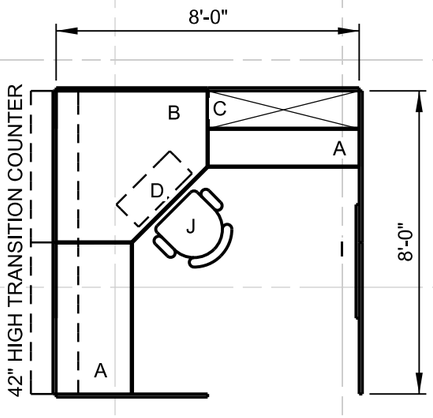
A	1 - 30"X60" PENINSULA WORK SURFACE (WS)		
B	1 - 24"X24" WS	J	2 - 48" TASK LIGHTS (NOT SHOWN)
C	1 - 48"X48" CORNER WS	K	1 - PENCIL DRAWER (NOT SHOWN)
D	1 - 24"X48" WS	L	2 - 3/6/12 STORAGE PEDESTALS (NOT SHOWN)
E	2 - 48" OVERHEAD FLIPPER CABINETS	M	1 - WHITE MARKER BOARD
F	1 - 24" OVERHEAD FLIPPER CABINET	N	1 - ADJUSTABLE T-ARM MGT TASK CHAIR
G	1 - 30" OVERHEAD FLIPPER CABINET	O	1 - 48" TACK BOARD (RIGHT OF KEYBOARD TRAY (NOT SHOWN))
H	1 - ADJUSTABLE KEYBOARD TRAY	P	1 - 24" TACK BOARD (LEFT OF KEYBOARD TRAY (NOT SHOWN))
I	2 - 24" TASK LIGHTS (NOT SHOWN)	Q	2 - GUEST CHAIRS

A1

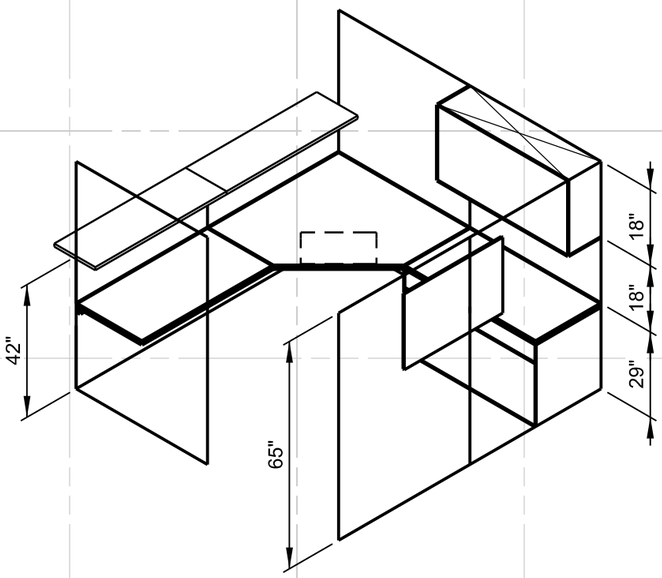
DETAIL: MANAGER WORKSTATION

SCALE: 1/4"=1'-0"

0 2' 4' 8'



PLAN VIEW



ISOMETRIC VIEW

NOT TO SCALE

RECOMMENDED COMPONENTS:

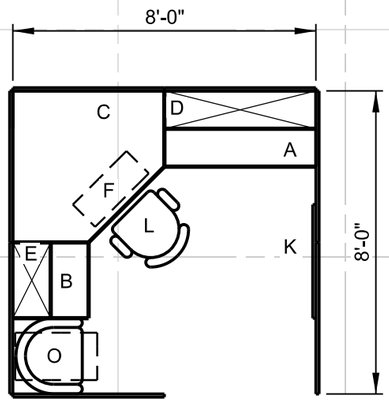
A	2 - 24"X48" WORK SURFACES (WS)		
B	1 - 48"X48" CORNER WS	G	1 - PENCIL DRAWER (NOT SHOWN)
C	1 - 48" OVERHEAD FLIPPER CABINET	H	2 - 3/6/12 STORAGE PEDESTALS (NOT SHOWN)
D	1 - ADJUSTABLE KEYBOARD TRAY	I	1 - WHITE MARKER BOARD
E	1 - 24" TASK LIGHT (NOT SHOWN)	J	1 - ADJUSTABLE T-ARM MGT TASK CHAIR
F	1 - 48" TASK LIGHT (NOT SHOWN)	K	1 - 48" TACK BOARD (RIGHT OF KEYBOARD TRAY (NOT SHOWN))

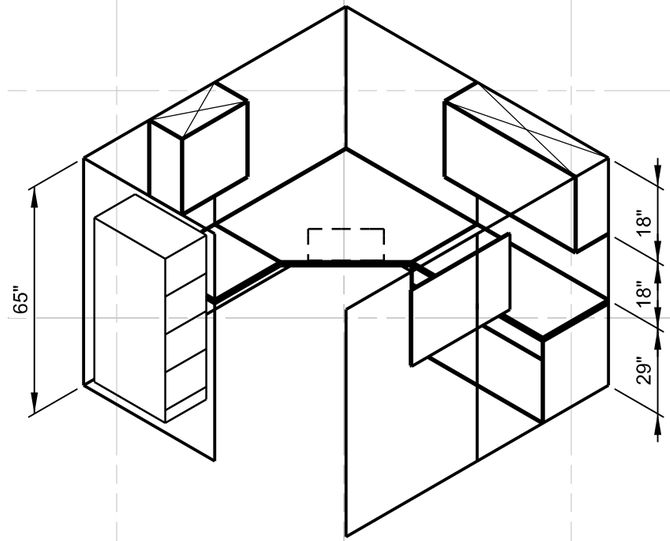
A1

DETAIL: CLERICAL WORKSTATION

SCALE: 1/4"=1'-0"

0 2' 4' 8'





PLAN VIEW

ISOMETRIC VIEW

NOT TO SCALE

RECOMMENDED COMPONENTS:
A 1 - 24"X48" WORK SURFACE (WS)
B 1 - 24"X24" WS
C 1 - 48"X48" CORNER WS
D 1 - 48" OVERHEAD FLIPPER CABINET
E 1 - 24" OVERHEAD FLIPPER CABINET
F 1 - ADJUSTABLE KEYBOARD TRAY
G 1 - 24" TASK LIGHT (NOT SHOWN)
H 1 - 48" TASK LIGHT (NOT SHOWN)
I 1 - PENCIL DRAWER (NOT SHOWN)
J 2 - 3/6/12 STORAGE PEDESTALS (NOT SHOWN)
K 1 - WHITE MARKER BOARD
L 1 - ADJUSTABLE T-ARM MGT TASK CHAIR
M 1 - 48" TACK BOARD (RIGHT OF KEYBOARD TRAY (NOT SHOWN))
N 1 - 24" TACK BOARD (LEFT OF KEYBOARD TRAY (NOT SHOWN))

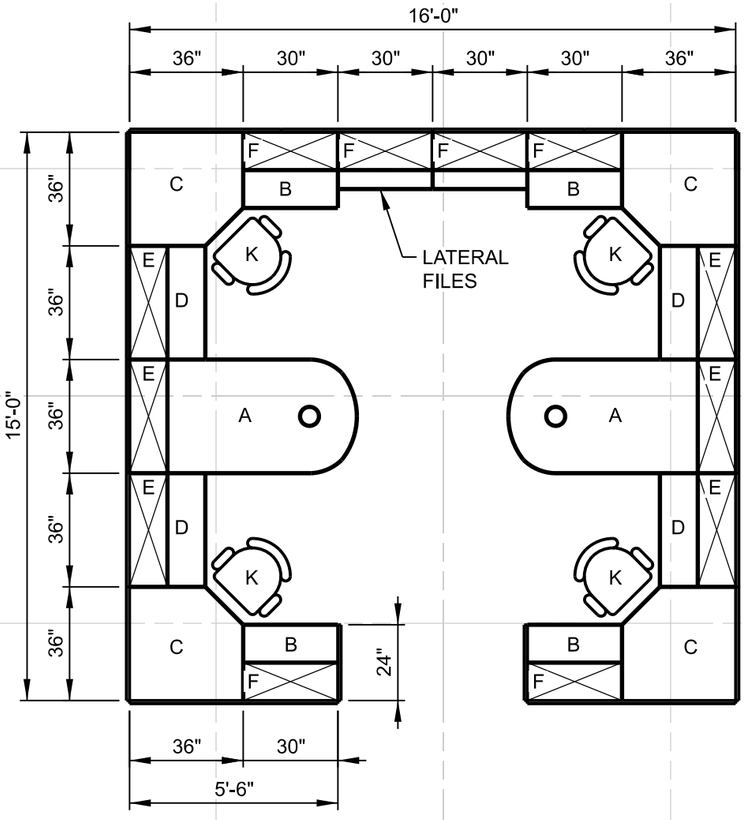
OPTIONAL COMPONENTS:
O 1 - GUEST CHAIR, SAFE, OR VERTICAL FILE

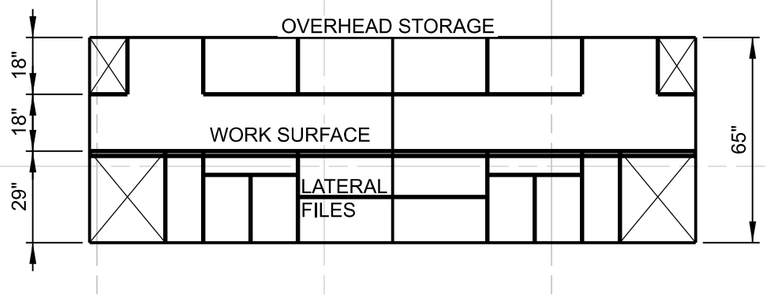
A1

DETAIL: STAFF WORKSTATION

SCALE: 1/4"=1'-0"

0 2' 4' 8'





PLAN VIEW

ELEVATION VIEW
NOT TO SCALE

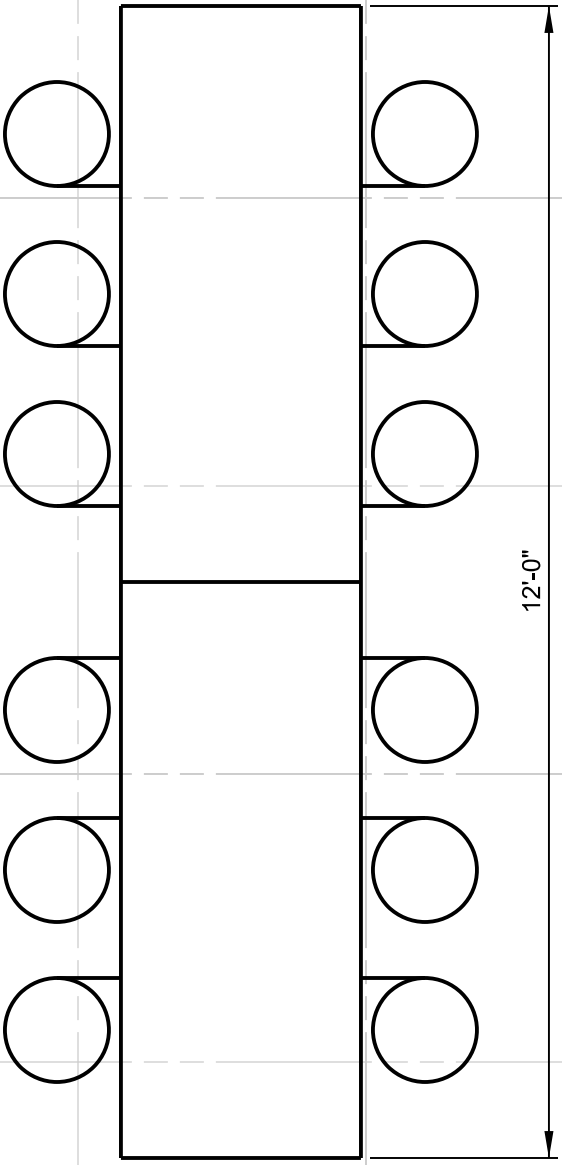
RECOMMENDED COMPONENTS
A 2 - 36"X72" PENINSULA WORK SURFACES (WS)
B 4 - 24"X30" WS
C 4 - 36"X36" CORNER WS
D 4 - 24"X36"WS
E 6 - 36" OVERHEAD FLIPPER CABINETS
F 6 - 30" OVERHEAD FLIPPER CABINETS
G 6 - 24" TASK LIGHTS (NOT SHOWN)
H 6 - 36" TASK LIGHTS (NOT SHOWN)
I 4 - PENCIL DRAWERS (NOT SHOWN)
J 4 - 3/6/12 STORAGE PEDESTALS (NOT SHOWN)
K 4 - ADJUSTABLE T-ARM MGT TASK CHAIRS
L 4 - 48" TACK BOARDS (RIGHT OF KEYBOARD TRAYS (NOT SHOWN))
M 4 - 24" TACK BOARDS (LEFT OF KEYBOARD TRAYS (NOT SHOWN))

A1

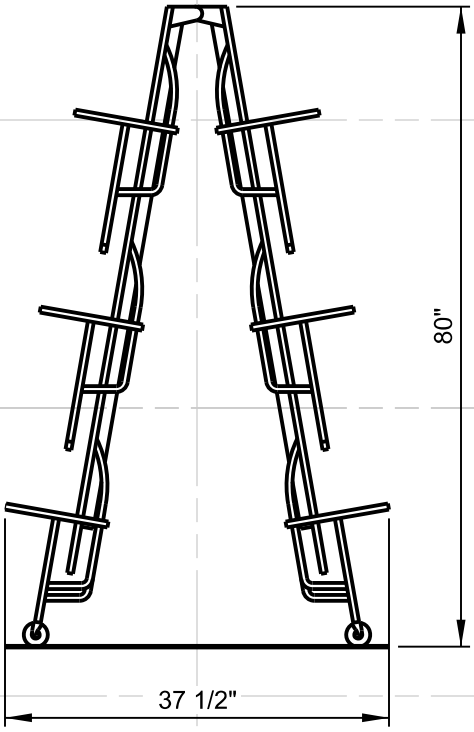
DETAIL: SHARED WORKSTATION

SCALE: 1/4"=1'-0"

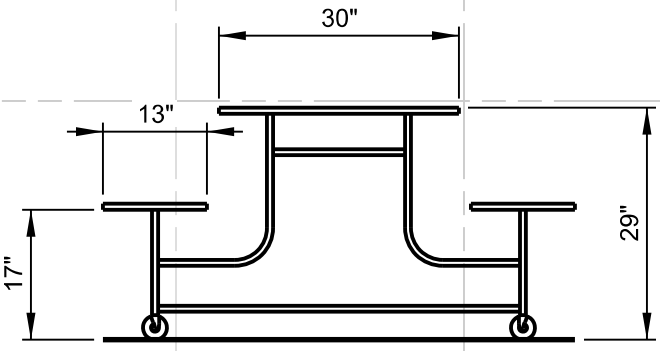
0 2' 4' 8'



PLAN



ELEVATION (FOLDED)



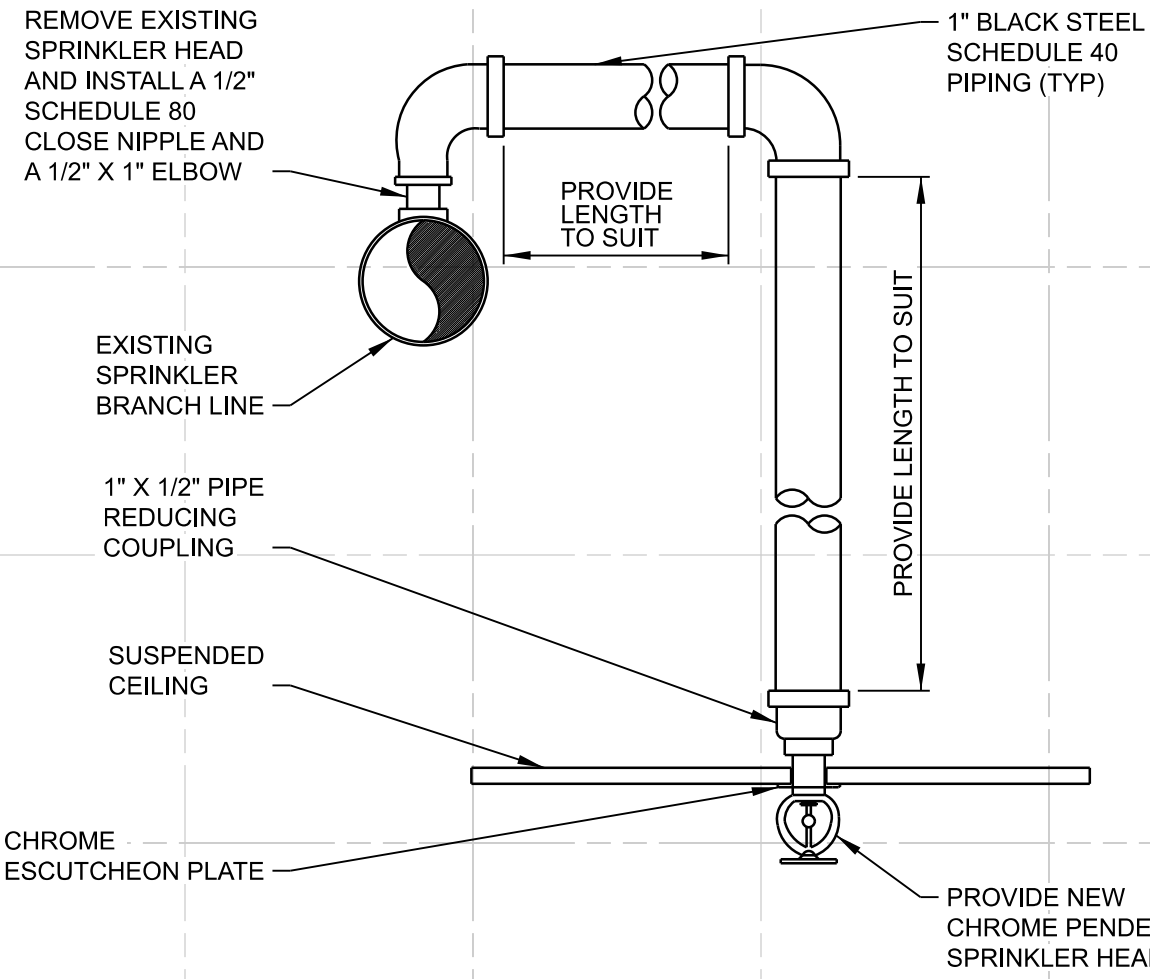
SIDE VIEW

A1

DETAIL: TABLE WITH ATTACHED STOOLS

SCALE: 1/2"=1'-0"

0 1' 2' 4'



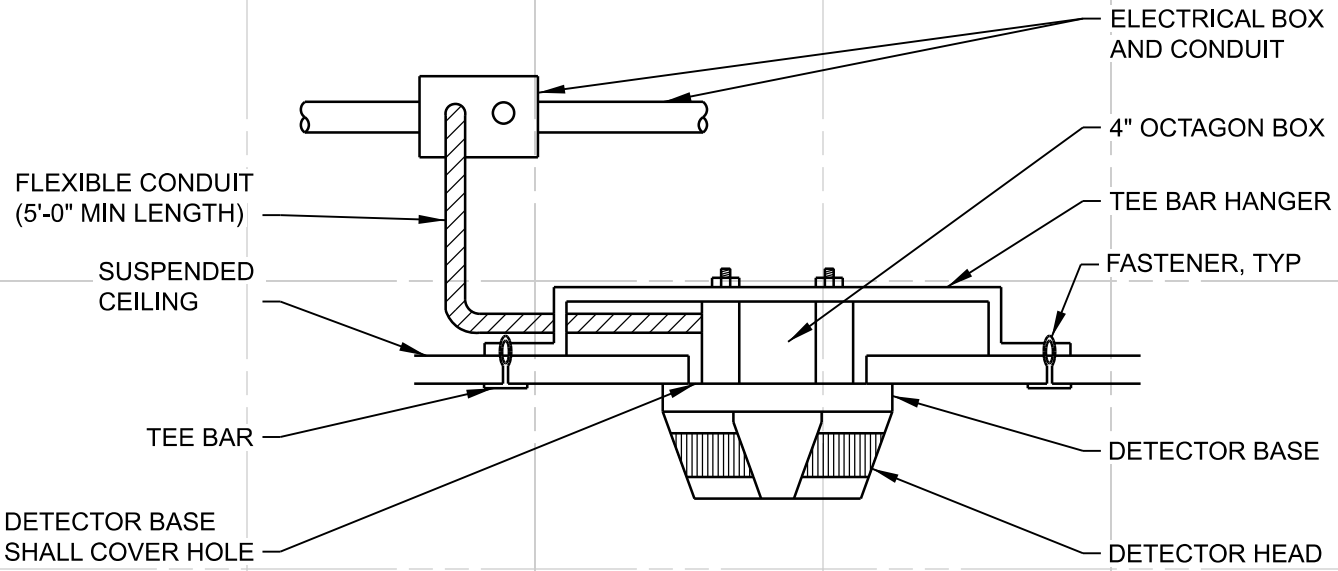
NOTES:

1. ADJUST SPRINKLER DROPS AS NECESSARY TO CLEAR OBSTRUCTIONS SUCH AS THE CEILING "T" BAR SUSPENSION SYSTEM, LIGHT FIXTURES, ETC. PROVIDE A PIPE HANGER IF THE HORIZONTAL OFFSET LENGTH EXCEEDS 24 INCHES.
2. THIS SPRINKLER HEAD DROP IS APPLICABLE ONLY WHERE IT IS NOT NECESSARY TO RETAIN AN UPRIGHT SPRINKLER FOR PROTECTION OF COMBUSTIBLE CONSTRUCTION ABOVE THE CEILING.

A1

DETAIL: NEW SPRINKLER HEAD DROP

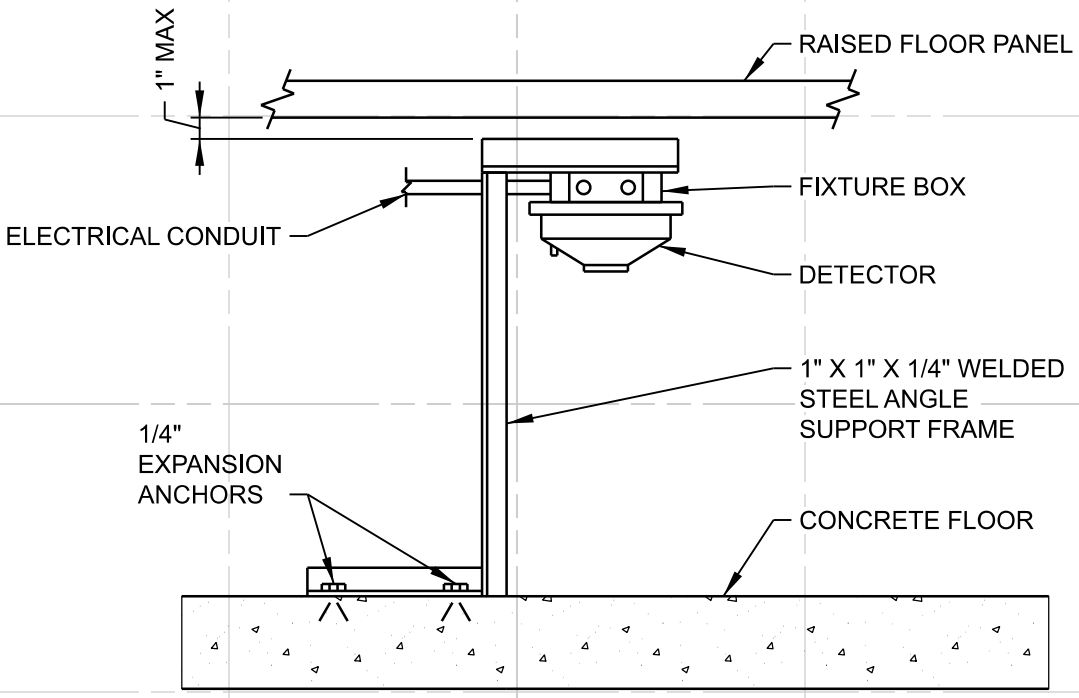
SCALE: NTS



A1

DETAIL: CEILING MOUNTED DETECTOR

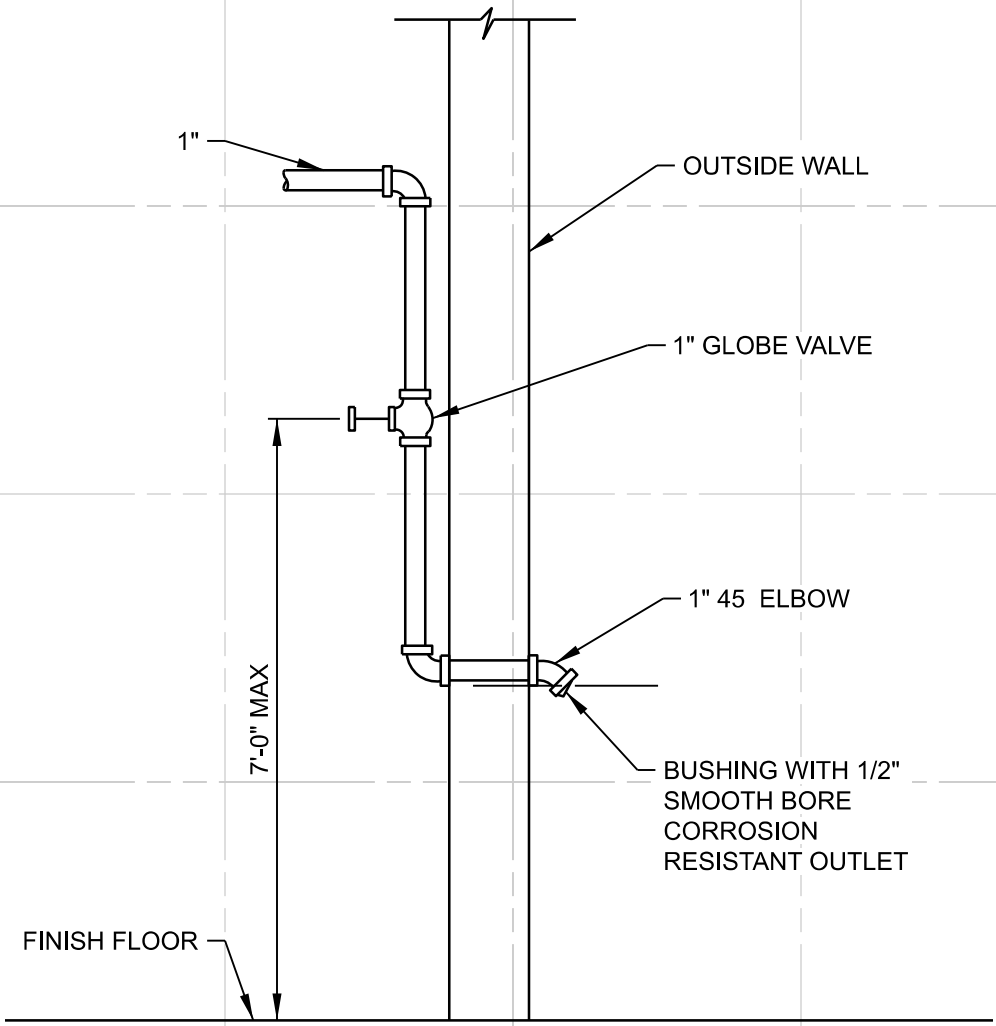
SCALE: NTS



A1

DETAIL: UNDERFLOOR SMOKE DETECTOR MOUNTING

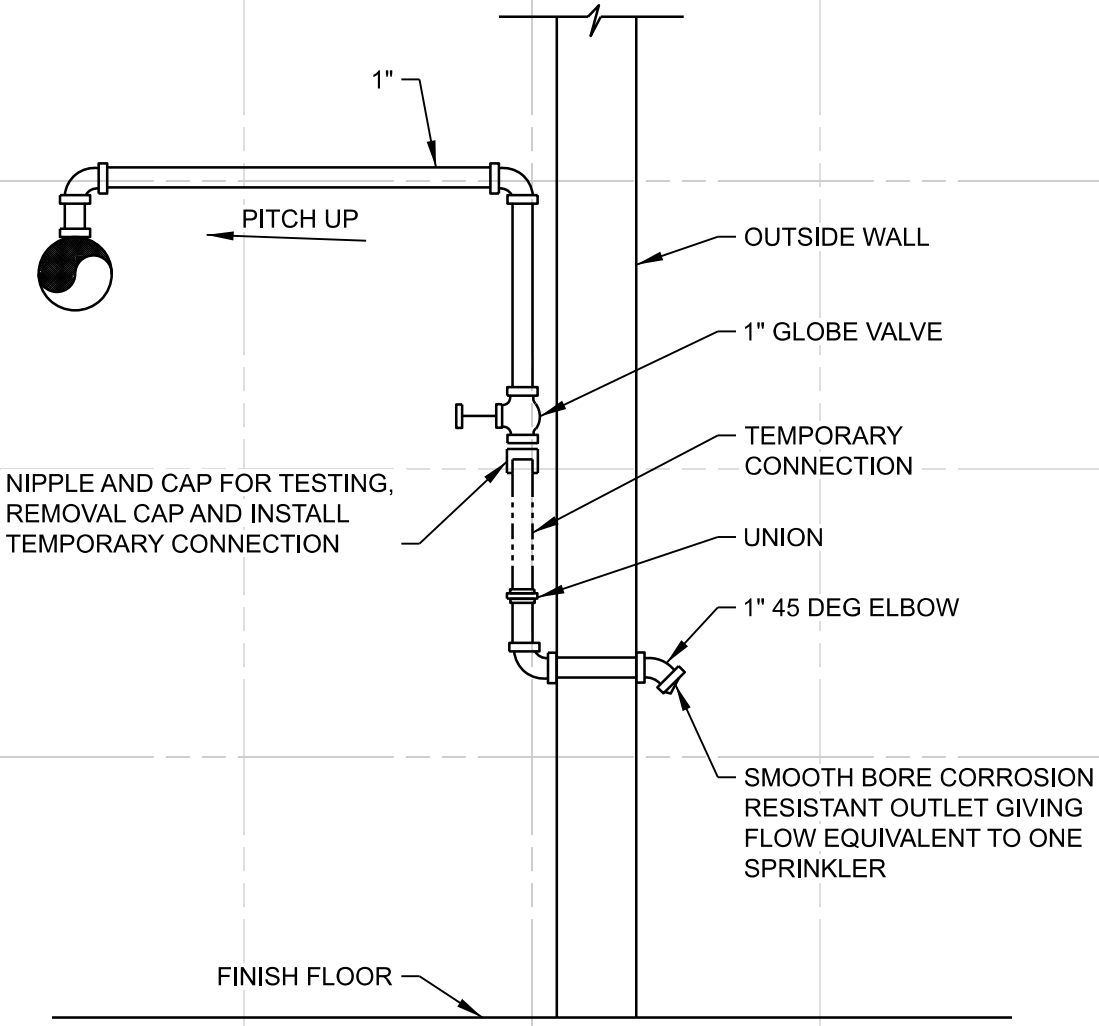
SCALE: NTS



DETAIL: INSPECTORS TEST CONNECTION FOR WET PIPE SPRINKLER SYSTEM

A1

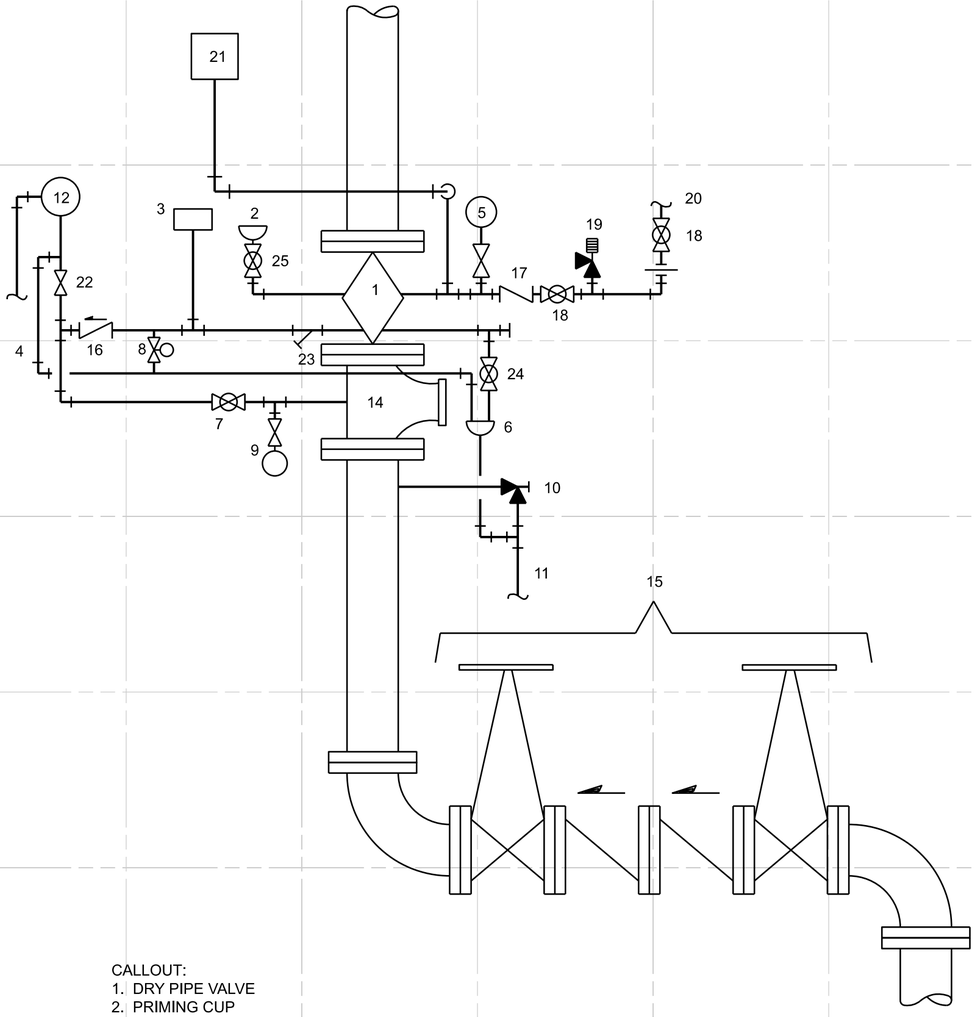
SCALE: NTS



DETAIL: INSPECTORS TEST CONNECTION FOR DRY PIPE SPRINKLER SYSTEM

A1

SCALE: NTS

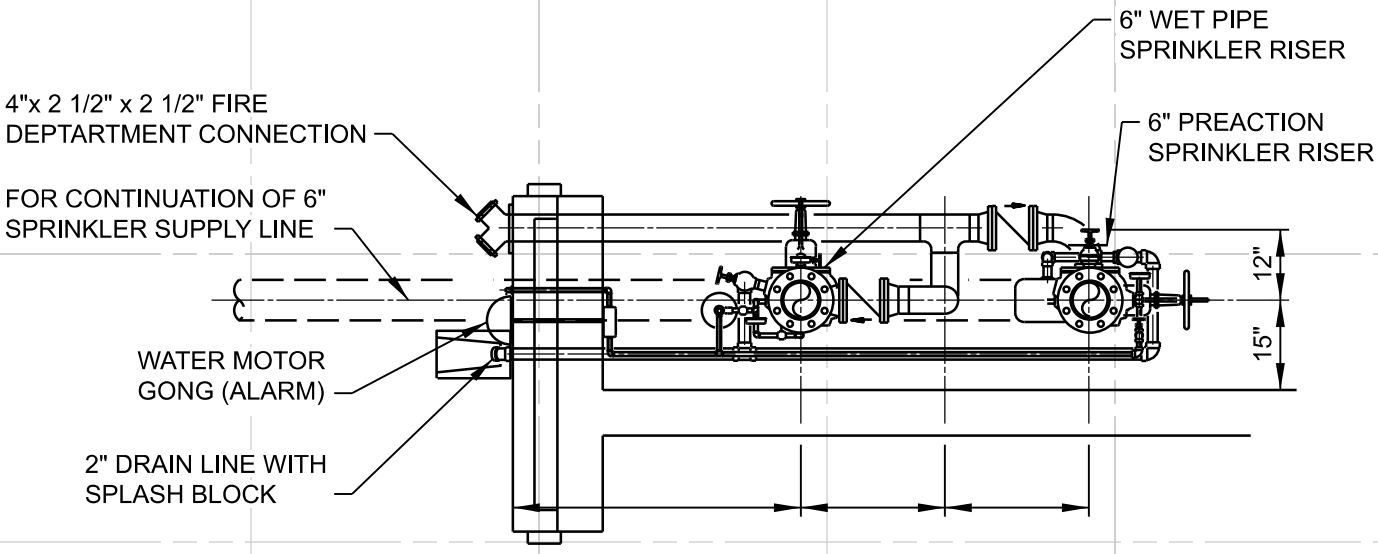


CALLOUT:
1. DRY PIPE VALVE
2. PRIMING CUP
3. LOCAL ALARM SWITCH OR ALARM TRANSMITTER
4. RESTRICTED ALARM VENT
5. AIR PRESSURE GAUGE
6. DIP CUP
7. ALARM TEST VALVE (NORMALLY CLOSED)
8. AUTOMATIC DRAIN VALVE
9. WATER PRESSURE GAUGE
10. MAIN DRAIN ANGLE VALVE
11. DRIP CUP AND MAIN DRAIN DISCHARGE TO OUTSIDE OF BUILDING (4'-0" - PIPE LENGTH INSIDE OF BUILDING)
12. WATER MOTOR GONG
13. DRAIN RUN THROUGH WALL TO OUTSIDE OF BUILDING
14. TEE FOR FIRE DEPARTMENT CONNECTION
15. DOUBLE CHECK VALVE BACKFLOW PREVENTER WITH OS & Y GATE VALVES (WITH TAMPER SWITCH)
16. CHECK VALVE TO PREVENT TRIPPING VALVE WHEN TESTING ALARM
17. AIR LINE CHECK VALVE
18. AIR SUPPLY GLOBE VALVE (RENEWABLE DISC TYPE)
19. PRESSURE RELIEF VALVE
20. AIR SUPPLY LINE
21. ELECTRIC LOW AIR PRESSURE ALARM TRANSMITTER
22. ALARM CONTROL VALVE (NORMALLY OPEN)
23. STRAINER
24. DRAIN GLOBE VALVE
25. PRIMING VALVE (NORMALLY CLOSED)

A1

DETAIL: DRY PIPE SPRINKLER RISER

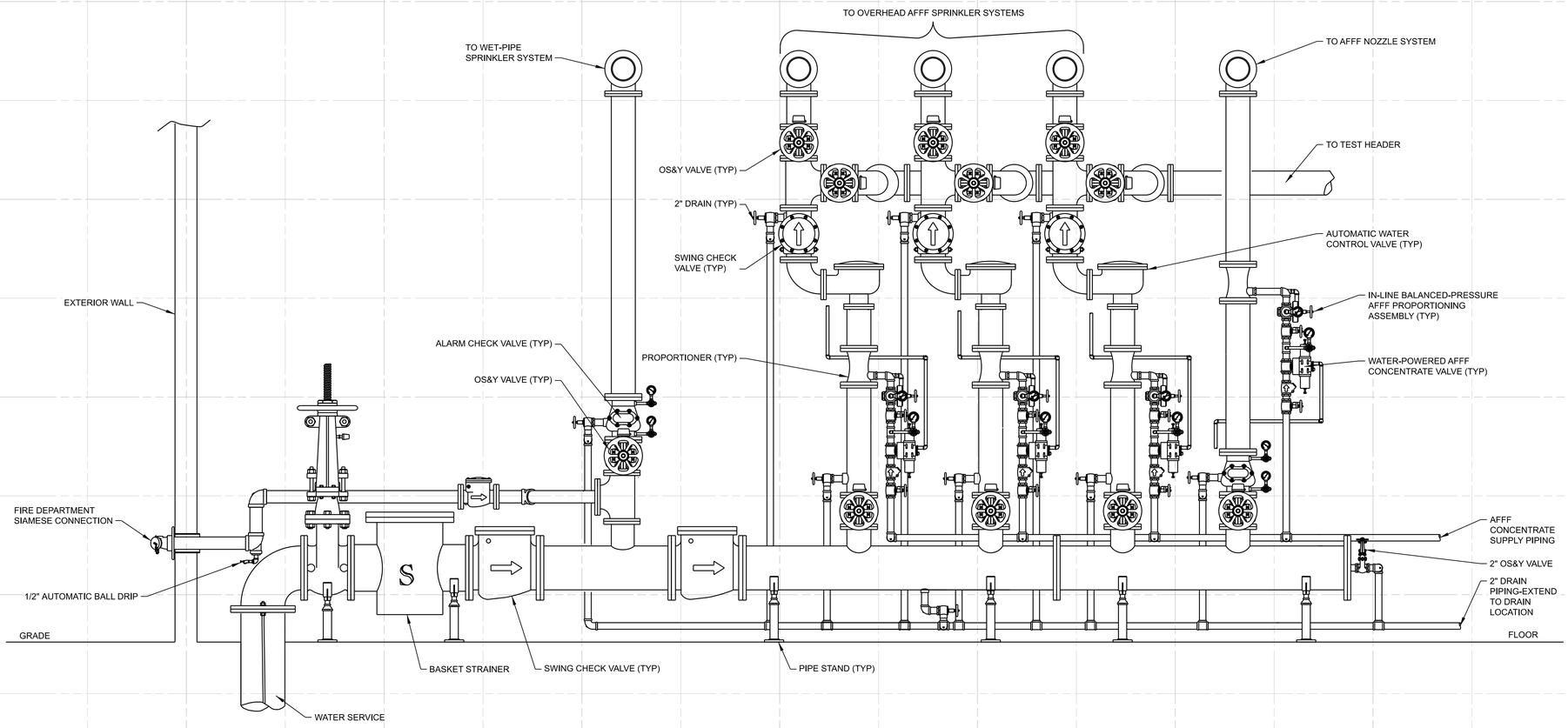
SCALE: NTS



A1

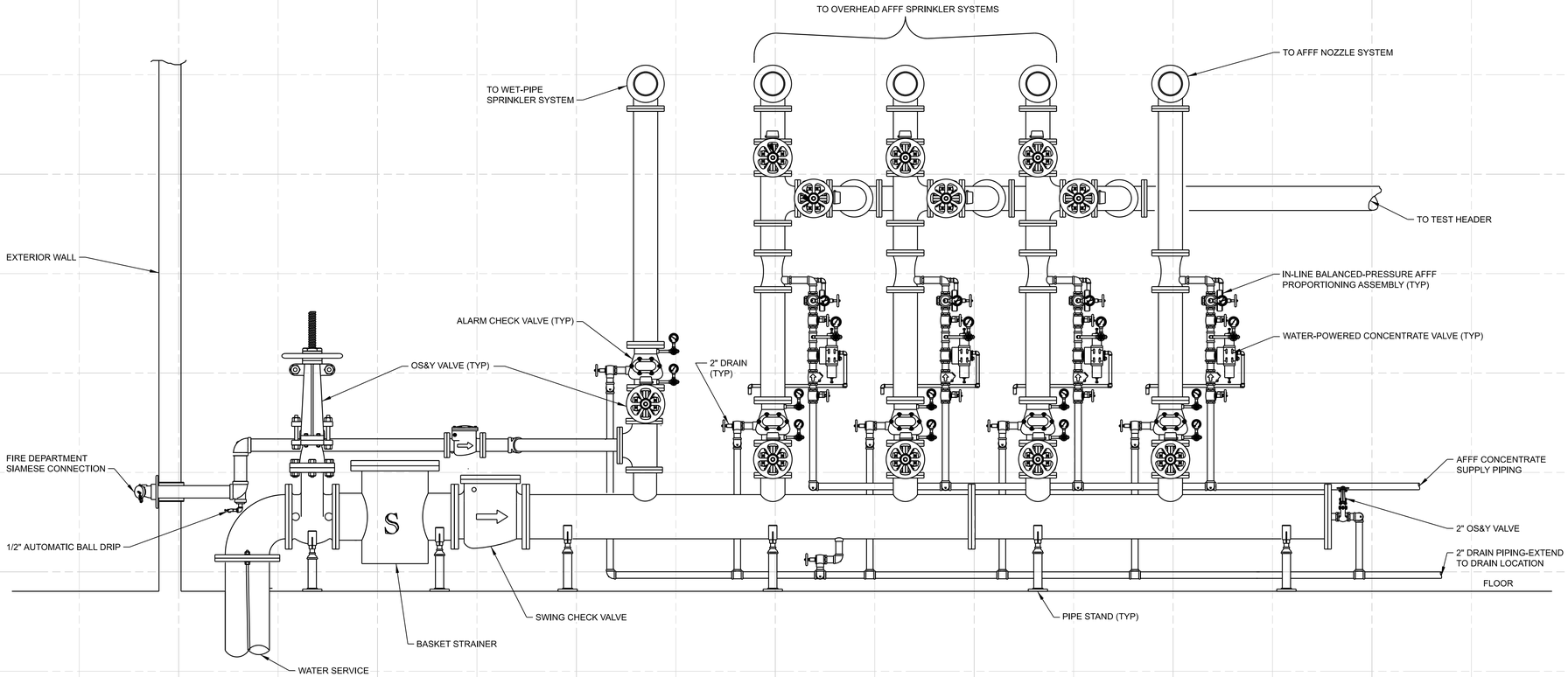
DETAIL: PRE-ACTION SPRINKLER RISER

SCALE: NTS



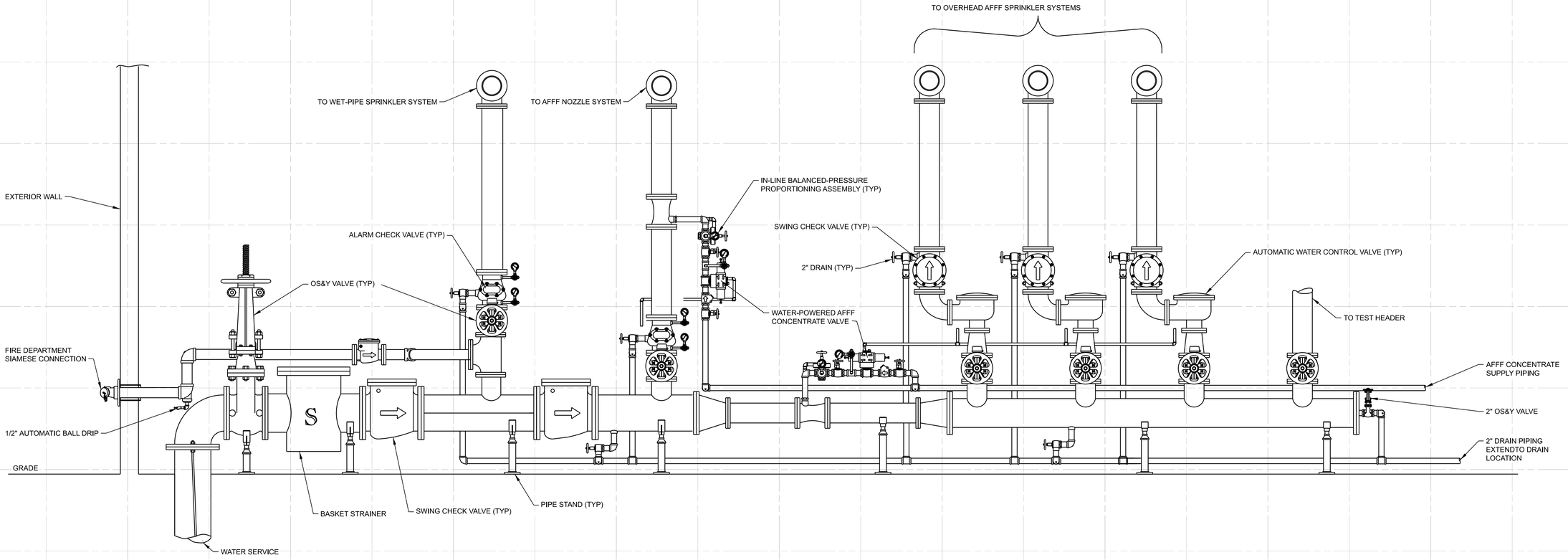
A1 DETAIL: PREACTION SPRINKLER AND NOZZLES (SEPARATE ILBP PROPORTIONERS)

SCALE: NTS



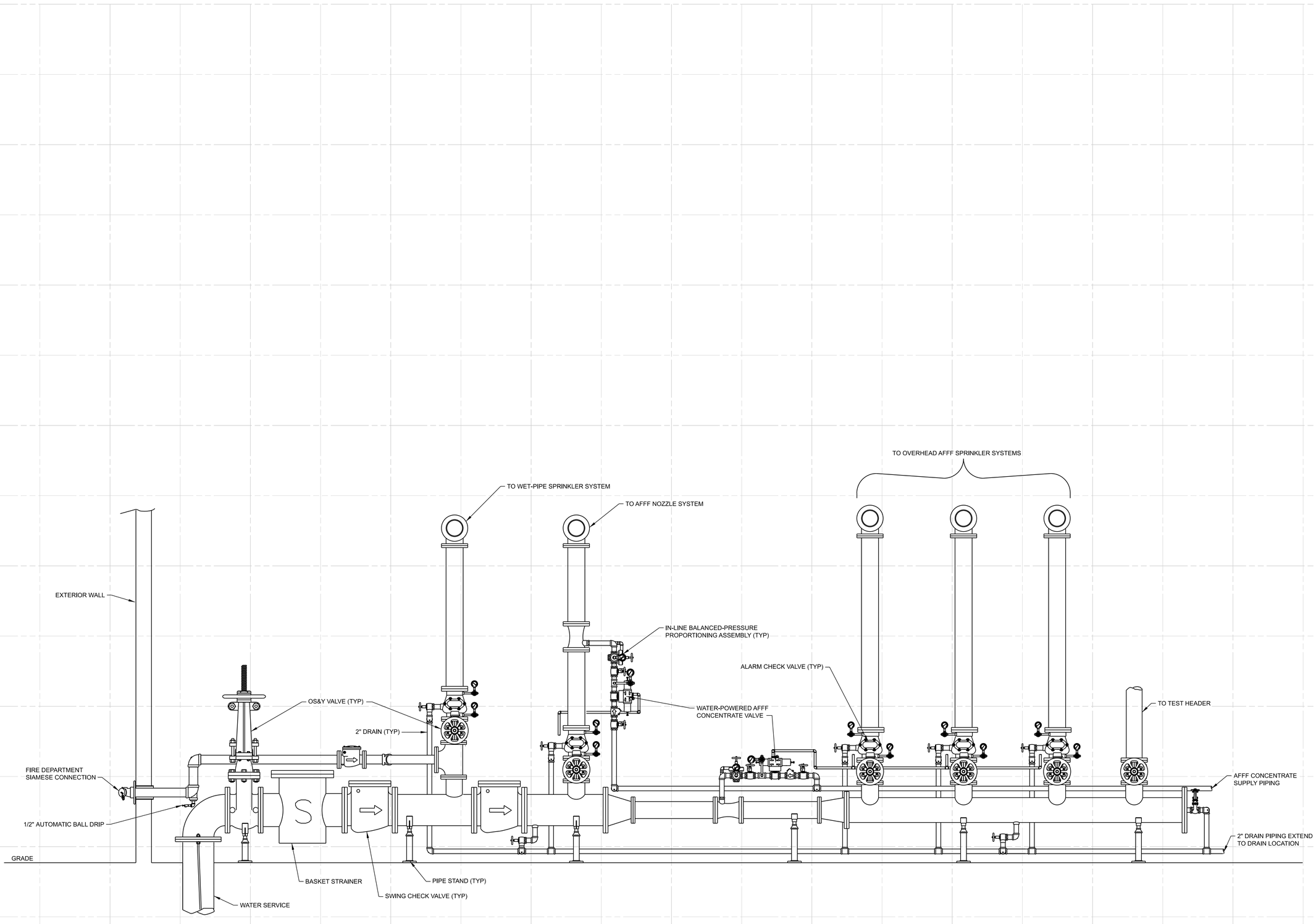
A1 DETAIL: WET-PIPE SPRINKLER AND NOZZLES (SEPARATE ILBP PROPORTIONERS)

SCALE: NTS



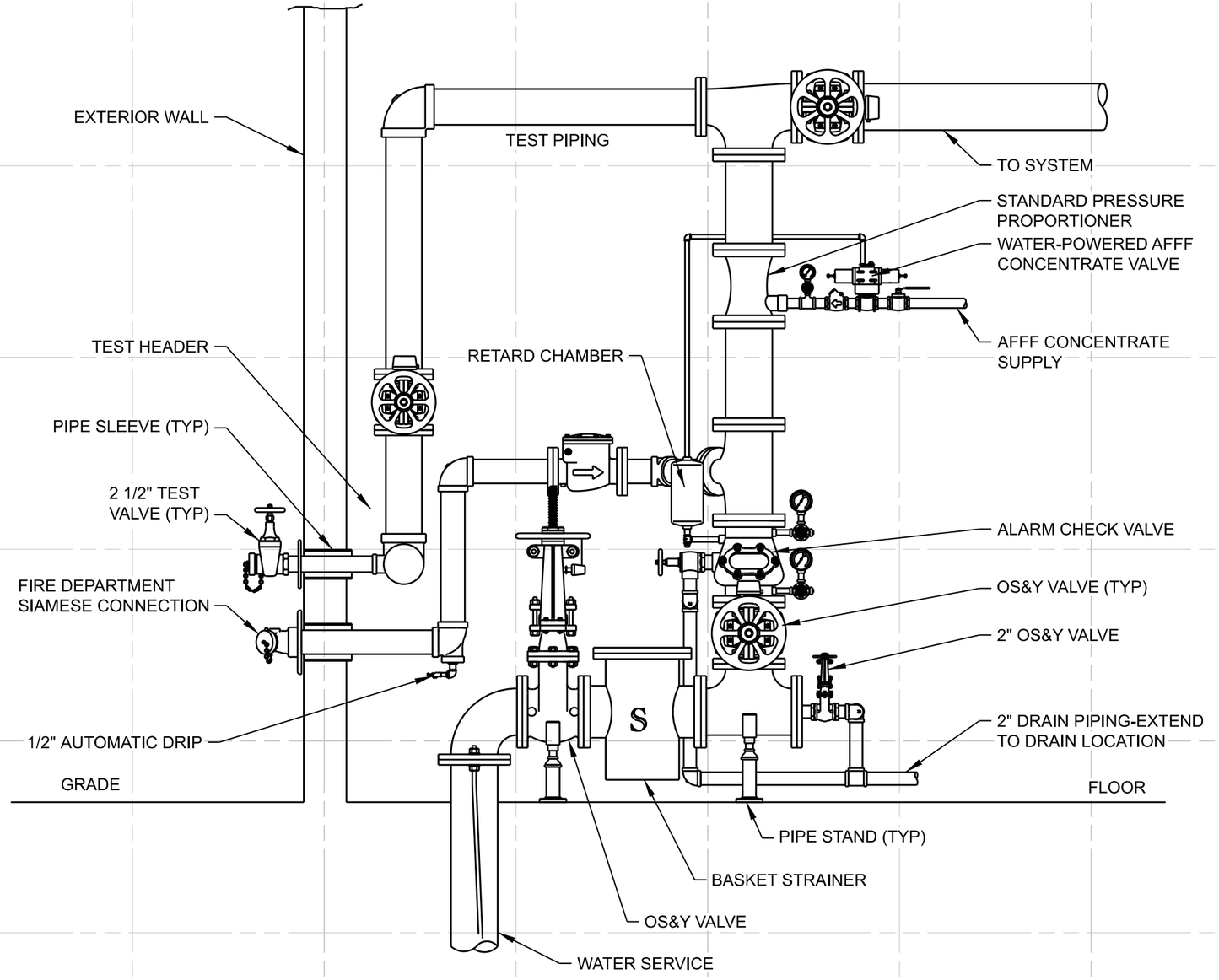
A1 DETAIL: PREACTION SPRINKLERS AND NOZZLES (COMMON ILBP PROPORTIONER)

SCALE: NTS



A1 DETAIL: WET-PIPE SPRINKLER AND NOZZLES (COMMON ILBP PROPORTIONER)

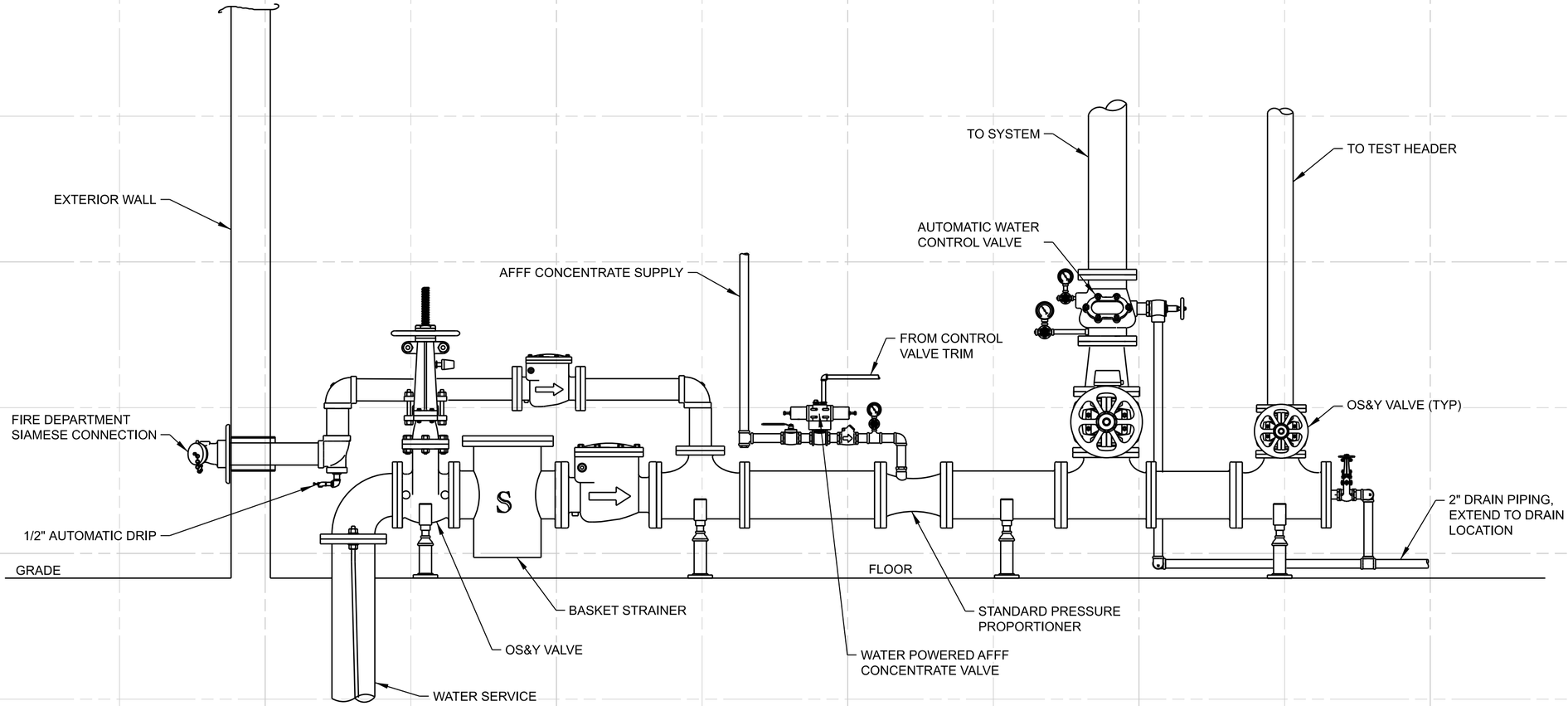
SCALE: NTS



A1

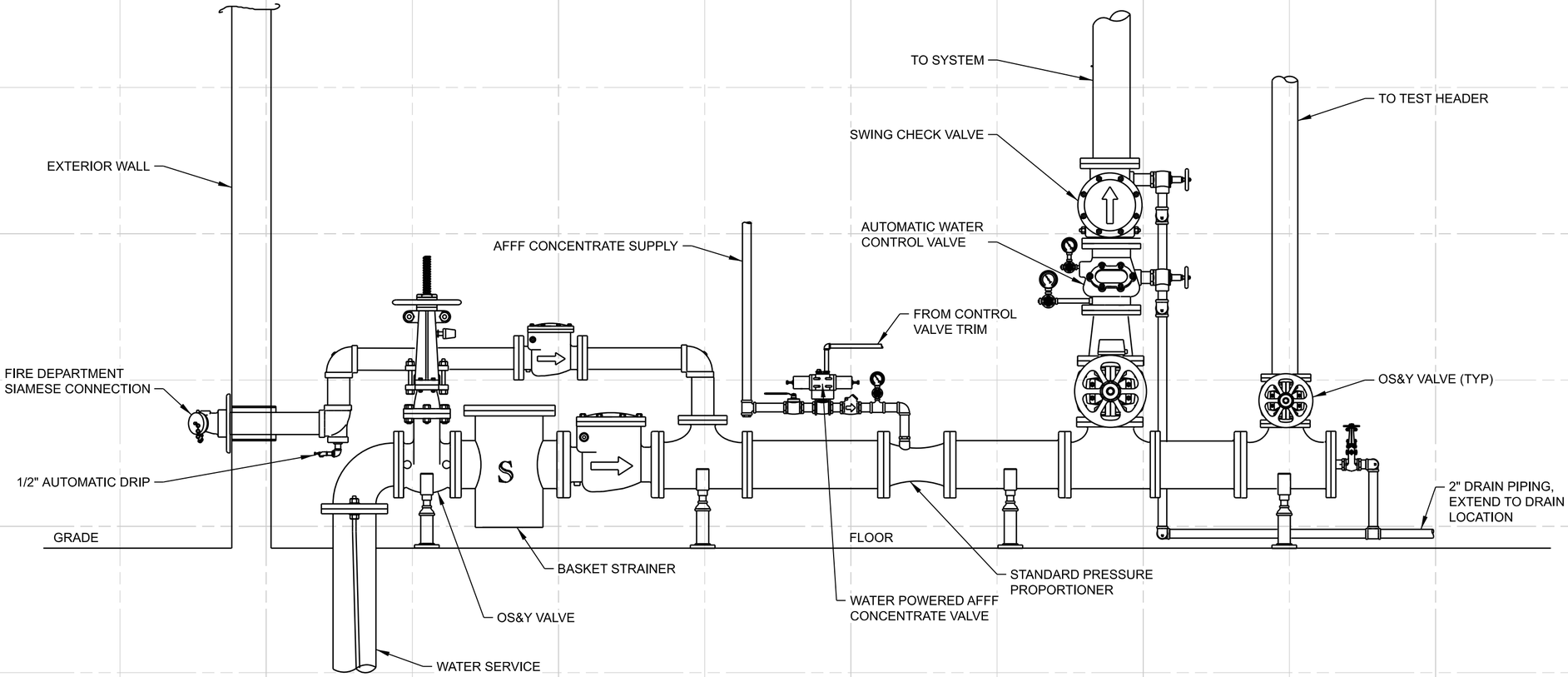
DETAIL: SINGLE WET-PIPE AFFF SPRINKLER RISER

SCALE: NTS



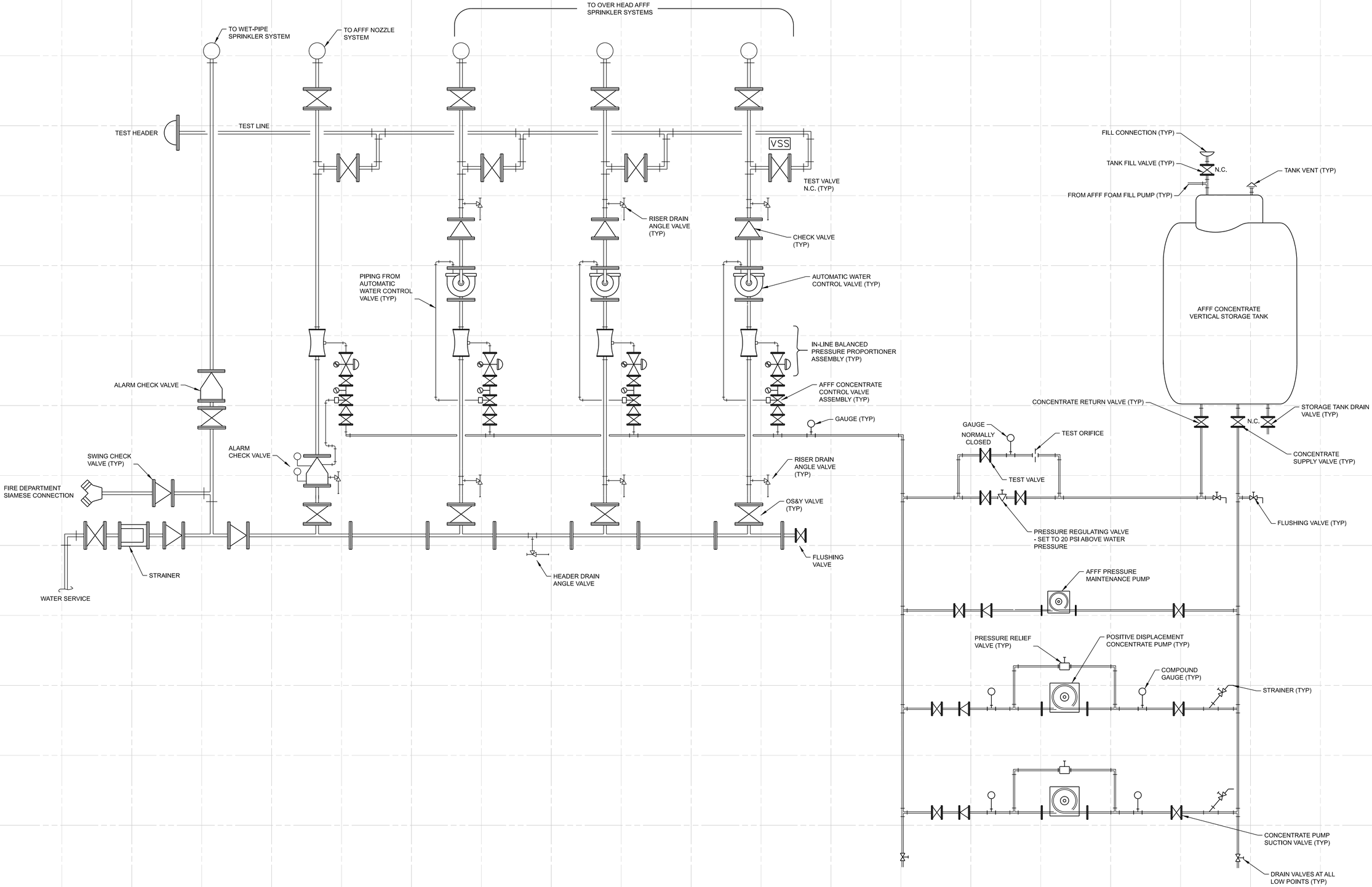
A1 DETAIL: SINGLE DELUGE AFFF SPRINKLER RISER

SCALE: NTS



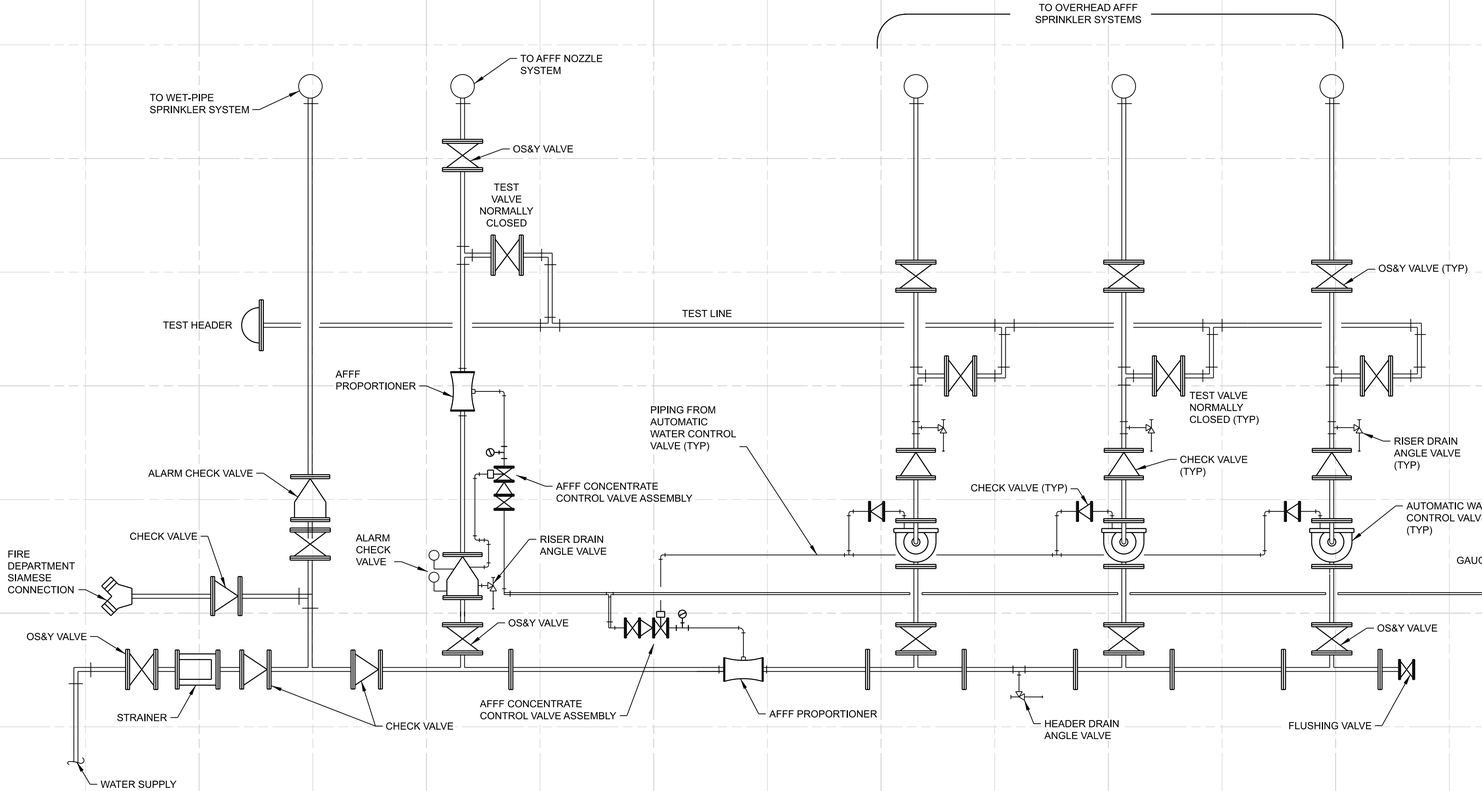
A1 DETAIL: SINGLE PREACTION AFFF SPRINKLER RISER

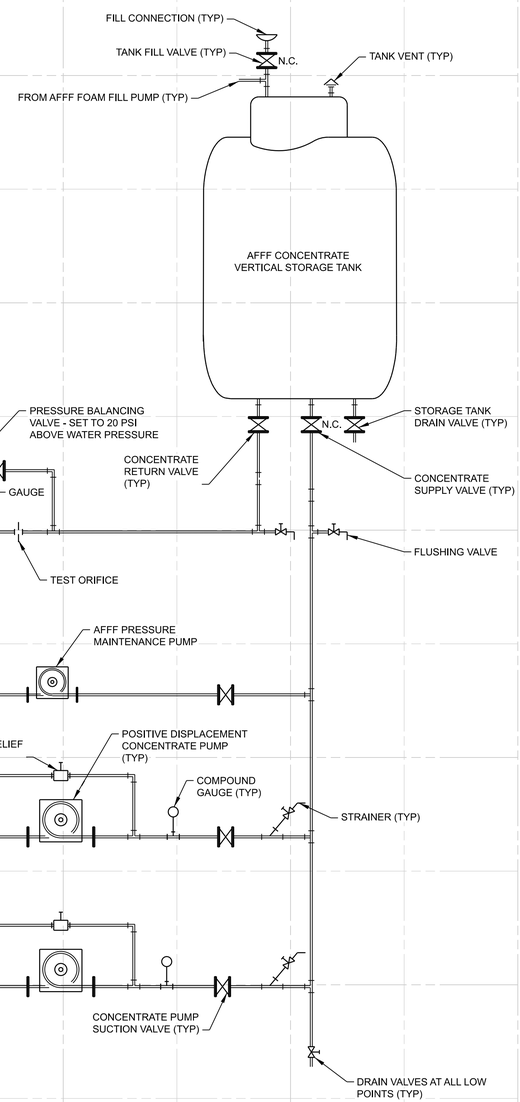
SCALE: NTS



A1 DETAIL: AFFF PROPORTIONING SCHEMATIC (PUMPED, SEPARATE ILBP PROPORTIONERS)

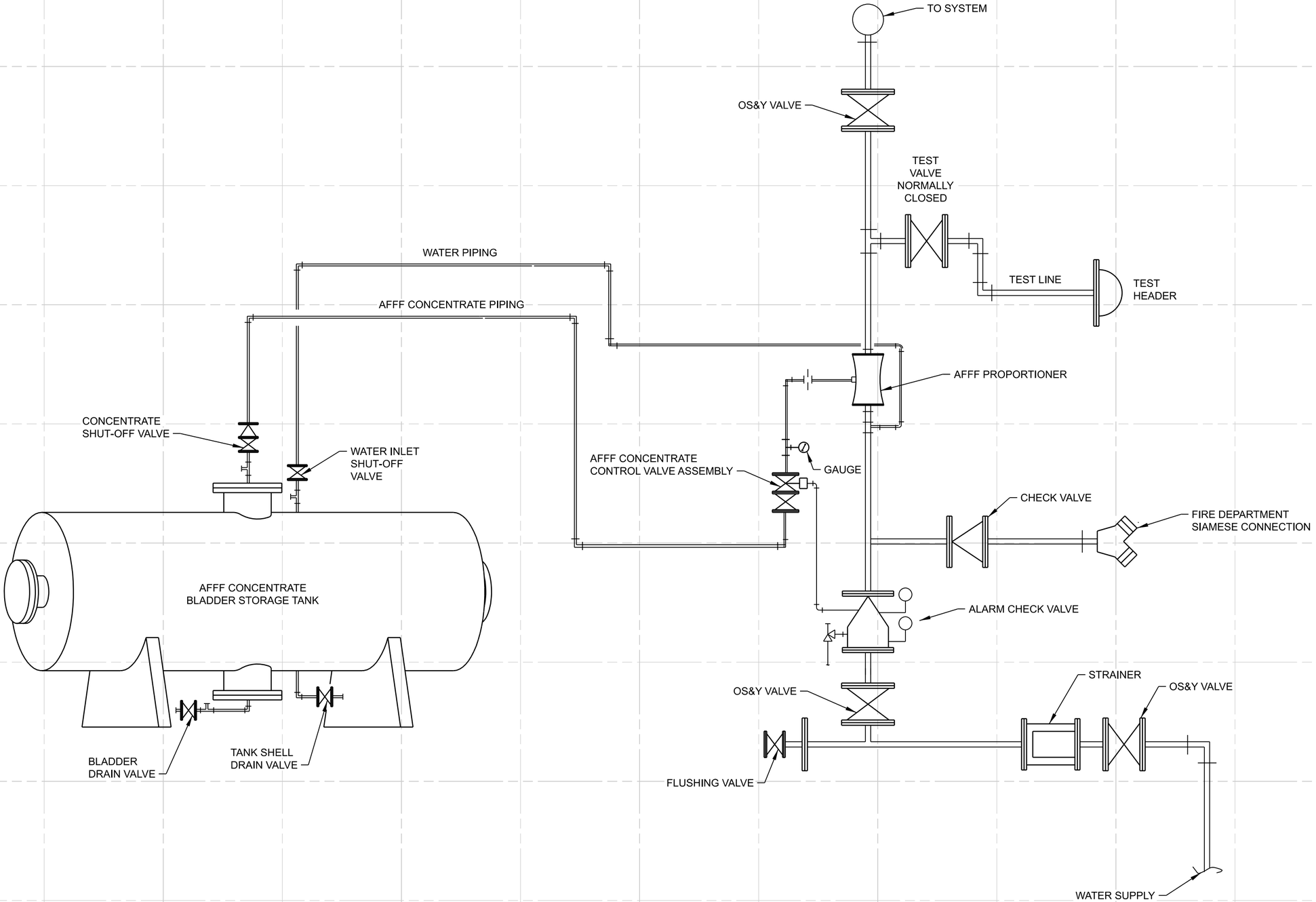
SCALE: NTS





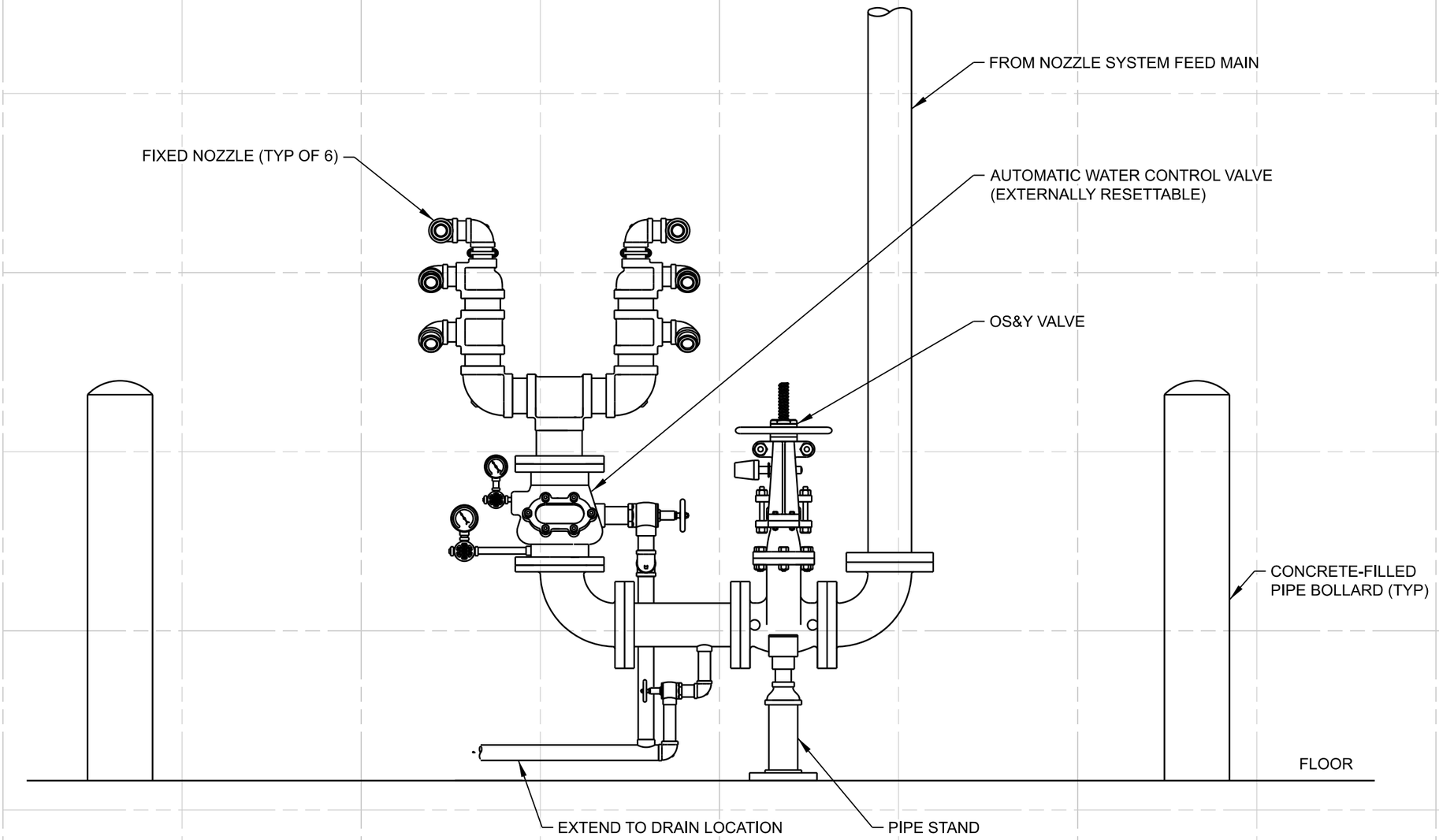
A1 DETAIL: AFFF PROPORTIONING SCHEMATIC (PUMPED, STANDARD PROPORTIONERS)

SCALE: NTS



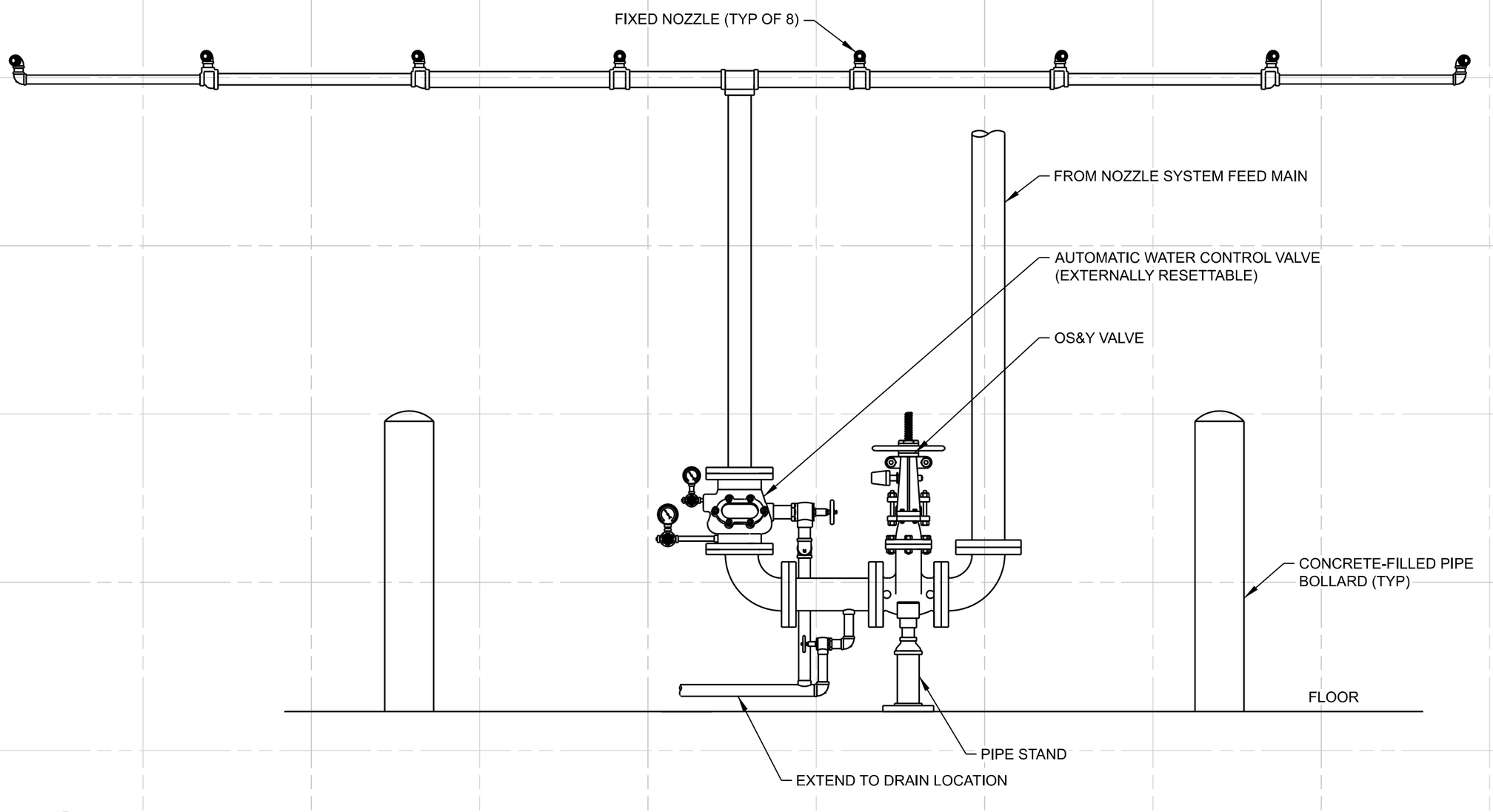
A1 DETAIL: AFFF PROPORTIONING SCHEMATIC (BLADDER TANK, STANDARD PROPORTIONERS)

SCALE: NTS



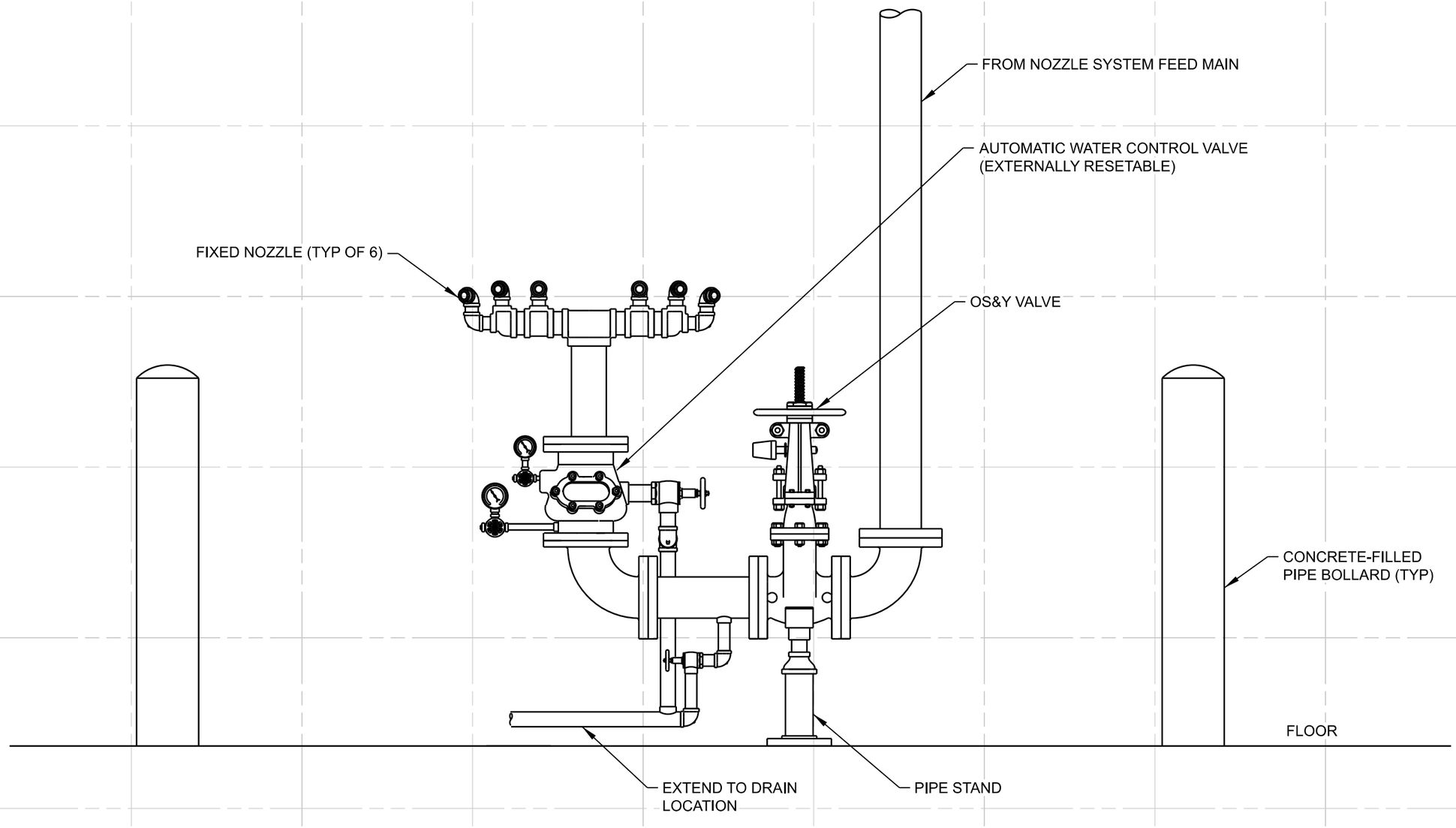
A1 DETAIL: FIXED NOZZLES, TREE CONFIGURATION

SCALE: NTS



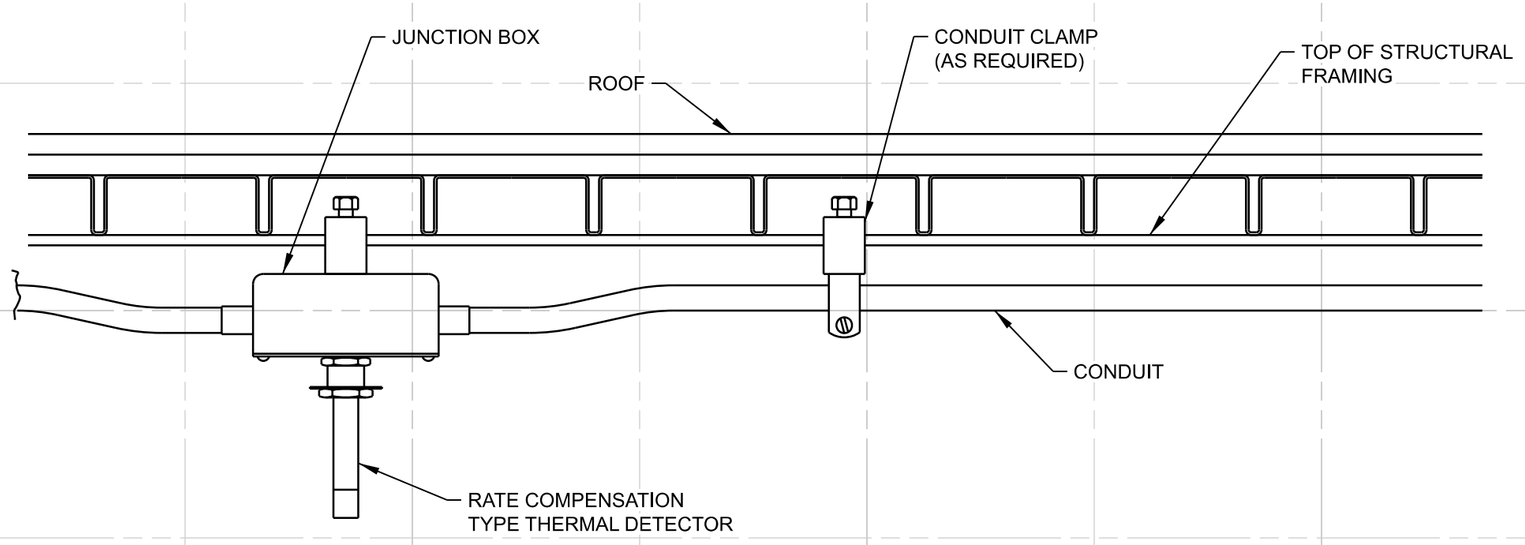
A1 DETAIL: FIXED NOZZLES, LINEAR CONFIGURATION (HIGH)

SCALE: NTS



A1 DETAIL: FIXED NOZZLES, LINEAR CONFIGURATION (LOW)

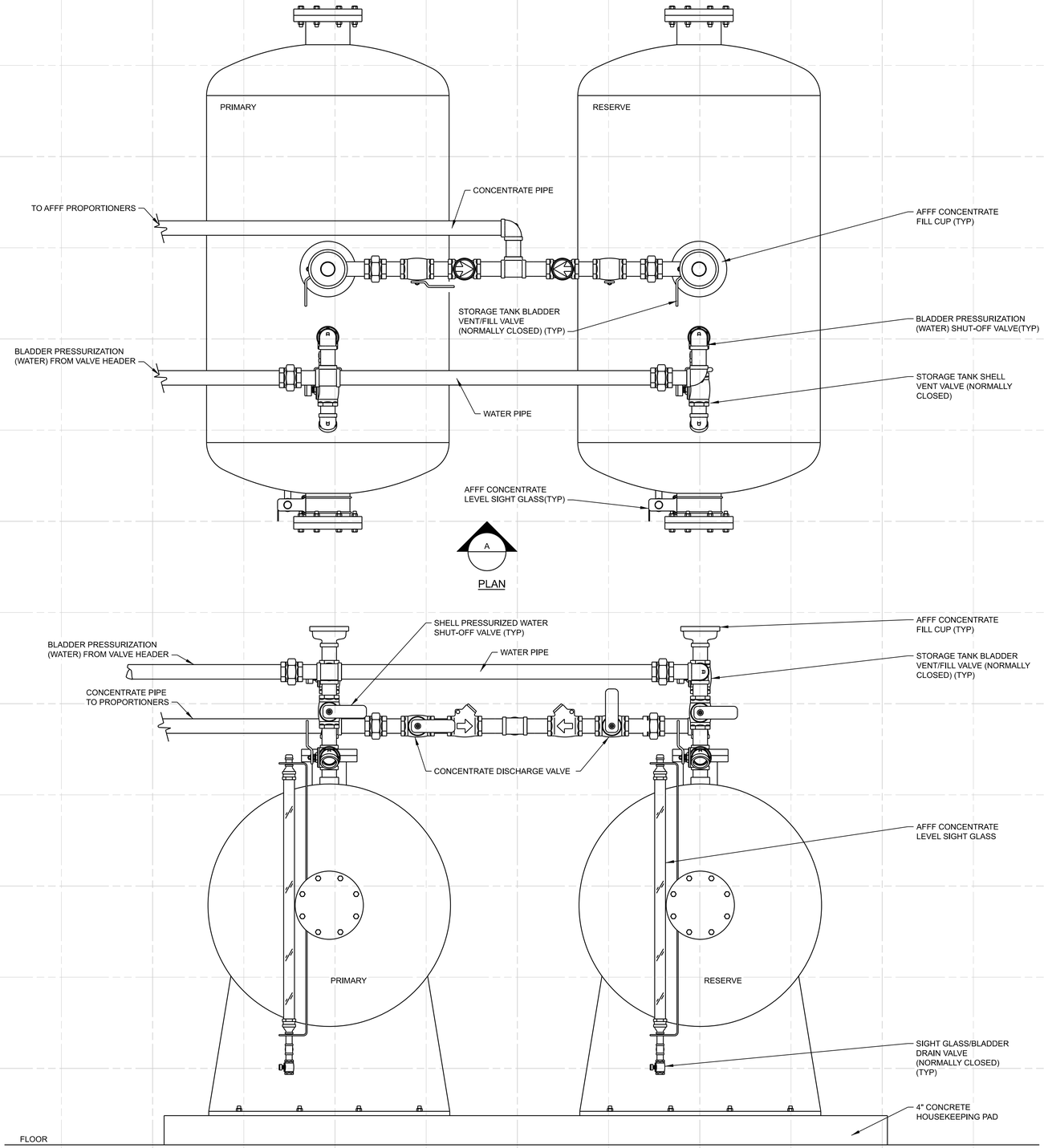
SCALE: NTS



A1

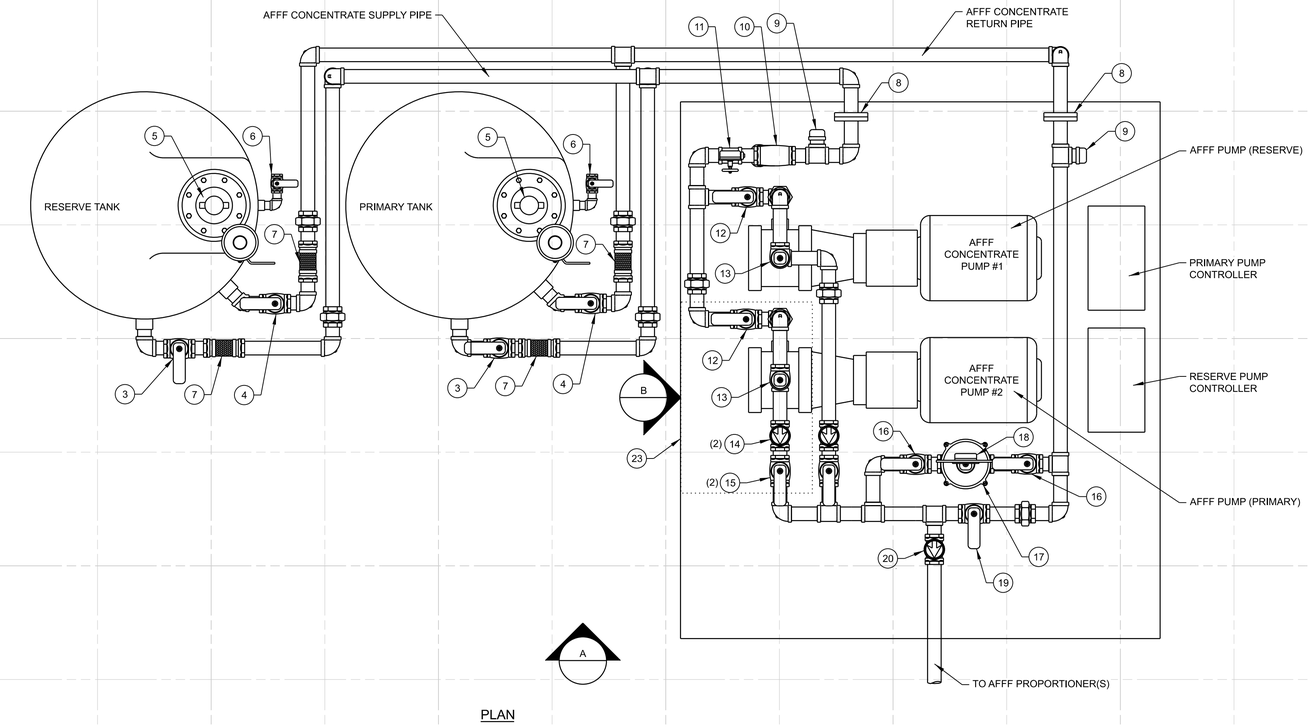
DETAIL: THERMAL DETECTOR MOUNTING

SCALE: NTS



A1 DETAIL: DUAL BLADDER TANK CONFIGURATION

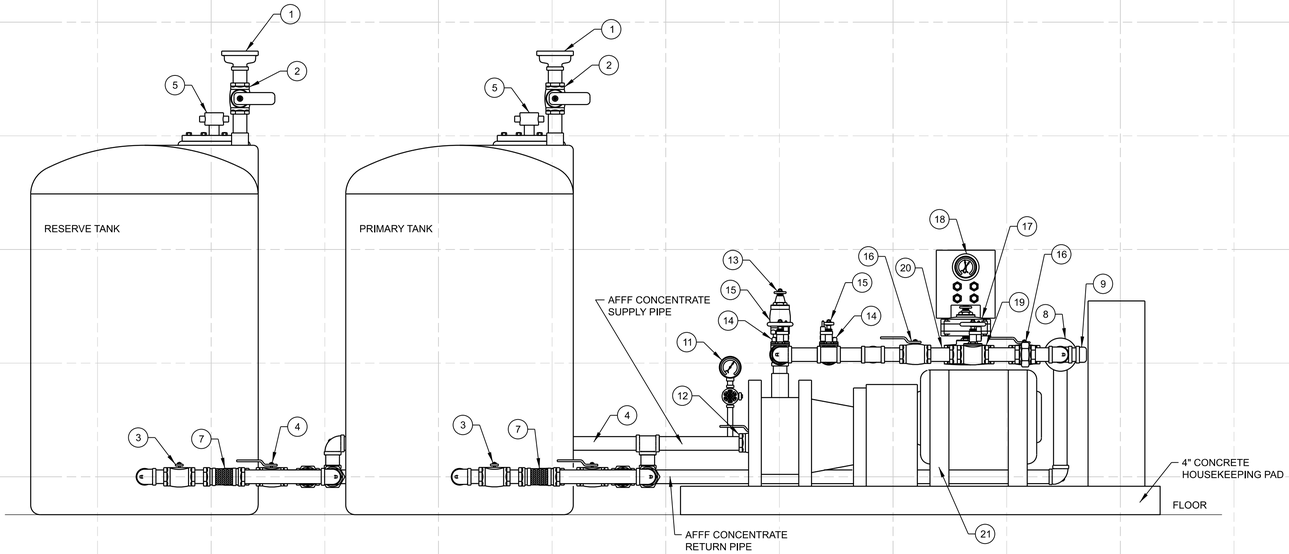
SCALE: NTS



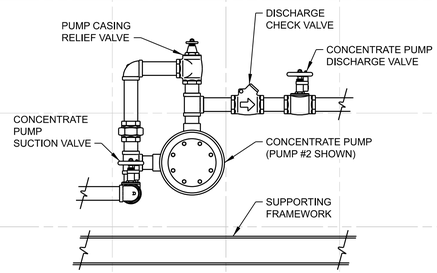
PLAN

SHEET CALLOUTS

1. AFFF CONCENTRATE FILL CUP (TYP)
2. STORAGE TANK FILL VALVE (NORMALLY CLOSED)
3. STORAGE TANK SUPPLY SHUT-OFF VALVE
4. STORAGE TANK RETURN SHUT-OFF VALVE
5. STORAGE TANK VENT
6. STORAGE TANK DRAIN VALVE (NORMALLY CLOSED)
7. FLEXIBLE CONNECTION (TYP)
8. COMPANION FLANGES
9. CAPPED FLUSHING CONNECTION
10. Y-TYPE STRAINER
11. COMPOUND SUCTION GAUGE WITH 3-WAY VALVE
12. AFFF CONCENTRATE PUMP SUCTION SHUT-OFF VALVE
13. AFFF CONCENTRATE PUMP CASING RELIEF VALVE
14. AFFF CONCENTRATE PUMP DISCHARGE CHECK VALVE
15. AFFF CONCENTRATE PUMP DISCHARGE SHUT-OFF VALVE
16. DIAPHRAGM BALANCING VALVE ISOLATION VALVE
17. AUTOMATIC DIAPHRAGM BALANCING VALVE
18. DUPLEX PRESSURE GAUGE (FOAM-WATER)
19. MANUAL BYPASS BALANCING VALVE (NORMALLY CLOSED)
20. AFFF CONCENTRATE SUPPLY CHECK VALVE



SIDE ELEVATION A

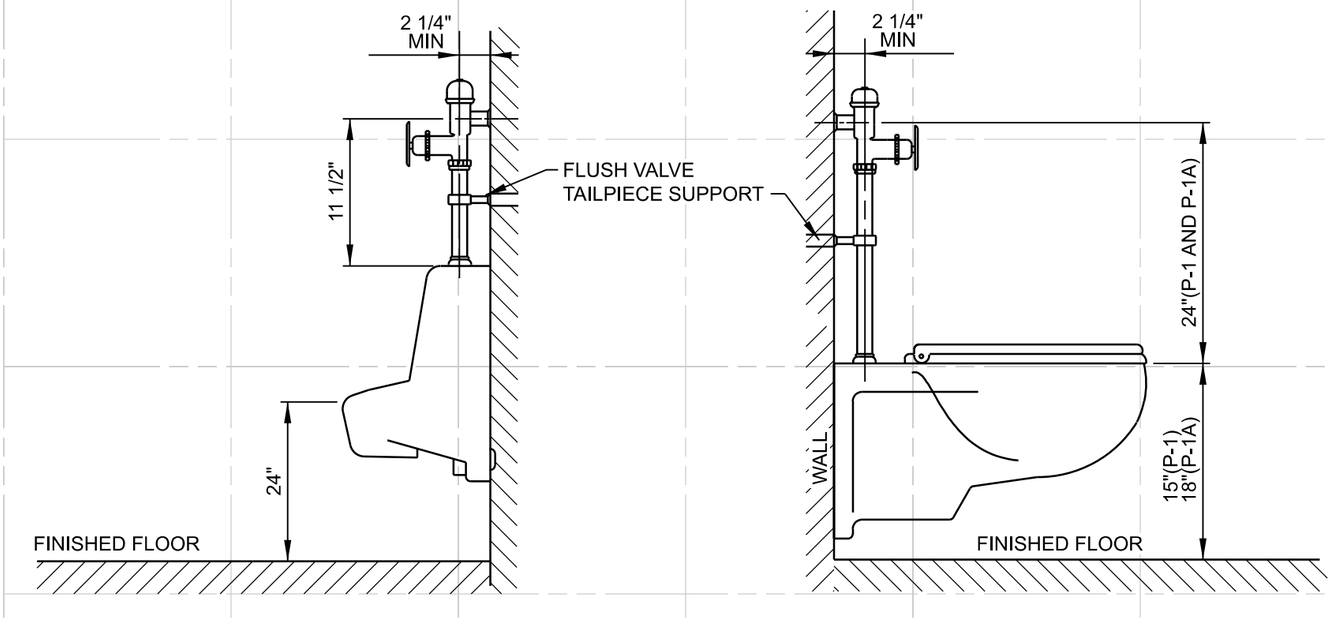


NOTE:
END VIEW OF AFFF CONCENTRATE PUMP SHOWING ARRANGEMENT OF PIPING TO PUMP CASING RELIEF VALVE

ELEVATION B

A1 DETAIL: AFFF PUMPING SYSTEM CONFIGURATION

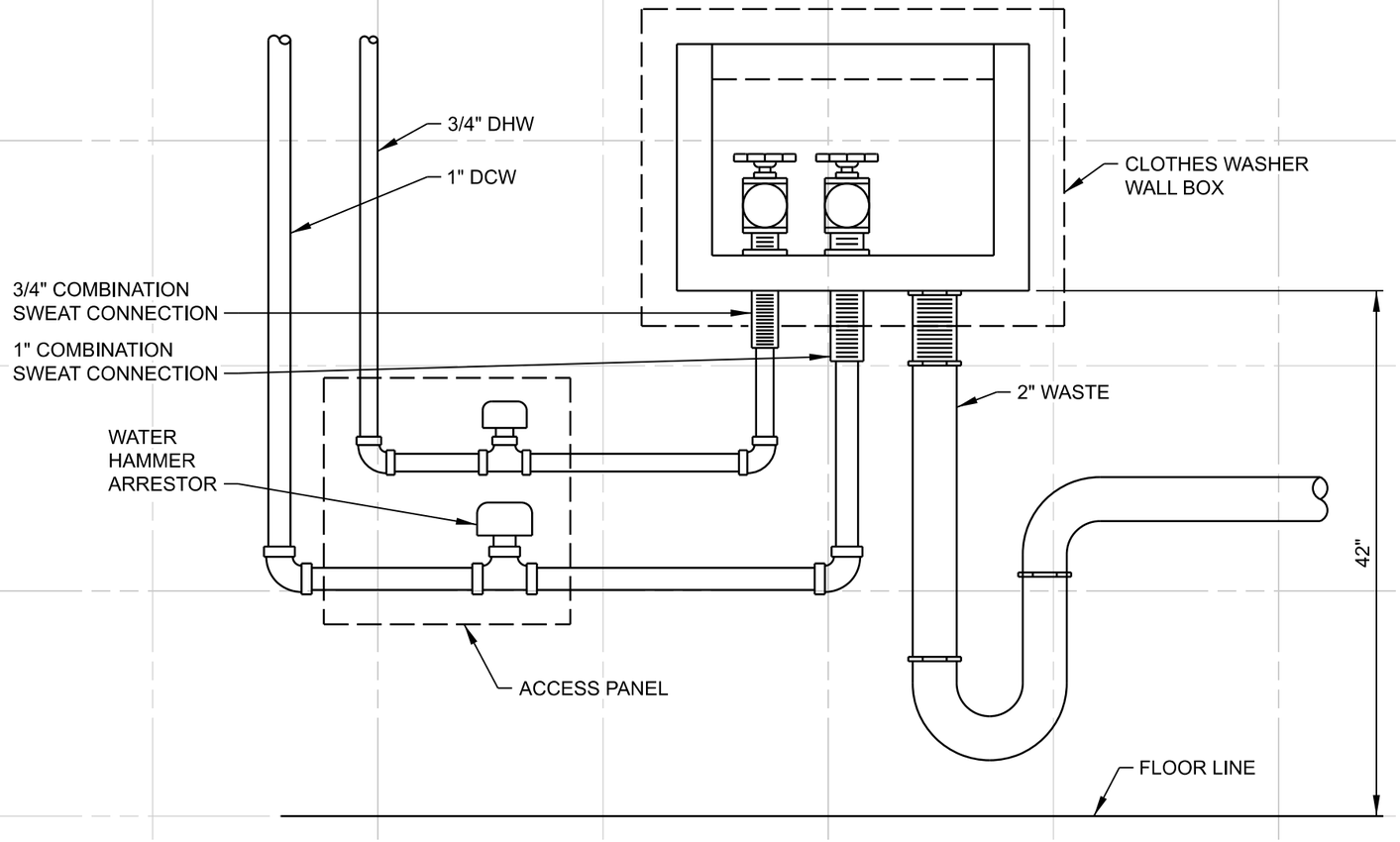
SCALE: NTS



A1 DETAIL: FLUSH VALVE SUPPORT

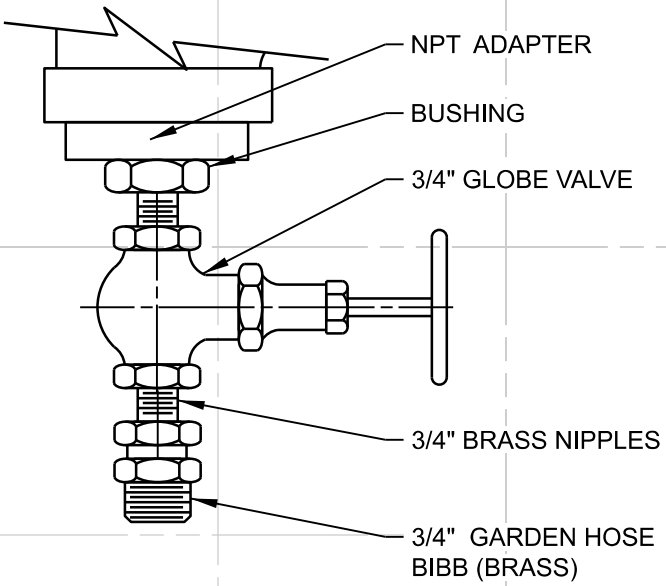
SCALE: NTS

Detail D2010P-DT002E



A1 DETAIL: UTILITY WALL BOX FOR CLOTHES WASHER

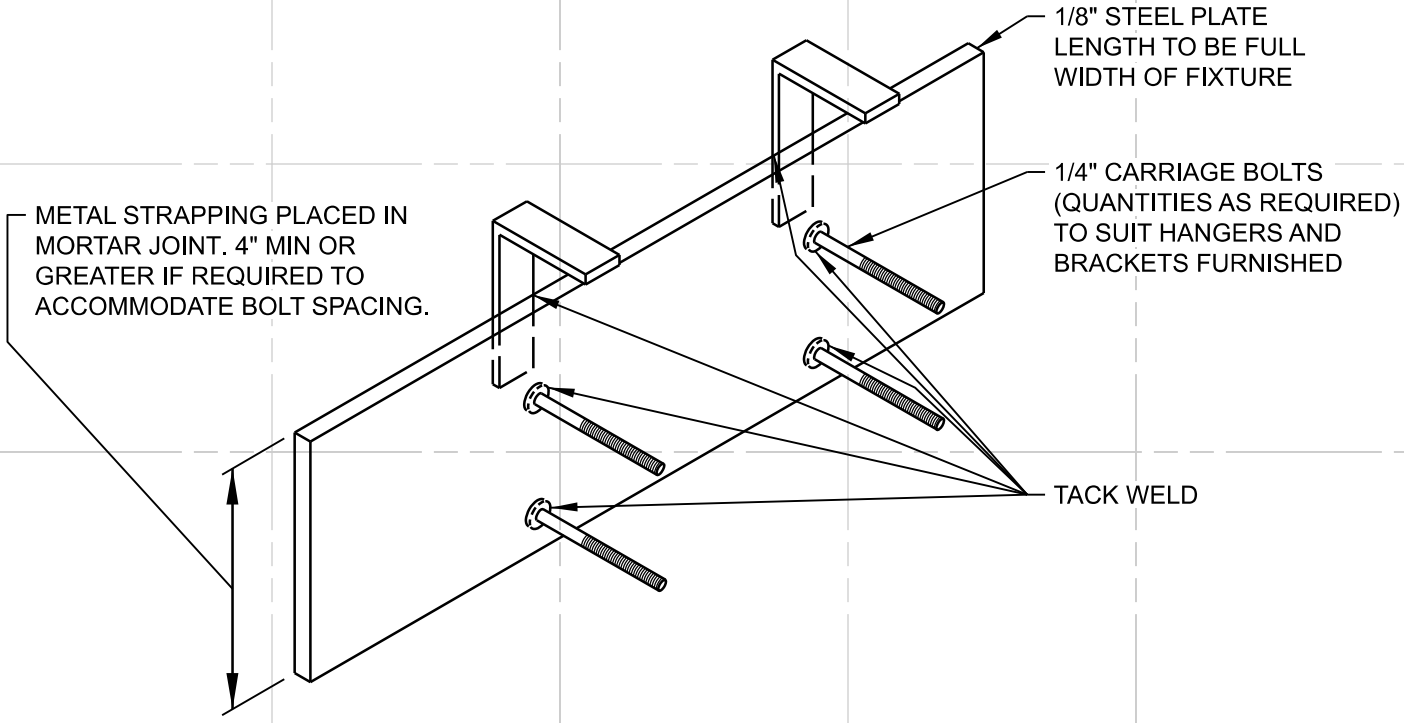
SCALE: NTS



A1

DETAIL: DRAIN VALVE

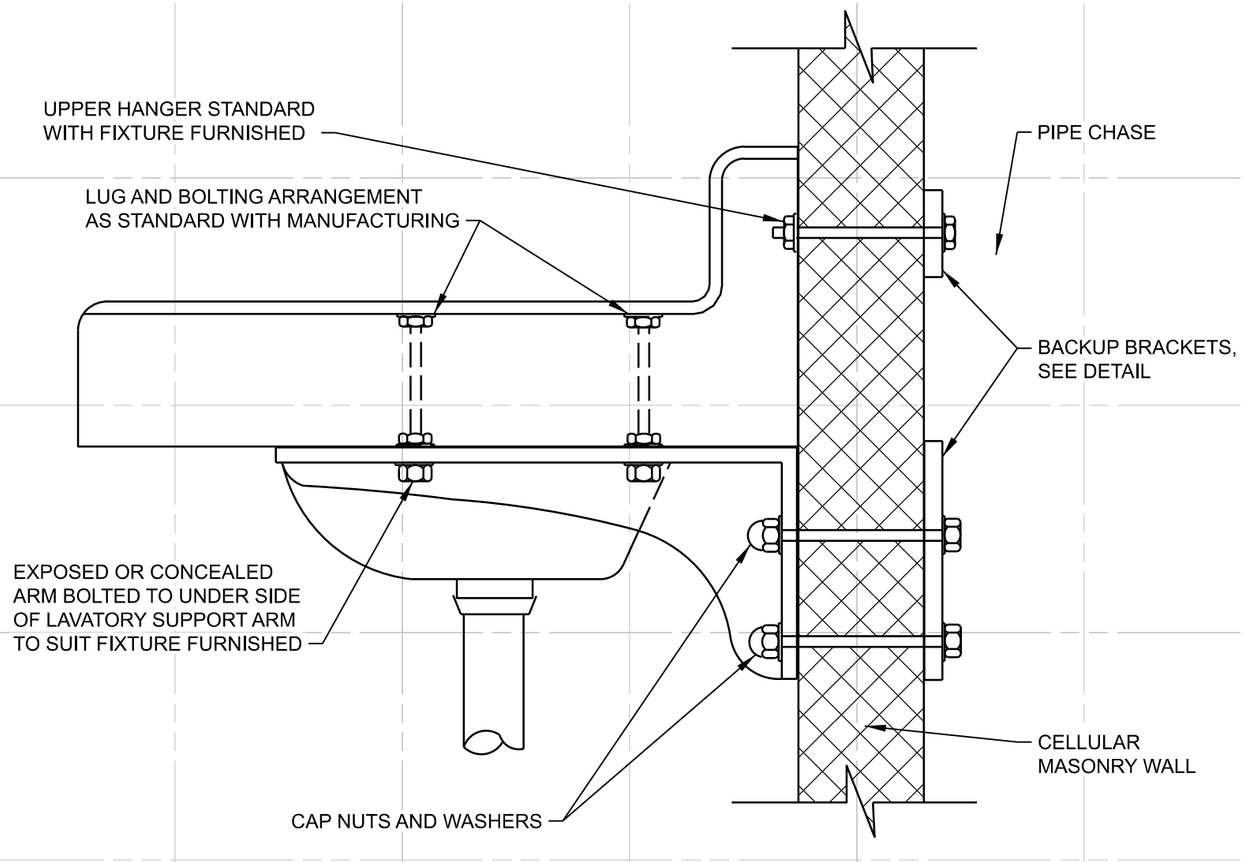
SCALE: NTS



DETAIL: BACKUP PLATE FOR LAVATORIES AND URINALS MOUNTED ON CELLULAR MASONRY WALL PIPE CHASE

A1

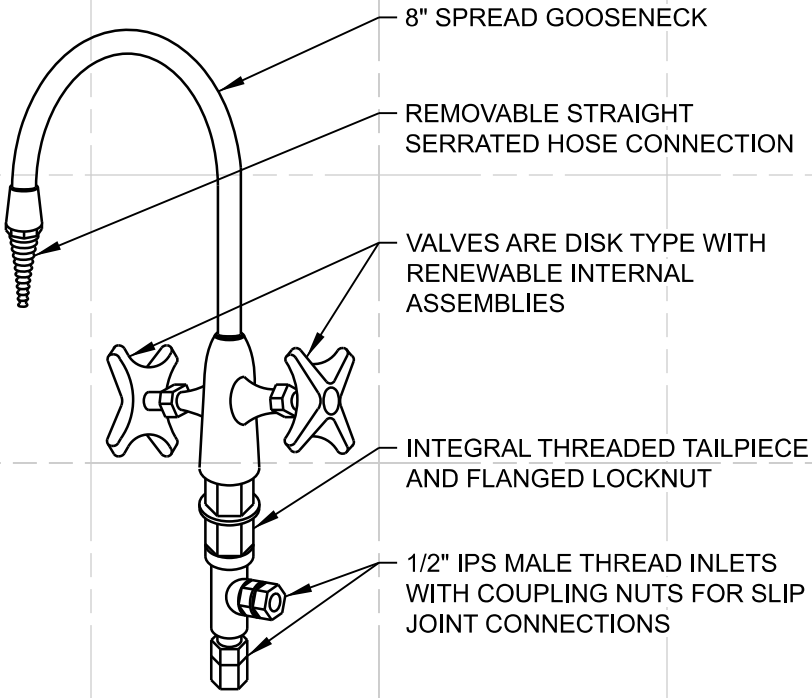
SCALE: NTS



DETAIL: MOUNTING FOR P-6 CAST IRON LAVATORY ON CELLULAR MASONRY WALL PIPE CHASE

A1

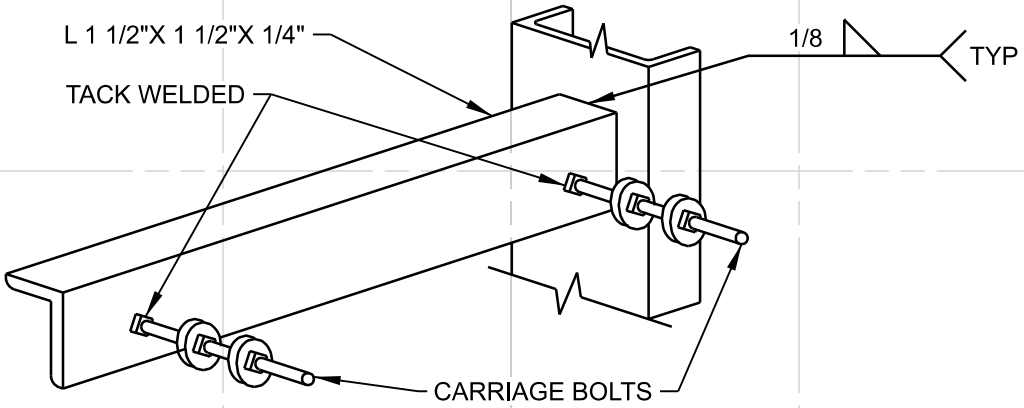
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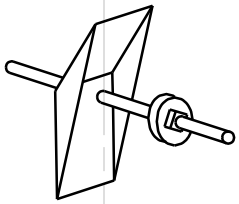
DETAIL: HOT AND COLD WATER MIXING GOOSENECK DECK MOUNTED FAUCET

A1

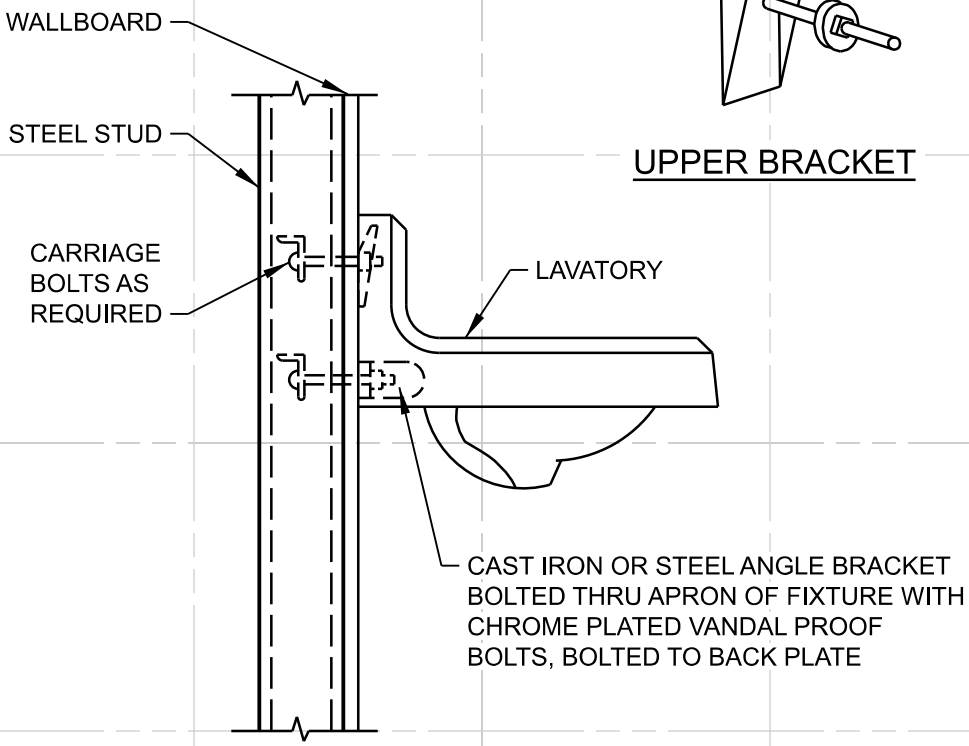
SCALE: NTS



HANGER BACK PLATE



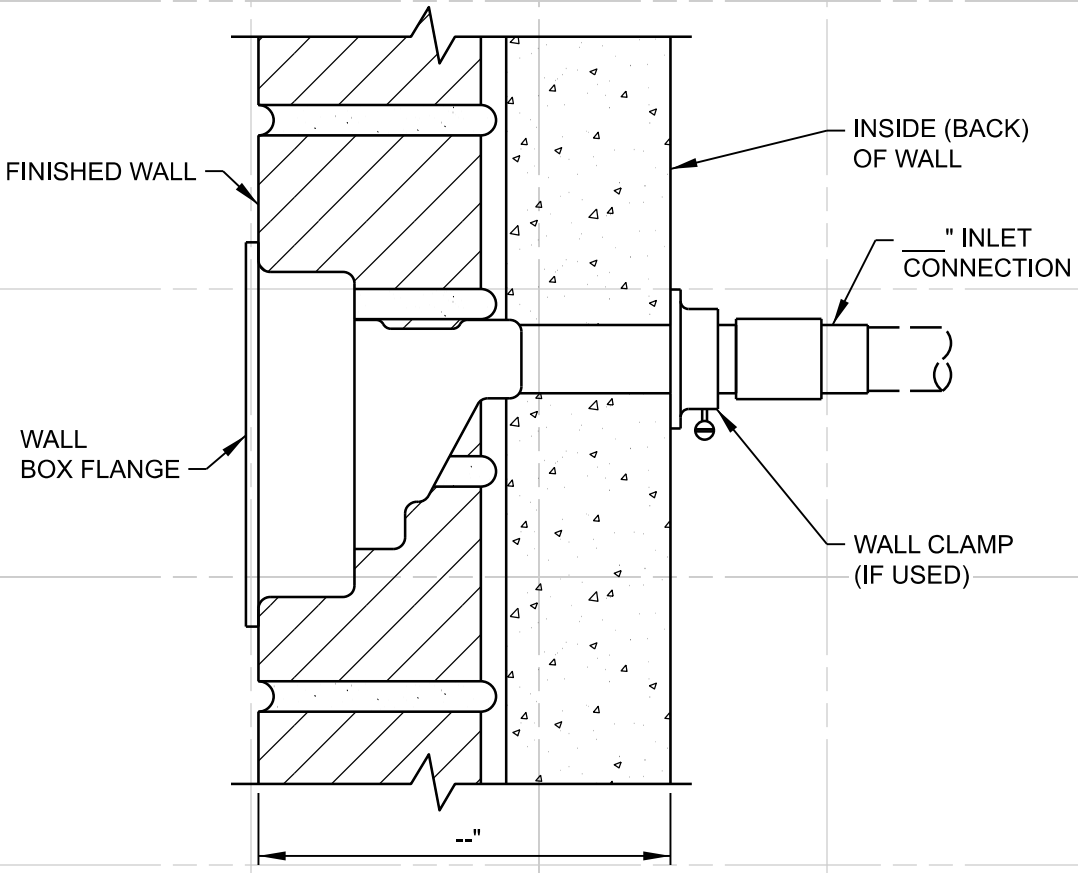
UPPER BRACKET



A1

DETAIL: LAVATORY MOUNTING FOR METAL STUDS

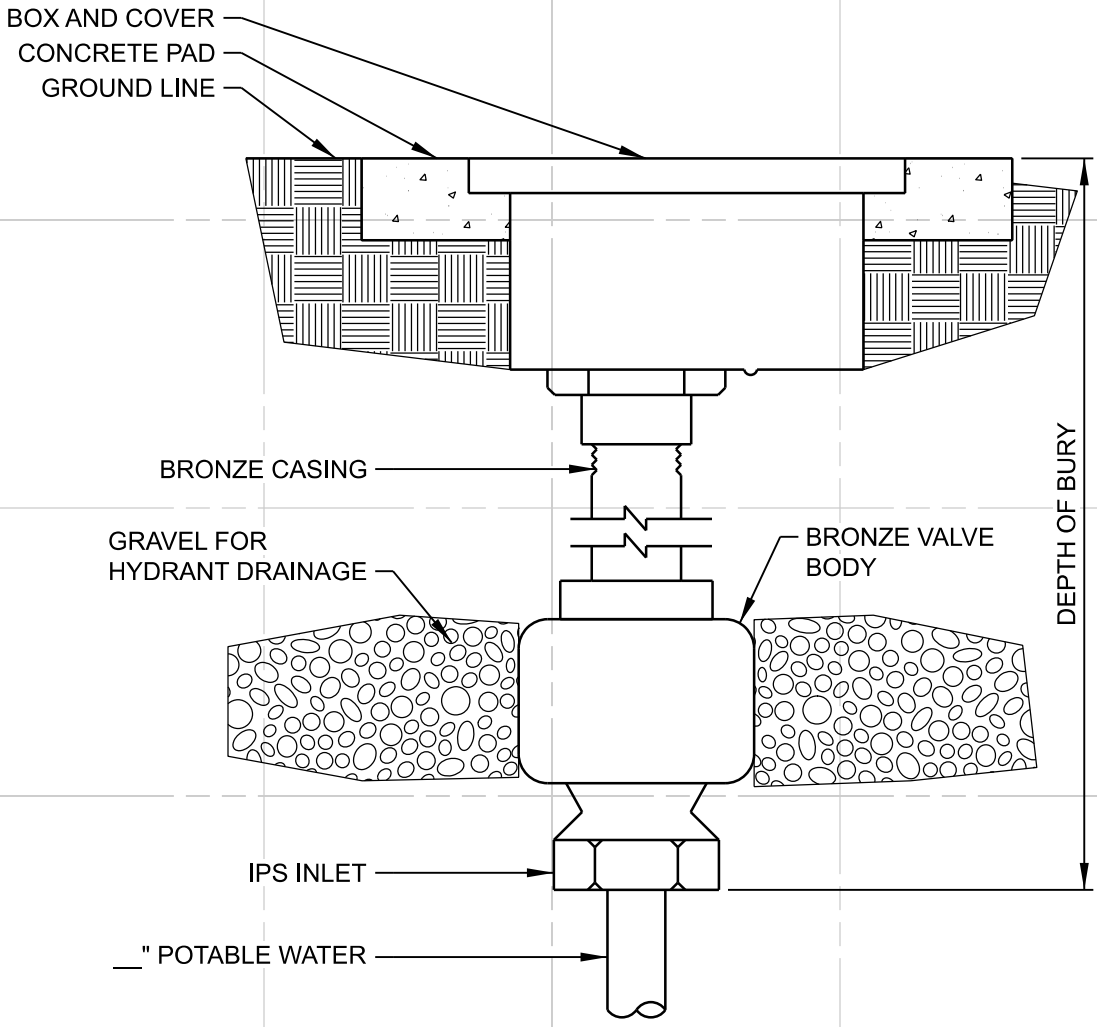
SCALE: NTS



A1

DETAIL: FREEZEPROOF WALL HYDRANT

SCALE: NTS

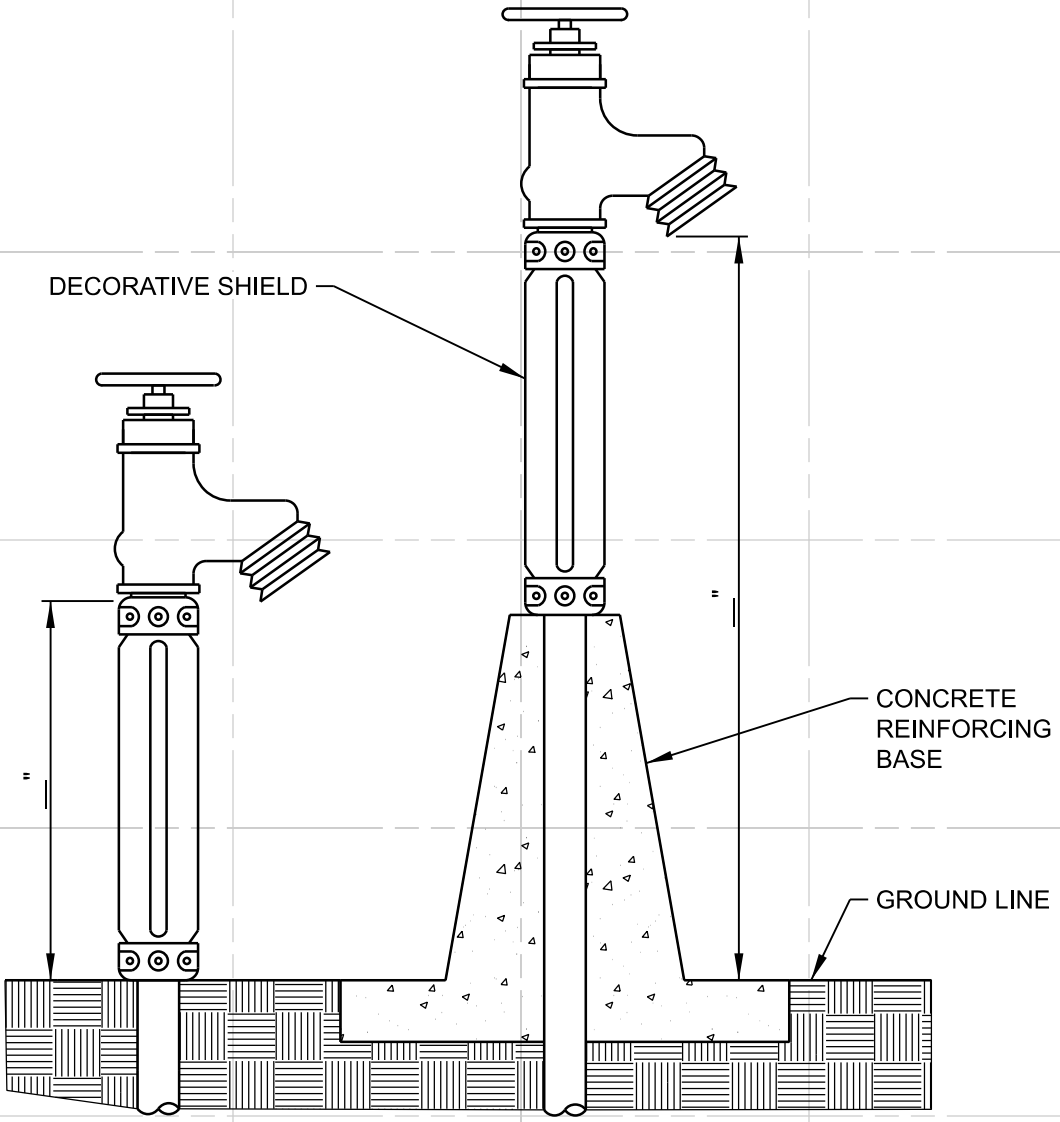


NOTE:
INSTALL COVER AND CONCRETE PAD ACCORDING TO MANUFACTURER'S INSTRUCTIONS.

A1

DETAIL: FREEZEPROOF YARD HYDRANT-BOX TYPE

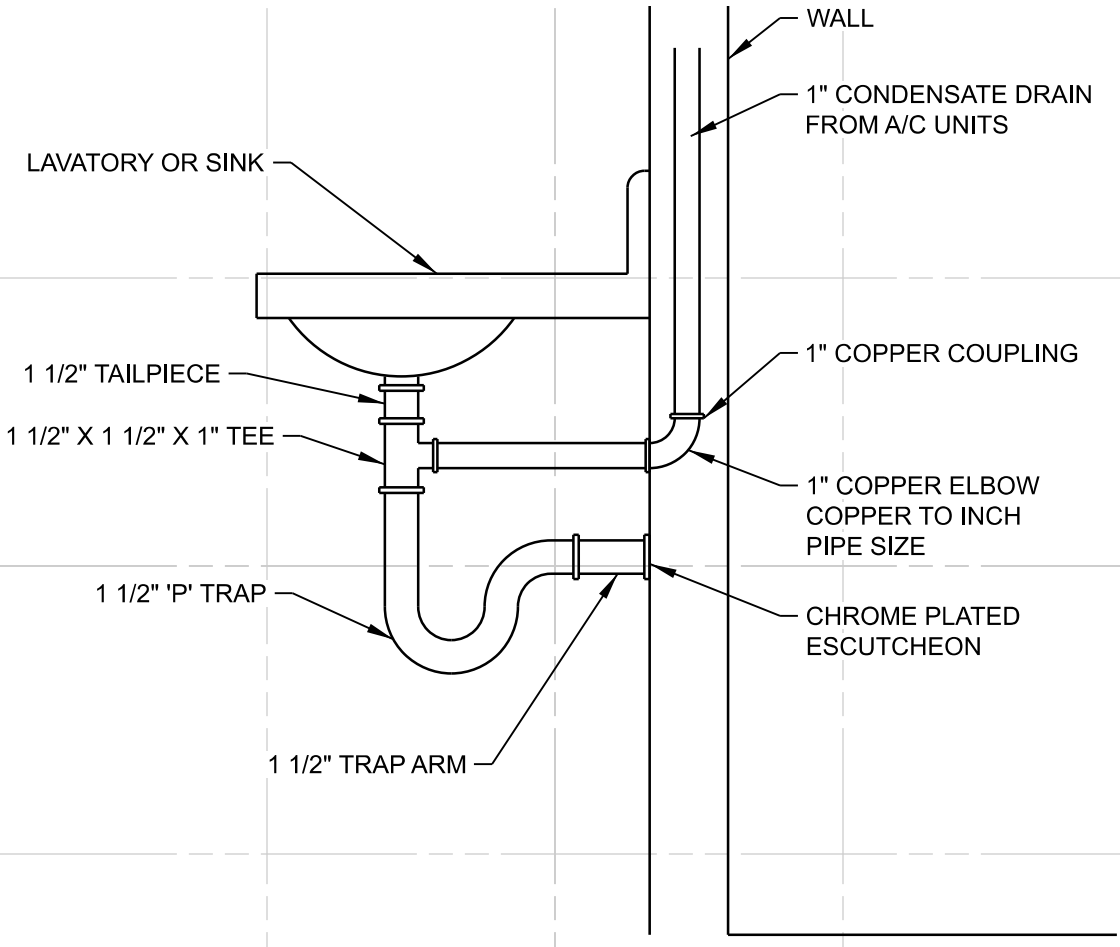
SCALE: NTS



A1

DETAIL: YARD HYDRANT - POST TYPE

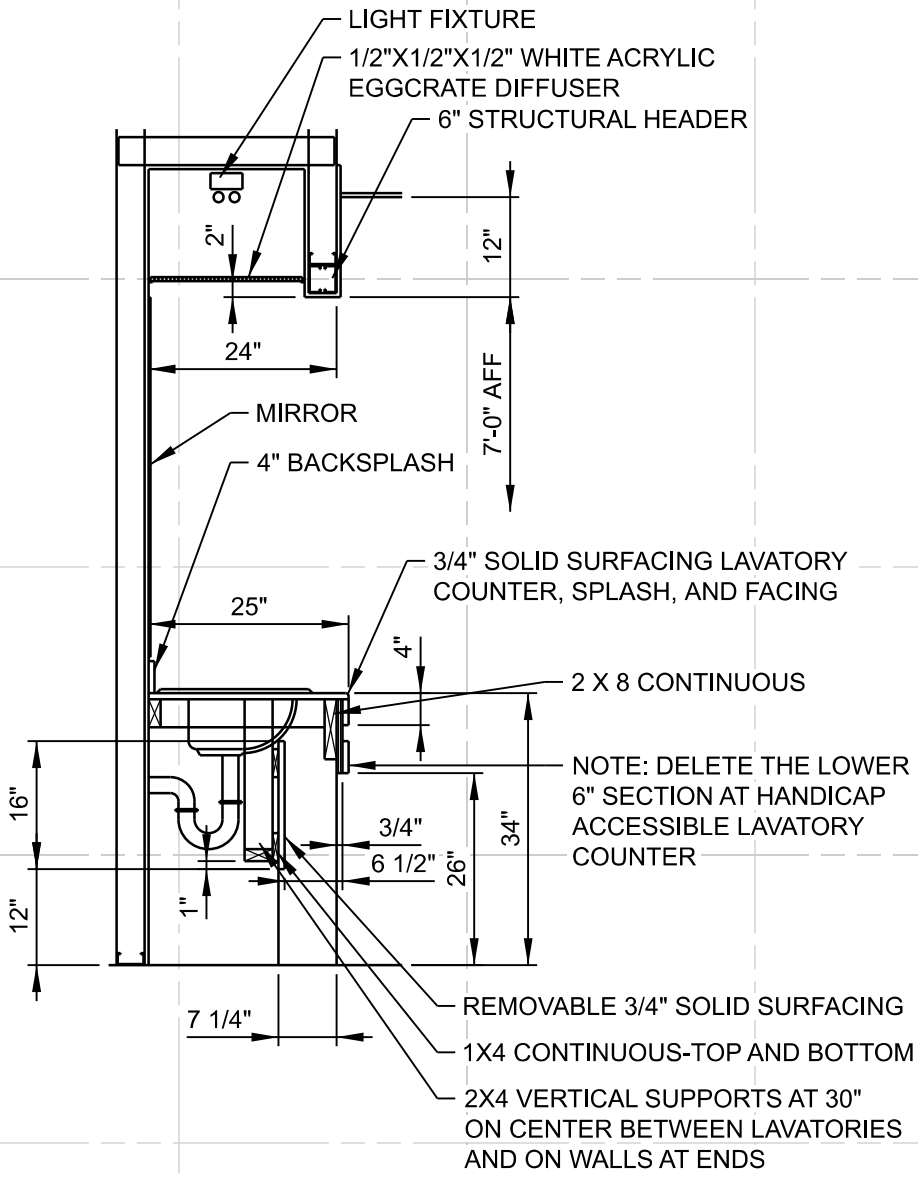
SCALE: NTS



A1

DETAIL: LAVATORY TAILPIECE

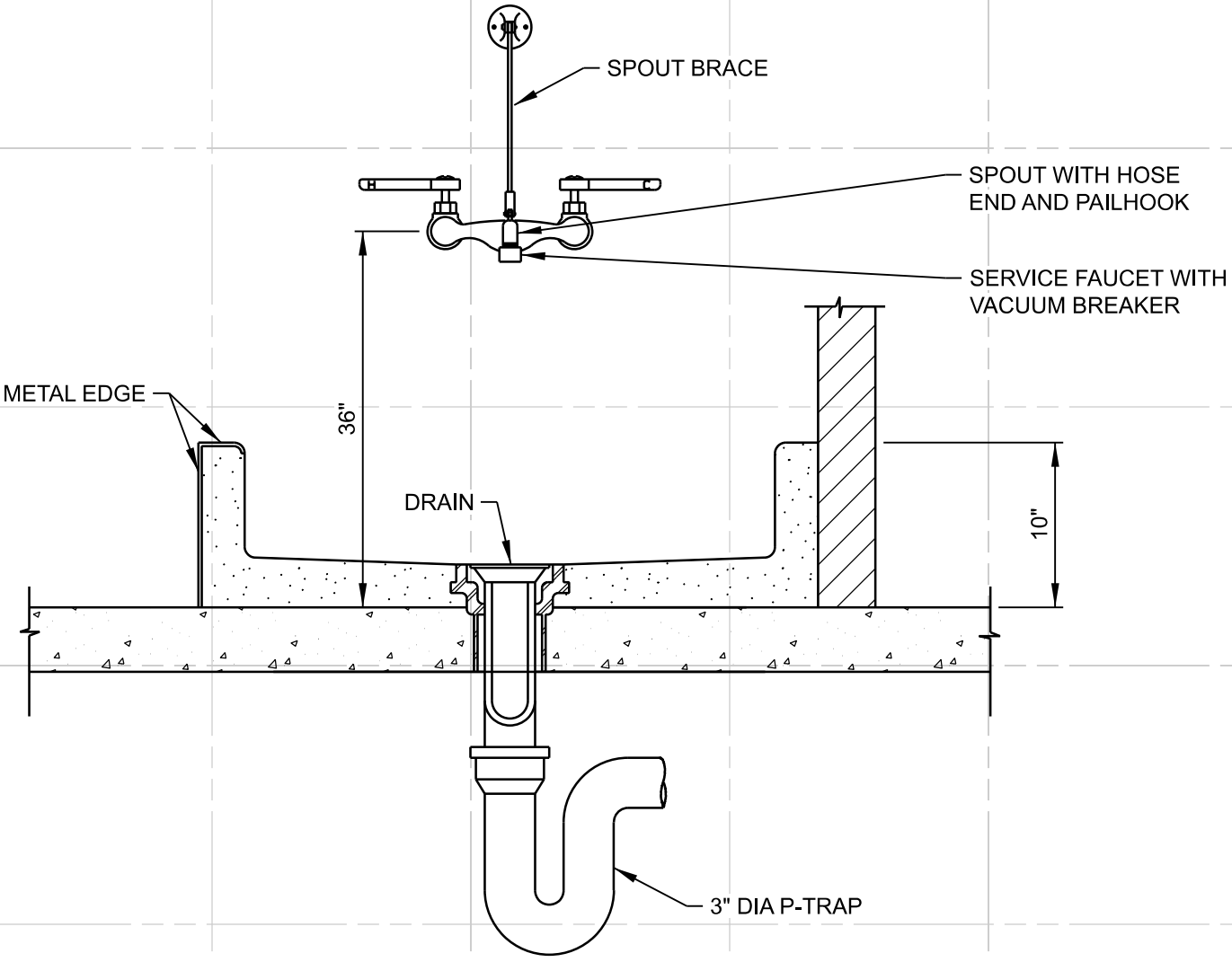
SCALE: NTS



A1

DETAIL: LAVATORY WITH RECESSED LIGHT

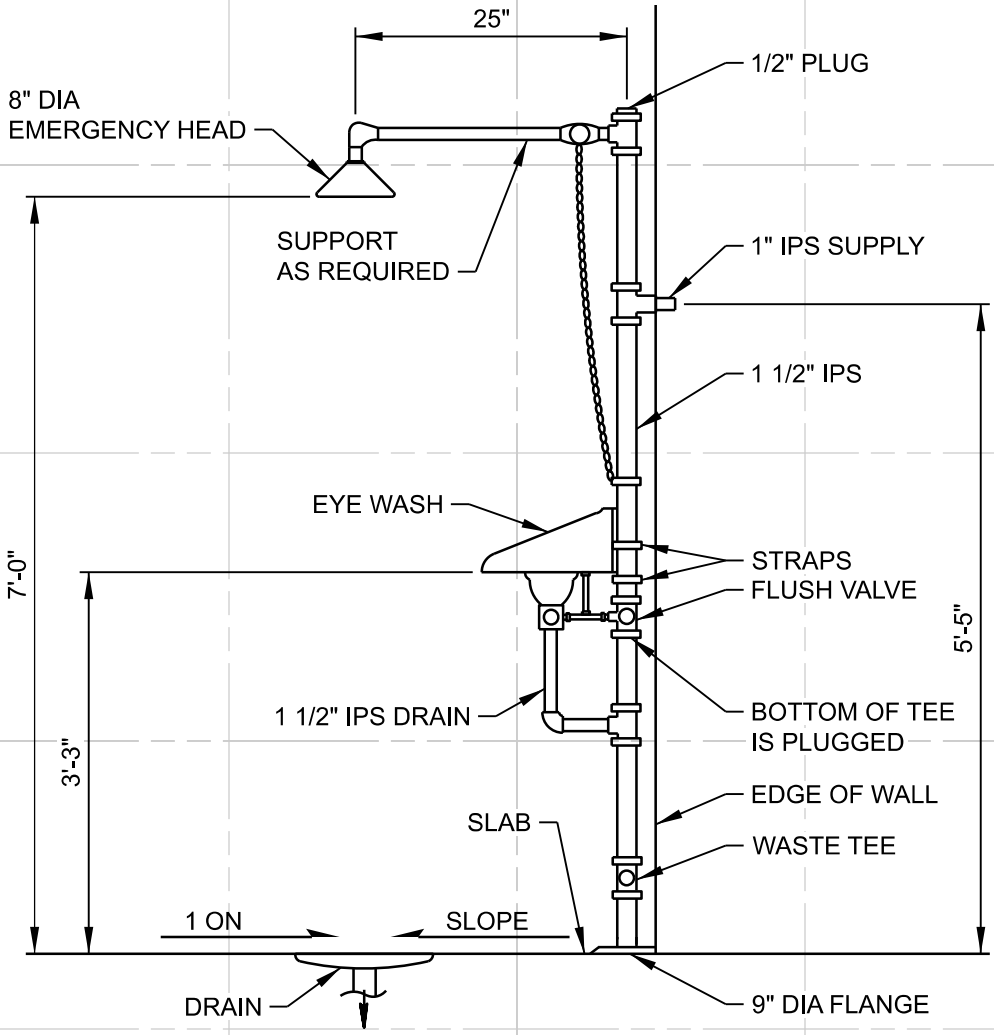
SCALE: NTS



A1

DETAIL: MOP SINK DETAIL

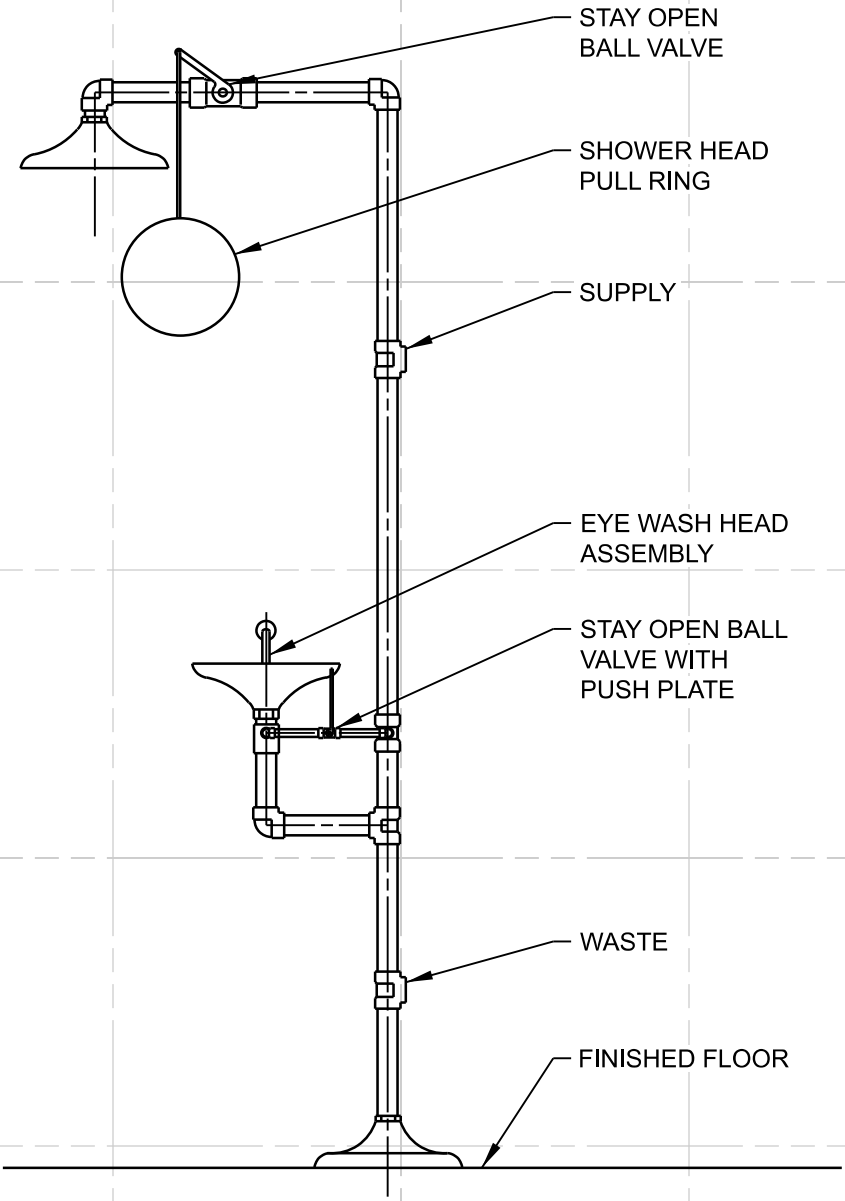
SCALE: NTS



A1

DETAIL: EMERGENCY SHOWER AND EYE WASH

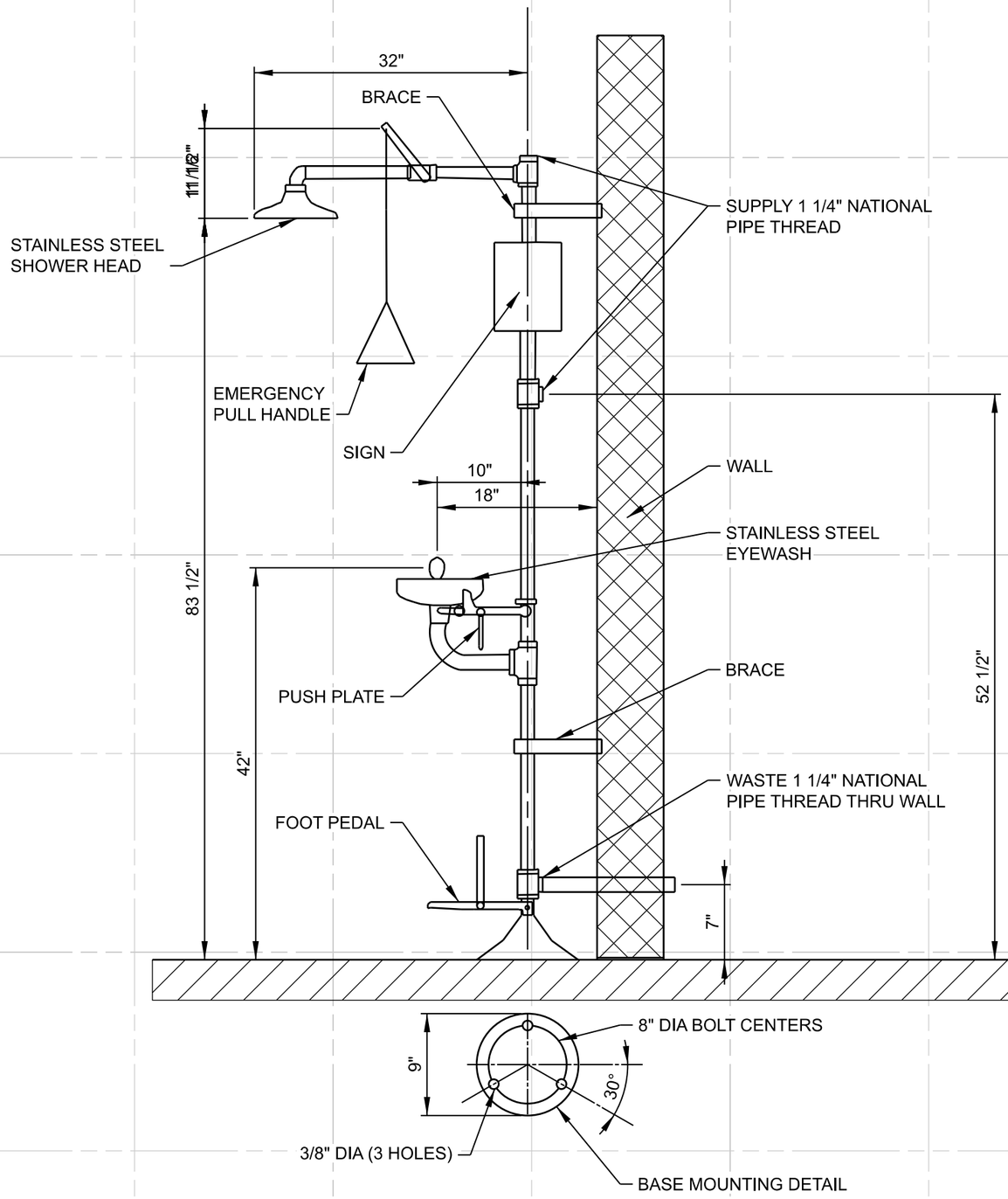
SCALE: NTS



DETAIL: EMERGENCY SHOWER WITH EYE WASH

A1

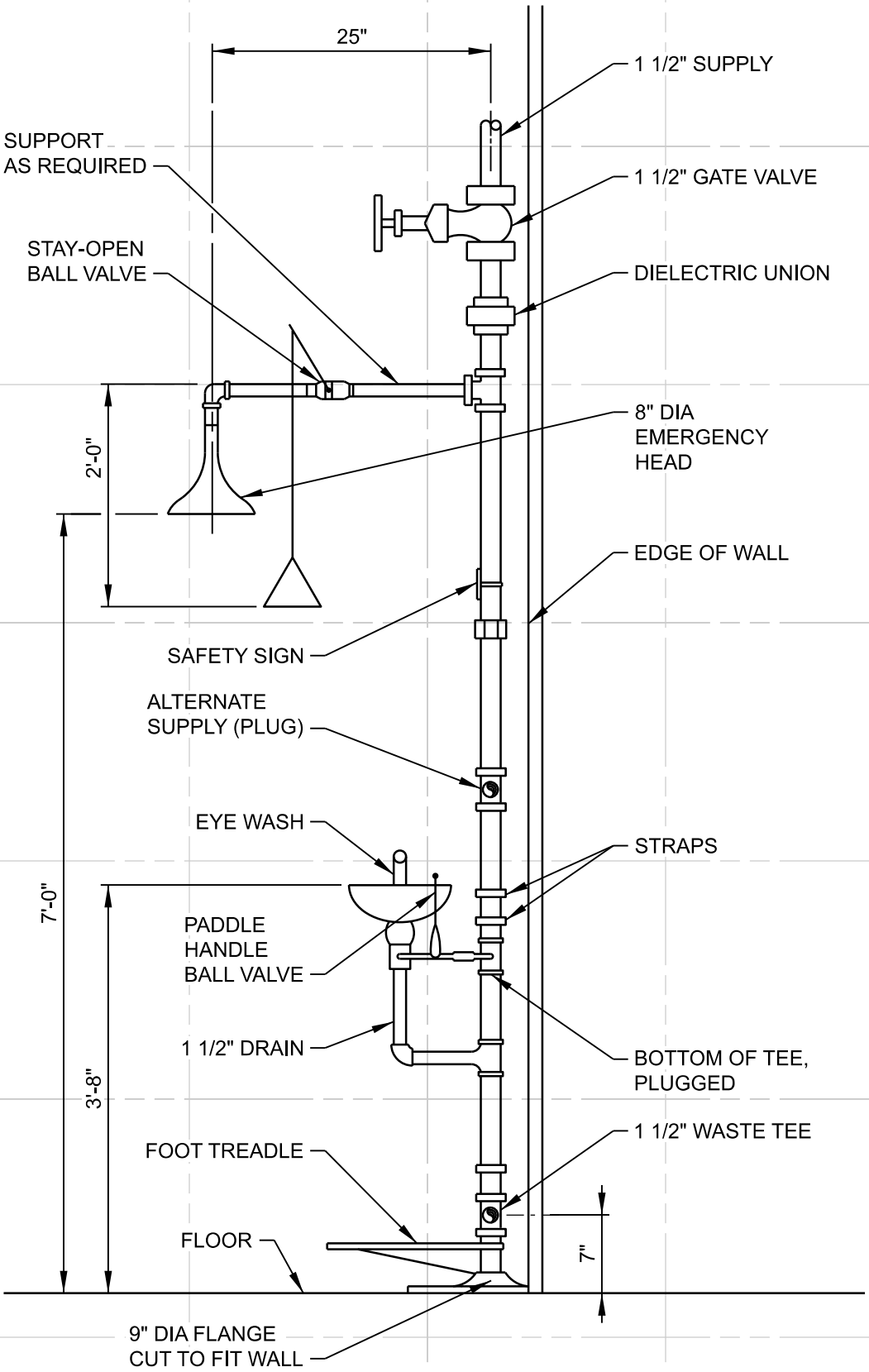
SCALE: NTS



A1

DETAIL: EMERGENCY EYEWASH

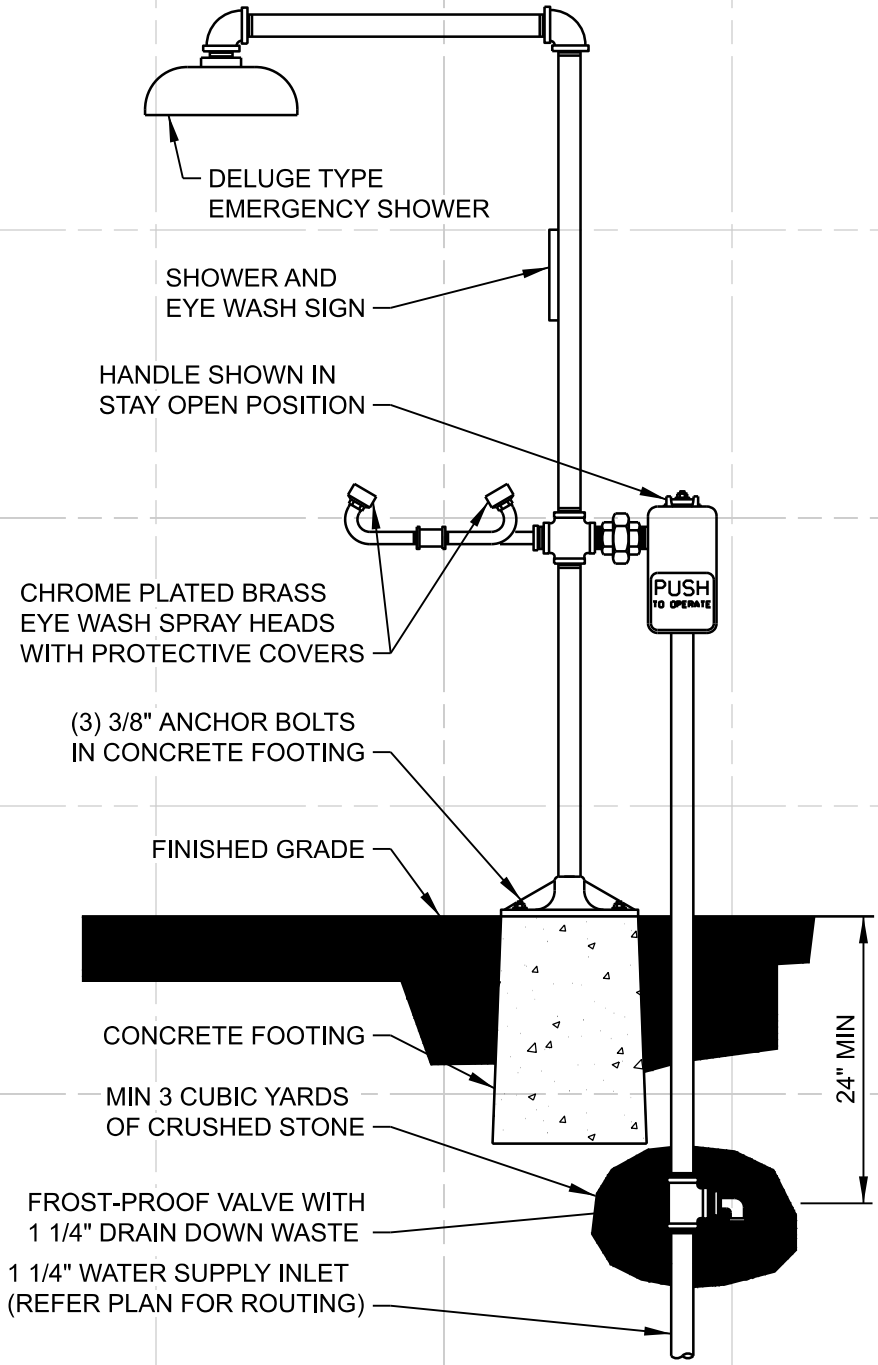
SCALE: NTS



DETAIL: SAFETY SHOWER - EYE WASH

A1

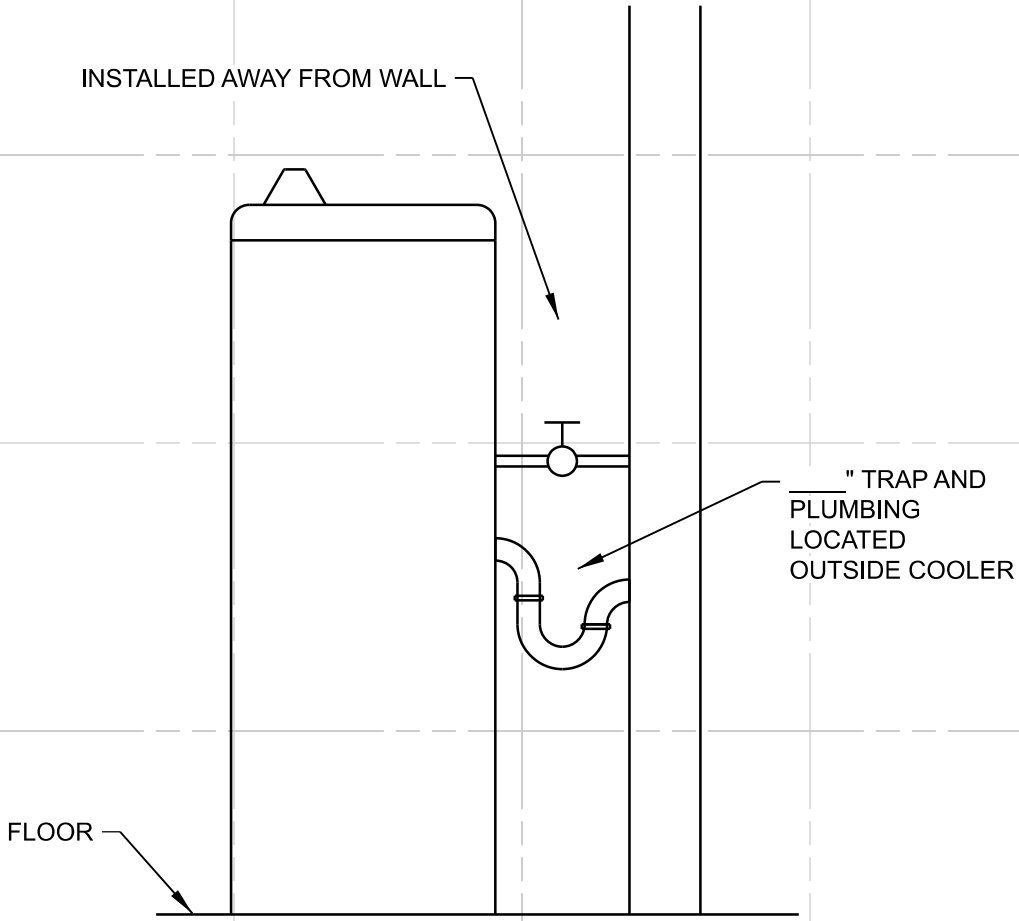
SCALE: NTS



DETAIL: FROST-PROOF COMBINATION DRENCH SHOWER/EYE WASH UNIT

A1

SCALE: NTS

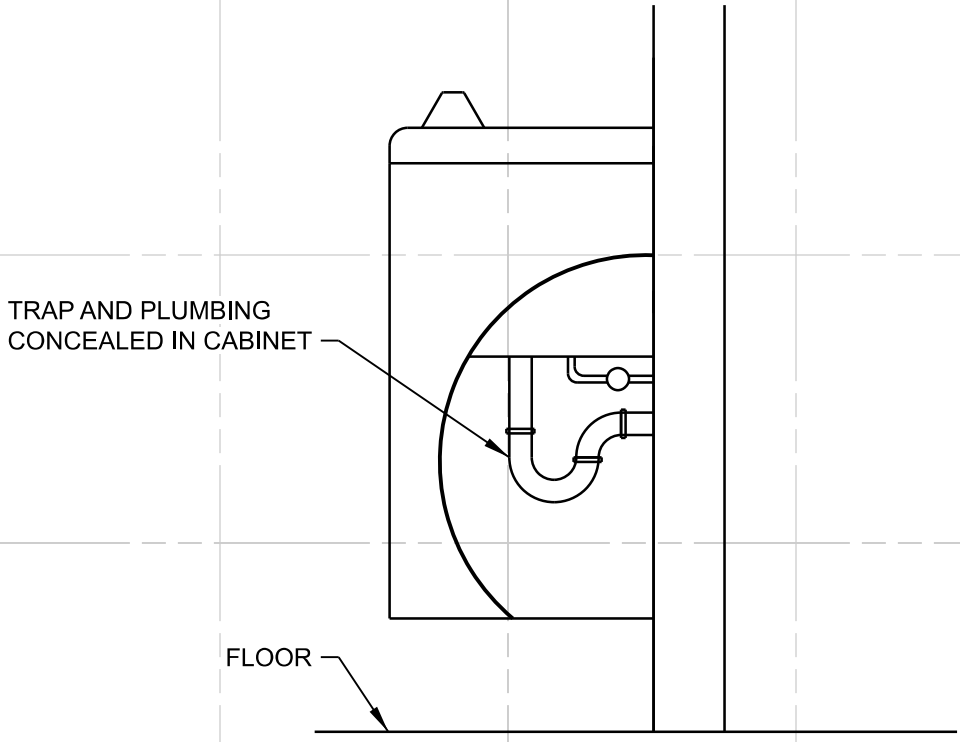


NOTE:
1. INSTALL ACCORDING TO MANUFACTURER'S INSTRUCTIONS.

A1

DETAIL: FREE STANDING DRINKING WATER COOLER

SCALE: NTS

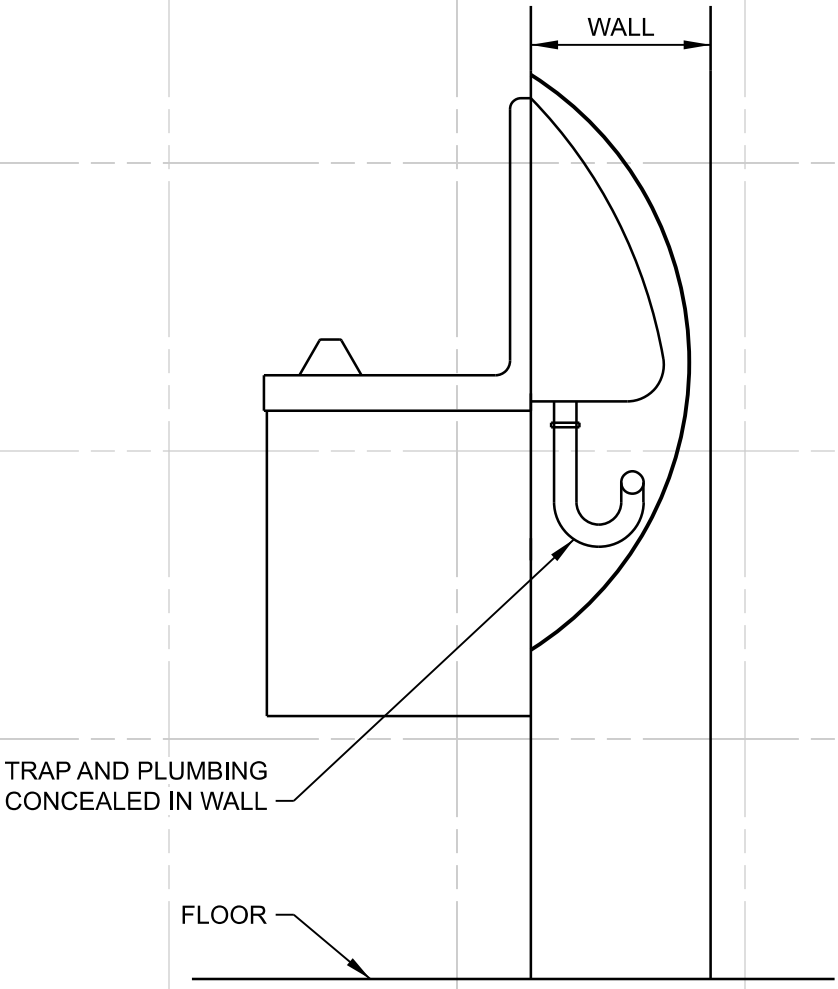


NOTE:
1. INSTALL ACCORDING TO MANUFACTURER'S INSTRUCTIONS.

A1

DETAIL: WALL-HUNG DRINKING WATER COOLER

SCALE: NTS

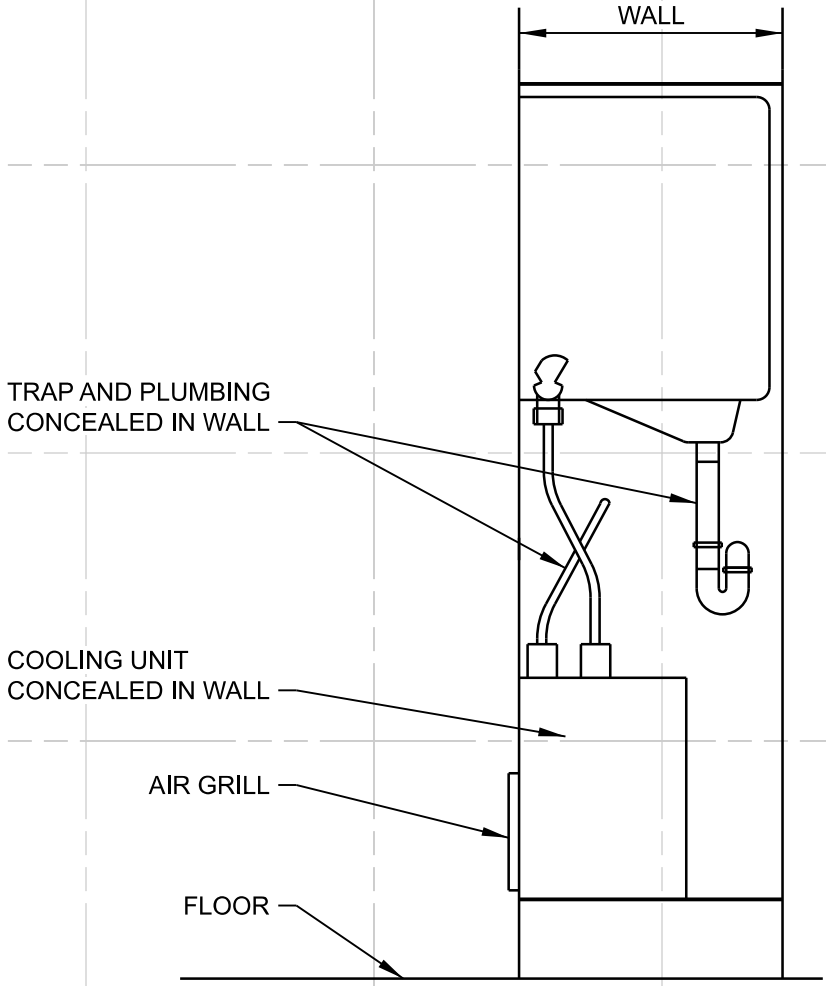


NOTE:
1. INSTALL ACCORDING TO MANUFACTURER'S INSTRUCTIONS.

A1

DETAIL: SEMI-RECESSED DRINKING WATER COOLER

SCALE: NTS

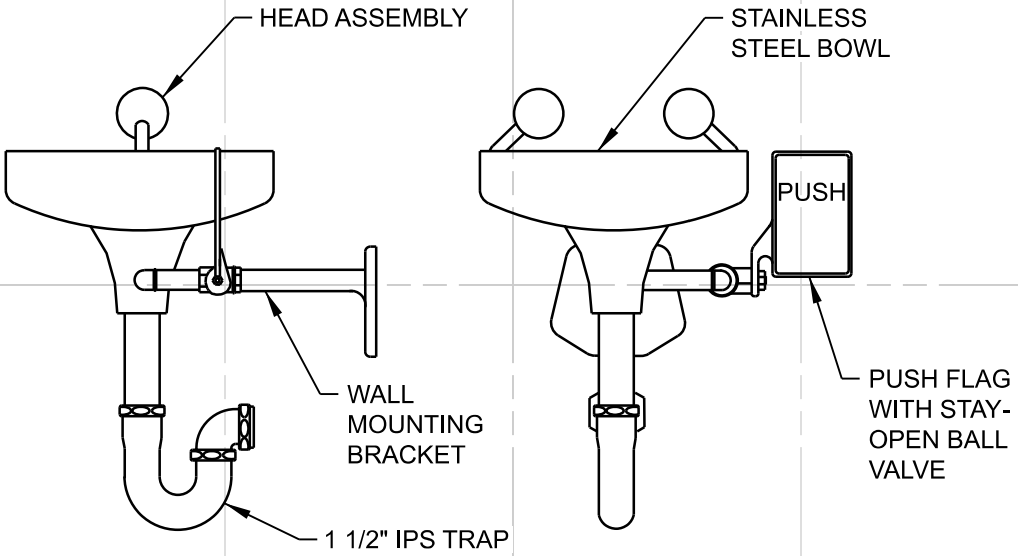


NOTE:
1. INSTALL ACCORDING TO MANUFACTURER'S INSTRUCTIONS.

A1

DETAIL: FULLY RECESSED DRINKING WATER COOLER

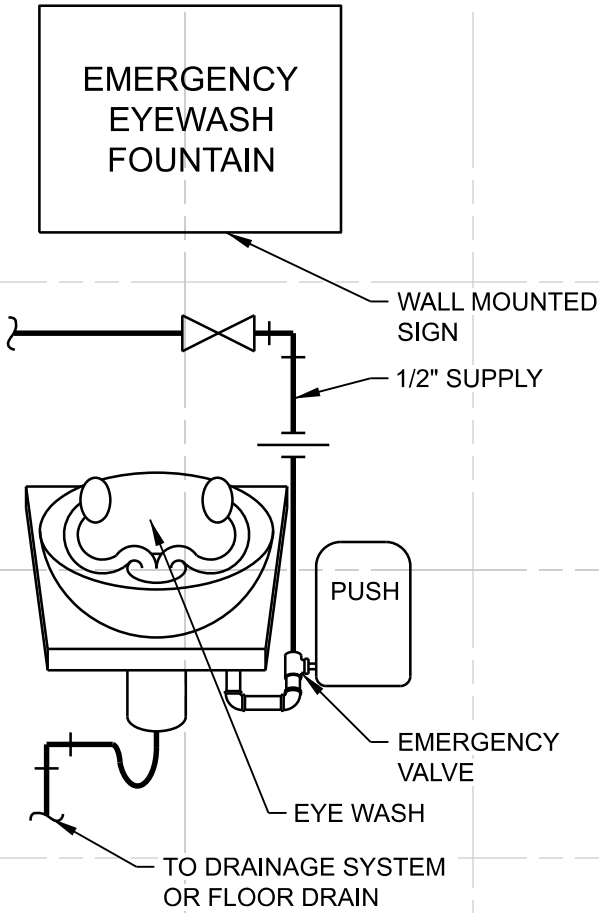
SCALE: NTS



A1

DETAIL: EMERGENCY EYEWASH

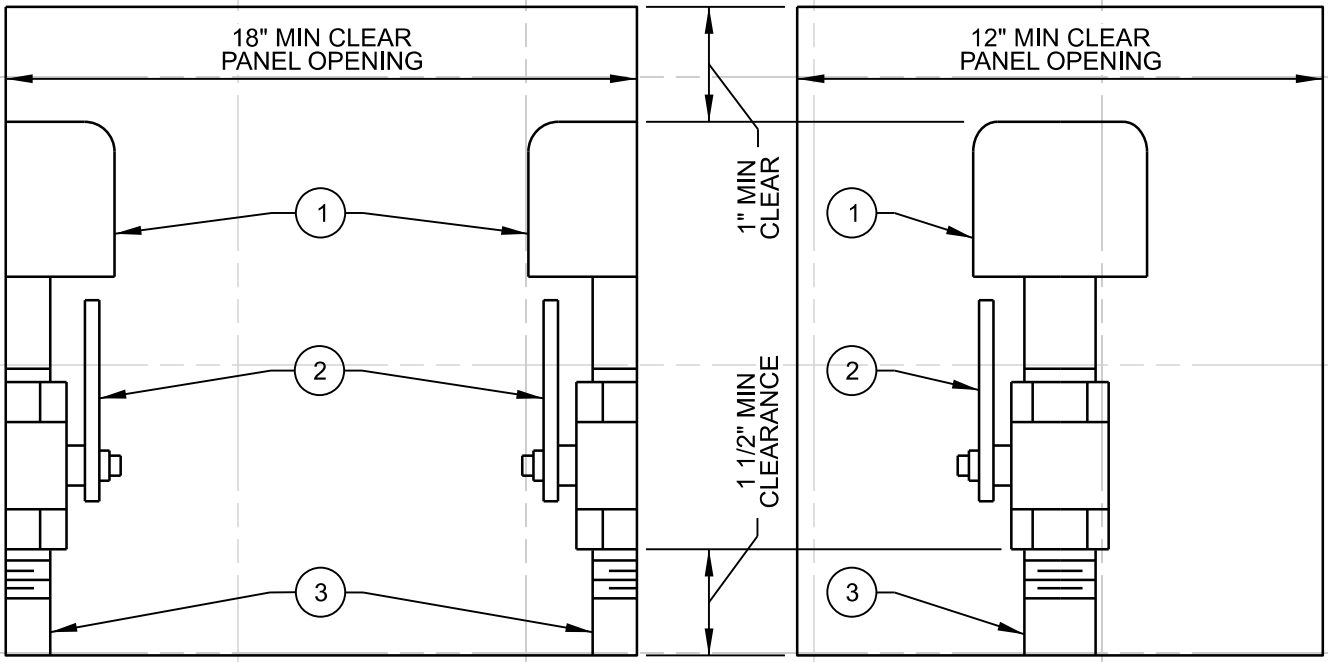
SCALE: NTS



A1

DETAIL: WALL MOUNTED EMERGENCY EYEWASH

SCALE: NTS



DOUBLE APPLICATION

SINGLE APPLICATION

CALLOUT:

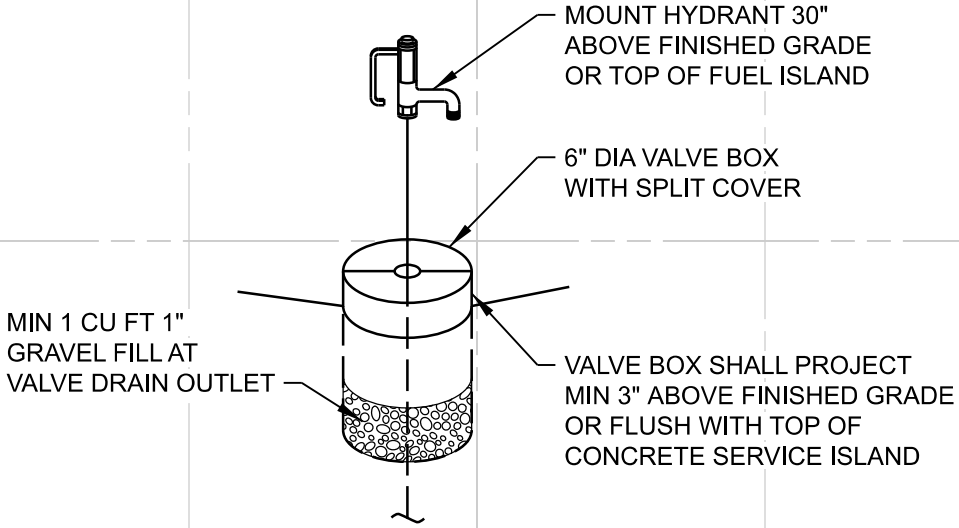
1. WATER HAMMER ARRESTOR
2. BALL VALVE, SAME NOMINAL SIZE AS PIPE BRANCH IN CHASE. OPENING IN BALL VALVE TO MATCH PIPE INSIDE DIA.
3. PIPE SAME SIZE AS BRANCH IN CHASE TO WHICH IT IS ATTACHED.

NOTE:
PROVIDE REDUCER IF REQUIRED BETWEEN VALVE AND WATER HAMMER ARRESTOR.

A1

DETAIL: WATER HAMMER PANEL INSTALLATION

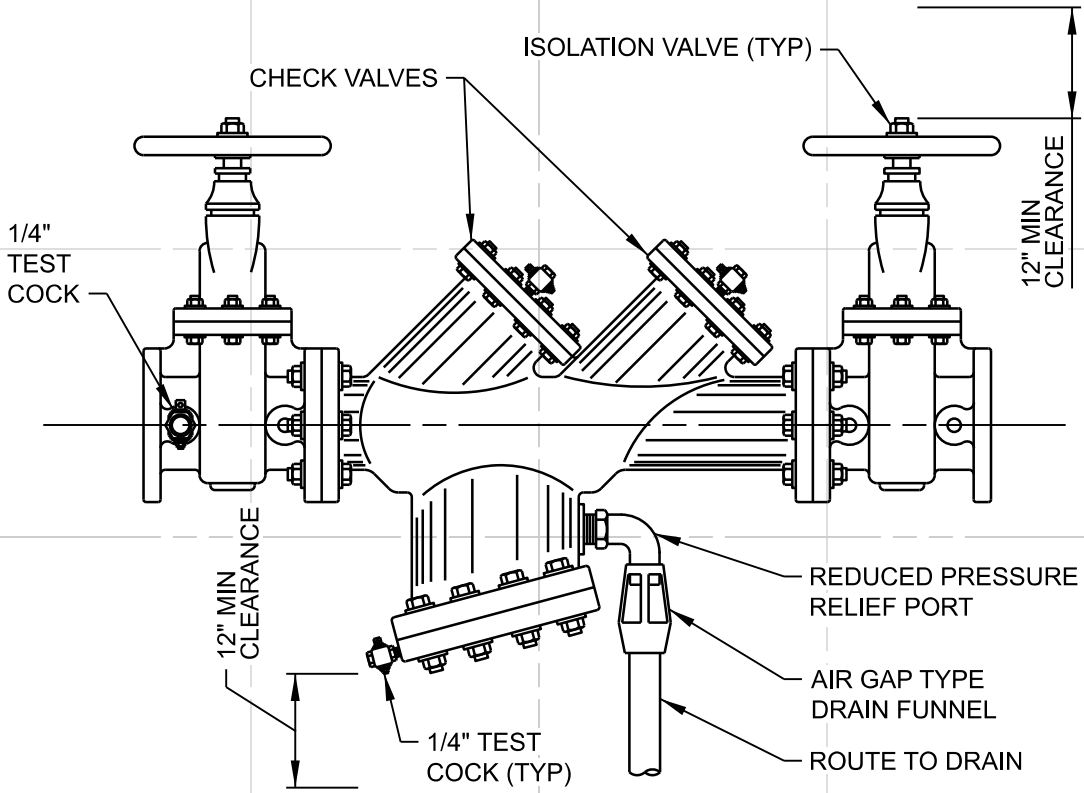
SCALE: NTS



A1

DETAIL: FREEZE-PROOF YARD HYDRANT

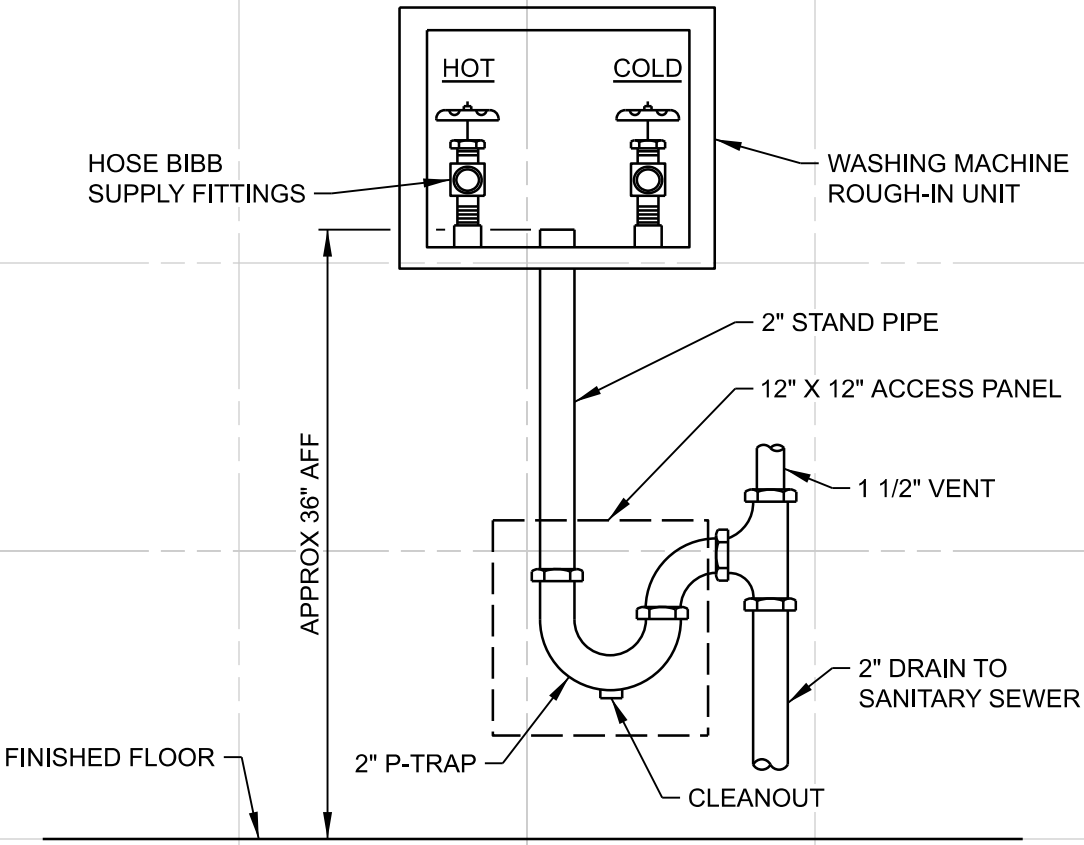
SCALE: NTS



A1

DETAIL: BACKFLOW PREVENTER

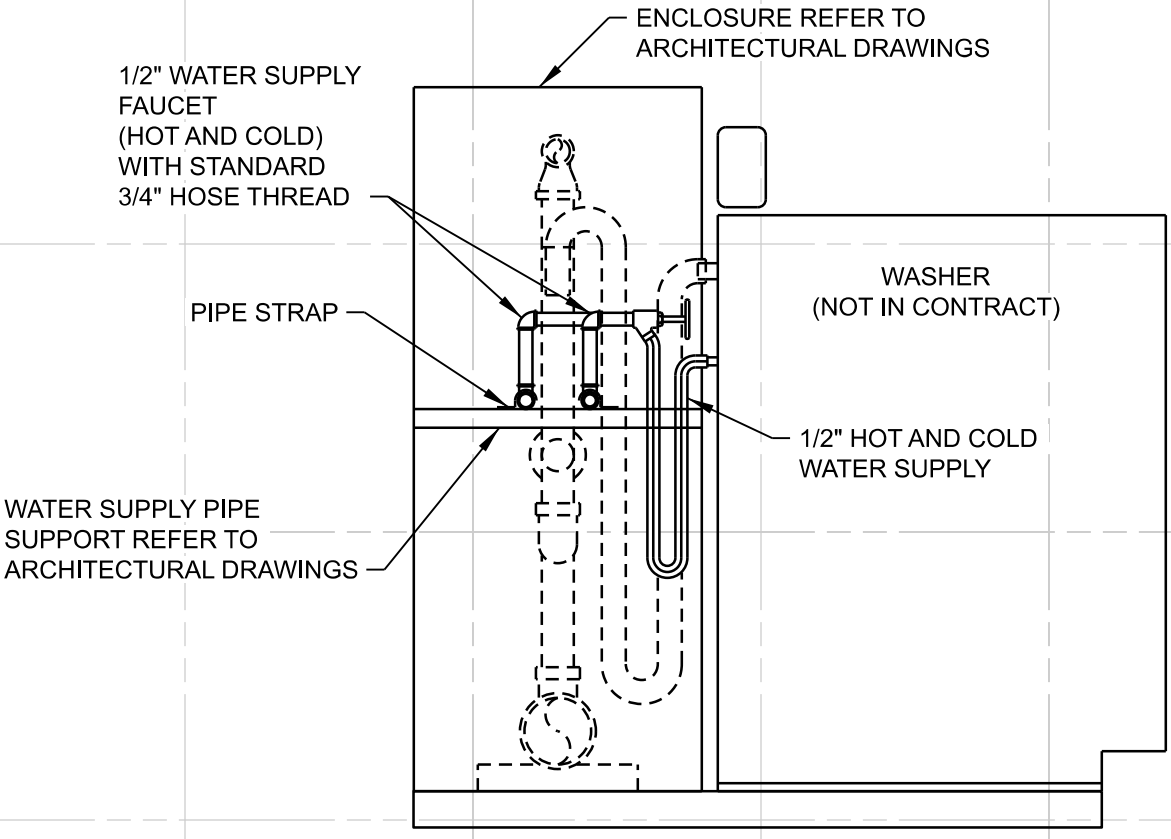
SCALE: NTS



DETAIL: WASHING MACHINE HOOK-UP

A1

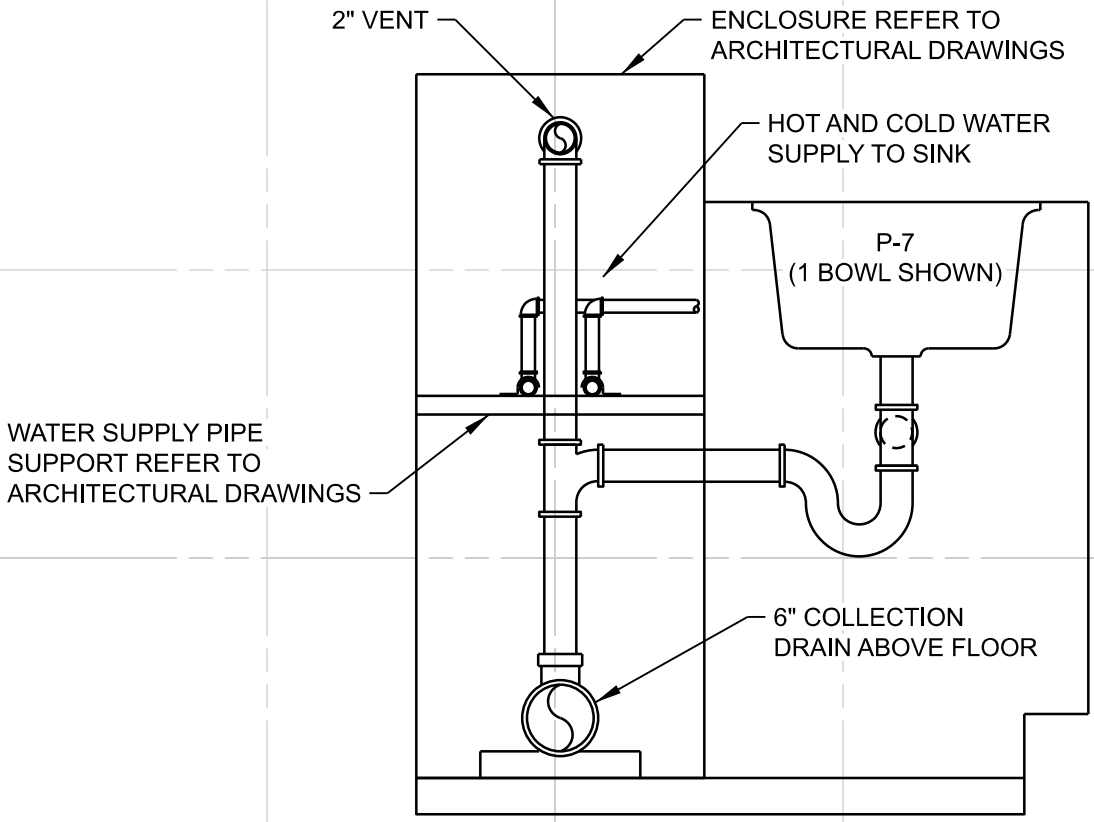
SCALE: NTS



A1

DETAIL: WASHER WATER CONNECTION

SCALE: NTS

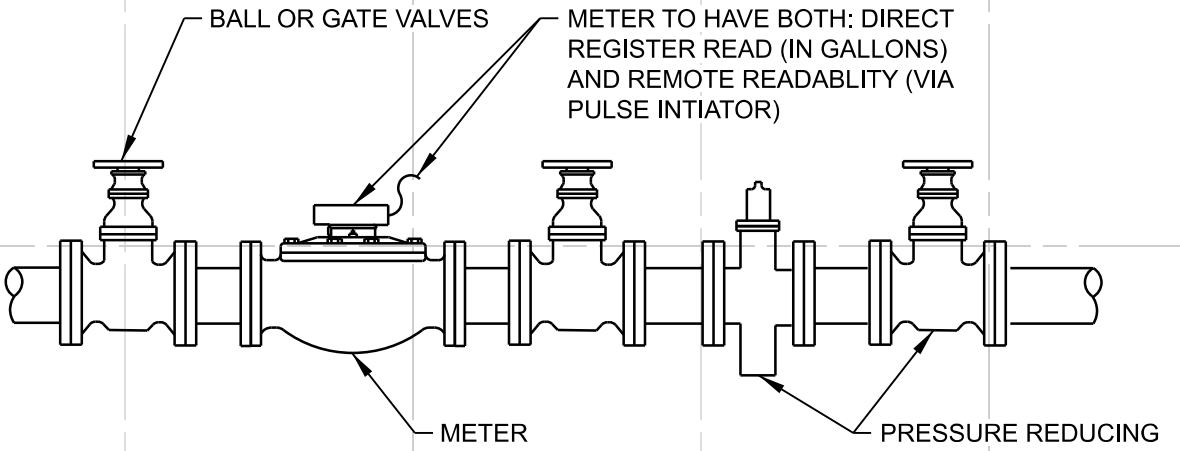


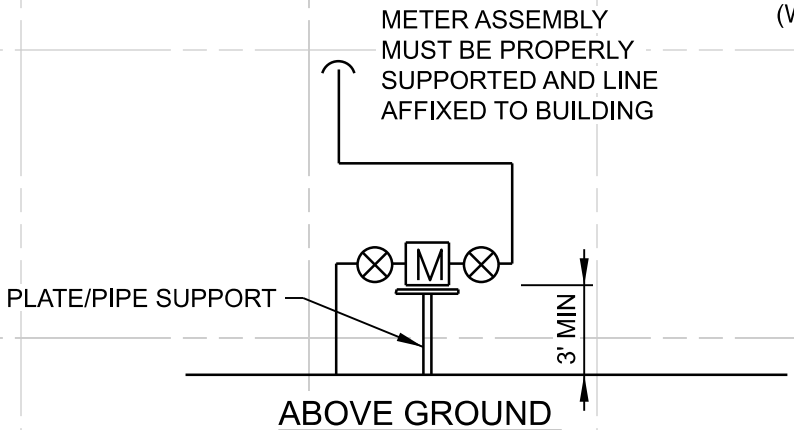
DOUBLE BOWL TYPE

A1

DETAIL: LAUNDRY SINK DRAIN CONNECTION

SCALE: NTS





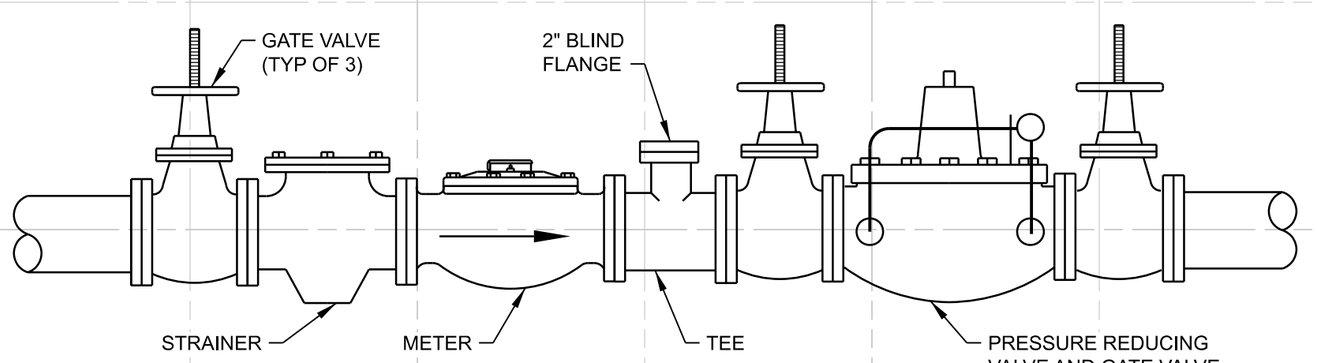
ABOVE GROUND METER ASSEMBLY AFFIXED TO BUILDING

NOTES:
1. PROVIDE A "DRESSER-TYPE" COUPLING ON METER ASSEMBLY INSTALLATIONS IN VAULTS TO ALLOW FOR EASY REMOVAL OF FLANGED COMPONENTS.
2. METERING ASSEMBLY TO BE PROPERLY INSTALLED AND ADEQUATELY SUPPORTED TO ALLOW FOR EASY MAINTENANCE, REPAIR AND REPLACEMENT.

A1

DETAIL: WATER METER CONFIGURATION

SCALE: NTS

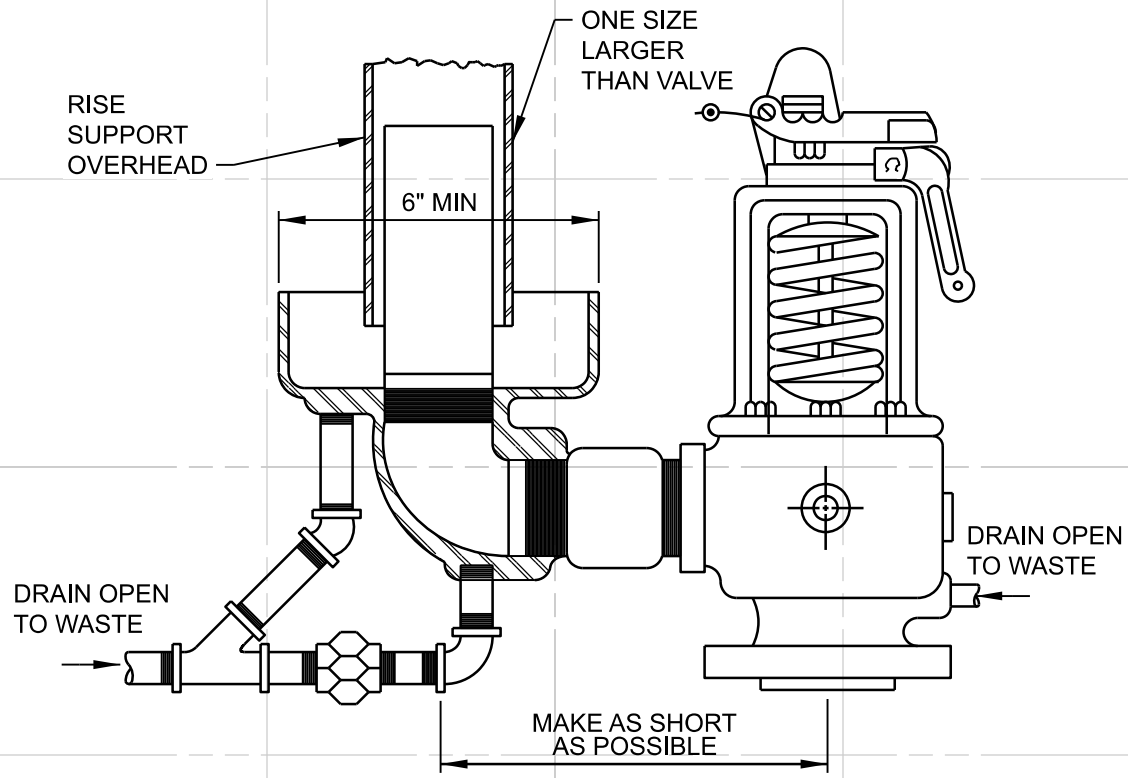


NOTES:
1. PROVIDE A "DRESSER-TYPE" COUPLING ON METER ASSEMBLY INSTALLATIONS IN VAULTS TO ALLOW FOR EASY REMOVAL OF FLANGED COMPONENTS.
2. METERING ASSEMBLY TO BE PROPERLY INSTALLED AND ADEQUATELY SUPPORTED TO ALLOW FOR EASY MAINTENANCE, REPAIR AND REPLACEMENT.

A1

DETAIL: WATER METER CONFIGURATION

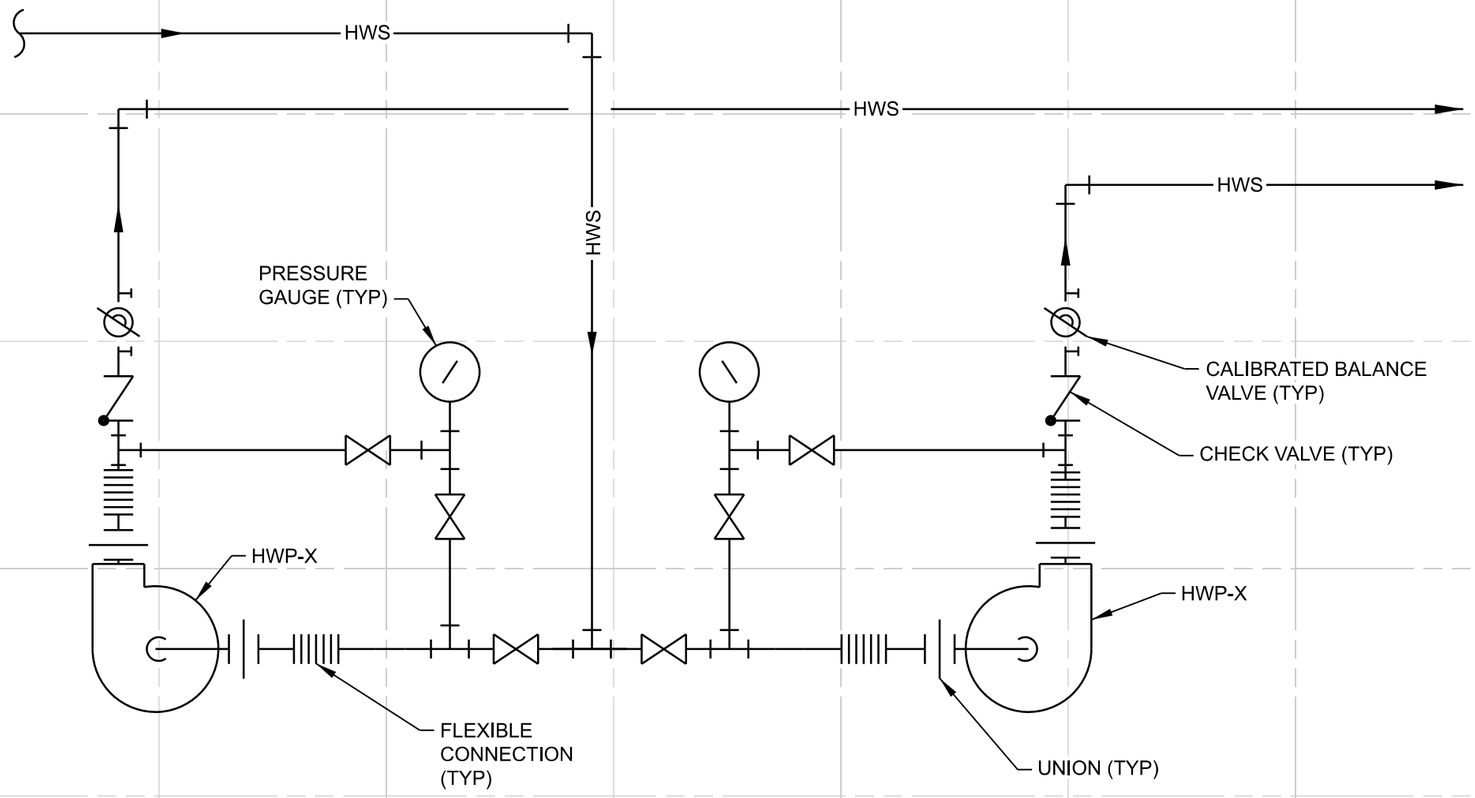
SCALE: NTS



A1

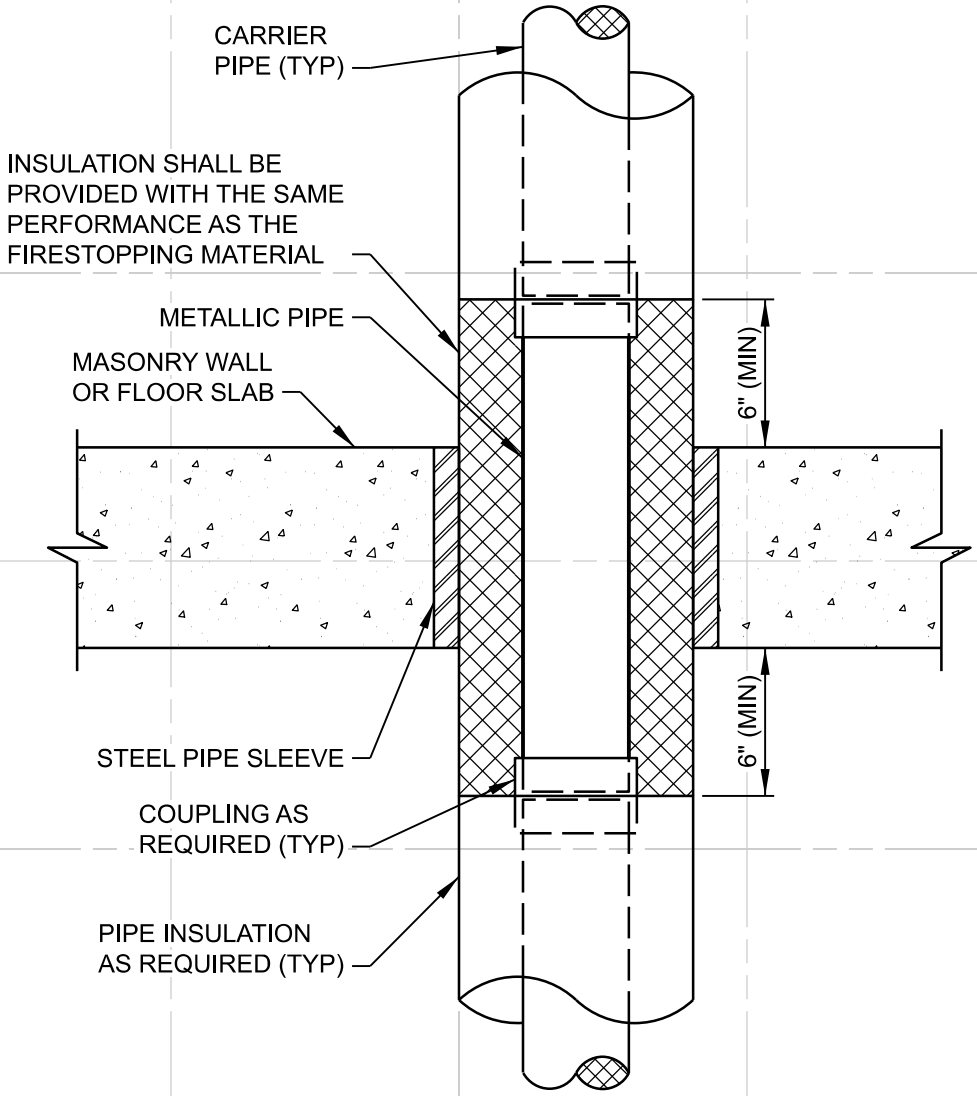
DETAIL: SAFETY VALVE

SCALE: NTS



A1 SCHEMATIC: DUAL PUMP HOT WATER PIPING

SCALE: NTS

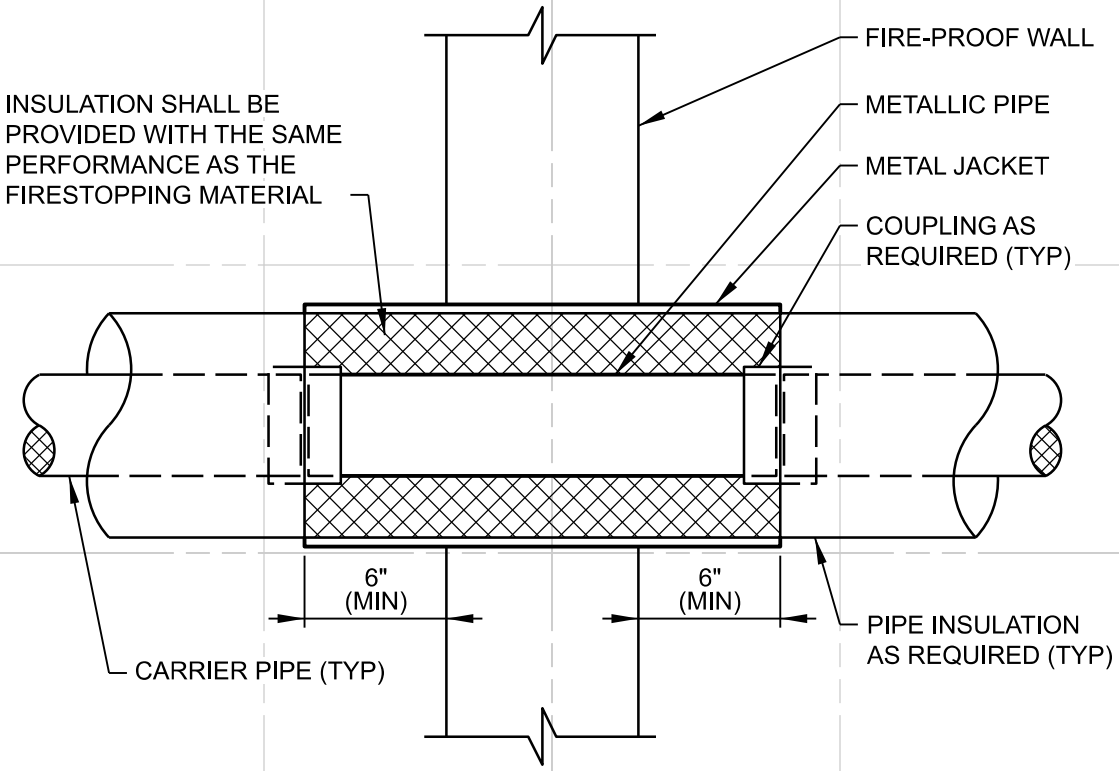


NOTE:
PIPE SLEEVE SHALL BE SIZED TO PROVIDE 1/4" ALL AROUND CLEARANCE.

A1

DETAIL: CONCRETE FLOOR OR MASONRY WALL PENETRATION

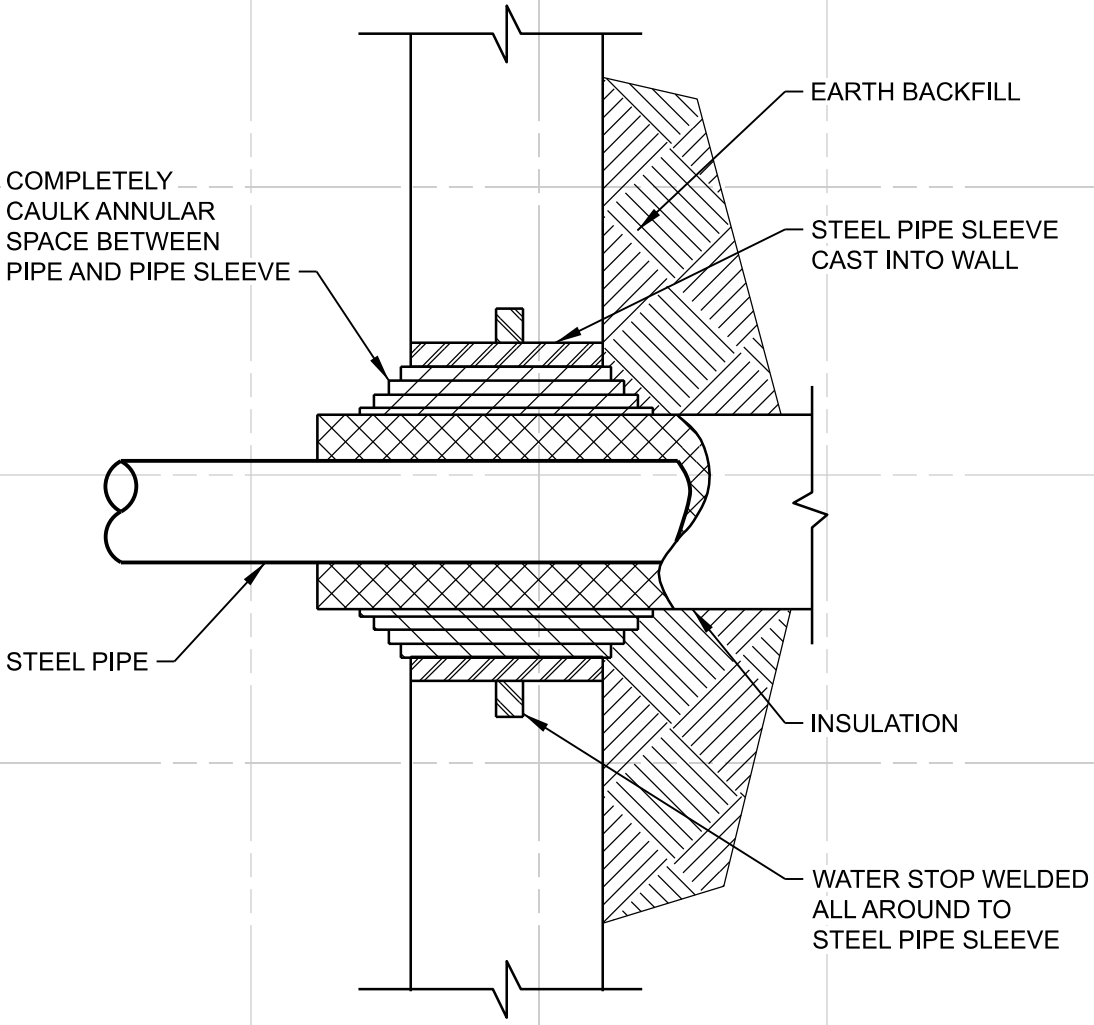
SCALE: NTS



DETAIL: FIRE-PROOF, FRAMED WALL PENETRATION INSULATED OR NON-INSULATED, ABOVE GRADE

A1

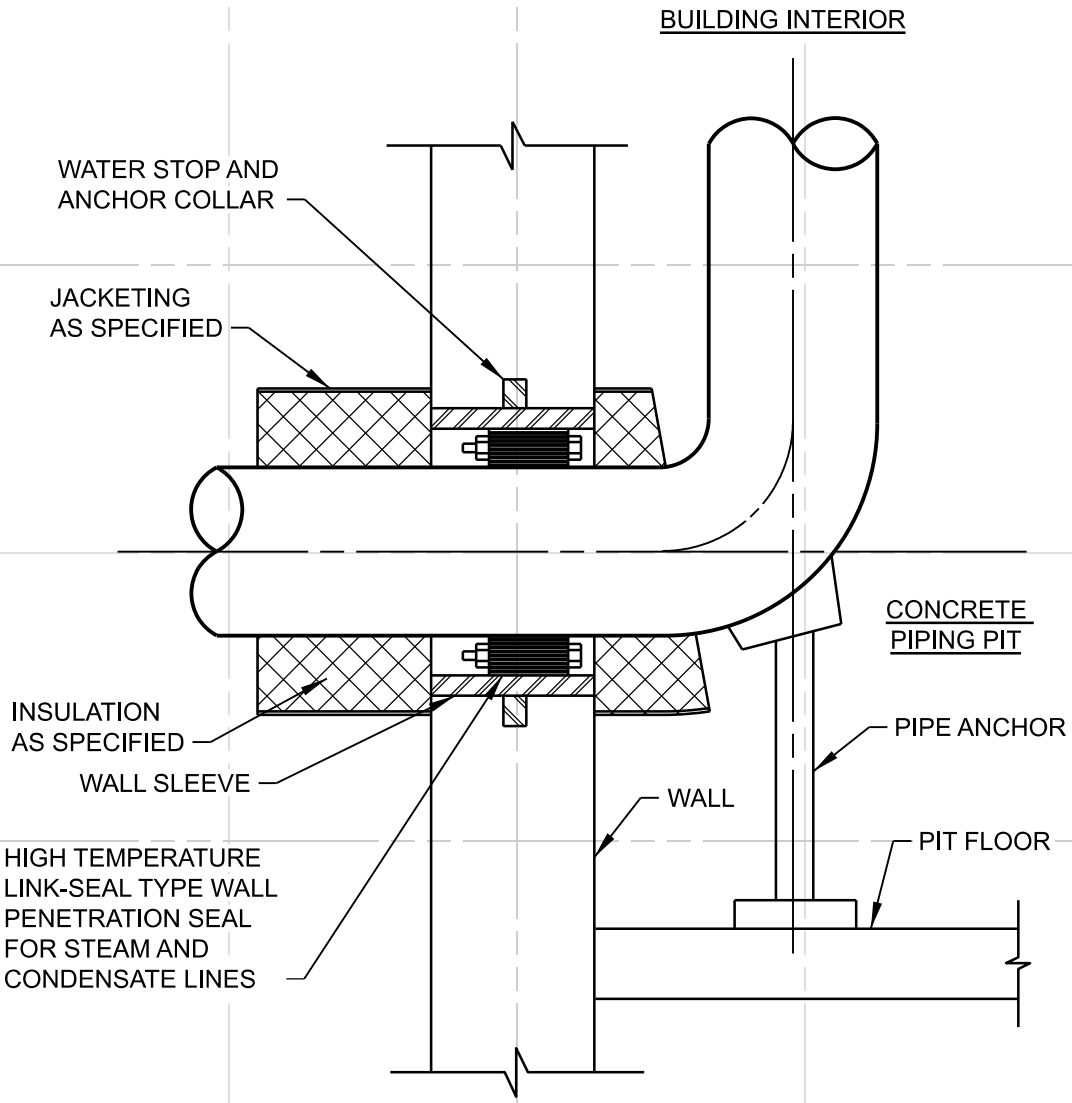
SCALE: NTS



A1

DETAIL: TYPICAL INSULATED PIPE WALL PENETRATION

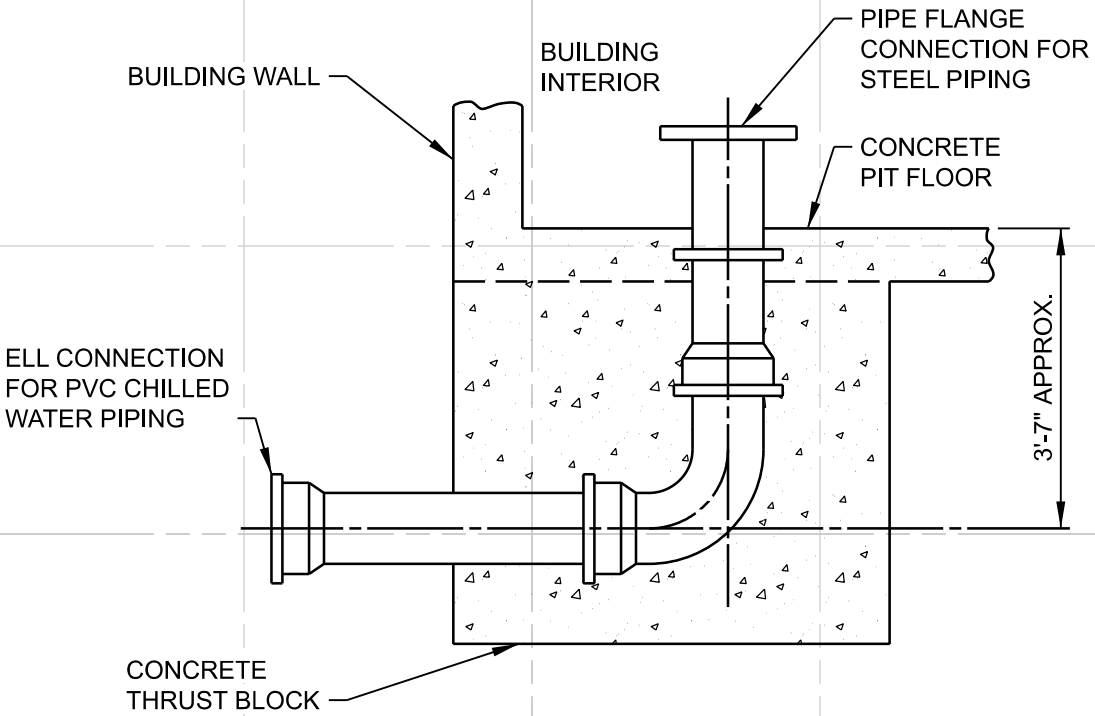
SCALE: NTS



DETAIL: INSULATED PIPING WALL PENETRATION (STEAM-CONDENSATE RETURN)

A1

SCALE: NTS

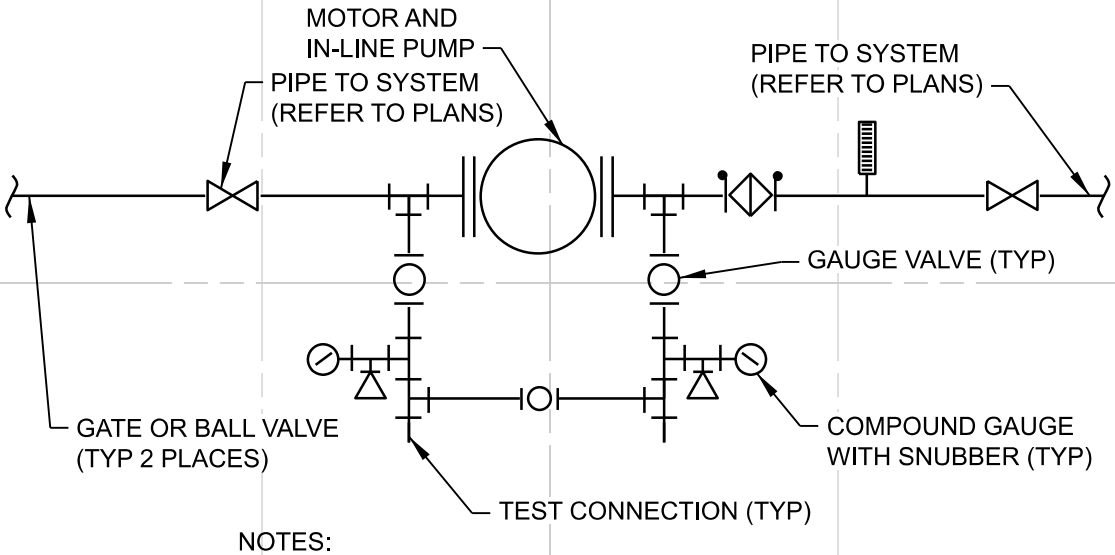


NOTE:
ALL ENCASED FITTINGS TO BE DUCTILE IRON CASTINGS

DETAIL: CAST BUILDING PENETRATION CHILLED WATER SUPPLY AND RETURN

A1

SCALE: NTS

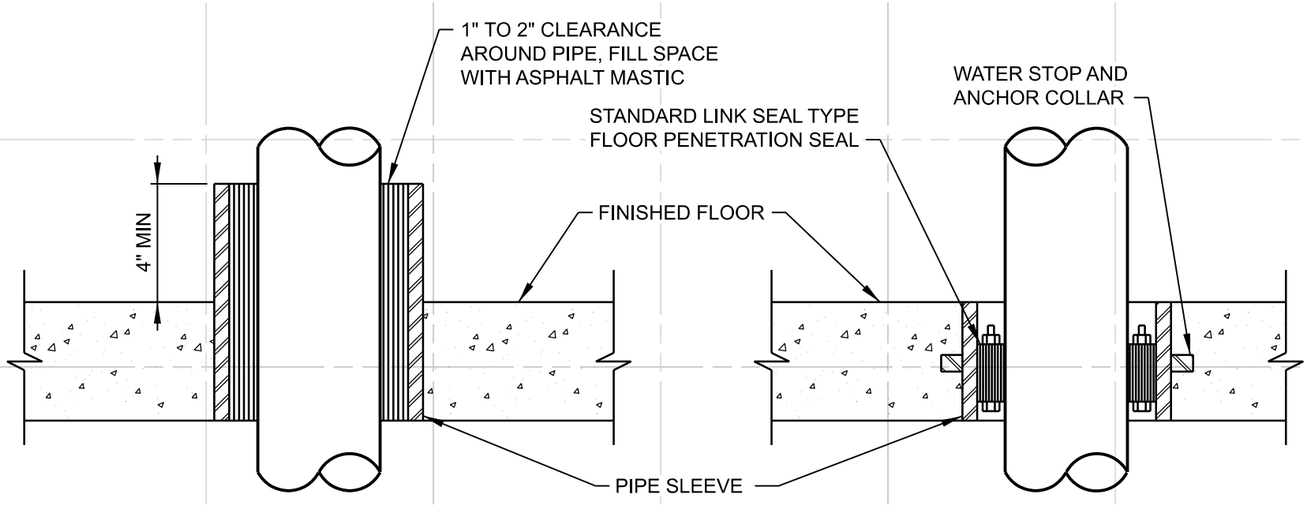


NOTES:
1. GATE VALVES SHALL BE 45° TO 90° ABOVE HORIZONTAL.
2. PUMP SHAFT ORIENTATION SHALL BE PER MANUFACTURERS RECOMMENDATION.

A1

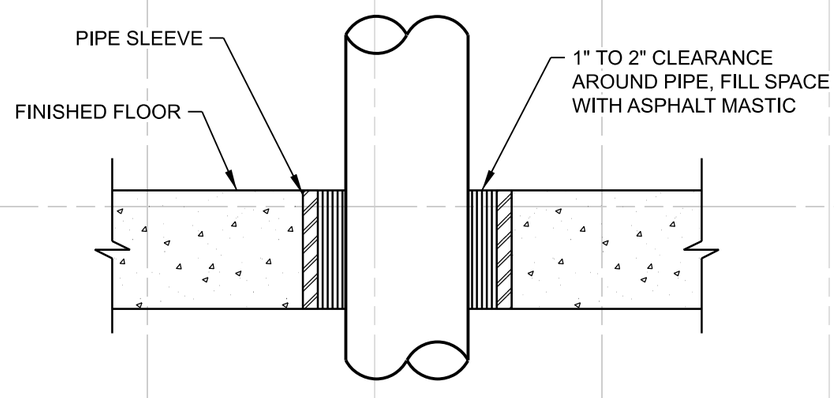
SCHEMATIC: IN-LINE PUMP

SCALE: NTS



WET AREA
TYPE I

WET/DRY AREA
TYPE II

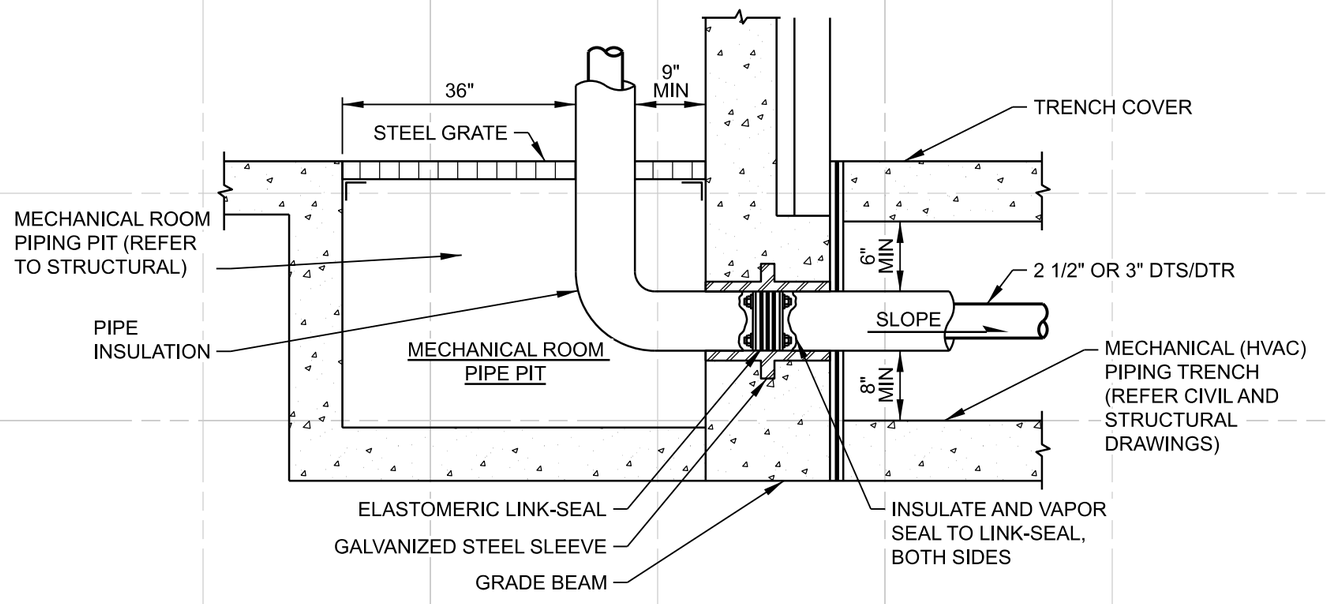


DRY AREA
TYPE III

DETAIL: MEMBRANE WATERPROOF FLOOR PENETRATION

A1

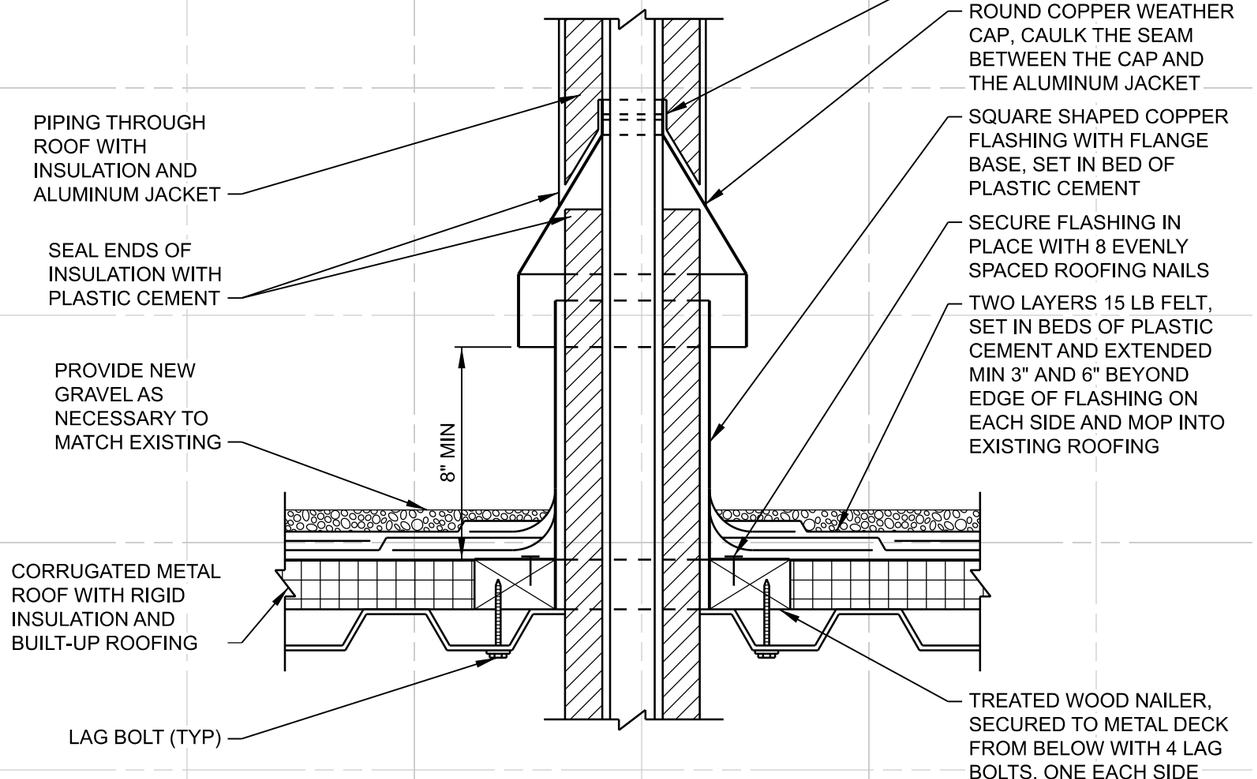
SCALE: NTS



DETAIL: GRADE BEAM PIPE PENETRATION DTS AND DTR

A1

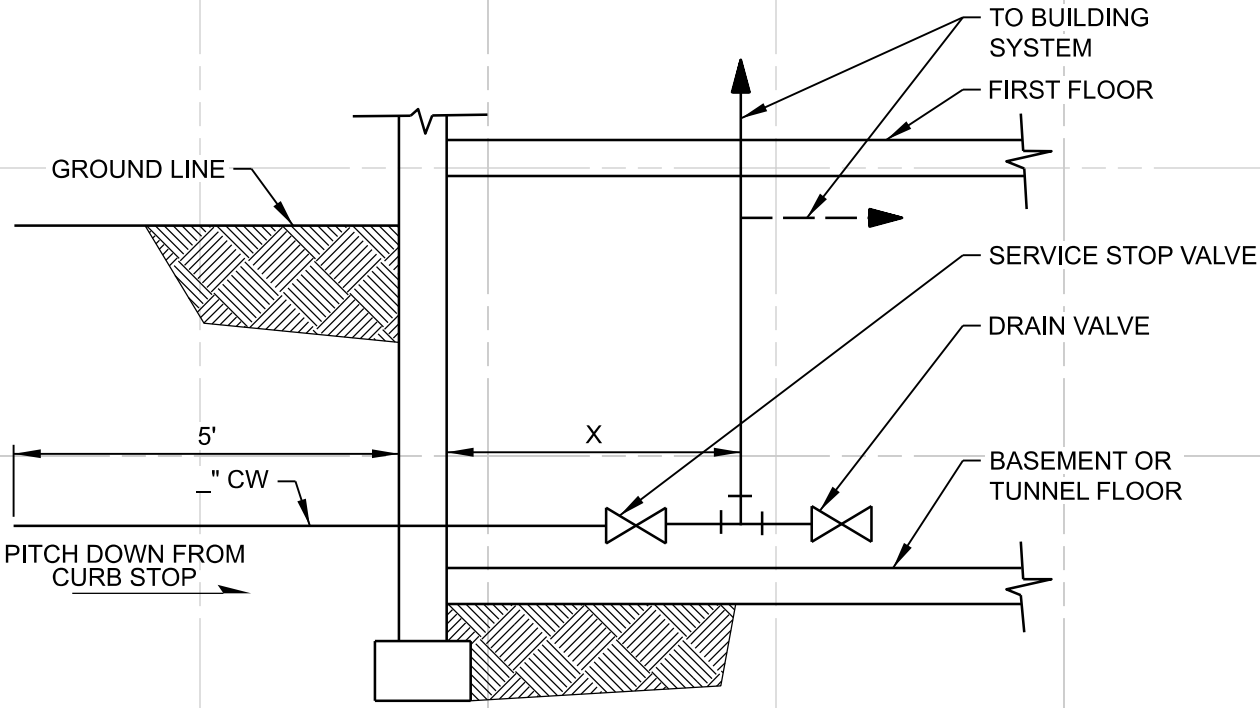
SCALE: NTS



A1

DETAIL: PIPING THROUGH ROOF

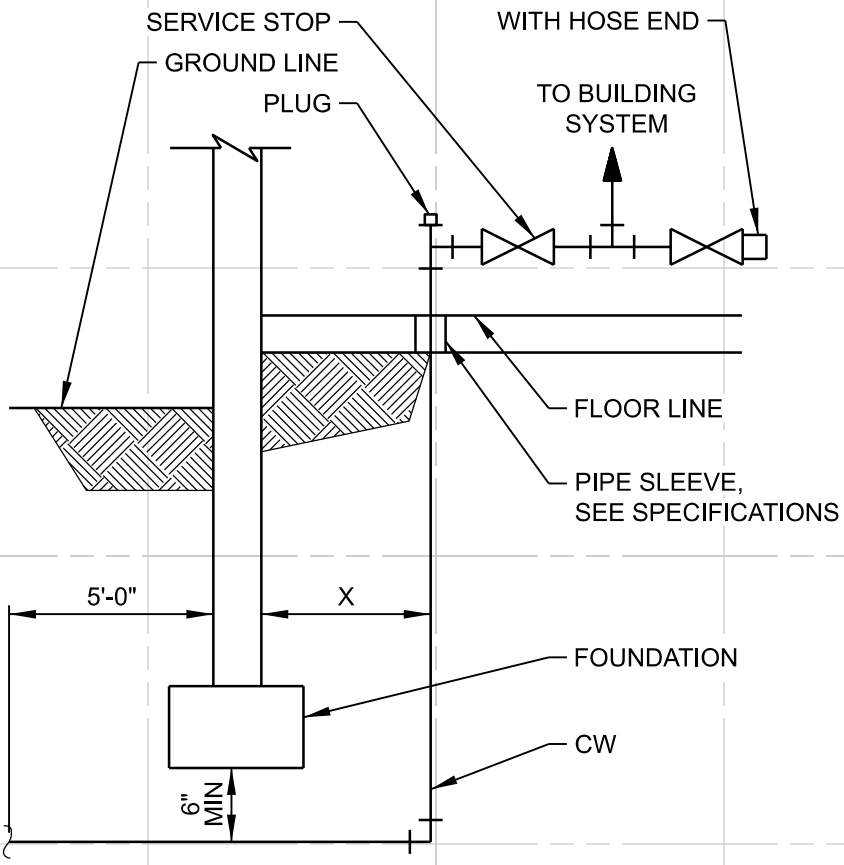
SCALE: NTS



DETAIL: SERVICE ENTRANCE FOR BUILDINGS WITH BASEMENT OR TUNNEL BELOW STREET MAIN OR CURB STOP

A1

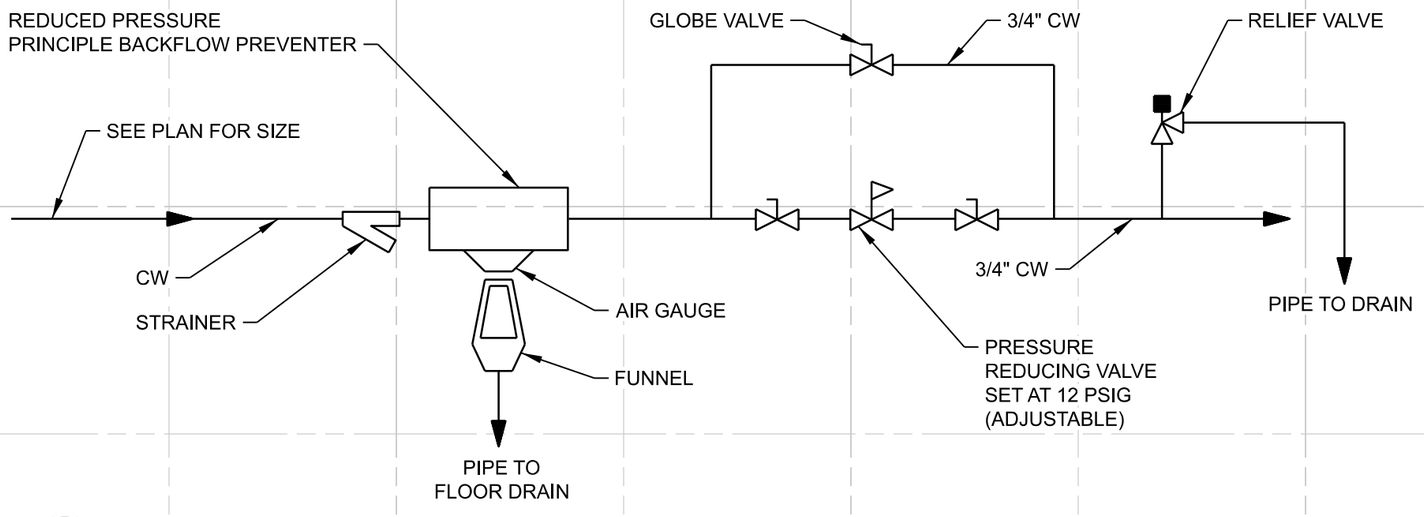
SCALE: NTS



DETAIL: WATER SERVICE ENTRANCE

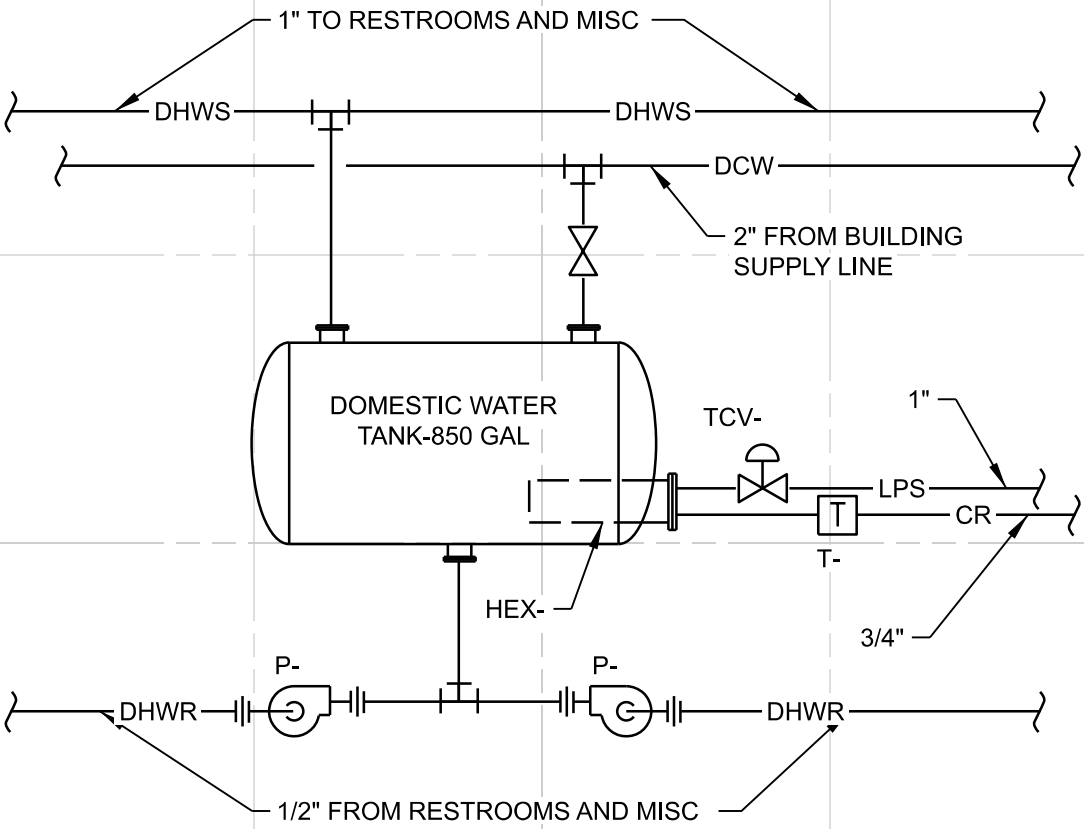
A1

SCALE: NTS



A1 SCHEMATIC: BACKFLOW PREVENTER

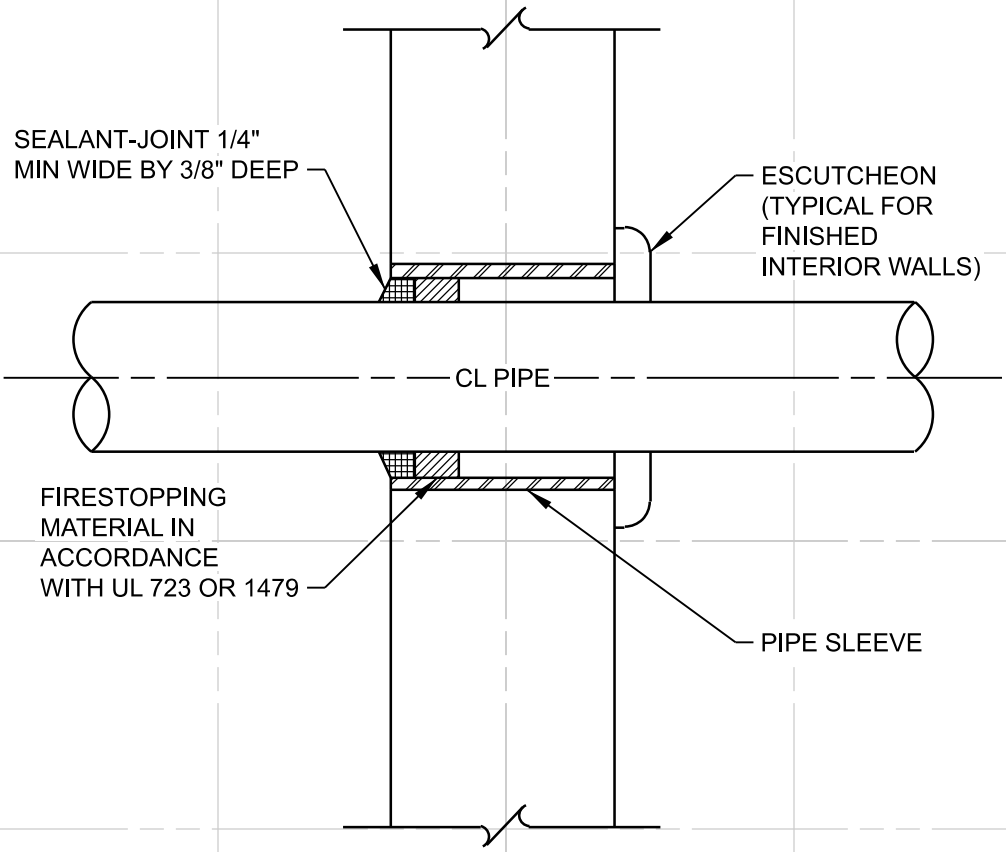
SCALE: NTS



A1

SCHEMATIC: DOMESTIC HOT WATER PIPING

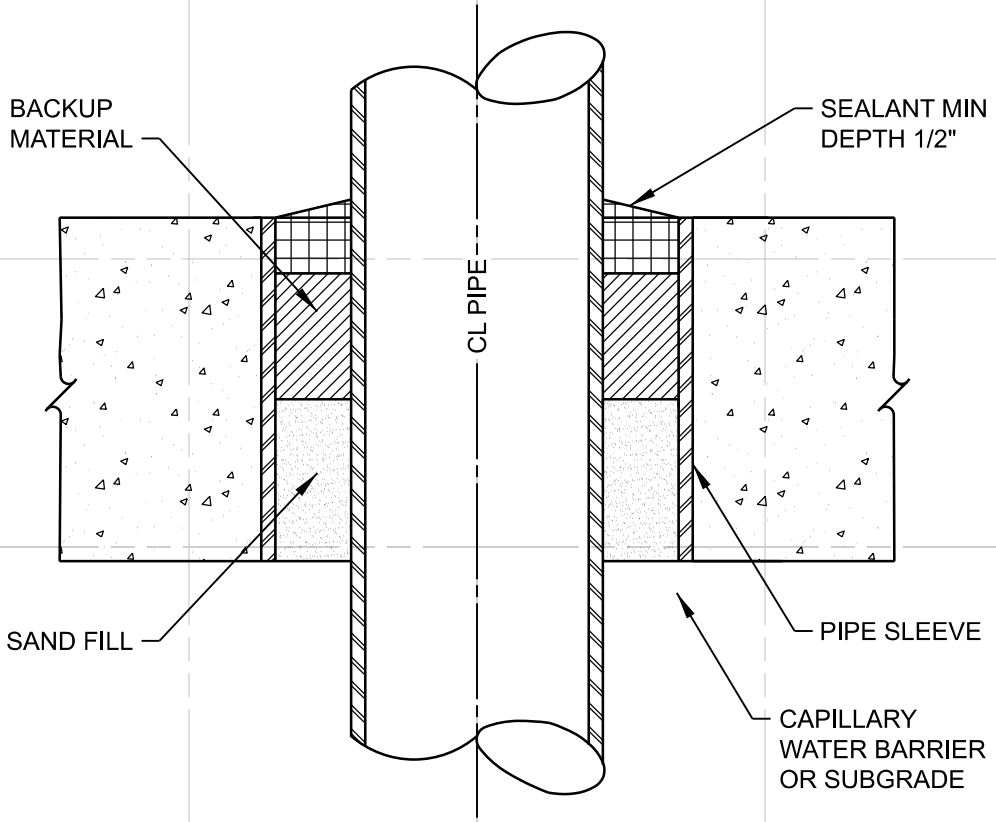
SCALE: NTS



A1

DETAIL: WALL PENETRATION

SCALE: NTS

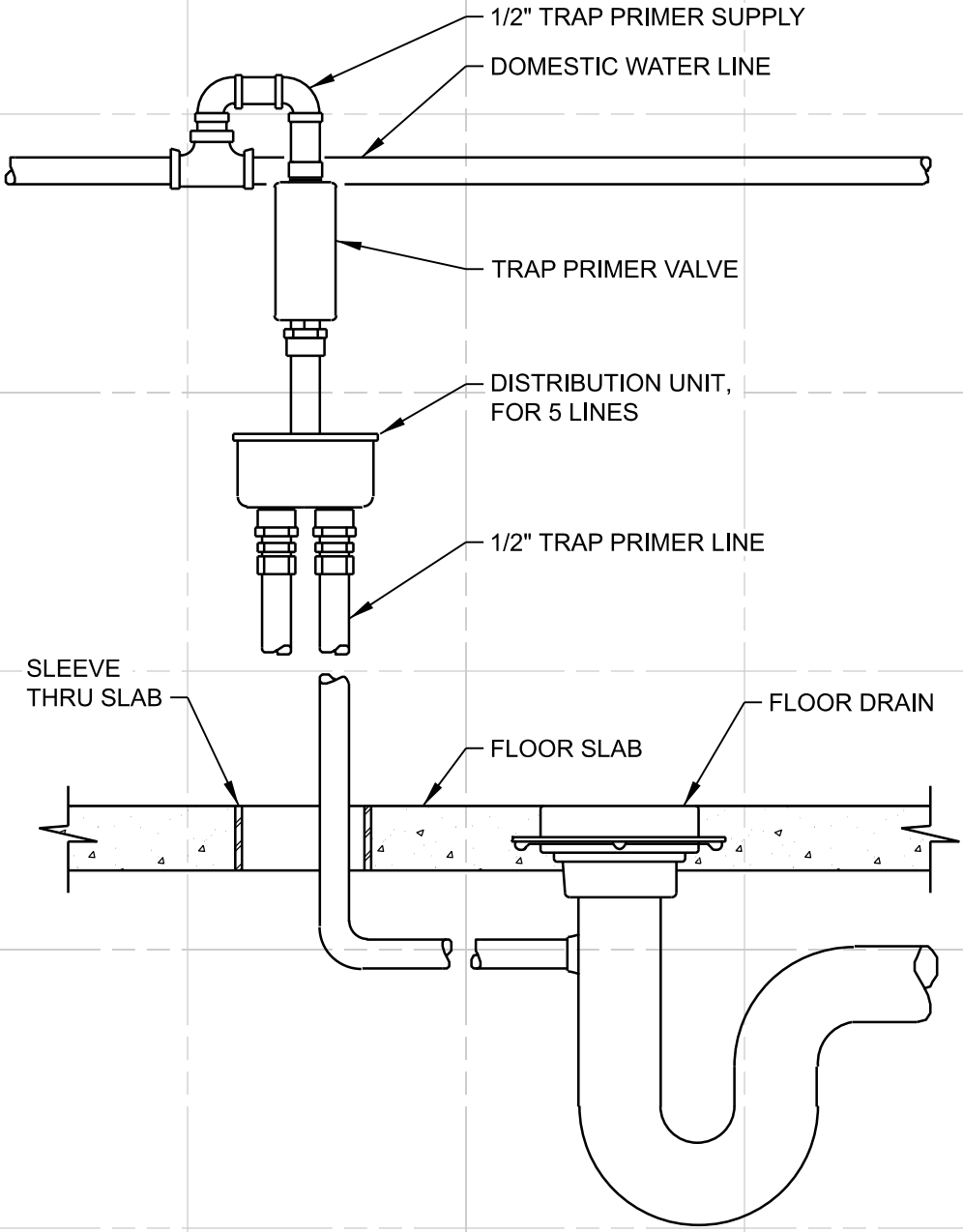


NOTE:
PIPE SLEEVE THROUGH CONCRETE FLOOR SLAB ON GRADE
WITHOUT WATERPROOFING MEMBRANE.

A1

DETAIL: PIPE SLEEVE

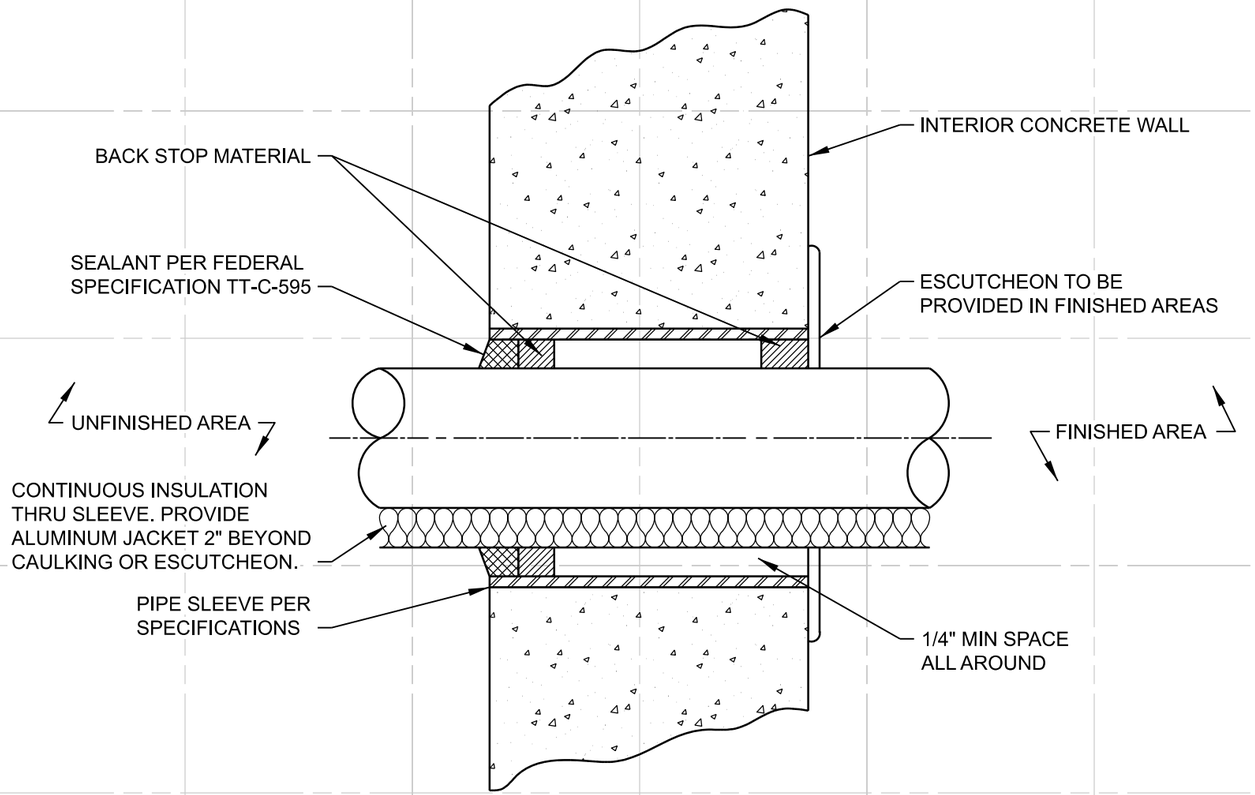
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A1

DETAIL: TRAP SEAL PRIMER

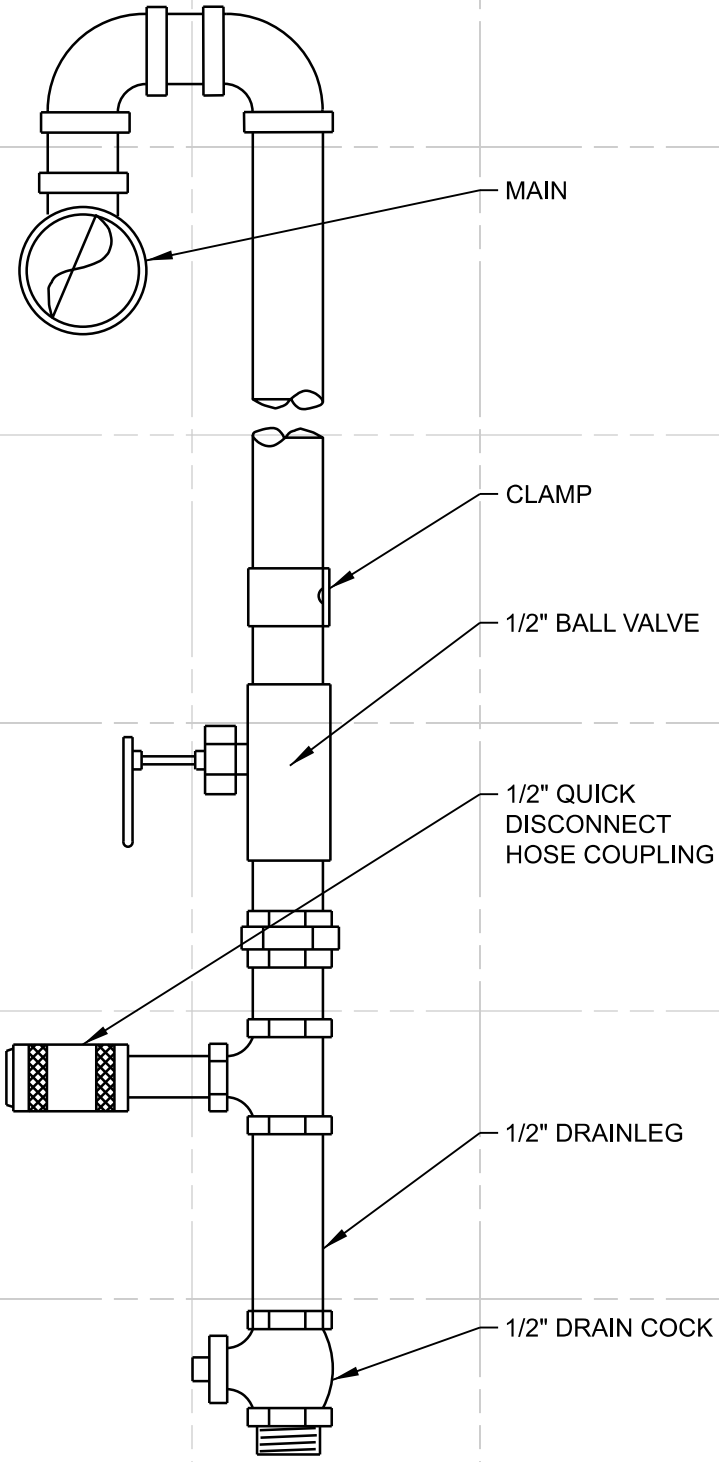
SCALE: NTS



A1

DETAIL: WALL PIPE SLEEVE

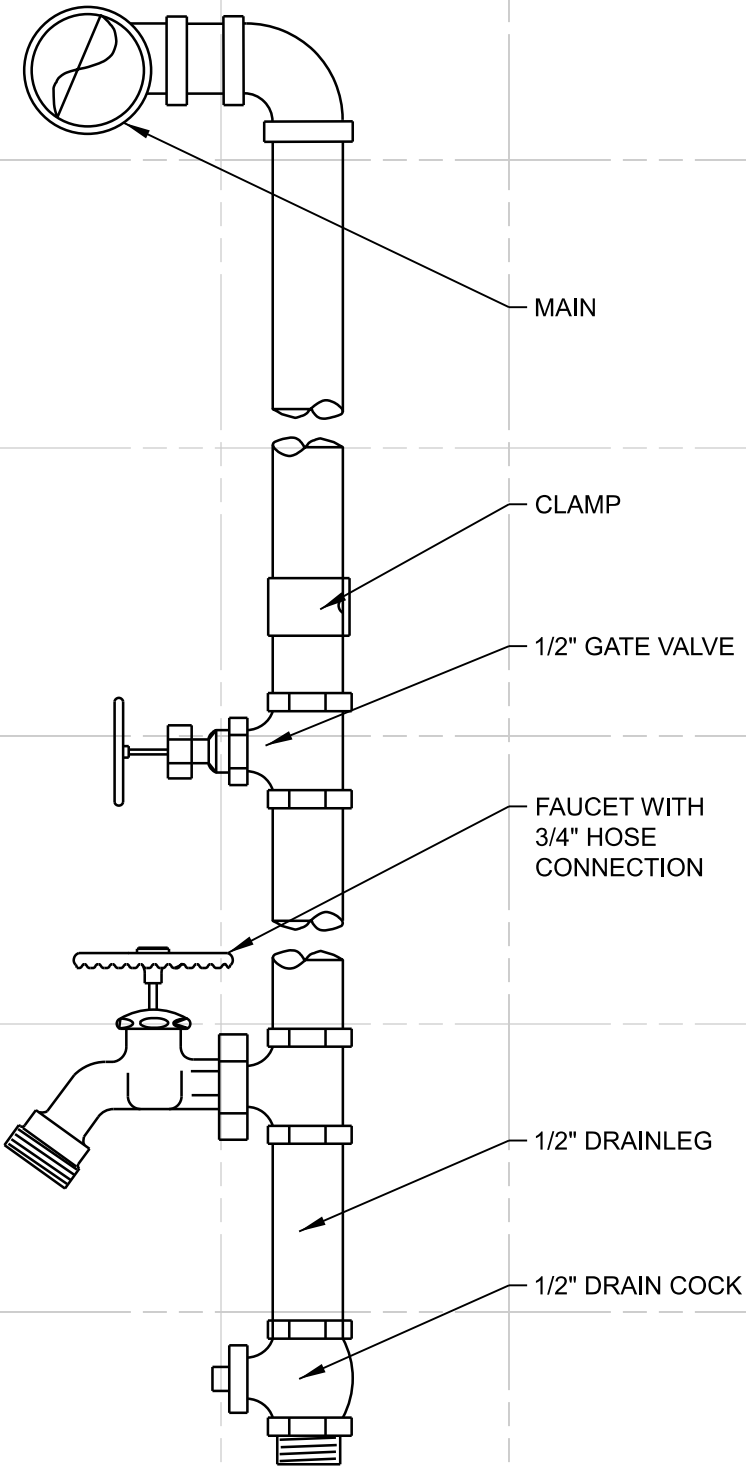
SCALE: NTS



A1

DETAIL: AIR DROP

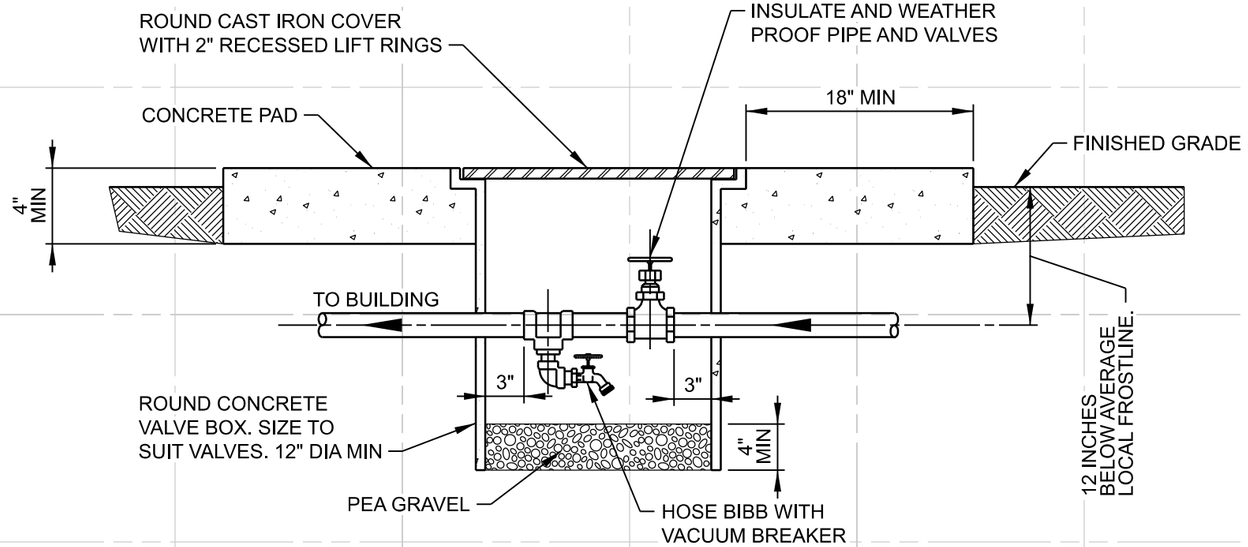
SCALE: NTS



A1

DETAIL: WATER DROP

SCALE: NTS

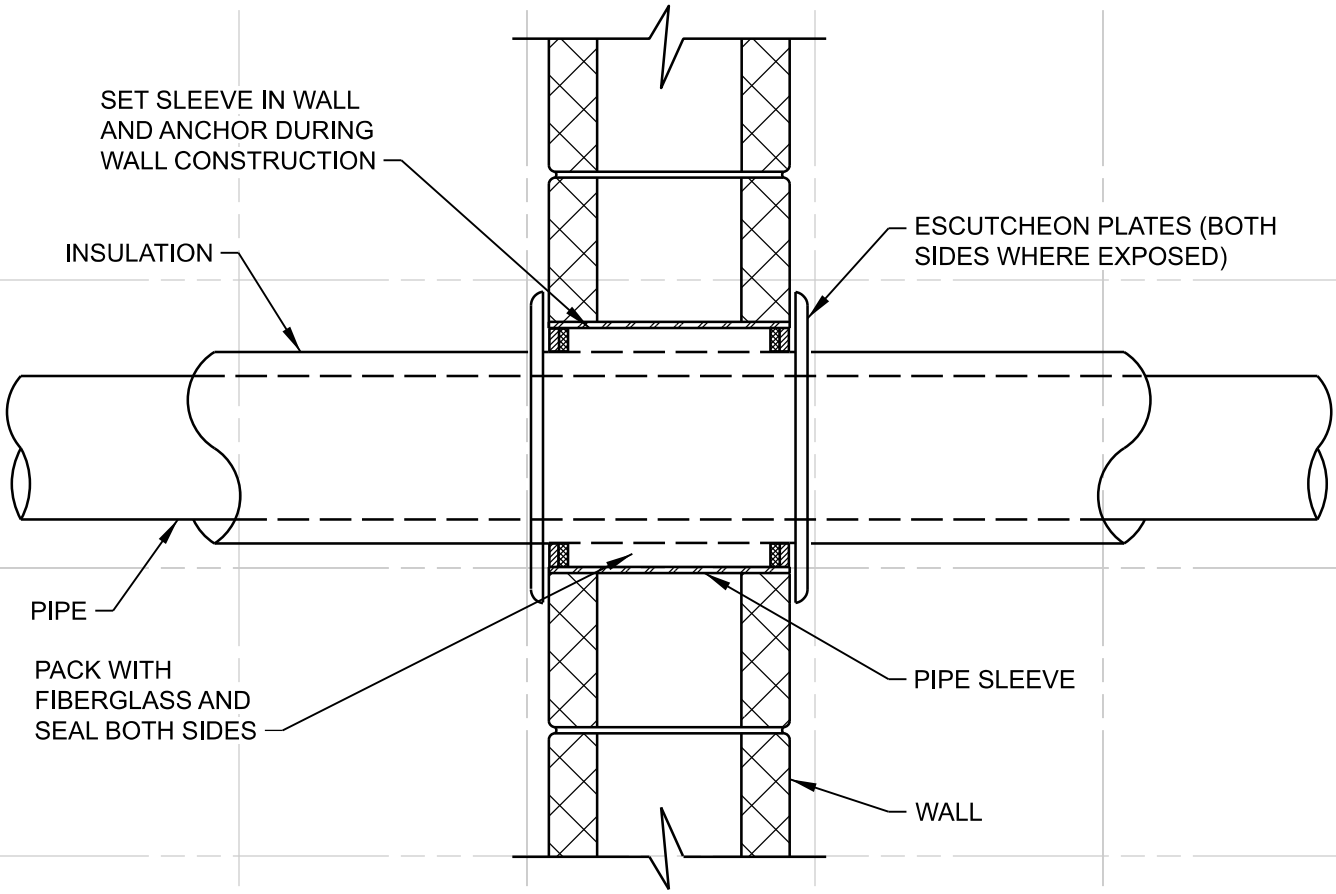


A1

DETAIL: VALVE BOX

SCALE: NTS

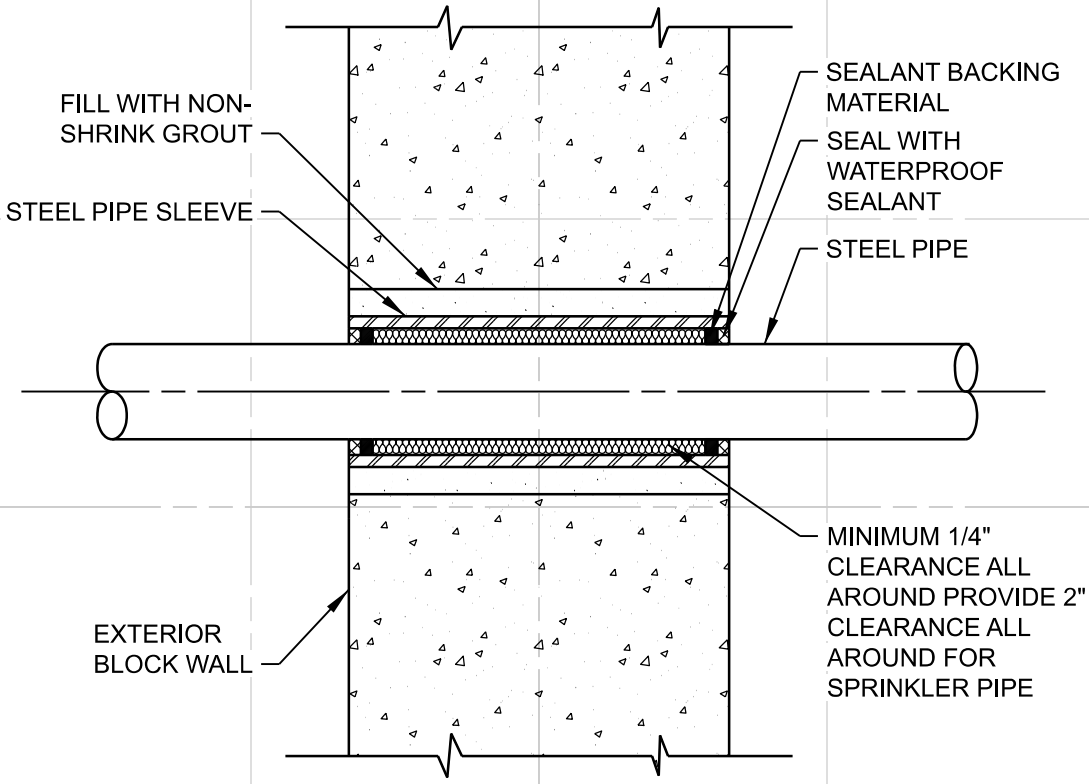
Detail D2022P-DT006X



DETAIL: PIPE SLEEVE THRU INTERIOR WALL

A1

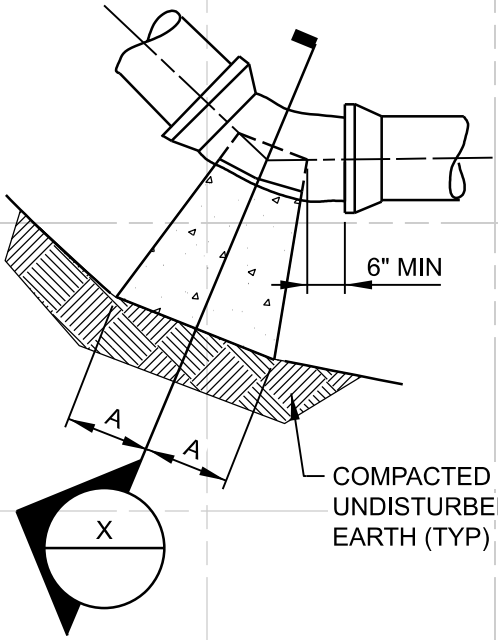
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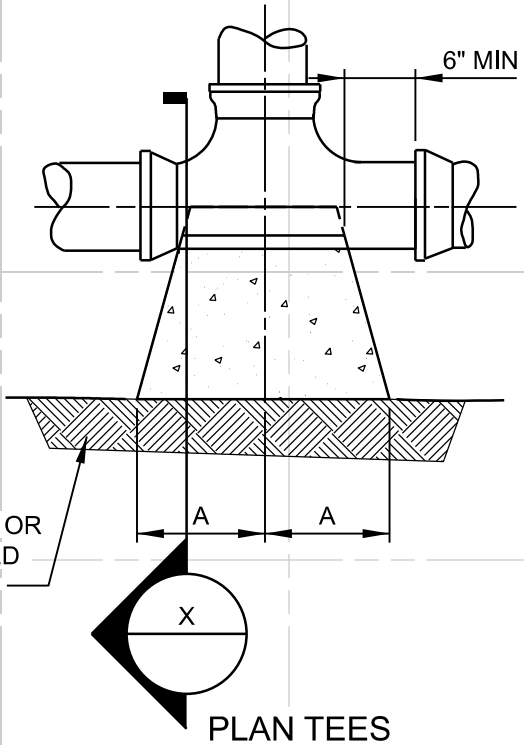
A1

DETAIL: PIPE SLEEVE THRU EXTERIOR WALL

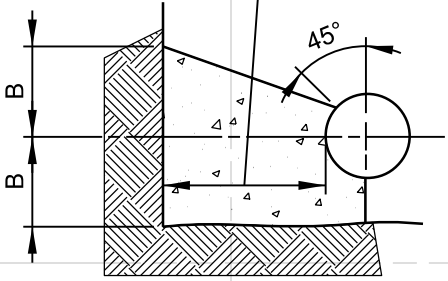
SCALE: NTS



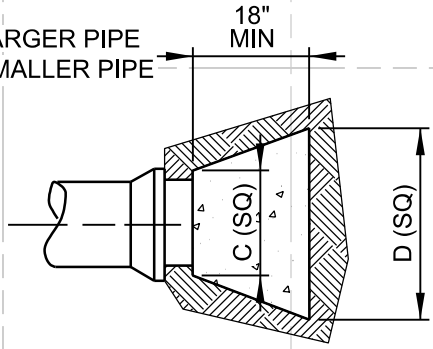
PLAN BENDS



PLAN TEES



SECTION X BENDS AND TEES



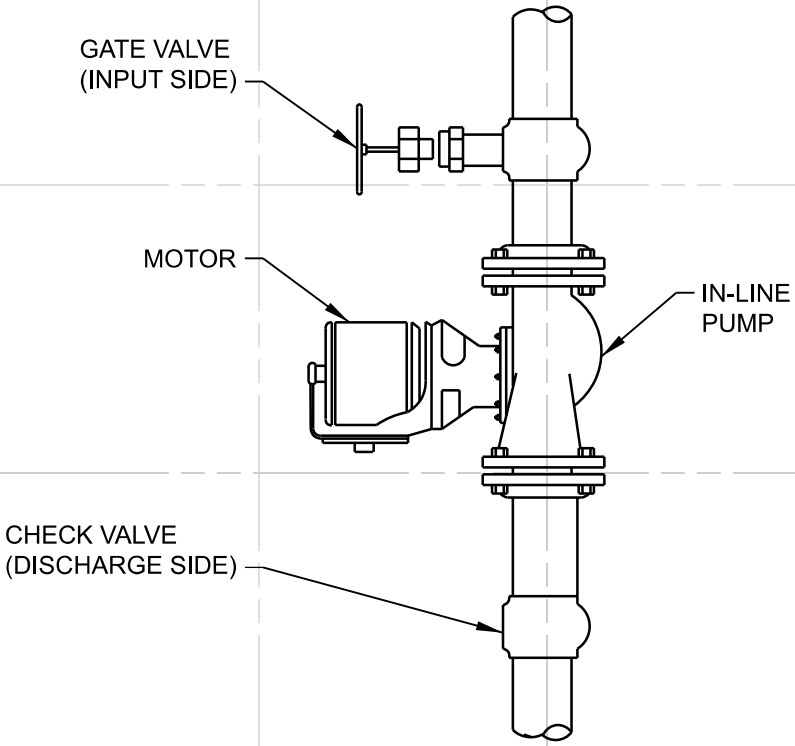
PLAN AND ELEVATION PLUGS

SIZE	1/4 BENDS		1/8 BENDS		1/16 BENDS		TEES		PLUGS	
	A	B	A	B	A	B	A	B	C	D
6"	16"	10"	9"	10"	6"	8"	10"	12"	10"	21"
8"	22"	13"	12"	13"	8"	10"	13"	16"	12"	29"
10"	26"	17"	14"	17"	10"	13"	16"	20"	14"	36"
12"	29"	21"	16"	21"	11"	16"	18"	24"	16"	41"
14"	35"	24"	19"	24"	12"	20"	22"	27"	18"	48"
16"	38"	27"	21"	27"	12"	24"	24"	30"	20"	54"

A1

DETAIL: THRUST BLOCKS

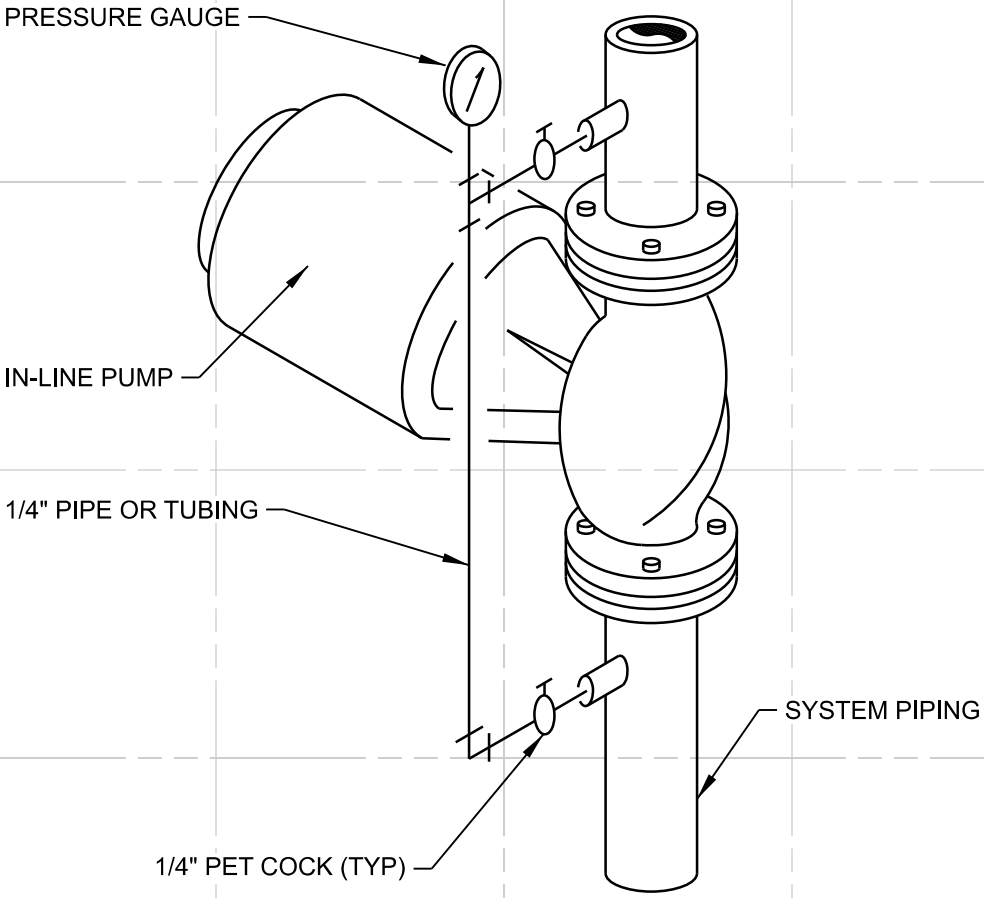
SCALE: NTS



A1

DETAIL: IN-LINE PUMP

SCALE: NTS

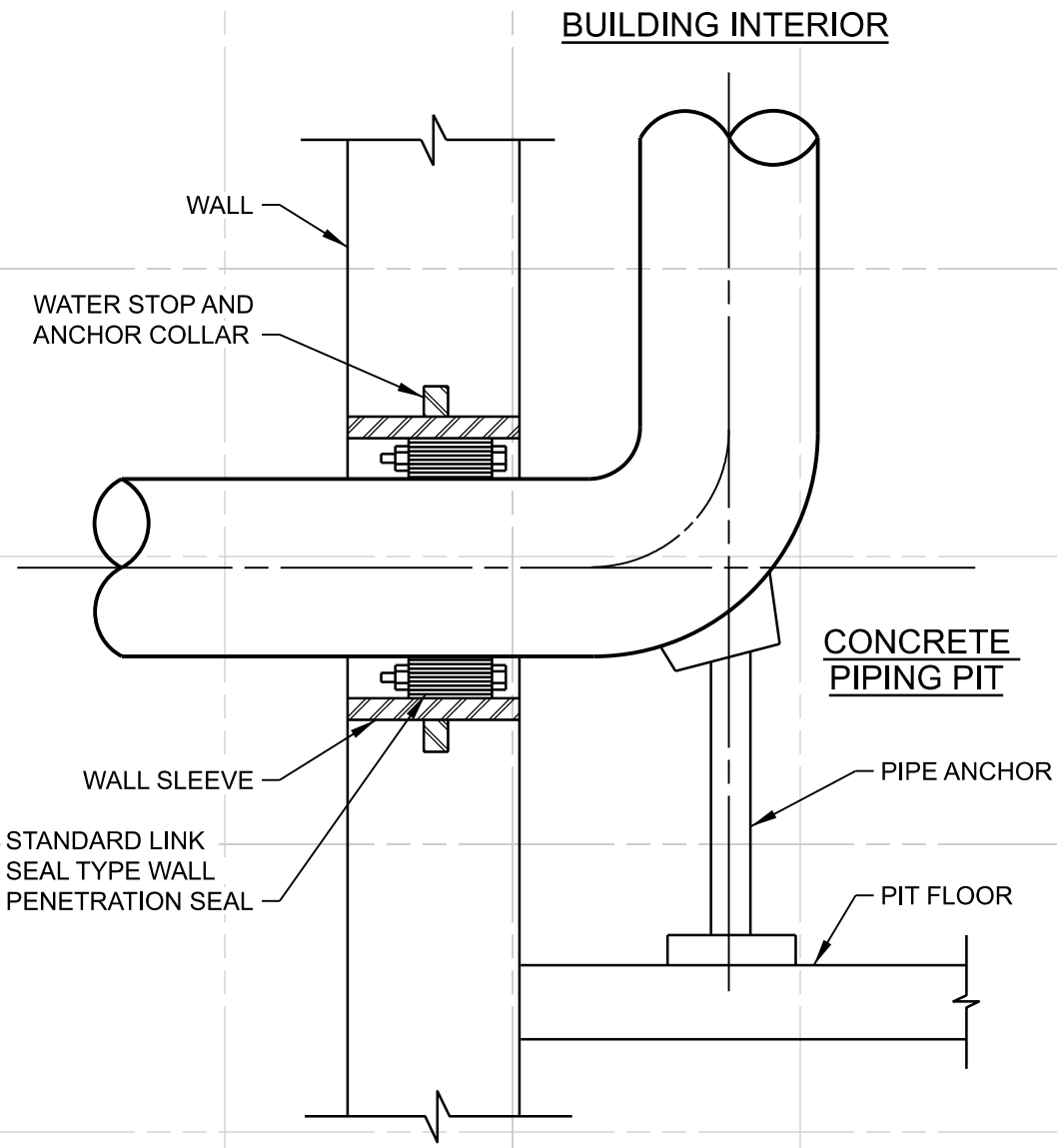


NOTE:
EXTERNAL GAUGE TAPS ON PIPES SHALL NOT BE REQUIRED WHEN PUMP IS PROVIDED WITH FLANGE GAUGE CONNECTOR.

A1

DETAIL: DOMESTIC HOT WATER PUMP

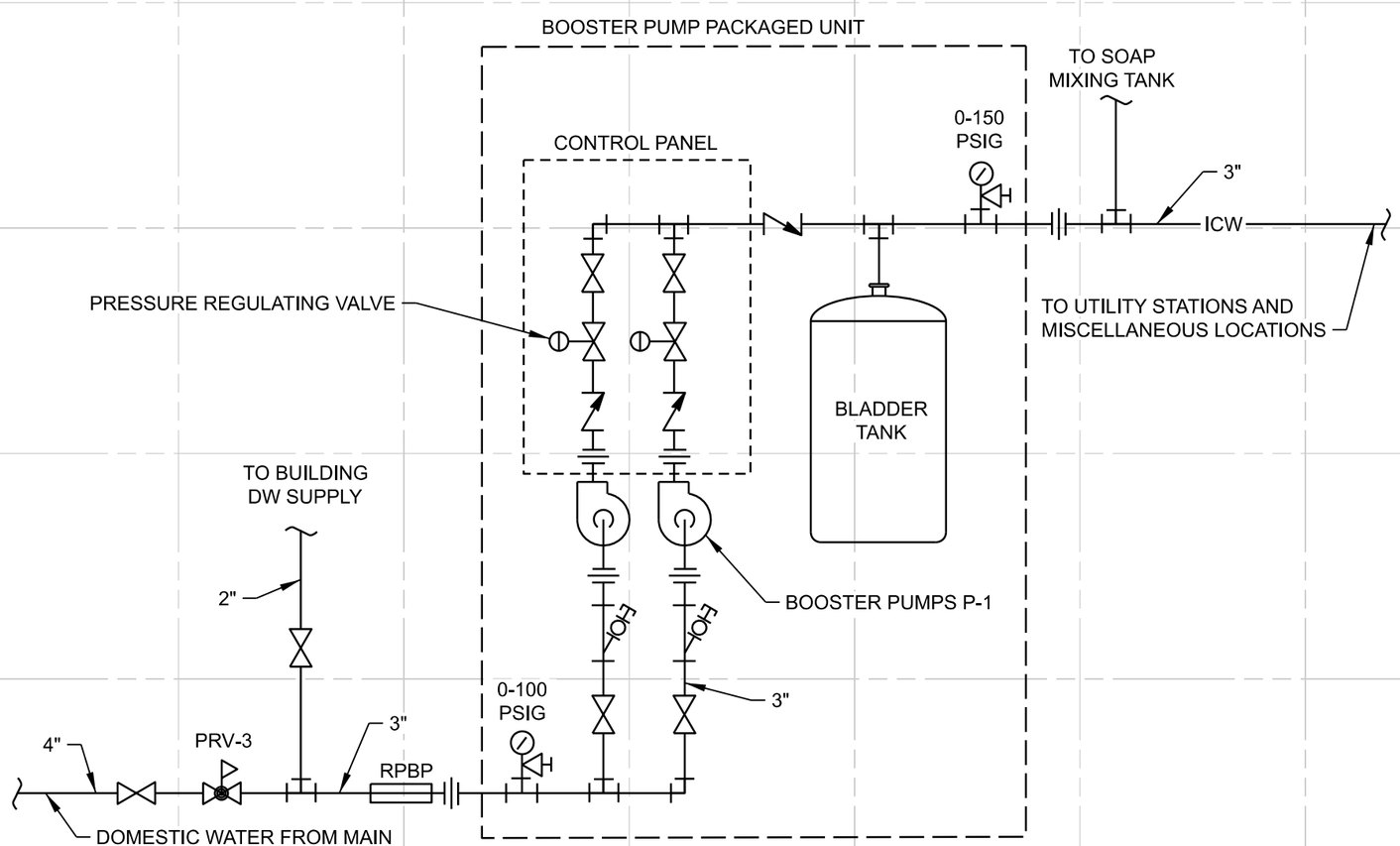
SCALE: NTS



DETAIL: PIPING WALL PENETRATION (COMPRESSED AIR)

A1

SCALE: NTS

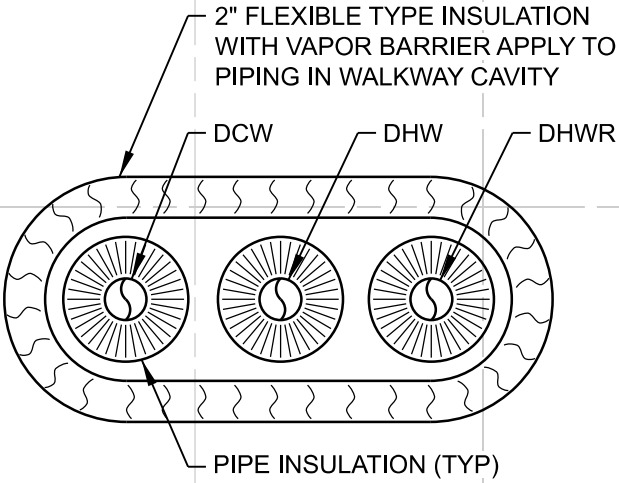


NOTES:
1. CONTROL PANEL INCLUDES; PUMP MOTOR STARTERS, CURRENT SENSING RELAYS, MIN RUN TIMERS, TIME DELAY RELAYS, HIGH-LOW PRESSURE SAFETY ALARM AND CONTROL RELAYS.
2. PROVIDE AIR-RELIEF AND VACUUM BREAKER AT HIGH-POINT OF DOMESTIC WATER AND INDUSTRIAL COLD WATER.

A1

DETAIL: ICW BOOSTER PUMP

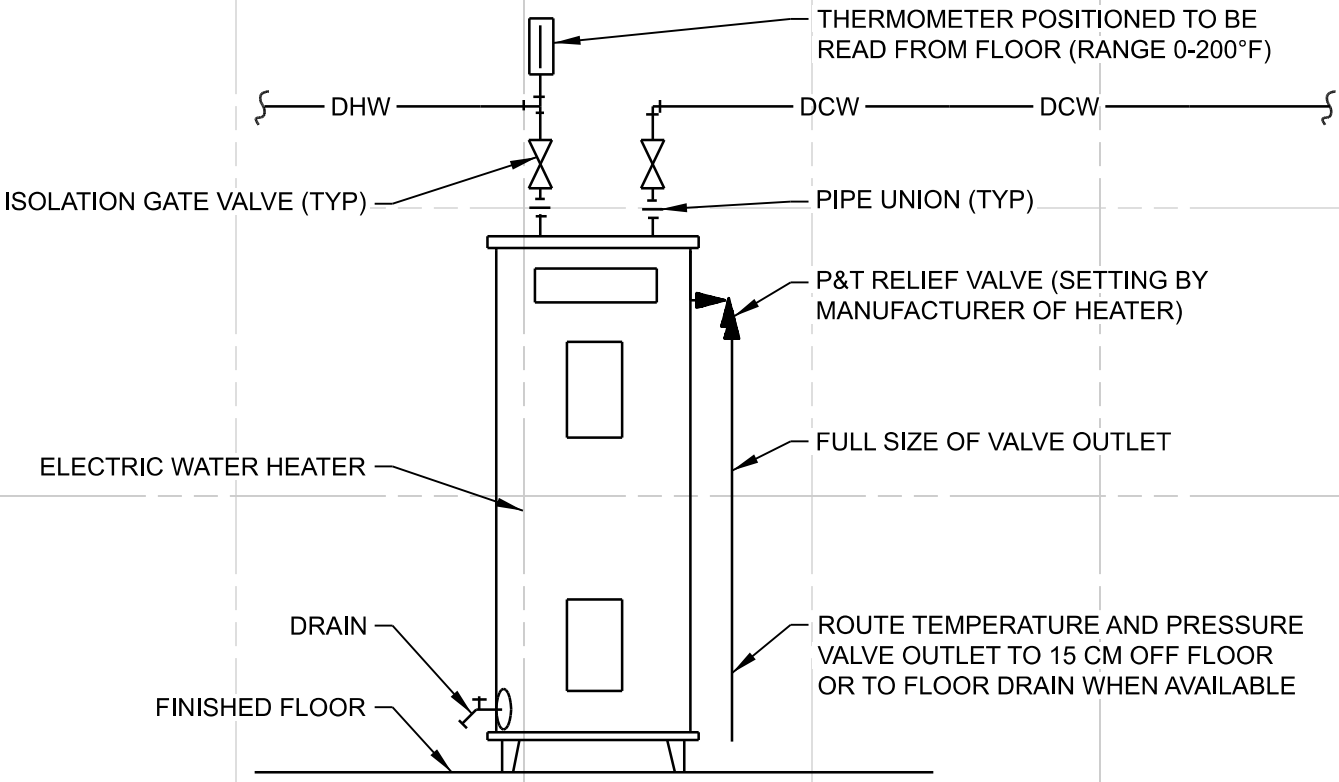
SCALE: NTS



A1

DETAIL: FLEXIBLE PIPE INSULATION

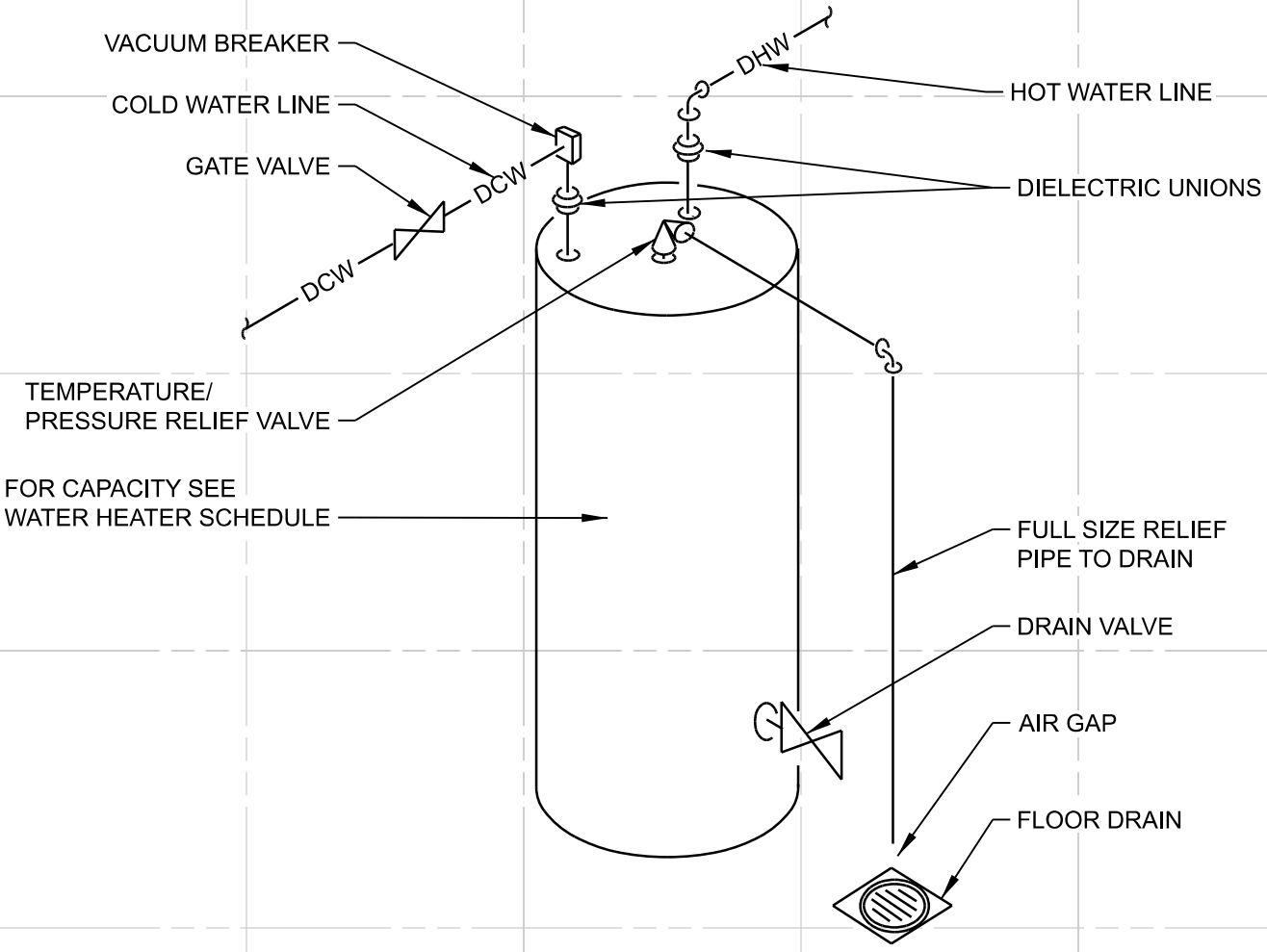
SCALE: NTS



A1

DETAIL: FLOOR MOUNTED ELECTRIC WATER HEATER

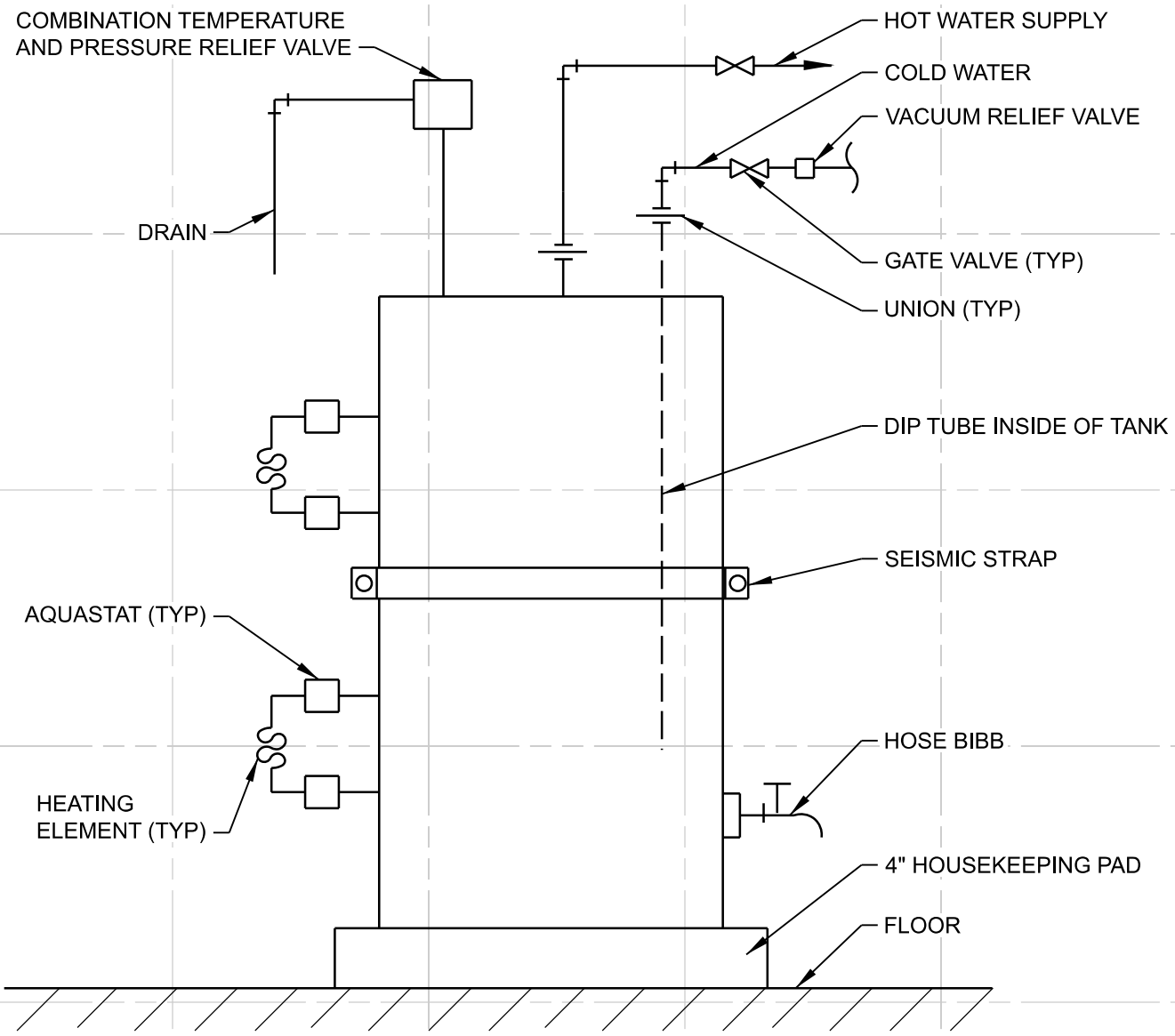
SCALE: NTS



A1

DETAIL: WATER HEATER

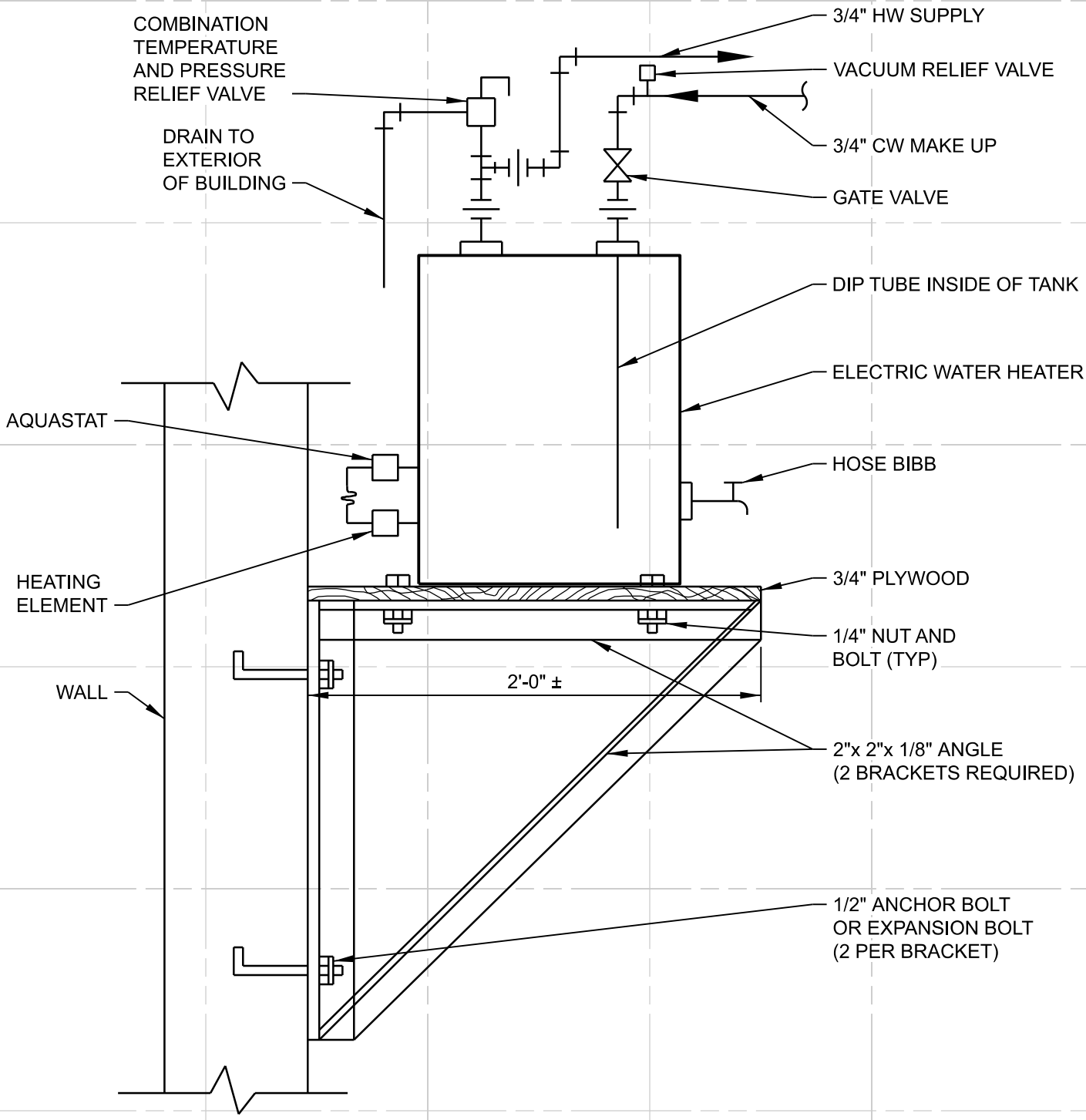
SCALE: NTS



DETAIL: DOMESTIC ELECTRIC WATER HEATER

A1

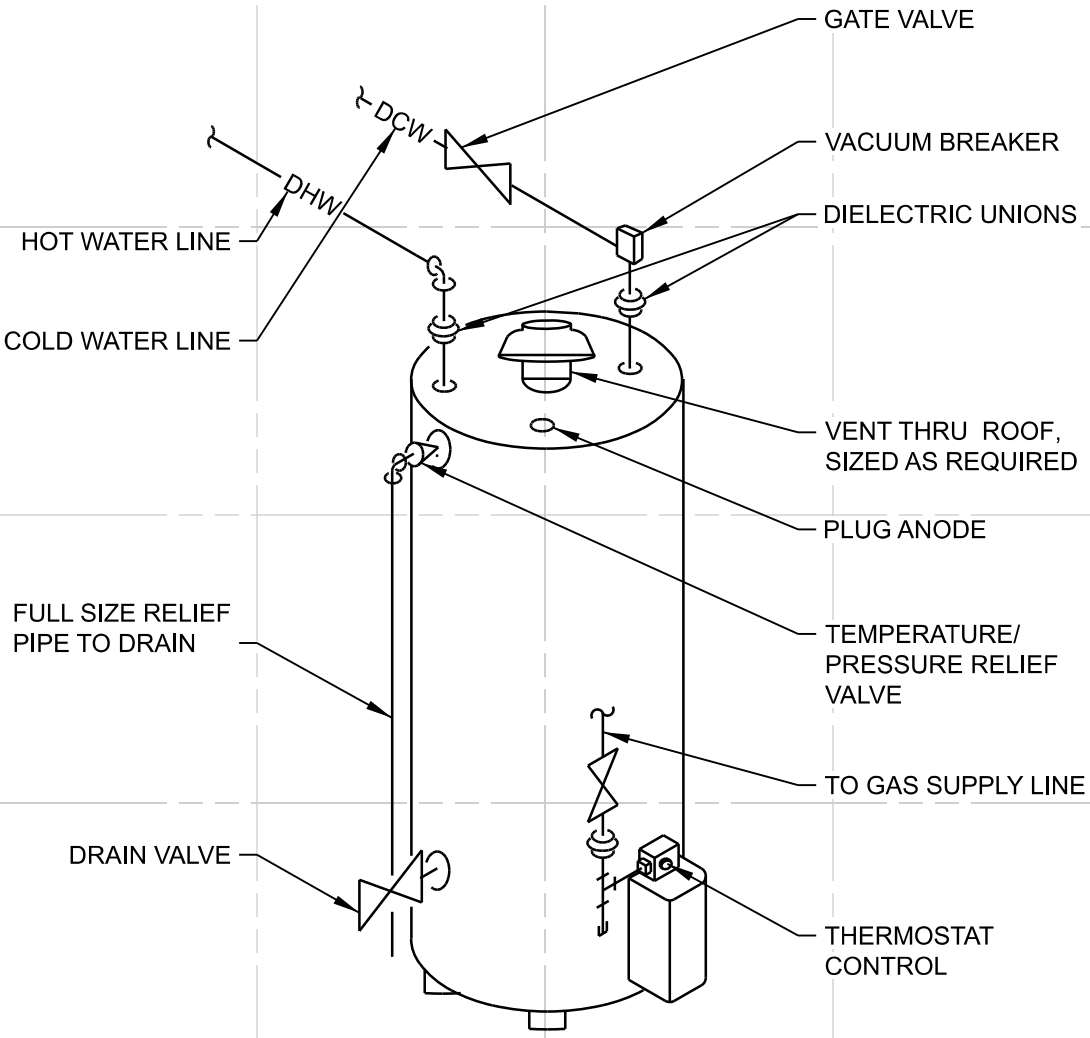
SCALE: NTS



A1

DETAIL: WALL MOUNTED ELECTRIC WATER HEATER

SCALE: NTS

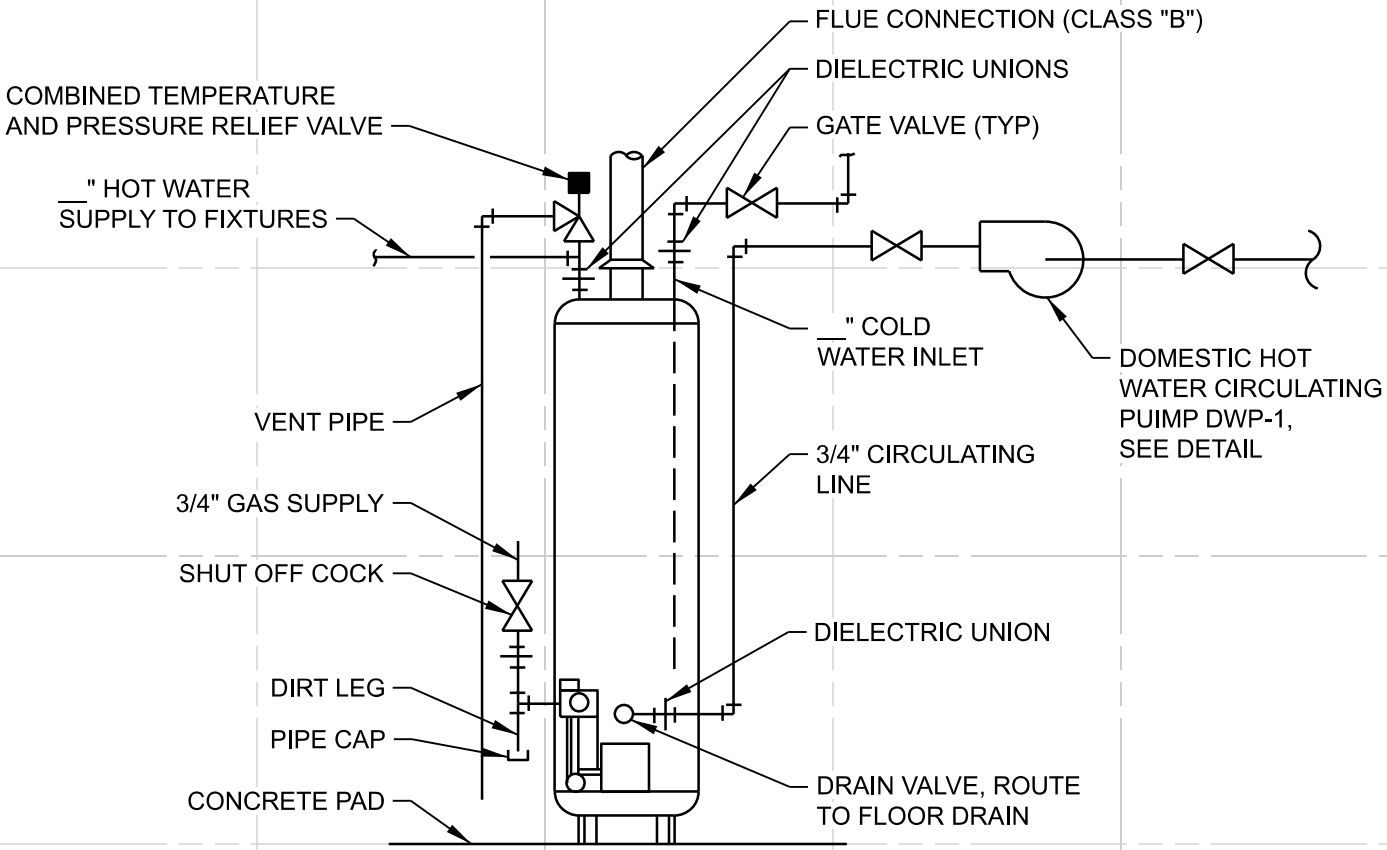


NOTE:
FOR CAPACITY SEE WATER HEATER SCHEDULE

A1

DETAIL: WATER HEATER

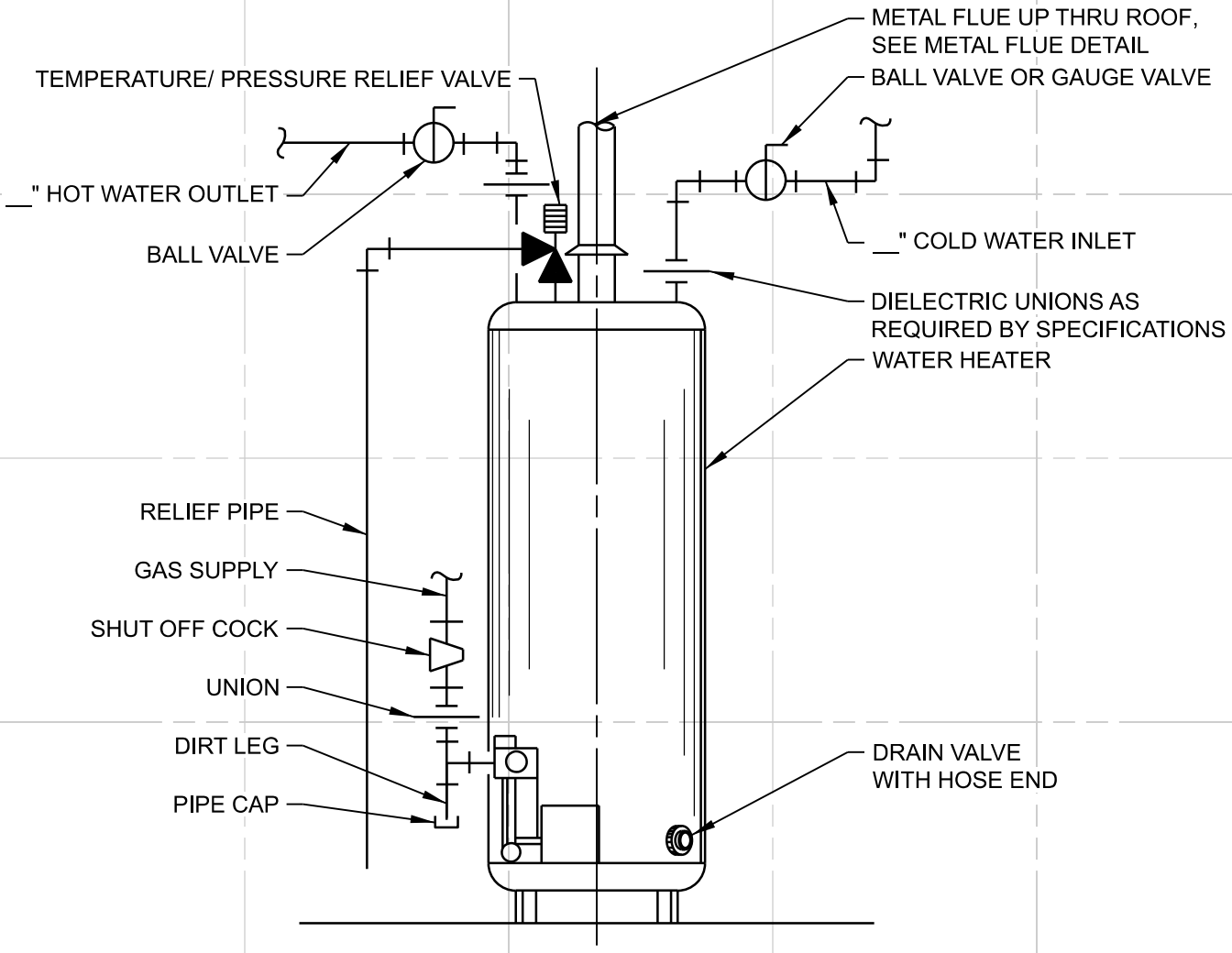
SCALE: NTS



DETAIL: GAS FIRED HOT WATER HEATER CONNECTIONS WITH RECIRCULATING LOOP

A1

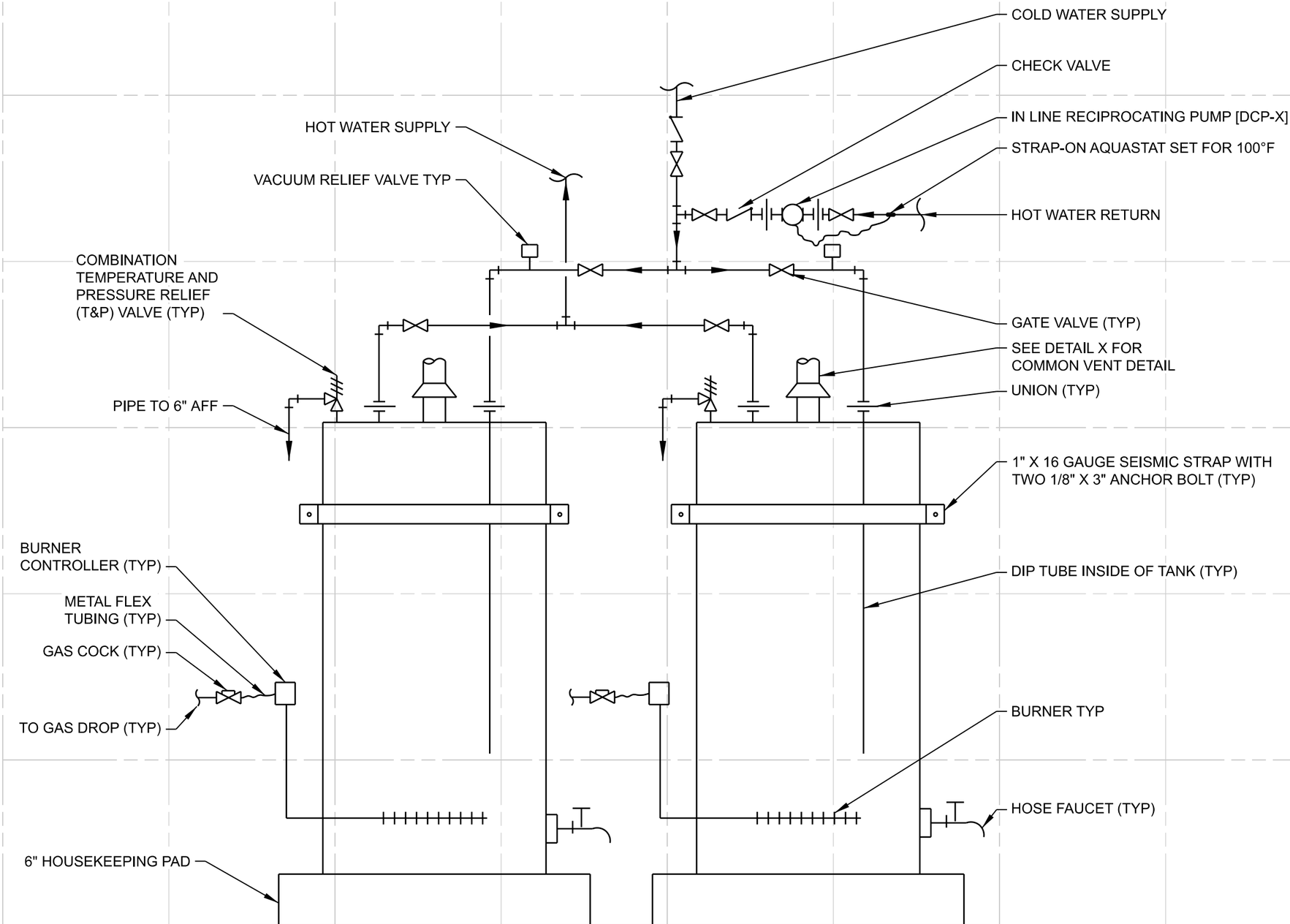
SCALE: NTS



A1

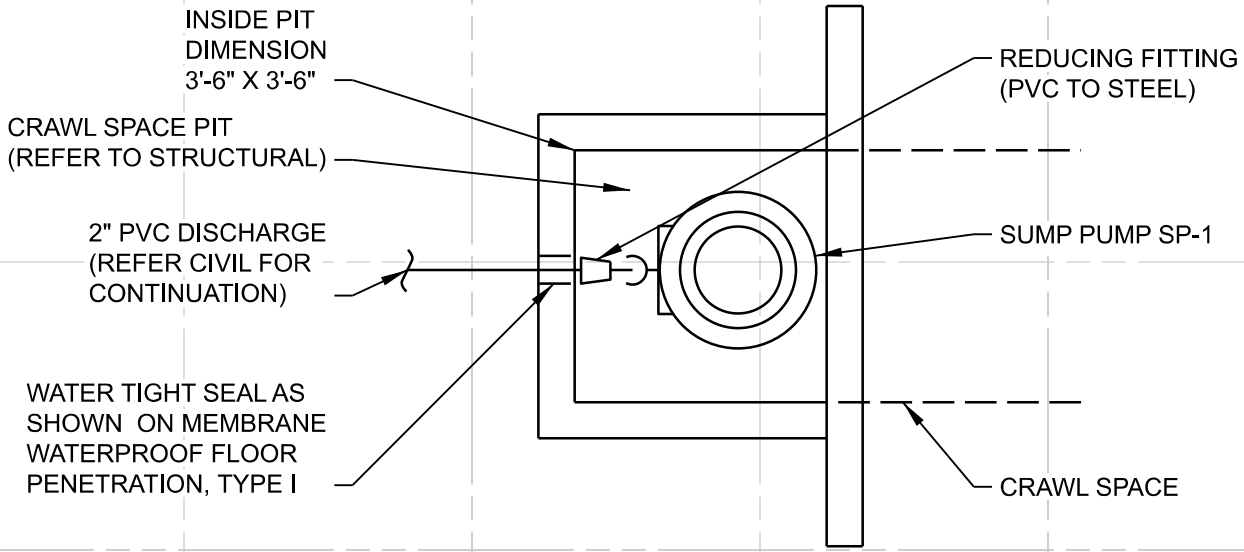
DETAIL: GAS FIRED HOT WATER HEATER CONNECTIONS

SCALE: NTS

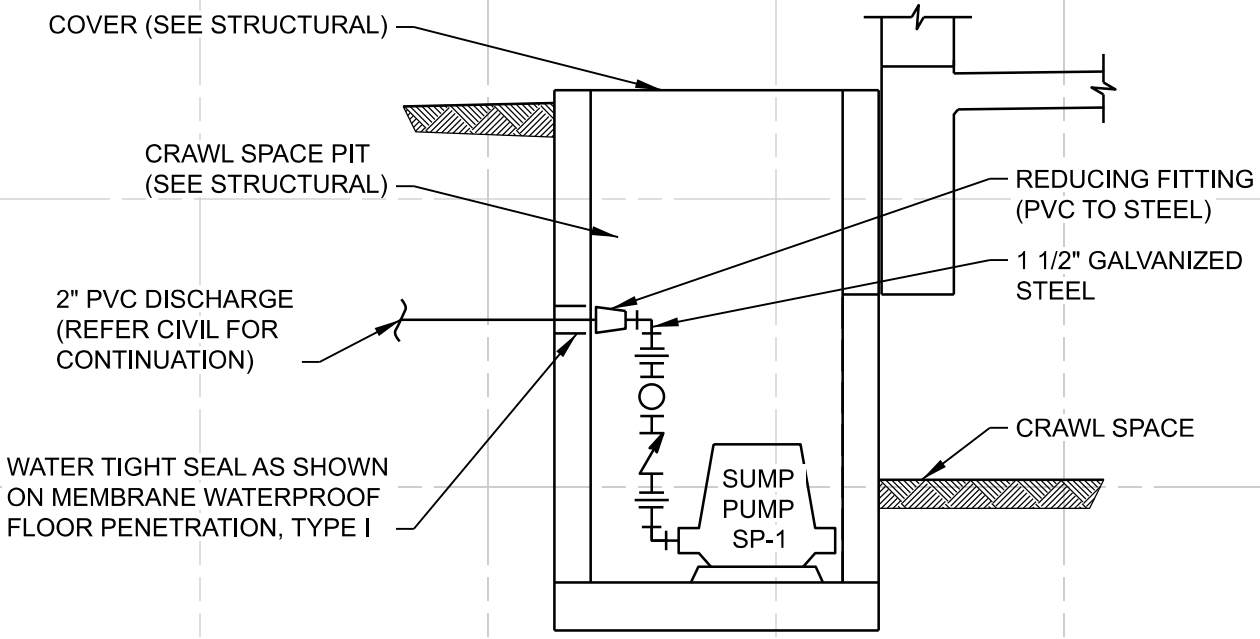


A1 DETAIL: GAS FIRED WATER HEATER

SCALE: NTS



PLAN VIEW



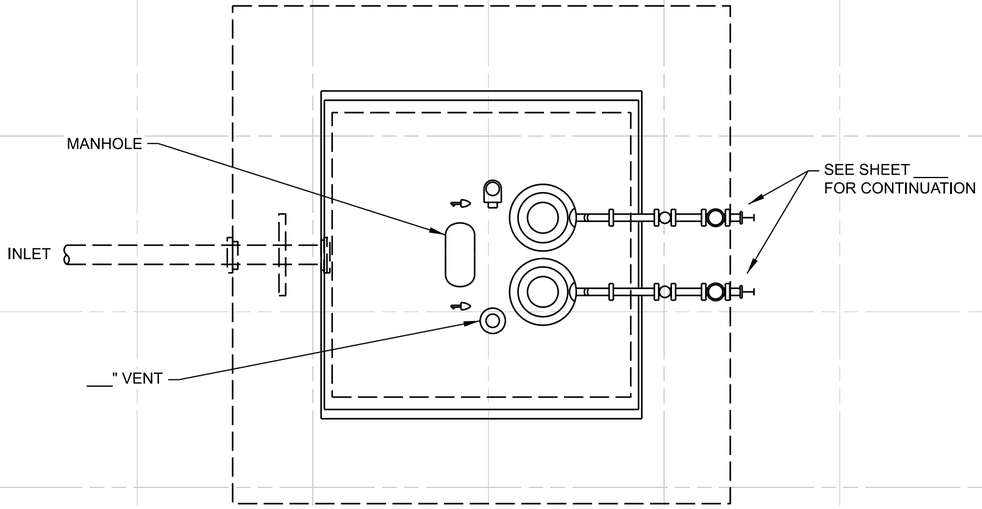
SECTION VIEW

NOTES:
1. PUMP SHALL BE SUBMERSIBLE SUMP/EFFLUENT TYPE, 25 GPM, 20 FT. HEAD, 1/2 HP, 115V, 10.4 AMPS 1,725 RPM, 1 1/2" NPT DISCHARGE.
2. SUPPORT PUMP PIPING AS REQUIRED.

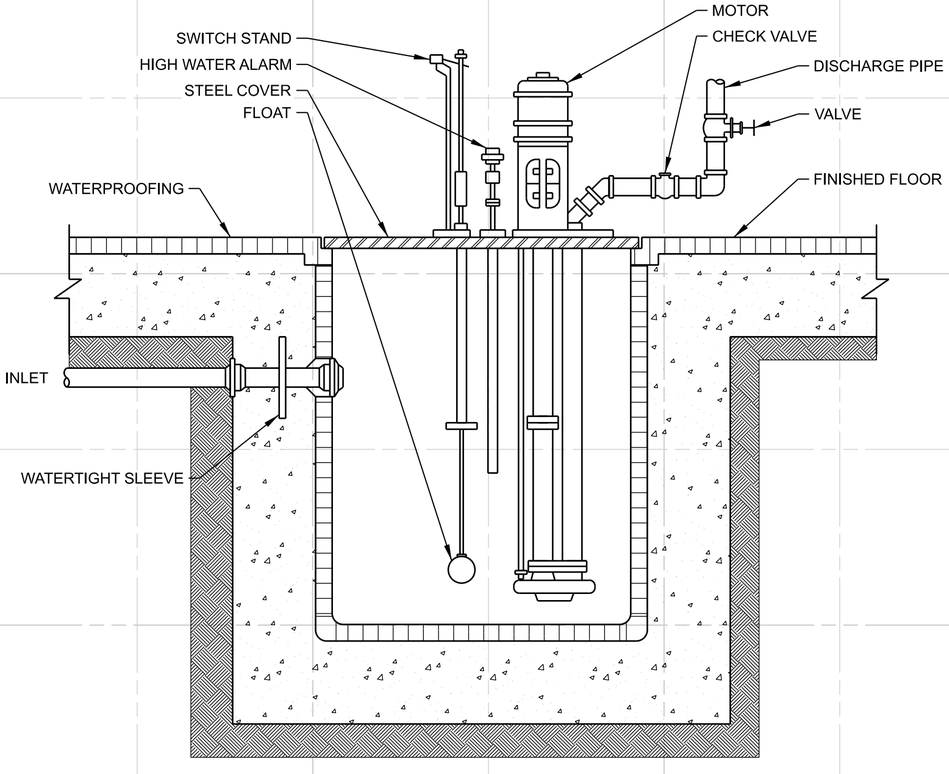
A1

DETAIL: SUMP PUMP

SCALE: NTS



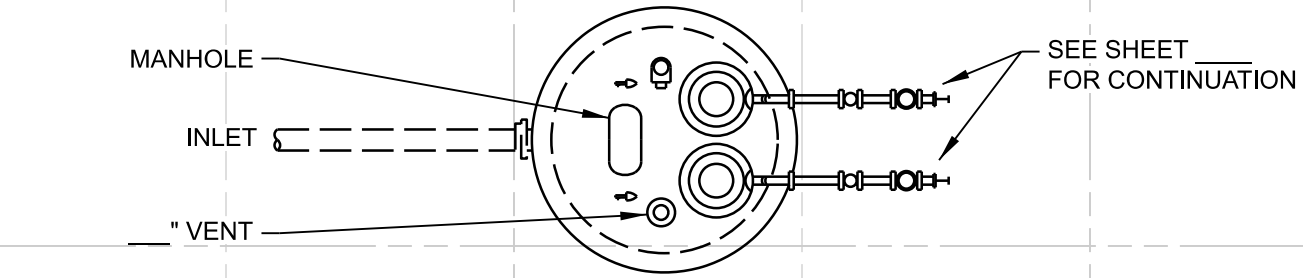
PLAN



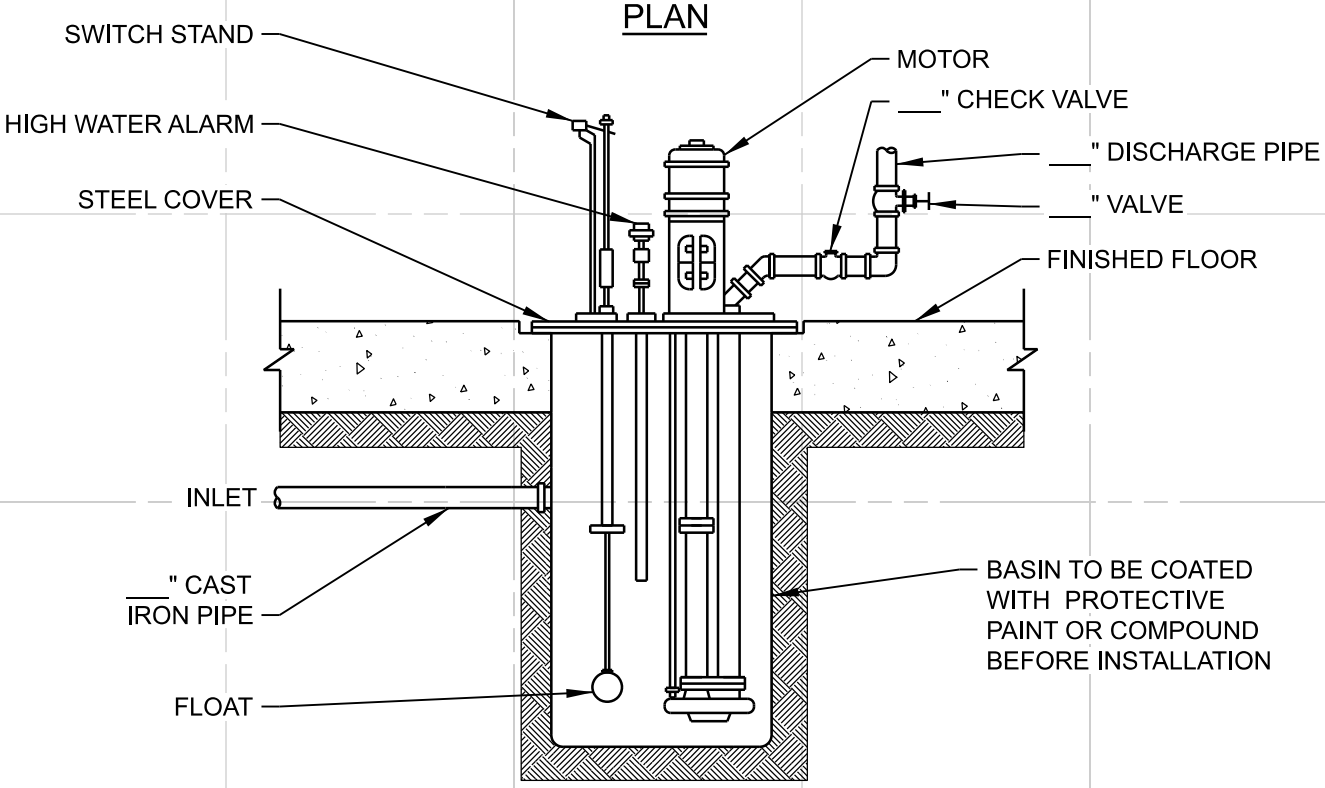
ELEVATION

A1 DETAIL: SUMP PUMP AND SUMP PIT

SCALE: NTS



PLAN

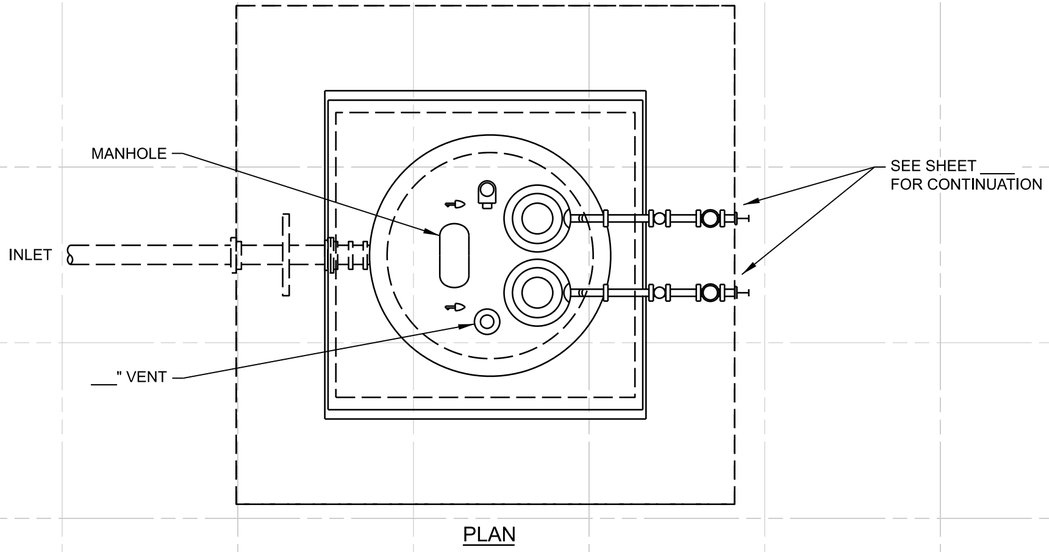


ELEVATION

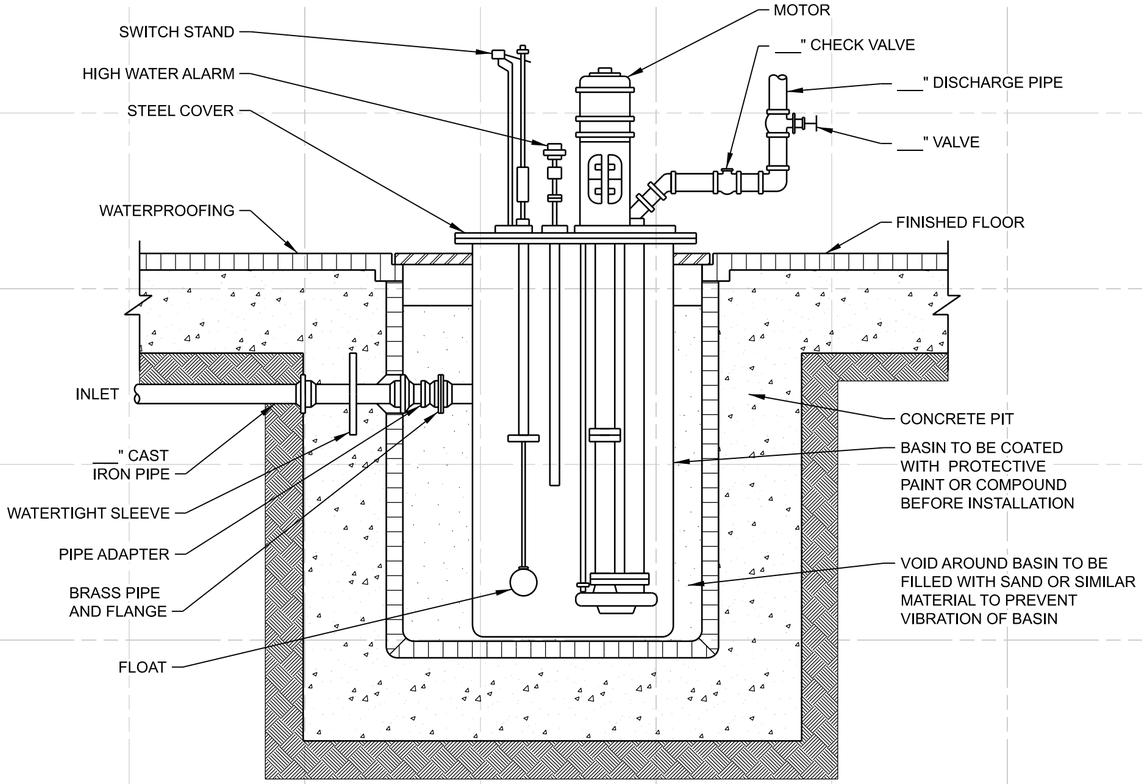
A1

DETAIL: SUMP BASIN

SCALE: NTS



PLAN

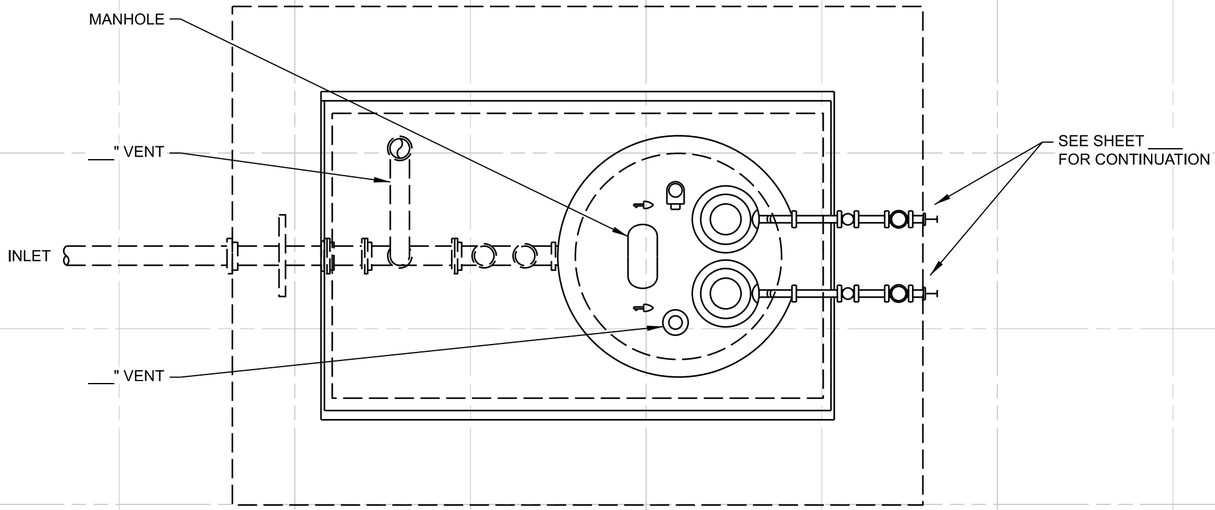


ELEVATION

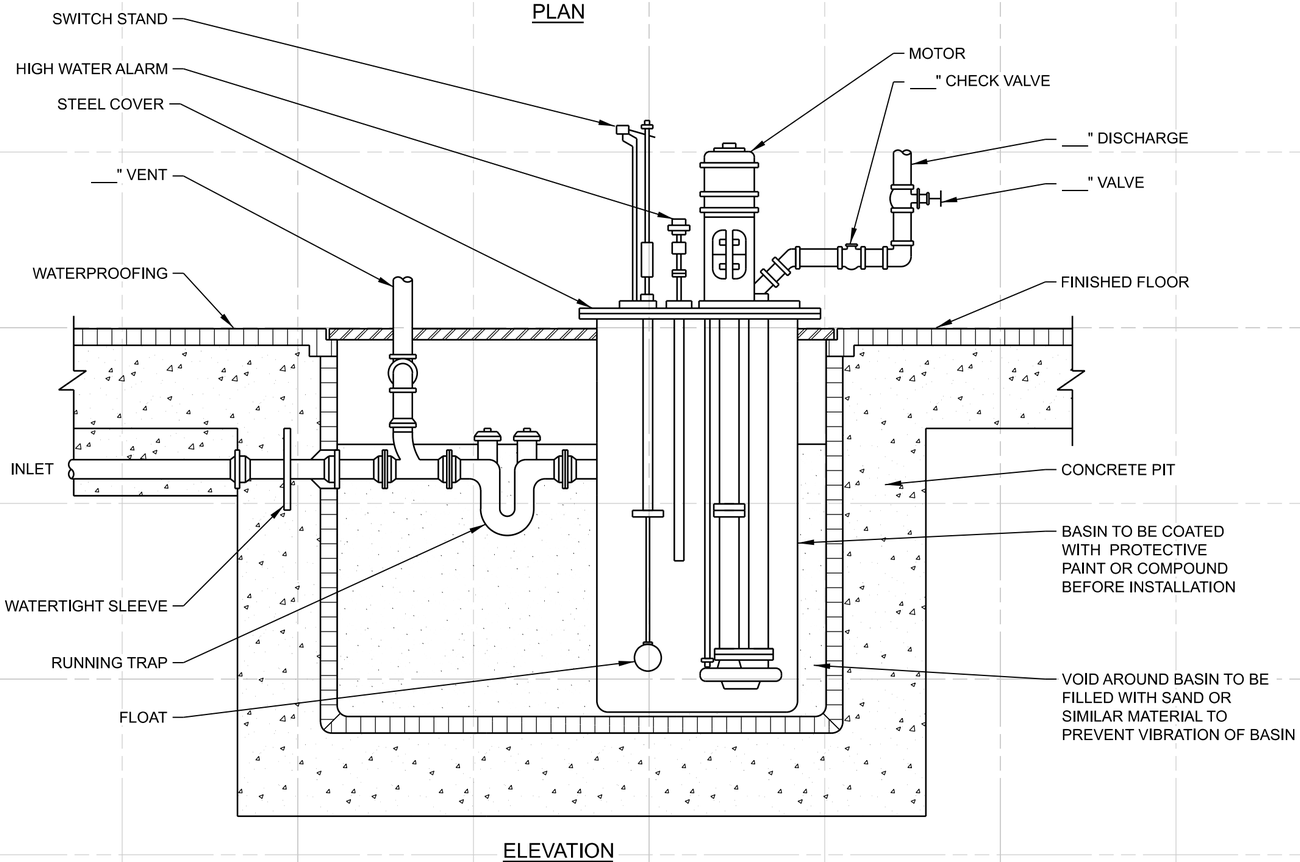
A1

DETAIL: SUMP BASIN INSTALLED IN CONCRETE PIT

SCALE: NTS



PLAN

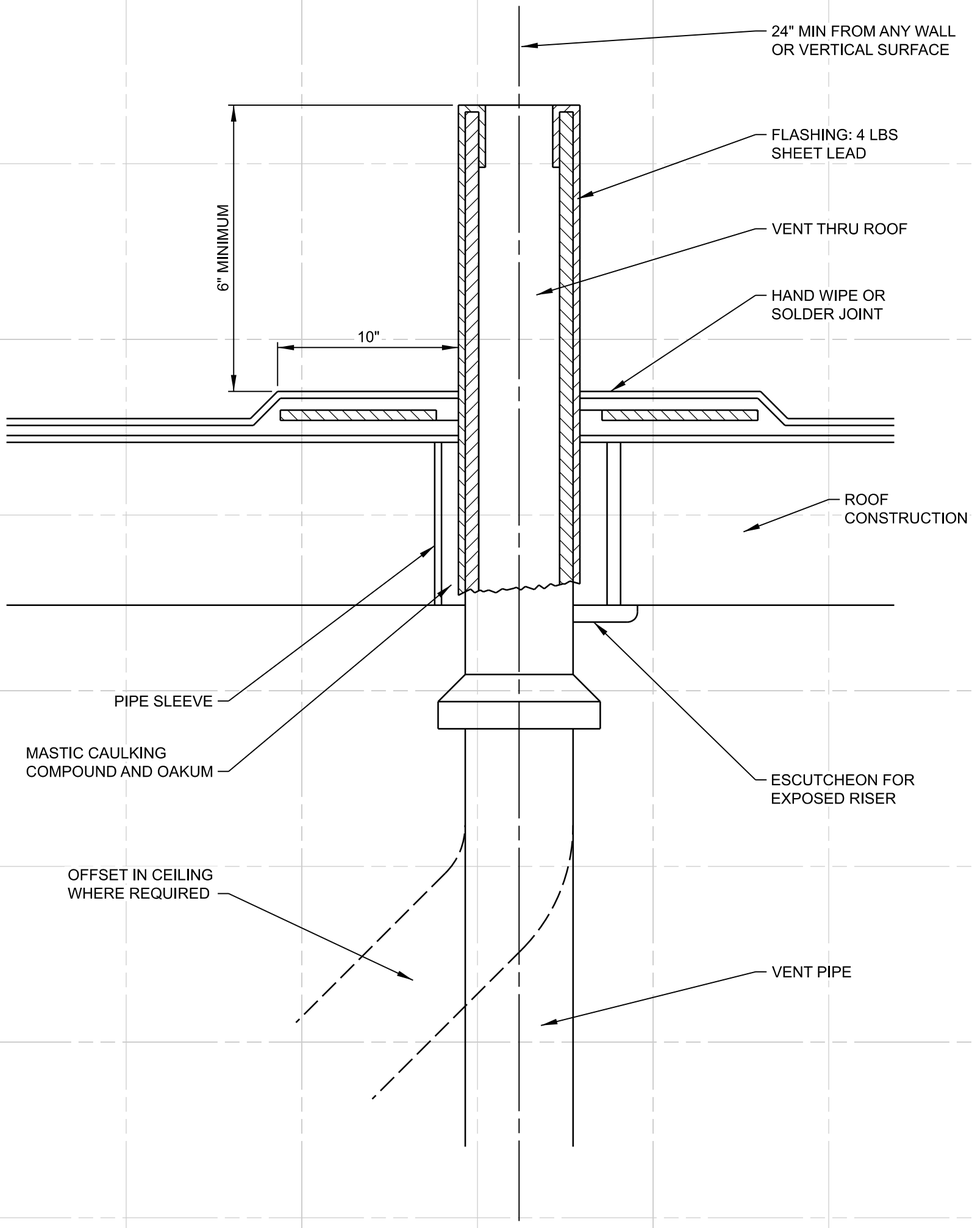


ELEVATION

A1

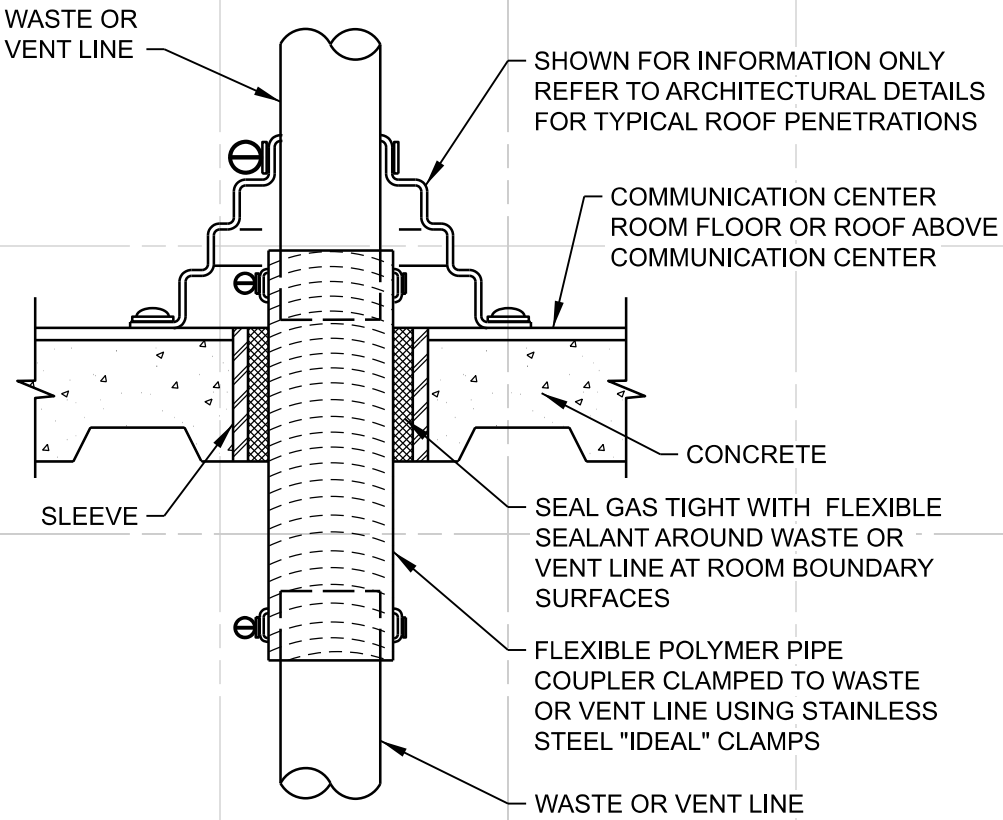
DETAIL: SEWAGE INJECTOR BASIN AND PIT

SCALE: NTS



A1 DETAIL: VENT THRU ROOF

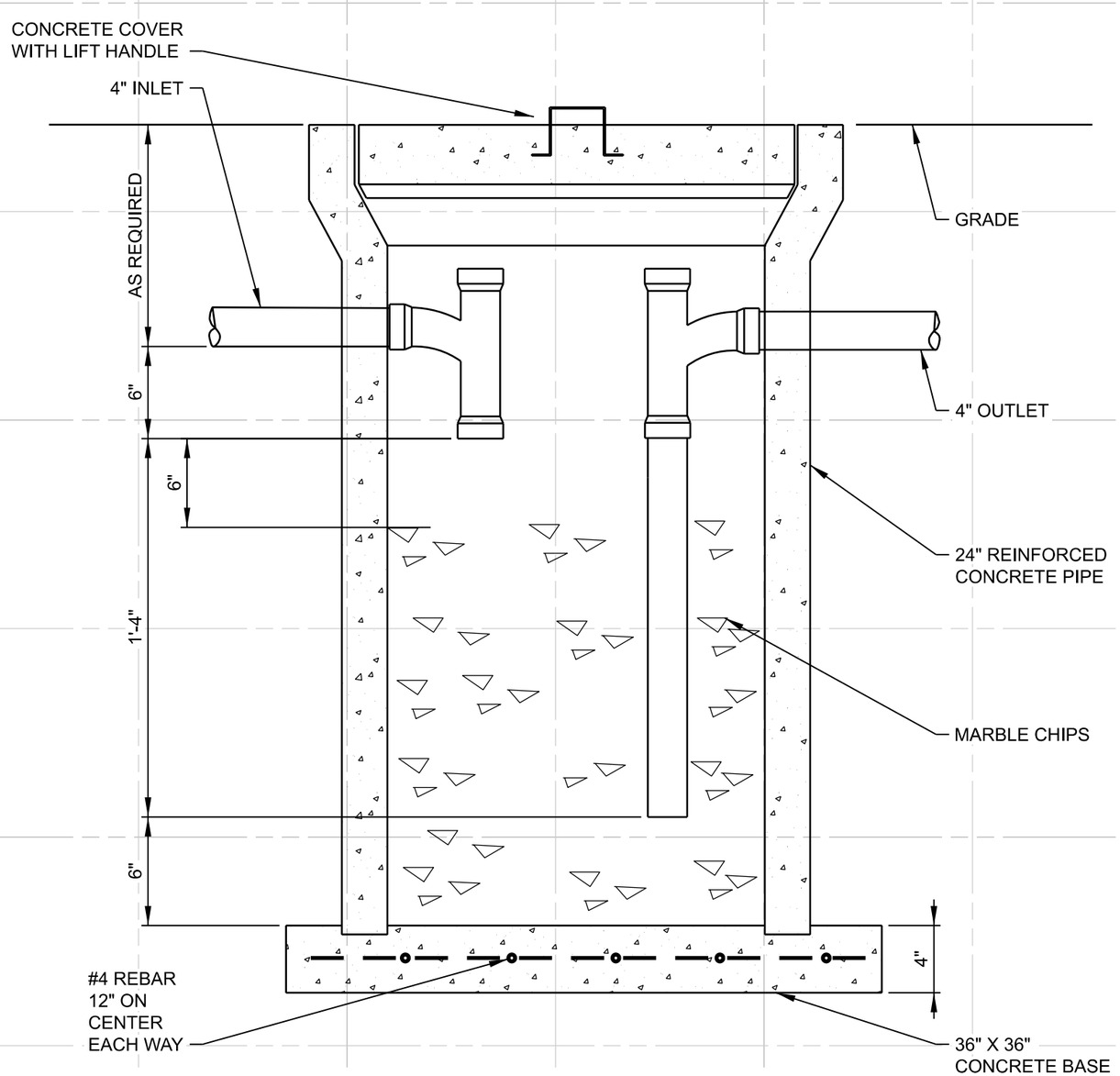
SCALE: NTS



DETAIL: SANITARY WASTE OR VENT LINES PENETRATING COMMUNICATION CENTER

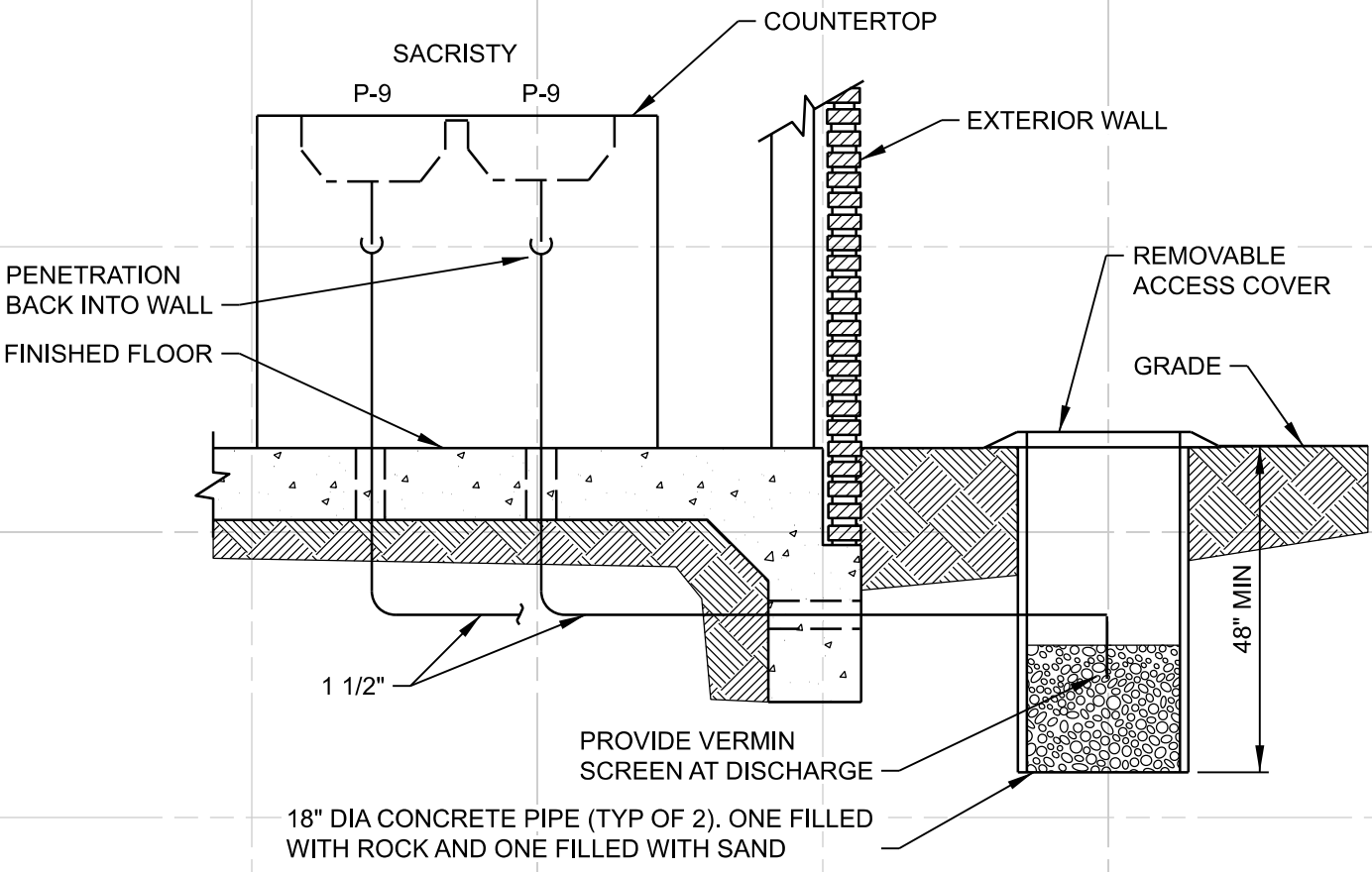
A1

SCALE: NTS



A1 DETAIL: DILUTION/NEUTRALIZATION BASIN

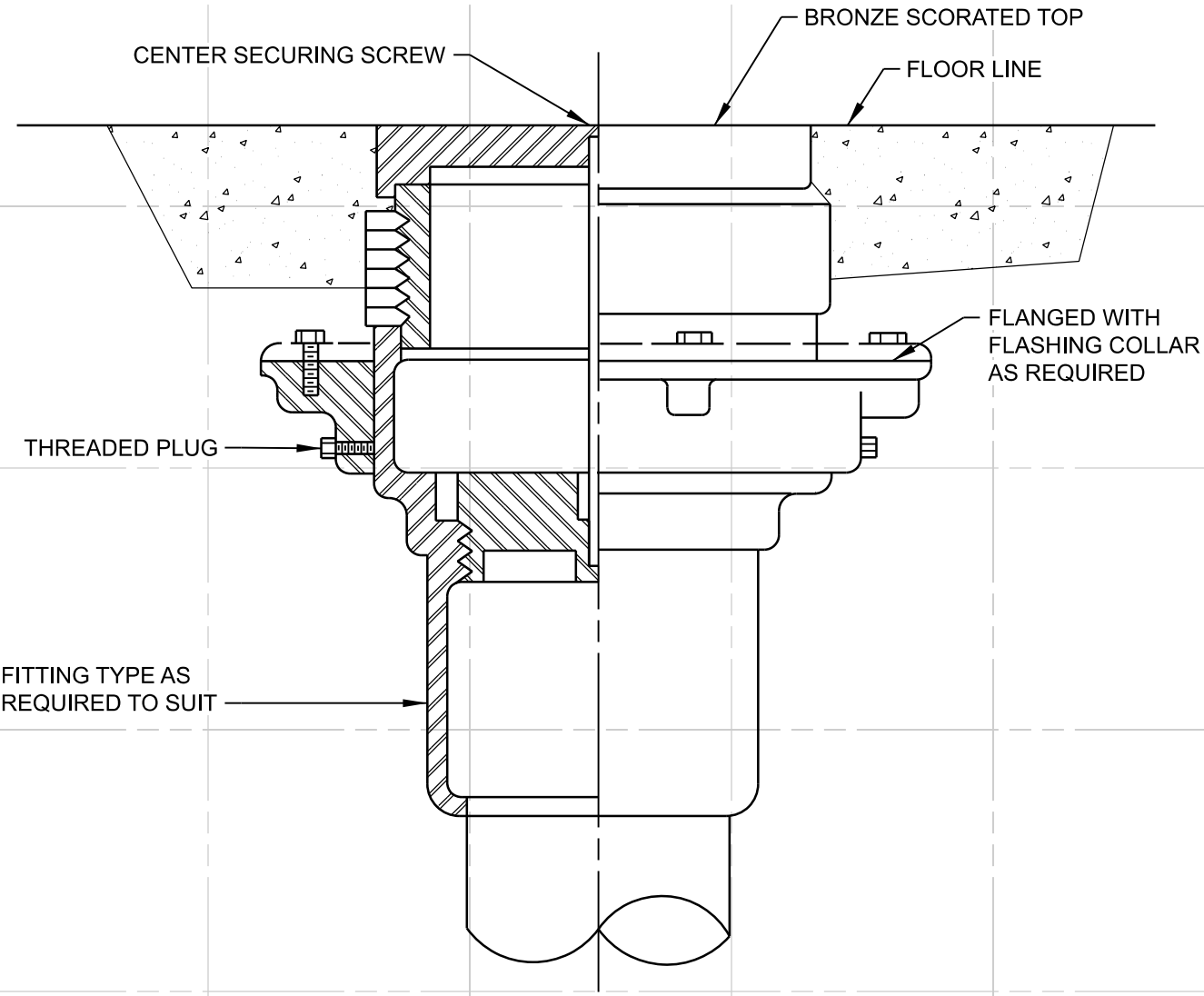
SCALE: NTS



A1

DETAIL: DRY SUMP

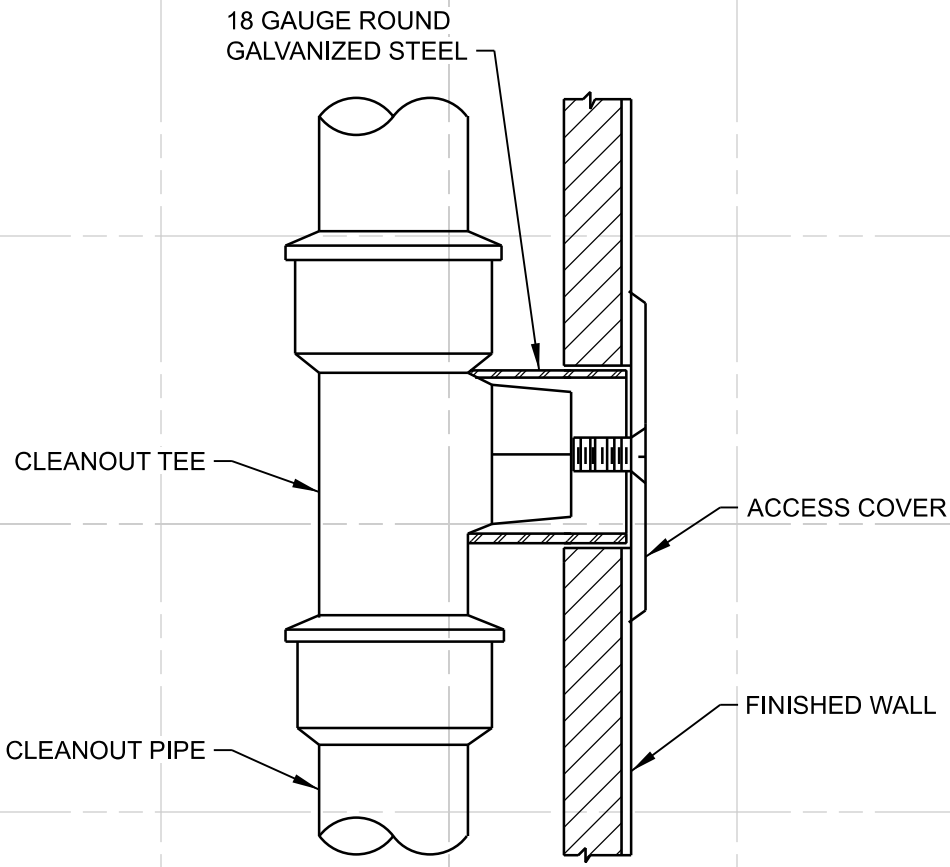
SCALE: NTS



A1

DETAIL: FLOOR CLEANOUT

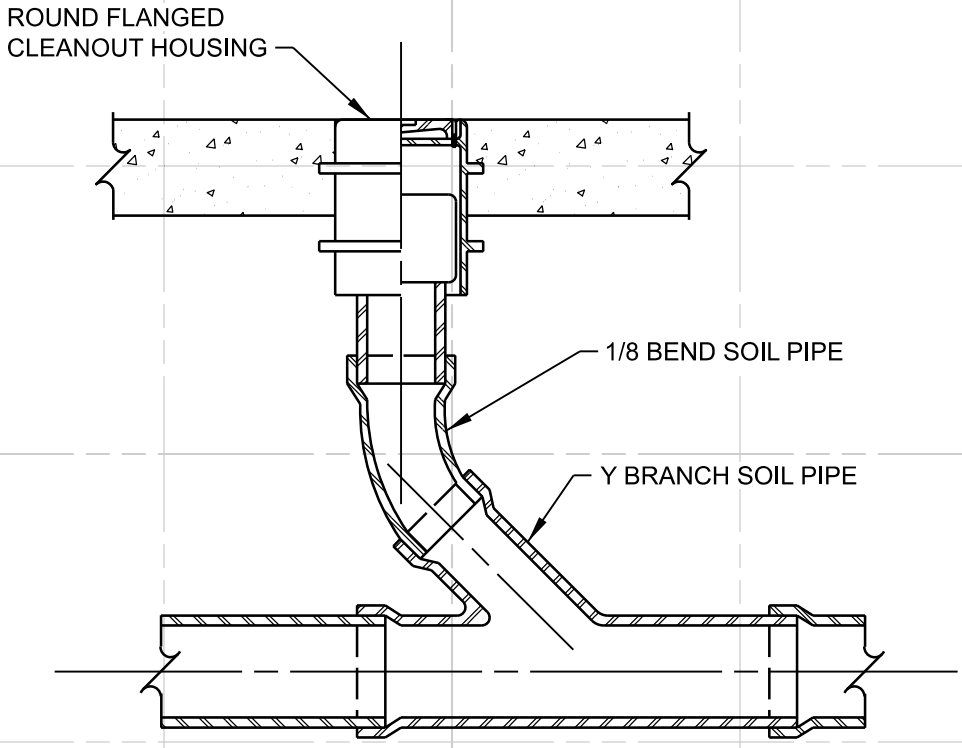
SCALE: NTS



A1

DETAIL: WALL CLEANOUT

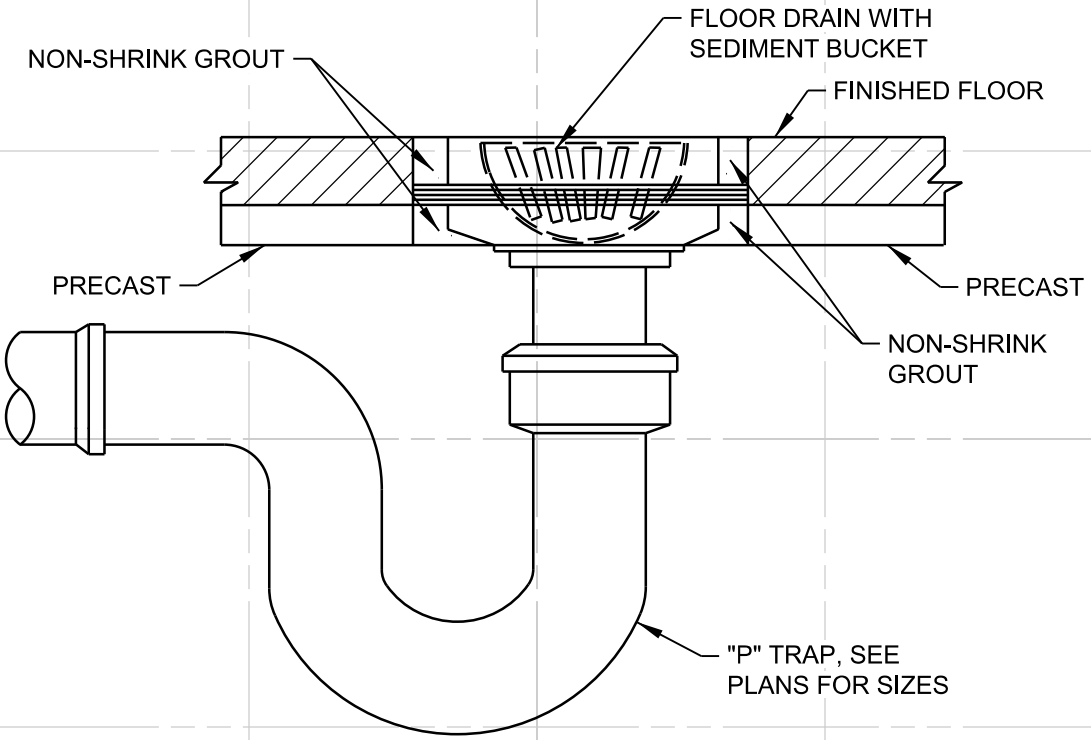
SCALE: NTS



A1

DETAIL: SANITARY CLEANOUT FLOOR SLAB

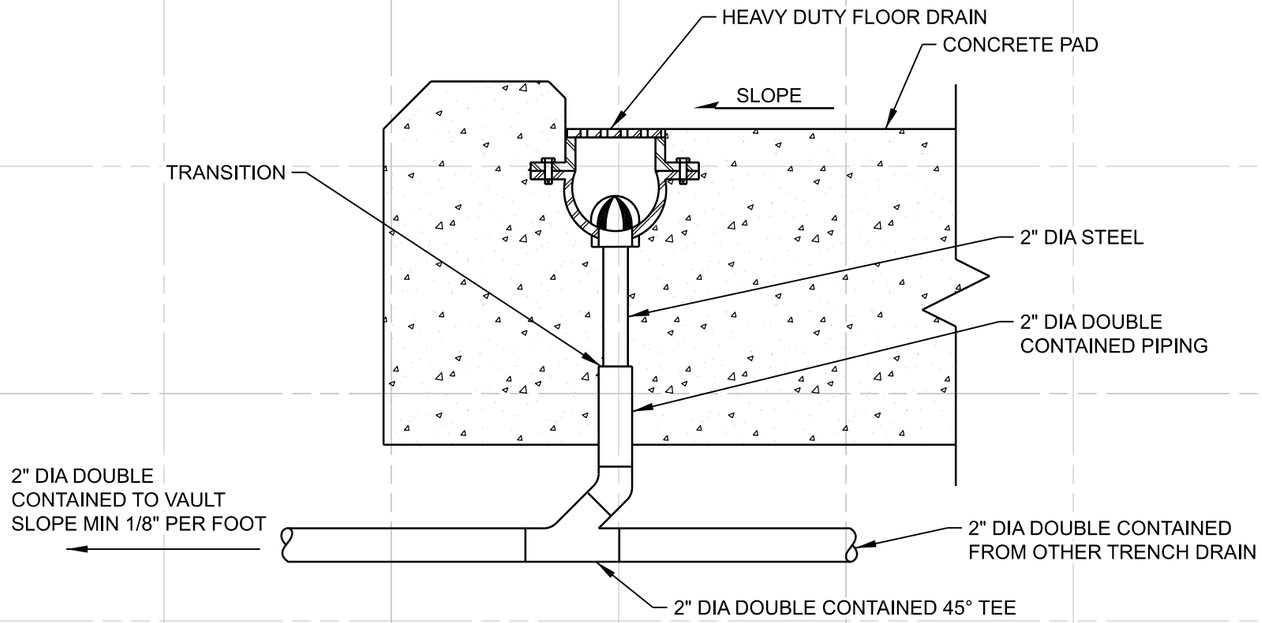
SCALE: NTS



A1

DETAIL: FLOOR DRAIN

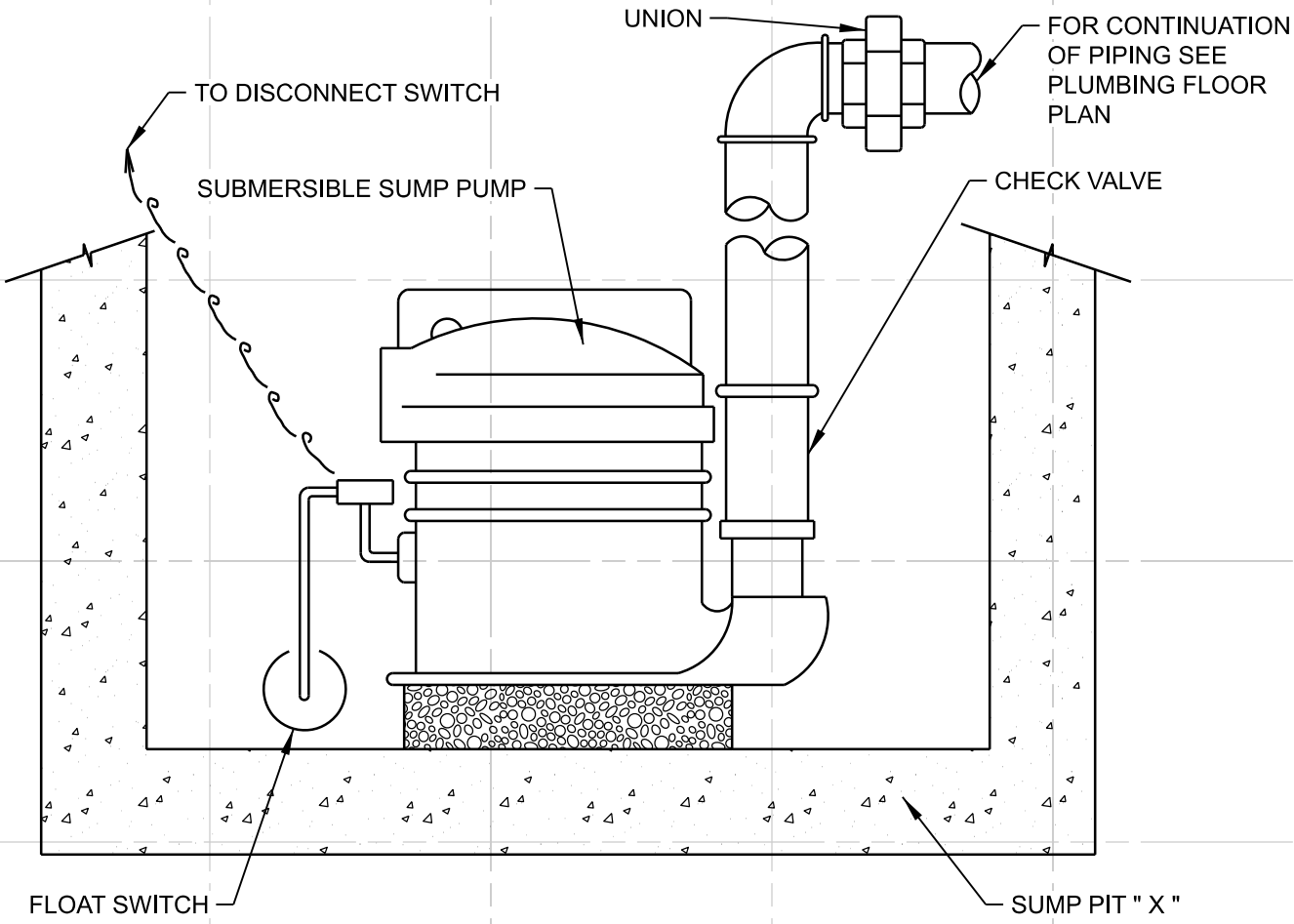
SCALE: NTS



A1

DETAIL: DOUBLE WALL DRAIN SECTION

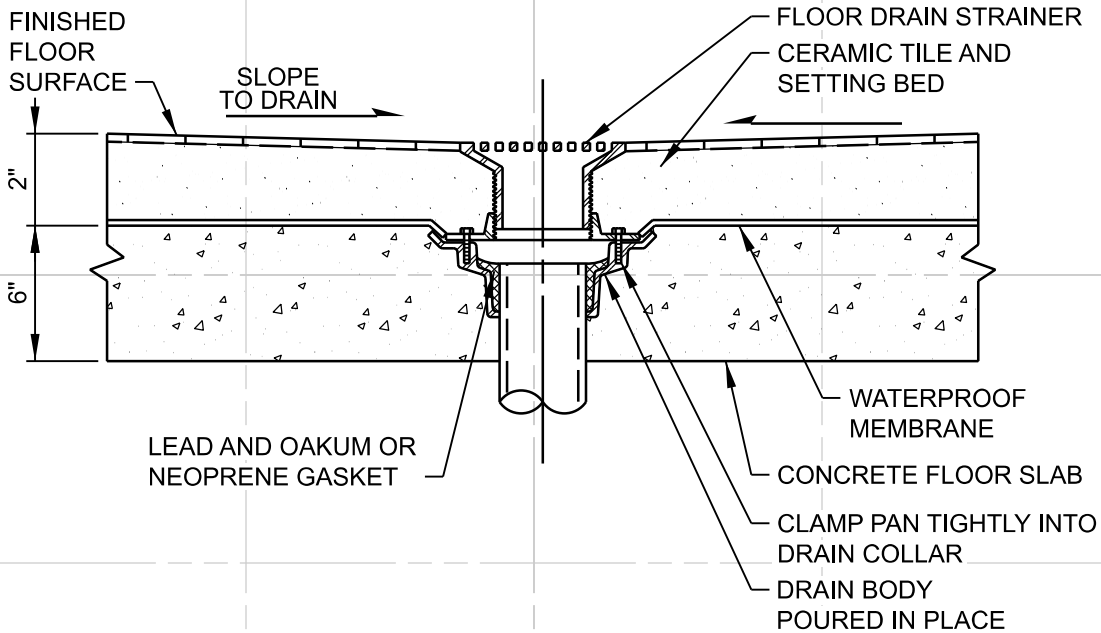
SCALE: NTS



A1

DETAIL: SUMP PUMP

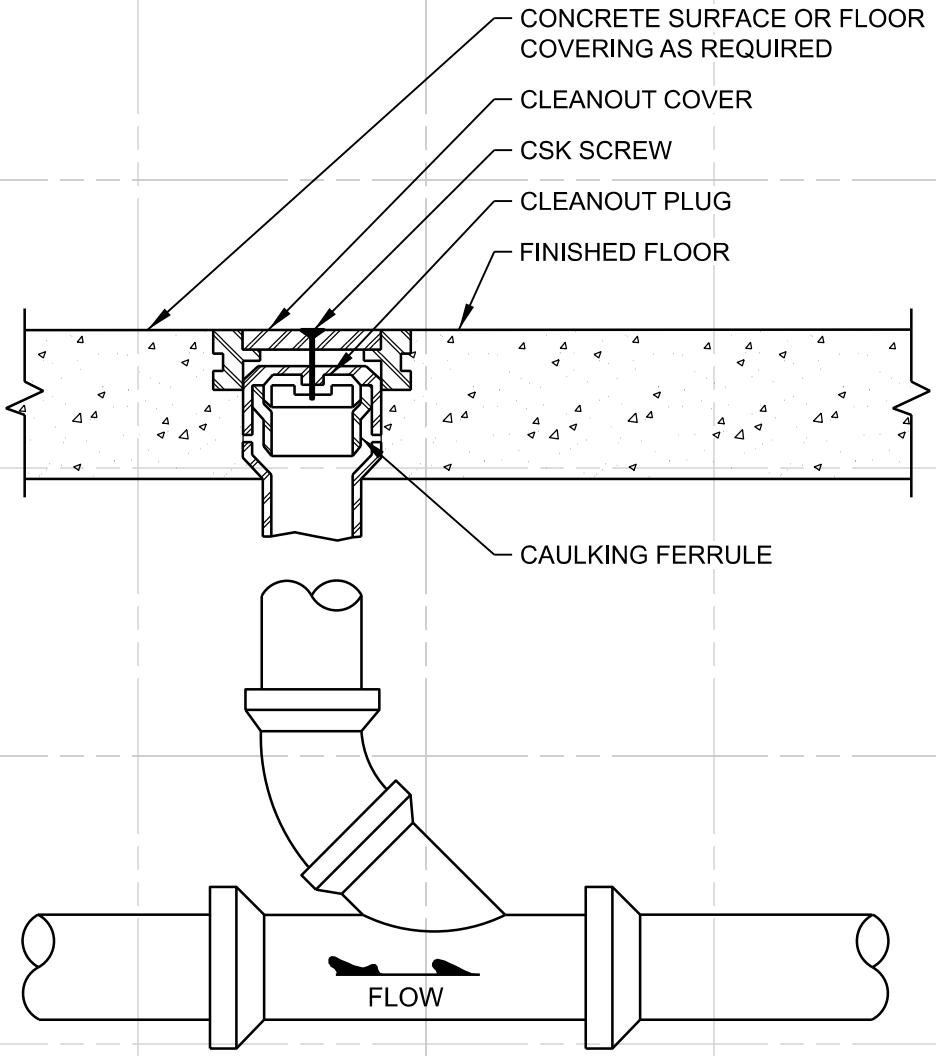
SCALE: NTS



A1

DETAIL: FLOOR DRAIN IN OPEN AREA

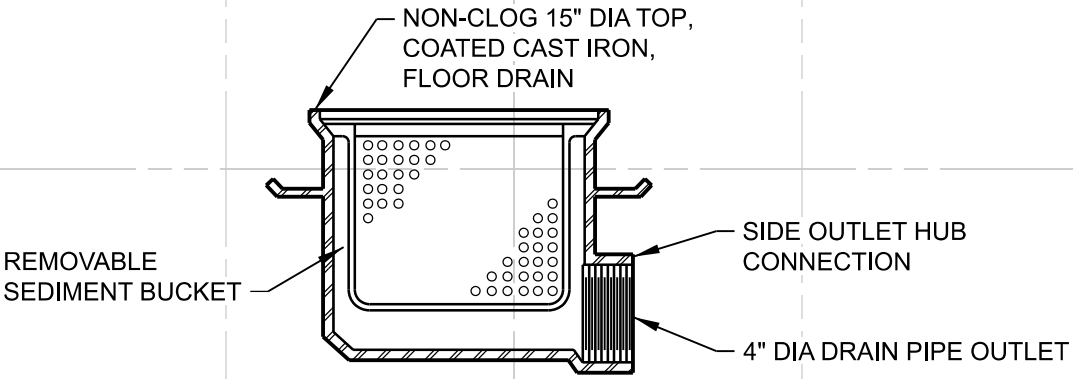
SCALE: NTS



A1

DETAIL: FLOOR CLEANOUT-FINISHED ROOMS

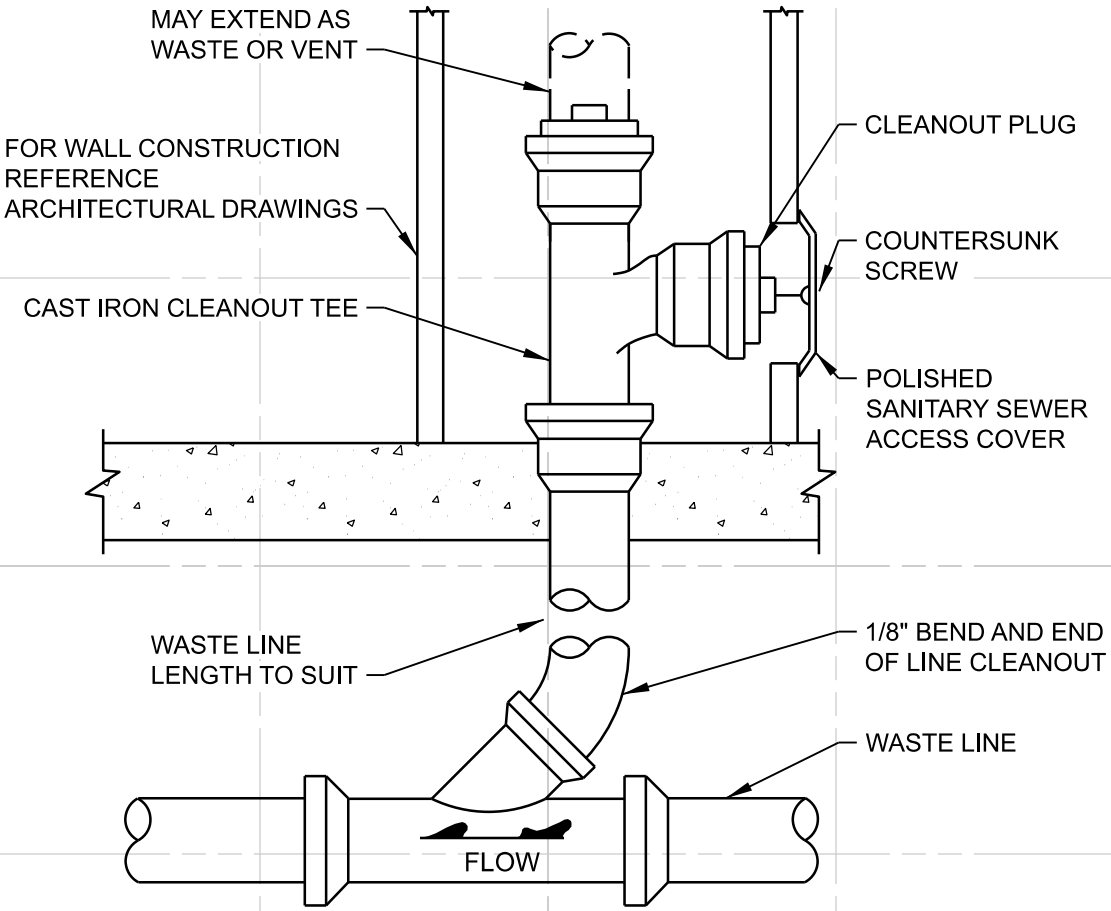
SCALE: NTS



A1

DETAIL: NON-CLOG FLOOR DRAIN WITH SEDIMENT BUCKET

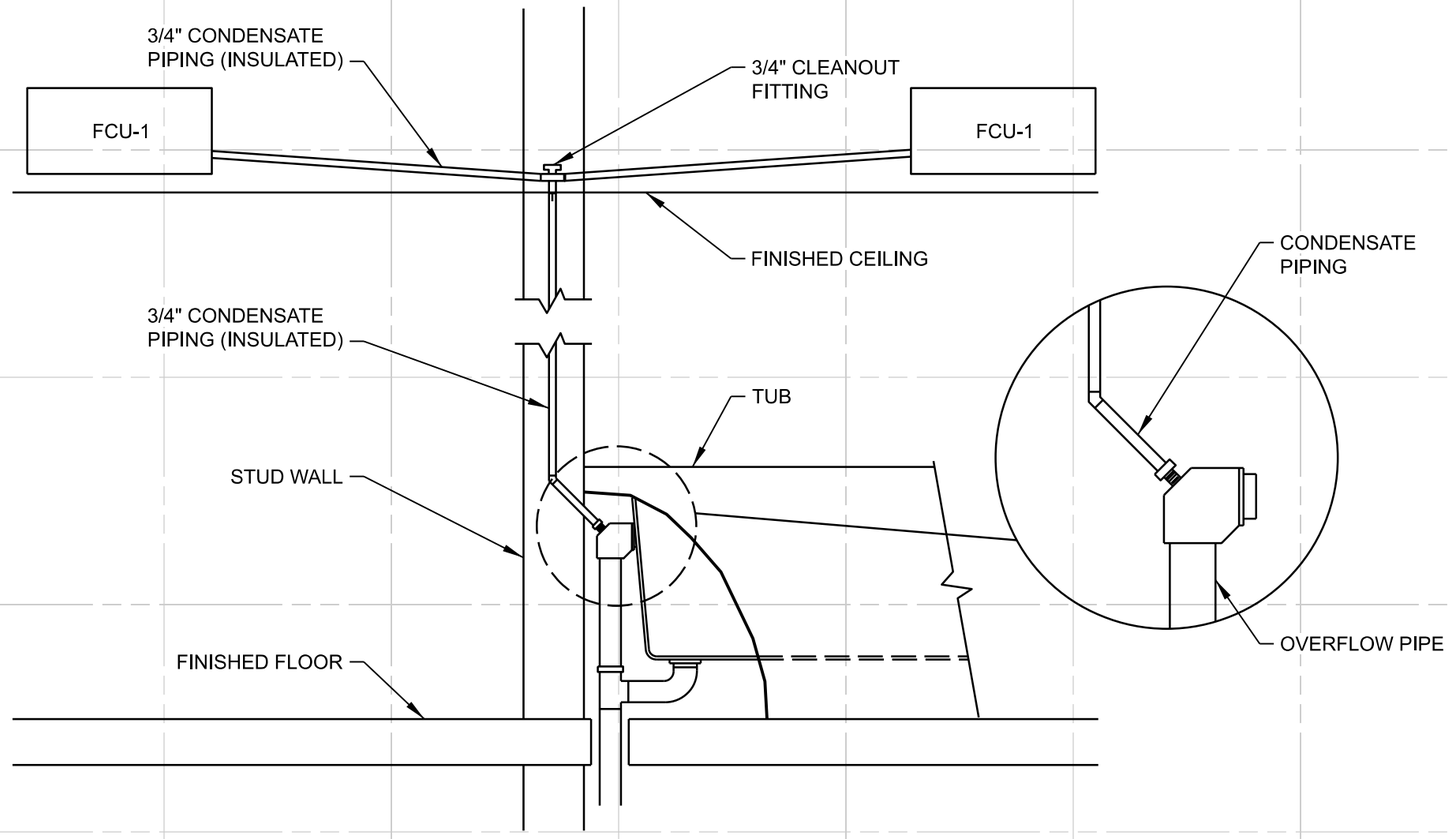
SCALE: NTS



DETAIL: WALL CLEANOUT-FINISHED ROOMS

A1

SCALE: NTS

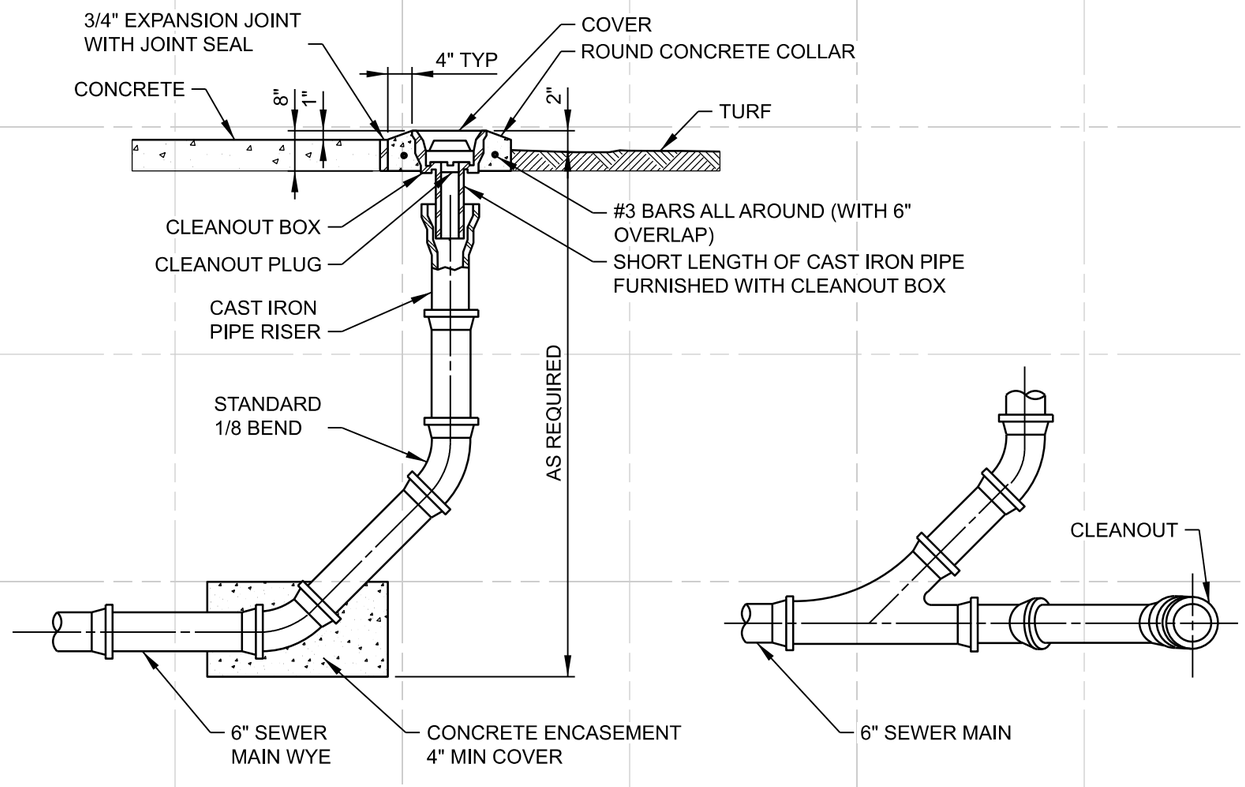


NOTE:
OVERFLOW PIPE TO BE TAPPED TO RECEIVE PIPING

A1

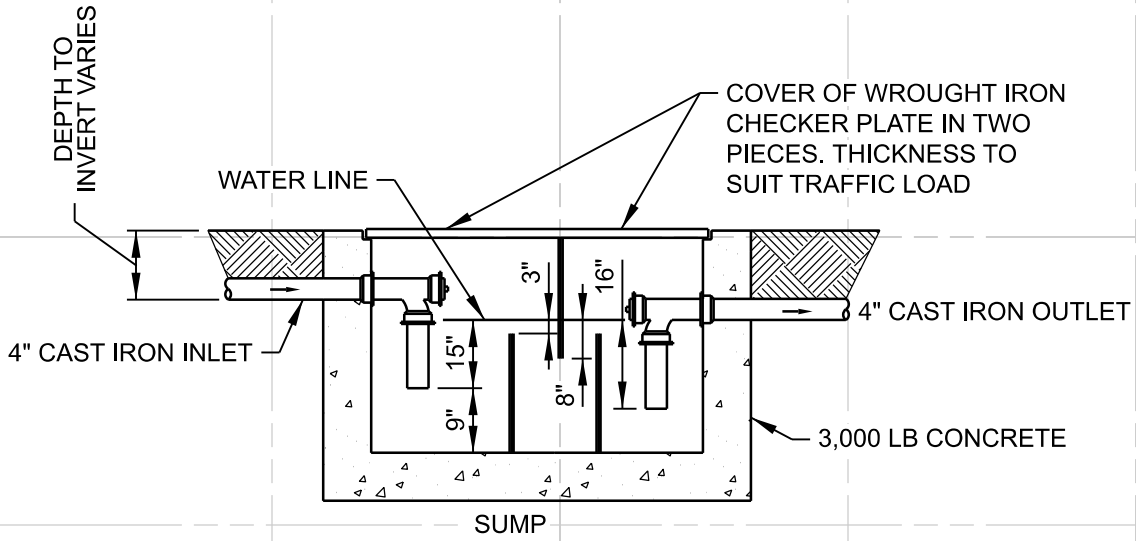
DETAIL: TUB AND CONDENSATE DRAIN

SCALE: NTS

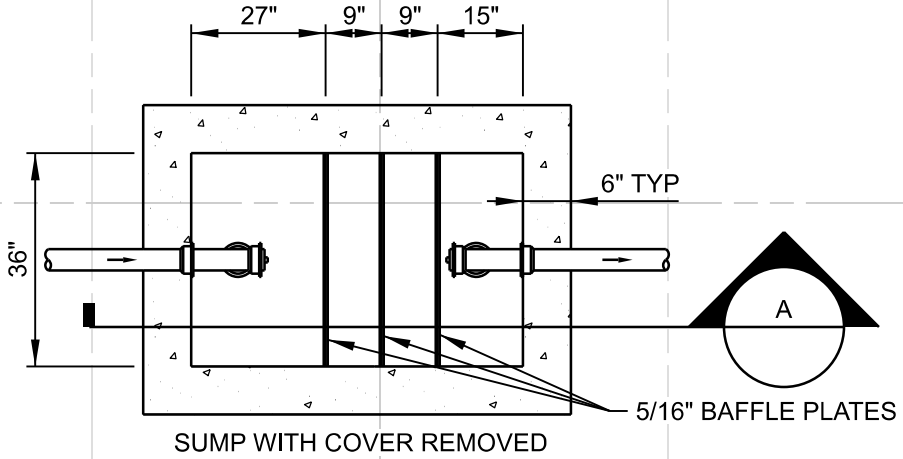


A1 DETAIL: EXTERIOR CLEANOUT

SCALE: NTS



SECTION A

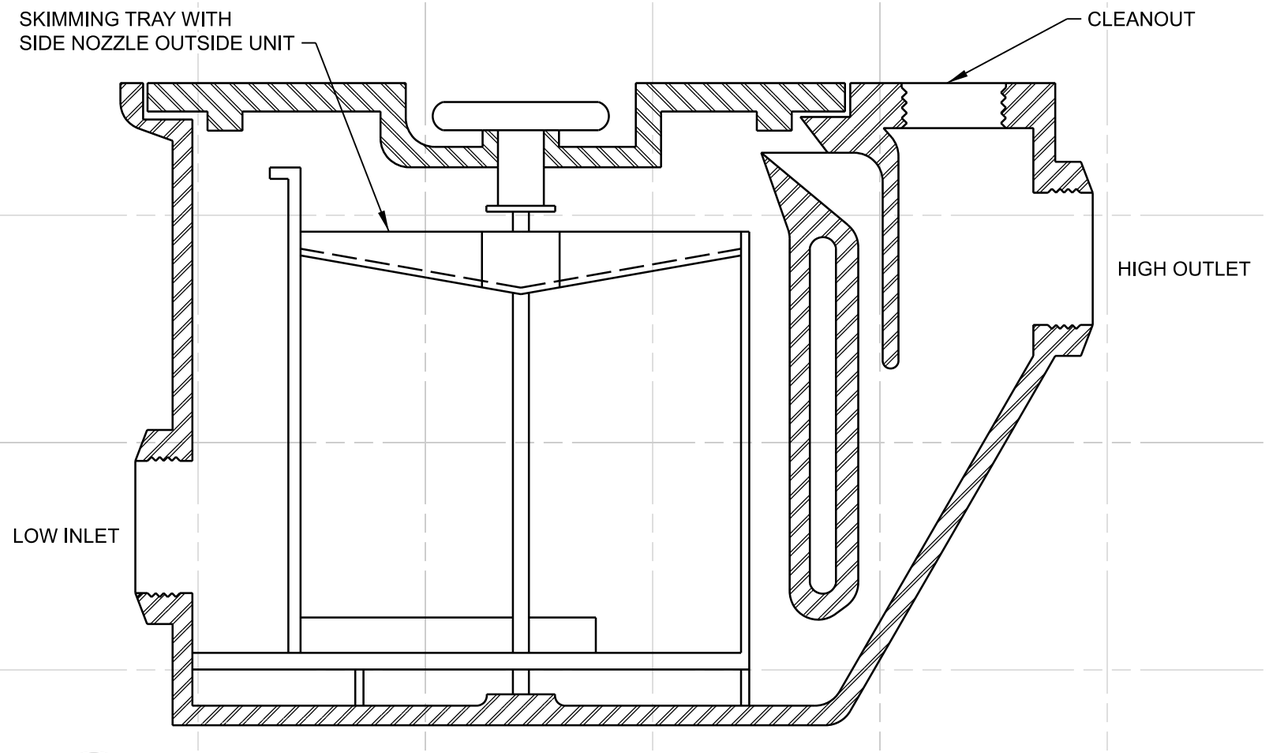


PLAN

DETAIL: CUSTOM-MADE GREASE INTERCEPTOR

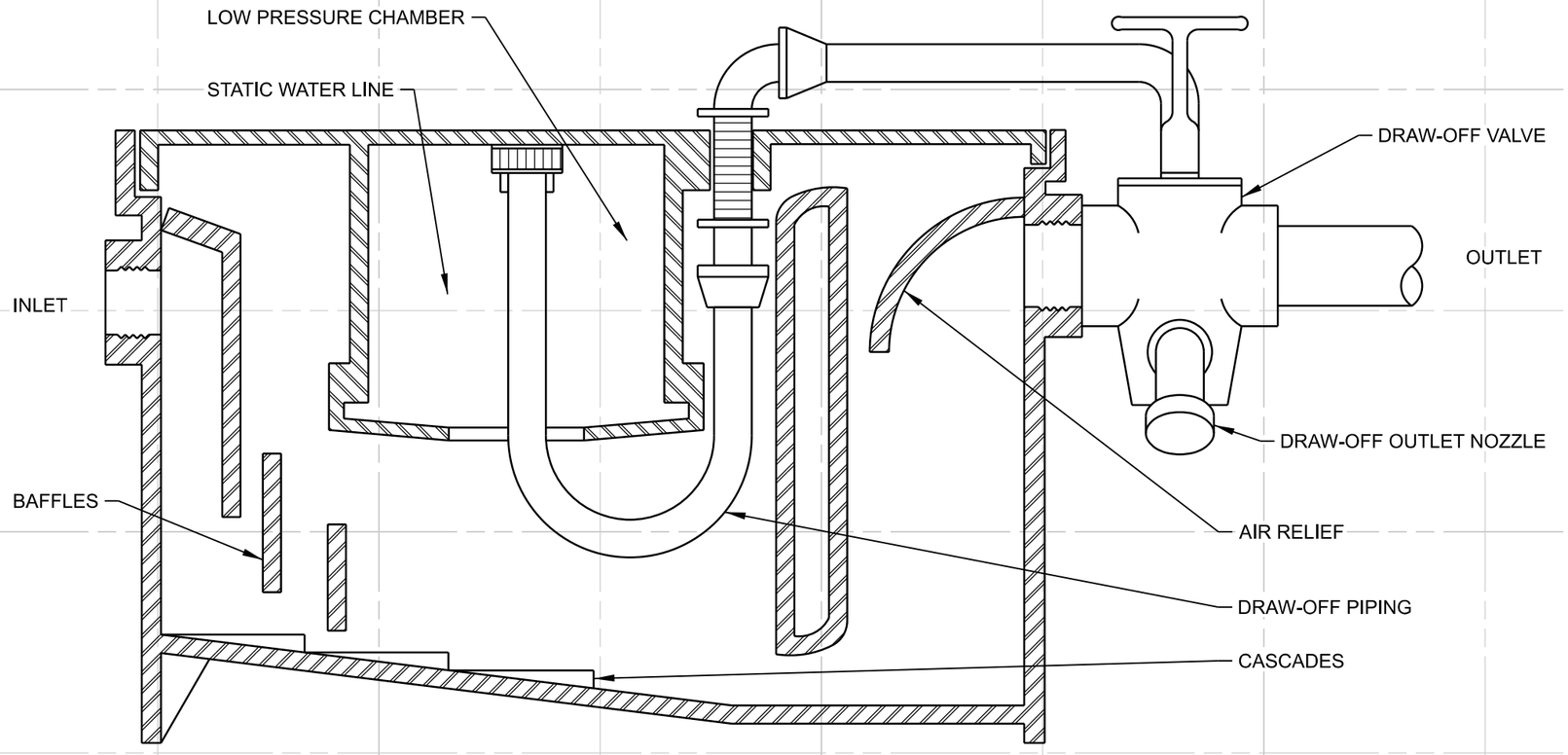
A1

SCALE: NTS



A1 DETAIL: SEMI-AUTOMATIC GREASE INTERCEPTOR

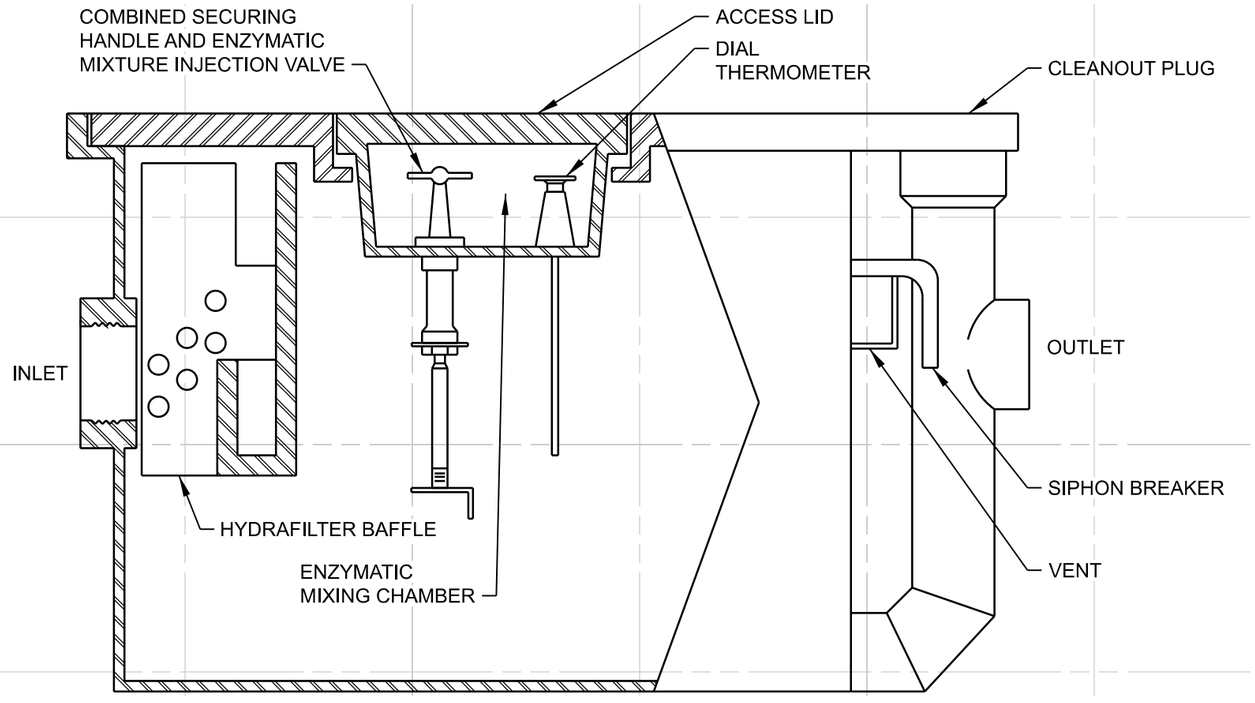
SCALE: NTS



A1

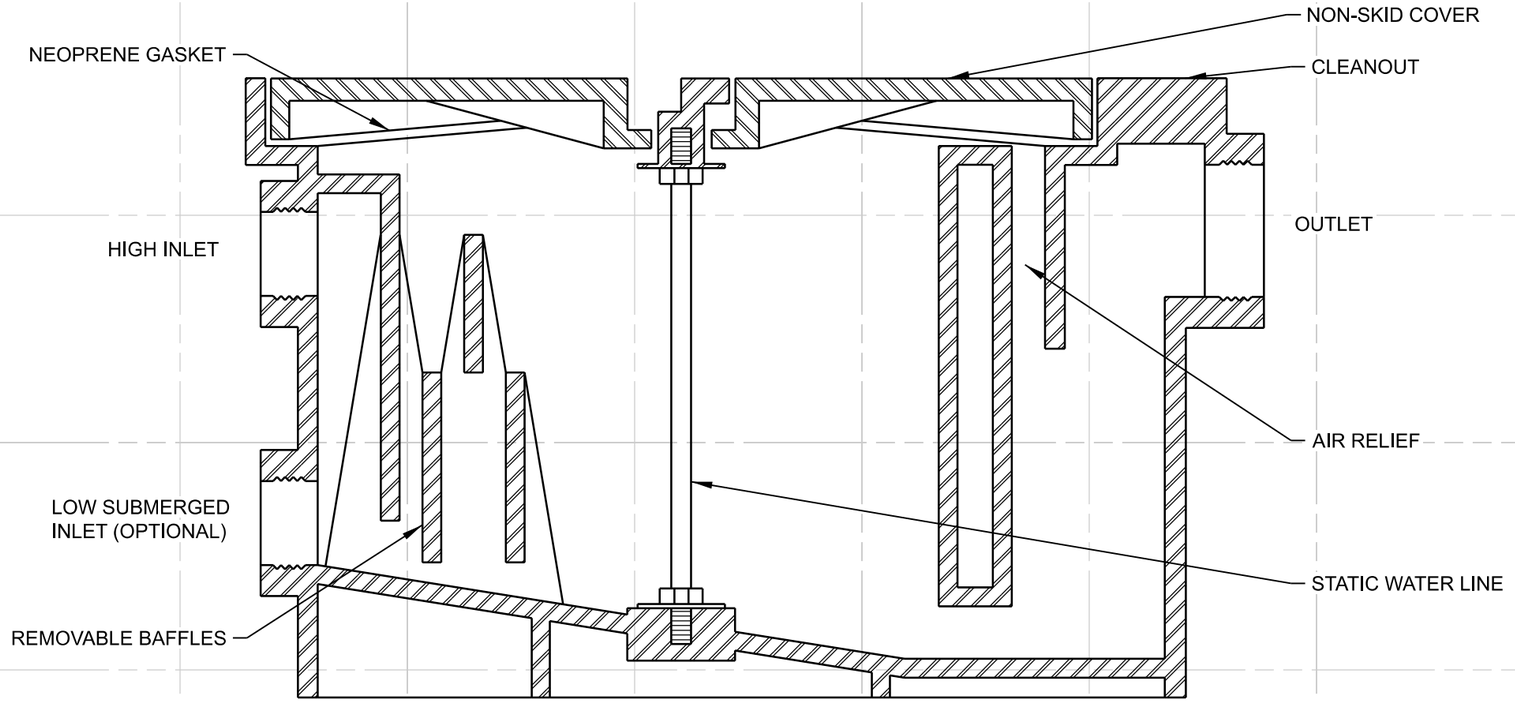
DETAIL: SEMI-AUTOMATIC GREASE INTERCEPTOR

SCALE: NTS



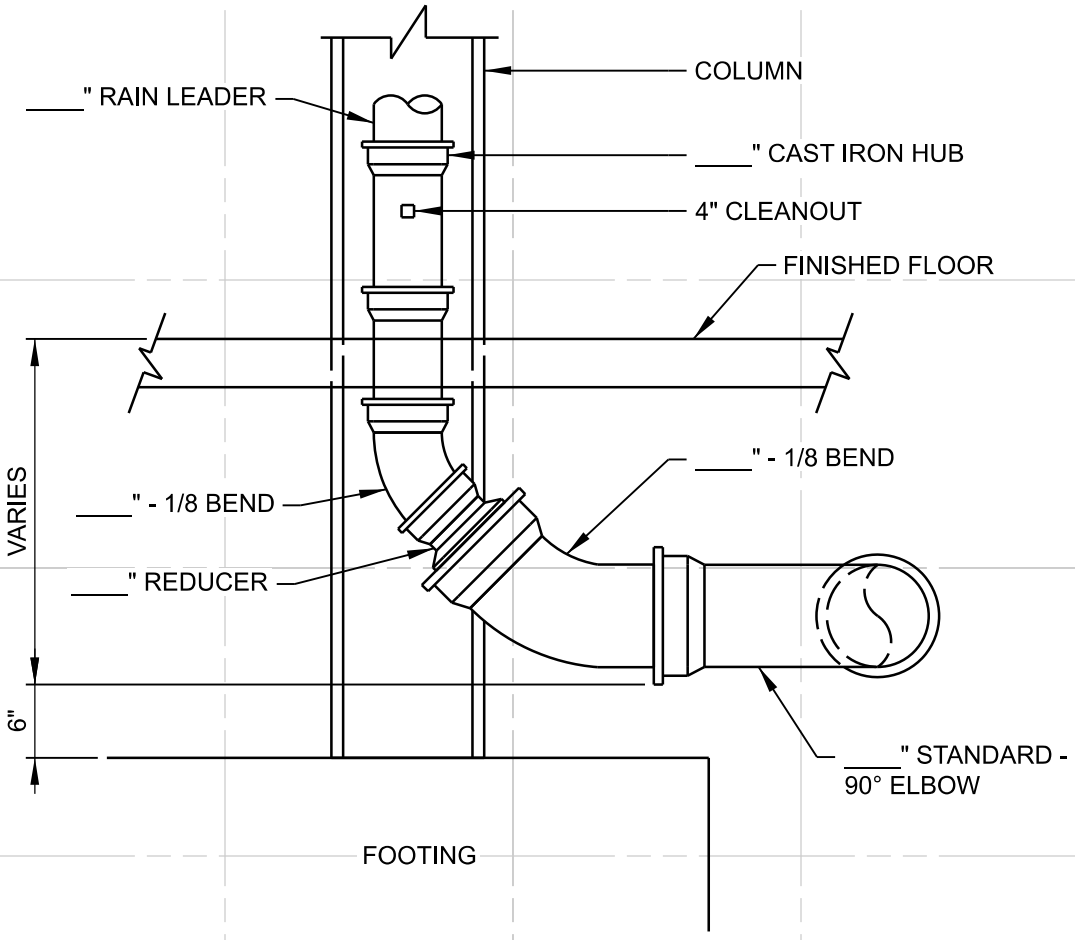
A1 DETAIL: ENZYMATIC GREASE INTERCEPTOR

SCALE: NTS



A1 DETAIL: MANUALLY-OPERATED GREASE INTERCEPTOR

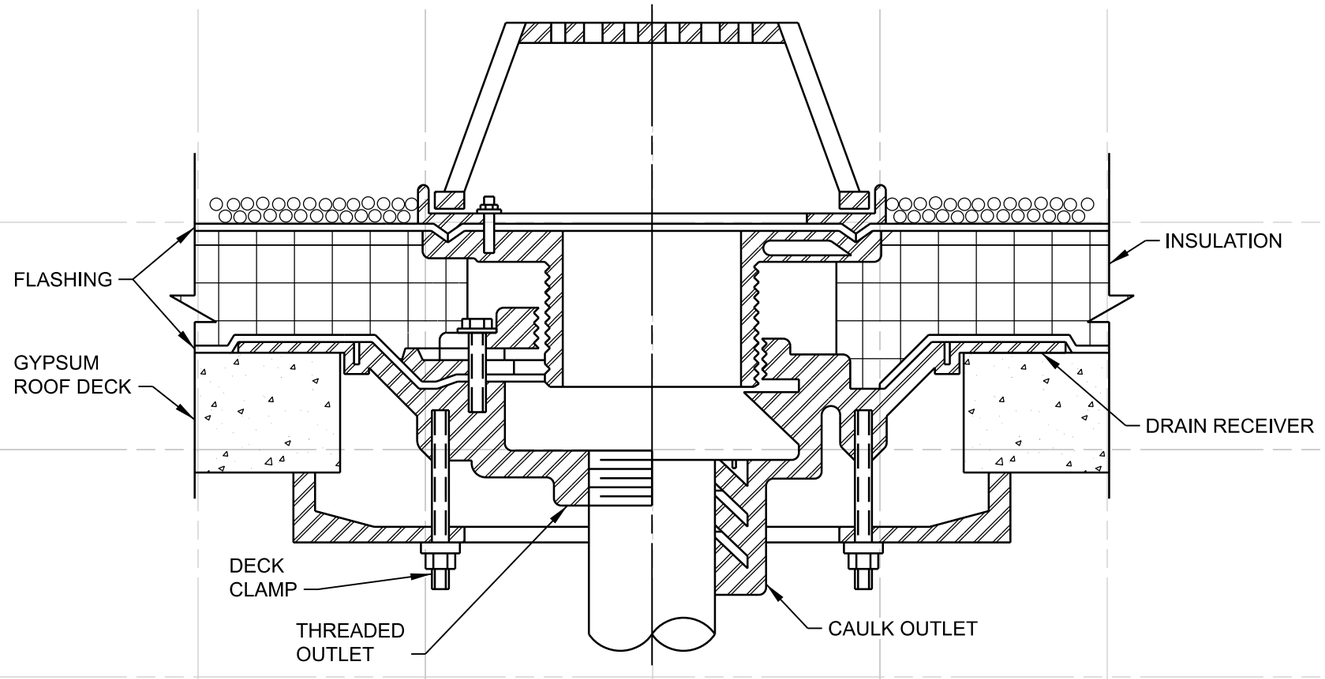
SCALE: NTS



A1

DETAIL: RAIN LEADER DROP

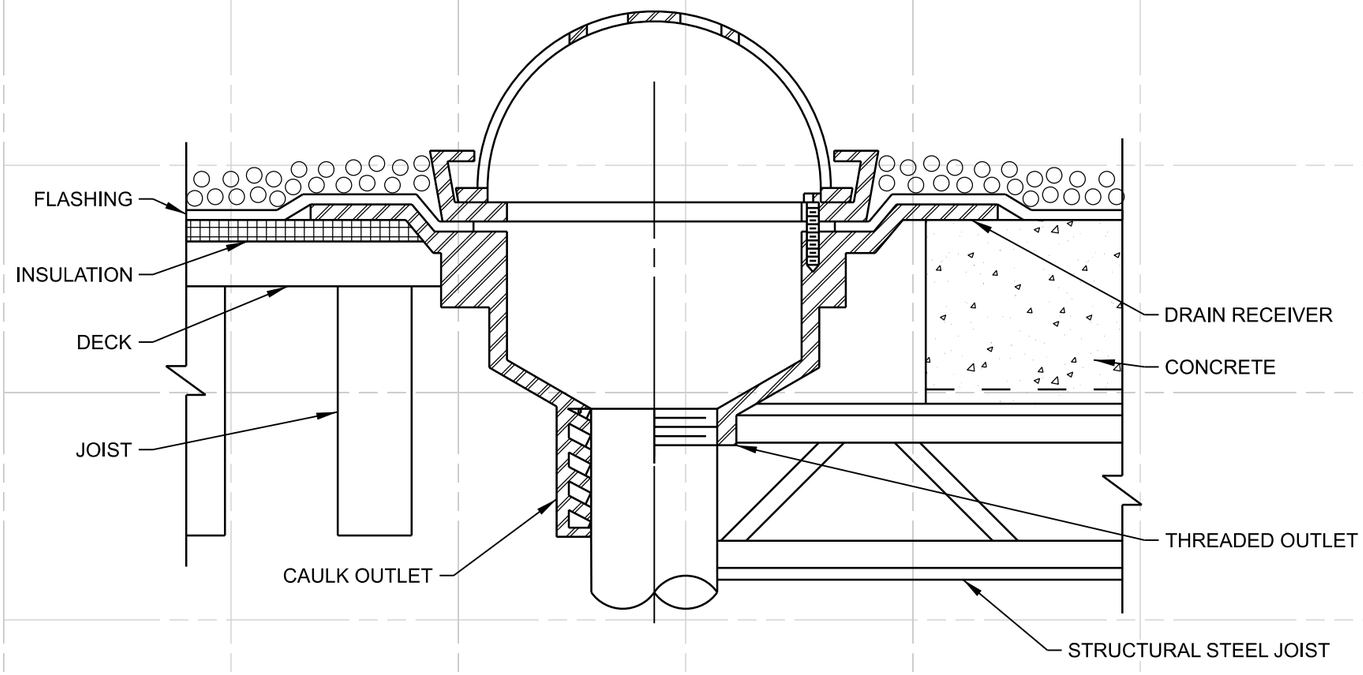
SCALE: NTS



A1

DETAIL: LARGE SUMP ROOF DRAIN

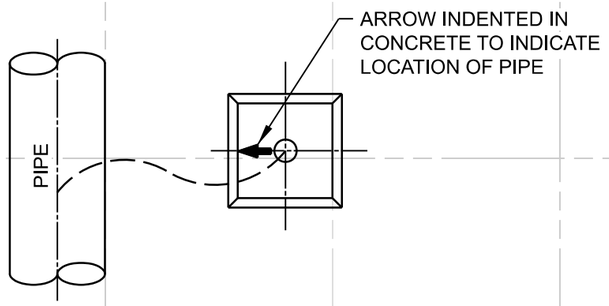
SCALE: NTS



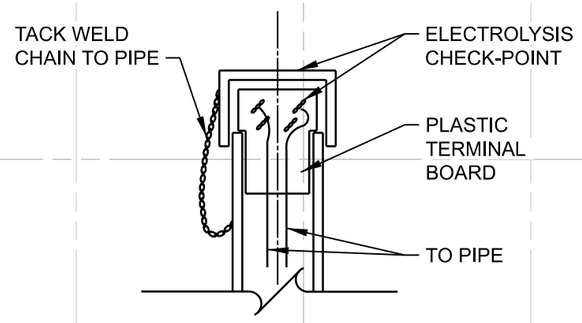
A1

DETAIL: MEDIUM SUMP ROOF DRAIN

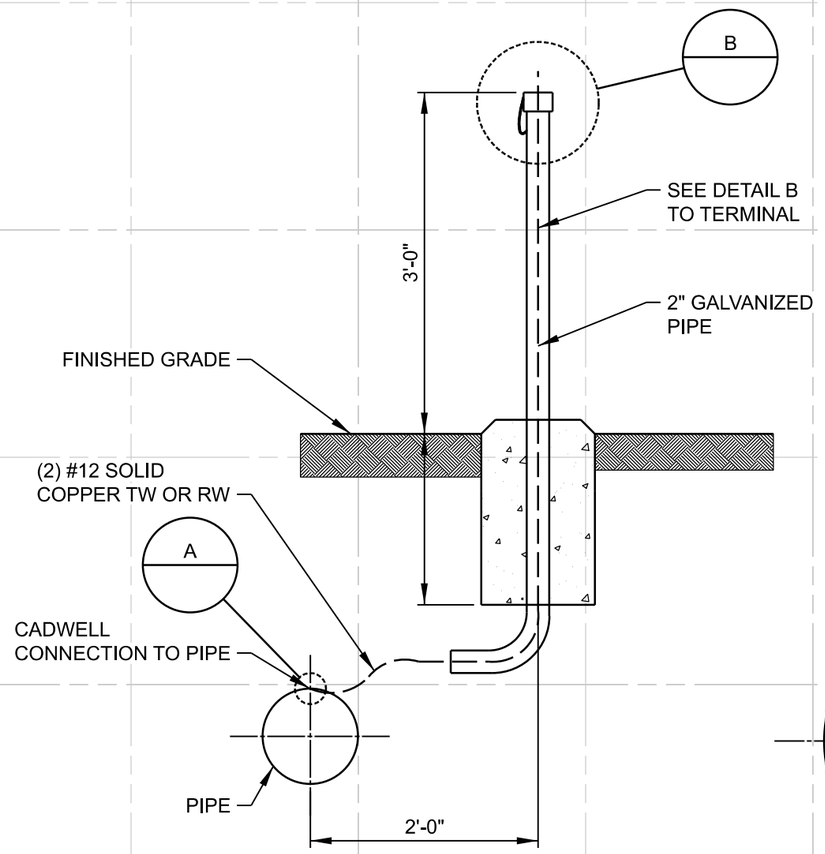
SCALE: NTS



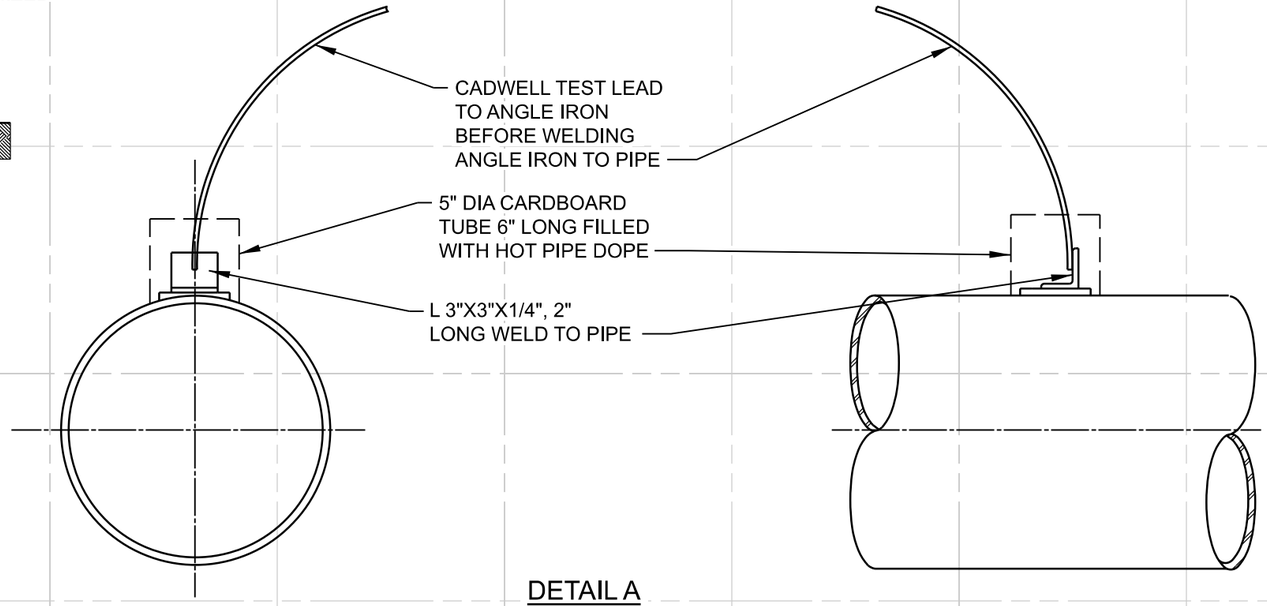
PLAN



DETAIL B



ELEVATION



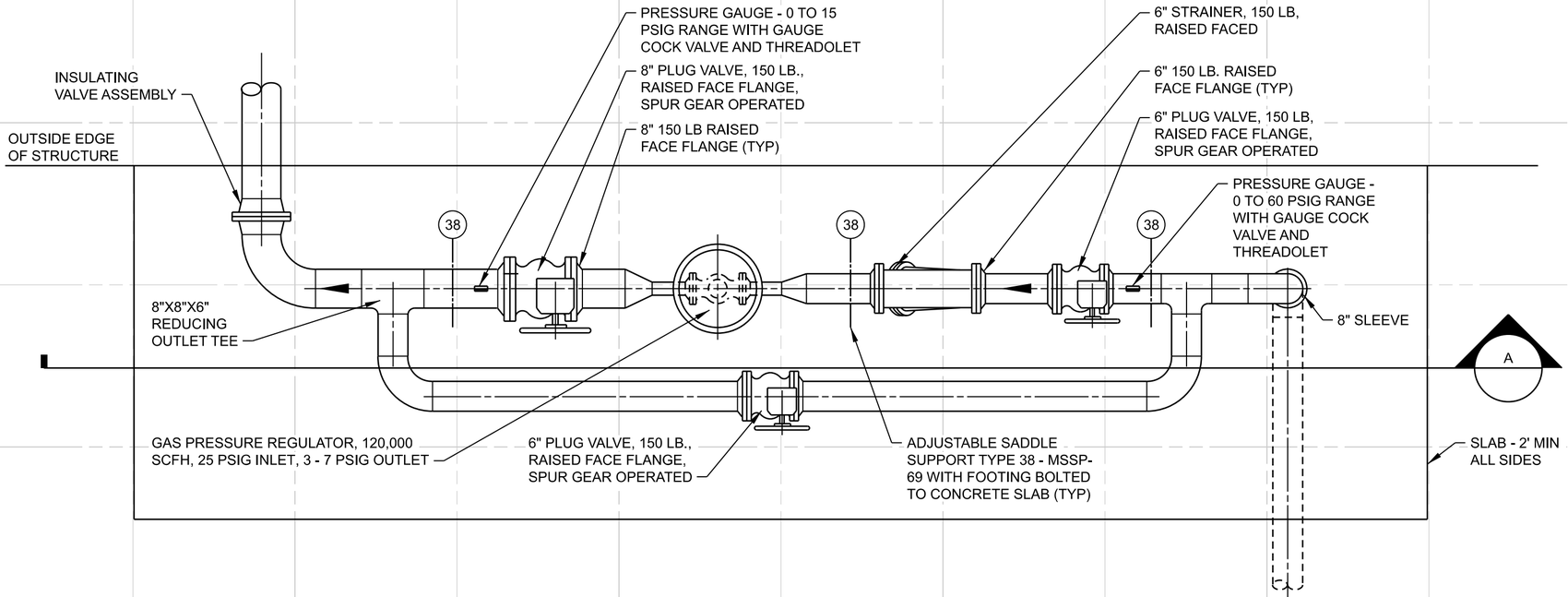
DETAIL A

A1

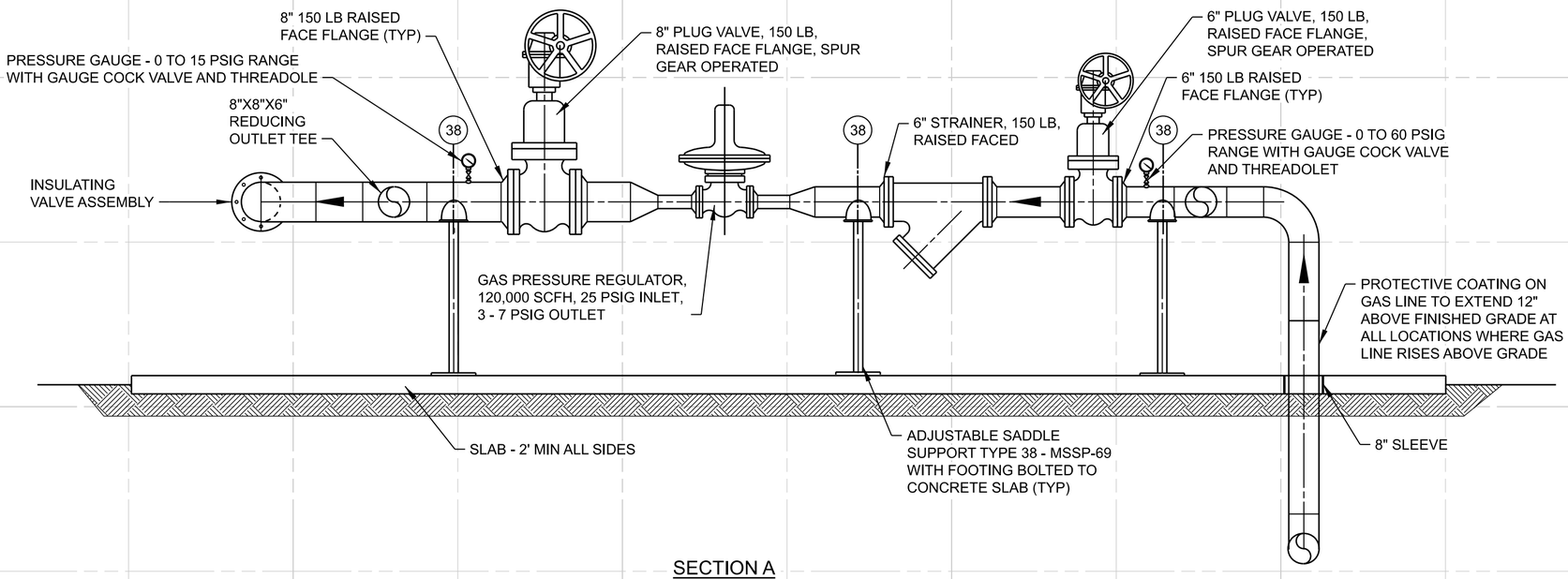
DETAIL: CORROSION CONTROL TEST STATION

SCALE: 3/4"=1'-0"

0 1' 2' 4'



PLAN

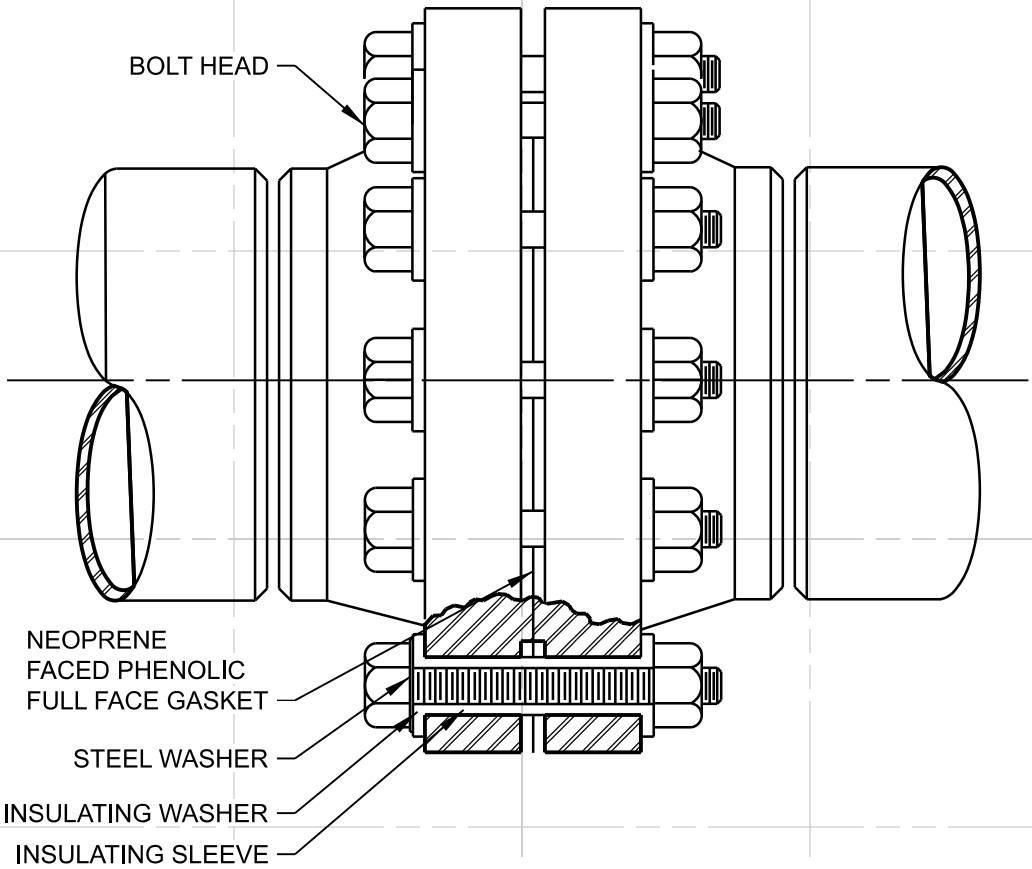


SECTION A

A1 DETAIL: PRESSURE REGULATION STATION

SCALE: 1/2"=1'-0"

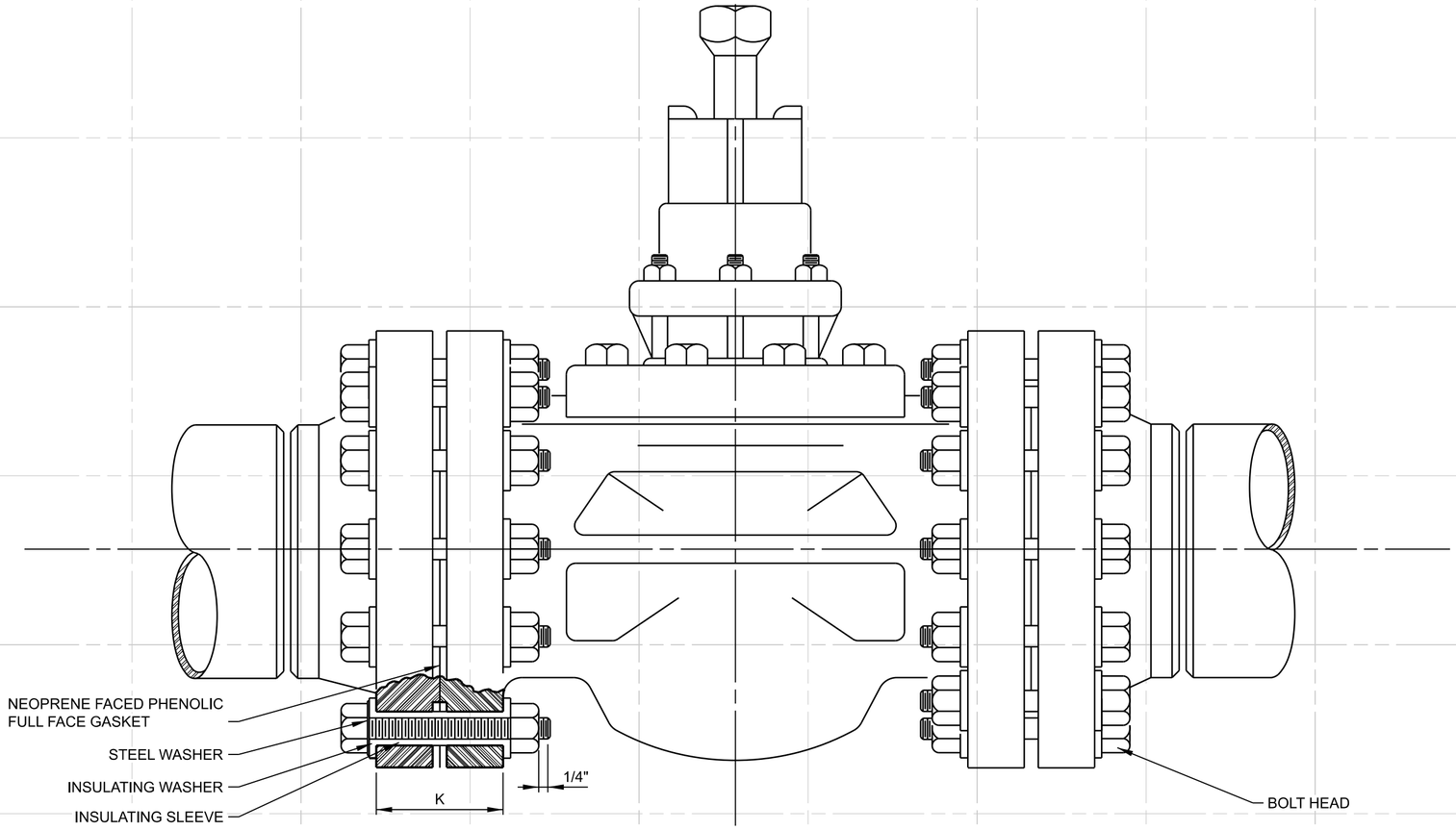
0 1' 2' 4'

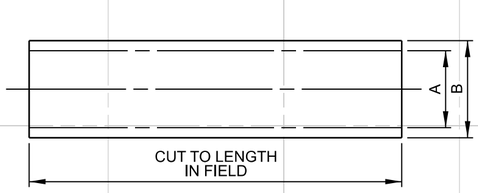


A1

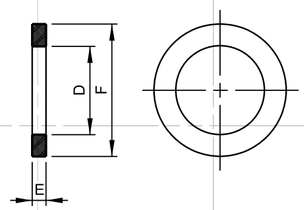
DETAIL: INSULATING FLANGE ASSEMBLY

SCALE: NTS

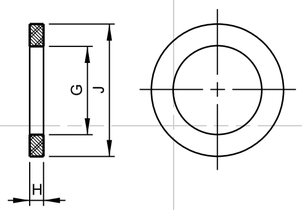




INSULATING SLEEVE



INSULATING WASHER



STEEL WASHER

DIA OF BOLT HOLES	DIA BOLTS	SLEEVES		WASHERS		* STEEL WASHERS MEDIUM WEIGHTS				
		A	B	**D	F		G	J	H	
									MAX	MIN
5/8	1/2	17/32	19/32	19/32	1-1/4	1/2	9/16	1-1/4	.132	.086
3/4	5/8	21/32	23/32	23/32	1-1/2	5/8	11/16	1-1/2	.160	.108
7/8	3/4	25/32	27/32	27/32	1-3/4	3/4	13/16	1-3/4	.177	.122
1	7/8	29/32	31/32	31/32	2	7/8	15/16	2	.192	.136

* 1949 S.A.E. HANDBOOK

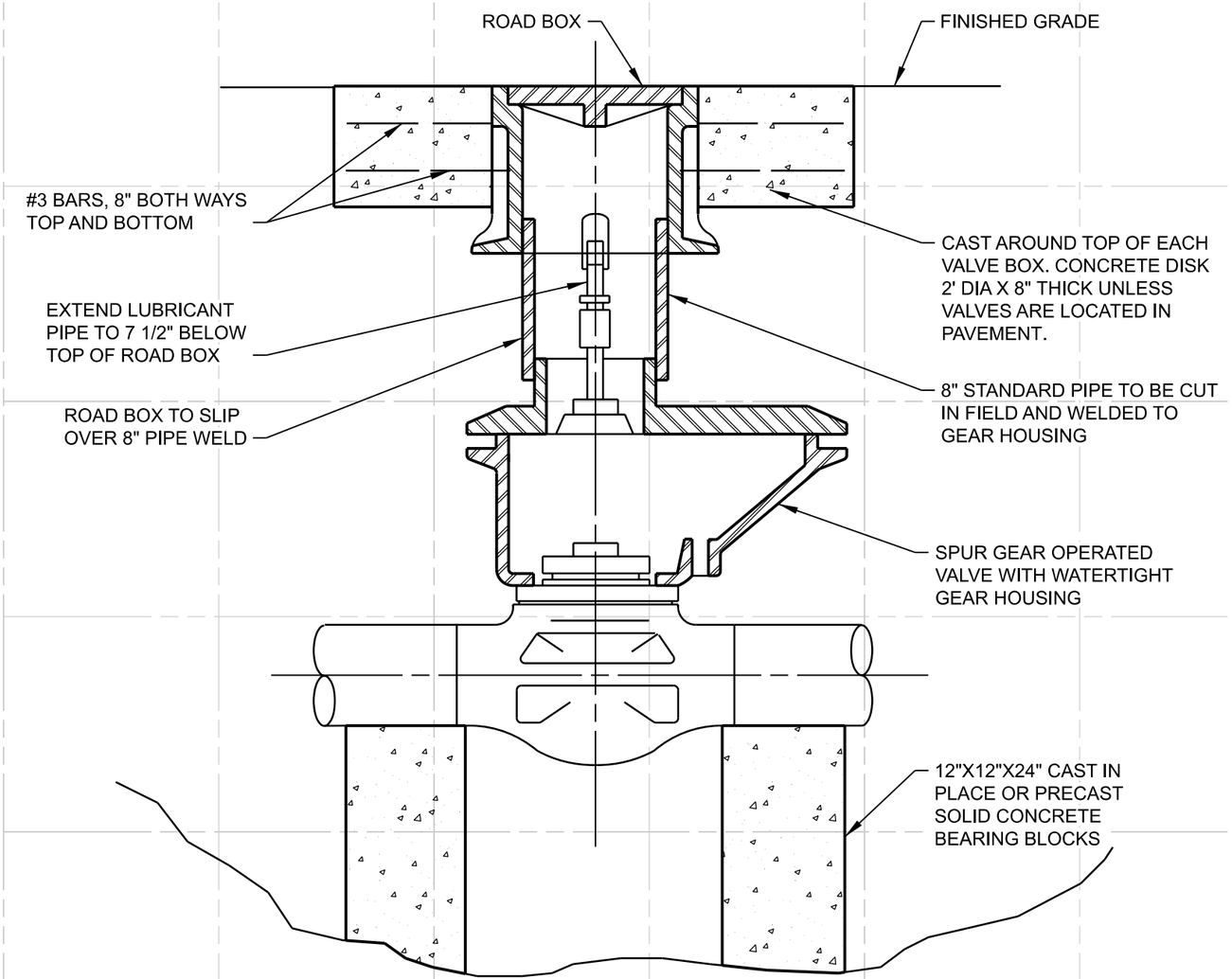
TOLERANCE +1/64
-0

NOTES:
1 CUT SLEEVE LENGTH 1/8" SHORTER THAN DIMENSION "K".
2 INSULATING SLEEVES SHALL BE MYLAR OR EQUAL, AND MAY BE CUT FROM 3 FT LENGTH IN FIELD.
3 INSULATING WASHERS MAY BE PHENOLIC.
4 COAT AND WRAP ASSEMBLY.
5 WHERE INSULATING JOINTS ARE SHOWN AT LOCATIONS OTHER THAN VALVES, CONSTRUCTION SHALL BE IN ACCORDANCE WITH FLANGE DETAIL OF TYPICAL INSULATING VALVE ASSEMBLY.

A1

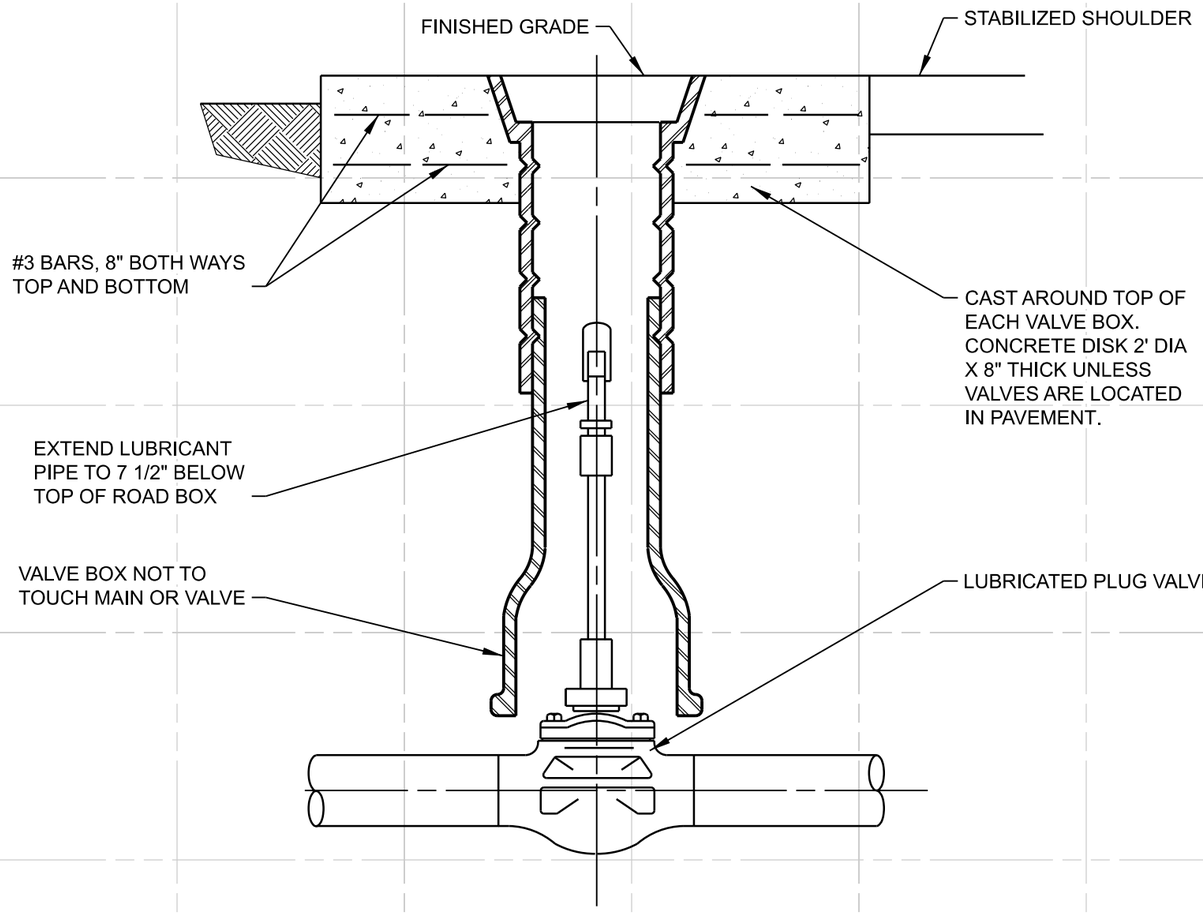
DETAIL: INSULATING VALVE ASSEMBLY

SCALE: NTS



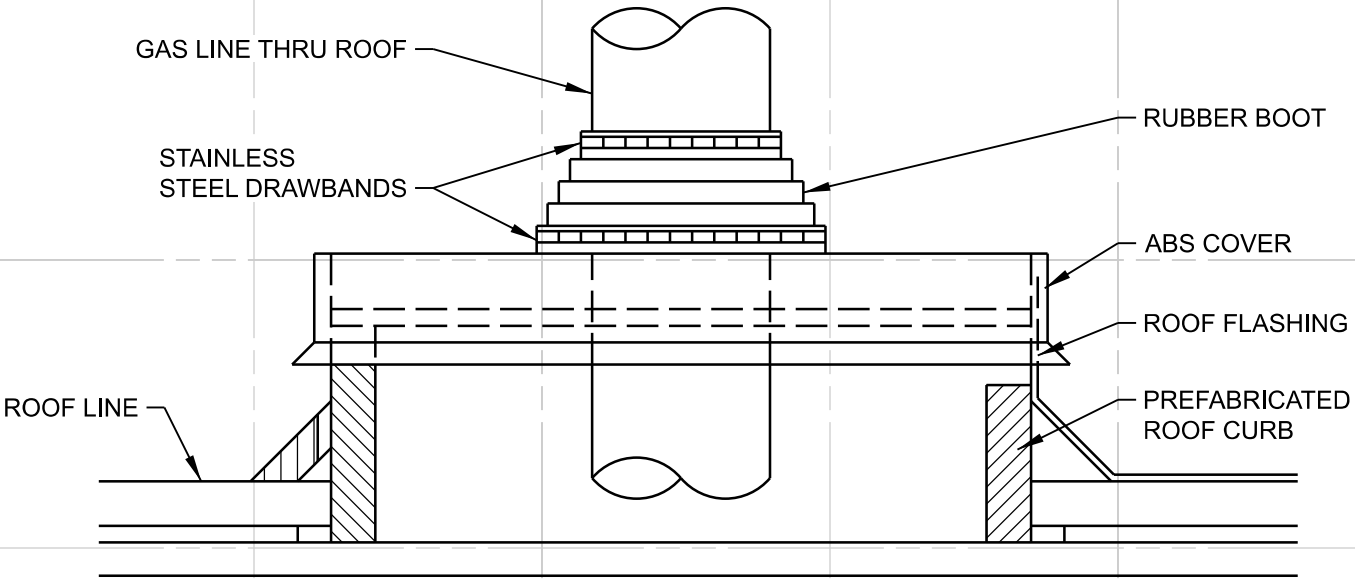
A1 DETAIL: VALVE - 6" AND LARGER

SCALE: NTS



A1 DETAIL: 1" THRU 4" VALVES

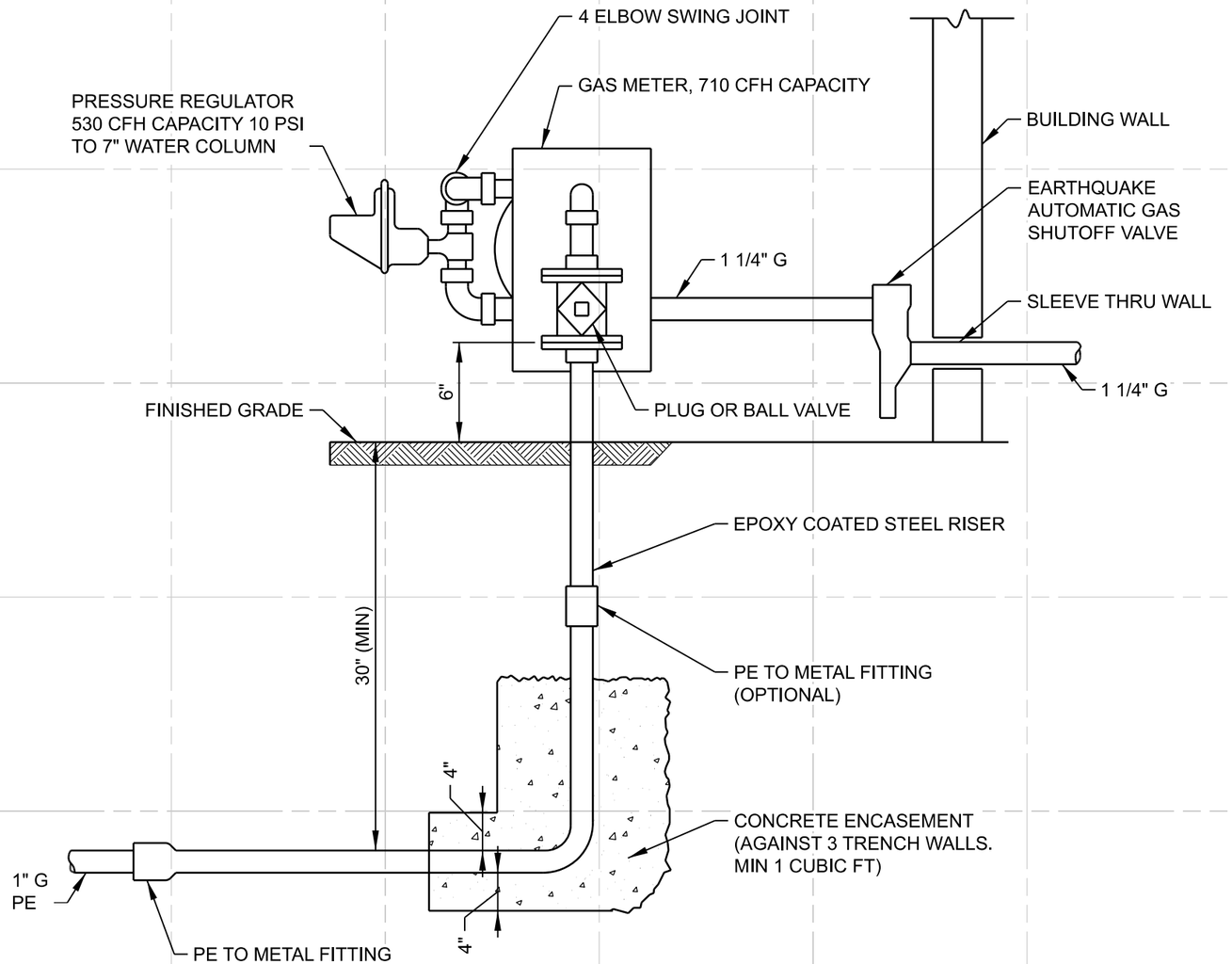
SCALE: NTS



A1

DETAIL: ROOF CURB FOR GAS LINE PENETRATION

SCALE: NTS

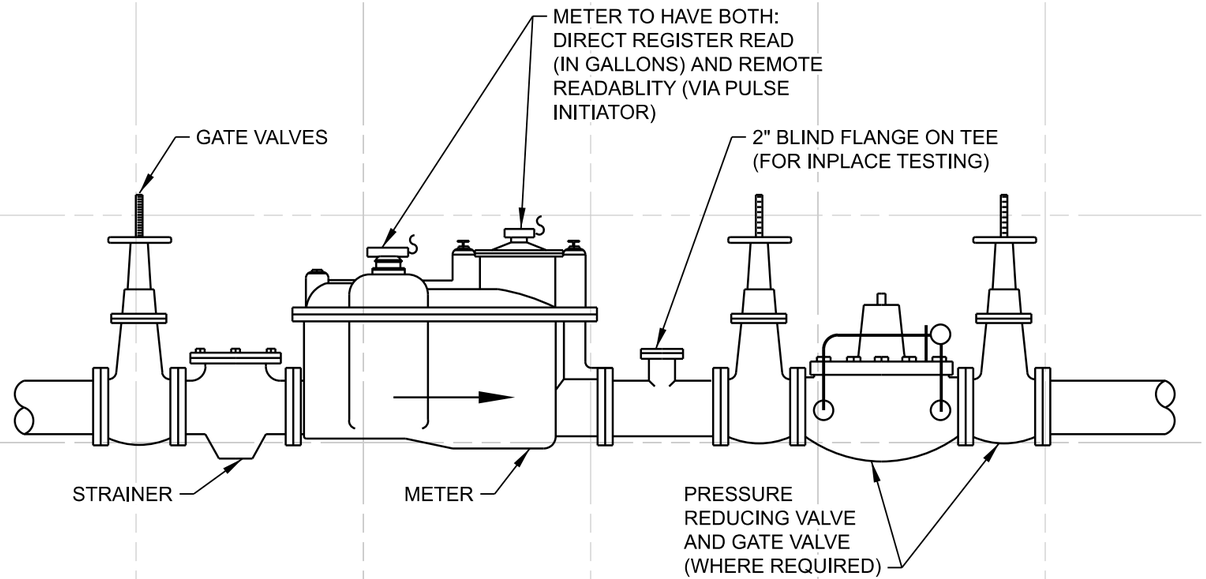


NOTES:
EARTHQUAKE AUTOMATIC GAS SHUTOFF VALVES ARE OPTIONAL AND ARE NOT REQUIRED FOR NONESSENTIAL FACILITIES LOCATED WITHIN SEISMIC ZONES 1 OR 2.

A1

DETAIL: GAS METER AND REGULATOR CONNECTION

SCALE: NTS

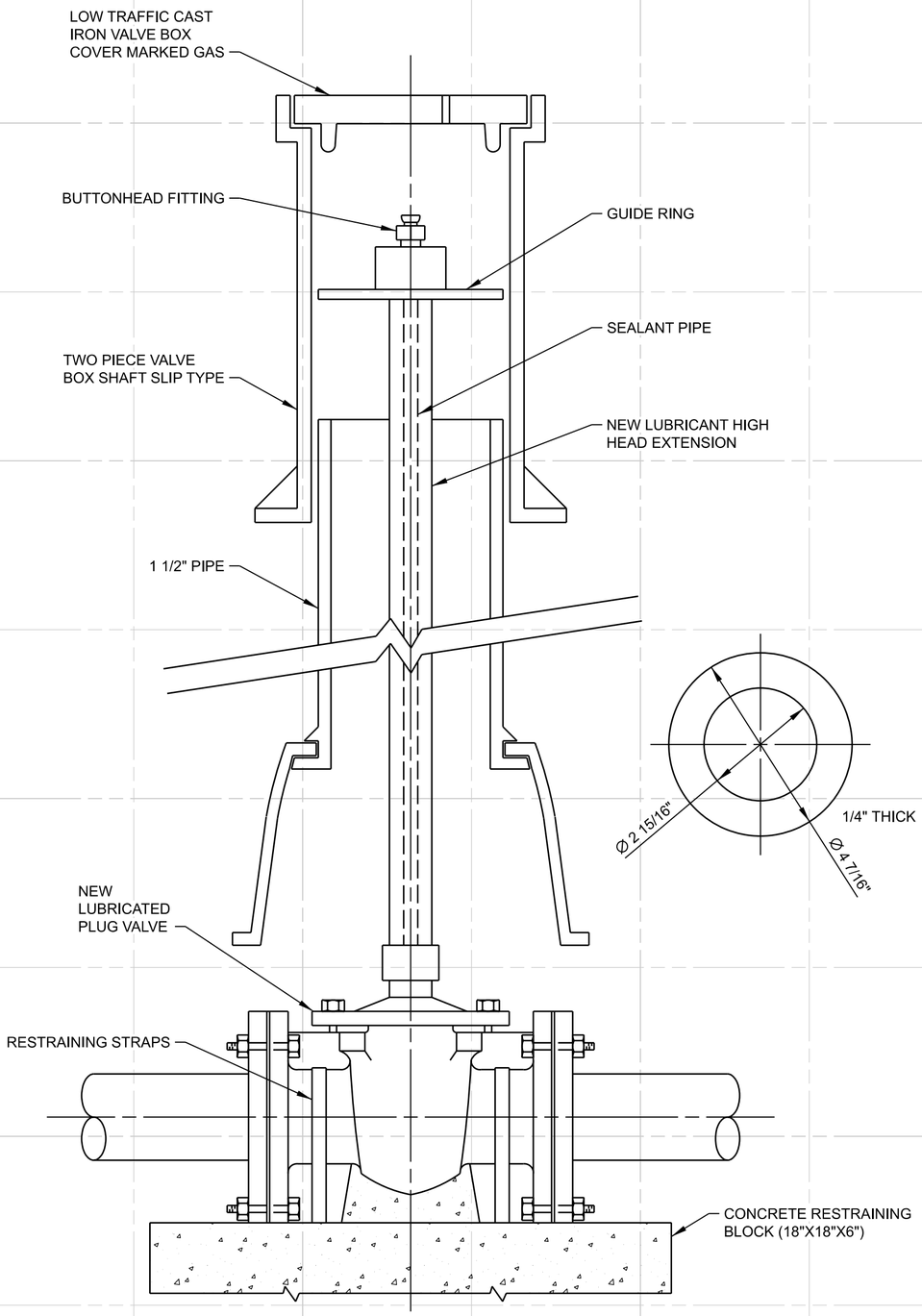


NOTES:
1. PROVIDE A "DRESSER-TYPE" COUPLING ON METER ASSEMBLY INSTALLATIONS IN VAULTS TO ALLOW FOR EASY REMOVAL OF FLANGED COMPONENTS.
2. METERING ASSEMBLY TO BE PROPERLY INSTALLED AND ADEQUATELY SUPPORTED TO ALLOW FOR EASY MAINTENANCE, REPAIR AND REPLACEMENT.

A1

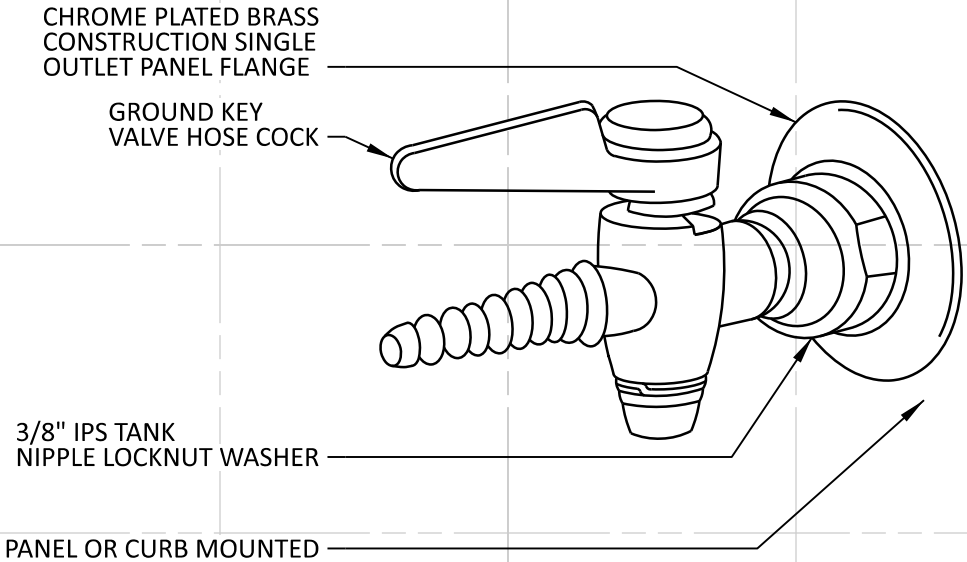
DETAIL: METER CONFIGURATION 2" TO 6" COMPOUND METER

SCALE: NTS



A1 DETAIL: GAS VALVE AND VALVE BOX

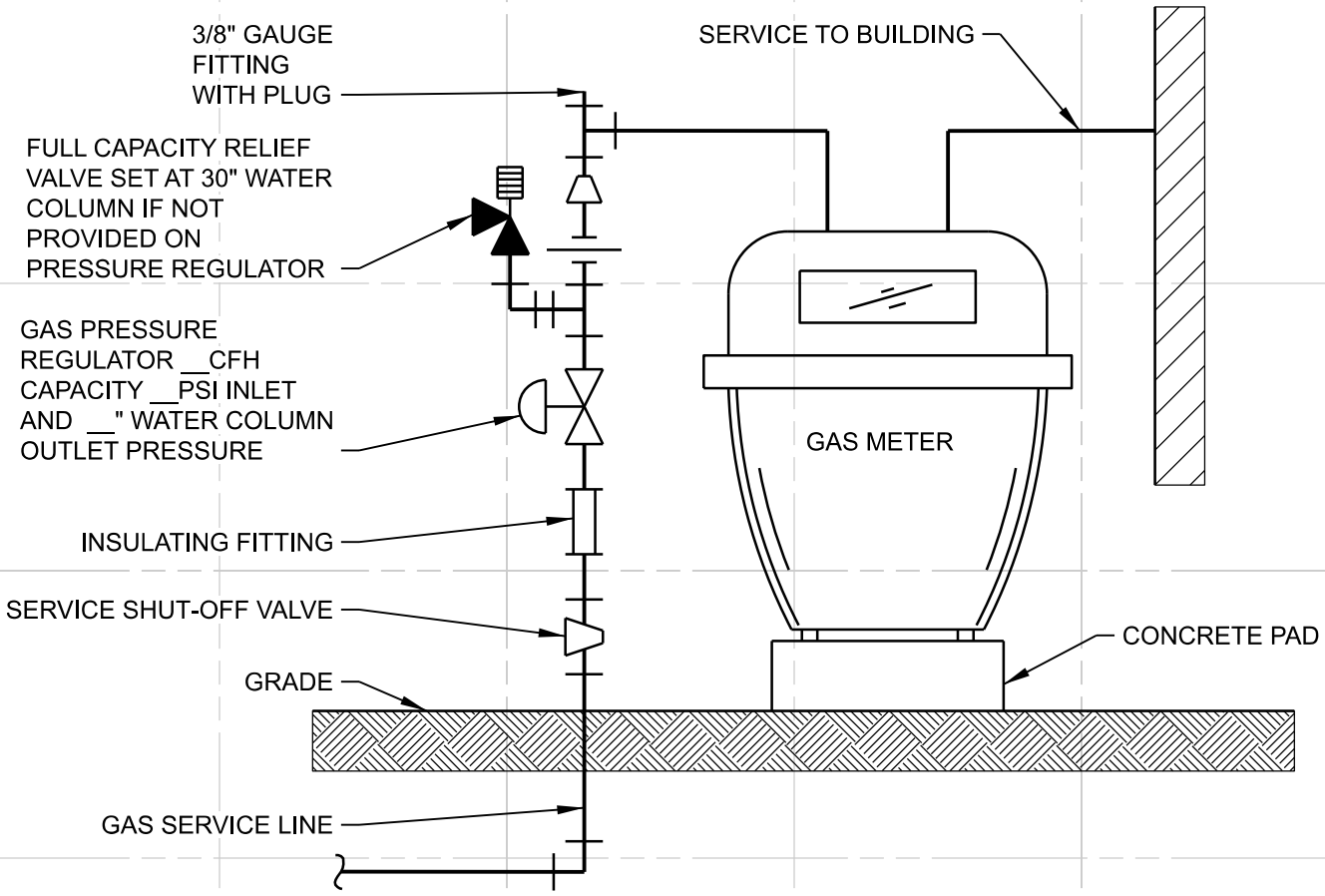
SCALE: NTS



A1

DETAIL: NATURAL GAS SPIGOT

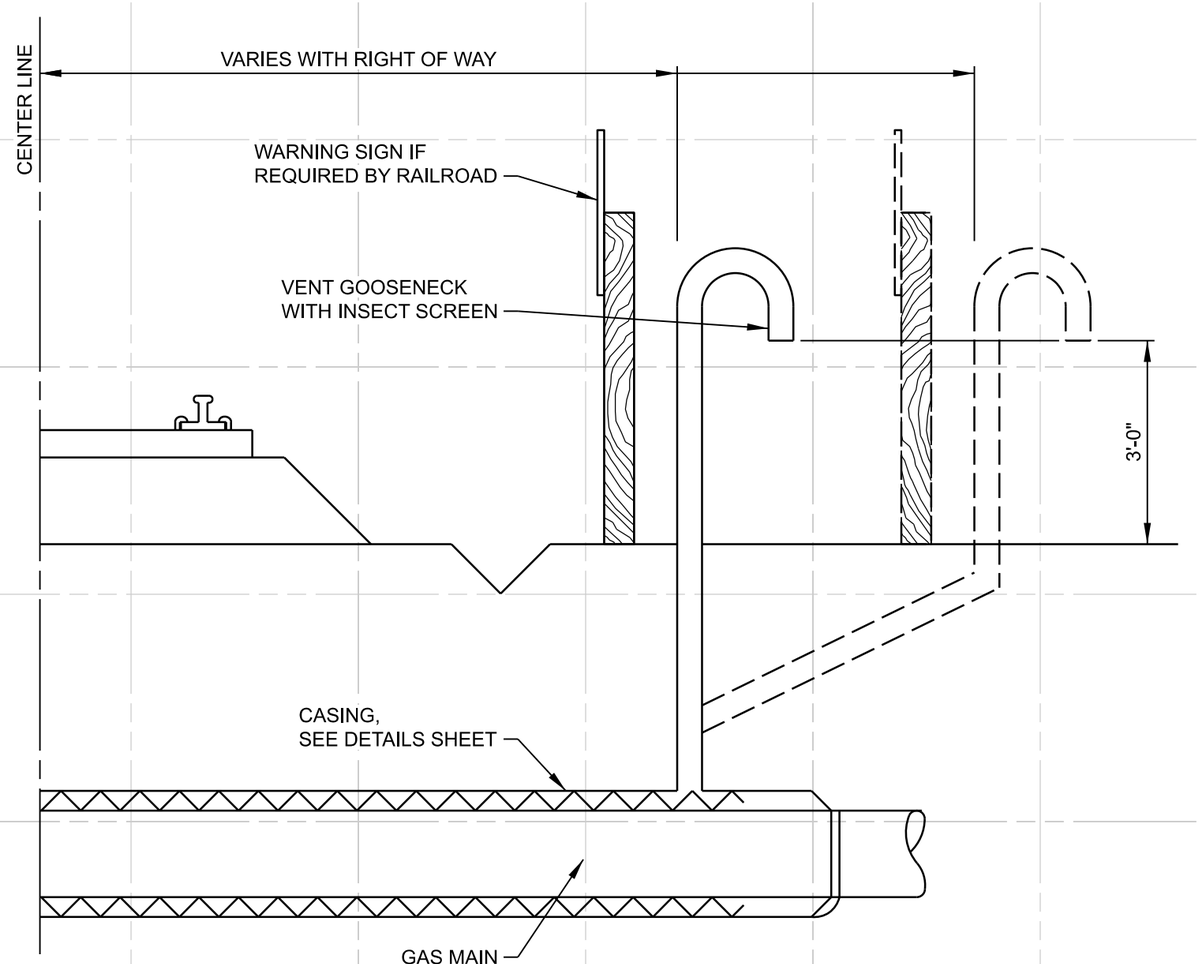
SCALE: NTS



A1

DETAIL: METERED GAS SERVICE ENTRANCE

SCALE: NTS

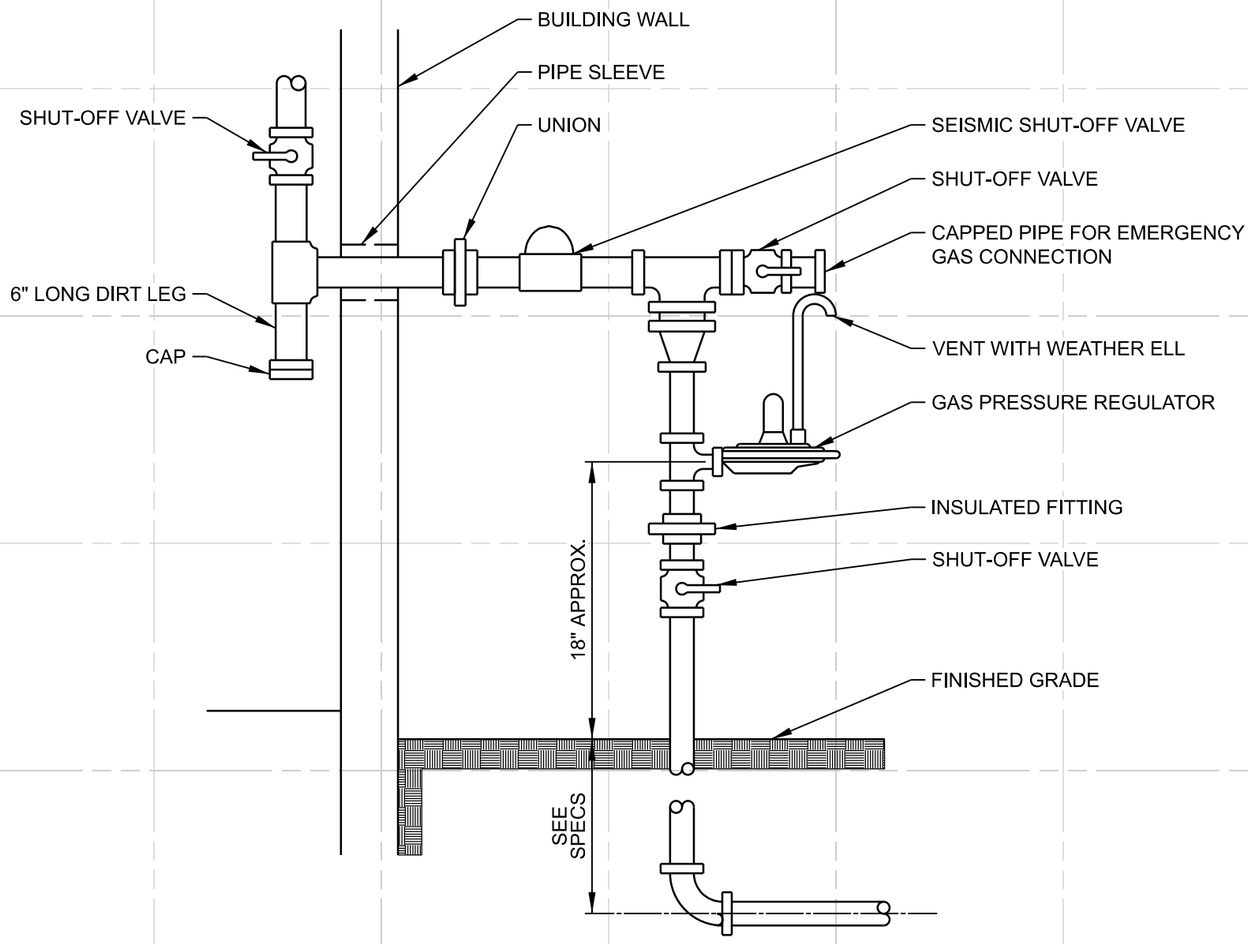


NOTES:
1. CASING SHALL BE AT LEAST 4" (NOMINAL) GREATER THAN CARRIER SIZE.
2. CASING SHALL BE BURIED A MINIMUM OF 3 FEET.
3. VENT IS OPTIONAL ON CROSSINGS. COORDINATE WITH LOCAL AUTHORITIES.

A1

DETAIL: GAS LINE RAILROAD CROSSING

SCALE: NTS

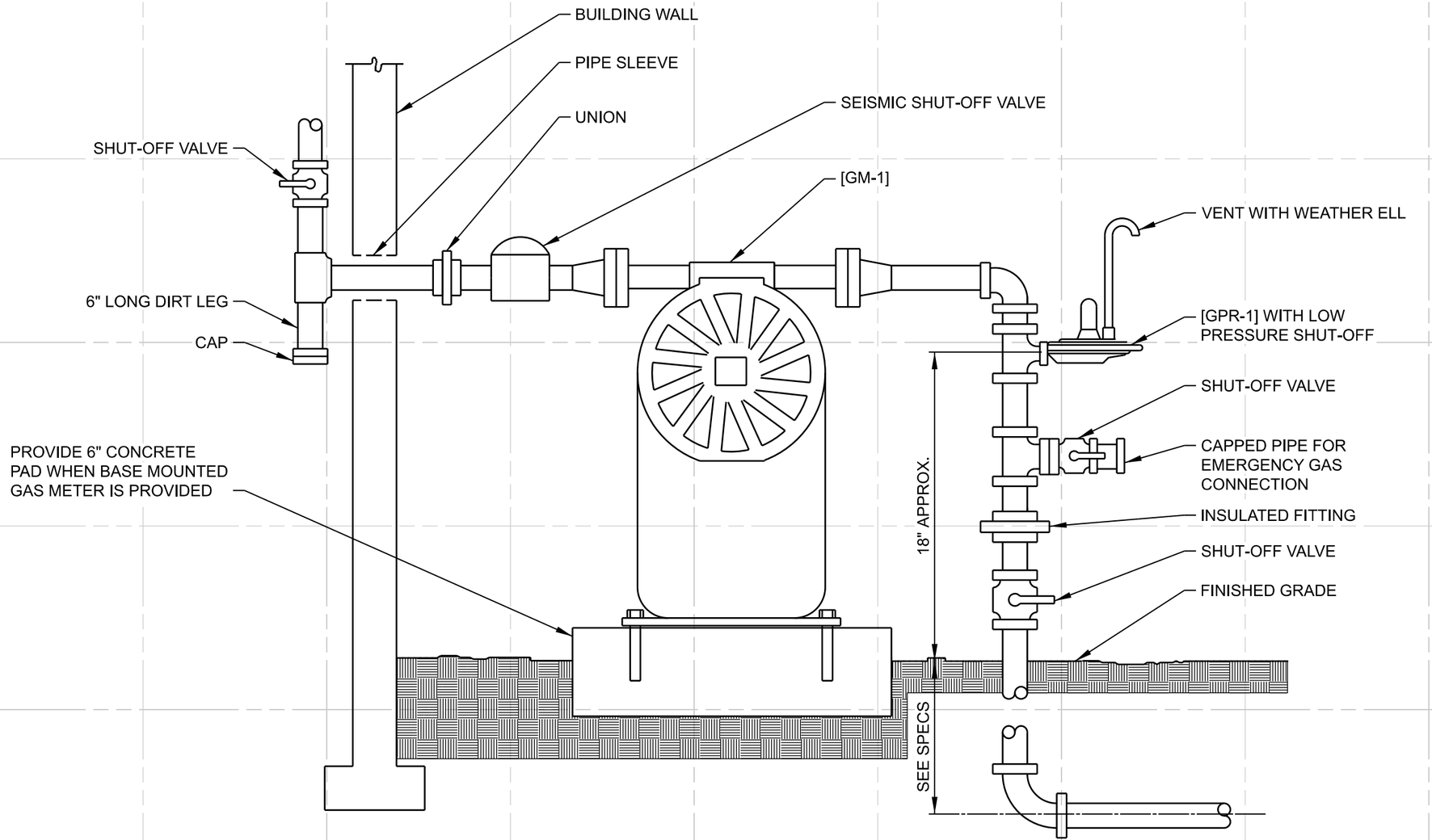


NOTE:
SEISMIC SHUT-OFF VALVES ARE OPTIONAL AND ARE NOT REQUIRED FOR NONESSENTIAL FACILITIES LOCATED WITHIN SEISMIC ZONES 1 OR 2.

A1

DETAIL: GAS PRESSURE REGULATOR

SCALE: NTS

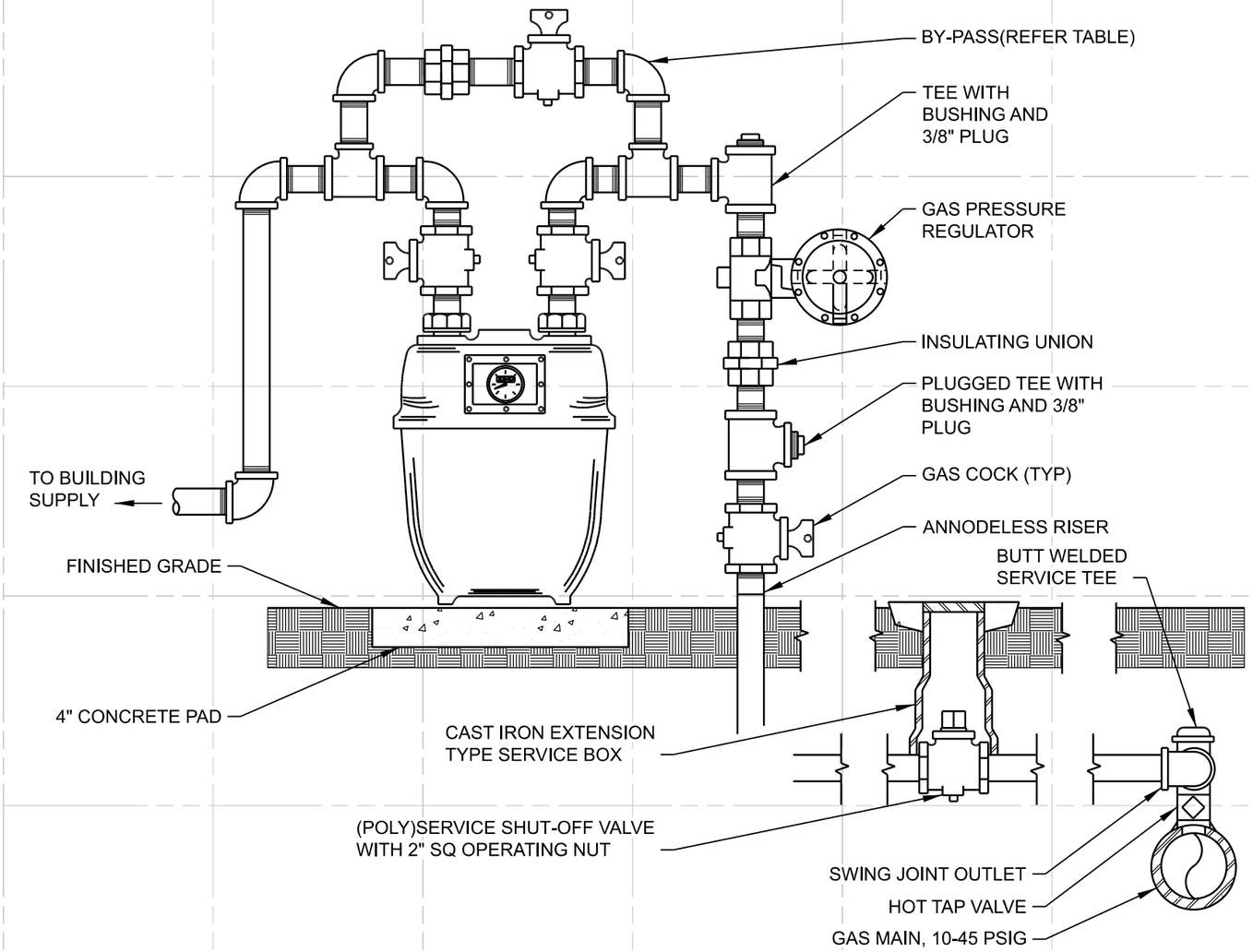


NOTE:
SEISMIC SHUT-OFF VALVES ARE OPTIONAL AND ARE NOT REQUIRED FOR NONESSENTIAL FACILITIES LOCATED WITHIN SEISMIC ZONES 1 OR 2.

A1

DETAIL: GAS METER AND REGULATOR

SCALE: NTS



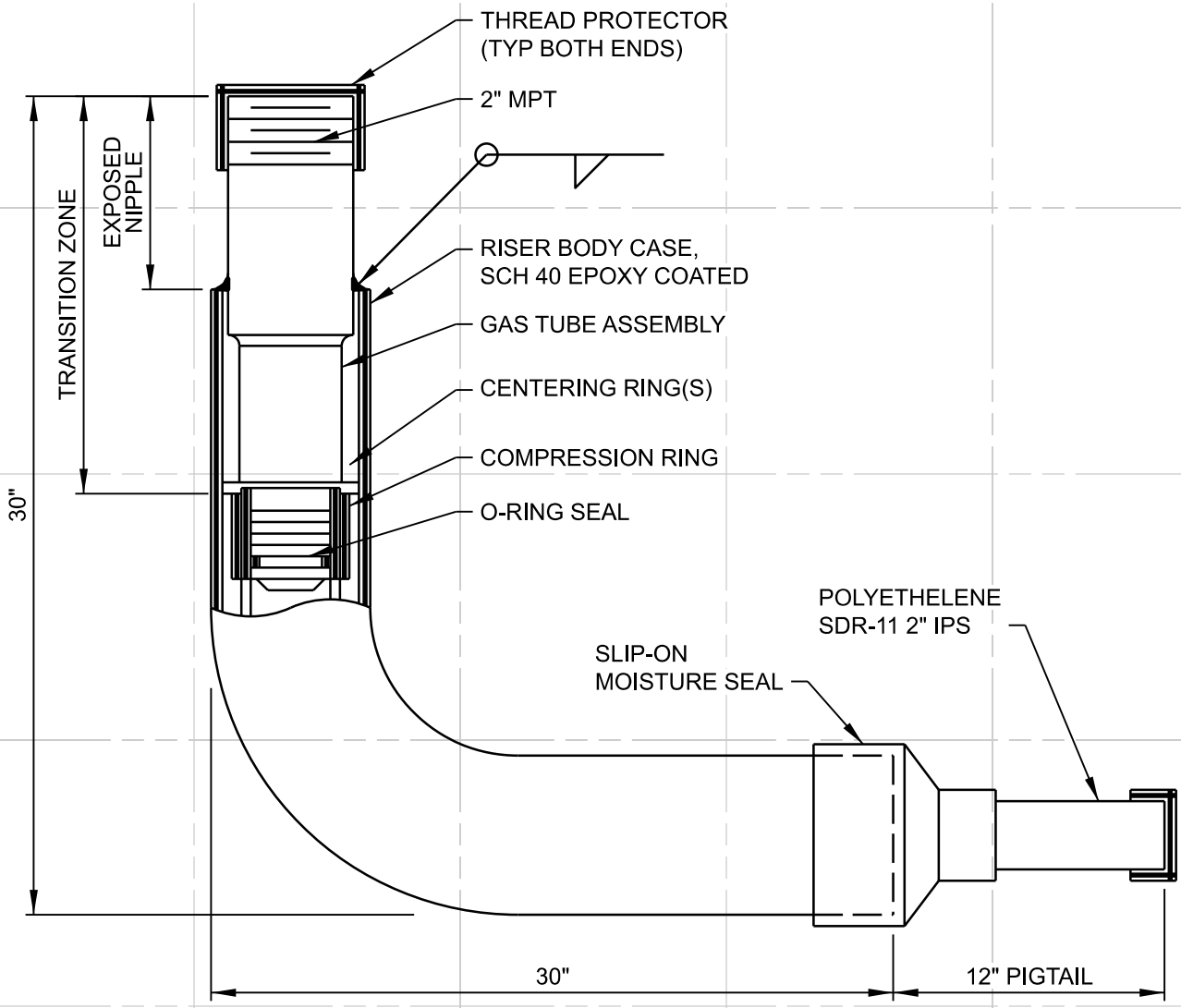
GAS METER DATA BY BUILDING			
BUILDING	BY-PASS LINE SIZE	STD CU FT/HR	REG CAP (CFH)
DORMITORY BUILDINGS	3"	3,900	4,485
ADMINISTRATION BUILDING	3"	5,495	6,295

NOTE:
LINE SIZES AS CALLED FOR ON SITE PLAN

A1

DETAIL: GAS SERVICE (WITH BY-PASS)

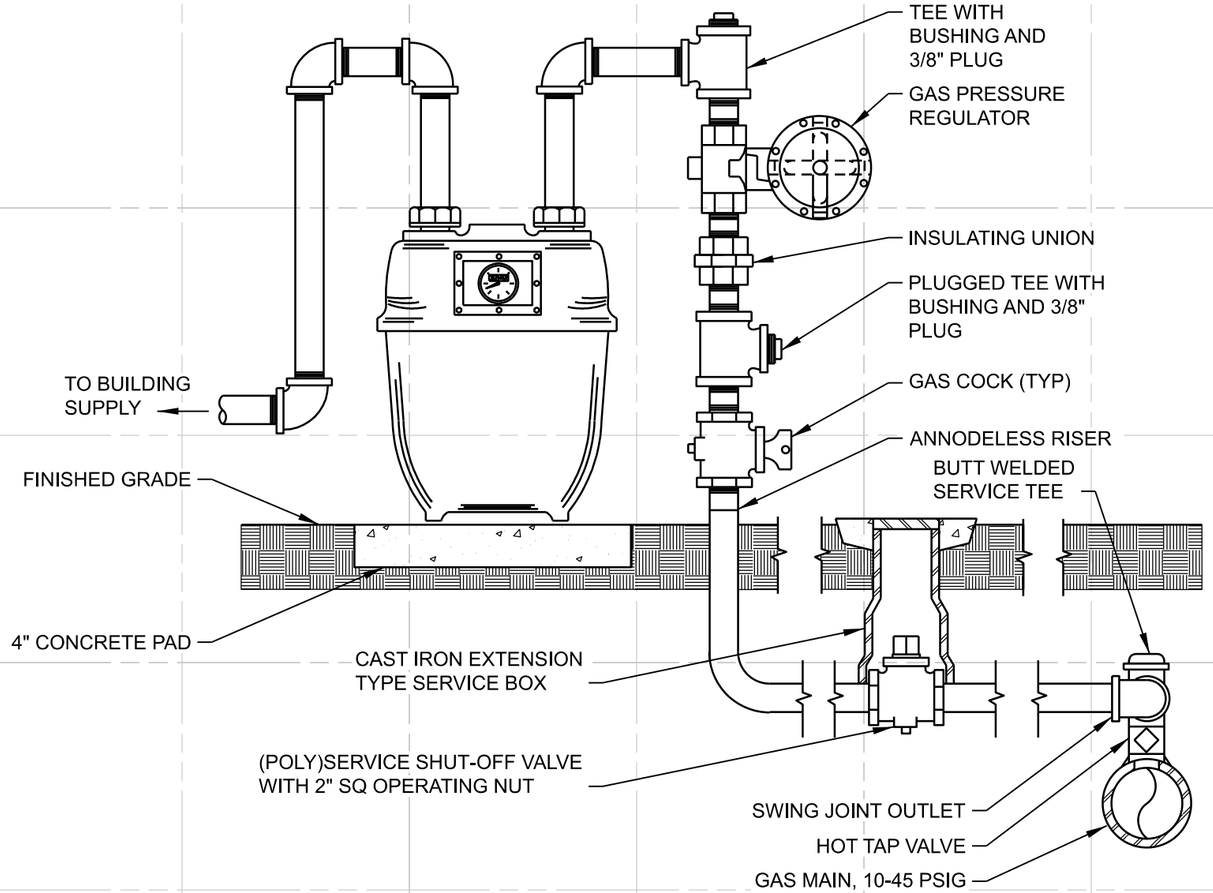
SCALE: NTS



A1

DETAIL: ANODELESS GAS METER RISER

SCALE: NTS

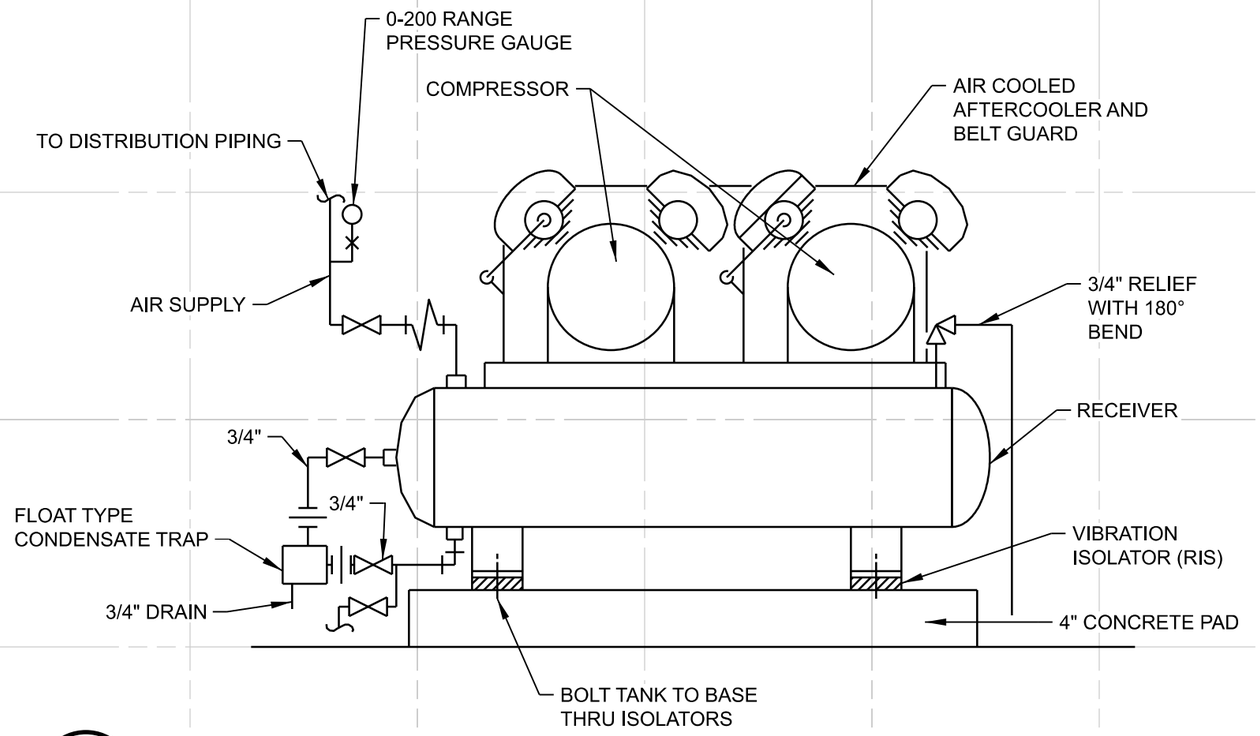


NOTE:
LINE SIZES AS CALLED FOR ON SITE PLAN

A1

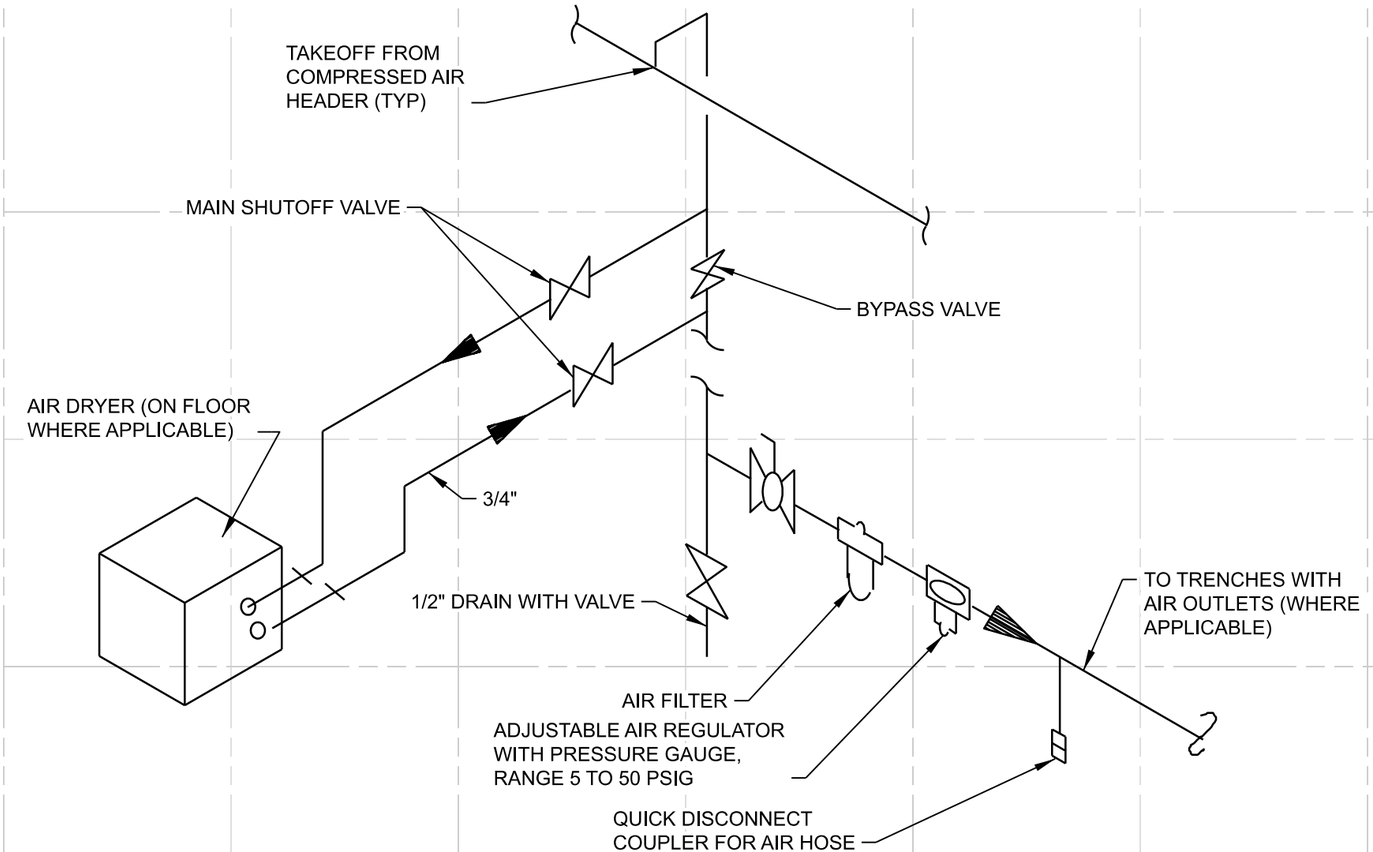
DETAIL: GAS SERVICE CONNECTION

SCALE: NTS



A1 DETAIL: AIR COMPRESSOR

SCALE: NTS

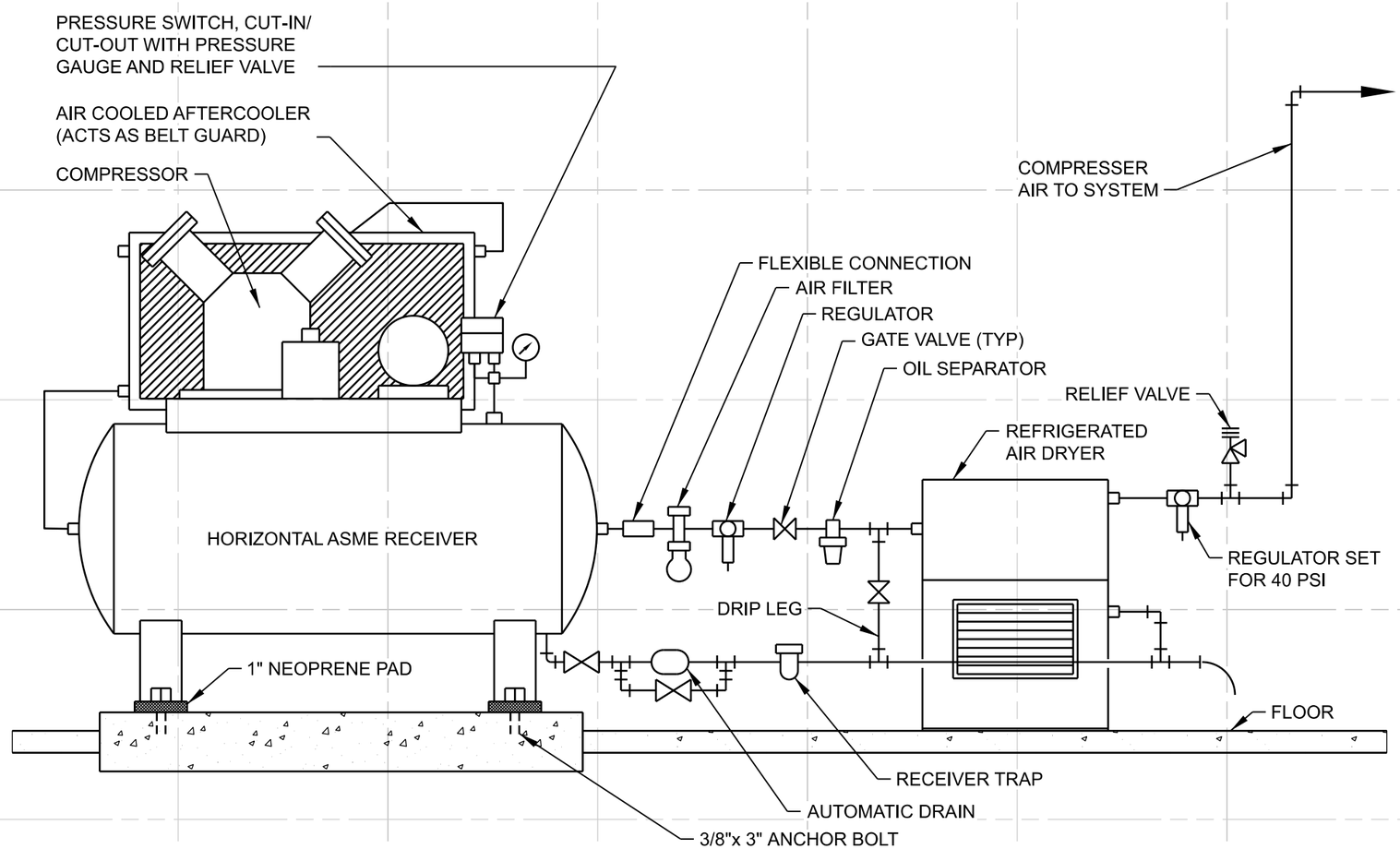


NOTE:
SEE PLAN DRAWINGS FOR AIR DROP PIPE SIZES (VARIES ACCORDING TO ROOM REQUIREMENTS).

A1

DETAIL: COMPRESSED AIR OUTLET

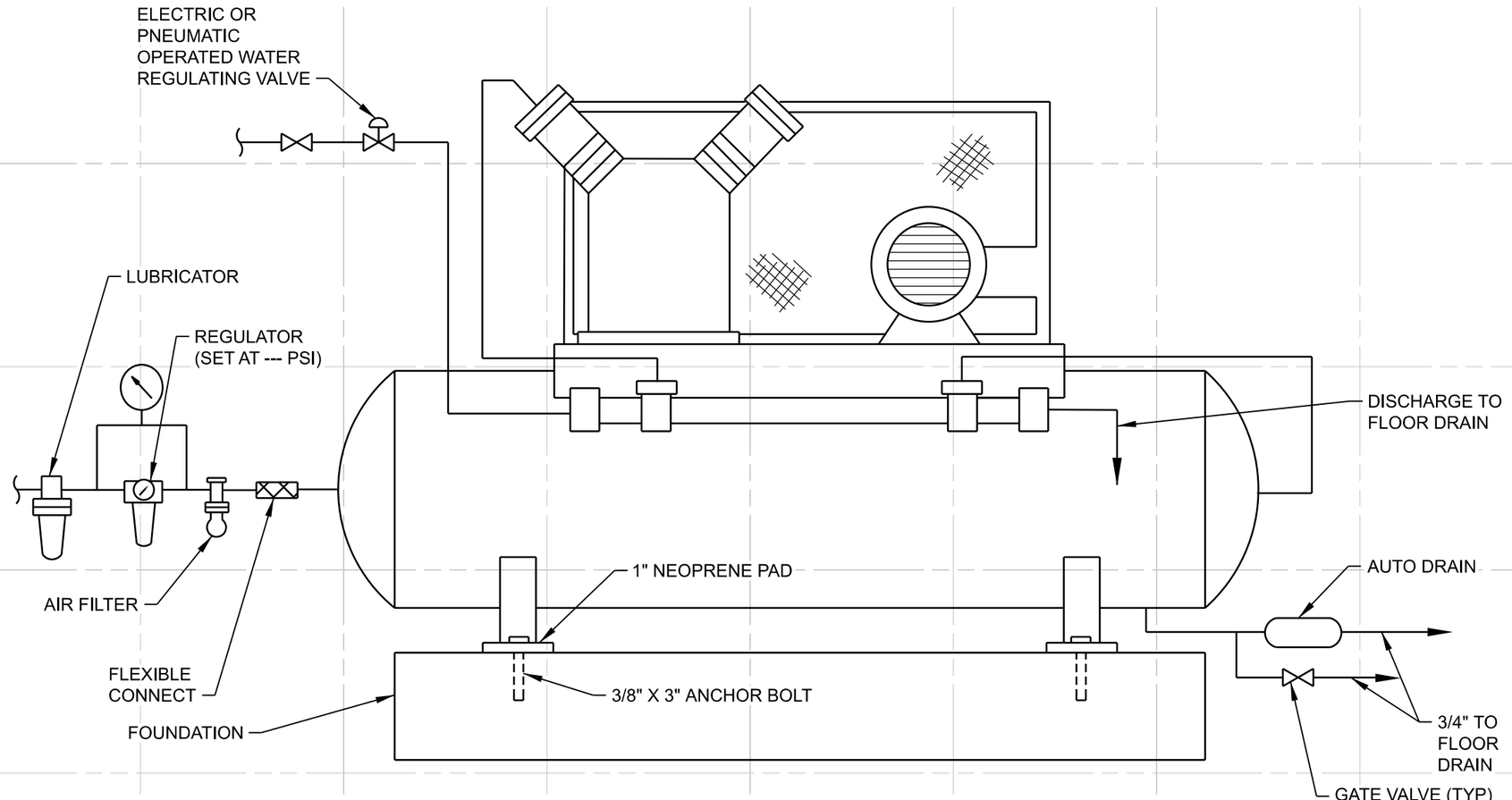
SCALE: NTS



A1

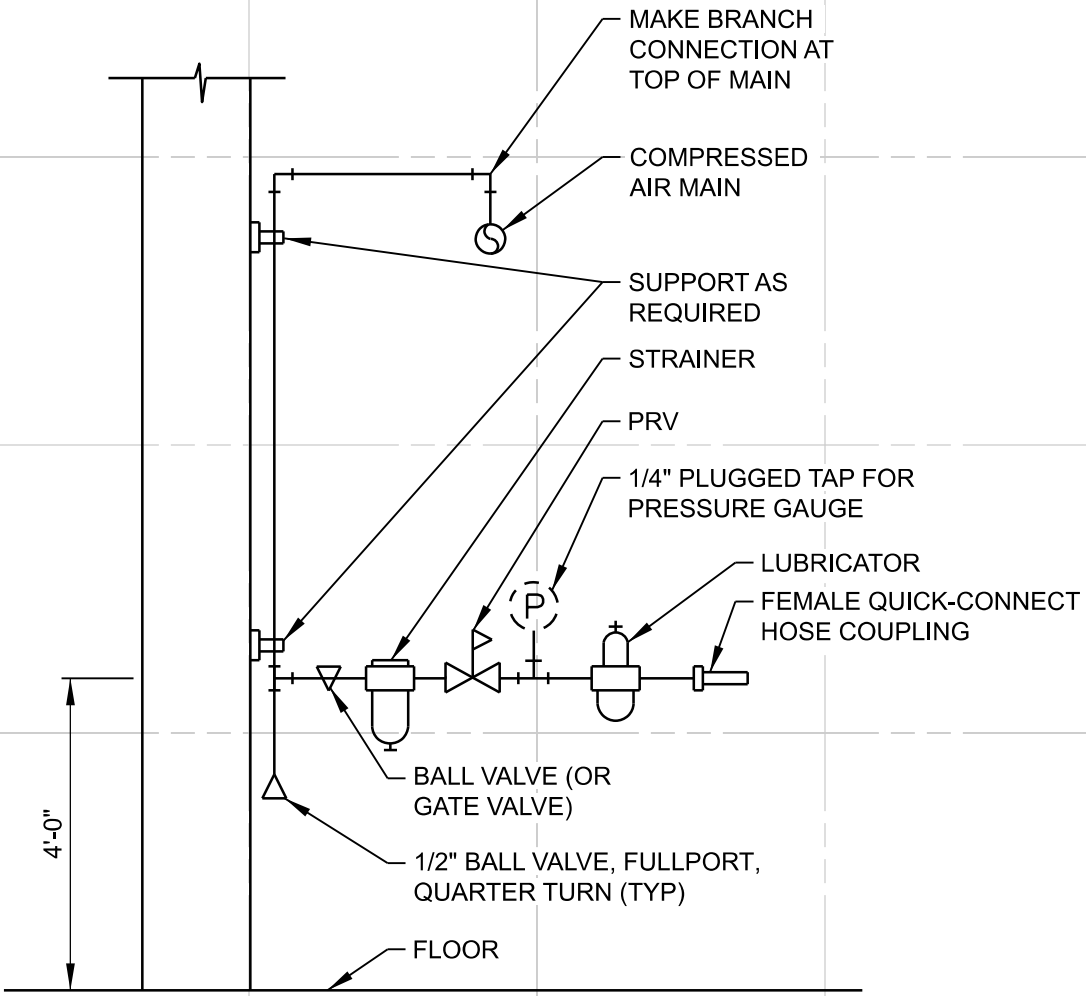
DETAIL: AIR COMPRESSOR WITH AIR DRYER

SCALE: NTS



A1 DETAIL: AIR COMPRESSOR

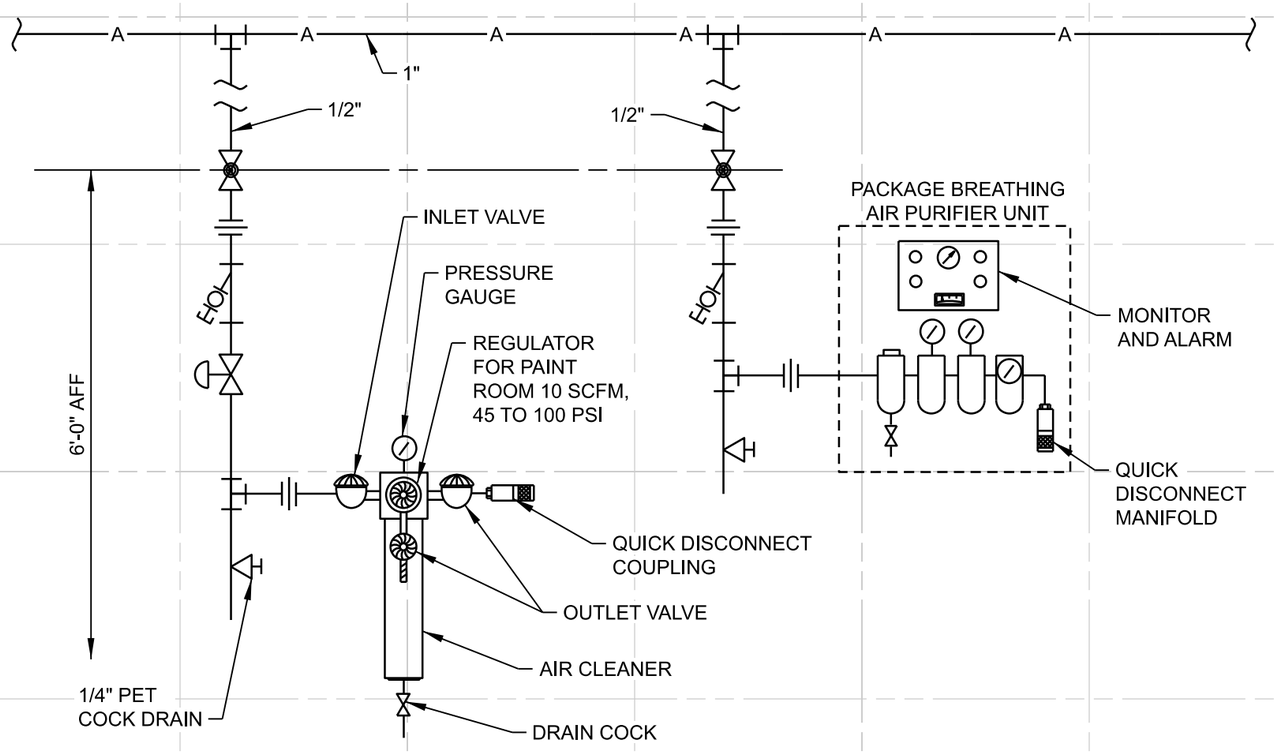
SCALE: NTS



A1

DETAIL: TYPICAL COMPRESSED AIR TOOL STATION

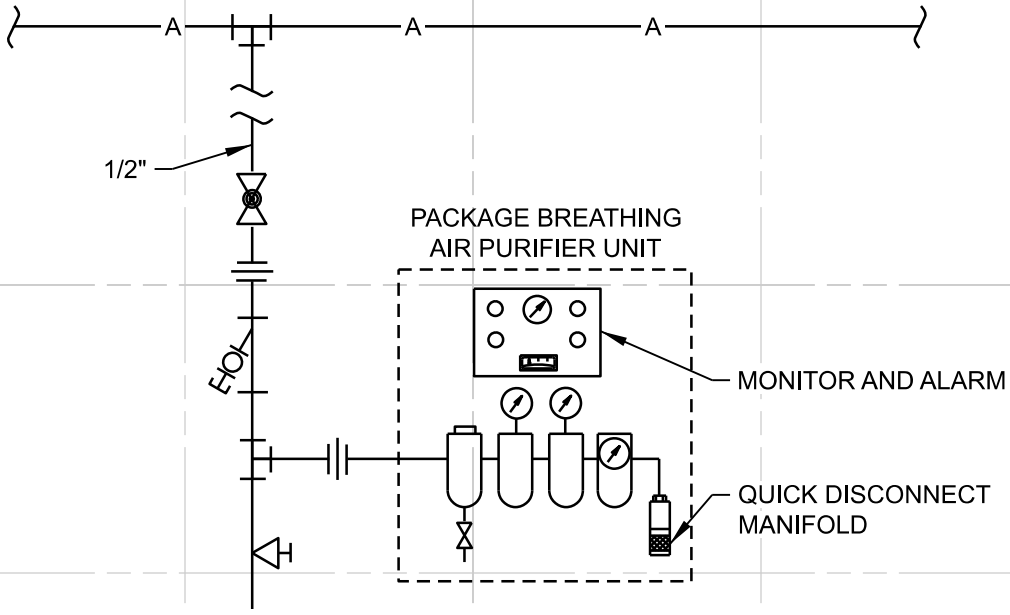
SCALE: NTS



DETAIL: UTILITY STATION COMPRESSOR AIR/BREATHING AIR

A1

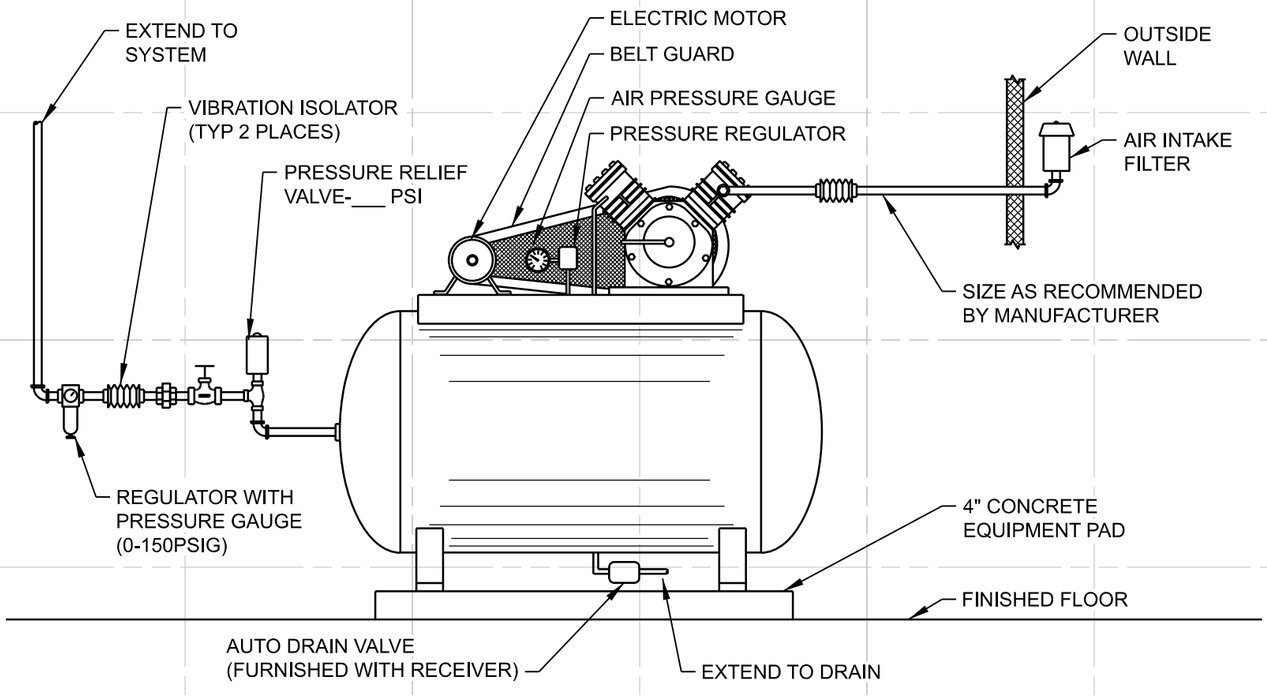
SCALE: NTS



A1

DETAIL: BREATHING AIR STATION

SCALE: NTS



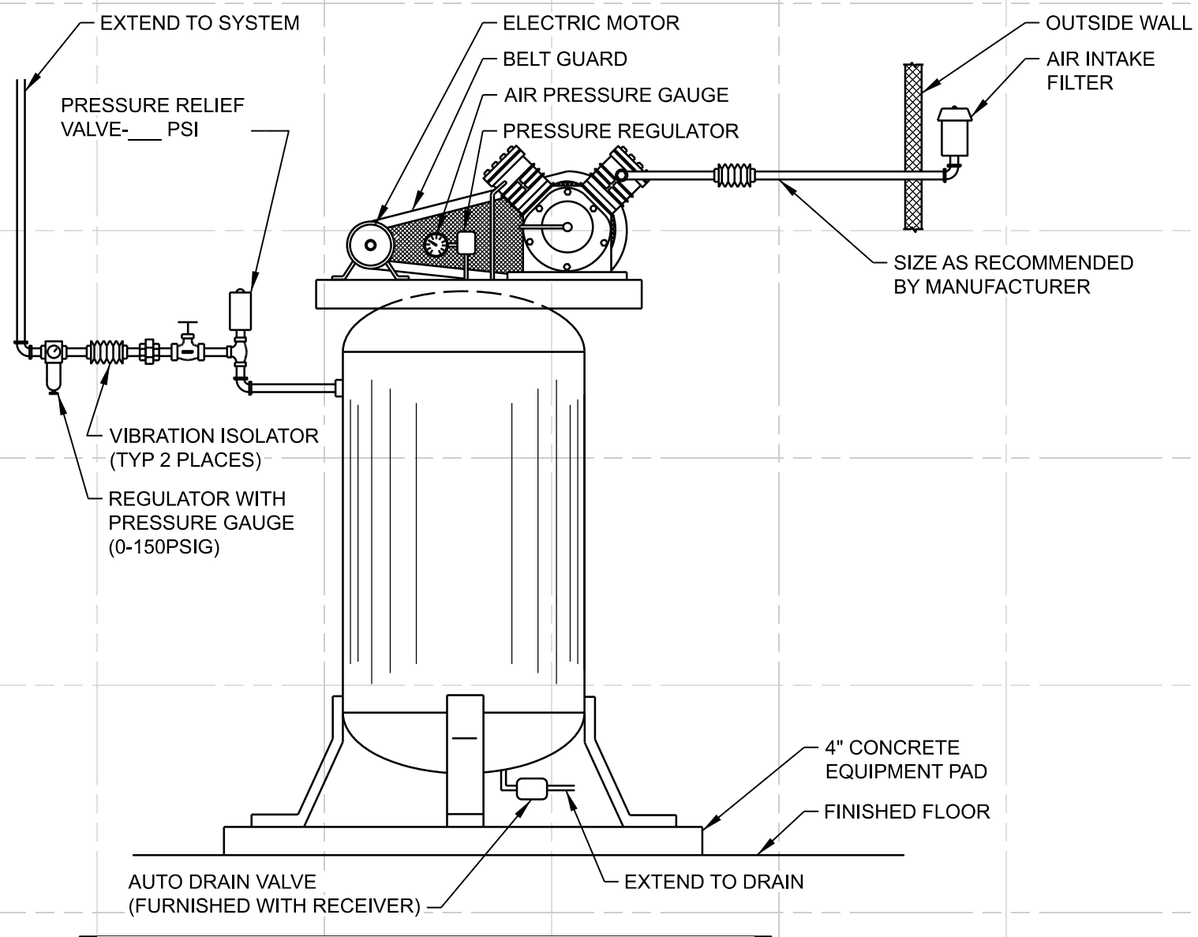
AIR COMPRESSOR DESCRIPTION	
COMPRESSOR	MIN 14 CFM AT 150 PSIG
MOTOR	5 HP - 208V/60HZ/3PH
TANK	80 GALLON CAPACITY

NOTE:
PRESSURE: START AT 125 PSIG
STOP AT 150 PSIG

A1

DETAIL: HORIZONTAL AIR COMPRESSOR

SCALE: NTS



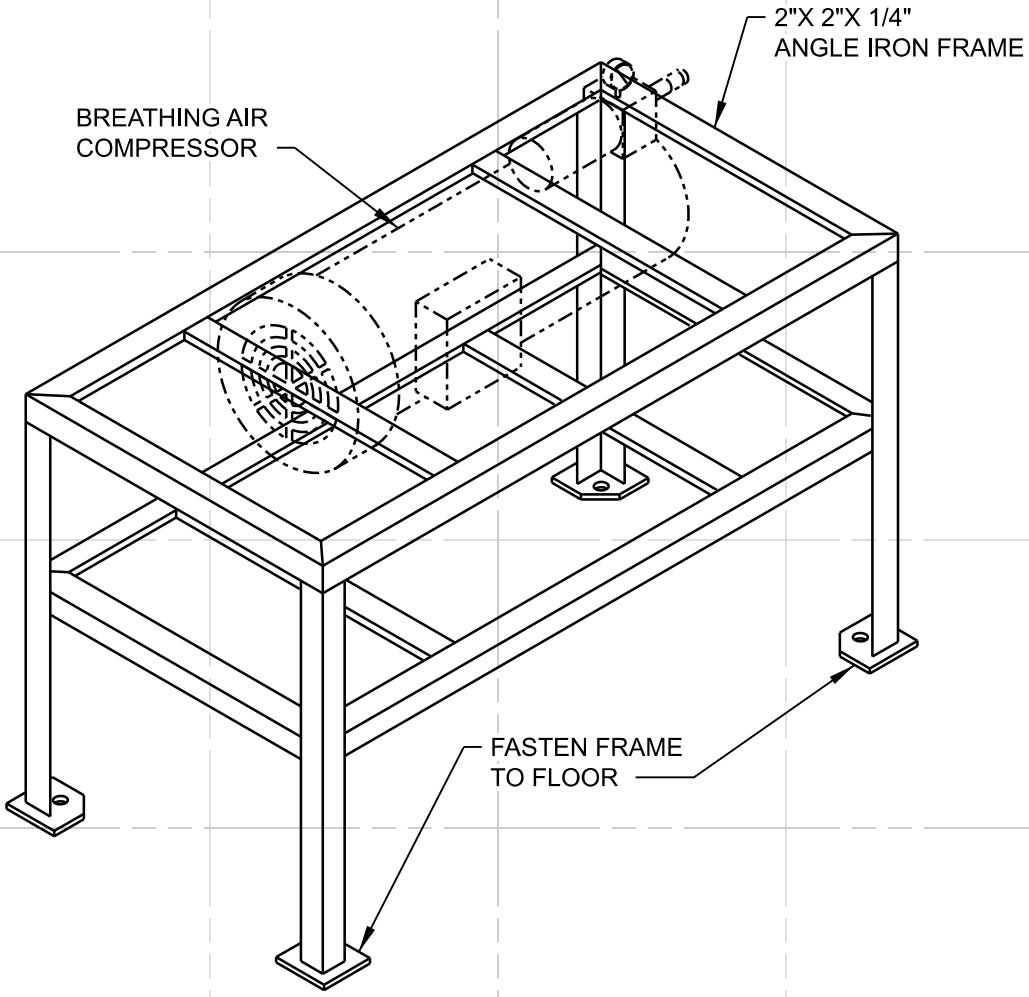
AIR COMPRESSOR DESCRIPTION	
COMPRESSOR	MIN. 14 CFM AT 150 PSIG
MOTOR	5 HP - 208V/60HZ/3PH
TANK	80 GALLON CAPACITY

NOTE:
PRESSURE: START AT 125 PSIG
STOP AT 150 PSIG

A1

DETAIL: VERTICAL AIR COMPRESSOR

SCALE: NTS

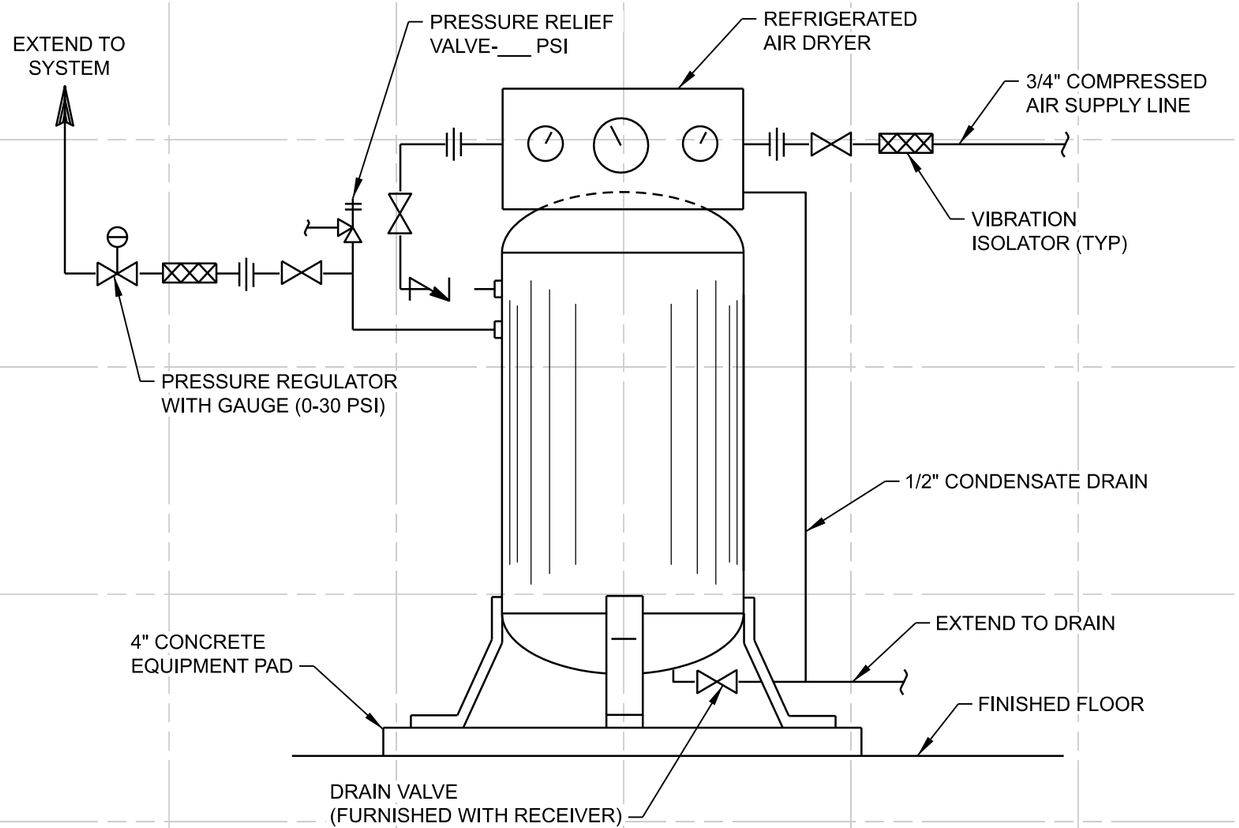


NOTE:
BREATHING AIR COMPRESSOR FRAME SHALL BE ASSEMBLED TO ACCOMMODATE BREATHING AIR COMPRESSOR(S) AS CALLED FOR ON PLANS.

A1

DETAIL: BREATHING AIR COMPRESSOR FRAME

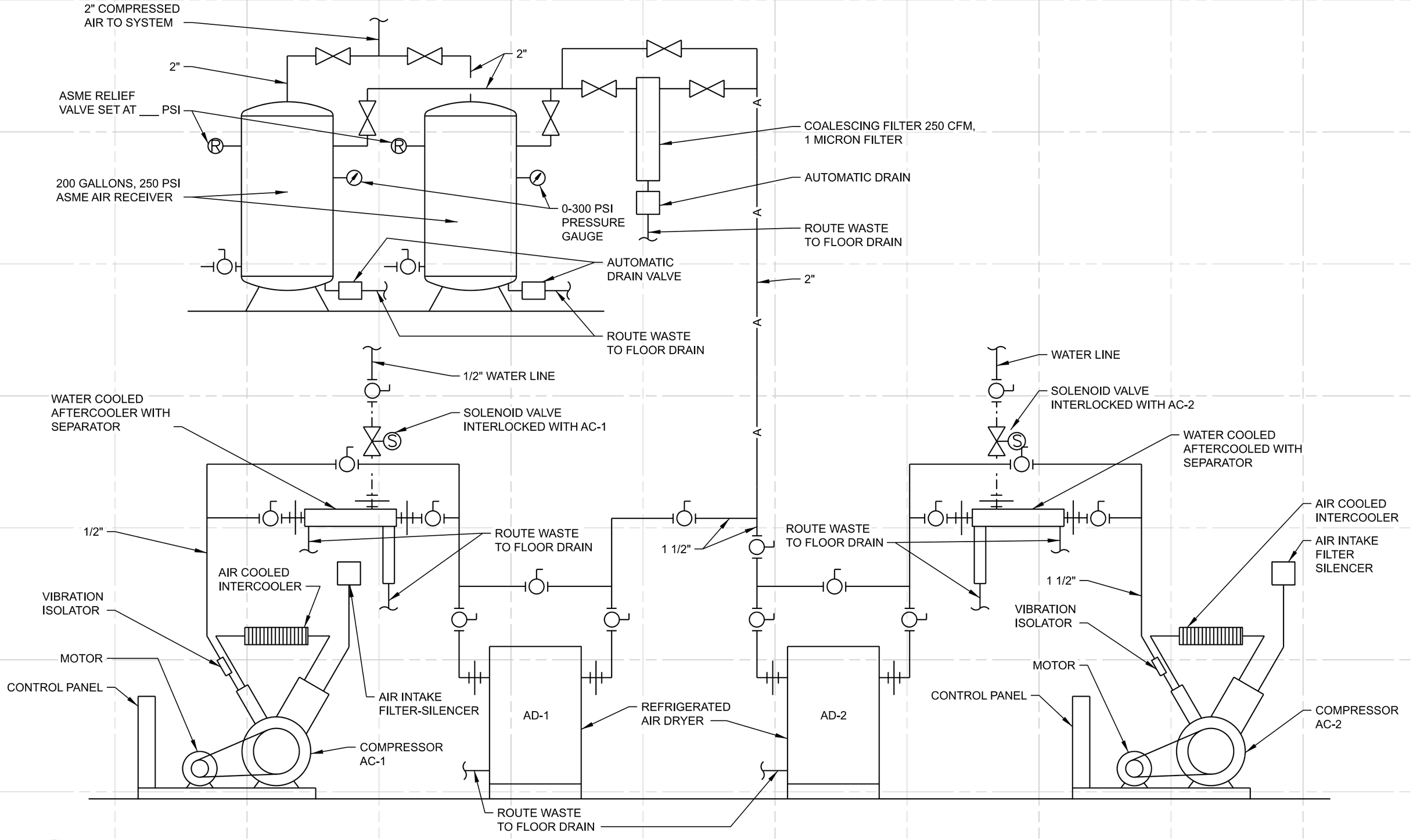
SCALE: NTS



INSTRUMENT AIR SYSTEM	
AIR DRYER	SIZED BY CONTROLS MANUFACTURER
TANK	80 GALLON CAPACITY

A1 DETAIL: VERTICAL INSTRUMENT SYSTEM AIR

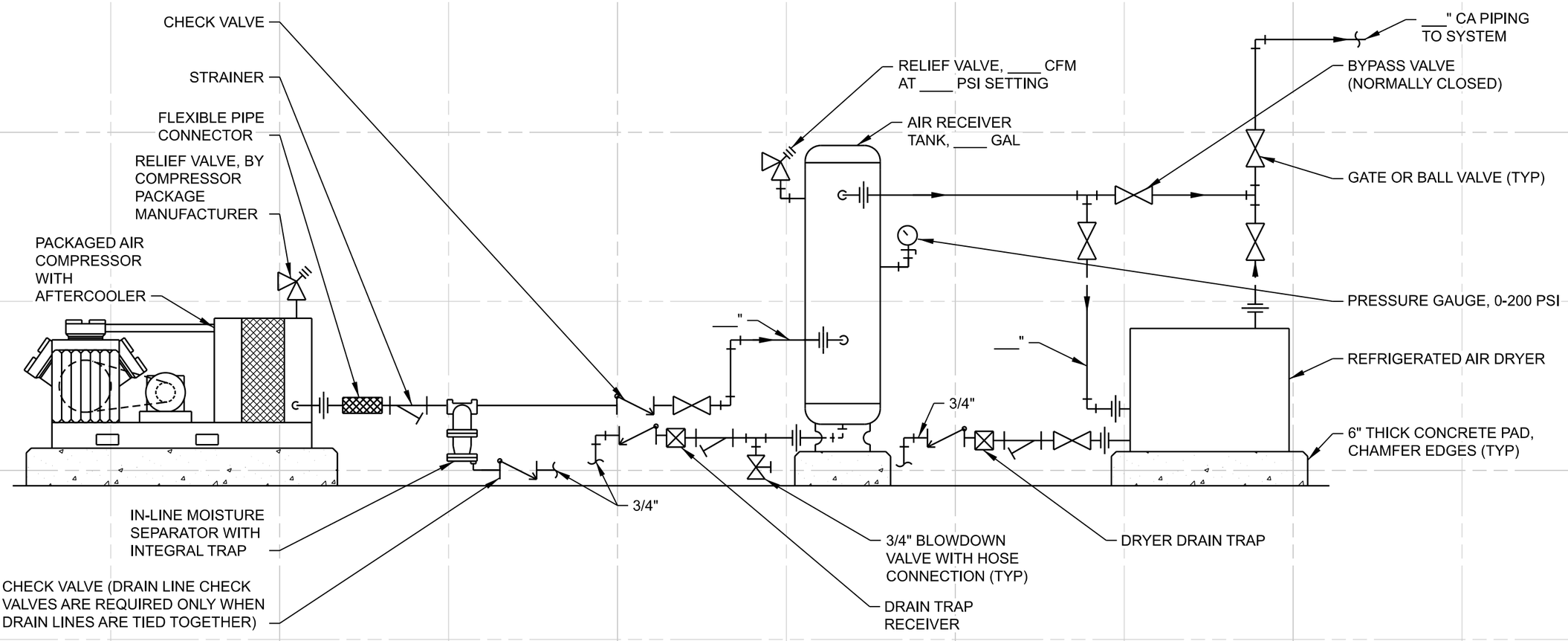
SCALE: NTS



A1

DIAGRAM: COMPRESSED AIR SYSTEM

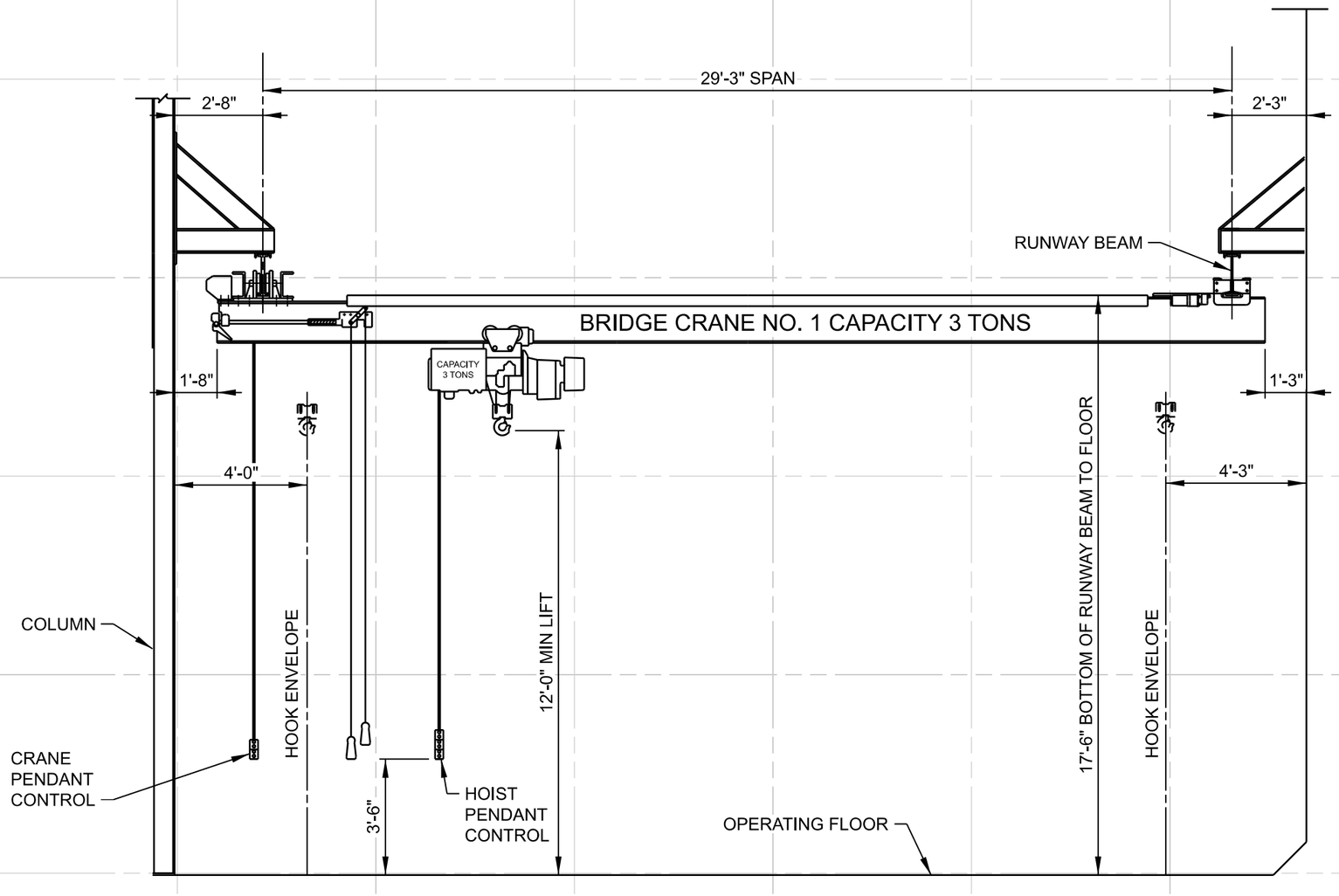
SCALE: NTS



A1

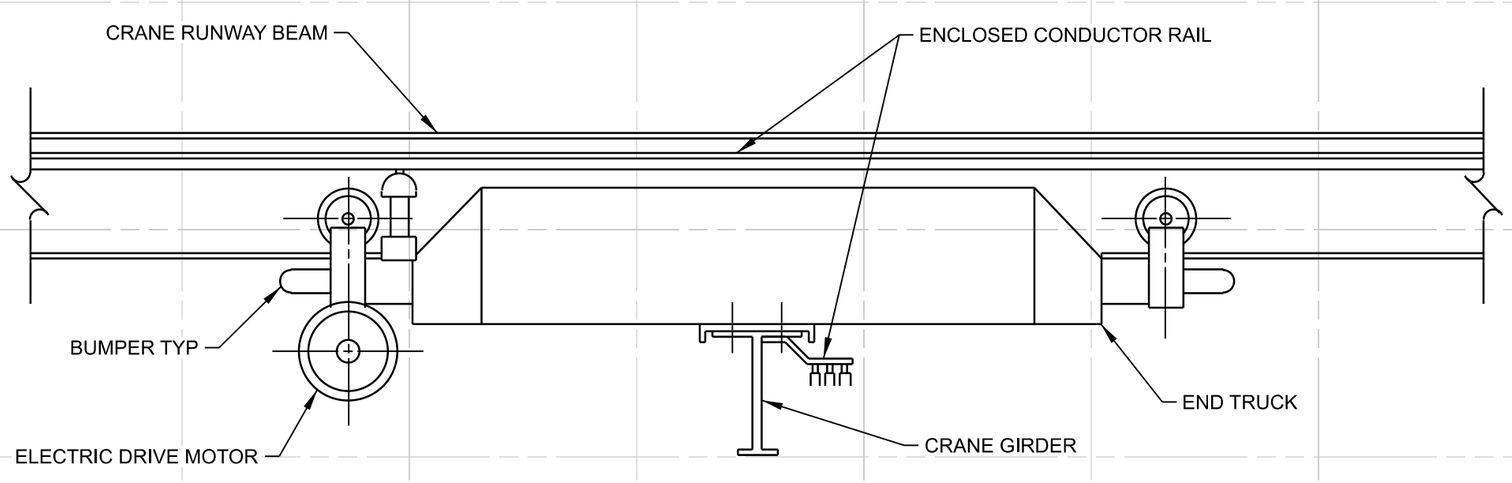
DETAIL: AIR COMPRESSOR INSTALLATION

SCALE: NTS



A1 DETAIL: CRANE CLEARANCE DIAGRAM

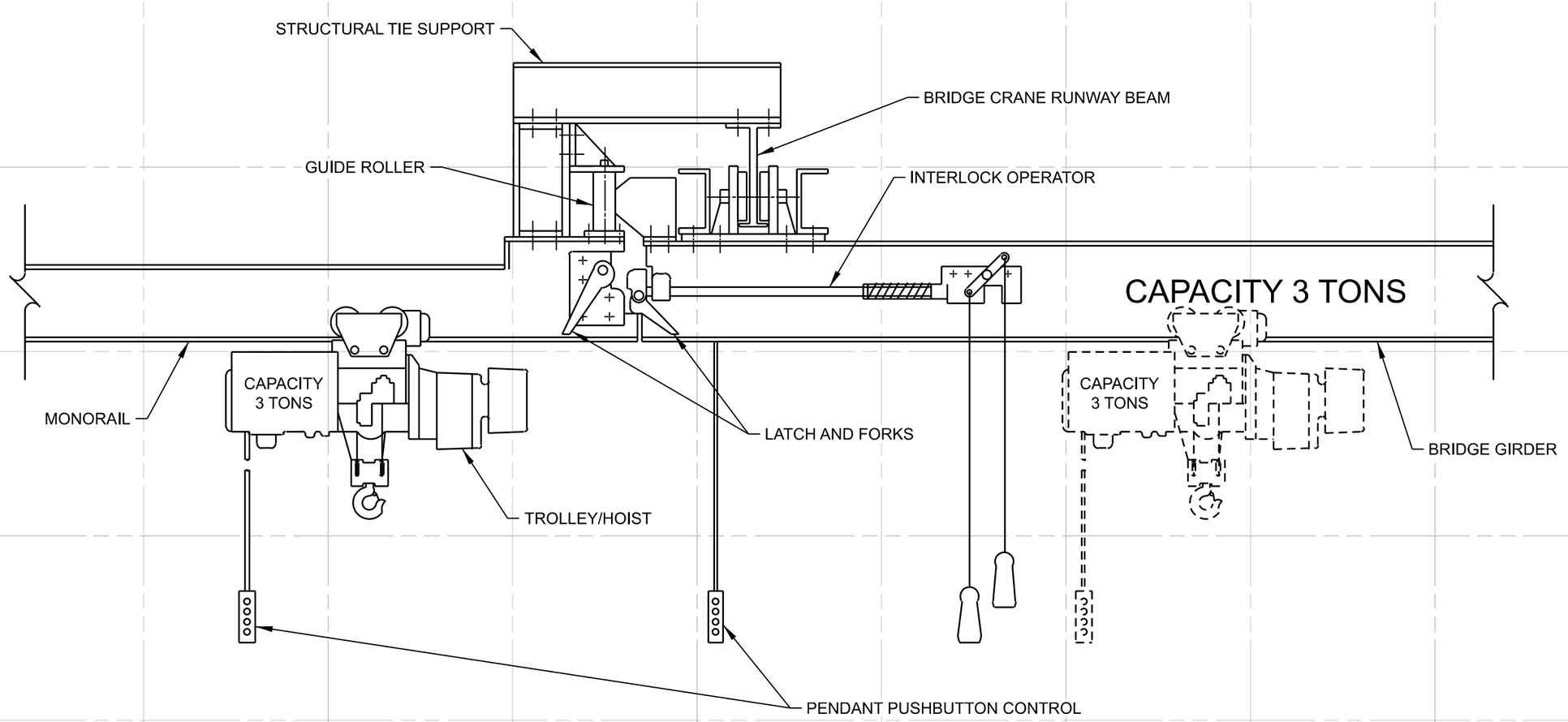
SCALE: NTS



A1

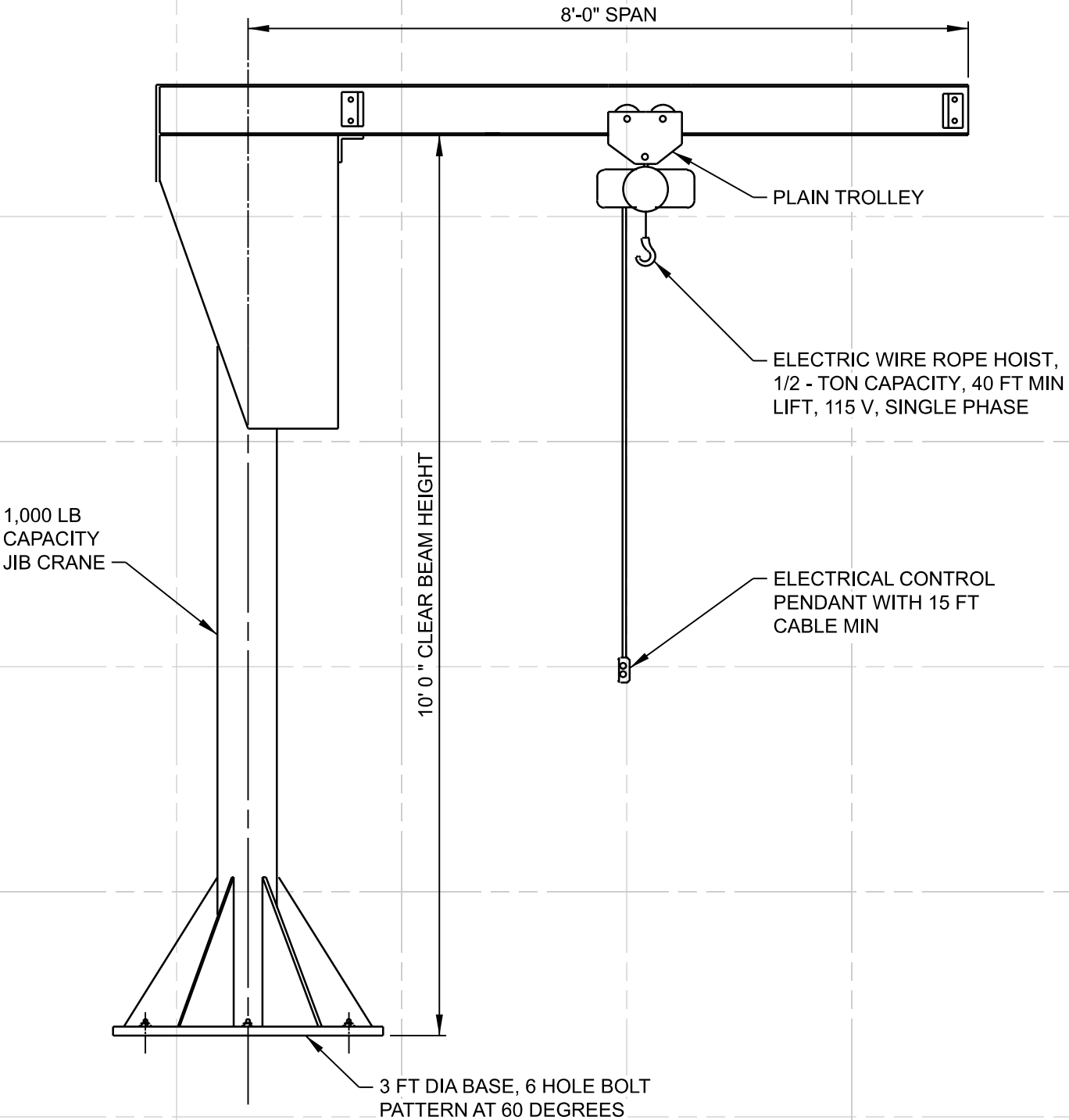
DETAIL: CRANE END TRUCK ARRANGEMENT

SCALE: NTS



A1 DETAIL: TRANSFER/INTERLOCK MECHANISM

SCALE: NTS

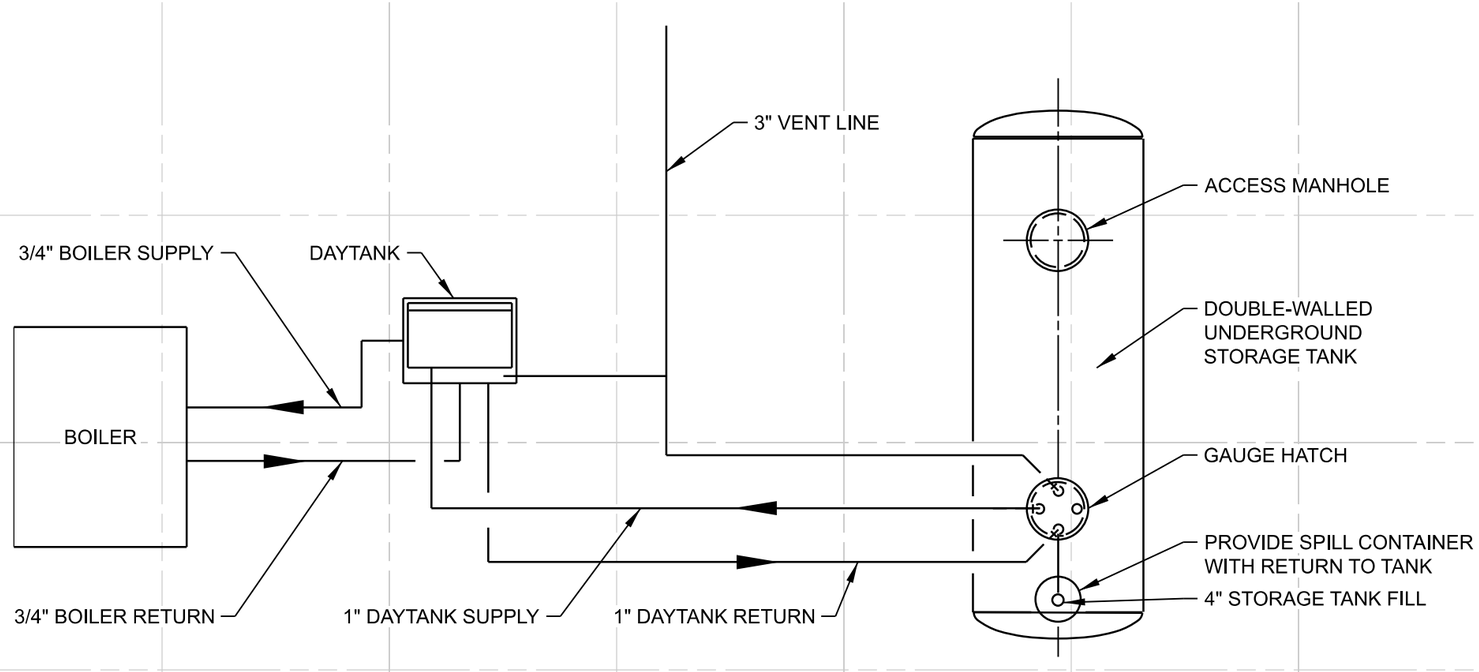


NOTE:
SEE PLAN FOR JIB CRANE LOCATION.

A1

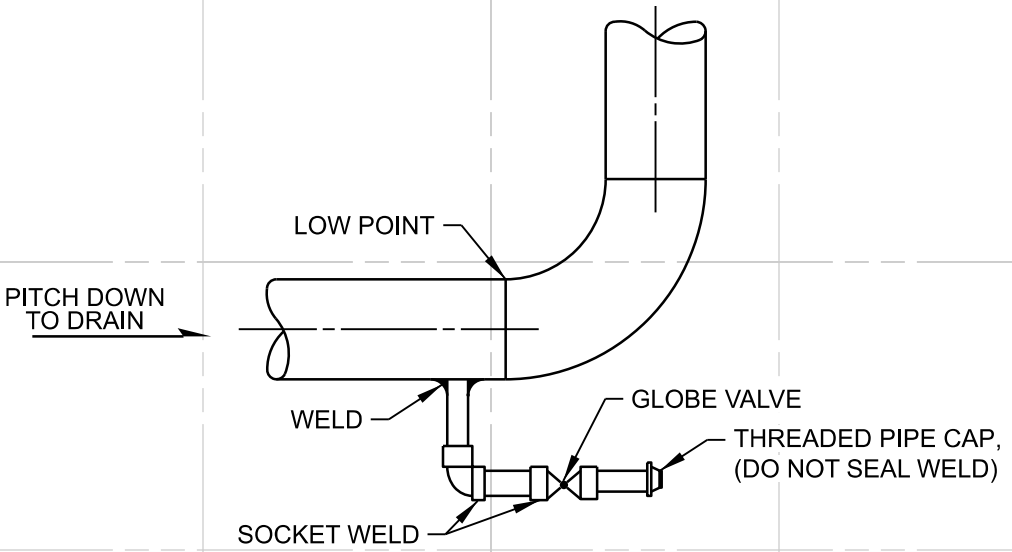
DETAIL: JIB CRANE DETAIL

SCALE: NTS



A1 SCHEMATIC: BOILER FUEL OIL FLOW

SCALE: NTS

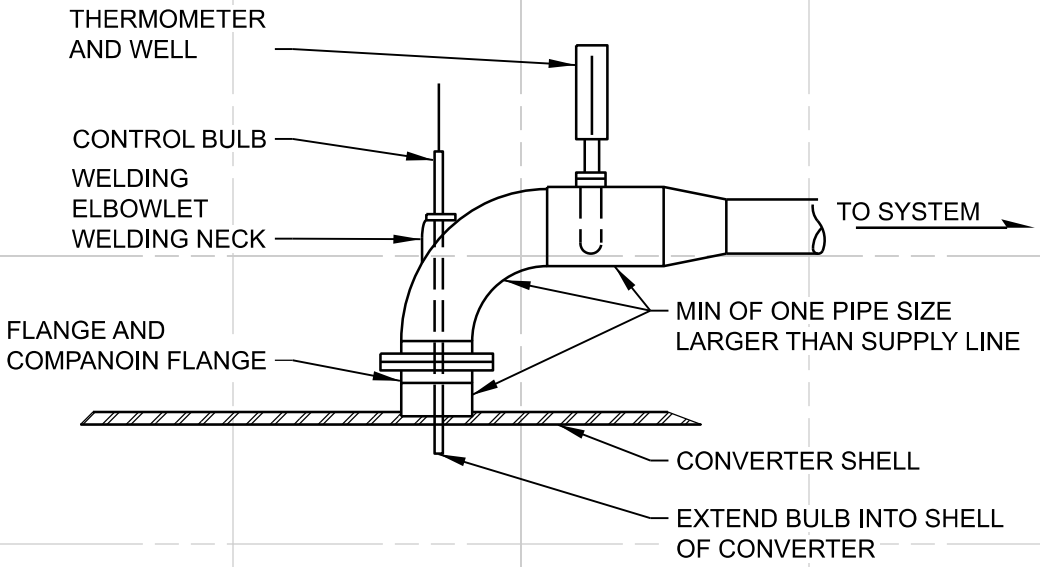


NOTE:
LOW POINTS IN ALL PIPING TO BE DRAINED

A1

DETAIL: HTW DRAIN

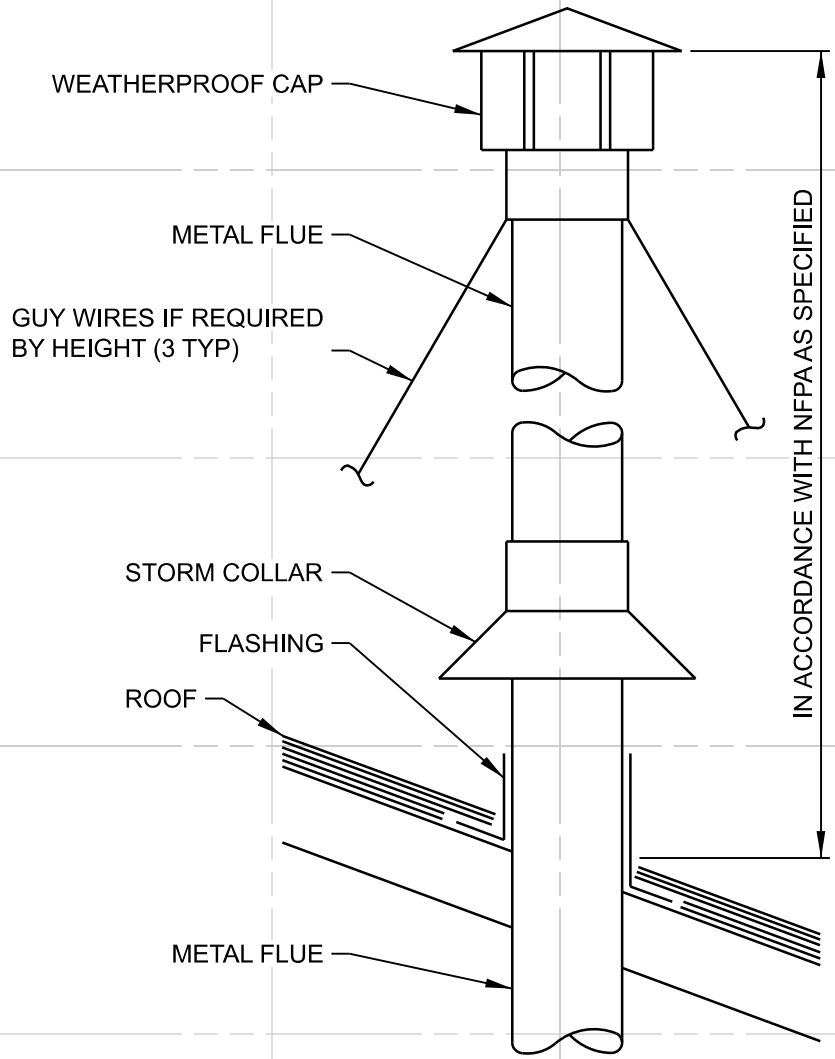
SCALE: NTS



A1

DETAIL: CONTROL BULB

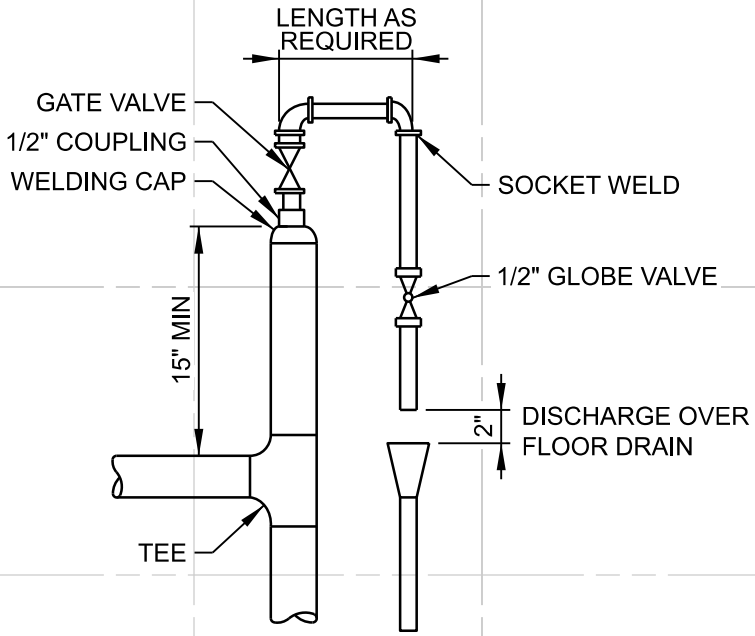
SCALE: NTS



A1

DETAIL: METAL FLUE STACK

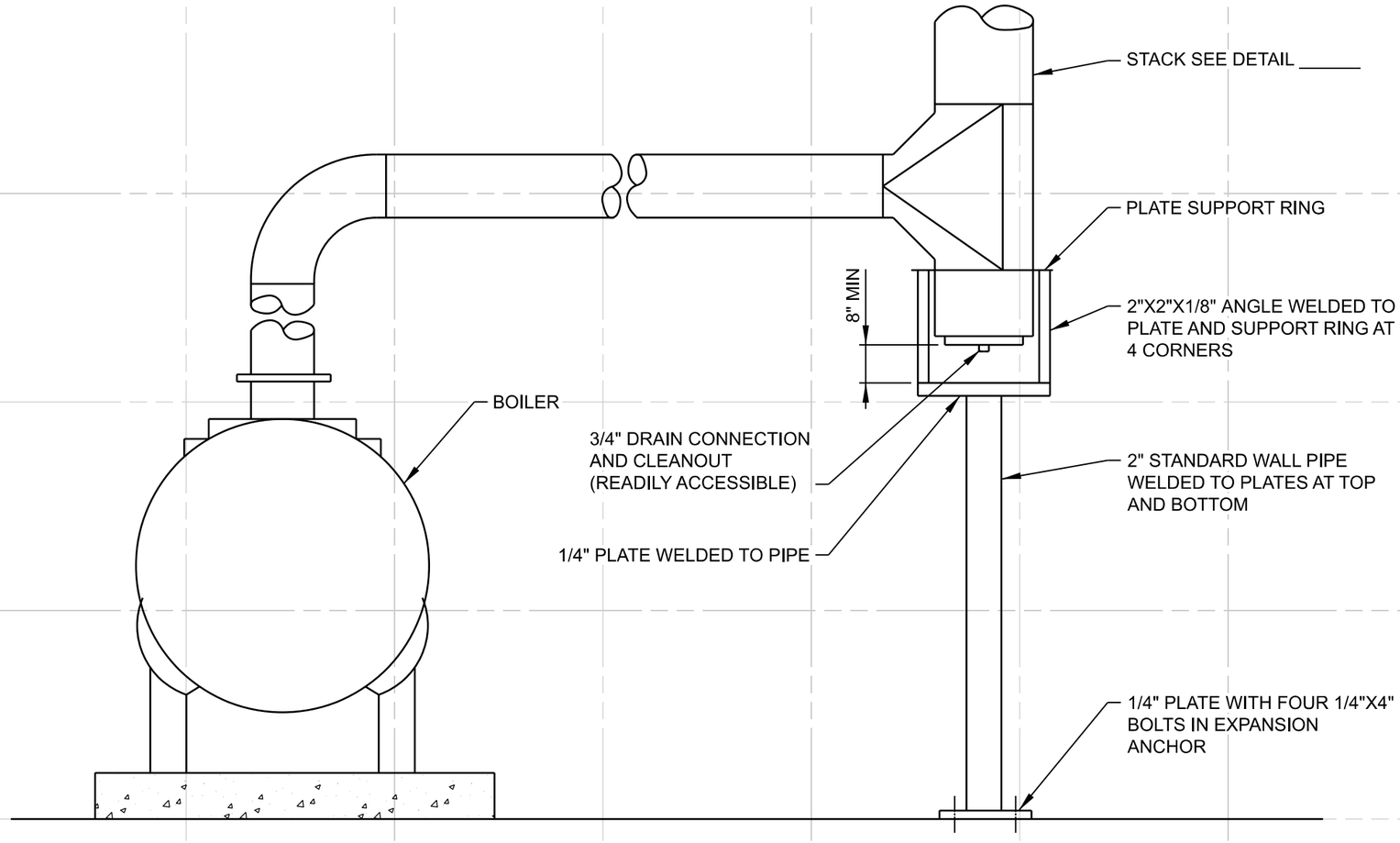
SCALE: NTS



DETAIL: HTW AIR VENT

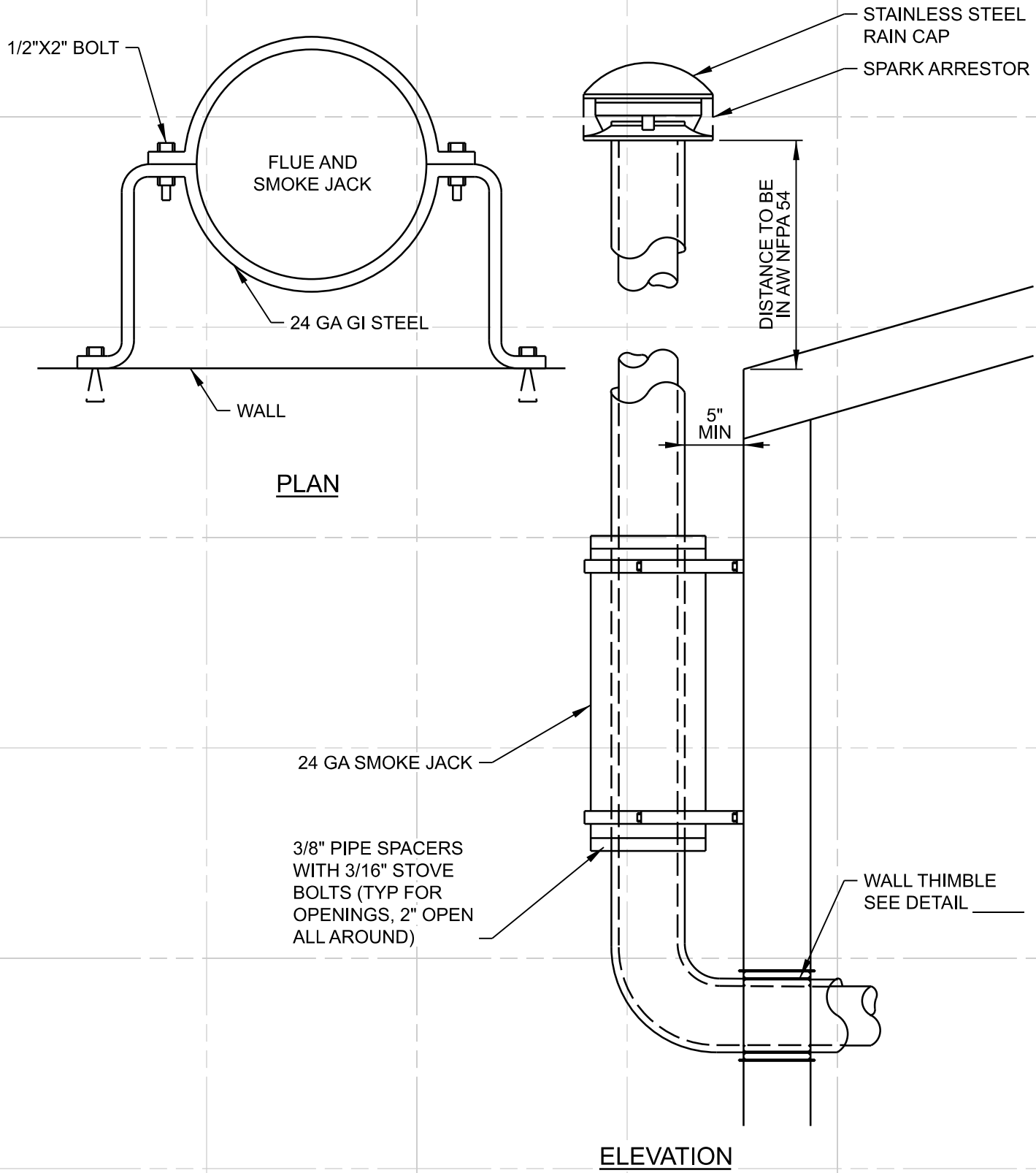
A1

SCALE: NTS



A1 DETAIL: BOILER FLUE CONNECTION

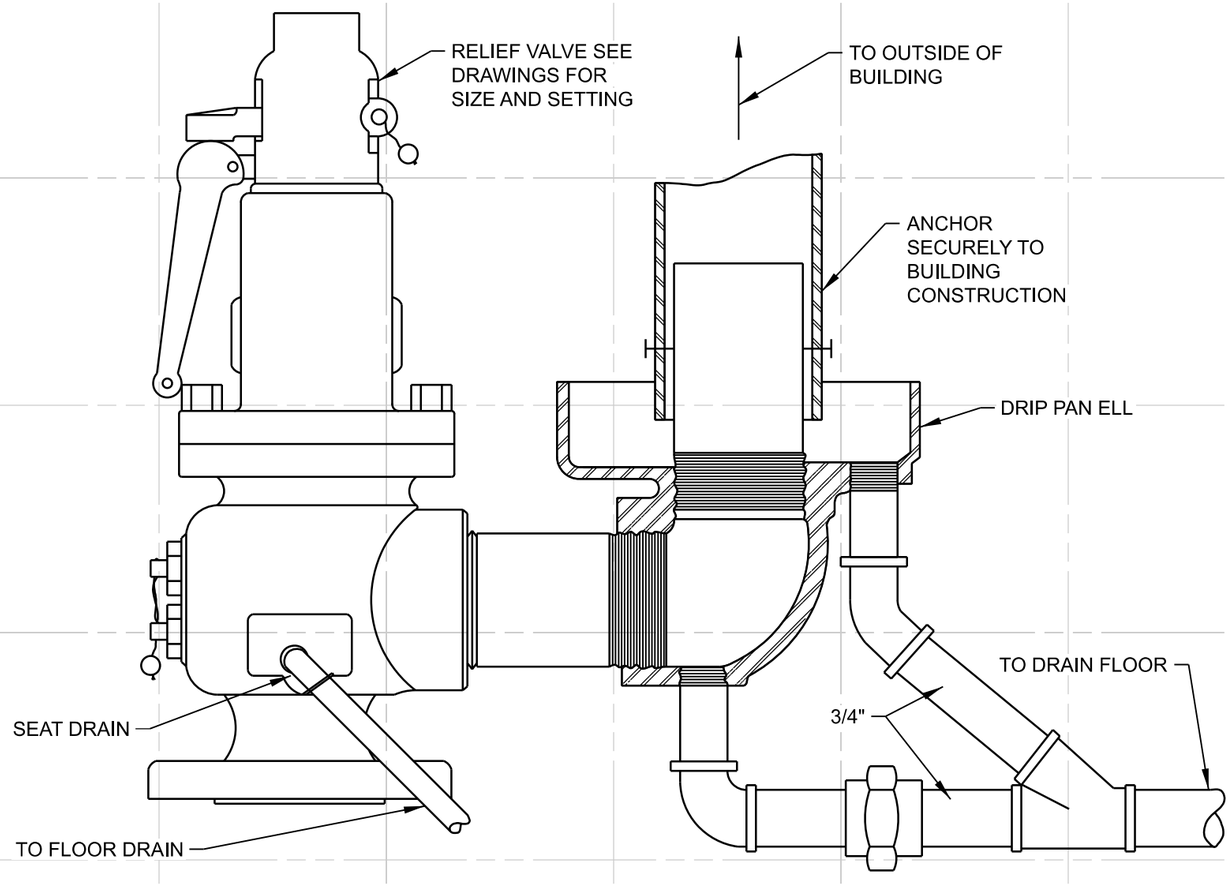
SCALE: NTS



DETAIL: FLUE STACK AND WALL PENETRATION

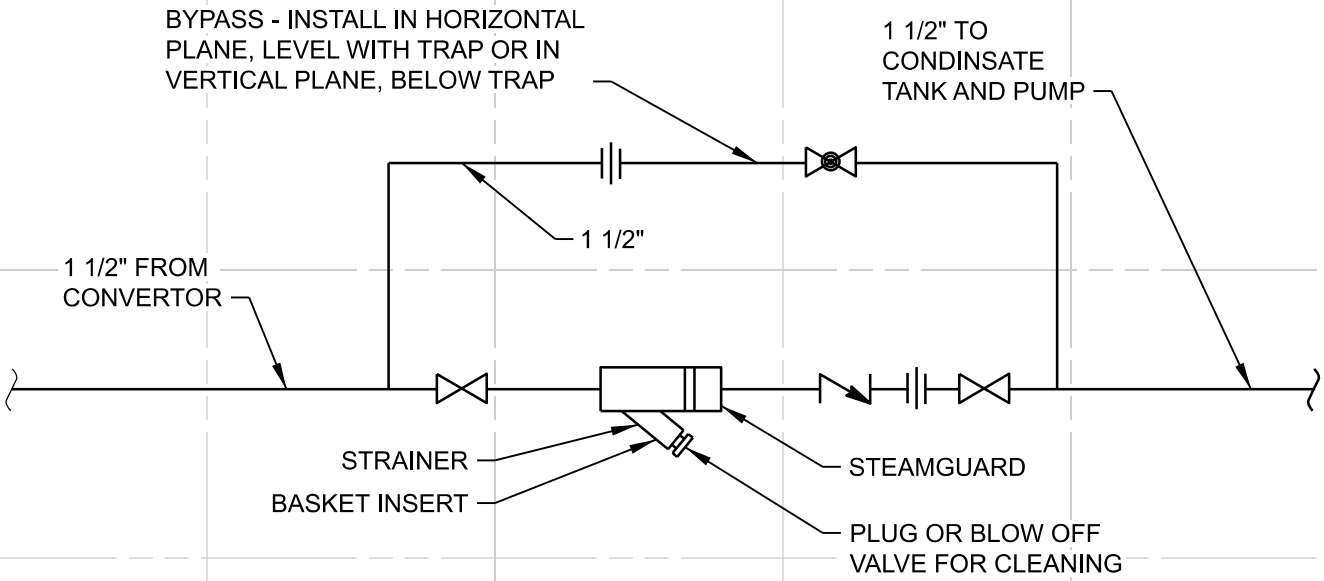
A1

SCALE: NTS



A1 DETAIL: STEAM RELIEF VALVE DRIP PAN ELL

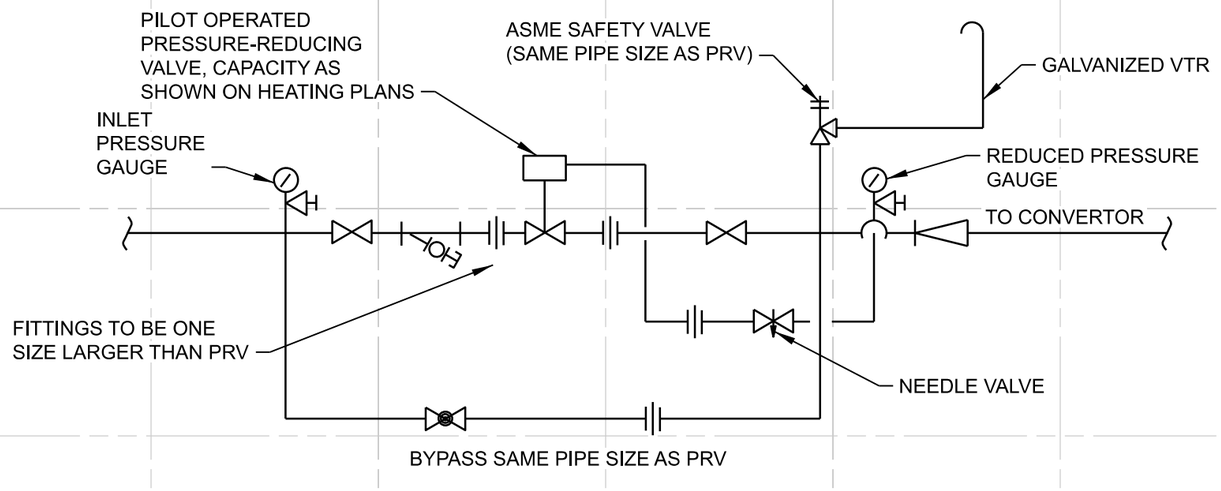
SCALE: NTS



A1

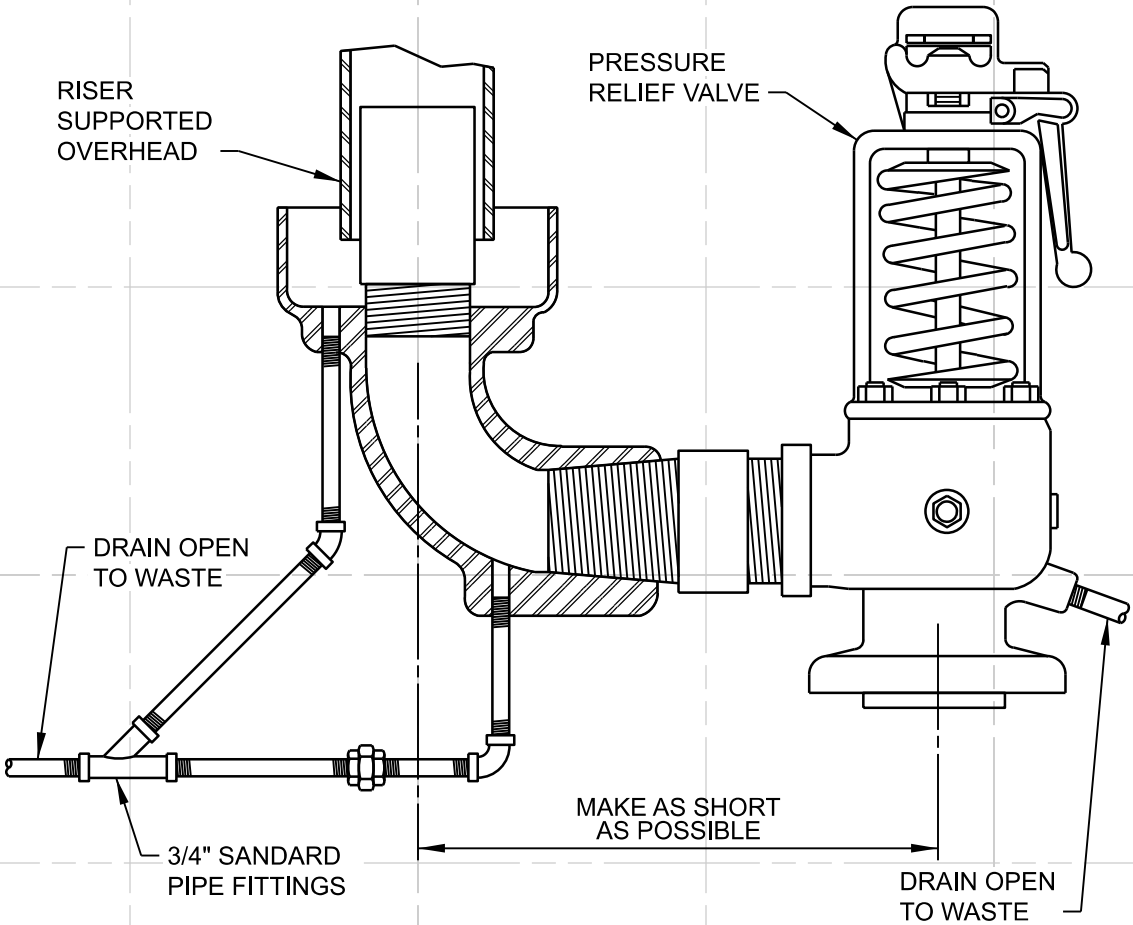
DETAIL: STEAMGUARD

SCALE: NTS



A1 DETAIL: PRESSURE REDUCING SET

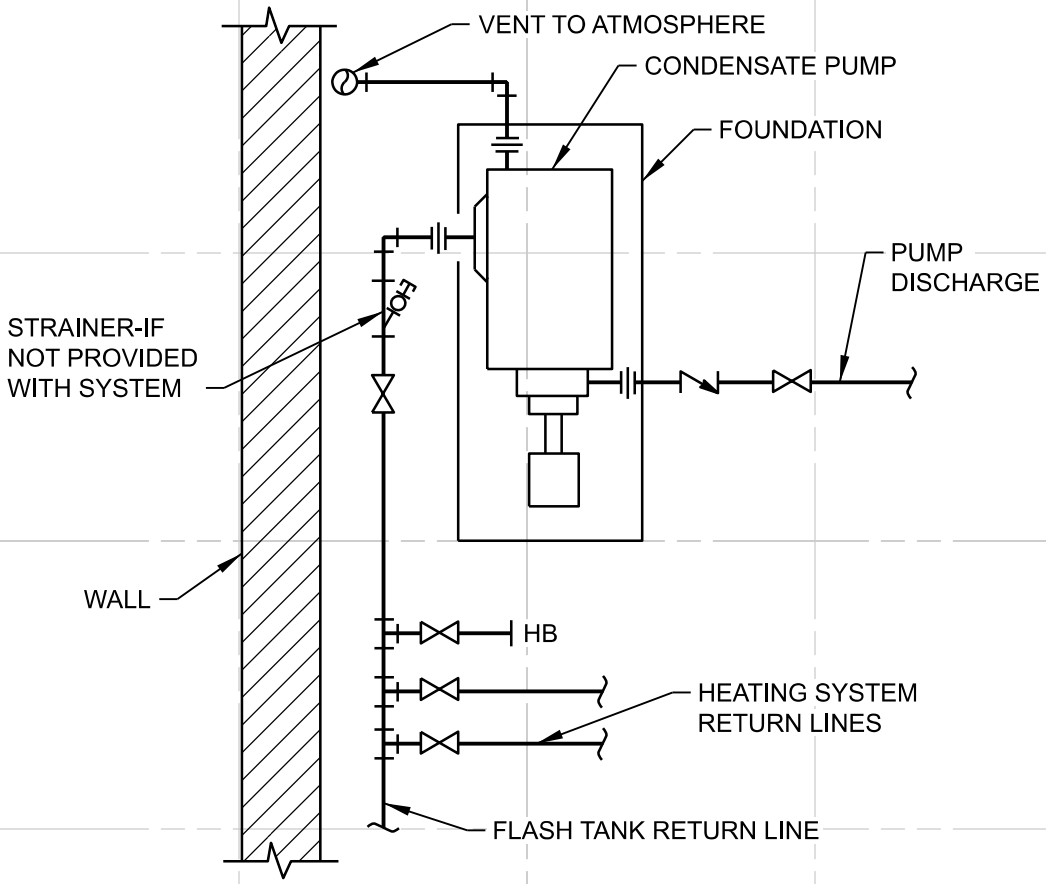
SCALE: NTS



A1

DETAIL: DRIPPED ELBOW-SAFETY VALVE VENT

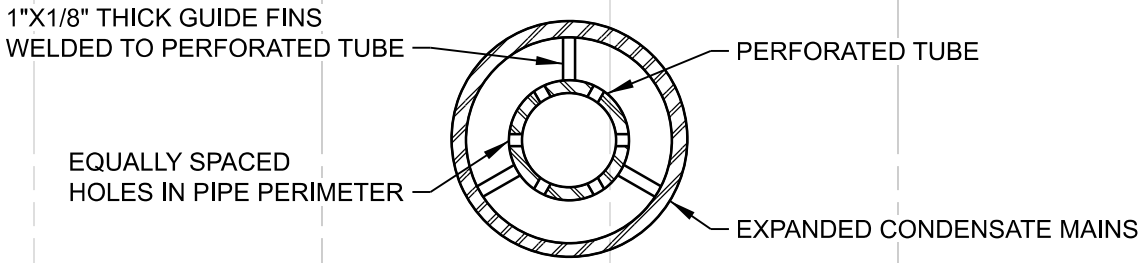
SCALE: NTS



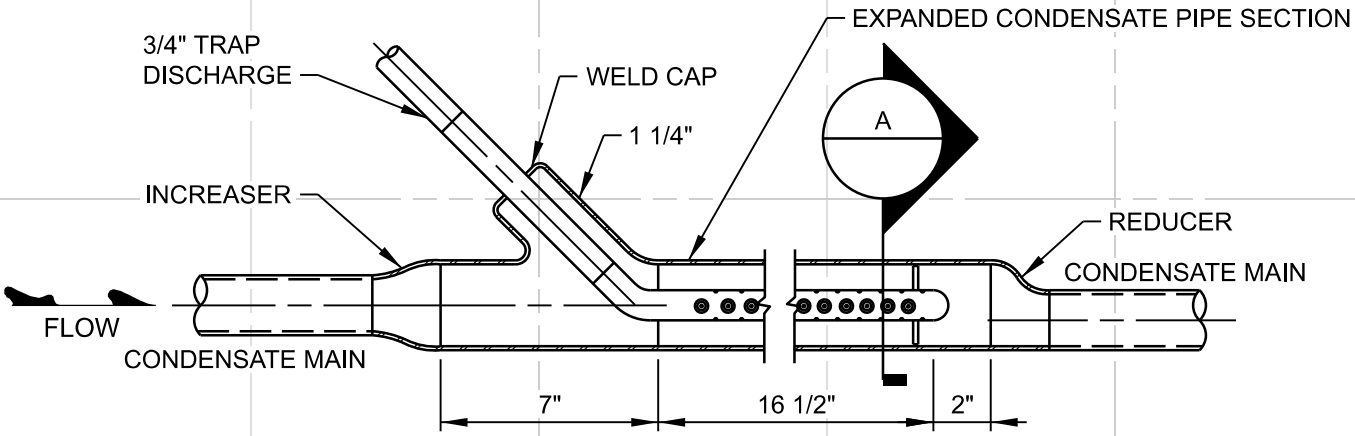
DETAIL: SIMPLEX CONDENSATE PUMP

A1

SCALE: NTS



SECTION A

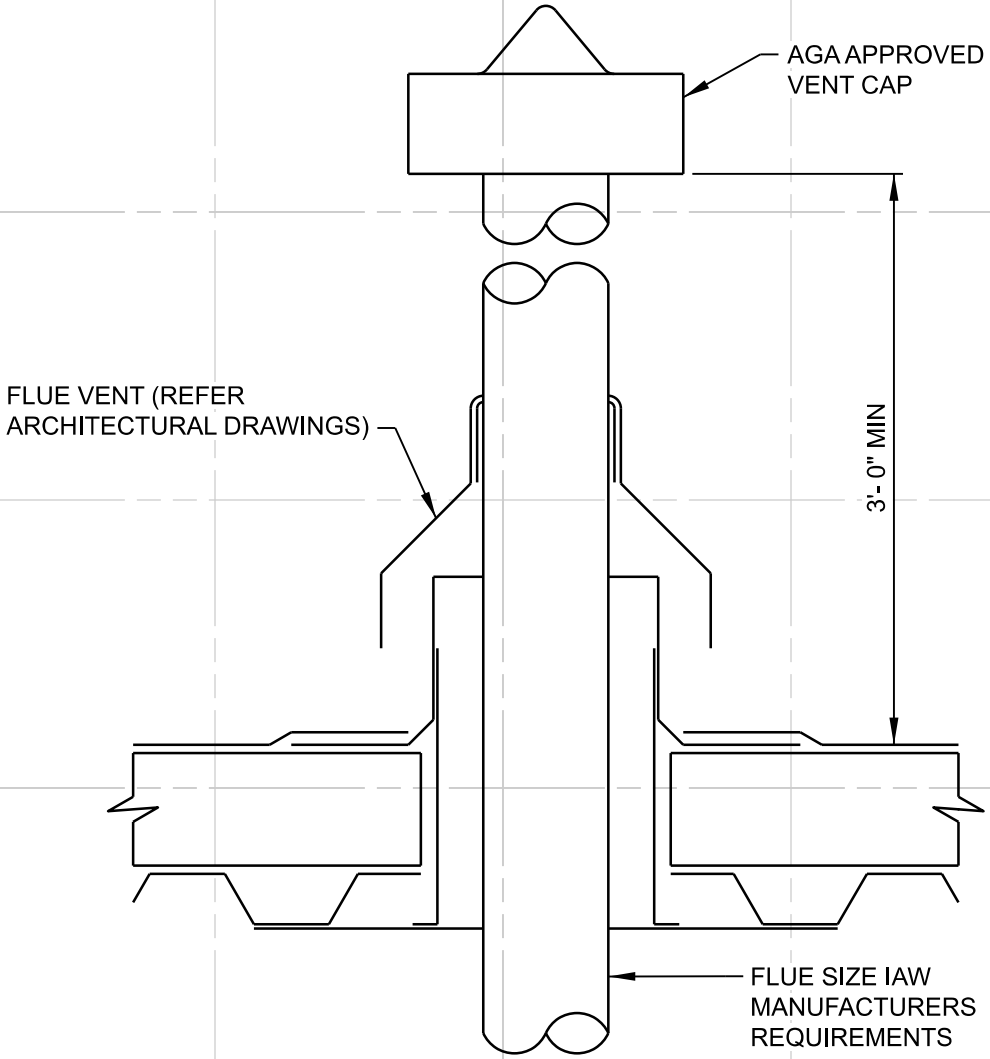


NOTE:
ALL PIPE SHALL BE SCH 80, 3/4" PERFORATED TUBE WITH (78) 1/8" HOLES AT 1 1/8" CENTER TO CENTER IN ROWS.

A1

DETAIL: TRAP DISCHARGE CONNECTION (TRAPPED HPS MAINS ONLY)

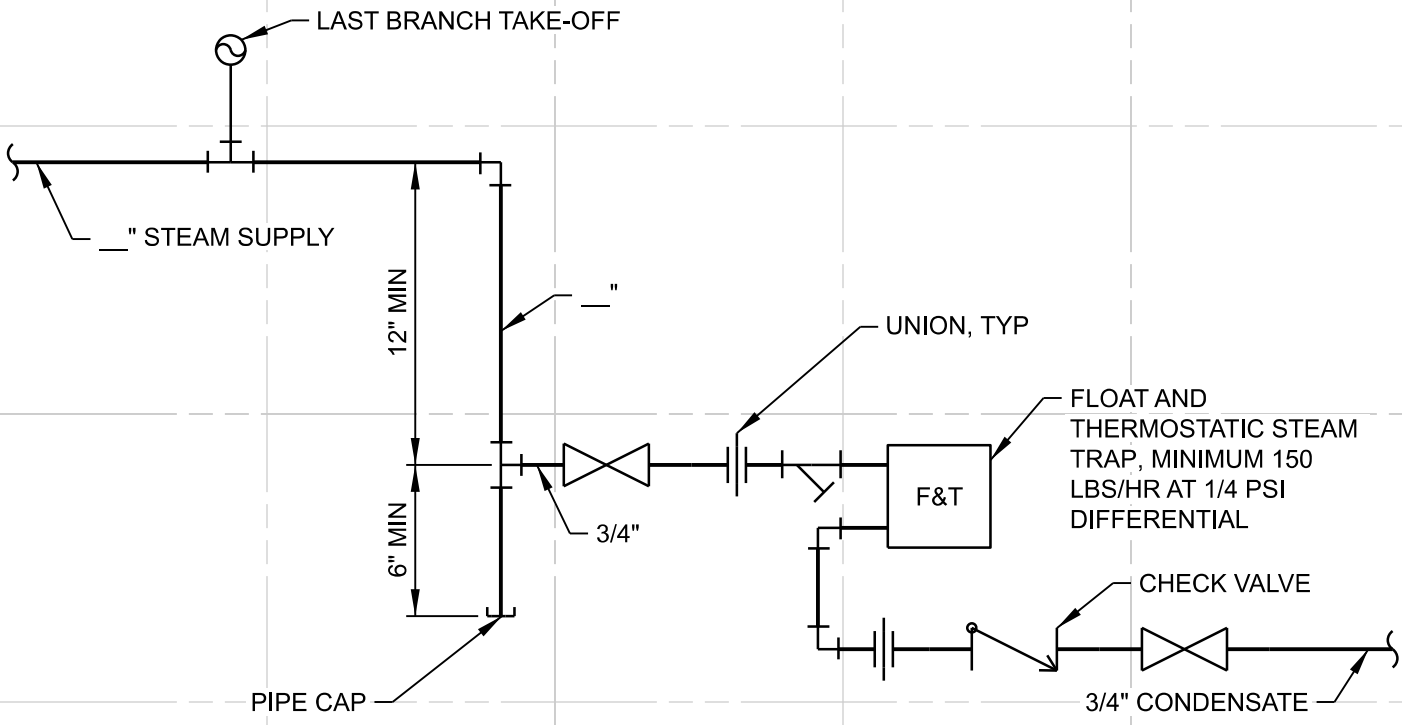
SCALE: NTS



A1

DETAIL: FLUE VENT (BOILER, AND UNIT HEATERS)

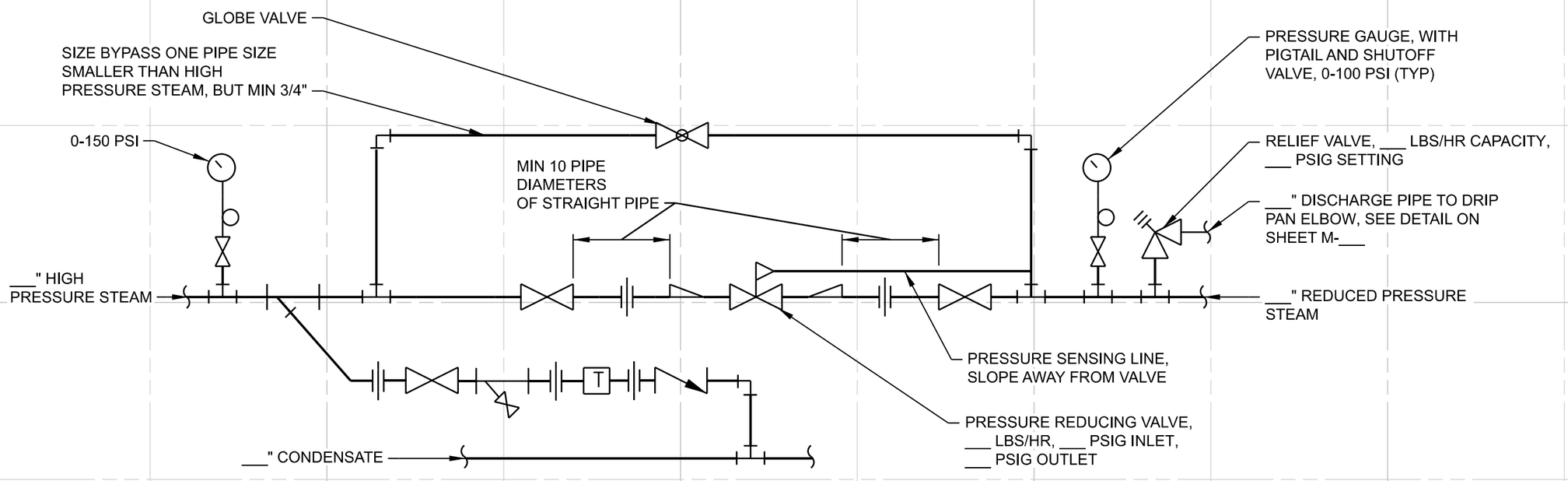
SCALE: NTS



A1

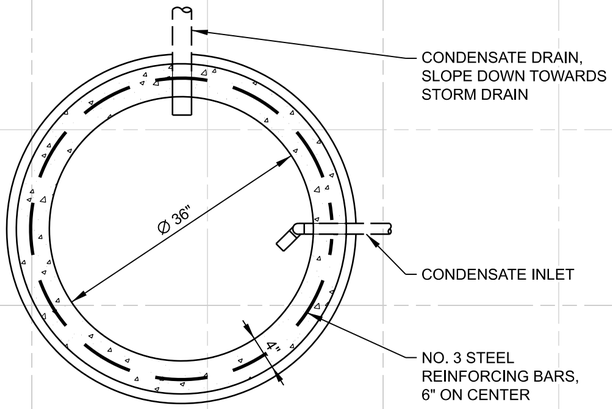
SCHEMATIC: END-OF-MAIN STEAM TRAP

SCALE: NTS

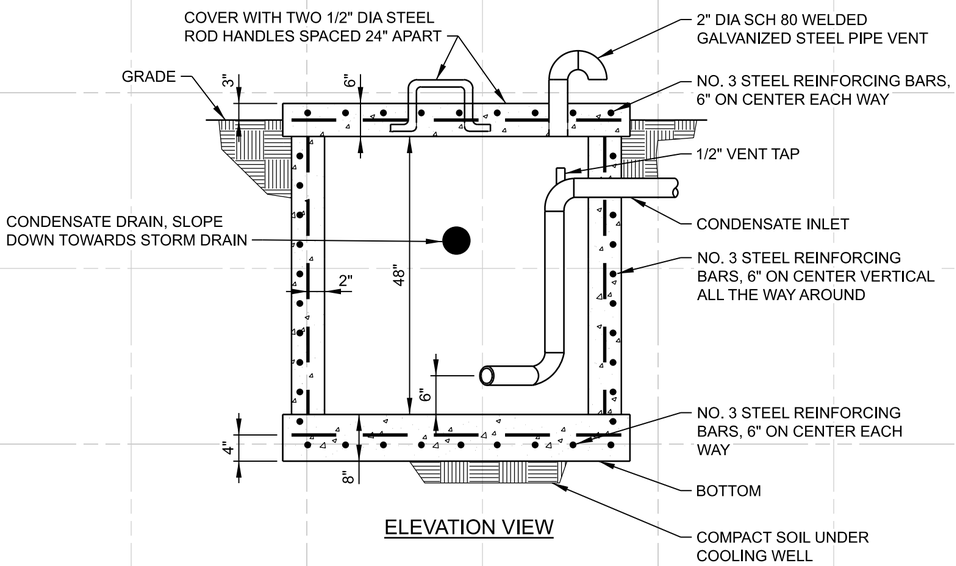


A1 SCHEMATIC: STEAM PRESSURE REDUCING STATION

SCALE: NTS



PLAN VIEW
(COVER REMOVED)



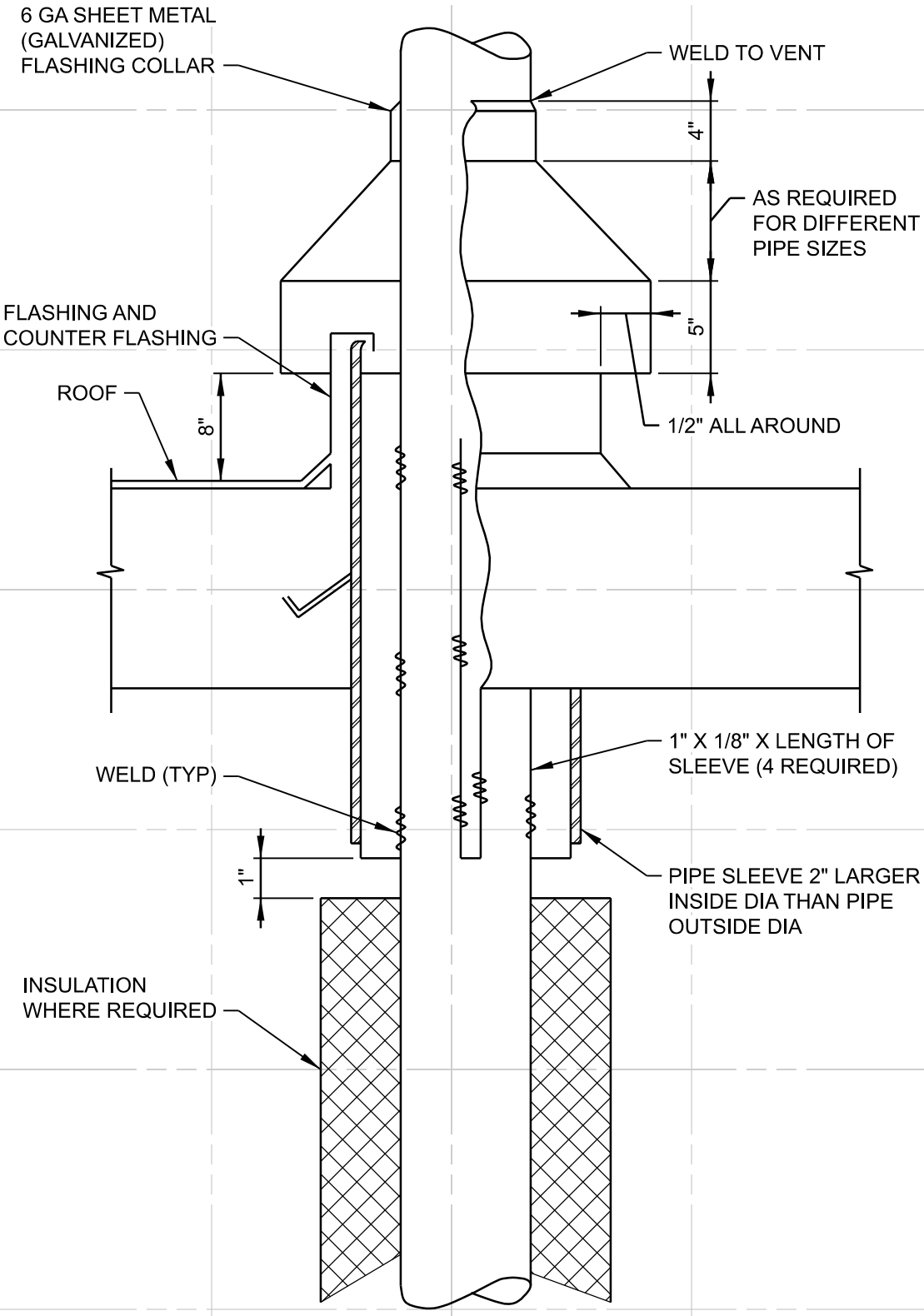
ELEVATION VIEW

NOTES:
1. FABRICATE COOLING WELL FROM PRECAST OR CAST-IN-PLACE CONCRETE. SET BOTTOM ON COMPACTED SOIL.
2. CAULK COOLING WELL BOTTOM SEAM AND ALL PIPE PENETRATIONS WITH CEMENT MORTAR.
3. SEE PLANS FOR PIPE SIZES.

A1

DETAIL: COOLING WELL

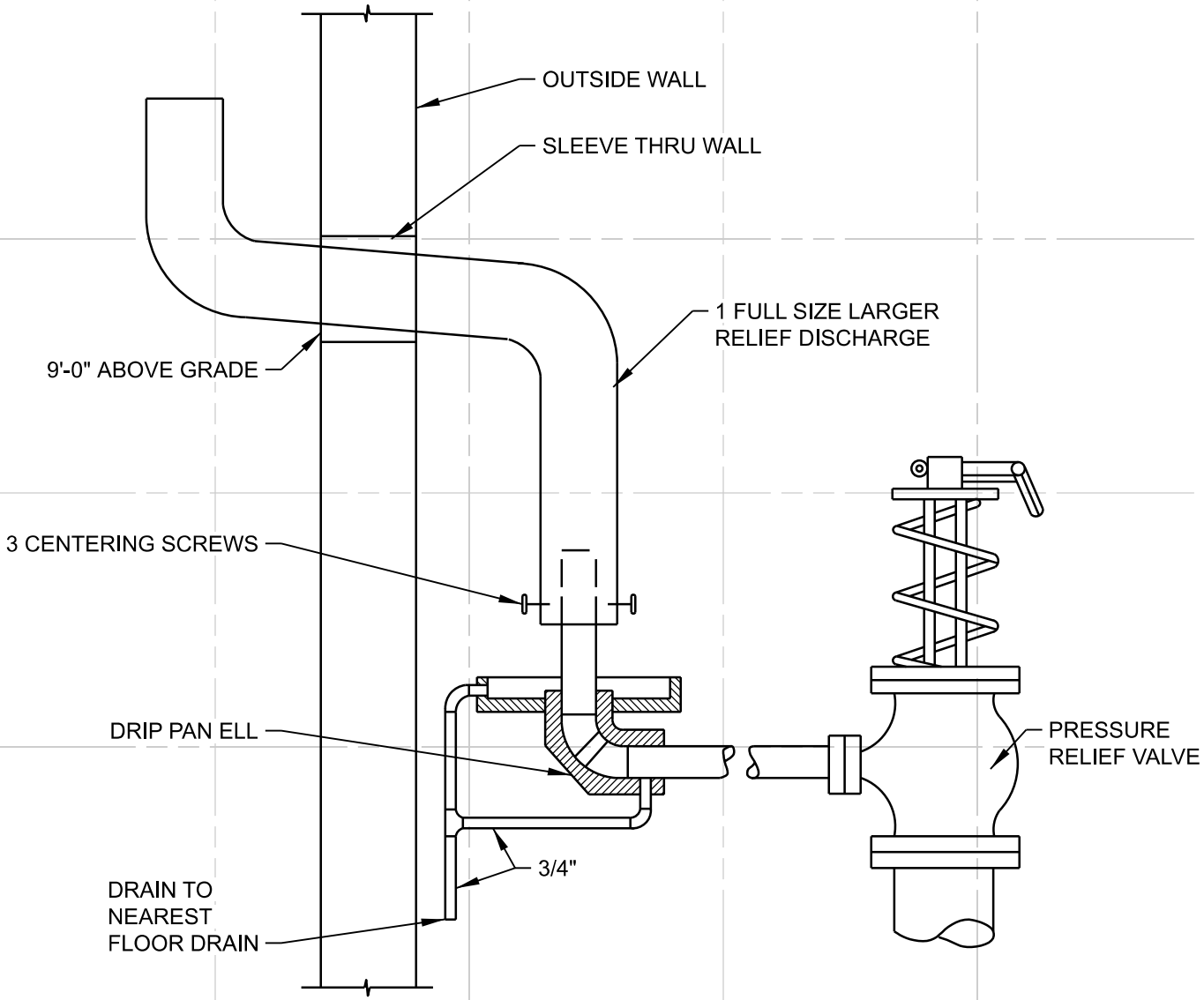
SCALE: NTS



A1

DETAIL: HOT VENT

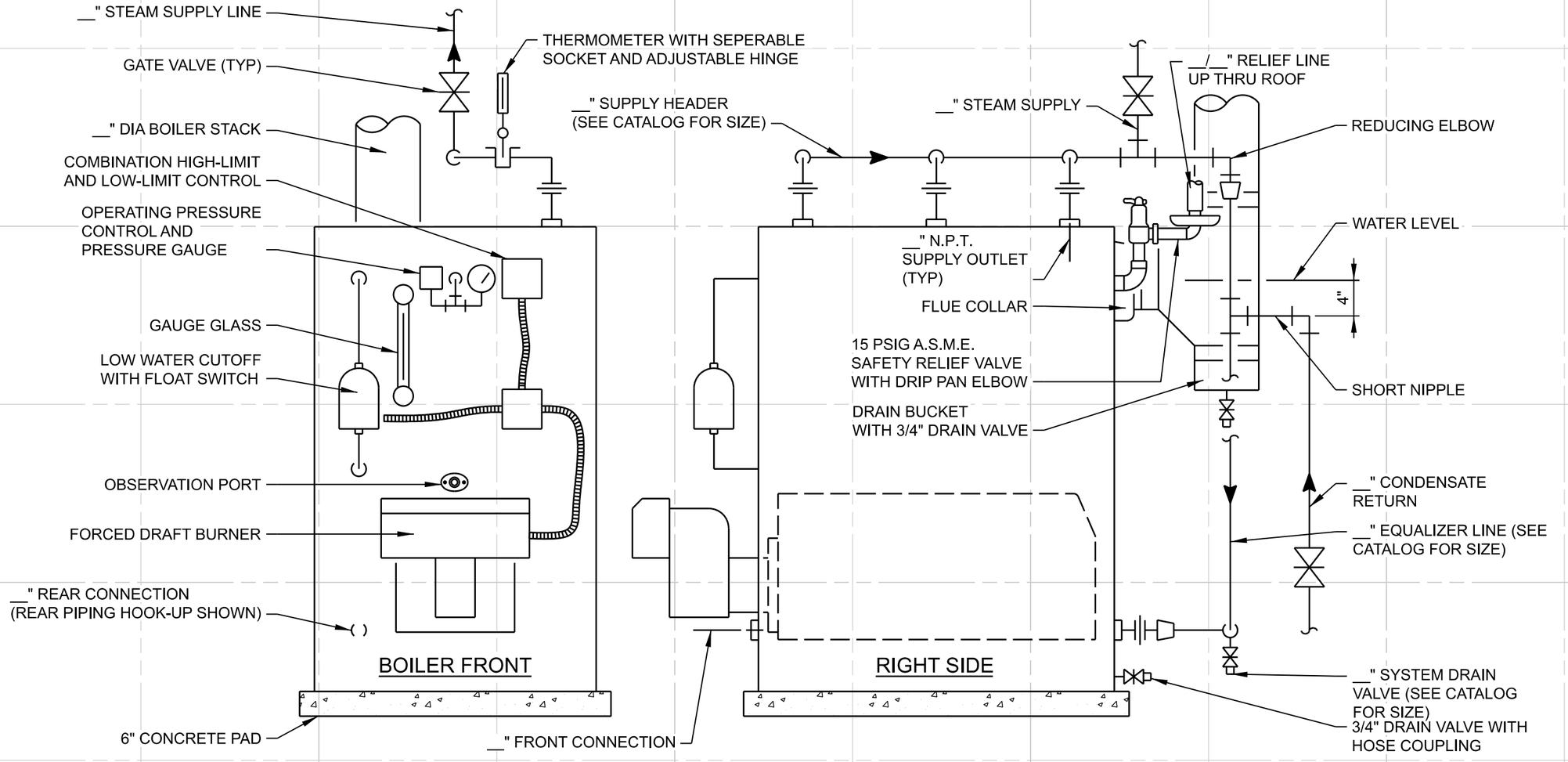
SCALE: NTS



A1

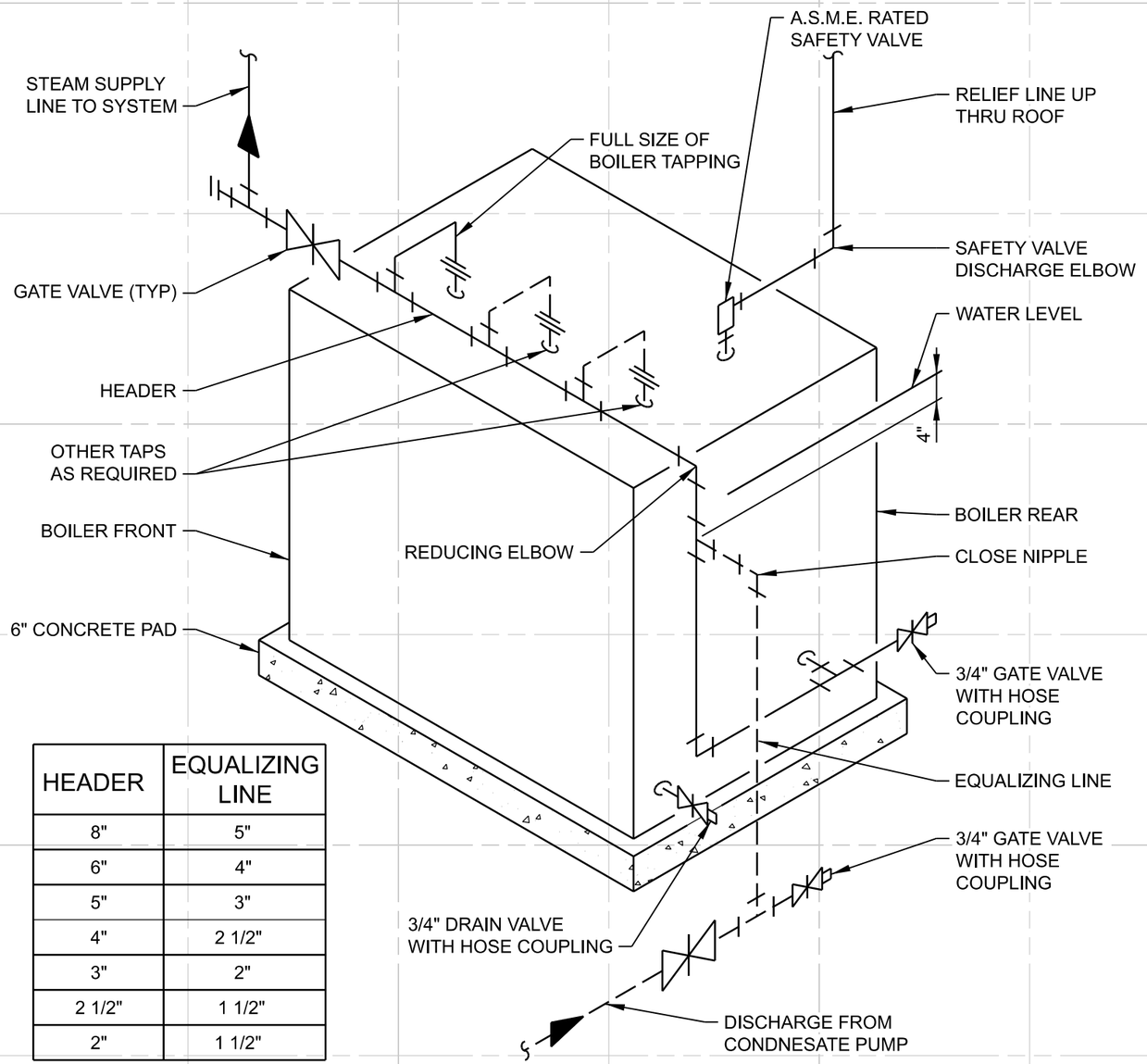
DETAIL: RELIEF VALVE PIPING

SCALE: NTS



A1 DETAIL: STEAM SECTIONAL CAST-IRON FORCED-DRAFT BOILER

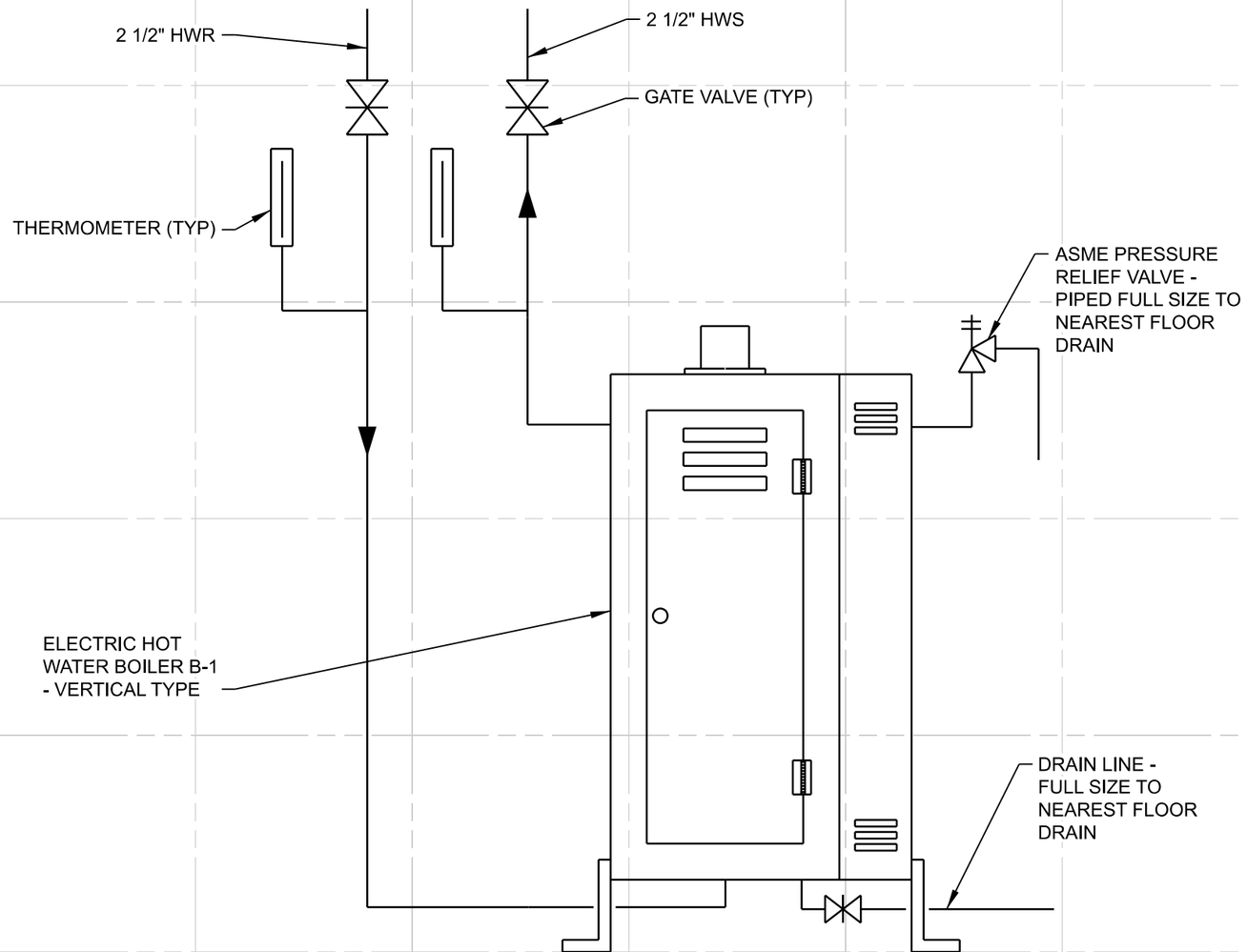
SCALE: NTS



HEADER	EQUALIZING LINE
8"	5"
6"	4"
5"	3"
4"	2 1/2"
3"	2"
2 1/2"	1 1/2"
2"	1 1/2"

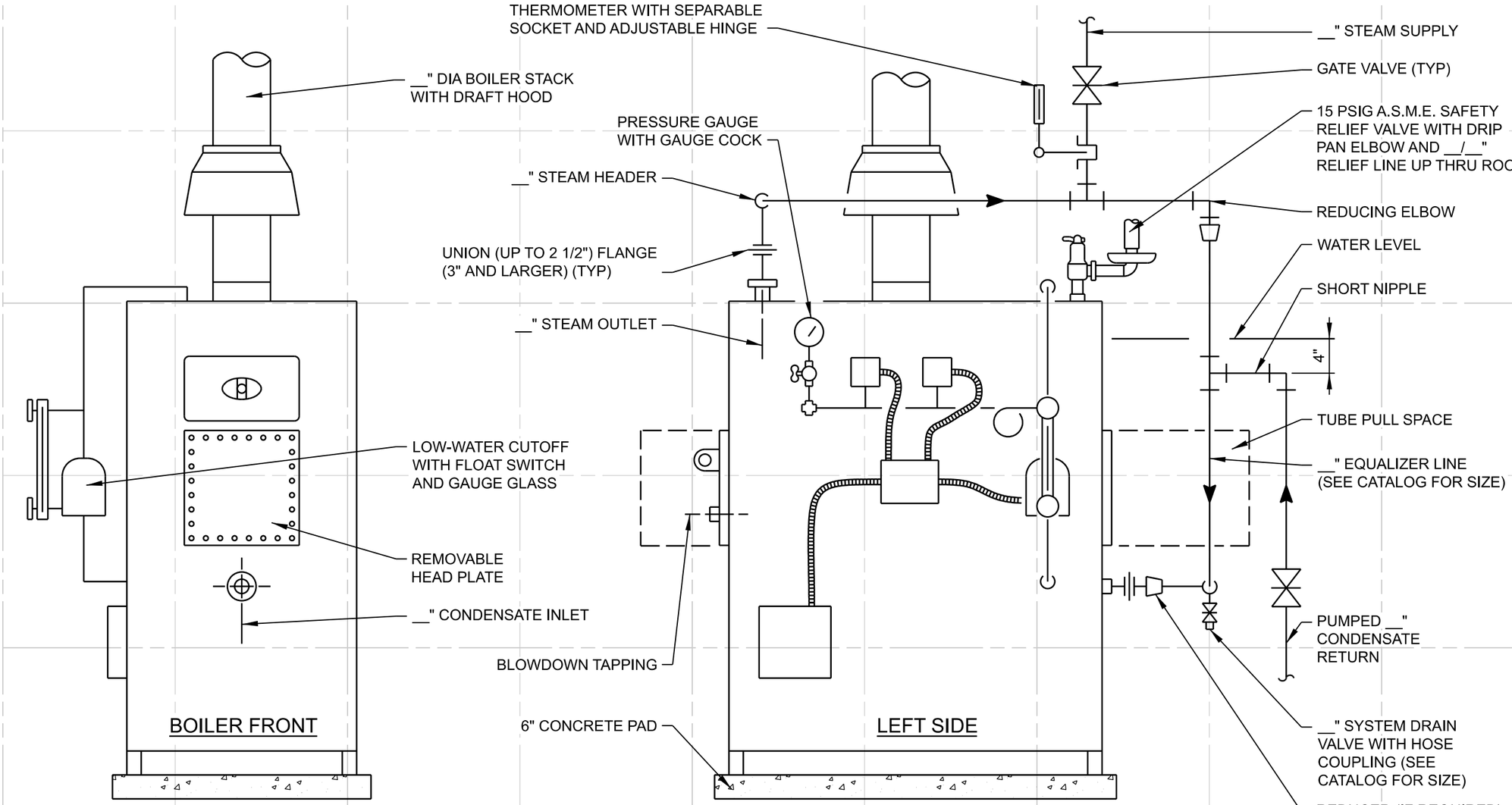
A1 DETAIL: LOW PRESSURE STEAM BOILER PIPING

SCALE: NTS



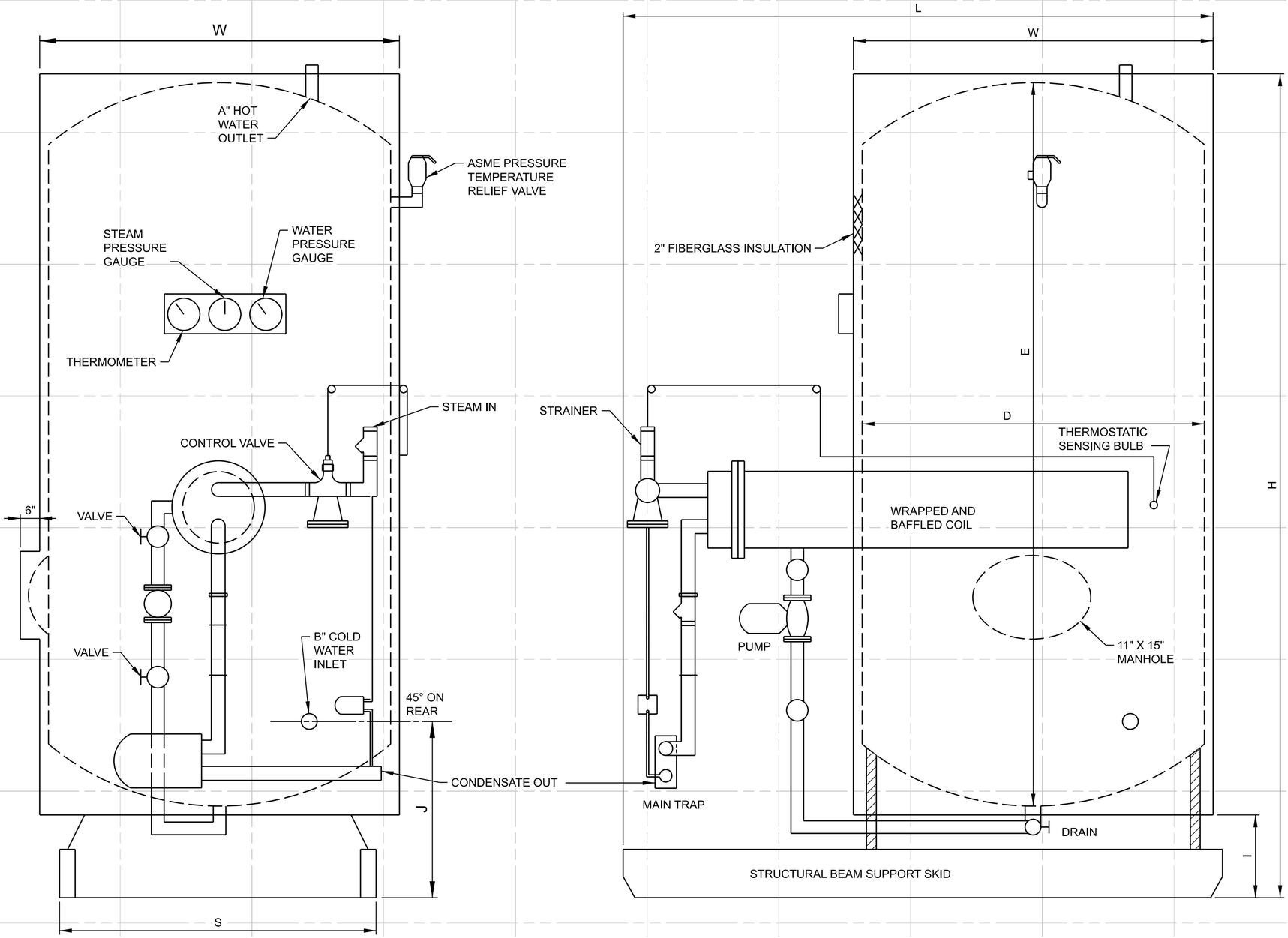
A1 DETAIL: ELECTRIC HOT WATER BOILER

SCALE: NTS



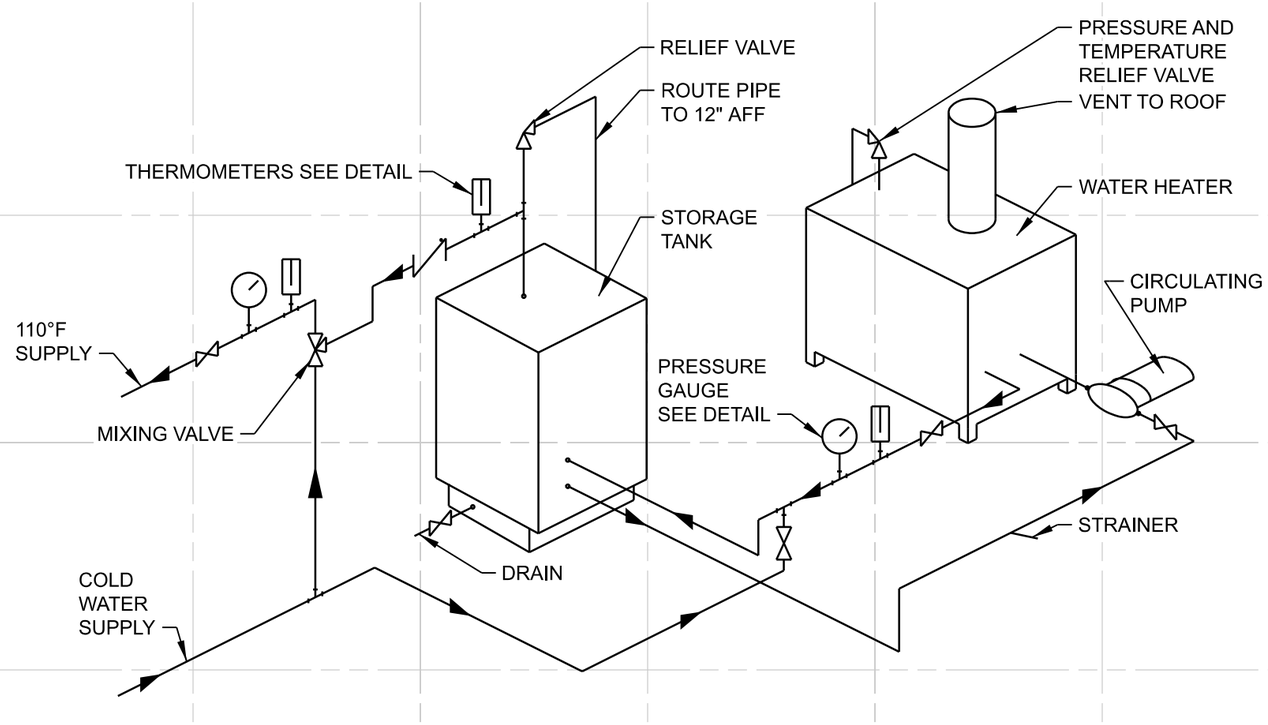
A1 DETAIL: STEAM WATER-TUBE ATMOSPHERIC BOILER

SCALE: NTS



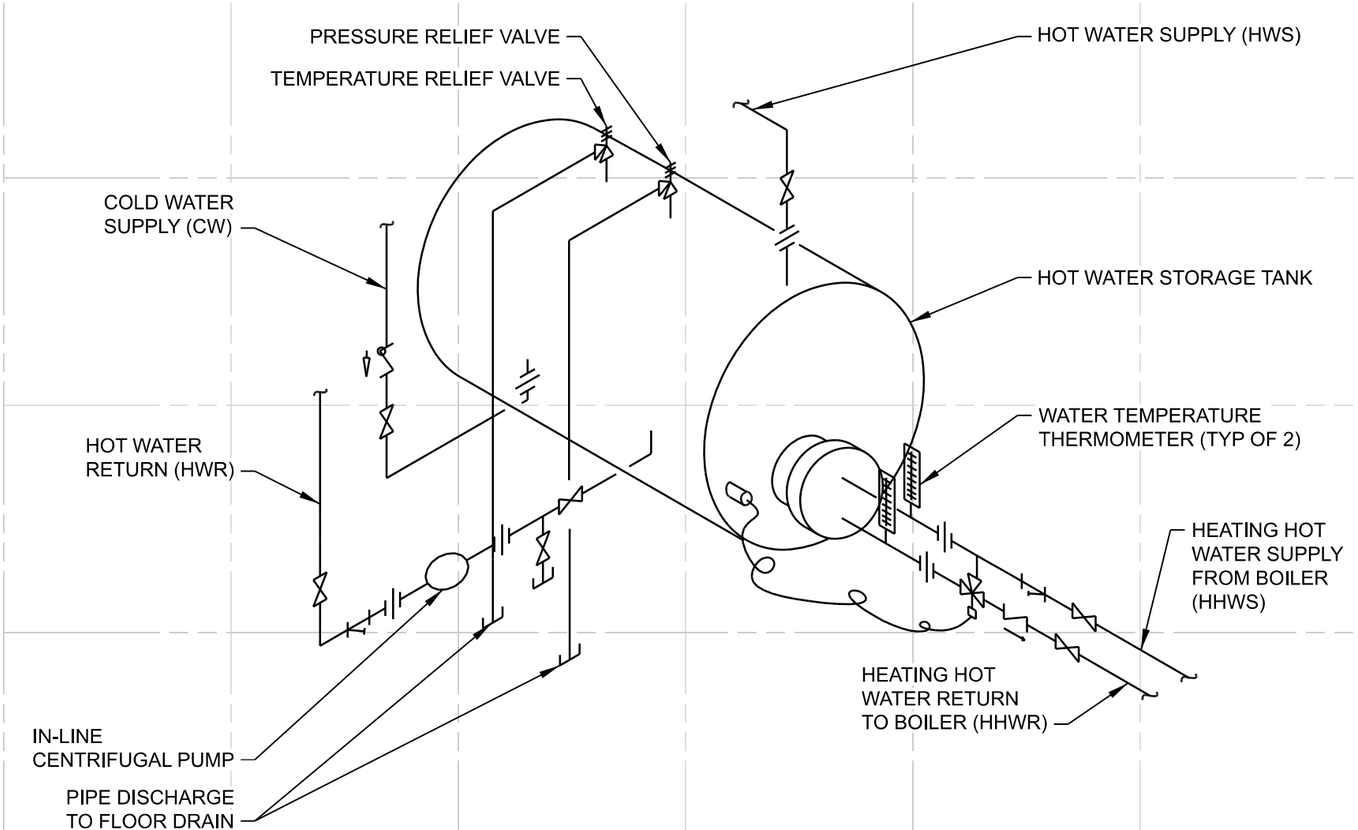
A1 DETAIL: DOMESTIC HOT WATER TANK AND TANK HEATER WITH STEAM INPUT

SCALE: NTS



A1 DETAIL: DOMESTIC HOT WATER SCHEMATIC

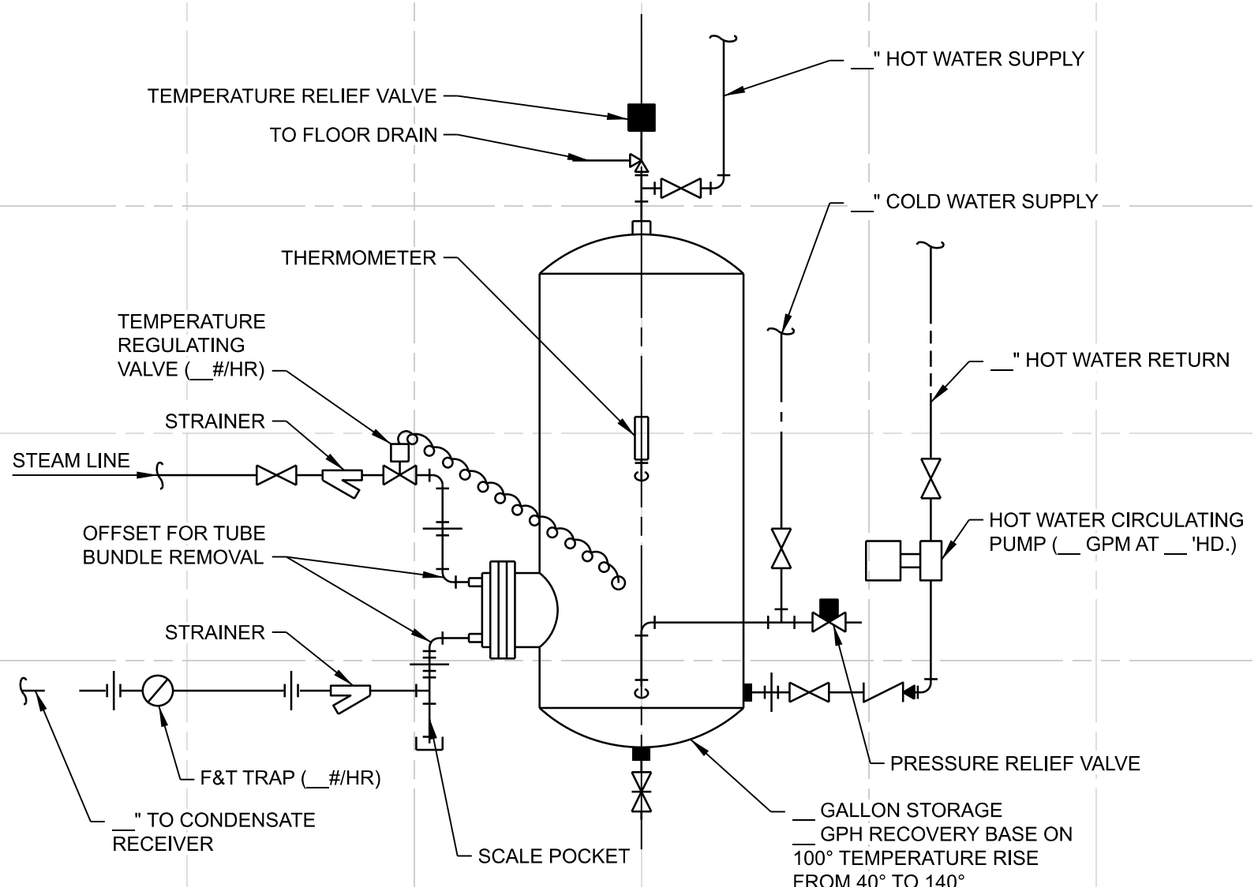
SCALE: NTS



NOTES:
1. PROVIDE SUPPORT FOR TANK AND POSITIVELY ATTACH TANK TO ITS SUPPORTS. ALSO POSITIVELY ATTACH THE SUPPORTS TO THE CONCRETE PAD.
2. THE DOMESTIC HOT WATER HEATER SHALL HAVE A MINIMUM OF 2 MANHOLES.

A1 SCHEMATIC: DOMESTIC HOT WATER GENERATOR

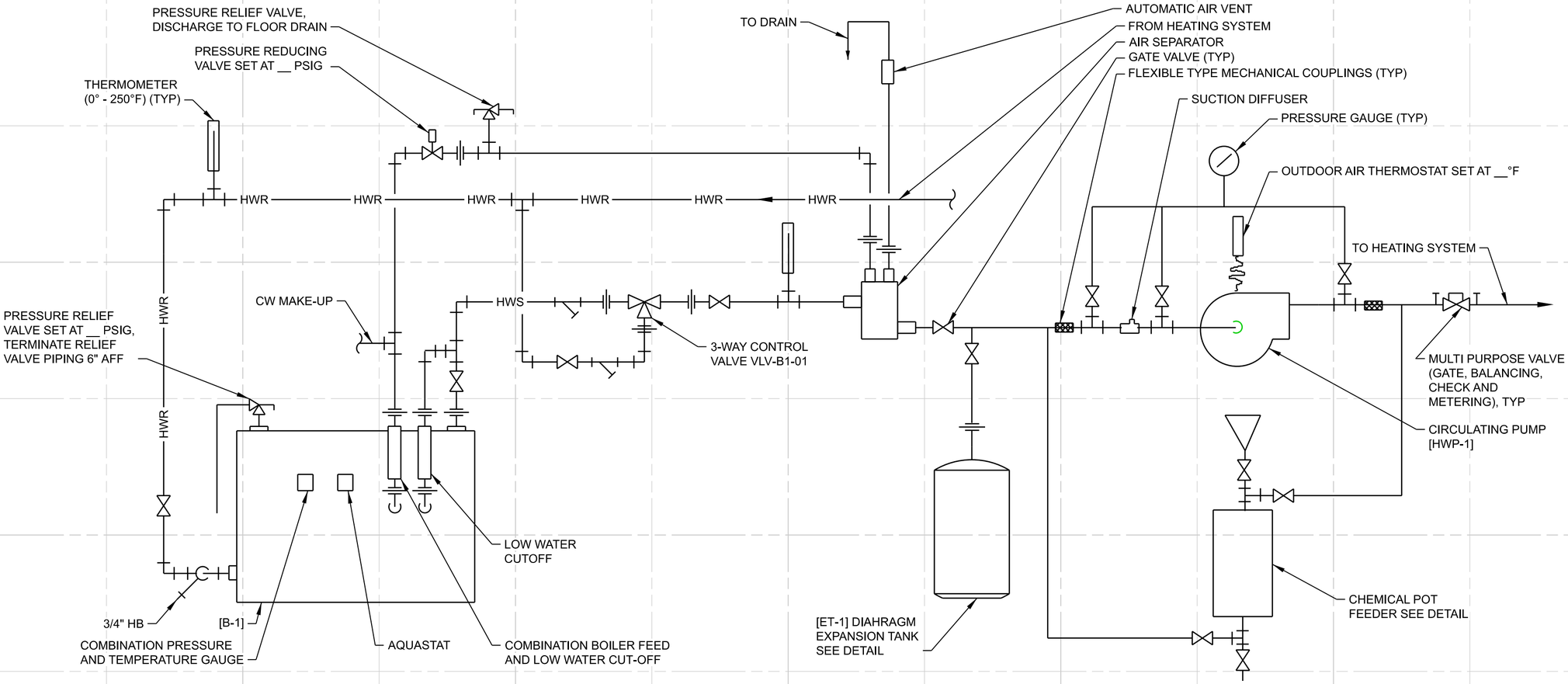
SCALE: NTS



DETAIL: VERTICAL HOT WATER GENERATOR CONNECTIONS

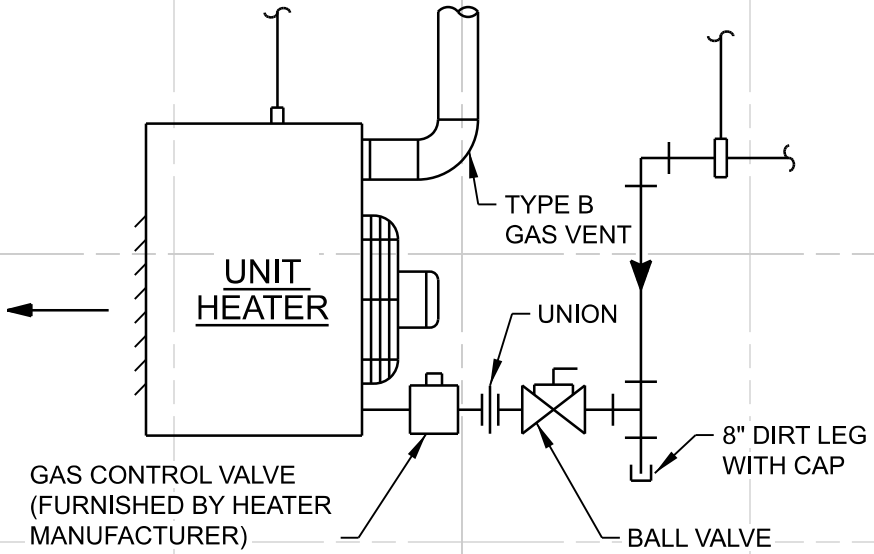
A1

SCALE: NTS



A1 SCHEMATIC: BOILER PIPING

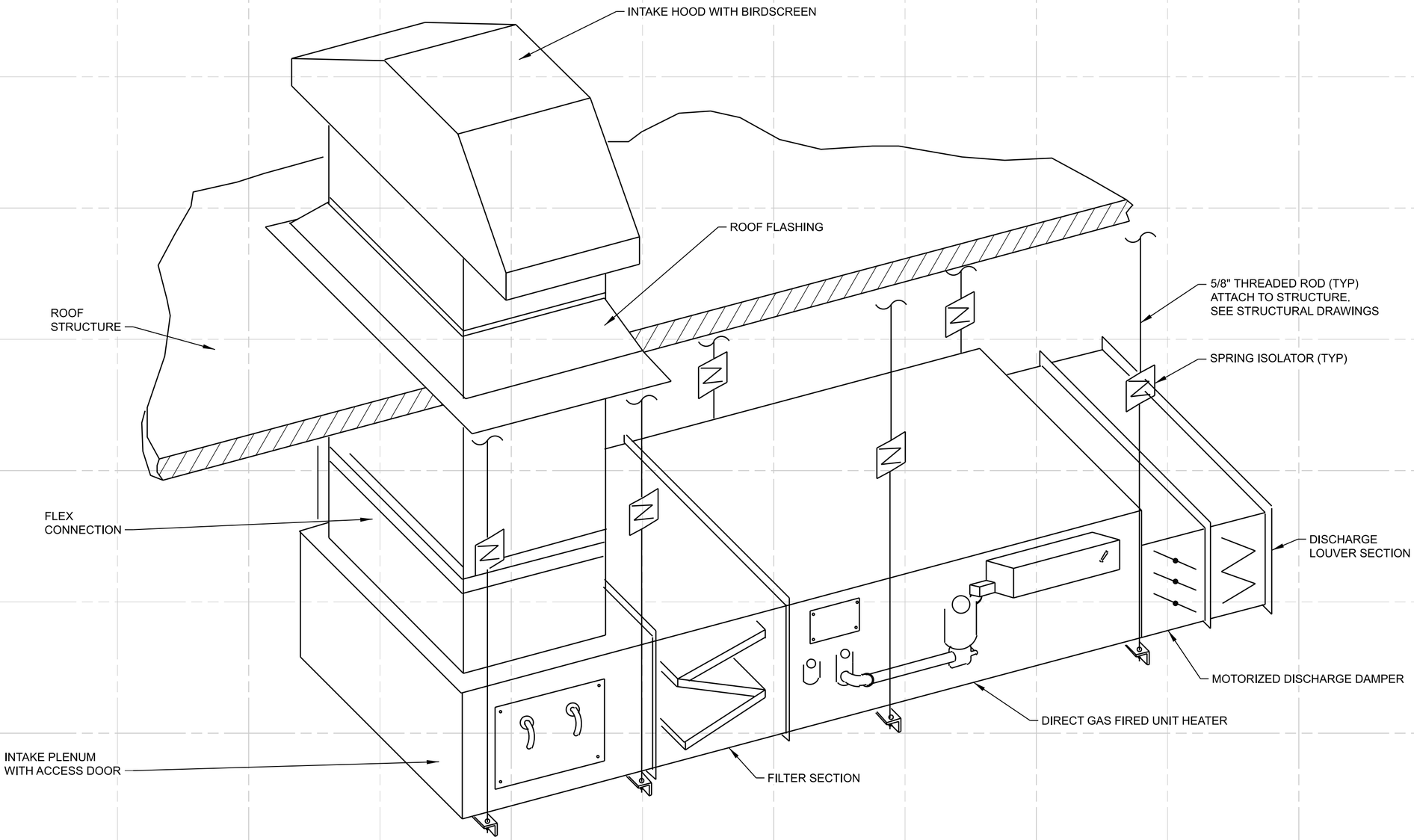
SCALE: NTS



A1

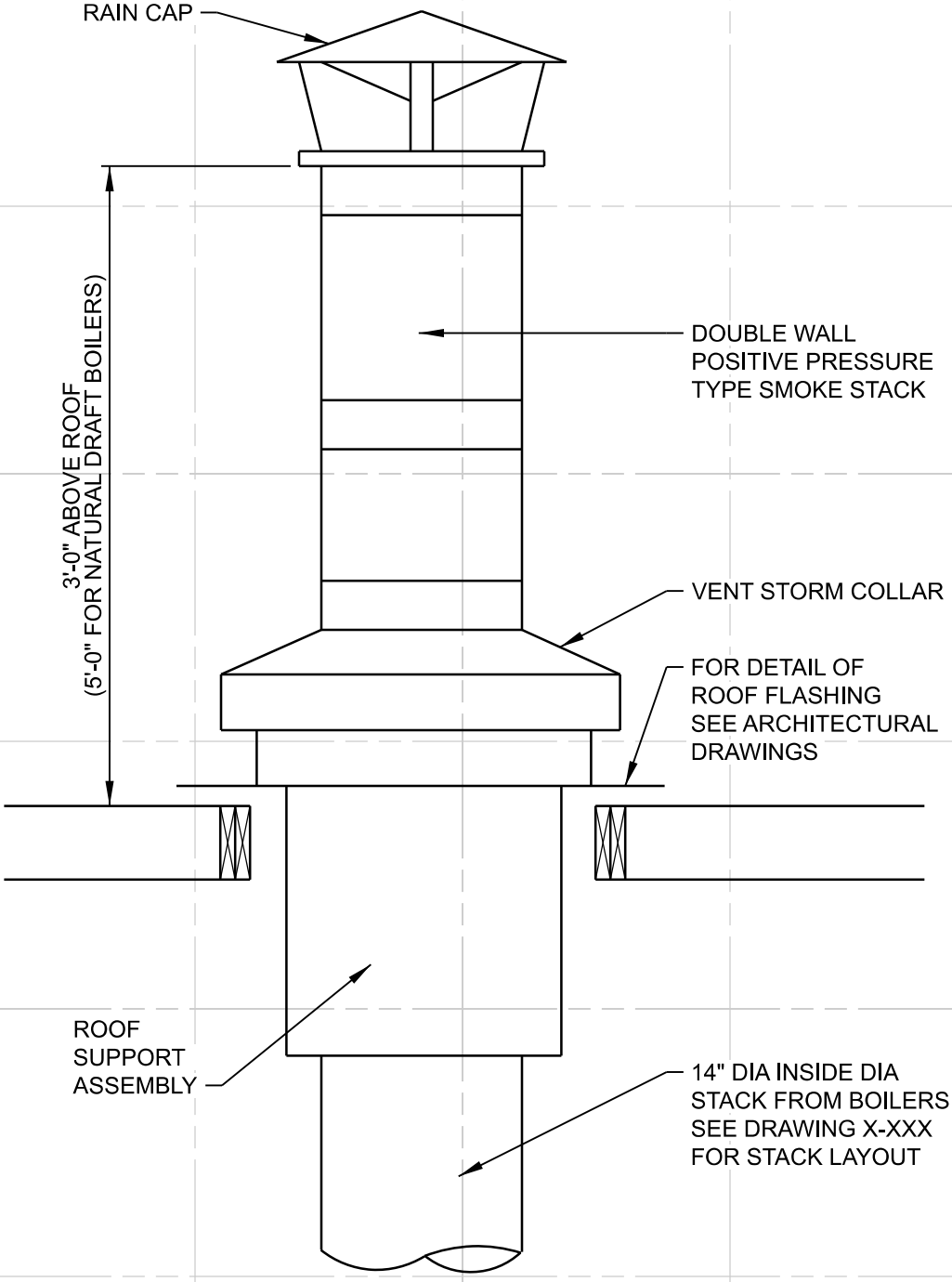
DETAIL: GAS FIRED UNIT HEATER

SCALE: NTS



A1 DETAIL: GAS FIRED MAKE-UP UNIT HEATER

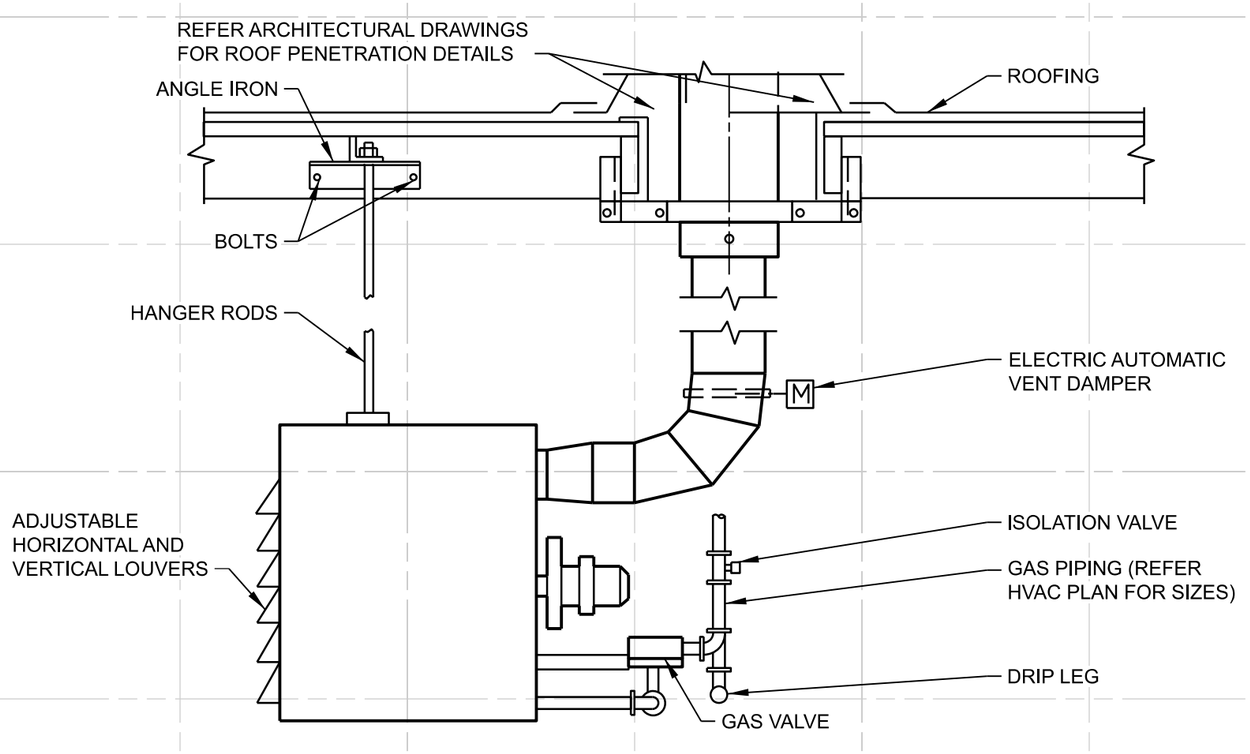
SCALE: NTS



A1

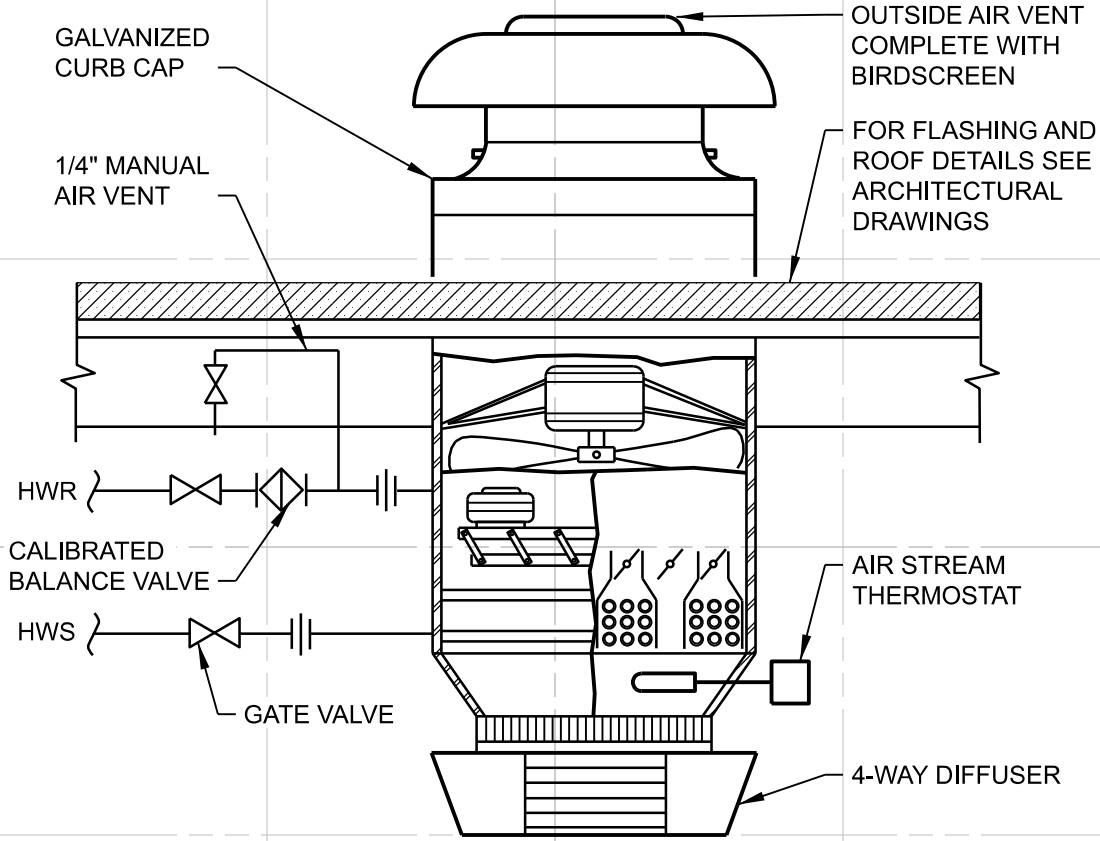
DETAIL: BOILER STACK

SCALE: NTS



A1 DETAIL: GAS FIRED UNIT HEATER

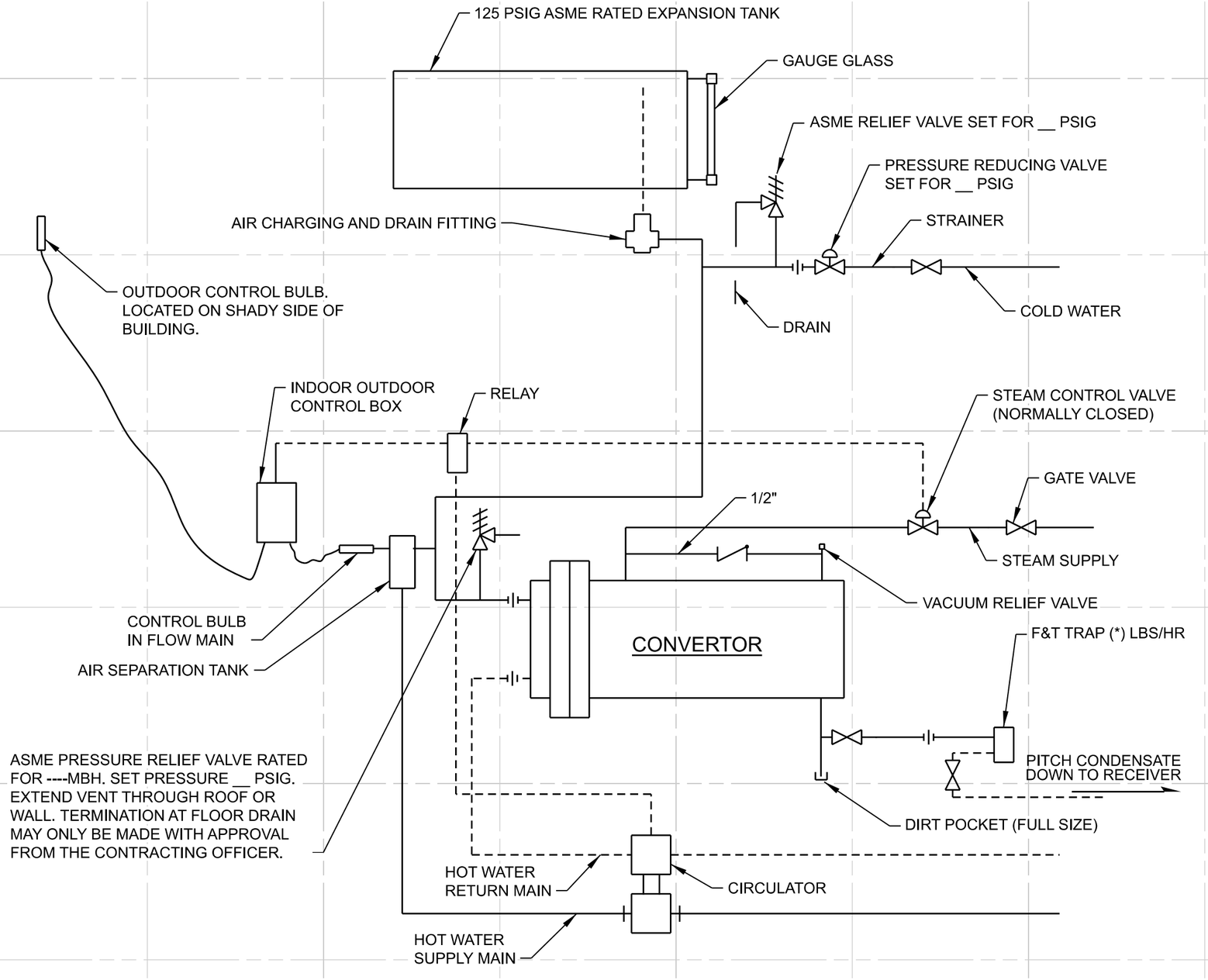
SCALE: NTS



A1

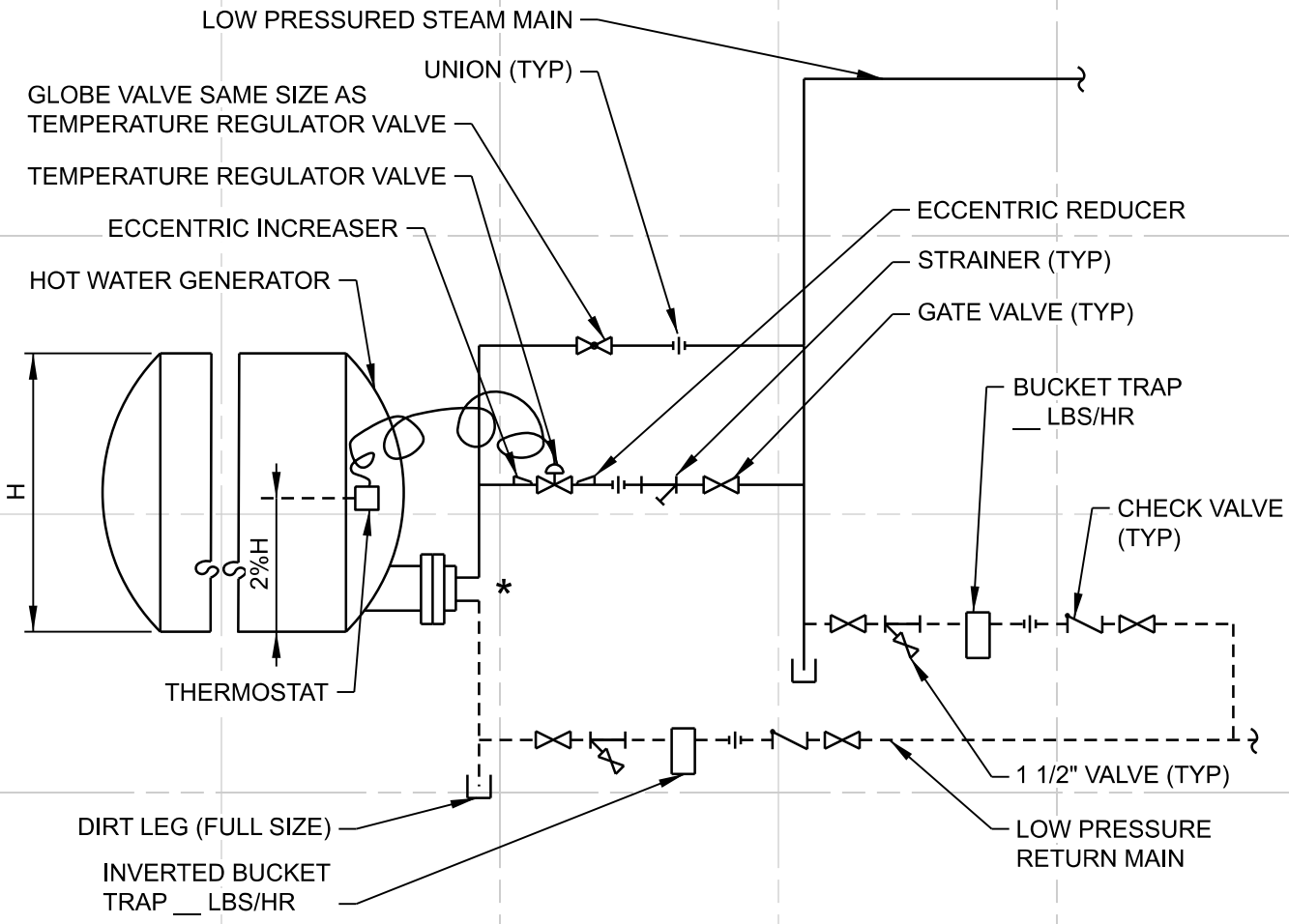
DETAIL: MAKE-UP AIR UNIT

SCALE: NTS



A1 DETAIL: CONVERTOR PIPING OUTDOOR CONTROL ON STEAM

SCALE: NTS

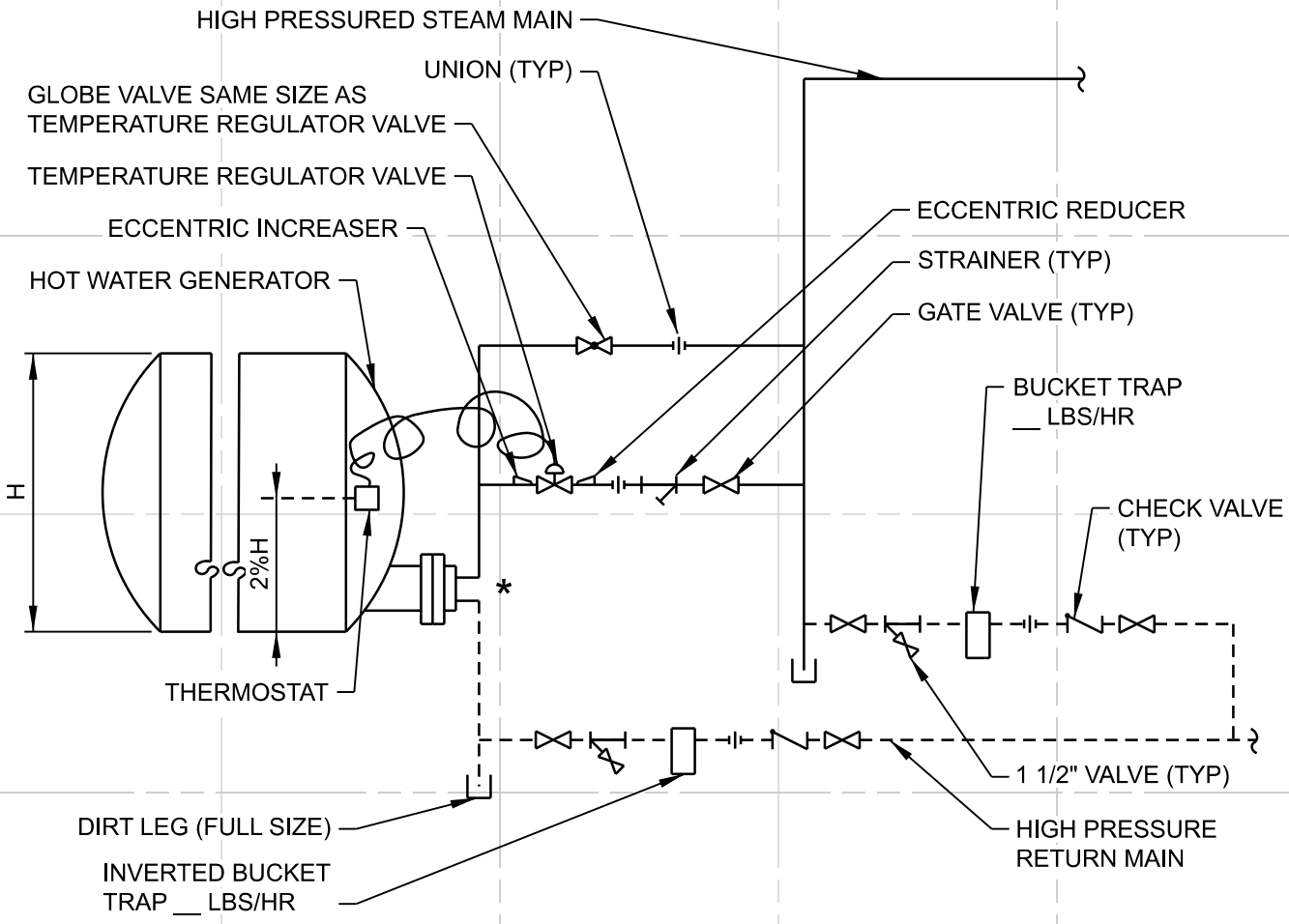


NOTE:
* LENGTH OF TUBE BUNDLE SHALL BE A MINIMUM OF 2/3rds THE LENGTH OF THE HOT WATER GENERATOR.

DETAIL: PIPING CONNECTIONS-LOW PRESSURE STEAM HOT WATER GENERATOR - STEAM HEATED

A1

SCALE: NTS

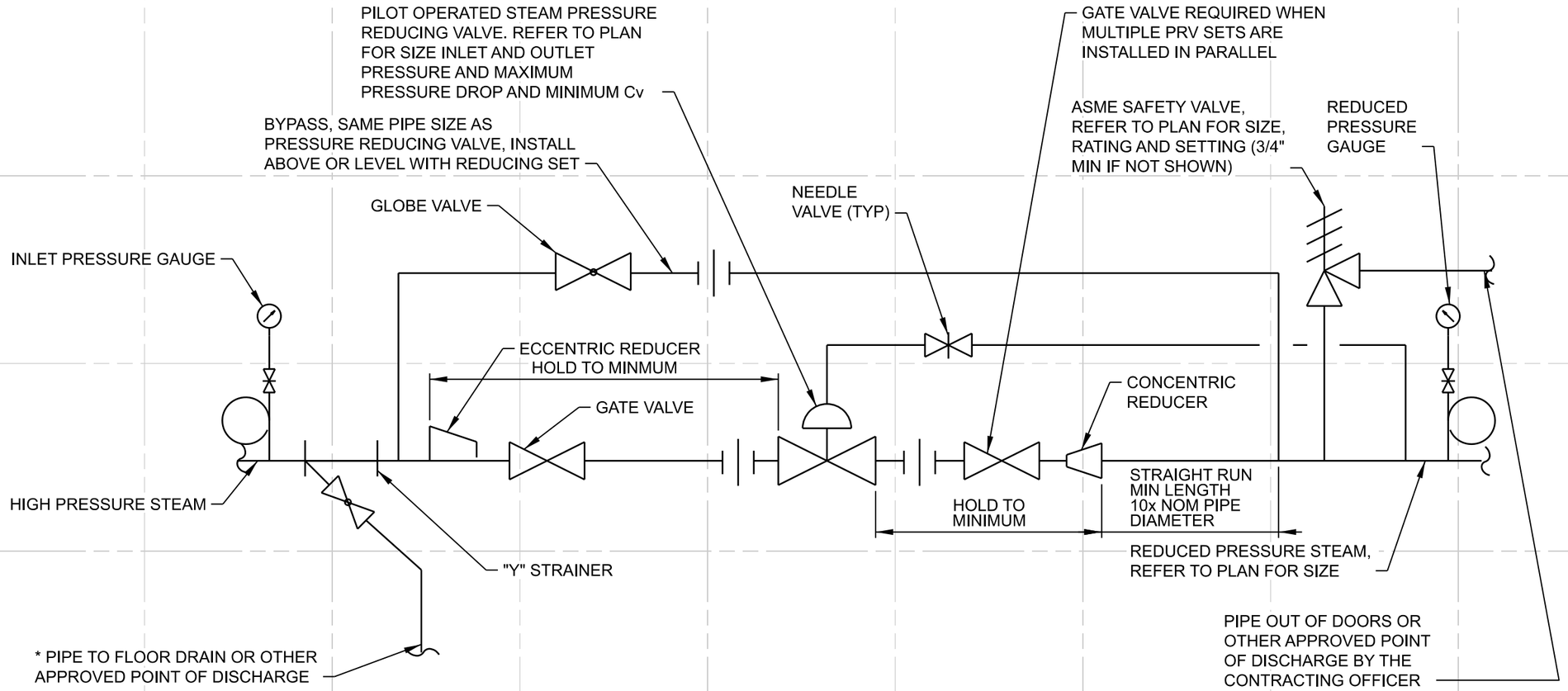


NOTE:
* LENGTH OF TUBE BUNDLE SHALL BE A MINIMUM OF 2/3rds THE LENGTH OF THE HOT WATER GENERATOR.

DETAIL: PIPING CONNECTIONS-HIGH PRESSURE STEAM HOT WATER GENERATOR - STEAM HEATED

A1

SCALE: NTS

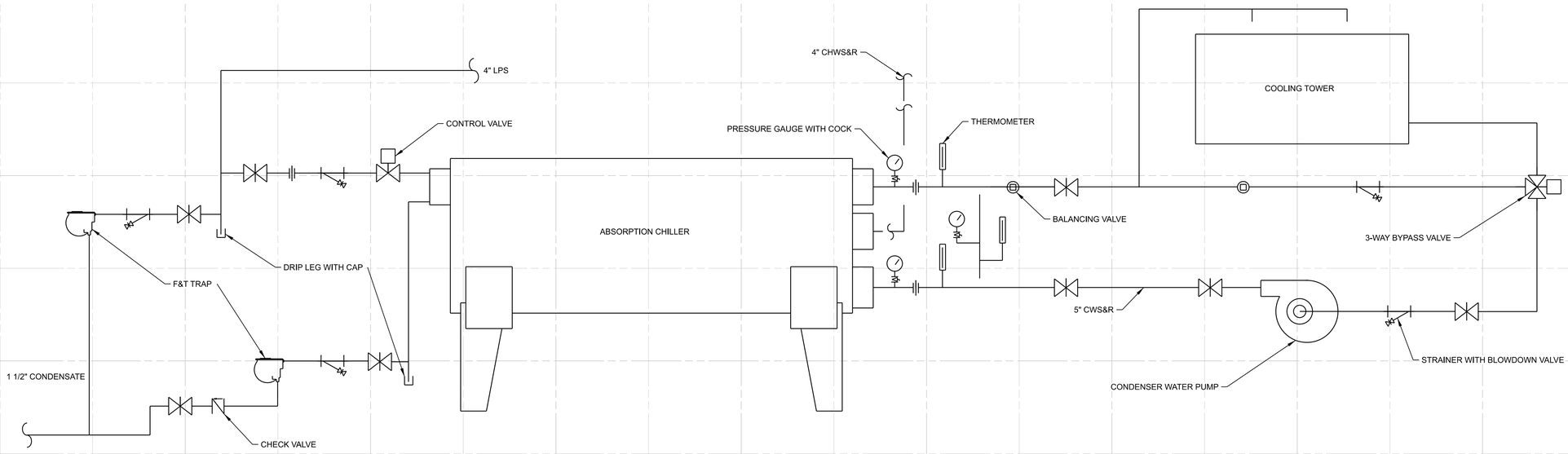


NOTE:
* SIZE OF GLOBE VALVE AND DRAIN PIPE SHALL BE AT LEAST EQUAL TO FULL SIZE OF STANDARD BLOWOFF CONNECTION PROVIDED ON STRAINER BODY.

A1

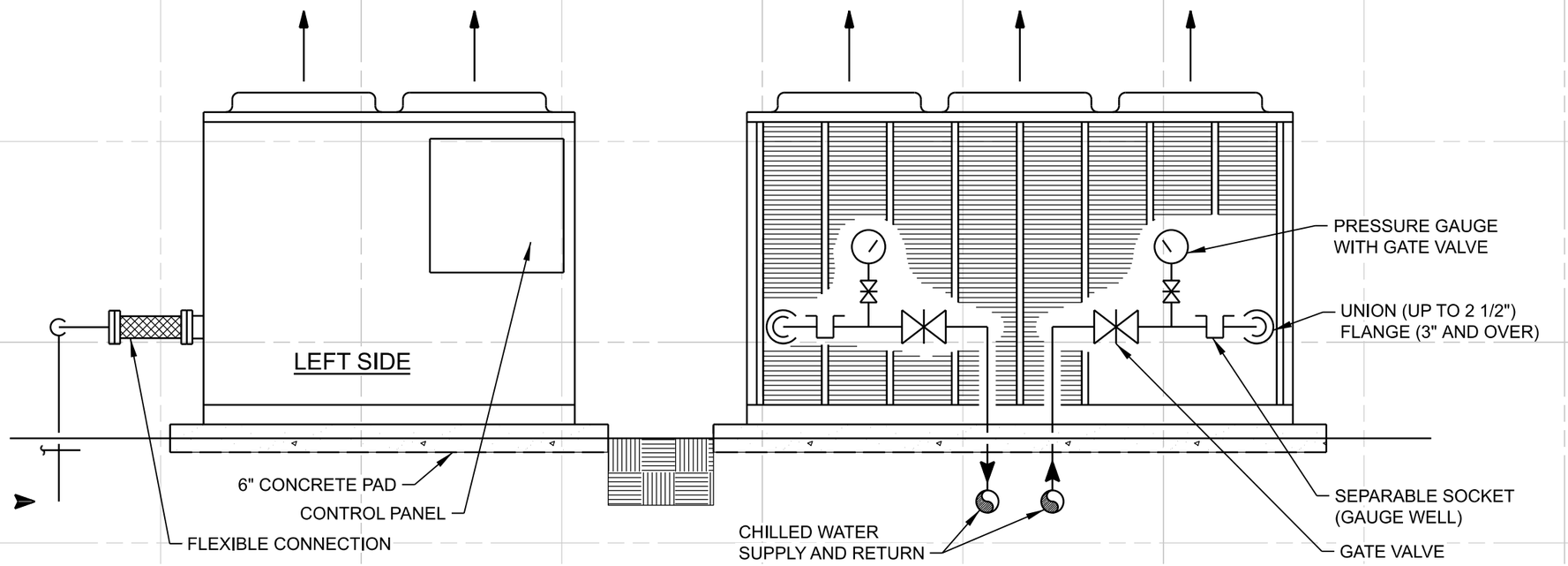
DETAIL: STEAM PRESSURE REDUCING SET (STEAM PRV)

SCALE: NTS



A1 SCHEMATIC: ABSORPTION CHILLER PIPING

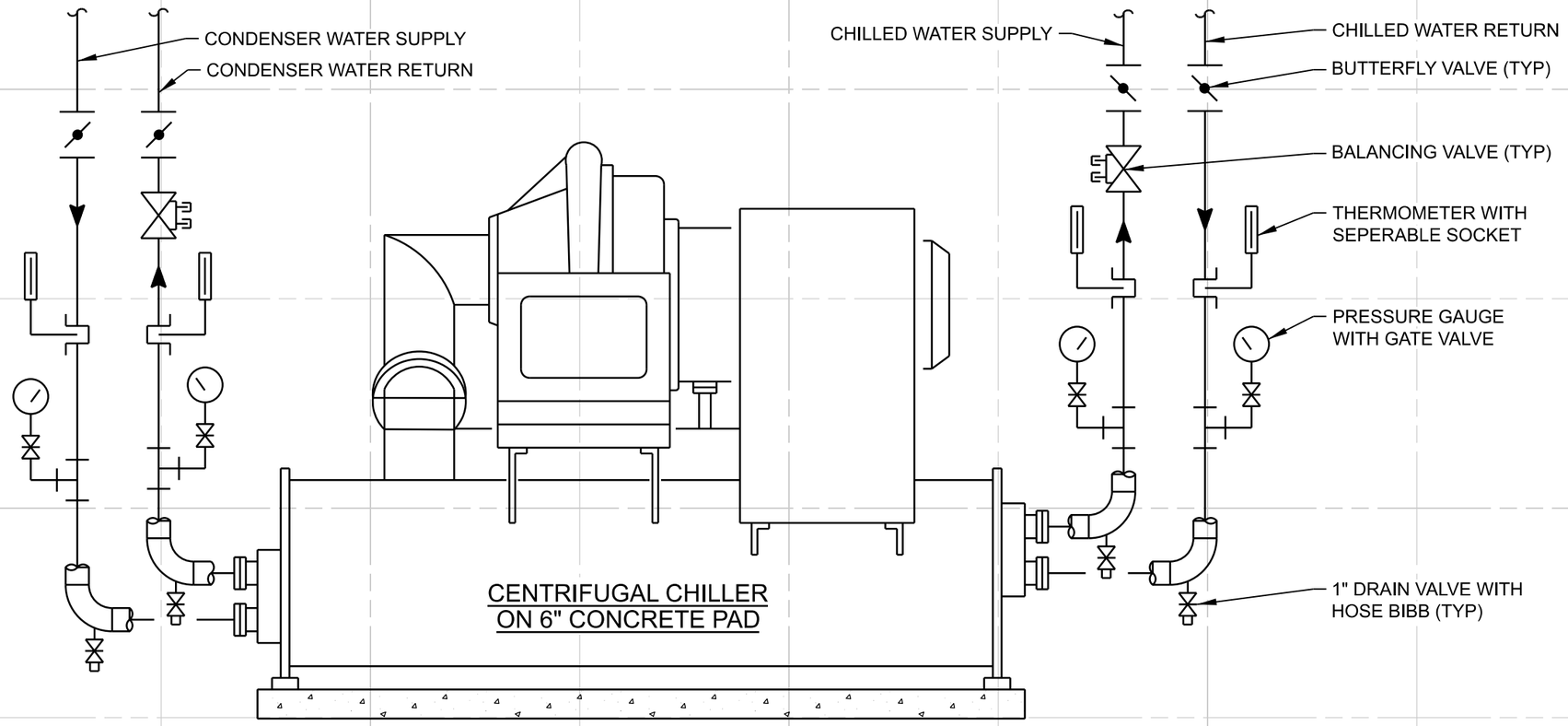
SCALE: NTS



A1

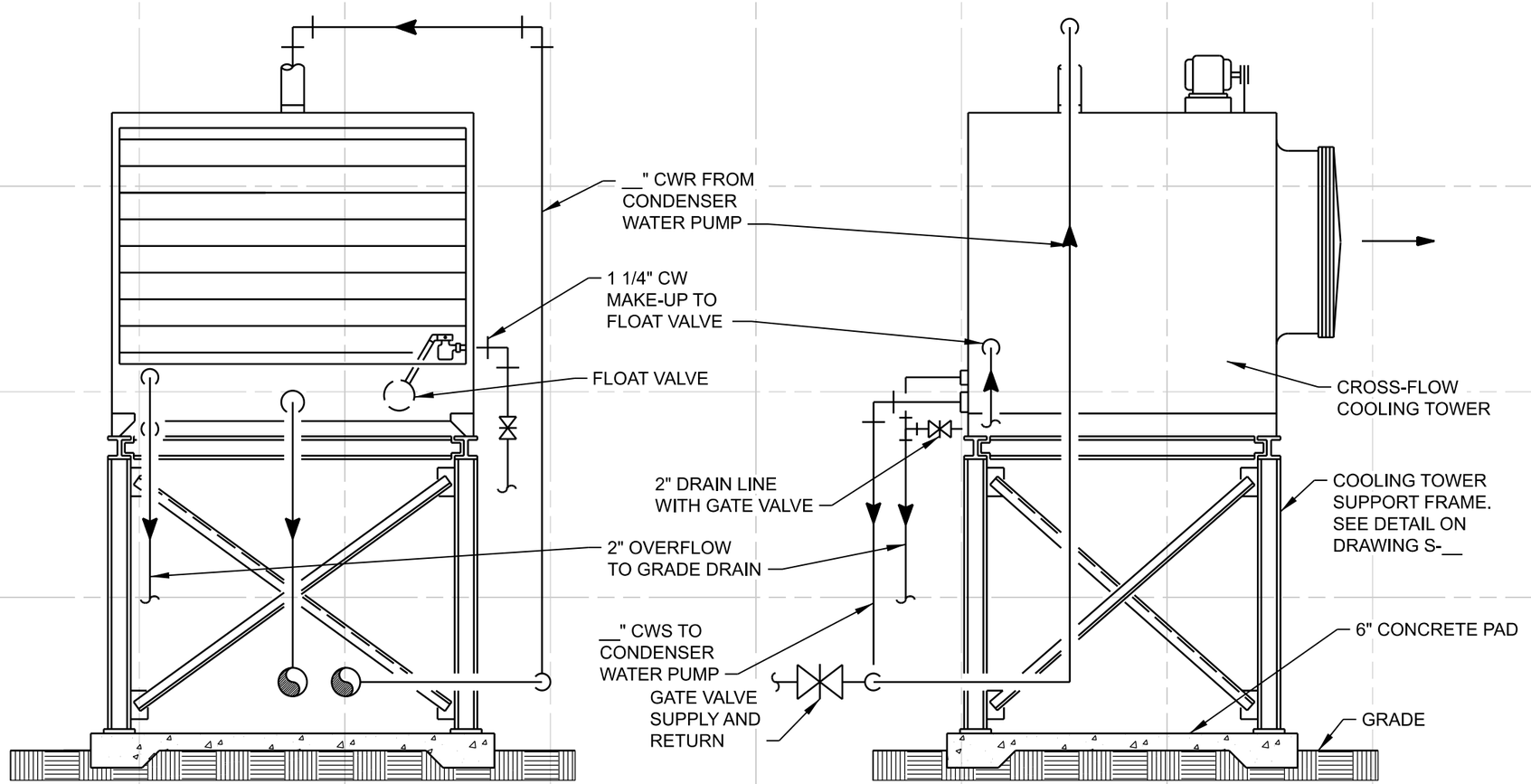
DETAIL: AIR-COOLED CHILLER PIPING CONNECTION

SCALE: NTS



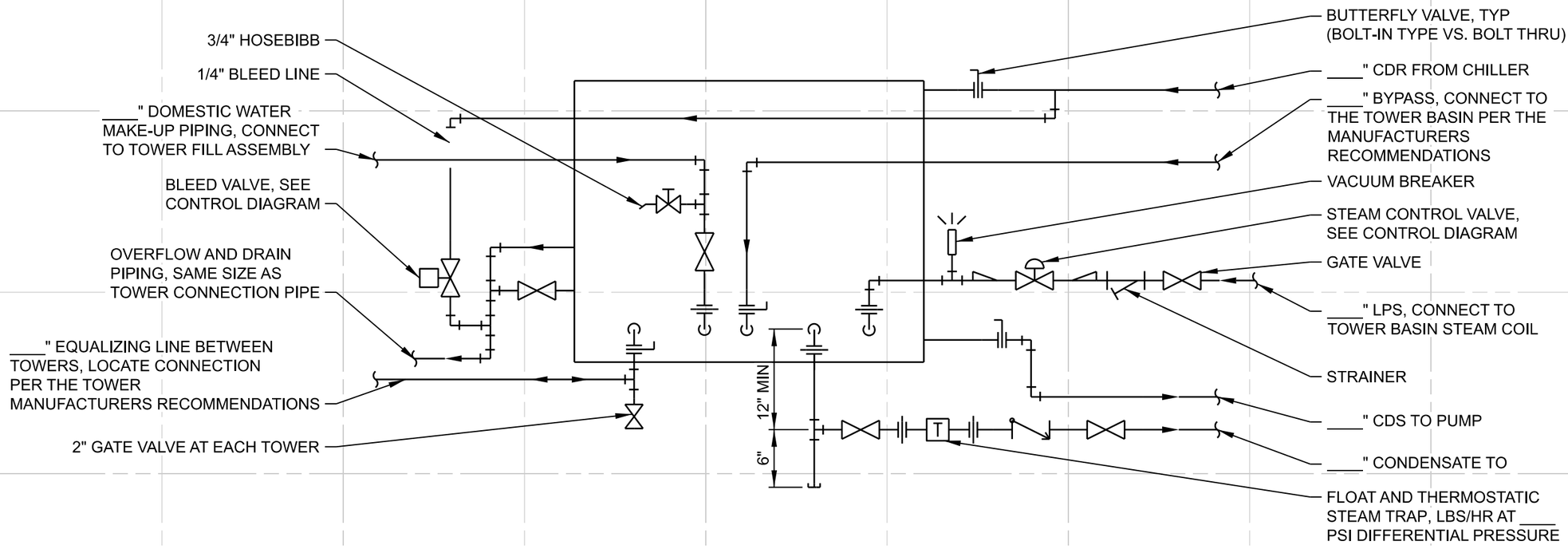
A1 DETAIL: CENTRIFUGAL CHILLER

SCALE: NTS



A1 DETAIL: CROSS-FLOW COOLING TOWER

SCALE: NTS

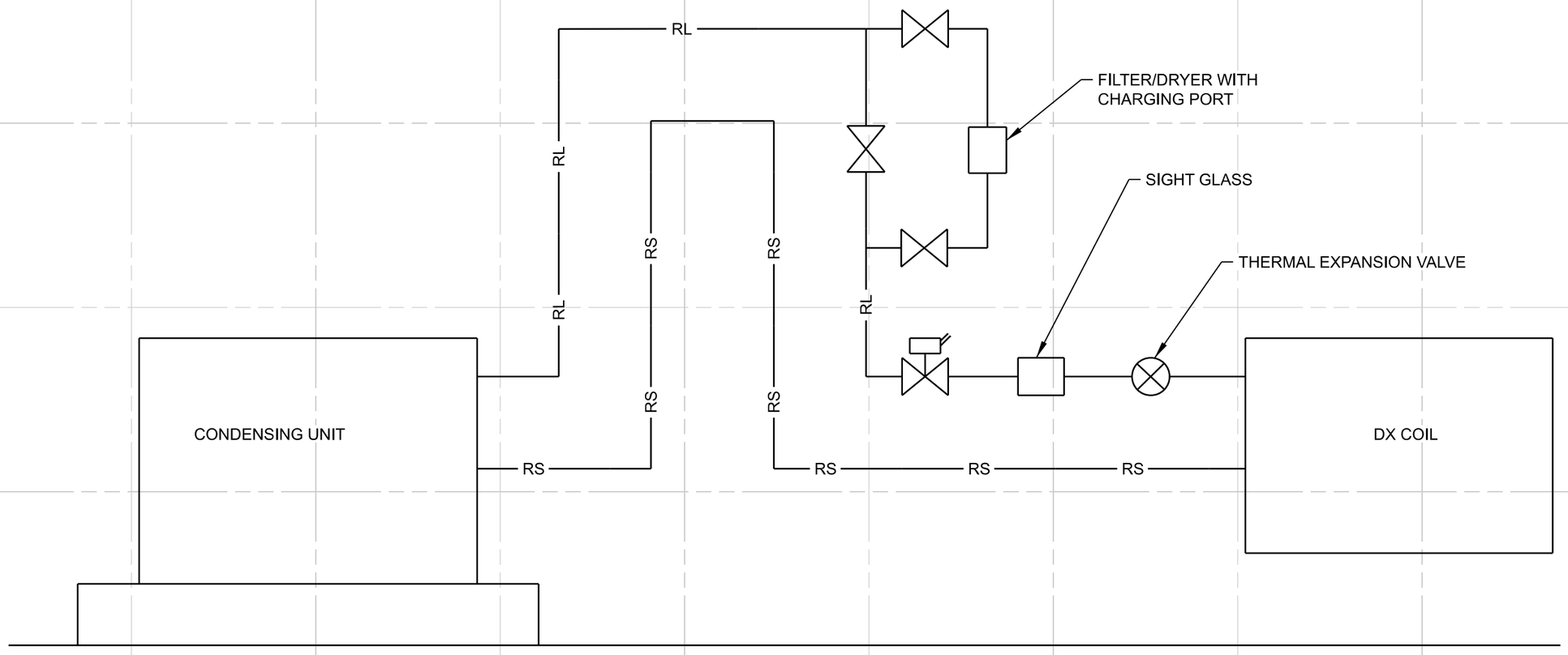


NOTES:
1. PROVIDE THERMOSTATICALLY-CONTROLLED ELECTRIC SELF-LIMITING HEAT TRACING TAPE UNDERNEATH THE INSULATION ON ALL NEW PIPING LOCATED OUTDOORS EXCLUDING THE STEAM, CONDENSATE, AND DRAIN PIPING SERVING THE TOWER. LOCATE THE THERMOSTAT AS SHOWN ON THE PLANS WITH A SUN SHIELD AND SET IT TO ENERGIZE THE HEAT TAPE AT AN OUTDOOR TEMPERATURE BELOW 45 DEG F.
2. PROVIDE PIPE SUPPORTS PER DETAIL ____ ON SHEET M-____. SPACE SUPPORTS IN ACCORDANCE WITH SECTION 15501 OF THE SPECIFICATIONS.
3. INSTALL PIPING TO PERMIT COMPLETE MAINTENANCE ACCESS TO THE TOWER.

A1

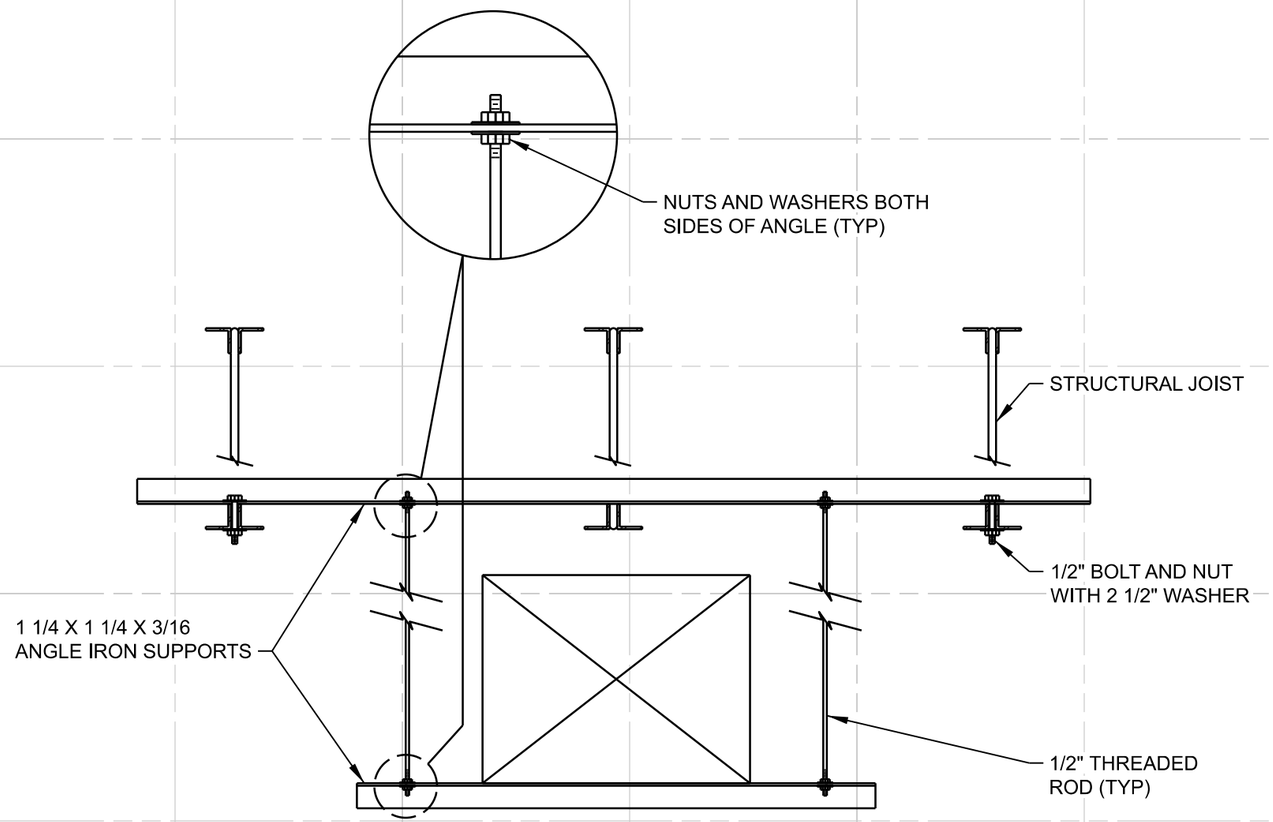
DETAIL: COOLING TOWER PIPING

SCALE: NTS



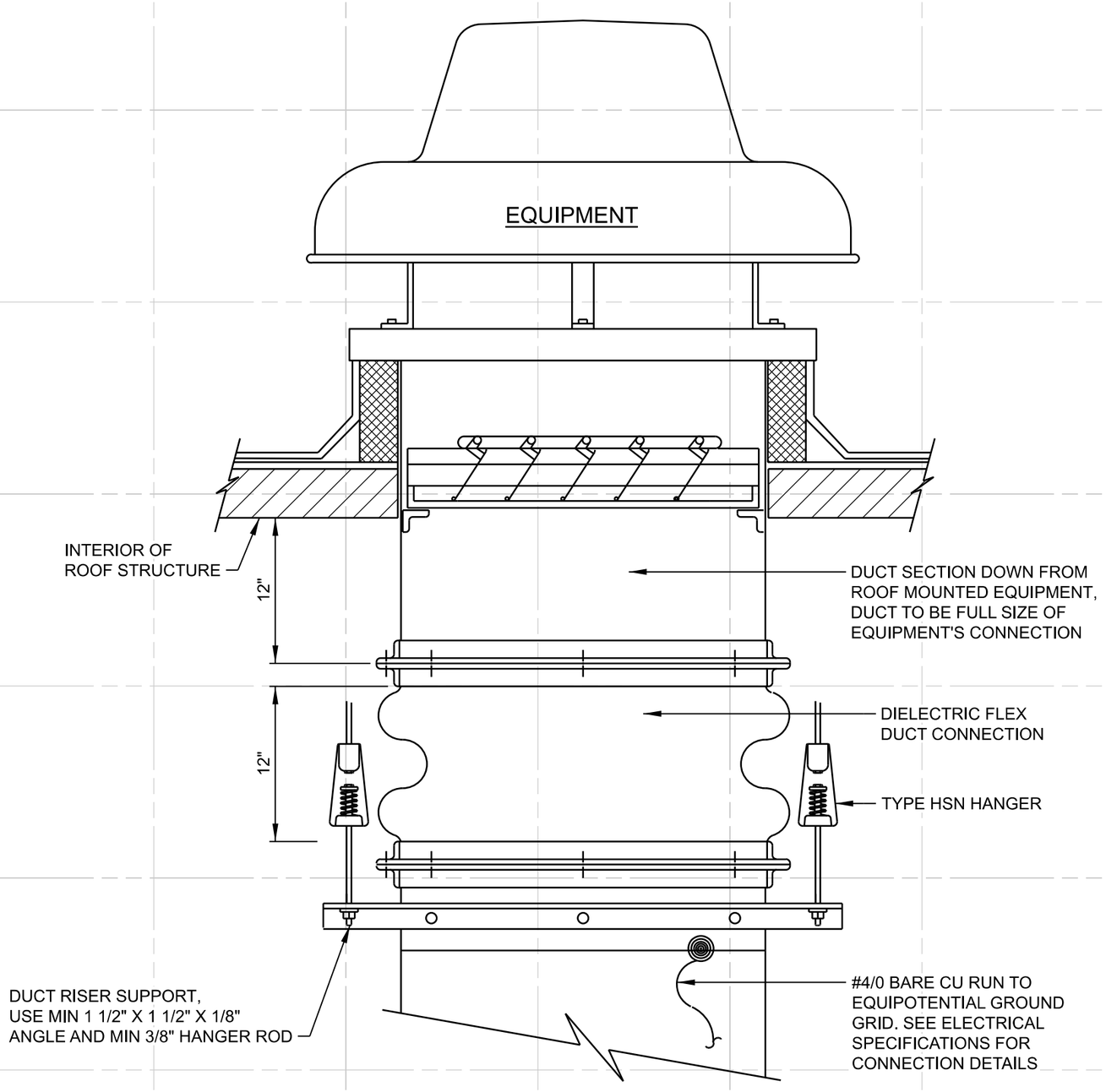
A1 SCHEMATIC: REFRIGERANT PIPING

SCALE: NTS



A1 DETAIL: DUCT HANGER

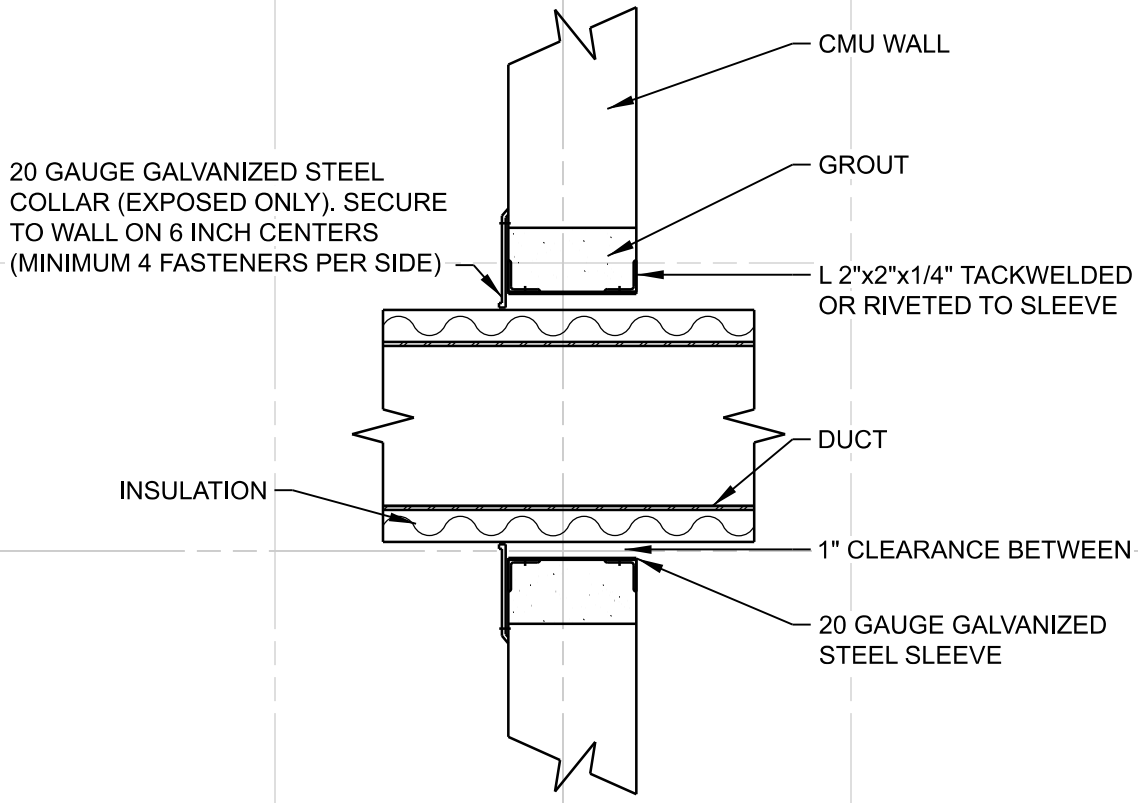
SCALE: NTS



A1

DETAIL: DIELECTRIC FLEX DUCT CONNECTION FOR ROOF PENETRATIONS

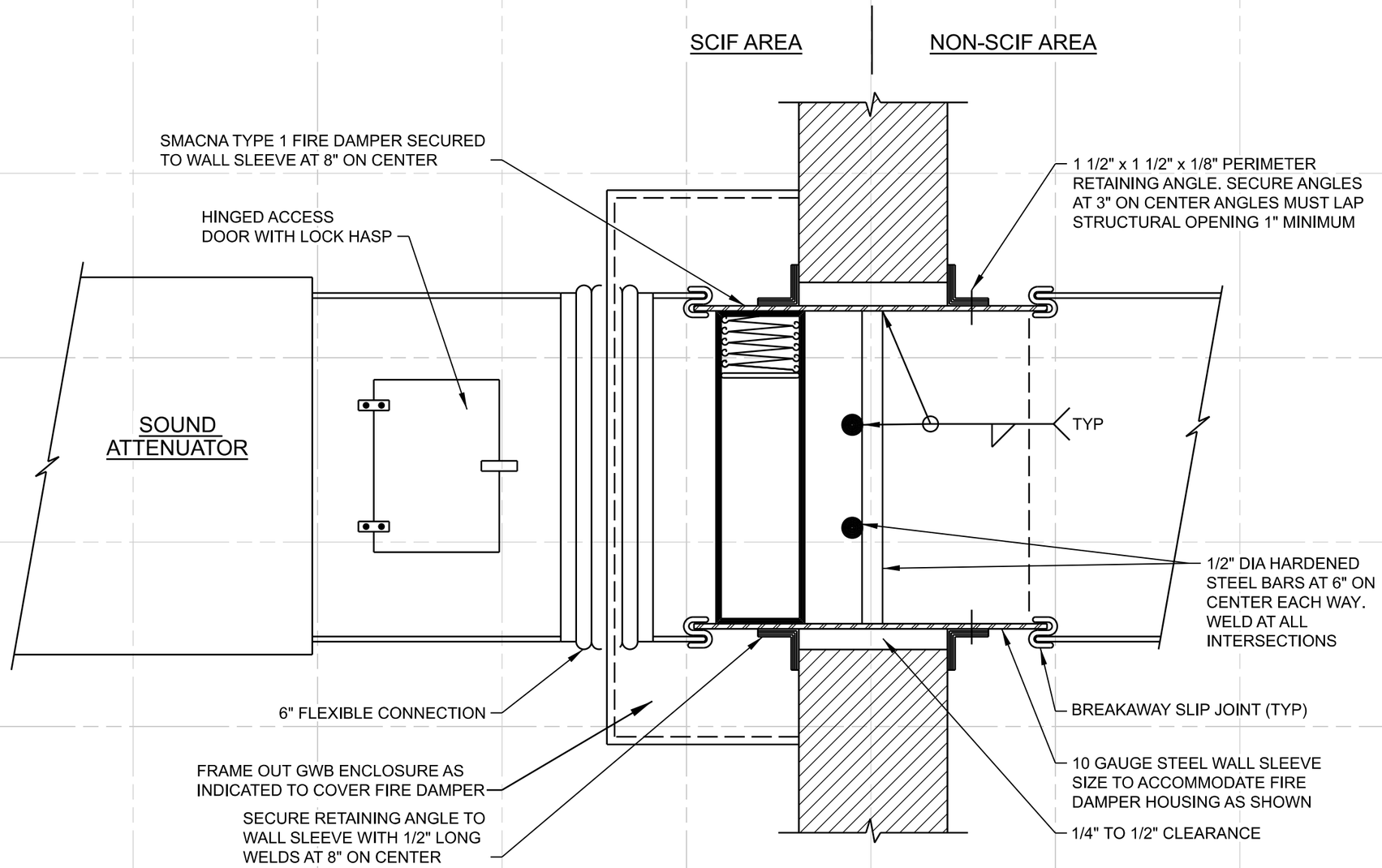
SCALE: NTS



DETAIL: DUCT PENETRATION THROUGH WALL (NOT APPLICABLE TO FIRE-RATED WALLS)

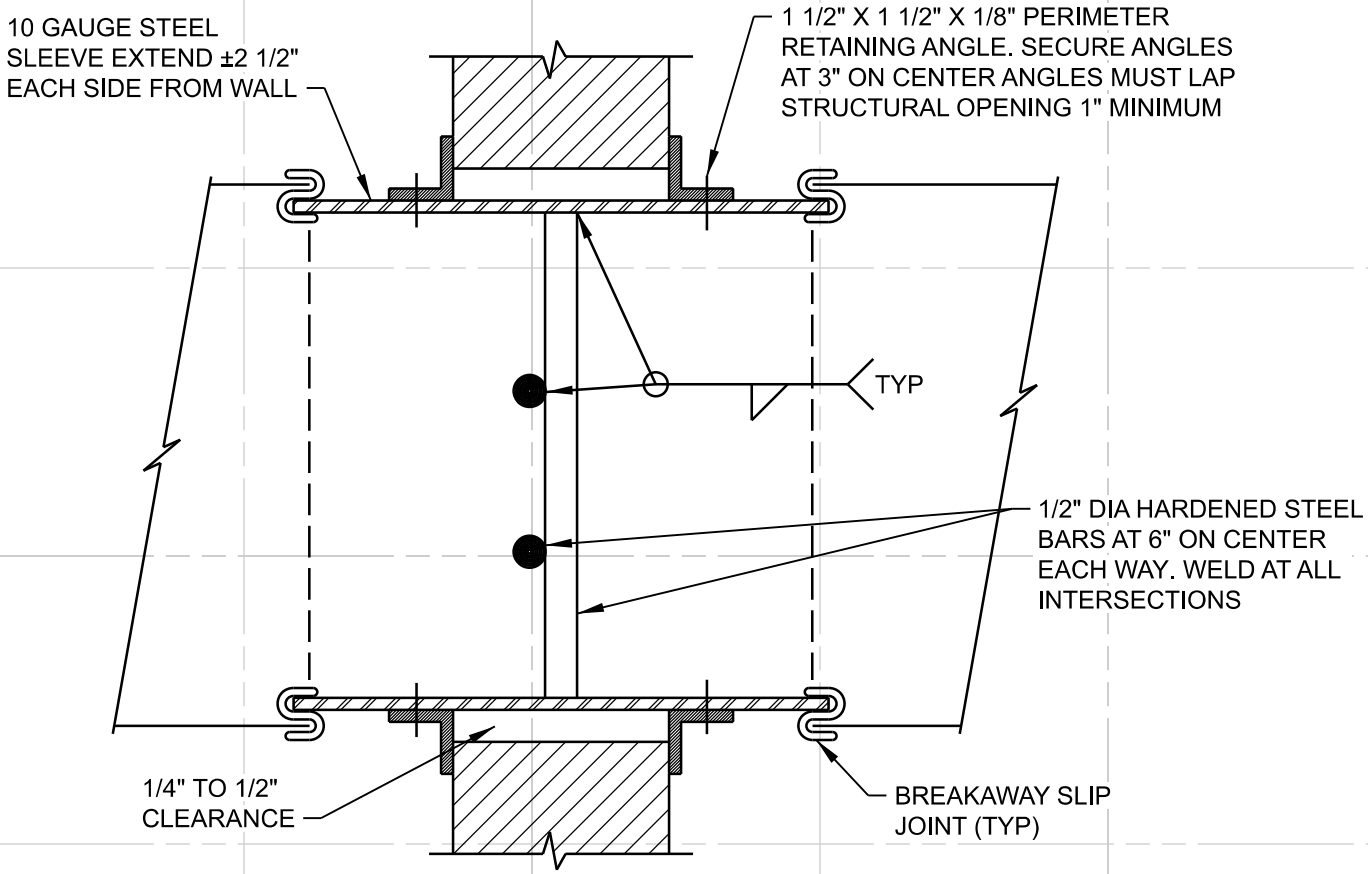
A1

SCALE: NTS



A1 DETAIL: SCIF AREA DUCT INSTALLATION

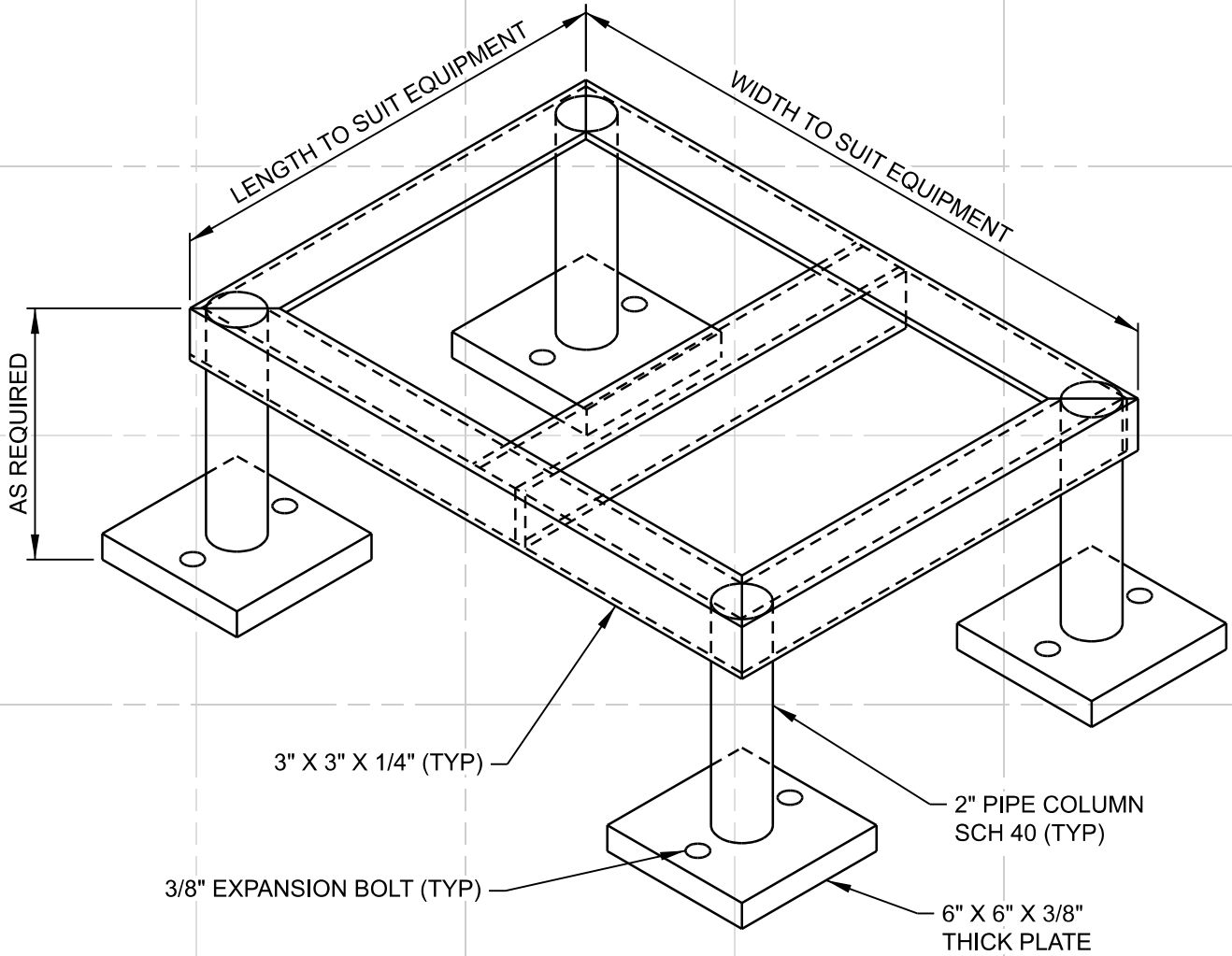
SCALE: NTS



A1

DETAIL: SECURITY BARS INSTALLATION

SCALE: NTS

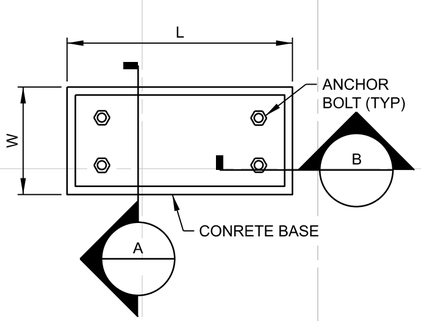


NOTES:
1. ALL WELDED CONSTRUCTION
2. FOR LENGTHS LESS THAN 4'-0" OMIT MIDDLE MEMBER.

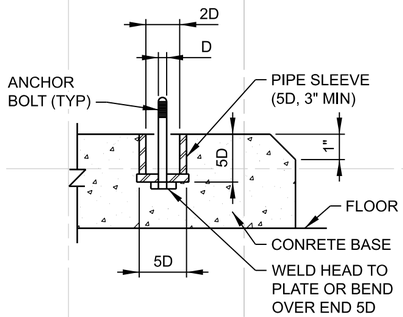
A1

DETAIL: SUPPORT FRAME

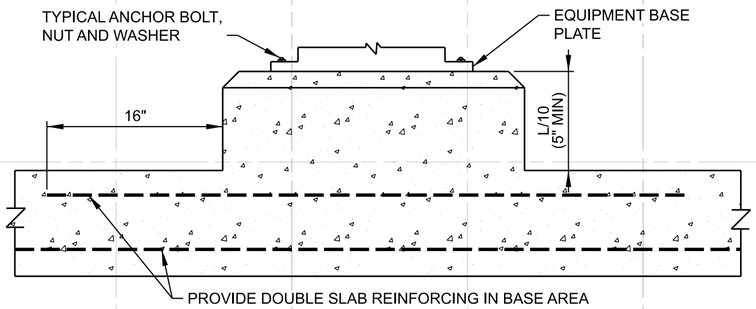
SCALE: NTS



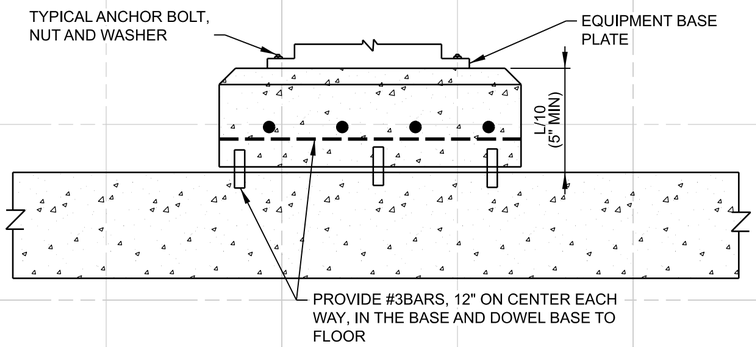
PLAN



SECTION B



SECTION A (BASE POURED WITH FLOOR SLAB)



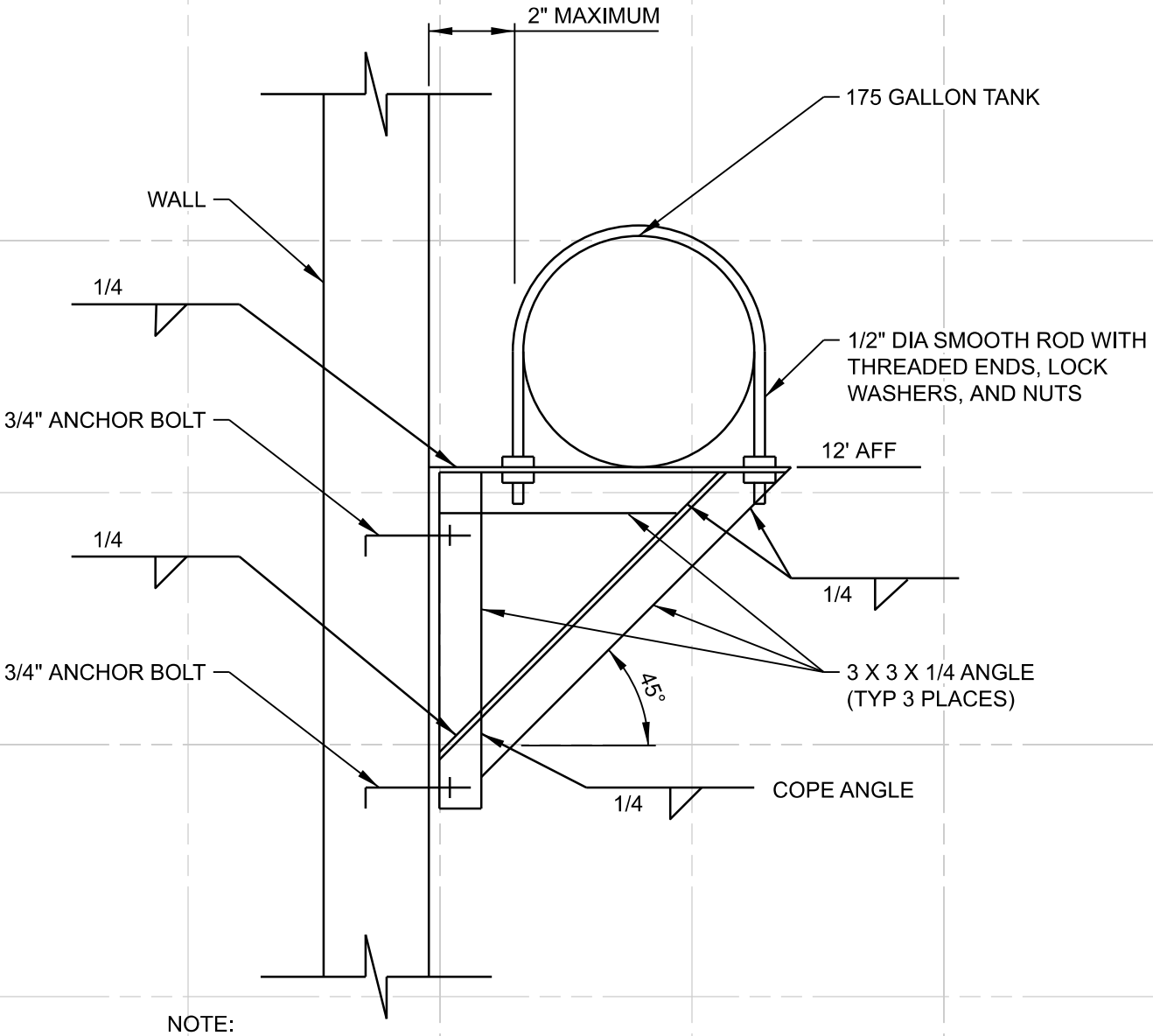
SECTION A (BASE NOT POURED WITH SLAB)

NOTES:
1. THIS DETAIL APPLIES TO EQUIPMENT NOT SPECIFIED TO BE MOUNTED ON SPRING ISOLATED BASES.
2. L AND W DIMENSIONS SHALL BE 6 INCHES GREATER THAN THE EQUIPMENT BASE PLATE.

A1

DETAIL: EQUIPMENT PAD

SCALE: NTS

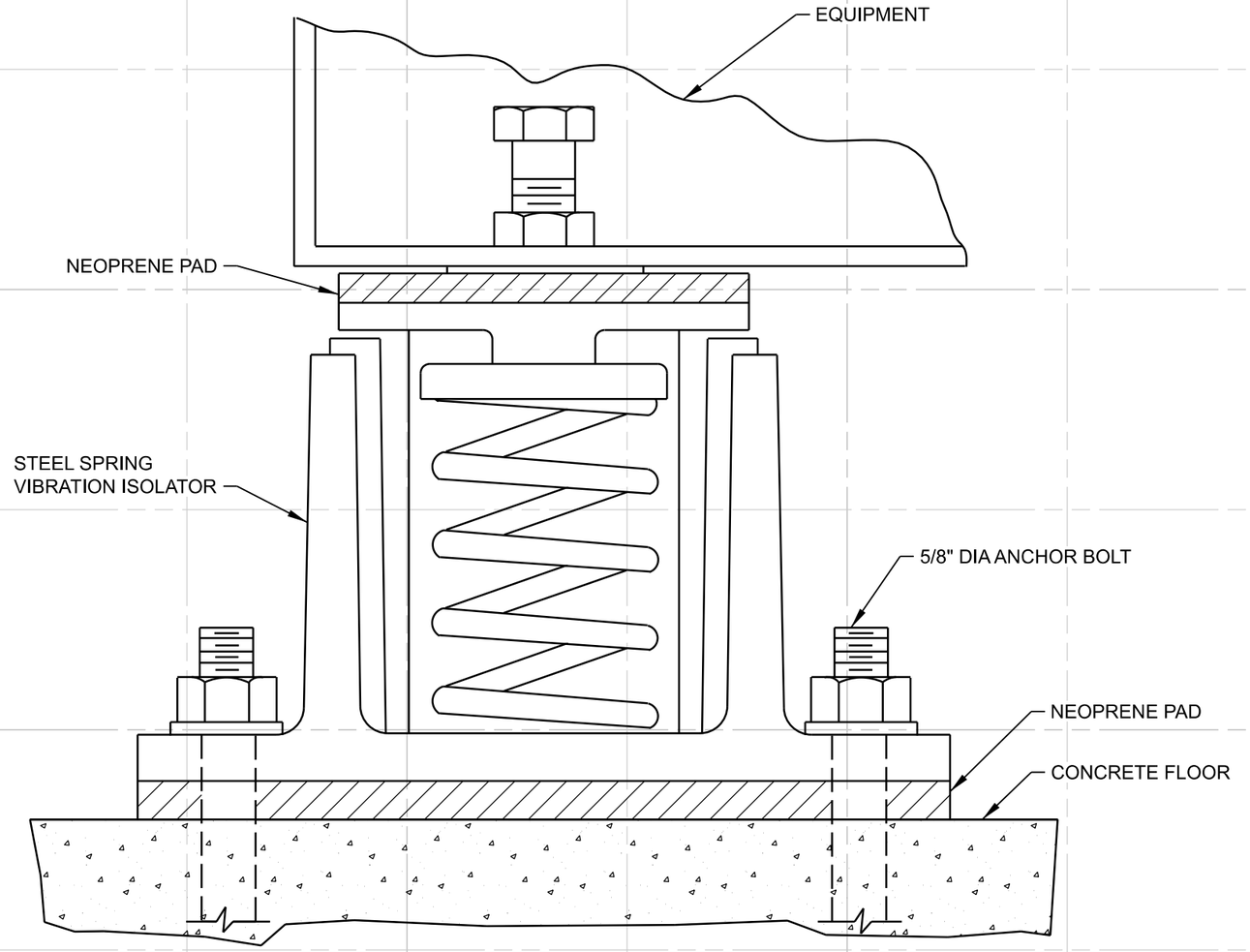


NOTE:
LOCATE EXPANSION TANK AT HIGH POINT OF HEATING SYSTEM.

A1

DETAIL: EXPANSION TANK SUPPORT

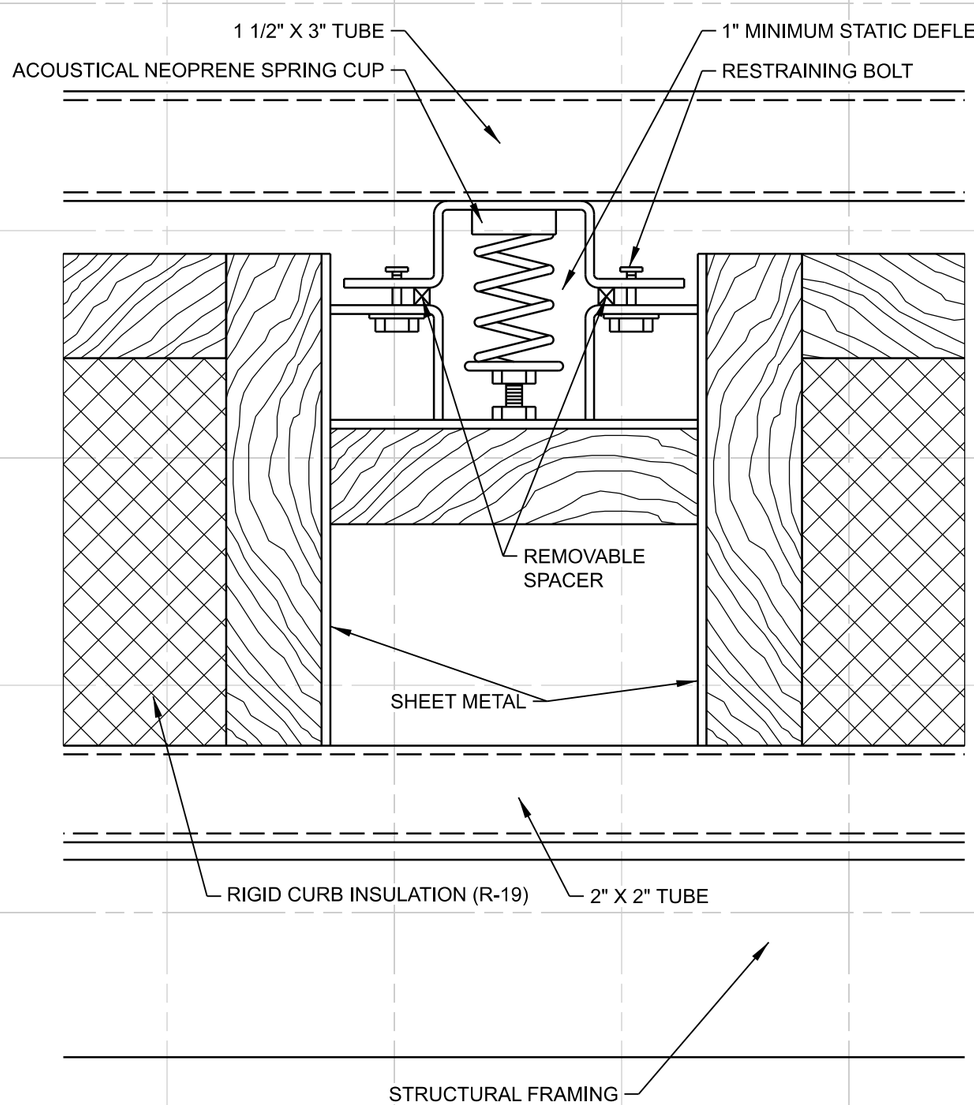
SCALE: NTS



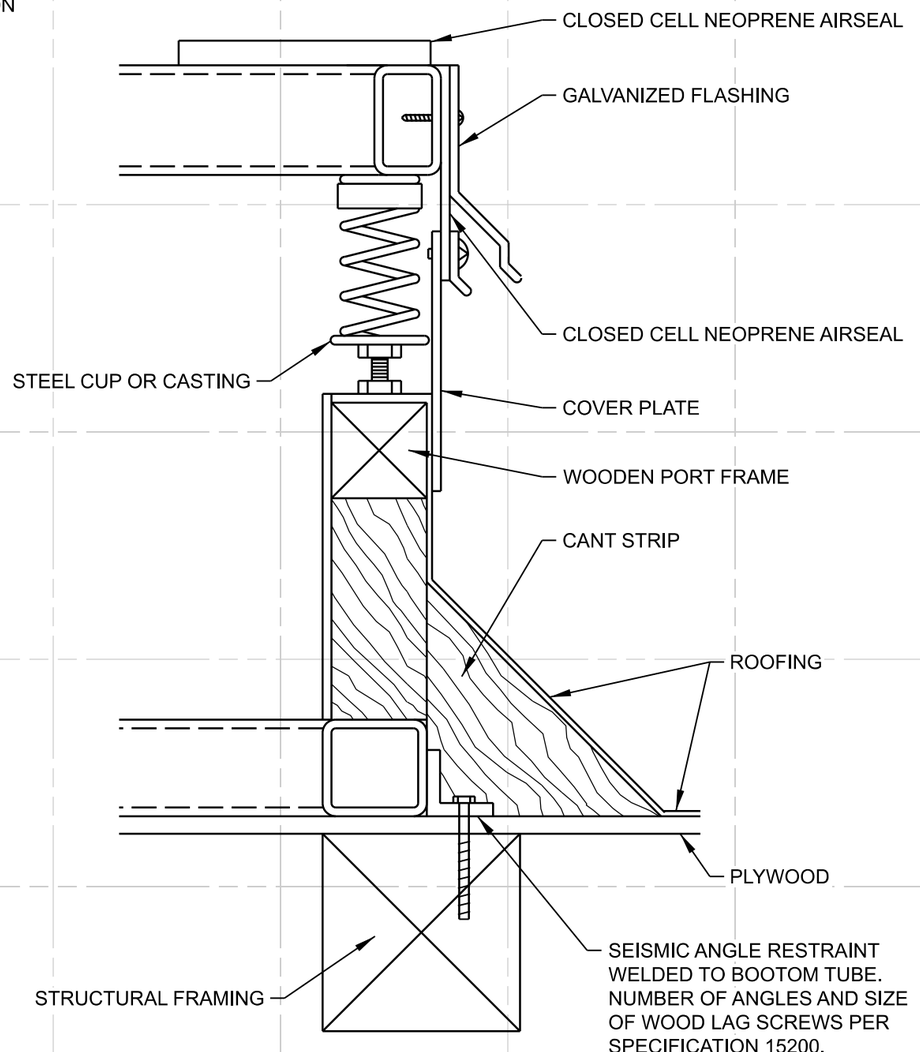
A1

DETAIL: VIBRATION ISOLATOR

SCALE: NTS



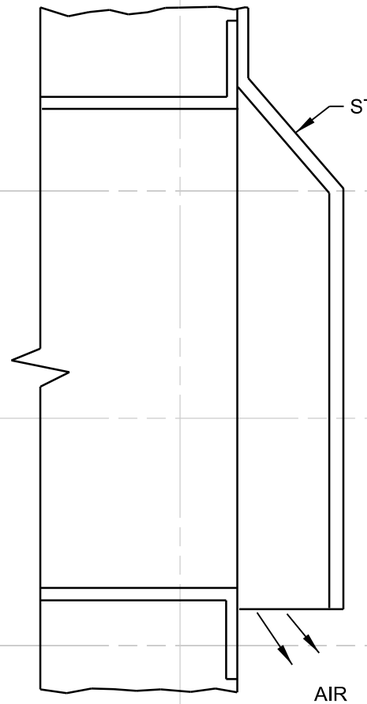
PARTIAL FRONT SECTION



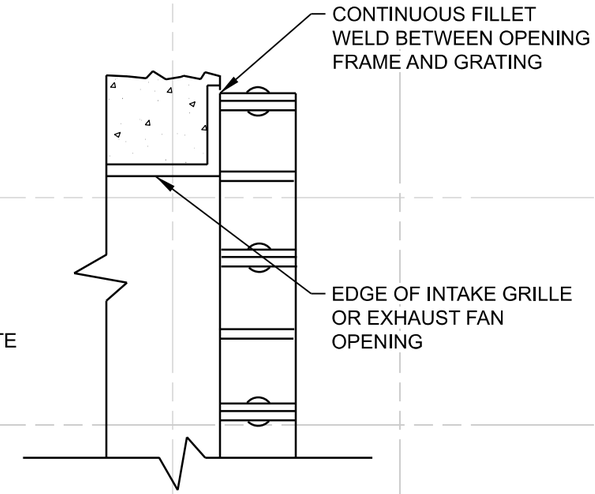
SIDE VIEW

A1 DETAIL: A/C ROOFTOP SPRING CURB MOUNTING

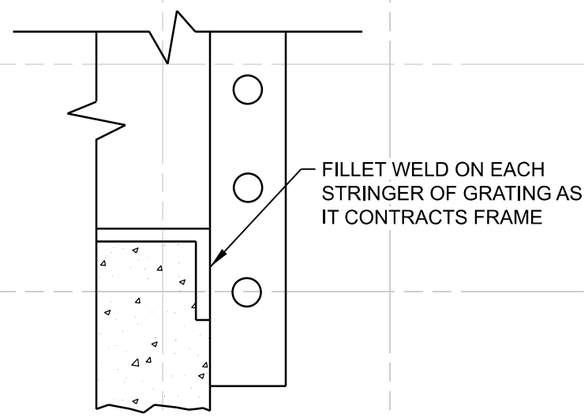
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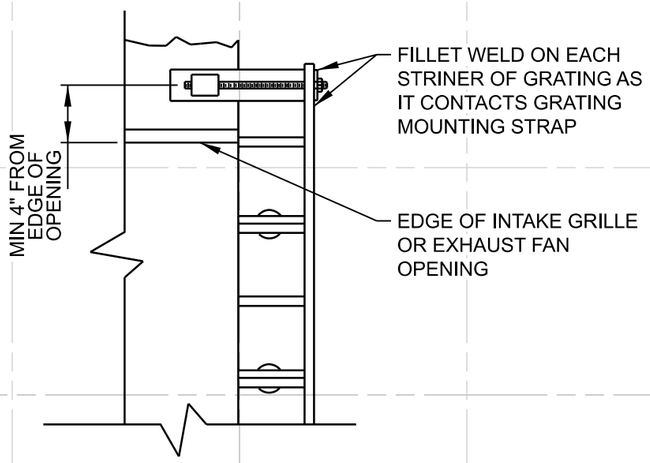
SIDE VIEW
EXTERNAL SHROUD



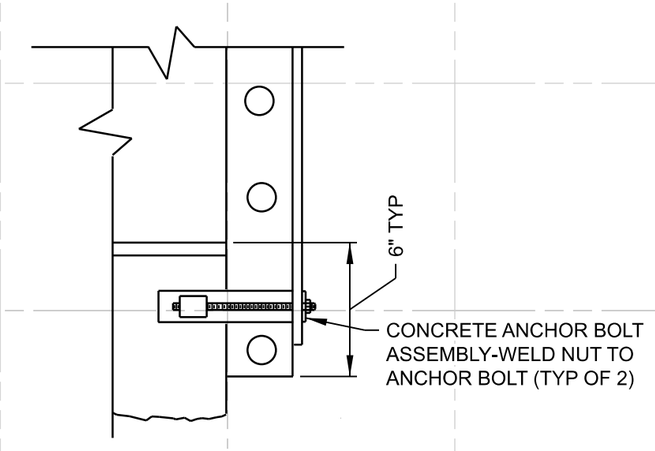
SIDE VIEW



TOP VIEW



SIDE VIEW



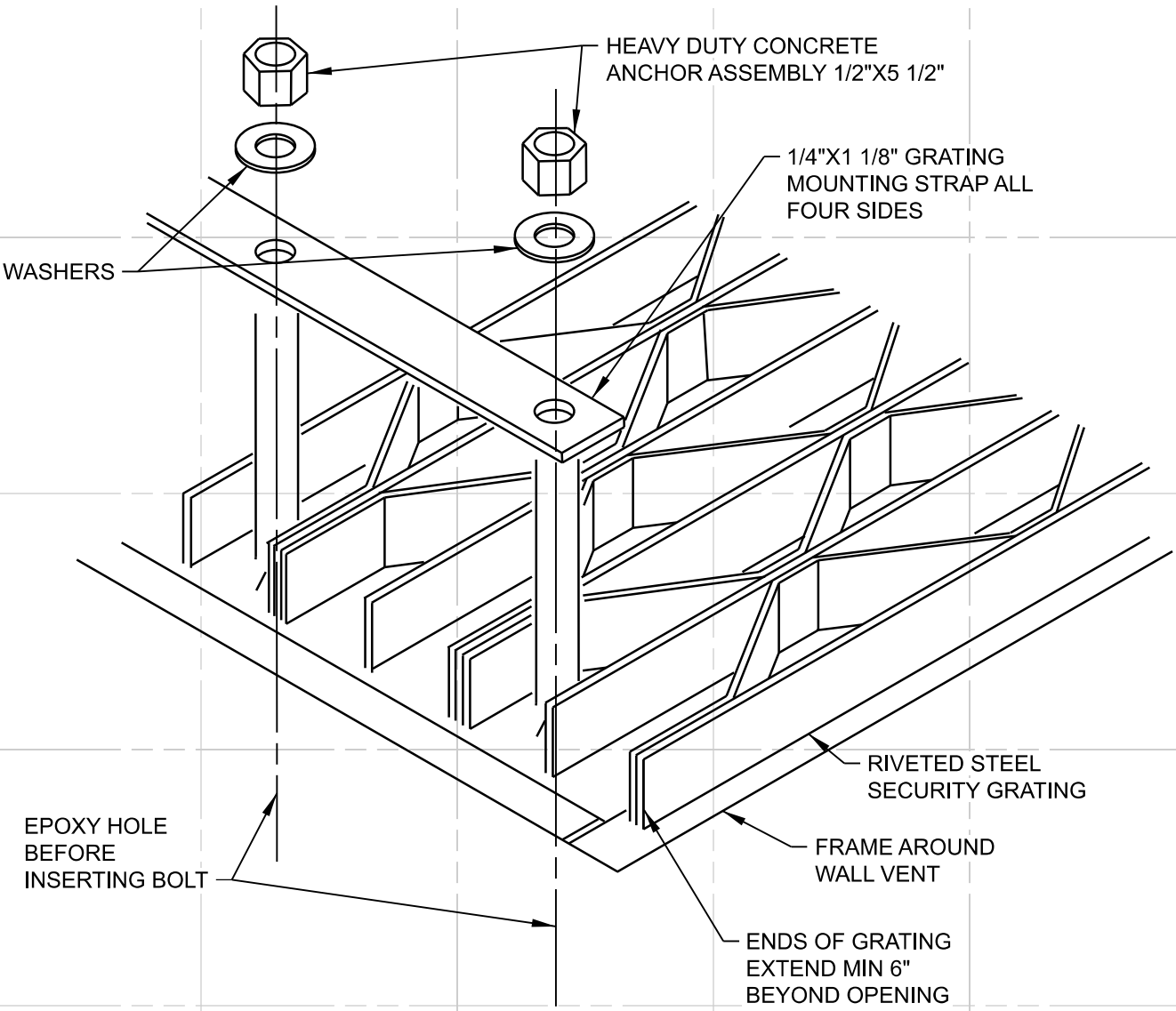
TOP VIEW

NOTE:
GRATING WILL BE INSTALLED OUTSIDE SECURE SPACE AT EXHAUST FAN OPENING AND INSIDE SECURE SPACE AT INTAKE GRILL OPENING.

A1

DETAILS: SECURITY GRATING

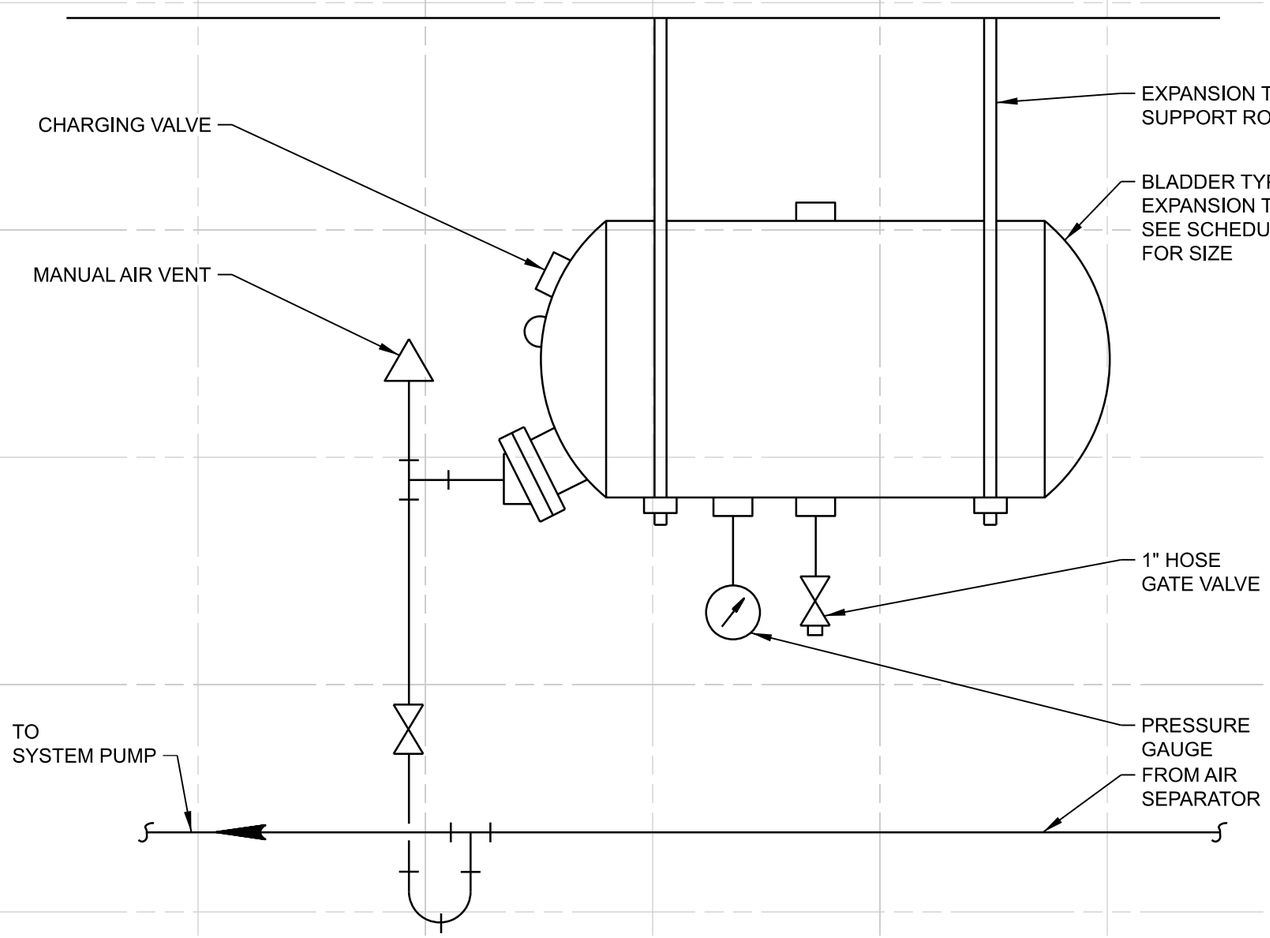
SCALE: NTS



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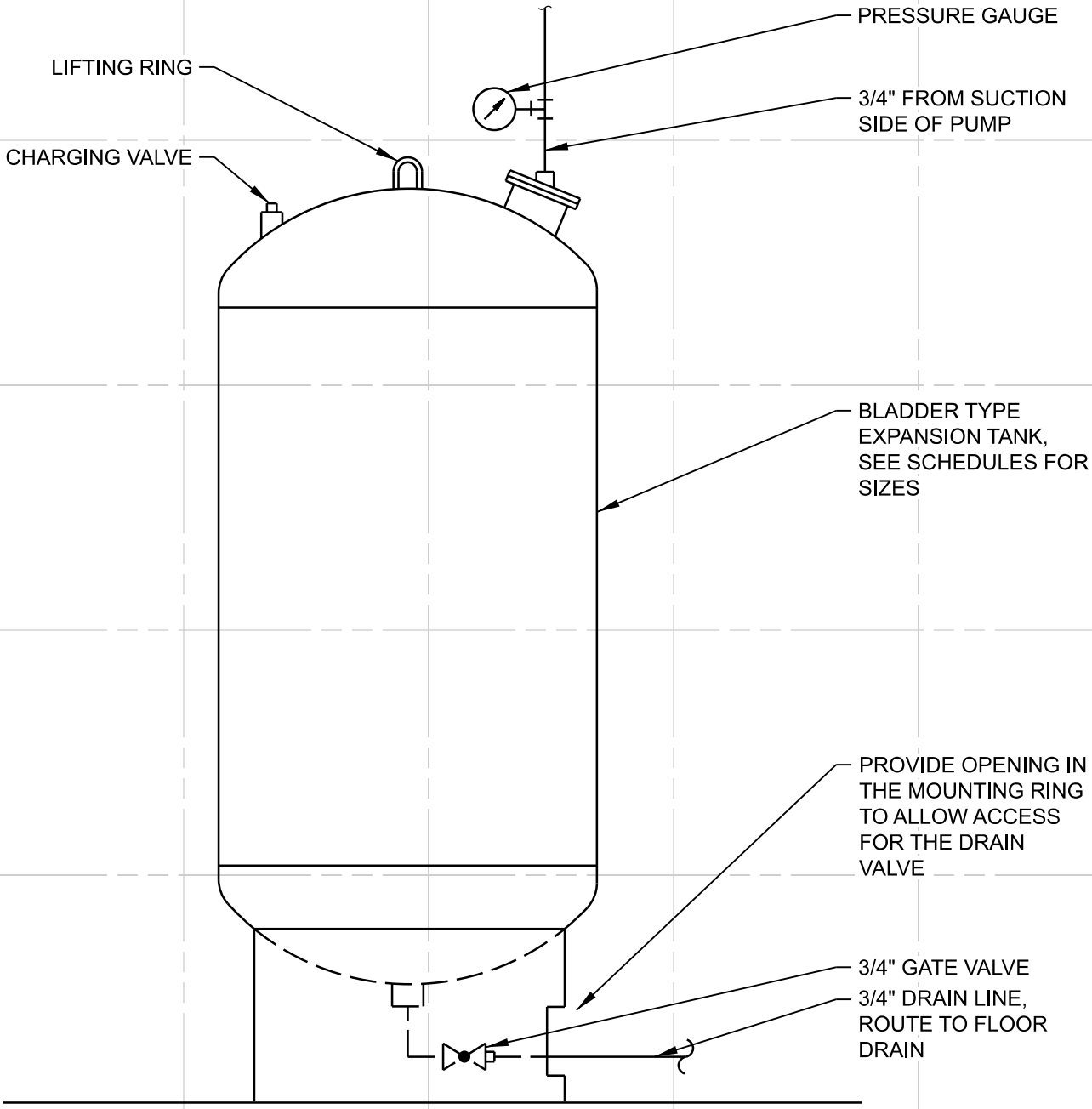
DETAIL: SECURITY GRATING

SCALE: NTS



A1 DETAIL: EXPANSION TANK

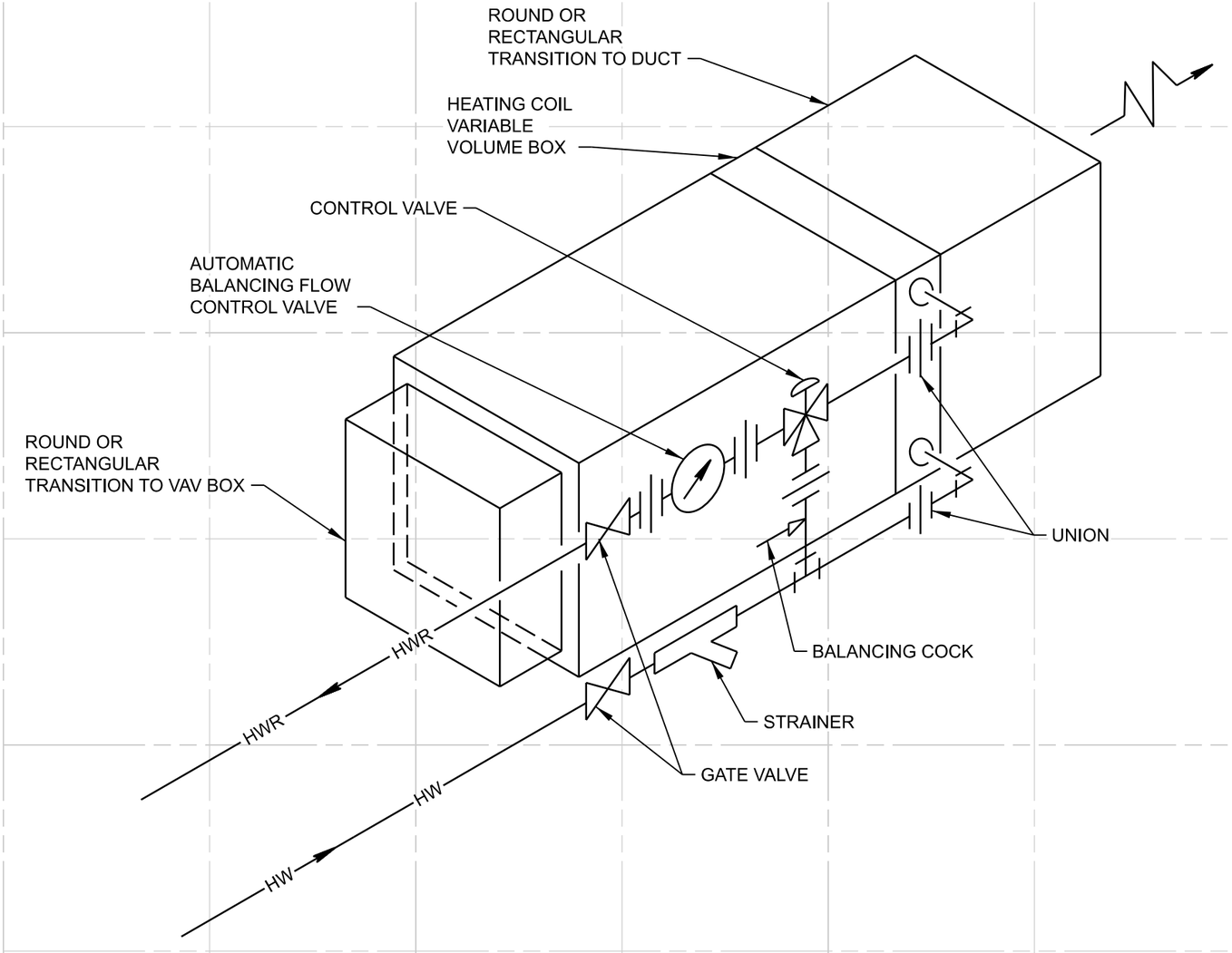
SCALE: NTS



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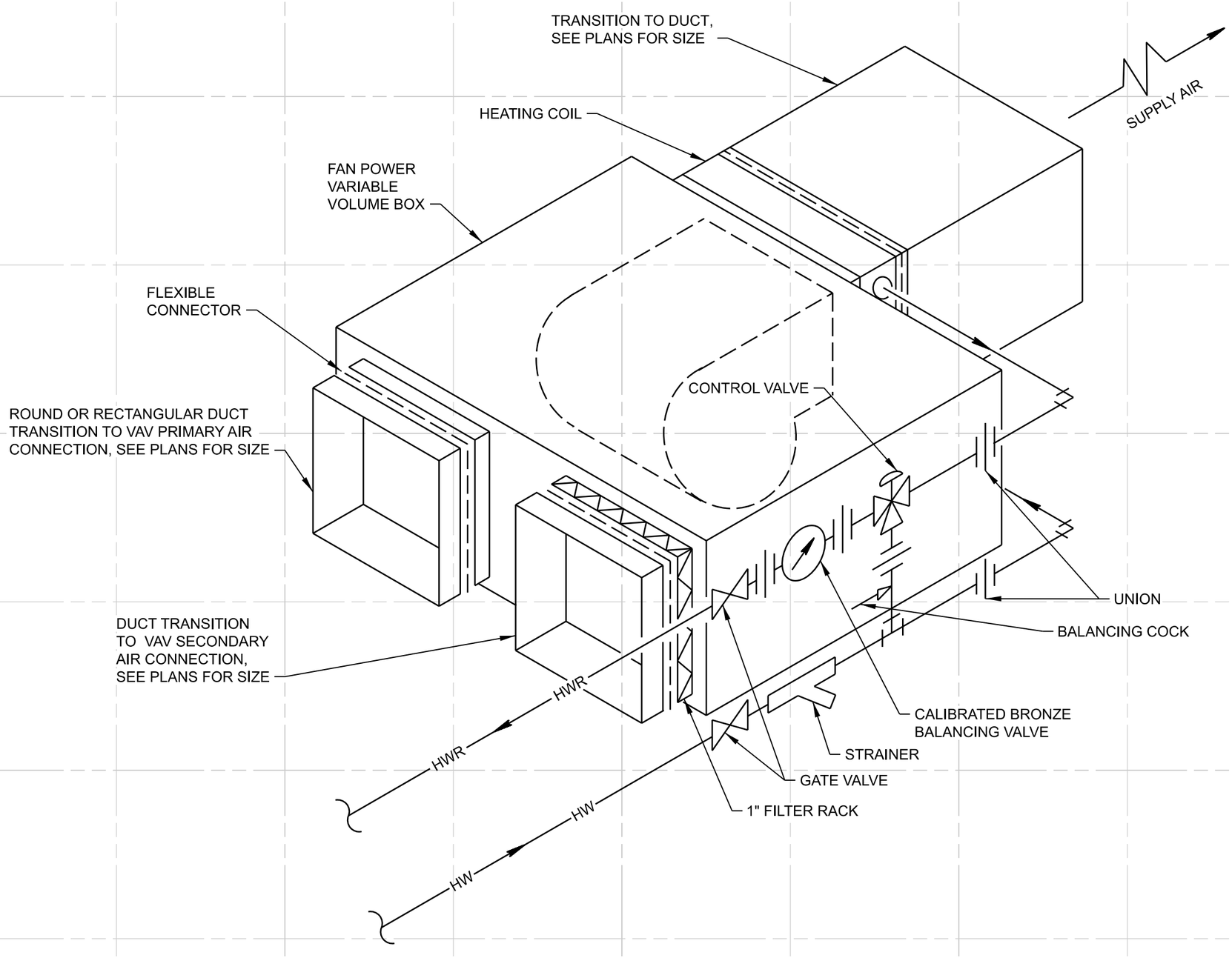
DETAIL: EXPANSION TANK

SCALE: NTS



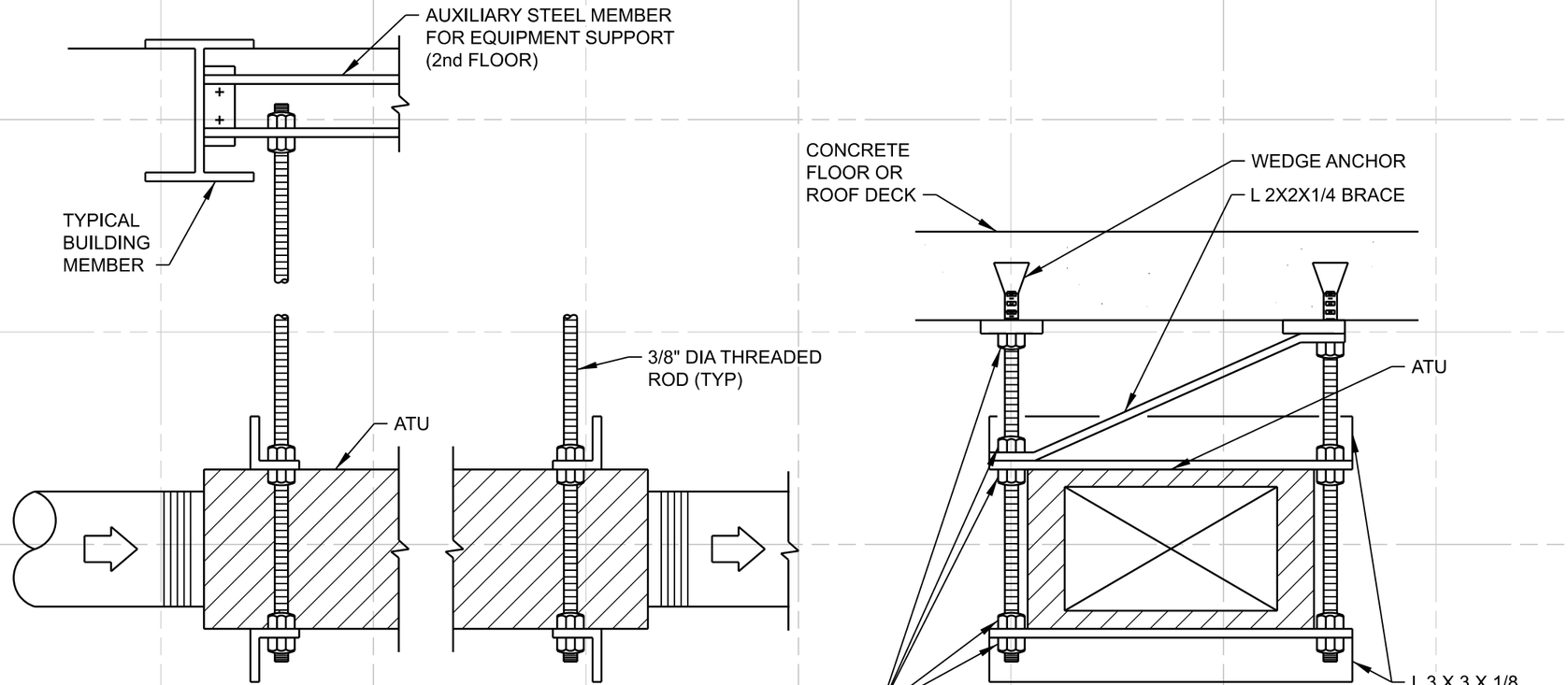
A1 DETAIL: VARIABLE VOLUME BOX

SCALE: NTS



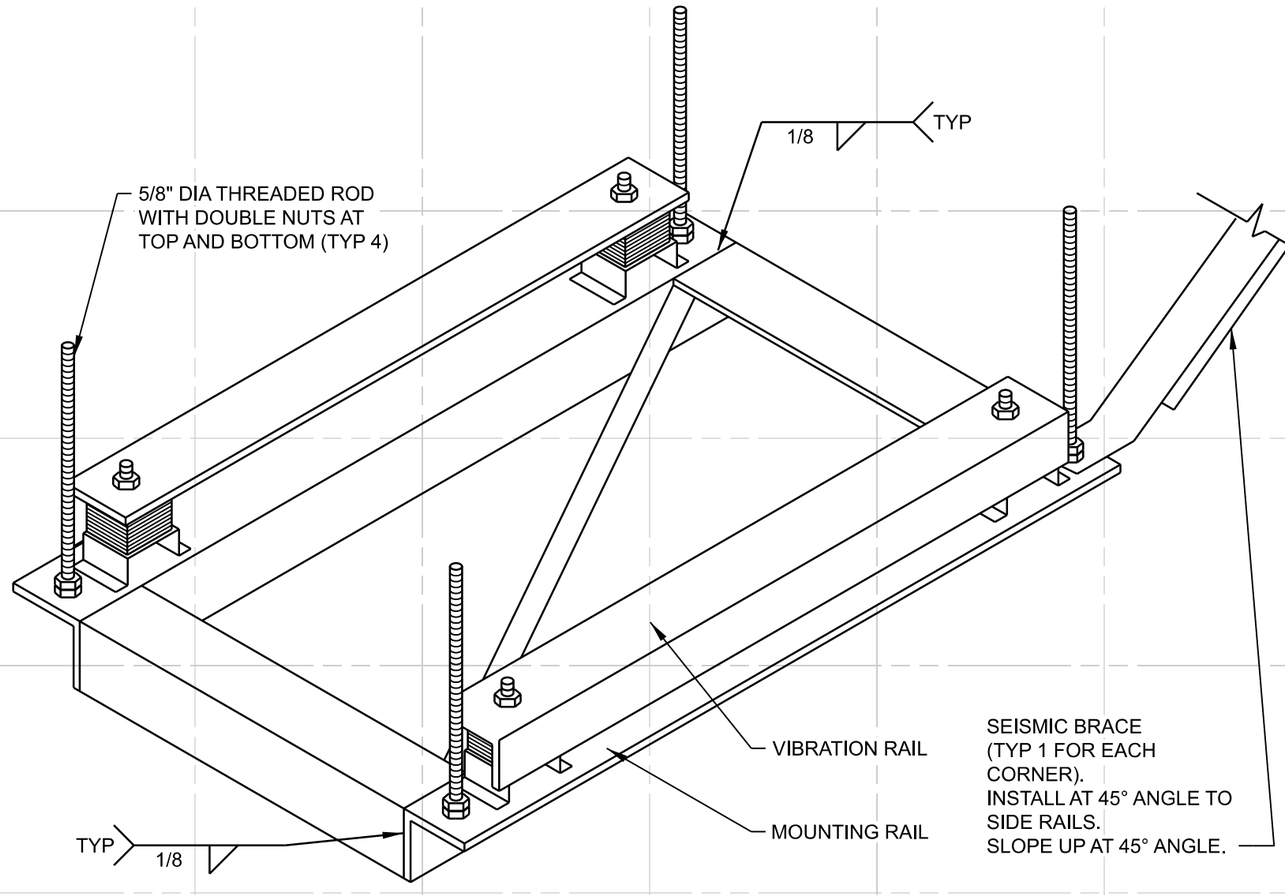
A1 DETAIL: FAN POWERED VAV BOX

SCALE: NTS



A1 DETAIL: AIR TERMINAL UNIT MOUNTING

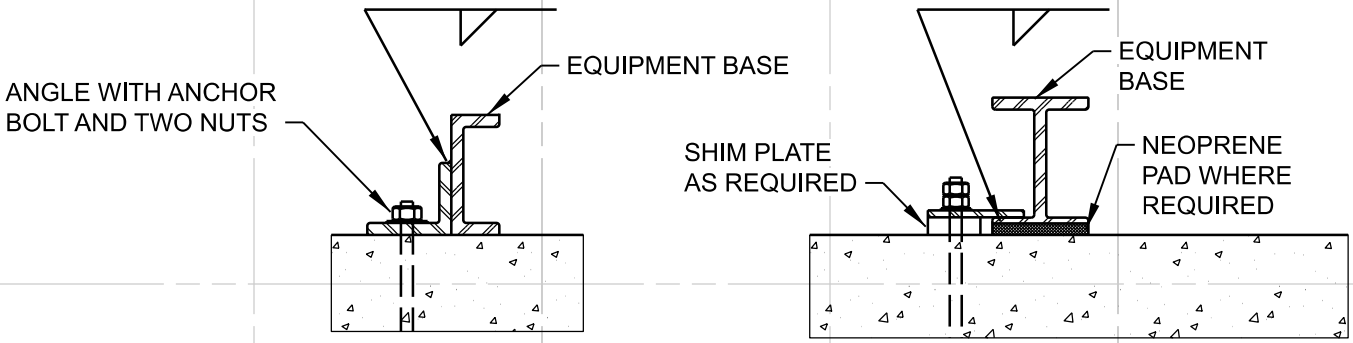
SCALE: NTS



A1

DETAIL: PLATFORM FOR SUSPENDING EQUIPMENT FROM ROOF STRUCTURE

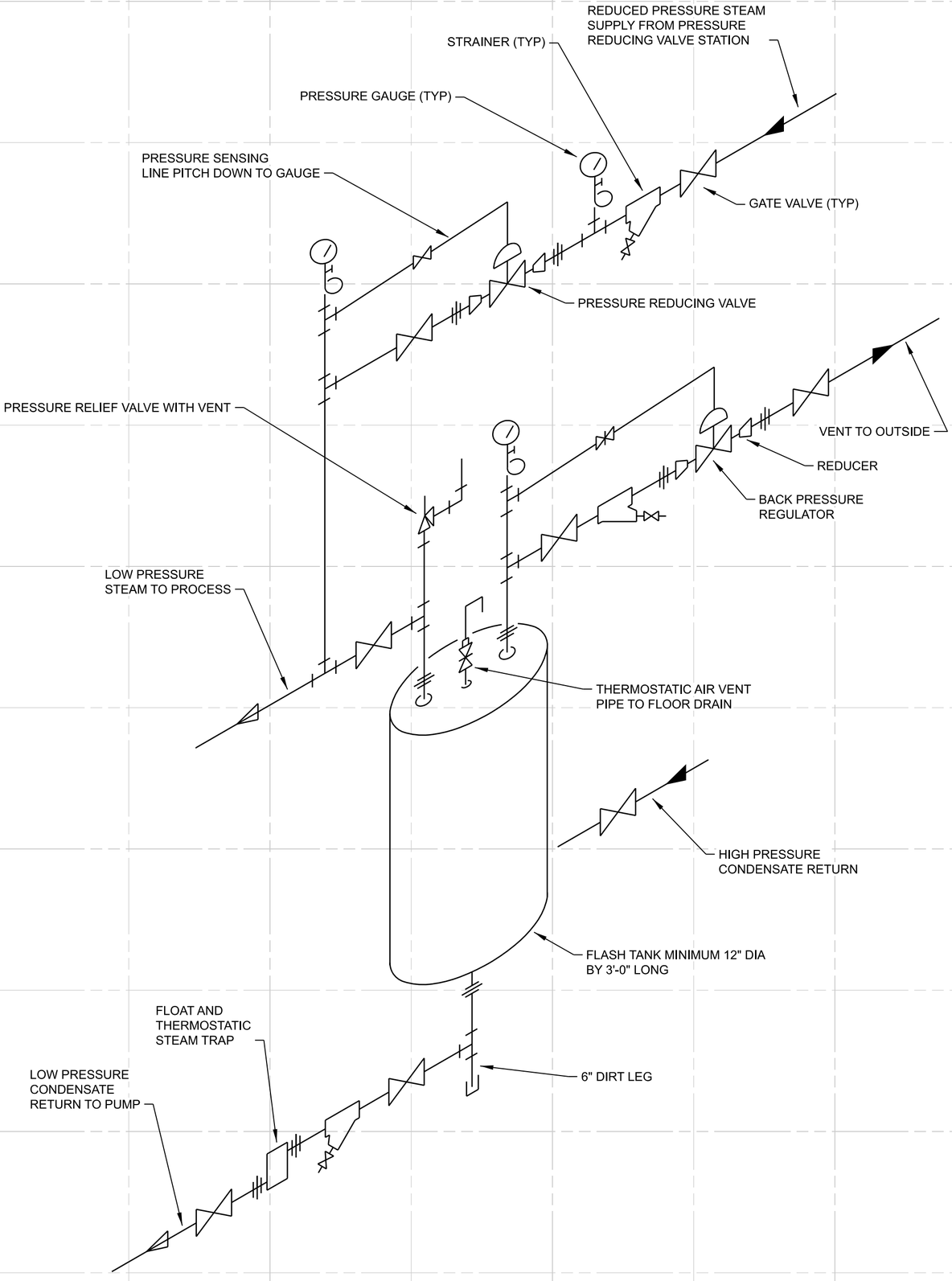
SCALE: NTS



A1

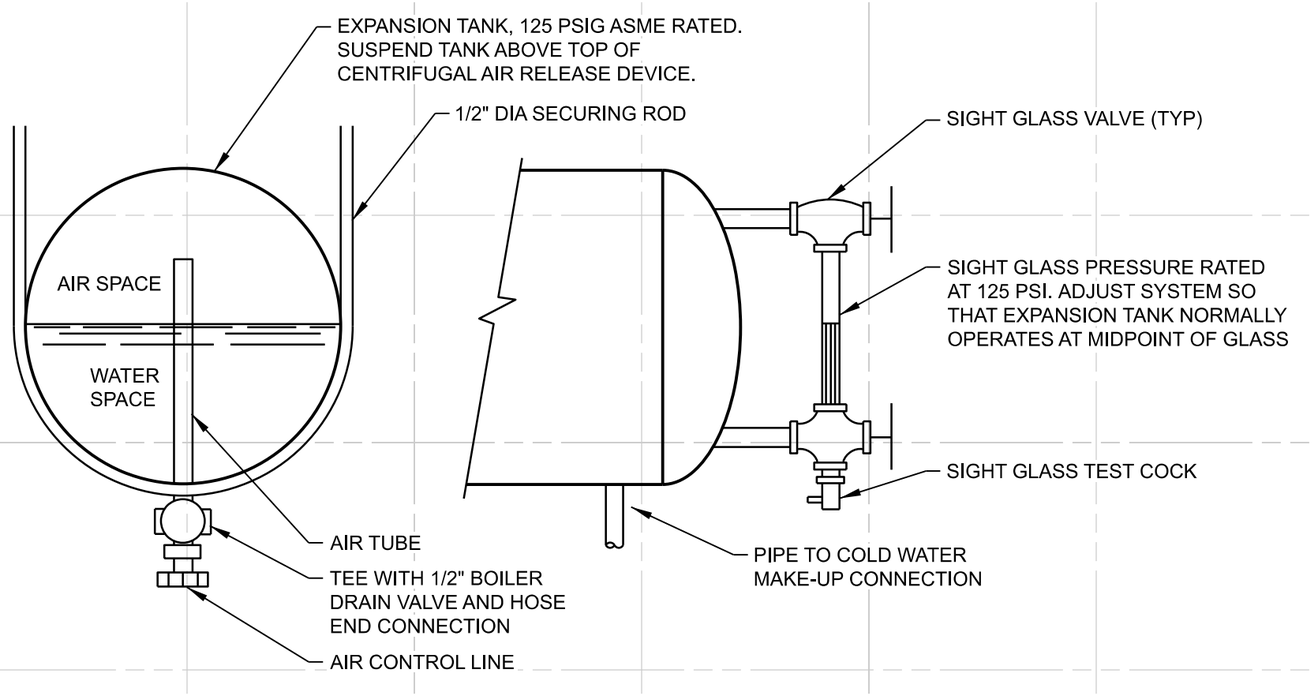
DETAIL: RESTRAINTS OF RIGIDLY MOUNTED MECHANICAL EQUIPMENT

SCALE: NTS



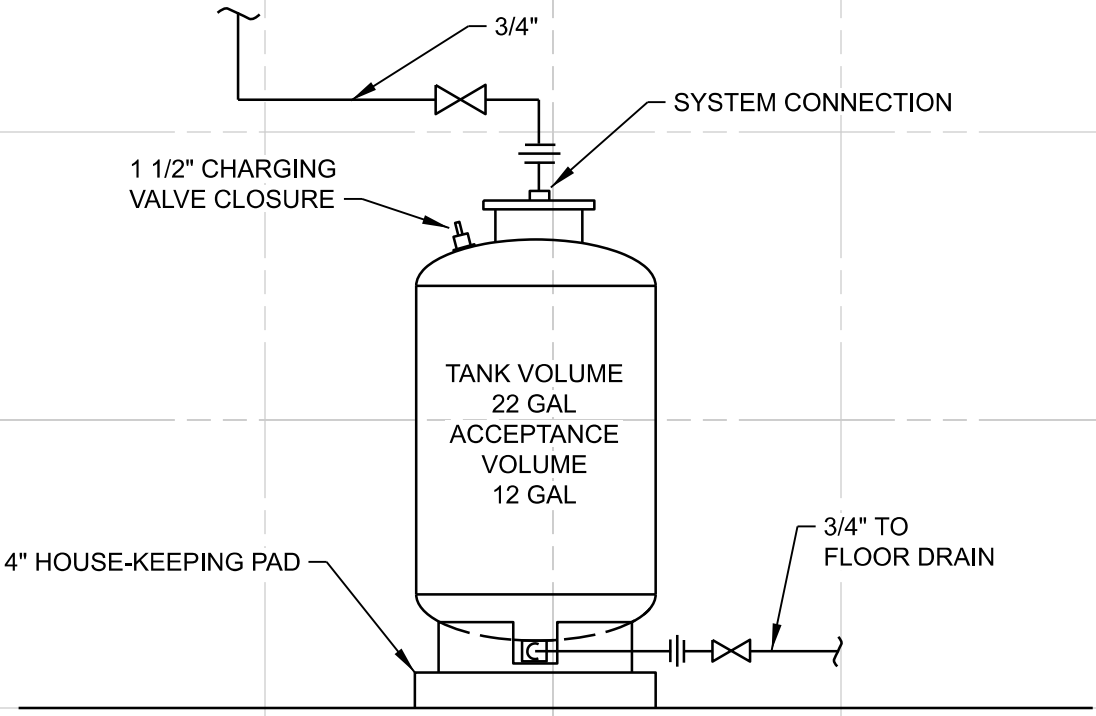
A1 DETAIL: FLASH TANK PIPING

SCALE: NTS



A1 DETAIL: EXPANSION TANK MOUNTING

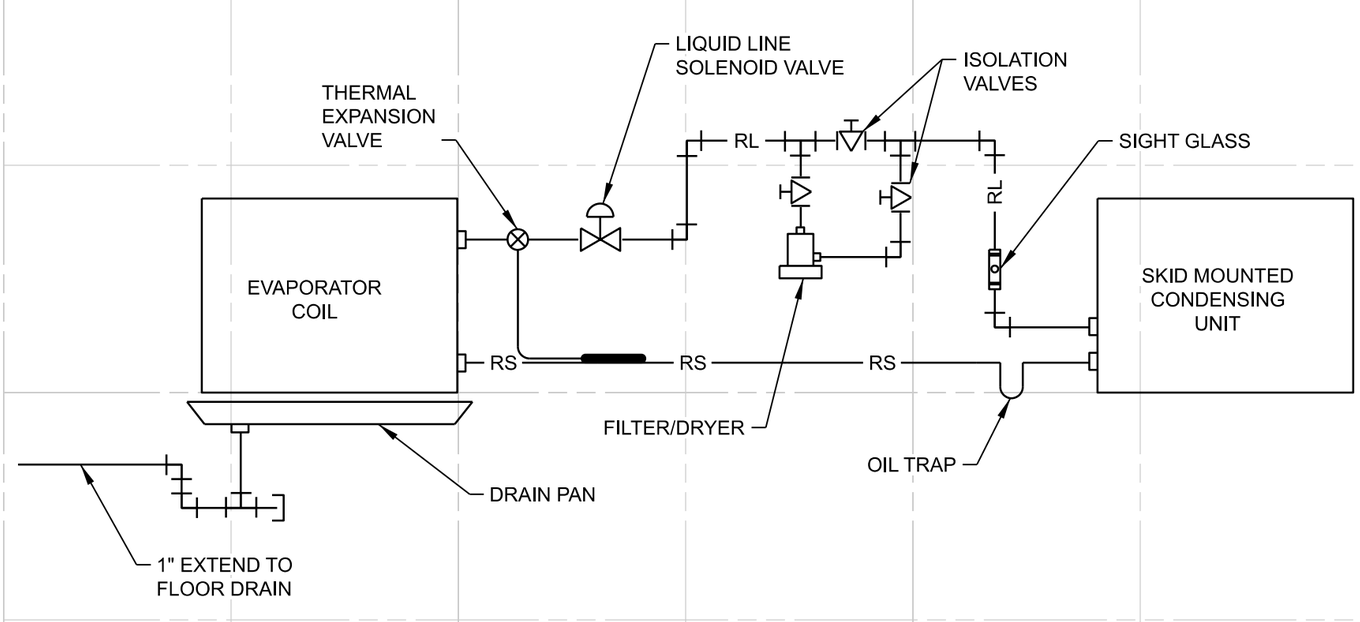
SCALE: NTS



A1

DETAIL: EXPANSION TANK INSTALLATION

SCALE: NTS

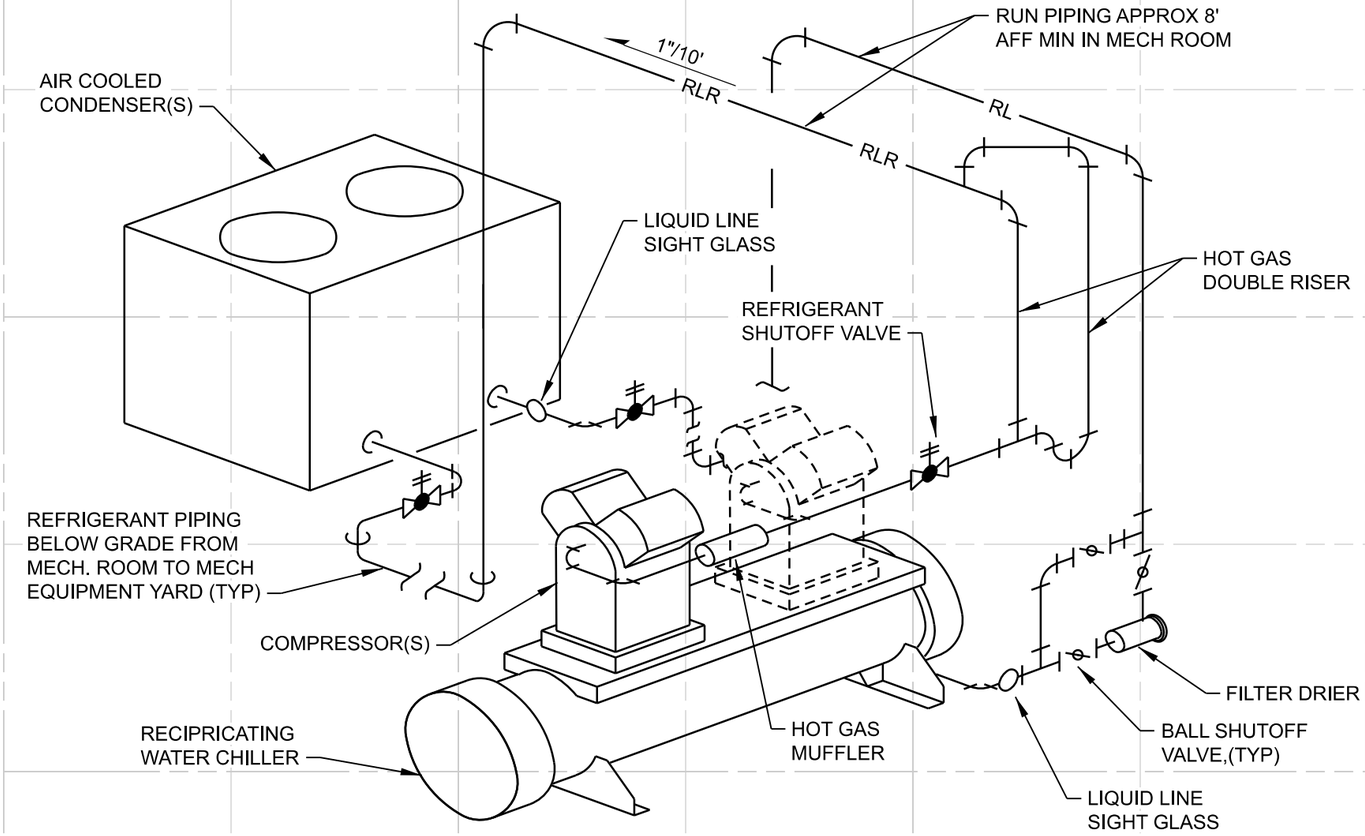


NOTE:
SIZES PER MANUFACTURER'S SPECIFICATIONS.

A1

DETAIL: REFRIGERANT PIPING

SCALE: NTS

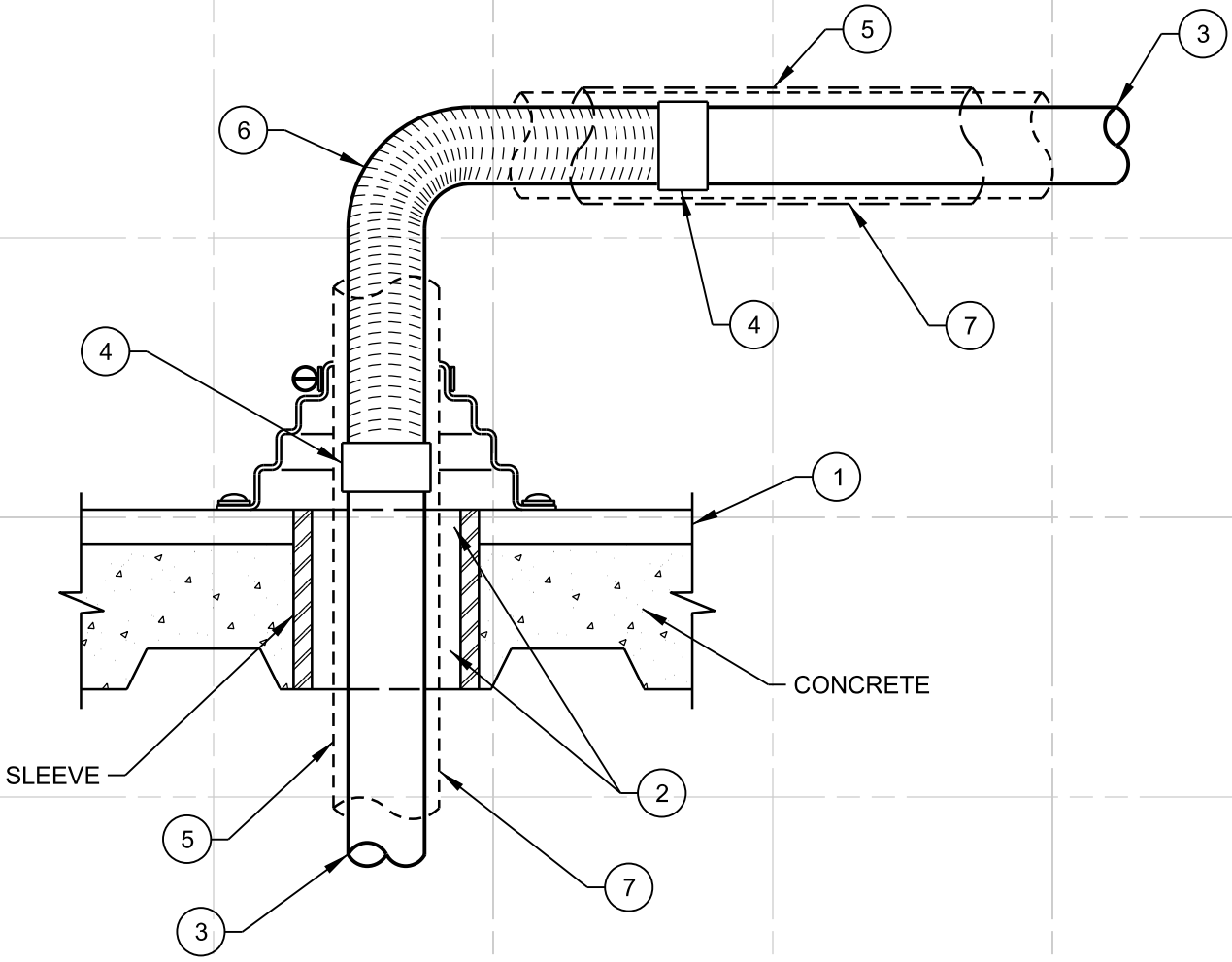


NOTES:
1. ANCHOR PIPING TO COMPRESSOR STAND.
2. PROVIDE FLEXIBLE CONNECTORS AT EACH COMPRESSOR AND CONDENSER CONNECTION.
3. REFRIGERANT LINES SHALL BE SIZED AND ROUTED IAW EQUIPMENT MANUFACTURERS RECOMMENDATIONS.
4. MULTIPLE REFRIGERANT CIRCUITS SHALL BE TYPICAL TO SINGLE CIRCUIT SHOWN.

A1

DIAGRAM: REFRIGERANT PIPING

SCALE: NTS



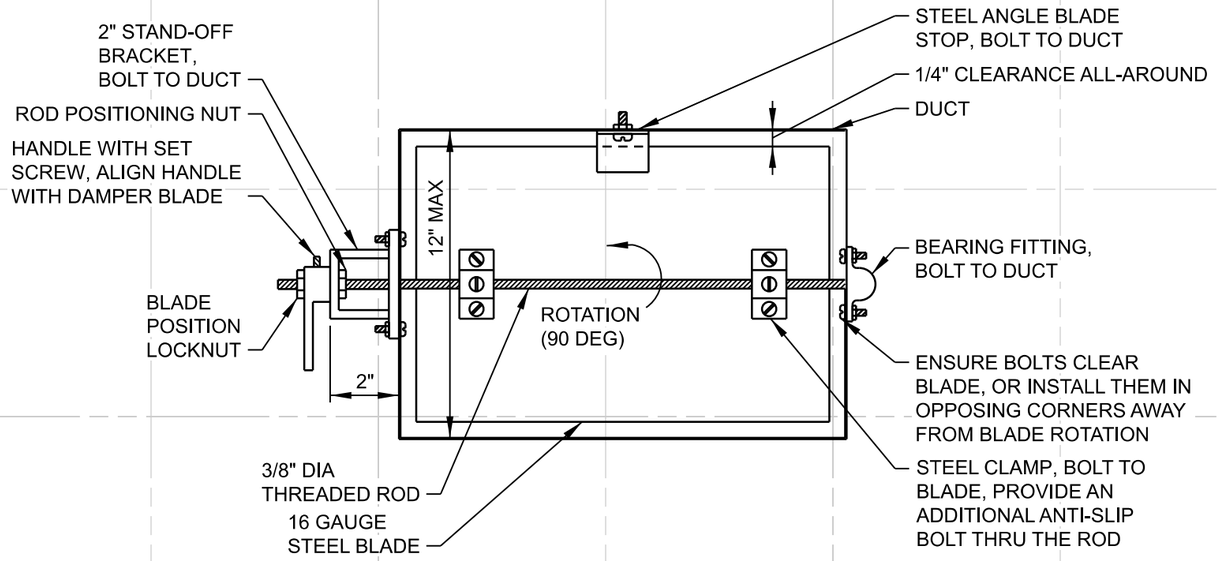
CALLOUTS:

1. INSULATION AND BUILT UP ROOFING. REFER ARCH. DRAWINGS FOR FURTHER ROOF PENETRATION DETAILS.
2. SEAL PENETRATION GAS-TIGHT WITH INSULATION AND FLEXIBLE SEALANT COMPATIBLE WITH PIPE MATERIAL.
3. STANDARD PIPE MATERIAL FOR REFRIGERANT LINES, SUPPORT PIPE AWAY FROM BUILDING.
4. SUITABLE ADAPTING COUPLING TO CONNECT COPPER REFRIGERANT LINE TO HOSE SECTION.
5. PIPE INSULATION SHALL BE CONTINUOUS THRU BOUNDARY SURFACE(ROOF) AND BEYOND.
6. NON-METAL HIGH PRESSURE HOSE SECTION. HOSE SECTION AND ABOVE ROOF PIPING SHALL BE COVERED WITH INSULATION AND BANDED ALUMINUM PIPE JACKET.
7. PIPE SUPPORT POINT. ENSURE HOSE DOES NOT CARRY ANY PIPE LOAD FROM REFRIGERANT LINES, SEE NOTE 3.

A1

DETAIL: REFRIGERANT LINE PENETRATION

SCALE: NTS

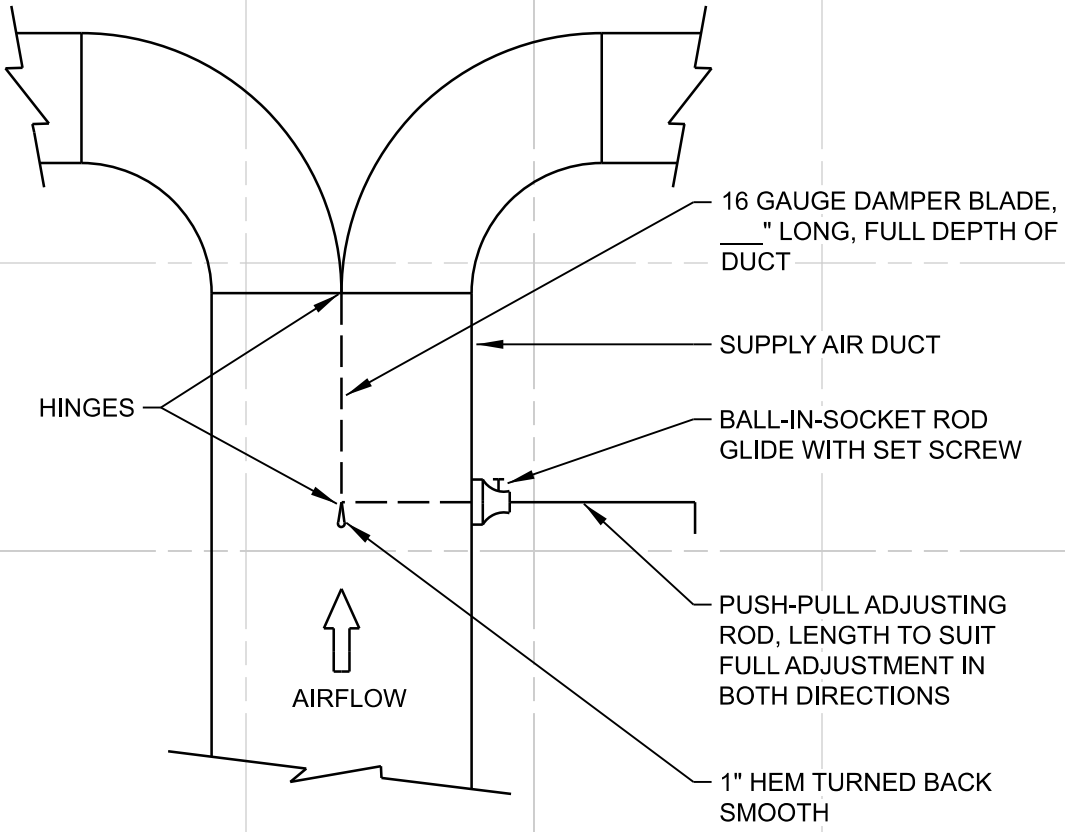


NOTES:
1. DAMPERS FOR ROUND DUCTS SHALL BE SIMILAR TO THE DAMPER SHOWN ABOVE.
2. ENSURE THAT FULL 90 DAMPER BLADE MOVEMENT IS UNOBSTRUCTED.
3. FOR DUCT HEIGHTS MORE THAN 12", PROVIDE FACTORY-FABRICATED OPPOSED BLADE DAMPERS

A1

DETAIL: MANUAL DAMPER (ADJUSTABLE SINGLE-BLADE BALANCING TYPE)

SCALE: NTS

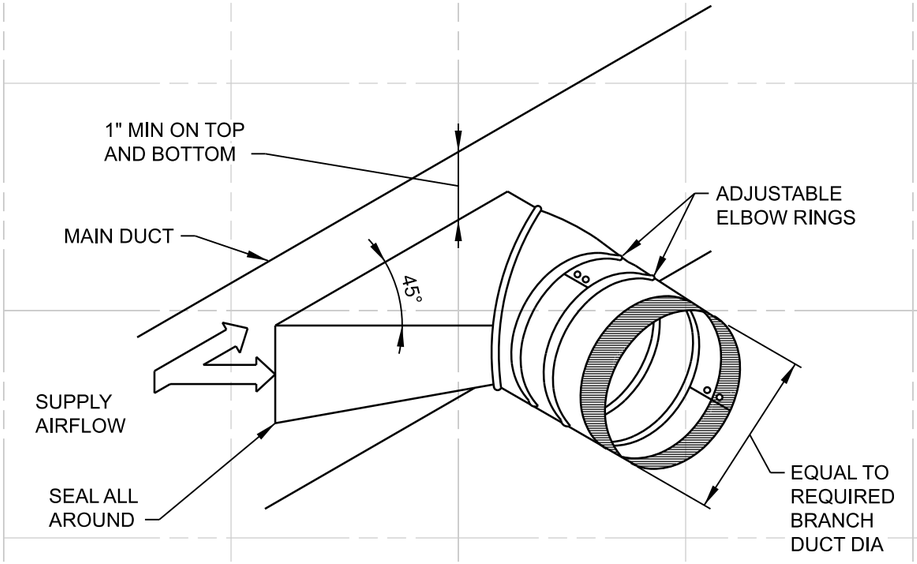


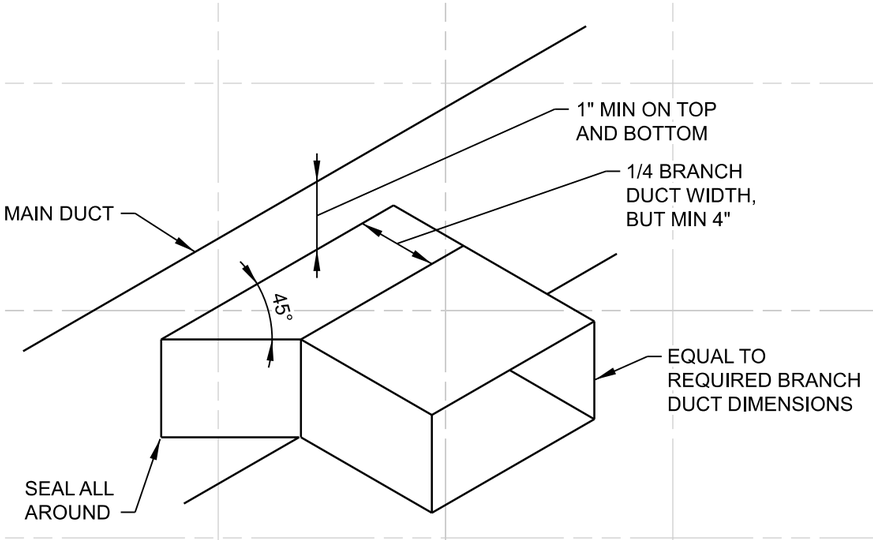
NOTE:
1. PROVIDE TWO ADJUSTING RODS FOR DUCTS OVER 24" DEEP.

A1

DETAIL: SPLITTER DAMPER

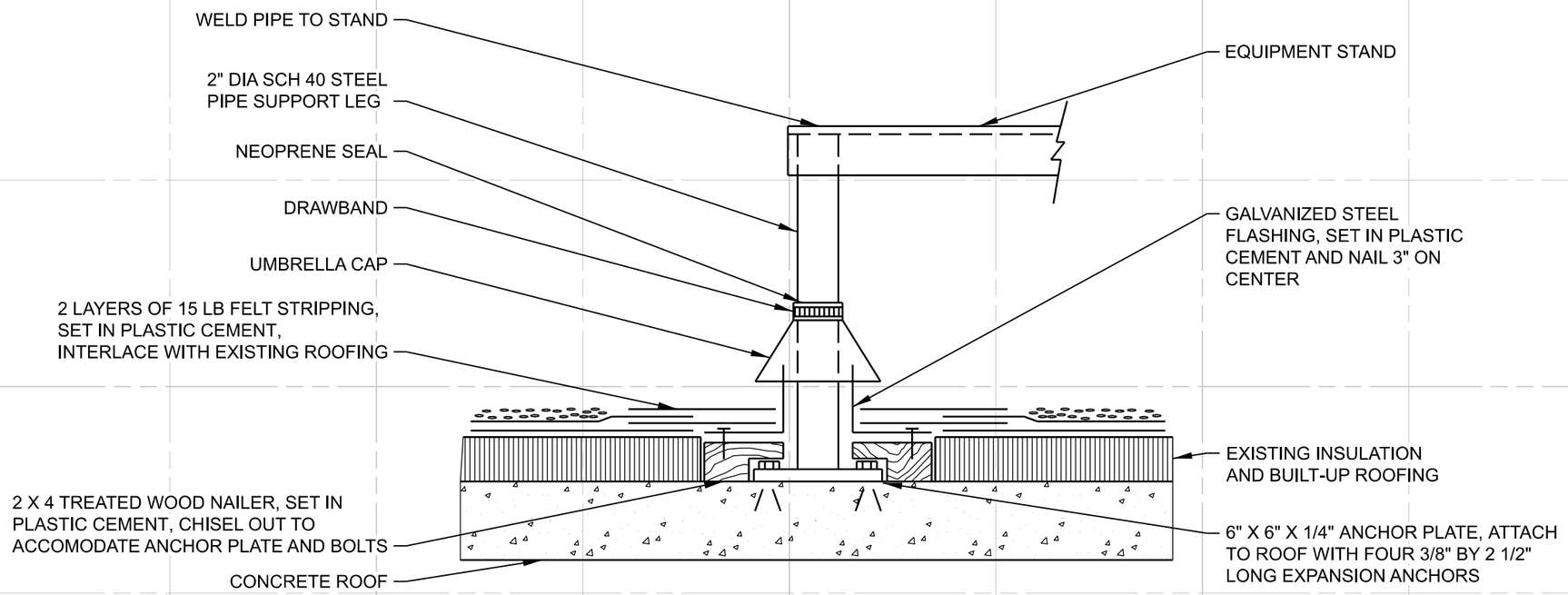
SCALE: NTS





A1 DETAIL: BRANCH TAKE-OFF FITTING

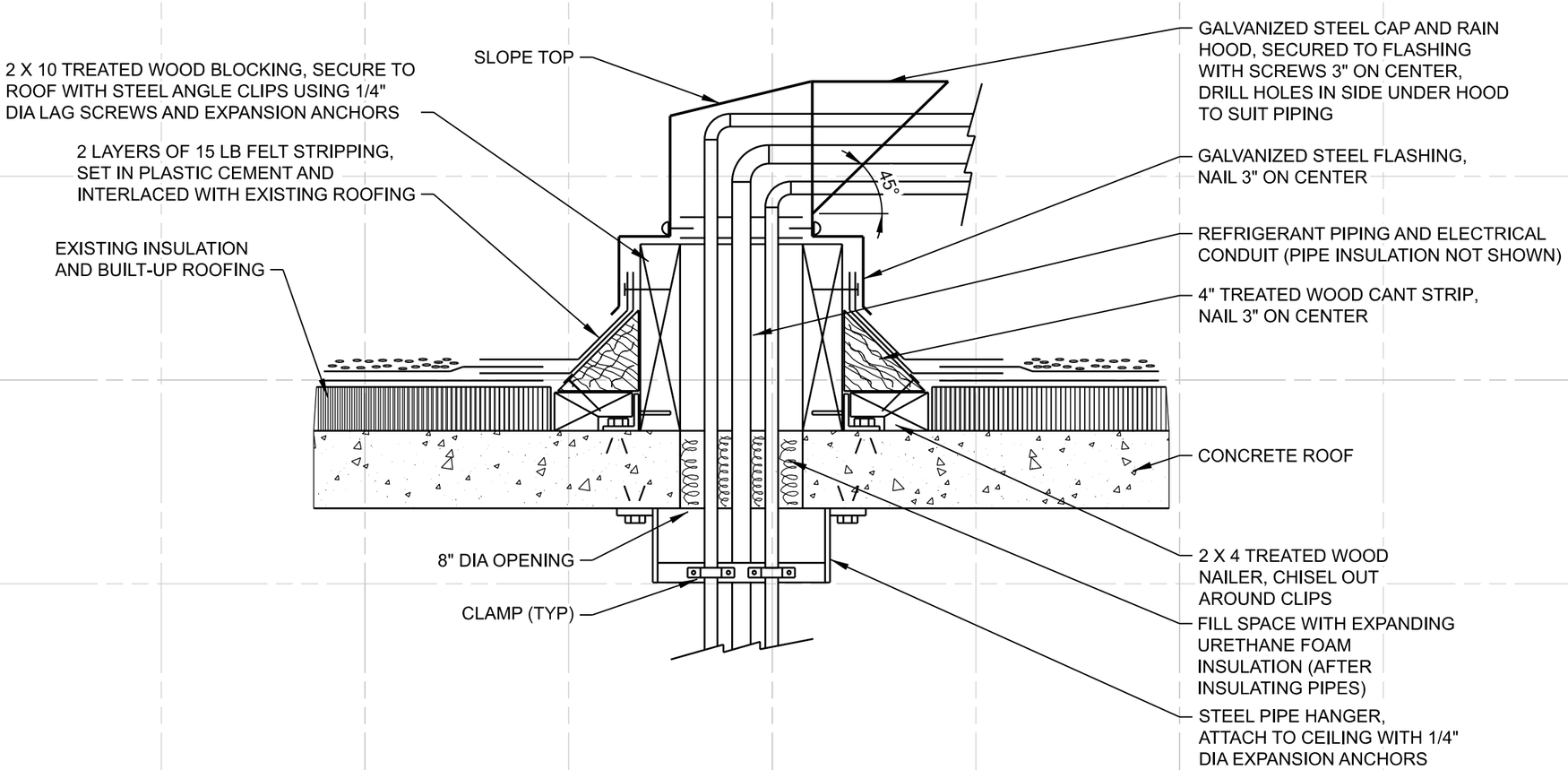
SCALE: NTS



A1

DETAIL: PIPE STAND SUPPORT LEG

SCALE: NTS



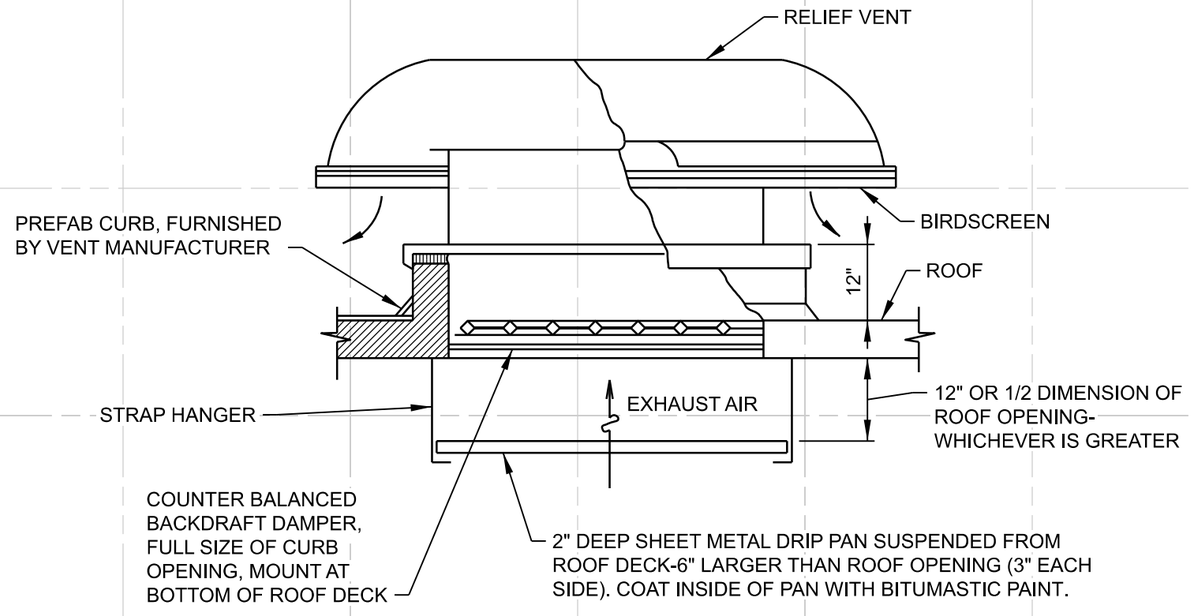
INSTALLATION SEQUENCE:

1. CORE DRILL THE HOLE THROUGH THE ROOF.
2. INSTALL THE BLOCKING, CANT, ROOFING, AND FLASHING AS INDICATED.
3. INSTALL THE PIPE HANGER SUPPORT.
4. INSTALL THE VERTICAL SECTIONS OF THE NEW PIPES AND PROVIDE AN ELBOW AND A SHORT LENGTH OF HORIZONTAL PIPING ON EACH PIPE.
5. INSULATE THE INSTALLED SUCTION LINE REFRIGERANT PIPE.
6. INSTALL THE PORTION OF ELECTRICAL CONDUIT THAT WILL PASS THROUGH THE NEW ROOF OPENING AND HOODED FLASHING CAP.
7. DRILL THREE SEPARATE HOLES IN THE HOODED FLASHING CAP FOR THE TWO PIPES AND ONE ELECTRICAL CONDUIT.
8. INSTALL THE HOODED FLASHING CAP.
9. CAULK AROUND THE PIPE AND CONDUIT HOLES IN THE CAP AND ALSO ALL FLASHING SEAMS.
10. SPRAY URETHANE FOAM INSULATION IN THE VOID SPACE AROUND THE PIPES IN THE HOLE THROUGH THE ROOF.
11. INSTALL REMAINING PIPING AND CONDUIT.

A1

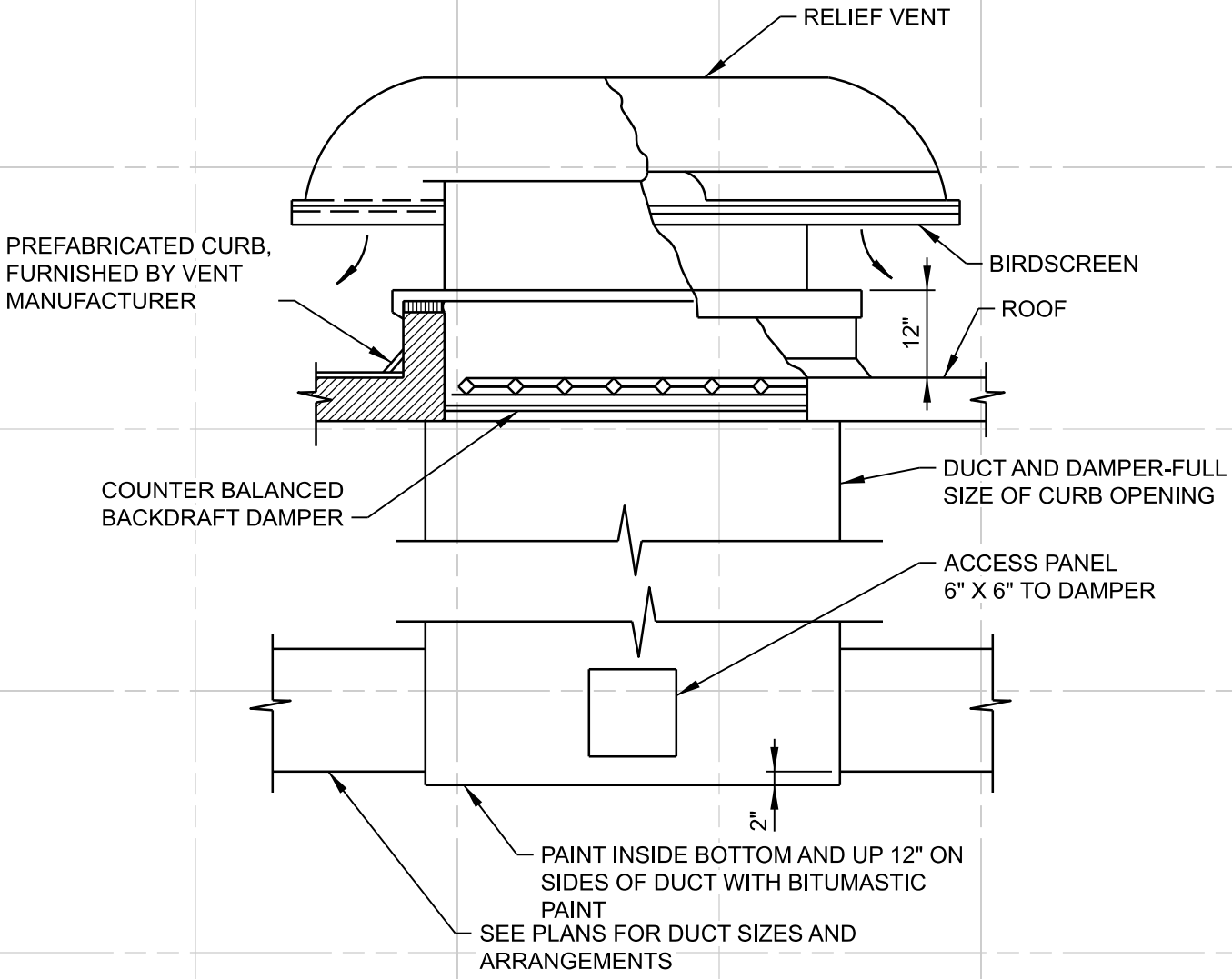
DETAIL: PIPING AND CONDUIT ROOF PENETRATION

SCALE: NTS



A1 DETAIL: RELIEF VENT

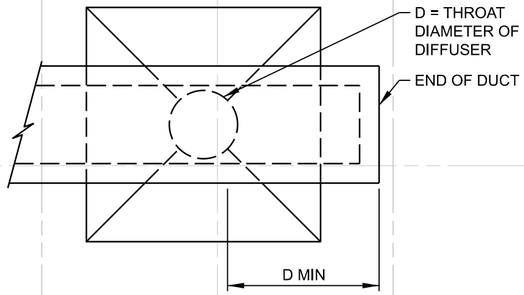
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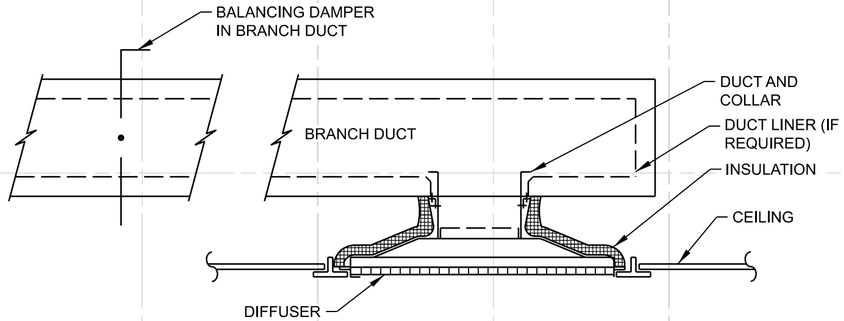
A1

DETAIL: RELIEF VENT (WITH DUCT WORK)

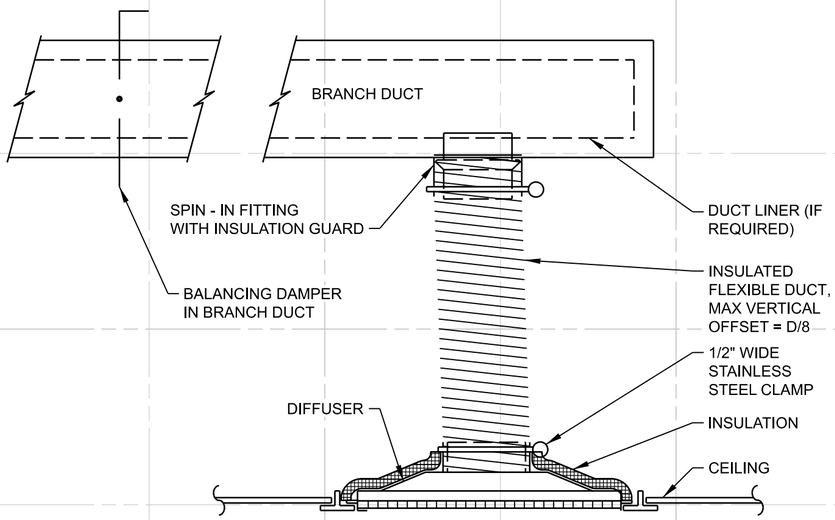
SCALE: NTS



PLAN



SECTION

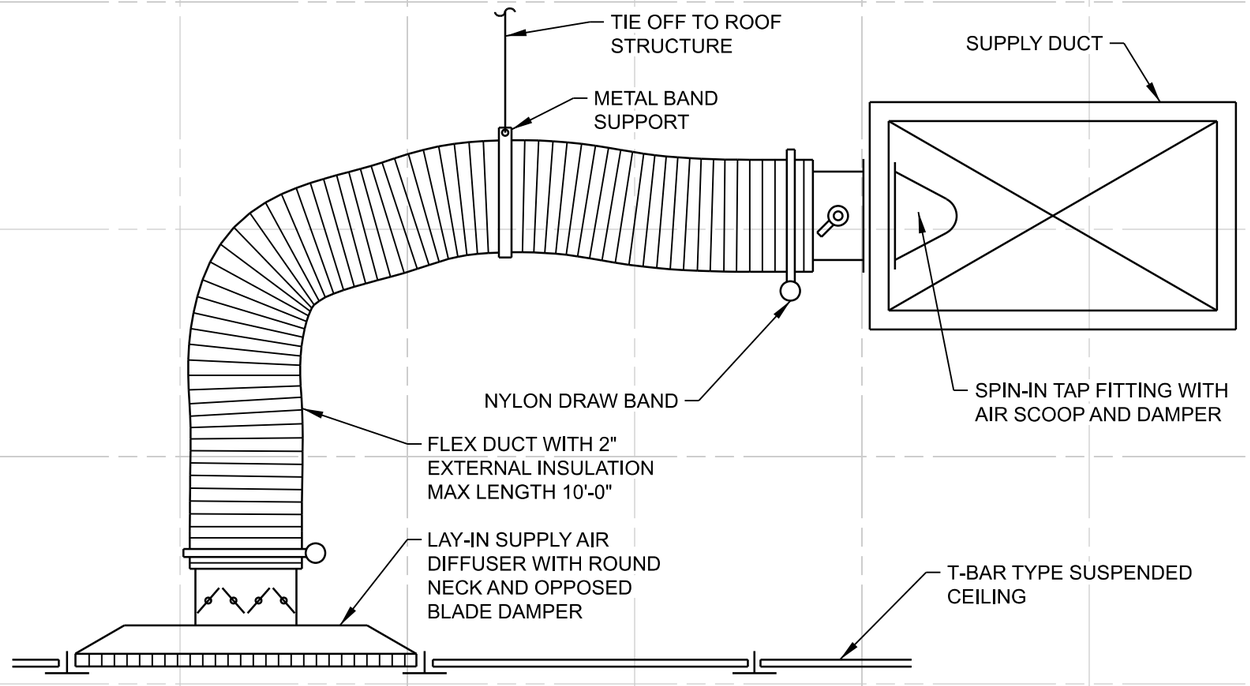


SECTION

A1

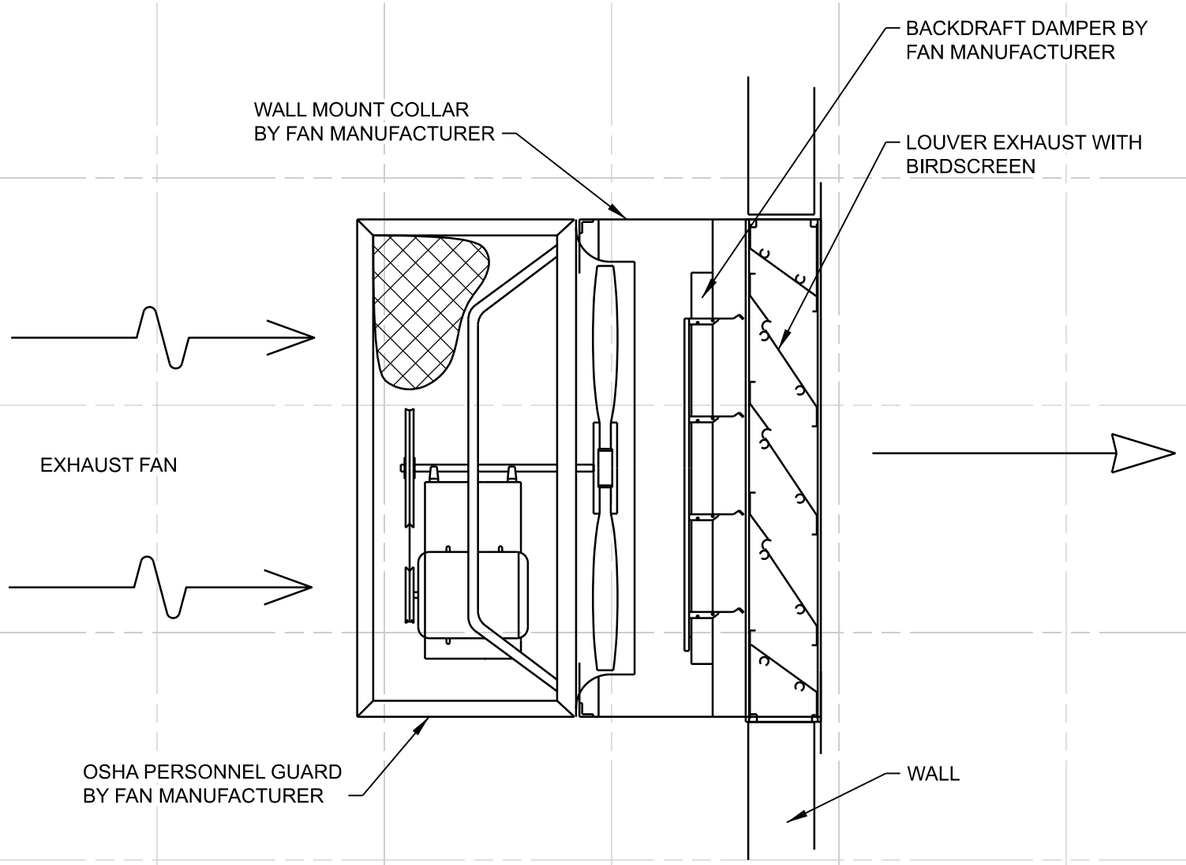
DETAIL: SUPPLY AIR DIFFUSER

SCALE: NTS



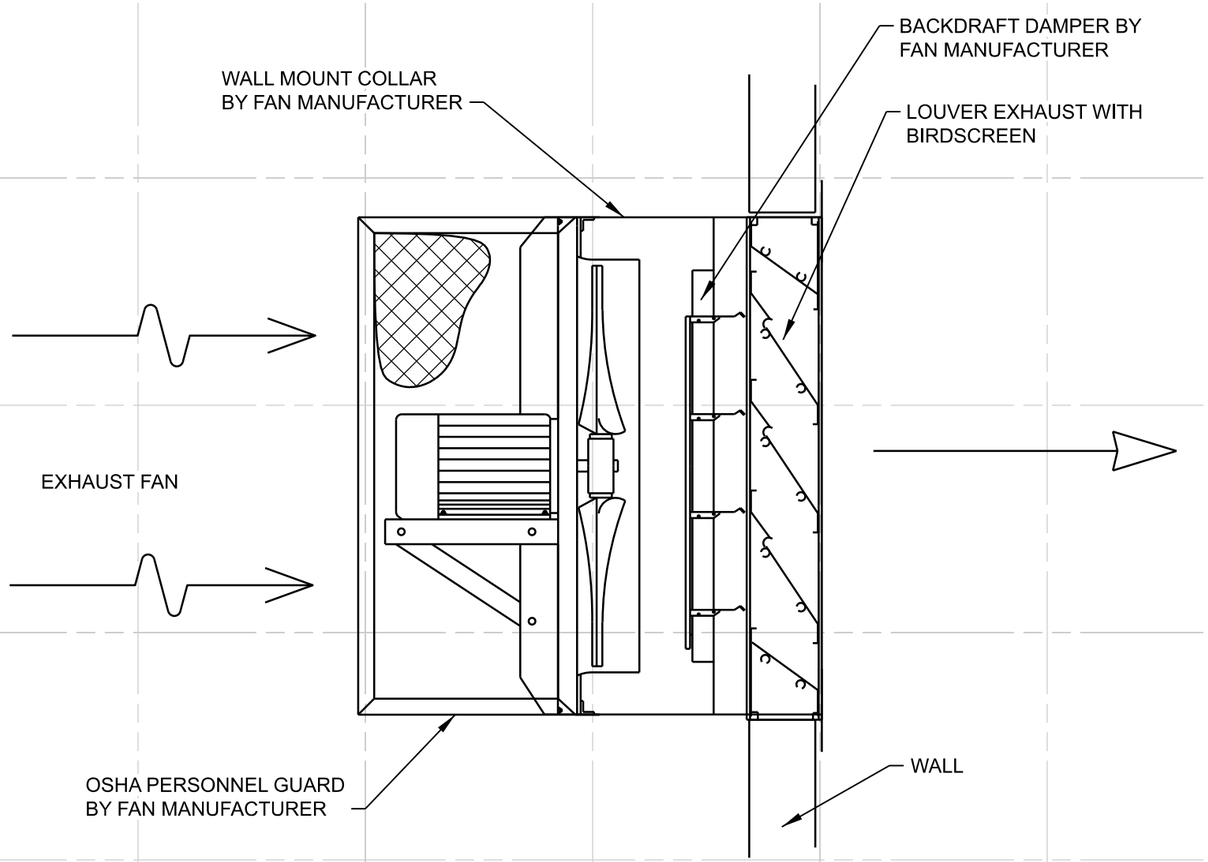
A1 DETAIL: SUPPLY AIR DIFFUSER

SCALE: NTS



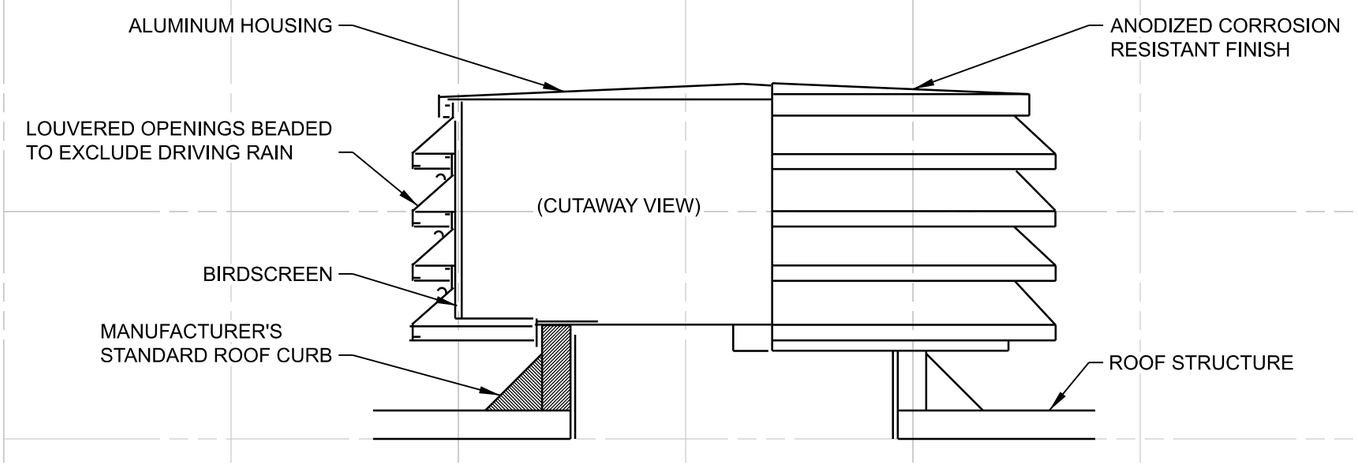
A1 DETAIL: PROPELLER FAN

SCALE: NTS



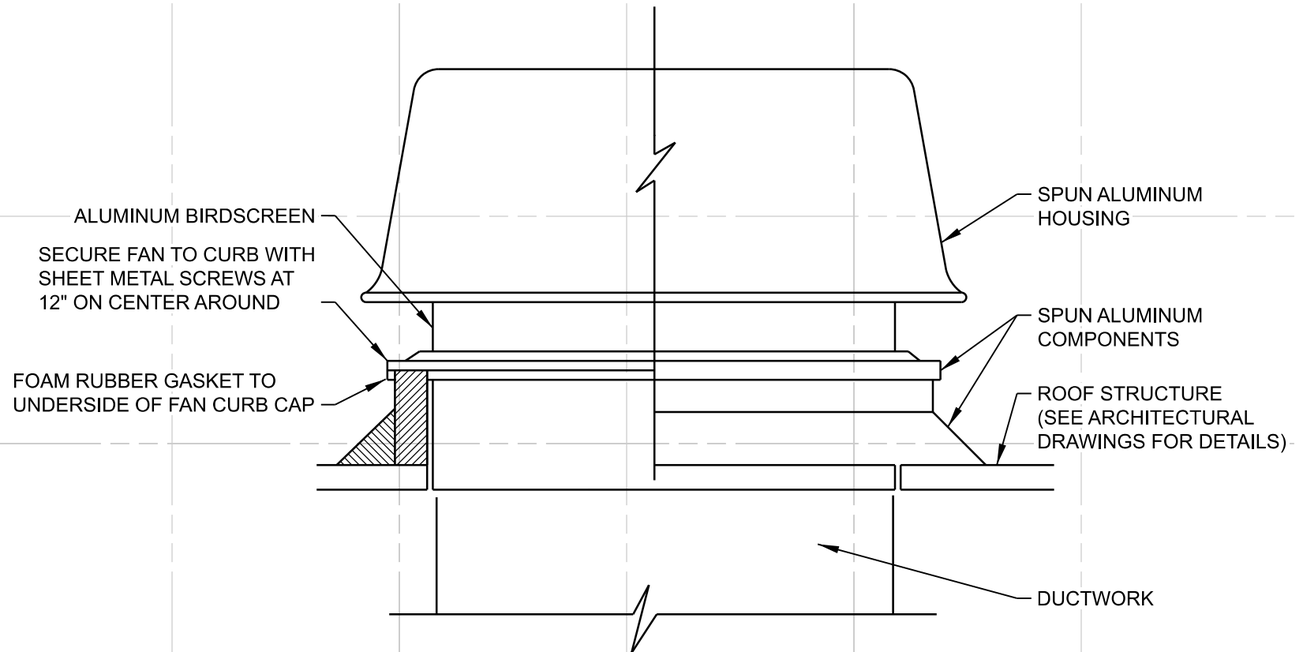
A1 DETAIL: WALL FAN

SCALE: NTS



A1 DETAIL: PENTHOUSE

SCALE: NTS

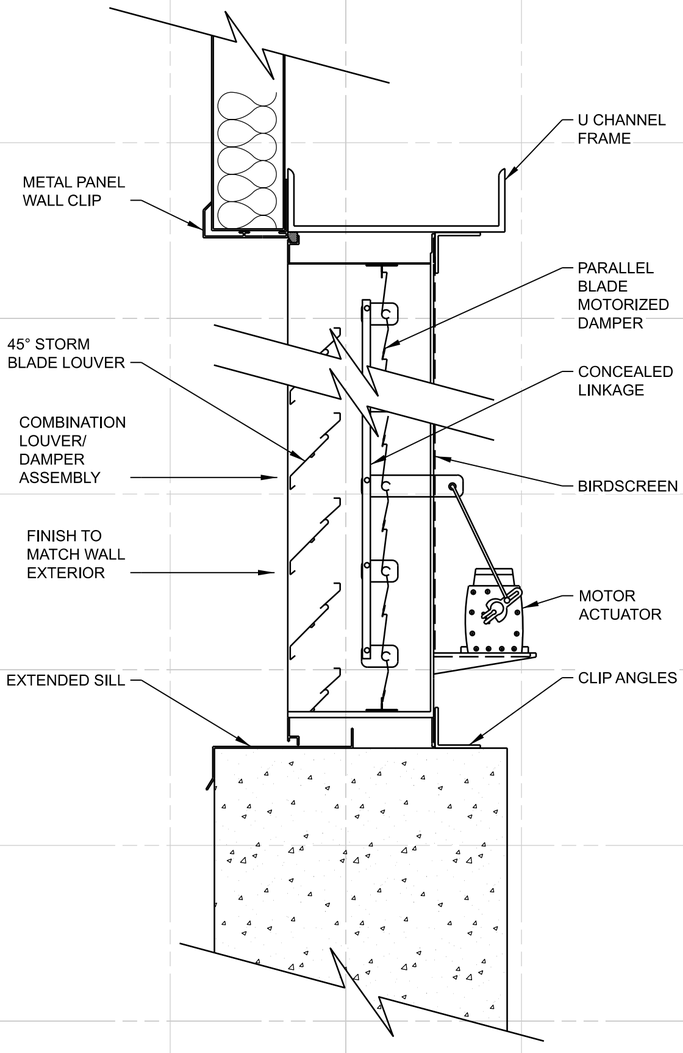


NOTE:
CURBS AND HOODS TO BE MADE BY THE SAME MANUFACTURER.

A1

DETAIL: RELIEF OR INTAKE VENT

SCALE: NTS

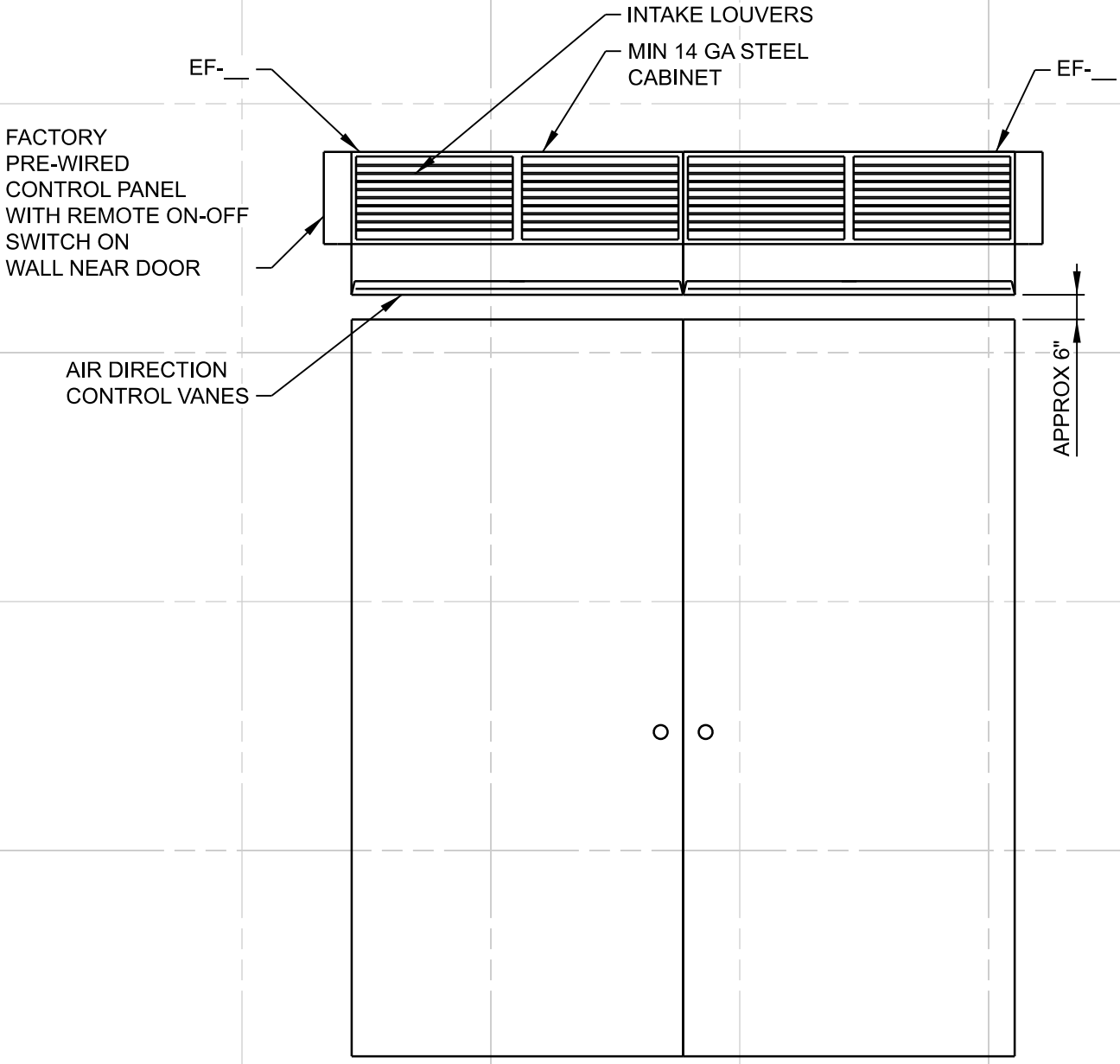


NOTES:
1. LOUVER/DAMPER ASSEMBLIES TO BE ASSEMBLED AT LOUVER MANUFACTURER FACTORY.
2. CLIP ANGLES AND EXTENDED SILL TO BE PROVIDED BY LOUVER MANUFACTURER.
3. MOTOR ACTUATORS TO BE SIZED AND INSTALLED BY LOUVER MANUFACTURER.
4. INSTALLATION OF LOUVER TO BE IN ACCORDANCE WITH LOUVER MANUFACTURER'S RECOMMENDATIONS.

A1

DETAIL: LOUVER/DAMPER

SCALE: NTS

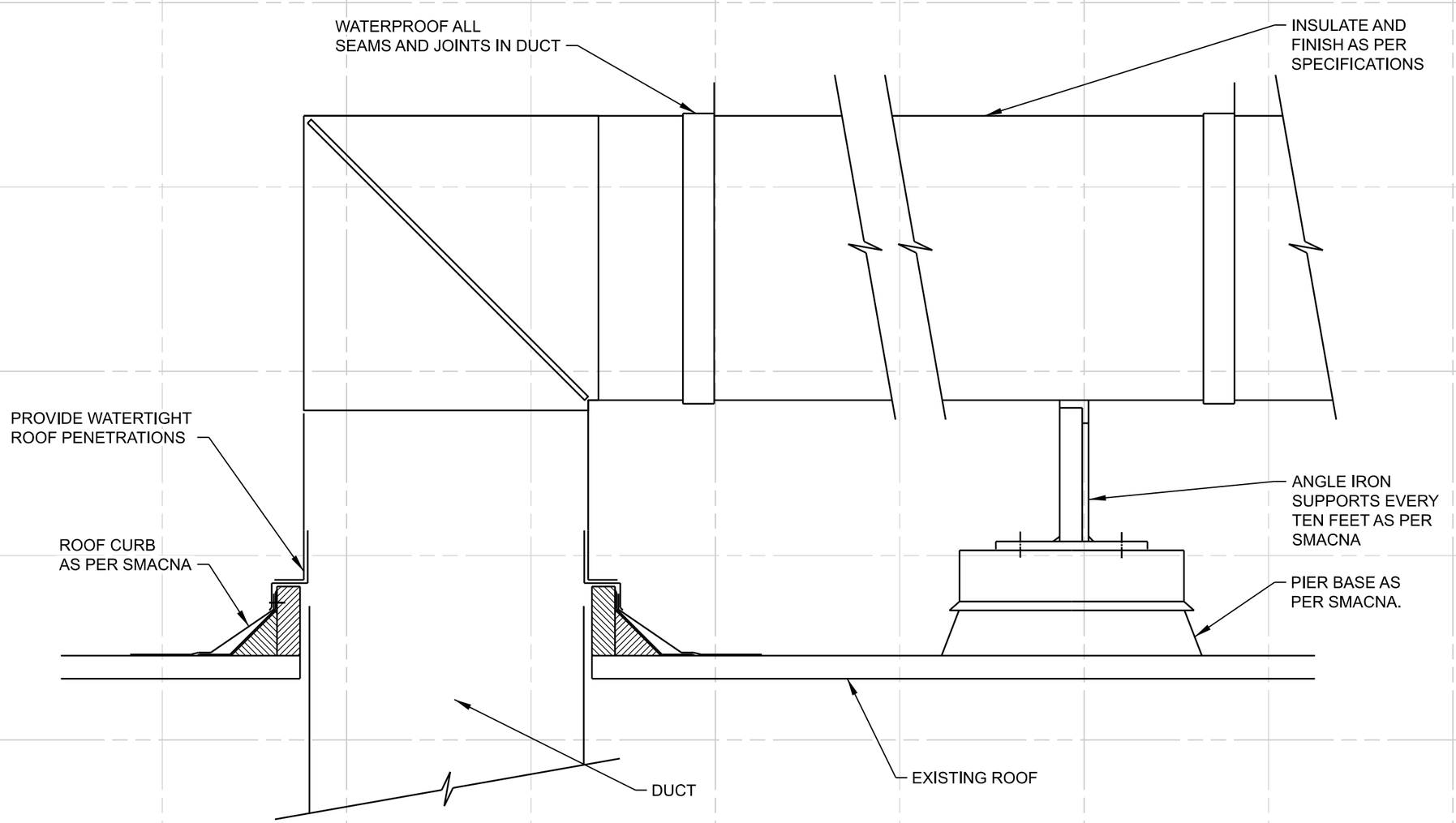


NOTE:
CURBS AND HOODS TO BE MADE BY THE SAME MANUFACTURER.

A1

DETAIL: AIR CURTAIN FAN

SCALE: NTS

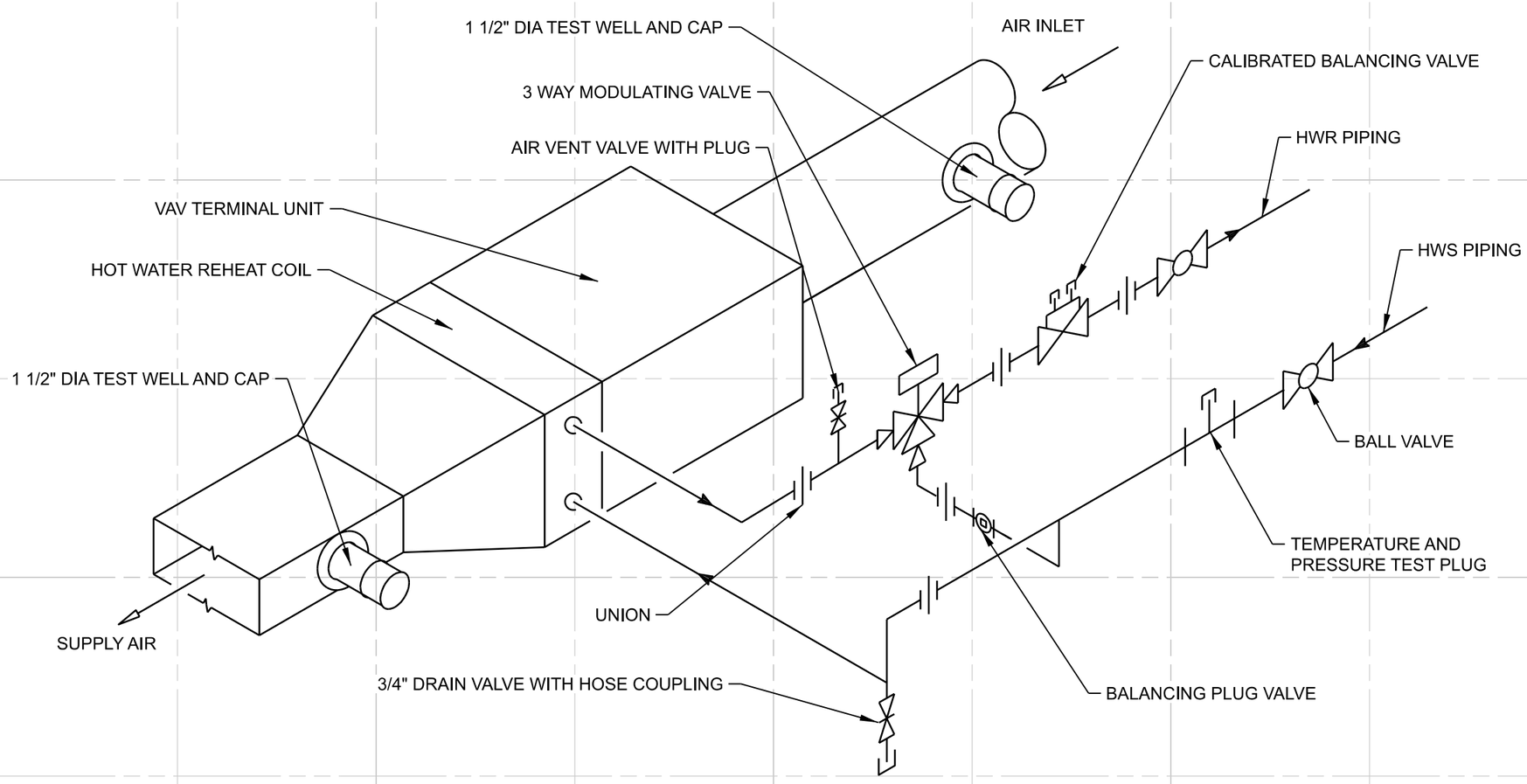


NOTE:
PENETRATIONS THROUGH SKYLIGHTS SHALL BE MADE WATERPROOF. SEAL OPEN AREAS OF SKYLIGHT WITH SHEETMETAL AND PROVIDE SHEETMETAL CANT ANGLED TO DRAIN WATER AWAY FROM DUCT PENETRATION AND ONTO ROOF. ALL PENETRATIONS SHALL BE MADE IN ACCORDANCE WITH SMACNA MANUAL OR AS APPROVED BY THE CONTRACTING OFFICER.

A1

DETAIL: DUCT ROOF PENETRATION AND SUPPORT

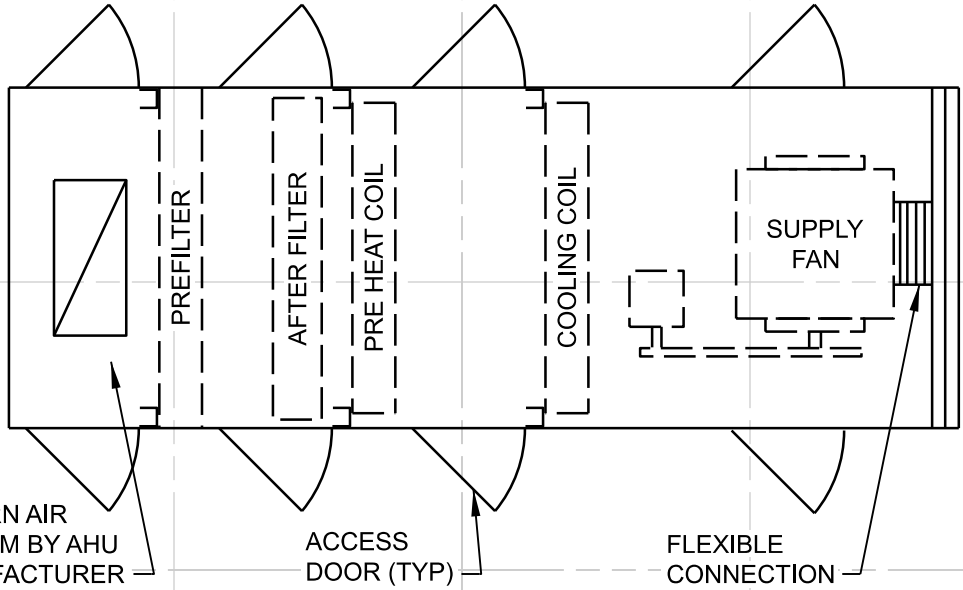
SCALE: NTS



NOTE:
PROVIDE MANUAL AIR VENTS AT ALL HIGH POINTS AND DRAIN VALVES WITH HOSE COUPLING AT ALL LOW POINTS.

A1 DETAIL: VAV TERMINAL UNIT

SCALE: NTS



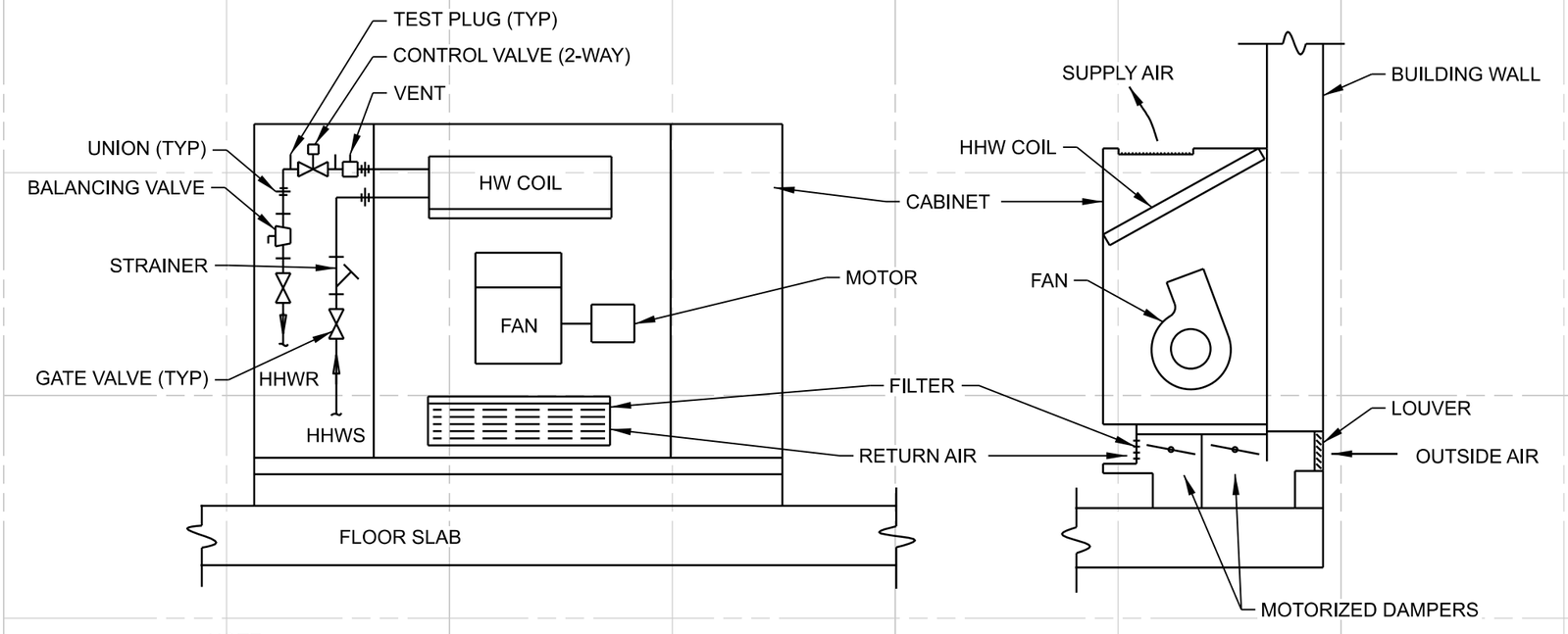
NOTES:

1. ACCESS DOORS SHALL BE GASKETED AND HINGED TO OPEN AGAINST FAN OPERATING PRESSURE TO PREVENT AIR LEAKAGE.
2. MINIMUM ACCESS DOOR WIDTH SHALL BE 12".
3. ACCESS DOOR HEIGHT SHALL BE DETERMINED BY UNIT CASING BUT NOT EXCEED 6'-'0".
4. ACCESS DOORS ON FAN SUCTION SHALL OPEN OUTWARD.
5. ACCESS DOORS ON FAN DISCHARGE SIDE SHALL OPEN INWARD.

A1

DETAIL: ACCESS DOOR SWING FOR AIR HANDLING UNITS

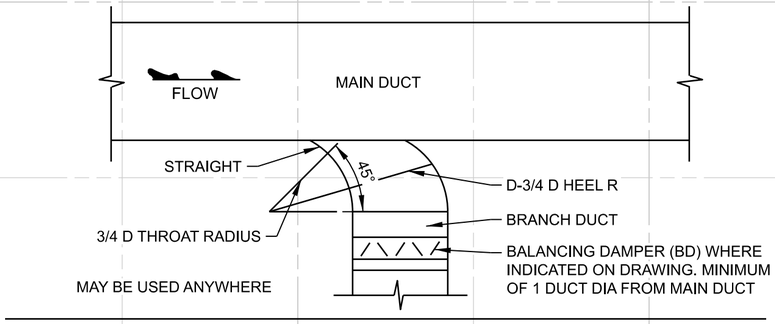
SCALE: NTS

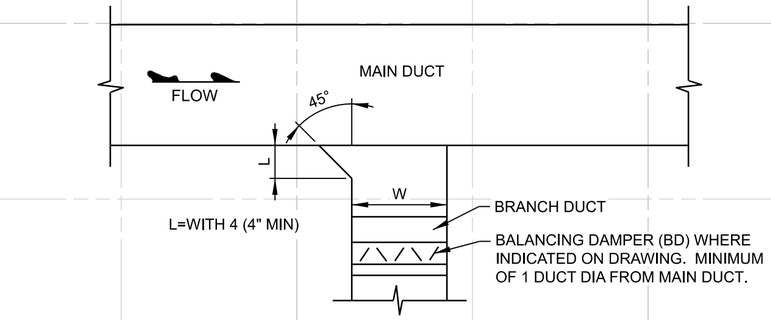


NOTE:
ALL PIPING, FITTINGS AND VALVES TO BE ENCLOSED.

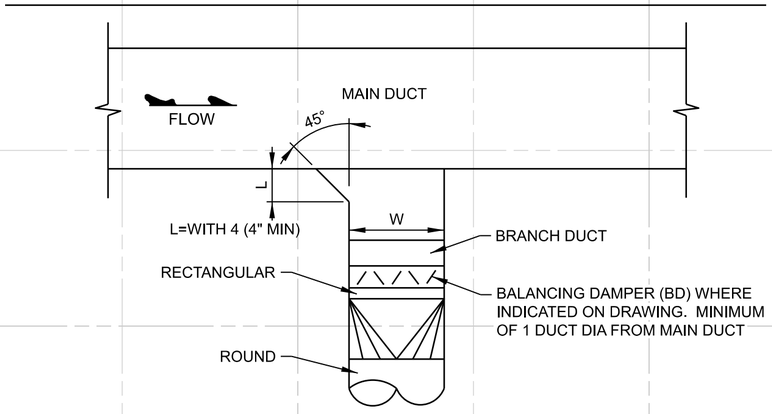
A1 DETAIL: FAN COIL UNIT

SCALE: NTS





USE ONLY AT LAST TAKEOFF BEFORE OUTLETS AND THEN ONLY WHERE RECTANGULAR RUNOUTS ARE INDICATED ON DRAWINGS.

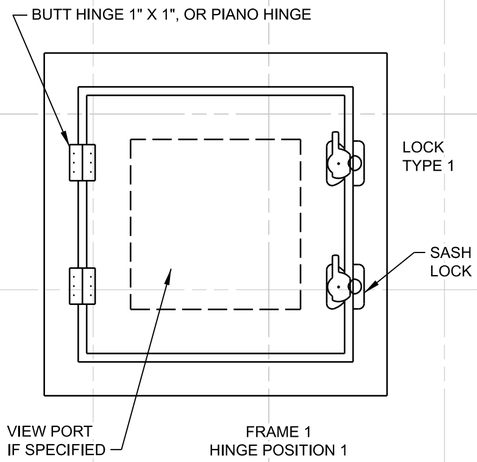


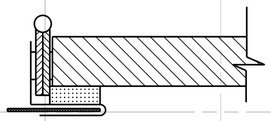
USE ONLY AT LAST TAKEOFF BEFORE OUTLETS AND THEN ONLY WHERE ROUND RUNOUTS ARE INDICATED ON DRAWINGS.

A1

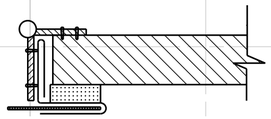
DETAIL: BRANCH CONNECTION

SCALE: NTS

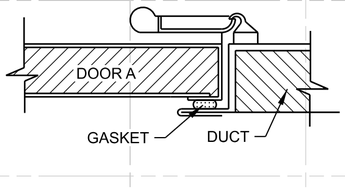


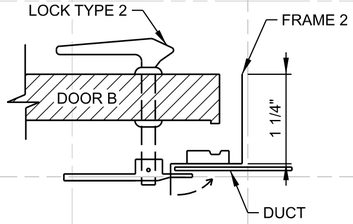


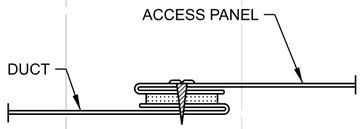
FRAME 2
HINGE POSITION 2



FRAME 3
HINGE POSITION 3





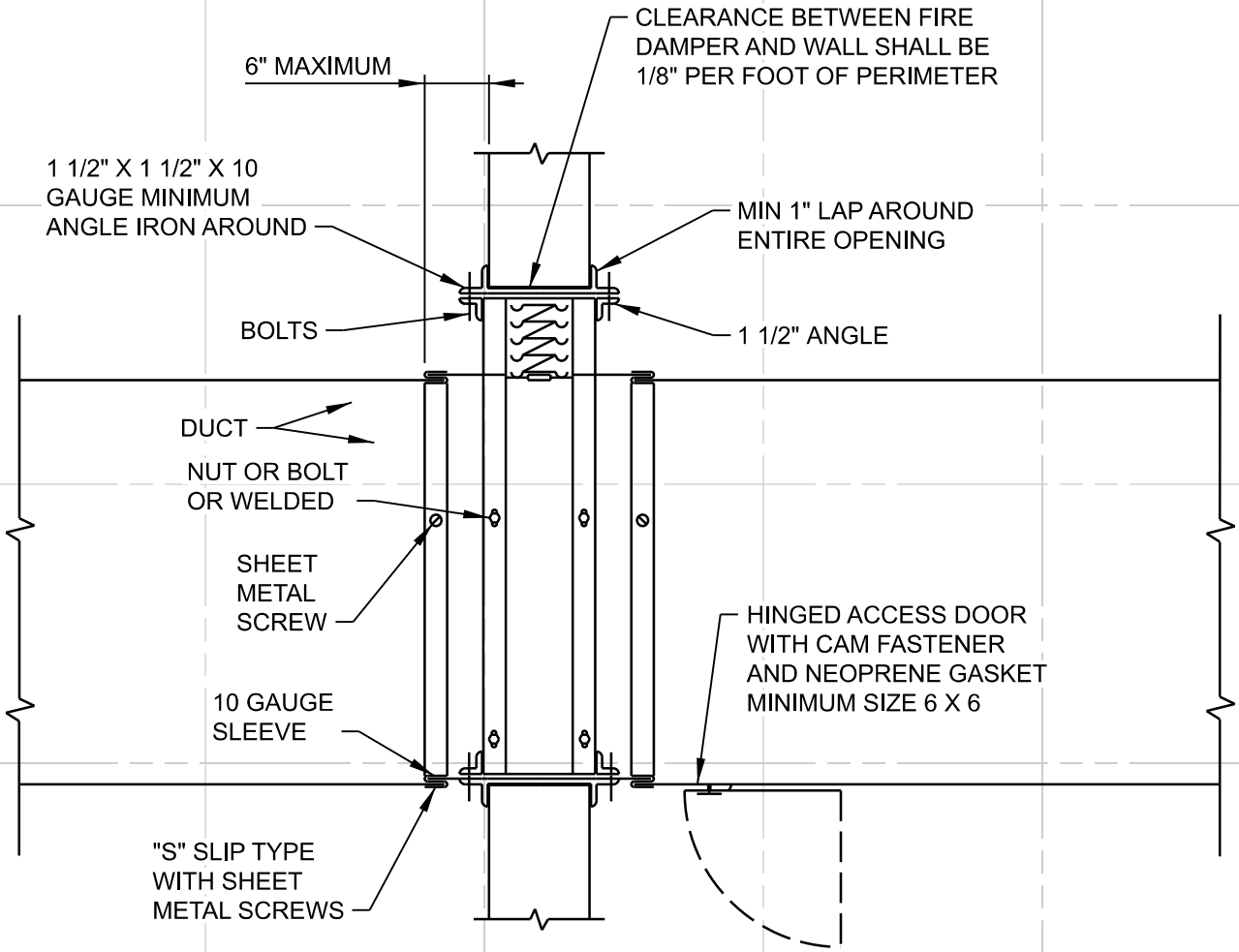


PANEL IS DUCT GA (MIN) WITH
SCREWS AT 8" MAX SPACING

	DOOR SIZE	NO. HINGES	NO. LOCKS	METAL GA		
				FRAME	DOOR	BACK
2" W.G. STATIC AND LESS	12" x 12" 16" x 20" 24" x 24"	2 2 3	1-S 2-S 2-S	24 22 22	26 24 22	26 26 26
3" W.G. STATIC	12" x 12" 16" x 20" 24" x 24"	2 2 3	1-S 1-S,1-T,1-B 2-S,1-T,1-B	22 20 20	22 20 20	26 26 24
4" W.G. TO 10" W.G.	12" x 12" 16" x 20" 24" x 24"	2 3 3	1-S,1-T,1-B 2-S,1-T,1-B 2-S,2-T,2-B	20 18 18	20 18 18	26 24 24
S = SIDE OPPOSITE HINGES, T = TOP, B = BOTTOM						

A1 DETAIL: DUCT ACCESS DOORS

SCALE: NTS

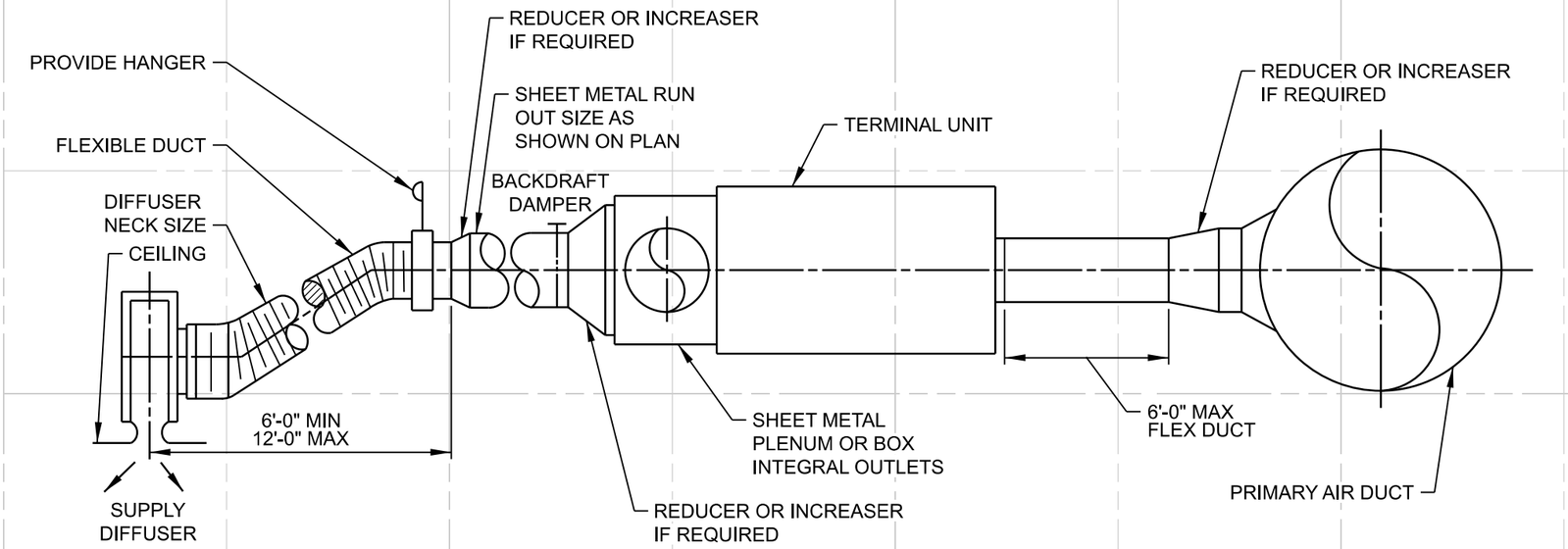


NOTE:
PROVIDE FIRE DAMPER FOR ROUND DUCT OR USE TRANSITIONS FOR ROUND TO SQUARE DUCT.

A1

DETAIL: FIRE DAMPER WITH FUSIBLE LINK

SCALE: NTS

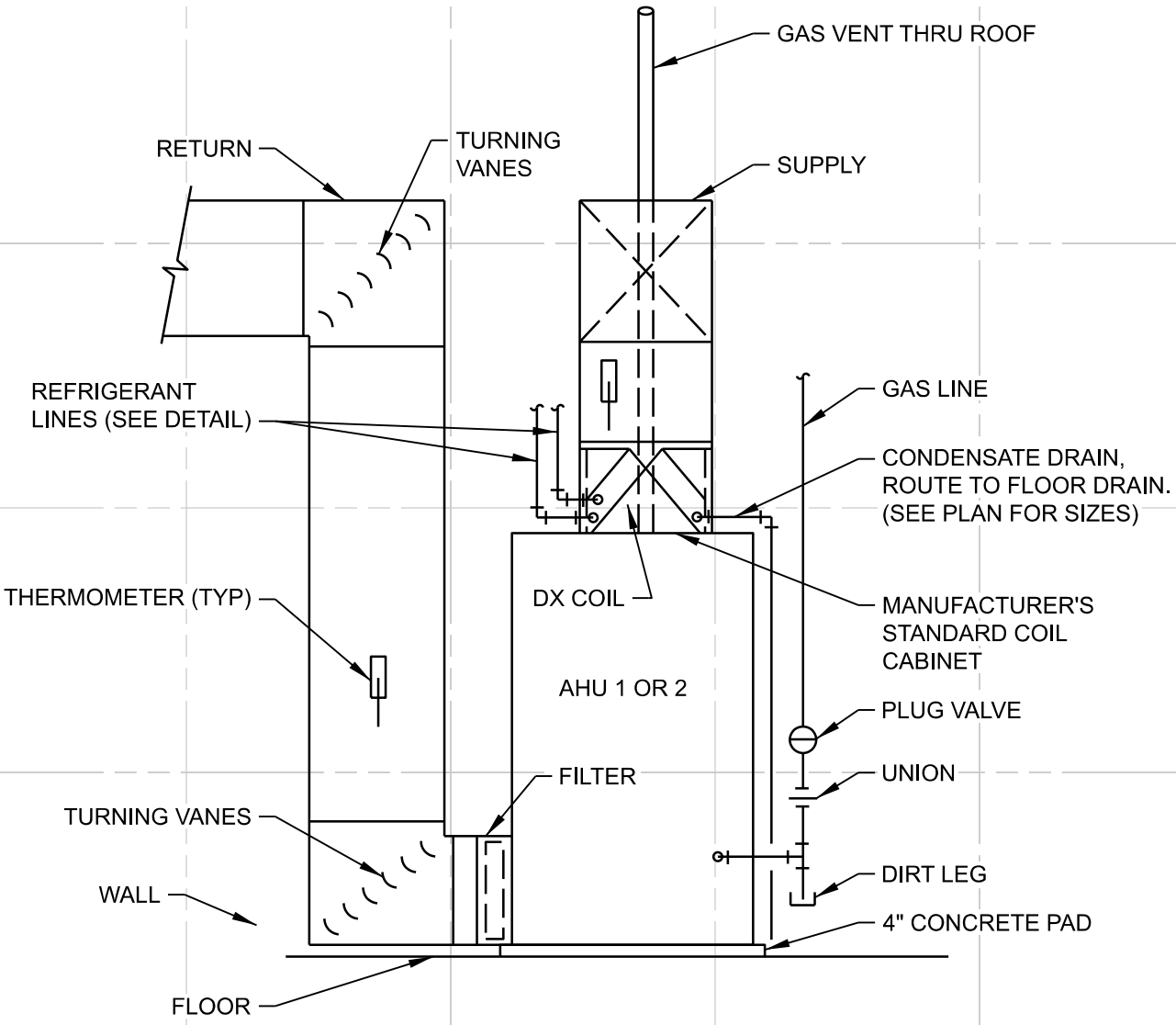


NOTE:
APPLICABLE FOR DIFFUSERS SERVED BY ROUND DUCTS ONLY.

A1

DETAIL: TERMINAL UNIT DUCT TAKE-OFF

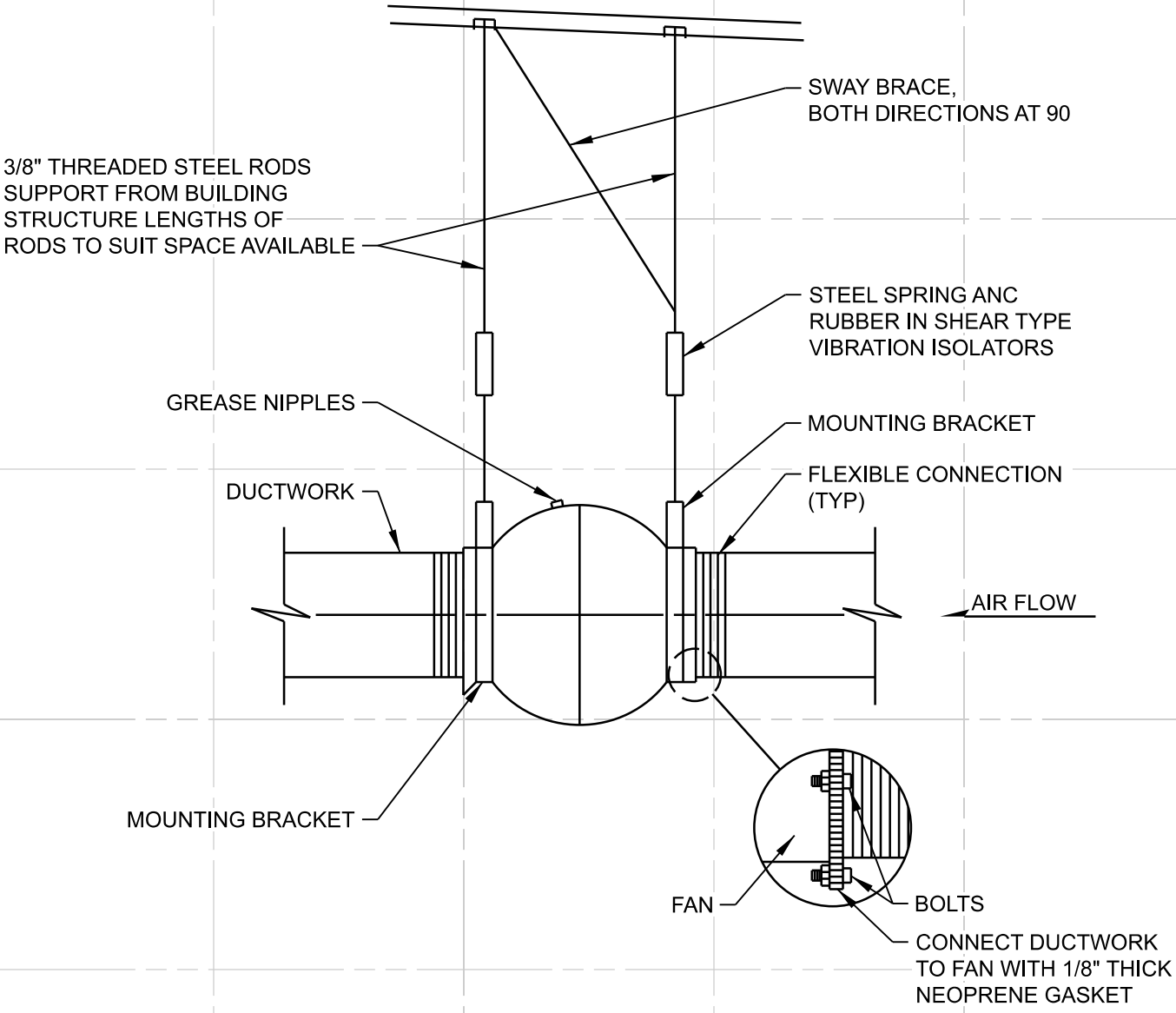
SCALE: NTS



A1

DETAIL: GAS-FIRED AIR HANDLING UNIT

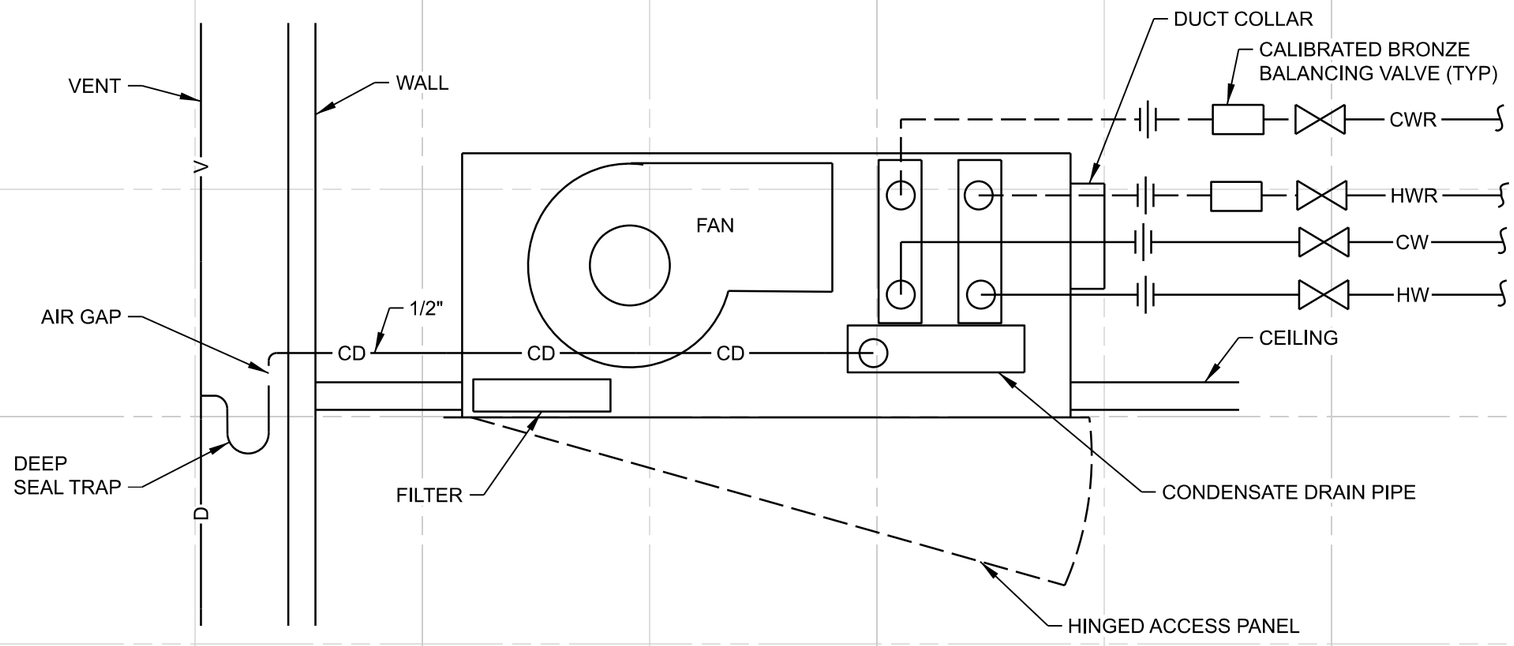
SCALE: NTS



A1

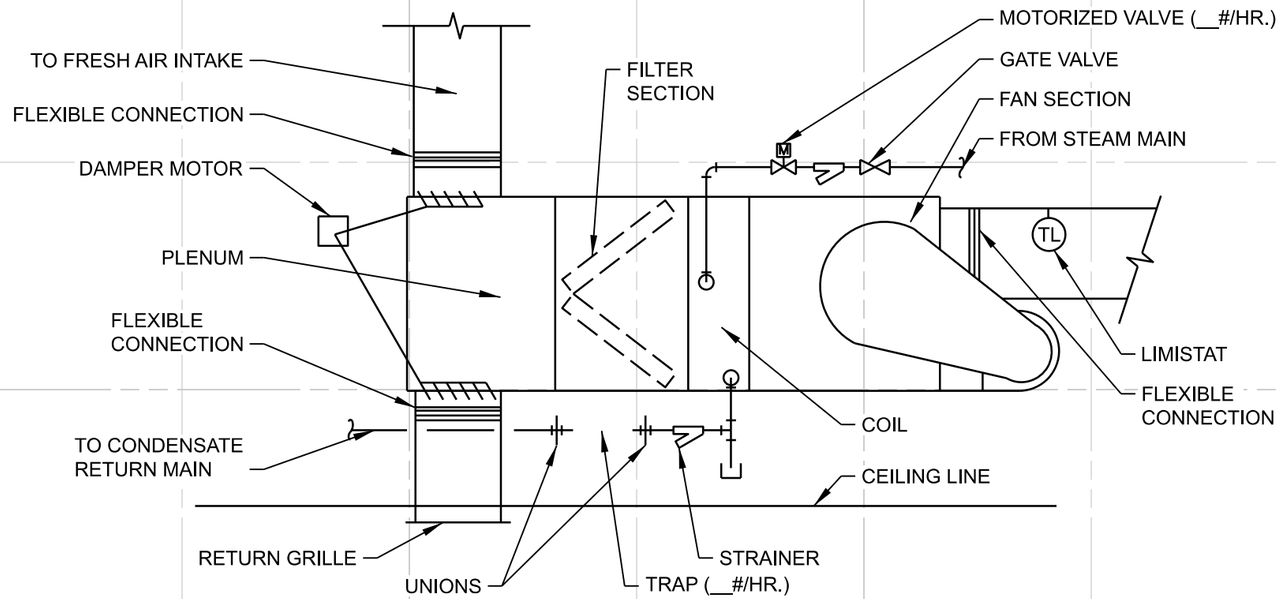
DETAIL: CENTRIFUGAL IN-LINE FAN

SCALE: NTS



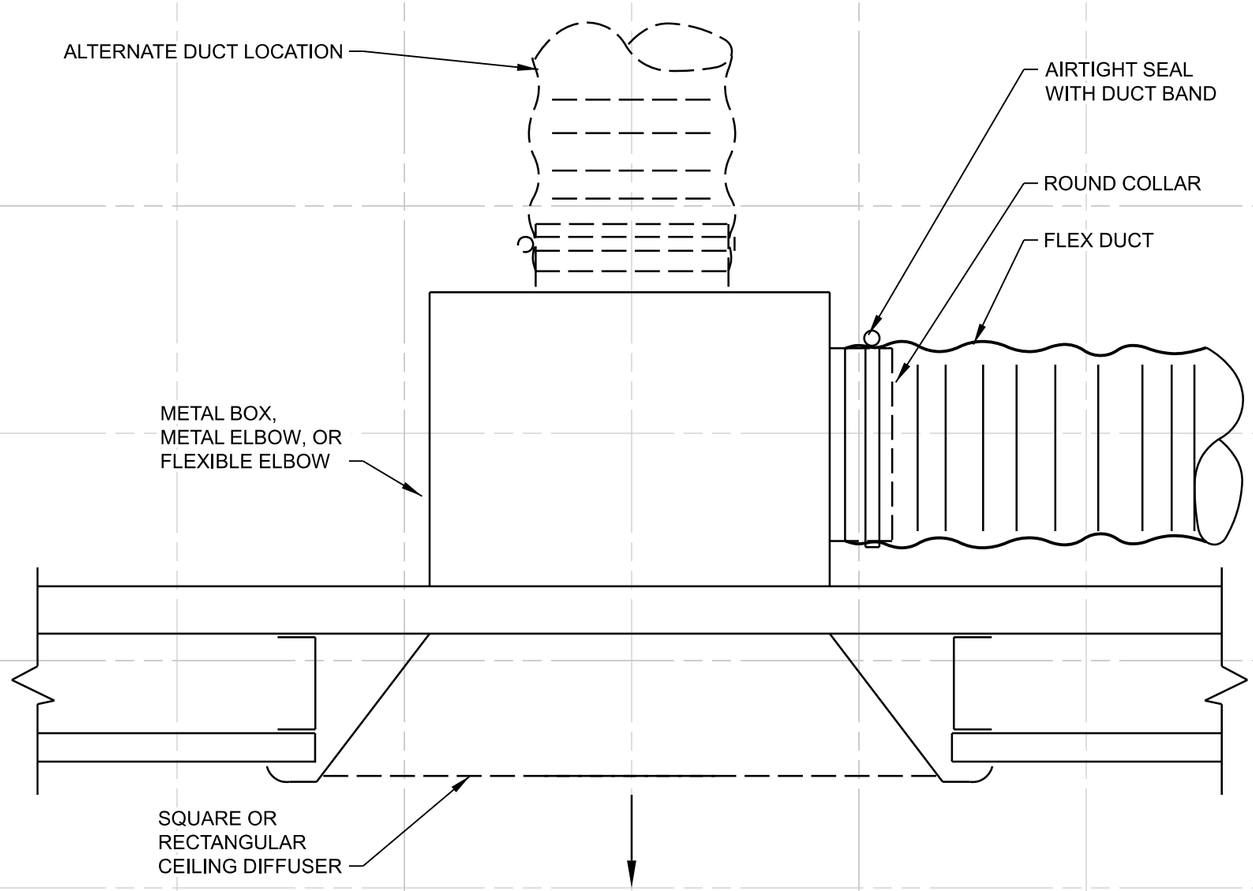
A1 DETAIL: FANCOIL

SCALE: NTS



A1 DETAIL: HEATING AND VENTILATING UNIT

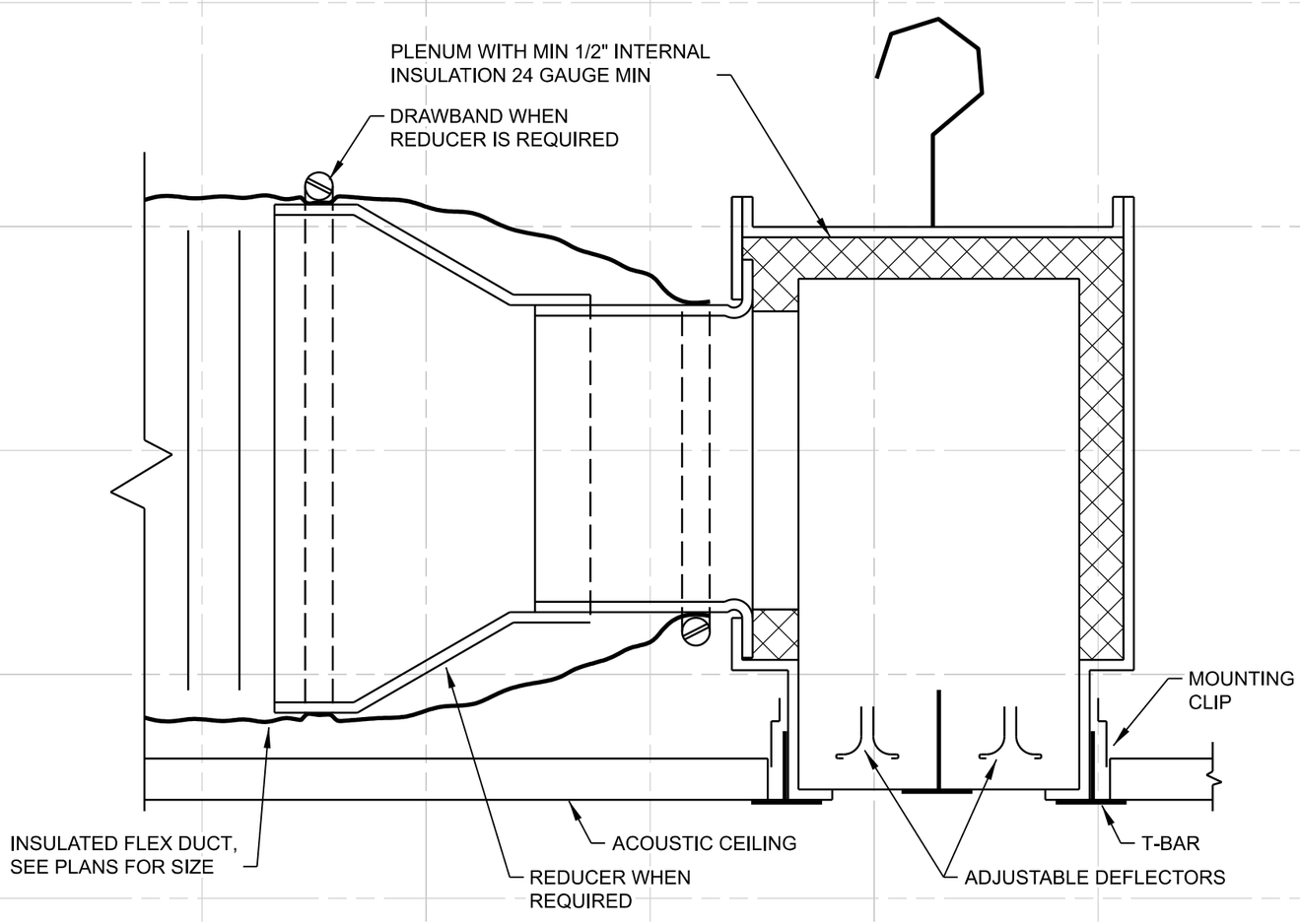
SCALE: NTS



A1

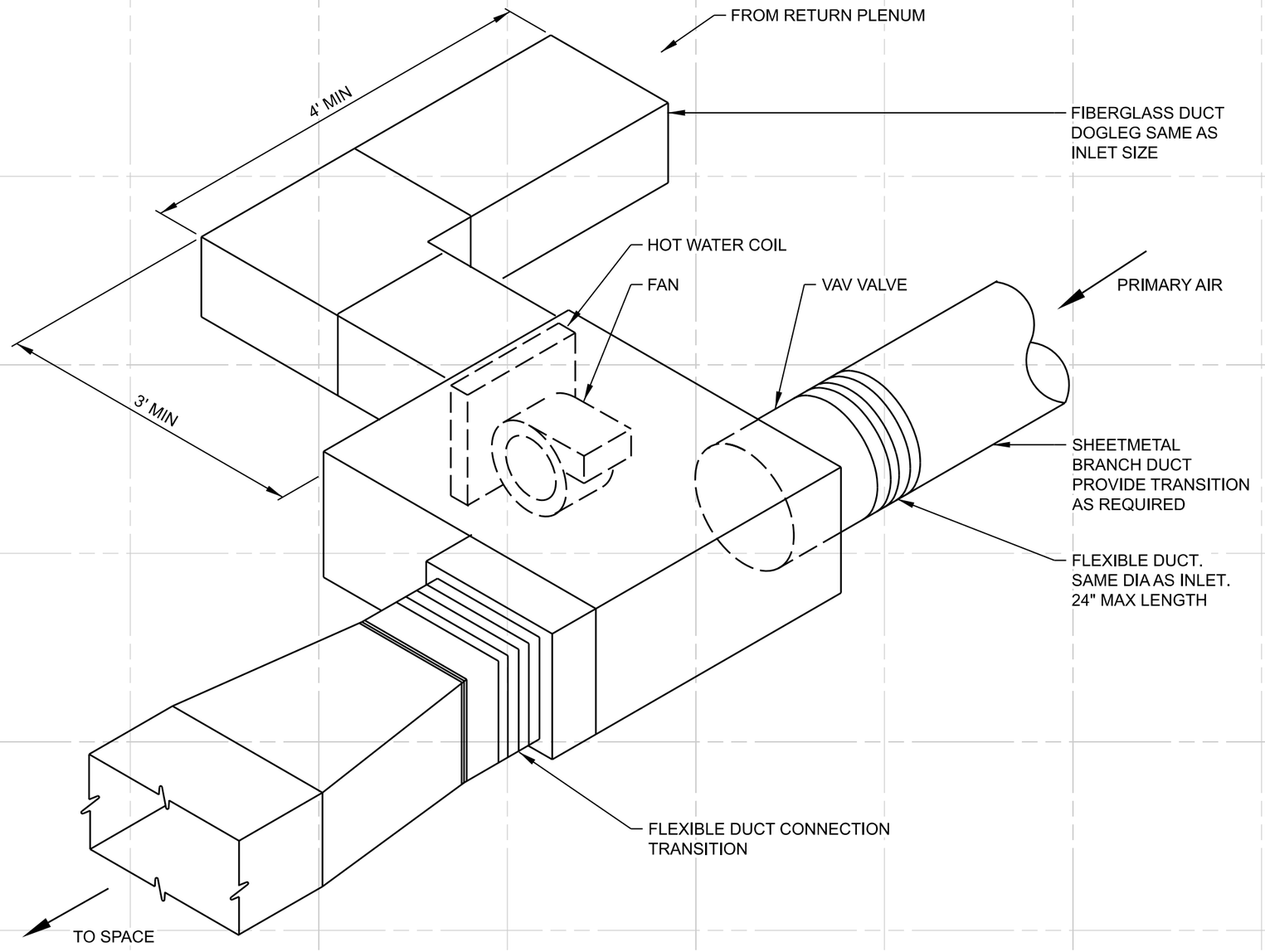
DETAIL: FLEXIBLE DUCT TO CEILING DIFFUSER

SCALE: NTS



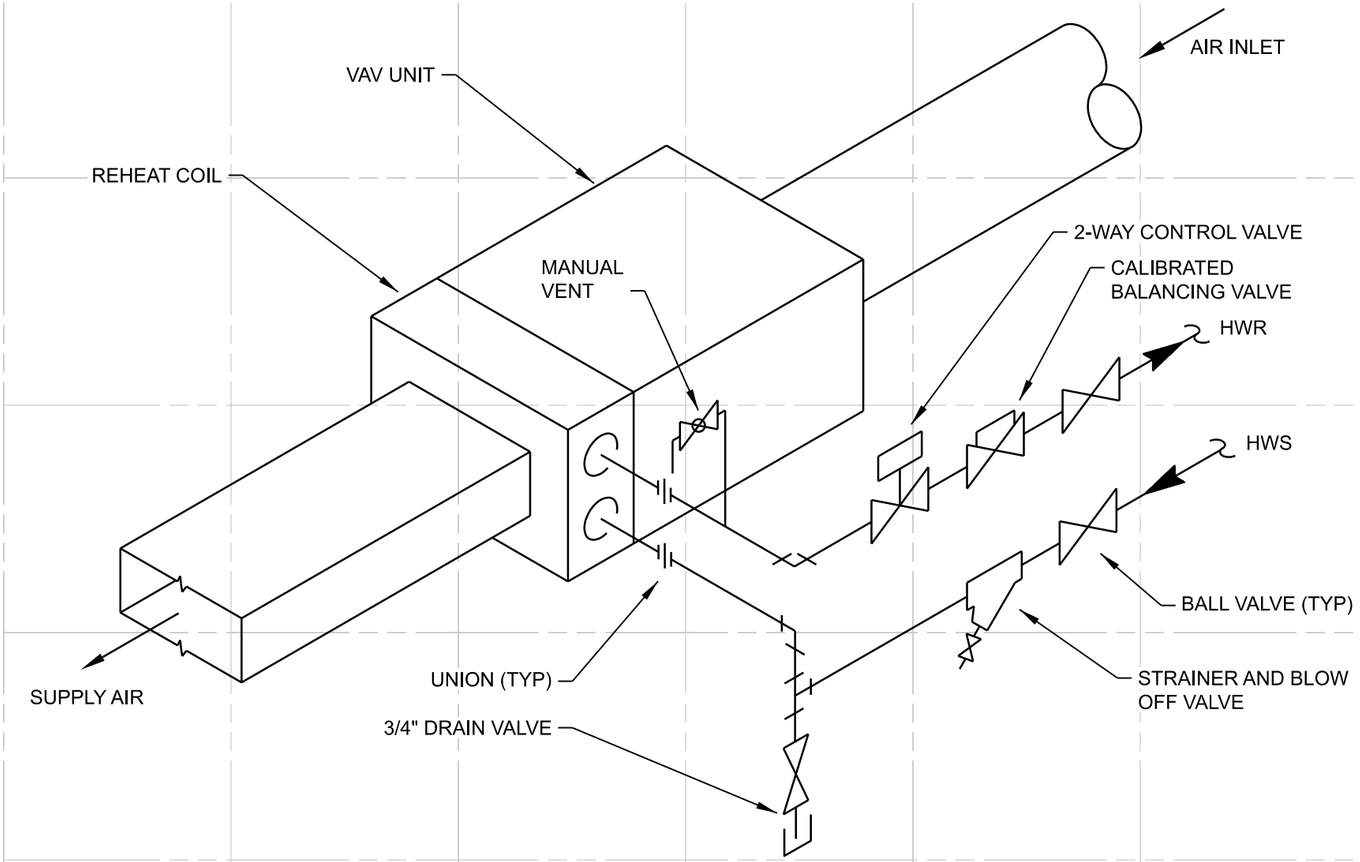
A1 DETAIL: LINEAR SLOT DIFFUSER

SCALE: NTS



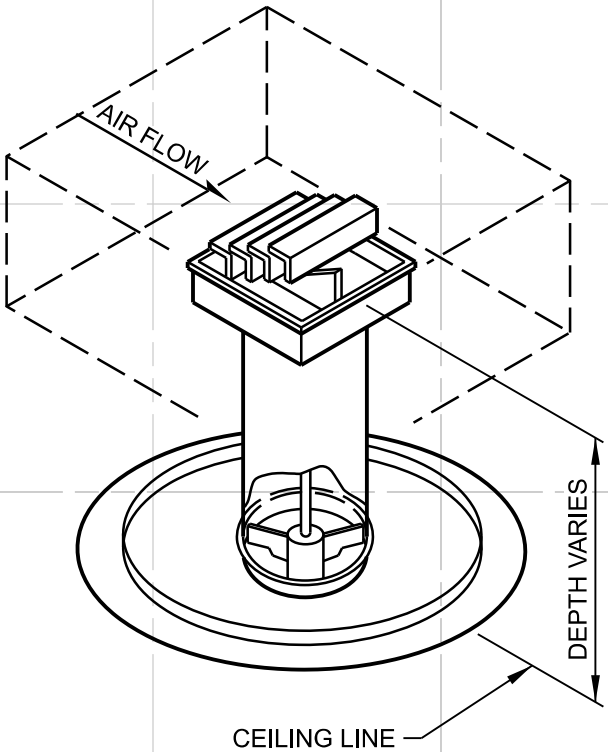
A1 DETAIL: FAN POWERED VAV

SCALE: NTS



A1 DETAIL: VAV UNIT WITH REHEAT COIL

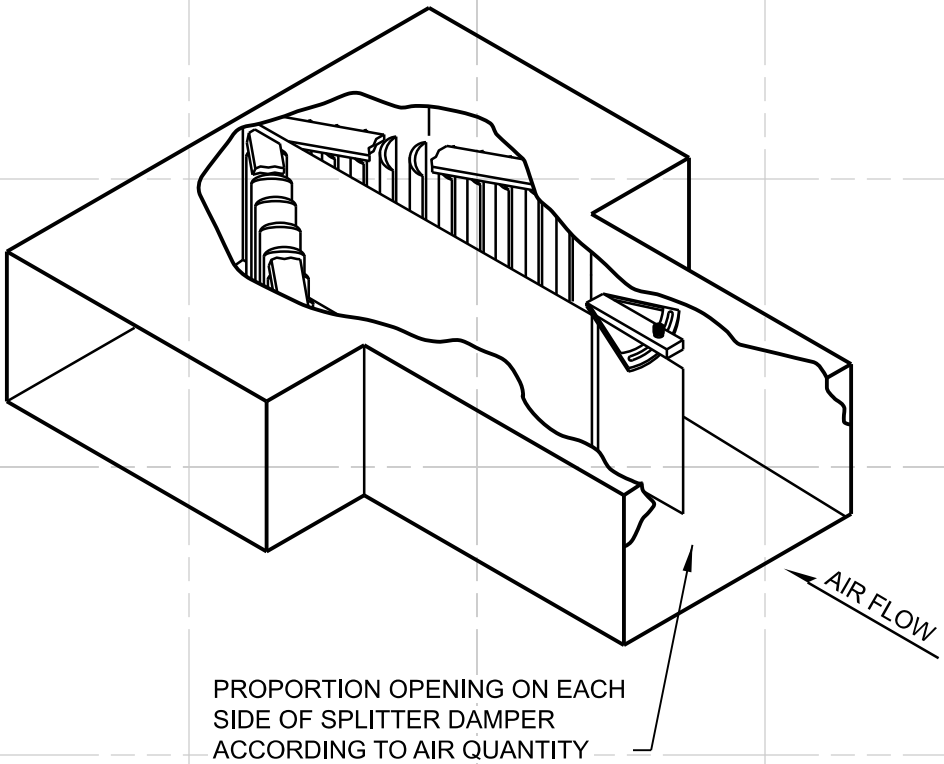
SCALE: NTS



A1

DETAIL: TYPICAL CEILING OUTLET

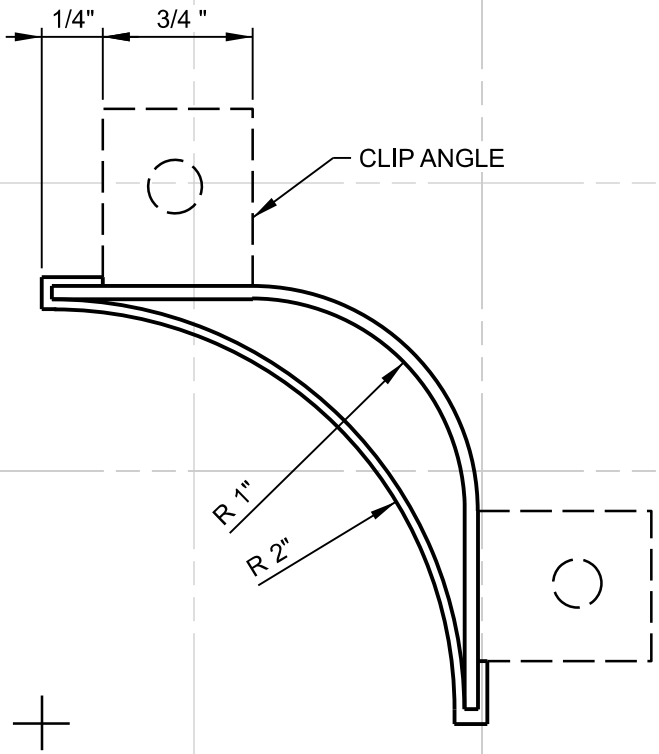
SCALE: NTS



A1

DETAIL: TYPICAL SPLITTER DAMPER

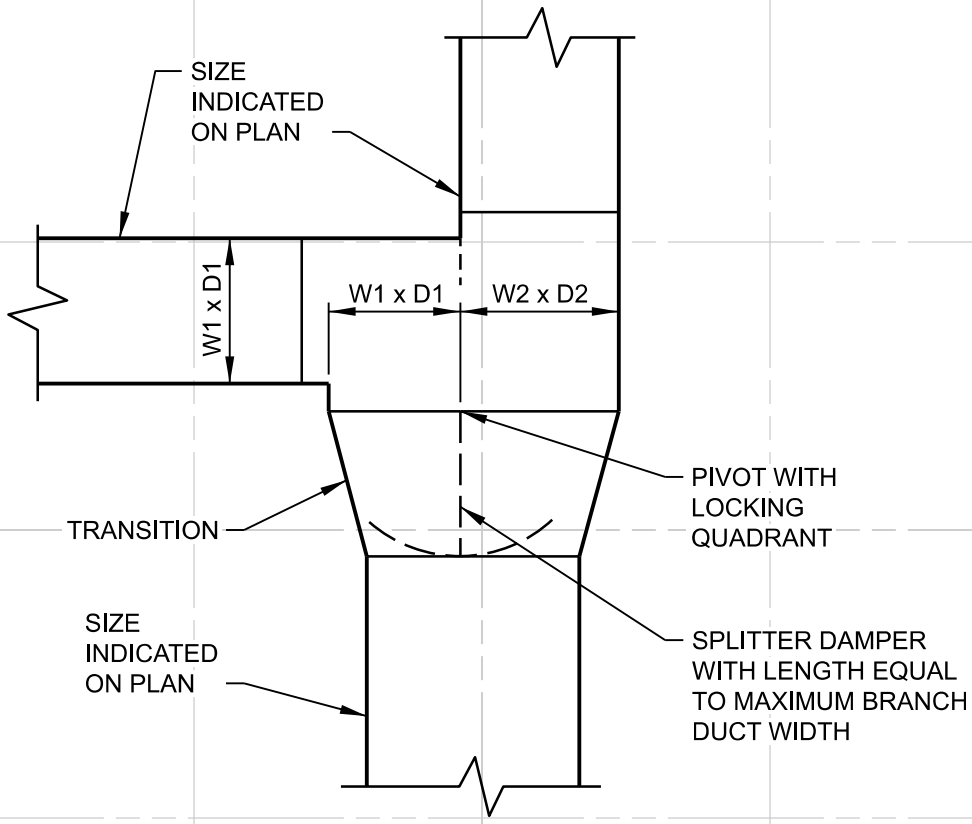
SCALE: NTS



A1

DETAIL: TURNING VANE

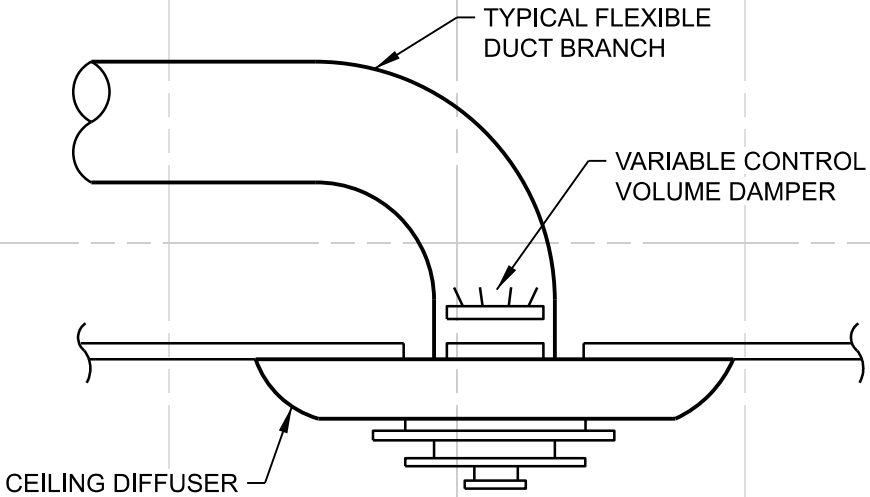
SCALE: NTS



A1

DETAIL: SPLITTER DAMPER

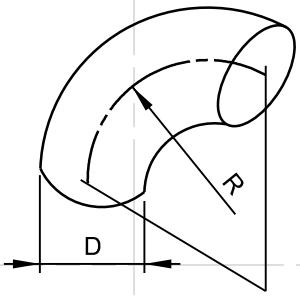
SCALE: NTS



A1

DETAIL: CEILING DIFFUSER CONNECTION

SCALE: NTS

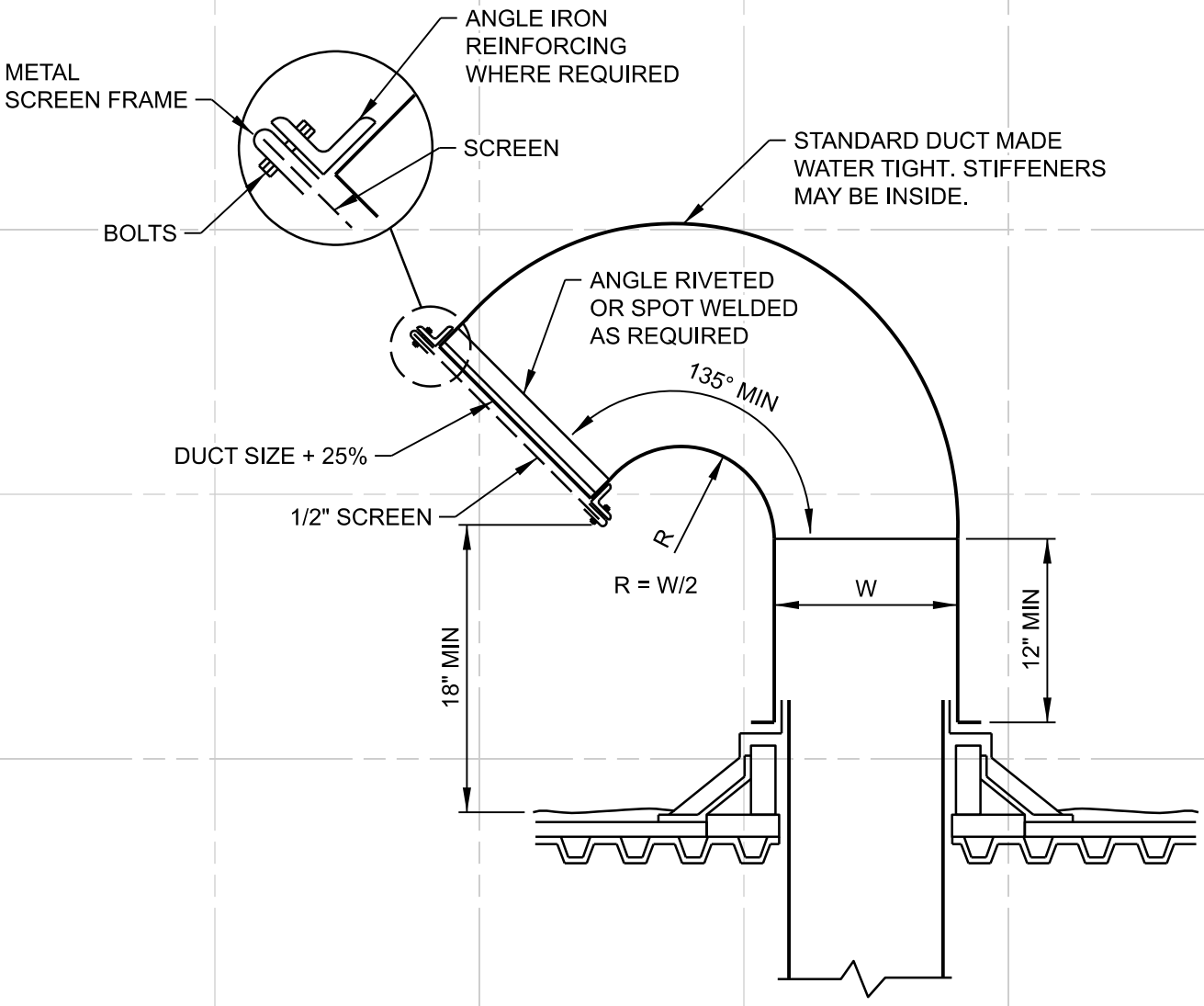


R/D = 1 FOR 6"
R/D = .5 FOR 8"

A1

DETAIL: SMOOTH RADIUS ELBOW

SCALE: NTS

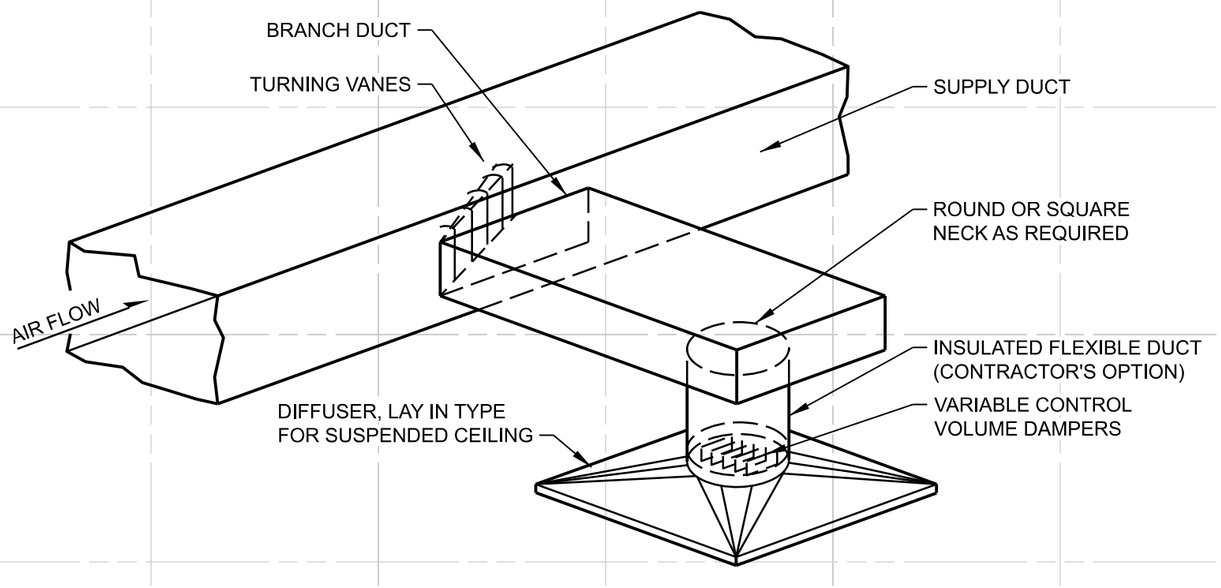


NOTE:
SEE ARCHITECTURAL DRAWINGS FOR ROOF PENETRATION DETAILS.

A1

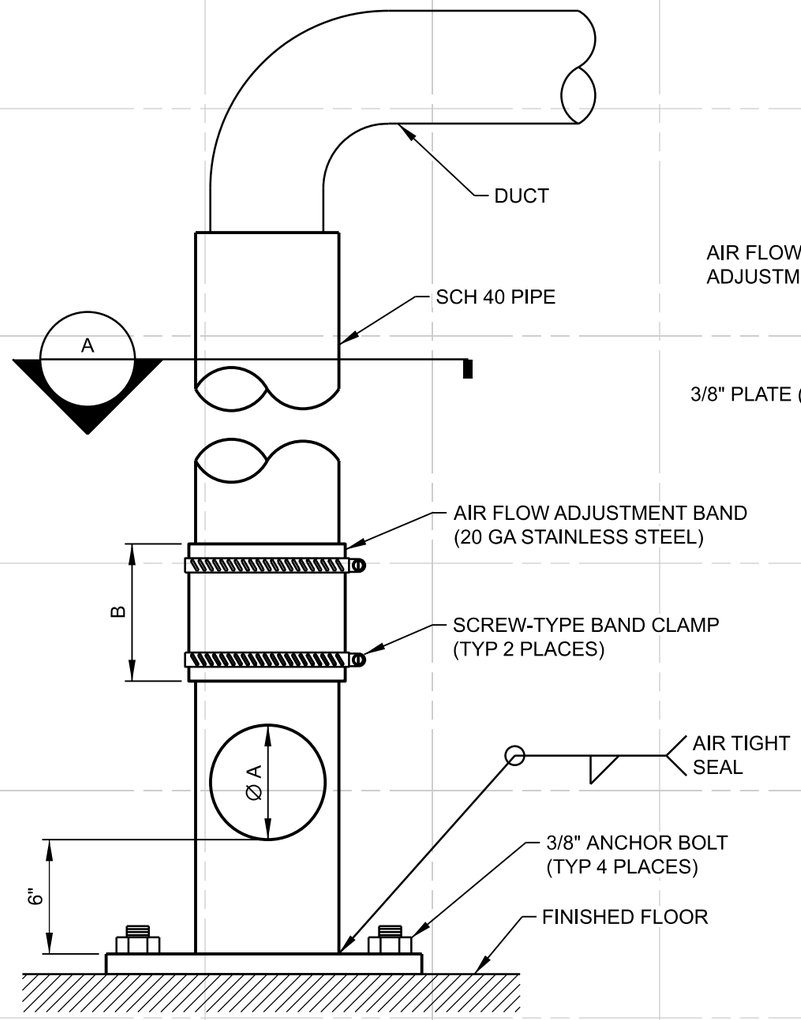
DETAIL: GOOSENECK

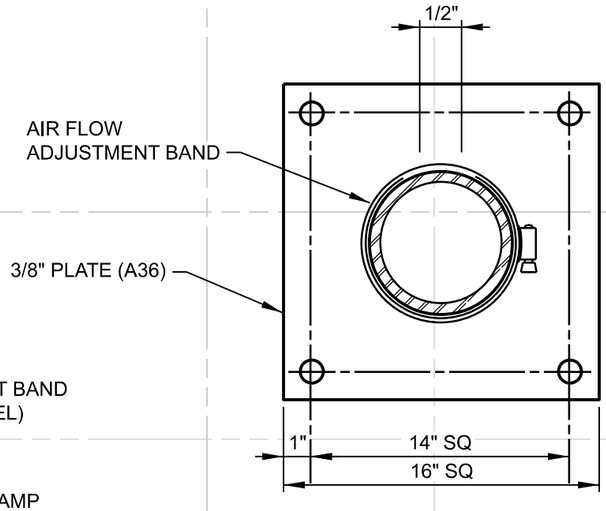
SCALE: NTS



A1 DETAIL: CEILING DIFFUSER

SCALE: NTS



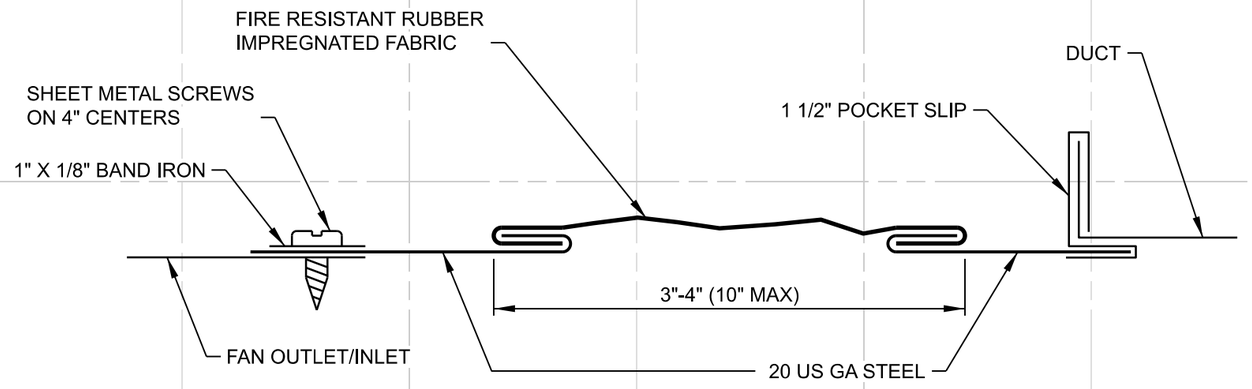


SECTION A

NOMINAL PIPE SIZE	DIMENSIONS			
	SUPPLY		EXHAUST	
	A	B	A	B
10"	7	8	8	9
6"	4	5	-	-

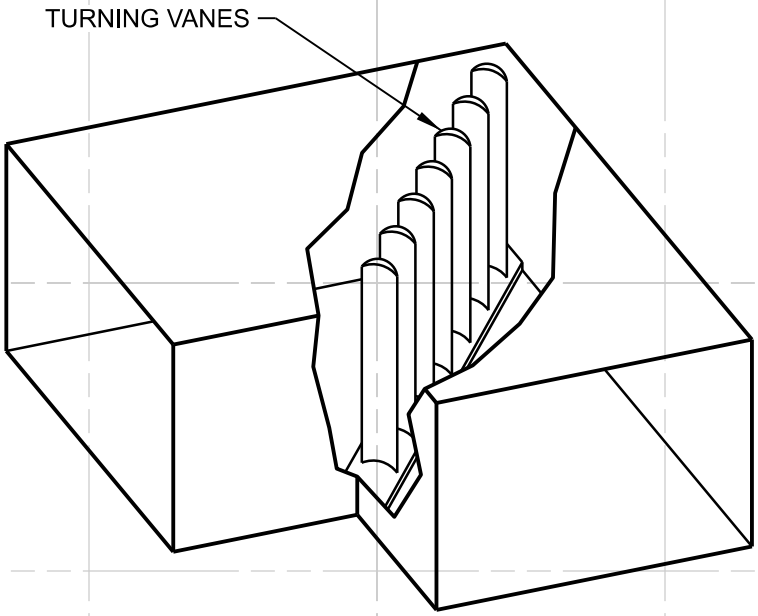
A1 DETAIL: HEAVY DUTY SUPPLY AND EXHAUST DUCT

SCALE: NTS



A1 DETAIL: FLEXIBLE CONNECTION

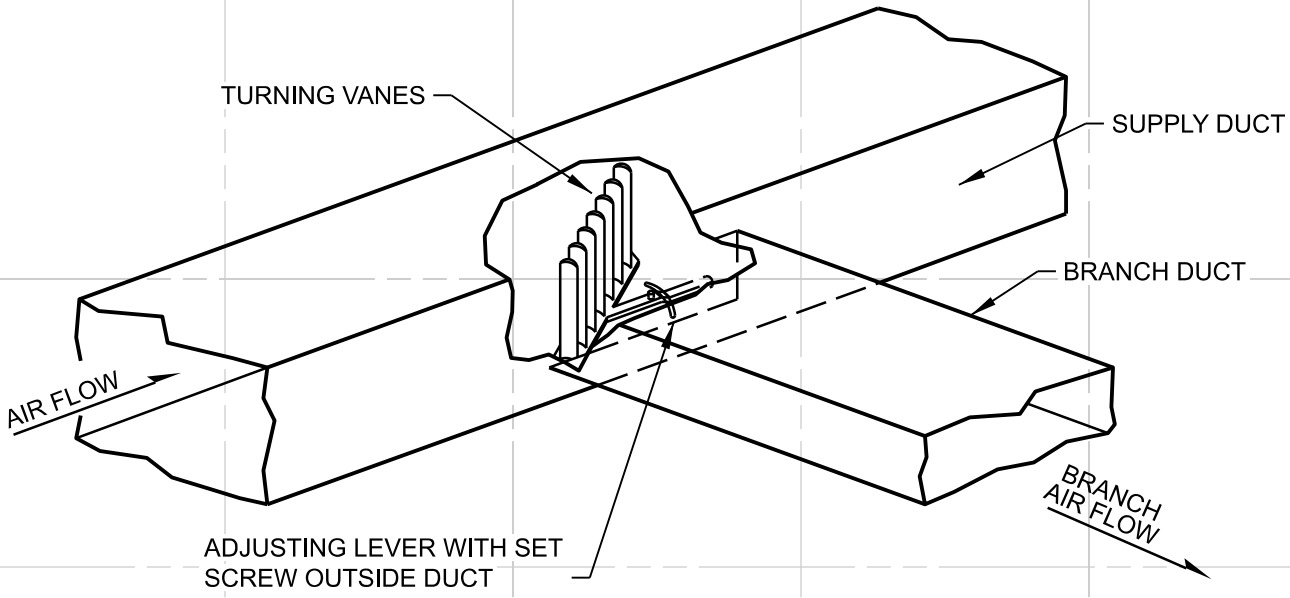
SCALE: NTS



A1

DETAIL: ELBOW

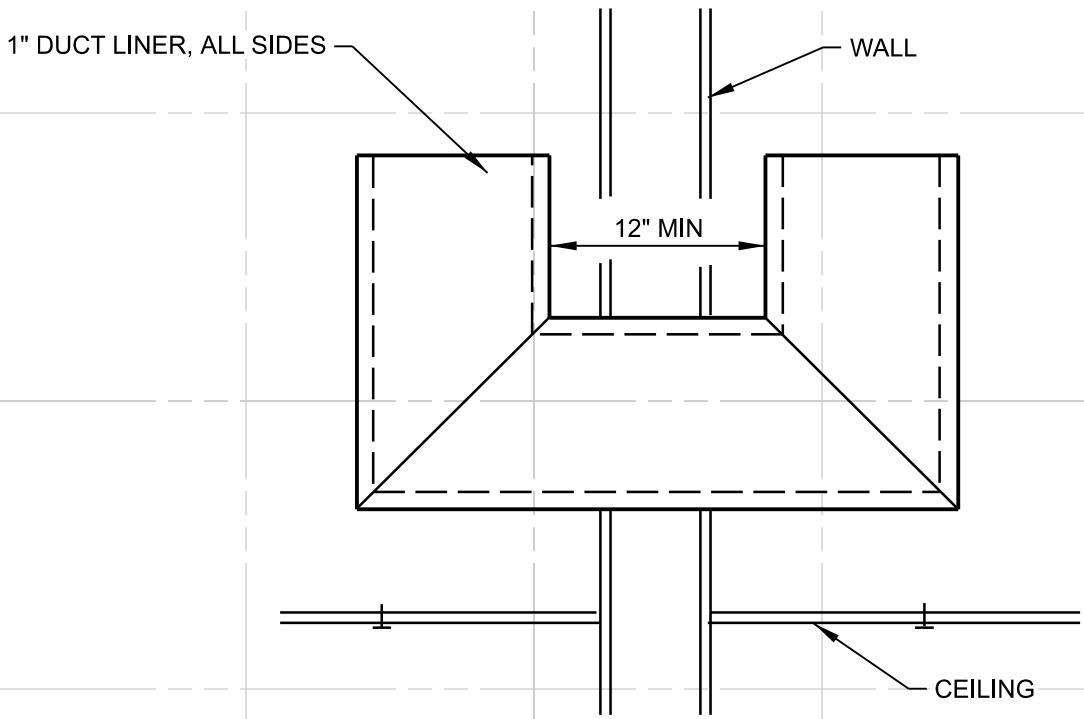
SCALE: NTS



A1

DETAIL: BRANCH TAKE-OFF

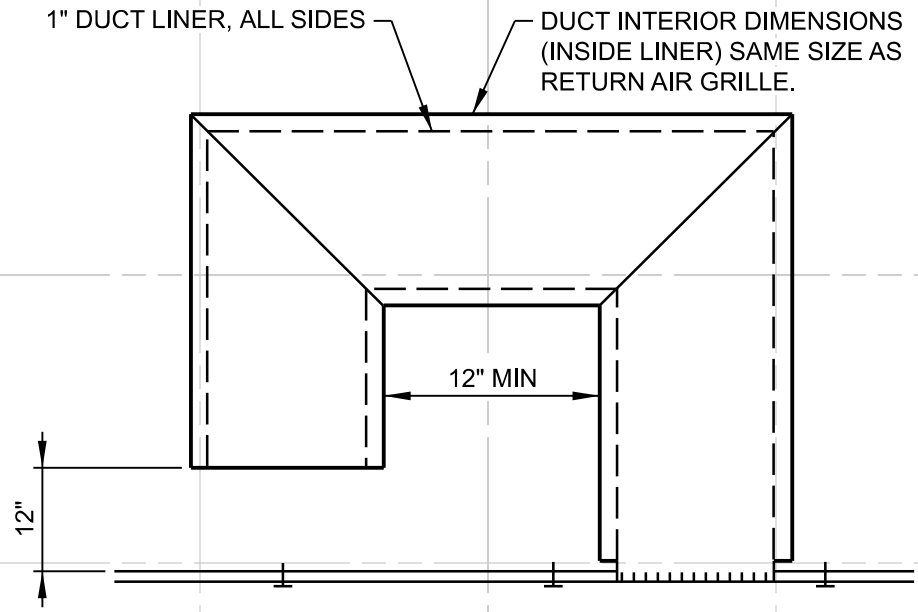
SCALE: NTS



A1

DETAIL: TRANSFER DUCT

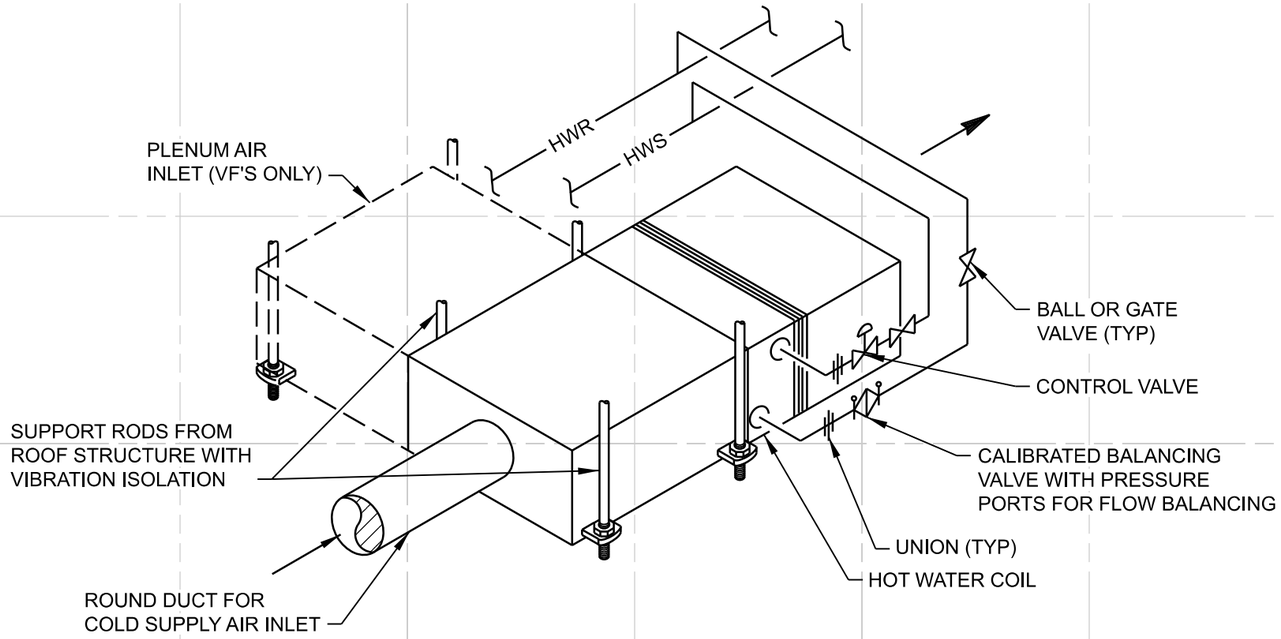
SCALE: NTS



A1

DETAIL: RETURN AIR SECURITY/SOUND TREATMENT

SCALE: NTS

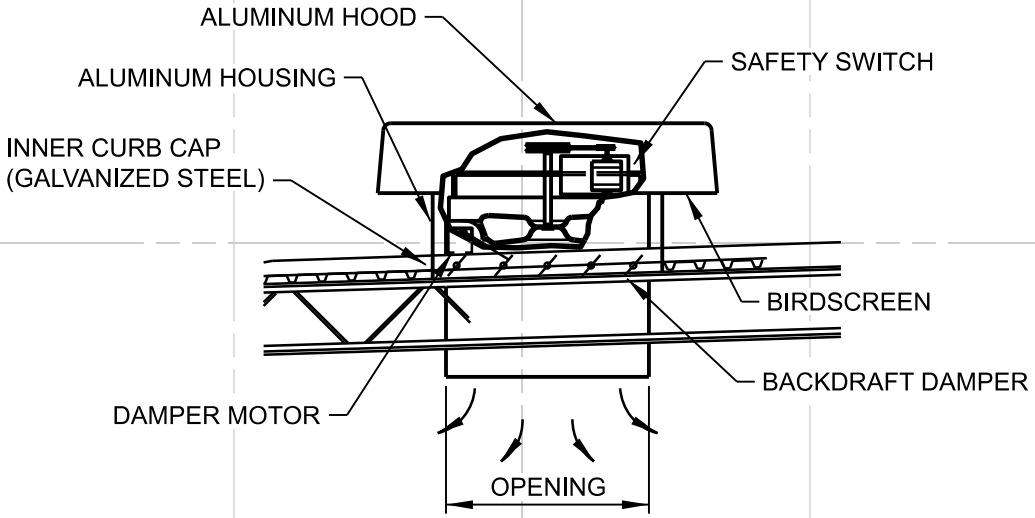


NOTE:
HOT WATER COIL, ASSOCIATED PIPING AND FITTINGS APPLY TO HEATING AND COOLING TERMINALS ONLY. (VF's)

A1

DETAIL: VAV TERMINAL UNIT

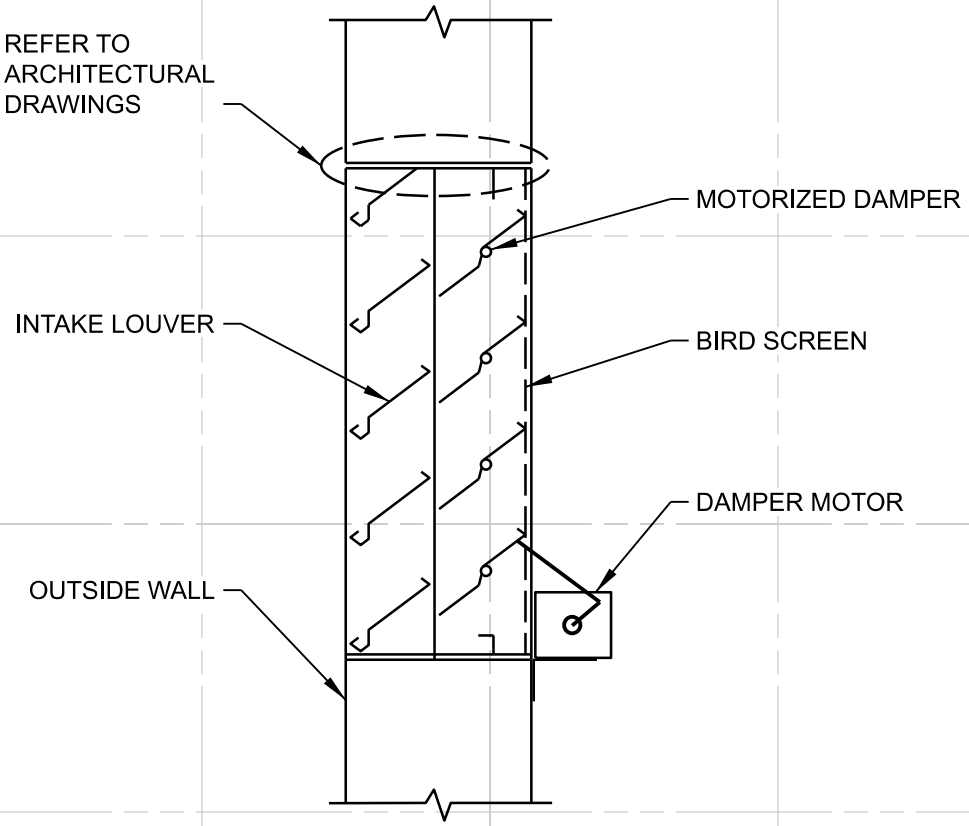
SCALE: NTS



A1

DETAIL: ROOF SUPPLY FAN

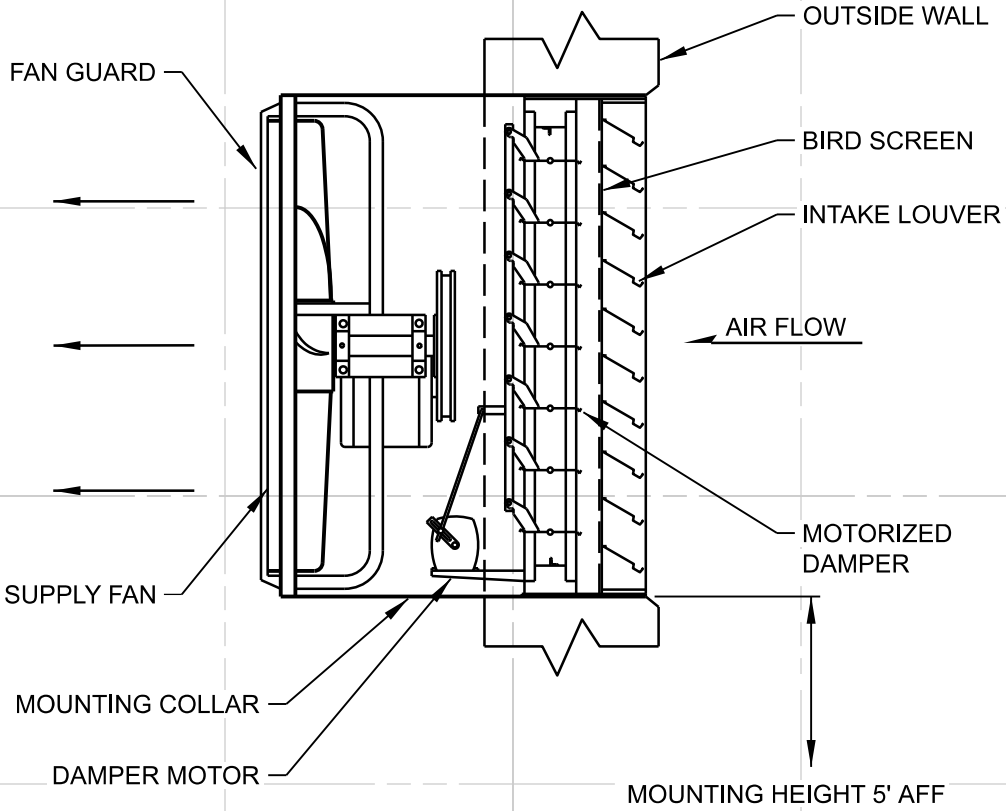
SCALE: NTS



DETAIL: COMBINATION LOUVER/DAMPER NON-DUCTED APPLICATION

A1

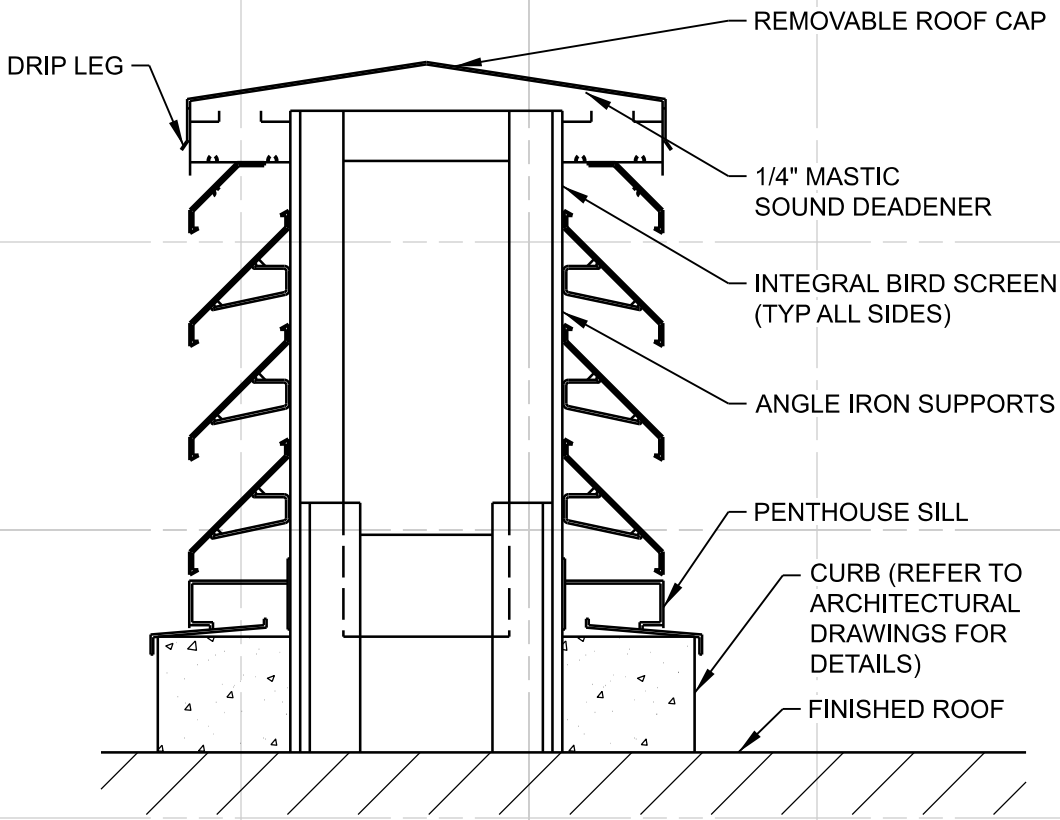
SCALE: NTS



A1

DETAIL: WALL MOUNTED VENTILATION FAN

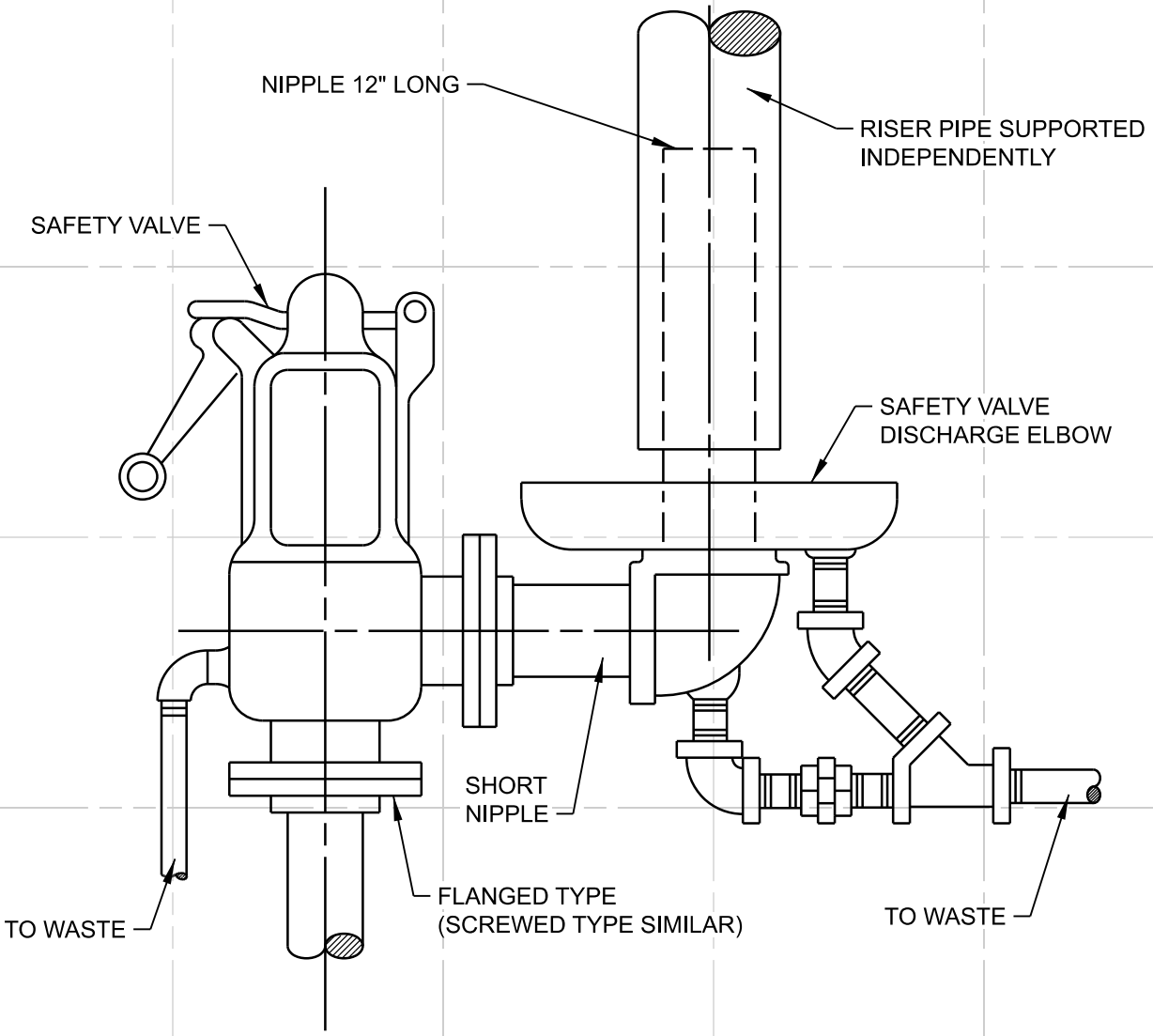
SCALE: NTS



A1

DETAIL: INTAKE AIR PENTHOUSE

SCALE: NTS

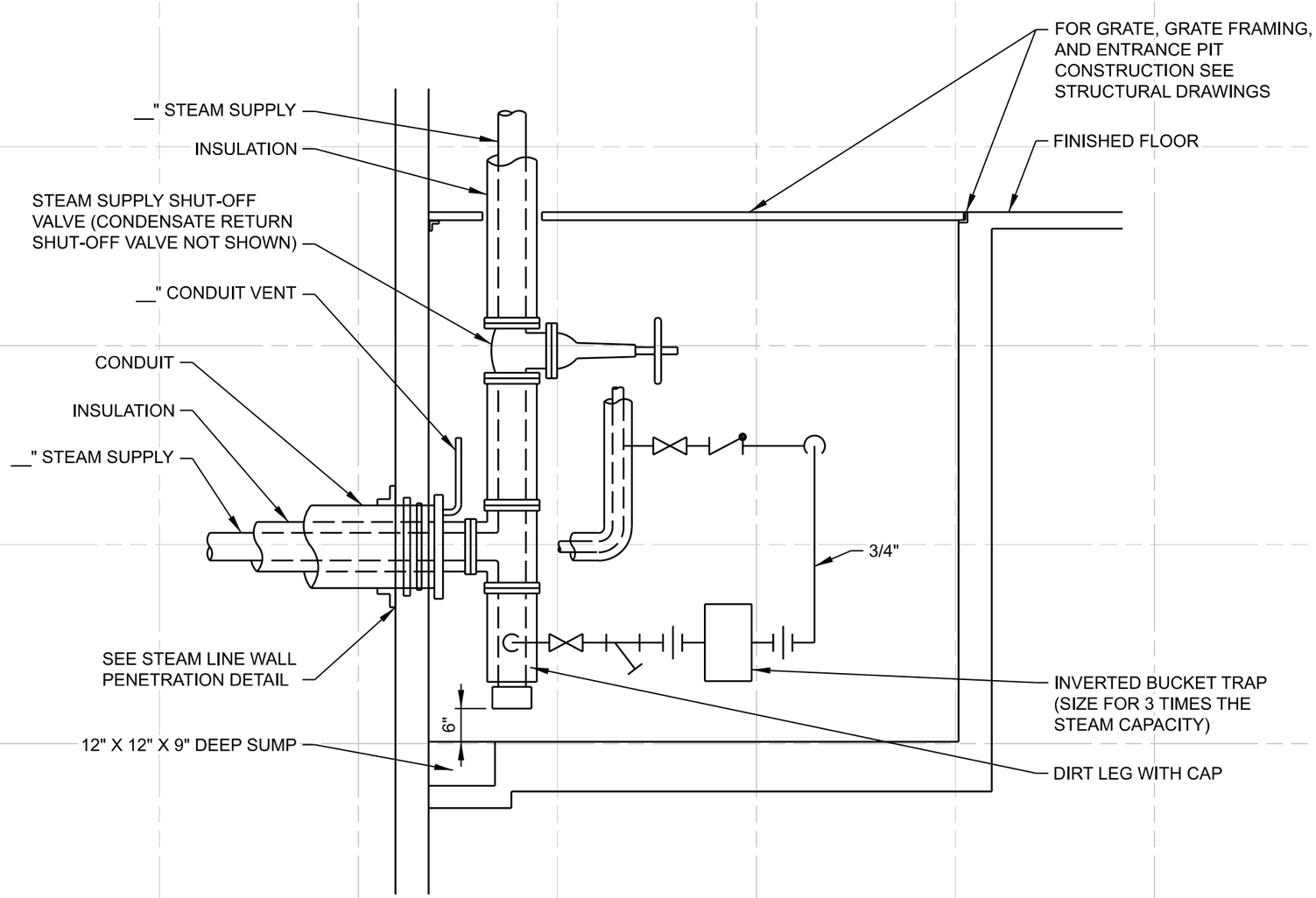


NOTE:
FOR VALVES UP TO 3" MAKE RISER PIPE NOMINAL 1" LARGER THAN DISCHARGE NIPPLE. OVER 3" MAKE RISER PIPE NOMINALLY 2" LARGER THAN DISCHARGE NIPPLE.

A1

DETAIL: STEAM SAFETY RELIEF VALVE

SCALE: NTS

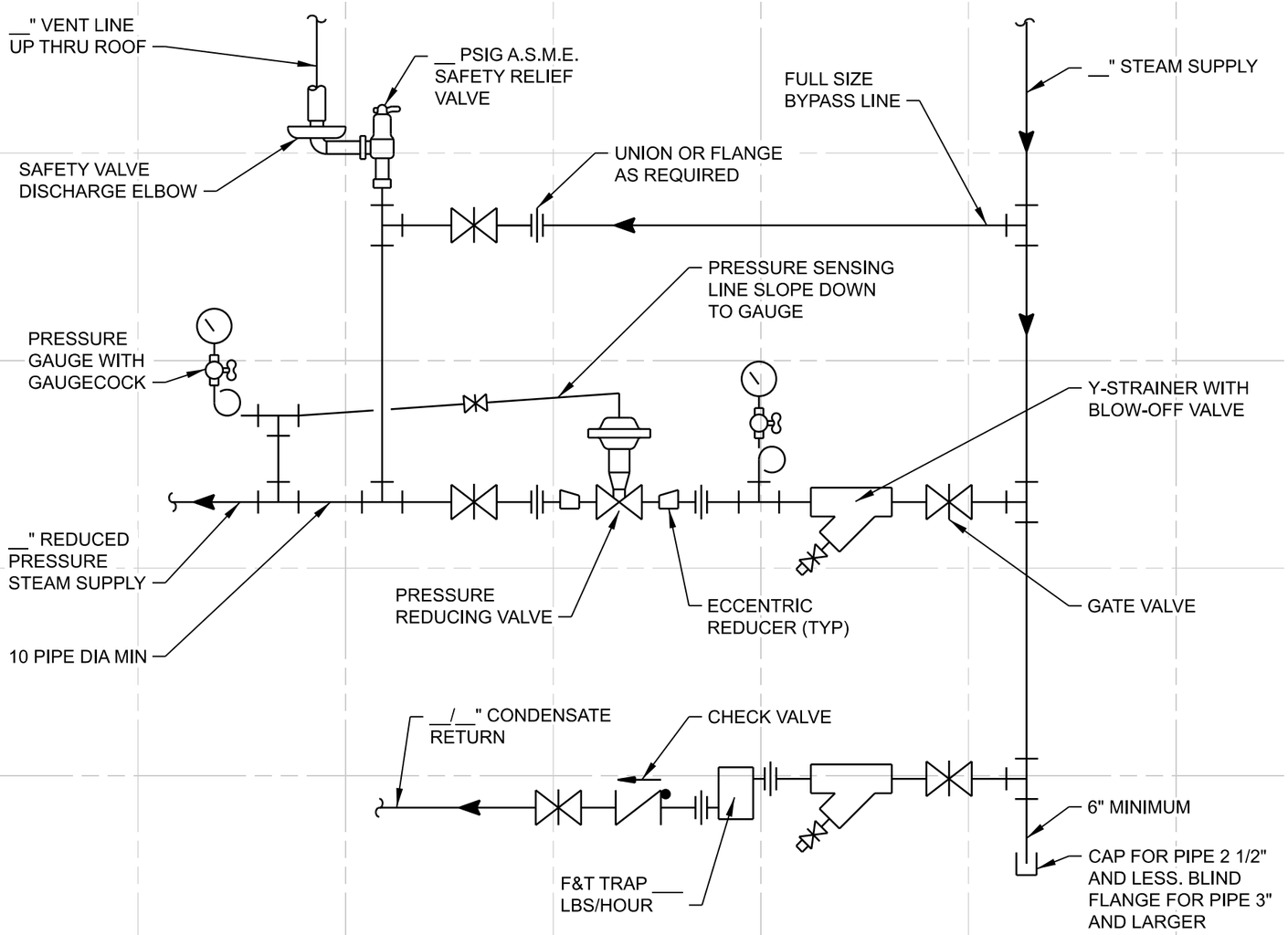


NOTE:
CONDENSATE RETURN PIPING IS SHOWN OFF-SET FOR CLARITY

A1

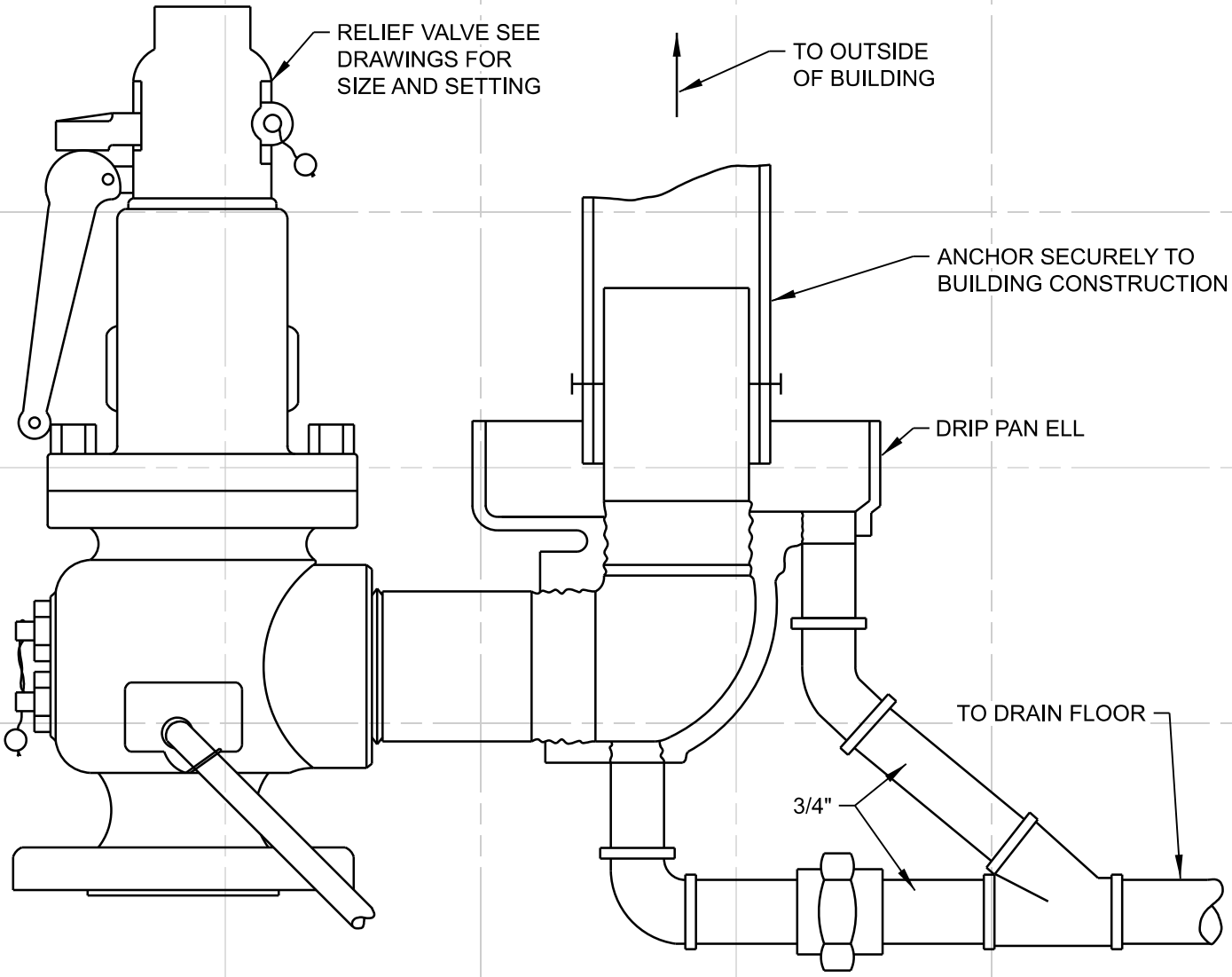
DETAIL: STEAM ENTRANCE AT BUILDING SECTION

SCALE: NTS



A1 SCHEMATIC: STEAM PRESSURE REDUCING STATION

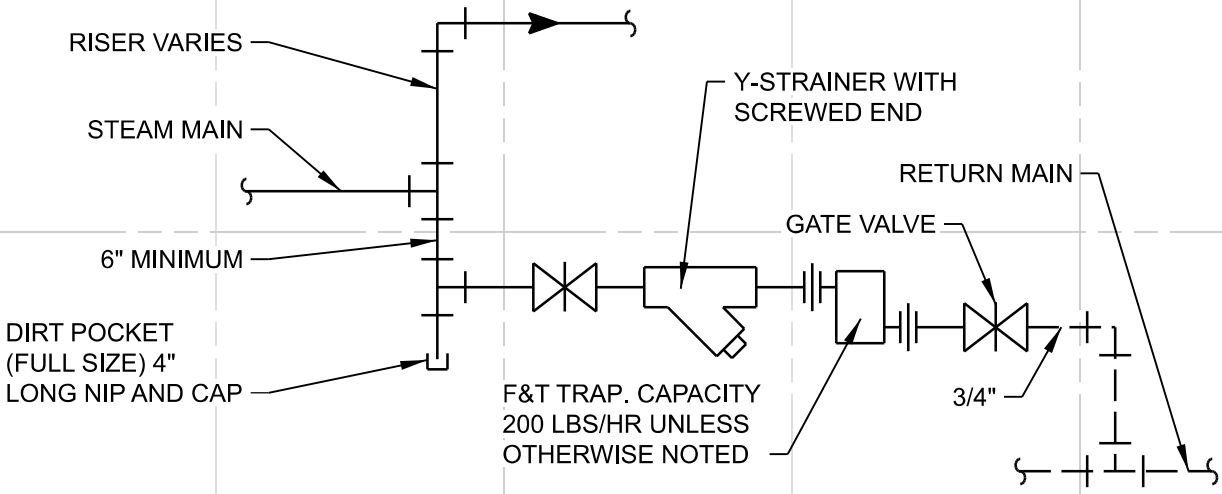
SCALE: NTS



A1

ELEVATION: STEAM RELIEF VALVE DRIP PAN

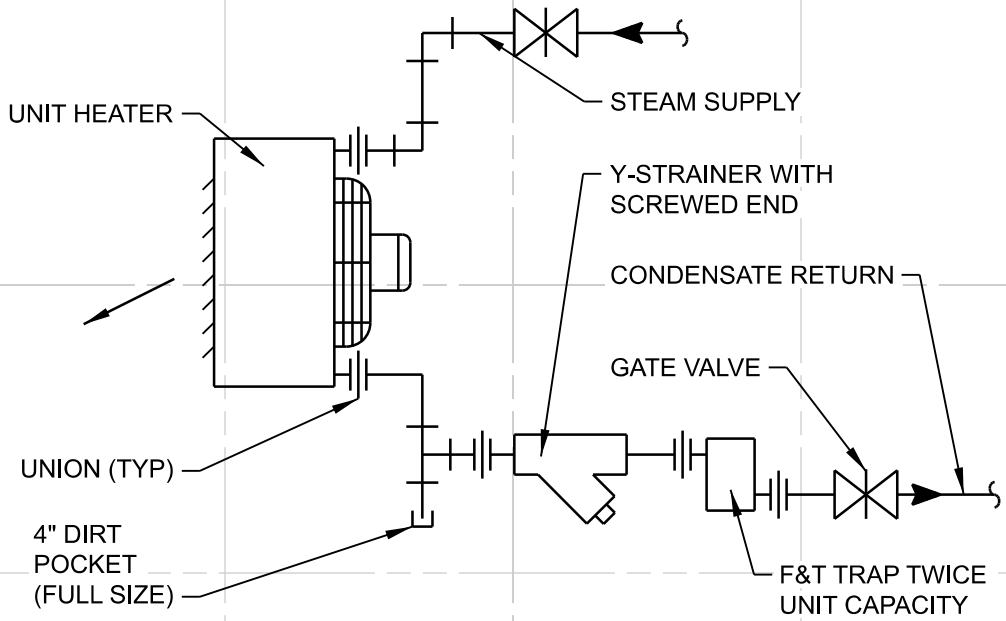
SCALE: NTS



A1

SCHEMATIC: LOW PRESSURE STEAM DRIP AND RISE

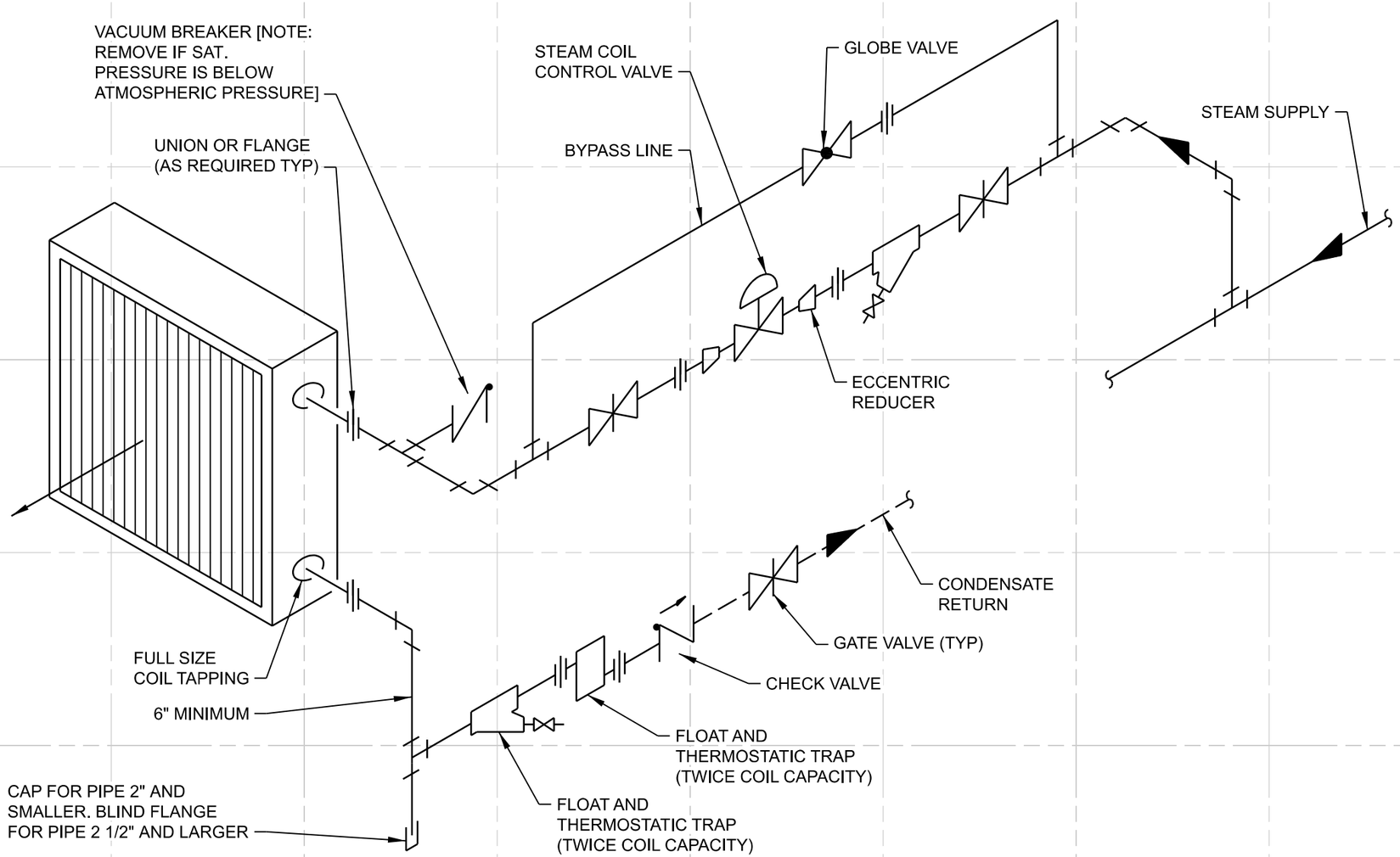
SCALE: NTS



A1

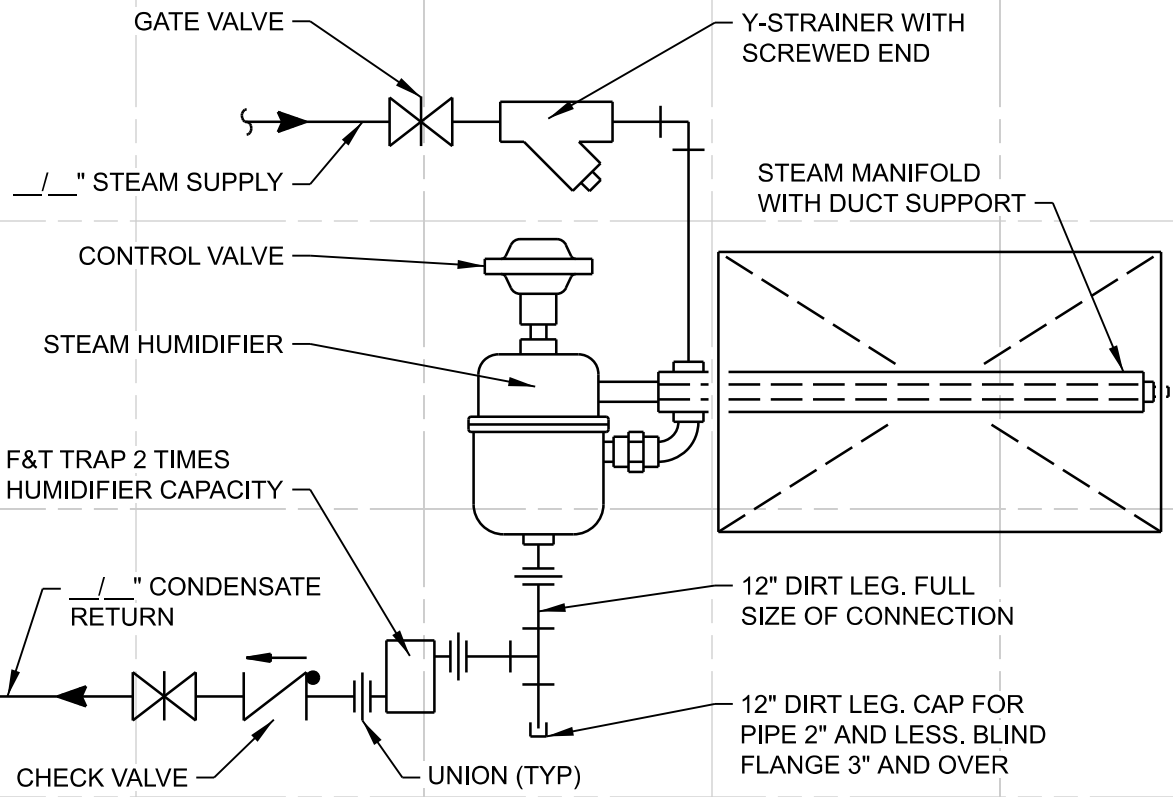
SCHEMATIC: HORIZONTAL STEAM UNIT HEATER

SCALE: NTS



A1 SCHEMATIC: STEAM COIL PIPING

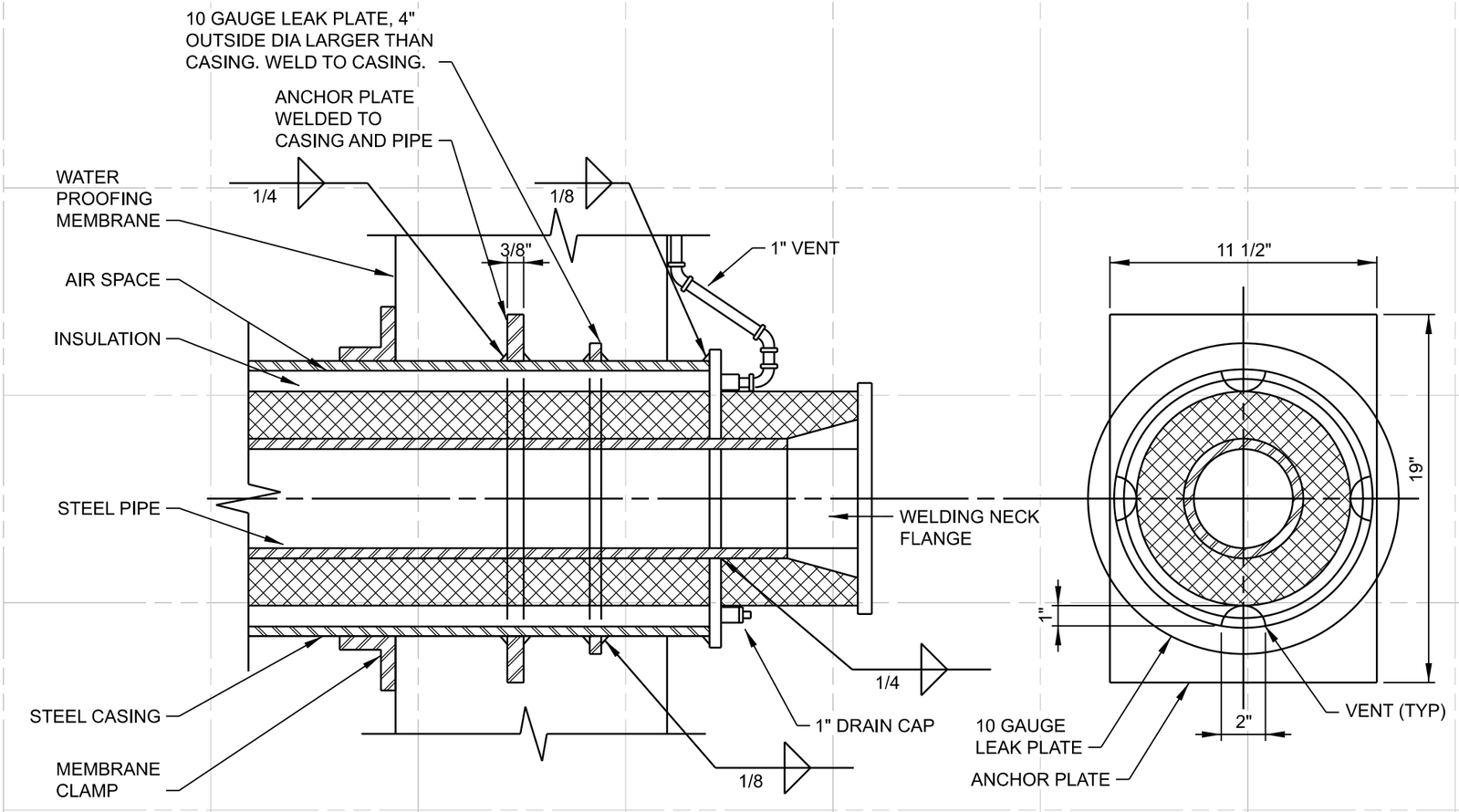
SCALE: NTS



A1

SCHEMATIC: STEAM DUCT HUMIDIFIER

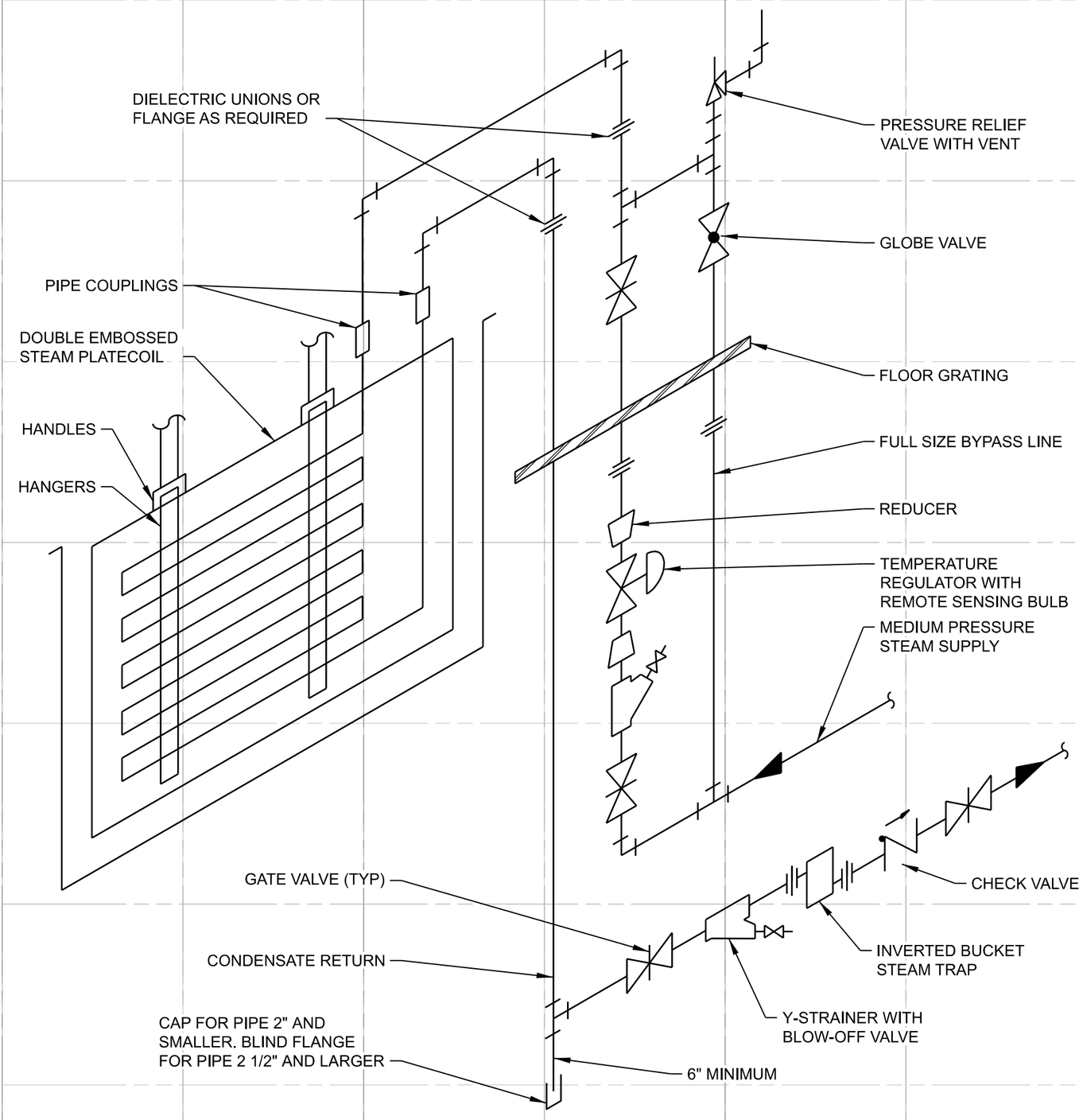
SCALE: NTS



A1

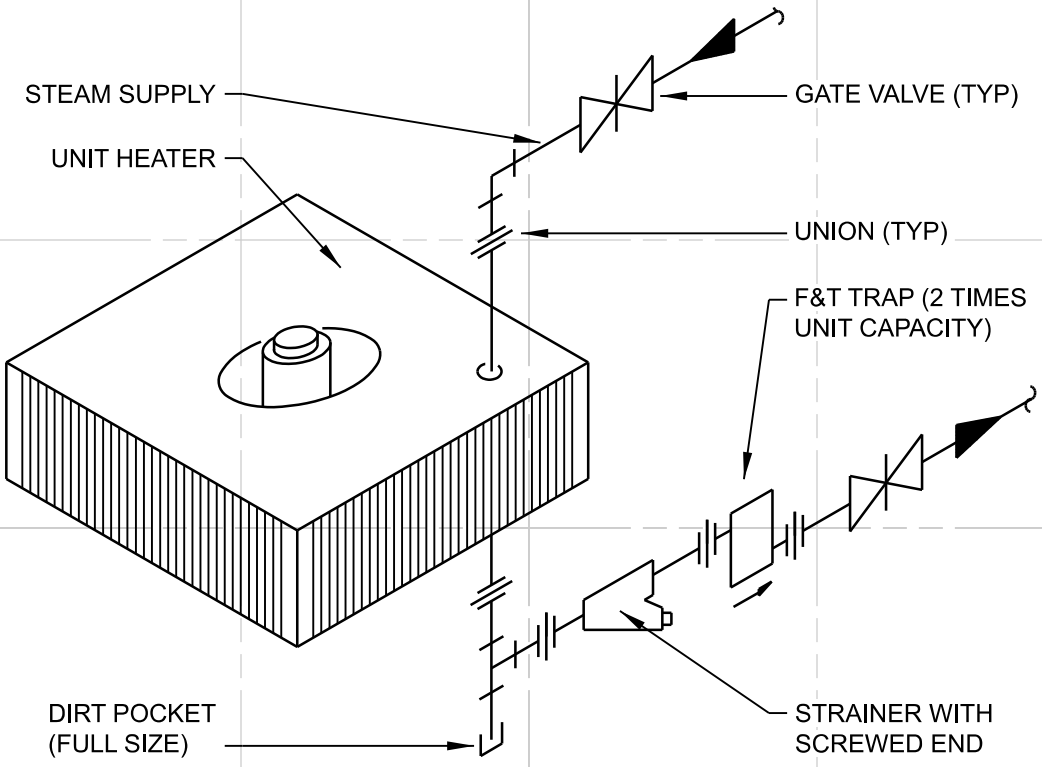
DETAIL: STEAM LINE WALL PENETRATION

SCALE: NTS



A1 DETAIL: STEAM PLATECOIL PIPING

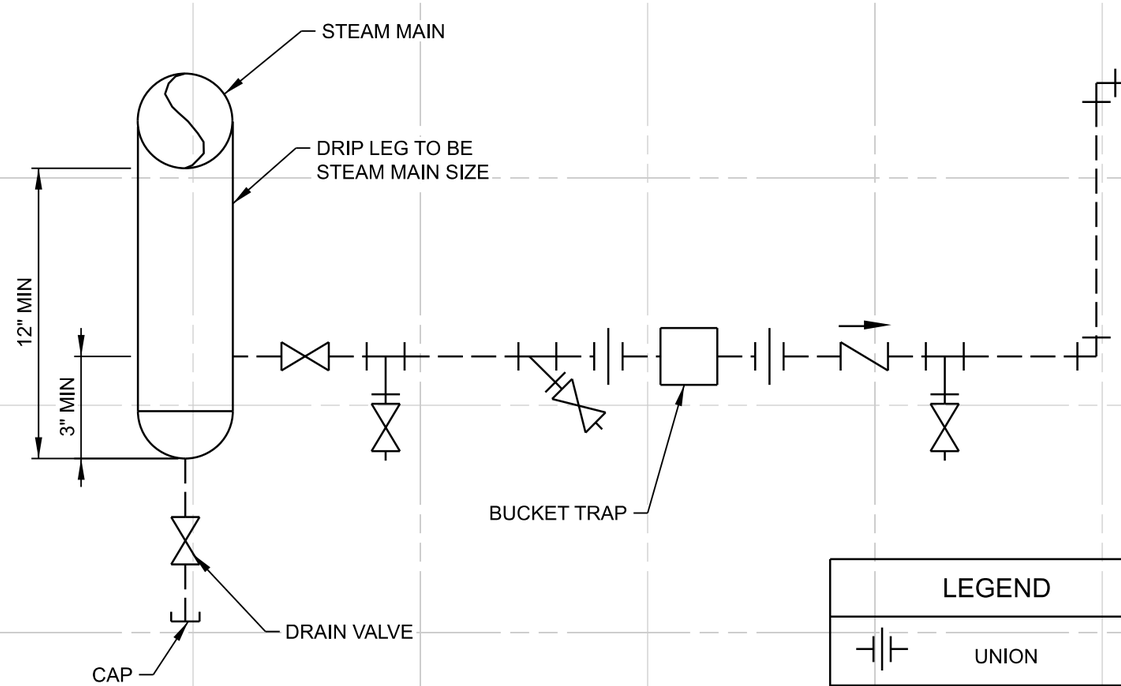
SCALE: NTS



A1

DETAIL: VERTICAL STEAM UNIT HEATER PIPING

SCALE: NTS

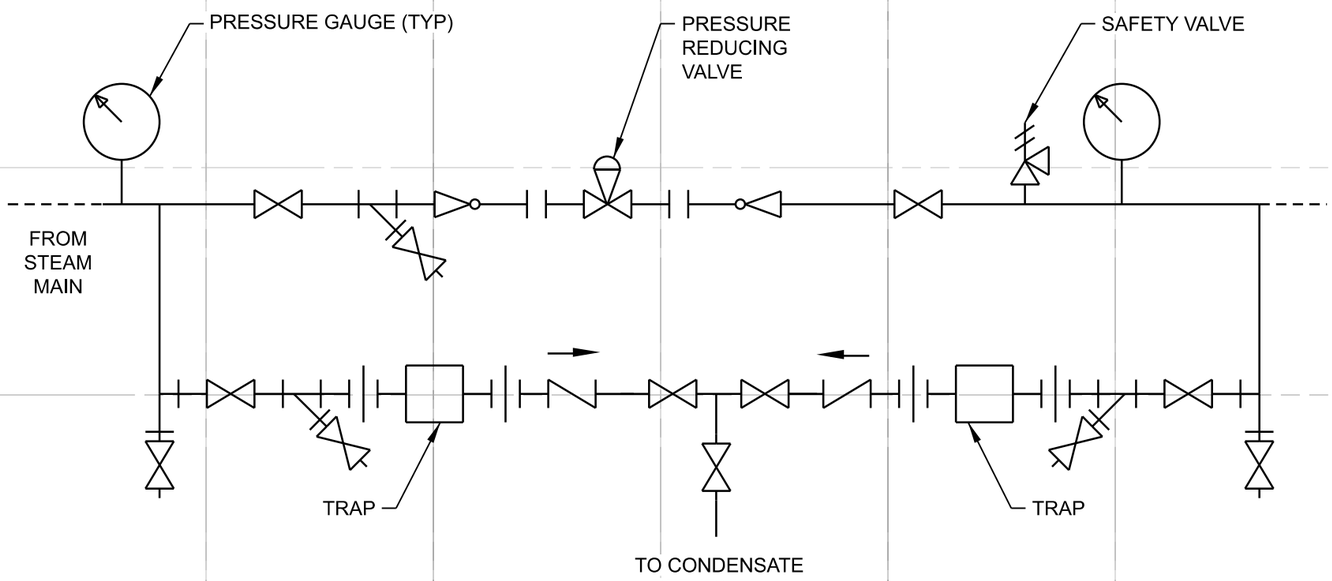


LEGEND	
	UNION
	GATE VALVE
	CHECK VALVE
	STRAINER

NOTES:
1. LOCATE SHUT-OFF VALVES AS CLOSE TO STEAM AND CONDENSATE MAINS AS POSSIBLE.
2. PIPING SIZE TO BE SIZE OF STEAM TRAP INLET.
3. CR LINE TO ENTER TOP OF MAIN.

A1 DETAIL: STEAM TRAP INSTALLATION

SCALE: NTS



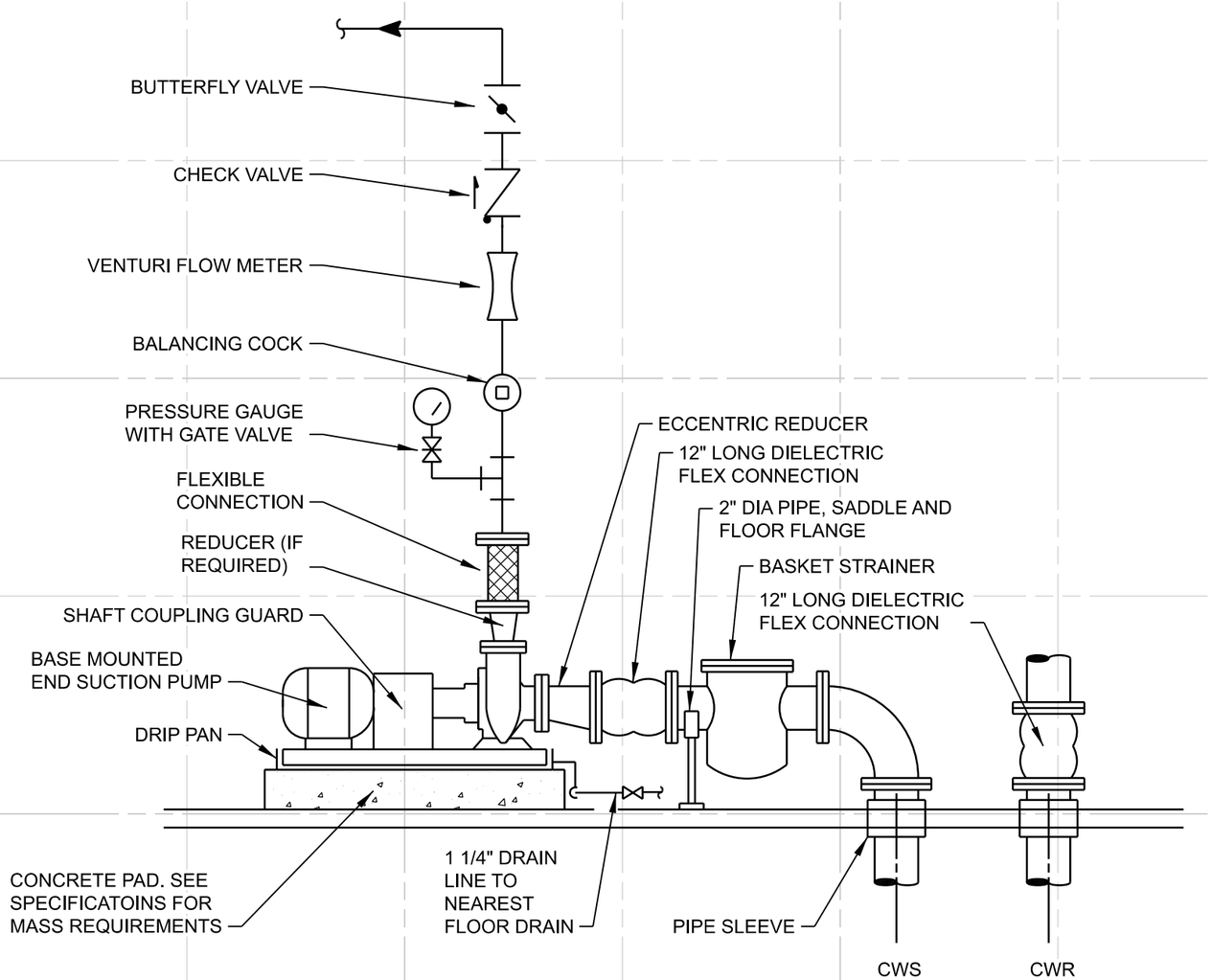
LEGEND	
	UNION
	CHECK VALVE
	GATE VALVE
	REDUCER
	STRAINER

NOTES:
1. PRV SHALL BE SIZED FOR REQUIRED CAPACITY.
2. VALVE TO BE INSTALLED AS CLOSE TO CONDENSATE RETURN MAIN AS POSSIBLE.
3. SAFETY VALVE SHALL BE SIZED PER MIL-HPBK 1003/8.
4. SAFETY VALVE DISCHARGE SHALL BE PIPED TO OUTSIDE OF BUILDING AND HIGH ENOUGH TO AVOID INJURY TO PERSONNEL.

A1

DETAIL: PRESSURE REDUCING STATION FOR BUILDING PRV'S

SCALE: NTS

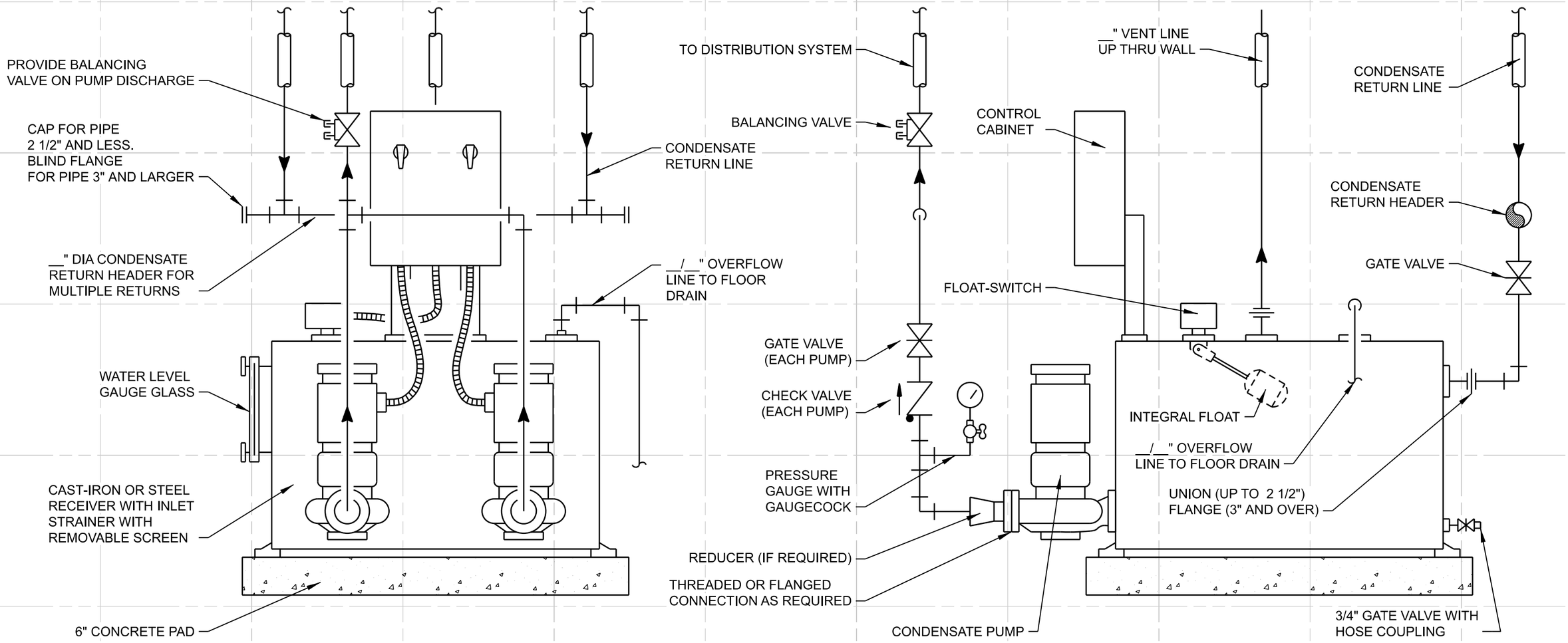


NOTE:
GROUND CWS AND CWR ON BUILDING SIDE OF DIELECTRIC CONNECTIONS WITH #4/O BARE CU RUN TO BUILDING EQUIPOTENTIAL GROUNDING GRID (SEE ELECTRICAL SPECS).

A1

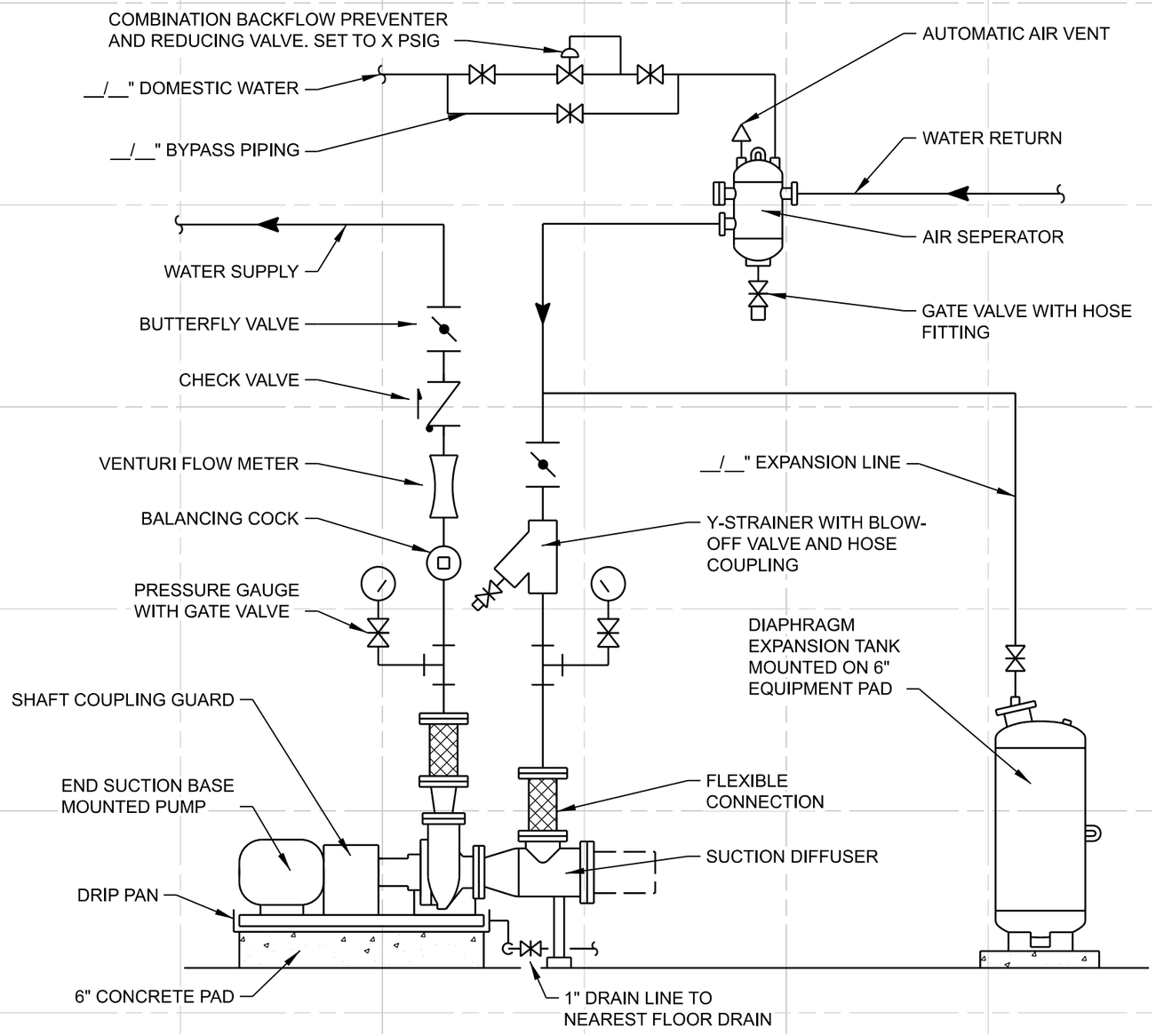
DETAIL: CONDENSER WATER PUMP

SCALE: NTS



A1 DETAIL: DUPLEX CONDENSATE PUMP AND RECEIVER

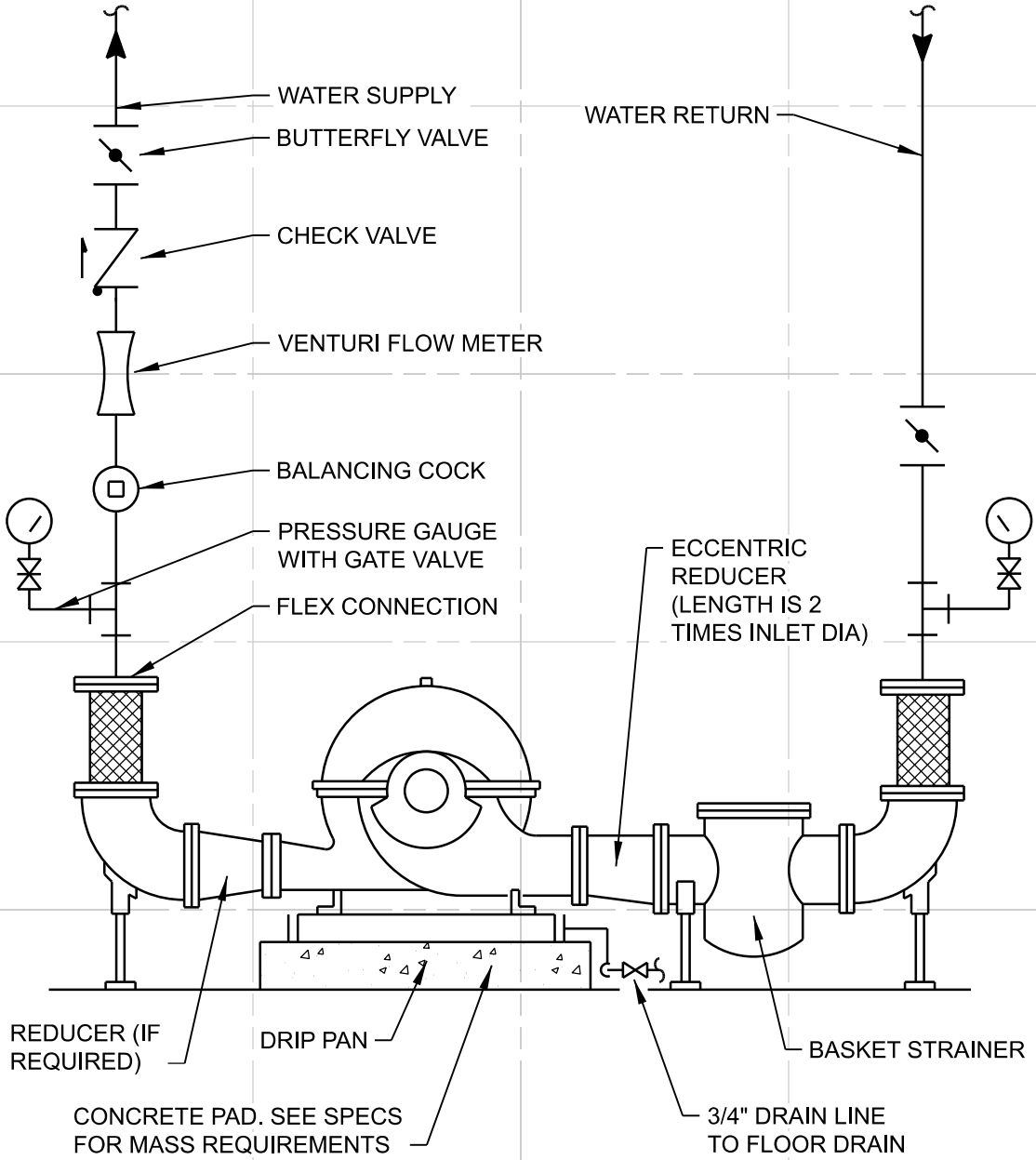
SCALE: NTS



A1

DETAIL: END-SUCTION PUMP, MAKEUP WATER, AND EXPANSION TANK

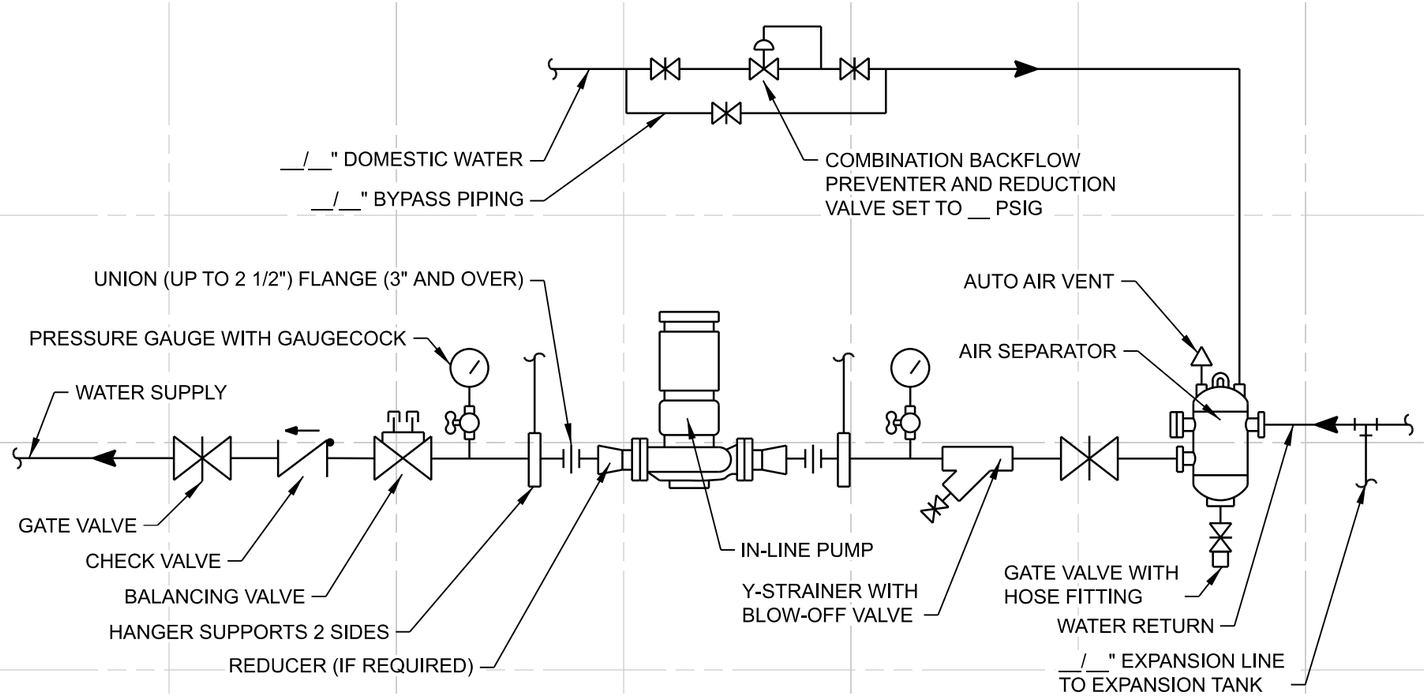
SCALE: NTS



A1

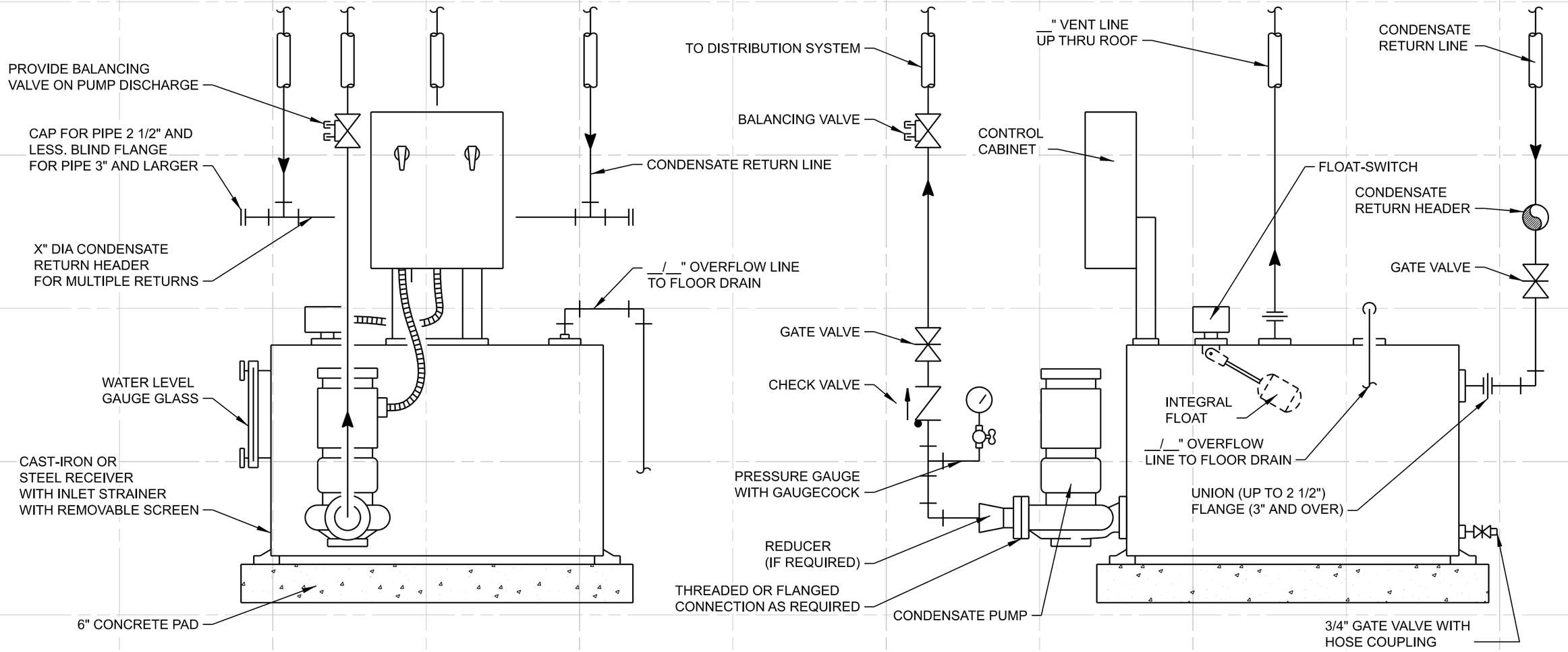
DETAIL: HORIZONTAL SPLIT-CASE WATER PUMP

SCALE: NTS



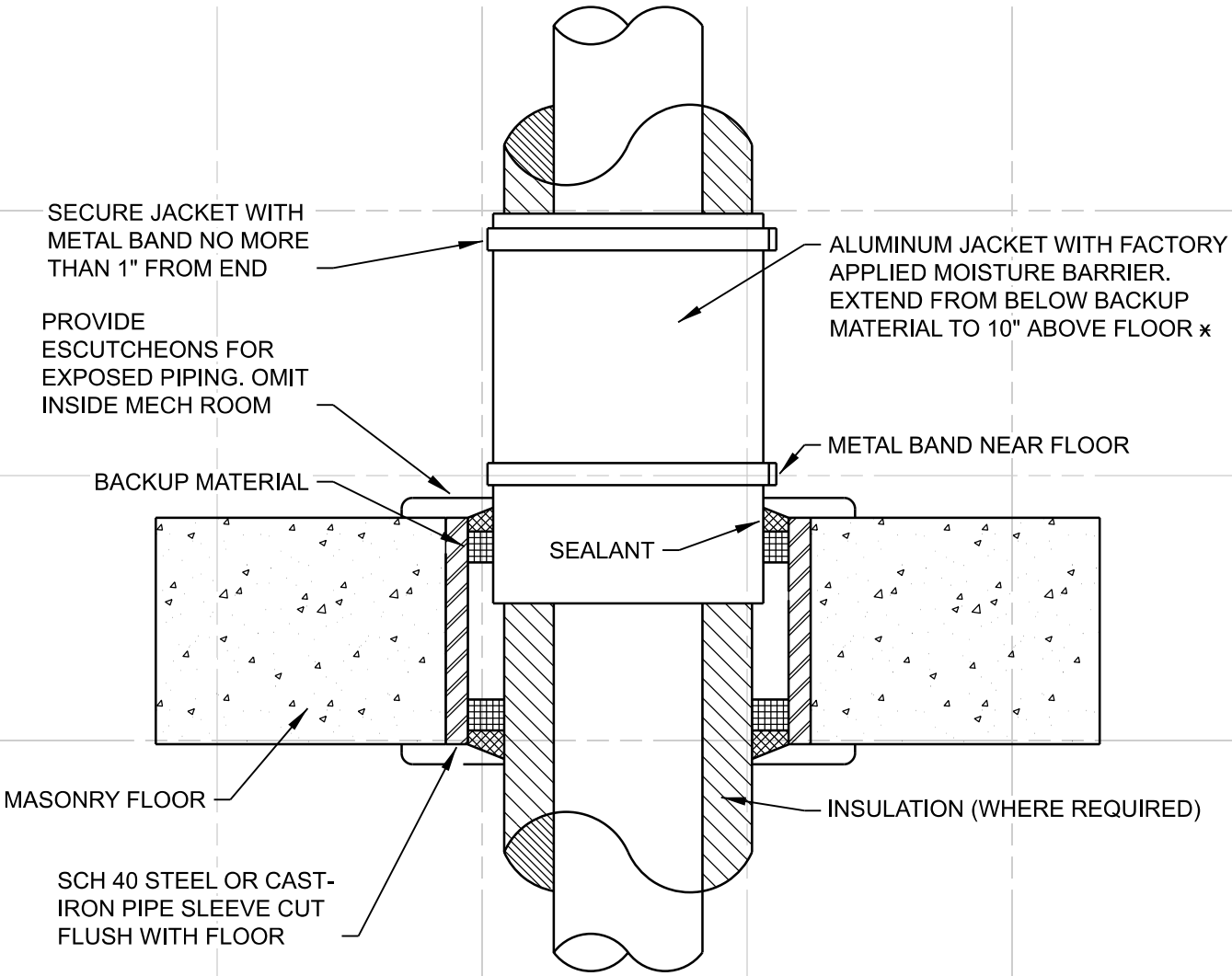
A1 DETAIL: VERTICAL IN-LINE PUMP

SCALE: NTS



A1 DETAIL: SIMPLEX CONDENSATE PUMP AND RECEIVER

SCALE: NTS

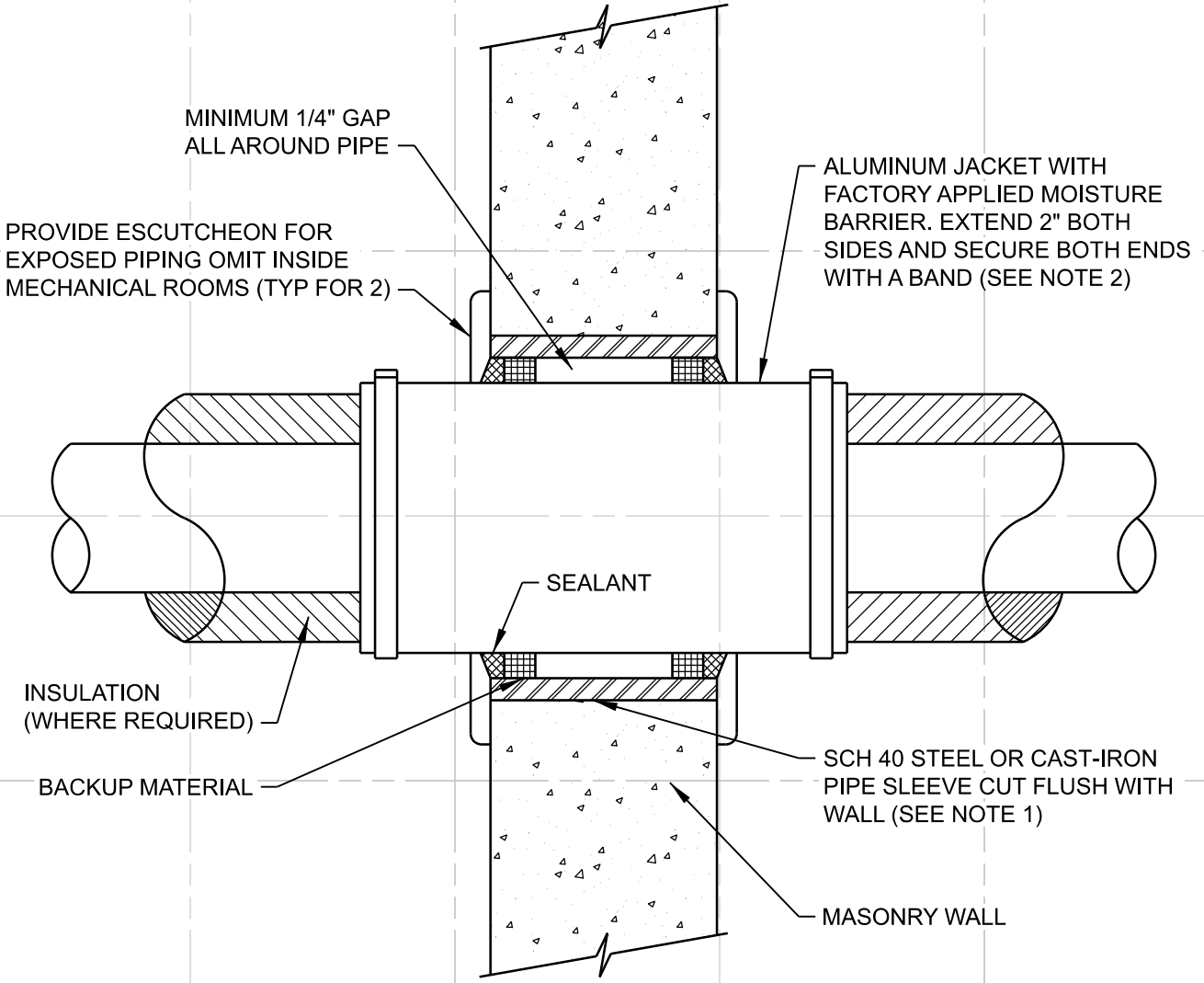


⁎ OMIT ALUMINUM JACKET IF PIPING IS UNINSULATED

A1

DETAIL: FLOOR PIPE PENETRATION

SCALE: NTS

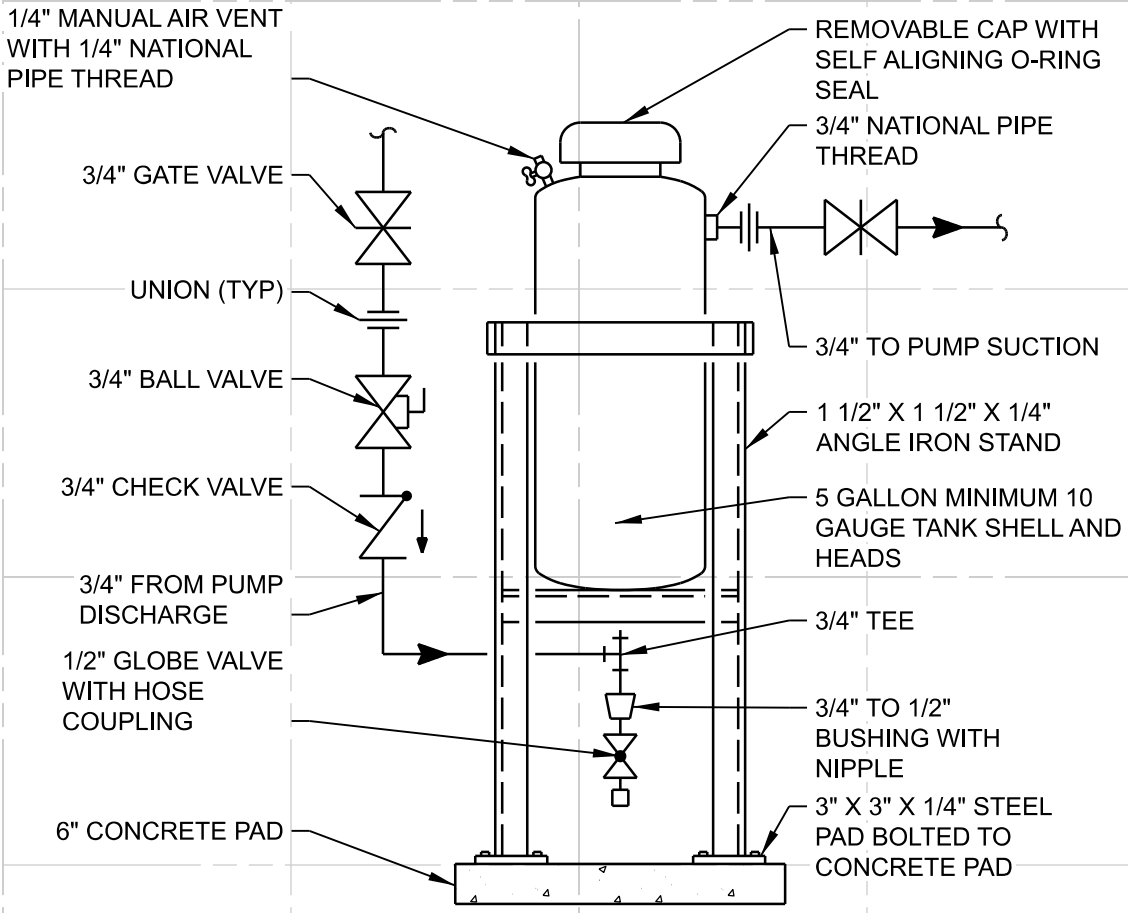


NOTES:
1. FOR GYPSUM BOARD WALLS PROVIDE MIN 16 GAUGE GALVANIZED STEEL SLEEVE WITH LOCK-TYPE LONGITUDINAL SEAM.
2. OMIT ALUMINUM JACKET IF PIPING IS UNINSULATED.

A1

DETAIL: WALL PIPE PENETRATION

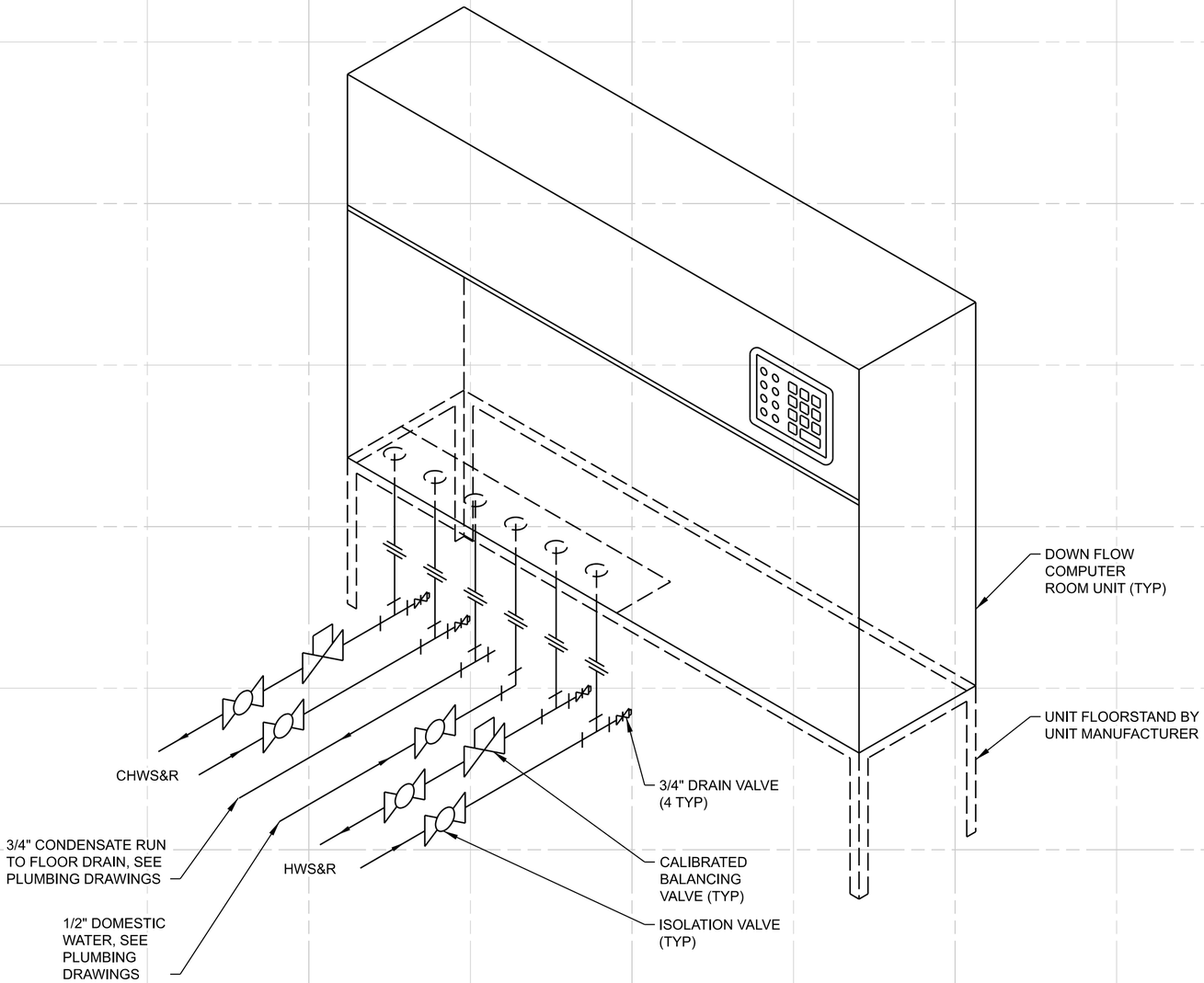
SCALE: NTS



DETAIL: WATER TREATMENT ONE SHOT FEEDER

A1

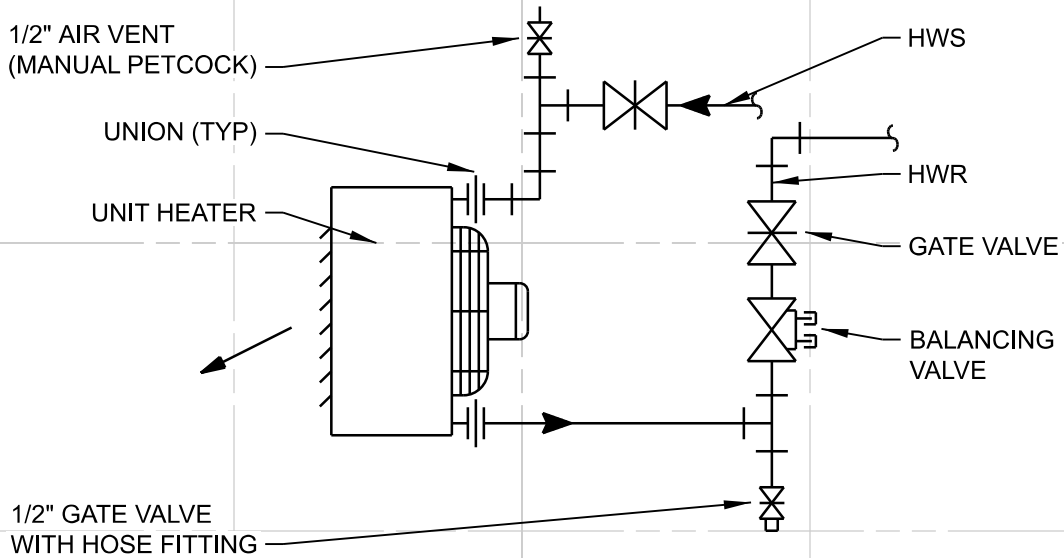
SCALE: NTS



NOTE:
DOWNFLOW UNIT SHOWN UPFLOW UNIT HAS SIMILAR PIPING CONNECTIONS.

A1 DETAIL: COMPUTER ROOM UNIT PIPING

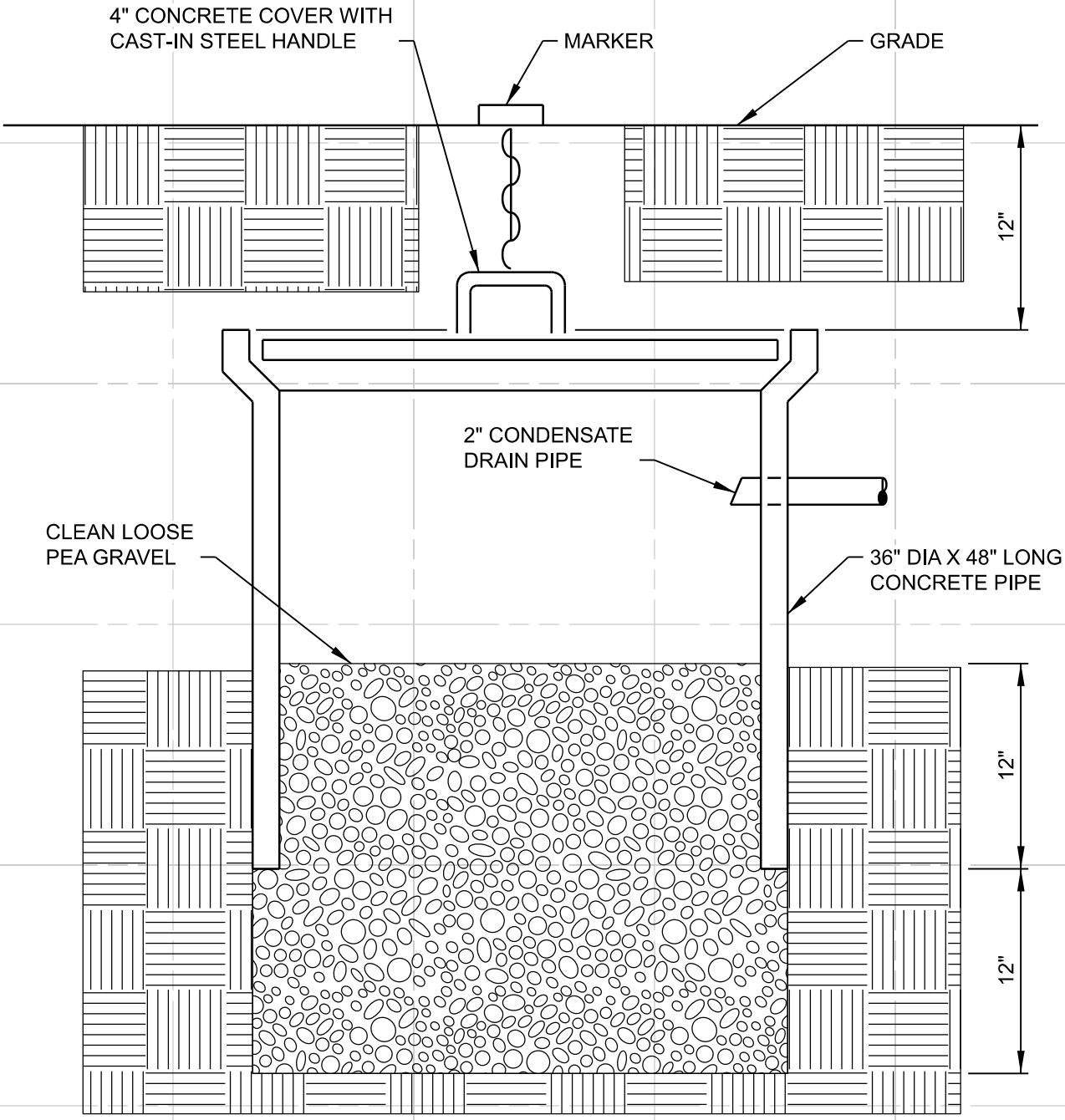
SCALE: NTS



DETAIL: HORIZONTAL HOT WATER UNIT HEATER

A1

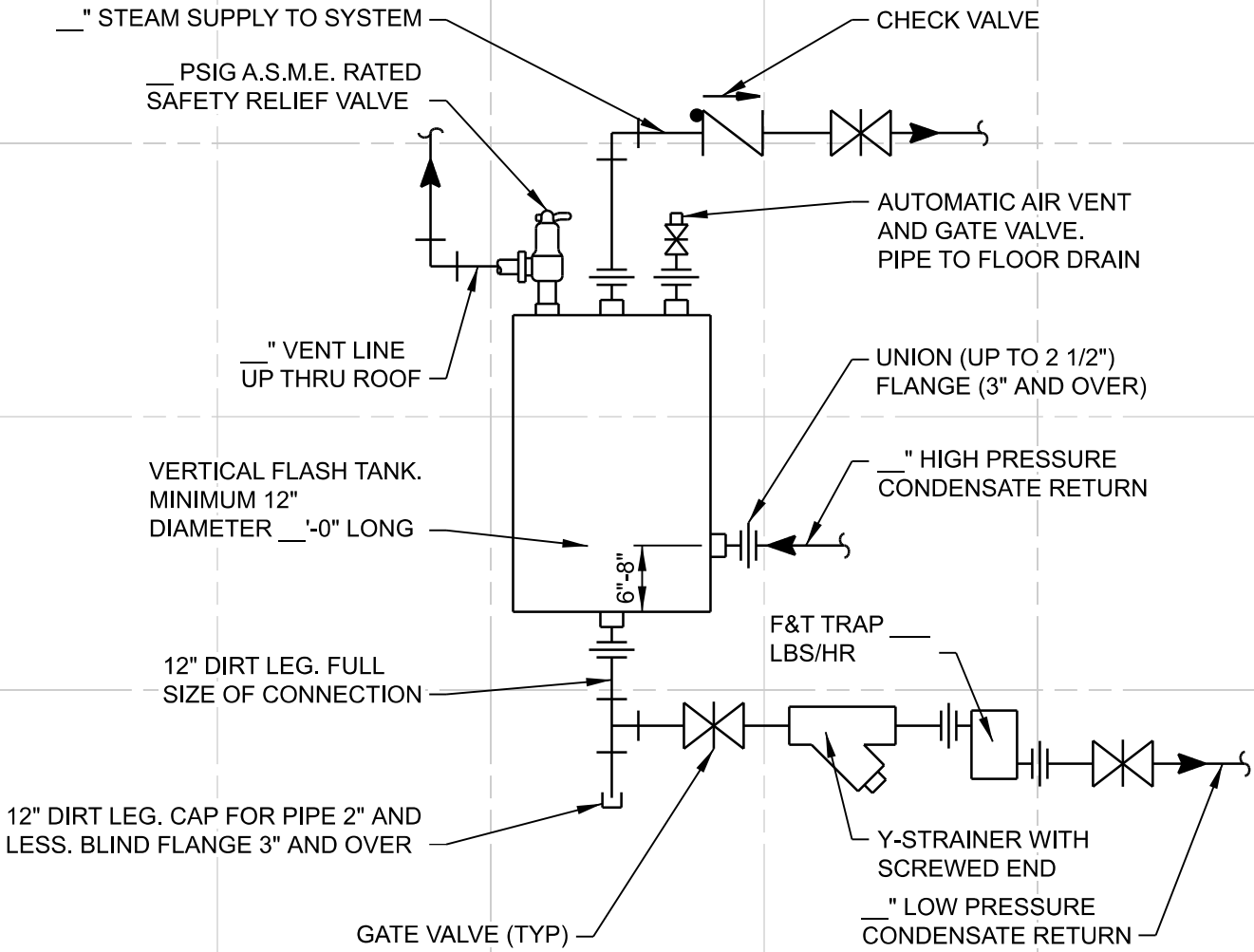
SCALE: NTS



A1

DETAIL: DRY WELL

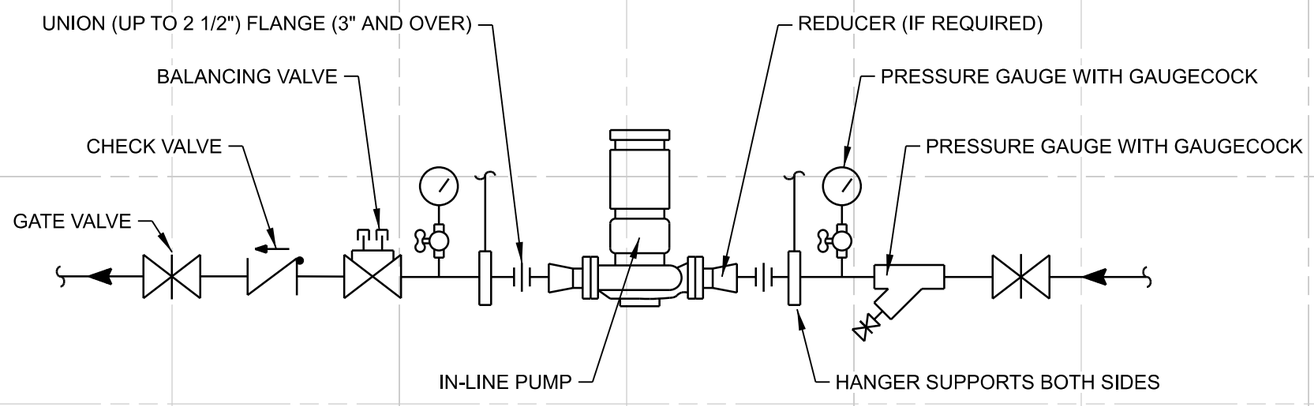
SCALE: NTS



A1

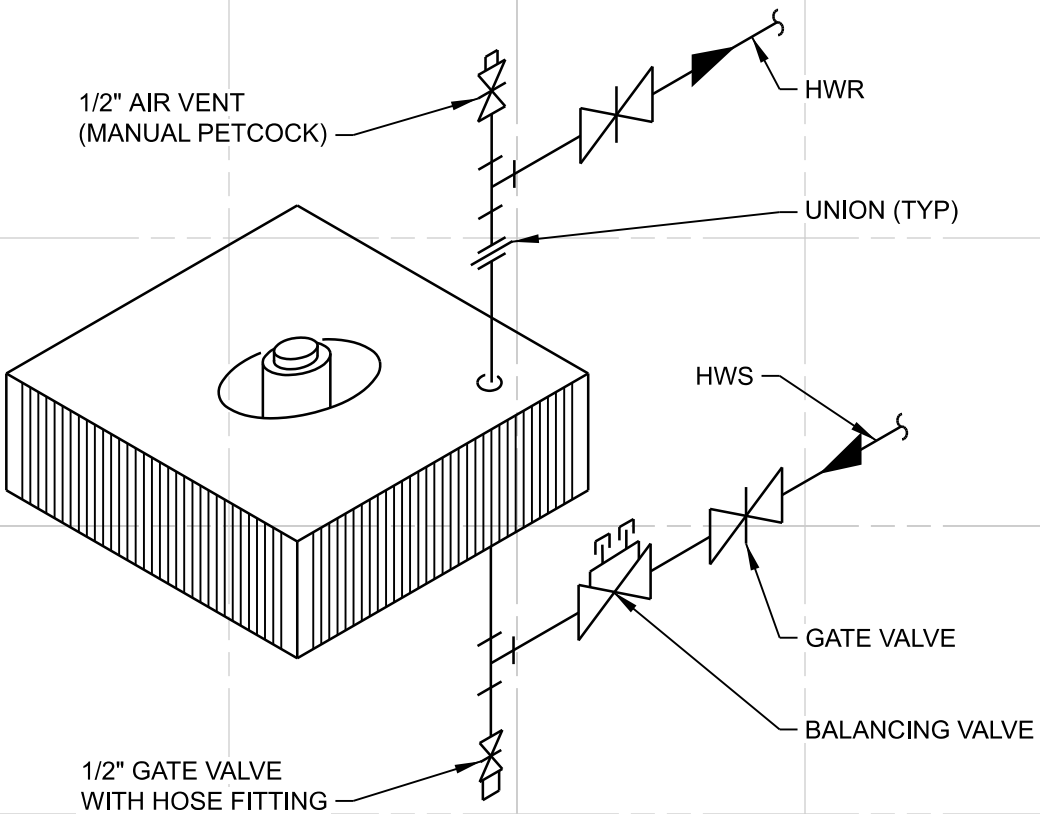
DETAIL: FLASH TANK PIPING

SCALE: NTS



A1 DETAIL: VERTICAL IN-LINE PUMP

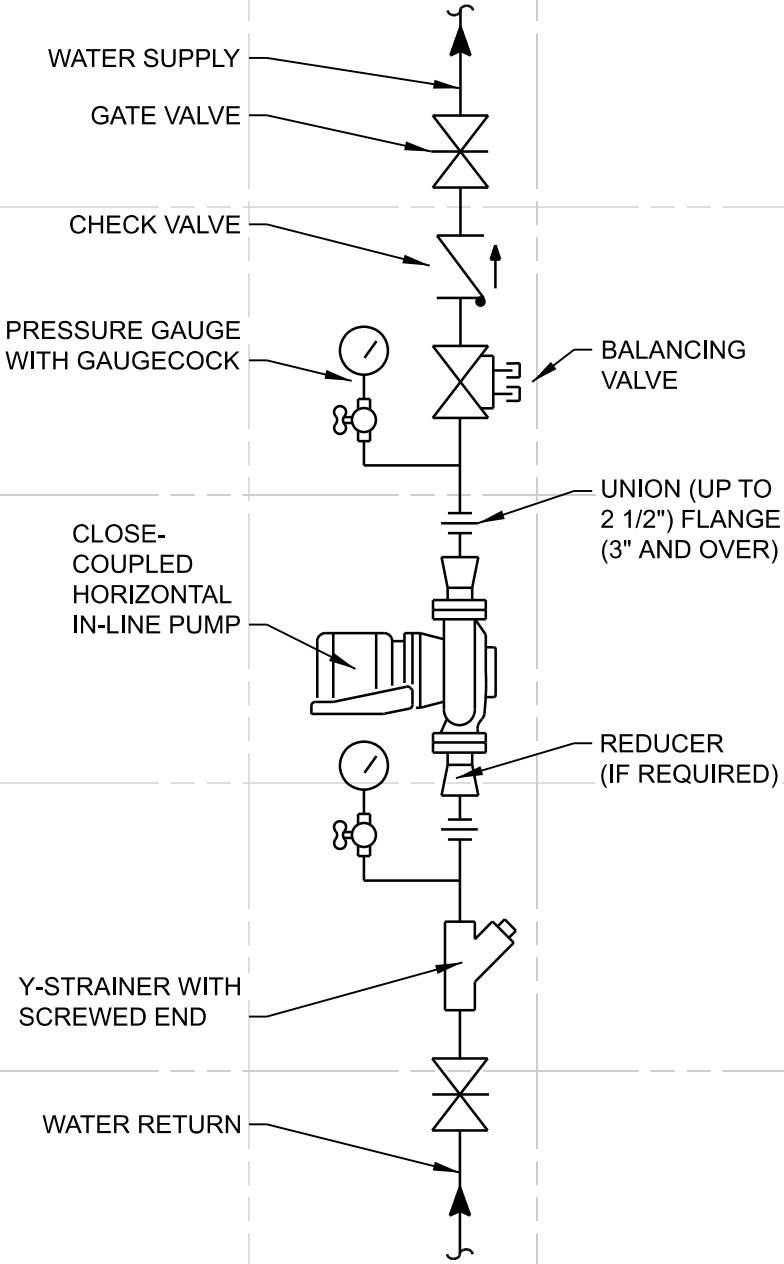
SCALE: NTS



A1

DETAIL: VERTICAL HOT WATER UNIT HEATER PIPING

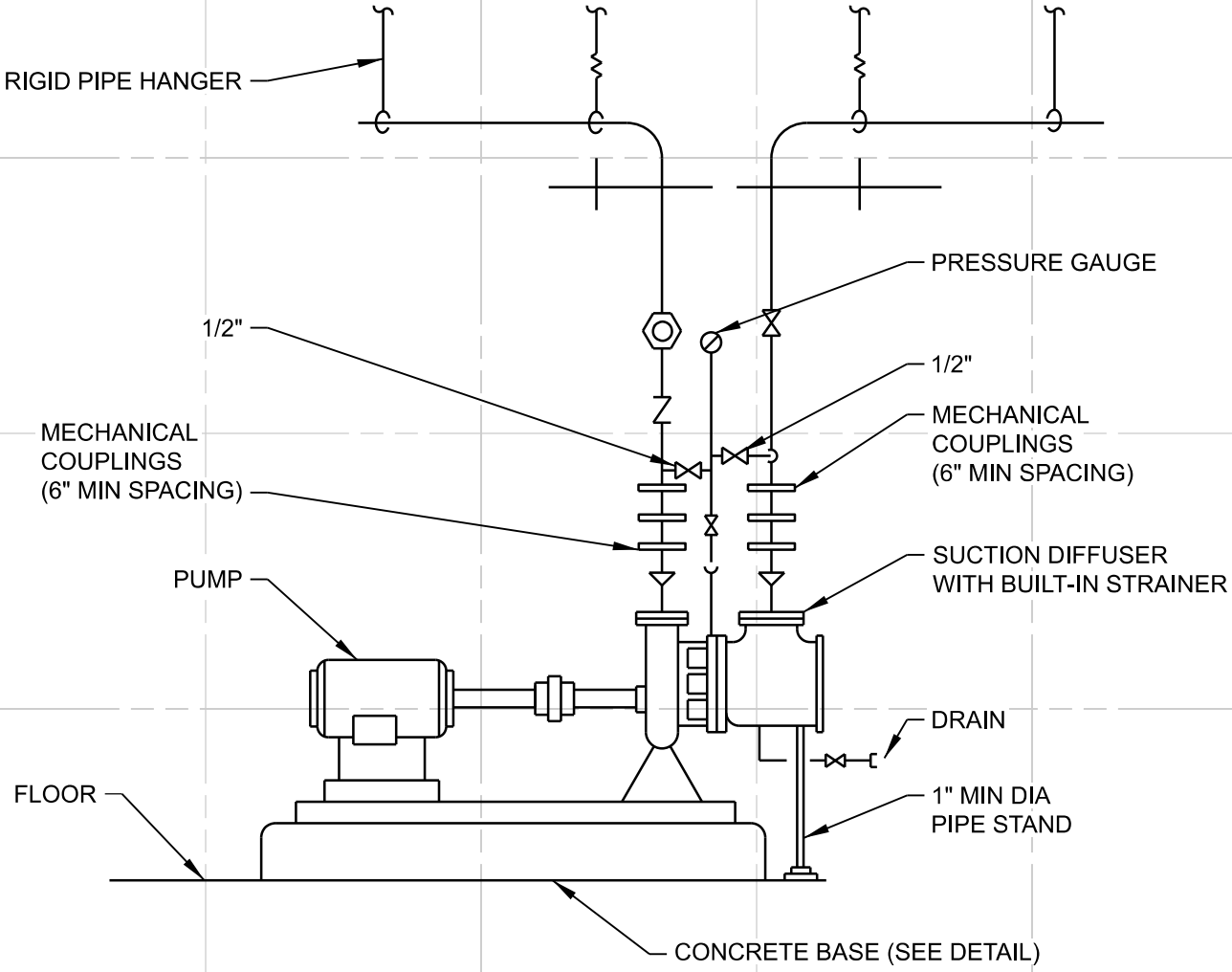
SCALE: NTS



DETAIL: CLOSE-COUPLED HORIZONTAL IN-LINE PUMP

A1

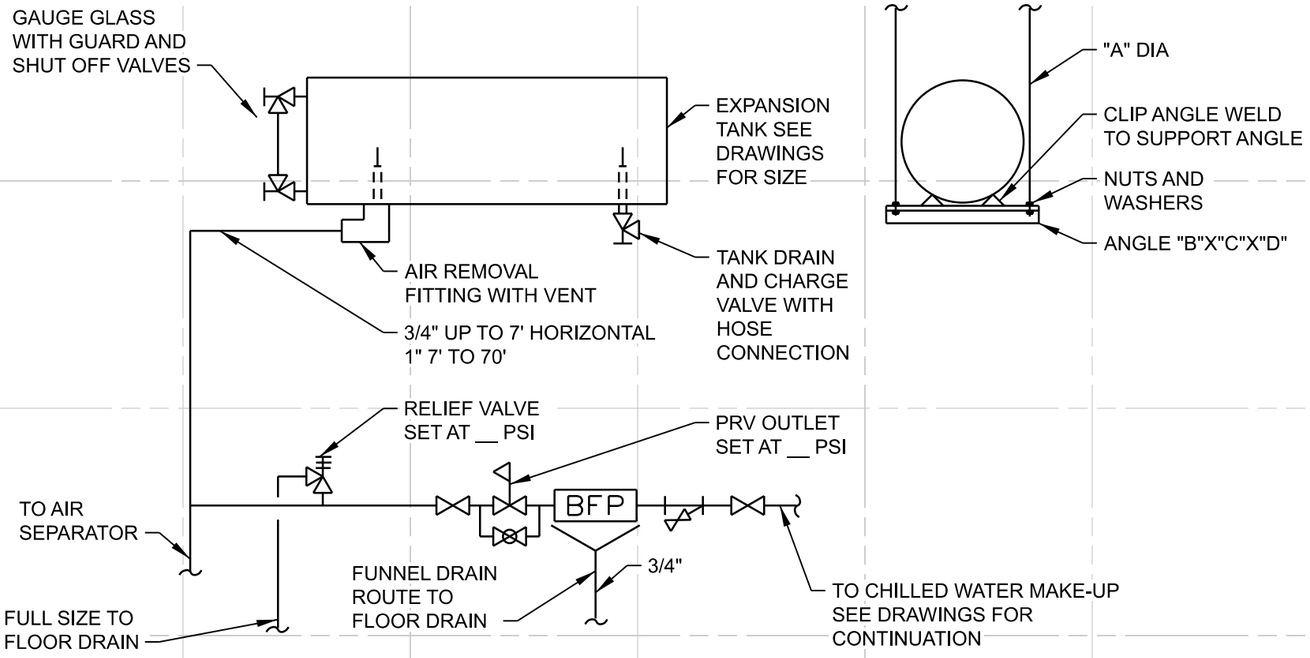
SCALE: NTS



DETAIL: CONNECTION TO FLOOR MOUNTED SINGLE SUCTION WATER PUMPS

A1

SCALE: NTS

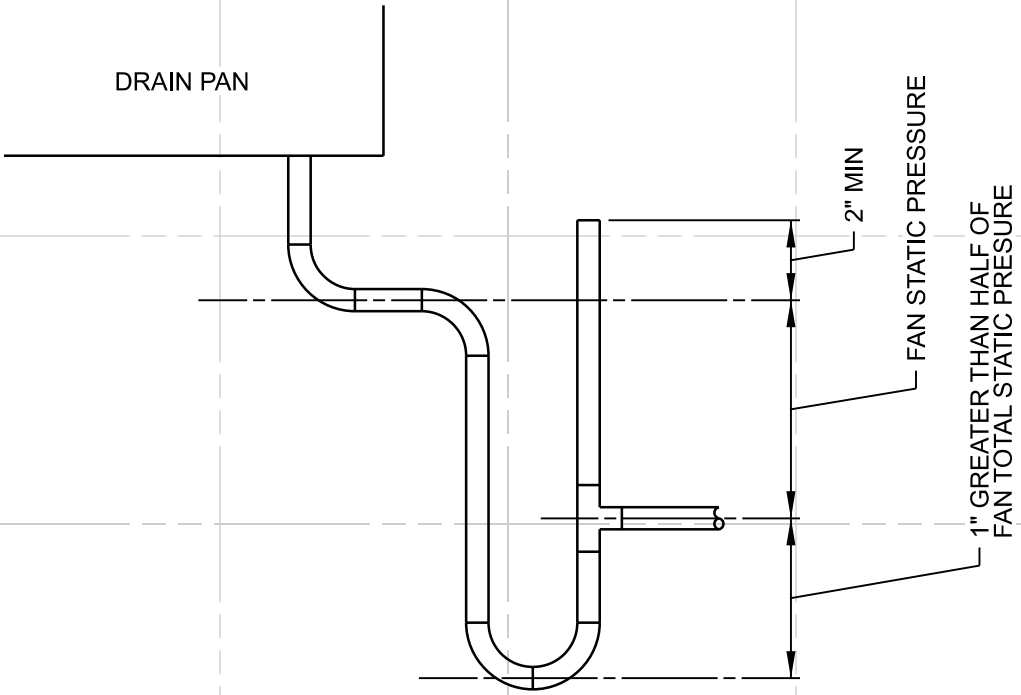


GAL	A	B	C	D
0-50	1/2"	2"	2"	1/4"
0-100	5/8"	3"	3"	1/4"

A1

DETAIL: EXPANSION TANK 0-100 GALLONS

SCALE: NTS

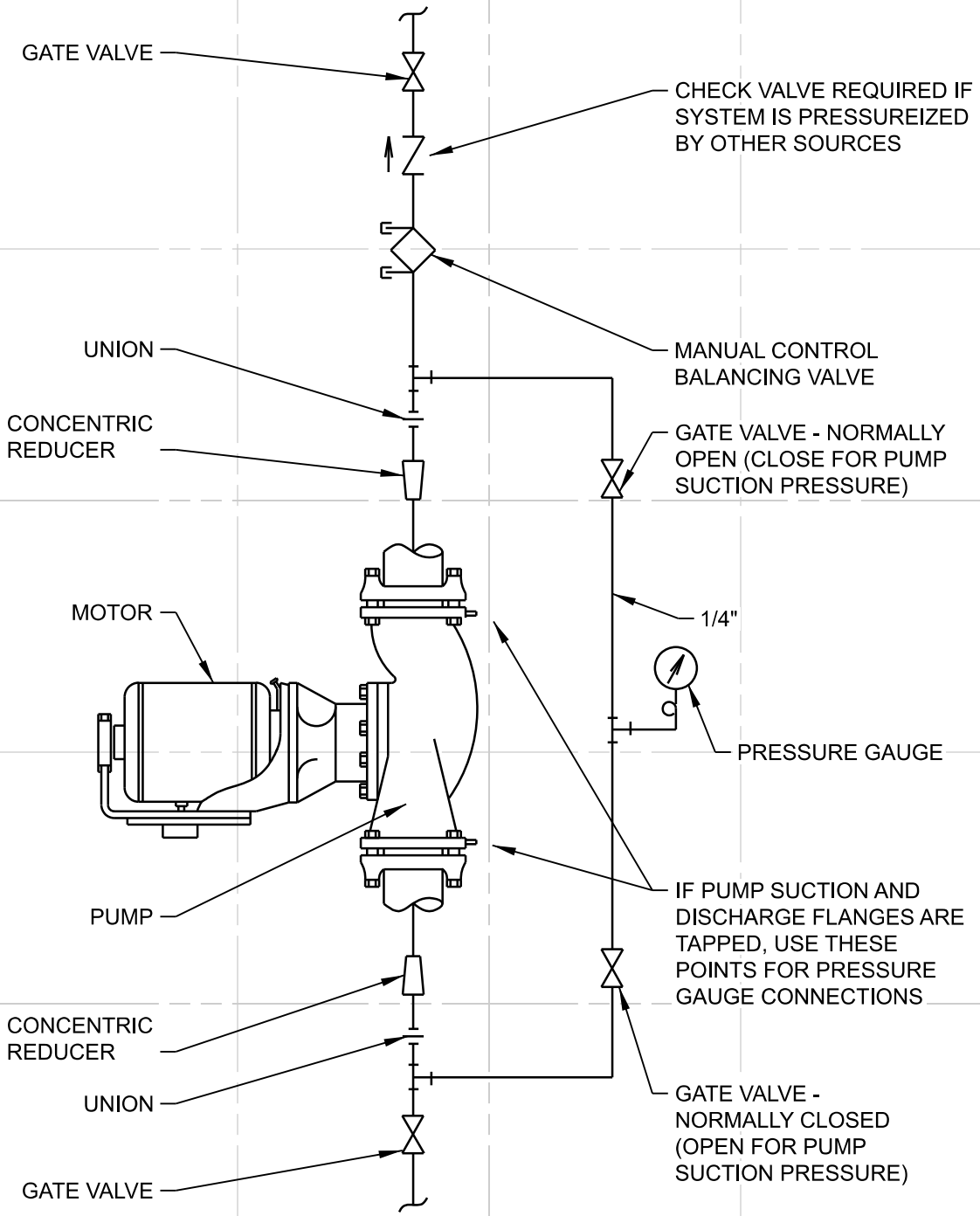


NOTES:
1. DRAIN LINE SHALL BE INSULATED.
2. DRAIN LINE SHALL PENETRATE THE ROOF LINE WITHIN THE CONFINEMENT OF THE HVAC EQUIPMENT CURB.

A1

DETAIL: CONDENSATE DRAIN TRAP

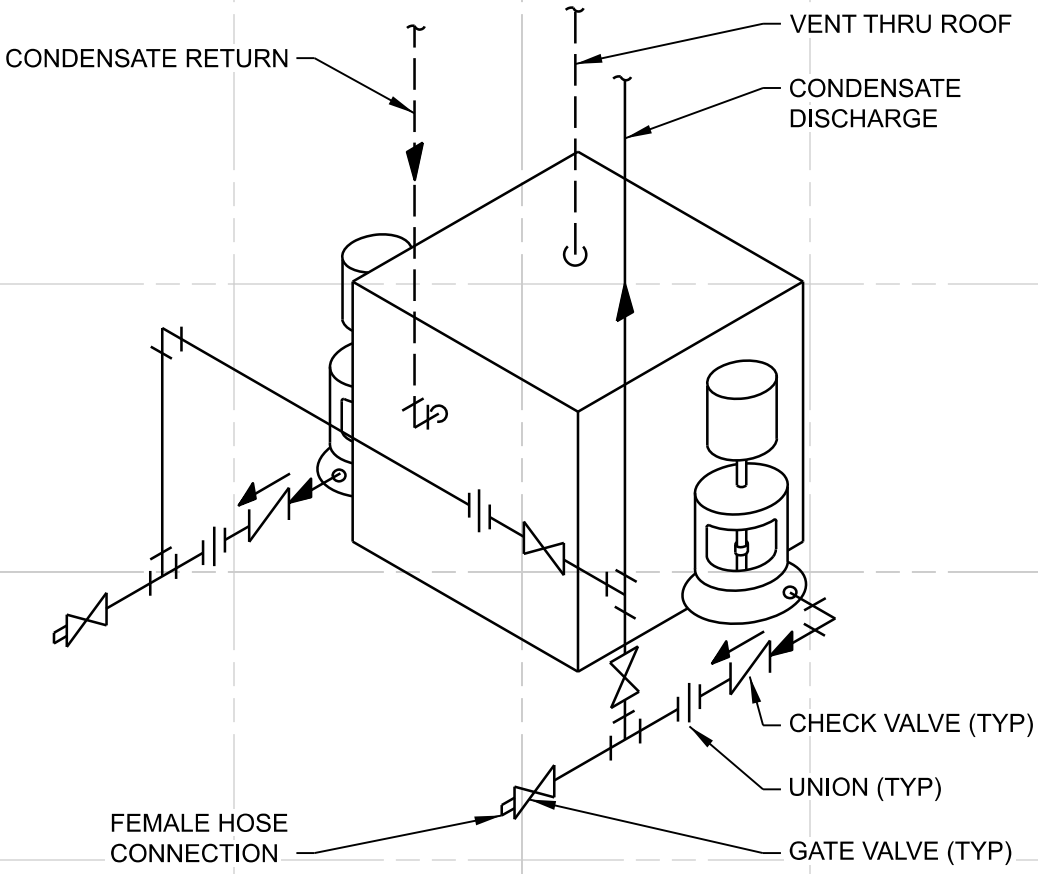
SCALE: NTS



A1

DETAIL: INLINE CENTRIFUGAL PUMP

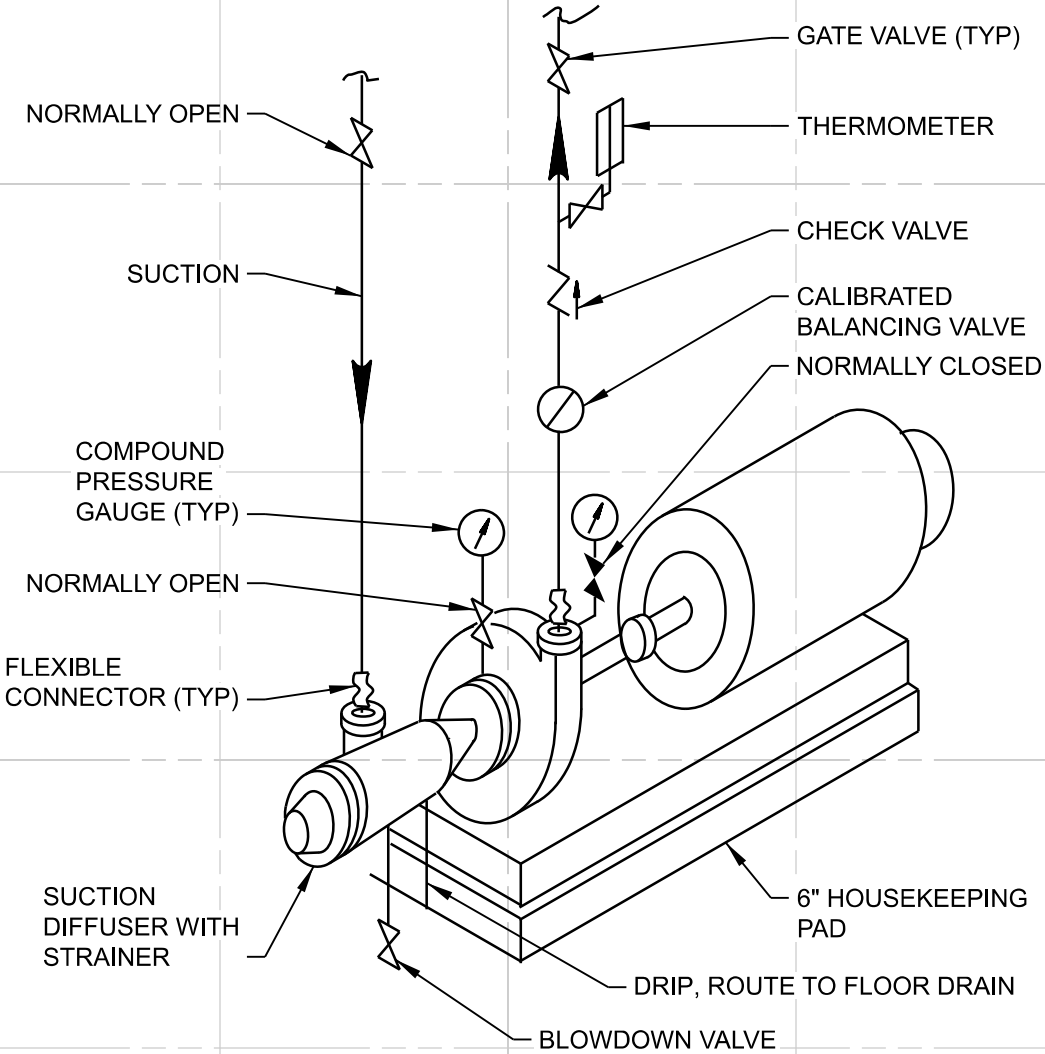
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A1

DETAIL: DUPLEX CONDENSATE PUMP CONNECTION

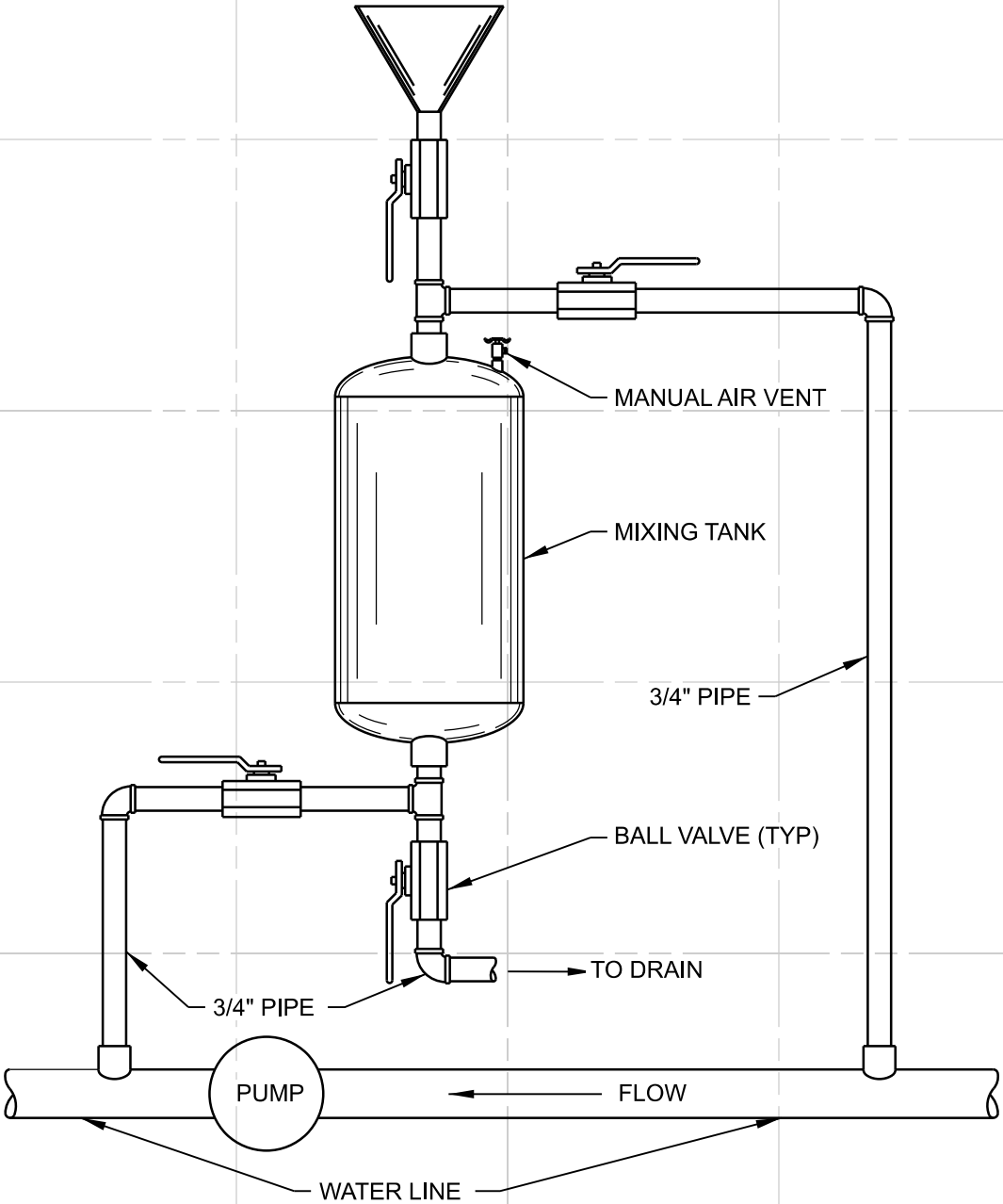
SCALE: NTS



A1

DETAIL: END SUCTION PUMP

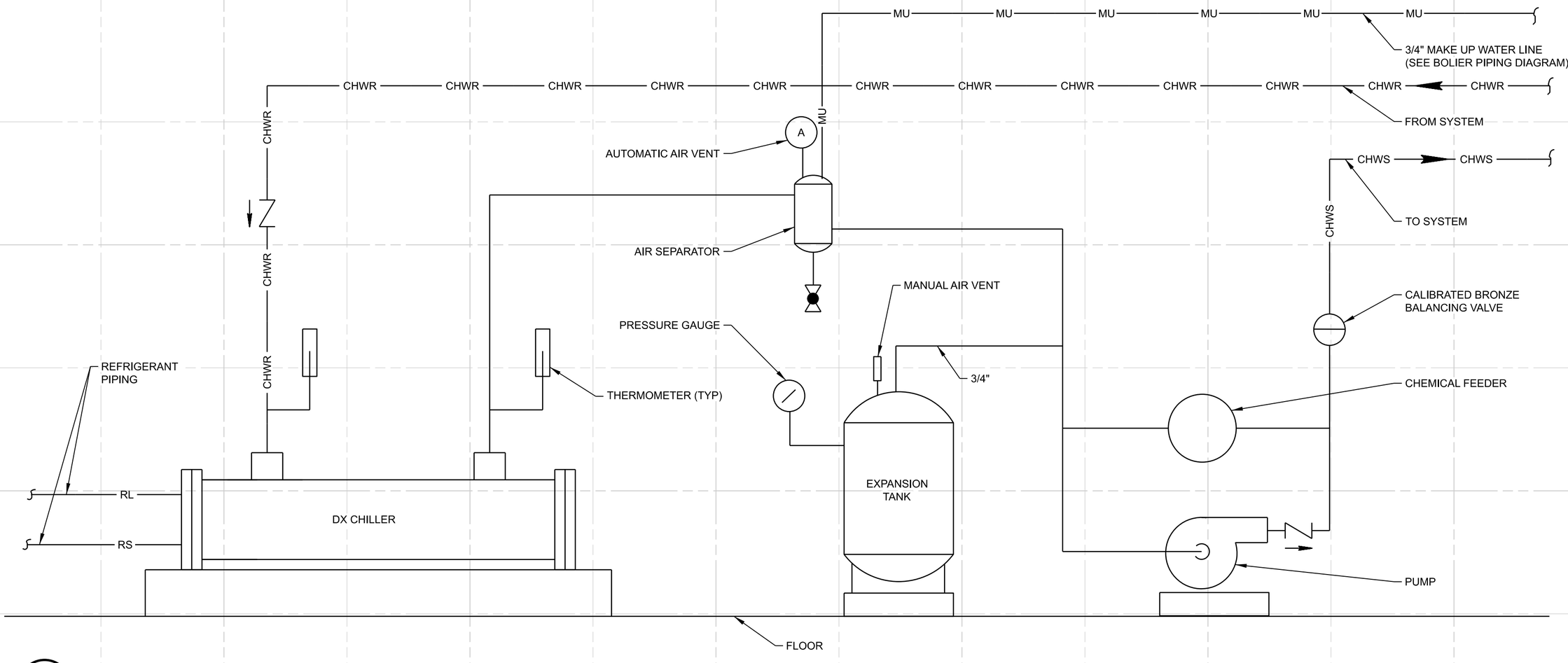
SCALE: NTS



A1

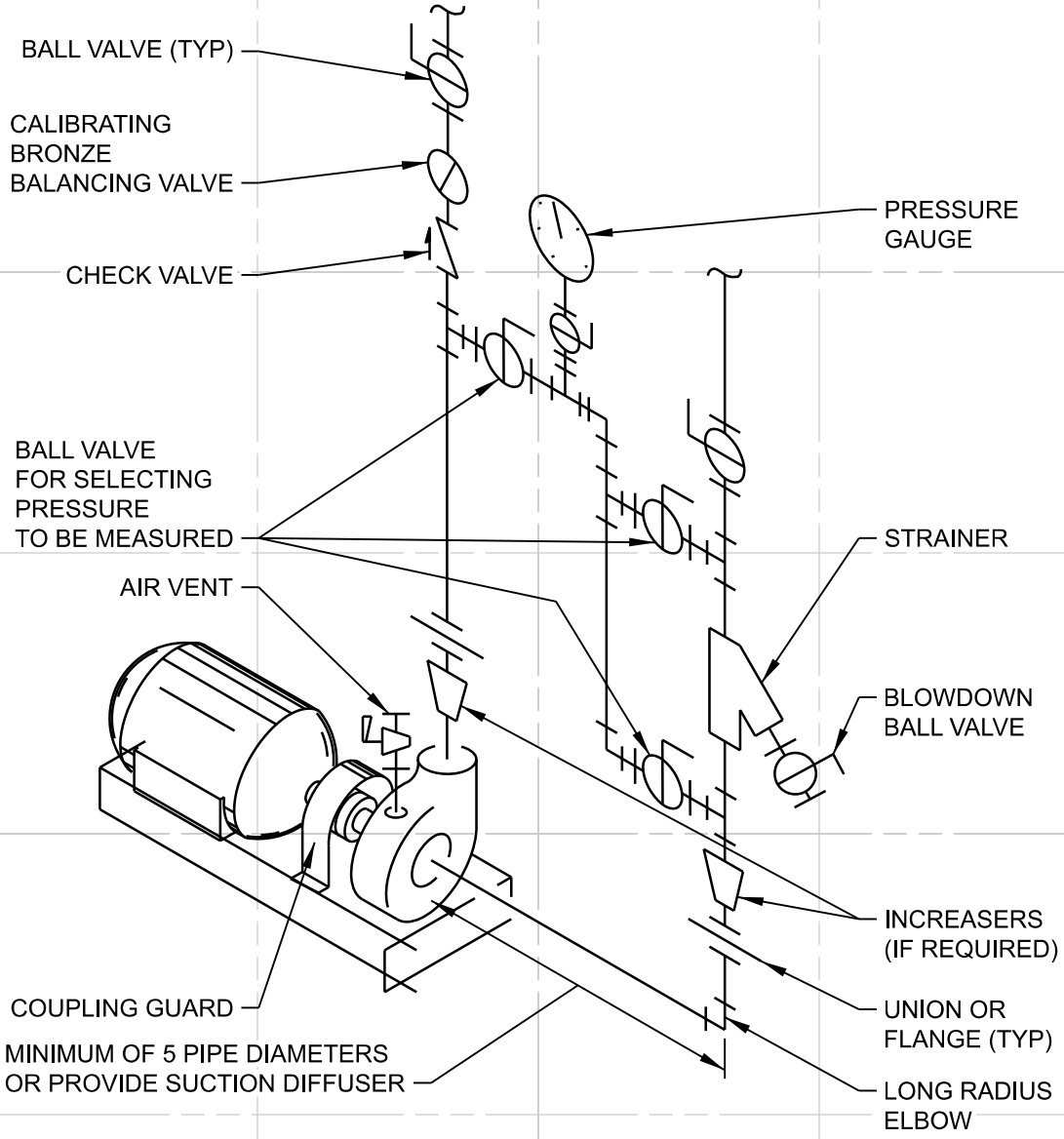
DETAIL: CHEMICAL FEEDER

SCALE: NTS



A1 DIAGRAM: CHILLED WATER PIPING

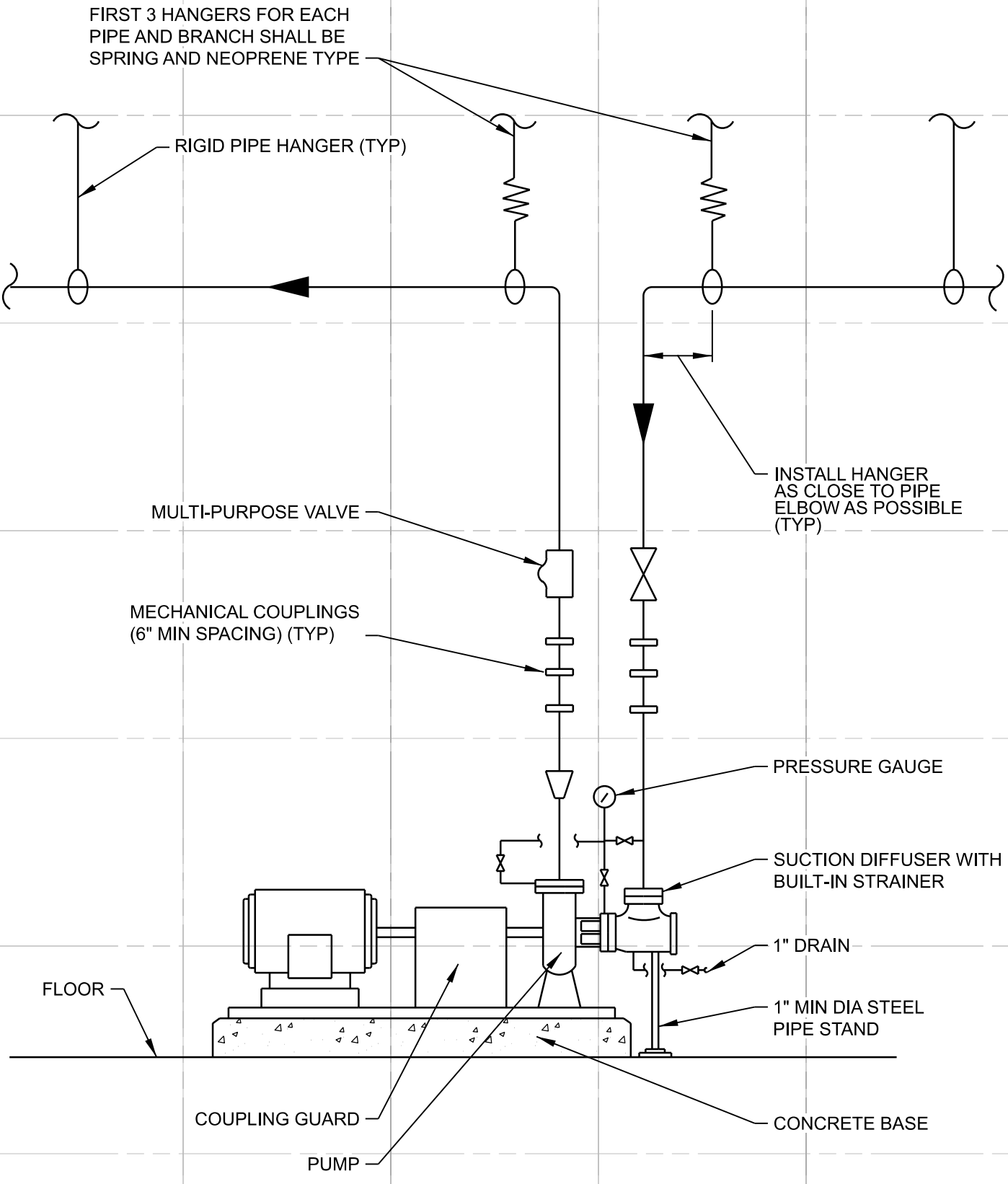
SCALE: NTS



A1

DETAIL: PUMP CONNECTION

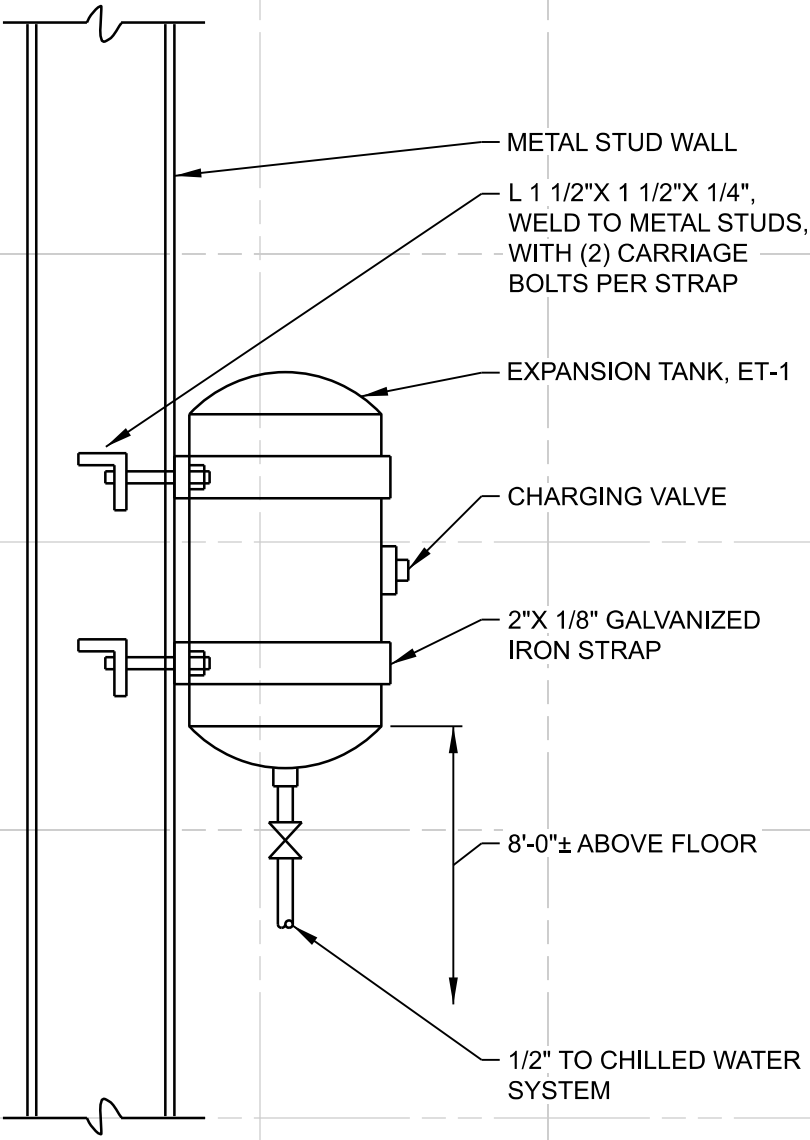
SCALE: NTS



A1

DETAIL: FLOOR MOUNTED PUMP

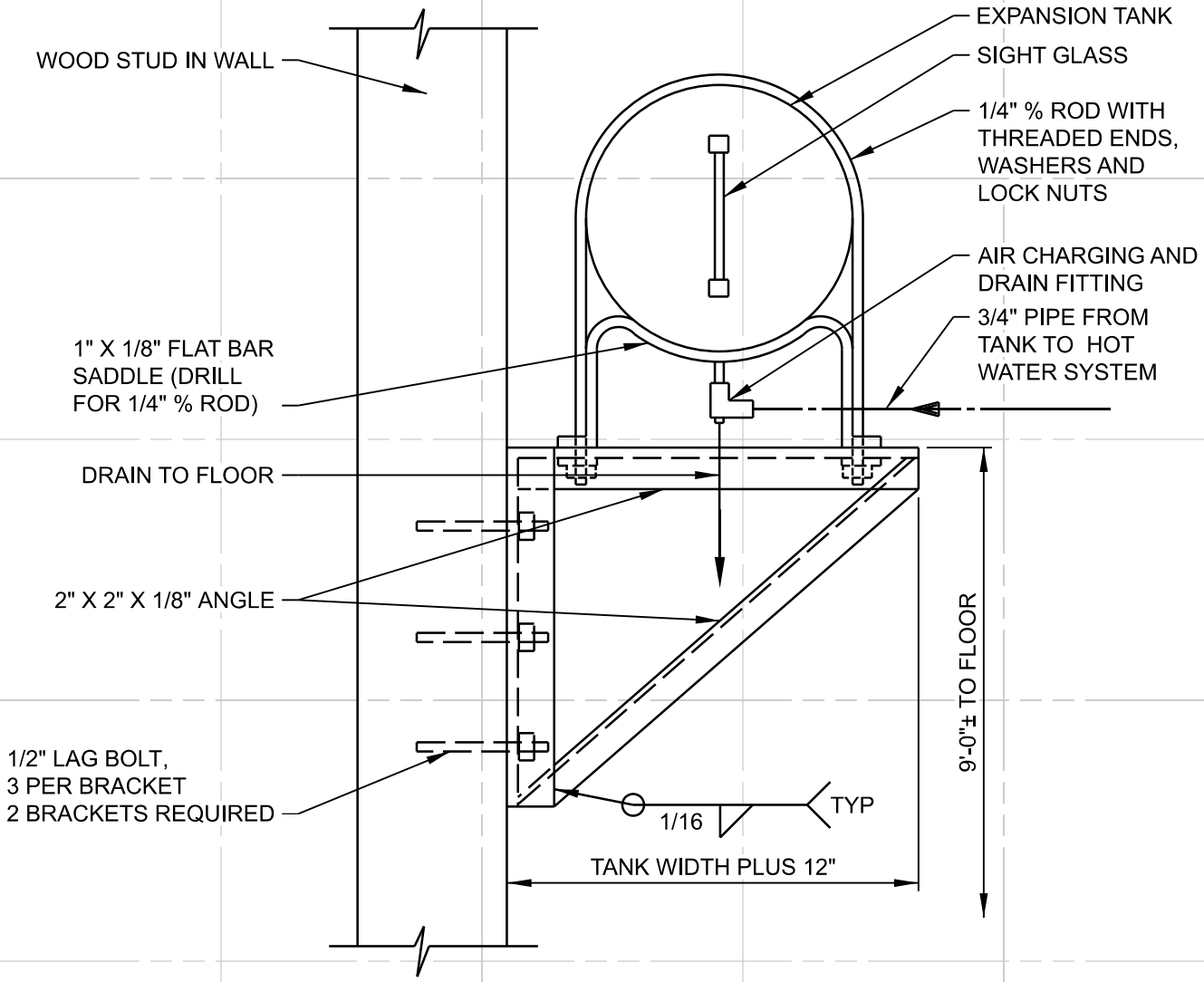
SCALE: NTS



DETAIL: WALL MOUNTED EXPANSION TANK

A1

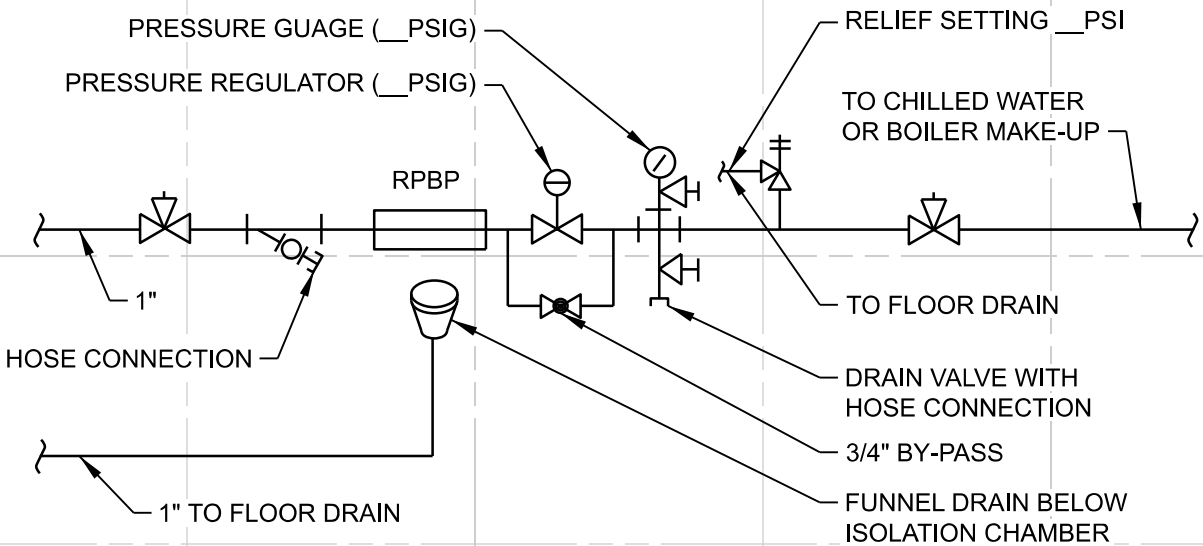
SCALE: NTS



A1

DETAIL: WALL MOUNTED EXPANSION TANK

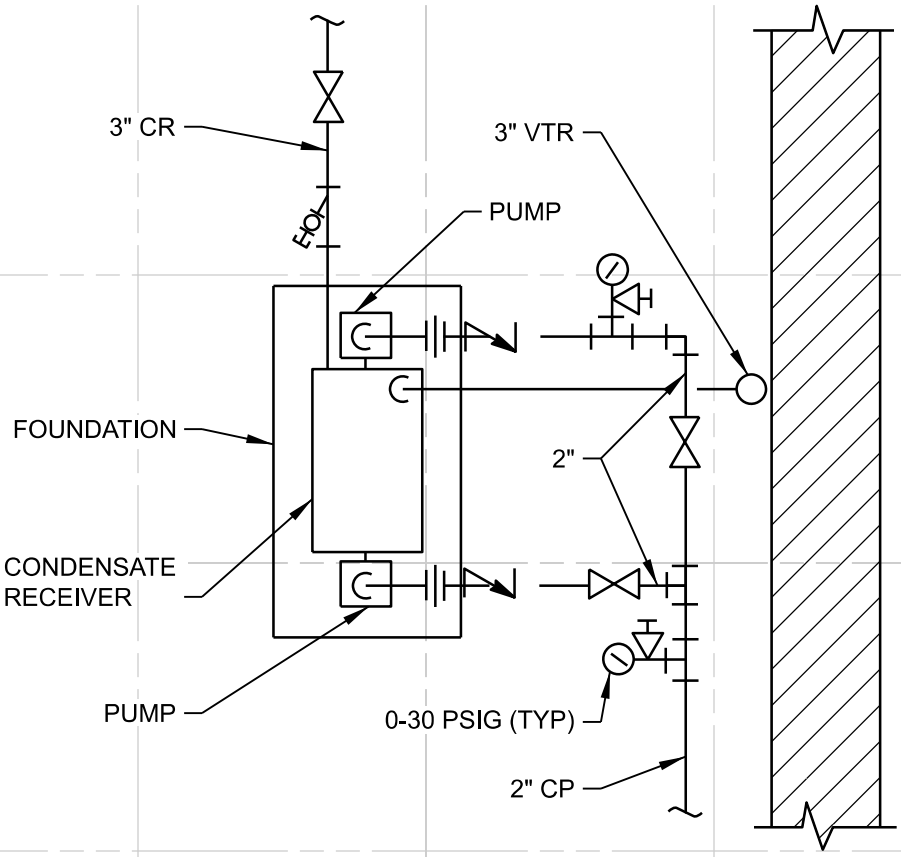
SCALE: NTS



A1

DETAIL: MAKE-UP WATER SPOOL

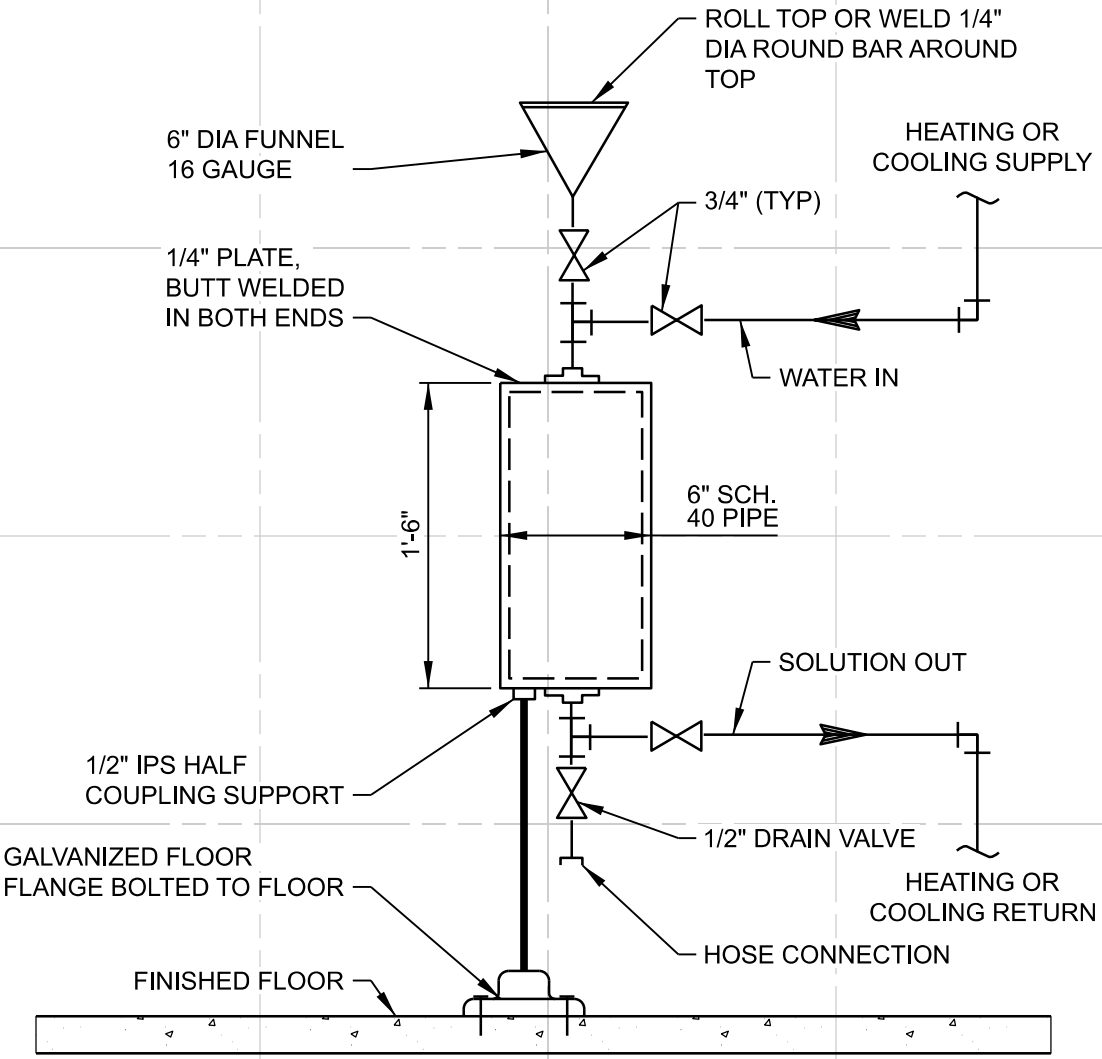
SCALE: NTS



A1

DETAIL: DUPLEX CONDENSATE PUMP

SCALE: NTS

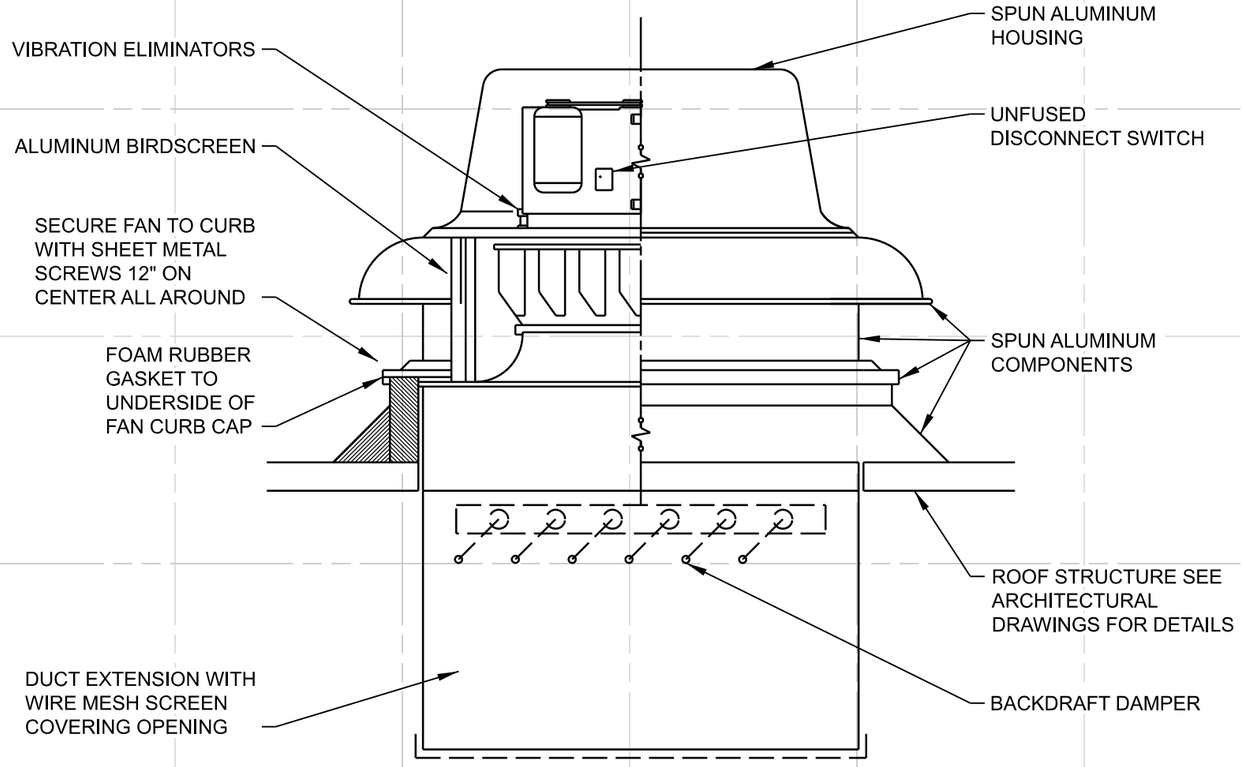


NOTES:
1. CHEMICAL FEEDER SHALL BE 2' AFF MIN
2. COMMERCIAL CHEMICAL FEEDER MAY BE SUBSTITUTED PROVIDED IT MEETS ALL DETAILED REQUIREMENTS.

A1

DETAIL: CHEMICAL FEEDER

SCALE: NTS

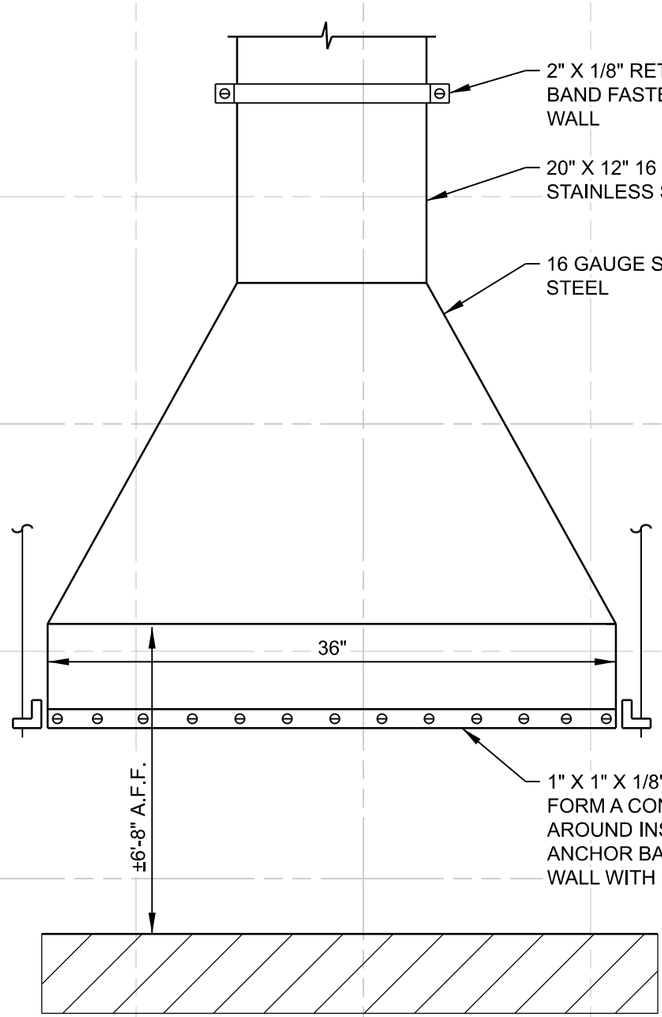


NOTE:
CURBS AND FANS SHALL BE FROM SAME MANUFACTURER.

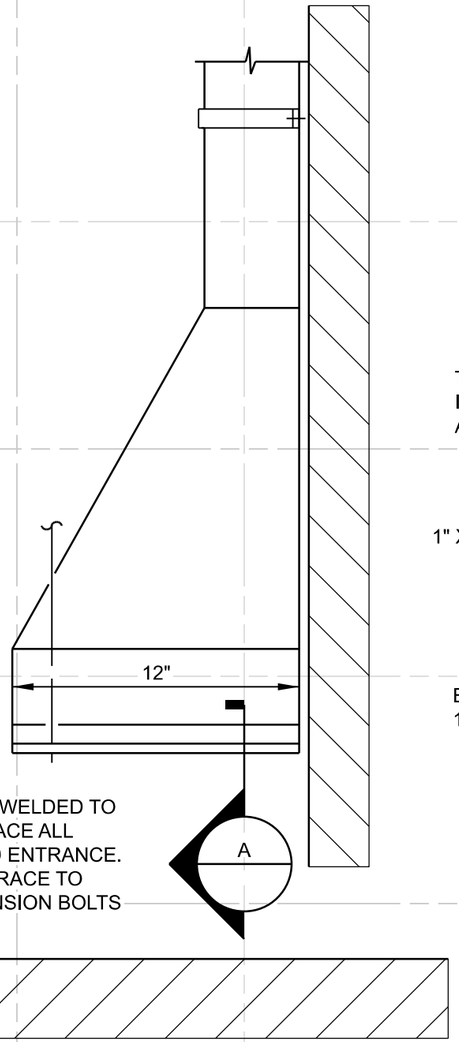
A1

DETAIL: ROOF MOUNTED CENTRIFUGAL EXHAUST FAN

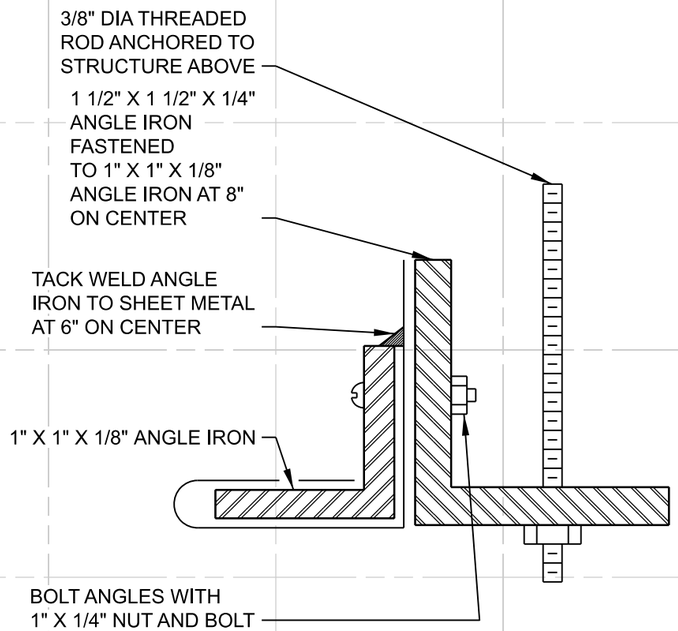
SCALE: NTS



FRONT VIEW



SIDE VIEW



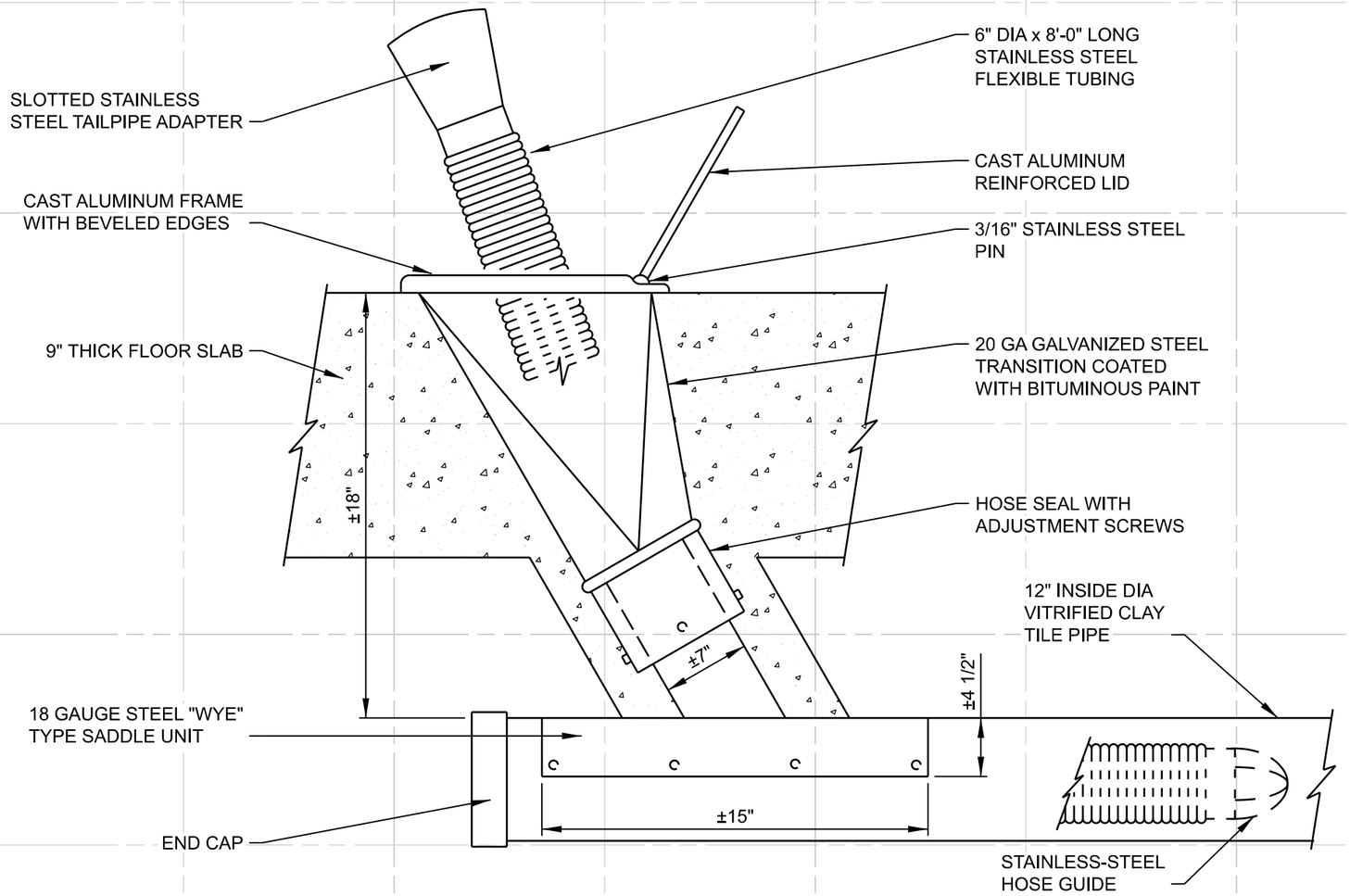
SECTION A

NOTE:
ALL SHEET METAL, STRAPS, BOLTS, SCREWS, AND ANGLES USED IN THE CONSTRUCTION OF THIS HOOD SHALL BE STAINLESS STEEL.

A1

DETAIL: EXHAUST HOOD

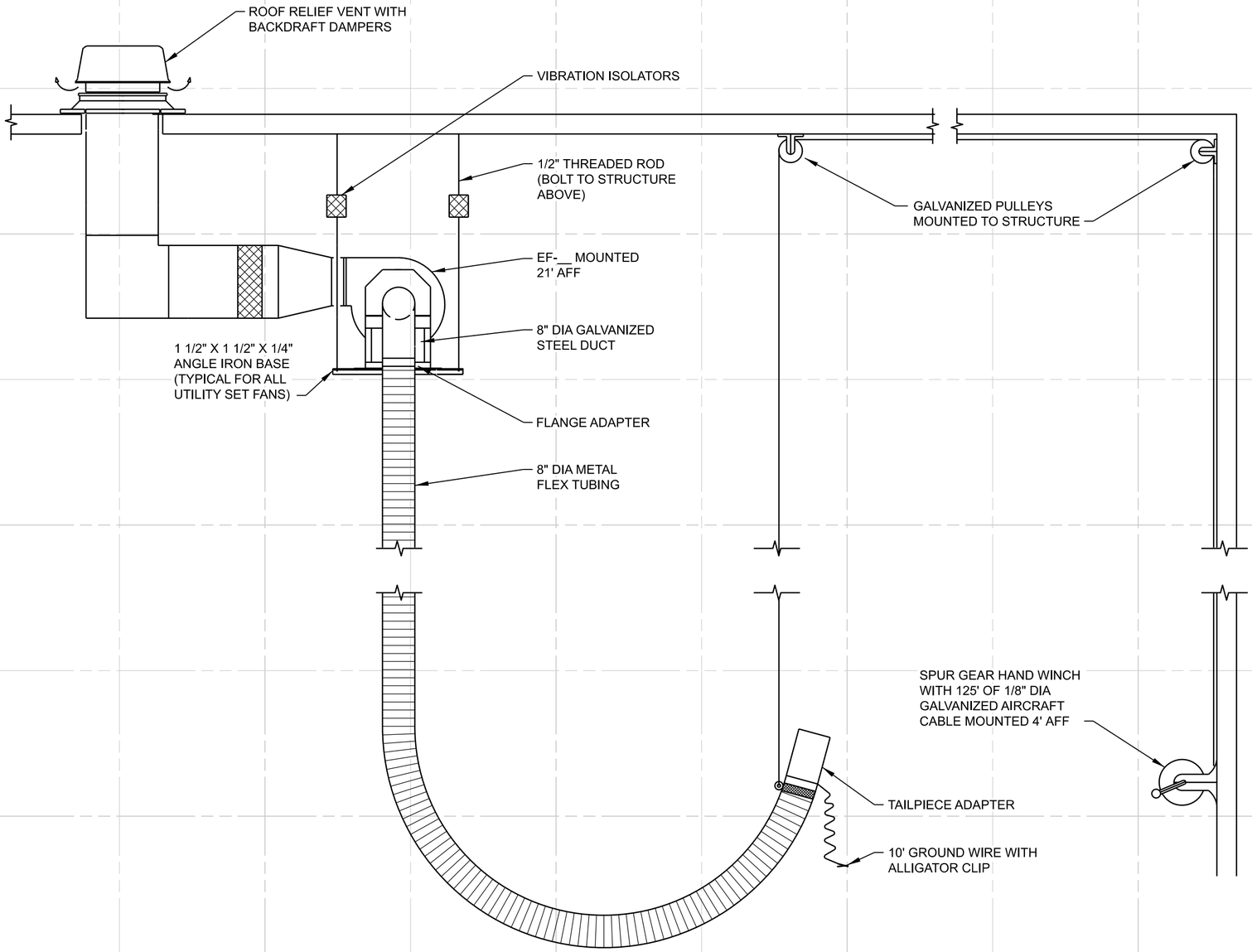
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A1

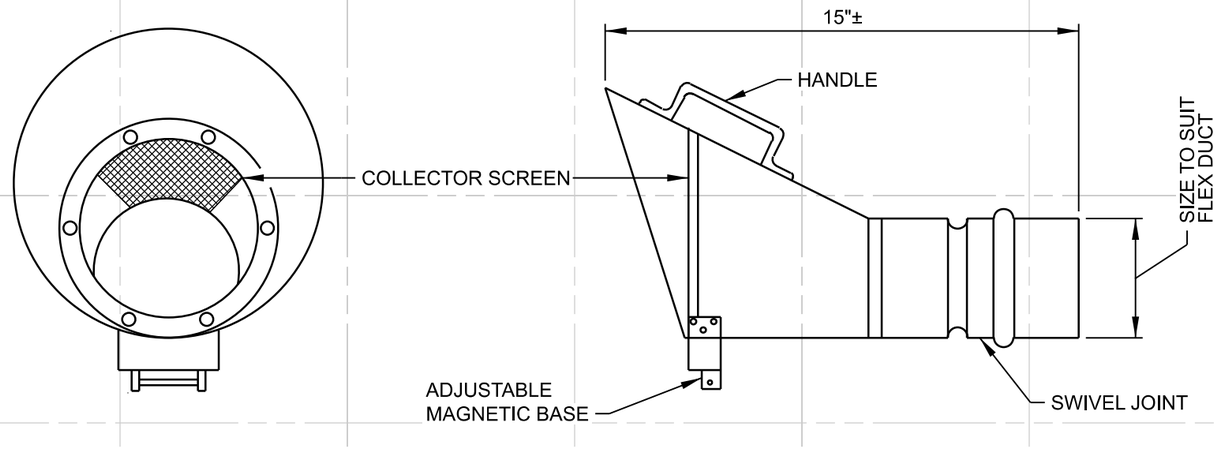
DETAIL: ENGINE EXHAUST FLOOR OUTLET

SCALE: NTS



A1 DETAIL: FUEL TANK EXHAUST FAN

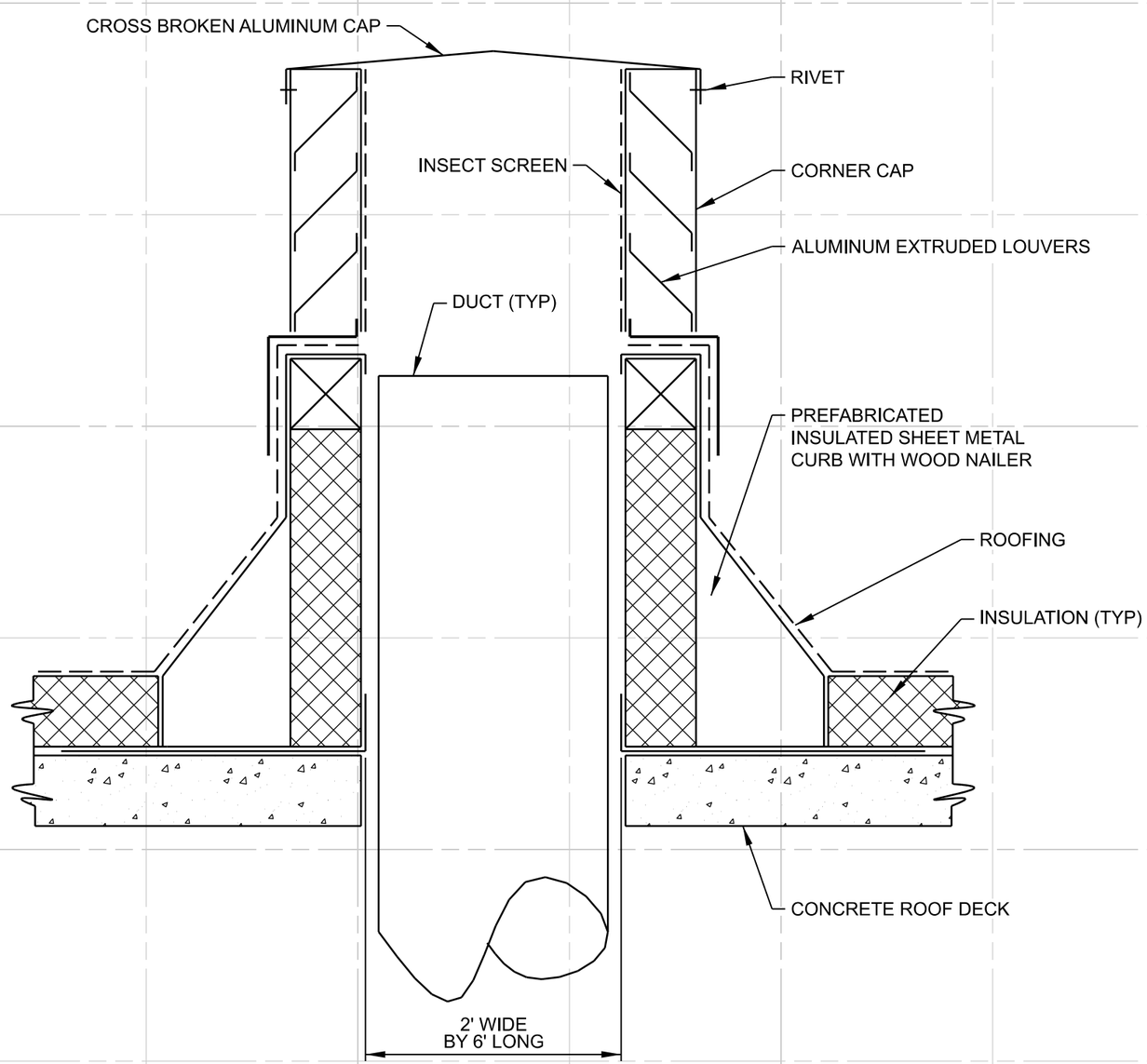
SCALE: NTS



A1

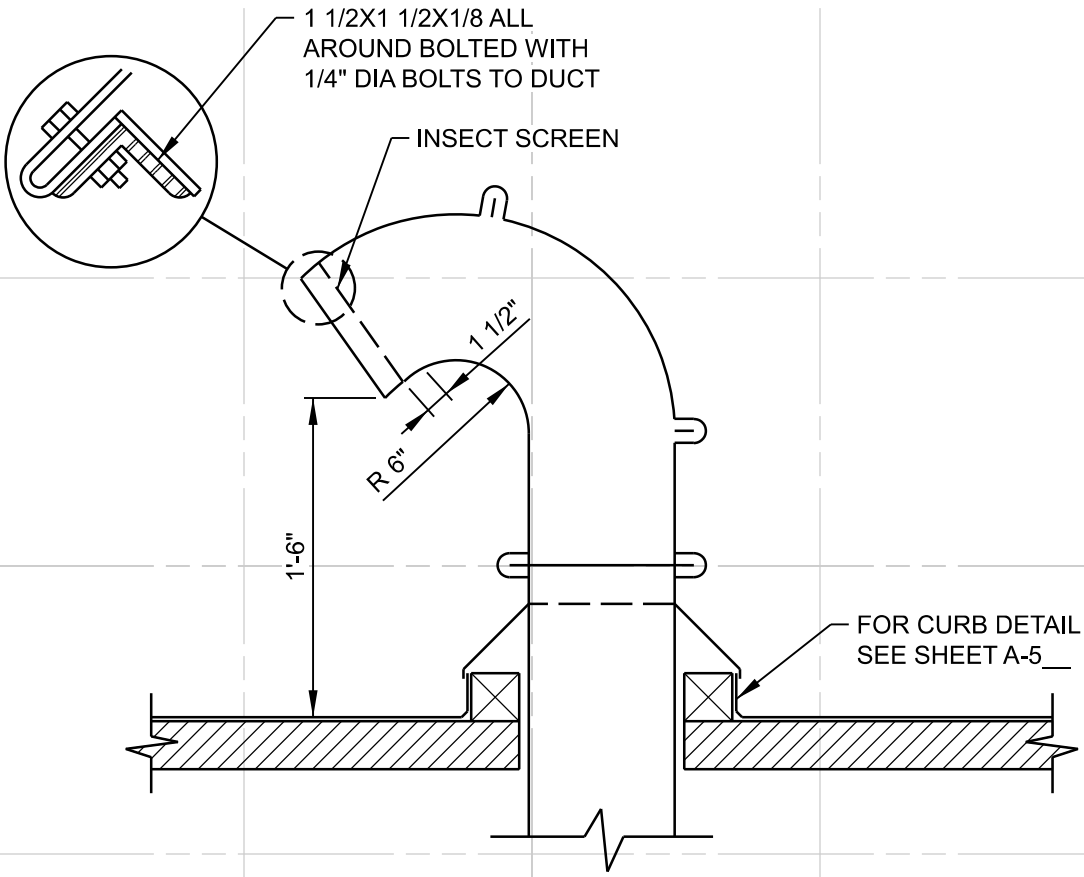
DETAIL: EXHAUST RECEPTOR

SCALE: NTS



A1 DETAIL: EXHAUST PENTHOUSE

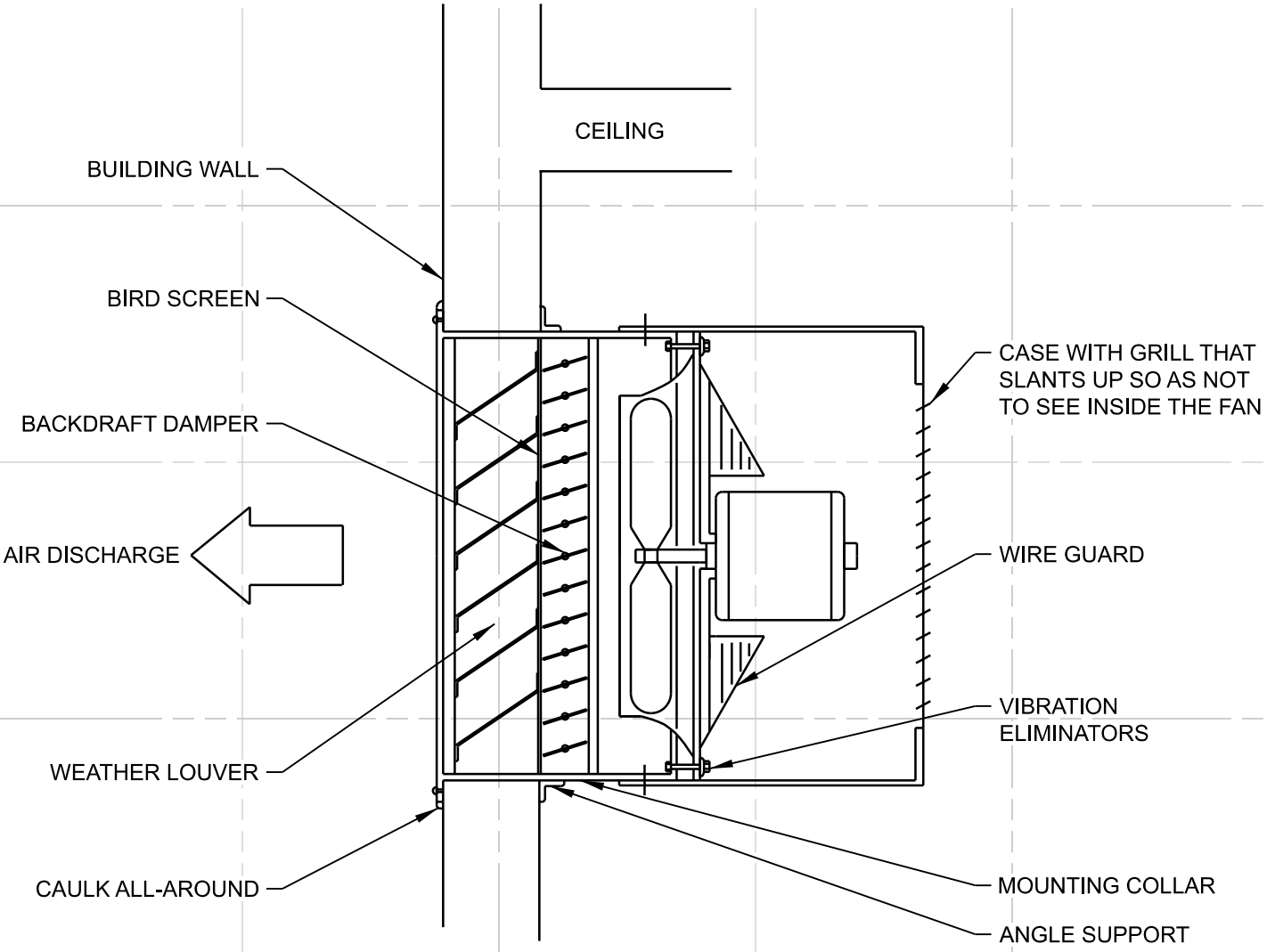
SCALE: NTS



A1

DETAIL: GOOSENECK

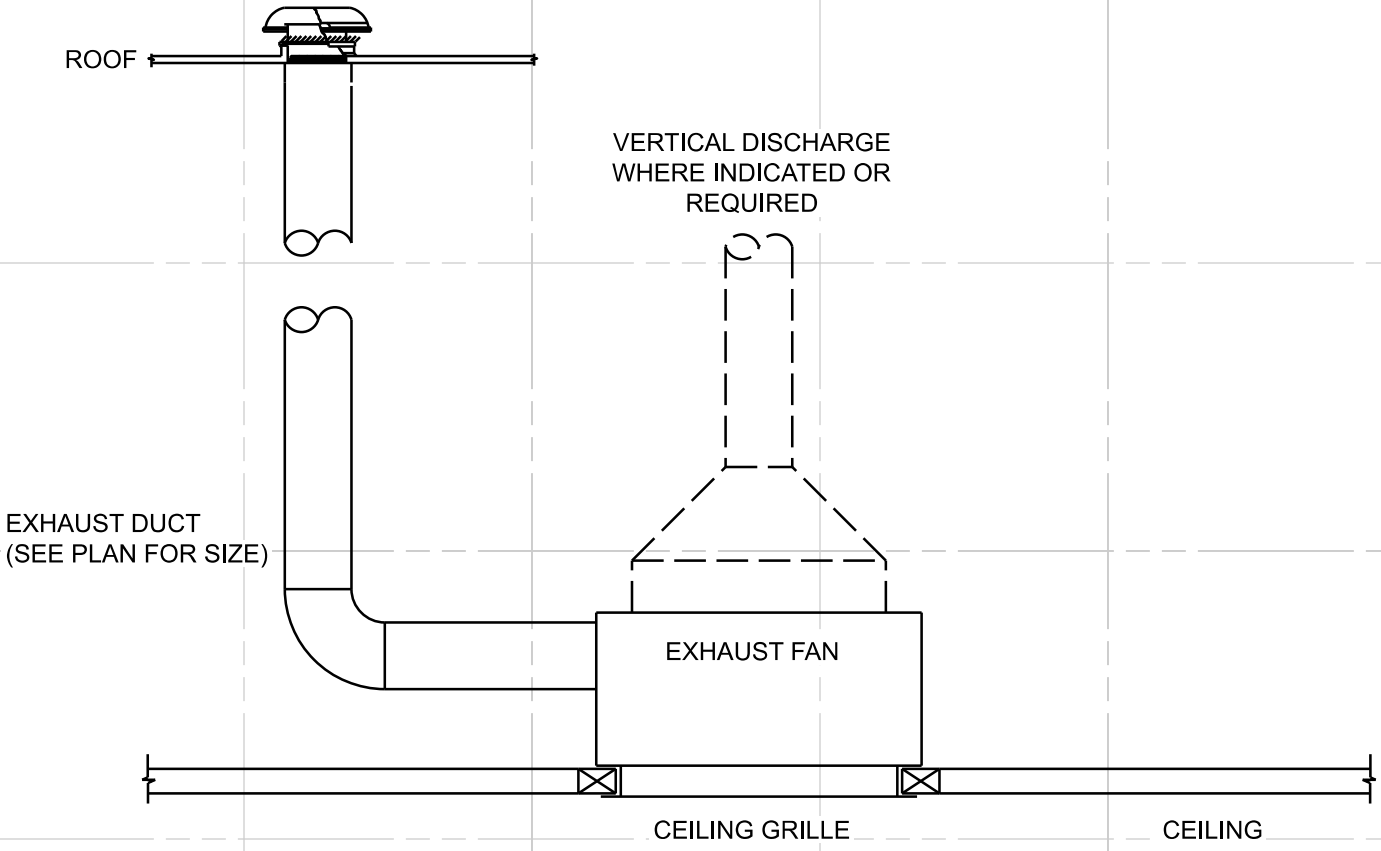
SCALE: NTS



A1

DETAIL: EXHAUST FAN

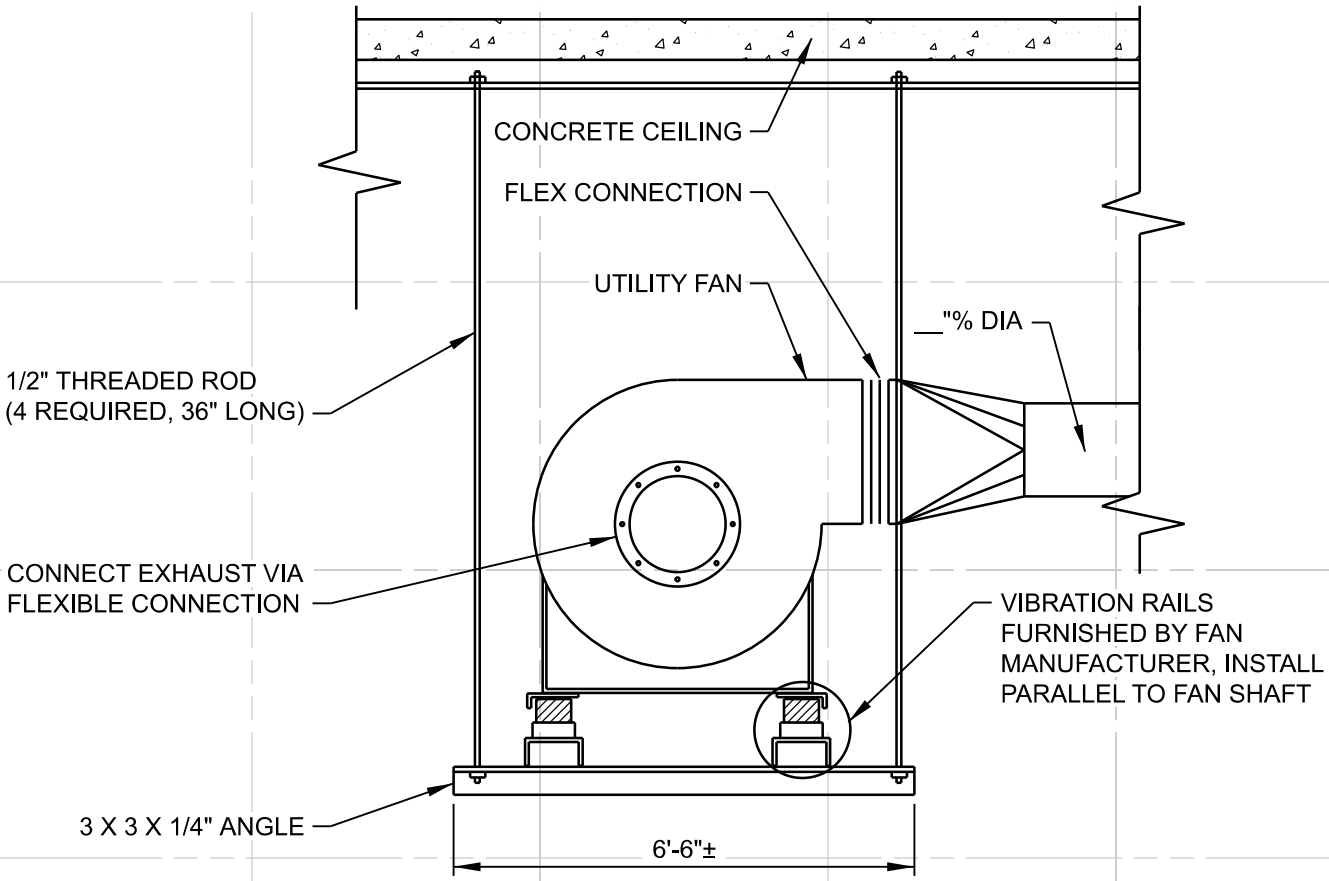
SCALE: NTS



A1

DETAIL: CEILING EXHAUST FAN

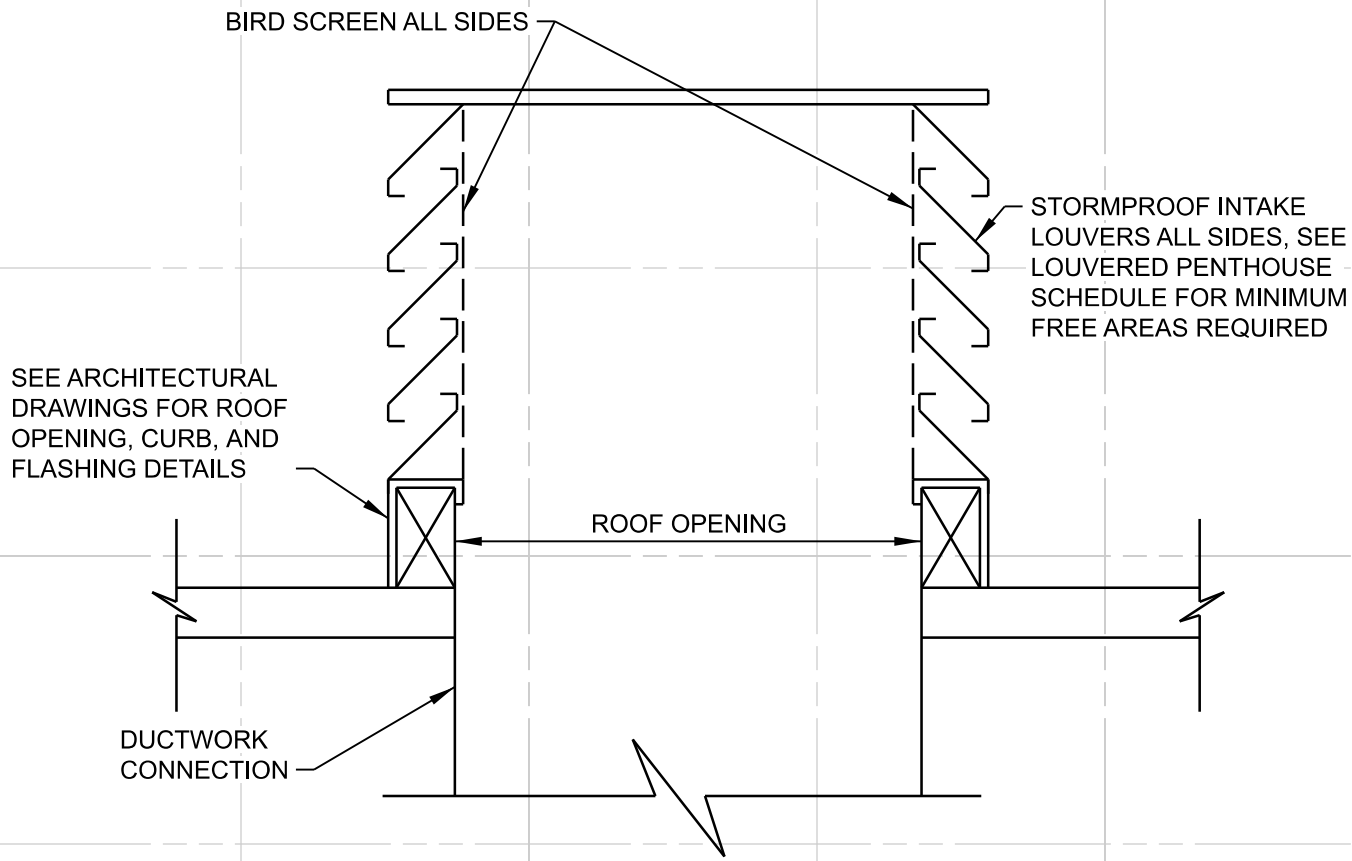
SCALE: NTS



A1

DETAIL: EXHAUST FAN

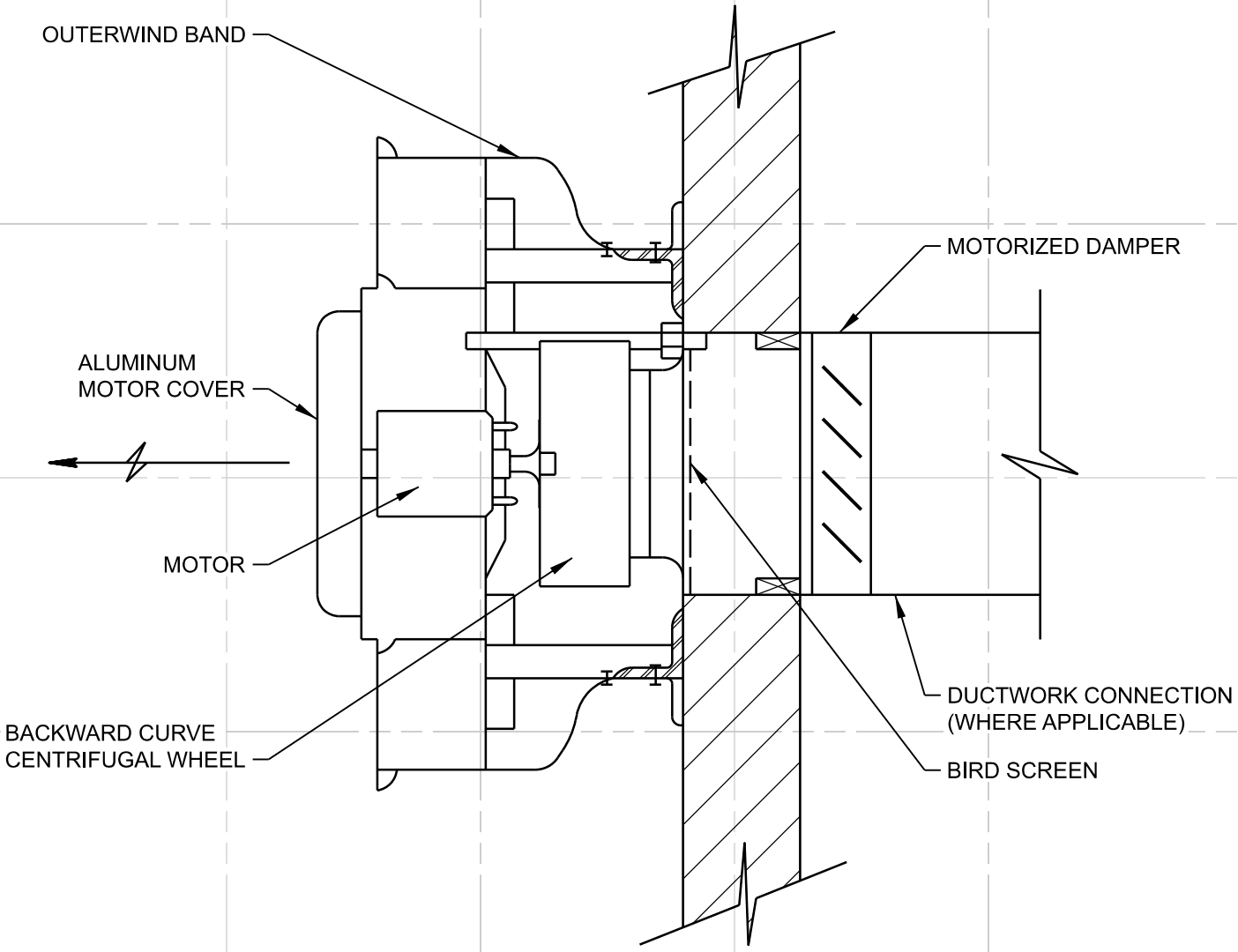
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A1

DETAIL: CEILING EXHAUST FAN

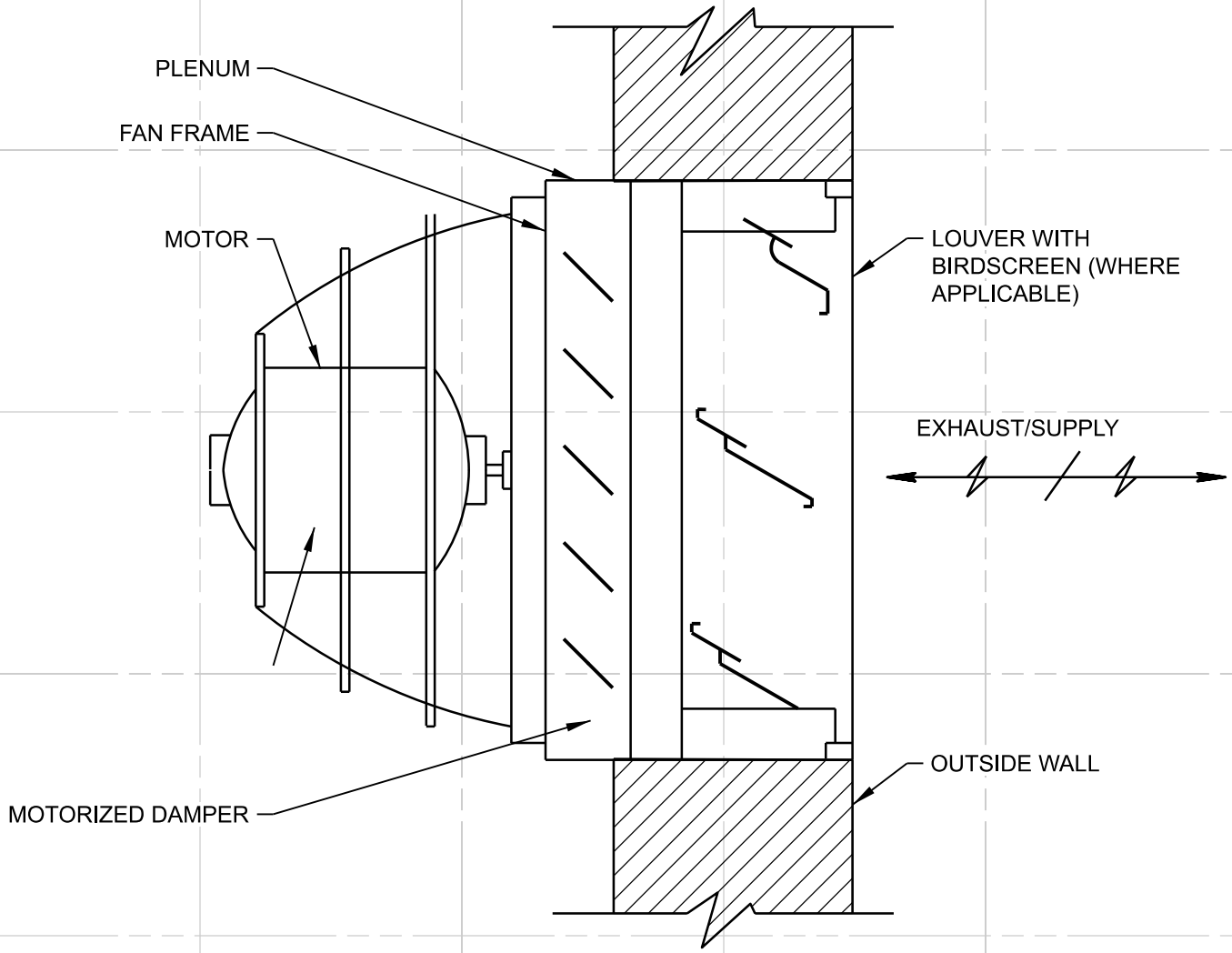
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A1

DETAIL: CENTRIFUGAL WALL EXHAUST FAN

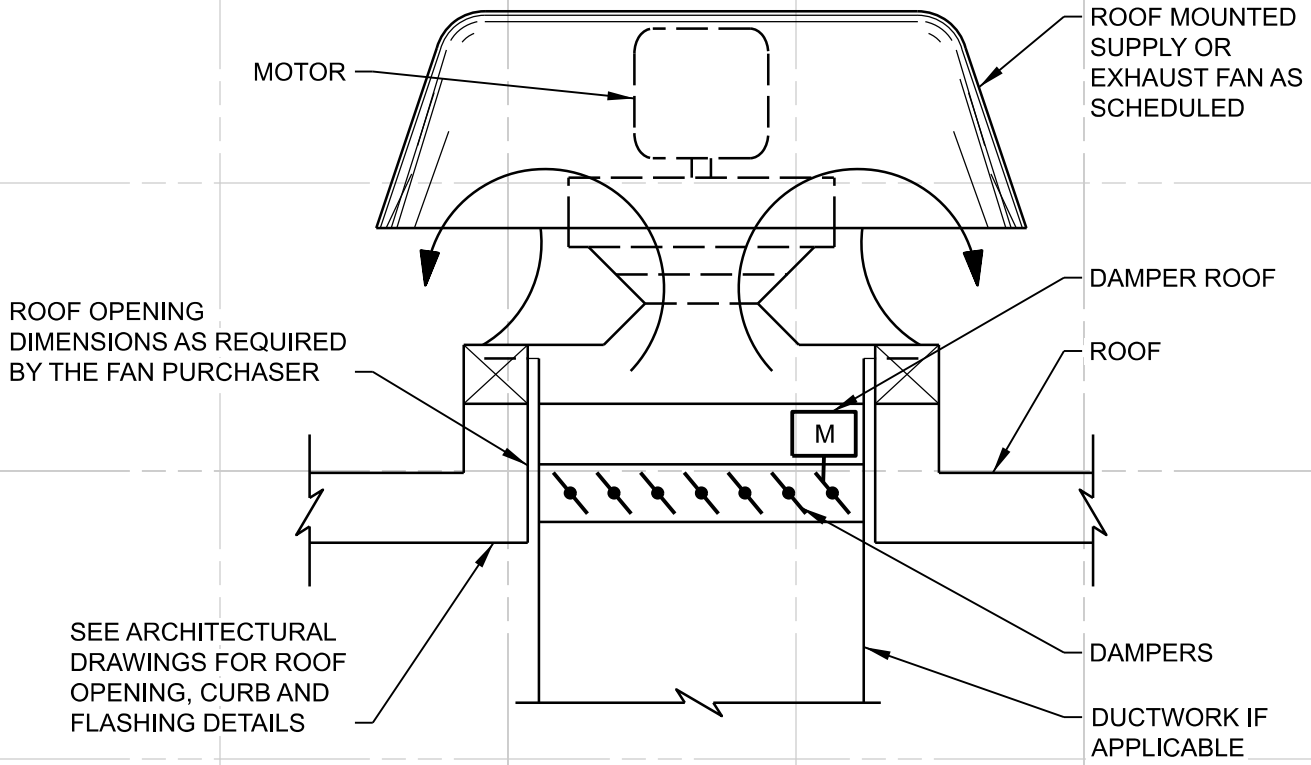
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A1

DETAIL: PROPELLER EXHAUST/SUPPLY FAN

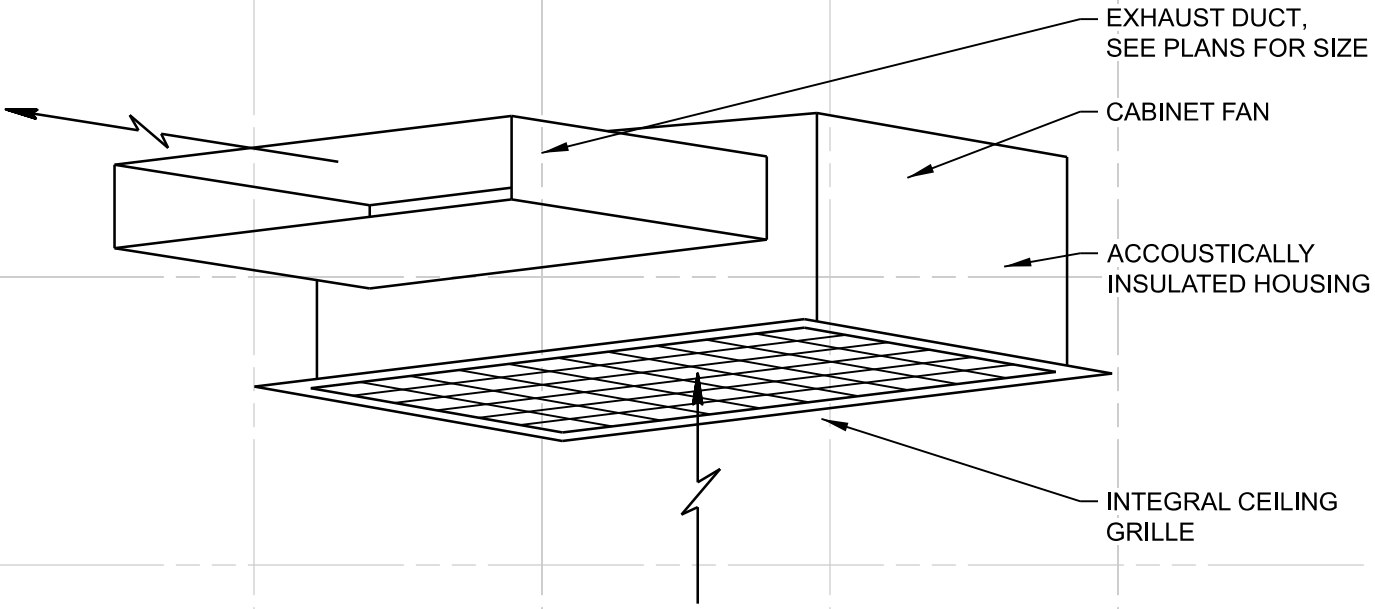
SCALE: NTS



A1

DETAIL: ROOF MOUNTED EXHAUST AND SUPPLY FAN

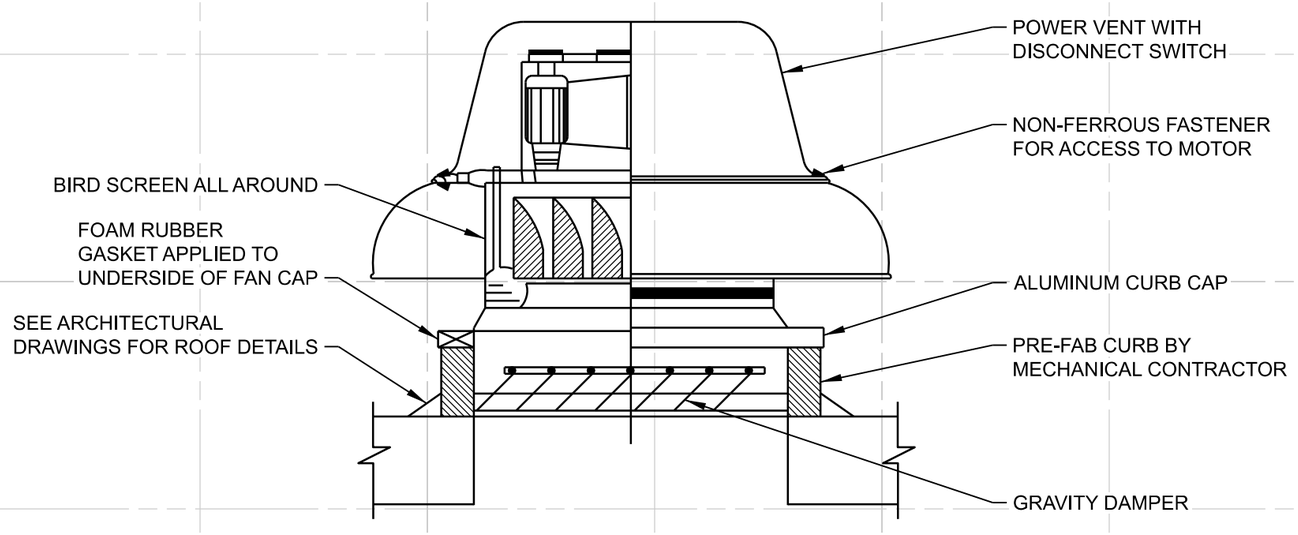
SCALE: NTS



A1

DETAIL: CEILING EXHAUST FAN

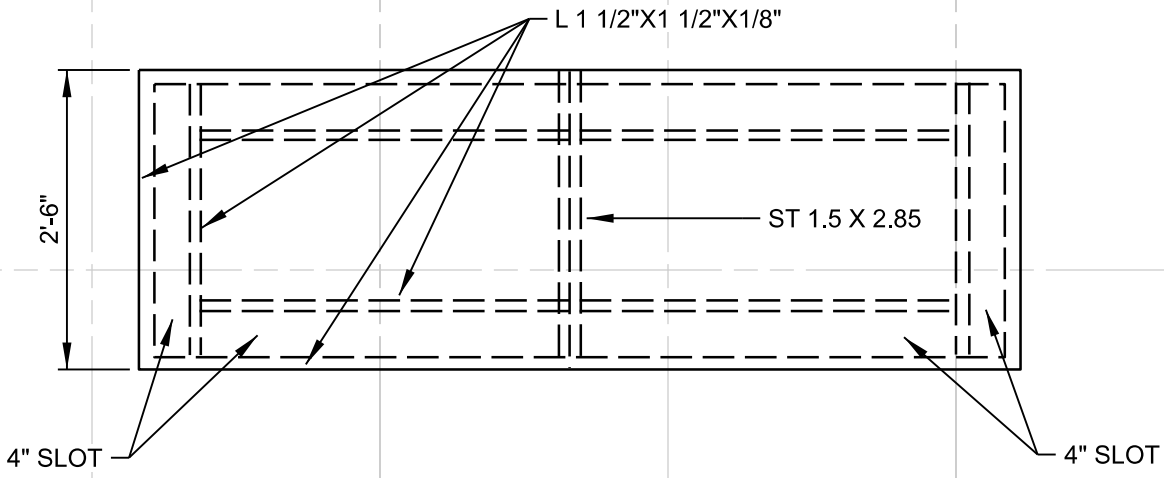
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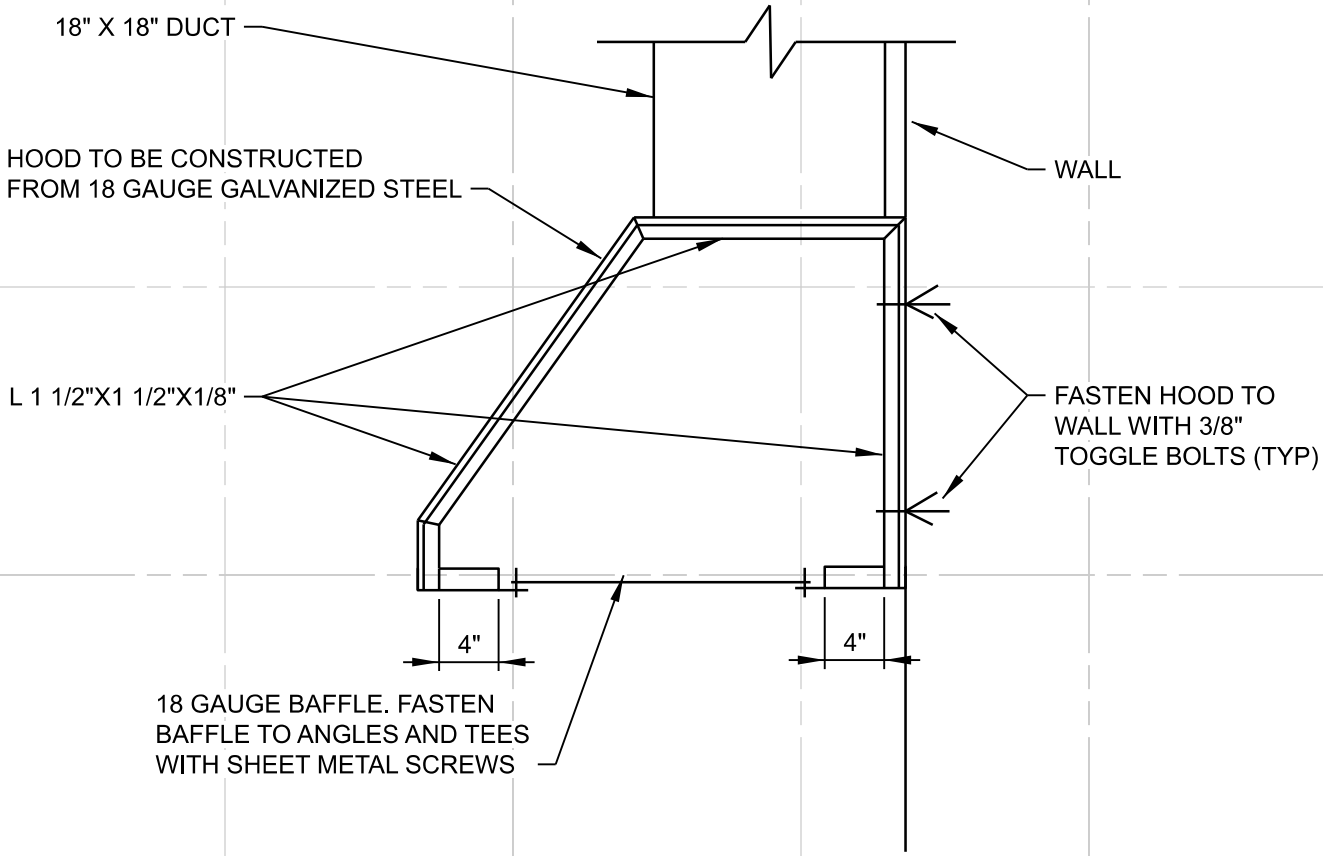


A1

DETAIL: ROOF MOUNTED EXHAUST FAN

SCALE: NTS

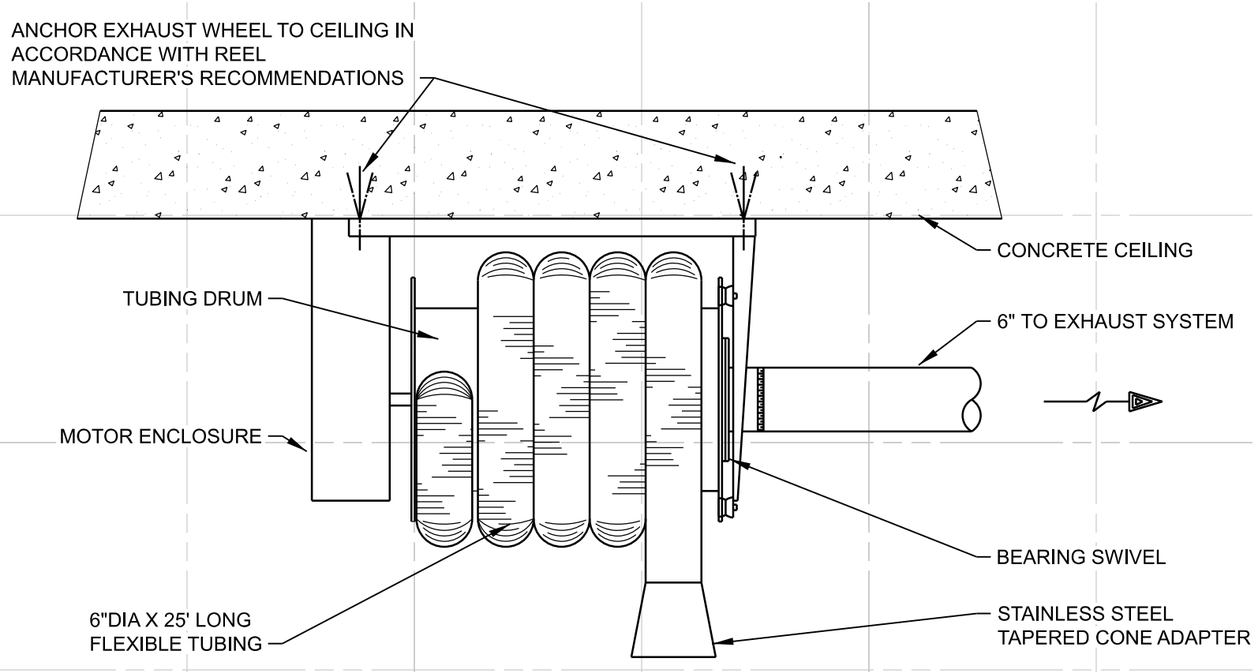




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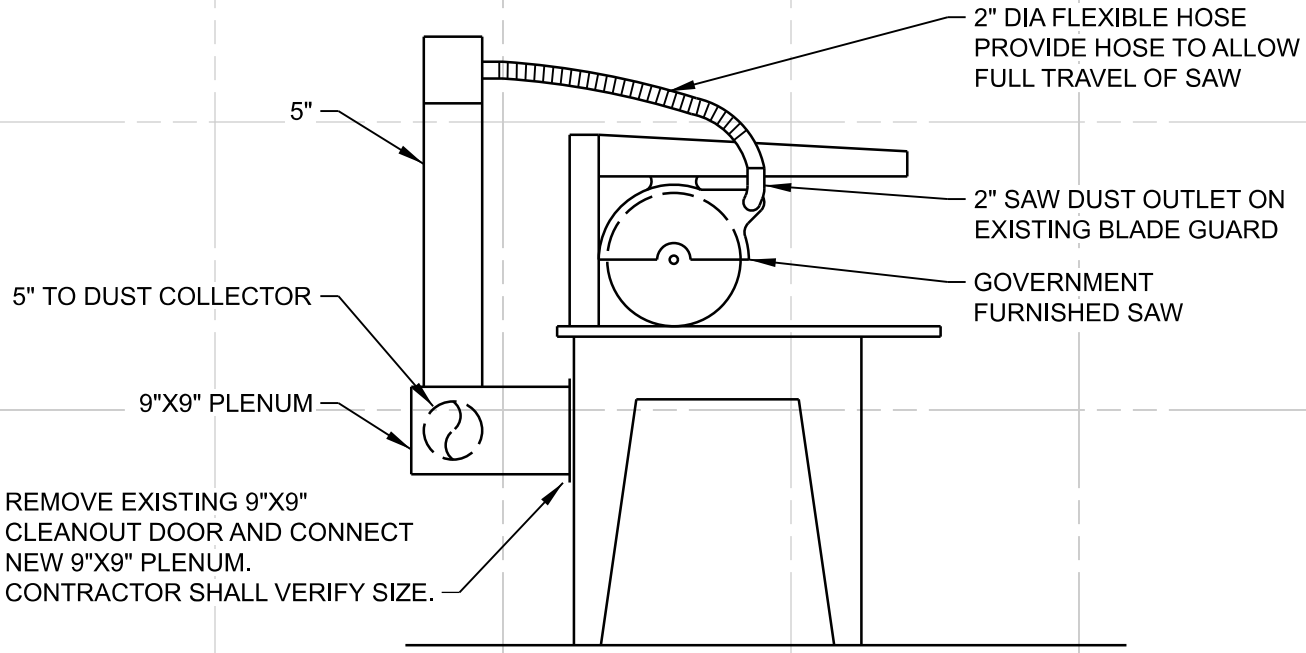
DETAIL: EXHAUST HOOD

SCALE: NTS



A1 DETAIL: VEHICLE EXHAUST REEL

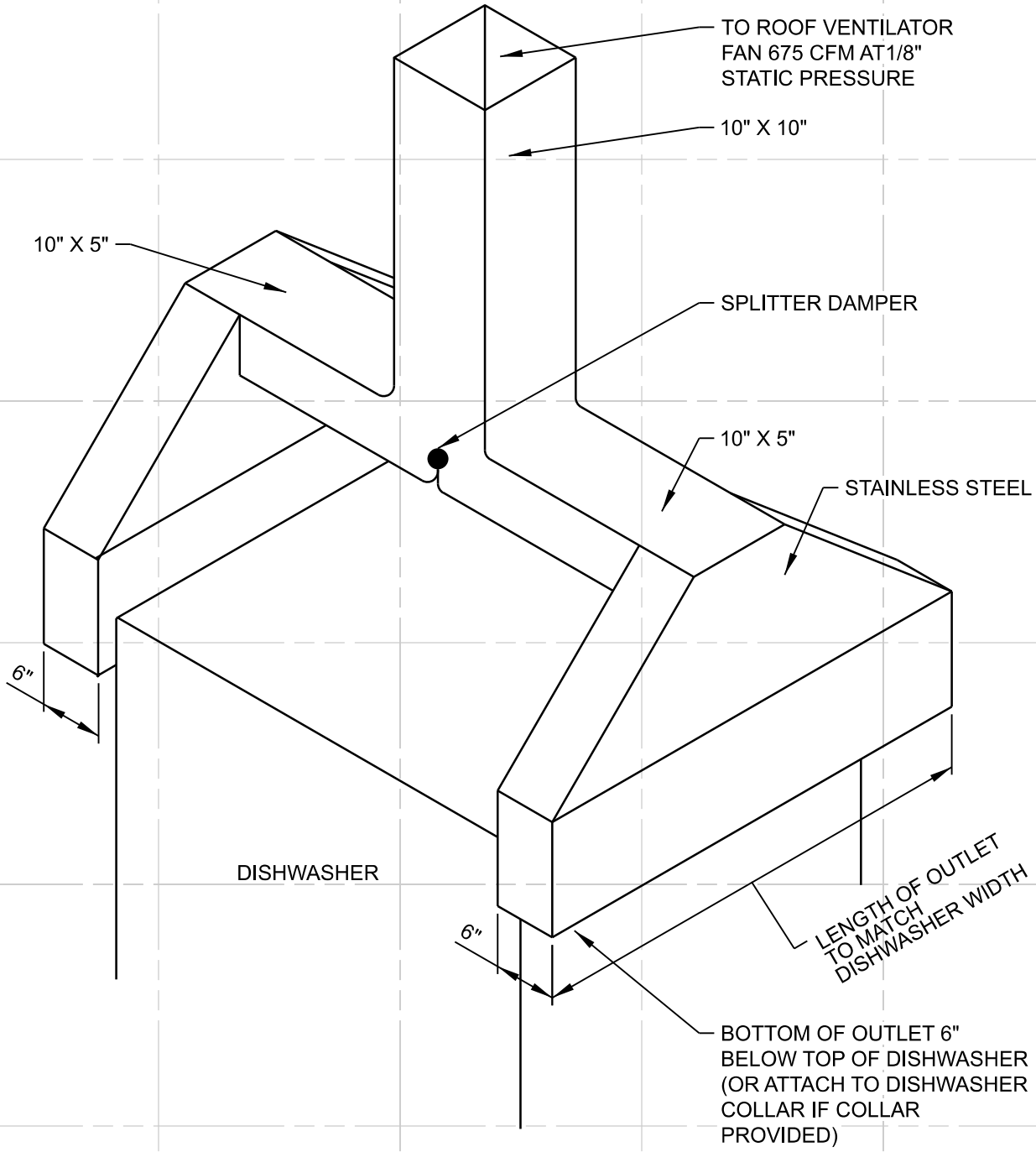
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A1

DETAIL: RADIAL ARM SAW DUST COLLECTION SYSTEM

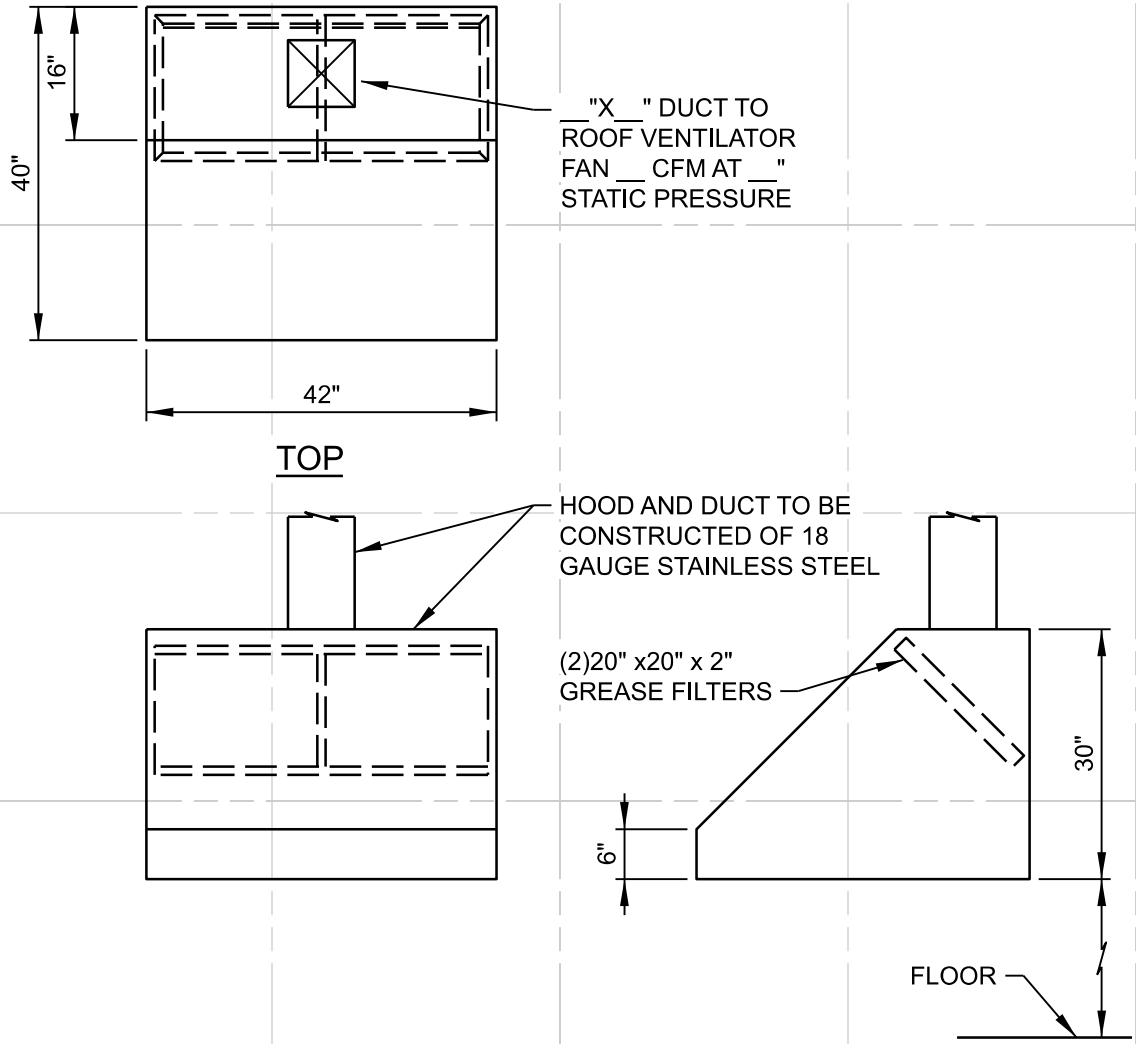
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A1

DETAIL: DISHWASHER HOOD

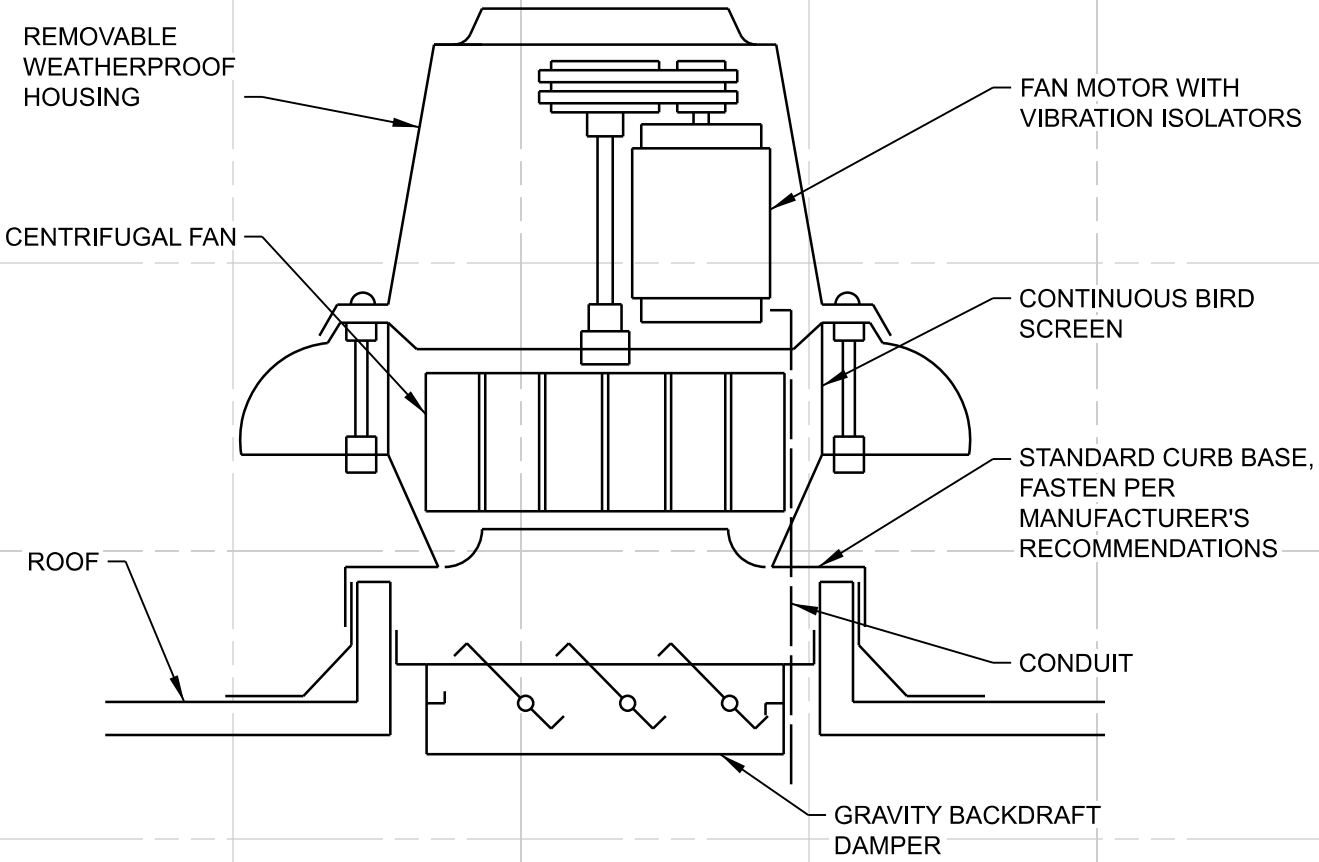
SCALE: NTS



A1

DETAIL: RANGE AND GRIDDLE HOOD

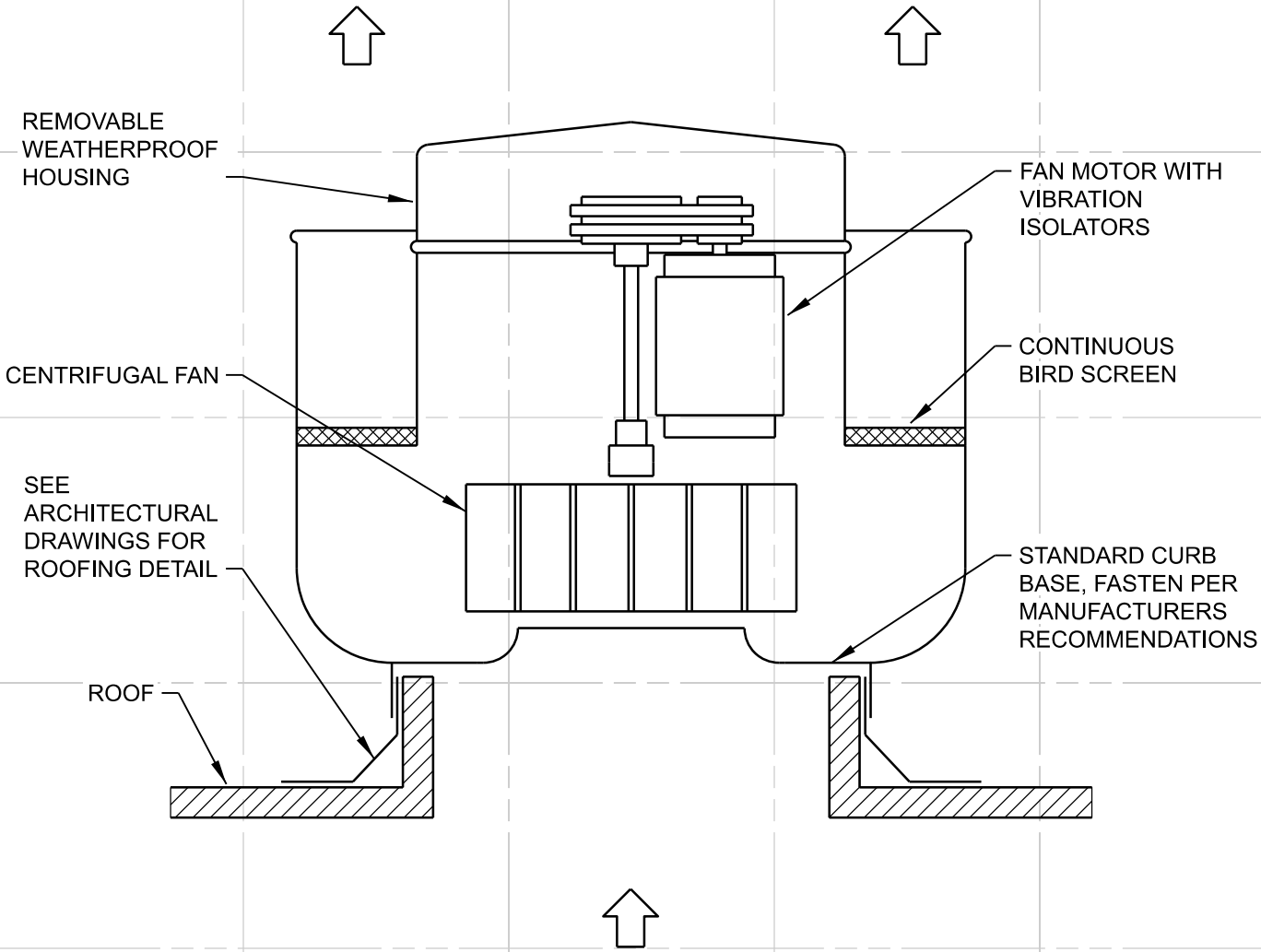
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A1

DETAIL: POWER ROOF VENTILATOR

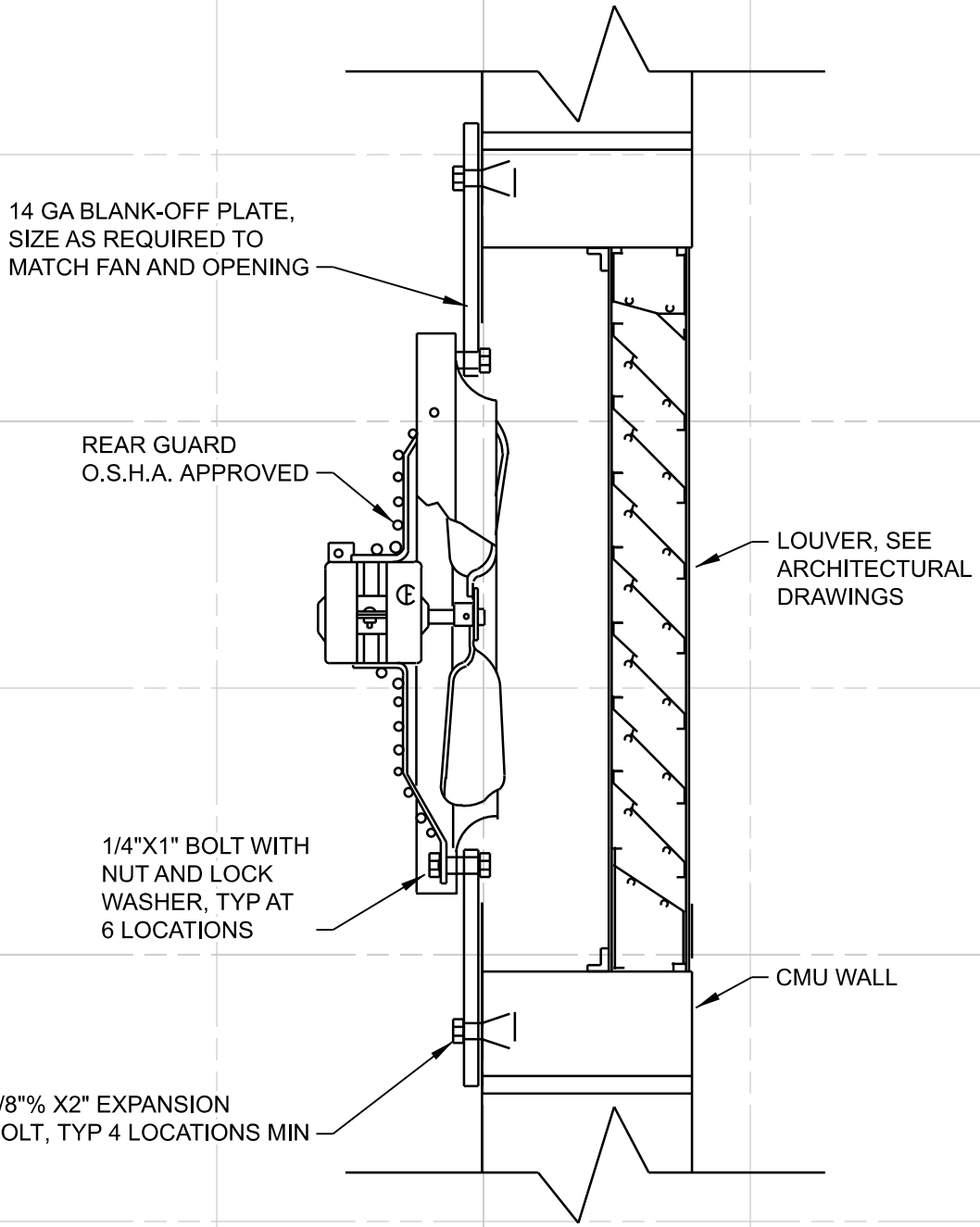
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A1

DETAIL: UPBLAST POWER ROOF VENTILATOR

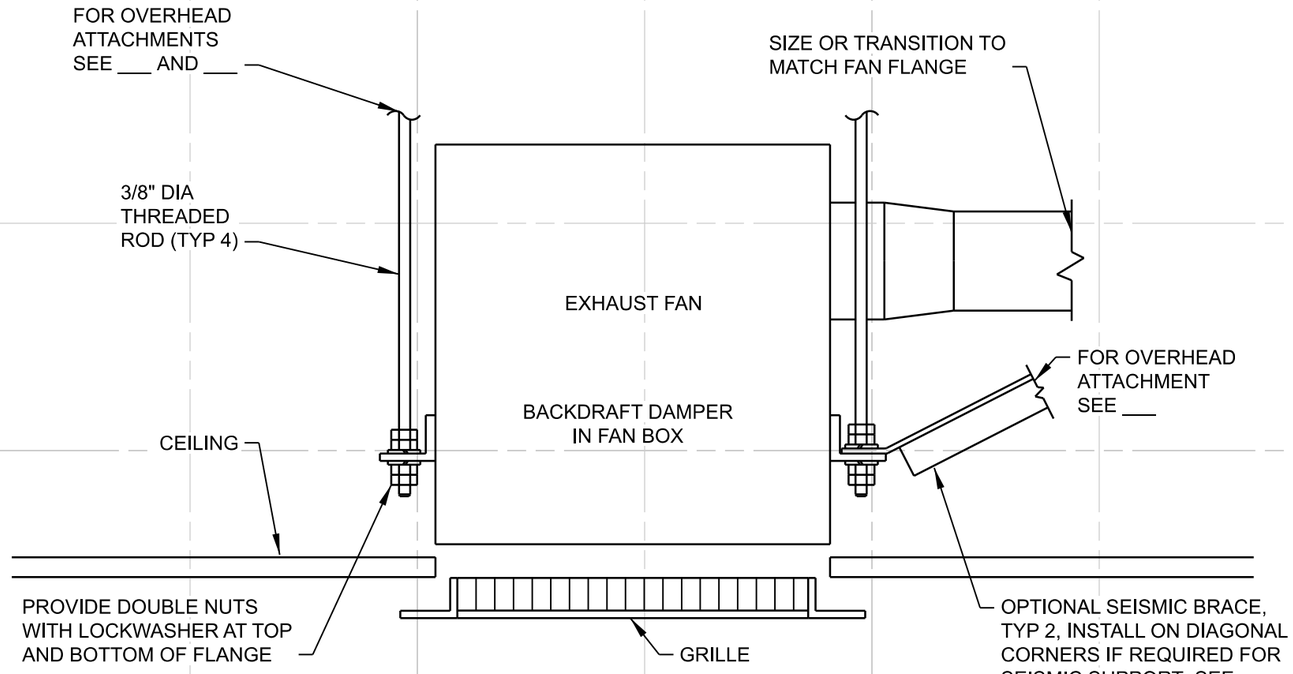
SCALE: NTS



A1

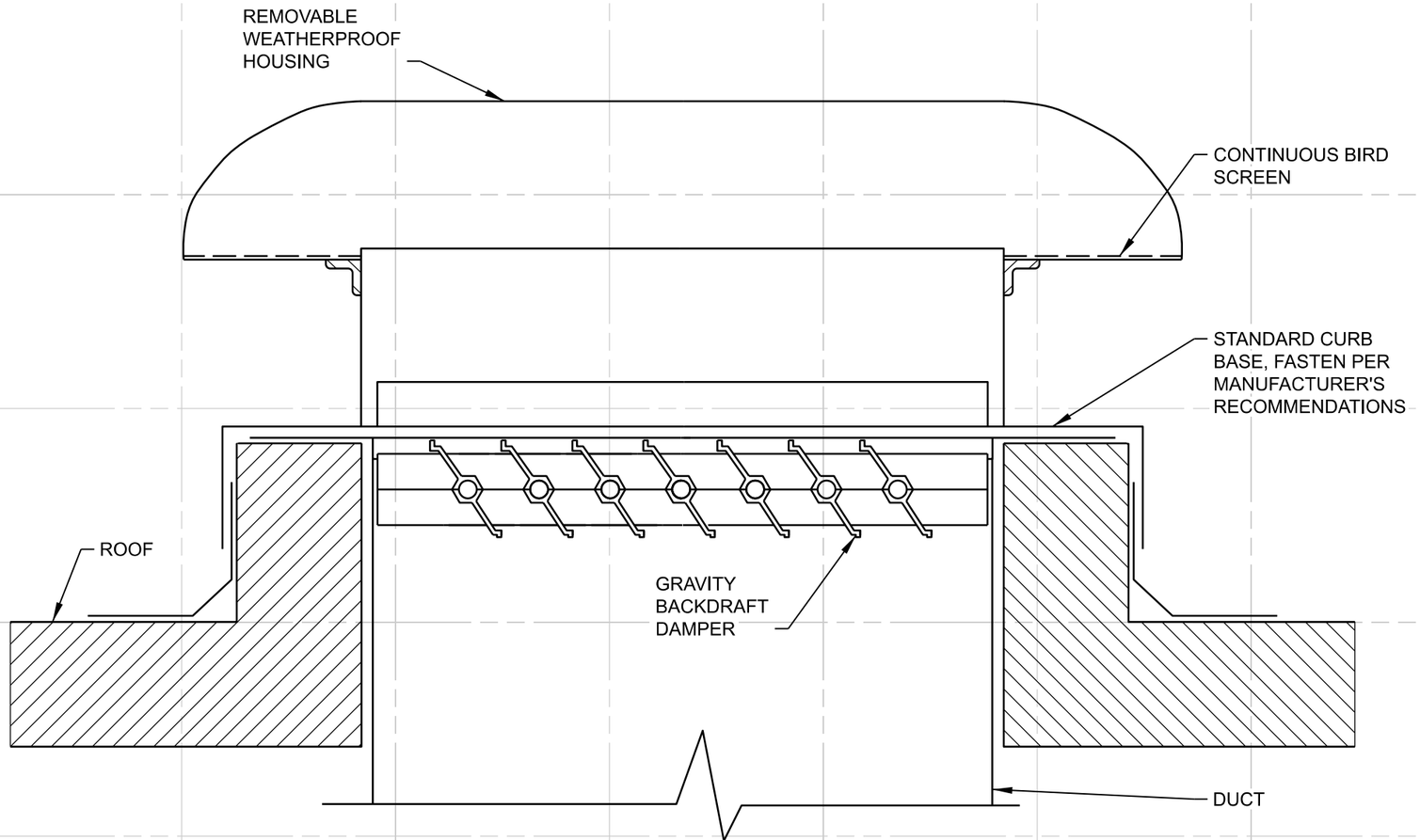
DETAIL: WALL MOUNTED EXHAUST FAN

SCALE: NTS



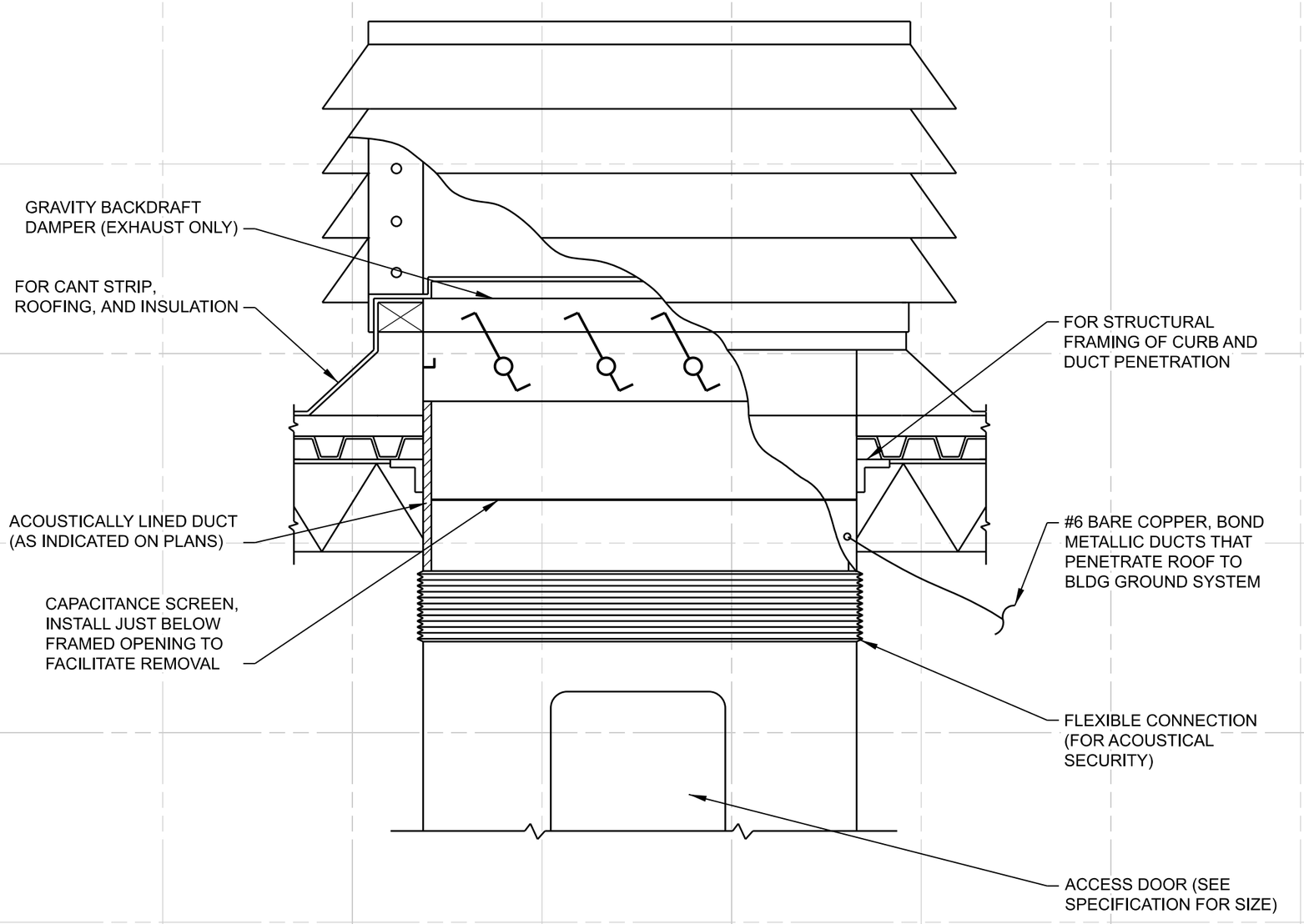
A1 DETAIL: CEILING EXHAUST FAN

SCALE: NTS



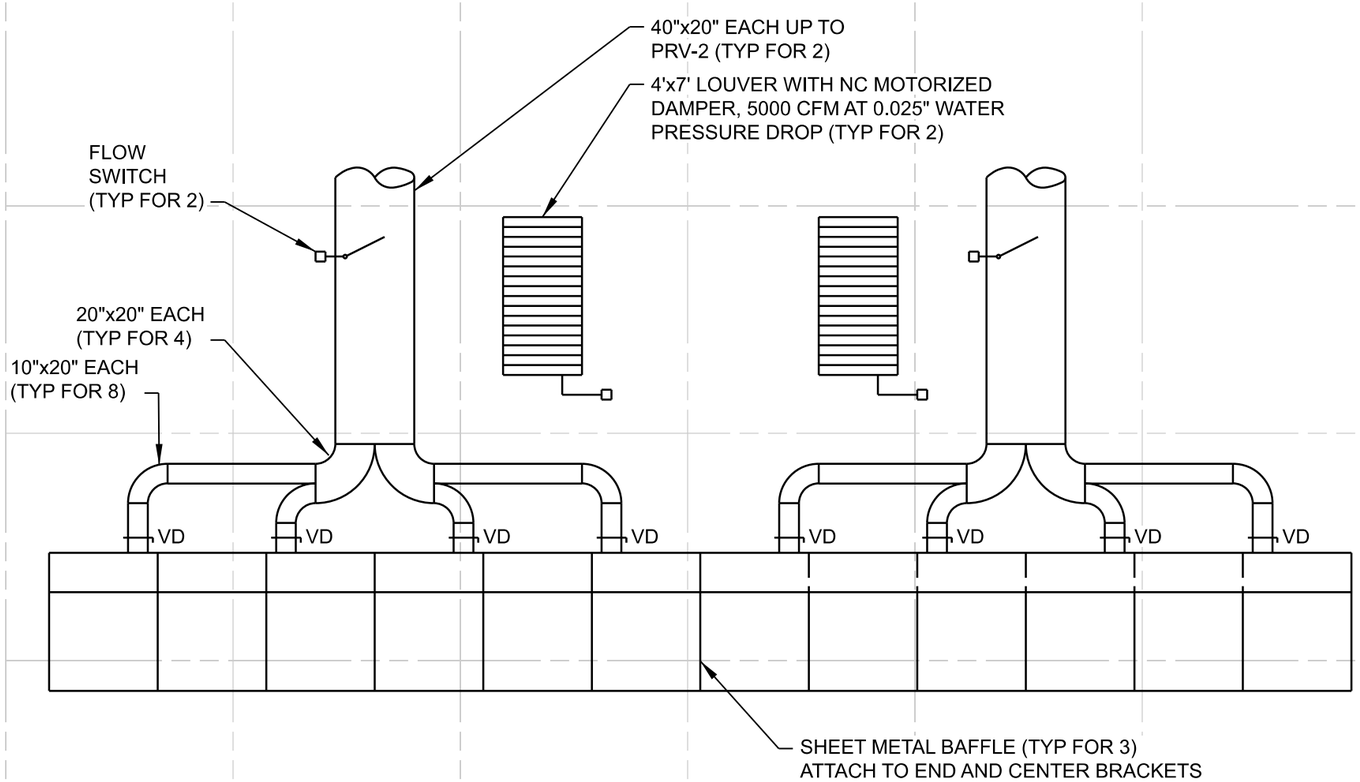
A1 DETAIL: RELIEF HOOD

SCALE: NTS



A1 DETAIL: INLET OR EXHAUST LOUVERED PENTHOUSE

SCALE: NTS



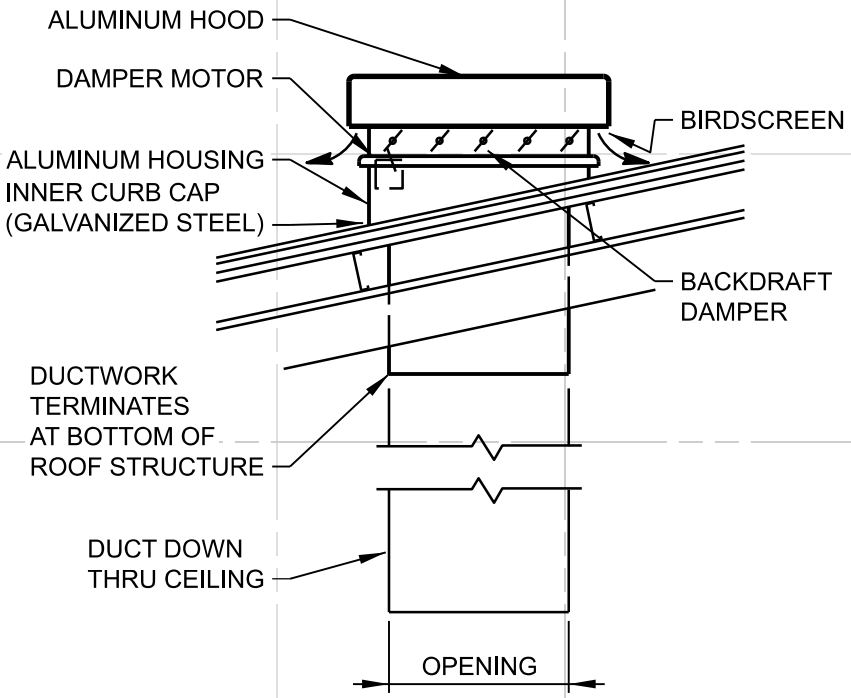
BATTERY AREA EXHAUST SEQUENCE OF CONTROLS:

1. MOTORIZED DAMPERS SHALL OPEN FULL WHEN THE RESPECTIVE [PRV-X] IS ENERGIZED. CONTROL MAY BE BY THE FLOW SWITCH OR SEPARATE CONTACT.
2. BATTERY CHARGERS SHALL RECEIVE POWER ONLY UPON ACTIVATION OF THE RESPECTIVE FLOW SWITCH. SEE ELECTRICAL DRAWINGS FOR WIRING.

A1

DETAIL: EXHAUST HOOD

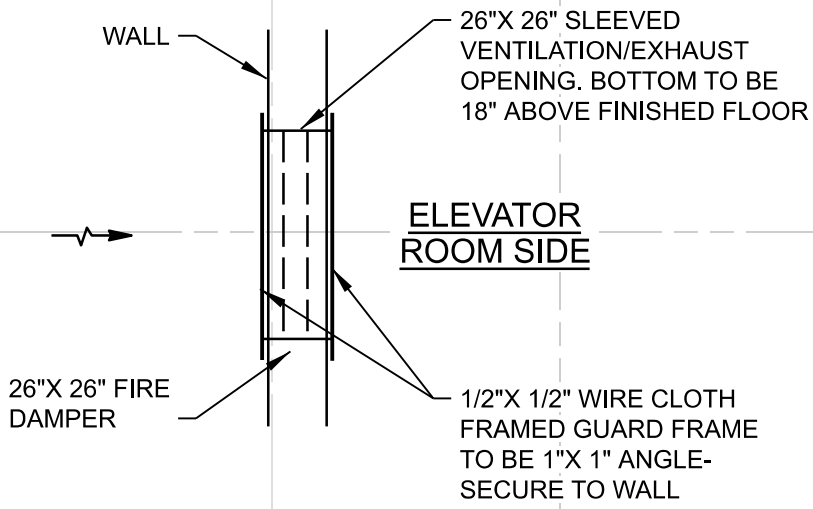
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A1

DETAIL: ROOF EXHAUST VENT

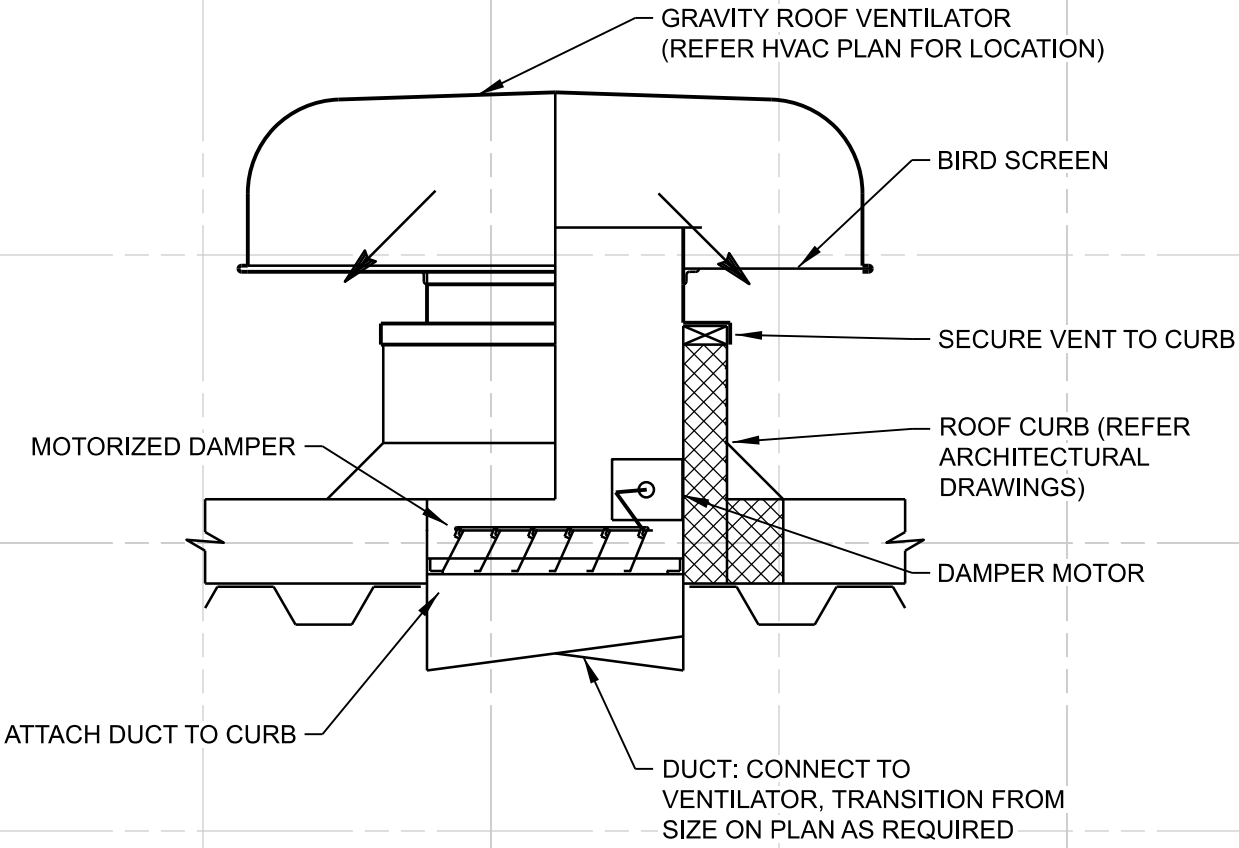
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DETAIL: VENTILATION/ EXHAUST OPENING

A1

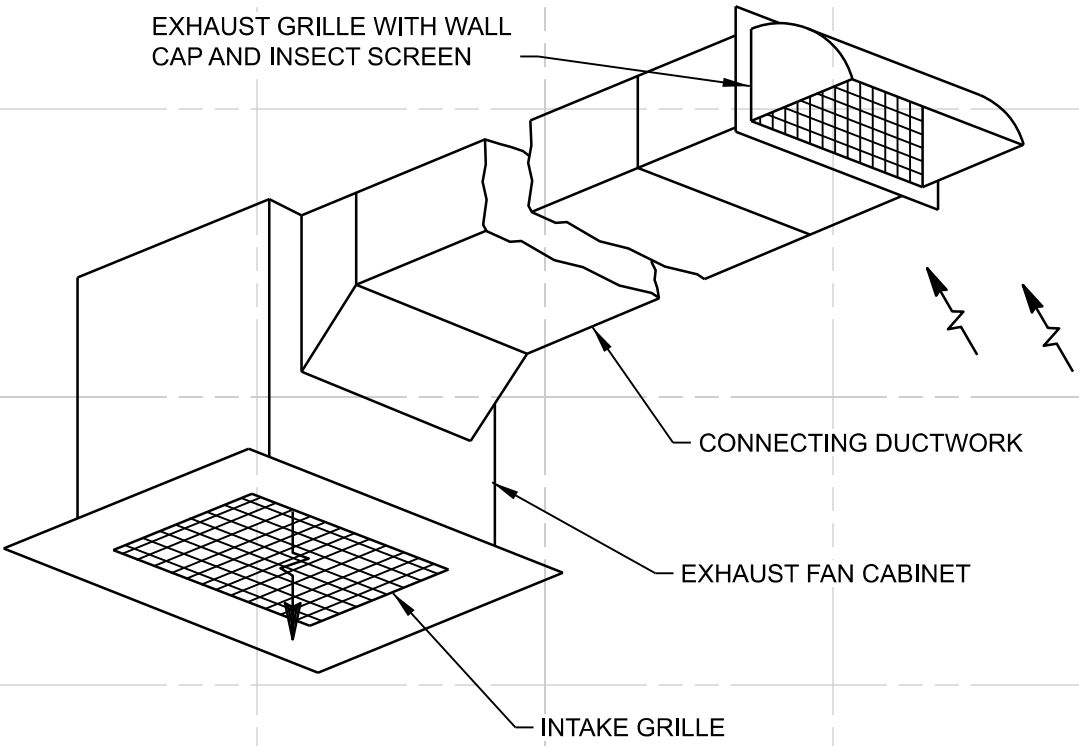
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A1

DETAIL: GRAVITY VENTILATOR (ROOF MOUNTED-INTAKE)

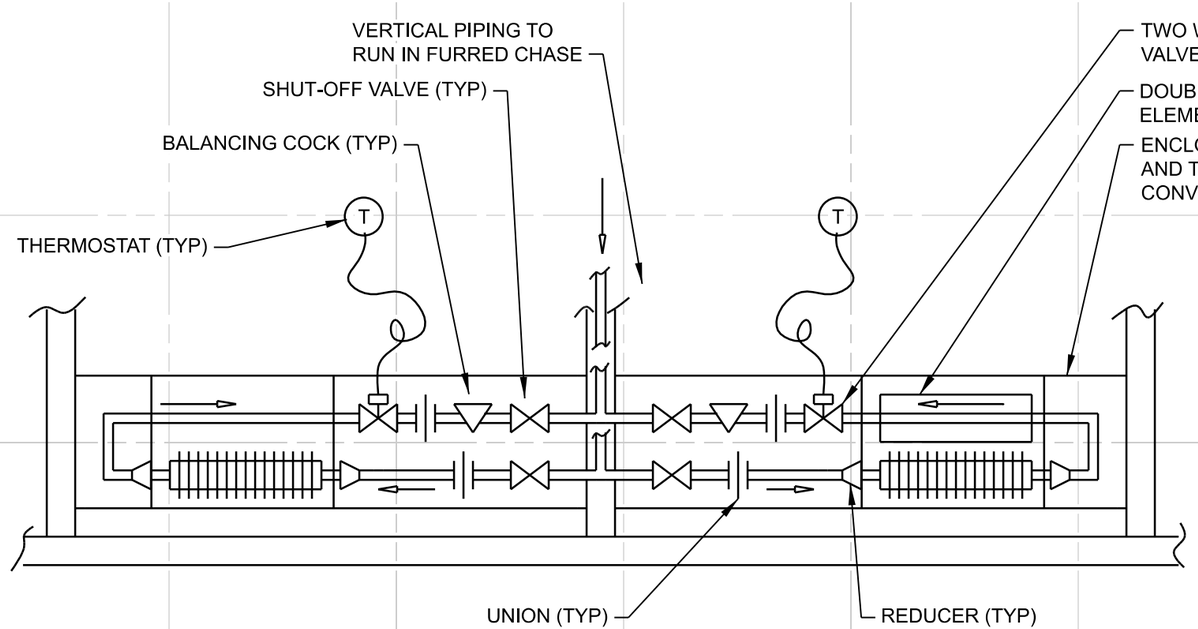
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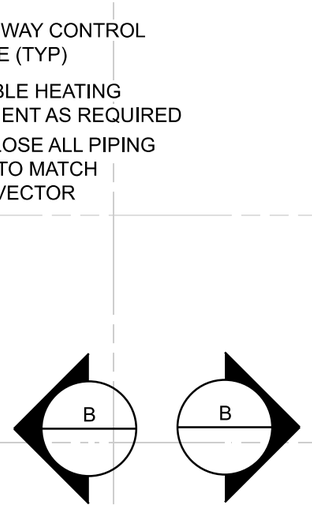
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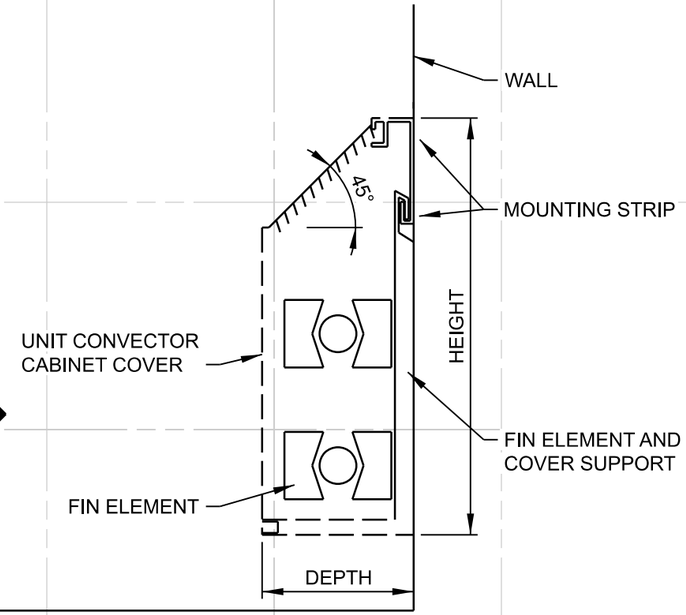
DETAIL: CEILING EXHAUST FAN

SCALE: NTS



ELEVATION A

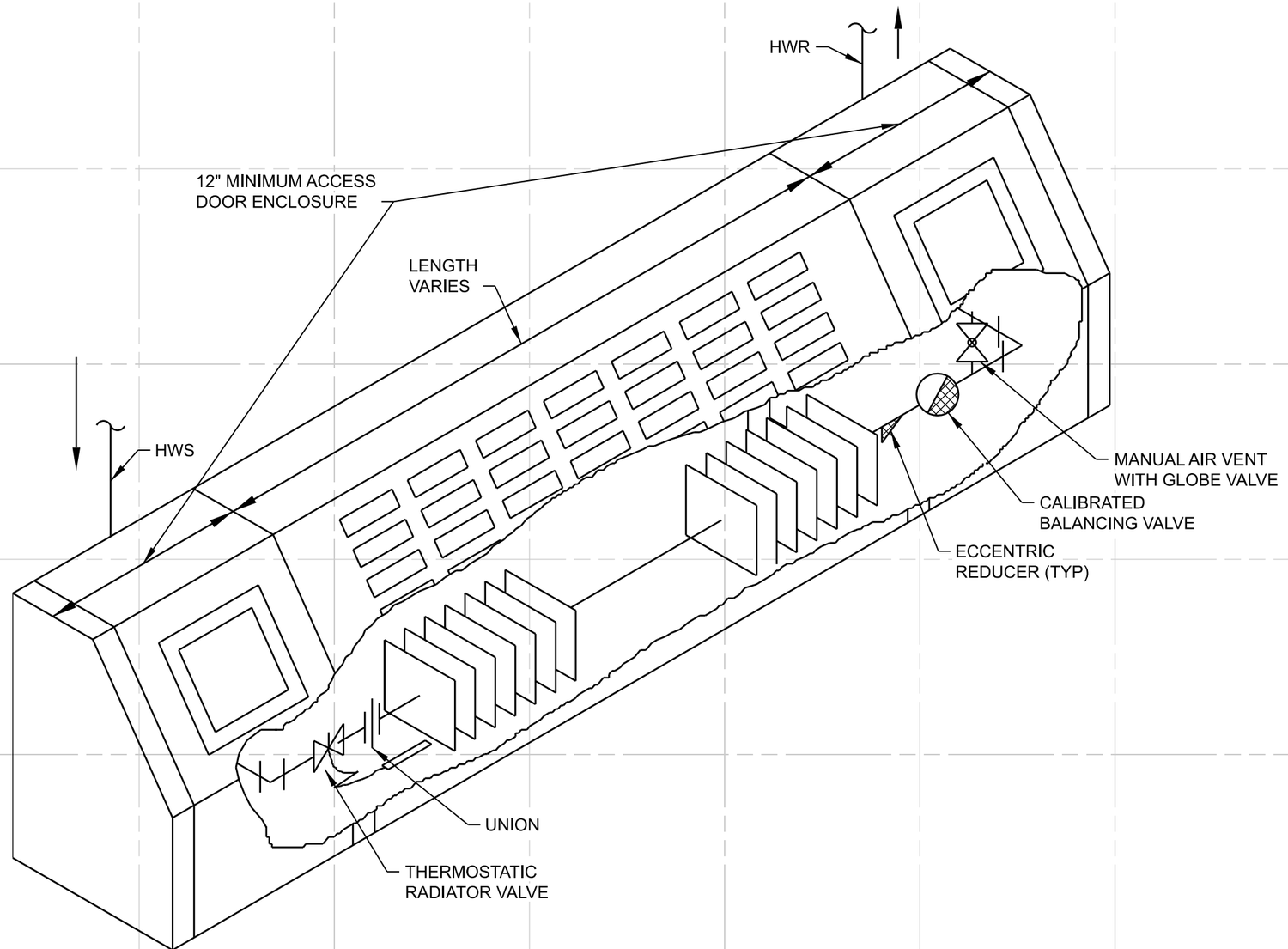




ELEVATION B

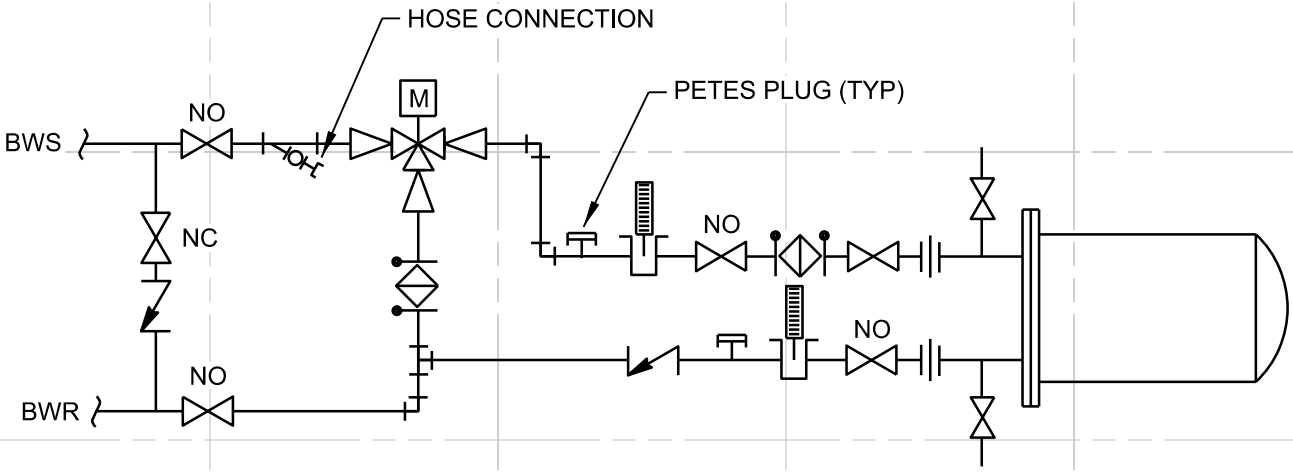
A1 DETAIL: UNIT CONVECTOR

SCALE: NTS



A1 DETAIL: SINGLE TIER RADIATOR

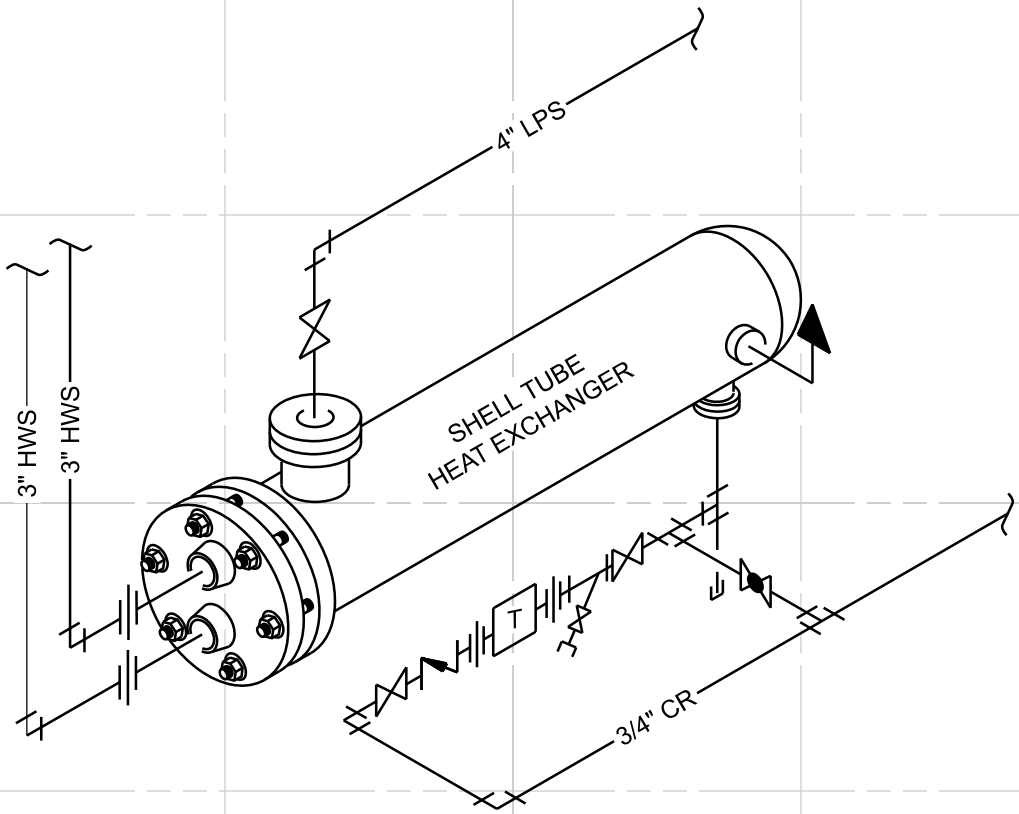
SCALE: NTS



A1

SCHEMATIC: HEAT EXCHANGER PIPING

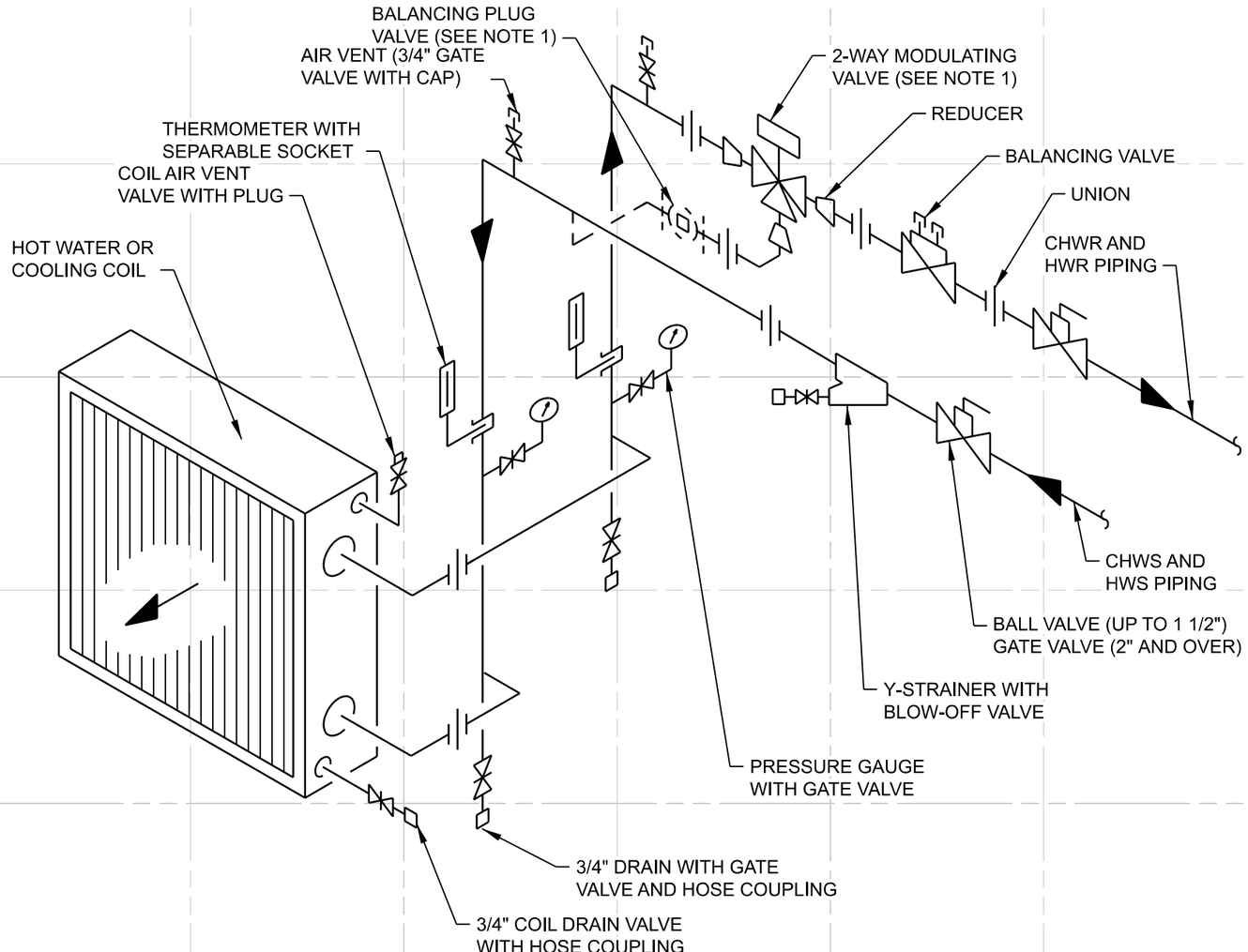
SCALE: NTS



DETAIL: HEAT EXCHANGER CONNECTION

A1

SCALE: NTS

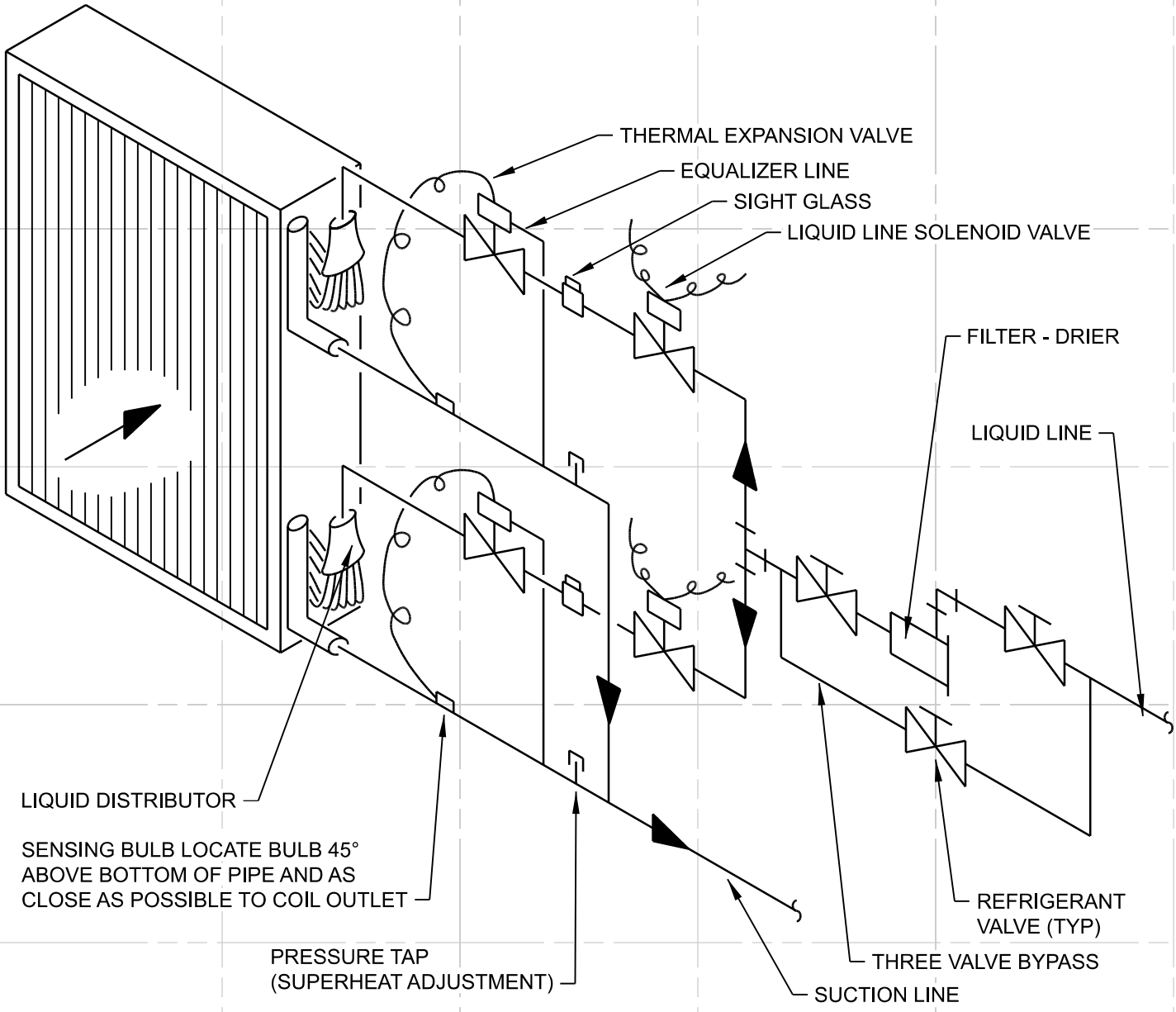


NOTE:
1. WHERE 3-WAY MODULATING VALVES ARE REQUIRED PROVIDE ADDITIONAL PIPING AND ACCESSORIES AS SHOWN.

DETAIL: AIR HANDLING UNIT COIL PIPING (SINGLE COIL CONNECTIONS)

A1

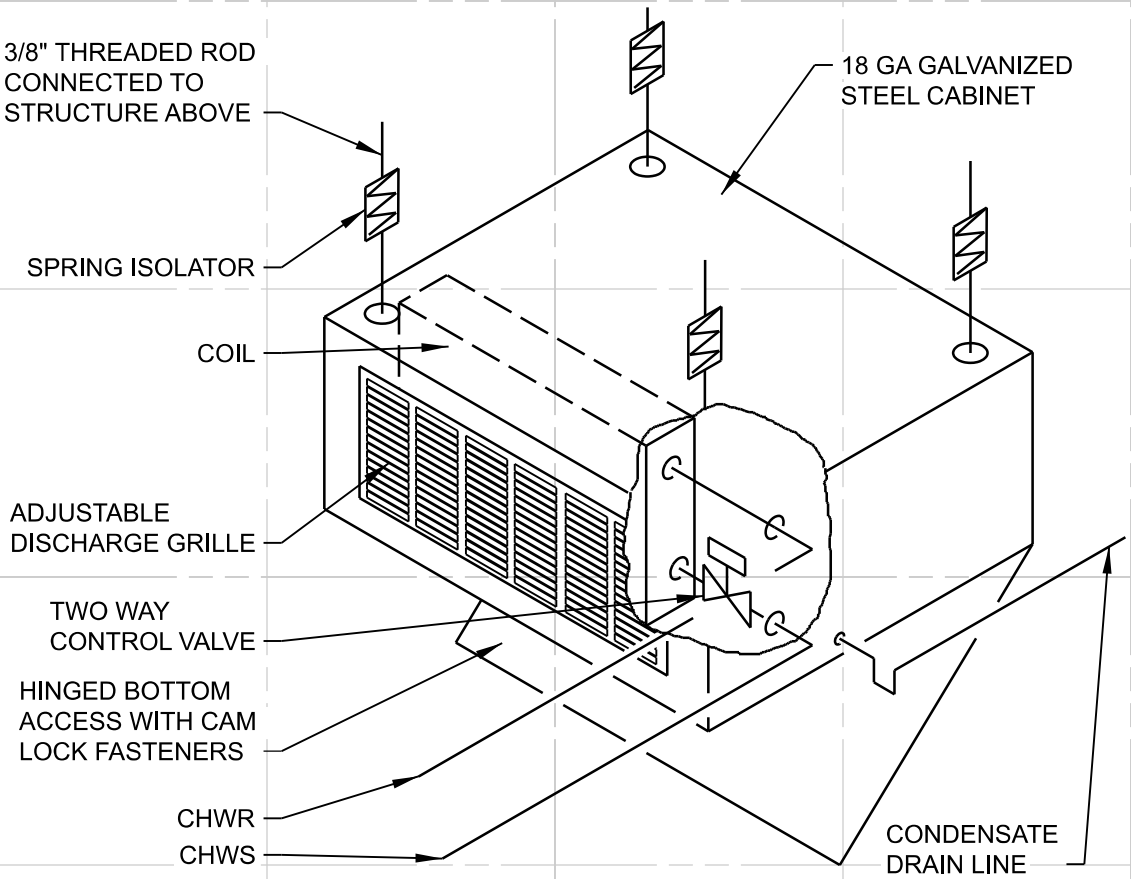
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A1

DETAIL: REFRIGERANT COIL

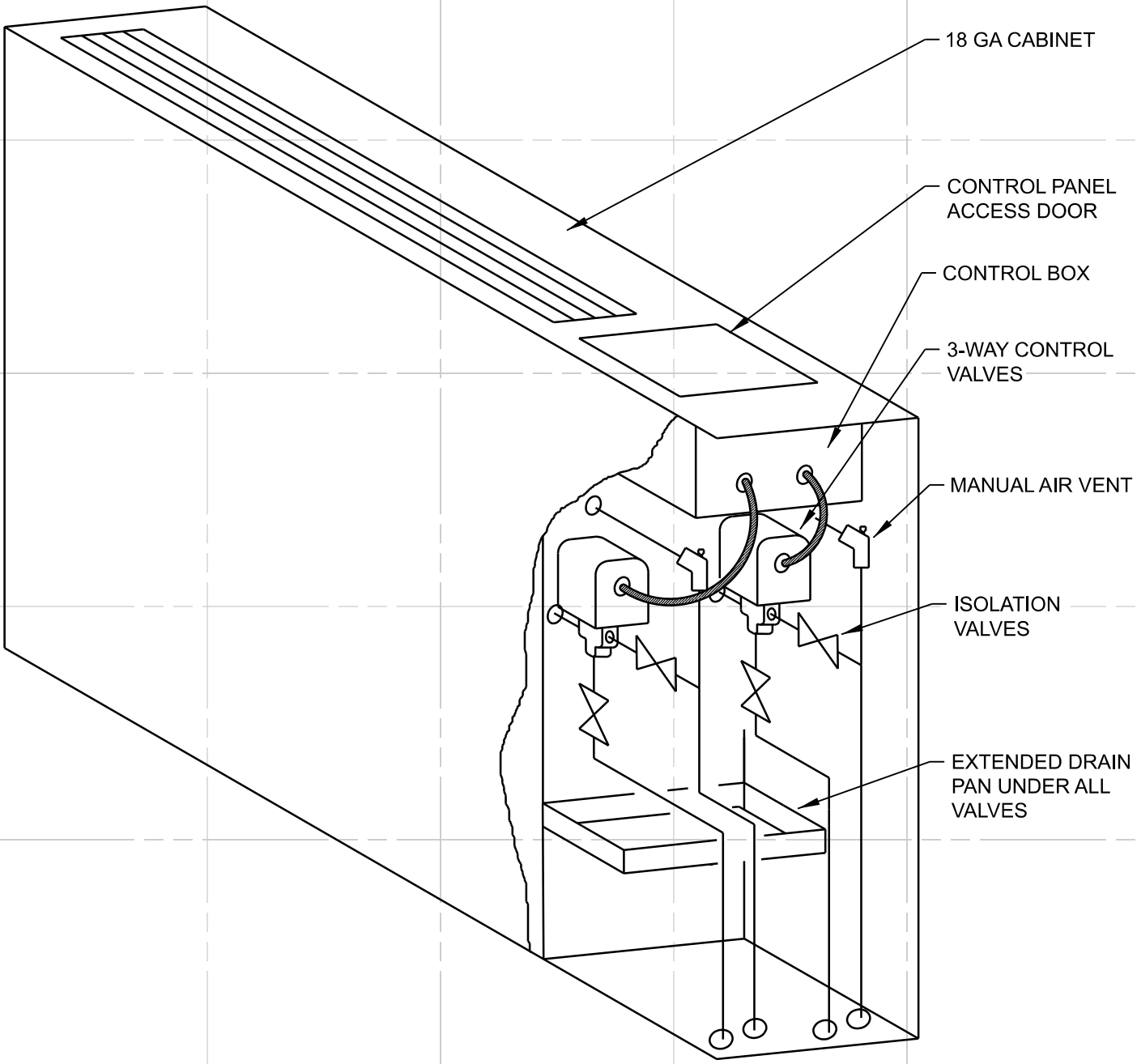
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A1

DETAIL: HORIZONTAL FAN COIL UNIT

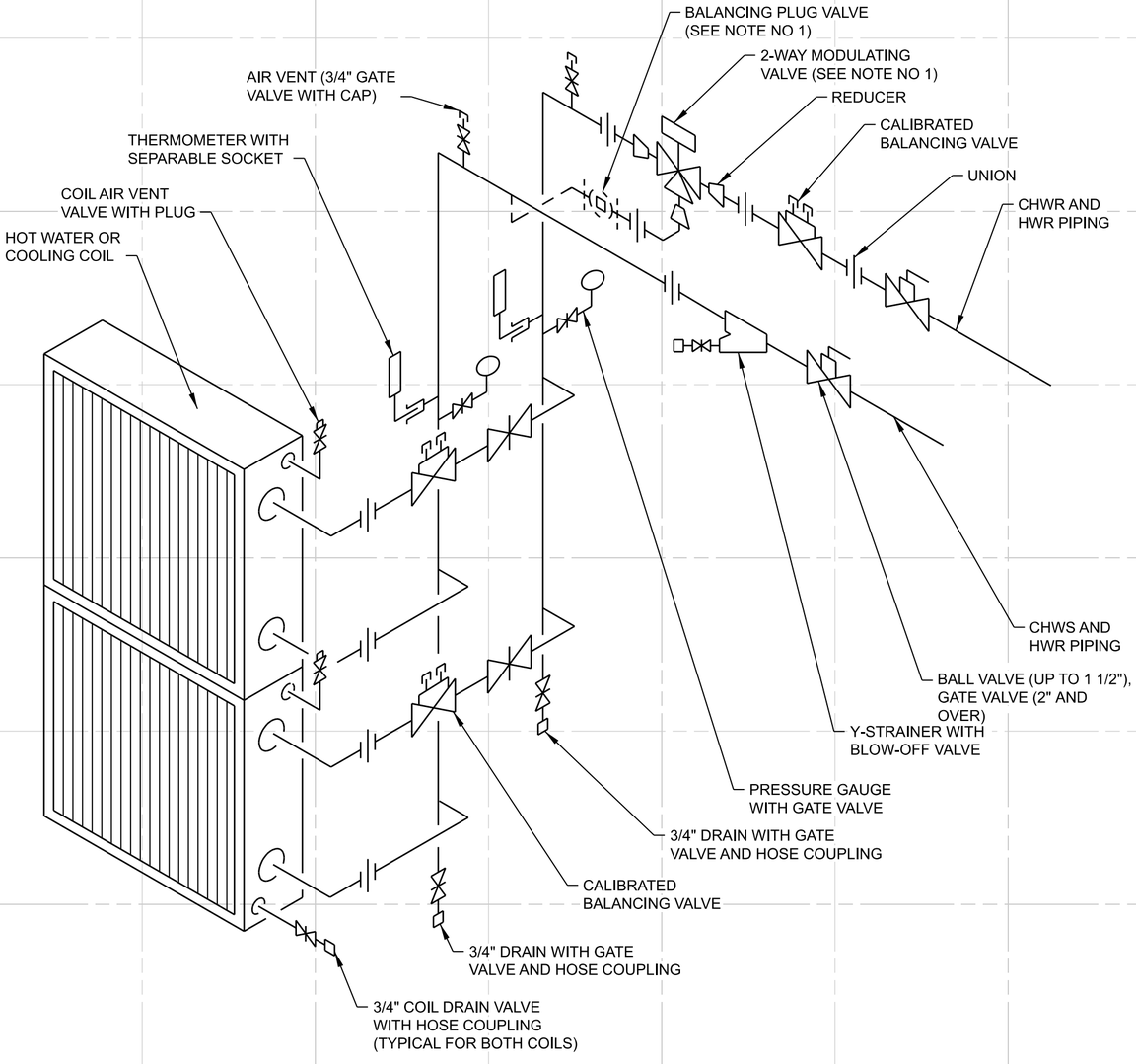
SCALE: NTS



A1

DETAIL: FAN COIL UNIT

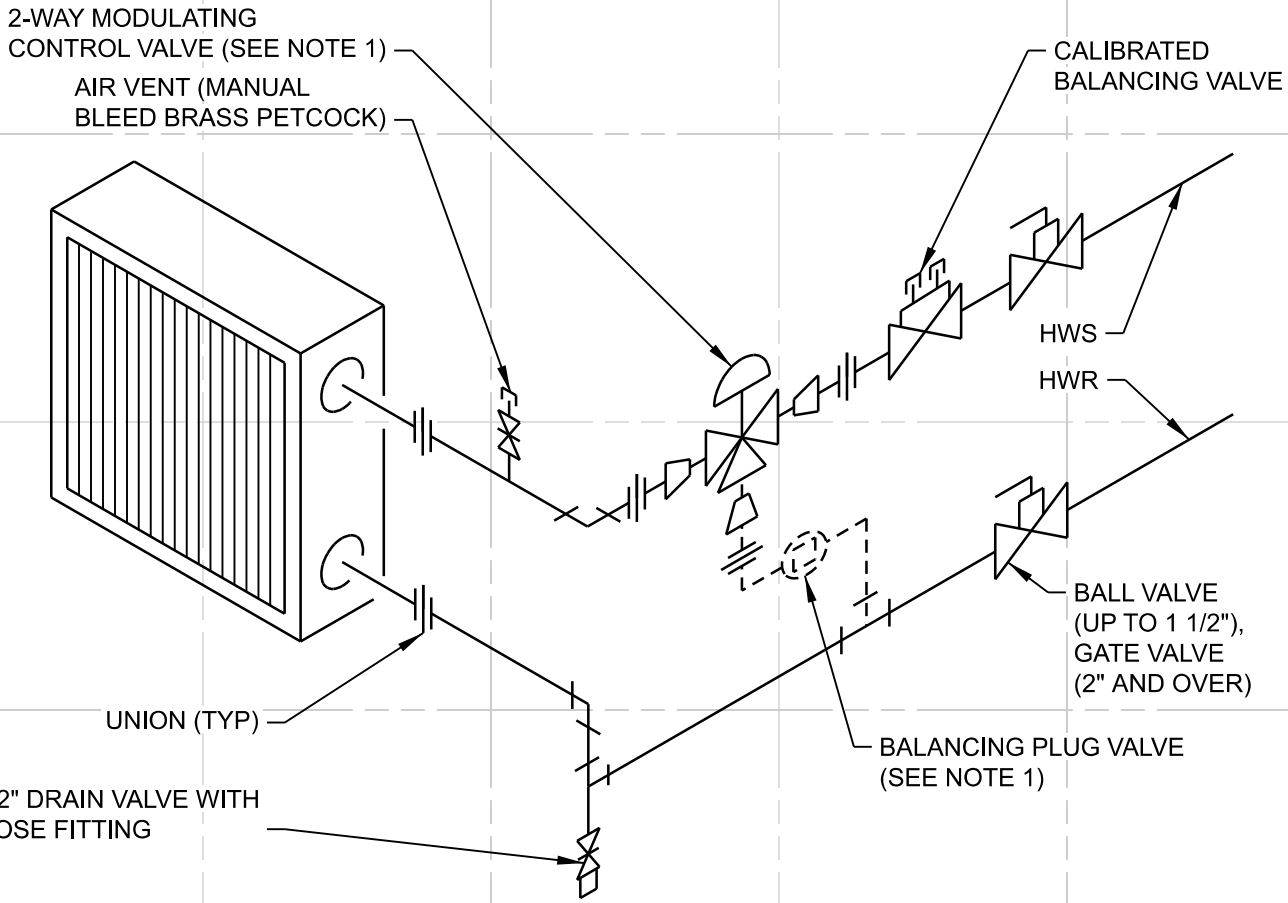
SCALE: NTS



NOTE:
1. WHERE 3-WAY MODULATING VALVES ARE REQUIRED PROVIDE ADDITIONAL PIPING AND ACCESSORIES AS SHOWN.

A1 DETAIL: AIR HANDLING UNIT COIL PIPING

SCALE: NTS

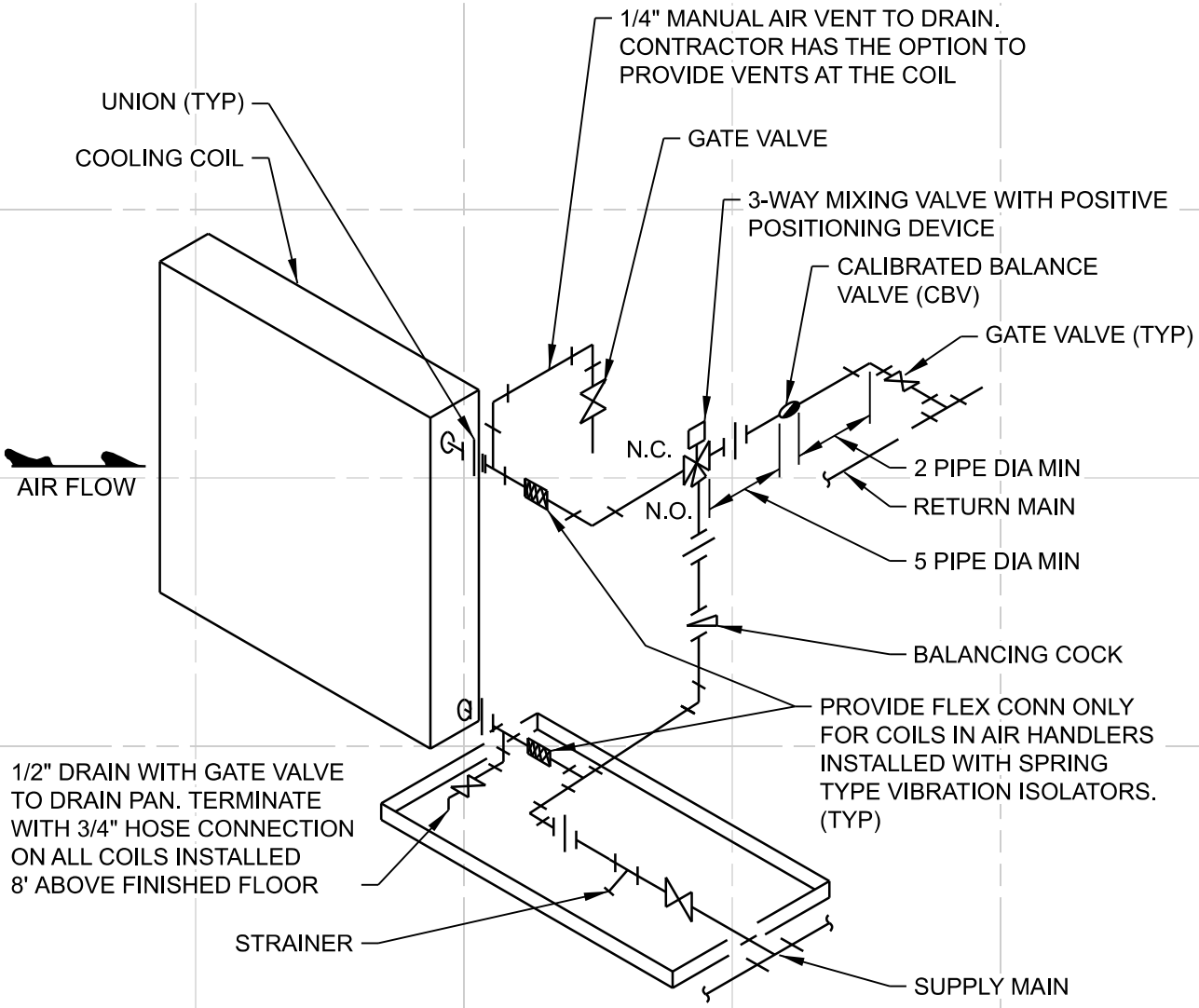


NOTE:
1. WHERE 3-WAY MODULATING VALVES ARE REQUIRED PROVIDE ADDITIONAL ACCESSORIES AS SHOWN.

A1

DETAIL: VAV HEATING COIL

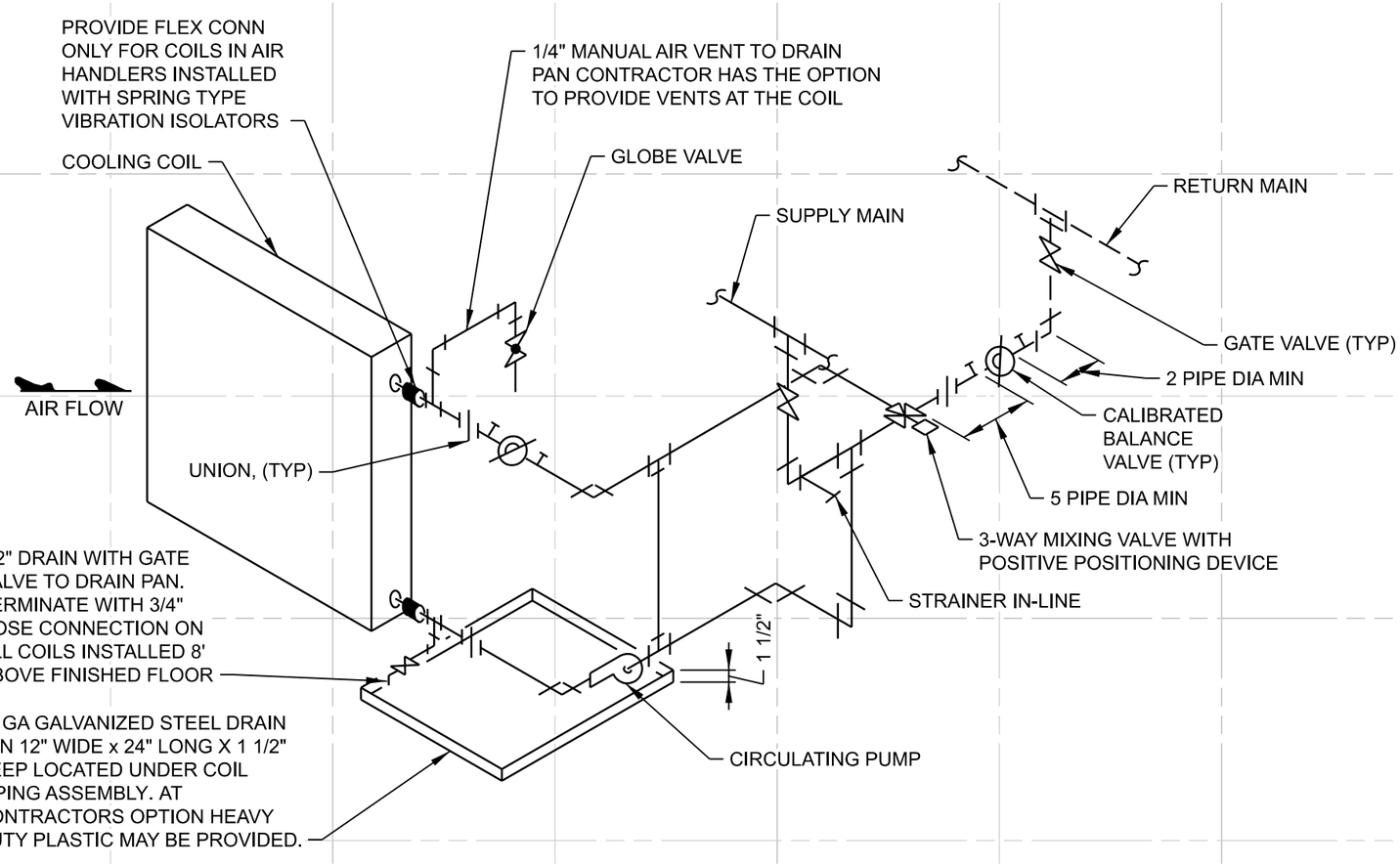
SCALE: NTS



A1

DETAIL: CHILLED WATER COIL CONNECTION (3-WAY MIXING VALVE)

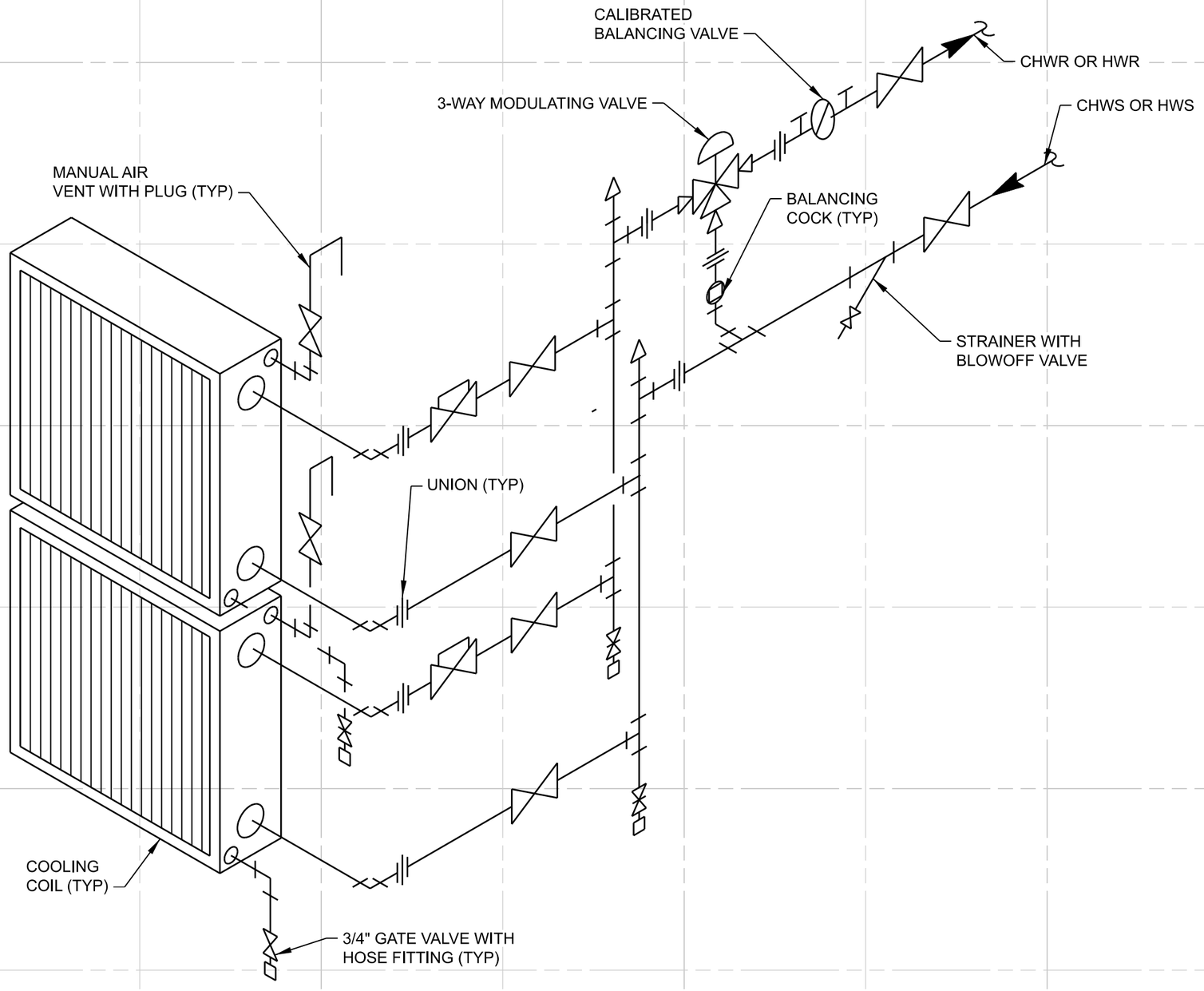
SCALE: NTS



A1

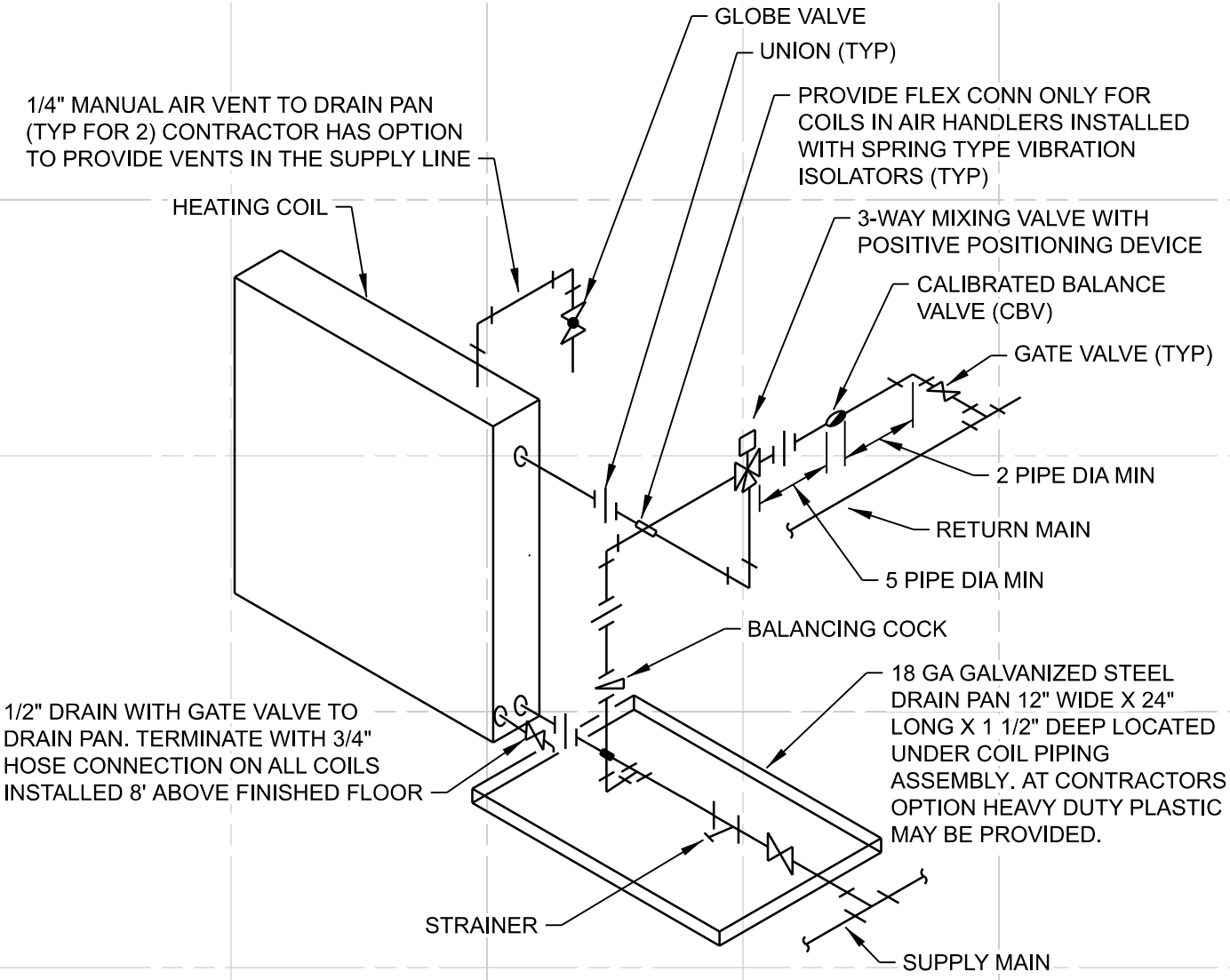
DETAIL: CONNECTIONS TO CHILLED WATER COIL WITH INDIVIDUAL CIRCULATING PUMP

SCALE: NTS



A1 DETAIL: STACKED COILS

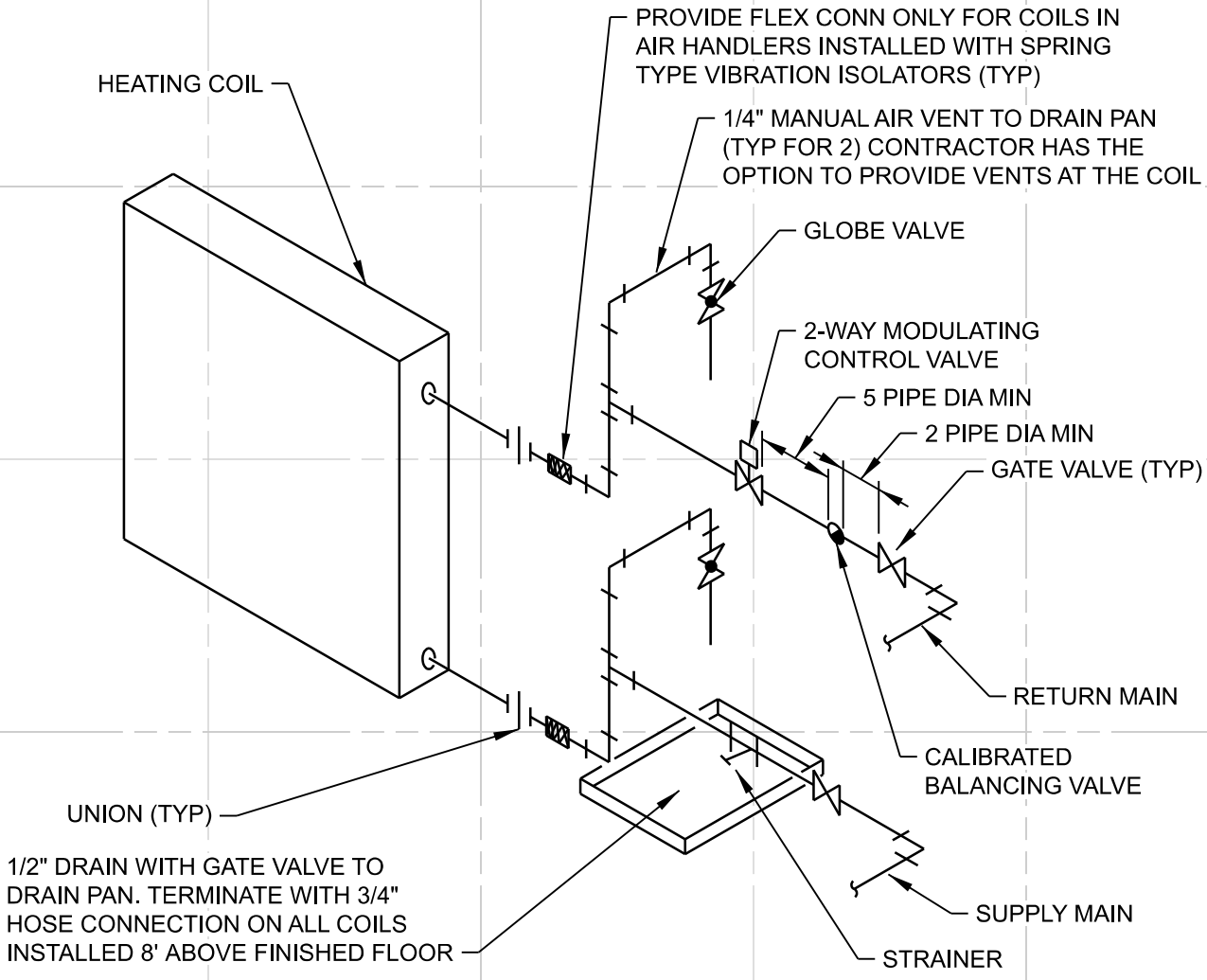
SCALE: NTS



A1

DETAIL: HOT WATER COIL CONNECTION (3-WAY MIXING VALVE)

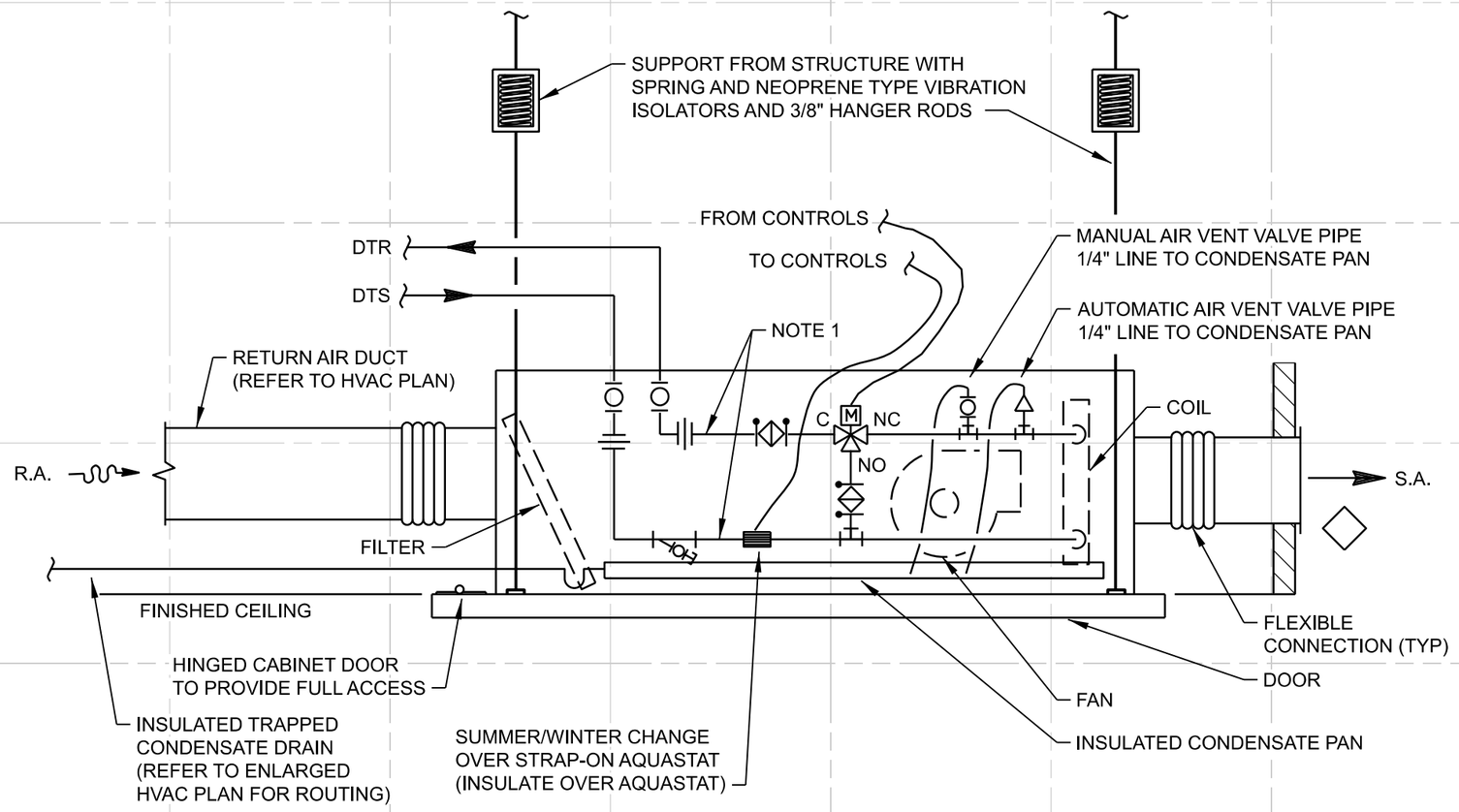
SCALE: NTS



DETAIL: HOT WATER COIL WITH 2-WAY MIXING VALVE

A1

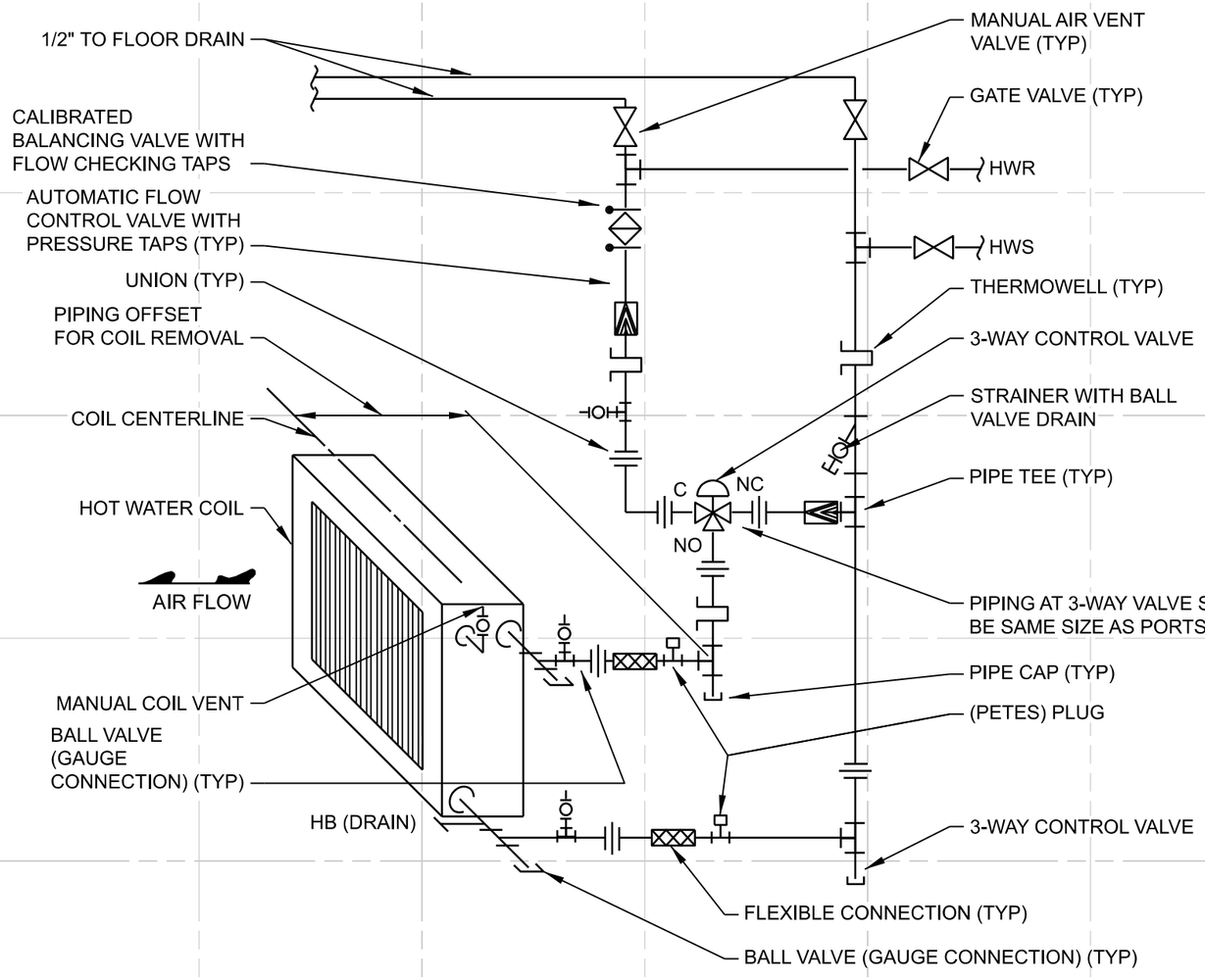
SCALE: NTS



NOTES:
1. PROVIDE 3" LONG REMOVABLE SECTION OF PIPE INSULATION FOR STRAP-ON THERMOMETERS.
2. ALL VALVES, PIPING AND EQUIPMENT SHOWN TO BE LOCATED INSIDE FAN COIL UNIT CABINET WITH ACCESS FROM BELOW UNIT.

A1 SCHEMATIC: FAN COIL UNIT PIPING (DUCTED INSTALLATION)

SCALE: NTS

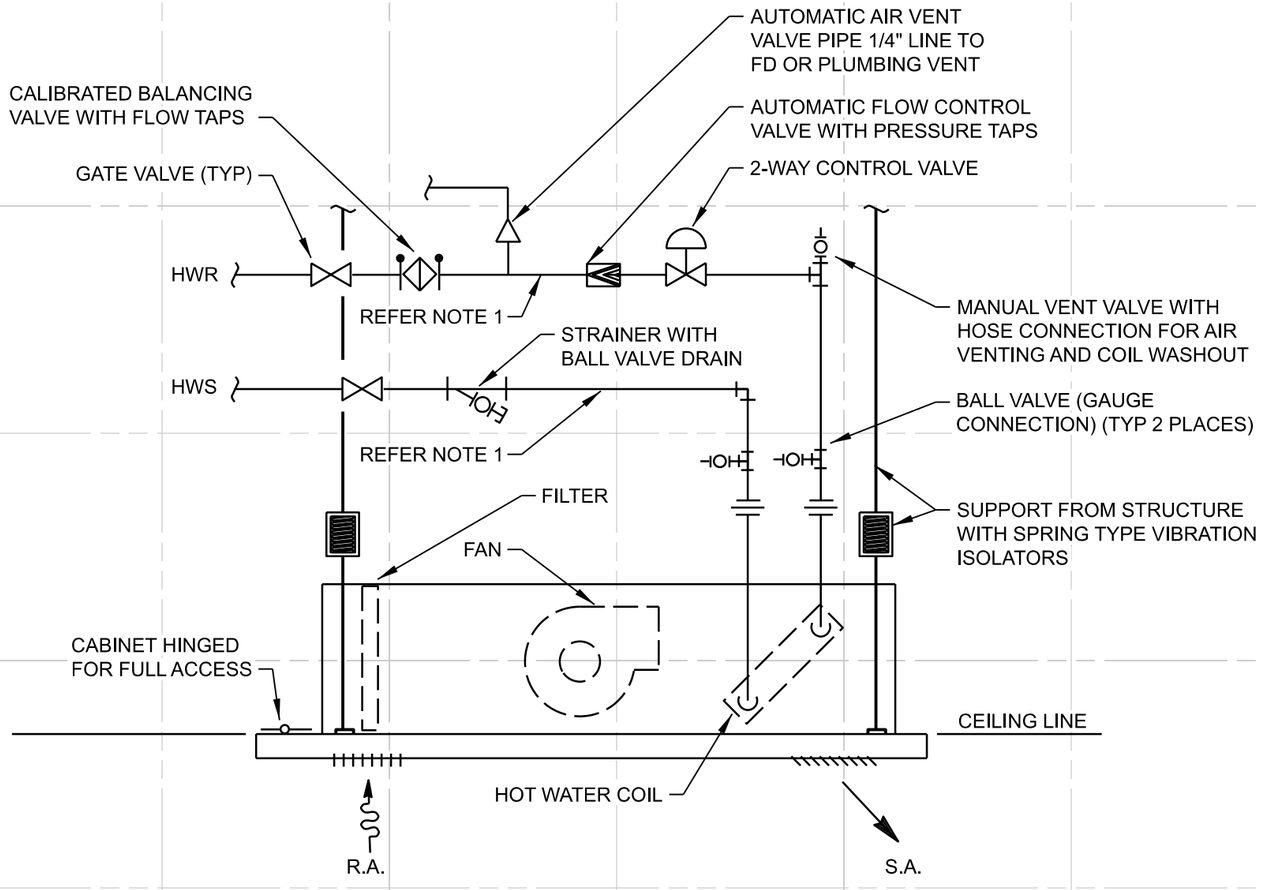


NOTES:
1. COILS WITH 2 ROWS OR GREATER SHALL BE PIPED FOR COUNTER FLOW OF WATER AND AIR.
2. PROVIDE PIPING REDUCERS AS REQUIRED.
3. VERIFY PIPING CONNECTIONS FOR 3-WAY VALVE WITH TEMPERATURE CONTROL CONTRACTOR.

A1

SCHEMATIC: HOT WATER COIL PIPING

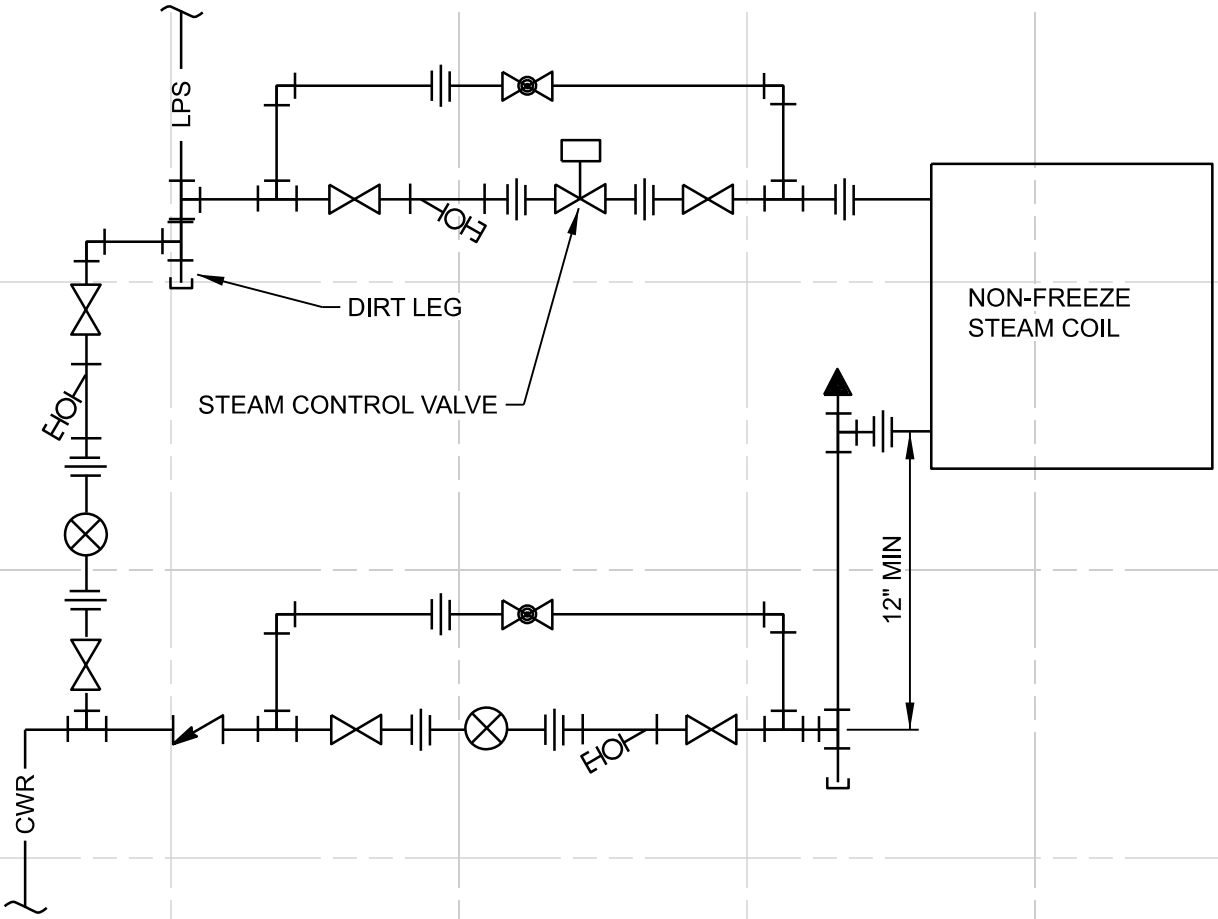
SCALE: NTS



NOTE:
1. PROVIDE 3" LONG REMOVABLE SECTION OF PIPE INSULATION FOR STRAP-ON THERMOMETERS.

A1 SCHEMATIC: HEATING ONLY FAN COIL UNIT PIPING

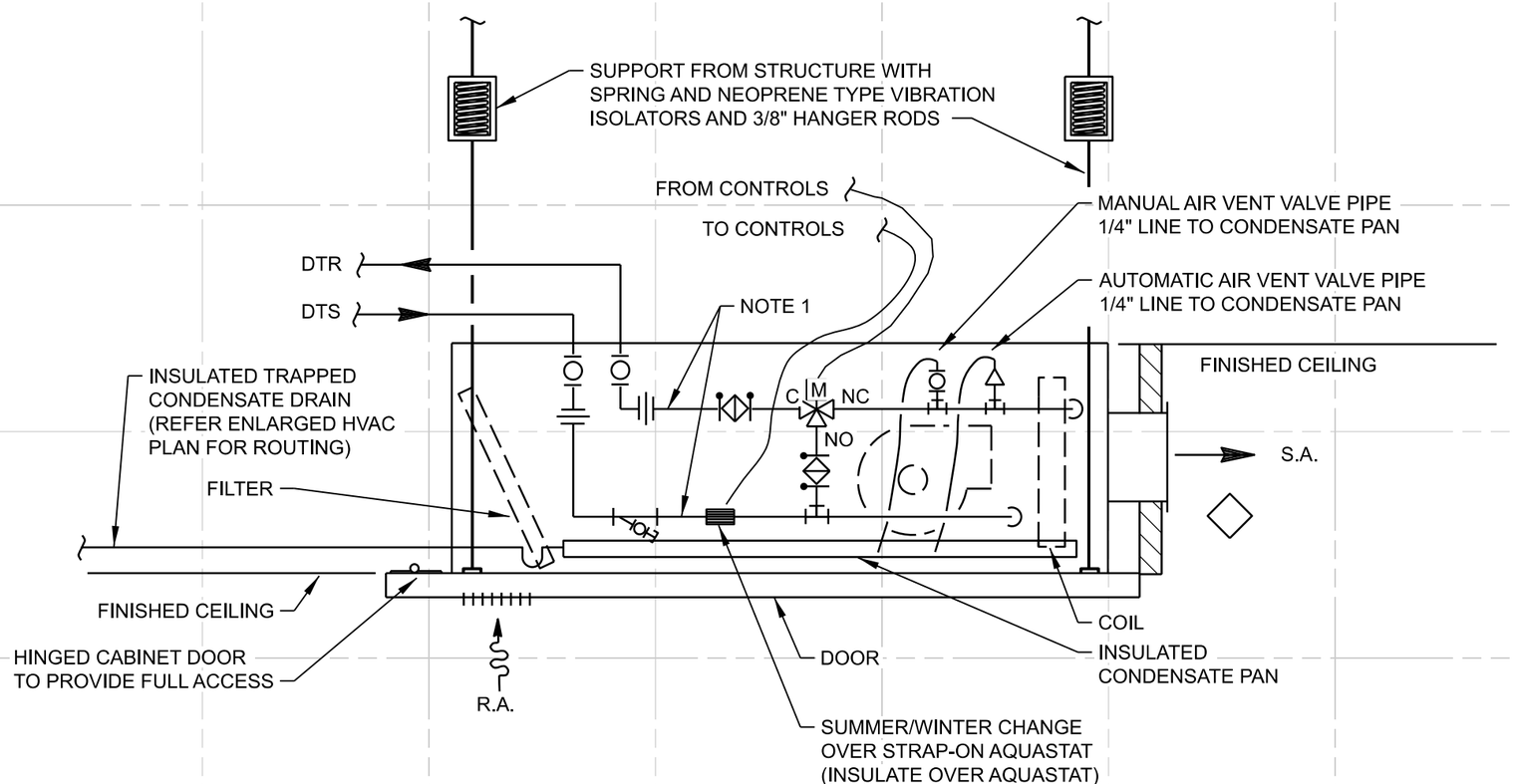
SCALE: NTS



A1

DETAIL: STEAM COIL PIPING

SCALE: NTS

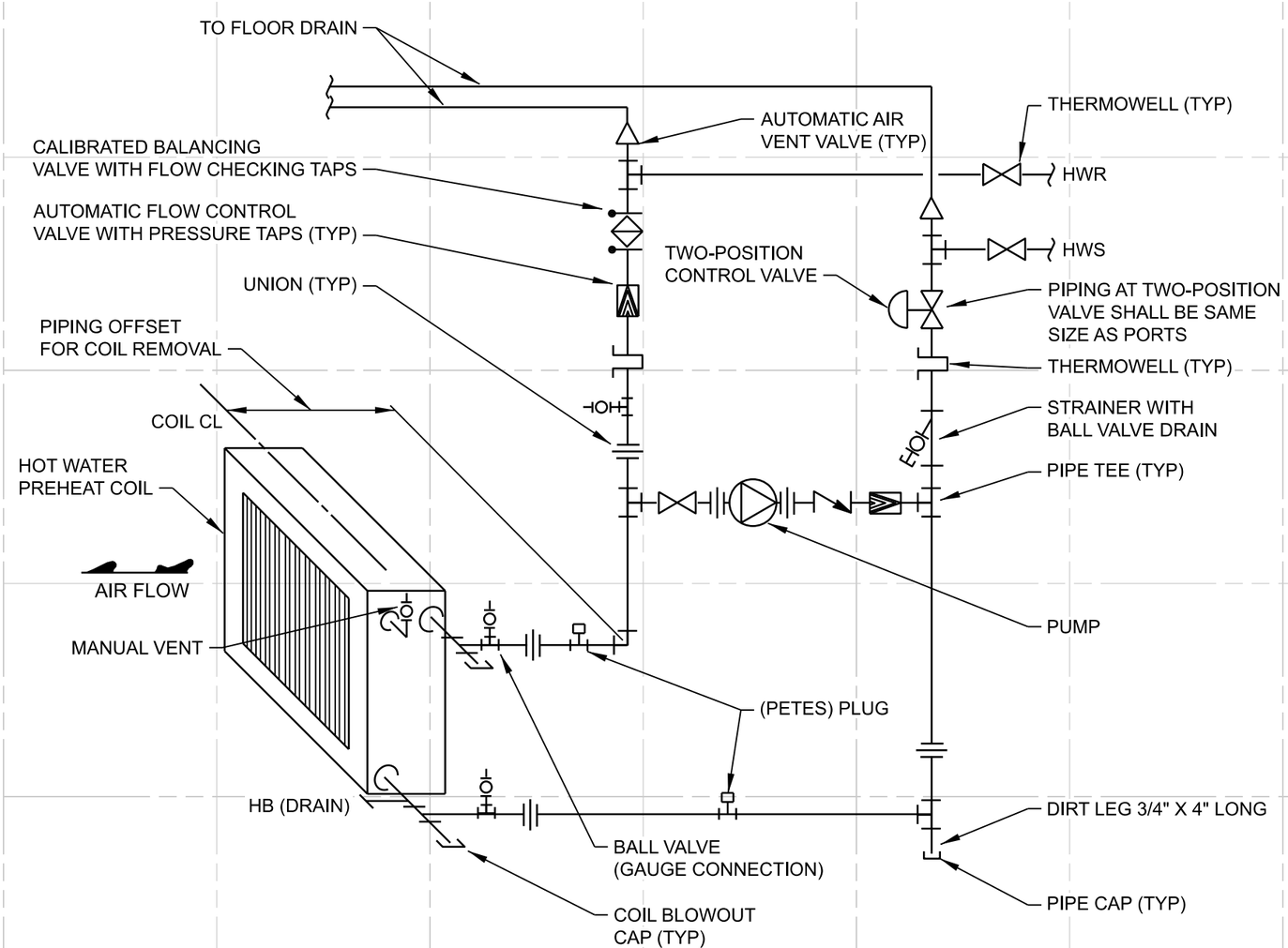


NOTES:
1. PROVIDE 3" LONG REMOVABLE SECTION OF PIPE INSULATION FOR STRAP-ON THERMOMETERS.
2. ALL VALVES, PIPING AND EQUIPMENT SHOWN TO BE LOCATED INSIDE FAN COIL UNIT CABINET WITH ACCESS FROM BELOW UNIT.

A1

SCHEMATIC: FAN COIL UNIT PIPING DIRECT SUPPLY AND RETURN

SCALE: NTS

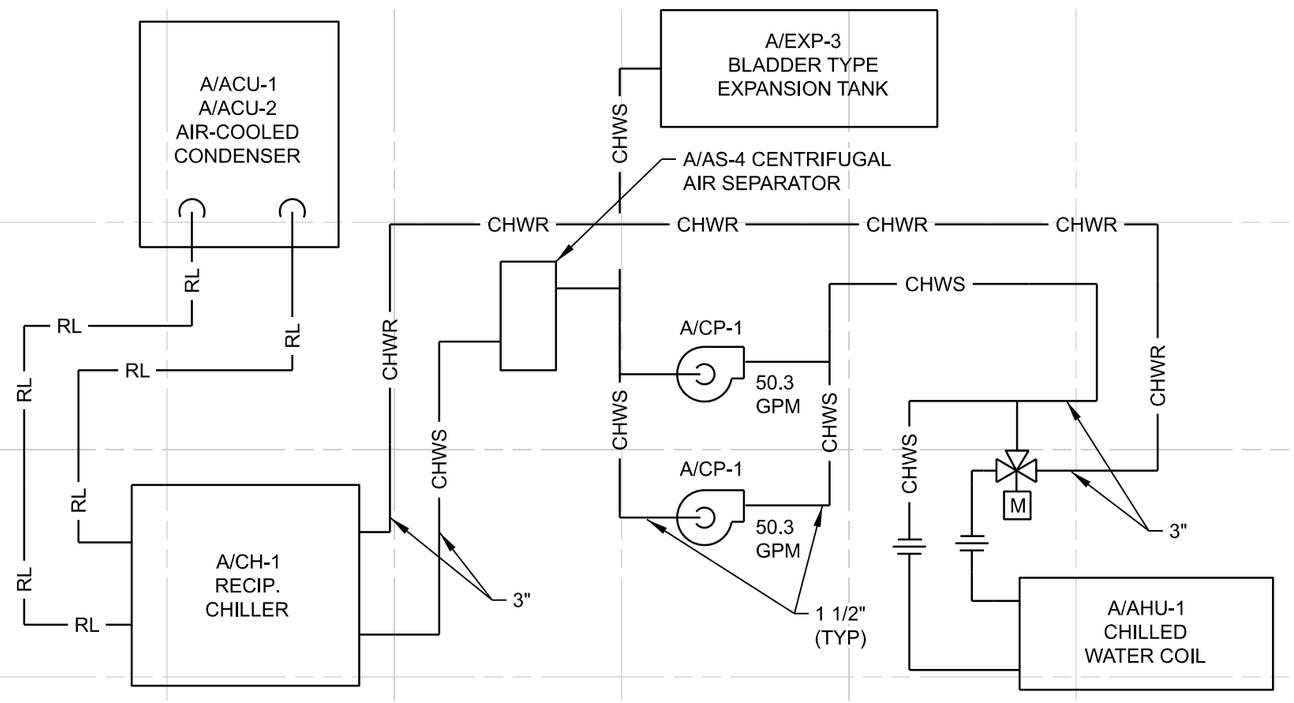


NOTES:
1. COILS WITH 2 ROWS OR GREATER SHALL BE PIPED FOR COUNTER FLOW OF WATER AND AIR.
2. PROVIDE PIPING REDUCERS AS REQUIRED.

A1

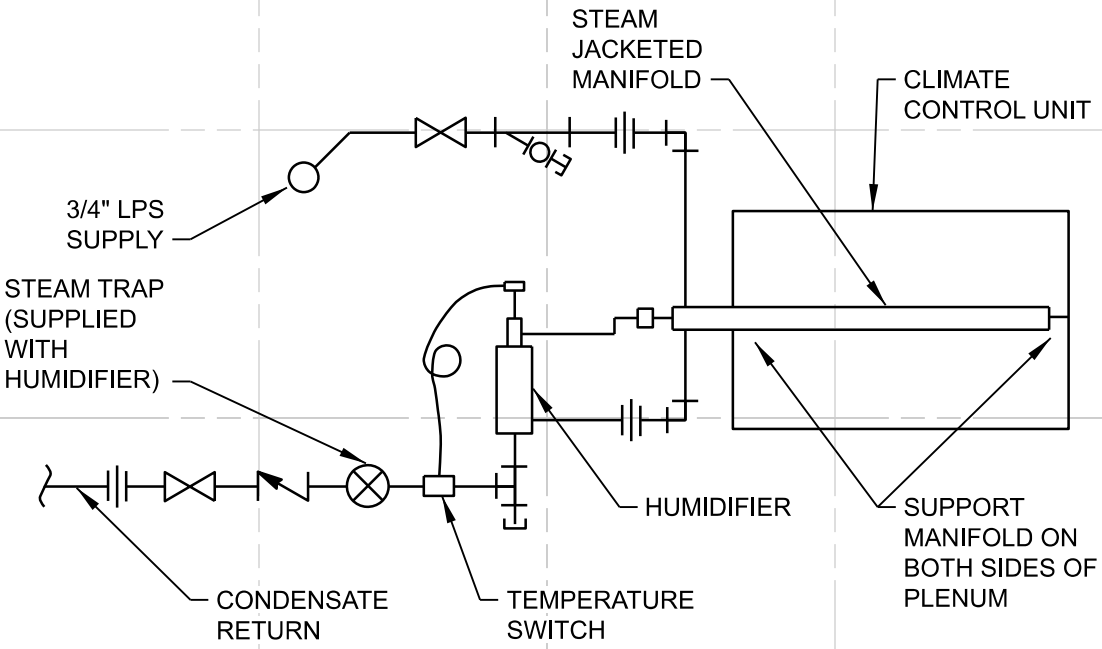
SCHEMATIC: HOT WATER PREHEAT COIL PIPING

SCALE: NTS



A1 DIAGRAM: CHILLED WATER FLOW

SCALE: NTS

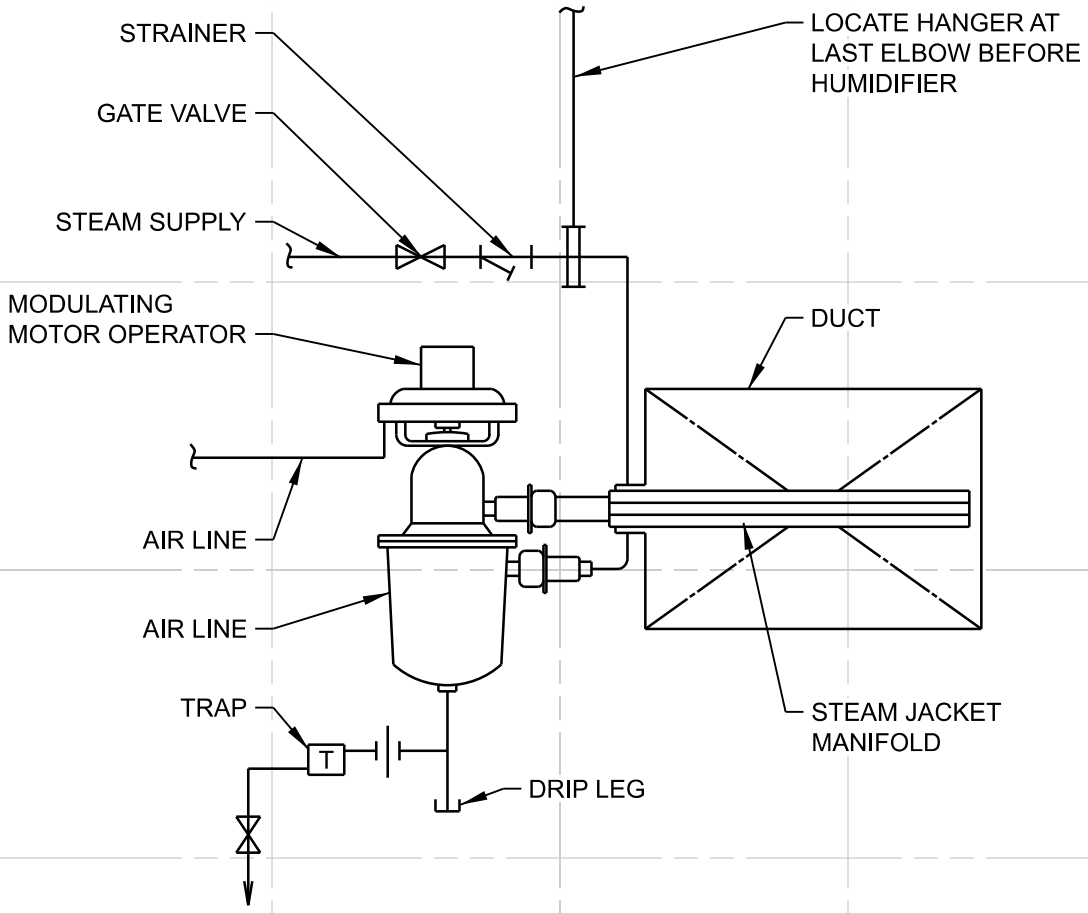


NOTE:
INSULATE ALL PIPING. MANIFOLDS SHALL BE INSTALLED TO DISCHARGE STEAM OPPOSITE AIR FLOW.

A1

DETAIL: HUMIDIFIER CONDENSATE RETURN

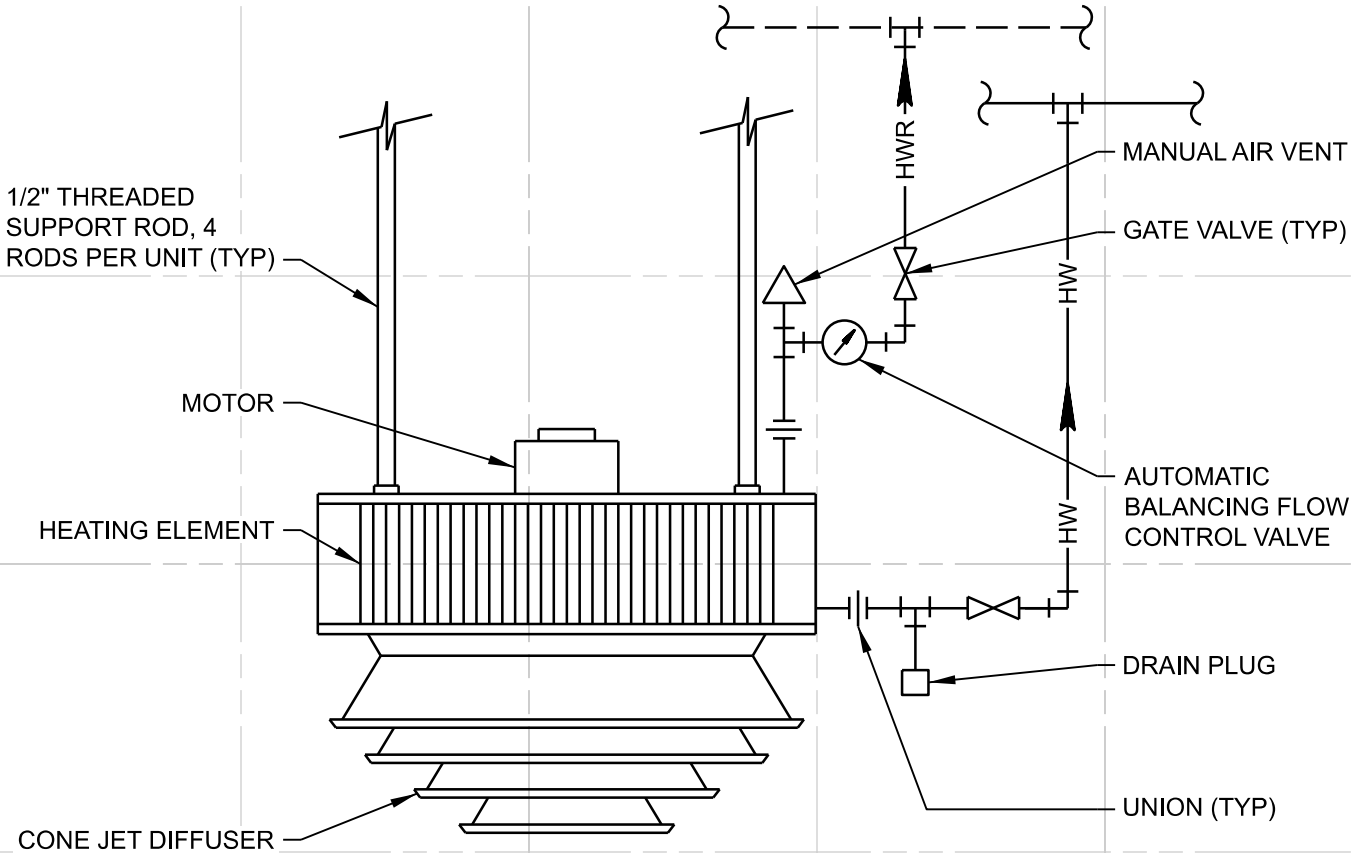
SCALE: NTS



A1

DETAIL: HUMIDIFIER PIPING

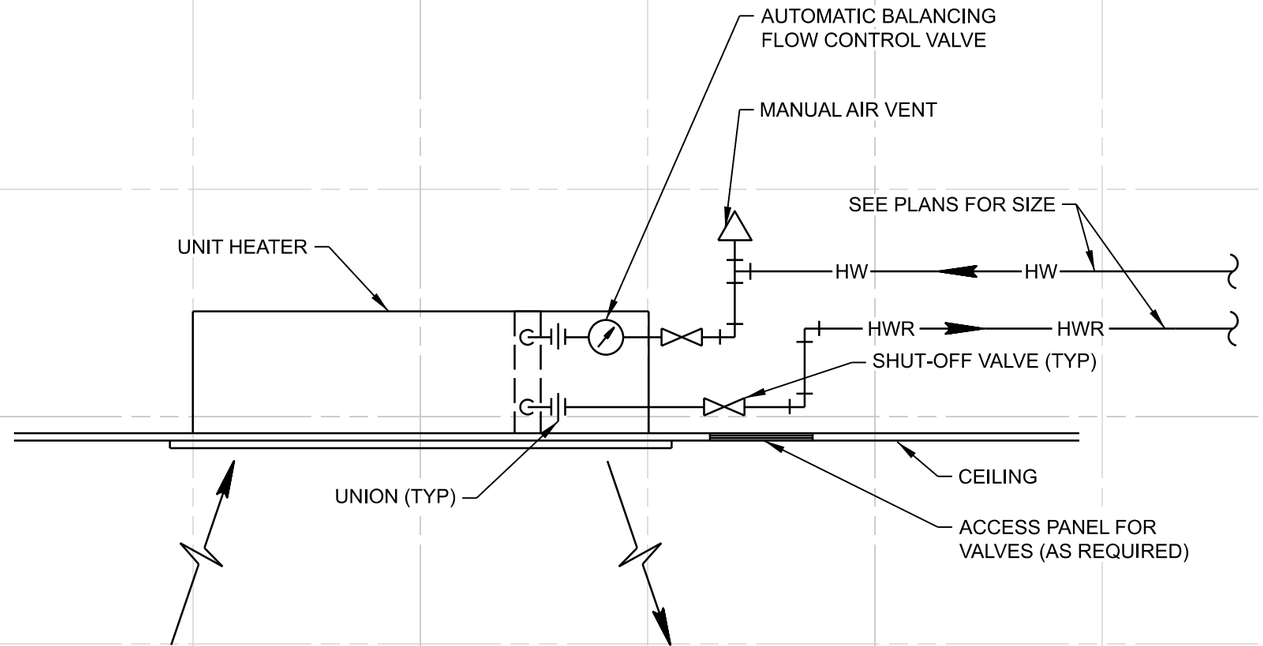
SCALE: NTS



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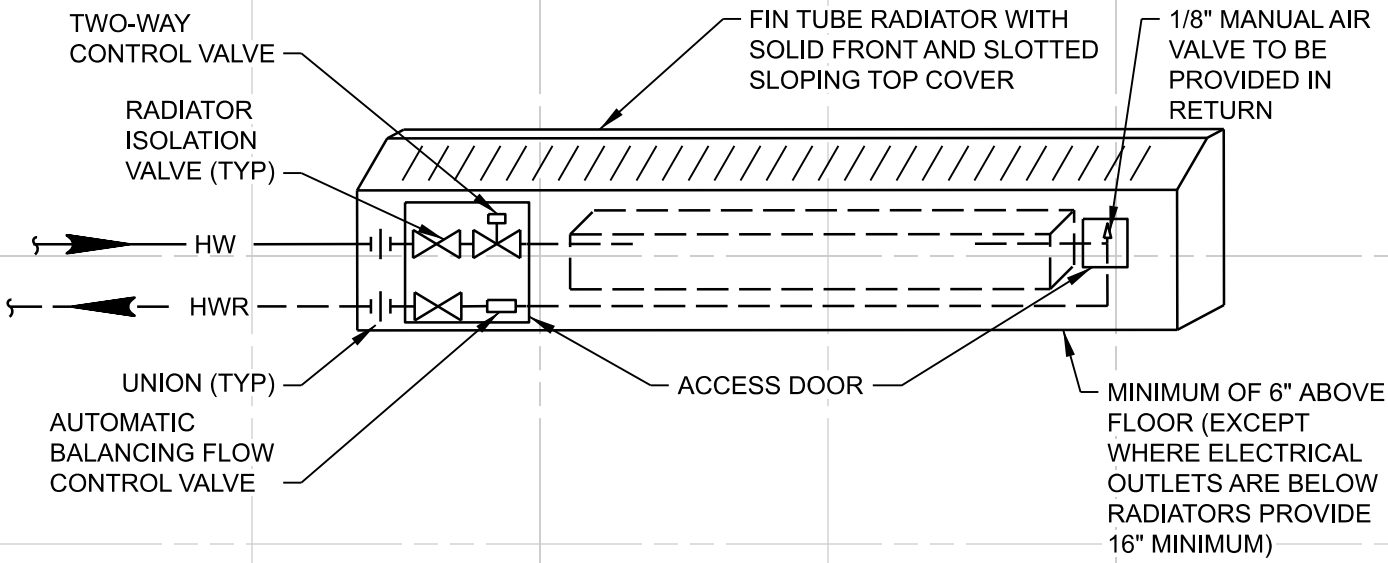
DETAIL: VERTICAL UNIT HEATER

SCALE: NTS



A1 DETAIL: HOT WATER CABINET UNIT HEATER

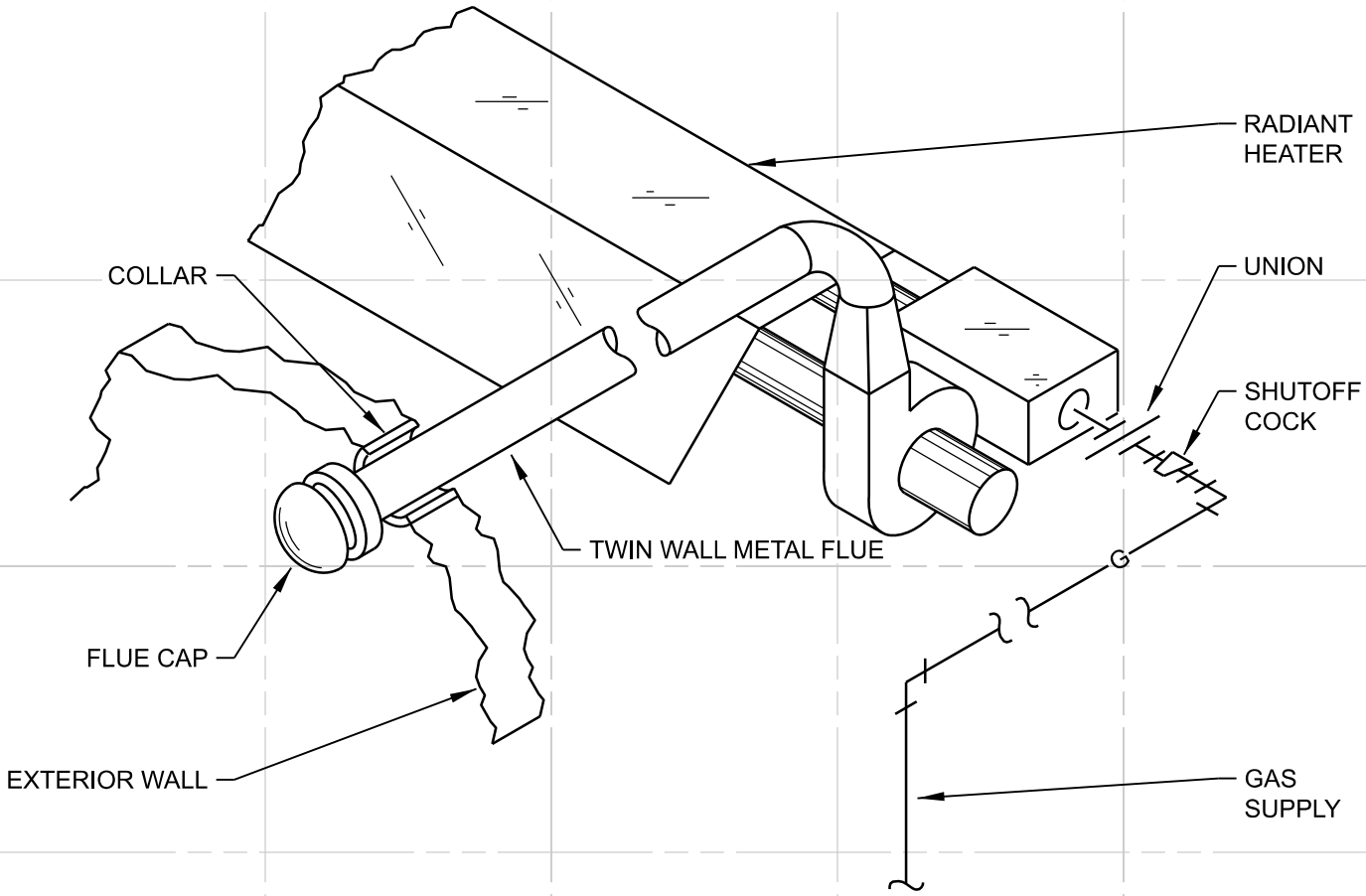
SCALE: NTS



A1

DETAIL: FIN TUBE RADIATOR

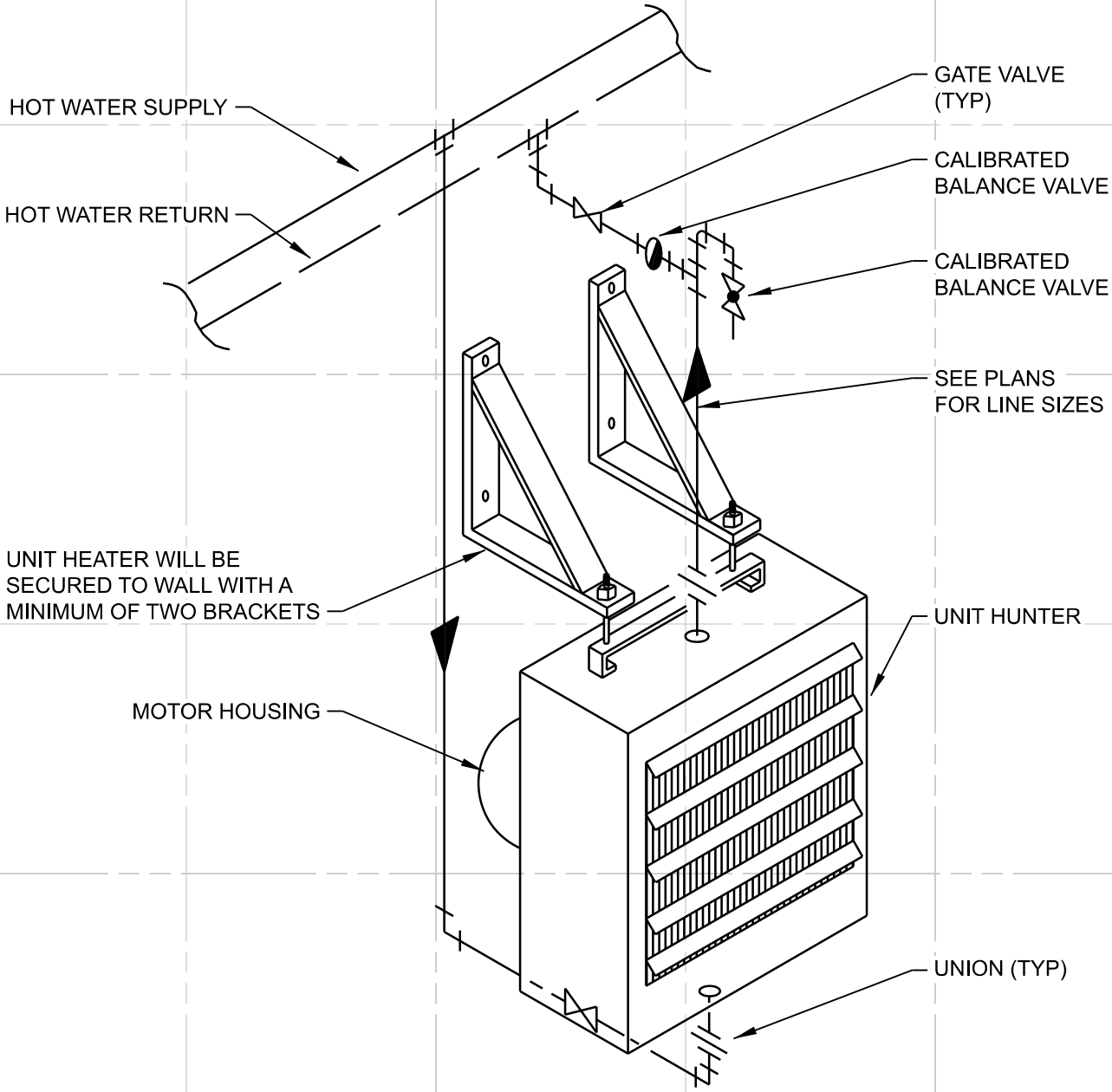
SCALE: NTS



A1

DETAIL: RADIANT HEATER AND FLUE PIPE

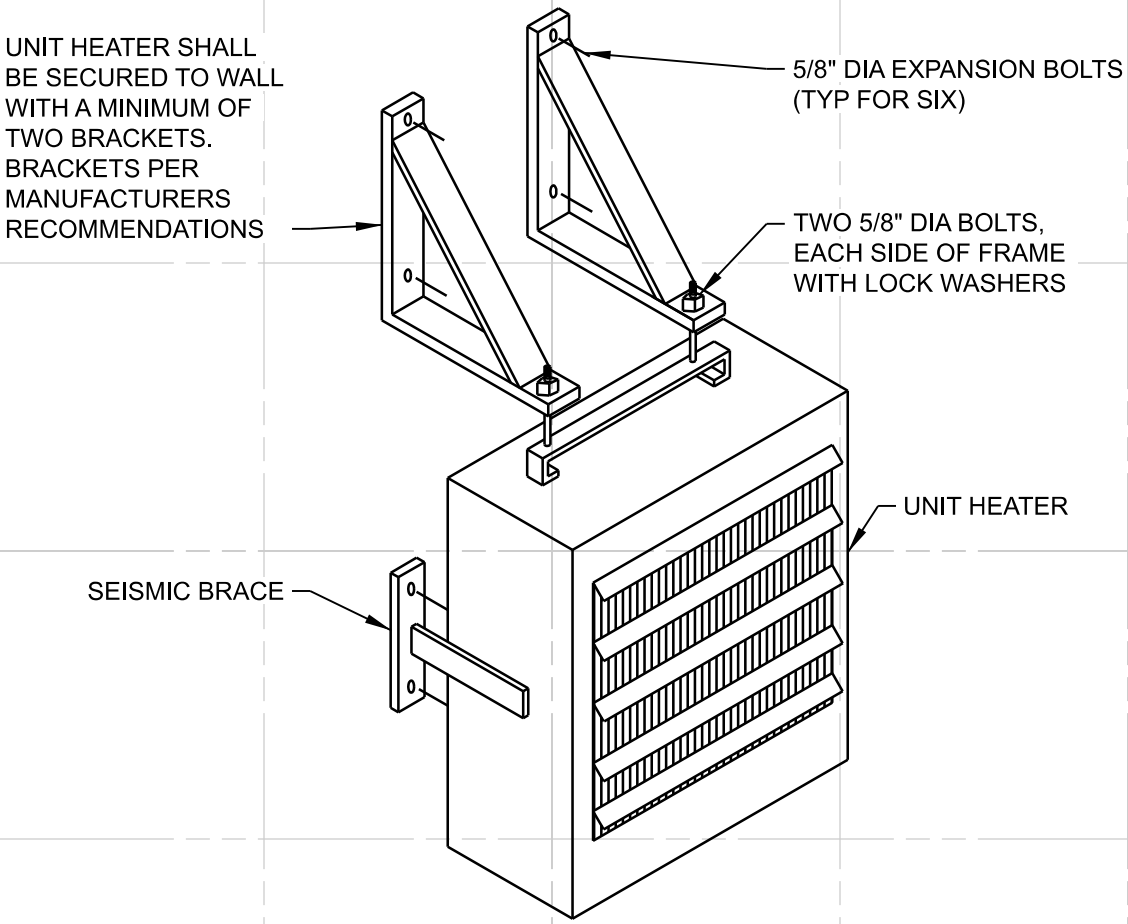
SCALE: NTS



A1

DETAIL: HOT WATER UNIT HEATER

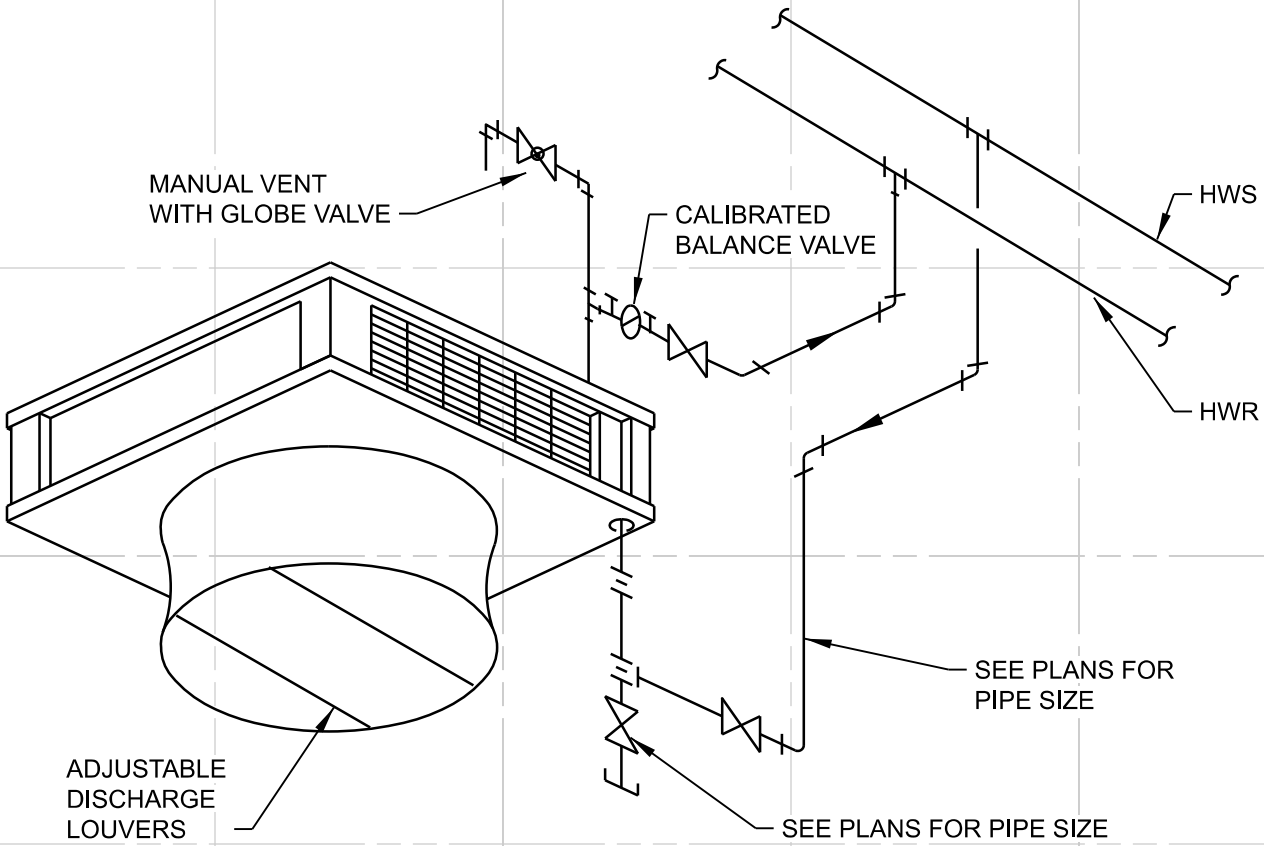
SCALE: NTS



A1

DETAIL: ELECTRIC UNIT HEATER

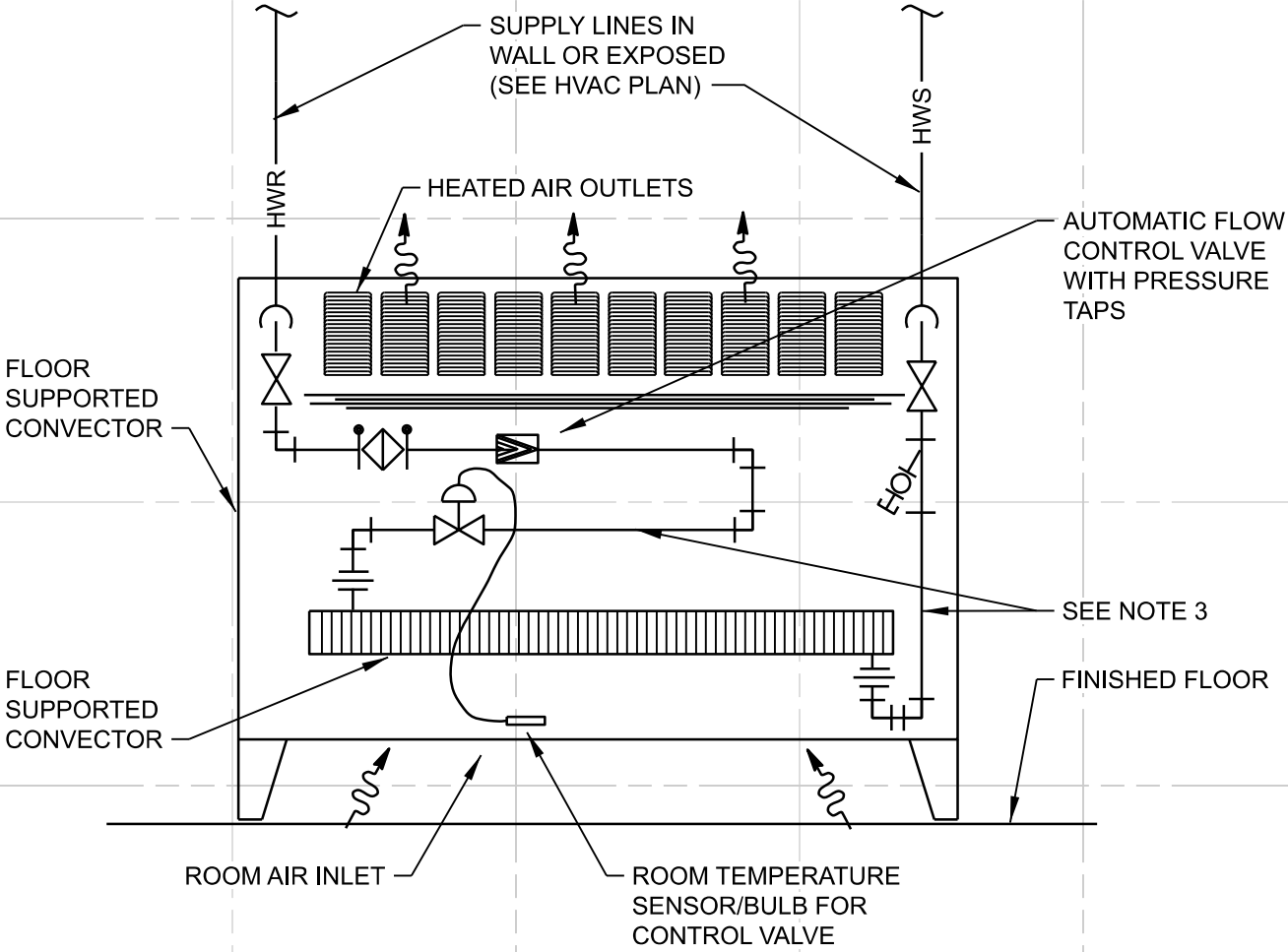
SCALE: NTS



A1

DETAIL: BLOW-DOWN HOT WATER UNIT HEATER

SCALE: NTS

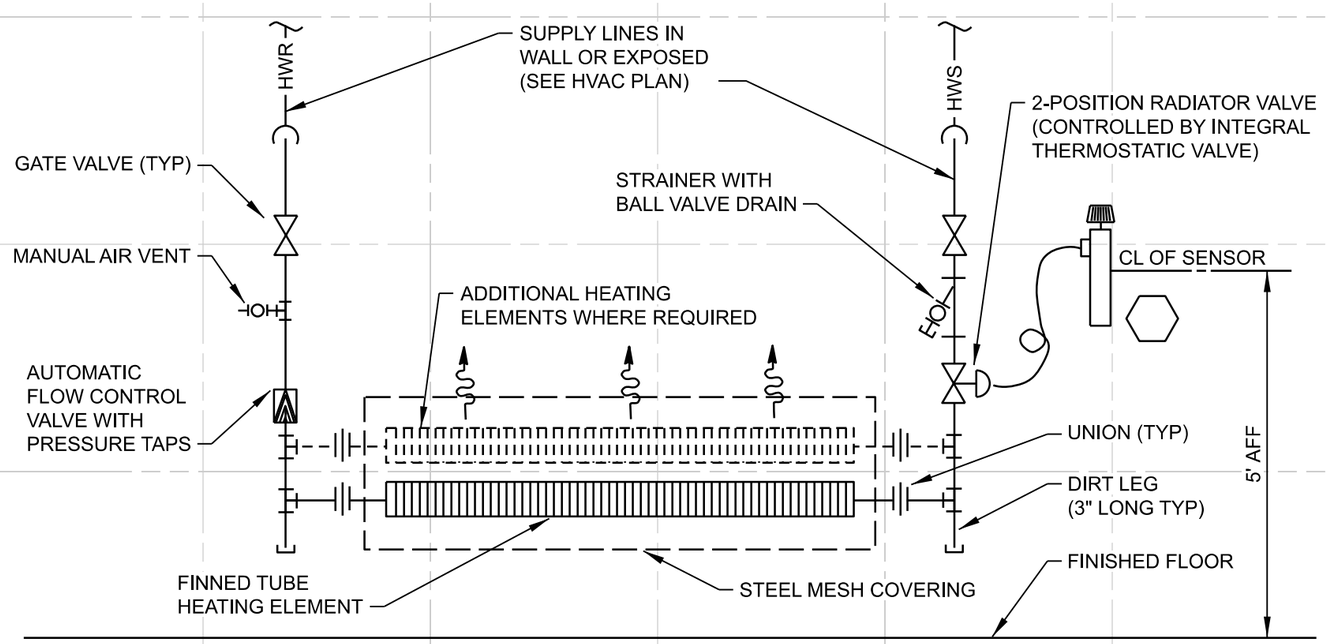


NOTES:
1. CABINET SHALL PROVIDE FULL ACCESS TO PIPING, VALVES, HEATING ELEMENT(S) AND TEMPERATURE SENSING BULB/VALVE CONTROLLER.
2. PROVIDE MANUAL AIR VENTING VALVE AND THE HEATING ELEMENT.
3. PROVIDE 3" LONG REMOVABLE SECTION OF PIPE INSULATION FOR STRAP-ON THERMOMETERS, INSIDE CABINET.

A1

DETAIL: CONVECTOR PIPING

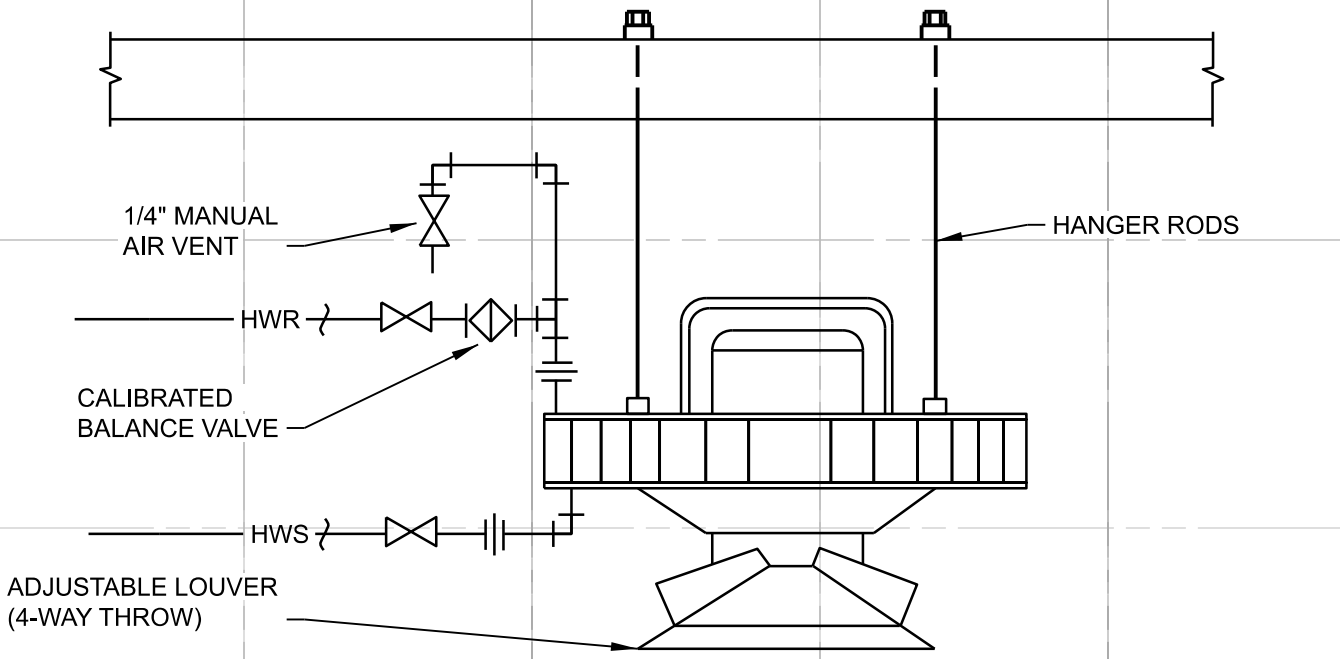
SCALE: NTS



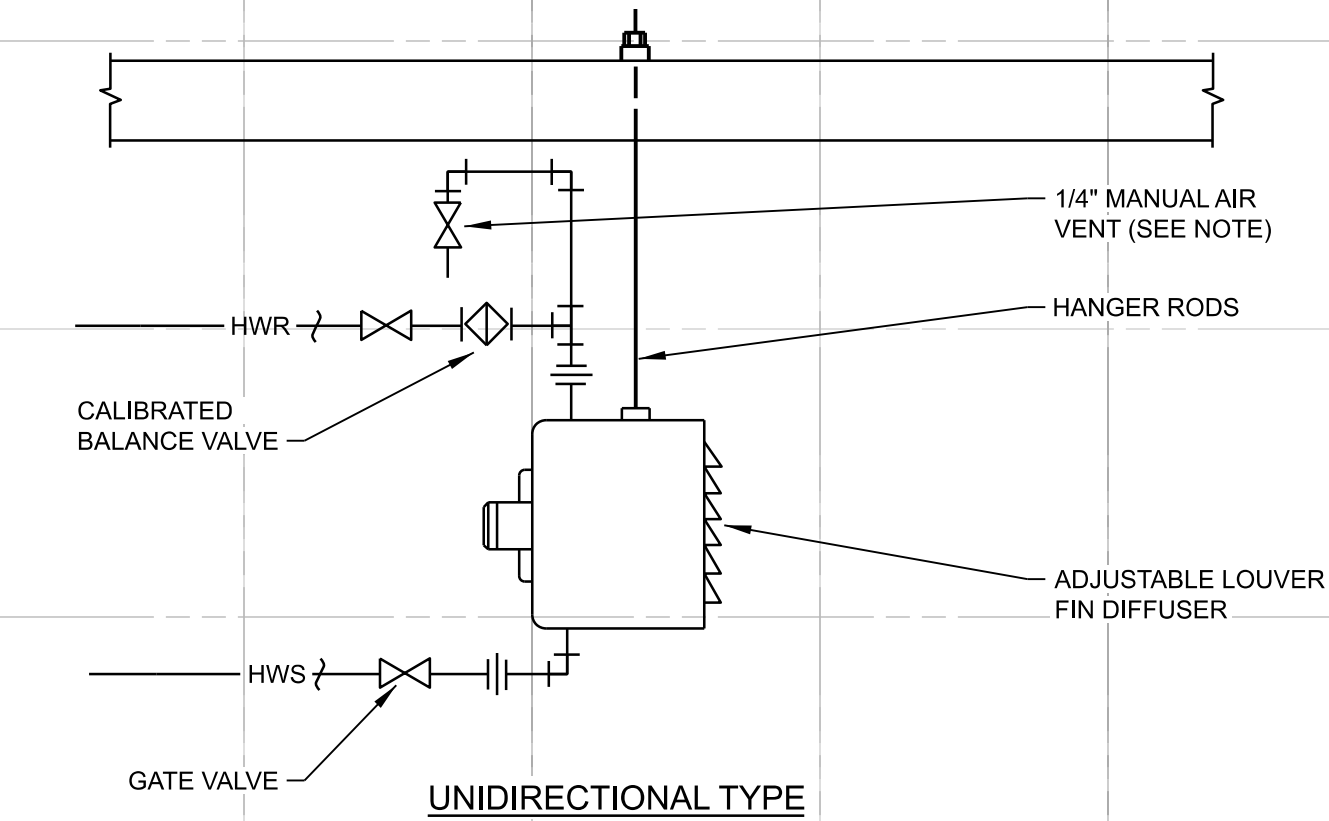
NOTES:
1. PROVIDE PIPING REDUCERS AS REQUIRED.
2. WALL MOUNT SENSOR/CONTROLLER. COVER IT AND CAPILLARY TUBING TO PREVENT PHYSICAL DAMAGE.

A1 SCHEMATIC: FIN TUBE CONVECTOR PIPING

SCALE: NTS



4-WAY TYPE



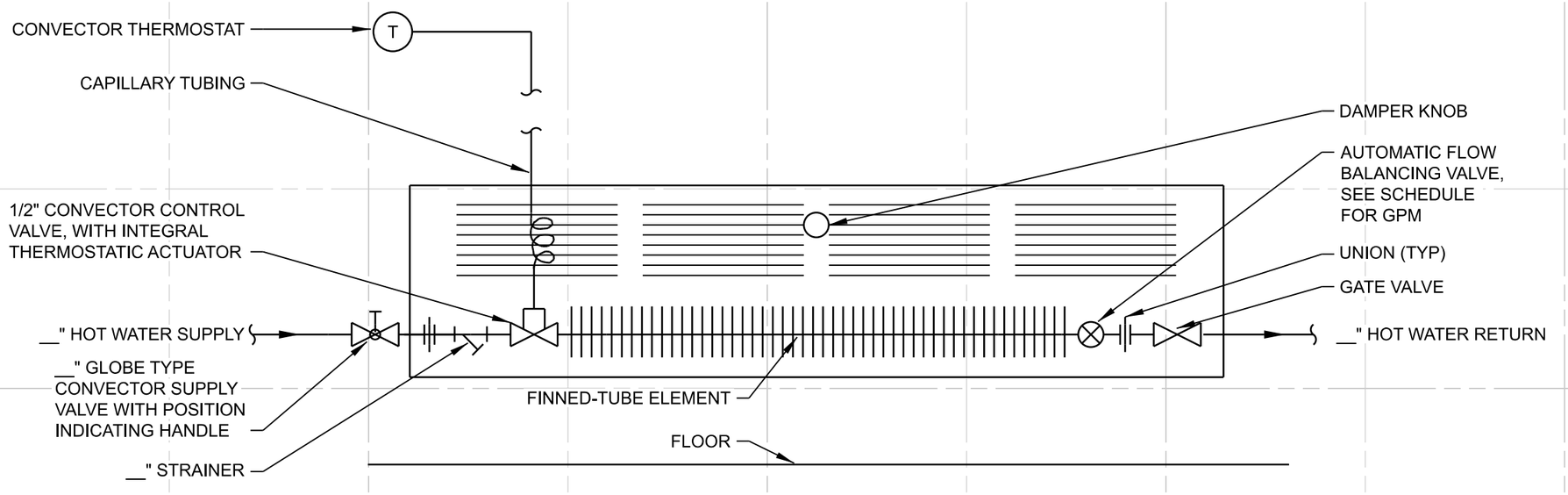
UNIDIRECTIONAL TYPE

NOTE:
TERMINATE MANUAL AIR VENT AT WALL 7'-0" AFF WITH GLOBE VALVE WHEN THE UNIT HEATER IS 12'-0" OR MORE ABOVE FINISHED FLOOR.

A1

DETAIL: CONNECTIONS TO UNIT HEATERS

SCALE: NTS

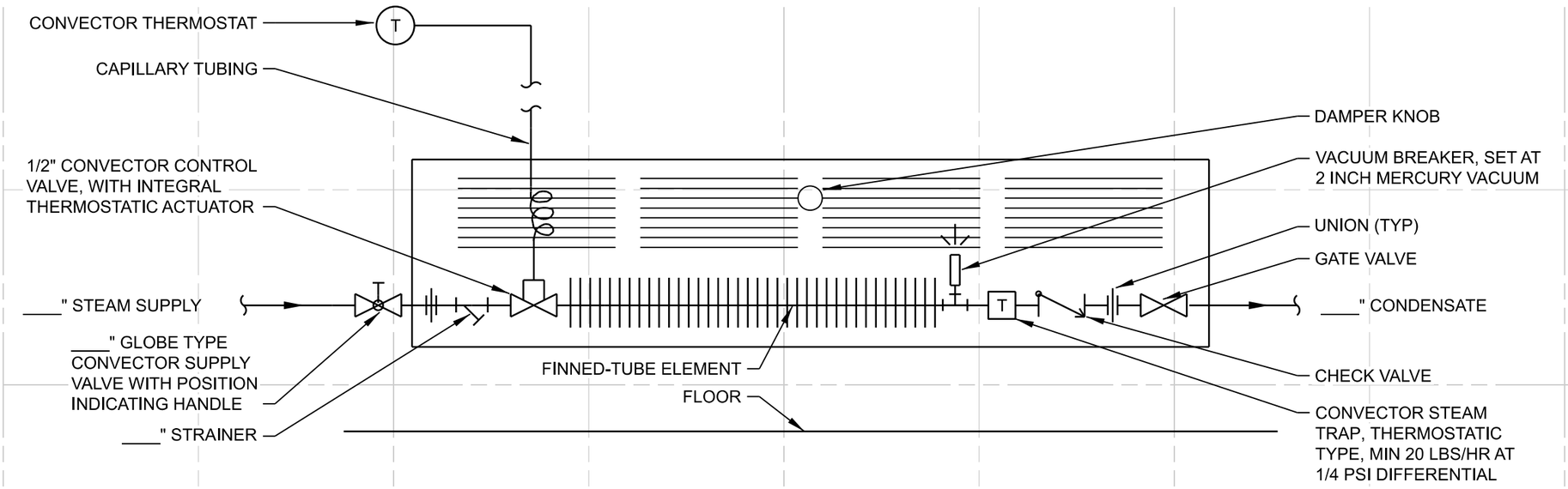


NOTES:
1. THE CONVECTOR ENCLOSURE SHALL ENCLOSE THE VALVES AS SHOWN.
2. MOUNT THE CONVECTOR THERMOSTAT 5 FT. AFF. DO NOT LOCATE IT IN THE WARM AIR STREAM DIRECTLY ABOVE THE CONVECTOR. MOUNT THE CAPILLARY CONTROL TUBING NEATLY ON THE WALL RUNNING IT IN ONLY HORIZONTAL OR VERTICAL DIRECTIONS. LOCATE EXCESS TUBING WITHIN THE ENCLOSURE.
3. PROVIDE PIPING REDUCERS AND ADAPTERS AS NEEDED.
4. MOUNT CONVECTORS IN ACCORDANCE WITH THE MFR'S INSTRUCTIONS ___ IN. AFF.

A1

DETAIL: HOT WATER BASEBOARD CONVECTOR PIPING

SCALE: NTS

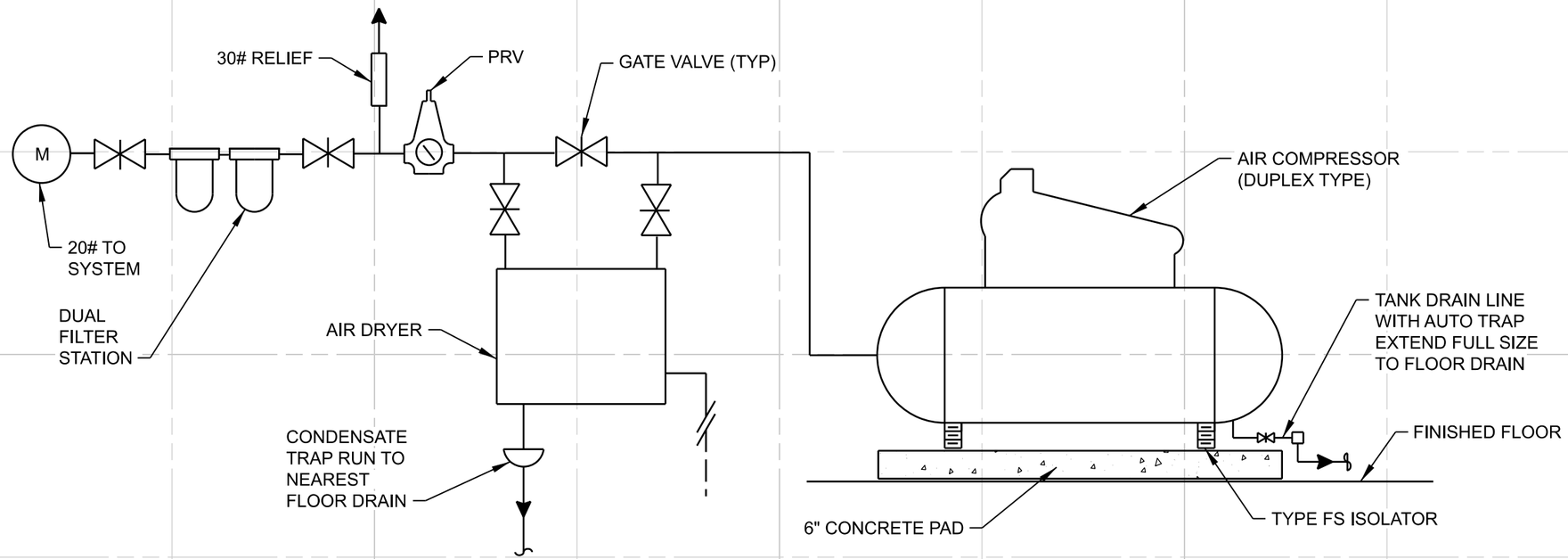


NOTES:
1. THE CONVECTOR ENCLOSURE SHALL ENCLOSE THE VALVES AS SHOWN.
2. MOUNT THE CONVECTOR THERMOSTAT 5 FT. AFF. DO NOT LOCATE IT IN THE WARM AIR STREAM DIRECTLY ABOVE THE CONVECTOR. MOUNT THE CAPILLARY CONTROL TUBING NEATLY ON THE WALL RUNNING IT IN ONLY HORIZONTAL OR VERTICAL DIRECTIONS. LOCATE EXCESS TUBING WITHIN THE ENCLOSURE.
3. PROVIDE PIPING REDUCERS AND ADAPTERS AS NEEDED.
4. SLOPE THE FINNED-TUBE ELEMENT FOR MAXIMUM DRAINAGE.
5. MOUNT CONVECTORS IN ACCORDANCE WITH THE MFR'S INSTRUCTIONS ____ IN. AFF.

A1

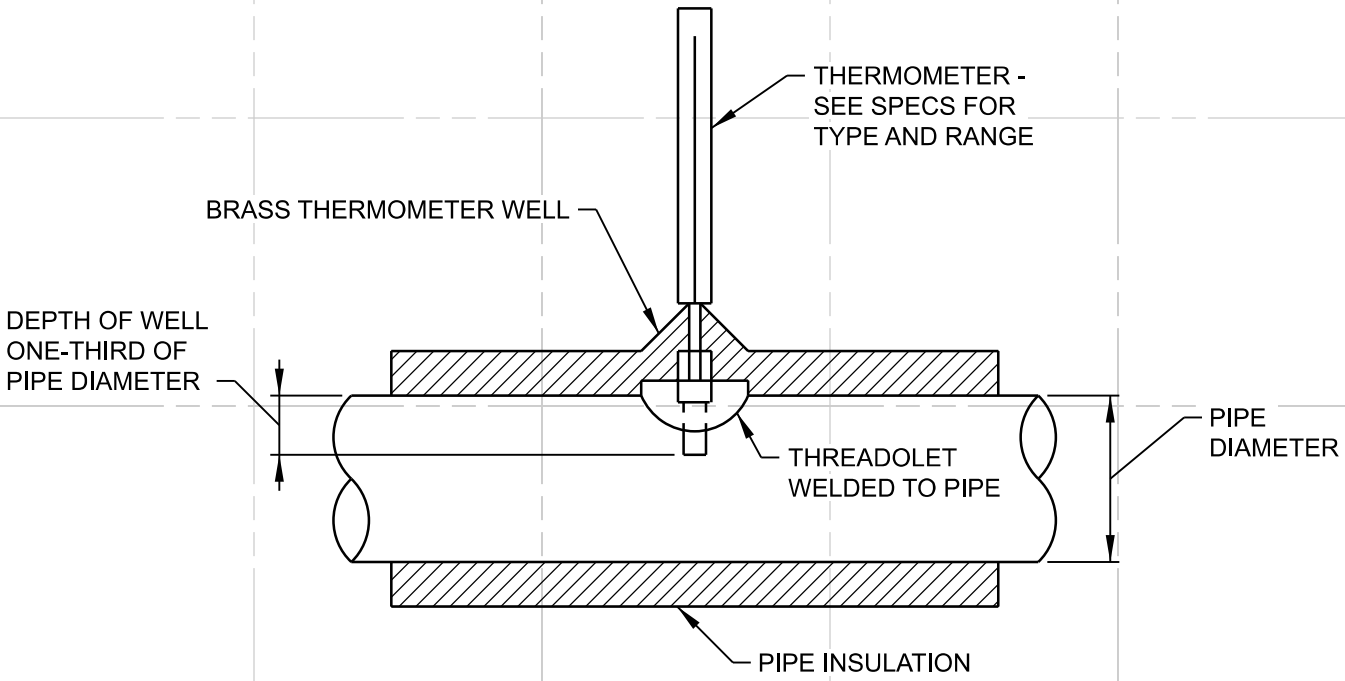
DETAIL: STEAM BASEBOARD CONVECTOR PIPING

SCALE: NTS



A1 DETAIL: CONTROL AIR COMPRESSOR

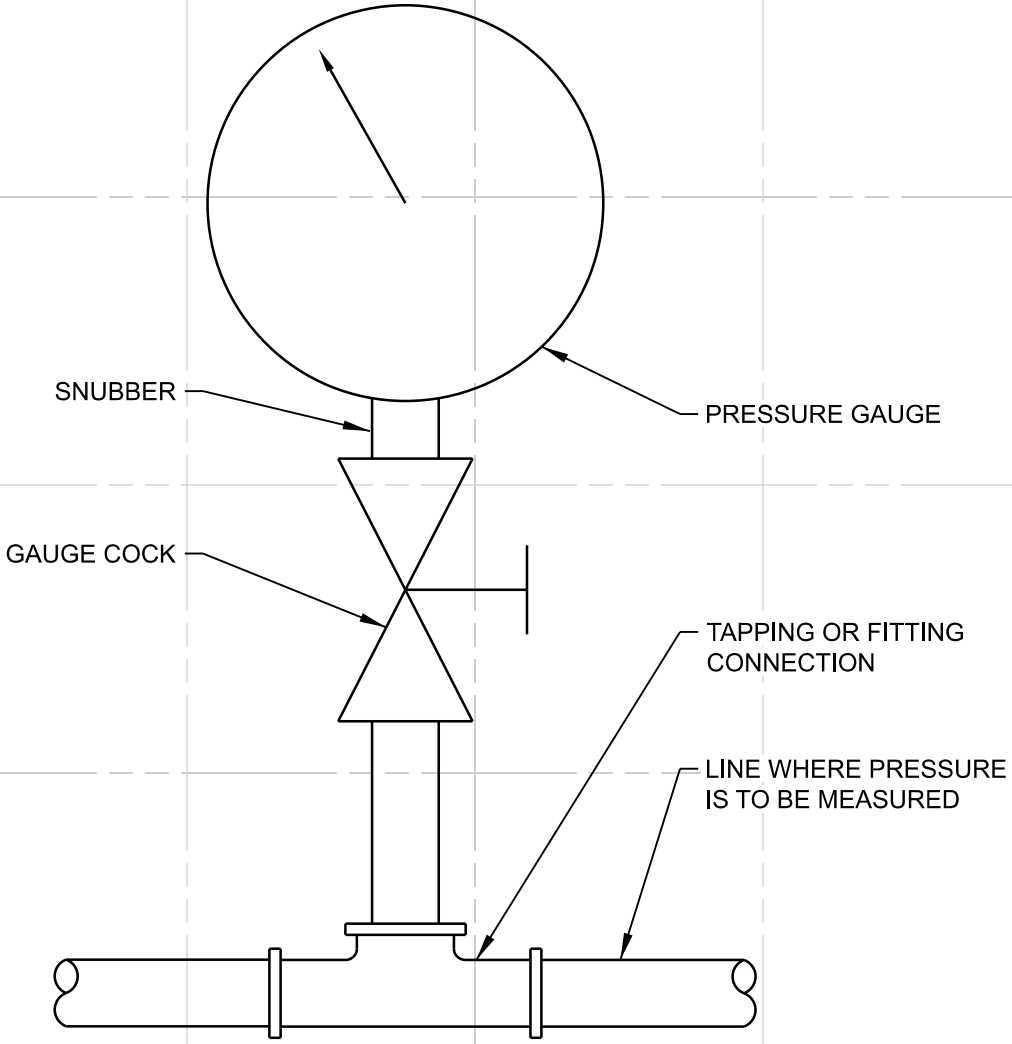
SCALE: NTS



A1

DETAIL: THERMOMETER INSTALLATION IN INSULATED PIPE

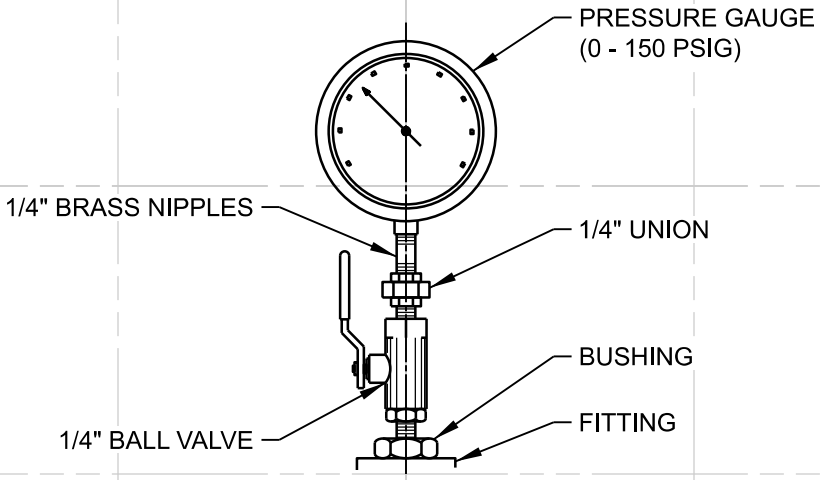
SCALE: NTS



A1

DETAIL: PRESSURE GAUGE INSTALLATION

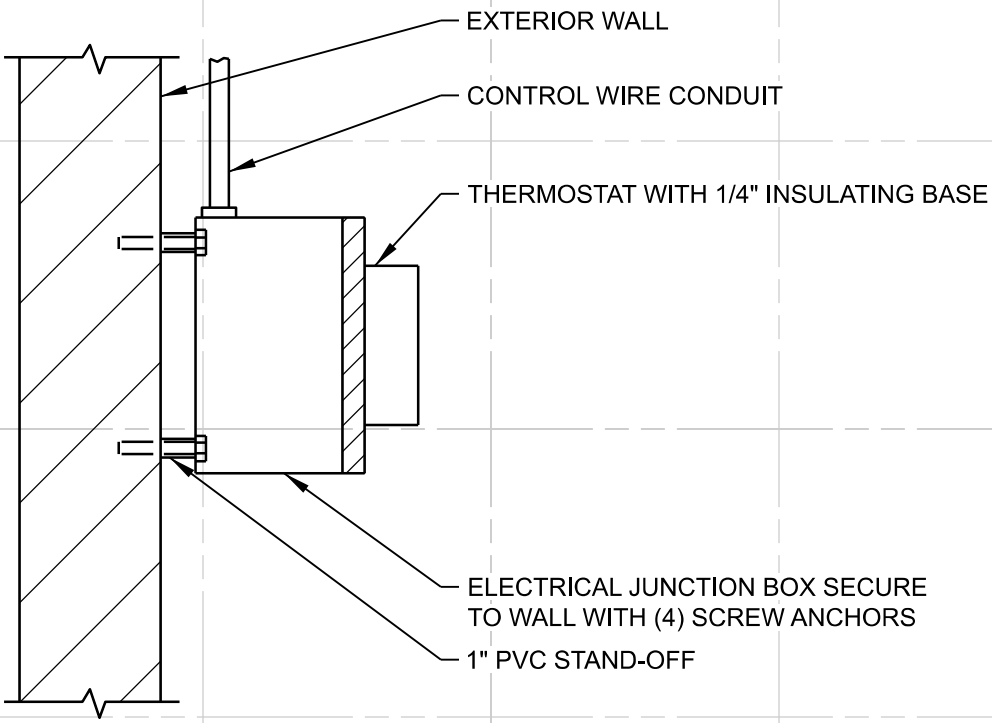
SCALE: NTS



A1

DETAIL: PRESSURE GAUGE

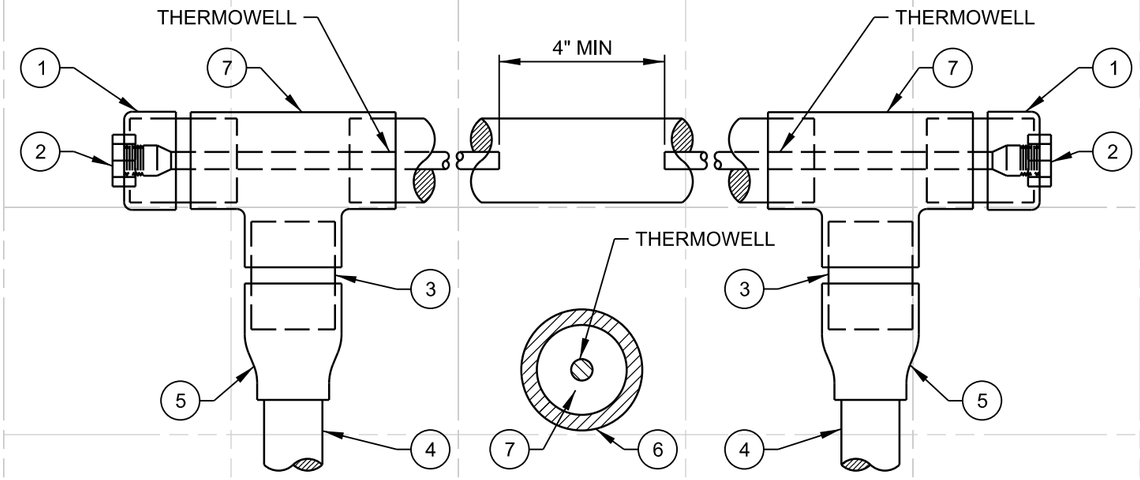
SCALE: NTS



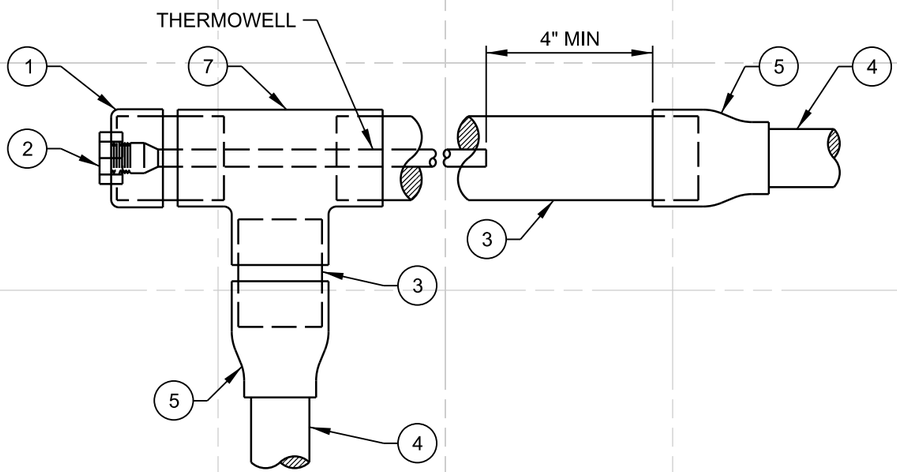
A1

DETAIL: WALL MOUNTED THERMOSTAT

SCALE: NTS



DUAL THERMOWELL INSTALLATION



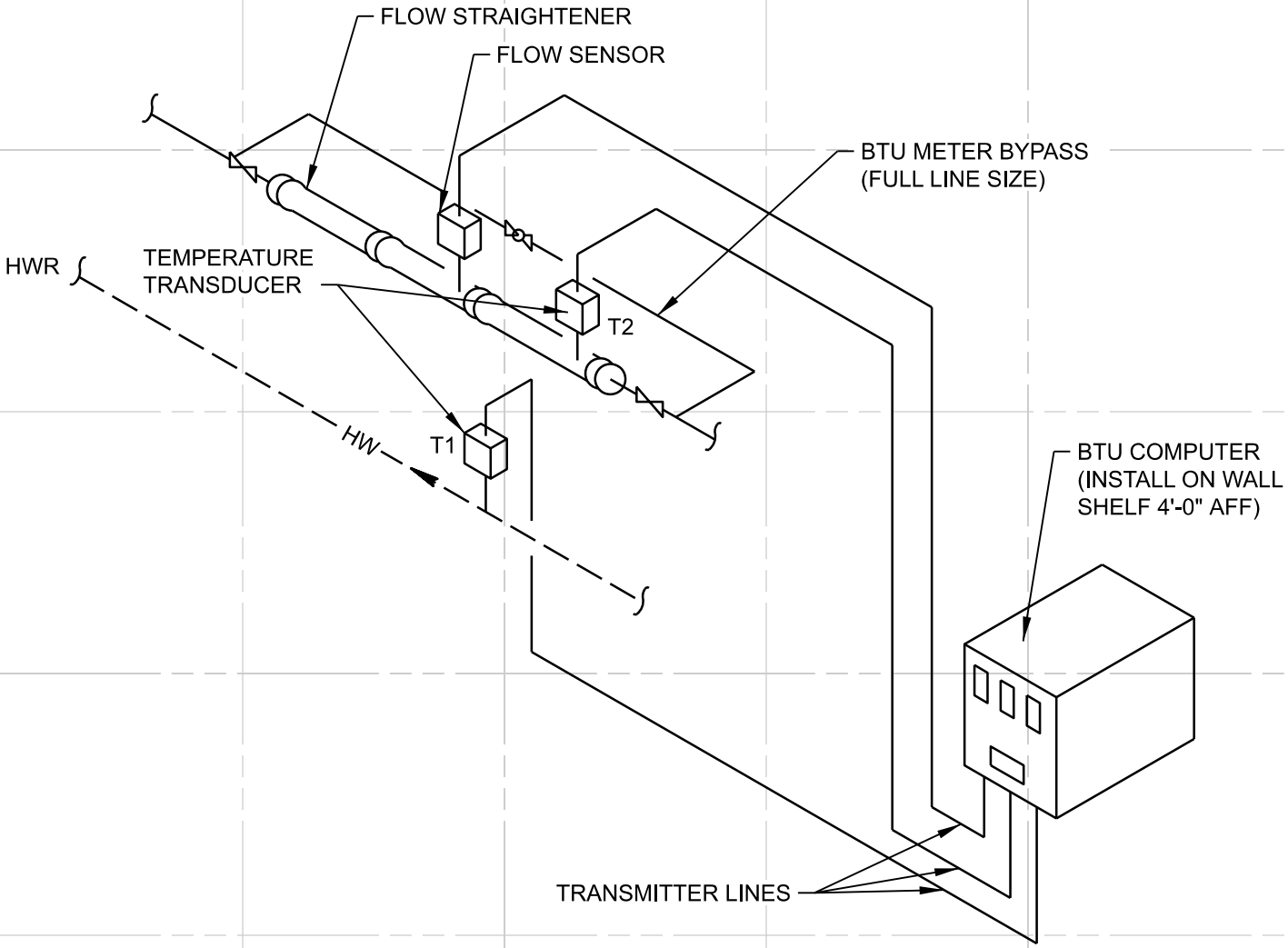
SINGLE THERMOWELL INSTALLATION

KEYED NOTES:
1. PIPE CAP
2. THERMOWELL
3. ONE PIPE SIZE LARGER THAN PIPE SIZE INDICATED ON PLANS.
4. PIPE SIZE AS INDICATED ON PLANS.
5. CONCENTRIC OR ECCENTRIC PIPE REDUCER
6. PIPE OR TEE
7. SIZE TEE OR PIPE SO ANNULAR CROSS SECTION AREA IS GREATER THAN OR EQUAL TO CROSS SECTION OF PIPE SIZE INDICATED ON PLANS.

A1

DETAIL: THERMOWELL INSTALLATION FOR SMALL PIPE

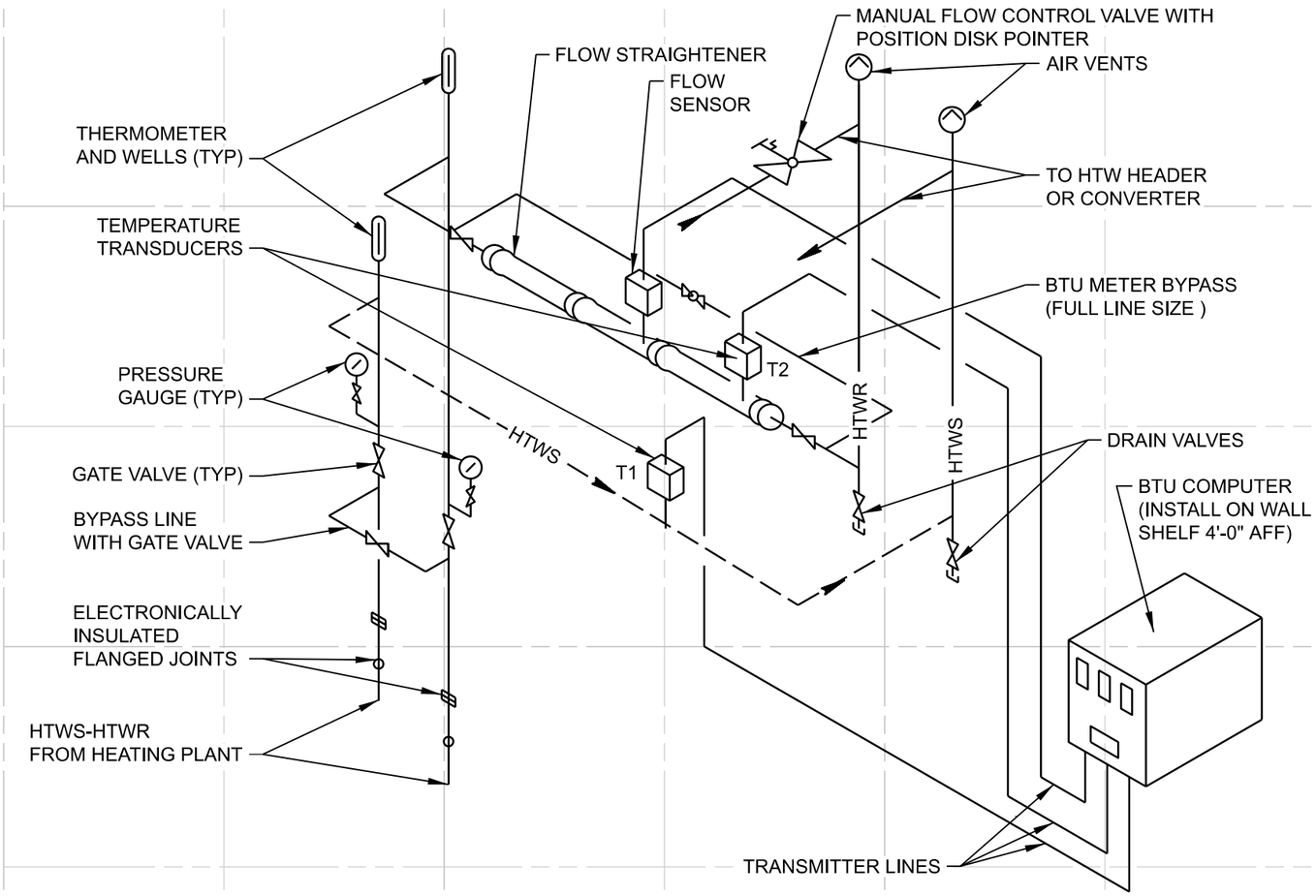
SCALE: NTS



A1

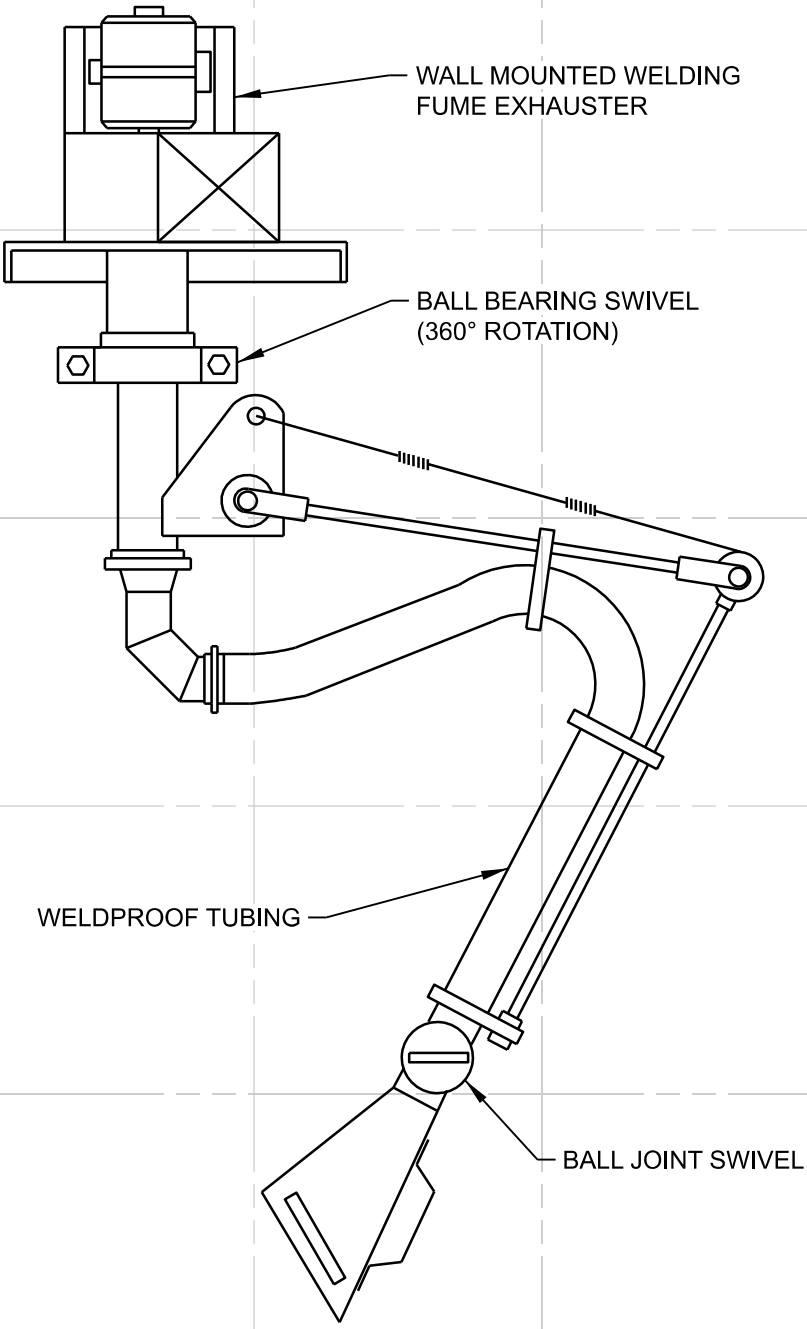
DETAIL: BTU MONITOR

SCALE: NTS



A1 DETAIL: HTW ENTRANCE AND BTU MONITOR

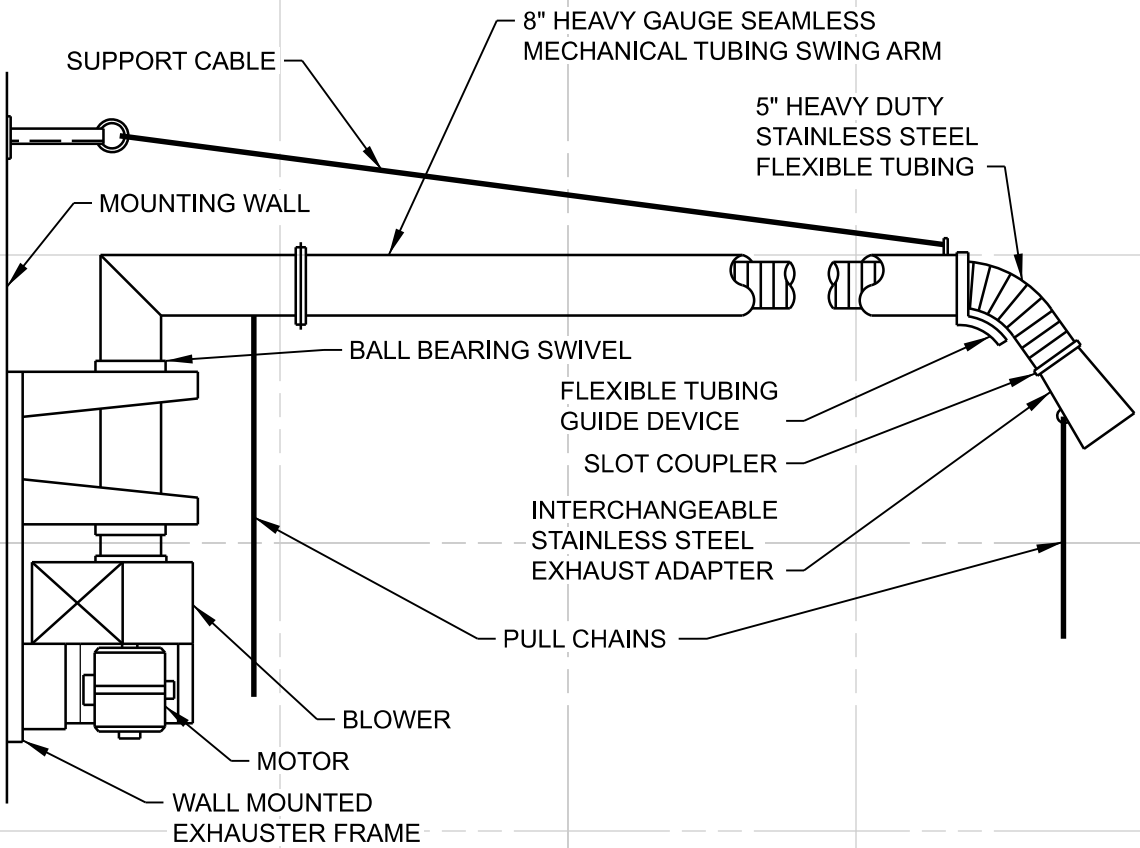
SCALE: NTS



A1

DETAIL: WELDING FUME EXHAUSTER

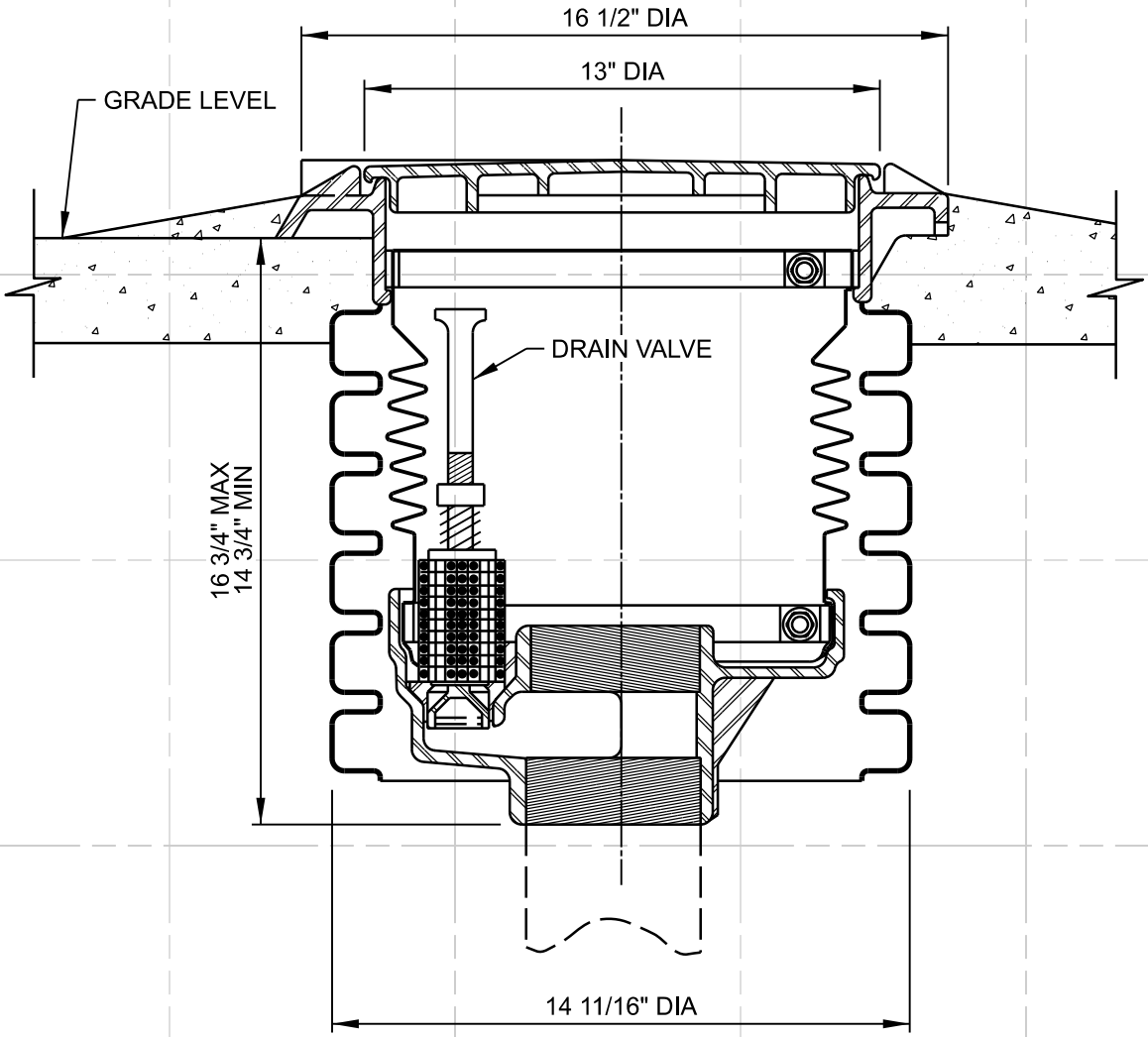
SCALE: NTS



DETAIL: SWING-ARM FUME EXHAUST SYSTEM (DISAPPEARING TYPE)

A1

SCALE: NTS

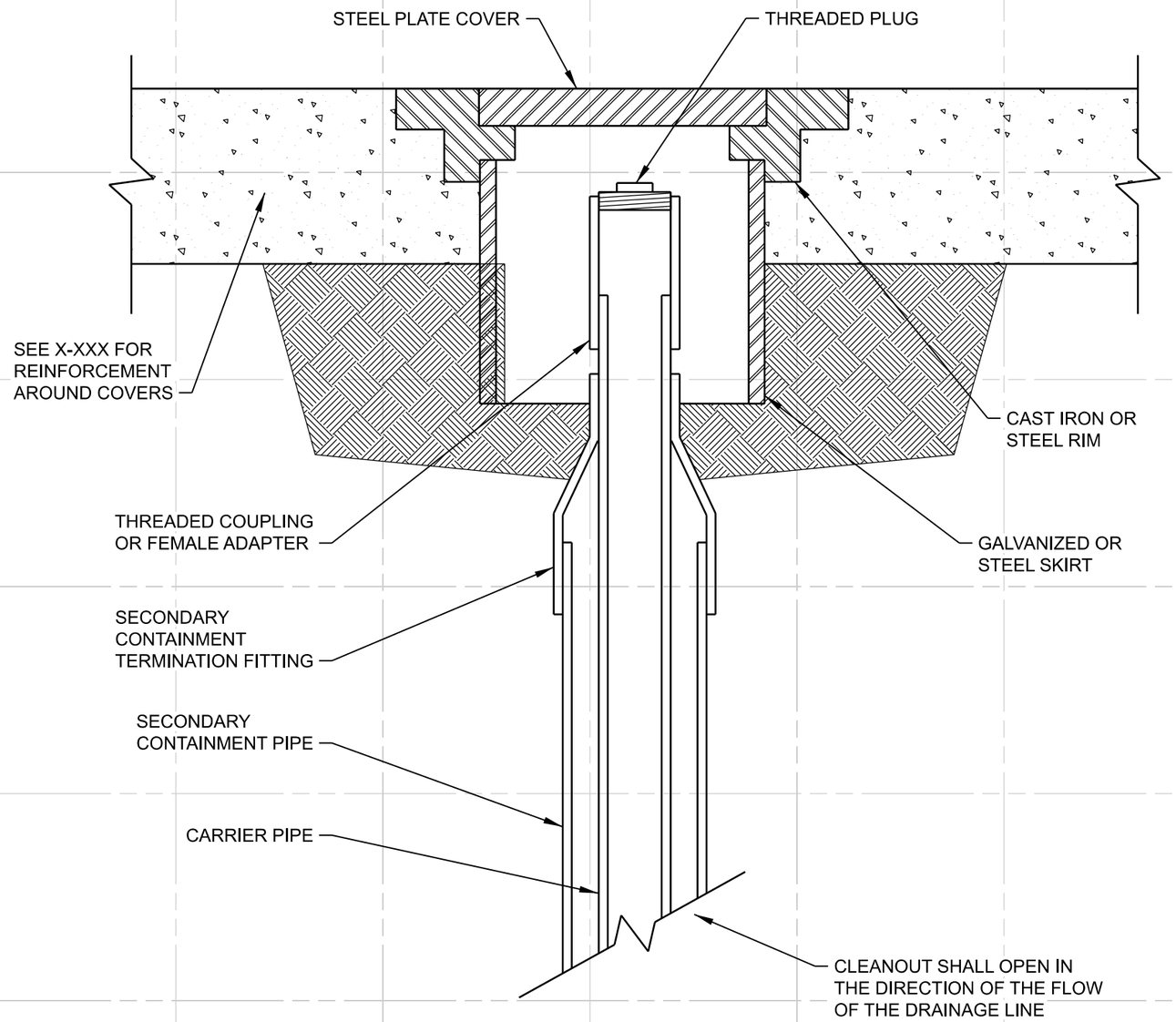


NOTES:
1. PROVIDE 4" PIPE NIPPLE, TIGHT FILL ADAPTOR AND CAP.
2. 3 GALLONS MINIMUM CAPACITY.

A1

DETAIL: FILL LINE SPILL CONTAINMENT BASIN

SCALE: NTS

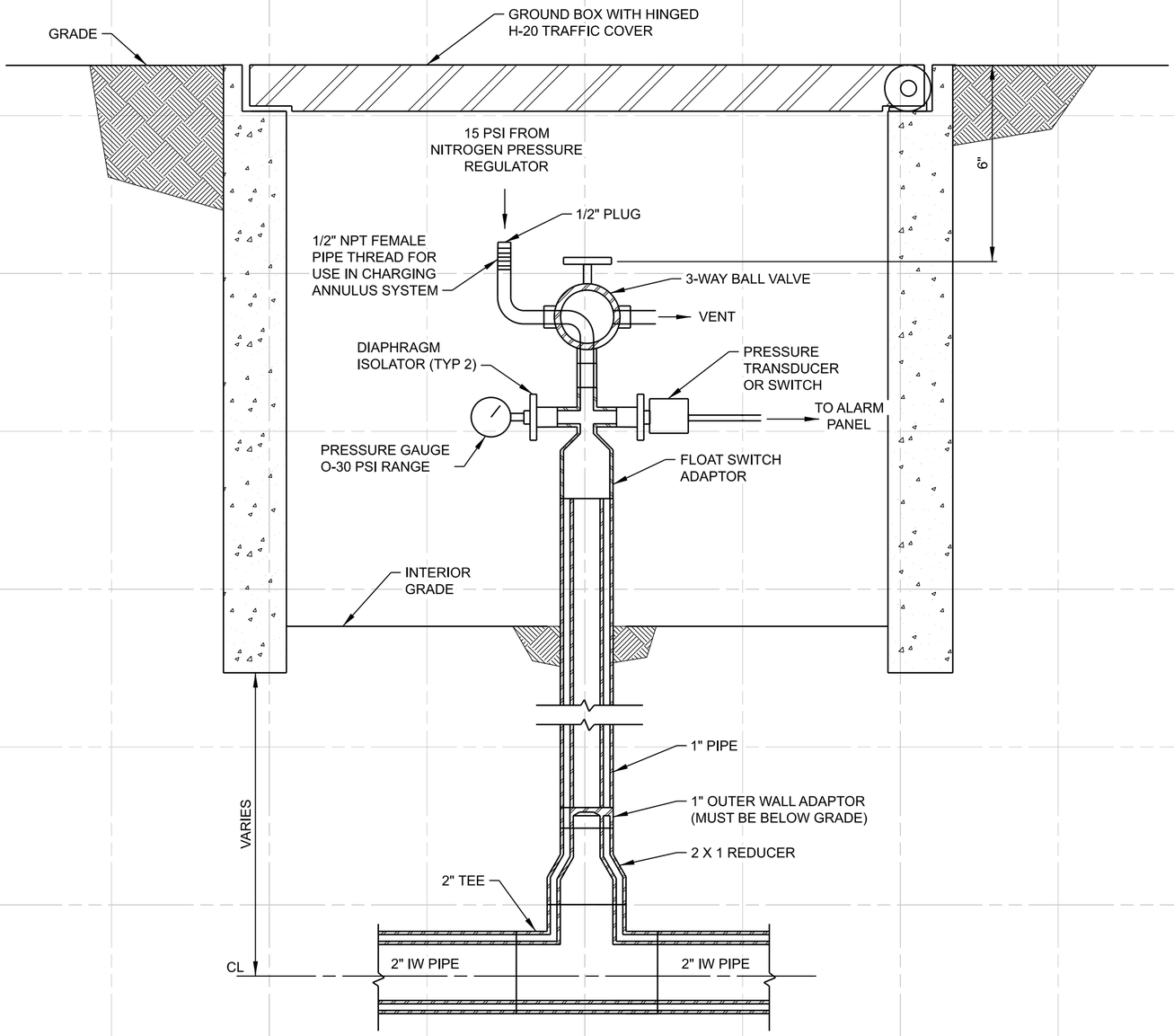


NOTES:
1. STEEL PLATE COVER, H-20 TRAFFIC RATING, CLEARLY LABEL TOP OF COVERS PER "HANDHOLE COVER MARKING SCHEDULE" (THIS SHEET) BY ONE OF THE FOLLOWING PROCESSES: GRINDING, STAMPING, OR ENGRAVING.
2. UPON APPROVAL BY CONTRACTING OFFICER, ALTERNATIVE LABELING SCHEMES (I.E., NON-CORROSIVE TAGS ATTACHED TO PIPE RISERS) MAY BE USED. ALTERNATIVE LABELING SCHEMES WILL TAKE INTO ACCOUNT THAT "TRACK" VEHICLES MAY TREAD ACROSS COVERS.

A1

DETAIL: DOUBLE WALLED PIPE CLEANOUT TO GRADE/FLOOR CLEAN OUT

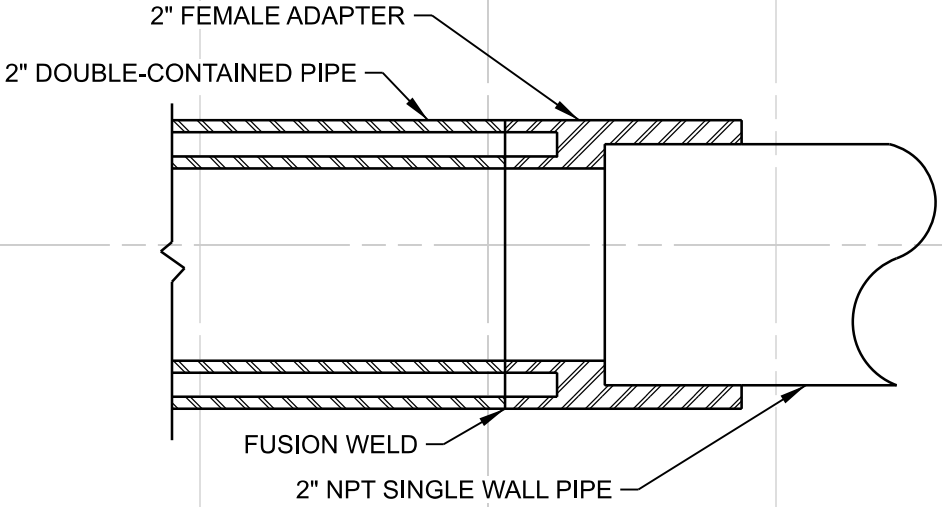
SCALE: NTS



NOTE:
PROVIDE GROUND BOX WITH 6" MINIMUM CLEARANCE FOR GAUGE AND PRESSURE TRANSDUCER/SWITCH REMOVAL.

A1 DETAIL: LOW PRESSURE NITROGEN LEAK DETECTION BOX SECTION

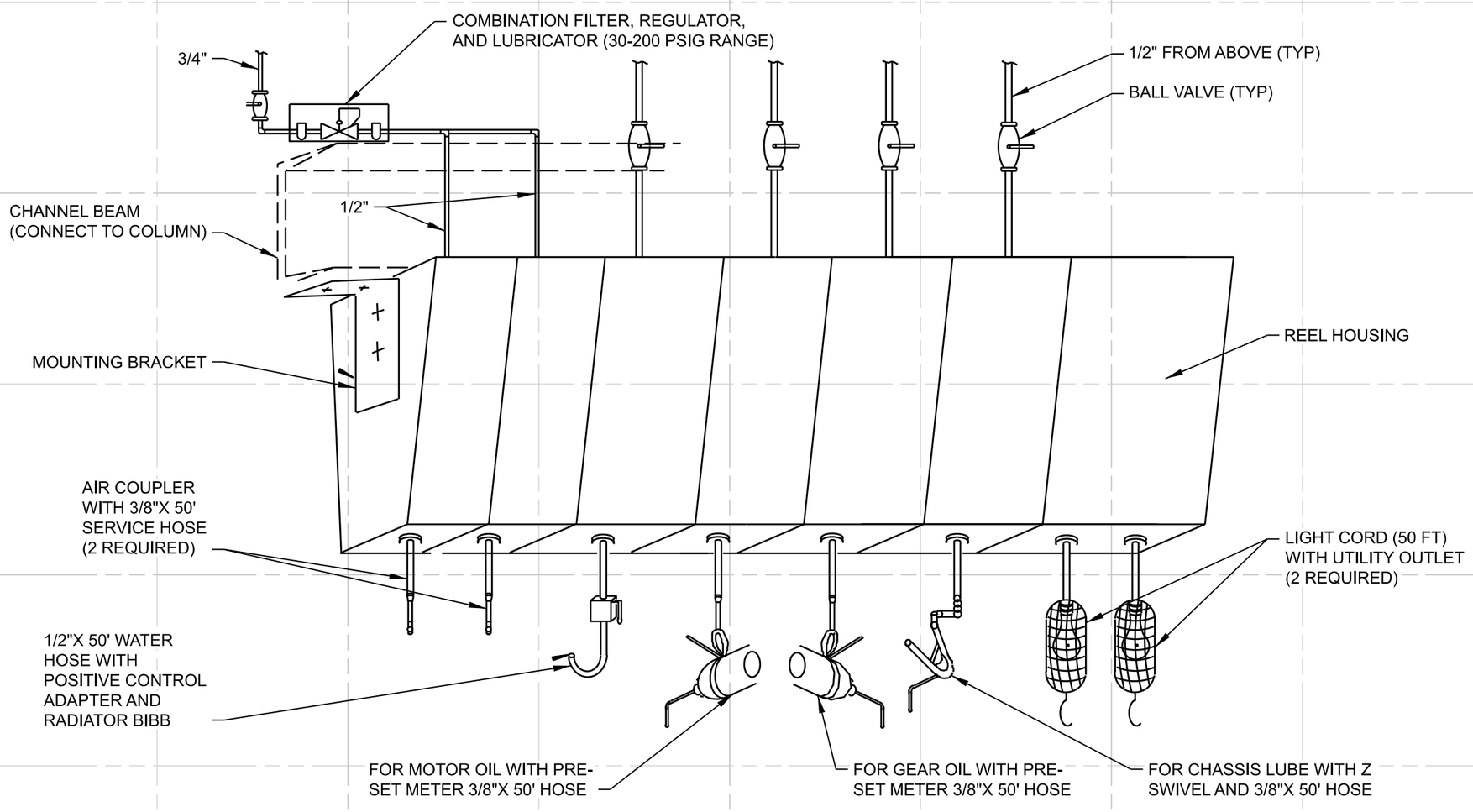
SCALE: NTS



DETAIL: DOUBLE CONTAINED TO SINGLE WALL, NPT PIPE, TRANSITION

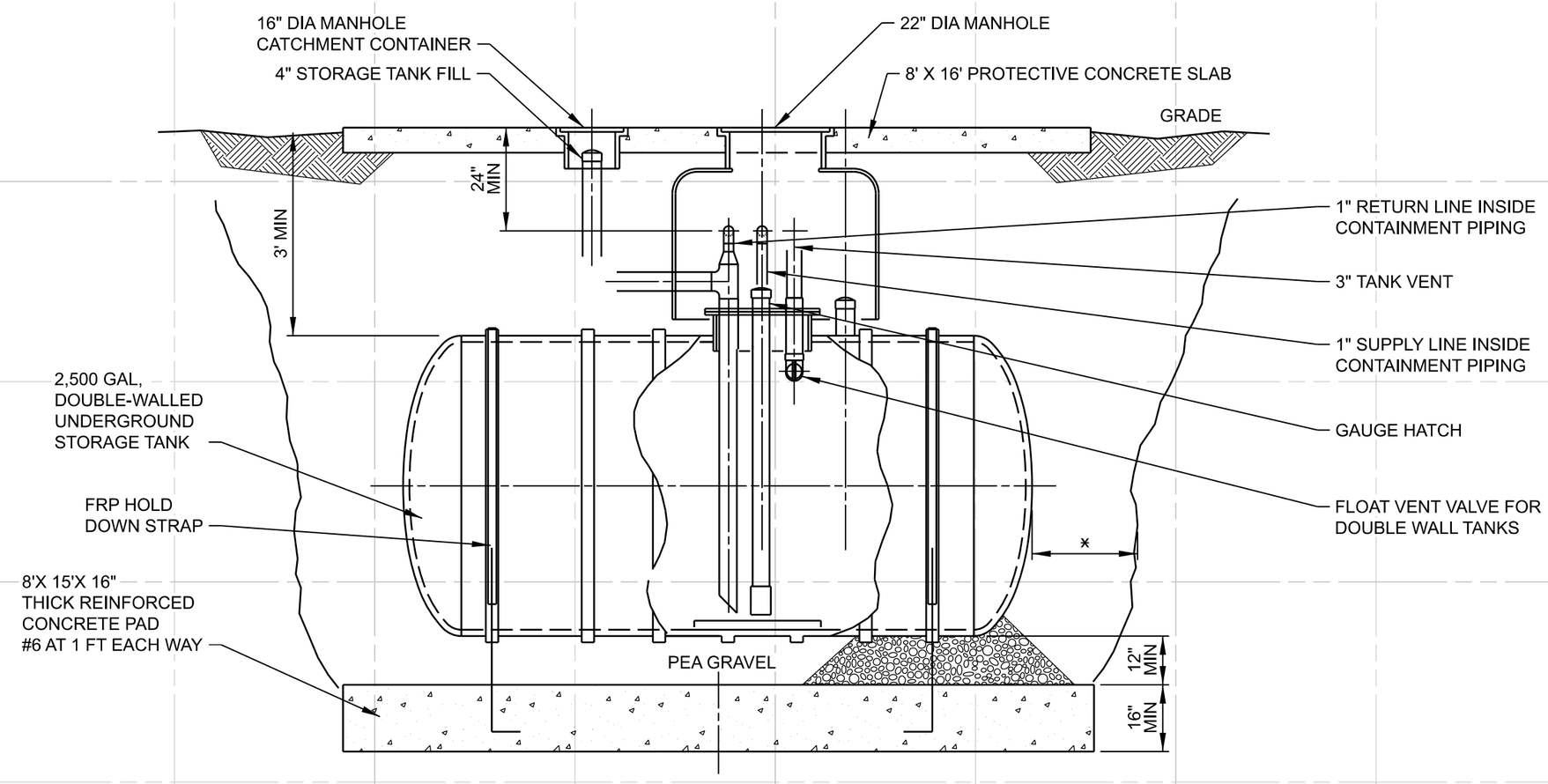
A1

SCALE: NTS



A1 DETAIL: ENCLOSED REEL

SCALE: NTS



* MAINTAIN A MIN CLEARANCE OF 2 FT BETWEEN TANK AND SIDES OF EXCAVATION

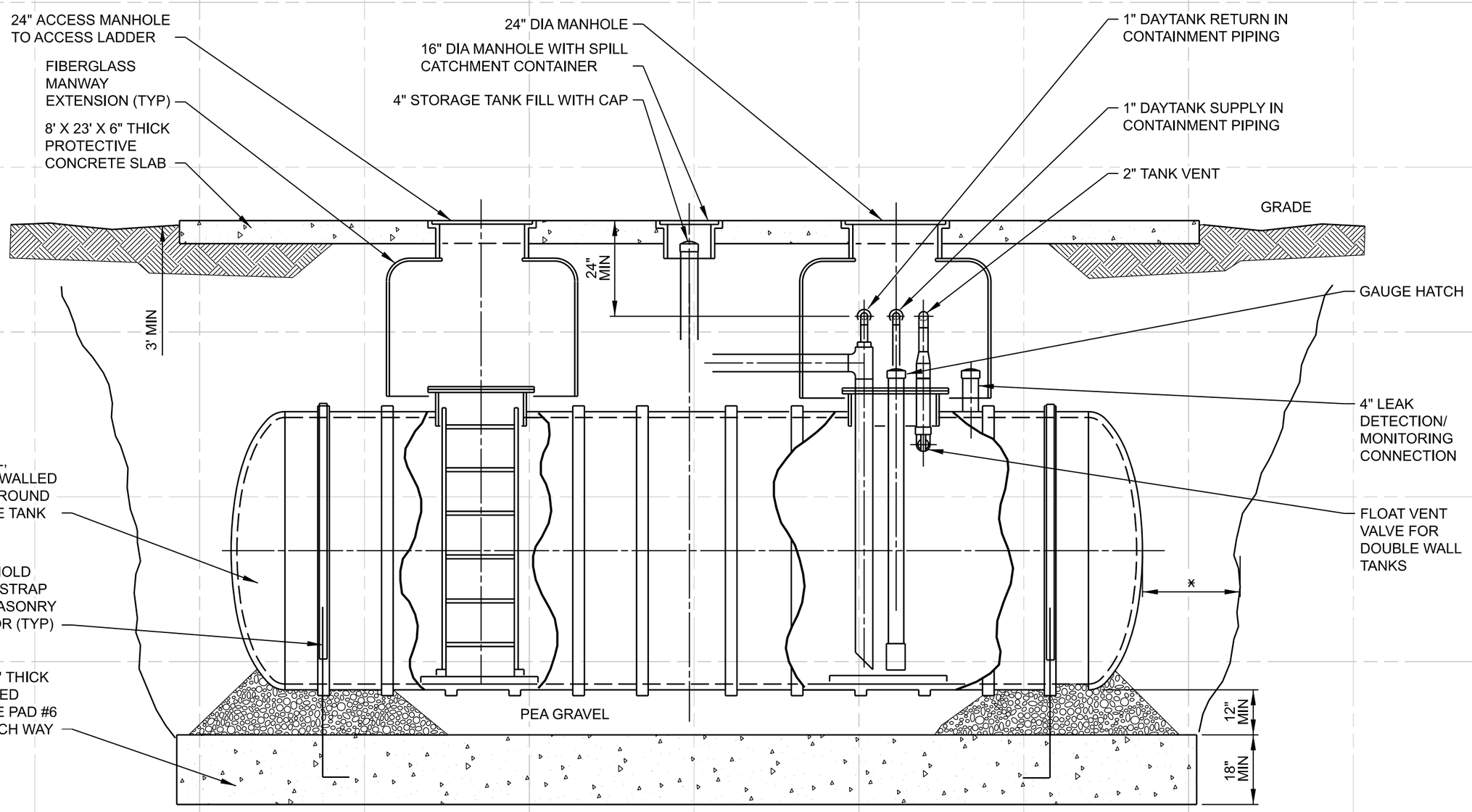
A1

DETAIL: SECTION THRU 2500 GALLON TANK

SCALE: 3/8"=1'-0"

0 2' 4' 8'

Detail D6014M-DT001X



* MAINTAIN A MIN CLEARANCE OF 2 FT BETWEEN TANK AND SIDES OF EXCAVATION

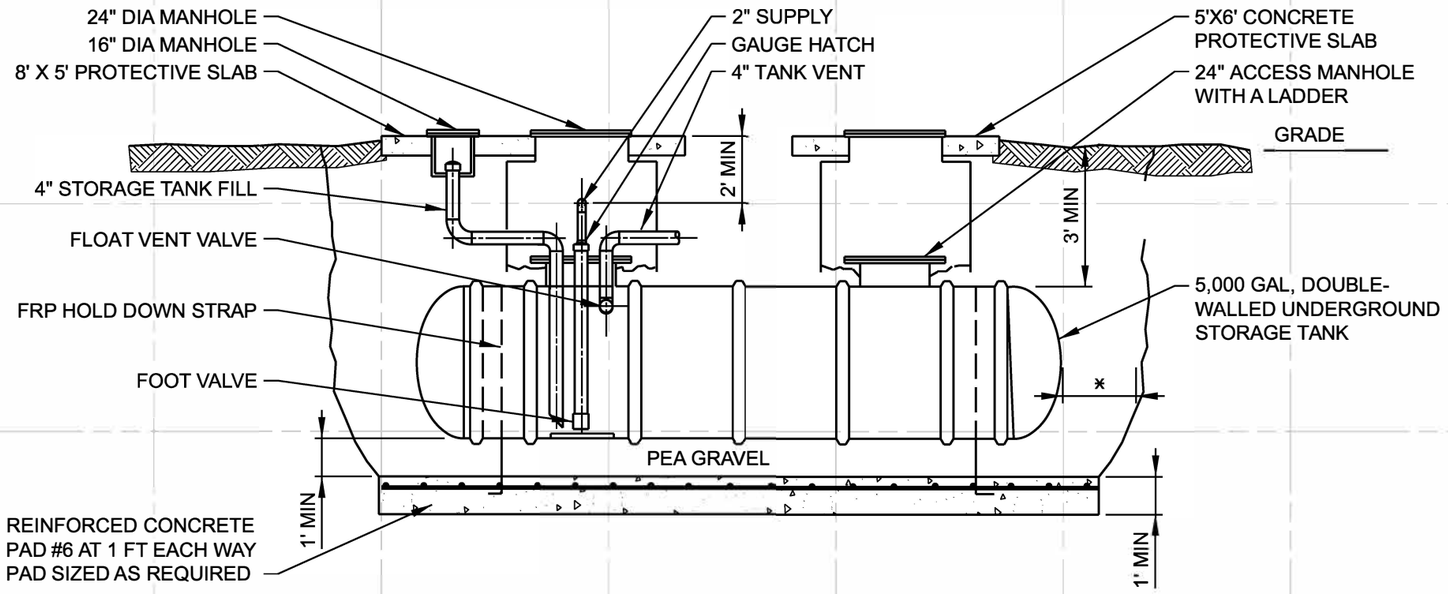
A1

DETAIL: SECTION THRU 4000 GALLON TANK

SCALE: 3/8"=1'-0"

0 2' 4' 8'

Detail D6014M-DT003X



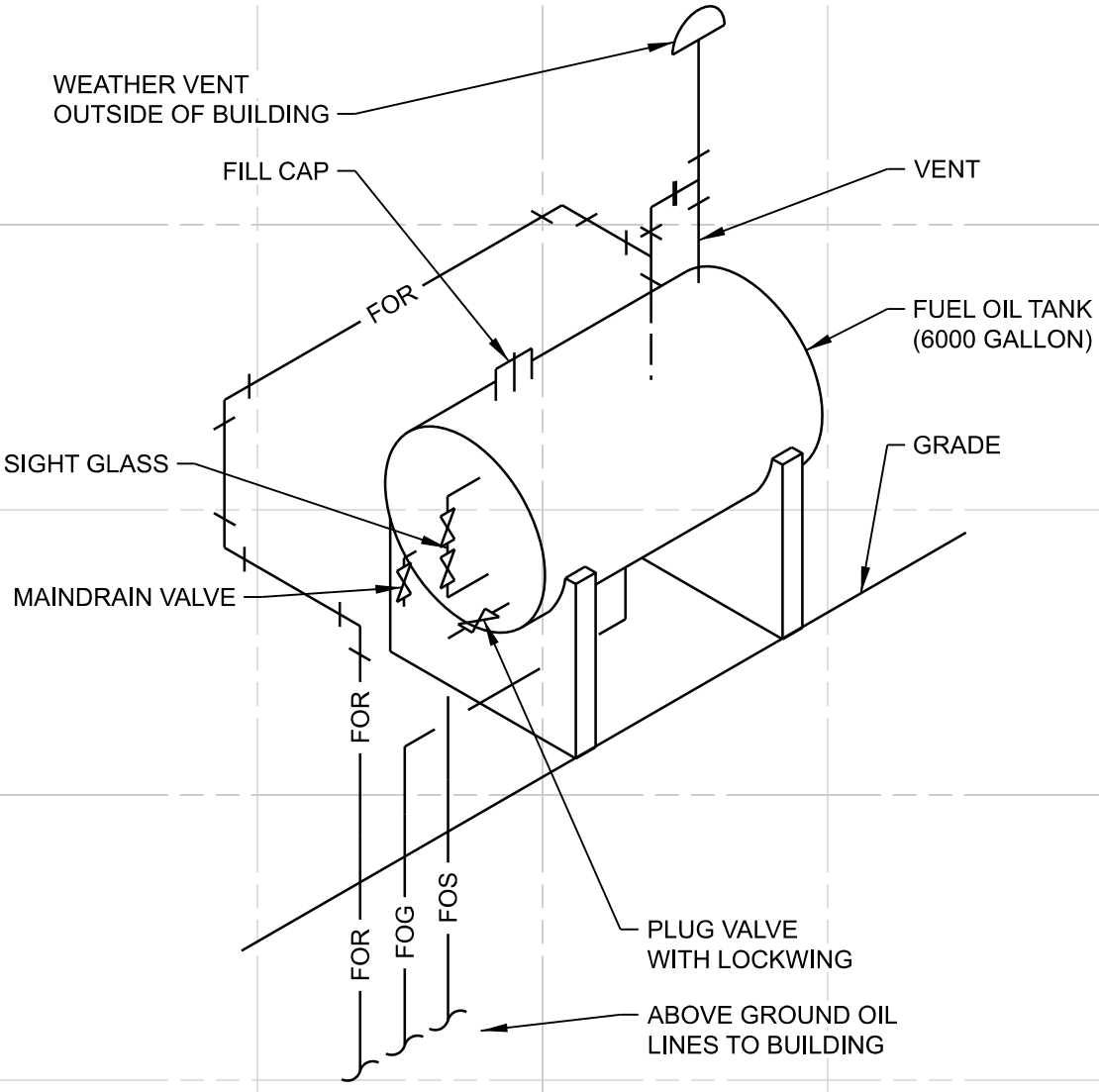
* MAINTAIN A MIN CLEARANCE OF 2 FT BETWEEN TANK AND SIDES OF EXCAVATION.

NOTE:
1. TANKS SHALL BE INSTALLED IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS, MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS AND NFPA 30.

A1

DETAIL: 5000 GALLON UNDERGROUND FUEL STORAGE TANK

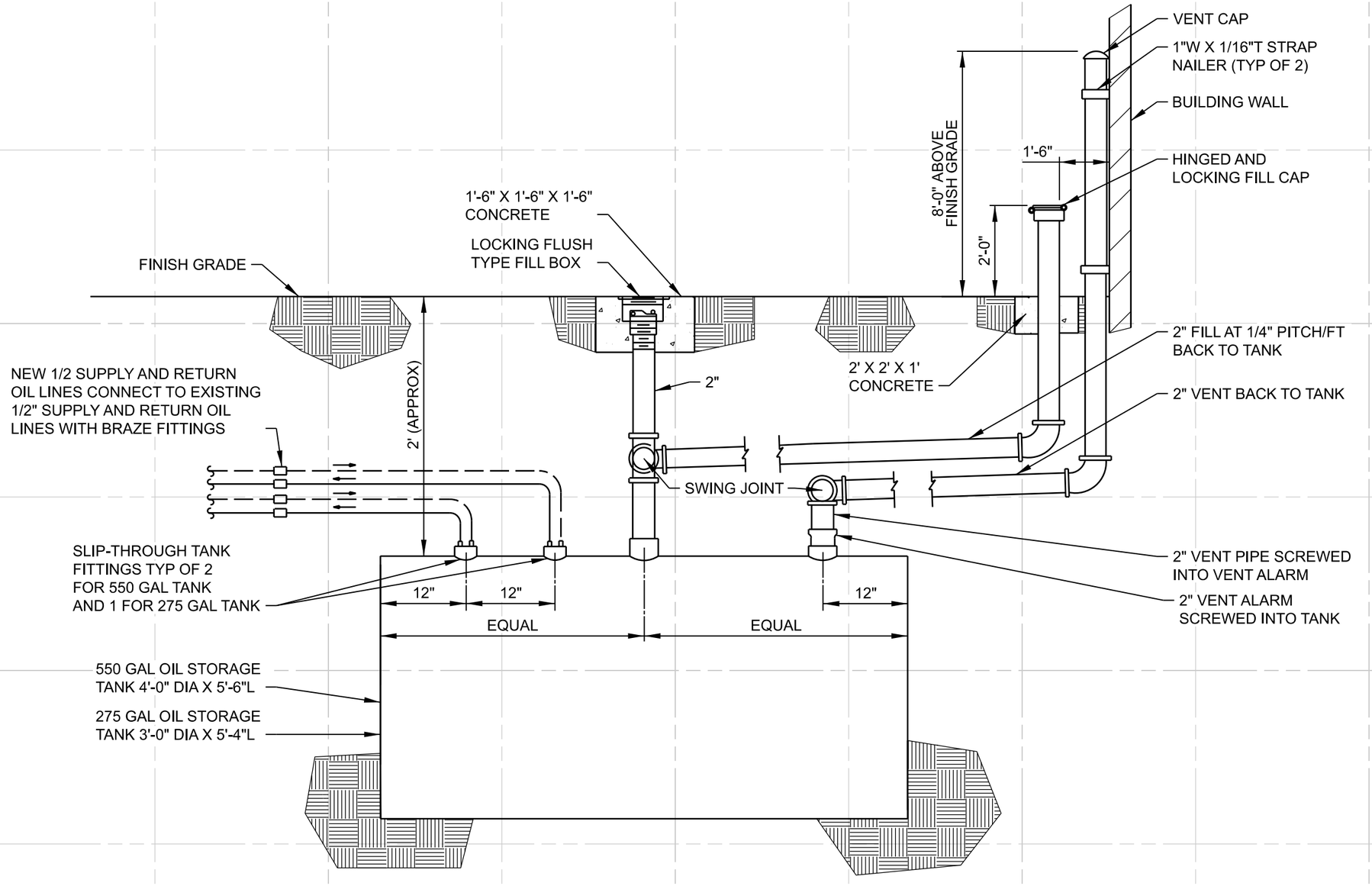
SCALE: NTS



A1

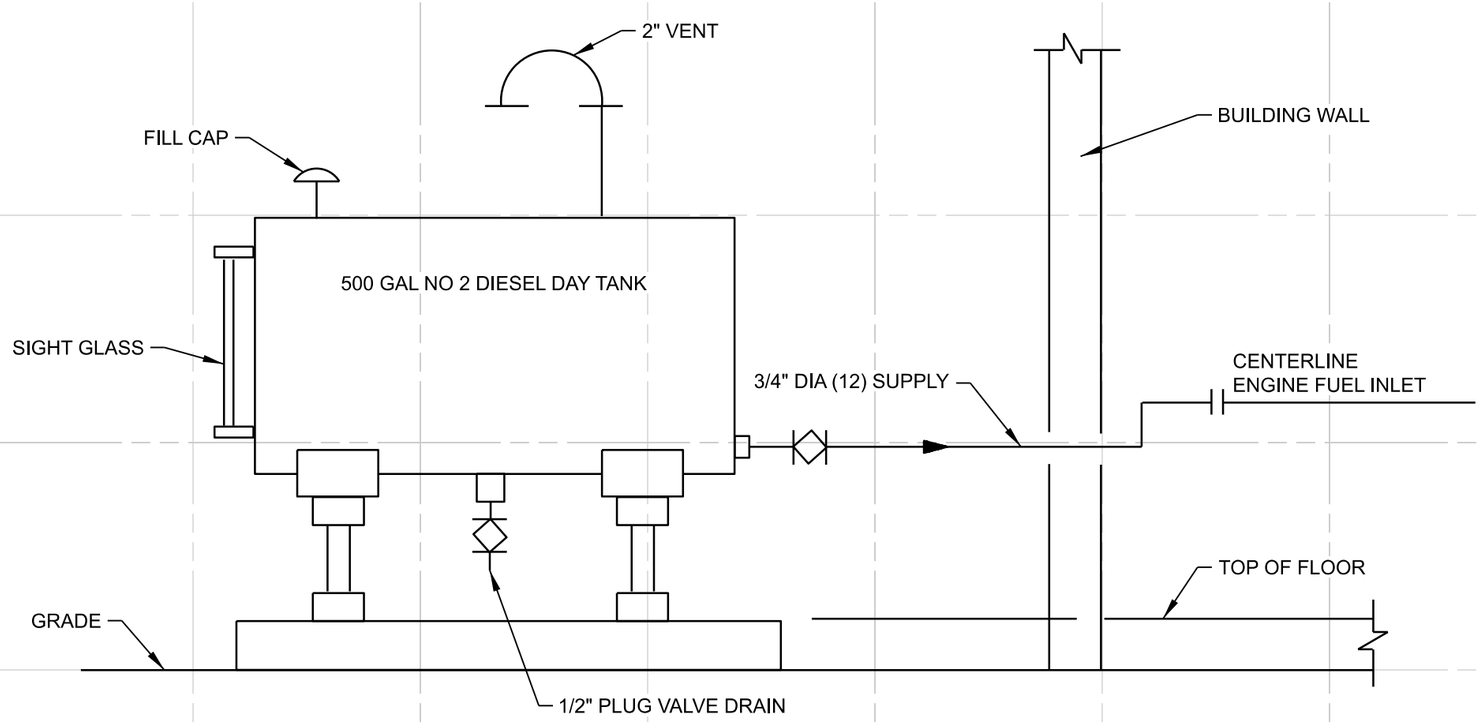
DETAIL: WASTE OIL STORAGE TANK

SCALE: NTS



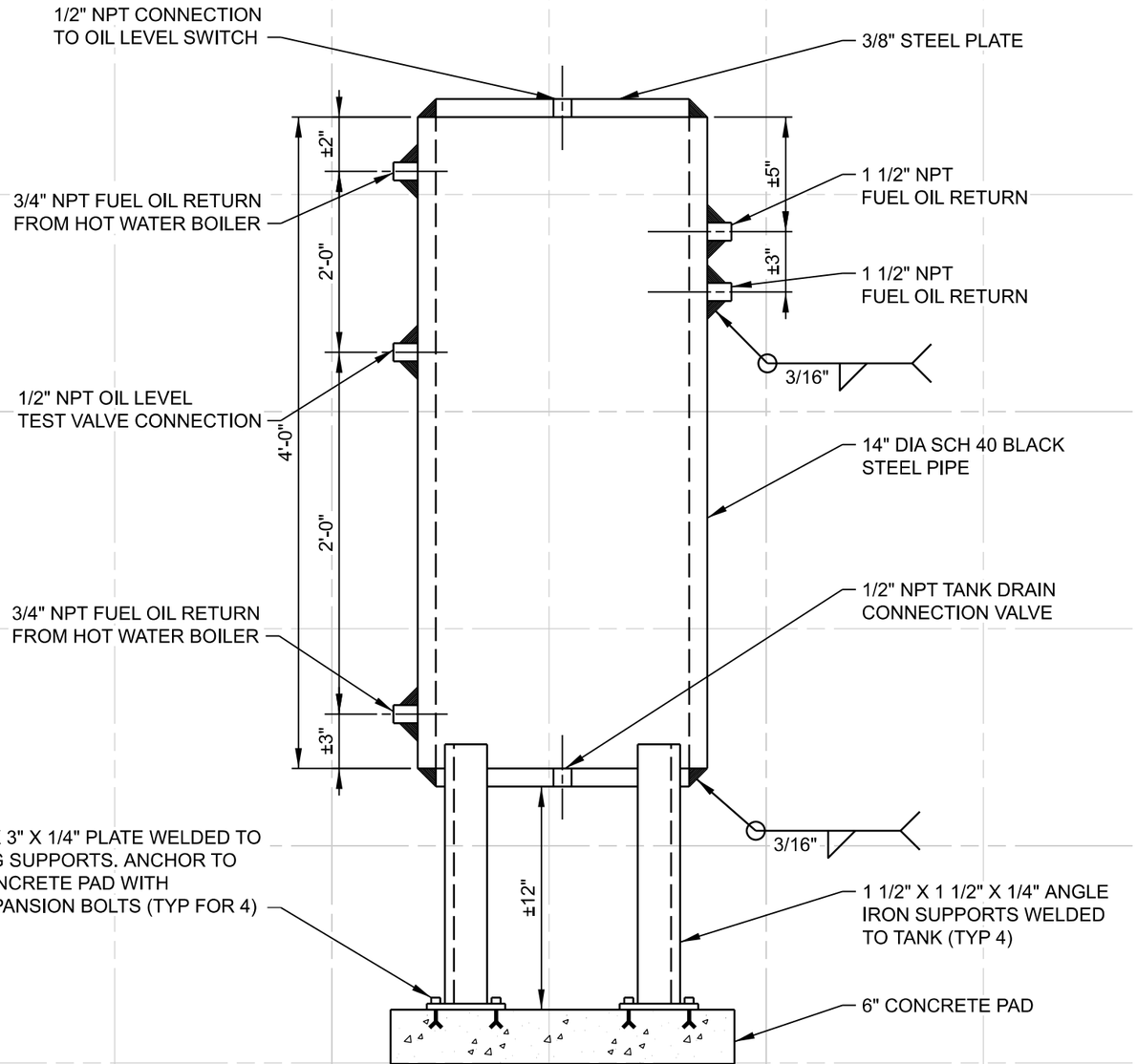
A1 DETAIL: FUEL STORAGE TANK

SCALE: NTS



A1 DETAIL: ENGINE FUEL SUPPLY

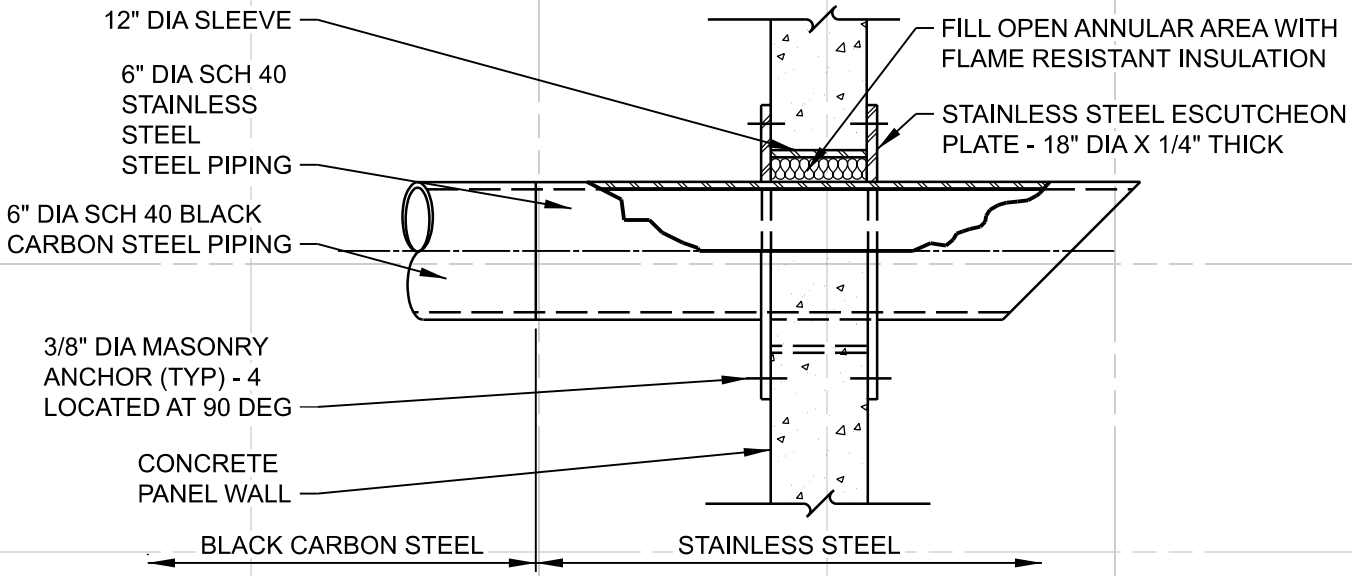
SCALE: NTS



A1

DETAIL: FUEL OIL DAY TANK

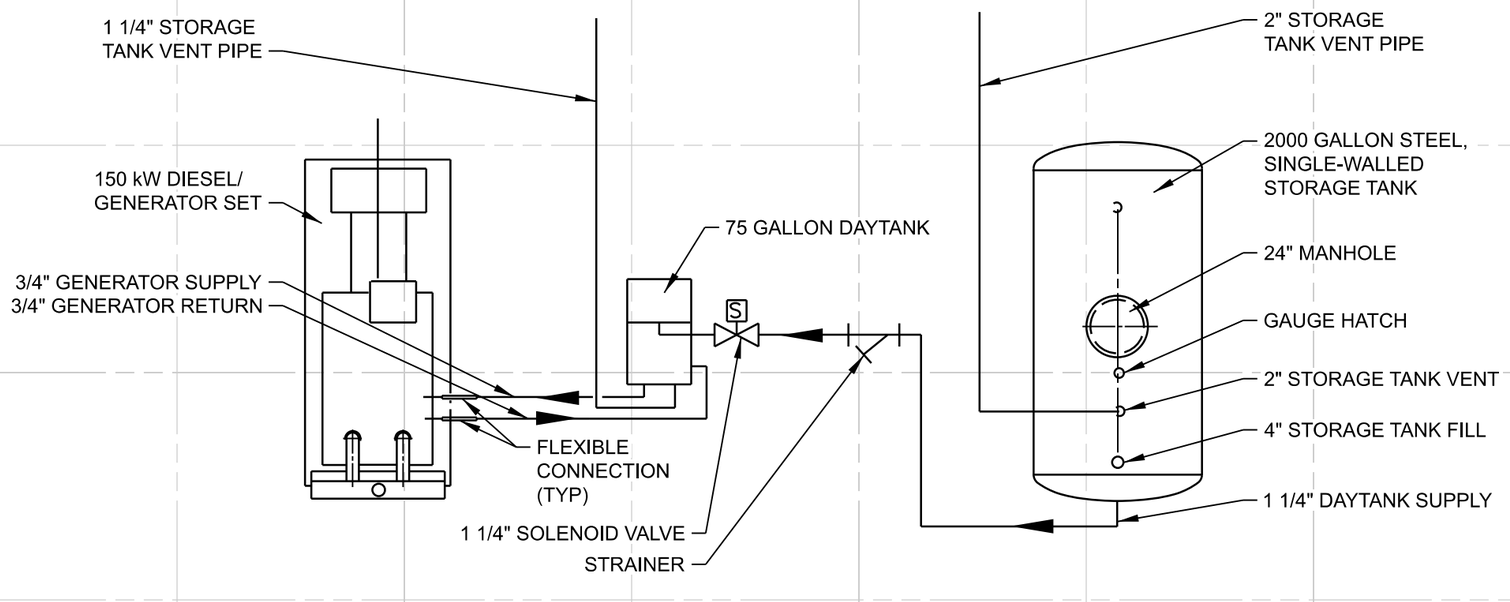
SCALE: NTS



A1

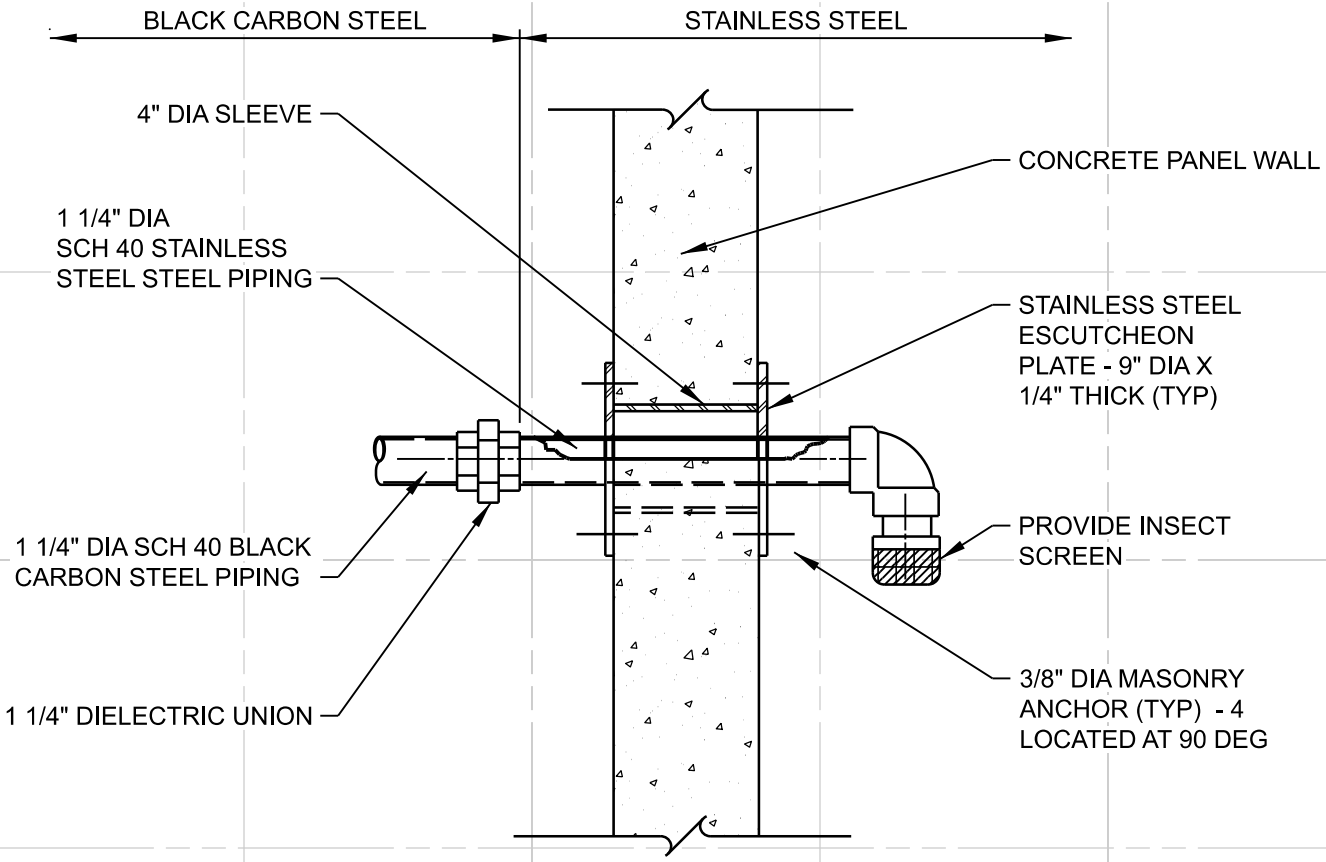
DETAIL: EXHAUST PIPE WALL PENETRATION

SCALE: NTS



A1 SCHEMATIC: FUEL FLOW

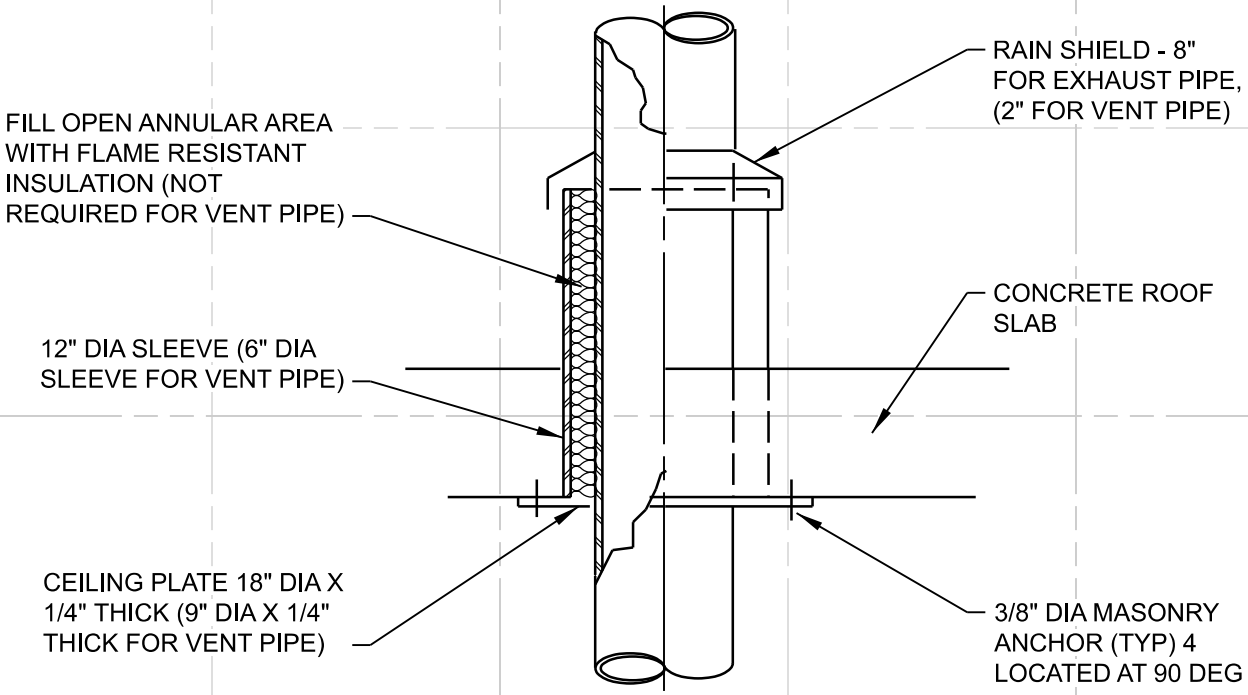
SCALE: NTS



A1

DETAIL: VENT PIPE WALL PENETRATION

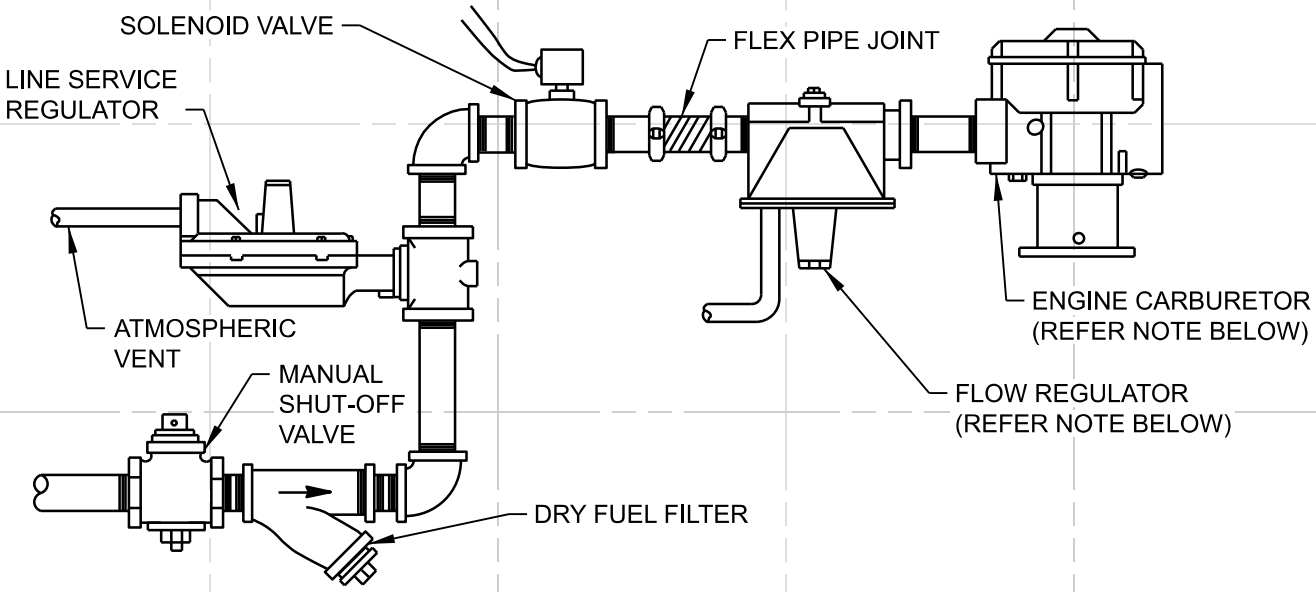
SCALE: NTS



A1

DETAIL: EXHAUST PIPE ROOF PENETRATION

SCALE: NTS

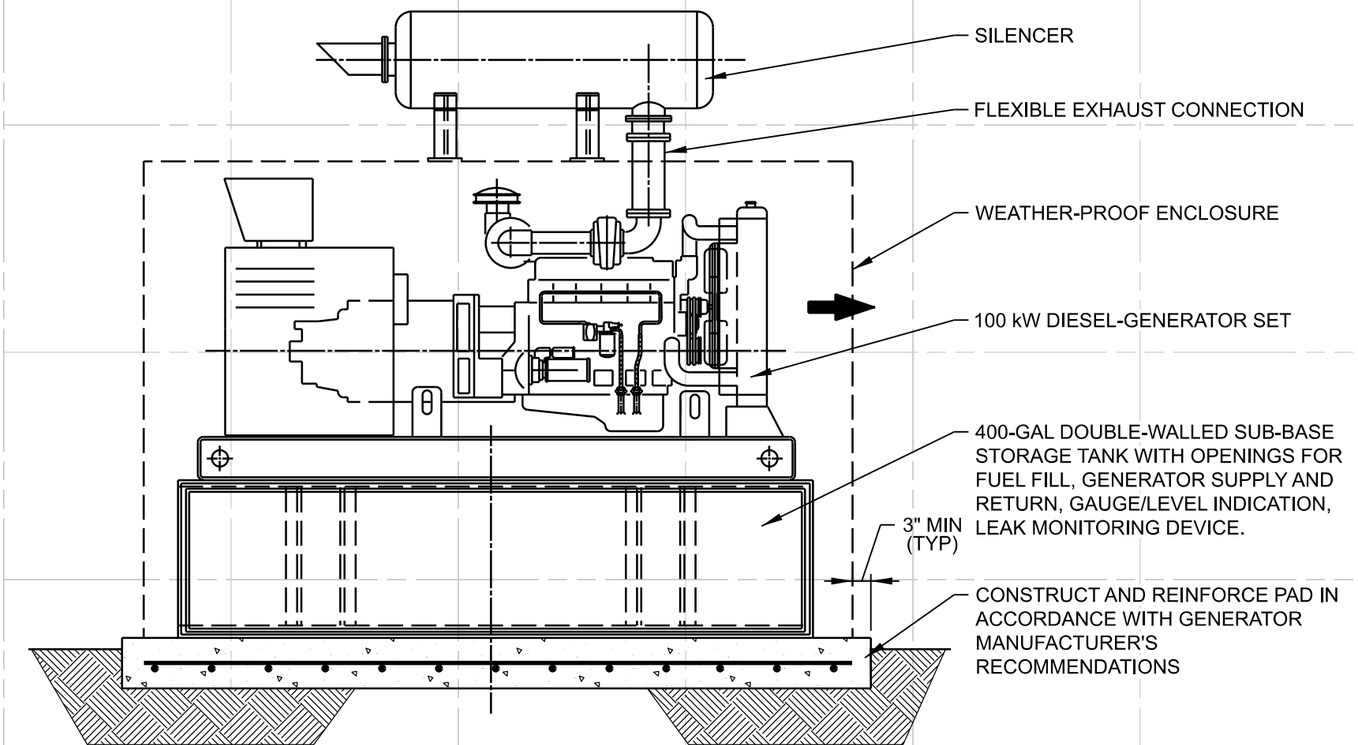


NOTES:
EQUIPMENT SHALL BE SUPPIED BY ENGINE/GENERATOR SET MANUFACTURER.
ALL ATMOSPHERIC VENTS SHALL BE ROUTED OUT OF BUILDING.

A1

DETAIL: ENGINE/GENERATOR FUEL SYSTEM DIAGRAM

SCALE: NTS

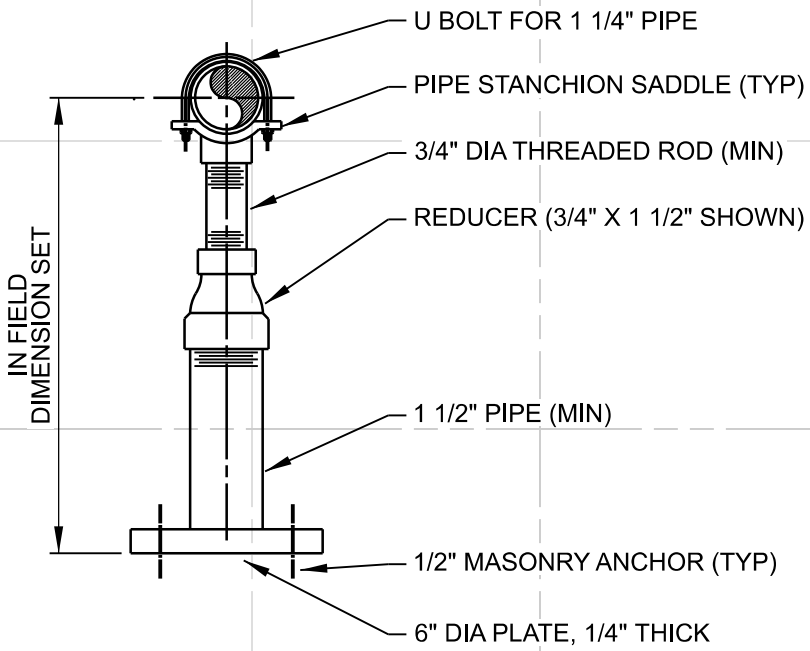


NOTES:
EQUIPMENT SHALL BE SUPPIED BY ENGINE/GENERATOR SET MANUFACTURER.
ALL ATMOSPHERIC VENTS SHALL BE ROUTED OUT OF BUILDING.

A1

DETAIL: SECTION THRU 100 KW GENERATOR

SCALE: NTS

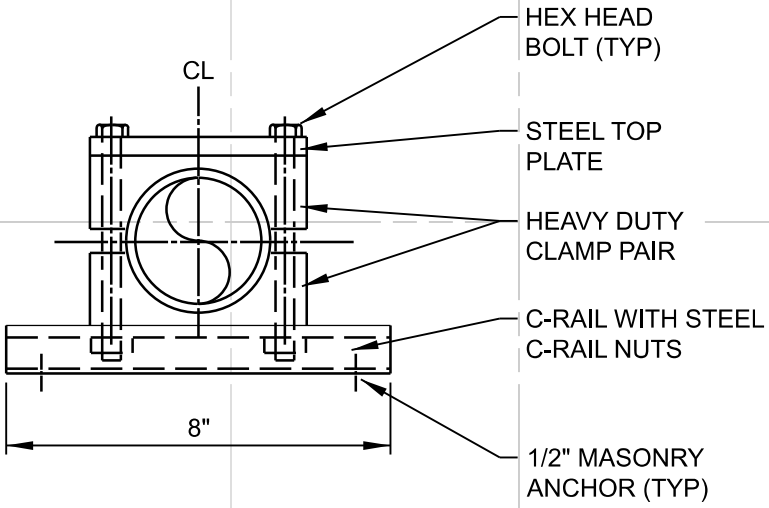


NOTE:
1. HOT-DIP GALVANIZE AFTER FABRICATION.

A1

DETAIL: PIPE SUPPORT

SCALE: NTS

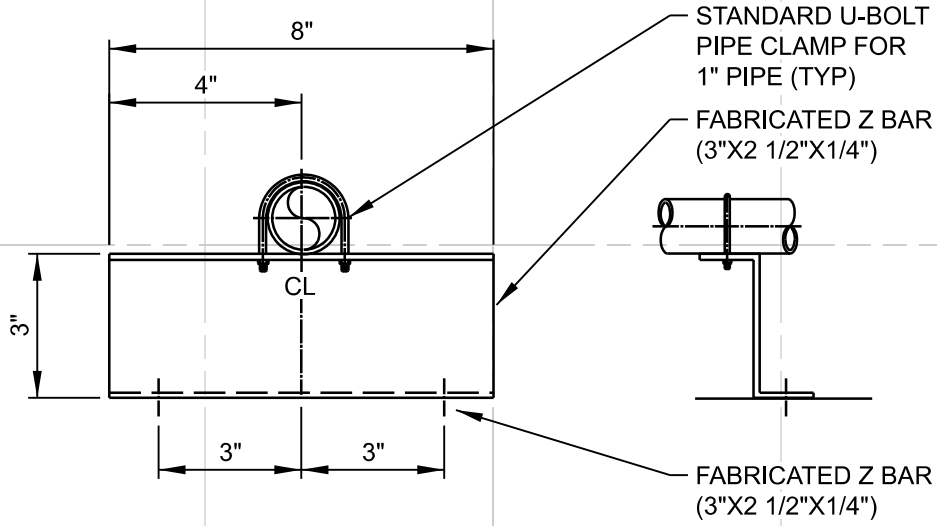


A1

DETAIL: PIPE SUPPORT

SCALE: 3"=1'-0"

0 3" 6" 1'

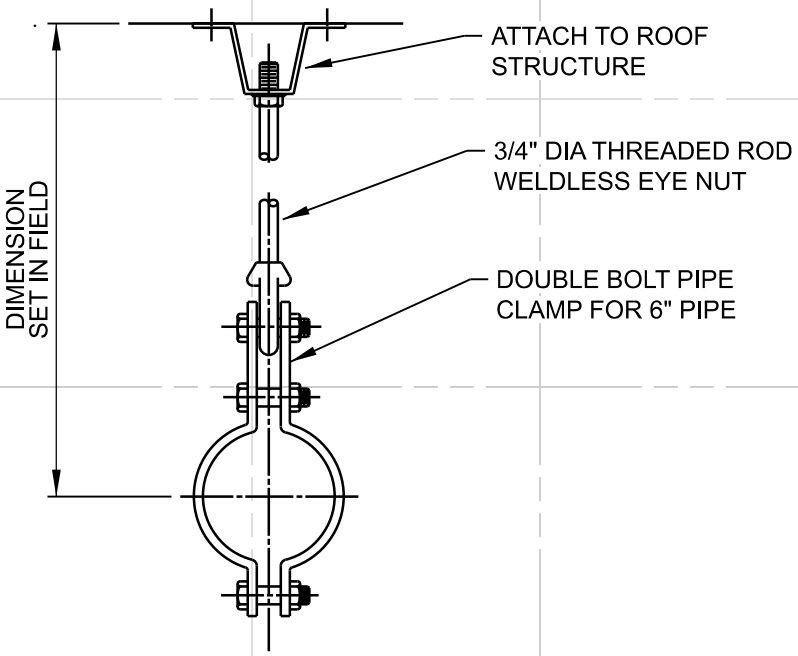


NOTE:
1. HOT-DIP GALVANIZE AFTER FABRICATION.

A1

DETAIL: PIPE SUPPORT

SCALE: 3"=1'-0" 0 3" 6" 1'



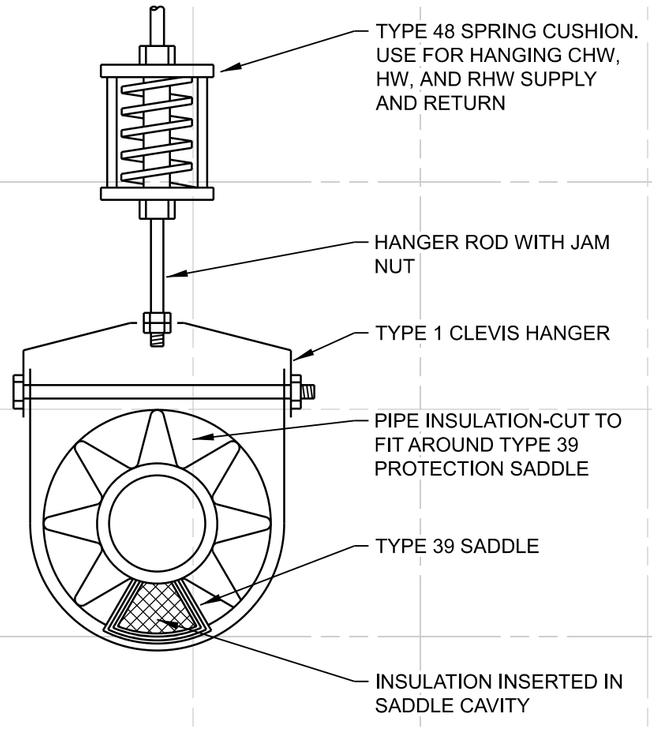
A1

DETAIL: PIPE SUPPORT

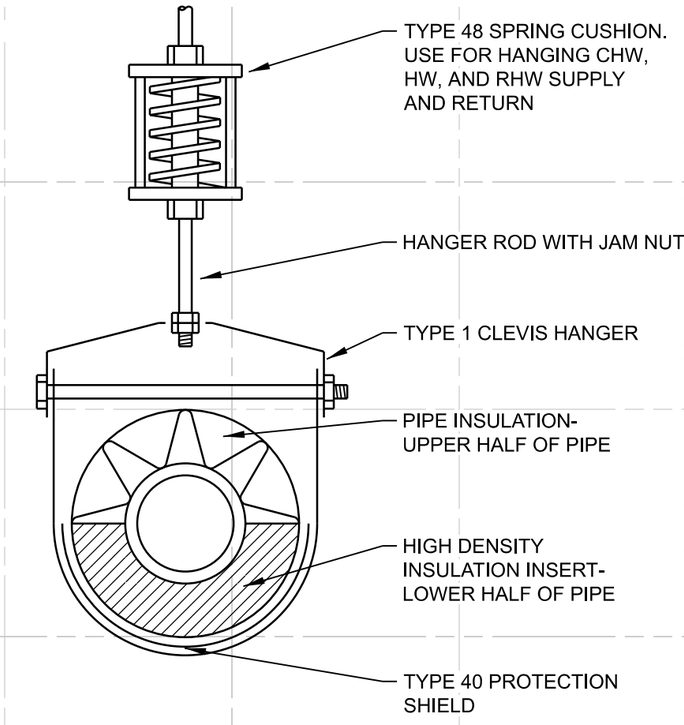
SCALE: 1-1/2"=1'-0"

0 6" 1' 2'

Detail D6030M-DT004E



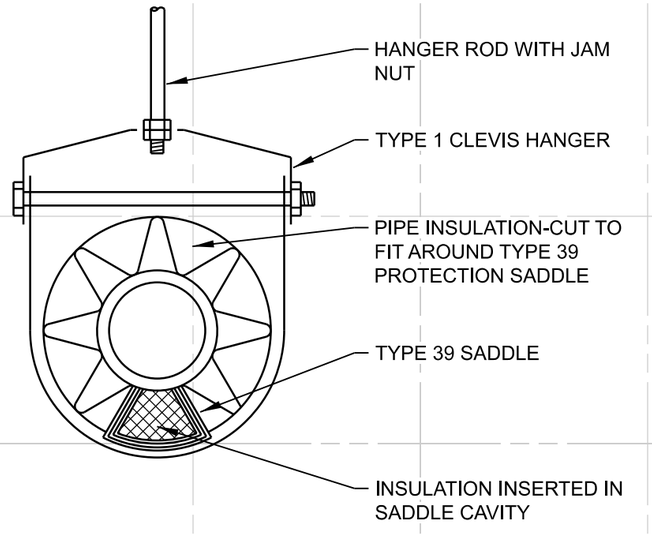
HOT PIPE (60°F AND HIGHER) - 4" DIA AND LARGER



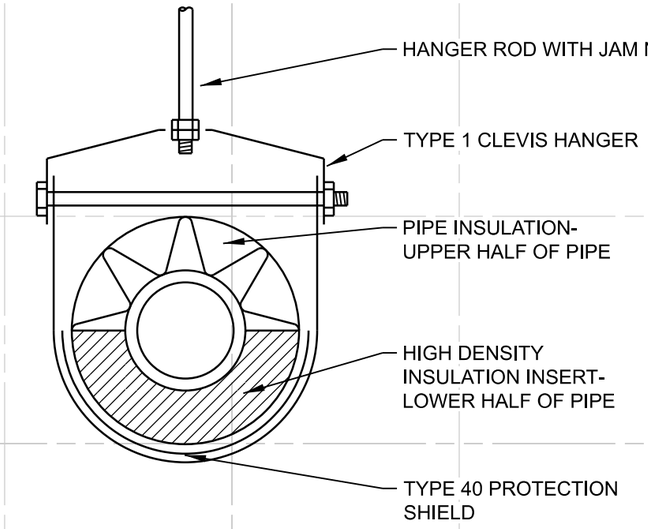
HOT PIPE - UNDER 4" DIA
COLD PIPE - ALL SIZES

A1 DETAIL: SPRING ISOLATED HANGER - INSULATED PIPE

SCALE: NTS



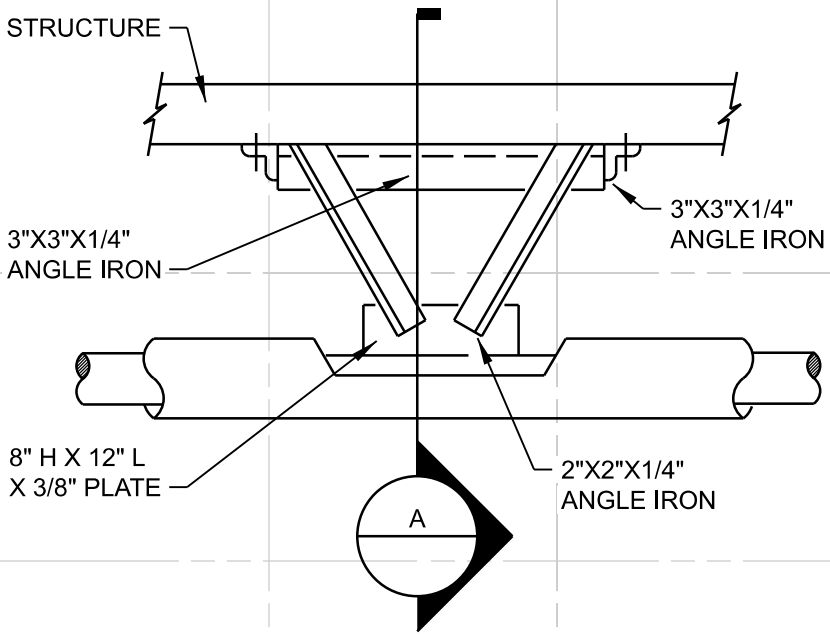
HOT PIPE (60°F AND HIGHER) - 4" DIA AND LARGER

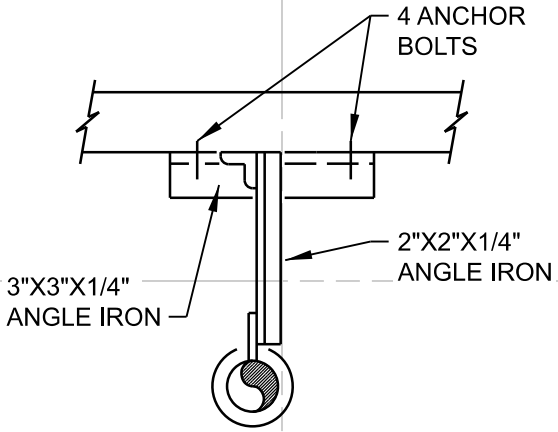


HOT PIPE - UNDER 4" DIA
COLD PIPE - ALL SIZES

A1 DETAIL: HANGER - INSULATED PIPE

SCALE: NTS



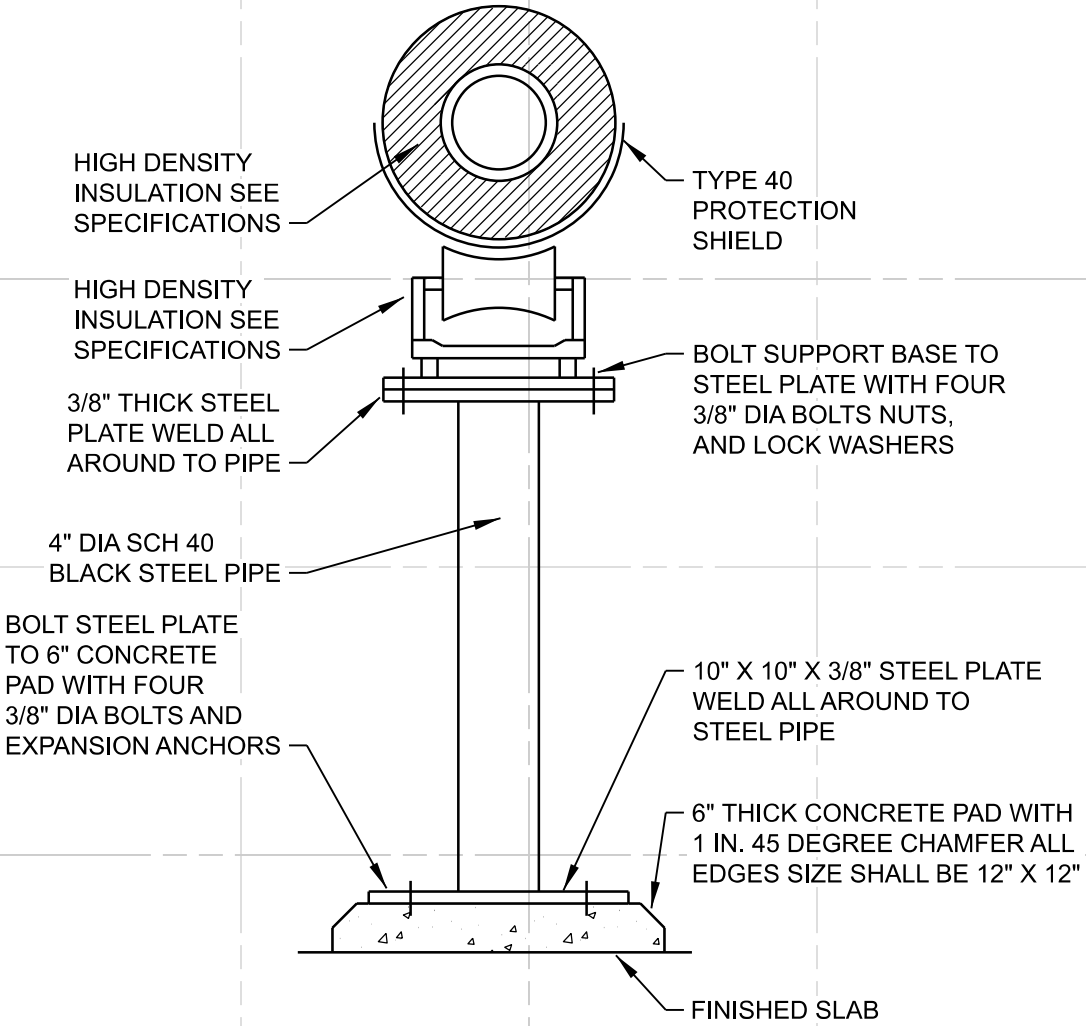


SECTION A

A1

DETAIL: PIPE ANCHOR

SCALE: NTS

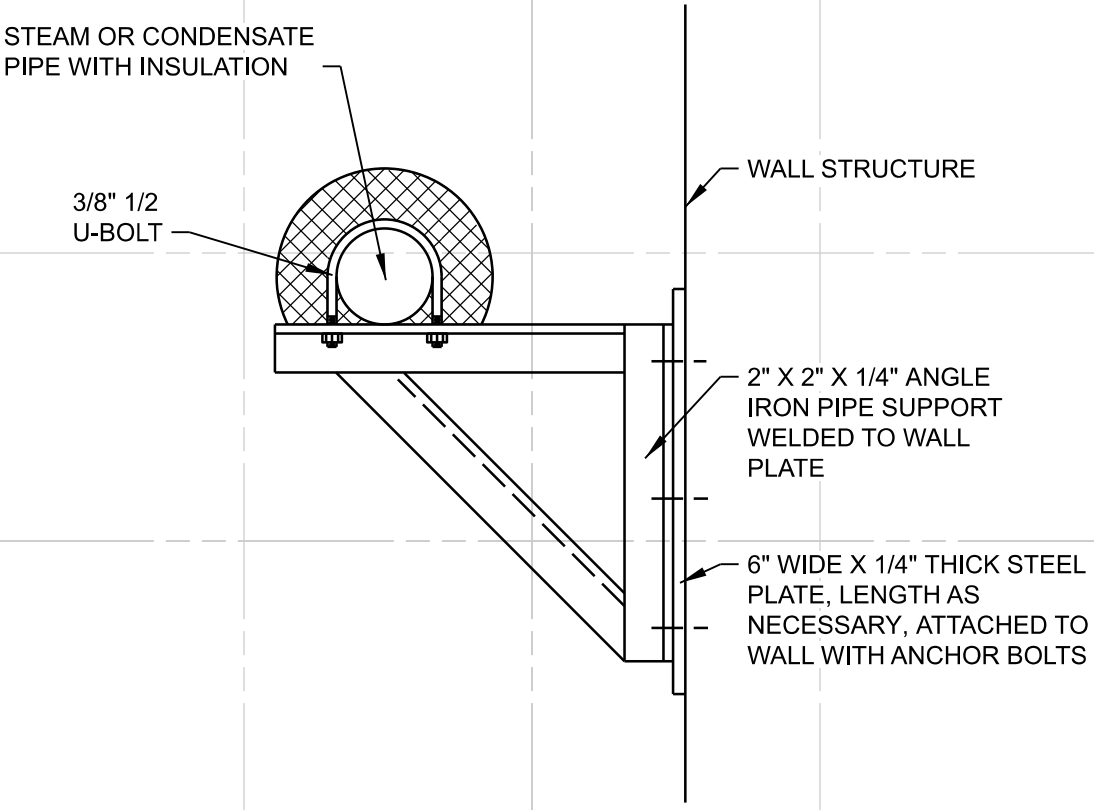


COLD PIPE - 4" AND LARGER

DETAIL: CHILLED WATER PIPE SUPPORT - INSULATED PIPE (FOR USE IN EQUIPMENT ENCLOSURE AREAS)

A1

SCALE: NTS

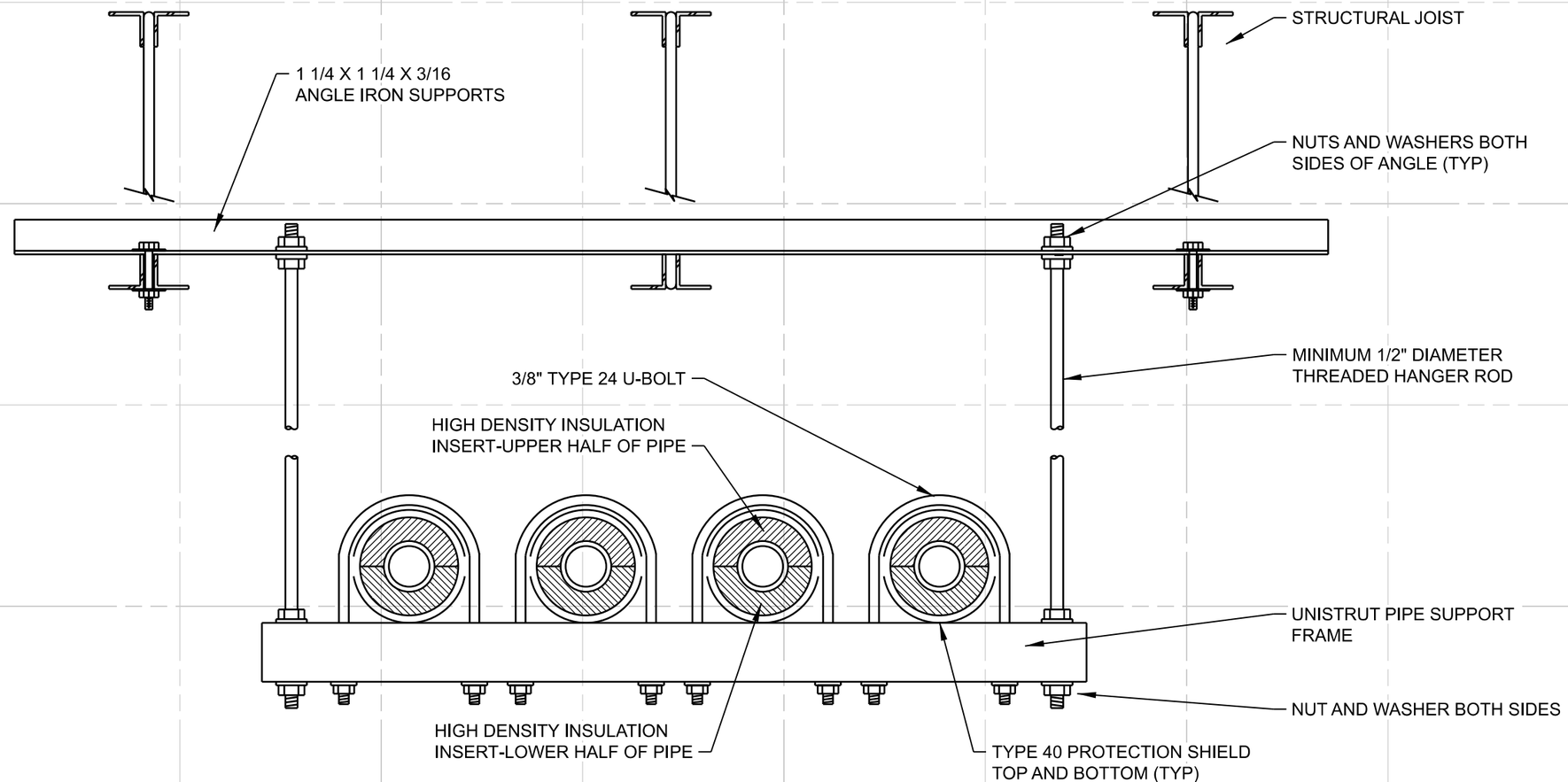


NOTE:
EXTEND INSULATION OVER ANCHOR SO THAT THERE IS NO UNINSULATED PIPE EXPOSED.

A1

DETAIL: PIPE SUPPORT

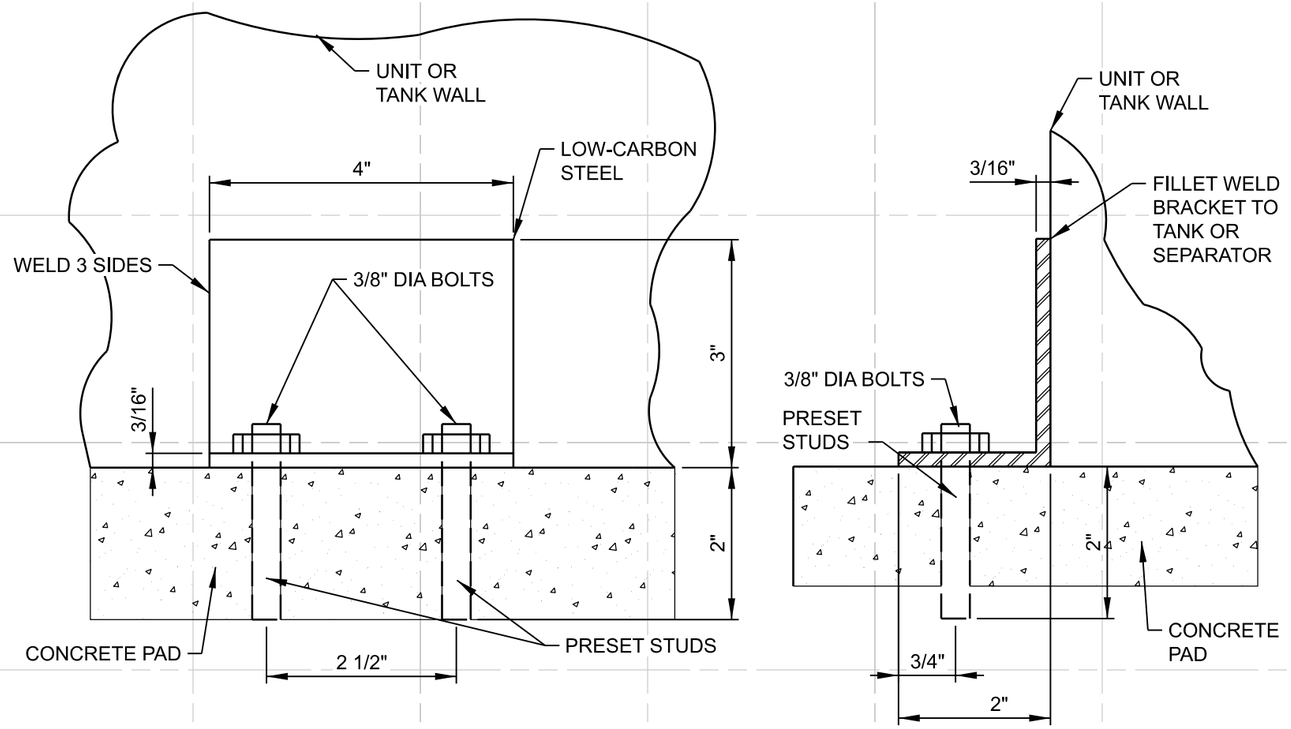
SCALE: NTS



HOT PIPE - ALL SIZES
COLD PIPE - ALL SIZES

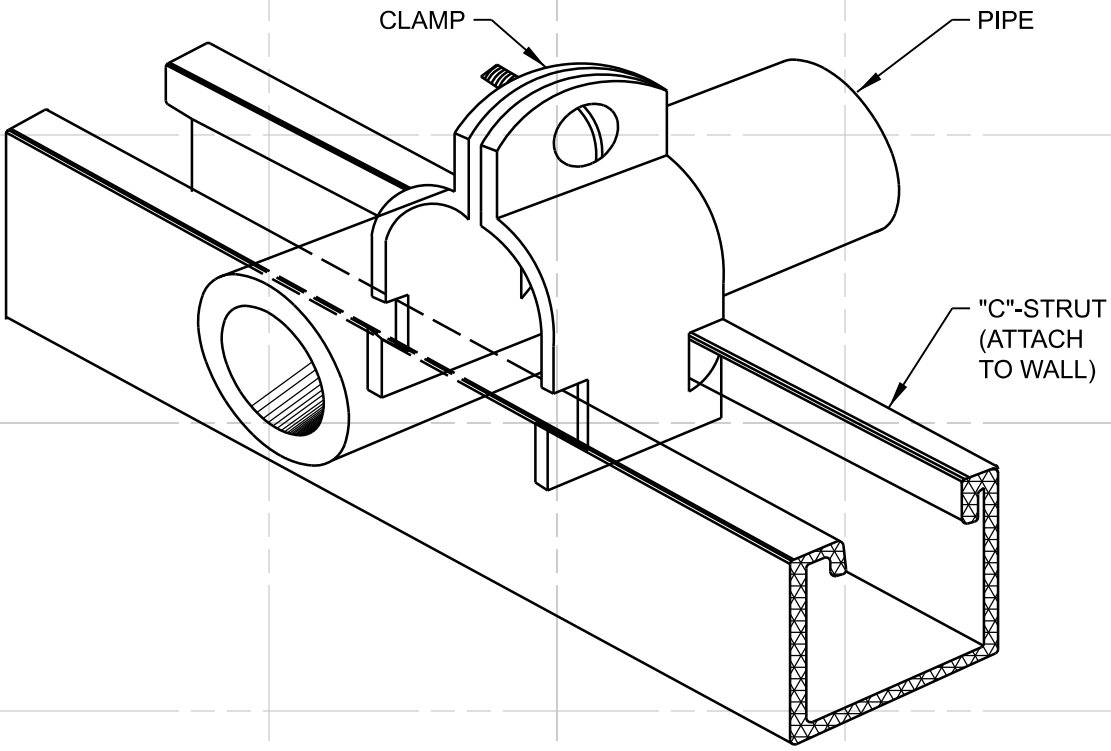
A1 DETAIL: HORIZONTAL PIPE SUPPORT

SCALE: NTS



A1 DETAIL: UNIT OR TANK MOUNTING BRACKET

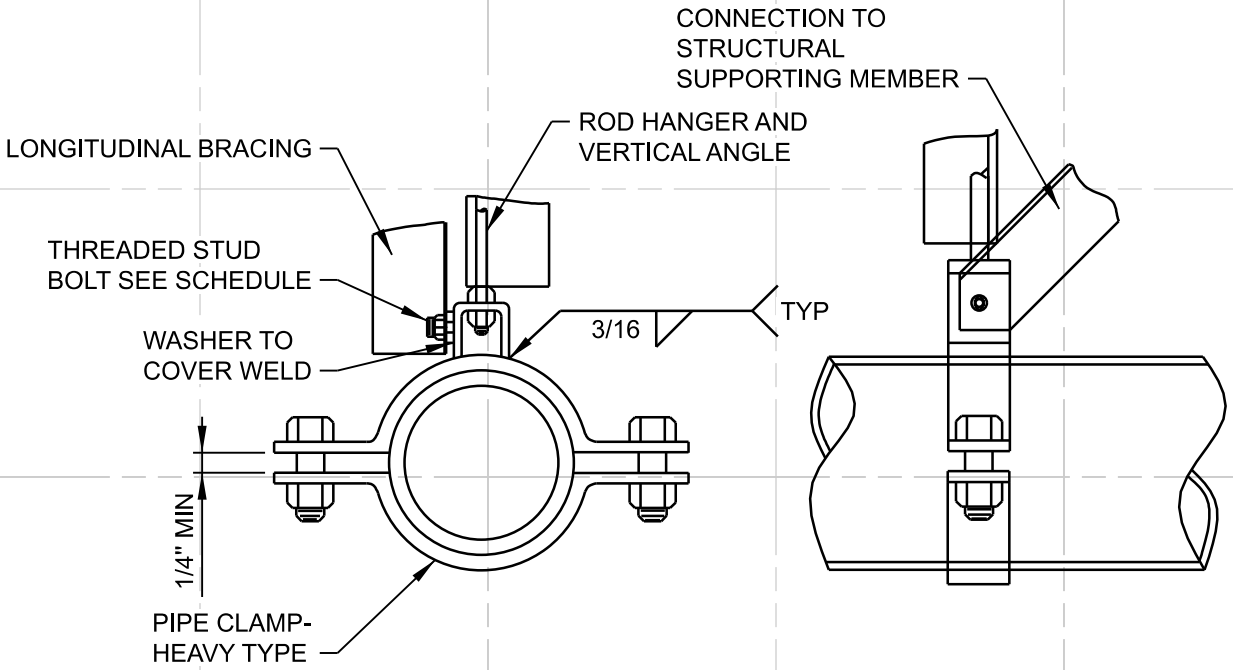
SCALE: NTS



A1

DETAIL: WALL SUPPORT

SCALE: NTS

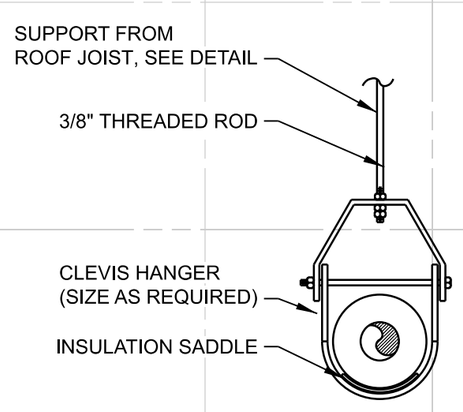


NOTES:
1. IF PIPE REQUIRES INSULATION, THEN PROVIDE INSULATION AROUND ANCHOR ALSO.
2. WELD OR BOLT SUPPORTS TO OVERHEAD BEAMS USING 1/2" BOLTS AND/OR 3/16" WELDS.
3. ALL BOLTS 1/2"

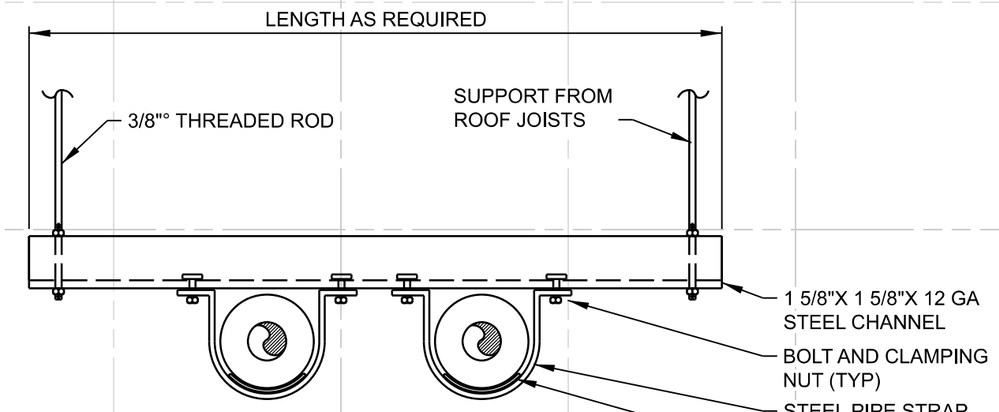
A1

DETAIL: PIPE ANCHORING

SCALE: NTS



SINGLE PIPE RUN

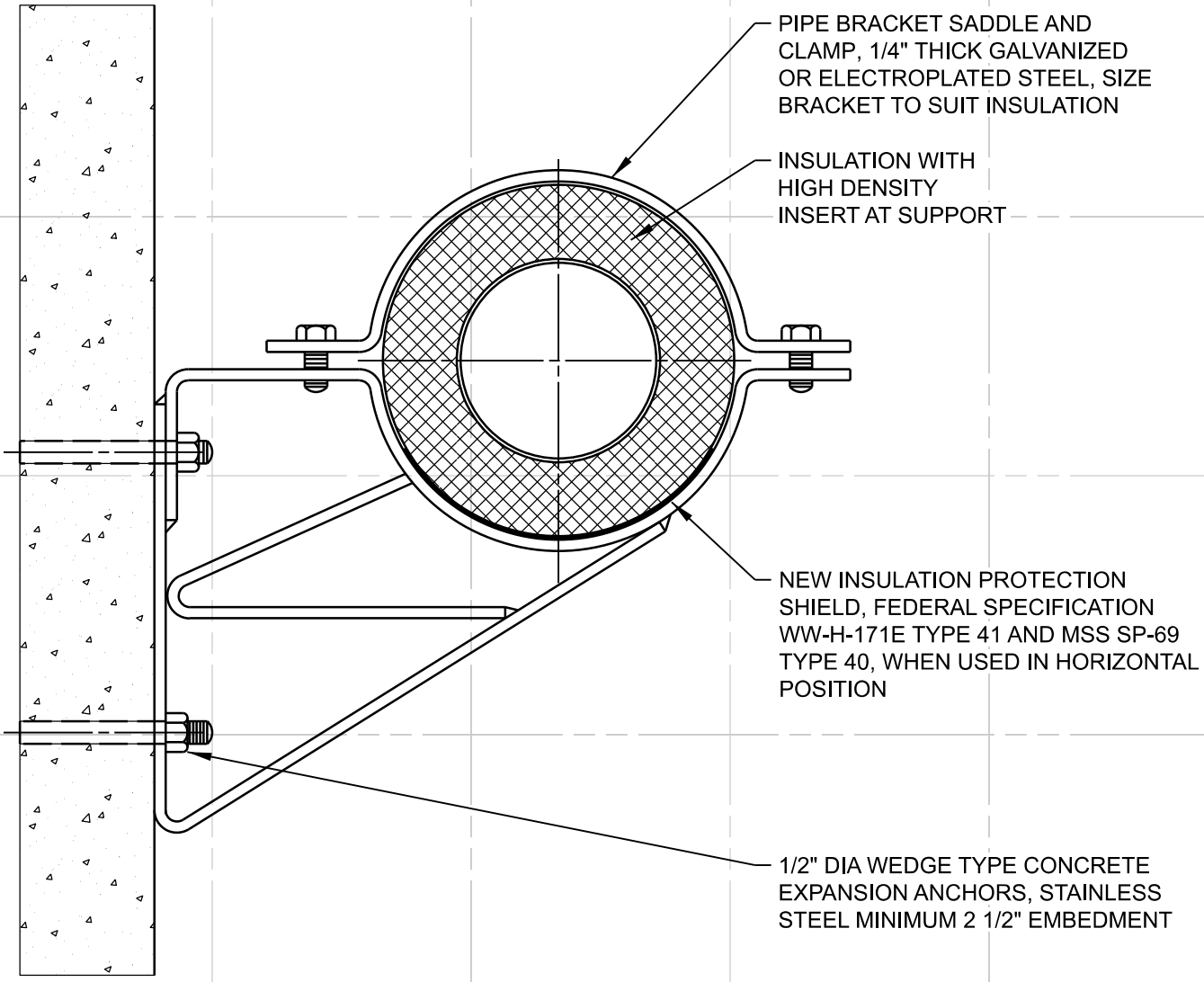


MULTIPLE PIPE RUNS

A1 DETAIL: PIPE SUPPORT

SCALE: NTS

Detail D6030M-DT014E

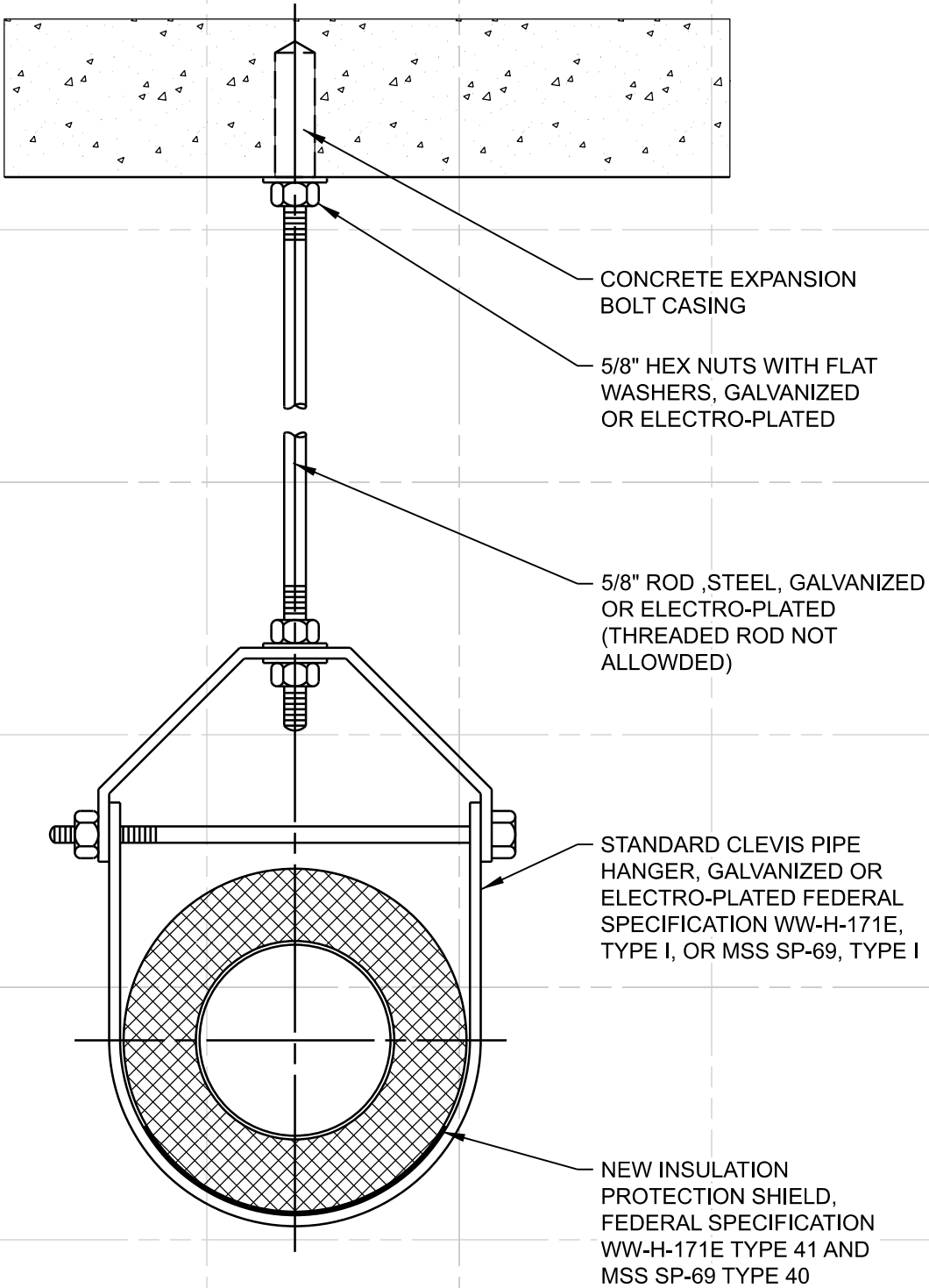


A1

DETAIL: WALL HUNG PIPE SUPPORT FOR INSULATED PIPE

SCALE: 3"=1'-0"

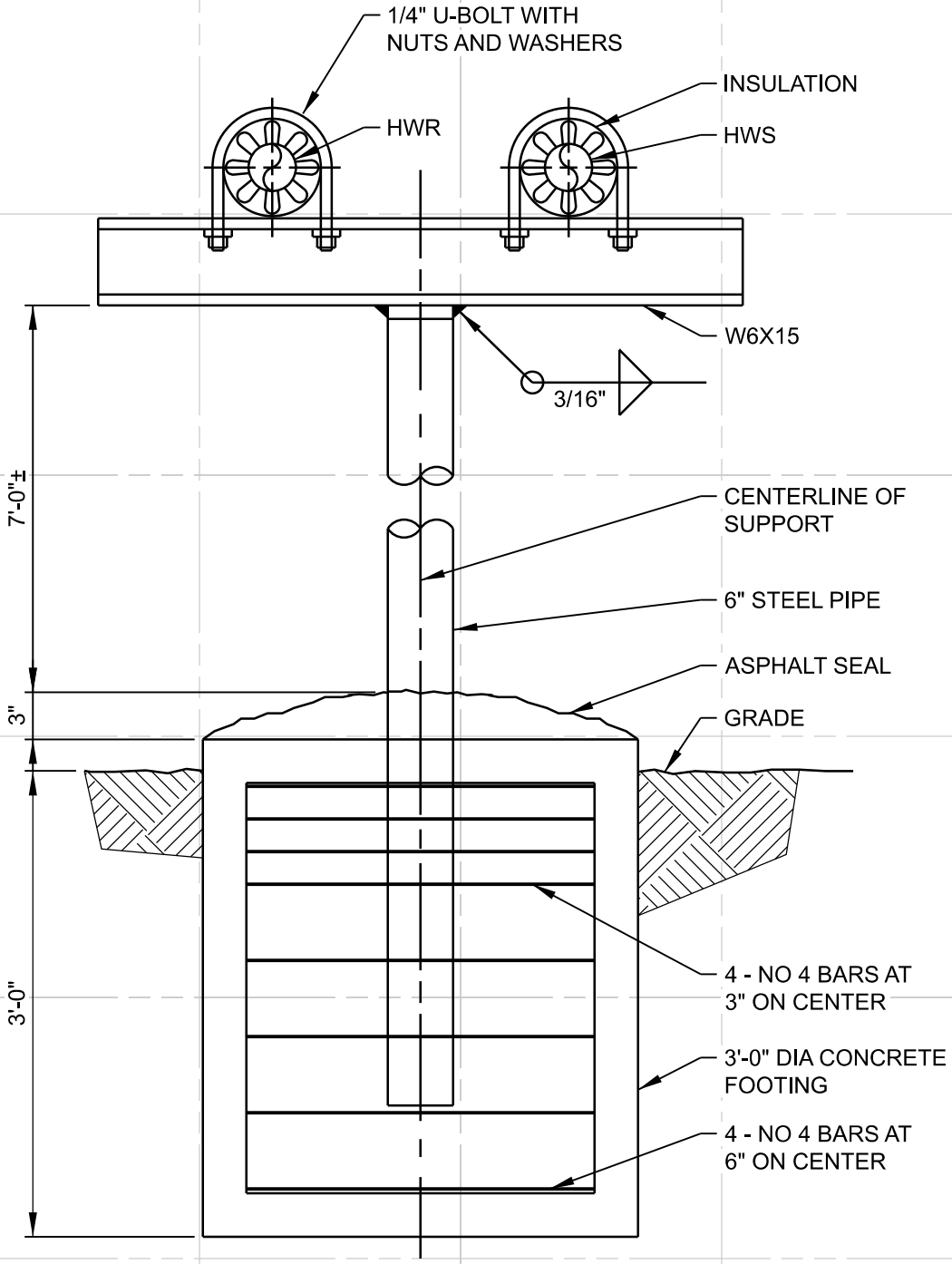
0 3" 6" 1'



A1

DETAIL: CEILING HUNG CLEVIS HANGER FOR INSULATED PIPE

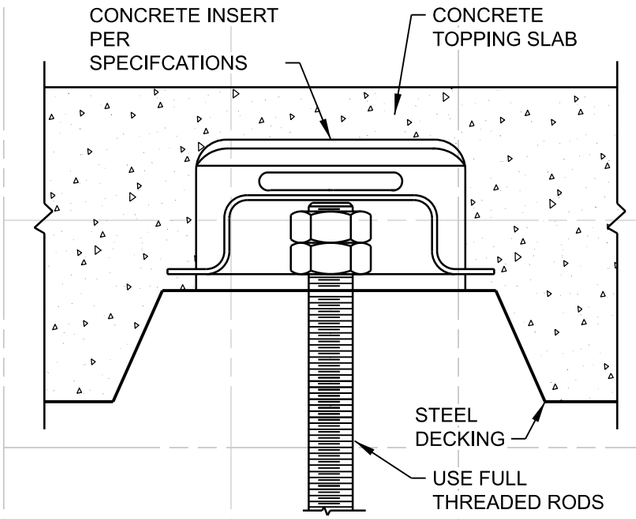
SCALE: NTS



A1

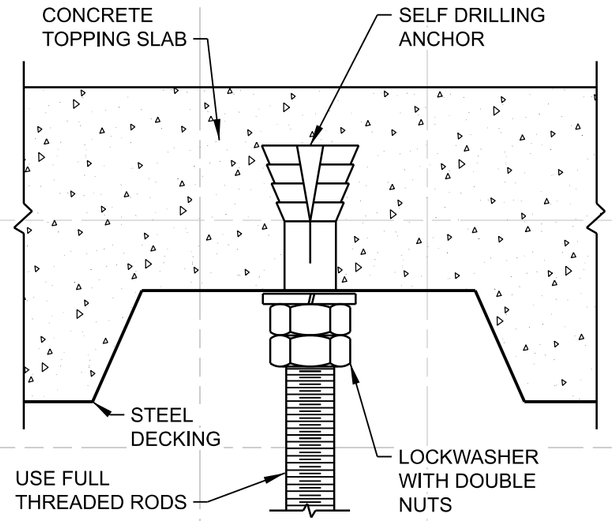
DETAIL: EXTERIOR PIPE SUPPORT

SCALE: NTS



MAXIMUM LOAD PER MANUFACTURER
RECOMMENDED RATING.

TYPE 1



INSTALLED AFTER CONCRETE IS POURED. MAX LOAD
50% OF MANUFACTURER RECOMMENDED RATING.

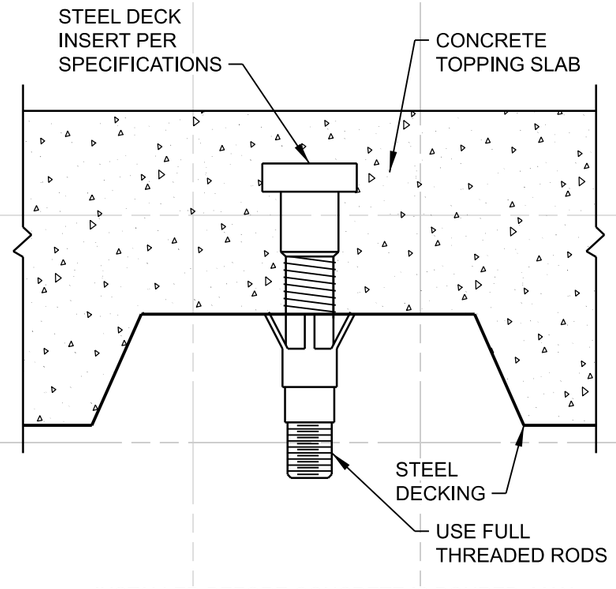
TYPE 2

NOTE:
FOR EQUIPMENT WEIGHING MORE THAN 100 LBS. CONTRACTOR SHALL SUBMIT SUPPORT DETAILS FOR APPROVAL BY THE CONTRACTING OFFICER PRIOR TO INSTALLATION.

DETAIL: THREADED ROD ATTACHMENTS FROM METAL DECK CONCRETE SLAB

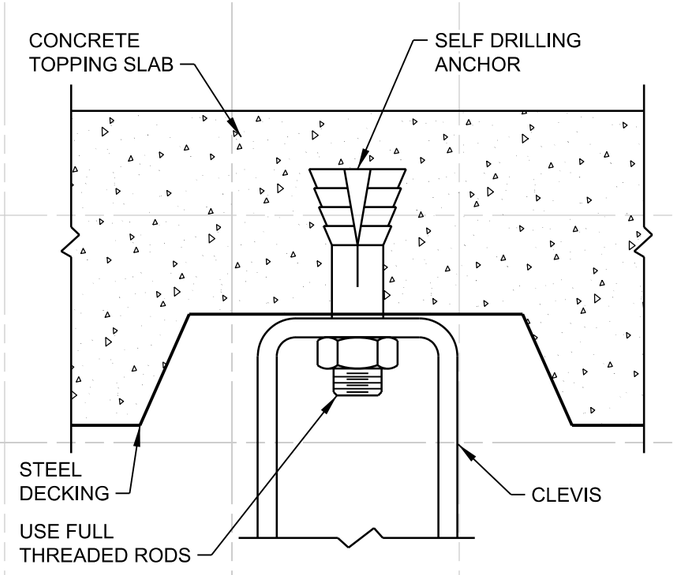
A1

SCALE: NTS



INSTALLED BEFORE CONCRETE IS POURED. MAX LOAD PER MANUFACTURER RECOMMENDED RATING.

TYPE 1

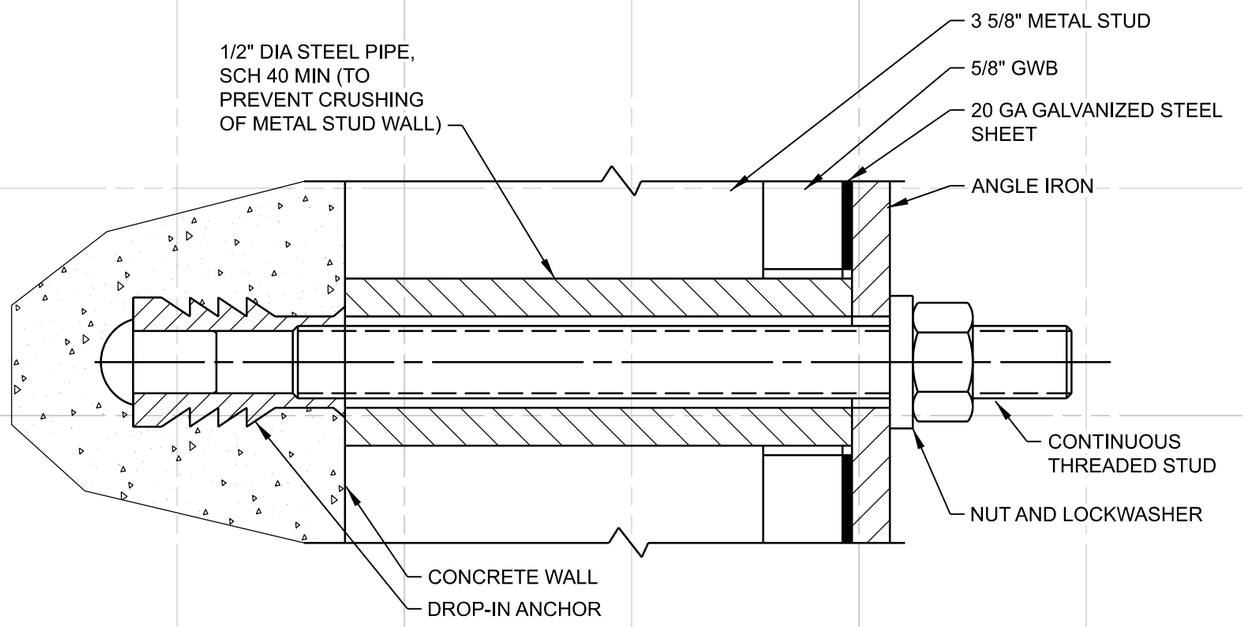


INSTALLED AFTER CONCRETE IS POURED. MAX LOAD 50% OF MANUFACTURER RECOMMENDED RATING.

TYPE 2

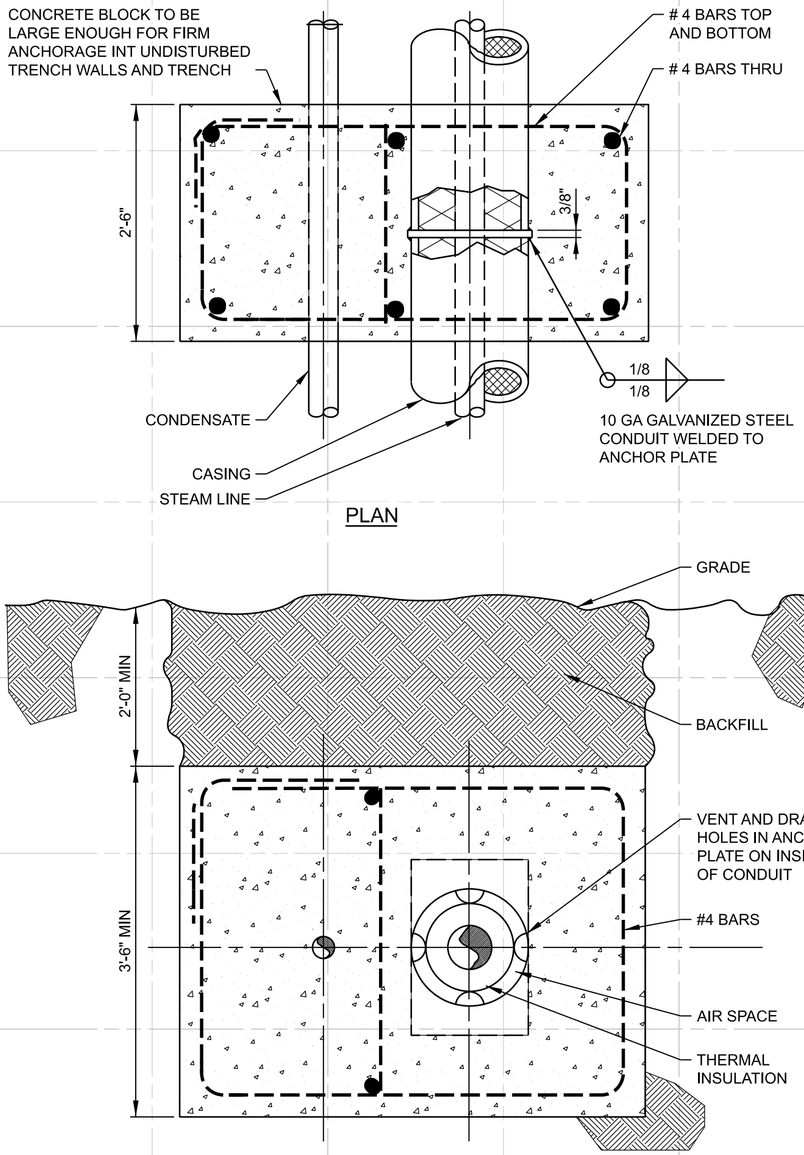
A1 DETAIL: PIPE AND SUSPENDED EQUIPMENT SUPPORT FROM METAL DECK CONCRETE SLAB

SCALE: NTS



A1 DETAIL: WALL ANCHOR

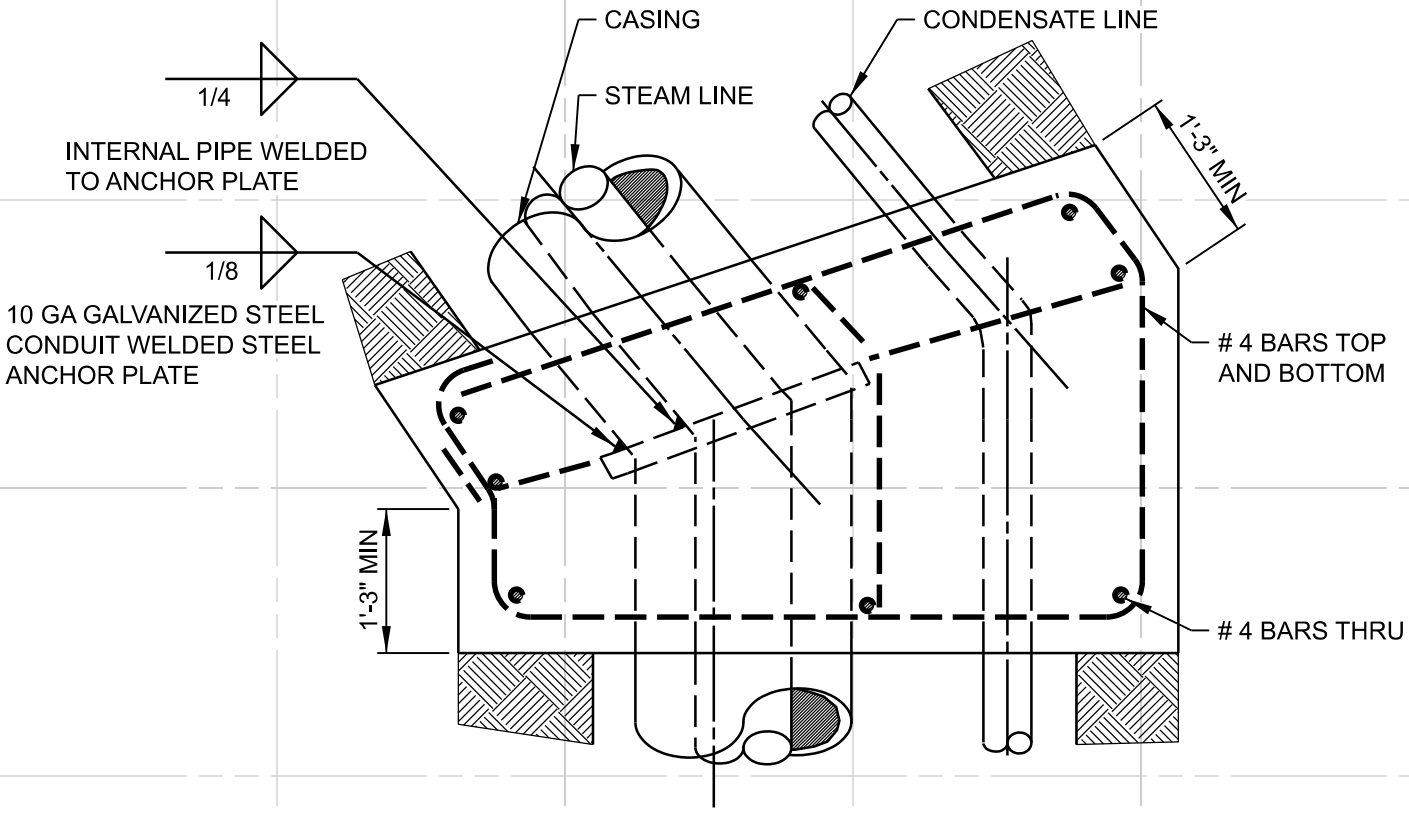
SCALE: NTS



NOTE:
PAINT ALL EXPOSED WELDS WITH BITUMASTIC PAINT.

A1 DETAIL: STRAIGHT ANCHOR

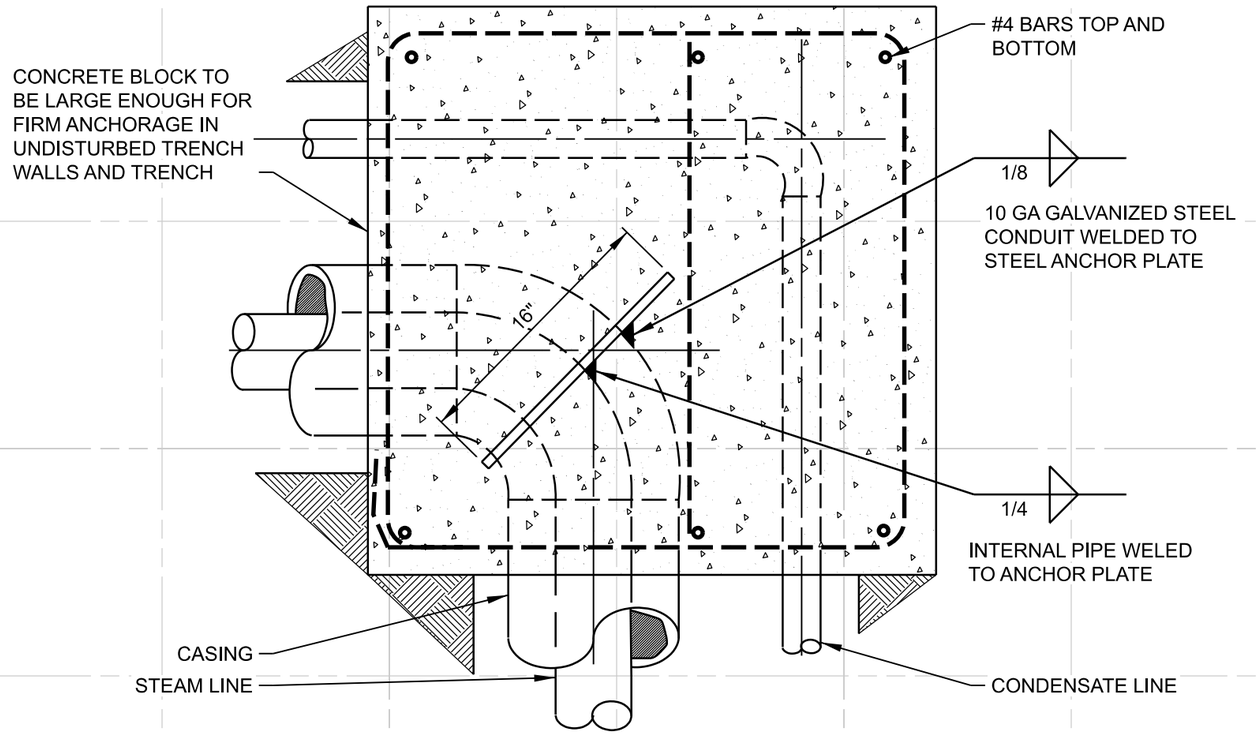
SCALE: NTS



A1

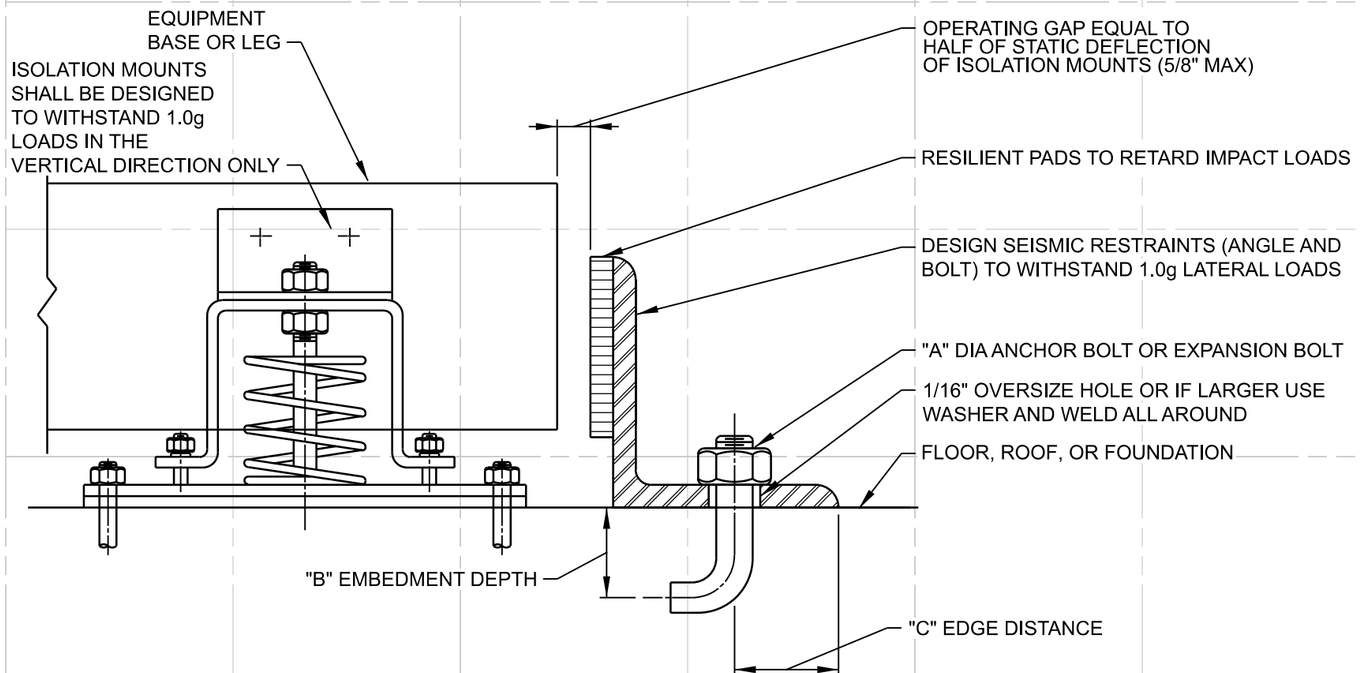
DETAIL: 45° ANGLE ANCHOR

SCALE: NTS



A1 DETAIL: 90° ANGLE ANCHOR

SCALE: NTS

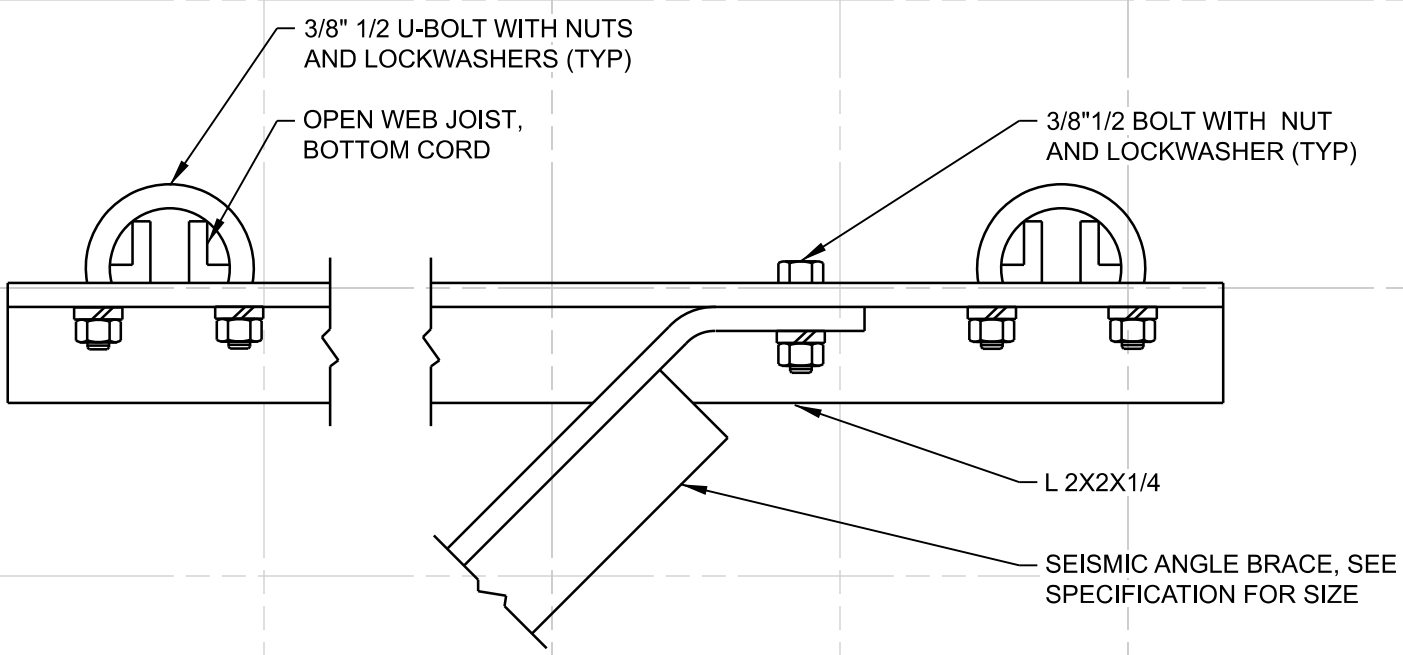


NOTE:
INSTALL LATERAL SEISMIC RESTRAINTS ON ALL FOUR CORNERS OF THE EQUIPMENT BASE.

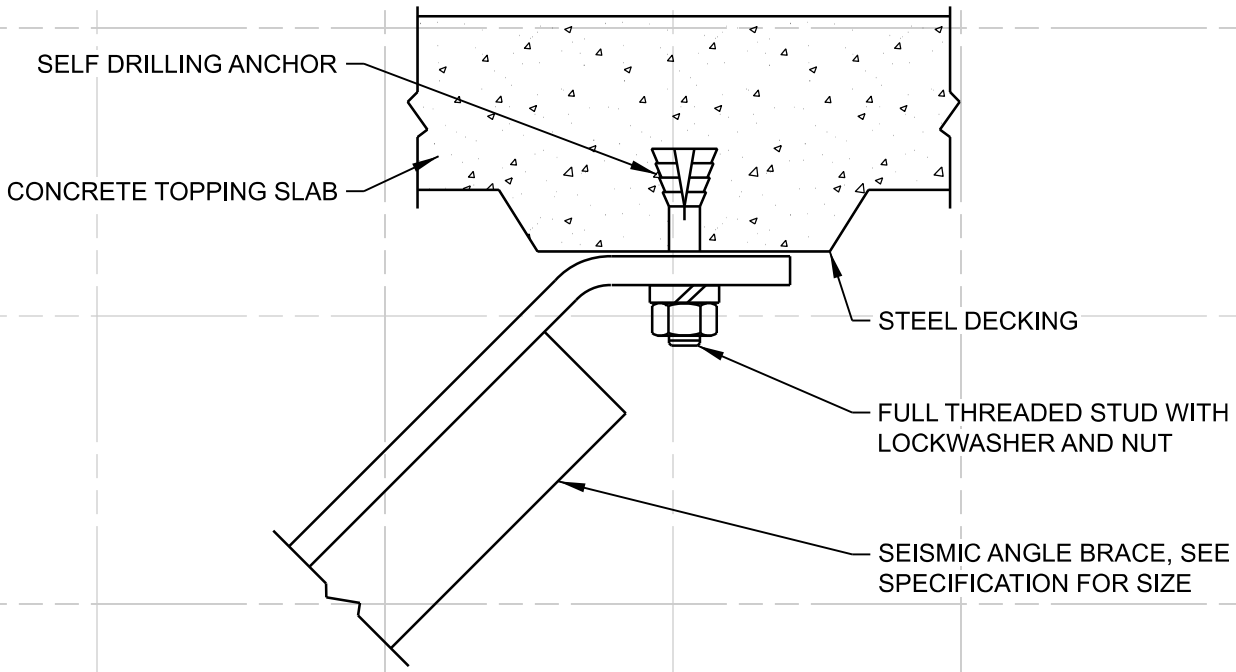
DETAIL: SEISMIC RESTRAINTS FOR LATERAL LOADS ONLY

A1

SCALE: NTS



SEISMIC BRACE ATTACHMENT FROM JOIST



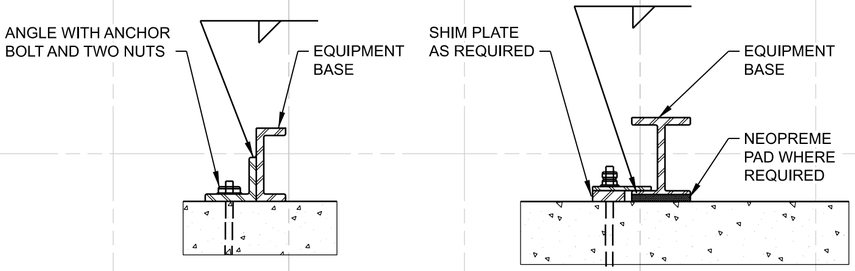
SEISMIC BRACE ATTACHMENT FROM METAL DECK WITH CONCRETE SLAB

NOTES:
1.) CAST IN PLACE ANCHORS SHALL BE ACCEPTABLE IF APPROVED BY CONTRACTING OFFICER.
2.) ANCHOR BOLT INSTALLED AFTER CONCRETE IS POURED. MAX LOAD = 50% OF MFR RECOMMENDED RATING. MIN NET LOAD RATING = 125 LBS EACH.

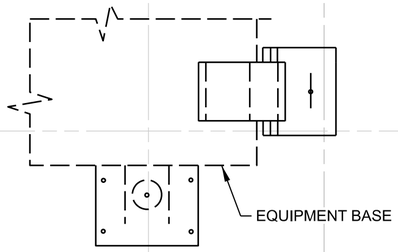
A1

DETAIL: SEISMIC ANGLE BRACING

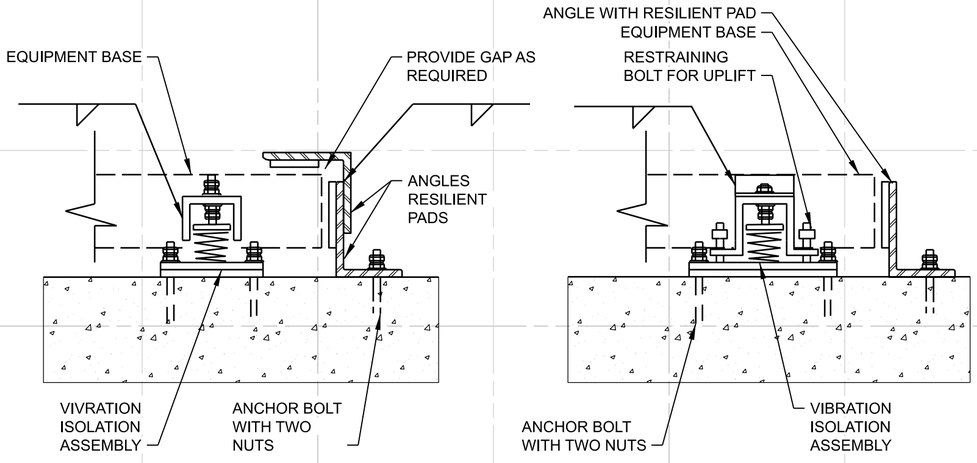
SCALE: NTS



RESTRAINTS OF RIGIDLY MOUNTED MECHANICAL EQUIPMENT



PLAN

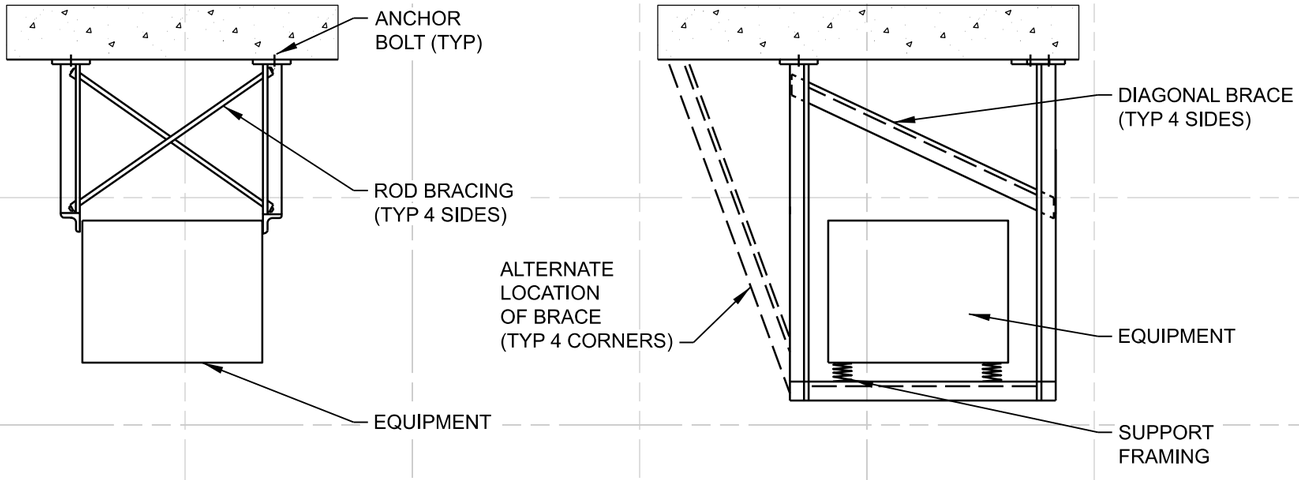


RESTRAINTS FOR SPRING ISOLATED EQUIPMENT

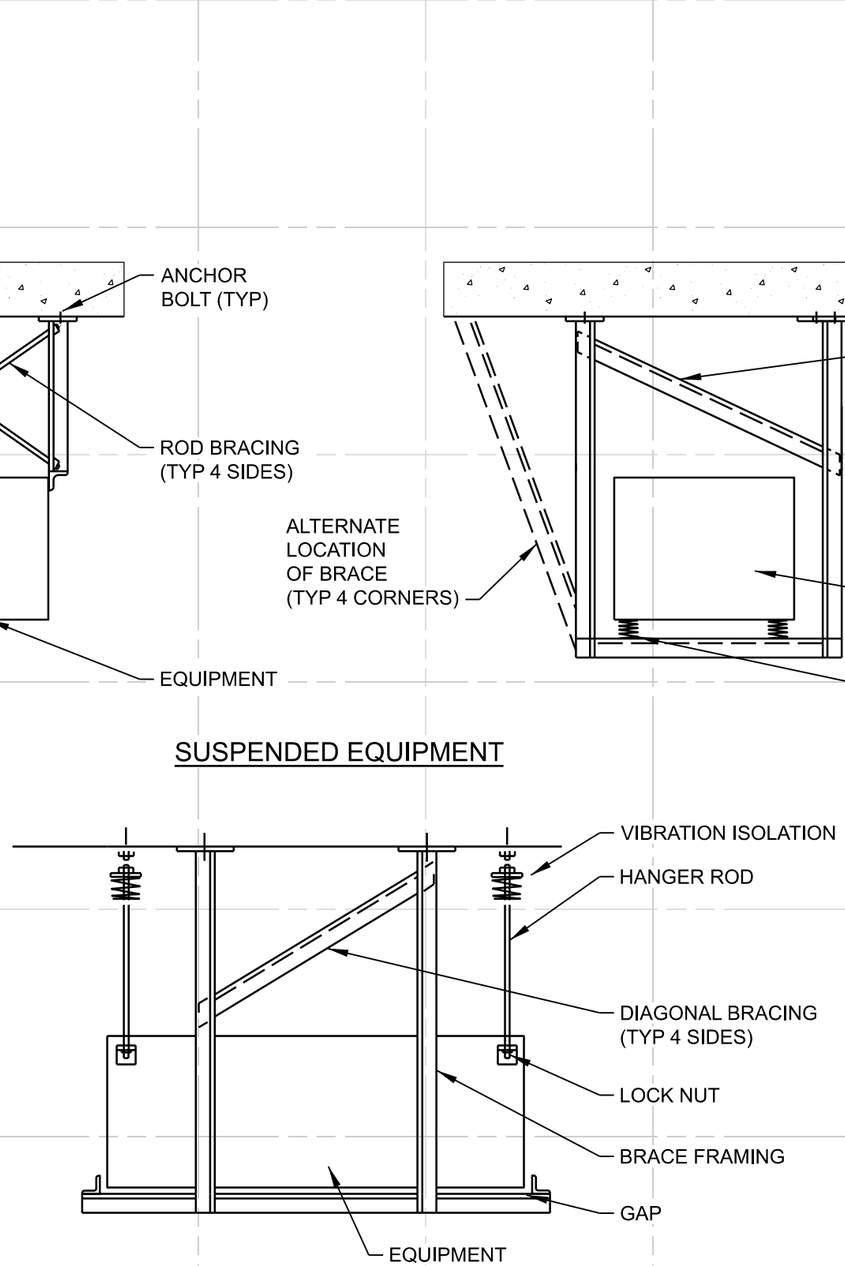
A1

DETAIL: SEISMIC RESTRAINTS FOR MECHANICAL EQUIPMENT

SCALE: NTS



SUSPENDED EQUIPMENT



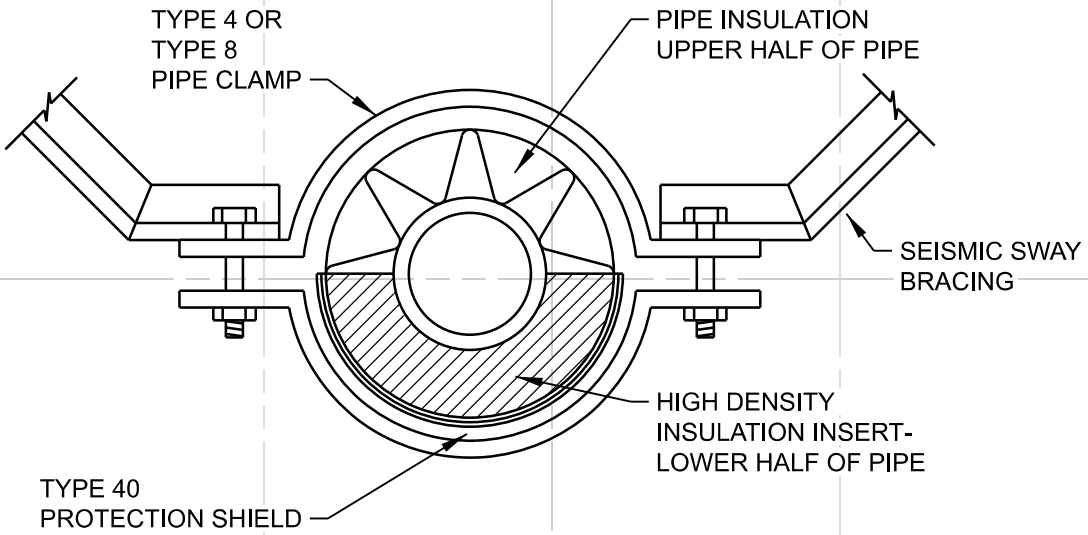
SUSPENDED EQUIPMENT WITH VIBRATION MOUNT

NOTE:
FOR EQUIPMENT WEIGHING MORE THAN 100 LBS, CONTRACTOR SHALL SUBMIT SUPPORT DETAILS FOR APPROVAL BY CONTRACTING OFFICER PRIOR TO INSTALLATION.

DETAIL: SEISMIC RESTRAINT AND SUPPORTS FOR EQUIPMENT

A1

SCALE: NTS

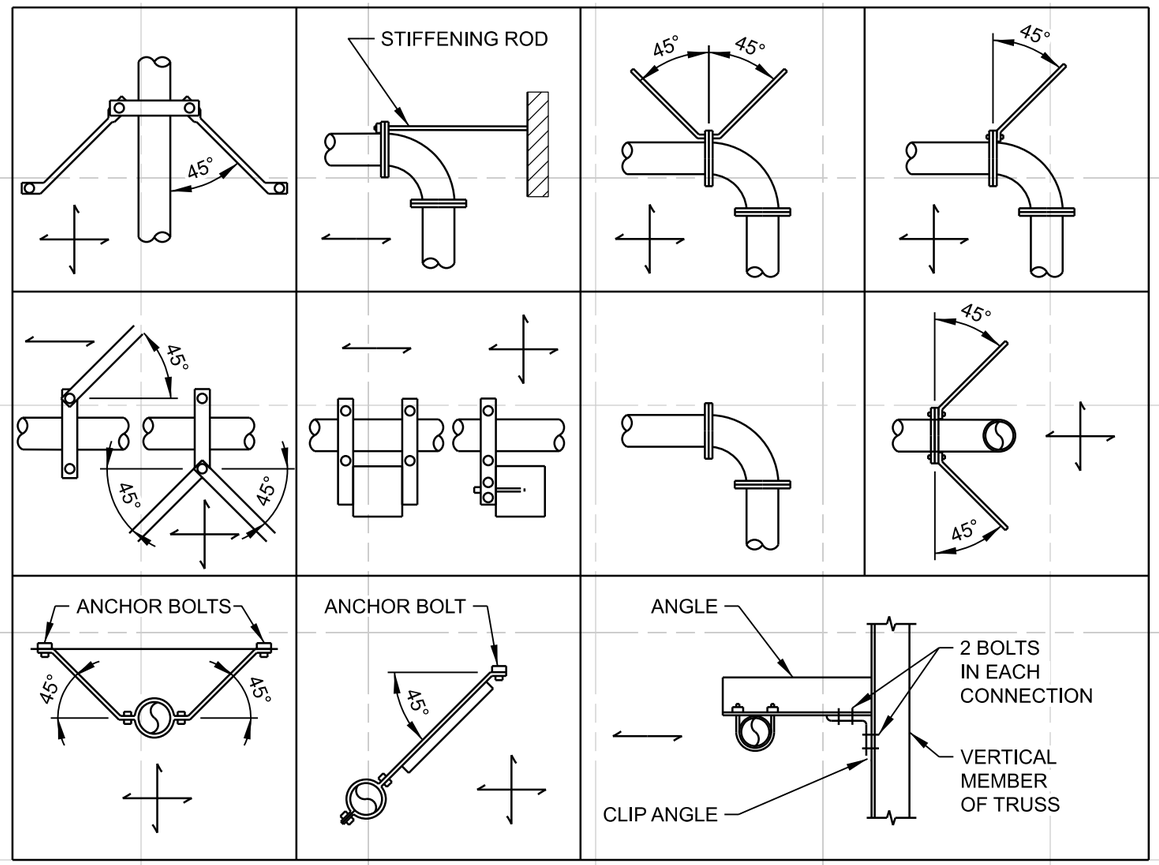


HOT PIPE - ALL SIZES
COLD PIPE - ALL SIZES

A1

DETAIL: INSULATED PIPE SEISMIC SWAY BRACE

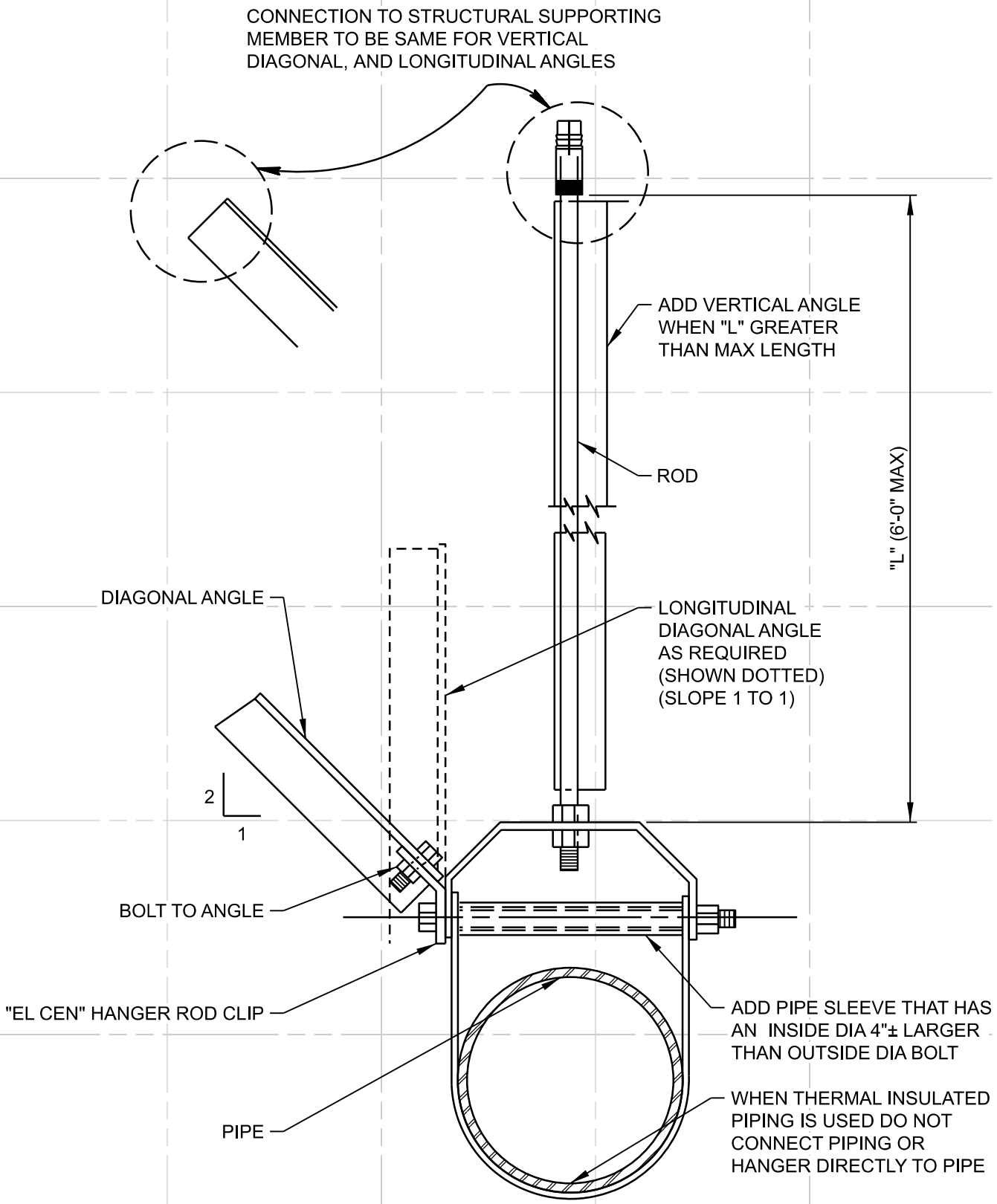
SCALE: NTS



A1

DETAIL: SEISMIC SWAY BRACING

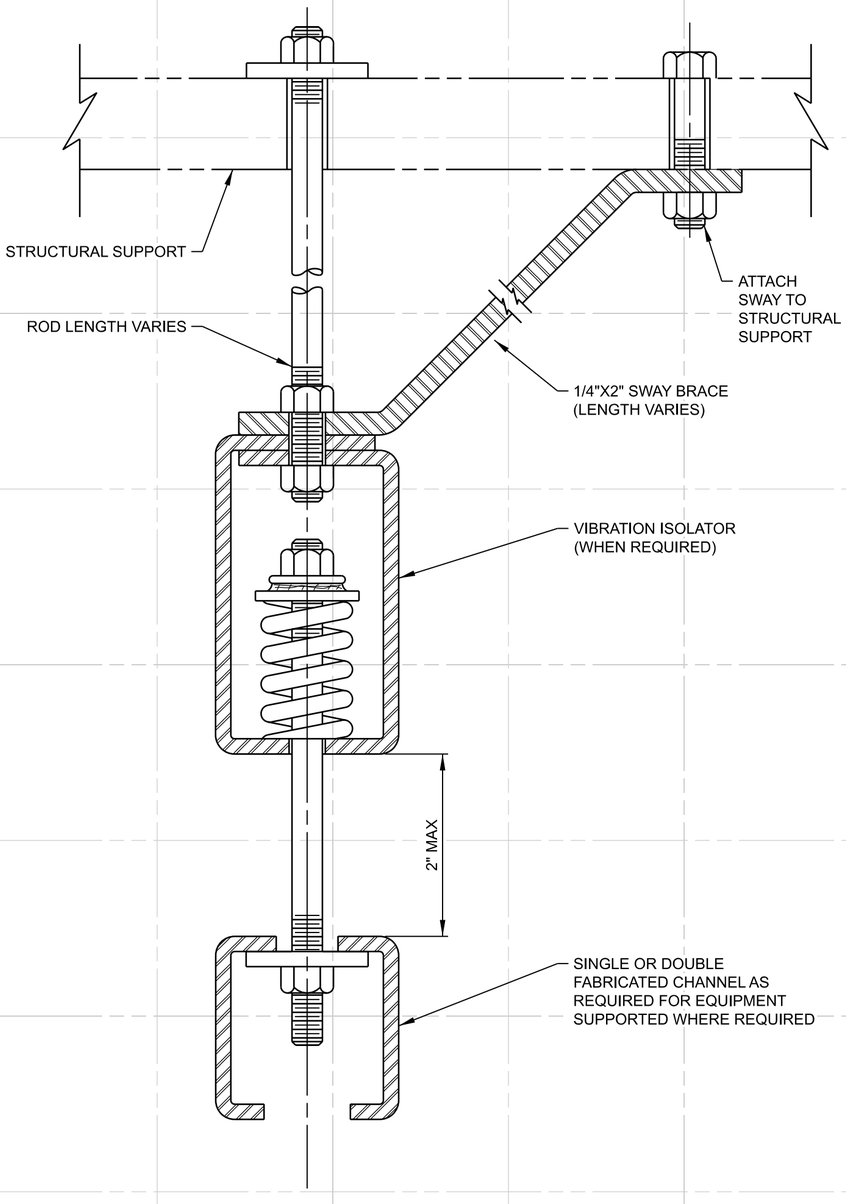
SCALE: NTS



A1

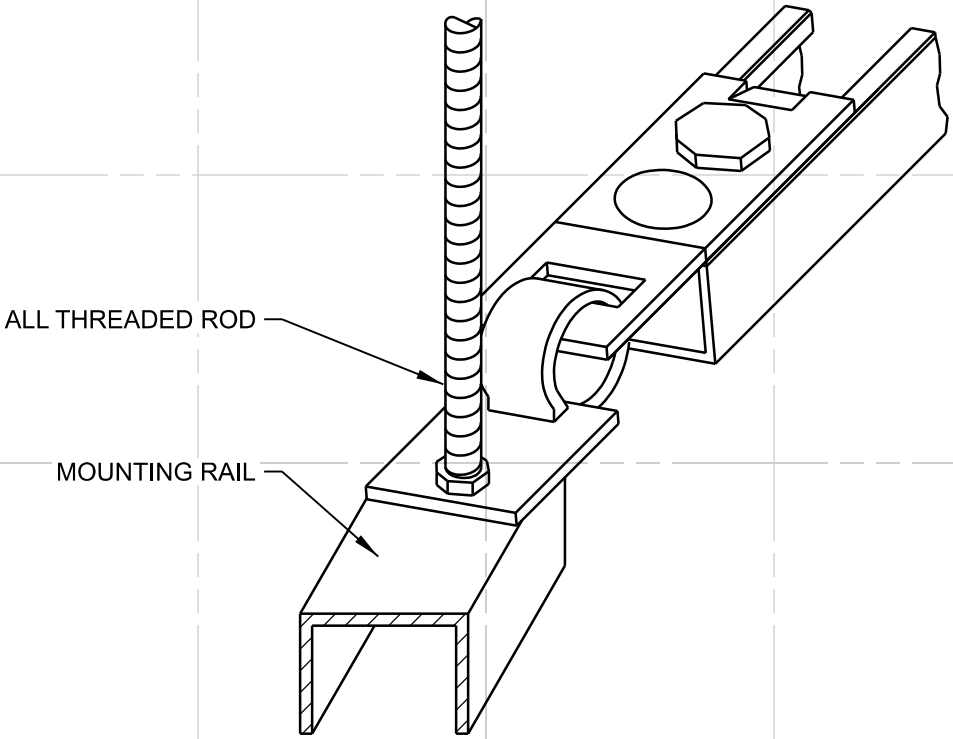
DETAIL: SEISMIC PIPE BRACING

SCALE: NTS



A1 DETAIL: SWAY BRACE

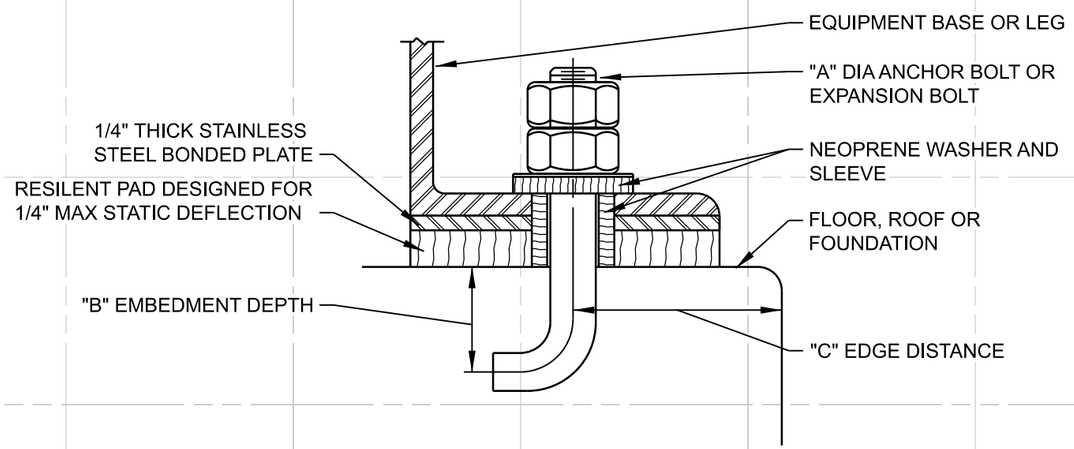
SCALE: NTS



A1

DETAIL: SEISMIC BRACE

SCALE: NTS

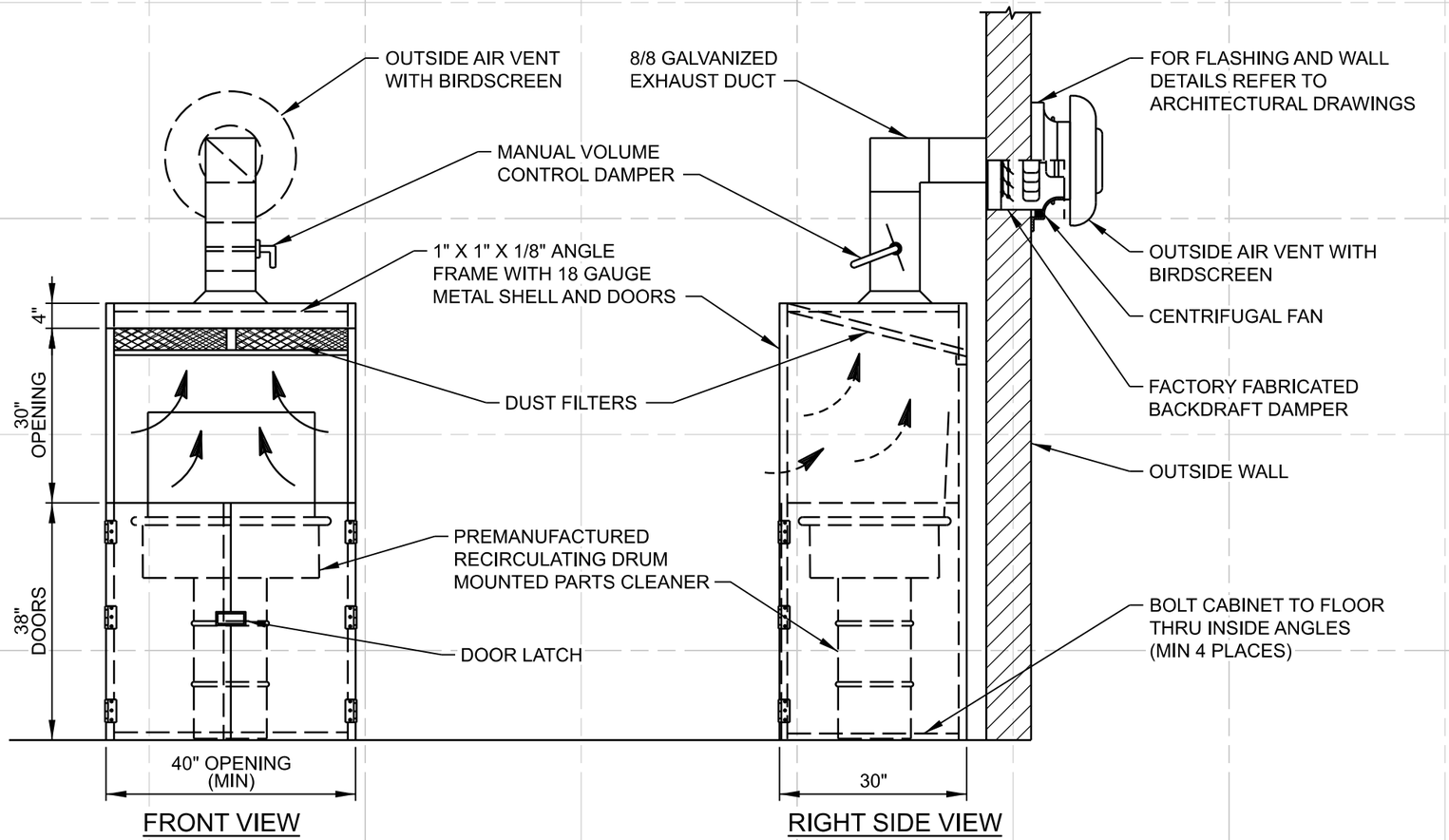


NOTES:
1. FOR "A" "B" AND "C" DIMENSIONS SEE CEGS 13080, SEISMIC PROTECTION FOR MECHANICAL, ELECTRICAL EQUIPMENT.
2. CARE MUST BE TAKEN DURING INSTALLATION NOT TO OVER TORQUE ANCHOR BOLTS TO PREVENT EXTRUSION OF NEOPRENE WASHER OR RESILENT PAD
3. INSTALL SEISMIC RESTRAINTS ON ALL FOUR CORNERS OF EQUIPMENT BASE.

DETAIL: SEISMIC RESTRAINTS FOR LATERAL AND VERTICAL LOADS, EQUIPMENT RESTRAINED BY RESILIENT PADS OR NEOPRENE ISOLATORS

A1

SCALE: NTS

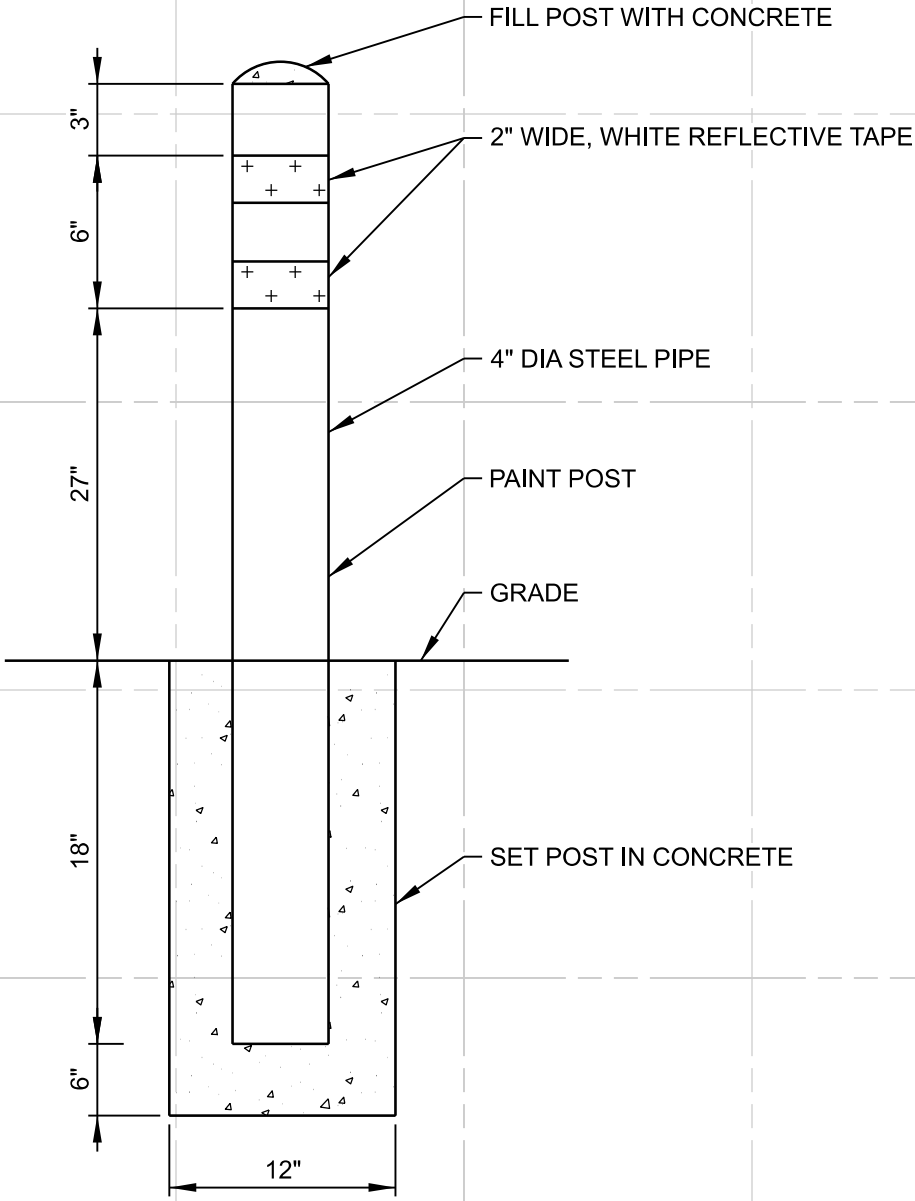


NOTE:
SINGLE UNIT SHOWN. REFER TO M-___ FOR NUMBER AND LOCATION OF UNITS.

A1

SCHEMATIC: FREE STANDING PARTS WASHER CABINET

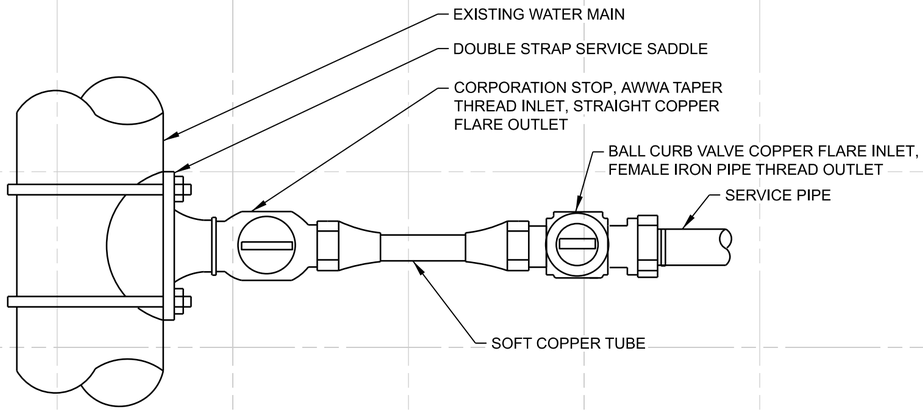
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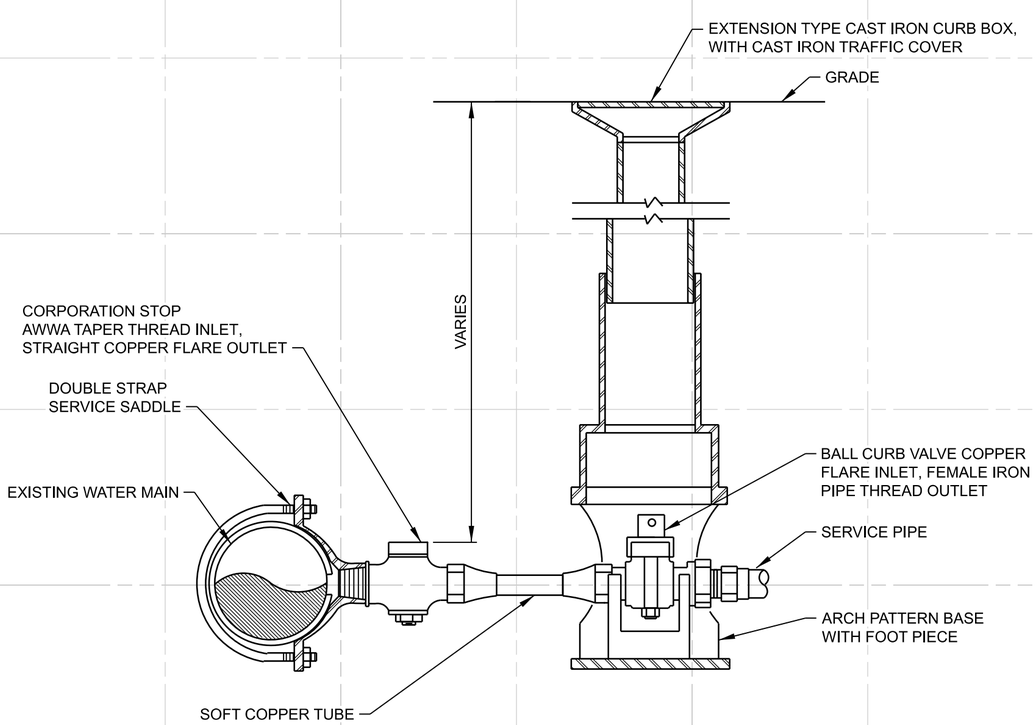
A1

DETAIL: BOLLARD

SCALE: NTS



PLAN



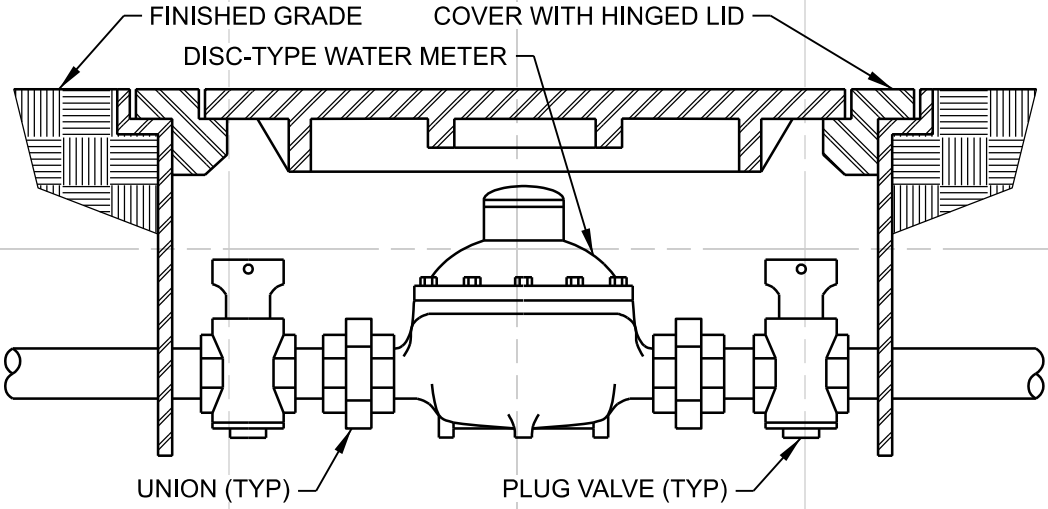
ELEVATION

NOTE:
CURB BOX NOT SHOWN IN PLAN FOR PURPOSE OF CLARITY ONLY.

A1

DETAIL: WATER MAIN CONNECTION

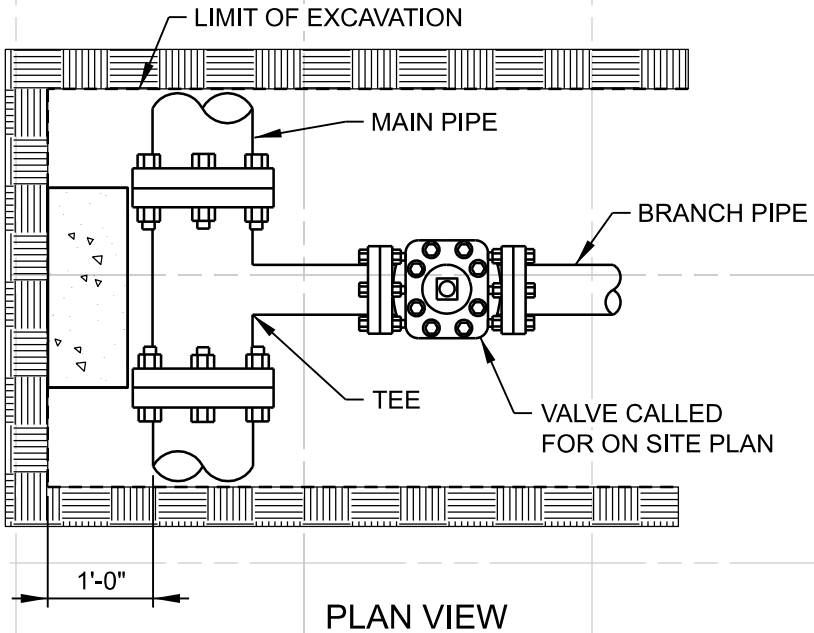
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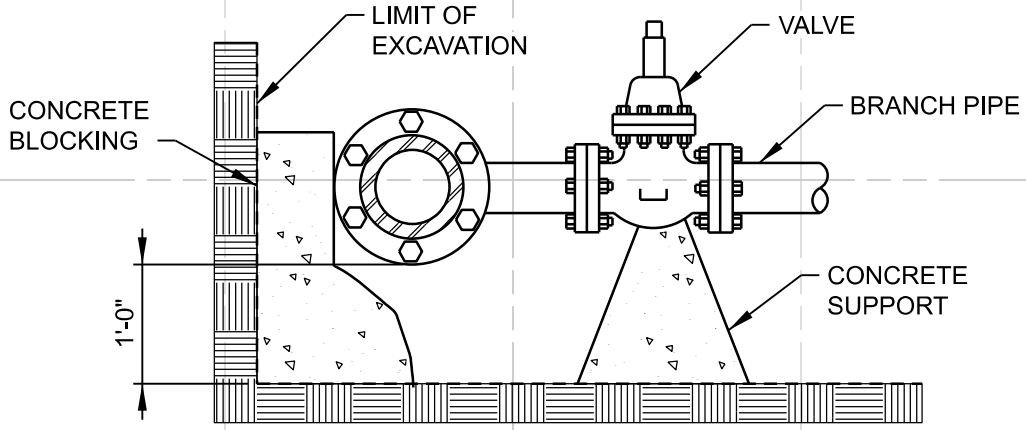
A1

DETAIL: WATER METER INSTALLATION

SCALE: NTS



PLAN VIEW

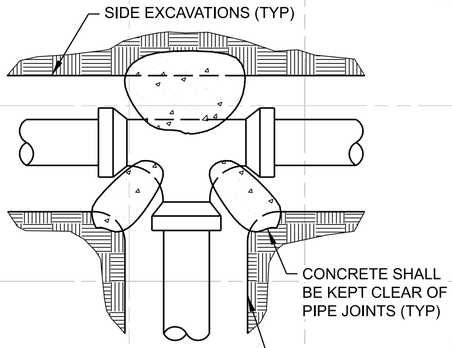


SECTIONAL VIEW

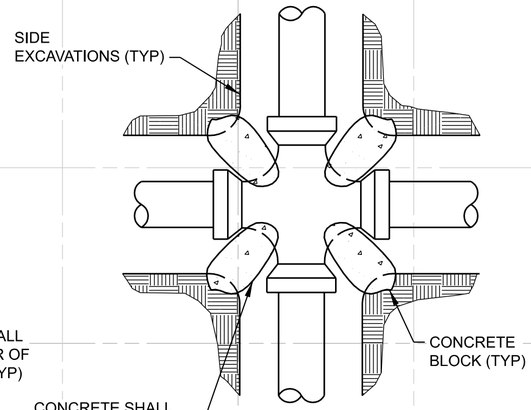
DETAIL: BRANCH LINE VALVE INSTALLATION

A1

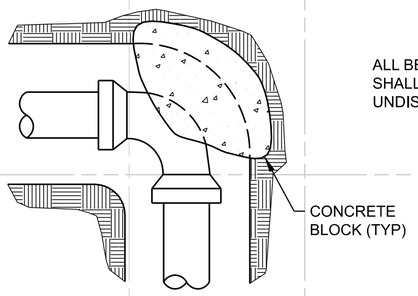
SCALE: NTS



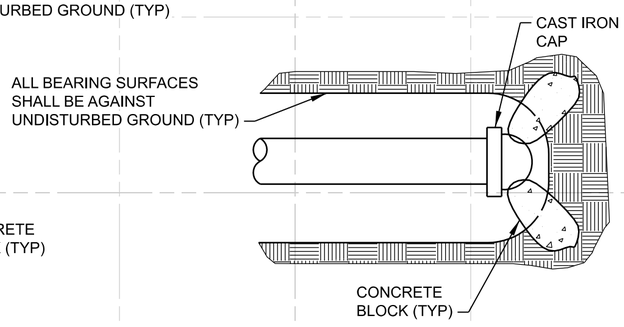
TEE



CROSS



ELBOW



DEAD END

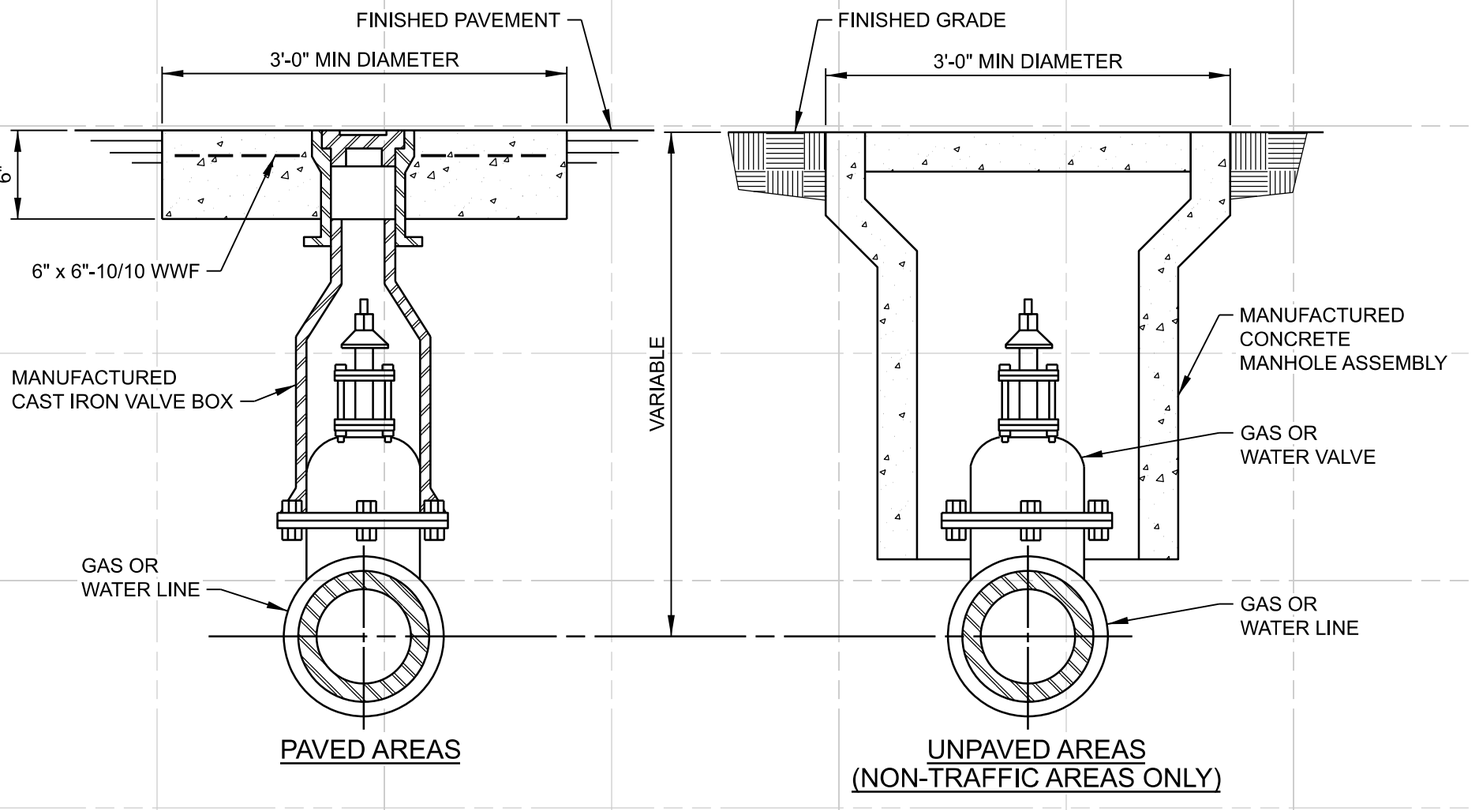
BEARING AREAS EACH DIRECTION OF THRUST IN SQUARE FEET

PIPE SIZE	TEES AND DEADENDS	90° ELBOWS	45° ELBOW CROSSES IN DIRECTION OF FLOW	22-1/2° ELBOWS
6"	4.0	5.5	3.0	2.0
8"	7.0	9.5	5.0	3.0
10"	9.5	13.5	7.0	4.0
12"	13.5	19.0	10.0	5.0
14"	18.0	23.5	14.0	7.0
16"	23.0	33.0	18.0	9.0

A1

DETAIL: THRUST BLOCK INSTALLATION

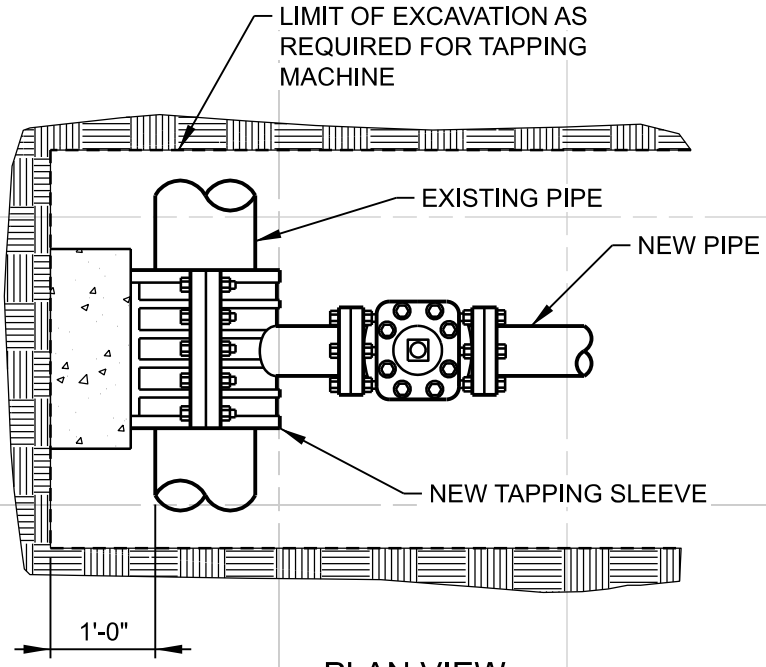
SCALE: NTS



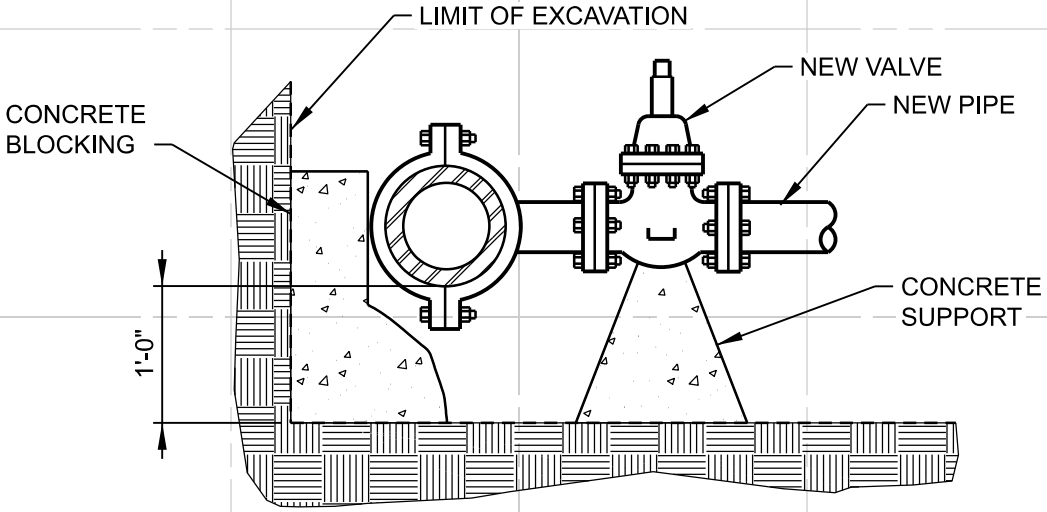
NOTE:
WORD "WATER" OR "GAS" CAST INTO CENTER OF CAST IRON CAP OR CONCRETE LID.

A1 DETAIL: VALVE BOX

SCALE: NTS



PLAN VIEW

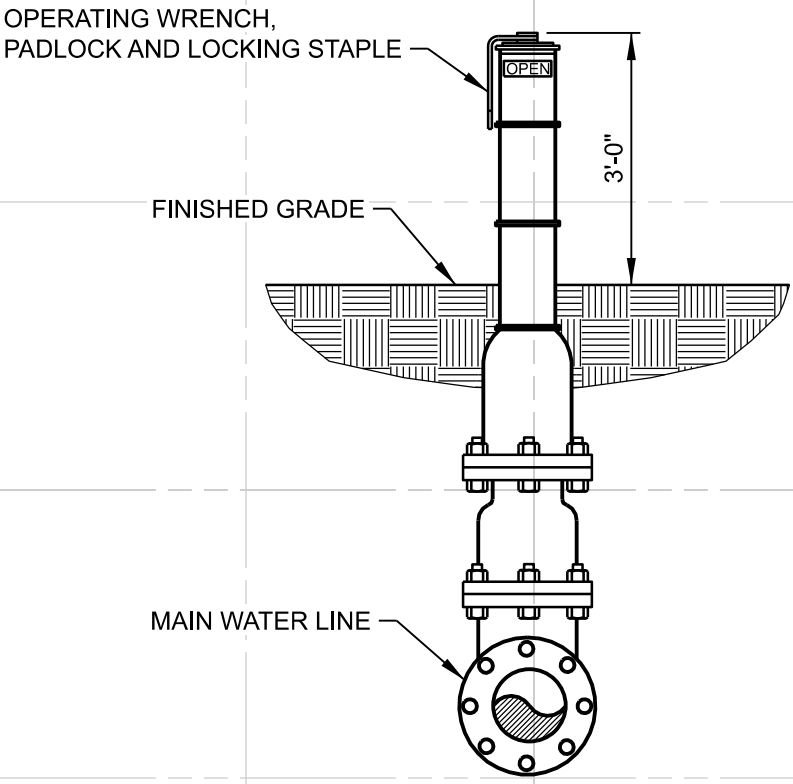


SECTIONAL VIEW

A1

DETAIL: TAPPING SLEEVE AND VALVE INSTALLATION

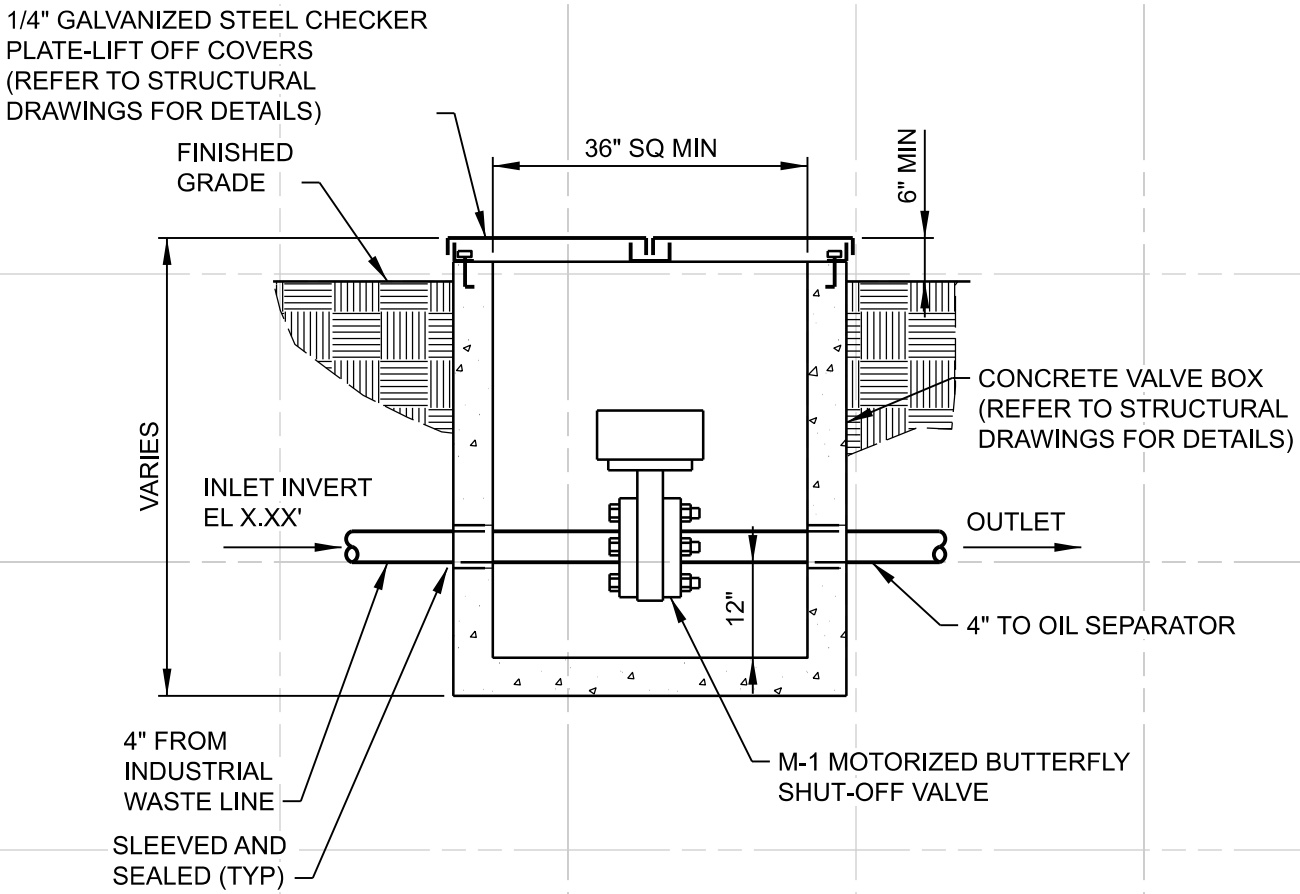
SCALE: NTS



DETAIL: GATE VALVE WITH INDICATOR POST

A1

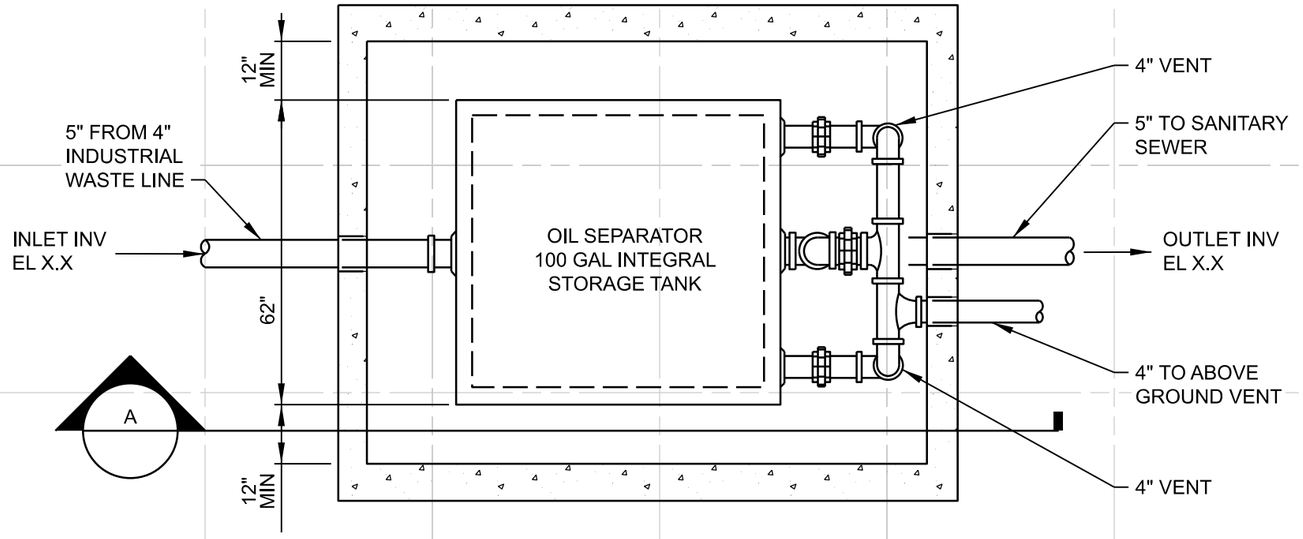
SCALE: NTS



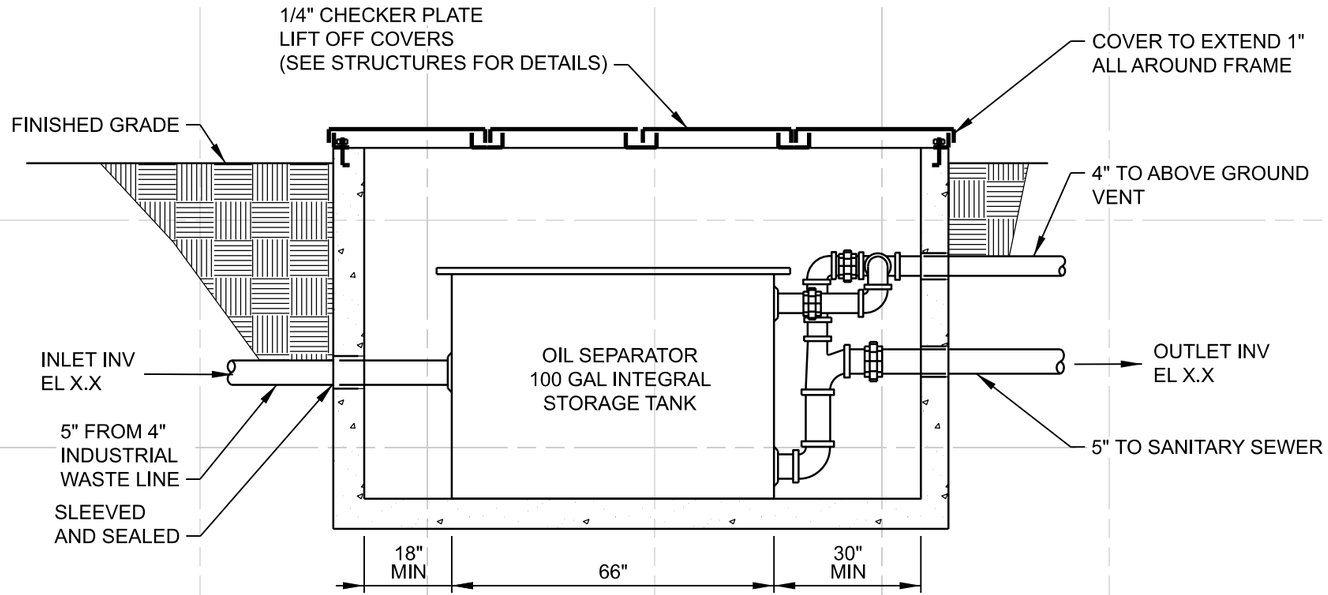
A1

DETAIL: MOTORIZED VALVE AND VALVE BOX

SCALE: NTS



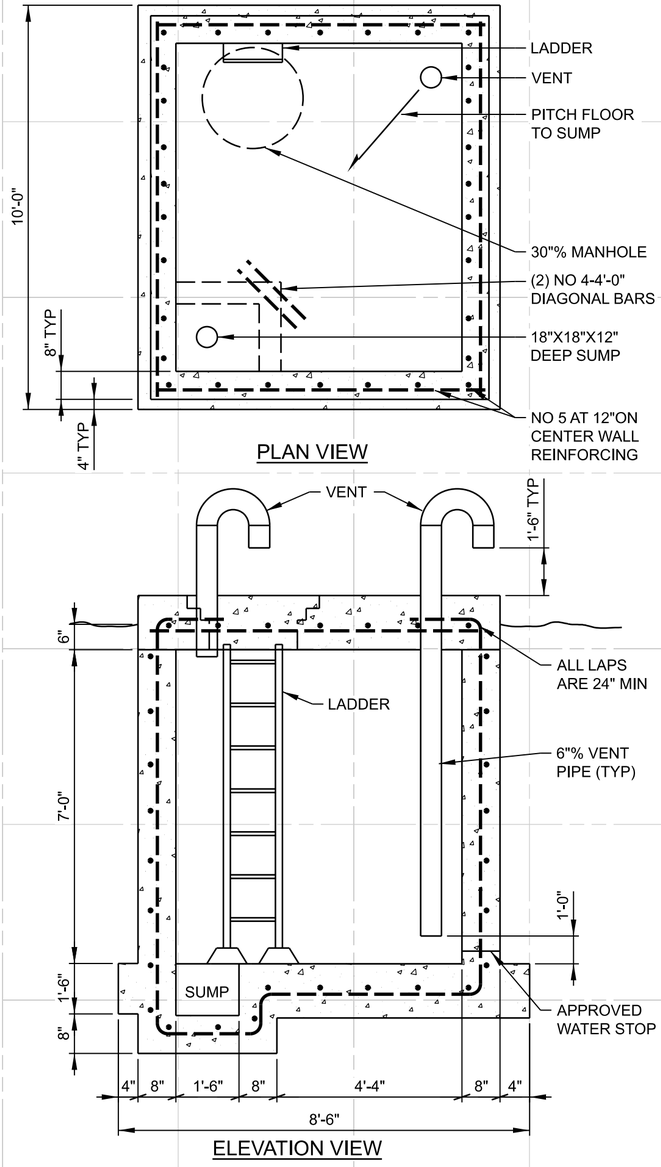
PLAN VIEW



SECTION A

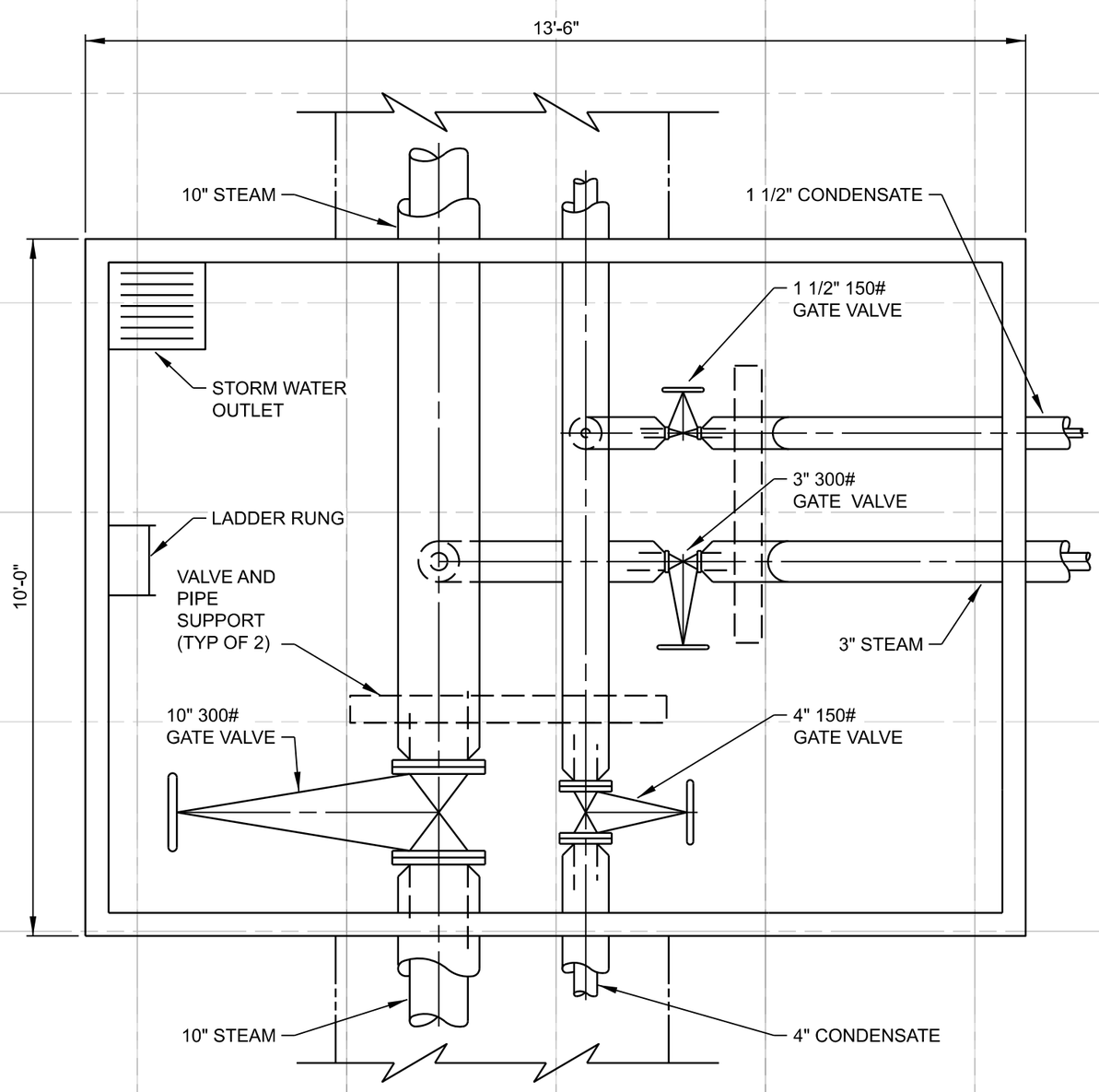
A1 DETAIL: OIL SEPARATOR

SCALE: NTS



A1 DETAIL: STEAM MANHOLE

SCALE: NTS



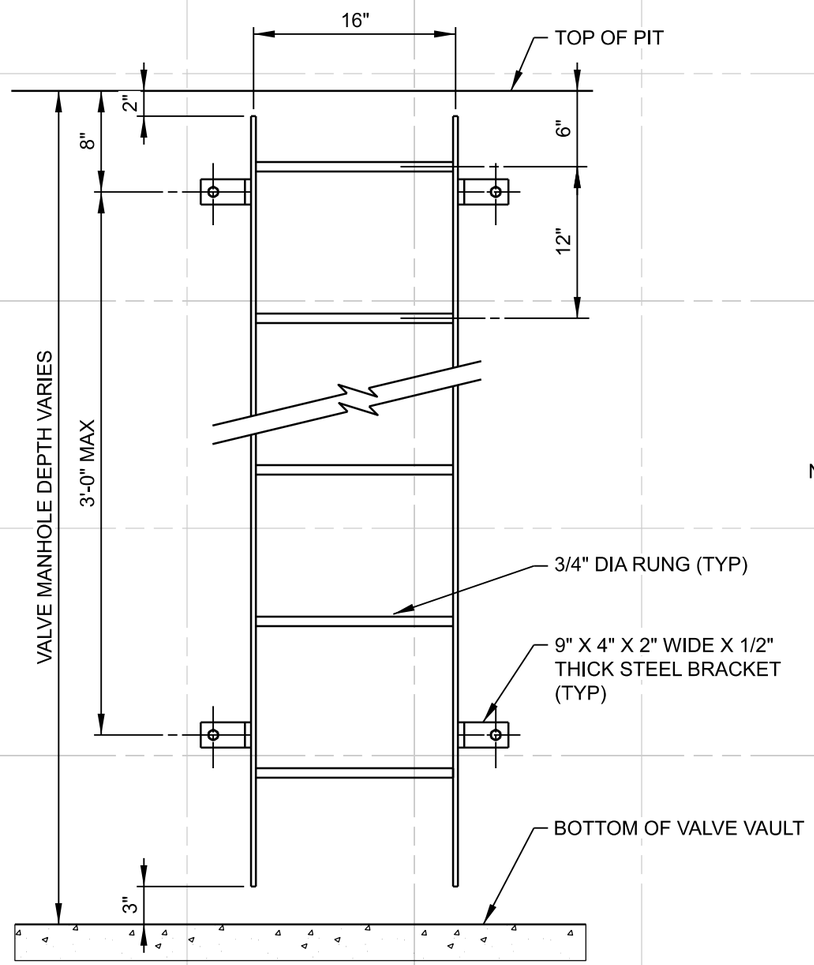
PLAN

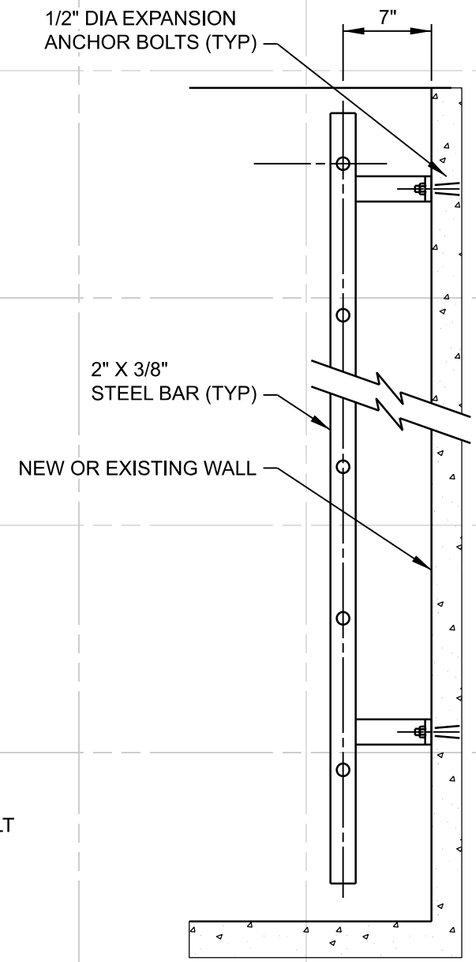
NOTE:
DRIP LEG TRAP STATION IS NOT SHOWN ON THE PLAN VIEW.

A1 DETAIL: VALVE MANHOLE

SCALE: 1/2"=1'-0"

0 1' 2' 4'



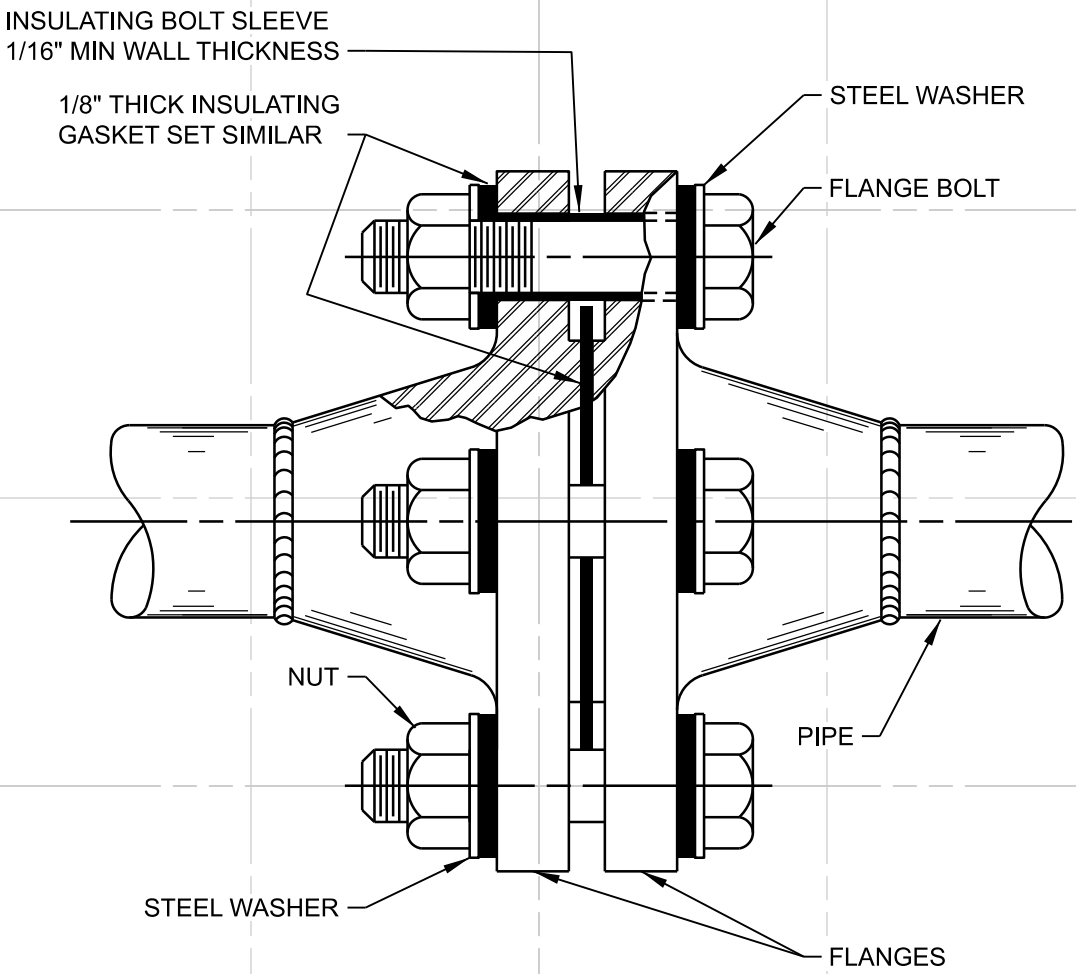


A1

DETAIL: ACCESS LADDER

SCALE: 1"=1'-0"

0 6" 1' 2'

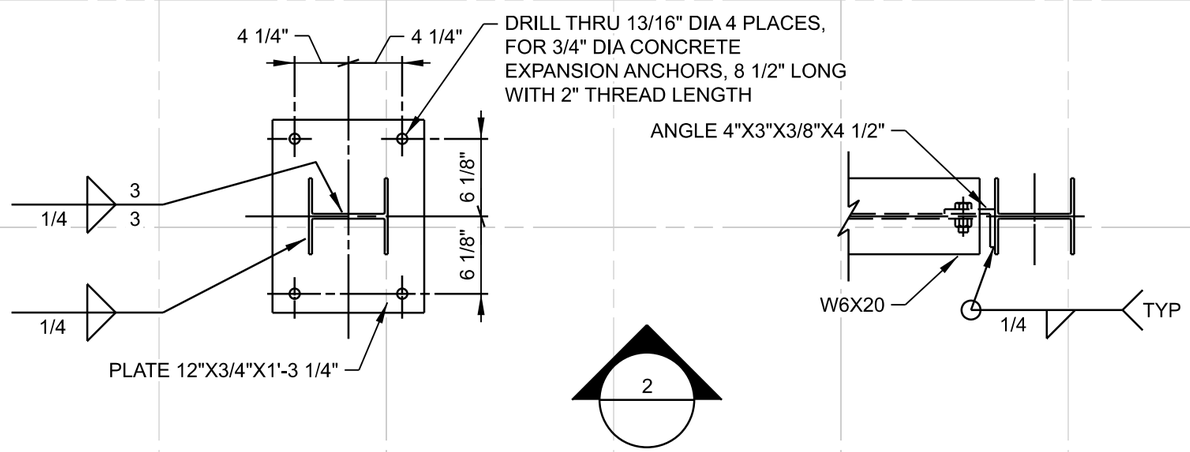


NOTE:
CONTRACTOR SHALL COMPLY WITH THE ISOLATION FLANGE MANUFACTURER'S RECOMMENDATIONS FOR BOLT TORQUES AND BOLTING PATTERN. CONTRACTOR SHALL ALSO RECHECK BOLT TORQUES 72 HOURS AFTER SYSTEM STARTUP.

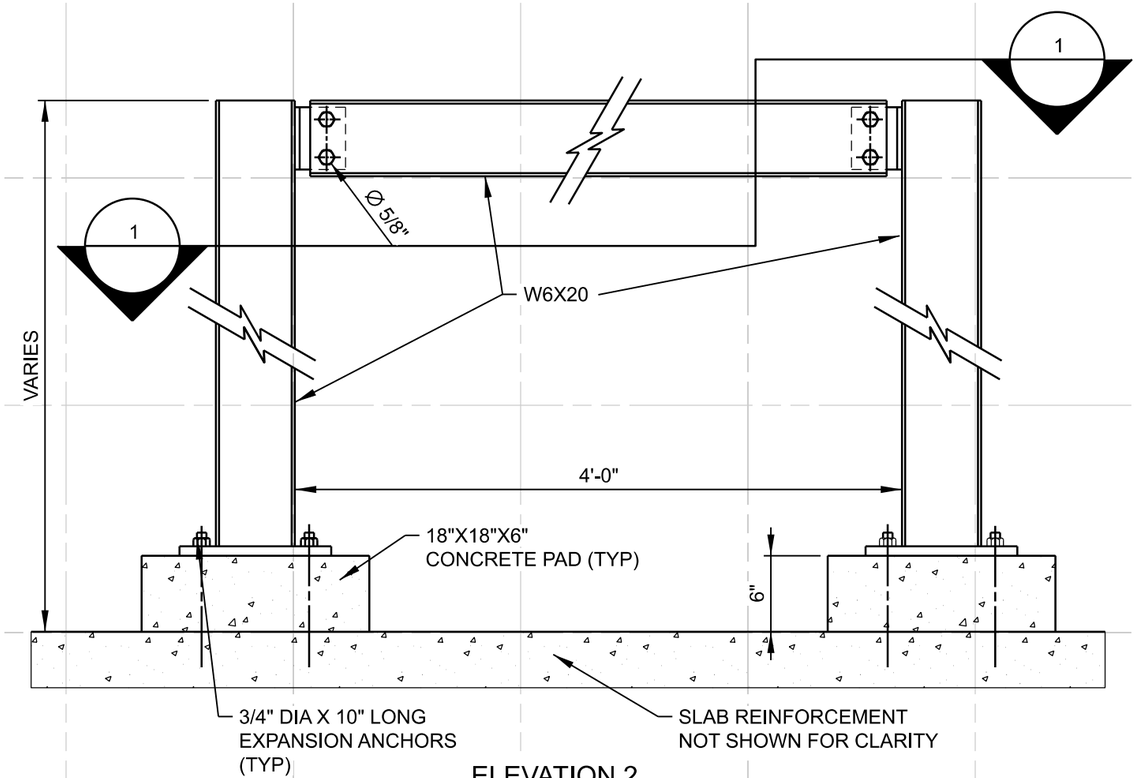
A1

DETAIL: ISOLATION FLANGE

SCALE: NTS



PLAN 1



ELEVATION 2

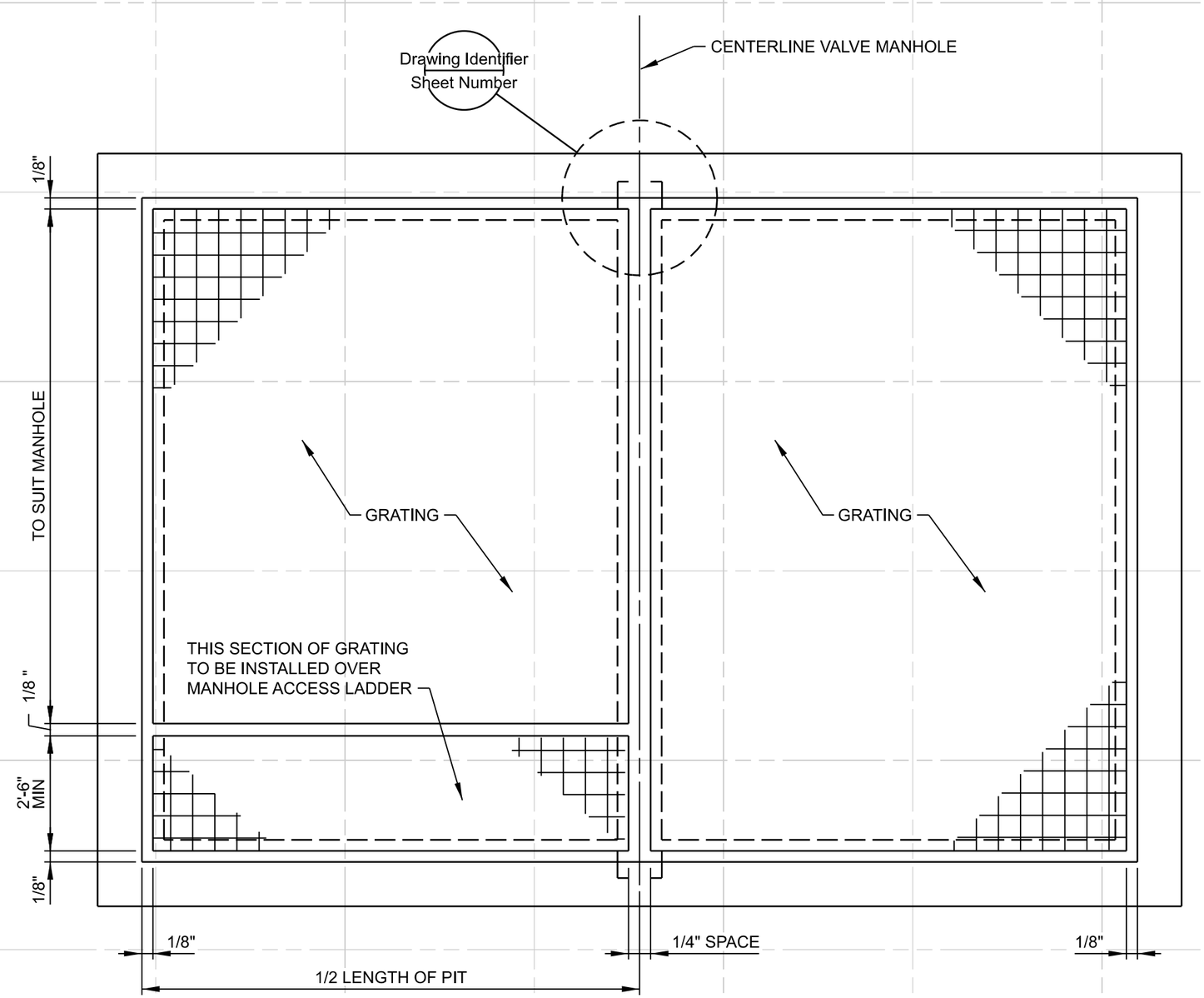
NOTE:
1. PIPING SHALL REST ON THIS PIPE SUPPORT BY MEANS OF A FREE PIPE SHOE (SUPPORT). PIPE SHOES SHALL BE CENTERED ON THE TOP BEAM OF THIS SUPPORT IN THE COLD CONDITION.

A1

DETAIL: VALVE AND PIPE SUPPORT

SCALE: 1"=1'-0"

0 6" 1' 2'

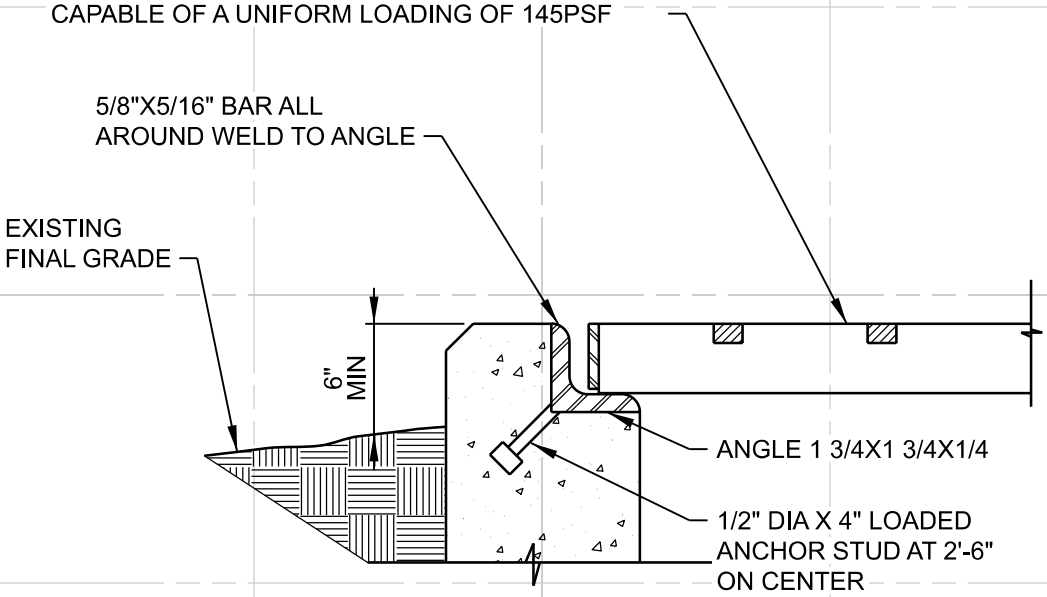


A1

DETAIL: OPEN GRATING COVER PLAN

SCALE: NTS

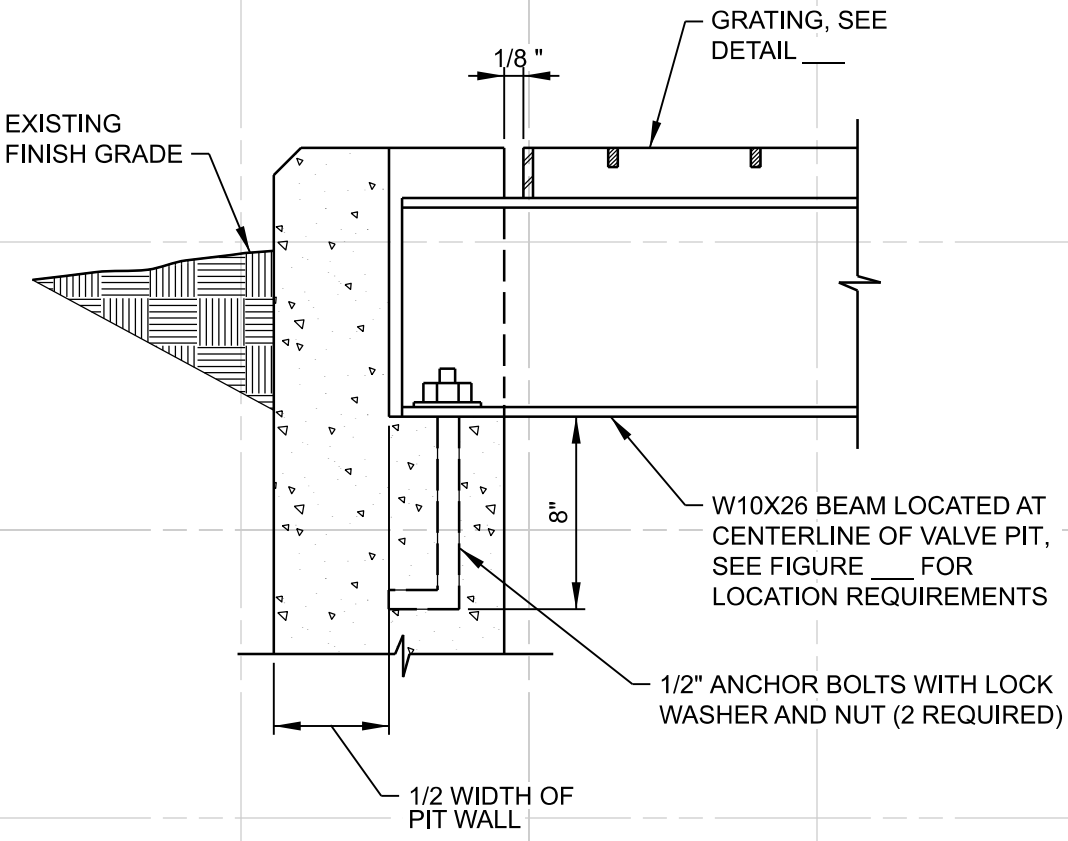
GRATING SHALL BE GALVANIZED AND CONFORM TO FEDERAL SPECIFICATION RR-G-661. GRATING OVER MANHOLE, EXCEPT LADDER ACCESS PORTION, TO BE W-19-4 (1X 3/16) GRATING, CAPABLE OF A UNIFORM LOADING OF 145PSF



A1

DETAIL: ANGLE SUPPORT FOR GRATING

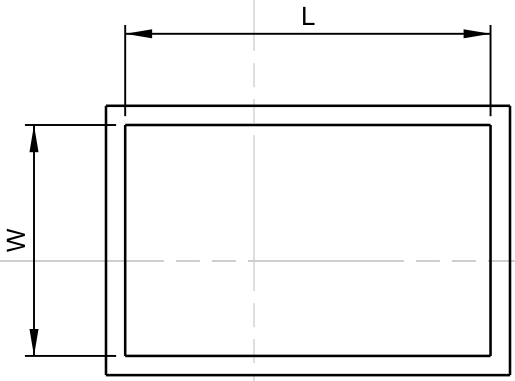
SCALE: NTS



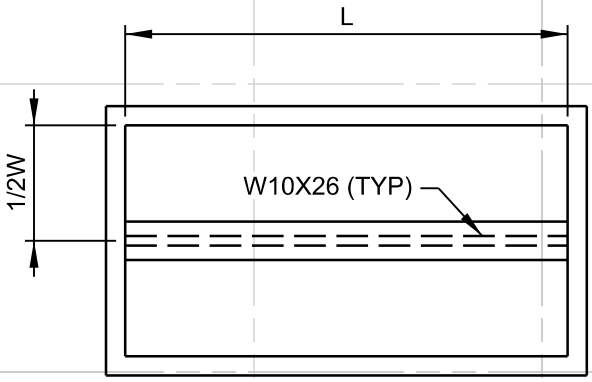
A1

DETAIL: STRUCTURAL SUPPORT FOR GRATING

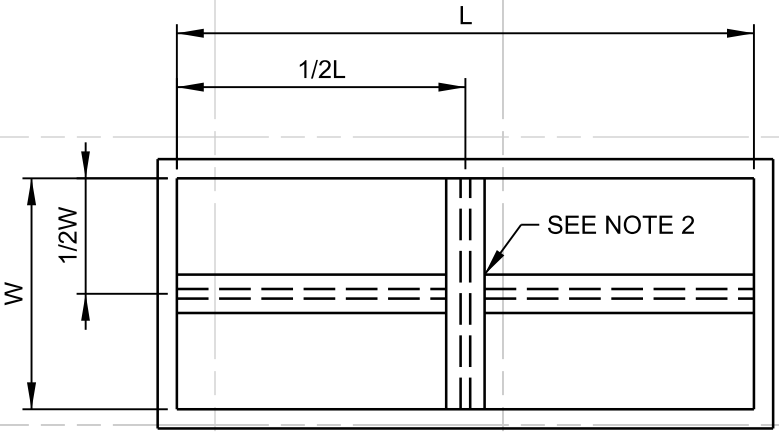
SCALE: NTS



PLAN A



PLAN B



PLAN C

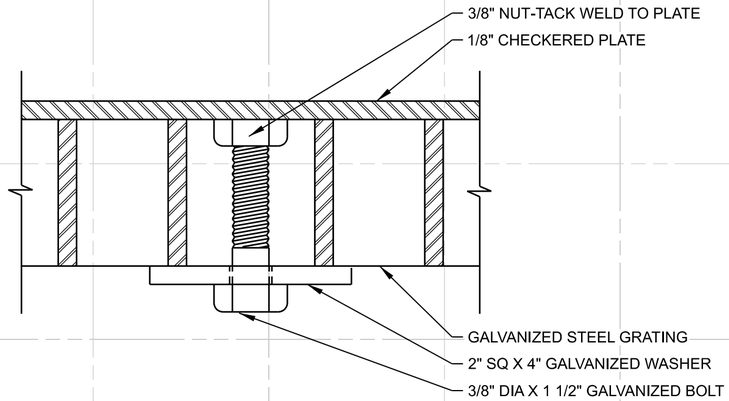
GRATING SUPPORT STEEL			
VALVE M.H.PLAN	W-WIDTH (FT)	L-LENGTH (FT)	REMARKS
A	4 OR LESS	AS REQUIRED	NO MEMBER REQUIRED
B	GREATER THAN 4 NOT TO EXCEED 12	AS REQUIRED NOT TO EXCEED 12	ONE MEMBER REQUIRED
C	GREATER THAN 12 NOT TO EXCEED 16	GREATER THAN 12 NOT TO EXCEED 16	THREE MEMBERS REQUIRED

NOTES:
1. FOR VALVE MANHOLE WITH DIMENSIONS L AND W GREATER THAN 16 FEET REQUIRES STEEL MEMBERS AND GRATING TO BE DESIGNED FOR UNIFORM LOADING OF 145 PSF.
2. INTERSECTION OF STEEL MEMBERS MUST BE DESIGNED FOR LOADING AND DIMENSIONS INDICATED.

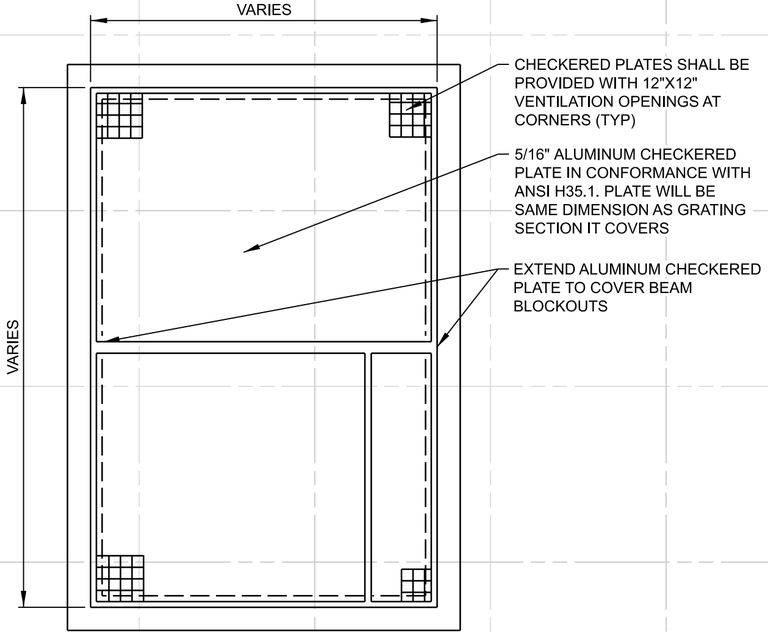
A1

DETAIL: GRATING SUPPORT STEEL LOCATIONS

SCALE: NTS



CONNECTION FOR ATTACHING
CHECKERED PLATE TO GRATING

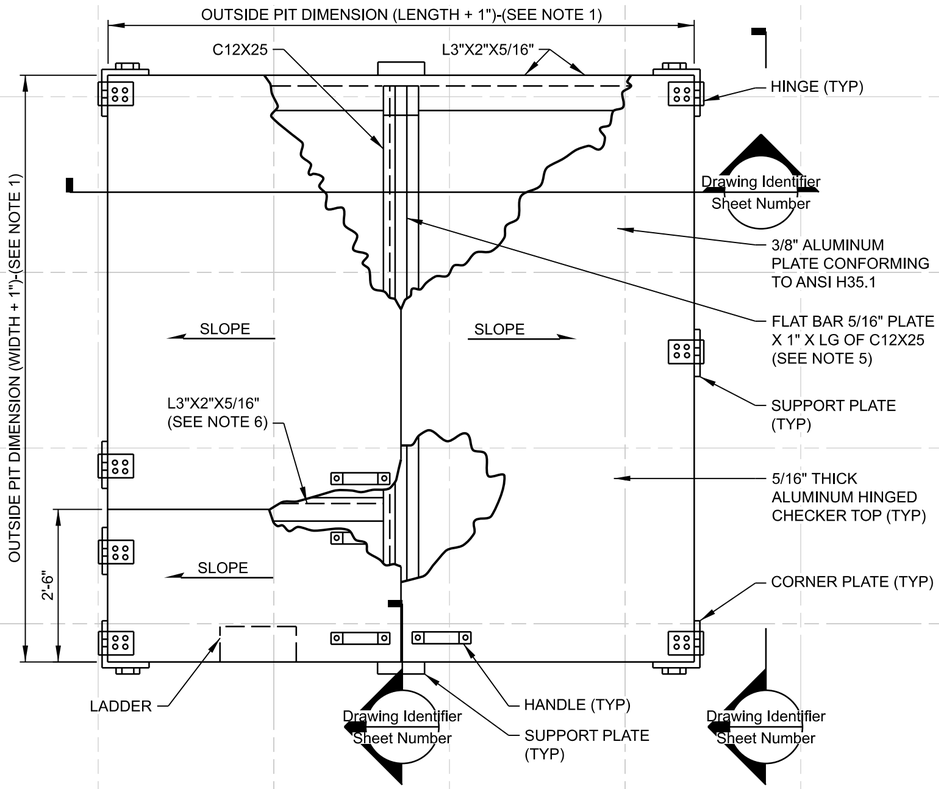


OPEN GRATE COVER WITH CHECKER PLATE

NOTES:
1. SPACING BETWEEN PANELS AND BETWEEN PANELS AND ANGLES SHALL BE 1/4".
2. PROVIDE A MINIMUM OF 4 CONNECTIONS PER PANEL. CONNECTIONS SHALL BE 4 1/2" FROM EDGES OF PANELS AND 10" FROM ENDS OF PANELS.

A1 DETAIL: CHECKER PLATE COVER

SCALE: NTS



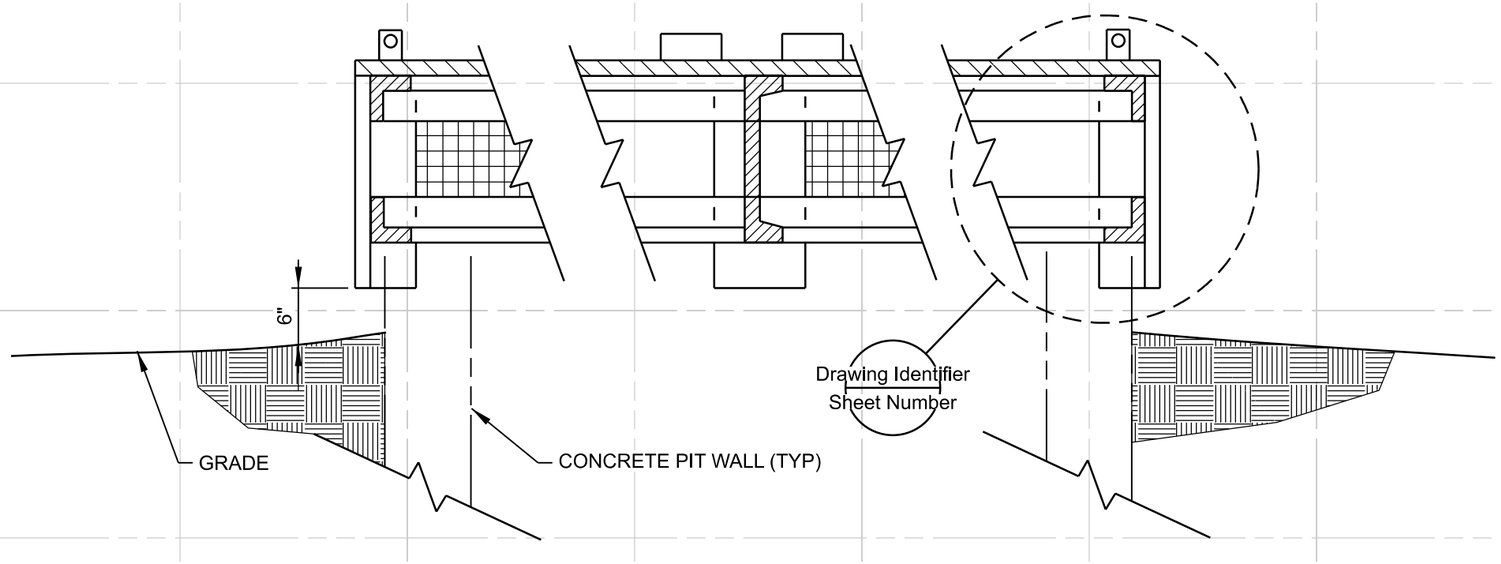
NOTES:

1. FIELD VERIFY OUTSIDE DIMENSIONS OF NEW MANHOLE BEFORE CONSTRUCTING MANHOLE COVER ASSEMBLY. ADD 1" TO OUTSIDE MANHOLE DIMENSIONS (TO ALLOW FOR CLEARANCE) TO DETERMINE INSIDE ASSEMBLY DIMENSIONS.
2. EACH SUPPORT PLATE SHALL BE LOCATED HALFWAY BETWEEN CORNER PLATES AT 3 SIDES OF MANHOLE. 2 SUPPORT PLATES SHALL BE LOCATED BETWEEN 2 SPLIT ALUM. CHECKER TOP AT ONE SIDE OF MANHOLE.
3. SUPPORT CHANNELS SHALL BE C12X25XLG, TO EQUAL WIDTH OR LENGTH DIM. PLUS 1" TO SUIT INSIDE ASSEMBLY DIM. THE CHANNEL SHALL REST ON THE CONCRETE MANHOLE TOP AND THE ALUM. TOP SHALL REST ON THE FLAT BAR PLATE.
4. CHANNEL SUPPORT, CORNER PLATES, SUPPORT PLATES, ANGLE FRAME HARDWARE CLOTH, AND LIFTING LUGS SHALL BE HOT-DIPPED GALVANIZED BEFORE INSTALLATION ON VALVE MANHOLES.
5. FLAT BAR 5/16" THICK WELDED TO TOP OF C12X25 TO MAKE ALUM. CHECKER TOP SLIGHTLY SLOPED AS INDICATED. LOCATE CENTERLINE FLAT BAR TO MATCH CHANNEL BEFORE WELDING.
6. ANGLE 3"X2"X5/16" WELDED TO C12X25 8 L3"X2"X5/16" AT EACH END LENGTH SHALL EQUAL HALF OF LENGTH OR WIDTH OF VALVE MANHOLE.

A1

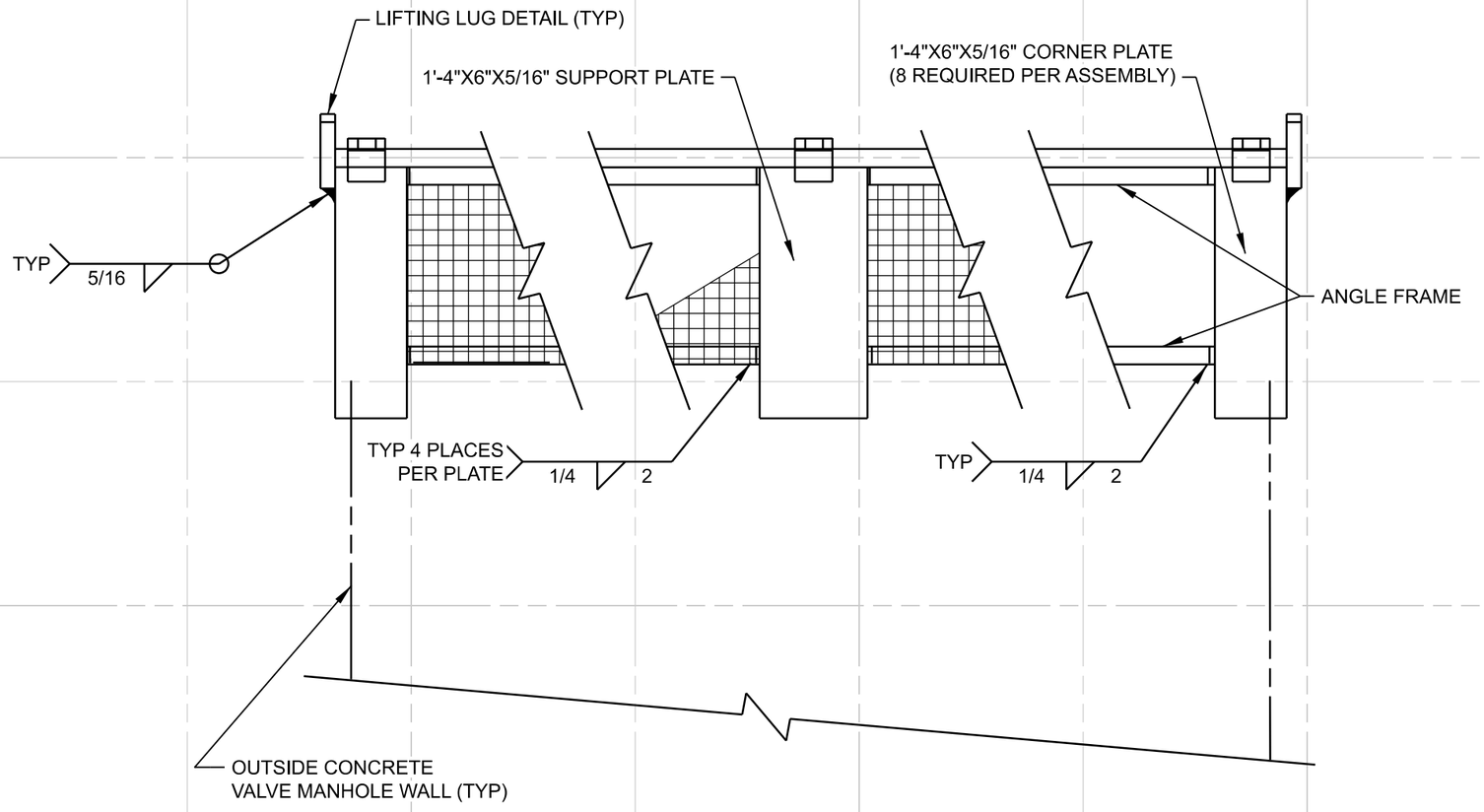
DETAIL: RAISED COVER PLATE

SCALE: NTS



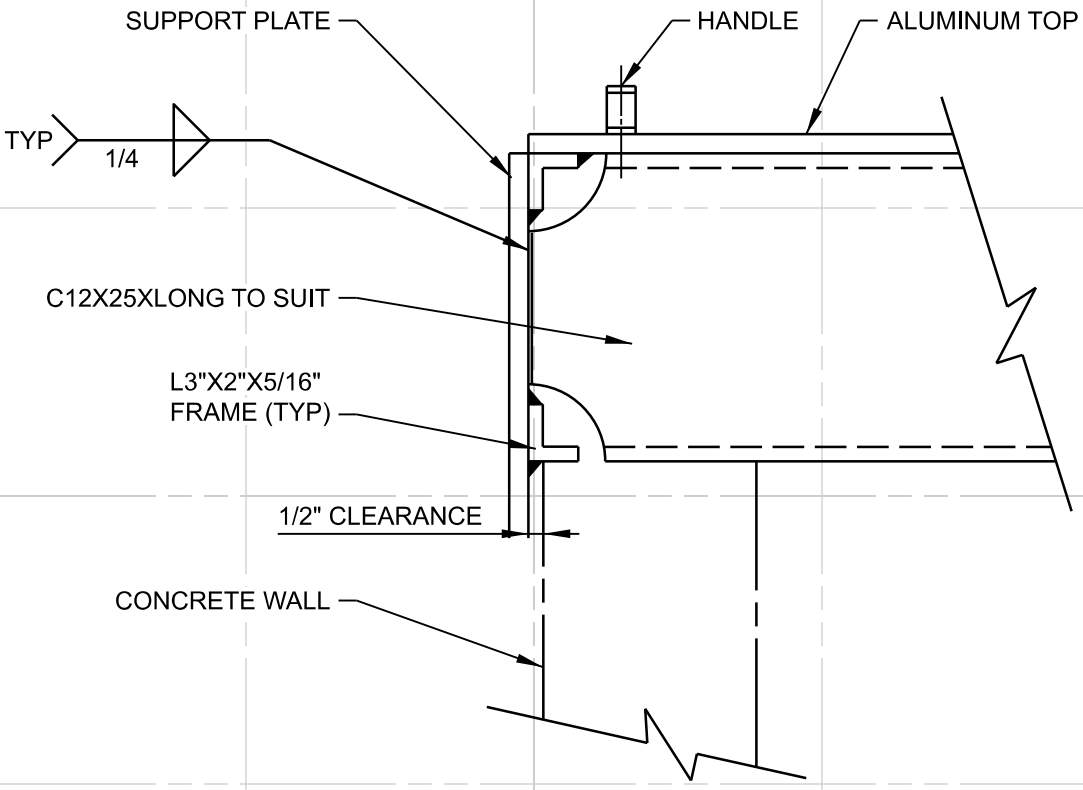
A1 SECTION: RAISED COVER PLATE

SCALE: NTS



A1 SECTION: RAISED COVER PLATE

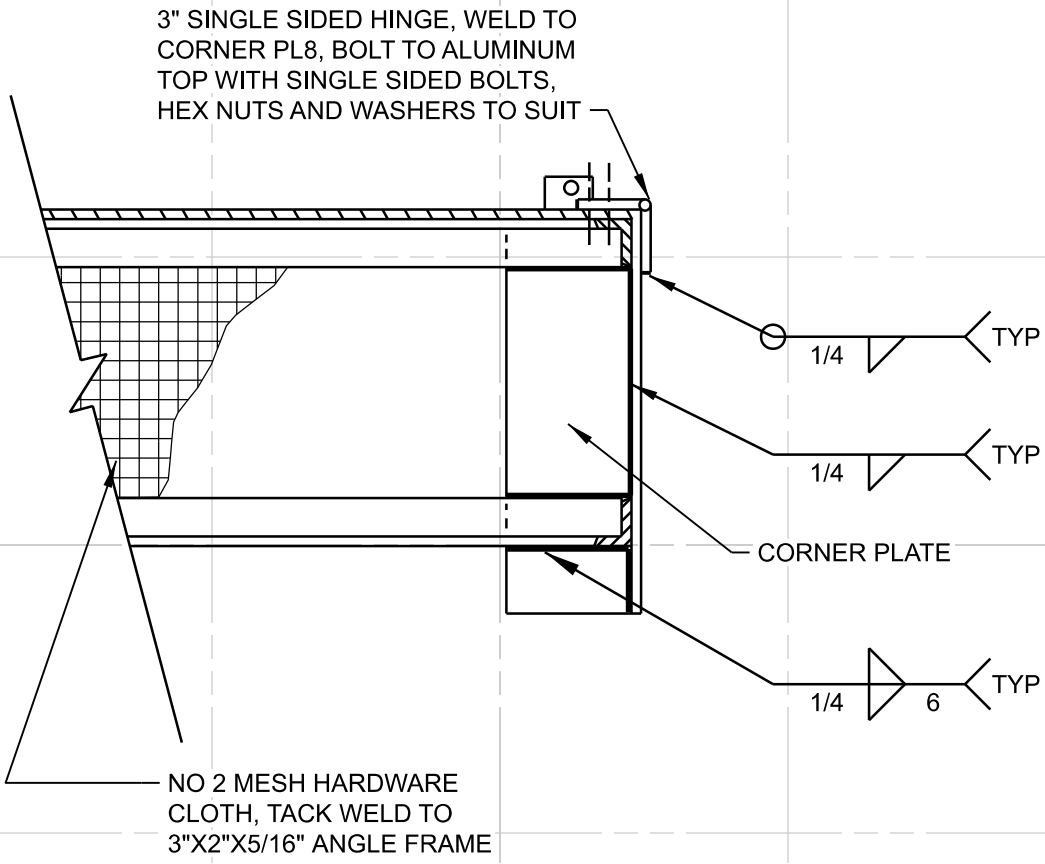
SCALE: NTS



A1

SECTION: RAISED COVER PLATE

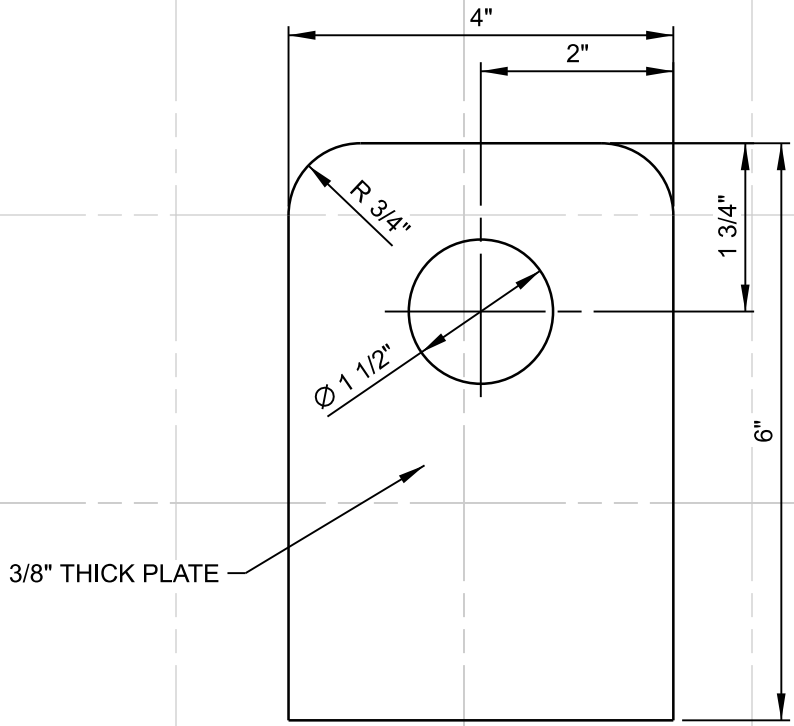
SCALE: NTS



A1

DETAIL: RAISED COVER PLATE

SCALE: NTS

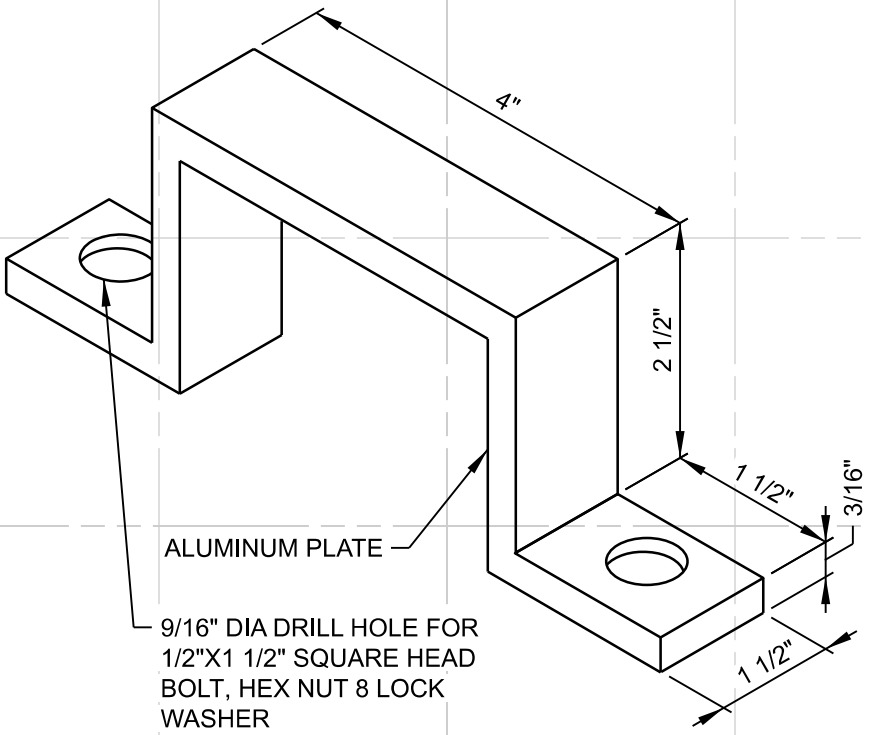


NOTE:
4 LUGS REQUIRED PER ASSEMBLY

A1

DETAIL: LIFTING LUG

SCALE: 6"=1'-0" 0 1-1/2" 3" 6"

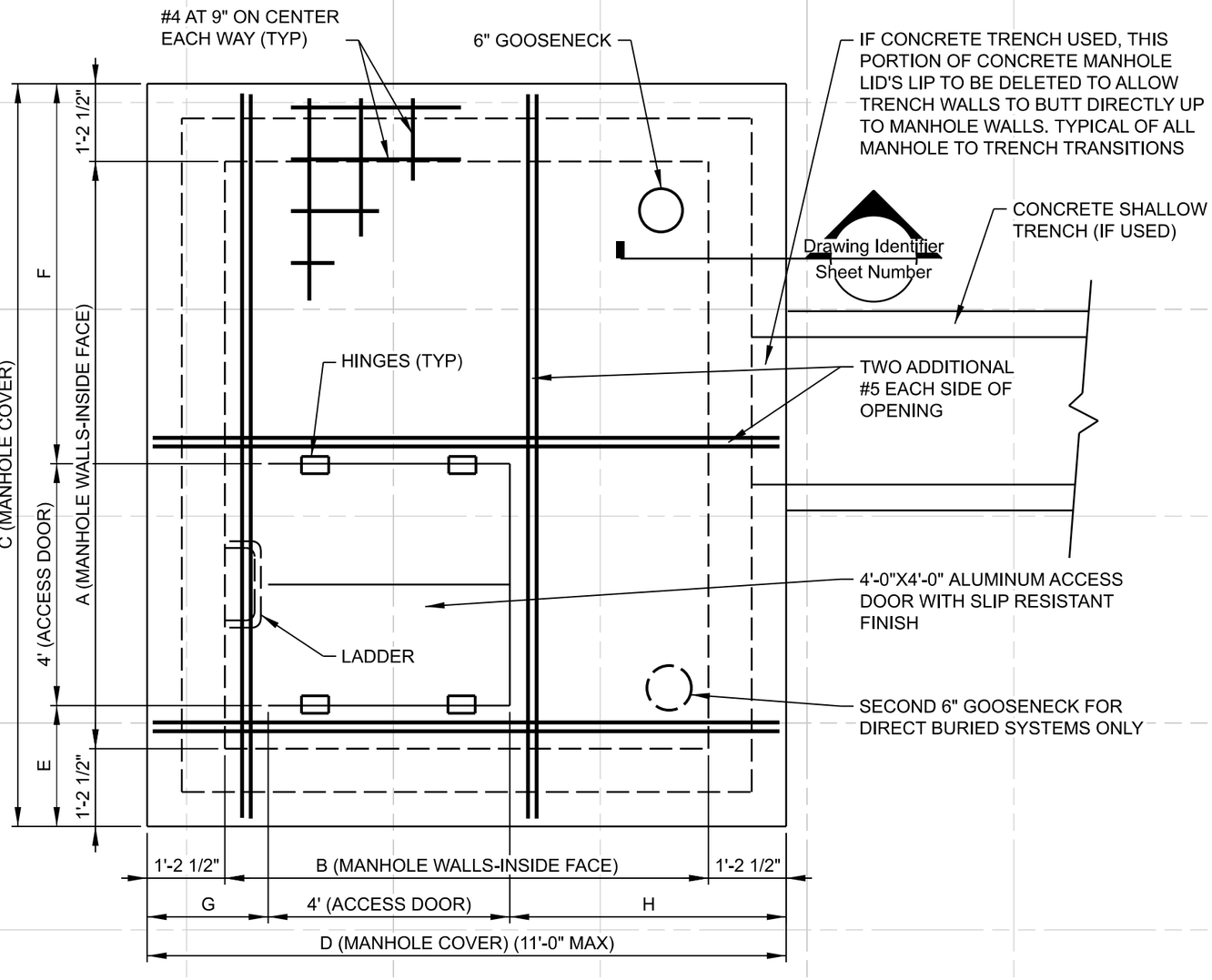


NOTE:
2 HANDLES REQUIRED, PER HINGED TOP, MIN 6 PER PIT COVER ASSEMBLY.

A1

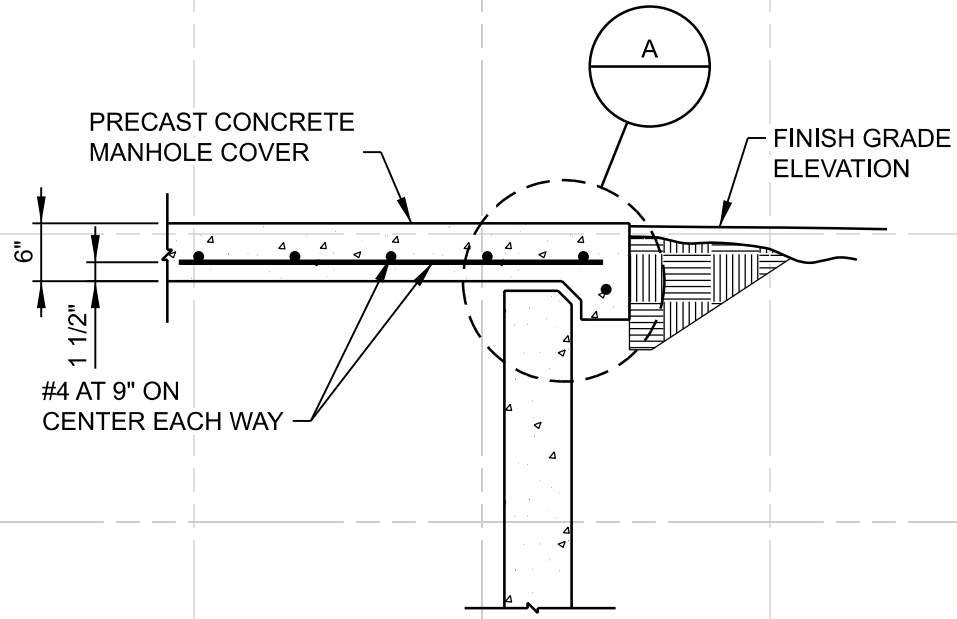
DETAIL: HANDLE

SCALE: NTS

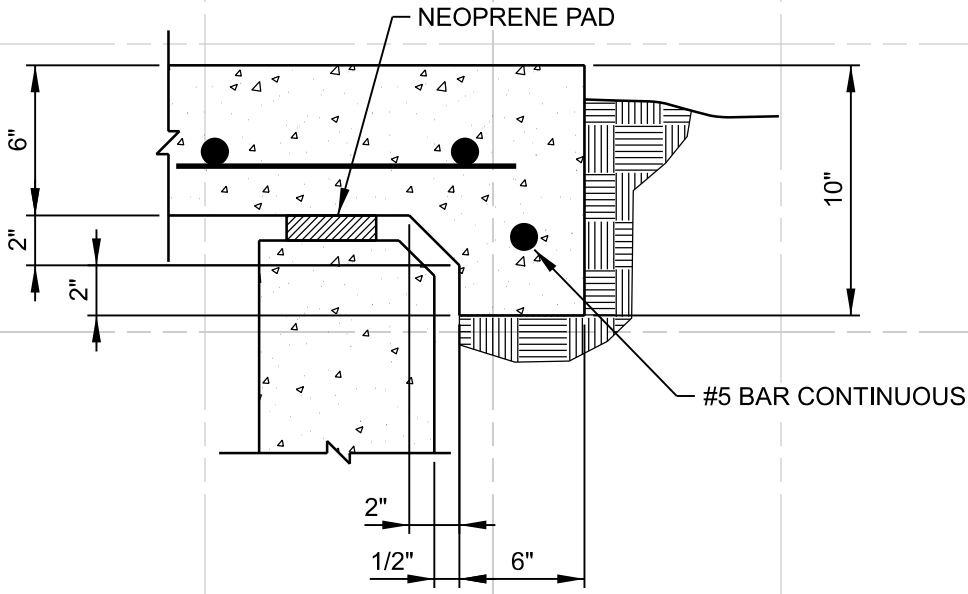


A1 DETAIL: CONCRETE COVER

SCALE: NTS



SECTION

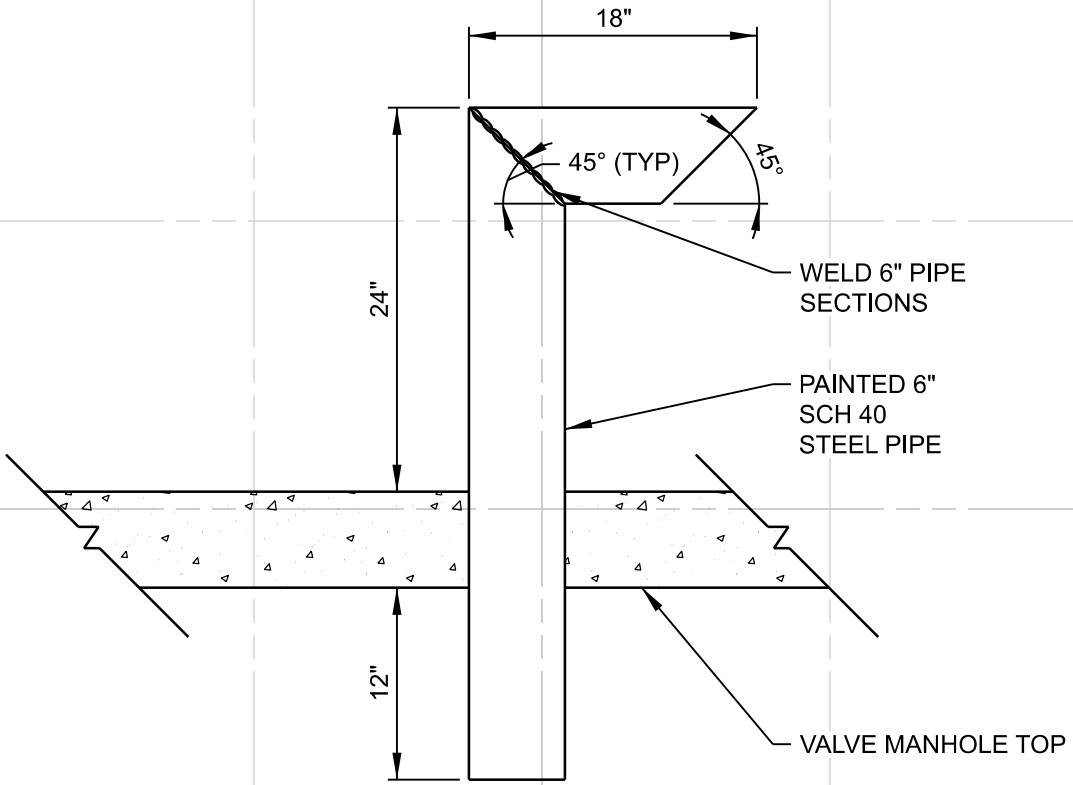


DETAIL A

A1

DETAIL: CONCRETE COVER

SCALE: NTS

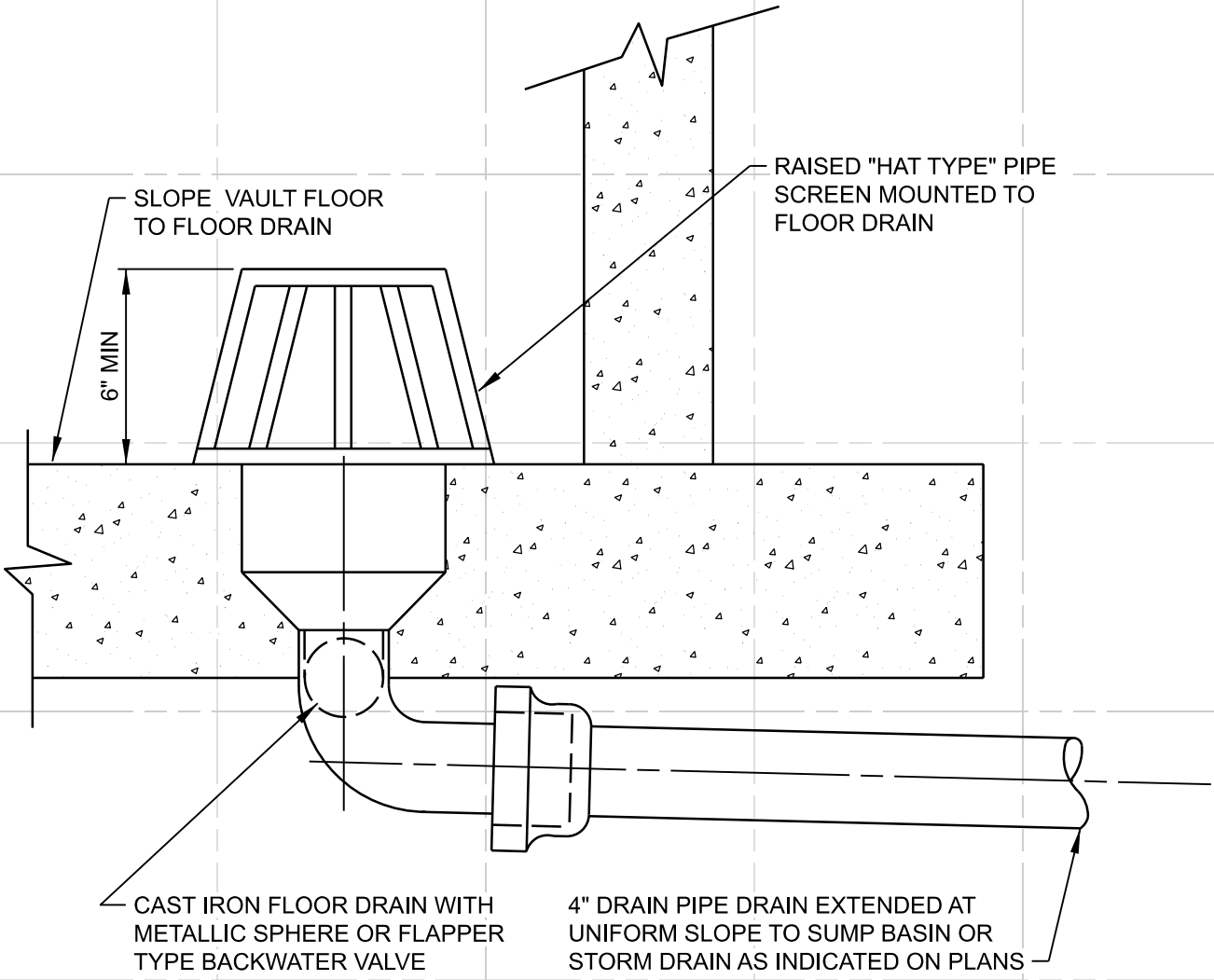


A1

DETAIL: GOOSENECK

SCALE: 1"=1'-0"

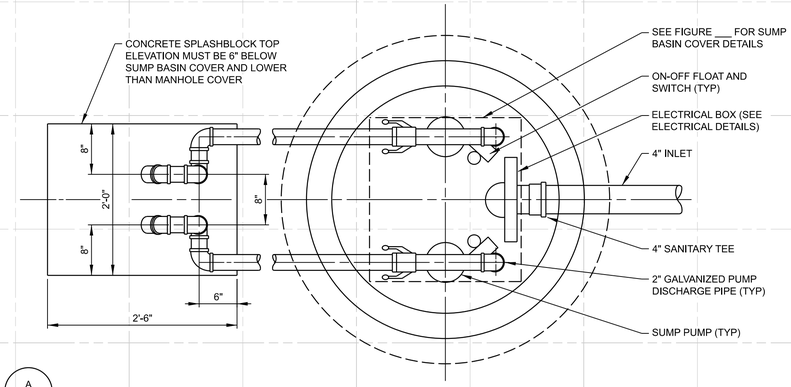
0 6" 1' 2'



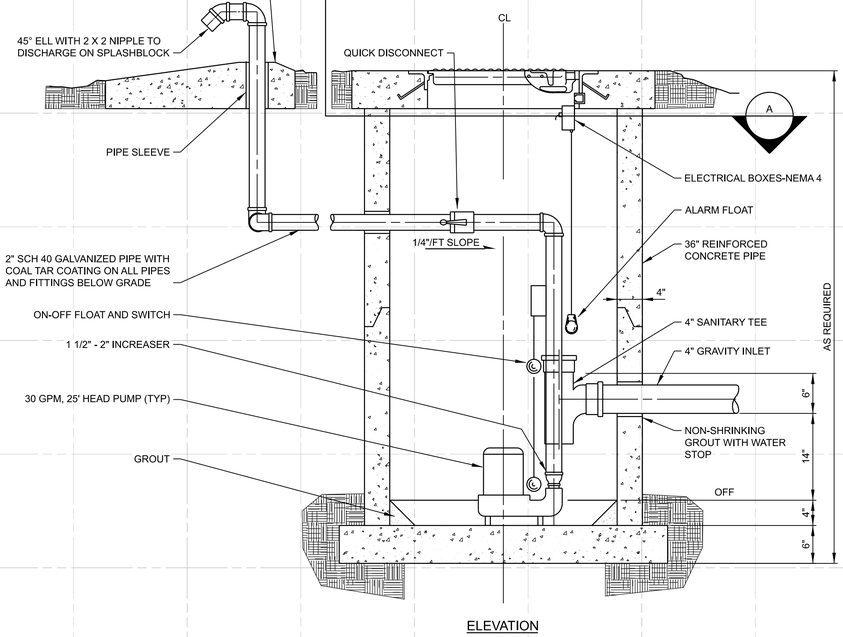
A1

DETAIL: VALVE MANHOLE FLOOR DRAIN

SCALE: NTS



PLAN A



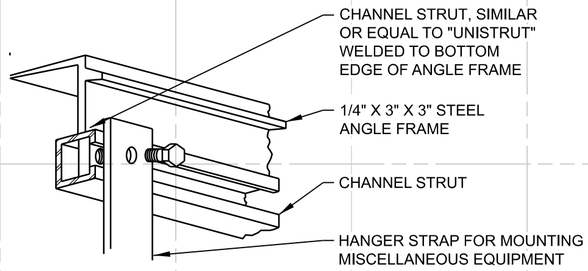
ELEVATION

NOTE:
SEE FIGURES ___ AND ___ FOR SUMP BASIN ELECTRICAL DESIGN.

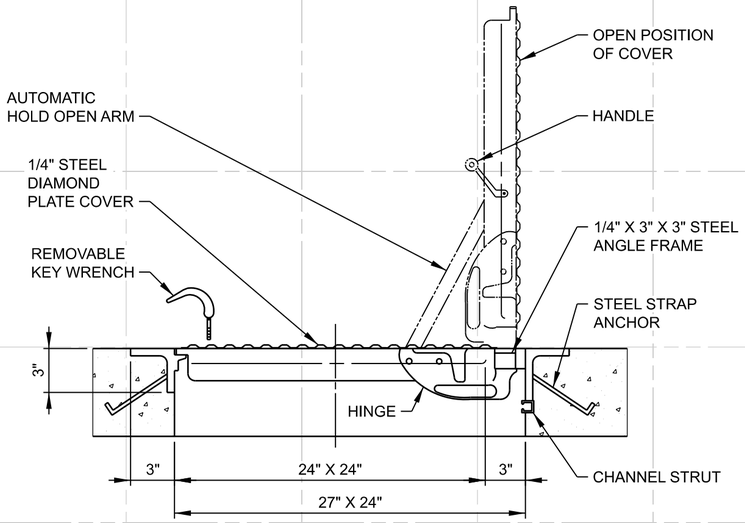
A1 DETAIL: SUMP BASIN WITH DISCHARGE TO GRADE

SCALE: 1"=1'-0"

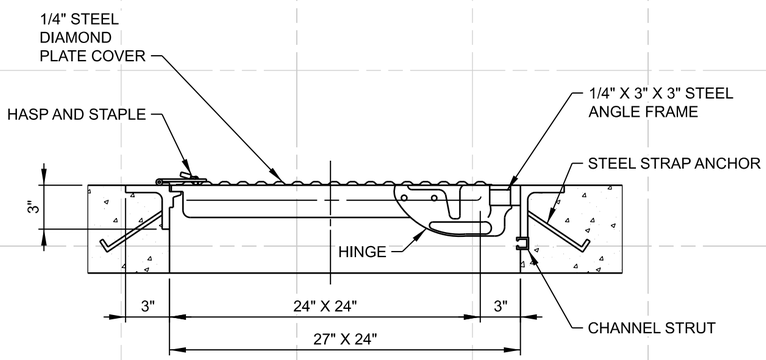
0 6" 1' 2'



CHANNEL STRUT



STANDARD LOCKING COVER

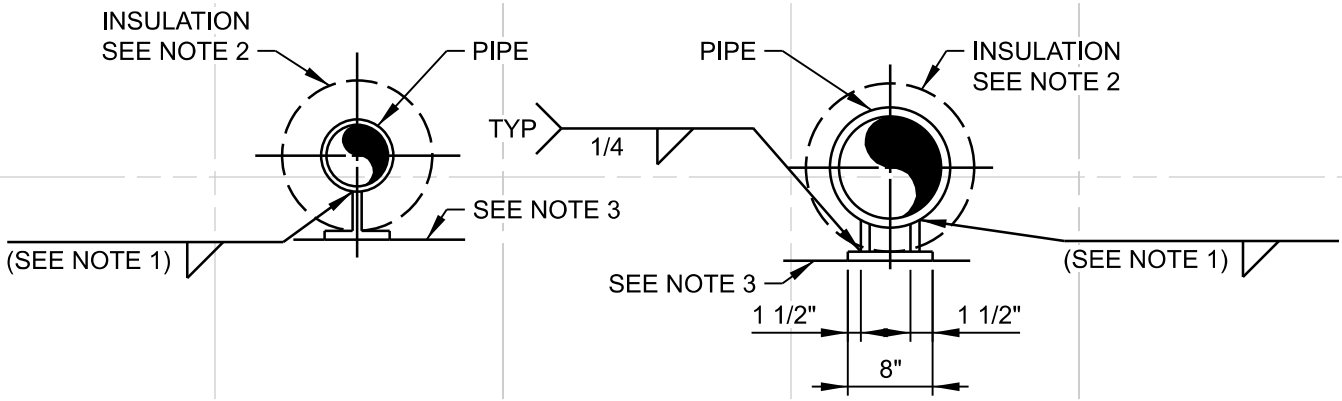


OPTIONAL LOCKING COVER

A1 DETAIL: SUMP BASIN COVER

SCALE: 1-1/2"=1'-0"

0 6" 1' 2'



S-1
PIPE 2" THRU 10"

S-2
PIPE 12" THRU 24"

HEAT INSULATED PIPING (100°F - 750°F)

SHOES FOR CARBON STEEL PIPE

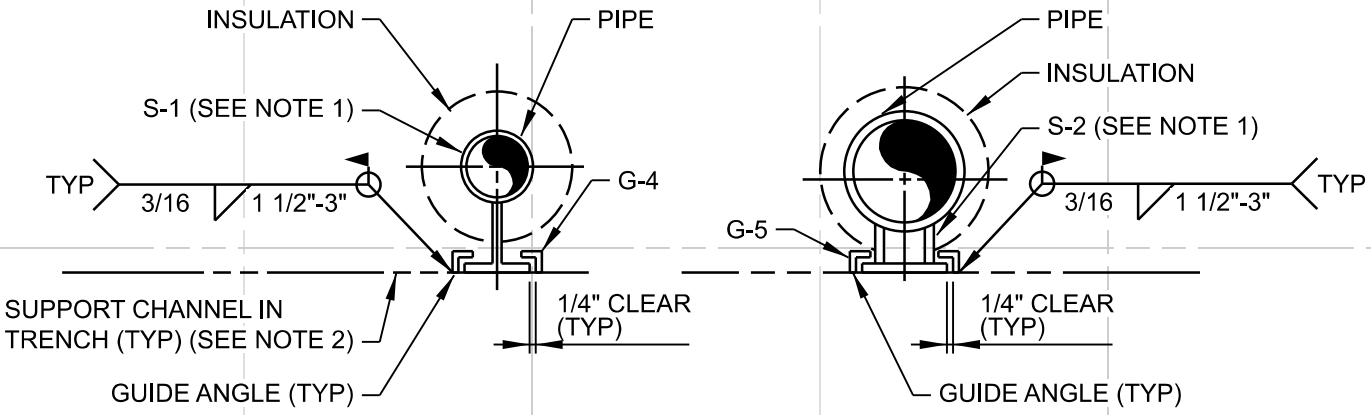
TYPE	MATERIAL		
	STEEL	ASTM	SIZE
S-1	CARBON	A-36	ST 6 X 15.9 X 16" LONG
S-2	CARBON	A-36	1 PLATE 8" X 16" X 1/4" THICK (HORIZ)
			2 PLATES 6" X 16" X 1/4" THICK (VERT)

NOTES:
1. WELD THICKNESS SHALL BE SAME AS PIPE SHOE OR PIPE WALL THICKNESS, WHICHEVER IS THINNEST.
2. WHERE INSULATION IS GREATER THAN SHOE HEIGHT, CUT AWAY INSULATION PARTIALLY WHERE IT INTERFERES WITH PIPE SHOES AND SUPPORTS.
3. SEE TABLE ___ FOR CHANNEL SUPPORT SCHEDULE.

A1

DETAIL: FREE PIPE SUPPORT

SCALE: NTS



PIPE 2" THRU 10"

PIPE 12" THRU 24"

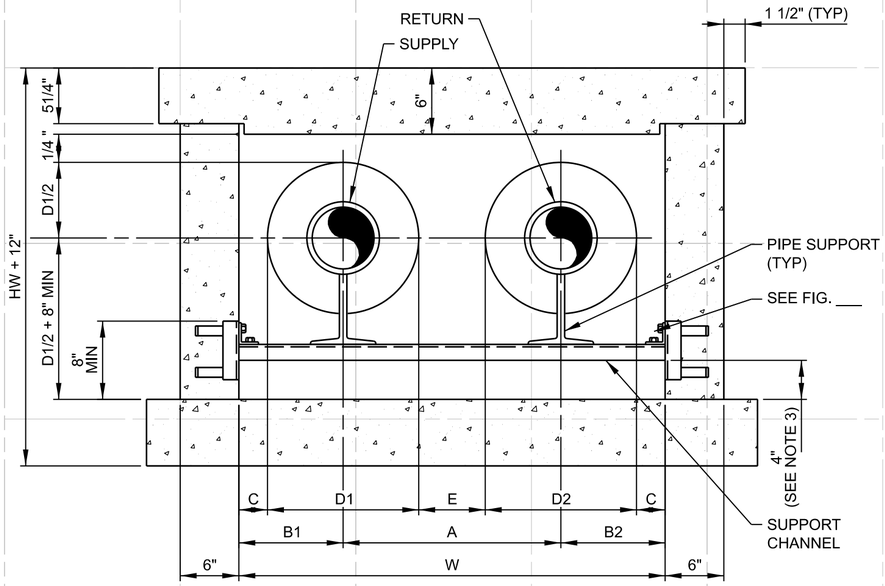
HEAT INSULATED PIPING			
GUIDES FOR PIPE SHOE			
TYPE	MATERIAL		
	STEEL	ASTM	SIZE
G-4	CARBON	A-36	1" X 1" X 3/16" ANGLE 16" LONG
G-5	CARBON	A-36	1" X 1" X 3/16" ANGLE 16" LONG

NOTE:
1. SEE TABLE ___ FOR CHANNEL SUPPORT SCHEDULE.

A1

DETAIL: GUIDED PIPE SUPPORT

SCALE: NTS



TRENCH DIMENSION SCHEDULE

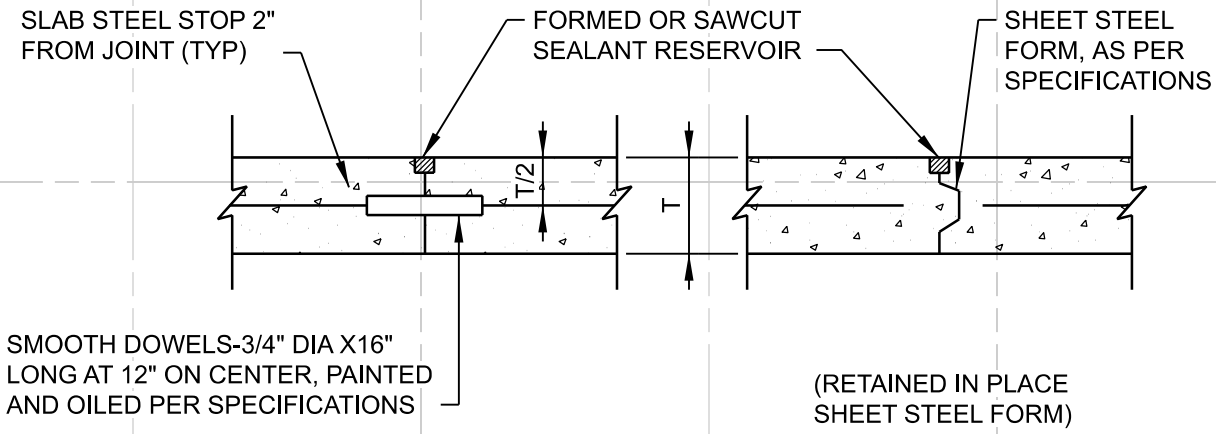
STANDARD TRENCH SIZE	PIPE SIZES (INCHES)	A	B_1	B_2	C*	D_1	D_2	E*	F MIN	H_W MIN	W
					6"			6"			
					6"			6"			
					6"			6"			
					6"			6"			

NOTES:
1. CLEARANCES BASED ON THE THICKEST INSULATION. IF LESS INSULATION(LOWER"K") IS PROVIDED, DIMENSIONS C, D, E AND F WILL BE DIFFERENT THAN SCHEDULED. HOWEVER, OVERALL TRENCH DIMENSIONS SHALL REMAIN THE SAME. C* AND E* DIMENSIONS MUST BE MAINTAINED THROUGHOUT ALL STRAIGHT SECTIONS OF TRENCH TO ALLOW PROPER CLEARANCES FOR EXPANSION.
2. DIMENSION "HW" SHALL BE INCREASED AS NECESSARY TO ACCOMODATE THE MINIMUM TRENCH BOTTOM SLOPE OF 1" PER 20 FEET.
3. 4" CLEARANCE PROVIDED FOR PROPER DRAINAGE OF TRENCH SYSTEM.

A1

DETAIL: TRENCH AND COVER DIMENSIONS SECTION THRU TRENCH

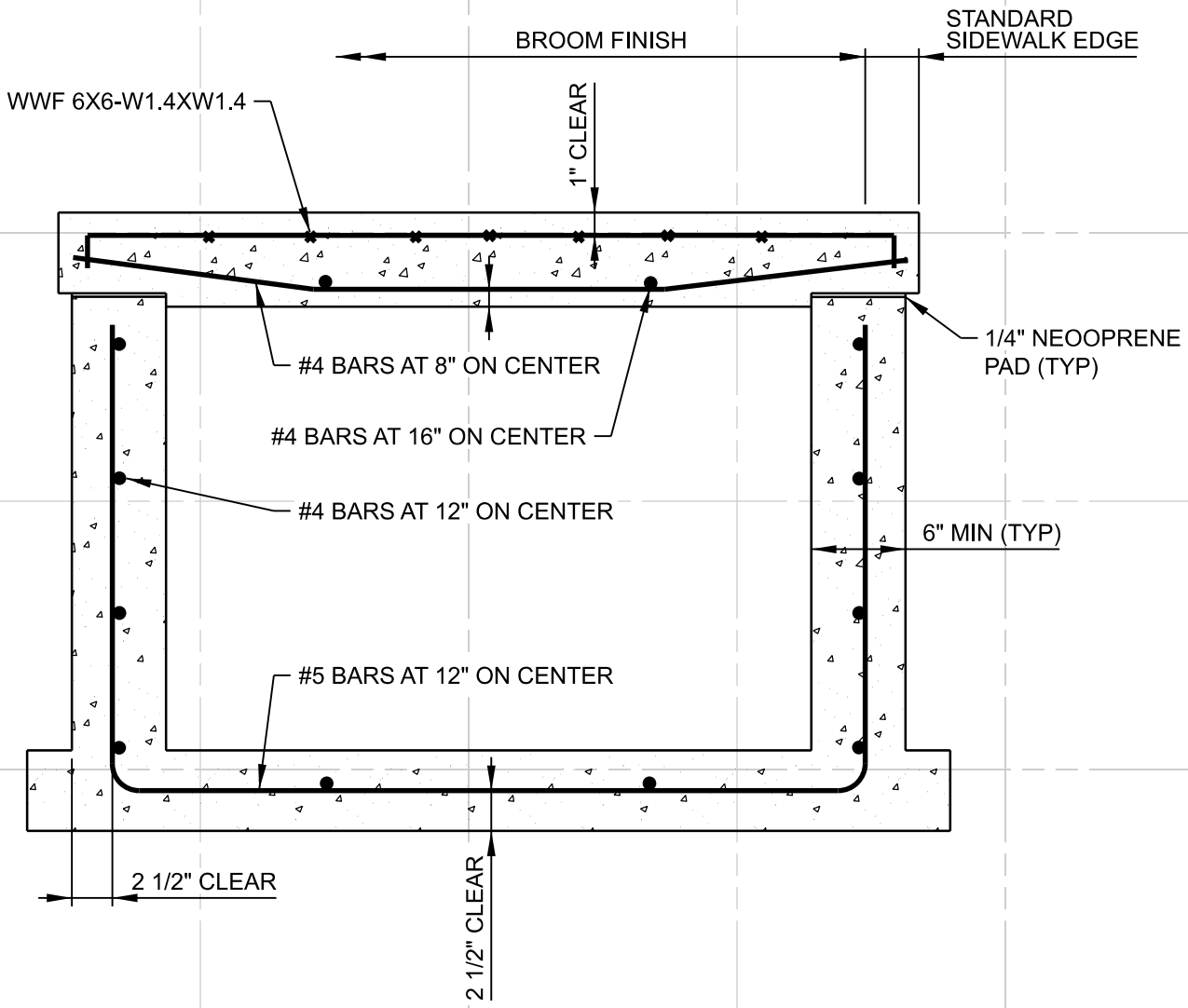
SCALE: NTS



A1

DETAIL: CONSTRUCTION JOINT

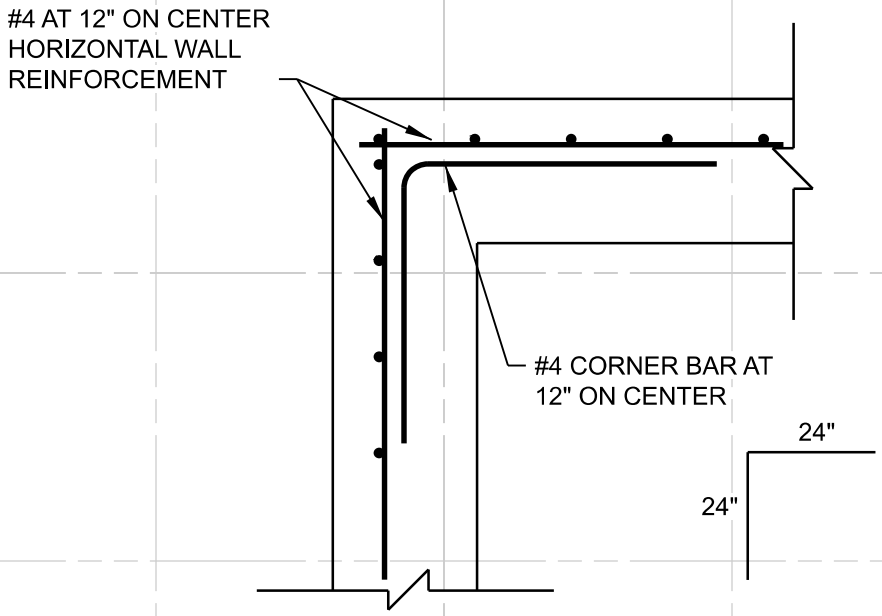
SCALE: NTS



A1

DETAIL: TRENCH AND COVER REINFORCING

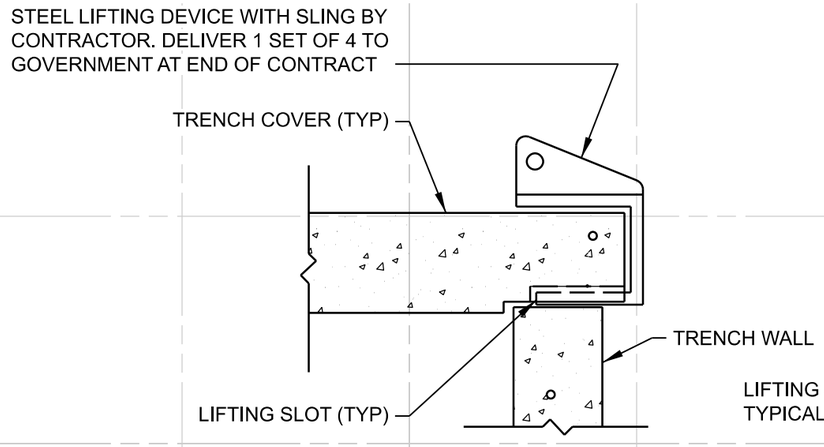
SCALE: NTS



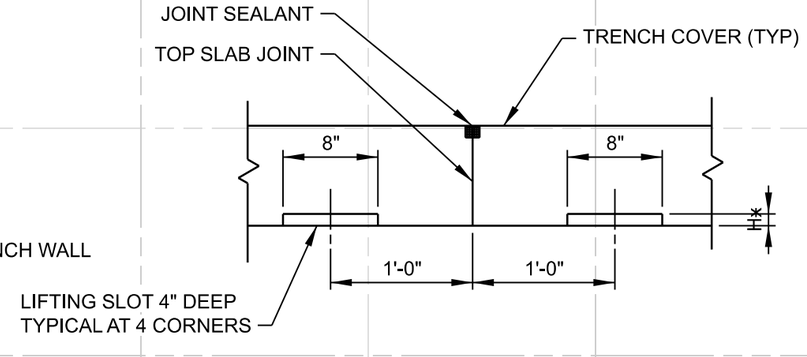
A1

DETAIL: TYPICAL TRENCH WALL CORNER REINFORCING

SCALE: NTS



SECTION



* DESIGN HEIGHT "H" OF SLOT TO ACCOMMODATE SUBMITTED LIFTING DEVICE.

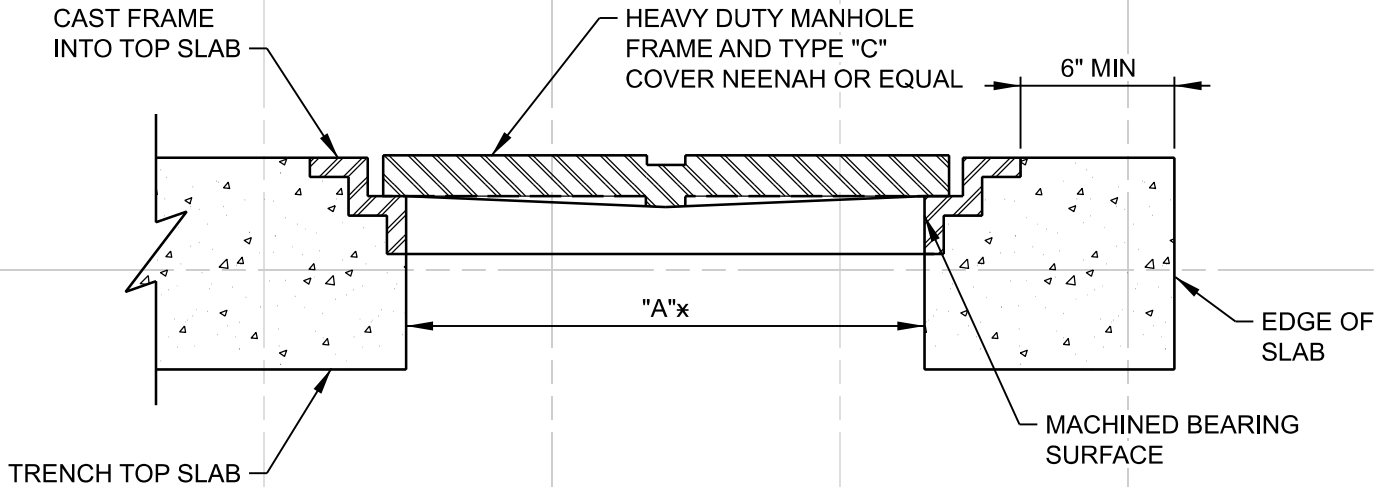
SIDE VIEW

NOTES:
1. DESIGN OF LIFTING DEVICE SHALL SATISFY ACI SHEAR REQUIREMENTS ALONG LIFTING SLOTS.
2. CONTRACTOR SHALL DISTRIBUTE LOAD EQUALLY BETWEEN THE FOUR LIFTING DEVICES BY USING A STRONGBACK OR APPROVED EQUAL.

A1

DETAIL: LIFTING DEVICE

SCALE: NTS

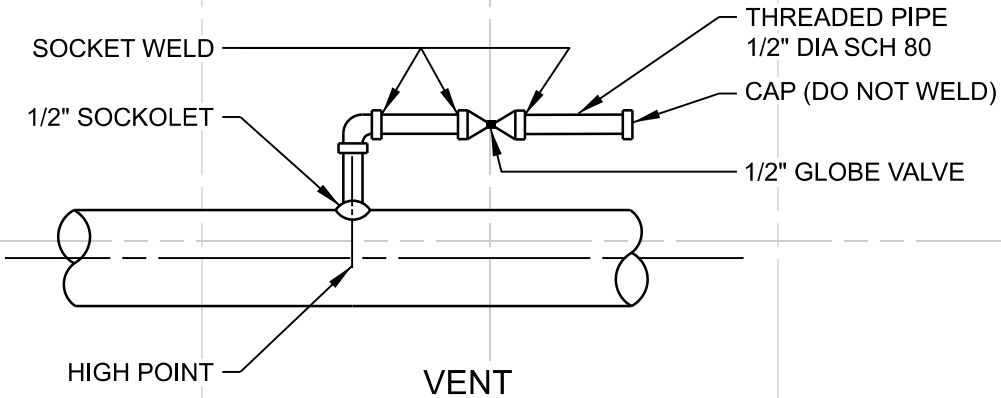


DIMENSION "A"
24 INCHES FOR VENT ACCESS
12 INCHES FOR INSPECTION PORT
* CENTER MANHOLE ON TRENCH TOP

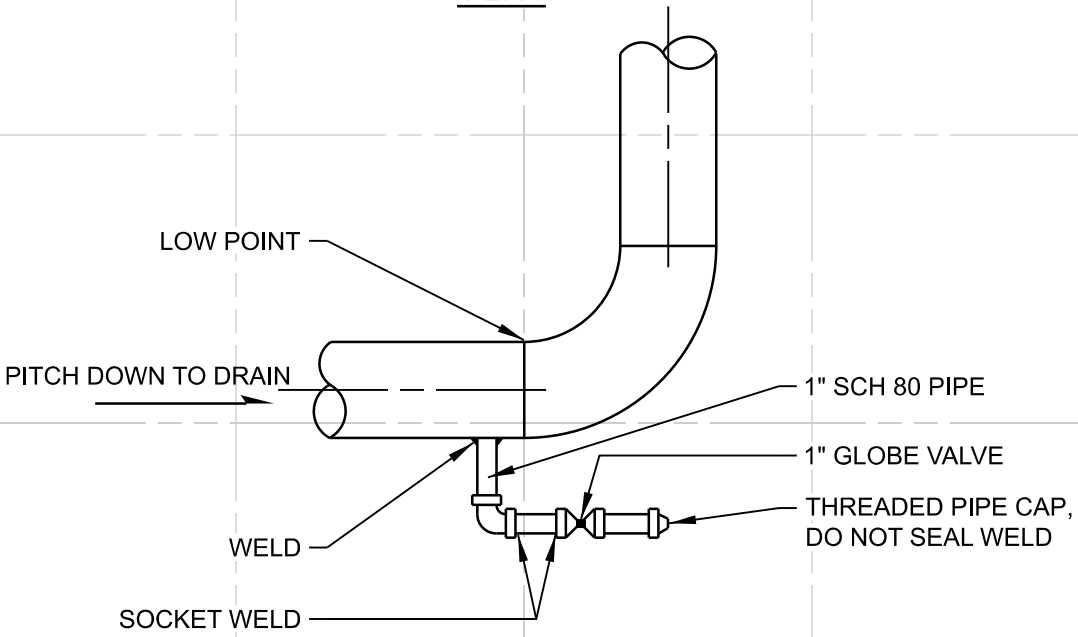
A1

DETAIL: ACCESS COVER

SCALE: NTS



VENT



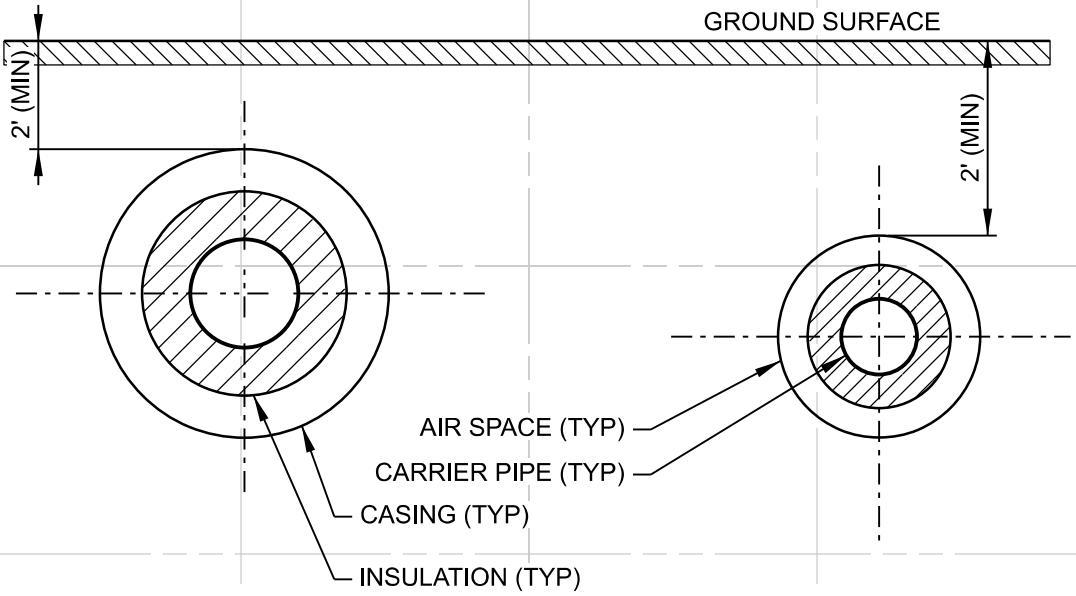
DRAIN

NOTE:
LOW POINTS IN ALL PIPING TO BE DRAINED.

A1

DETAIL: VENT AND DRAIN

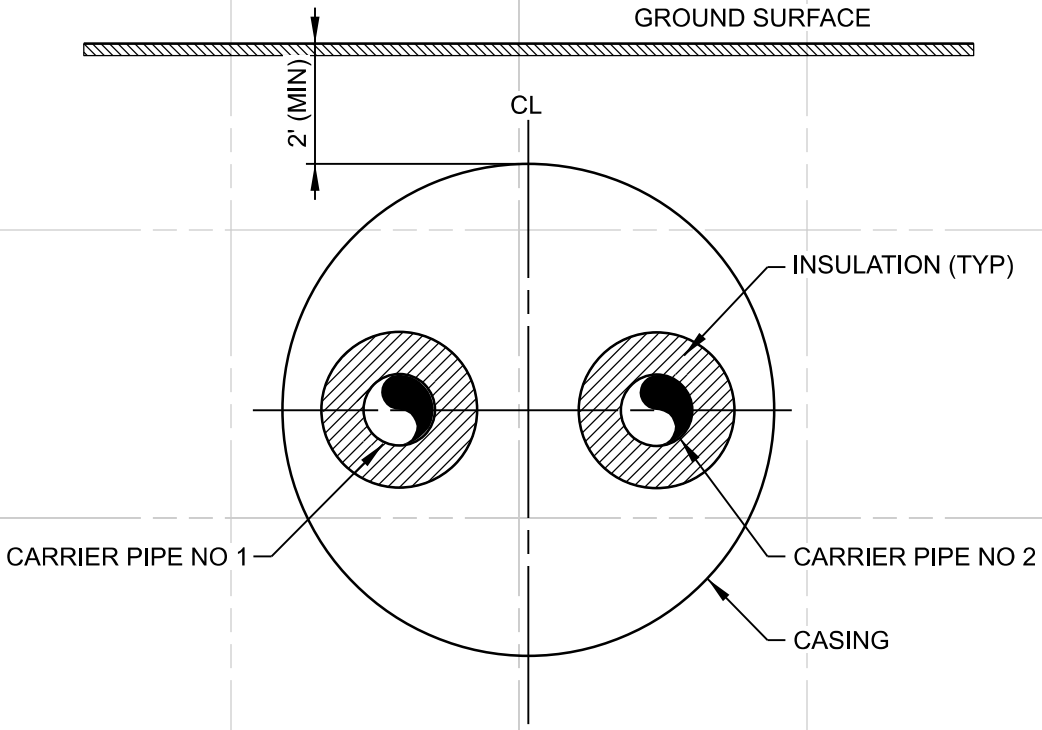
SCALE: NTS



A1

DETAIL: TWO CONDUIT SYSTEM

SCALE: NTS

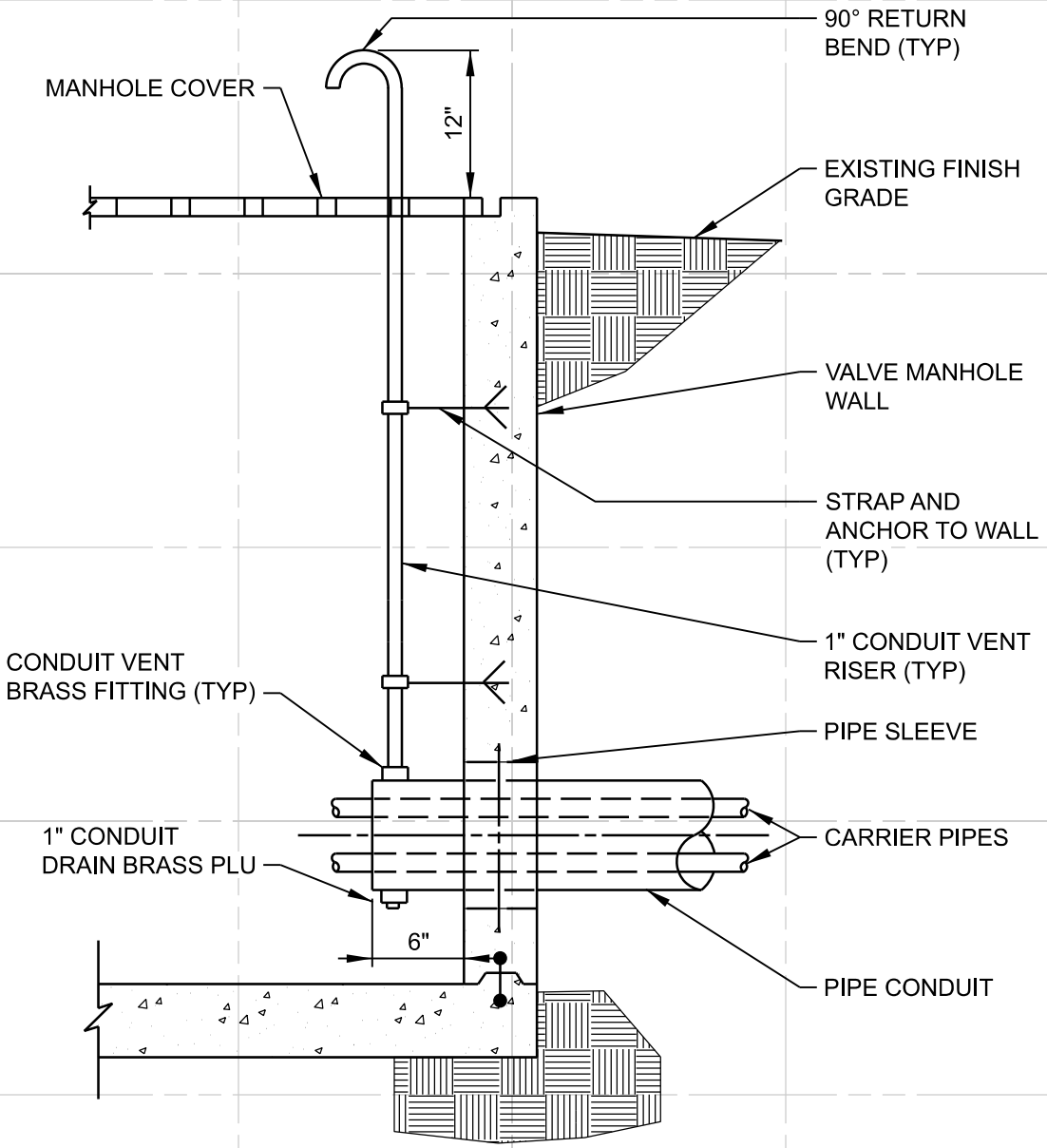


NOTE:
A STEAM LINE AND A CONDENSATE LINE ARE NOT TO BE INSTALLED IN THE SAME CASING.

A1

DETAIL: SINGLE CONDUIT SYSTEM

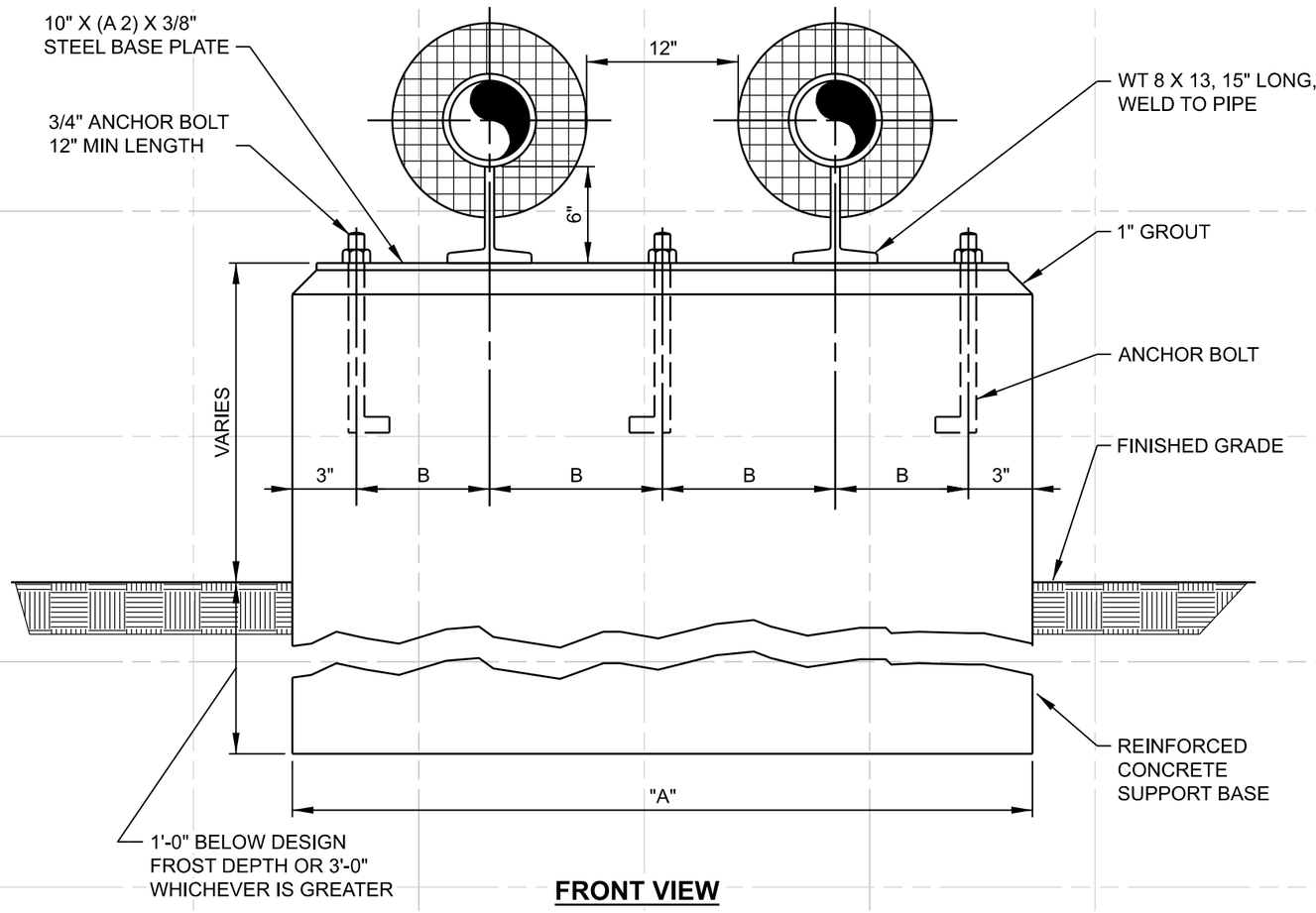
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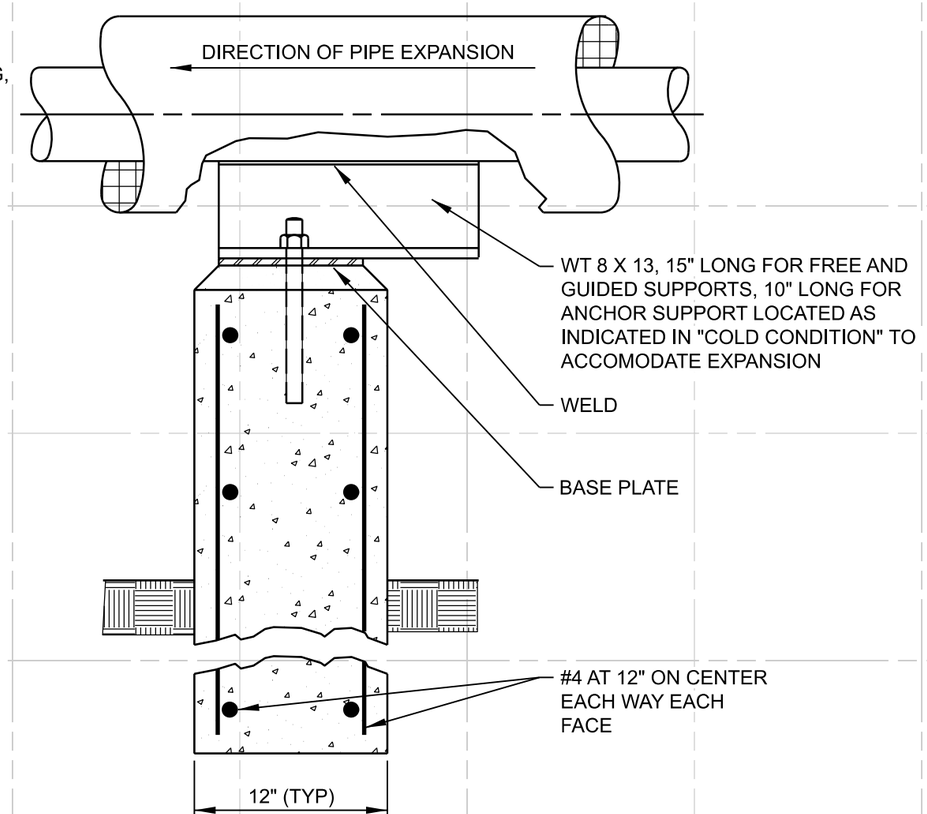
DETAIL: CONDUIT, VENT, AND DRAIN

A1

SCALE: NTS



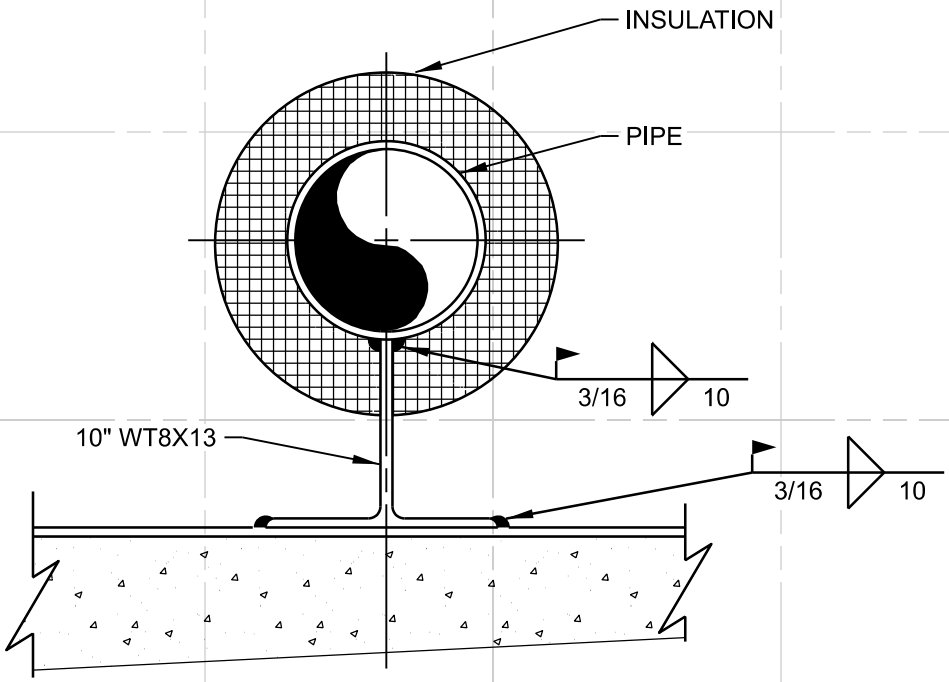
FRONT VIEW



SECTION

A1 DETAIL: LOW PROFILE PIPE SUPPORT

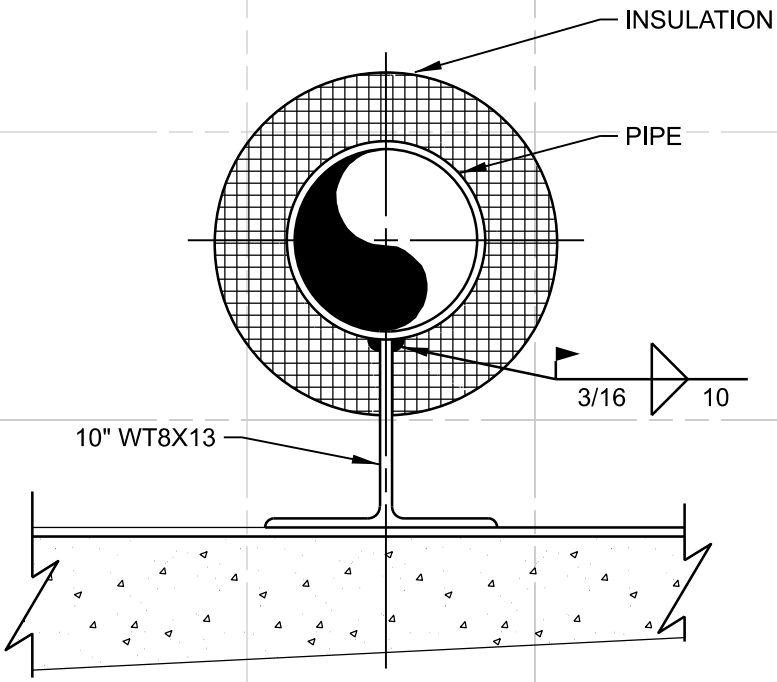
SCALE: NTS



A1

DETAIL: ANCHOR SUPPORT

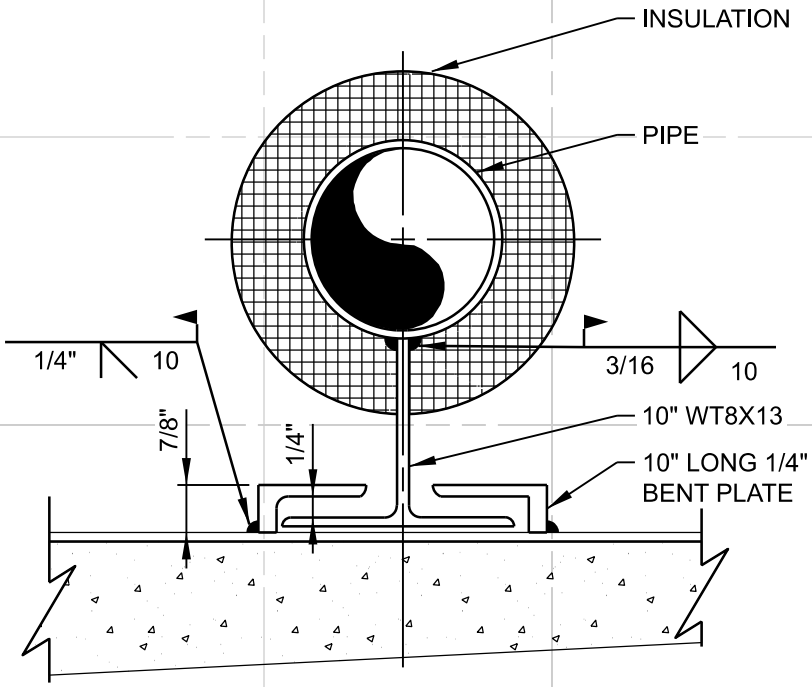
SCALE: NTS



A1

DETAIL: FREE SUPPORT

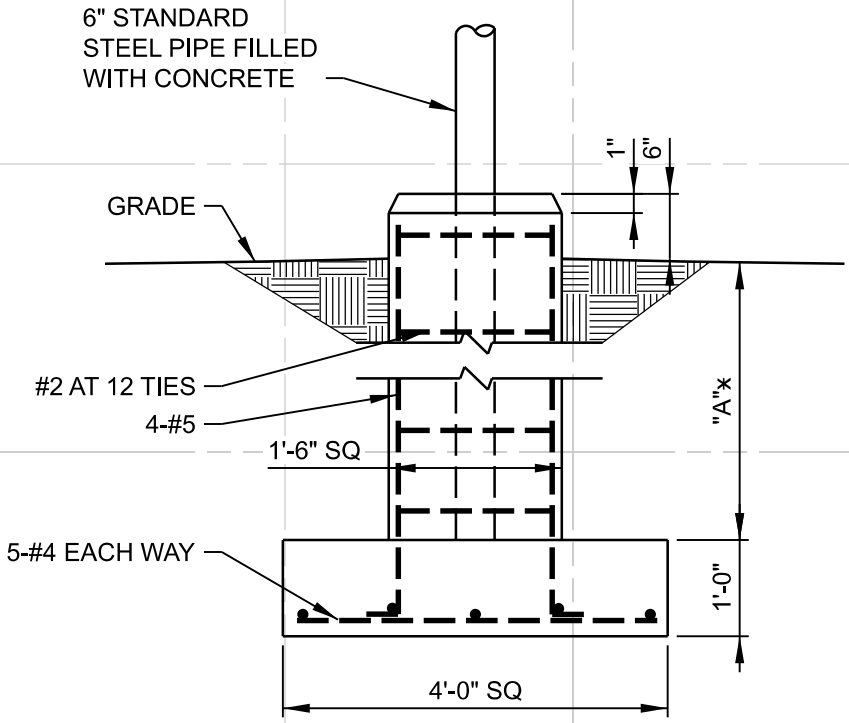
SCALE: NTS



A1

DETAIL: GUIDED SUPPORT

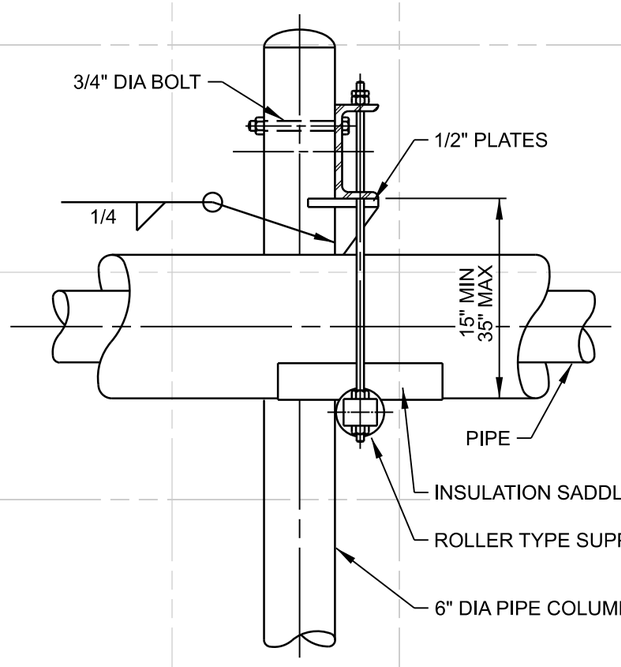
SCALE: NTS



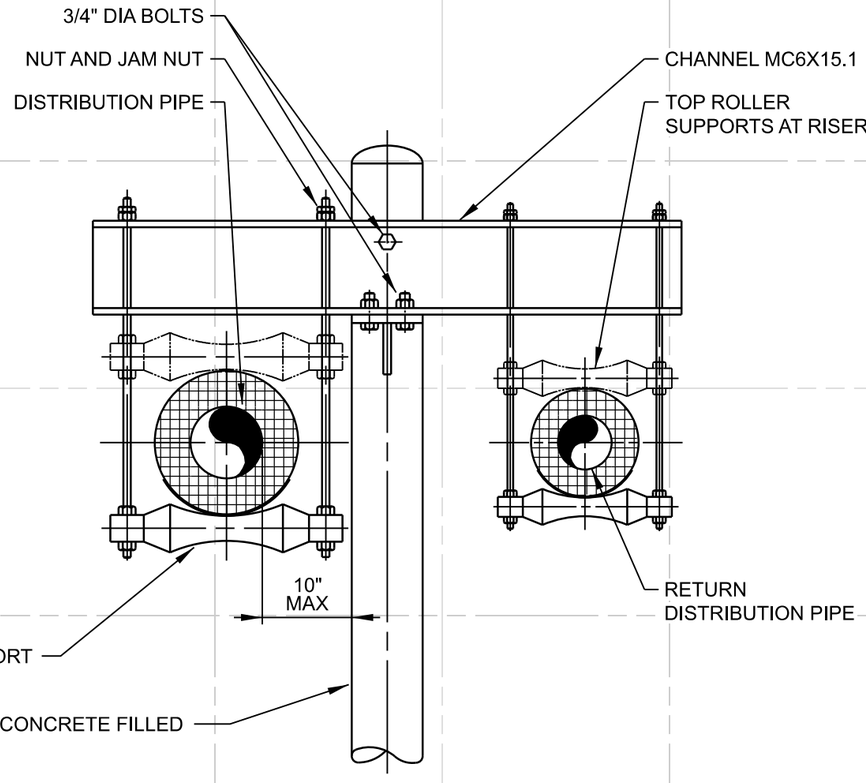
A1

DETAIL: HIGH PROFILE BASE

SCALE: NTS



SIDE VIEW

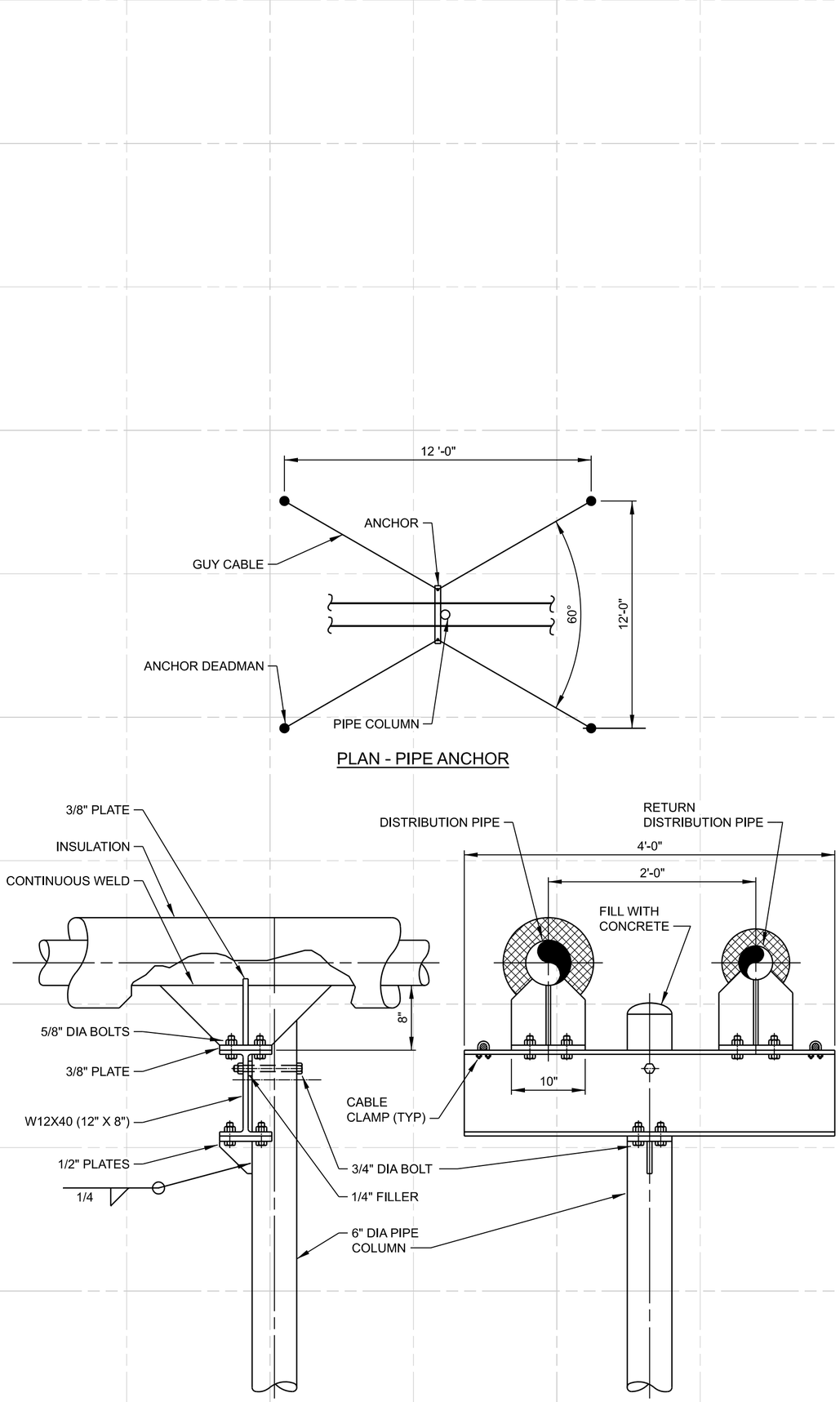


FRONT VIEW

A1 DETAIL: PIPE GUIDE

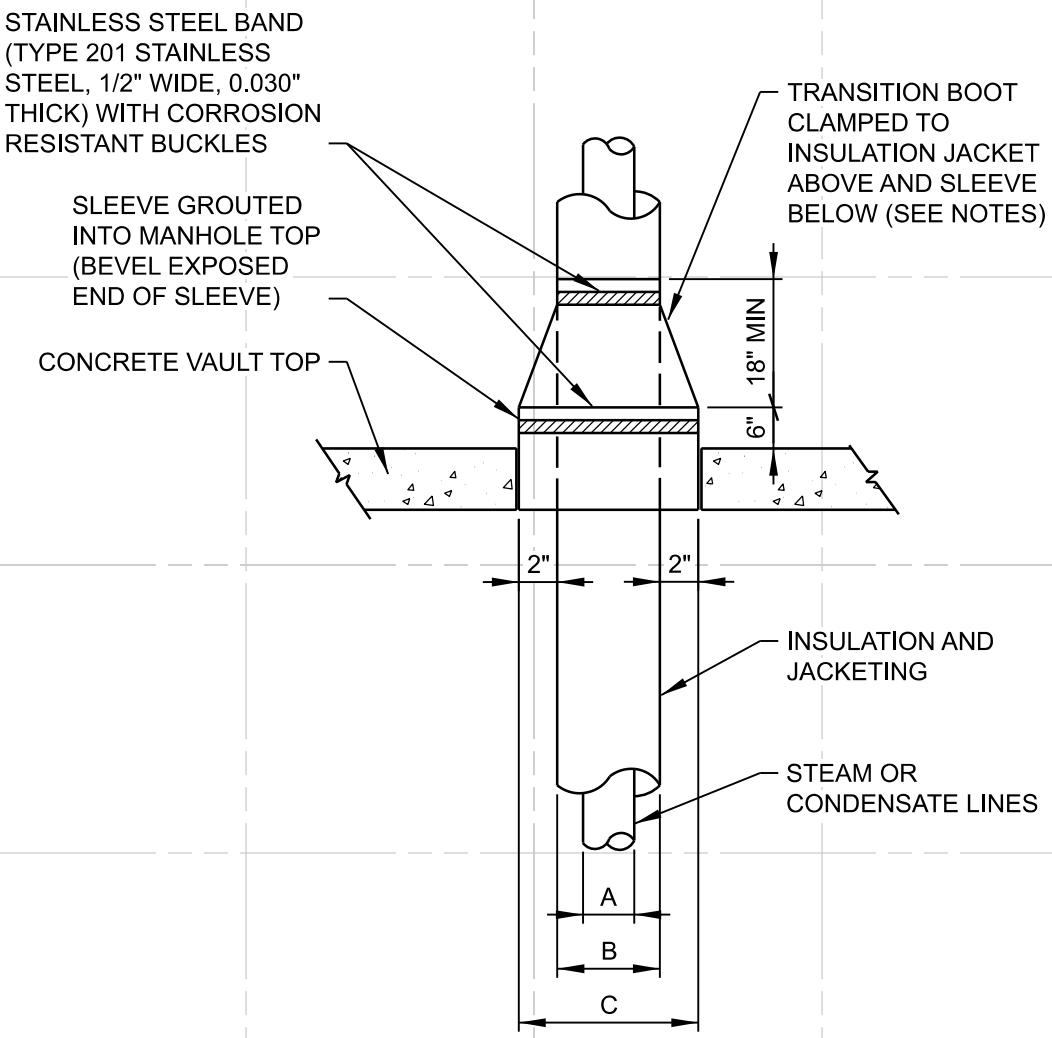
SCALE: NTS

PLAN - PIPE ANCHOR



A1 DETAIL: HIGH PROFILE PIPE ANCHOR

SCALE: NTS



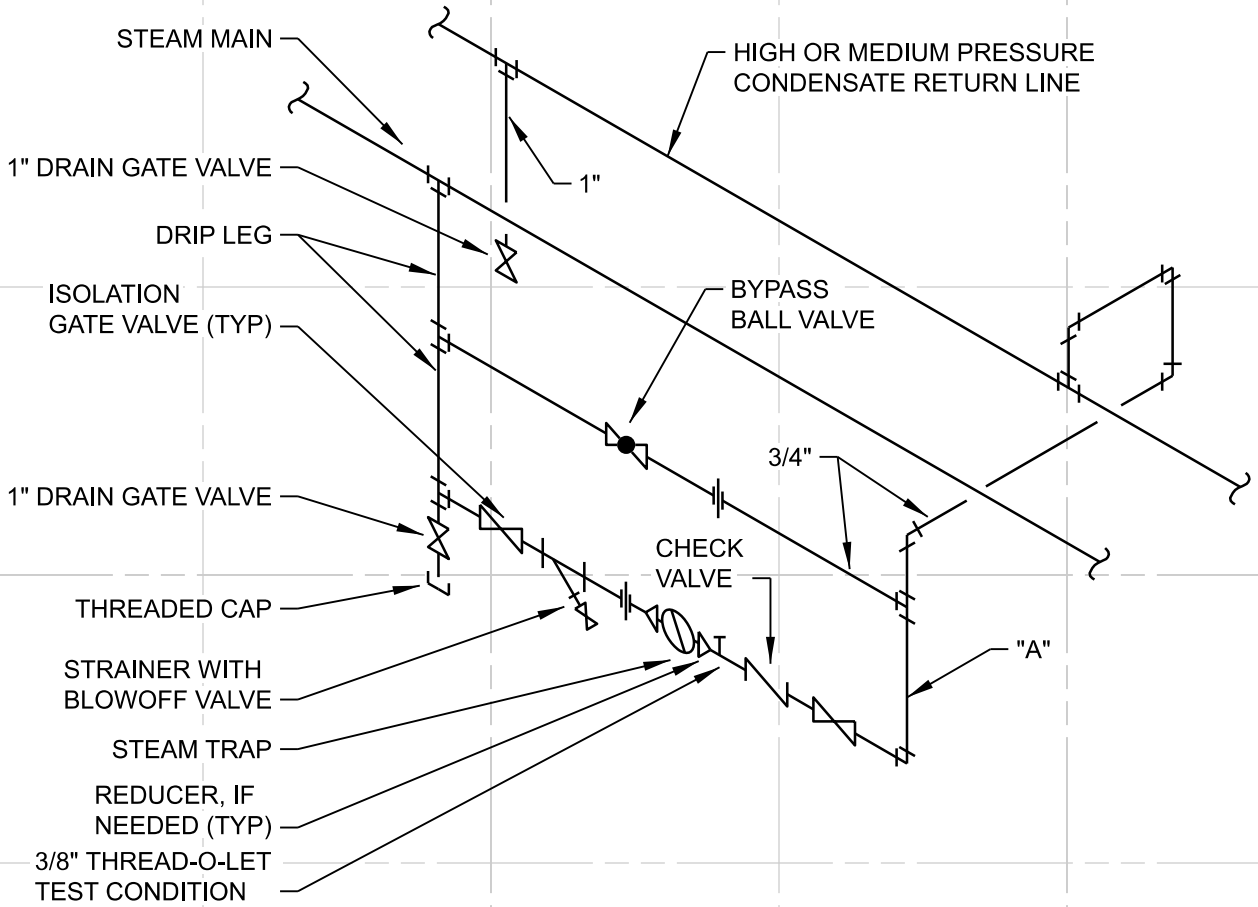
A=OUTSIDE PIPE DIA
B=OUTSIDE INSULATION AND JACKET DIA*
C=MIN SLEEVE INSIDE DIA=B+4
* SEE SPECIFICATIONS FOR INSULATION THICKNESS

NOTES:
1. TRANSITION BOOT (LINER) SHALL BE:
   - 25 MIL THICKNESS (MIN)
   - E.P.D.M. TYPE MEMBRANE
   - COMPATIBLE AT HIGH (220° F) AND LOW (-40° F) TEMPERATURES
   - RESISTANT TO ULTRAVIOLET LIGHT DEGRADATION
2. LINER SEAM SHALL PROVIDE 2" MINIMUM OF OVERLAP. USE SOLVENT CEMENT AS APPROVED BY LINER MANUFACTURER.

A1

DETAIL: VALVE MANHOLE TOP PENETRATION

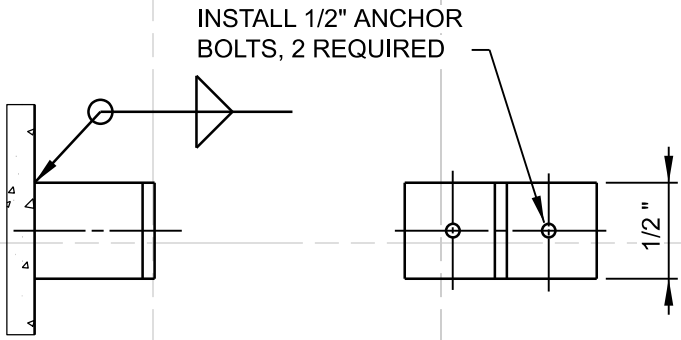
SCALE: NTS



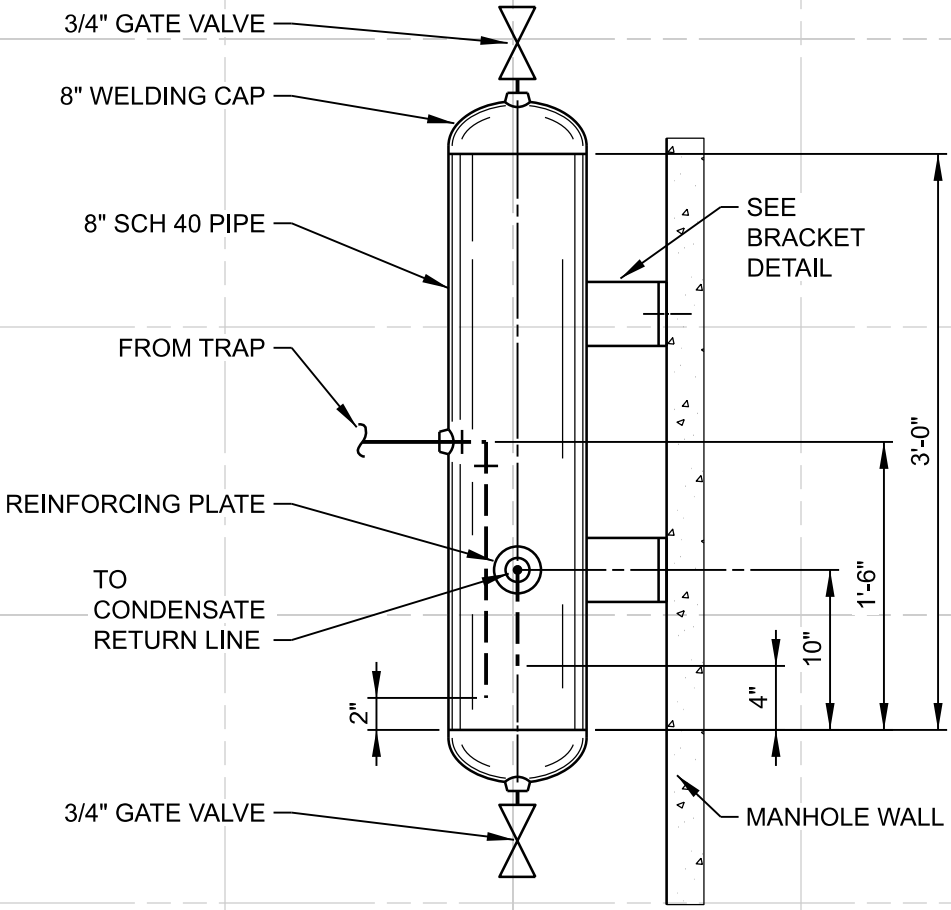
A1

ISOMETRIC: TRAP STATION LAYOUT

SCALE: NTS



BRACKET
(NOT TO SCALE)

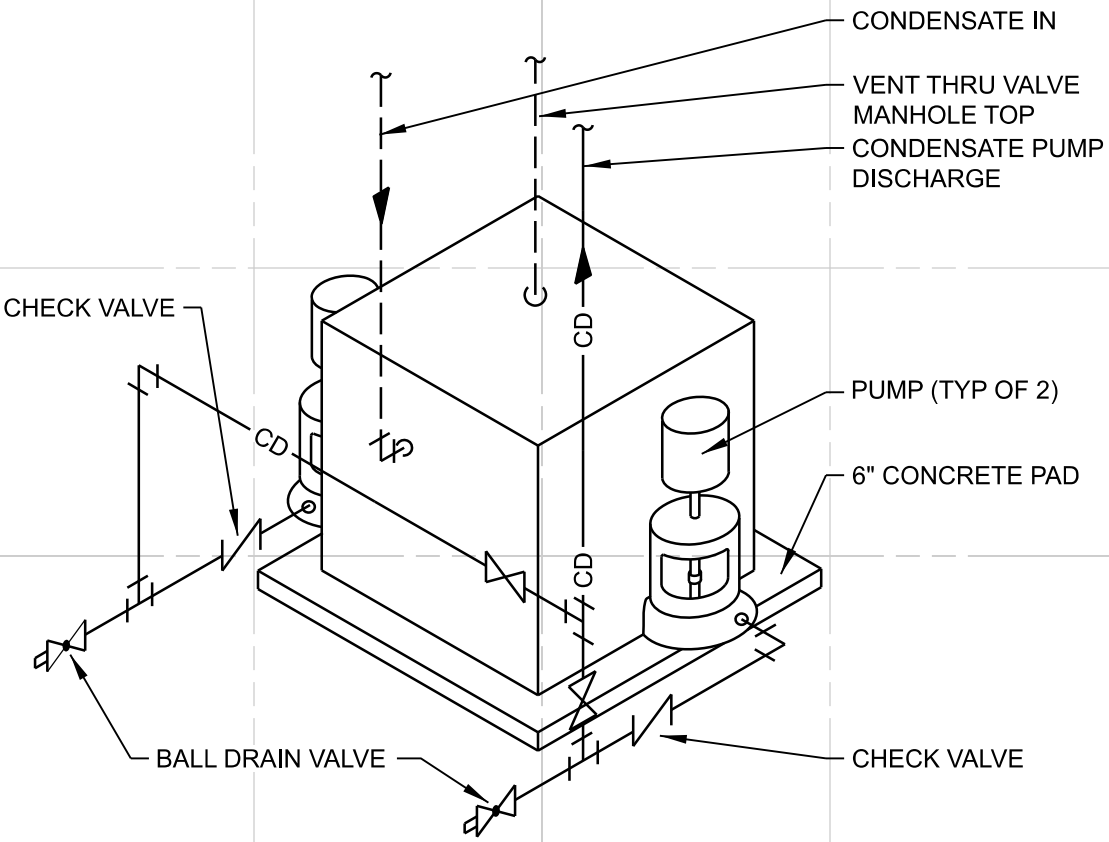


A1

DETAIL: ACCUMULATOR

SCALE: 1"=1'-0"

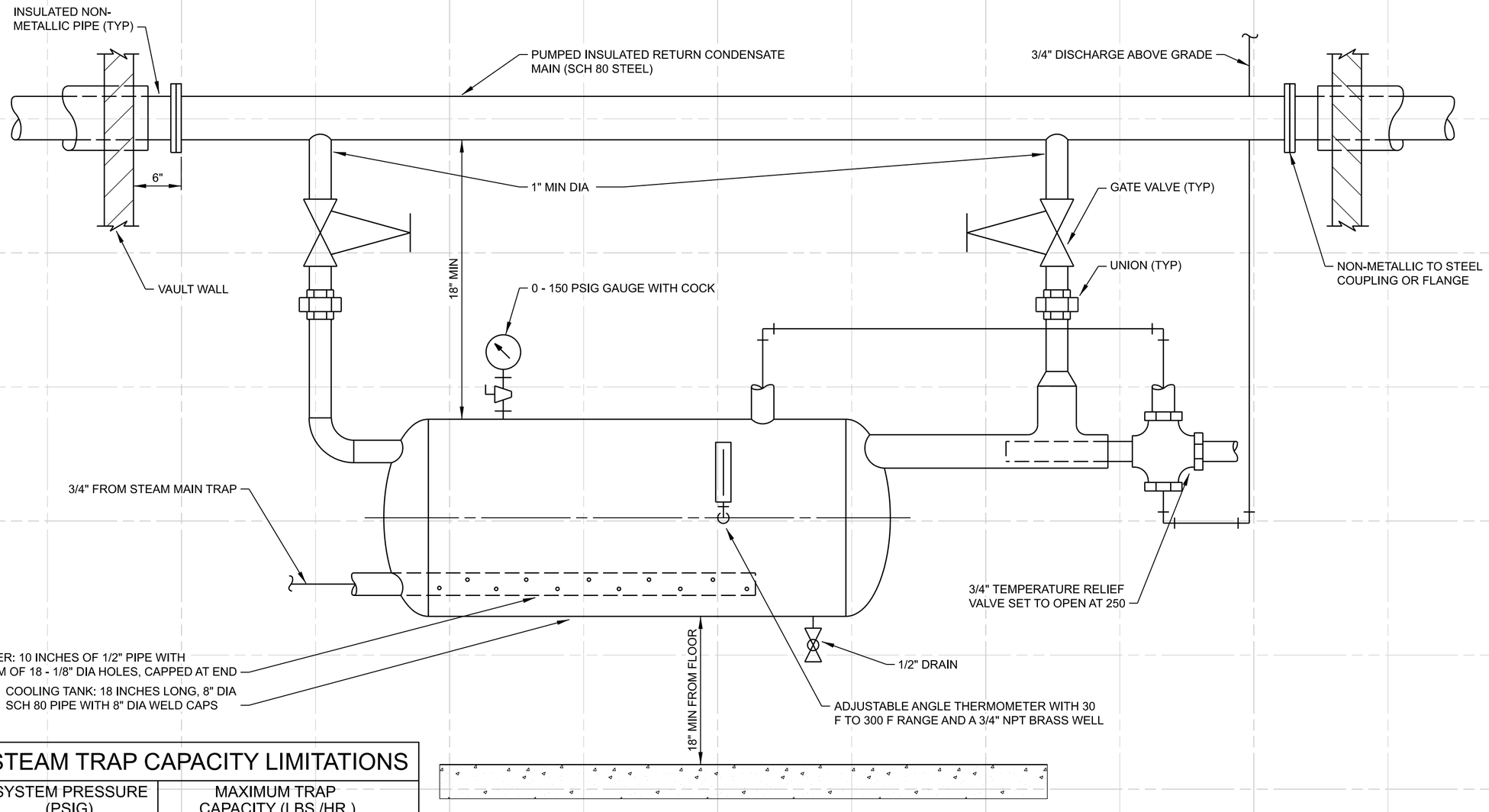
0 6" 1' 2'



ISOMETRIC: DUPLEX CONDENSATE PUMP SET CONNECTION

A1

SCALE: NTS

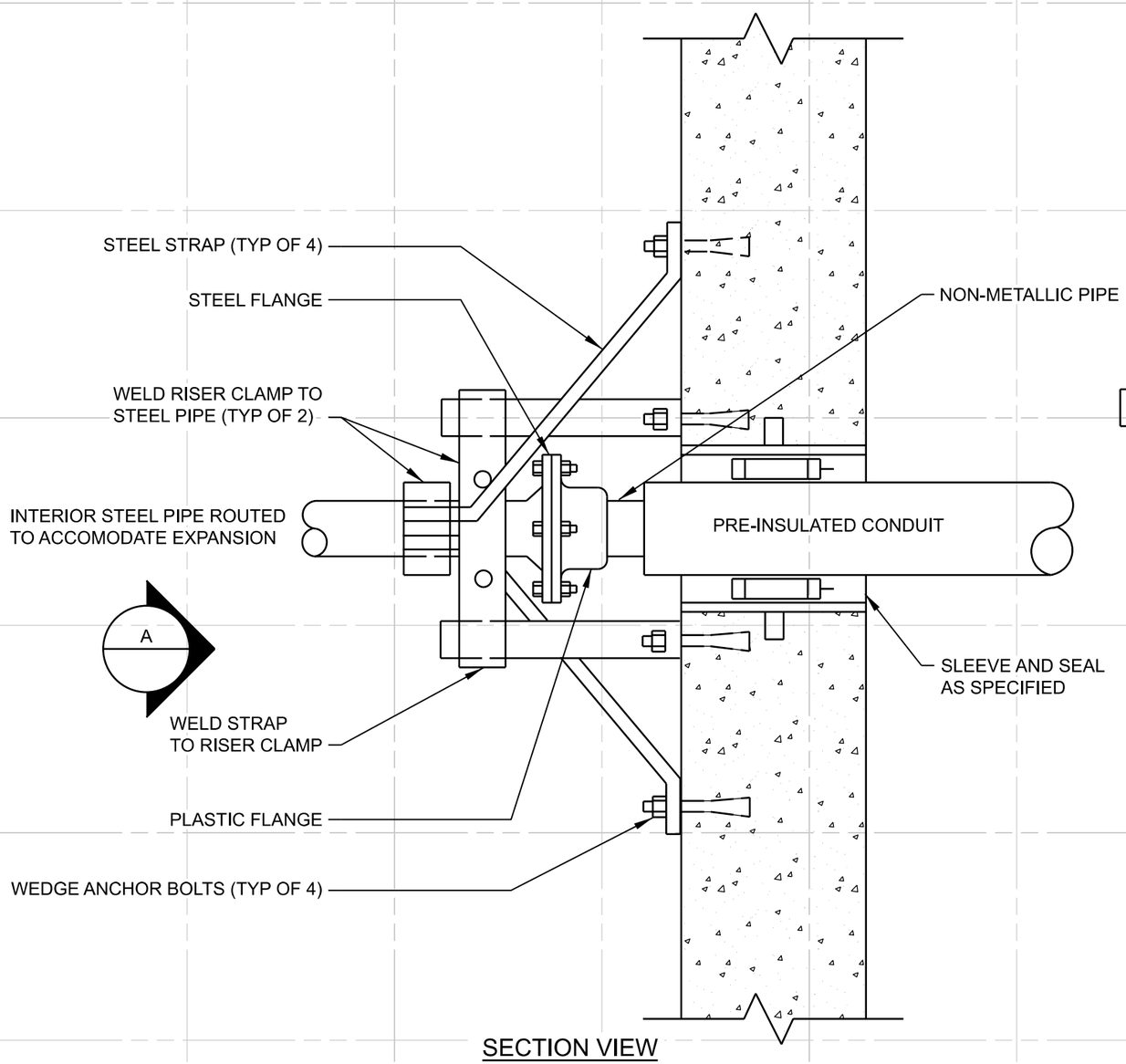


STEAM TRAP CAPACITY LIMITATIONS

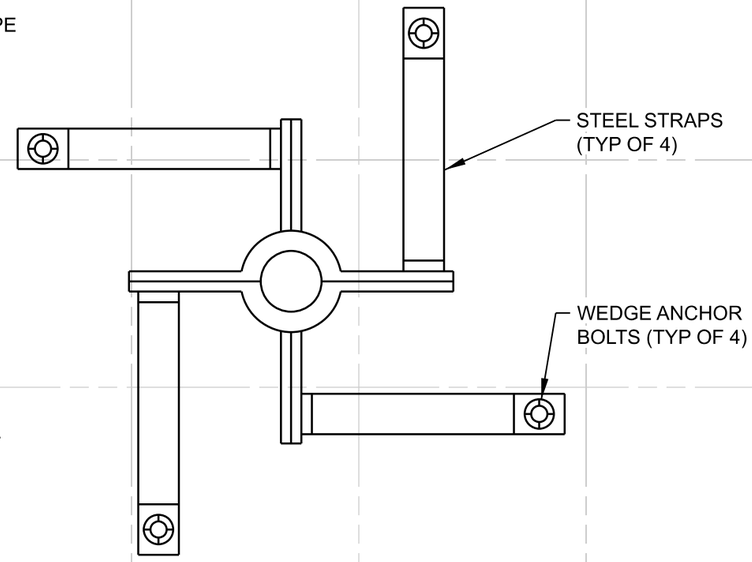
SYSTEM PRESSURE (PSIG)	MAXIMUM TRAP CAPACITY (LBS./HR.)
50	250
100	380
150	500
200	625
300	790
400	960

A1 DETAIL: CONDENSATE COOLING SYSTEM

SCALE: NTS



SECTION VIEW

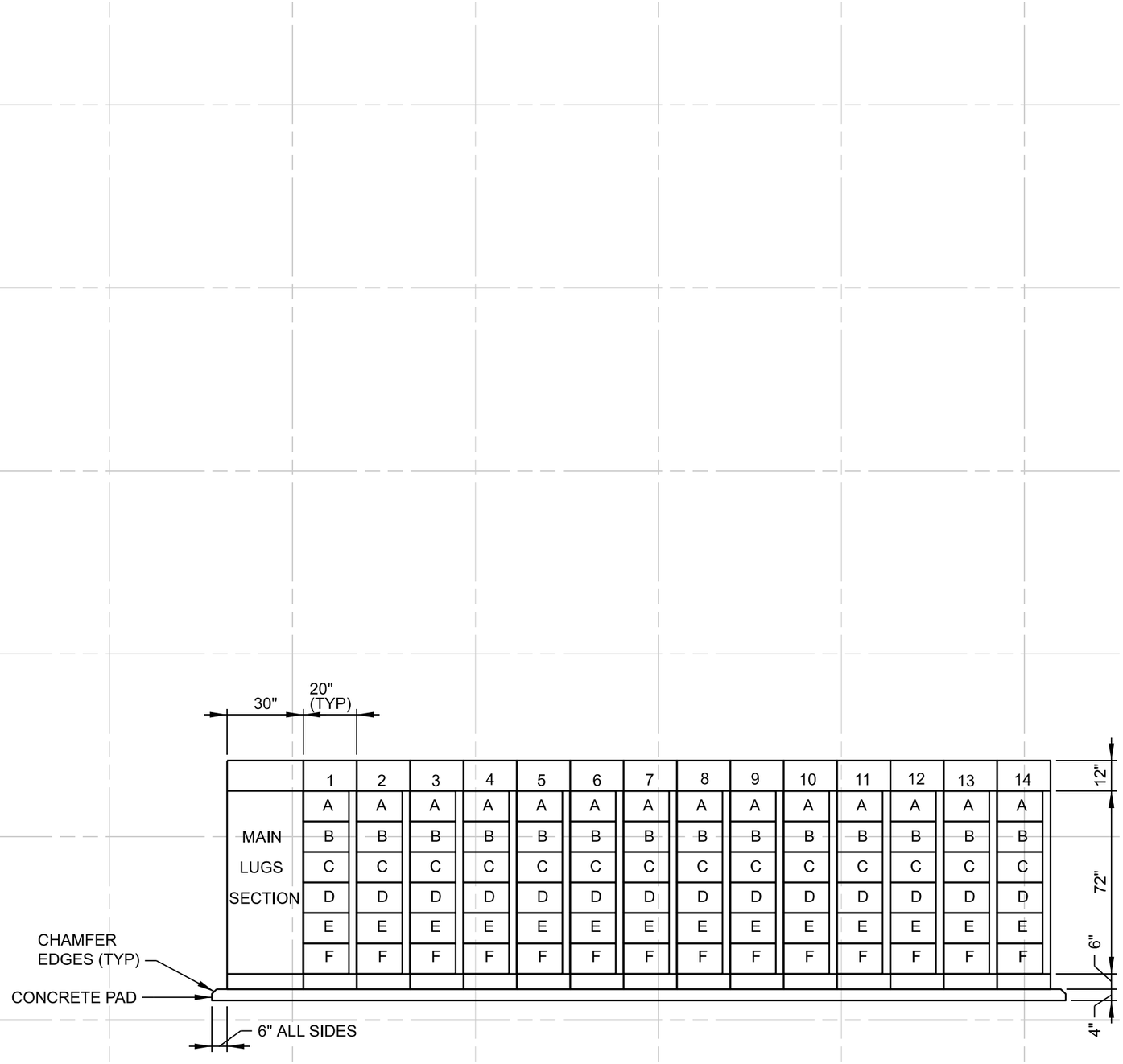


PIPE NOT SHOWN FOR CLARITY

ELEVATION A

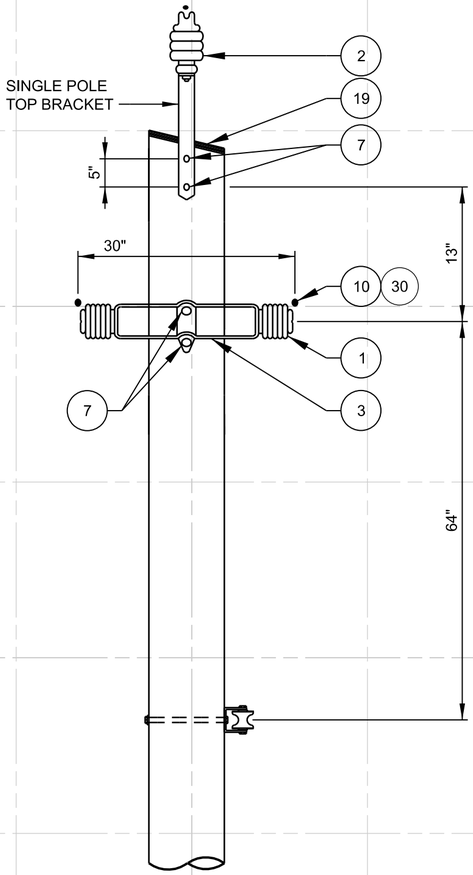
A1 DETAIL: WALL ANCHOR FOR NON-METALLIC PIPING SYSTEMS

SCALE: NTS



A1 ELEVATION: MOTOR CONTROL CENTER (MCC)

SCALE: NTS

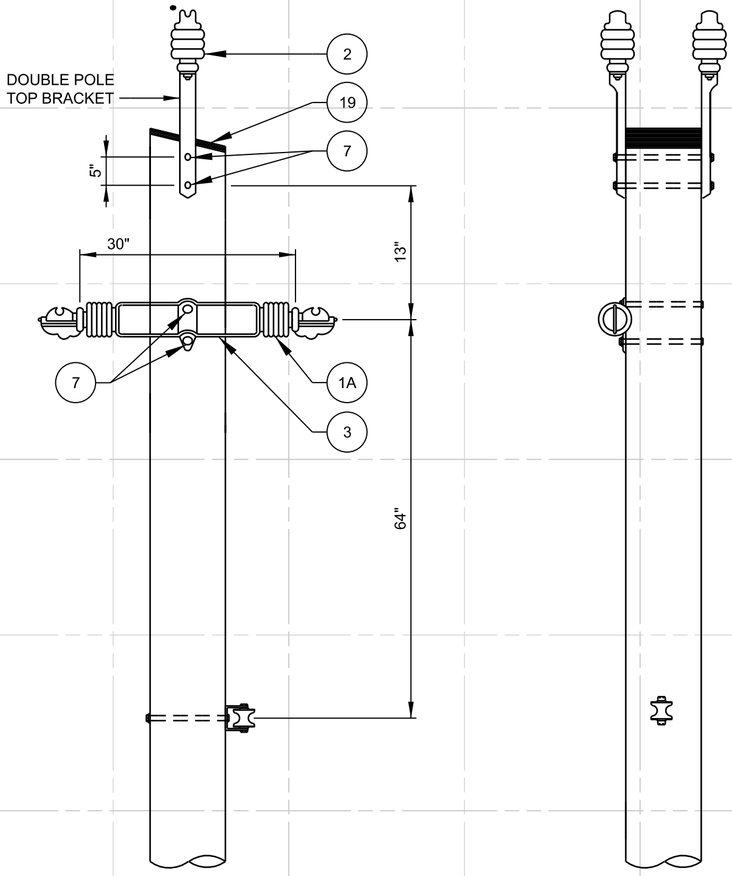


SCHEDULE OF POLE EQUIPMENT	
NO.	DESCRIPTION
1	HORIZONTAL LINE POST INSULATORS, TIE TOP 15/25 KV
2	POLE TOP PIN PRESSED STEEL AND PORCELAIN INSULATOR 15/25 KV
3	TWO POST INSULATOR BRACKET
7	5/8" THRU-BOLT OF REQUIRED LENGTH, WITH LOCKNUTS AND 2 1/4" WASHER
10	PRIMARY CONDUCTOR
19	ALUMINUM POLE CAP 15" IN DIA NAILS IN SIDE ONLY - USE 1 1/4" ALUMINUM NAILS
30	PROVIDE SIDE TIE

NOTE:
GUY WIRES NOT SHOWN

A1 DETAIL: TYPICAL THREE PHASE POLE (0"-9")

SCALE: NTS



FRONT VIEW

SIDE VIEW

NOTE:
A. GUY WIRES NOT SHOWN.

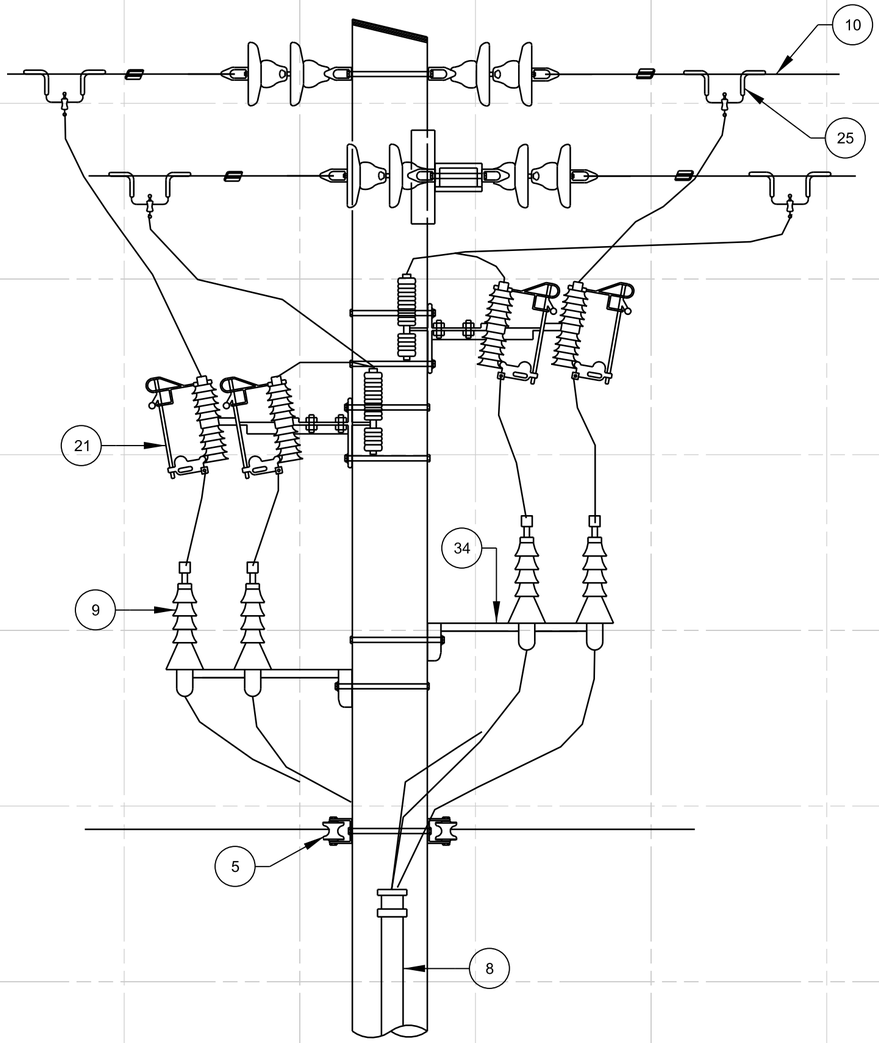
SCHEDULE OF POLE EQUIPMENT	
NO.	DESCRIPTION
1A	HORIZONTAL LINE POST INSULATOR, CLAMP TOP 15/25 KV
2	POLE TOP PIN PRESSED STEEL AND PORCELAIN INSULATOR 15/25 KV
3	TWO POST INSULATOR BRACKET
7	5/8" THRU-BOLT OF REQUIRED LENGTH, WITH LOCKNUTS AND 2 1/4" WASHER
19	ALUMINUM POLE CAP 15" IN DIA NAILS IN SIDE ONLY - USE 1 1/4" ALUMINUM NAILS

NOTE:
1. SCHEDULE ABOVE LISTS THE MAJOR ITEMS OF EQUIPMENT ONLY. ALL OTHER EQUIPMENT NECESSARY FOR PURPOSE INDICATED SHALL BE PROVIDED UNDER THIS CONTRACT.

A1

DETAIL: TYPICAL THREE PHASE POLE (10"-30")

SCALE: NTS

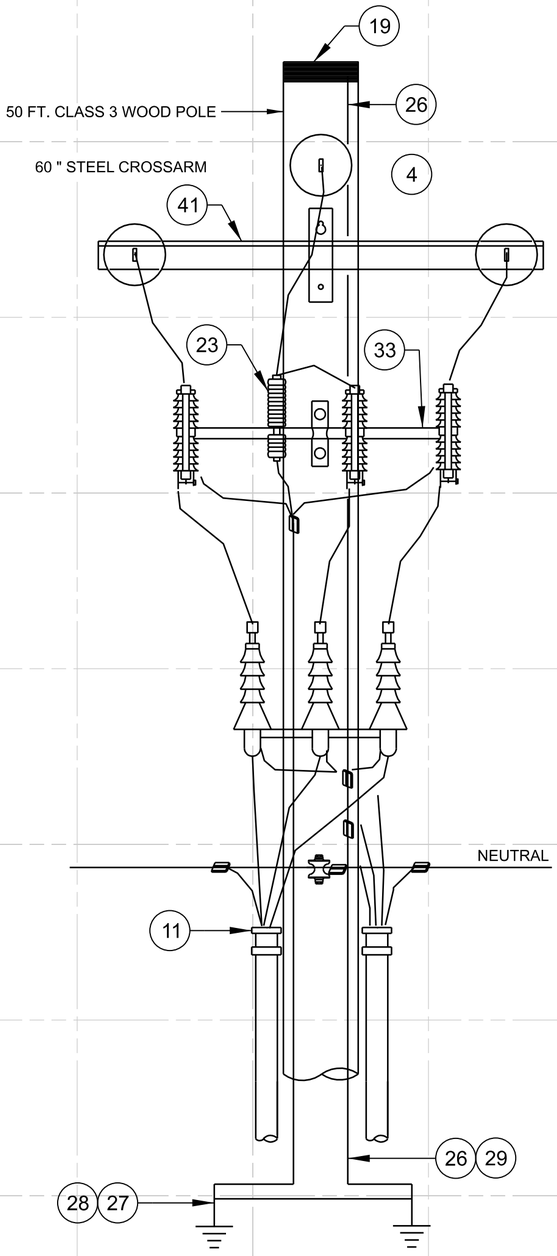


SCHEDULE OF POLE EQUIPMENT	
NO.	DESCRIPTION
5	SECONDARY CLEVIS WITH SPOOL INSULATOR
8	RIGID CONDUIT RISER WITH END FITTING, 5" UNLESS OTHERWISE INDICATED, WITH LENGTH AS REQD.
9	1/C TERMINATION, 15/25 KV
10	PRIMARY CONDUCTOR
21	FUSED CUT OUT 15/25 KV
25	STIRRUP, COMPRESSION TYPE AND HOT LINE CLAMP
34	TRI MOUNT BRACKET FOR 1/C POTHEADS AND LIGHTNING ARRESTORS

NOTE:
1. SCHEDULE ABOVE LISTS THE MAJOR ITEMS OF EQUIPMENT ONLY. ALL OTHER EQUIPMENT NECESSARY FOR PURPOSE INDICATED SHALL BE PROVIDED UNDER THIS CONTRACT.
2. RISER CONDUIT (POLE EQUIPMENT ITEM NO. 8) SHALL BE RIGID STEEL CONDUIT UP TO 9 FEET ABOVE GROUND LEVEL, BUT MAY BE SCHEDULE 40 PVC THEREAFTER.

A1 DETAIL: DOUBLE DEAD END, DOUBLE RISER POLE

SCALE: NTS



SCHEDULE OF POLE EQUIPMENT

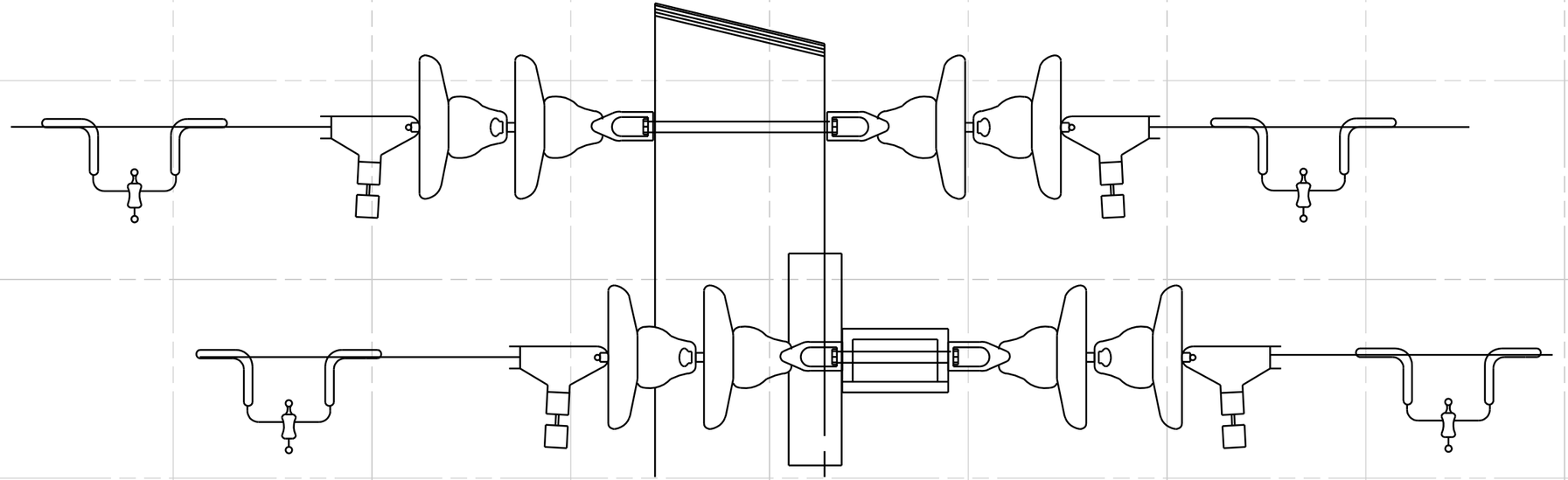
NO.	DESCRIPTION
4	INSULATOR SUSPENSION TYPE 15/25 KV
11	STEEL SEALING BUSHING
19	ALUMINUM POLE CAP 15" IN DIA NAILS IN SIDE ONLY - USE 1 1/4" ALUMINUM NAILS
23	LIGHTNING ARRESTOR 9 KV METAL OXIDE, DISTRIBUTION CLASS
26	NO. 4 SOLID COPPER
27	GROUND ROD
28	GROUND ROD CLAMP
29	HALF ROUND WOOD, PLASTIC OR FIBER MOLDING
33	TRI MOUNT BRACKET FOR FUSED CUT-OUTS AND LIGHTNING ARRESTORS
41	STEEL CROSSARM

NOTE:
1. SCHEDULE ABOVE LISTS THE MAJOR ITEMS OF EQUIPMENT ONLY. ALL OTHER EQUIPMENT NECESSARY FOR PURPOSE INDICATED SHALL BE PROVIDED UNDER THIS CONTRACT.

A1

DETAIL: PRIMARY RISER POLE

SCALE: NTS

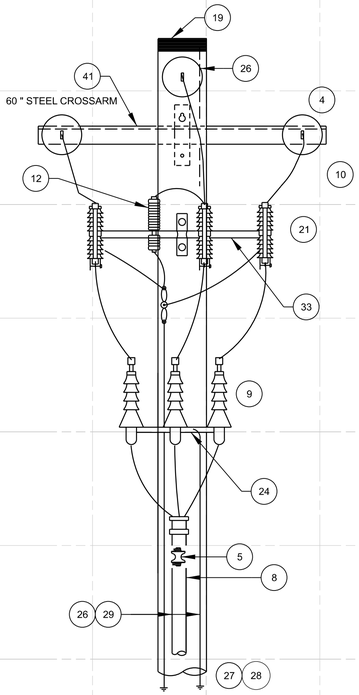


A1

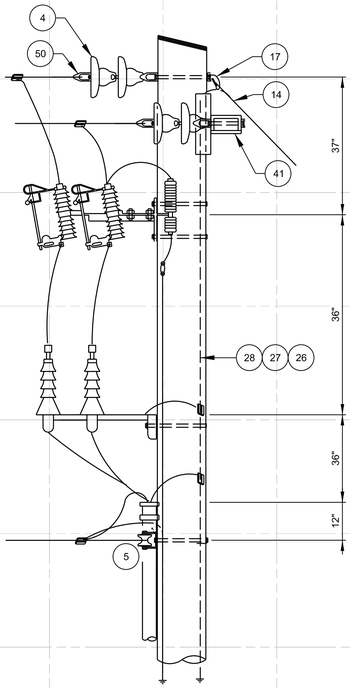
DETAIL: ALTERNATE DEAD-END CLAMPS

SCALE: NTS

Detail D5018E-DT006E



FRONT VIEW



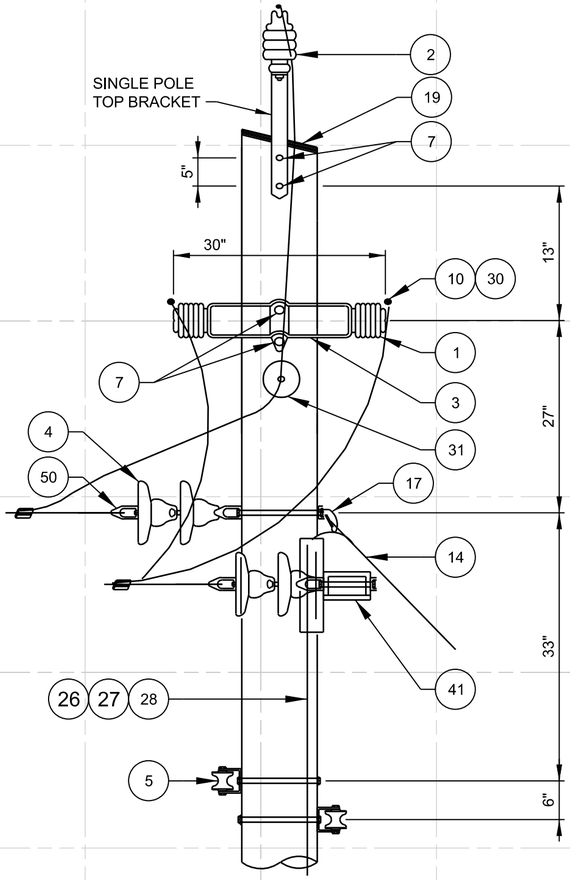
SIDE VIEW

SCHEDULE OF POLE EQUIPMENT	
NO.	DESCRIPTION
4	INSULATOR SUSPENSION TYPE 15/25 KV
5	SECONDARY CLEVIS WITH SPOOL INSULATOR
8	RIGID CONDUIT RISER WITH END FITTING, 5" UNLESS OTHERWISE INDICATED, WITH LENGTH AS REQD.
9	1/C TERMINATION, 15/25 KV
10	PRIMARY CONDUCTOR
12	SCREW LAG 1/2" X 4"
14	DOWN GUY, 7 STRAND STEEL, GALVANIZED HIGH STRENGTH GRADE, AS INDICATED
17	GUY FITTING
19	ALUMINUM POLE CAP 15" IN DIA NAILS IN SIDE ONLY - USE 1 1/4" ALUMINUM NAILS
21	FUSED CUT OUT 15/25 KV
24	POTHEAD MOUNTING BRACKET
26	NO. 4 SOLID COPPER
27	GROUND ROD
28	GROUND ROD CLAMP
29	HALF ROUND WOOD, PLASTIC OR FIBER MOLDING
33	TRI MOUNT BRACKET FOR FUSED CUT-OUTS AND LIGHTNING ARRESTORS
41	STEEL CROSSARM
50	STRAIGHT STRAIN DEADEND CLAMP

NOTE:
1. SCHEDULE ABOVE LISTS THE MAJOR ITEMS OF EQUIPMENT ONLY. ALL OTHER EQUIPMENT NECESSARY FOR PURPOSE INDICATED SHALL BE PROVIDED UNDER THIS CONTRACT.
2. RISER CONDUIT (POLE EQUIPMENT ITEM NO. 8) SHALL BE RIGID STEEL CONDUIT UP TO 9 FEET ABOVE GROUND LEVEL, BUT MAY BE SCHEDULE 40 PVC THEREAFTER.

A1 DETAIL: RISER POLE

SCALE: NTS



NOTE:
GUY WIRES NOT SHOWN

SCHEDULE OF POLE EQUIPMENT

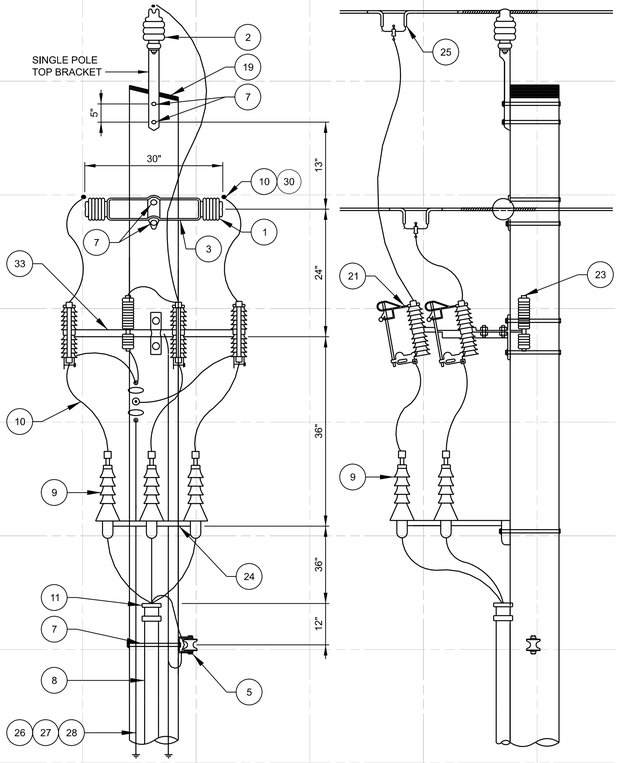
NO.	DESCRIPTION
1	HORIZONTAL LINE POST INSULATORS, TIE TOP 15/25 KV
2	POLE TOP PIN PRESSED STEEL AND PORCELAIN INSULATOR 15/25 KV
3	TWO POST INSULATOR BRACKET
4	INSULATOR SUSPENSION TYPE 15/25 KV
5	SECONDARY CLEVIS WITH SPOOL INSULATOR
7	5/8" THRU-BOLT OF REQUIRED LENGTH, WITH LOCKNUTS AND 2 1/4" WASHER
10	PRIMARY CONDUCTOR
14	DOWN GUY, 7 STRAND STEEL, GALVANIZED HIGH STRENGTH GRADE, AS INDICATED
17	GUY FITTING
19	ALUMINUM POLE CAP 15" IN DIA NAILS IN SIDE ONLY - USE 1 1/4" ALUMINUM NAILS
26	NO. 4 SOLID COPPER
27	GROUND ROD
28	GROUND ROD CLAMP
30	PROVIDE SIDE TIE
31	PORCELAIN STANDOFF INSULATOR, 15/25 KV
41	STEEL CROSSARM
50	STRAIGHT STRAIN DEADEND CLAMP

NOTE:
1. SCHEDULE ABOVE LISTS THE MAJOR ITEMS OF EQUIPMENT ONLY. ALL OTHER EQUIPMENT NECESSARY FOR PURPOSE INDICATED SHALL BE PROVIDED UNDER THIS CONTRACT.

A1

DETAIL: TYPICAL STRAIGHT THROUGH WITH THREE PHASE TAKE-OFF

SCALE: NTS



FRONT VIEW

SIDE VIEW

NOTE:
GUY WIRES NOT SHOWN

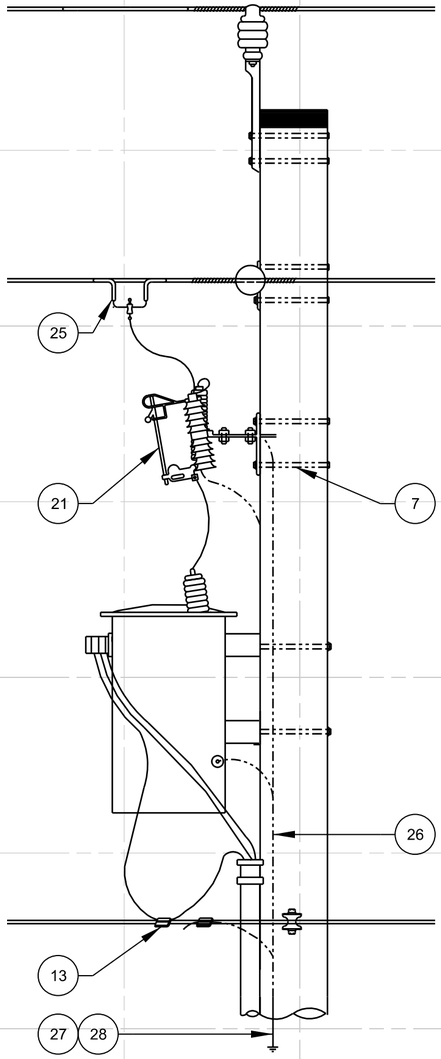
SCHEDULE OF POLE EQUIPMENT

NO.	DESCRIPTION
1	HORIZONTAL LINE POST INSULATORS, TIE TOP 15/25 KV
2	POLE TOP PIN PRESSED STEEL AND PORCELAIN INSULATOR 15/25 KV
3	TWO POST INSULATOR BRACKET
5	SECONDARY CLEVIS WITH SPOOL INSULATOR
7	5/8" THRU-BOLT OF REQUIRED LENGTH, WITH LOCKNUTS AND 2 1/4" WASHER
8	RIGID CONDUIT RISER WITH END FITTING, 5" UNLESS OTHERWISE INDICATED, WITH LENGTH AS REQD.
9	1/C TERMINATION, 15/25 KV
10	PRIMARY CONDUCTOR
11	STEEL SEALING BUSHING
19	ALUMINUM POLE CAP 15" IN DIA NAILS IN SIDE ONLY - USE 1 1/4" ALUMINUM NAILS
21	FUSED CUT OUT 15/25 KV
23	LIGHTNING ARRESTOR 9 KV METAL OXIDE, DISTRIBUTION CLASS
24	POTHEAD MOUNTING BRACKET
25	STIRRUP, COMPRESSION TYPE AND HOT LINE CLAMP
26	NO. 4 SOLID COPPER
27	GROUND ROD
28	GROUND ROD CLAMP
30	PROVIDE SIDE TIE
33	TRI MOUNT BRACKET FOR FUSED CUT-OUTS AND LIGHTNING ARRESTORS

NOTE:
1. SCHEDULE ABOVE LISTS THE MAJOR ITEMS OF EQUIPMENT ONLY. ALL OTHER EQUIPMENT NECESSARY FOR PURPOSE INDICATED SHALL BE PROVIDED UNDER THIS CONTRACT.
2. RISER CONDUIT (POLE EQUIPMENT ITEM NO. 8) SHALL BE RIGID STEEL CONDUIT UP TO 9 FEET ABOVE GROUND LEVEL, BUT MAY BE SCHEDULE 40 PVC THEREAFTER.

A1 DETAIL: TANGENT RISER POLE

SCALE: NTS



SIDE VIEW

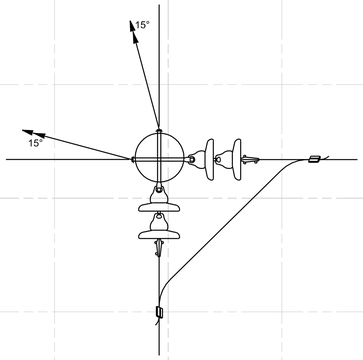
SCHEDULE OF POLE EQUIPMENT	
NO.	DESCRIPTION
7	5/8" THRU-BOLT OF REQUIRED LENGTH, WITH LOCKNUTS AND 2 1/4" WASHER
13	COMPRESSION CONNECTOR
21	FUSED CUT OUT 15/25 KV
25	STIRRUP, COMPRESSION TYPE AND HOT LINE CLAMP
26	NO. 4 SOLID COPPER
27	GROUND ROD
28	GROUND ROD CLAMP

NOTE:
1. SCHEDULE ABOVE LISTS THE MAJOR ITEMS OF EQUIPMENT ONLY. ALL OTHER EQUIPMENT NECESSARY FOR PURPOSE INDICATED SHALL BE PROVIDED UNDER THIS CONTRACT.

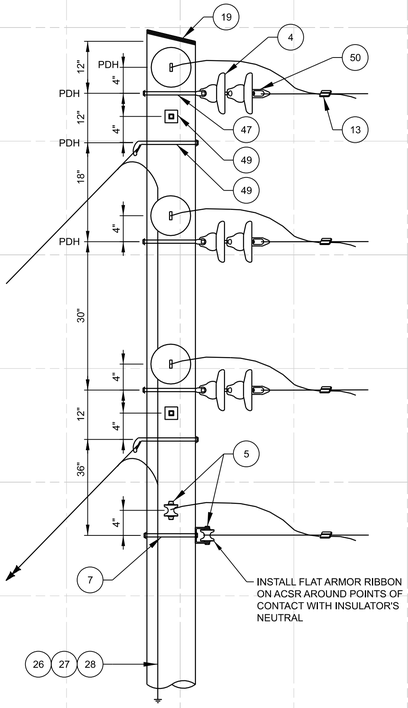
A1

DETAIL: OVERHEAD PRIMARY, UNDERGROUND SECONDARY TRANSFORMER POLE

SCALE: NTS



PLAN



ELEVATION

NOTE:
USE PREDRILLED HOLES WHERE MARKED PDH. DRILL OTHER HOLES TO MISS PREDRILLED HOLES AT RIGHT ANGLES.

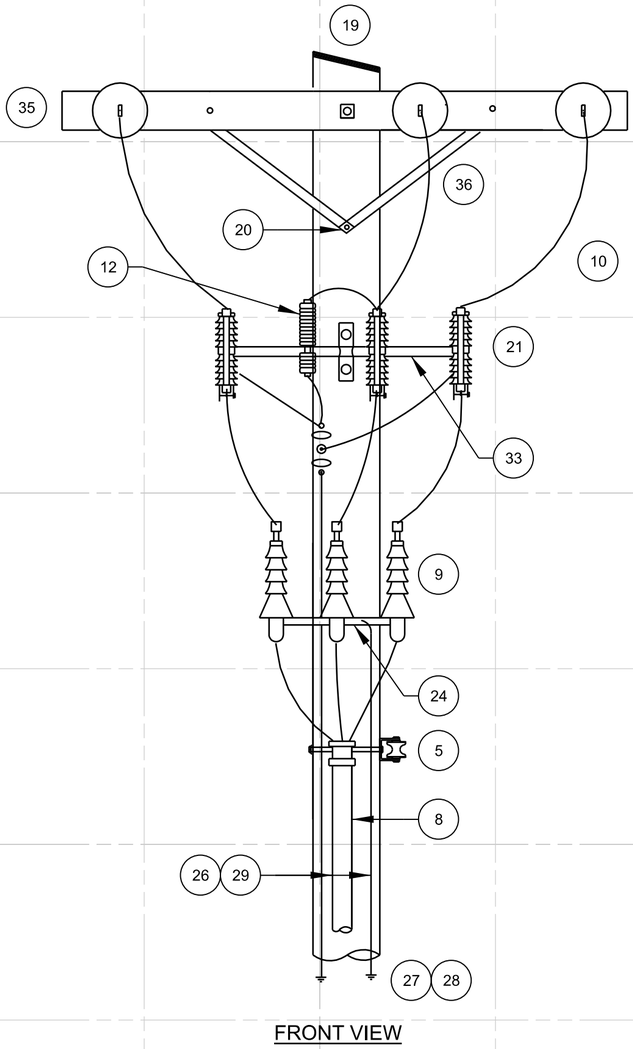
SCHEDULE OF POLE EQUIPMENT

NO.	DESCRIPTION
4	INSULATOR SUSPENSION TYPE 15/25 KV
5	SECONDARY CLEVIS WITH SPOOL INSULATOR
7	5/8" THRU-BOLT OF REQUIRED LENGTH, WITH LOCKNUTS AND 2 1/4" WASHER
13	COMPRESSION CONNECTOR
19	ALUMINUM POLE CAP 15" IN DIA NAILS IN SIDE ONLY - USE 1 1/4" ALUMINUM NAILS
26	NO. 4 SOLID COPPER
27	GROUND ROD
28	GROUND ROD CLAMP
47	5/8" CLEVIS BOLT OF REQUIRED LENGTH, WITH COTTER PIN AND HEX NUT
49	5/8" THIMBLE BOLT OF REQUIRED LENGTH, WITH WASHER AND NUT
50	STRAIGHT STRAIN DEADEND CLAMP

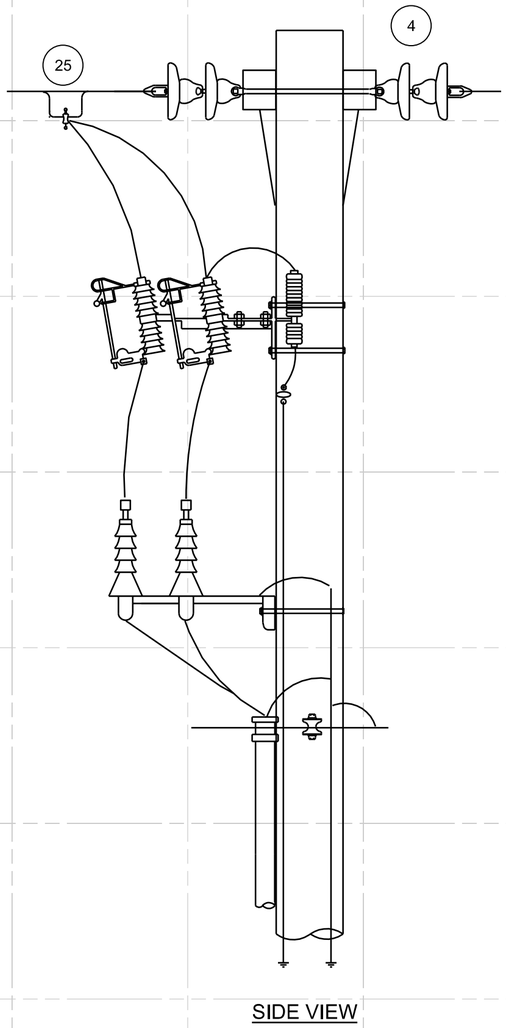
NOTE:
1. SCHEDULE ABOVE LISTS THE MAJOR ITEMS OF EQUIPMENT ONLY. ALL OTHER EQUIPMENT NECESSARY FOR PURPOSE INDICATED SHALL BE PROVIDED UNDER THIS CONTRACT.

A1 DETAIL: VERTICAL THREE PHASE DEAD END POLE

SCALE: NTS



FRONT VIEW



SIDE VIEW

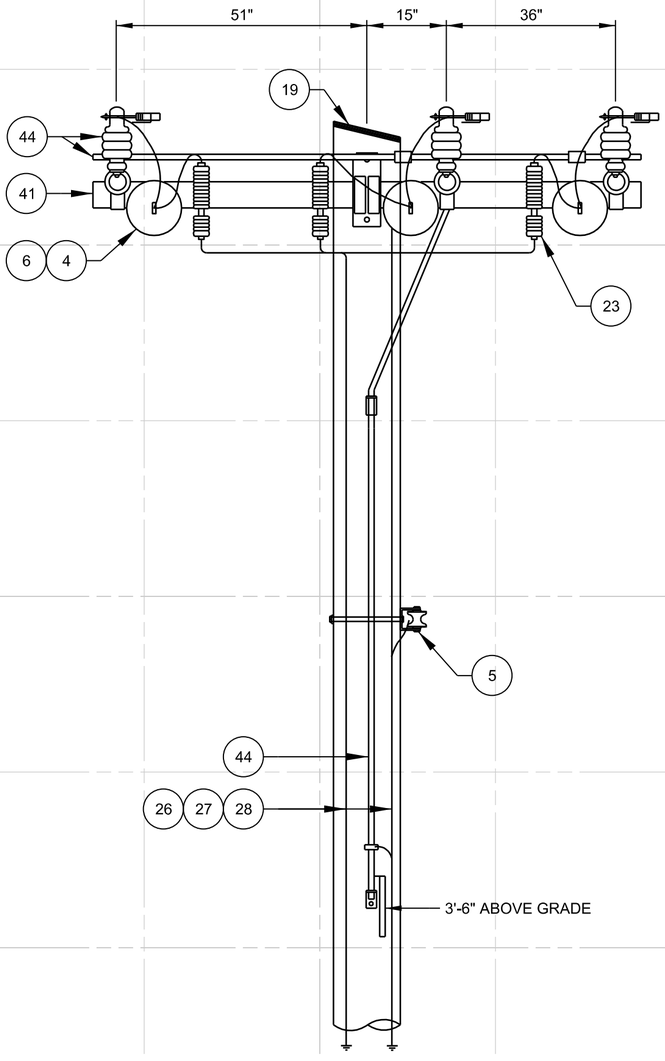
SCHEDULE OF POLE EQUIPMENT

NO.	DESCRIPTION
4	INSULATOR SUSPENSION TYPE 15/25 KV
5	SECONDARY CLEVIS WITH SPOOL INSULATOR
8	RIGID CONDUIT RISER WITH END FITTING, 5" UNLESS OTHERWISE INDICATED, WITH LENGTH AS REQD.
9	1/C TERMINATION, 15/25 KV
10	PRIMARY CONDUCTOR
12	SCREW LAG 1/2" X 4"
19	ALUMINUM POLE CAP 15" IN DIA NAILS IN SIDE ONLY - USE 1 1/4" ALUMINUM NAILS
20	LAG BOLT 1/4"
21	FUSED CUT OUT 15/25 KV
24	POTHEAD MOUNTING BRACKET
25	STIRRUP, COMPRESSION TYPE AND HOT LINE CLAMP
26	NO. 4 SOLID COPPER
27	GROUND ROD
28	GROUND ROD CLAMP
29	HALF ROUND WOOD, PLASTIC OR FIBER MOLDING
33	TRI MOUNT BRACKET FOR FUSED CUT-OUTS AND LIGHTNING ARRESTORS
35	WOOD CROSSARM - TREATED - DRILLED AS REQUIRED
36	CROSSARM BRACE

NOTE:
1. SCHEDULE ABOVE LISTS THE MAJOR ITEMS OF EQUIPMENT ONLY. ALL OTHER EQUIPMENT NECESSARY FOR PURPOSE INDICATED SHALL BE PROVIDED UNDER THIS CONTRACT.
2. RISER CONDUIT (POLE EQUIPMENT ITEM NO. 8) SHALL BE RIGID STEEL CONDUIT UP TO 9 FEET ABOVE GROUND LEVEL, BUT MAY BE SCHEDULE 40 PVC THEREAFTER.

A1 DETAIL: RISER POLE

SCALE: NTS



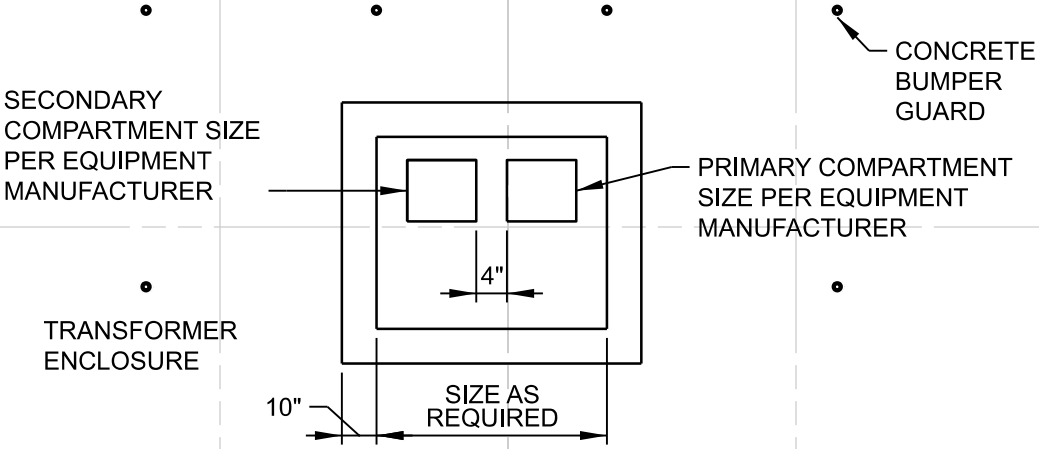
SCHEDULE OF POLE EQUIPMENT

NO.	DESCRIPTION
4	INSULATOR SUSPENSION TYPE 15/25 KV
5	SECONDARY CLEVIS WITH SPOOL INSULATOR
6	STRAIN CLAMP
19	ALUMINUM POLE CAP 15" IN DIA NAILS IN SIDE ONLY - USE 1 1/4" ALUMINUM NAILS
23	LIGHTNING ARRESTOR 9 KV METAL OXIDE, DISTRIBUTION CLASS
26	NO. 4 SOLID COPPER
27	GROUND ROD
28	GROUND ROD CLAMP
41	STEEL CROSSARM
44	GANG OPERATED LOAD BREAK (GOLB) SWITCH, 15/25 KV, 600 A

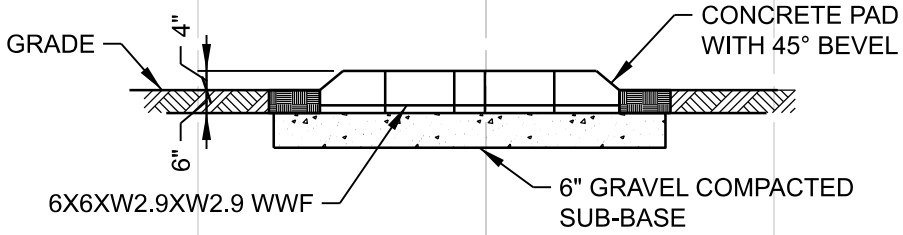
NOTE:
1. SCHEDULE ABOVE LISTS THE MAJOR ITEMS OF EQUIPMENT ONLY. ALL OTHER EQUIPMENT NECESSARY FOR PURPOSE INDICATED SHALL BE PROVIDED UNDER THIS CONTRACT.

A1 DETAIL: THREE PHASE LINE POLE

SCALE: NTS



PLAN

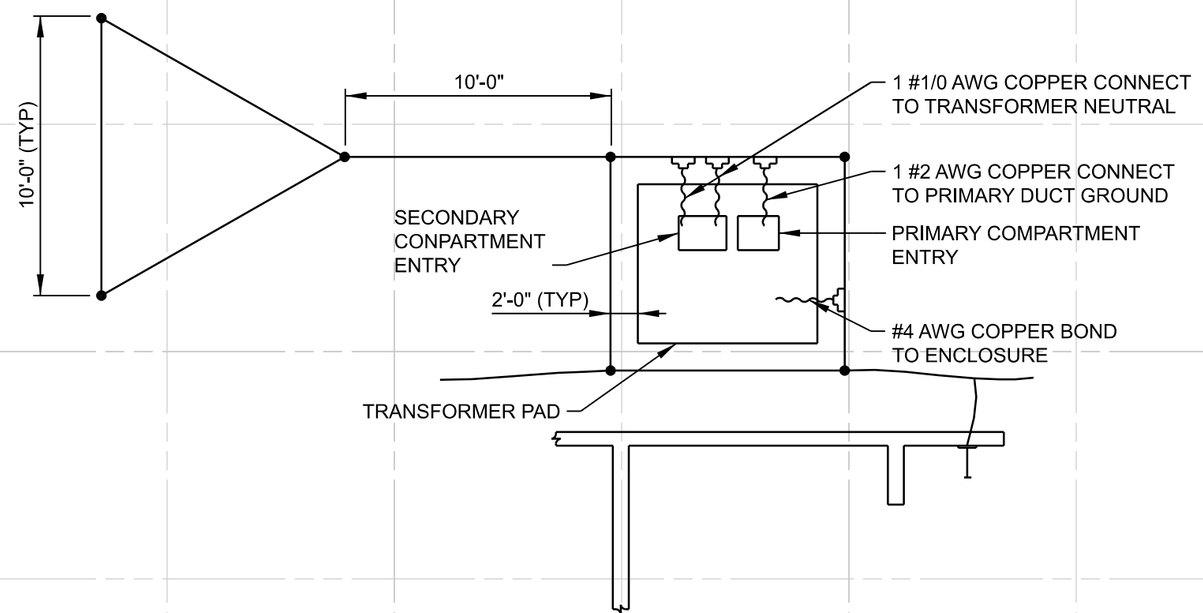


ELEVATION

A1

DETAIL: TRANSFORMER PAD

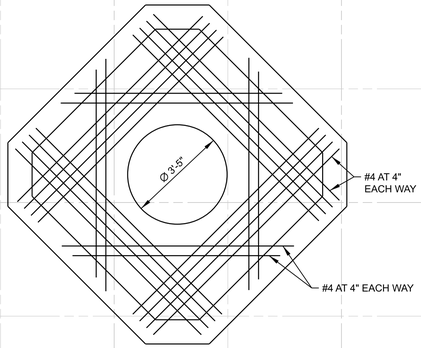
SCALE: NTS



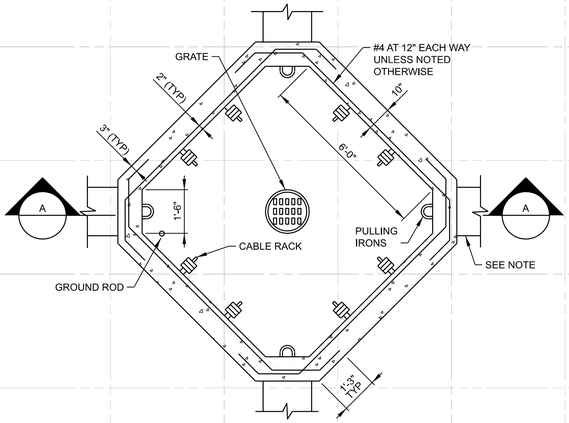
A1

DETAIL: GROUNDING AT THE PAD MOUNTED TRANSFORMER

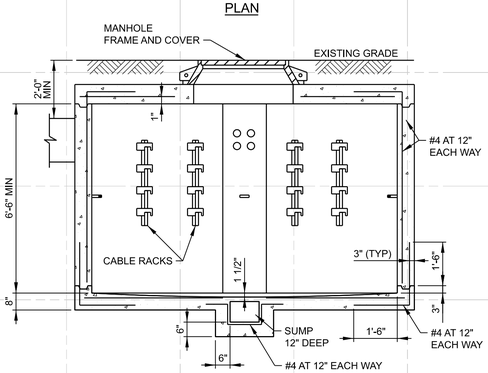
SCALE: NTS



ROOF PLAN TOP REINFORCEMENT



PLAN

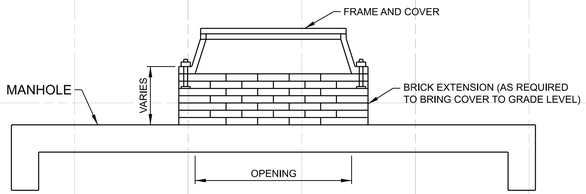


SECTION A

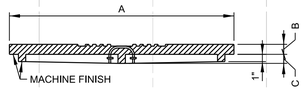
NOTE:
THICKNESS OF CONCRETE: MANHOLE WALLS, TOP AND BOTTOM 10", SUMP WALLS AND BOTTOM 8"

A1 DETAIL: ELECTRIC MANHOLE

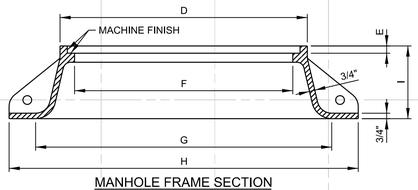
SCALE: NTS



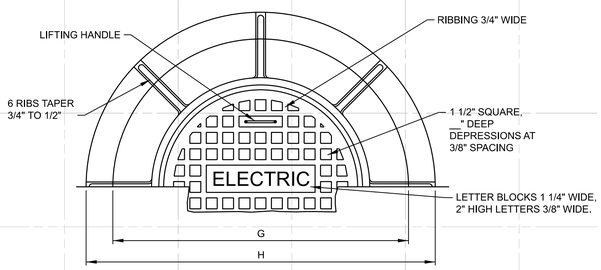
MANHOLE NECK DETAIL



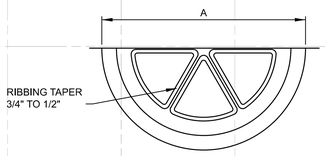
MANHOLE COVER SECTION



MANHOLE FRAME SECTION



MANHOLE TOP



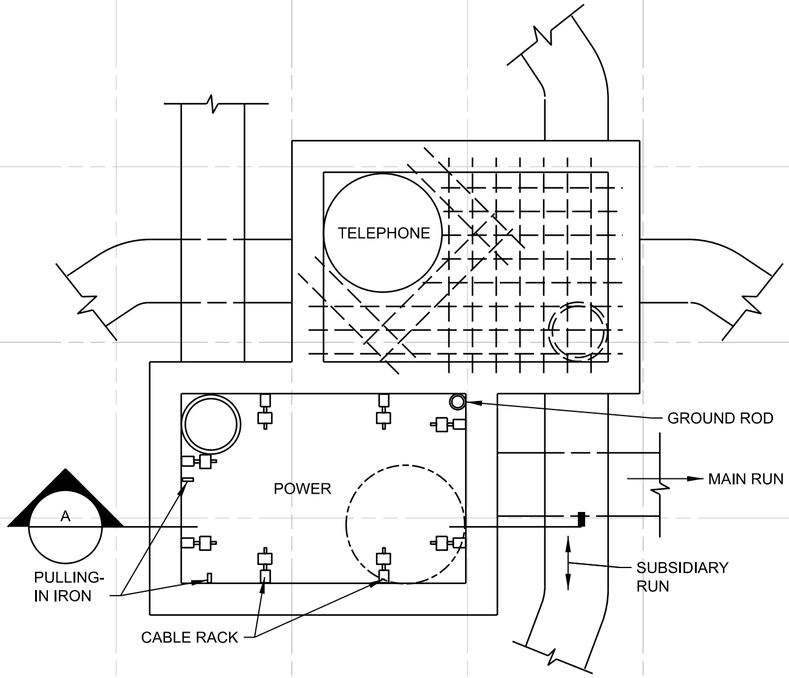
MANHOLE COVER BOTTOM

	A	B	C	D	E	F	G	H	I
MANHOLE	31-7/8	2	3-1/4	32	2	30	41	49	10

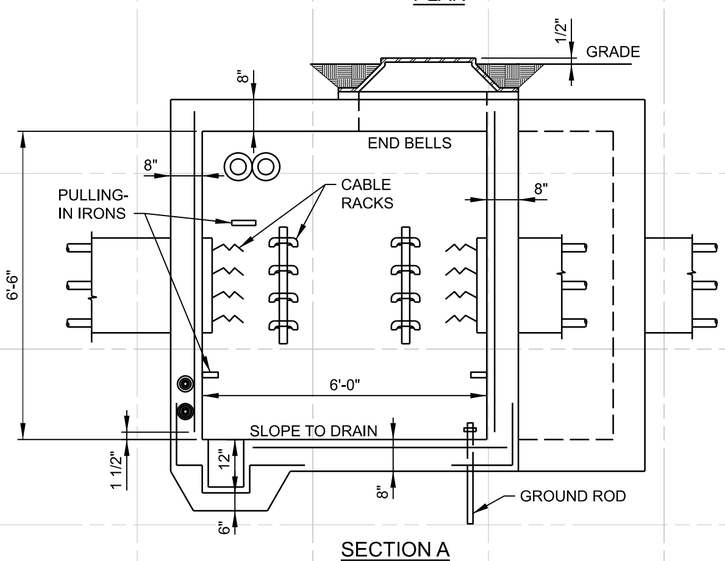
NOTE:
1. PROVIDE A DUCTBANK WINDOW (AS DETAILED) ON EACH UNUSED DUCT ENTRANCE FACE.
2. THE MANHOLE COVER INSCRIPTION SHALL READ "TELEPHONE" INSTEAD OF "ELECTRIC" ON ALL TELEPHONE MANHOLES.
3. FRAME AND COVER DIMENSIONS SHALL BE AS TABULATED BELOW (IN INCHES) UNLESS OTHERWISE INDICATED.
4. WHERE NOTED, PROVIDE #4/O BARE COPPER CONDUCTOR AROUND MANHOLE PERIMETER, AND BOND TO ALL EXPOSED HARDWARE AND CABLE SHIELDS.

A1 DETAIL: MANHOLE FRAME AND COVER

SCALE: NTS



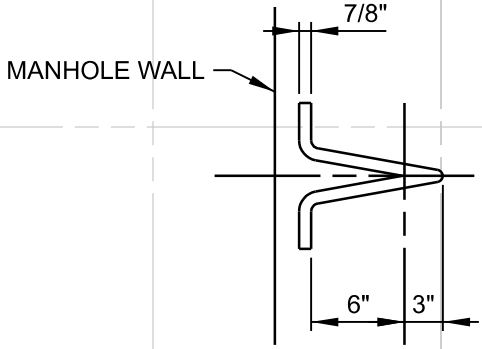
PLAN



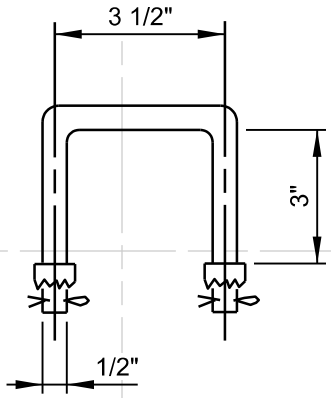
SECTION A

A1 DETAIL: COMBINATION MANHOLE

SCALE: NTS

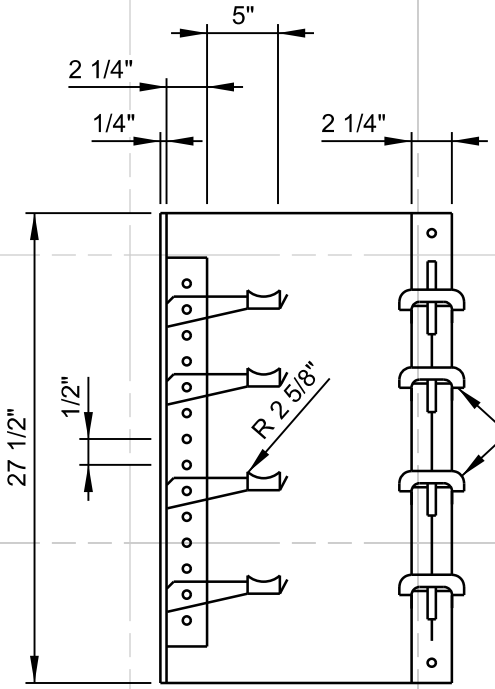


PULLING IRON DETAIL



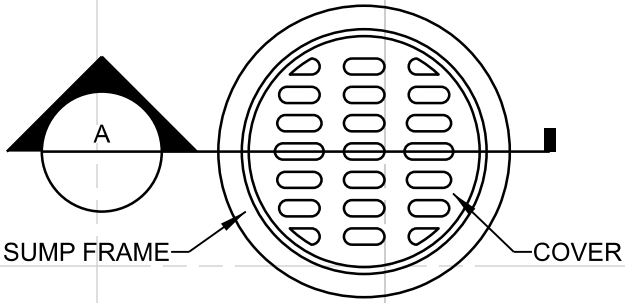
(2 HANDLES REQUIRED)

COVER HANDLE

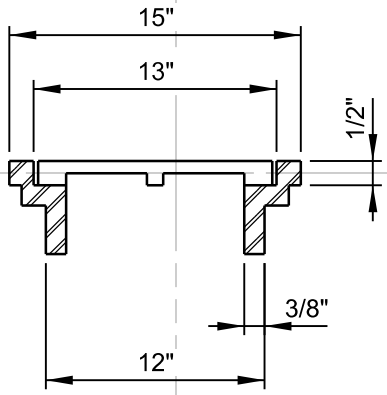


NOTE:
FASTEN BY MEANS OF 2 1/2"x1/2"
BOLTS AND EXPANSION SHIELDS

CABLE RACK



PLAN



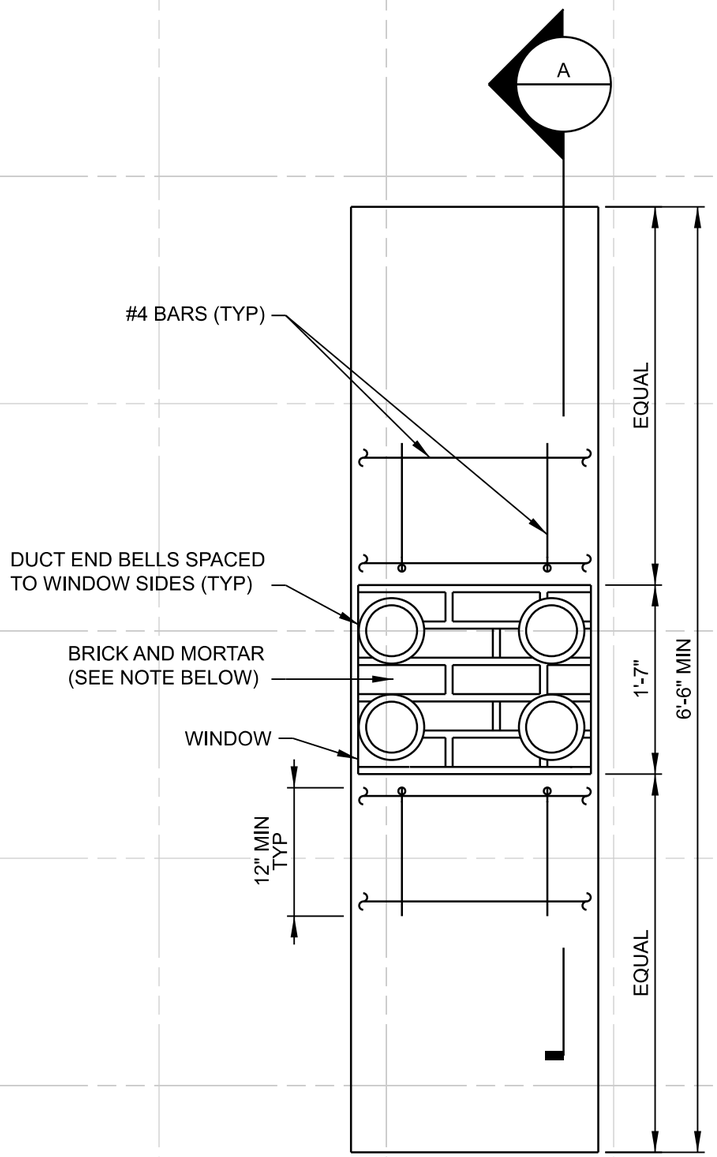
SECTION A

TYPICAL SUMP FRAME
AND COVER DETAIL

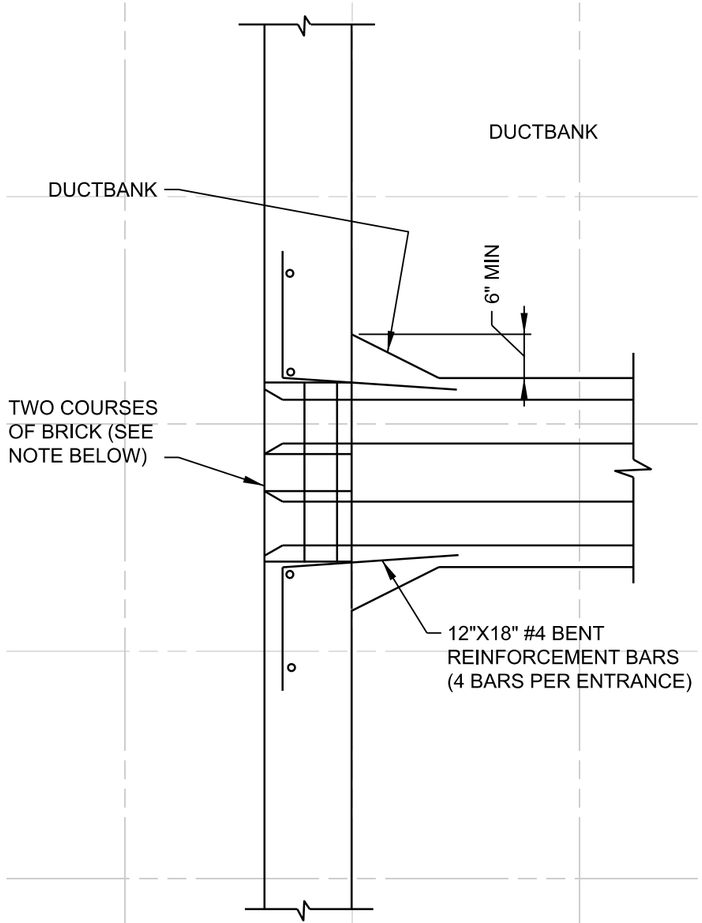
A1

DETAIL: MANHOLE ACCESSORIES

SCALE: NTS



PLAN



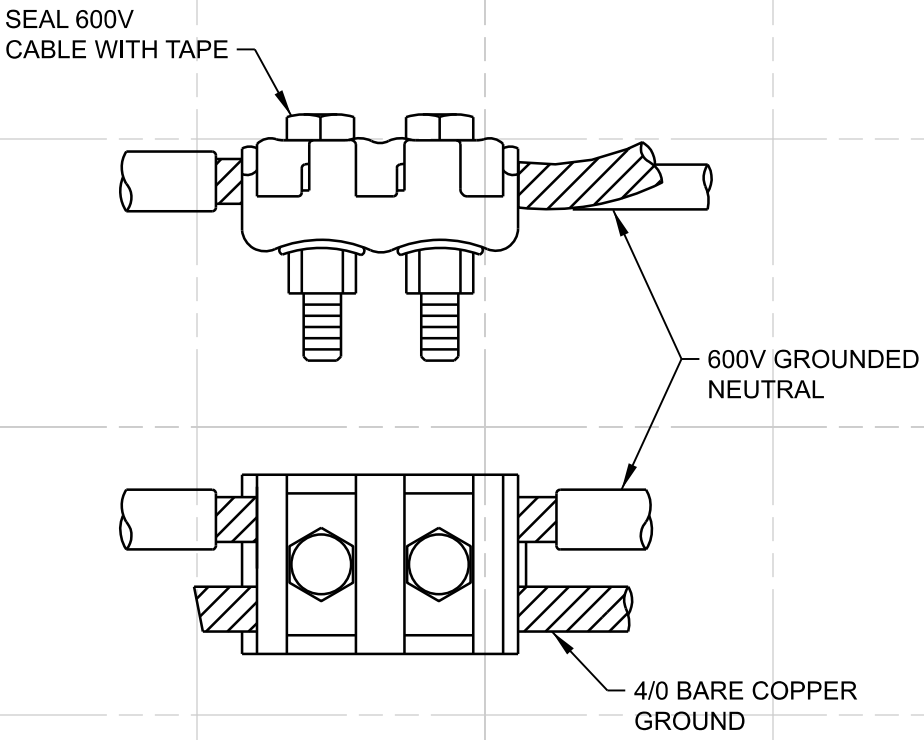
SECTION A

NOTE:
WINDOW MAY BE POURED SOLID WITH DUCT BANK IN LIEU OF BRICK AND MORTAR (CONTRACTOR'S OPTION)

A1

DETAIL: DUCTBANK WINDOW

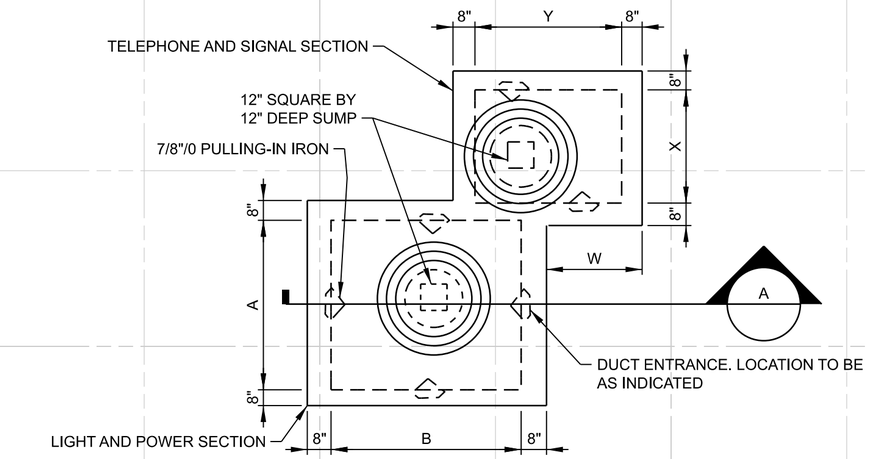
SCALE: NTS



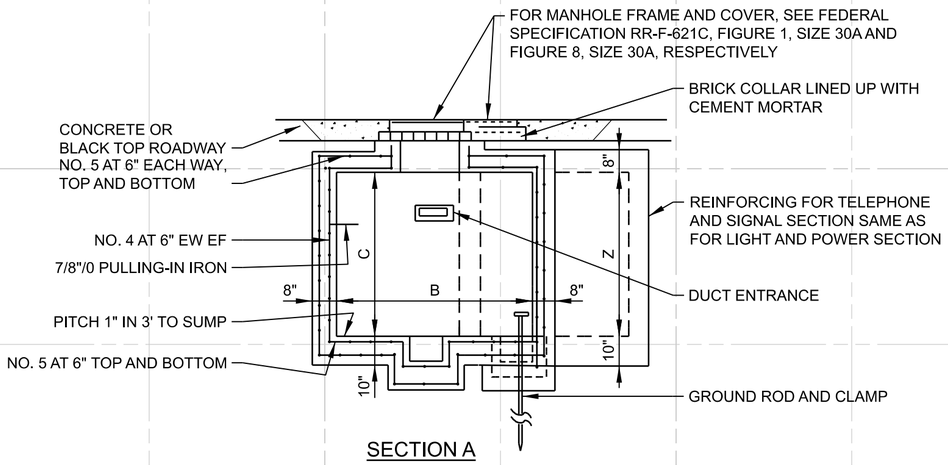
A1

DETAIL: NEUTRAL/GROUND CONNECTION IN MANHOLE

SCALE: NTS



PLAN



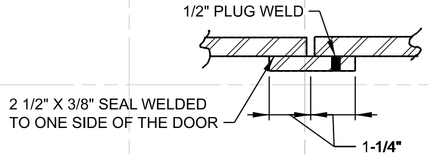
SECTION A

MANHOLE DIMENSIONS							
	POWER SECTION			SIGNAL SECTION			
TYPE	A	B	C	W	X	Y	Z
3	6'-0"	6'-0"	6'-6"	3'-0"	4'-0"	4'-0"	6'-0"
4	6'-0"	6'-0"	6'-6"	4'-0"	5'-0"	6'-0"	6'-6"
5	6'-0"	8'-0"	6'-6"	3'-0"	4'-0"	4'-0"	6'-0"
6	6'-0"	8'-0"	6'-6"	4'-0"	5'-0"	6'-0"	6'-6"

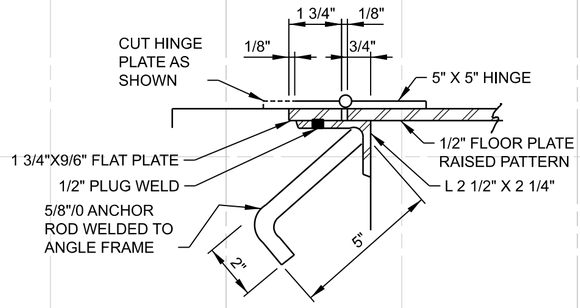
A1

DETAIL: STANDARD ELECTRICAL MANHOLE (TRAFFIC) TYPES 3, 4, 5, AND 6

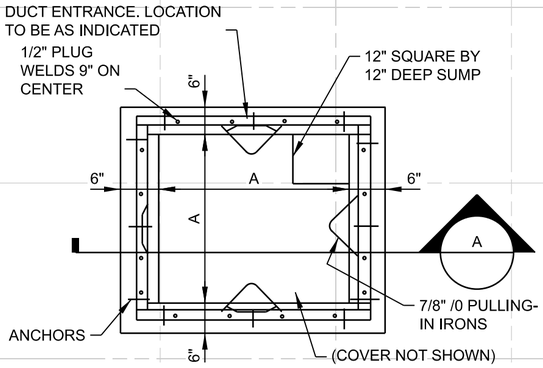
SCALE: NTS



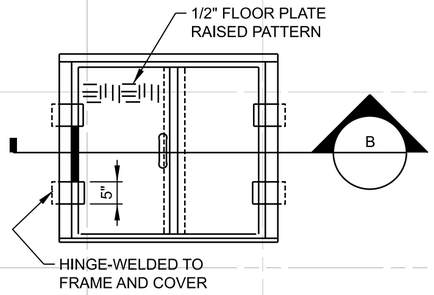
SEAL DETAIL



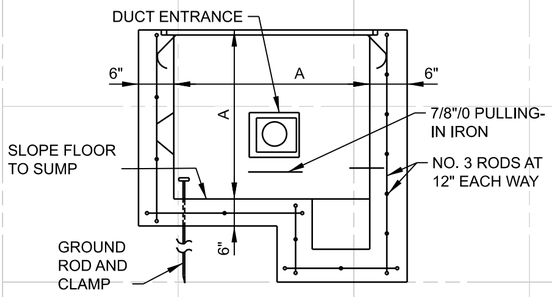
SECTION OF FRAME



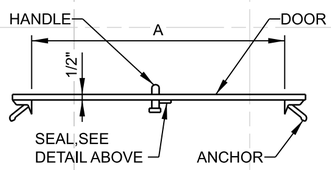
PLAN



PLAN OF COVER



SECTION A



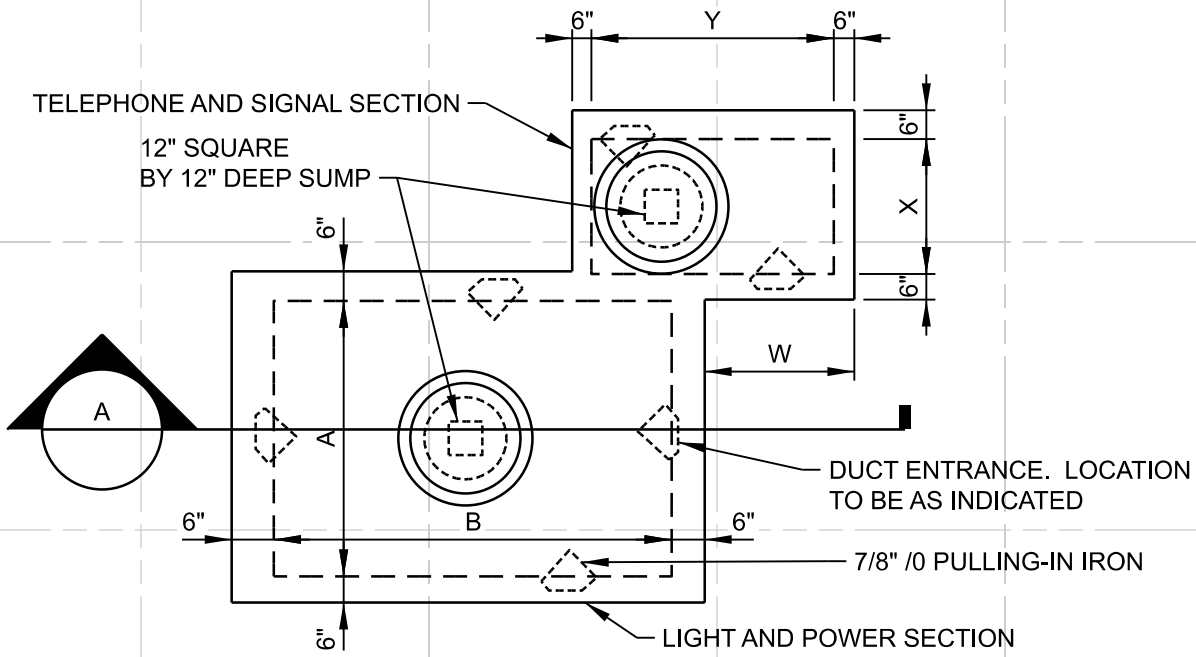
SECTION B

HANDHOLE	A
TYPE 1	3'-0"
TYPE 2	4'-0"

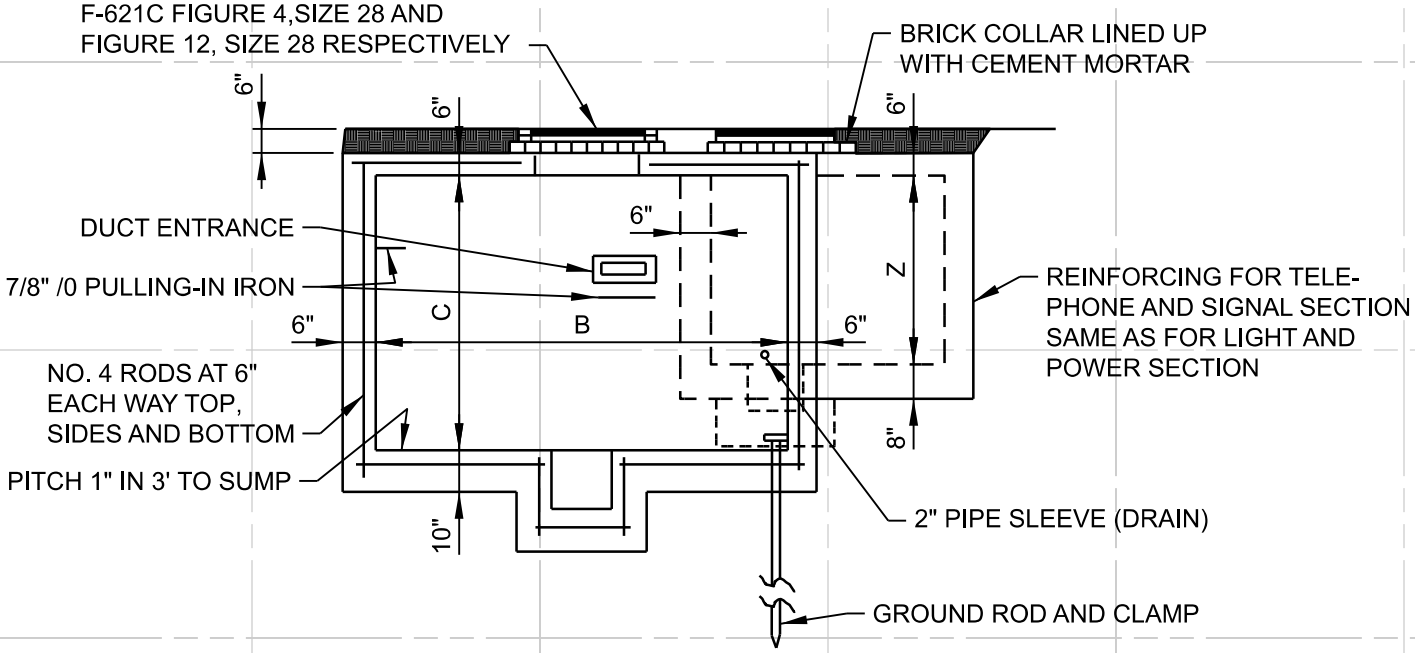
DETAIL: STANDARD ELECTRICAL HANDHOLE (NONTRAFFIC) TYPES 1 AND 2

A1

SCALE: NTS



PLAN



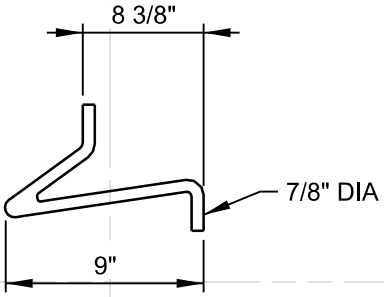
SECTION A

MANHOLE DIMENSIONS							
TYPE	POWER SECTION			SIGNAL SECTION			
	A	B	C	W	X	Y	Z
1	6'-0"	8'-0"	6'-6"	3'-0"	4'-0"	4'-0"	4'-0"
2	6'-0"	8'-0"	6'-6"	4'-0"	5'-0"	6'-0"	6'-6"

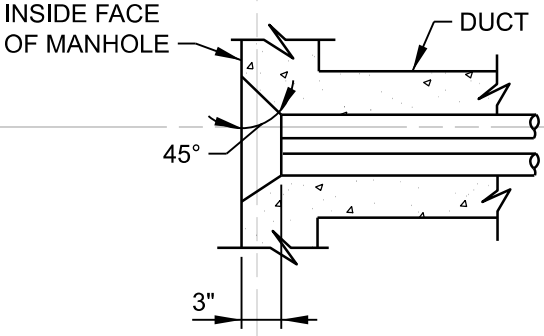
A1

DETAIL: STANDARD ELECTRICAL MANHOLE (NON-TRAFFIC) TYPES 1 AND 2

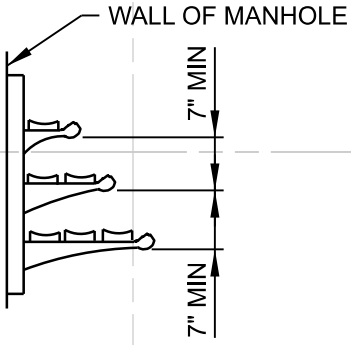
SCALE: NTS



PULLING-IN IRON



TYPICAL DUCT ENTRANCE

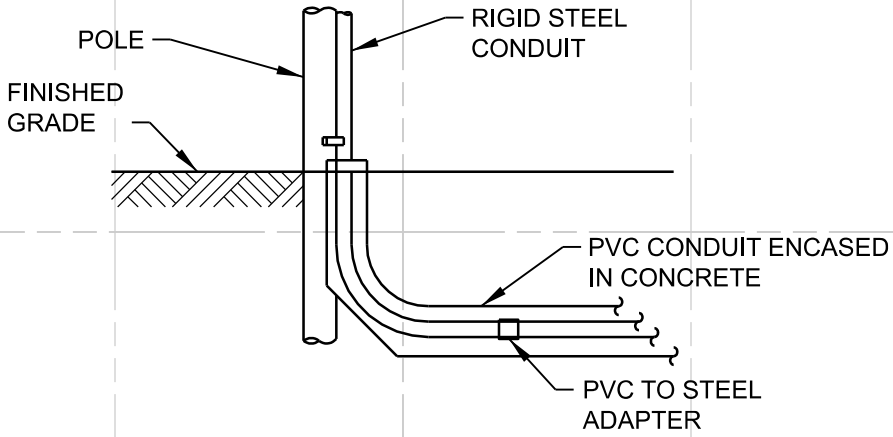


TYPICAL CABLE RACK

DETAIL: PULLING-IN IRONS, CABLE RACKS, AND DUCT ENTRANCE

A1

SCALE: NTS

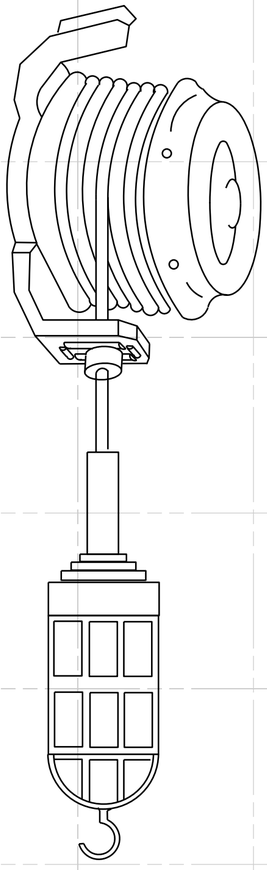


NOTE:
THIS DETAIL IS TYPICAL FOR ALL CONDUIT TERMINATIONS AT THE PAD MOUNTED TRANSFORMER, IN THE ELECTRICAL EQUIPMENT ROOMS, AND AT RISER POLES.

A1

DETAIL: CONVERSION FROM PVC TO STEEL CONDUIT

SCALE: NTS

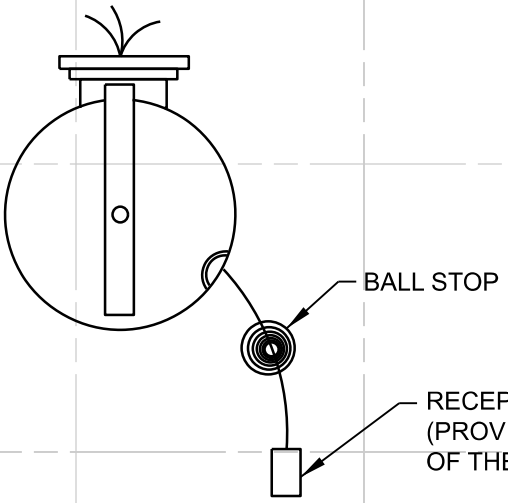


NOTE:
1. CLASS I, DIVISION 1, GROUP C, D OF THE NEC. THE LAMP SHALL BE 100 WATT INCANDESCENT LONG LIFE. THE GUARD AND GLOBE HOLDER SHALL BE COPPER FREE ALUMINUM. THE GLOBE GLASS SHALL BE HEAT AND IMPACT RESISTANT. THE HANDLE SHALL BE MOLDED PHENOLIC COMPOSITION.
2. THE AUTOMATIC REWIND CABLE REEL SHALL BE WEATHERPROOF. THE REELS SHALL HAVE LIFETIME LUBRICATED BEARINGS AND REPLACEABLE SPRING CARTRIDGE. THE REEL SHALL HAVE EASY ACCESS TO THE COLLECTOR RINGS AND BRUSHES LOCATED IN THE REEL DRUM. THE REELS SHALL HAVE A BUILT-IN LOCKING RATCHET.
3. THE CABLE SHALL BE 3-CONDUCTOR, NUMBER 14, TYPE SO CABLE, 80 FT. LONG.
4. THE REEL, THE CABLE AND THE PORTABLE HANDLAMP SHALL ALL BE COMPATIBLE AND SHALL BE PROVIDED WITH AN ADJUSTABLE STOP ON THE CABLE TO PREVENT THE AUTOMATIC REWIND REEL FROM RETRACTING THE LAMP OUT OF REACH OF THE MECHANICS.

A1

DETAIL: FIXTURE TYPE T

SCALE: NTS

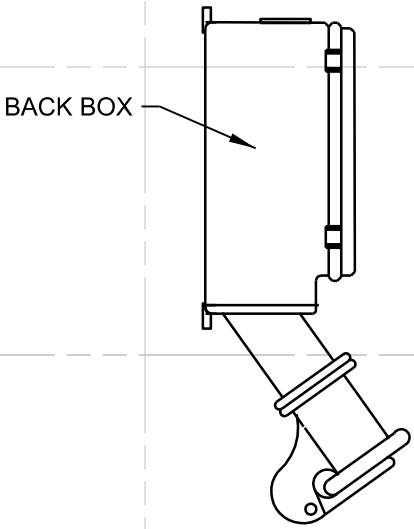


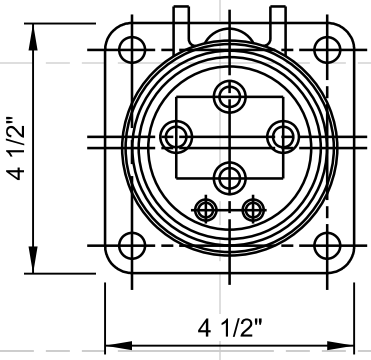
NOTE:
CONTINUOUS (360 DEGREE) SWIVEL GROUNDED RETRACTABLE POWER CORD WITH SINGLE RECEPTACLE ON END.
FURNISHED WITH 12 FEET OF 16-3 SJO CORD (2 CONDUCTOR PLUS GROUND)
ENCLOSED STEEL CONSTRUCTION, UL LISTED, LOCKING RATCHET TO HOLD CORD AT DESIRED LENGTH.
MOUNTS ON 4" OCTAGONAL OUTLET BOX

A1

DETAIL: RETRACTABLE RECEPTACLE DETAIL

SCALE: NTS





PIN CONFIGURATION
FOR RECEPTACLE

NOTE:
BACK BOX, ANGLE ADAPTER, RECEPTACLE BODY, SHALL BE MADE OF CAST ALUMINUM. PLUG CONTACTS IN THE RECEPTACLE SHALL BE SOLDERLESS LUGS FOR WIRE TERMINATION. RECEPTACLE SHALL BE PROVIDED WITH SPRING DOOR. RECEPTACLE SHALL BE THE HIGH IMPACT TYPE.

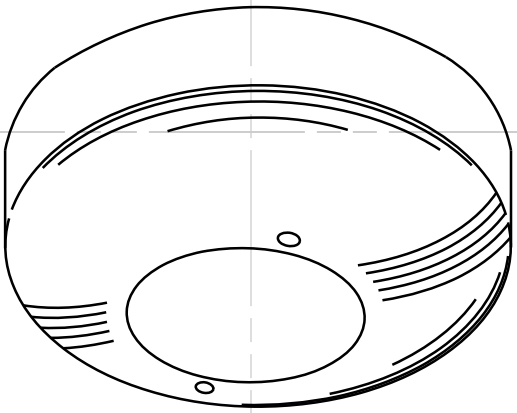
A1

DETAIL: RECEPTACLE

SCALE: NTS

CORPS OF ENGINEERS DEPARTMENT OF THE ARMY

TYPE: C1



FEATURES

PATTERN: 360 DEGREES

COVERAGE: 46-186 SQ M (500-2000SF)

TIME DELAY: ADJUSTABLE 15 SECONDS TO 15 MINUTES

OPTIONS

PATTERN: CORRIDOR

NOM. DIMENSIONS: 114 mm X 32 mm
(4-59/64" DIA X 1-57/64" D)

GENERAL DESCRIPTION

HOUSING: IMPACT RESISTANT INJECTION MOLDED ABS

MOUNTING: CEILING BETWEEN 2440-3050 mm (8-10') H

ELECTRICAL: 24 VOLT DC (FROM POWER PACK), 120 OR 277 VOLT AC

FINISH: WHITE

A1

DETAIL: CEILING MOUNTED ULTRASONIC OCCUPANCY SENSOR (C1)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

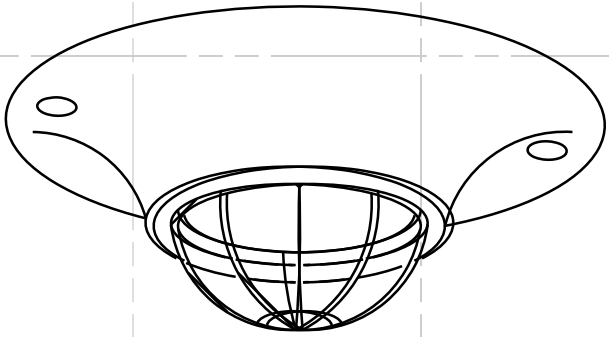
TYPE: C2

FEATURES

PATTERN: 360 DEGREES

COVERAGE: 46-186 SQ M (500-2000SF)

TIME DELAY: ADJUSTABLE 30 SECONDS TO 15 MINUTES



OPTIONS

PATTERN: CORRIDOR

NOM. DIMENSIONS: 121 mm X 102 mm
(4 3/4" DIA x 4"D)

GENERAL DESCRIPTION

HOUSING: IMPACT RESISTANT INJECTION MOLDED ABS

MOUNTING: CEILING BETWEEN 2440-3050 mm (8-10') H

ELECTRICAL: 24 VOLT DC (FROM POWER PACK), 120 OR 277 VOLT AC

FINISH: WHITE

A1

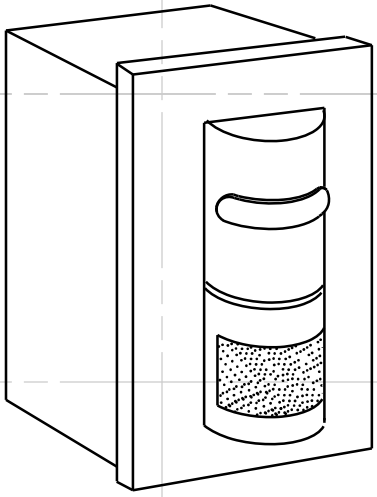
DETAIL: CEILING MOUNTED INFRARED OCCUPANCY SENSOR (C2)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: C3



FEATURES

PATTERN: 170 DEGREES

COVERAGE: 28-93 SQ M (300-1000 SF)

TIME DELAY: ADJUSTABLE 15 SECONDS TO 30 MINUTES

OPTIONS

FINISH: DESIGNER COLORS

CONTROL: MANUAL OFF, TWO LEVEL LIGHTING CONTROL

NOM. DIMENSIONS: 114 mm X 24 mm X 118 mm
(4 1/2" H X1 5/16" D X 4 5/8" W)

GENERAL DESCRIPTION

HOUSING: MEDIUM IMPACT INJECTION MOLDED ABS

MOUNTING: WALL MOUNTED AT NORMAL SWITCH HEIGHT, BETWEEN 915-1525 MM (3-5')

ELECTRICAL: 120 OR 277 VOLT

FINISH: WHITE STANDARD

A1

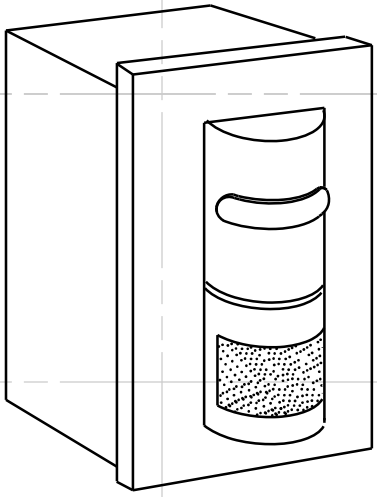
DETAIL: WALL MOUNTED INFRARED OCCUPANCY SENSOR (C3)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: C4



FEATURES

PATTERN: 170 DEGREES

COVERAGE: 28-140 SQ M (300-1500SF)

TIME DELAY: ADJUSTABLE 15 SECONDS TO 30 MINUTES

OPTIONS

NOM. DIMENSIONS: 114 mm X 24 mm X 118 mm
(4 1/2" H X1 5/16" D X 4 5/8" W)

GENERAL DESCRIPTION

HOUSING: IMPACT RESISTANT INJECTION MOLDED ABS

MOUNTING: WALL MOUNTED BETWEEN TOP OF OBSTRUCTIONS AND CEILING

ELECTRICAL: 120 OR 277 VOLT

FINISH: WHITE

DETAIL: WALL MOUNTED ULTRASONIC AND INFRARED OCCUPANCY SENSOR (C4)

A1

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

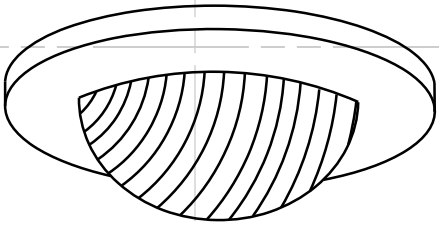
TYPE: C5

FEATURES

PATTERN: 60 DEGREES

COVERAGE: 1 SQ M (10 SF)

TIME DELAY: ADJUSTABLE 3 TO 15 MINUTES



OPTIONS

NOM. DIMENSIONS: 76 mm X 121 mm X 10 mm
(3" x 4 3/4" x 0.4")

GENERAL DESCRIPTION

HOUSING: HIGH IMPACT, UL LISTED MATERIAL WITH METAL BASE TO COMPLY WITH FLAMMABILITY RATING STANDARDS.

MOUNTING: CEILING

ELECTRICAL: 24 VOLT DC

FINISH: WHITE

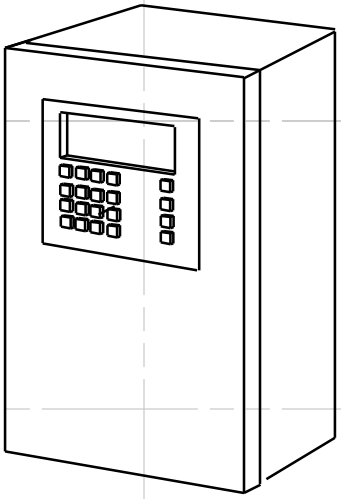
A1

DETAIL: CEILING MOUNTED DAYLIGHT PHOTOCELL SENSOR (C5)

SCALE: NTS

CORPS OF ENGINEERS DEPARTMENT OF THE ARMY

TYPE: C6



FEATURES

TECHNOLOGY: PROGRAMMABLE NETWORK TIME CLOCK, 16 PROGRAMMABLE EVENTS PER DAY

OPTIONS

NOM. DIMENSIONS: 197 mm X 127 mm X 76 mm (7 3/4" H X 5" W X 3" D)

GENERAL DESCRIPTION

HOUSING: CASE, NEMA 3R DRAWN STEEL, SIDE HINGED DOOR WITH LOCK AND KEY

MOUNTING: WALL MOUNTED

ELECTRICAL: 120 OR 277 VOLT

FINISH: PAINTED GRAY

A1

DETAIL: WALL MOUNTED TIME CLOCK (C6)

SCALE: NTS

CORPS OF ENGINEERS DEPARTMENT OF THE ARMY

TYPE: EF1

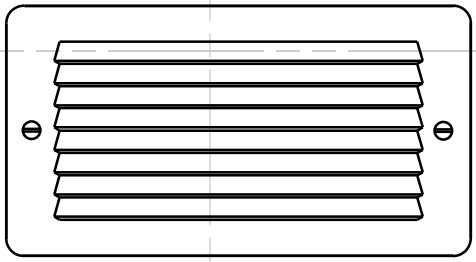
FEATURES

LAMP TYPE: F13TT/RS

PROFILE: 1 LAMP

SHIELDING: TEMPERED OPAL GLASS

BALLAST: ELECTRONIC



OPTIONS

MOUNTING: SURFACE

BALLAST: HIGH POWER FACTOR MAGNETIC

NOM. DIMENSIONS 260 mm X 133 mm X 113 mm (10 1/4" L X 5 1/4" H X 4 7/16" D)

GENERAL DESCRIPTION

HOUSING: CAST, HEAVY DUTY ALUMINUM

REFLECTORS: HIGHLY REFLECTIVE WHITE ENAMEL

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: POLYESTER POWDER COAT

A1

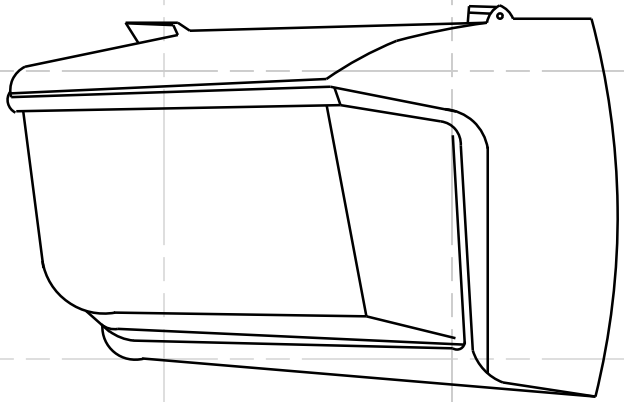
DETAIL: RECESSED STEP LIGHT FLUORESCENT (EF1)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: EH5



FEATURES

LAMP TYPE: 70W METAL HALIDE

PROFILE: 1 LAMP

SHIELDING: PRISMATIC BOROSILICATE GLASS

BALLAST: HIGH POWER FACTOR, CORE AND COIL, CWA

OPTIONS

LAMP TYPE: MH: 100W, 175W
HPS: 70W, 100W, 150W

SHIELDING: POLYCARBONATE

OTHER: PHOTOCELL CONTROL

NOM. DIMENSIONS: 311 mm X 241 mm X 184 mm
(12 1/4" L X 9 1/2" H X 7 1/4" D)

GENERAL DESCRIPTION

HOUSING: DIE CAST ALUMINUM HOUSING, DOOR ASSEMBLY AND BACKPLATE

MOUNTING: DIE CAST ALUMINUM BACKPLATE WITH CAST-IN KNOCKOUTS FOR MOUNTING HOLE ALIGNMENT.

REFLECTORS: SPECULAR ANODIZED ALUMINUM

ELECTRICAL: 120, 277, 208, 240, 347 AND 480 VOLT MULTI TAP BALLAST

FINISH: BAKED-ON POLYURETHANE POWDER COAT PAINT

A1

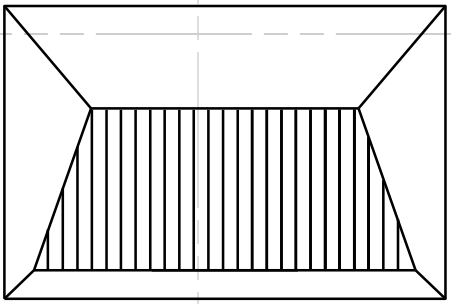
DETAIL: METAL HALIDE WALL PAK (EF5)

SCALE: NTS

CORPS OF ENGINEERS DEPARTMENT OF THE ARMY

TYPE: EH12

FEATURES



LAMP TYPE:	70W METAL HALIDE
PROFILE:	1 LAMP
SHIELDING:	FLAT TEMPERED CLEAR GLASS WITH NEOPRENE GASKET
BALLAST:	HIGH POWER FACTOR, CORE AND COIL, CWA
DISTRIBUTION:	SYMMETRIC

OPTIONS

LAMP TYPE:	MH: 100W HPS: 70W, 100W
SHIELDING:	INJECTION MOLDED POLYCARBONATE
DISTRIBUTION:	ASYMMETRIC (LEFT OR RIGHT)

NOM. DIMENSIONS: 295 mm X 197 mm X 327 mm
(11 5/8" W X 7 3/4" D X 12 7/8" H)

GENERAL DESCRIPTION

HOUSING: HEAVY DUTY CAST ALUMINUM

REFLECTORS: HIGHLY SPECULAR ALUMINUM

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: PAINTED DARK BRONZE FINISH

A1

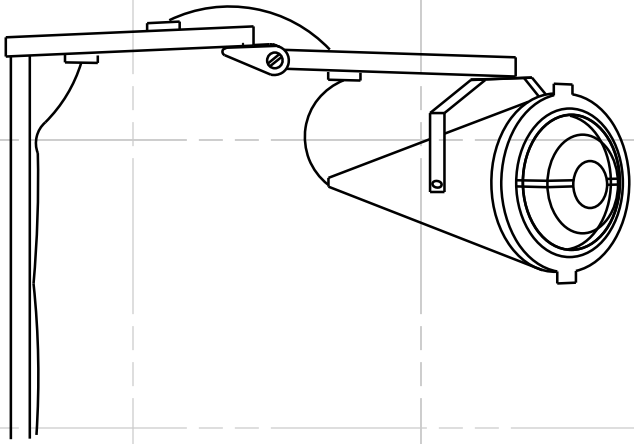
DETAIL: RECESSED METAL HALIDE STEP LIGHT (EH12)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: EI1



FEATURES

LAMP TYPE: 90W PAR38

PROFILE: 1 LAMP

SHIELDING: DIE CAST ALUMINUM HOOD WITH WIRE GUARD

OTHER: 24" ARM LENGTH

OPTIONS

LAMP TYPE: 60W PAR38

MOUNTING: 1015 OR 1525 mm (40" OR 60") ARM

NOM. DIMENSIONS: 194 mm X 137 mm x 610 mm (7 5/8" DIA X 5 3/8" H X 24" ARM)

GENERAL DESCRIPTION

HOUSING: DIE CAST ALUMINUM

MOUNTING: ARM MOUNT WITH 180 HORIZONTAL FREEDOM ON BASE JOINT, 360 ON REFLECTOR, 300 HORIZONTALLY AND 180 VERTICALLY ON CENTER JOINT

ELECTRICAL: 120 VOLT

FINISH: BLACK LEKTROKOTE® FINISH

A1

DETAIL: WALL MOUNTED INCANDESCENT ARM DOCK LIGHT (EI1)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: FF1

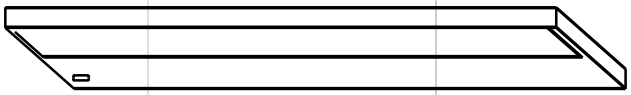
FEATURES

LAMP TYPE: F32T8/RS

PROFILE: 1 LAMP

SHIELDING: PRISMATIC #12 ACRYLIC

BALLAST: ELECTRONIC



OPTIONS

LAMP TYPE: F25T8/RS
SHIELDING: OPAQUE FRONT LENS
BALLAST: HIGH POWER FACTOR MAGNETIC

NOM. DIMENSIONS: 135 mm X 30 mm X 1219 mm (5 5/16" W X 1 3/16" D X 4' L)

GENERAL DESCRIPTION

HOUSING: 20 GAUGE PRIME COLD ROLLED STEEL

REFLECTORS: HIGHLY REFLECTIVE WHITE FORMED REFLECTOR

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: WHITE URETHANE POWDER COAT

A1

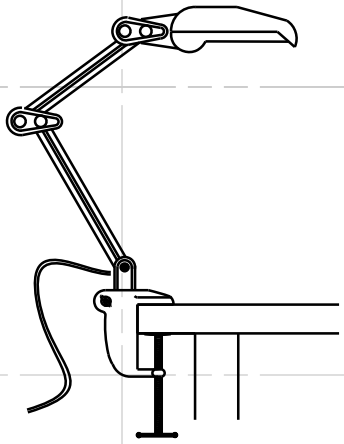
DETAIL: FLUORESCENT UNDER CABINET TASK LIGHT (FF1)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: FF2



FEATURES

LAMP TYPE: F13TT/RS

PROFILE: 2 LAMP

SHIELDING: PARABOLIC LOUVER

BALLAST: HIGH POWER FACTOR MAGNETIC

OPTIONS

LAMP TYPE: F9TT/RS
PROFILE: 1 LAMP
BALLAST: ELECTRONIC

NOM. DIMENSIONS: 264 mm X 213 mm X 60 mm
(10 3/8" L X 8 3/8" W 2 3/8" D)

GENERAL DESCRIPTION

HOUSING: NON-REFLECTIVE ABS MATERIAL, 180 DEG. HORIZONTAL MOVEMENT

MOUNTING: DESK CLAMP

REFLECTORS: SPECULAR ALUMINUM

ELECTRICAL: 120 VOLT BALLAST, 1829 mm (6'-0") CORD AND PLUG, ON/OFF ROCKER SWITCH.

FINISH: BAKED ENAMEL

A1

DETAIL: CLAMP ON COMPACT FLUORESCENT TASK LIGHT (FF2)

SCALE: NTS

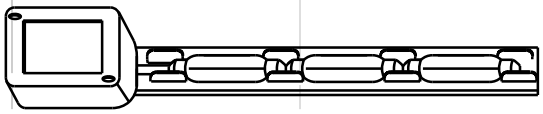
CORPS OF ENGINEERS DEPARTMENT OF THE ARMY

TYPE: FI1

FEATURES

LAMP TYPE: 5W FESTOON HALOGEN

PROFILE: 50 mm (2") ON CENTER



OPTIONS

LAMP TYPE:	3.5W, 10W, XENON, OR INCANDESCENT FESTOON 20 W MR-16, 20W MR-11
PROFILE:	4" O.C.
FINISH:	BLACK
CONNECTORS:	FUSED PLUG, MOLDED PLUG, INTEGRAL JUNCTION BOX, CRIMP ON SPADE; CLEAR ACRYLIC LENS COVER.
NOM. DIMENSIONS	25 mm X 13 mm X 1219 mm (1" W X 1/2" H X 4' L)

GENERAL DESCRIPTION

HOUSING: EXTENDED HOUSING NOMINAL INCREMENTS UP TO 4.9 M (16')

REFLECTORS: GLOSS WHITE

ELECTRICAL: 12 VOLT OR 24 VOLT TRANSFORMER SIZED APPROPRIATELY TO FIXTURE LOAD

FINISH: GLOSS WHITE

A1

DETAIL: INCANDESCENT UNDER CABINET TASK LIGHT (FI1)

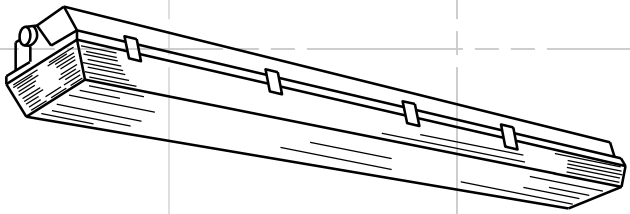
SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: PF8

FEATURES



LAMP TYPE: F32T8/75 CRI

PROFILE: 2 LAMP

SHIELDING: STIPPLED ACRYLIC

BALLAST: ELECTRONIC

OPTIONS

PROFILE: 1 LAMP
MOUNTING: SURFACE
BALLAST: HIGH POWER FACTOR
MAGNETIC

NOM. DIMENSIONS: 152 mm X 203 mm X 1270 mm
(6" H X 8" W X 50" L)

GENERAL DESCRIPTION

HOUSING: MOLDED HIGH-IMPACT POLYESTER OR FIBERGLASS REINFORCED PLASTIC WITH COLD ROLLED STEEL INTERIOR COMPONENTS

REFLECTORS: INTERNAL WHITE REFLECTOR

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: WHITE PAINTED

OTHER: UL LISTED FOR WET LOCATION

A1

DETAIL: PENDANT MOUNTED 4' SEALED AND GASKETED INDUSTRIAL FLUORESCENT (PF8)

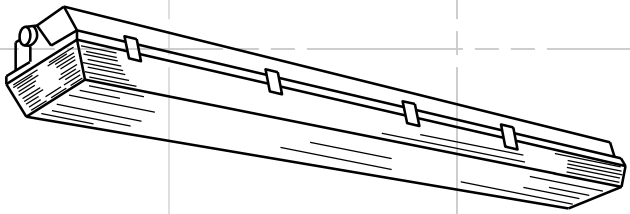
SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: PF9

FEATURES



LAMP TYPE: F96T8/HO

PROFILE: 2 LAMP

SHIELDING: STIPPLED ACRYLIC

BALLAST: ELECTRONIC

OPTIONS

PROFILE: 3 LAMP
MOUNTING: SURFACE
BALLAST: HIGH POWER FACTOR
MAGNETIC

NOM. DIMENSIONS: 153 mm X 203 mm X 2438 mm
(6" H X 8" W X 8' L)

GENERAL DESCRIPTION

HOUSING: MOLDED HIGH-IMPACT POLYESTER OR FIBERGLASS REINFORCED PLASTIC WITH COLD ROLLED STEEL INTERIOR COMPONENTS

REFLECTORS: INTERNAL WHITE REFLECTOR

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: WHITE PAINTED

OTHER: UL LISTED FOR WET LOCATION

A1

DETAIL: PENDANT MOUNTED 8' SEALED AND GASKETED INDUSTRIAL FLUORESCENT (PF9)

SCALE: NTS

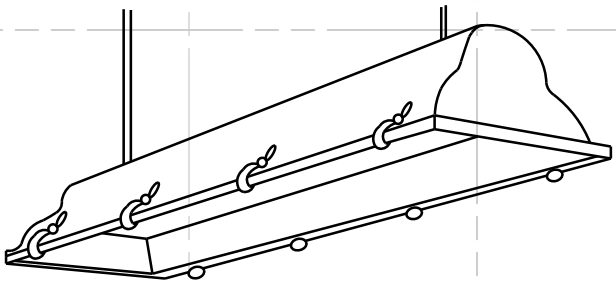
CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: PF10

FEATURES

LAMP TYPE:	F32T8/75 CRI
PROFILE:	2 LAMP
MOUNTING:	CHAIN HUNG
SHIELDING:	CLEAR TEMPERED GLASS
BALLAST:	ELECTRONIC



OPTIONS

PROFILE:	3 OR 4 LAMP
MOUNTING:	BRACKET
BALLAST:	HIGH POWER FACTOR MAGNETIC

NOM. DIMENSIONS: 375 mm X 178 mm X 1346 mm (14 3/4" W X 7" H X 53" L)

GENERAL DESCRIPTION

HOUSING: ONE-PIECE 20 GA. SEAMLESS STEEL HOUSING WITH WELDED END CAPS; SILICONE RUBBER GASKET BETWEEN LENS/FRAME ASSEMBLY AND HOUSING

REFLECTORS: CORROSION-RESISTANT WHITE POLYESTER POWDER COAT

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: POLYESTER POWDER COAT

OTHER: NEC CLASS II, GROUP G AND CLASS III LOCATIONS

A1

DETAIL: PENDANT MOUNTED VAPOR TIGHT INDUSTRIAL FLUORESCENT (PF10)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: PF11

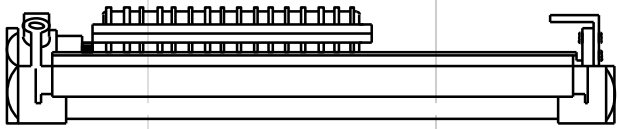
FEATURES

LAMP TYPE: F32T8/75 CRI

PROFILE: 2 LAMP

SHIELDING: CLEAR TEMPERED GLASS

BALLAST: ELECTRONIC



OPTIONS

BALLAST: HIGH POWER FACTOR MAGNETIC

NOM. DIMENSIONS: 292 mm X 216 mm X 1219 mm (11 1/2" W X 8 1/2" H X 4' L)

GENERAL DESCRIPTION

HOUSING: COPPER FREE (LESS THAN .4% COPPER), HEAVY GAUGE ALUMINUM CAST END PLATES

MOUNTING: POSITIVE CLAMP MOUNTING BRACKETS, ANGLE MOUNTING BRACKET OR EXTENDED MOUNTING BRACKET

REFLECTORS: COPPER FREE HEAVY GAUGE EXTRUDED ALUMINUM PAINTED WHITE

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: NATURAL ALUMINUM

OTHER: NEC CLASS I, DIV. 1 AND 2, GROUPS C AND D, CLASS II, DIV. I AND II, GROUPS E, F, AND CLASS III

DETAIL: PENDANT MOUNTED EXPLOSION PROOF INDUSTRIAL FLUORESCENT, CLASS 1 / DIV I AND II (PF11)

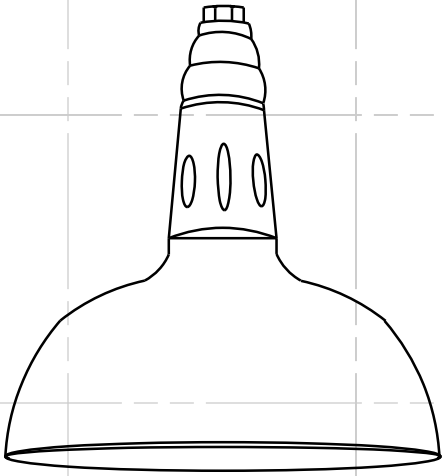
A1

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: PF12



FEATURES

LAMP TYPE:	F26DTT/RS
PROFILE:	1 LAMP
MOUNTING:	RIGID STEM WITH SWIVEL BALL ALIGNER
SHIELDING:	ALUMINUM
BALLAST:	ELECTRONIC

OPTIONS

SHIELDING:	VARIOUS SHAPES, WIRE GUARD

NOM. DIMENSIONS: 406 mm X 305 mm (16" DIA X 12" H)

GENERAL DESCRIPTION

HOUSING: SPUN ALUMINUM SHADE

REFLECTORS: ALL WHITE PORCELAIN

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: BAKED ENAMEL OR NATURAL METAL

A1

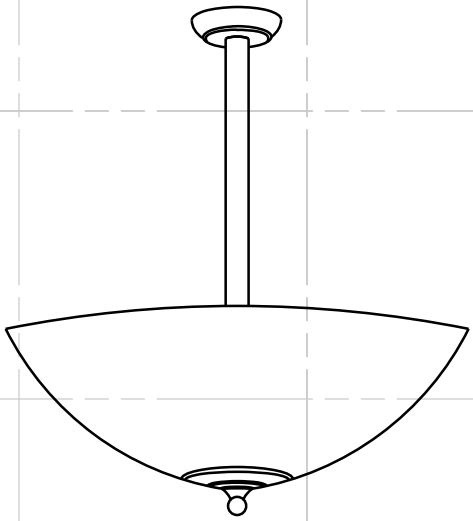
DETAIL: PENDANT MOUNTED COMPACT FLUORESCENT INDUSTRIAL DOME (PF12)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: PH1



FEATURES

LAMP TYPE:	100W METAL HALIDE
PROFILE:	1 LAMP
MOUNTING:	RIGID STEM
SHIELDING:	OPAL ACRYLIC
BALLAST:	HIGH POWER FACTOR, CORE AND COIL, CWA

OPTIONS

LAMP TYPE:	MH: 175W, 250W
MOUNTING:	THREE RIGID STEMS
SHIELDING:	SANDBLASTED ACRYLIC DIFFUSER; BOWL SIZES OF 610-1295 mm (24"- 51")
BALLAST:	REMOTE
NOM. DIMENSIONS:	914 mm X 356 mm (36" DIA X 14" D)

GENERAL DESCRIPTION

HOUSING: OPAL ACRYLIC BOWL

REFLECTORS: SPECULAR ALUMINUM

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: POLISHED BRASS, CHROME OR PAINTED

A1

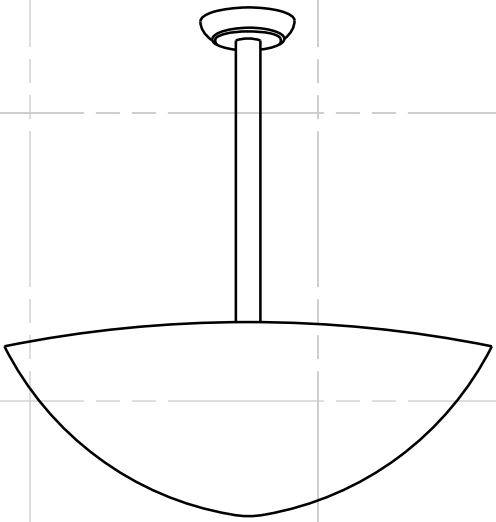
DETAIL: PENDANT MOUNTED INDIRECT METAL HALIDE BOWL (PH1)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: PH2



FEATURES

LAMP TYPE: 100W METAL HALIDE

PROFILE: 1 LAMP

SHIELDING: SPUN ALUMINUM

BALLAST: HIGH POWER FACTOR, CORE AND COIL, CWA

OPTIONS

LAMP TYPE: MH: 175W, 250W, 400W

BALLAST: SURFACE MOUNTED IN CANOPY

NOM. DIMENSIONS: 914 mm X 305 mm (36" DIA X 12" D)

GENERAL DESCRIPTION

HOUSING: SPUN ALUMINUM BOWL

MOUNTING: STEM MOUNTED WITH HANG STRAIGHT STEM

REFLECTORS: FABRICATED ALUMINUM SPECULAR REFLECTOR

ELECTRICAL: 120 OR 277 VOLT REMOTE BALLAST MOUNTED WITHIN 3 m (10')

FINISH: POLISHED CHROME, POLISHED BRASS OR PAINTED

A1

DETAIL: PENDANT MOUNTED INDIRECT METAL HALIDE BOWL (PH2)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: PH3

FEATURES

LAMP TYPE: 175W METAL HALIDE

PROFILE: 1 LAMP

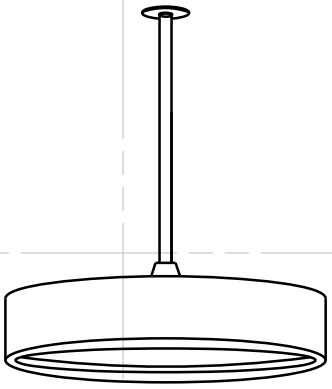
SHIELDING: OPAL ACRYLIC

BALLAST: HIGH POWER FACTOR, CORE AND COIL, CWA

OPTIONS

LAMP TYPE: MH: 250W, 400W

SHIELDING: CLEAR TEMPERED GLASS



NOM. DIMENSIONS: 457 mm X 152 mm (18" DIA X 6" D)

GENERAL DESCRIPTION

HOUSING: SPUN ALUMINUM

MOUNTING: SWIVEL BALL RIGID STEM TO ALLOW 45° SWIVEL AT CEILING

REFLECTORS: ALZAK ALUMINUM, VERTICALLY FLUTED FOR SYMMETRICAL CANDLEPOWER DISTRIBUTION

ELECTRICAL: 120 OR 277 VOLT REMOTE BALLAST MOUNTED WITHIN 3 m (10')

FINISH: EPOXY PRIMED WITH BAKED POLYESTER ENAMEL FINISH

A1

DETAIL: PENDANT MOUNTED DIRECT/ INDIRECT METAL HALIDE DRUM (PH3)

SCALE: NTS

CORPS OF ENGINEERS DEPARTMENT OF THE ARMY

TYPE: PH4

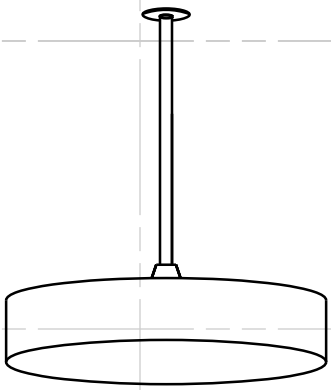
FEATURES

LAMP TYPE: 175W METAL HALIDE

PROFILE: 1 LAMP

MOUNTING: RIGID STEM

BALLAST: HIGH POWER FACTOR, CORE AND COIL, CWA



OPTIONS

LAMP TYPE: MH: 250W, 400W

BALLAST: SURFACE CANOPY MOUNTED

NOM. DIMENSIONS: 457 mm X 152 mm (18" DIA X 6" D)

GENERAL DESCRIPTION

HOUSING: SPUN ALUMINUM

REFLECTORS: ALZAK®, LAMP TO BE CENTERED IN REFLECTOR

ELECTRICAL: 120 OR 277 VOLT REMOTE BALLAST MOUNTED WITHIN 3 m (10')

FINISH: BAKED ENAMEL OR POLYESTER POWDER COAT

A1

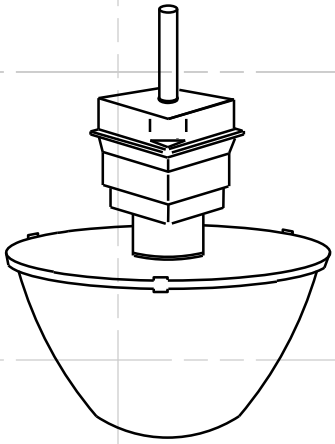
DETAIL: PENDANT MOUNTED INDIRECT METAL HALIDE DRUM (PH4)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: PH5



FEATURES

LAMP TYPE:	150W METAL HALIDE
PROFILE:	1 LAMP
SHIELDING:	PRISMATIC BOROSILICATE GLASS
BALLAST:	HIGH POWER FACTOR, CORE AND COIL, CWA

OPTIONS

LAMP TYPE:	MH: 50W, 70W, 100W, 175W HPS: 70W, 100W, 150W
BALLAST:	SURFACE CANOPY MOUNTED
OTHER:	DECORATIVE BALLAST COVER
NOM. DIMENSIONS:	330 mm X 254 mm (13" DIA X 10" H)

GENERAL DESCRIPTION

HOUSING: COPPER FREE DIE-CAST ALUMINUM

MOUNTING: STEM MOUNTED ON QUICK DISCONNECT, POSITIVE LOCKING, VIBRATION RESISTANT CONNECTOR WITH SET SCREW

REFLECTORS: SPUN ALZAK® ALUMINUM

ELECTRICAL: 120 OR 277 VOLT REMOTE BALLAST MOUNTED WITHIN 3 M (10')

FINISH: CORROSION RESISTANT WHITE POLYESTER POWDER COAT PAINT

A1

DETAIL: PENDANT MOUNTED DIRECT/INDIRECT METAL HALIDE (PH5)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: PH6

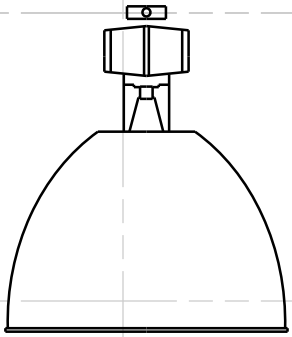
FEATURES

LAMP TYPE: 250W METAL HALIDE

PROFILE: 1 LAMP

SHIELDING: CLEAR GLASS LENS

BALLAST: HIGH POWER FACTOR, CORE AND COIL, CWA



OPTIONS

LAMP TYPE: MH: 175W, 400W
HPS: 150W, 200W, 400W

BALLAST: HI-LOW

NOM. DIMENSIONS: 483 mm X 660 mm (19" DIA X 26" D)

GENERAL DESCRIPTION

HOUSING: HEAVY GAUGE COLD ROLLED STELL
MOUNTING: RIGID STEM WITH SWIVEL BALL ALIGNER
REFLECTORS: HIGHLY SPECULAR EXTRUDED-CONTOUR OPTICAL REFLECTOR AND FORMED SPECULAR REFLECTOR
ELECTRICAL: 120, 277, 208, 240, 347 OR 480 VOLT MULTI TAP BALLAST
FINISH: NATURAL METAL

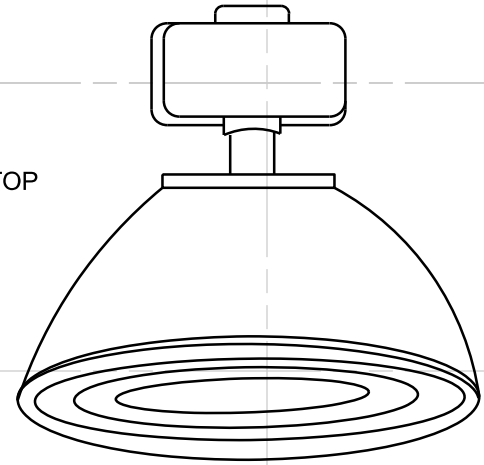
A1

DETAIL: PENDANT MOUNTED METAL HALIDE HIGH BAY WAREHOUSE AISLE LIGHT (PH6)

SCALE: NTS

CORPS OF ENGINEERS DEPARTMENT OF THE ARMY

TYPE: PH7



FEATURES

LAMP TYPE:	400W METAL HALIDE
PROFILE:	1 LAMP
MOUNTING:	RIGID STEM
REFLECTOR:	ALUMINUM WITH OPEN TOP
SHIELDING:	DROP PRISMATIC
BALLAST:	HIGH POWER FACTOR, CORE AND COIL, CWA

OPTIONS

LAMP TYPE:	MH: 250W, 1000W
MOUNTING:	SURFACE
BALLAST:	HI-LOW, REMOTE

NOM. DIMENSIONS: 660 mm X 457 mm (26" H X 18" DIA)

GENERAL DESCRIPTION

HOUSING: DIE-CAST ALUMINUM BALLAST HOUSING WITH HEAT SINK

REFLECTORS: SPUN OR HYDRO-FORMED ALUMINUM REFLECTOR WITH 10% OPEN TOP AND ANODIZED FINISH

ELECTRICAL: 120, 277 OR 480 VOLT MULTI TAP BALLAST

FINISH: NATURAL ALUMINUM, ANODIZED OR CLEAR LACQUERED

A1

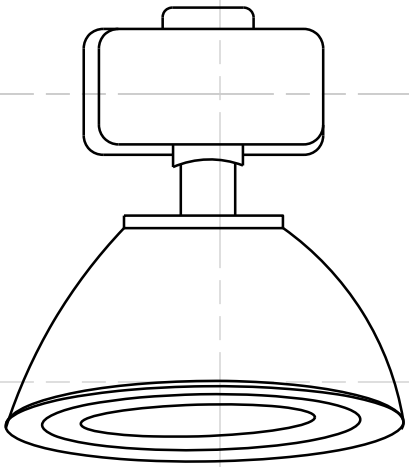
DETAIL: PENDANT MOUNTED METAL HALIDE HIGH BAY INDUSTRIAL (PH7)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: PH8



FEATURES

LAMP TYPE:	250W METAL HALIDE
PROFILE:	1 LAMP
SHIELDING:	DROP-DISH PRISMATIC REFRACTOR
MOUNTING:	RIGID STEM WITH SWIVEL BALL ALIGNER
BALLAST:	HIGH POWER FACTOR, CORE AND COIL, CWA

OPTIONS

LAMP TYPE:	MH: 175W
MOUNTING:	SURFACE
BALLAST:	HI-LOW, REMOTE

NOM. DIMENSIONS: 635 mm X 711 mm (25" H X 28" DIA)

GENERAL DESCRIPTION

HOUSING: DIE-CAST ALUMINUM BALLAST HOUSING WITH HEAT SINK

REFLECTORS: SPUN OR HYDRO-FORMED ALUMINUM FOR LOW GLARE SHIELDING; ANODIZED FINISH

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: NATURAL ALUMINUM, ANODIZED OR CLEAR LACQUERED

A1

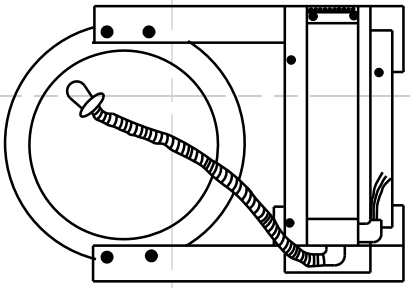
DETAIL: PENDANT MOUNTED METAL HALIDE LOW BAY INDUSTRIAL (PH8)

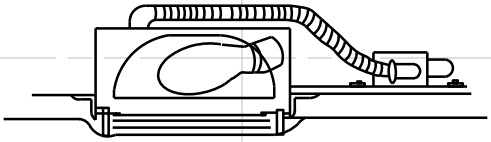
SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RH5





FEATURES

LAMP TYPE: 100W MH

PROFILE: 1 LAMP

SHIELDING: REGRESSED FRESNEL

BALLAST: HIGH POWER FACTOR, CORE AND COIL, CWA

OPTIONS

LAMP TYPE: MH: 70W, 175W
HPS: 50W, 70W, 100W

SHIELDING: HOLOPHANE LENS

OTHER: EMERGENCY RESTRIKE

NOM. DIMENSIONS: 254 mm X 178 mm (10" DIA X 7" D)

GENERAL DESCRIPTION

HOUSING: HEAVY GAUGE ALUMINUM, RUSTPROOF WITH BUILT-IN PLASTER FRAME

MOUNTING: RECESSED INTO PLASTER

REFLECTORS: SPECULAR ALZAK® ALUMINUM WITH SELF FLANGE

ELECTRICAL: 120 OR 277 VOLT BALLAST

EFFICIENCY: 55%

DETAIL: 10" DIAMETER RECESSED, ENCLOSED AND GASKETED METAL HALIDE DOWNLIGHT, PLASTER CEILING (RH5)

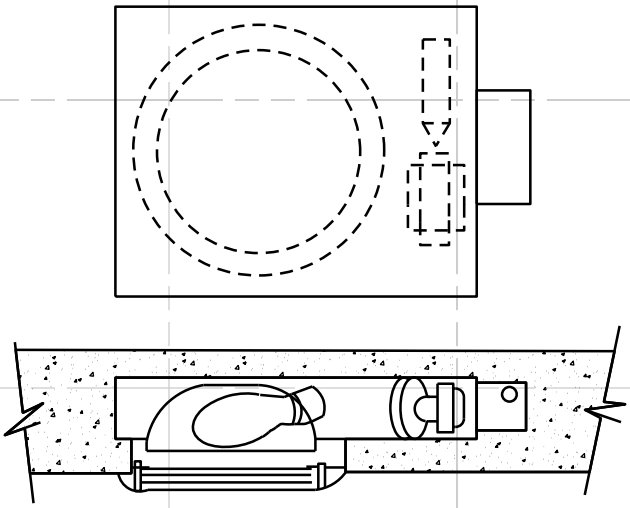
A1

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RH6



FEATURES

LAMP TYPE: 100W MH

PROFILE: 1 LAMP

SHIELDING: PRISMATIC TEMPERED GLASS

BALLAST: HIGH POWER FACTOR, CORE AND COIL, CWA

OPTIONS

LAMP TYPE: MH: 50W, 70W
HPS: 50W, 70W, 100W

OTHER: EMERGENCY RESTRIKE

NOM. DIMENSIONS: 216 mm X 159 mm
(8 1/2" DIA X 6 1/4" D)

GENERAL DESCRIPTION

HOUSING: 18 GAUGE GALVANIZED STEEL, RED OXIDE RUSTPROOF PRIMER COAT, WHITE ENAMEL FINISH

MOUNTING: RECESSED INTO CONCRETE

REFLECTORS: SEMI-SPECULAR ALZAK® WITH SELF FLANGE
ELECTRICAL: 120 OR 277 VOLT BALLAST
EFFICIENCY: 55%

A1

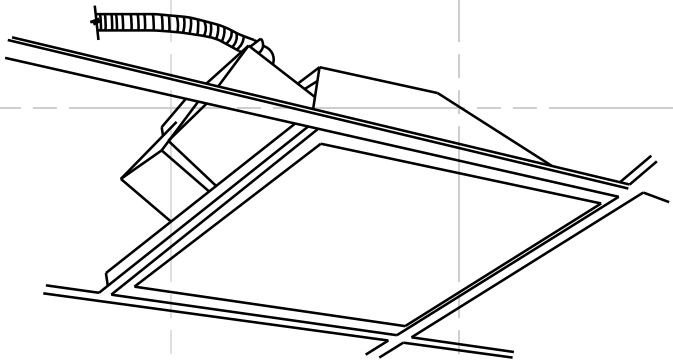
DETAIL: 9" DIAMETER RECESSED, ENCLOSED AND GASKETED METAL HALIDE DOWNLIGHT, CONCRETE CEILING (RH6)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RH7



FEATURES

LAMP TYPE: 250W METAL HALIDE

PROFILE: 1 LAMP

BALLAST: HIGH POWER FACTOR, CORE AND COIL, CWA

OPTIONS

LAMP TYPE: MH: 175W, 400W

BALLAST: HI-LOW

OTHER: EMERGENCY RESTRIKE

NOM. DIMENSIONS: 610 mm X 610 mm X 406 mm (24" W X 24" L X 16" D)

GENERAL DESCRIPTION

HOUSING: COLD ROLLED STEEL, FORMED AND WELDED; EXTRUDED ALUMINUM LENS FRAME, MITERED WITH CONTINUOUS GASKET, HINGED FOR EASY REMOVAL WITH CAPTIVE SCREW FASTENERS

MOUNTING: RECESSED INTO STANDARD NON METRIC GRID

REFLECTORS: SEMI-SPECULAR SEGMENTED ALUMINUM

ELECTRICAL: 120 OR 277 VOLT BALLAST

A1

DETAIL: RECESSED LENSED 2' X 2' METAL HALIDE TROFFER (RH7)

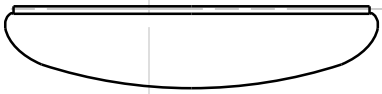
SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: SF1

FEATURES



LAMP TYPE: F13TT/RS

PROFILE: 2 LAMP

SHIELDING: ACRYLIC WITH SAND ETCHED SURFACE

BALLAST: ELECTRONIC

OPTIONS

LAMP TYPE: F18DTT/RS, F26DTT/RS

BALLAST: HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY

OTHER: 660 OR 965 mm (26" OR 38") DIA BOWL

NOM. DIMENSIONS: 406 mm X 152 mm (16" DIA X 6" D)

GENERAL DESCRIPTION

HOUSING: DIE-FORMED 20 GAUGE COLD ROLLED STEEL BACK PAN WITH HIGHLY REFLECTIVE WHITE PAINTED FINISH

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: WHITE, CUSTOM OR METALLIC PAINTED TRIM

DETAIL: SURFACE MOUNTED COMPACT FLUORESCENT DECORATIVE BOWL (SF1)

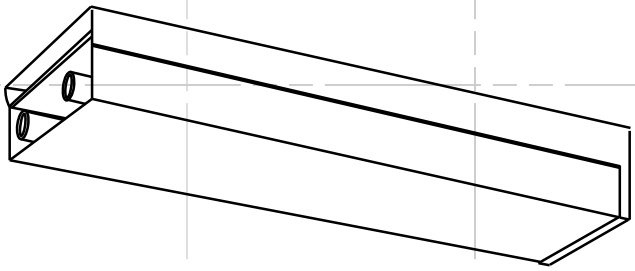
A1

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: SF3



FEATURES

LAMP TYPE: F32T8/75 CRI

PROFILE: 2 LAMP

SHIELDING: 4.8 mm (0.187")
PRISMATIC POLYCARBONATE

BALLAST: ELECTRONIC

OPTIONS

PROFILE: 1 LAMP
SHIELDING: CLEAR POLYCARBONATE
BALLAST: HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY, COLD WEATHER

NOM. DIMENSIONS: 229 mm X 1219 mm X 152 mm
(9" W X 4' L X 6" H)

GENERAL DESCRIPTION

HOUSING: WELDED ONE-PIECE CONSTRUCTION, DIE-FORMED 16 GA. COLD ROLLED STEEL WITH CONTINUOUSLY WELDED EXPOSED SEAMS GROUND SMOOTH

MOUNTING: FIXTURE IS LONGER THAN STANDARD METRIC GRID

REFLECTORS: WHITE URETHANE POWDER COAT FINISH WITH 88 PERCENT MINIMUM REFLECTANCE

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: WHITE POLYESTER ENAMEL

A1

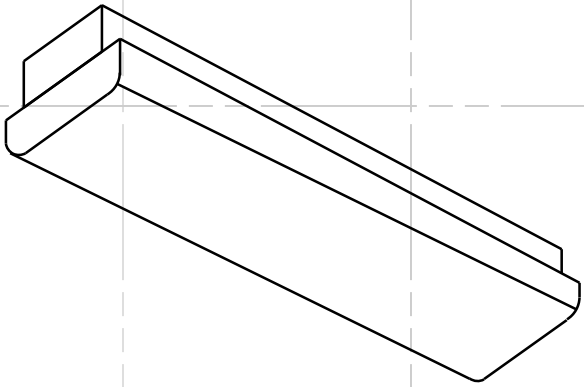
DETAIL: SURFACE MOUNTED FLUORESCENT HIGH ABUSE LUMINAIRE (SF3)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: SF4



FEATURES

LAMP TYPE: F32T8/75 CRI
PROFILE: 2 LAMP

SHIELDING: 4.8 mm (0.187") THICK OPAL ACRYLIC INJECTION MOLDED LENS

BALLAST: ELECTRONIC

OPTIONS

MOUNTING: PENDANT
BALLAST: HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY

NOM. DIMENSIONS: 356 mm X 1295 mm X 102 mm (14" W X 51" L X 4" D)

GENERAL DESCRIPTION

HOUSING: FORMED COLD ROLLED STEEL

MOUNTING: FIXTURE IS LONGER THAN METRIC GRID

REFLECTORS: GLOSS WHITE REFLECTOR AND INTERNAL HOUSING

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: WHITE ENAMEL OR POLYESTER POWDER COAT

A1

DETAIL: SURFACE MOUNTED 1' X 4' DROP OPAL LENS (SF4)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: SF5

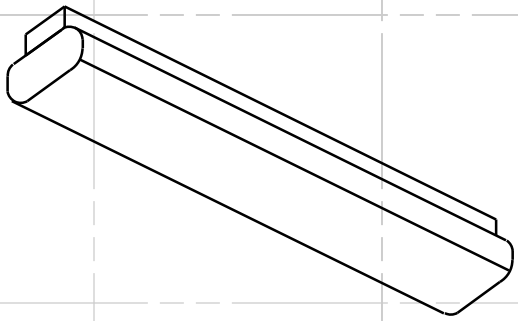
FEATURES

LAMP TYPE: F32T8/75 CRI

PROFILE: 1 LAMP

SHIELDING: PRISMATIC ACRYLIC WRAP LENS

BALLAST: ELECTRONIC



OPTIONS

BALLAST: HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY

NOM. DIMENSIONS: 178 mm X 1219 mm X 114 mm (7" W X 4' L X 4 1/2" D)

GENERAL DESCRIPTION

HOUSING: DIE-FORMED COLD ROLLED STEEL

MOUNTING: FIXTURE IS LONGER THAN METRIC GRID

REFLECTORS: GLOSS WHITE INTERIOR FINISH

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: WHITE ENAMEL OR POLYESTER POWDER COAT

A1

DETAIL: SURFACE MOUNTED WRAPAROUND (SF5)

SCALE: NTS

CORPS OF ENGINEERS DEPARTMENT OF THE ARMY

TYPE: SF11

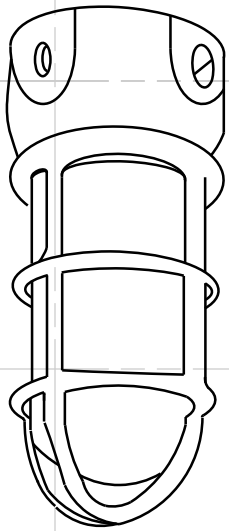
FEATURES

LAMP TYPE: F18DTT/RS

PROFILE: 1 LAMP

SHIELDING: CLEAR GLASS GLOBE

BALLAST: ELECTRONIC



OPTIONS

LAMP TYPE: 90W TB/IF
MOUNTING: PENDANT, ARM MOUNT ADAPTER
SHIELDING: HEAT RESISTANT
BALLAST: HIGH POWER FACTOR MAGNETIC
NOM. DIMENSIONS: 111 mm X 251 mm (4 3/8" DIA X 9 7/8" H)

GENERAL DESCRIPTION

HOUSING: 30 PERCENT GLASS-FILLED THERMOPLASTIC POLYESTER

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: MOLDED IN NON-GRAYING FINISH

DETAIL: SURFACE MOUNTED COMPACT FLUORESCENT VAPOR TIGHT JELLY JAR WITH WIRE GUARD (SF11)

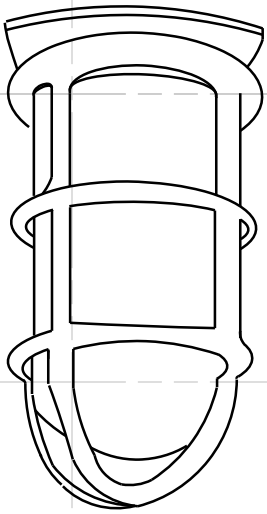
A1

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: SF12



FEATURES

LAMP TYPE:	F18DTT/RS
PROFILE:	1 LAMP
SHIELDING:	CLEAR GLASS GLOBE
BALLAST:	ELECTRONIC

OPTIONS

LAMP TYPE:	90W TB/IF
MOUNTING:	PENDANT, ARM MOUNT ADAPTER
SHIELDING:	HEAT RESISTANT GLASS
BALLAST:	HIGH POWER FACTOR MAGNETIC
NOM. DIMENSIONS:	111 mm X 251 mm (4 3/8" W X 9 7/8" H)

GENERAL DESCRIPTION

HOUSING:	30% GLASS FILLED THERMOPLASTIC POLYESTER
MOUNTING:	SURFACE MOUNT ON CONCEALED OUTLET BOX
ELECTRICAL:	120 OR 277 VOLT BALLAST
FINISH:	MOLDED IN NON-FADING GRAY OR WHITE FINISH

DETAIL: SURFACE MOUNTED COMPACT FLUORESCENT VAPOR TIGHT JELLY JAR WITH WIRE GUARD AND CONCEALED OUTLET BOX (SF12)

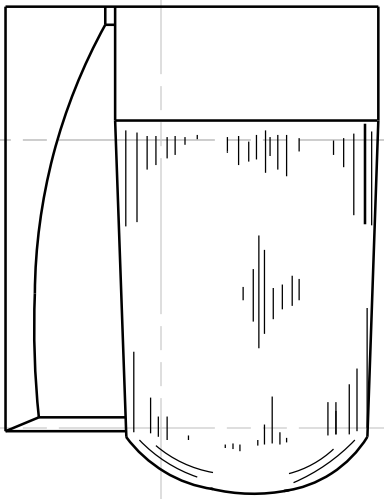
A1

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: SF13



FEATURES

LAMP TYPE: F18DTT/RS

PROFILE: 1 LAMP

SHIELDING: GASKETED OPAL POLYCARBONATE

BALLAST: ELECTRONIC

OPTIONS

LAMP TYPE: 90W TB/IF

MOUNTING: WALL, DUAL BRACKET

BALLAST: HIGH POWER FACTOR MAGNETIC

NOM. DIMENSIONS: 121 mm X 200 mm (4 3/4" DIA X 7 7/8" H)

GENERAL DESCRIPTION

HOUSING: DIE CAST ALUMINUM

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: NATURAL ALUMINUM

A1

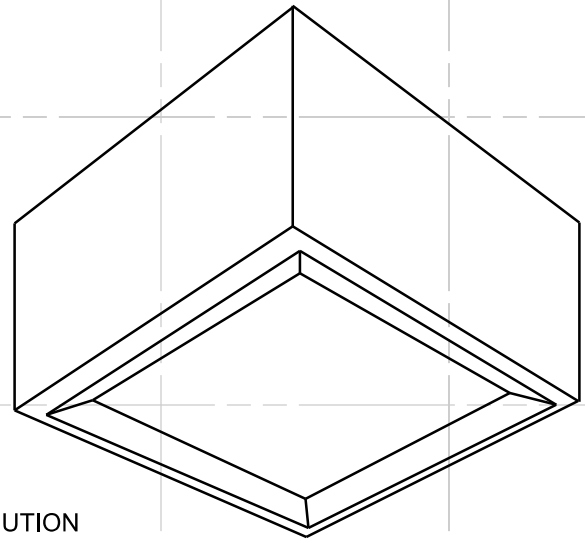
DETAIL: WALL MOUNTED COMPACT FLUORESCENT AREA LIGHT (SF13)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: SH2



FEATURES

LAMP TYPE:	175W MH
PROFILE:	1 LAMP
SHIELDING:	CLEAR FLAT TEMPERED GLASS
REFLECTORS:	HYDROFORMED, ANODIZED ALUMINUM
BALLAST:	HIGH POWER FACTOR MAGNETIC, CORE AND COIL, CWA

OPTIONS

LAMP TYPE:	150W HPS
MOUNTING:	YOKE
SHIELD:	POLYCARBONATE
REFLECTOR:	TYPE II, III, IV, AND V DISTRIBUTION

NOM. DIMENSIONS: 425 mm X 425 mm X 267 mm
(16 3/4" SQ. X 10 1/2" H)

GENERAL DESCRIPTION

HOUSING: HEAVY GAUGE ALUMINUM, CONTINUOUSLY SEAM WELDED, GROUND SMOOTH. CONTINUOUS GASKETING AROUND EXTRUDED ALUMINUM HINGED DOOR FRAME

ELECTRICAL: 120, 277, 208, 240, 347 AND 480 VOLT MULTI TAP BALLAST

FINISH: POLYESTER POWDER COAT

A1

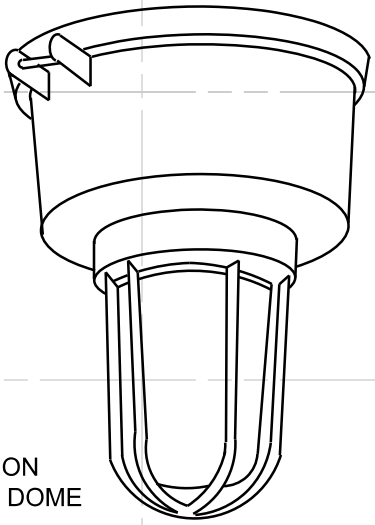
DETAIL: SURFACE MOUNTED METAL HALIDE GARAGE LUMINAIRE (SH2)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: SH3



FEATURES

LAMP TYPE:	175W MH
PROFILE:	1 LAMP
SHIELDING:	HEAT/IMPACT RESISTANT RIBBED GLASS
BALLAST:	HIGH POWER FACTOR MAGNETIC, CORE AND COIL, CWA

OPTIONS

LAMP TYPE:	HPS: 150W, 250W, 400W MH: 250W, 400W
MOUNTING:	PENDANT, BRACKET, STANCHION
SHIELDING:	STANDARD DOME, 30 DEGREE DOME

NOM. DIMENSIONS: 286 mm X 559 mm
(11 1/4" DIA X 22" H)

GENERAL DESCRIPTION

HOUSING:	CAST ALUMINUM
ELECTRICAL:	120 OR 277 VOLT BALLAST
FINISH:	POWDER COAT PAINT
OTHER:	NEC CLASS I, DIV. II, GROUPS C AND D; CLASS II, DIV. I AND II GROUPS E, F, G; CLASS III LOCATIONS

DETAIL: SURFACE MOUNTED EXPLOSION PROOF METAL HALIDE MOGUL BASE JELLY JAR, CLASS I / DIV II (SH3)

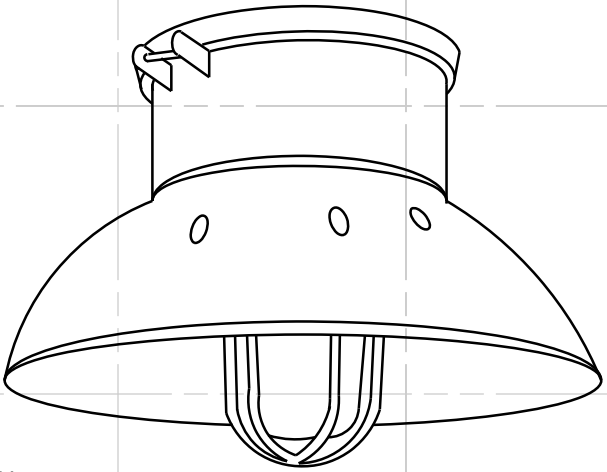
A1

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: SH4



FEATURES

LAMP TYPE:	175W MH
PROFILE:	1 LAMP
SHIELDING:	HEAT/IMPACT RESISTANT RIBBED GLASS
BALLAST:	HIGH POWER FACTOR MAGNETIC, CORE AND COIL, CWA

OPTIONS

LAMP TYPE:	HPS: 150W, 250W, 400W MH: 250W, 400W
MOUNTING:	PENDANT, BRACKET, STANCHION
SHIELDING:	STANDARD DOME, 30 DEGREE DOME

NOM. DIMENSIONS: 286 mm X 559 mm
(11 1/4" DIA X 22" H)

GENERAL DESCRIPTION

HOUSING: CAST ALUMINUM

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: POWDER COAT PAINT

OTHER: NEC CLASS I, DIV. I, GROUPS C AND D; CLASS II, DIV. I AND II GROUPS E, F, G; CLASS III LOCATIONS

A1

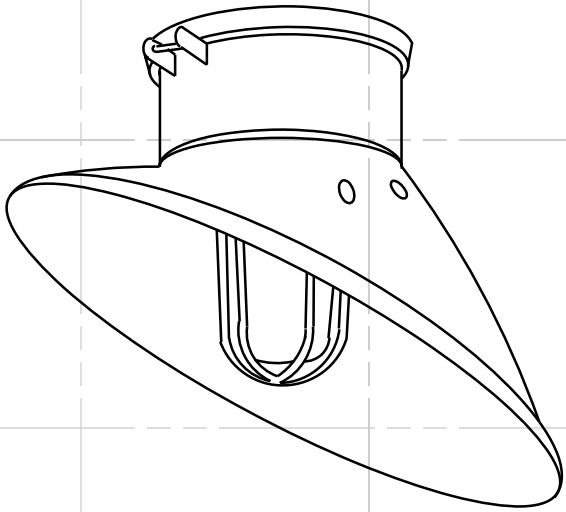
DETAIL: SURFACE MOUNTED EXPLOSION PROOF METAL HALIDE MOGUL BASE JELLY JAR, CLASS I / DIV I (SH4)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: SH5



FEATURES

LAMP TYPE:	175W MH
PROFILE:	1 LAMP
SHIELDING:	HEAT/IMPACT RESISTANT RIBBED GLASS
BALLAST:	HIGH POWER FACTOR MAGNETIC, CORE AND COIL, CWA

OPTIONS

LAMP TYPE:	HPS: 70W, 150W MH: 100W, 150W
MOUNTING:	PENDANT, BRACKET, STANCHION
SHIELDING:	STANDARD DOME, 30 DEGREE DOME

NOM. DIMENSIONS: 429 mm X 559 mm
(16 7/8" DIA X 22" H)

GENERAL DESCRIPTION

HOUSING: CAST ALUMINUM

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: POWDER COAT PAINT

OTHER: NEC CLASS I, DIV. II, GROUPS A, B, AND C; CLASS II, DIV I AND II GROUPS E, F, G AND CLASS III LOCATIONS

A1

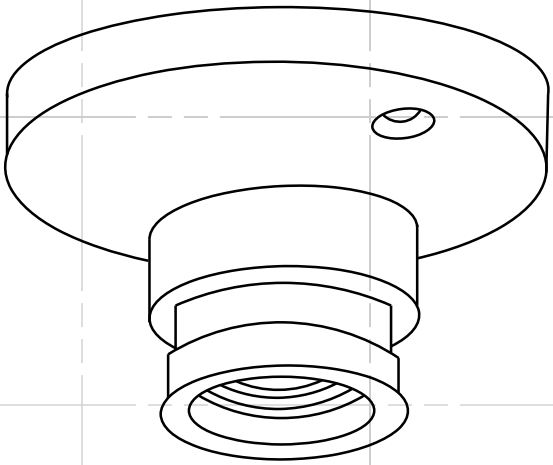
DETAIL: SURFACE MOUNTED EXPLOSION PROOF METAL HALIDE, MEDIUM BASE, JELLY JAR, CLASS I / DIV II (SH5)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: SI1



FEATURES

LAMP TYPE: 90W TB/IF

PROFILE: 1 LAMP

OPTIONS

LAMP TYPE: 100W A21/IF

OTHER: GROUNDED DUPLEX RECEPTACLE, PULL CHAIN.

NOM. DIMENSIONS: 102 mm X 60 mm (4" DIA X 2 3/8" D)

GENERAL DESCRIPTION

HOUSING: PORCELAIN SOCKET LAMP HOLDER WITH MEDIUM BASE SOCKET

ELECTRICAL: 120 VOLT

FINISH: WHITE

A1

DETAIL: SURFACE MOUNTED INCANDESCENT PORCELAIN LAMP HOLDER (SI1)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: TF1

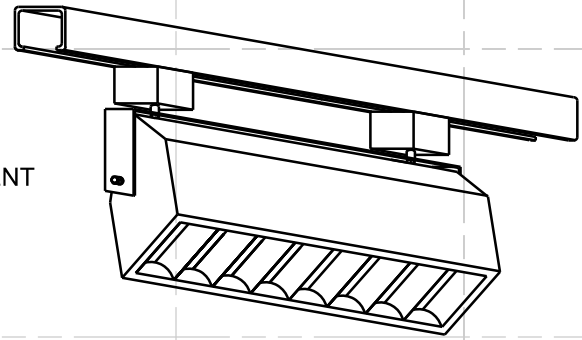
FEATURES

LAMP TYPE: F39TT/RS

PROFILE: 1 LAMP

SHIELDING: SEMI-SPECULAR LOW IRIDESCENT PARABOLIC LOUVER

BALLAST: ELECTRONIC



OPTIONS

LAMP TYPE: F40TT/RS, F50TT/RS

MOUNTING: RECESSED, PENDANT, 2 CIRCUIT TRACK

BALLAST: HIGH POWER FACTOR MAGNETIC

NOM. DIMENSIONS: 127 mm X 178 mm X 508 mm (5" H X 7" W X 20" L)

GENERAL DESCRIPTION

HOUSING: EXTRUDED OR DIE-CAST ALUMINUM

REFLECTORS: ANODIZED SPECULAR ALUMINUM

ELECTRICAL: 120 VOLT BALLAST

FINISH: WHITE OR BLACK BAKED ENAMEL PAINT

A1

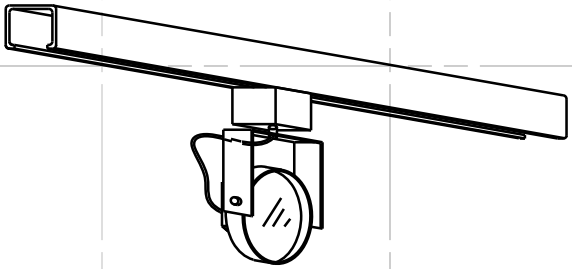
DETAIL: COMPACT FLUORESCENT WALLWASH TRACK HEAD AND TRACK (TF1)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: TI1



FEATURES

LAMP TYPE: 90W PAR38

PROFILE: 1 LAMP

OPTIONS

LAMP TYPE:	60W, Q150W PAR38
MOUNTING:	RECESSED, PENDANT, 2 CIRCUIT TRACK
SHIELDING:	SPREAD LENS, UV FILTER, COLOR FILTERS
OTHER:	LOCKING YOKE, ACCESSORY HOLDER

NOM. DIMENSIONS: 183 mm X 133 mm
(7 3/16" H X 5 1/4" DIA)

GENERAL DESCRIPTION

HOUSING: EXTRUDED ALUMINUM STRUCTURAL CHANNEL WITH NOMINAL 1.5 mm (0.06") WALL THICKNESS; DIE-CAST ALUMINUM TRACK RING, ADJUSTABLE BOTH HORIZONTALLY AND VERTICALLY; PAINTED STEEL YOKE.

ELECTRICAL: 120 VOLT

FINISH: WHITE BAKED ENAMEL PAINT

A1

DETAIL: INCANDESCENT GIMBEL RING TRACK HEAD AND TRACK (TI1)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

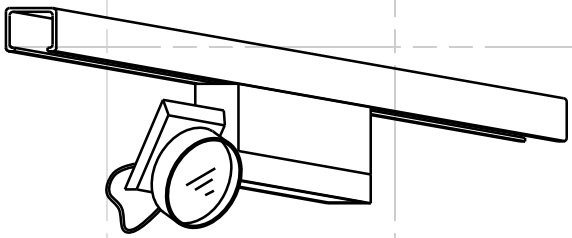
TYPE: TI2

FEATURES

LAMP TYPE: 50W MR16

PROFILE: 1 LAMP

OTHER: ELECTRONIC TRANSFORMER



OPTIONS

LAMP TYPE:	75W MR16
MOUNTING:	RECESSED, PENDANT, 2 CIRCUIT TRACK
SHIELDING:	SPREAD LENS, UV FILTER, COLOR FILTERS
OTHER:	LOCKING YOKE, ACCESSORY HOLDER, MAGNETIC TRANSFORMER
NOM. DIMENSIONS:	127 mm X 114 mm (5" H X 4 1/2" W)

GENERAL DESCRIPTION

HOUSING: EXTRUDED ALUMINUM STRUCTURAL CHANNEL WITH NOMINAL 1.5 mm (0.06") WALL THICKNESS; DIE-CAST ALUMINUM TRACK RING, ADJUSTABLE BOTH HORIZONTALLY AND VERTICALLY; PAINTED STEEL YOKE

ELECTRICAL: 120/12 VOLT INTEGRAL TRANSFORMER

FINISH: WHITE BAKED ENAMEL PAINT

A1

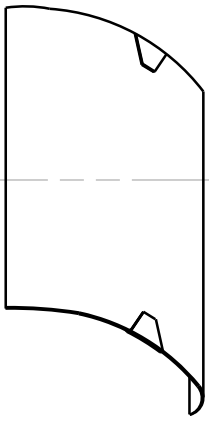
DETAIL: LOW VOLTAGE INCANDESCENT GIMBEL RING TRACK HEAD AND TRACK (TI2)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: WF2



FEATURES

LAMP TYPE: F13TT/RS

PROFILE: 2 LAMP

SHIELDING: OPAL ACRYLIC

BALLAST: ELECTRONIC

OPTIONS

BALLAST: HIGH POWER FACTOR MAGNETIC, DIMMING

NOM. DIMENSIONS: 305 mm X 305 mm X 102 mm (12" W X 12" H X 4" D)

GENERAL DESCRIPTION

HOUSING: 20 GAUGE COLD ROLLED STEEL BACK PAN, PAINTED HIGHLY REFLECTIVE WHITE

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: SATIN BRASS, SATIN ALUMINUM, OR PAINTED

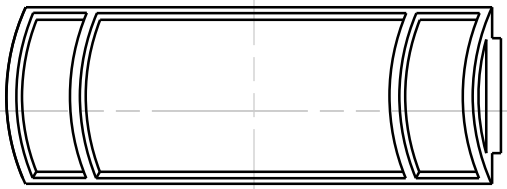
A1

DETAIL: WALL MOUNTED COMPACT FLUORESCENT SCONCE, ADA COMPLIANT (WF2)

SCALE: NTS

CORPS OF ENGINEERS DEPARTMENT OF THE ARMY

TYPE: WF3



FEATURES

LAMP TYPE: F27TT/RS

PROFILE: 1 LAMP

SHIELDING: WHITE ACRYLIC

BALLAST: ELECTRONIC

OPTIONS

BALLAST: HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY

NOM. DIMENSIONS: 203 mm X 102 mm X 457 mm (8" W X 4" D X 18" H)

GENERAL DESCRIPTION

HOUSING: HEAVY GAUGE COLD ROLLED STEEL BACK PLATE

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: POLISHED CHROME OR BRASS, OR PAINTED

A1

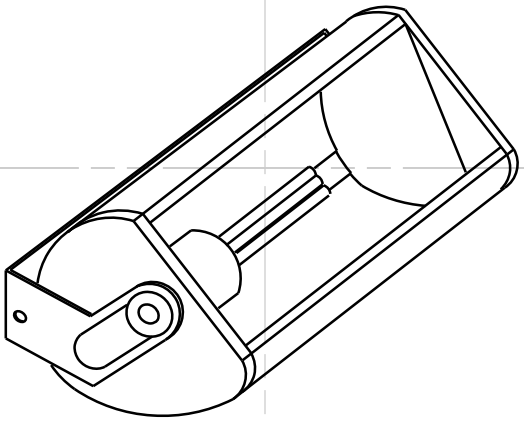
DETAIL: COMPACT FLUORESCENT VANITY LIGHT, ADA COMPLIANT (WF3)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: WF4



FEATURES

LAMP TYPE: F26DTT/RS

PROFILE: 1 LAMP

SHIELDING: CLEAR ACRYLIC LENS

BALLAST: ELECTRONIC

OPTIONS

BALLAST: HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY

NOM. DIMENSIONS: 121 mm X 121 mm X 305 mm (4 3/4" D X 4 3/4" W X 12" L)

GENERAL DESCRIPTION

HOUSING: EXTRUDED ALUMINUM OR FORMED 20 GA. COLD ROLLED STEEL

REFLECTORS: SPECULAR ALUMINUM

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: POLYESTER POWDER COAT OR BAKED ENAMEL PAINT

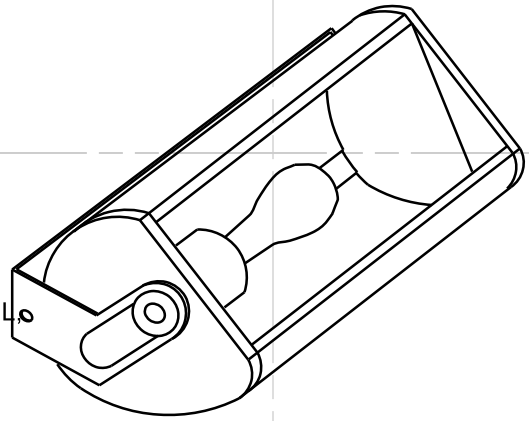
DETAIL: WALL MOUNTED COMPACT FLUORESCENT INDIRECT ASYMMETRIC LUMINAIRE (WF4)

A1

SCALE: NTS

CORPS OF ENGINEERS DEPARTMENT OF THE ARMY

TYPE: WH1



FEATURES

LAMP TYPE: 175W MH
PROFILE: 1 LAMP
SHIELDING: IMPACT AND HEAT RESISTANT GLASS
BALLAST: REMOTE HIGH POWER FACTOR, CORE AND COIL, CWA

OPTIONS

LAMP TYPE: MH: 250W, 400W
HPS: 250W, 400W

NOM. DIMENSIONS: 406 mm X 254 mm X 165 mm
(16" L X 10" D X 6 1/2" H)

GENERAL DESCRIPTION

HOUSING: ROLL FORMED 18 GA. CRS WITH DIE CAST END CAPS

REFLECTORS: DIE CUT SEGMENTED PANELS, POLISHED ANODIZED ALUMINUM WITH MINIMUM 83% REFLECTANCE

ELECTRICAL: 120 OR 277 VOLT REMOTE BALLAST MOUNTED WITHIN 3 M (10')

FINISH: POLYESTER POWDER COAT PAINT

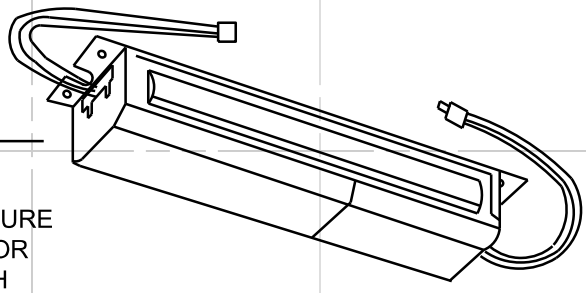
A1

DETAIL: SURFACE MOUNTED METAL HALIDE INDIRECT ADJUSTABLE LUMINAIRE (WH1)

SCALE: NTS

CORPS OF ENGINEERS DEPARTMENT OF THE ARMY

TYPE: XF1



FEATURES

LAMP TYPE:	F32T8/RS, F25T8/RS
PROFILE:	1 LAMP
MOUNTING:	CONCEALED IN FIXTURE
OTHER:	CHARGING INDICATOR LIGHT; TEST SWITCH
BATTERY:	90 MINUTE OPERATION

OPTIONS

PROFILE:	2 LAMPS
LAMP TYPE:	F40TT, F40/U/

NOM. DIMENSIONS: 38 mm X 64 mm X 241 mm
(1 1/2" W x 2 1/2" H x 9 1/2")

GENERAL DESCRIPTION

HOUSING:	22 GAUGE RED PAINTED STEEL ENCLOSURE
ELECTRICAL:	120 OR 277 VOLT
BATTERY:	HIGH TEMPERATURE NICKEL CADMIUM
OTHER:	NOT SUITABLE FOR INSTALLATION IN HEATED AIR OUTLET FIXTURES, WET, DAMP OR HAZARDOUS LOCATION FIXTURES

A1

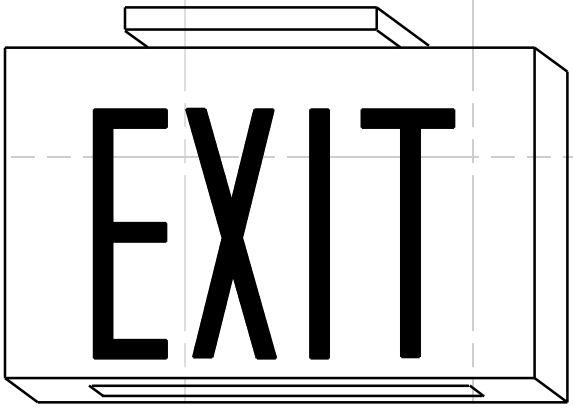
DETAIL: EMERGENCY BATTERY PACK UNIT (WF1)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: XF2



FEATURES

LAMP TYPE:	F7TT/RS
PROFILE:	1 LAMP
MOUNTING:	UNIVERSAL
SHIELDING:	FLAT SHEET ACRYLIC
BALLAST:	MAGNETIC
LETTERS:	GREEN
FINISH:	BLACK

OPTIONS

PROFILE:	2 LAMP
LAMP TYPE:	F5TT
LETTERS:	RED
FINISH:	WHITE, BRONZE, BRASS, CHROME

NOM. DIMENSIONS: 298 mm W X 222 mm H X 95 mm D
(11 3/4" W x 8 3/4" H x 3 3/4" D)

GENERAL DESCRIPTION

HOUSING: DIE-CAST ALUMINUM OR 20 GA. CRS, HARDWARE FINISH TO MATCH HOUSING FINISH. LETTERS ARE 152 mm (6") HIGH WITH 19 mm (3/4") STROKE OR AS SPECIFIED. DIRECTIONAL ARROWS AS REQUIRED.

ELECTRICAL: 6 OR 12 VOLT DC; 120 OR 277 VOLT AC

OTHER: MINIMUM BRIGHTNESS 50 CD/SQ METER ON FACE OF SIGN.

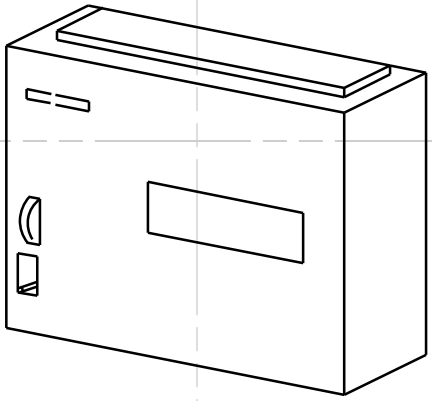
A1

DETAIL: FLUORESCENT STENCIL FACE EXIT SIGN (XF2)

SCALE: NTS

CORPS OF ENGINEERS DEPARTMENT OF THE ARMY

TYPE: XI1



FEATURES

BATTERY: SEALED LEAD CALCIUM,
3 YEAR

OPTIONS

BATTERY: SEALED LONG LIFE, 5 YEAR
SEALED NICKEL CADMIUM

NOM. DIMENSIONS: 267 mm X 140 mm X 73 mm
(10 1/2" L X 5 1/2" H X 2 7/8" W)

GENERAL DESCRIPTION

HOUSING: COMPACT FIRE-RETARDANT THERMOPLASTIC

MOUNTING: LIGHTING HEADS MOUNTED TOP OR SIDE, WALL-MOUNTED UNIT.

ELECTRICAL: 120 OR 277 VOLT PRIMARY, 6 OR 12 VOLT SECONDARY

FINISH: OFF WHITE

A1

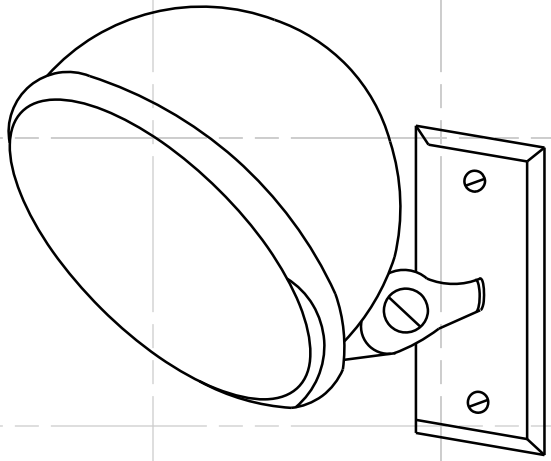
DETAIL: EMERGENCY LIGHTING BATTERY UNIT (XI1)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: XI2



FEATURES

LAMP TYPE: 18W PAR36

PROFILE: 1 LAMP

OPTIONS

LAMP TYPE: 8W, 12W PAR36

PROFILE: 2 LAMP

NOM. DIMENSIONS: 76 mm X 197 mm X 168 mm
(3" D X 7 3/4" H X 6 5/8" W)

GENERAL DESCRIPTION

HOUSING: IMPACT RESISTANT, FLAME RETARDANT THERMOPLASTIC

MOUNTING: TOP MOUNTING OR SIDE MOUNTING TO XI1 EMERGENCY UNIT

ELECTRICAL: 6 OR 12 VOLT SUPPLY FROM EMERGENCY UNIT

FINISH: OFF WHITE

A1

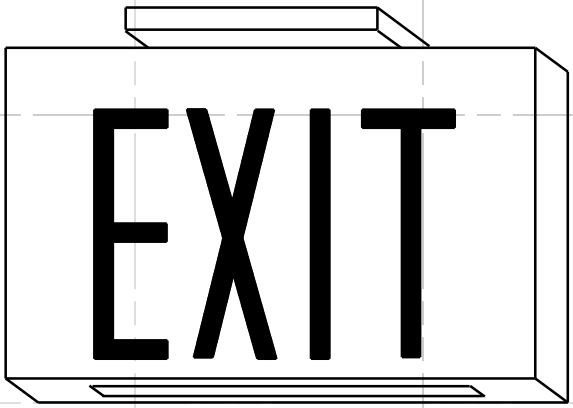
DETAIL: EMERGENCY REMOTE-MOUNTED FLOODLIGHT FOR USE WITH TYPE XI1 EMERGENCY UNIT (XI2)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: XL1



FEATURES

LAMP TYPE: LED

MOUNTING: UNIVERSAL

SHIELDING: FLAT SHEET ACRYLIC

LETTERS: GREEN

OPTIONS

LETTERS: RED

OTHER: BRUSHED ALUMINUM, WHITE AND BRONZE

NOM. DIMENSIONS: 289 mm X 200 mm X 44 mm (11 3/8" W X 7 7/8" H X 1 3/4" D)

GENERAL DESCRIPTION

HOUSING: DIE-CAST ALUMINUM OR 20 GA. COLD ROLLED STEEL, HARDWARE FINISH TO MATCH HOUSING FINISH. 152 mm (6") H LETTERS WITH 19 mm (3/4") STROKE. DIRECTIONAL ARROWS AS REQUIRED

ELECTRICAL: 120 OR 277 VOLT

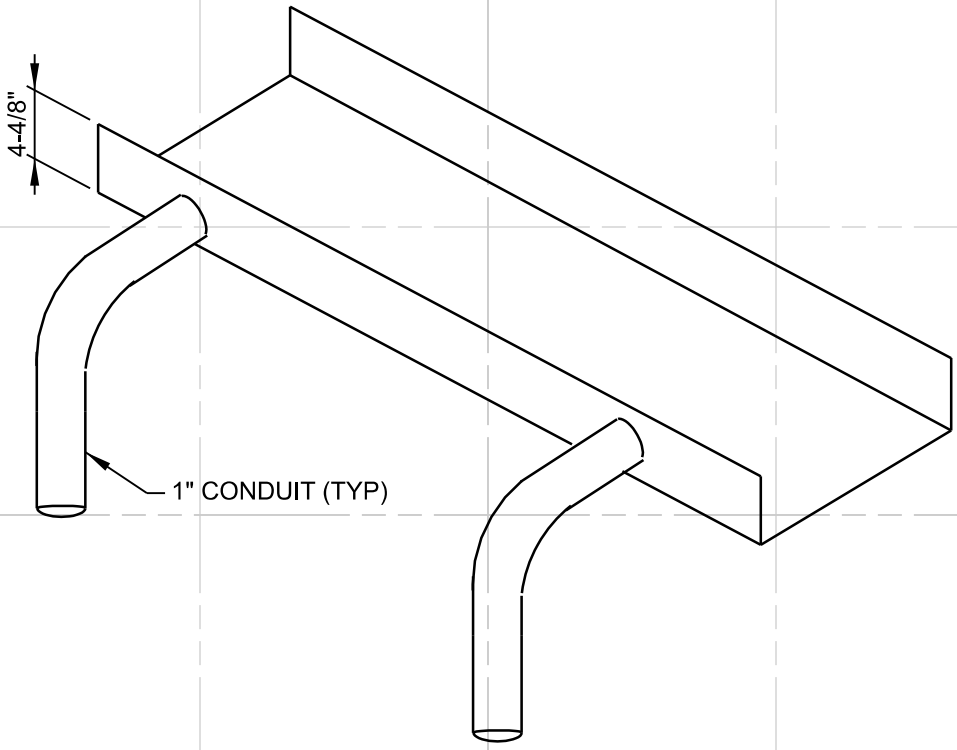
FINISH: BLACK

OTHER: MINIMUM BRIGHTNESS 20 CD/SQ METER ON FACE OF SIGN.

A1

DETAIL: LED STENCIL FACE EXIT SIGN (XL1)

SCALE: NTS

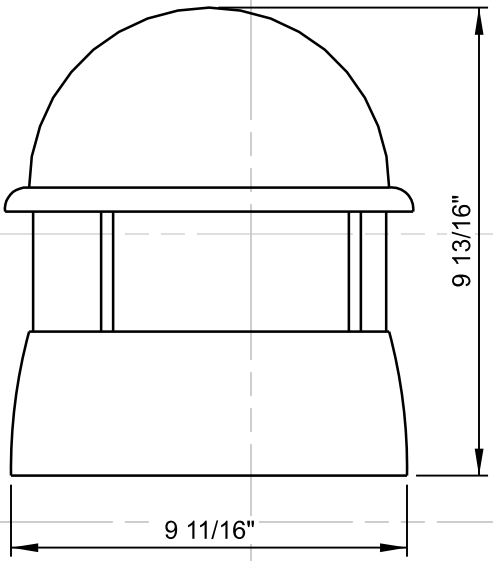


NOTE:
CONDUIT RUN TO JUNCTION BOXES IN ROOMS (TYP).

A1

DETAIL: TYPICAL CABLE TRAY

SCALE: NTS



NOTE:
HEAVY DUTY CAST BASE AND DOME WITH THREE MOUNTING LUGS

SPECULAR DUAL INCLINED REVOLVING REFLECTOR

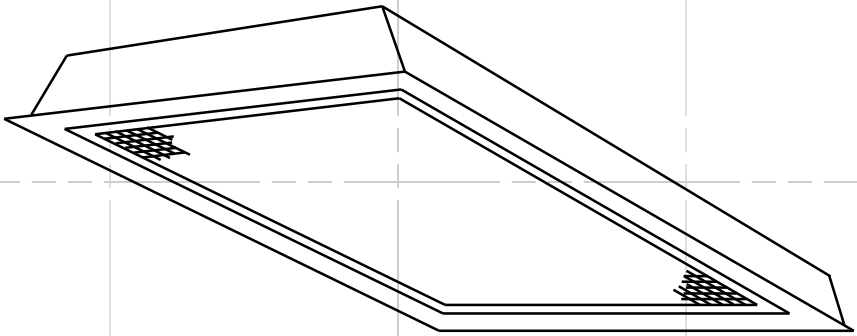
HIGH STRENGTH RED POLYCARBONATE CYLINDER

THREE WIRED TERMINAL FOR MOTOR AND LAMP LEADS, FACTORY WIRED FOR FAST INSTALLATION

A1

DETAIL: FIXTURE TYPE "Y"

SCALE: NTS

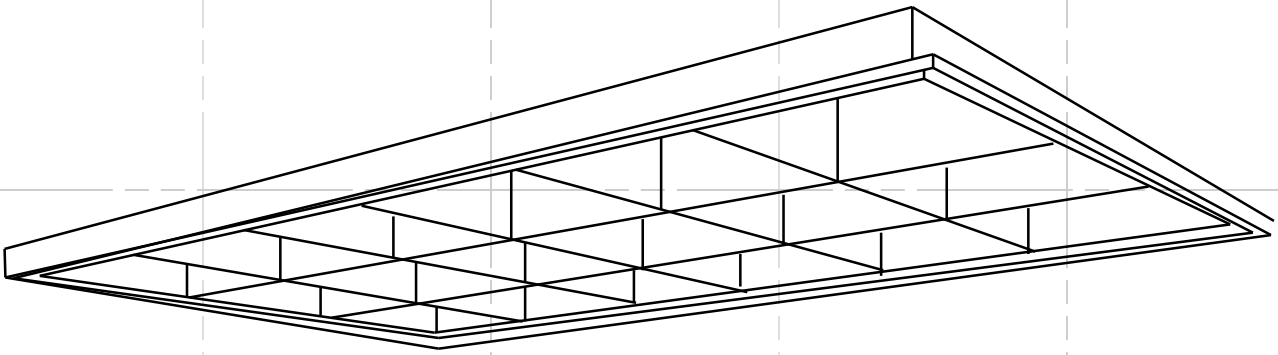


NOTE:
FIXTURE SHALL CONFORM TO UL 1570. HOUSING SHALL BE COMPLETE WITH INTEGRAL SIDE TRIM FLANGES AND SHALL BE SUITABLE FOR MOUNTING IN CONTINUOUS ROWS. HOUSING AND TRIM FLANGES SHALL BE COLD ROLLED STEEL. THE LENS OR LOUVER SHALL BE INSTALLED IN A MANNER THAT WILL PREVENT IT FROM COMING LOOSE DUE TO VIBRATION. THE BALLAST AND WIRING SHALL BE ENCLOSED IN A WIREWAY THAT IS CONTINUOUS THROUGHOUT THE LENGTH OF THE FIXTURE AND WHICH FORMS A WIREWAY FOR CIRCUITS THROUGH THE FIXTURE. ALL METAL PARTS SHALL RECEIVE A RUST INHIBITIVE COATING BEFORE APPLICATION OF THE FINISH COAT. THE FINISH COAT SHALL BE BAKED ENAMEL. THE ACRYLIC LENS SHALL BE FLAT, 0.125 INCH NOMINAL THICKNESS, LOW BRIGHTNESS, WITH SMOOTH TOP SURFACE HAVING A REGULAR ARRAY OF PRISMATIC ELEMENTS. STANDARD BALLAST SHALL BE OF THE CLASS P, HIGH POWER FACTOR TYPE THAT HAS BEEN APPROVED BY THE CERTIFIED BALLAST MANUFACTURERS FOR THE APPLICATION. FIXTURE SHALL BE PREWIRED.

A1

DETAIL: FIXTURE TYPE "M", "ME"

SCALE: NTS

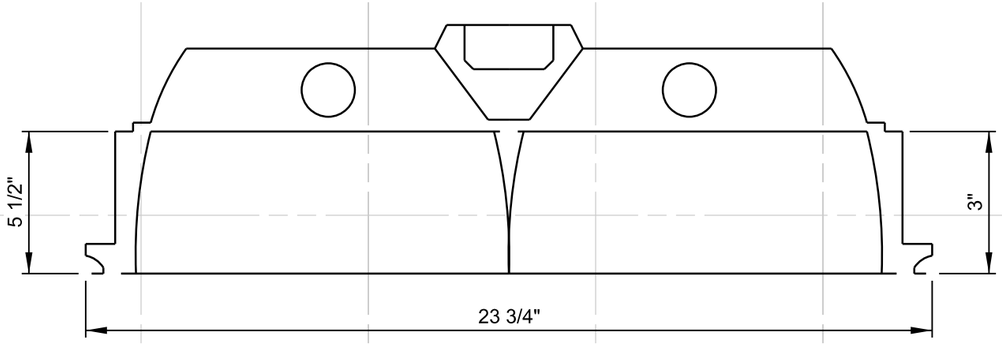


NOTE:
18 CELL-2 LAMP PARABOLIC TROFFER CONSTRUCTED OF DIE-FORMED STAINLESS STEEL WITH WHITE BAKED ENAMEL FINISH.

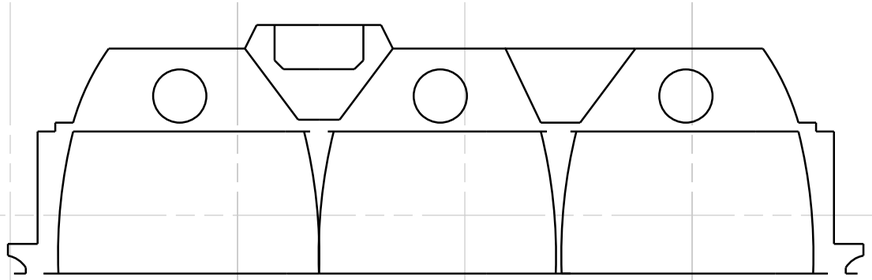
A1

DETAIL: 18 CELL 2-LAMP PARABOLIC TROFFER

SCALE: NTS



TYPES "S" AND "T" FIXTURE



TYPE "R" FIXTURE

FIXTURE TYPE R, S AND T SPECIFICATION

CONSTRUCTION
51/2" DEEP RECESSED HOUSING, ONE PIECE DIE FORMED CODE GAUGEPRIME COLD ROLLED STEEL. FULL LENGTH DIE FORMED INTEGRAL STIFFENERS. BALLAST COVER EASILY REMOVED WITHOUT TOOLS DIE FORMED LAMPHOLDER BRACKET. HEAVY END PLATES.

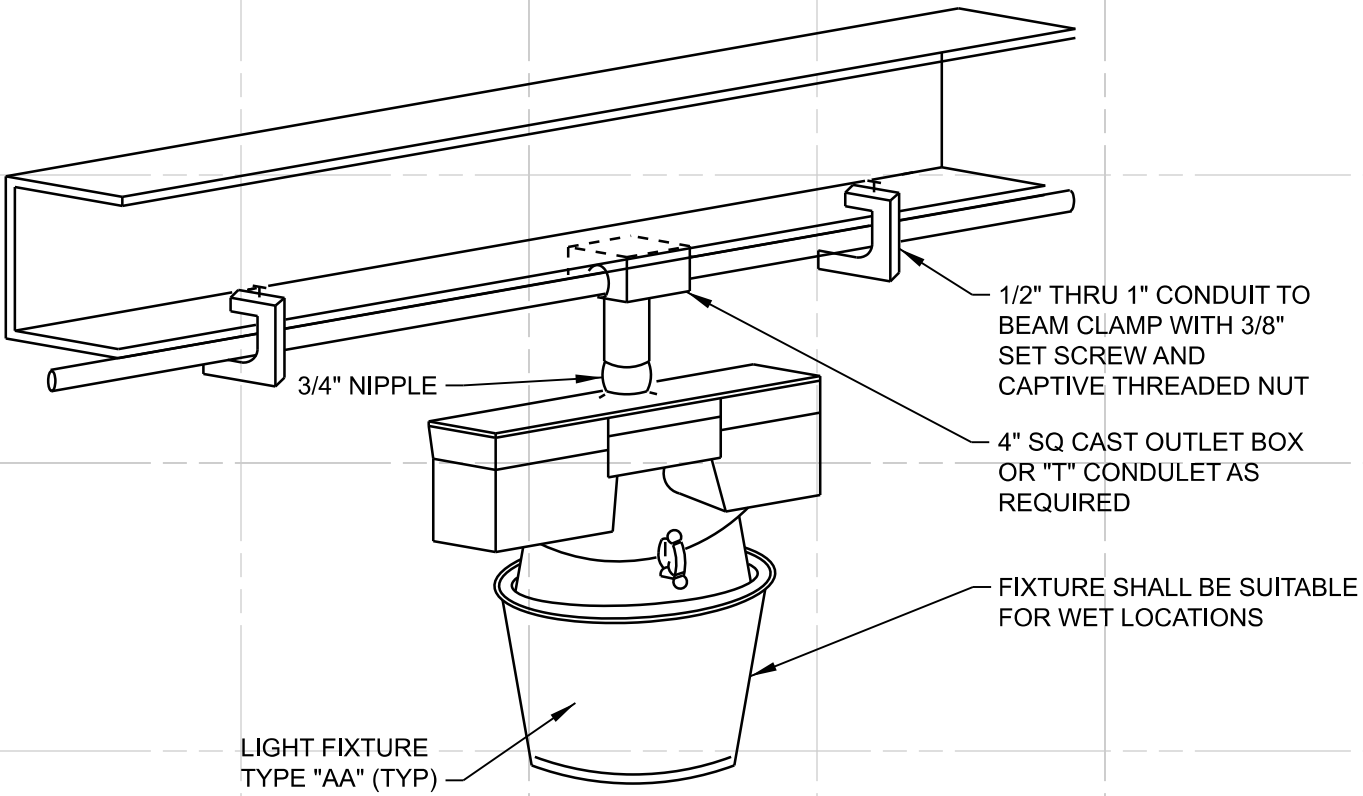
FINISH
ELECTROSTATICALLY APPLIED BAKED WHITE ALKYD ENAMEL. MINIMUM REFLECTANCE 89 %.

LOUVER
FORMED OF SEMI-SPECULAR ANODIZED ALUMINUM. FINISH IS ANODIC OXIDE COATING. ACCURATE PARABOLIC CELLS ARE HELD IN PLACE WITH INTERLOCKING FEATURE. BLACK REVEAL AROUND ENTIRE PERIMETER OF LOUVER ON RETURN AIR TYPE. POSITIVE CAM ACTION SPRING LOADED LATCHES. SAFETY LOCK T-HINGES ALLOWING HINGING AND LATCHING EITHER SIDE.

A1

DETAIL: TYPES "S", "T" AND "R" FIXTURES

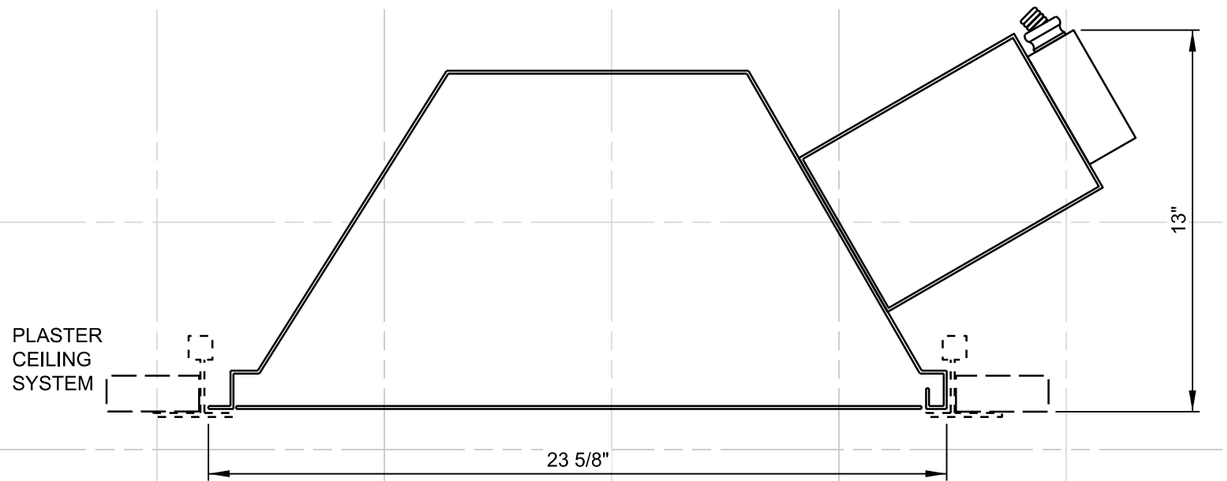
SCALE: NTS



A1

DETAIL: CANOPY LIGHT

SCALE: NTS

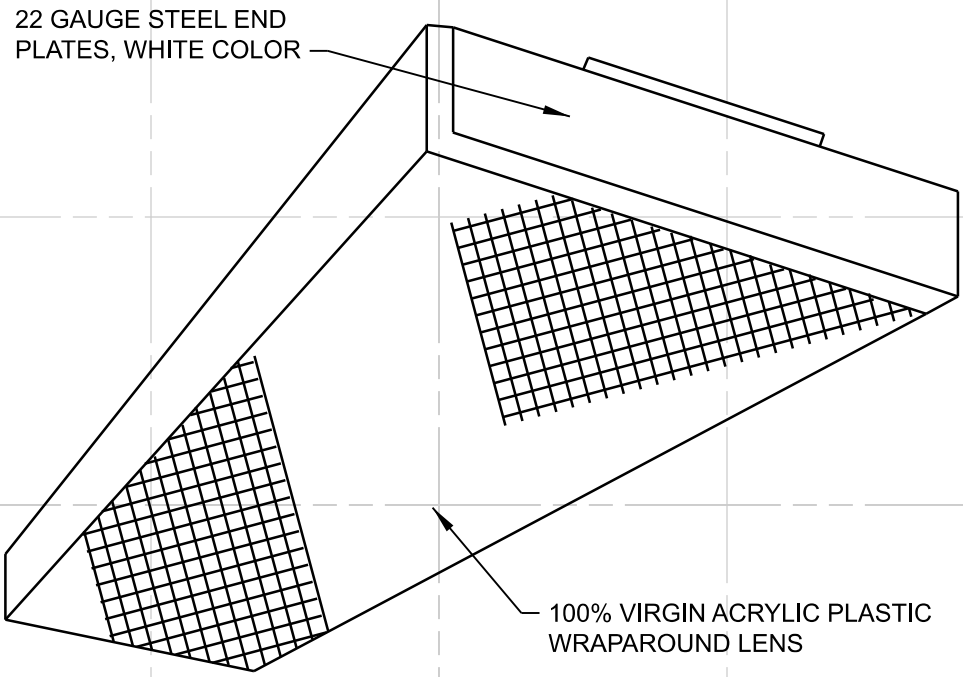


NOTE:
FIXTURE SHALL CONFORM TO UL 1572. THE FIXTURE SHALL BE DESIGNED FOR INSTALLATION IN A PLASTER TYPE CEILING. THE FIXTURE HOUSING SHALL BE STEEL. ALL FERROUS METALS SHALL RECEIVE A RUST INHIBITIVE COATING AND BE FINISHED WITH BAKED WHITE ENAMEL. THE REFLECTOR SHALL BE ALUMINUM. REFLECTOR FINISH SHALL BE MANUFACTURER'S STANDARD COMMERCIAL PRODUCT FINISH SUITABLE FOR THE LIGHT SOURCE PROVIDED. THE FRAMING ENCLOSING THE DIFFUSER OR LENS SHALL BE CONSTRUCTED OF EXTRUDED ALUMINUM WITH A BAKED WHITE FINISH AND SHALL ENCLOSE A PRISMATIC GLASS LENS WHICH DOES NOT REQUIRE A HEAT SHIELD. LENS FRAME SHALL BE HINGED AND SHALL HAVE CONCEALED SPRING-LOADED LATCHES. THE LAMPHOLDER SHALL BE MOGUL BASE GLAZED PORCELAIN. FIXTURE SHALL BE PREWIRED. BALLAST SHALL BE OF THE HIGH POWER FACTOR TYPE. FIXTURE DEPTH SHALL NOT EXCEED 13 INCHES.

A1

DETAIL: TYPE "H", "HE" FIXTURE

SCALE: NTS

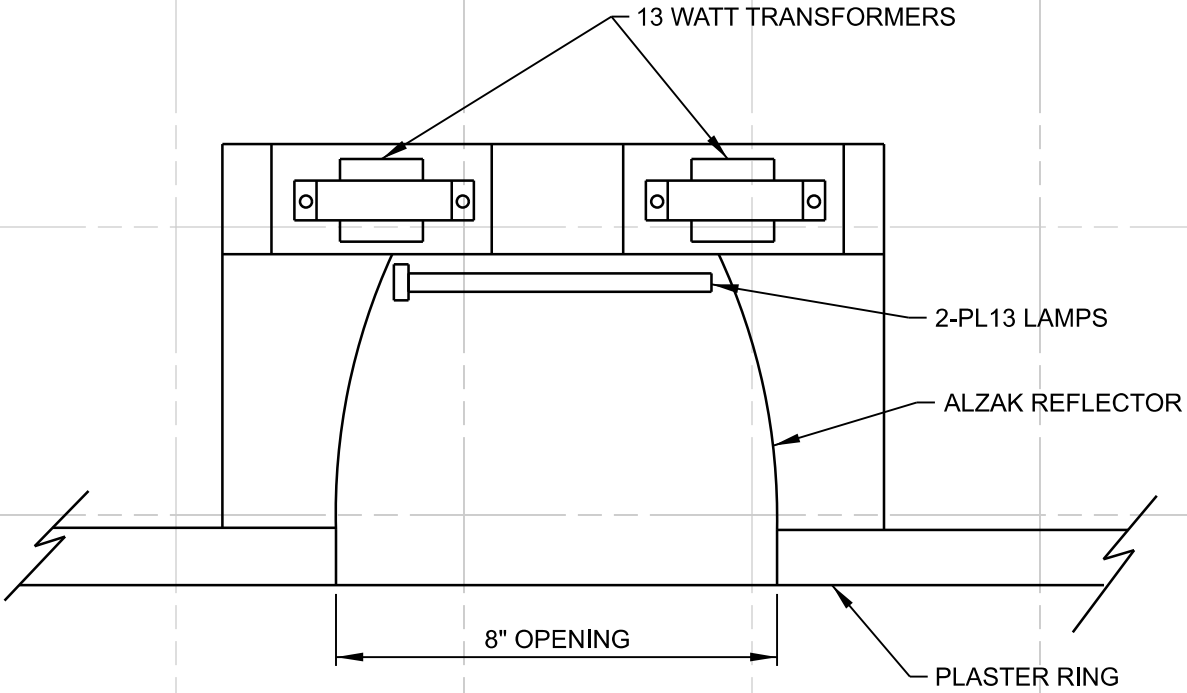


NOTE:
FIXTURE SHALL CONFORM TO UL 1570. SURFACE MOUNTED ENCLOSED HIGH GLOSS BAKED ENAMEL MINIMUM 86% REFLECTIVITY 22 GAUGE STEEL.

A1

DETAIL: TYPE "C", "CE" FIXTURE

SCALE: NTS

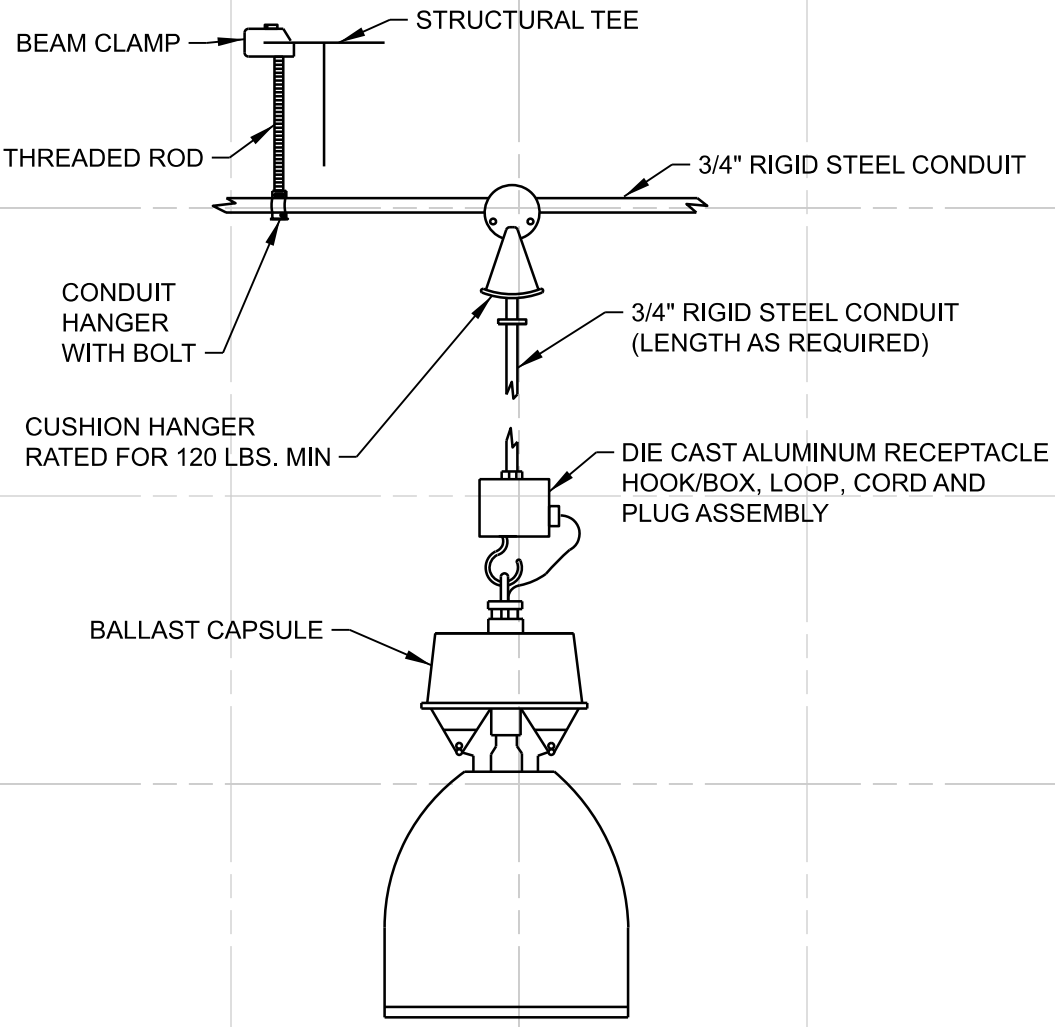


NOTE:
FIXTURE SHALL HAVE A THROUGH-HOLE FOR RELAMPING AND ADJUSTABLE MOUNTING BRACKETS. FIXTURE TYPE "C"

A1

DETAIL: FIXTURE TYPE "C"

SCALE: NTS

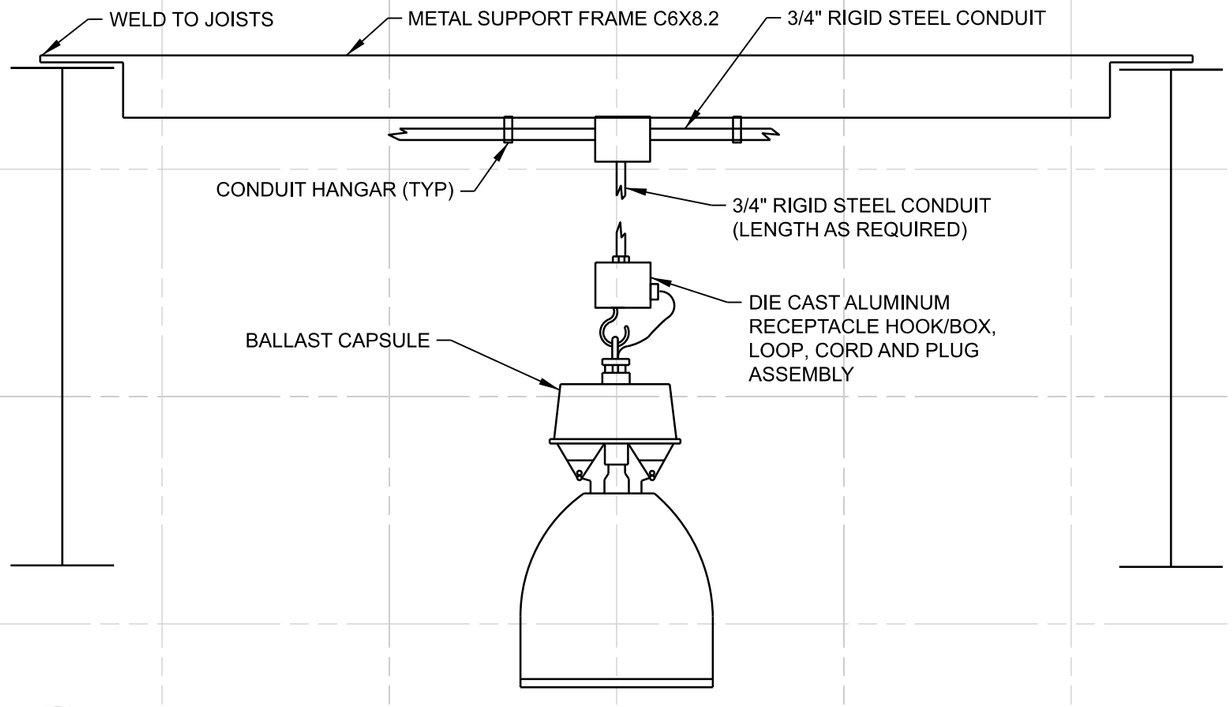


NOTE:
FIXTURE SUPPORTED IN ACCORDANCE WITH SPEC. 16W1 PAR 7.2.5 (TYP)

A1

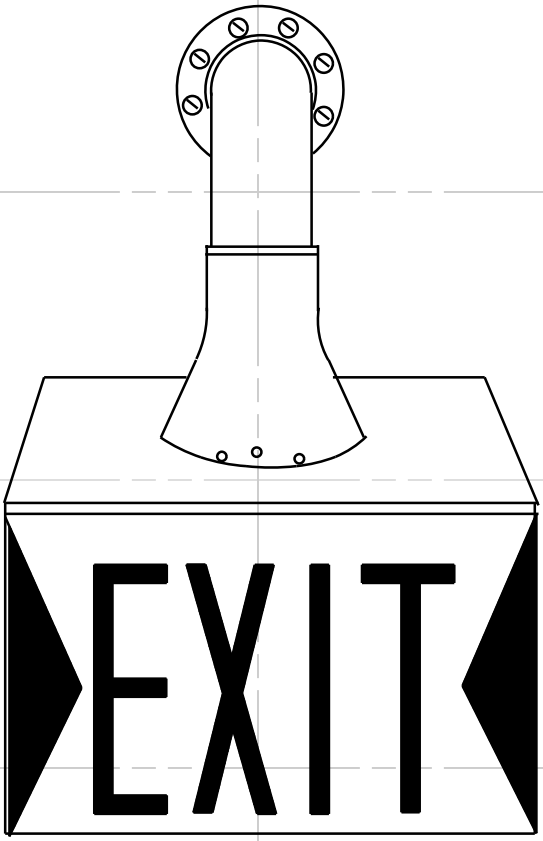
DETAIL: TYPES "H", "CC" FIXTURE

SCALE: NTS



A1 DETAIL: TYPE "G" FIXTURE

SCALE: NTS

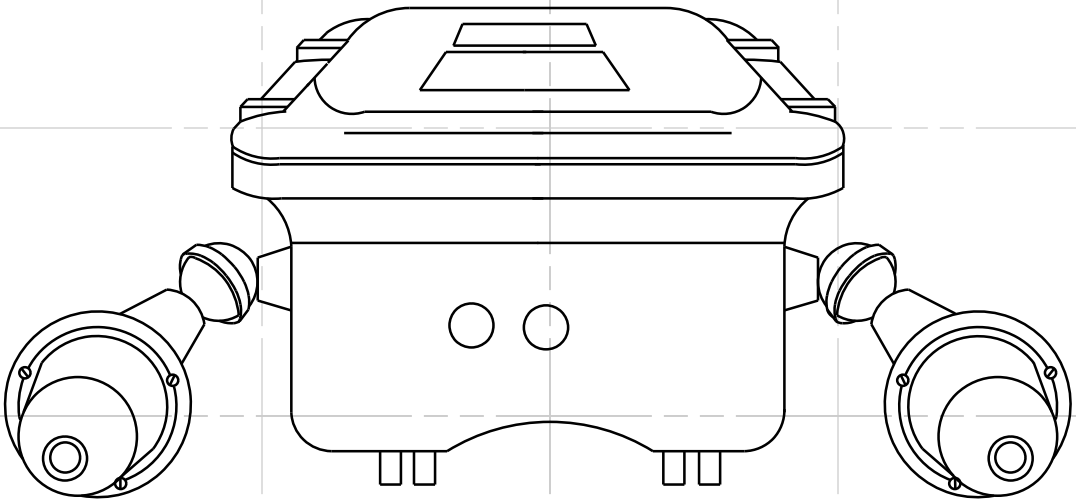


NOTE:
EXPLOSION PROOF EXIT FIXTURE. CAST ALUMINUM CONSTRUCTION WHICH IS SWIVAL MOUNTED AND DIRECTIONALLY ADJUSTABLE. FURNISHED WITH STANDARD BATTERY CHARGER, FULLY SUPERVISED CIRCUIT, TEST SWITCH AND MONITOR LIGHT.

A1

DETAIL: EXPLOSION PROOF EXIT FIXTURE

SCALE: NTS

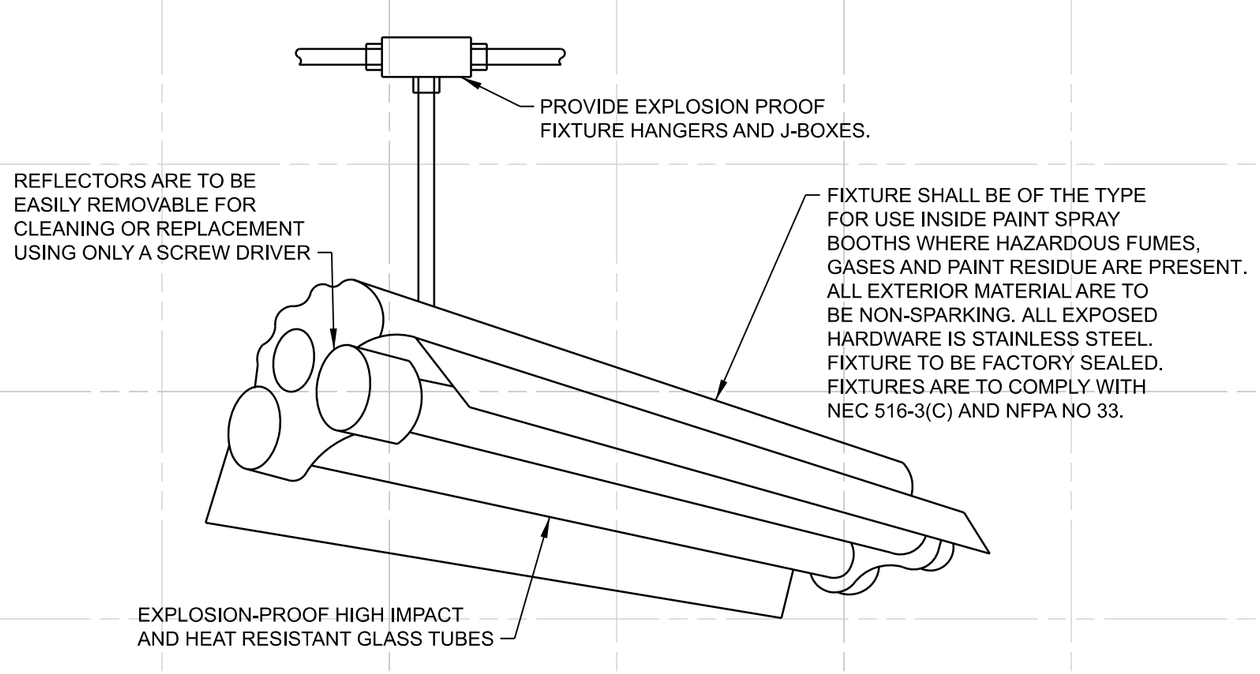


NOTE:
EXPLOSION PROOF EMERGENCY LIGHT FIXTURE. CAST ALUMINUM CONSTRUCTION WHICH IS SWIVAL MOUNTED AND DIRECTIONALLY ADJUSTABLE WITH GLOBE AND WIRE GUARD. FURNISHED WITH STANDARD BATTERY CHARGER, FULLY SUPERVISED CIRCUITRY, TEST SWITCH AND MONITOR LIGHT.

A1

DETAIL: EXPLOSION PROOF EMERGENCY LIGHT FIXTURE

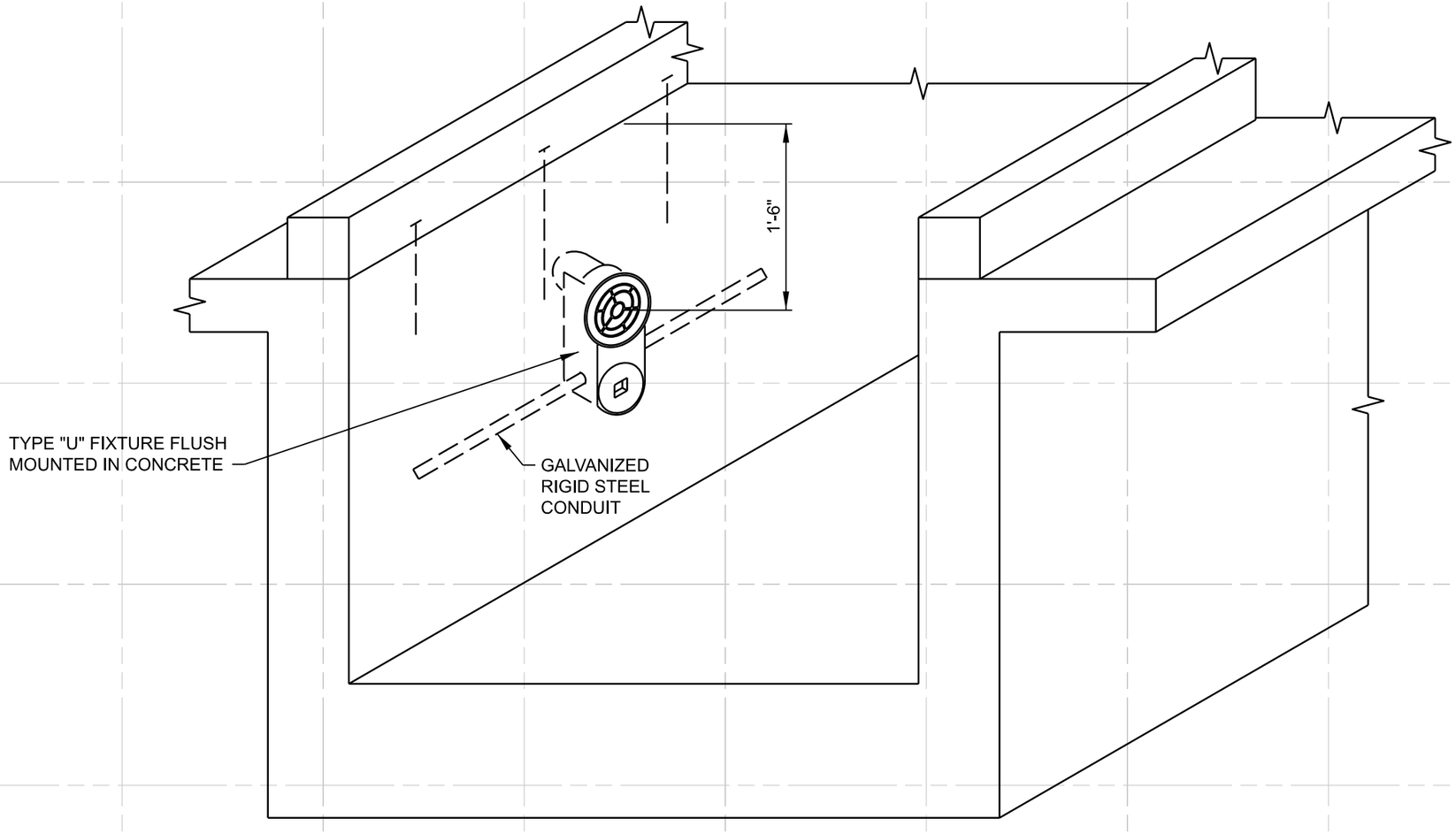
SCALE: NTS



A1

DETAIL: TYPE "P" FIXTURE (CLASS 1 DIV. 1)

SCALE: NTS



A1 DETAIL: PIT LIGHT

SCALE: NTS

CORPS OF ENGINEERS DEPARTMENT OF THE ARMY

TYPE: WF8

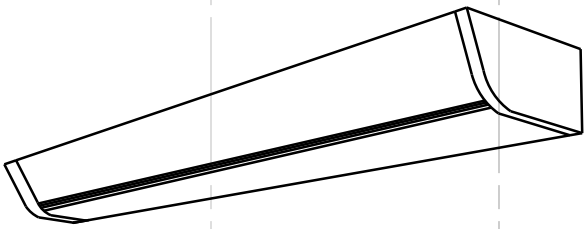
FEATURES

LAMP TYPE: F32T8/75 CRI

PROFILE: 2 LAMP

SHIELDING: PRISMATIC ACRYLIC

BALLAST: ELECTRONIC



OPTIONS

LAMP TYPE: F25T8/RS
PROFILE: 1 LAMP
BALLAST: HIGH POWER FACTOR
MAGNETIC, DIMMING, EMERGENCY

NOM. DIMENSIONS: 92 mm X 1219 mm X 84 mm
(3 5/8" D X 4' L X 3 5/16" H)

GENERAL DESCRIPTION

HOUSING: DIE FORMED 20 GAUGE COLD ROLLED STEEL WITH END PLATES

REFLECTORS: HIGHLY REFLECTIVE WHITE BAKED ENAMEL

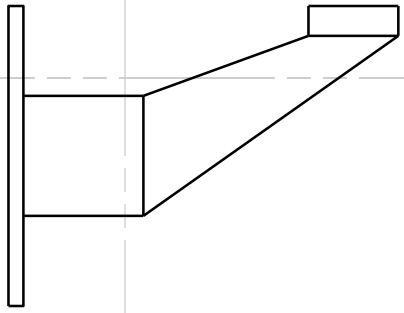
ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: WHITE POLYESTER POWDER COAT

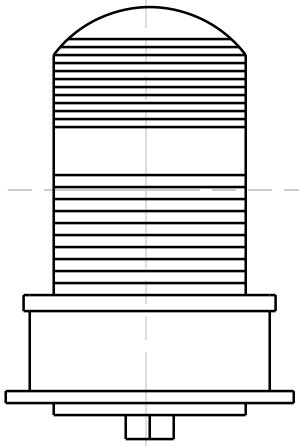
A1

DETAIL: FLUORESCENT WALL MOUNT (WF8)

SCALE: NTS



BEACON WALL BRACKET

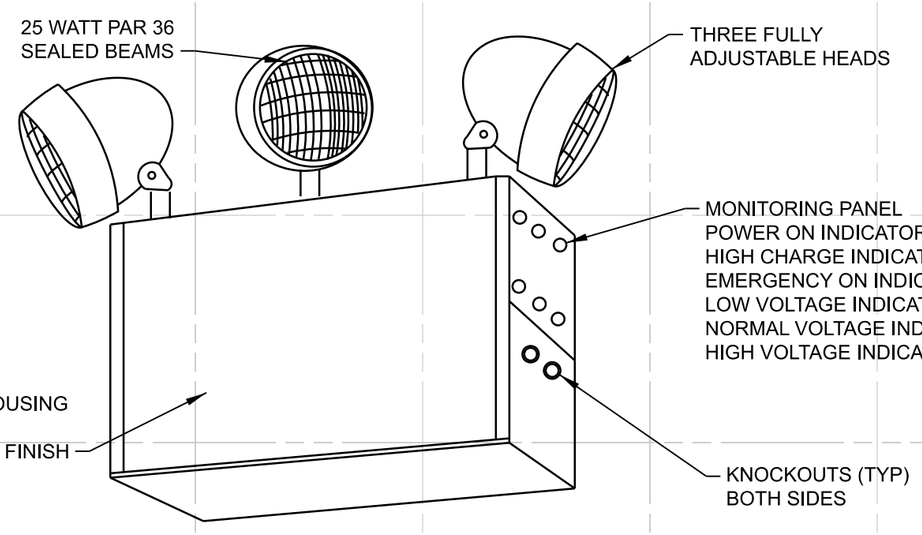


FLASHING BEACON

A1

DETAIL: BEACON

SCALE: NTS

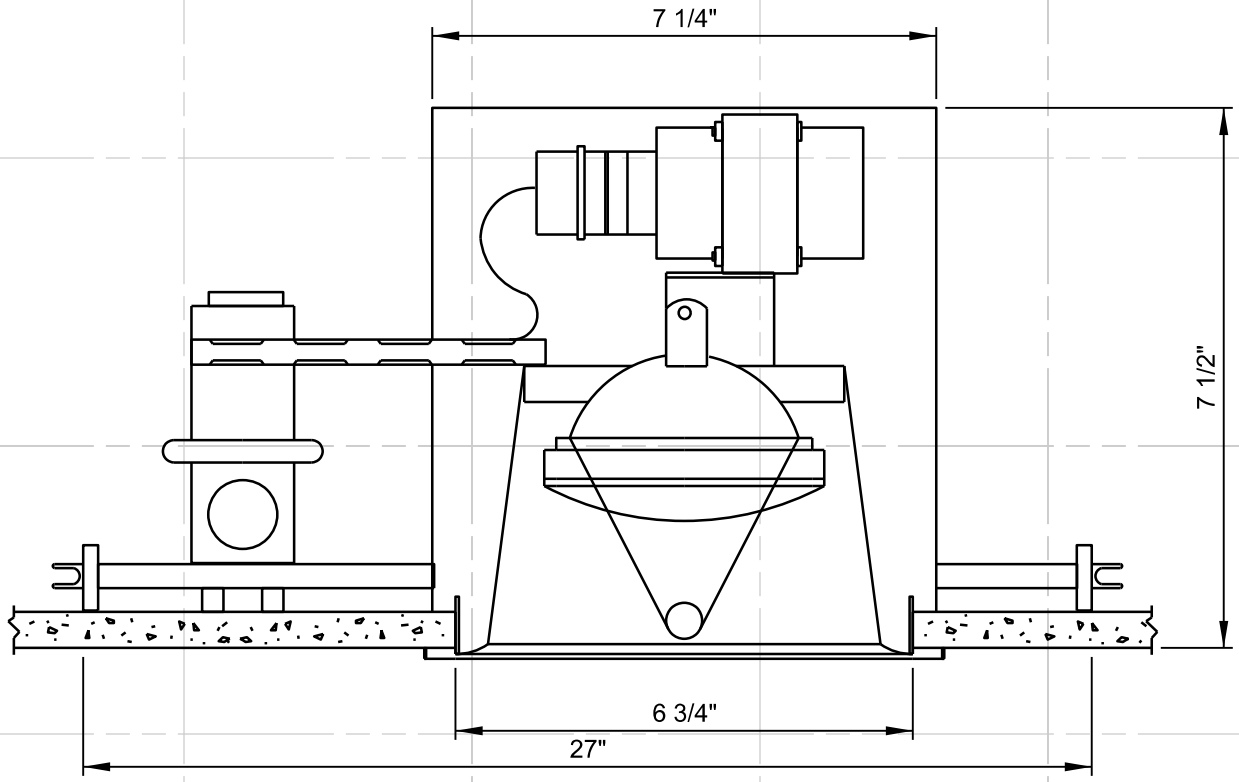


NOTE:
1. FIXTURE SHALL CONFORM TO UL 924.
2. 277 VOLT INPUT; 12 VOLT DC OUTPUT.
3. 170 W CAPACITY FOR 1 1/2 HOURS (BATTERY DISCHARGED TO 87 1/2% OF NOMINAL VOLTAGE).
4. CABINET SHALL PROVIDE FOR ELECTRICAL CONNECTION OF REMOTE HEADS.
5. UNIT SHALL HAVE LOW VOLTAGE DISCONNECT.
6. SEALED, 6V, LEAD ACID, RECHARGEABLE (2 PER UNIT).
7. UNIT SHALL BE PREWIRED, AND FURNISHED WITH A TEST SWITCH.

A1

DETAIL: TYPE "K" FIXTURE

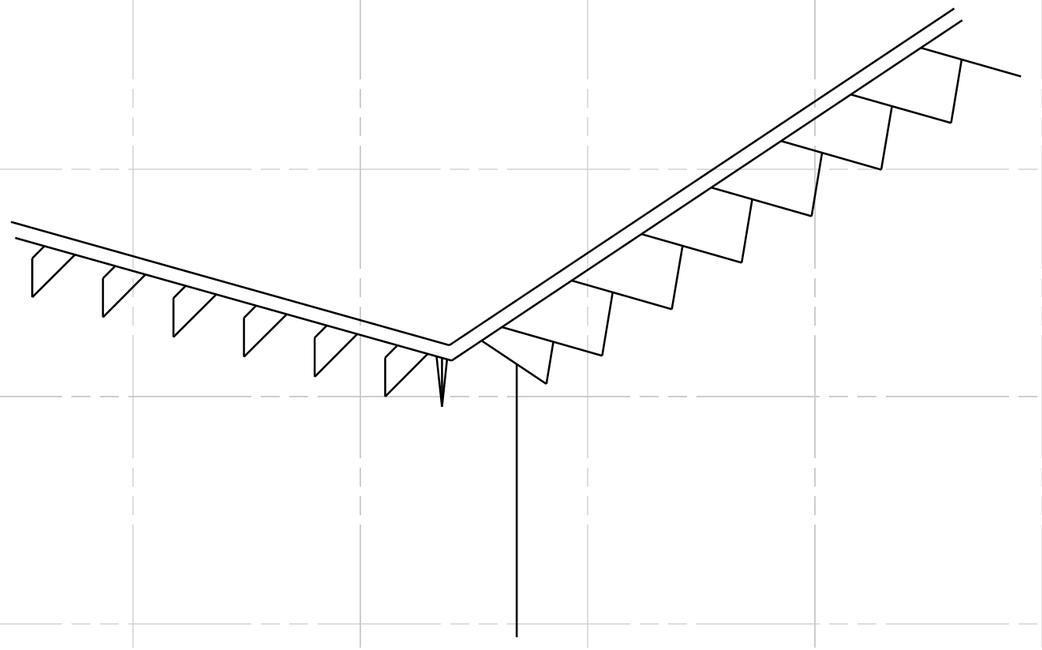
SCALE: NTS

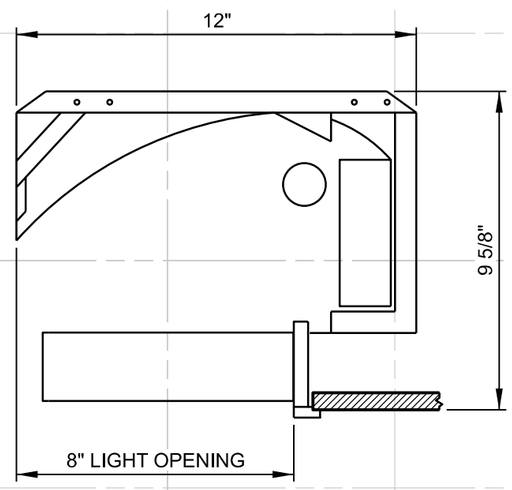


A1

DETAIL: TYPE "W" FIXTURE

SCALE: NTS

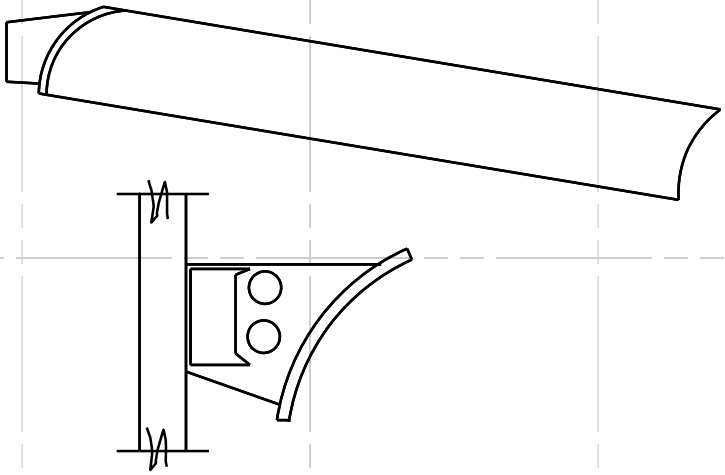




A1

DETAIL: FIXTURE TYPE "T", "TE"

SCALE: NTS



NOTE:
LUMINAIRE REQUIREMENTS

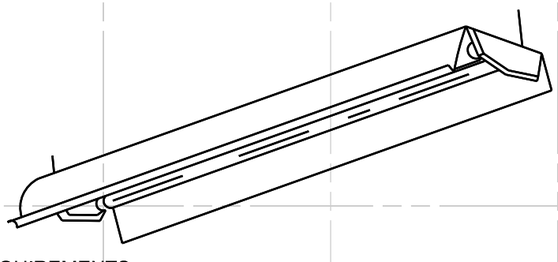
1. 0.032" MINIMUM THICKNESS STEEL CHANNEL AND COVER HOUSING BALLAST AND SUPPORTING WOOD SHIELDING. CHEMICALLY TREAT FOR RUST PREVENTION AND FINISHED WITH BAKED WHITE ENAMEL FINISH. HOUSING SHALL HAVE INTERNAL PROVISIONS FOR GROUNDING.
2. PROVIDE SHIELD SUPPORT SUCH THAT NO FASTENERS, SCREWS, TABS OR UNNECESSARY PROVISIONS FOR GROUNDING.
3. SHIELD SHALL BE 1/4" MOLDED PLYWOOD CURVED TO PROVIDE OPTIMUM LIGHT DISTRIBUTION. FINISH WITH WALNUT VENEER AND CLEAR MATT LACQUER. PROVIDE MATCHING WOOD END CAPS AT EACH END OF EACH RUN TO COVER STEEL CHANNEL.
4. BALLAST SHALL BE HIGH POWER FACTOR (≥ .9) ETL CBM APPROVED RAPID START ENERGY SAVING TYPE CLASS P WITH A SOUND RATING OF A.
5. PROVIDE SPRING LOADED PLUNGER TYPE LAMP SOCKETS.

TYPE A - 2 LAMP 4 FT (NOMINAL)
TYPE B - 4 LAMP 8 FT (NOMINAL)

A1

DETAIL: WALL MOUNTED INDIRECT FLUORESCENT WITH WOOD SHIELDING

SCALE: NTS



LUMINAIRE REQUIREMENTS

1. HOUSING SHALL BE 0.032" MINIMUM THICKNESS DIE FORMED COLD ROLLED STEEL, CHEMICALLY TREATED FOR RUST PREVENTION AND FINISHED WITH WHITE BAKED ENAMEL OR POLYESTER FINISH. PROVIDE TOP AND END KNOCKOUTS.
2. HOUSING WELDED OR SECURED BY SCREWS OR RIVETS INTO A SINGLE ASSEMBLY. PROVIDE INTERNAL PROVISIONS FOR GROUNDING.
3. REFLECTOR SHALL BE 0.026" MINIMUM THICKNESS STEEL (SOLID WHEN LUMINAIRE IS MOUNTED BELOW CATWALKS, ETC. 10-25% APERTURED WHEN PROTECTED FROM FALLING OBJECTS). PROVIDE 30 SHIELDING CENTER VEE. CHEMICALLY TREAT FOR RUST PREVENTION AND FINISH WITH WHITE BAKED ENAMEL, PORCELAIN ENAMEL, OR POLYESTER FINISH. MINIMUM REFLECTANCE SHALL BE 85%.
4. THE LUMINAIRE SHALL NOT PERMANENTLY DISTORT WHEN LIFTED BY ONE CORNER.
5. SPACING TO MOUNTING HEIGHT RATIO = 1.3.
6. LUMINAIRE SHALL BE CAPABLE OF CONTINUOUS ROW AND SINGLE UNIT PLACEMENT WITH PENDANT OR SURFACE MOUNTING.
7. PROVIDE SPRING LOADED PLUNGER TYPE LAMP SOCKETS.
8. BALLAST SHALL BE HIGH POWER FACTOR (≥ .9) ETL, CBM APPROVED CLASS P ENERGY SAVING BALLAST WITH A SOUND RATING OF B (RAPID START OR SLIMLINE).
9. MINIMUM COEFFICIENT OF UTILIZATION (CU) WITH THE FOLLOWING CAVITY REFLECTANCE OF: CEILING = 80% WALL = 50% FLOOR = 20% LUMINANCE USING 3100 LAMP WITH AVG:MAX RATIO NOT TO EXCEED 1:5.

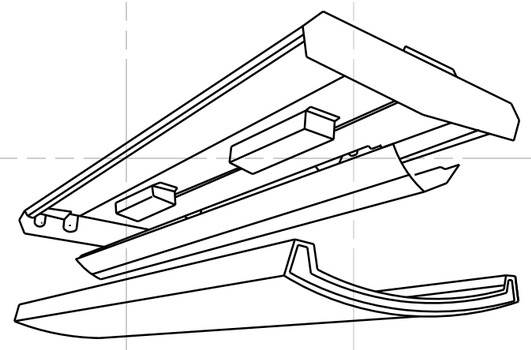
ROOM CAVITY RATIO	CU	AVG. LUMINANCE (FL)
	1	0.85 45 - 1350
2	0.73	55 - 1250
3	0.68	65 - 1250
4	0.60	75 - 850
		85 - 600

TYPE A - 48" 2 LAMP 430 MA.
TYPE B - 96" 2 LAMP 430 MA.

A1

DETAIL: INDUSTRIAL FLUORESCENT

SCALE: NTS



LUMINAIRE REQUIREMENTS

1. 0.026" MIN THICKNESS FORMED STEEL HOUSING. CHEMICAL TREATMENT FOR RUST PREVENTION. BAKE WHITE ENAMEL FINISH. 85% MIN REFLECTANCE (INTERIOR). ENTIRE HOUSING SHALL BE PAINTED WHITE. HOUSING SHALL NOT PERMANENTLY DEFORM NOR SHALL IT DEFLECT MORE THAN THE FOLLOWING WHEN LIFTED BY ONE CORNER: TYPE A - 1/2", TYPE B - 1", TYPE C - 2".
2. SECURE HOUSING ENDS BY RIVETS OR SCREWS. PROVIDE A KNOCKOUT IN EACH END AND TWO IN TOP OF HOUSING. HOUSING SHALL HAVE INTERNAL PROVISIONS FOR GROUNDING.
3. OVERALL LUMINAIRE NOMINAL DIMENSIONS (+ 10%) SHALL BE:

TYPE	LENGTH	WIDTH	DEPTH
A	48"	7"	4 1/2"
B	48"	10"	3 1/2"
C	48"	15"	3 1/2"

4. LENS SHALL BE CLEAR EXTRUDED 100% ACRYLIC HAVING A MINIMUM OVERALL (BOTTOM OF LENS) THICKNESS OF 0.10 INCHES WITH A MAXIMUM PRISM PENETRATION DEPTH OF 0.07 INCHES (0.055 INCH MINIMUM OVERALL SIDE THICKNESS) AND WELDED END PLATES TO FORM A SINGLE PIECE, 5 SIDED BASKET.
5. LENS SHALL BE PRISMATIC TYPE.
6. LENS SHALL HINGE ALONG ENTIRE LENGTH OF FIXTURE (LIFT AND SHIFT TYPE). LENS SHALL BE CAPABLE OF HINGING FROM BOTH SIDES OF FIXTURE.
7. BALLAST: HIGH POWER FACTOR (≥ .9) ETL, CBM APPROVED RAPID START CLASS P ENERGY SAVING BALLAST WITH SOUND RATING OF "A". SECURE BALLAST TO HOUSING WITH AT LEAST ONE SCREW AND SLIP-ON BRACKET OR 2 SCREWS - ONE AT EACH END.
8. PHOTOMETRICS: MINIMUM COEFFICIENT OF UTILIZATION (CU) FOR THE FOLLOWING CAVITY REFLECTANCES: CEILING = 80% WALL = 50% FLOOR = 20% LUMINANCE USING 3100L LAMP WITH AVG:MAX RATIO NOT TO EXCEED 1:5.

ROOM CAVITY RATIO	TYPE A	TYPE B	TYPE C
1	CU = 0.76	0.69	0.67
2	0.66	0.62	0.60
3	0.59	0.55	0.54
4	0.52	0.49	0.48

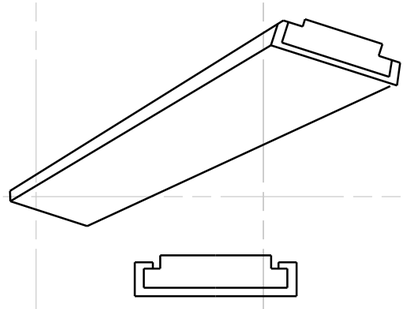
9. SPACING TO MOUNTING HEIGHT RATIO SHALL BE NOT LESS THAN 1.3.

TYPE A - 1 LAMP
TYPE B - 2 LAMP
TYPE C - 4 LAMP

A1

DETAIL: SURFACE MOUNTED WRAP AROUND LUMINAIRE FOR OTHER THAN OFFICE TYPE SPACES

SCALE: NTS



LUMINAIRE REQUIREMENTS

1. 0.032" MIN THICKNESS FORMED STEEL HOUSING. CHEMICAL TREATMENT FOR RUST PREVENTION. BAKED WHITE ENAMEL FINISH. 85% MIN REFLECTANCE (INTERIOR). ENTIRE HOUSING SHALL BE PAINTED WHITE AFTER FABRICATION. HOUSING SHALL NOT PERMANENTLY DEFORM NOR SHALL IT DEFLECT MORE THAN ONE INCH (TWO INCHES FOR TYPE B) WHEN LIFTED BY ONE CORNER.
2. SECURE HOUSING ENDS BY RIVETS OR SCREWS. PROVIDE A KNOCKOUT IN EACH END AND TWO IN TOP OF HOUSING. HOUSING SHALL HAVE INTERNAL PROVISIONS FOR GROUNDING.
3. OVERALL LUMINAIRE LENGTH SHALL BE 48 INCHES NOMINAL. OVERALL WIDTH SHALL BE 12 INCHES MINIMUM FOR 2 LAMP, 15 1/2 INCHES MINIMUM FOR 4 LAMP. OVERALL HEIGHT SHALL BE 3 1/2 INCHES MAXIMUM.
4. LENS SHALL BE CLEAR 100% ACRYLIC HAVING A MINIMUM OVERALL (BOTTOM OF LENS) THICKNESS OF 0.140 INCH WITH A MAXIMUM PRISM PENETRATION DEPTH OF 0.07 INCHES (0.55 INCH MIN OVERALL SIDE THICKNESS).
5. LENS SHALL BE PRISMATIC TYPE, INJECTION MOLDED INTO A SINGLE 5 SIDED UNIT WITH 1/2 INCH MINIMUM RE-ENTRANT FLANGE ON EACH LONG SIDE FOR ADDITIONAL STRENGTH.
6. LENS SHALL BE CAPABLE OF HINGING AND LATCHING FROM EITHER SIDE OF FIXTURE.
7. LUMINAIRE SHALL HAVE LUMINOUS ENDS.
8. BALLAST: HIGH POWER FACTOR (≥ .9) ETL, CBM APPROVED RAPID START CLASS P ENERGY SAVING BALLAST WITH SOUND RATING OF "A". SECURE BALLASTS TO HOUSING WITH AT LEAST ONE SCREW AND SLIP ON BRACKET OR TWO SCREWS - ONE AT EACH END.
9. PHOTOMETRICS: MINIMUM COEFFICIENT OF UTILIZATION (CU) FOR THE FOLLOWING CAVITY REFLECTANCES: CEILING = 80% WALL = 50% FLOOR = 20% LUMINANCE USING 3100L LAMP WITH AVG:MAX RATIO NOT TO EXCEED 1:5.

RCR	TYPE A	TYPE B	AVG. LUMINANCE (FL)
1	CU = 0.71	0.67	5 = 2250
2	0.64	0.60	55 = 1605
3	0.57	0.54	65 = 1125
4	0.51	0.48	75 = 750
MIN EFFICIENCY	69%	62%	85 = 495
			(800 FOR TYPE B)

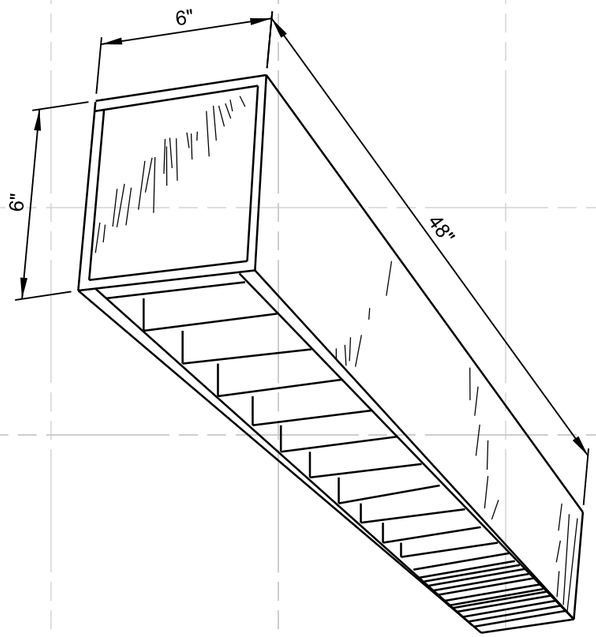
10. MINIMUM SPACING TO MOUNTING HEIGHT RATIO: 1.35 (TYPE A), 1.3 (TYPE B).

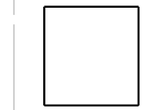
TYPE A - 2 LAMP
TYPE B - 4 LAMP

DETAIL: SURFACE MOUNTED WRAP-AROUND LUMINAIRE FOR OFFICE/CLASSROOM TYPE SPACES

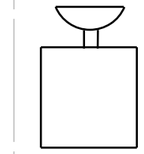
A1

SCALE: NTS

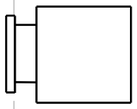




SURFACE



PENDANT



BRACKET

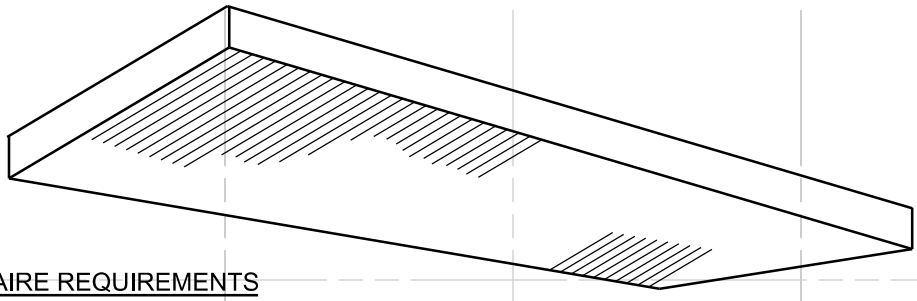
LUMINAIRE REQUIREMENTS

1. HOUSING SHALL BE MINIMUM 0.026 THICK STEEL, OR STEEL AND ALUMINUM CONSTRUCTION, AND SHALL BE CHEMICALLY TREATED FOR RUST PREVENTION AND PAINT ADHESION. HOUSING SHALL BE ASSEMBLED WITH SCREWS OR BY WELDED JOINTS.
2. INTERIOR OF HOUSING SHALL BE PAINTED WITH MINIMUM 85% REFLECTANCE HIGH GLOSS WHITE ENAMEL.
3. REFLECTOR SHALL BE SEMI-SPECULAR NATURAL ANODIZED ALUMINUM.
4. PARABOLIC LOUVER SHALL BE ANODIZED NATURAL ALUMINUM AND SHALL HAVE POSITIVE ACTION SPRING LOADED LATCHES AND SAFETY HINGES.
5. PROVIDE INTERNAL GREEN GROUNDING SCREW.
6. BALLAST: HIGH POWER FACTOR (≥ .9) ETL, CBM APPROVED RAPID START CLASS P ENERGY SAVING BALLAST WITH SOUND RATING OF "A". SECURE BALLASTS TO HOUSING WITH AT LEAST ONE SCREW AND SLIP ON BRACKET OR TWO SCREWS - ONE AT EACH END.
7. PROVIDE COLORS AS INDICATED.
   TYPE A - DIRECT - 1 LIGHT
   TYPE B - DIRECT - 2 LIGHT
   TYPE C - INDIRECT - 1 LIGHT
   TYPE D - INDIRECT - 2 LIGHT
   TYPE E - DIRECT/INDIRECT - 1 LIGHT
   TYPE F - DIRECT/INDIRECT - 2 LIGHT
   TYPE G - DIRECT ASYMMETRIC
   NOTE: TYPES C, D, E AND F MAY ONLY BE PENDANT OR BRACKET MOUNTED.

A1

DETAIL: SURFACE, PENDANT OR BRACKET MOUNTED PARABOLIC LUMINAIRE

SCALE: NTS



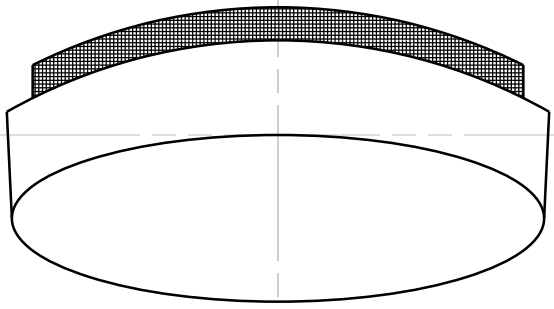
LUMINAIRE REQUIREMENTS

1. 0.032" MINIMUM THICKNESS STEEL HOUSING WITH CORNERS WELDED. ALL 4 SIDES SHALL BE SOLID STEEL WITHOUT HOLES OR PANELS. 4 1/2" MAXIMUM FIXTURE HEIGHT. FINISH WITH RUST INHIBITOR AND BAKED WHITE ENAMEL. (PAINT AFTER FABRICATION.) PROVIDE GROUND LUG.
2. 0.032" MINIMUM THICKNESS STEEL OR ALUMINUM DOOR HELD TOGETHER BY SCREWS (FOR LENS REPLACEMENT). THE DOOR SHALL BE LIGHT TIGHT WITHOUT RELYING ON GASKETS, DOORS SHALL BE HELD IN PLACE BY 2 "T" TYPE HINGES AND 2 SLOT HEAD, CAPTIVE SCREWS.
3. LENS SHALL BE 0.156" PLUS OR MINUS 10% OVERALL (0.09 MAXIMUM PRISM PENETRATION) CLEAR PRISMATIC 100% ACRYLIC. WHEN INDICATED, PROVIDE AN ADDITIONAL 1/4" THICK POLYCARBONATE SHEET BELOW AND ATTACHED TO THE ACRYLIC LENS. (REDUCE LENS THICKNESS TO 0.10 MINIMUM.)
4. BALLAST SHALL BE HIGH POWER FACTOR (≥ .9) ETL, CBM APPROVED RAPID START CLASS P ENERGY SAVING BALLAST WITH SOUND RATING OF "A". SECURE BALLAST TO HOUSING WITH AT LEAST ONE SCREW AND SLIP-ON BRACKET OR 2 SCREWS (ONE AT EACH END).
   - TYPE A - 2' X 2' 2 LAMP
   - TYPE B - 1' X 4' 2 LAMP
   - TYPE C - 2' X 4' 2 LAMP
   - TYPE D - 2' X 4' 3 LAMP
   - TYPE E - 2' X 4' 4 LAMP

A1

DETAIL: STEEL SIDED SURFACE FLUORESCENT

SCALE: NTS



LUMINAIRE REQUIREMENTS

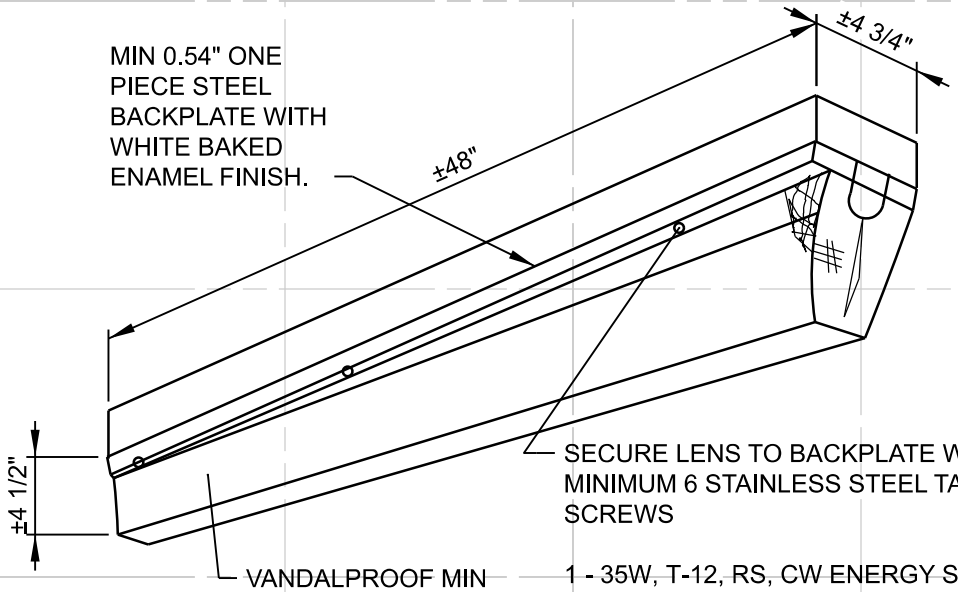
1. ALUMINUM HOUSING WITH MATTE BLACK FINISH.
2. POLYCARBONATE OR ACRYLIC OPAL GLOBE.
3. PROVIDE SPRING STEEL CLIPS, SET SCREWS OR TORSION SPRINGS TO KEEP GLOBE IN PLACE.
4. PROVIDE DAMP LABEL WHEN INDICATED.
5. PROVIDE CIRCLINE LAMPS AS INDICATED, WITH LUMINAIRE MAXIMUM SIZES AS FOLLOWS:

LAMP WATTAGE	LUMINAIRE DEPTH	LUMINAIRE DIAMETER
19 TO 22	4"	11"
32 OR 22+32	4"	14"
40 OR 32+40	5"	20"

A1

DETAIL: ROUND SURFACE FLUORESCENT

SCALE: NTS

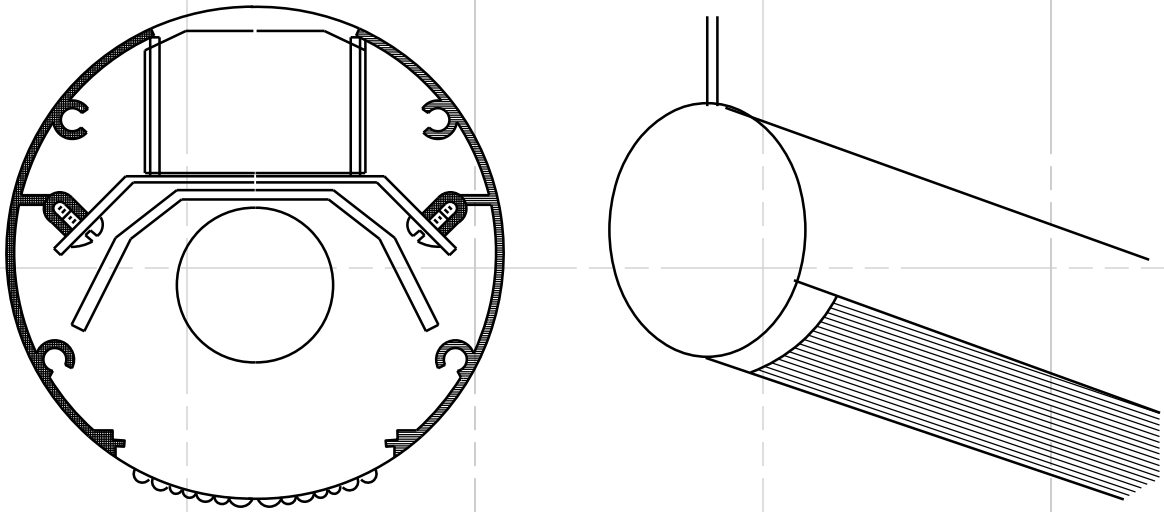


NOTES:
BALLAST SHALL BE HIGH POWER FACTOR (≥ .9) ETL, CBM APPROVED RAPID START CLASS P, WITH SOUND RATING OF "A".
PROVIDE INTERNAL GROUNDING SCREW.

DETAIL: SURFACE MOUNTED 1-LAMP NONBREAKABLE LUMINAIRE

A1

SCALE: NTS



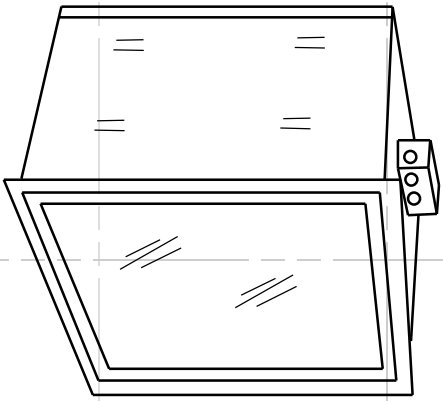
LUMINAIRE REQUIREMENTS

1. HOUSING EXTRUDED ALUMINUM - PRIME PAINT AND PAINT WITH BAKED ENAMEL OF COLOR INDICATED.
2. REFLECTOR - DIE FORMED HIGH GLOSS BAKED WHITE ENAMEL WITH MINIMUM 85% REFLECTANCE.
3. SHIELDING - CLEAR PRISMATIC LENS TOP AND BOTTOM - 100% ACRYLIC.
4. RAPID START H.P.F. BALLAST; CLASS "P" CBM CERTIFIED BY ETL.
5. END PLATES WITH PROVISIONS FOR THROUGH WIRING.
6. 90 ELBOW CONNECTOR OF CAST ALUMINUM WITH CABLE SUPPORT PROVISIONS. COLOR TO MATCH FIXTURE.
7. IN-LINE CONNECTOR FOR CABLE SUPPORT OF FIXTURE.
8. PROVIDE FIXTURES, ELBOWS, AND IN-LINE CONNECTORS AS INDICATED.

A1

DETAIL: DECORATIVE SPECIALTY 1-LAMP LUMINAIRE

SCALE: NTS



TYPE A - 150W TO 250W HIGH PRESSURE SODIUM
TYPE B - 175W - 400W METAL HALIDE

LUMINAIRE REQUIREMENTS

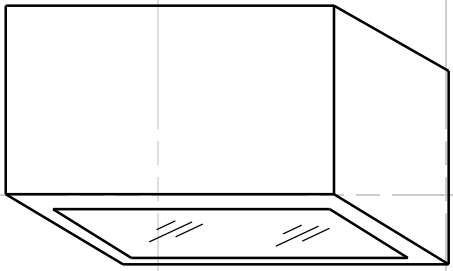
1. 24" X 24" (NOMINAL) SQUARE, 13" MAXIMUM HEIGHT. PROVIDE HARDWARE SUITABLE FOR CEILING MATERIAL USED.
2. STEEL OR ALUMINUM HOUSING WITH CORROSION RESISTANT FINISH.
3. ALUMINUM REFLECTOR.
4. FULL GASKETED PRISMATIC (OR CLEAR WHEN INDICATED) TEMPERED GLASS LENS SECURED BY CAPTIVE SCREWS OR CAM LATCHES.
5. HIGH POWER FACTOR (≥ 0.9) ENCAPSULATED BALLAST AS INDICATED IN THE SPECIFICATIONS.
6. PROVIDE AUXILIARY QUARTZ LAMP AND ARC SENSING RELAY WHERE INDICATED.
7. PROVIDE LAMP AS INDICATED.
8. LAMP AND BALLAST SHALL BE SERVICEABLE FROM THE BOTTOM OF THE FIXTURE UNLESS OTHERWISE NOTED. PROVIDE INTERNAL GROUNDING PROVISIONS.
9. SPACING TO MOUNTING HEIGHT RATIO SHALL NOT BE LESS THAN 1:0.
10. FOR REFLECTANCES OF 80% CEILING, 50% WALLS, 20% FLOORS. THE COEFFICIENT OF UTILIZATION SHALL NOT BE LESS THAN THE FOLLOWING:

	CU	
RCR	TYPE A	TYPE B
1	.63	.72
2	.57	.66
3	.49	.60
4	---	.54
5	---	.49

A1

DETAIL: RECESS MOUNTED COMMERCIAL H.I.D.

SCALE: NTS



TYPE A - 150W TO 250W HIGH PRESSURE SODIUM
TYPE B - 175W - 400W METAL HALIDE

LUMINAIRE REQUIREMENTS

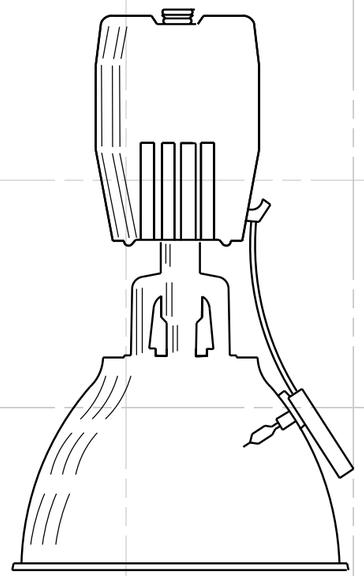
1. LUMINAIRE SHALL BE 24" X 24" (NOMINAL) SQUARE AND SHALL NOT EXCEED 15" IN HEIGHT.
2. 0.032" MINIMUM THICKNESS STEEL OR ALUMINUM HOUSING WITH WHITE POLYESTER OR BAKED ENAMEL FINISH. PROVIDE INTERNAL GROUNDING PROVISIONS.
3. ALUMINUM REFLECTOR.
4. FULL GASKETED PRISMATIC (OR CLEAR WHEN INDICATED) TEMPERED GLASS LENS SECURED BY CAPTIVE SCREWS OR CAM LATCHES.
5. HIGH POWER FACTOR (≥ .9) ENCAPSULATED BALLAST AS INDICATED IN THE SPECIFICATIONS.
6. PROVIDE AUXILIARY QUARTZ LAMP AND ARC SENSING RELAY WHERE INDICATED.
7. PROVIDE LAMP AS INDICATED.
8. LAMP AND BALLAST SHALL BE SERVICEABLE FROM THE BOTTOM OF THE FIXTURE UNLESS OTHERWISE NOTED. PROVIDE INTERNAL GROUNDING PROVISIONS.
9. SPACING TO MOUNTING HEIGHT RATIO SHALL NOT BE LESS THAN 1:0.
10. FOR REFLECTANCES OF 80% CEILING, 50% WALLS, 20% FLOORS THE COEFFICIENT OF UTILIZATION SHALL NOT BE LESS THAN THE FOLLOWING:

	CU	
RCR	TYPE A	TYPE B
1	.63	.72
2	.57	.66
3	.49	.60
4	---	.54
5	---	.49

A1

DETAIL: SURFACE MOUNTED COMMERCIAL H.I.D.

SCALE: NTS



TYPE A - 400W-1000W HIGH PRESSURE SODIUM
TYPE B - 400W-1000W METAL HALIDE

LUMINAIRE REQUIREMENTS

1. STEEL OR ALUMINUM BALLAST HOUSING. SPUM ALUMINUM REFLECTOR PROVIDE VENTILATION OPENINGS AT TOP OF REFLECTOR. PROVIDE INTERNAL GROUNDING PROVISIONS.
2. PROVIDE CUSHIONED, SHOCK ABSORBING FIXTURE HANGER. PROVIDE CUSHIONED POWER HOOK WHEN INDICATED.
3. PROVIDE WIRE GUARD OR TEMPERED GLASS LENS WHEN INDICATED.
4. PROVIDE QUARTZ AUXILIARY LAMP AND ARC SENSING RELAY WHEN INDICATED.
5. PROVIDE HIGH POWER FACTOR ENCAPSULATED (≥ 0.9) BALLAST AS INDICATED ON PLANS AND SPECIFICATION.
6. MINIMUM COEFFICIENTS OF UTILIZATION (CU) FOR CAVITY REFLECTANCES OF 80% CEILING, 50% WALLS, 20% 20% FLOOR SHALL BE:

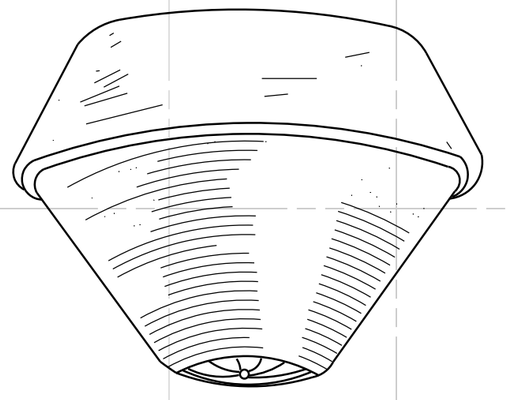
ROOM CAVITY RATIO	TYPE	A	B
1	CU	0.93	0.89
2		0.85	0.80
3		0.93	0.70
MIN EFFICIENCY		84 %	80 %
MIN SPACING/MTG. HT. RATIO		0.95	0.95

7. PROVIDE LAMP AS INDICATED.

A1

DETAIL: HIGH BAY INDUSTRIAL H.I.D.

SCALE: NTS



TYPE A - 100 -150W HIGH PRESSURE SODIUM
TYPE B - 250-400W
TYPE C - 175W METAL HALIDE
TYPE D - 250-400W

LUMINAIRE REQUIREMENTS

1. SHEET OR CAST ALUMINUM HOUSING. FINISH WITH ENAMEL OR EPOXY. PROVIDE INTERNAL GROUNDING PROVISIONS.
2. ACRYLIC REFRACTOR OR THERMAL AND SHOCK RESISTANT.
3. PROVIDE CUSHIONED FIXTURE HANGAR. PROVIDE CUSHIONED POWER HOOK WHEN INDICATED.
4. PROVIDE QUARTZ AUXILIARY LAMP AND ARC SENSING RELAY WHEN INDICATED.
5. PROVIDE ENCAPSULATED HIGH POWER FACTOR (≥ .9) BALLAST AS INDICATED ON PLANS AND IN SPECIFICATION.
6. MINIMUM COEFFICIENT OF UTILIZATION (CU) WITH CAVITY REFLECTANCES OF 80% CEILING, 50% WALL, 20% FLOOR SHALL BE:

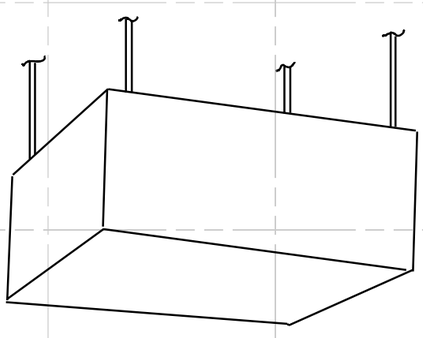
TYPE:	RCR	A	B	C	D
1		0.79	0.85	0.79	0.8
2	CU.	0.68	0.73	0.69	0.7
3		0.59	0.60	0.60	0.6
MIN EFFICIENCY		80%	85%	80%	85%
MIN SPACING/MTG HT RATIO		1.8	1.8	1.8	1.8

7. PROVIDE LAMP AS INDICATED.

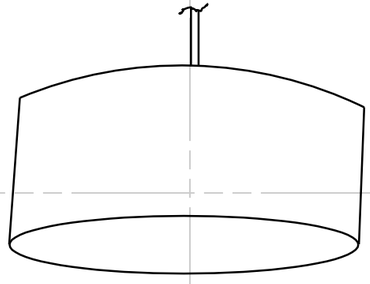
A1

DETAIL: LOW BAY INDUSTRIAL H.I.D.

SCALE: NTS



TYPE A



TYPE B

TYPE A AND B
CEILING MOUNTED 30 INCH MAXIMUM DISTANCE FROM BOTTOM OF FIXTURE TO CEILING UNLESS OTHERWISE INDICATED.

RCR	MIN CU	
	150W-250W	400W
1	0.50	0.56
2	0.43	0.49
3	0.38	0.43
4	0.33	0.38

TYPE C (NOT SHOWN)
WALL MOUNTED LUMINAIRE-
(RIGIDLY MOUNT TO WALL)
FORWARD THROW OPTICS

RCR	MIN CU
1	0.36
2	0.32
3	0.28
4	0.24

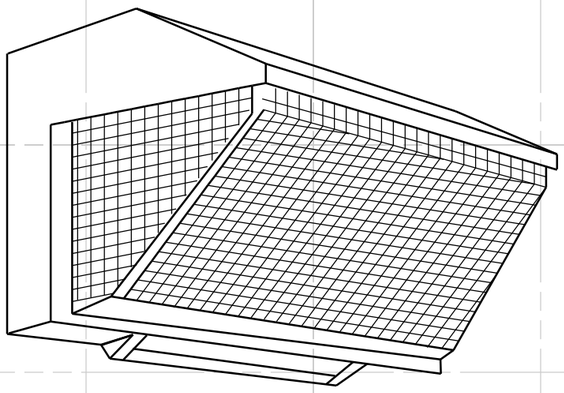
LUMINAIRE REQUIREMENTS

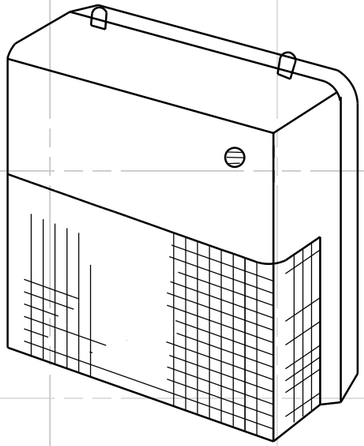
1. 0.032" MINIMUM THICKNESS STEEL HOUSING WITH ALL SEAMS WELDED AND GROUND SMOOTH. CHEMICALLY TREAT FOR RUST PREVENTION AND PROVIDE BAKED ENAMEL, OR POLYESTER FINISH (BEIGE UNLESS INDICATED OTHERWISE).
2. ALUMINUM REFLECTOR WITH TEMPERED GLASS LENS.
3. PROVIDE 175, 250, 400 WATT METAL HALIDE OR 150, 250, 400 WATT HIGH PRESSURE SODIUM LAMPS (SINGLE OR TWIN) AS INDICATED ON THE PLANS.
4. HIGH POWER FACTOR (≥ .9) ENCAPSULATED BALLAST AND AS INDICATED IN THE SPECIFICATIONS.
5. PROVIDE COMPUTER GENERATED DOCUMENTATION OF THE MAXIMUM, MINIMUM AND AVERAGE INITIAL FOOTCANDLE LEVELS FOR THE SYSTEM AS INDICATED ON THE PLANS. ASSUME REFLECTANCES OF 80%, 50%, 20% FOR CEILINGS, WALLS AND FLOORS RESPECTIVELY.
6. PROVIDE 60% MINIMUM FIXTURE LUMEN OUTPUT BETWEEN 30" TO 90" FROM VERTICAL.
7. PROVIDE INTERNAL GROUNDING PROVISIONS.

A1

DETAIL: INDIRECT H.I.D. LUMINAIRE

SCALE: NTS





TYPE A, D 35-150W HPS
TYPE B, E 175W M.H.
TYPE C 35, 55W LPS

UTILITY TYPE A, B, C

ARCHITECTURAL TYPE D, E

LUMINAIRE REQUIREMENTS

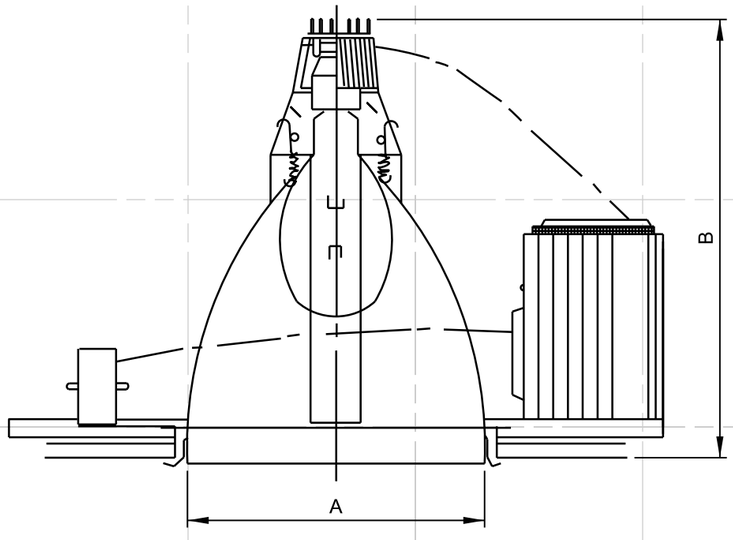
1. CAST ALUMINUM OR 1/8" MIN THICKNESS EXTRUDED ALUMINUM HOUSING FOR HIGH PRESSURE SODIUM (HPS) AND METAL HALIDE (M.H.) LUMINAIRES.
2. CAST ALUMINUM, 1/8" MIN THICKNESS EXTRUDED ALUMINUM ABS PLASTIC OR POLYCARBONATE HOUSING FOR LOW PRESSURE SODIUM (LPS) AND 35/50/70W HPS LUMINAIRES.
3. HINGED, U.V. STABILIZED POLYCARBONATE LENS OR HINGED TEMPERED GLASS WITH POLYCARBONATE SHIELD.
4. LAMP SIZE AS INDICATED IN FIXTURE SCHEDULE.
5. PROVIDE ALUMINUM REFLECTOR.
6. BALLAST SHALL BE HIGH POWER FACTOR TYPE (≥ .85) WITH CHARACTERISTICS AS INDICATED.
7. PROVIDE PHOTO ELECTRIC CONTROL WHEN INDICATED.
8. PROVIDE INTERNAL GROUNDING PROVISIONS.

NOTE:
TYPES D AND E MAY BE SUBSTITUTED FOR TYPES A AND B RESPECTIVELY BUT NOT VICE VERSA.

A1

DETAIL: H.I.D. WALL MOUNTED LUMINAIRE

SCALE: NTS



		MAXIMUM DIMENSIONS	
OPEN REFLECTOR		A	B
TYPE A	70-150W HPS OR 175-250W MH	10"	18"
A1	400W MH	16"	31"
MULTI GROOVE BAFFLE			
TYPE B	70-150W HPS OR 175-250W MH	10"	18"
B1	400W MH	12"	31"
REGRESSED LENS			
TYPE C	70-150W HPS OR 175-250W MH	12"	14"

LUMINAIRE REQUIREMENTS

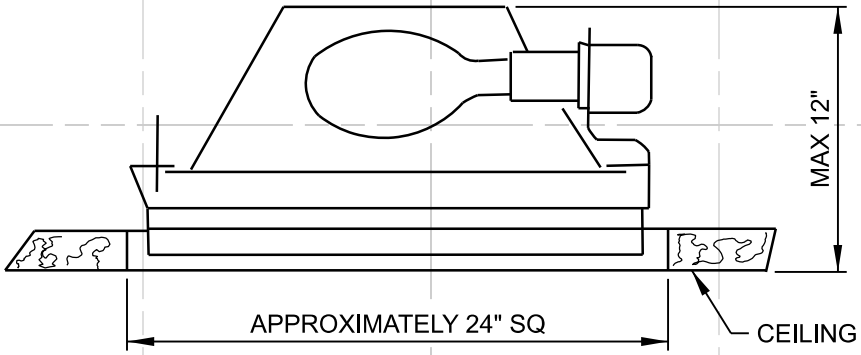
1. CAST OR EXTRUDED ALUMINUM SOCKET HOUSING WITH PORCELAIN SOCKET FOR VERTICAL BURNING LAMP.
2. 18 GA (U.S. STD) SPECULAR ALUMINUM REFLECTOR.
3. WHITE TRIM RING SUITABLE FOR USE WITH CEILING MATERIAL INSTALLED (CAST ALUMINUM ON LENS UNITS).
4. ENCAPSULATED HPF (≥ 0.9) BALLAST ARRANGED FOR MAINTENANCE FROM BELOW CEILING.
5. WIRING JUNCTION BOX SUITABLE FOR 75 C BRANCH CIRCUIT THROUGH WIRING.
6. PROVIDE QUARTZ AUXILIARY LAMP AND ARC SENSING RELAY WHEN INDICATED.
7. PROVIDE PROTECTIVE LAMP SHATTER SHIELD FOR METAL HALIDE FIXTURES (175 AND 250W).
8. MULTI GROOVE BAFFLES SHALL BE FLAT BLACK PHENOLIC OR CAST ALUMINUM.
9. LENS SHALL BE TEMPERED GLASS WITH FRESHNEL OR PRISMATIC PATTERN.
10. PROVIDED LAMP AS INDICATED ON DRAWING HIGH PRESSURE SODIUM (HPS) OR METAL HALIDE (MH).
11. PROVIDE INTERNAL GROUNDING LUG.
12. MINIMUM PHOTOMETRICS SHALL BE AS FOLLOWS: BRIGHTNESS CUTOFF ANGLE ABOVE NADIR (500) FOOTLAMBERT LINE) SHALL BE 65 OR LESS FOR OPEN AND BAFFLE FIXTURES AND 85 OR LESS FOR LENS TYPE FIXTURES

USING REFLECTANCES OF 80% CEILING, 50% WALLS AND 20% FLOOR, MINIMUM COEFFICIENTS OF UTILIZATION SHALL BE AS FOLLOWS:

RCR	TYPE	A	A1	B	B1	C
1		0.65	0.70	0.45	0.55	0.55
2		0.60	0.67	0.40	0.50	0.50
3		0.55	0.64	0.37	0.45	0.45
4		0.50	0.60	0.35	0.40	0.40
S/MH RATIO		1.2	1.0	1.2	1.2	1.0

A1 DETAIL: RECESSED ROUND H.I.D.

SCALE: NTS



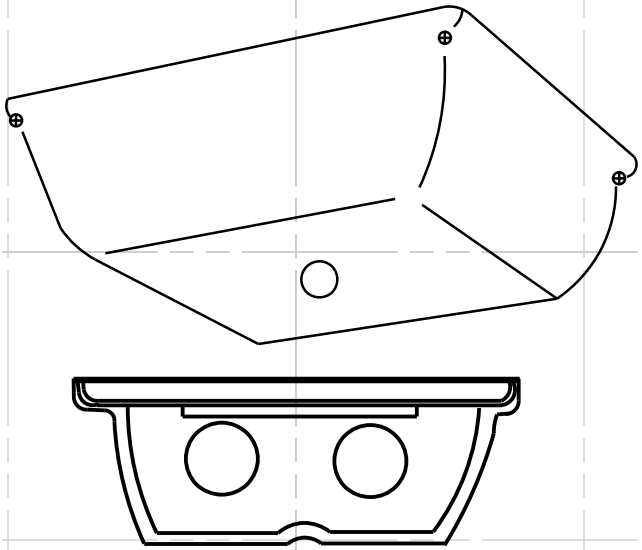
LUMINAIRE REQUIREMENTS

1. MINIMUM 0.026" THICK DIE FORMED STEEL HOUSING WELDED OR PUT TOGETHER WITH SCREWS TO FORM A RIGID UNIT.
2. ENTIRE LUMINAIRE SHALL BE FLUSH WITH CEILING, NO PROTRUDING FASTENERS OR HINGES.
3. STEEL DOOR FRAME MINIMUM 0.032" THICK STEEL WITH BAKED WHITE ENAMEL FINISH.
4. REFLECTOR SHALL BE CLEAR ANODIZED ALUMINUM.
5. TEMPERED IMPACT RESISTANT PRISMATIC GLASS LENS.
6. PORCELAIN LAMPHOLDER.
7. ALL STEEL PARTS SHALL BE CHEMICALLY TREATED FOR RUST PREVENTION AND PAINT ADHESION AND SHALL BE PAINTED WITH WHITE BAKED ENAMEL FINISH.
8. BALLAST SHALL BE SOUND RATED AND ENCAPSULATED, CWA TYPE, VOLTAGE AS INDICATED.
   - TYPE A - 250 WATT METAL HALIDE
   - TYPE B - 400 WATT METAL HALIDE
   - TYPE C - 150 WATT HIGH PRESSURE SODIUM
   - TYPE D - 250 WATT HIGH PRESSURE SODIUM
   - TYPE E - 400 WATT HIGH PRESSURE SODIUM

DETAIL: HANDBALL AND RACQUETBALL COURT LUMINAIRE

A1

SCALE: NTS



TYPE A - UP TO 2-100W A-19 INCANDESCENT LAMPS
MAX DIMENSIONS 12"X12"X6" D
TYPE B - 35W, 50W OR 70W HIGH PRESSURE SODIUM LAMP AS INDICATED
MAX DIMENSIONS 12 1/2"X12 1/2"X8 1/2" D
TYPE C - 20 OR 22W FLUORESCENT CIRCLINE
MAX DIMENSIONS = 12"X12"X6" D

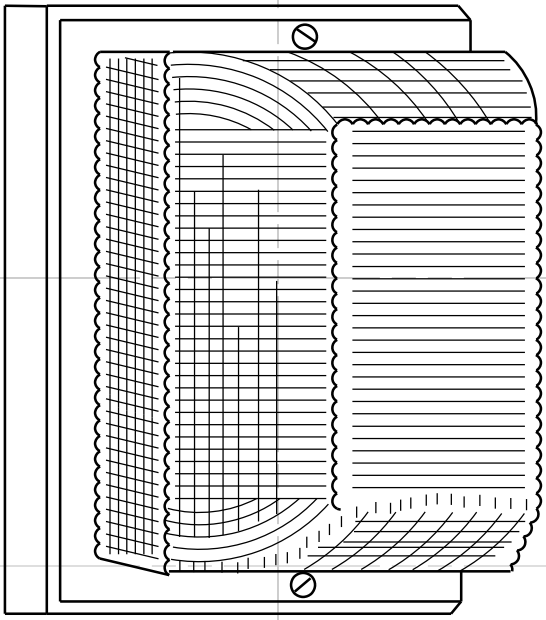
LUMINAIRE REQUIREMENTS

1. 0.054 INCH MINIMUM THICK STEEL OR ALUMINUM BACK PLATE.
2. POLYCARBONATE PRISMATIC OR OPAL LENS HELD IN PLACE WITH 4 STAINLESS STEEL SCREWS.
3. FULLY GASKETED AROUND LENS AND BETWEEN LUMINAIRE AND CEILING WITH DOUBLE BAKED NEOPRENE GASKETS.
4. U.L. LISTED FOR DAMP LOCATIONS.
5. MOUNT BACKPLATE TO CEILING WITH 4 1/4" 0 SCREWS OR ANCHORS.
6. PROVIDE WIRING COMPARTMENT SUITABLE FOR USE WITH 60 C WIRE INSULATION.
7. PROVIDE INTERNAL PROVISIONS FOR GROUNDING.

A1

DETAIL: CEILING MOUNTED VANDAL-RESISTANT LUMINAIRE

SCALE: NTS



TYPE A - UP TO 100W INCANDESCENT
MAXIMUM DIMENSIONS 6"WX9"HX5"D

TYPE B - 7, 8, 9, 12, 13W FLUORESCENT LAMP
(MANUFACTURING STANDARD FLUORESCENT LAMP FOR FIXTURE)
MAXIMUM DIMENSIONS 6"WX9"HX5"D WITHOUT BALLAST

TYPE C - 35W, 50W OR 70W HIGH PRESSURE SODIUM LAMP AS INDICATED
MAXIMUM DIMENSIONS 6 1/2"WX9 1/2"HX7 1/2"D

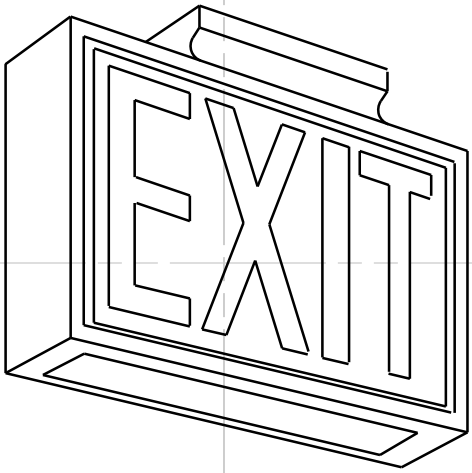
LUMINAIRE REQUIREMENTS

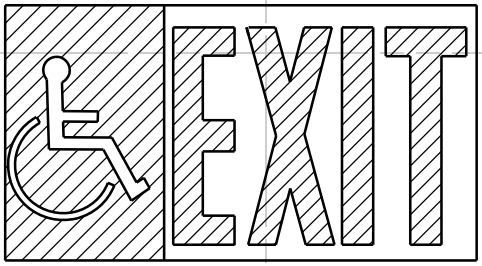
1. 0.054 INCH MINIMUM THICK STEEL TEMPERED ALUMINUM OR POLYCARBONATE BACK PLATE.
2. POLYCARBONATE PRISMATIC DIFFUSER HELD IN PLACE WITH STAINLESS STEEL SCREWS.
3. FULLY GASKETED AROUND LENS AND BETWEEN WALL AND LUMINAIRE WITH DOUBLE BAKED NEOPRENE GASKETS.
4. U.L. LISTED FOR WET LOCATIONS.
5. MOUNT BACKPLATE TO WALL WITH 4 1/4" 0 SCREWS OR ANCHORS.
6. PROVIDE INTERNAL PROVISIONS FOR GROUNDING.

A1

DETAIL: WALL MOUNTED VANDAL-RESISTANT LUMINAIRE

SCALE: NTS





TYPE A - ALUMINUM OR PAINTED STEEL HOUSING AND STENCIL FACE. (SEE NOTE 8.)

TYPE B - PLASTIC HOUSING ENCLOSED IN POLYCARBONATE WITH STENCIL ON INSIDE OF POLYCARBONATE HOUSING. (SEE NOTE 8.)

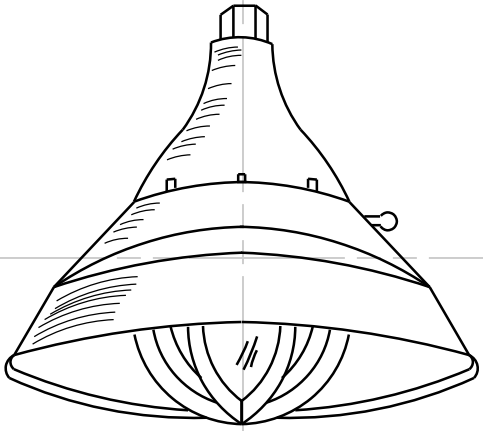
LUMINAIRE REQUIREMENTS

1. LETTERS SHALL BE 6" TALL WITH 3/4" STROKES FORMED BY A STENCIL FACE.
2. PROVIDE RED FIBERGLASS PANEL BEHIND STENCIL FACE.
3. PROVIDE 2 LONG LIFE INCANDESCENT LAMPS.
4. PROVIDE DOWN LIGHT PANEL IN FIXTURE.
5. PROVIDE ILLUMINATED ARROWS AS INDICATED.
6. PROVIDE SINGLE OR DOUBLE FACE AS INDICATED.
7. PROVIDE CEILING, END WALL, BACK WALL OR PENDANT MOUNTING AS INDICATED.
8. UNITS MOUNTED EXPOSED TO THE ENVIRONMENT SHALL HAVE A DAMP OR WET U.L. LABEL AS APPROPRIATE AND SHALL NOT BE CONSTRUCTED OF STEEL.
9. PROVIDE INTERNAL PROVISIONS FOR GROUNDING.
10. PROVIDE INTERNATIONAL SYMBOL OF ACCESS ON SIGN WHEN INDICATED.

A1

DETAIL: EXIT SIGN

SCALE: NTS



TYPE A - 60-200 WATT INCANDESCENT LUMINAIRE RATED FOR CLASS 1 DIVISION 1 GROUP D ATMOSPHERE.
TYPE B - 60-200 WATT INCANDESCENT LUMINAIRE RATED FOR CLASS 1 DIVISION 1 GROUP D ATMOSPHERE.
TYPE C - 70-250 WATT HPS OR 175-400 WATT MET. HALIDE LUMINAIRE RATED FOR CLASS 1 DIVISION 1 GROUP D ATMOSPHERE.
TYPE D - 70-250 WATT HPS OR 175-400 WATT MET. HALIDE LUMINAIRE RATED FOR CLASS 1 DIVISION 2 GROUP D ATMOSPHERE.

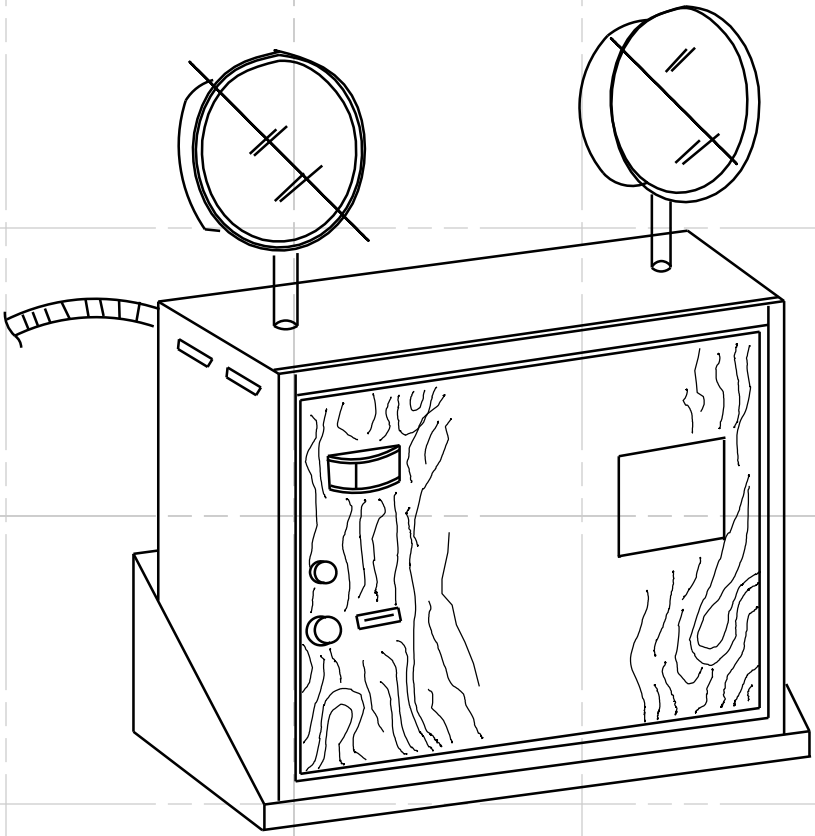
LUMINAIRE REQUIREMENTS

1. LUMINAIRE SHALL MEET U.L. 844 OR FACTORY MUTUAL (FM) STANDARD FOR HAZARDOUS LOCATIONS.
2. HOUSING SHALL BE COPPER FREE CAST ALUMINUM WITH LAQUER OR EPOXY FINISH.
3. ALL JOINTS SHALL BE OF THE THREADED TYPE.
4. HEAT AND IMPACT RESISTANT PRESTRESSED GLASS GLOBE.
5. PROVIDE WHITE PORCELAIN ENAMEL STEEL, FIBERGLASS REINFORCED POLYESTER OR GLASS COATED DOME REFLECTOR.
6. PROVIDE GLOBE GUARD WHEN INDICATED.
7. PROVIDE LAMPS AS INDICATED.
8. MOUNTING AS INDICATED.
9. PROVIDE INTERNAL PROVISIONS FOR GROUNDING.

A1

DETAIL: EXPLOSION-PROOF LUMINAIRE

SCALE: NTS



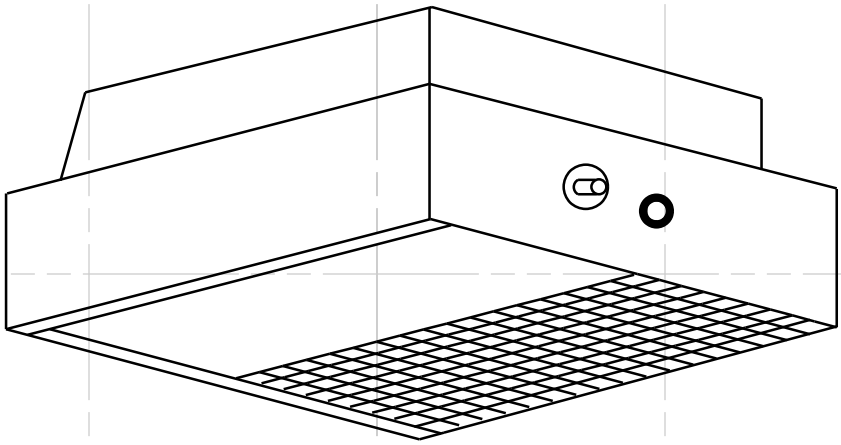
LUMINAIRE REQUIREMENTS

1. SEALED BATTERY, SPECIFICALLY DESIGN FOR EMERGENCY LIGHTING, SOLID STATE FULLY AUTOMATIC - THREE RATE CHARGER FOR NICKEL CADMIUM BATTERY AND TWO RATE HIGH/LOW CHARGER FOR LEAD CALCIUM OR LEAD ACID SEALED BATTERIES.
2. MINIMUM 0.032" THICK BAKED ENAMEL PAINTED BEIGE, OR NONMETALLIC PLASTIC HOUSING WITH DECORATIVE WOOD GRAIN FRONT PANEL ON EITHER HOUSING.
3. TEST SWITCH
4. "AC ON" PILOT LIGHT.
5. AUTOMATIC OVERLOAD PROTECTION - FUSE OR CIRCUIT BREAKER.
6. HEADS SHALL BE FULLY ADJUSTABLE VERTICALLY AND HORIZONTALLY.
7. SEALED BEAM HALOGEN LAMPS MINIMUM 8 WATT OR WATTAGE AS INDICATED IN SCHEDULE.
8. INPUT VOLTAGE AS INDICATED IN SCHEDULE.
9. VOLTMETER.
10. 3/C #16, SO CORD SET - (HARD WIRE TO CIRCUIT)
11. PROVIDE MINIMUM 0.032" THICK STEEL WALL MOUNTING SHELF, OR MOUNTING BRACKETS OR HOLES IN HOUSING FOR MOUNTING UNIT ON WALL.
12. LOW VOLTAGE, DEEP DISCHARGE DISCONNECT.

A1

DETAIL: EMERGENCY LIGHTING UNIT

SCALE: NTS



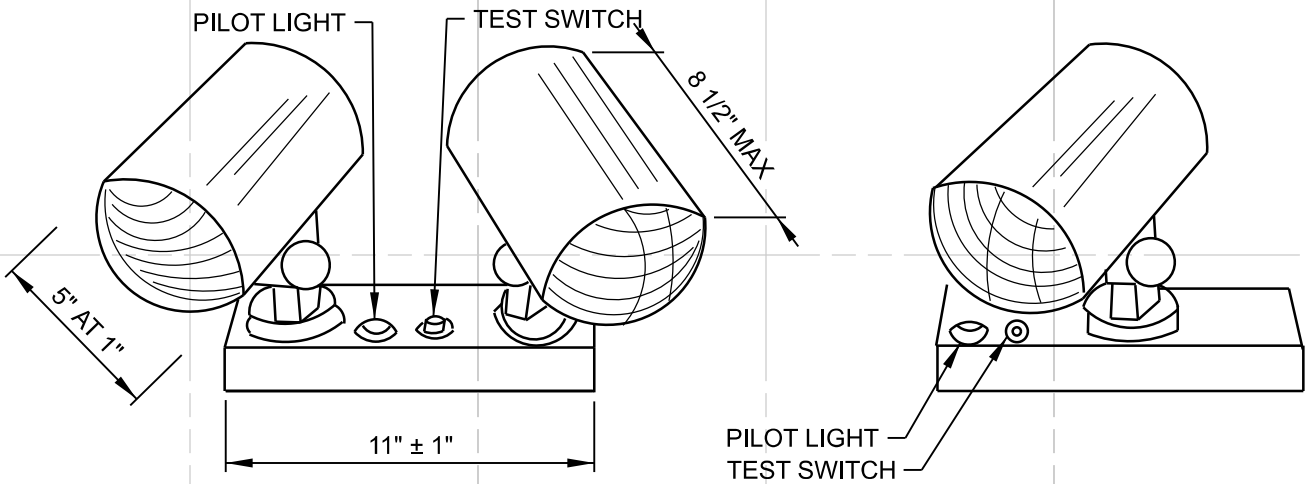
LUMINAIRE REQUIREMENTS

1. HOUSING - STEEL PAINTED SATIN BLACK HOUSING AND MATTE WHITE FRAME OR IMPACT AND FIRE RESISTANT POLYCARBONATE OR THERMOPLASTIC.
2. LENS SHALL BE PRISMATIC ACRYLIC APPROXIMATELY 9" X 9". REFLECTOR SHALL BE SPECULAR ALZAK.
3. BATTERY SHALL BE MAINTENANCE FREE, 6 VOLT NICKEL CADMIUM WITH FULL 5 YEAR WARRANTY.
4. UNIT SHALL HAVE SOLID STATE AUTOMATIC TWO RATE CHARGER, CAPABLE OF FULLY RECHARGING IN 12 HOURS.
5. SWITCHING AND CONTROLS - AUTO TRANSFER SWITCH, TEST SWITCH, SHORT CIRCUIT PROTECTION AND LOW VOLTAGE, DEEP DISCHARGE DISCONNECT, HIGH CHARGE INDICATING LIGHT.
6. LAMPS - MINIMUM - TWO 8 WATT TUNGSTEN HALOGEN LAMPS.
7. SUITABLE FOR WALL OR CEILING MOUNTING.

A1

DETAIL: LENS TYPE EMERGENCY LIGHTING UNIT

SCALE: NTS



DOUBLE UNIT - TYPE A

SINGLE UNIT - TYPE B

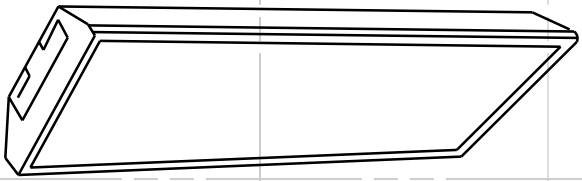
LUMINAIRE REQUIREMENTS

1. ALUMINUM FINISHED CHANNEL MOUNTING BASE WITH TEST SWITCH AND PILOT OR HIGH RATE INDICATING LIGHT.
2. CYLINDERS FOR LIGHTS AND BATTERY AND CHARGER SHALL BE PAINTED, MATTE WHITE AND SHALL BE FULLY ADJUSTABLE.
3. BATTERY SHALL BE MAINTENANCE FREE NICKEL CADMIUM WITH FULL 5 YEAR WARRANTY.
4. UNIT SHALL HAVE AUTOMATIC TWO RATE CHARGER.
5. SWITCHING AND CONTROLS - COMPLETELY SOLID STATE WITH AUTO TRANSFER AND LOW VOLTAGE CUTOFF. TEST SWITCH AND HIGH RATE INDICATING LIGHT.
6. 9 WATT TUNGSTEN HALOGEN LAMP.

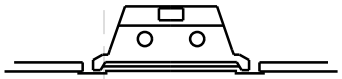
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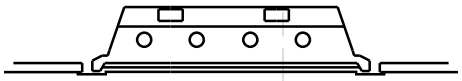
DETAIL: CYLINDER TYPE EMERGENCY LIGHTING UNIT

SCALE: NTS



TYPE A - 2'X2' 2 LAMP
TYPE C - 2'X4' 2 LAMP
TYPE D - 2'X4' 3 LAMP
TYPE E - 2'X4' 4 LAMP





LUMINAIRE REQUIREMENTS

1. HOUSING SHALL BE 0.026" MIN THICKNESS, 5" MAX HEIGHT AND SHALL NOT PERMANENTLY DEFORM WHEN LIFTED BY ONE CORNER WITH LENS DOOR IN PLACE NOR WITH LENS DOOR REMOVED. LENS DOOR SHALL NOT OPEN WHEN LUMINAIRE IS LIFTED BY ONE CORNER. LUMINAIRE SHALL HAVE LESS THAN THE FOLLOWING DEFLECTION WHEN LIFTED BY ONE CORNER WITH LENS DOOR REMOVED.

TYPE:	A	B	C, D, AND E
	3"	2 1/2"	4"

2. HOUSING SHALL BE CHEMICALLY TREATED FOR RUST PREVENTION AND HAVE BAKED WHITE ENAMEL FINISH 85% MIN REFLECTANCE (INTERIOR). ENDS SHALL BE SECURED BY RIVETS OR SCREWS. PAINT ENTIRE HOUSING AND LENS DOOR WHITE, AFTER FABRICATION.
3. LATCHES SHALL BE A 0.032" MINIMUM THICKNESS STEEL OR 0.015" MINIMUM THICKNESS SPRING STEEL. DIRECTION OF TRAVEL TO OPEN SHALL BE STAMPED ON LENS FRAME WHE NOT OBVIOUS.
4. LENS DOOR SHALL BE 0.032" MINIMUM THICKNESS STEEL, SHALL BE ASSEMBLED WITH SCREWS (FOR LENS REPLACEMENT). PROVIDE LIGHT TIGHT FIT WITHOUT MOVABLE BAFFLES. GASKETING SHALL NOT BE A MEANS OF ACHIEVING LIGHT TIGHT DOOR.
5. LENS SHALL BE 0.156" (FOR TYPES A, C, D, E) AND 0.125" (FOR TYPE B) PLUS OR MINUS 10% OVERALL (0.09 MAX, PRISM PENETRATION) CLEAR PRISMATIC 100% ACRYLIC
6. DOOR SHALL BE CAPABLE OF HINGING AND LATCHING FROM EITHER SIDE OF LUMINAIRE. PROVIDE SAFETY TYPE HINGES.
7. BALLAST SHALL BE HIGH POWER FACTOR (> .9) ETL, CBM APPROVED RAPID START CLASS P ENERGY SAVING BALLAST WITH SOUND RATING OF "A" SECURE BALLAST TO HOUSING WITH AT LEAST ONE SCREW AND SLIP-ON BRACKET OR 2 SCREWS ONE AT EACH END. PROVIDE GROUNDING SCREW ON INTERIOR OF HOUSING.
8. PHOTOMETRICS: MINIMUM COEFFICIENT OF UTILIZATION (CU) FOR THE FOLLOWING CAVITY REFLECTANCES: CEILING = 80% WALL = 50% FLOOR = 20% LUMINANCE USING 3100L LAMP WITH AVG:MAX RATIO NOT TO EXCEED 1:5

	TYPE:					
ROOM CAVITY RATIO	A	B	C	D	E	AVG. LUMINANCE (FL)
1	0.67	0.60	0.73	0.68	0.67	.45
2	0.60	0.54	0.66	0.61	0.60	.55-1605
3	0.54	0.48	0.59	0.55	0.54	.65-1125
4	0.49	0.44	0.53	0.50	0.49	.75-750
MIN S/MH	1.2	1.1	1.3	1.3	1.3	.85-495

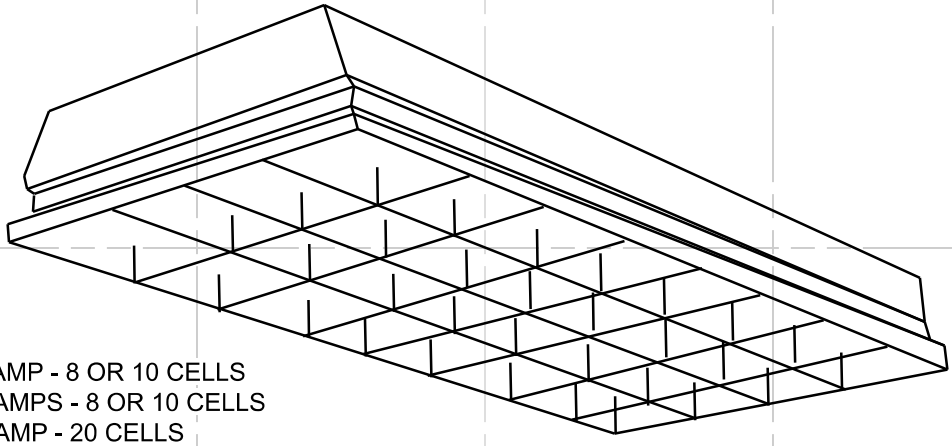
PROVIDE MIN VISUAL COMFORT PROBABILITY (VCP) OF 65 (ASSUME 30'X30'X10'H ROOM). WHEN "OFFICE TYPE" INDICATED, PROVIDE MIN VCP OF 70.

9. PROVIDE MOUNTING HARDWARE COMPATIBLE WITH CEILING MATERIAL IN WHICH LUMINAIRE IS TO BE INSTALLED.

A1

DETAIL: TROFFER

SCALE: NTS



TYPE A - 1 - 48" T-12 LAMP - 8 OR 10 CELLS
TYPE B - 2 - 48" T-12 LAMPS - 8 OR 10 CELLS
TYPE C - 1 - 48" T-12 LAMP - 20 CELLS
TYPE D - 2 - 48" T-12 LAMPS - 20 CELLS

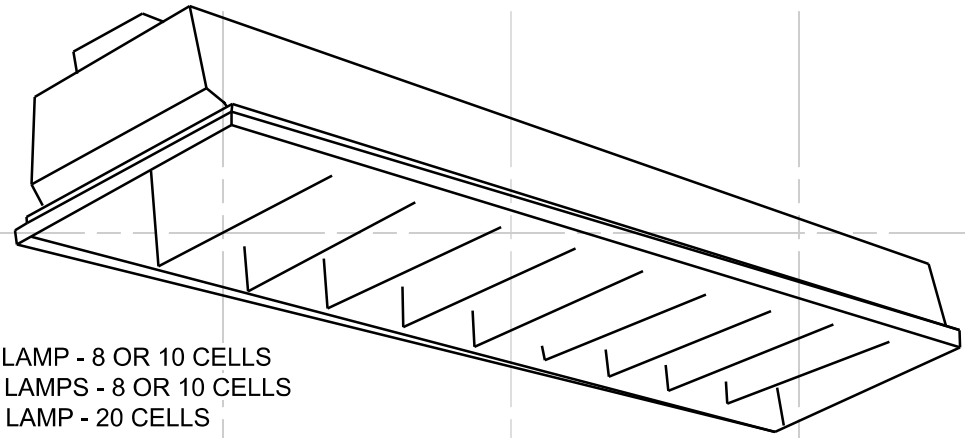
LUMINAIRE REQUIREMENTS

1. HOUSING SHALL BE MINIMUM 0.26" THICK STEEL. HOUSING SHALL BE CHEMICALLY TREATED FOR RUST PREVENTION AND PAINT ADHESION. ENDS SHALL BE SECURED WITH SCREWS OR WELDED. HOUSING SHALL BE COMPLETELY PAINTED AFTER FABRICATION WITH MINIMUM 85% REFLECTANCE WHITE ENAMEL. MINIMUM DEPTH OF HOUSING 6" + 1".
2. LUMINAIRE SHALL HAVE FULL MATTE BLACK REVEAL. FOR FLOATING DOOR EFFECT. PROVIDE MOUNTING TRIM AND HARDWARE COMPATIBLE WITH CEILING MATERIAL.
3. LUMINAIRE SHALL BE HIGH EFFICIENCY, LOW BRIGHTNESS TYPE WITH INTERLOCKED LOUVERS CONTOURED TO A PARABOLIC SHAPE. LOUVERS SHALL BE OF MINIMUM .025" SEMI-SPECULAR ANODIZED ALUMINUM IN NATURAL OR GOLD FINISH AS INDICATED.
4. FIXTURE HOUSING SHALL HAVE INTERNAL GREEN GROUNDING SCREW.
5. NO EXPOSED INTERNAL WIRING.
6. BALLAST SHALL BE HIGH POWER FACTOR (≥ .9) ETL, CBM APPROVED RAPID START CLASS P ENERGY SAVING BALLAST WITH SOUND RATING OF "A". SECURE BALLAST TO HOUSING WITH AT LEAST ONE SCREW AND SLIP-ON BRACKET OR 2 SCREWS, ONE AT EACH END.
7. LOUVER SHALL BE SUITABLE FOR HINGING FROM EITHER SIDE AND SHALL HAVE TWO SAFETY HINGES AND TWO SPRING LOADED LATCHES OR FOUR SPRING LOADED LATCHES.

A1

DETAIL: 2 X 2 AND 2 X 4 PARABOLIC TROFFERS

SCALE: NTS



TYPE A - 1 - 48" T-12 LAMP - 8 OR 10 CELLS
TYPE B - 2 - 48" T-12 LAMPS - 8 OR 10 CELLS
TYPE C - 1 - 48" T-12 LAMP - 20 CELLS
TYPE D - 2 - 48" T-12 LAMP - 20 CELLS

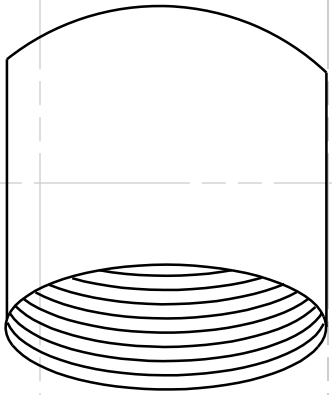
LUMINAIRE REQUIREMENTS

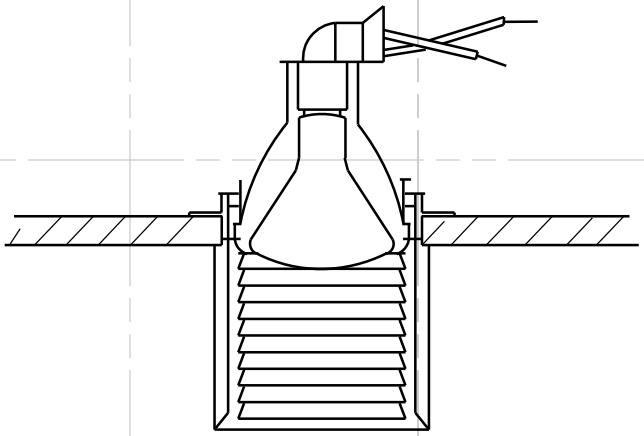
1. HOUSING SHALL BE MINIMUM 0.26" THICK STEEL. HOUSING SHALL BE CHEMICALLY TREATED FOR RUST PREVENTION AND PAINT ADHESION. ENDS SHALL BE SECURED WITH SCREWS OR WELDED. HOUSING SHALL BE COMPLETELY PAINTED AFTER FABRICATION WITH MINIMUM 85% REFLECTANCE WHITE ENAMEL. MINIMUM DEPTH OF HOUSING 6" + 1".
2. LUMINAIRE SHALL HAVE FULL MATTE BLACK REVEAL. FOR FLOATING DOOR EFFECT. PROVIDE MOUNTING TRIM AND HARDWARE COMPATIBLE WITH CEILING MATERIAL.
3. LUMINAIRE SHALL BE HIGH EFFICIENCY, LOW BRIGHTNESS TYPE WITH INTERLOCKED LOUVERS CONTOURED TO A PARABOLIC SHAPE. LOUVERS SHALL BE OF MINIMUM .025" SEMI-SPECULAR ANODIZED ALUMINUM IN NATURAL OR GOLD FINISH AS INDICATED.
4. FIXTURE HOUSING SHALL HAVE INTERNAL GREEN GROUNDING SCREW.
5. NO EXPOSED INTERNAL WIRING.
6. BALLAST SHALL BE HIGH POWER FACTOR (≥ .9) ETL, CBM APPROVED RAPID START CLASS P ENERGY SAVING BALLAST WITH SOUND RATING OF "A". SECURE BALLAST TO HOUSING WITH AT LEAST ONE SCREW AND SLIP-ON BRACKET OR 2 SCREWS, ONE AT EACH END.
7. LOUVER SHALL BE SUITABLE FOR HINGING FROM EITHER SIDE AND SHALL HAVE TWO SAFETY HINGES AND TWO SPRING LOADED LATCHES OR FOUR SPRING LOADED LATCHES.

A1

DETAIL: 1 X 4 PARABOLIC TROFFER

SCALE: NTS





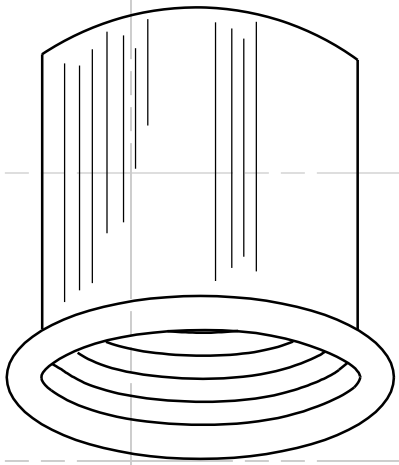
LUMINAIRE REQUIREMENTS

1. 0.032" MINIMUM THICKNESS STEEL OR ALUMINUM HOUSING WITH DIE CAST ALUMINUM PLASTER RING.
2. PROVIDE A 5 TO 7 INCH APERTURE BLACK GROOVED BAFFLE WITH BRUSHED OR SATIN ALUMINUM EXTERIOR FINISH. THE EXPOSED LENGTH OF THE LUMINAIRE SHALL BE 5 TO 7 INCHES.
3. PORCELAIN LAMP SOCKET WITH FULL METAL SCREW SHELL SUITABLE FOR A 150 WATT PAR, OR 75 WATT ER-30 LAMP.
4. PROVIDE INTERNAL PROVISIONS FOR GROUNDING.

A1

DETAIL: SEMI-RECESSED BAFFEL DOWNLIGHT (INCANDESCENT)

SCALE: NTS



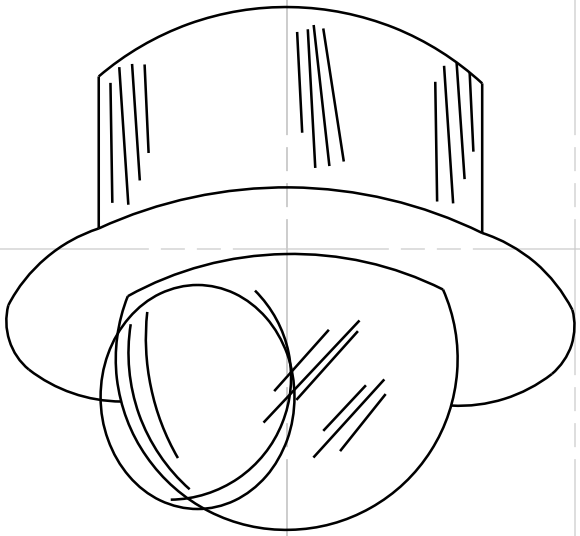
LUMINAIRE REQUIREMENTS

1. 0.032" MINIMUM THICKNESS GALVANIZED STEEL OR ALUMINUM HOUSING WITH ALUMINUM REFLECTOR.
2. PROVIDE MATTE WHITE PAINTED TRIM RING.
3. REGRESSED LENS SHALL BE HEAT RESISTANT GLASS HELD IN PLACE WITH A CONCEALED TORSION TYPE HINGE.
4. PROVIDE PORCELAIN LAMP SOCKET WITH FULL METAL SCREW SHELL SUITABLE FOR A 150 WATT LAMP.
5. PROVIDE INTERNAL PROVISIONS FOR GROUNDING.

A1

DETAIL: RECESSED BAFFEL DOWNLIGHT (INCANDESCENT)

SCALE: NTS



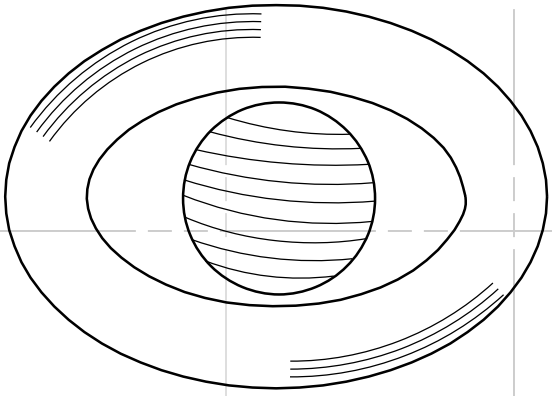
LUMINAIRE REQUIREMENTS

1. 0.032" MINIMUM THICKNESS STEEL HOUSING.
2. ALUMINUM BALL WITH DIE CAST ALUMINUM TRIM RING. PROVIDE MATTE WHITE FINISH.
3. BALL ADJUSTABLE FROM 0° - 45° FROM VERTICAL AND ROTATABLE FOR 359 .
4. PROVIDE MATTE BLACK LOUVER WHEN INDICATED.
5. PORCELAIN SOCKET SUITABLE FOR USE WITH UP TO 75 WATT ER-30 LAMP.
6. PROVIDE INTERNAL PROVISIONS FOR GROUNDING.

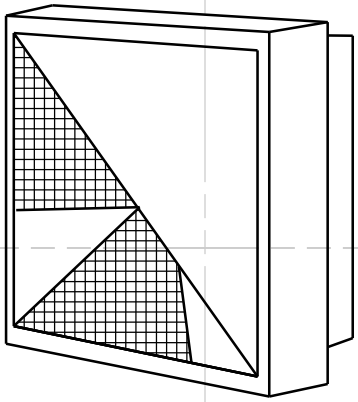
A1

DETAIL: ADJUSTABLE SEMI-RECESSED SPOTLIGHT

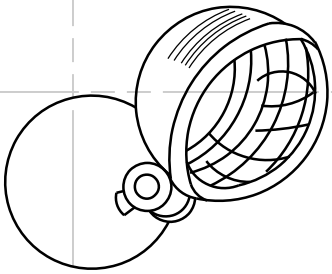
SCALE: NTS



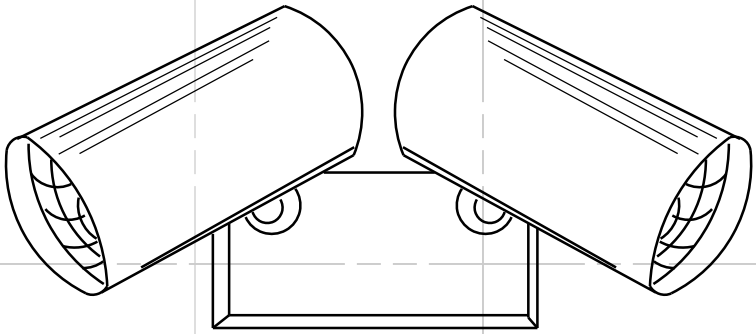
TYPE - C



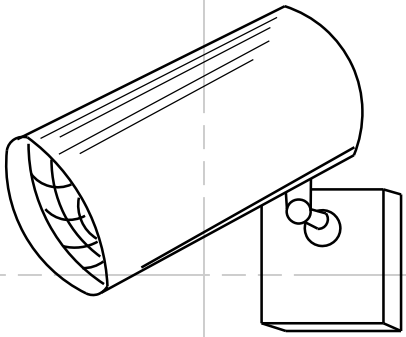
TYPE - D



TYPE - E



TYPE - A



TYPE - B

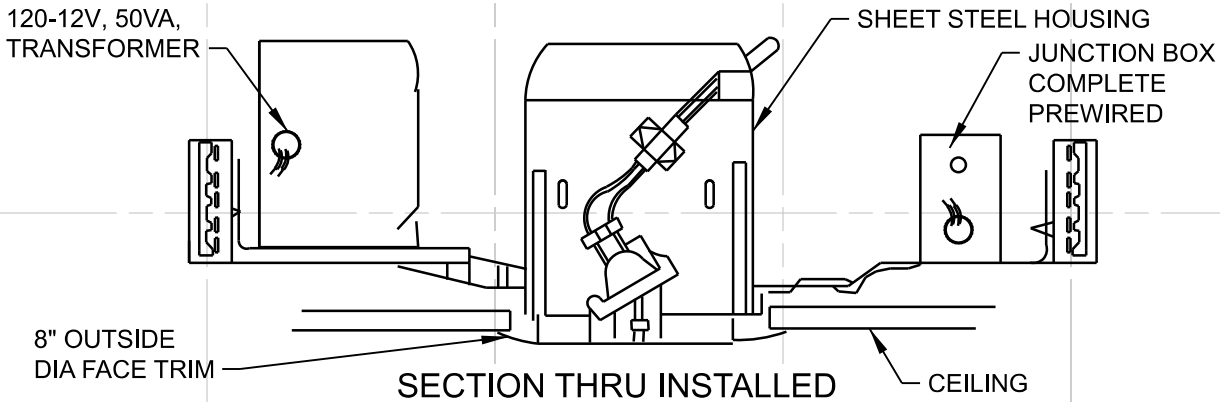
REMOTE EMERGENCY LIGHTING UNITS

NOTES:
1. LAMPS AND FINISHES SHALL BE COMPATIBLE WITH PRIMARY UNIT WITH WHICH USED.

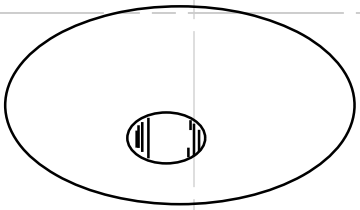
A1

DETAIL: REMOTE FIXTURES FOR USE WITH BATTERY UNIT

SCALE: NTS

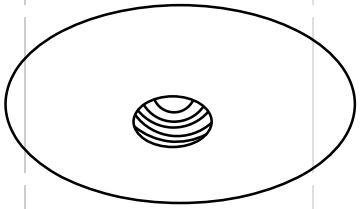


SECTION THRU INSTALLED
LOW VOLTAGE FIXTURE



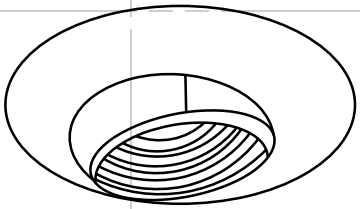
1 3/4" PINHOLE
WITH CLEAR CONE

TYPE - A



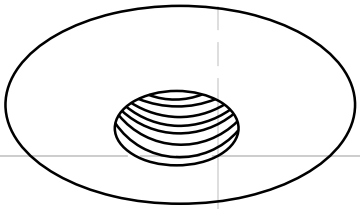
BLACK GROOVED
1 3/4" PINHOLE
BAFFLE WITH 3 1/4"
APERATURE

TYPE - B



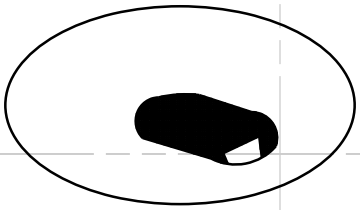
ADJUSTABLE EYEBALL
WITH GROVED BLACK
BAFFLE, 25° TILT AND
358° ROTATION

TYPE - C



1 3/4" PINHOLE
DOWN LIGHT WITH
GROOVED BLACK
BAFFLE

TYPE - D



RECESSED ADJUSTABLE
WITH 40° TILT AND
ROTATION

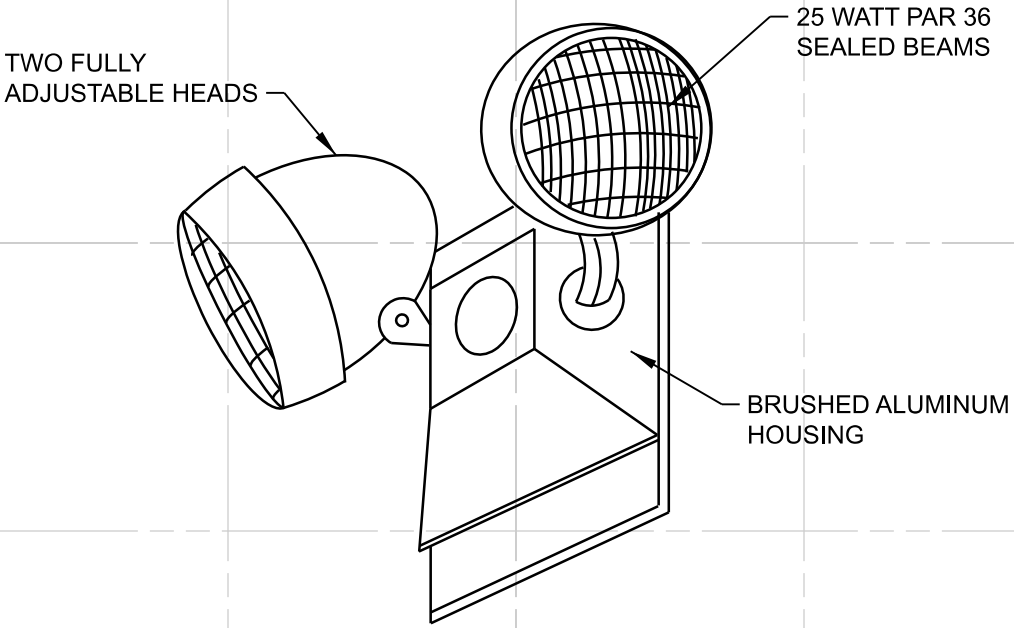
TYPE - E

NOTES:
FACE TRIM; MATTE WHITE OR MATTE BLACK

A1

DETAIL: LOW VOLTAGE RECESSED INCANDESCENT

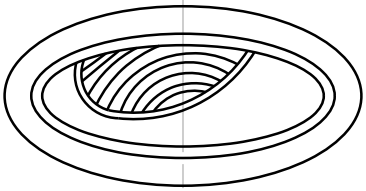
SCALE: NTS

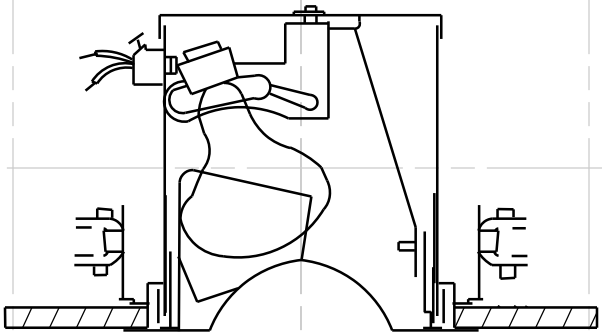


A1

DETAIL: TYPE "L" FIXTURE

SCALE: NTS





LUMINAIRE REQUIREMENTS

1. 0.032" MINIMUM THICKNESS STEEL HOUSING WITH MATTE BLACK FINISH.
2. PROVIDE LOW-GLOSS WHITE ENAMEL TRIM RING WITH 12" MAXIMUM DIAMETER.
3. SPECULAR ALUMINUM REFLECTOR.
4. 0° - 30° ADJUSTABLE SOCKET ASSEMBLY WITH 358° ROTATION.
5. PROVIDE TRIM SUITABLE FOR RECESS MOUNTING OF LUMINAIRE IN CEILING MATERIAL SPECIFIED.
6. PROVIDE PORCELAIN SOCKET WITH FULL METAL SCREW SHELL SUITABLE FOR 150W PAR OR R LAMP.
7. PROVIDE INTERNAL PROVISIONS FOR GROUNDING.

DETAIL: ADJUSTABLE INCANDESCENT INTERIOR SPOTLIGHT

A1

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: WF7

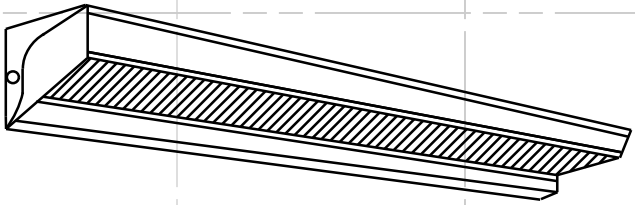
FEATURES

LAMP TYPE: F32T8/75 CRI

PROFILE: 2 LAMP

SHIELDING: ACRYLIC PRISMATIC LENS

BALLAST: ELECTRONIC



OPTIONS

LAMP TYPE: F25T8/RS
PROFILE: 1 LAMP
BALLAST: HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY

NOM. DIMENSIONS: 178 mm X 1219 mm X 102 mm (7" D X 4' L X 4" H)

GENERAL DESCRIPTION

HOUSING: DIE-FORMED HOUSING SHALL ALLOW REMOVAL OF LENS WITHOUT REMOVAL OF END-CAPS

REFLECTORS: GLOSS WHITE INTERIOR

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: WHITE ENAMEL OR POLYESTER POWDER COAT

A1

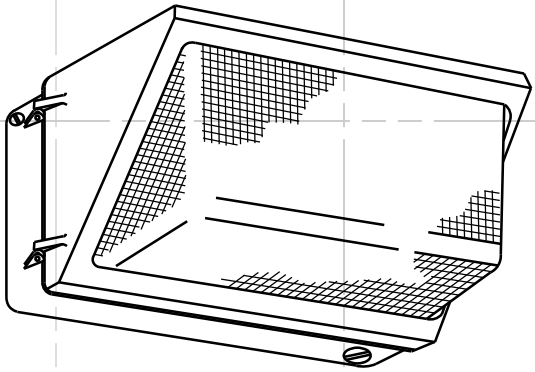
DETAIL: WALL MOUNTED DIRECT/INDIRECT FLUORESCENT (WF7)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: EH6



FEATURES

LAMP TYPE: 250W METAL HALIDE

PROFILE: 1 LAMP

SHIELDING: TEMPERED PRISMATIC BOROSILICATE GLASS

BALLAST: HIGH POWER FACTOR, CORE AND COIL, CWA

OPTIONS

LAMP TYPE: MH: 400W
HPS: 250W, 400W

OTHER: KNUCKLE WALL MOUNT OR SLIP FITTER. FIELD INSTALLED PHOTO-CELL CONTROL KIT, THREADED TOP CONDUIT ENTRANCE.

NOM. DIMENSIONS: 394 mm X 305 mm X 252 mm (15 1/2" L X 12" D X 9 15/16" H)

GENERAL DESCRIPTION

HOUSING: DIE CAST ALUMINUM HOUSING, HINGED DOOR

REFLECTORS: FACETED ALUMINUM

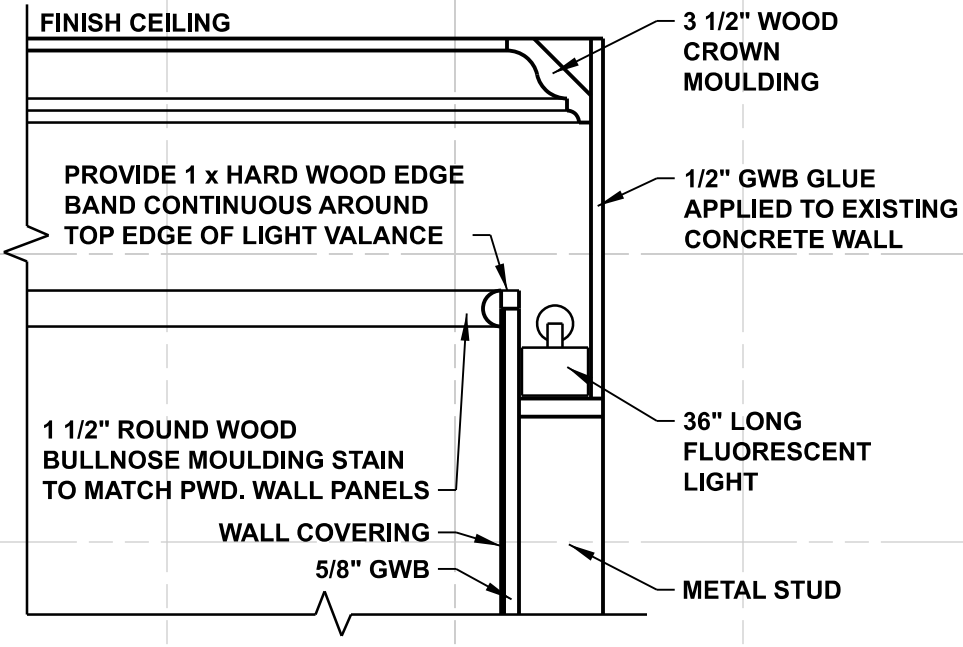
ELECTRICAL: 120, 277, 208, 240, 347 AND 480 VOLT MULTI TAP BALLAST

FINISH: PAINTED DARK BRONZE FINISH

A1

DETAIL: METAL HALIDE WALL PAK (EH6)

SCALE: NTS



A1

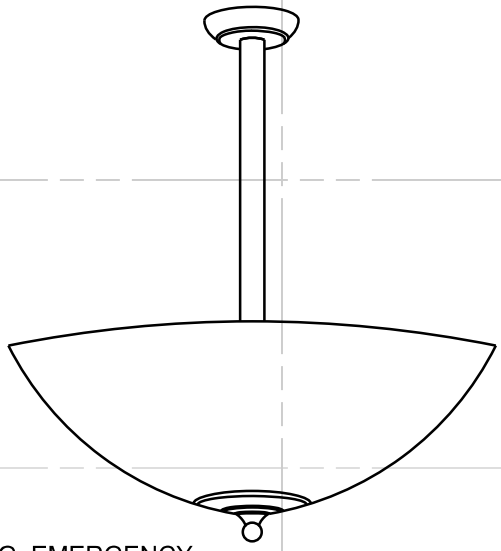
DETAIL: COVE LIGHTING

SCALE:1-1/2"=1'-0'0 6" 1' 2'

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: PF1



FEATURES

LAMP TYPE: F13TT/RS

PROFILE: 4 LAMPS

SHIELDING: OPAL ACRYLIC

BALLAST: REMOTE, ELECTRONIC

OPTIONS

LAMP TYPE: F26DTT/RS OR F39TT/RS;
SHIELDING: OPAL GLASS, TOP LENS
BALLAST: HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY
BOWL SIZES: 762, 914, 1143 OR 1295 mm
(30", 36", 45" OR 51") DIA
NOM. DIMENSIONS: 610 mm X 305 mm
(24" DIA X 12" D)

GENERAL DESCRIPTION

HOUSING: WHITE OPAL ACRYLIC BOWL, TRIM RINGS OF MINIMUM 20 GAUGE STEEL OR DIE-CAST ALUMINUM
MOUNTING: STEM MOUNTED WITH HANG STRAIGHT STEM

REFLECTORS: FABRICATED ALUMINUM SPECULAR REFLECTOR

ELECTRICAL: 120 OR 277 VOLT BALLAST
FINISH: CHROME-PLATED SOLID BRASS, POLISHED SOLID BRASS OR PAINTED; TRIM RING, STEM AND CANOPY FINISH TO MATCH

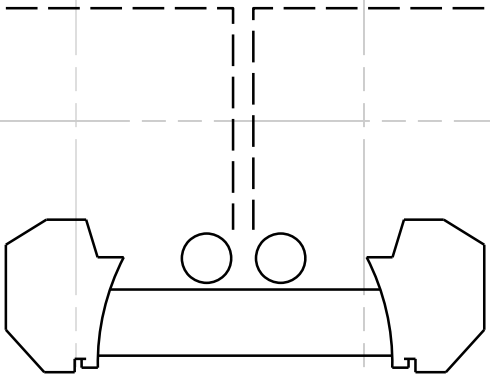
DETAIL: PENDANT MOUNTED DIRECT/INDIRECT COMPACT FLUORESCENT BOWL (PF1)

A1

SCALE: NTS

CORPS OF ENGINEERS DEPARTMENT OF THE ARMY

TYPE: PF2



FEATURES

LAMP TYPE:	F32T8/75 CRI
PROFILE:	2 LAMP
MOUNTING:	AIRCRAFT CABLE
SHIELDING:	LOW IRIDESCENT, SEMI-SPECULAR PARABOLIC LOUVER DOWN, OPEN UP
BALLAST:	ELECTRONIC

OPTIONS

PROFILE:	3 LAMP
MOUNTING:	RIGID STEM
SHIELDING:	STRAIGHT BLADE BAFFLE DOWN
BALLAST:	DIMMING, EMERGENCY, REMOTE, HIGH POWER FACTOR MAGNETIC
OTHER:	CONTINUOUS ROW MOUNTING
NOM. DIMENSIONS:	86 mm X 283 mm X 1219 mm (3 3/8" H X 11 1/8" W X 4' L)

GENERAL DESCRIPTION

HOUSING: DIE FORMED AND WELDED MINIMUM 20 GA. COLD ROLLED STEEL UP TO 2440 mm (8'-0") LENGTH. END CAPS TO BE MINIMUM 18 GAUGE COLD ROLLED STEEL WITH NO HOLES OR KNOCKOUTS.

REFLECTORS: SPECULAR ALUMINUM.

ELECTRICAL: 120 OR 277 VOLT BALLAST.

FINISH: PAINTED BAKED ENAMEL, WHITE STANDARD

A1

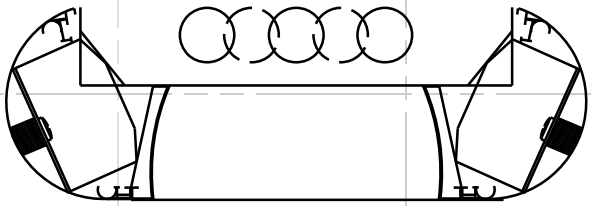
DETAIL: PENDANT MOUNTED STEEL DIRECT/INDIRECT FLUORESCENT (PF2)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: PF3



FEATURES

LAMP TYPE:	F32T8/75 CRI
PROFILE:	2 LAMP
MOUNTING:	AIRCRAFT CABLE SUSPENSION
SHIELDING:	LOW IRIDESCENT, SEMI-SPECULAR PARABOLIC LOUVER DOWN, OPEN UP
BALLAST:	ELECTRONIC

OPTIONS

PROFILE:	3 LAMP
MOUNTING:	RIGID STEM
SHIELDING:	STRAIGHT BLADE BAFFLE DOWN
BALLAST:	DIMMING, EMERGENCY, HIGH POWER FACTOR MAGNETIC
NOM. DIMENSIONS:	89 mm X 229 mm X 1219 mm (3 1/2" H X 9" W X 4' L)

GENERAL DESCRIPTION

HOUSING: EXTRUDED ALUMINUM UP TO 7.3 m (24') FOR CONTINUOUS ROWS, MINIMUM

REFLECTORS: SPECULAR ALUMINUM

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: PAINTED BAKED ENAMEL, WHITE STANDARD

A1

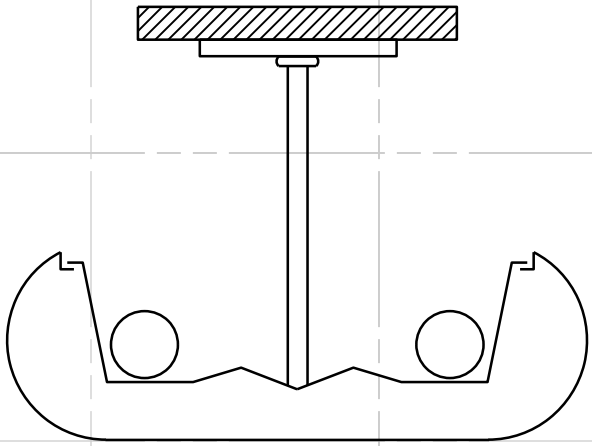
DETAIL: PENDANT MOUNTED ALUMINUM DIRECT/INDIRECT FLUORESCENT (PF3)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: PF4



FEATURES

LAMP TYPE: F32T8/75 CRI

PROFILE: 2 LAMP

MOUNTING: AIRCRAFT CABLE

BALLAST: ELECTRONIC

OPTIONS

LAMP TYPE: F40TT/RS, F50TT/RS

PROFILE: 3 LAMP

MOUNTING: RIGID STEM

BALLAST: HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY

NOM. DIMENSIONS: 73 mm X 254 mm X 1219 mm (2 7/8" H X 10" W X 4' L)

GENERAL DESCRIPTION

HOUSING: DIE-FORMED 20 GA. COLD ROLLED STEEL UP TO 2440 mm (8'-0") LONG

REFLECTORS: DIE-FORMED SPECULAR ALUMINUM WITH 95% REFLECTANCE

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: BAKED ENAMEL OR POLYESTER POWDER COAT, WHITE STANDARD

A1

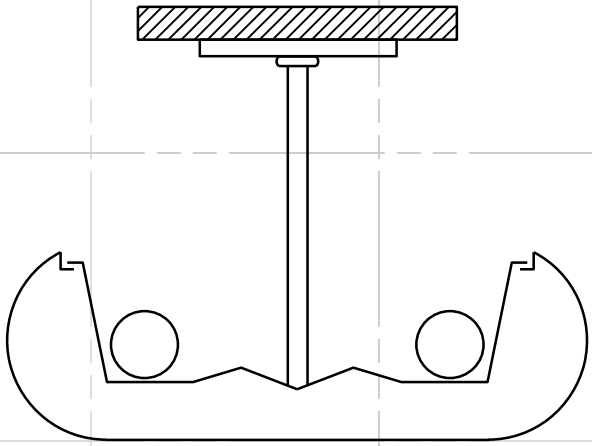
DETAIL: PENDANT MOUNTED STEEL INDIRECT FLUORESCENT (PF4)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: PF5



FEATURES

LAMP TYPE: F32T8/75 CRI

PROFILE: 2 LAMP

MOUNTING: AIRCRAFT CABLE

BALLAST: ELECTRONIC

OPTIONS

PROFILE: 3 LAMP

MOUNTING: STEM

BALLAST: HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY

NOM. DIMENSIONS: 89 mm X 254 mm X 1219 mm (31/2" H X 10" W X 4' L)

GENERAL DESCRIPTION

HOUSING: TWO PIECE EXTRUDED ALUMINUM 1.8 mm (.07") THICK, STANDARD LENGTHS UP TO 3.7 M (12'-0")

REFLECTORS: DIE-FORMED SPECULAR ALUMINUM WITH 95% REFLECTANCE

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: BAKED ENAMEL OR POLYESTER POWDER COAT, WHITE STANDARD

A1

DETAIL: PENDANT ALUMINUM INDIRECT FLUORESCENT (PF5)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: PF6

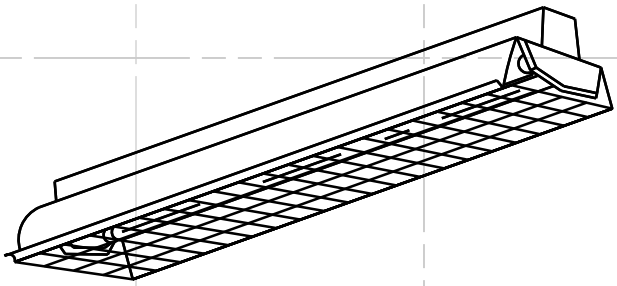
FEATURES

LAMP TYPE: F32T8/75 CRI

PROFILE: 2 LAMP

SHIELDING: WIRE GUARD

BALLAST: ELECTRONIC



OPTIONS

PROFILE: 3 LAMP
MOUNTING: SURFACE
BALLAST: HIGH POWER FACTOR
MAGNETIC, EMERGENCY

NOM. DIMENSIONS: 178 mm X 356 mm X 1219 mm
(7" H X 14" W X 4' L)

GENERAL DESCRIPTION

HOUSING: DIE-FORMED CRS HOUSING WITH ROLLED SYMMETRIC REFLECTOR/BALLAST COVER

REFLECTORS: COLD ROLLED STEEL, PAINTED WHITE, 10% UPLIGHT APERTURES

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: WHITE ENAMEL POLYESTER POWDER COAT

A1

DETAIL: CHAIN HUNG 4' TURRET INDUSTRIAL FLUORESCENT (PF6)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: PF7

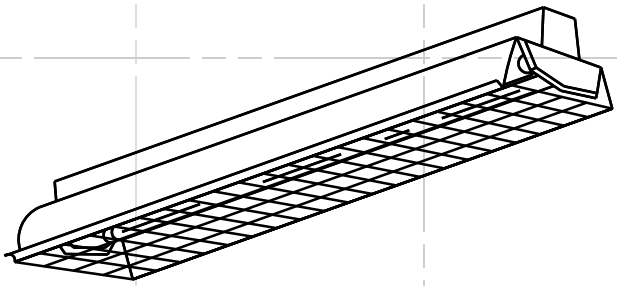
FEATURES

LAMP TYPE: F96T8/HO

PROFILE: 2 LAMP

SHIELDING: WIRE GUARD

BALLAST: ELECTRONIC



OPTIONS

PROFILE: 3 LAMP
MOUNTING: SURFACE
BALLAST: HIGH POWER FACTOR
MAGNETIC, EMERGENCY

NOM. DIMENSIONS: 178 mm X 356 mm X 2438 mm
(7" H X 14" W X 8' L)

GENERAL DESCRIPTION

HOUSING: DIE-FORMED COLD ROLLED STEEL HOUSING

REFLECTORS: SYMMETRIC STEEL REFLECTOR/BALLAST COVER PAINTED WHITE,
10% UPLIGHT APERTURES

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: WHITE ENAMEL OR POLYESTER POWDER COAT, WHITE STANDARD

A1

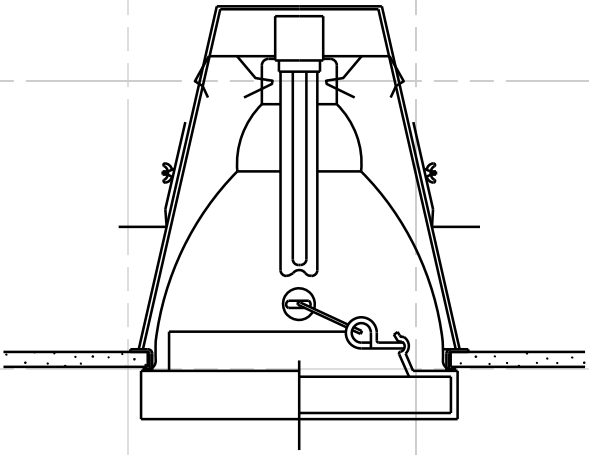
DETAIL: CHAIN HUNG 8' TURRET INDUSTRIAL FLUORESCENT (PF7)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RF1



FEATURES

LAMP TYPE: F13DTT/RS

PROFILE: 1 LAMP

SHIELDING: PRISMATIC ACRYLIC

BALLAST: ELECTRONIC

OPTIONS

BALLAST: HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY

NOM. DIMENSIONS: 178 mm X 229 mm (7" DIA X 9" D)

GENERAL DESCRIPTION

HOUSING: DIE-FORMED 20 GA. GALVANIZED STEEL MOUNTING FAN, UNIVERSAL MOUNTING BRACKETS

REFLECTORS: HYDRO FORMED 1 mm (.04") THICK ALUMINUM, SEMI-SPECULAR

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: CLEAR, SEMI-SPECULAR LOW IRIDESCENT CONE

EFFICIENCY: 35%

A1

DETAIL: 7" DIAMETER RECESSED COMPACT FLUORESCENT LENSED DOWNLIGHT (RF1)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

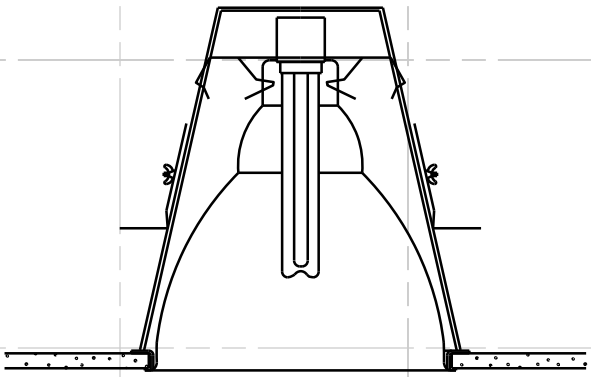
TYPE: RF2

FEATURES

LAMP TYPE: F32DTT/RS

PROFILE: 1 LAMP

BALLAST: ELECTRONIC



OPTIONS

LAMP TYPE:	F26DTT/RS
BALLAST:	HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY
OTHER:	CHAMPAGNE GOLD OR PEWTER REFLECTOR, WHITE PAINTED FLANGE, SLOPED CEILING ADAPTER
NOM. DIMENSIONS:	152 mm X 311 mm (6" DIA X 121/4" D)

GENERAL DESCRIPTION

HOUSING: DIE-FORMED 20 GA. GALVANIZED STEEL MOUNTING PAN, UNIVERSAL MOUNTING BRACKETS

REFLECTORS: CLEAR SEMI-SPECULAR ALZAK® ALUMINUM, LOW IRIDESCENT WITH SELF FLANGE

ELECTRICAL: 120 OR 277 VOLT BALLAST

EFFICIENCY: 55%

A1

DETAIL: 6" DIAMETER RECESSED COMPACT FLUORESCENT DOWNLIGHT (RF2)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE army

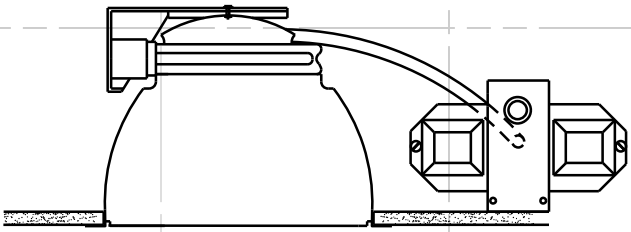
TYPE: RF3

FEATURES

LAMP TYPE: F18DTT/RS

PROFILE: 2 LAMP

BALLAST: ELECTRONIC



OPTIONS

LAMP TYPE:	F13TT/RS, F26DTT/RS
BALLAST:	HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY, DUAL SWITCHING
OTHER:	WHITE PAINTED FLANGE; CHAMPAGNE GOLD, PEWTER, BRONZE OR WHITE REFLECTOR AND TRIM RING; DAMP LOCATION LISTING
NOM. DIMENSIONS:	203 mm X 173 mm (8" DIA X 61 3/16" D)

GENERAL DESCRIPTION

HOUSING: DIE CAST ALUMINUM WITH UNIVERSAL MOUNTING BRACKETS

REFLECTORS: SEMI-SPECULAR, LOW IRIDESCENT, 1.3 mm (.05") THICK ALUMINUM REFLECTOR, SELF-FLANGED

ELECTRICAL: 120 OR 277 VOLT BALLAST

EFFICIENCY: 70%

A1

DETAIL: 8" DIAMETER RECESSED COMPACT FLUORESCENT DOWNLIGHT (RF3)

SCALE: NTS

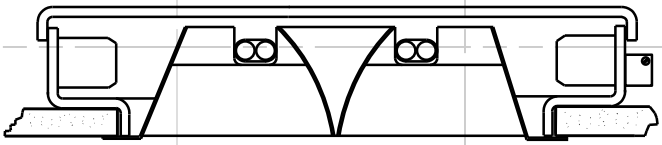
CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RF4

FEATURES

LAMP TYPE: F18DTT/RS
PROFILE: 2 LAMP
BALLAST: ELECTRONIC
SHIELDING: 4 CELL SEMI-SPECULAR, LOW IRIDESCENT PARABOLIC CROSS BLADE LOUVER WITH SELF FLANGE



OPTIONS

LAMP TYPE: F26DTT/RS
BALLAST: DIMMING, HIGH POWER FACTOR MAGNETIC, DUAL SWITCHING, EMERGENCY
OTHER: WHITE PAINTED FLANGE; CHAMPAGNE GOLD, PEWTER, BRONZE OR WHITE REFLECTOR AND TRIM RING; DAMP LOCATION LISTING

NOM. DIMENSIONS: 203 mm X 124 mm (8" DIA X 4 7/8" D)

GENERAL DESCRIPTION

HOUSING: DIE-CAST ALUMINUM WITH UNIVERSAL MOUNTING BRACKETS

REFLECTORS: SEMI-SPECULAR 1.3 mm (.05") THICK ALUMINUM

ELECTRICAL: 120 OR 277 VOLT BALLAST

EFFICIENCY: 40%

A1

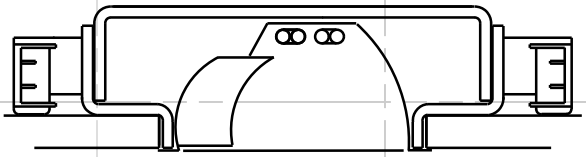
DETAIL: 8" DIAMETER RECESSED COMPACT FLUORESCENT LOUVERED DOWNLIGHT (RF4)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RF5



FEATURES

LAMP TYPE: F18DTT/RS

PROFILE: 2 LAMP

BALLAST: ELECTRONIC

OPTIONS

LAMP TYPE: F13TT/RS, F26DTT/RS

BALLAST: HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY, DUAL SWITCHING

OTHER: WHITE PAINTED FLANGE; CHAMPAGNE GOLD, PEWTER, BRONZE OR WHITE REFLECTOR AND TRIM RING; DAMP LOCATION LISTING

NOM. DIMENSIONS: 203 mm X 173 mm
(8" DIA X 61 3/16" D)

GENERAL DESCRIPTION

HOUSING: DIE CAST ALUMINUM WITH UNIVERSAL MOUNTING BRACKETS

REFLECTORS: SEMI-SPECULAR, LOW IRIDESCENT WITH SEMI-SPECULAR WALLWASH KICKER AND SELF FLANGE TRIM

ELECTRICAL: 120 OR 277 VOLT BALLAST

A1

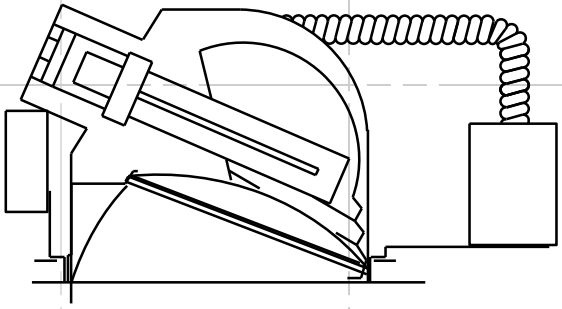
DETAIL: 8" DIAMETER RECESSED COMPACT FLUORESCENT DOWNLIGHT/ WALLWASHER (RF5)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RF6



FEATURES

LAMP TYPE: F18DTT/RS

PROFILE: 2 LAMP

SHIELDING: CLEAR PRISMATIC GLASS
SPREAD LENS

BALLAST: ELECTRONIC

OPTIONS

LAMP TYPE: F26DTT/RS
BALLAST: DIMMING, HIGH POWER FACTOR MAGNETIC, EMERGENCY
OTHER: WHITE PAINTED FLANGE; SPECULAR BLACK OR CHAMPAGNE GOLD REFLECTOR AND TRIM RING

NOM. DIMENSIONS: 178 mm X 172 mm
(7" DIA X 63/4" D)

GENERAL DESCRIPTION

HOUSING: ROLLED STEEL OR DIE CAST ALUMINUM WITH COLLAR TO ACCOMMODATE VARYING CEILING THICKNESSES

REFLECTORS: CLEAR, SEMI-SPECULAR, LOW IRIDESCENT ALZAK® WITH SELF FLANGE

ELECTRICAL: 120 OR 277 VOLT BALLAST

A1

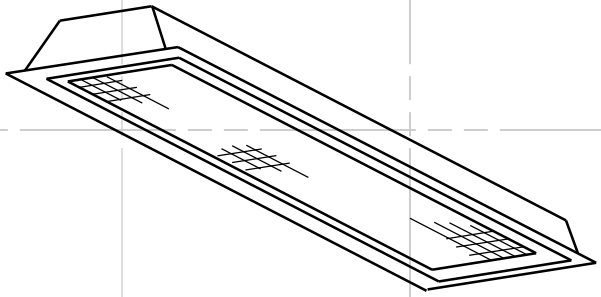
DETAIL: 7" DIAMETER RECESSED COMPACT FLUORESCENT LENSED WALLWASHER (RF6)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RF7



FEATURES

LAMP TYPE: F32T8/ 75 CRI

PROFILE: 2 LAMP

SHIELDING: ACRYLIC PRISMATIC LENS

BALLAST: ELECTRONIC

OPTIONS

PROFILE: 3 LAMP
SHIELDING: 3.2 mm (0.125") PATTERN 12, PATTERN 19, RFI SUPPRESSION
BALLAST: HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY
OTHER: GASKETED; AIR HANDLING AND/OR HEAT REMOVAL

NOM. DIMENSIONS: 305 mm X 1219 mm X 127 mm
(12" W X 4' L X 5" D)

GENERAL DESCRIPTION

HOUSING: COLD ROLLED STEEL WITH VARIOUS TRIM OPTIONS TO COORDINATE WITH CEILING; EXTRUDED ALUMINUM LENS FRAME WITH HINGED REMOVAL AND SPRING-LOADED CATCHES

MOUNTING: RECESSED INTO STANDARD NON METRIC GRID

REFLECTORS: GLOSS WHITE
ELECTRICAL: 120 OR 277 VOLT BALLAST
EFFICIENCY: 60%

A1

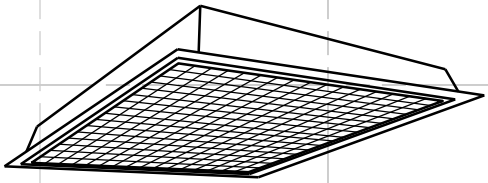
DETAIL: RECESSED LENSED 1' X 4' FLUORESCENT TROFFER (RF7)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RF8



FEATURES

LAMP TYPE: F32/T8/U/6/75 CRI

PROFILE: 2 LAMP

SHIELDING: ACRYLIC PRISMATIC LENS

BALLAST: ELECTRONIC

OPTIONS

LAMP TYPE:	F39/BX/RS
PROFILE:	3 LAMP
SHIELDING:	3.2 mm (0.125") PATTERN 12, PATTERN 19, RFI SUPPRESSION
BALLAST:	HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY
OTHER:	GASKETED; AIR HANDLING AND/OR HEAT REMOVAL
NOM. DIMENSIONS:	610 mm X 610 mm X 152 mm (24" W X 24" L x 6" D)

GENERAL DESCRIPTION

HOUSING: COLD ROLLED STEEL, FLANGE TO COORDINATE WITH CEILING; EXTRUDED ALUMINUM LENS FRAME, HINGED REMOVAL AND SPRING-LOADED CATCHES

MOUNTING: RECESSED INTO STANDARD NON METRIC GRID

REFLECTORS: HIGH REFLECTANCE GLOSS WHITE

ELECTRICAL: 120 OR 277 VOLT BALLAST

EFFICIENCY: 65%

A1

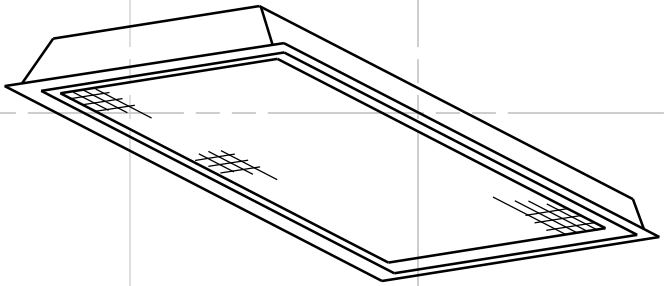
DETAIL: RECESSED LENSED 2' X 2' FLUORESCENT TROFFER (RF8)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RF9



FEATURES

LAMP TYPE: F32T8/75 CRI

PROFILE: 3 LAMP

SHIELDING: ACRYLIC PRISMATIC LENS

BALLAST: ELECTRONIC

OPTIONS

PROFILE: 4 LAMP
SHIELDING: 3.2 mm (0.125") PATTERN 12, PATTERN 19, RFI SUPPRESSION
BALLAST: HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY
OTHER: GASKETED; AIR HANDLING AND/OR HEAT REMOVAL

NOM. DIMENSIONS: 610 mm X 1219 mm X 152 mm
(24" W X 4' L X 6" D)

GENERAL DESCRIPTION

HOUSING: COLD ROLLED STEEL, FLANGE TO COORDINATE WITH CEILING; EXTRUDED ALUMINUM LENS FRAME, HINGED REMOVAL AND SPRING-LOADED CATCHES

MOUNTING: RECESSED INTO STANDARD NON METRIC GRID

REFLECTORS: HIGH REFLECTANCE GLOSS WHITE
ELECTRICAL: 120 OR 277 VOLT BALLAST
EFFICIENCY: 80%

A1

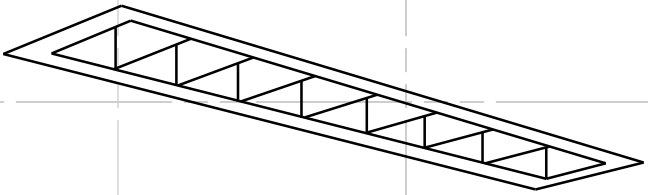
DETAIL: RECESSED LENSED 2' X 4' FLUORESCENT TROFFER (RF9)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RF10



FEATURES

LAMP TYPE:	F32T8/75 CRI
PROFILE:	2 LAMP
SHIELDING:	76 mm (3") DEEP, 8 CELL SEMI-SPECULAR, LOW IRIDESCENT PARABOLIC LOUVER
BALLAST:	ELECTRONIC

OPTIONS

PROFILE:	1 LAMP
SHIELDING:	SPECULAR LOUVER, CELL CONFIGURATION
BALLAST:	HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY
OTHER:	GASKETED; AIR HANDLING AND/OR HEAT REMOVAL

NOM. DIMENSIONS" 305 mm X 1219 mm X 152 mm
(12" W X 4' L X 6" D)

GENERAL DESCRIPTION

HOUSING: COLD ROLLED STEEL, FLANGE TO COORDINATE WITH CEILING

MOUNTING: RECESSED INTO STANDARD NON METRIC GRID

REFLECTORS: HIGH REFLECTANCE GLOSS WHITE

ELECTRICAL: 120 OR 277 VOLT BALLAST

EFFICIENCY: 65%

A1

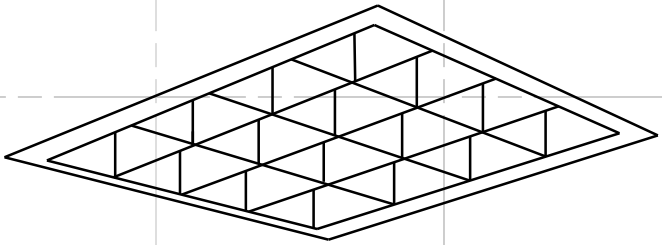
DETAIL: RECESSED PARABOLIC 1' X 4' FLUORESCENT TROFFER (RF10)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RF11



FEATURES

LAMP TYPE:	F32T8/U/6/ 75 CRI
PROFILE:	2 LAMP
SHIELDING:	76 mm (3") DEEP, 16 CELL SEMI-SPECULAR, LOW IRIDESCENT PARABOLIC LOUVER
BALLAST:	ELECTRONIC

OPTIONS

LAMP TYPE:	F39TT/RS
PROFILE:	3 LAMP
SHIELDING:	SPECULAR LOUVER, CELL CONFIGURATION
BALLAST:	HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY
OTHER:	GASKETED; AIR HANDLING AND/OR HEAT REMOVAL
NOM. DIMENSIONS:	610 mm X 610 mm X 152 mm (2' W X 2' L X 6" D)

GENERAL DESCRIPTION

HOUSING: COLD ROLLED STEEL, FLANGE TO COORDINATE WITH CEILING

MOUNTING: RECESSED INTO STANDARD NON METRIC GRID

REFLECTORS: HIGH REFLECTANCE GLOSS WHITE

ELECTRICAL: 120 OR 277 VOLT BALLAST

EFFICIENCY: 60%

A1

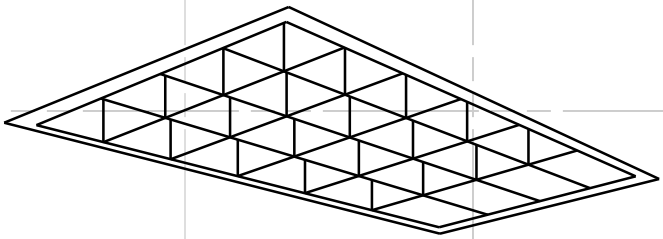
DETAIL: RECESSED PARABOLIC 2' X 2' FLUORESCENT TROFFER (RF11)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RF12



FEATURES

LAMP TYPE:	F32T8/75 CRI
PROFILE:	3 LAMP
MOUNTING:	RECESSED GRID
SHIELDING:	76 mm (3") DEEP, 24 CELL SEMI-SPECULAR, LOW IRIDESCENT PARABOLIC LOUVER
BALLAST:	ELECTRONIC

OPTIONS

PROFILE:	4 LAMP
SHIELDING:	SPECULAR LOUVER, CELL CONFIGURATION
BALLAST:	HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY
OTHER:	GASKETED; AIR HANDLING AND/OR HEAT REMOVAL

NOM. DIMENSIONS: 610 mm X 1219 mm X 152 mm
(24" W X 4' L X 6" D)

GENERAL DESCRIPTION

HOUSING: COLD ROLLED STEEL, FLANGE TO COORDINATE WITH CEILING

MOUNTING: RECESSED INTO STANDARD NON METRIC GRID

REFLECTORS: HIGH REFLECTANCE GLOSS WHITE

ELECTRICAL: 120 OR 277 VOLT BALLAST

EFFICIENCY: 70%

A1

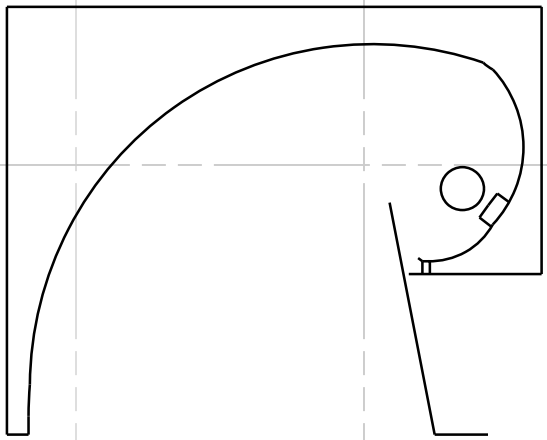
DETAIL: RECESSED PARABOLIC 2' X 4' FLUORESCENT TROFFER (RF12)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RF13



FEATURES

LAMP TYPE: F32T8/75 CRI

PROFILE: 1 LAMP

BALLAST: ELECTRONIC

OPTIONS

LAMP TYPE: F25T8/RS

BALLAST: HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY.

NOM. DIMENSIONS: 229 mm X 1219 mm X 203 mm
(9" W X 4' L X 8" D)

GENERAL DESCRIPTION

HOUSING: DIE-FORMED, 20 GA. STEEL WITH 19 mm (3/4") EXTRUDED ALUMINUM CEILING FLANGE; TELESCOPING END MODULES FOR CONTINUOUS LIGHT

MOUNTING: RECESSED GRID OR FLANGE

REFLECTORS: SEMI-SPECULAR ROLLED ALUMINUM, CONTINUOUS AND UNBROKEN, NO VISIBLE JOINTS, CONTOURED TO SHIELD LAMP, SELF FLANGE

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: CLEAR, SEMI-SPECULAR, LOW IRIDESCENT ALUMINUM

A1

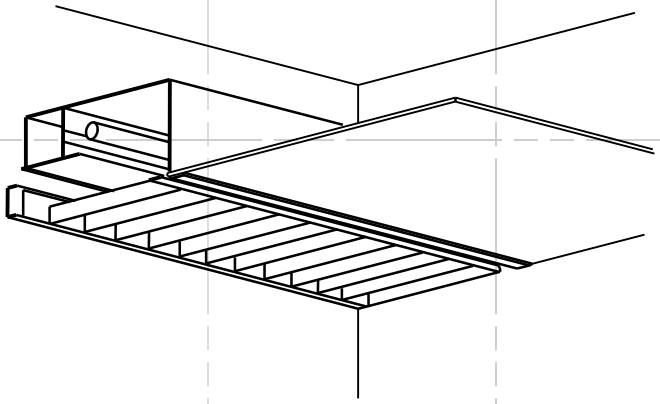
DETAIL: RECESSED OPEN LINEAR FLUORESCENT WALL SLOT (RF13)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RF14



FEATURES

LAMP TYPE:	F32T8/75 CRI
PROFILE:	1 LAMP
SHIELDING:	32 mm (1.25") HIGH X 61 mm (2.4") OC, SEMI-SPECULAR, LOW IRIDESCENT PARABOLIC LOUVER
BALLAST:	ELECTRONIC

OPTIONS

LAMP TYPE:	F25T8/RS
PROFILE:	2 LAMP
SHIELDING:	STRAIGHT BLADE BAFFLE
BALLAST:	HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY

NOM. DIMENSIONS: 229 mm X 1219 mm X 203 mm (9" W X 4' L X 8" D)

GENERAL DESCRIPTION

HOUSING: DIE-FORMED, 20 GA. COLD ROLLED STEEL, WITH TELESCOPING END MODULES FOR CONTINUOUS LIGHT

REFLECTORS: SEMI-SPECULAR ALUMINUM, CONTINUOUS AND UNBROKEN, NO VISIBLE JOINTS, SELF FLANGE

ELECTRICAL: 120 OR 277 VOLT BALLAST

A1

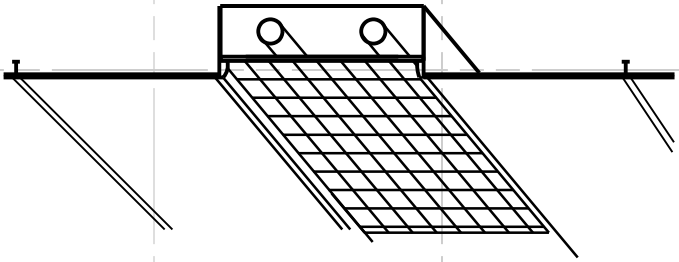
DETAIL: RECESSED LOUVERED FLUORESCENT WALL SLOT (RF14)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RF15



FEATURES

LAMP TYPE: F32T8/75 CRI

PROFILE: 2 LAMP

SHIELDING: PRISMATIC LENS

BALLAST: ELECTRONIC

OPTIONS

BALLAST: HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY

NOM. DIMENSIONS: 305 mm X 1219 mm X 152 mm (12" W X 4' L X 6" D)

GENERAL DESCRIPTION

HOUSING: 20 GAUGE COLD ROLLED STEEL

REFLECTORS: SEMI-SPECULAR

ELECTRICAL: 120 OR 277 VOLT BALLAST

A1

DETAIL: RECESSED TELECONFERENCING FLUORESCENT TROFFER (RF15)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RF16

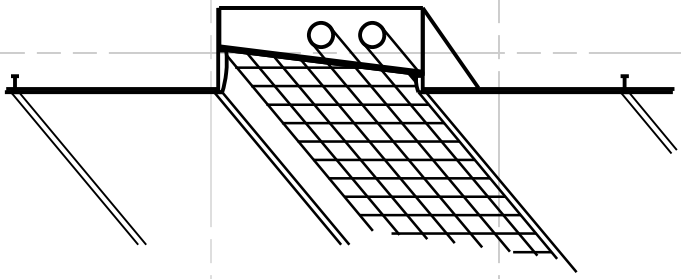
FEATURES

LAMP TYPE: F32T8/RS

PROFILE: 2 LAMP

SHIELDING: PRISMATIC LENS

BALLAST: ELECTRONIC



OPTIONS

BALLAST: HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY

NOM. DIMENSIONS: 305 mm X 1219 mm X 187 mm (12" W X 4' L X 73/8" D)

GENERAL DESCRIPTION

HOUSING: 20 GAUGE COLD ROLLED STEEL

REFLECTORS: SPECULAR ALZAK®

ELECTRICAL: 120 OR 277 VOLT BALLAST

A1

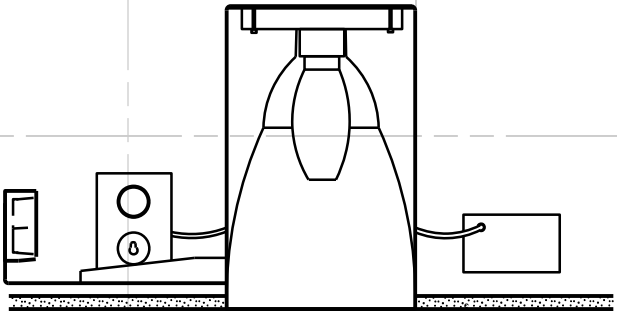
DETAIL: RECESSED TELECONFERENCING FLUORESCENT TROFFER WITH ANGLED LENS (RF16)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RH1



FEATURES

LAMP TYPE: 100W MH (OPEN FIXTURE)

PROFILE: 1 LAMP

BALLAST: HIGH POWER FACTOR, CORE AND COIL, CWA

OPTIONS

LAMP TYPE: MH: 50W, 70W

REFLECTOR: BRONZE REFLECTOR AND FLANGE

OTHER: EMERGENCY RESTRIKE

NOM. DIMENSIONS: 178 mm X 279 mm (7" DIA X 11" D)

GENERAL DESCRIPTION

HOUSING: ASSEMBLED CAST ALUMINUM HEAT SINK/SOCKET HOUSING; SPUN ALUMINUM REFLECTOR/CONE AND MOUNTING PAN

MOUNTING: SELF-LOCKING ADJUSTABLE BARS

REFLECTORS: SEMI-SPECULAR CLEAR ALUMINUM WITH SELF FLANGE

ELECTRICAL: 120 OR 277 VOLT BALLAST

EFFICIENCY: 65%

A1

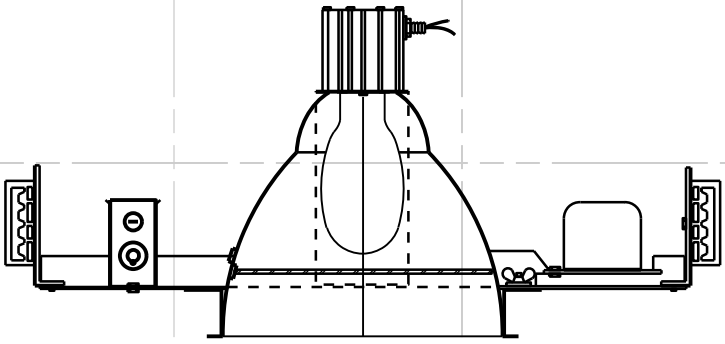
DETAIL: 7" DIAMETER RECESSED LOW WATTAGE OPEN METAL HALIDE DOWNLIGHT (RH1)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RH2



FEATURES

LAMP TYPE: 175W MH

PROFILE: 1 LAMP

SHIELDING: CLEAR TEMPERED GLASS

BALLAST: HIGH POWER FACTOR, CORE AND COIL, CWA

OPTIONS

LAMP TYPE: MH: 250W
HPS: 150W, 250W

REFLECTOR: BRONZE REFLECTOR WITH SELF FLANGE

OTHER: EMERGENCY RESTRIKE

NOM. DIMENSIONS: 229 mm X 432 mm (9" DIA X 17" H)

GENERAL DESCRIPTION

HOUSING: CAST ALUMINUM HEAT SINK/SOCKET HOUSING; SPUN ALUMINUM REFLECTOR/CONE AND MOUNTING PAN

MOUNTING: RECESSED ACOUSTICAL TILE

REFLECTORS: CLEAR, SEMI-SPECULAR, HYDROFORMED ANODIZED ALUMINUM

ELECTRICAL: 120 OR 277 VOLT BALLAST

EFFICIENCY: 50%

A1

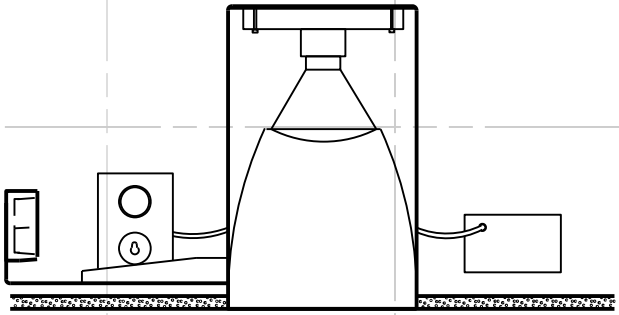
DETAIL: 9" DIAMETER RECESSED METAL HALIDE DOWNLIGHT (RH2)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RH3



FEATURES

LAMP TYPE: 70W PAR38/MH

PROFILE: 1 LAMP

SHIELDING: CLEAR TEMPERED GLASS

BALLAST: ELECTRONIC

OPTIONS

LAMP TYPE: MH: 50W, 100W, 150W
BALLAST: HIGH POWER FACTOR, CORE AND COIL, CWA
REFLECTOR: BRONZE OR CHAMPAGNE GOLD REFLECTOR AND FLANGE
OTHER: EMERGENCY RESTRIKE

NOM. DIMENSIONS: 178 mm X 356 mm
(7" DIA X 14" D)

GENERAL DESCRIPTION

HOUSING: CAST ALUMINUM HEAT SINK/SOCKET HOUSING; SPUN ALUMINUM REFLECTOR/CONE AND MOUNTING PAN

REFLECTORS: SEMI-SPECULAR, CLEAR ALUMINUM WITH SELF FLANGE

ELECTRICAL: 120 OR 277 VOLT BALLAST

EFFICIENCY: 90%

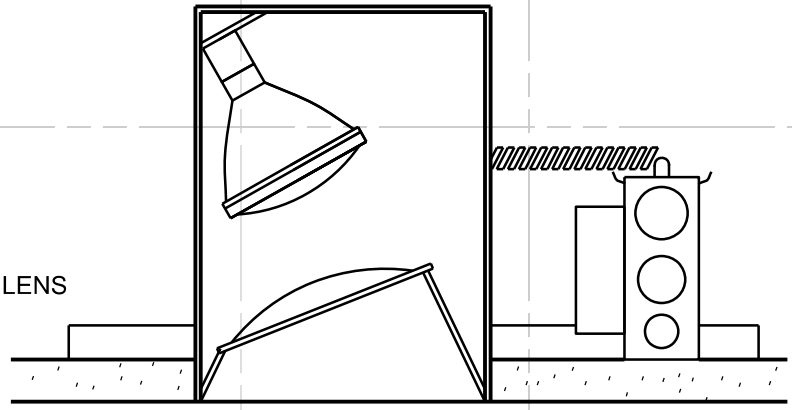
A1

DETAIL: 7" DIAMETER RECESSED METAL HALIDE PAR DOWNLIGHT (RH3)

SCALE: NTS

CORPS OF ENGINEERS DEPARTMENT OF THE ARMY

TYPE: RH4



FEATURES

LAMP TYPE: 70W PAR38/MH

PROFILE: 1 LAMP

SHIELDING: PRISMATIC TEMPERED GLASS CONCAVE SPREAD LENS

BALLAST: ELECTRONIC

OPTIONS

LAMP TYPE: MH: 50W, 100W, 150W
BALLAST: HIGH POWER FACTOR, CORE AND COIL, CWA
REFLECTOR: BRONZE, PEWTER OR CHAMPAGNE GOLD REFLECTOR AND FLANGE
OTHER: EMERGENCY RESTRIKE

NOM. DIMENSIONS: 178 mm X 356 mm (7" DIA X 14" D)

GENERAL DESCRIPTION

HOUSING: FORMED COLD ROLLED STEEL WITH INTEGRAL BALLAST AND LAMP HOLDER

REFLECTORS: SEMI-SPECULAR ALUMINUM WITH SELF FLANGE

ELECTRICAL: 120 OR 277 VOLT BALLAST

A1

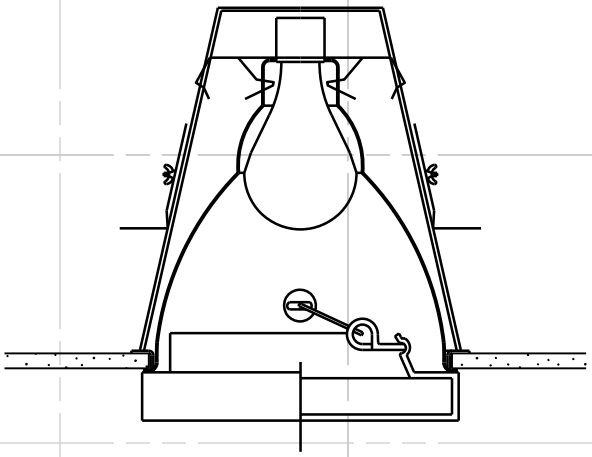
DETAIL: 7" DIAMETER RECESSED METAL HALIDE LENSED WALLWASHER (RH4)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RI1



FEATURES

LAMP TYPE: 90W TB/IF

PROFILE: 1 LAMP

SHIELDING: OPAL POLYCARBONATE DROP DIFFUSER

BALLAST: NONE

OPTIONS

LAMP TYPE: 75W A19/IF

NOM. DIMENSIONS: 152 mm X 203 mm (6" DIA X 8" D)

GENERAL DESCRIPTION

HOUSING: DIE-FORMED 20 GA. GALVANIZED STEEL MOUNTING PAN; UNIVERSAL MOUNTING BRACKETS, CONTINUOUS NEOPRENE GASKET ON FLANGE OF REFLECTOR

REFLECTORS: SEMI-SPECULAR HYDRO-FORMED 1 mm (0.04") THICK ALUMINUM; WHITE TRIM RING

ELECTRICAL: 120 VOLT

EFFICIENCY: 30%

A1

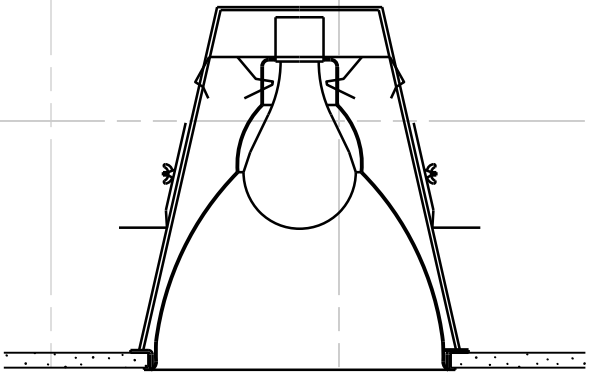
DETAIL: 6" DIAMETER RECESSED INCANDESCENT DROPPED OPAL GLASS DOWNLIGHT (RI1)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RI2



FEATURES

LAMP TYPE: 90W TB/IF

PROFILE: 1 LAMP

REFLECTORS: CLEAR ALZAK® SEMI-SPECULAR WITH SELF-FLANGE

OPTIONS

LAMP TYPE: 100W A21/IF, 150W A21/IF

REFLECTOR: CHAMPAGNE GOLD REFLECTOR WITH SELF FLANGE, WHITE PAINTED FLANGE, SLOPED CEILING ADAPTER

NOM. DIMENSIONS: 178 mm X 305 mm (7" DIA X 12" D)

GENERAL DESCRIPTION

HOUSING: ONE PIECE PRECISION DIE-CAST ALUMINUM COLLAR, DIE-FORMED 20 GA. MOUNTING PLATE

ELECTRICAL: 120 VOLT

EFFICIENCY: 71%

A1

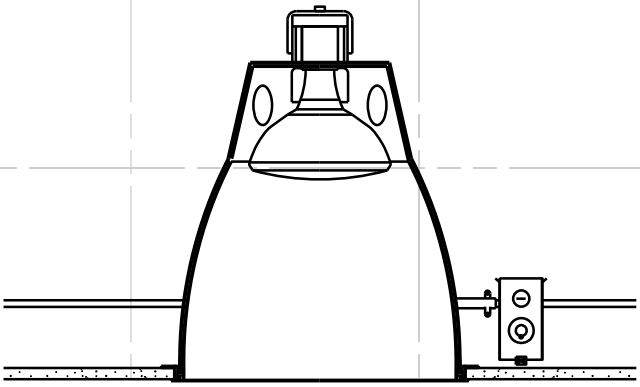
DETAIL: 7" DIAMETER RECESSED INCANDESCENT DOWNLIGHT (RI2)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RI3



FEATURES

LAMP TYPE: 90W PAR38

PROFILE: 1 LAMP

REFLECTORS: CLEAR ALZAK® SEMI-SPECULAR, SELF-FLANGED

OPTIONS

LAMP TYPE: 60W, Q150W, Q250W PAR38

OTHER: CHAMPAGNE GOLD REFLECTOR WITH SELF FLANGE, WHITE PAINTED FLANGE, SLOPED CEILING ADAPTER

NOM. DIMENSIONS: 178 mm X 330 mm (7" DIA X 13" D)

GENERAL DESCRIPTION

HOUSING: ONE PIECE PRECISION DIE-CAST ALUMINUM COLLAR; DIE-FORMED 20 GA. MOUNTING PLATE

ELECTRICAL: 120 VOLT

EFFICIENCY: 95%

A1

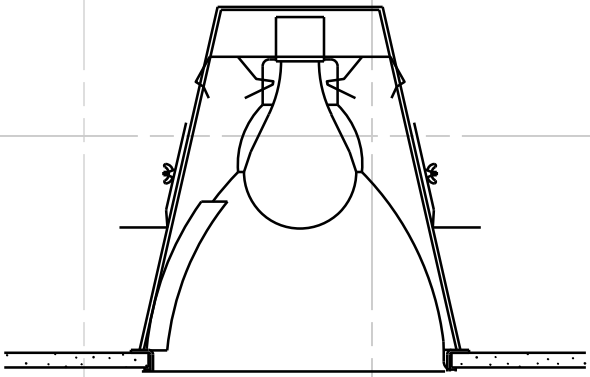
DETAIL: 7" DIAMETER RECESSED PAR LAMP DOWNLIGHT (RI3)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RI4



FEATURES

LAMP TYPE: 90W TB/IF
PROFILE: 1 LAMP
REFLECTORS: CLEAR, SEMI-SPECULAR, SELF FLANGED ALUMINUM CONE; SINGLE 120 DEGREE SPUN PARABOLIC CONTOUR KICKER REFLECTOR

OPTIONS

LAMP TYPE: 100W A21/IF, 150W A21/IF
REFLECTOR: CORNER OR DOUBLE WALL WASH
OTHER: CHAMPAGNE GOLD REFLECTOR WITH SELF-FLANGE, WHITE PAINTED FLANGE, SLOPED CEILING ADAPTER
NOM. DIMENSIONS: 178 mm X 356 mm (7" DIA X 14" D)

GENERAL DESCRIPTION

HOUSING: ONE PIECE PRECISION DIE-CAST ALUMINUM COLLAR; DIE-FORMED 20 GA. MOUNTING PLATE

ELECTRICAL: 120 VOLT

A1

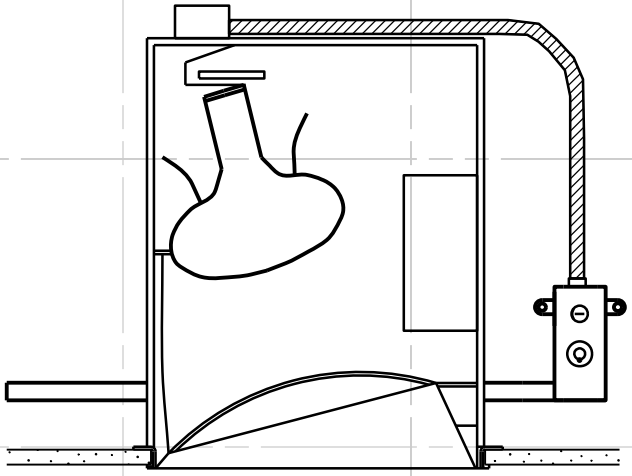
DETAIL: 7" DIAMETER RECESSED INCANDESCENT DOWNLIGHT/WALL WASHER (RI4)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RI5



FEATURES

LAMP TYPE: 90W PAR38

PROFILE: 1 LAMP

SHIELDING: CLEAR TEMPERED SPREAD LENS

REFLECTORS: CLEAR ALZAK® SEMI-SPECULAR, SELF-FLANGED

OPTIONS

LAMP TYPE: 60W, Q150W, Q250W PAR38

OTHER: CHAMPAGNE GOLD REFLECTOR WITH SELF FLANGE, WHITE PAINTED FLANGE, SLOPED CEILING ADAPTER

NOM. DIMENSIONS: 203 mm X 305 mm (8" DIA X 12" D)

GENERAL DESCRIPTION

HOUSING: ONE PIECE PRECISION DIE-CAST ALUMINUM COLLAR; DIE-FORMED 20 GA. MOUNTING PLATE

ELECTRICAL: 120 VOLT

A1

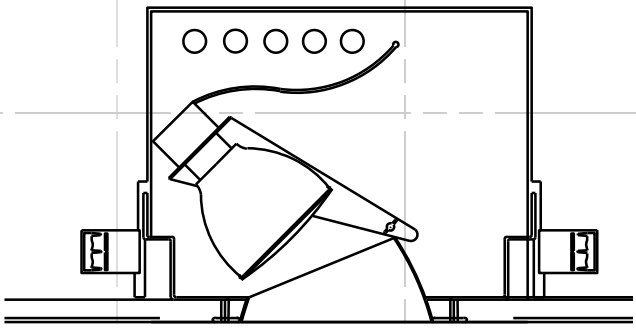
DETAIL: 7" DIAMETER RECESSED INCANDESCENT LENSED WALLWASHER (RI5)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RI6



FEATURES

LAMP TYPE: 90W PAR38

PROFILE: 1 LAMP

REFLECTORS: CLEAR SEMI-SPECULAR, TAPERED 0-30 DEG CUT CONE, SELF FLANGED

OPTIONS

LAMP TYPE: 60W, Q150W, Q250W PAR38

REFLECTOR: CHAMPAGNE GOLD OR BLACK REFLECTOR WITH SELF FLANGE, WHITE PAINTED FLANGE

NOM. DIMENSIONS: 178 mm X 289 mm (7" DIA X 11 3/8" D)

GENERAL DESCRIPTION

HOUSING: DIE-FORMED 20 GA. COLD ROLLED STEEL, LAMP ASSEMBLY ROTATES 360 DEGREES AND TILTS 40 DEGREES

ELECTRICAL: 120 VOLT

A1

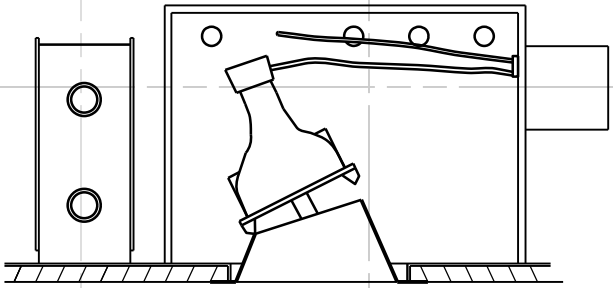
DETAIL: 7" DIAMETER RECESSED INCANDESCENT ADJUSTABLE ACCENT (RI6)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: RI7



FEATURES

LAMP TYPE: 50W MR16

PROFILE: 1 LAMP

SHIELDING: CLEAR GLASS

REFLECTORS: SELF-FLANGE, SEMI-SPECULAR 0-30 DEG. TAPERED CONE

OPTIONS

LAMP TYPE: 20W, 35W, 75W MR16

SHIELDING: SPREAD LENS

OTHER: CHAMPAGNE GOLD REFLECTOR AND FLANGE; WHITE FLANGE

NOM. DIMENSIONS: 102 mm X 229 mm (4" DIA X 9" D)

GENERAL DESCRIPTION

HOUSING: DRAWN STEEL HOUSING MOUNTED TO DIE-FORMED MOUNTING PAN

ELECTRICAL: 120/12 VOLT OR 277/12 VOLT MAGNETIC TRANSFORMER

DETAIL: 4" DIAMETER RECESSED LOW VOLTAGE INCANDESCENT ADJUSTABLE ACCENT (RI7)

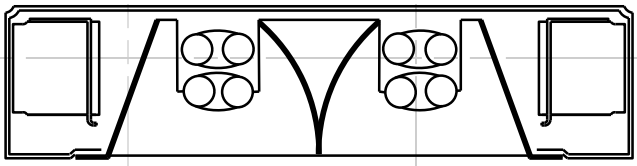
A1

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: SF2



FEATURES

LAMP TYPE: F18DTT/RS
PROFILE: 2 LAMP
SHIELDING: 4 CELL CLEAR SEMI-SPECULAR LOW IRIDESCENT PARABOLIC LOUVER WITH SELF FLANGE
BALLAST: ELECTRONIC

OPTIONS

LAMP TYPE: F13TT/RS, F26DTT/RS
BALLAST: HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY
OTHER: PEWTER OR BRONZE REFLECTOR WITH SELF FLANGE; WHITE PAINTED FLANGE

NOM. DIMENSIONS: 330 mm X 178 mm (13" DIA X 7" D)

GENERAL DESCRIPTION

HOUSING: CYLINDRICAL 20 GAUGE COLD ROLLED STEEL

REFLECTORS: CLEAR SEMI-SPECULAR

ELECTRICAL: 120 OR 277 VOLT BALLAST

EFFICIENCY: 38%

A1

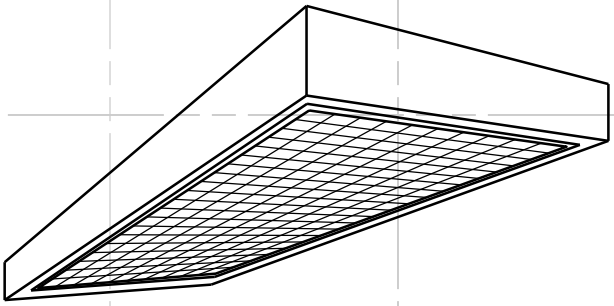
DETAIL: 13" DIAMETER SURFACE MOUNTED BAFFLED COMPACT FLUORESCENT DOWNLIGHT (SF2)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: SF6



FEATURES

LAMP TYPE: F32T8/75 CRI

PROFILE: 2 LAMP

SHIELDING: PRISMATIC LENS

BALLAST: ELECTRONIC

OPTIONS

PROFILE: 3 LAMP

SHIELDING: OPAL WHITE, 3.2 mm (0.125") PATTERN 12, PATTERN 19, RFI SUPPRESSION

BALLAST: HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY

NOM. DIMENSIONS: 305 mm X 1219 mm X 102 mm (12" W X 4' L X 4" D)

GENERAL DESCRIPTION

HOUSING: COLD ROLLED STEEL WITH NO VISIBLE HOLES OR KNOCKOUTS; EXTRUDED ALUMINUM HINGED FRAME AND SPRING-LOADED CATCHES

MOUNTING: FIXTURE IS LONGER THAN METRIC GRID

REFLECTORS: GLOSS WHITE

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: BAKED WHITE ENAMEL OR POLYESTER POWDER COAT

EFFICIENCY: 60%

A1

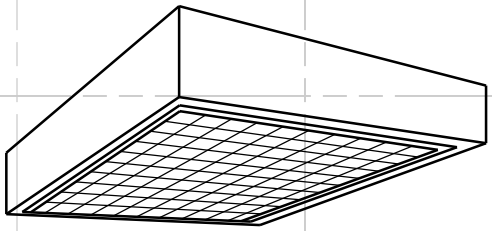
DETAIL: SURFACE MOUNTED LENSED 1' X 4' TROFFER (SF6)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: SF7



FEATURES

LAMP TYPE: F32T8/U/6/75 CRI

PROFILE: 2 LAMP

SHIELDING: PRISMATIC LENS

BALLAST: ELECTRONIC

OPTIONS

LAMP TYPE:	F39TT/RS
PROFILE:	3 LAMP
SHIELDING:	OPAL WHITE, 3.2 mm (0.125") PATTERN 12, PATTERN 19, RFI SUPPRESSION
BALLAST:	HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY
NOM. DIMENSIONS:	610 mm X 610 mm X 102 mm (24" W X 24" L X 4" D)

GENERAL DESCRIPTION

HOUSING: COLD ROLLED STEEL WITH NO VISIBLE HOLES OR KNOCKOUTS; EXTRUDED ALUMINUM HINGED LENS FRAME WITH SPRING-LOADED CATCHES

MOUNTING: FIXTURE IS LONGER THAN METRIC GRID

REFLECTORS: GLOSS WHITE

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: BAKED WHITE ENAMEL OR POLYESTER POWDER COAT

EFFICIENCY: 65%

A1

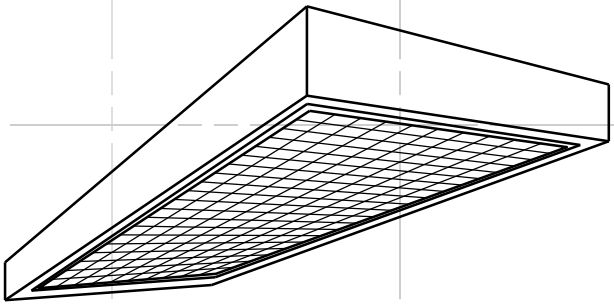
DETAIL: SURFACE MOUNTED LENSED 2' X 2' FLUORESCENT TROFFER (SF7)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: SF8



FEATURES

LAMP TYPE: F32T8/75 CRI

PROFILE: 3 LAMP

SHIELDING: PRISMATIC LENS

BALLAST: ELECTRONIC

OPTIONS

PROFILE:	4 LAMP
SHIELDING:	OPAL WHITE, 3.2 mm (0.125") PATTERN 12, PATTERN 19, RFI SUPPRESSION
BALLAST:	HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY
NOM. DIMENSIONS:	610 mm X 1219 mm X 102 mm (24" W X 4' L X 4" D)

GENERAL DESCRIPTION

HOUSING: COLD ROLLED STEEL WITH NO VISIBLE HOLES OR KNOCKOUTS; EXTRUDED ALUMINUM HINGED LENS FRAME WITH SPRING-LOADED CATCHES

MOUNTING: FIXTURE IS LONGER THAN METRIC GRID

REFLECTORS: GLOSS WHITE

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: BAKED WHITE ENAMEL OR POLYESTER POWDER COAT

EFFICIENCY: 80%

A1

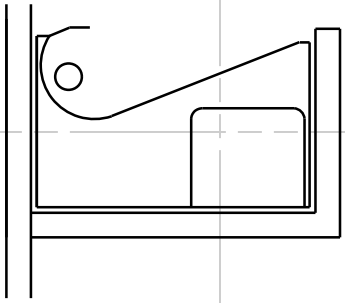
DETAIL: SURFACE MOUNTED LENSED 2' X 4' FLUORESCENT TROFFER (SF8)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: SF9



FEATURES

LAMP TYPE: F32T8/75 CRI
PROFILE: 1 LAMP
REFLECTORS: SPECULAR ALUMINUM ASYMMETRIC REFLECTOR WITH BAKED WHITE ENAMEL KICK REFLECTOR
BALLAST: ELECTRONIC

OPTIONS

LAMP TYPE: F40TT/RS, F50TT/RS
PROFILE: 2 LAMP
BALLAST: HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY

NOM. DIMENSIONS: 229 mm X 1219 mm X 114 mm (9" W X 4' L X 41/2" H)

GENERAL DESCRIPTION

HOUSING: DIE-FORMED AND WELDED 20 GA. COLD ROLLED STEEL

MOUNTING: CONCEALED IN ARCHITECTURAL COVE

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: WHITE BAKED ENAMEL

A1

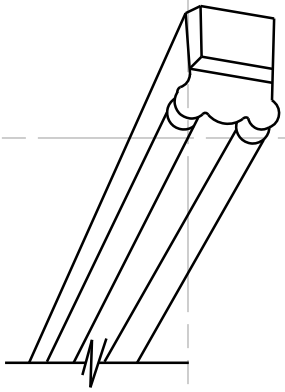
DETAIL: ASYMMETRIC INDIRECT FLUORESCENT MOUNTED IN ARCHITECTURAL COVE (SF9)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: SF10



FEATURES

LAMP TYPE: F32T8/75 CRI

PROFILE: 2 LAMP

BALLAST: ELECTRONIC

OPTIONS

LAMP TYPE:	F25T8/RS
PROFILE:	1 LAMP
REFLECTOR:	SYMMETRIC OR ASYMMETRIC
BALLAST:	HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY
SHIELDING:	WIRE GUARD
NOM. DIMENSIONS:	125 mm X 102 mm X 1219 mm (5" W X 4" H X 4' L)

GENERAL DESCRIPTION

HOUSING: DIE-FORMED COLD ROLLED STEEL, DESIGNED FOR INDIVIDUAL OR CONTINUOUS ROW MOUNTING

REFLECTORS: GLOSS WHITE

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: WHITE ENAMEL OR POLYESTER POWDER COAT

A1

DETAIL: FLUORESCENT STRIP LIGHT (SF10)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: WF1

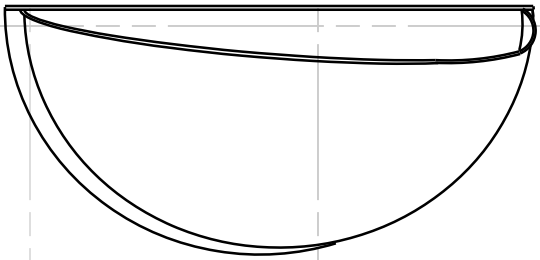
FEATURES

LAMP TYPE: F13TT/RS

PROFILE: 2 LAMP

SHIELDING: OPAL ACRYLIC

BALLAST: ELECTRONIC



OPTIONS

BALLAST: HIGH POWER FACTOR
MAGNETIC, DIMMING

NOM. DIMENSIONS: 457 mm X 229 mm X 102 mm
(18" W X 9" H X 4" D)

GENERAL DESCRIPTION

BALLAST: HIGH POWER FACTOR
MAGNETIC, DIMMING

NOM. DIMENSIONS: 457 mm X 229 mm X 102 mm
(18" W X 9" H X 4" D)

A1

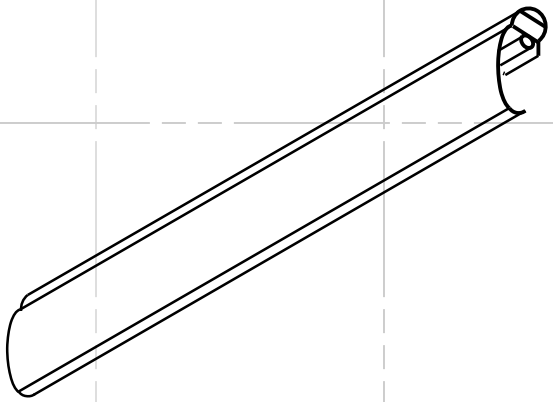
DETAIL: WALL MOUNTED COMPACT FLUORESCENT SCONCE, ADA COMPLIANT (WF1)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: WF5



FEATURES

LAMP TYPE: F32T8/75 CRI

PROFILE: 1 LAMP

BALLAST: ELECTRONIC

OPTIONS

LAMP TYPE: F25T8/RS

BALLAST: HIGH POWER FACTOR MAGNETIC, DIMMING, EMERGENCY

NOM. DIMENSIONS: 229 mm X 1219 mm X 108 mm (9" W X 4' L X 4 1/4" H)

GENERAL DESCRIPTION

HOUSING: ONE PIECE 20 GAUGE COLD ROLLED STEEL WITH DIE-FORMED END PLATES. STANDARD LENGTHS UP TO 2440 mm (8'-0")

REFLECTORS: SPECULAR ALUMINUM

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: WHITE BAKED ENAMEL PAINT

A1

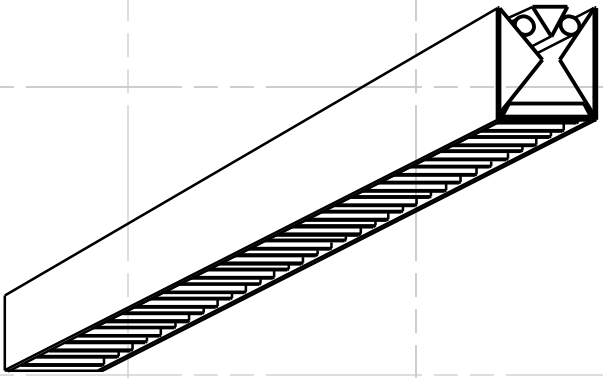
DETAIL: SURFACE MOUNTED ASYMMETRIC FLUORESCENT WALL WASH (WF5)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: WF6



FEATURES

LAMP TYPE: F32T8/75 CRI
PROFILE: 2 LAMP
SHIELDING: CLEAR, SEMI-SPECULAR, LOW IRIDESCENT PARABOLIC LOUVER

BALLAST: ELECTRONIC

OPTIONS

LAMP TYPE: F25T8/RS

NOM. DIMENSIONS: 159 mm X 1219 mm X 186 mm
(6 1/4" H X 4' L X 7 5/16" W)

GENERAL DESCRIPTION

HOUSING: DIE-FORMED, 20 GA. COLD ROLLED STEEL, INSIDE PAINTED WITH HIGH REFLECTANCE WHITE FINISH

REFLECTORS: DIE-FORMED STEEL WITH HIGH REFLECTANCE WHITE FINISH

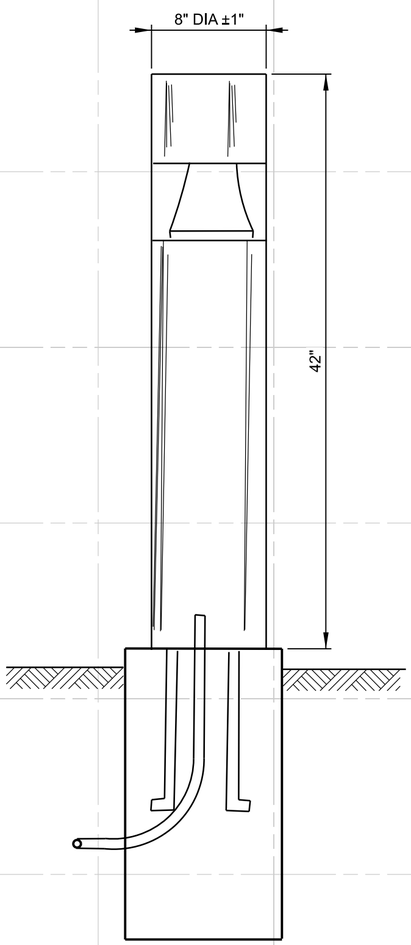
ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: WHITE BAKED ENAMEL PAINT

A1

DETAIL: WALL MOUNTED DIRECT/INDIRECT FLUORESCENT LUMINAIRE, STEEL CONSTRUCTION (WF6)

SCALE: NTS



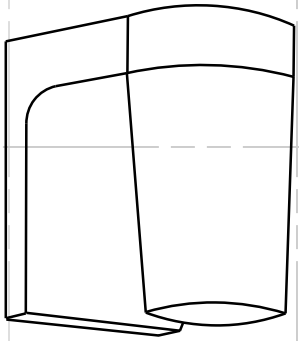
LUMINAIRE REQUIREMENTS

1. COLUMN, EXTRUDED ALUMINUM (MINIMUM .148" THICK WALL) WITH MEDIUM BRONZE ANODIZED FINISH.
2. COMPLETELY GASKETED WEATHERPROOF TOP LAMP ACCESSORY PLATE.
3. EXTRUDED CLEAR ACRYLIC MINIMUM .188" THICK WALL ENCLOSURE.
4. SEGMENTED SPECULAR CLEAR ALZAK REFLECTOR.
5. CLEAR ALZAK REFLECTING CONE.
6. HIGH POWER FACTOR BALLAST.
7. U.L. LISTED FOR WET LOCATIONS.
8. 70 WATT HIGH PRESSURE SODIUM LAMP.
9. ANCHOR BOLT KIT PER MANUFACTURER, BUT NOT LESS THAN TWO 1/2" 0 X 9" LONG ANCHOR BOLTS WITH 1 1/2" "L" BEND SET IN 12" 0 X 24" DEEP CONCRETE BASE. TOP OF BASE 2" ABOVE GRADE.

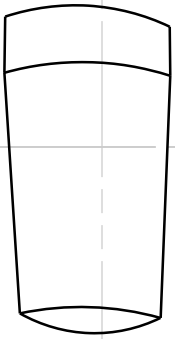
A1

DETAIL: EXTERIOR H.I.D. BOLLARD LUMINAIRE

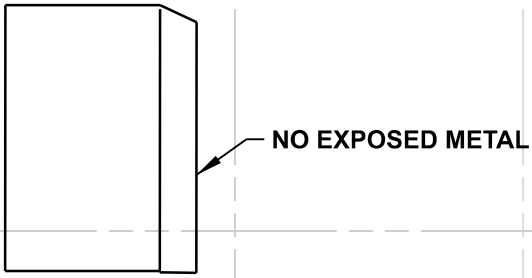
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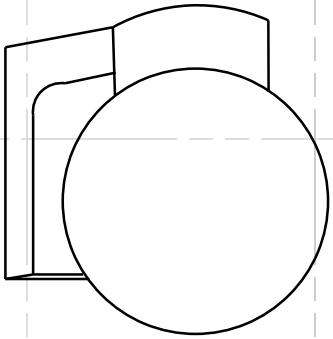
TYPE A



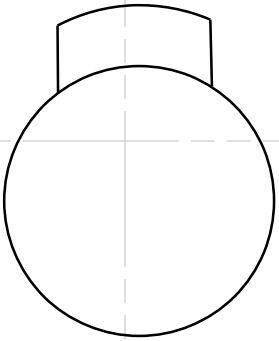
TYPE A1



TYPE B



TYPE C



TYPE C1

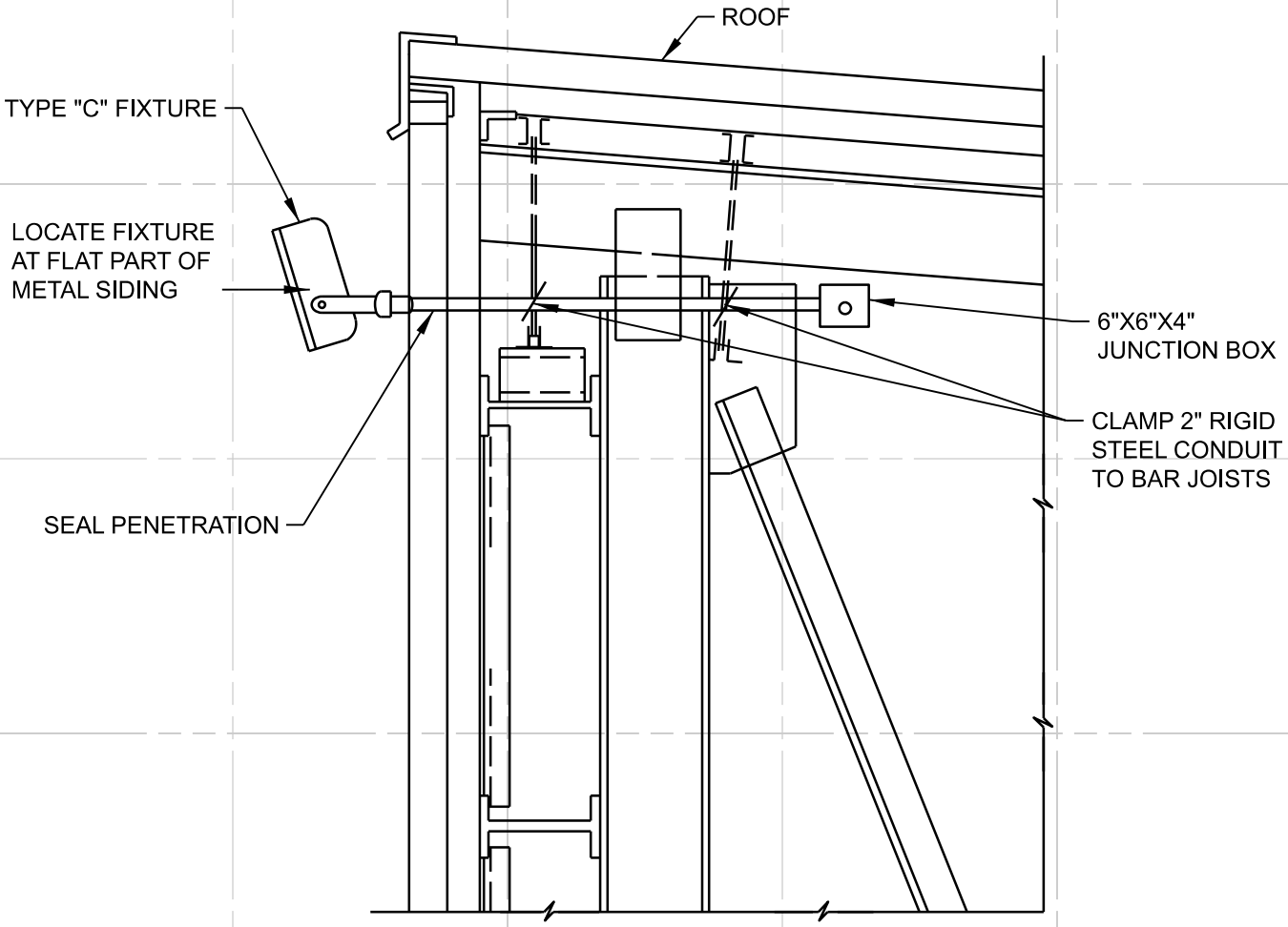
LUMINAIRE REQUIREMENTS

1. CAST ALUMINUM HOUSING SATIN FINISH AND A CLEAR LACQUER COATING. TYPE B MAY HAVE A POLYCARBONATE OR 0.055 INCH MINIMUM THICK STEEL BACKPLATE. PROVIDE PORCELAIN SOCKET WITH FULL METAL SCREW SHELL SUITABLE FOR A 100-WATT INCANDESCENT LAMP.
2. GLOBE SHALL BE WHITE POLYCARBONATE.
3. PROVIDE HEAT RESISTANT VAPORTIGHT GASKET BETWEEN GLOBE AND HOUSING. PROVIDE NEOPRENE GASKET BETWEEN LUMINAIRE AND WALL OR CEILING.
4. PROVIDE INTERNAL PROVISIONS FOR GROUNDING.

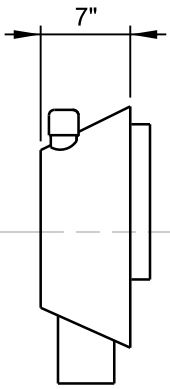
A1

DETAIL: EXTERIOR INCANDESCENT LUMINAIRE

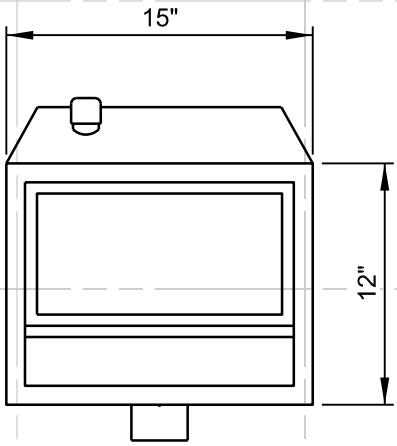
SCALE: NTS



MOUNTING DETAIL



SIDE



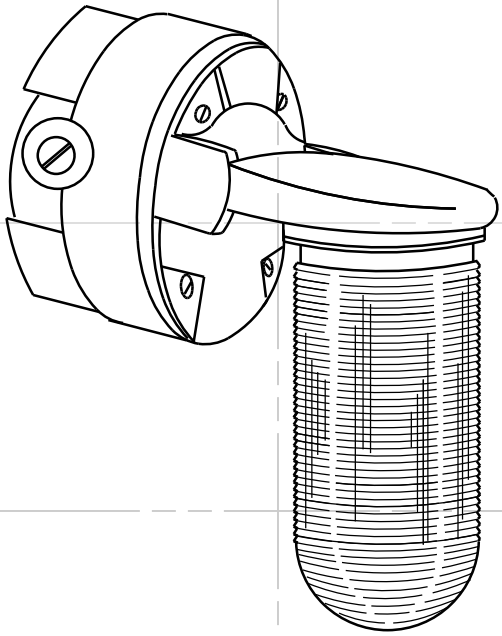
FRONT

NOTE:
MOUNT FIXTURE ON 2-INCH CONDUIT.

A1

DETAIL: TYPE "C" FIXTURE

SCALE: NTS

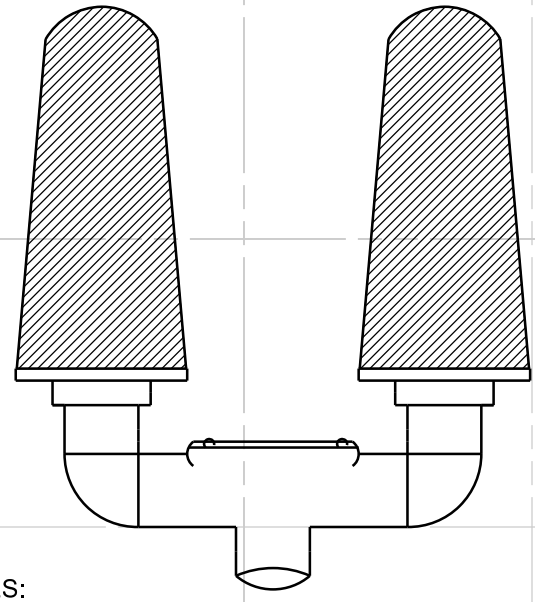


NOTE:
BOX WALL MOUNTED, VAPORTIGHT WITH 4" DIE CAST ALUMINUM BOX, WALL BRACKET TO BE DIE CAST ALUMINUM COMPLETE WITH GASKET AND MOUNTING SCREWS. DIE CAST ALUMINUM ADAPTER AND GLAZED PORCELAIN MEDIUM SOCKET WITH RED PRISMATIC LEXAN GLOBE.

A1

DETAIL: WALL MOUNTED VAPORTIGHT FIXTURE

SCALE: NTS



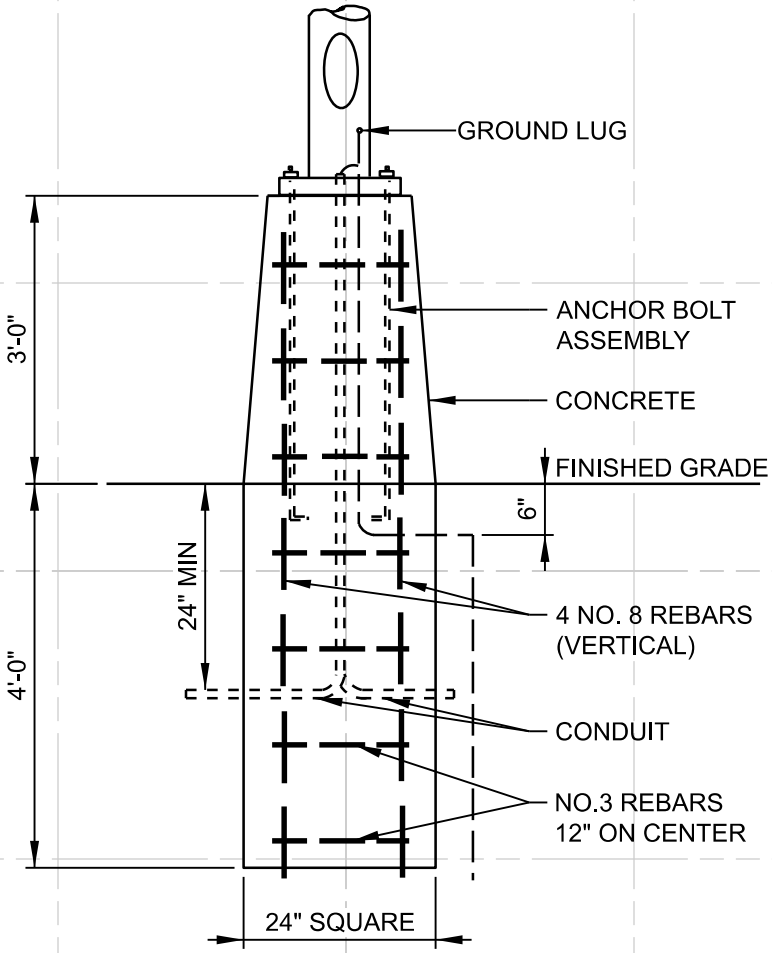
NOTES:

1. CAST ALUMINUM HOUSING WITH RED FRESNEL GLOBES AND MEDIUM SCREW LAMP RECEPTACLES.
2. LIGHT FIXTURE TO CONFORM TO FAA ADVISORY CIRCULAR AC 150/5345-43D SPECIFICATION L-810, MILITARY SPECIFICATION MIL-L-7830.
3. LAMP SHALL BE 69 WATTS AND TYPE 69A2ITS.
4. SECURELY MOUNT FIXTURE ON ROOF SUCH THAT FIXTURE HUB IS 3'-6" ABOVE ROOF LEVEL.
5. APPLY THREE COATS OF AVIATION ORANGE PAINT TO MOUNTING ASSEMBLY.
6. ONLY ONE LAMP OF FIXTURE SHALL OPERATE AT A TIME. UPON FAILURE OF ONE LAMP, A TRANSFER RELAY SHALL SWITCH POWER FROM THE BURNED OUT LAMP TO THE SPARE LAMP. THE RELAY SHALL ALSO ENERGIZE AN ALARM IN ROOM 111. ALARM LIGHT SHALL BE PERMANENTLY MARKED "AVIATION MARKER LIGHT FAILURE". ALL COMPONENTS SHALL BE PRODUCTS OF THE MANUFACTURER OF THE OBSTRUCTION LIGHTING FIXTURE.

A1

DETAIL: TYPE "ED" - OBSTRUCTION LIGHT

SCALE: NTS



A1

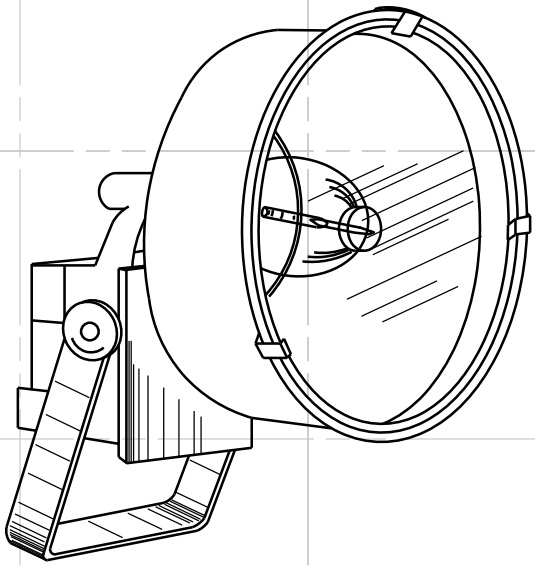
DETAIL: CONCRETE BASE

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: EH7



FEATURES

LAMP TYPE: 1000W METAL HALIDE

PROFILE: 1 LAMP

SHIELDING: CLEAR TEMPERED GLASS

BALLAST: HIGH POWER FACTOR, CORE AND COIL, CWA

OPTIONS

LAMP TYPE: MH: 400W, 1500W
HPS: 400W, 1000W

BALLAST: REMOTE

OTHER: GLARE SHIELD

NOM. DIMENSIONS: 584 mm X 864 mm X 432 mm
(23" DIA X 34" H X 17" D)

GENERAL DESCRIPTION

HOUSING: DIE CAST ALUMINUM

REFLECTORS: SPECULAR ALUMINUM

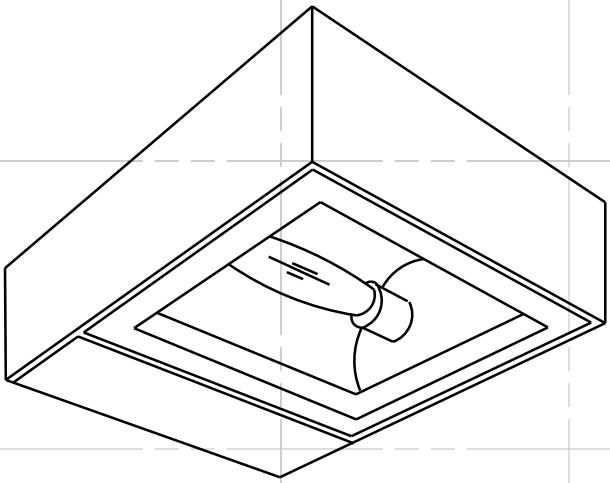
ELECTRICAL: 120, 277 OR 480 VOLT BALLAST

FINISH: POLYESTER POWDER COAT PAINT

A1

DETAIL: METAL HALIDE FLOODLIGHT (EH7)

SCALE: NTS



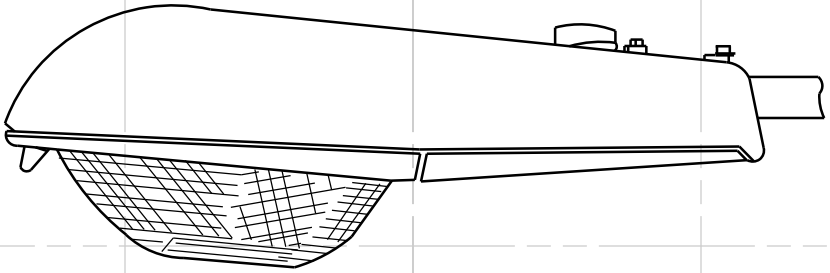
LUMINAIRE REQUIREMENTS

1. HOUSING, ALUMINUM - EXTRUDED OR FORMED WITH SEALED AND WELDED SEAMS.
2. REFLECTOR - FORMED ANODIZED OR ALZAK ALUMINUM.
3. LENS - TEMPERED, IMPACT RESISTANT CLEAR GLASS.
4. LENS DOOR - HINGED ALUMINUM WITH GASKET, CAPTIVE SCREW OR LATCHES.
5. INTEGRAL MULTI-TAP BALLAST.
6. CONCEALED HARDWARE (ALL HARDWARE CORROSION RESISTANT).
7. PORCELAIN SOCKET.
8. FINISH - DARK BRONZE, BAKED ENAMEL, EXCEPT AS INDICATED.
9. SLIPFITTER 1 1/4" TO 2" OR MOUNTING ARM.
10. LAMP - 70 TO 1,000 WATT, HIGH PRESSURE SODIUM, AS SPECIFIED.
11. LAMP STABILIZER.
12. UL "WET LABEL"

A1

DETAIL: ROADWAY AND AREA LIGHT

SCALE: NTS



LUMINAIRE REQUIREMENTS

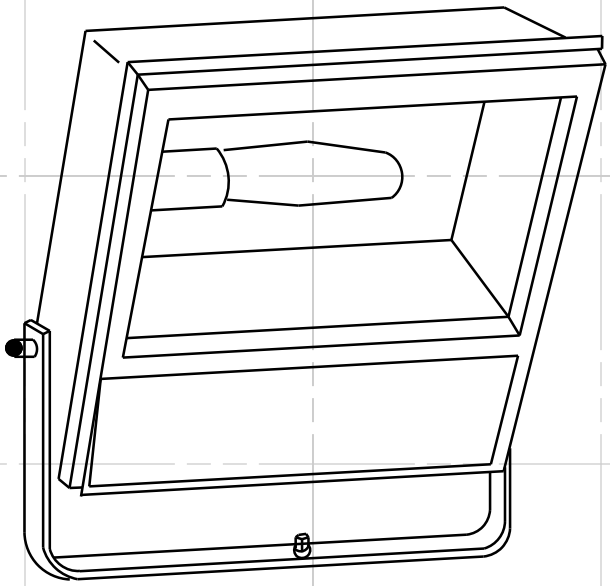
1. REFRACTOR - PRISMATIC GLASS, EXCEPT AS INDICATED.
2. REFLECTOR - ANODIZED ALUMINUM.
3. HOUSING - DIE CAST ALUMINUM.
4. HINGED ALUMINUM DOOR WITH GASKET AND LATCH.
5. INTEGRAL BALLAST - TYPE AND VOLTAGE AS SPECIFIED.
6. ALL HARDWARE, STAINLESS STEEL, OR NONCORROSIVE.
7. ADJUSTABLE PORCELAIN SOCKET.
8. 1 1/4" TO 2", SLIPFITTER - 2 OR 4 BOLT.
9. PHOTOCELL, WHEN INDICATED.
10. LAMP - 70-WATT TO 400-WATT HIGH PRESSURE SODIUM - WATTAGE AS SPECIFIED.
11. LEVEL INDICATOR.
12. UL LISTED - SUITABLE FOR OUTDOOR WET LOCATIONS.

NOTE:
I.E.S. TYPE DISTRIBUTION AS SPECIFIED IN LIGHTING FIXTURE SCHEDULE OR ON PLANS.

A1

DETAIL: ROADWAY AND AREA LIGHT

SCALE: NTS



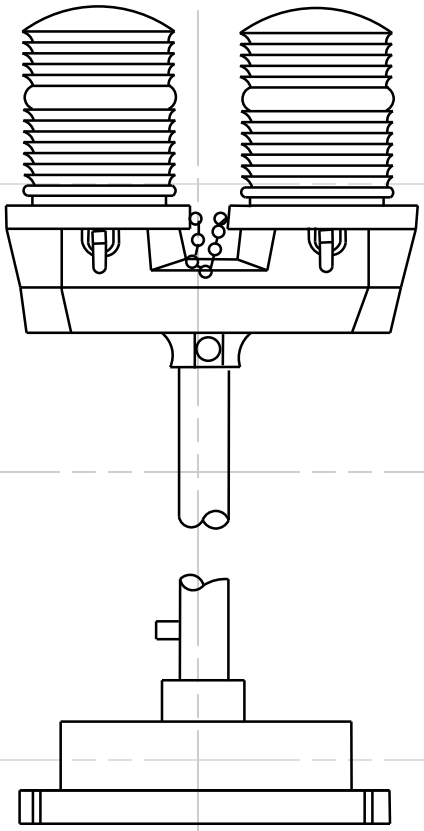
LUMINAIRE REQUIREMENTS

1. HOUSING - DIE CAST ALUMINUM.
2. REFLECTOR - ANODIZED OR ALZAK ALUMINUM.
3. DOOR - HINGED ALUMINUM, WITH GASKET AND CAPTIVE SCREWS.
4. INTEGRAL MULTI-TAP BALLAST.
5. STAINLESS STEEL OR NONCORROSIVE HARDWARE.
6. PORCELAIN SOCKET.
7. SLIPFITTER OR TRUNNION MOUNTING AS INDICATED.
8. PHOTOCELL WHEN SPECIFIED.
9. LAMP - 70 TO 1,000 WATT - AS SPECIFIED.
10. MINIMUM 36" 3/C #14 "SO" CORD.
11. LAMP STABILIZER.
12. LENS - TEMPERED IMPACT RESISTANT, CLEAR GLASS.
13. UL "WET LABEL"

A1

DETAIL: FLOODLIGHT

SCALE: NTS



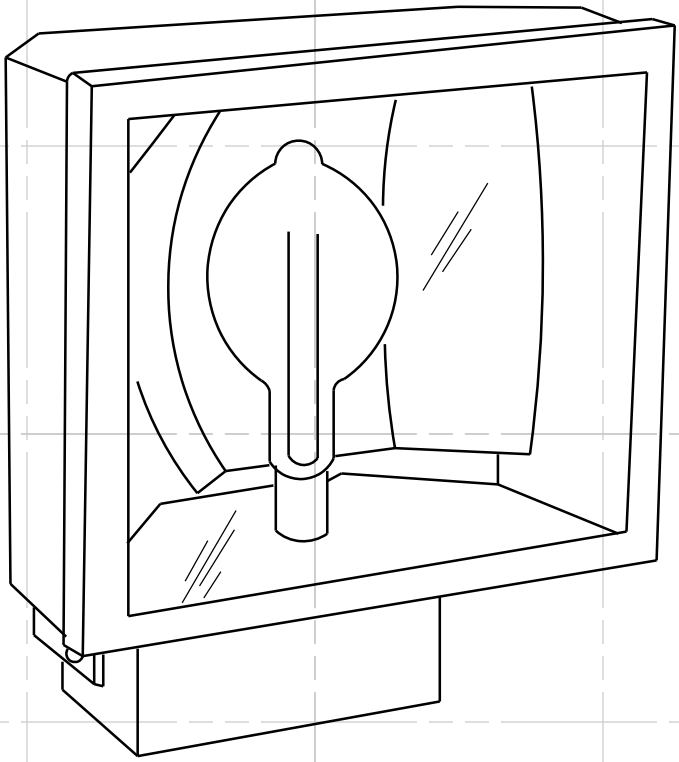
LUMINAIRE REQUIREMENTS

1. LUMINAIRE SHALL MEET FEDERAL AVIATION ADMINISTRATION SPECIFICATIONS FOR OBSTRUCTION LIGHTING (L-810).
2. CAST ALUMINUM HOUSING.
3. ONE PIECE 360 RED, HEAT RESISTANT GLASS FRESNEL GLOBE. PROVIDE TOGGLE TYPE LATCHES AND CLAMPING TO SECURE GLOBES. PROVIDE SAFETY CHAINS ON GLOBES.
4. MOUNT PHOTO ELECTRIC CONTROL TO CONTROL LAMPS.
5. MOUNT LUMINAIRE ON 1" RIGID STEEL CONDUIT. PROVIDE JUNCTION BOX AND MOUNTING PLATE AT BASE UNLESS INDICATED OTHERWISE.
6. LAMPS SHALL BE RATED 100 WATT 130 VOLT, MULTIPLE, MEDIUM BASE. TWO LAMPS ARE REQUIRED.
7. PROVIDE INTERNAL PROVISIONS FOR GROUNDING.

A1

DETAIL: OBSTRUCTION LIGHT

SCALE: NTS



LUMINAIRE REQUIREMENTS

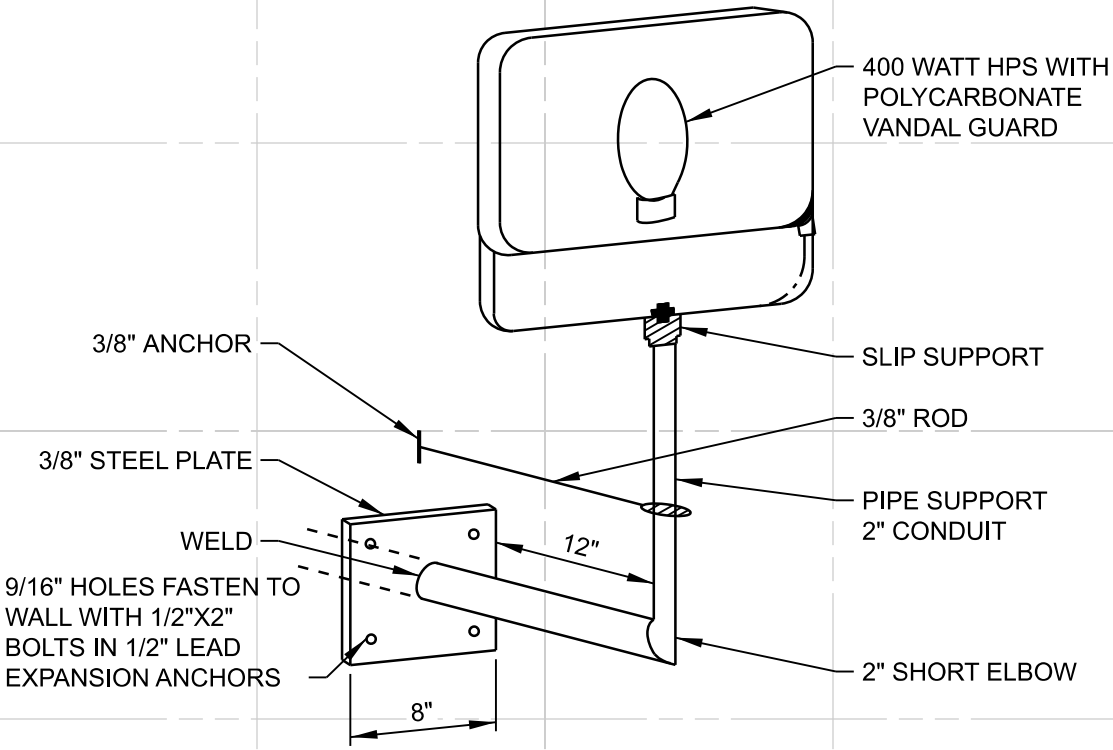
1. HOUSING - ANODIZED ALUMINUM.
2. REFLECTOR - POLISHED, SEGMENTED ALZAK ALUMINUM.
3. LENS - TEMPERED, THERMAL AND SHOCK RESISTANT GLASS.
4. DOOR FASTENERS - STAINLESS STEEL.
5. INTEGRAL BALLAST.
6. HINGED, GASKETED DOOR.
7. PORCELAIN SOCKET FOR 1,000 WATT METAL HALIDE OR HIGH PRESSURE SODIUM LAMP.
8. 3/C #14 "SO" CORD.
9. GALVANIZED YOKE.
10. UL "WET LABEL"

NOTE:
LAMP, BALLAST, AND BEAM PATTERN SHALL BE AS SPECIFIED AND AS SHOWN IN LIGHTING FIXTURE SCHEDULE OR ON PLANS.

A1

DETAIL: SPORTS AND AREA LIGHT

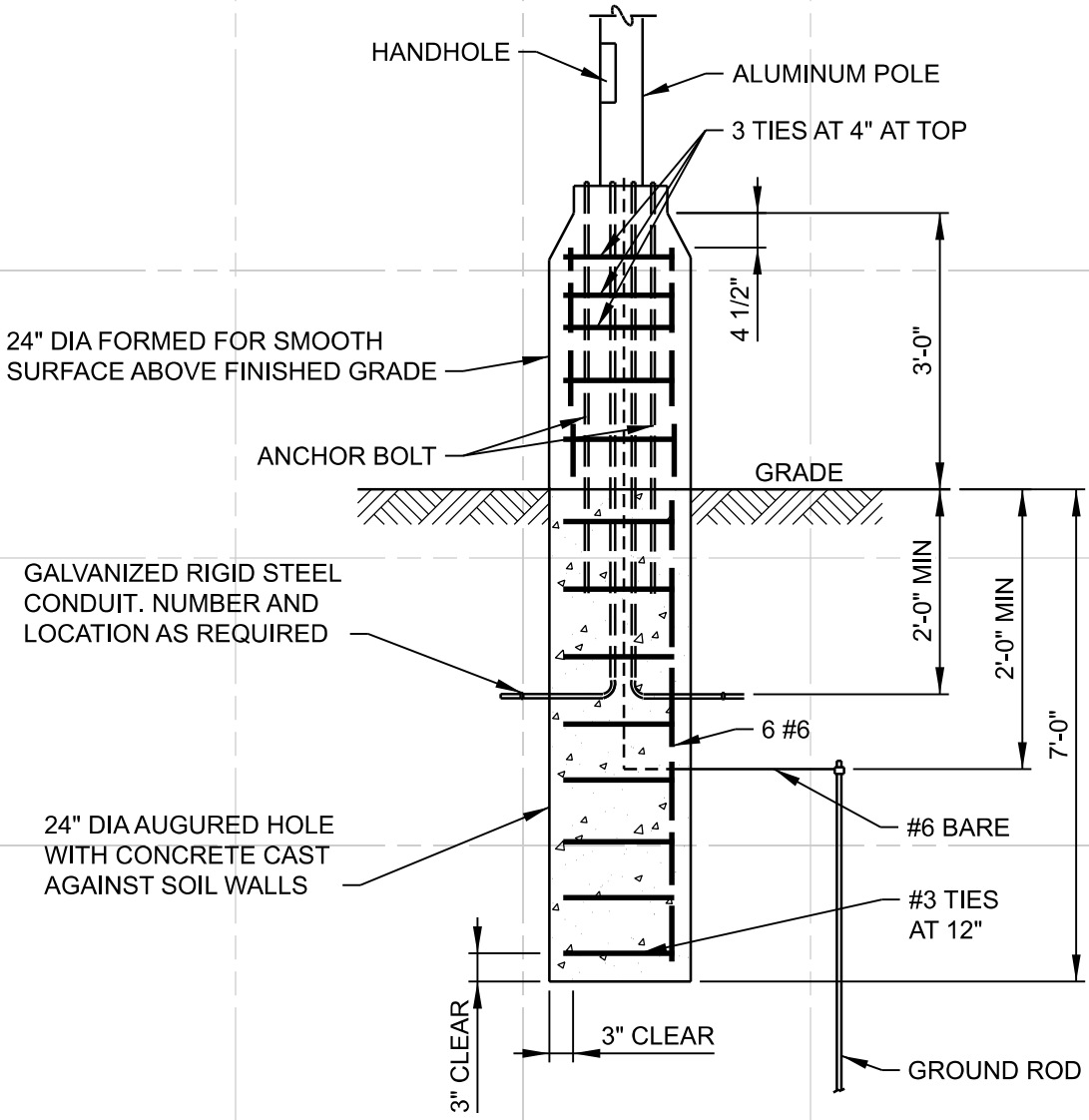
SCALE: NTS



A1

DETAIL: FIXTURE SUPPORT

SCALE: NTS

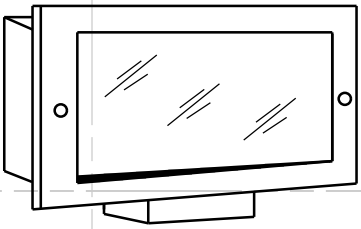


NOTE:
ATTACH GROUND TO LIGHTING STANDARD (TYPICAL)

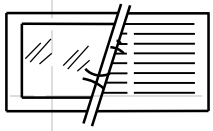
DETAIL: LIGHTING POLE FOUNDATION

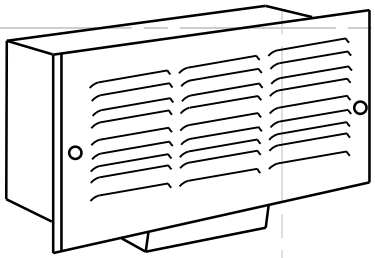
A1

SCALE: NTS



TYPE A





TYPE B

TYPE A - DIFFUSE TEMPERED GLASS OR POLYCARBONATE FRONT
TYPE B - LOUVER FRONT

LUMINAIRE REQUIREMENTS

1. 0.054" MINIMUM THICKNESS STEEL OR CAST ALUMINUM HOUSING WITH WHITE ENAMEL FINISH AND SPECULAR ALUMINUM REFLECTORS
2. 3/16" CAST ALUMINUM FACE PLATE WITH BRUSHED SATIN FINISH AND CLEAR ACRYLIC LAQUER.
3. 5" X 11" X 4" DEEP MAXIMUM DIMENSIONS.
4. NEOPRENE GASKET ASSEMBLY FOR EXTERIOR USE.
5. PROVIDE INCANDESCENT LAMPS AS INDICATED IN FIXTURE SCHEDLUE.
6. PORCELAIN SOCKET WITH FULL METAL SCREW SHELL.
7. PROVIDE INTERNAL PROVISIONS FOR GROUNDING.

NOTE:
TYPE B FIXTURE MAY BE PROVIDED MINUS GLASS FRONT, WHEN USED ON INTERIOR.

A1

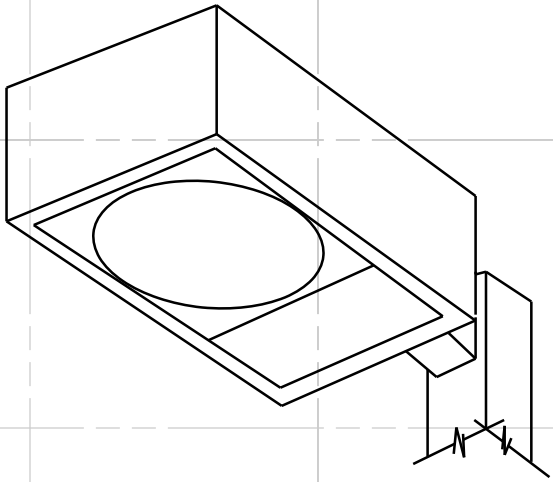
DETAIL: STEP LIGHT

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: EH1



FEATURES

LAMP TYPE:	250W METAL HALIDE
PROFILE:	1 LAMP
SHIELDING:	5 mm (3/16") CLEAR TEMPERED GLASS
REFLECTOR:	FACETED SPECULAR ALUMINUM
BALLAST:	HIGH POWER FACTOR, CORE AND COIL, CWA
OTHER:	TYPE I DISTRIBUTION

OPTIONS

LAMP TYPE:	MH: 175W, 400W HPS: 250W, 400W
OTHER:	TYPE II, III, IV AND V DISTRIBUTIONS.

NOM. DIMENSIONS: 642 mm X 470 mm X 143 mm
(25 5/16" L X 18 1/2" W X 5 5/8" D)

GENERAL DESCRIPTION

HOUSING: ONE PIECE EXTRUDED ALUMINUM, WELDED JOINTS. LENS HINGED AND HELD IN PLACE BY CAPTIVE SCREWS.

MOUNTING: SQ. EXTRUDED MOUNTING ARM AND POLE WITH ANCHOR TYPE BASE, ANCHOR BOLTS AND MOUNTING HARDWARE.

ELECTRICAL: 120, 277 OR 480 VOLT BALLAST.

FINISH: FIXTURE MOUNTING ARM, HOUSING, DOOR FRAMES, POLE AND BASE TO BE PAINTED DARK BRONZE FINISH.

A1

DETAIL: POLE MOUNTED METAL HALIDE CUTOFF LUMINAIRE (EH1)

SCALE: NTS

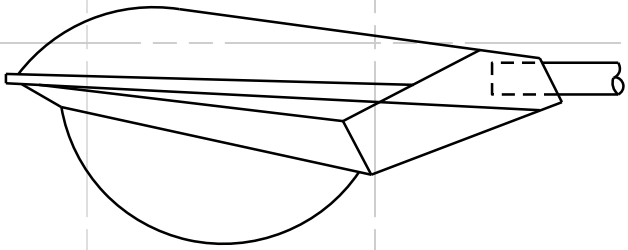
CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: EH2

FEATURES

LAMP TYPE:	250W METAL HALIDE
PROFILE:	1 LAMP
SHIELDING:	TEMPERED PRISMATIC FORMED GLASS
BALLAST:	HIGH POWER FACTOR, CORE AND COIL, CWA
OTHER:	TYPE I DISTRIBUTION



OPTIONS

LAMP TYPE:	MH: 400W HPS: 250W, 400W
OTHER:	TYPE II, III, IV AND V DISTRIBUTIONS.
NOM. DIMENSIONS:	699 mm X 292 mm X 337 mm (27 1/2" L X 11 1/2" H X 13 1/4" W)

GENERAL DESCRIPTION

HOUSING: DIE-CAST ALUMINUM, BOTTOM PLATE HINGED TO TOP OF HOUSING.

MOUNTING: SLIP FITTER TO DAVIT ARM POLE

REFLECTORS: SPECULAR ALUMINUM

ELECTRICAL: 120, 277 OR 480 VOLT BALLAST

FINISH: PAINTED BAKED ENAMEL

A1

DETAIL: POLE MOUNTED METAL HALIDE COBRA HEAD (EH2)

SCALE: NTS

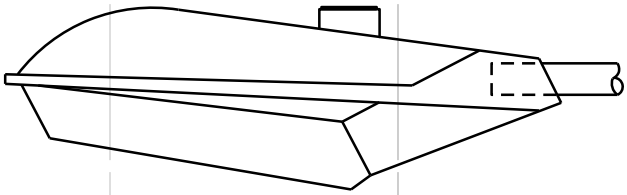
CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: EH3

FEATURES

LAMP TYPE: 100W METAL HALIDE
PROFILE: 1 LAMP
SHIELDING: CLEAR POLYCARBONATE
BALLAST: HIGH POWER FACTOR, CORE AND COIL, CWA
OTHER: TYPE I DISTRIBUTION



OPTIONS

LAMP TYPE: MH: 175W, 250W
HPS: 150W, 250W
SHIELDING: TEMPERED CLEAR GLASS
OTHER: PHOTOCELL CONTROL, BIRD GUARD, TYPE II AND III DISTRIBUTIONS

NOM. DIMENSIONS: 699 mm X 165 mm X 337 mm
(27 1/2" L X 6 1/2" H X 13 1/4" W)

GENERAL DESCRIPTION

HOUSING: DIE CAST ALUMINUM WITH BOTTOM PLATE HINGED TO TOP OF HOUSING.

MOUNTING: UNIVERSAL FOUR-BOLT SLIP FITTER TO POLE

REFLECTORS: FACETED SPECULAR ALUMINUM

ELECTRICAL: 120, 277 OR 480 VOLT BALLAST

FINISH: PAINTED BAKED ENAMEL

A1

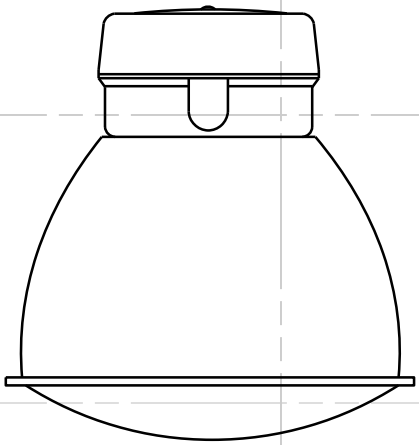
DETAIL: POLE MOUNTED METAL HALIDE COBRA HEAD (EH3)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: EH4



FEATURES

LAMP TYPE:	400W METAL HALIDE
PROFILE:	1 LAMP
SHIELDING:	CLEAR TEMPERED GLASS
BALLAST:	HIGH POWER FACTOR, CORE AND COIL, CWA
OTHER:	TYPE I DISTRIBUTION

OPTIONS

LAMP TYPE:	HPS: 750W, 1000W MH: 1000W
DISTRIBUTION:	TYPE II, III, IV AND V
NOM. DIMENSIONS:	635 mm X 584 mm (25" H X 23" DIA)

GENERAL DESCRIPTION

HOUSING:	FORMED ALUMINUM OPTICAL HOUSING
MOUNTING:	POLE MOUNTED WITH CAST ALUMINUM BALLAST COVER AND SLIP FITTER MOUNT
REFLECTORS:	FORMED, FACETED, SPECULAR ALUMINUM
ELECTRICAL:	120, 208, 240, 277, 347, AND 480 VOLT MULTI TAP BALLAST
FINISH:	GRAY PAINT

A1

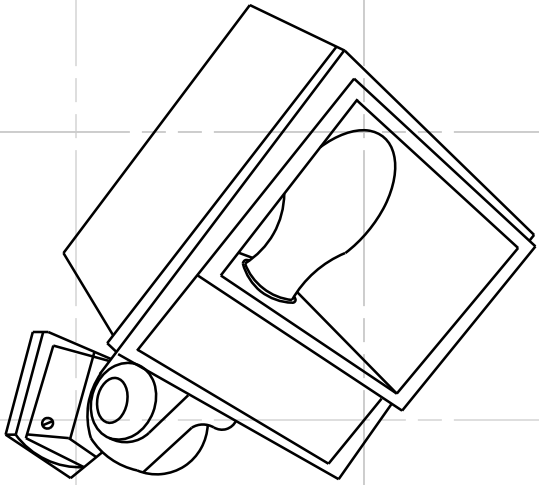
DETAIL: POLE MOUNTED METAL HALIDE HIGH MAST LUMINAIRE (EH4)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: EH8



FEATURES

LAMP TYPE:	400W METAL HALIDE
PROFILE:	1 LAMP
SHIELDING:	IMPACT RESISTANT TEMPERED GLASS
BALLAST:	HIGH POWER FACTOR, CORE AND COIL, CWA
OTHER:	NEMA TYPE 4X5H DISTRIBUTION

OPTIONS

LAMP TYPE:	MH: 175W, 250W HPS: 150W, 250W, 400W
OTHER:	VARIOUS DISTRIBUTIONS, PHOTOCELL CONTROL

NOM. DIMENSIONS: 470 mm X 178 mm (18 1/2" SQ. X 7" D)

GENERAL DESCRIPTION

HOUSING: HEAVY DUTY CAST ALUMINUM

REFLECTORS: FACETED SPECULAR ALUMINUM

ELECTRICAL: 120, 277 OR 480 VOLT BALLAST

FINISH: PAINTED DARK BRONZE FINISH

A1

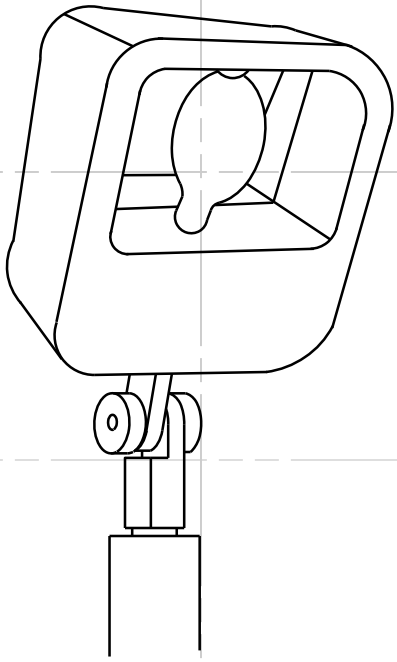
DETAIL: WALL MOUNTED METAL HALIDE FLOODLIGHT (EH8)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: EH9



FEATURES

LAMP TYPE:	400W METAL HALIDE
PROFILE:	1 LAMP
SHIELDING:	IMPACT RESISTANT CLEAR TEMPERED GLASS
BALLAST:	HIGH POWER FACTOR, CORE AND COIL, CWA
OTHER:	NEMA TYPE 4X5H DISTRIBUTION

OPTIONS

LAMP TYPE:	MH: 175W, 250W HPS: 150W, 250W, 400W
OTHER:	VARIOUS DISTRIBUTIONS, PHOTO-CELL CONTROL

NOM. DIMENSIONS: 470 mm X 178 mm (18 1/2" SQ. X 7" H)

GENERAL DESCRIPTION

HOUSING: HEAVY DUTY CAST ALUMINUM

REFLECTORS: FACETED SPECULAR ALUMINUM

ELECTRICAL: 120, 277 OR 480 VOLT BALLAST

FINISH: PAINTED DARK BRONZE FINISH

A1

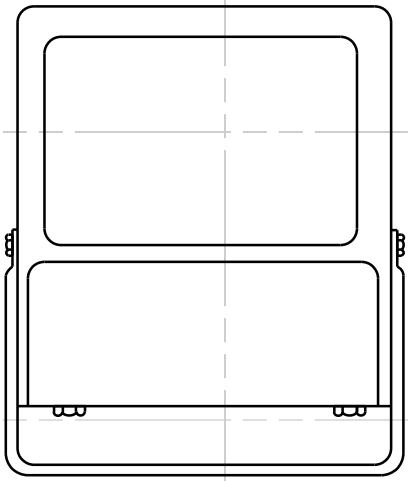
DETAIL: POLE MOUNTED METAL HALIDE FLOODLIGHT (EH9)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: EH10



FEATURES

LAMP TYPE:	250W METAL HALIDE
PROFILE:	1 LAMP
SHIELDING:	CLEAR TEMPERED GLASS
REFLECTOR:	SPECULAR ALUMINUM
BALLAST:	HIGH POWER FACTOR, CORE AND COIL, CWA

OPTIONS

LAMP TYPE:	MH: 400W HPS: 250W, 400W
OTHER:	GLARE GUARD, MESH GUARD, POLYCARBONATE SHIELD

NOM. DIMENSIONS: 416 mm X 511 mm X 229 mm
(16 3/8" W X 20 1/8" L X 9" D)

GENERAL DESCRIPTION

HOUSING: ONE-PIECE DIE-CAST COPPER-FREE ALUMINUM, FULLY GASKETED

MOUNTING: VARIOUS

ELECTRICAL: 120, 277, 208, 240, 347 AND 408 VOLT MULTI TAP BALLAST

FINISH: PAINTED DARK BRONZE FINISH

OTHER: NEC CLASS 1, DIV 2

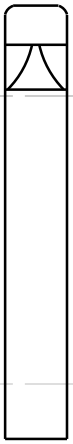
DETAIL: METAL HALIDE HAZARDOUS LOCATION FLOODLIGHT, CLASS 1/ DIV 2 (EH10)

A1

SCALE: NTS

CORPS OF ENGINEERS DEPARTMENT OF THE ARMY

TYPE: EH11



FEATURES

LAMP TYPE:	70W METAL HALIDE
PROFILE:	1 LAMP
SHIELDING:	6 mm (1/4") SEAMLESS 100% VIRGIN ACRYLIC
REFLECTORS:	HYDRO-FORMED FLUTED ANODIZED ALUMINUM UPPER REFLECTOR AND SPUN ANODIZED ALUMINUM FLARE CONE
BALLAST:	HIGH POWER FACTOR, CORE AND COIL, CWA

OPTIONS

LAMP TYPE:	MH: 100W HPS: 70W, 100W
REFLECTOR:	CYLINDRICAL LOWER REFLECTOR
SHIELDING:	CAST ALUMINUM LOUVERS
NOM. DIMENSIONS:	203 mm X 1067 mm (8" DIA X 42" H)

GENERAL DESCRIPTION

HOUSING: 4 mm (.156") EXTRUDED ALUMINUM ONE PIECE HOUSING AND CAST ALUMINUM TOP COVER

MOUNTING: (4) 12 mm X 280 mm (1/2" X 11") ANCHOR BOLTS WITH DOUBLE NUTS AND WASHERS

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: PAINTED DARK BRONZE FINISH

A1

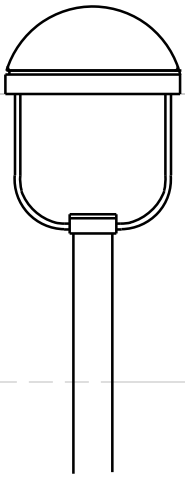
DETAIL: METAL HALIDE BOLLARD (EH11)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: EH13



FEATURES

LAMP TYPE: 175W METAL HALIDE

PROFILE: 1 LAMP

SHIELDING: CLEAR TEMPERED GLASS

BALLAST: HIGH POWER FACTOR, CORE AND COIL, CWA

OPTIONS

LAMP TYPE: MH: 70W, 250W
HPS: 70W, 150W, 250W

OTHER: PHOTOCELL CONTROL, VANDAL RESISTANT POLYCARBONATE SHIELD

NOM. DIMENSIONS: 610 mm X 381 mm (24" DIA X 15" H)

GENERAL DESCRIPTION

HOUSING: ONE PIECE HEAVY GAUGE SPUN ALUMINUM WITH NO VISIBLE SEAMS OR WELD BEADS

MOUNTING: YOKE MOUNTED TO POLE, 4.27 M (14') MAX

REFLECTORS: SEGMENTED HIGHLY REFLECTIVE SPECULAR ALUMINUM

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: PAINTED DARK BRONZE FINISH

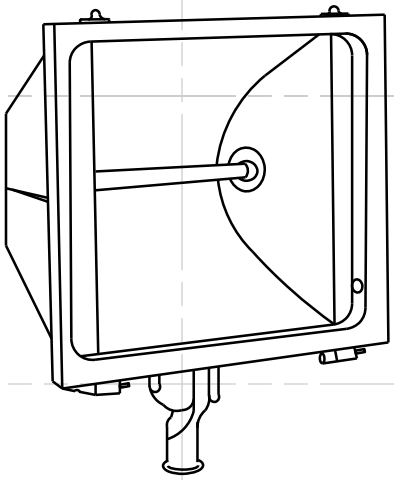
A1

DETAIL: LOW HEIGHT METAL HALIDE PEDESTRIAN POLE (EH13)

SCALE: NTS

CORPS OF ENGINEERS DEPARTMENT OF THE ARMY

TYPE: EI2



FEATURES

LAMP TYPE: 500W T3 HALOGEN

PROFILE: 1 LAMP

SHIELDING: CLEAR TEMPERED GLASS

OPTIONS

LAMP TYPE: 300W, 425W, 1500W T3

NOM. DIMENSIONS: 241 mm L X 197 mm H X 98 mm
(9 1/2" L X 7 3/4" H X 3 7/8" W)

GENERAL DESCRIPTION

HOUSING: CAST ALUMINUM

REFLECTORS: SPECULAR ALUMINUM

ELECTRICAL: 120 VOLT

FINISH: PAINTED DARK BRONZE FINISH

A1

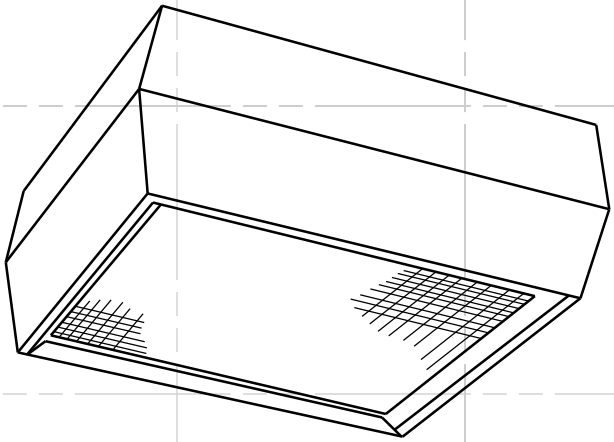
DETAIL: TUNGSTEN HALOGEN FLOODLIGHT (EI2)

SCALE: NTS

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

TYPE: SH1



FEATURES

LAMP TYPE: 175W MH
PROFILE: 1 LAMP
SHIELDING: PRISMATIC TEMPERED GLASS
BALLAST: HIGH POWER FACTOR, CORE AND COIL, CWA

OPTIONS

NOM. DIMENSIONS: 610 mm X 610 mm X 356 mm
(24" W X 24" L X 14" D)

GENERAL DESCRIPTION

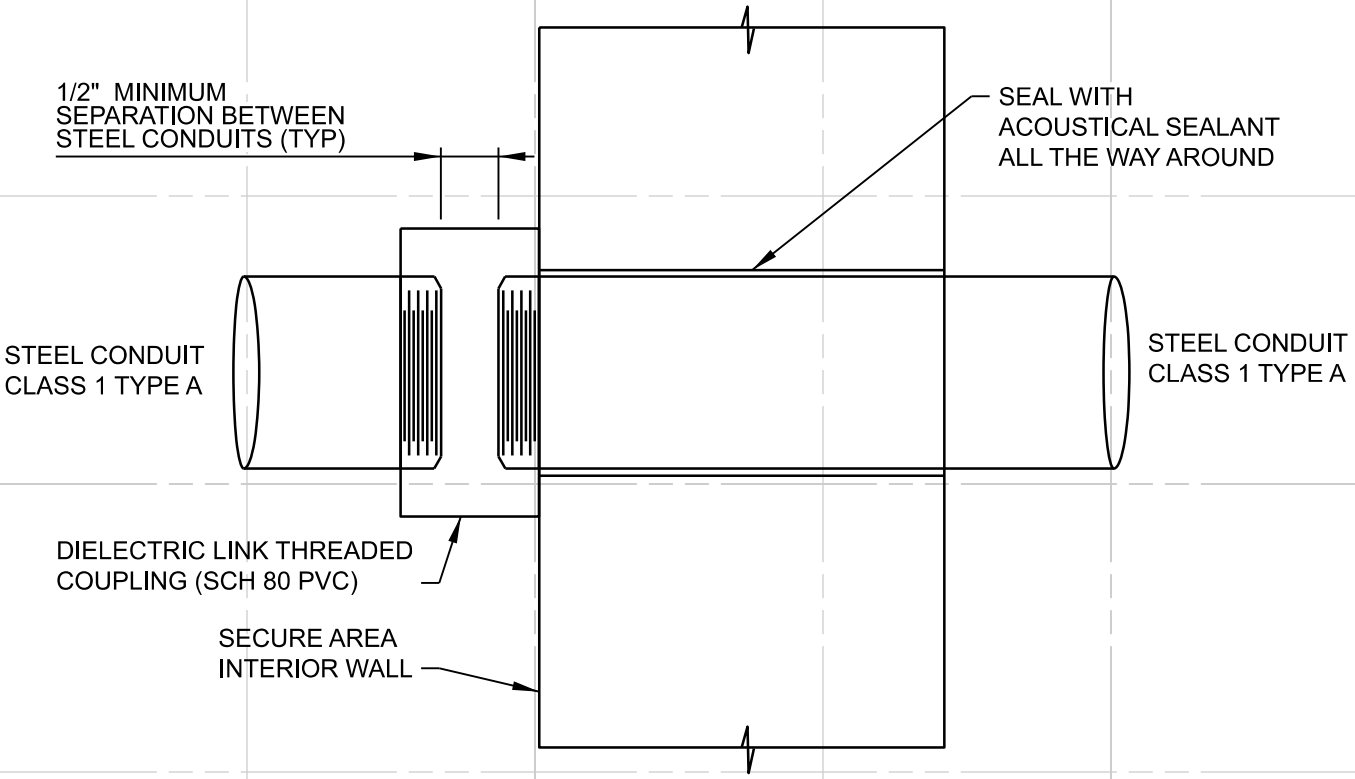
HOUSING: DIE-FORMED ALUMINUM WITH HINGED LOWER SECTION FOR EASY RELAMPING AND BALLAST ACCESS; HOUSING SHALL LOCK TOGETHER SECURELY USING CAPTIVE CLAMPS AND SHALL BE CONTINUOUSLY GASKETED AGAINST MOISTURE AND INSECTS

MOUNTING: FIXTURE IS LONGER THAN METRIC GRID
REFLECTORS: SEMI-SPECULAR ALUMINUM
ELECTRICAL: 120, 277, 208, 240, 347 AND 480 VOLT MULTI TAP BALLAST
FINISH: WHITE ENAMEL OR POLYESTER POWDER COAT

A1

DETAIL: ENCLOSED, INTEGRALLY BALLASTED 2' X 2' METAL HALIDE LUMINAIRE (SH1)

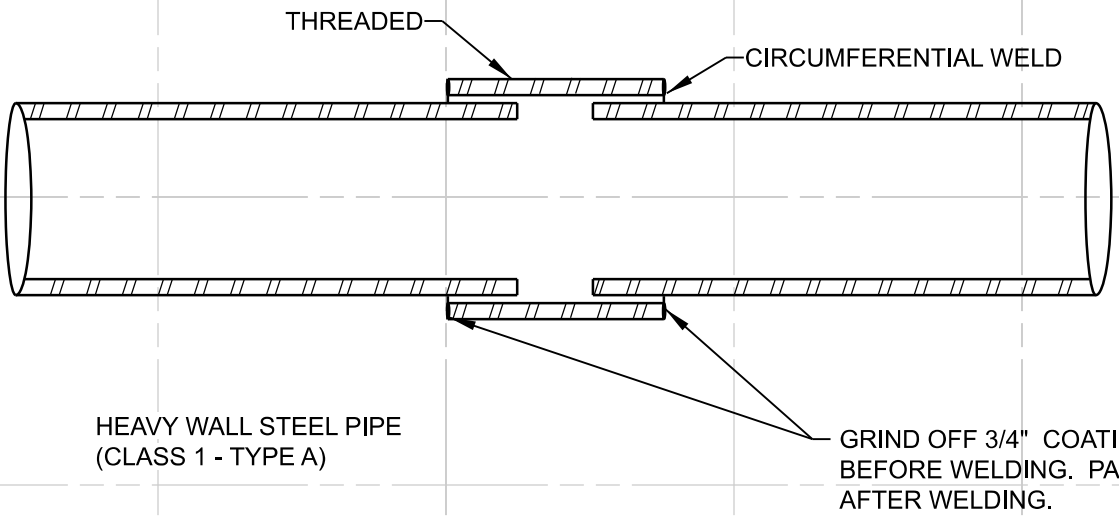
SCALE: NTS



A1

DETAIL: SECURE AREA PENETRATION

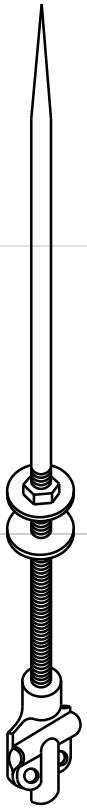
SCALE: NTS



A1

DETAIL: WELDED CONDUIT COUPLING

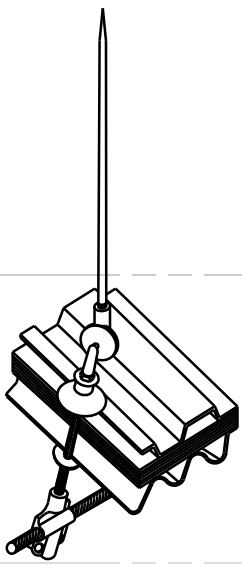
SCALE: NTS



A1

DETAIL: HORIZONTAL ROOF AIR TERMINAL

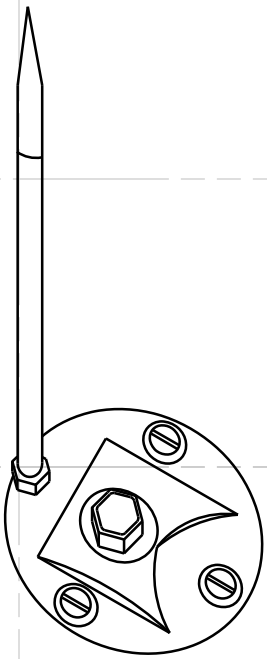
SCALE: NTS



A1

DETAIL: SLOPED ROOF AIR TERMINAL

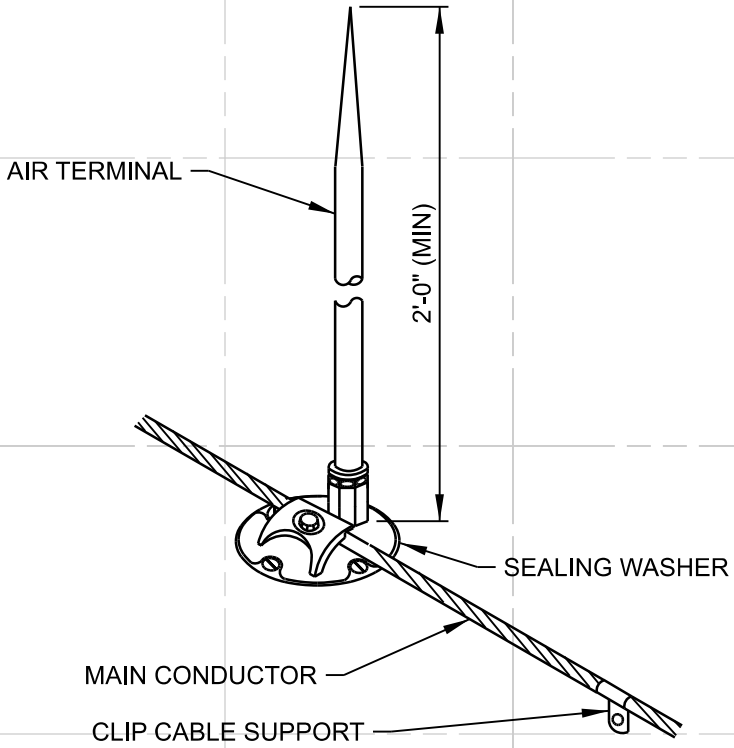
SCALE: NTS



DETAIL: AIR TERMINAL AND FLAT SURFACE MOUNTING BASE ASSEMBLED

A1

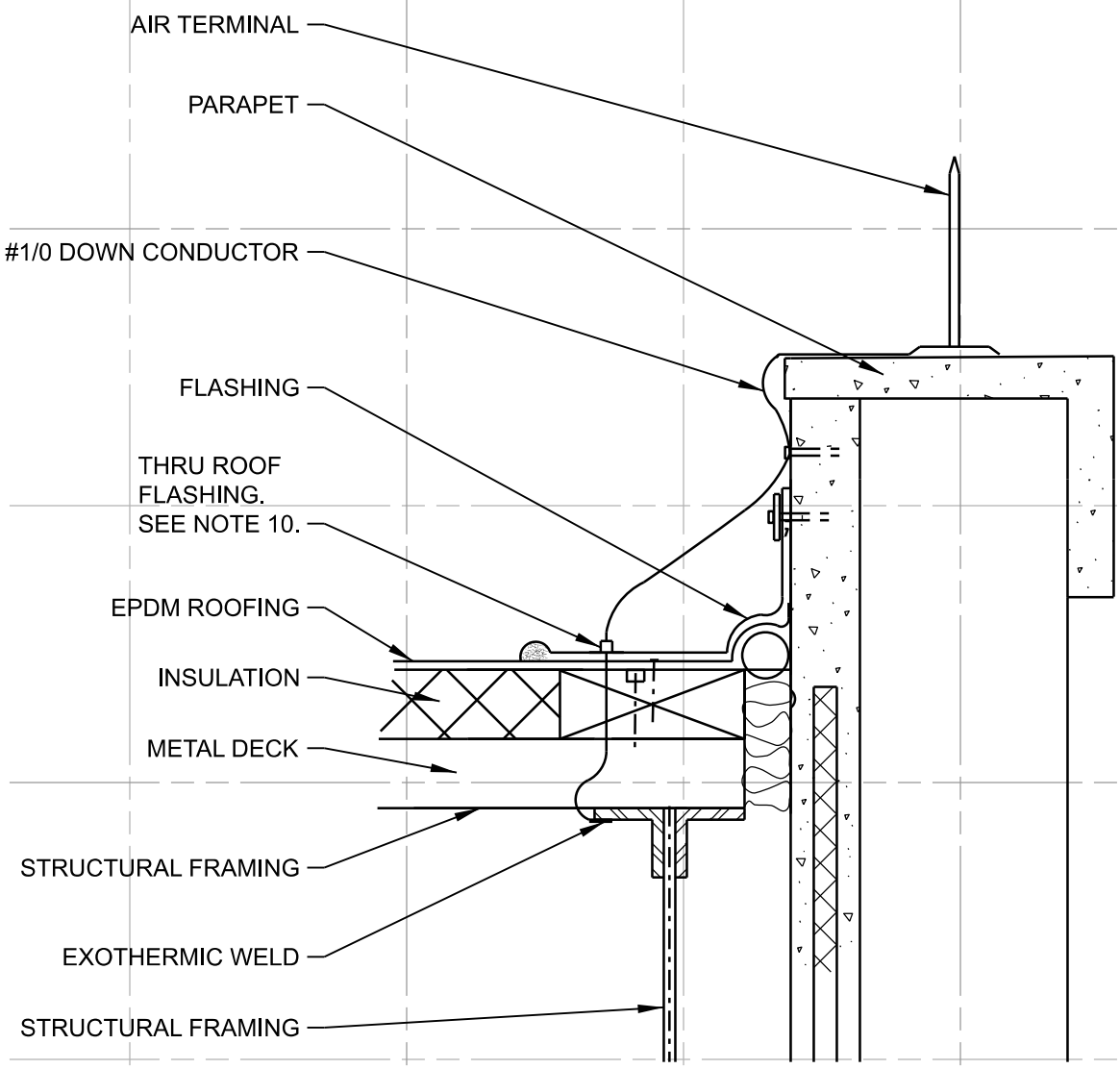
SCALE: NTS



A1

DETAIL: AIR TERMINAL

SCALE: NTS



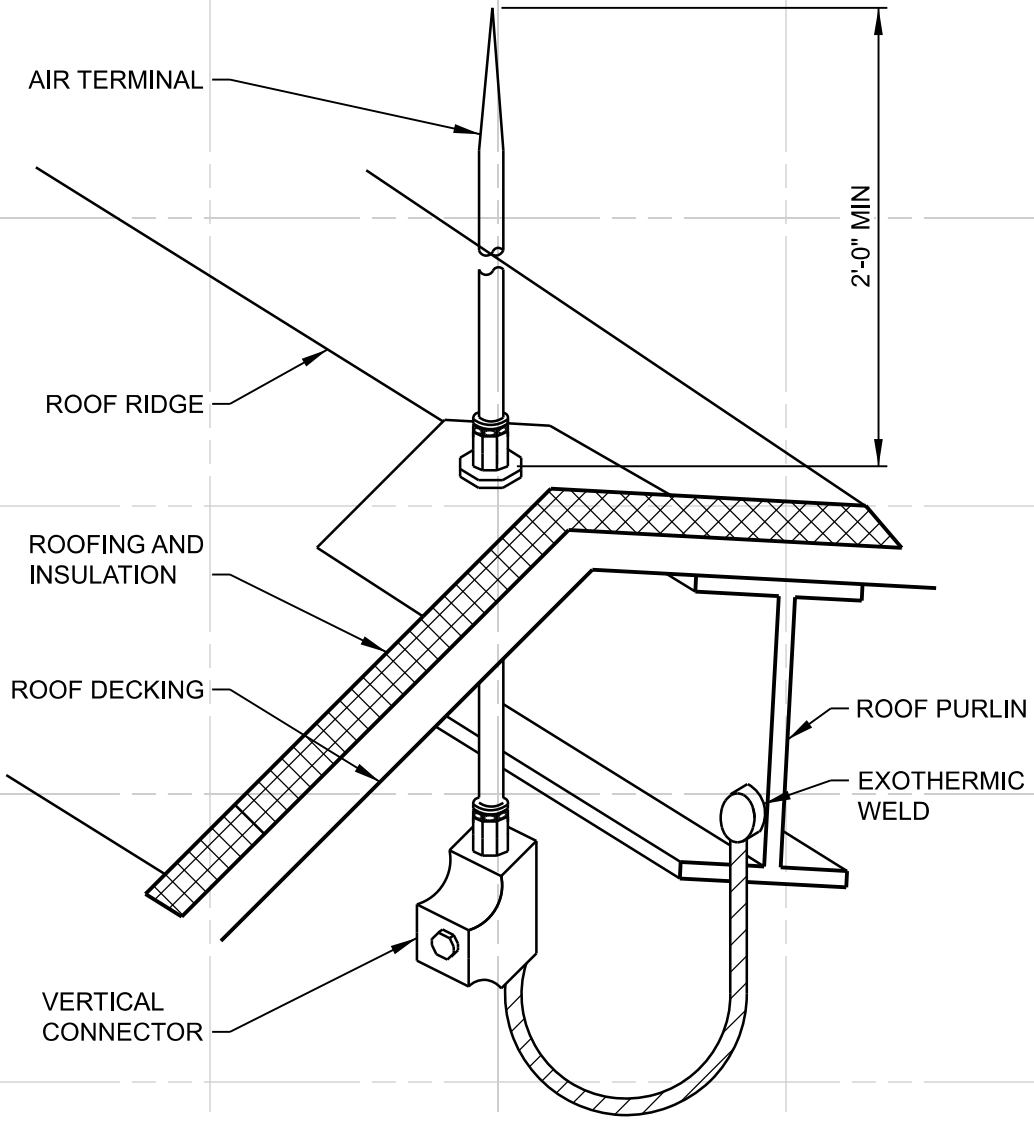
NOTES:

1. SEE PLATE E-__ FOR LEGEND.
2. SEE S-PLATES FOR EXACT SIZE AND LOCATION OF STRUCTURAL FOOTINGS.
3. STRUCTURAL FRAMEWORK SHALL BE MADE ELECTRICALLY CONTINUOUS BY WELDING.
4. ALL SPLICES BELOW GRADE SHALL BE THE EXOTHERMIC WELD TYPE.
5. AIR TERMINALS SHALL EXTEND NO LESS THAN 24 INCHES ABOVE THE ROOF PARAPET.
6. CONNECT AIR TERMINAL TO THE STRUCTURAL STEEL FRAMING WITH CONDUCTOR ROUTED THROUGH THE ROOF AS DETAILED EXCEPT WELD TO HORIZONTAL MEMBER.
7. CONNECT AIR TERMINAL TO THE TOP OF THE STRUCTURAL STEEL COLUMN WITH CONDUCTOR ROUTED THROUGH THE ROOF AS DETAILED.
8. GROUND RODS SHALL BE CONNECTED TO THE BOTTOM OF THE STRUCTURAL STEEL COLUMN WITH No. 1/0 AWG BARE COPPER CONDUCTOR AS DETAILED.
9. ALL METAL EQUIPMENT ON THE ROOF SHALL BE BONDED TO THE LIGHTNING PROTECTION SYSTEM.
10. THRU ROOF FLASHING SHALL BE COPPER WITH 8 INCH ROUND BASE AND VERTICAL TUBE WITH NEOPRENE SEAL. FLASHING SHALL BE THE PRODUCT OF THE MANUFACTURER OF THE LIGHTNING PROTECTION SYSTEM. A MEMBRANE FLASHING SHALL BE PROVIDED OVER THE THRU ROOF FLASHING.

A1

DETAIL: AIR TERMINAL

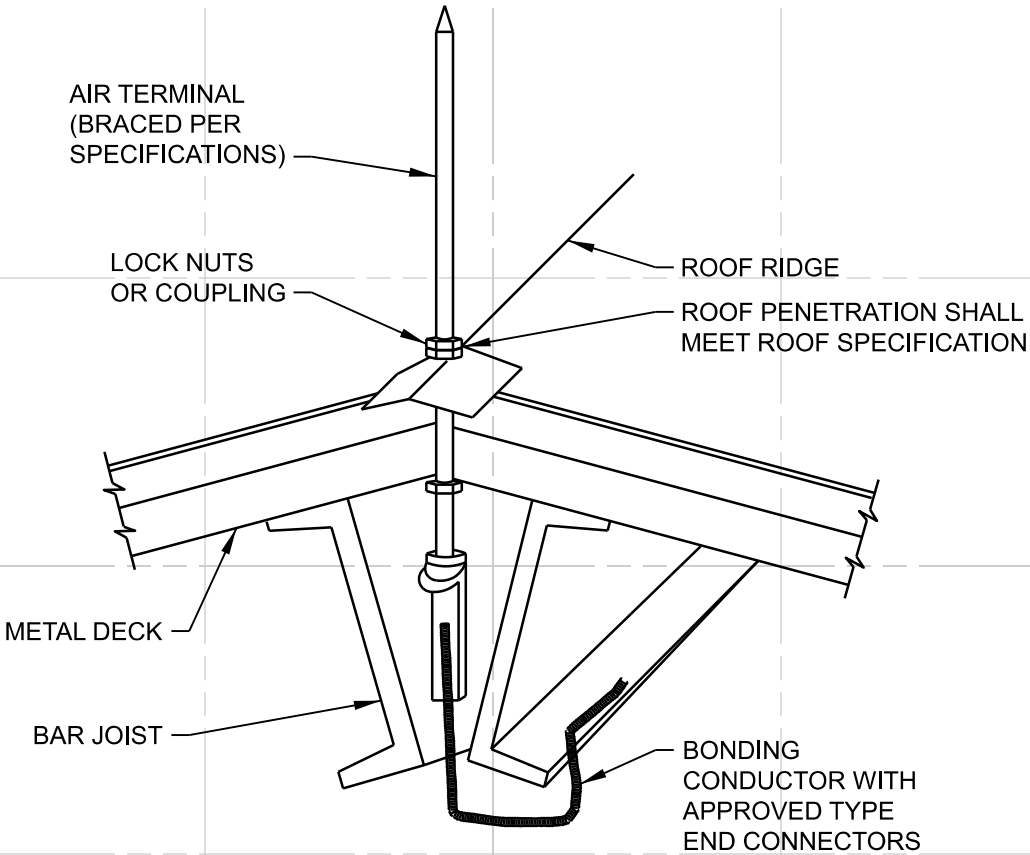
SCALE: NTS



A1

DETAIL: AIR TERMINAL

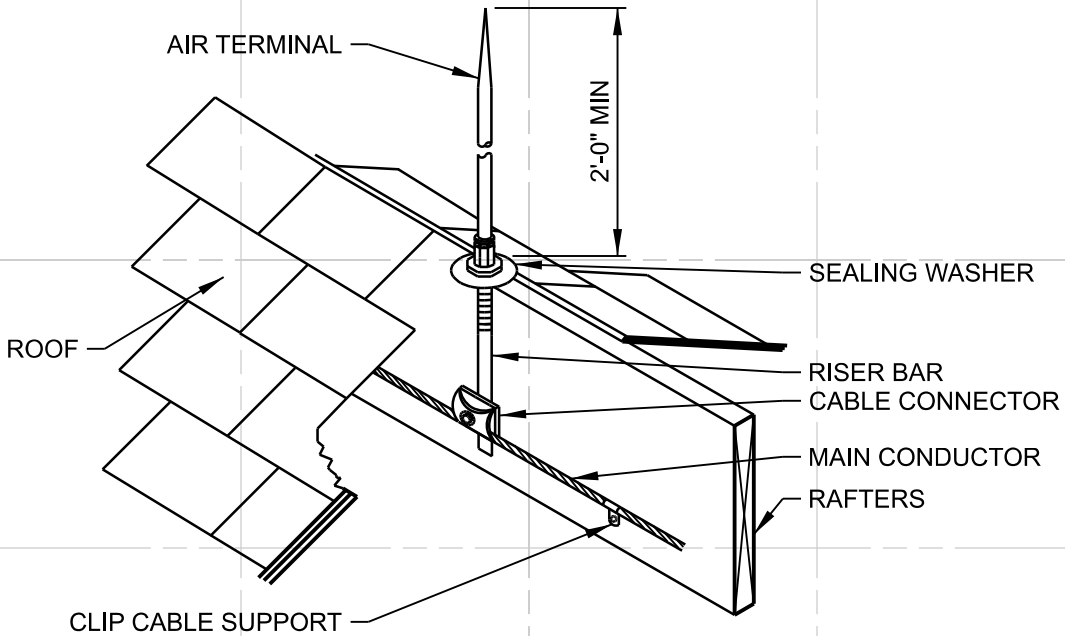
SCALE: NTS



DETAIL: TYPICAL MOUNTING OF TERMINALS ON ROOF RIDGE

A1

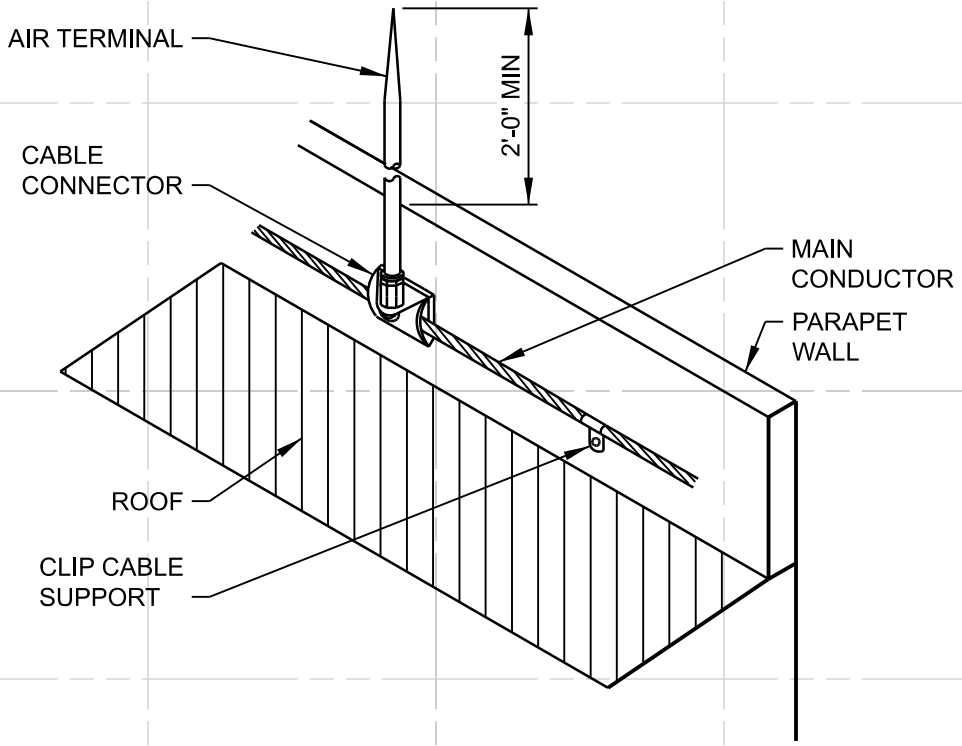
SCALE: NTS



A1

DETAIL: AIR TERMINAL

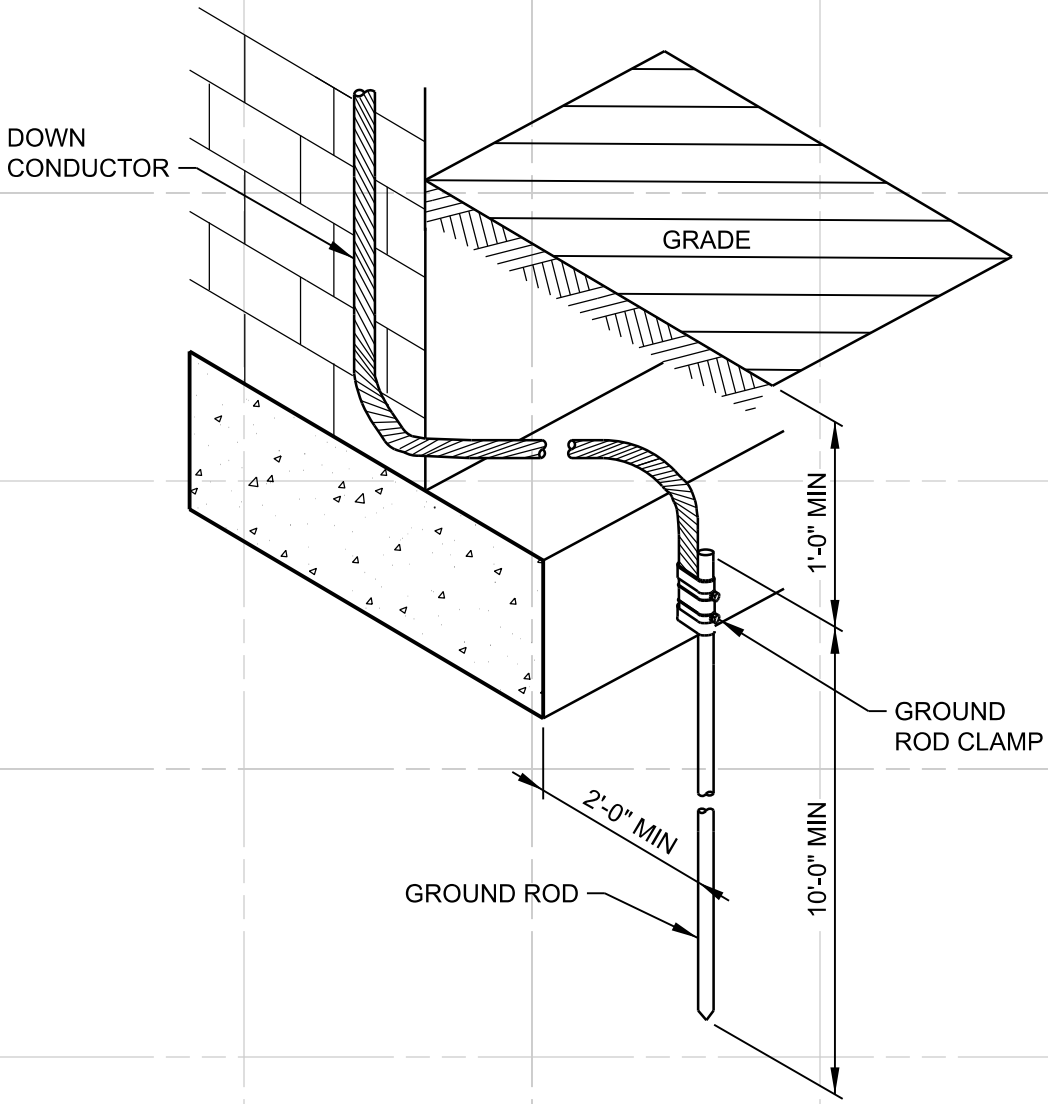
SCALE: NTS



A1

DETAIL: AIR TERMINAL

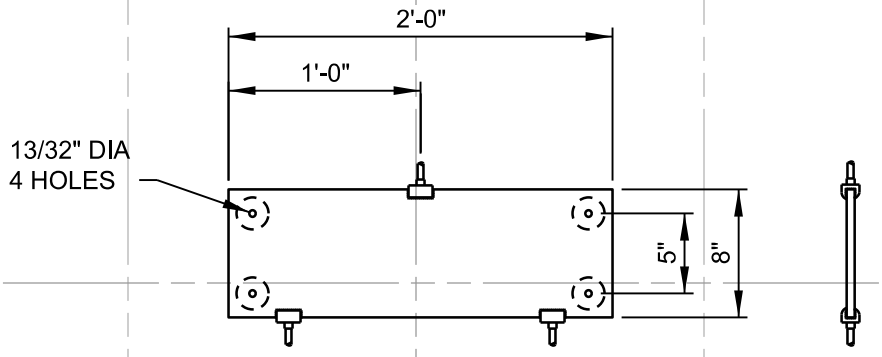
SCALE: NTS



A1

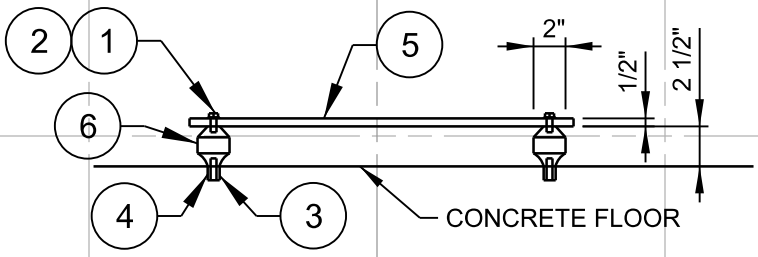
DETAIL: GROUNDING

SCALE: NTS



STATION GROUND TOP VIEW

END VIEW



EQUIPMENT GROUND SIDE VIEW

CALLOUTS:

1. SCREW, CAP, HEX, BRASS, 3/8"-16 X 7/8" LG
2. LOCKWASHER, INTL. T, BRZ, 3/8"
3. STUD, CONT. THD, STL, 3/8"-16 X 11/2" LG
4. SHIELD, EXP, 3/8" BOLT, SELF DRILL
5. PLATE, SHEET, COPPER, 24"X 8"X 1/2"
6. INSULATOR, STANDOFF, POLYESTER 21/2" LG, 2" DIA3/8"-16 X 5/8" TAPS, PORTER

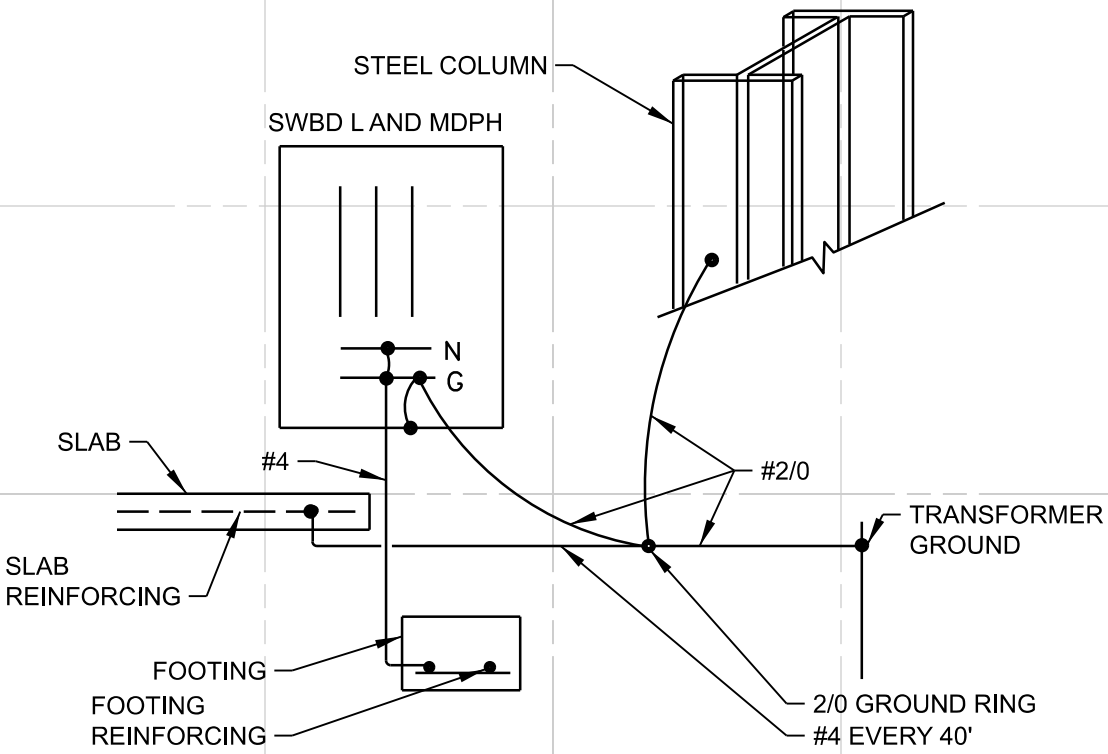
NOTES:

1. CABLES WILL BE EXOTHERMICALLY WELDED TO THE COPPER PLATE.
2. MINIMUM DIMENSIONS BETWEEN EXOTHERMIC WELDS ARE: 13/4" FOR 4/0 AND SMALLER

A1

DETAIL: GROUNDING PLATE

SCALE: NTS

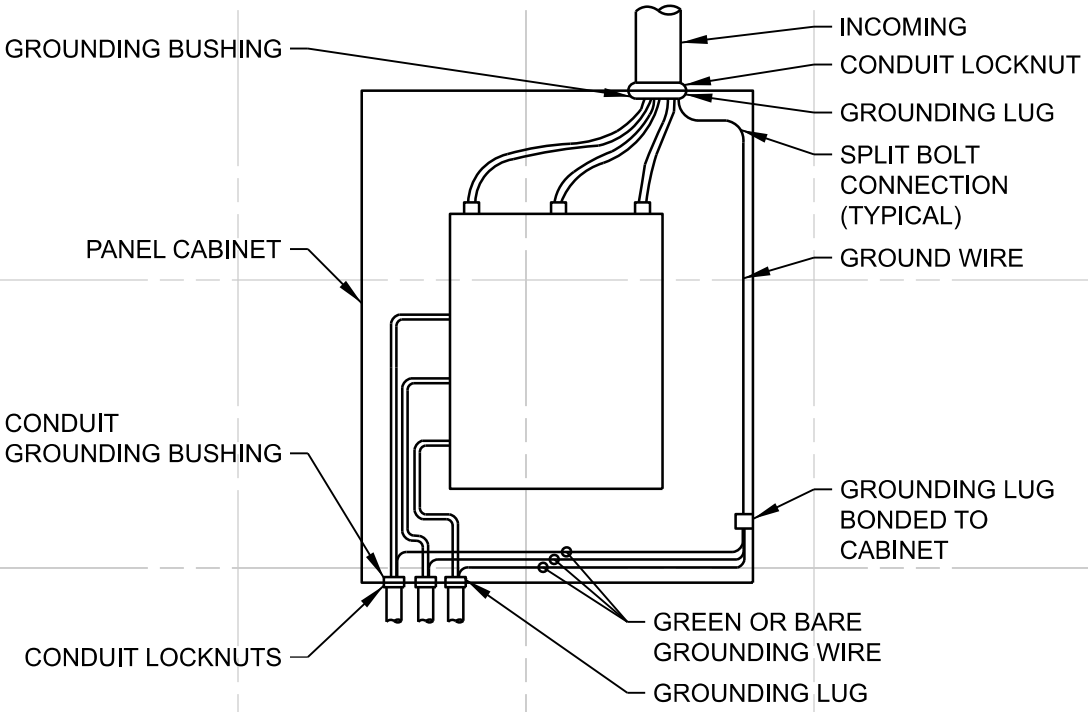


NOTE:
GROUND ALL COLUMNS TO GROUND RING.

A1

DETAIL: SYSTEM GROUND

SCALE: NTS

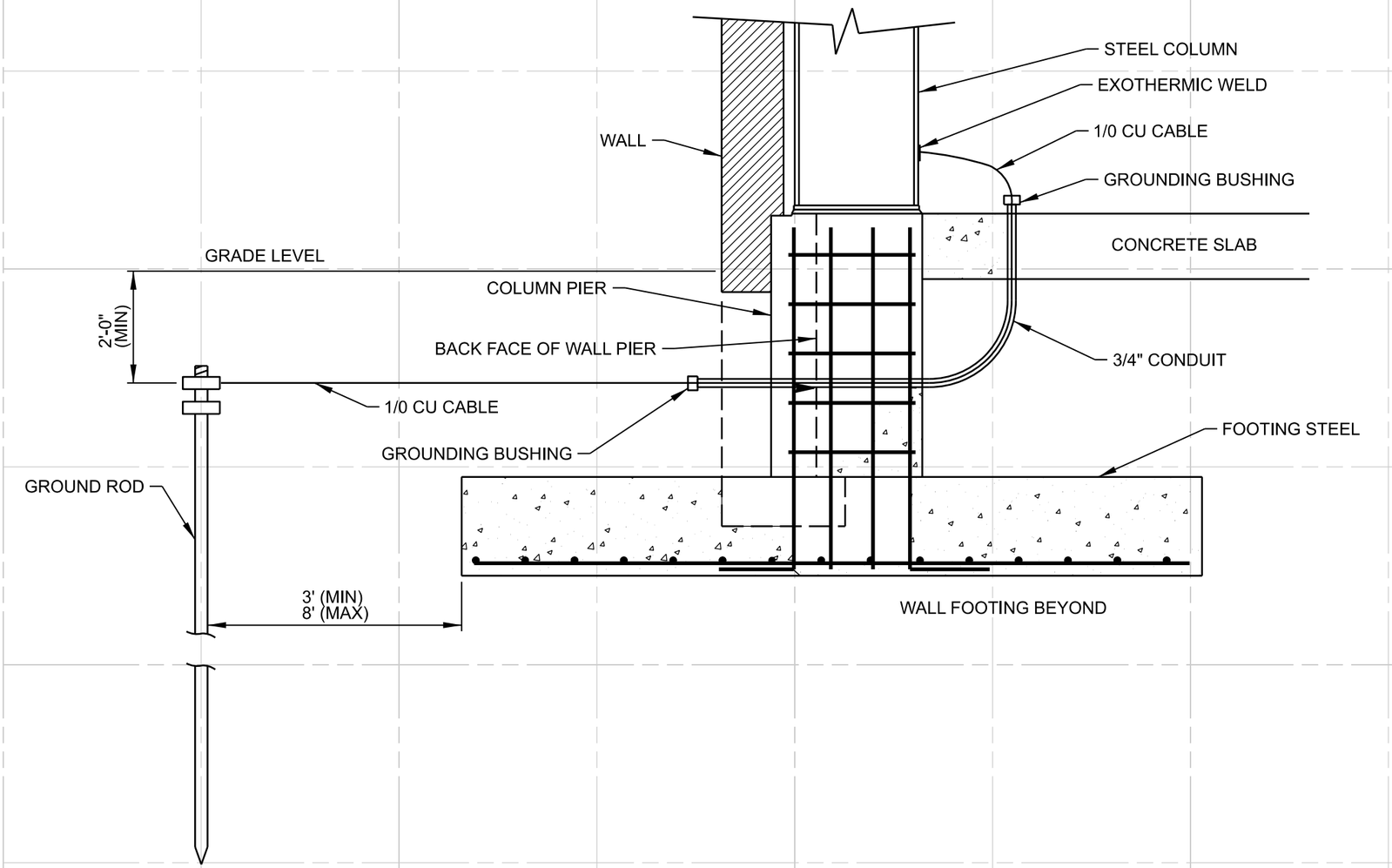


NOTES:
1. ALL WIRES TO BE NEATLY LACED.
2. AT THE POINT OF ATTACHMENT OF THE GROUNDING LUG TO THE CABINET, THE SURFACES SHALL BE SCRAPED FREE OF PAINT AND THOROUGHLY CLEANED TO INSURE PROPER BONDING.
3. NEUTRAL CONDUCTOR NOT SHOWN FOR CLARITY.

A1

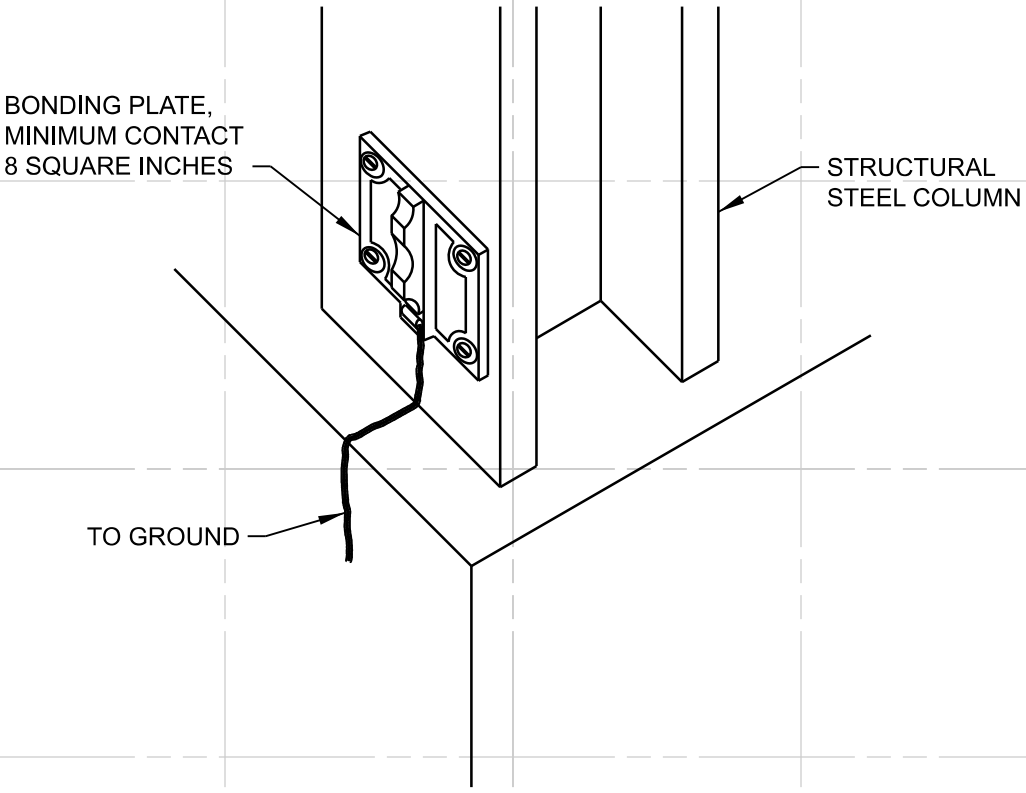
DETAIL: TYPICAL PANEL GROUNDING

SCALE: NTS



A1 DETAIL: COLUMN GROUNDING

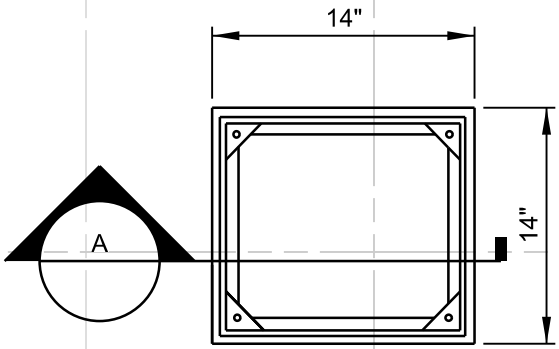
SCALE: NTS



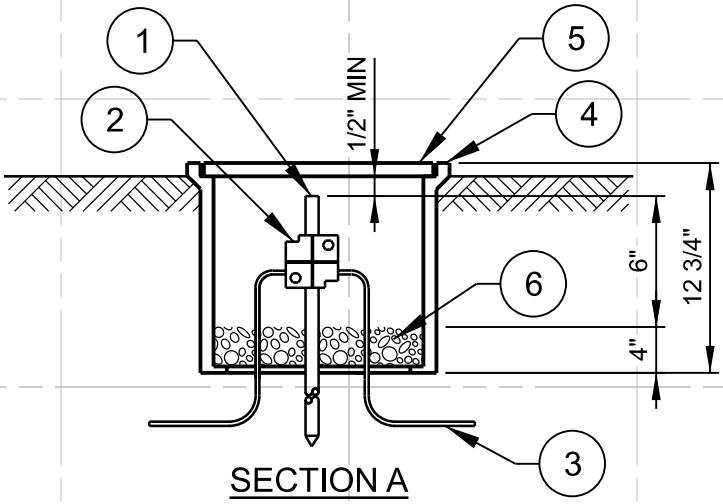
A1

DETAIL: BONDING PLATE

SCALE: NTS



TOP VIEW (COVER REMOVED)



SECTION A

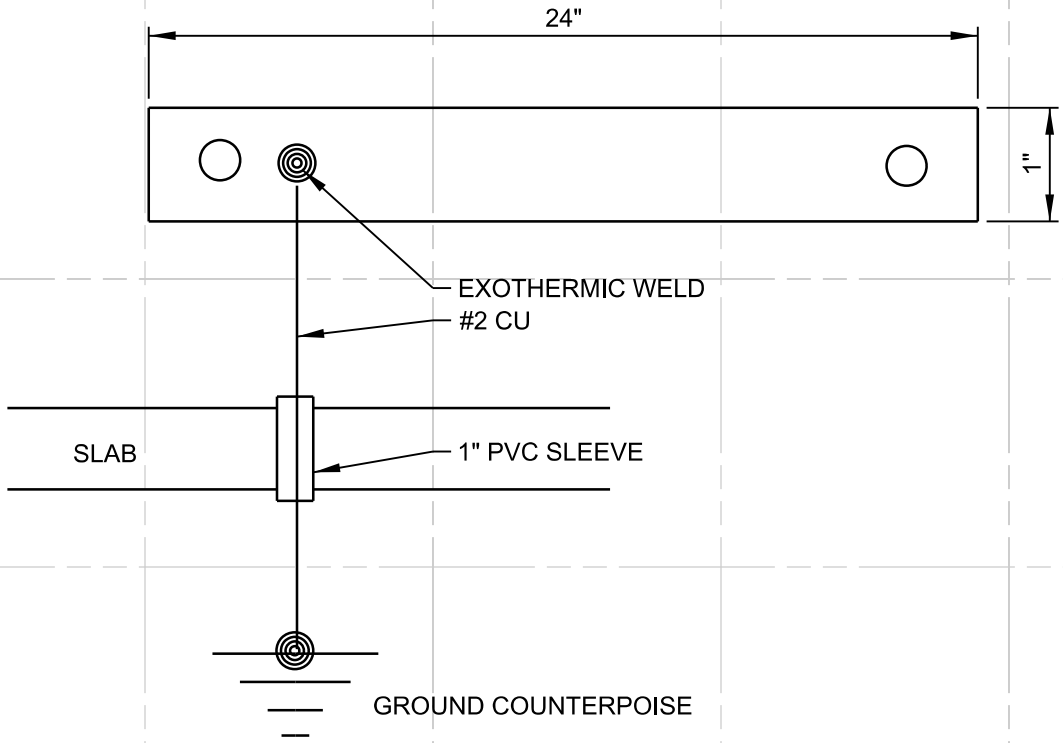
CALLOUTS:

1. GROUND ROD
2. GROUND CLAMP
3. GROUNDING CONDUCTOR #1/0 COPPER
4. POLYMER CONCRETE FIBERGLASS REINFORCED BOX
5. COVER FOR ABOVE BOX
6. GRAVEL OR CRUSHED STONE

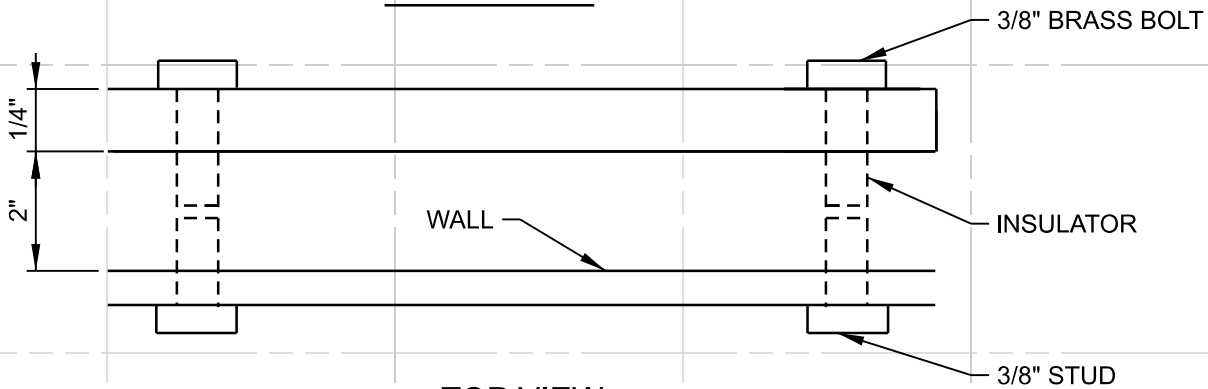
A1

DETAIL: GROUND ROD INSTALLATION

SCALE: NTS



FRONT VIEW

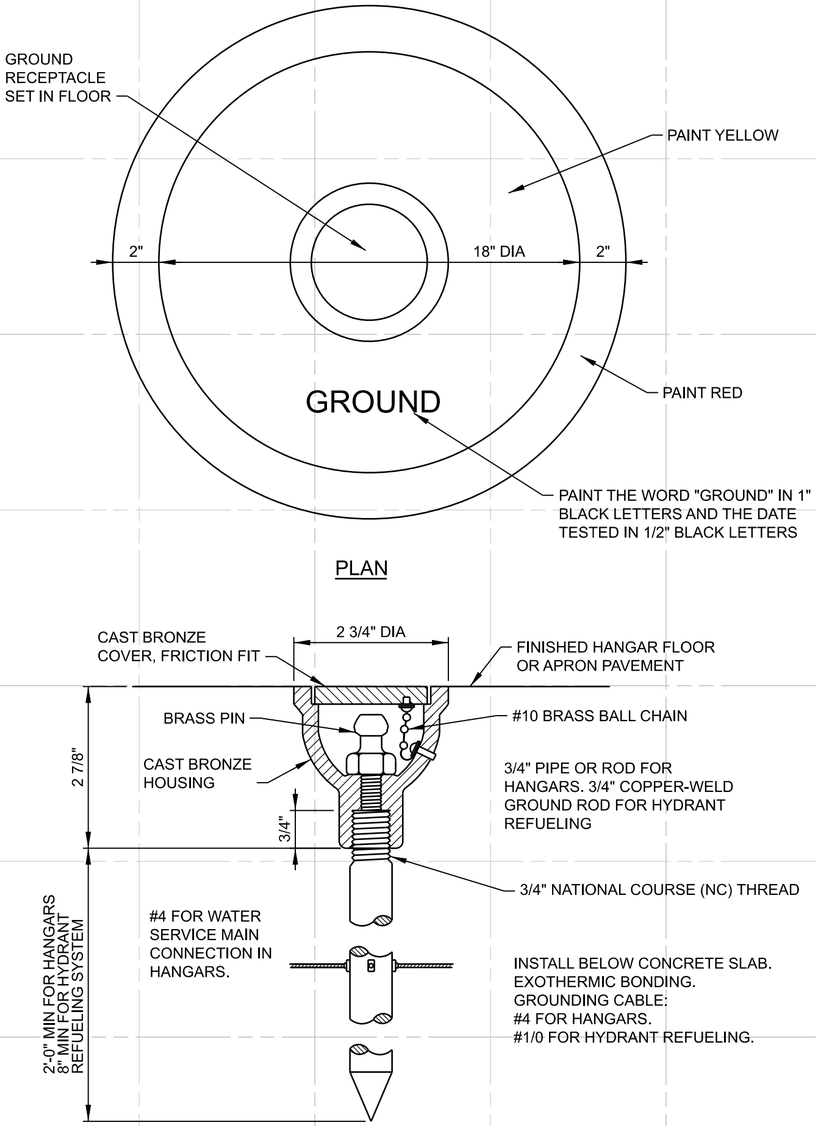


TOP VIEW

A1

DETAIL: GROUND BAR

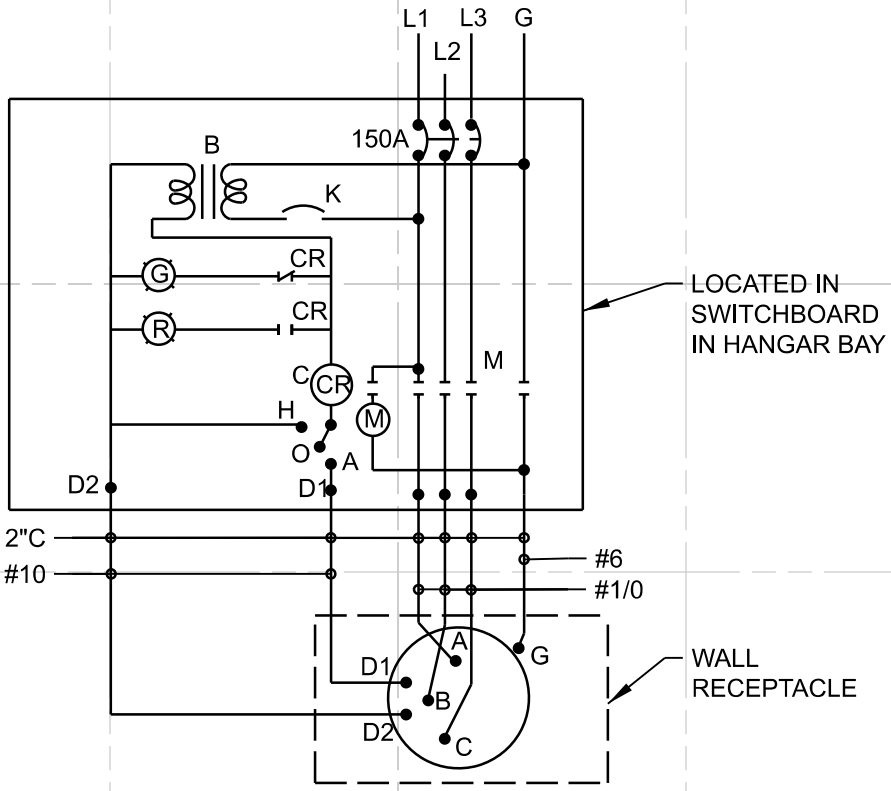
SCALE: NTS



NOTE:
IN HANGARS, MAX RESISTANCE TO GROUND SHALL BE 25 OHMS FROM ANY GROUND ROD

A1 DETAIL: STATIC GROUNDING RECEPTACLE

SCALE: NTS



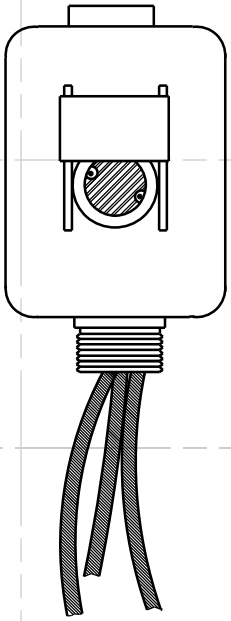
CONTROL LEGEND:
K 15A CIRCUIT BREAKER
B 50VA 277-48V CONTROL TRANSFORMER
C 15A SPSY RELAY
D1, D2 CONTROL CIRCUIT CONNECTOR
M SIZE 4, 3P, 3O 600V CONTACTOR (15 AMPS)
(M) CONTACTOR COIL

NOTES:
1. CONTROL CIRCUIT TYPICAL FOR 8 TOTAL POSITIONS.
2. EACH CONTACTOR TO HAVE HAND-OFF-AUTO SWITCH WITH RED PILOT FOR CLOSED POSITION. GREEN FOR OPEN LINE. SWITCH SHALL BE LOCKABLE IN OFF POSITION.

A1

DIAGRAM: CONTROL FOR RECEPTACLE

SCALE: NTS

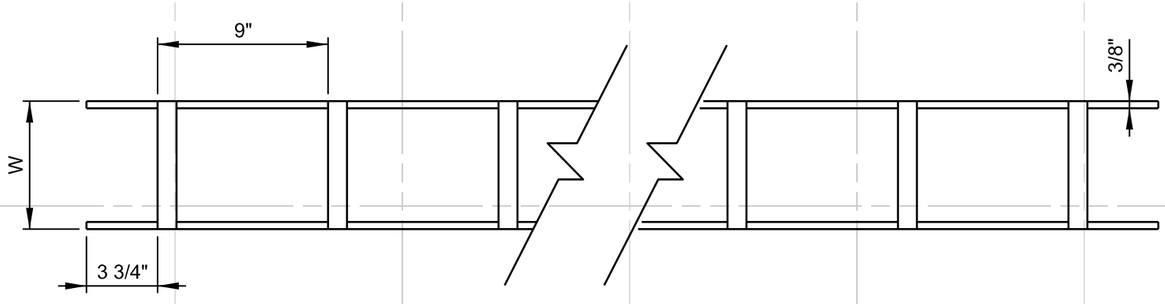


NOTE:
DIE CAST ZINC GASKETED ENCLOSURE FOR MAXIMUM WEATHERPROOFING WITH CADIUM SULPHIDE 1" DIAMETER HERMETICALLY SEALED CELL. MOUNTED ON 1/2" CONDUIT NIPPLE WITH DELAY TO PREVENT FALSE SWITCHING.

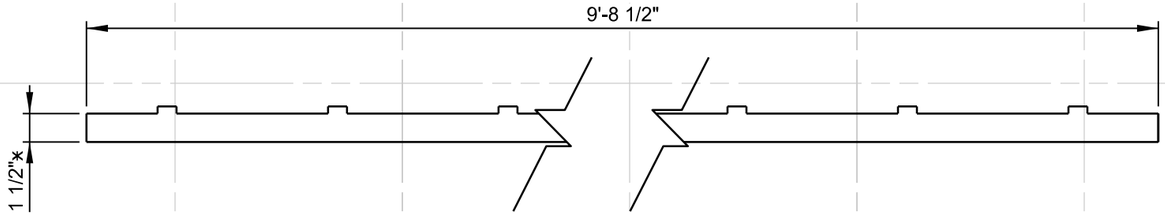
A1

DETAIL: PHOTOELECTRIC CONTROL

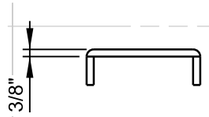
SCALE: NTS



TOP VIEW



SIDE VIEW



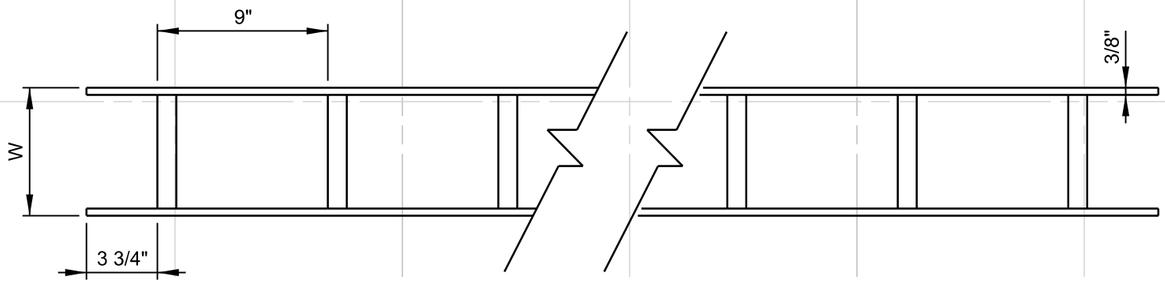
FRONT VIEW

OPTIONAL WIDTH		
5"	12"	24"
6"	15"	25"
9"	18"	27"
10"	20"	30"
11"	21"	36"

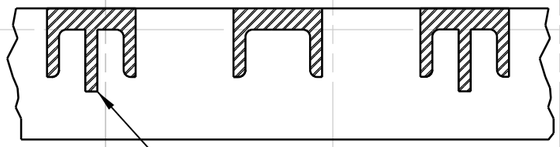
A1 DETAIL: BAR TYPE CABLE TRAY

SCALE: 1-1/2"=1'-0"

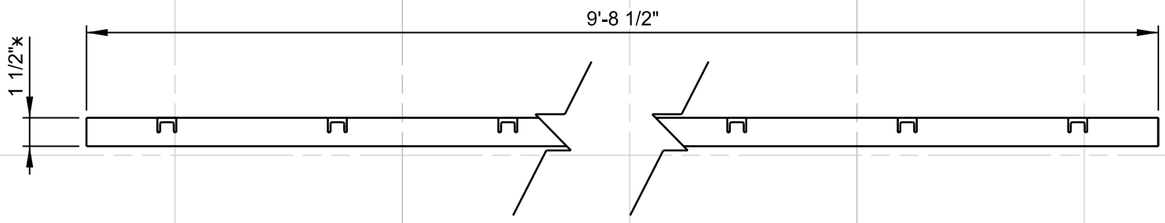
0 6" 1' 2'



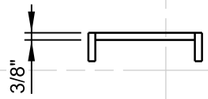
TOP VIEW



REINFORCEMENT ON
25", 27", 30" AND 36"
CABLE RACK



SIDE VIEW



FRONT VIEW

TABLE A - SOLID SIDE BAR		
OPTIONAL WIDTH		
5"	12"	24"
6"	15"	25"
9"	18"	27"
10"	20"	30"
11"	21"	36"

TABLE B - TUBULAR SIDE BAR		
OPTIONAL WIDTH		
5"	12"	24"
6"	15"	25"
9"	18"	27"
10"	20"	30"
11"	21"	36"

A1

DETAIL: CHANNEL TYPE CABLE TRAY

SCALE: 1-1/2"=1'-0"

0 6" 1' 2'

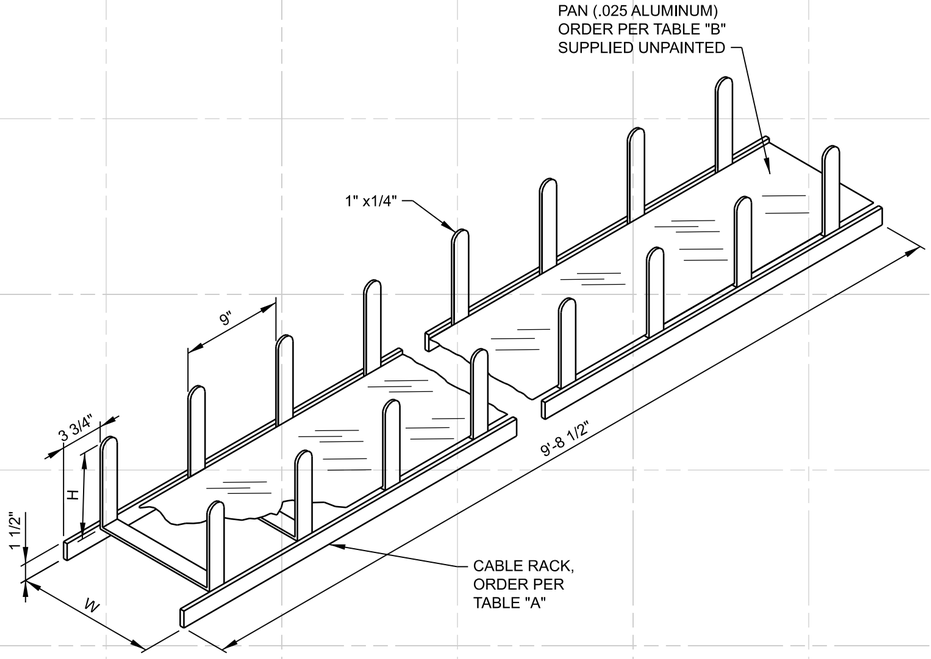
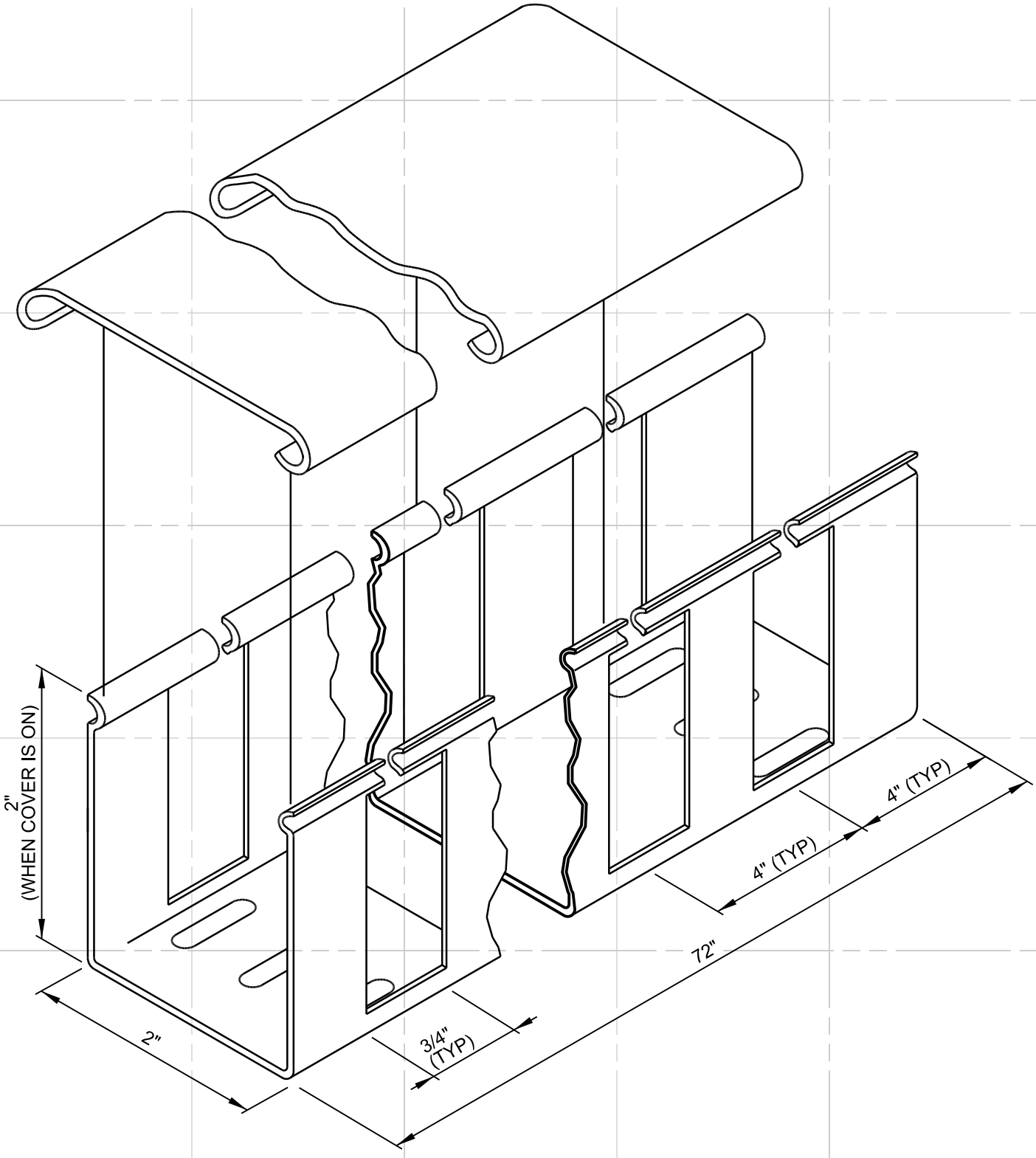


TABLE "A"	
OPTIONAL WIDTH	OPTIONAL HEIGHT
5"	5"
6"	5"
10"	8"
12"	8"
15"	8"
18"	8"
22"	8"
24"	8"
30"	8"
36"	8"

TABLE "B"
FOR CABLE RACK
5"
6"
10"
12"
15"
18"
22"
24"
30"
36"

A1 DETAIL: TROUGH TYPE CABLE TRAY

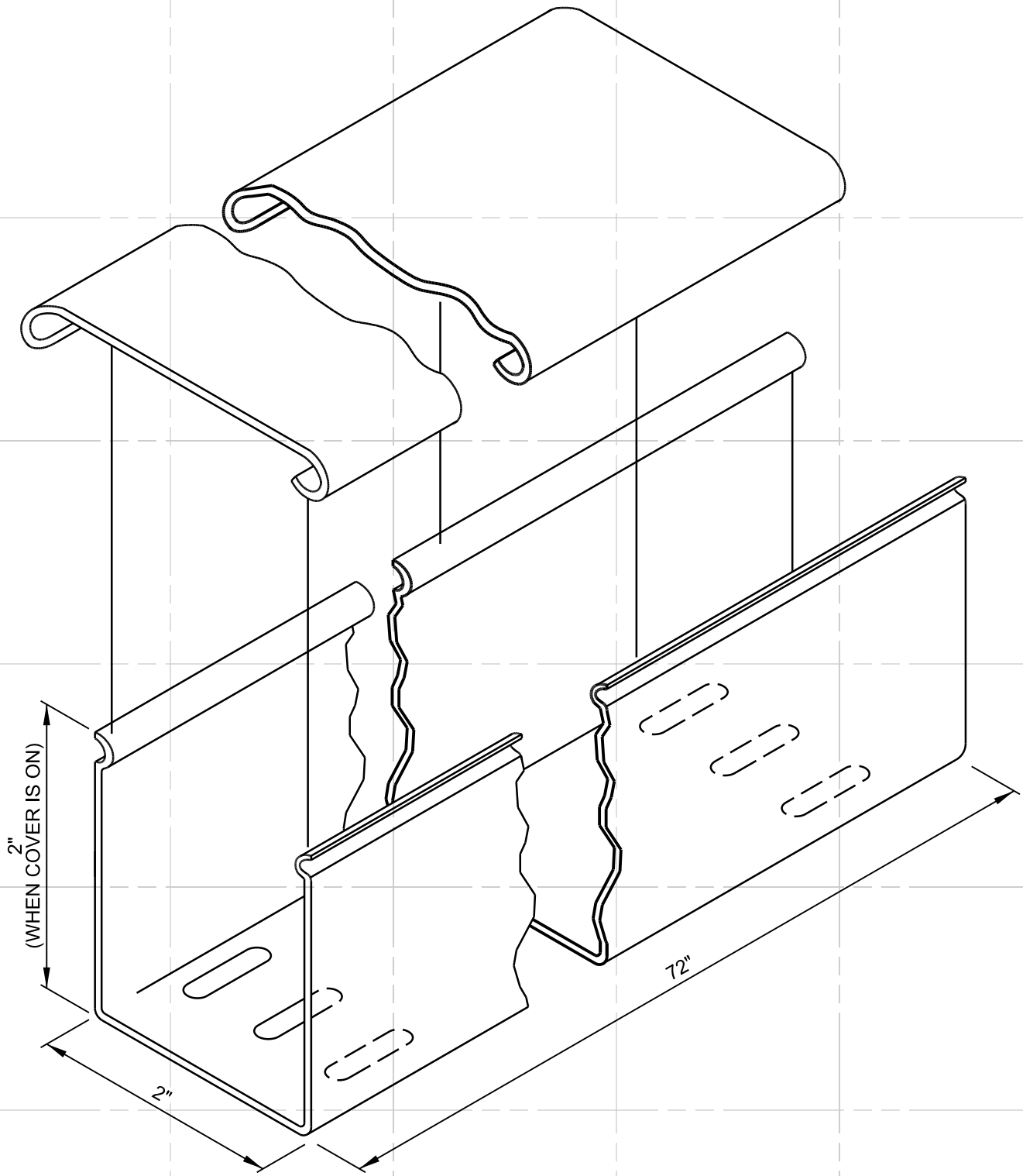
SCALE: NTS



A1

DETAIL: SLOTTED CHANNELING

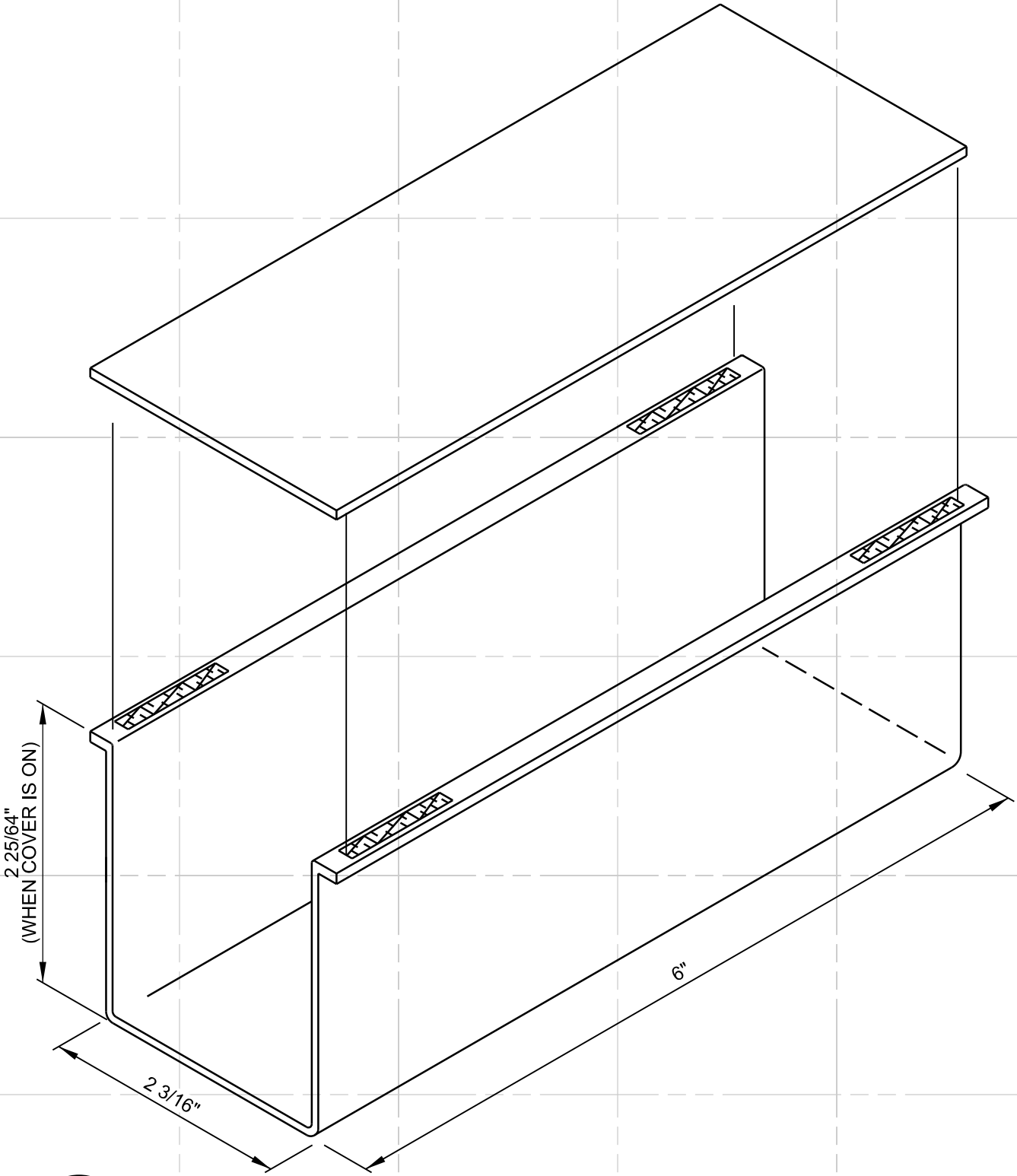
SCALE: NTS



A1

DETAIL: CLOSED CHANNELING

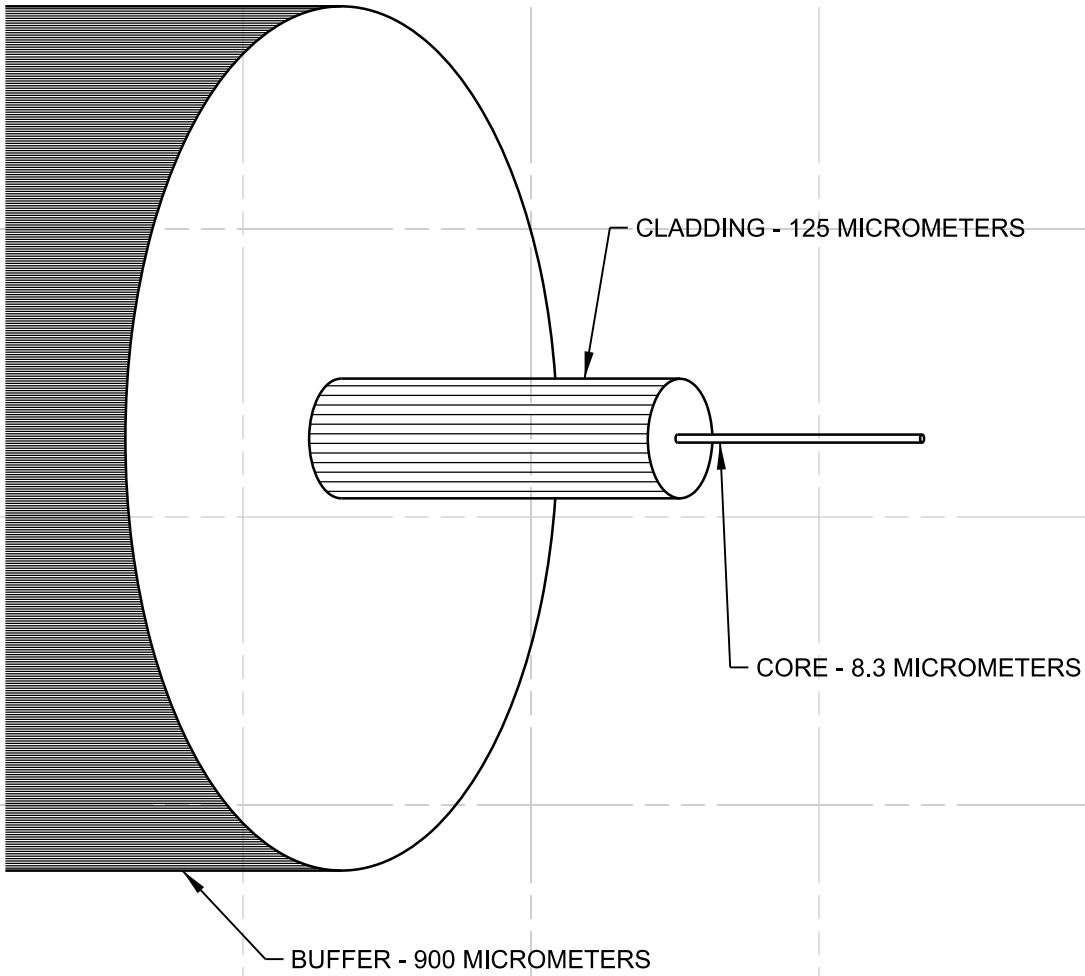
SCALE: NTS



A1

DETAIL: CHANNEL SPLICE

SCALE: NTS

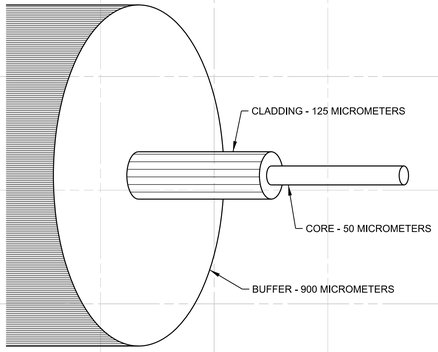


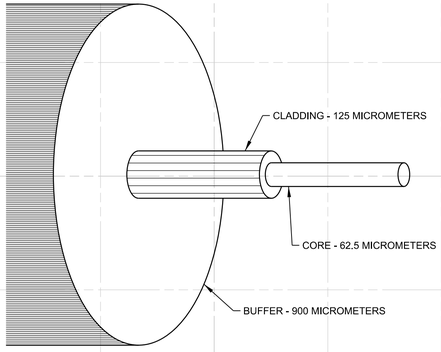
NOTE:
MINIMUM BEND RADIUS
LOADED - 5.0 cm
INSTALLED - 3.0 cm

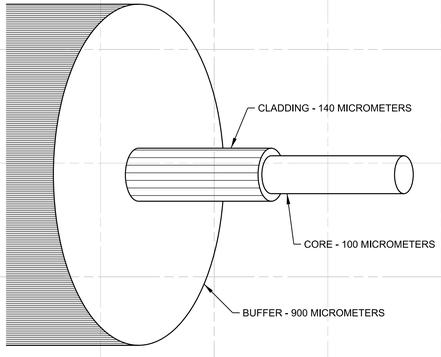
A1

DETAIL: SINGLE-MODE FIBER OPTIC

SCALE: NTS





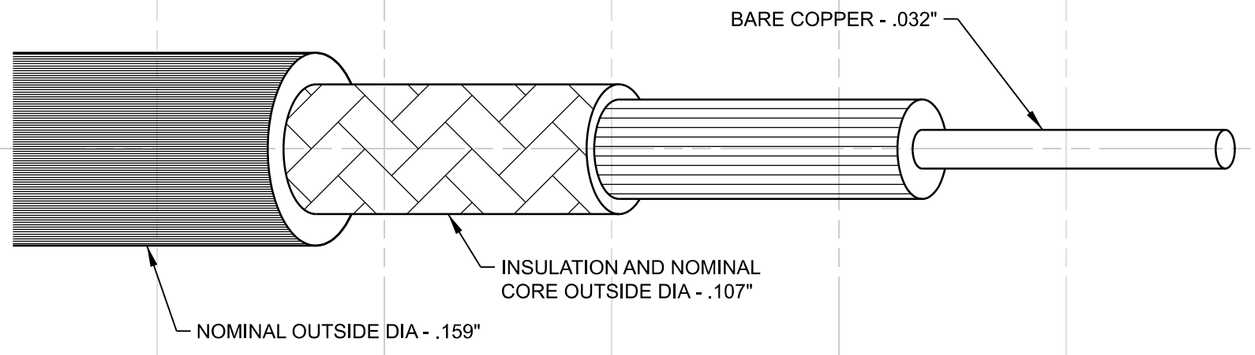


NOTE:
MINIMUM BEND RADIUS
LOADED - 5.0 CM
INSTALLED - 3.0 CM

A1

DETAIL: MULTI-MODE FIBER OPTIC

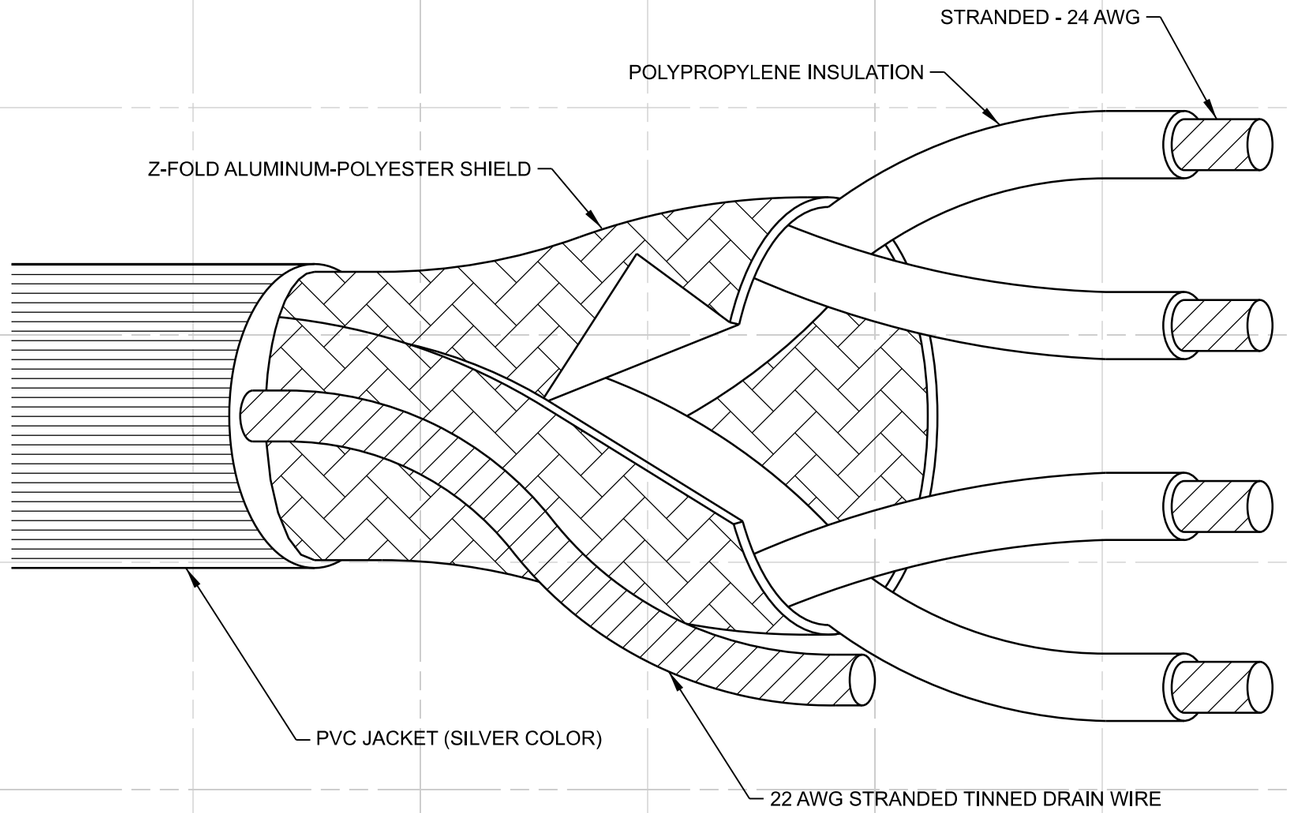
SCALE: NTS



A1

DETAIL: COAXIAL CABLE RG-58/U

SCALE: NTS

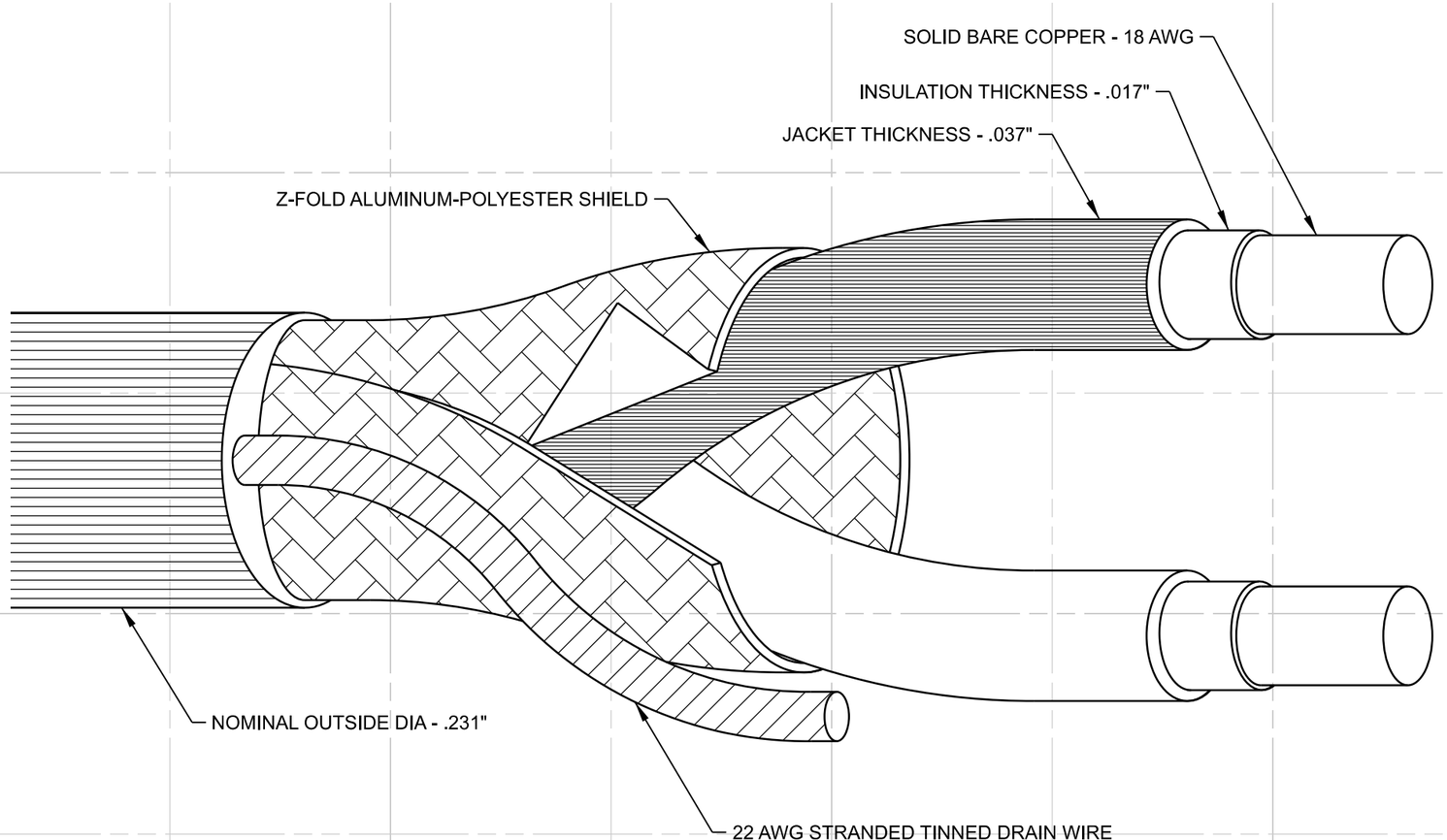


TYPE	NO. OF CONDUCTORS	WIRE ORDER
RJ-11	4	YELLOW, GREEN, RED, BLACK
RJ-12	6	BLUE, YELLOW, GREEN, RED, BLACK, WHITE
RJ-45	8	BROWN, BLUE, YELLOW, GREEN, RED, BLACK, ORANGE, GRAY

A1

DETAIL: SHIELDED TELEPHONE/STATION CABLE

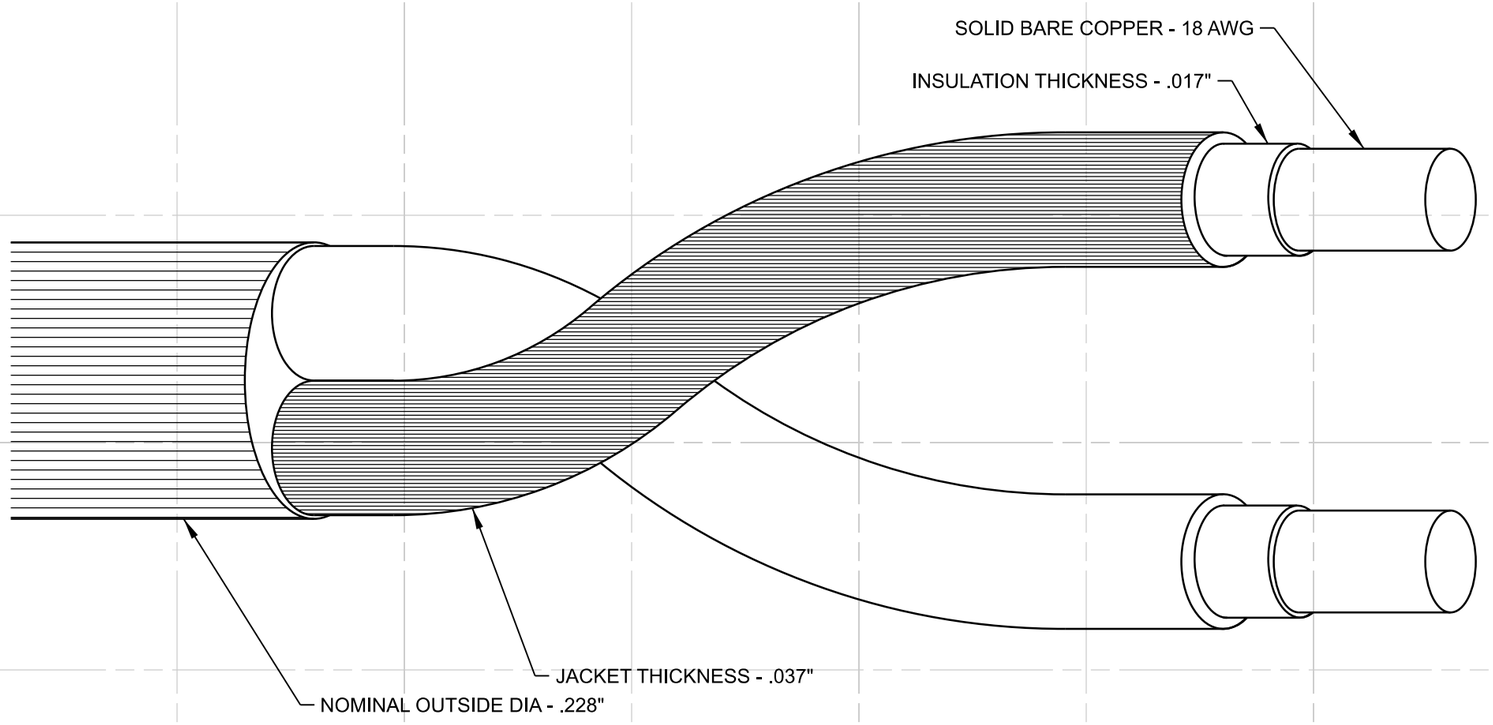
SCALE: NTS



A1

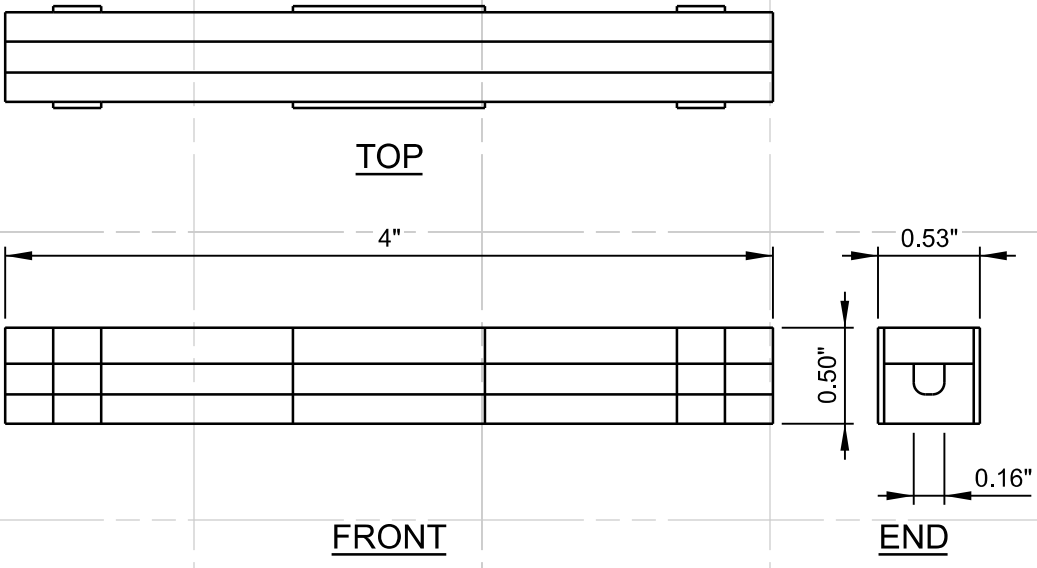
DETAIL: SHIELDED COPPER TWISTED PAIR

SCALE: NTS



A1 DETAIL: UNSHIELDED COPPER TWISTED PAIR

SCALE: NTS

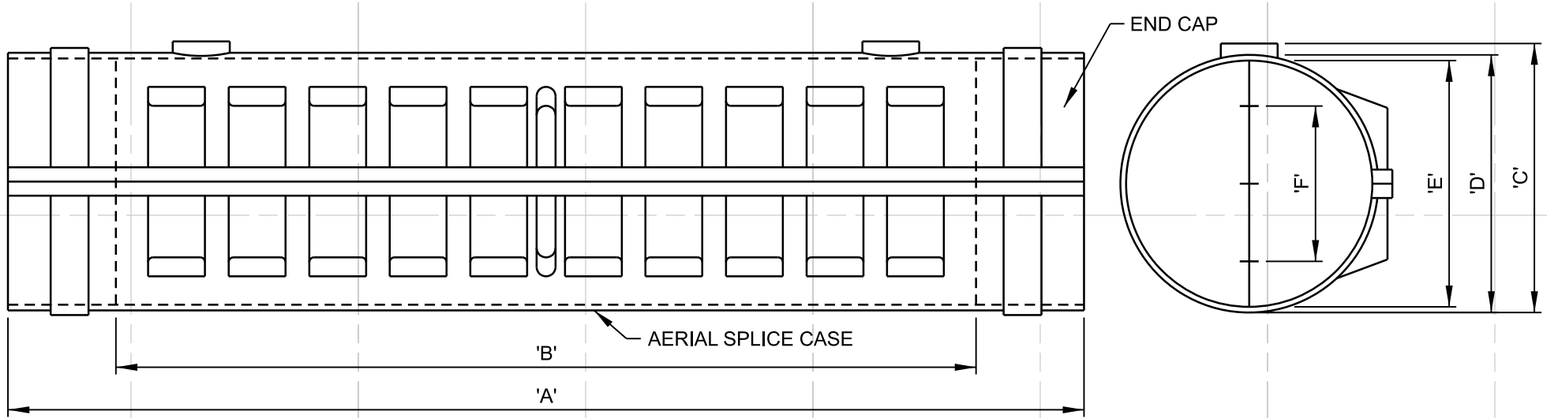


A1

DETAIL: FIBER OPTIC SPLICE HOUSING

SCALE: 1"=1" FULL SIZE

0 1/2" 1" 2"

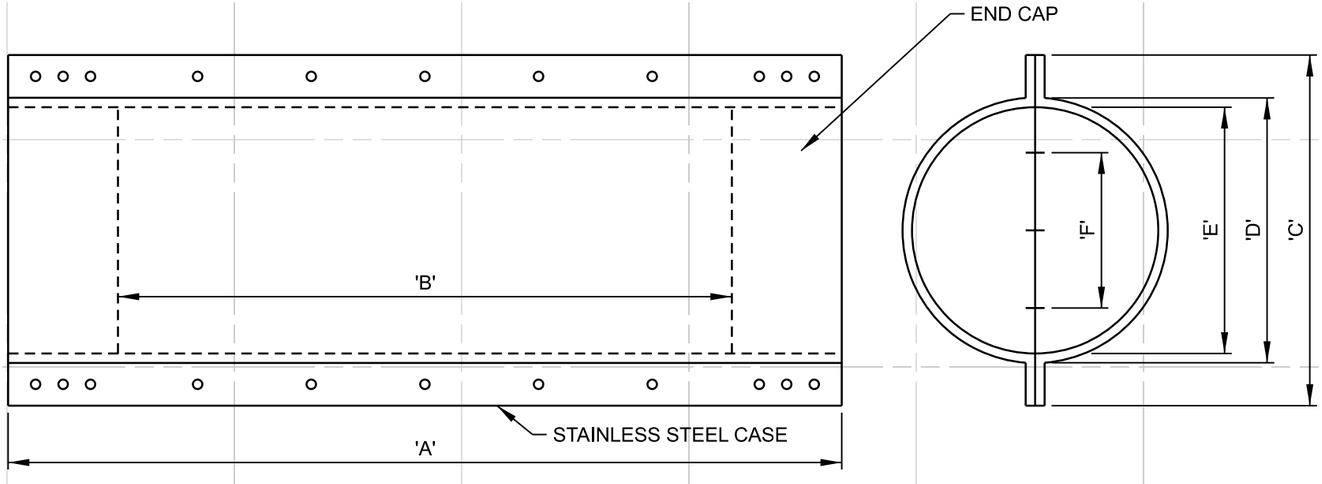


SPLICE CASE DIMENSION	'A'	'B'	'C'	'D'	'E'	'F'
3.0"x25.8'(7.62x65.53)	25.8"(65.53)	20.3"(51.56)	3.6"(9.14)	3.5"(8.89)	3.0"(7.62)	1.06"(2.69)
4.0"x25.8"(10.16x65.53)	25.8"(65.53)	20.3"(51.56)	4.6"(11.68)	4.4"(11.18)	4.0"(10.16)	2.2"(5.59)
6.5"x28.4"(16.51x72.14)	28.4"(72.14)	22.7"(56.66)	7.1"(18.03)	6.8"(17.27)	6.5"(16.51)	4.1"(10.41)
9.5"x28.4"(24.13x72.14	28.4"(72.14)	21.7"(55.12)	10.1"(25.65)	9.8"(24.89)	9.5"(24.13)	7.1"(18.03)
6.5"x38.5"(16.51x97.79)	38.5"(97.79)	32.8"(83.31)	7.1"(18.03)	6.8"(17.27)	6.5"(16.51)	4.1"(10.41)
9.5"x38.5"(24.13x97.79)	38.5"(97.79)	31.8"(80.77)	10.1"(25.65)	9.8"(24.89)	9.5"(24.13)	7.1"(18.03)

A1

DETAIL: AERIAL SPLICE CASE

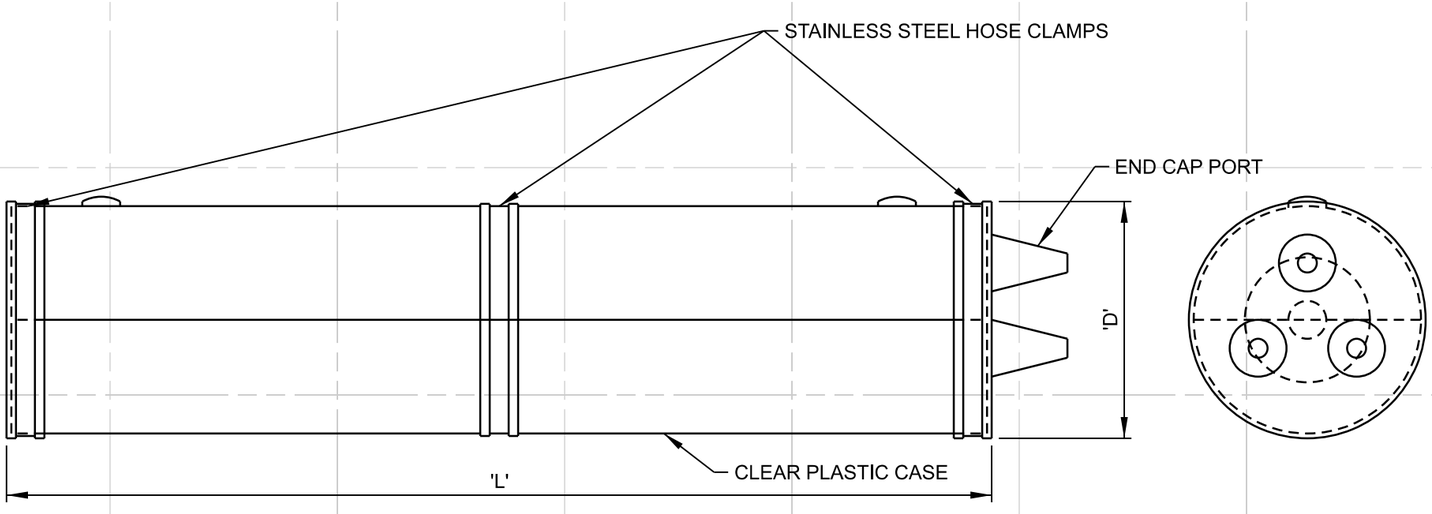
SCALE: NTS



SPLICE CASE DIMENSION	'A'	'B'	'C'	'D'	'E'	'F'
4.0"x25.8"(10.16x65.53)	25.8"(65.53)	20.3"(51.56)	6.0"(15.24)	4.5"(11.43)	4.0"(10.16)	2.2"(5.59)
6.5"x22.0"(16.51x55.88)	22.0"(55.88)	16.2"(41.15)	9.25"(23.50)	7.0"(17.78)	6.5"(16.51)	4.1"(10.41)
6.5"x28.4"(16.51x72.14)	28.4"(72.14)	22.7"(56.66)	9.25"(23.50)	7.0"(17.78)	6.5"(16.51)	4.1"(10.41)
8.0"x28.4"(20.32x72.14)	28.4"(72.14)	22.7"(56.66)	10.5"(26.67)	8.5"(21.59)	8.0"(20.32)	5.6"(14.22)
9.5"x28.4"(24.13x72.14)	28.4"(72.14)	21.6"(54.86)	12.5"(31.75)	10.0"(25.40)	9.5"(24.13)	7.1"(18.03)
12.5"x28.4"(31.75x72.14)	28.4"(72.14)	21.6"(54.86)	15.5"(39.37)	13.0"(33.02)	12.5"(31.75)	9.3"(23.62)
6.5"x38.4"(16.51x97.54)	38.4"(97.54)	32.7"(83.06)	9.25"(23.50)	7.0"(17.78)	6.5"(16.51)	4.1"(10.41)
8.0"x38.4"(20.32x97.54)	38.4"(97.54)	32.7"(83.06)	10.5"(26.67)	8.5"(21.59)	8.0"(20.32)	5.6"(14.22)
9.5"x38.4"(24.13x97.54)	38.4"(97.54)	31.6"(80.26)	12.5"(31.75)	10.0"(25.40)	9.5"(24.13)	7.1"(18.03)
12.5"x38.4"(31.75x97.54)	38.4"(97.54)	31.6"(80.26)	15.5"(39.37)	13.0"(33.02)	12.5"(31.75)	9.3"(23.62)
8.0"x45.2"(20.32x114.81)	45.2"(114.81)	39.7"(100.84)	10.5"(26.67)	8.5"(21.59)	8.0"(20.32)	5.6"(14.22)
9.5"x45.2"(24.13x114.81)	45.2"(114.81)	38.6"(98.04)	12.5"(31.75)	10.0"(25.40)	9.5"(24.13)	7.1"(18.03)
12.5"x45.2"(31.75x114.81)	45.2"(114.81)	38.6"(98.04)	15.5"(39.37)	13.0"(33.02)	12.5"(31.75)	9.3"(23.62)
12.5"x65"(31.75x165.10)	65"(165.10)	58.4"(148.34)	15.5"(39.37)	13.0"(33.02)	12.5"(31.75)	9.3"(23.62)

A1 DETAIL: STAINLESS STEEL SPLICE CASE

SCALE: NTS

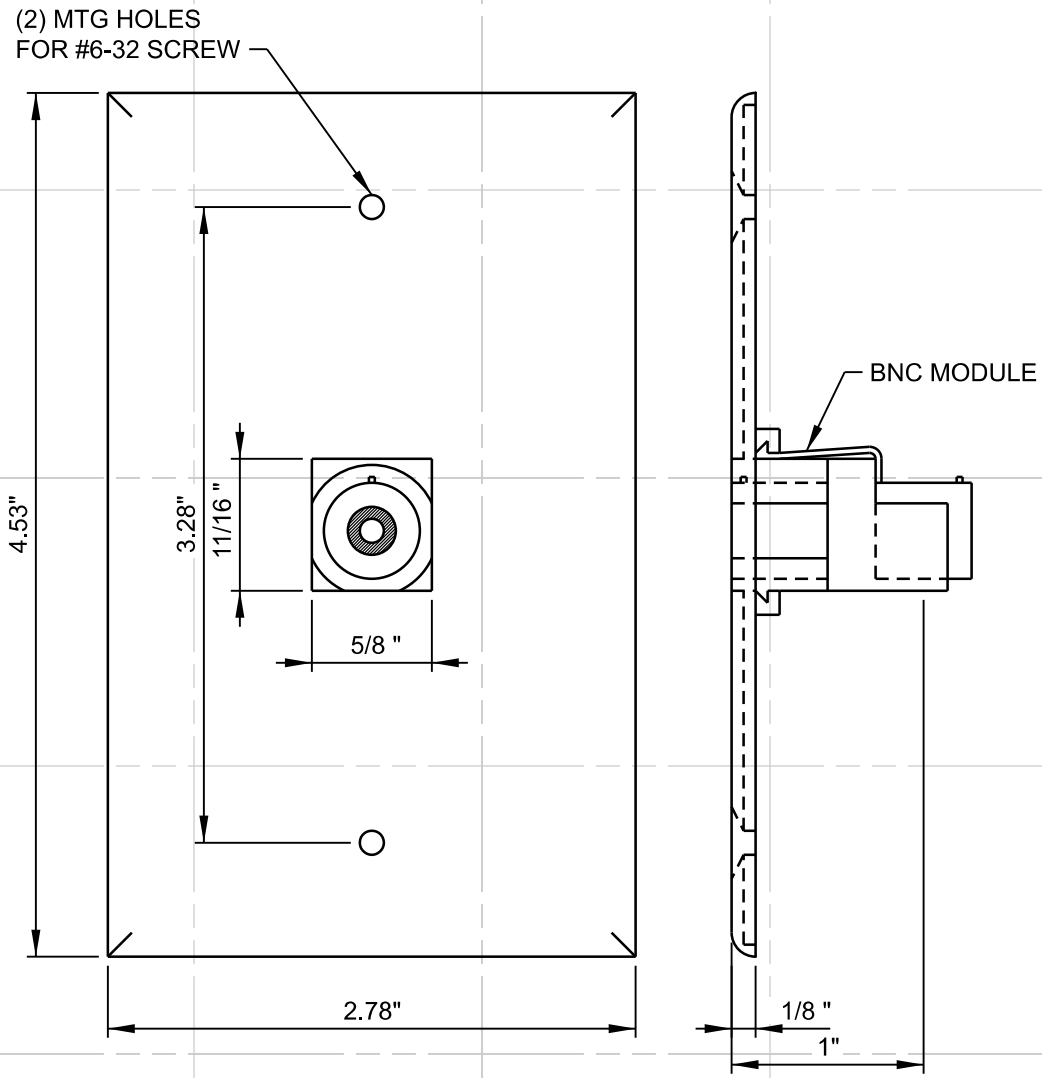


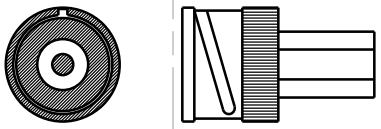
SPLICE SIZE (D X L)		END CAP PORT DIAMETERS								MAXIMUM SPLICE OPENINGS SINGLE SHEATH	
		SINGLE ENTRY MAX DIA		MULTIPLE ENTRY MAX DIA							
				1		2		3			
INCHES	MILLIMETERS	IN.	MM	IN.	MM	IN.	MM	IN.	MM	IN.	MM
2" x 12"	50 x 305 mm	1.2	30	1.0	25	1.0	25	-	-	5	125
2" x 24"	50 x 610 mm	1.2	30	1.2	30	0.7	18	-	-	17	430
3" x 24"	75 x 610 mm	1.6	41	1.6	41	1.0	25	-	-	17	430
4" x 24"	100 x 610 mm	2.0	51	2.0	51	1.5	38	-	-	17	430
5" x 26"	125 x 660 mm	2.4	61	2.4	61	1.8	46	-	-	19	480
6" x 26"	150 x 660 mm	3.3	84	2.7	68	2.0	50	1.5	40	19	480
7" x 26"	175 x 660 mm	3.6	92	3.1	78	2.4	60	2.0	50	19	480
9" x 26"	225 x 660 mm	3.8	97	3.8	97	3.1	78	2.4	60	19	480

A1

DETAIL: CLEAR PLASTIC SPLICE CASE

SCALE: NTS





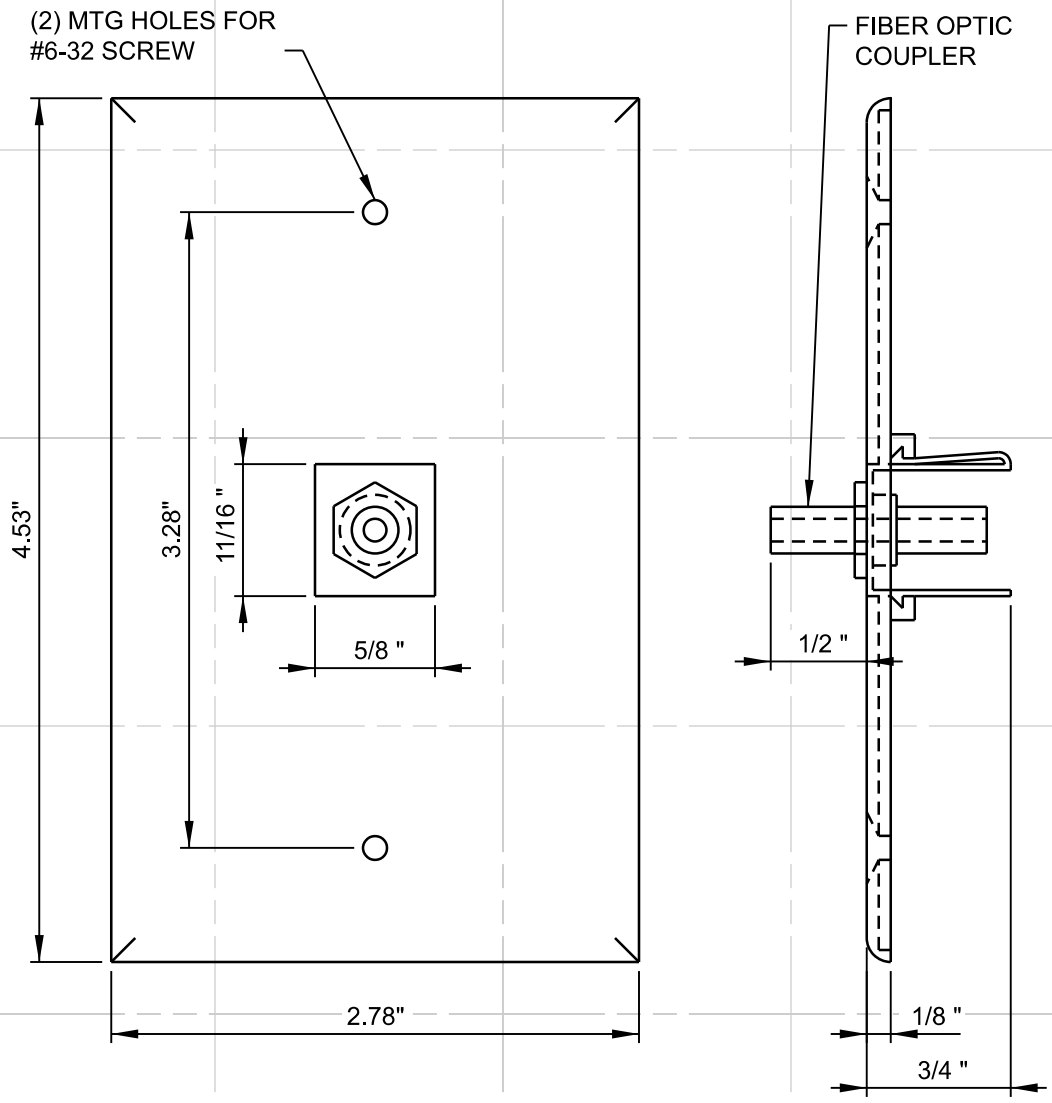
BNC CONNECTOR

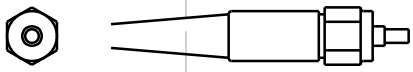
A1

DETAIL: BNC WALL PLATE JACK AND CONNECTOR

SCALE: 1"=1" FULL SIZE

0 1/2" 1" 2"



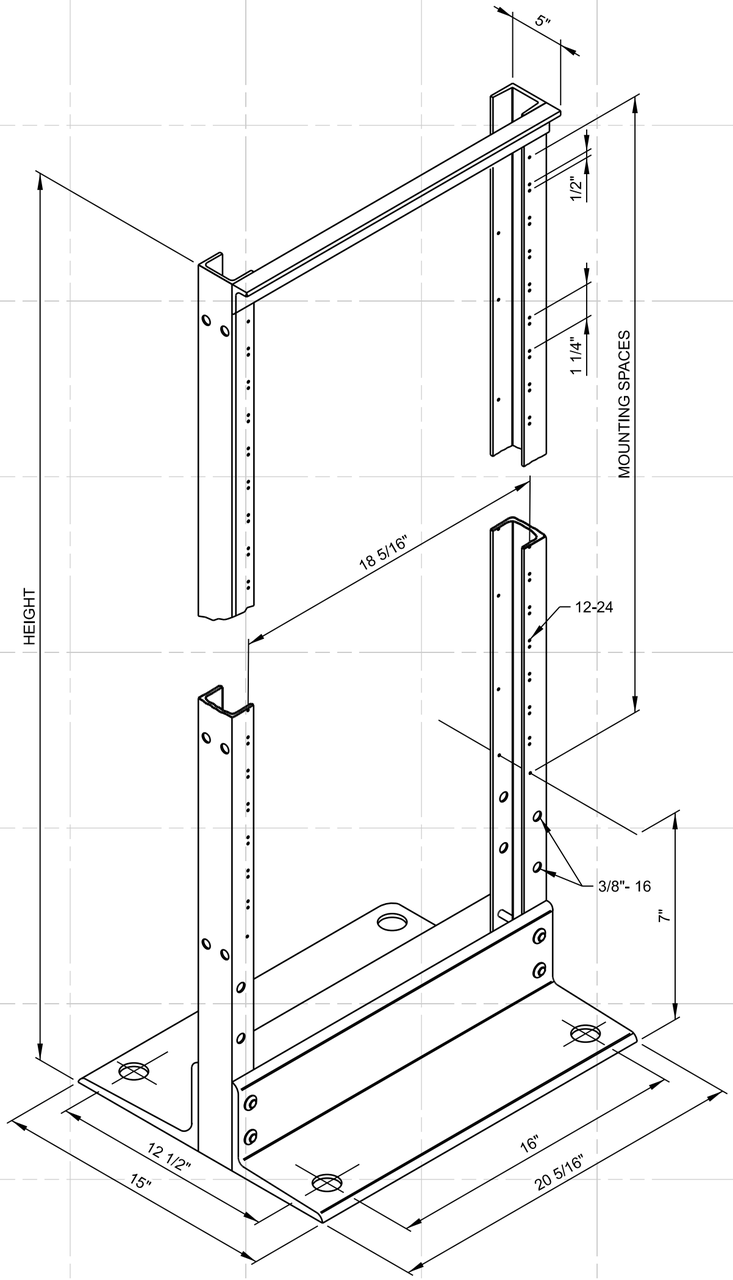


FIBER OPTIC CONNECTOR

A1 DETAIL: FIBER OPTIC WALL PLATE JACK AND CONNECTOR

SCALE: 1"=1" FULL SIZE

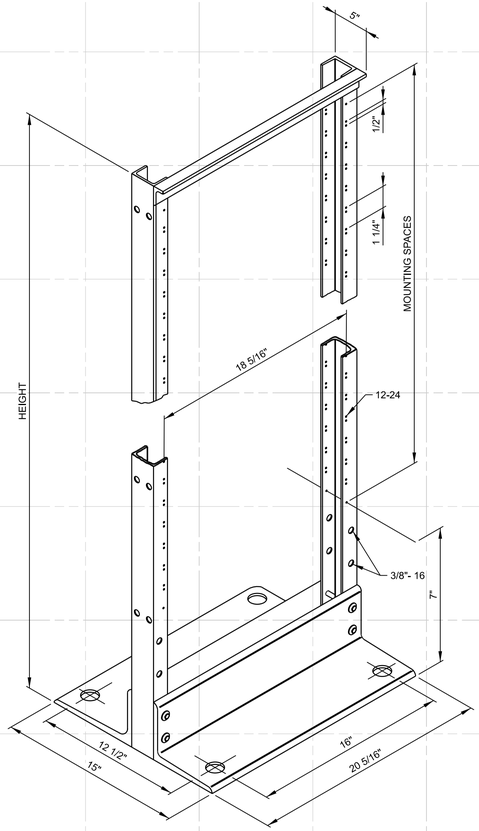
0 1/2" 1" 2"



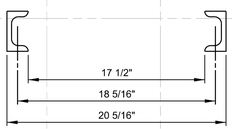
FASTENERS SUPPLIED	
DESCRIPTION	
5/16"-18 x 4 1/2"	H.H.C.S.
5/16"-18 x 1"	F.H.M.S.
5/16"-18	HEX NUT
5/16"	FLATWASHER
5/16"	LOCKWASHER

A1 DETAIL: SINGLE SIDED EQUIPMENT RACK

SCALE: NTS



FASTENERS SUPPLIED	
DESCRIPTION	
5/16"-18 x 4 1/2"	H.H.C.S.
5/16"-18 x 1"	F.H.M.S.
5/16"-18	HEX NUT
5/16"	FLATWASHER
5/16"	LOCKWASHER



BOLTED EQUIPMENT RACK WITH CHANNEL UPRIGHT DOUBLE SIDE DRILLED, FLOOR SUPPORTED STEEL AND ALUMINUM

TABLE "A" (STEEL)	
HEIGHT	MOUNTINGS FRONT AND REAR
7'-0"	42
7'-6"	46
8'-0"	49
9'-0"	56
11'-6"	73
11'-8"	74

TABLE "B" (ALUMINUM)	
HEIGHT	MOUNTINGS FRONT AND REAR
7'-0"	42
7'-6"	46
8'-0"	49
9'-0"	56
11'-6"	73
11'-8"	74

A1 DETAIL: DOUBLE SIDED EQUIPMENT RACK

SCALE: NTS

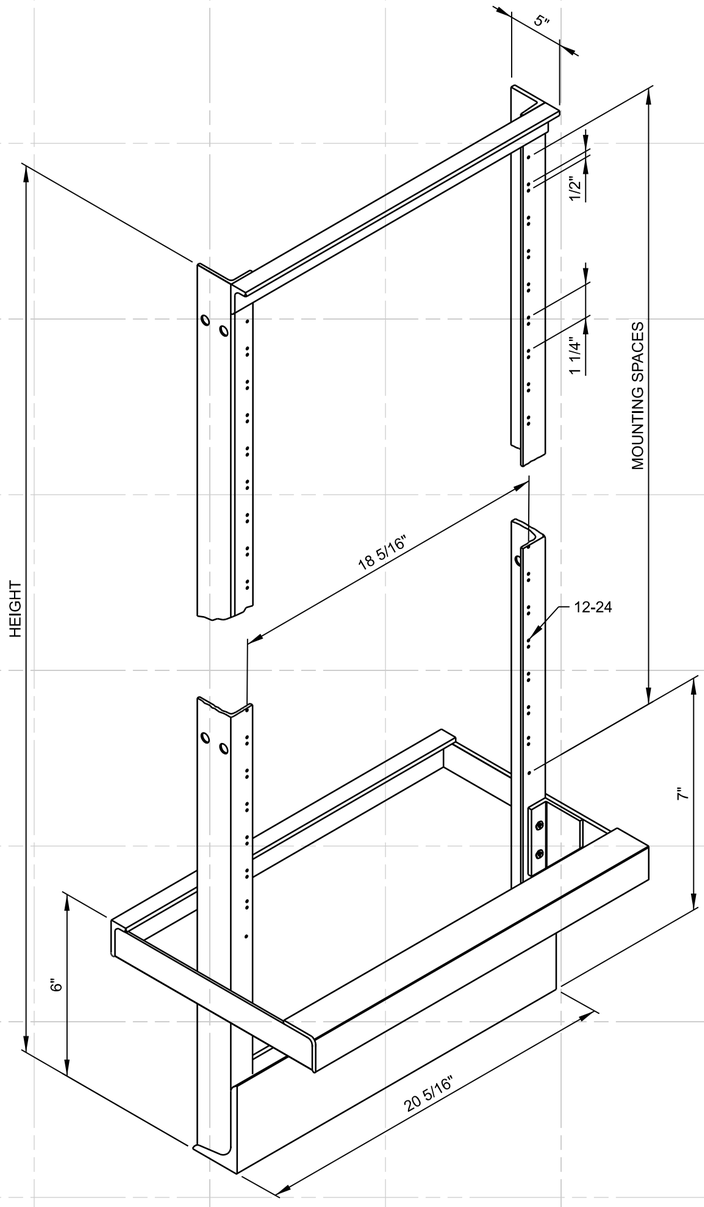
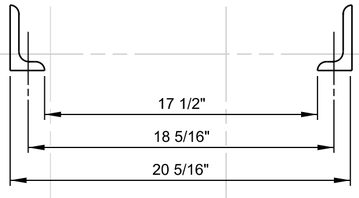


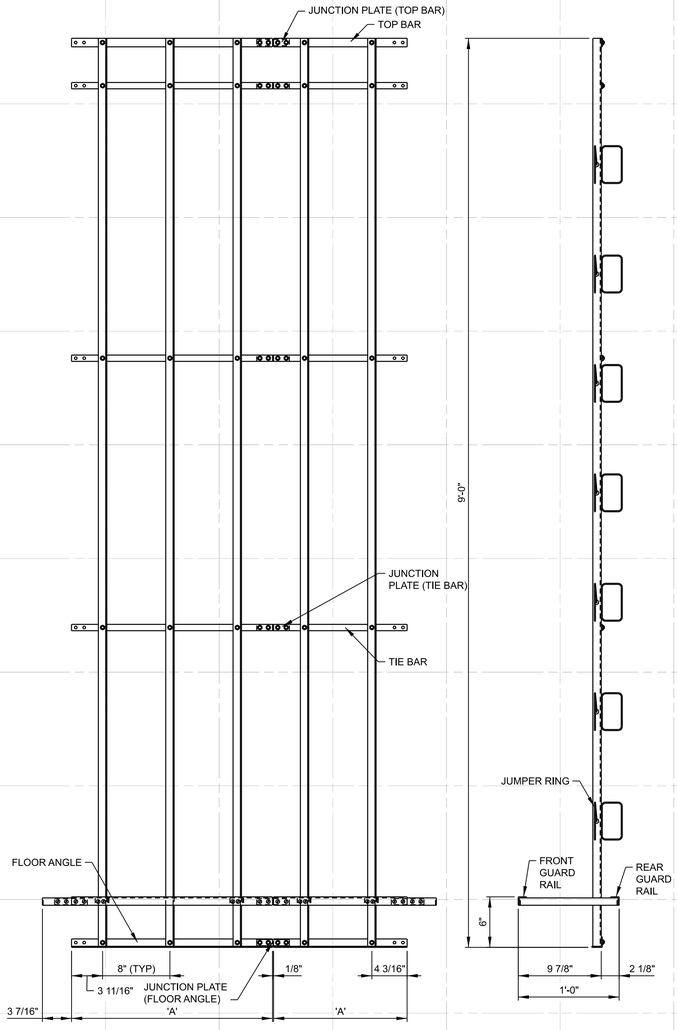
TABLE "A"	
HEIGHT	MOUNTINGS
7'-0"	42
7'-6"	46
8'-0"	49
9'-0"	56
11'-6"	73
11'-8"	74



WELDED RELAY RACK
WITH ANGLE UPRIGHTS

A1 DETAIL: RELAY RACKS

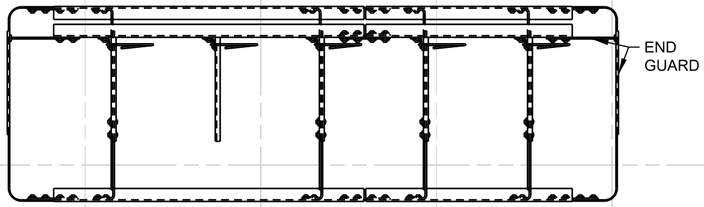
SCALE: NTS



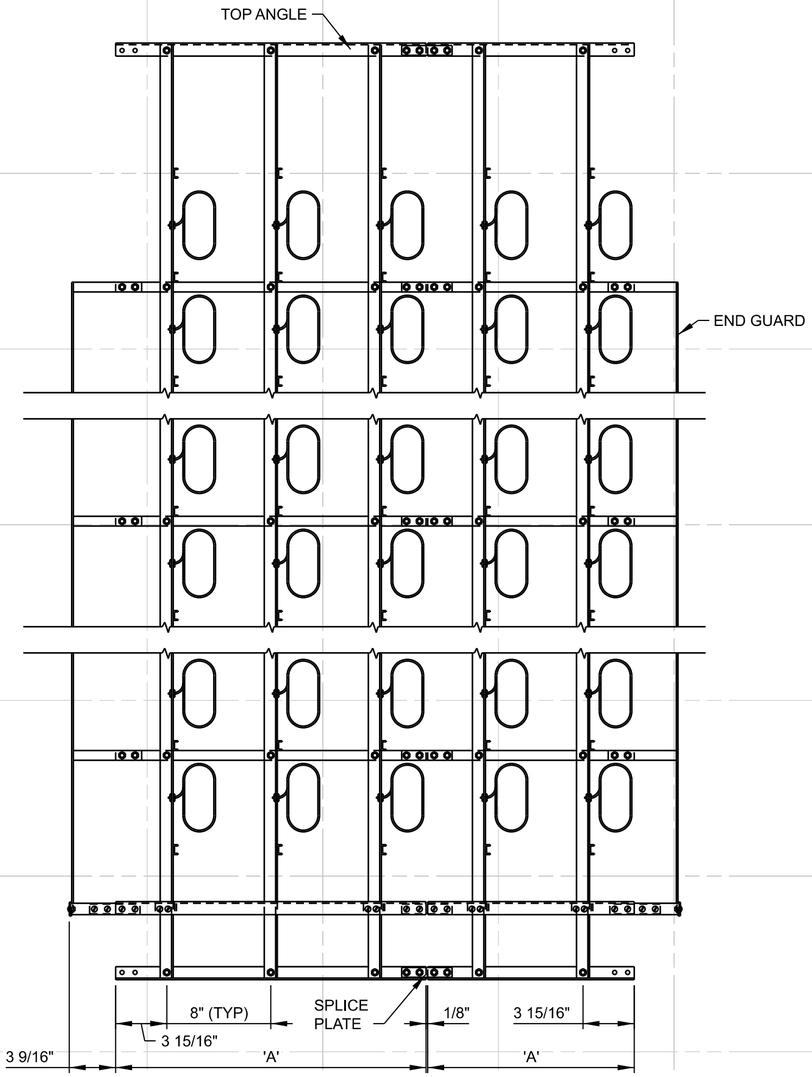
DIM. 'A'	NUMBER OF VERT.	DIM. 'A'	NUMBER OF VERT.
7 7/8"	1	47 7/8"	6
15 7/8"	2	55 7/8"	7
23 7/8"	3	63 7/8"	8
31 7/8"	4	71 7/8"	9
39 7/8"	5	79 7/8"	10

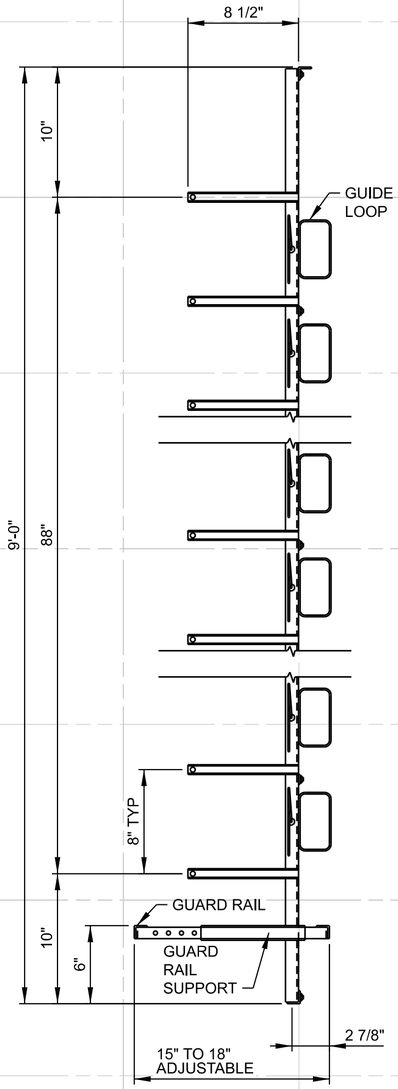
A1 DETAIL: INTERMEDIATE DISTRIBUTING FRAME

SCALE: NTS



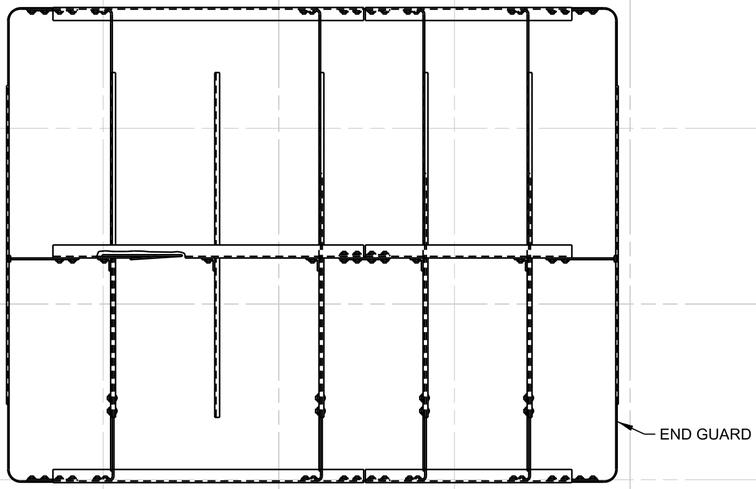
DIM. 'A'	NUMBER OF VERT.	DIM. 'A'	NUMBER OF VERT.
7 7/8"	1	47 7/8"	6
15 7/8"	2	55 7/8"	7
23 7/8"	3	63 7/8"	8
31 7/8"	4	71 7/8"	9
39 7/8"	5	79 7/8"	10



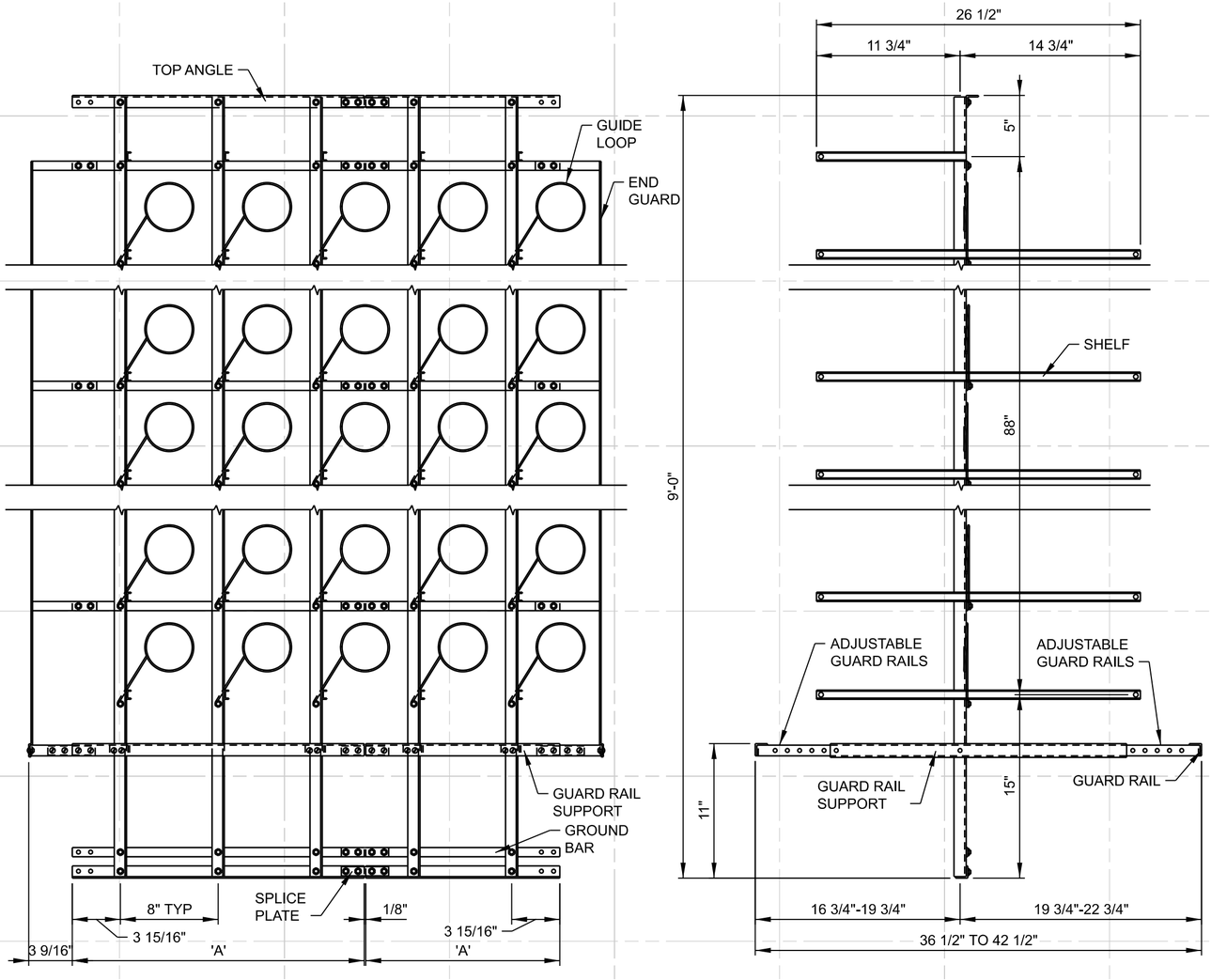


A1 DETAIL: UNIVERSAL DISTRIBUTING FRAME (SINGLE SIDED)

SCALE: NTS



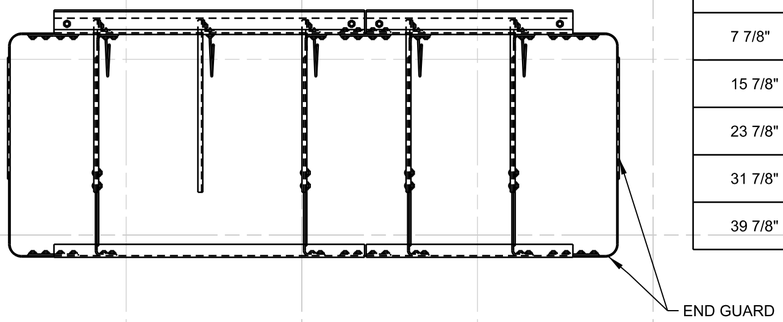
DIM. 'A'	NUMBER OF VERT.	DIM. 'A'	NUMBER OF VERT.
7 7/8"	1	47 7/8"	6
15 7/8"	2	55 7/8"	7
23 7/8"	3	63 7/8"	8
31 7/8"	4	71 7/8"	9
39 7/8"	5	79 7/8"	10



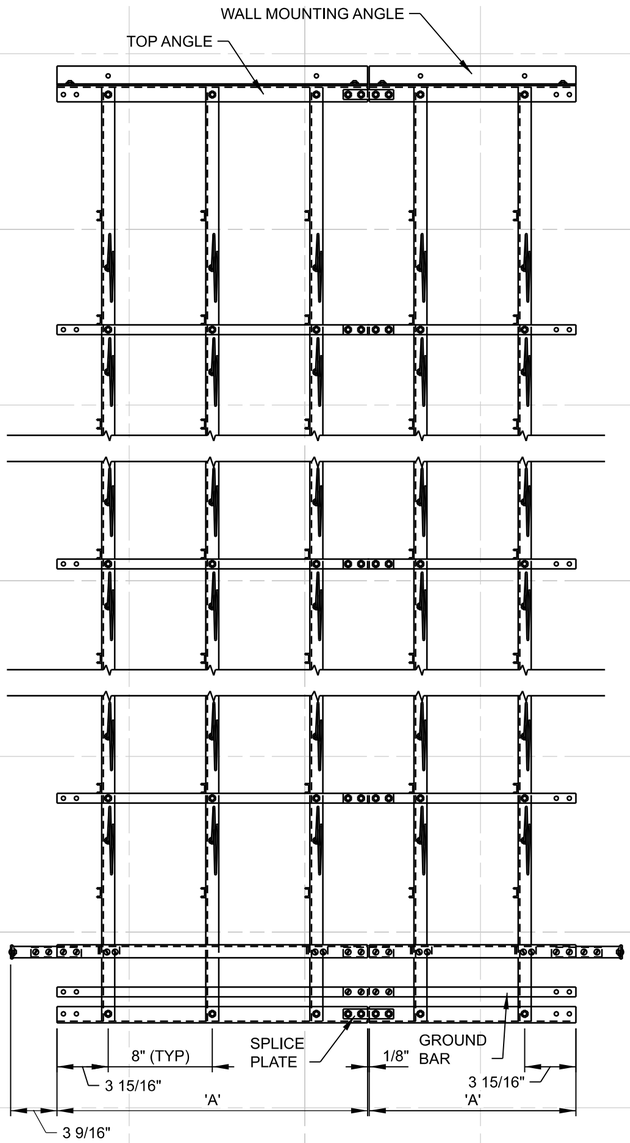
A1

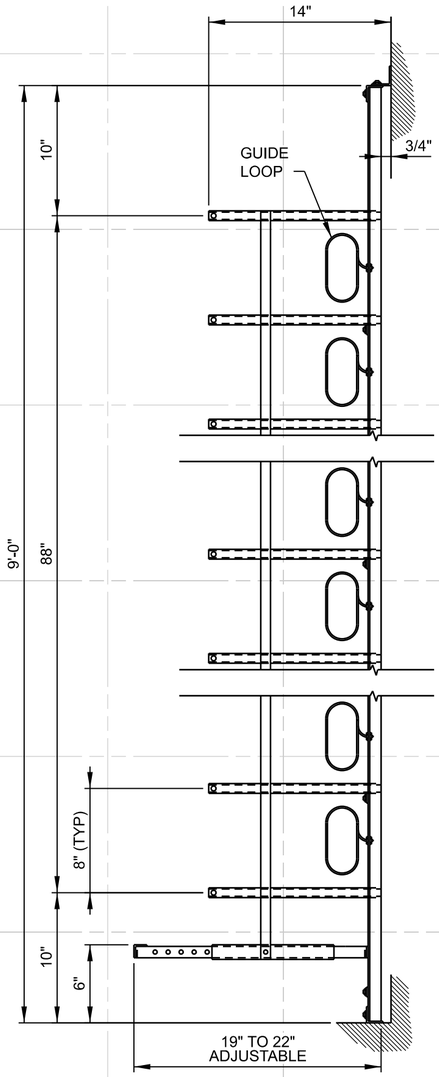
DETAIL: UNIVERSAL DISTRIBUTING FRAME (DOUBLE SIDED)

SCALE: NTS



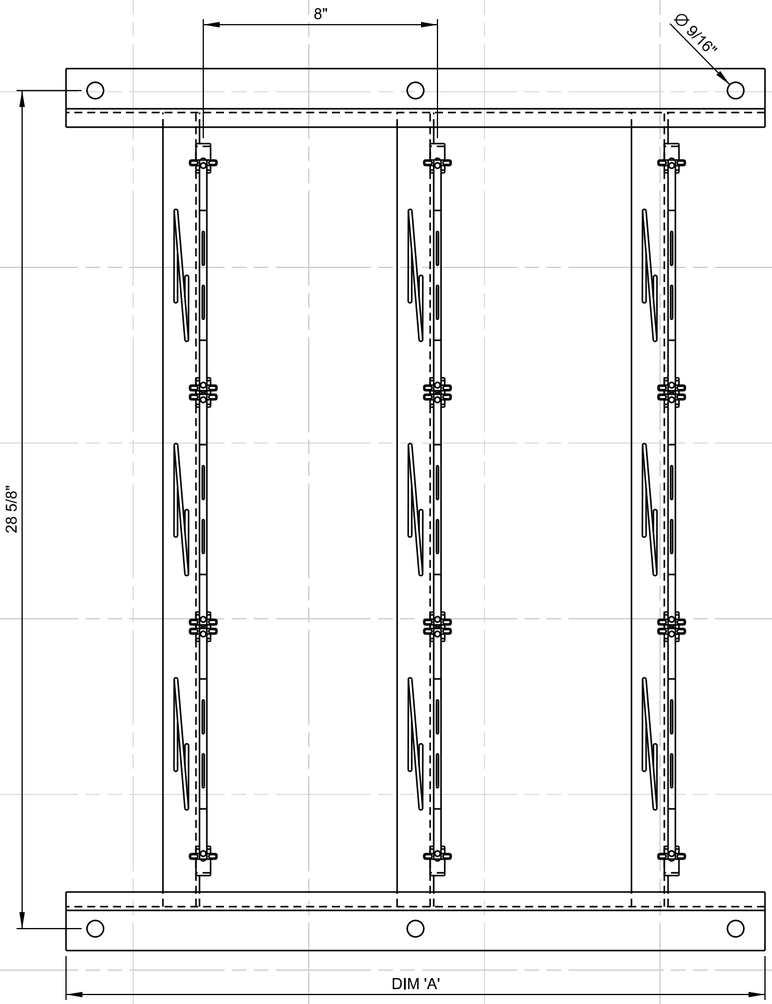
DIM. 'A'	NUMBER OF VERT.	DIM. 'A'	NUMBER OF VERT.
7 7/8"	1	47 7/8"	6
15 7/8"	2	55 7/8"	7
23 7/8"	3	63 7/8"	8
31 7/8"	4	71 7/8"	9
39 7/8"	5	79 7/8"	10

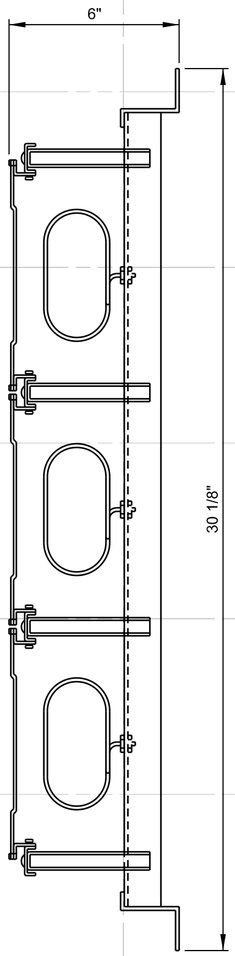




A1 DETAIL: UNIVERSAL DISTRIBUTING FRAME (FLOOR WALL)

SCALE: NTS



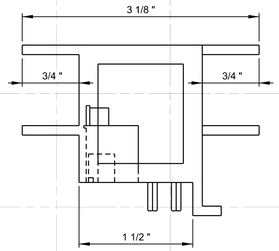


DIM 'A'	NUMBER OF VERT
7 7/8"	1
15 7/8"	2
23 7/8"	3

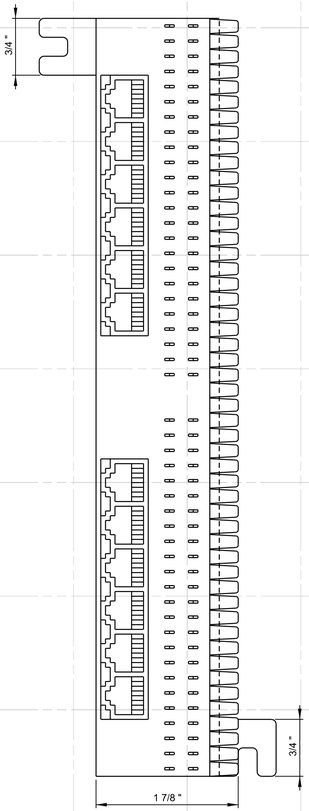
A1 DETAIL: WALL FRAME

SCALE: 3"=1'-0"

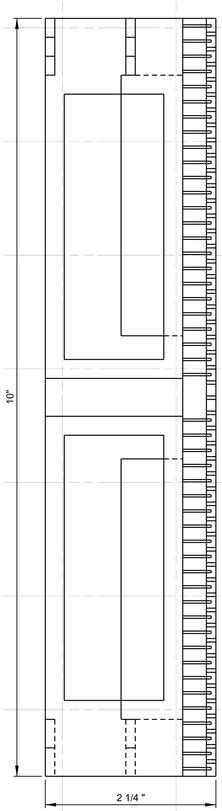
0 3" 6" 1'



TOP



FRONT

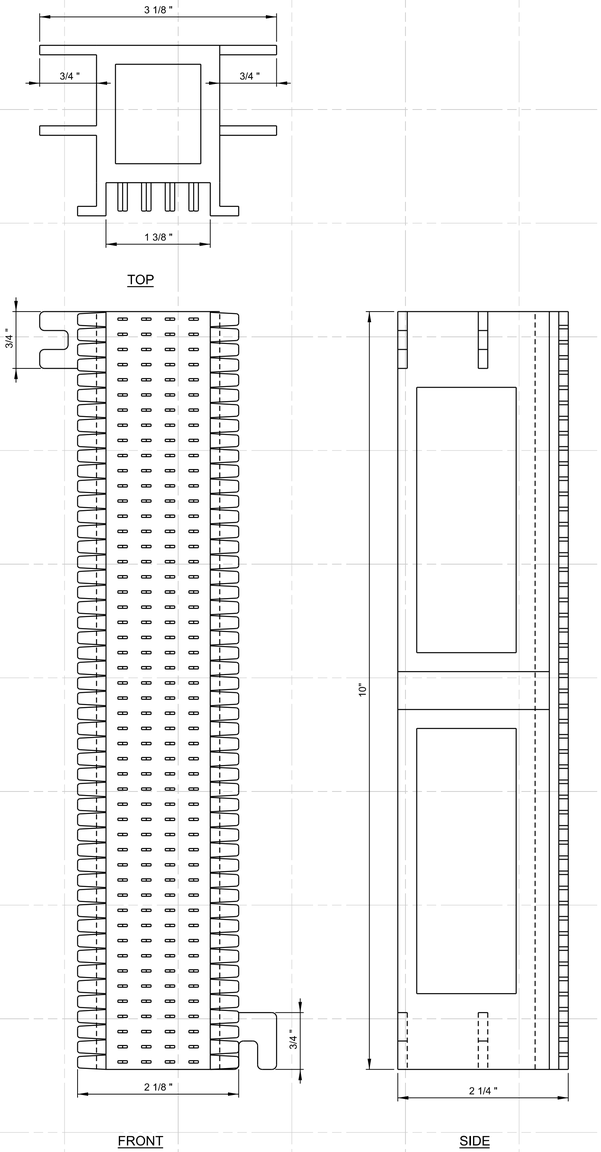


SIDE

A1 DETAIL: PRE-WIRED 66 BLOCK TO MODULAR JACK

SCALE: 1"=1" FULL SIZE

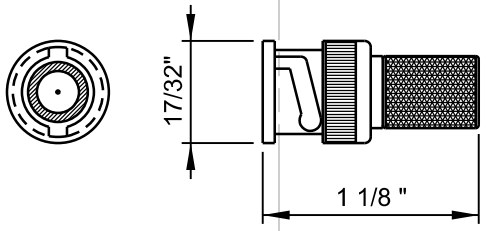
0 1/2" 1" 2"



A1 DETAIL: 66 BLOCK

SCALE: 1"=1" FULL SIZE

0 1/2" 1" 2"

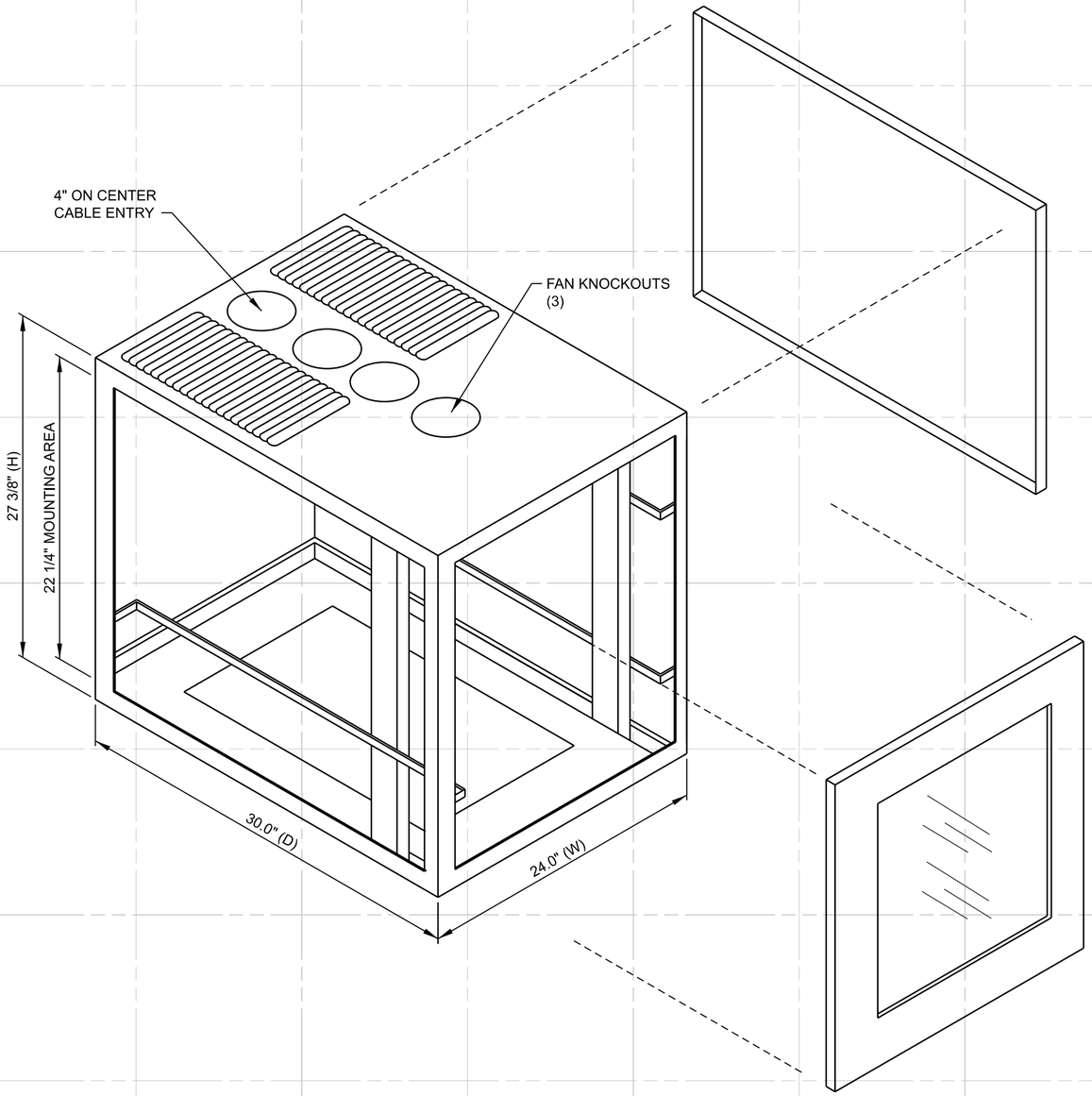


A1

DETAIL: BNC TERMINATOR

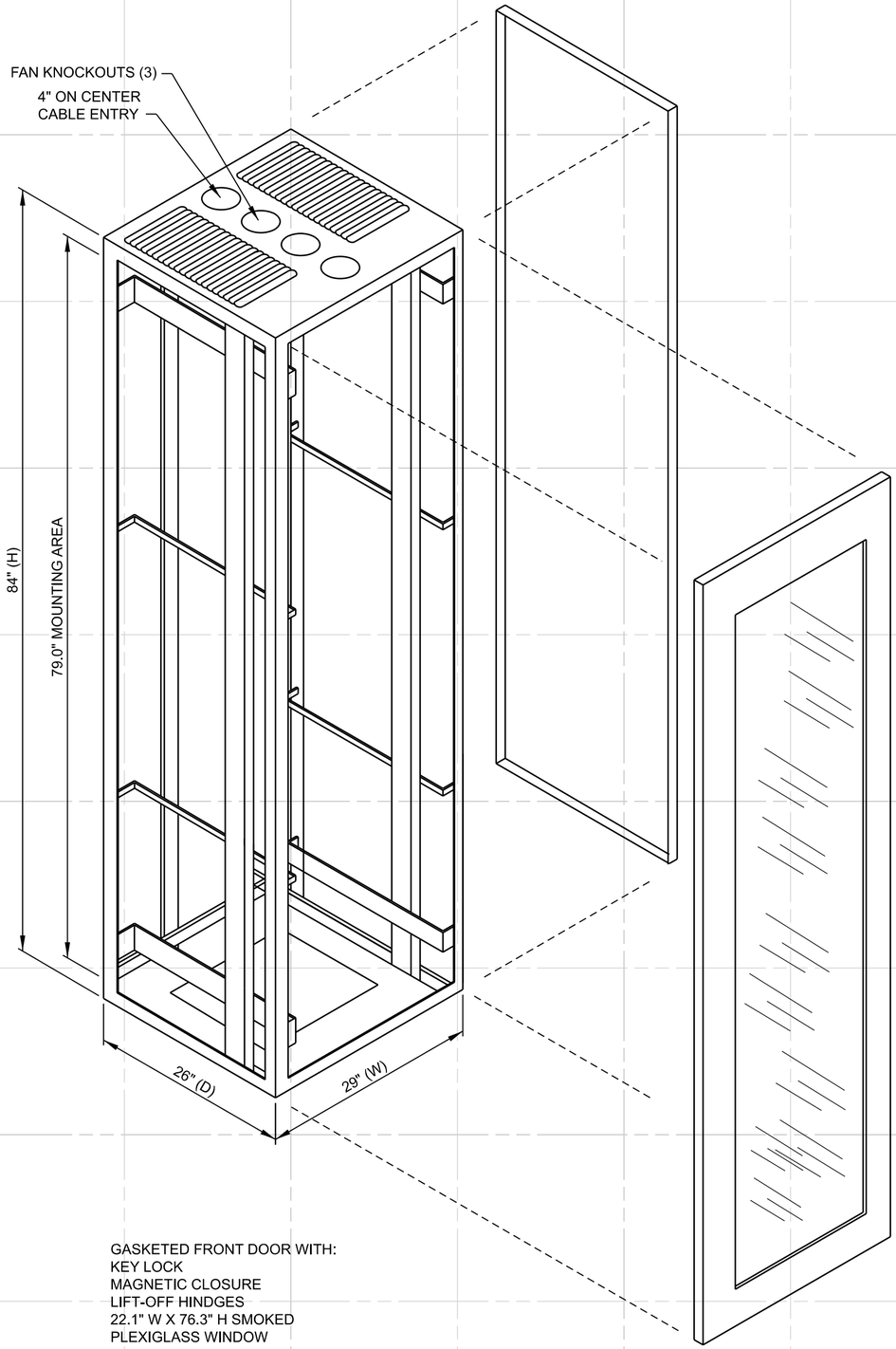
SCALE: 1"=1" FULL SIZE

0 1/2" 1" 2"



A1 DETAIL: TELCOM STANDARD LIGHT CABINET

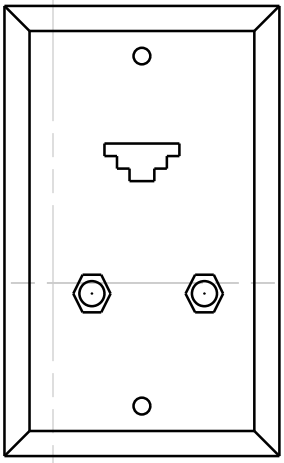
SCALE: NTS



GASKETED FRONT DOOR WITH:
KEY LOCK
MAGNETIC CLOSURE
LIFT-OFF HINDGES
22.1" W X 76.3" H SMOKED
PLEXIGLASS WINDOW

A1 DETAIL: TELCOM STANDARD HEAVY CABINET

SCALE: NTS

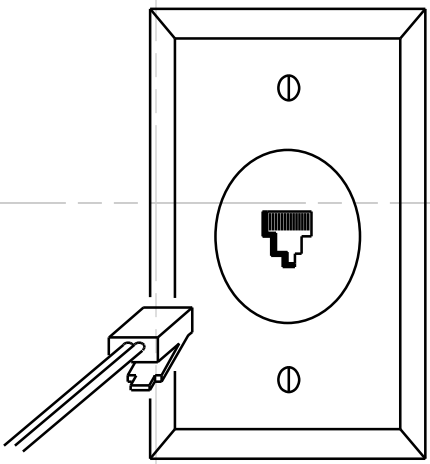


NOTES:
1. RJ45 USING 4-PAIR TWISTED COPPER HOUSE CABLE
2. FIBER OPTIC CONNECTORS TYPE DETERMINED BY USER REQUIREMENTS

A1

DETAIL: WIRE FIBER OUTLET

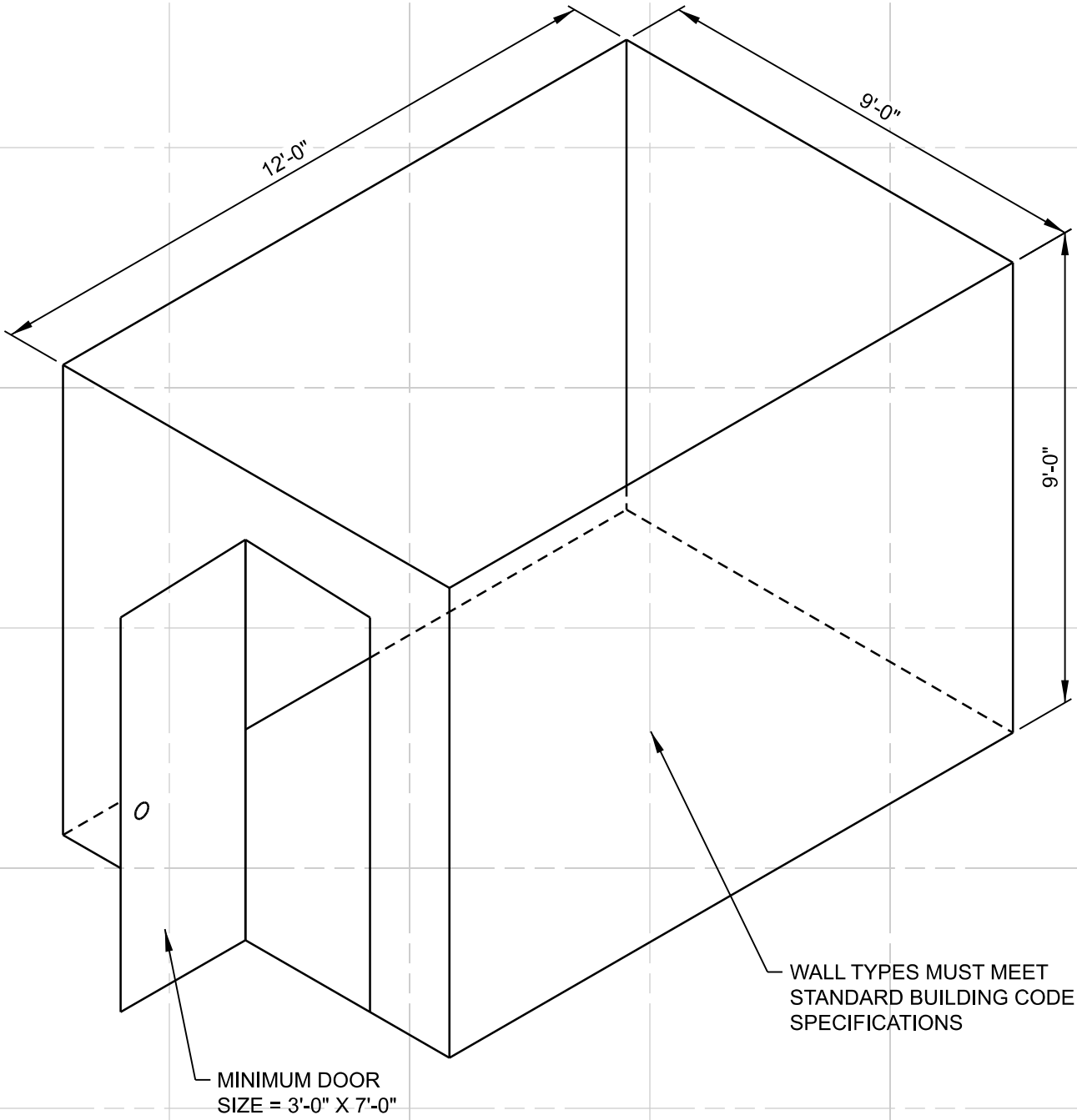
SCALE: NTS



A1

DETAIL: MODULAR TELEPHONE JACK

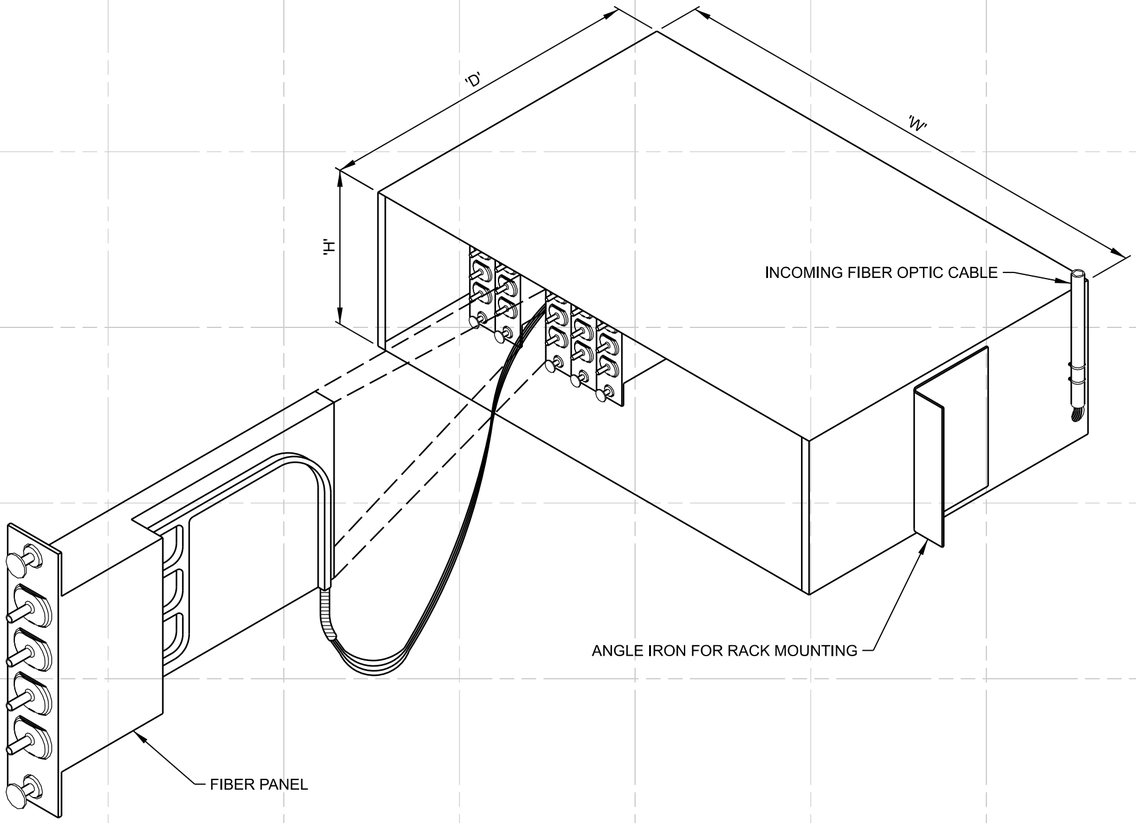
SCALE: NTS



A1

DETAIL: MULTI-USER COMM CLOSET

SCALE: NTS



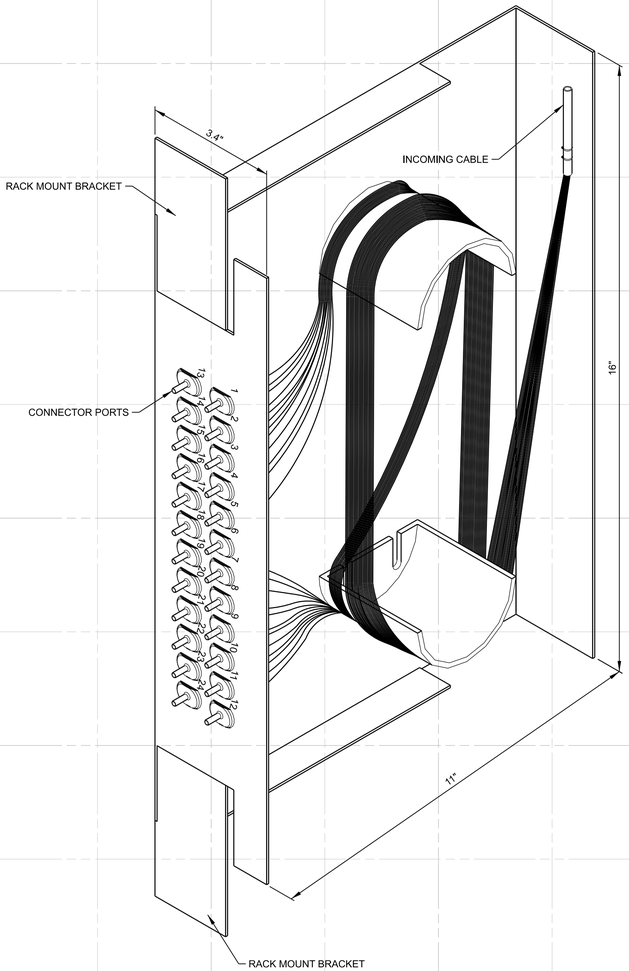
DESCRIPTION	DIMENSIONS 'H' X 'W' X 'D' CM (IN)
24-FIBER CAPACITY CONNECTOR MODULE HOUSING; ACCEPTS ONLY 6-FIBER PANELS OR MODULES	13.3 X 43 X 28 (5.25 X 17 X 11)
72-FIBER CAPACITY CONNECTOR MODULE HOUSING; ACCEPTS ONLY 6-FIBER PANELS OR MODULES	22 X 43 X 28 (8.75 X 17 X 11)
96-FIBER CAPACITY CONNECTOR MODULE HOUSING; ACCEPTS ONLY 8-FIBER PANELS	22 X 43 X 28 (8.75 X 17 X 11)

NOTES:
1. STANDARD 5.25" FRONTAL PROJECTION, AVAILABLE WITH LOCKING DOOR
2. LABELED CONNECTOR PORTS
3. REAR FIBER ORGANIZATION SHELF
4. 24 TO 96 FIBERS; STACKABLE FOR HIGHER FIBER COUNTS OR FUTURE EXPANSION
5. RACK-MOUNT, 19" OR 23" OPTION
6. TERMINATION OF BACKBONE CABLES AT MAIN OR INTERMEDIATE CROSS-CONNECT (72-FIBER VERSION); TERMINATION OF HORIZONTAL CABLES AT HORIZONTAL CROSS-CONNECT (96-FIBER VERSION)
7. FIELD CONNECTORIZATION OR PIGTAIL SPLICING IN CONJUNCTION WITH SPLICE MODULE HOUSINGS
8. OPTIONAL BRACKETS FOR WALL MOUNT

A1

DETAIL: MAIN CROSS CONNECT (MC)

SCALE: NTS

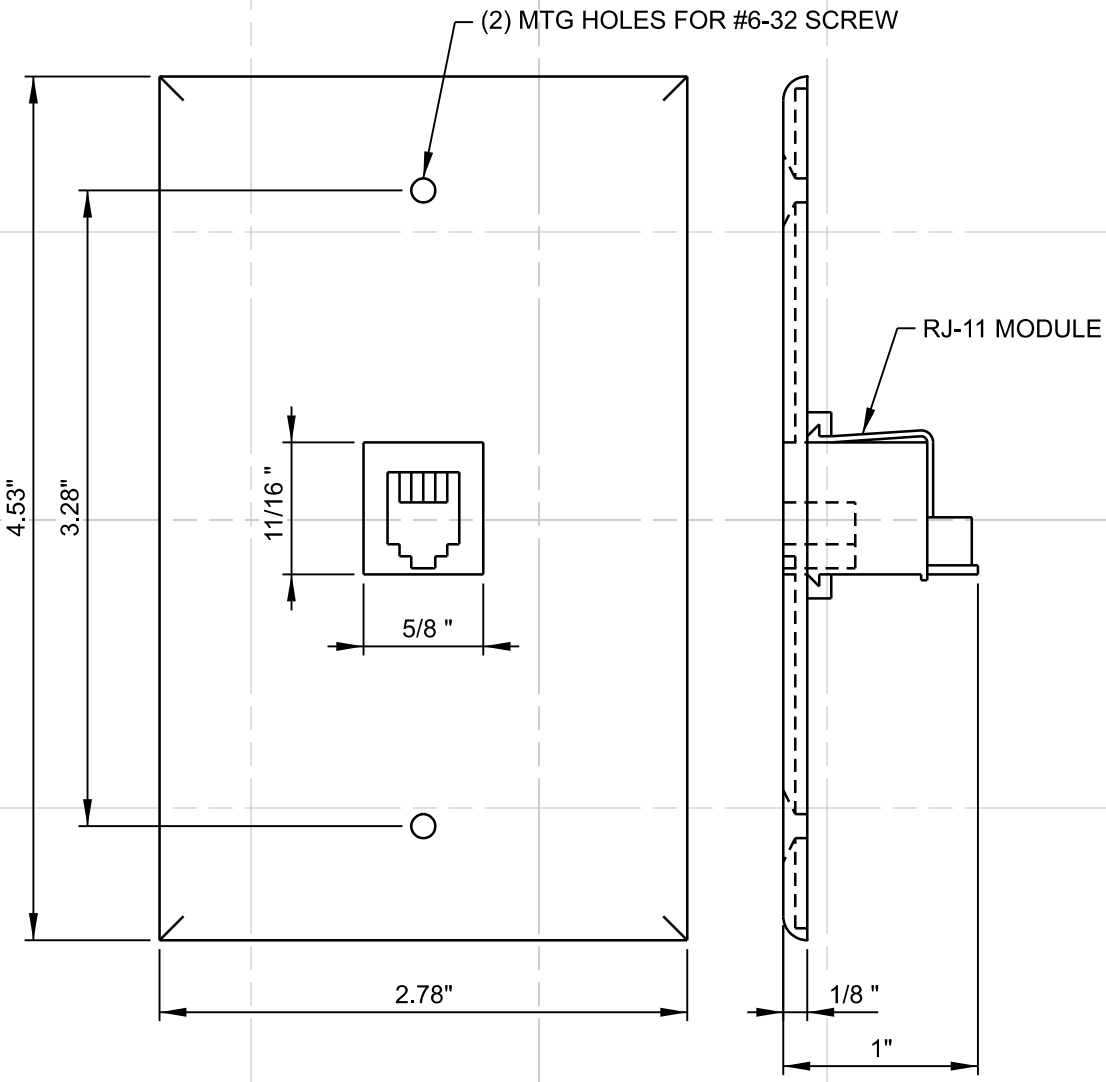


NOTES:
1. 24-FIBERS FLUSH-MOUNTED IN ONLY TWO RACK SPACES
2. CABLE STRAIN-RELIEF AND GROUNDING PROVISIONS; REAR SHELF AND ROUTING GUIDES FOR STORING CABLE SLACK
3. LABELED CONNECTOR PORTS
4. RACK-MOUNT; 19" OR 23" FRAME
5. INTRABUILDING BACKBONE TERMINATIONS IN HORIZONTAL CROSS-CONNECT OR EQUIPMENT ROOM
6. FIELD CONNECTORIZATION
7. STACKABLE

A1

DETAIL: INTERMEDIATE/HORIZONTAL CROSS CONNECT (IC/HC)

SCALE: NTS





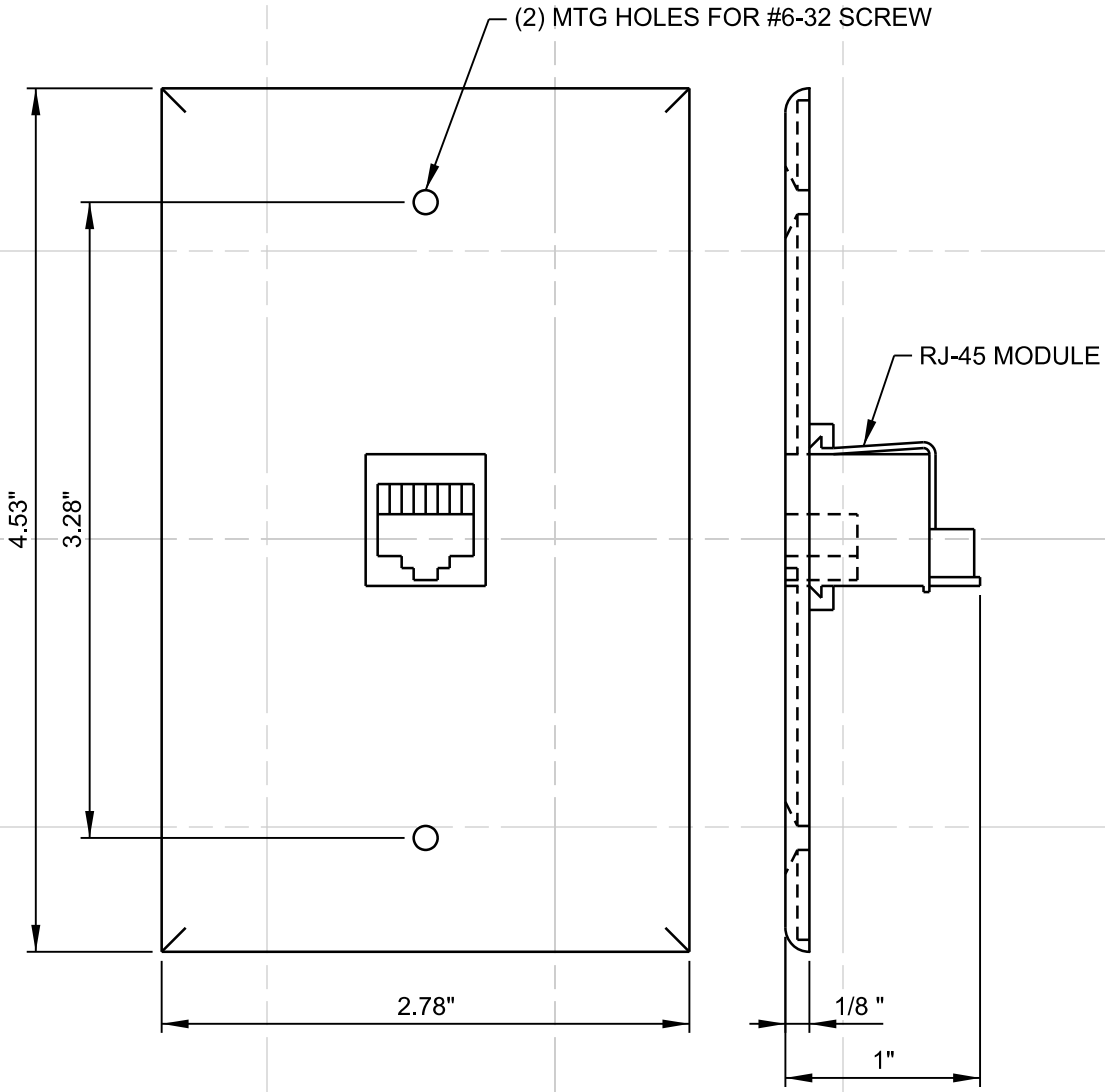
RJ-11 CONNECTOR

A1

DETAIL: RJ-11 WALL PLATE JACK AND CONNECTOR

SCALE: 1"=1" FULL SIZE

0 1/2" 1" 2"





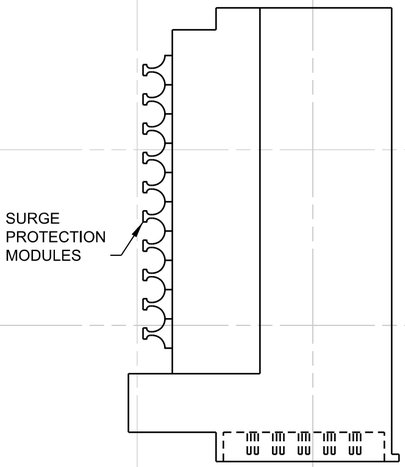
RJ-45 CONNECTOR

A1

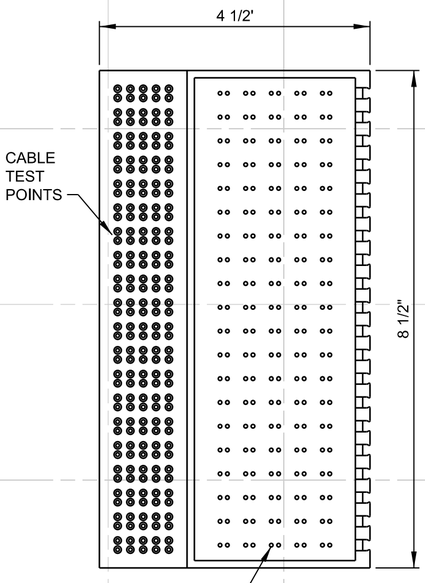
DETAIL: RJ-45 WALL PLATE JACK AND CONNECTOR

SCALE: 1"=1" FULL SIZE

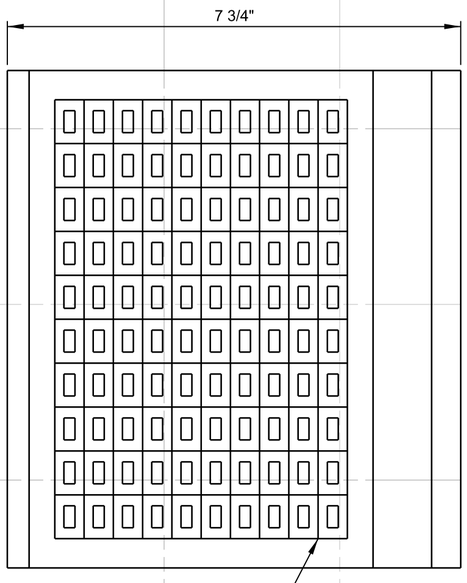
0 1/2" 1" 2"



TOP



FRONT

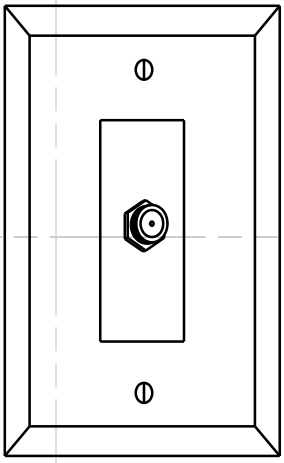


LEFT SIDE

A1

DETAIL: CENTRAL OFFICE CONNECTOR (100 PAIR CAPACITY)

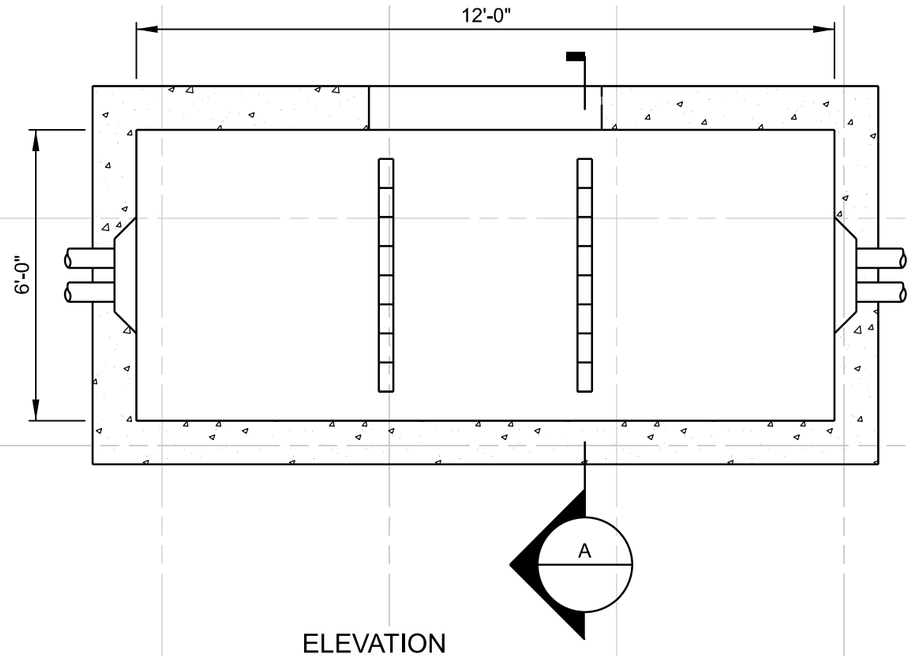
SCALE: NTS



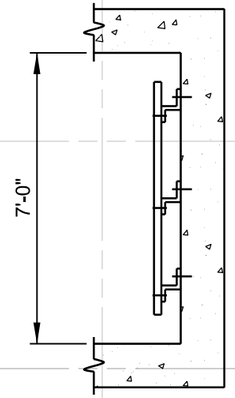
A1

DETAIL: TV OUTLET JACK

SCALE: NTS



ELEVATION



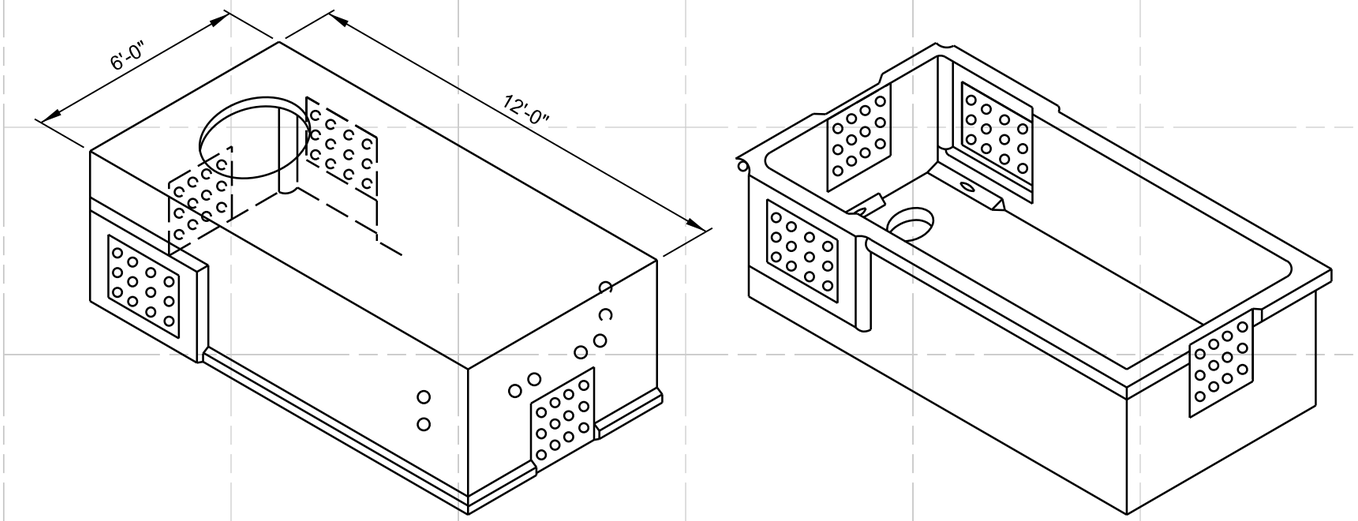
SECTION A

NOTES:
ALL MANHOLES TO HAVE 8' LADDERS.

A1

DETAIL: TELEPHONE MANHOLE

SCALE: NTS

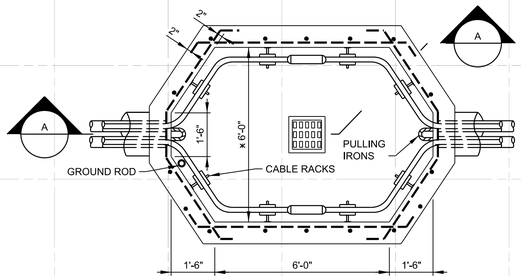


NOTES:
1. INSTALL PRECAST COLLAR.
2. ALL MANHOLES TO HAVE 3/4X10' COPPER CLAD GROUND RODS.
3. SEE SHEET T-XXX FOR MANHOLE ACCESSORY DETAILS.

A1

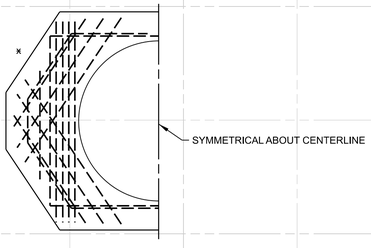
DETAIL: 38Y PRECAST TELEPHONE MANHOLES

SCALE: NTS



PLAN

SECTION A



x NOTES:
CHANGE ANGLES TO MAKE SIZE CHANGE 4' TO 6'
xx MAKE CIRCLE

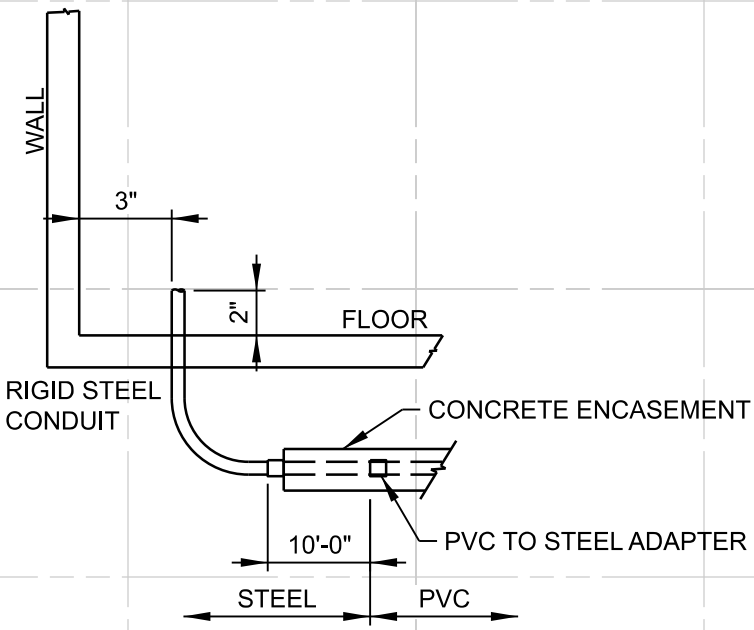
TYPICAL TOP REINFORCEMENT

NOTES:
1. REINFORCING BAR: 1/2" ROUND, DEFORMED WALLS AND BOTTOM MAX 12" CENTER TO CENTER BOTH WAYS. TOP AS SHOWN.
2. THICKNESS OF CONCRETE: MANHOLE WALLS, TOP AND BOTTOM 8" SUMP WALLS AND BOTTOM 6"

A1

DETAIL: POURED IN PLACE COMMUNICATION MANHOLE

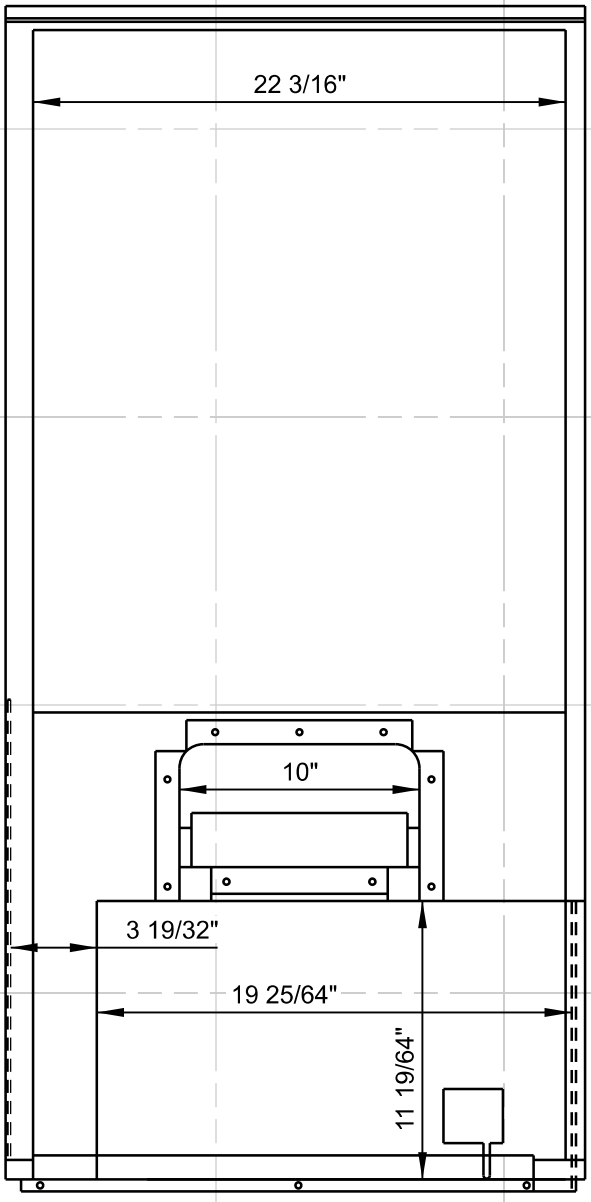
SCALE: NTS



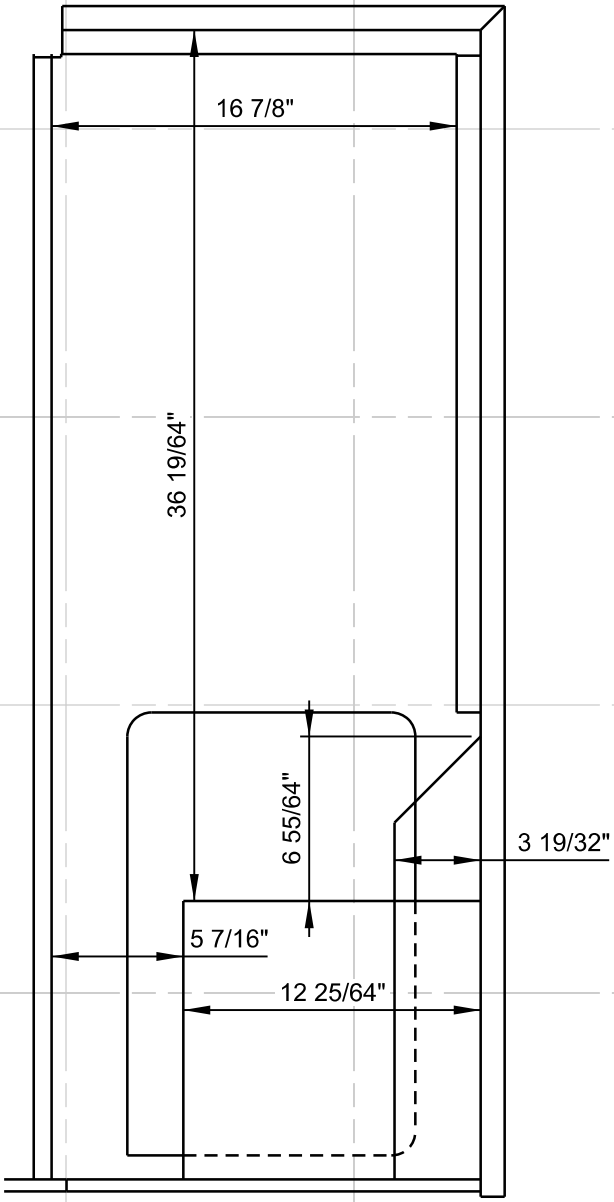
DETAIL: COMMUNICATION DUCT ENTRANCE

A1

SCALE: NTS



VIEW WITH FRONT DOOR REMOVED



RIGHT SIDE VIEW OF VERTICAL SECTION

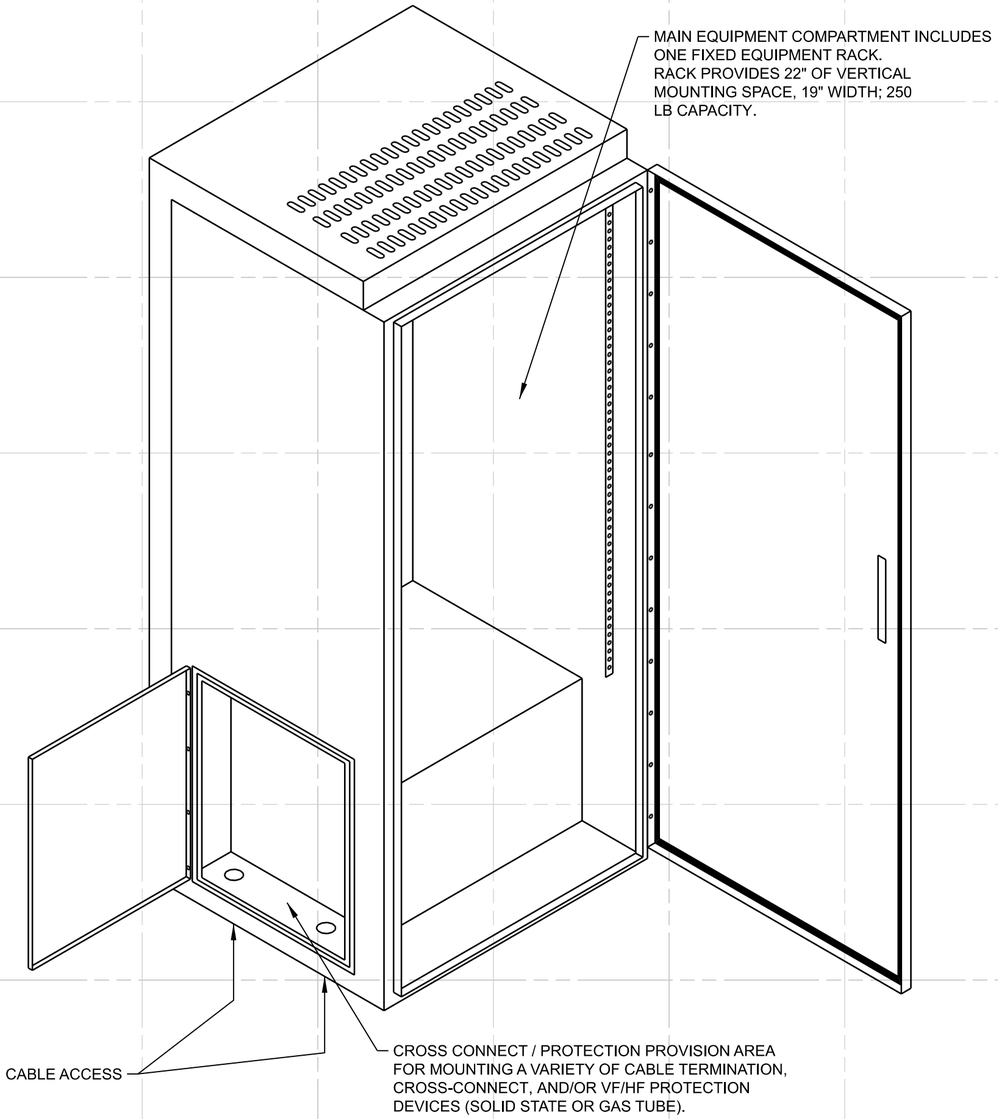
A1

DETAIL: EXTERIOR TELECOMM PLANT ENCLOSURE (NEWTON 7060)

SCALE: 1-1/2"=1'-0"

0 6" 1' 2'

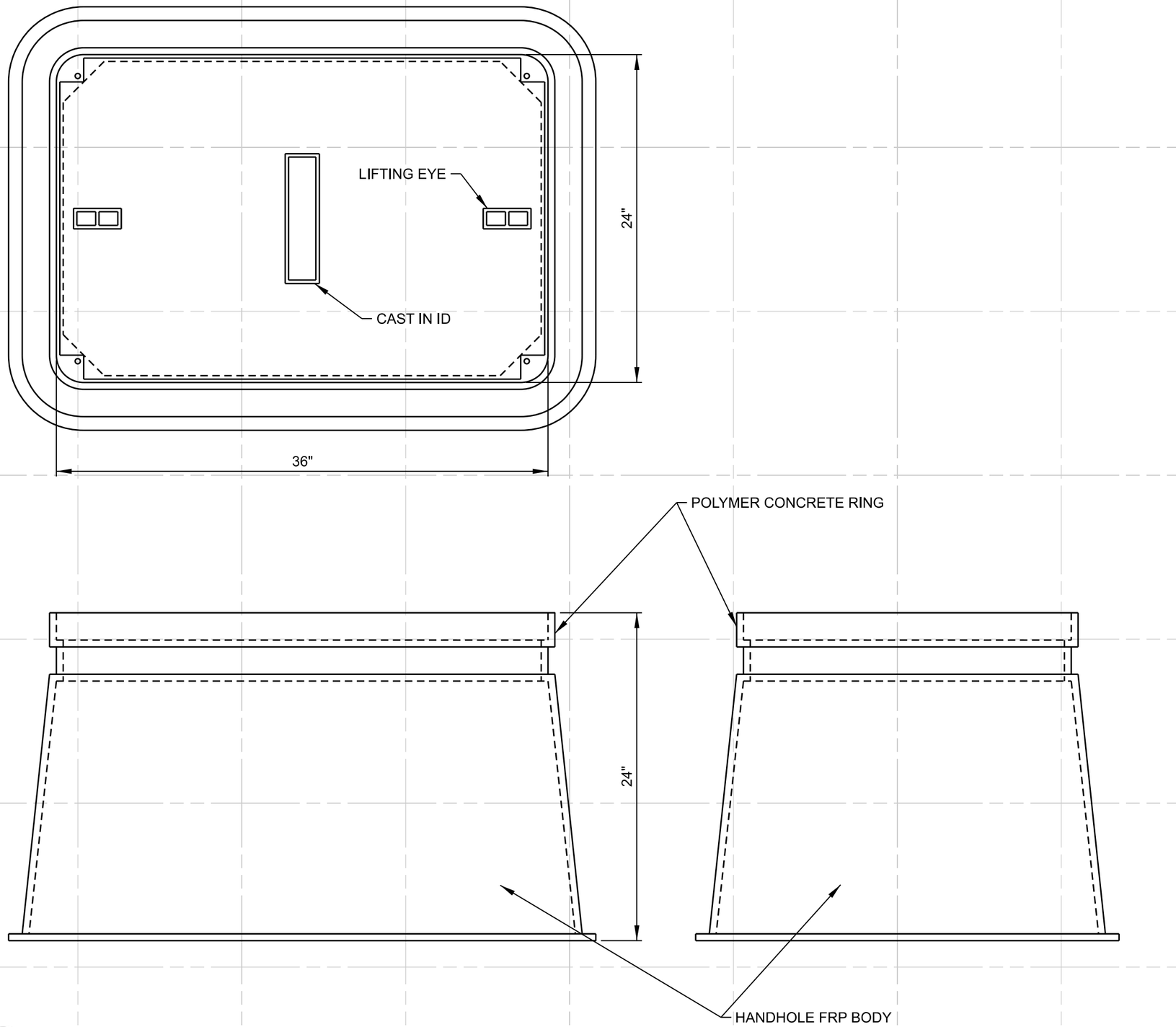
Detail D5036T-DT005E



A1

DETAIL: EXTERIOR TELECOMM PLANT ENCLOSURE (NEWTON 7060)

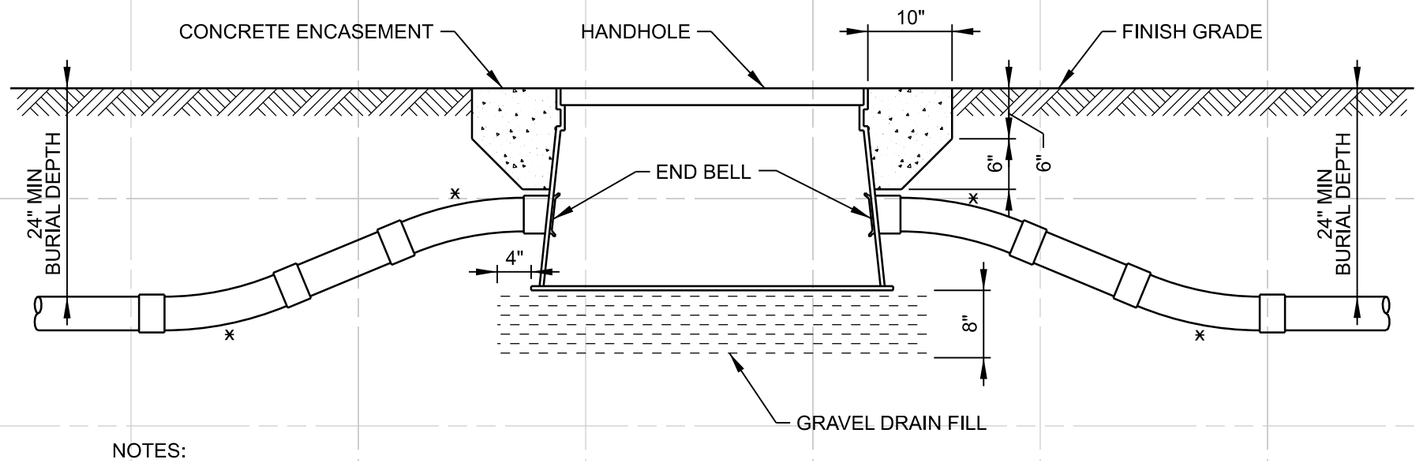
SCALE: NTS



A1 DETAIL: TYPICAL HANDHOLE

SCALE: 1-1/2"=1'-0"

0 6" 1' 2'

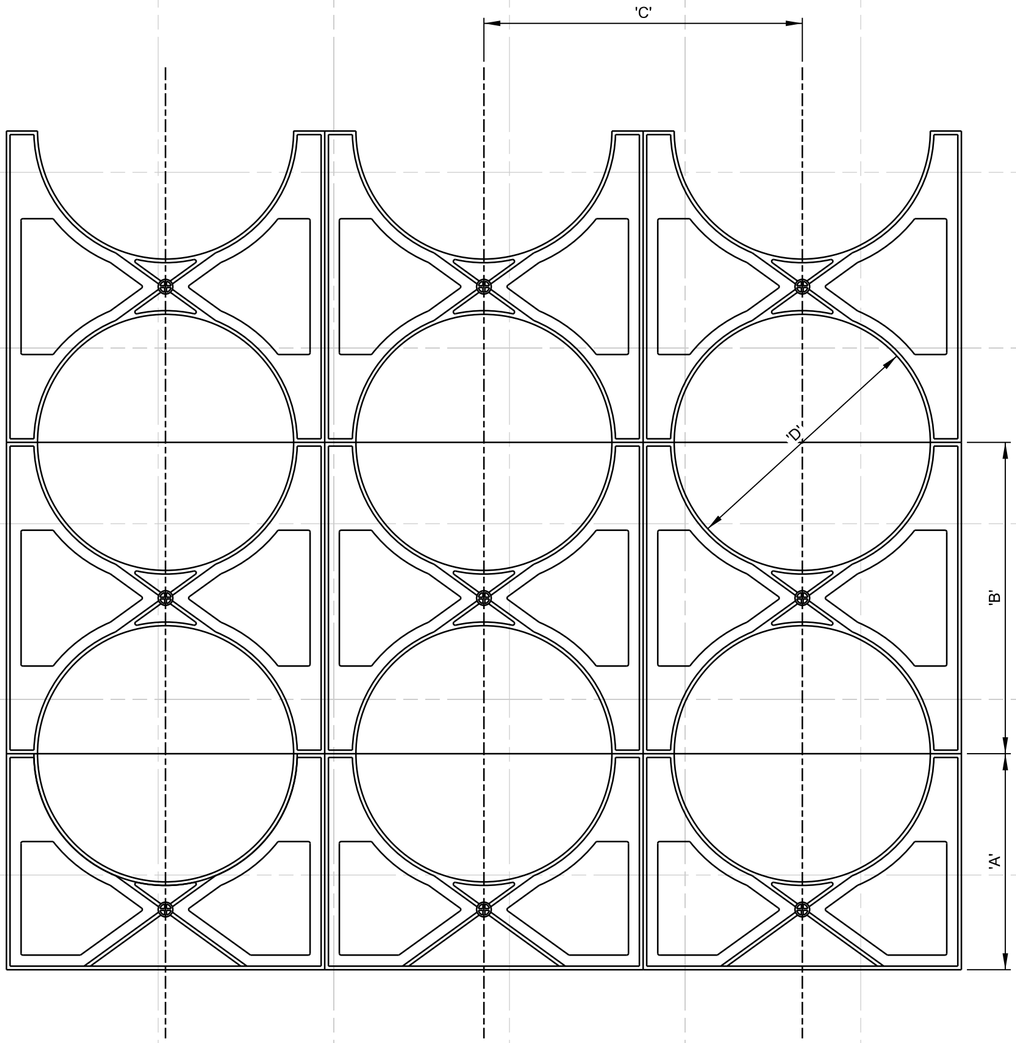


NOTES:
* 22-1/2 36" RADIUS SWEEP ELBOW

A1

DETAIL: TYPICAL HANDHOLE ENTRY

SCALE: NTS

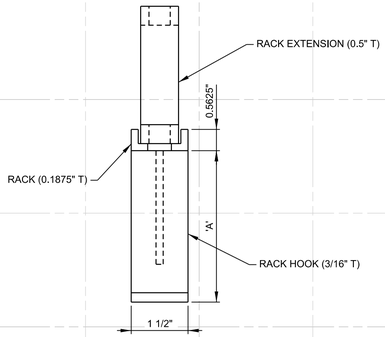


BASE SPACERS (in)			
DESCRIPTION	A	C	D
2 x 1 59/64	4.25	4.12	2.50
2 x 2	4.25	4.62	2.50
2 x 3	4.25	5.62	2.50
3 x 1 59/64	4.81	5.25	3.63
3 x 2	4.81	5.75	3.63
3 x 3	4.81	6.75	3.63
4 x 1	3.31	5.75	4.63
4 x 1 59/64	5.31	6.25	4.63
4 x 2	5.31	6.75	4.63
4 x 3	5.31	7.75	4.63
5 x 1 59/64	5.84	7.31	5.69
5 x 2	5.84	7.81	5.69
5 x 3	5.84	8.81	5.69
6 x 1 59/64	6.38	8.38	6.75
6 x 2	6.38	8.88	6.75
6 x 3	6.38	9.88	6.75
8 x 1 59/64	7.38	10.38	8.75
8 x 2	7.38	10.88	8.75
8 x 3	7.38	11.88	8.75

INTERMEDIATE SPACERS (in)			
DESCRIPTION	B	C	D
2 x 1 59/64	3.88	4.12	2.50
2 x 2	4.38	4.62	2.50
2 x 3	5.38	5.62	2.50
3 x 1 59/64	5.01	5.25	3.63
3 x 2	5.51	5.75	3.63
3 x 3	6.51	6.75	3.63
4 x 1	5.51	5.75	4.63
4 x 1 59/64	6.01	6.25	4.63
4 x 2	6.51	6.75	4.63
4 x 3	7.51	7.75	4.63
5 x 1 59/64	7.07	7.31	5.69
5 x 2	7.57	7.81	5.69
5 x 3	8.57	8.81	5.69
6 x 1 59/64	8.14	8.38	6.75
6 x 2	8.64	8.88	6.75
6 x 3	9.64	9.88	6.75
8 x 1 59/64	10.14	10.38	8.75
8 x 2	10.64	10.88	8.75
8 x 3	11.64	11.88	8.75

A1 DETAIL: DUCT SPACERS

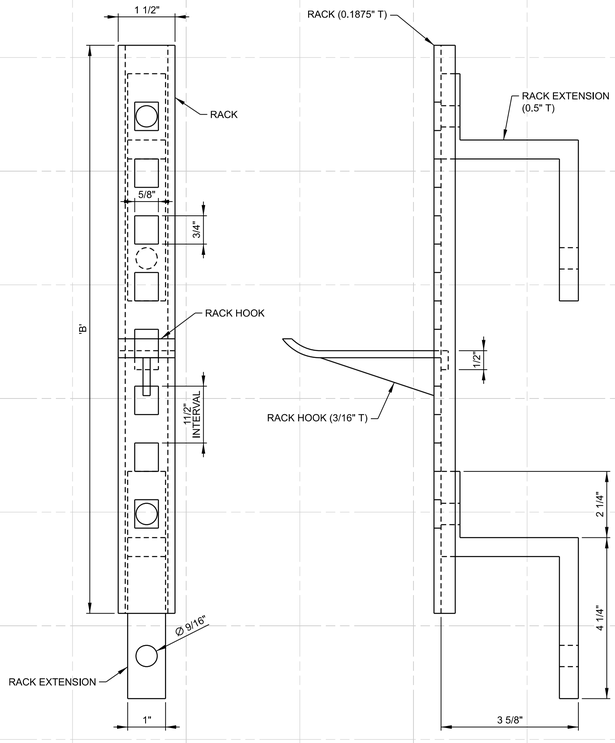
SCALE: NTS



TOP

RACK HOOKS
L (IN) 'A'
4.0
7.5
10.0
14.0
18.0

RACKS	
L (IN) 'B'	NO. OF HOLES
15	8
24	14
30	18
55.25	37
64.25	43

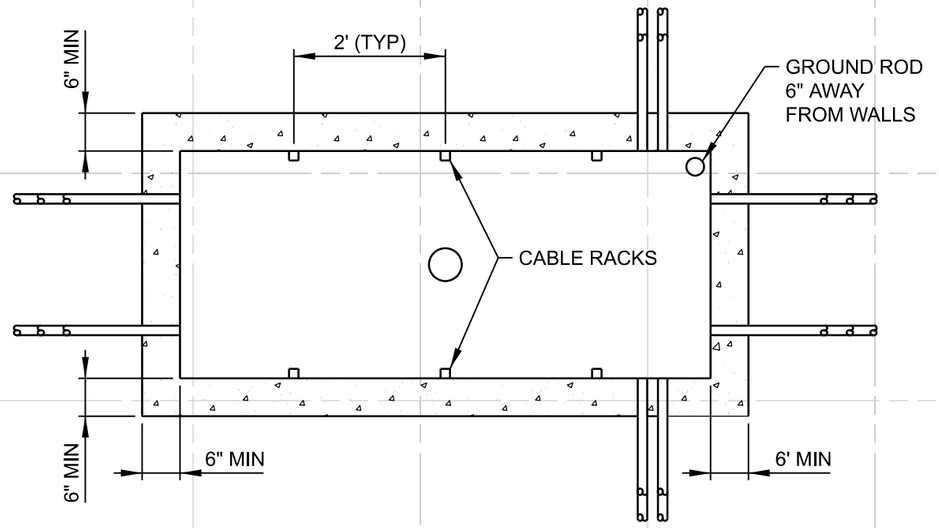


FRONT

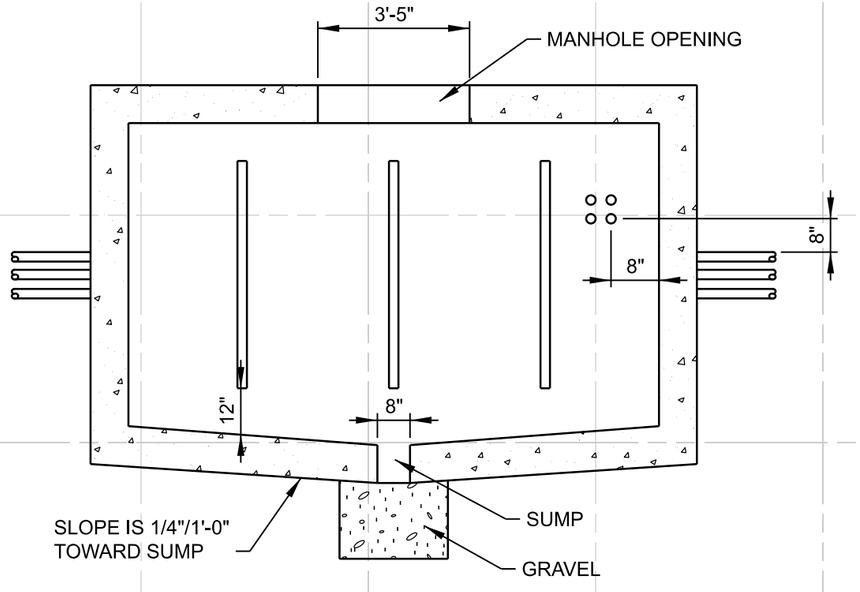
RIGHT SIDE

A1 DETAIL: MANHOLE CABLE RACKS

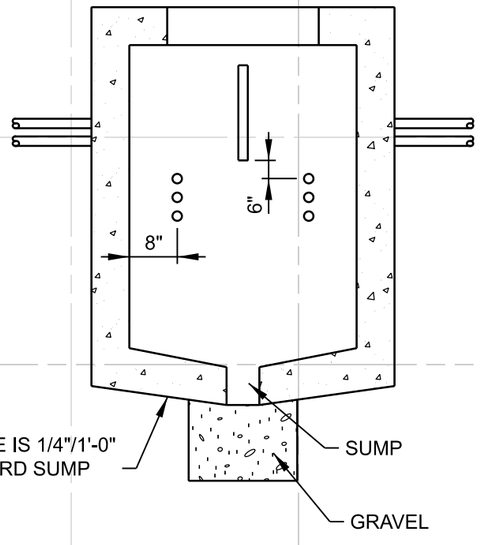
SCALE: NTS



PLAN



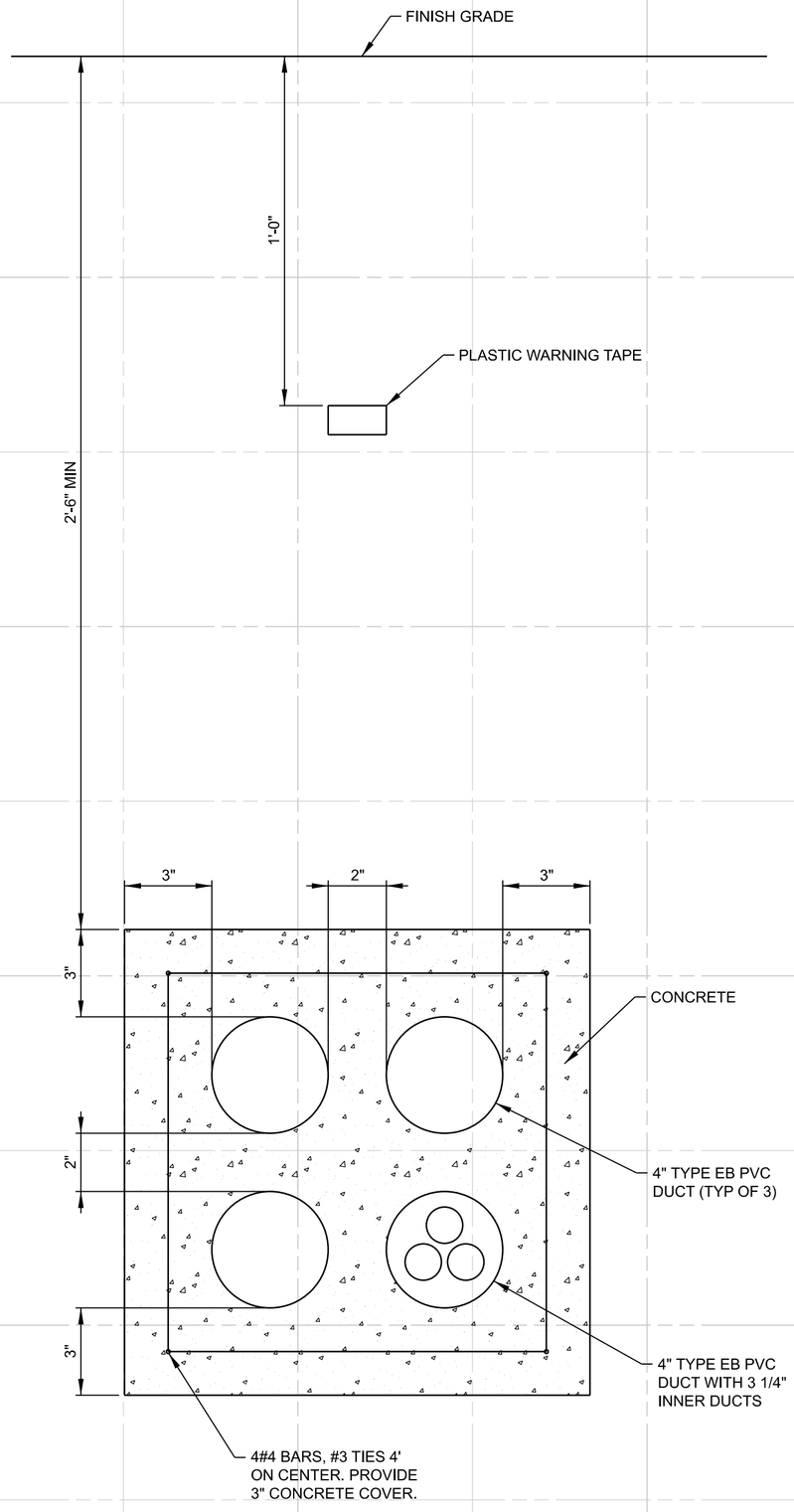
FRONT



END

A1 DETAIL: TYPICAL MANHOLE

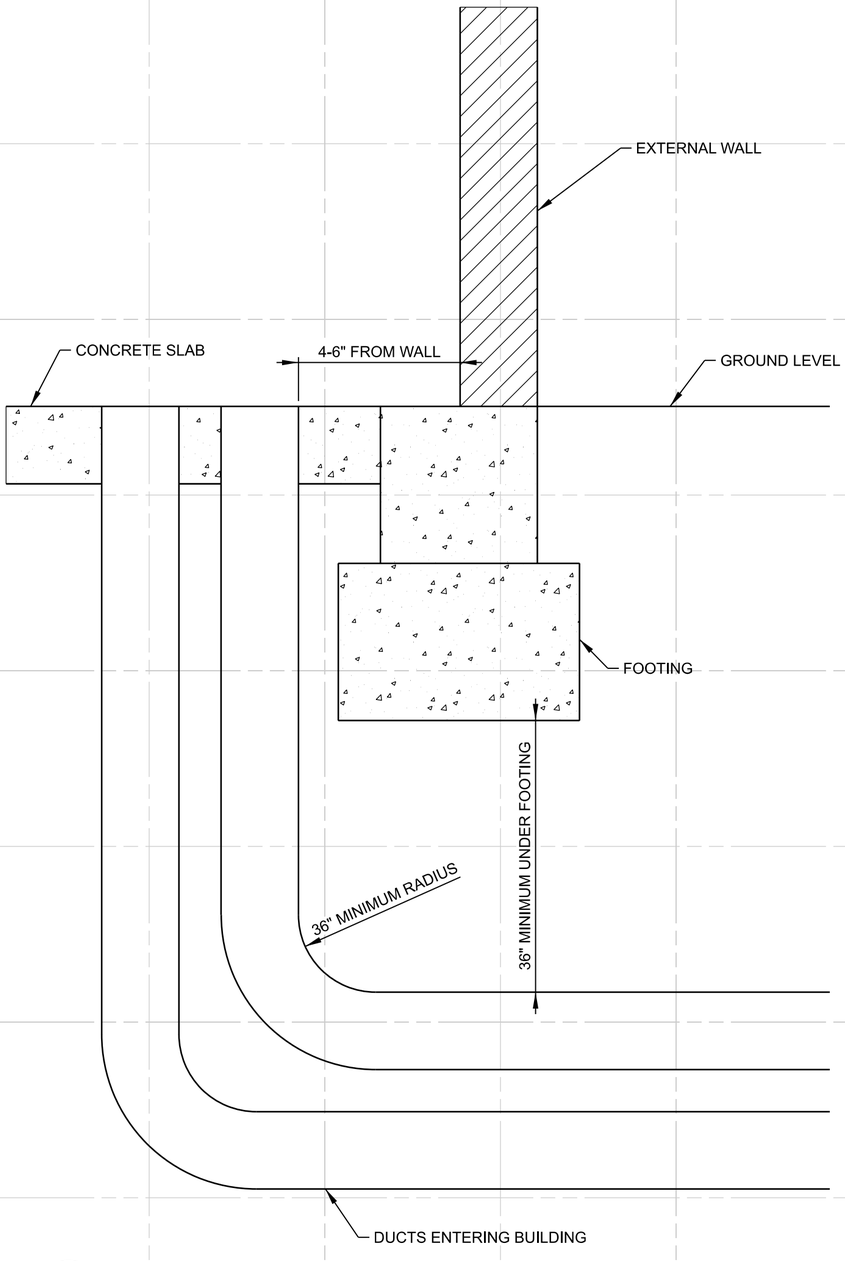
SCALE: NTS



A1 DETAIL: DUCTS ENCASED IN CONCRETE

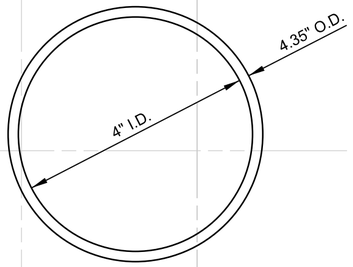
SCALE: 3"=1'-0"

0 3" 6" 1'



A1 DETAIL: DUCT ENTRY INTO BUILDING

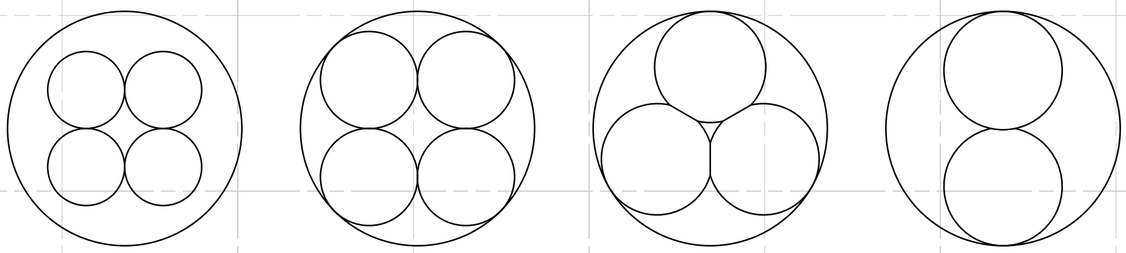
SCALE: NTS



TYPICAL 4" PVC PIPE

	1"	1 1/4"	1 1/2"	2"
PVC	1.315" O.D. / 1.00" I.D.	1.660" O.D. / 1.33" I.D.	1.900" O.D. / 1.56" I.D.	2.375" O.D. / 2.02" I.D.
POLYETHYLENE	1.315" O.D. / 1.03" I.D.	1.660" O.D. / 1.38" I.D.		

INNERDUCTS



4 - 1"	4 - 1 1/4"	3 - 1 1/2"	2 - 2"

MAXIMUM INNERDUCTS IN 4" PIPE

A1 DETAIL: INNERDUCT INSTALLATION IN DUCT

SCALE: NTS