BAYARENACISD 2023 ROOF REPLACEMENT LLC BAY

1435 W. CENTER RD. ESSEXVILLE, MI. 48708

DRAWING INDEX - ROOF DESIGN

1 OF 11 SCOPE OF WORK

2 OF 11

ROOF AREA A01

DETAIL 1: ROOF CURB FLASHING

DETAIL 2: ROOF HATCH CURB FLASHING

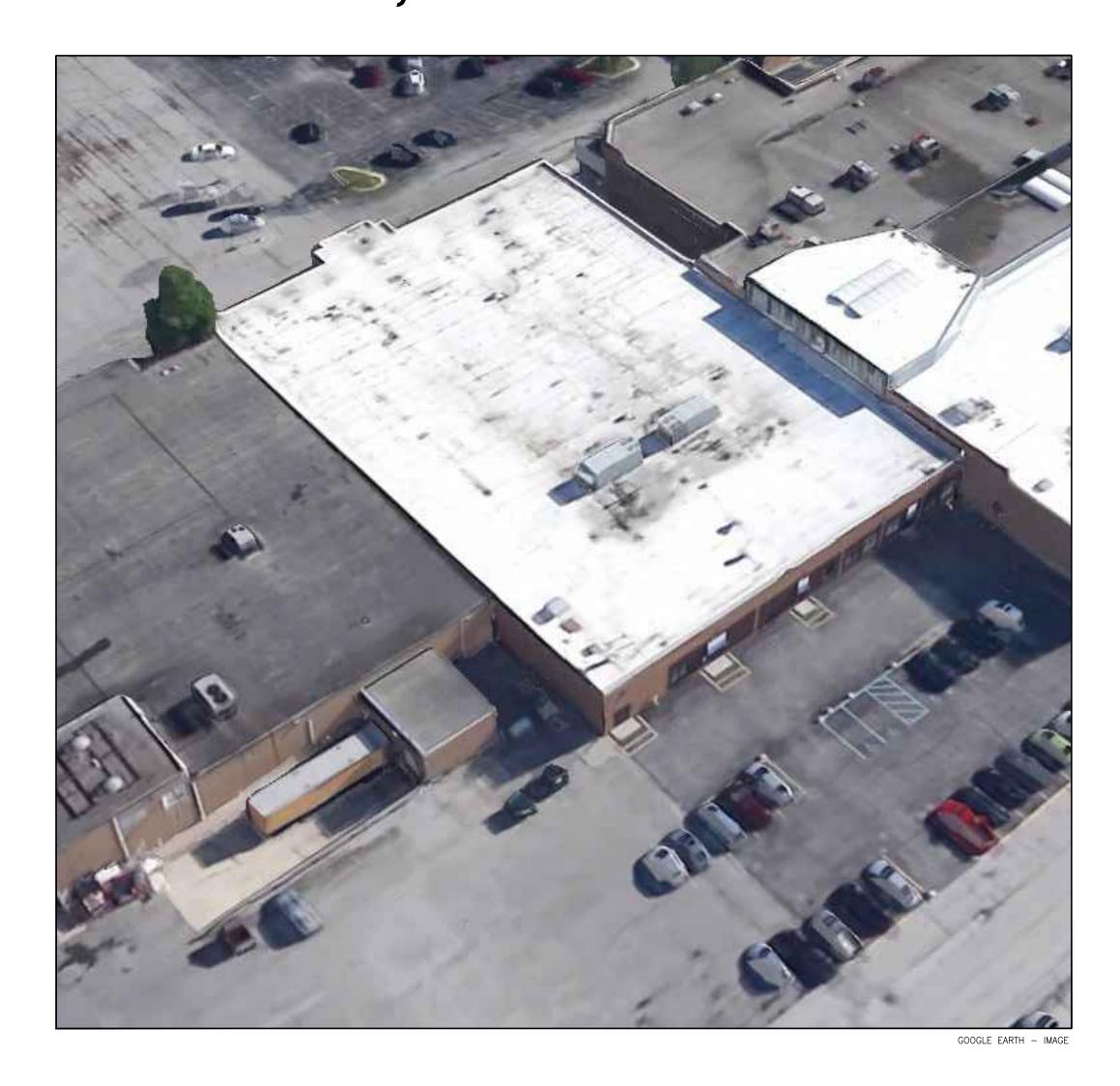
DETAIL 3: ROOF DRAIN FLASHING

DETAIL 4: TUBULAR PENETRATION FLASHING

DETAIL 5: PITCH PAN FLASHING

DETAIL 6: PARAPET WALL FLASHING

DETAIL 7: ROOF-TO-WALL EXPANSION JOINT FLASHING 10 OF11 11 OF11 DETAIL 8: ROOF-TO-WALL EXPANSION JOINT FLASHING



SYMBOL LEGEND

MECHANICAL EQUIPMENT

POWERED VENTILATOR

SPLASHBLOCK

REPLY PLUMBING VENT

O PIPE PENETRATION

PITCH PAN

ROOF HATCH

LADDER

INSULATION VENT

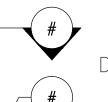
WALKWAY

ELEVATED PIPING

----- RIDGE LINE

(AREA-ID) AREA ID

KEYED NOTES



DETAIL REFERENCE

NAR NOT A ROOF AREA

NIC NOT IN CONTRACT

ADDENDUM 1

APPLICABLE CODES

2015 MICHIGAN BUILDING CODE BASED ON THE 2015 IBC, 2015 IECC, ASHRAE 90.1-2013 CLIMATE ZONE 5

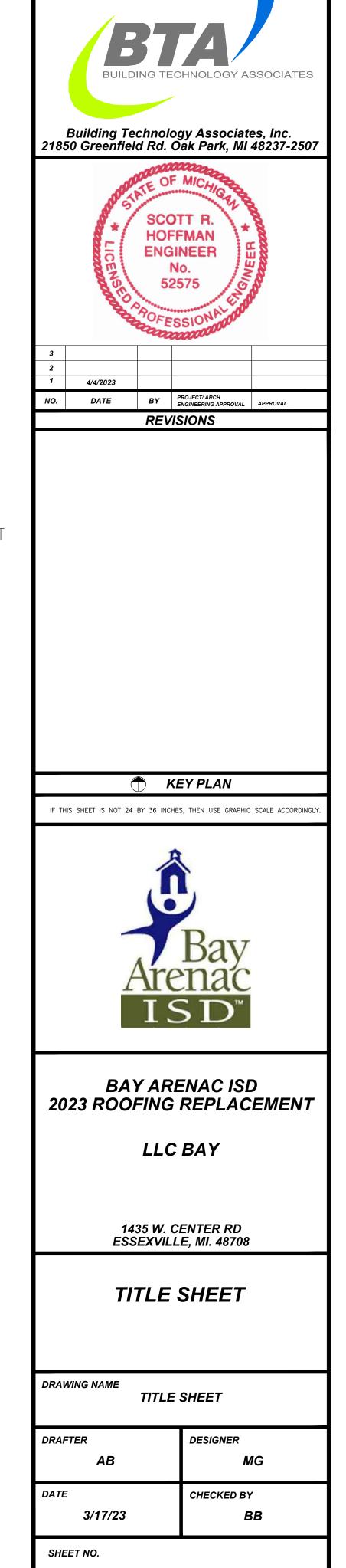
DESIGN BASED ON WIND UPLIFT CALCULATIONS ASCE 7-16 WIND UPLIFT PRESSURES EXPOSURE: B,

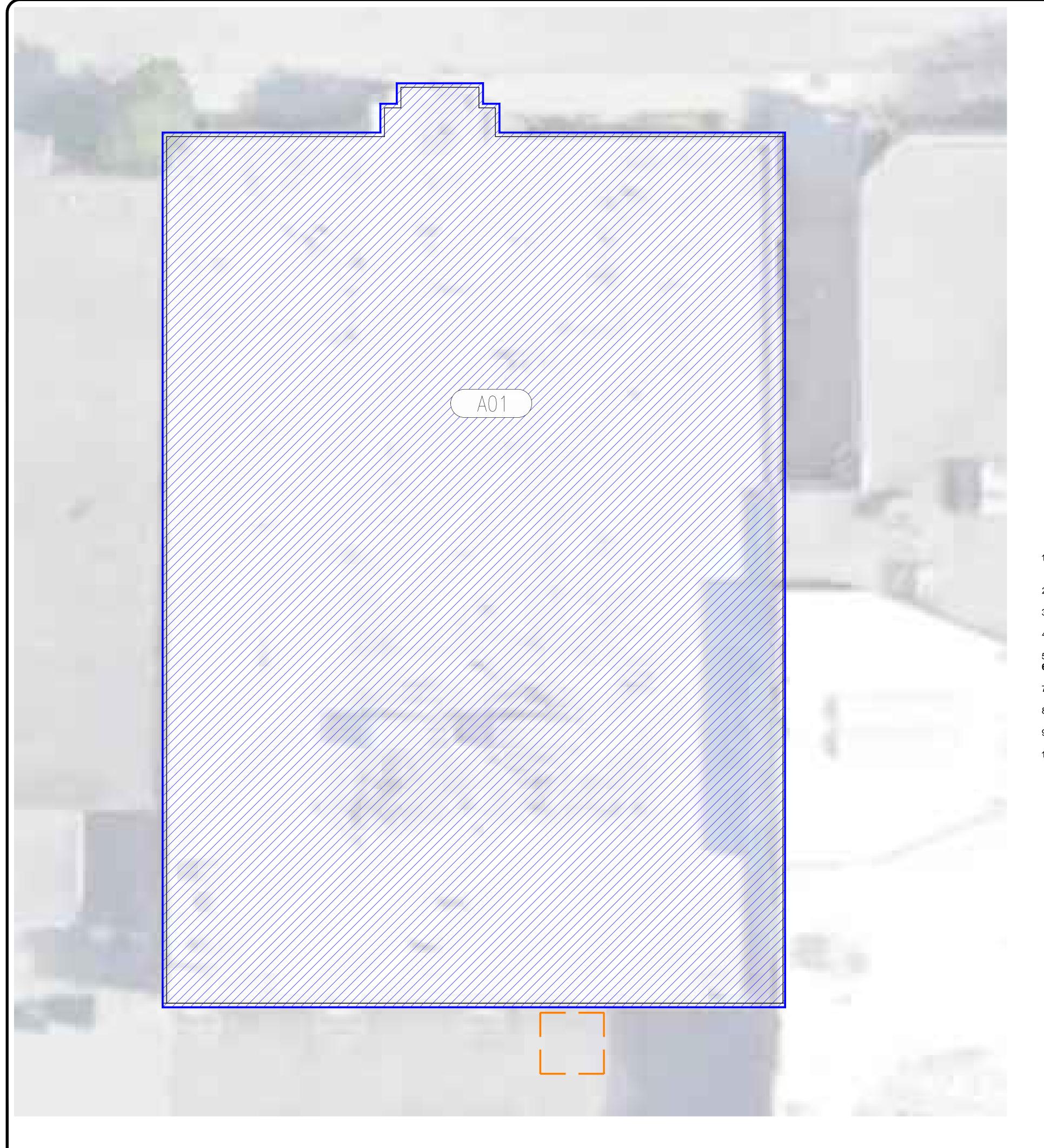
WIND SPEED: 105, RISK CATEGORY:II

ZONE 1: 16.2 PSF ZONE 1: 28.1 PSF ZONE 2: 37.1 PSF ZONE 3: 50.6 PSF

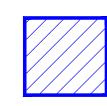
PERIMETER EDGE METAL UPLIFT LOADS

ZONE 2: 37.1 PSF ZONE 3: 50.6 PSF ZONE 5: 23.7 PSF ZONE 4: 19.1 PSF





ROOF DESIGN SCOPE OF WORK



BASE BID (ROOF REPLACEMENT)

ROOF AREA

TYPE BID BASE BID **EXISTING ROOF TYPE**

SIZE (SF)

A01

PVC

32,000

ROOF DESIGN SCOPE OF WORK



SETUP AREA: APPROXIMATE LOCATION, ROOFING CONTRACTOR TO COORDINATE WITH OWNERS REPRESENTATIVE.

GENERAL NOTES:

- A. ROOFING CONTRACTOR SHALL VERIFY DIMENSIONS, QUANTITIES, AND CONDITIONS AT THE SITE.
- B. ROOF PENETRATIONS / PROJECTIONS MAY HAVE BEEN ADDED OR MAY HAVE BEEN REMOVED, SO ARE NOT NECESSARILY ALL SHOWN ON THE ROOF PLAN. FIELD VERIFY ALL LOCATIONS PRIOR TO USING THE INFORMATION, AND MODIFY ACCORDINGLY.
- C. COMPONENTS INDICATED IN NOTES AND DETAILS ARE "NEW" UNLESS OTHERWISE NOTED AS EXISTING.
- D. CONDITIONS NOT SPECIFICALLY ADDRESSED BY EITHER SPECIFICATIONS OR DETAILS CONSULT WITH BTA AND THE ROOFING MANUFACTURER AND SUBMIT DETAILED SHOP DRAWINGS.
- E. DETAILS FOR EACH AND EVERY ROOF PENETRATIONS / PENETRATIONS OR FLASHING COMPONENTS MAY NOT NECESSARILY ALL BE SHOWN ON THE ROOF PLANS; USE THE APPROPRIATE DETAIL SPECIFIED FOR THE CONDITION ENCOUNTERED.

SUMMARY OF WORK:

INDICATED ON DRAWINGS.

PREPARE EXISTING ROOF AREA AND PROVIDE NEW ROOF SYSTEM (INSULATION, MEMBRANE, FLASHINGS):

- 1. REMOVE EXISTING THERMOPLASTIC MEMBRANE, BASE FLASHING, SHEET METAL, AND ASSOCIATED PENETRATION FLASHING. REMOVE AND DISCARD THE POLYSTYRENE COVER BOARD. SWEEP AND VACUUM THE EXISTING AGGREGATE. LEAVE EXISTING BUR MEMBRANE AND INSULATION IN PLACE.
- 2. REMOVE AREAS OF WET AND DAMAGED INSULATION FOUND DOWN TO THE STRUCTURAL DECK. REPLACE WET INSULATION WITH NEW INSULATION TO MATCH EXISTING (UNIT COST);
- 3. AT THE LOCATION WHERE INSULATION IS REMOVED, INSPECT THE EXISTING DECK: REPLACE DETERIORATED DECKING WITH NEW TO MATCH EXISTING (UNIT COST);
- 4. AT EXISTING ROOF DRAINS, REMOVE AND DISCARD AN 8-FOOT BY 8-FOOT AREA OF INSULATION TO ALLOW FOR THE INSTALLATION OF A TAPERED SUMP.
- 5. PROVIDE REQUIRED WOOD BLOCKING WHERE INDICATED ON THE PROJECT DRAWINGS.
 6. A01- PROVIDE (1) ONE LAYER OF 2-INCH THICK POLYISOCYANURATE ROOF INSULATION MECHANICALLY
- 7. PROVIDE (1) ONE LAYER 0.5-INCH THICK MANUFACTURER'S APPROVED COVER BOARD, IN LOW-RISE FOAM
- 8. PROVIDE SINGLE-PLY 60 MIL EPDM ROOF SYSTEM FULLY ADHERED, SHEET METAL COMPONENTS, AND
- 9. FLASH ALL PENETRATIONS PER NRCA AND/OR MANUFACTURER'S RECOMMENDED PROCEDURES, AND AS
- 10. UPON COMPLETION OF WORK, PROVIDE A ROOFING MANUFACTURER'S 20-YEAR WARRANTY AND A CONTRACTORS 5-YEAR GUARANTEE.



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NO.	DATE	BY	PROJECT/ ARCH ENGINEERING APPROVAL	APPROVAL
1	4/4/2023			
2				
3				

REVISIONS

** KEY PLAN

IF THIS SHEET IS NOT 24 BY 36 INCHES, THEN USE GRAPHIC SCALE ACCORDINGLY



BAY ARENAC ISD 2023 ROOFING REPLACEMENT

LLC BAY

1435 W. CENTER RD ESSEXVILLE, MI. 48708

SCOPE OF WORK

DRAWING NAME SCOPE OF WORK

DESIGNER DRAFTER

MG DATE CHECKED BY 3/17/23

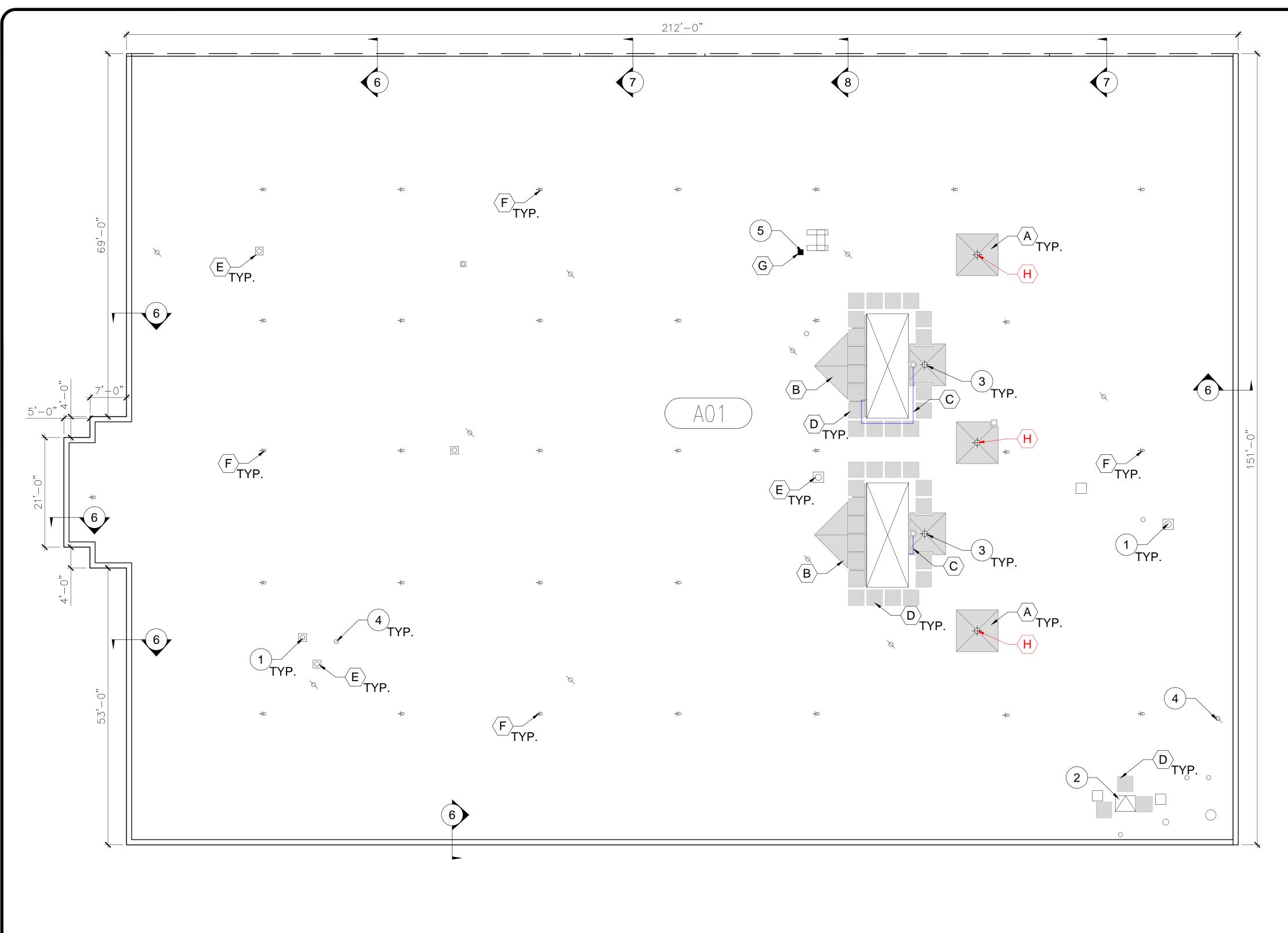
SHEET NO.

SCOPE OF WORK

ADDENDUM 1

4/4/2023

NOT TO SCALE



KEY NOTES:

- A REMOVE EXISTING INSULATION PROVIDE 8-FOOT X 8-FOOT TAPERED DRAINAGE SUMPS AT ROOF DRAIN LOCATIONS INDICATED ON THE ROOF PLAN. REFER TO DETAIL 3 AND SECTION 07 2100 FOR PRODUCT AND INSTALLATION REQUIREMENTS.
- B PROVIDE ROOF DRAINAGE SADDLES AND CRICKETS TO ACHIEVE POSITIVE FINISHED ROOF SLOPE.
- C EXISTING UTILITY LINES TEMPORARILY DISPLACE TO ALLOW FOR INSTALLATION OF NEW ROOF SYSTEM. PROVIDE TEMPORARY SUPPORT DURING INSTALLATION OF NEW ROOF SYSTEM. AFTER COMPLETION OF ROOF REPLACEMENT WORK, RETURN TO ORIGINAL POSITION, AND REINSTALL ON PREFABRICATED SUPPORTS SET ON WALKPADS AFTER INSTALLATION OF NEW ROOFING SYSTEM. NOTE THAT DISCONNECTION AND RECONNECTION OF UTILITY LINES SHALL BE PERFORMED BY A CONTRACTOR LICENSED TO PERFORM THE SPECIFIED WORK.
- AT LOCATIONS INDICATED ON THE ROOF PLAN, INSTALL SPECIFIED WALKWAY PAD APPROVED BY THE ROOFING MEMBRANE MANUFACTURER. REFER TO THE ROOFING MEMBRANE SECTION FOR PRODUCT AND INSTALLATION REQUIREMENTS.
- RAISE EXISTING ROOF CURBS AND/OR PROVIDE NEW, PRE-MANUFACTURED ROOF CURBS TO ACHIEVE 8-INCH MINIMUM FLASHING HEIGHT.
- $\langle {\sf F} \rangle$ REMOVE AND DISCARD EXISTING BREATHER VENTS.
- G OWNER WILL ADJUST SUPPLY LINES. ROOFING CONTRACTOR INSTALL SHEET METAL DOG HOUSE
- $\left\langle \mathsf{H} \right
 angle$ Install New Drain Inserts .

ROOF AREA A01

EXISTING CONSTRUCTION

METAL DECK

TWO (2) LAYERS 15/16 -INCH THICK FIBERGLASS INSULATION

COAL TAR PITCH BUILT-UP ROOF MEMBRANE (AGGREGATE)

1/2 -INCH EXTRUDED POLYSTYRENE INSULATION

THERMOPLASTIC MEMBRANE MECHANICALLY ATTACHED

PROPOSED CONSTRUCTION

ALL INSTALLED ROOF SYSTEM MUST HAVE A ROOFNAV
NUMBER FROM FM GLOBAL

EXISTING METAL DECK

EXISTING TWO (2) LAYERS 15/16 -INCH THICK FIBERGLASS INSULATION

EXISTING COAL TAR PITCH BUILT-UP ROOF MEMBRANE(REMOVE AGGREGATE)

ONE (1) LAYER OF 2-INCH THICK POLYISOCYANURATE INSULATION MECHANICALLY FASTENED

ONE (1) LAYER OF ½-INCH THICK COVER BOARD SECURED IN LOW-RISE FOAM

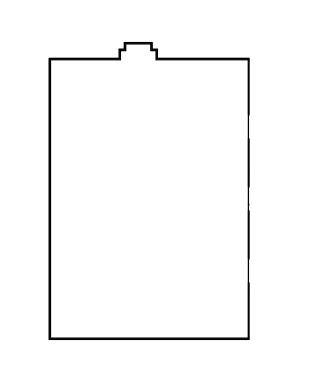
FULLY ADHERED 60 MIL EPDM MEMBRANE



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ROOF AREA A01

DRAWING NAME

3/17/23

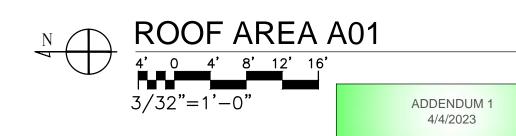
ROOF AREA A01

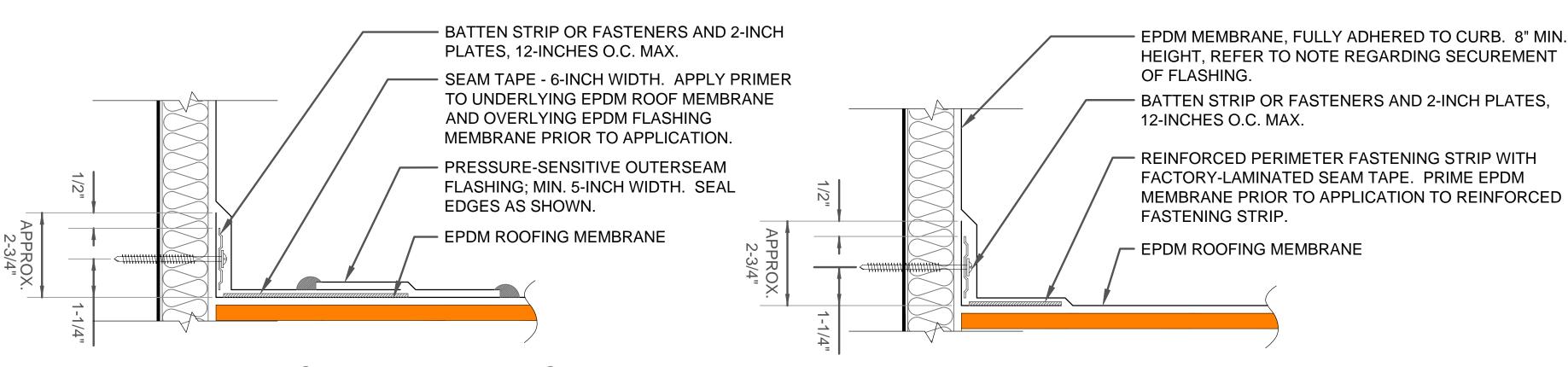
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ALT. VERTICAL TERMINATION -TWO PIECE FLASHING

FOR USE WHERE HORIZONTAL TERMINATION OF EPDM MEMBRANE IS NOT POSSIBLE

MECHANICAL CONNECTIONS RELATED TO

THE DISPLACEMENT AND RE-INSTALLATION

OF ROOFTOP UNITS SHALL BE PERFORMED

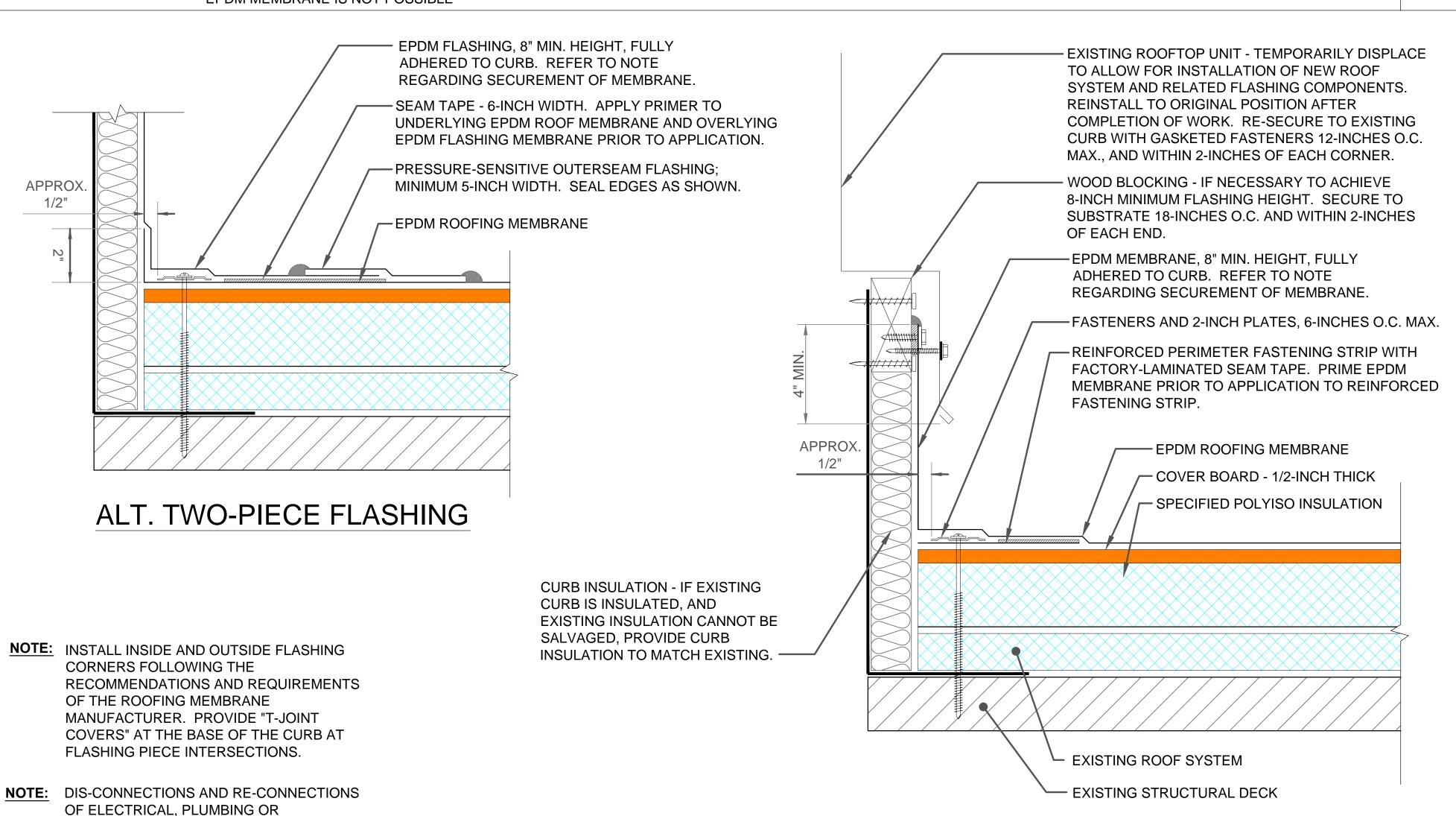
SUCH WORK. COORDINATE THIS WORK

WITH THE OWNER.

BY A CONTRACTOR LICENSED TO PERFORM

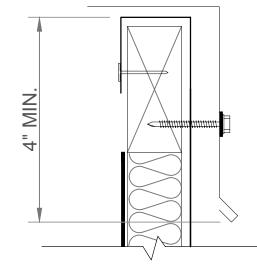
ALT. VERTICAL MEMBRANE TERMINATION

FOR USE WHERE HORIZONTAL TERMINATION OF EPDM MEMBRANE IS NOT POSSIBLE



DETAIL 1 -ROOF CURB FLASHING

SCALE: NONE

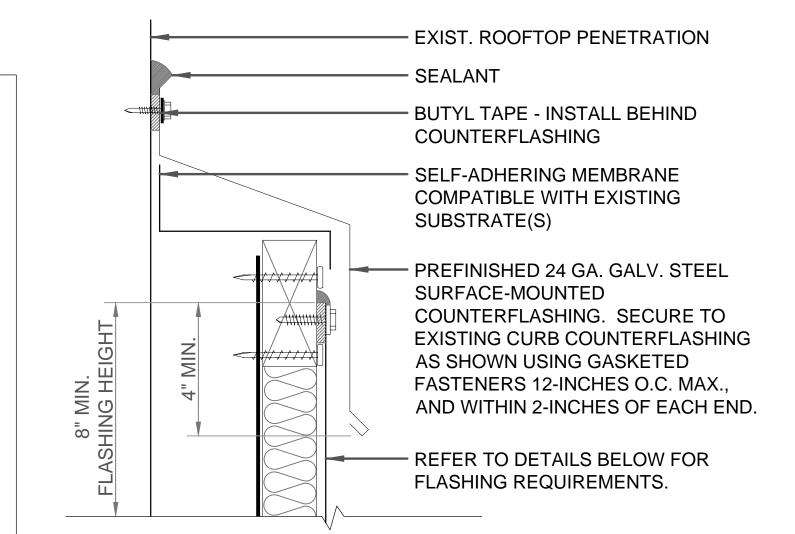


ALT. SECUREMENT

SECURE TOP EDGE OF FLASHING USING AN ALUMINUM TERMINATION BAR SECURED 12-INCHES O.C., MAX., AND WITHIN 2-INCHES OF EACH END. PRIOR TO TERMINATION BAR INSTALLATION, INSTALL MANUFACTURERS RECOMMENDED SEALANT BEHIND FLASHING WHERE TERMINATION BAR WILL BE PLACED. SEAL TOP EDGE OF FLASHING AND TERMINATION BAR AFTER INSTALLATION.

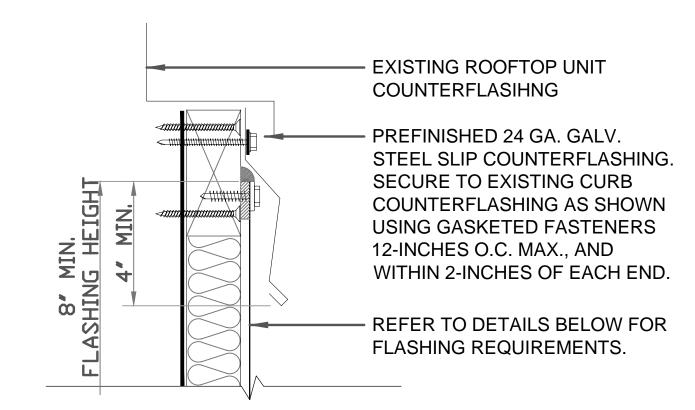
ALT. NOTE: WRAP EPDM MEMBRANE FLASHING OVER THE TOP OF THE CURB AND SECURE TO THE INSIDE OF THE CURB WITH 1" METAL CAP NAILS AT 6" O.C. MAXIMUM.

MEMBRANE SECUREMENT



ALT. COUNTERFLASHING NO. 2

FOR USE WHERE APPROVED AND WHERE EXISTING CURB IS SEPARATED FROM THE **EXISTING ROOFTOP PENETRATION**



ALT. COUNTERFLASHING NO. 1

FOR USE WHERE APPROVED AND WHERE EXISTING ROOFTOP UNIT CANNOT BE DISPLACED TO ALLOW FOR FLASHING, OR WHERE GAP BETWEEN EXISTING ROOFTOP UNIT COUNTERFLASHING AND CURB IS TOO NARROW TO ACCOMMODATE FLASHING



SCOTT R **HOFFMAN ENGINEER**

DATE BY PROJECT/ ARCH ENGINEERING APPROVAL APPROVAL REVISIONS

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IF THIS SHEET IS NOT 24 BY 36 INCHES, THEN USE GRAPHIC SCALE ACCORDING



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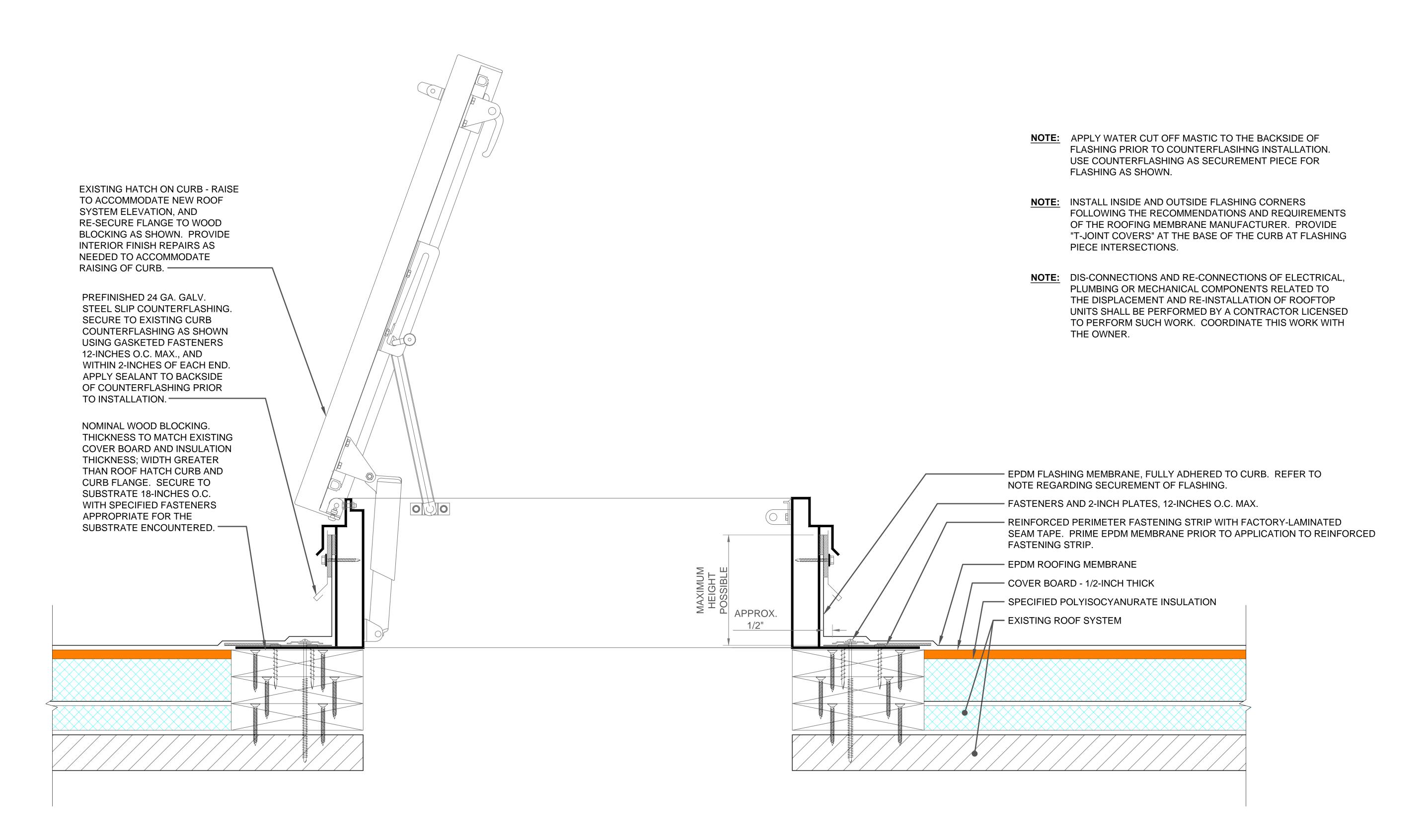
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ROOF CURB FLASHING

DETAIL # DRAFTER DESIGNER MG DATE **CHECKED BY** 3/17/23 BB

SHEET NO.



DETAIL 2 -ROOF HATCH CURB FLASHING

SCALE: NONE





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ROOF HATCH CURB FLASHING

DETAIL #

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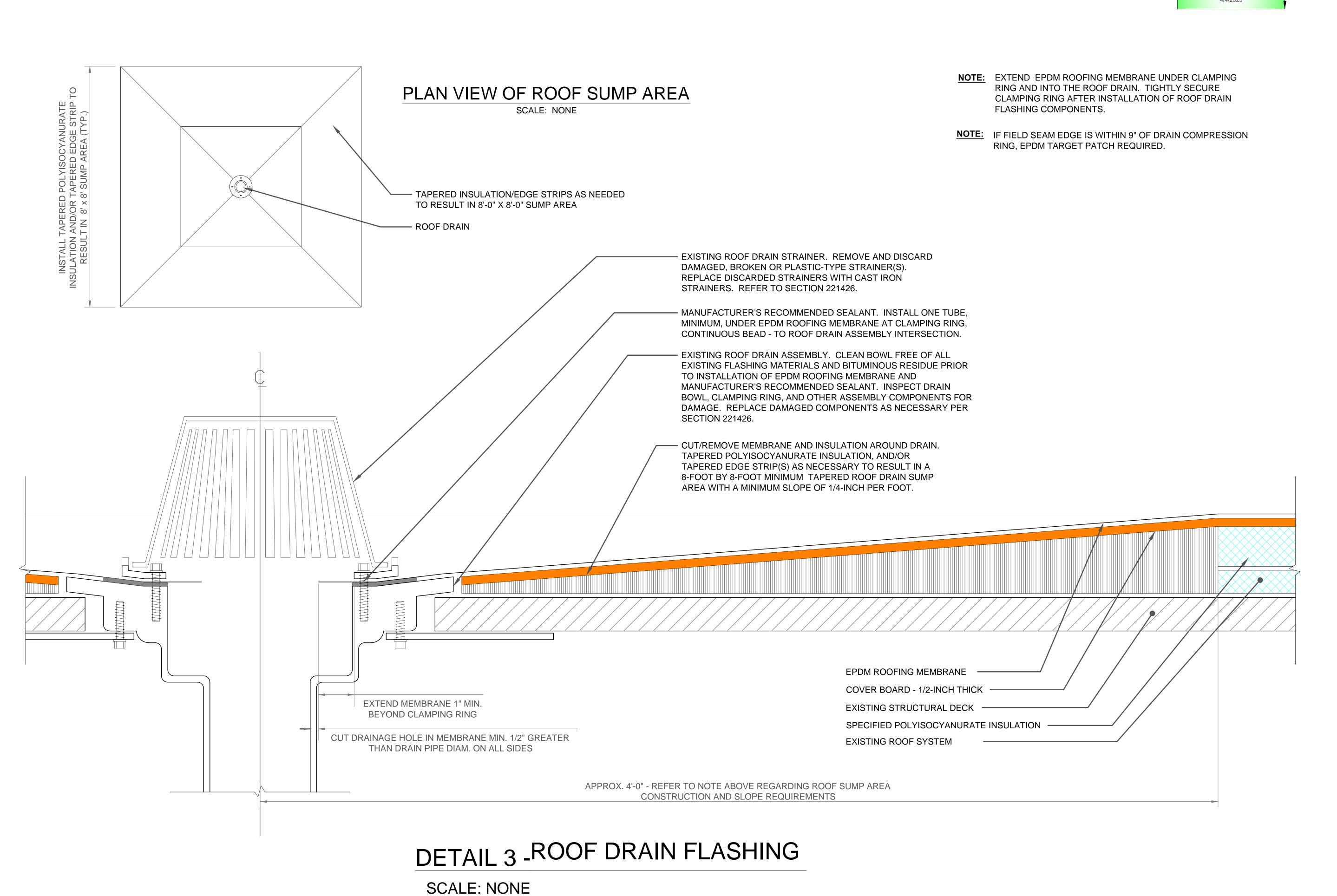
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3/17/23

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SHEET NO.





SCOTT R.
HOFFMAN
ENGINEER
No.
52575

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2				
1	4/4/2023			
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ROOF DRAIN FLASHING

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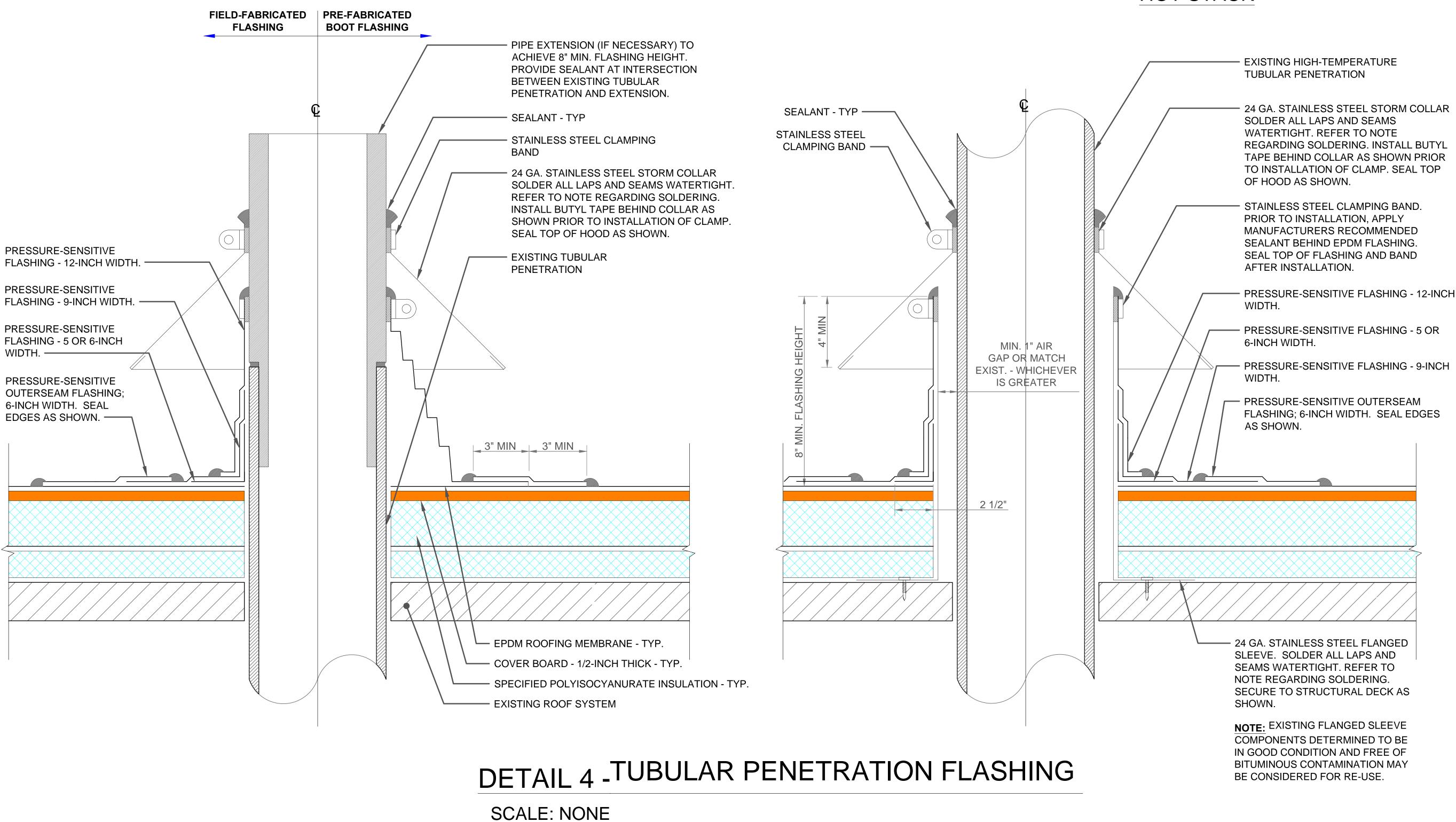
PRIOR TO SOLDERING OF STAINLESS STEEL, CLEAN WORK AREA USING SOLVENTS AND WIRE BRUSH; REMOVING DIRT, OIL, GREASE, AND OTHER CONTAMINANTS FROM THE WORK AREA. TIN THE WORK AREA BY APPLYING ACID (FLUX). PERFORM SOLDERING WORK. AFTER COMPLETION OF WORK, REMOVE EXCESS ACID (FLUX)

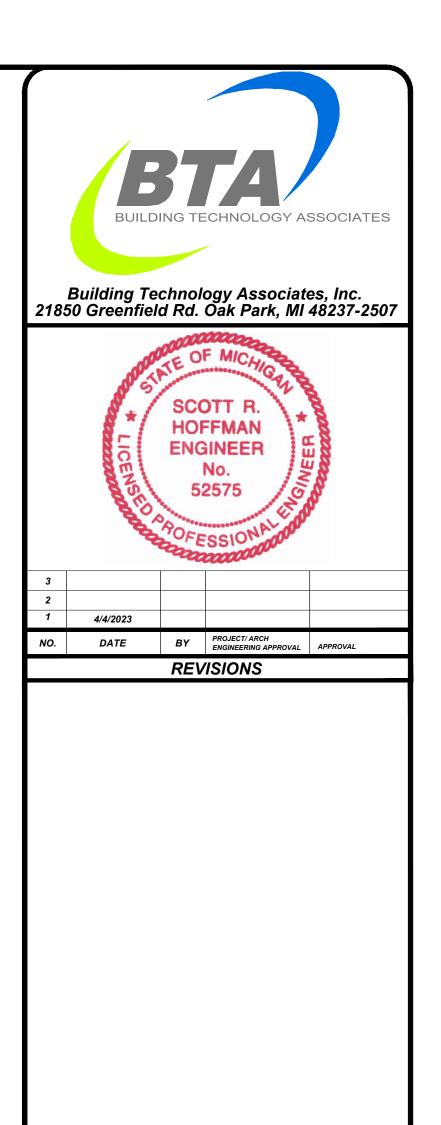
FROM THE WORK AREA.

NOTE: APPLY PRIMER TO ALL SURFACES WHICH WILL RECEIVE PRESSURE SENSITIVE OUTER SEAM FLASHING PRIOR TO APPLICATION.

WHEN OUTSIDE DIAMETER OF THE PIPE EXCEEDS 18", ADDITIONAL FIELD MEMBRANE SECUREMENT REQUIRED. REFER TO MANUFACTURER'S DETAILS.

HOT STACK





TEY PLAN

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TUBULAR PENETRATION FLASHING

DETAIL #

4

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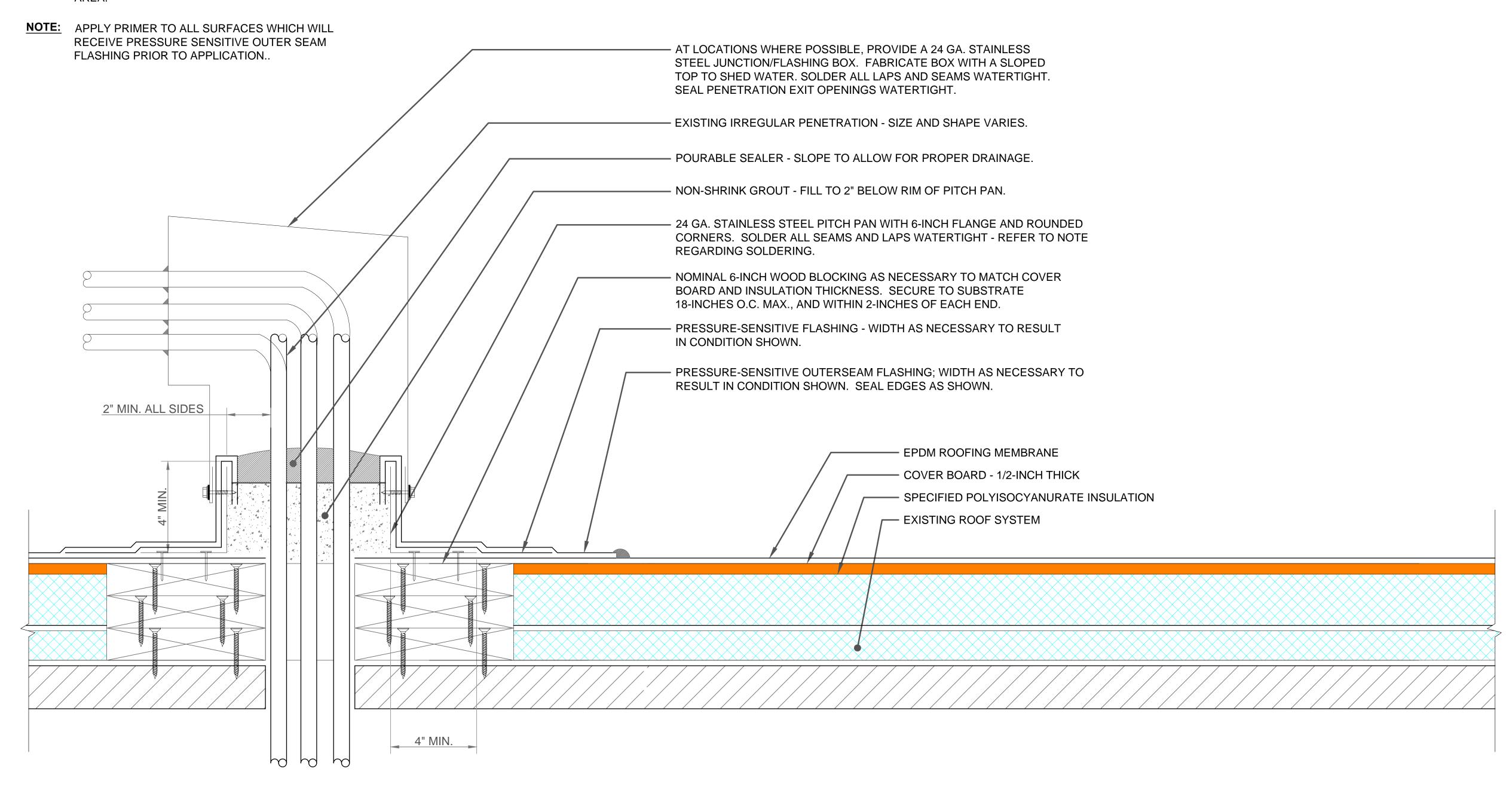
DATE CHECKED BY

3/17/23 BB

SHEET NO.

NOTE: DO NOT USE PITCH PANS AT TUBULAR PENETRATIONS WITHOUT PRIOR OWNER APPROVAL.

PRIOR TO SOLDERING OF STAINLESS STEEL, CLEAN WORK AREA USING SOLVENTS AND WIRE BRUSH; REMOVING DIRT, OIL, GREASE, AND OTHER CONTAMINANTS FROM THE WORK AREA. TIN THE WORK AREA BY APPLYING ACID (FLUX). PERFORM SOLDERING WORK. AFTER COMPLETION OF WORK, REMOVE EXCESS ACID (FLUX) FROM THE WORK AREA.



DETAIL 5 -PITCH PAN FLASHING

SCALE: NONE





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PITCH PAN FLASHING

DETAIL #

5

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MG

DATE

3/17/23

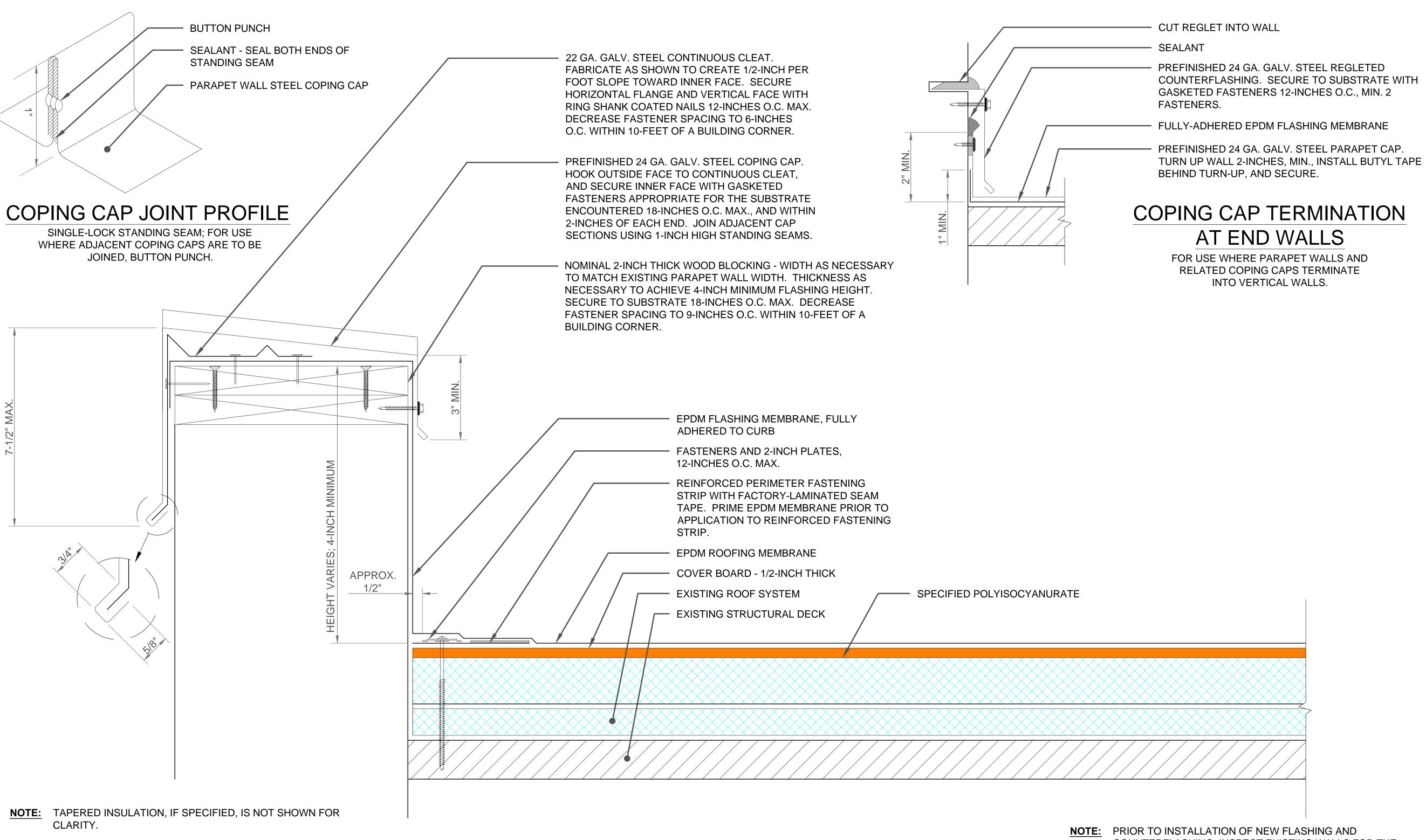
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NOTE: EXTEND EPDM ROOFING MEMBRANE OVER AND DOWN PERIMETER EDGE AS SHOWN. APPLY SEALANT TO BACK SIDE OF MEMBRANE AND SECURE WITH ROOFING NAILS AFFIXED WITH 1" DIAMETER METAL CAPS 12" O.C. MAX.

NOTE: AT ROOF CURB/WALL FLASHING HEIGHTS GREATER THAN 24-INCHES: PROVIDE INTERMEDIATE SECUREMENT PER THE REQUIREMENTS AND RECOMMENDATIONS OF THE EPDM ROOFING MEMBRANE MANUFACTURER.

DETAIL 6 -PARAPET WALL FLASHING

SCALE: NONE

NOTE: PRIOR TO INSTALLATION OF NEW FLASHING AND COUNTERFLASHING, INSPECT EXISTING WALLS FOR THE PRESENCE OF MASONRY WEEPS AND OTHER WALL DRAINAGE MECHANISMS. DO NOT COVER WEEPS, OR IMPEDE THE ABILITY OF MOISTURE TO EXIT WALL SYSTEMS.

NOTE: INSTALL INSIDE AND OUTSIDE FLASHING CORNERS FOLLOWING THE RECOMMENDATIONS AND REQUIREMENTS OF THE ROOFING MEMBRANE MANUFACTURER. PROVIDE "T-JOINT COVERS" AT THE BASE OF THE CURB AT FLASHING PIECE INTERSECTIONS.



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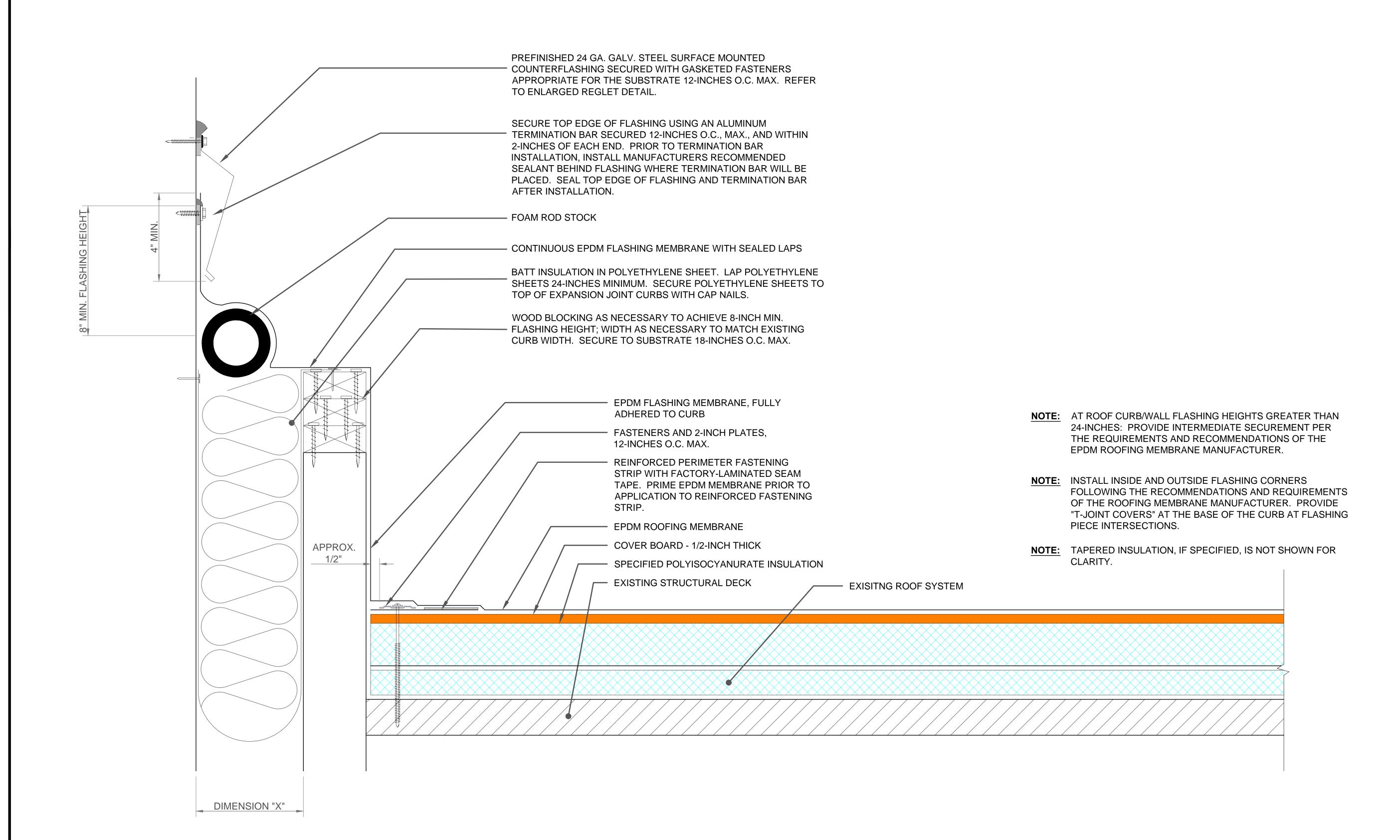
PARAPET WALL FLASHING

DETAIL #

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DETAIL 7 -ROOF-TO-WALL EXPANSION JOINT FLASHING

SCALE: NONE



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ROOF-TO-WALL EXPANSION JOINT FLASHING

DETAIL #

7

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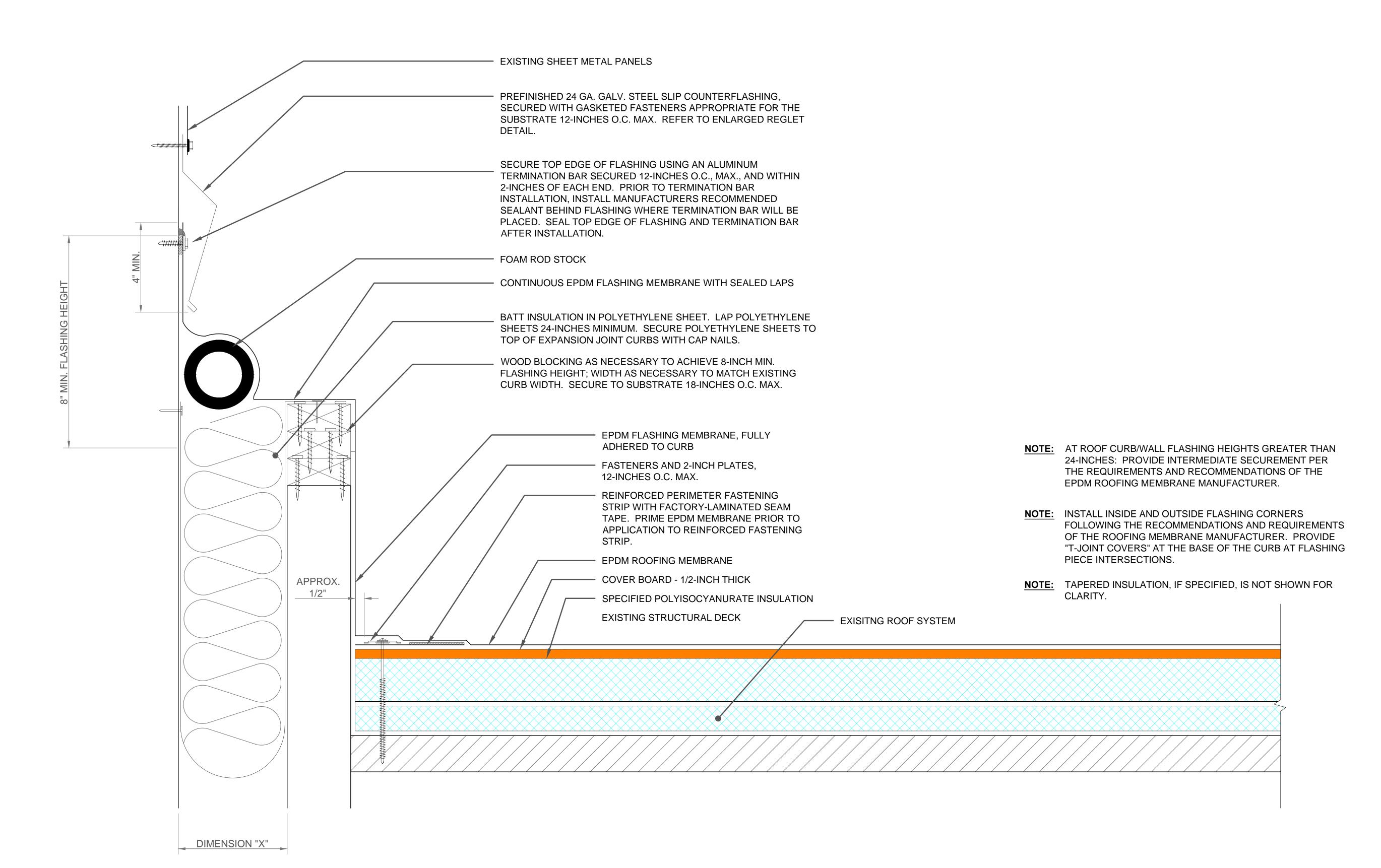
DATE

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3/17/23

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DETAIL 8 -ROOF-TO-WALL EXPANSION JOINT FLASHING

SCALE: NONE



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