

Plotted: 4/14/2021 2:30 PM by Reinke, Bryan File Name: P:\2020\2020\7xxx\2020_7098.0 - Poudre Schools 2021 Roof Recoating (08) Drawings\Kruise\2020_7098-Kruise_A001.dwg

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Kruise Elementary School

Recoating of Existing Roofing System

Project:

Kruise Elementary School
Roofing Replacement
4400 Mcmurry Avenue
Fort Collins, Colorado 80525

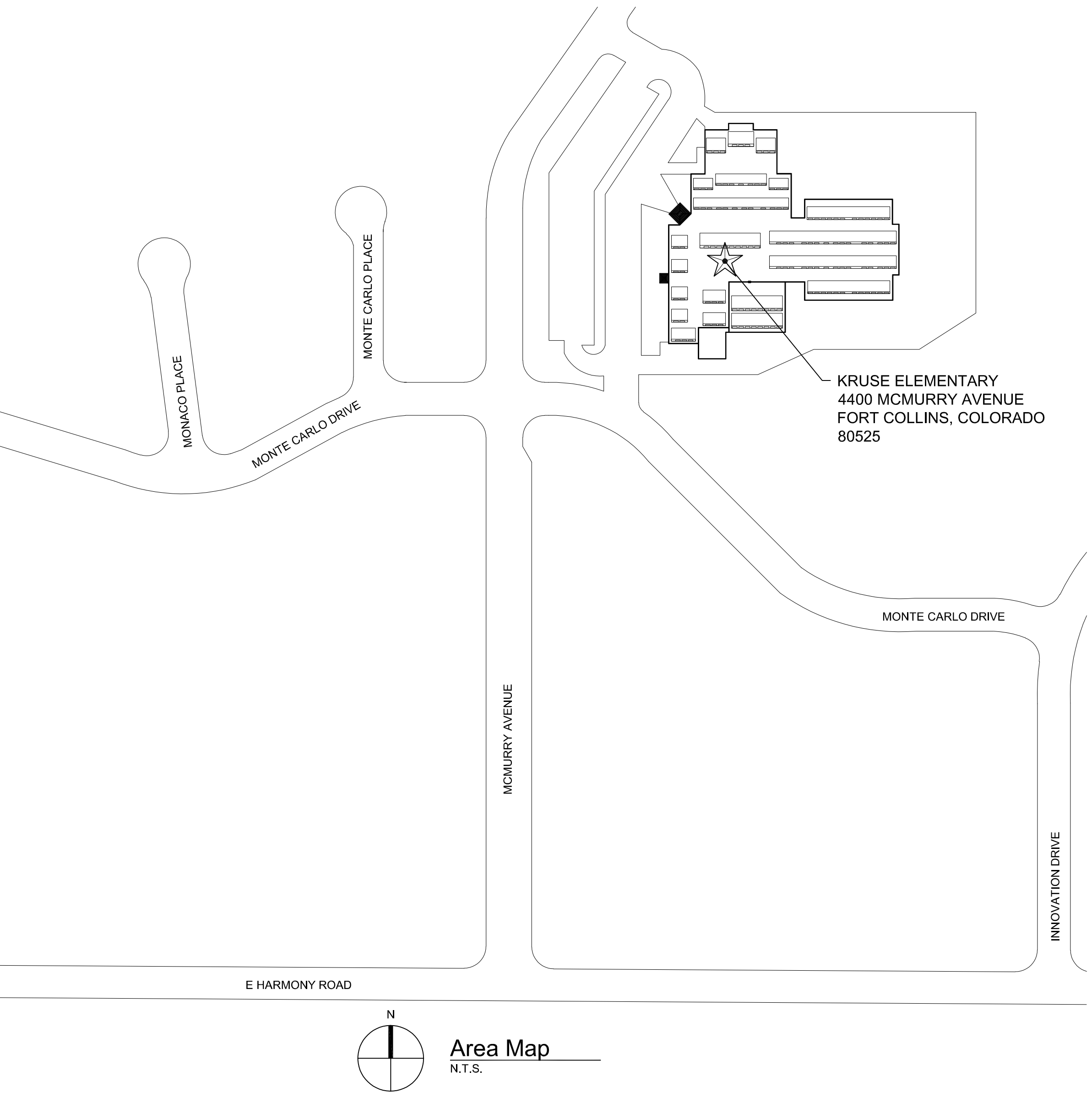
Client:

Poudre School District
2413 Laporte Avenue
Fort Collins, Colorado 80521

Consultant:

WJE

Wiss, Janney, Elstner Associates, Inc.
3609 South Wadsworth Blvd. Suite 400
Lakewood, Colorado
303.914.4300 tel | 303.914.3000 fax



INDEX TO DRAWINGS

A001	TITLE SHEET
A002	GENERAL NOTES
A101	ROOF PLAN
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A502	ROOFING DETAILS

BUILDING CODES:

2018 INTERNATIONAL BUILDING CODE (IBC)
2018 INTERNATIONAL EXISTING BUILDING CODE (IEBC)
2018 INTERNATIONAL FIRE CODE (IFC)
2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
2018 INTERNATIONAL PLUMBING CODE (IPC)

ABBREVIATIONS:

(E)	EXISTING	RE:	REFER TO
EA	EACH	REQ'D	REQUIRED
EPS	EXTRUDED POLYSTYRENE	SIM	SIMILAR
FV	FIELD VERIFY	SF	SQUARE FEET
MAX	MAXIMUM	SPF	SPRAY POLYURETHANE FOAM
MFR	MANUFACTURER	TERM	TERMINATION
MIN	MINIMUM	TYP	TYPICAL
O.C.	ON CENTER	U.O.N.	UNLESS OTHERWISE NOTED
N.I.C.	NOT IN CONTRACT	w/	WITH

DESIGN CRITERIA

WIND SPEED: 150 mph Vult
ASCE: 7-16 - As Amended by the City of Fort Collins
TERRAIN CLASSIFICATION: Exposure B
BUILDING TYPE: 2A
RISK CATEGORY: III

FIRE SPRINKLER SYSTEM: YES
FIRE ALARM SYSTEM: YES

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MATERIALS SCIENTISTS

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Philadelphia | Princeton | San Francisco | Seattle | South Florida | Washington, D.C.

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Project

Kruise Elementary

4400 Mcmurry Avenue
Fort Collins, Colorado

Client

Poudre School District

2413 Laporte Avenue
Fort Collins, Colorado

	4/14/2021	100% FOR CONSTRUCTION
Mark	Date	Description
<div><div>01/2"1"2"</div><div>THIS SHEET PLOTS FULL SIZE AT 24x36 (INCHES)</div></div>		

Project No.	2020.7098
Date	04/14/2021
Drawn	BRS/BWR
Checked	SER/BWR
Scale	AS NOTED

TITLE SHEET

Sheet Title

Sheet No. **A001**

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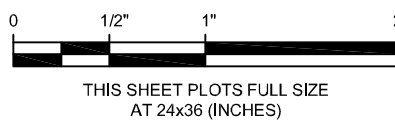
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GENERAL NOTES

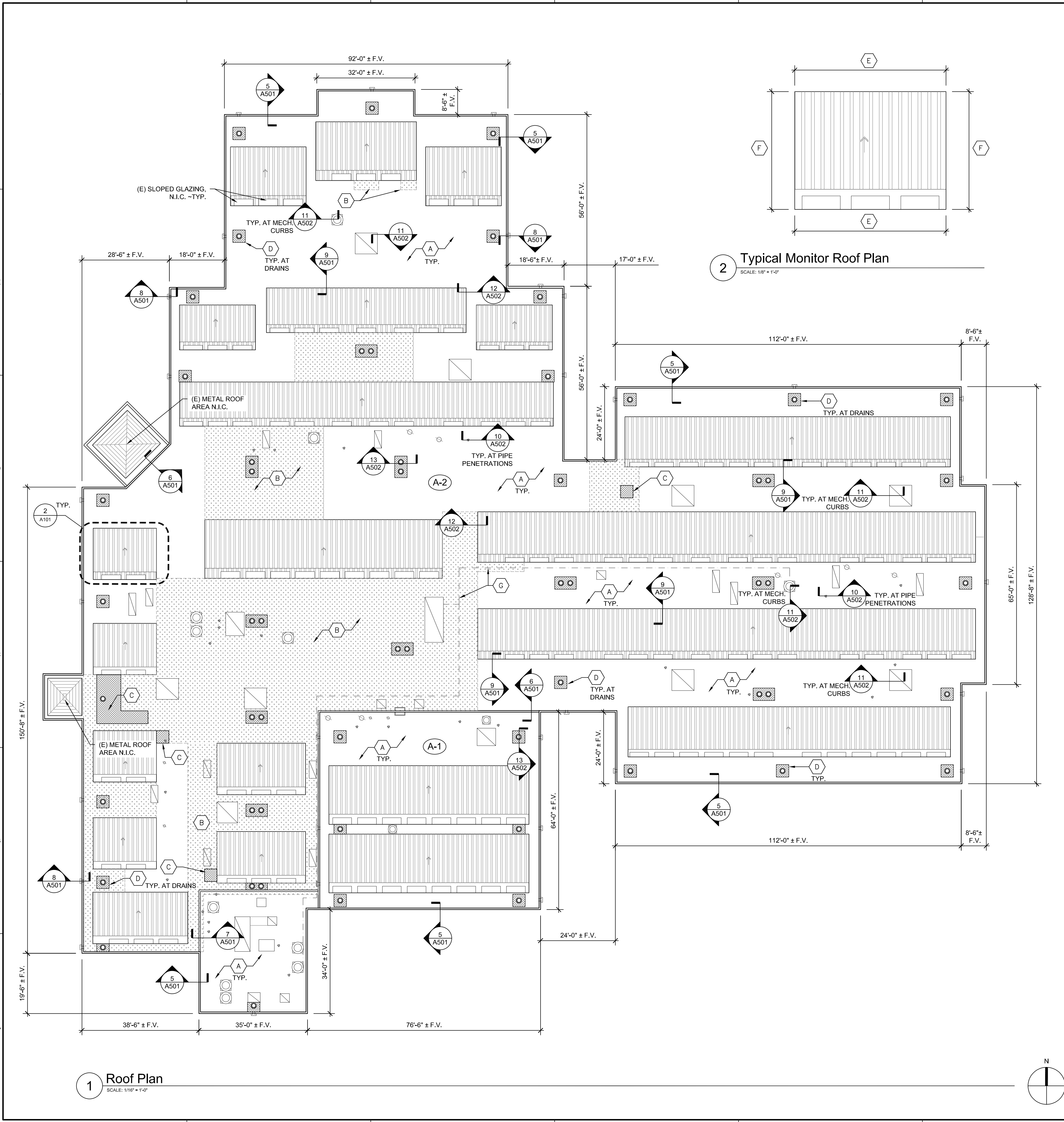
Sheet Title

Sheet No

A002

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BUILDING INPUT DATA (ROOF AREA A-1)

MEAN ROOF HEIGHT35'-0" F.V.
PARAPET HEIGHT..... LESS THAN 36"
EXPOSURE CATEGORY.....Exposure B
APPROXIMATE AREA OF SPF.....2,025 SF

BUILDING INPUT DATA (ROOF AREA A-2)

MEAN ROOF HEIGHT20'-0" F.V.
PARAPET HEIGHT..... LESS THAN 36"
EXPOSURE CATEGORY.....Exposure B
APPROXIMATE AREA OF SPF.....29,340 SF

SYMBOLS LEGEND AND DETAIL REFERENCES

- NON-REMOVABLE MECH. CURB;
DETAIL 11/A502
- REMOVABLE MECH. CURB;
DETAIL 11/A502
- PRIMARY AND OVERFLOW DRAIN;
DETAIL 13/A502
- OVERFLOW SCUPPER;
DETAIL 8/A501
- ELECTRICAL DISCONNECT
- FLUE PIPE PENETRATION;
DETAIL 14/A502
- PIPE PENETRATION;
DETAIL 10/A502
- PARAPET WALL;
DETAIL 5/A501
- UTILITY LINE
- ROOF ACCESS LADDER
- DIRECTION OF SLOPE
- ROOF AREA DESIGNATION
- STANDING SEAM METAL ROOF
AREA; NOT IN CONTRACT

KEYED NOTE LEGEND:

- DENOTES AREA OF EXISTING SPRAY POLYURETHANE FOAM ROOFING SYSTEM TO REMAIN IN-PLACE. SURFACE PREPARATION OF THE EXISTING COATING SHALL BE PERFORMED ACCORDING TO THE COATING MANUFACTURER'S REQUIREMENTS FOR THE APPLICATION OF A NEW THREE-COAT URETHANE COATING (NEOGARD PERMATHEANE ALIPHATIC II) CONSISTING OF: BASE COAT, TOP COAT AND FINISH COAT W/ NO. 11 CERAMIC-COATED GRANULES (RE: SPECIFICATIONS AND DETAIL 1/A501). REPAIRS TO THE EXISTING SPF SHALL BE PERFORMED BEFORE CLEANING OPERATIONS TO PREVENT MOISTURE INFILTRATION.
- APPROXIMATE TOTAL AREA OF SPF TO BE COATED = 31,365 SF (FIELD VERIFY).
- APPROXIMATE LOCATION AND EXTENTS OF SPF REQUIRING SCARIFICATION AND DENOTED THUS: RE: SPECIFICATIONS AND DETAIL 2/A501. CONTRACTOR SHALL VERIFY LOCATIONS REQUIRING REPAIR PRIOR TO BIDDING PROJECT AS ADDITIONAL AREAS MAY EXIST. AREAS SHALL INCLUDE LOCATIONS OF DETERIORATED AND/OR DAMAGED COATING AND SPF, SURFACE TEXTURES IDENTIFIED AS "POPCORN OR TREEBARK", AND WIDESPREAD AREAS OF BLISTERING. ISOLATED LOCATIONS OF BLISTERING AND SEPARATION OF SPF LAYERS OR COATINGS SHOULD BE REPAIRED PER DETAIL 3/A501. IN ALL LOCATIONS REQUIRING REPAIR, CONTRACTOR SHALL VERIFY PRESENCE OF MOISTURE WITHIN EXISTING ROOFING SYSTEM AND REMOVE AND/OR REPLACE AS REQUIRED, INCLUDING ALL MATERIALS DOWN TO THE (E) STEEL DECK (RE: KEYNOTE C). AREAS OF DEFICIENT SPF AND/OR COATING SHALL BE REMOVED AND REPLACED WITH EQUIVALENT DENSITY AND THICKNESS OF FOAM. INSTALL MANUFACTURER'S APPROVED SEALANT AT PERIMETER OF REPAIR AREA. FINISH SURFACE OF REPAIR SHALL MATCH EXISTING; CHAMFER EDGES FLUSH WITH ADJACENT ROOFING SYSTEM.
- APPROXIMATE TOTAL AREA OF SCARIFICATION REQUIRED = 8,900 SF (FIELD VERIFY).
- DENOTES APPROXIMATE LOCATION OF PREVIOUSLY DOCUMENTED MOISTURE WITHIN EXISTING ROOFING SYSTEM DOWN TO THE EXISTING SUBSTRATE AND DENOTED THUS: CONTRACTOR SHALL REMOVE EXISTING ROOFING SYSTEM CONTAINING MOISTURE, INCLUDING EXISTING EPS INSULATION, WOOD FIBER BOARD AND SPF AND REPLACE TO MATCH EXISTING (RE: SPECIFICATIONS AND DETAIL 4/A501). IF AREAS LARGER THAN 2 SQUARE FEET IN TOTAL AREA REQUIRE REMOVAL, NOTIFY OWNER PRIOR TO PROCEEDING WITH REPAIR AS ROOFING SYSTEM MAY POTENTIALLY REQUIRE ADDITIONAL FASTENING TO THE (E) STEEL DECK. IF DETERIORATED AND/OR CORRODED STEEL DECK SUBSTRATE IS OBSERVED, CONTRACTOR SHALL NOTIFY OWNER PRIOR TO PROCEEDING WITH WORK.
- CONTRACTOR SHALL TEST EXISTING PRIMARY DRAINS TO ENSURE EACH DRAIN IS IN WORKING ORDER, FREE-FLOWING, AND DOES NOT CAUSE WATER LEAKAGE TO THE INTERIOR OF THE BUILDING. WATER TEST SHALL BE PERFORMED PRIOR TO PERFORMING WORK AND AT THE TIME OF SUBSTANTIAL COMPLETION. CONTRACTOR TO PROVIDE DOCUMENTATION OF WATER TESTS AND SHALL COORDINATE TEST WITH OWNER. AT ALL ROOF DRAIN SUMP AREAS AND AS INDICATED ON ROOF PLAN DENOTED THUS: REMOVE THE EXISTING SPF ROOFING SYSTEM DOWN TO THE EXISTING METAL DECK. CONTRACTOR SHALL VERIFY ADJACENT EXISTING SPF ROOFING SYSTEM FOR MOISTURE AND REMOVE AND REPLACE AS REQUIRED. RE: KEYNOTE C. TAKE CARE TO NOT DAMAGE THE EXISTING DRAIN. CONTRACTOR SHALL REPLACE LEAKING OR BROKEN DRAIN ASSEMBLIES AND COORDINATE ALL PLUMBING WORK WITH THE OWNER. NEW SPF ROOFING SYSTEM ADJACENT TO DRAINS SHALL BE INSTALLED TO MATCH EXISTING SUMP AREA AND PROVIDE ADEQUATE SLOPE TO DRAIN WATER FROM ADJACENT ROOF AREA.
- REMOVE AND SAVE FOR REUSE THE EXISTING SHEET METAL COUNTER FLASHING AT BASE OF EXISTING MONITOR. REMOVE (E) COATING AT SUBSTRATE. REMOVE EXISTING DETERIORATED AND/OR DAMAGED (E) PLYWOOD SUBSTRATE AND INSTALL NEW EXTERIOR FIRE RATED PLYWOOD TO MATCH EXISTING WHERE DAMAGED AND/OR DETERIORATED. INSTALL NEW COATING FULL HEIGHT OF WALL AND TERMINATE WITH MANUFACTURER'S APPROVED SEALANT. REINSTALL (E) SHEET METAL COUNTER FLASHING; RE: DETAIL 9/A501.
- REMOVE EXISTING SHEET METAL COUNTER FLASHING AT BASE OF EXISTING MONITOR AND DISPOSE. REMOVE EXISTING COATING FROM SUBSTRATE AND INSTALL NEW EXTERIOR GRADE FIRE RATED PLYWOOD TO MATCH EXISTING WHERE DAMAGED AND/OR DETERIORATED. INSTALL NEW COATING FULL HEIGHT OF WALL AND TERMINATE WITH MANUFACTURER'S APPROVED SEALANT. INSTALL THREE-COURSING AND NEW 24 GA. PRE-FINISHED COUNTER FLASHING. RE: DETAIL 12/A502.
- PROVIDE TEMPORARY SUPPORT FOR EXISTING UTILITY LINES THROUGHOUT DURATION OF WORK. INSTALL NEW ADJUSTABLE SUPPORTS (DURA-BLOK ROOFTOP SUPPORT) AT INTERVALS NOT-TO-EXCEED 10 FEET AND ONE FOOT AWAY IN BOTH DIRECTIONS FROM BENDS. PAINT (E) GAS LINES SAFETY YELLOW. (E) CONNECTIONS SHALL BE MASKED AND NOT PAINTED SO THAT THEY CAN BE PROPERLY MAINTAINED AS NEEDED.

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Consultants

Project

Krusse Elementary

**4400 Mcmurry Avenue
Fort Collins, Colorado**

Client

Poudre School District

**2413 Laporte Avenue
Fort Collins, Colorado**

Mark	Date	Description
	4/14/2021	100% FOR CONSTRUCTION

0 1" 2"
THIS SHEET PLOTS FULL SIZE
AT 24x36 (INCHES)

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ROOF PLAN

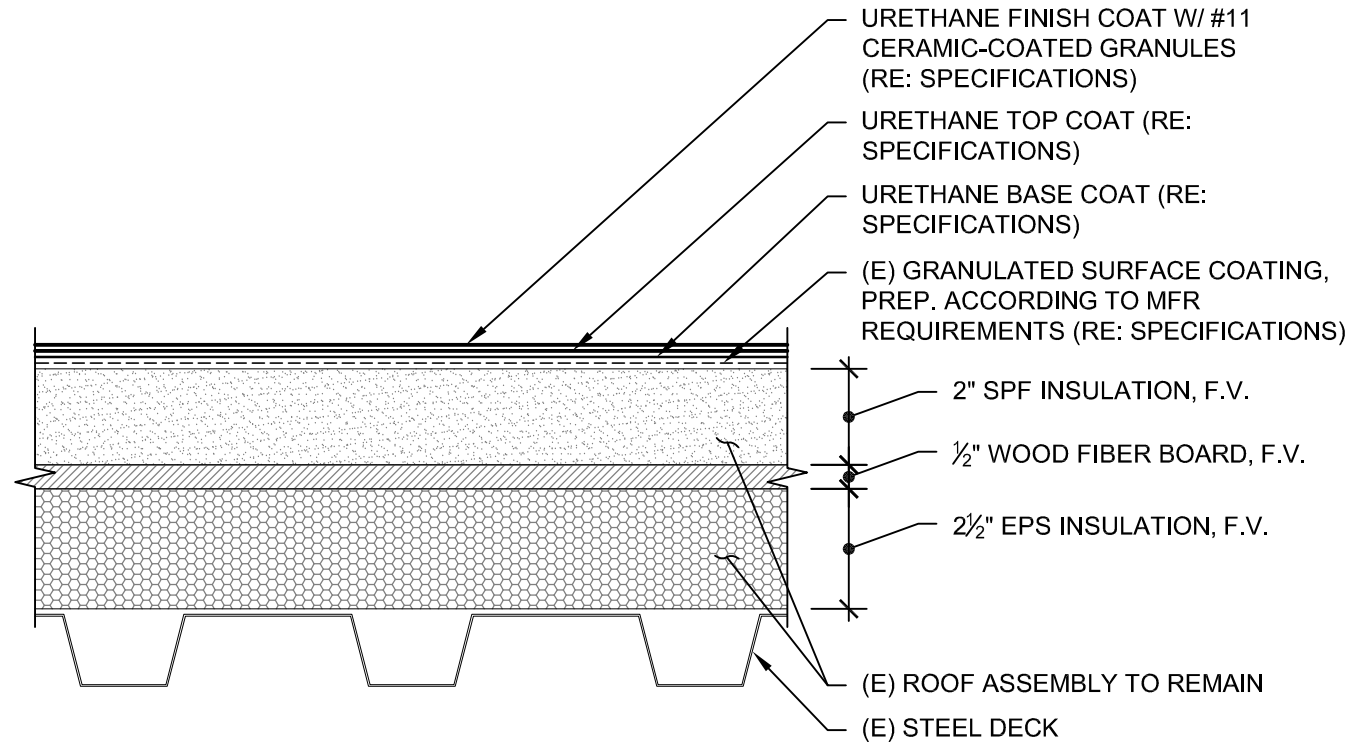
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A101

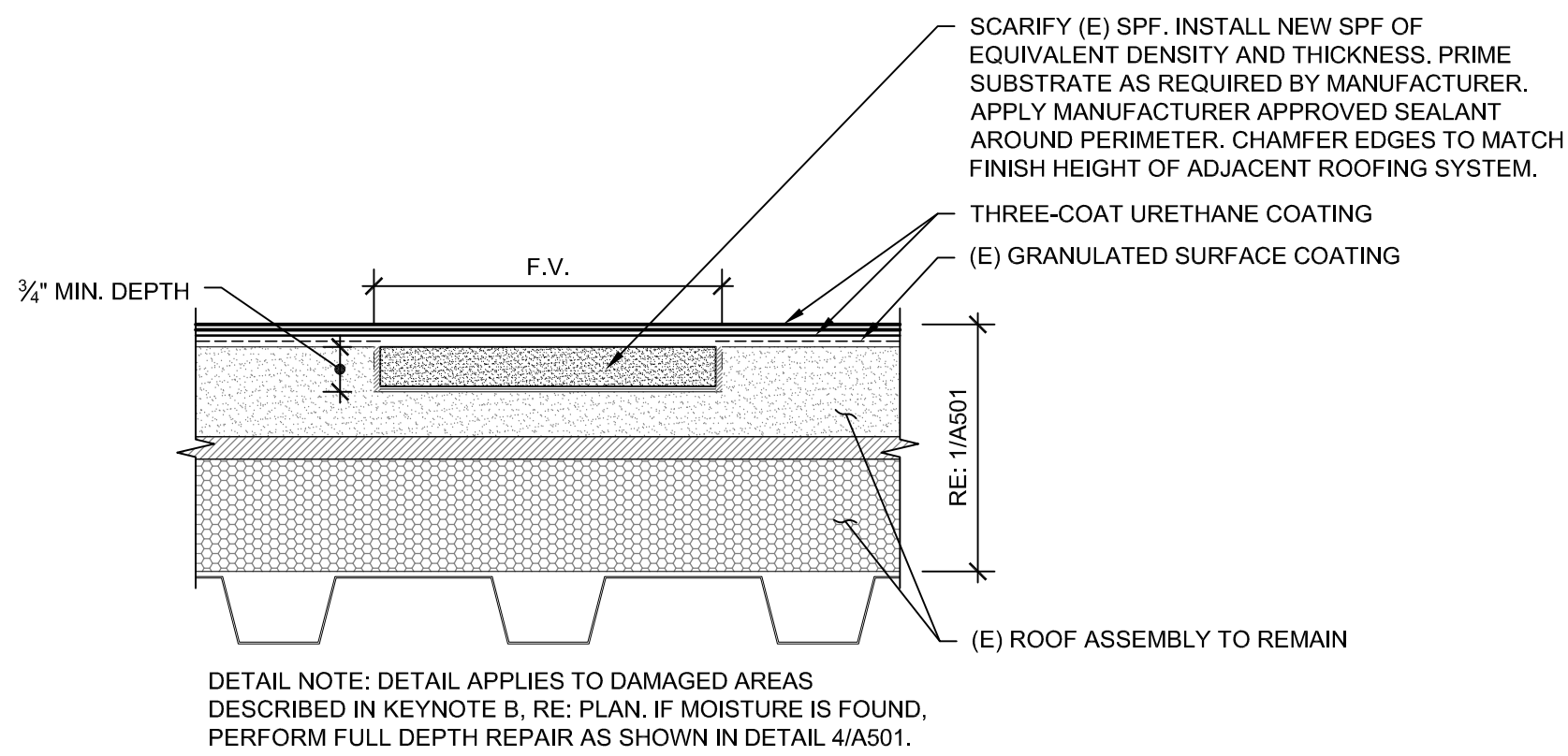
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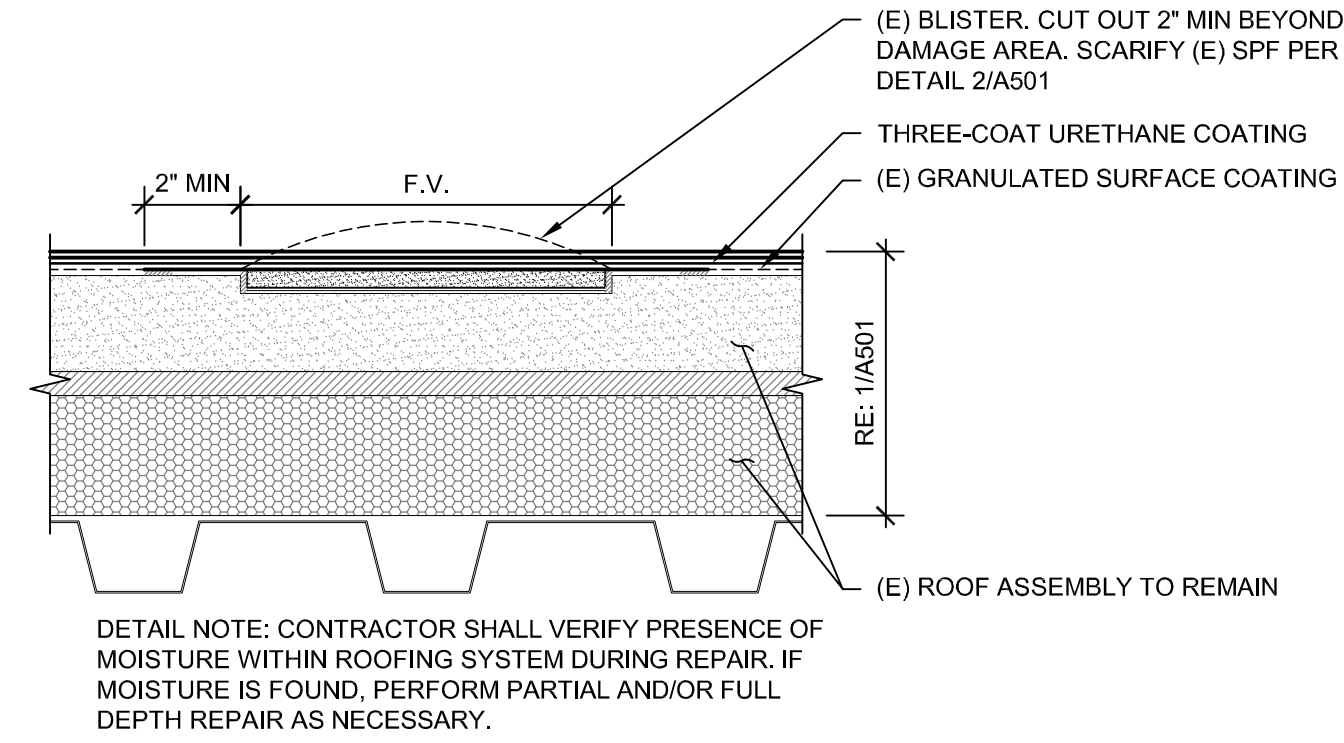
Typical Three-Coat URETHANE Coating over Existing Roofing Assembly

1 SCALE: 3"=1'-0"



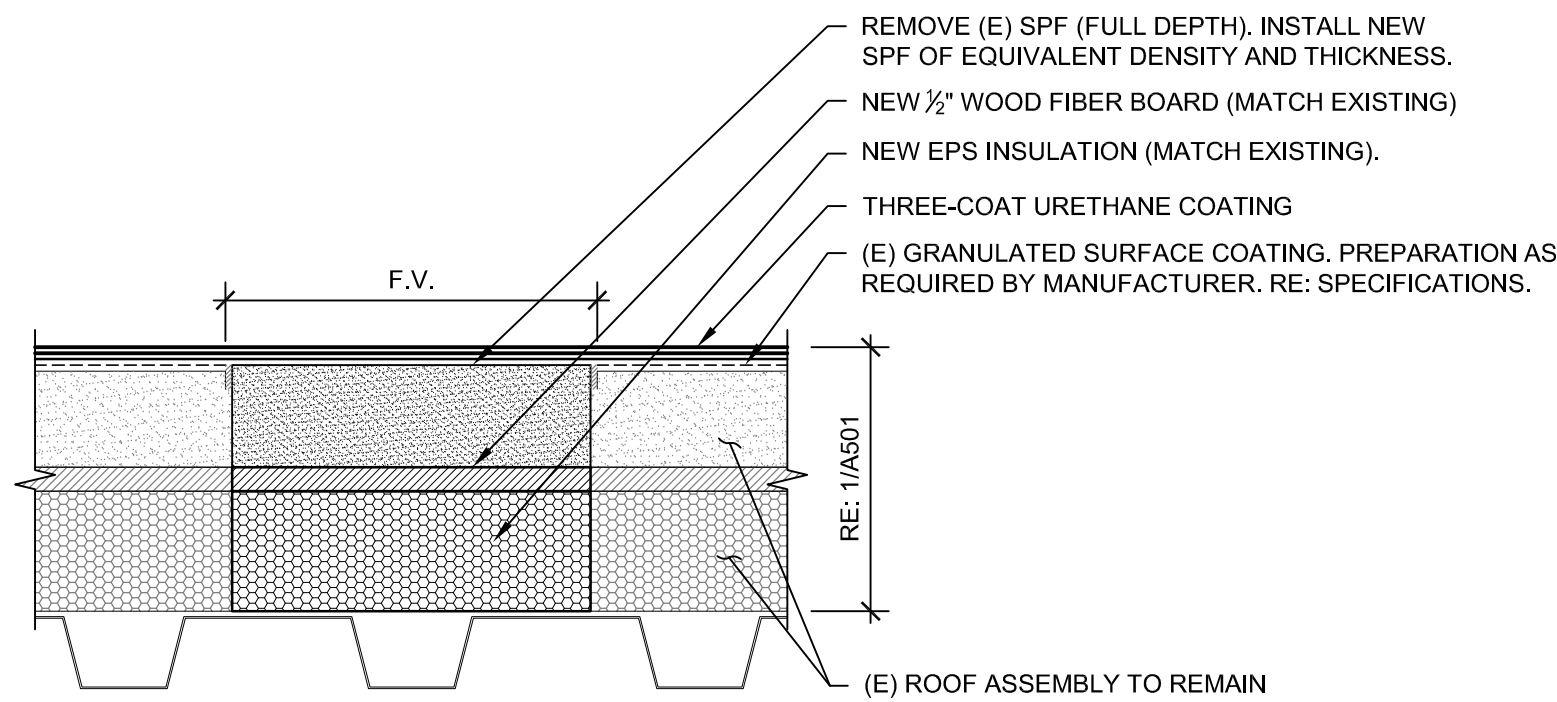
Coating Repair at Scarified Roof Areas (Partial Depth)

2 SCALE: 3"=1'-0"



Coating Repairs at Localized Blister Locations

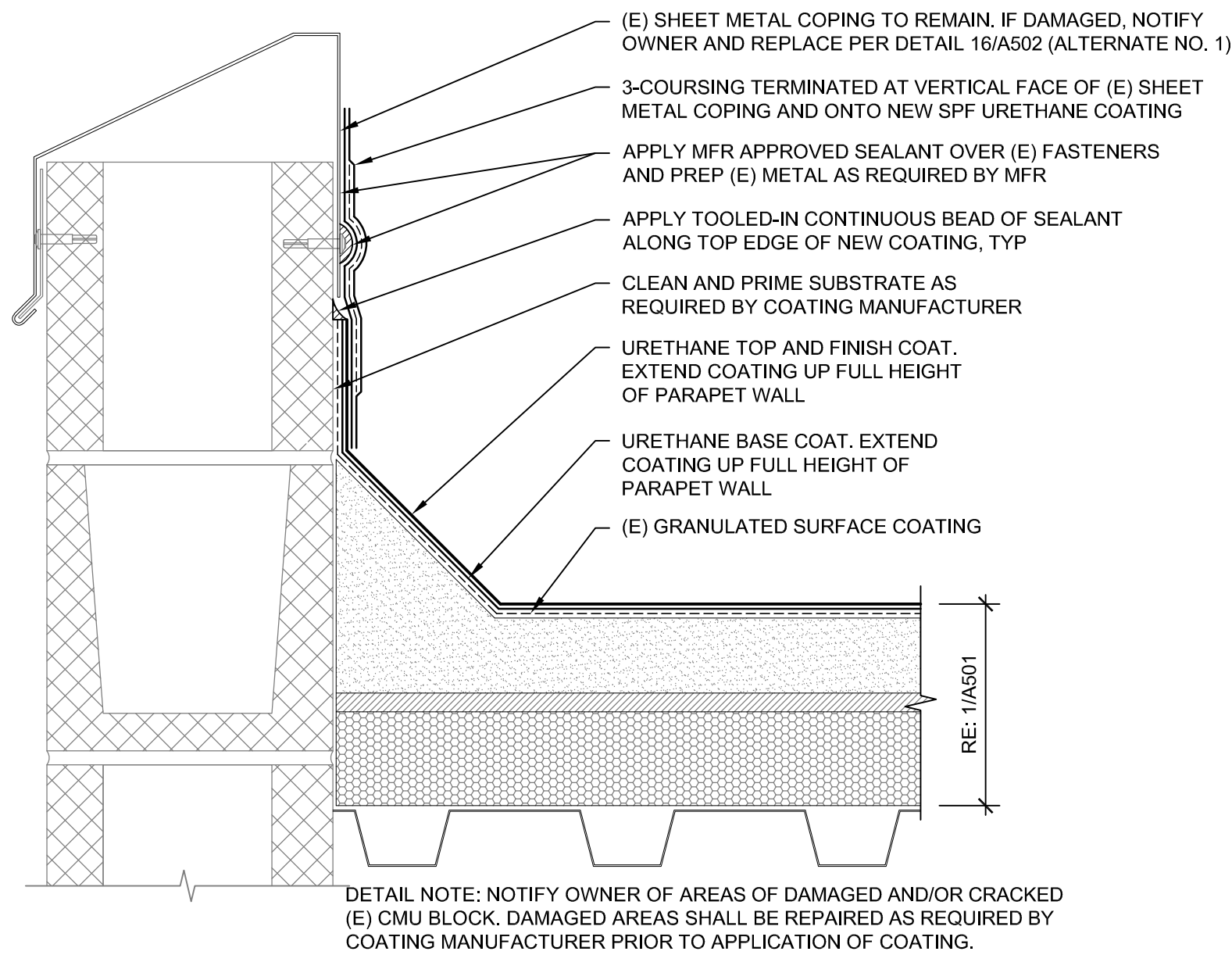
3 SCALE: 3"=1'-0"



DETAIL NOTE: NOTIFY OWNER OF AREAS REQUIRING REPAIR LARGER THAN 2 SF IN TOTAL AREA AND/OR IF DETERIORATED/CORRODED (E) STEEL DECK IS DISCOVERED.

Full Depth Roofing System Repair

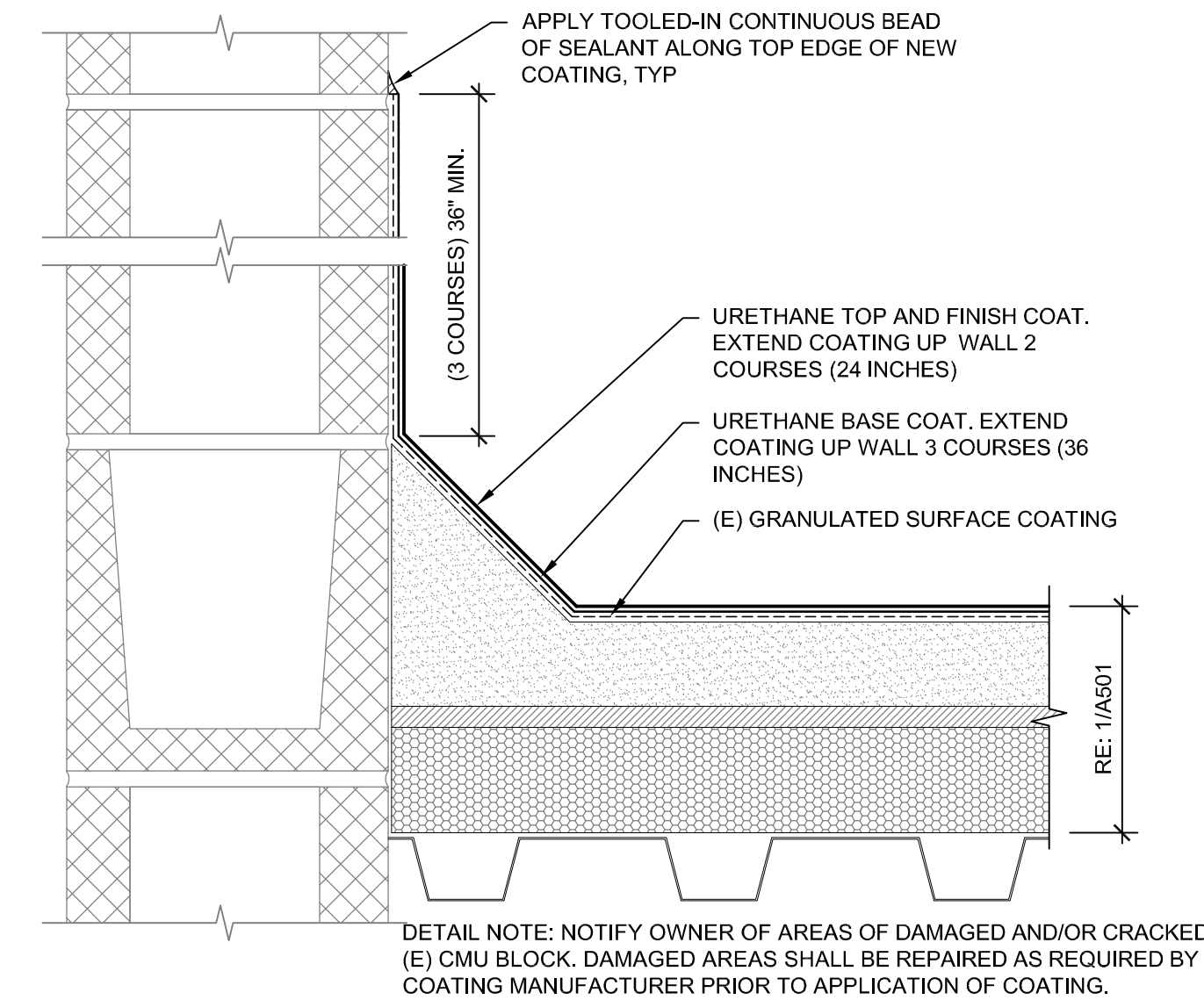
4 SCALE: 3"=1'-0"



DETAIL NOTE: NOTIFY OWNER OF AREAS OF DAMAGED AND/OR CRACKED (E) CMU BLOCK. DAMAGED AREAS SHALL BE REPAIRED AS REQUIRED BY COATING MANUFACTURER PRIOR TO APPLICATION OF COATING.

Termination at Existing Parapet Wall w/ New Coping Cap

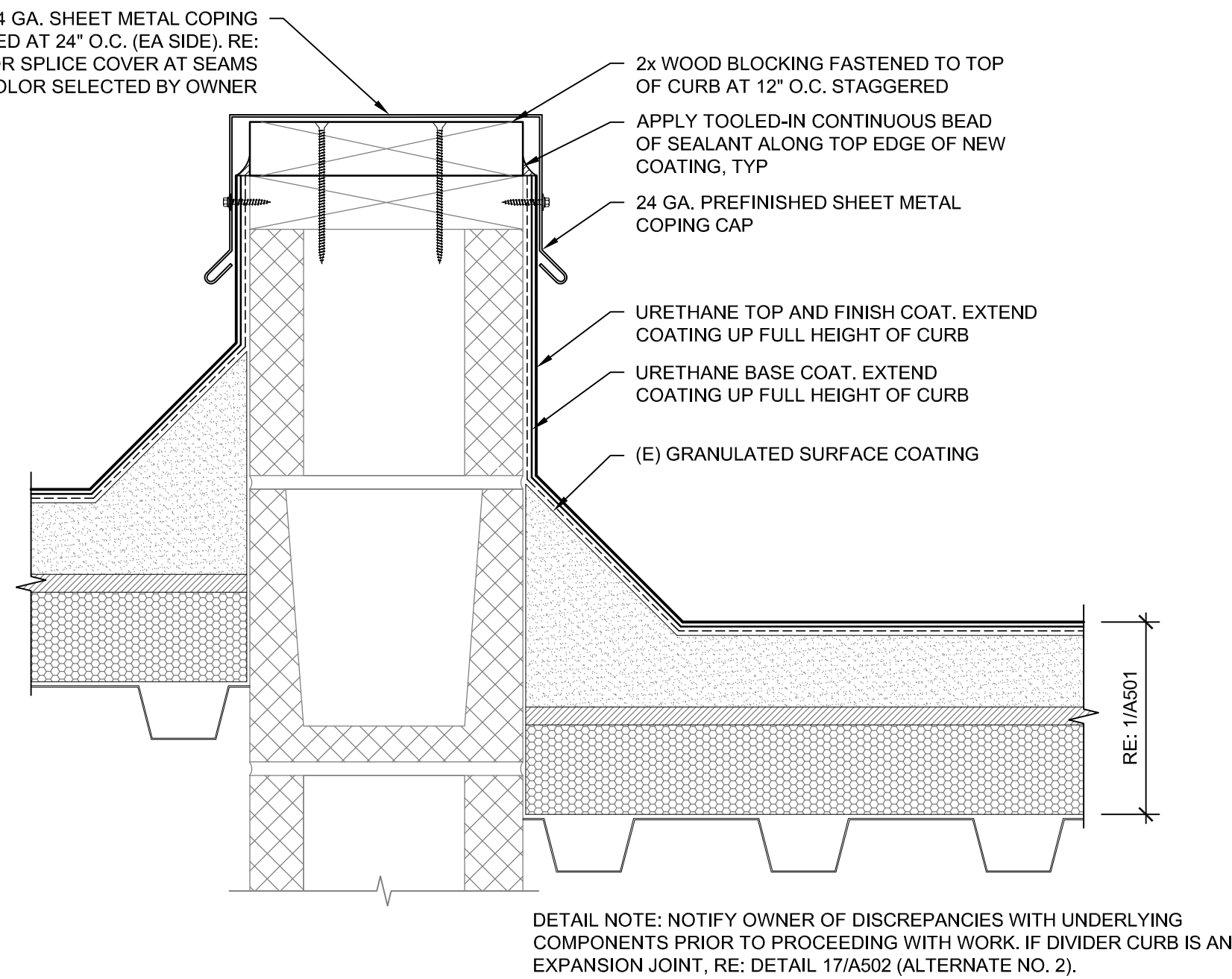
5 SCALE: 3"=1'-0"



DETAIL NOTE: NOTIFY OWNER OF AREAS OF DAMAGED AND/OR CRACKED (E) CMU BLOCK. DAMAGED AREAS SHALL BE REPAIRED AS REQUIRED BY COATING MANUFACTURER PRIOR TO APPLICATION OF COATING.

Typical Coating Termination at Existing CMU

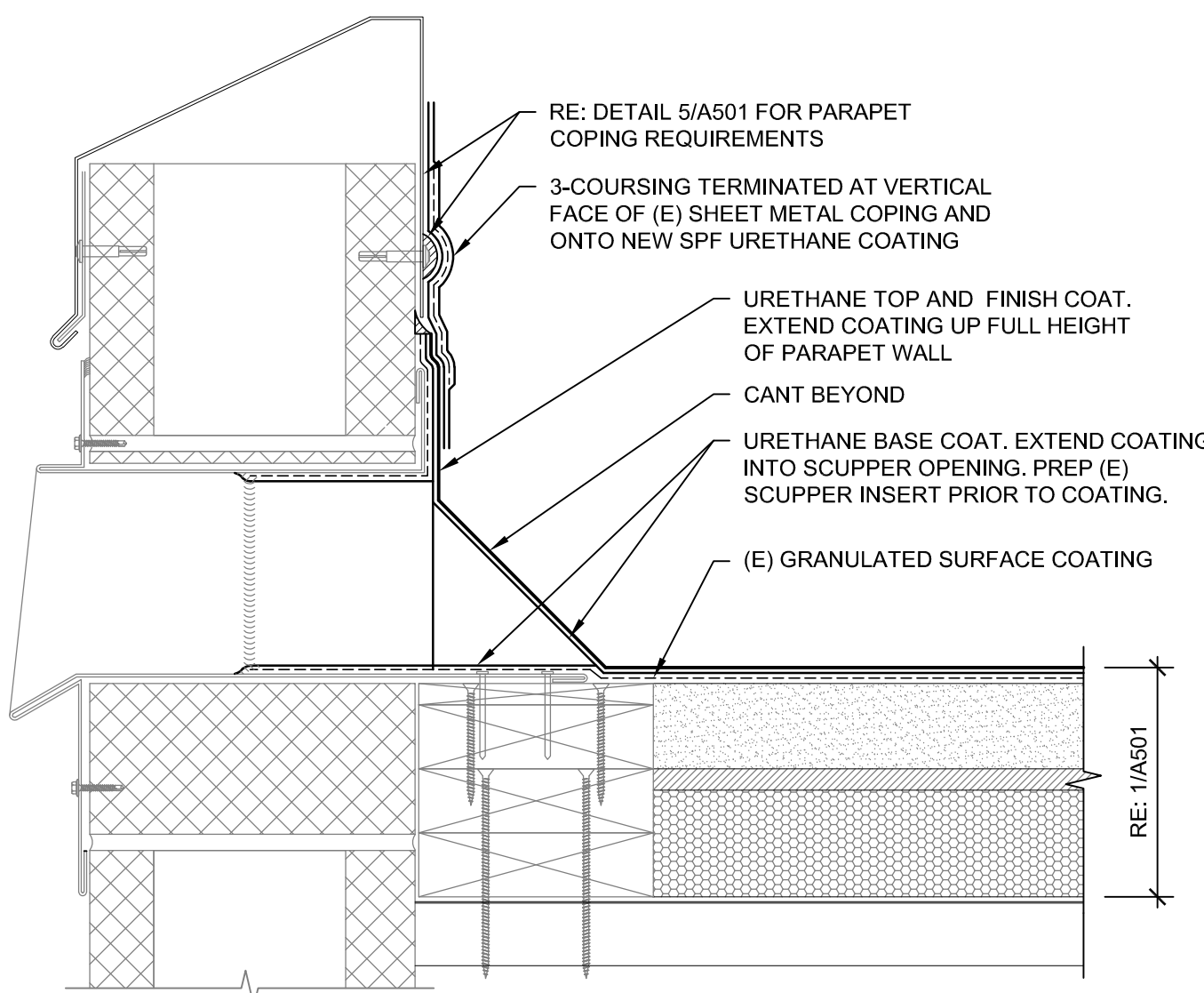
6 SCALE: 3"=1'-0"



DETAIL NOTE: NOTIFY OWNER OF DISCREPANCIES WITH UNDERLYING COMPONENTS PRIOR TO PROCEEDING WITH WORK. IF DIVIDER CURB IS AN EXPANSION JOINT, RE: DETAIL 17/A502 (ALTERNATE NO. 2).

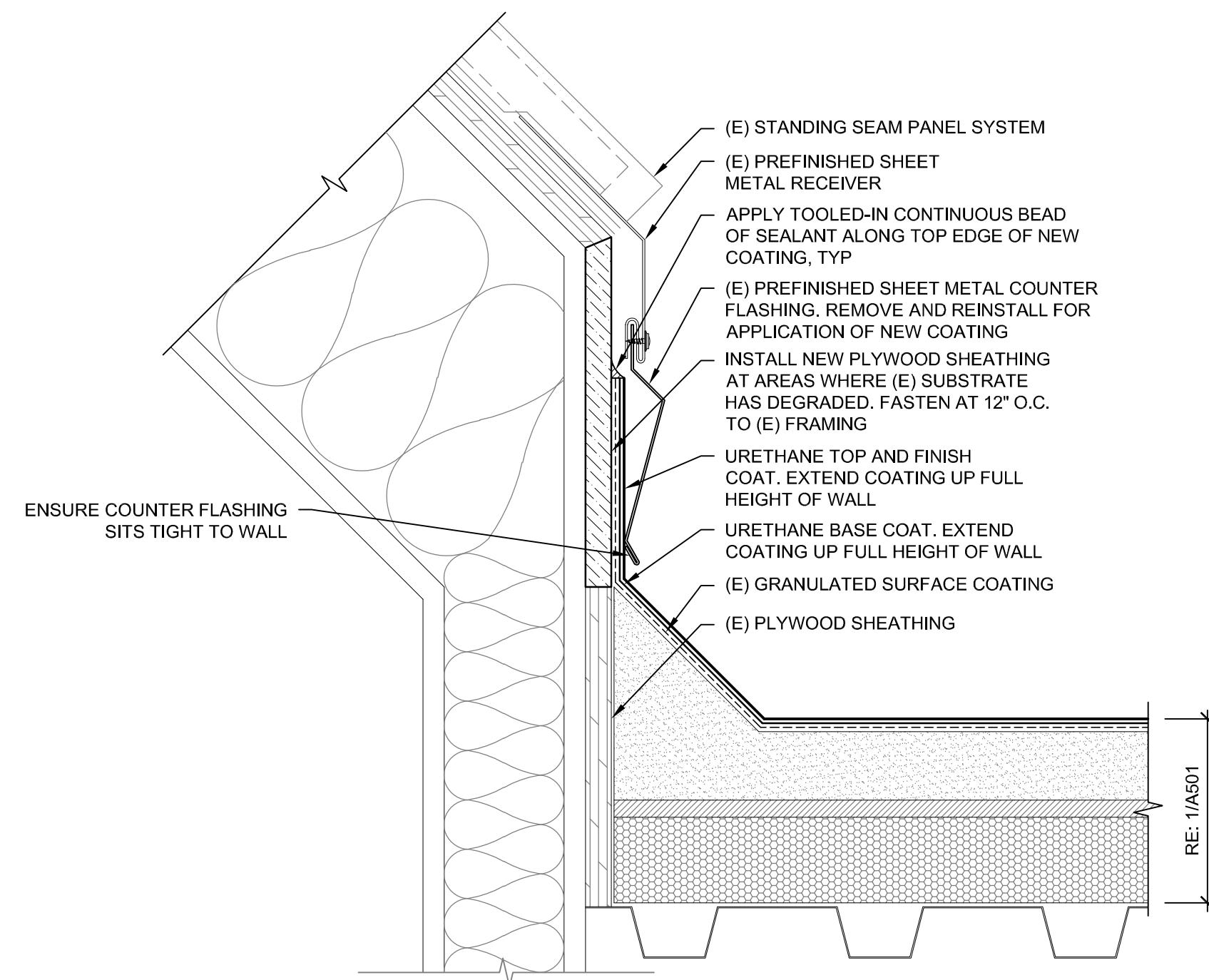
Termination at Area Divider Wall w/ New Coping Cap

7 SCALE: 3"=1'-0"



Termination at Existing Thru-Wall Scupper

8 SCALE: 3"=1'-0"



Termination and Counterflashing at Existing Monitor

9 SCALE: 3"=1'-0"

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Project

Krusse Elementary

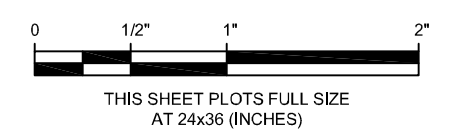
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ROOFING DETAILS

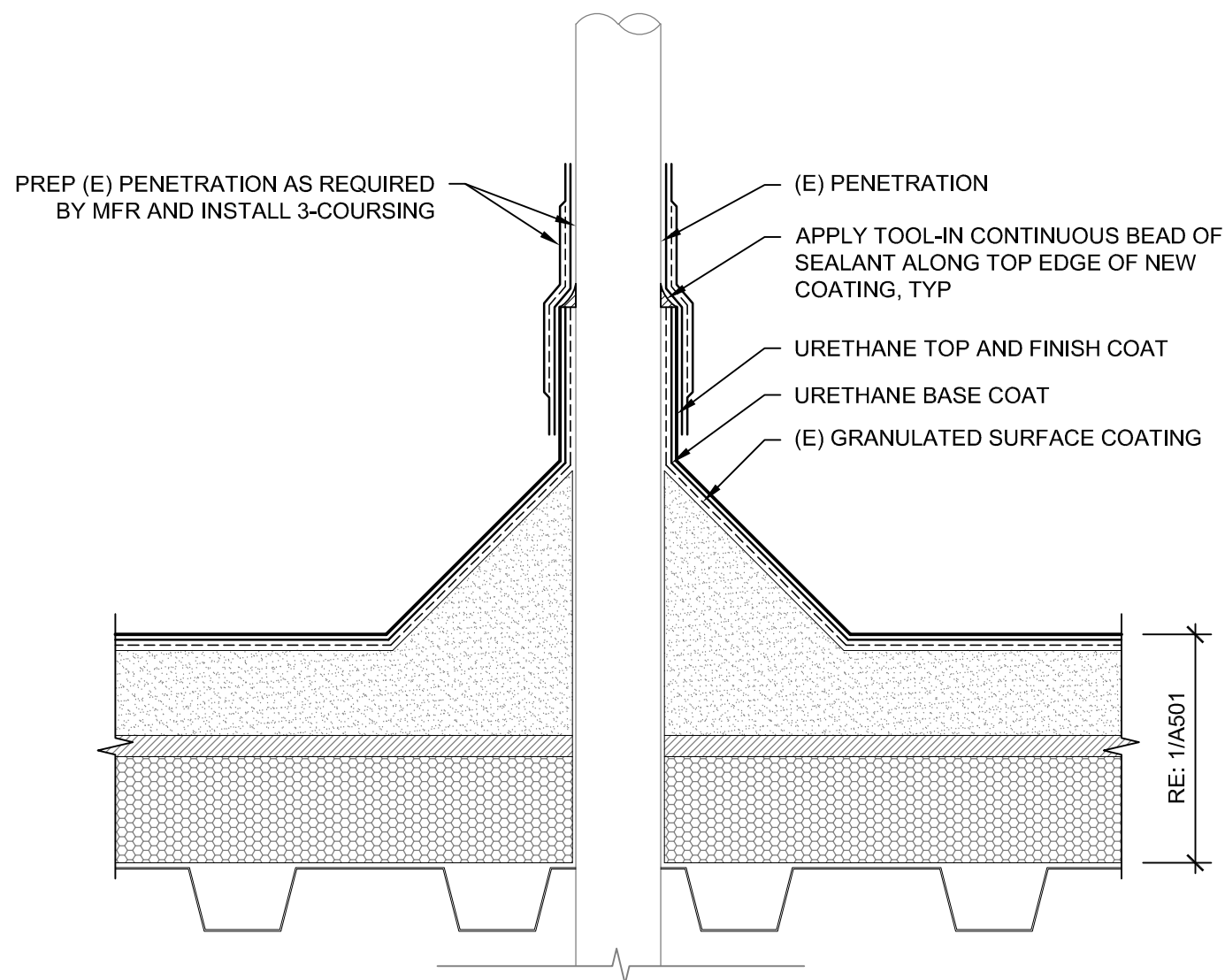
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A501

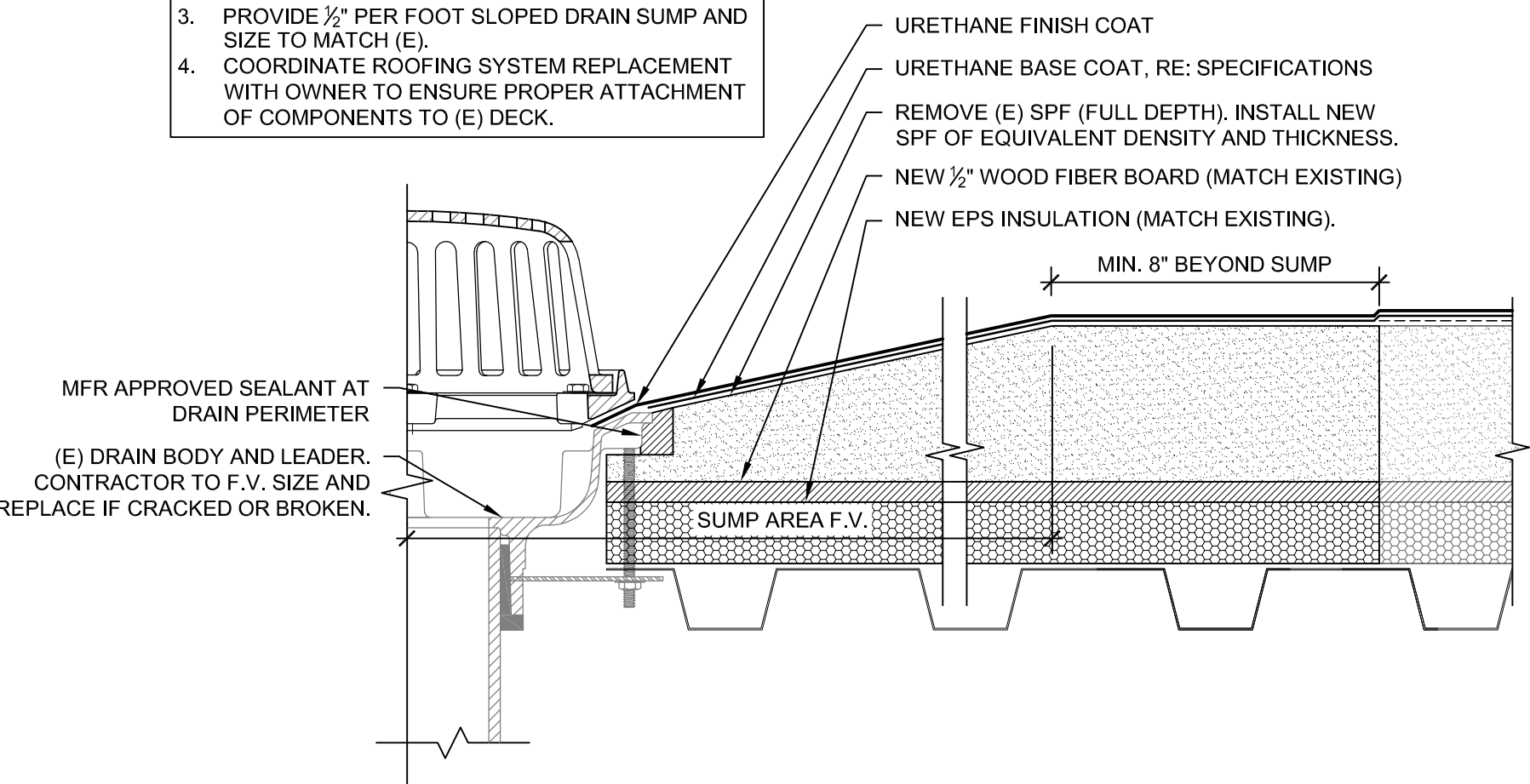
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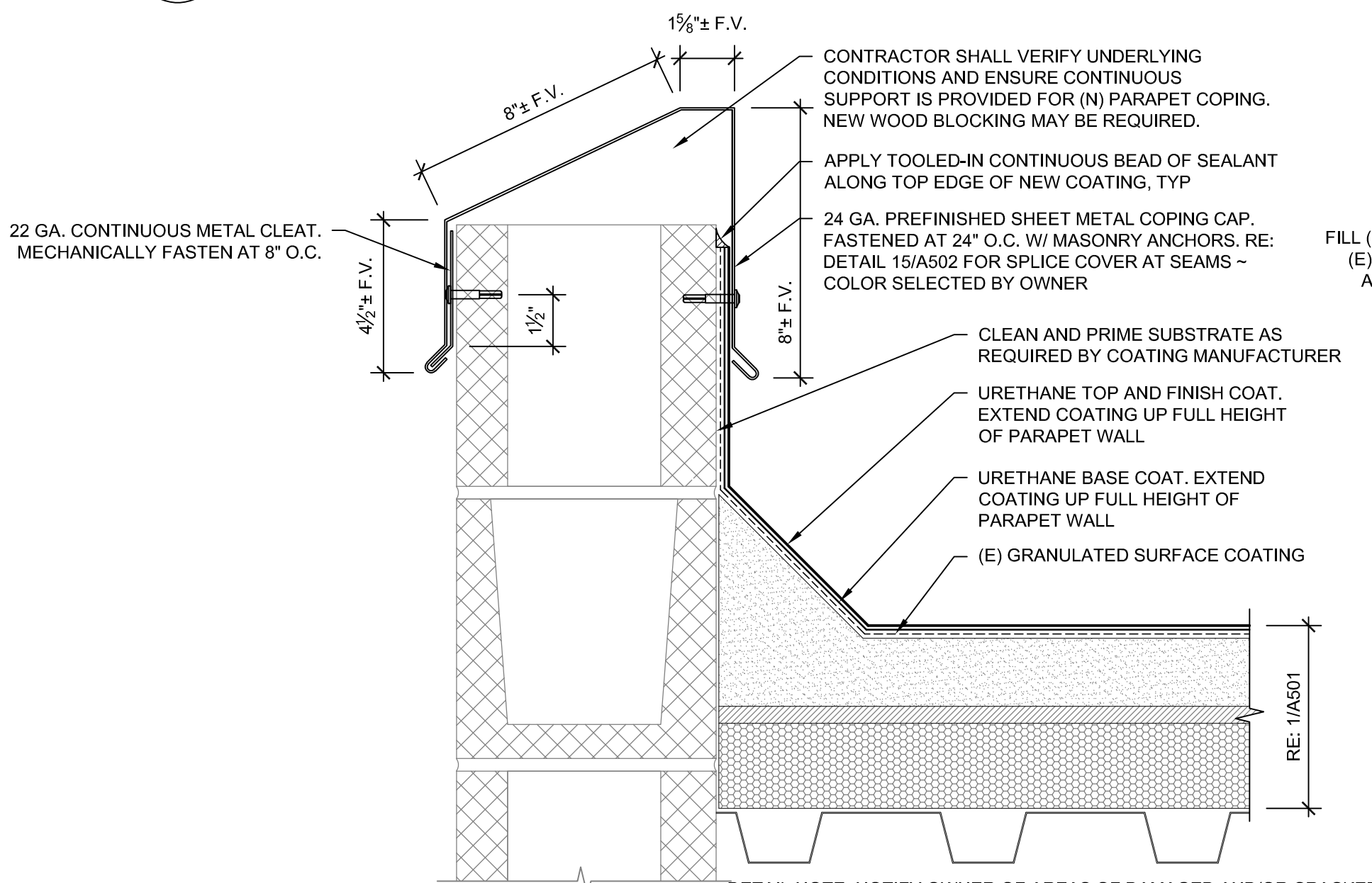


10 Typical Termination at Existing Pipe Penetration
SCALE: 3"=1'-0"

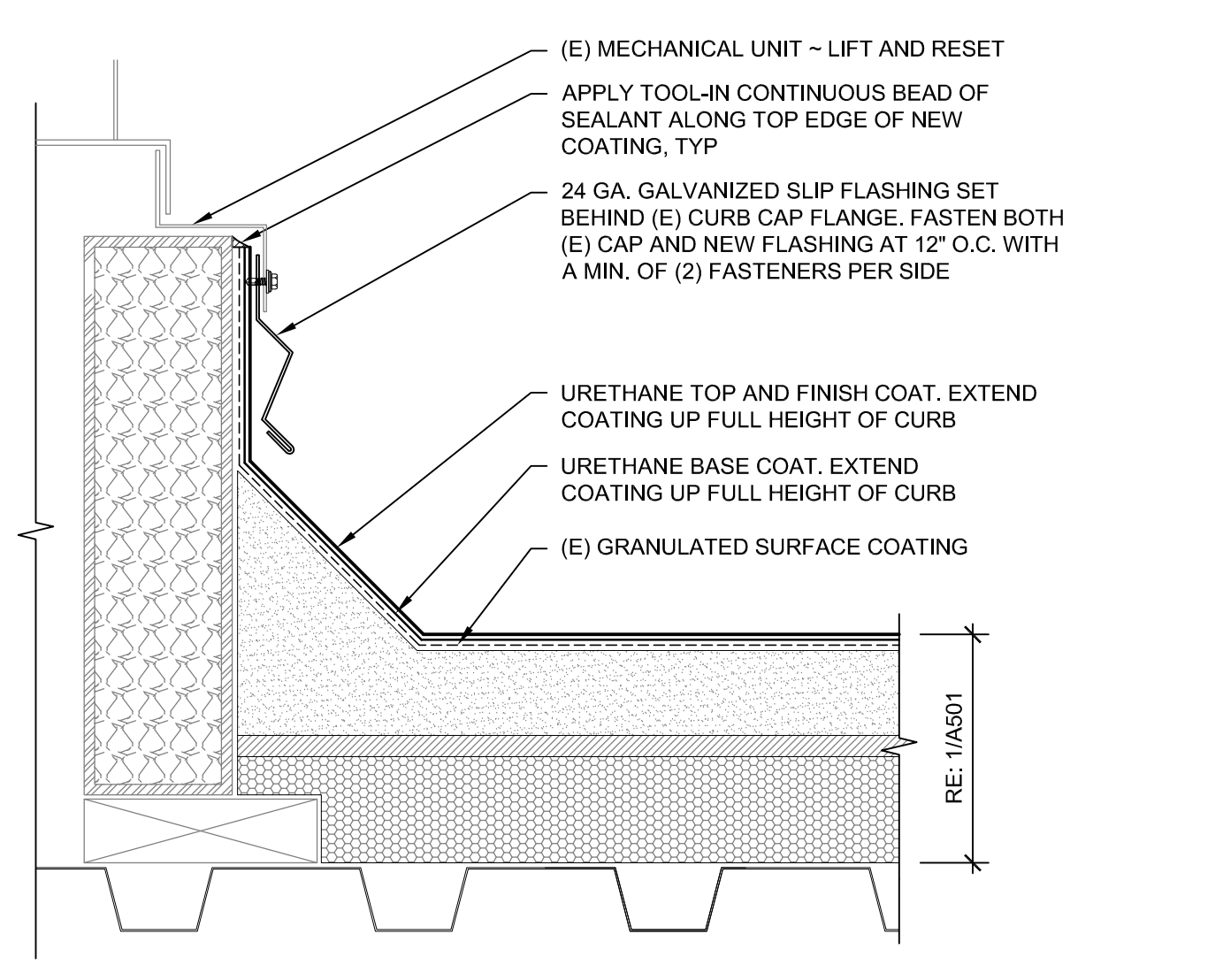
DETAIL NOTE:
1. CONTRACTOR SHALL TEST DRAINS TO ENSURE THEY ARE FREE-FLOWING AND IN WORKING ORDER PRIOR TO PERFORMING WORK AND AT THE TIME OF SUBSTANTIAL COMPLETION. (RE: GENERAL NOTES AND SPECIFICATIONS)
2. REPLACE EXISTING CAST IRON DRAIN BASKET AND/OR CLAMPING RING IF MISSING OR BROKEN.
3. PROVIDE 1/2" PER FOOT SLOPED DRAIN SUMP AND SIZE TO MATCH (E).
4. COORDINATE ROOFING SYSTEM REPLACEMENT WITH OWNER TO ENSURE PROPER ATTACHMENT OF COMPONENTS TO (E) DECK.



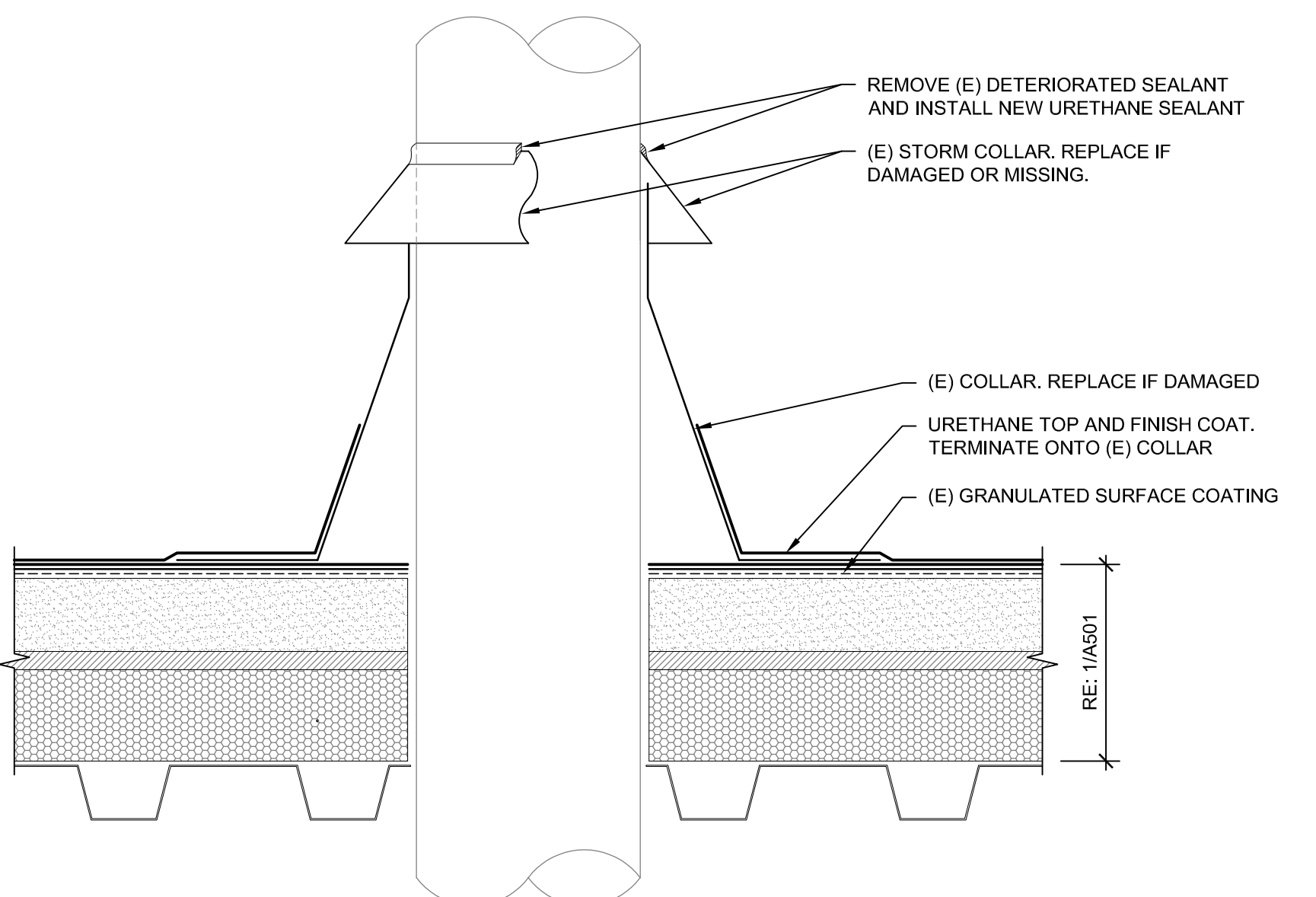
13 Typical Termination at Existing Drain
SCALE: 3"=1'-0"



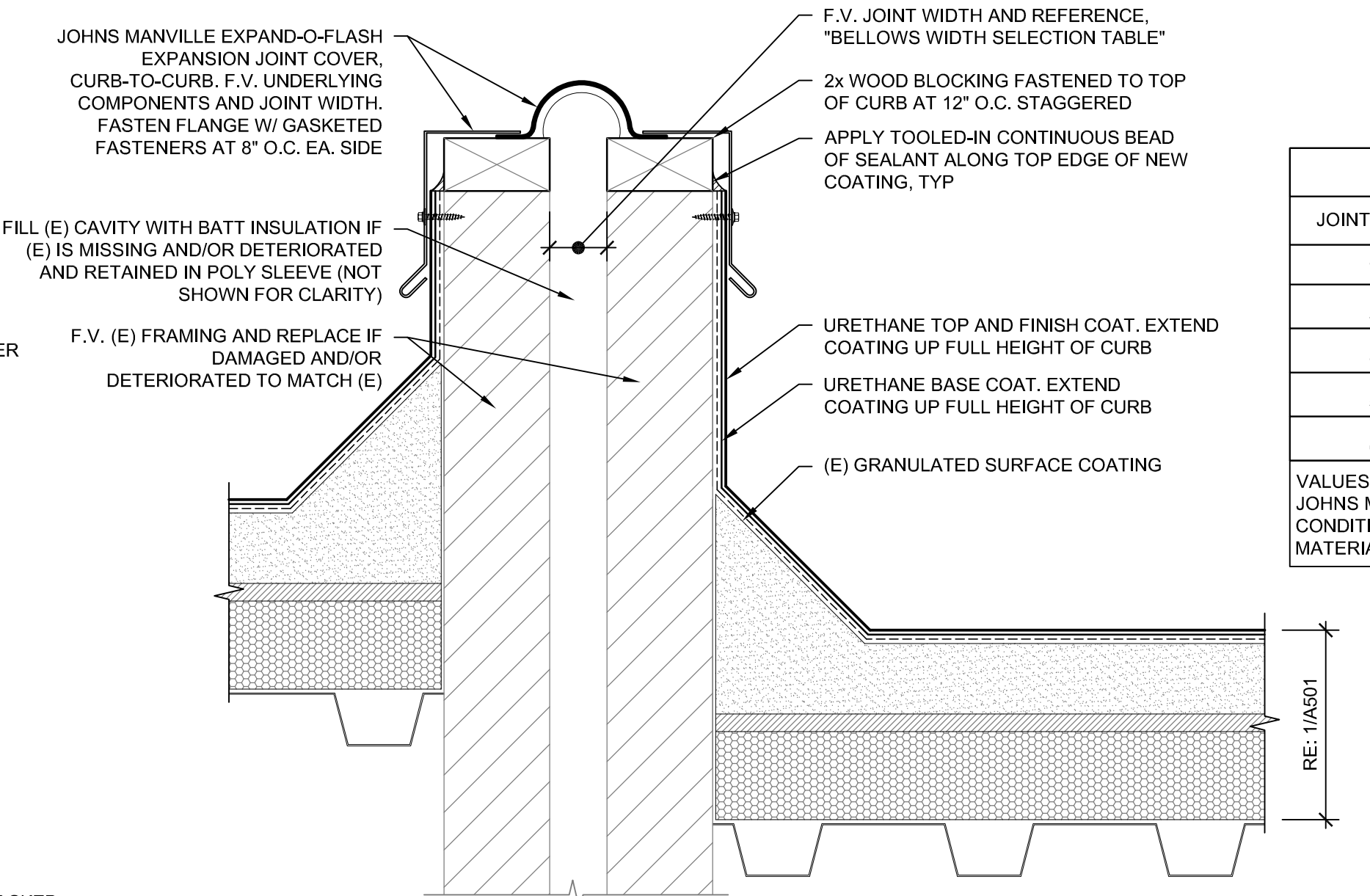
16 New Sheet Metal Coping cap at Existing Parapet Wall (Alternate No. 1)
SCALE: 3"=1'-0"



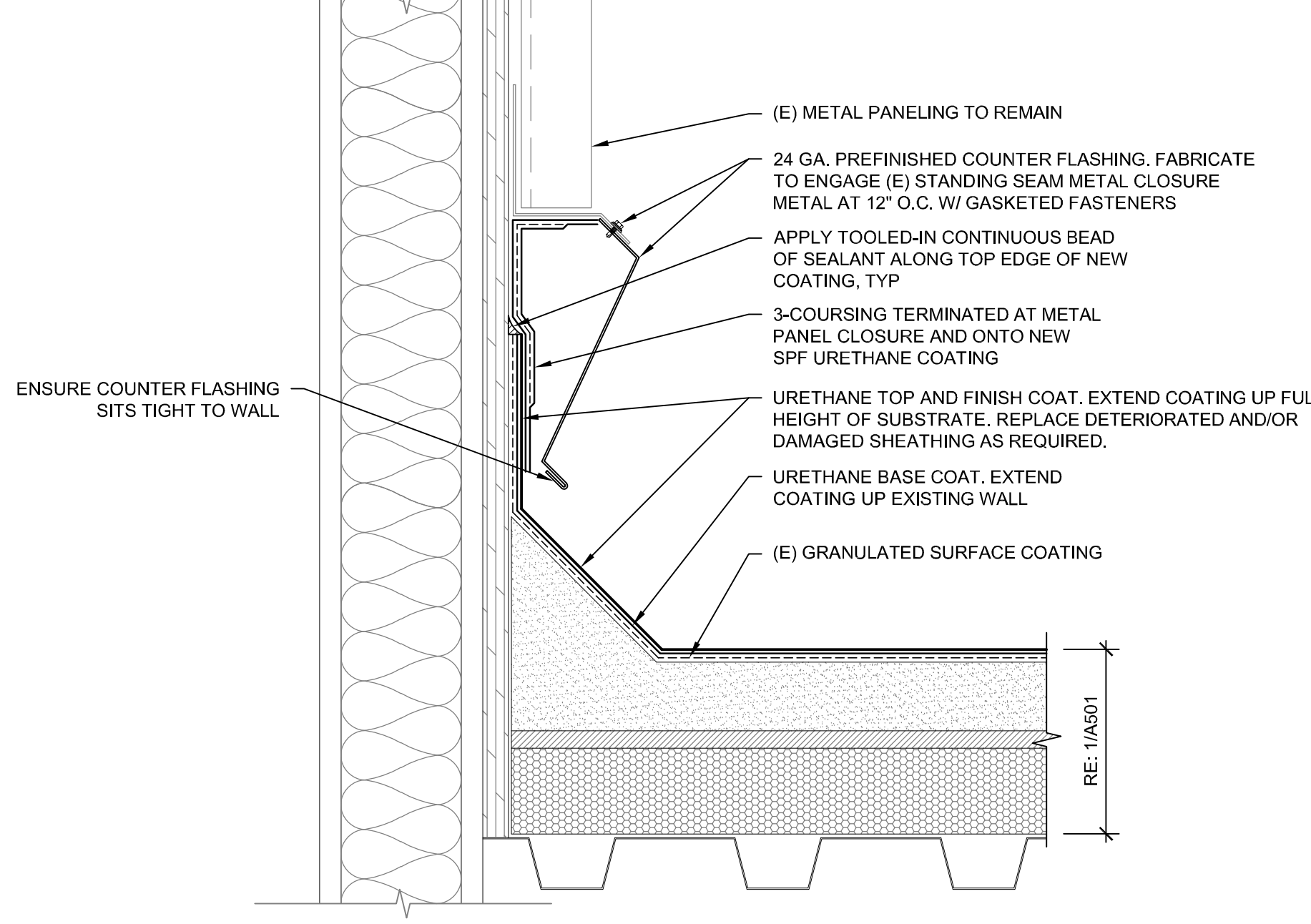
11 Typical Termination at Existing (Removable) Mechanical Curb
SCALE: 3"=1'-0"



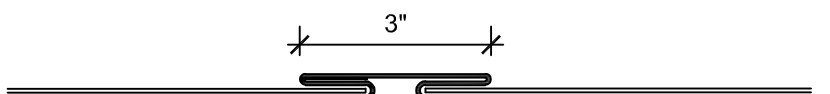
14 Typical Termination at Flue Pipe
SCALE: 3"=1'-0"



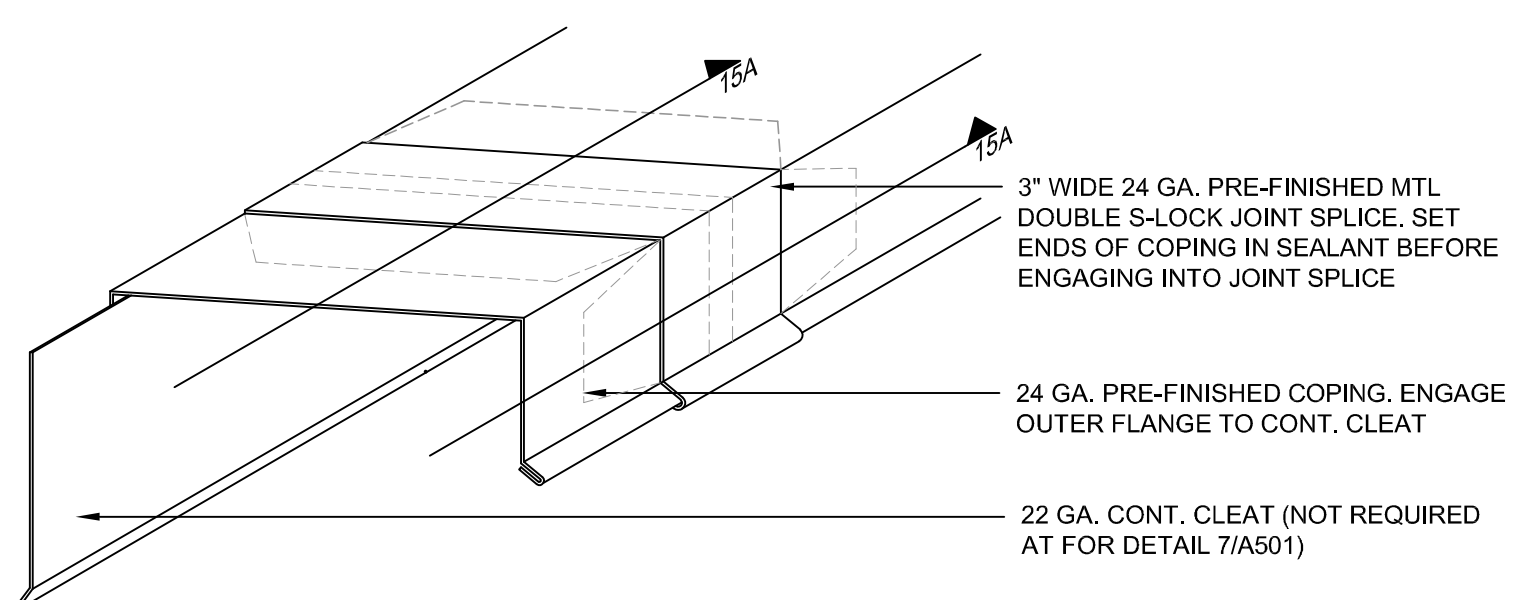
17 New Curb-to-Curb Expansion Joint Flashing (Alternate No. 2)
SCALE: 3"=1'-0"



12 Typical Flashing at Existing Monitor
SCALE: 3"=1'-0"



15A Double S-Lock Joint Splice Profile
SCALE: 3"=1'-0"



15 Splice Cover at Coping Joint
SCALE: 3"=1'-0"

BELLOWS WIDTH SELECTION TABLE	
JOINT WIDTH RANGES	BELLOWS SIZE (INCHES)
1" - 2 1/2"	4"
2 1/2" - 4"	6"
4" - 5 1/4"	8"
5 1/4" - 6 1/2"	10"
6 1/2" - 8"	12"

VALUES INCLUDED WITHIN TABLE ARE PROVIDED BY JOHNS MANVILLE. CONTRACTOR SHALL VERIFY FIELD CONDITIONS WITH THE MFR PRIOR TO SELECTION OF MATERIALS.

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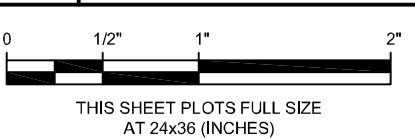
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ROOFING DETAILS

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A502