

YORK SCHOOL DISTRICT 1

EDUCATION SERVICE CENTER

ROOF REPLACEMENT

16 SPRUCE STREET
YORK, SC 29745

REI PROJECT NO. 024CLT-098

DATE: 10-31-24



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SEALS:



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DISTRICT 1

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CENTER ROOF
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CD	10-21-24	CONTRACT DOCUMENTS

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SHEET TITLE:

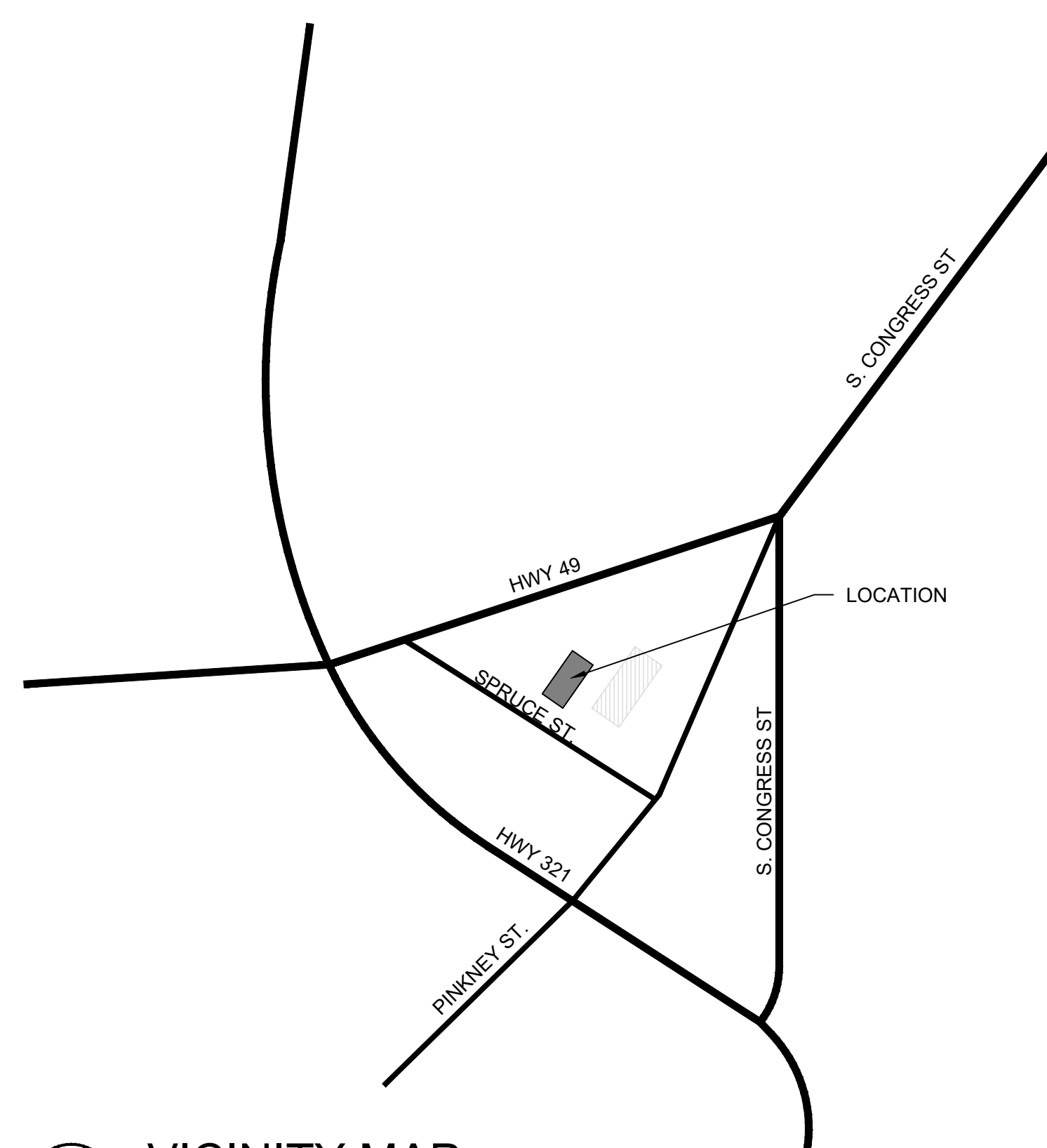
COVER

DRAWING:

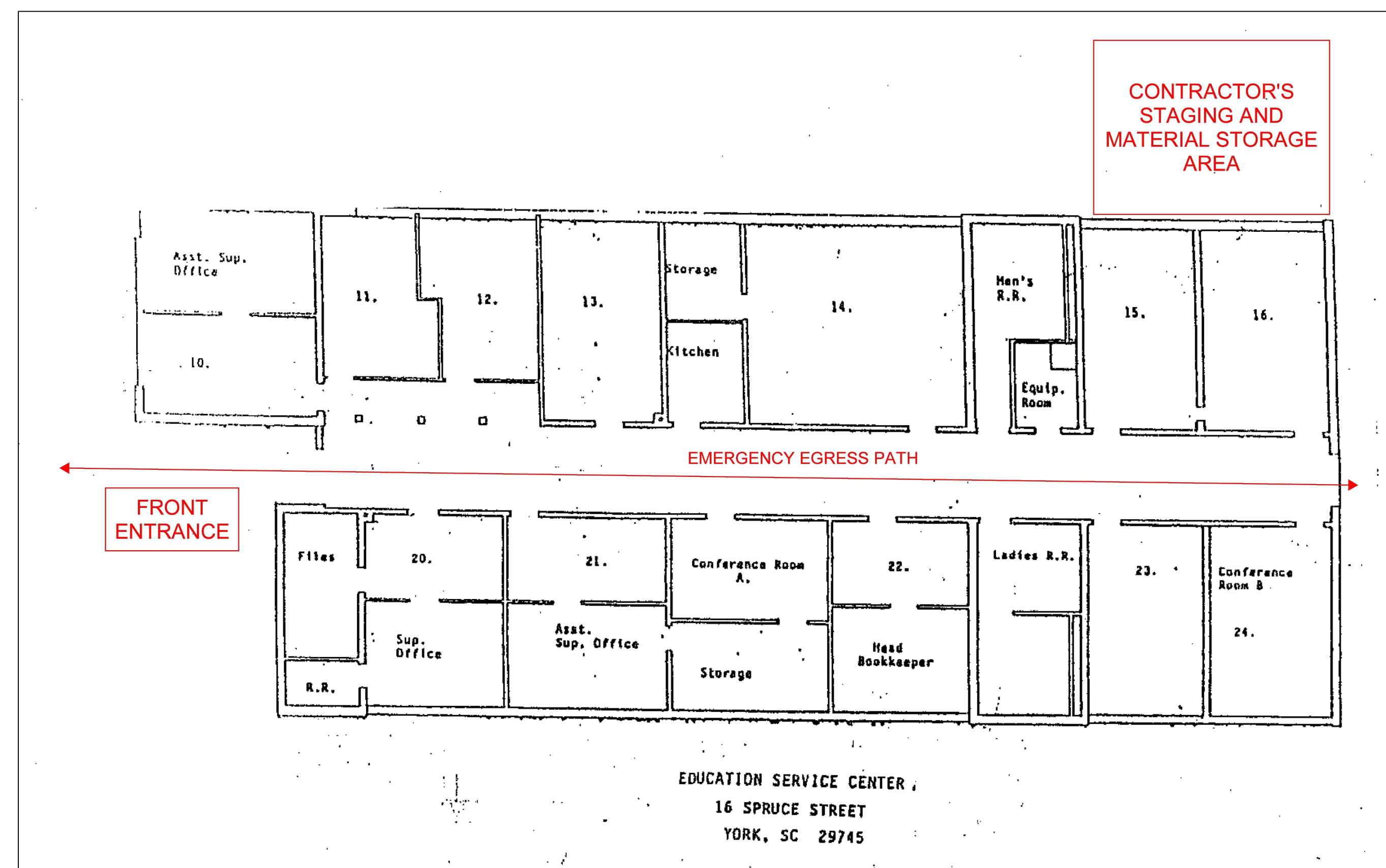
G-001



D SITE PLAN
SCALE: N.T.S.



A VICINITY MAP
SCALE: N.T.S.



B LIFE SAFETY PLAN
SCALE: N.T.S.



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4. NOTES ARE INTENDED TO PROVIDE TYPICAL LOCATIONS OF WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO QUANTIFY ALL LOCATIONS.

DETAIL NOTES
1. LIGHT LINES REPRESENT EXISTING CONSTRUCTION TO REMAIN AND DARK LINES REPRESENT NEW COMPONENTS TO BE PROVIDED.

ABBREVIATION LIST:		MIN.	MINIMUM
AB	ABANDONED	N.I.C	NOT IN CONTRACT
ALUM.	ALUMINUM	NOM.	NOMINAL
BLDG.	BUILDING	N.T.S.	NOT TO SCALE
CJ	CONTROL JOINT	O.C.	ON CENTER
DS	DOWNSPOUT	OF	OVERFLOW
EJ	EXPANSION JOINT	PS	PRESSURE SENSITIVE
EPDM	ETHYLENE PROPYLENE DIENE MONOMER	PVC	POLYVINYL CHLORIDE
EX.	EXISTING	RPLC.	REPLACEMENT
GALV.	GALVANIZED	SF	SQUARE FEET
GA.	GAUGE	S.S.	STAINLESS STEEL
HT	HEIGHT	SIM.	SIMILAR
MAX.	MAXIMUM	TERM.	TERMINATE/TERMINATION
		TYP.	TYPICAL

DRAWING INDEX:
G-001 COVER
XR101 ROOF PLAN
XR301 ROOF SYSTEMS/RE-ROOF ANALYSIS
XR501 DETAILS

BUILDING CODE REFERENCE:
2021 SC BUILDING CODE
2009 IECC
2021 SC EXISTING BUILDING CODE
2021 SC FIRE CODE
2021 SC FUEL GAS CODE
2021 SC MECHANICAL CODE
2021 SC PLUMBING CODE
NFPA 70 WITH SC MODIFICATIONS

C GENERAL NOTES & INFORMATION
SCALE: N.T.S.



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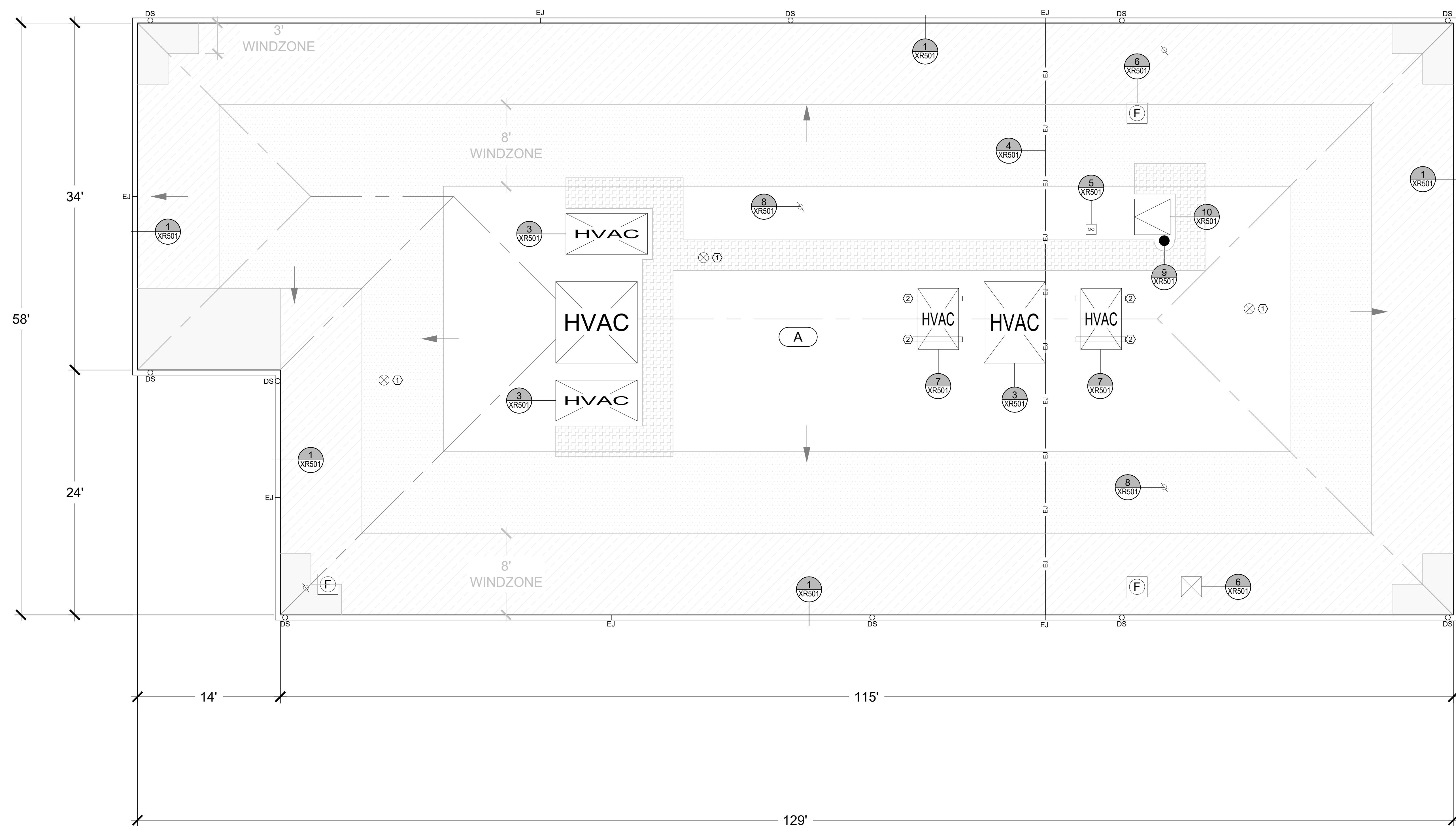
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SEALS:



ROOF SECTOR	AREA	HEIGHT (FT.)
A	±7,146 SQ. FT.	11.5

WIND UPLIFT SUMMARY

ASCE 7 - 16

ULTIMATE DESIGN WIND SPEED	120 MPH	
RISK CATEGORY	III	
EXPOSURE	C	
ENCLOSURE	ENCLOSED	
	ULTIMATE WIND UPLIFT PRESSURE (PUB)	MIN. REQUIRED WIND UPLIFT STRENGTH (REQ = PUB X 1.25 SF)
ZONE 1 - FIELD	-29 PSF	-36 PSF
ZONE 1 - FIELD	-50 PSF	-63 PSF
ZONE 2 - PERIMETER	-66 PSF	-83 PSF
ZONE 3 - CORNER	-90 PSF	-113 PSF

WIND ZONES

- ZONE 1 (INTERIOR)
- ZONE 1 (FIELD)
- ZONE 2 (PERIMETER)
- ZONE 3 (CORNER)

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- SHEET NOTES:
- REMOVE EXISTING ROOF DRAINS AND REPAIR ROOF DECK.
 - REMOVE SLEEPER CURBS AND REPLACE WITH MECHANICAL ROOF CURB.

KEY

—	ROOF EDGE
—	PARAPET WALL
-EJ-	EXPANSION JOINT
—	GUTTER EDGE
—	TAPERED INSULATION
—	STRUCTURAL SLOPE
—	TAPERED INSULATION SLOPE
—	CRICKET SLOPE
—	CRICKET SLOPE
⊙	ROOF DRAIN
⊙	SOIL PIPE
⊙	PIPE PENETRATION
●	HIGH HEAT PENETRATION
■	PITCH PAN
■	HVAC UNIT
⊠	MECHANICAL CURB
⊠	MULTIPLE PIPE PENETRATION
⊠	EXHAUST FAN
⊠	GRAVITY VENT
⊠	ROOF HATCH
—	EQUIPMENT SUPPORT CURB
—	WALKPAD
—	NOT IN CONTRACT
⊙	ROOF AREA INDICATOR
⊙	NOTE NO.
⊙	DETAIL INDICATOR

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SHEET TITLE:

ROOF PLAN

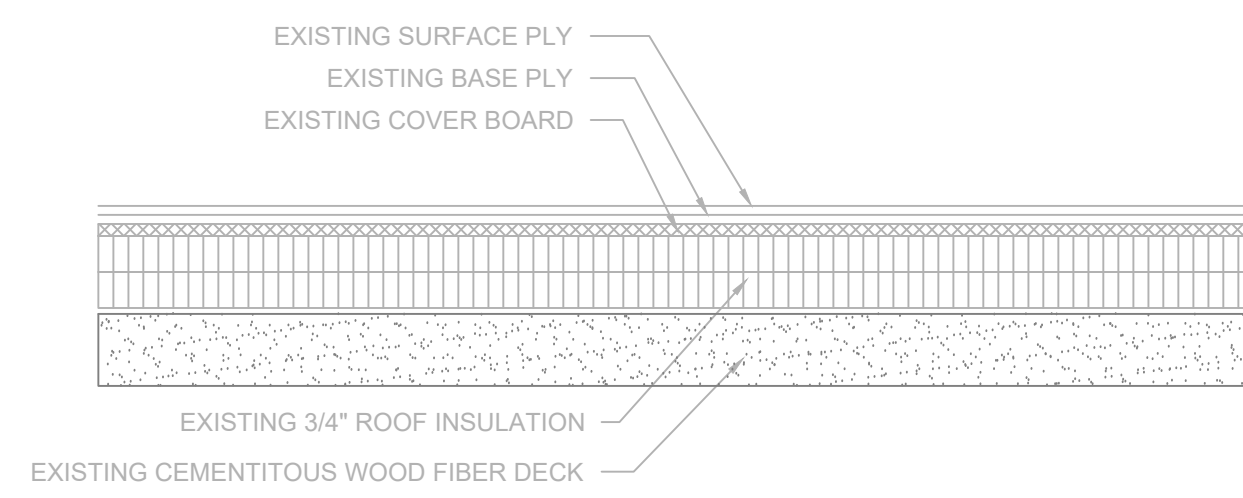
DRAWING:

XR101

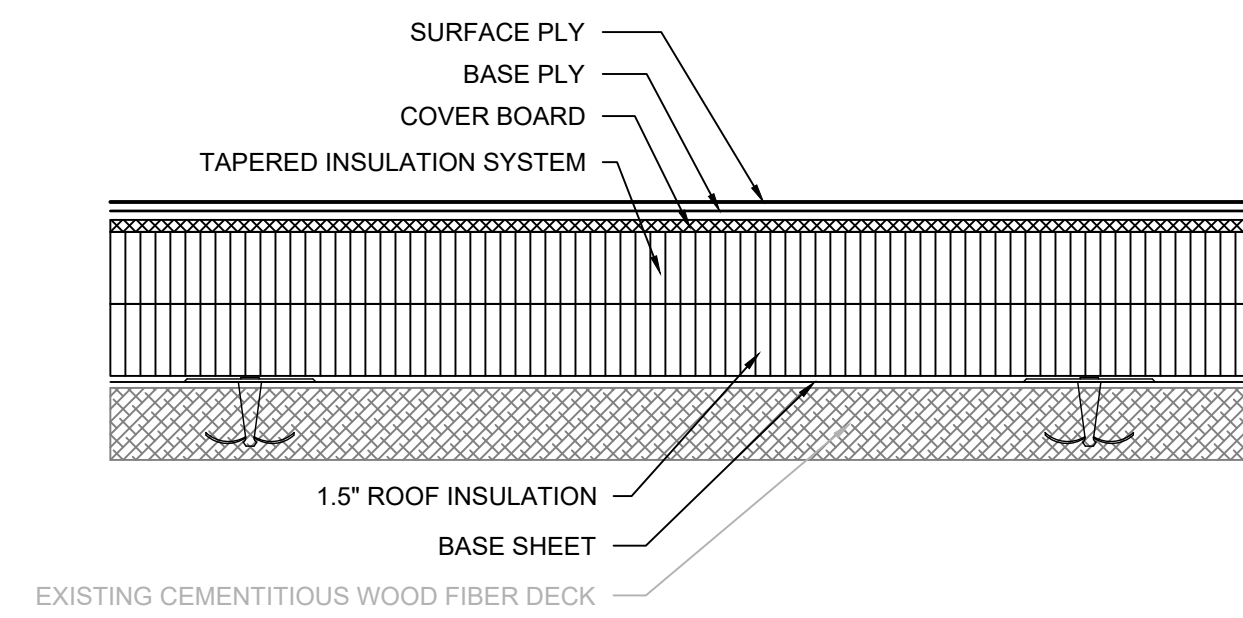
A ROOF PLAN
SCALE: 3/16" = 1'-0"

3/16" = 1'-0"

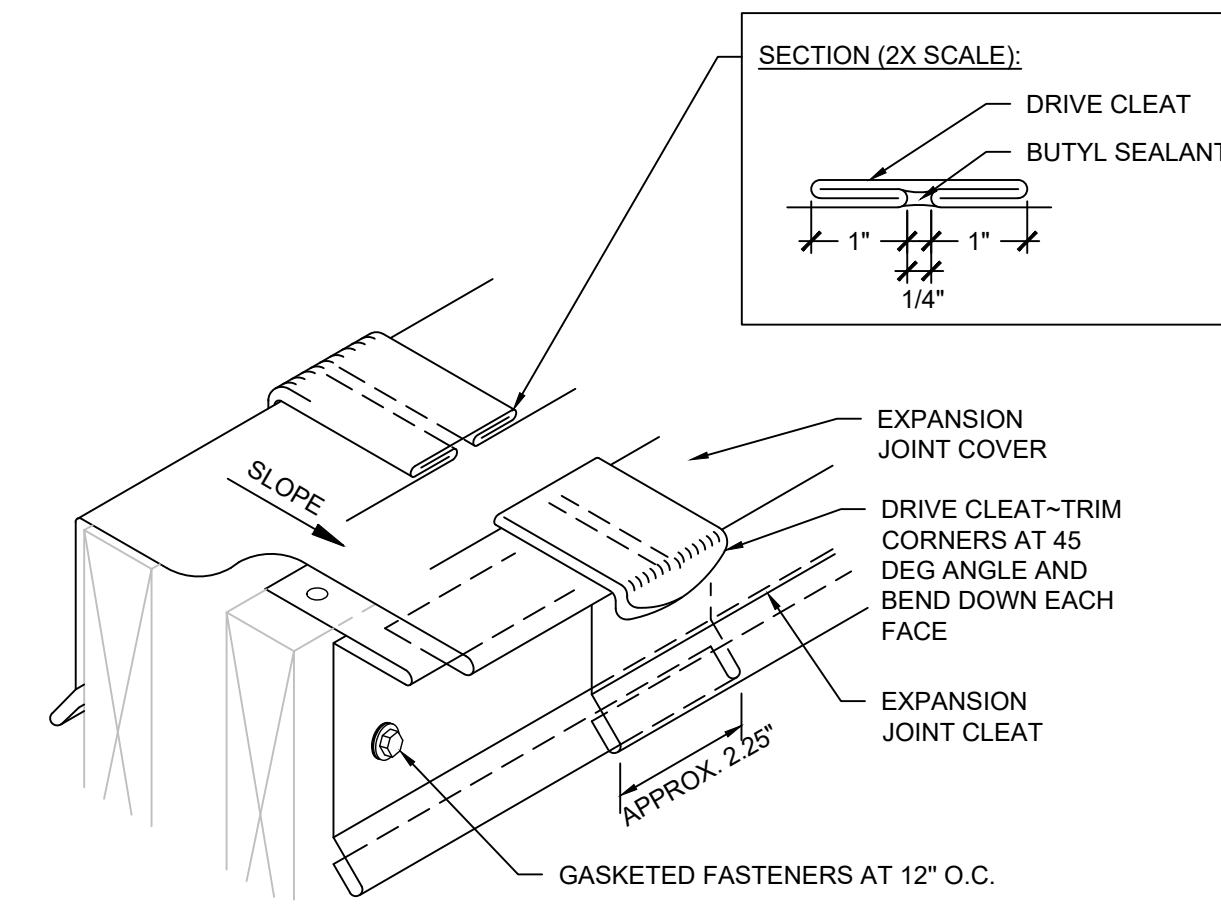




A1 EXISTING ROOF SYSTEM
SCALE: 3" = 1'-0"



B1 REPLC. ROOF SYSTEM
SCALE: 3" = 1'-0"



C EXPANSION JOINT DRIVE SEAM
SCALE: 3" = 1'-0"

- NOTES:
- PROVIDE AN APPROVED, TESTED ROOF ASSEMBLY IN ACCORDANCE WITH FM 4474, UL 580 OR UL 1897 TO RESIST THE MINIMUM REQUIRED WIND UPLIFT STRENGTH SPECIFIED ON DRAWING XR101. PROVIDE SUBMITTAL INCLUDING DOCUMENTATION OF TESTED ASSEMBLY ALONG WITH ATTACHMENT REQUIREMENTS FOR THE ASSEMBLY.
 - ANY WHOLE OR PARTIAL INSULATION BOARD OR PORTION OF ANY BOARD WHICH FALLS IN THE PERIMETERS & CORNERS OUTLINED SHALL BE SUBJECT TO THE FASTENING REQUIREMENTS FOR THE HIGHEST WIND ZONE ENCOUNTERED, ACROSS THE ENTIRE BOARD.

- NOTES:
- STAGGER JOINTS OF CLEAT AND COVER MINIMUM OF 12 INCHES.



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SHEET TITLE:
**ROOF SYSTEMS/
RE-ROOF
ANALYSIS**

DRAWING:
XR301

Form F3 – Re-Roofing Analysis

Date: **November 14, 2024**

SUBMITTAL: Schematic Design Development Construction Document

SC CODE EDITION: 2018 ICC CODE EDITION: 2018 ICC A117.1 EDITION: N/A OSF GUIDE EDITION: 2023

OTHER CODES/STANDARDS & EDITIONS:
2009 International Energy Conservation Code
2018 International Existing Building Code, Level 1 Alteration

PROJECT DESCRIPTION: [Brief Scope of Work & Include project delivery method (i.e. CMR, etc.)]
Single prime construction for Education Service Center Roof Replacement

BASIC RE-ROOFING CODE INFORMATION						
DESIGNATED AREAS OF BUILDING	Building Code	Area 1	Area 2	Area 3	Area 4	Area 5
CONSTRUCTION CLASSIFICATION TYPE	Section 602	IIB				
Roof Construction including supporting beams & joist	Table 601	-	-	-	-	-
As Required, Hrs		0 hr.				
As Designed, Hrs		0 hr.				
Testing Agency & Design No. (UL, FM, etc.)		N/A				
Wall/Partition Key Code		N/A				

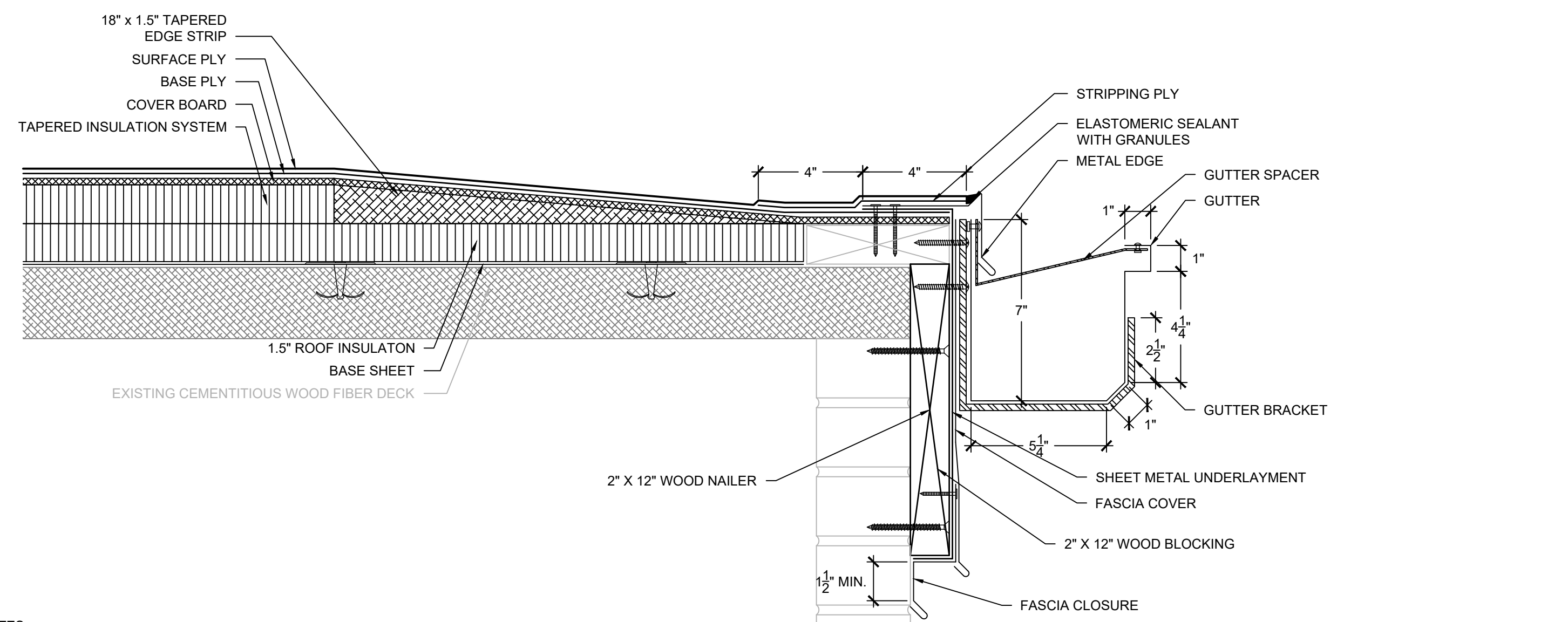
1 of 2
Version May 2021

Form F3 – Re-Roofing Analysis

STRUCTURAL DESIGN INFORMATION, BUILDING		CONSTRUCTION DOCUMENTS	
WIND LOADS	Analysis Procedure (ASCE 7 or SCBC ASCE 7-16 1609.6) Basic design Wind Speed, MPH (3 sec gust IBC Fig 1609.3) Exposure Category Wind Importance Factor (ASCE 7 Table 1.5-2) Internal Pressure Coefficient (ASCE 7) -1.18 = GCpi External Pressure Coefficient (ASCE 7) -1.00 = GCp	120 = V	I. Signed, sealed and dated drawings II. Fully coordinated within and with the Project Manual.
ADDITIONAL QUESTIONS		PROJECT MANUAL	
1. Prepare a site plan showing the life safety plan during construction and include any additional details on how the contractor will keep the school administration informed about issues that may affect daily operations in the building		I. Signed, sealed and dated II. Fully coordinated within and with the Construction Documents • This information shall be part and within the drawing sheet set.	
2. Will there be additional weight added to the existing structure?	No		
3. What will the insulation values be in areas being re-roofed? Confirm the R-20 minimum at insulation will meet current energy codes.			
4. Will the existing roof drainage stay the same and meet current code? Drainage to external gutters and downspouts.			
5. What will the new roof assembly consist of?	2-ply modified bitumen over coverboard over tapered insulation over cementitious wood fiber deck		
6. What type of inspections will be performed?	REI will perform weekly quality assurance observation site visits		
7. Once the project is complete send a copy of the Warranty Letter to OSAgreed			
8. Is there roof mounted equipment (mechanical or other) and if new equipment curbs or curb adaptors would be needed.	Yes		

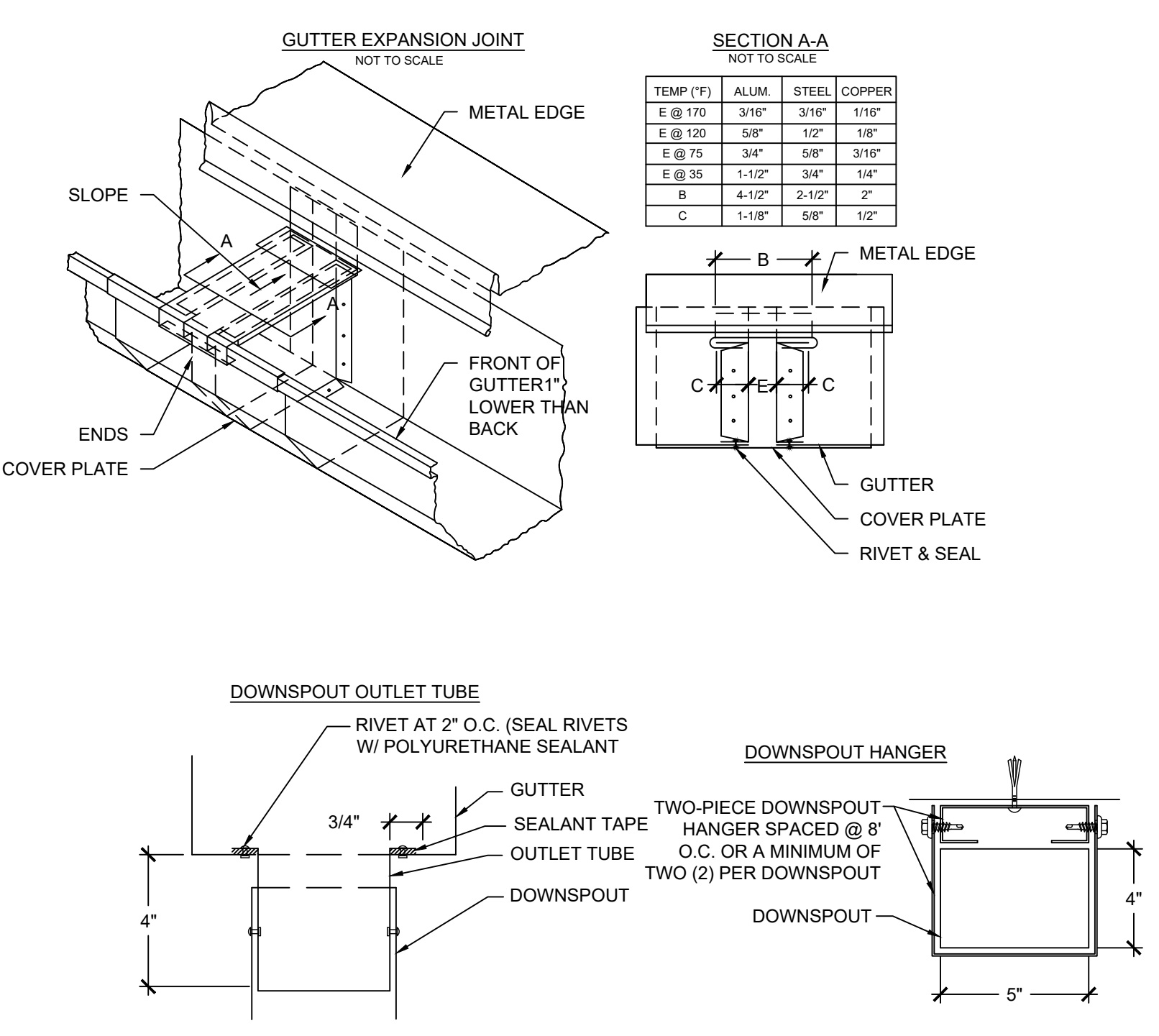
2 of 2
Version May 2021

D RE-ROOF ANALYSIS FORM
SCALE: 3" = 1'-0"

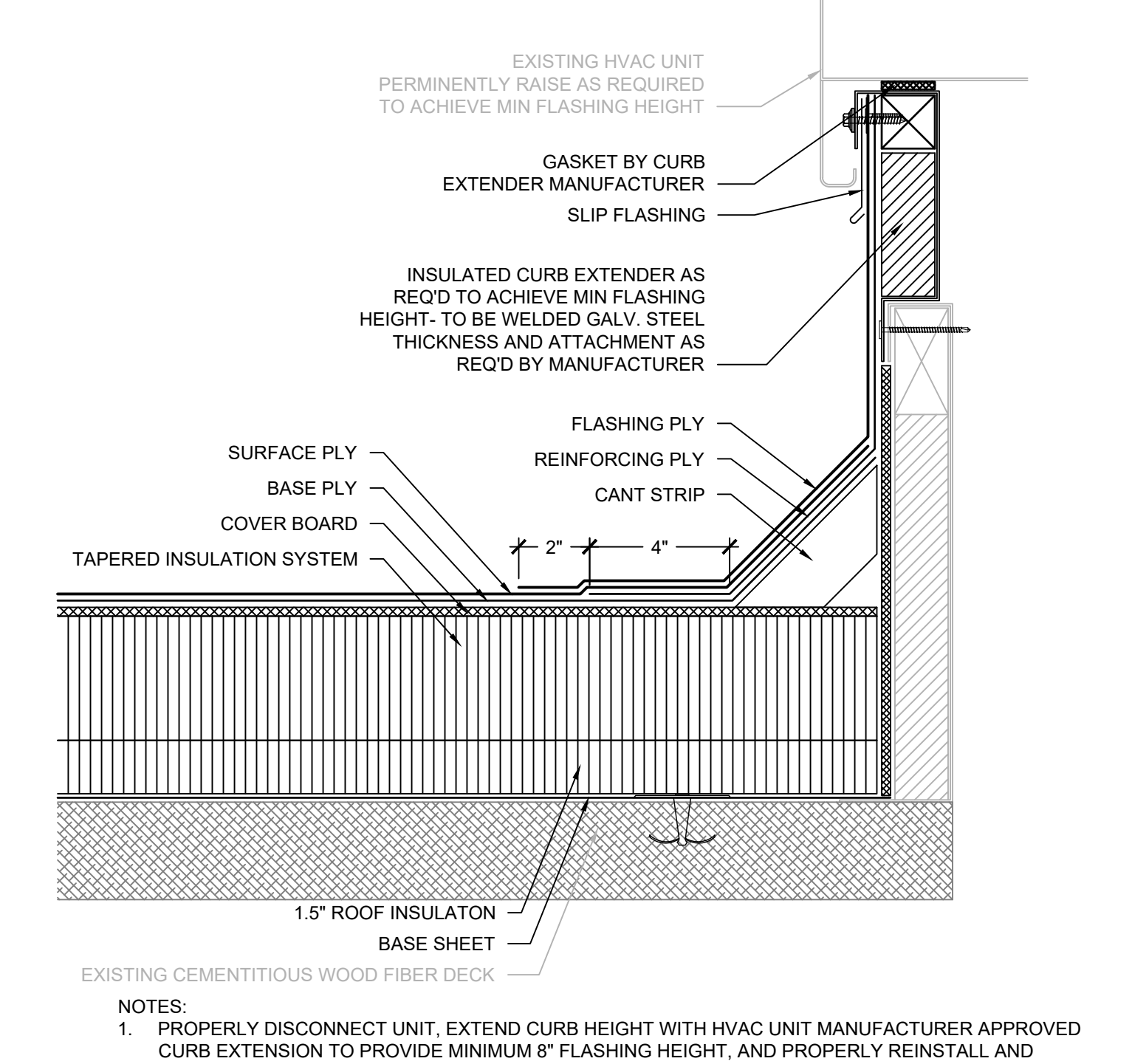


NOTES:
1. CONTRACTOR SHALL FIELD VERIFY EXISTING ROOF EDGE CONSTRUCTION AND COMPONENTS PRIOR TO SHEET METAL FABRICATION AND TO CONFIRM DETAIL AS SHOWN WILL PROVIDE POSITIVE DRAINAGE WITHOUT PONDING WATER. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO INSTALLATION.

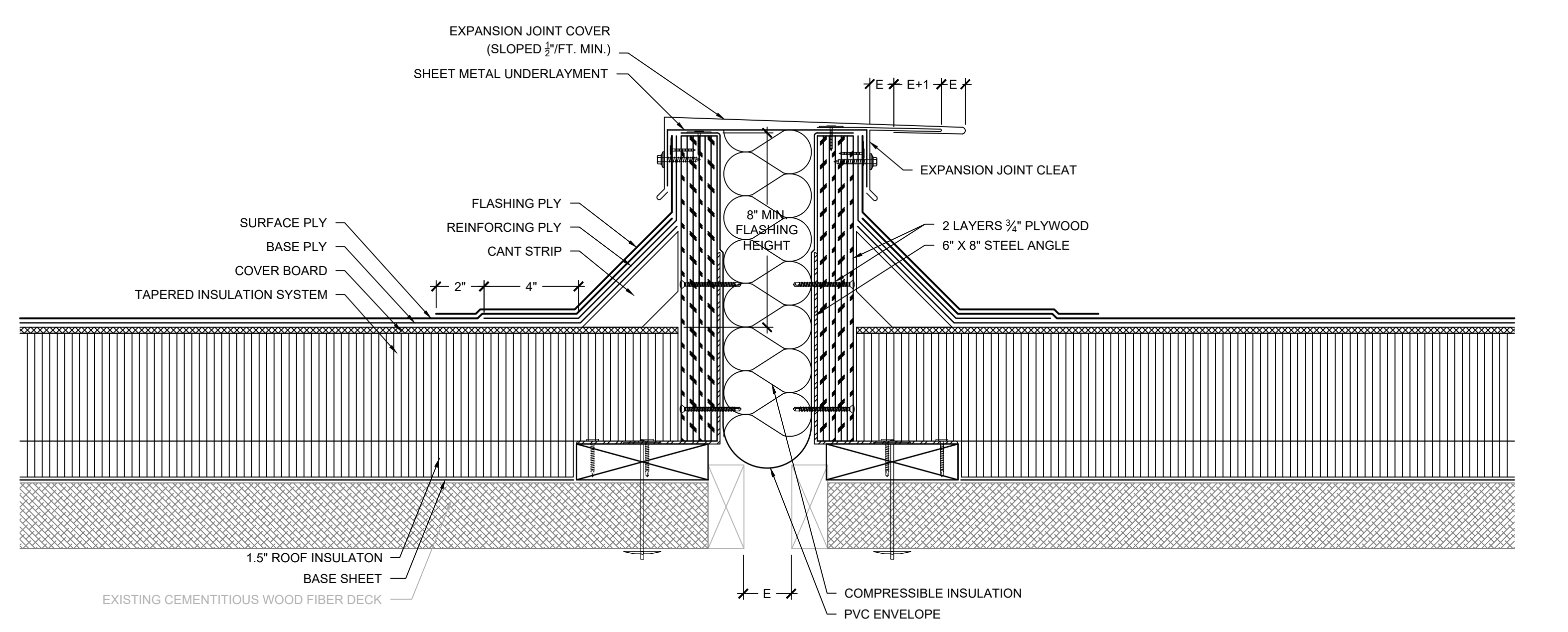
1 GUTTER EDGE
SCALE: 3" = 1'-0"



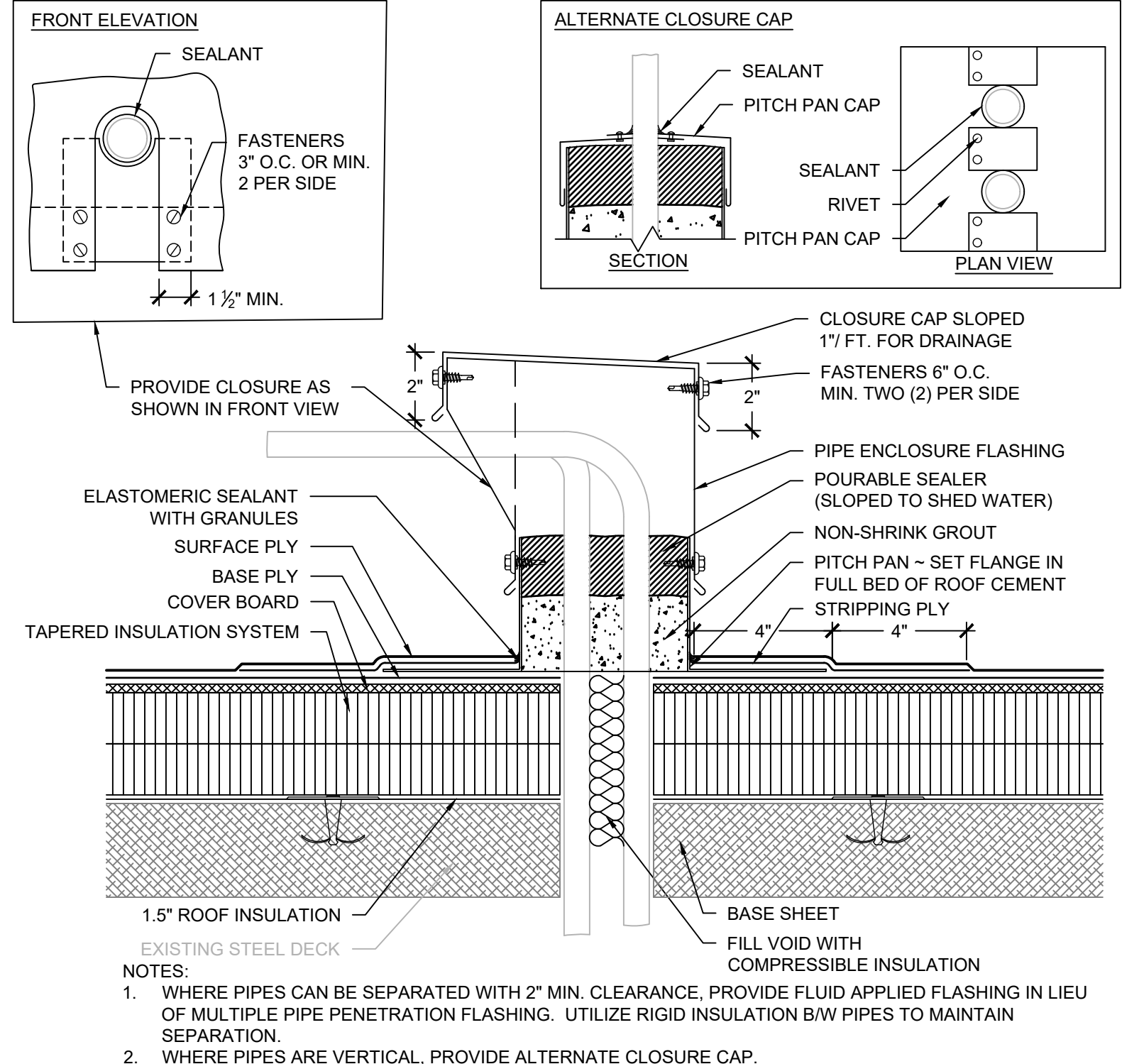
2 GUTTER/ DOWNSPOUT COMPONENTS
SCALE: 3" = 1'-0"



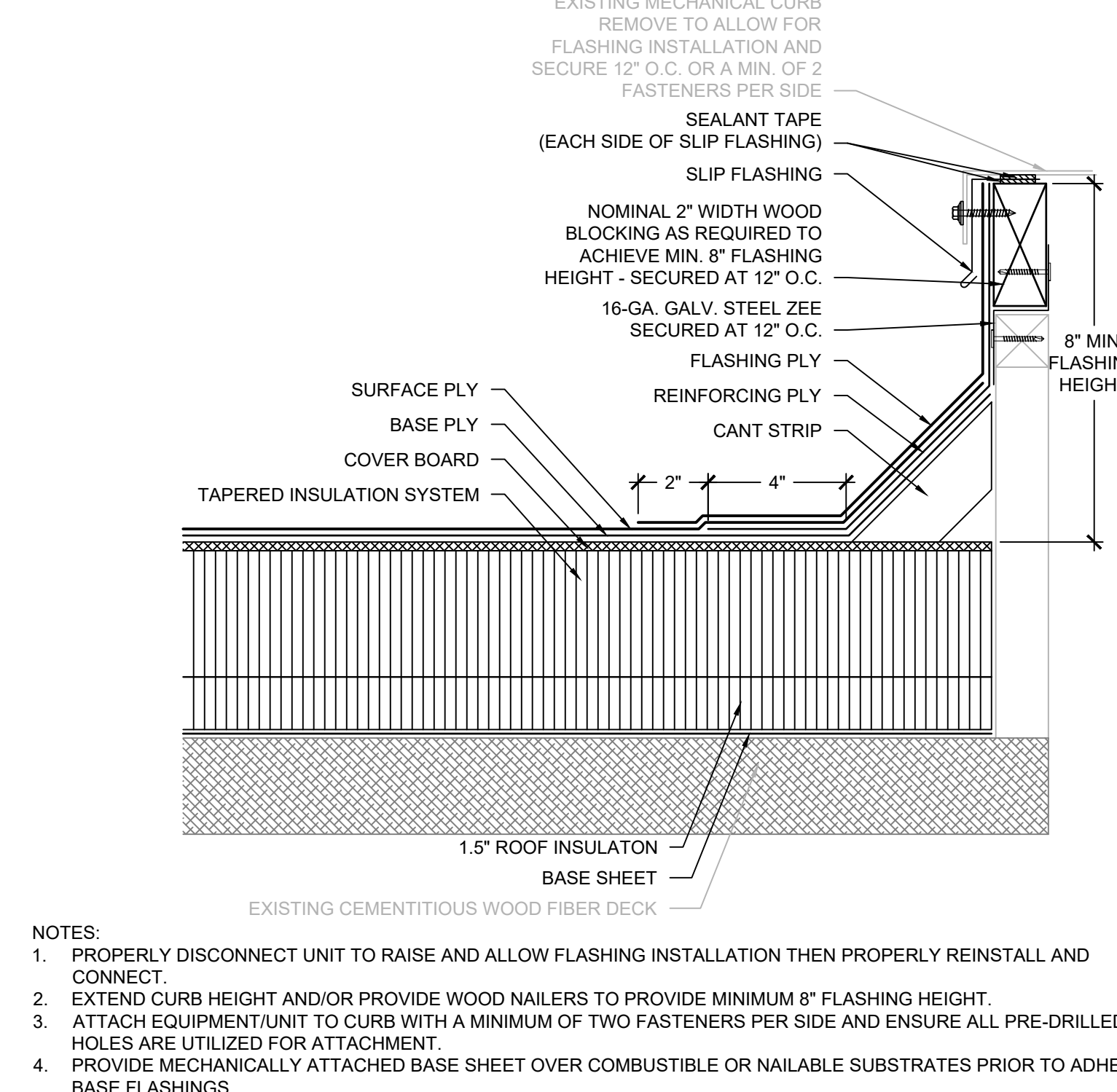
3 HVAC UNIT WITH CURB EXTENSION
SCALE: 3" = 1'-0"



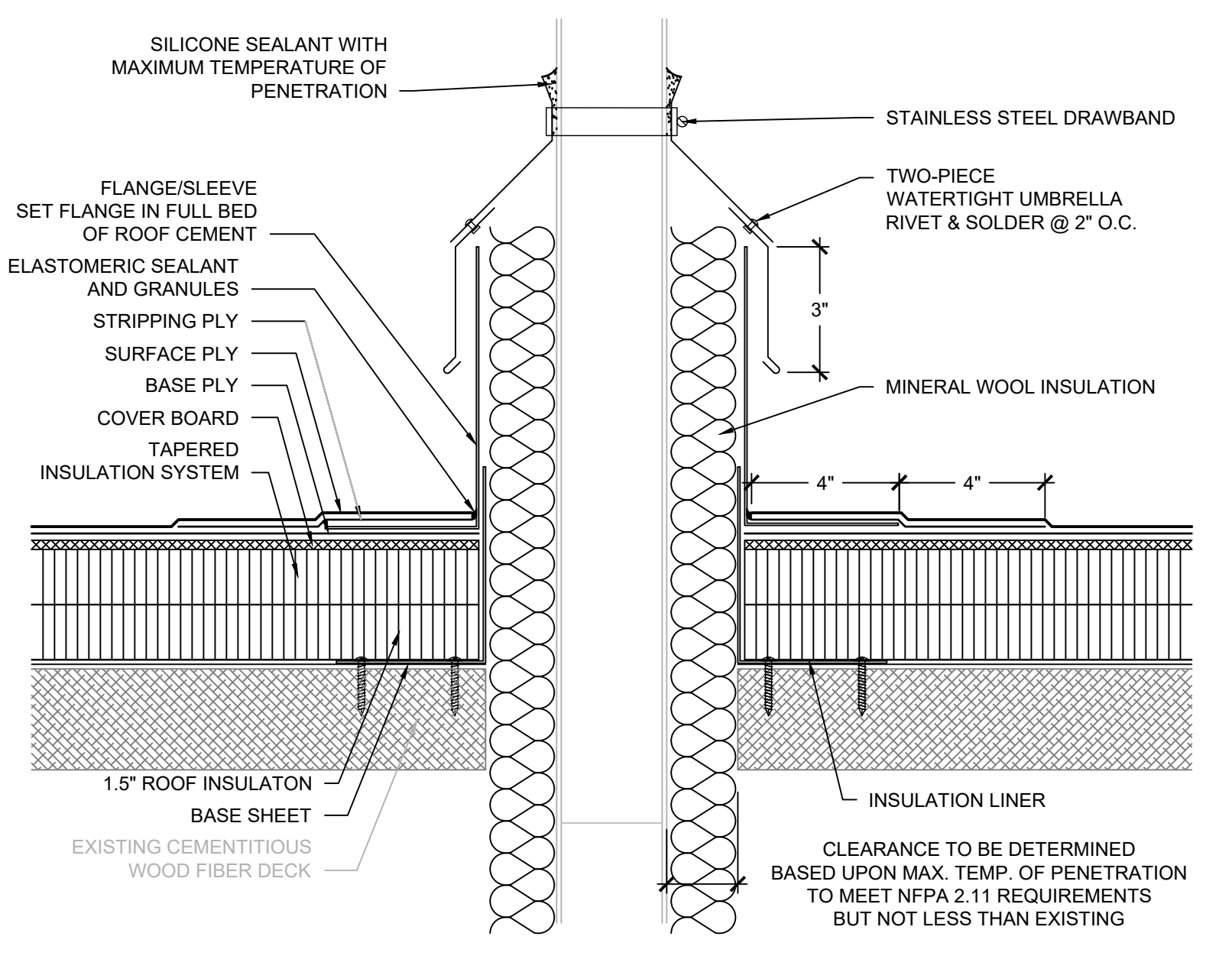
4 EXPANSION JOINT
SCALE: 3" = 1'-0"



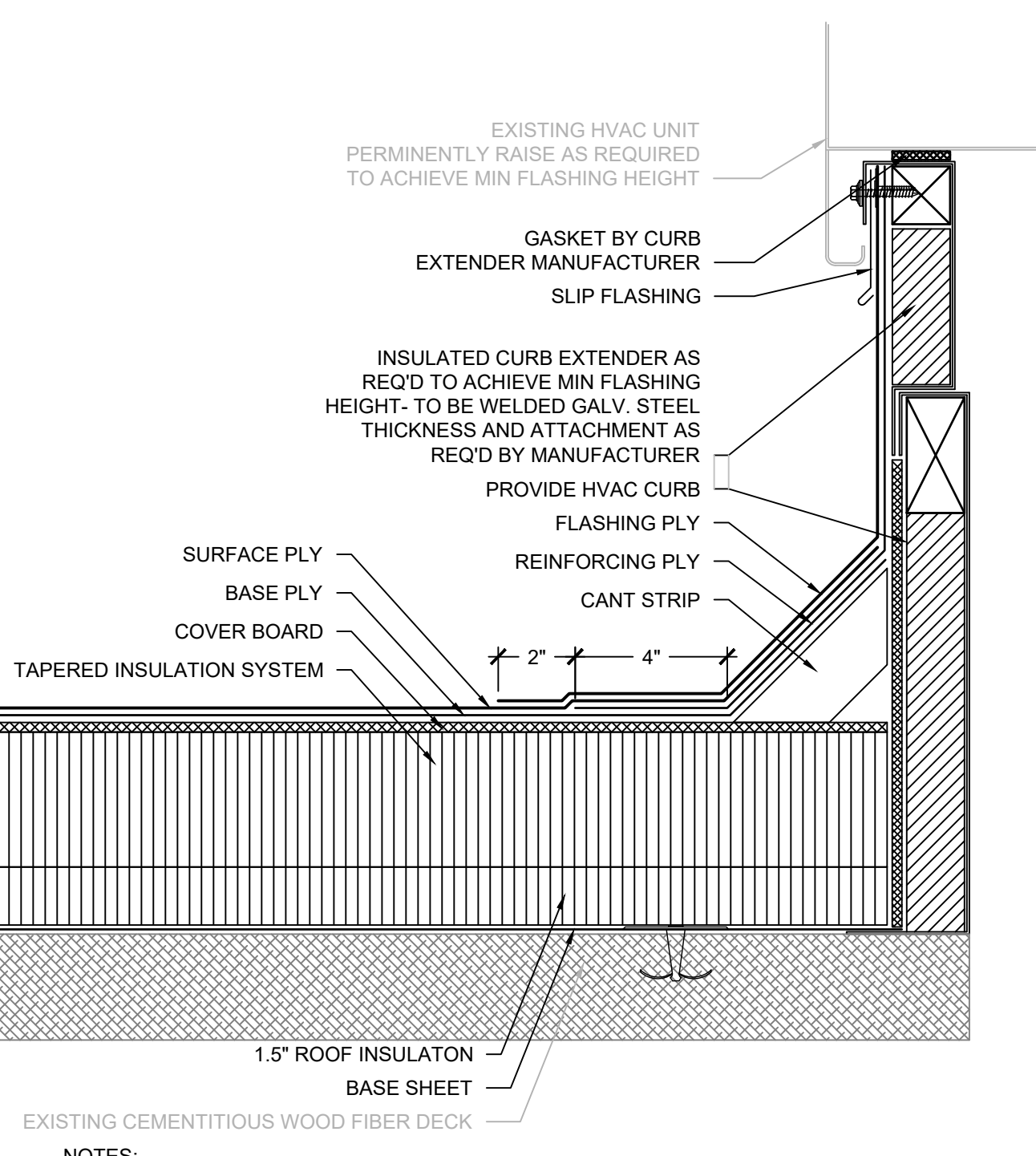
5 MULTIPLE PIPE PENETRATION
SCALE: 3" = 1'-0"



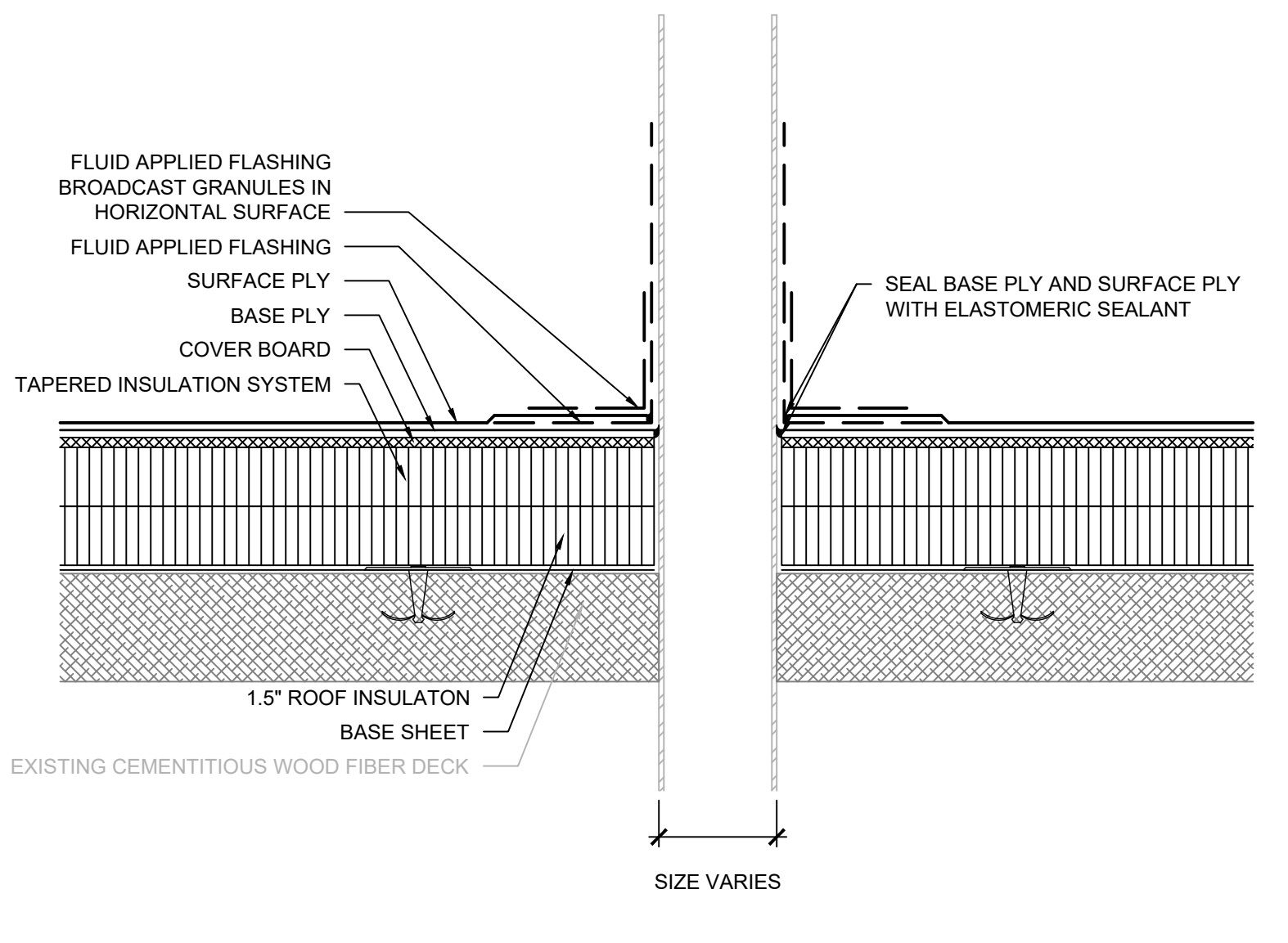
6 MECHANICAL CURB
SCALE: 3" = 1'-0"



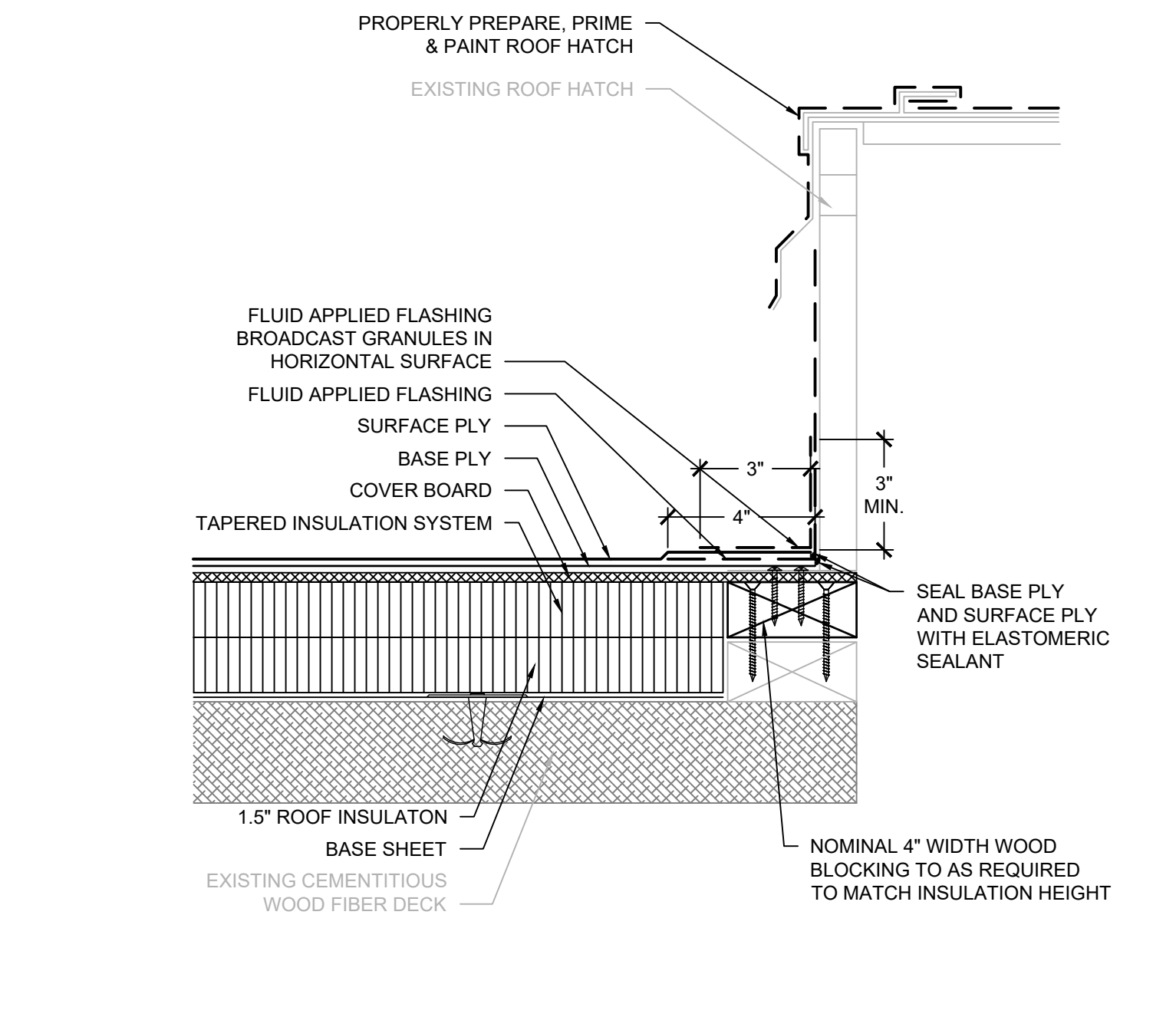
9 HIGH HEAT PENETRATION
SCALE: 3" = 1'-0"



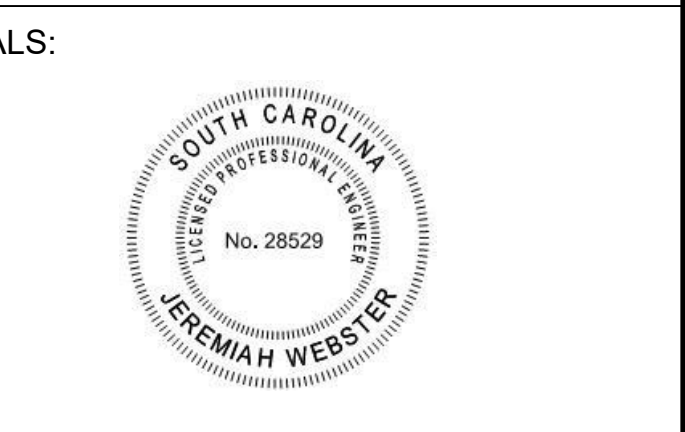
7 MECHANICAL CURB
SCALE: 3" = 1'-0"



8 PIPE PENETRATION
SCALE: 3" = 1'-0"



10 ROOF HATCH
SCALE: 3" = 1'-0"



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XR501