

[illegible]

R0.01	TITLE SHEET
R0.02	SUMMARY OF WORK
R1.01	ROOF PLAN - SECTIONS A, D, E, G, H, I, I1, I2, I3
R1.02	ROOF PLAN - SECTIONS J, K, K1, K2, L, L1, L2, Q, R, S
R1.03	DESIGN DATA AND ATTACHMENT PLAN
R2.01	ATTACHMENT DETAILS
R2.02	SHEET METAL SCHEDULE AND DETAILS
R2.03	DETAILS
R2.04	DETAILS



DRAWING RECORD			
REV. NO.	DESCRIPTION	DATE	BY
NA	BID SET	03/13/22	BG/WH

DATE:	03/10/22
NAME:	B. OSBORN
PROJECT:	R. HEISEY
NAME:	A. BEAR
CHARGE BY:	L. STEIN
CHARGE BY:	
BATCH NAME:	2%55LSLEUR0078004.dwg
DRAWING NO.:	



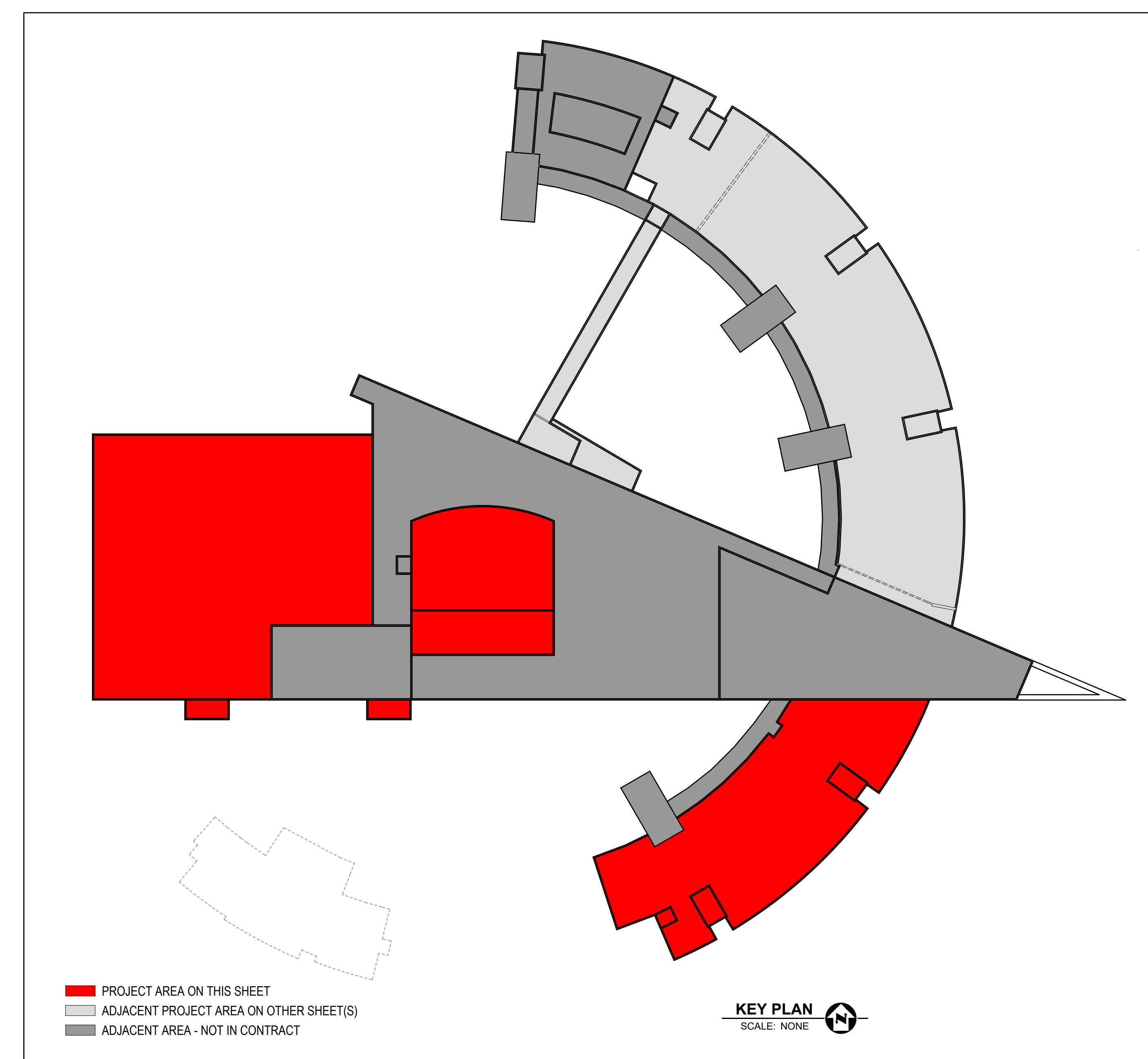
CLIENT: **LEE'S SUMMIT R-7 SCHOOL DISTRICT**  
BENCHMARK 21LSS

CLIENT:	LEE'S SUMMIT R-
PROJECT:	LEE'S SUMMIT WEST HIGH SCHOOL 2600 SW WARD LEE'S SUMMIT, MISSOURI 64082
BENCHMARK PROJECT N 21LSSLESUR007	

## SUMMARY OF WORK

R0.02





- ## GENERAL NOTES
- A. THIS DRAWING IS INTENDED FOR ORIENTATION, APPROXIMATE CONFIGURATION AND LOCATION OF DETAILS AND NOTES. CONTRACTOR SHALL FIELD VERIFY ALL ITEMS FOR ACCURACY AND INSTALLATION CONDITIONS.
  - B. WHERE DETAIL OR KEYNOTE CALLOUTS ARE NOTED AS "TYPICAL," THE REFERENCED INFORMATION SHALL APPLY AT ALL SIMILAR LOCATIONS THROUGHOUT THE PROJECT AREA.
  - C. WHERE DETAIL CALLOUTS ARE NOTED AS "SIMILAR," THE REFERENCED DETAIL, INSULATION, AND DRAINAGE COMPONENTS SHALL BE IDENTICAL TO THE SHOWN DETAIL, HOWEVER, THE CONCEPT IN THE REFERENCED DETAIL SHALL PERTAIN.
  - D. IF A GIVEN CONDITION IS NOT REPRESENTED BY A DETAIL DRAWING, AND THE WORK CANNOT BE DETERMINED BY REFERRING TO SIMILAR DETAIL, SUBMIT A REQUEST FOR CLARIFICATION TO THE ARCHITECT FOR REPRESENTATIVE ACTION. REQUESTS FOR CLARIFICATION MUST BE IN WRITING OR ON CHANGEO ORDER. REGARDLESS OF SPECIFIED WARRANTY, BID MANUFACTURER'S REQUIREMENTS FOR INSTALLING ALL WORK, COMPLETE, PER ROOFING MANUFACTURER'S REQUIREMENTS FOR A WARRANTY, AND/OR VARIATIONS TO SPECIFIED DETAIL, CHANGES ARE SUBJECT TO REVIEW BY THE OWNER'S REPRESENTATIVE.
  - E. REFER TO SUMMARY OF WORK DRAWING SHEET FOR BASIC SCOPE OF WORK, INCLUDING PROPOSED EXISTING ROOF SYSTEM COMPONENTS, QUANTITY ALLOWANCES FOR UNIT PRICE WORK.
  - F. FOR ROOF DESIGN DATA AND ROOF ATTACHMENT REQUIREMENTS, REFER TO THE CORRESPONDING DESIGN DATA AND ATTACHMENT PLAN DRAWING SHEET.
  - G. INSTALL THERMED CURTIC TO DIVERT DRAINAGE AROUND ANY PENETRATION OF OR UNDER EXISTING MEMBRANE. PENETROPERATOR TO LIPS OR CURTIC CURTIC SLOPE SHALL BE DOUBLE THE FIELD SLOPE.
  - H. INSTALL SPECIFIED WALKWAY MATERIAL AT ROOF ACCESS POINTS, INCLUDING LADDERS, ROOF HATCHES, DOORS, ACCESSORIES, AND STAIRS. BID SHALL INCLUDE THESE AREAS AND ANY OTHER AREAS SHOWN OR SPECIFIED.
  - I. TRANSITIONS BETWEEN ADJACENT MEMBRANE FLASHING DETAILS SHALL BE CONTINUOUS AND WATERTIGHT. WATERTIGHT SEAL MATERIAL FLASHING CLOSURES SHALL BE PROVIDED TO SEAL ALL JOINTS AND MEMBRANE FLASHING DETAILS. FLASHING CLOSURES SHALL BE MATCH COLOR SHALL MATCH ADJACENT COMPONENTS. SEAL MATERIAL SHALL BE SECURED WITH EPDM WASHED FASTENERS WITH SEALANT APPLIED AS SPECIFIED.
  - J. WHERE THERE ARE JOINTS BETWEEN FLASHING DETAILS, PROVIDE SEALANT PENETRATION DETAIL. TERMINATION BAR IS NOT AN ACCEPTABLE SUBSTITUTION.

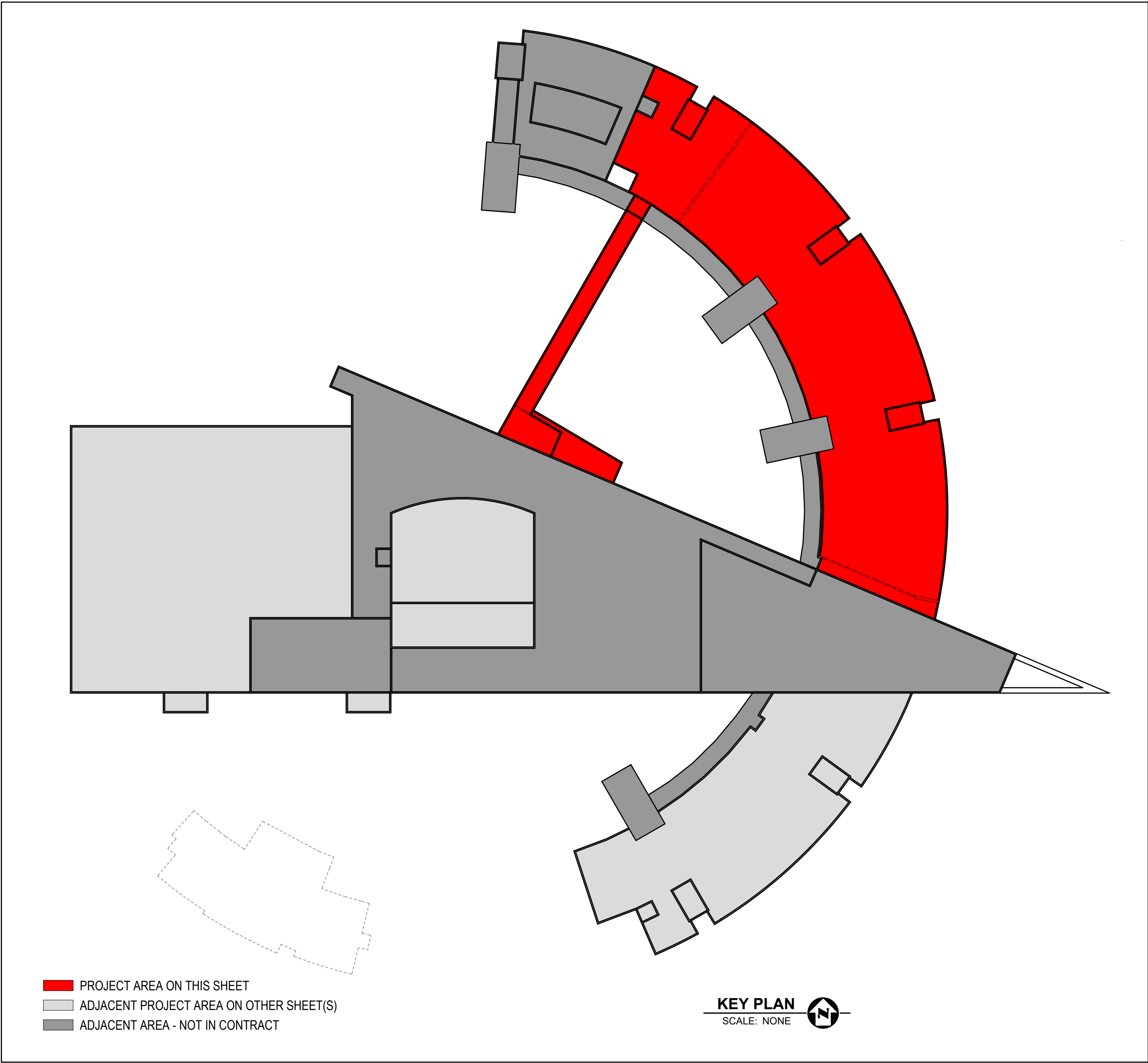
- ## KEYED NOTES
1. REMOVE OBSOLETE ROOF PENETRATION AND REPAIR ROOF AS REQUIRED PER DRAWINGS AND SPECIFICATIONS.
  2. DISCONNECT, RASE, AND RECONNECT ROOFTOP UNITS AS REQUIRED FOR INSTALLATION OF THE ROOF SYSTEM.
  3. INSTALL 1/4" OR 1/2" PER FOOT TAPERED POLYISOCYANURATE INSULATION CRICKETS/SADDLE, WITH 0.5" STARTING THICKNESS AT VALLEYS. INSTALL TAPERED EDGE STRIP AT EDGE OF CRICKET PANEL PER VALLEY DETAIL.
  4. REMOVE AND REPLACE PIPE AND CONDUIT SUPPORTS. REFER TO DETAILS 18, 19, 20 AND 21R2.04. MAXIMUM SPACING SHALL BE 8' 0".
  5. MODIFY EXISTING SLOPE AS NECESSARY TO CONFORM TO ROOF PLAN.

## SYMBOL LEGEND

	PARAPET WALL
	ROOF EDGE
	EXPANSION JOINT
	SCUPPER
	OVERFLOW SCUPPER
	CONDUCTOR HEAD
	DOWNSPOUT
	PITCH PAN
	PIPE PENETRATION
	FLANGED PENETRATION
	ROOF DRAIN
	OVERFLOW DRAIN
	ROOF CURB
	ELEVATED UNIT/EQUIPMENT
	ROOF HATCH
	OBSOLETE PENETRATION
	SCREEN WALL
	SUPPORT LEDGE
	CRICKETS/STEELES
	RIDGE/VALLEY LINE
	EXISTING STRUCTURAL SLOPE
	WALKWAY PROTECTION
	SLOPE DIRECTION
	SLOPE DIRECTION (STRUCTURAL SLOPE)
	SLOPE DIRECTION (TAPERED INSULATION)
	ROOF SECTION
	DETAIL LOCATION
	SYSTEM ASSEMBLY DETAIL LOCATION
	KEYED NOTE LOCATION
	REVISION NUMBER
	ADJACENT PROJECT AREA
	ADJACENT AREA - NOT IN CONTRACT



File: Lee's Summit R-7 School District - LSS and Summit MO - 21LSLESUR007B (21LSLESUR007B.dwg) Title: R1.02, 2022, 12:00pm



#### GENERAL NOTES

- THIS DRAWING IS INTENDED FOR ORIENTATION, APPROXIMATE CONFIGURATION, AND LOCATION OF DETAILS AND NOTES. CONTRACTOR SHALL FIELD VERIFY ALL ITEMS FOR BIDDING AND INSTALLATION PURPOSES.
- WHERE DETAIL OR KEYED NOTE CALLOUTS ARE NOTED AS "TYPICAL", THE REFERENCED INFORMATION SHALL APPLY AT ALL SIMILAR LOCATIONS THROUGHOUT THE PROJECT AREA.
- WHERE DETAIL CALLOUTS ARE NOTED AS "SIMILAR", THE ROOF DECK, INSULATION, AND/OR SUBSTRATE COMPONENTS MAY DIFFER FROM THOSE SHOWN. HOWEVER, THE CONCEPT IN THE REFERENCED DETAIL SHALL PERTAIN.
- IF A GIVEN CONDITION IS NOT REPRESENTED BY A DETAIL DRAWING, AND THE WORK CANNOT BE DEFINED BY REFERRING TO SIMILAR DETAIL, SUBMIT A REQUEST FOR CLARIFICATION TO THE OWNER'S REPRESENTATIVE. PROCEED BASED ON FULLY EXECUTED CHANGE DIRECTIVE OR CHANGE ORDER. REGARDLESS OF SPECIFIED WARRANTY, BID SHALL INCLUDE VALUE OF INSTALLING ALL WORK COMPLETE, PER ROOFING MANUFACTURER'S REQUIREMENTS FOR A 15-YEAR MINIMUM WARRANTY. UNAUTHORIZED DETAIL CHANGES ARE SUBJECT TO REJECTION BY THE OWNER'S REPRESENTATIVE.
- REFER TO SUMMARY OF WORK DRAWING SHEET FOR BASIC SCOPE OF WORK, INCLUDING PRESUMED EXISTING ROOF SYSTEM COMPONENTS, QUANTITY ALLOWANCES FOR UNIT PRICE WORK.
- FOR ROOF DESIGN DATA AND ROOF ATTACHMENT REQUIREMENTS, REFER TO THE CORRESPONDING DESIGN DATA AND ATTACHMENT PLAN DRAWING SHEET.
- INSTALL TAPERED CRICKET TO DIVERT DRAINAGE AROUND ANY PENETRATION 18" OR WIDER MEASURED PERPENDICULAR TO SLOPE DIRECTION. CRICKET SLOPE SHALL BE DOUBLE THE FIELD SLOPE.
- INSTALL SPECIFIED WALKWAY MATERIAL AT ROOF ACCESS POINTS, INCLUDING LADDERS, ROOF HATCHES, DOORS, ACCESS PANELS, AND/OR STAIRS. BID SHALL INCLUDE THESE AREAS, AND ANY OTHER AREAS SHOWN OR SPECIFIED.
- TRANSITIONS BETWEEN ADJACENT MEMBRANE FLASHING DETAILS SHALL BE CONTINUOUS AND WATERTIGHT. WATERTIGHT SHEET METAL FLASHING CLOSURES SHALL BE PROVIDED TO FIT SUBSTRATE AND MEMBRANE FLASHING PROFILES. SHEET METAL TYPE, GAUGE, AND COLOR SHALL MATCH ADJACENT COMPONENTS. SHEET METAL SHALL BE SECURED WITH EPDM WASHERED FASTENERS WITH SEALANT APPLIED AS SPECIFIED.
- DETAIL EXPOSED EDGES OF BASE FLASHINGS USING VERTICAL SHEET METAL TERMINATION DETAIL. TERMINATION BAR IS NOT AN ACCEPTABLE SUBSTITUTION.

#### KEYED NOTES

- REMOVE OBSOLETE ROOF PENETRATION AND REPAIR ROOF DECKING PER DRAWINGS AND SPECIFICATIONS.
- DISCONNECT, RAISE, AND RECONNECT ROOFTOP UNITS AS REQUIRED FOR INSTALLATION OF THE ROOF SYSTEM.
- INSTALL 1/4" OR 1/2" PER FOOT TAPERED POLYISOCYANURATE INSULATION CRICKETS/SADDLE, WITH 0.5" STARTING THICKNESS AT VALLEYS. INSTALL TAPERED EDGE STRIP AT EDGE OF CRICKET PANEL PER VALLEY DETAIL.
- REMOVE AND REPLACE PIPE AND CONDUIT SUPPORTS. REFER TO DETAILS 18, 19, 20 and 21/R2.04. MAXIMUM SPACING SHALL BE 8' O.C.
- MODIFY EXISTING SLOPE AS NECESSARY TO CONFORM TO ROOF PLAN.

#### SYMBOL LEGEND

	PARAPET WALL
	ROOF EDGE
	EXPANSION JOINT
	SCUPPER
	OVERFLOW SCUPPER
	CONDUCTOR HEAD
	DOWNSPOUT
	PITCH PAN
	PIPE PENETRATION
	FLANGED PENETRATION
	ROOF DRAIN
	OVERFLOW DRAIN
	ROOF CURB
	ELEVATED UNIT/EQUIPMENT
	ROOF HATCH
	OBSOLETE PENETRATION
	SCREEN WALL
	SUPPORT LEGS
	CRICKETS/SADDLE
	RIIDGE/VALLEY LINE
	EXISTING STRUCTURAL SLOPE
	WALKWAY PROTECTION
	SLOPE DIRECTION
	SLOPE DIRECTION (STRUCTURAL SLOPE)
	SLOPE DIRECTION (TAPERED INSULATION)
	ROOF SECTION
	DETAIL LOCATION
	SYSTEM ASSEMBLY DETAIL LOCATION
	KEYED NOTE LOCATION
	REVISION NUMBER
	ADJACENT PROJECT AREA
	ADJACENT AREA - NOT IN CONTRACT

DRAWING RECORD			
REV. NO.	DESCRIPTION	DATE	BY
NA	R2.07	03/10/22	BOH

	CLIENT:	LEE'S SUMMIT R-7 SCHOOL DISTRICT
	PROJECT:	LEE'S SUMMIT WEST-HIGH SCHOOL
	ADDRESS:	2600 SW WARD
	CITY/STATE/ZIP:	LEE'S SUMMIT, MISSOURI 64082
SHEET NUMBER:		R1.02

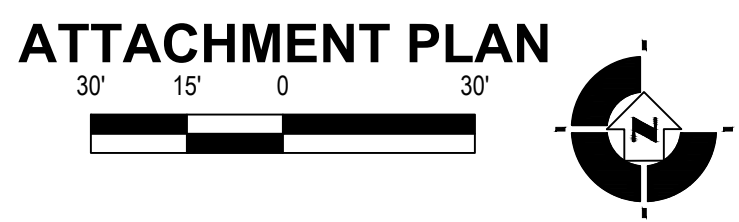
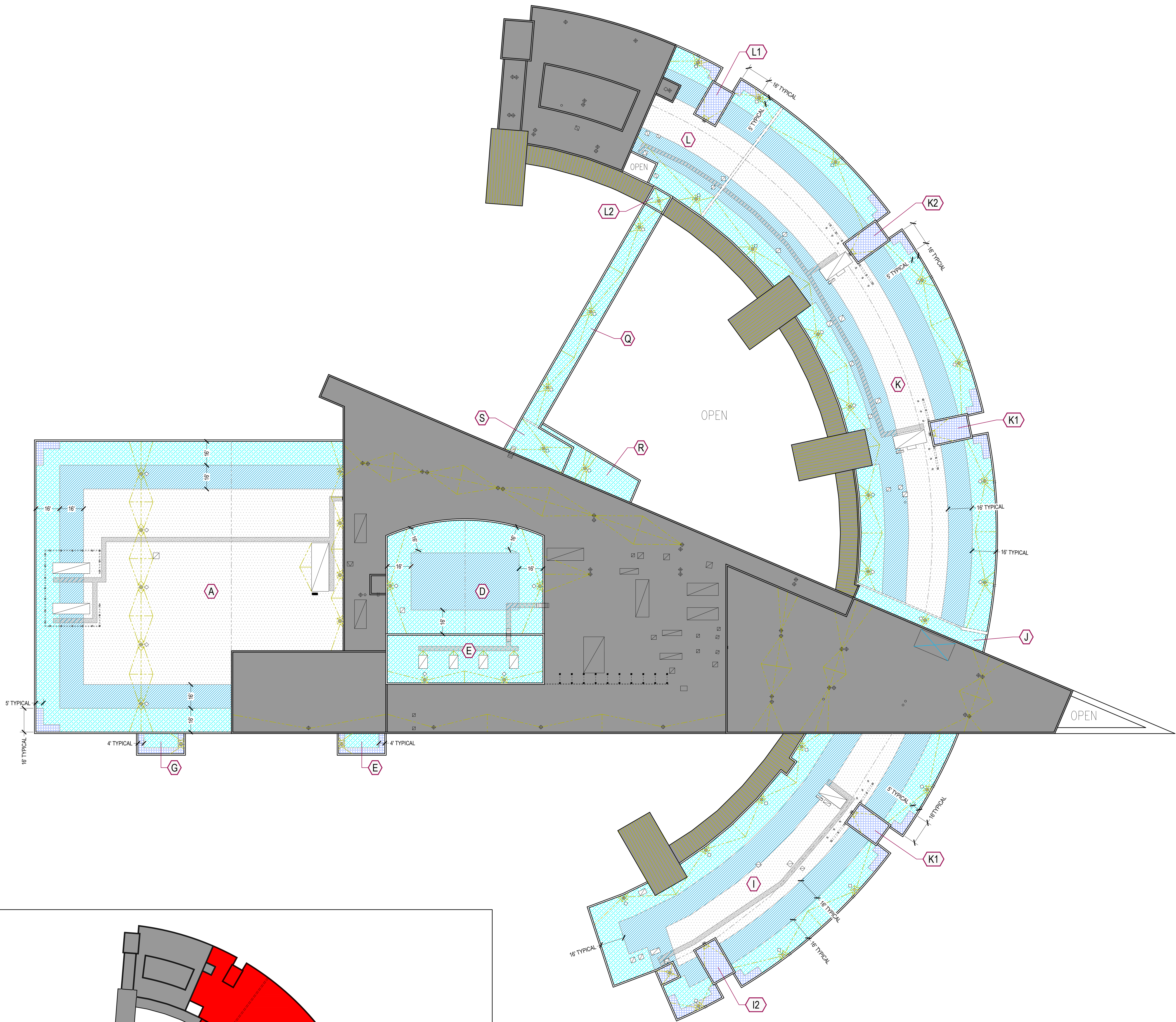
  

PROJECT AREA ON THIS SHEET	ADJACENT PROJECT AREA ON OTHER SHEET(S)	ADJACENT AREA - NOT IN CONTRACT
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SYMBOL	DESCRIPTION
	PARAPET WALL
	ROOF EDGE
	EXPANSION JOINT
	SCUPPER
	OVERFLOW SCUPPER
	CONDUCTOR HEAD
	DOWNSPOUT
	PITCH PAN
	PIPE PENETRATION
	FLANGED PENETRATION
	ROOF DRAIN
	OVERFLOW DRAIN
	ROOF CURB
	ELEVATED UNIT/EQUIPMENT
	ROOF HATCH
	OBSOLETE PENETRATION
	SCREEN WALL
	SUPPORT LEGS
	CRICKETS/SADDLE
	RIIDGE/VALLEY LINE
	EXISTING STRUCTURAL SLOPE
	WALKWAY PROTECTION
	SLOPE DIRECTION
	SLOPE DIRECTION (STRUCTURAL SLOPE)
	SLOPE DIRECTION (TAPERED INSULATION)
	ROOF SECTION
	DETAIL LOCATION
	SYSTEM ASSEMBLY DETAIL LOCATION
	KEYED NOTE LOCATION
	REVISION NUMBER
	ADJACENT PROJECT AREA
	ADJACENT AREA - NOT IN CONTRACT





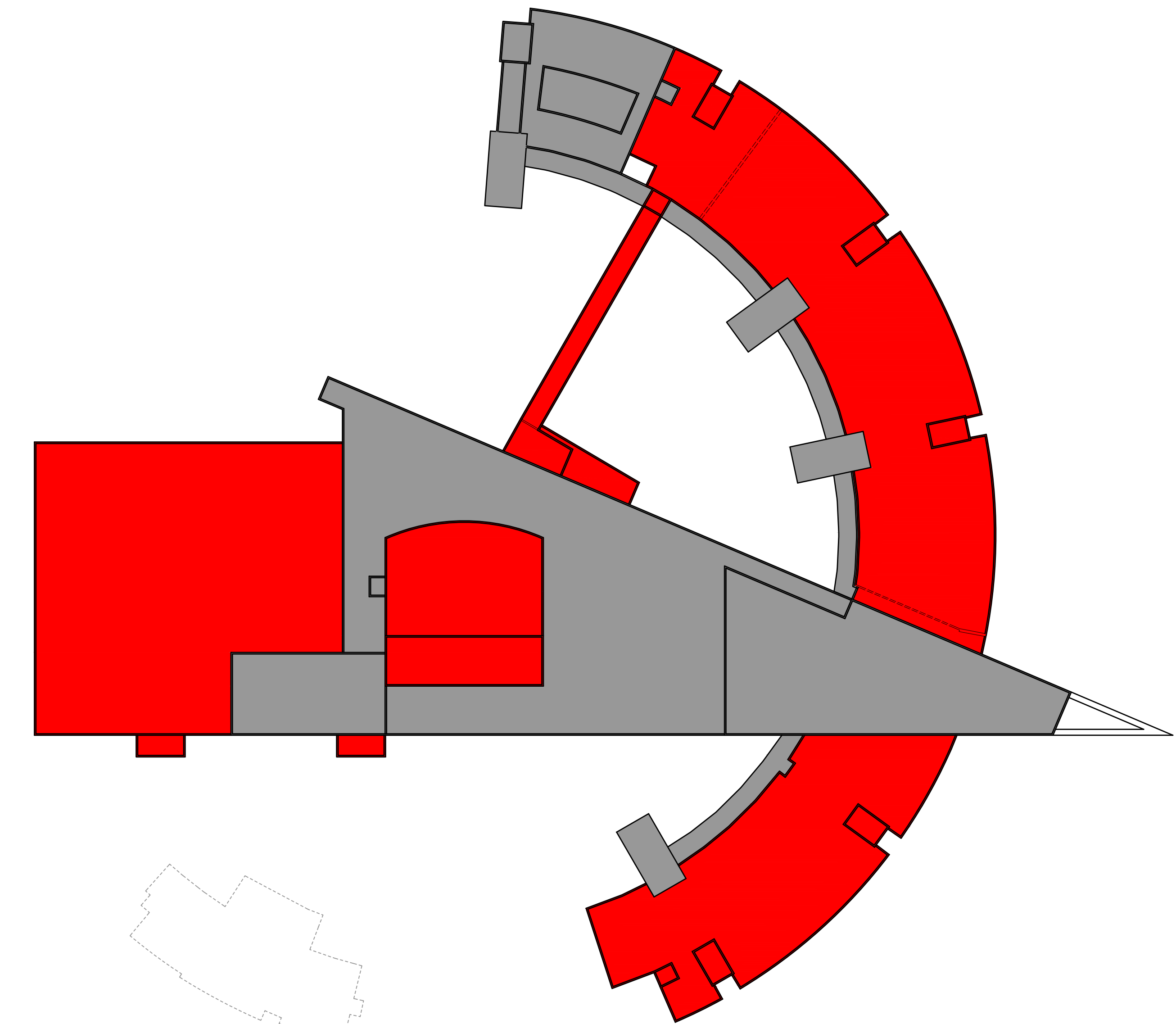
ASCE 7-16 ATTACHMENT ZONES				
SECTION	ZONE 1'	ZONE 1	ZONE 2	ZONE 3
A	AS SHOWN	AS DIMENSIONED	AS DIMENSIONED	AS DIMENSIONED
D	NOT USED	AS SHOWN	AS DIMENSIONED	NOT USED
E	NOT USED	NOT USED	AS SHOWN	NOT USED
G	NOT USED	NOT USED	AS SHOWN	AS DIMENSIONED
H	NOT USED	NOT USED	AS SHOWN	AS DIMENSIONED
I	AS SHOWN	AS DIMENSIONED	AS DIMENSIONED	AS DIMENSIONED
I1	NOT USED	NOT USED	NOT USED	AS SHOWN
I2	NOT USED	NOT USED	NOT USED	AS SHOWN
I3	NOT USED	NOT USED	NOT USED	AS SHOWN
J	NOT USED	NOT USED	AS SHOWN	NOT USED
K	AS SHOWN	AS DIMENSIONED	AS DIMENSIONED	NOT USED
K1	NOT USED	NOT USED	NOT USED	AS SHOWN
K2	NOT USED	NOT USED	NOT USED	AS SHOWN
L	AS SHOWN	AS DIMENSIONED	AS DIMENSIONED	NOT USED
L1	NOT USED	NOT USED	NOT USED	AS SHOWN
L2	NOT USED	NOT USED	AS SHOWN	NOT USED
Q	NOT USED	NOT USED	AS SHOWN	NOT USED
R	NOT USED	NOT USED	AS SHOWN	NOT USED
S	NOT USED	NOT USED	AS SHOWN	NOT USED

DESIGN DATA

<b>1.01 GENERAL NOTES</b>	
A.	THIS SHEET IS INTENDED TO COMMUNICATE BUILDING CODE INFORMATION, DESIGN STANDARDS, DESIGN DATA, AND ROOF SYSTEM ATTACHMENT REQUIREMENTS.
B.	THE INFORMATION ON THIS SHEET IS INTENDED FOR COMMUNICATION OF ATTACHMENT ZONES ONLY. REFER TO CORRESPONDING ROOF PLANS (ON SEPARATE SHEETS) FOR INFORMATION NOT NOTED.
C.	REFER TO DETAIL, S&D (SCHEDULE OF ATTACHMENT DETAILS) ON SHEET R2-01 - ATTACHMENT DETAILS, WHICH DEFINES THE ATTACHMENT DETAILS THAT ARE REQUIRED FOR EACH ROOF SECTION.
D.	REFER TO ATTACHMENT ZONE TABLE(S) ON THIS SHEET, WHICH DEFINE THE ZONES AND ZONE HATCHING STYLES APPLICABLE TO EACH ROOF SECTION.
<b>1.02 PROJECT REQUIREMENTS</b>	
A.	THE COMPLETED ROOF SYSTEM SHALL MEET THE FOLLOWING REQUIREMENTS AT A MINIMUM.
BUILDING CODE:	2018 INTERNATIONAL BUILDING CODE
ENERGY CODE:	2018 INTERNATIONAL ENERGY CONSERVATION CODE
WIND DESIGN STANDARD:	ASCE 7-16
<b>1.03 ROOF SECTION SPECIFIC REQUIREMENTS</b>	
A.	THE COMPLETED ROOF SYSTEM SHALL MEET THE FOLLOWING DESIGN WIND LOAD PRESSURES:
1.	ROOF SECTION E:
ZONE 1'	-39.9 PSF
ZONE 1	-47.8 PSF
ZONE 2	-89.4 PSF
ZONE 3	-121.9 PSF
2.	ROOF SECTIONS - ALL OTHERS:
ZONE 1'	-37.7 PSF
ZONE 1	-45.5 PSF
ZONE 2	-86.4 PSF
ZONE 3	-117.8 PSF
B.	THE INSTALLED COPINGS AND EDGE METAL SHALL COMPLY WITH ANISI/SPRIFM 4470ES-1 STANDARDS AND SHALL MEET THE FOLLOWING DESIGN WIND PRESSURES:
1.	ROOF SECTION E:
ZONE 2 HORIZONTAL	53 PSF
ZONE 3 HORIZONTAL	66 PSF
ZONE 2 VERTICAL	92 PSF
ZONE 3 VERTICAL	136 PSF
2.	ROOF SECTION - ALL OTHERS:
ZONE 2 HORIZONTAL	51 PSF
ZONE 3 HORIZONTAL	64 PSF
ZONE 2 VERTICAL	88 PSF
ZONE 3 VERTICAL	133 PSF
C.	THE COMPLETED ROOF SYSTEM SHALL MEET THE FOLLOWING EXTERNAL FIRE RATING:
1.	ROOF SECTIONS A, B, C, D, E, F, G, H, K, L, M, N AND O:
UL	CLASS A
<b>1.04 PROJECT DESIGN DATA</b>	
A.	WIND DESIGN DATA:
BASIC DESIGN WIND SPEED (V):	115 MPH
ALLOWABLE STRESS DESIGN WIND SPEED (V <sub>ASD</sub> ):	89.1 MPH
SAFETY FACTOR:	2.0
B.	ROOF DRAINAGE:
RAIN INTENSITY (i):	3.6 INCHES/HOUR
MODIFICATIONS TO DRAINAGE:	NO
<b>1.05 ROOF SECTION-SPECIFIC DESIGN DATA</b>	
A.	WIND / LOAD DESIGN DATA:
NOTE: ROOF HEIGHT INFORMATION FURNISHED SHALL NOT BE USED FOR THE PURPOSES OF DETERMINING AND/OR BIDDING CONSTRUCTION LOGISTICS.	
1.	ROOF SECTION E:
RISK CATEGORY:	III
EXPOSURE CATEGORY:	C
INTERNAL PRESSURE COEFFICIENT:	1.01
MEAN ROOF HEIGHT:	40 FEET
ROOF SLOPE:	1/4" IN 12"
APPROXIMATE EXISTING ROOF SYSTEM WEIGHT:	8 PSF
APPROXIMATE NEW ROOF SYSTEM WEIGHT:	5 PSF
APPROXIMATE CHANGE IN ROOF SYSTEM WEIGHT:	25 % DECREASE
APPROXIMATE NET CHANGE IN ROOF SYSTEM WEIGHT:	3 PSF DECREASE
2.	ROOF SECTIONS - OTHER THAN E:
RISK CATEGORY:	III
EXPOSURE CATEGORY:	C
INTERNAL PRESSURE COEFFICIENT:	1.01
MEAN ROOF HEIGHT:	30 FEET
ROOF SLOPE:	1/4" IN 12"
APPROXIMATE EXISTING ROOF SYSTEM WEIGHT:	8 PSF
APPROXIMATE NEW ROOF SYSTEM WEIGHT:	5 PSF
APPROXIMATE CHANGE IN ROOF SYSTEM WEIGHT:	25 % DECREASE
APPROXIMATE NET CHANGE IN ROOF SYSTEM WEIGHT:	3 PSF DECREASE

SYMBOL LEGEND

PARAPET WALL	ROOF EDGE
EXPANSION JOINT	SCUPPER
OVERFLOW SCUPPER	CONDUCTOR HEAD
DOWNSPOUT	PITCH PAN
PVC PENETRATION	FLANGED PENETRATION
ROOF DRAIN	OVERFLOW DRAIN
ROOF CURB	ELEVATED UNITEQUIPMENT
ROOF HATCH	OBsolete PENETRATION
SCREEN WALL	SUPPORT LEGS
CRICKET/SADDLE	RIDGE/VALLEY LINE
EXISTING STRUCTURAL SLOPE	WALKWAY PROTECTION
SLOPE DIRECTION (TAPERED INSULATION)	ADJACENT AREA - NOT IN CONTRACT



PROJECT AREA ON THIS SHEET  
ADJACENT AREA - NOT IN CONTRACT

KEY PLAN  
SCALE: NONE

DRAWING RECORD			
REV. NO.	DESCRIPTION	DATE	BY
NA	RED SET	03/10/22	BDRM

PROJECT:	LEE'S SUMMIT WEST-HIGH SCHOOL
CLIENT:	CEDEAR E&S, A VALUESIA, INC.
DESIGNER:	LEE'S SUMMIT, MISSOURI 64082
DATE:	03/10/22
BY:	L. STEIN
CHECKED BY:	J. STEIN
APPROVED BY:	J. STEIN

BENCHMARK PROJECT NO. 21LSLESUR007B	
SHEET NUMBER: R1.03	
DESIGN DATA AND ATTACHMENT PLAN	



LEE'S SUMMIT WEST-HIGH SCHOOL  
2600 SW WARD  
LEE'S SUMMIT, MISSOURI 64082

DESIGN DATA AND ATTACHMENT PLAN

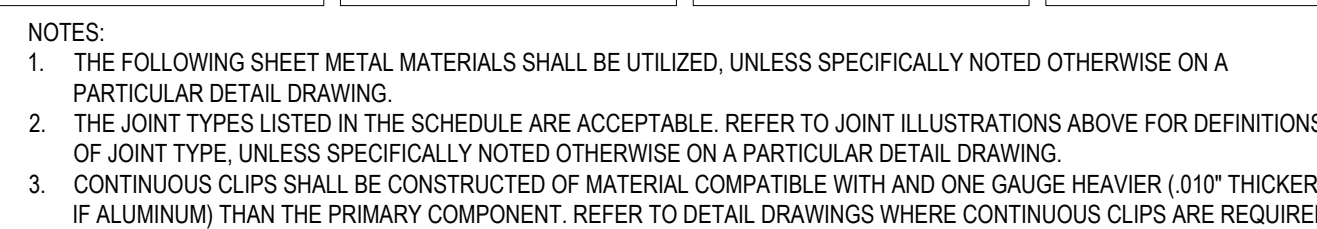
R1.03

ORIGINAL SHEET SIZE: 48" x 36"

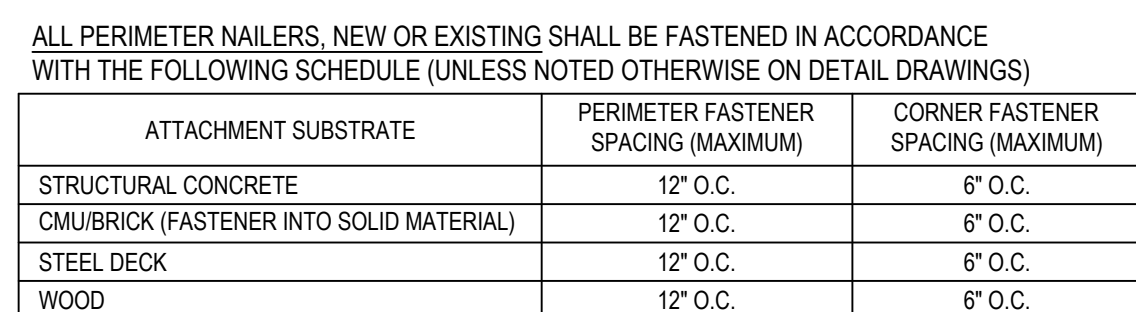








**SMS SCHEDULE OF ROOF RELATED SHEET METAL**  
NO SCALE 21150125JUN0070006



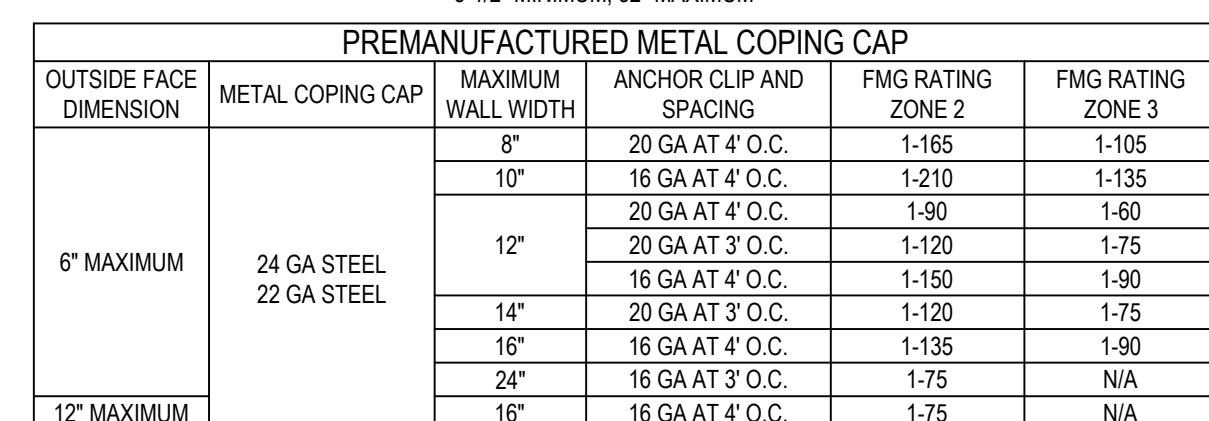
NOTES:

1. FASTENERS IN 6" OR WIDER (NOMINAL) LUMBER SHALL BE INSTALLED IN TWO (2) ROWS, STAGGERED 10" OF NAILED WIDTH.
2. TWO (2) FASTENERS SHALL BE INSTALLED WITHIN 6" OF EACH END OF EACH JOINT.
3. CORNER FASTENERS SHALL BE 4" EXTEND 8" FROM ALL CORNERS AND 4" FROM ALL EDGES.
4. WHERE TWO OR MORE NAILED ARE INSTALLED, EACH NAILED SHALL BE FASTENED INDEPENDENTLY.

OVER ALL DECK TYPES, THE BOTTOM NAILED SHALL BE FASTENED USING THE SPECIFIED FASTENERS AND 5/8" CAMBOL WASHERS, COUNTERSINK WASHERS AND FASTENERS. LEVEL WITH TOP OF WOOD USING SPACE BIT OR SIMILAR METHOD. FASTEN SUBSEQUENT NAILED, WHERE SPECIFIED, USING THE SPECIFIED SCREWS WITHOUT WASHERS. FASTENER TYPES ARE DETERMINED BY SUBSTRATE MATERIALS AND SECTION 06.10.53 MISCELLANEOUS ROUGH CARPENTRY.

FASTENERS SHALL BE INSTALLED TO PROVIDE A MINIMUM GAP BETWEEN ADJ. JOINING PIECES. REFER TO SECTION 06.10.53 FOR ADDITIONAL REQUIREMENTS.

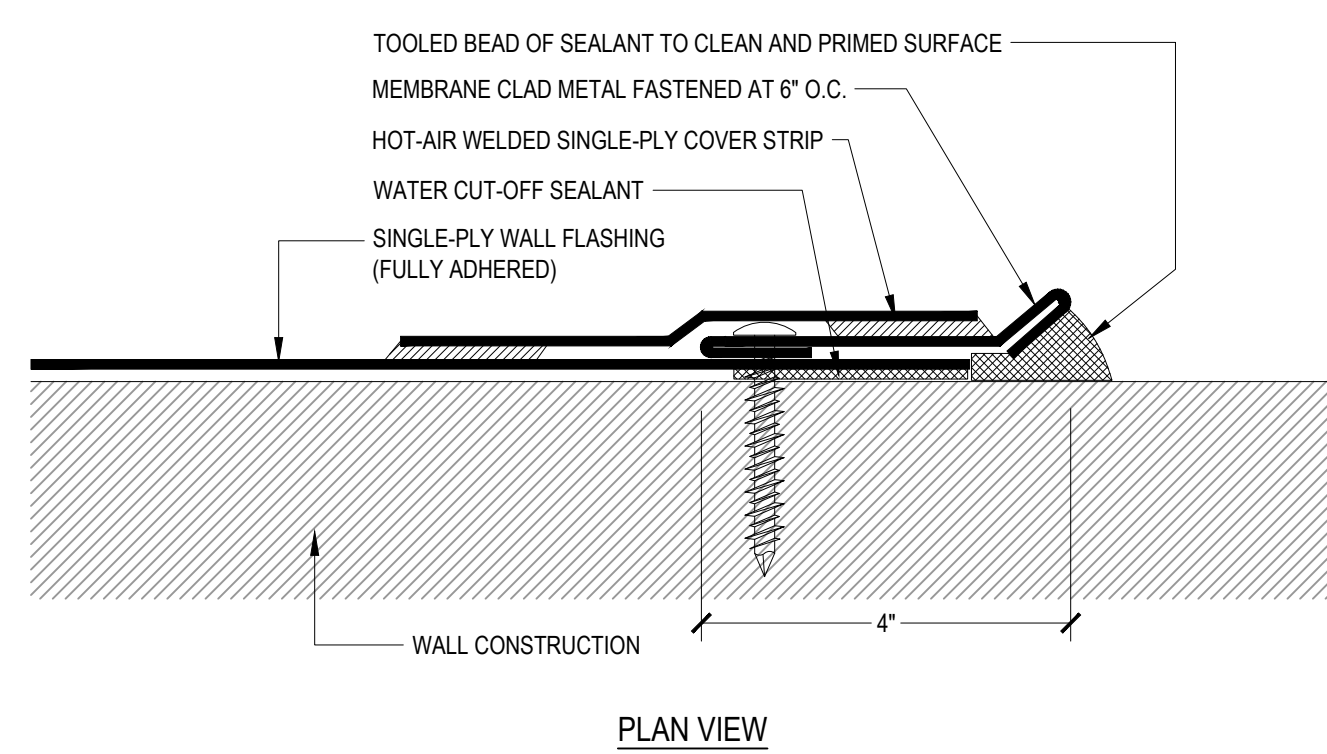
PC-2 PREMANUFACTURED METAL COPING  
NO SCALE 21155L229P007000



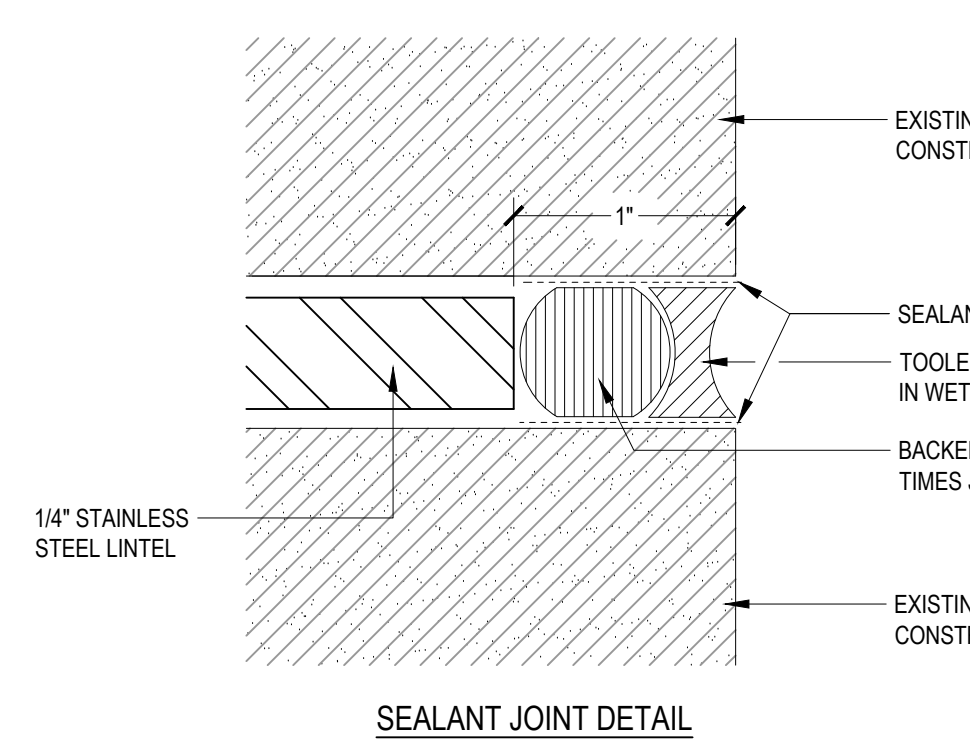
FAS MEMBRANE PERIMETER SECUREMENT  
NO SCALE 2115545900000000



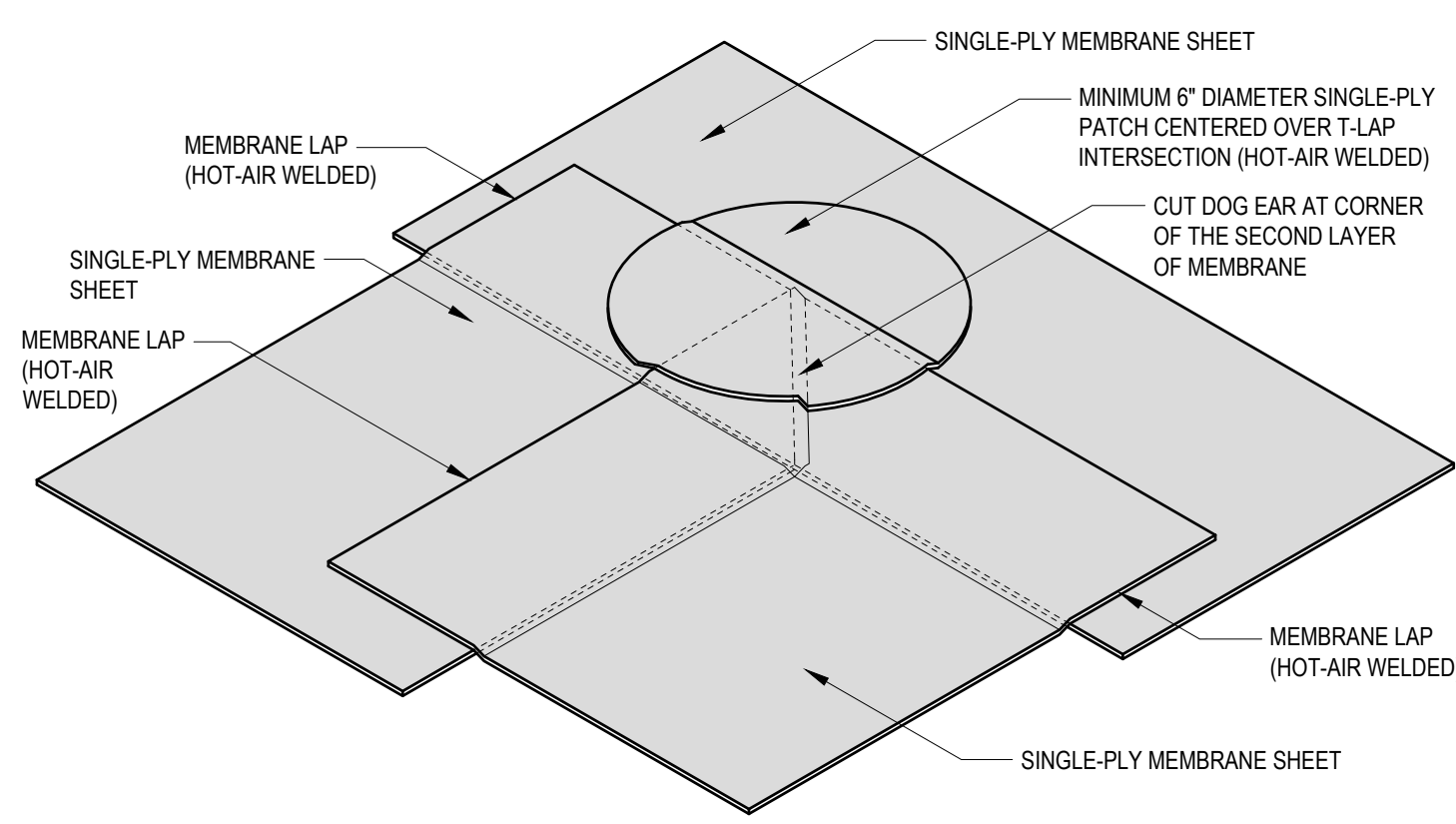




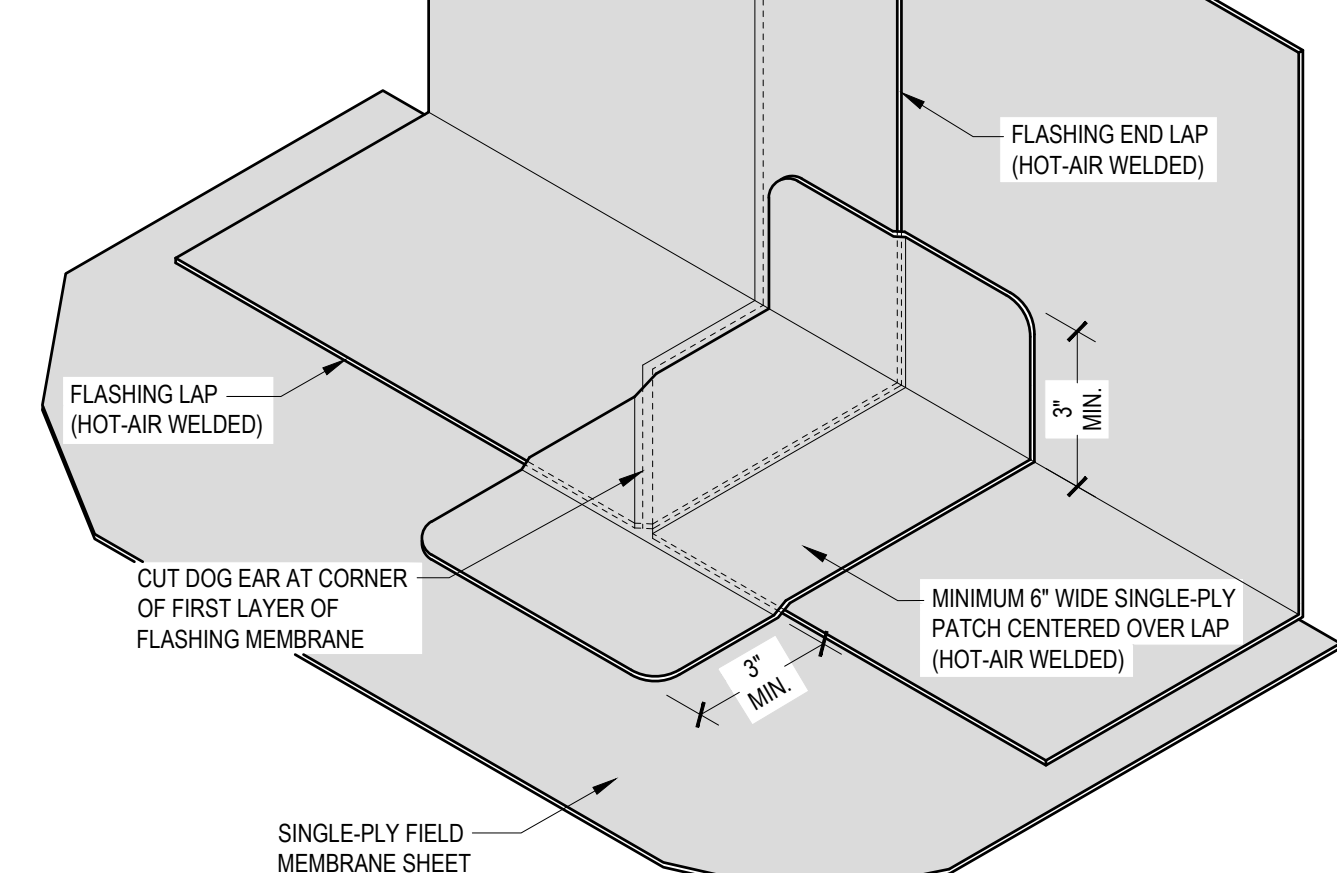
**L VERTICAL FLASHING TERMINATION**  
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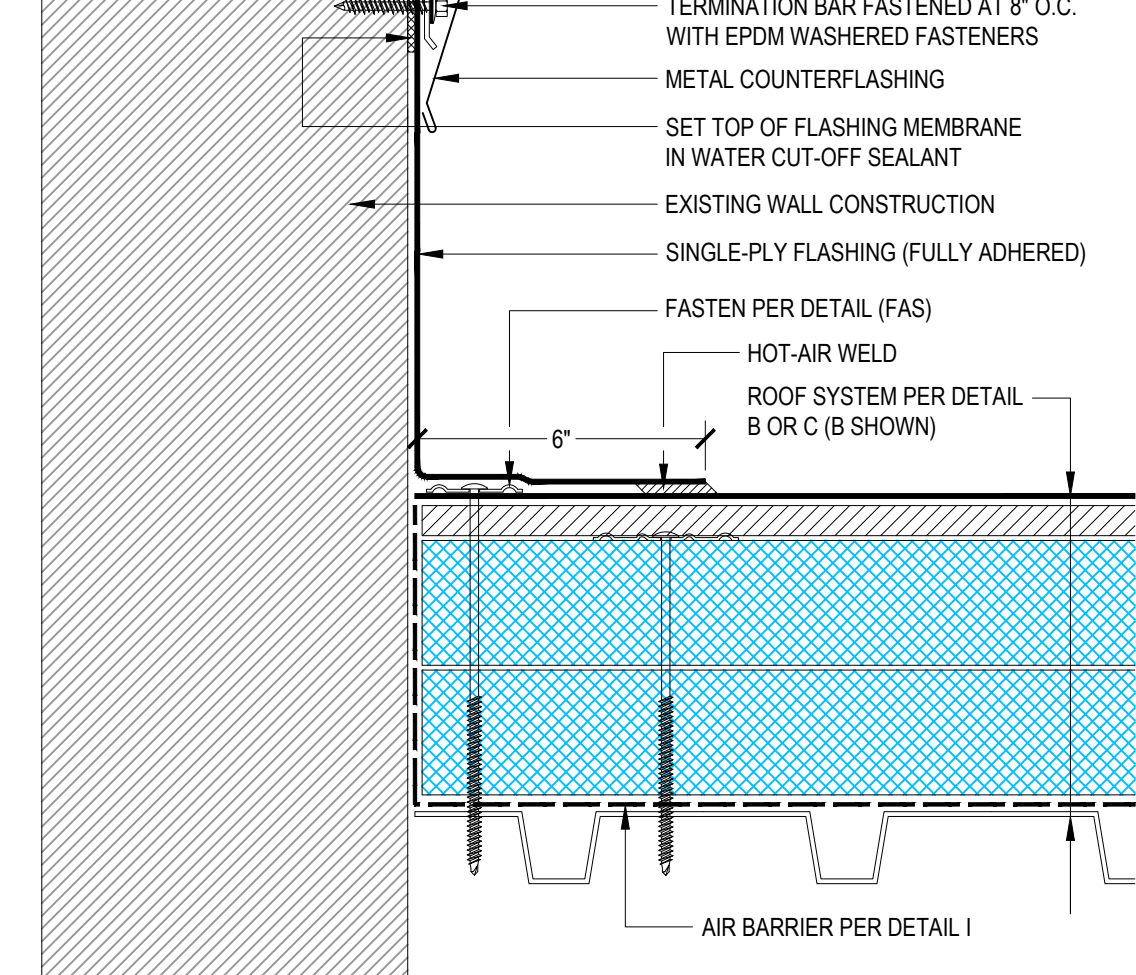
**M SCUPPER OPENING**  
NO SCALE 2115015010000000



**N** **TYPICAL PATCH AT MEMBRANE T-LAP**  
NO SCALE 21.55.ESJF007000

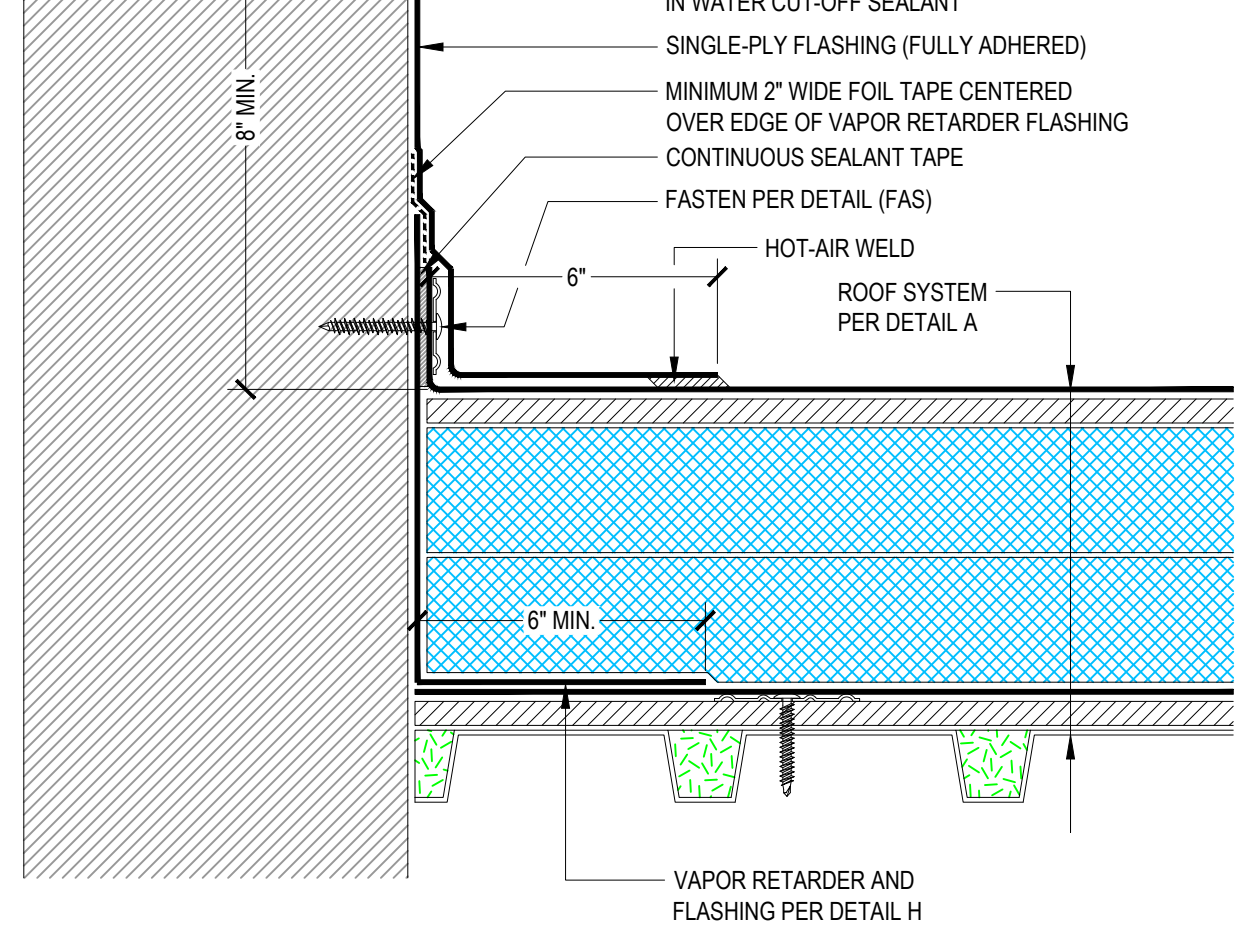


**0 TYPICAL PATCH AT FLASHING END LAP**  
NO SCALE 2155050200000000

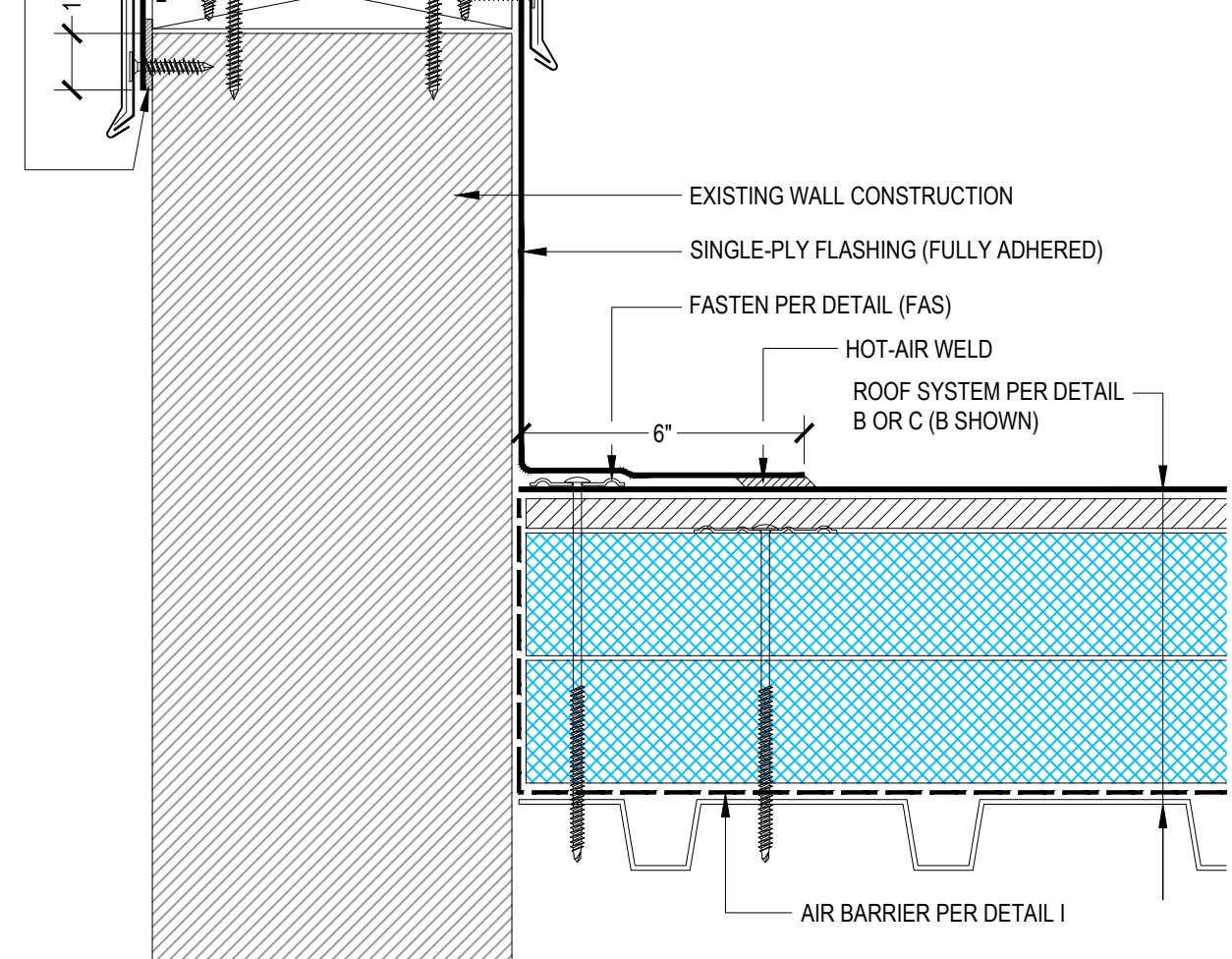


**1 PARAPET WALL DETAIL**

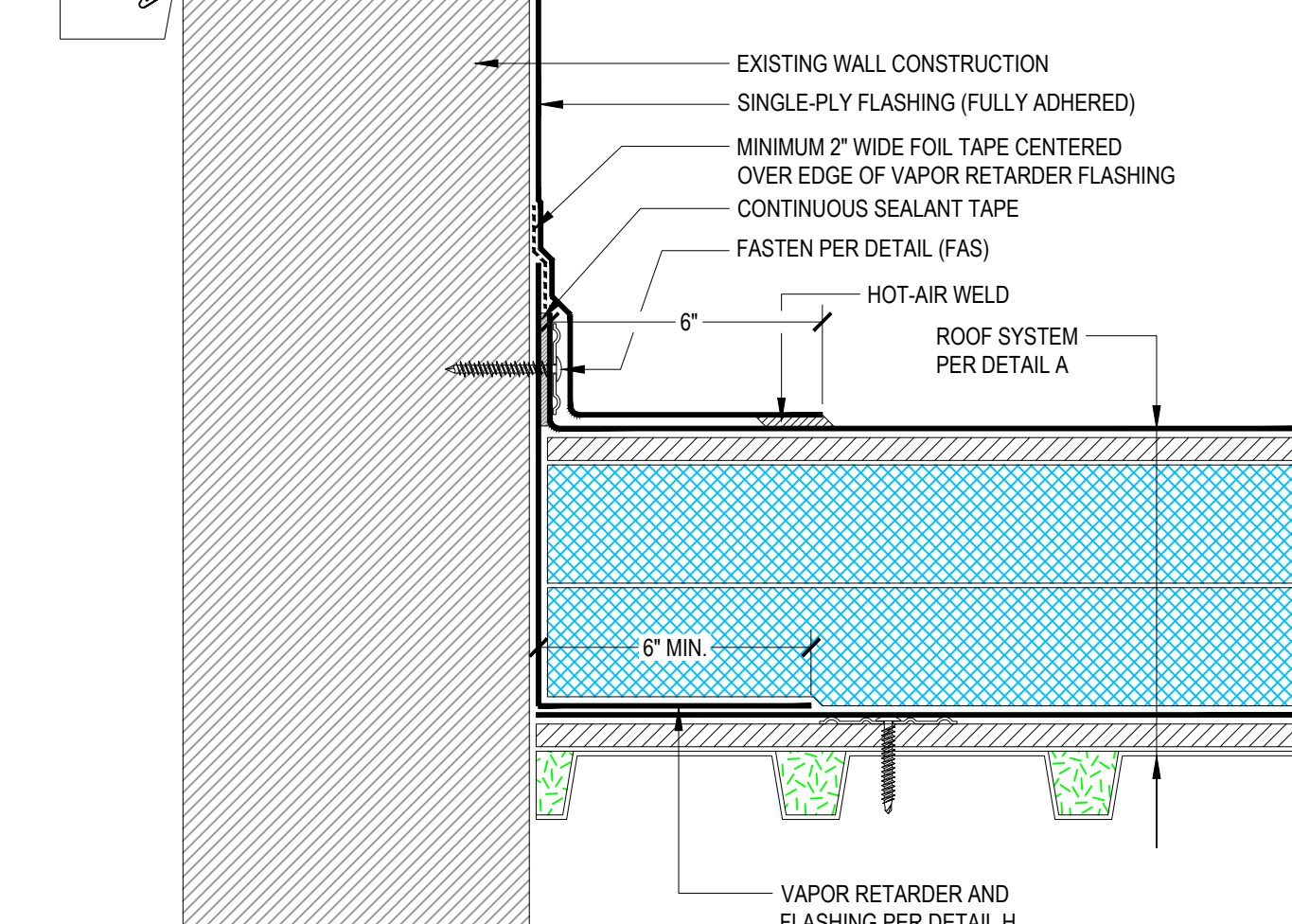
NO SCALE 21.SQ.EUR.DISC006



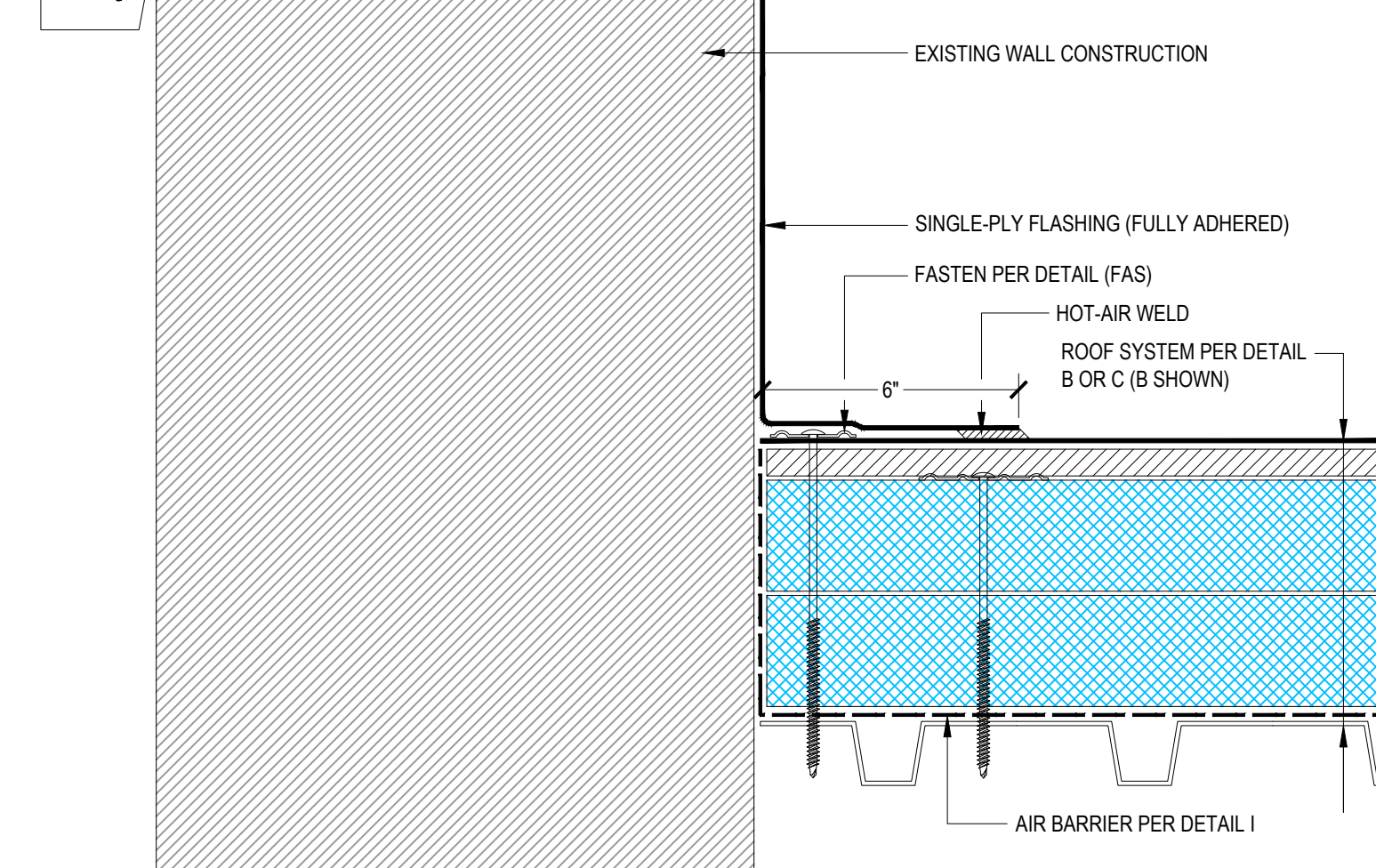
**2 BASE FLASHING DETAIL WITH VAPOR RETARDER**  
NO SCALE 21.55.53.80076006  
(ROOF SECTIONS A, D, AND E)



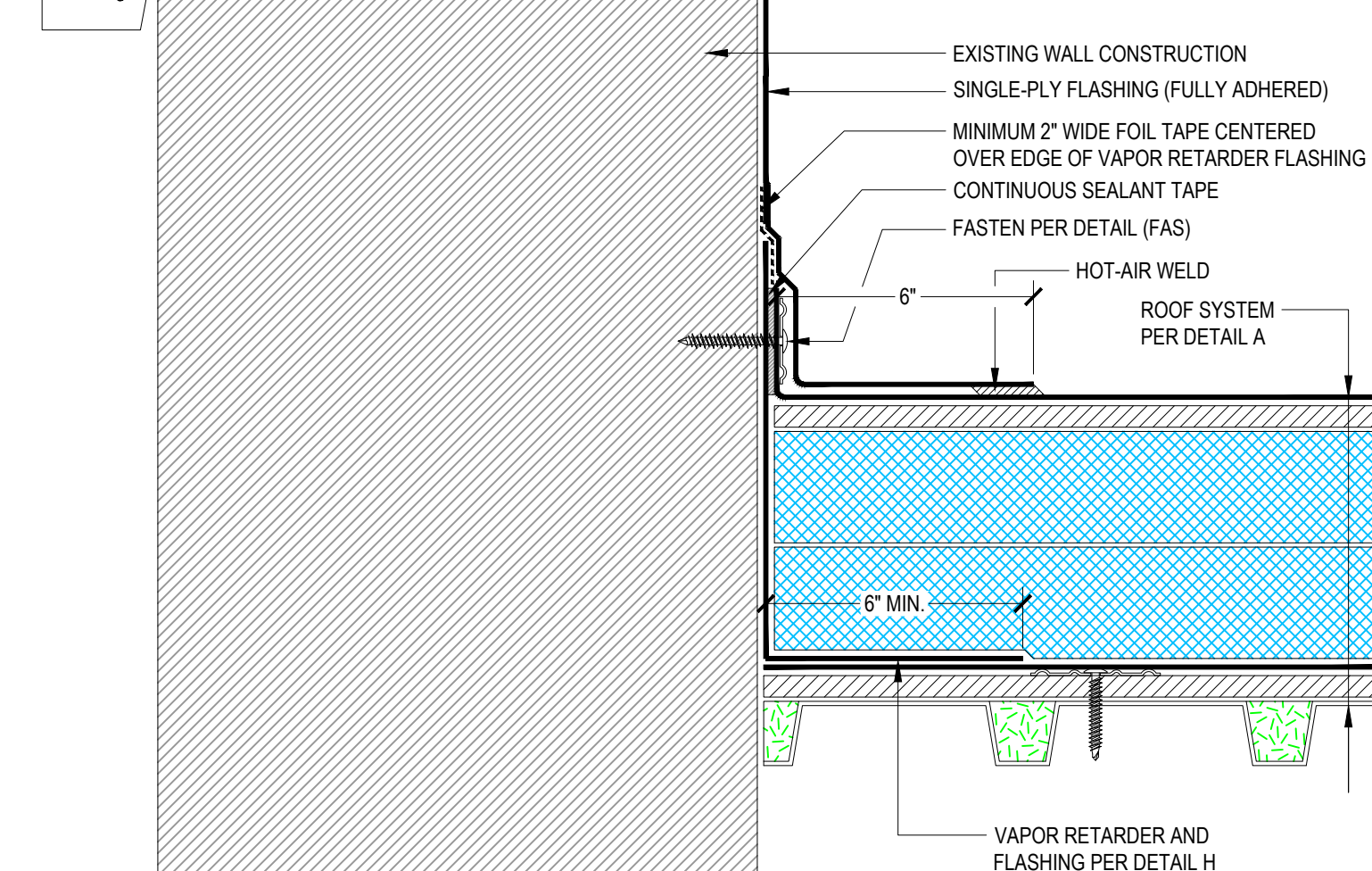
**3** **PARAPET WALL DETAIL**  
NO SCALE 21LSLFSUR0070006



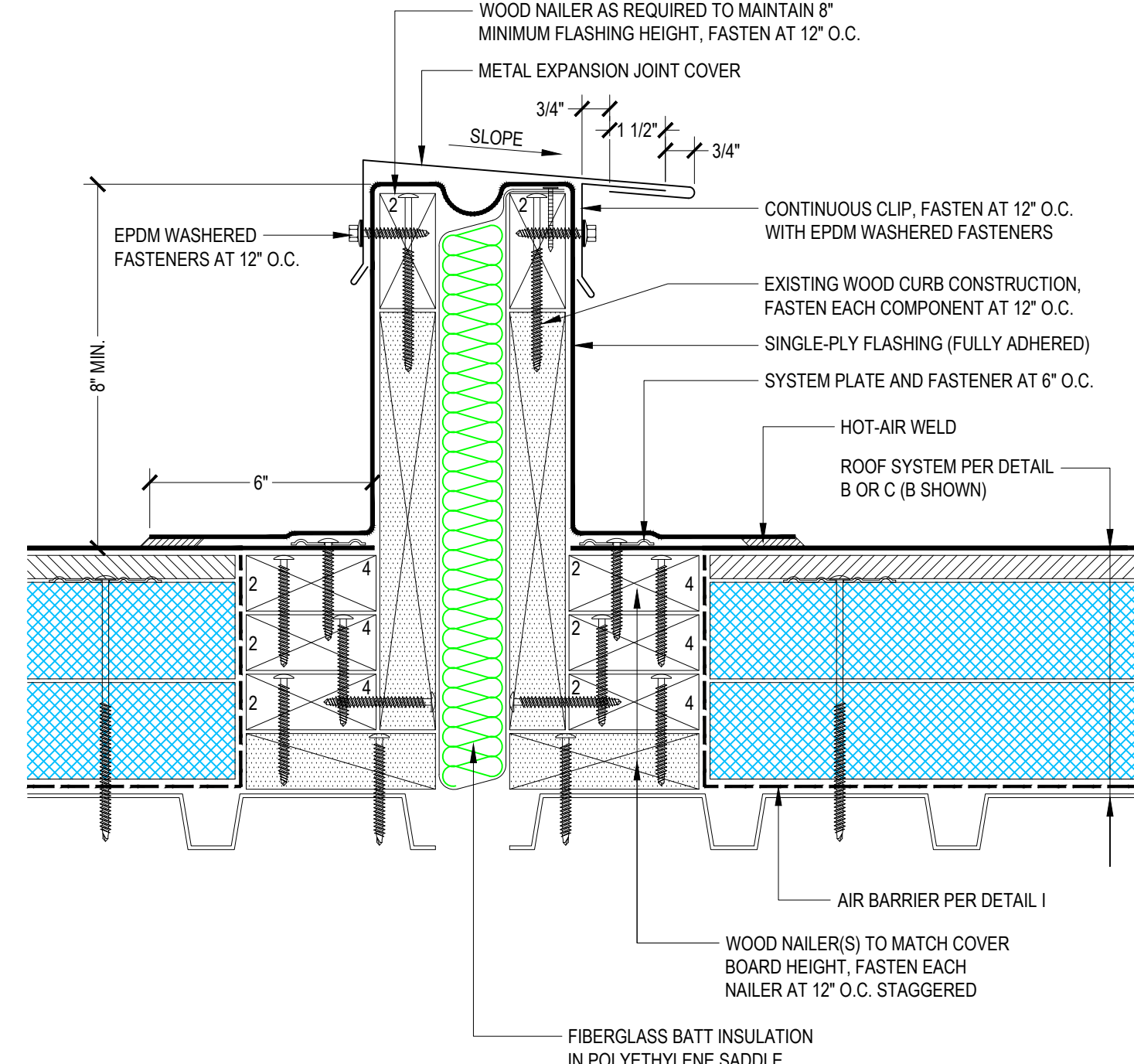
**3A** **PARAPET WALL DETAIL**  
NO SCALE 2154565UR0010006  
(ROOF SECTIONS A, D, AND E)



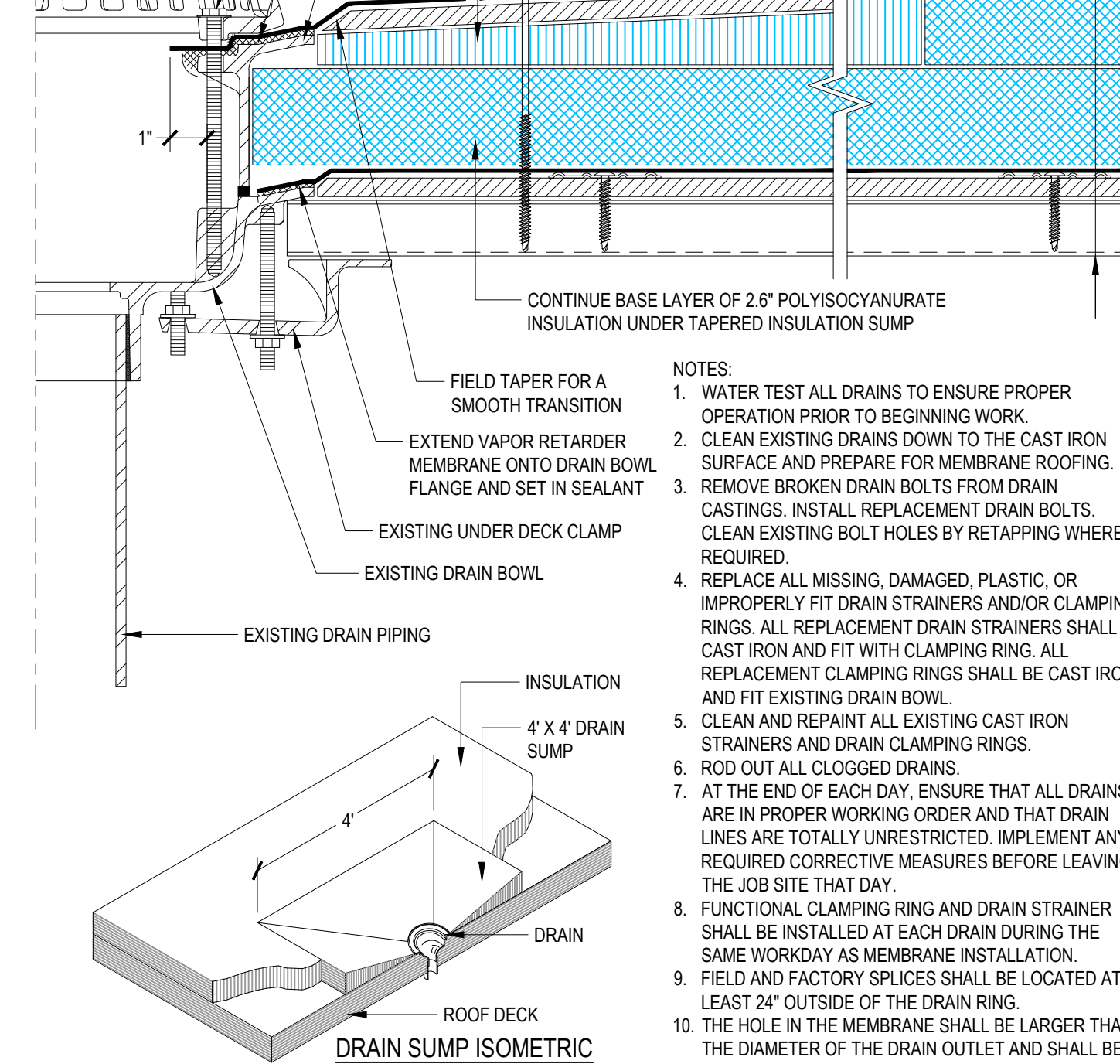
**4** **PARAPET WALL DETAIL**  
NO SCALE 21LSOLESUR003T0006



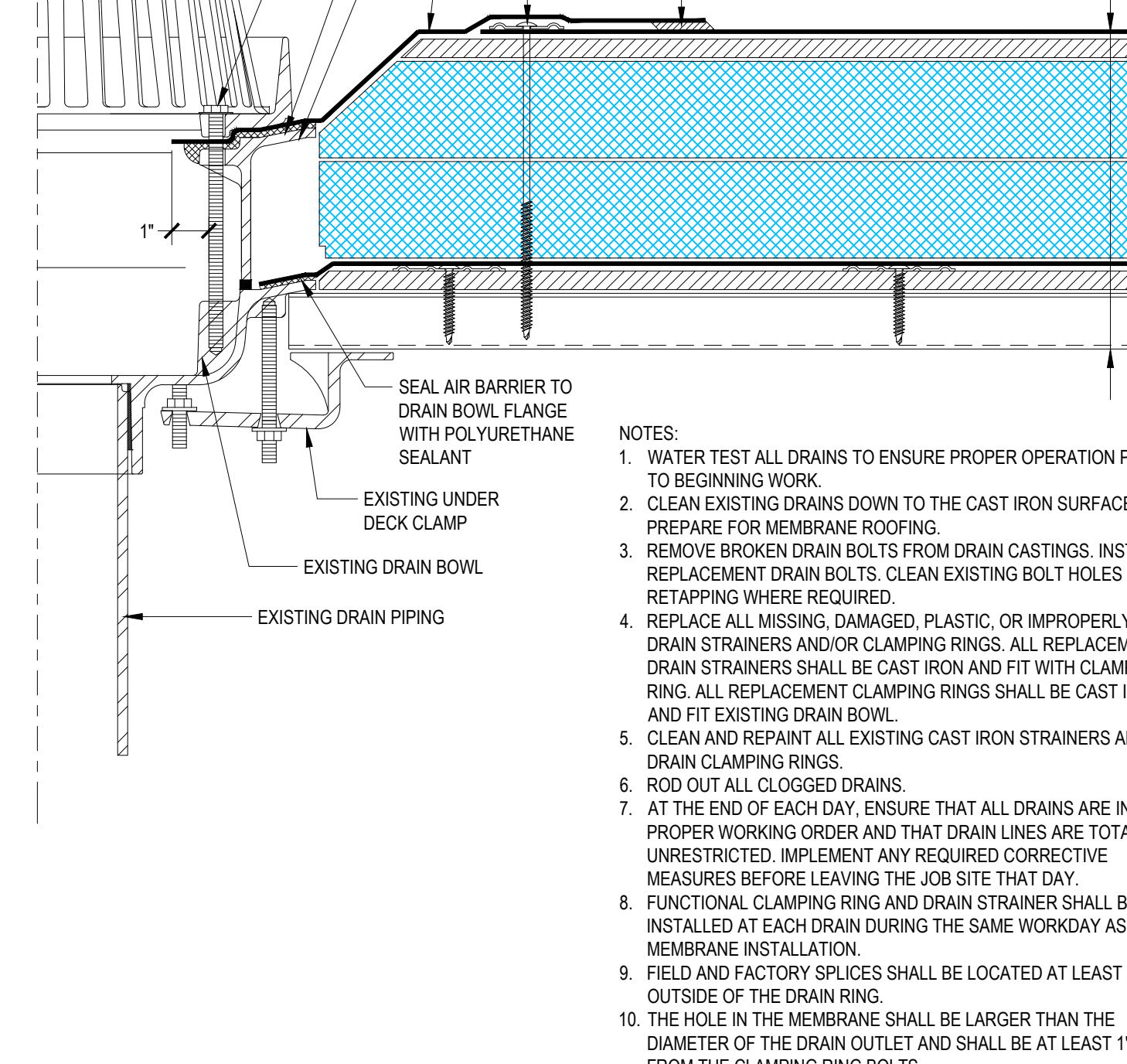
**4A** **PARAPET WALL DETAIL**  
NO SCALE 21LS05SURDET006  
(ROOF SECTIONS A, D, AND E)



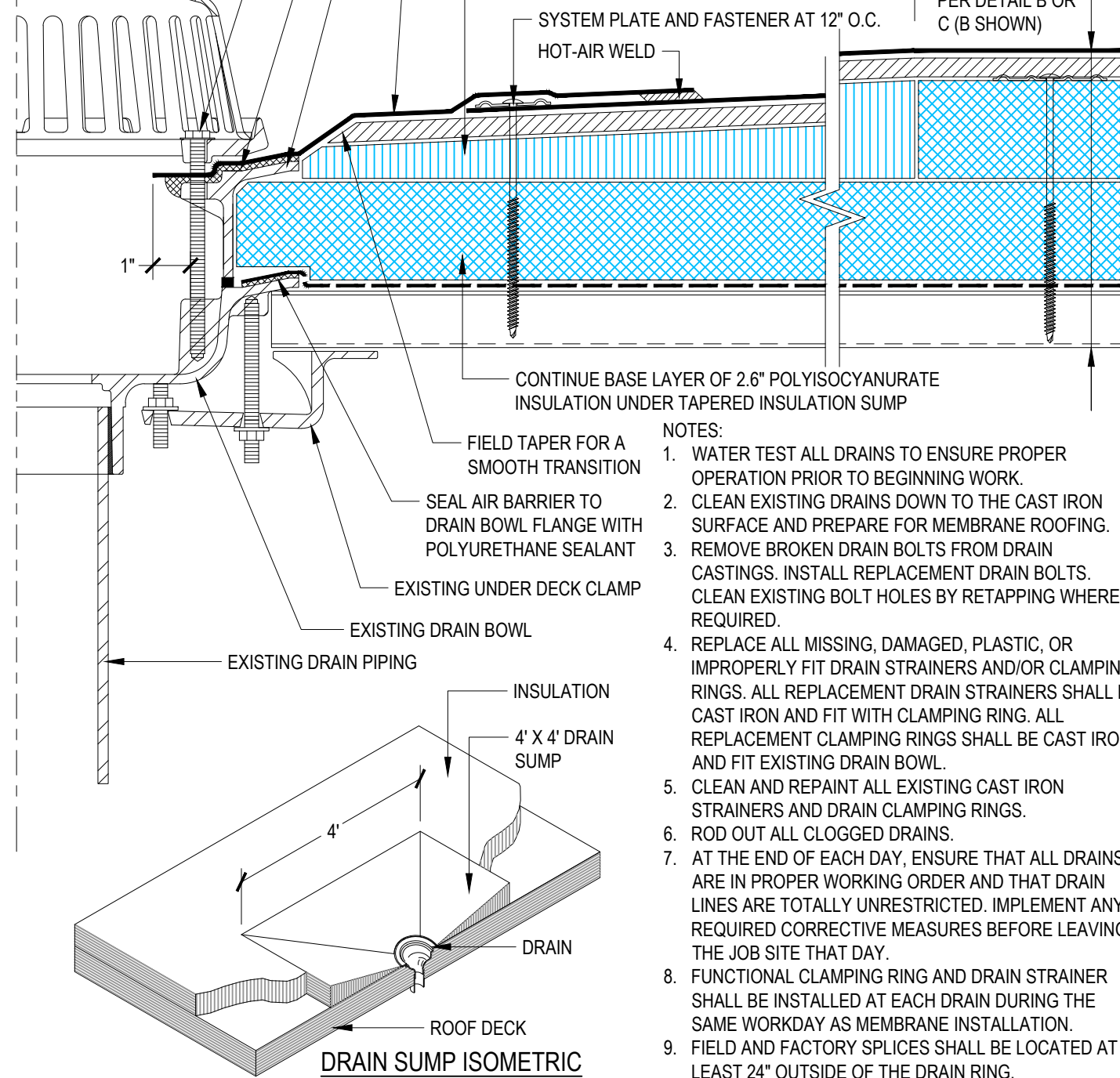
**5** **EXPANSION JOINT DETAIL**  
NO SCALE 214.552.004.ROOF2006  
(ROOF SECTIONS J, K, L, Q AND S)



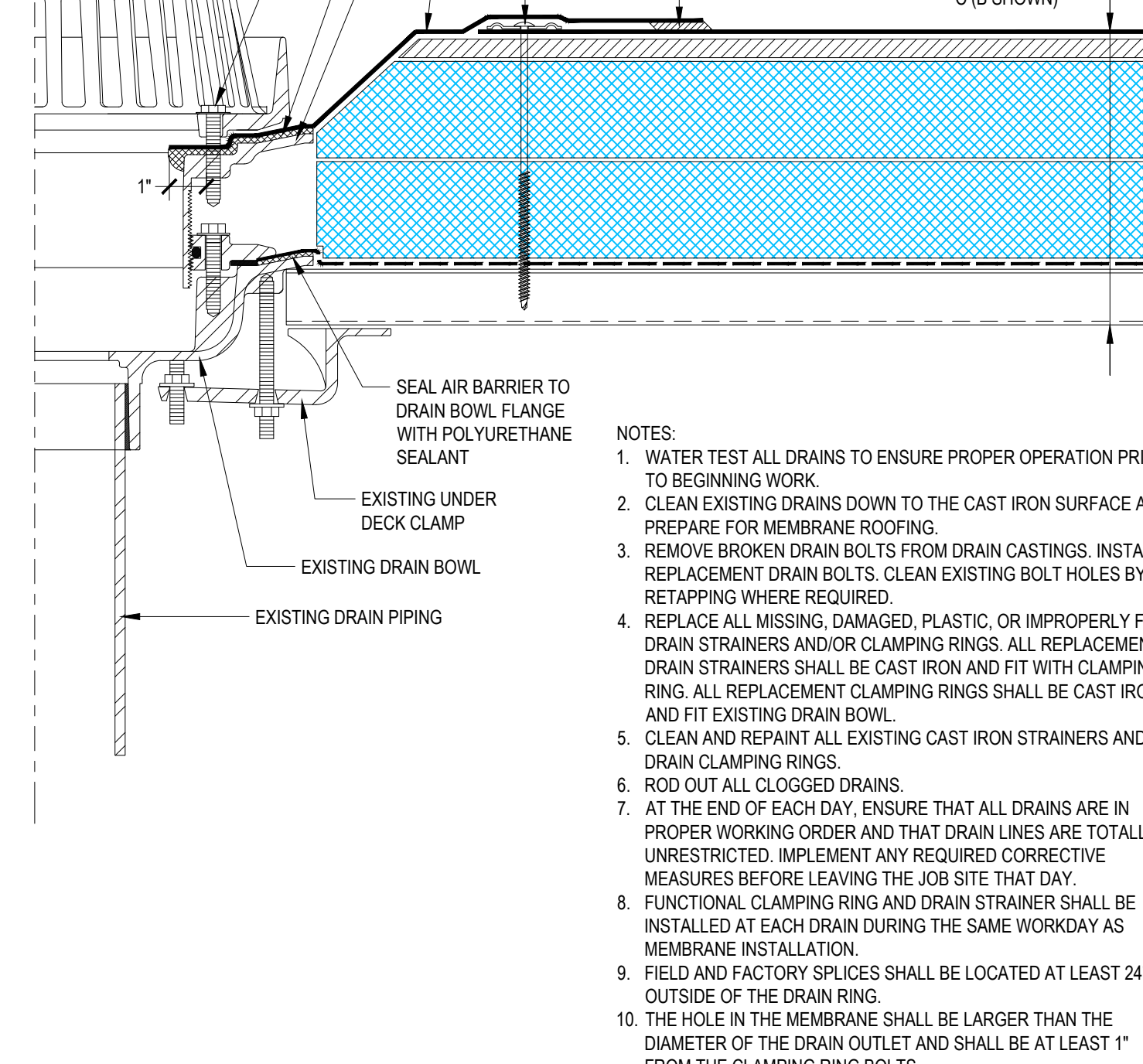
**6 ROOF DRAIN DETAIL**  
NO SCALE 214.SSLESURSTBOOR  
(ROOF SECTIONS A, D, AND E)



**6A** **OVERFLOW DRAIN DETAIL**  
NO SCALE 21.SS.ELE.DRAIN0006



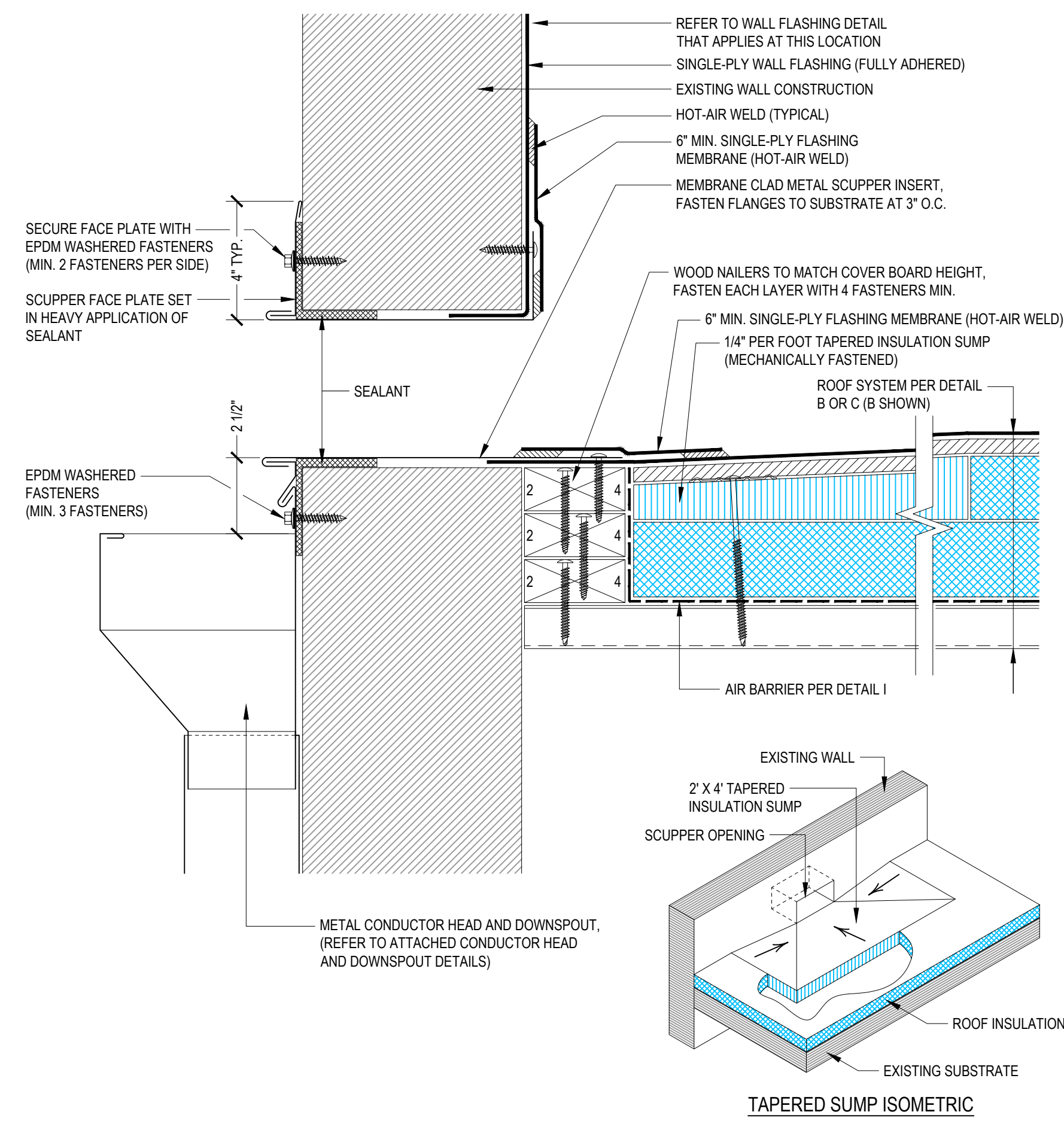
**7 ROOF DRAIN DETAIL**  
NO SCALE  
(ROOF SECTIONS G, H, I1, J, L2, Q, R AND S)



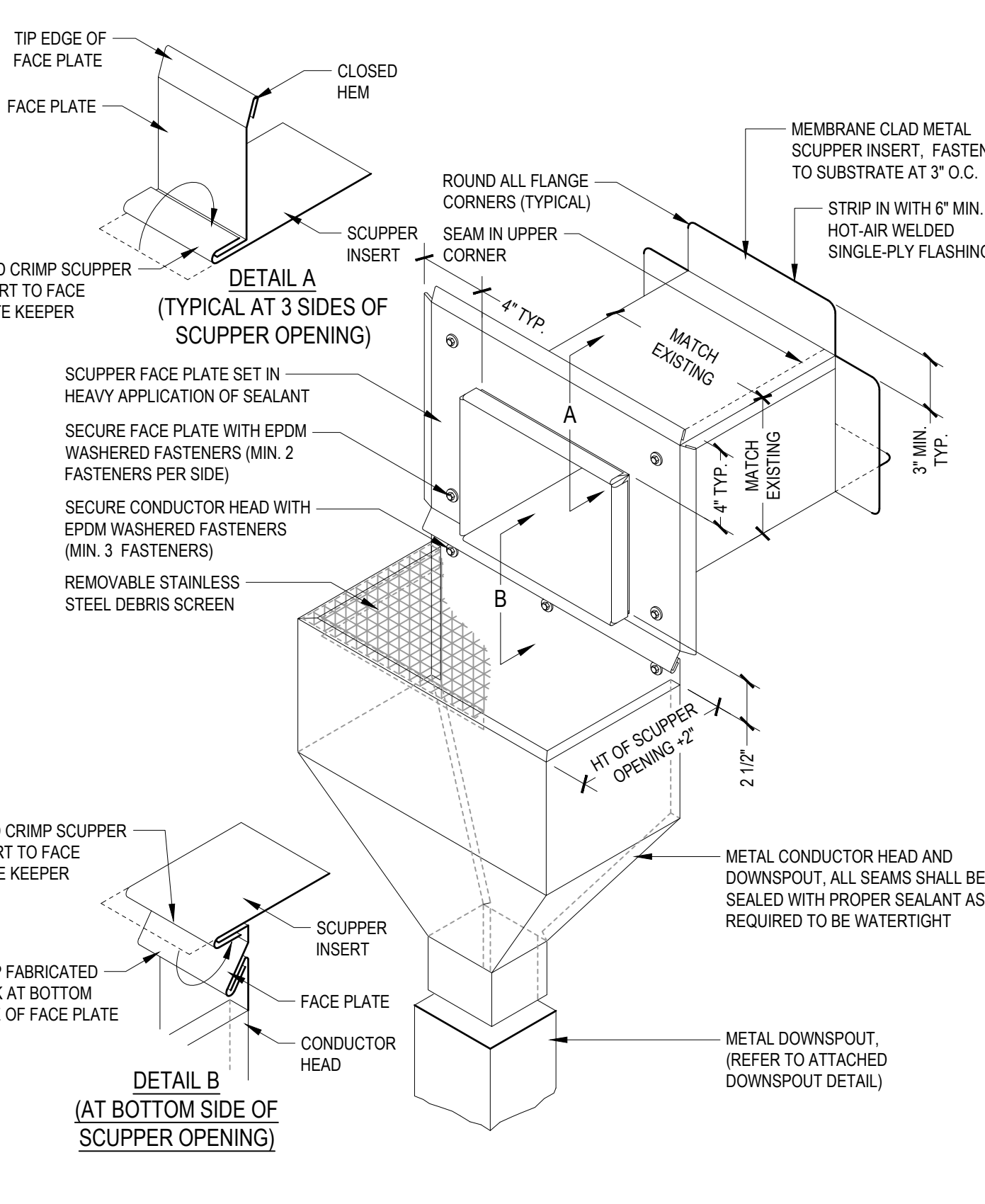
**7A** **OVERFLOW DRAIN DETAIL**  
NO SCALE 21.55.00.00.00.00.00



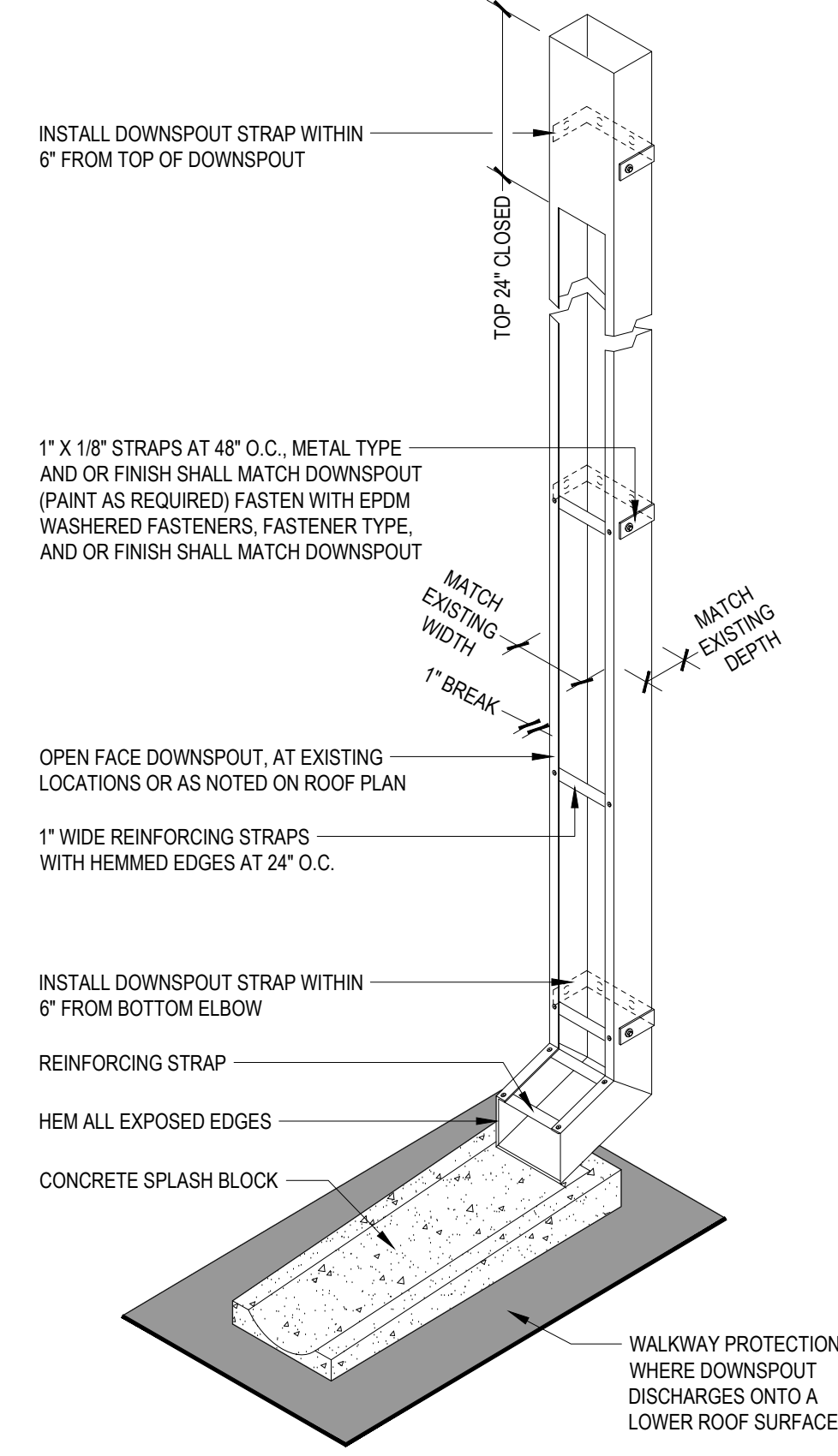
DRAWING RECORD			
REV. NO.	DESCRIPTION	DATE	BY
NA	RED SET	03/10/22	BSH



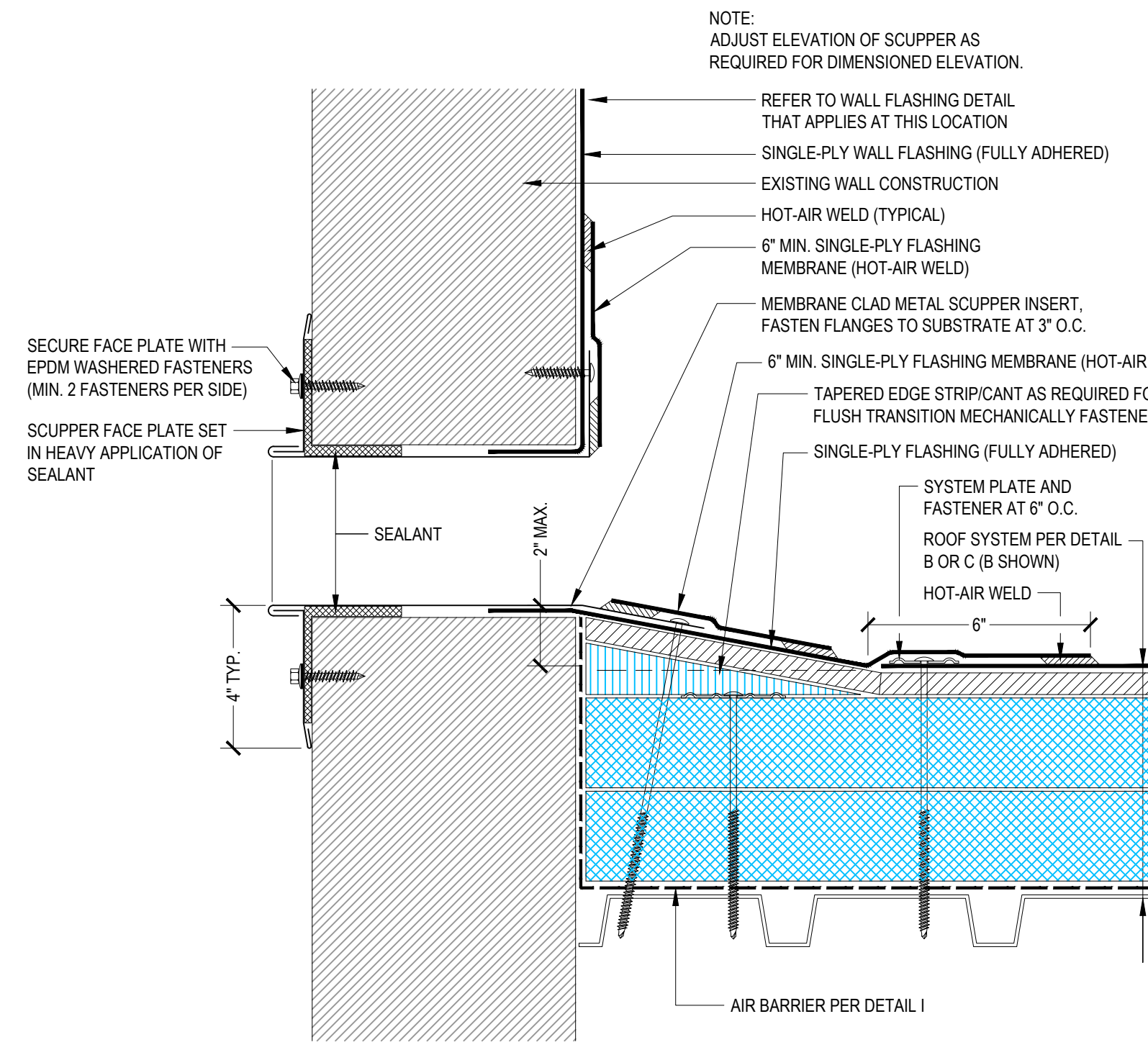
**8 DRAINAGE SCUPPER FLASHING DETAIL**  
NO SCALE



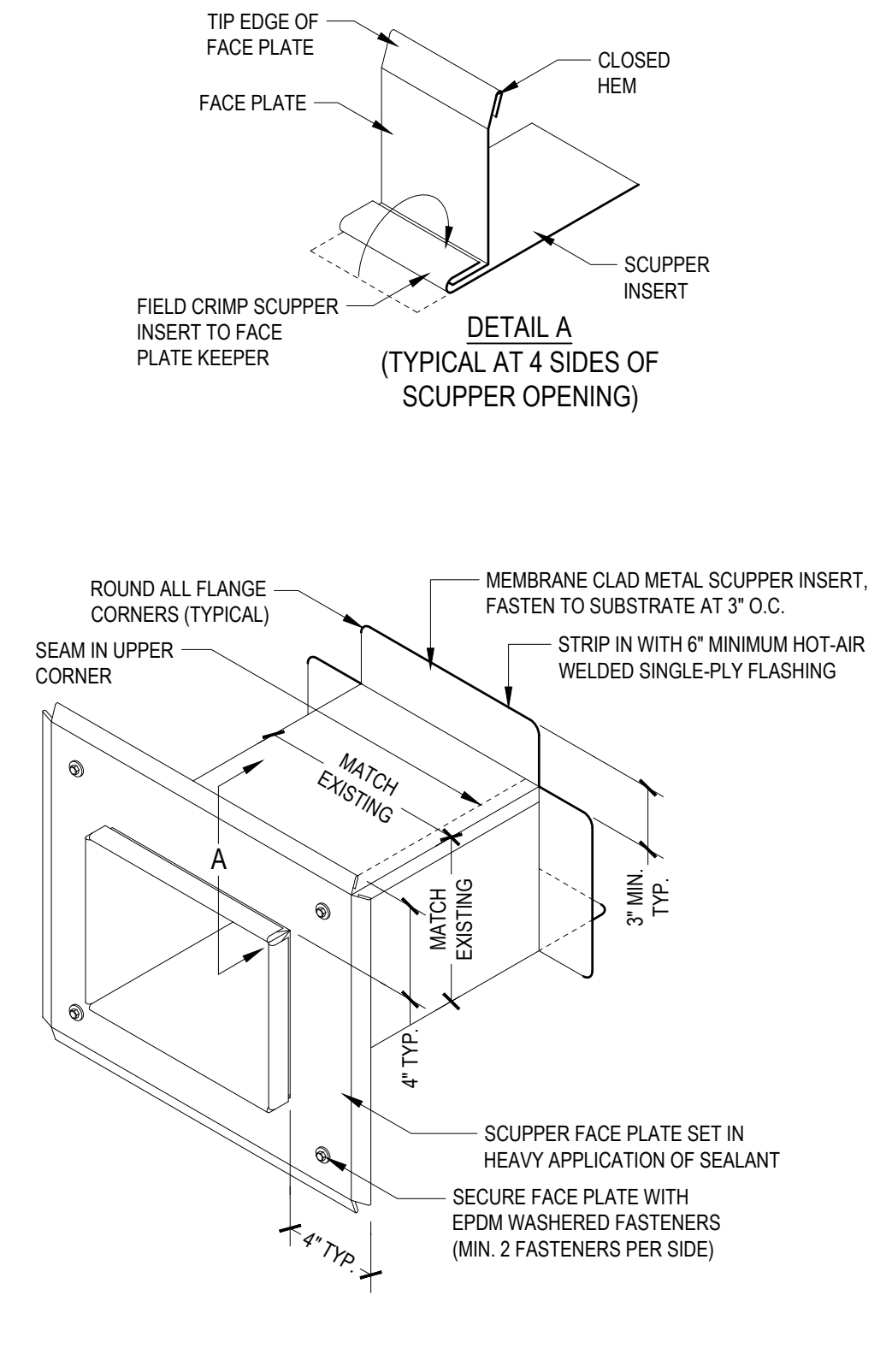
**9 SCUPPER AND CONDUCTOR HEAD FABRICATION DETAIL**  
NO SCALE



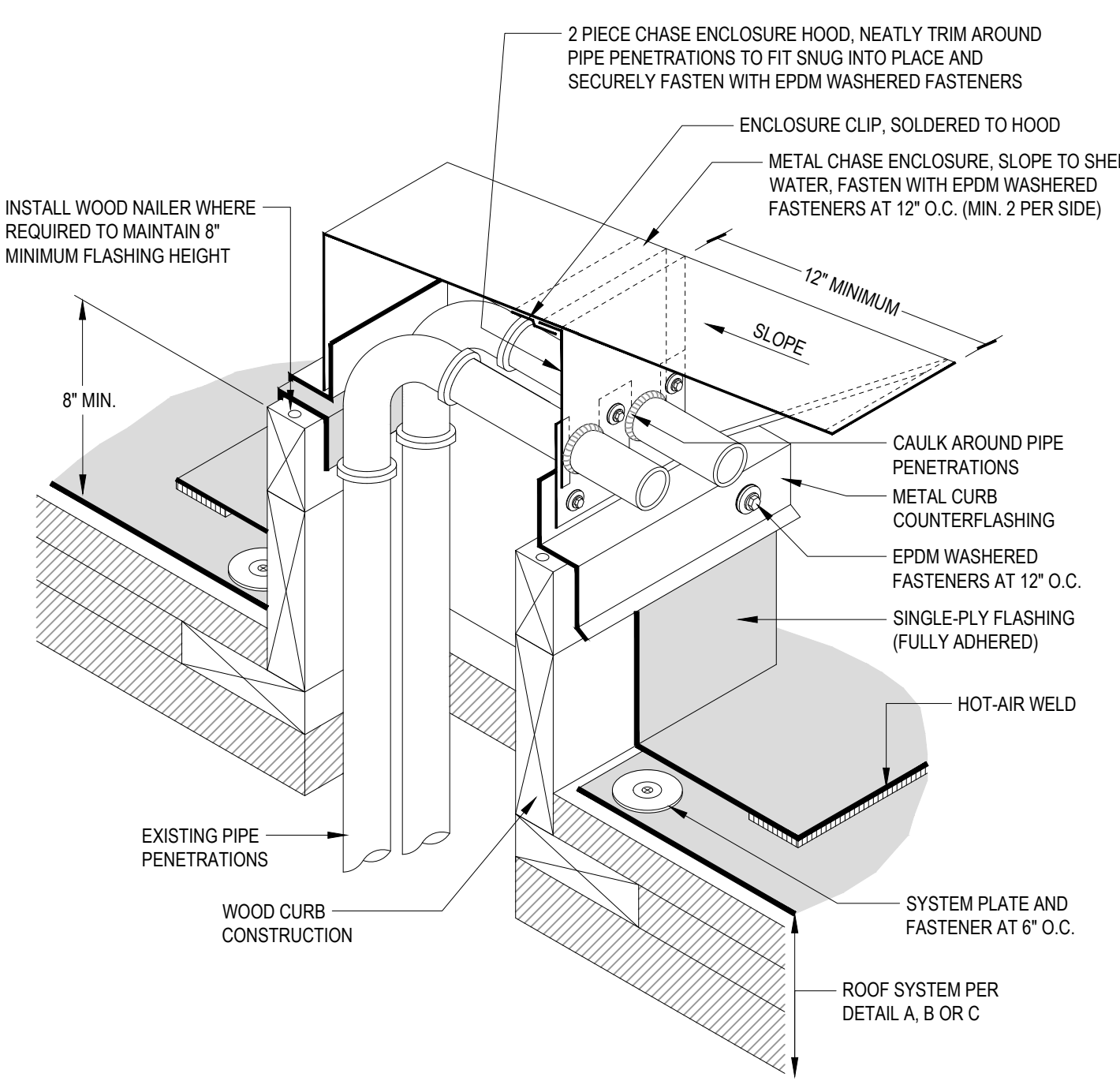
**10 OPEN FACE DOWNSPOUT DETAIL**  
NO SCALE



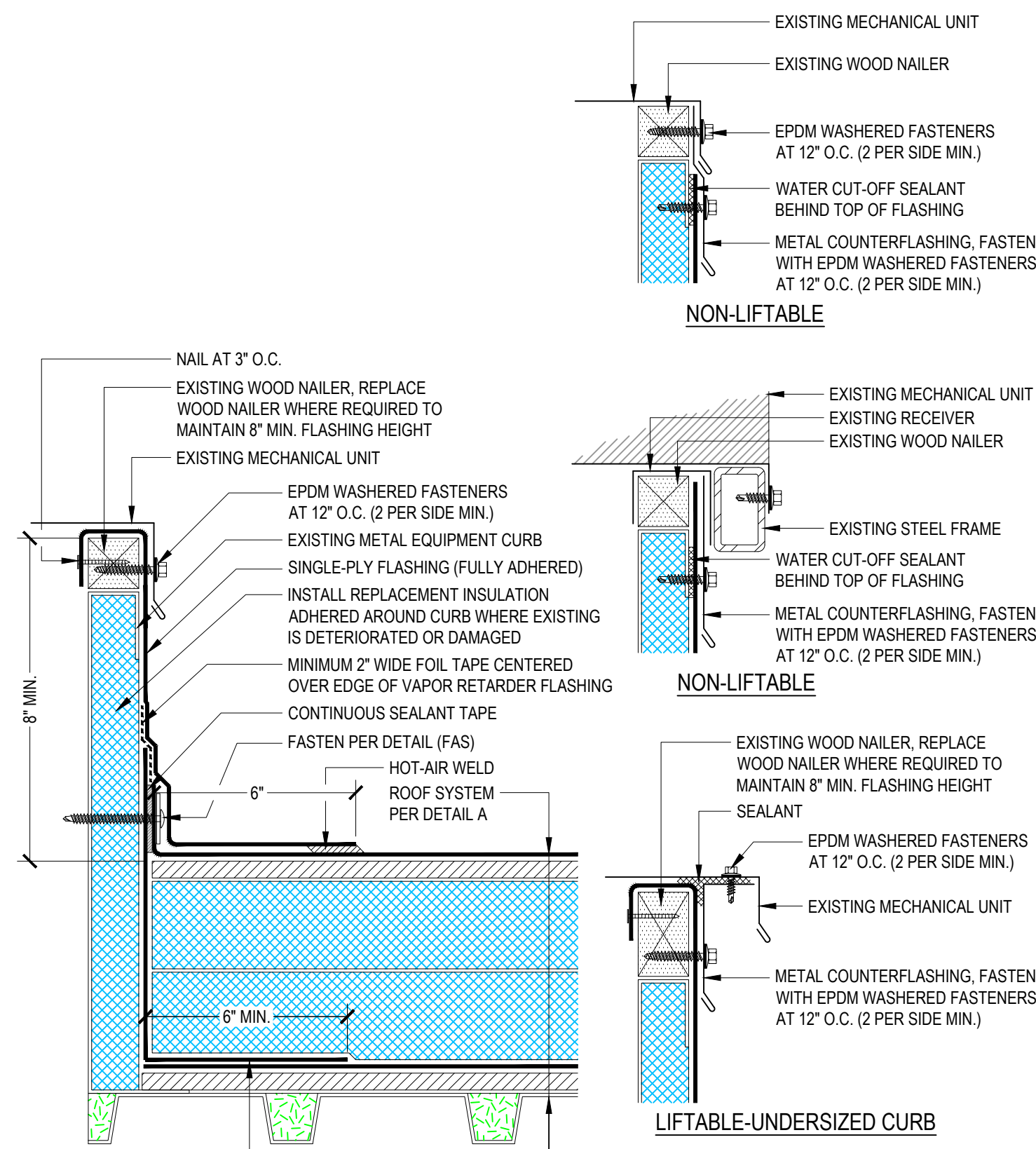
**11 OVERFLOW SCUPPER FLASHING DETAIL**  
NO SCALE



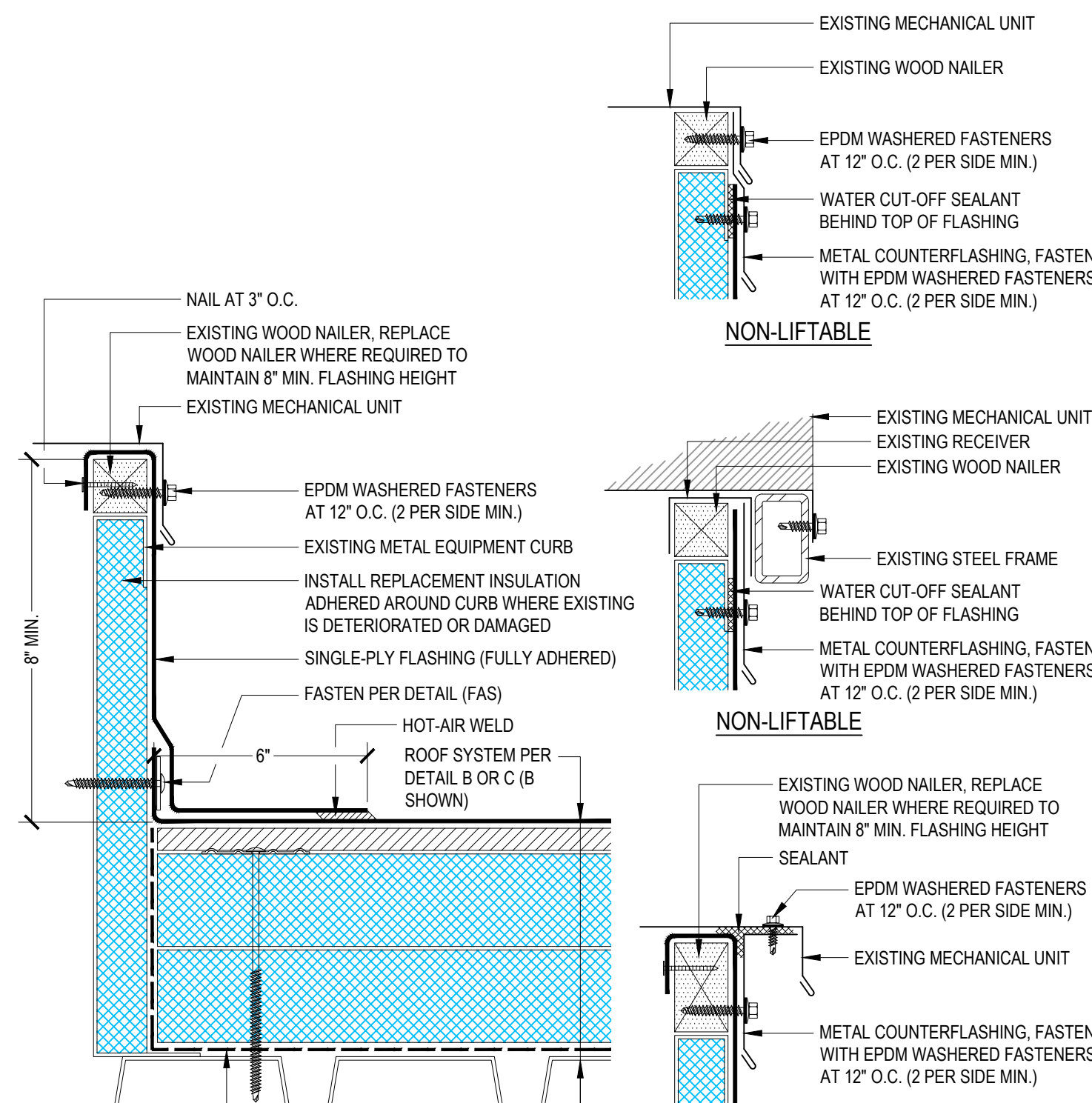
**12 OVERFLOW SCUPPER FABRICATION DETAIL**  
NO SCALE



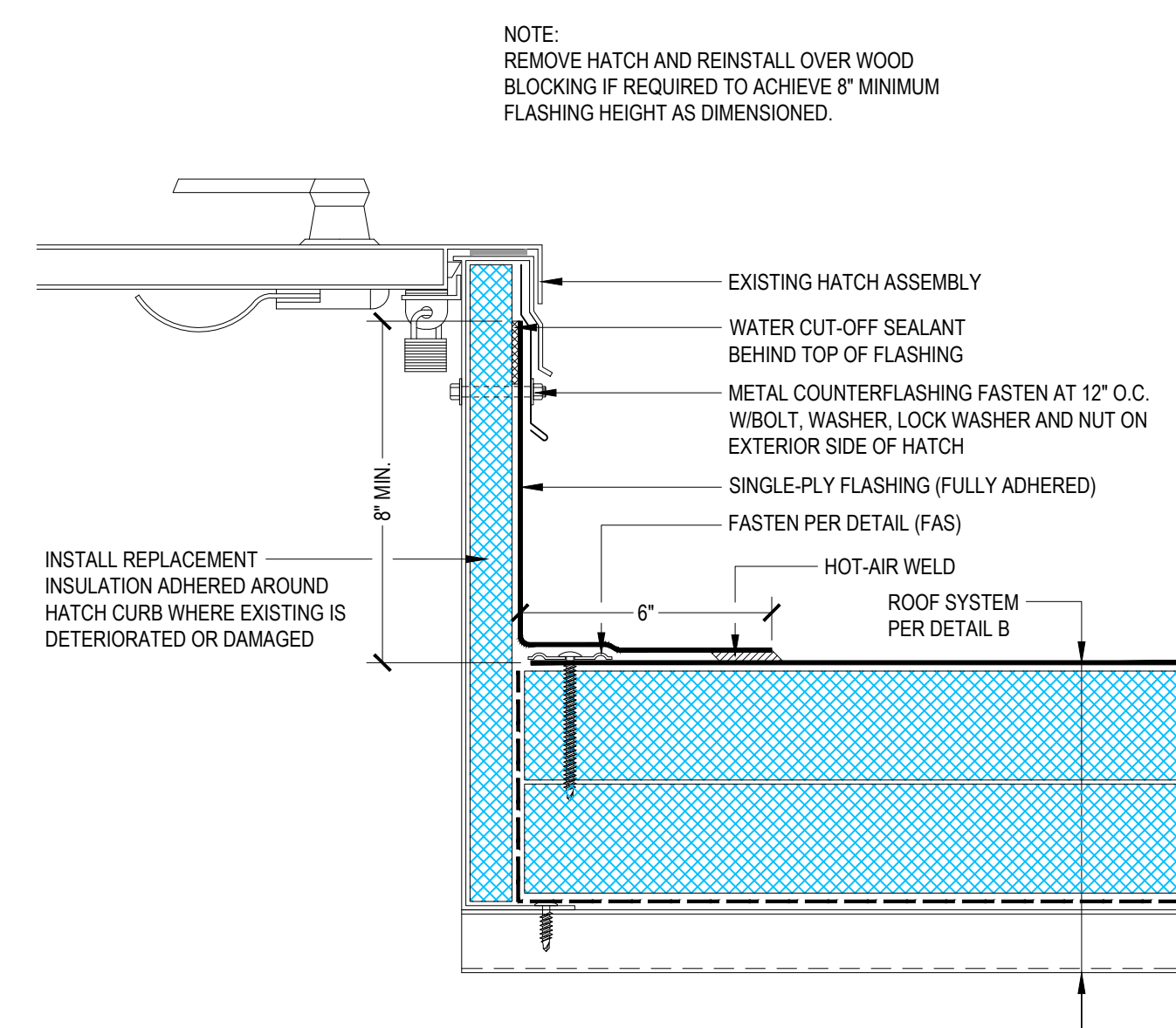
**13 PIPE CHASE FLASHING DETAIL**  
NO SCALE



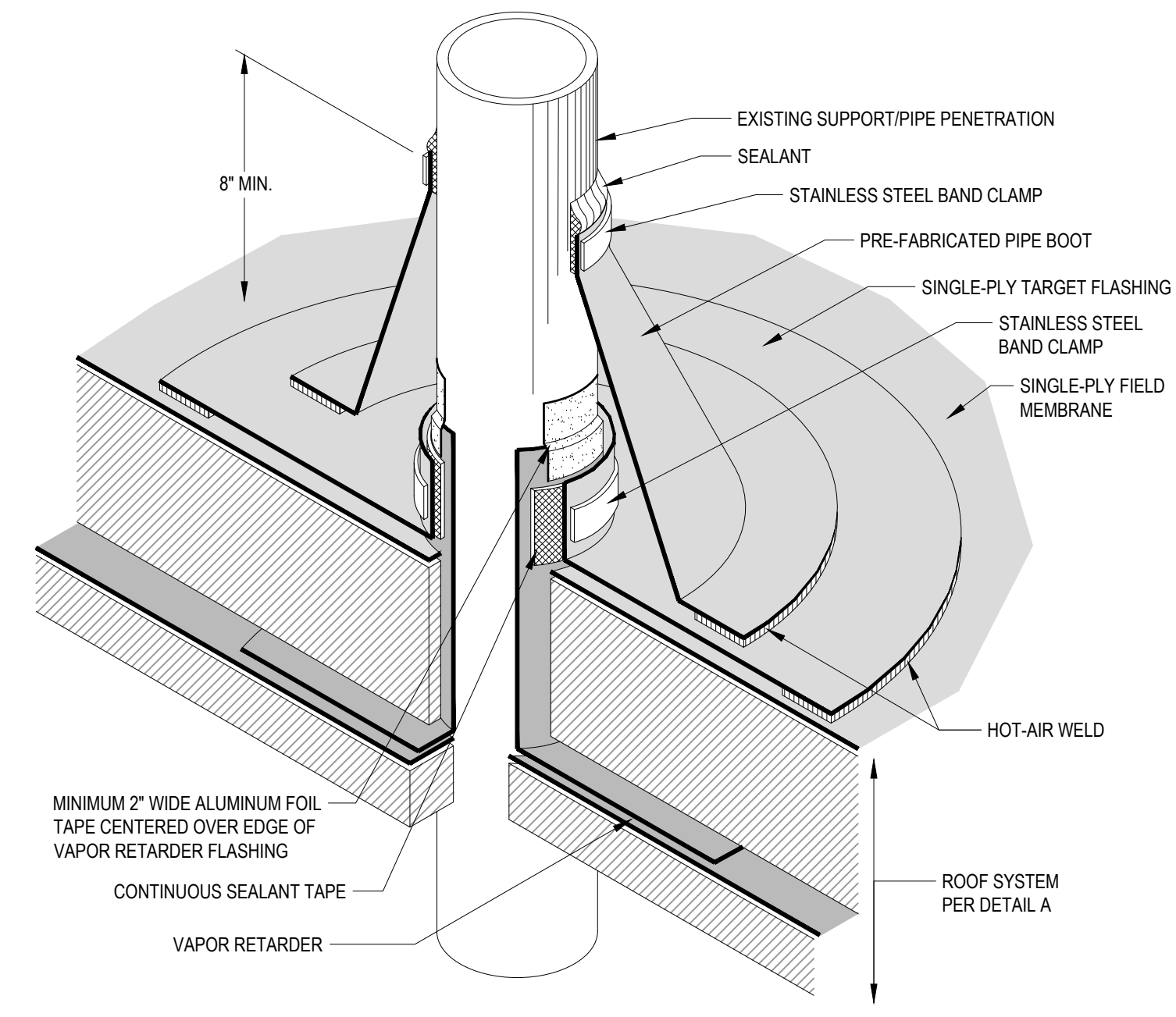
**14 TYPICAL CURB FLASHING DETAIL**  
NO SCALE  
(ROOF SECTIONS A, D, AND E)



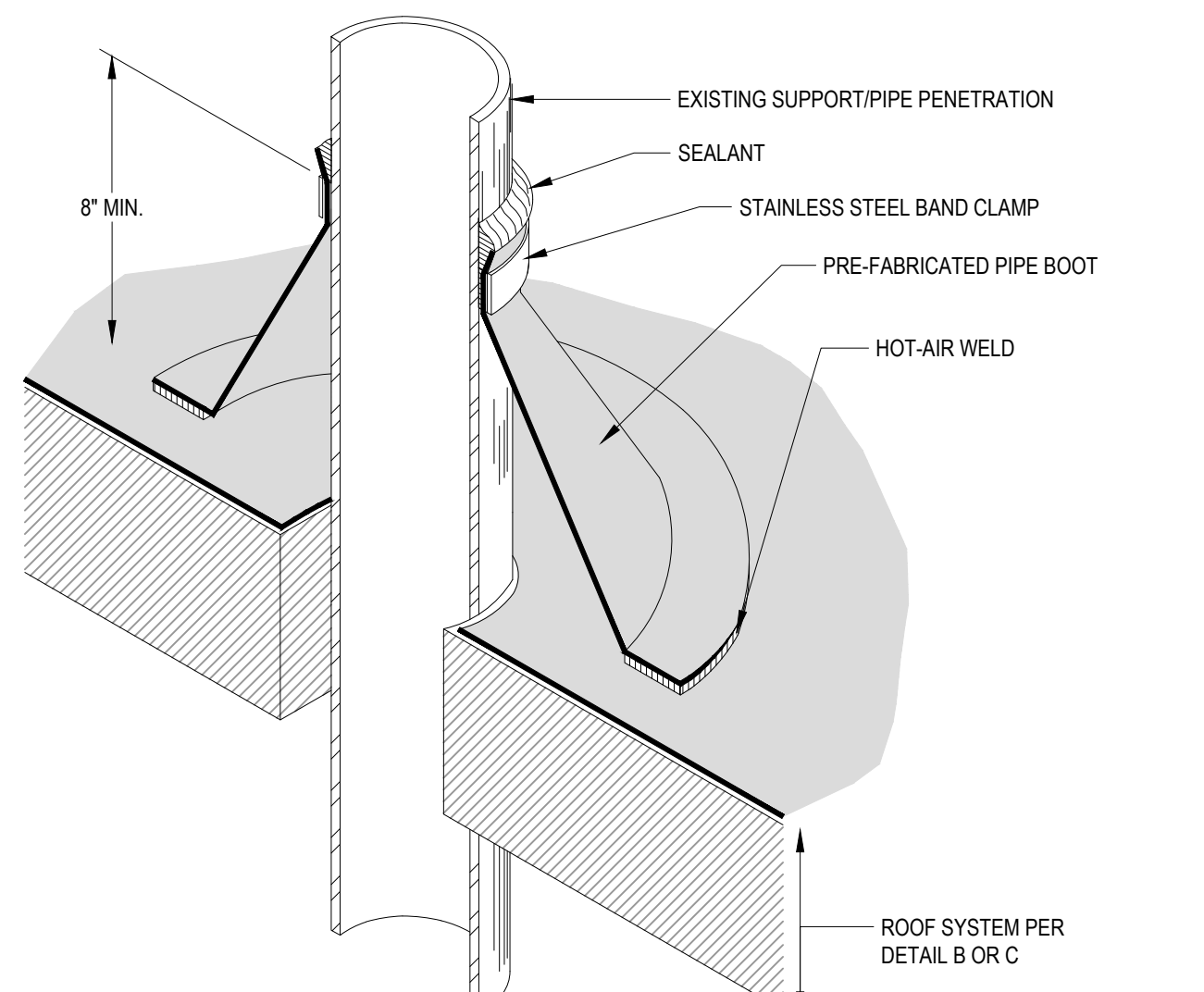
**15 TYPICAL CURB FLASHING DETAIL**  
NO SCALE  
(ROOF SECTIONS I, K, AND L)



**15A ROOF HATCH DETAIL**  
NO SCALE



**16 PRE-FABRICATED PIPE FLASHING DETAIL**  
NO SCALE



**17 PRE-FABRICATED PIPE FLASHING DETAIL**  
NO SCALE

PIPE SUPPORT SCHEDULE									
PHP SYSTEMS AND DESIGN					MIRO INDUSTRIES				
Pipe Type	Pipe O.D. Size	Model	Max. Height	Max. Spacing	Support Spacing	Max. Base Load (lbs)	Notes		
Conduit	<=1"	8-Base Stud-2	2-1/2'	5' O.C.	12'	1.24			
Conduit	<=1"	8-Base Stud-5	5-3/8'	5' O.C.	12'	1.24			
Conduit	<=1"	8-Base Stud-8	8-7/8'	5' O.C.	12'	1.24			
Conduit	<=1"	8-Base Stud-12	12-7/8'	5' O.C.	12'	1.24			
Conduit	>1" <=2"	SSR with Roller	10'	3-RAH-8	8'	8' O.C.	12'	1.2	
Conduit	>1" <=2"	PP10 with Roller	10'	3-RAH-12	12'	8' O.C.	12'	1.2	
Conduit	>2" <=4"	5-RAH-8	8'	8' O.C.	335	1.2			
Conduit	>2" <=4"	5-RAH-12	12'	8' O.C.	335	1.2			
Gas	<=3"	PP10 with Roller	10'	3-RAH-8	8'	5' O.C.	12'	1.3	
Gas	<=3"	PP10 with Roller	10'	3-RAH-12	12'	5' O.C.	12'	1.3	
Gas	>3" <=12"	5-RAH-8	8'	8' O.C.	335	1.3			
Gas	>3" <=12"	5-RAH-12	12'	8' O.C.	335	1.3			

NOTES:  
1. PROVIDED PIPE SUPPORT SPACINGS ARE MAXIMUMS. SPACING SHALL BE ADJUSTED SO THAT THE MAXIMUM BASE LOAD IS NOT EXCEEDED.  
2. SUPPORT SHALL BE LOCATED WITHIN 12" OF EACH CONDUIT JOINT.  
3. SUPPORT SHALL BE LOCATED WITHIN 24" OF ALL PIPING CHANGE IN DIRECTION.  
4. PIPES <1" DIAMETER SHALL BE TIGHTLY CLAMPED TO THE SUPPORT.  
5. PIPES >1" DIAMETER SHALL BE LOOSELY CLAMPED TO THE SUPPORT.  
6. INSTALL WALKWAY PAD BENEATH EACH SUPPORT BASE. EXTEND 6" BEYOND SUPPORT BASE ON EACH SIDE.  
7. PROVIDE AND INSTALL ALL REQUIRED HARDWARE NOT SHOWN FOR SECUREMENT OF EQUIPMENT TO PIPE SUPPORTS.  
8. FIELD CUT AND REMOVE ANY ALL THREAD ABOVE TOP SECUREMENT NUT ON ALL SUPPORTS.

Approved Manufacturers	
PHP Systems and Design Houston, Texas 800.797.6585 www.phpd.com	Miro Industries, Inc. Hawthorn, Ohio 800.788.6878 www.miroind.com

**18 PIPE SUPPORT SCHEDULE**  
NO SCALE

03/10/22	B. OSEBEN
03/10/22	A. BASH
03/10/22	L. BASH
03/10/22	L. BASH
03/10/22	L. BASH

**Benchmark INC.**  
CEDAR RAPIDS, IA • WALSLEY, IA  
www.benchmark-inc.com

**CLIENT:** LEE'S SUMMIT R-7 SCHOOL DISTRICT  
**PROJECT:** LEE'S SUMMIT WEST-HIGH SCHOOL  
2800 SW WARD  
LEE'S SUMMIT, MISSOURI 64082

**DATE:** 03/10/22  
**PROJECT NO.:** 21LSLESUR007B  
**SHEET NUMBER:** R2.04

**DETAILS**