

# LEE'S SUMMIT R-7 SCHOOL DISTRICT

400 SE BLUE PARKWAY  
LEE'S SUMMIT, MO 64063

## LEE'S SUMMIT HIGH SCHOOL (BUILDING A)

2023-2024 ROOF REPLACEMENT

SECTIONS C, D, E, ~~G, H, I1, I2, I3, I4, J, K, M, N, N1, N2~~, O, P, P1, Q1, Q2, R, U, AND V



AERIAL IMAGE  
SCALE: NONE

### LEGEND

- PROJECT AREA  
A ROOF SECTION

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DRAWING RECORD			
REV. NO.	DESCRIPTION	DATE	BY
NA	BID SET	02/06/24	THJH
1	ADDENDUM NO. 1	02/16/24	THJH

DATE	02/06/24	PROJECT	T. HARTLAND	DESIGNED BY	J. HICKMAN	CHECKED BY	T. BOSTON
PROJECT	LEE'S SUMMIT R-7 SCHOOL DISTRICT	PROJECT	LEE'S SUMMIT HIGH SCHOOL (BUILDING A)	PROJECT	400 SE BLUE PARKWAY	PROJECT	LEE'S SUMMIT, MO 64063
PROJECT	23LSSLESUR010B	PROJECT	23LSSLESUR010B	PROJECT	23LSSLESUR010B	PROJECT	23LSSLESUR010B

**Benchmark**  
INC

CELEBRATING 10 YEARS OF SERVICE  
1919-2024

**LEE'S SUMMIT R-7 SCHOOL DISTRICT**

PROJECT:  
LEE'S SUMMIT HIGH SCHOOL (BUILDING A)  
400 SE BLUE PARKWAY  
LEE'S SUMMIT, MO 64063

DRAWING TITLE:  
**TITLE SHEET**

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

BENCHMARK PROJECT NO.:  
**23LSSLESUR010B**

SHEET NUMBER:  
**R0.01**



File: \\lee's summit-r7 school district\_benchmark\06\06\23\SSLESUR10B01.dwg Time: Feb 16, 2024 - 9:40am

SUMMARY OF WORK

1.01 GENERAL

- A. THIS SUMMARY OF WORK IS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY AND SHALL NOT BE CONSTRUED AS A COMPLETE ACCOUNTING OF ALL WORK TO BE PERFORMED.
- B. THE EXTENT OF THE SCOPE OF WORK IS INDICATED ON THE DRAWINGS AND BY THE REQUIREMENTS OF EACH SECTION OF THE SPECIFICATIONS.
- C. THE CONTRACTOR SHALL EXAMINE THE SITE AND SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING CONSTRUCTION AND CONDITIONS. REFER TO DIVISION 00 REQUIREMENTS.

1.02 QUALITY ASSURANCE BY ROOF SYSTEM MANUFACTURER

- A. MEMBRANE MANUFACTURER'S TECHNICAL REPRESENTATIVE, WHO SHALL BE A FULL-TIME EMPLOYEE OF THE MEMBRANE MANUFACTURER, SHALL PROVIDE ON-SITE TRAINING AND QUALITY ASSURANCE IN CONJUNCTION WITH THE BEGINNING OF MEMBRANE INSTALLATION. THE MANUFACTURER'S TECHNICAL REPRESENTATIVE SHALL THEN VISIT THE SITE TO PROVIDE QUALITY ASSURANCE AND FOLLOW-UP TRAINING A MINIMUM OF EVERY THREE WEEKS THEREAFTER.
- B. THE MANUFACTURER'S TECHNICAL REPRESENTATIVE SHALL COORDINATE ALL SITE VISITS WITH THE CONTRACTOR AND OWNER'S REPRESENTATIVE A MINIMUM OF THREE BUSINESS DAYS IN ADVANCE.
- C. DURING EACH VISIT, THE MANUFACTURER'S TECHNICAL REPRESENTATIVE SHALL CHECK ALL WORK INSTALLED SINCE THE LAST VISIT, MARK ALL DEFECTS FOR REPAIR, AND PROVIDE A WRITTEN SITE VISITATION REPORT LISTING ANY DEFICIENT WORK REQUIRING CORRECTION BY THE CONTRACTOR.
- D. ALL REPORTS AND OTHER CORRESPONDENCE ASSOCIATED WITH THE SITE VISIT SHALL BE PROVIDED TO THE CONTRACTOR AND THE CONTRACTOR SHALL PROVIDE THESE REPORTS TO THE CONSULTANT WITHIN THREE BUSINESS DAYS OF THE VISIT.

1.03 APPLICABILITY OF MANUFACTURER REQUIREMENTS DURING BIDDING AND CONSTRUCTION

- A. THE CONTRACT DOCUMENTS MAY REQUIRE MATERIALS OR INSTALLATION PRACTICES THAT EXCEED THE MANUFACTURER'S MINIMUM REQUIREMENTS FOR THE SPECIFIED WARRANTY. THE REQUIREMENTS OF THE CONTRACT DOCUMENTS SUPERSEDE THE MANUFACTURER'S REQUIREMENTS IN THESE INSTANCES. THESE REQUIREMENTS MAY NOT BE ALTERED DURING BIDDING OR INSTALLATION OF THE WORK, UNLESS FORMAL MODIFICATIONS ARE ISSUED DURING BIDDING OR CONSTRUCTION BY THE OWNER OR OWNER'S REPRESENTATIVE.
- B. IF THE MANUFACTURER'S MINIMUM REQUIREMENTS FOR THE SPECIFIED WARRANTY REQUIRE PRACTICES THAT EXCEED THE REQUIREMENTS OF THE CONTRACT DOCUMENTS, OR IF THE CONTRACT DOCUMENTS DO NOT REFERENCE A MANUFACTURER'S REQUIREMENT PERTINENT TO SUCCESSFUL PERFORMANCE OF THE WORK, THE ASSOCIATED MANUFACTURER'S REQUIREMENTS SHALL BE FOLLOWED IN THESE INSTANCES.
- C. THE MANUFACTURER'S REQUIREMENTS MAY CONTAIN MORE DETAIL ABOUT WORK EXECUTION-RELATED PROCEDURES THAN THE CONTRACT DOCUMENTS, WHERE THESE ADDITIONAL REQUIREMENTS DO NOT CONFLICT WITH THE CONTRACT DOCUMENTS, THEY SHALL GUIDE THE PERFORMANCE OF RELATED ASPECTS OF THE WORK.

1.04 INTERIOR PROTECTION AND COORDINATION

- A. COORDINATE ALL ASPECTS OF INTERIOR PROTECTION WITH THE OWNER'S REPRESENTATIVE AND OWNER'S OPERATIONS.
- B. PROVIDE PROTECTIVE MEASURES WITHIN THE BUILDING AS SPECIFIED, PRIOR TO REPLACING DETERIORATED DECKING OR REPLACING OBSOLETE EQUIPMENT AND PENETRATIONS.
- C. PROVIDE, INSTALL, AND TAKE DOWN TEMPORARY INTERIOR PROTECTION AS SPECIFIED.
- D. PROVIDE COMPETENT PERSON WITHIN THE BUILDING FROM THE BEGINNING OF TEAR-OFF, UNTIL SUCH TIME AS ROOFING DEBRIS/CONSTRUCTION MATERIAL MAY NOT ENTER THE BUILDING. CONTRACTOR'S INTERIOR PERSONNEL SHALL MAINTAIN RADIO CONTACT WITH CREW SUPERVISOR ON THE ROOF AT ALL TIMES. REFER TO SPECIFIED REQUIREMENTS.
- E. PRIOR TO DEMOLITION WORK, VERIFY THAT ALL SOIL PIPES, FLUES, STEEL MEMBERS, AND OTHER SIMILAR PENETRATIONS ARE SECURED TO THE BUILDING STRUCTURE. COORDINATE REMOVAL OR SECUREMENT OF ALL UNSECURED PENETRATIONS PRIOR TO THE START OF DEMOLITION WORK.

1.05 EXISTING ROOF SYSTEM INFORMATION

- A. REFER TO INFORMATION BELOW FOR A DESCRIPTION OF THE EXISTING ROOF ASSEMBLY COMPONENTS AS THEY ARE BELIEVED TO EXIST, LISTED TOP TO BOTTOM:

1. ROOF SECTIONS C, N AND N1

SURFACING	FLOOD COAT AND GRAVEL
ROOF MEMBRANE	4-PLY COAL TAR PITCH BUR
INSULATION	1" PERLITE
INSULATION	1" POLYISOCYANURATE
VAPOR RETARDER	2-PLY FELT
ROOF DECK	STEEL

2. ROOF SECTION D

SURFACING	FLOOD COAT AND GRAVEL
ROOF MEMBRANE	4-PLY COAL TAR PITCH BUR
INSULATION	1/2" WOOD FIBERBOARD
INSULATION	1.5" POLYISOCYANURATE
INSULATION	2" POLYISOCYANURATE
BASE SHEET	ORGANIC BASE SHEET
ROOF DECK	POURED GYPSUM OVER FORM BOARD

3. ROOF SECTIONS E AND I1

SURFACING	FLOOD COAT AND GRAVEL
ROOF MEMBRANE	4-PLY COAL TAR PITCH BUR
INSULATION	1" PERLITE
INSULATION	1" POLYISOCYANURATE
UNDERLAYMENT	ROSIN PAPER
ROOF DECK	WOOD PLANK

4. ROOF SECTIONS G, M, O, Q1, AND R

SURFACING	FLOOD COAT AND GRAVEL
ROOF MEMBRANE	4-PLY COAL TAR PITCH BUR
INSULATION	1" PERLITE
INSULATION	1" POLYISOCYANURATE
ROOF DECK	STEEL

5. ROOF SECTION H

SURFACING	FLOOD COAT AND GRAVEL
ROOF MEMBRANE	4-PLY COAL TAR PITCH BUR
BASE SHEET	ORGANIC BASE SHEET
ROOF DECK	LWIC
ROOF DECK	STEEL FORM DECK

6. ROOF SECTIONS I2, P AND Q2

SURFACING	FLOOD COAT AND GRAVEL
ROOF MEMBRANE	4-PLY COAL TAR PITCH BUR
INSULATION	1" PERLITE
INSULATION	1" POLYISOCYANURATE
ROOF DECK	CAST IN PLACE CONCRETE

7. ROOF SECTIONS I3 AND J

SURFACING	FLOOD COAT AND GRAVEL
ROOF MEMBRANE	4-PLY COAL TAR PITCH BUR
INSULATION	1/2" PERLITE
INSULATION	1.5" POLYISOCYANURATE
UNDERLAYMENT	ROSIN PAPER
ROOF DECK	WOOD PLANK

8. ROOF SECTION I4

SURFACING	FLOOD COAT AND GRAVEL
ROOF MEMBRANE	4-PLY COAL TAR PITCH BUR
INSULATION	1/2" WOOD FIBERBOARD
INSULATION	1.5" POLYISOCYANURATE
BASE SHEET	ORGANIC BASE SHEET
ROOF DECK	POURED GYPSUM OVER FORM BOARD

9. ROOF SECTIONS K AND N2

SURFACING	FLOOD COAT AND GRAVEL
ROOF MEMBRANE	4-PLY COAL TAR PITCH BUR
INSULATION	3/4" WOOD FIBERBOARD

INSULATION	1" POLYISOCYANURATE
INSULATION	1" WOOD FIBERBOARD
BASE SHEET	ORGANIC BASE SHEET
ROOF DECK	POURED GYPSUM OVER FORM BOARD

10. ROOF SECTION P1

SURFACING	FLOOD COAT AND GRAVEL
ROOF MEMBRANE	4-PLY COAL TAR PITCH BUR
INSULATION	1" PERLITE
INSULATION	1" POLYISOCYANURATE
BASE SHEET	ORGANIC BASE SHEET
ROOF DECK	POURED GYPSUM OVER FORM BOARD

11. ROOF SECTIONS U AND V

SURFACING	FLOOD COAT AND GRAVEL
ROOF MEMBRANE	4-PLY COAL TAR PITCH BUR
INSULATION	1/2" WOOD FIBERBOARD
INSULATION	3" EXPANDED POLYSTYRENE
THERMAL BARRIER	5/8" GYPSUM BOARD
VAPOR RETARDER	2-PLY FELT
ROOF DECK	STEEL

- B. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION PRIOR TO BASING BIDS ON THE PROVIDED INFORMATION.
- C. TEST CUTTING AND IMMEDIATE PATCHING BY THE CONTRACTOR WILL BE ALLOWED AT THE PRE-BID MEETING, PROVIDED THE ASSOCIATED WORK IS PERFORMED BY QUALIFIED PERSONNEL WITH SUITABLE/COMPATIBLE MATERIALS. CONTRACTOR SHALL POSSESS ALL ASSOCIATED SDS AND APPROPRIATE PPE.

1.06 DEMOLITION AND ROOF PREPARATION

- A. COORDINATE ALL ASPECTS OF DEMOLITION WORK WITH OWNER'S REPRESENTATIVE AND ALL OTHER TRADES.
- B. PROVIDE PROTECTIVE MEASURES AROUND THE ROOF AND BUILDING AS SPECIFIED, PRIOR TO BEGINNING WORK.
- C. WATER TEST ALL DRAINS TO ENSURE PROPER OPERATION PRIOR TO BEGINNING WORK.
- D. TEAR OFF EXISTING ROOF SYSTEM TO THE ROOF DECKING.
- E. REMOVE FASTENERS AT EXISTING MEMBRANE, INSULATION, CARPENTRY, FLASHING TERMINATIONS, AND SHEET METAL COMPONENTS BY BACKING OUT, WHENEVER POSSIBLE.
- F. REMOVE DETERIORATED WOOD LUMBER/NAILERS/PLYWOOD LOCATED DURING POST-TEAR-OFF INSPECTION. PERFORM THIS WORK ON A UNIT PRICE BASIS.
- G. REMOVE EXISTING WOOD LUMBER/NAILERS/PLYWOOD WHERE REQUIRED TO MEET THE INTENT OF THE DRAWINGS.
- H. REMOVE EXISTING ROOF CURBS, AS NOTED.
- I. REMOVE OBSOLETE ROOF PENETRATIONS AND OBSOLETE ROOFTOP EQUIPMENT IDENTIFIED ON THE DRAWINGS. CONTRACTOR SHALL VERIFY AND COORDINATE EQUIPMENT REMOVAL WITH THE OWNER. CONTRACTOR SHALL PERFORM ALL NECESSARY SERVICE DISCONNECTS.
- J. SEAL ALL PERIMETERS, PENETRATIONS, AND DRAINS AS REQUIRED TO PREVENT CONSTRUCTION MATERIALS FROM ENTERING THE BUILDING.
- K. REMOVE AND DISPOSE OF EXISTING ROOF-RELATED SHEET METAL, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- L. REMOVE EXISTING REGLET COUNTERFLASHINGS WHERE NOTED AND REUSE EXISTING RECEIVER.
- M. REMOVE AND REINSTALL WALL PANELS AS REQUIRED FOR INSTALLATION OF FLASHING WORK.
- N. TRIM, MODIFY, AND REFASTEN EXISTING WALL PANELS AS REQUIRED FOR INSTALLATION OF FLASHING WORK.
- O. REMOVE ALL DEBRIS FROM DECKING. ENTIRE DECK SHALL BE BROOMED CLEAN AT A MINIMUM PRIOR TO BEGINNING ROOF SYSTEM APPLICATION.
- P. CLEAN EXISTING DRAINS DOWN TO THE CAST IRON SURFACE AND PREPARE DRAINS FOR MEMBRANE ROOFING. REMOVE BROKEN DRAIN BOLTS FROM DRAIN CASTINGS WHERE REQUIRED.
- Q. REMOVE DEBRIS FROM ROOF AREA AND PROPERLY DISPOSE OF ALL MATERIALS OFF SITE.
- R. PRIME SURFACES TO RECEIVE VAPOR RETARDER AND VAPOR RETARDER FLASHINGS, AS SPECIFIED.
- S. AT THE END OF EACH DAY, ENSURE THAT ALL DRAINS ARE IN PROPER WORKING ORDER AND THAT DRAIN LINES ARE TOTALLY UNRESTRICTED. IMPLEMENT ANY REQUIRED CORRECTIVE MEASURES BEFORE LEAVING THE JOB SITE THAT DAY.

1.07 DECKING REPAIR/REPLACEMENT

- A. REPLACE DETERIORATED DECKING AS SPECIFIED. PERFORM THIS WORK ON A UNIT PRICE BASIS.
- B. REPLACE DECKING WHERE OBSOLETE PENETRATIONS HAVE BEEN REMOVED.
- C. CLEAN, WIRE BRUSH, AND PRIME PAINT SURFACE RUSTED STEEL ENCOUNTERED DURING POST TEAR-OFF INSPECTION OF THE DECKING. PERFORM THIS WORK ON A UNIT PRICE BASIS.
- D. REFASTEN EXISTING DECKING AS SPECIFIED ON ROOF SECTIONS C, G, M, N, N1, O, Q1, R, U, AND V.
- E. CONTRACTOR SHALL REPAIR ALL DEFORMITIES IN THE LIGHTWEIGHT CONCRETE CAUSED BY THE REMOVAL OF THE EXISTING ROOF SYSTEM FASTENERS GREATER THAN 1" IN DIAMETER (BUT NOT GREATER THAN 6" IN DIAMETER OR GREATER THAN 3/4" DEEP), AT NO ADDITIONAL COST TO THE OWNER. REPAIRS TO AREAS LARGER THAN 6" IN DIAMETER OR GREATER THAN 3/4" DEEP WILL BE REIMBURSED ON A UNIT PRICE BASIS. REPAIRS SHALL BE MADE WITH ZONOPATCH BY SIPLAST, INC. OR APPROVED EQUAL.
- F. CONTRACTOR SHALL REPAIR ALL DEFORMITIES IN THE GYPSUM DECKING CAUSED BY THE REMOVAL OF THE EXISTING ROOF SYSTEM FASTENERS GREATER THAN 1" IN DIAMETER (BUT NOT GREATER THAN 6" IN DIAMETER OR GREATER THAN 3/4" DEEP), AT NO ADDITIONAL COST TO THE OWNER. REPAIRS TO AREAS LARGER THAN 6" IN DIAMETER OR GREATER THAN 3/4" DEEP WILL BE REIMBURSED ON A UNIT PRICE BASIS. REPAIRS SHALL BE MADE WITH USG SECUROCK® GYPSUM CONCRETE PATCH BY USG CORPORATION.

1.08 ROUGH CARPENTRY

- A. INSTALL REPLACEMENT WOOD LUMBER/NAILERS/PLYWOOD WHERE DETERIORATED COMPONENTS WERE REMOVED. PERFORM THIS WORK ON A UNIT PRICE BASIS.
- B. REFASTEN EXISTING LUMBER/NAILERS/PLYWOOD TO BUILDING STRUCTURE AS REQUIRED TO MEET THE SPECIFIED STANDARDS.
- C. INSTALL WOOD CURBS AS SHOWN ON THE DRAWINGS.
- D. INSTALL WOOD NAILERS AS SHOWN ON THE DRAWINGS.
- E. INSTALL WOOD NAILERS WHERE REQUIRED TO MATCH HEIGHT OF NEW ROOF INSULATION SYSTEM.
- F. INSTALL WOOD NAILERS FOR CURB EXTENSIONS AS REQUIRED FOR MINIMUM CURB HEIGHT OF 8" ABOVE FINISHED ROOF SURFACE ELEVATION.
- G. INSTALL WOOD NAILER AT PARAPET WALL.
- H. INSTALL PLYWOOD AS SHOWN ON THE DRAWINGS.

1.09 METAL FABRICATIONS

- A. INSTALL PREMANUFACTURED METAL STAIRS AND PLATFORM WITH HANDRAIL.

1.10 MISCELLANEOUS INSULATION

- A. INSTALL FIBERGLASS BATT INSULATION IN POLYETHYLENE SADDLE AT EXPANSION JOINTS.

1.11 VAPOR RETARDER

- A. INSTALL VAPOR RETARDER SYSTEM, AS SPECIFIED.
- B. FLASH AND SEAL VAPOR RETARDER AT ALL PERIMETERS AND PENETRATIONS.

1.12 RIGID INSULATION

- A. INSTALL ROOF INSULATION AND MEANS OF ATTACHMENT PER DRAWINGS AND SPECIFICATIONS.
- B. INSTALL TAPERED INSULATION SYSTEM AND MEANS OF ATTACHMENT PER DRAWINGS AND SPECIFICATIONS.
- C. INSTALL TAPERED INSULATION DRAIN SUMPS PER DRAWINGS AND SPECIFICATIONS.
- D. INSTALL TAPERED SADDLES, CRICKETS, AND EDGE STRIPS AS SHOWN OR SPECIFIED.
- E. INSTALL TAPERED EDGE STRIPS.
- F. INSTALL COVER BOARD AND MEANS OF ATTACHMENT PER DRAWINGS AND SPECIFICATIONS.

1.13 LOW SLOPE ROOFING MEMBRANE AND FLASHINGS

- A. INSTALL ADHERED, REINFORCED PVC SINGLE-PLY MEMBRANE SYSTEM.
- B. INSTALL PVC FLASHINGS AT ALL PERIMETERS AND PENETRATIONS.
- C. INSTALL ADHERED, REINFORCED KEE SINGLE-PLY MEMBRANE SYSTEM.
- D. INSTALL KEE FLASHINGS AT ALL PERIMETERS AND PENETRATIONS.
- E. INSTALL WALKWAYS AS SHOWN ON DRAWINGS. INCLUDE THIS WORK IN THE BID. INSTALL ANY ADDITIONAL LOCATIONS OF WALKWAYS AS DIRECTED BY THE OWNER'S REPRESENTATIVE ON A UNIT PRICE BASIS.

1.14 ROOF-RELATED SHEET METAL

- A. INSTALL ROOF-RELATED SHEET METAL COMPONENTS AS PER DRAWINGS AND SPECIFICATIONS.
- B. REUSE EXISTING SHEET METAL WHERE SPECIFICALLY NOTED AS SUCH ON THE DETAIL DRAWINGS.
- C. PROVIDE ALL NECESSARY SEALANT PRIMERS, SEALANTS, FASTENERS AND OTHER SPECIFIED COMPONENTS TO ENSURE A WATERTIGHT INSTALLATION.
- D. INSTALL PREMANUFACTURED SHEET METAL COMPONENTS AND RELATED ACCESSORIES AS PER DRAWINGS AND SPECIFICATIONS.
- E. INSTALL MEMBRANE CLAD METAL FLASHINGS, FASTENERS, ALUMINUM TAPE, AND HEAT WELDED MEMBRANE STRIP FLASHINGS PER THE DRAWINGS AND SPECIFICATIONS.

1.15 PLUMBING WORK

- A. FREE ANY CLOGGED DRAINS OR DRAIN PIPING.
- B. INSTALL PIPING EXTENSIONS AS REQUIRED TO RAISE CURBS AND SOIL PIPES.
- C. INSTALL STATIC DRAIN EXTENSIONS AS NOTED IN THE DRAIN DETAILS.
- D. REPLACE ALL MISSING, DAMAGED, PLASTIC, OR IMPROPERLY FIT DRAIN STRAINERS, AND/OR CLAMPING RINGS. ALL REPLACEMENT DRAIN STRAINERS SHALL BE CAST IRON STRAINERS AND SHALL FIT WITH CLAMPING RINGS. ALL REPLACEMENT CLAMPING RINGS SHALL BE CAST IRON AND SHALL PROPERLY FIT WITH EXISTING DRAIN BOWLS.
- E. INSTALL REPLACEMENT DRAIN BOLTS. REMOVE ANY BROKEN BOLTS FROM DRAIN CASTINGS, AND PREPARE EXISTING BOLT SOCKETS BY RE-TAPPING, WHERE REQUIRED.
- F. CLEAN, PRIME, AND PAINT DRAIN RINGS AND DRAIN STRAINERS, AS FOLLOWS:

- SURFACE PREPARATION: REMOVE ALL OLD SEALANTS, DEBRIS, AND LOOSE RUST AND LOOSE PAINT USING POWER-ASSISTED HAND TOOLS AND/OR SOLVENTS.
  - PRIMER: APPLY ONE COAT OF SHERWIN WILLIAMS PRO-CRYL UNIVERSAL PRIMER, OR APPROVED EQUAL.
  - FINISH COAT: APPLY ONE COAT OF SHERWIN WILLIAMS ZERO VOC ACRYLIC, SEMI-GLOSS, OR APPROVED EQUAL.
- G. INSTALL SPECIFIED OVERFLOW DRAINS AS OUTLINE UNDER SECTION 01 23 00 ALTERNATES AND SECTION 22 14 14 ROOF DRAINS AND PLUMBING.
- H. RAISE ALL SOIL PIPES AS REQUIRED TO PROVIDE 8" MINIMUM HEIGHT ABOVE FINISH ROOF ELEVATION.
- I. FUNCTIONAL CLAMPING RING AND DRAIN STRAINER SHALL BE INSTALLED AT EACH DRAIN DURING THE SAME WORKDAY AS MEMBRANE INSTALLATION.

1.16 MECHANICAL WORK

- A. DISCONNECT AND RECONNECT ROOFTOP MECHANICAL UNITS AS REQUIRED FOR LIFTING.
- B. ROOF TOP MECHANICAL UNITS WITH CURB ADAPTERS SHALL BE LIFTED AS REQUIRED TO EXTEND THE ROOF CURBS TO A MINIMUM FLASHING HEIGHT OF 8".
- C. DISCONNECT DUCTWORK AS NECESSARY FOR LIFTING UNITS.
- D. EXTEND DUCTS AS REQUIRED FOR RAISING CURBS TO FINISHED ELEVATIONS.
- E. RECONNECT DUCTWORK AS REQUIRED FOR PROPER OPERATION.
- F. RAISE EXISTING GAS LINES, IF REQUIRED FOR PROPER INSTALLATION OF ROOF SYSTEM.

1.17 ELECTRICAL WORK

- A. DISCONNECT AND RECONNECT ROOFTOP MECHANICAL UNITS AS REQUIRED FOR LIFTING.
- B. RAISE EXISTING ELECTRICAL CONDUITS, IF REQUIRED FOR PROPER INSTALLATION OF ROOF SYSTEM AND SUPPORTS.
- C. REMOVE AND REINSTALL THE EXISTING LIGHTNING PROTECTION SYSTEM, AS REQUIRED, FOR PERFORMANCE OF THE SPECIFIED WORK.
- D. UNFASTEN AND REATTACH CONDUITS FOR PROPER INSTALLATION OF THE ROOFING SYSTEM.

1.18 SUPPORT SYSTEMS

- A. INSTALL NON-PENETRATING SUPPORT SYSTEMS AT ROOFTOP PIPING AND CONDUITS AS SPECIFIED.

1.19 QUANTITY ALLOWANCES

- A. THE BID AND CONTRACT PRICE SHALL INCLUDE THE FOLLOWING STIPULATED QUANTITY ALLOWANCES, TO BE ADJUSTED BY THE ESTABLISHED UNIT PRICES. REFER TO DIVISION 00 AND 01 SPECIFICATIONS FOR UNIT PRICE DESCRIPTIONS AND RELATED REQUIREMENTS.

ABBREVIATED DESCRIPTION	Q.A.	U.O.M.	ROOF SECTION
REPLACE LUMBER/NAILER	400	BD. FT.	ALL
TUCKPOINT MASONRY	700	SQ. FT.	I4
INSTALL ROOF SYSTEM WALKWAY	300	LN. FT.	ALL
REPLACE STEEL DECKING	200	SQ. FT.	C, G, M, N, N1, O, Q1, R, U & V
PAINT SURFACE RUSTED STEEL DECKING	400	SQ. FT.	C, G, M, N, N1, O, Q1, R, U & V
REPLACE WOOD PLANK DECKING	300	SQ. FT.	E, I1, I3 & J
REPLACE ROOF DRAIN CLAMPING RING	4	EA.	ALL
DECK REPLACEMENT AT REMOVED OBSOLETE PENETRATIONS SHALL BE INCLUDED IN THE BID INDEPENDENT OF THE LISTED QUANTITY ALLOWANCES FOR DECK REPLACEMENT.			
MISCELLANEOUS WALKWAY APPLICATIONS SHOWN ON THE ROOF PLAN OR DETAIL DRAWINGS SHALL BE INCLUDED IN THE BID INDEPENDENT OF THE LISTED QUANTITY ALLOWANCE FOR WALKWAY INSTALLATION.			
THE VALUE WITHIN THE CONTRACT ASSOCIATED WITH EACH ALLOWANCE ITEM SHALL BE SEPARATELY LISTED ON THE SCHEDULE OF VALUES SUBMITTED WITH EACH APPLICATION FOR PAYMENT. REFER TO DIVISION 01 ADMINISTRATIVE INSTRUCTIONS FOR FURTHER INFORMATION.			

1.20 MONETARY ALLOWANCES

- A. THE BID AND CONTRACT PRICE SHALL INCLUDE THE FOLLOWING STIPULATED QUANTITY ALLOWANCES, TO BE ADJUSTED BY THE ESTABLISHED UNIT PRICES. REFER TO DIVISION 00 AND 01 SPECIFICATIONS FOR UNIT PRICE DESCRIPTIONS AND RELATED REQUIREMENTS.
1. CONTINGENCY FUND TO BE USED FOR UNFORESEEN CHANGES \$120,000.00
- B. THE VALUE WITHIN THE CONTRACT ASSOCIATED WITH EACH ALLOWANCE ITEM SHALL BE SEPARATELY LISTED ON THE SCHEDULE OF VALUES SUBMITTED WITH EACH APPLICATION FOR PAYMENT. REFER TO DIVISION 01 ADMINISTRATIVE INSTRUCTIONS FOR FURTHER INFORMATION.

1.21 ROOF DESIGN

- A. THE OWNER IS NOT FM GLOBAL INSURED; HOWEVER, CERTAIN COMPONENTS SUCH AS VHS HAIL REQUIREMENTS AND FM APPROVED PREMANUFACTURED SHEET METAL COMPONENTS HAVE BEEN SPECIFIED.

DRAWING RECORD			
REV. NO.	DESCRIPTION	DATE	BY
NA	BID SET	02/06/24	THJH
1	ADDENDUM NO. 1	02/16/24	THJH



CEDAR RAPIDS, IA • WALKER, IA  
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CLIENT: LEE'S SUMMIT R-7 SCHOOL DISTRICT

PROJECT: LEE'S SUMMIT HIGH SCHOOL (BUILDING A)  
400 SE BLUE PARKWAY  
LEE'S SUMMIT, MO 64063

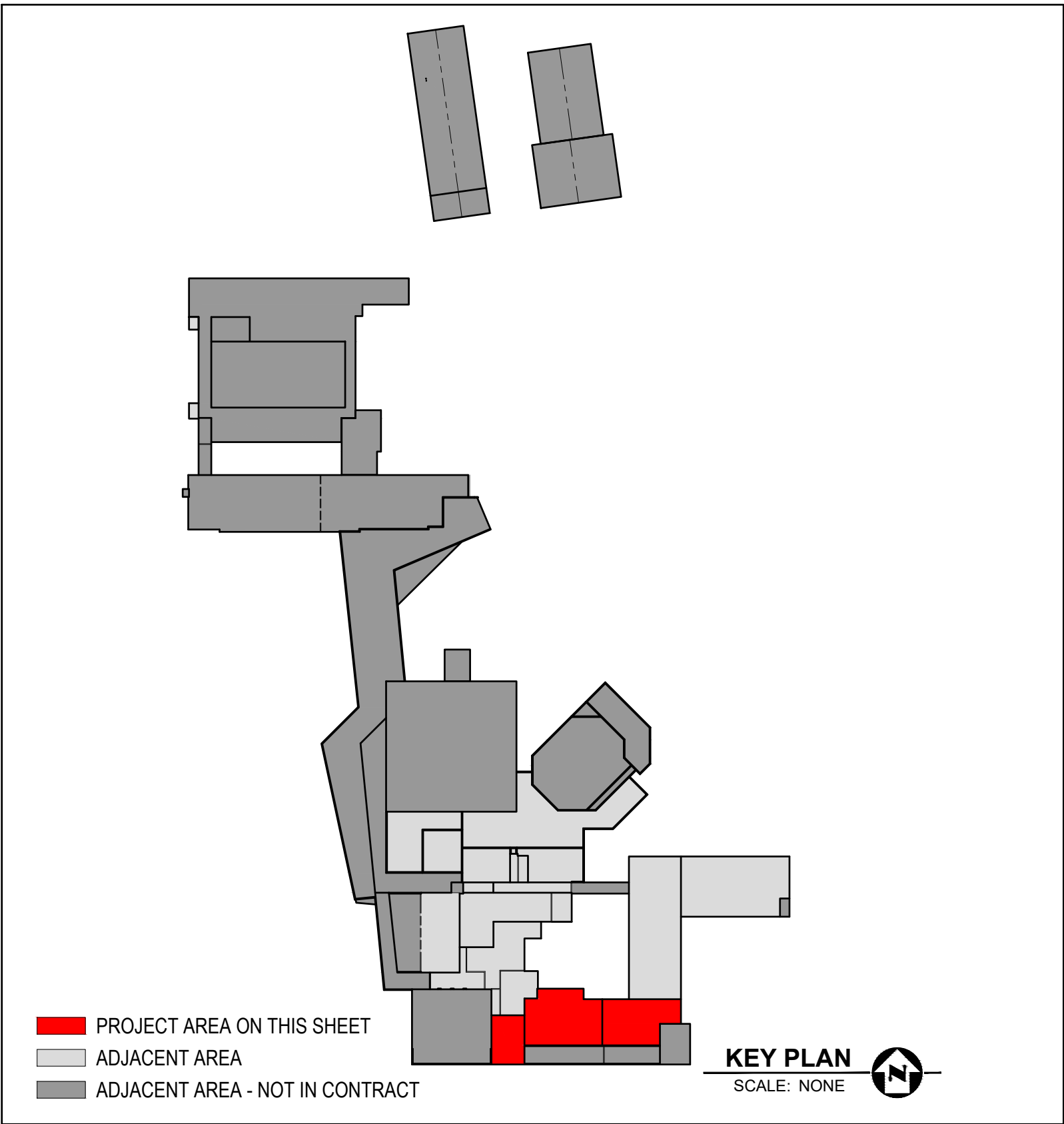
DRAWING TITLE: SUMMARY OF WORK

BENCHMARK PROJECT NO.: 23LSSLESUR10B  
SHEET NUMBER:

R0.02

ORIGINAL SHEET SIZE: 36 x 24





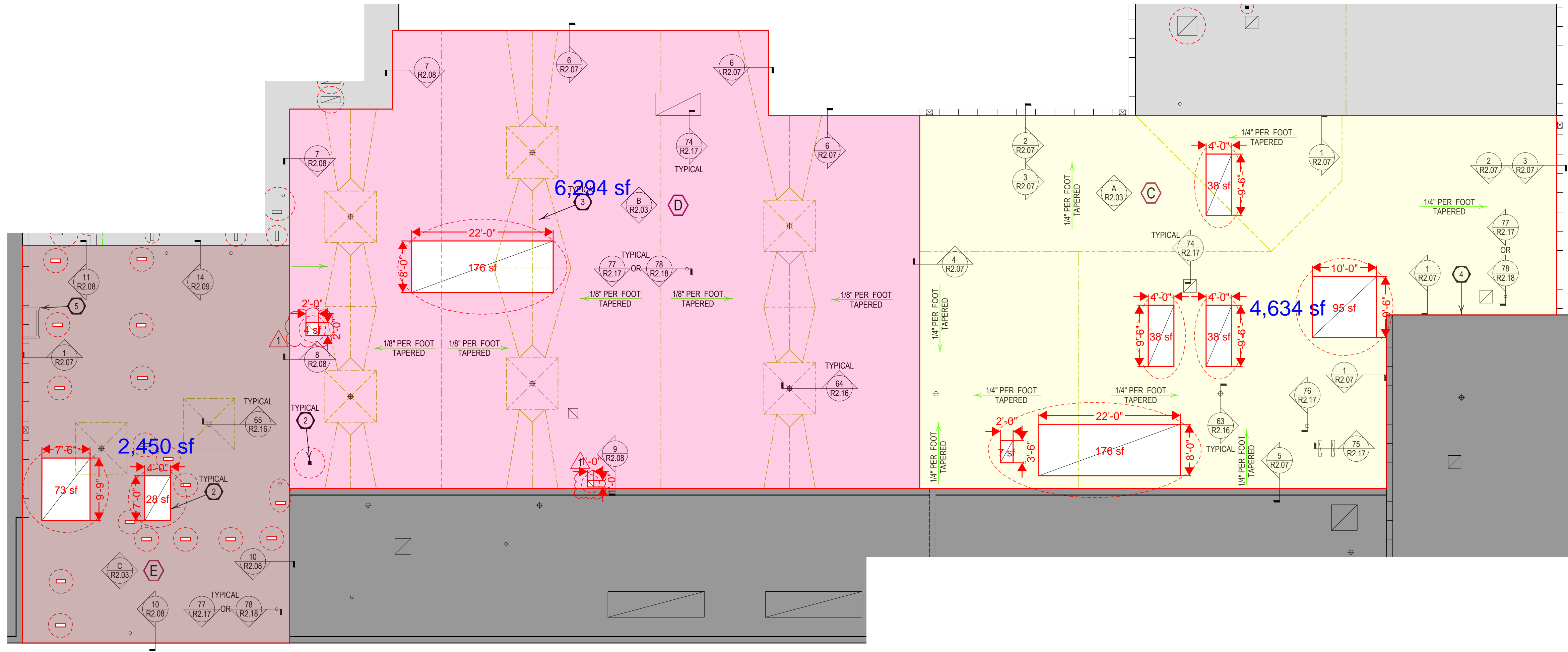
### GENERAL NOTES

- A. 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.
- B. WHERE DETAIL OR KEYED NOTE 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 ROOF DECK, INSULATION, AND/OR SUBSTRATE COMPONENTS MAY DIFFER FROM THOSE SHOWN. 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 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 20-YEAR MINIMUM WARRANTY. UNAUTHORIZED DETAIL CHANGES ARE SUBJECT TO REJECTION BY THE OWNER'S REPRESENTATIVE.
- E. REFER TO SUMMARY OF WORK DRAWING SHEET FOR BASIC SCOPE OF WORK, INCLUDING PRESUMED EXISTING ROOF SYSTEM COMPONENTS, QUANTITY ALLOWANCES FOR UNIT PRICE WORK AND PROPERTY INSURANCE COMPANY REQUIREMENTS WHERE APPLICABLE.
- F. FOR ROOF DESIGN DATA AND ROOF ATTACHMENT REQUIREMENTS, REFER TO THE CORRESPONDING DESIGN DATA AND ATTACHMENT PLAN DRAWING SHEET.
- G. 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.
- H. 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.
- I. 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.
- J. ROOFING CONTRACTOR SHALL COORDINATE THE REMOVAL, REINSTALLATION, AND CERTIFICATION OF THE CURRENT LIGHTNING PROTECTION SYSTEM WITH KRIS PETITION, PREFERRED LIGHTNING PROTECTION. 866.299.7406, [KRIS@PREFERREDLP.COM](mailto:KRIS@PREFERREDLP.COM). THE ROOFING CONTRACTOR SHALL INSURE THE SYSTEM IS INSTALLED TO MEET THE ROOFING AND PREMANUFACTURED SHEET METAL MANUFACTURERS' REQUIREMENTS.
- K. DETAIL EXPOSED EDGES OF BASE FLASHINGS USING VERTICAL SHEET METAL TERMINATION DETAIL. TERMINATION BAR IS NOT AN ACCEPTABLE SUBSTITUTION.

### KEYED NOTES

- NOTE: KEYED NOTES THAT DO NOT APPLY TO THIS SHEET ARE INDICATED BY GRAY FONT.
- REMOVE EXISTING SUPPORTS AND INSTALL PREMANUFACTURED PIPE/ELECTRICAL SUPPORTS BY MIRO INDUSTRIES OR PHP SYSTEMS. REFER TO PIPE SCHEDULE FOR PROPER SUPPORT. INSTALL HOT-AIR WELDED WALKWAY PAD BENEATH EACH SUPPORT BASE.
  - REMOVE OBSOLETE ROOF PENETRATION AND REPAIR ROOF DECKING PER DRAWINGS AND SPECIFICATIONS. VERIFY WITH OWNER BEFORE REMOVING MARKED PENETRATIONS.
  - INSTALL 1/2" PER FOOT TAPERED POLYISOCYANURATE INSULATION CRICKET/SADDLE, WITH 0.5" STARTING THICKNESS AT VALLEYS. INSTALL TAPERED EDGE STRIP AT EDGE OF CRICKET PANEL PER VALLEY DETAIL.
  - REWORK WALL MOUNTED WOOD BLOCKING TO ACCOMMODATE NEW FLASHINGS.
  - REMOVE LOWER LADDER ANCHORS FROM THE EXISTING LADDER. REPLACE WITH NEW ANCHORS ATTACHED TO THE EXISTING WALL LADDER. INSTALL THE NEW WALL ANCHORS ABOVE THE NEW COUNTERFLASHING. DO NOT TRIM THE NEW COUNTERFLASHING TO FIT AROUND THE EXISTING ANCHORS.
  - RAISE GAS PIPE AS NEEDED TO ACCOMMODATE NEW ROOF SYSTEM. FLASHING HEIGHT AT GAS PIPE PENETRATIONS THROUGH THE ROOF SHALL BE 8" MINIMUM. REFER TO DETAIL 77/R2.17.
  - REUSE EXISTING DURA-BLOK SUPPORTS. INSTALL HOT-AIR WELDED WALKWAY PAD BENEATH EACH SUPPORT BASE. SUPPORTS SHALL BE REPLACED IF EXISTING SUPPORTS CAN NOT ACCOMMODATE NEW ROOF SYSTEM.
  - REMOVE OBSOLETE PIPING AND/OR ELECTRICAL CONDUIT.
  - REPLACE EXISTING CONDENSATE PIPE SUPPORTS WITH SUPPORTS BY MIRO INDUSTRIES OR PHP SYSTEMS. REFER TO PIPE SCHEDULE FOR PROPER SUPPORT. INSTALL HOT-AIR WELDED WALKWAY PAD BENEATH EACH SUPPORT BASE.
  - REPLACE/INSTALL UV RESISTANT PVC PIPING ON PREMANUFACTURED SUPPORTS BY MIRO INDUSTRIES OR PHP SYSTEMS TO PIPE HVAC CONDENSATE TO NEAREST DRAINAGE DEVICE. INSTALL HOT-AIR WELDED WALKWAY PAD BENEATH EACH SUPPORT BASE.
  - REMOVE FLANGED METAL FLASHING AND FLASH PVC PIPE PER DETAIL 77/R2.17.
  - INSTALL PIPE SUPPORTS BY MIRO INDUSTRIES OR PHP SYSTEMS. REFER TO PIPE SCHEDULE FOR PROPER SUPPORT. INSTALL HOT-AIR WELDED WALKWAY PAD BENEATH EACH SUPPORT BASE.

- PROPERLY EXTEND DRAINAGE PIPE AND FLASH PER DETAIL 77/R2.17.
- INSTALL OVERFLOW ROOF DRAIN AS SPECIFIED. REFER TO SPECIFICATION SECTION 01 23 00 ALTERNATES FOR ADDITIONAL INFORMATION.
- NOT USED.
- NOT USED.
- MODIFY EXISTING DUCT SUPPORT AS NEEDED TO ACCOMMODATE THE NEW ROOF SYSTEM. INSTALL HOT-AIR WELDED WALKWAY PAD BENEATH THE SUPPORT BASE.
- REMOVE, TRIM AND/OR MODIFY METAL WALL PANEL TO CREATE A PROPER TERMINATION BETWEEN THE DIFFERENT WALL FLASHING DETAILS.
- GRIND AND TUCKPOINT EXISTING MASONRY WALL AS SPECIFIED. PERFORM THIS WORK ON A UNIT COST BASIS. INCLUDE ALLOWANCE QUANTITY IN BID.
- A PORTION OF THE DOWNSPOUT SHALL BE REMOVED AND REINSTALLED AFTER ROOF DRAIN INSTALLATION.
- REMOVE SEALANT FROM SKYLIGHT AND MASONRY WALL. CLEAN, PRIME AND RESEAL AS SPECIFIED.
- INSTALL NEW METAL COPING SIMILAR TO DETAIL 56/R2.16 EXCEPT THE OUTSIDE FACE SHALL MATCH THE EXISTING FACE DIMENSION OF THE EXISTING METAL COPING. OUTSIDE FACE SHALL BE CLIPPED TO THE EXISTING CONTINUOUS CLIP. ENSURE EXISTING CONTINUOUS CLIP IS FASTENED 6" O.C. WITH 1 1/4" MINIMUM RING SHANK NAILS.
- MODIFY DUCT WORK SO THAT MEMBRANE FLASHING CAN BE INSTALLED ONTO THE DUCT WORK TO FORM A WATERTIGHT SEAL. IF THE DUCT WORK IS INSULATED, REMOVE THE INSULATION SO THAT THE MEMBRANE FLASHING CAN BE INSTALLED DIRECTLY TO THE METAL DUCT WORK. SET TOP OF FLASHING MEMBRANE IN WATER MASTIC AND SEAL WITH A 3 COURSE PMMA FROM THE MEMBRANE TO THE METAL DUCT WORK. THE 3 COURSE PMMA WILL ACT AS THE TERMINATION INSTEAD OF A TERMINATION BAR.
- HVAC UNIT SHALL BE LIFTED, THE EXISTING CURB REMOVED AND A NEW ROOF CURB INSTALLED. NEW METAL DECKING SHALL BE INSTALLED AS NEEDED TO ACCOMMODATE THE NEW ROOF CURB. ROOF CURB SHALL BE DESIGNED AND MANUFACTURED BY CDI CURBS, AES INDUSTRIES, CURB TECHNOLOGIES OR APPROVE EQUIVALENT. CURB SHALL BE FLASHED PER DETAIL 74/R2.17.



Wood Plank

Pour Gyp over  
Form Board

Steel



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

PROJECT: **LEE'S SUMMIT HIGH SCHOOL (BUILDING A)  
400 SE BLUE PARKWAY  
LEE'S SUMMIT, MO 64063**

DRAWING TITLE: **ROOF PLAN - BUILDING A - SECTIONS C, D, & E**

BENCHMARK PROJECT NO.: **23LSLESUR010B**  
SHEET NUMBER:

**R1.01**

ORIGINAL SHEET SIZE: 36 x 24

DRAWING RECORD			
REV. NO.	DESCRIPTION	DATE	BY
NA	BID SET	02/06/24	THJH
1	ADDENDUM NO. 1	02/16/24	THJH
SYMBOL LEGEND			
	PARAPET WALL		
	ROOF EDGE		
	WALL EXPANSION JOINT		
	GUTTER		
	ROOF OUTLINE BELOW OVERHANG		
	SCUPPER		
	DOWNSPOUT		
	PITCH PAN		
	PIPE PENETRATION		
	FLANGED PENETRATION		
	ROOF DRAIN		
	OVERFLOW DRAIN		
	ROOF CURB		
	ELEVATED UNIT/EQUIPMENT		
	ROOF HATCH		
	OBSOLETE PENETRATION		
	SKYLIGHT		
	RAIL CURB		
	SLEEPER		
	LADDER		
	DOOR		
	STAIRS/PLATFORM		
	SUPPORT LEGS		
	PIPING ON SUPPORTS		
	CRICKET/SADDLE		
	RIDGE/VALLEY LINE		
	SLOPE DIRECTION		
	ROOF SECTION		
	DETAIL LOCATION		
	SYSTEM ASSEMBLY DETAIL LOCATION		
	KEYED NOTE LOCATION		
	REVISION NUMBER		
	ADJACENT AREA		
	ADJACENT AREA - NOT IN CONTRACT		

DATE	02/06/24
DRAWN BY	T. HARTLAND
CHECKED	J. HICKMAN
APPROVED	T. BOSTON
DATE	02/16/24
REVISION	1
BY	T. STEIN
DESCRIPTION	23LSLESUR010B002.dwg


DRAWING RECORD			
REV. NO.	DESCRIPTION	DATE	BY
NA	RID SET	02/06/24	THJH
1	ADDENDUM NO. 1	02/16/24	THJH

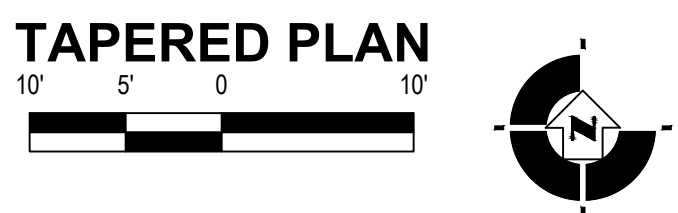
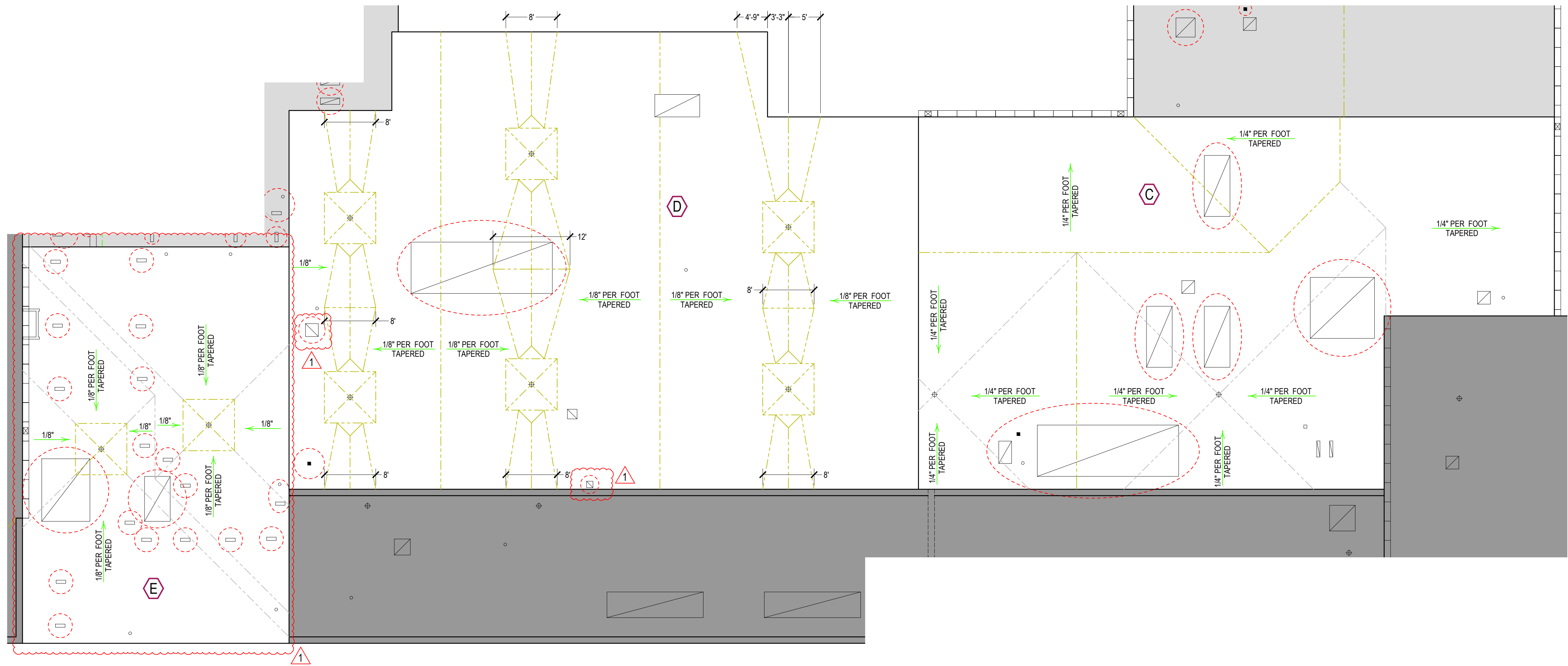
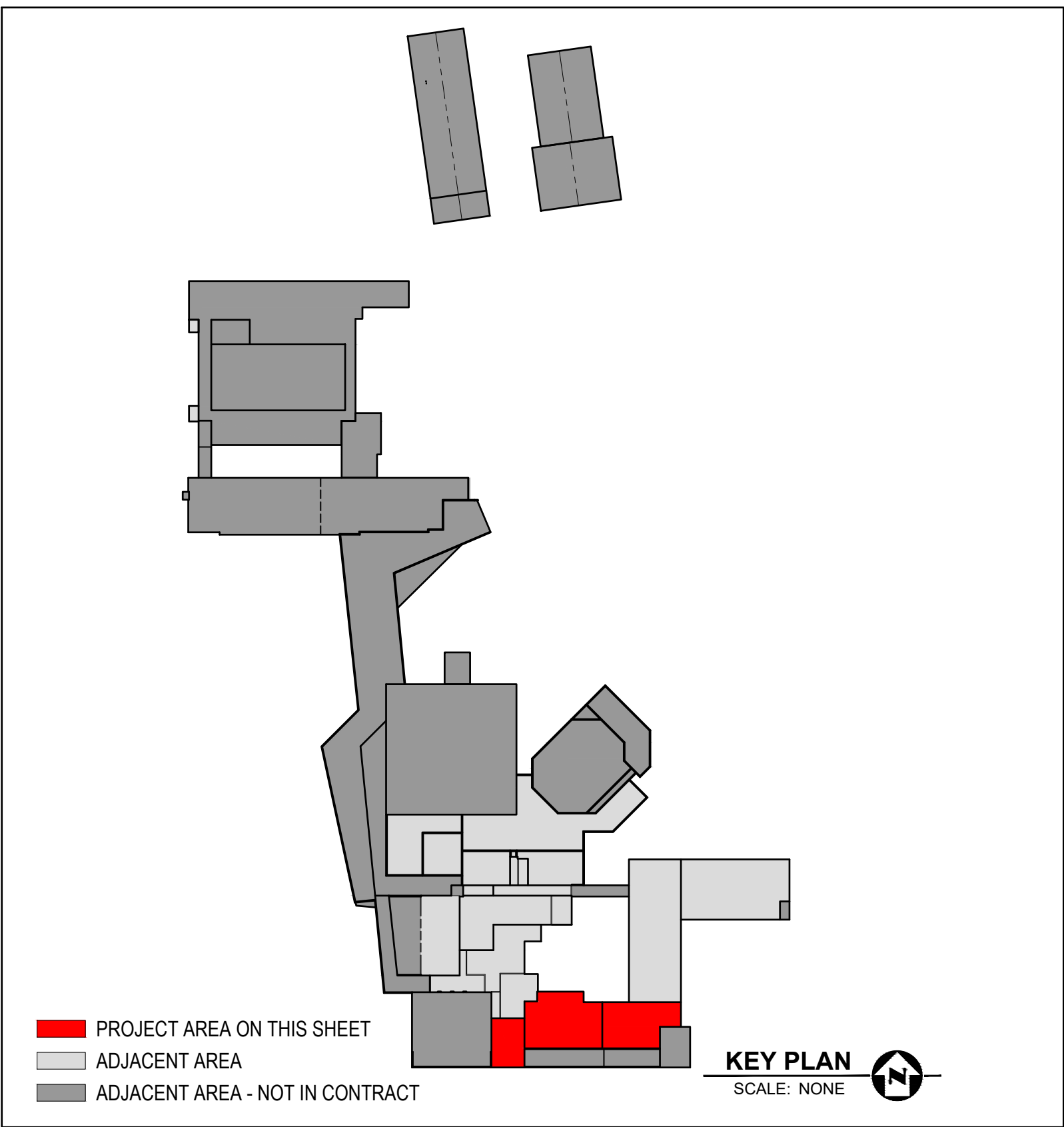
  

## SYMBOL LEGEND

	PARAPET WALL
	ROOF EDGE
	WALL EXPANSION JOINT
	GUTTER
	ROOF OUTLINE BELOW OVERHANG
	SCUPPER
	DOWNSPOUT
	PITCH PAN
	PIPE PENETRATION
	FLANGED PENETRATION
	ROOF DRAIN
	OVERFLOW DRAIN
	ROOF CURB
	ELEVATED UNIT/EQUIPMENT
	ROOF HATCH
	OBSOLETE PENETRATION
	SKYLIGHT
	RAIL CURB
	SLEEPER
	LADDER
	DOOR
	STAIRS/PLATFORM
	SUPPORT LEGS
	PIPING ON SUPPORTS
	METAL ROOF
	CRICKET/SADDLE
	RIDGE/VALLEY LINE
	RIDGE/VALLEY LINE (TAPERED)
	SLOPE DIRECTION
	ROOF SECTION
	REVISION NUMBER
	ADJACENT AREA
	ADJACENT AREA - NOT IN CONTRACT

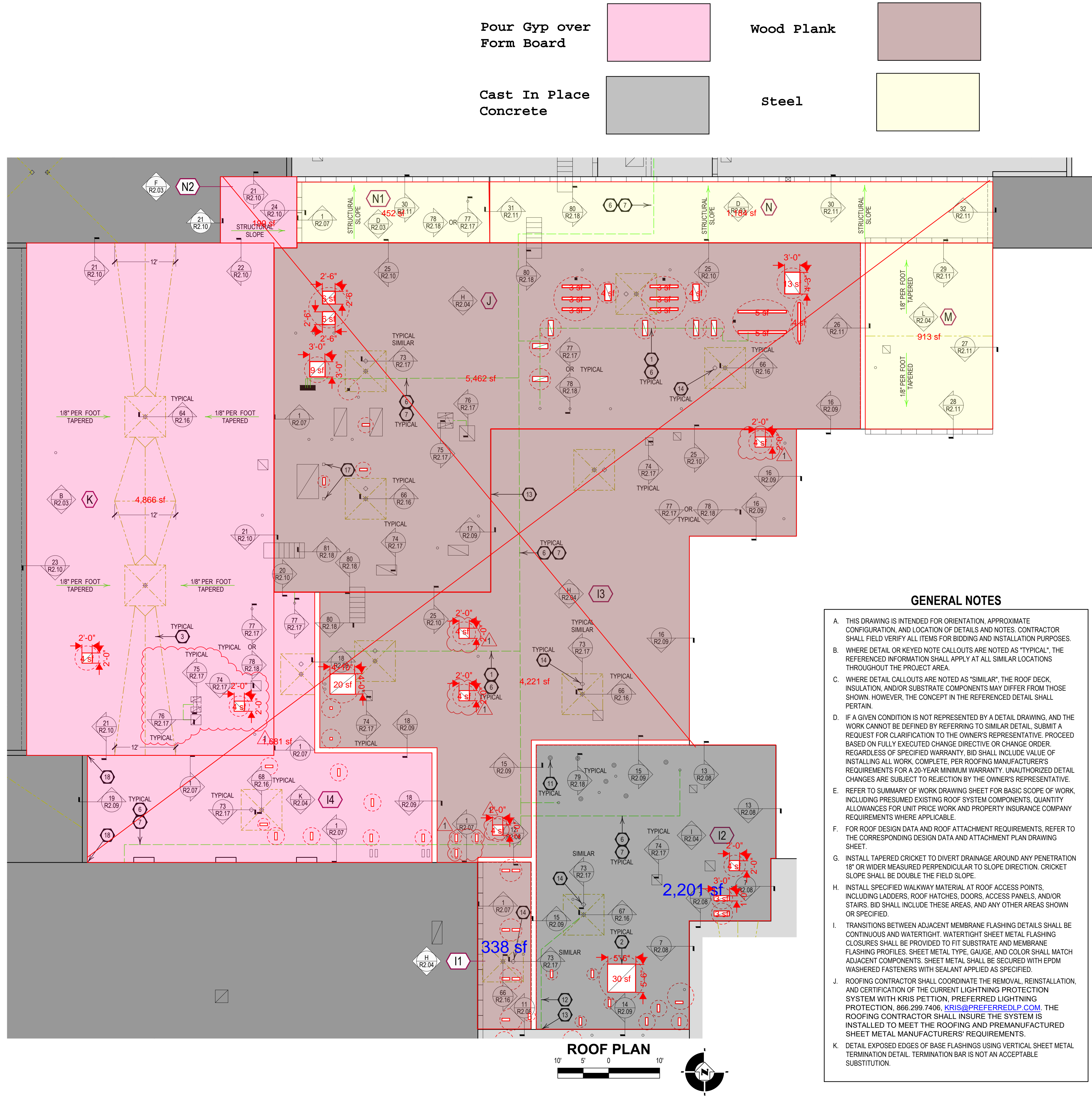
DATE	02/06/24
DRAWN BY	T. HATLAND
PROJECT MANAGER	J. HACKMAN
CHECKED BY	T. BOSTON
DRAWN BY	L. STEIN
CHECKED BY	
SENSE	
BE-NUMBER	23LSSLESUR10B002.dwg
DRAWING NO.	

 <p><b>Benchmark</b> INC CEDAR RAPIDS, IA • WAUKESHA, WI Phone: 319.393.9100 www.benchmarkinc.com</p>	
<p>CLIENT: <b>LEE'S SUMMIT R-7 SCHOOL DISTRICT</b></p>	
<p>PROJECT: LEE'S SUMMIT HIGH SCHOOL (BUILDING A) 400 SE BLUE PARKWAY LEE'S SUMMIT, MO 64063</p>	
<p>DRAWING TITLE: <b>TAPERED PLAN - BUILDING A - SECTIONS C, D, &amp; E</b></p>	
<p>BENCHMARK PROJECT NO.: <b>23LSLESUR010B</b></p>	
<p>SHEET NUMBER: <b>R1.02</b></p>	

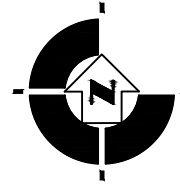
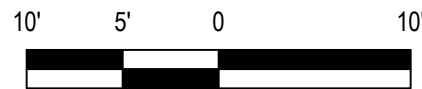




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ROOF PLAN

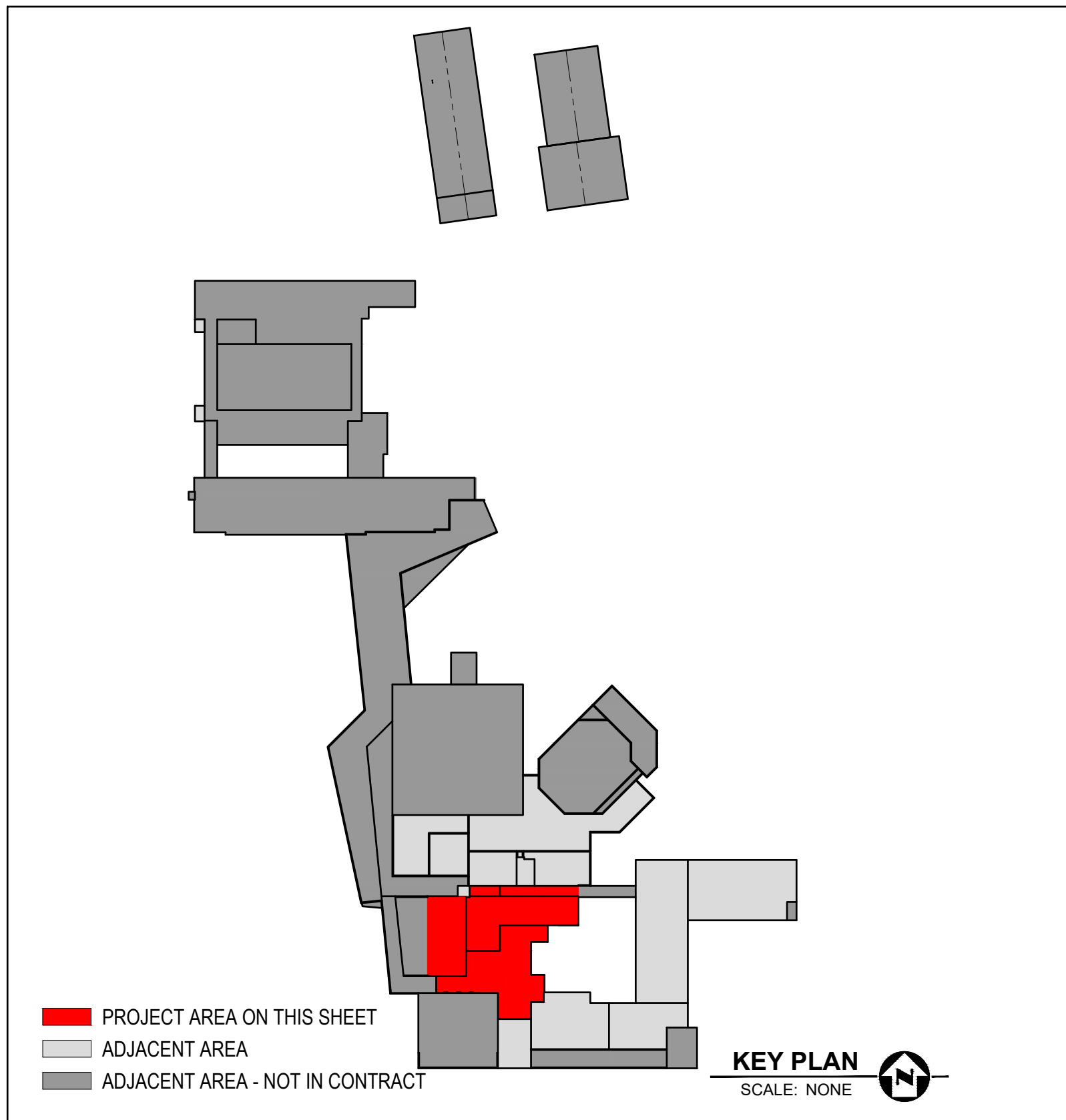


KEYED NOTES

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  - INSTALL 1/2" PER FOOT TAPERED POLYISOCYANURATE INSULATION CRICKET/SADDLE, WITH 0.5" STARTING THICKNESS AT VALLEYS. INSTALL TAPERED EDGE STRIP AT EDGE OF CRICKET PANEL PER VALLEY DETAIL.
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- DETAIL EXPOSED EDGES OF BASE FLASHINGS USING VERTICAL SHEET METAL TERMINATION DETAIL. TERMINATION BAR IS NOT AN ACCEPTABLE SUBSTITUTION.



SYMBOL LEGEND

- |  |                                 |
|--|---------------------------------|
|  | PARAPET WALL                    |
|  | ROOF EDGE                       |
|  | WALL EXPANSION JOINT            |
|  | GUTTER                          |
|  | ROOF OUTLINE BELOW OVERHANG     |
|  | SCUPPER                         |
|  | DOWNSPOUT                       |
|  | PITCH PAN                       |
|  | PIPE PENETRATION                |
|  | FLANGED PENETRATION             |
|  | ROOF DRAIN                      |
|  | ROOF CURB                       |
|  | ELEVATED UNIT/EQUIPMENT         |
|  | ROOF HATCH                      |
|  | OBsolete PENETRATION            |
|  | SKYLIGHT                        |
|  | RAIL CURB                       |
|  | SLEEPER                         |
|  | LADDER                          |
|  | DOOR                            |
|  | STAIRS/PLATFORM                 |
|  | SUPPORT LEGS                    |
|  | METAL ROOF                      |
|  | CRICKET/SADDLE                  |
|  | RIDGE/VALLEY LINE               |
|  | SLOPE DIRECTION                 |
|  | ROOF SECTION                    |
|  | DETAIL LOCATION                 |
|  | SYSTEM ASSEMBLY DETAIL LOCATION |
|  | KEYED NOTE LOCATION             |
|  | REVISION NUMBER                 |
|  | ADJACENT AREA                   |
|  | ADJACENT AREA - NOT IN CONTRACT |



CLIENT: LEE'S SUMMIT R-7 SCHOOL DISTRICT

PROJECT: LEE'S SUMMIT HIGH SCHOOL (BUILDING A)  
400 SE BLUE PARKWAY  
LEE'S SUMMIT, MO 64063

DRAWING TITLE: ROOF PLAN - BUILDING A - SECTIONS I1-14, J, K, M, N, N1, & N2

BENCHMARK PROJECT NO.: 23LSSLESUR10B  
SHEET NUMBER:

R1.03

ORIGINAL SHEET SIZE: 36 x 24



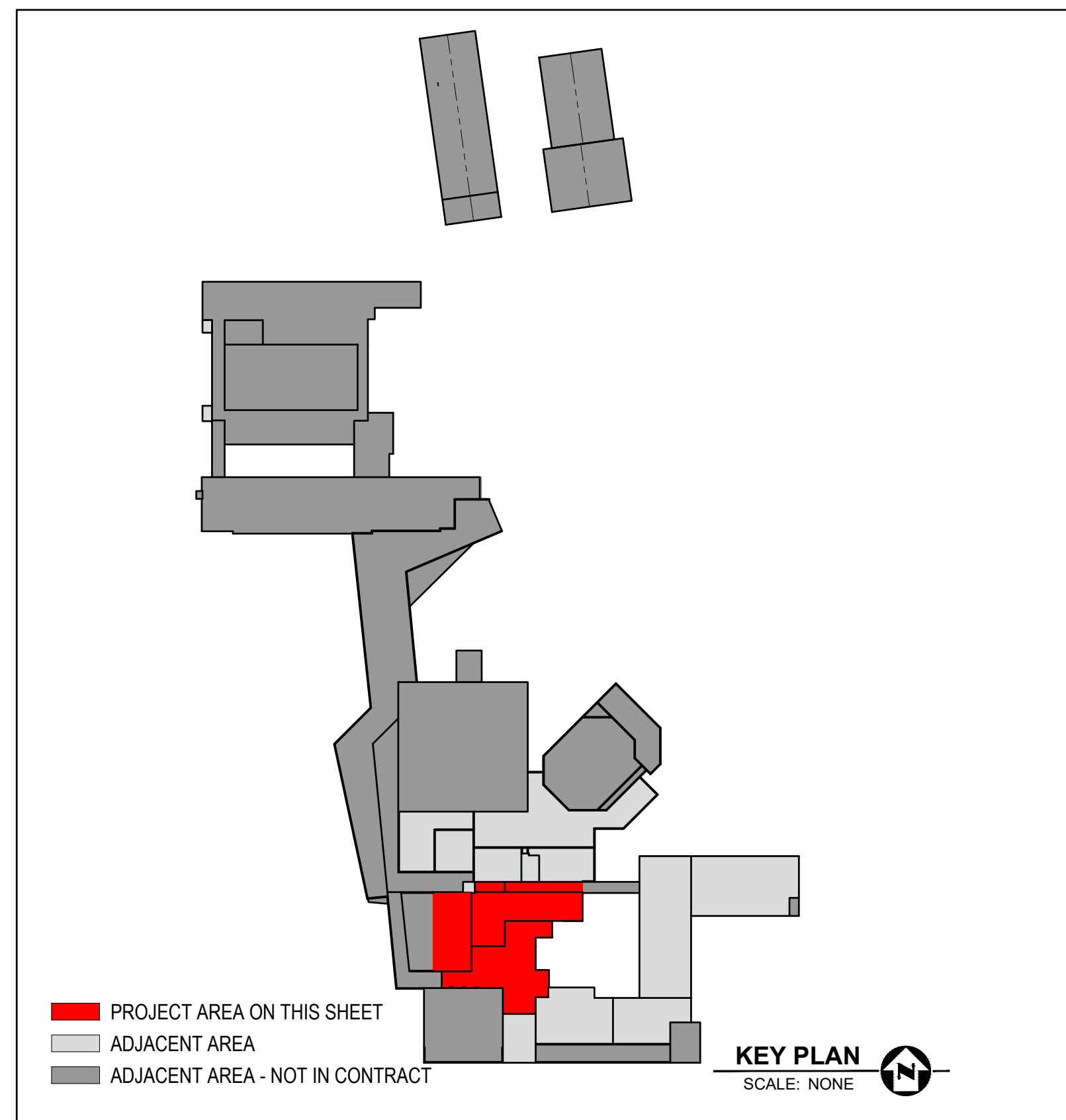
DRAWING RECORD			
REV. NO.	DESCRIPTION	DATE	BY
NA	BID SET	02/06/24	THJH
1	ADDENDUM NO. 1	02/16/24	THJH

## SYMBOL LEGEND

	PARAPET WALL
	ROOF EDGE
	WALL EXPANSION JOINT
	GUTTER
	ROOF OUTLINE BELOW OVERHANG
	SCUPPER
	DOWNSPOUT
	PITCH PAN
	PIPE PENETRATION
	FLANGED PENETRATION
	ROOF DRAIN
	OVERFLOW DRAIN
	ROOF CURB
	ELEVATED UNIT/EQUIPMENT
	ROOF HATCH
	OBSOLETE PENETRATION
	SKYLIGHT
	RAIL CURB
	SLEEPER
	LADDER
	DOOR
	STAIRS/PLATFORM
	SUPPORT LEGS
	PIPING ON SUPPORTS
	CRICKET/SADDLE
	RIDGE/VALLEY LINE
	RIDGE/VALLEY LINE (TAPERED)
	SLOPE DIRECTION
	ROOF SECTION
	REVISION NUMBER
	ADJACENT AREA
	ADJACENT AREA - NOT IN CONTRACT

DATE	02/06/24
DRAWN BY	T. HATLAND
PROJECT MANAGER	J. HACKMAN
CHECKED BY	T. BOSTON
DRAWN BY	L. STEIN
CHECKED BY	
SENSE	
BE-NUMBER	23LSSLESUR10B002.dwg
DRAWING NO.	

<div> <div>CLIENT:</div> <div>PROJECT:</div> <div>BENCHMARK PROJECT NO:</div> <div>SHEET NUMBER:</div> </div>	<div> <div>LEE'S SUMMIT R-7 SCHOOL DISTRICT</div> <div>LEE'S SUMMIT HIGH SCHOOL (BUILDING A)</div> <div>400 SE BLUE PARKWAY</div> <div>LEE'S SUMMIT, MO 64063</div> </div>
	<div>DRAWING TITLE:</div>
	<div>TAPERED PLAN - BUILDING A - SECTIONS 11-14, J, K, M, N, N1, &amp; N2</div>
	<div>R1.05</div>





## 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 20-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 AND PROPERTY INSURANCE COMPANY REQUIREMENTS WHERE APPLICABLE.
- 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.
- ROOFING CONTRACTOR SHALL COORDINATE THE REMOVAL, REINSTALLATION, AND CERTIFICATION OF THE CURRENT LIGHTNING PROTECTION SYSTEM WITH KRIS PETITION, PREFERRED LIGHTNING PROTECTION. 866.299.7406, [KRIS@PREFERREDLP.COM](mailto:KRIS@PREFERREDLP.COM). THE ROOFING CONTRACTOR SHALL INSURE THE SYSTEM IS INSTALLED TO MEET THE ROOFING AND PREMANUFACTURED SHEET METAL MANUFACTURERS' REQUIREMENTS.
- DETAIL EXPOSED EDGES OF BASE FLASHINGS USING VERTICAL SHEET METAL TERMINATION DETAIL. TERMINATION BAR IS NOT AN ACCEPTABLE SUBSTITUTION.

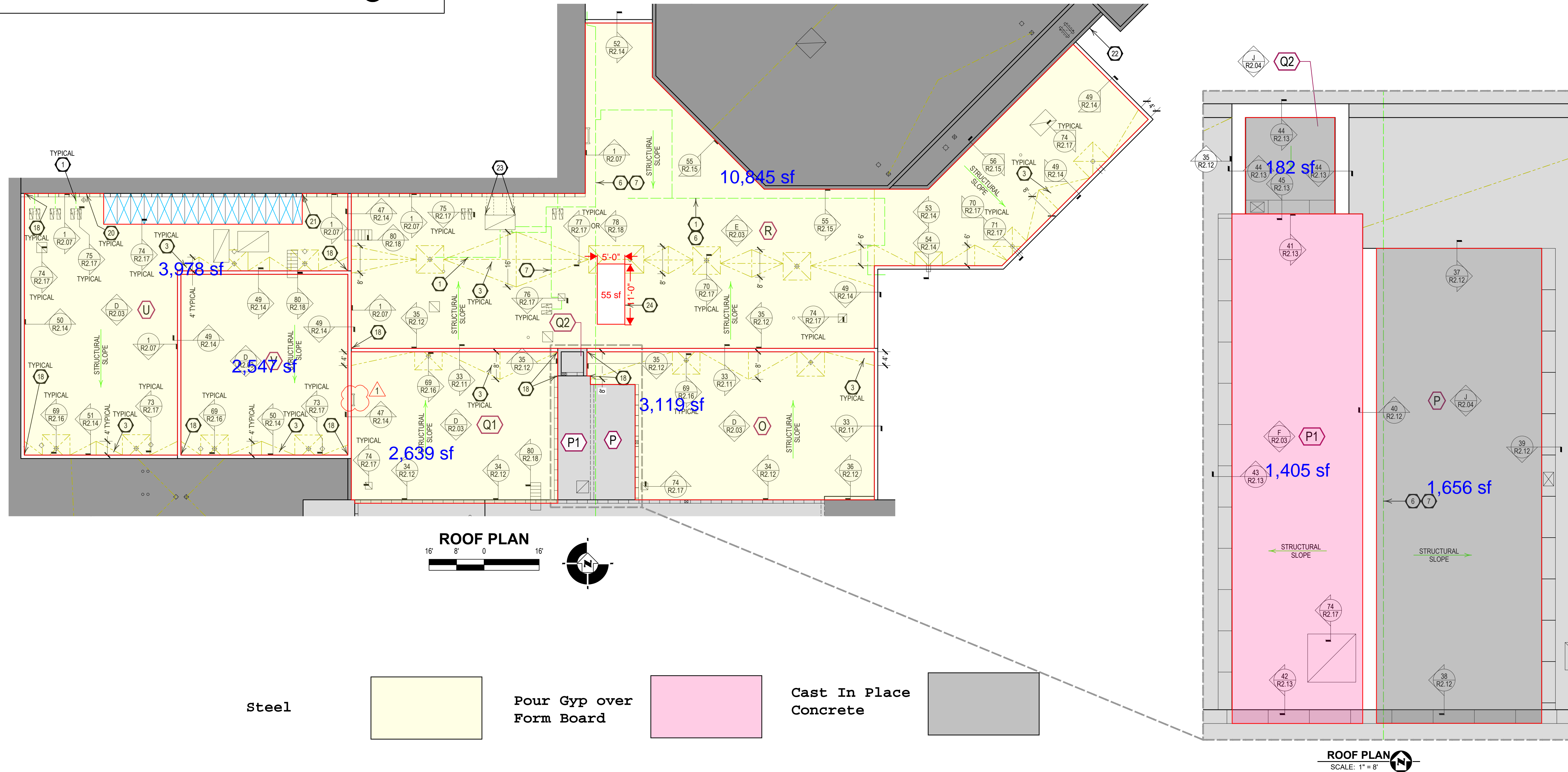
## KEYED NOTES

- NOTE: KEYED NOTES THAT DO NOT APPLY TO THIS SHEET ARE INDICATED BY GRAY FONT.
- REMOVE EXISTING SUPPORTS BY MIRO INDUSTRIES OR PHP SYSTEMS. REFER TO PIPE SCHEDULE FOR PROPER SUPPORT. INSTALL HOT-AIR WELDED WALKWAY PAD BENEATH EACH SUPPORT BASE.
  - REMOVE OBSOLETE ROOF PENETRATION AND REPAIR ROOF DECKING PER DRAWINGS AND SPECIFICATIONS. VERIFY WITH OWNER BEFORE REMOVING MARKED PENETRATIONS.
  - INSTALL 1/2" PER FOOT TAPERED POLYISOCYANURATE INSULATION CRICKET/SADDLE, WITH 0.5" STARTING THICKNESS AT VALLEYS. INSTALL TAPERED EDGE STRIP AT EDGE OF CRICKET PANEL PER VALLEY DETAIL.
  - REWORK WALL MOUNTED WOOD BLOCKING TO ACCOMMODATE NEW FLASHINGS.
  - REMOVE LOWER LADDER ANCHORS FROM THE EXISTING LADDER. REPLACE WITH NEW ANCHORS ATTACHED TO THE EXISTING WALL LADDER. INSTALL THE NEW WALL ANCHORS ABOVE THE NEW COUNTERFLASHING. DO NOT TRIM THE NEW COUNTERFLASHING TO FIT AROUND THE EXISTING ANCHORS.
  - RAISE GAS PIPE AS NEEDED TO ACCOMMODATE NEW ROOF SYSTEM. FLASHING HEIGHT AT GAS PIPE PENETRATIONS THROUGH THE ROOF SHALL BE 8" MINIMUM. PREFER TO DETAIL 77/R2.17.
  - REUSE EXISTING DURA-BLOK SUPPORTS. INSTALL HOT-AIR WELDED WALKWAY PAD BENEATH EACH SUPPORT BASE. SUPPORTS SHALL BE REPLACED IF EXISTING SUPPORTS CAN NOT ACCOMMODATE NEW ROOF SYSTEM.
  - REMOVE OBSOLETE PIPING AND/OR ELECTRICAL CONDUIT.
  - REPLACE EXISTING CONDENSATE PIPE SUPPORTS WITH SUPPORTS BY MIRO INDUSTRIES OR PHP SYSTEMS. REFER TO PIPE SCHEDULE FOR PROPER SUPPORT. INSTALL HOT-AIR WELDED WALKWAY PAD BENEATH EACH SUPPORT BASE.
  - REPLACE/INSTALL UV RESISTANT PVC PIPING ON PREMANUFACTURED SUPPORTS BY MIRO INDUSTRIES OR PHP SYSTEMS TO PIPE HVAC CONDENSATE TO NEAREST DRAINAGE DEVICE. INSTALL HOT-AIR WELDED WALKWAY PAD BENEATH EACH SUPPORT BASE.
  - REMOVE FLANGED METAL FLASHING AND FLASH PVC PIPE PER DETAIL 77/R2.17.
  - INSTALL PIPE SUPPORTS BY MIRO INDUSTRIES OR PHP SYSTEMS. REFER TO PIPE SCHEDULE FOR PROPER SUPPORT. INSTALL HOT-AIR WELDED WALKWAY PAD BENEATH EACH SUPPORT BASE.

- PROPERLY EXTEND DRAINAGE PIPE AND FLASH PER DETAIL 77/R2.17.
- INSTALL OVERFLOW ROOF DRAIN AS SPECIFIED. REFER TO SPECIFICATION SECTION 01 23 00 ALTERNATES FOR ADDITIONAL INFORMATION.
- NOT USED.
- NOT USED.
- MODIFY EXISTING DUCT SUPPORT AS NEEDED TO ACCOMMODATE THE NEW ROOF SYSTEM. INSTALL HOT-AIR WELDED WALKWAY PAD BENEATH THE SUPPORT BASE.
- REMOVE, TRIM AND/OR MODIFY METAL WALL PANEL TO CREATE A PROPER TERMINATION BETWEEN THE DIFFERENT WALL FLASHING DETAILS.
- GRIND AND TUCKPOINT EXISTING MASONRY WALL AS SPECIFIED. PERFORM THIS WORK ON A UNIT COST BASIS. INCLUDE ALLOWANCE QUANTITY IN BID.
- A PORTION OF THE DOWNSPOUT SHALL BE REMOVED AND REINSTALLED AFTER ROOF DRAIN INSTALLATION.
- REMOVE SEALANT FROM SKYLIGHT AND MASONRY WALL. CLEAN, PRIME AND RESEAL AS SPECIFIED.
- INSTALL NEW METAL COPING SIMILAR TO DETAIL 56/R2.16 EXCEPT THE OUTSIDE FACE SHALL MATCH THE EXISTING FACE DIMENSION OF THE EXISTING METAL COPING. OUTSIDE FACE SHALL BE CLIPPED TO THE EXISTING CONTINUOUS CLIP. ENSURE EXISTING CONTINUOUS CLIP IS FASTENED 6" O.C. WITH 1 1/4" MINIMUM RING SHANK NAILS.
- MODIFY DUCT WORK SO THAT MEMBRANE FLASHING CAN BE INSTALLED ONTO THE DUCT WORK TO FORM A WATERTIGHT SEAL. IF THE DUCT WORK IS INSULATED, REMOVE THE INSULATION SO THAT THE MEMBRANE FLASHING CAN BE INSTALLED DIRECTLY TO THE METAL DUCT WORK. SET TOP OF FLASHING MEMBRANE IN WATER MASTIC AND SEAL WITH A 3 COURSE PMMA FROM THE MEMBRANE TO THE METAL DUCT WORK. THE 3 COURSE PMMA WILL ACT AS THE TERMINATION INSTEAD OF A TERMINATION BAR.
- HVAC UNIT SHALL BE LIFTED, THE EXISTING CURB REMOVED AND A NEW ROOF CURB INSTALLED. NEW METAL DECKING SHALL BE INSTALLED AS NEEDED TO ACCOMMODATE THE NEW ROOF CURB. ROOF CURB SHALL BE DESIGNED AND MANUFACTURED BY CDI CURBS, AES INDUSTRIES, CURB TECHNOLOGIES OR APPROVE EQUIVALENT. CURB SHALL BE FLASHED PER DETAIL 74/R2.17.

PROJECT AREA ON THIS SHEET  
ADJACENT AREA  
ADJACENT AREA - NOT IN CONTRACT

KEY PLAN  
SCALE: NONE



## SYMBOL LEGEND

	PARAPET WALL
	ROOF EDGE
	WALL EXPANSION JOINT
	GUTTER
	ROOF OUTLINE BELOW OVERHANG
	SCUPPER
	DOWNSPOUT
	PITCH PAN
	PIPE PENETRATION
	FLANGED PENETRATION
	ROOF DRAIN
	OVERFLOW DRAIN
	ROOF CURB
	ELEVATED UNIT/EQUIPMENT
	ROOF HATCH
	OBsolete PENETRATION
	SKYLIGHT
	RAIL CURB
	SLEEPER
	LADDER
	DOOR
	STAIRS/PLATFORM
	SUPPORT LEGS
	PIPING ON SUPPORTS
	METAL ROOF
	CRICKET/SADDLE
	RIDGE/VALLEY LINE
	SLOPE DIRECTION
	ROOF SECTION
	DETAIL LOCATION
	SYSTEM ASSEMBLY DETAIL LOCATION
	KEYED NOTE LOCATION
	REVISION NUMBER
	ADJACENT AREA
	ADJACENT AREA - NOT IN CONTRACT

OWNER	DESIGN
CLIENT	PROJECT
ARCHITECT	ENGINEER
GENERAL CONTRACTOR	INSTALLER
DATE	REVISION

## LEE'S SUMMIT R-7 SCHOOL DISTRICT

PROJECT: LEE'S SUMMIT HIGH SCHOOL (BUILDING A)  
400 SE BLUE PARKWAY  
LEE'S SUMMIT, MO 64063

DRAWING TITLE: ROOF PLAN - BUILDING A - SECTIONS O, P, P1, Q1, Q2, R, U, & V

BENCHMARK PROJECT NO.: 23LSLESUR1010B  
SHEET NUMBER: R1.06

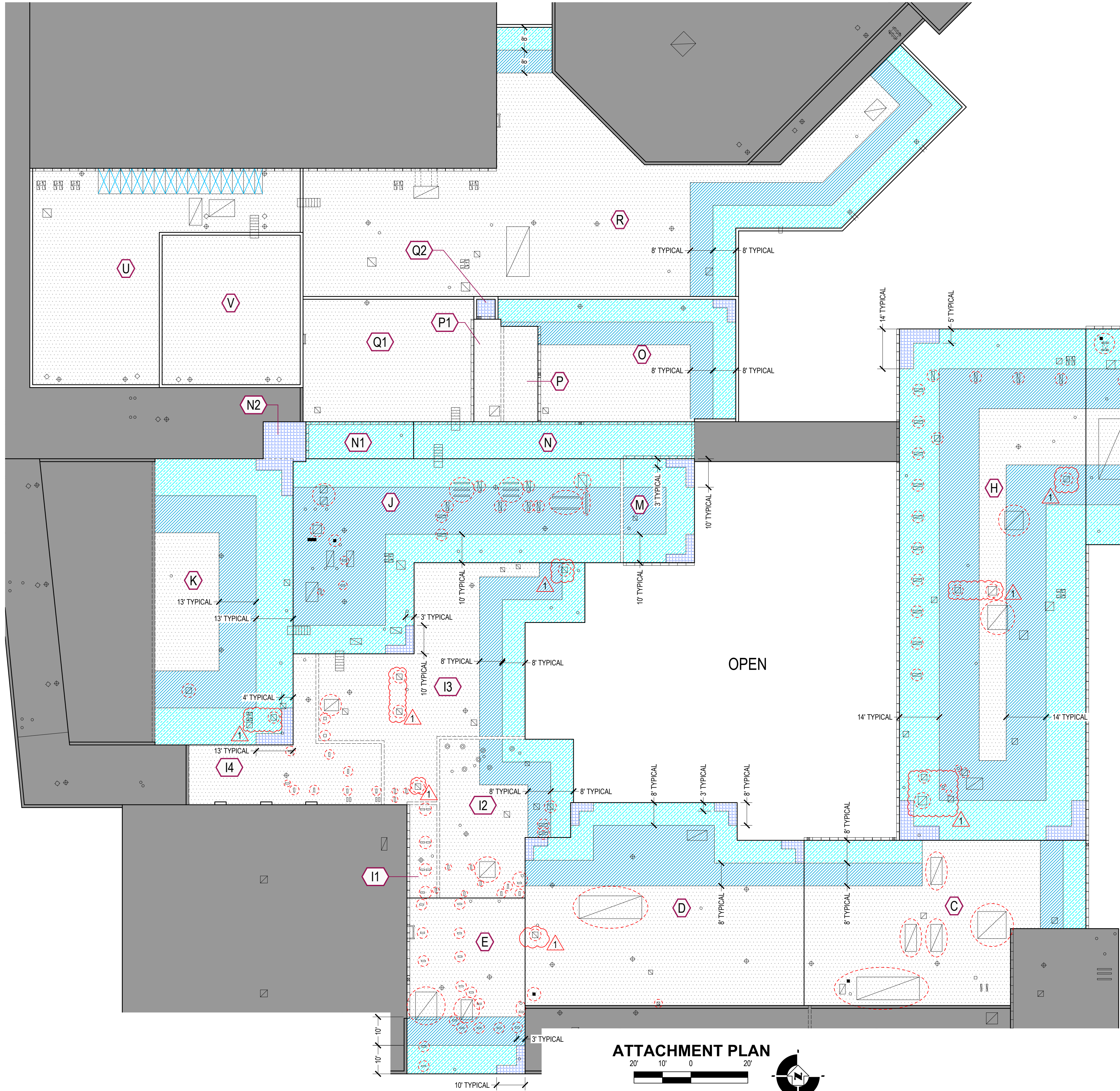


CLIENT: CEDAR RAPIDS, IA - WALKESHA, WI  
PROJECT: 19-393-010  
www.benchmark-inc.com

ORIGINAL SHEET SIZE: 36 x 24



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ATTACHMENT PLAN

ATTACHMENT ZONES

SECTION	ZONE 1*	ZONE 1	ZONE 2	ZONE 3
C, D, E, G, H, I2, I3, K, O, & R	AS SHOWN	AS DIMENSIONED	AS DIMENSIONED	AS DIMENSIONED
J & M	NOT USED	AS SHOWN	AS DIMENSIONED	AS DIMENSIONED
N & N1	NOT USED	NOT USED	AS DIMENSIONED	AS DIMENSIONED
N2 & Q2	NOT USED	NOT USED	AS DIMENSIONED	AS DIMENSIONED
I1, I4, P, P1, Q1, U, & V	AS SHOWN	NOT USED	NOT USED	NOT USED



LEE'S SUMMIT R-7 SCHOOL DISTRICT

PROJECT:  
LEE'S SUMMIT HIGH SCHOOL (BUILDING A)  
400 SE BLUE PARKWAY  
LEE'S SUMMIT, MO 64063

DRAWING TITLE:  
ATTACHMENT PLAN - BUILDING A

BENCHMARK PROJECT NO.:  
23LSLESUR010B  
SHEET NUMBER:

R1.07

ORIGINAL SHEET SIZE: 36 x 24

SYMBOL LEGEND

	PARAPET WALL
	ROOF EDGE
	WALL EXPANSION JOINT
	GUTTER
	ROOF OUTLINE BELOW OVERHANG
	SCUPPER
	DOWNSPOUT
	PITCH PAN
	PIPE PENETRATION
	FLANGED PENETRATION
	ROOF DRAIN
	OVERFLOW DRAIN
	ROOF CURB
	ELEVATED UNIT/EQUIPMENT
	ROOF HATCH
	OBSOLETE PENETRATION
	SKYLIGHT
	RAIL CURB
	SLEEPER
	LADDER
	DOOR
	STAIRS/PLATFORM
	SUPPORT LEGS
	METAL ROOF
	ROOF SECTION
	REVISION NUMBER
	ADJACENT AREA - NOT IN CONTRACT





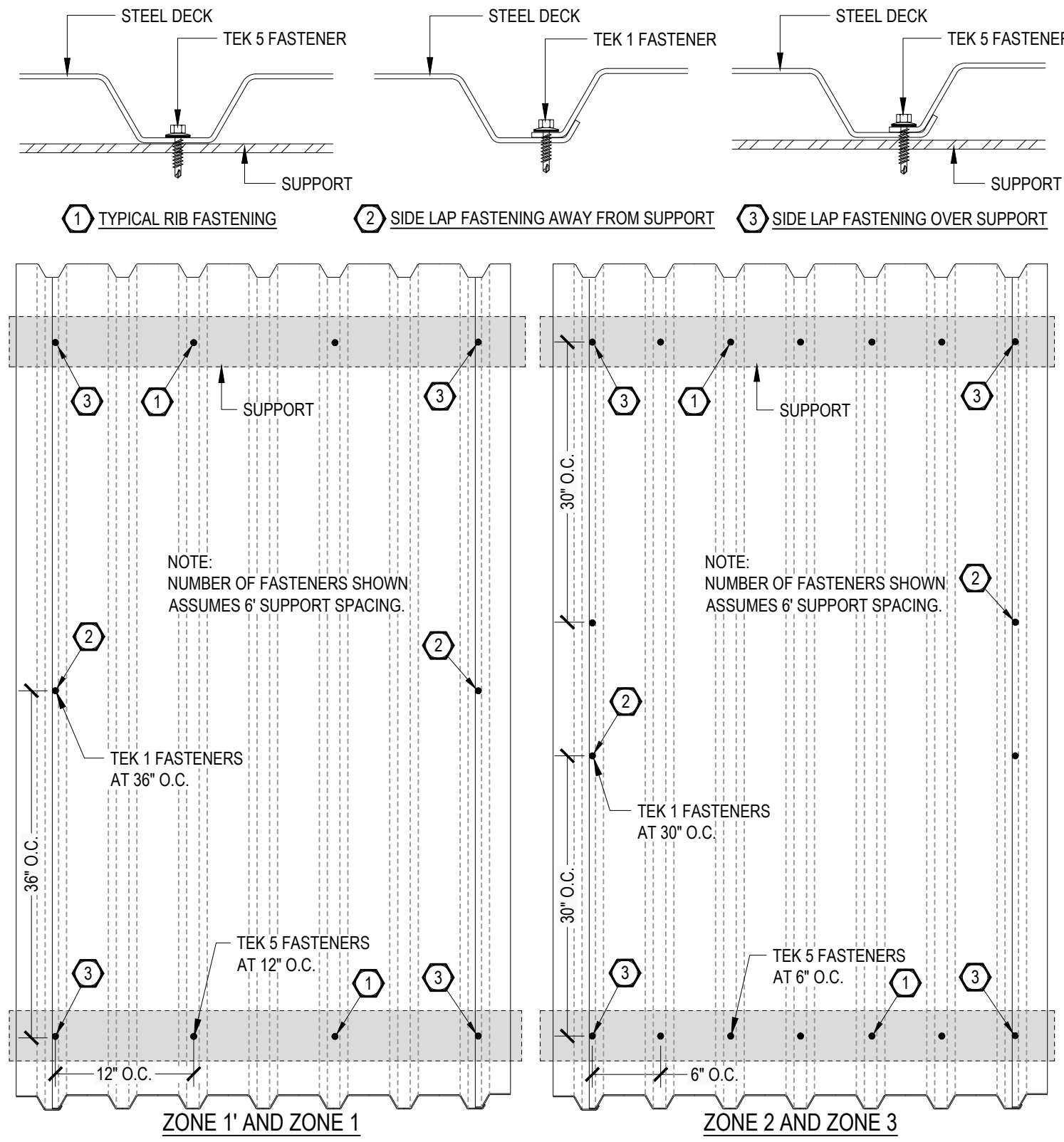


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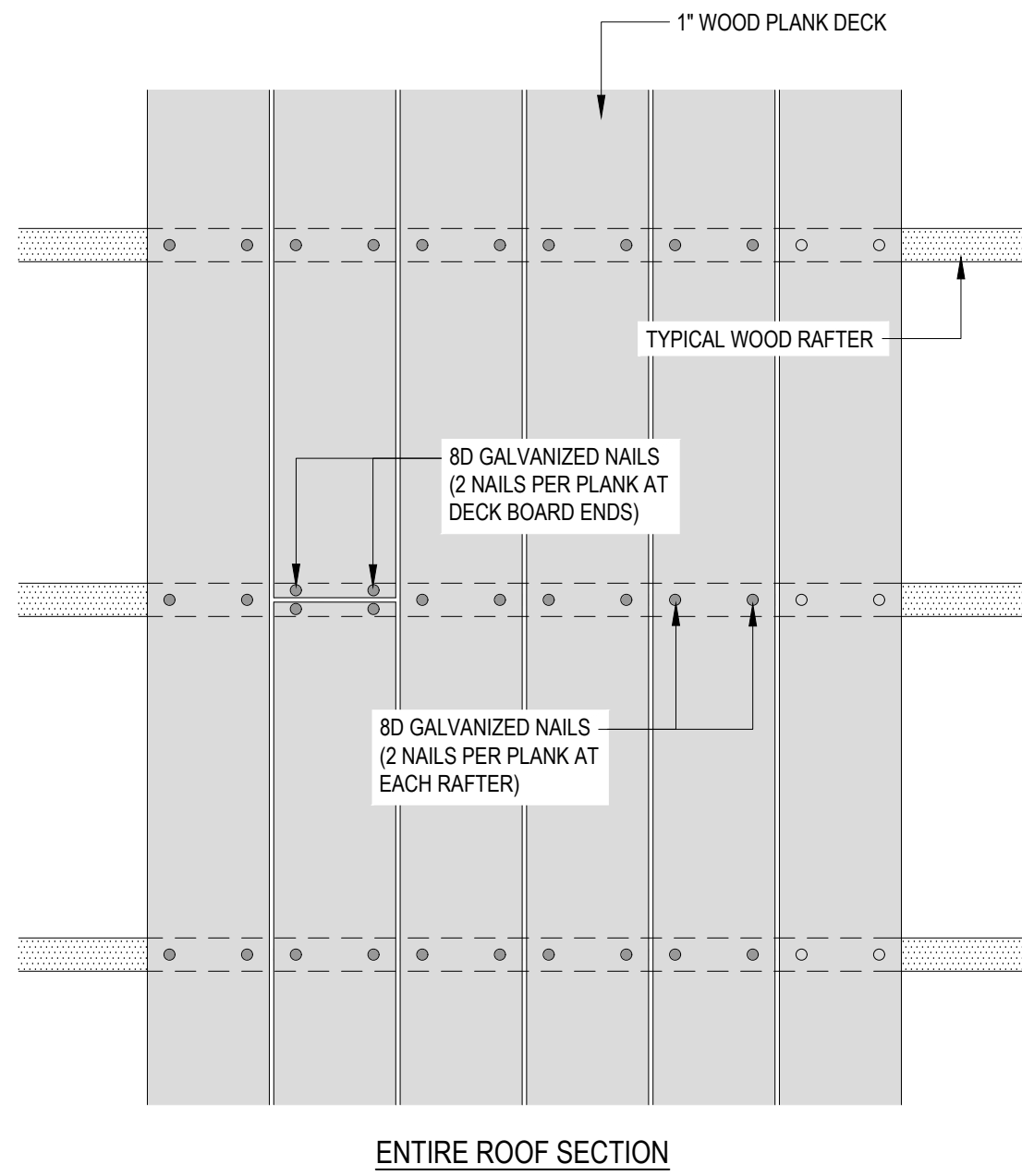
- NOTES:
- ATTACHMENT DETAILS REQUIRED FOR EACH ROOF SECTION ARE SCHEDULED BELOW.
  - WHERE NA IS REFERENCED, THE SPECIFIED ROOF SYSTEM DOES NOT CONTAIN THE LISTED COMPONENT TYPE OR AN ATTACHMENT DETAIL IS NOT PROVIDED.
  - WHERE LL IS REFERENCED, THE COMPONENT IS LOOSELY LAID AND ATTACHMENT IS ACHIEVED BY INSTALLING ANOTHER COMPONENT OVER TOP.
  - WHERE ATTACHMENT DETAIL REQUIREMENTS VARY BASED ON ZONE, REFER TO DESIGN DATA AND ATTACHMENT PLAN FOR ZONE DEFINITIONS.
  - DISREGARD ANY ATTACHMENT INFORMATION ON THIS SHEET PERTAINING TO ZONES NOT SPECIFIED ON THE DESIGN DATA AND ATTACHMENT PLAN.
  - REFER TO INSULATION SPECIFICATIONS FOR REQUIRED BOARD SIZES. DISREGARD ANY INFORMATION ON THIS SHEET REGARDING BOARD SIZES NOT SPECIFIED.

SCHEDULE OF ATTACHMENT DETAILS					
ROOF SECTION	ROOF DECK	INSULATION (BOTTOM)	INSULATION (TOP)	COVER BOARD	FIELD MEMBRANE
C & M	AD-1	LL	AD-3	AD-4	ADHERED
D, I, J, K & L	NA	AD-4	AD-4	AD-4	ADHERED
E	AD-2	AD-5	NA	AD-4	ADHERED
G, N, N1, O, Q1, R, U, & V	AD-1	LL	AD-3	AD-4	ADHERED
H	NA	AD-4	AD-4	AD-4	ADHERED
I1, I3, & J	AD-2	LL	AD-5	AD-4	ADHERED
N2, P, P1, & Q2	NA	AD-4	AD-4	AD-4	ADHERED

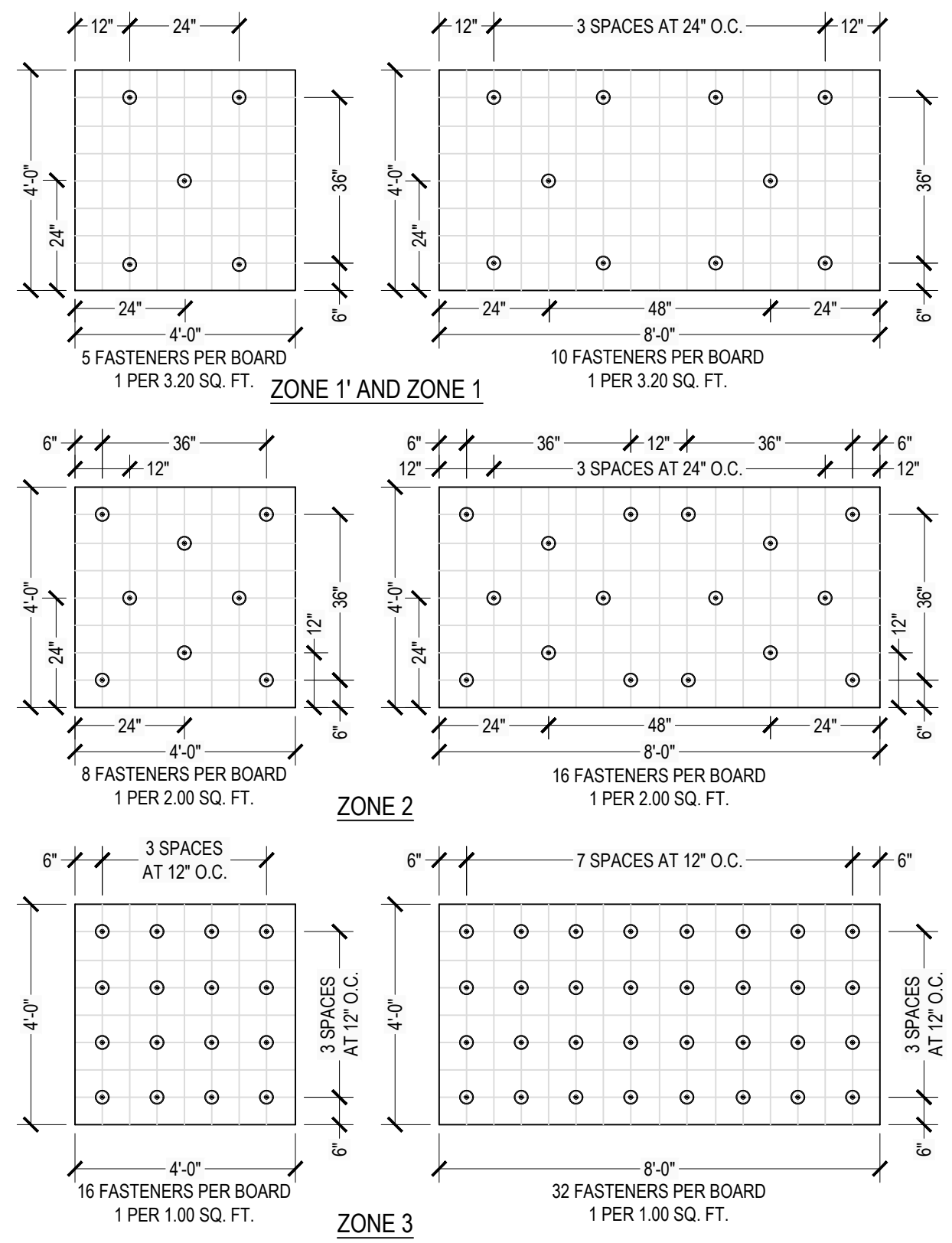
**SAD** SCHEDULE OF ATTACHMENT DETAILS  
NO SCALE



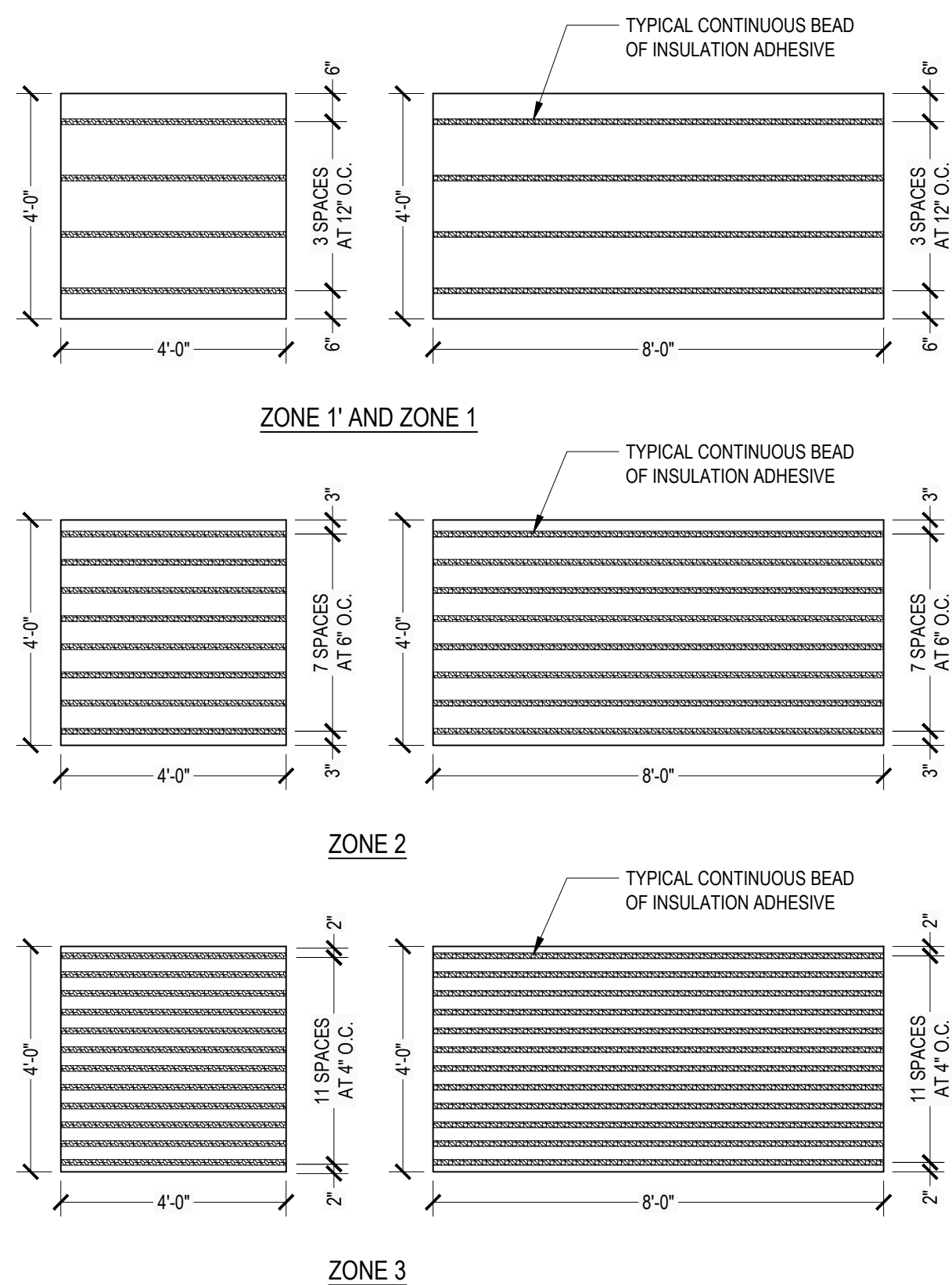
**AD-1** STEEL DECK ATTACHMENT (PLAN VIEW)  
NO SCALE



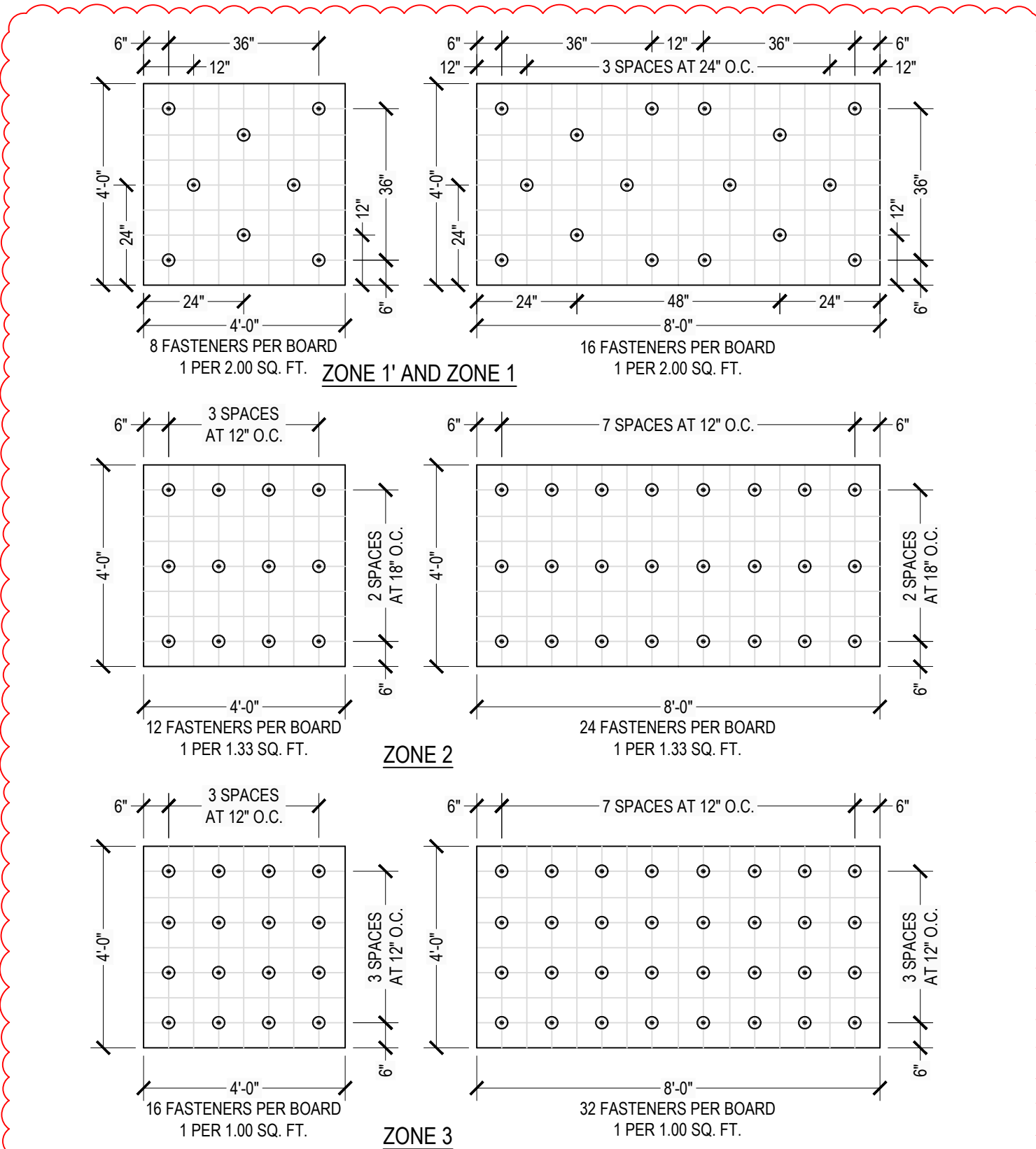
**AD-2** WOOD PLANK DECK ATTACHMENT (PLAN VIEW)  
NO SCALE



**AD-3** INSULATION FASTENING PATTERNS  
NO SCALE



**AD-4** INSULATION ADHESIVE APPLICATION  
NO SCALE



**AD-5** INSULATION FASTENING PATTERNS  
NO SCALE

DRAWING RECORD

REV. NO.	DESCRIPTION	DATE	BY
NA	BID SET	02/06/24	THJH
1	ADDENDUM NO. 1	02/16/24	THJH

CLIENT:

LEE'S SUMMIT R-7 SCHOOL DISTRICT

PROJECT:

LEE'S SUMMIT HIGH SCHOOL (BUILDING A)

BENCHMARK PROJECT NO.:

23LSSLESUR010B

SHEET NUMBER:

R2.01

DESIGNER:

Benchmark INC

PROJECT:

LEE'S SUMMIT HIGH SCHOOL (BUILDING A)

DESIGNER:

LEE'S SUMMIT, MO 64063

DRAWING TITLE:

ATTACHMENT DETAILS

DATE:

02/06/24

DESIGNER:

T. HARTLAND

PROJECT:

J. HICKMAN

DESIGNER:

T. HICKMAN

DATE:

02/06/24

DESIGNER:

L. STEIN

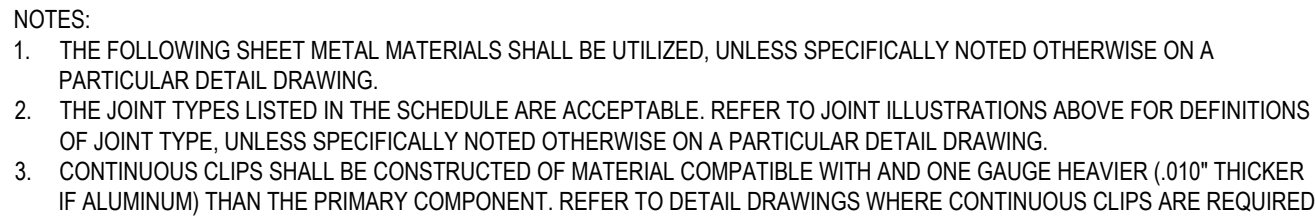
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02/06/24

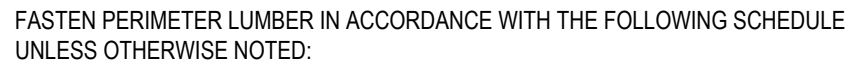
DESIGNER:

L. STEIN



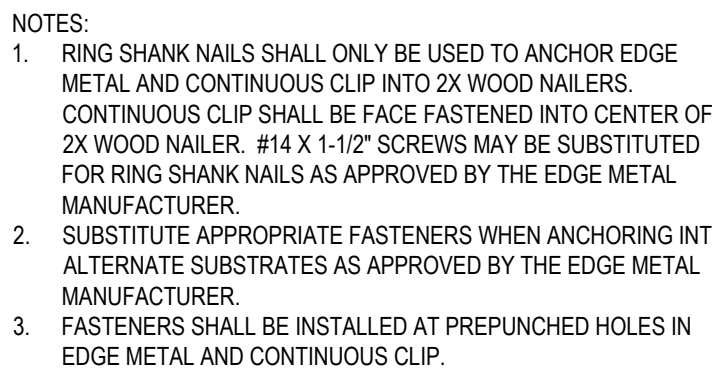
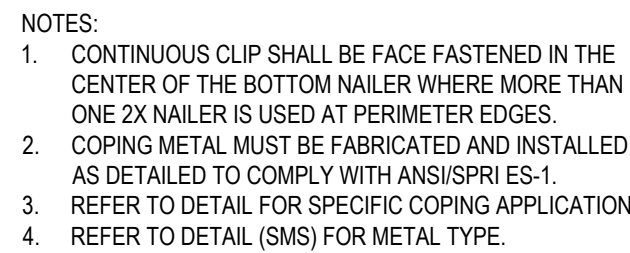


**SMS** **SCHEDULE OF ROOF RELATED SHEET METAL**  
NO SCALE 23LSLESUR0106003

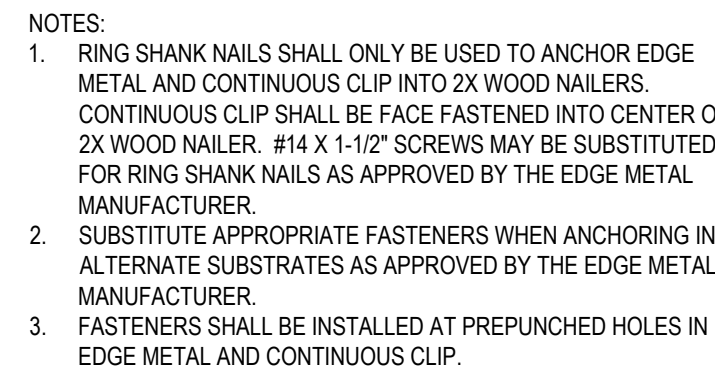


NOTES:

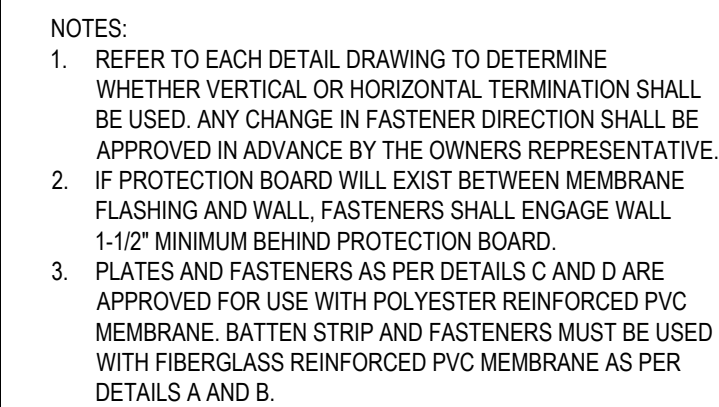
1. FASTEN 6" NOMINAL OR WIDER LUMBER USING TWO ROWS OF FASTENERS, EACH SPACED ONE-THIRD OF NAILER WIDTH. NOTED SPACING INDICATES DISTANCE BETWEEN FASTENERS WITHIN EACH ROW.
2. ALL LUMBER PIECES SHALL HAVE TWO FASTENERS WITHIN 6" OF EACH END.
3. DECREASE FASTENER SPACING IN ZONE 3 AS SPECIFIED. REFER TO ATTACHMENT PLAN DRAWING(S) FOR ZONE 3 LOCATIONS.
4. WHERE TWO OR MORE NAILERS ARE STACKED, FASTEN EACH PIECE OF LUMBER INDEPENDENTLY UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
5. LAY OUT AND ROUTE EACH FASTENER LOCATION IN BOTTOM NAILER USING 3/4" FORSTNER BIT. RECESS SHALL BE NO DEEPER THAN REQUIRED FOR FASTENER HEADS TO BE FLUSH WITH WOOD SURFACE. ATTACH BOTTOM NAILER USING SPECIFIED HEX WASHER HEAD FASTENERS WITH 5/8" DIAMETER WASHERS. FASTEN SUBSEQUENT LUMBER WITH THE SPECIFIED SCREWS WITHOUT WASHERS AT THE SPECIFIED SPACINGS.
  - A. RECESS FASTENER HEADS TO BE FLUSH WITH WOOD SURFACE IN ALL LAYERS ATTACHED USING HEX WASHER HEAD FASTENERS.
  - B. WHERE ROOFING MATERIALS WILL BE APPLIED UNTO CARPENTRY WORK, OUTER/UPPER LUMBER SHALL BE FASTENED USING PHILLIPS FLAT HEAD OR PHILLIPS TRUSS HEAD FASTENERS, WITH HEADS INSTALLED FLUSH WITH WOOD SURFACE.
6. WHERE TWO OR MORE PIECES OF LUMBER ARE STACKED, OFFSET BUTT JOINTS A MINIMUM OF 12" BETWEEN ADJACENT LAYERS.
7. INSTALL LUMBER WITH GRIP BETWEEN ADJOINING PIECES.
8. USE OF CONCRETE AND/OR MASONRY IS REQUIRED FOR FASTENER INSTALLATION. UTILIZE BIT TYPE AND SIZE AND HOLE DEPTH RECOMMENDED BY THE FASTENER MANUFACTURER. REMOVE DRILLING DUST FROM FASTENER HOLES PRIOR TO INSTALLING FASTENERS.
9. REFER TO SECTION 06 01 53 - MISCELLANEOUS ROUGH CARPENTRY FOR SPECIFIED FASTENERS AND OTHER REQUIREMENTS NOT NOTED.



PE-1 PREMANUFACTURED EDGE METAL  
NO SCALE 23LSSESUR010B003



PE-2 PREMANUFACTURED EDGE METAL  
NO SCALE 231SSLESUR010B003



**Benchmark**<sup>INC</sup>  
CEDAR RAPIDS, IA • WAUKESHA, WI  
Phone: 319.393.9100

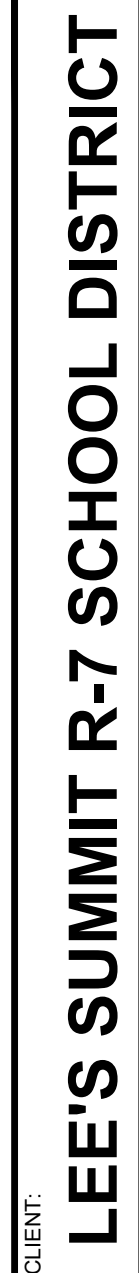








<b>2.04</b>	PROJECT NO.: SUR10B SHEET NO.: DATE:	LET'S SUMMIT HIGH SCHOOL (BUILDING A) 400 SE BLUE PARKWAY LEE'S SUMMIT, MO 64063
	DRAWING TITLE: <b>DETAILS</b>	



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

**PROJECT:** LEE'S SUMMIT HIGH SCHOOL (BUILDING A)  
400 SE BLUE PARKWAY  
LEE'S SUMMIT, MO 64063


BENCHMARK PROJECT NO.  
23LSSLESUR010B  
SHEET NUMBER:

R2.04

ORIGINAL SHEET SIZE: 36 x 24



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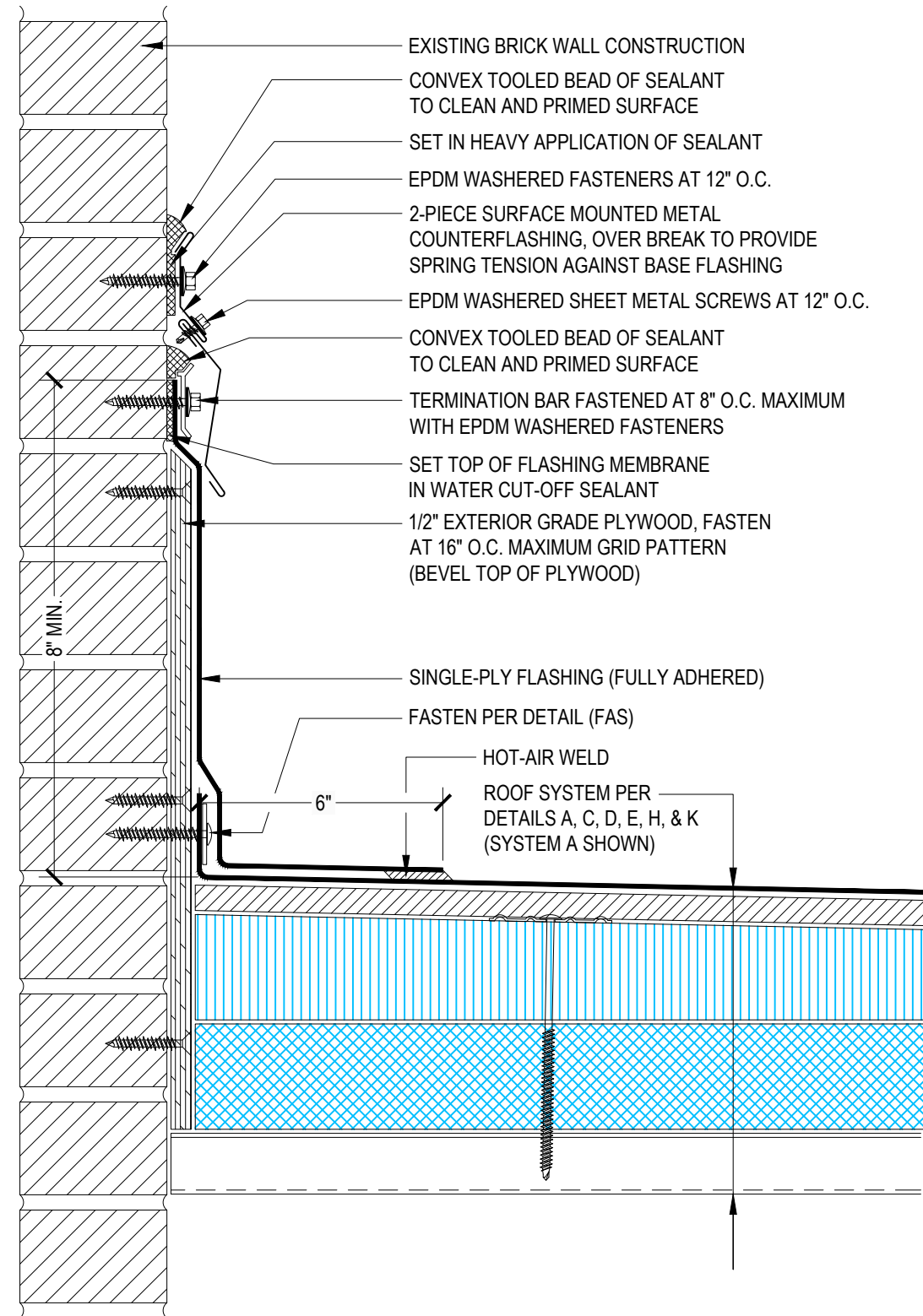
 CEDAR RAPIDS, IA • WALKESHA, WI Phone: 319.393.9100 www.benchmark-inc.com	CLIENT:		PROJECT:	
	BENCHMARK PROJECT NO.: 23LSLESUR010B		SHEET NUMBER:	
LEE'S SUMMIT R-7 SCHOOL DISTRICT		LEE'S SUMMIT HIGH SCHOOL (BUILDING A) 400 SE BLUE PARKWAY LEE'S SUMMIT, MO 64063		DRAWING TITLE:  DETAILS
		R2.05		



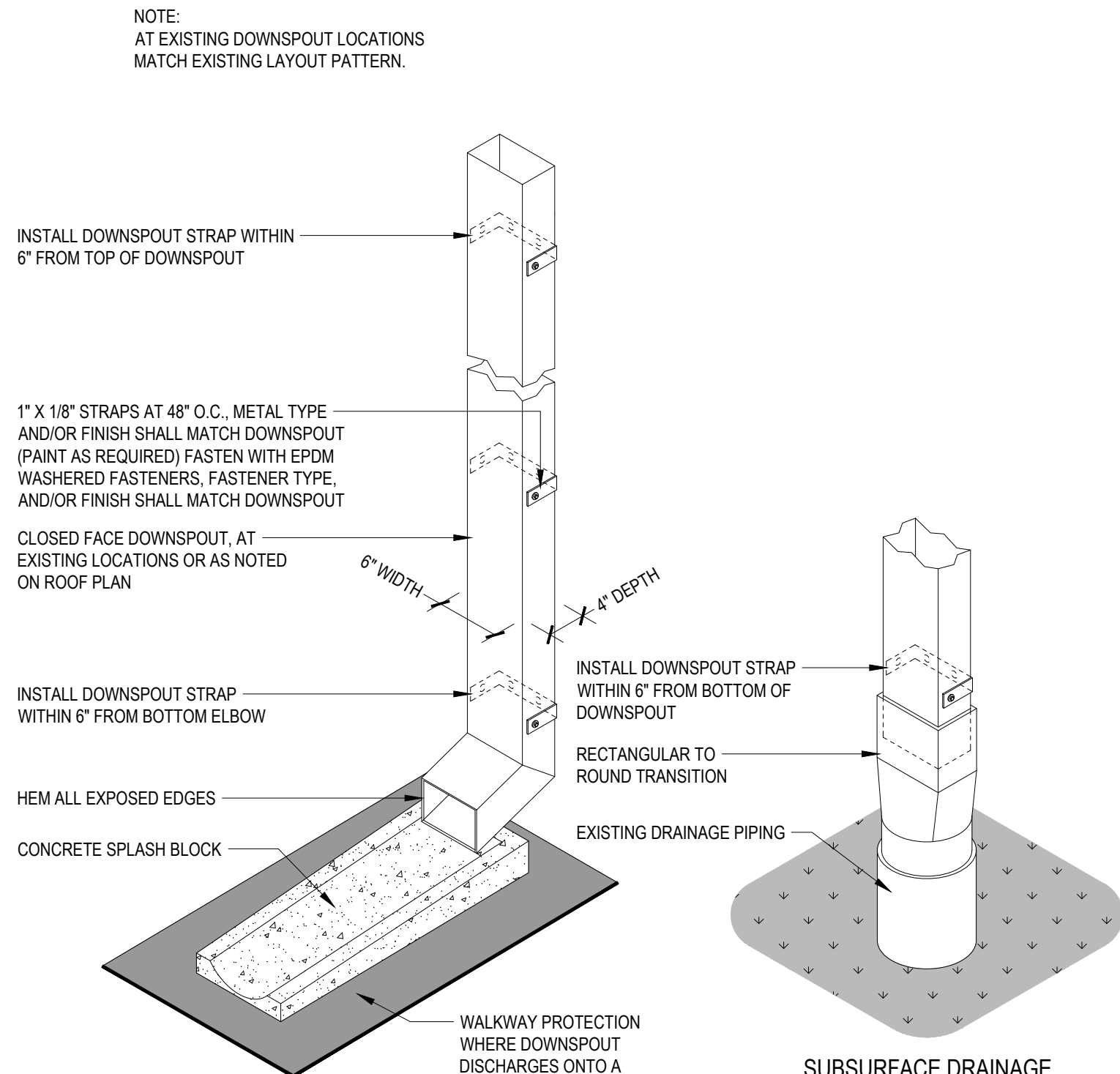




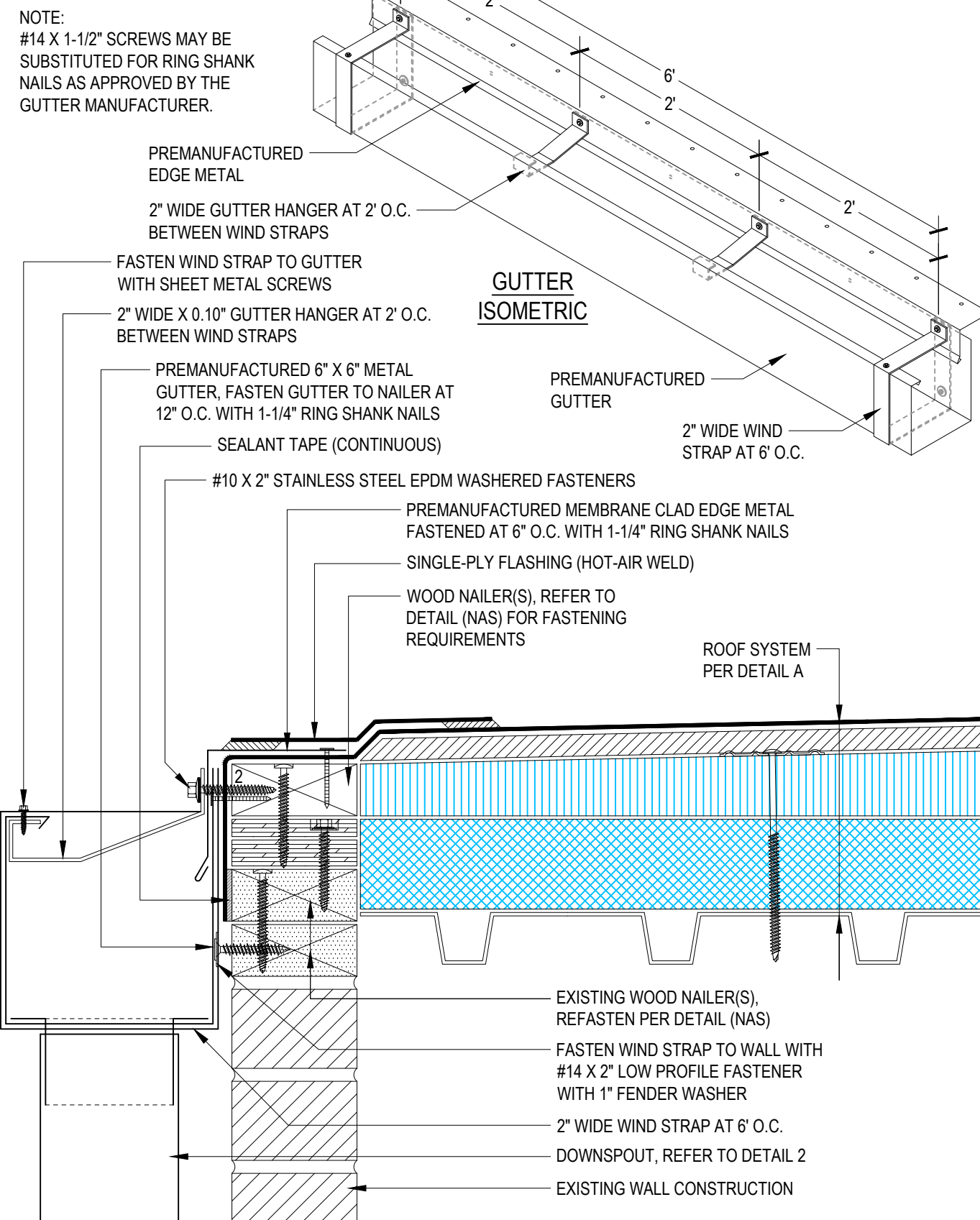
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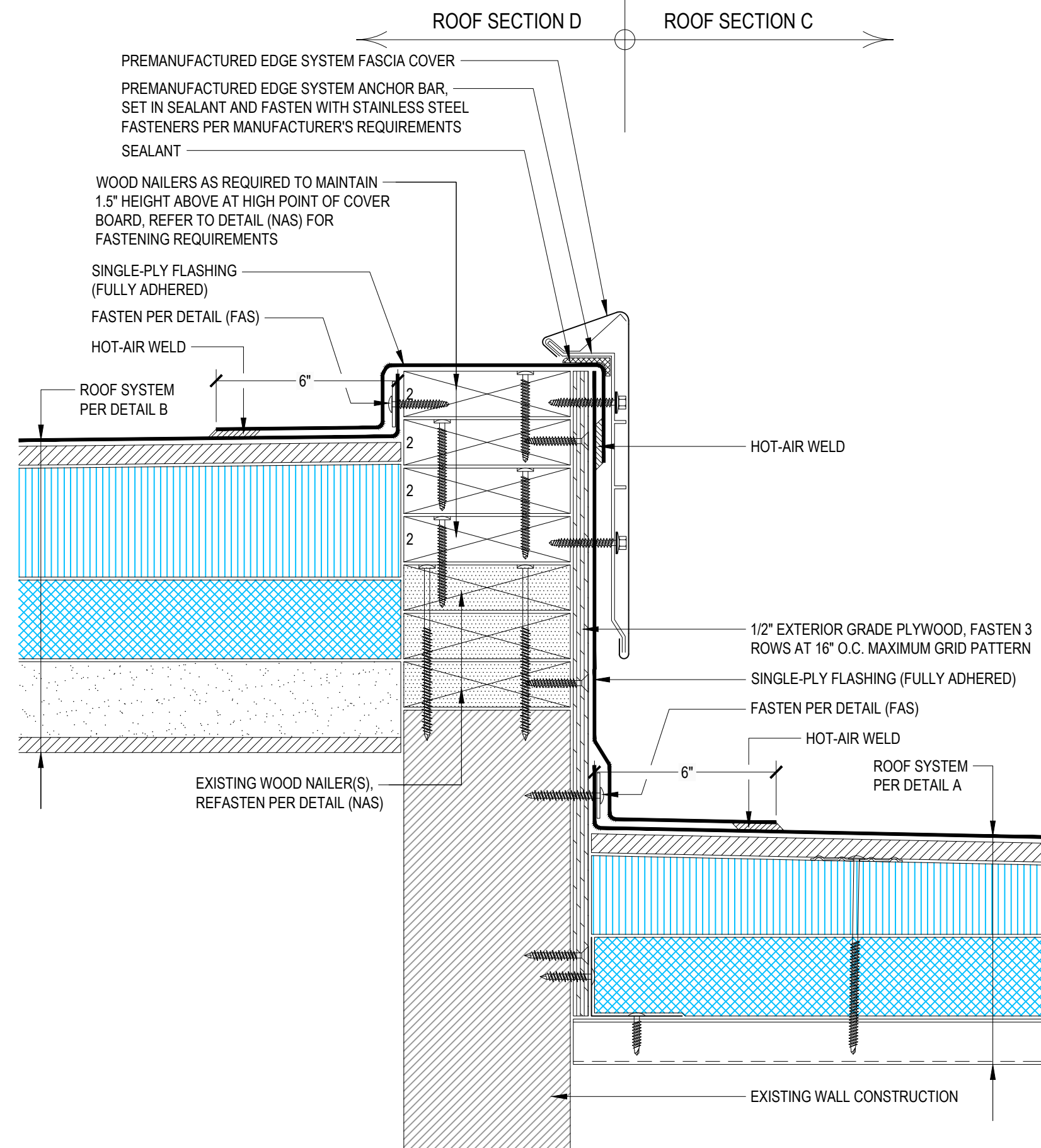
1 **BASE FLASHING DETAIL**  
NO SCALE 23LSSLESUR10B003 (SECTION C)



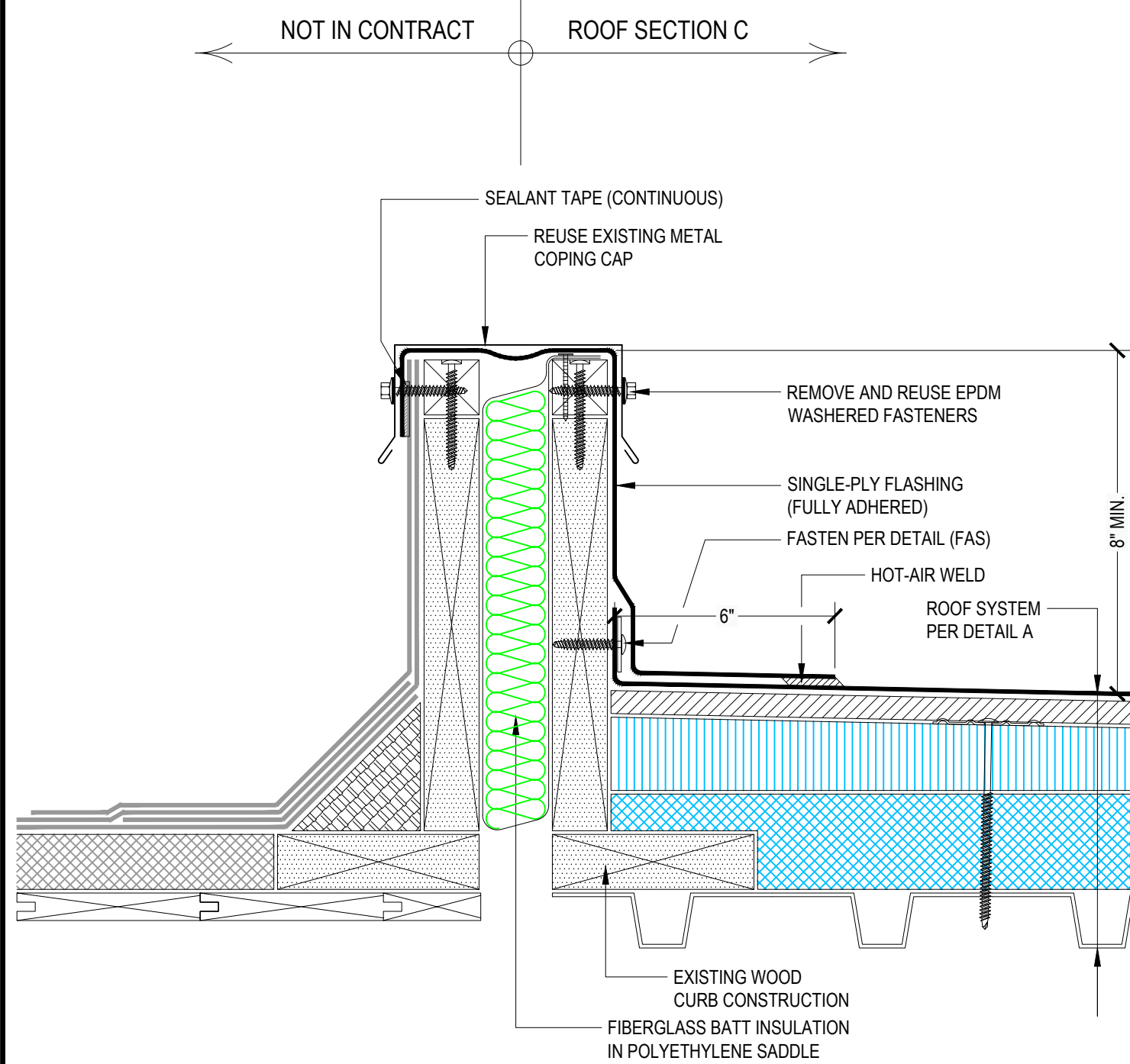
2 **CLOSED FACE DOWNSPOUT DETAIL**  
NO SCALE 23LSSLESUR10B003



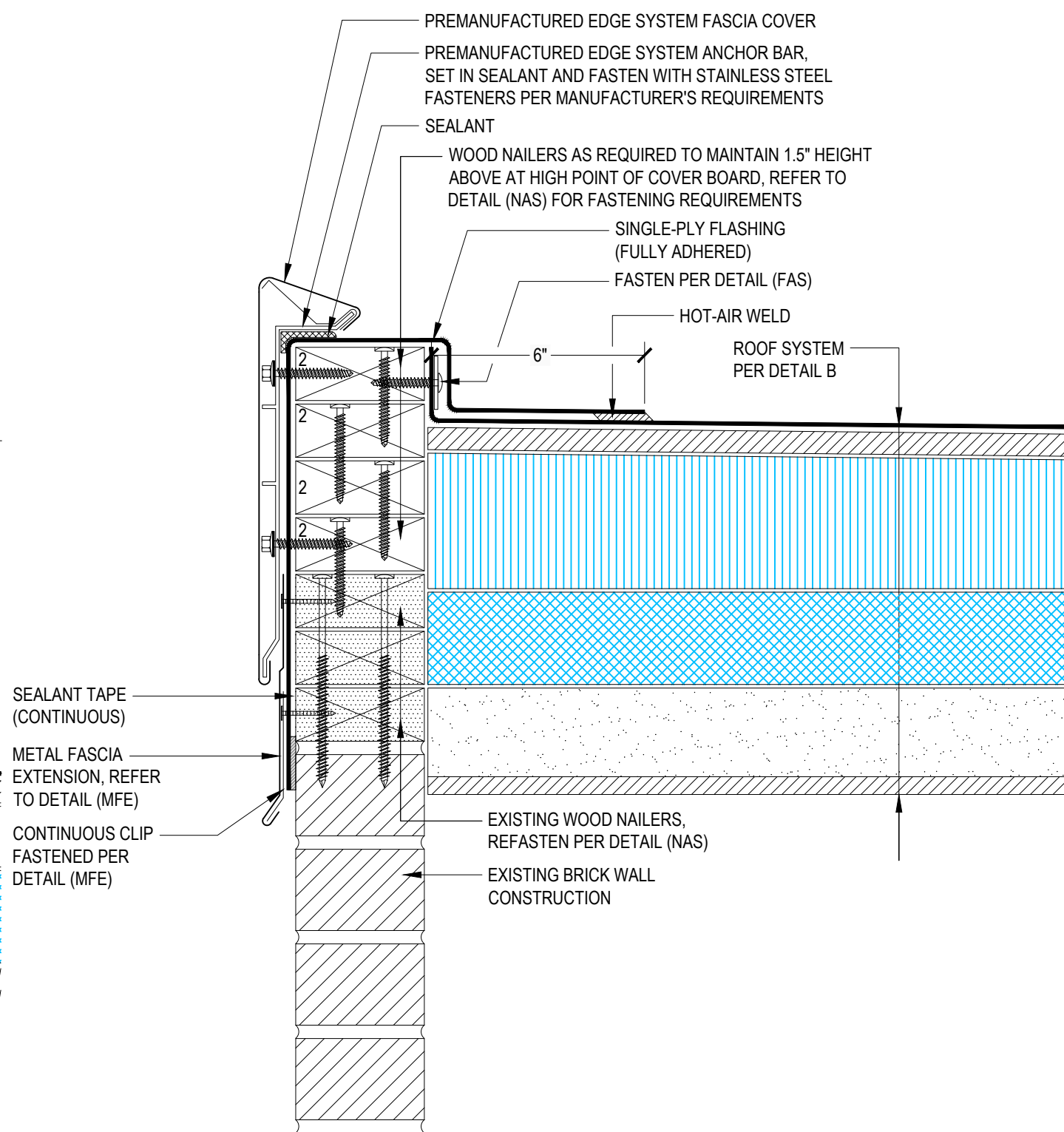
3 **GUTTER EDGE DETAIL**  
NO SCALE 23LSSLESUR10B003 (SECTION C)



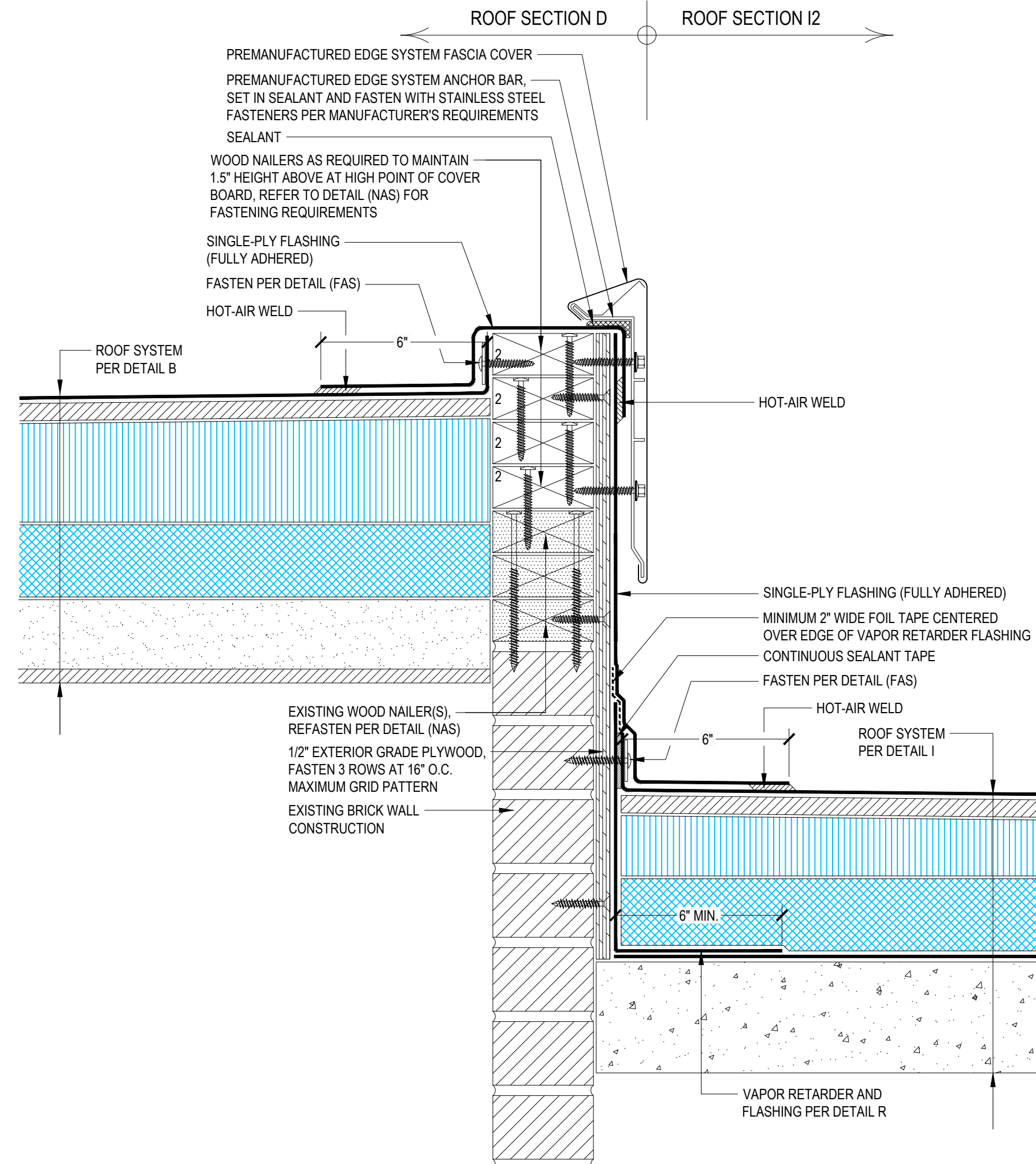
4 **ROOF TRANSITION DETAIL**  
NO SCALE 23LSSLESUR10B003 (SECTIONS C & D)



5 **INTERIOR WALL DETAIL**  
NO SCALE 23LSSLESUR10B003 (SECTION C)



6 **EDGE METAL DETAIL**  
NO SCALE 23LSSLESUR10B003 (SECTION D)



7 **ROOF TRANSITION DETAIL**  
NO SCALE 23LSSLESUR10B003 (SECTIONS D & 12)



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

PROJECT: **LEE'S SUMMIT HIGH SCHOOL (BUILDING A)**  
400 SE BLUE PARKWAY  
LEE'S SUMMIT, MO 64063

DRAWING TITLE:

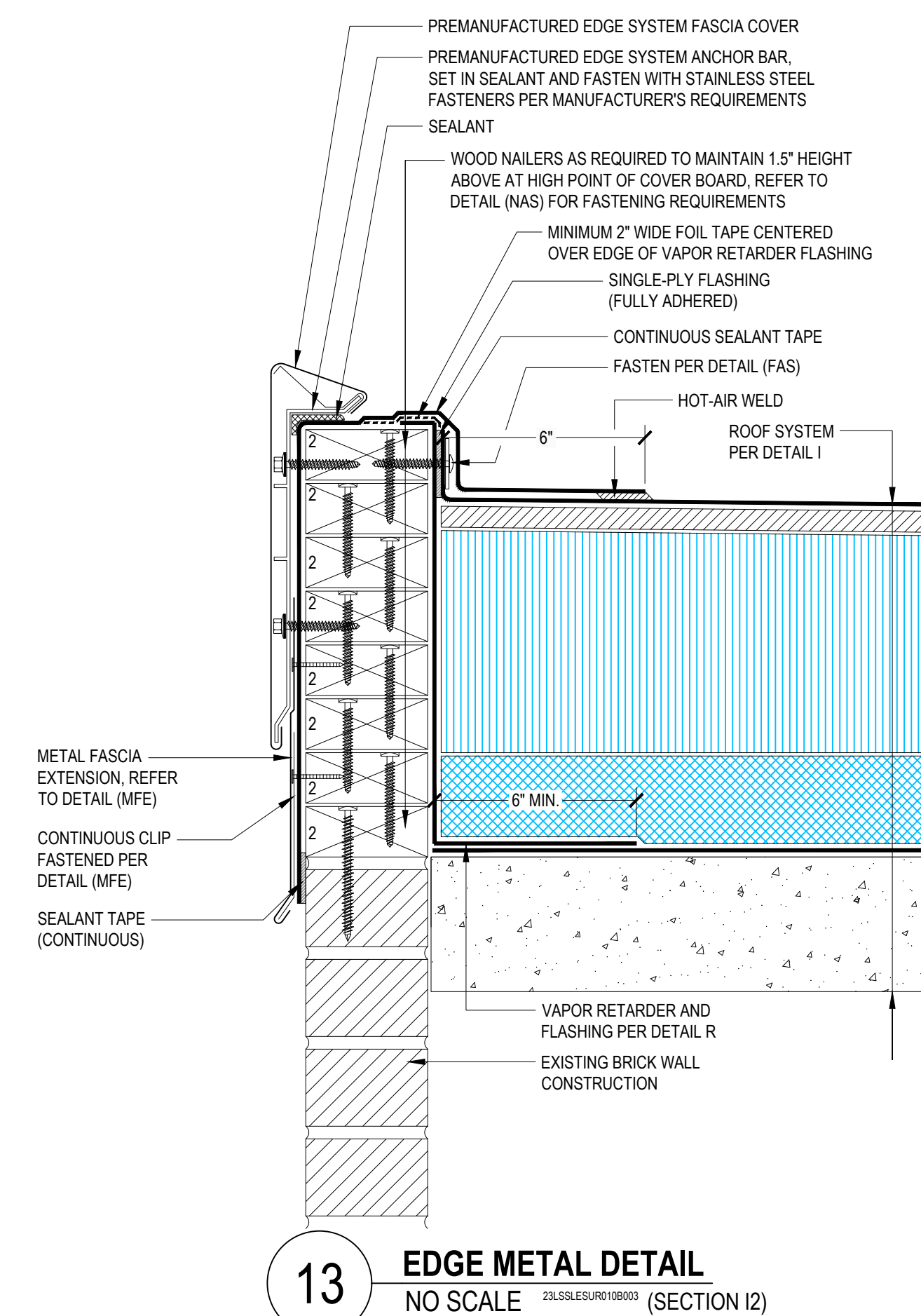
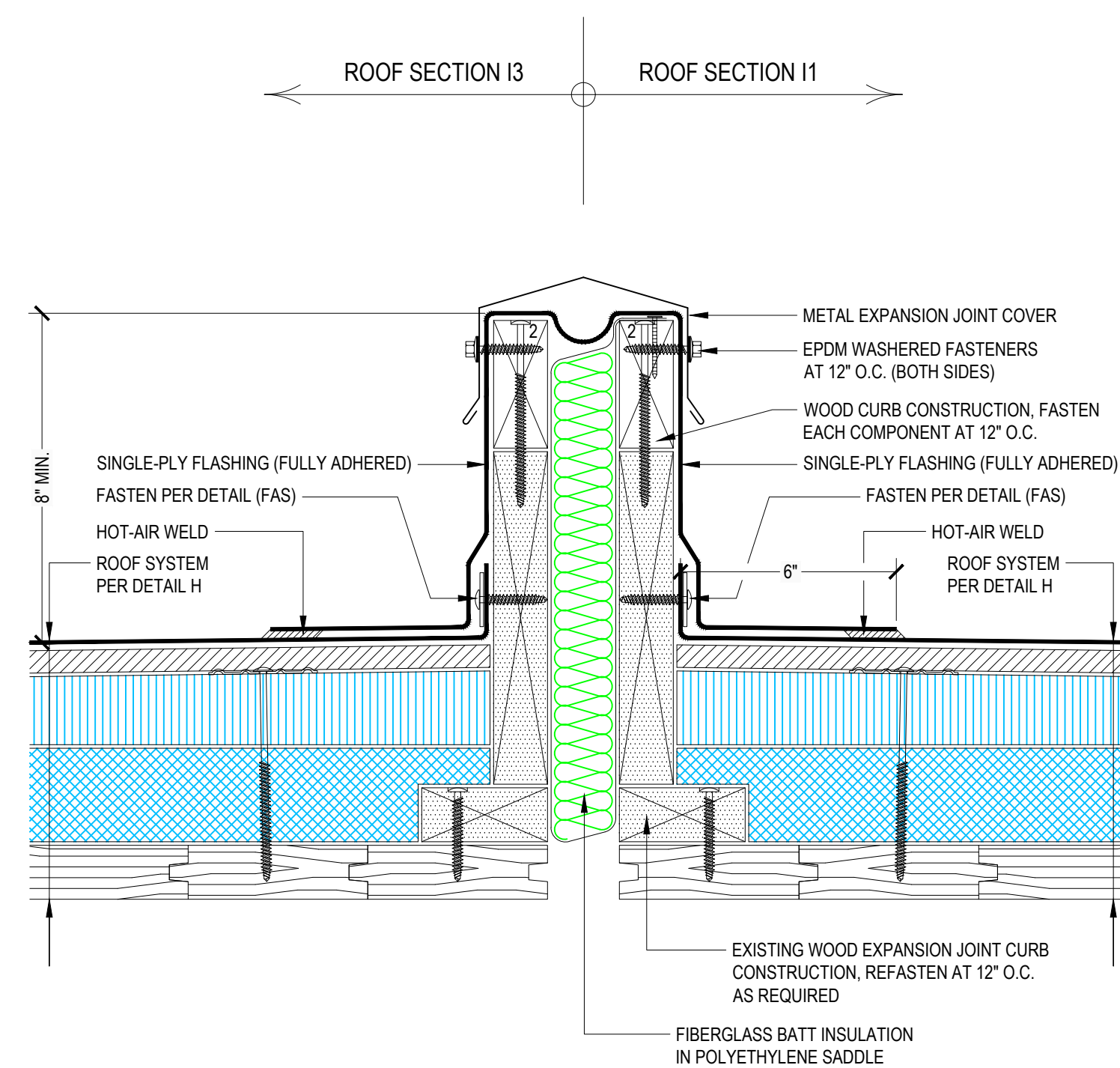
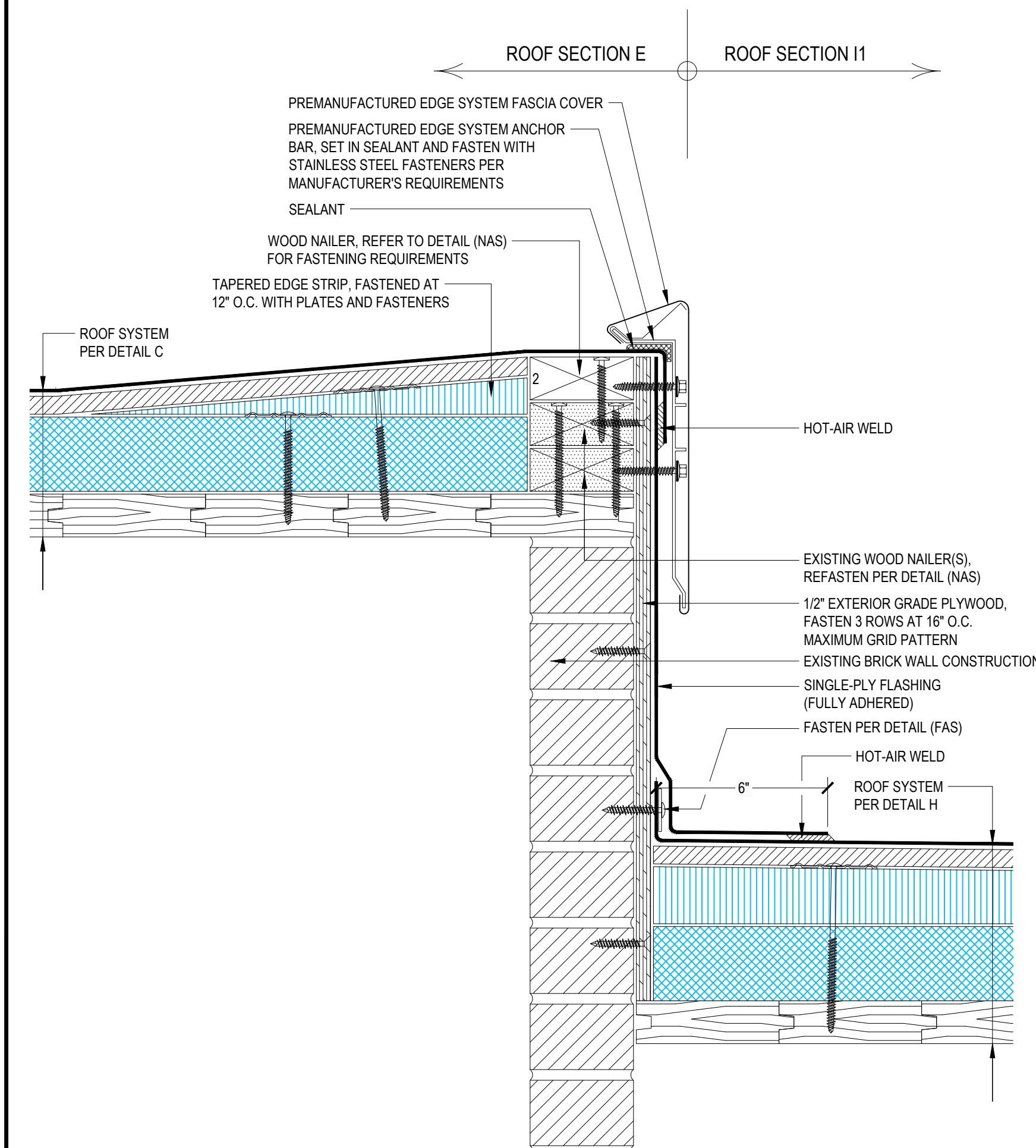
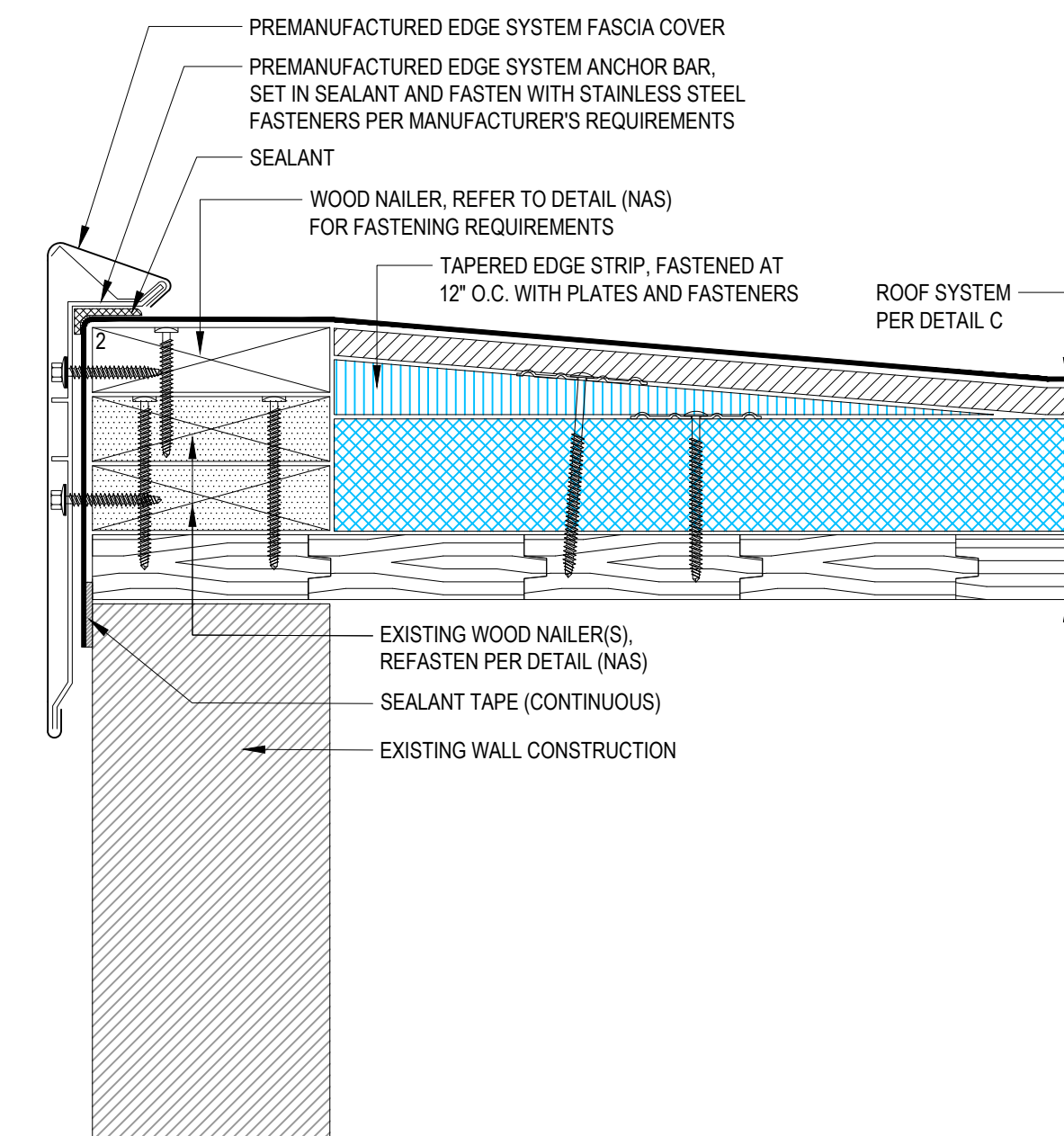
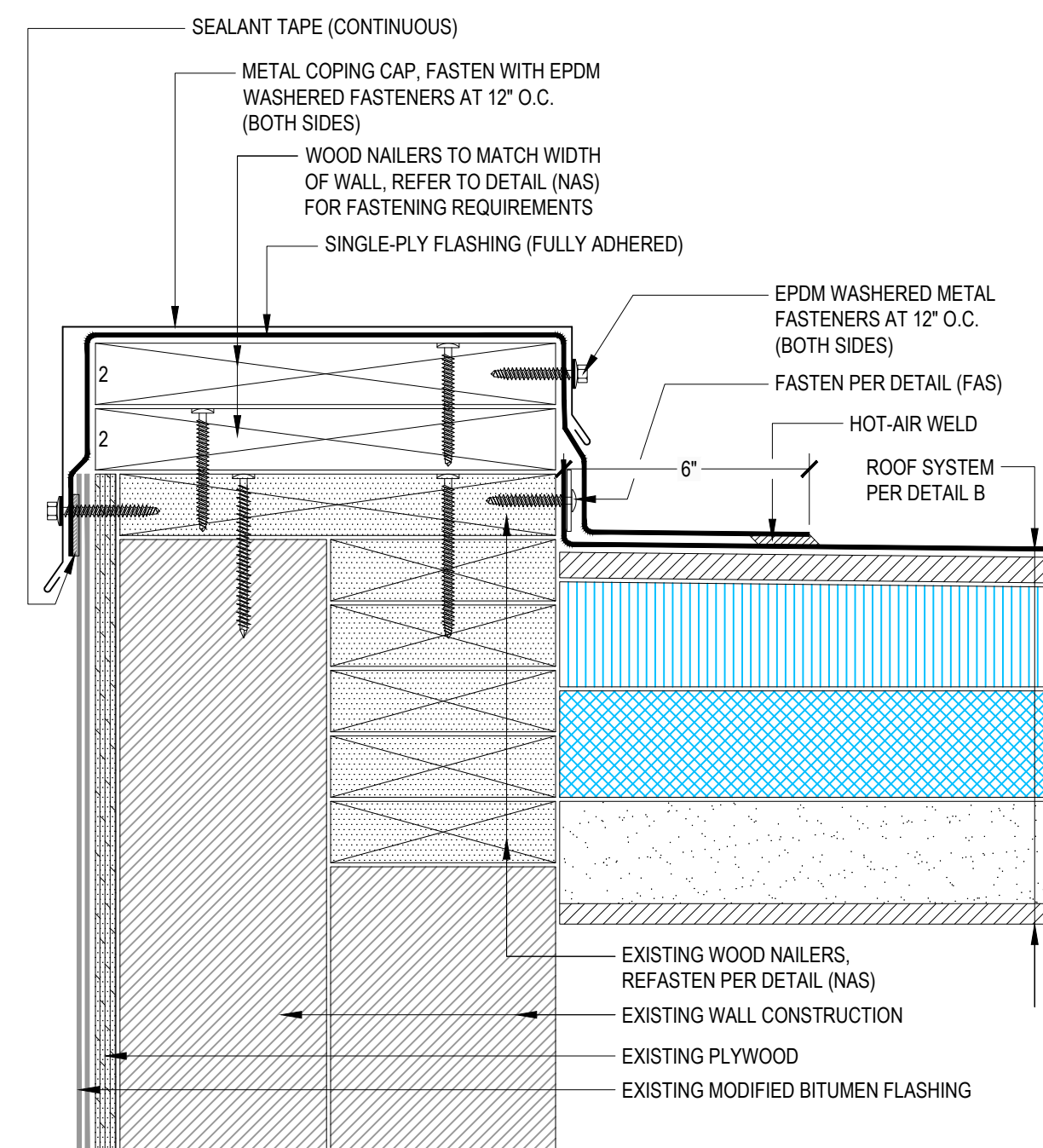
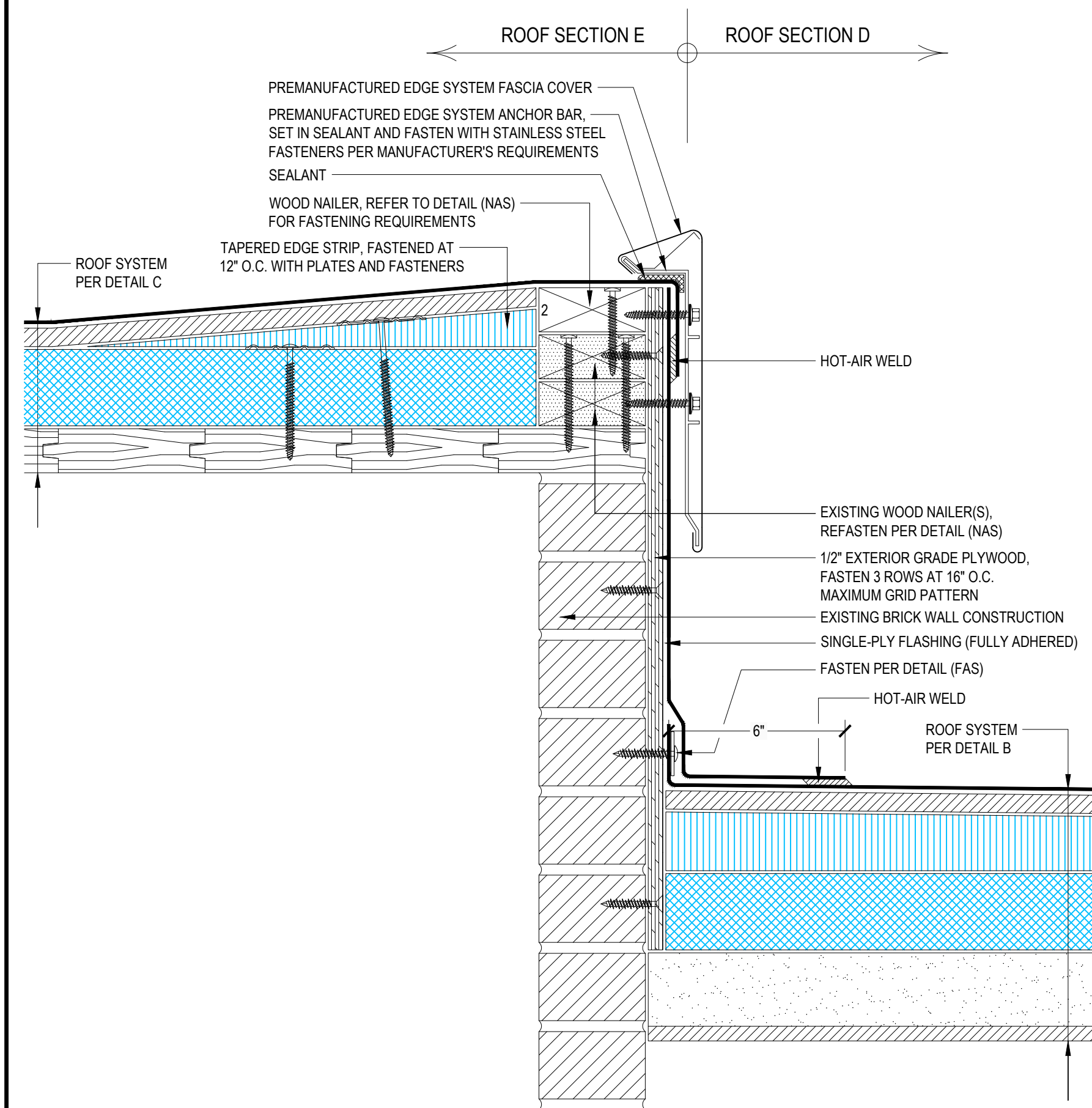
**DETAILS**

BENCHMARK PROJECT NO.: **23LSSLESUR10B**  
SHEET NUMBER:

**R2.07**

ORIGINAL SHEET SIZE: 36 x 24





DRAWING RECORD			
REV. NO.	DESCRIPTION	DATE	BY
NA	BID SET	02/06/24	THUH

DATE	02/06/24
DRAWN BY:	T. HATLAND
PROJECT MANAGER	J. HACKMAN
CHECKED BY	T. BOSTON
DRAWN BY	L. STEIN
CHECKED BY	
SENDR	
BEING DRAWN	
DRAWING NO.	23LSSLESUPR0106003.dwg



**LEE'S SUMMIT R-7 SCHOOL DISTRICT**

PROJECT: LEE'S SUMMIT HIGH SCHOOL (BUILDING A)  
400 SE BLUE PARKWAY  
LEE'S SUMMIT, MO 64063

DRAWING TITLE:  
**DETAILS**

BENCHMARK PROJECT NO.

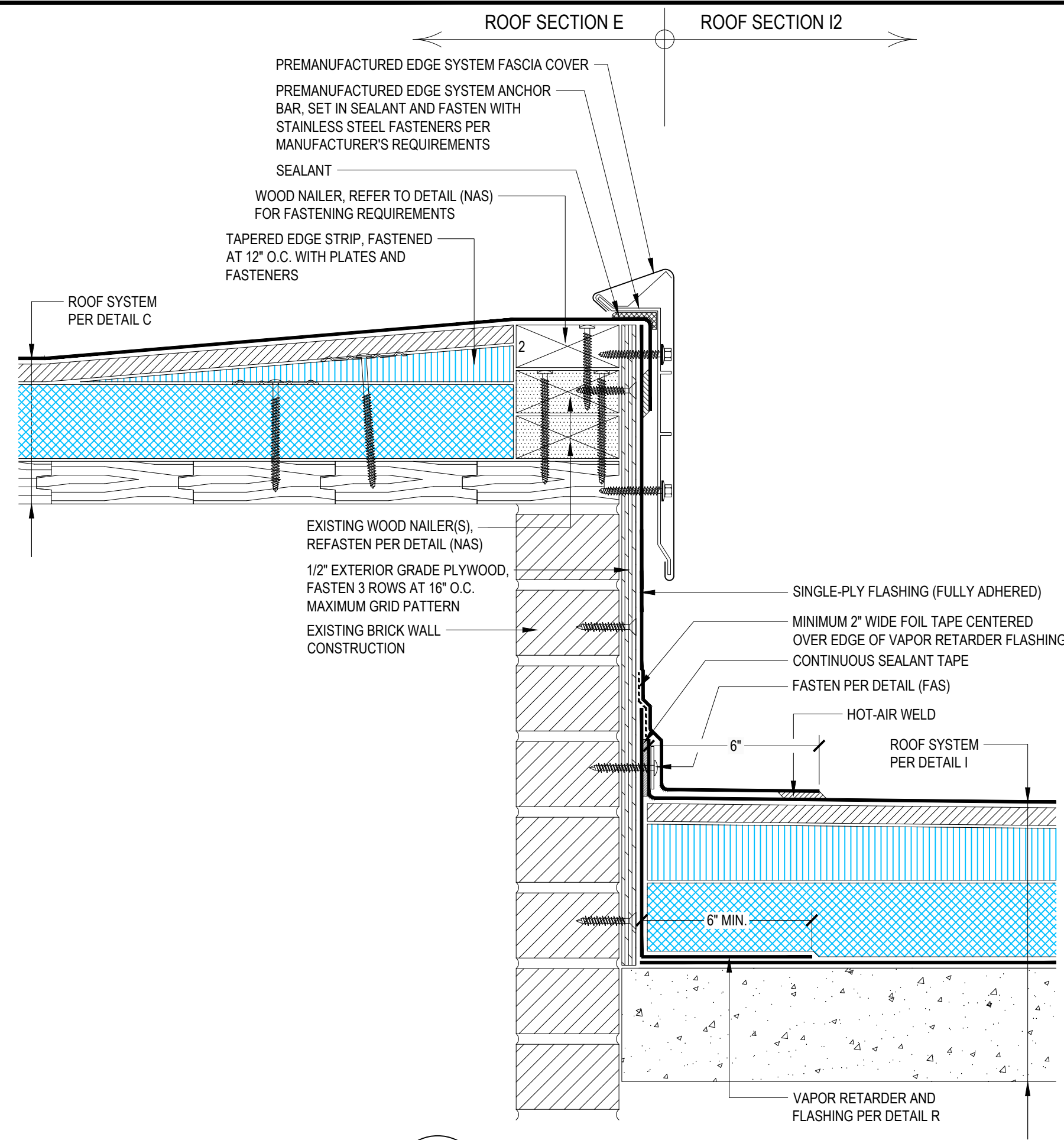
SHEET NUMBER:

R2.08

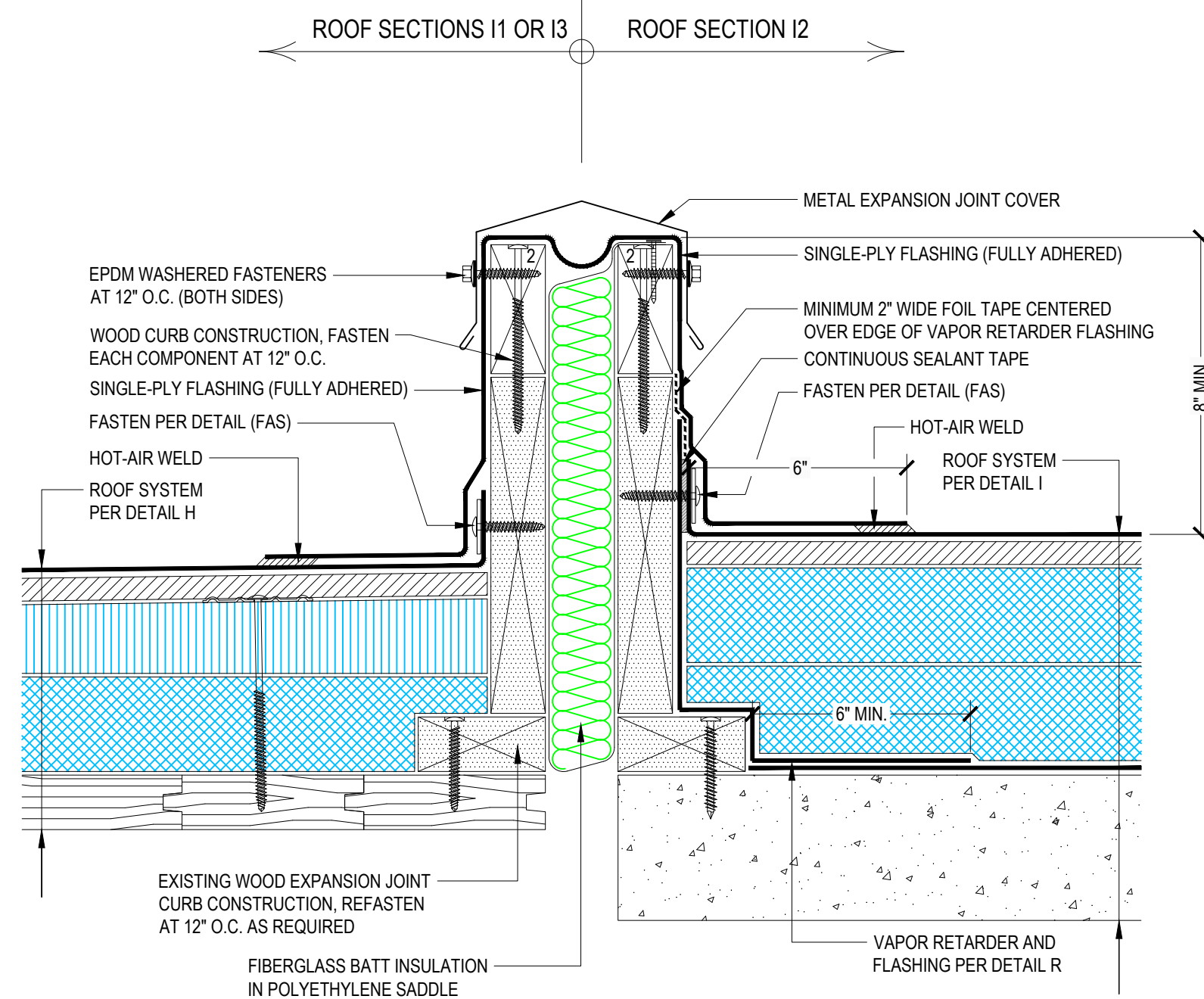
ORIGINAL SHEET SIZE: 36 x 24



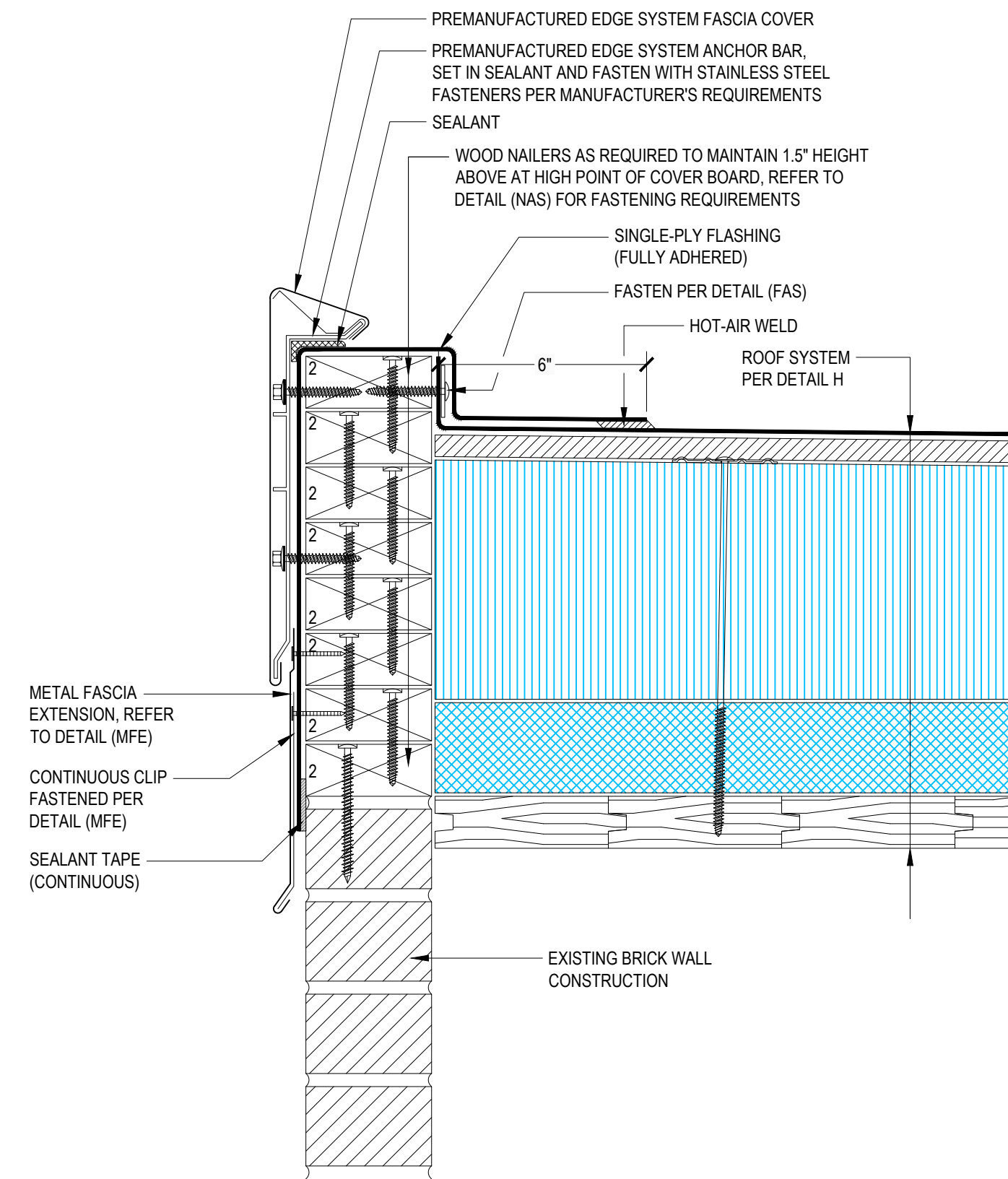
File: J:\lee's summit r-7 school district\23LSSESUR010B003.dwg Time: Feb 16, 2024 - 5:41 pm



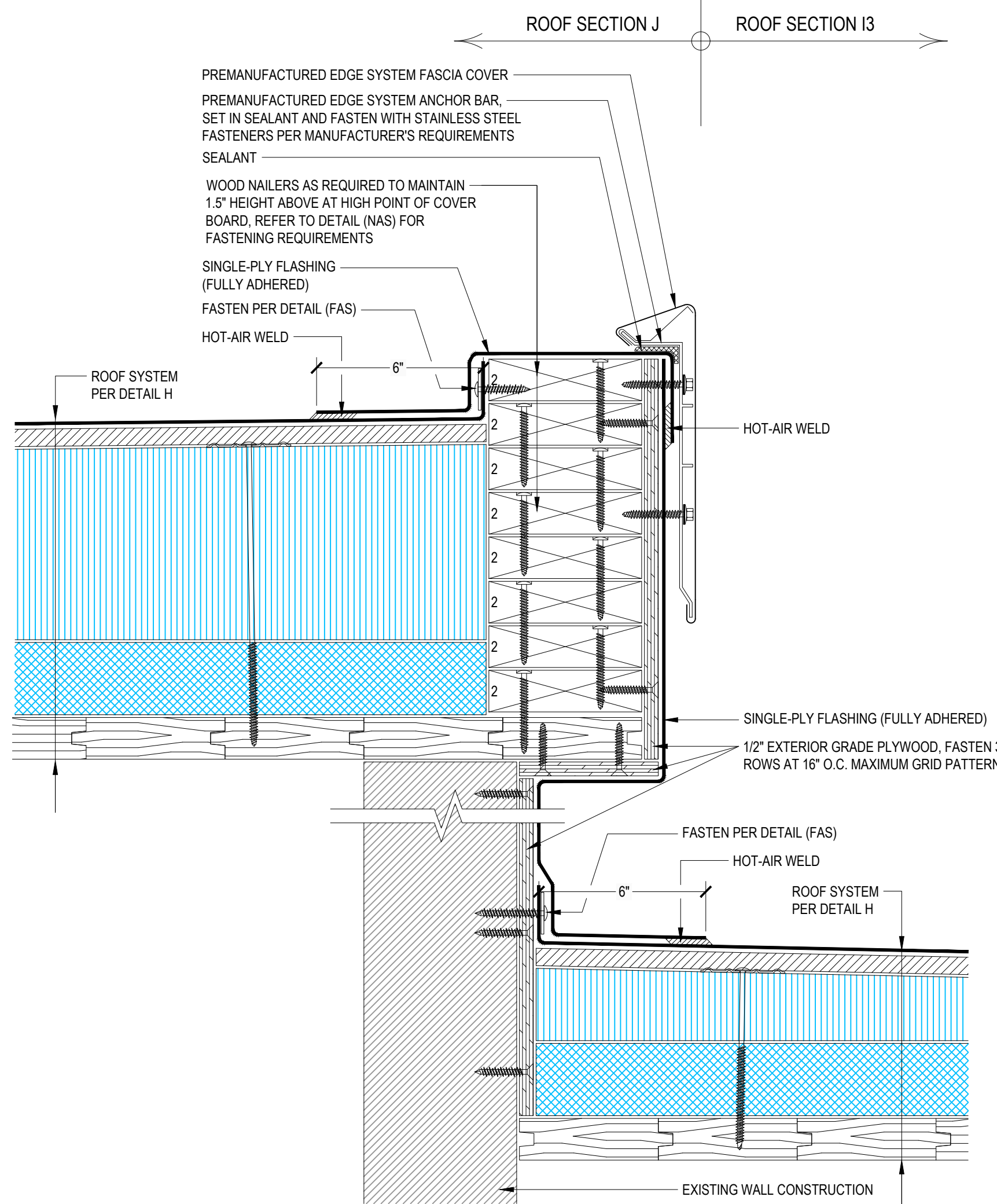
**14 ROOF TRANSITION DETAIL**  
NO SCALE 23LSSESUR010B003 (SECTIONS E & I2)



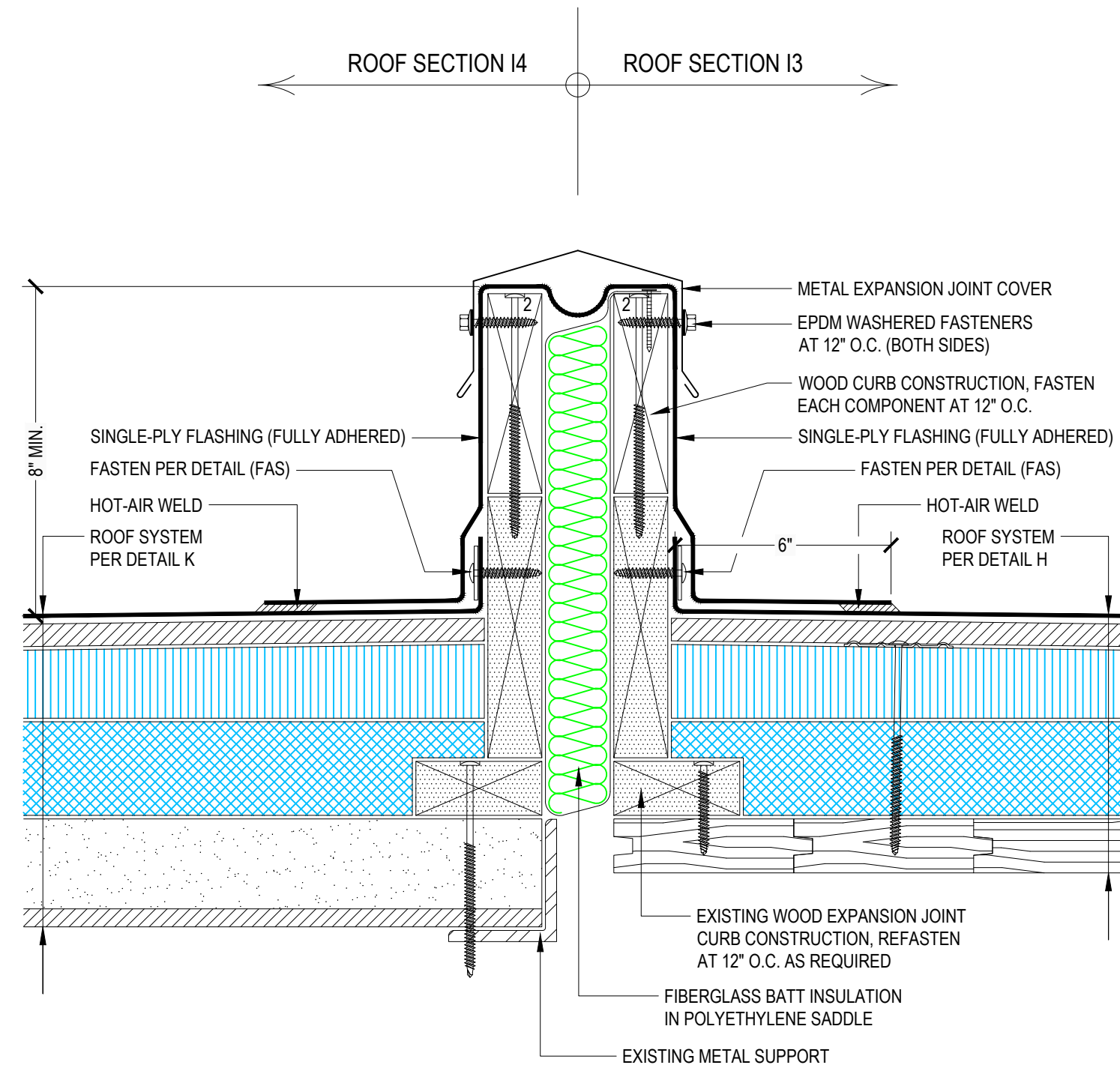
**15 EXPANSION JOINT DETAIL**  
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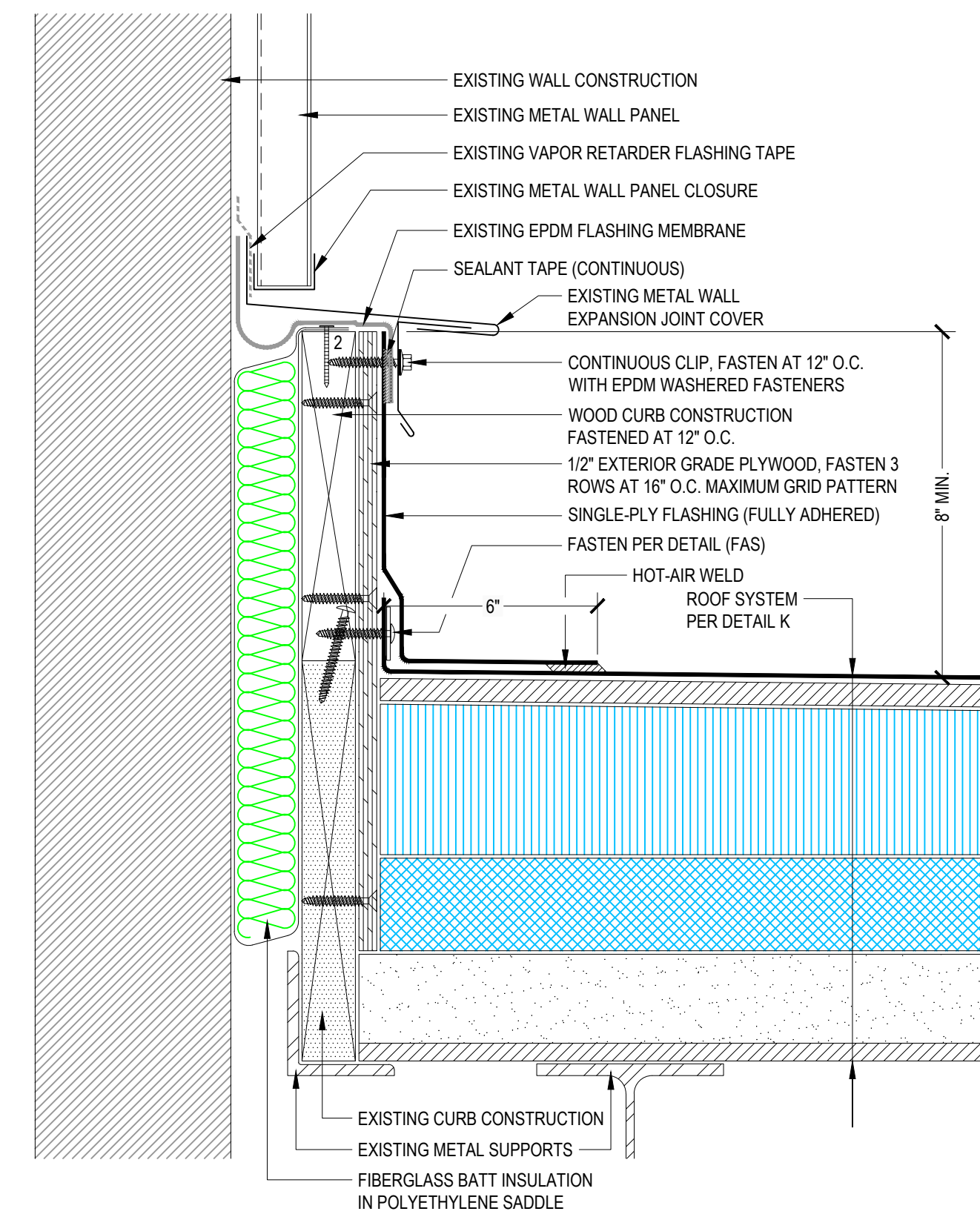
**16 EDGE METAL DETAIL**  
NO SCALE 23LSSESUR010B003 (SECTIONS I3 & J)



**17 ROOF TRANSITION DETAIL**  
NO SCALE 23LSSESUR010B003 (SECTIONS I3 & J)



**18 EXPANSION JOINT DETAIL**  
NO SCALE 23LSSESUR010B003 (SECTIONS I3 & I4)



**19 WALL EXPANSION JOINT DETAIL**  
NO SCALE 23LSSESUR010B003 (SECTION I4)



CEDAR RAPIDS, IA • WAUKESHA, WI  
PH: 563.393.3100  
WWW.BENCHMARK-INC.COM

**CLIENT:** LEE'S SUMMIT R-7 SCHOOL DISTRICT  
**PROJECT:** LEE'S SUMMIT HIGH SCHOOL (BUILDING A)  
400 SE BLUE PARKWAY  
LEE'S SUMMIT, MO 64063

**BENCHMARK PROJECT NO.:** 23LSSESUR010B  
**SHEET NUMBER:** R2.09

**DRAWING TITLE:** DETAILS


DRAWING RECORD			
REV. NO.	DESCRIPTION	DATE	BY
NA	BID SET	02/06/24	THJH

DATE	02/06/24
DRAWN BY	T. HARTLAND
CHECKED	J. HICKMAN
APPROVED	T. BOSTON
SCALE	AS SHOWN
DESIGNED BY	L. STEIN
DATE	02/06/24

ORIGINAL SHEET SIZE: 36 x 24

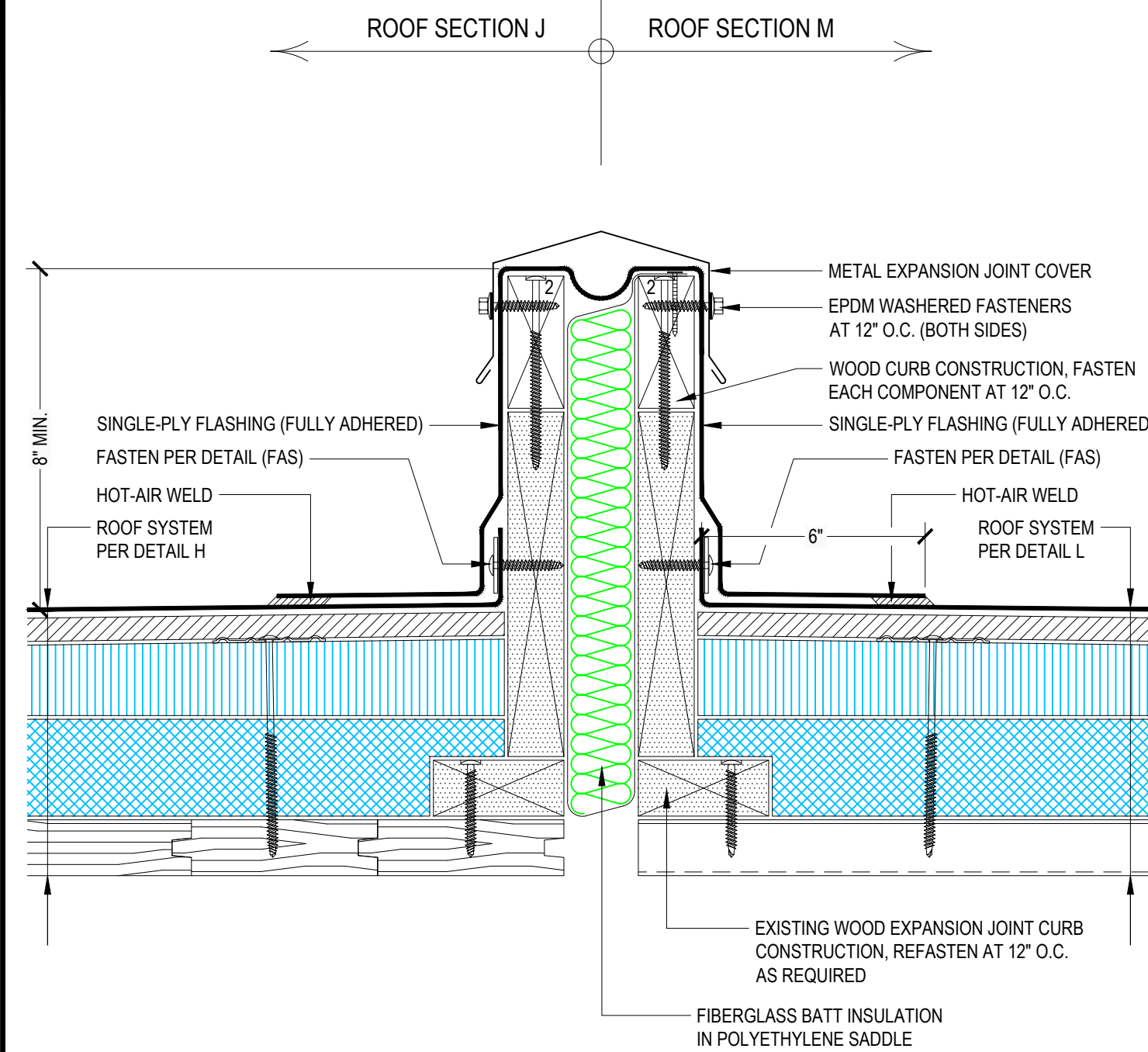




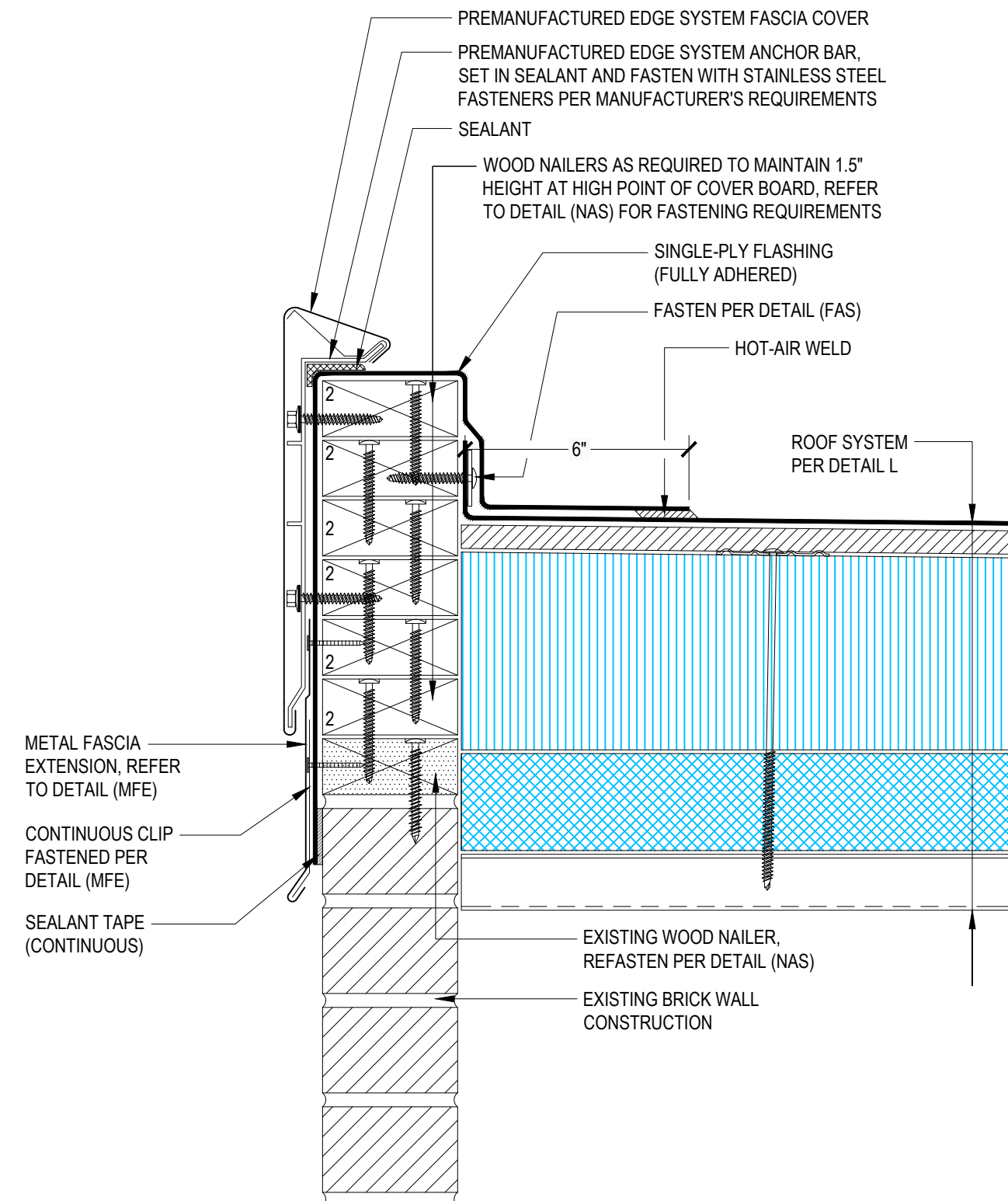
 CEDAR RAPIDS, IA • WALKESHA, WI Phone: 319.393.9100 www.benchmarkinc.com	CLIENT:	<b>LEE'S SUMMIT R-7 SCHOOL DISTRICT</b>
	PROJECT:	
BENCHMARK PROJECT NO.:		LEE'S SUMMIT HIGH SCHOOL (BUILDING A) 400 SE BLUE PARKWAY LEE'S SUMMIT, MO 64063
23LSLSLESUR010B		
SHEET NUMBER:		
R2.10		DRAWING TITLE: DETAIL S



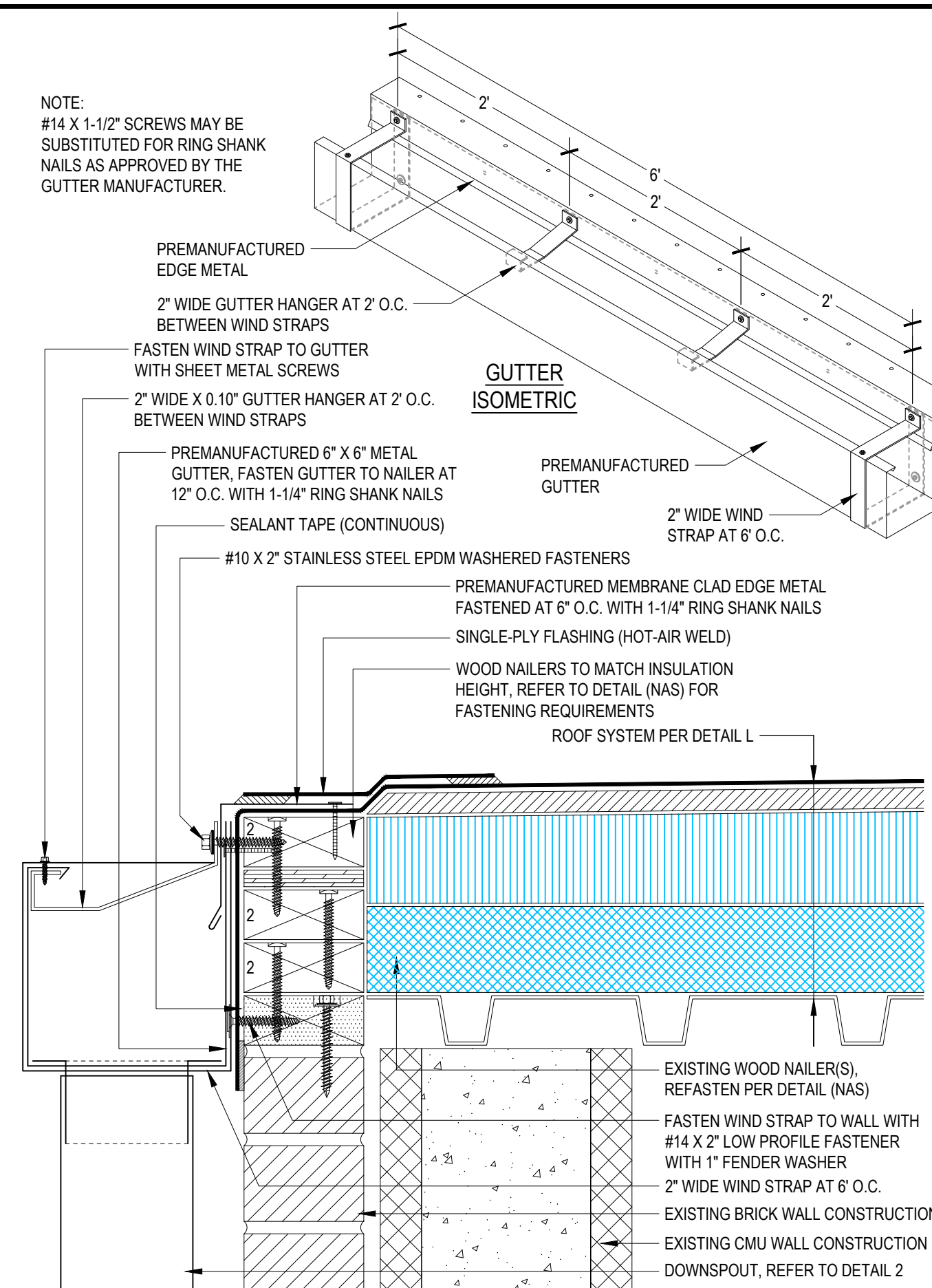
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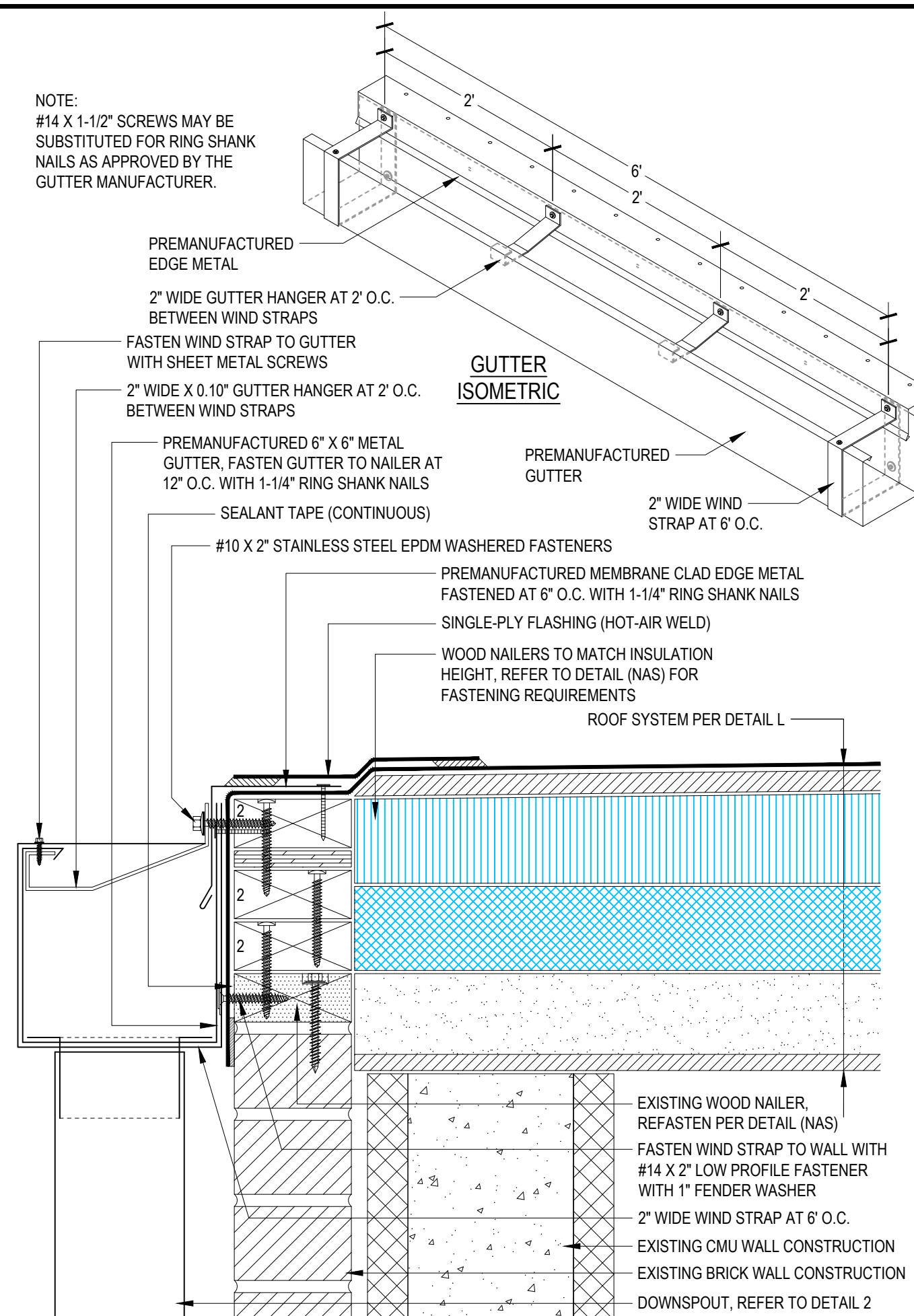
26 EXPANSION JOINT DETAIL  
NO SCALE 23LSSLESUR010B003 (SECTIONS J & M)



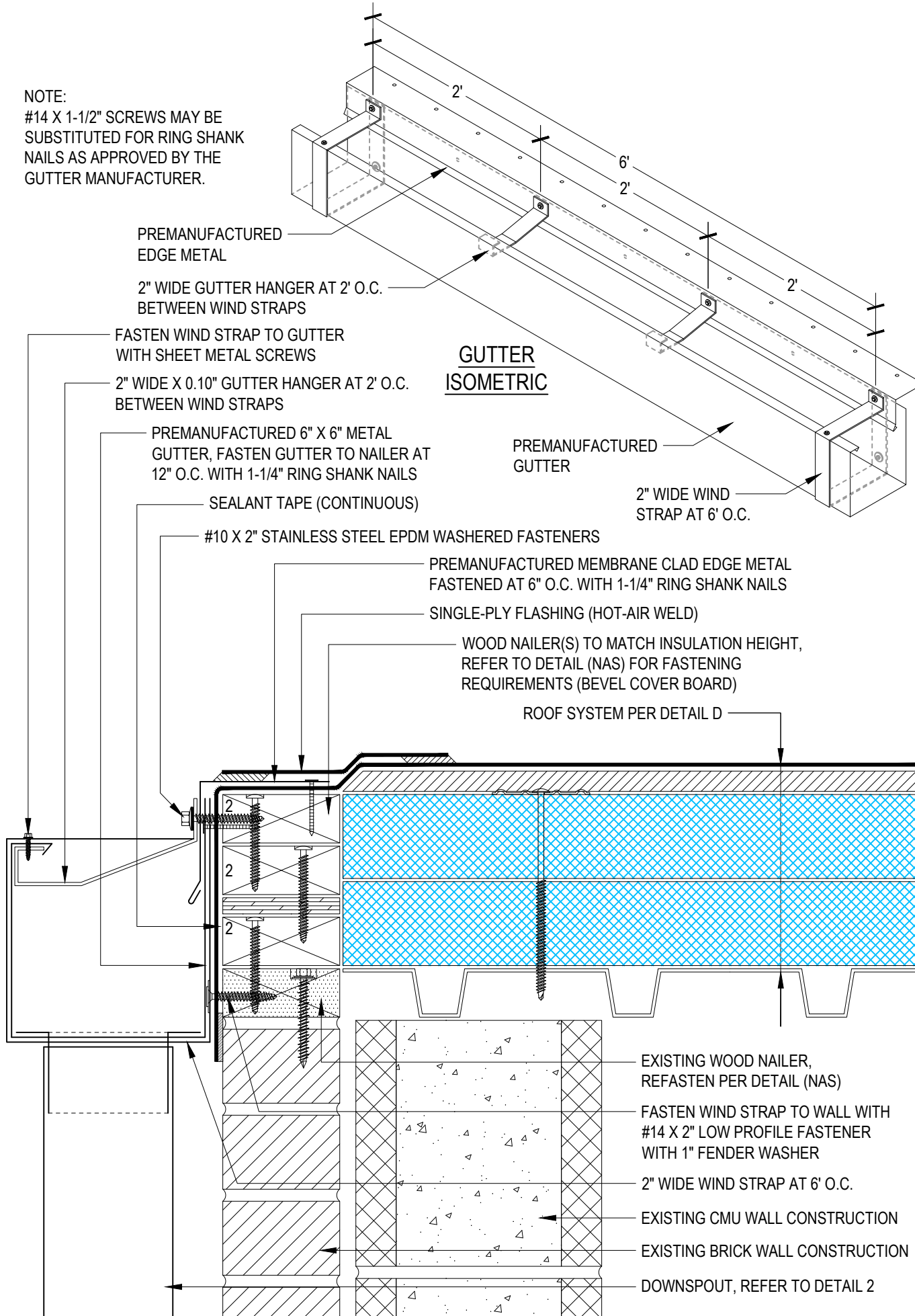
27 EDGE METAL DETAIL  
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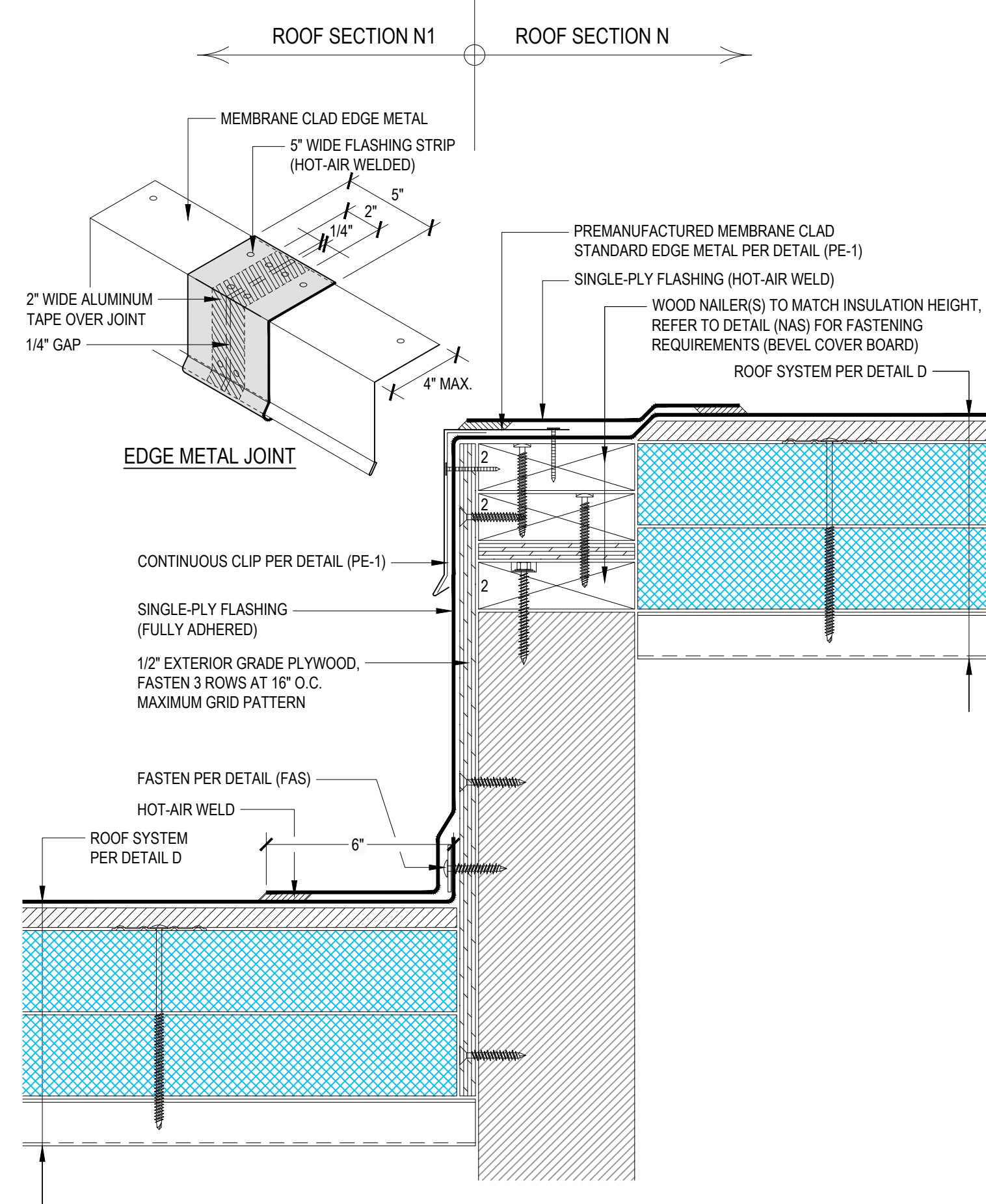
28 GUTTER EDGE DETAIL  
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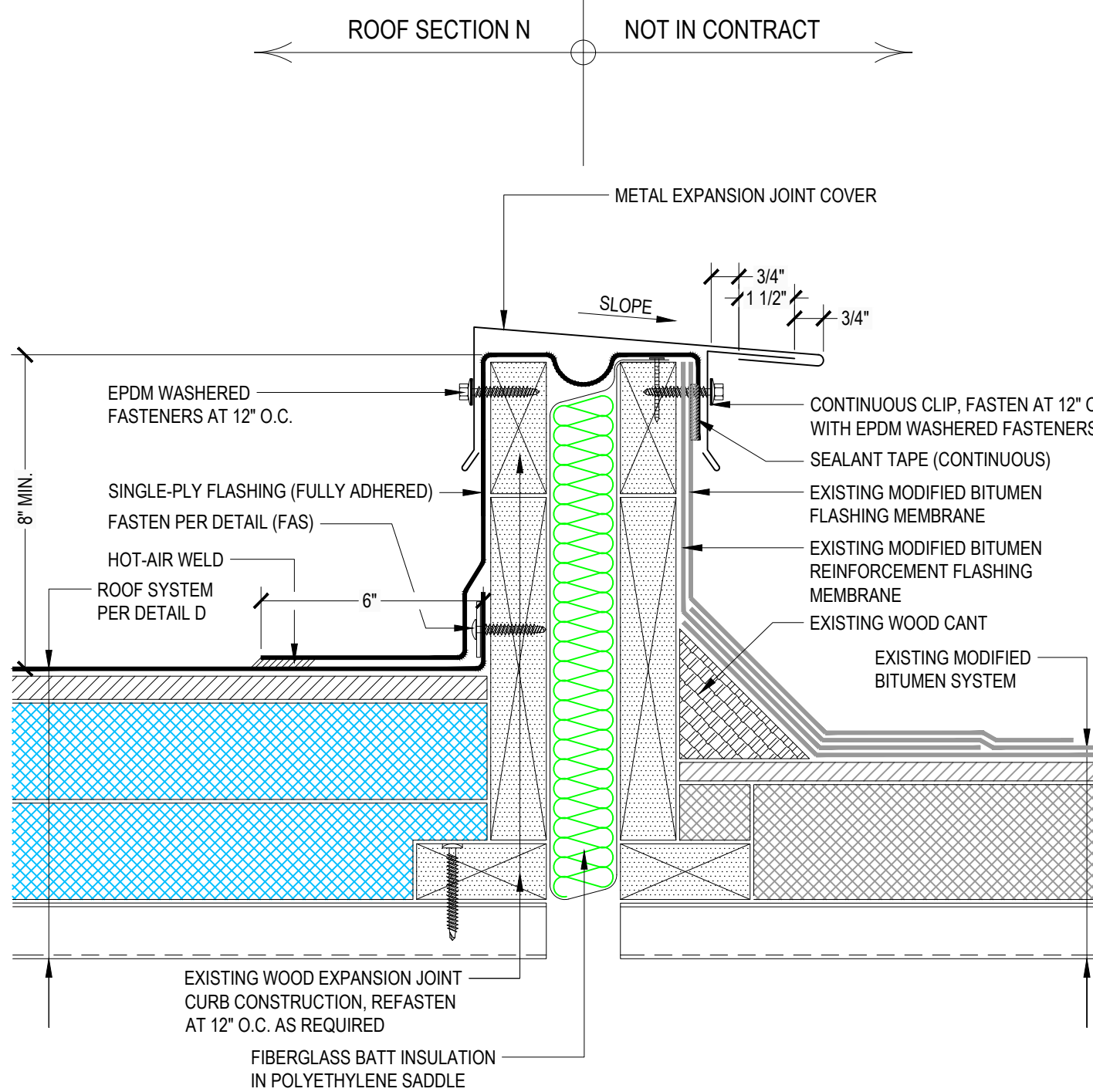
29 GUTTER EDGE DETAIL  
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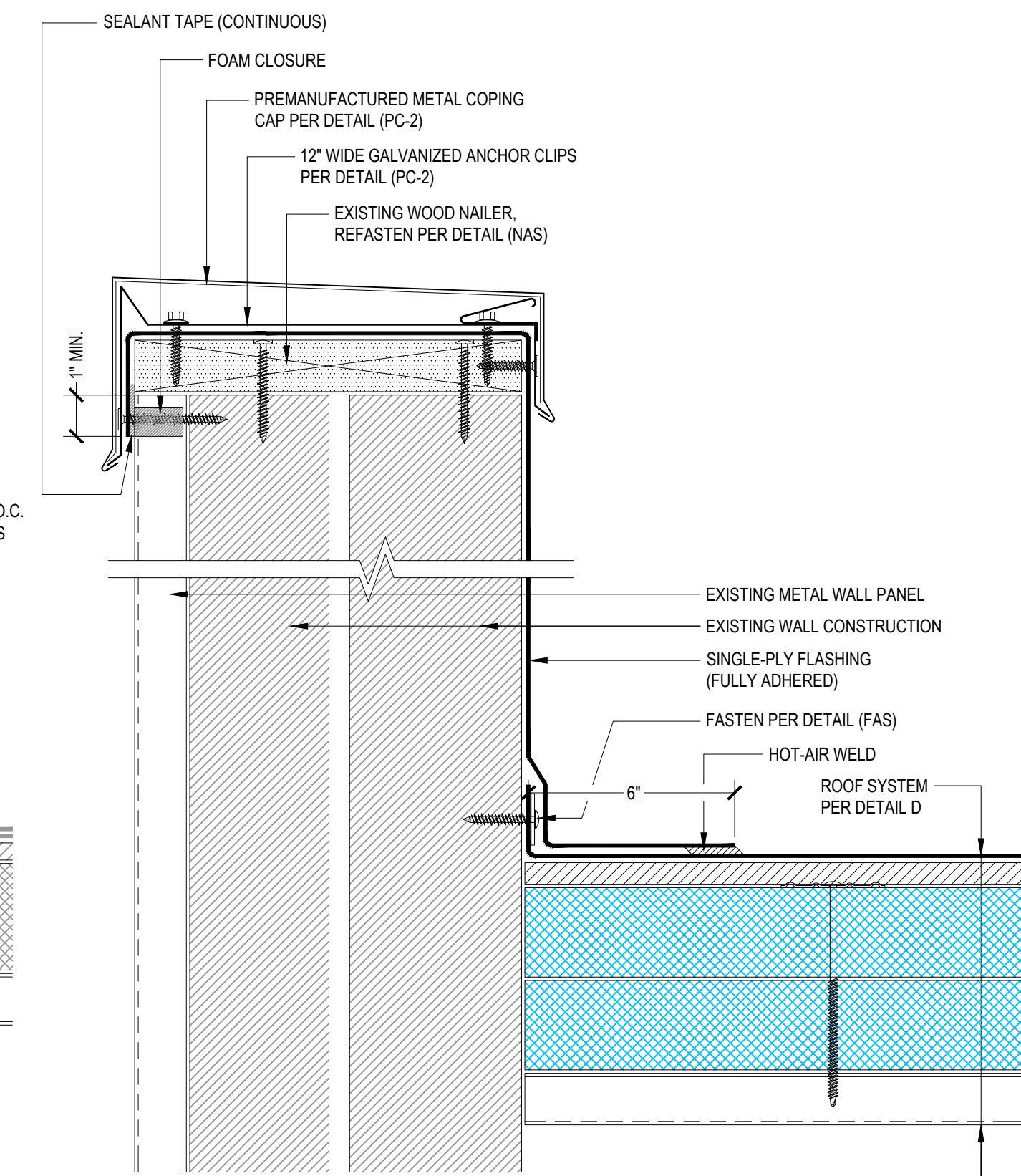
30 GUTTER EDGE DETAIL  
NO SCALE 23LSSLESUR010B003 (SECTIONS G, N, & N1)



31 TRANSITION DETAIL  
NO SCALE 23LSSLESUR010B003 (SECTIONS N & N1)



32 EXPANSION JOINT DETAIL  
NO SCALE 23LSSLESUR010B003 (SECTION N)



33 PARAPET WALL DETAIL  
NO SCALE 23LSSLESUR010B003 (SECTIONS Q1 & Q)



CLIENT: LEE'S SUMMIT R-7 SCHOOL DISTRICT  
PROJECT: LEE'S SUMMIT HIGH SCHOOL (BUILDING A)  
400 SE BLUE PARKWAY  
LEE'S SUMMIT, MO 64063

DESIGNED BY: T. HARTLAND  
CHECKED BY: J. HICKMAN  
DATE: 02/06/24

PROJECT NO: 23LSSLESUR010B003.dwg

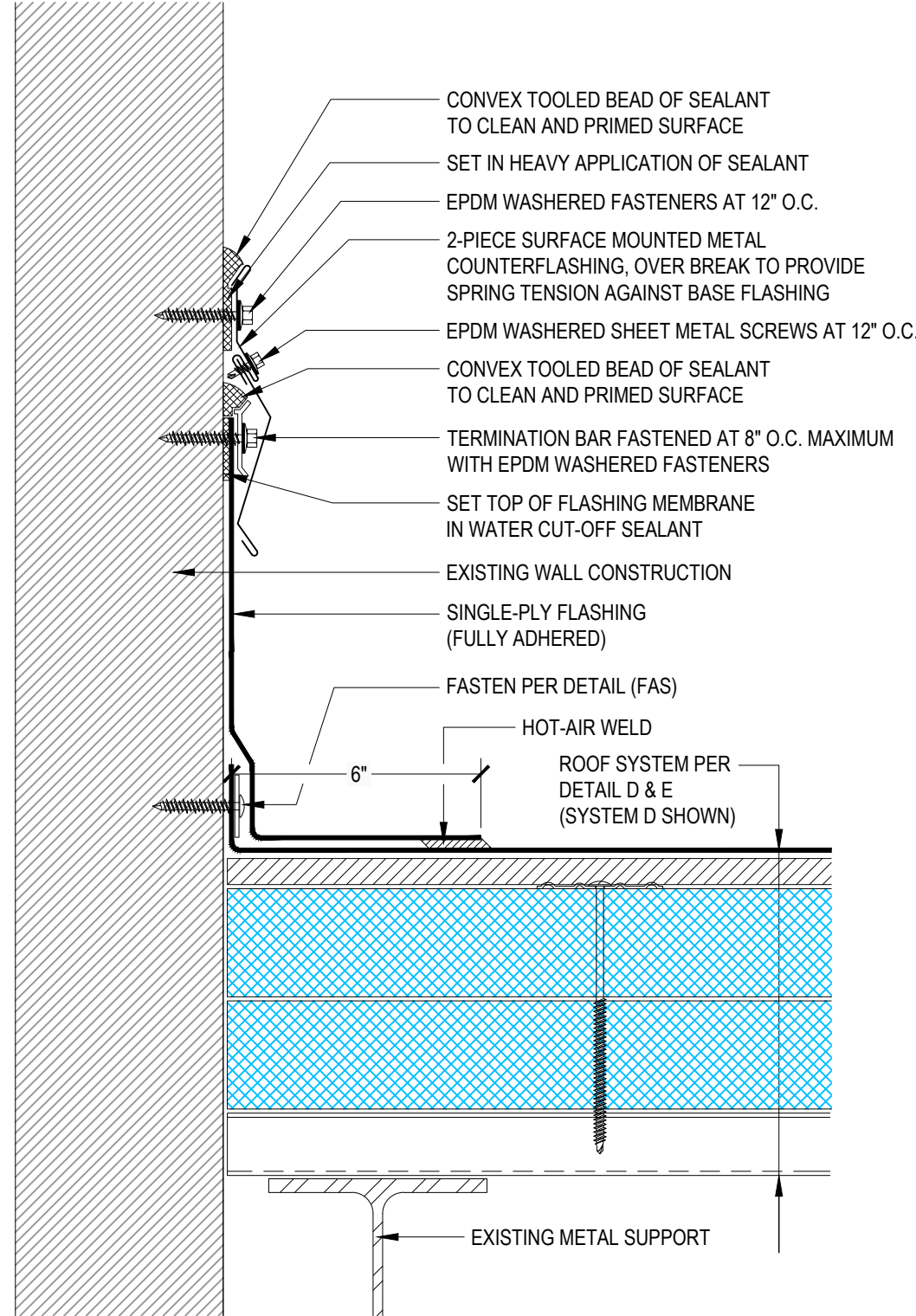
BENCHMARK PROJECT NO.: 23LSSLESUR010B  
SHEET NUMBER:

R2.11

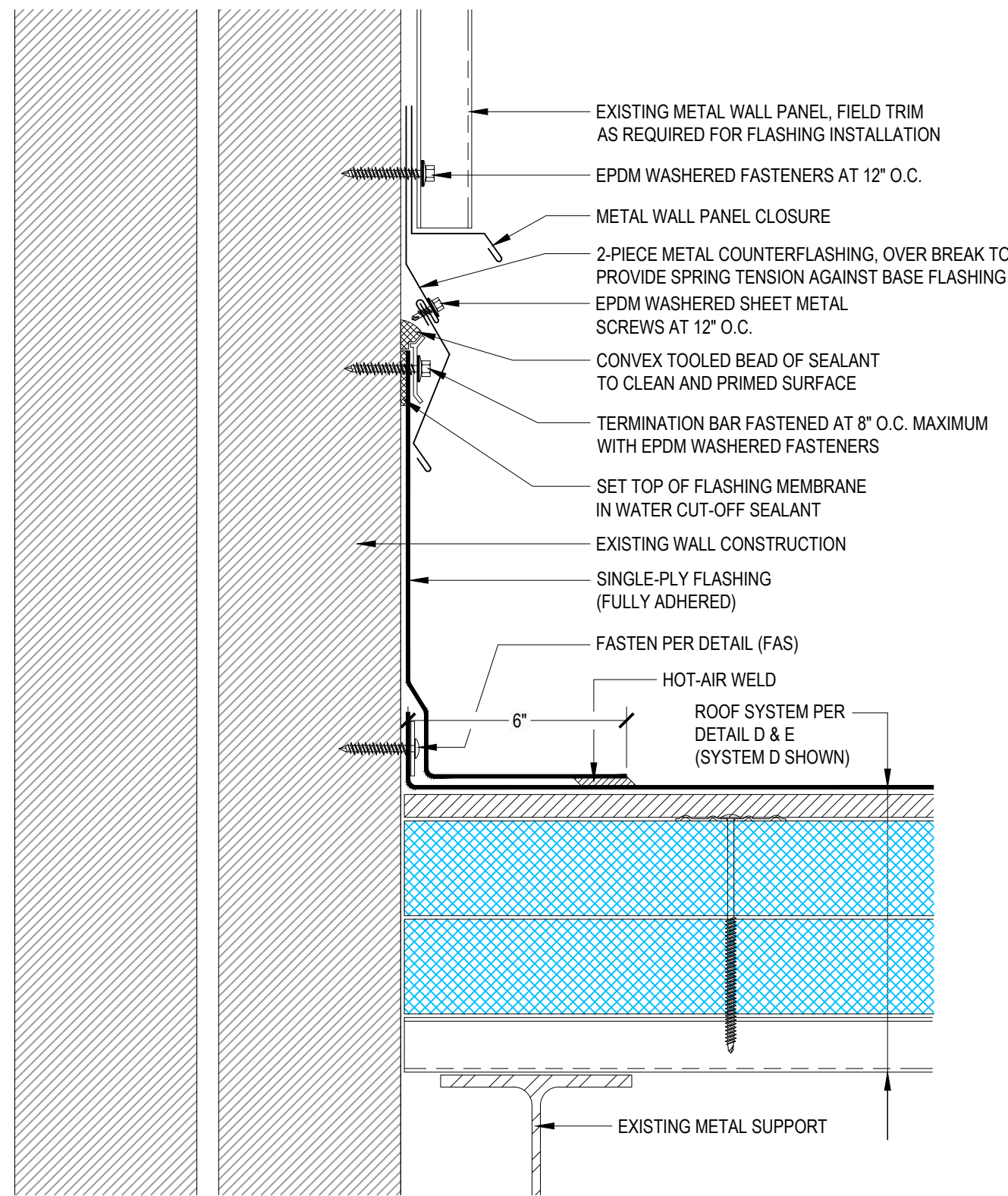
ORIGINAL SHEET SIZE: 36 x 24



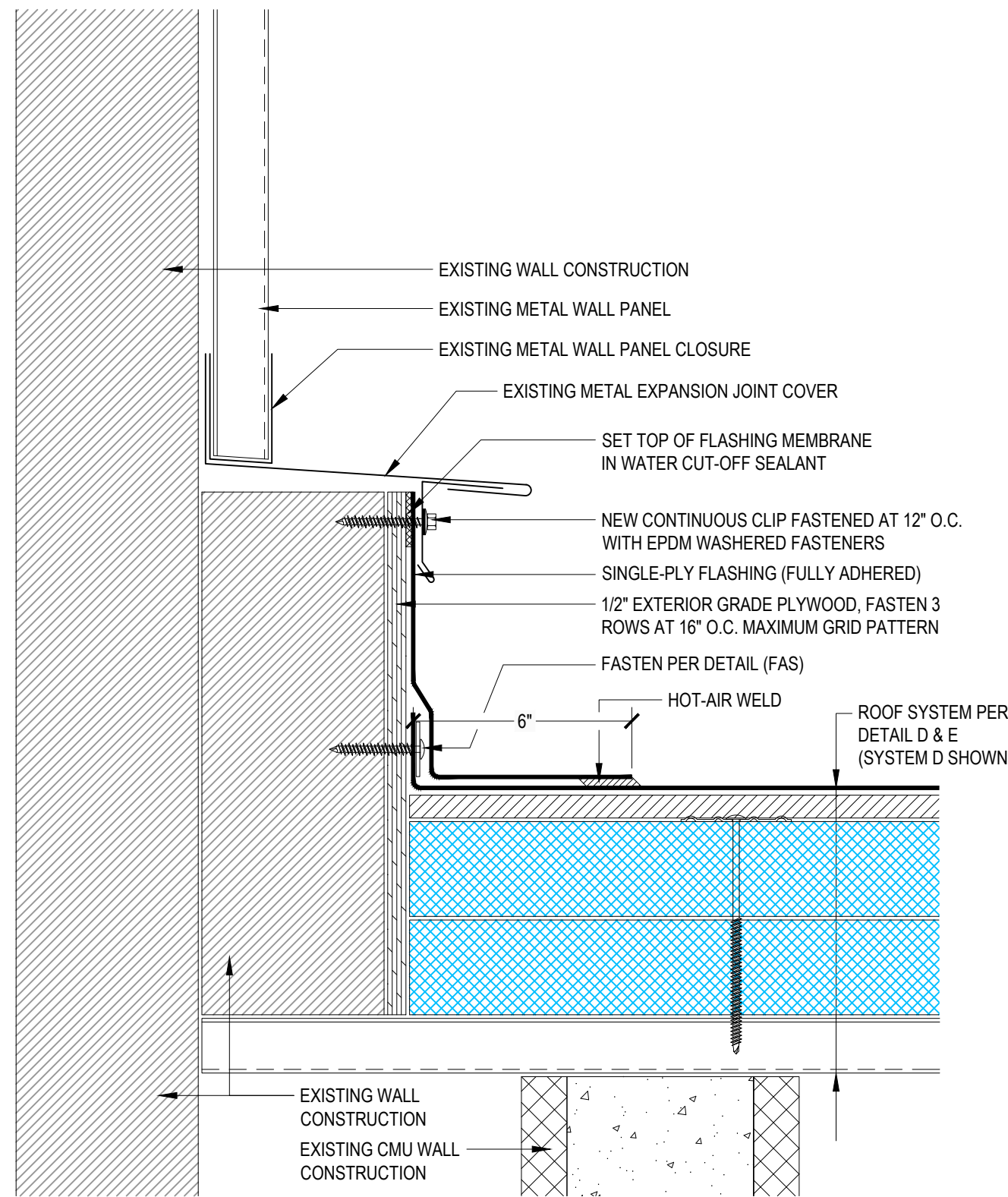
File: \\lee's summit-r7 school district\lee's summit-no. 23\sslsesur010b\23\sslsesur010b03.dwg Time: Feb 16, 2024 - 9:41 am



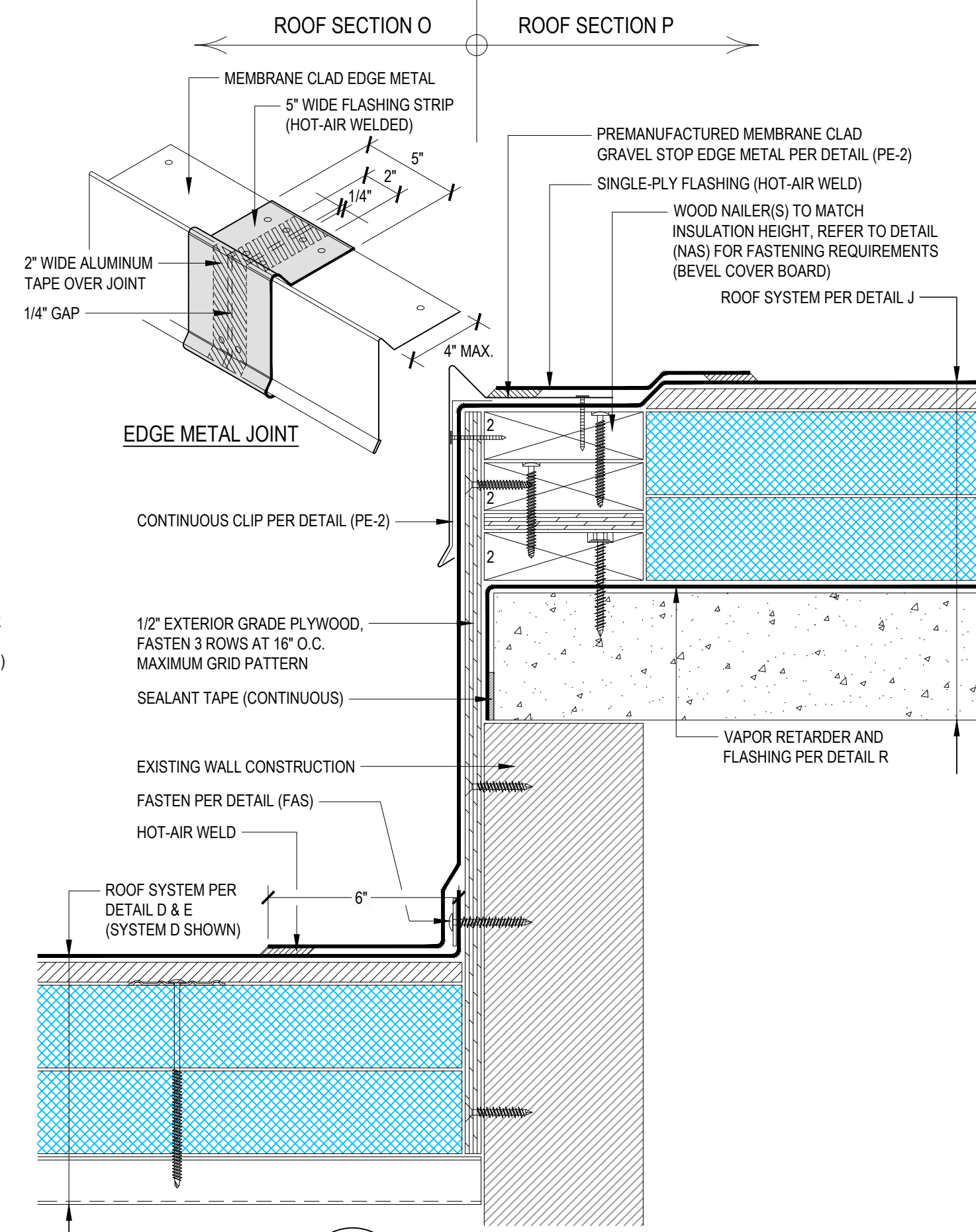
**34** **BASE FLASHING DETAIL**  
NO SCALE 23LSSLESUR010B03 (SECTIONS R, Q1, & O)



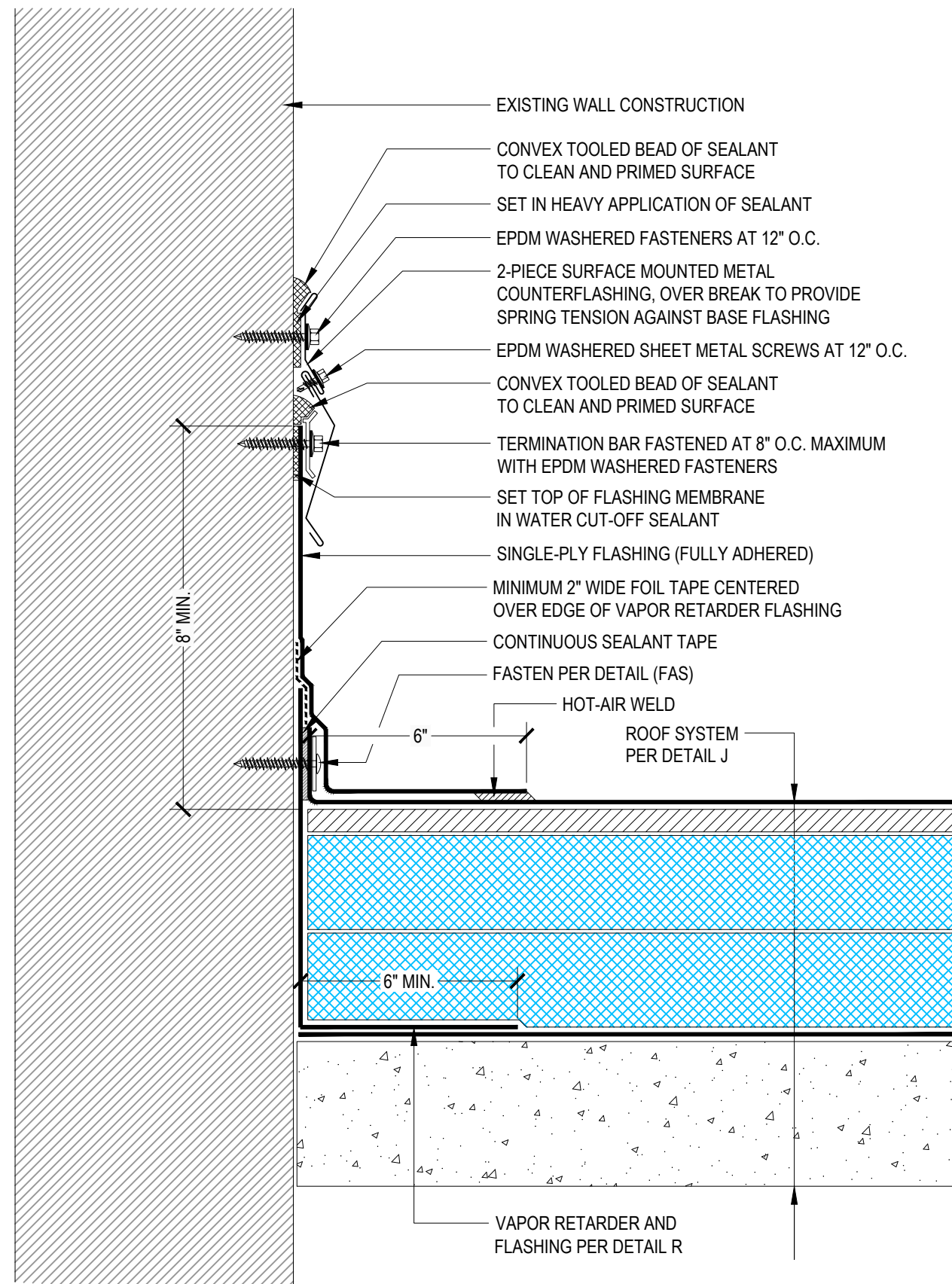
**35** **BASE FLASHING DETAIL**  
NO SCALE 23LSSLESUR010B03 (SECTIONS R, Q1, & O)



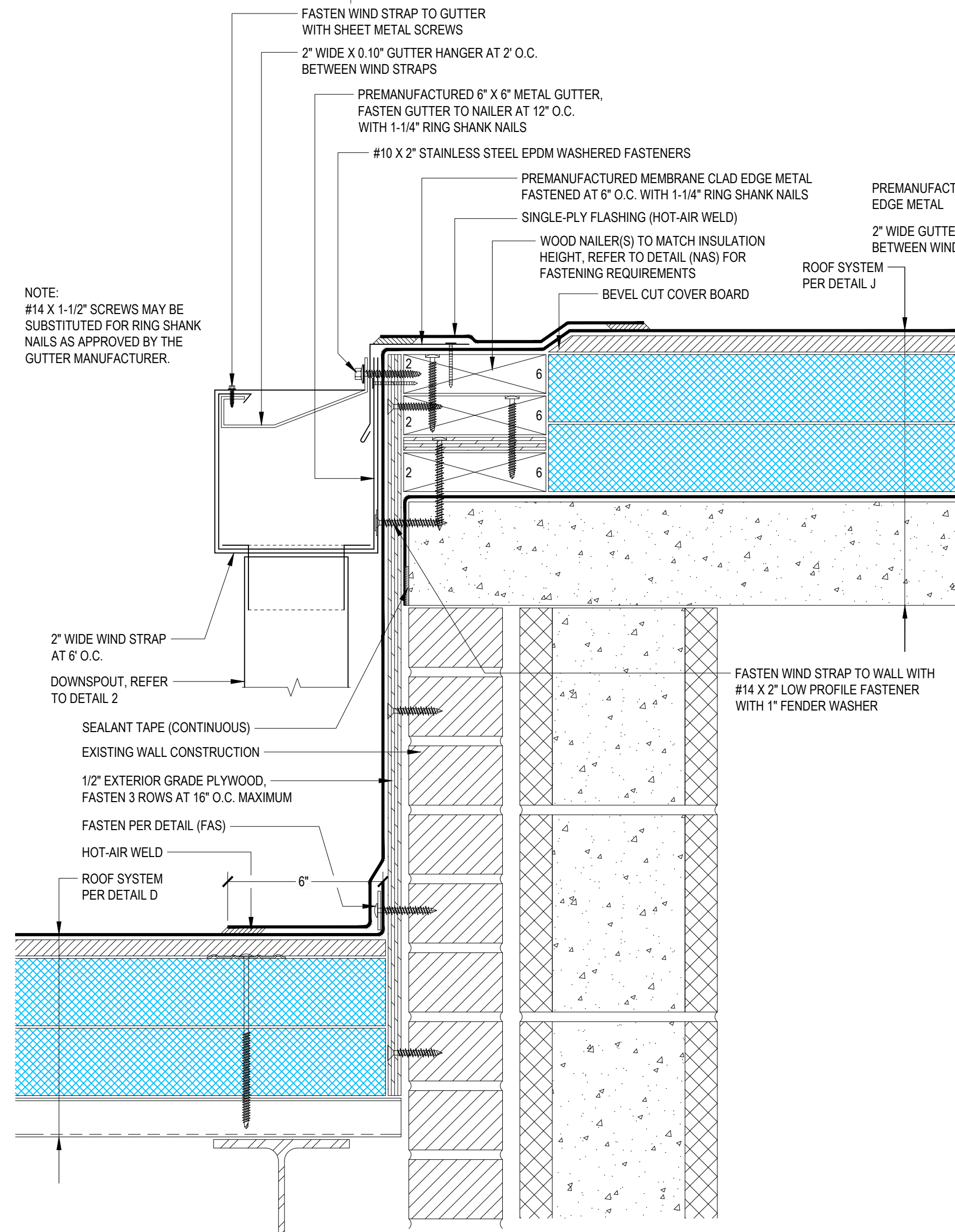
**36** **BASE FLASHING DETAIL**  
NO SCALE 23LSSLESUR010B03 (SECTION O)



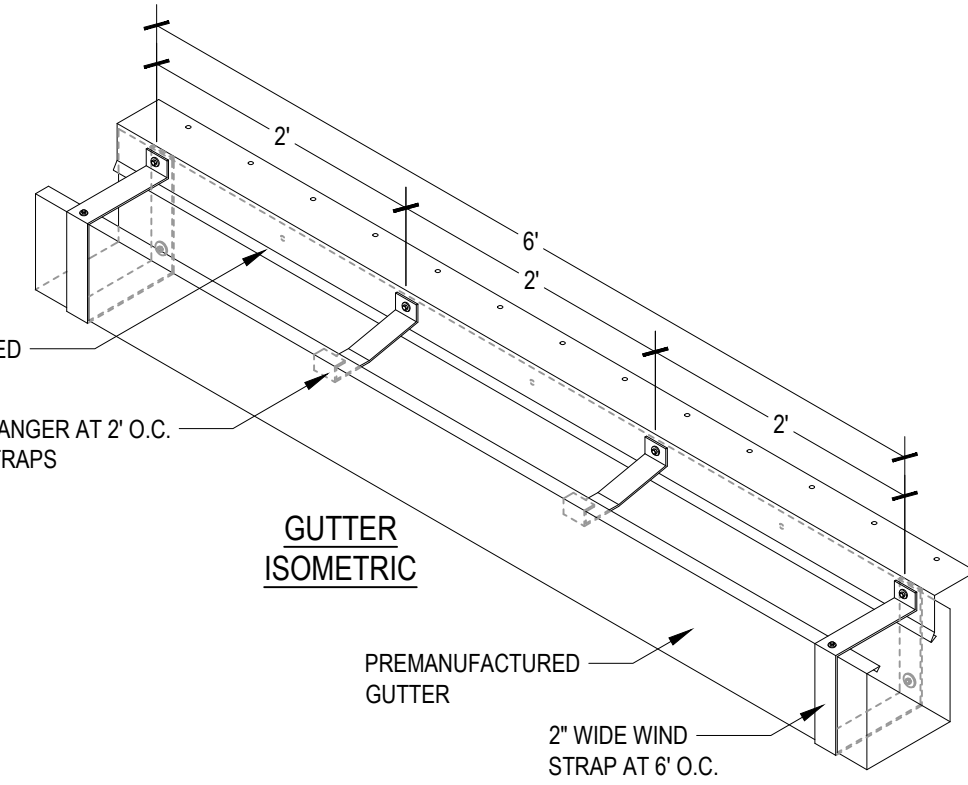
**37** **ROOF TRANSITION DETAIL**  
NO SCALE 23LSSLESUR010B03 (SECTIONS O & P)



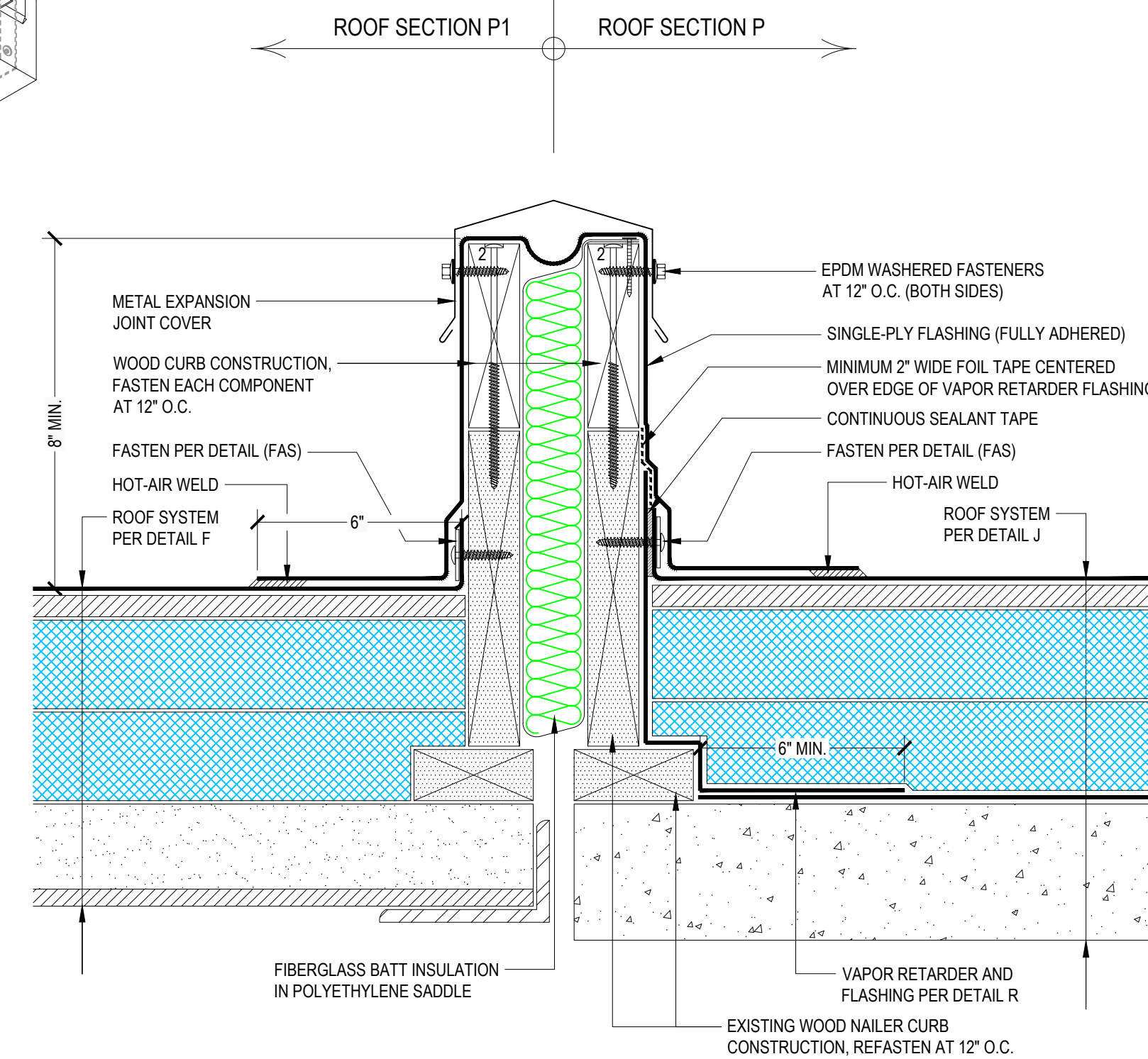
**38** **BASE FLASHING DETAIL**  
NO SCALE 23LSSLESUR010B03 (SECTION P)



**39** **GUTTER EDGE DETAIL**  
NO SCALE 23LSSLESUR010B03 (SECTIONS O & P)



**GUTTER ISOMETRIC**



**40** **EXPANSION JOINT DETAIL**  
NO SCALE 23LSSLESUR010B03 (SECTIONS P & P1)

DRAWING RECORD			
REV. NO.	DESCRIPTION	DATE	BY
NA	BID SET	02/06/24	THJH

DATE	DESIGNED BY	CHECKED BY	IN CHARGE	PROJECT
02/06/24	T. HARTLAND	J. HICKMAN	T. BOSTON	LEE'S SUMMIT R-7 SCHOOL DISTRICT

CLIENT	PROJECT	PROJECT NO.	SHEET NO.	DRAWING TITLE
LEE'S SUMMIT R-7 SCHOOL DISTRICT	LEE'S SUMMIT HIGH SCHOOL (BUILDING A)	400 SE BLUE PARKWAY	LEE'S SUMMIT, MO 64063	DETAILS

BENCHMARK PROJECT NO.	SHEET NUMBER
23LSSLESUR010B	R2.12

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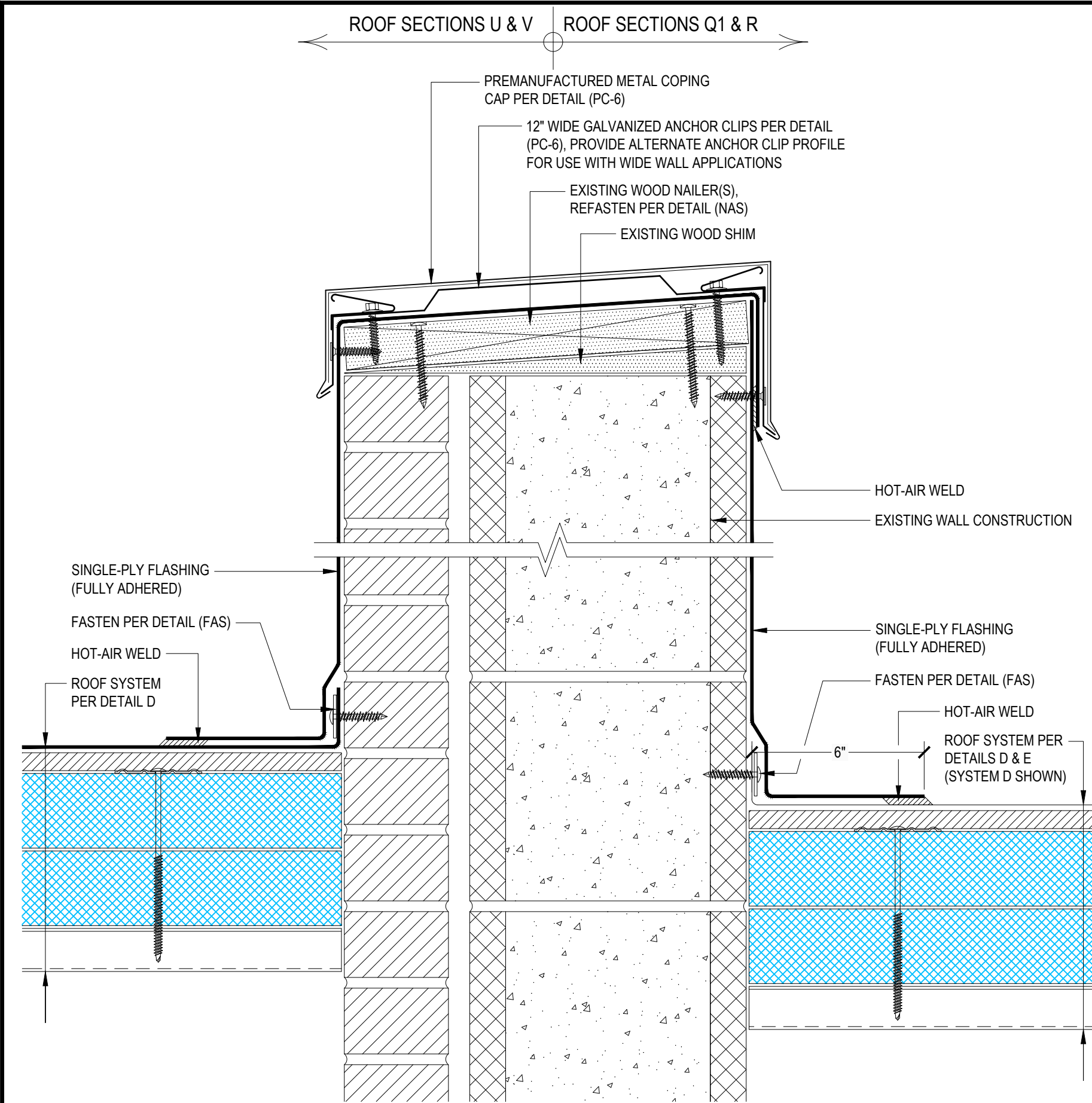
DATE	02/06/24
DRAWN BY:	T. HATLAND
PROJECT MANAGER	J. HACKMAN
CHECKED BY DRAWER	T. BOSTON
CHECKED BY SEN'OR	L. STEIN
BENEFIT MARK	29LCCGFCUJ00A000002-488

AWING TITLE:  
DETAILS

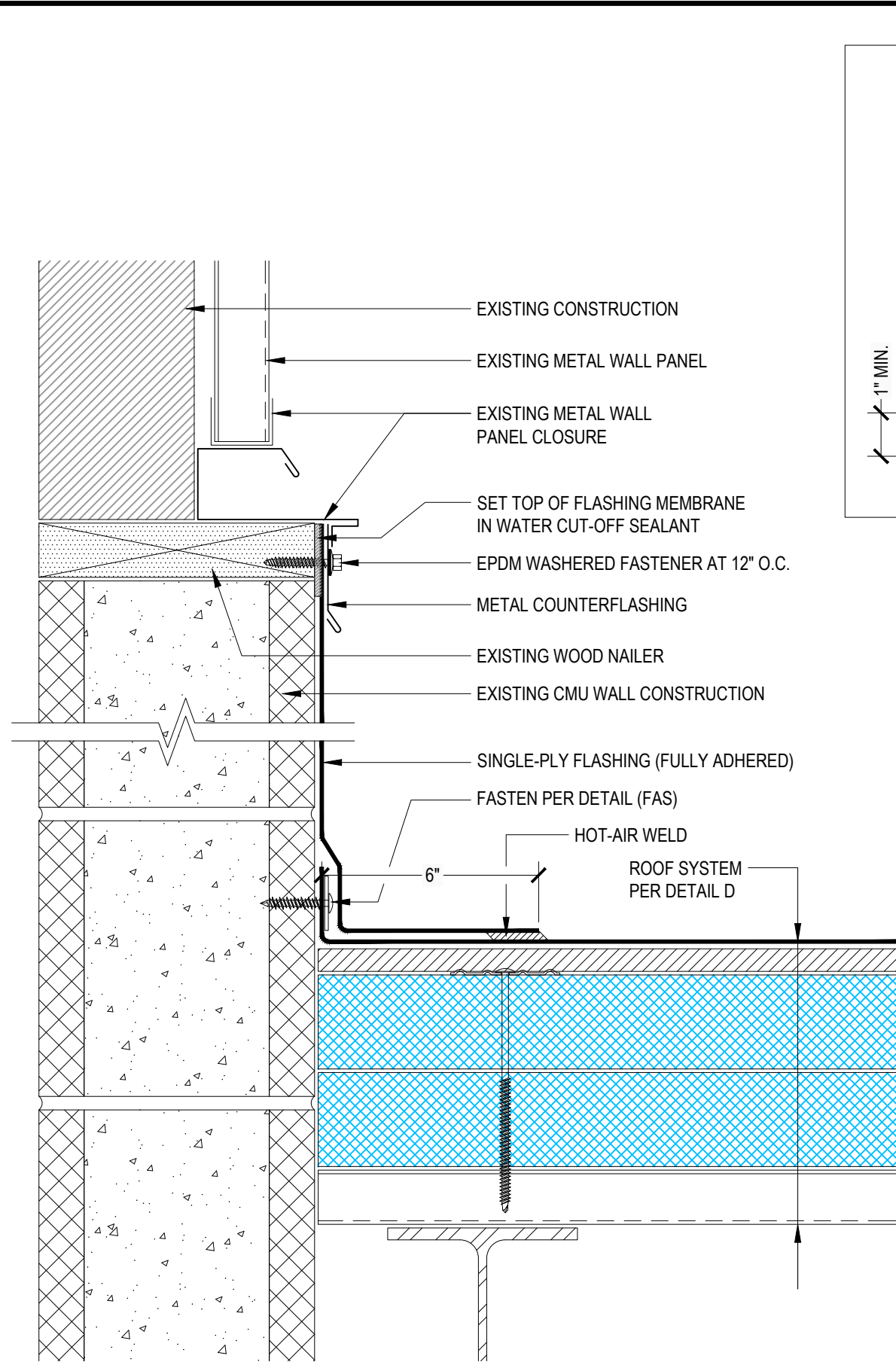
R2.13

ORIGINAL SHEET SIZE: 36 x 24

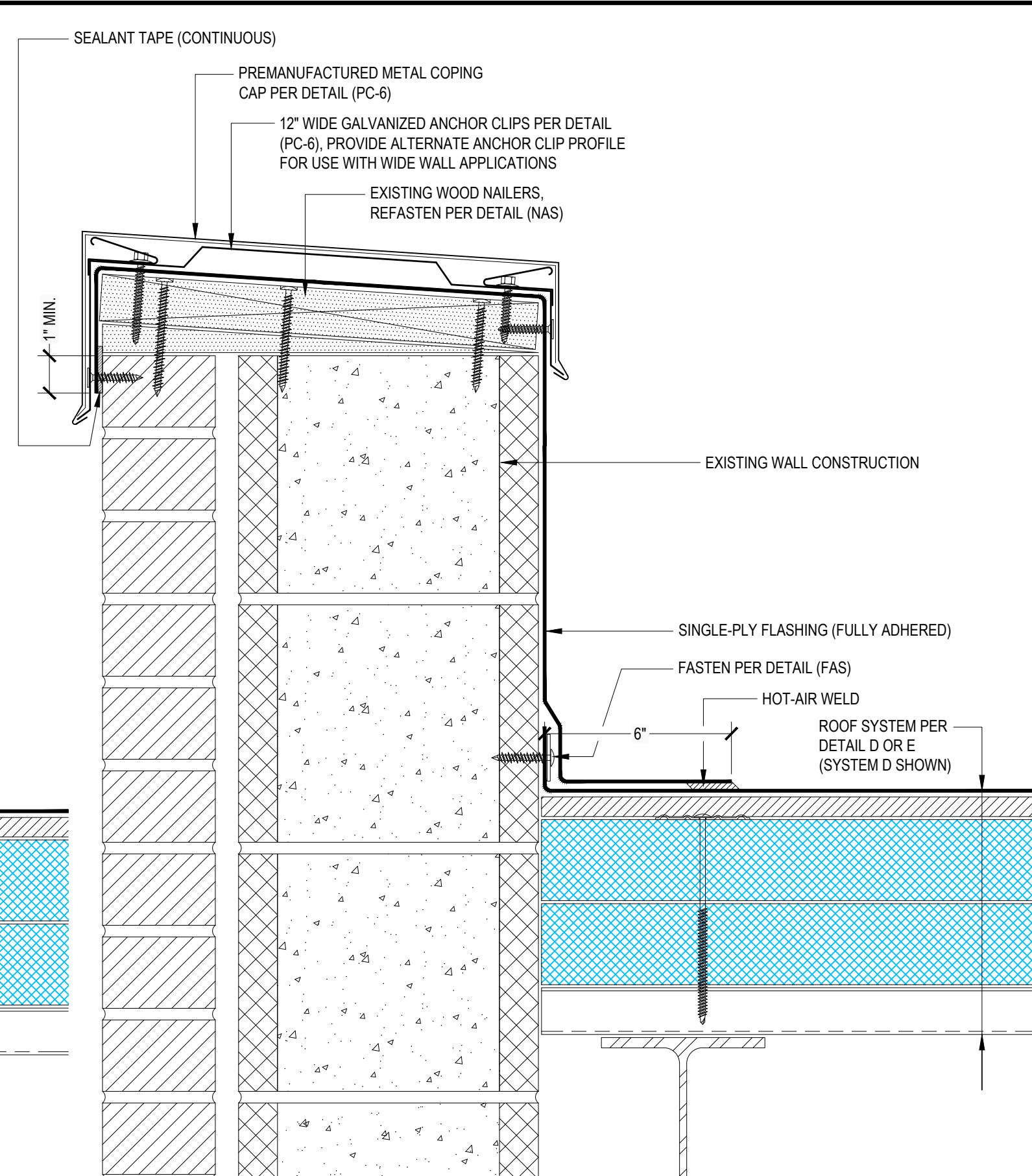




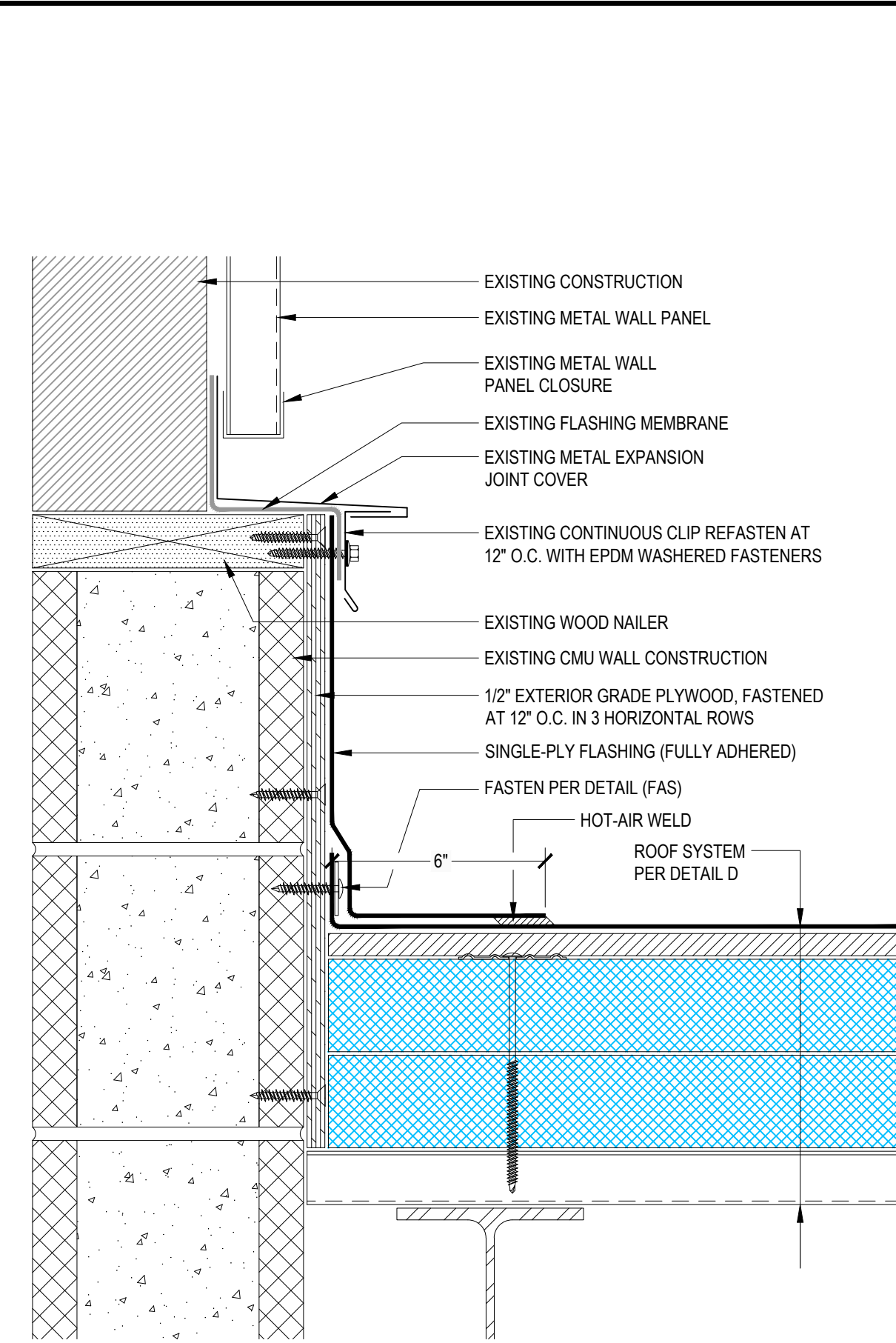
47 PARAPET WALL DETAIL  
NO SCALE 23LSLESUR010B003 (SECTIONS Q1, R, U, & V)



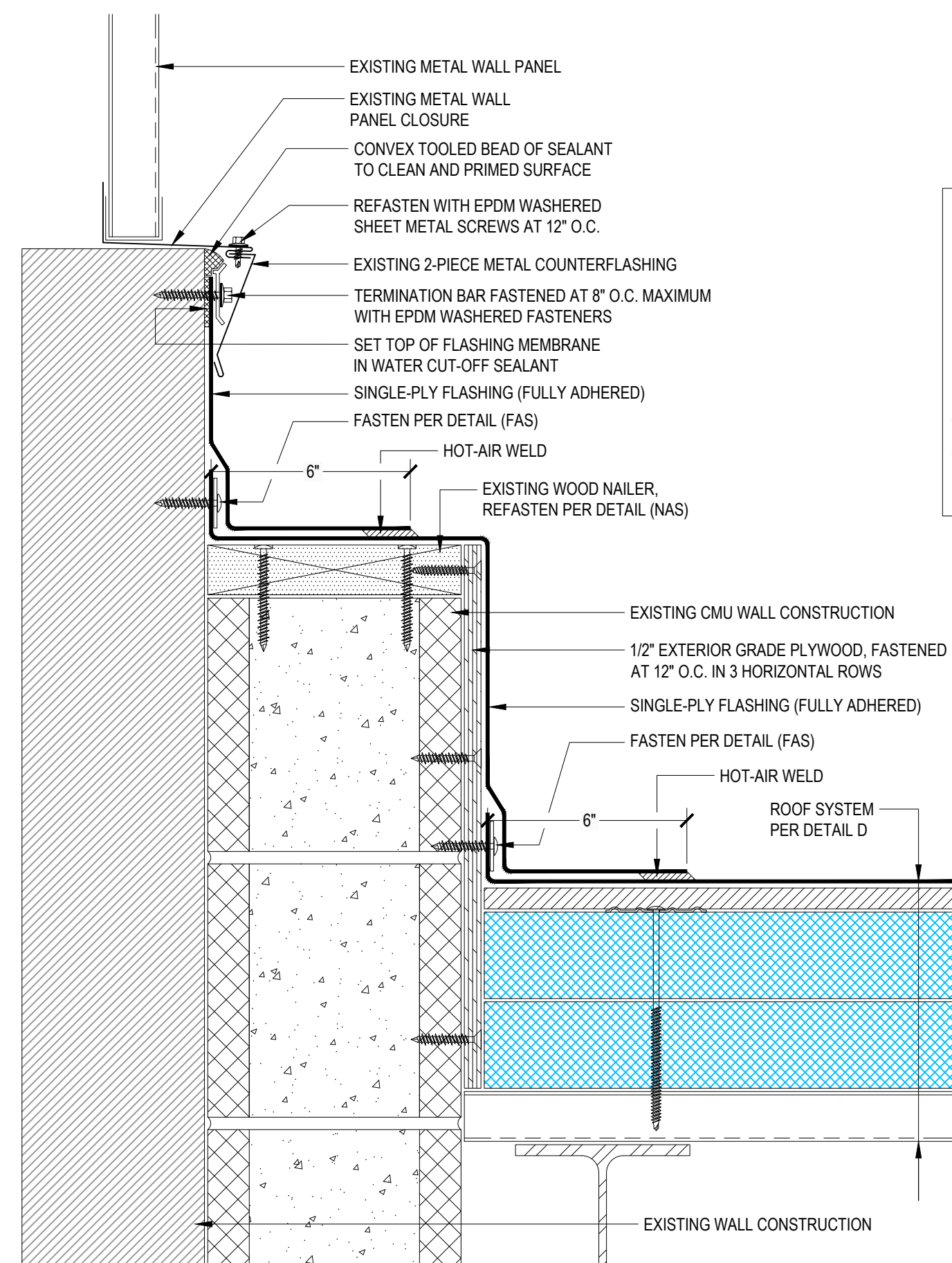
48 BASE FLASHING DETAIL  
NO SCALE 23LSLESUR010B003 (SECTION Q1)



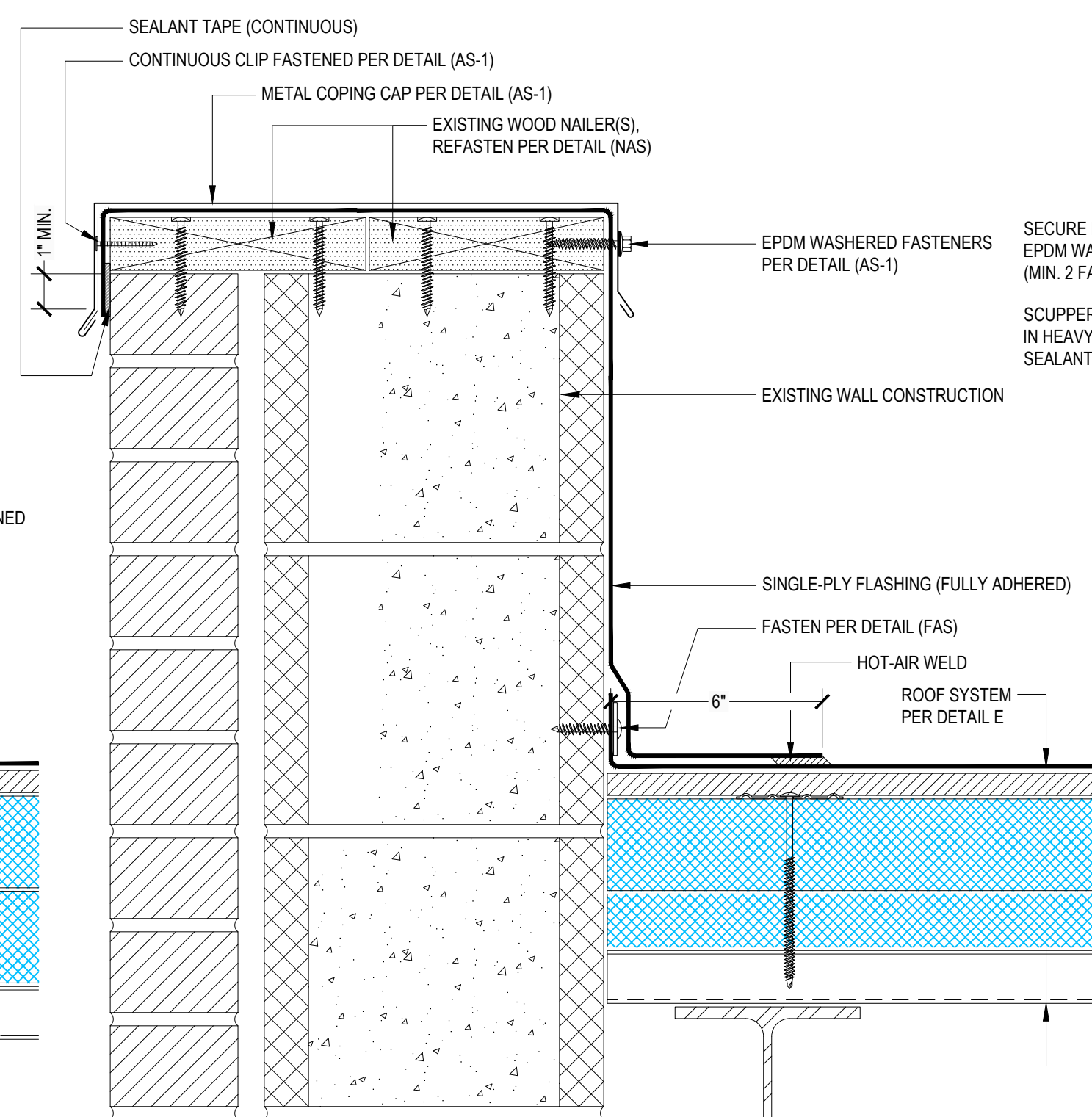
49 PARAPET WALL DETAIL  
NO SCALE 23LSLESUR010B003 (SECTIONS R & V)



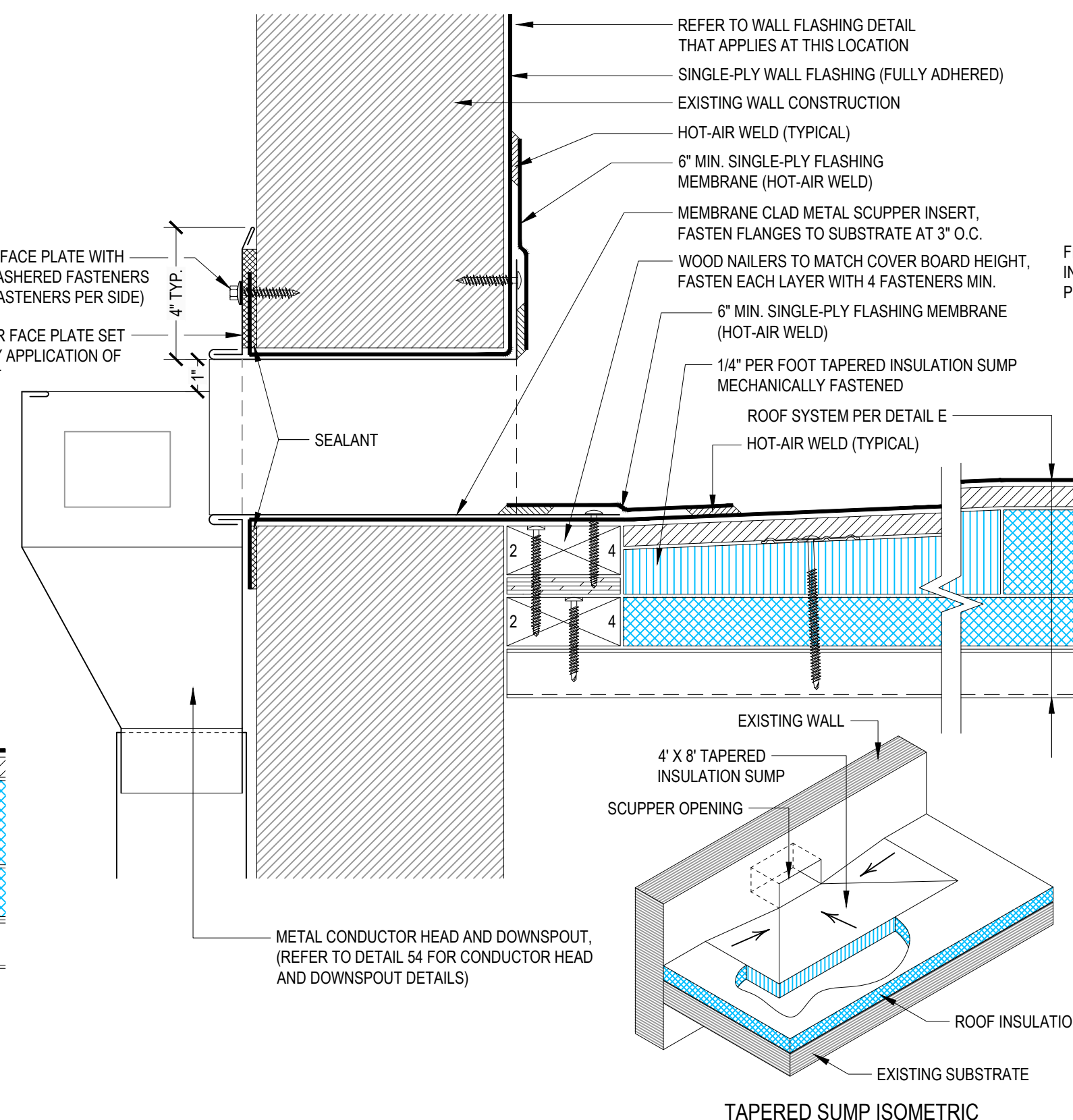
50 BASE FLASHING DETAIL  
NO SCALE 23LSLESUR010B003 (SECTIONS U & V)



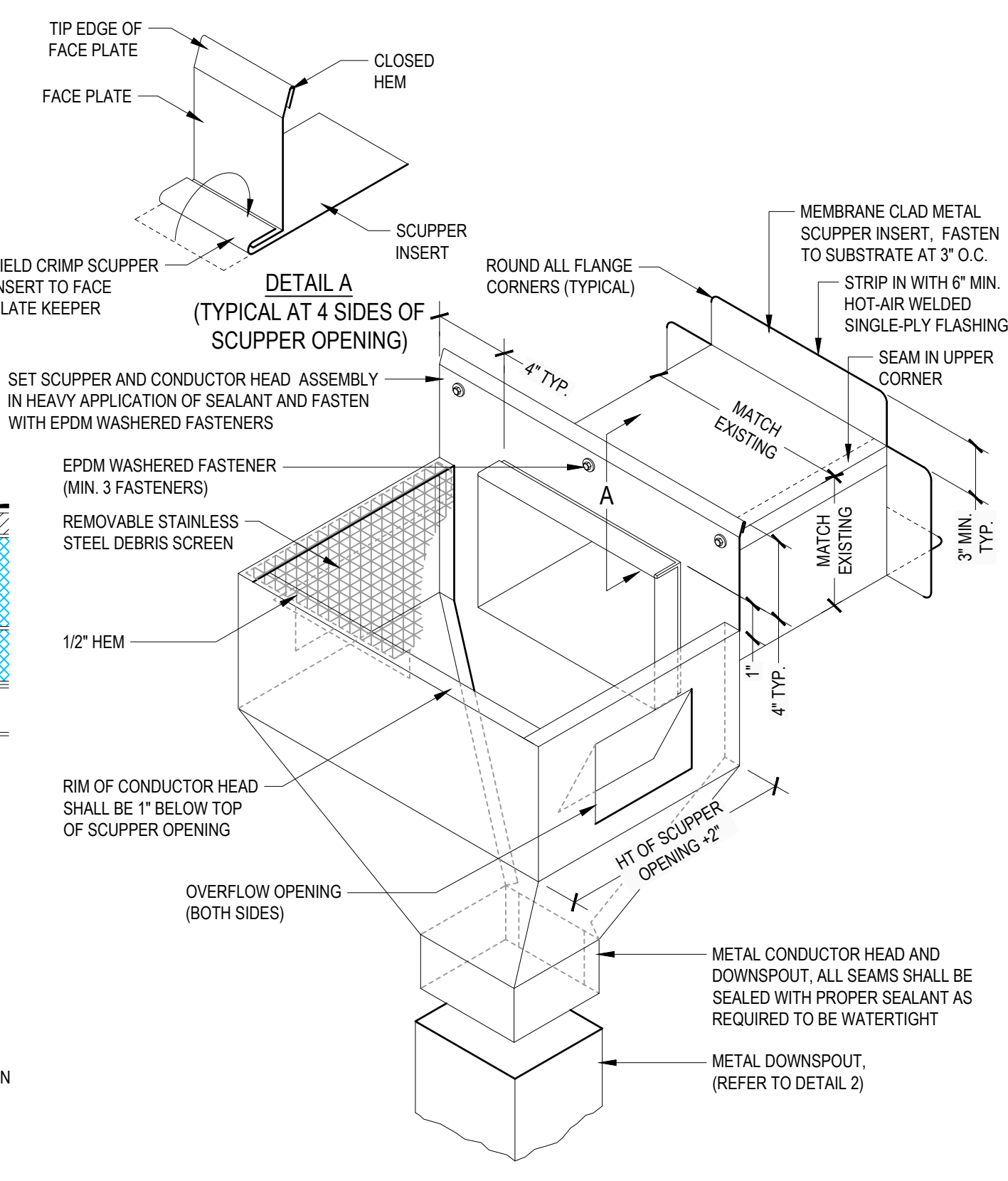
51 BASE FLASHING DETAIL  
NO SCALE 23LSLESUR010B003 (SECTION U)



52 PARAPET WALL DETAIL  
NO SCALE 23LSLESUR010B003 (SECTION R)



53 DRAINAGE SCUPPER FLASHING DETAIL  
NO SCALE 23LSLESUR010B003 (SECTION R)



54 SCUPPER AND CONDUCTOR HEAD FABRICATION DETAIL  
NO SCALE 23LSLESUR010B003 (SECTION R)

DRAWING RECORD			
REV. NO.	DESCRIPTION	DATE	BY
NA	BID SET	02/06/24	THJH

CLIENT			
LEE'S SUMMIT R-7 SCHOOL DISTRICT			
PROJECT: LEE'S SUMMIT HIGH SCHOOL (BUILDING A)			
400 SE BLUE PARKWAY			
LEE'S SUMMIT, MO 64063			
DRAWING TITLE: DETAILS			

BENCHMARK PROJECT NO.: 23LSLESUR010B			
SHEET NUMBER: R2.14			

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REVISIONS			
NO.	DESCRIPTION	DATE	BY
000001	ISSUED FOR BIDDING	02/06/24	THJH

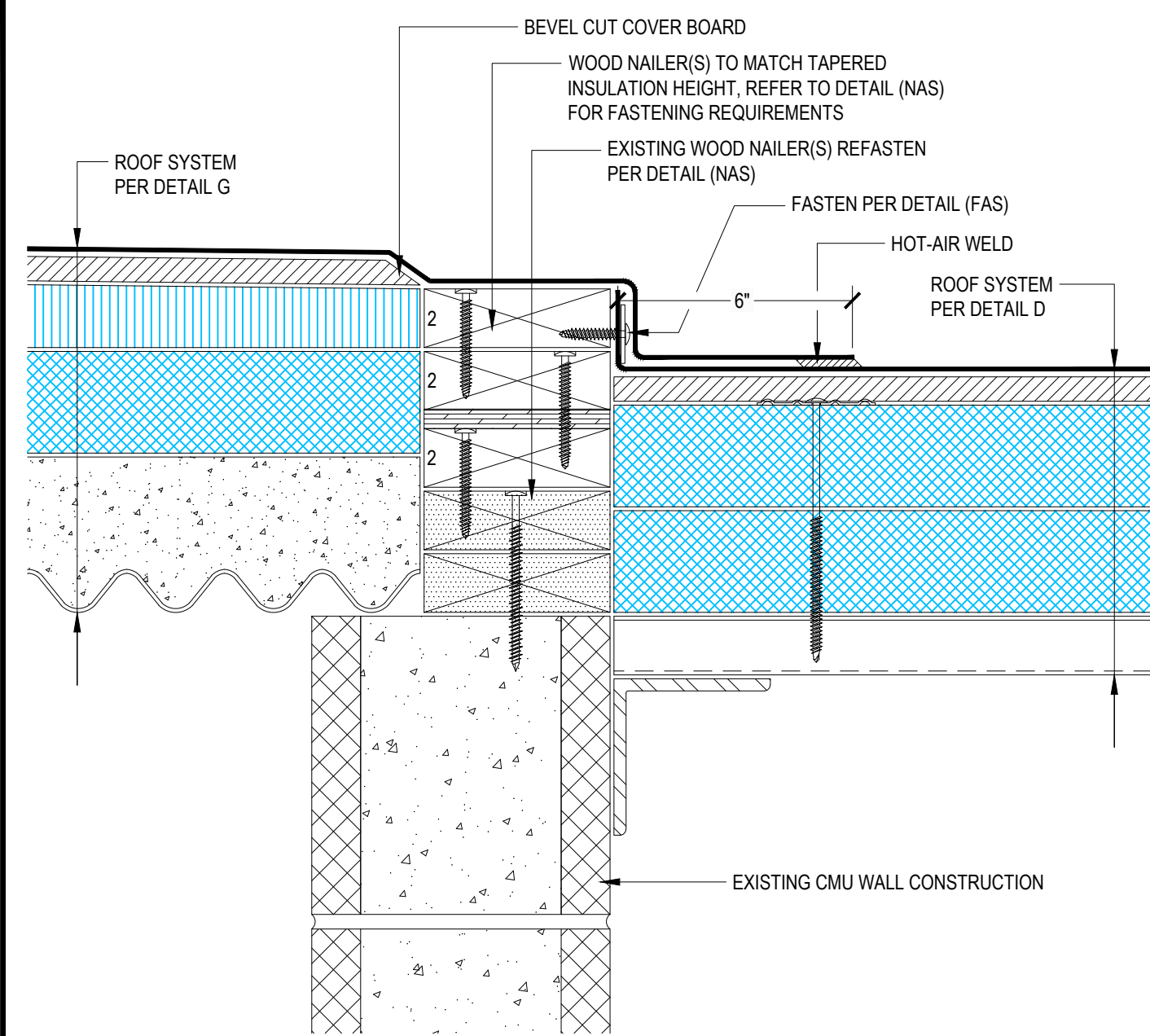


DATE	02/05/24
EXAMINER	T. HATLAN
PROBATION	J. HACKMAN
CHARGE 1	T. BOSTON
CHARGE 2	L. STEIN
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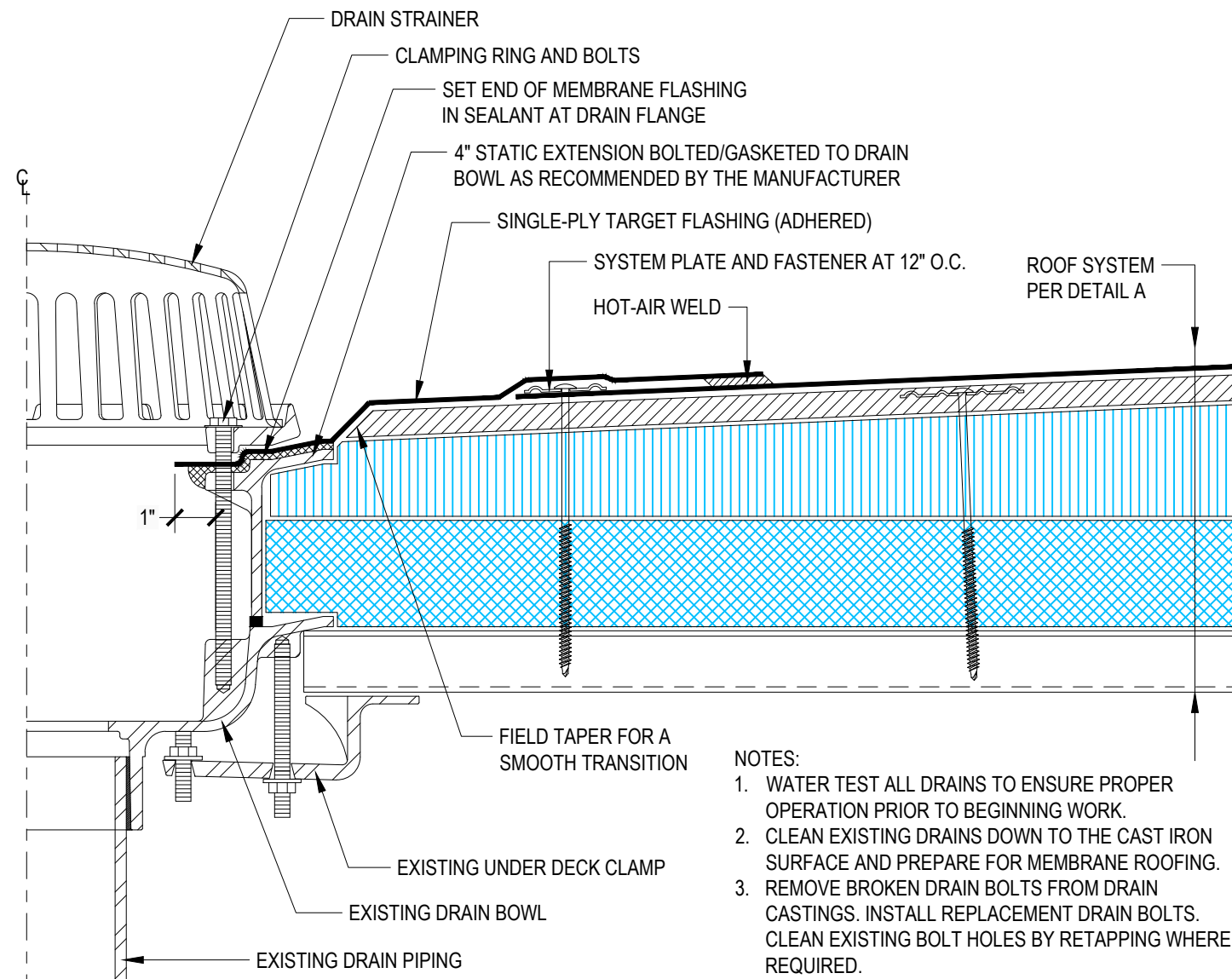
**Benchmark**<sup>INC</sup>  
CEDAR RAPIDS, IA • WAUKESHA, WI  
Phone: 319.393.9100  
[www.benchmark-inc.com](http://www.benchmark-inc.com)



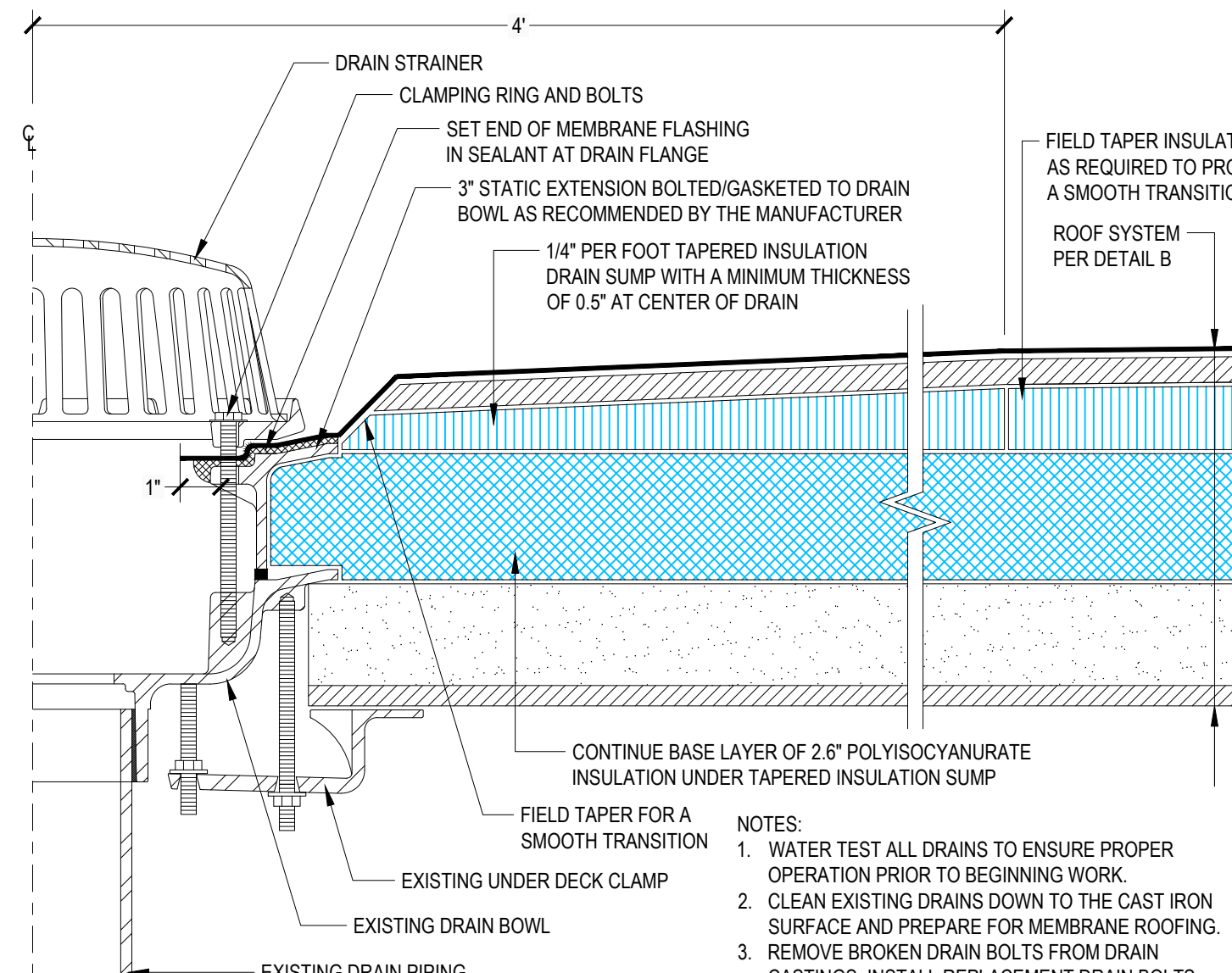
File: \\lee's summit-r7 school district\lee's summit-r7\23LSLESUR010B003.dwg Time: Feb 16, 2024 - 4:41 am



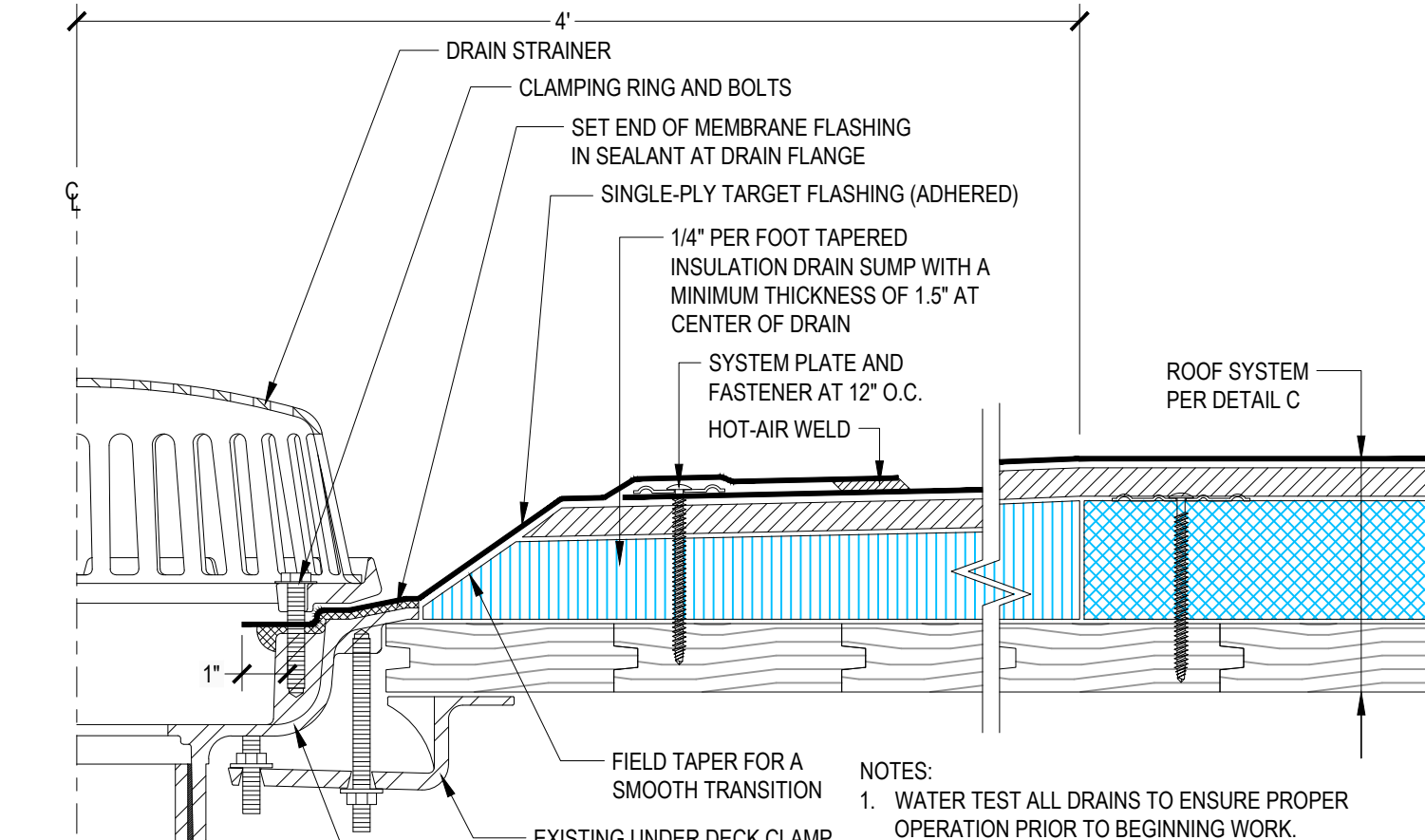
62 STEP-UP TRANSITION DETAIL  
NO SCALE 23LSLESUR010B003 (SECTION G)



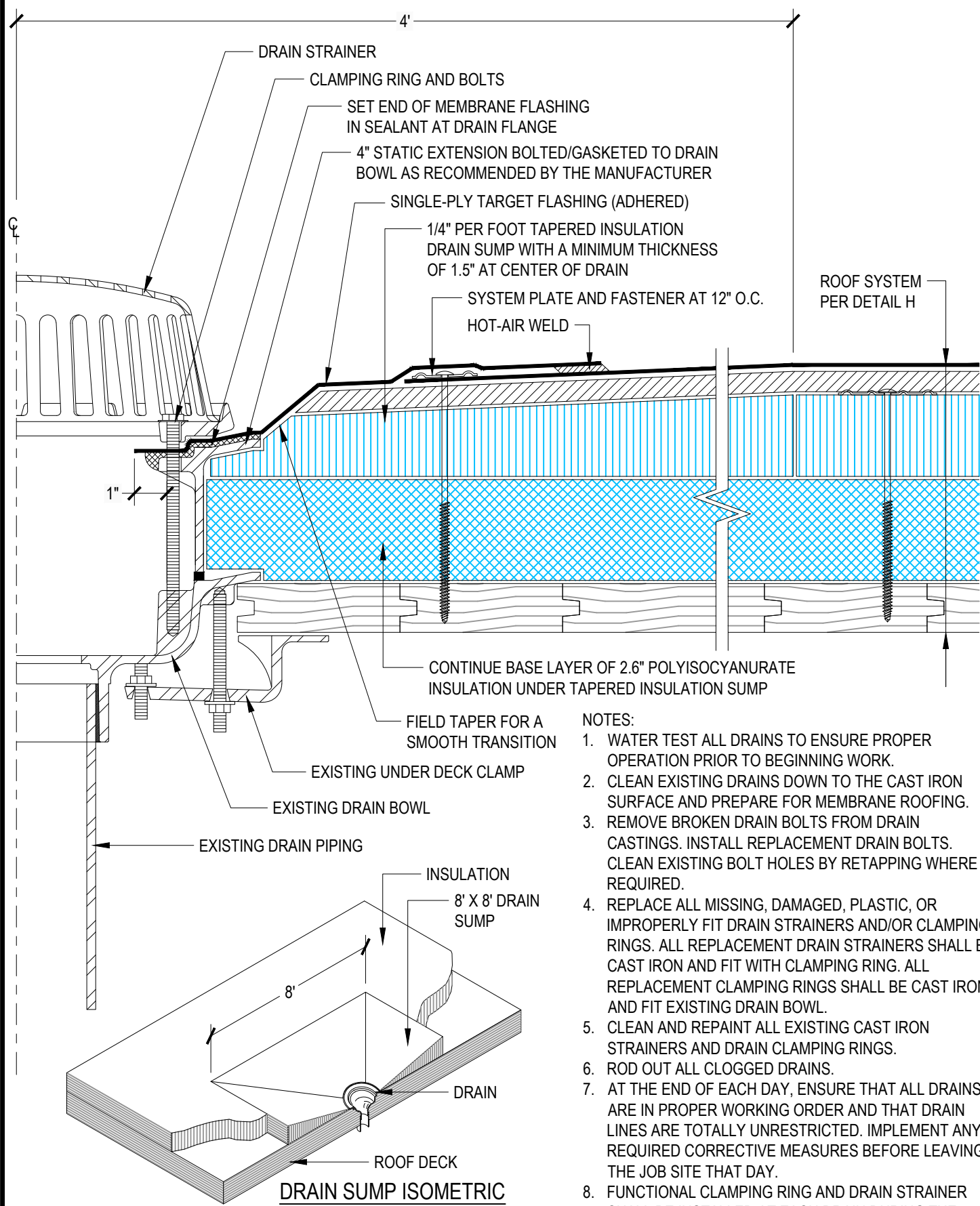
63 ROOF DRAIN DETAIL  
NO SCALE 23LSLESUR010B003 (SECTION C)



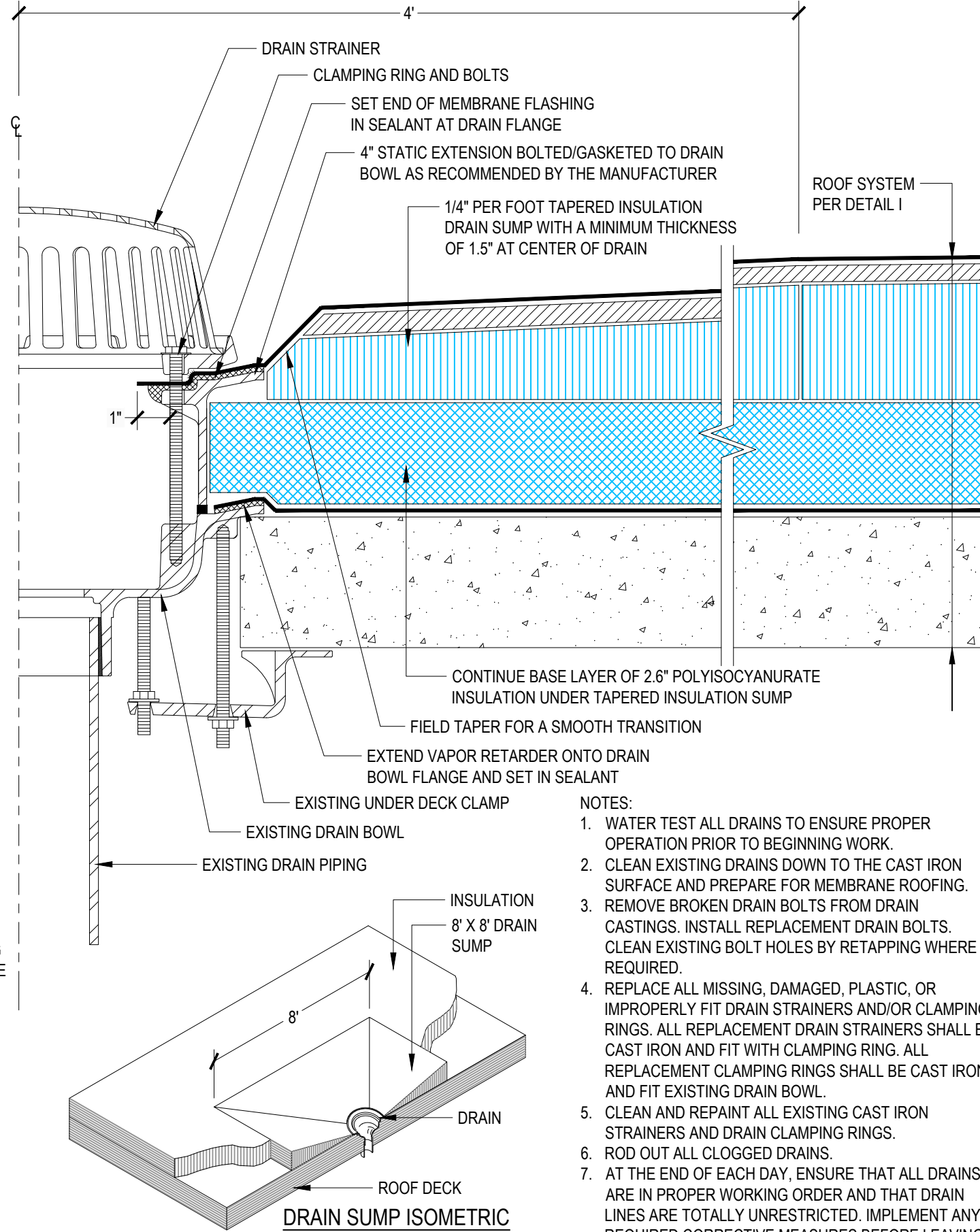
64 ROOF DRAIN DETAIL  
NO SCALE 23LSLESUR010B003 (SECTIONS D & K)



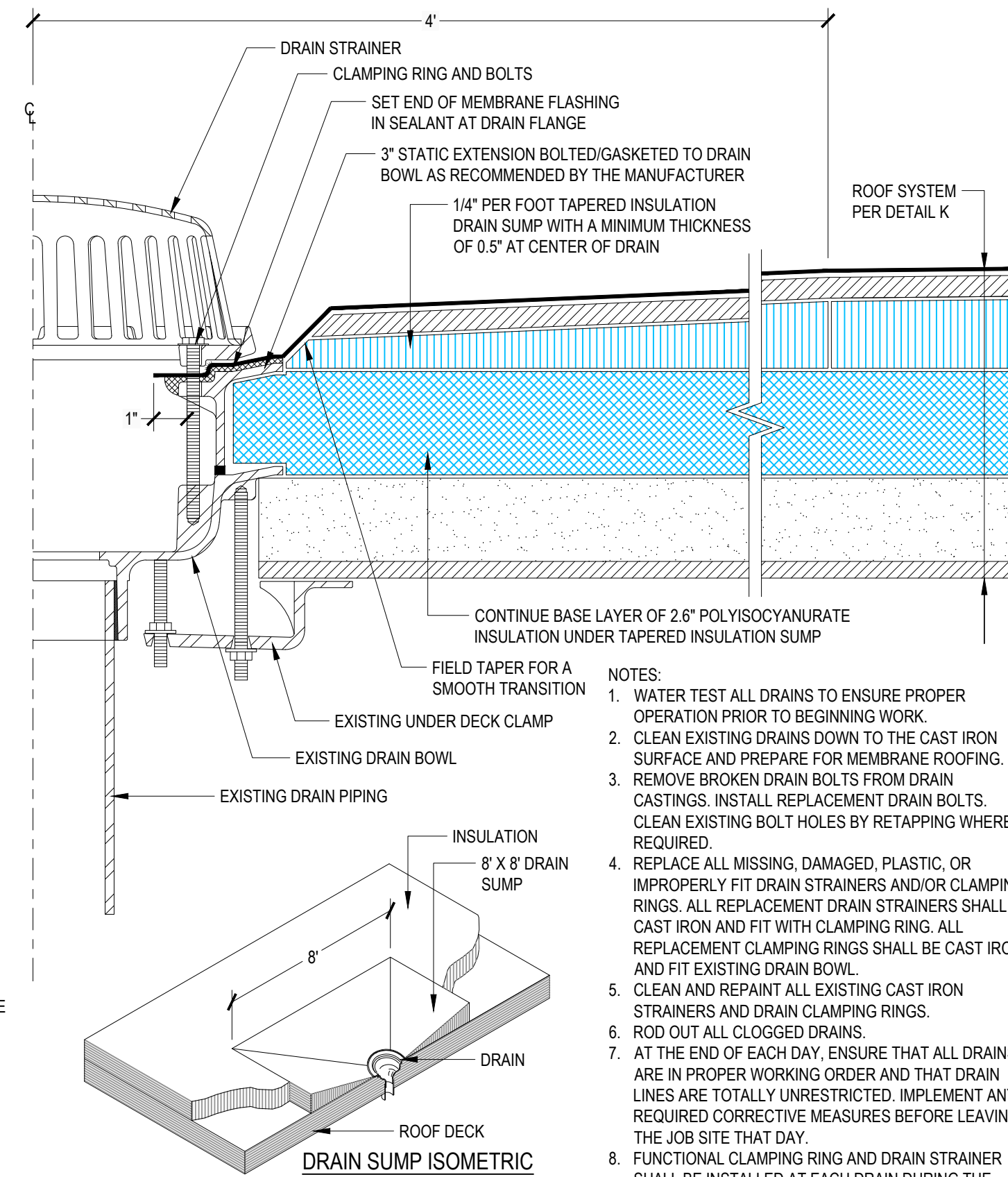
65 ROOF DRAIN DETAIL  
NO SCALE 23LSLESUR010B003 (SECTION E)



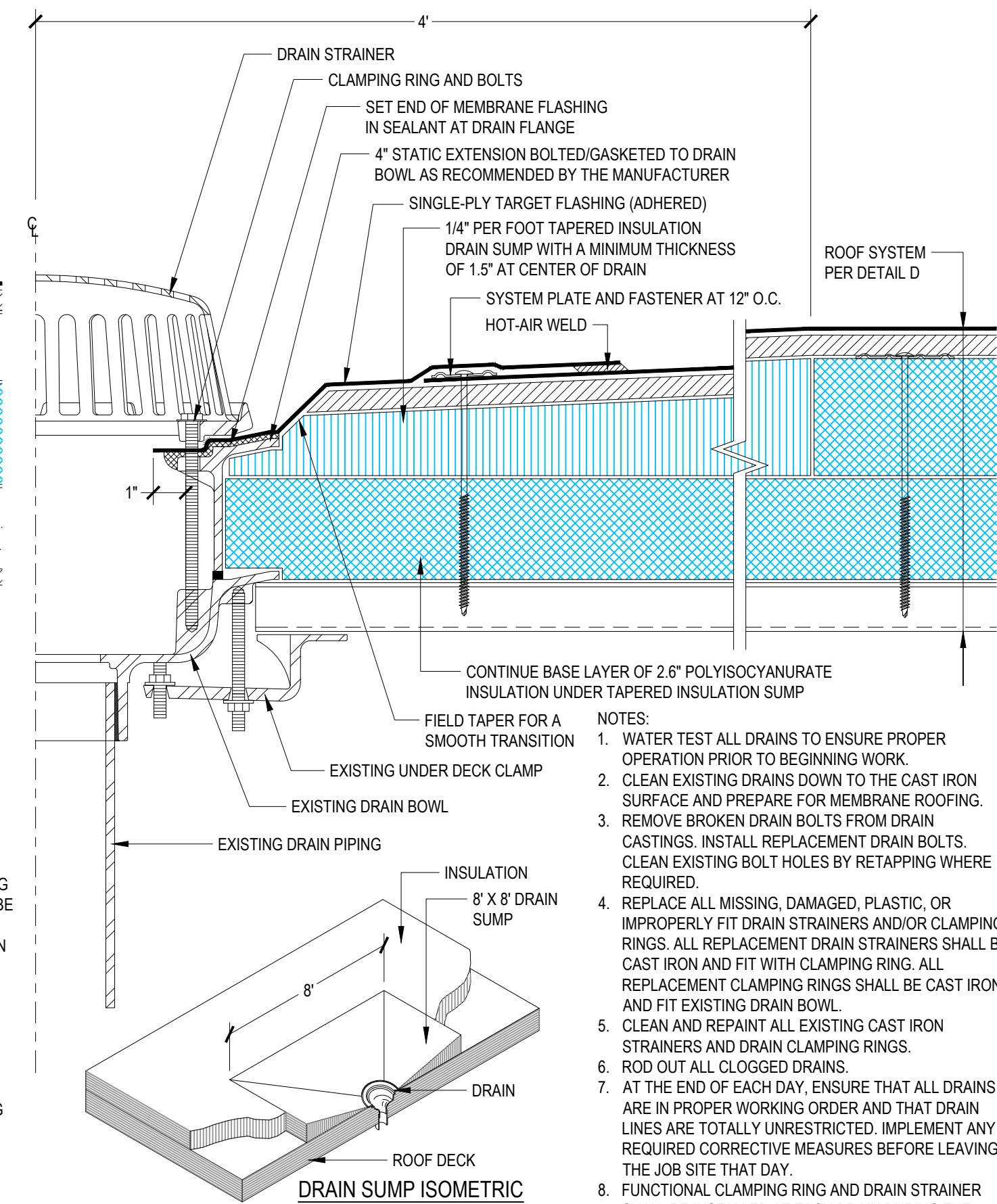
66 ROOF DRAIN DETAIL  
NO SCALE 23LSLESUR010B003 (SECTIONS 11, 13, & J)



67 ROOF DRAIN DETAIL  
NO SCALE 23LSLESUR010B003 (SECTION I2)



68 ROOF DRAIN DETAIL  
NO SCALE 23LSLESUR010B003 (SECTION I4)



69 ROOF DRAIN DETAIL  
NO SCALE 23LSLESUR010B003 (SECTIONS O, Q1, U, & V)

DRAWING RECORD			
REV. NO.	DESCRIPTION	DATE	BY
NA	BID SET	02/06/24	THJH

CLIENT:			
LEE'S SUMMIT R-7 SCHOOL DISTRICT			
PROJECT: LEE'S SUMMIT HIGH SCHOOL (BUILDING A) 400 SE BLUE PARKWAY LEE'S SUMMIT, MO 64063			
DRAWING TITLE: DETAILS			

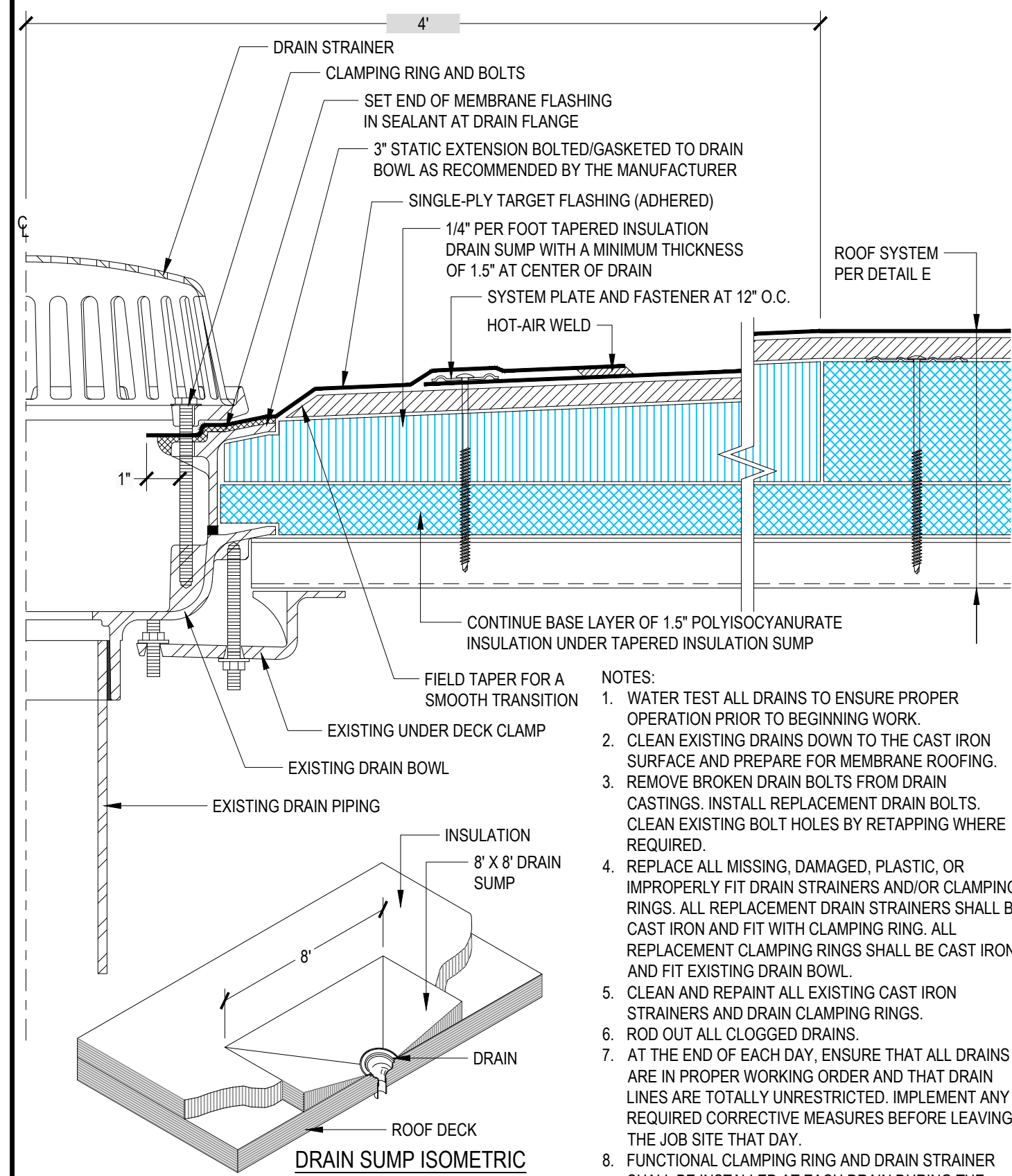
BENCHMARK PROJECT NO.: 23LSLESUR010B			
SHEET NUMBER: R2.16			
ORIGINAL SHEET SIZE: 36 x 24			

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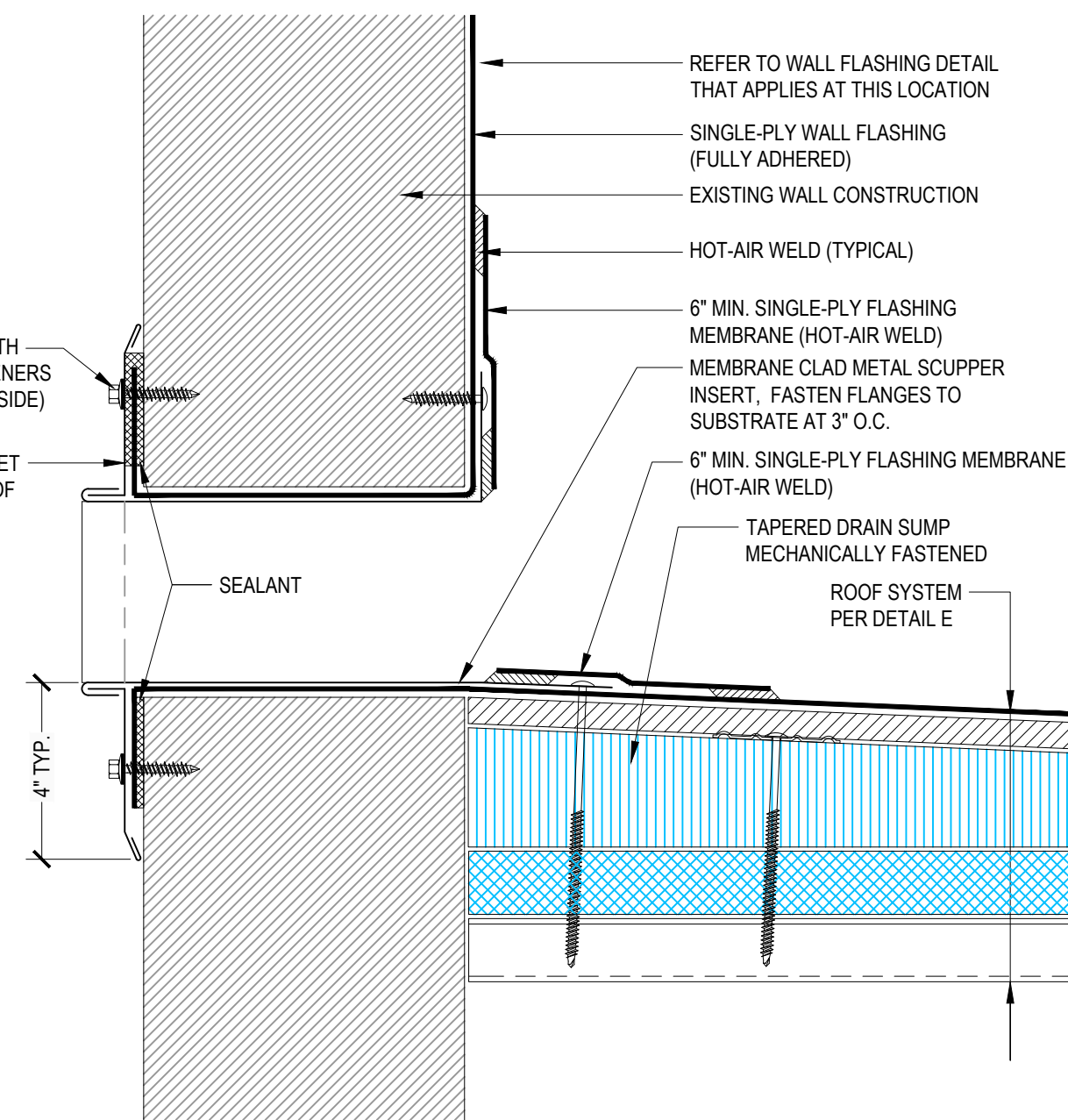
DATE	BY	REVISION
02/06/24	T. HARTMAN	1. INITIAL
02/06/24	J. HICKMAN	2. REVISION
02/06/24	T. BOSTON	3. REVISION
02/06/24	L. STEIN	4. REVISION



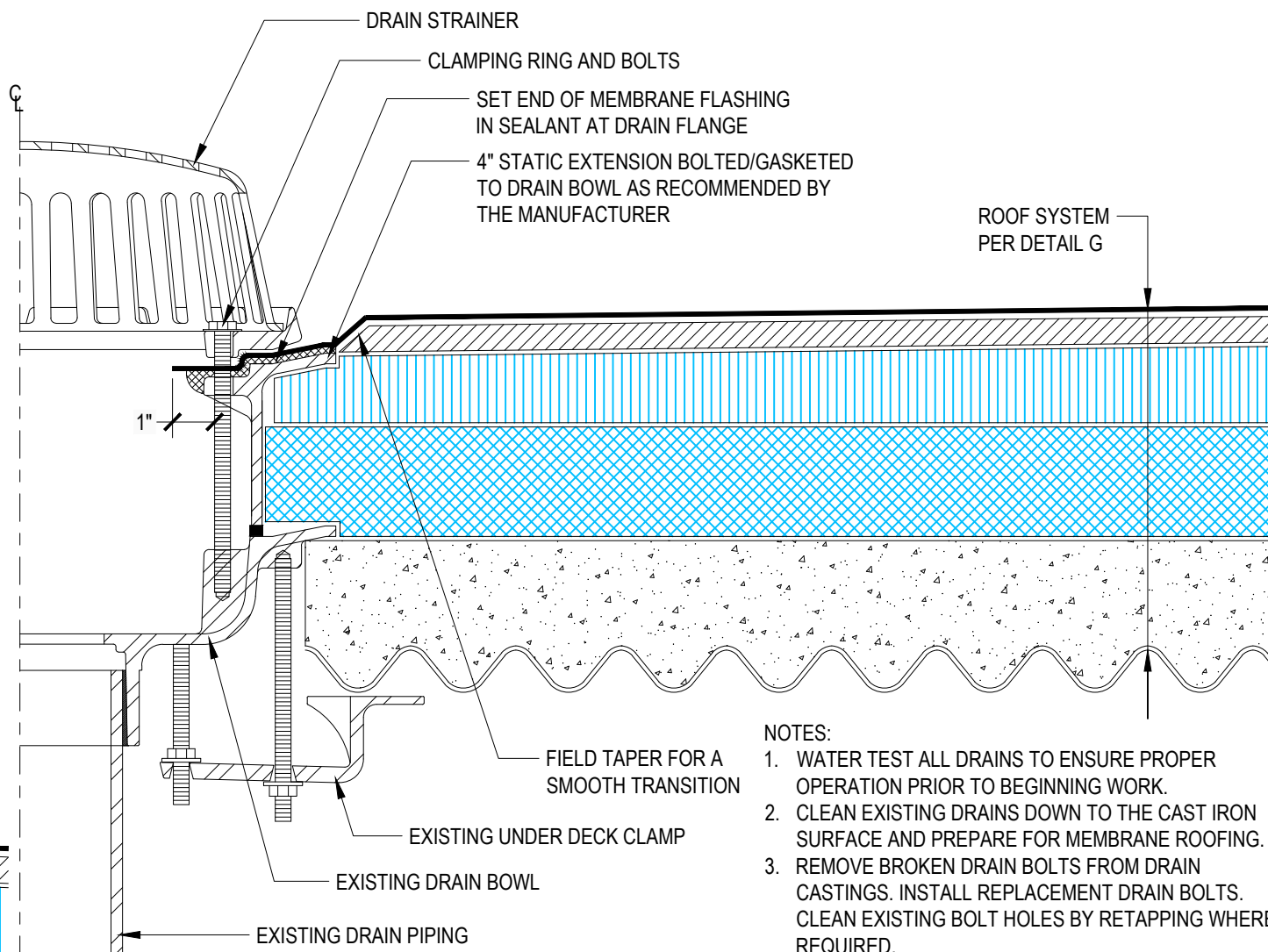
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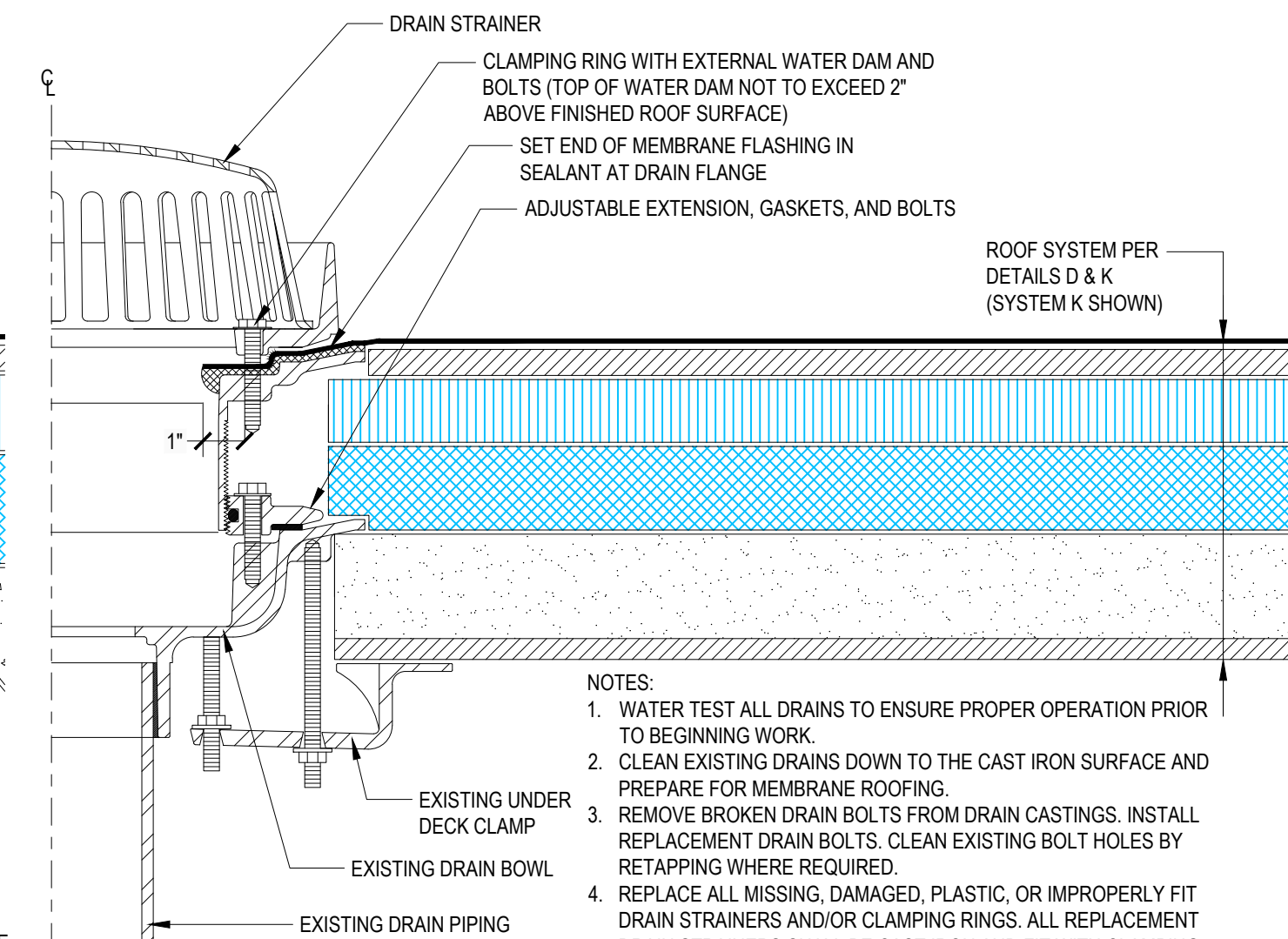
70 ROOF DRAIN DETAIL  
NO SCALE 23LSSLESUR10B003 (SECTION R)



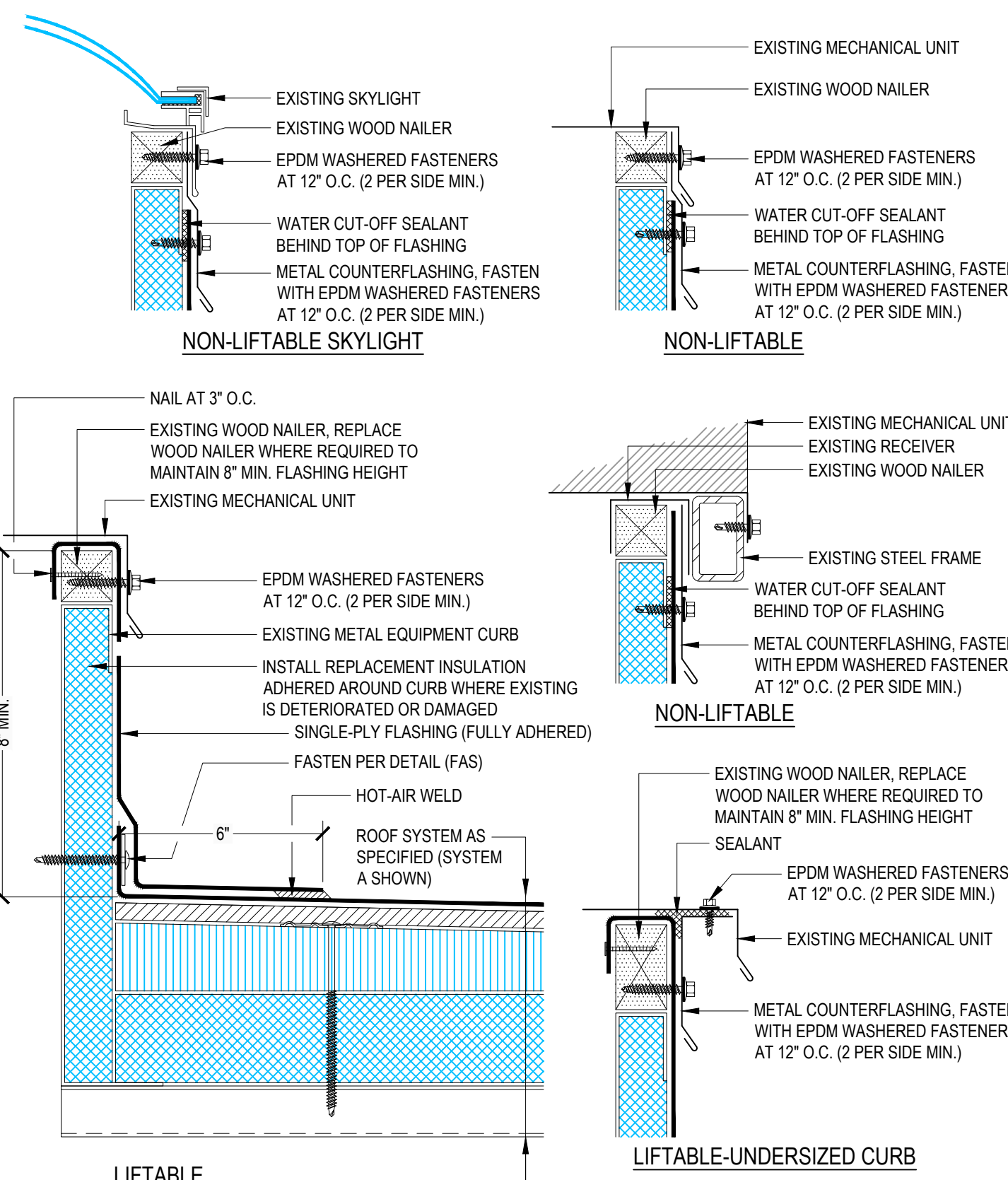
71 OVERFLOW SCUPPER FLASHING DETAIL  
NO SCALE 23LSSLESUR10B003 (SECTION R)



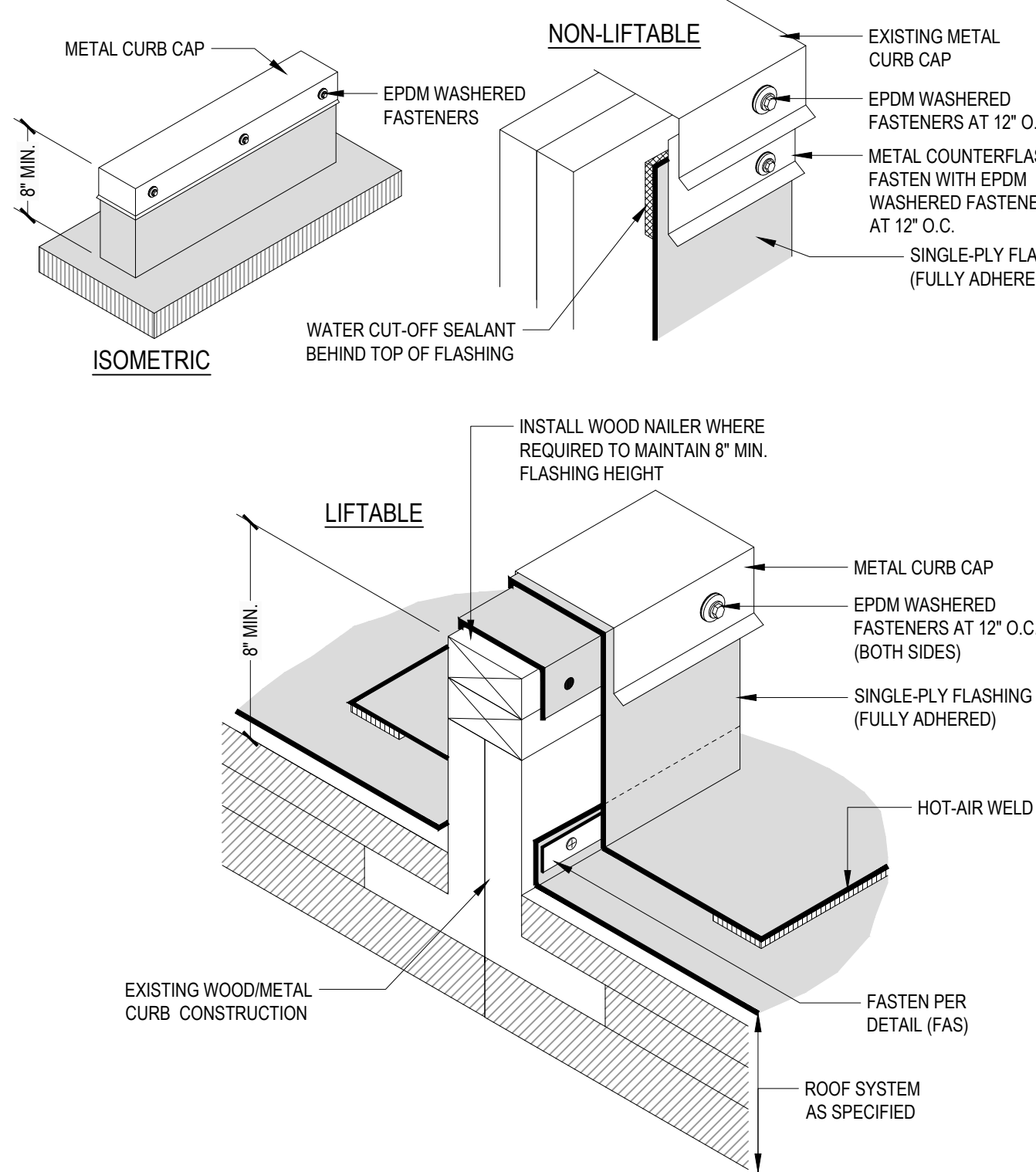
72 ROOF DRAIN DETAIL  
NO SCALE 23LSSLESUR10B003 (SECTION H)



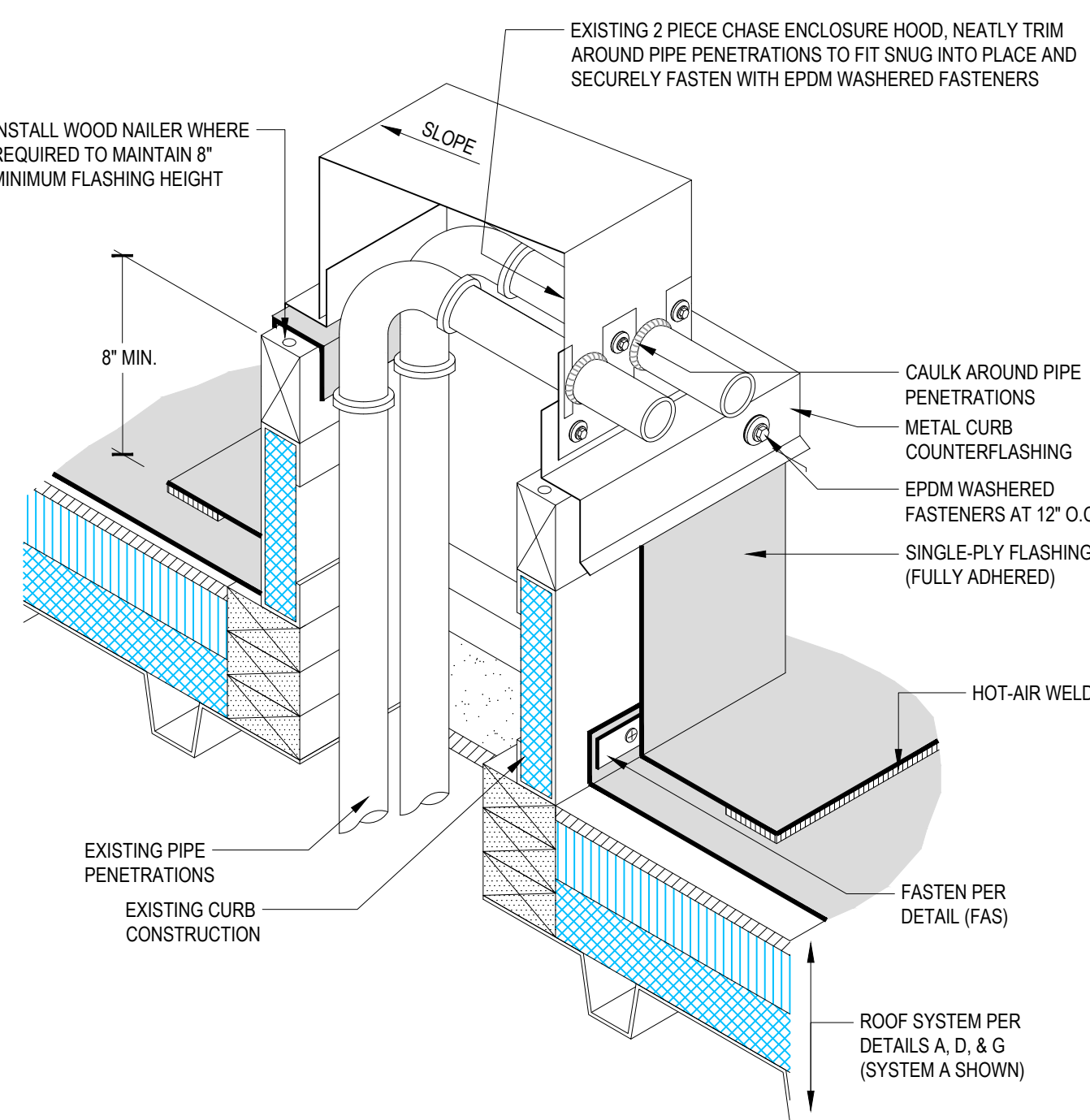
73 OVERFLOW DRAIN DETAIL  
NO SCALE 23LSSLESUR10B003 (SECTIONS I4, U, & V)



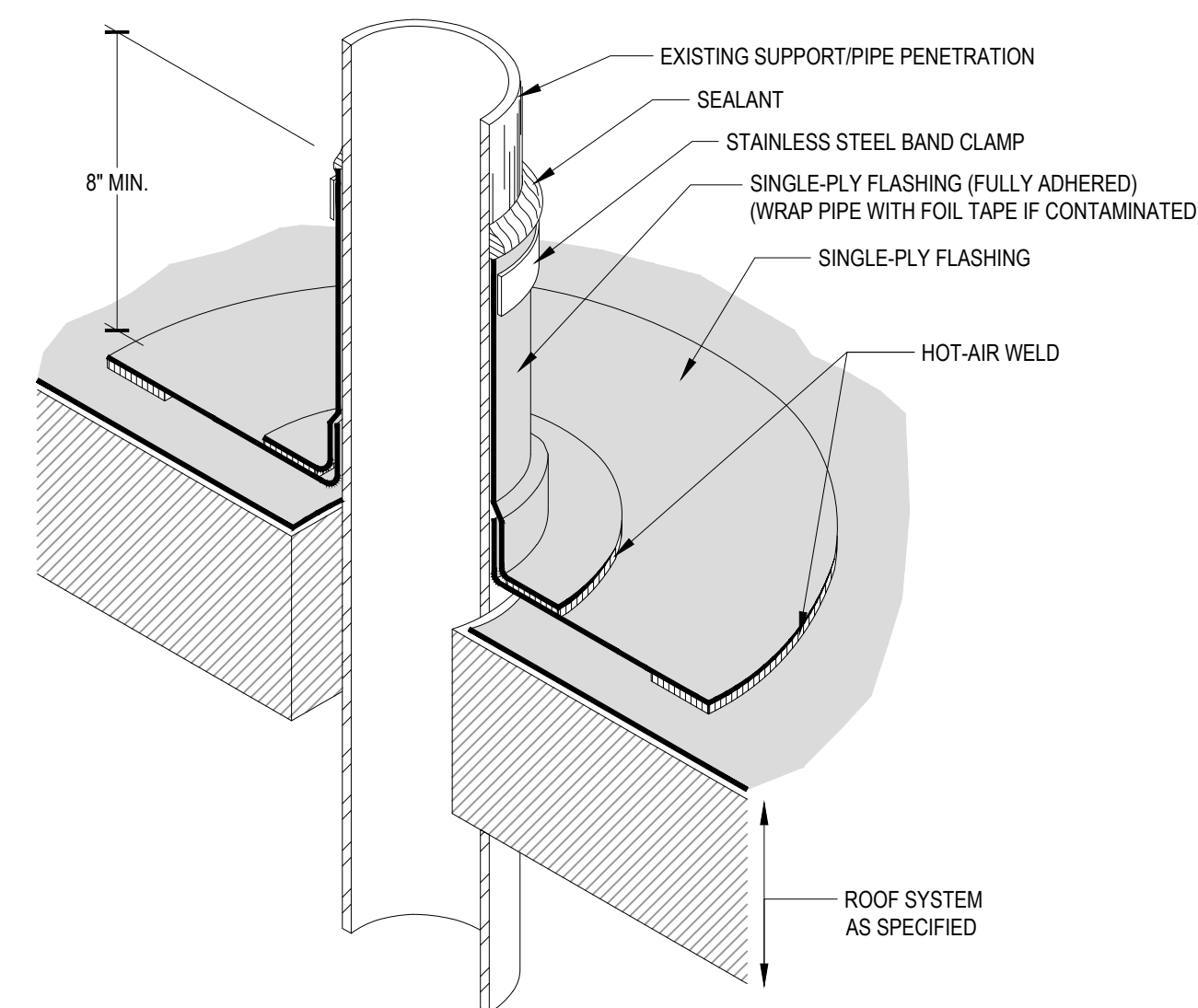
74 TYPICAL CURB FLASHING DETAIL  
NO SCALE 23LSSLESUR10B003



75 UNIT RAIL FLASHING DETAIL  
NO SCALE 23LSSLESUR10B003



76 PIPE CHASE FLASHING DETAIL  
NO SCALE 23LSSLESUR10B003



77 FIELD FABRICATED PIPE FLASHING DETAIL  
NO SCALE 23LSSLESUR10B003



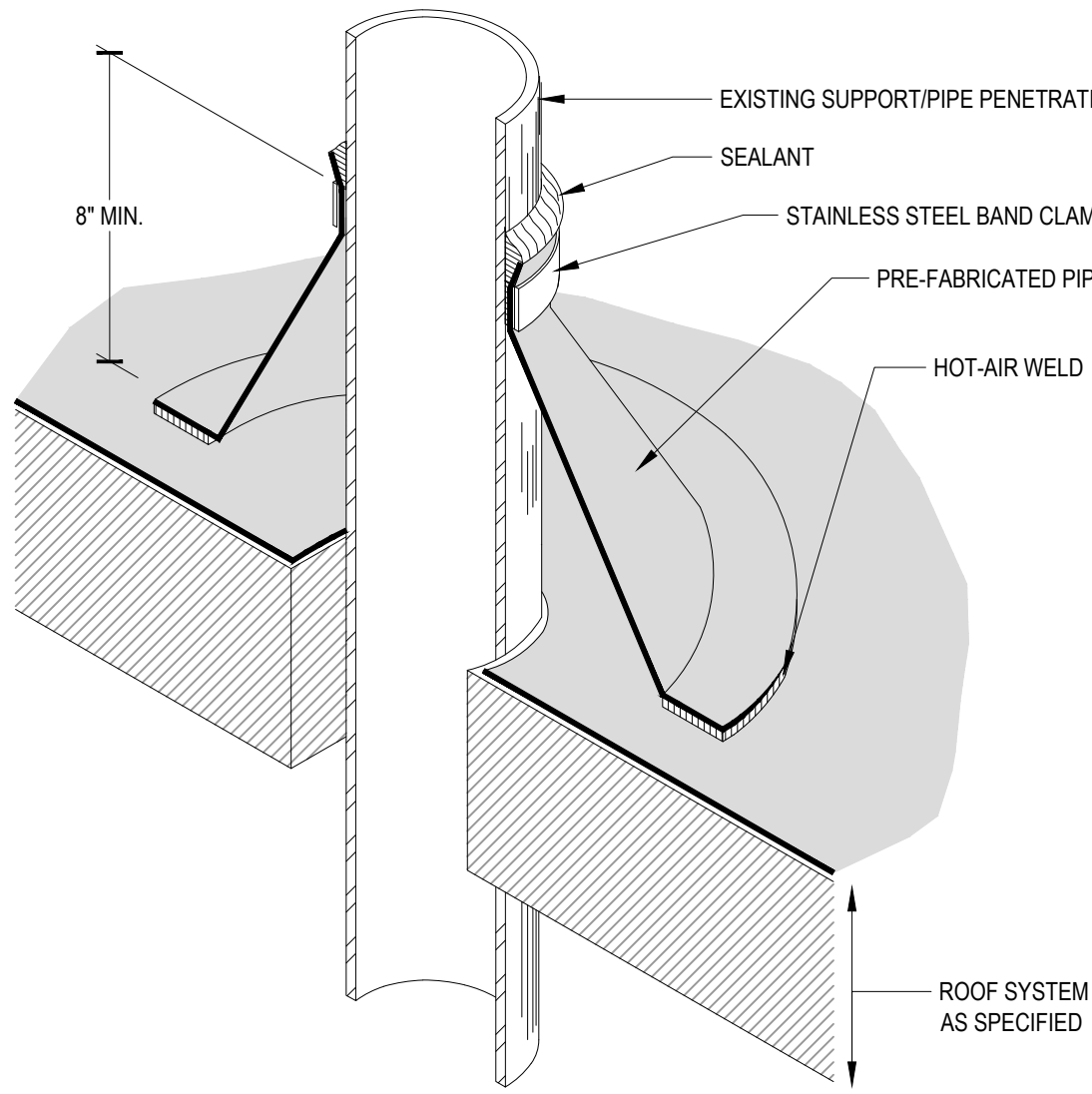
CLIENT: LEE'S SUMMIT R-7 SCHOOL DISTRICT  
PROJECT: LEE'S SUMMIT HIGH SCHOOL (BUILDING A)  
400 SE BLUE PARKWAY  
LEE'S SUMMIT, MO 64063

DRAWING TITLE: DETAILS

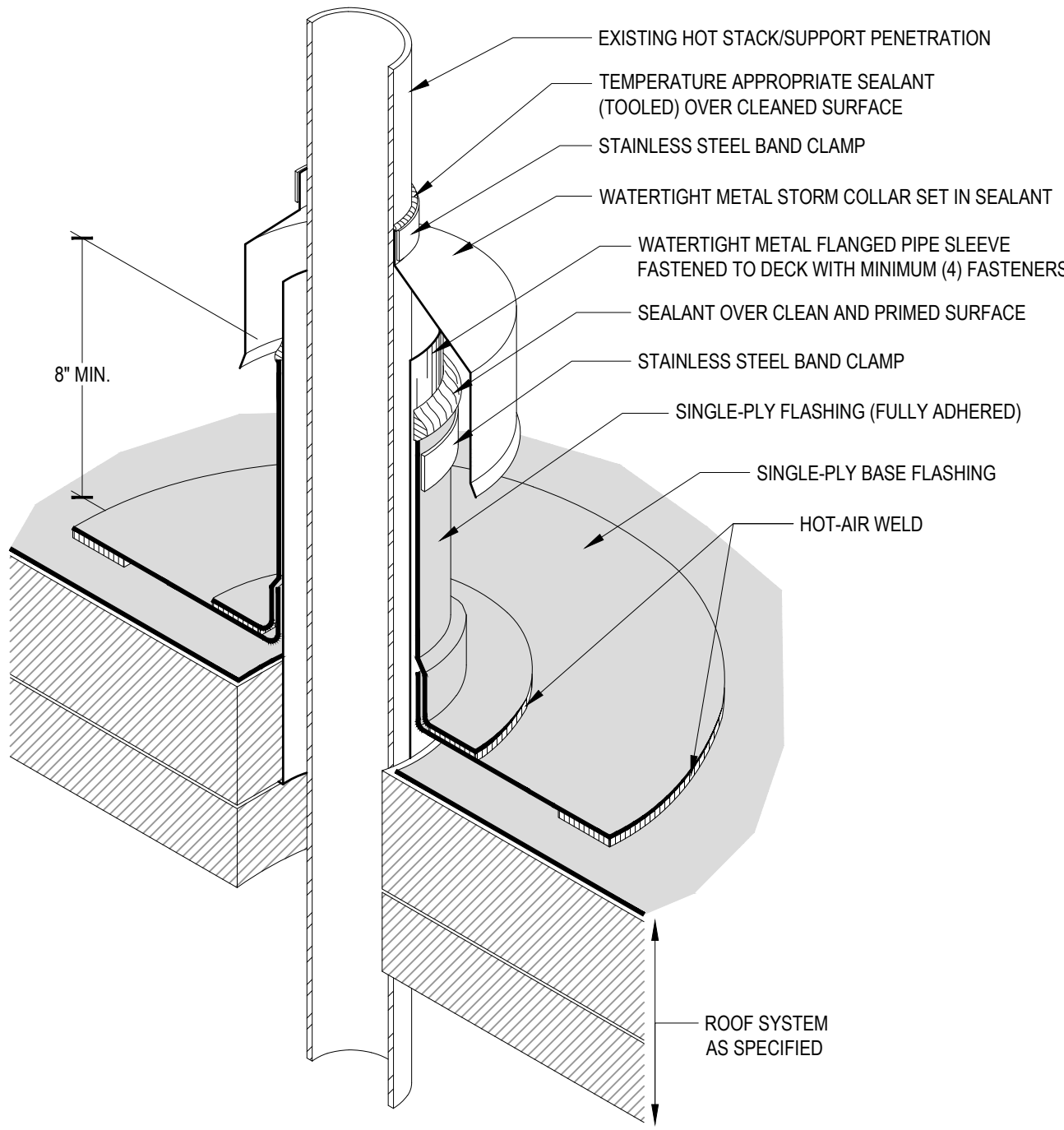
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SHEET NUMBER: R2.17

ORIGINAL SHEET SIZE: 36 x 24

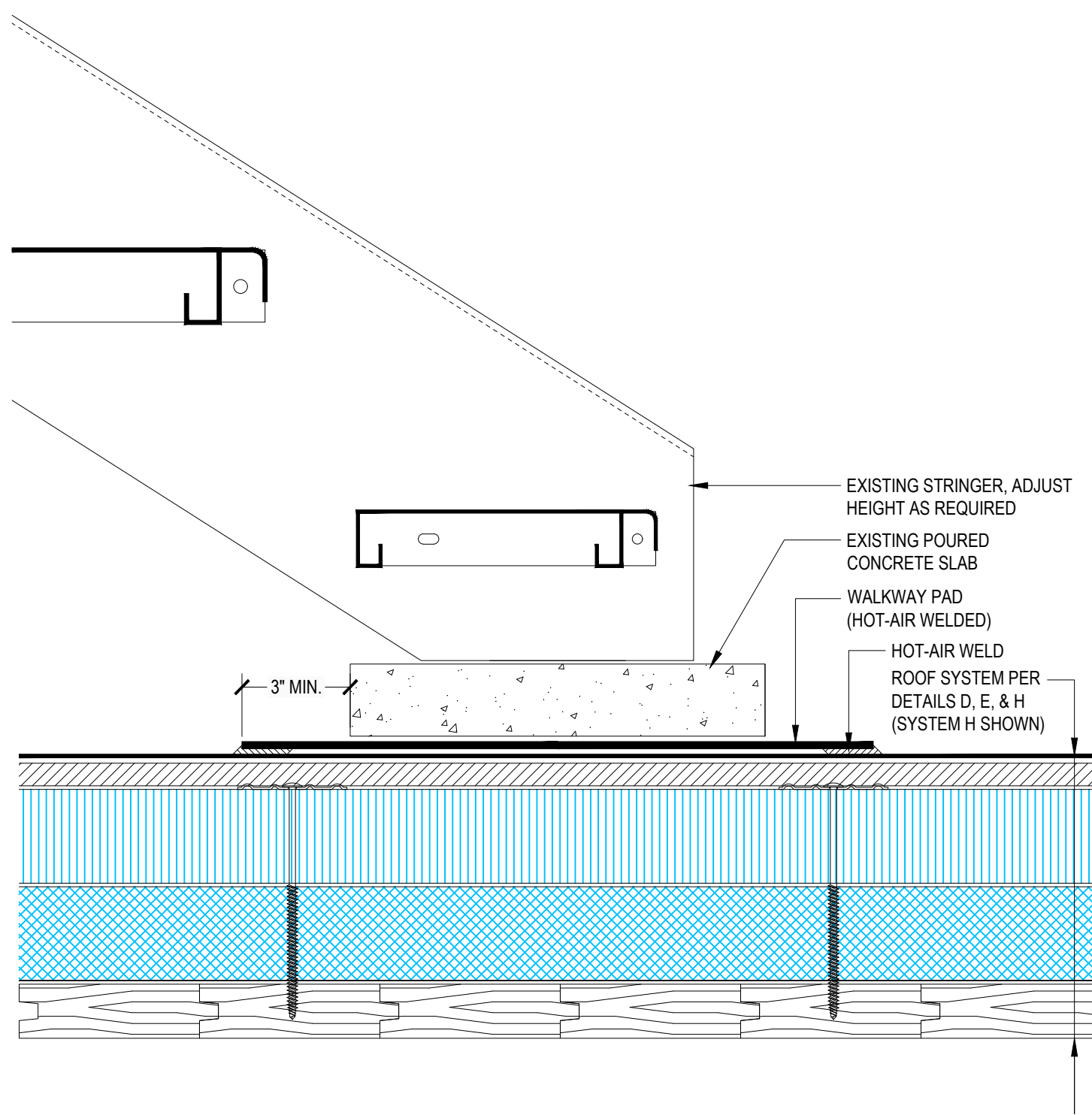




78 PRE-FABRICATED PIPE FLASHING DETAIL  
NO SCALE 23LSSLESUR010B003



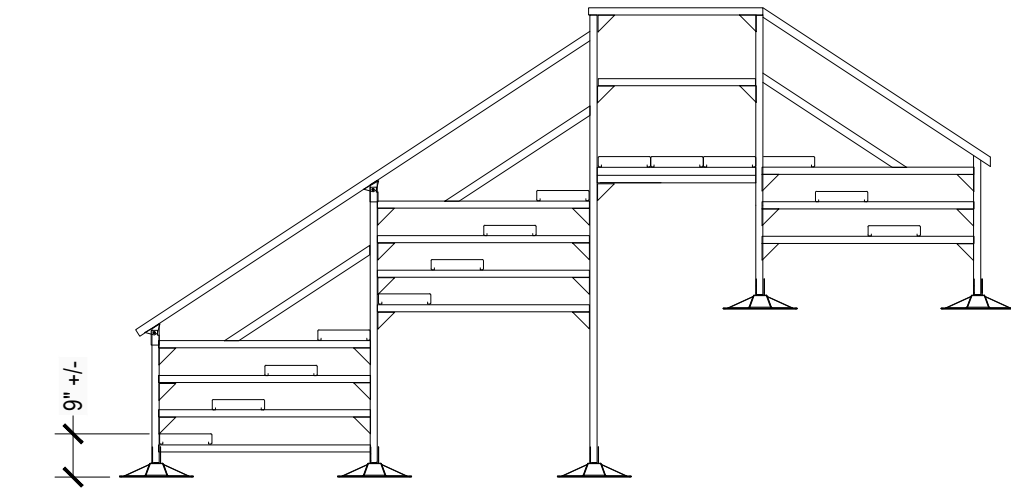
79 FLANGED PENETRATION DETAIL  
NO SCALE 23LSSLESUR010B003



80 STAIR SUPPORT DETAIL  
NO SCALE 23LSSLESUR010B003 (SECTIONS I3, J, N, Q1, R, & V)

PHP SYSTEMS AND DESIGN  
5534 Harvey Wilson Dr.  
Houston, TX 77020-8016  
800-797-6585  
www.phpsd.com

MIRO INDUSTRIES, INC.  
844 South 430 West, Suite 100  
Heber City, UT 84032  
800-765-6978  
www.miroind.com



- NOTES:
1. UNIT IS 36" WIDE ID.
  2. STRUT IS 1-5/8 X 1-5/8 HOT DIP GALVANIZED.
  3. HAND RAILS ARE 1-5/8 X 1-5/8 HOT DIP GALVANIZED.
  4. GRATING IS 2.5" X 12" WALKWAY PLANKS, EG.
  5. STEPS ARE 2.5" X 12" WALKWAY PLANKS, EG.
  6. BASES ARE POLYCARBONATE.
  7. HARDWARE AND BRACKETS ARE HOT DIP GALVANIZED.
- INSTALL WALKWAY PAD BENEATH EACH SUPPORT BASE. EXTEND 3" MINIMUM BEYOND SUPPORT BASE ON EACH SIDE.

81 ACCESS STAIRS  
NO SCALE 23LSSLESUR010B003 (SECTIONS J & K)

PIPE SUPPORT SCHEDULE								
PHP SYSTEMS AND DESIGN				MIRO INDUSTRIES				NOTES
PIPE TYPE	PIPE O.D. SIZE	MODEL	MAX. HEIGHT	MODEL	MAX. HEIGHT	SUPPORT SPACING	MAX. BASE LOAD (LBS)	
CONDUIT	<=1"	SS8 WITH CHANNEL	10"	8-BASE STRUT-2	2-1/2"	5' O.C.	172	1,2,4
CONDUIT	<=1"			8-BASE STRUT-5	5-3/8"	5' O.C.	172	1,2,4
CONDUIT	<=1"			8-BASE STRUT-8	8-7/8"	5' O.C.	172	1,2,4
CONDUIT	<=1"			8-BASE STRUT-12	12-7/8"	5' O.C.	172	1,2,4
CONDUIT	>1"<=2"	SS8 WITH ROLLER	10"	3-RAH-8	8"	8' O.C.	172	1,2
CONDUIT	>1"<=2"	PP10 WITH ROLLER	16"	3-RAH-12	12"	8' O.C.	172	1,2
CONDUIT	>2"<=4"	PP10 WITH ROLLER	16"	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	16"	3-RAH-8	8"	5' O.C.	172	1,3
GAS	<=3"			3-RAH-12	12"	5' O.C.	172	1,3
GAS	>3"<=3-1/2"	PP10 WITH ROLLER	16"	5-RAH-8	8"	8' O.C.	335	1,3
GAS	>3"<=3-1/2"			5-RAH-12	12"	8' O.C.	335	1,3
CONDENSATE	<=2-1/2"	SS8 WITH CHANNEL	10"	8-BASE STRUT-2	2-1/2"	5' O.C.	172	1,3,4,5
CONDENSATE	<=2-1/2"			8-BASE STRUT-5	5-3/8"	5' O.C.	172	1,3,4,5
CONDENSATE	<=2-1/2"			8-BASE STRUT-8	8-7/8"	5' O.C.	172	1,3,4,5
CONDENSATE	<=2-1/2"			8-BASE STRUT-12	12-7/8"	5' O.C.	172	1,3,4,5

- 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 3" MINIMUM 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.PHPSTD.COM	MIRO INDUSTRIES, INC. HEBER CITY, UTAH 800-765-6978 WWW.MIROIND.COM

82 PIPE SUPPORT SCHEDULE  
NO SCALE 23LSSLESUR010B003



CLIENT: LEE'S SUMMIT R-7 SCHOOL DISTRICT

PROJECT: LEE'S SUMMIT HIGH SCHOOL (BUILDING A)  
400 SE BLUE PARKWAY  
LEE'S SUMMIT, MO 64063

DRAWING TITLE: DETAILS

BENCHMARK PROJECT NO.: 23LSSLESUR010B  
SHEET NUMBER:

R2.18

ORIGINAL SHEET SIZE: 36 x 24