

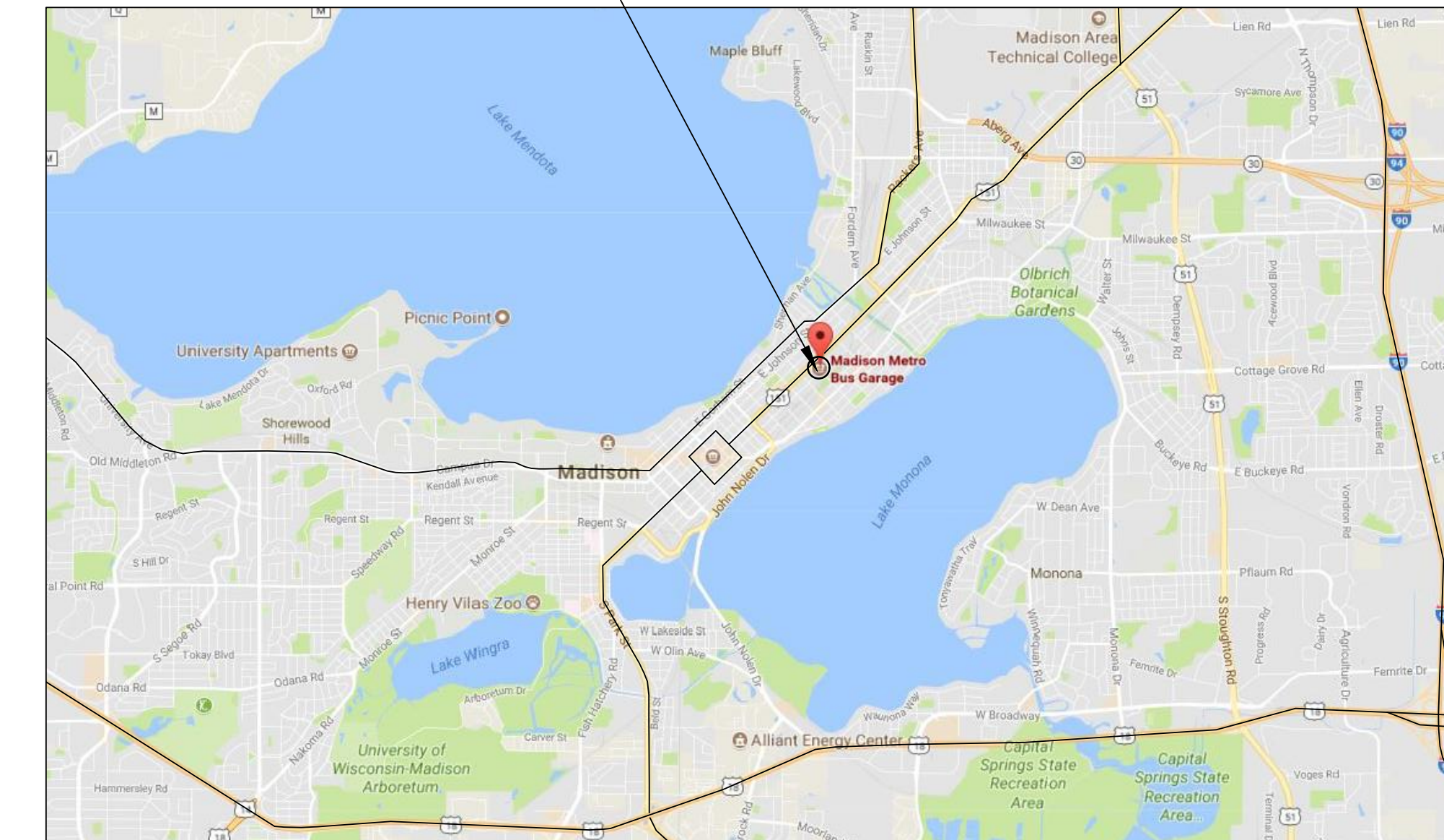
Madison Metro Bus Garage - Roof Replacement

1101 E WASHINGTON ST.

MADISON, WI 53703

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1101 E WASHINGTON ST



PROJECT LOCATION

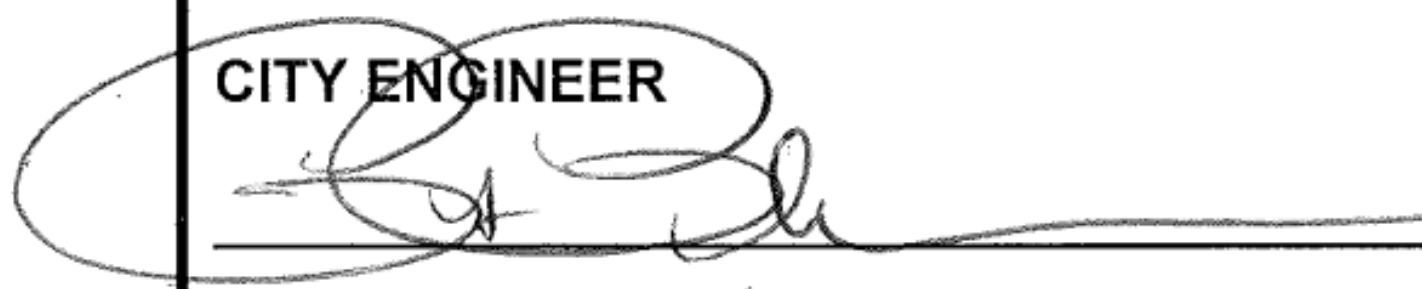
NOT TO SCALE



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MADISON METRO BUS GARAGE -
ROOF REPLACEMENT
1101 E WASHINGTON ST.
MADISON, WI 53703

Cover Sheet

PUBLIC IMPROVEMENT PROJECT APPROVED: RES - 17 - 00832 FILE ID 49002 DATE October 17, 2017 BY THE COMMON COUNCIL OF MADISON, WI	PUBLIC IMPROVEMENT DESIGN APPROVED BY: CITY ENGINEER  DATE 11/10/17
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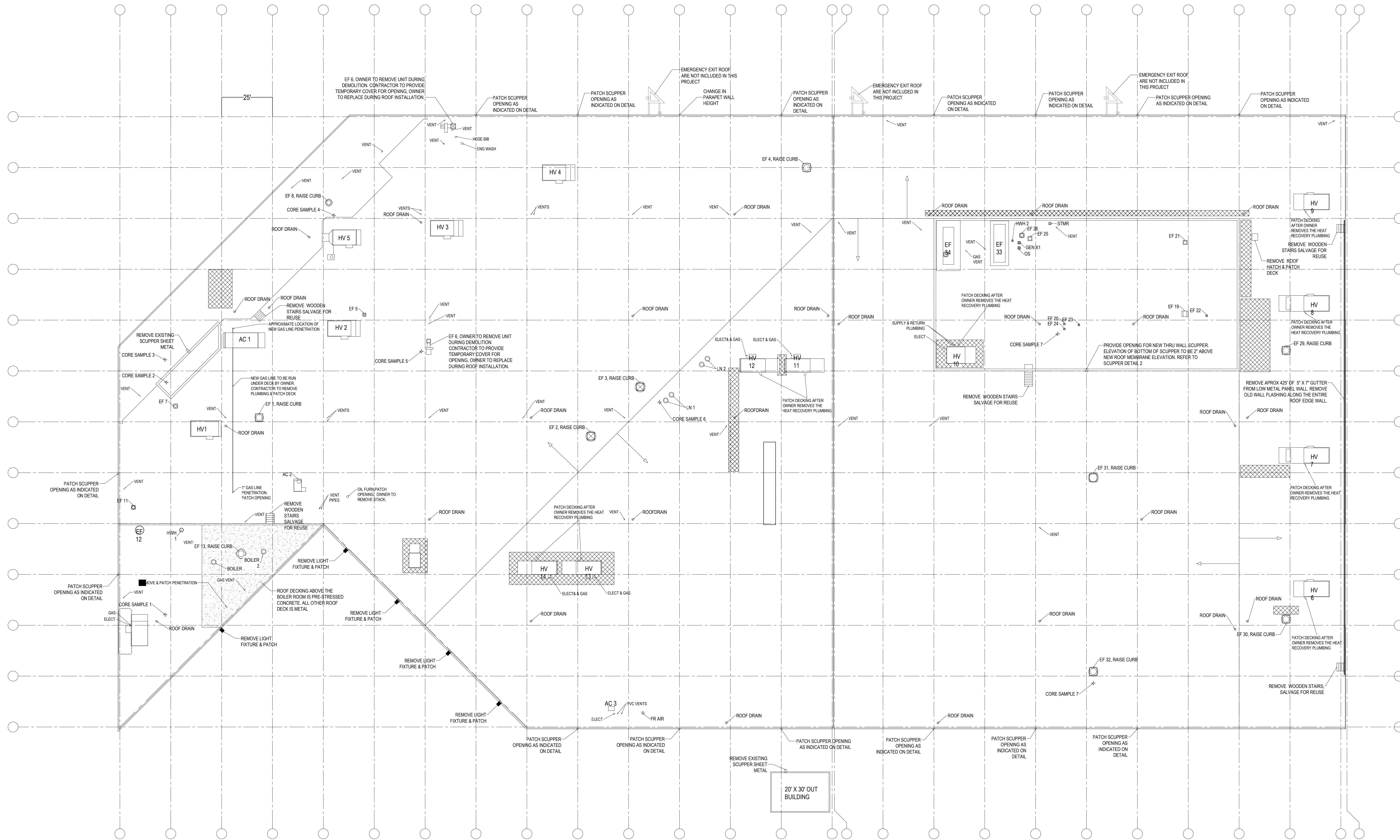
CONTRACT #	8064
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SHEET
001



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 1101 E. WASHINGTON AVE.
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1 DEMOLITION PLAN
 SCALE: no scale

- DEMOLITION GENERAL NOTES:**
- EXISTING ROOF REMOVAL: THE EXISTING BALLASTED EPDM ROOFING SYSTEM SHALL BE REMOVED DOWN TO THE METAL OR CONCRETE AS APPLICABLE. WORK INCLUDES THE 20' X 30' OUT BUILDING, BUT DOES NOT INCLUDE THE EMERGENCY EXITS.
 - CONDITION OF DECK & REPAIRS: BOTH DECK TYPES SHALL BE INSPECTED FOR SIGNS OF DAMAGE OR DETERIORATION PRIOR TO PROCEEDING WITH THE INSTALLATION OF THE NEW ROOF. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE DECKING IS IN SATISFACTORY CONDITION SUCH THAT IT MEETS THE REQUIREMENTS TO OBTAIN THE SPECIFIED WARRANTY. PORTIONS OF THE METAL DECK WERE NOTED TO SHOW SIGNS OF BUCKING AND/OR RUSTING FROM THE UNDERSIDE. REPAIRS TO THE STEEL DECK SHALL BE COMPLETED AS SPECIFIED IN SECTION 05 31 00 - STEEL DECKING. REPAIRS SHALL BE PAID ON A UNIT COST BASIS FOR ACTUAL AMOUNTS OF REPAIR DECKING INSTALLED. ALL REPAIRS SHALL BE APPROVED BY THE CITY PROJECT MANAGER BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL PROVIDE AN ACCURATE & DETAILED "AS BUILT" DRAWING SHOWING THE LOCATIONS OF ALL DECKING REPAIRS MADE. ALL ROOF PATCHING FOR PENETRATIONS TO BE REMOVED THAT ARE INDICATED ON THE DRAWINGS SHALL BE INCLUDED IN THE BASE BID.
 - ROOF HATCH: THE ROOF HATCH SHALL BE REMOVED & THE DECK PATCHED AS PART OF THE BASE BID.
 - METAL WALL SCUPPERS: PATCH SCUPPER OPENING ON BOTH SIDES OF THE EXTERIOR PARAPET WALL. THESE SCUPPERS SHALL BE REPLACED WITH OVERFLOW DRAINS & PLUMBING / DOWNSPOUT NOZZLES THROUGH THE EXTERIOR WALL.
 - EXTEND CURBING: THE FOLLOWING UNITS SHALL HAVE THEIR CURBING EXTENDED BY A MINIMUM OF 3 1/2"; EF 1, EF 2, EF 3, EF 4, EF 8, EF 13, EF 29, EF 30, EF 31 & EF 32. FINAL ELEVATION OF CURBING SHALL BE A MINIMUM OF 8" ABOVE THE ELEVATION OF THE NEW ROOF.
 - PARAPET MOUNTED LIGHT FIXTURES: REMOVE THE 5 OVERHANGING LIGHT FIXTURE BY THE BUS ENTRANCE AREA & PATCH HOLES AND ELECTRICAL OPENING IN PARAPET WALL. THESE UNITS SHALL BE ELECTRICALLY DISCONNECTED PRIOR TO DEMOLITION.
 - CORE SAMPLES: ALL CORE SAMPLES TAKEN ON THE 1978 ROOF SHOWS THE FIELD THICKNESS OF THE INSULATION AT 1 1/2" (1/2" PERLITE FIBERBOARD ADHERED TO 1" INSULATION BOARD) THE CORE SAMPLES FOR THE 1982 ROOF SHOW THE FIELD THICKNESS TO BE 1" (1" INSULATION BOARD). THE BIDDING CONTRACTORS MAY TAKE ADDITIONAL CORE SAMPLE.
 - WORK BY OWNER: THE METRO MAINTENANCE STAFF SHALL PERFORM THE FOLLOWING WORK THAT COORDINATES WITH THE ROOF DEMO:
 - ELECTRICALLY DE-ENERGIZE / DISCONNECT / RECONNECT / ENERGIZE ANY ROOF TOP UNITS/DEVICES AS REQUIRED.
 - UNITS EF 6 & EF 14 WILL BE REMOVED DURING THE DEMOLITION & REPLACED WITH NEW UNITS AFTER THE NEW ROOFING SYSTEM IS INSTALLED.
 - DISCONNECT / RECONNECT THE REFRIGERANT LINES AS REQUIRED FOR UNITS AC 1, HV 5 & AC 2
 - DISCONNECT GAS LINE FOR UNIT AC 1.
 - REPAINT THE UPPER PORTION OF THE COUNTER FLASHING EMBEDDED IN THE MORTAR JOINT.
 - DISCONNECT THE GAS LINE GOING TO AC 1. THE CONTRACTOR SHALL REMOVE THE LINE, PATCH THE EXISTING HOLE & FLASH IN A NEW PENETRATION CLOSER TO THE UNIT AS PART OF THE BASE BID.
 - REMOVE THE EXISTING HEAT RECOVERY PLUMBING FROM UNITS: HV 6, HV 7, HV 8, HV 9, HV 10, HV 11, HV 12, HV 13 & HV 14. THE CONTRACTOR SHALL PATCH THESE HOLES AS PART OF THE BASE BID.
 - REMOVE EXISTING PENETRATIONS FOR AS NOTED ON PLANS. CONTRACTOR TO PATCH DECK AS PART OF THE BASE BID.
 - THE CONTRACTOR SHALL COORDINATE WITH METRO MAINTENANCE & GIVE A MINIMUM OF 24 HOURS PRIOR NOTICE FOR ANY THE ABOVE WORK.
 - WOODEN STAIRS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL WOODEN STAIRS & MAKE NECESSARY REPAIRS OR ADJUSTMENTS WHEN REINSTALLED. IF ANY STAIRS CAN NOT BE REUSED THE CONTRACTOR SHALL REPLACE WITH NEW.
 - ROOF DRAINS: EXISTING PRIMARY ROOF DRAINS ARE TO BE REPLACED. THE CONTRACTOR SHALL PROVIDE NEW CAST IRON DRAINS WITH CAST IRON DOMES.
 - MORTAR JOINTS: INSPECT ALL BRICK MASONRY WALLS CONTAINED ON THE INTERIOR OF THE MAIN ROOF FOR LOOSE, WORN OR DEFECTIVE MORTAR JOINTS. GRIND OUT DEFECTIVE MORTAR JOINTS & REPOINT. REPAIRS WILL BE PAID ON A UNIT BASIS FOR ACTUAL WORK PERFORMED.
 - MISCELLANEOUS DEMO: DEMO ALL ITEMS AS INDICATED ON PLANS THAT ARE NOT SPECIFICALLY CLARIFIED IN THESE GENERAL NOTES.

CORE SAMPLE SCHEDULE

CORE SAMPLE #1	SINGLE BOARD 1.5" THICK CONSISTING OF TAR PAPER/ FOAM INSULATION/FIBERBOARD
CORE SAMPLE #2	SINGLE BOARD 1.5" THICK CONSISTING OF TAR PAPER/ FOAM INSULATION/FIBERBOARD
CORE SAMPLE #3	SINGLE BOARD 1.5" THICK CONSISTING OF TAR PAPER/ FOAM INSULATION/FIBERBOARD
CORE SAMPLE #4	APPROXIMATELY 7" THICK OF FIBERBOARD & TAPERED PERLITE BOARD
CORE SAMPLE #5	SINGLE BOARD 1.5" THICK CONSISTING OF TAR PAPER/ FOAM INSULATION/FIBERBOARD
CORE SAMPLE #6	SINGLE BOARD 1" THICK CONSISTING OF FOAM INSULATION BOARD
CORE SAMPLE #7	SINGLE BOARD 1" THICK CONSISTING OF FOAM INSULATION BOARD
CORE SAMPLE #8	SINGLE BOARD 1" THICK CONSISTING OF FOAM INSULATION BOARD

CROSSHATCHED AREAS INDICATE WHERE THE UNDERSIDE OF THE DECK WAS NOTED TO HAVE EXCESSIVE AMOUNT OF RUSTING PRESENT.

Roof Demo Plan

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Roof Plan

CONTRACT

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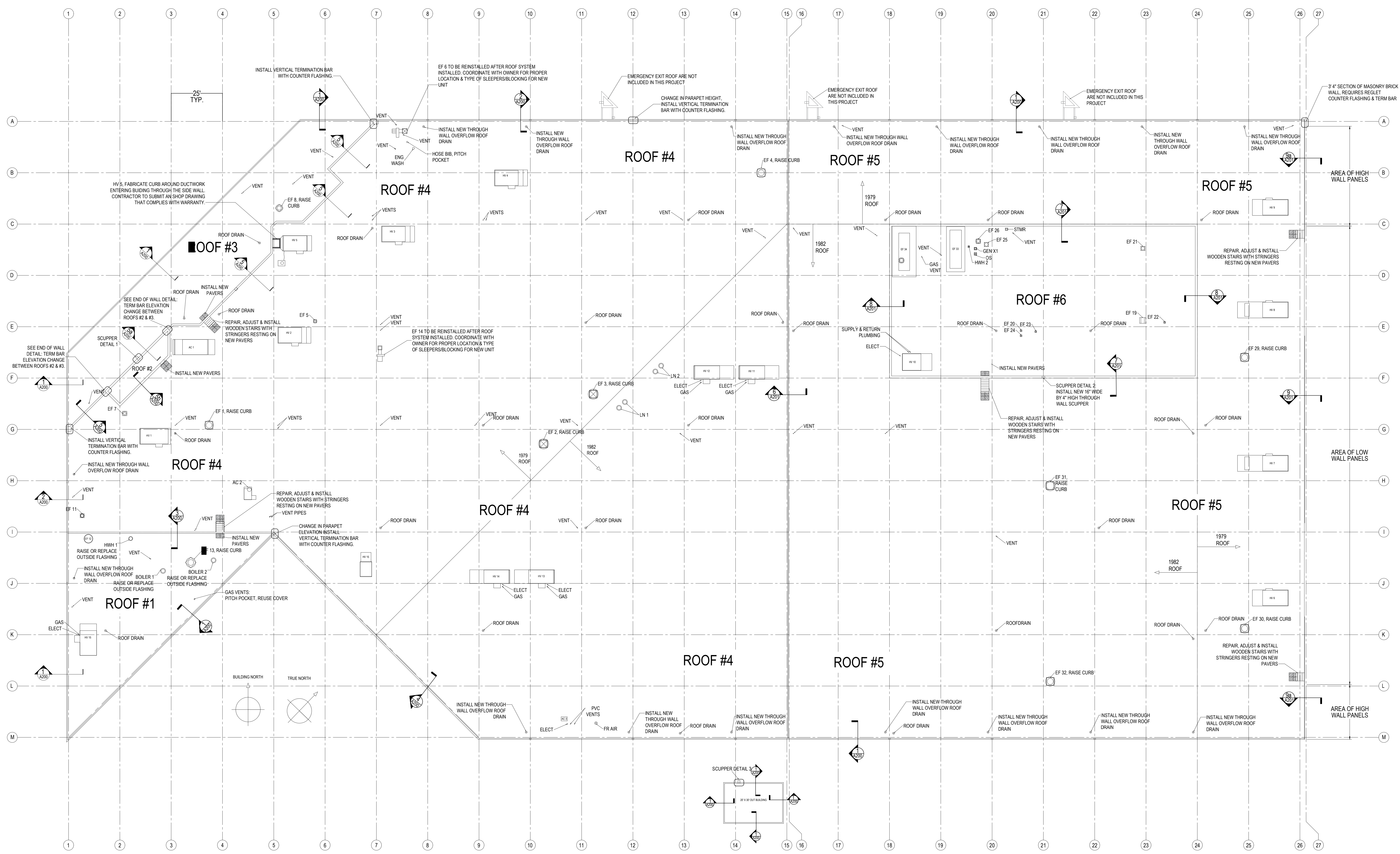
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DATE 10/30/17

REV: 11/10/17

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ROOF PLAN

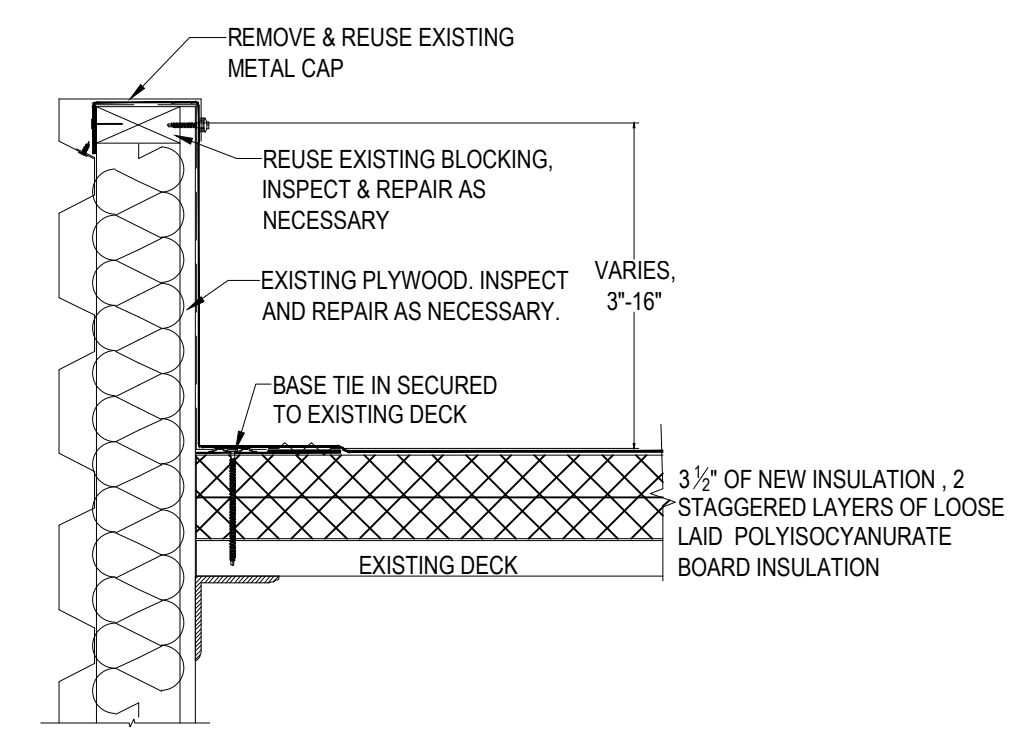
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- GENERAL NOTES:
- EXTENT OF ROOF REPLACEMENT: INSTALL NEW BALLASTED 60 MIL EPDM MEMBRANE ON THE MAIN BUILDING (ROOFS 1-6) AND THE SOUTH 20' x 30' OUT BUILDING. THE 6 EMERGENCY EXIT ROOFS ARE NOT INCLUDED IN THIS SCOPE OF WORK. THE EXISTING DECK IS SLOPED & NO TAPERED INSULATION IS REQUIRED FOR PROPER DRAINAGE.
 - BALLAST: THE CONTRACTOR HAS THE OPTION TO REUSE OR REPLACE THE EXISTING BALLAST. ADDITIONAL REPLACEMENT BALLAST MAY BE REQUIRED DUE TO WIND UPLIFT REQUIREMENTS.
 - CONDITION OF DECK REPAIRS: PROCEED WITH INSTALLATION OF THE NEW ROOFING SYSTEM ONLY AFTER THE DECK HAS BEEN INSPECTED & SATISFACTORY REPAIRED. THE SIZE & EXTENTS OF THE METAL DECK REPAIRS SHALL BE RECORDED ON AN "AS BUILT" DRAWING BY THE CONTRACTOR & SUBMITTED TO THE CITY UPON COMPLETION.
 - SLEEPERS: REPLACE ALL EXISTING SLEEPERS PER DETAIL.
 - PAVERS: INSTALL NEW 24" X 24" PAVERS AS SHOWN ON PLANS.
 - REPLACEMENT EXHAUST FANS BY OWNER: COORDINATE INSTALLATION OF NEW EXHAUST FANS EF 6 & EF 14 WITH THE OWNER. NEW FANS WILL HAVE SIMILAR INSTALLATION REQUIREMENTS AS THOSE REMOVED. THE CONTRACTOR SHALL PROVIDE NECESSARY SLEEPERS, PROTECTIVE MEMBRANE & COUNTER FLASHING AS REQUIRED.
 - PENETRATIONS: INSTALL PER DETAILS. NOTIFY CITY PROJECT MANAGER OF ANY PENETRATIONS THAT ARE NOT COVERED BY THE DETAILS ON THE PLANS OR SUBMITTALS.
 - PERIMETER PARAPET WALL SCUPPERS: 15 EXTERIOR THROUGH WALL SCUPPER SHALL BE REPLACED WITH 17 THROUGH WALL OVERFLOW DRAINS AS SHOWN ON THE PLANS. NEW DRAINS SHALL BE 15" IN DIAMETER WITH 6" LEADERS, CAST IRON BODY & DOME.
 - HV 5 DUCTWORK PENETRATION: THE WALL PENETRATION FOR ROOF TOP UNIT HV 5 WILL LACK PROPER ELEVATION CLEARANCE BETWEEN THE TERMINATION BAR & THE FINAL ELEVATION OF THE NEW ROOFING MEMBRANE. A CURB SHALL BE FABRICATED AROUND THE AREA WHERE THE DUCTWORK PENETRATES THE WALL. THE CONTRACTOR SHALL CONSULT WITH THE ROOFING MANUFACTURE TO PROVIDE AND INSTALL A WARRANTABLE DETAIL FOR THIS PENETRATION THAT WILL COVER THE DUCTWORK & END WITH A PROPER TERMINATION.
 - ROOF DRAIN REPLACEMENT: ALL 28 ROOF DRAINS SHALL BE REPLACED WITH NEW. NEW DRAINS SHALL BE 15" IN DIAMETER WITH 8" LEADERS, CAST IRON BODY AND DOME. ANY DRAINS WITH 6" LEADERS SHALL BE INCREASED TO 8" LEADERS WITH A REDUCER TO CONNECT TO THE EXISTING PLUMBING AS REQUIRED. RE-INSULATE THE UNDERSIDE OF THE DRAINS & ASSOCIATED PLUMBING.

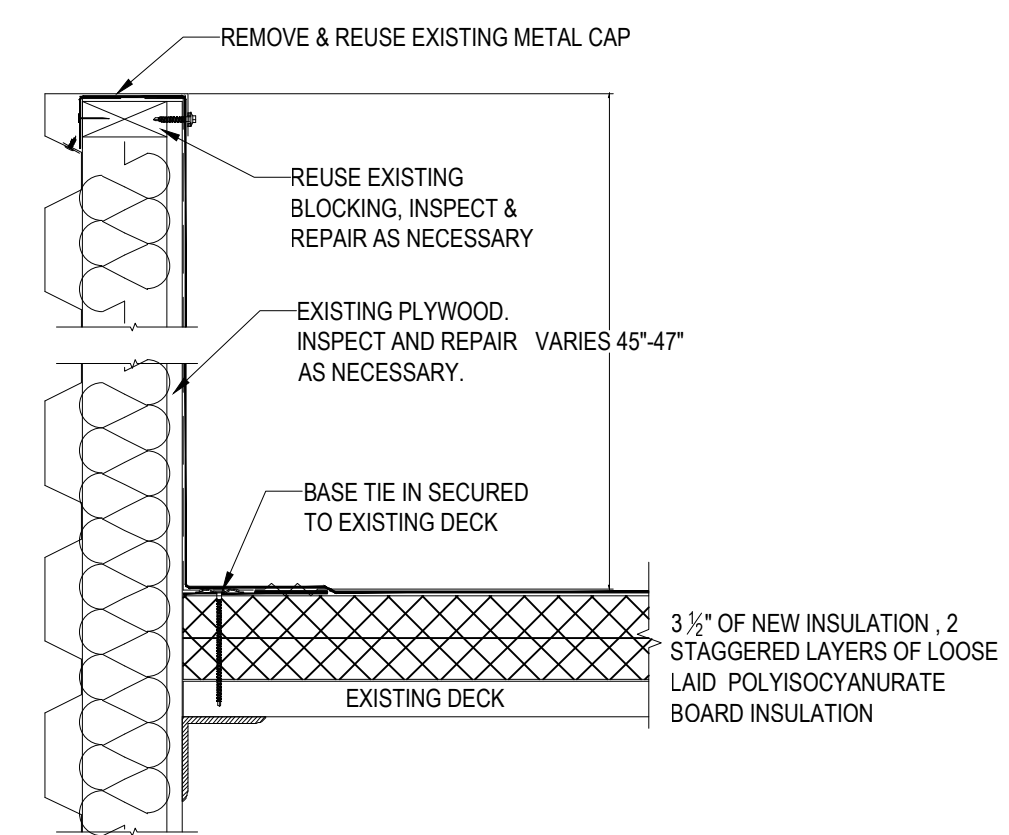


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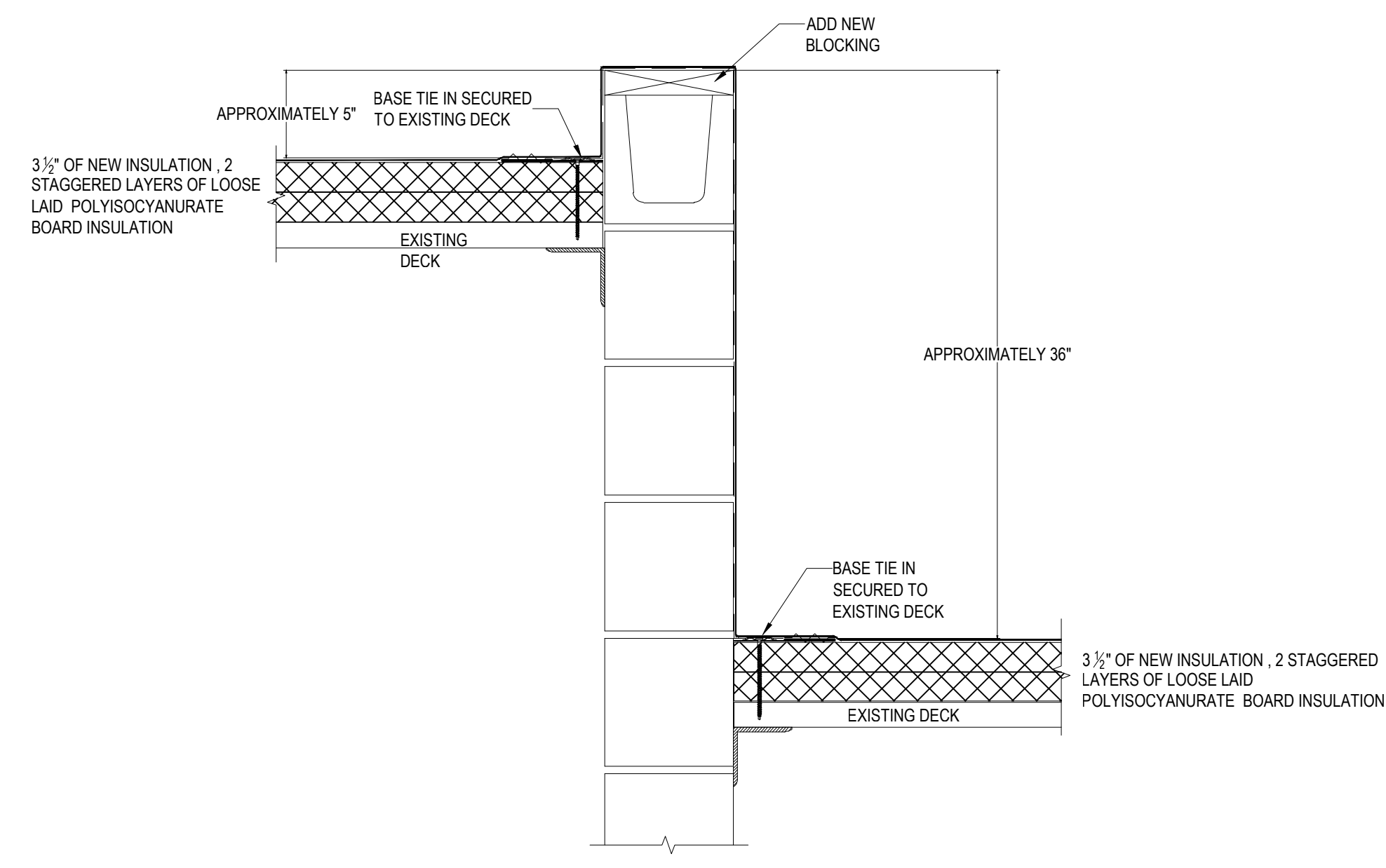
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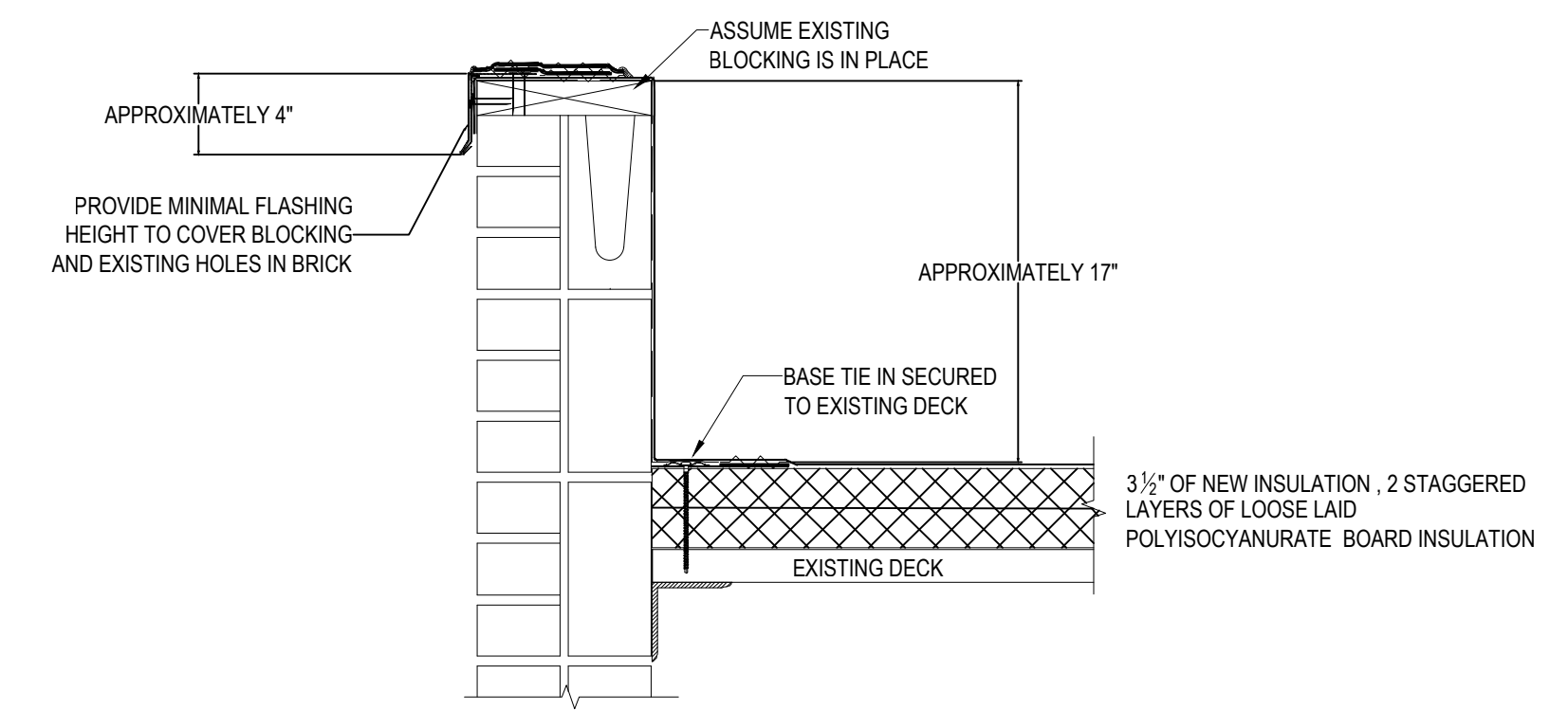
1 LOW PARAPET WALL
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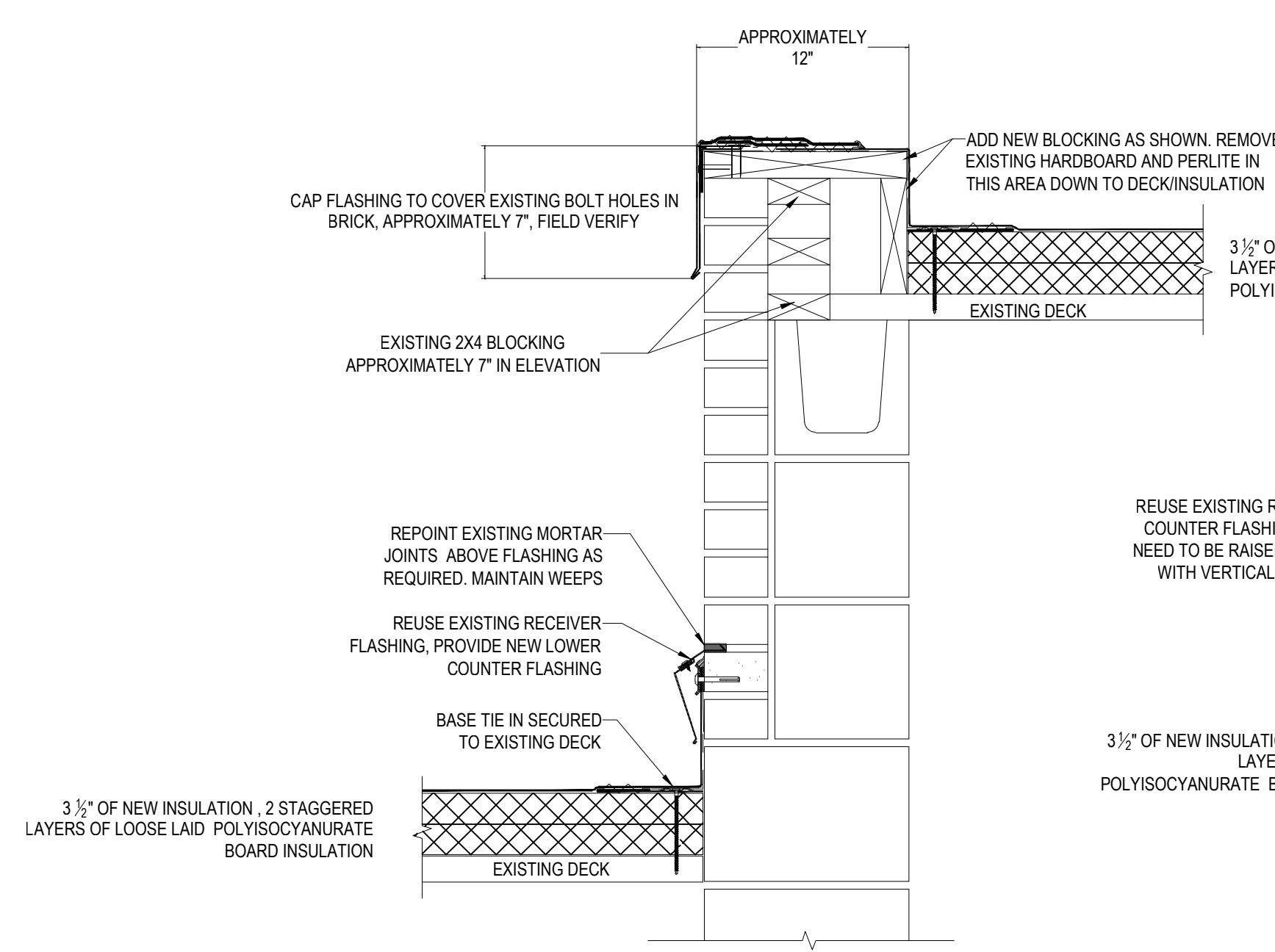
2 HIGH PARAPET WALL
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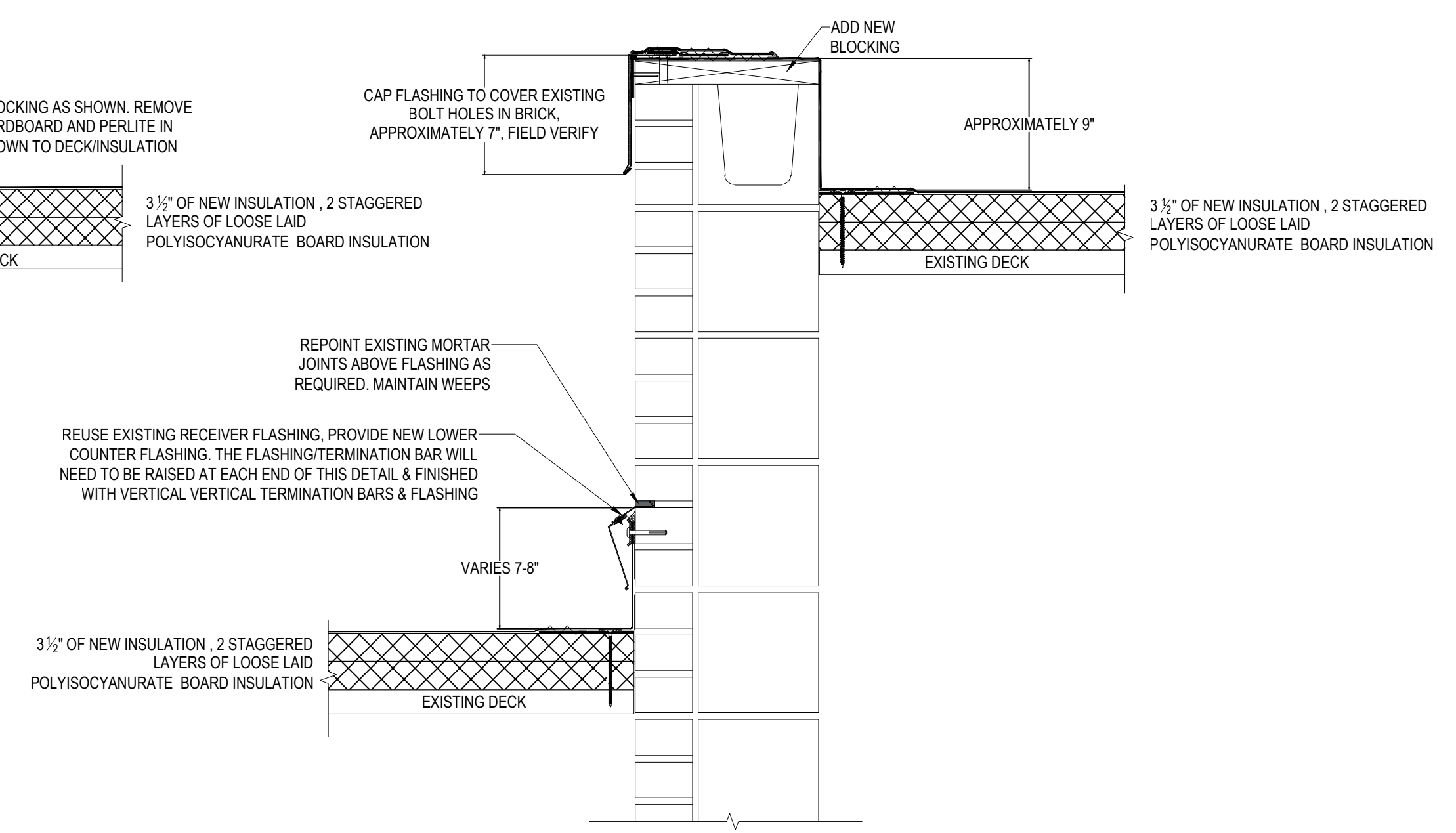
3 ELEVATION TRANSITION BETWEEN ROOFS #1 & #4
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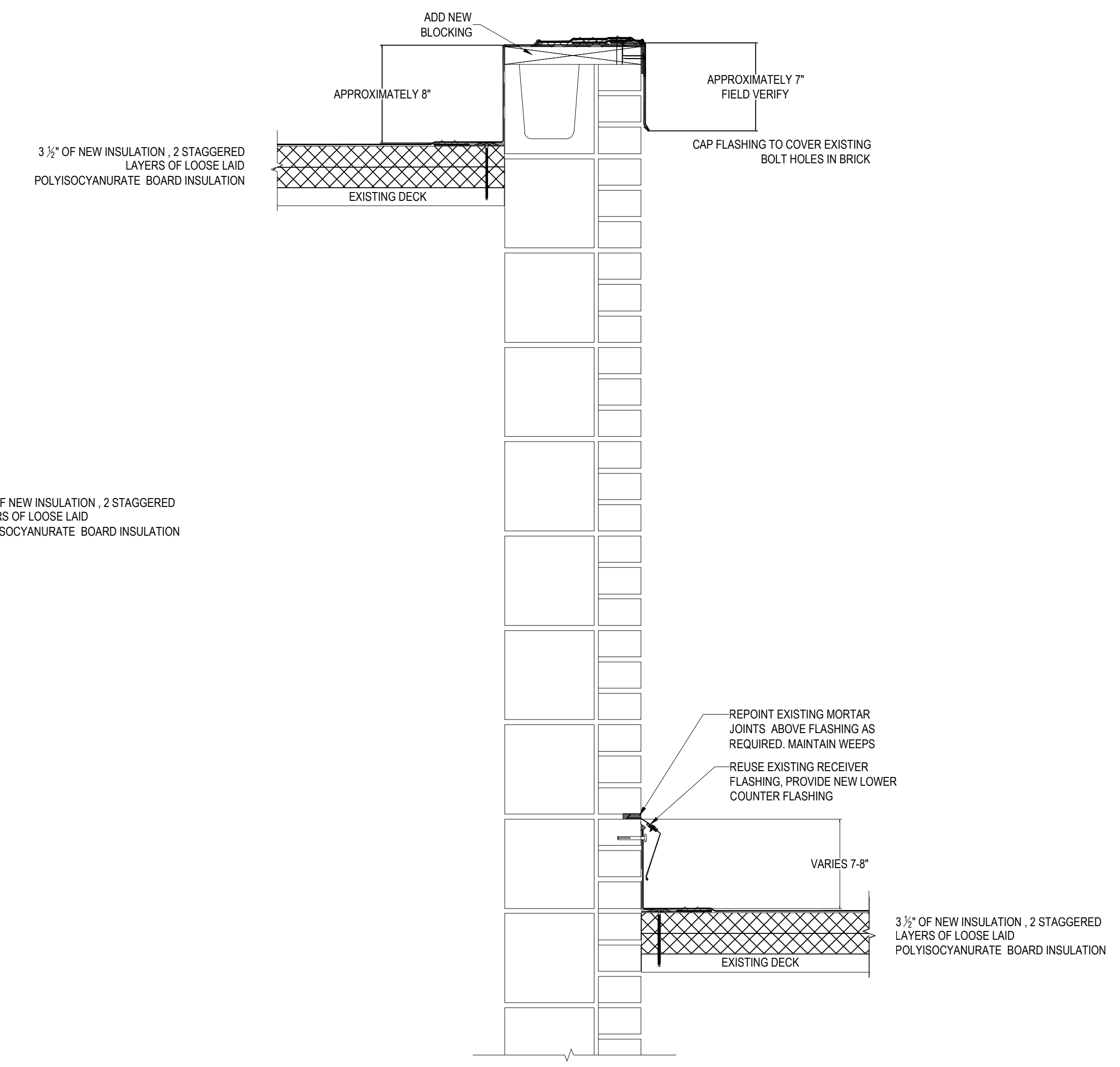
4 PARAPET WALL AT BUS ENTRANCE
 SCALE: NOT TO SCALE



5 ELEV. TRANSITION - ROOFS #3 & #4
 SCALE: NOT TO SCALE



5A ELEV. TRANSITION - #2 & #3
 SCALE: NOT TO SCALE



5B ELEV. TRANSITION - ROOFS #2 & #4
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Wall Sections

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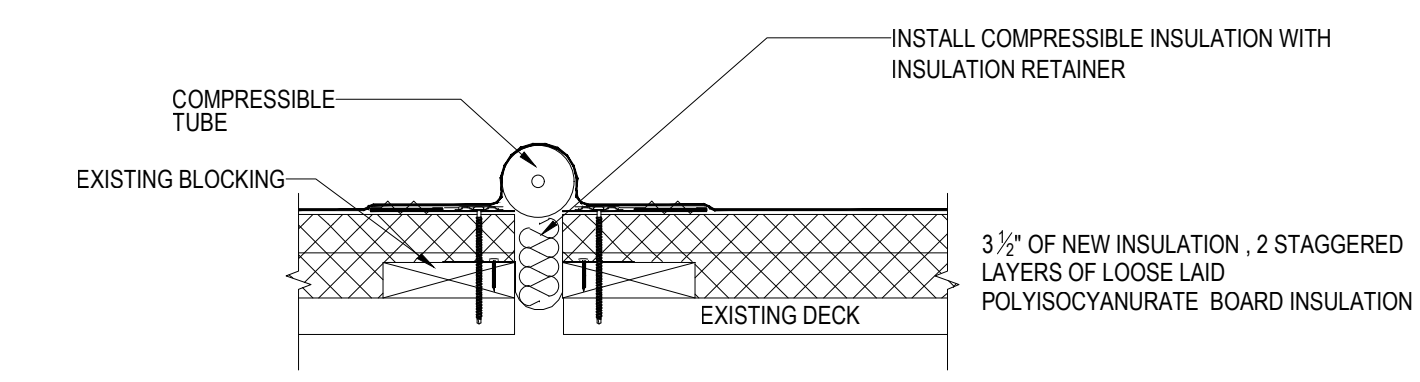
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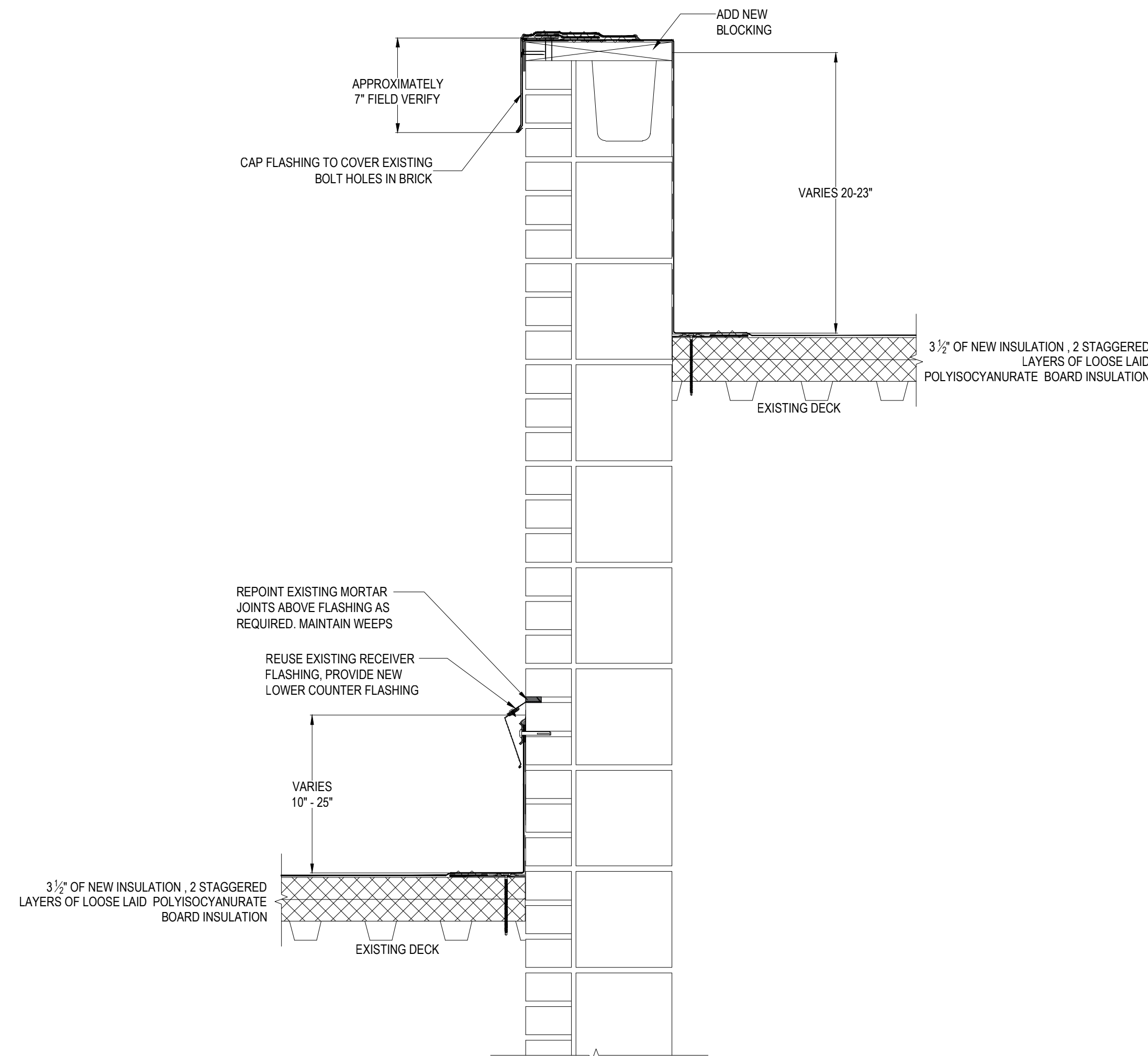
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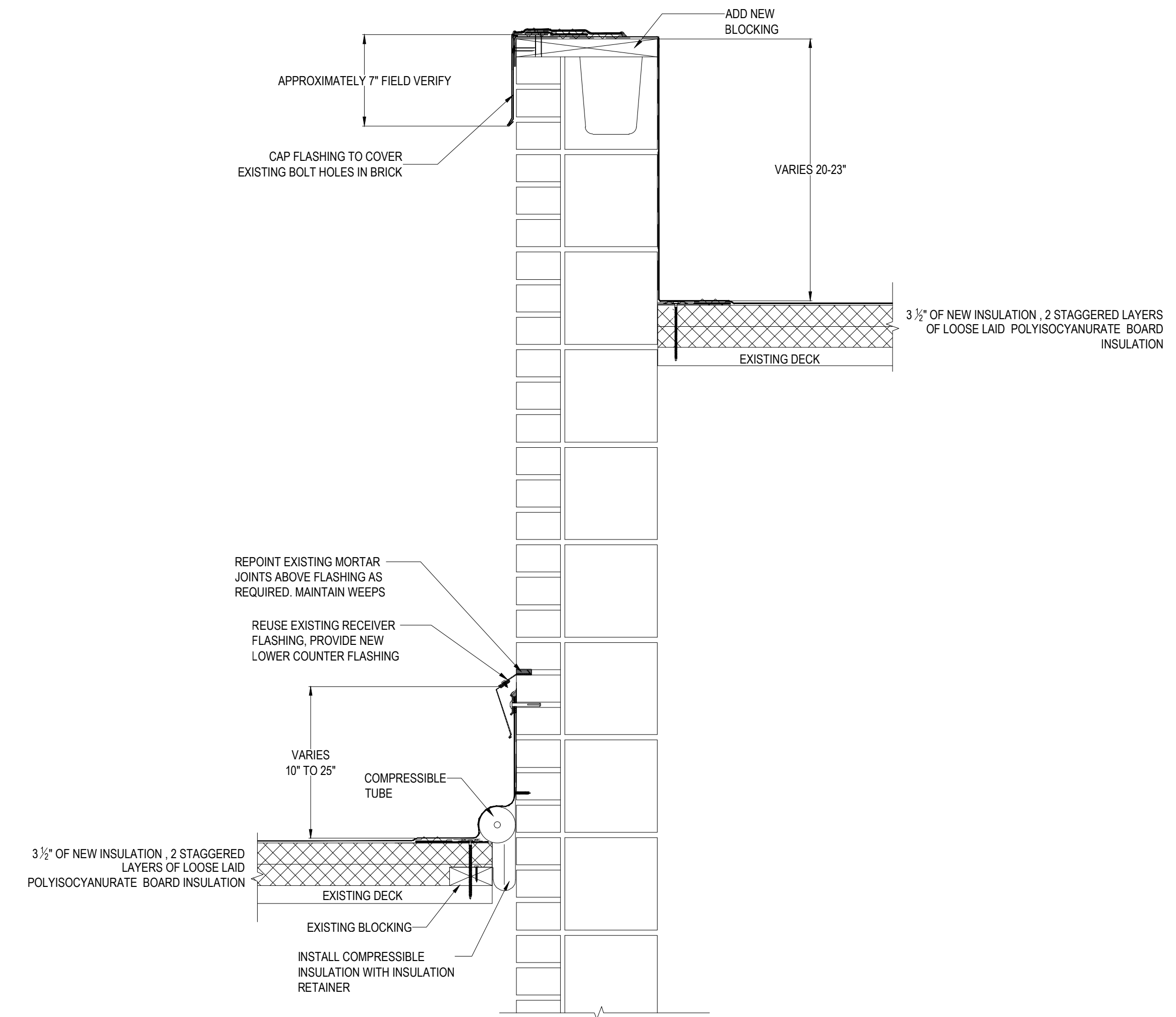
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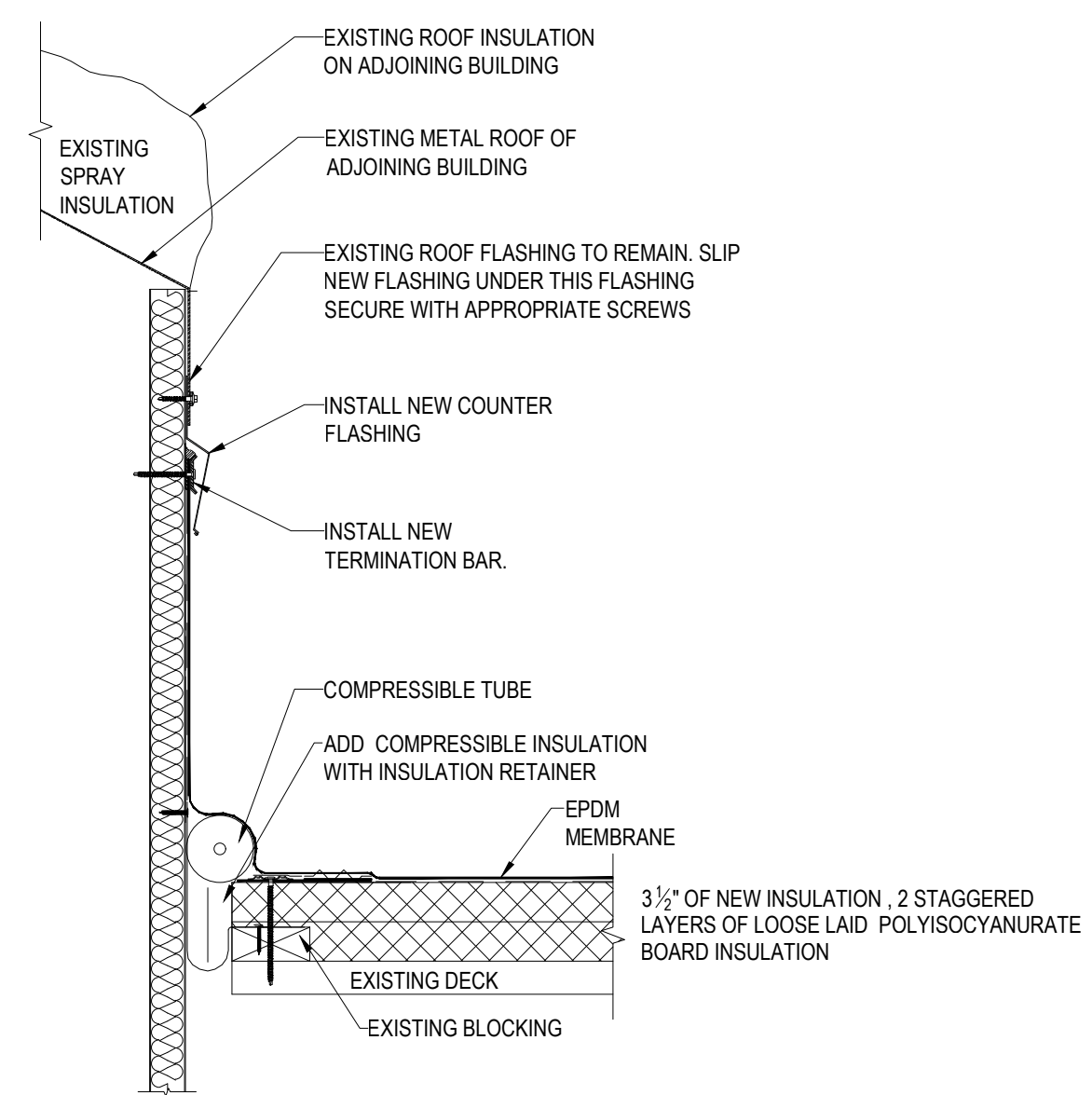
6 EXPANSION JOINT BETWEEN ROOF #4 & #5
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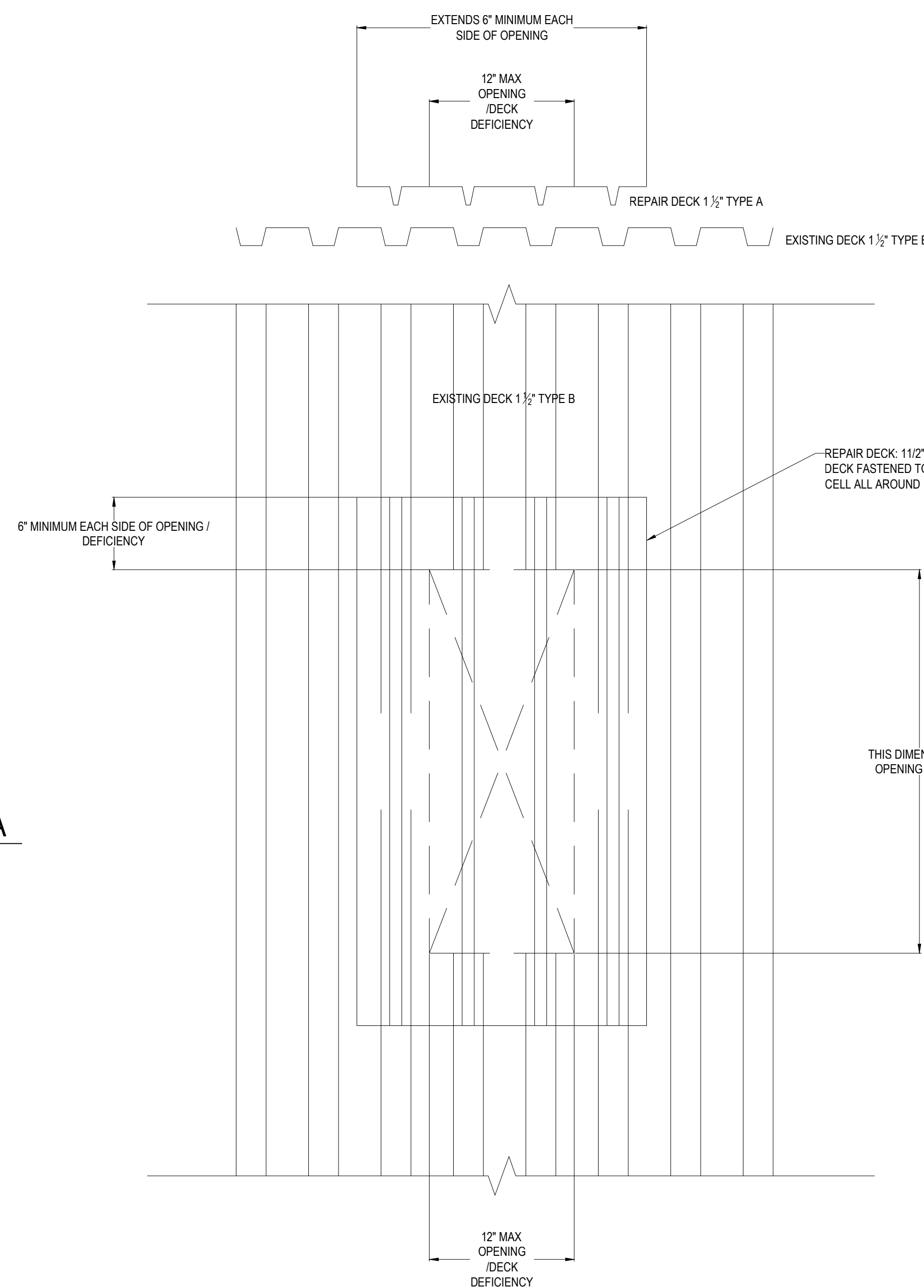
7 ELEV. TRANSITION - ROOFS #5 & #6, NORTH & SOUTH WALLS
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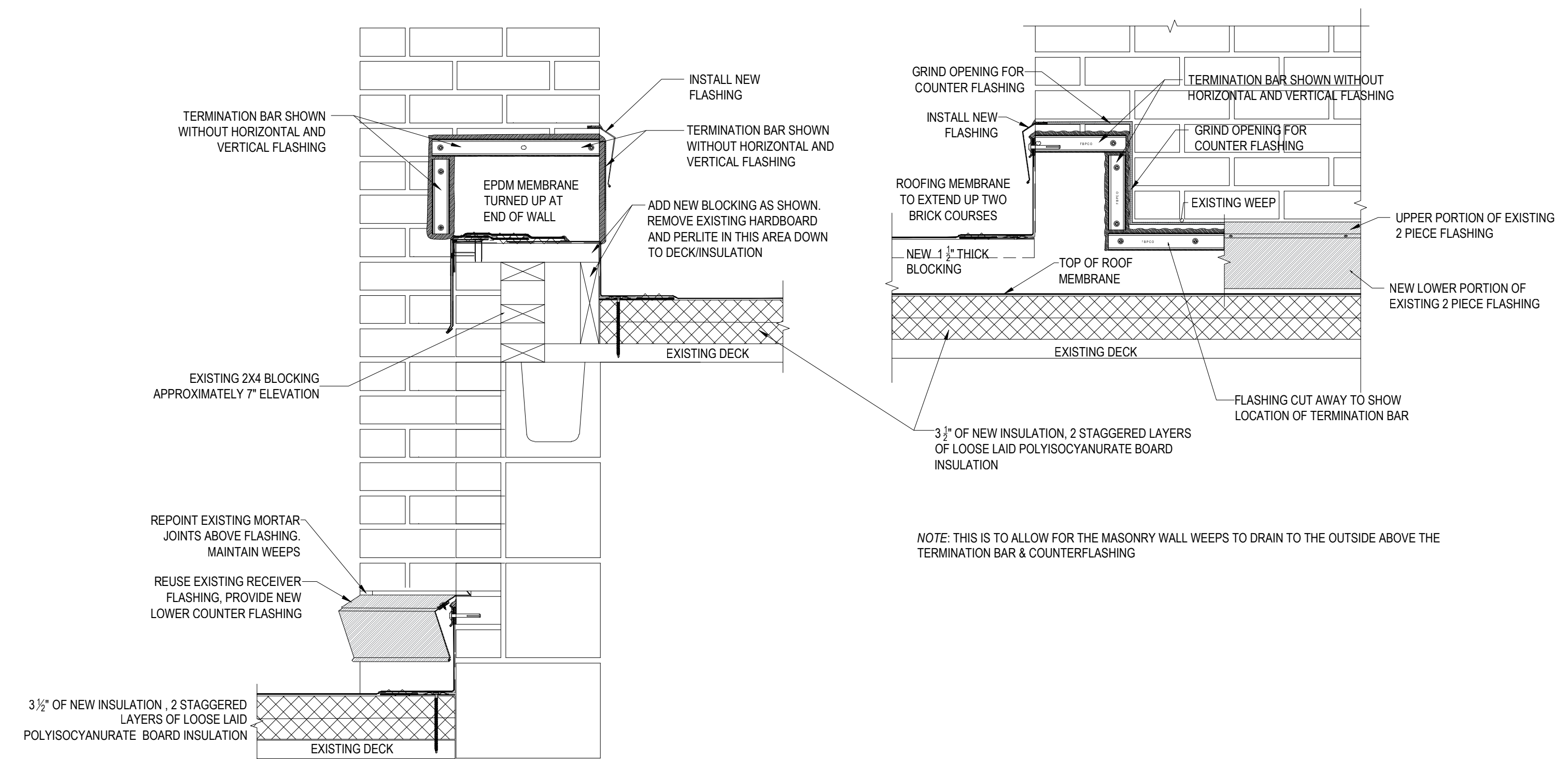
8 ELEV. TRANSITION - ROOFS #5 & #6, EAST & WEST WALLS
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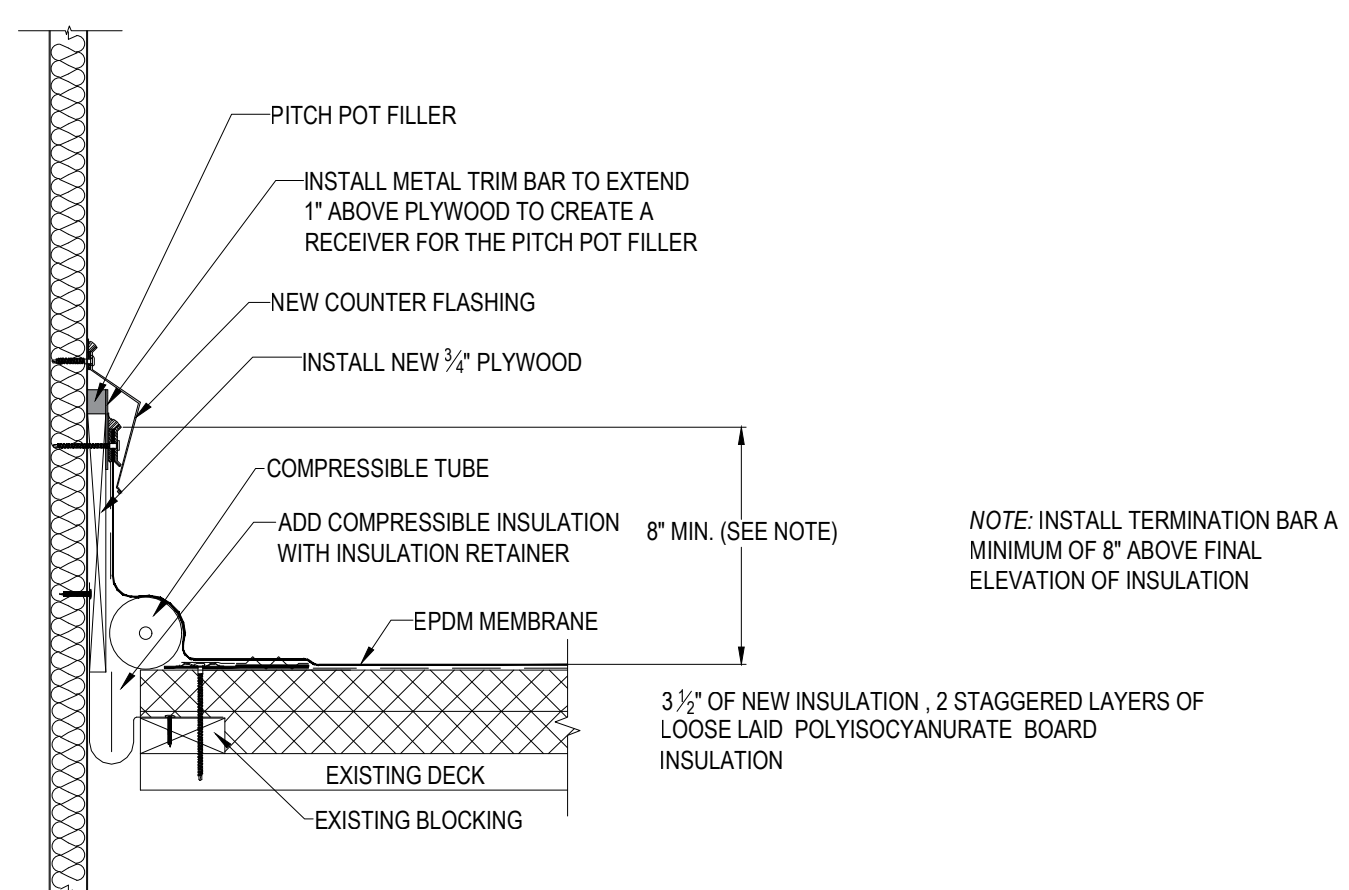
9 WALL TERMINATION WITH EXPANSION JOINT AT SHORT WALL PANEL AREA
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10 DECK REPAIR DETAIL - 12" MAX OPENING PARALLEL TO DECK
 SCALE: NOT TO SCALE



12 END OF WALL DETAIL - TERM. BAR ELEV. CHANGE, ROOFS #2 & #3
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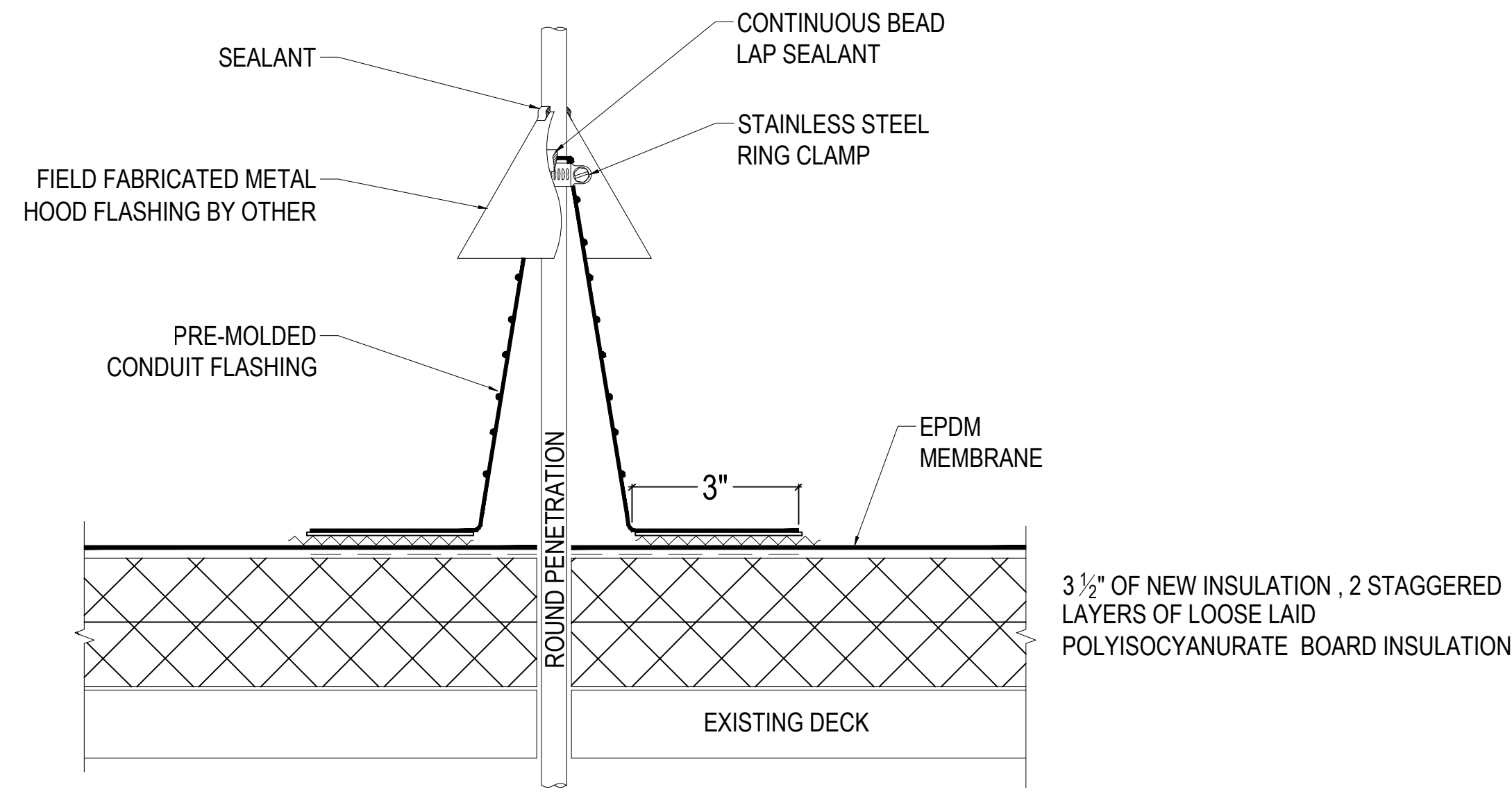


9A WALL TERMINATION WITH EXPANSION JOINT AT TALL WALL PANEL AREA
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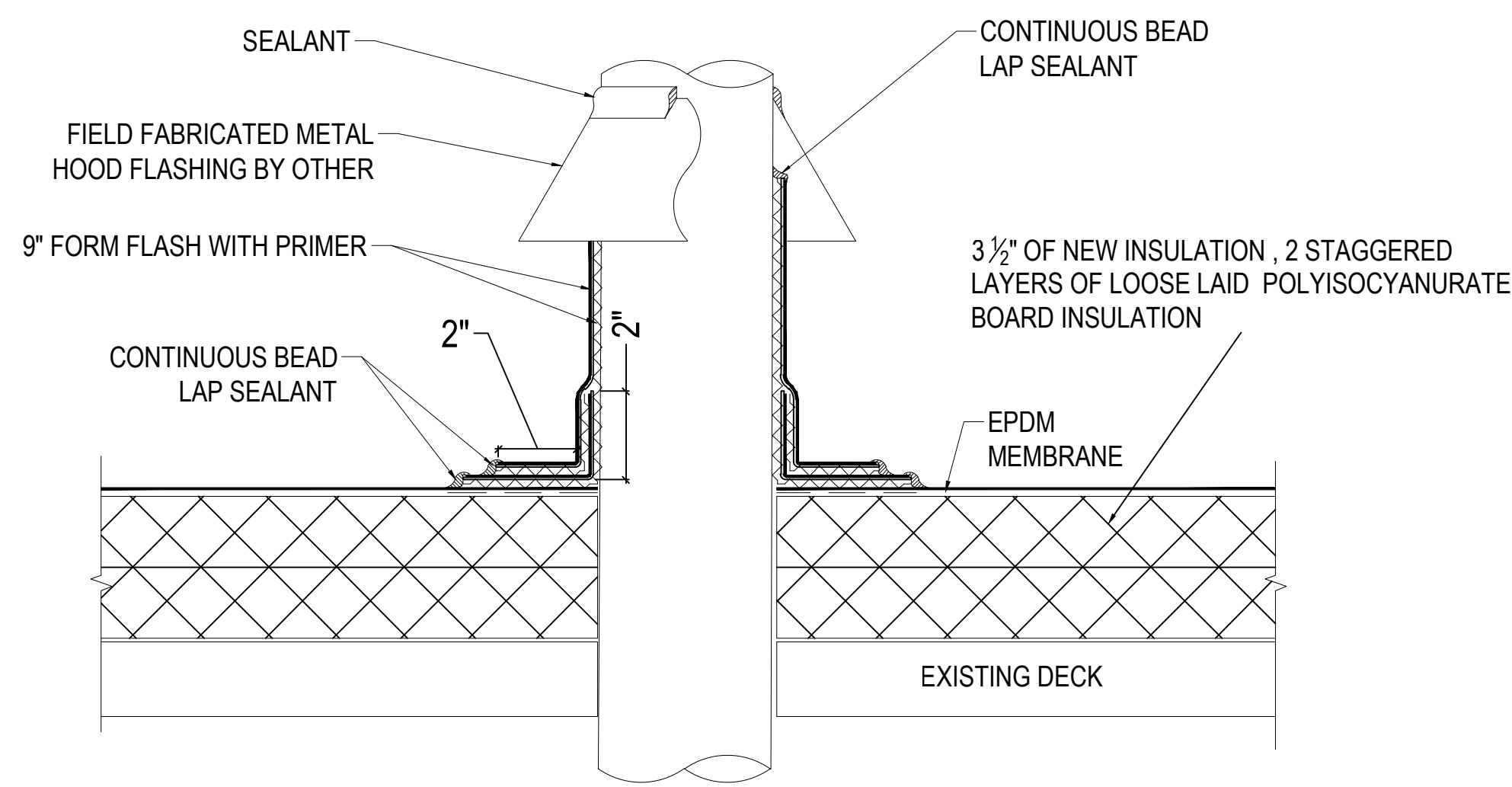


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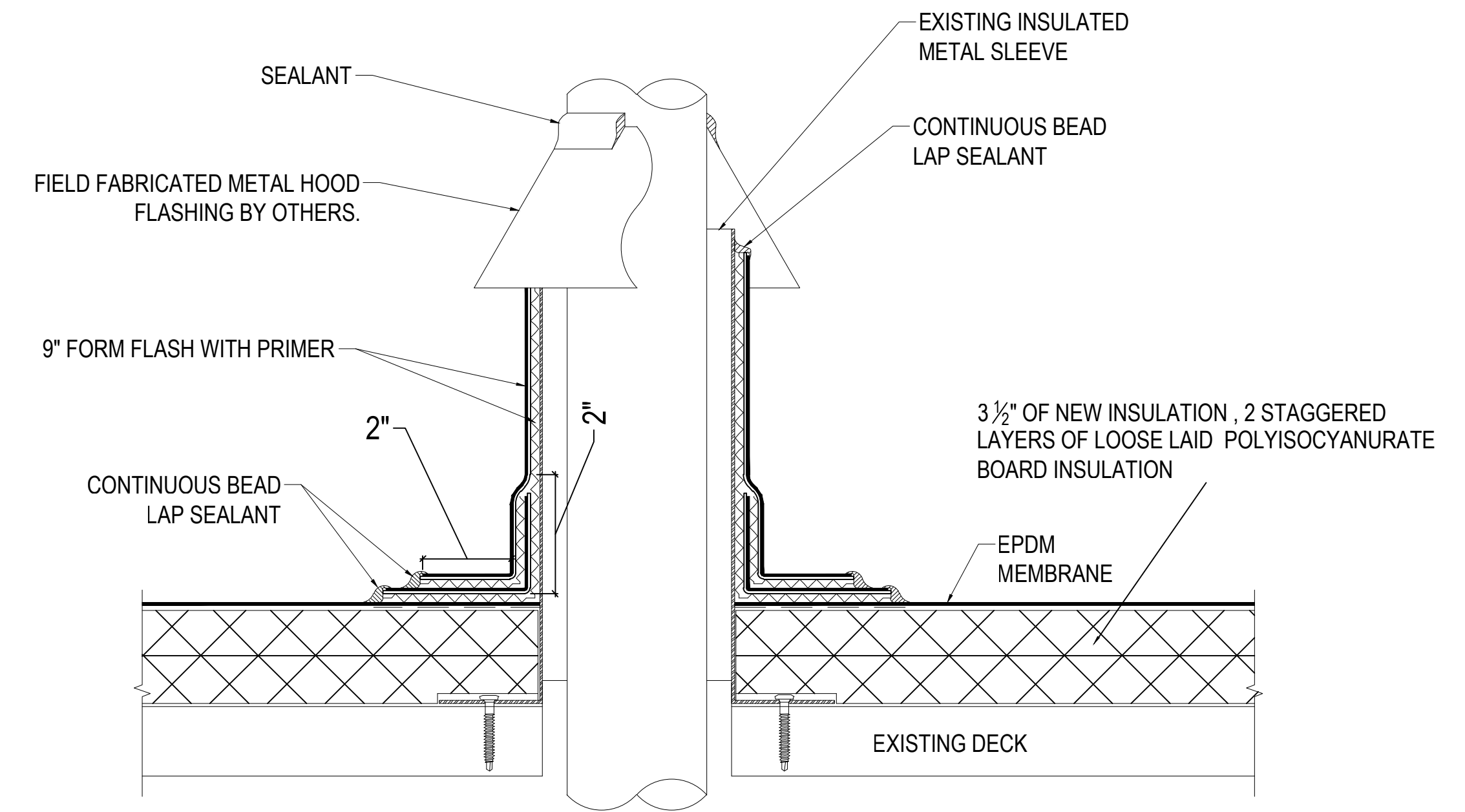
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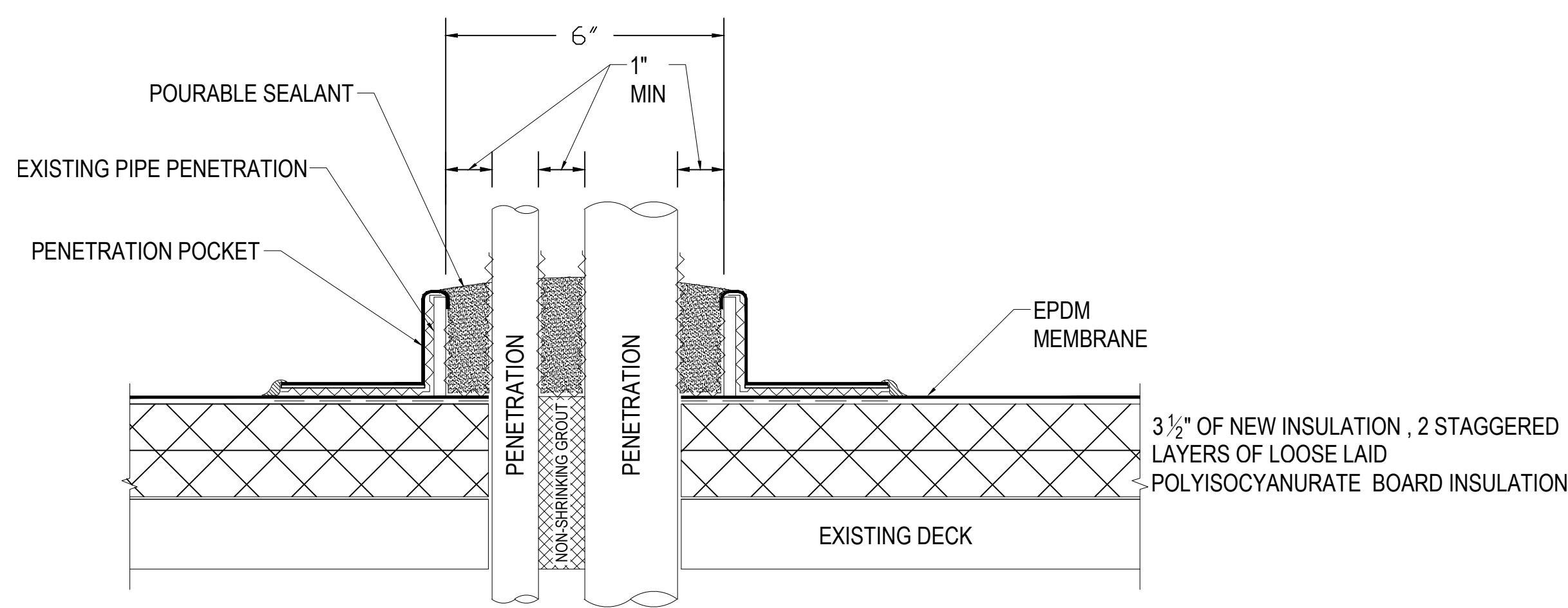
1 PENETRATION WITH CONDUIT FLASHING
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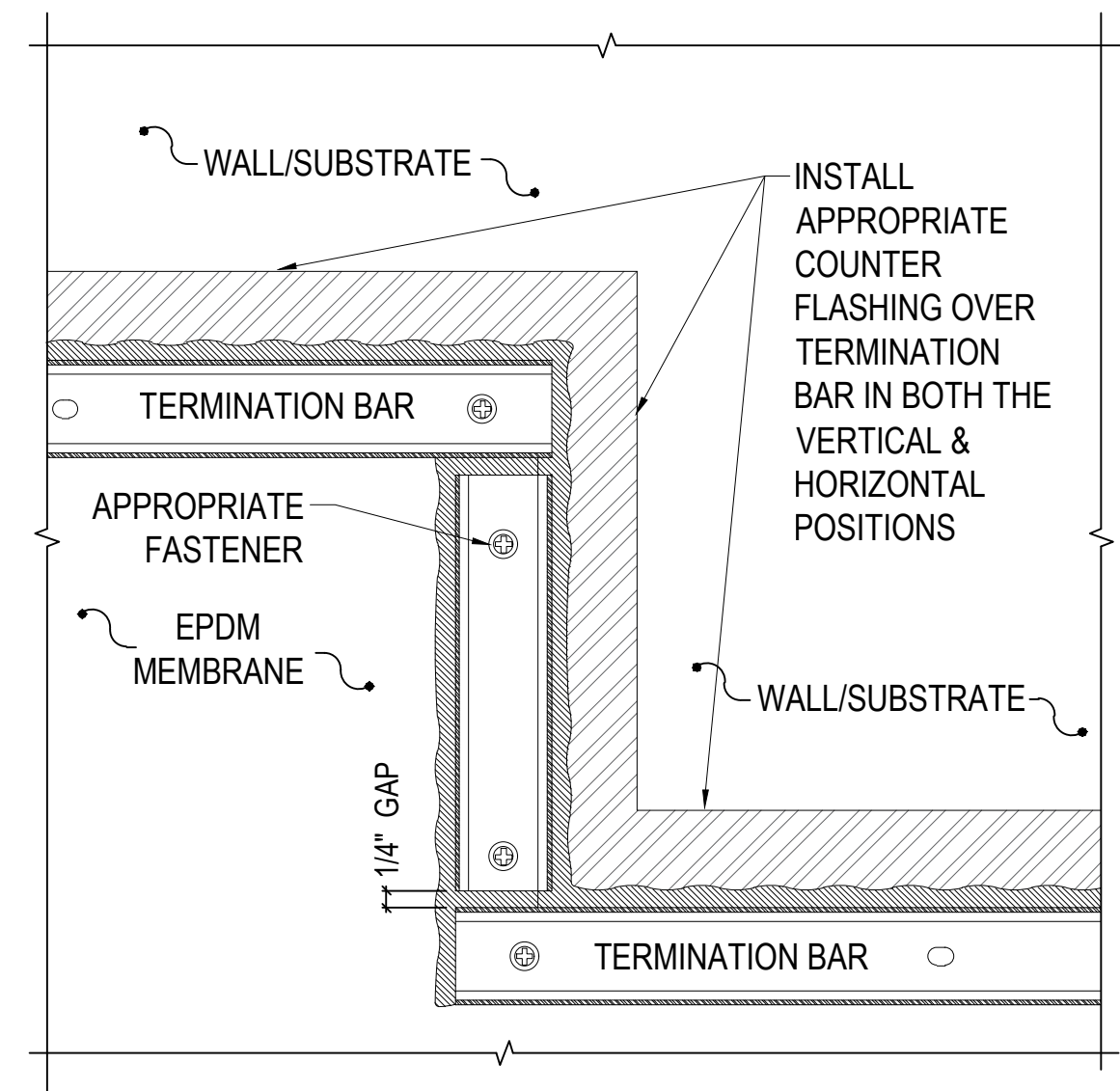
2 PENETRATION WITH FIELD FABRICATED FLASHING
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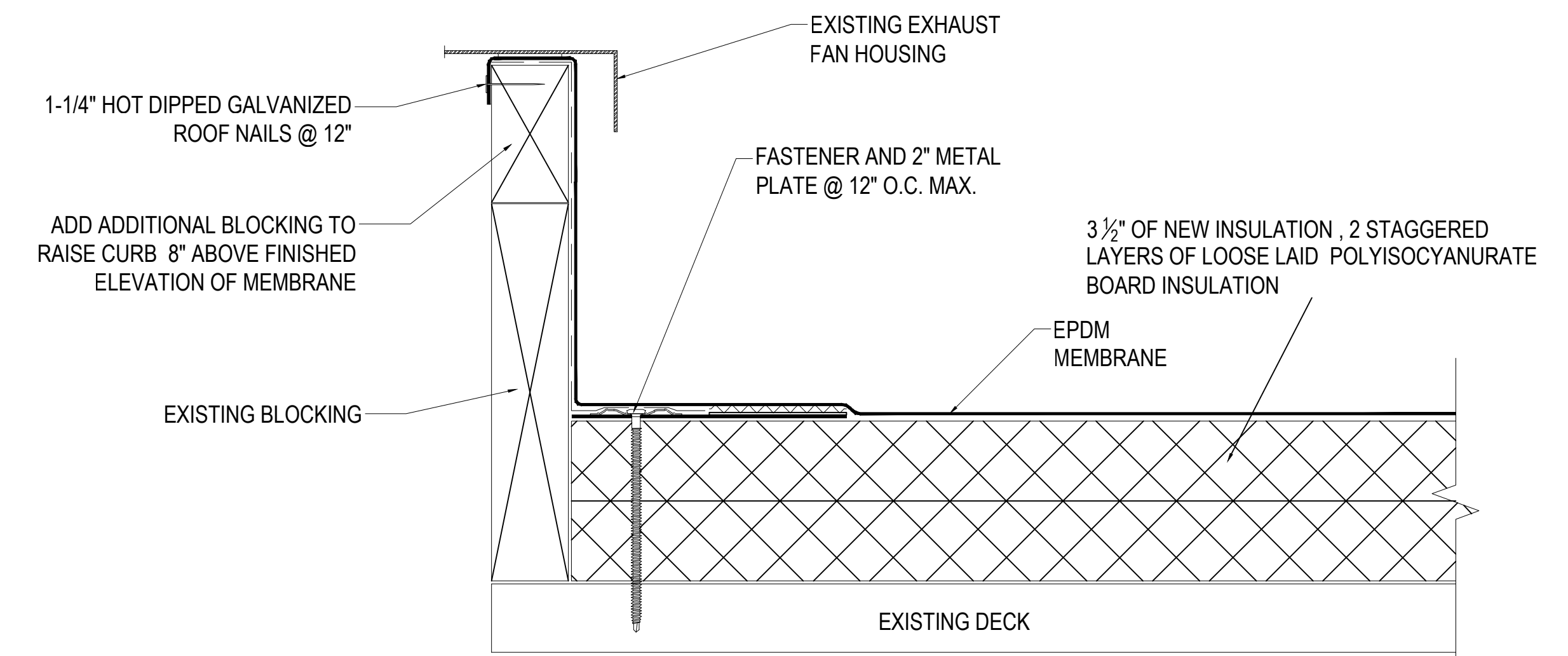
3 HOT STACK PENETRATION WITH FIELD FABRICATED FLASHING
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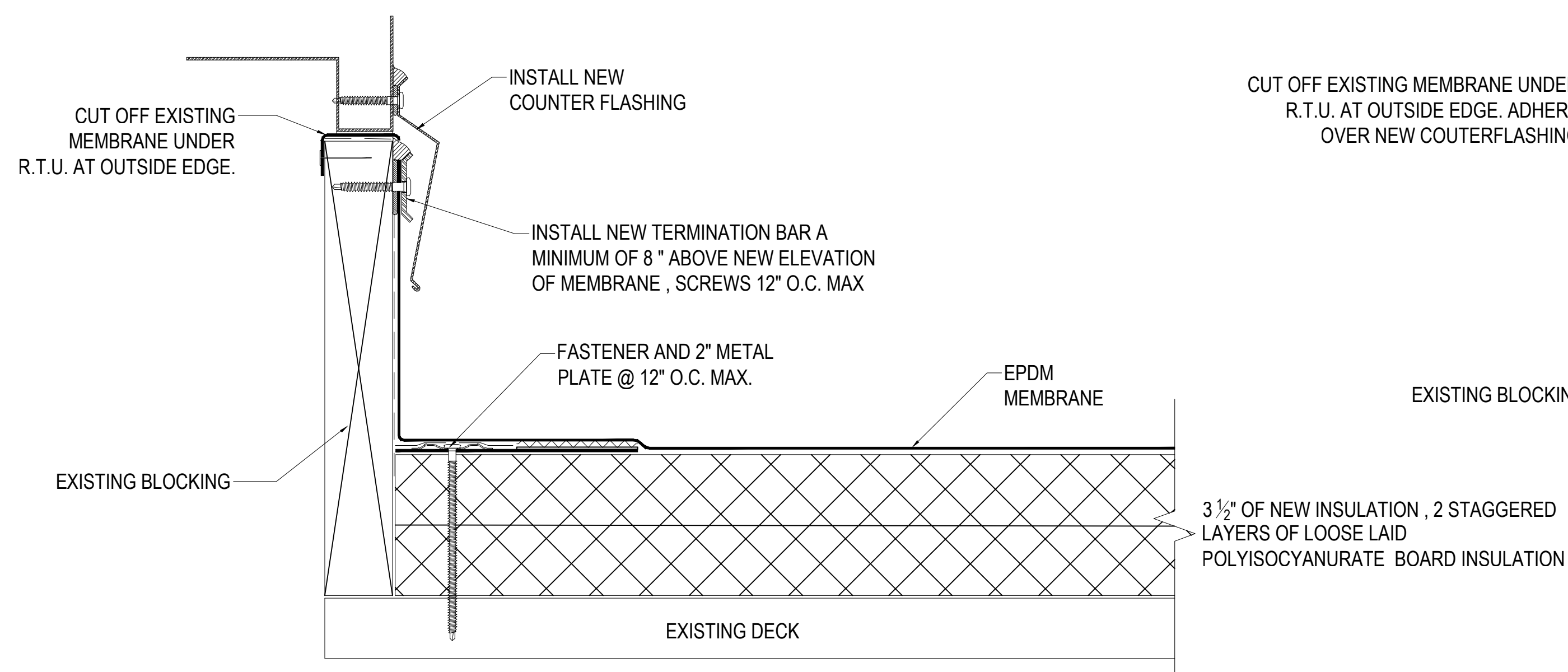
4 PENETRATION WITH POURABLE SEALANT (PITCH POCKET)
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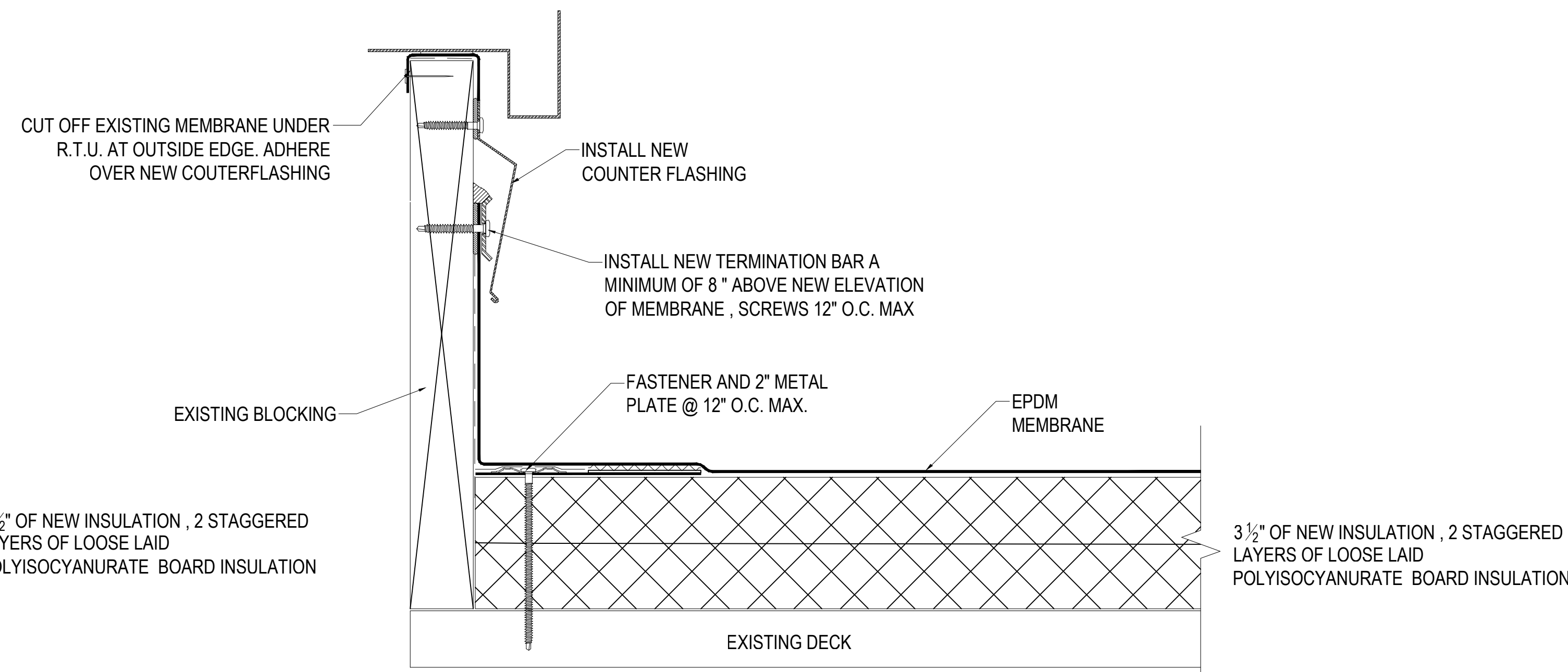
5 TERMINATION BAR WITH ELEVATION CHANGE
 SCALE: No Scale



6 TERMINATION AT EXHAUST FAN CURB, CURBING TO BE RAISED
 SCALE: No Scale



7 TERMINATION AT R.T.U. WHERE UNIT CANNOT BE RAISED - OPTION A
 SCALE: No Scale



8 TERMINATION AT R.T.U. WHERE UNIT CANNOT BE RAISED - OPTION B
 SCALE: No Scale

General Details

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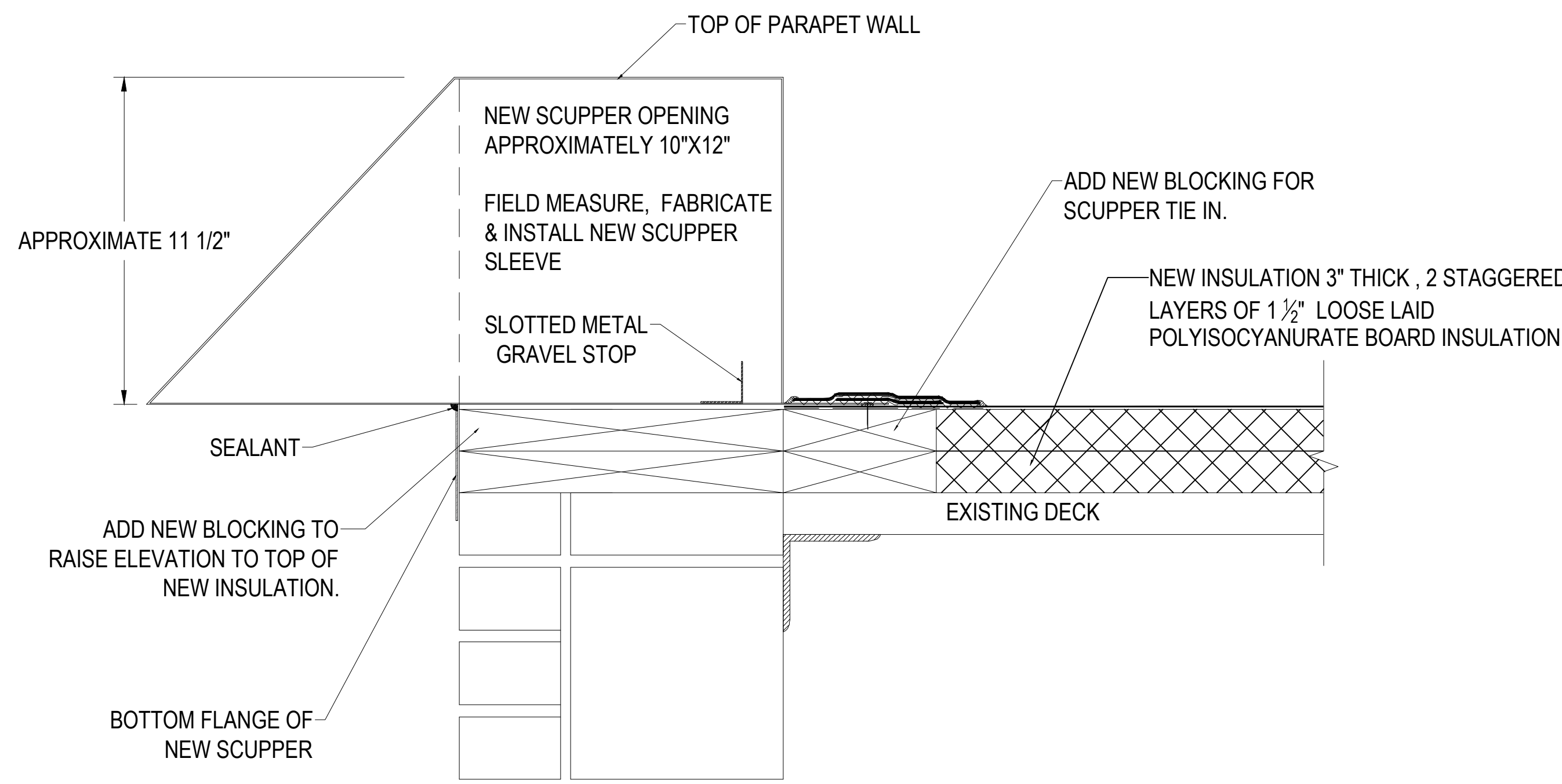
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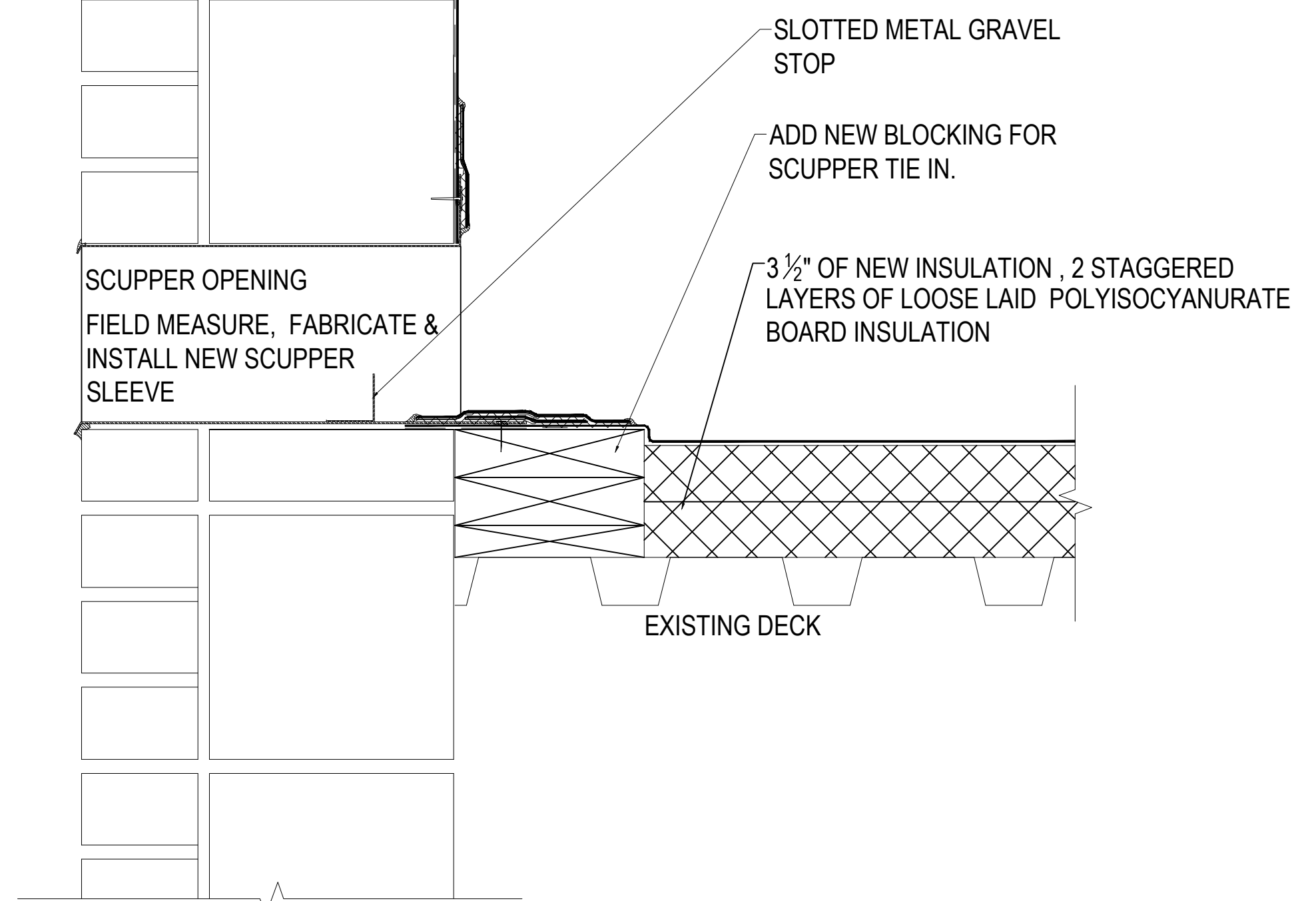


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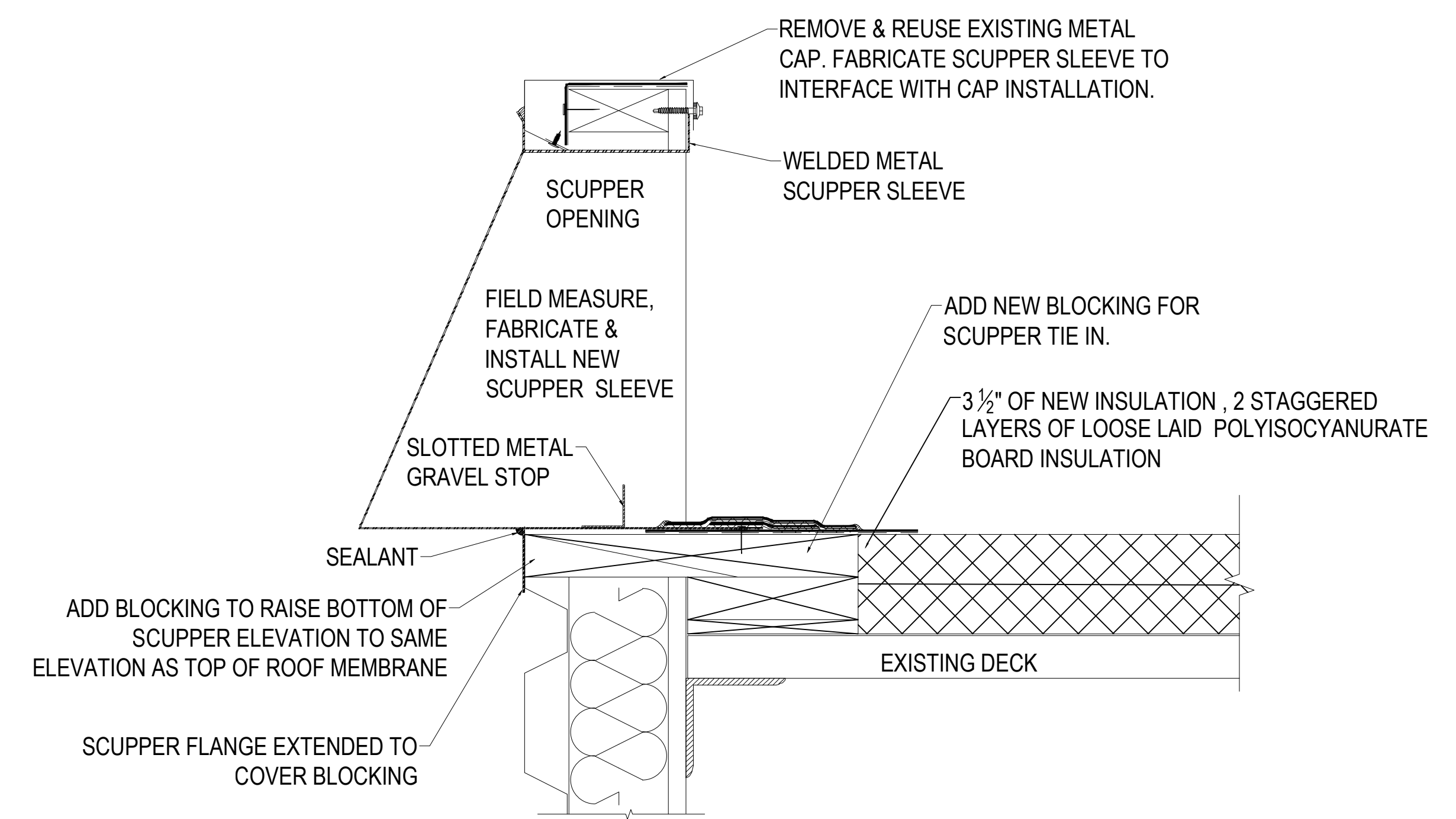
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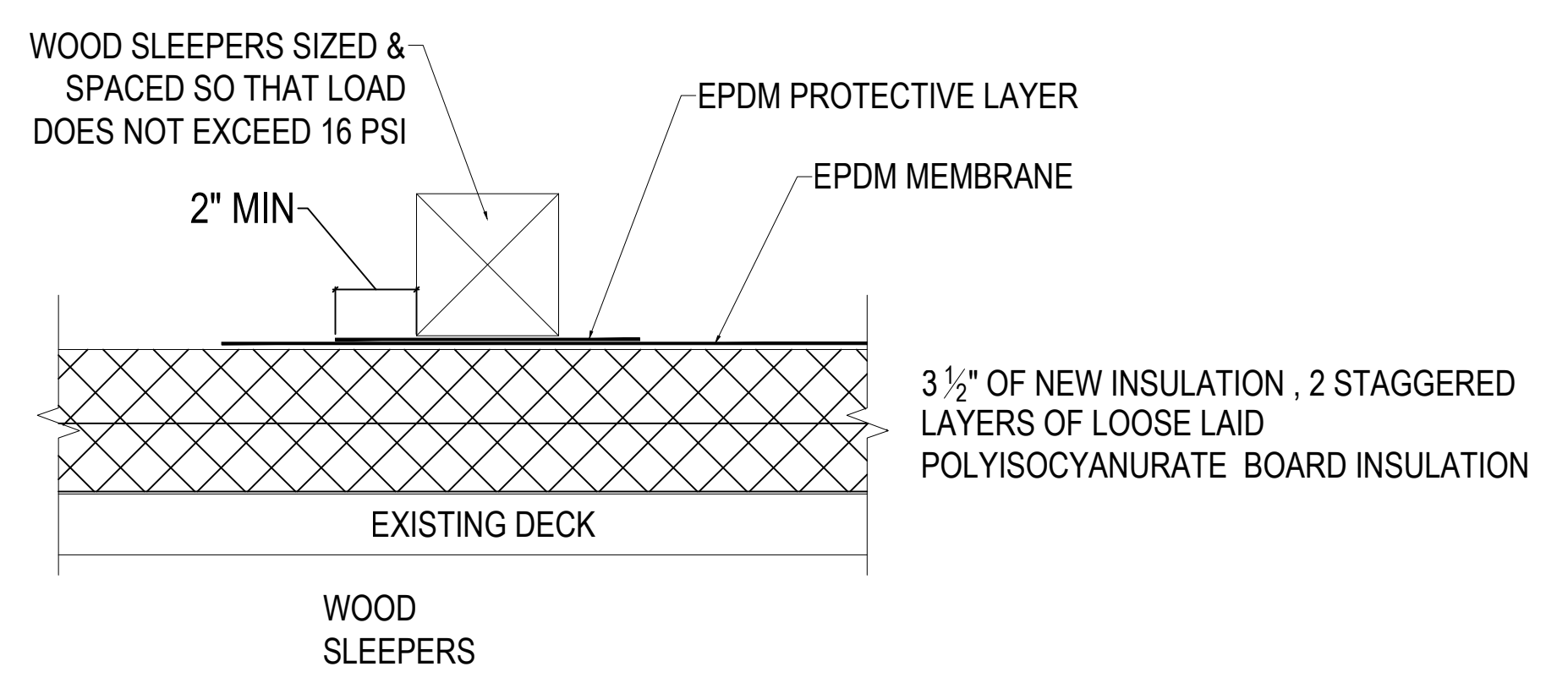
1 SCUPPER DETAIL 1
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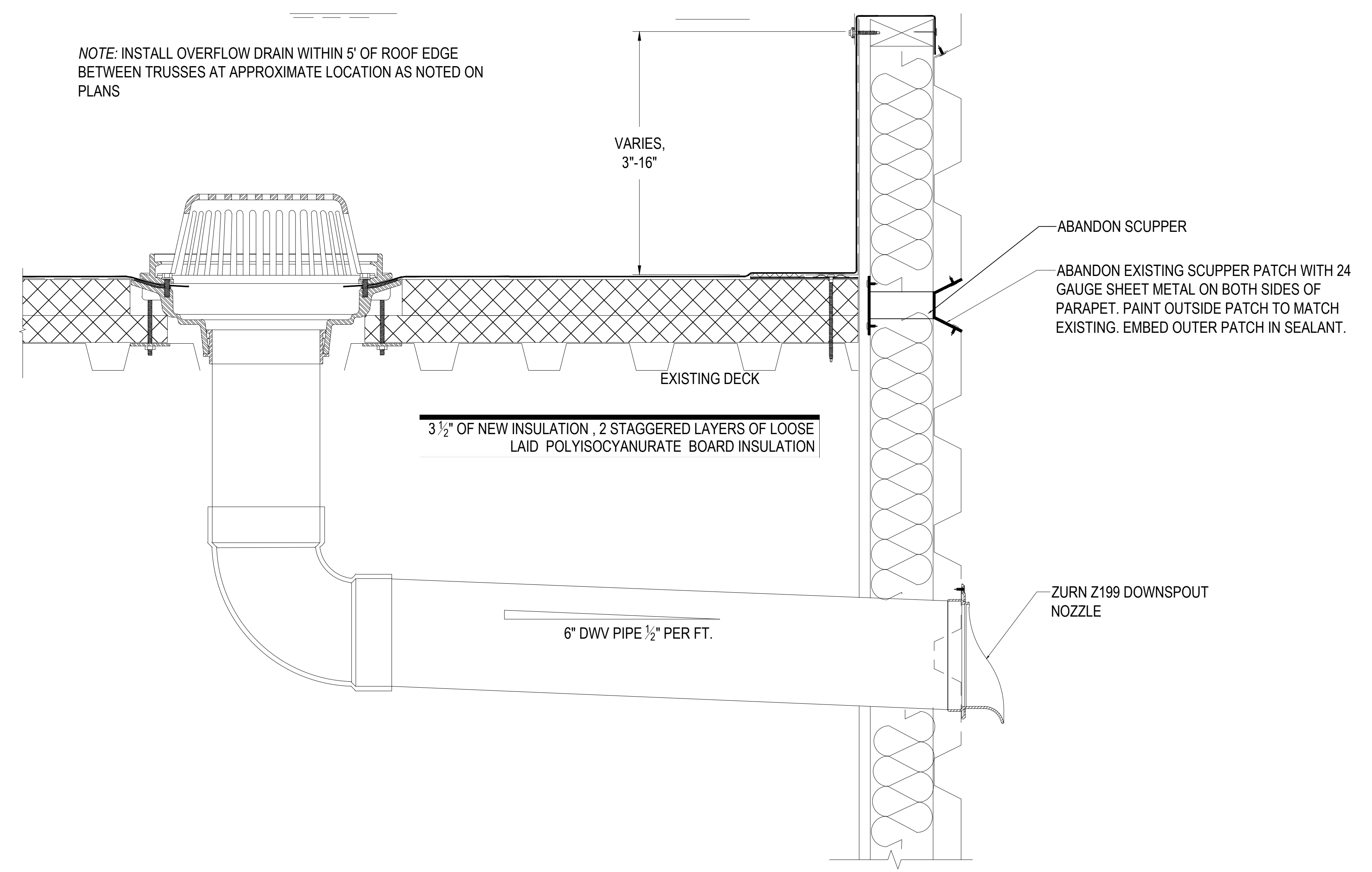
2 SCUPPER DETAIL 2 - OVERFLOW SCUPPER
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3 SCUPPER DETAIL 3 - OUT BUILDING
 SCALE: No Scale



4 WOOD SLEEPERS
 SCALE: No Scale



5 THROUGH WALL OVERFLOW DRAIN EXTERIOR THRU WALL SCUPPER PATCHING
 SCALE: No Scale

General Details

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