

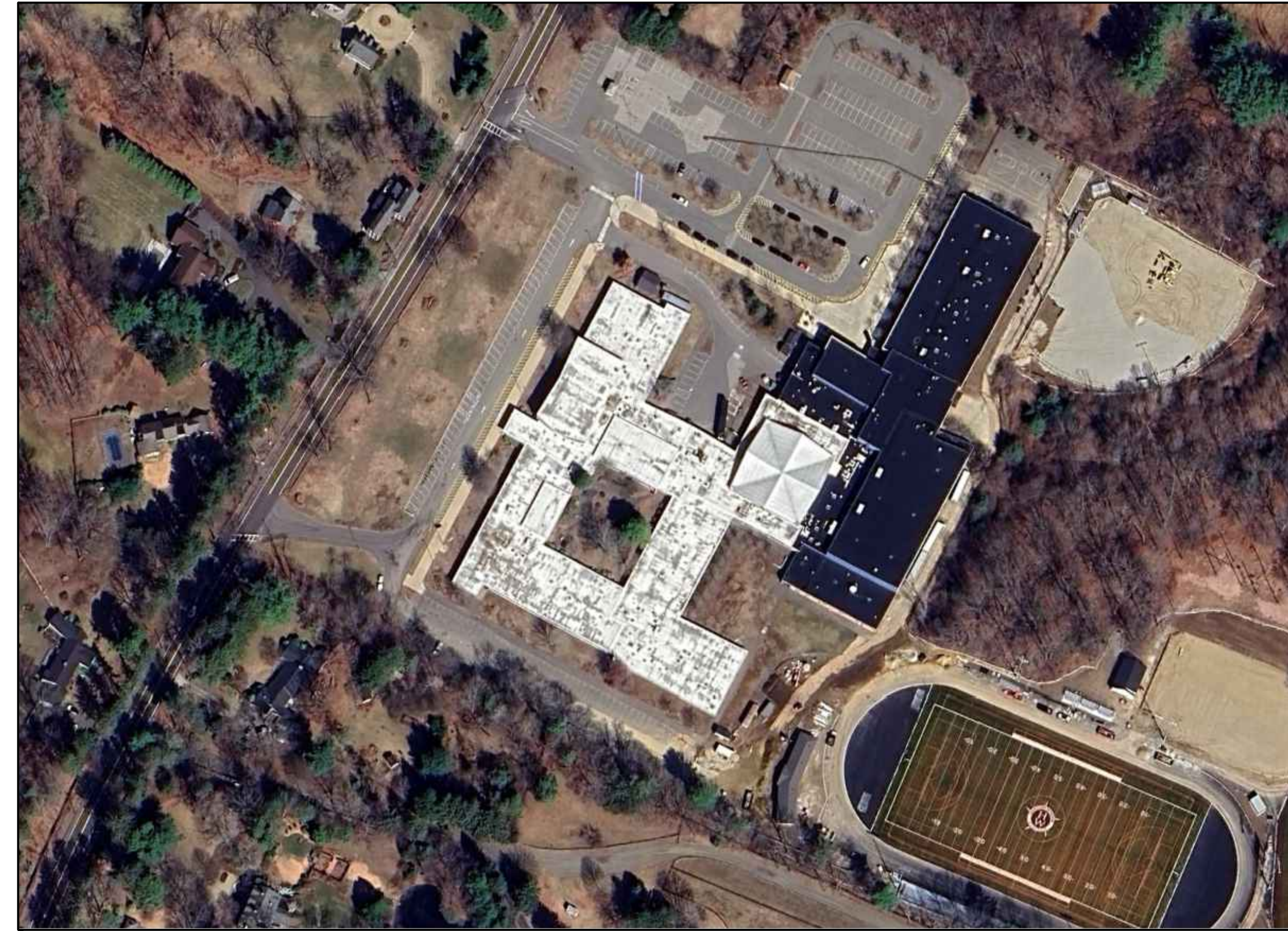
MSBA ARP ROOF SYSTEM REPLACEMENT

HAMILTON-WENHAM REGIONAL HIGH SCHOOL

775 BAY ROAD
SOUTH HAMILTON, MA, 01982

PREPARED FOR
HAMILTON-WENHAM REGIONAL HIGH SCHOOL DISTRICT
5 SCHOOL STREET
WENHAM, MA 01984

DRAWING NO	TITLE
G100	COVER SHEET
G101	GENERAL NOTES, CODE REVIEW, AND ARCHITECTURAL SITE PLAN
G102	ROOF CROSS SECTIONS
G103	CONCEPTUAL TAPERED INSULATION PLAN
G104	ATTACHMENT LAYOUT PLAN
A100	OVERALL ROOF PLAN
A101	PARTIAL ROOF PLAN
A102	PARTIAL ROOF PLAN
A501	DETAILS
A502	DETAILS
A503	DETAILS
A551	TYPICAL DETAILS
A552	TYPICAL DETAILS
A553	TYPICAL DETAILS
A554	TYPICAL DETAILS
M001	MECHANICAL LEGENDS, SYMBOLS, ABBREVIATIONS AND NOTES
M100	HVAC ROOF PLANS
M200	MECHANICAL DETAILS
M201	MECHANICAL DETAILS



SITE MAP
NOT TO SCALE



LOCATION MAP
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PROJECT NO.	845190		
CADD FILE	845190 G100		
DESIGNED BY	KRC		
DRAWN BY	MAA/DS/HD		
CHECKED BY	BHN		
DATE	2/3/2026		
DRAWING SCALE	NOT TO SCALE		

GRAPHIC SCALE

SHEET TITLE

COVER SHEET

DRAWING NO.

G100

ARCHITECTURAL SITE PLAN LEGEND

ALL ITEMS ARE EXISTING UNLESS NOTED OTHERWISE.

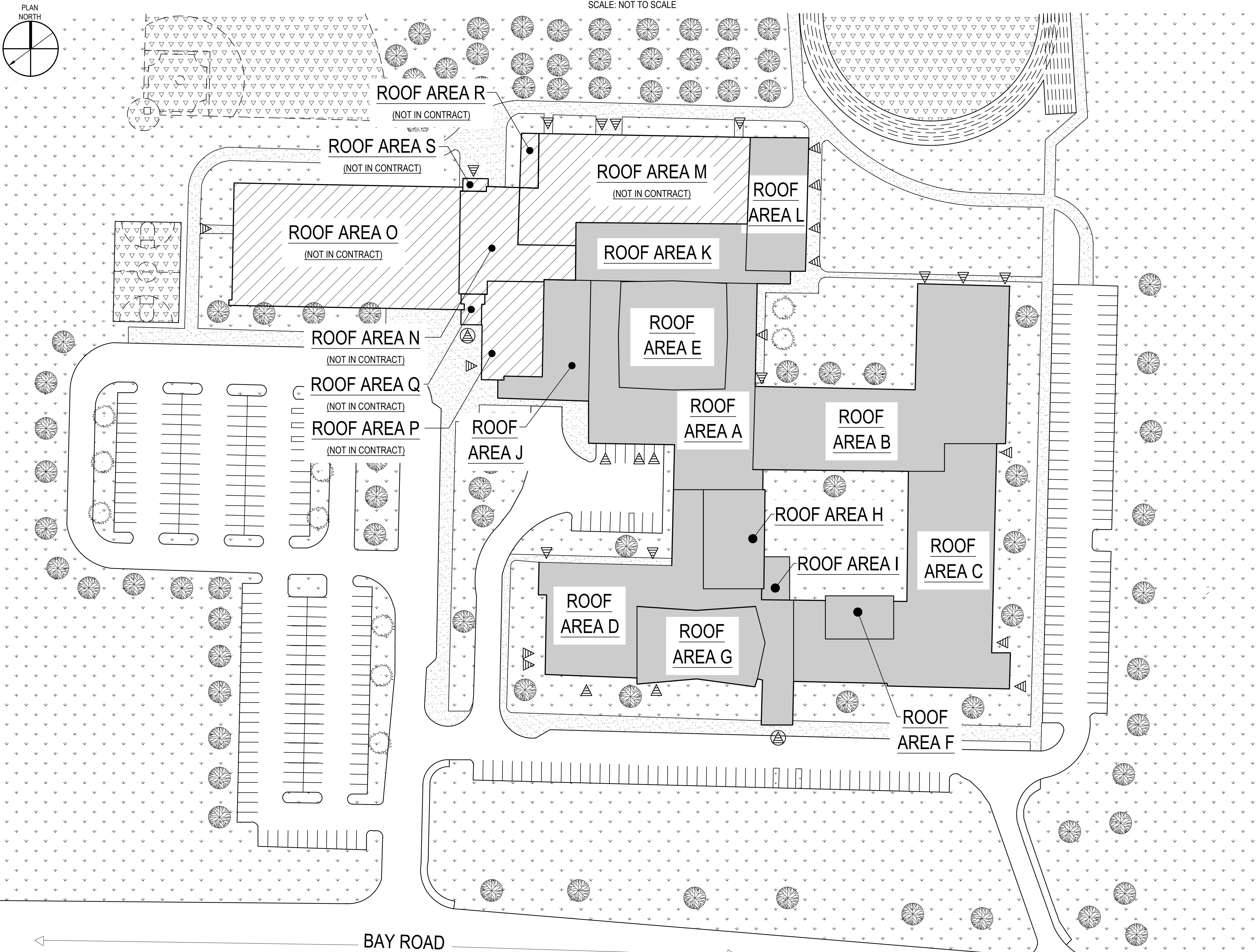
- ROOF EDGE
- ▨ ROOF AREA IN CONTRACT
- ▧ ROOF AREA NOT IN CONTRACT (N.I.C.)
- ▤ SIDEWALK
- ▦ GRASSED AREA
- ▽ ATHLETIC FIELD AREA
- TREE
- ▶ BUILDING ENTRANCE
- ⊕ MAIN BUILDING ENTRANCE

ARCHITECTURAL SITE PLAN NOTES

1. CONTRACTOR SHALL BASE STAGING REQUIREMENTS ON THE INFORMATION SHOWN. THE LOCATIONS ARE APPROXIMATE AND MAY BE SUBJECT TO CHANGE.
2. CONTRACTOR WILL BE REQUIRED TO PROVIDE A DETAILED STAGING/LAYOUT PLAN FOR THE OWNER'S REVIEW AND APPROVAL.
3. CONTRACTOR SHALL PROVIDE OVERHEAD PROTECTION AT BUILDING ENTRANCE WAYS IN ACCORDANCE WITH OSHA, LOCAL, STATE, AND FEDERAL GUIDELINES.
4. OVERHEAD PROTECTION SHALL EXTEND A MINIMUM OF 8'-0" BEYOND THE BUILDING'S ENTRANCES.
5. CONTRACTOR SHALL PROVIDE TEMPORARY BARRICADES TO PREVENT PEDESTRIANS FROM ACCESSING THE WORK AREA, FROM WALKING UNDER WORK LOCATIONS, AND FROM WALKING UNDER THE CRANE AND LOADING AREAS.
6. CONTRACTOR MAY PROVIDE TEMPORARY BARRICADES AT PEDESTRIAN WALKWAYS IN LIEU OF OVERHEAD PROTECTION SHOULD THE ROOF AREAS ABOVE SAID WALKWAYS BE REMOVED AND REPLACED IN THE SAME DAY. CONTRACTOR WILL BE REQUIRED TO PROVIDE A MONITOR AT GROUND LEVEL TO WARN PEDESTRIAN TRAFFIC OF THE ABOVE-ROOFLINE WORK.
7. CONTRACTOR SHALL PROVIDE TEMPORARY PROTECTION FOR THE PAVED AREAS, CURBS, SIDEWALKS, AND LANDSCAPED AREAS TO PREVENT DAMAGE FROM THE WORK, MATERIALS, OR EQUIPMENT. THE CONTRACTOR WILL BE RESPONSIBLE TO REPAIR/REPLACE ANY DAMAGED LOCATIONS AT NO ADDITIONAL COST TO THE OWNER.

ARCHITECTURAL SITE PLAN

SCALE: NOT TO SCALE



GENERAL NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING HAS BEEN COMPILED FROM VARIOUS SOURCES, AND MAY NOT REFLECT THE ACTUAL CONDITIONS AT THE TIME OF CONSTRUCTION.
2. FOR THE SAKE OF CLARITY, EACH INDIVIDUAL DETAIL ON THE ROOF PLAN HAS NOT BEEN INDICATED. INSTALLATION DETAILS HAVE BEEN INDICATED FOR TYPICAL COMPONENTS AT RANDOM LOCATIONS.
3. HATCH PATTERNS ARE FOR REPRESENTATION ONLY AND SHOULD NOT BE USED AS A MEANS FOR QUANTIFYING.
4. JOB SITE SAFETY IS THE CONTRACTOR'S RESPONSIBILITY. GALE REPRESENTATIVES, INCLUDING SUBCONSULTANTS RETAINED BY GALE, MAY VISIT THE JOB SITE FROM TIME TO TIME. THESE VISITS ARE FOR CLARIFICATIONS OF SPECIFIC DESIGN RELATED ISSUES ONLY AND ARE NOT FOR THE PURPOSES OF JOB SITE SAFETY. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO COMPLY WITH ALL SITE SAFETY APPLICABLE REQUIREMENTS.
5. DISCREPANCIES NOTED BY THE CONTRACTOR IN THE DRAWINGS OR SPECIFICATIONS MUST BE BROUGHT TO THE OWNER'S ATTENTION PRIOR TO BID SUBMISSION.
6. ALL ITEMS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS APPLICABLE TO THE PROJECT.
7. THE CONTRACTOR SHALL REPORT DETERIORATED OR UNSUITABLE STRUCTURAL DECK OR SUBSTRATES TO THE OWNER PRIOR TO PERFORMING ROOFING INSTALLATION WORK.
8. THE CONTRACTOR IS CAUTIONED THAT DUE TO BUILDING OCCUPANCY, THE OWNER REQUIRES COMPLIANCE ON WORK HOURS, SCHEDULING, SET-UP, CLEANUP, PARKING, SECURITY, ETC. REFER TO SPECIFICATIONS FOR OWNER REQUIREMENTS.
9. NOTIFY THE OWNER OF WORK LOCATIONS A MINIMUM OF 72 HOURS IN ADVANCE IN ORDER THAT OCCUPANCY BELOW THE WORK AREAS MAY BE CONTROLLED.
10. FOR THE SAKE OF CLARITY, SECUREMENT FASTENERS ARE NOT SHOWN ON THE DETAIL DRAWINGS. REFER TO THE SPECIFICATIONS FOR FASTENER TYPES AND SPACING.
11. DETAILS NOT DEPICTED SHALL BE CONSTRUCTED IN A MANNER CONSISTENT WITH THE DETAIL DRAWINGS.
12. REFER TO CONTRACT DOCUMENTS FOR SCHEDULE LIMITATIONS OF EXTERIOR WORK.
13. REFER TO SPECIFICATION FOR HAZARDOUS MATERIAL DEMOLITION AND HANDLING.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING OF ALL MATERIALS LISTED AND/OR INDICATED ON THE DRAWINGS OR NOTED IN THE WRITTEN SPECIFICATIONS - TYPICAL.
15. THE CONTRACTOR IS RESPONSIBLE FOR CHECKING AND VERIFYING ALL DIMENSIONS, CONDITIONS, HEIGHTS, MATERIAL THICKNESSES, ETC., IN THE FIELD PRIOR TO SUBMITTING THEIR BID AND COMMENCING CONSTRUCTION.
16. THE BUILDING SHALL BE MAINTAINED IN A DUST FREE CONDITION. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TEMPORARY PROTECTION TO ENSURE THE INTERIOR OF THE BUILDING REMAINS DUST FREE. NO DEMOLITION CAN PROCEED UNTIL AN APPROVED TEMPORARY PROTECTION SYSTEM IS IN PLACE.
17. DUE TO THE CONGESTION AROUND THE PROJECT SITE THE CONTRACTOR MUST PROVIDE DETAILED TRAFFIC AND SCAFFOLDING PLANS TO THE OWNER FOR REVIEW. THE CONTRACTOR WILL ONLY BE ALLOWED THE AREAS SHOWN FOR SETUP AND STORAGE OF MATERIALS.

CODE INFORMATION

CODES TO WHICH THIS PROJECT WAS DESIGNED

MASSACHUSETTS STATE BUILDING CODE (MSBC), 10th EDITION
 2021 INTERNATIONAL BUILDING CODE (IBC)
 2021 INTERNATIONAL EXISTING BUILDING CODE (IEBC)
 2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
 MASSACHUSETTS STRETCH ENERGY CODE 225 CMR
 MASSACHUSETTS AMENDMENTS TO THESE CODES AND MASSACHUSETTS SPECIAL REGULATIONS 780 CMR
 UNIFORM STATE PLUMBING CODE 248 CMR

BUILDING INFORMATION

BUILDING OCCUPANCY TYPE: E
 BUILDING SQUARE FOOTAGE (GROSS): ±128,500 SF
 BUILDING USE: EDUCATIONAL, CAFETERIA, GYMNASIUM

CODE REQUIREMENTS

CHAPTER 7 IEBC
 BUILDING ALTERATIONS: ALTERATIONS LEVEL 1

2021 IECC WITH AMENDMENTS
 ROOF INSULATION ENTIRELY ABOVE ROOF DECK: MINIMUM R-30 CONTINUOUS

2021 IBC WITH AMENDMENTS
 SNOW LOADS (MINIMUM FLAT ROOF): 39 PSF
 SNOW LOADS (GROUND): 50 PSF
 WIND UPLIFT (VIA ASCE 7-16): REFER TO G104

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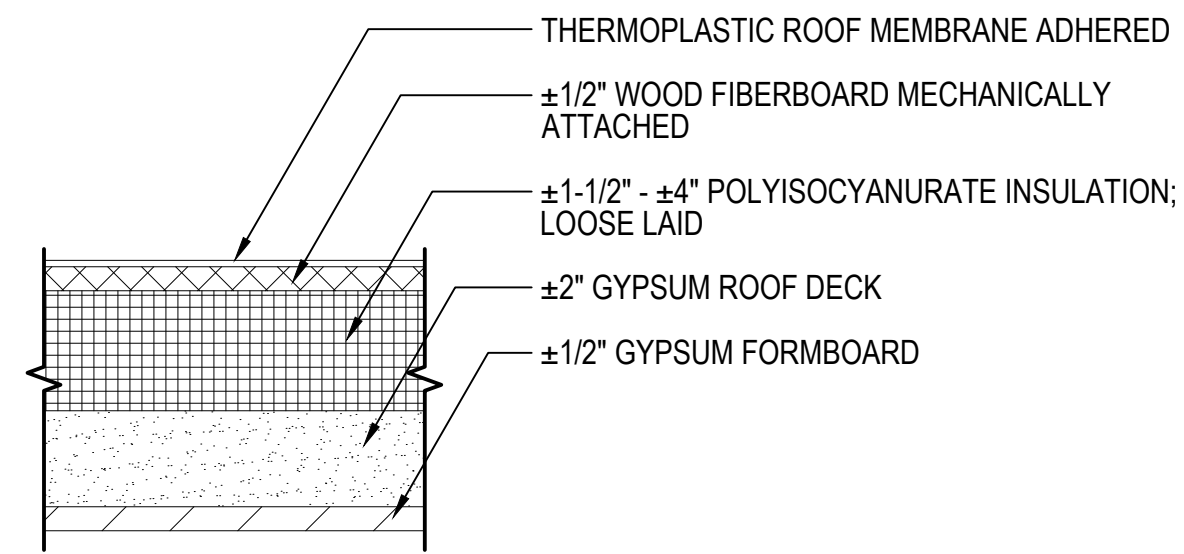
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DRAWING NO.

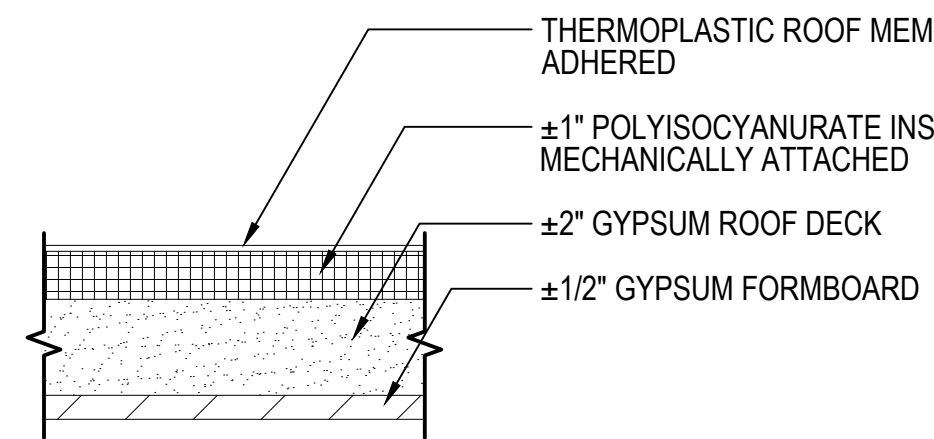
G101

EXISTING ROOF CROSS SECTIONS

ALL ITEMS ARE EXISTING.
0 3" 6" 9"

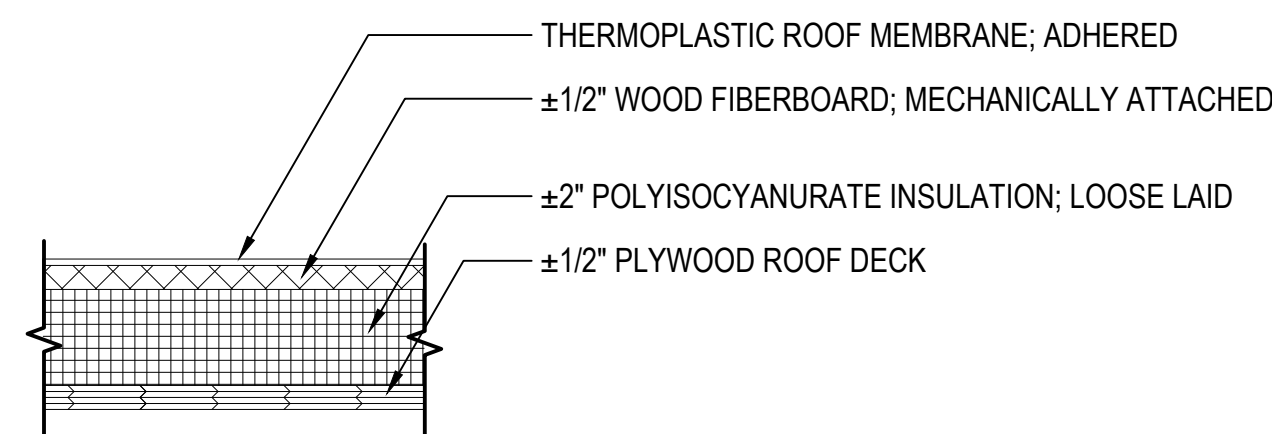


ROOF AREAS A, B, C, D, F, G, & H

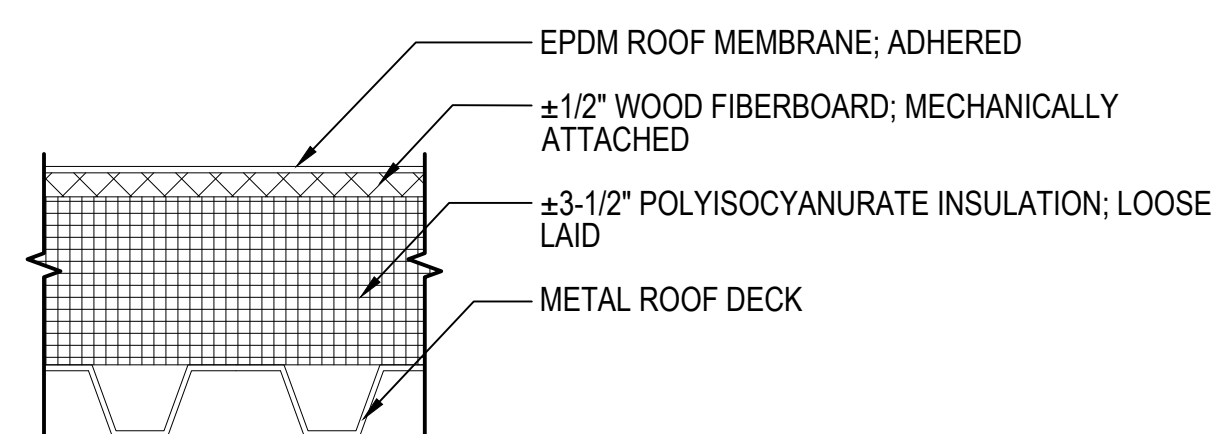


ROOF AREA E

EXISTING ROOF DECK IS SLOPED APPROXIMATELY 2-3/4 INCHES PER FOOT.



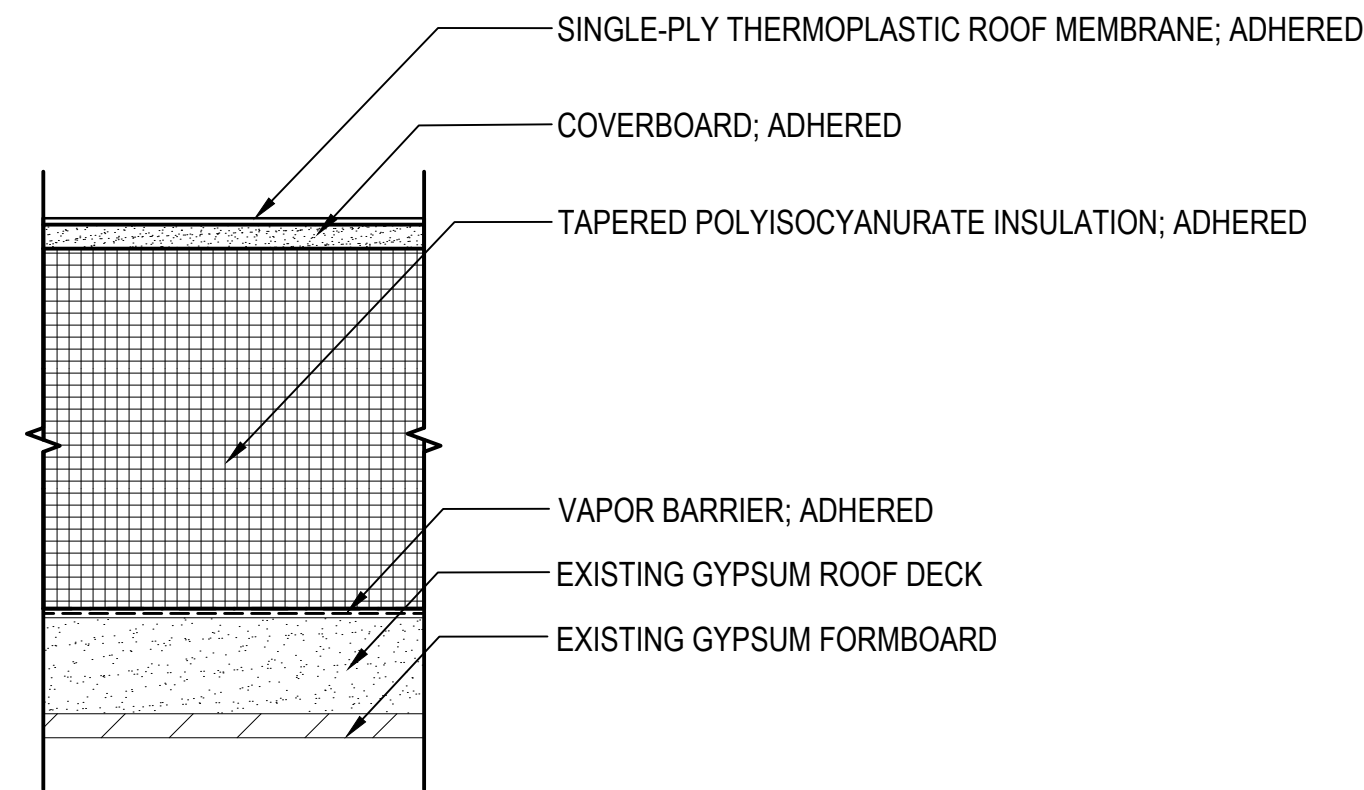
ROOF AREA I



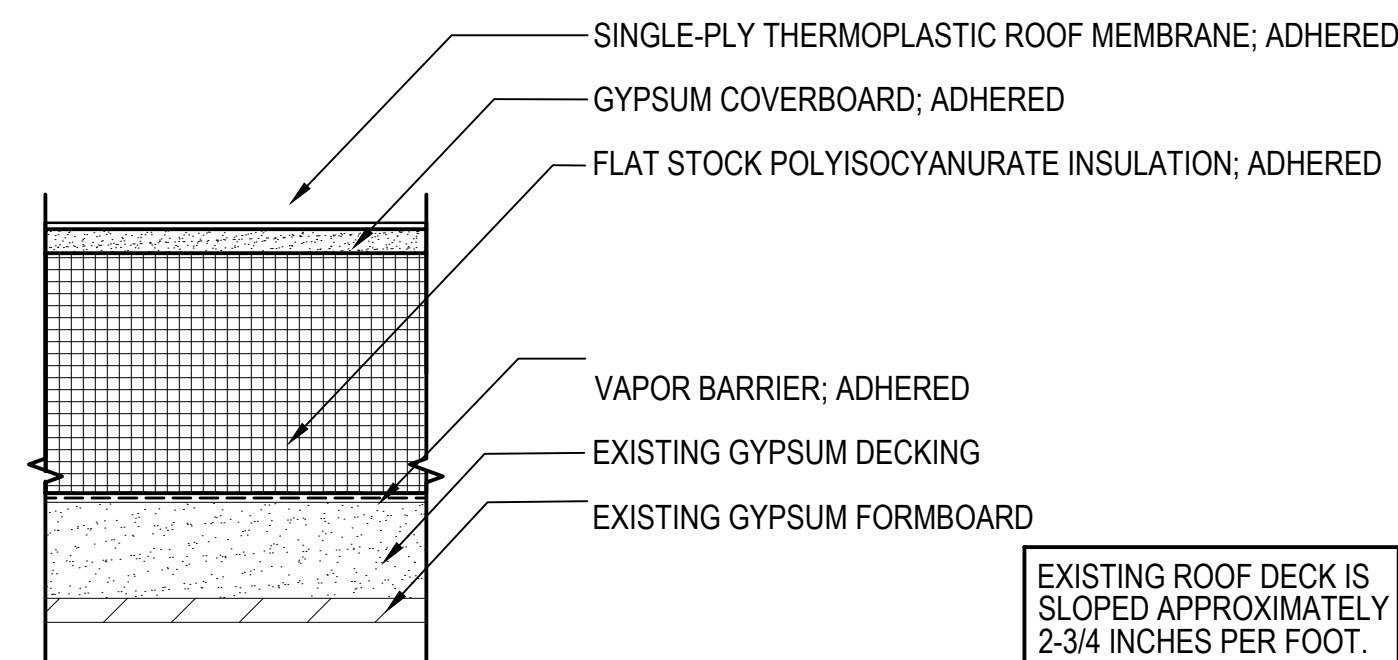
ROOF AREAS J, K, & L

PROPOSED ROOF CROSS SECTIONS

ALL ITEMS ARE NEW UNLESS OTHERWISE NOTED.
0 3" 6" 9"

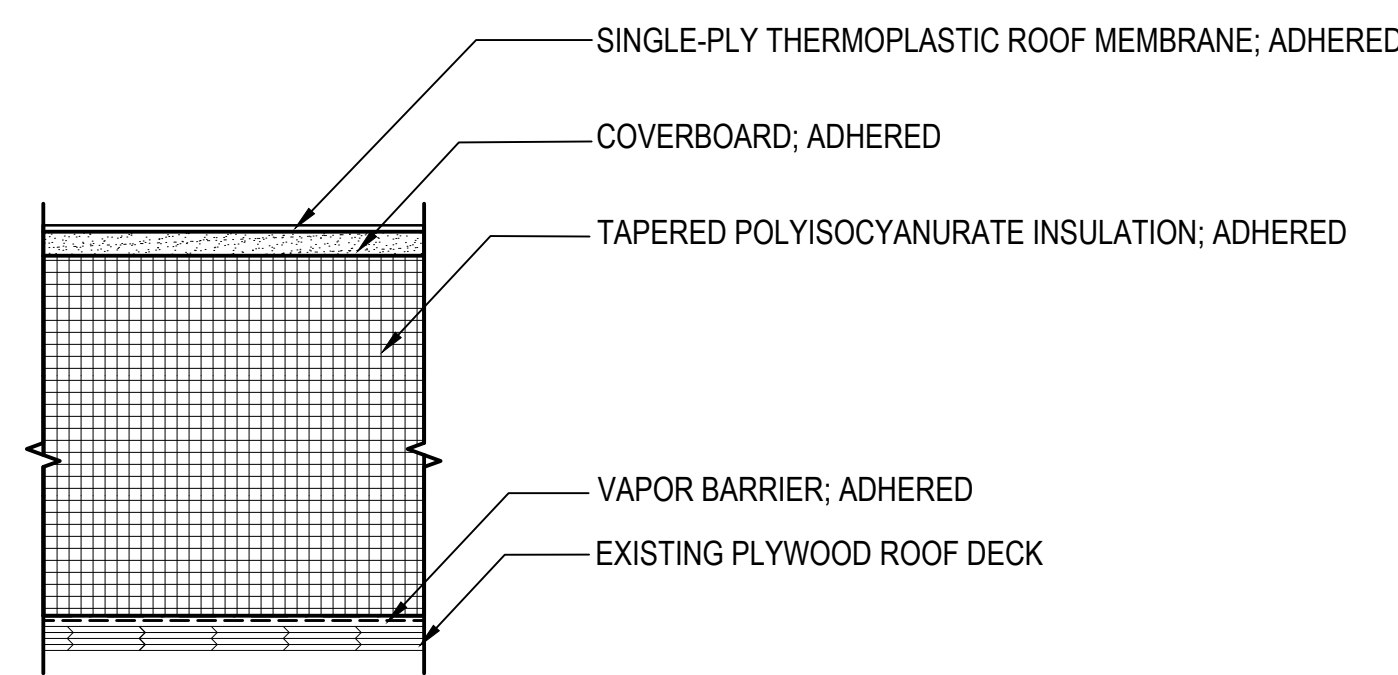


ROOF AREAS A, B, C, D, F, G, & H

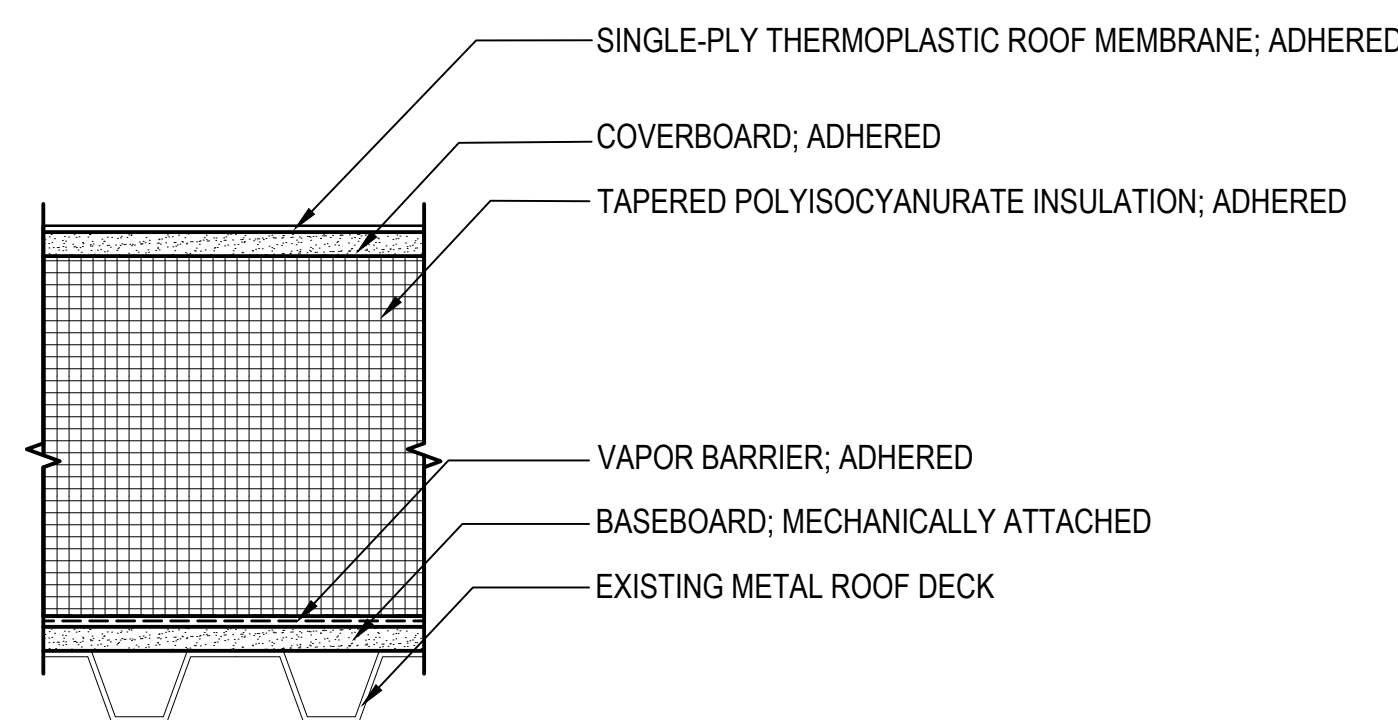


ROOF AREA E

EXISTING ROOF DECK IS SLOPED APPROXIMATELY 2-3/4 INCHES PER FOOT.



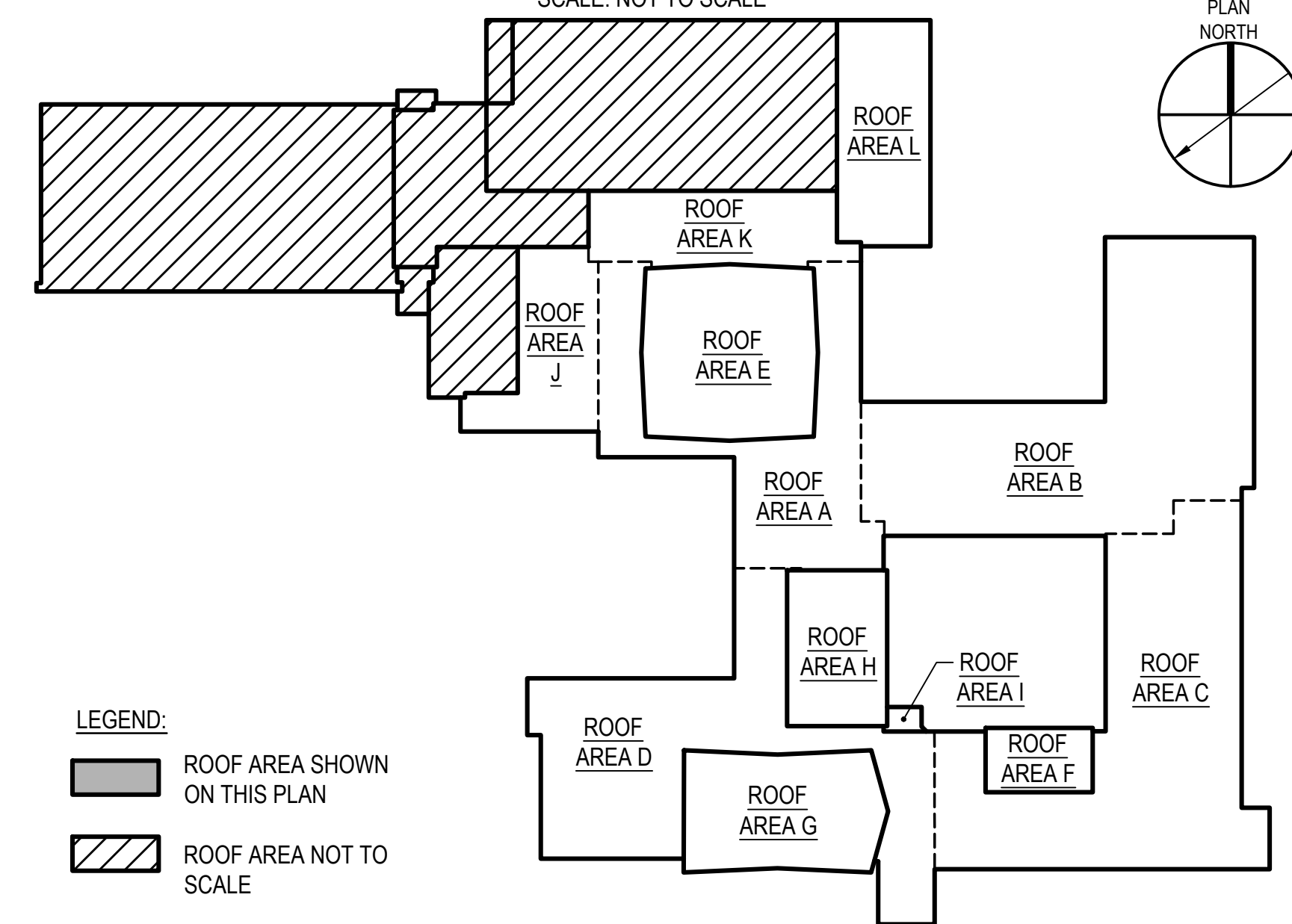
ROOF AREA I



ROOF AREAS J, K, & L

KEY PLAN

SCALE: NOT TO SCALE



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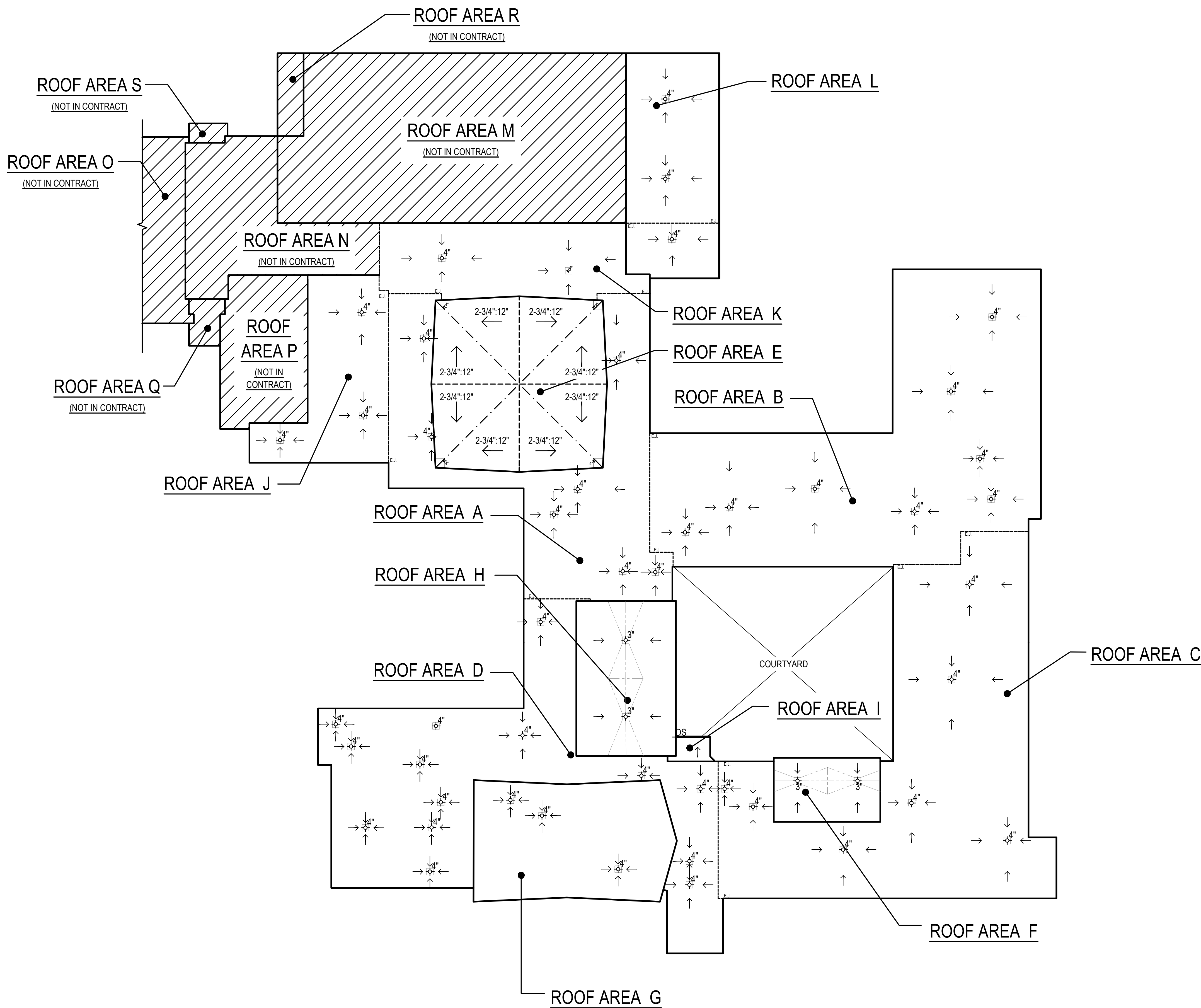
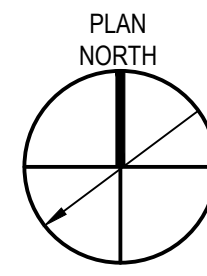
ROOF CROSS SECTIONS

DRAWING NO.

G102

CONCEPTUAL TAPERED INSULATION PLAN

SCALE: NOT TO SCALE



LEGEND

- ROOF EDGE
- - - EXPANSION JOINT
- - - ROOF RIDGE
- - - VALLEY
- INSULATION CRICKET
- DS GUTTER AND DOWNSPOUT
- ⊕# DRAIN, # INDICATES DIAMETER
- #/# STRUCTURAL SLOPE; ## INDICATES SLOPE
- TAPERED INSULATION SLOPE

TAPERED INSULATION LAYOUT NOTES

- CONCEPTUAL TAPERED INSULATION LAYOUT TO PROVIDE MINIMUM INSULATION HEIGHTS AT ROOF-TO-WALL AND PERIMETER LOCATIONS. SPECIFIC TAPERED LAYOUT TO BE DEVELOPED BY CONTRACTOR IN CONJUNCTION WITH INSULATION SUPPLIER.
- ADJUSTMENTS TO WOOD BLOCKING HEIGHTS AND CONFIGURATIONS OF FLASHINGS TO CONFORM TO TAPERED INSULATION LAYOUT IS THE RESPONSIBILITY OF THE CONTRACTOR. NO ADDITIONAL COSTS WILL BE ALLOWED TO THE CONTRACTOR IF PROPOSED DETAIL CONFIGURATIONS ARE ALTERED.
- ALL ROOF PENETRATIONS ARE NOT SHOWN ON THIS CONCEPTUAL LAYOUT; PROVIDE CRICKETS BEHIND UNITS TO PROMOTE DRAINAGE. CONTRACTOR TO VERIFY EXISTING ROOF DECK SLOPE AS THE WORK PROGRESSES.
- THE STRUCTURAL SLOPE AT ROOF AREAS A, B, C, D, F, G, H, I, J, K, L TO RECEIVE 1/4" PER FOOT TAPERED INSULATION IS ASSUMED TO BE FLAT. FIELD MODIFICATIONS MAY BE REQUIRED TO PREVENT PONDING.
- THE STRUCTURAL SLOPE AT ROOF AREA E TO RECEIVE FLAT STOCK INSULATION IS ASSUMED TO BE 2-3/4" PER FOOT MINIMUM. FIELD MODIFICATIONS MAY BE REQUIRED TO PREVENT PONDING.
- IT IS THE DESIGN INTENT TO ACHIEVE MINIMUM 1/8 INCH PER FOOT SLOPE AT ALL VALLEYS (INCLUDING MAIN TAPERED INSULATION AND CRICKET INSULATION LOCATIONS).
- ANY PONDING WATER ENCOUNTERED AFTER THE INSTALLATION OF THE NEW ROOF SYSTEM SHALL BE ADDRESSED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. PONDING WATER SHALL BE DEFINED AS 1/2" OF STANDING WATER WITHIN A 100 SQUARE FOOT AREA AFTER A 24 HOUR PERIOD.
- REVIEW OF THE EXPOSED ROOF DECKS BY THE CONTRACTOR WILL BE REQUIRED PRIOR TO PLACEMENT OF THE INSULATION SYSTEM TO DETERMINE POTENTIAL UNFORESEEN LOW AREAS.

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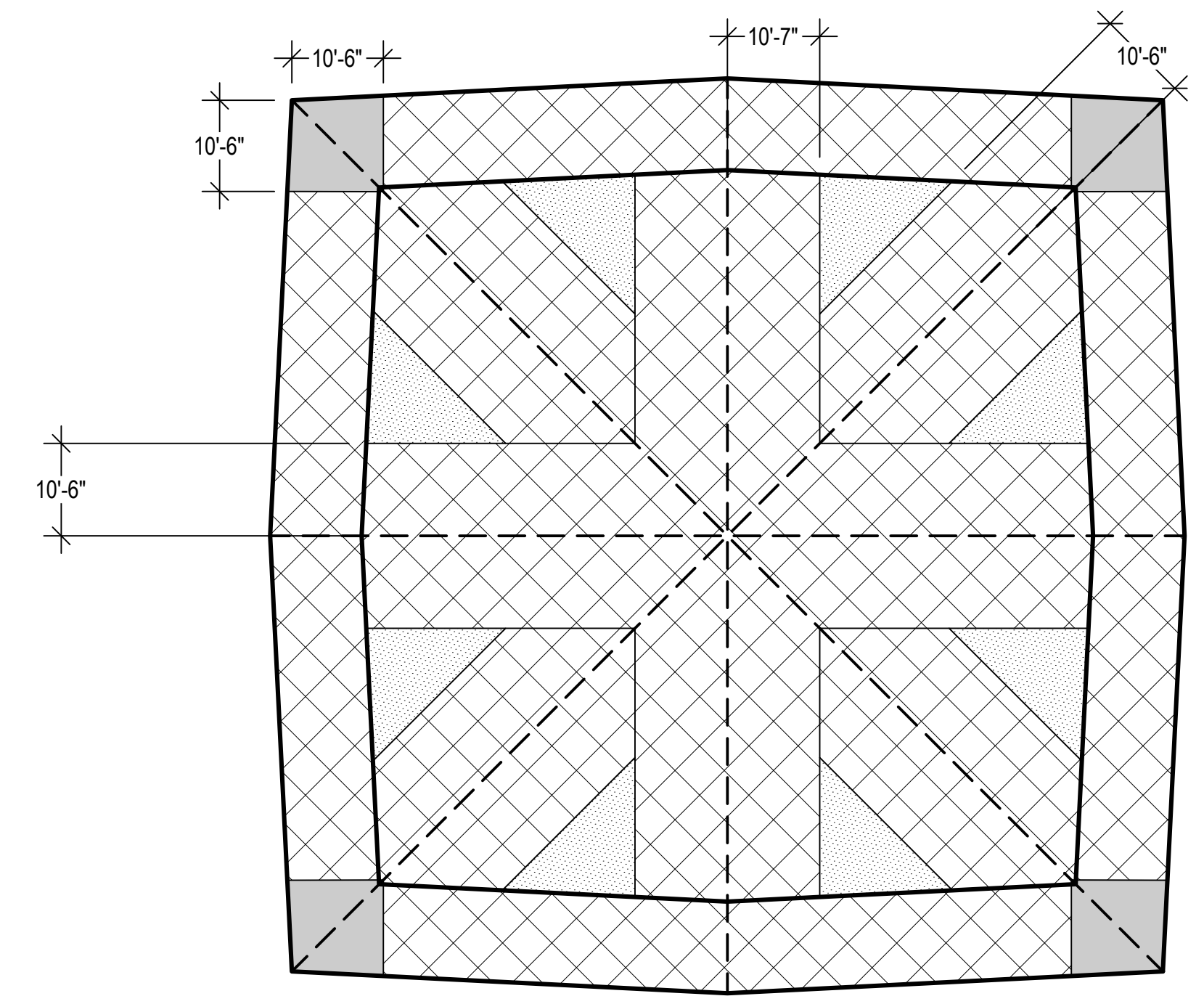
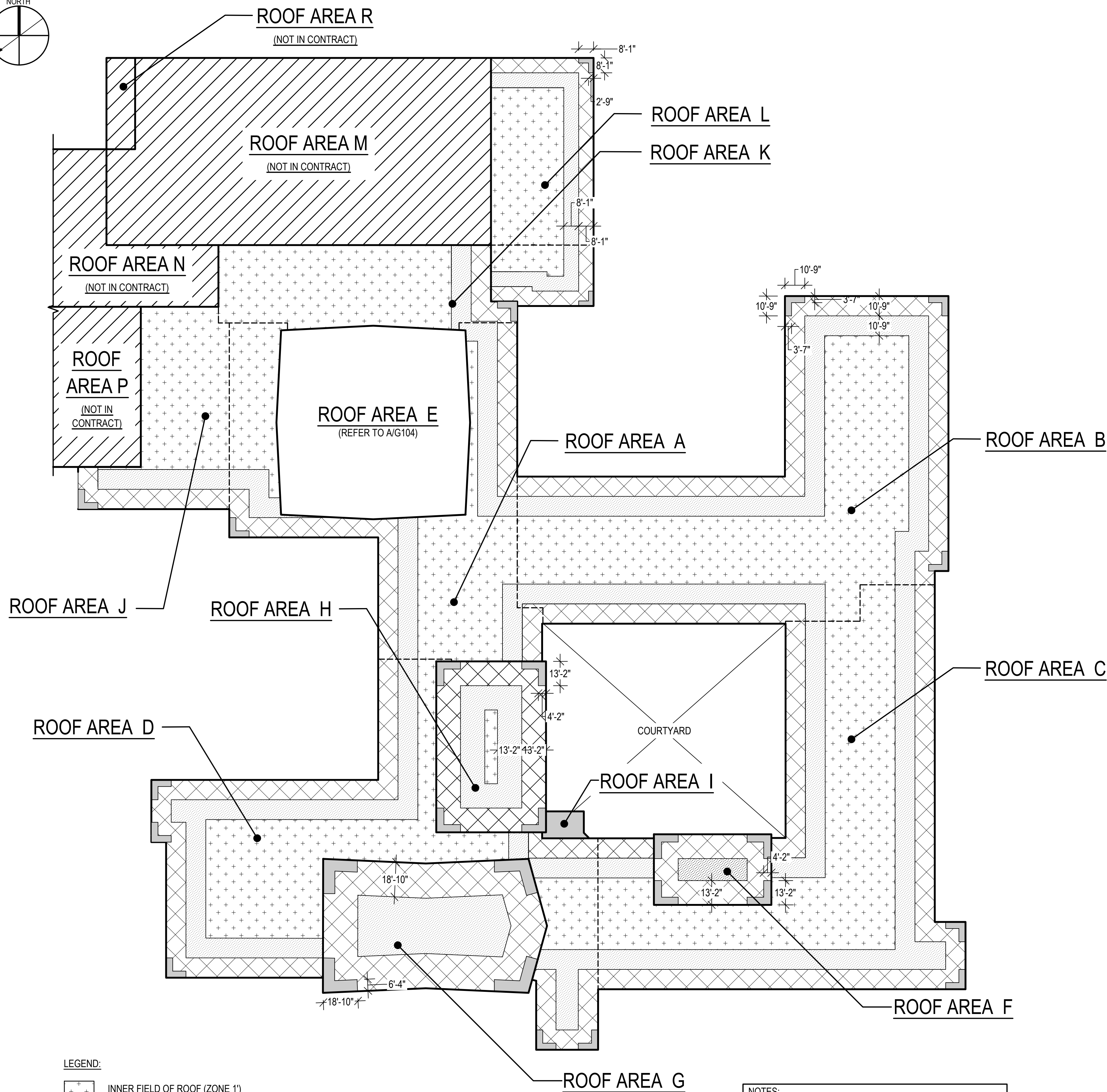
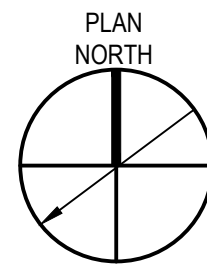
GRAPHIC SCALE

SHEET TITLE
CONCEPTUAL TAPERED INSULATION PLAN

DRAWING NO.
G103

ATTACHMENT LAYOUT PLAN

SCALE: NOT TO SCALE



A
G104 ROOF AREA E ATTACHMENT LAYOUT PLAN
SCALE: NOT TO SCALE

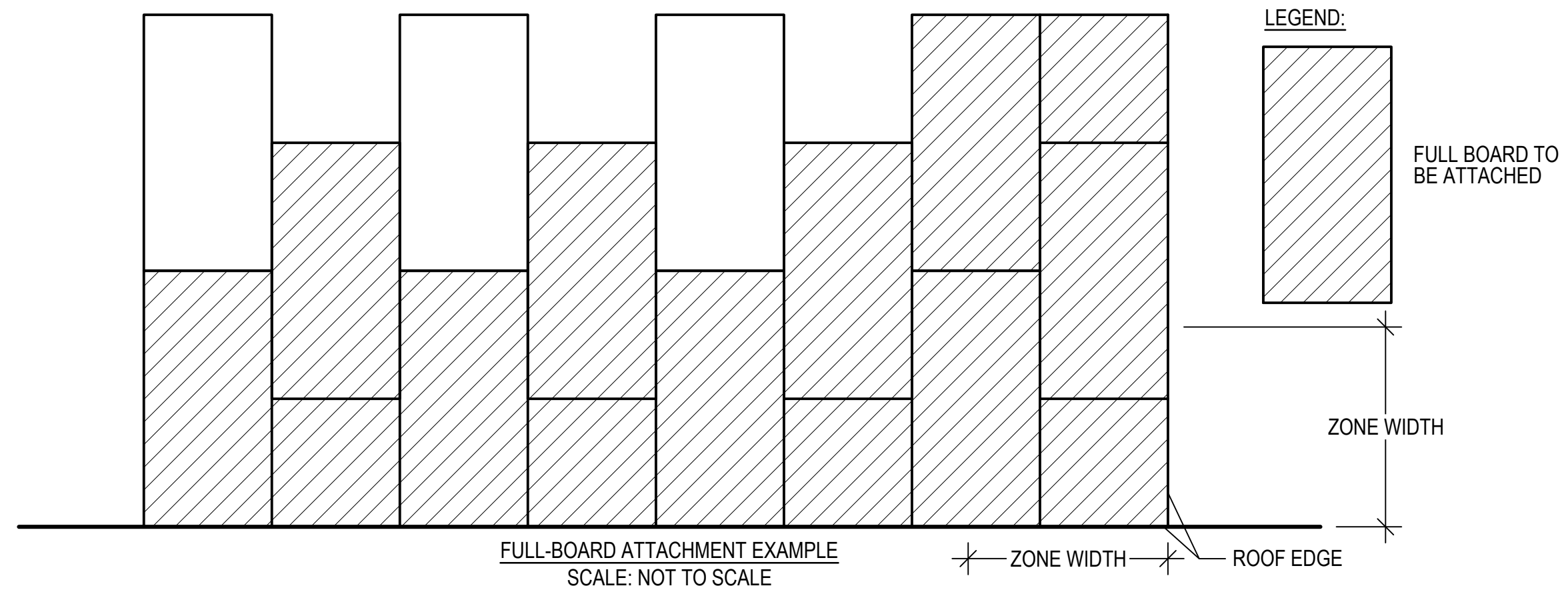
BASED ON THE MSBC 10TH EDITION AND ASCE 7-16 THE REQUIRED FIELD, PERIMETER, AND CORNER ZONE WIND UPLIFT PRESSURES AND DIMENSIONS SHALL BE AS FOLLOWS:

ROOF AREA	ROOF ELEVATION	ZONE WIDTH (ROOF)	ZONE 1 INNER FIELD (PSF)	ZONE 1 OUTER FIELD (PSF)	ZONE 2 PERIMETER (PSF)	ZONE 3 CORNER (PSF)
A, B, C, D, J, K	17'-10"±	10'-9"	-45 PSF	-70 PSF	-88 PSF	-116 PSF
E	25'-8" - 35'-0"±	10'-6"	N/A	-84 PSF	-105 PSF	-112 PSF
F	21'-10"±	13'-2"	-47 PSF	-73 PSF	-92 PSF	-121 PSF
G	31'-4"±	18'-10"	-51 PSF	-79 PSF	-100 PSF	-131 PSF
I	17'-4"±	10'-5"	-45 PSF	-70 PSF	-88 PSF	-116 PSF
L	13'-5"±	8'-1"	-44 PSF	-68 PSF	-86 PSF	-112 PSF

PARTIALLY ENCLOSED, SURFACE ROUGHNESS C, BASIC WIND SPEED 127 MPH

- LEGEND:**
- INNER FIELD OF ROOF (ZONE 1)
 - OUTER FIELD OF ROOF (ZONE 1)
 - PERIMETER OF ROOF (ZONE 2)
 - CORNER OF ROOF (ZONE 3)

- NOTES:**
1. HATCH PATTERNS ARE SHOWN SCHEMATICALLY.
 2. IF ANY PORTION OF A BOARD FALLS WITHIN THE CORNER OR PERIMETER OF THE ROOF AREA, THE FULL BOARD SHALL HAVE THE MORE STRINGENT ATTACHMENT OF THE CORNER OR PERIMETER, RESPECTIVELY, REFER TO THE BELOW EXAMPLE FOR THIS FULL BOARD ATTACHMENT REQUIREMENT.



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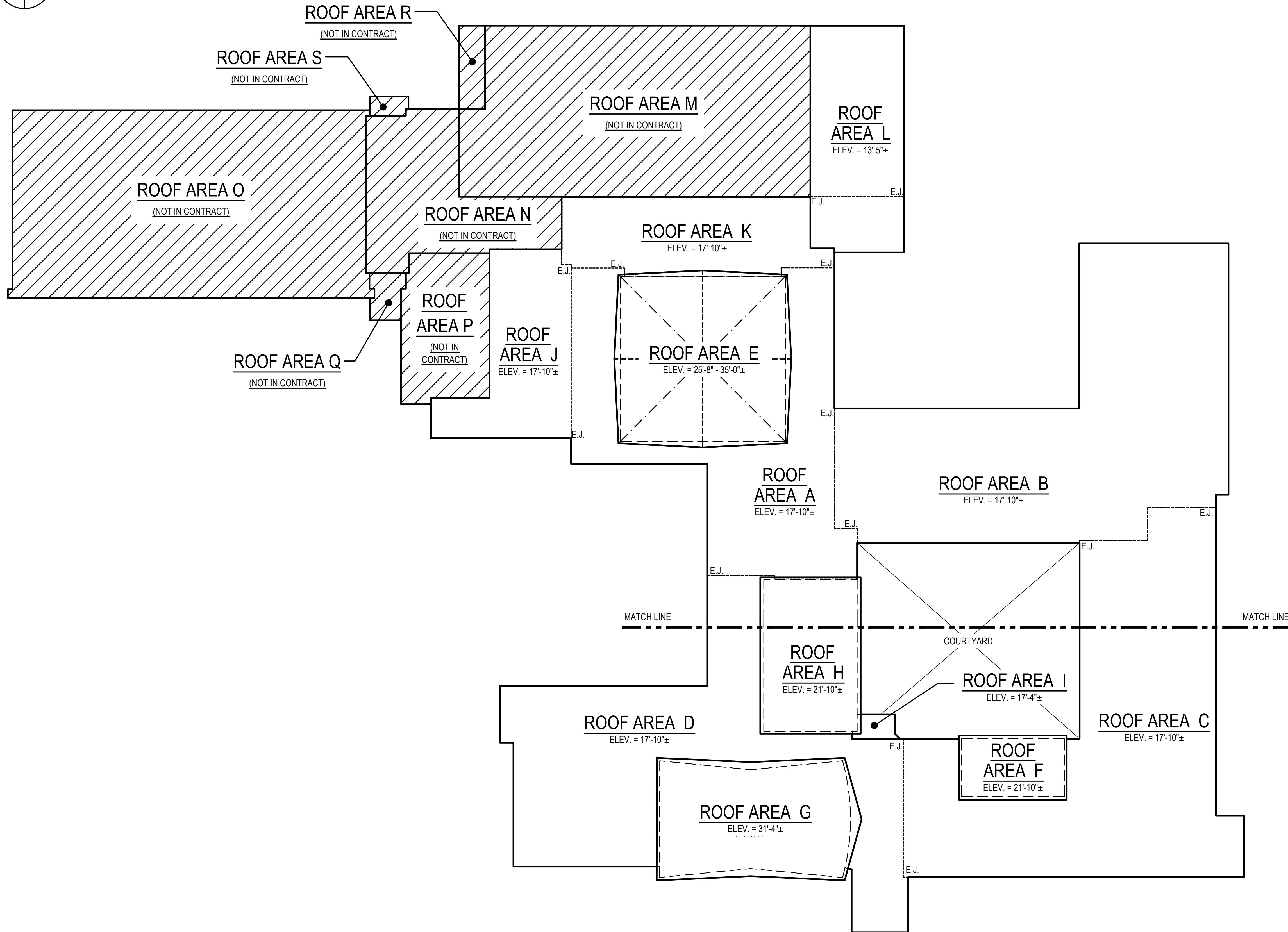
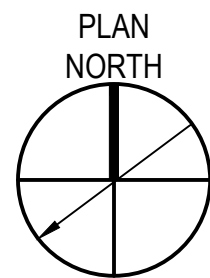
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GRAPHIC SCALE

SHEET TITLE
ATTACHMENT LAYOUT PLAN

DRAWING NO.
G104



- ### ROOFING NOTES
- ROOFING AND FLASHING SHALL BE 100% WEATHERTIGHT ON A DAILY BASIS.
 - REMOVE ONLY AS MUCH ROOFING AS CAN BE REPLACED OR MADE WEATHER TIGHT ON THE SAME DAY.
 - DISCONNECT, REMOVE, RAISE, REINSTALL, AND RECONNECT EXISTING ROOFTOP EQUIPMENT AND ASSOCIATED MECHANICAL/ELECTRICAL PENETRATIONS TO PROVIDE MINIMUM SPECIFIED FLASHING HEIGHTS. COORDINATE ALL DISCONNECTIONS WITH THE OWNER IN ADVANCE.
 - CONTRACTOR TO VERIFY WITH BUILDING OWNER THE STATUS OF ALL HVAC EQUIPMENT, MECHANICAL UNITS, AND RELATED ROOFTOP PENETRATIONS. ALL DESIGNATED ABANDONED ROOFTOP EQUIPMENT, STACKS, SLEEPERS, ETC. SHALL BE REMOVED AND LEGALLY DISPOSED OF OFF-SITE. EXISTING ROOF DECK SHALL BE PATCHED/ REPAIRED AND PREPARED TO RECEIVE NEW ROOFING SYSTEM.
 - RESECURE ALL PIPES, CONDUITS, ETC. AND REPLACE ALL FAILED, DETERIORATING, AND MISSING FASTENERS. REMOVE AND REPLACE ALL DETERIORATED SLEEPERS WITH NEW PRE-MANUFACTURED SLEEPERS. RELOCATE PIPE SUPPORTS AND SLEEPERS AS REQUIRED TO PROVIDE PROPER ATTACHMENT OF THE FASTENERS AND SUPPORT TO THE PIPES WITHOUT OBSTRUCTING ROOFTOP DRAINAGE; TYPICAL.
 - NIGHTLY TIE-IN OF THE ROOF INSULATION SYSTEM SHALL BE STAGGERED MINIMUM 12" BETWEEN EACH LAYER. LOOSE LAID BOARDS WILL BE REQUIRED TO PROVIDE TEMPORARY SUPPORT OF THE CONDITIONS. SHOULD STAGGERED INSULATION NOT BE PROVIDED, THE ROOF INSULATION IS SUBJECT TO REMOVAL AND REPLACEMENT AT NO ADDITIONAL COST TO THE OWNER.

- ### LEGEND
- ALL ITEMS ARE EXISTING UNLESS OTHERWISE NOTED
 - ROOF EDGE
 - - - E.J. EXPANSION JOINT TO BE REMOVED AND REPLACED
 - - - - RIDGE LINE
 - - - - VALLEY
 - - - - APPROXIMATE RISING WALL LIMITS BELOW ROOF OVERHANG
 - ▨ ROOF AREA/BUILDING NOT IN CONTRACT
 - ELEV. = $\frac{1}{4}$ " ± ROOF HEIGHT RELATIVE TO GRADE WHICH IS ASSUMED TO BE ZERO FEET
 - - - - MATCH LINE INDICATOR

1 OVERALL ROOF AREA PLAN
A100 SCALE: 1/32"=1'-0"

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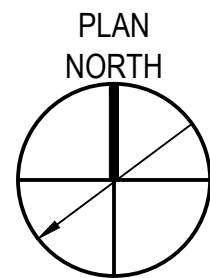
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OWNER
HAMILTON-WENHAM REGIONAL SCHOOL DISTRICT
5 SCHOOL STREET
WENHAM, MA 01984

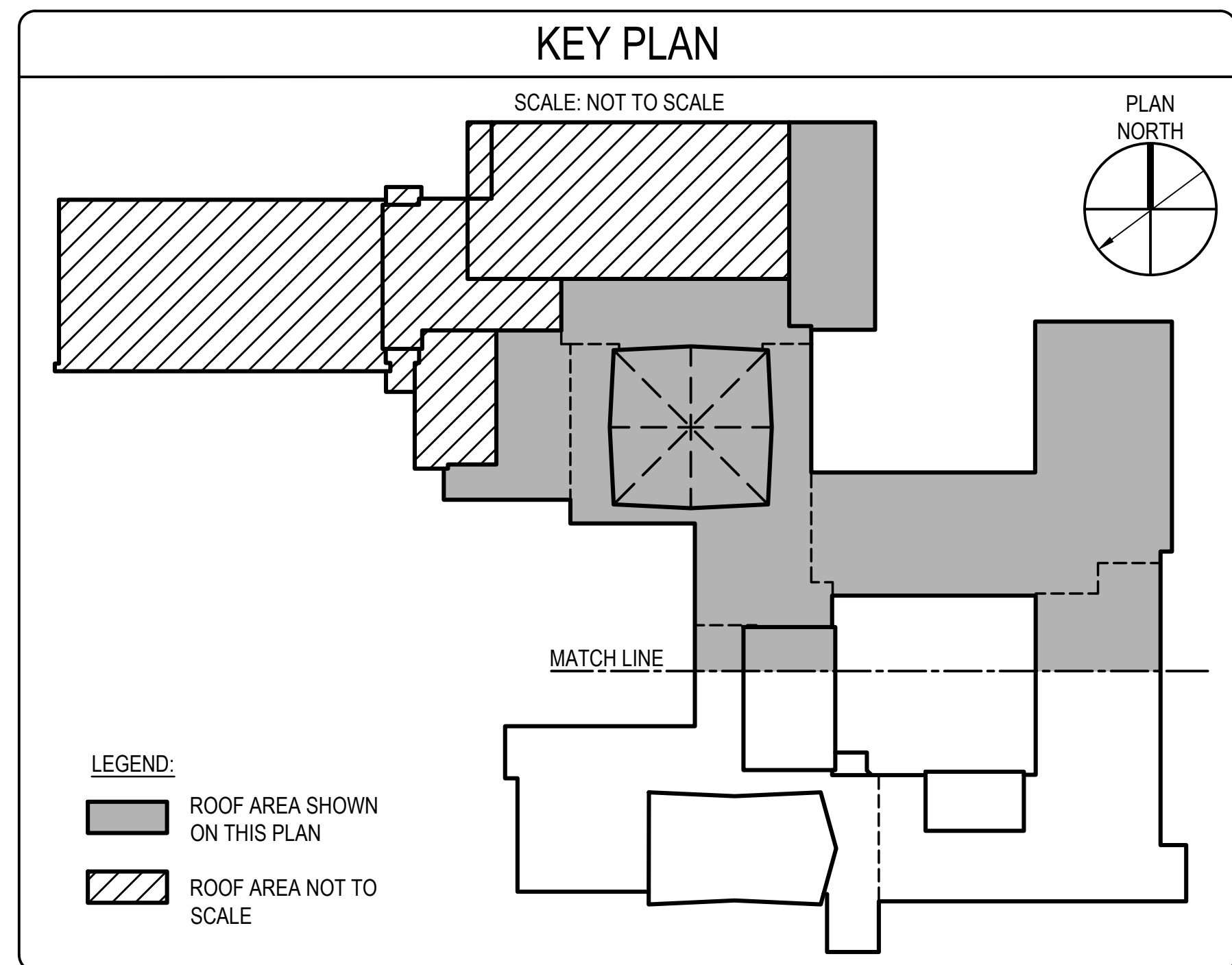
NO.	DATE	DESCRIPTION	BY
PROJECT NO.		845190	
CADD FILE		845190 A100s	
DESIGNED BY		KRC	
DRAWN BY		MAA/DS/HD	
CHECKED BY		BHN	
DATE		2/3/2026	
DRAWING SCALE		1/32"=1'-0"	

SHEET TITLE
OVERALL ROOF PLAN

DRAWING NO.
A100

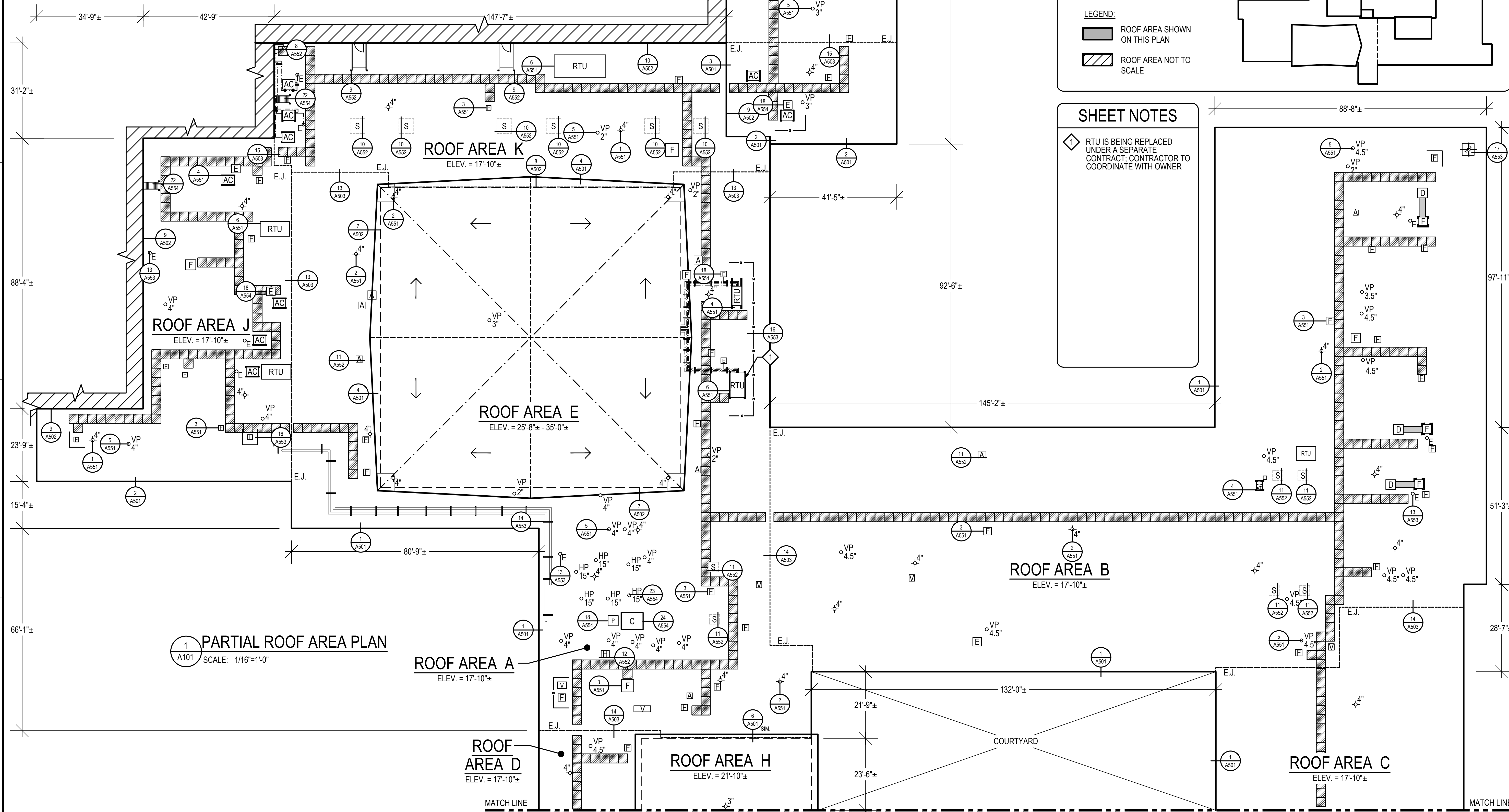


LEGEND		ALL ITEMS ARE EXISTING UNLESS OTHERWISE NOTED	
—	ROOF EDGE	[F]	FAN
- - - E.J.	EXPANSION JOINT TO BE REMOVED AND REPLACED	[RTU]	ROOFTOP UNIT
- - -	RIDGE LINE	A	ABANDONED CURB TO BE DEMOLISHED AND INFILLED AT DECK LEVEL
- - -	VALLEY	[AC]	AIR CONDITIONING UNIT
- - -	CONDUIT	⊕	BALLASTED ANTENNA/SATELLITE
- - -	APPROXIMATE RISING WALL LIMITS BELOW ROOF OVERHANG	⊕	ROOF DRAIN TO BE REMOVED AND REPLACED; # INDICATES DIAMETER
- - -	NEW PORTABLE GUARDRAIL	⊕	VENT PIPE; # INDICATES DIAMETER
[H]	ACCESS HATCH TO BE REMOVED AND REPLACED	⊕	HOT PIPE; INDICATES DIAMETER
[V]	VENT	→	STRUCTURAL SLOPE
[P]	PROPOSED PENETRATION BOX LOCATION	—	SLEEPER
[S]	SKYLIGHT TO BE DEMOLISHED AND INFILLED AT DECK LEVEL	—	SHIPS LADDER
		—	MANUFACTURER'S MEMBRANE WALKWAY PADS
		—	ELEVATED STEEL STAIRS
		[E]	ELECTRICAL PENETRATION
		—	GAS LINES TO BE REMOVED AND REPLACED; REFER TO MECHANICAL PLANS
		[C]	CHIMNEY
		—	ROOF AREA/BUILDING NOT IN CONTRACT
		—	ROOF ACCESS DOOR
		—	ROOF HEIGHT RELATIVE TO GRADE WHICH IS ASSUMED TO BE ZERO FEET
		⊕	DETAIL CALLOUT
		—	MATCH LINE INDICATOR
		[D]	ELEVATED DUCTWORK



SHEET NOTES

RTU IS BEING REPLACED UNDER A SEPARATE CONTRACT; CONTRACTOR TO COORDINATE WITH OWNER



1 PARTIAL ROOF AREA PLAN
A101 SCALE: 1/16"=1'-0"

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PROJECT
MSBA ARP ROOF SYSTEM REPLACEMENT
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775 BAY ROAD
SOUTH HAMILTON, MA 01982

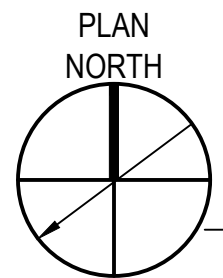
OWNER
HAMILTON-WENHAM REGIONAL SCHOOL DISTRICT
5 SCHOOL STREET
WENHAM, MA 01984

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	845190		
CADD FILE	845190 A100s		
DESIGNED BY	KRC		
DRAWN BY	MAA/DS/HD		
CHECKED BY	BHN		
DATE	2/3/2026		
DRAWING SCALE	1/16"=1'-0"		

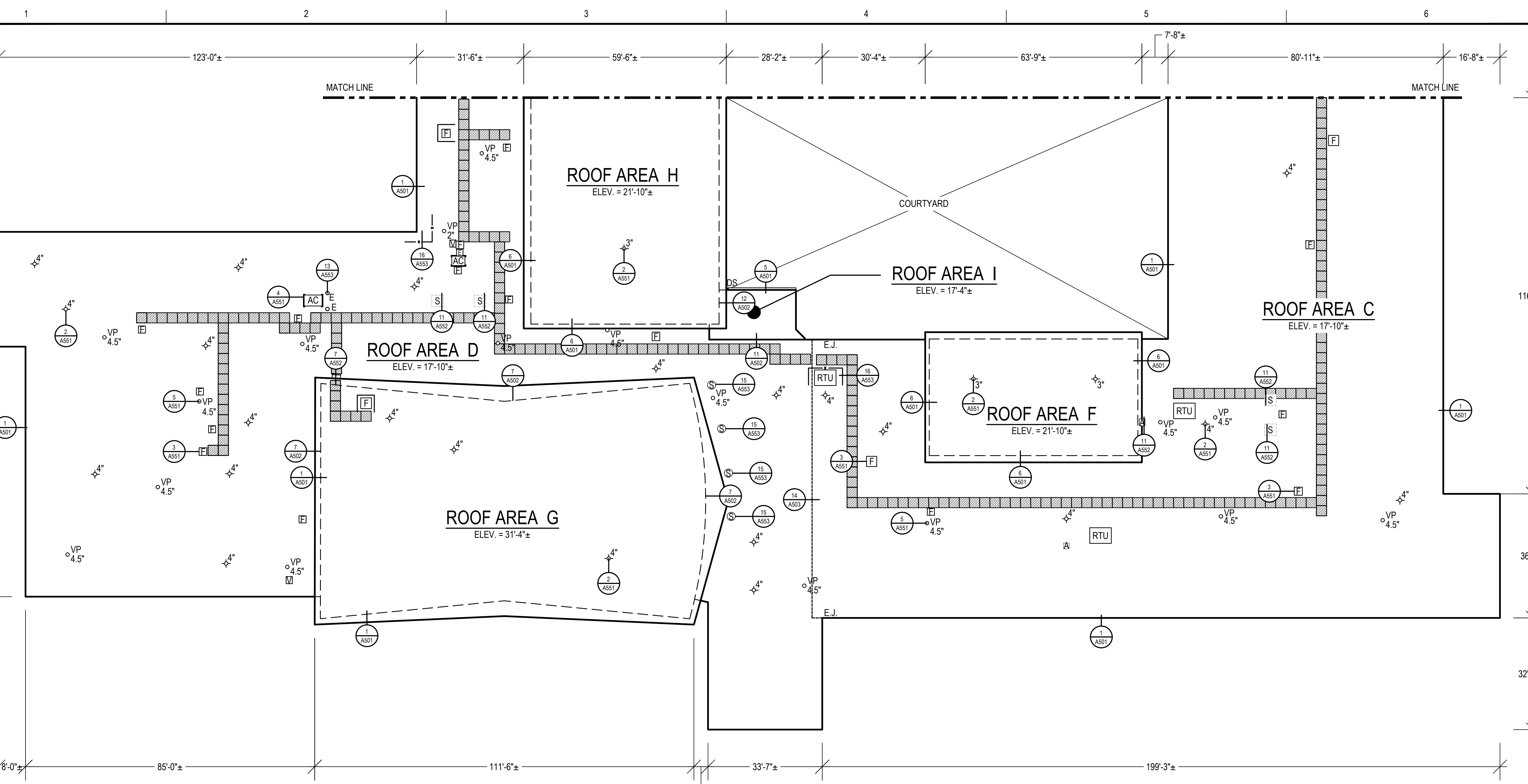
GRAPHIC SCALE
0 8' 16' 32'

SHEET TITLE
PARTIAL ROOF PLAN

DRAWING NO.
A101



E
D
C
B
A

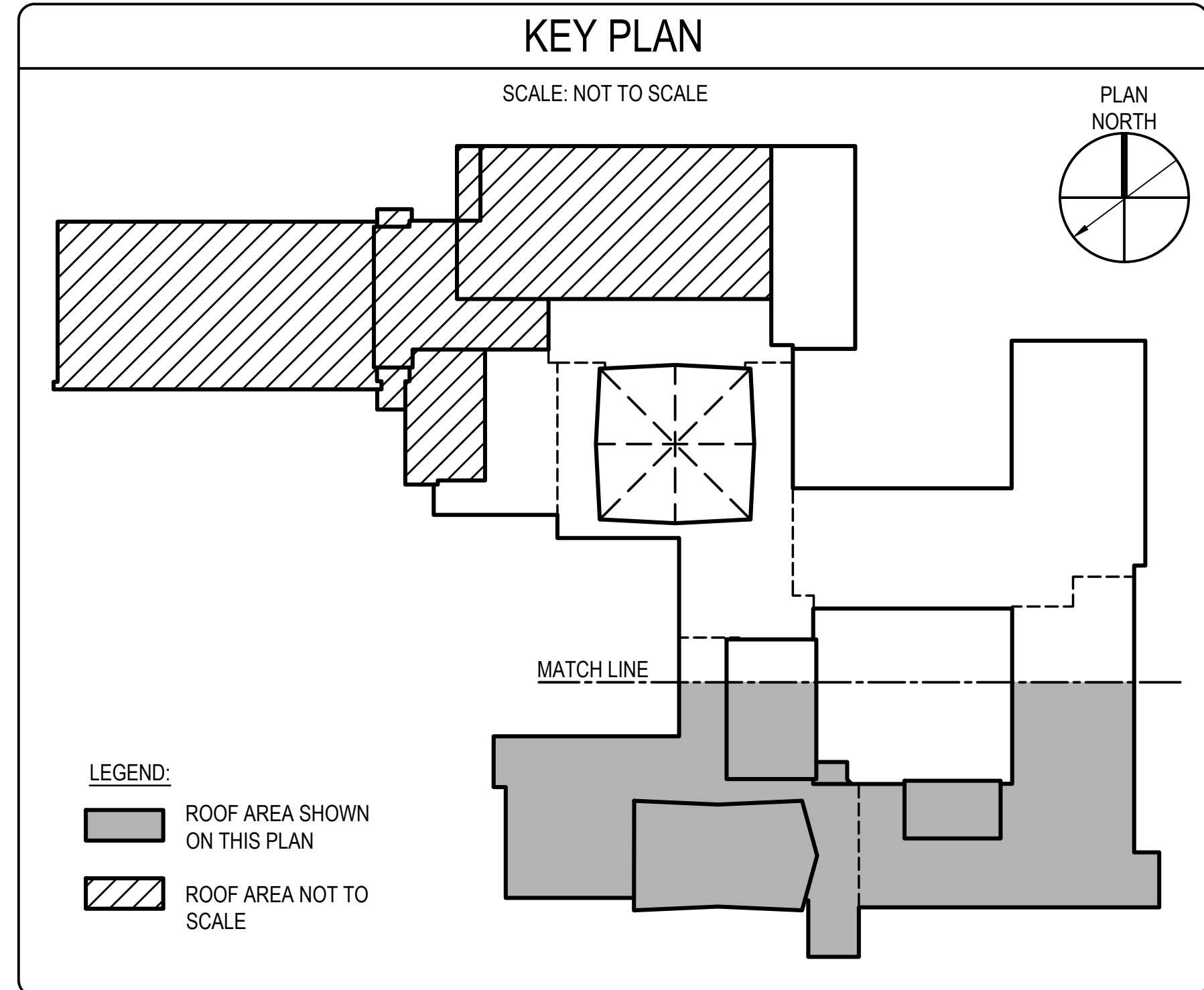


1 PARTIAL ROOF AREA PLAN
A102 SCALE: 1/16"=1'-0"

LEGEND

ALL ITEMS ARE EXISTING UNLESS OTHERWISE NOTED

—	ROOF EDGE	AC #	AIR CONDITIONING UNIT
-E.J.-	EXPANSION JOINT TO BE REMOVED AND REPLACED	⊗	ROOF DRAIN TO BE REMOVED AND REPLACED; # INDICATES DIAMETER
-	NEW PORTABLE GUARDRAIL	VP #	VENT PIPE; # INDICATES DIAMETER
- - -	CONDUIT	—	SLEEPER
- - - -	APPROXIMATE RISING WALL LIMITS BELOW ROOF OVERHANG	—	ROOF ACCESS LADDER TO BE REMOVED AND REPLACED
V	VENT	E	ELECTRICAL PENETRATION
⊗	CIRCULAR SKYLIGHTS; REMOVE AND REPLACE	MM	MANUFACTURER'S MEMBRANE WALKWAY PADS
S	SKYLIGHT TO BE DEMOLISHED AND INFILLED AT DECK LEVEL	DS	NEW GUTTER AND DOWNSPOUT; PROVIDE SPLASH BLOCK AT GRADE
F	FAN	ELEV. = ...'	ROOF HEIGHT RELATIVE TO GRADE WHICH IS ASSUMED TO BE ZERO FEET
RTU	ROOFTOP UNIT	⊙	DETAIL CALLOUT
A	ABANDONED CURB TO BE DEMOLISHED AND INFILLED AT DECK LEVEL	—	MATCH LINE INDICATOR



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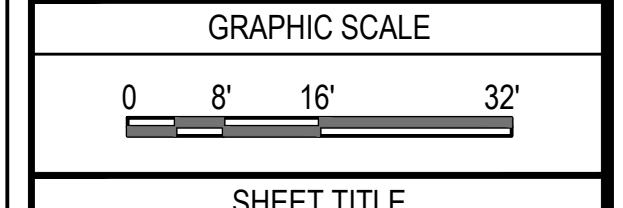
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 775 BAY ROAD
 SOUTH HAMILTON, MA 01982

OWNER
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 5 SCHOOL STREET
 WENHAM, MA 01984

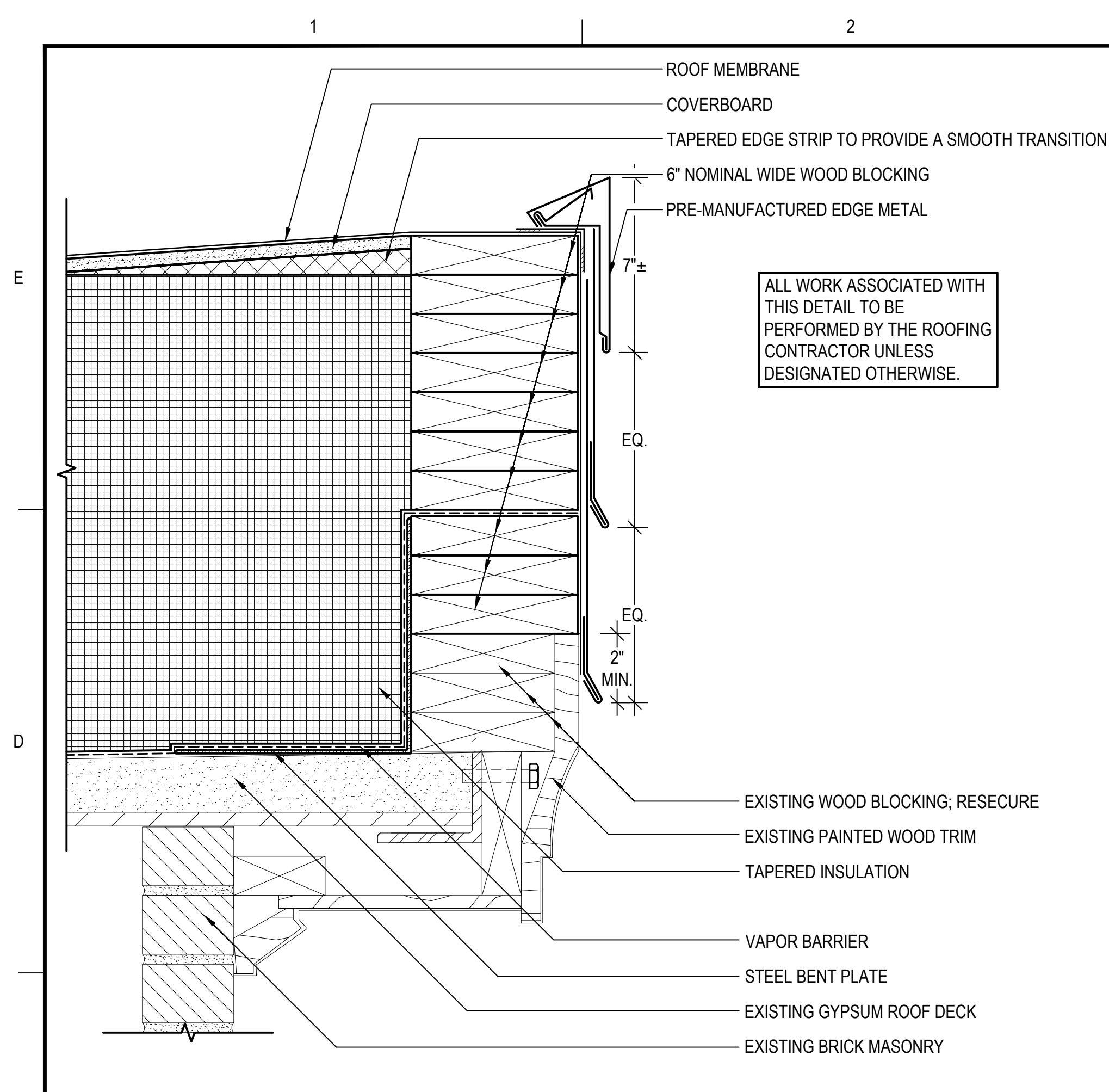
NO.	DATE	DESCRIPTION	BY
PROJECT NO.	845190		
CADD FILE	845190 A100s		
DESIGNED BY	KRC		
DRAWN BY	MAA/DS/HD		
CHECKED BY	BHN		
DATE	2/3/2026		
DRAWING SCALE	1/16"=1'-0"		



SHEET TITLE

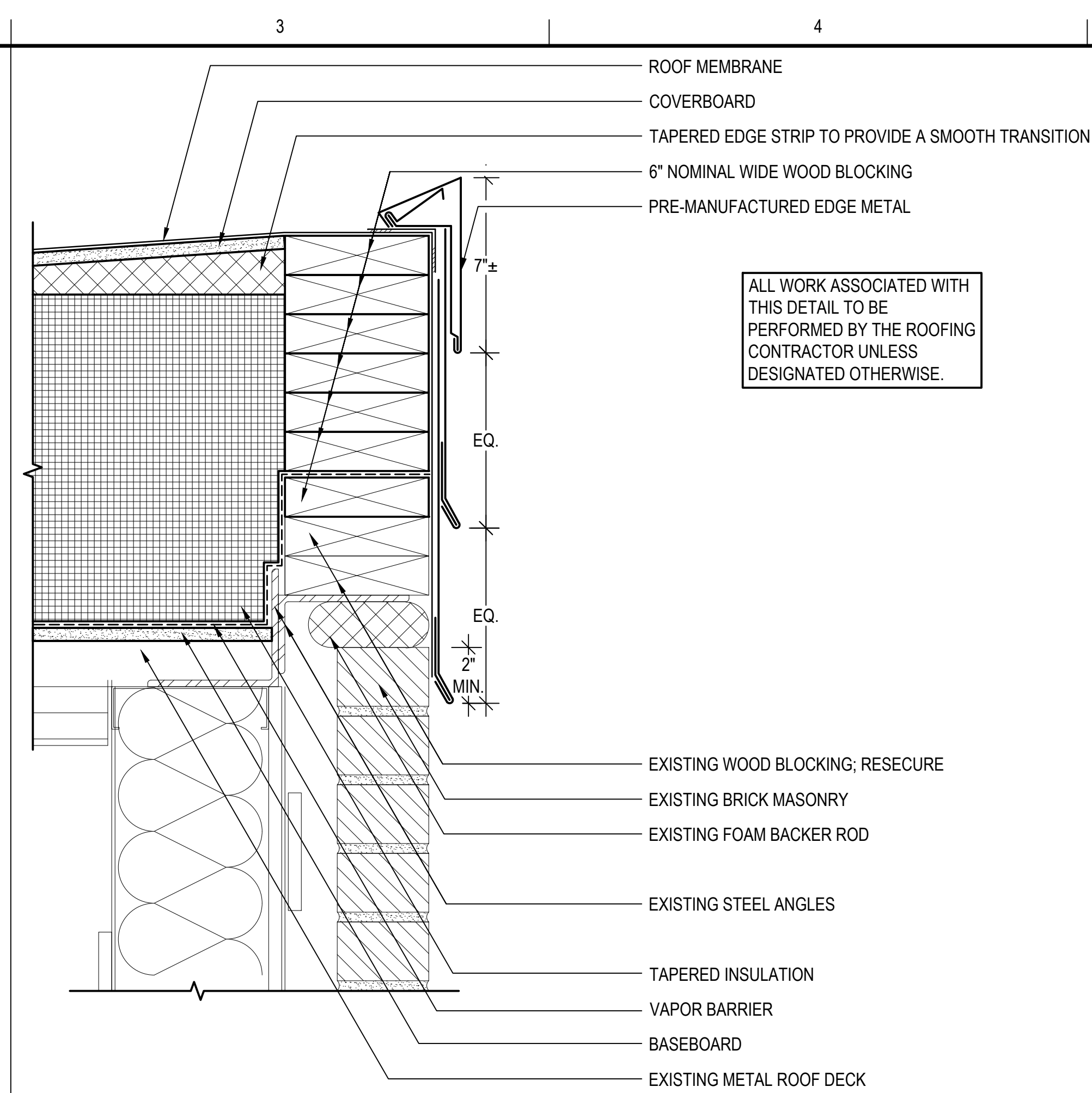
PARTIAL ROOF PLAN

DRAWING NO.
A102



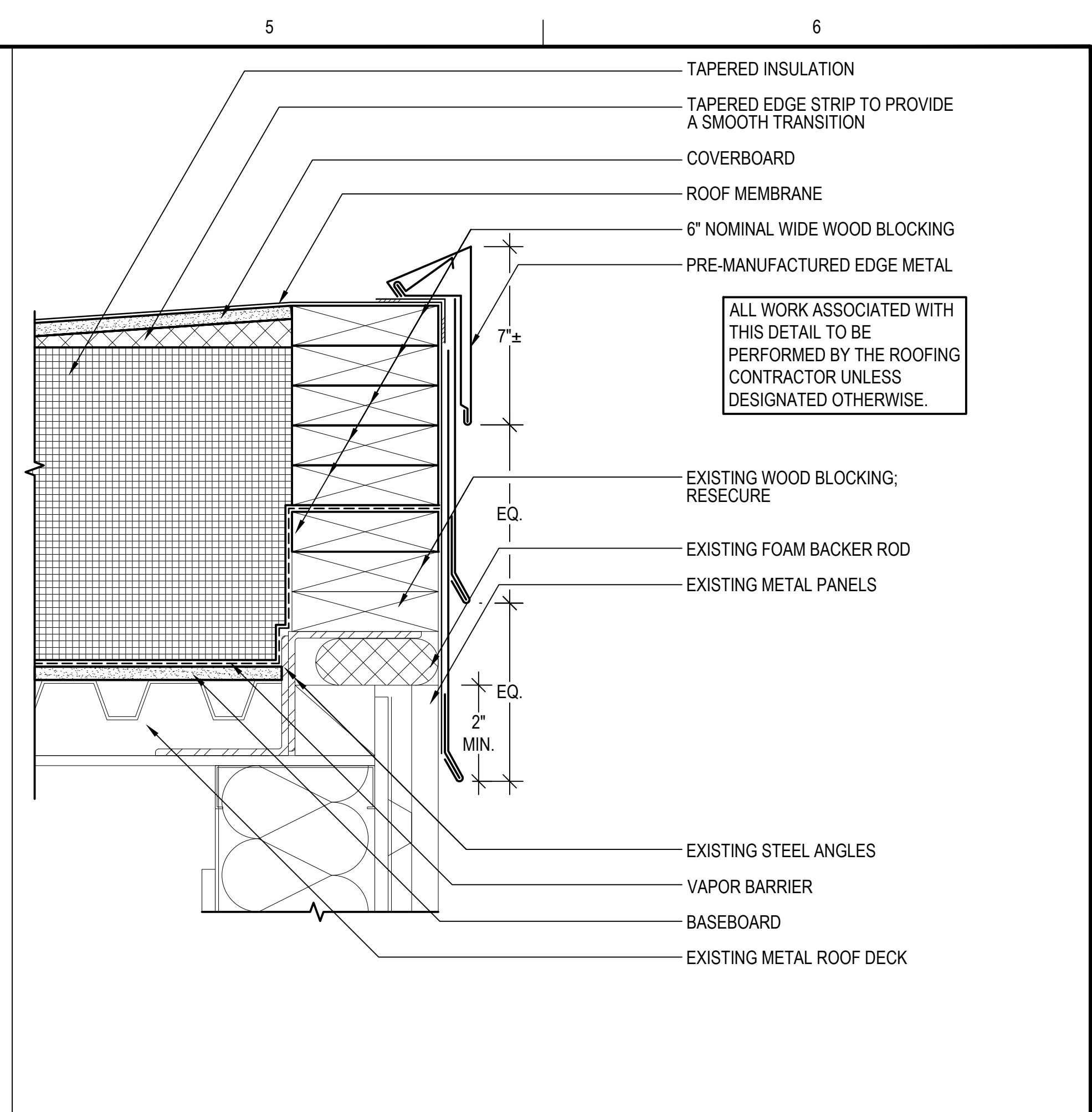
1 ROOF EDGE - TYPE I

A501 SCALE: 3"=1'-0" (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



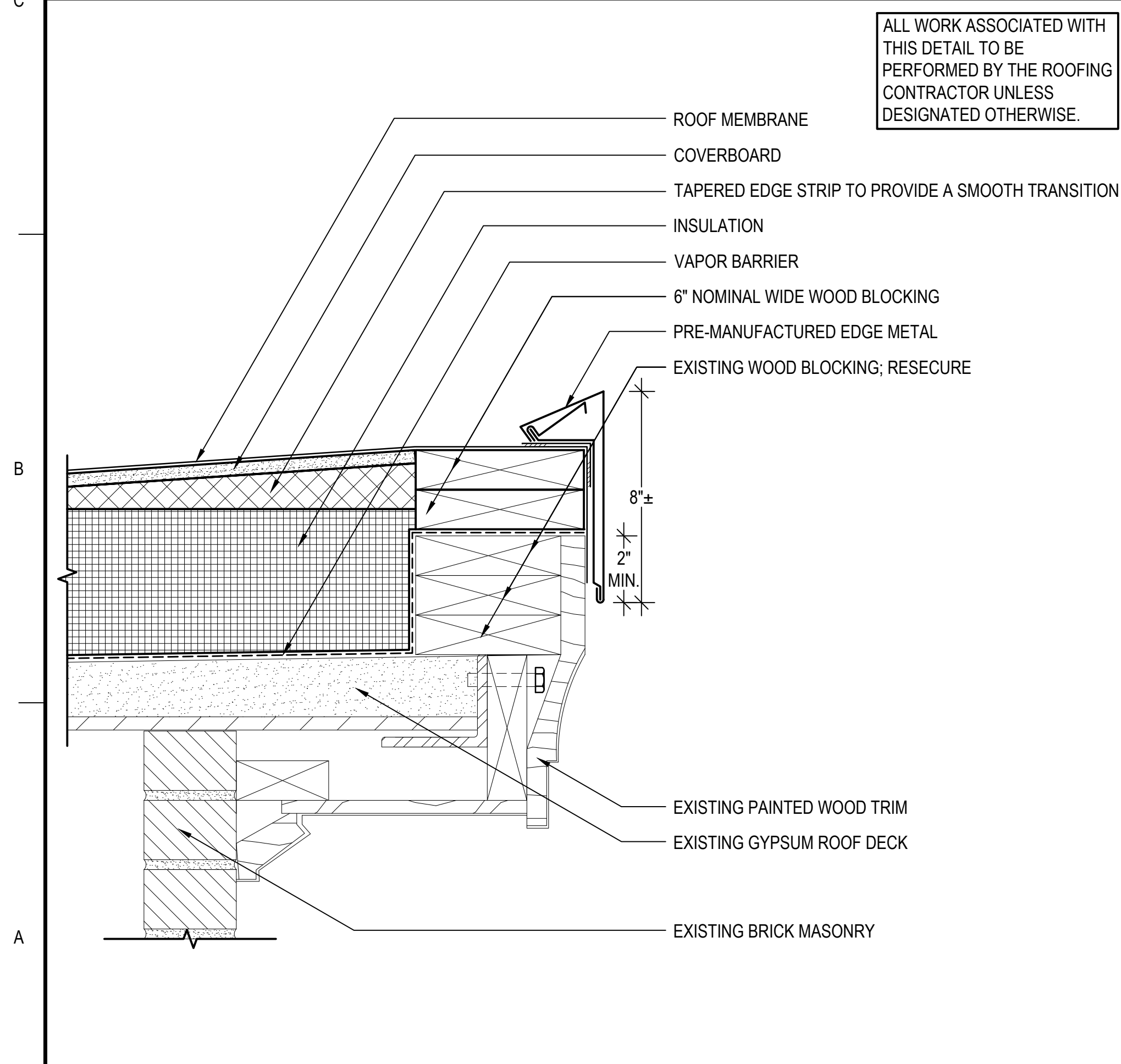
2 ROOF EDGE - TYPE II

A501 SCALE: 3"=1'-0" (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



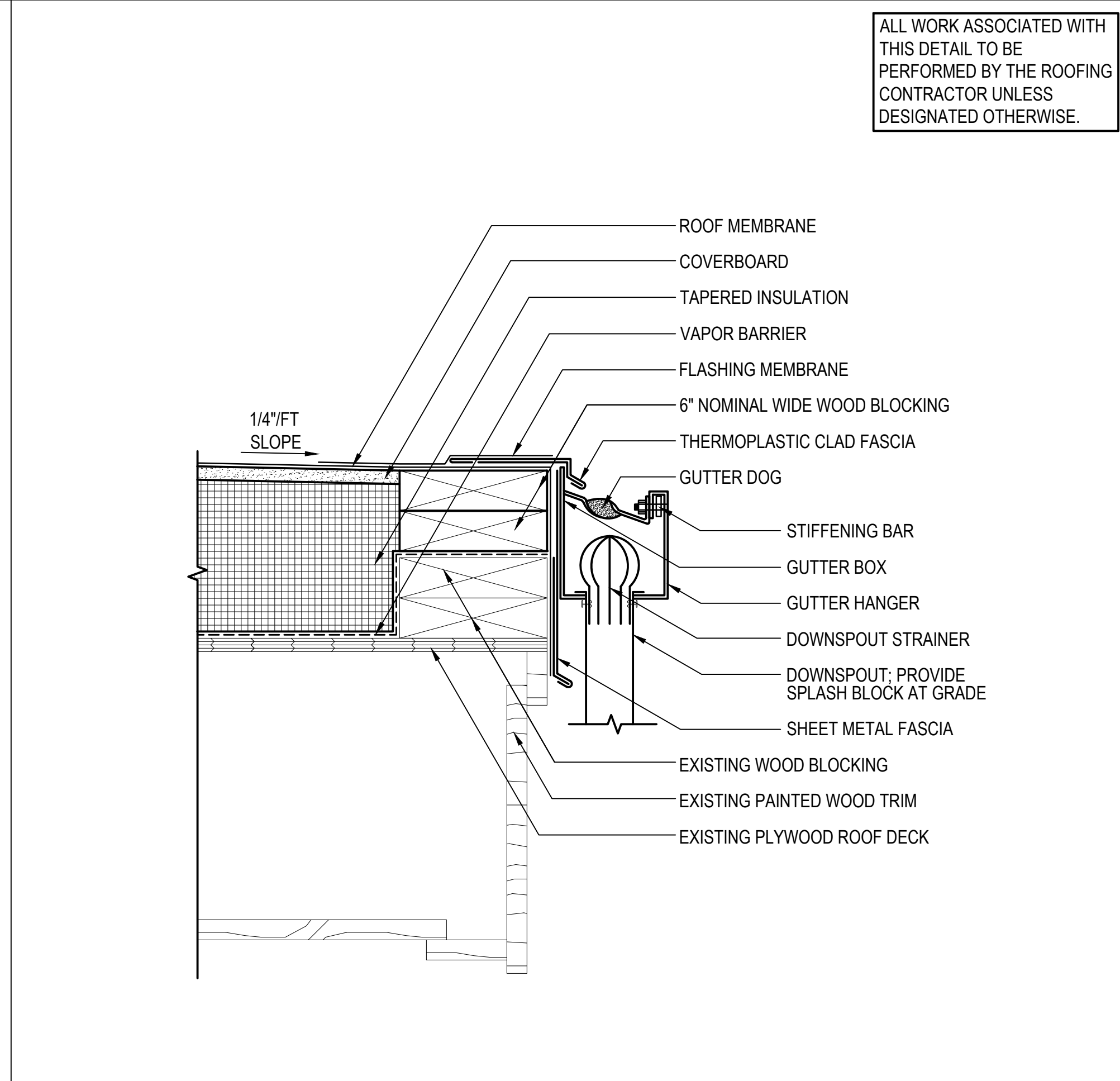
3 ROOF EDGE - TYPE III

A501 SCALE: 3"=1'-0" (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



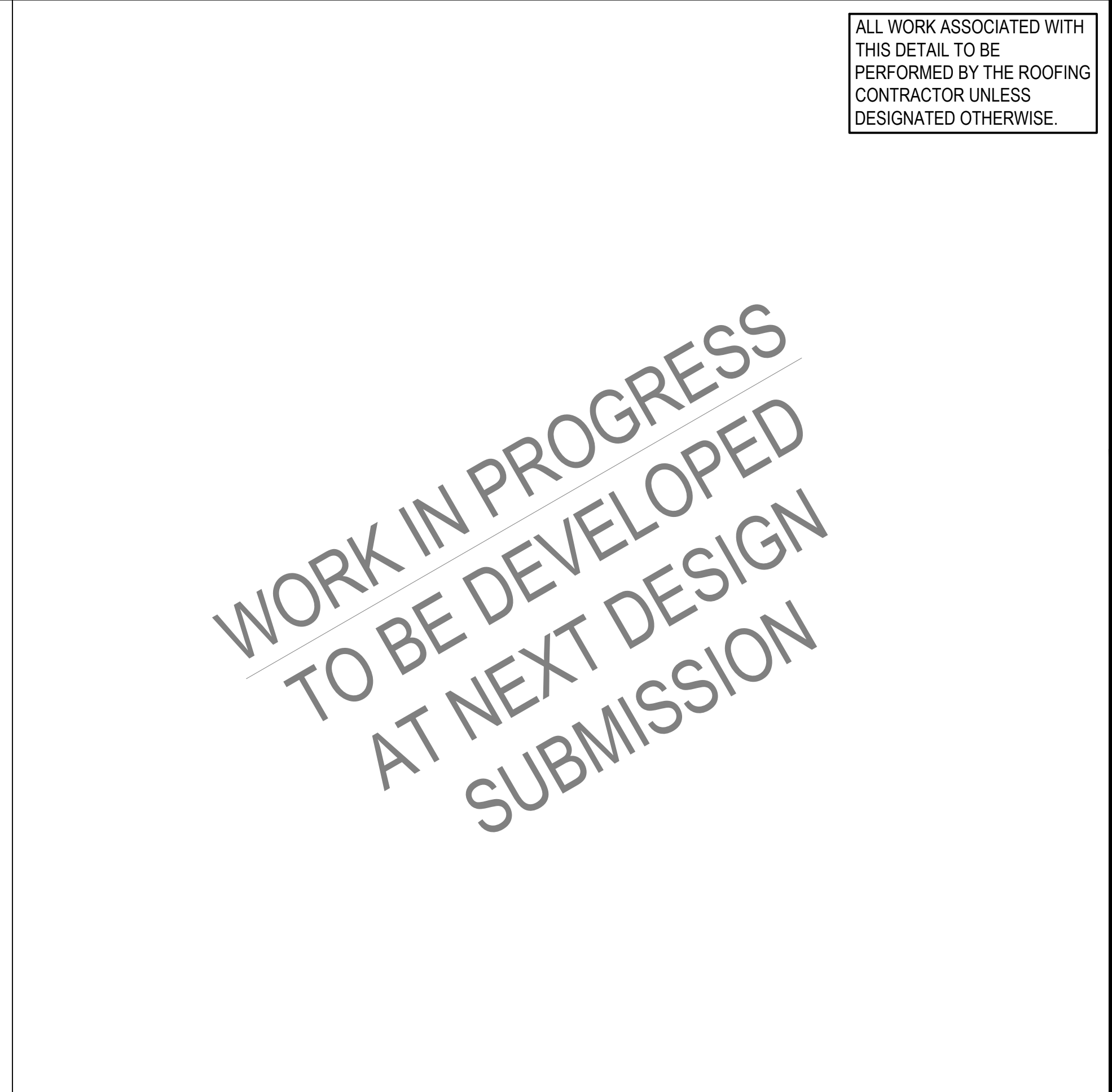
4 ROOF EDGE - TYPE IV

A501 SCALE: 3"=1'-0" (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



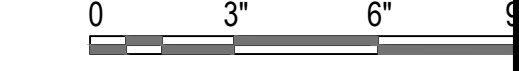
5 ROOF EDGE - TYPE V

A501 SCALE: 3"=1'-0" (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



6 ROOF TRANSITION A,B,C,D TO H,F - RISING WALL - TYPE I

A501 SCALE: 3"=1'-0" (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



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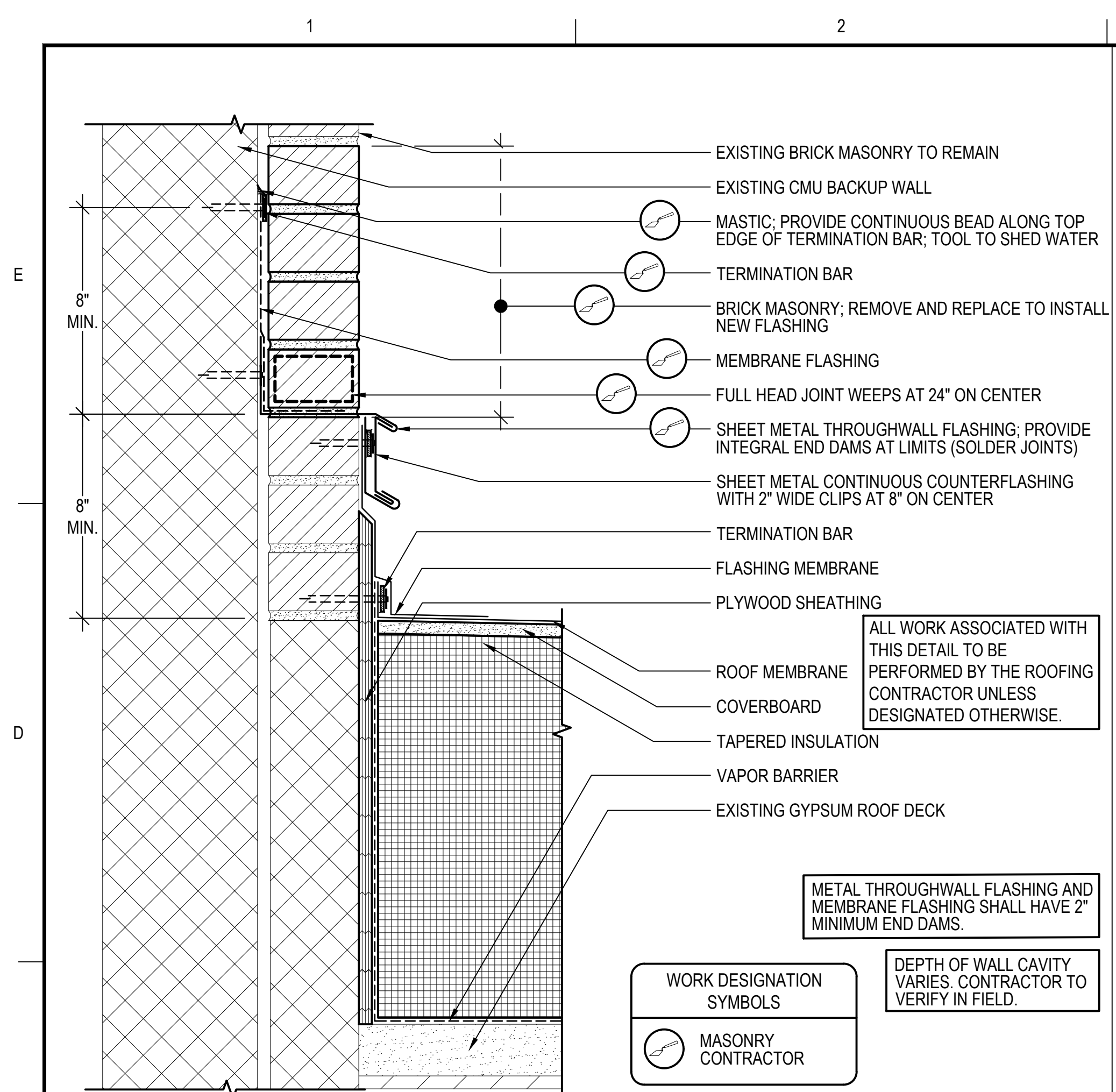
NO.	DATE	DESCRIPTION	BY
PROJECT NO.	845190		
CADD FILE	845190 A500s		
DESIGNED BY	KRC		
DRAWN BY	MAA/DS/HD		
CHECKED BY	BHN		
DATE	2/3/2026		
DRAWING SCALE	AS NOTED		

GRAPHIC SCALE

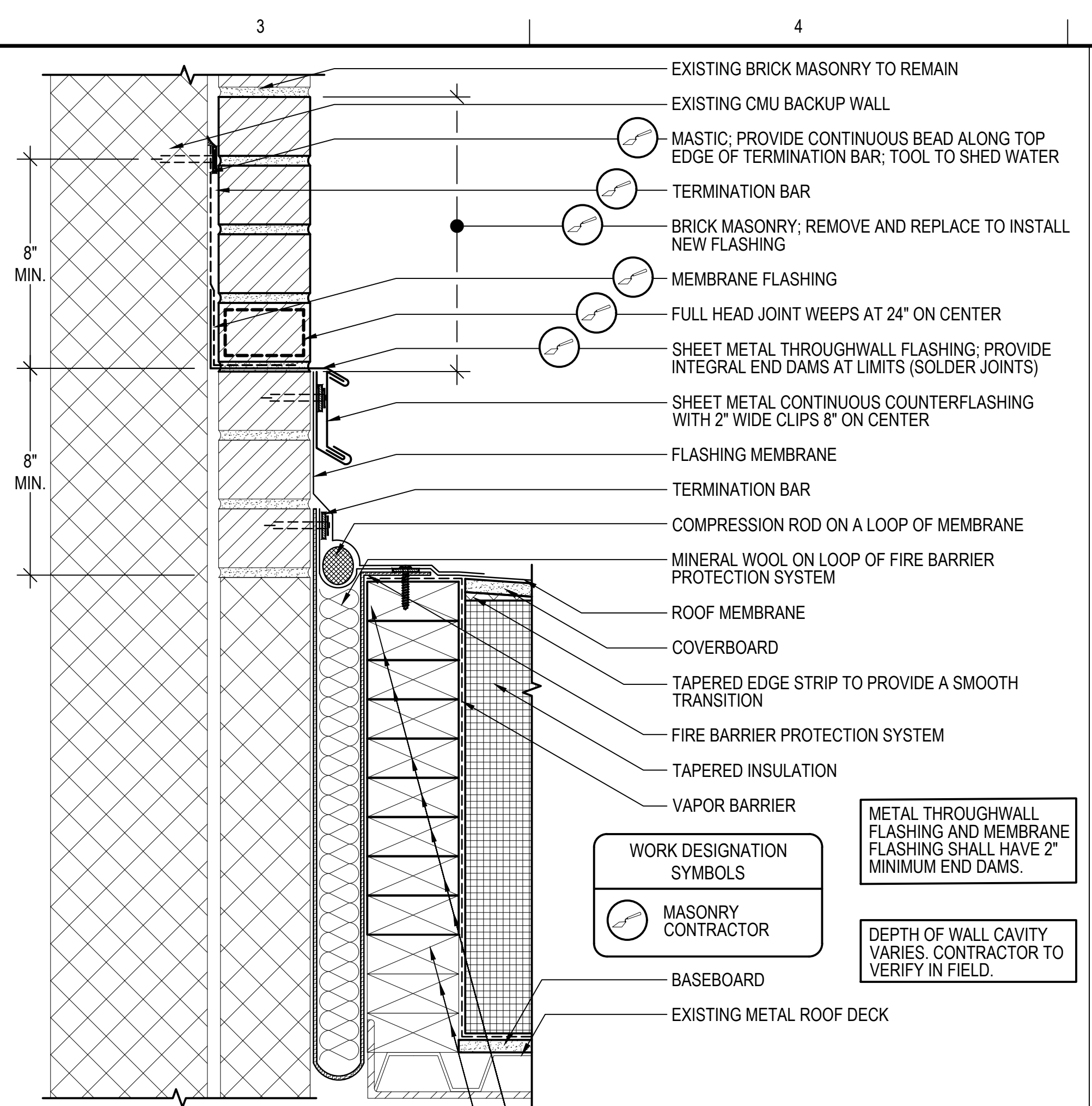
SHEET TITLE

DRAWING NO.

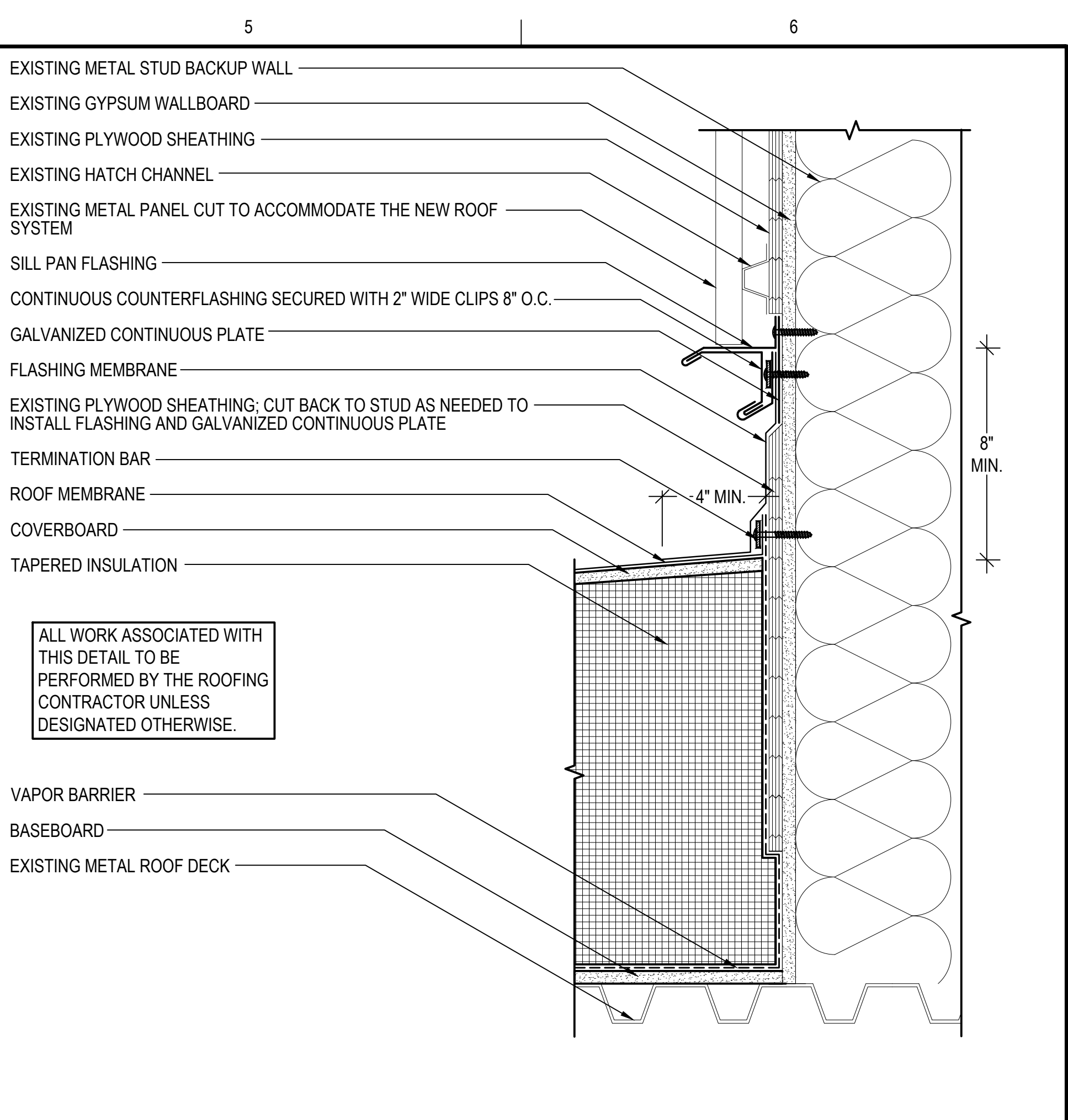
A501



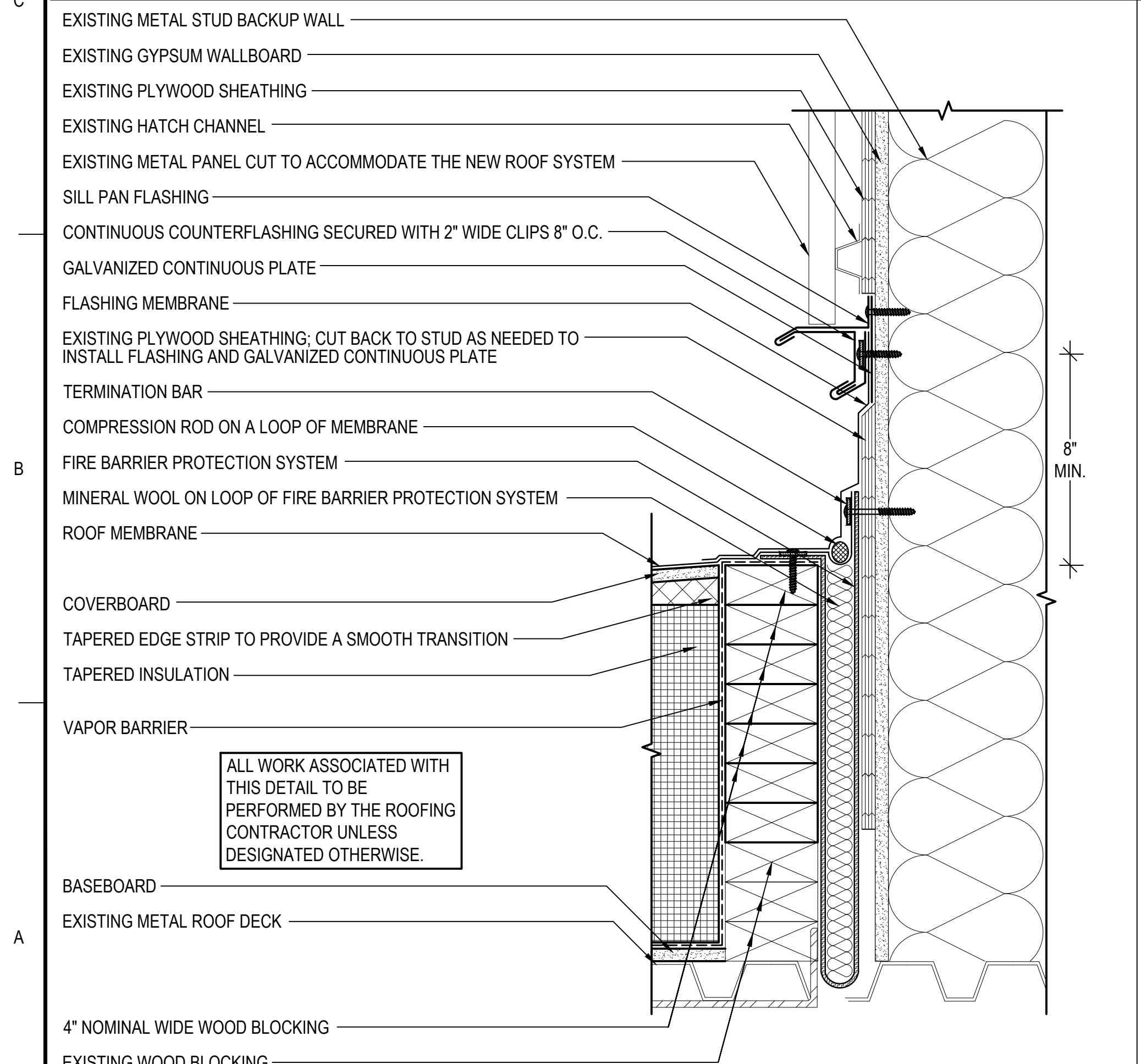
7 RISING WALL - TYPE II
 SCALE: 3"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



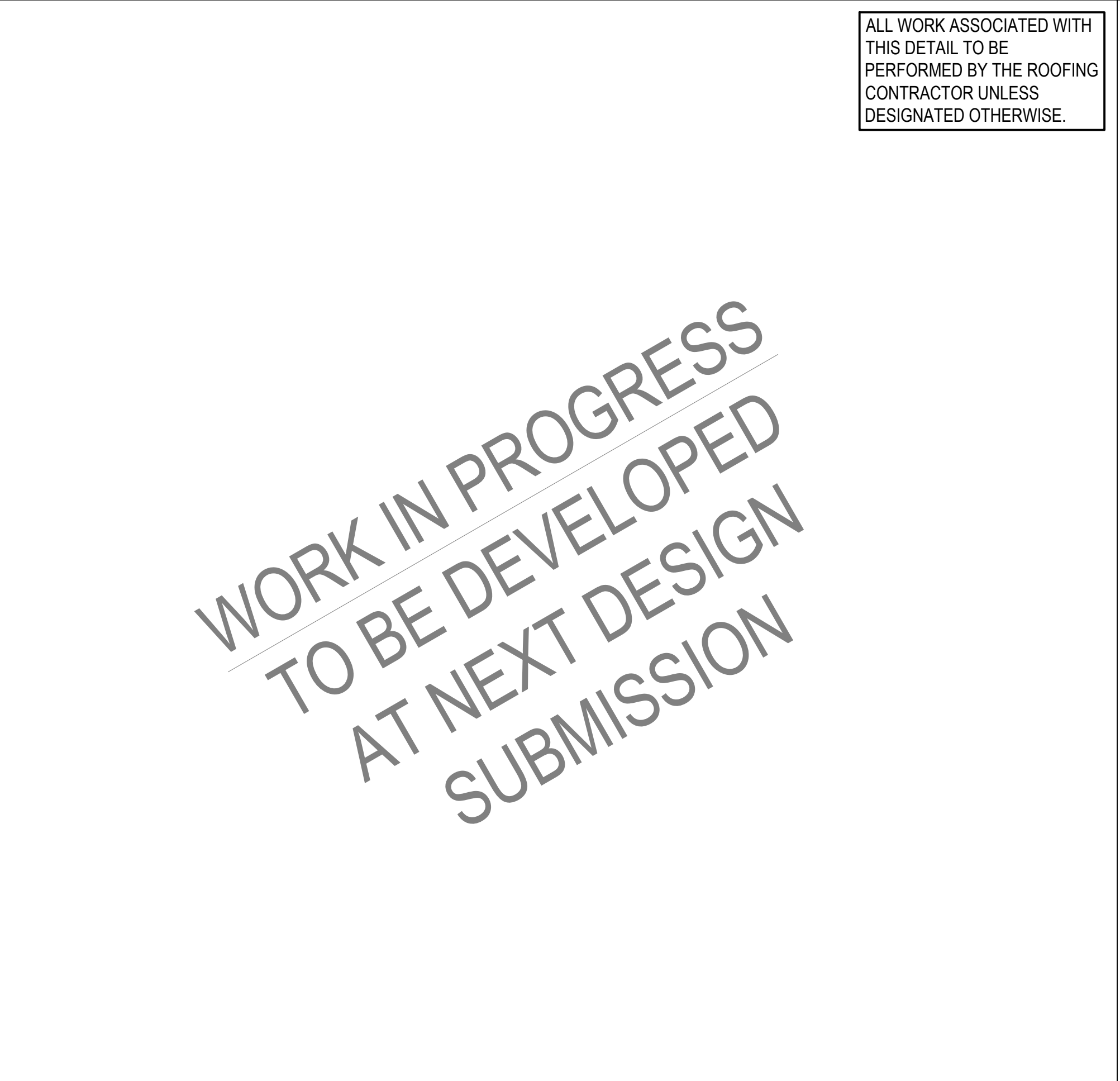
8 RISING WALL - TYPE III
 SCALE: 3"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



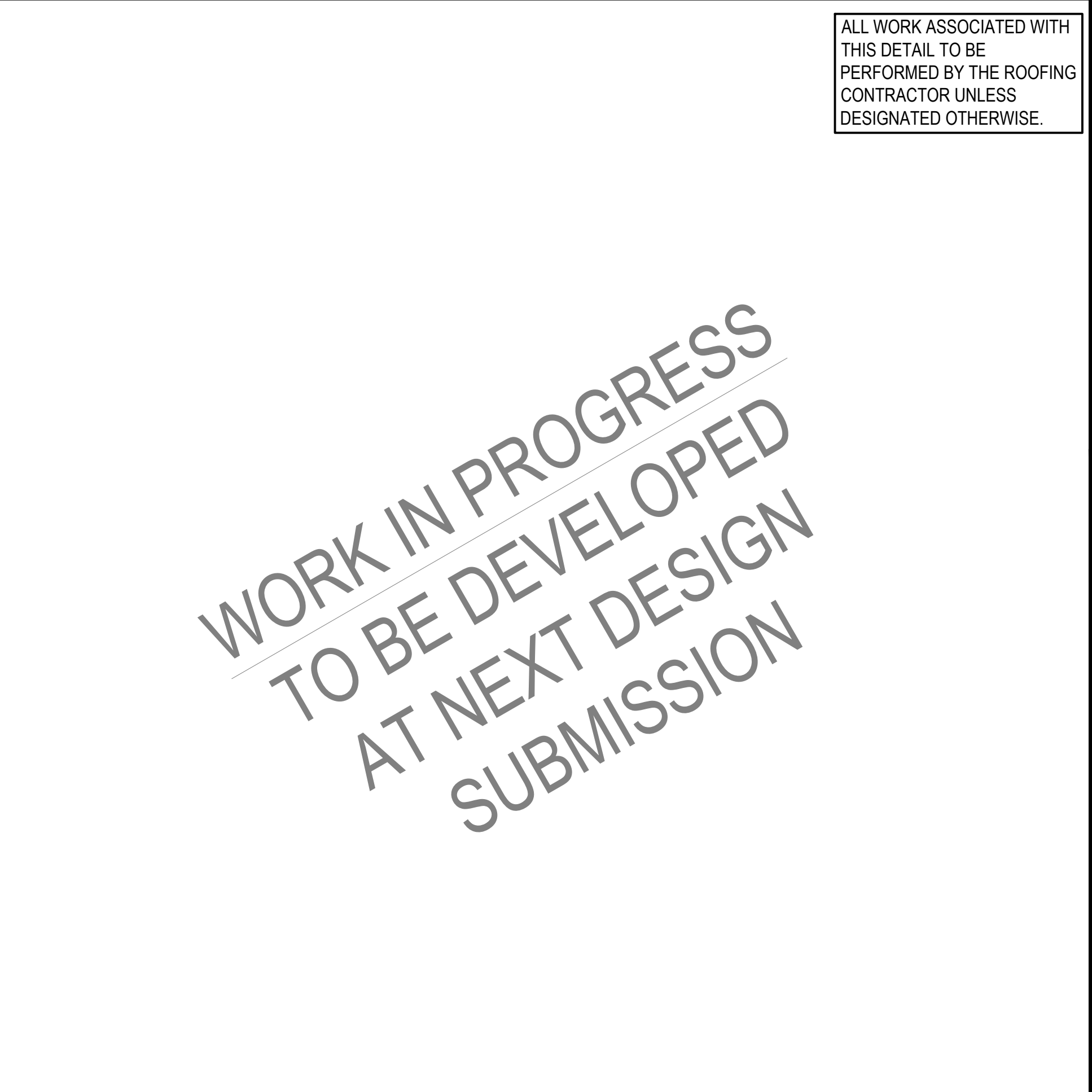
9 RISING WALL - TYPE IV
 SCALE: 3"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



10 RISING WALL - TYPE V
 SCALE: 3"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



11 ROOF AREA I TO ROOF AREA D TRANSITION
 SCALE: 3"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



12 ROOF AREA I TO ROOF AREA H TRANSITION
 SCALE: 3"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)

WORK IN PROGRESS
 TO BE DEVELOPED
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 WENHAM, MA 01984

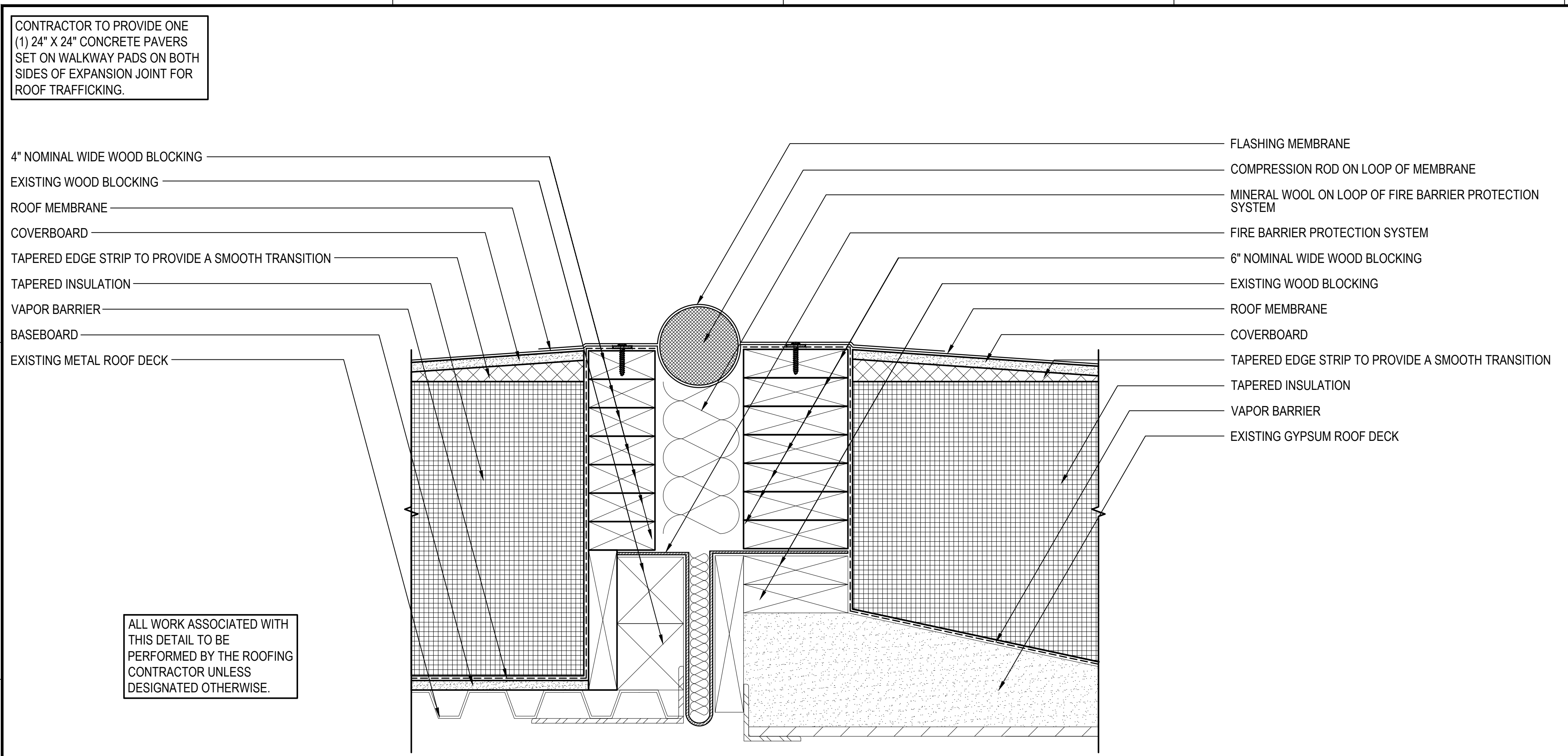
NO.	DATE	DESCRIPTION	BY
PROJECT NO.	845190		
CADD FILE	845190 A500s		
DESIGNED BY	KRC		
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DATE	2/3/2026		
DRAWING SCALE	AS NOTED		

GRAPHIC SCALE

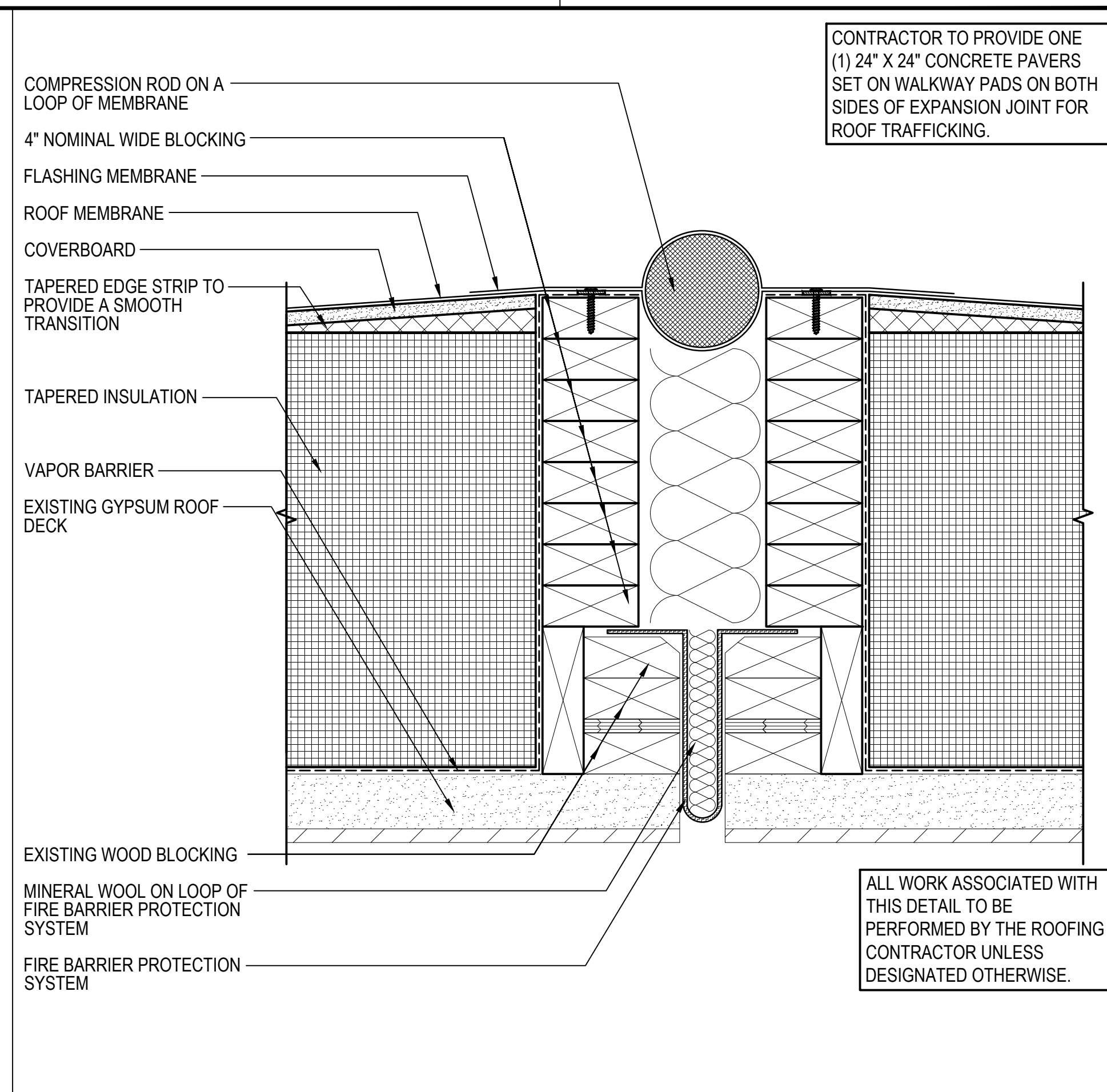
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DETAILS

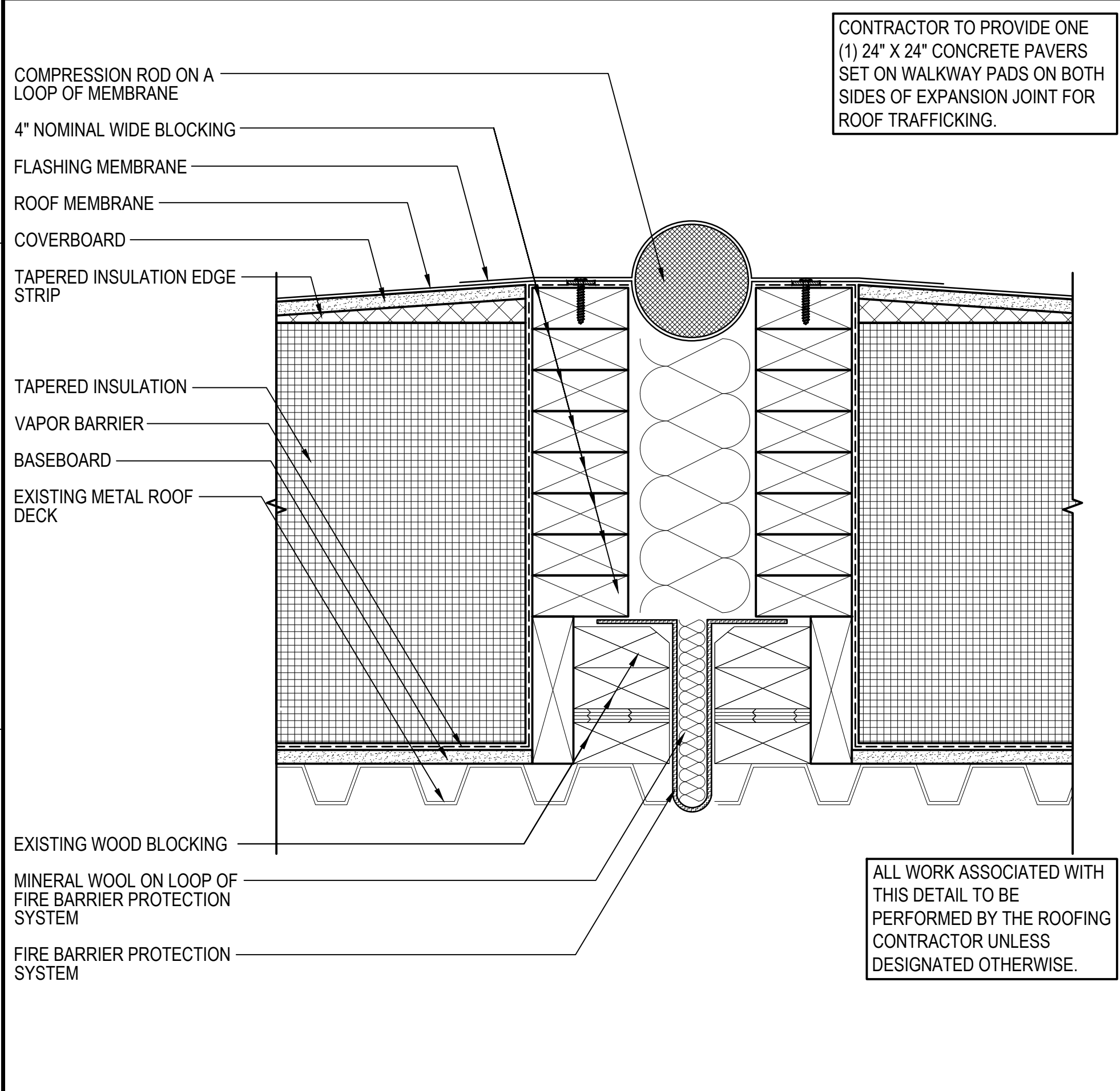
DRAWING NO.
A502



13 EXPANSION JOINT - TYPE I
 A503 SCALE: 3"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



14 EXPANSION JOINT - TYPE II
 A503 SCALE: 3"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



15 EXPANSION JOINT - TYPE III
 A503 SCALE: 3"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



16 THROUGHWALL FLASHING AT ROOF EDGE DETAIL
 A503 SCALE: 3"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



17 THROUGHWALL FLASHING END DAM ISOMETRIC DETAIL
 A503 SCALE: NOT TO SCALE
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)

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NO.	DATE	DESCRIPTION	BY
PROJECT NO.		845190	
CADD FILE		845190 A500s	
DESIGNED BY		KRC	
DRAWN BY		MAA/DS/HD	
CHECKED BY		BHN	
DATE		2/3/2026	
DRAWING SCALE		AS NOTED	

GRAPHIC SCALE

SHEET TITLE

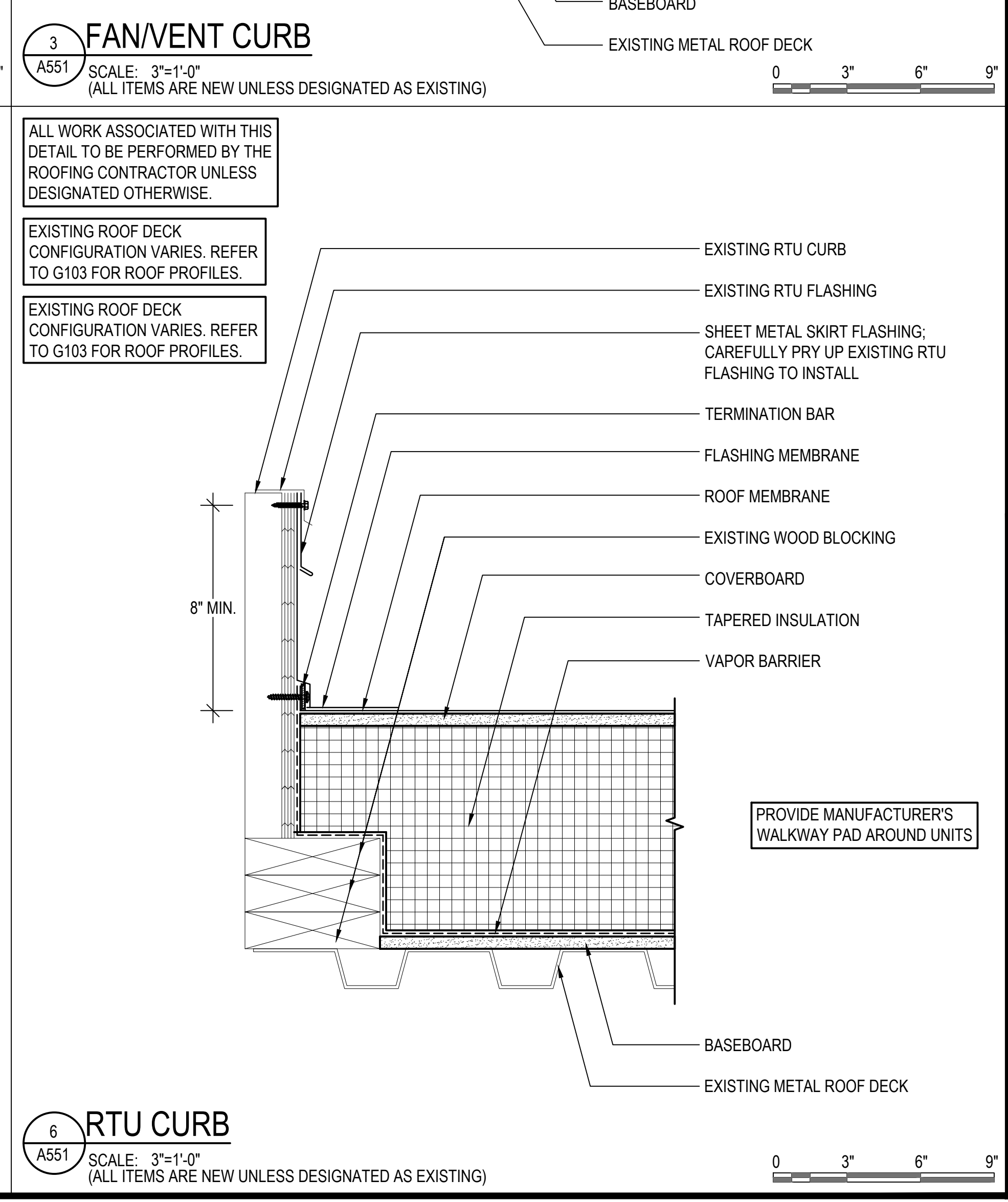
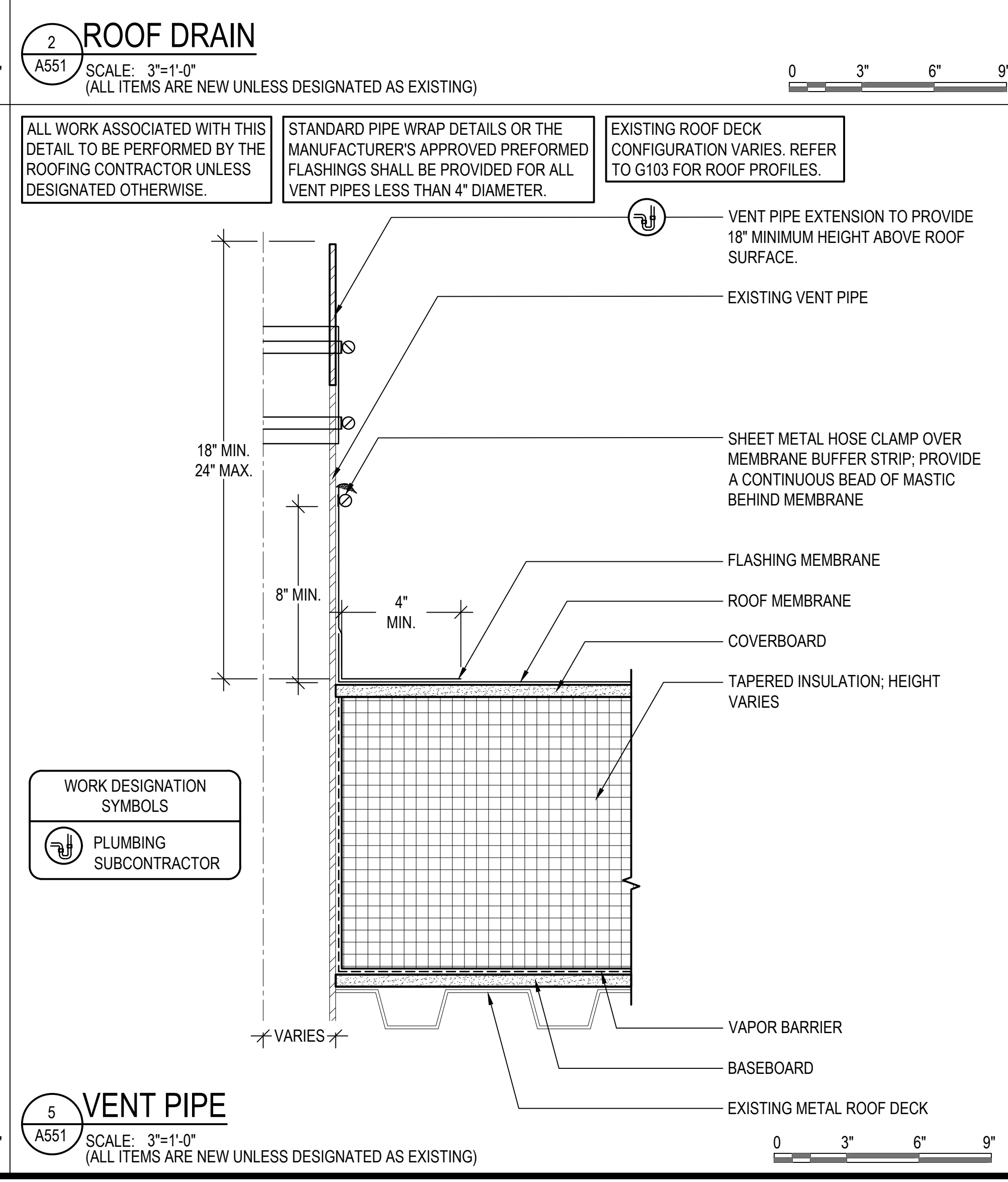
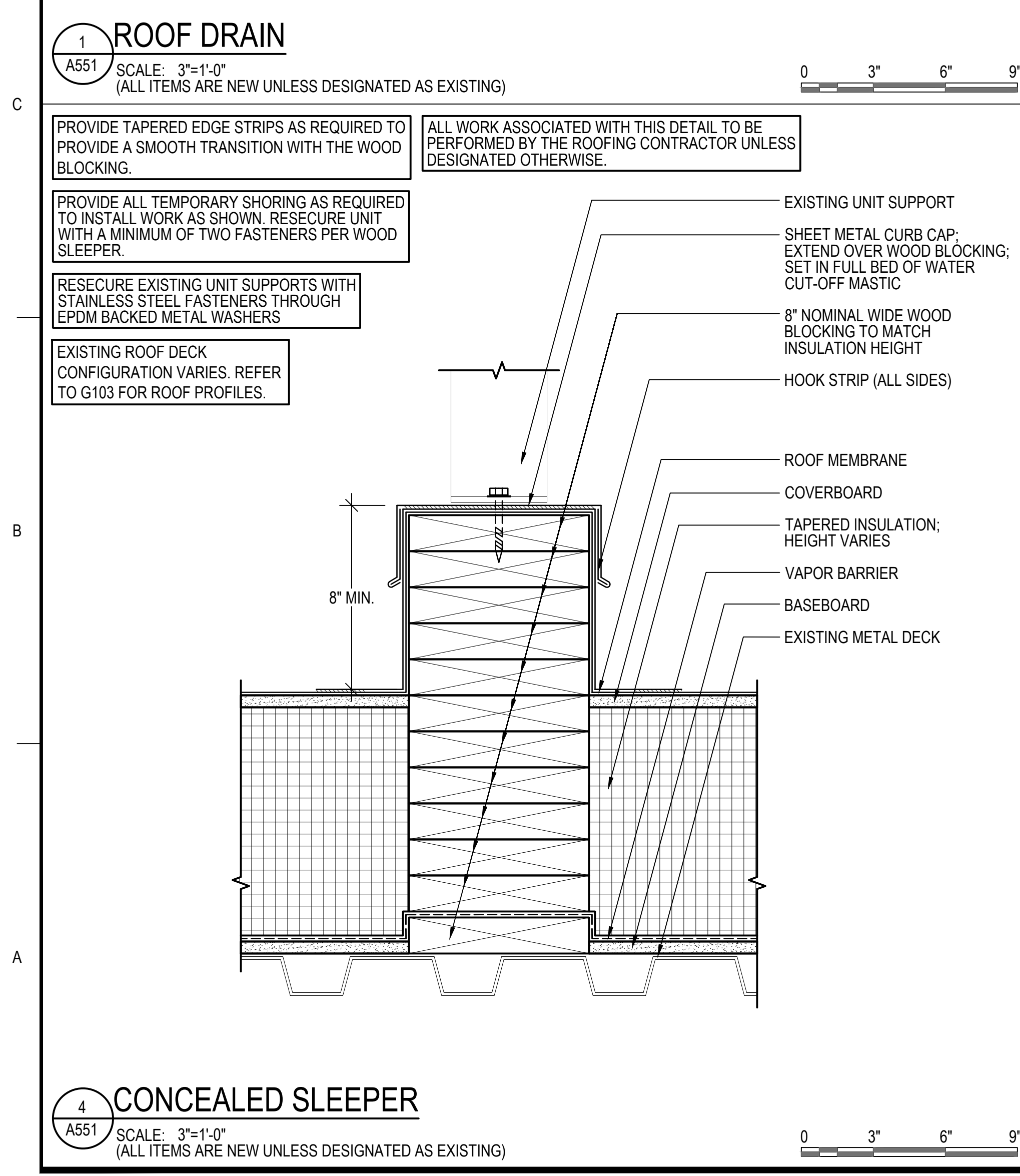
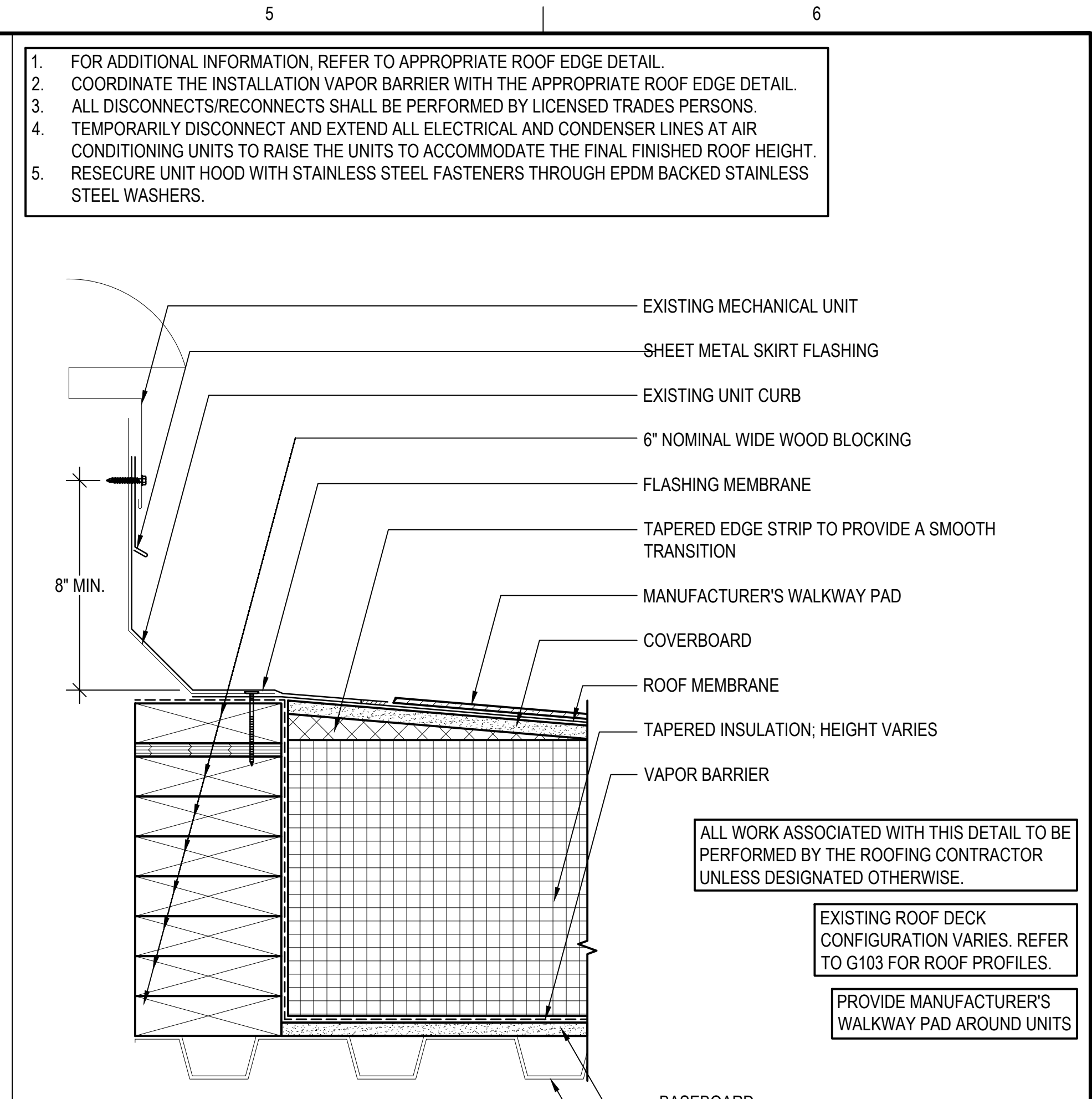
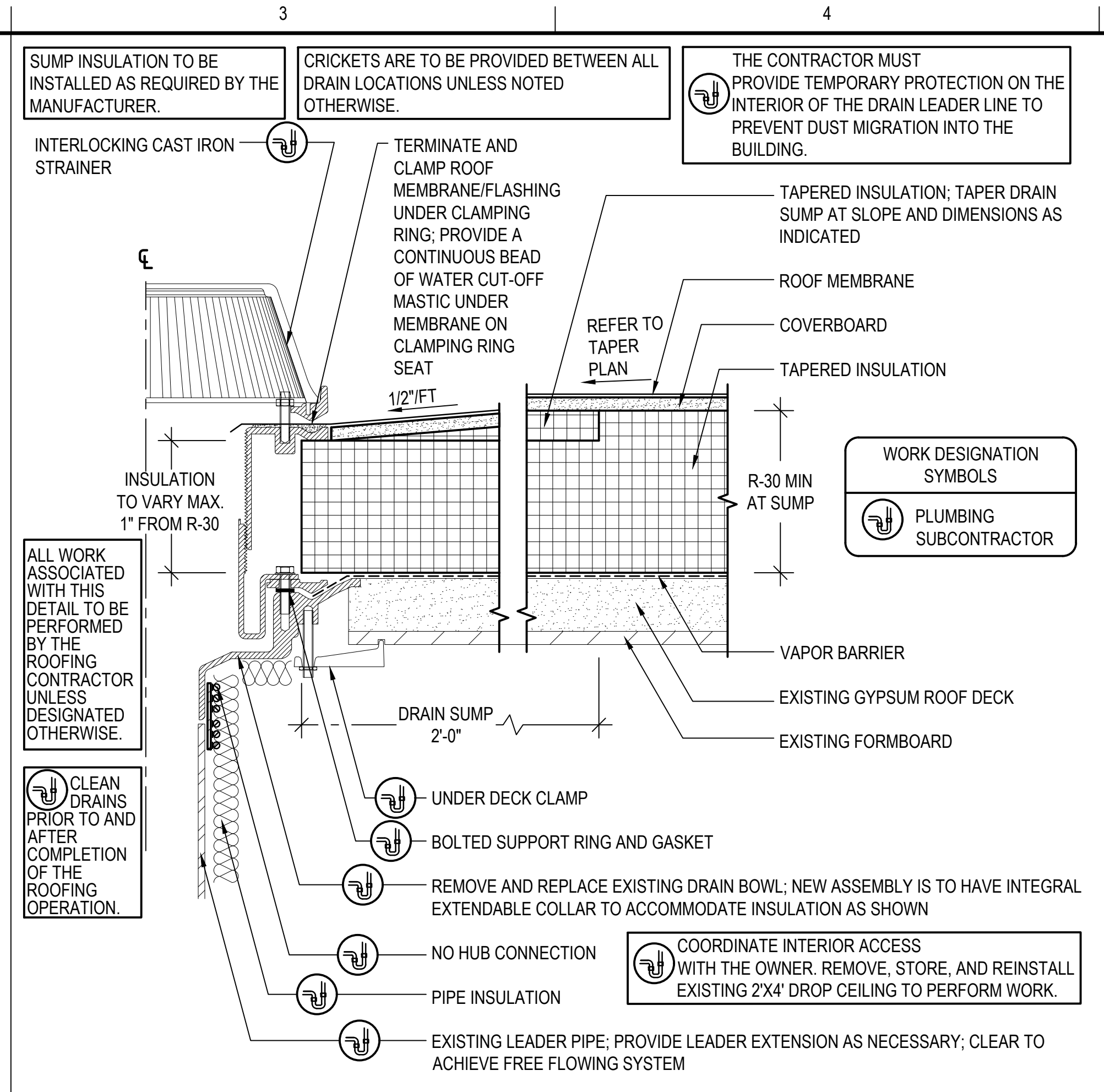
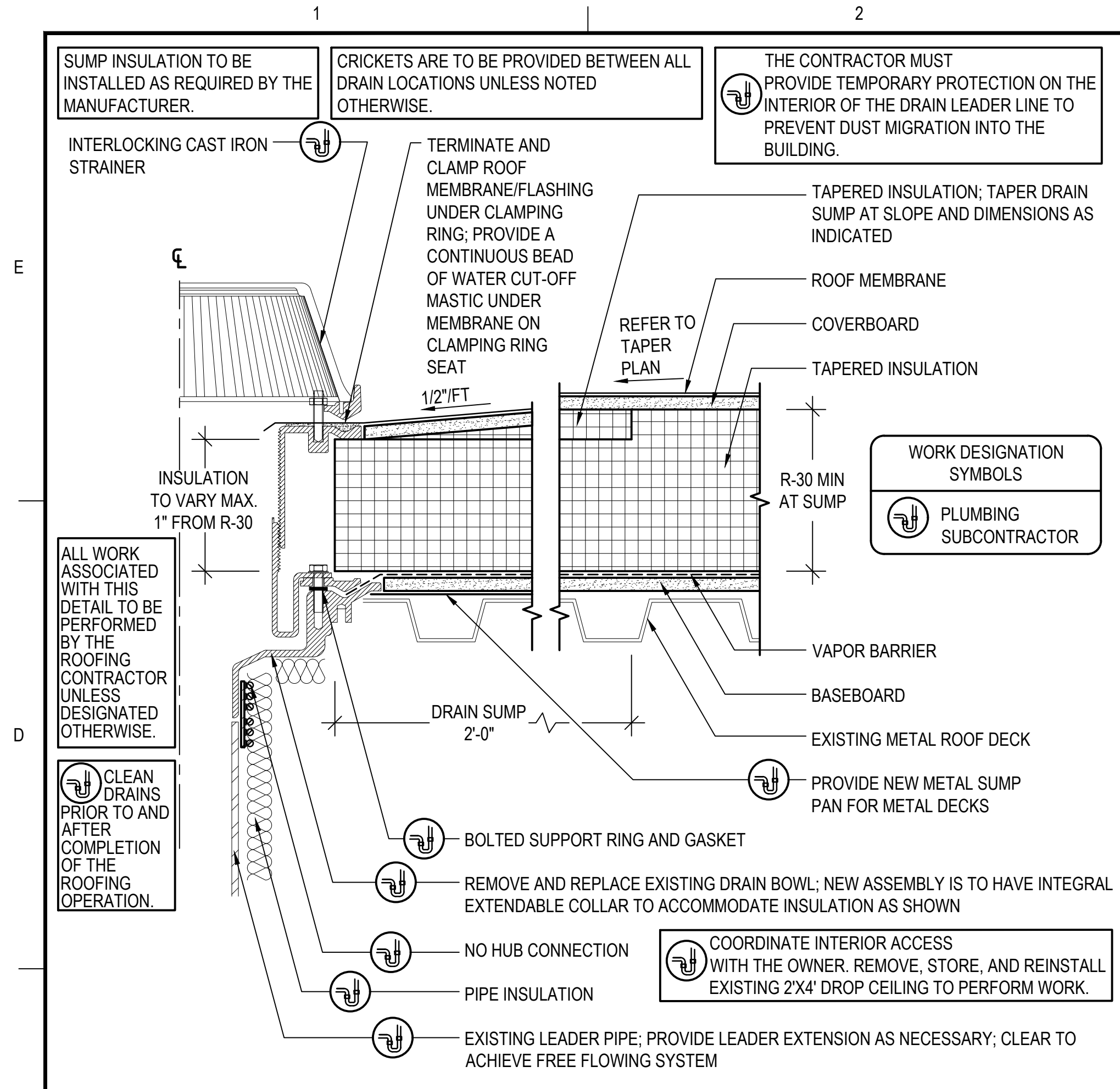
DETAILS

DRAWING NO.

A503

WORK IN PROGRESS
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WORK IN PROGRESS
 TO BE DEVELOPED
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NO.	DATE	DESCRIPTION	BY
PROJECT NO.	845190		
CADD FILE	845190 A550s		
DESIGNED BY	KRC		
DRAWN BY	MAA/DS/HD		
CHECKED BY	BHN		
DATE	2/3/2026		
DRAWING SCALE	AS NOTED		

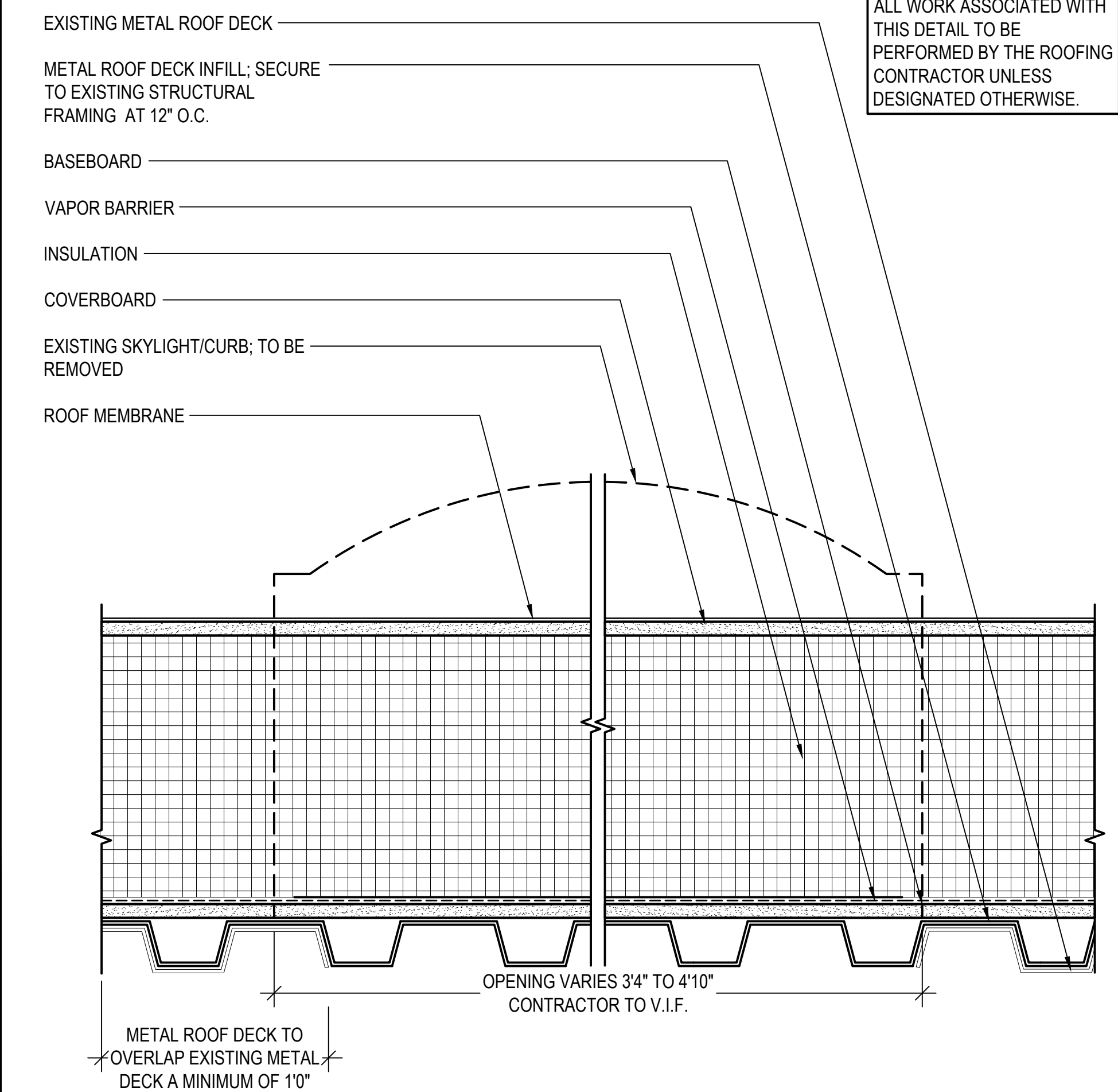
GRAPHIC SCALE

SHEET TITLE
TYPICAL DETAILS

DRAWING NO.
A551

WORK IN PROGRESS
TO BE DEVELOPED
AT NEXT DESIGN
SUBMISSION

7 LADDER (ROOF AREA D TO G)
SCALE: 3"=1'-0"
(ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



10 METAL DECK INFILL
SCALE: 3"=1'-0"
(ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)

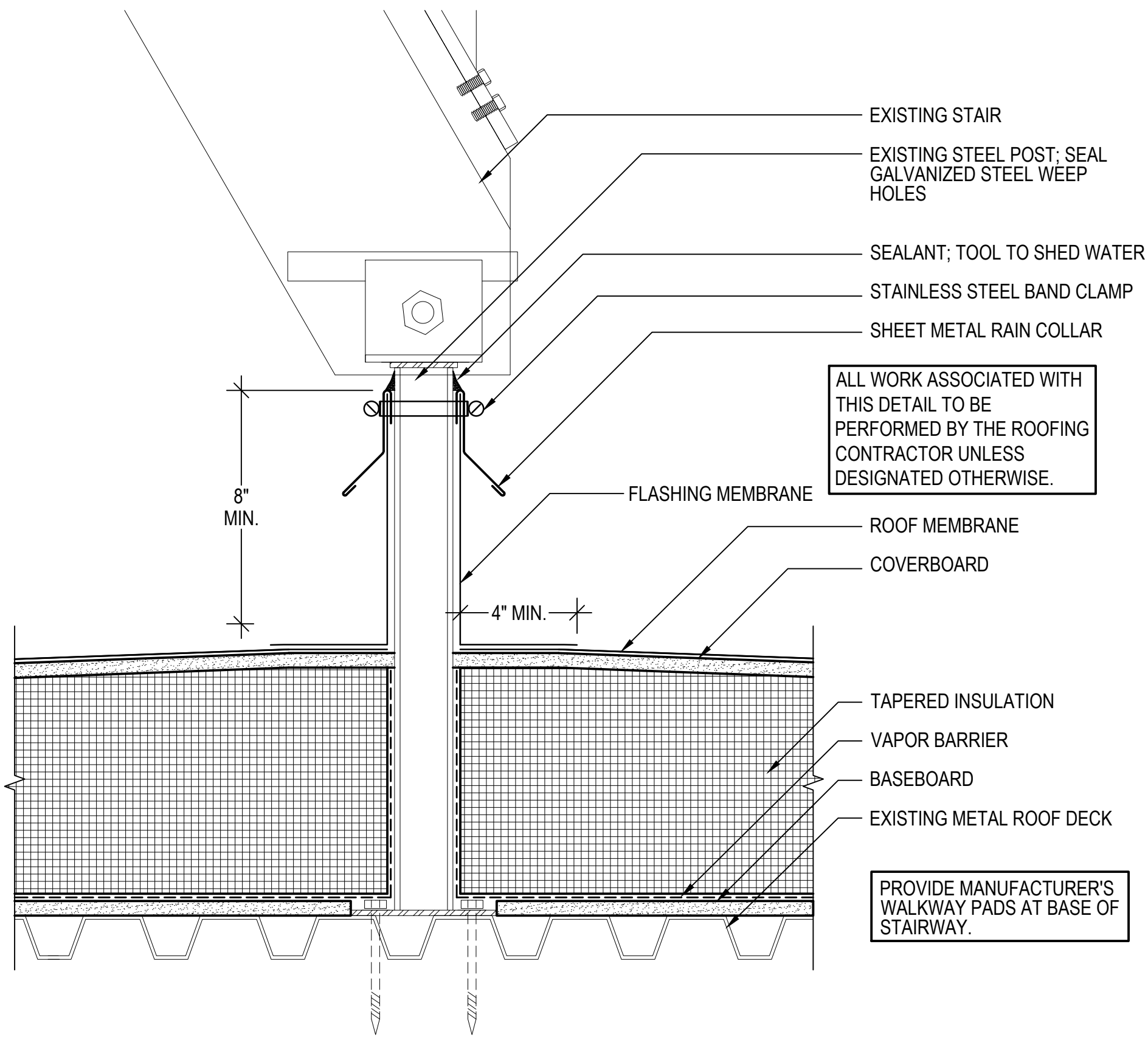


WORK IN PROGRESS
TO BE DEVELOPED
AT NEXT DESIGN
SUBMISSION

8 ROOF AREA K DOOR
SCALE: 3"=1'-0"
(ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



11 GYPSUM DECK INFILL
SCALE: 3"=1'-0"
(ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



9 ROOF AREA K STAIRS
SCALE: 3"=1'-0"
(ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



12 ROOF HATCH
SCALE: 3"=1'-0"
(ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



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PROJECT NO.	845190		
CADD FILE	845190 A560s		
DESIGNED BY	KRC		
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DATE	2/3/2026		
DRAWING SCALE	AS NOTED		

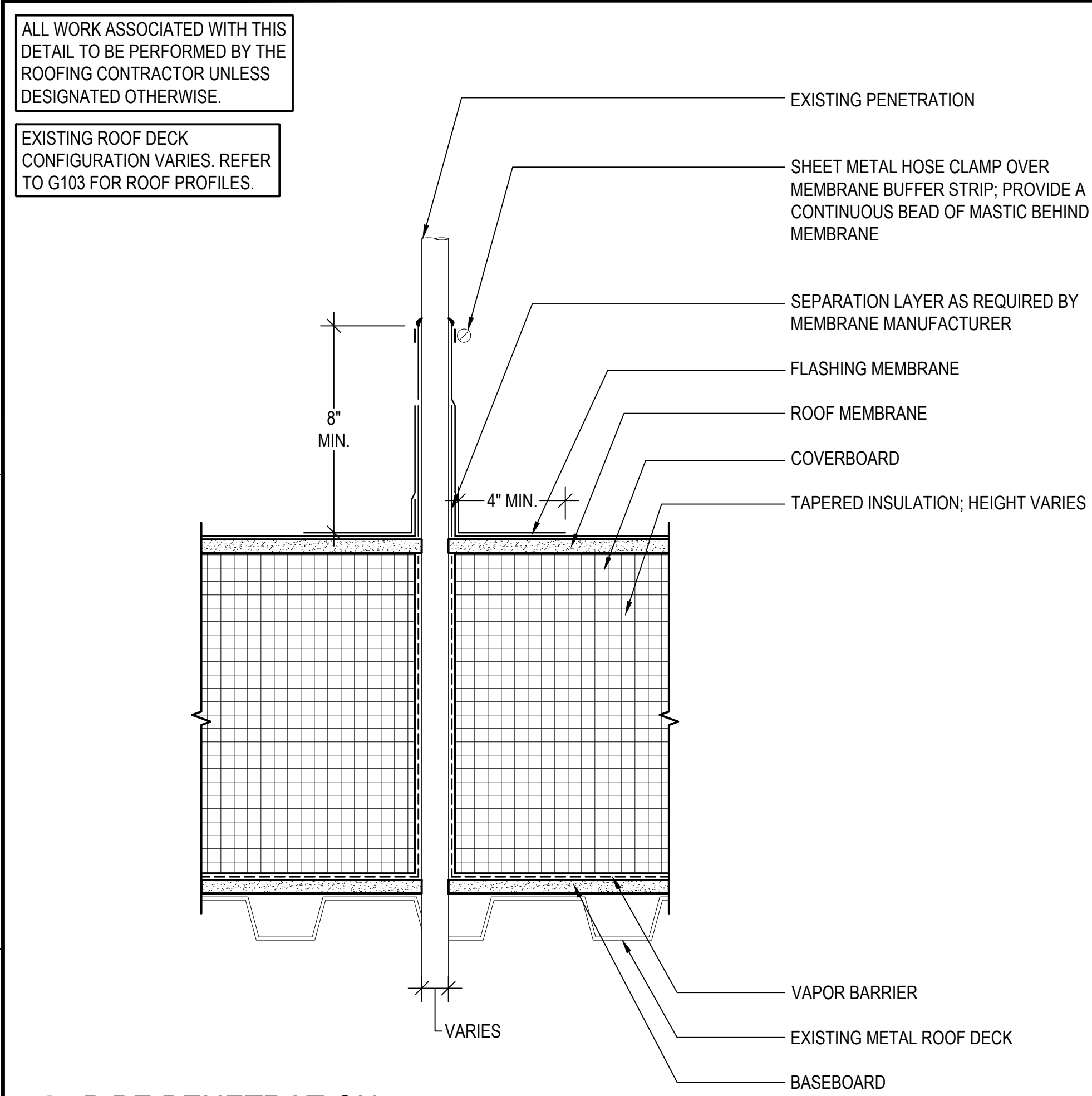
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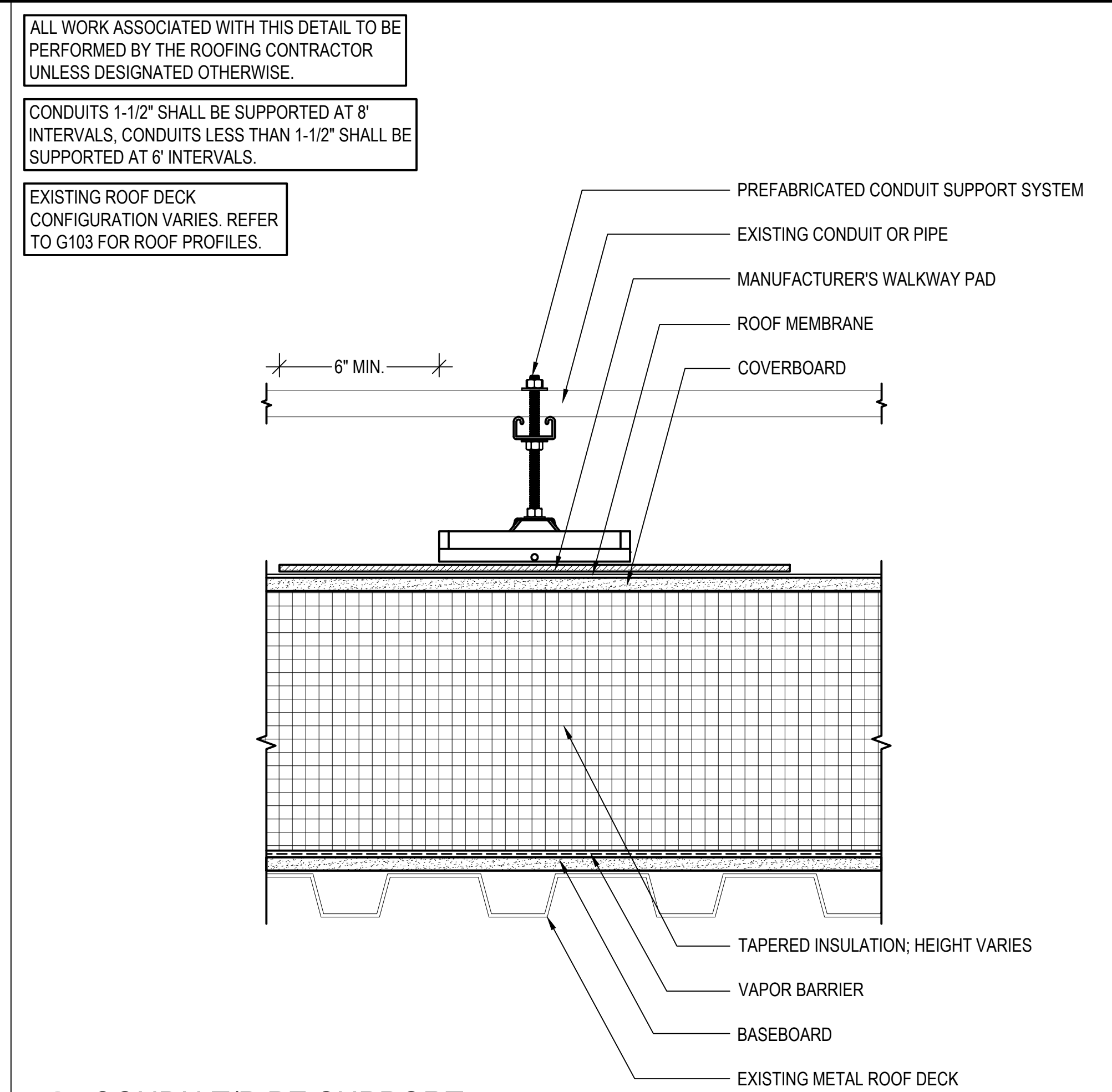
TYPICAL
DETAILS

DRAWING NO.

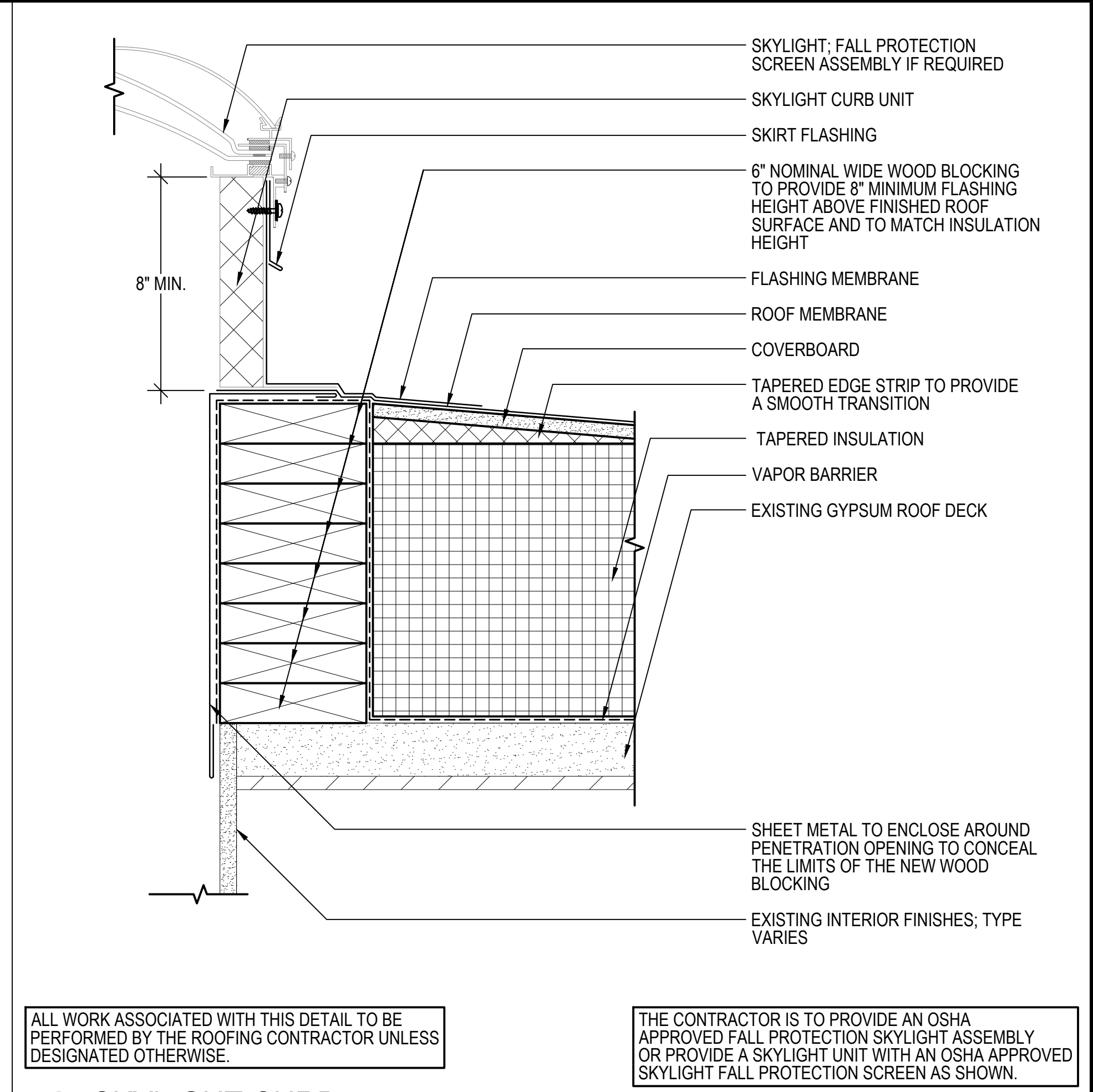
A552



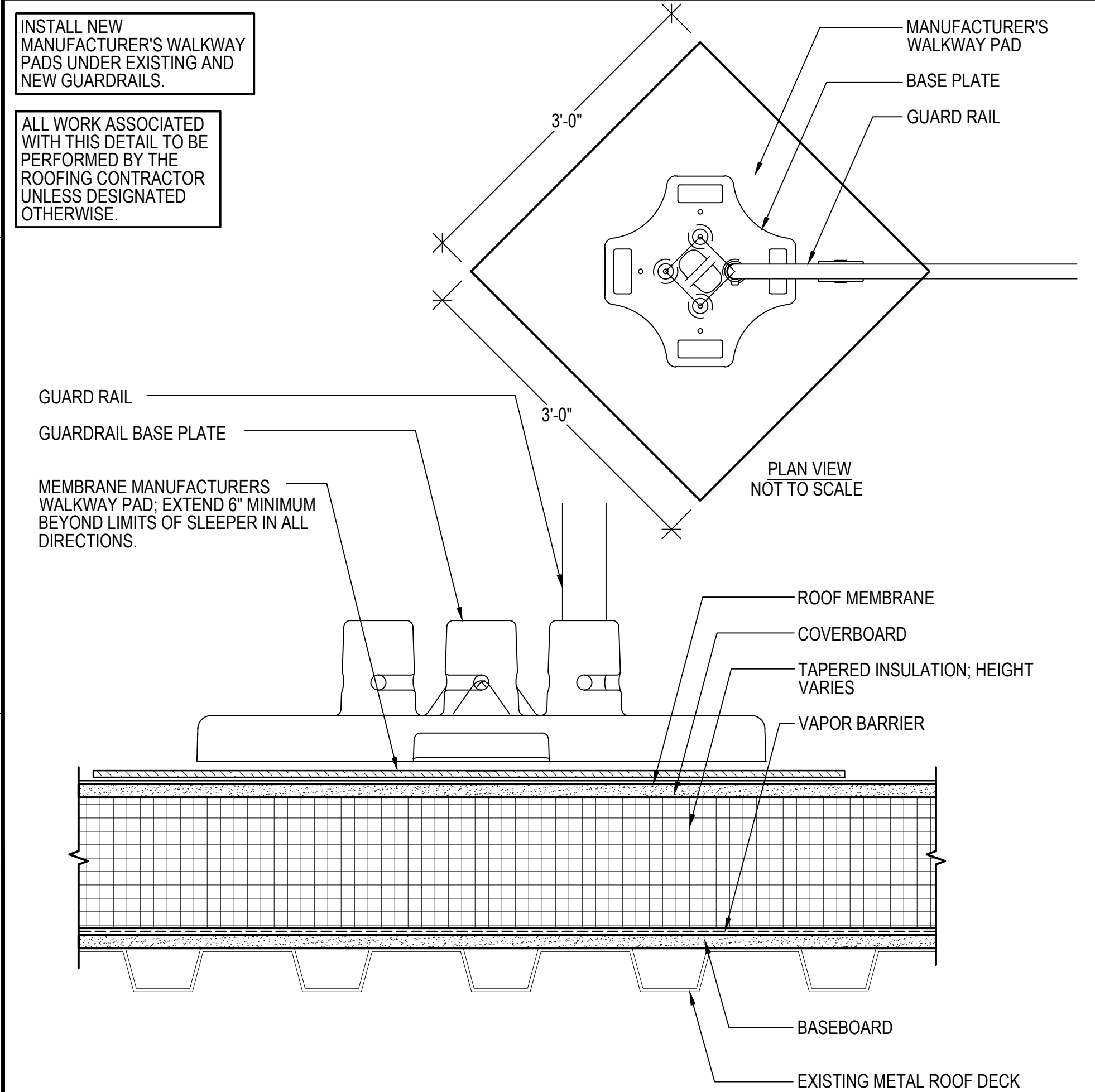
13 PIPE PENETRATION
 SCALE: 3"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



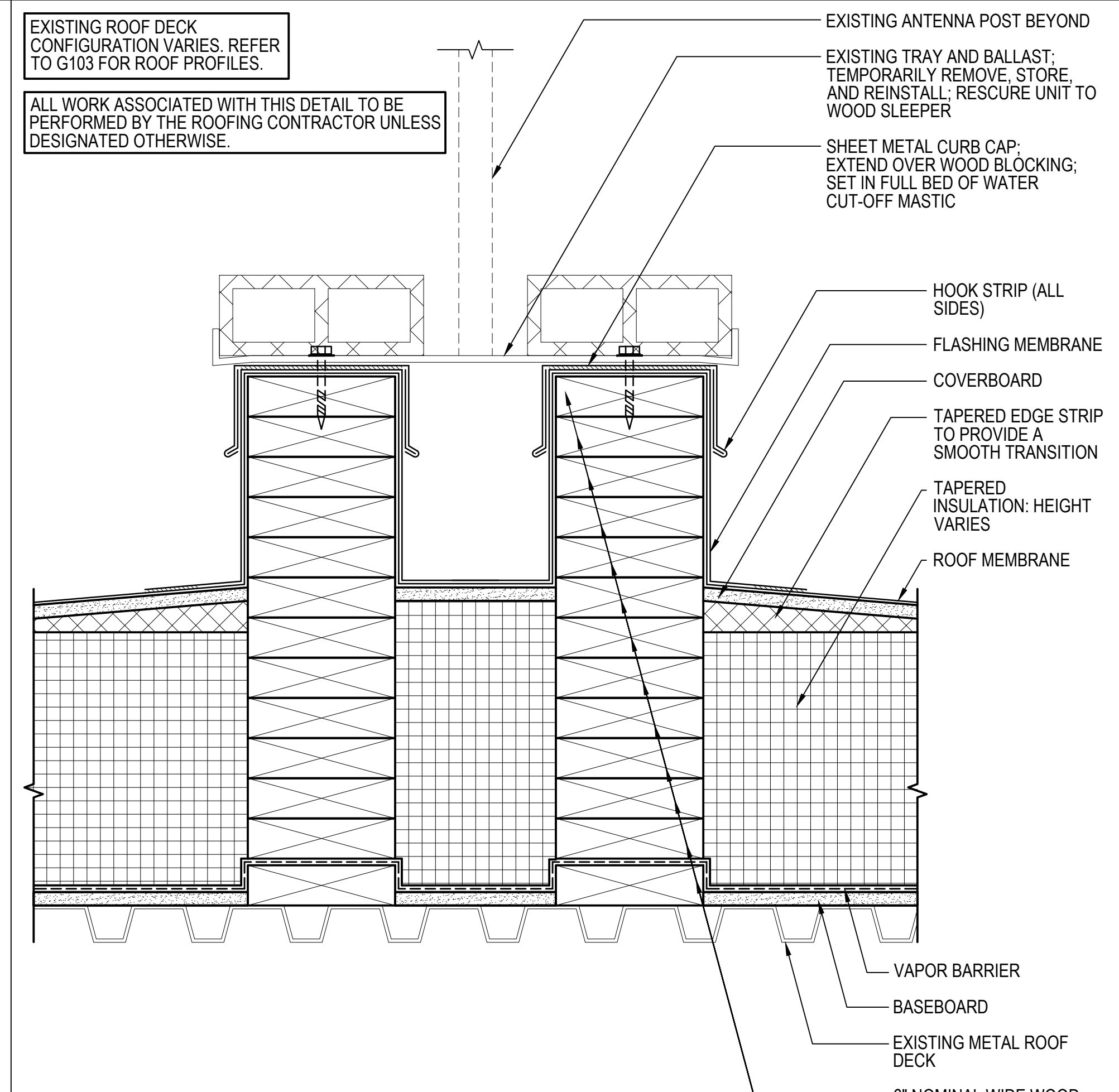
14 CONDUIT/PIPE SUPPORT
 SCALE: 3"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



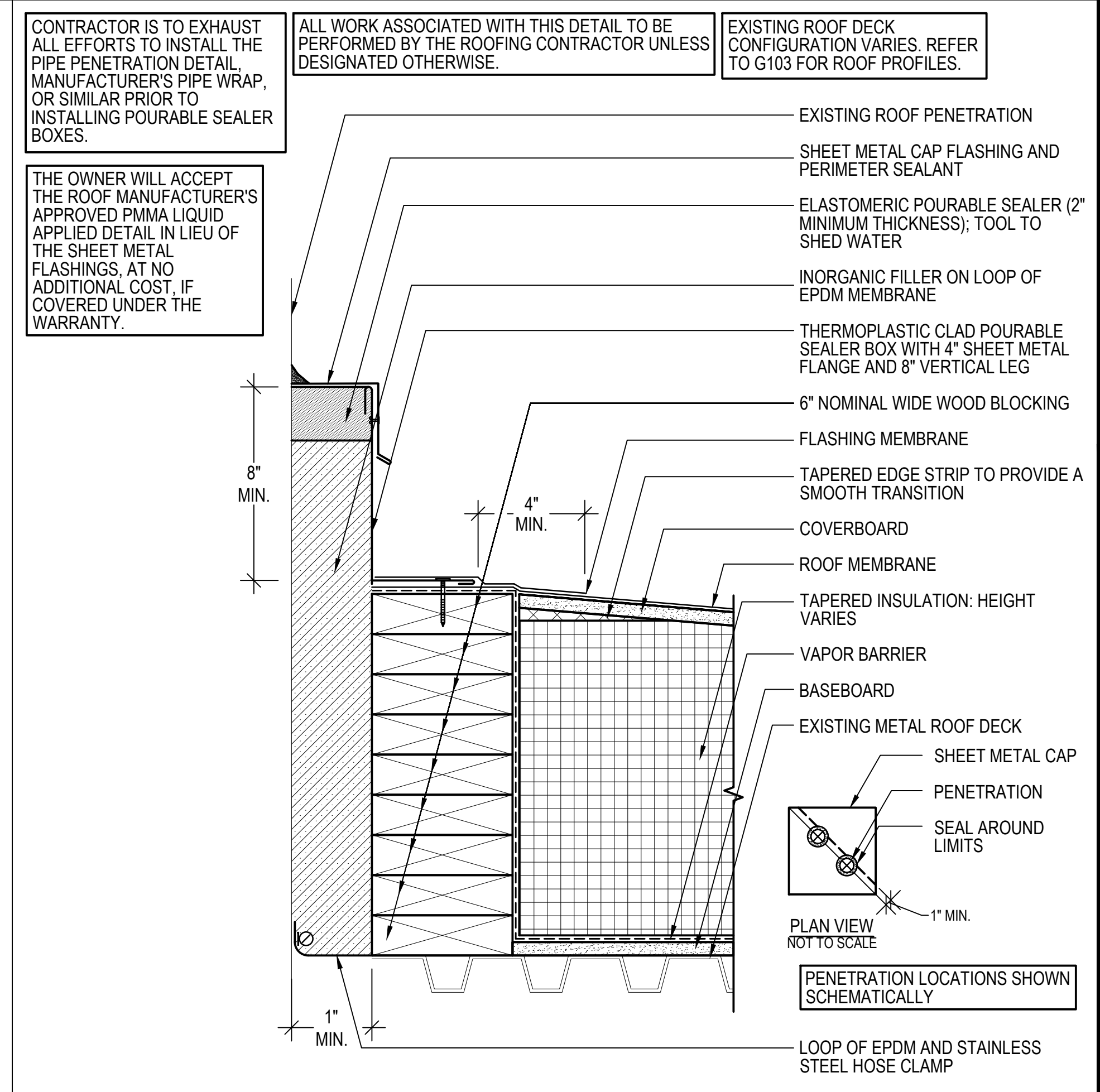
15 SKYLIGHT CURB
 SCALE: 3"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



16 BALLASTED GUARDRAIL
 SCALE: 3"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



17 BALLASTED ANTENNA
 SCALE: 3"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)



18 POURABLE SEALER BOX
 SCALE: 3"=1'-0"
 (ALL ITEMS ARE NEW UNLESS DESIGNATED AS EXISTING)

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PROJECT
 MSBA ARP ROOF SYSTEM REPLACEMENT
 HAMILTON-WENHAM REGIONAL HIGH SCHOOL
 775 BAY ROAD
 SOUTH HAMILTON, MA 01982

OWNER
 HAMILTON-WENHAM REGIONAL SCHOOL DISTRICT
 5 SCHOOL STREET
 WENHAM, MA 01984

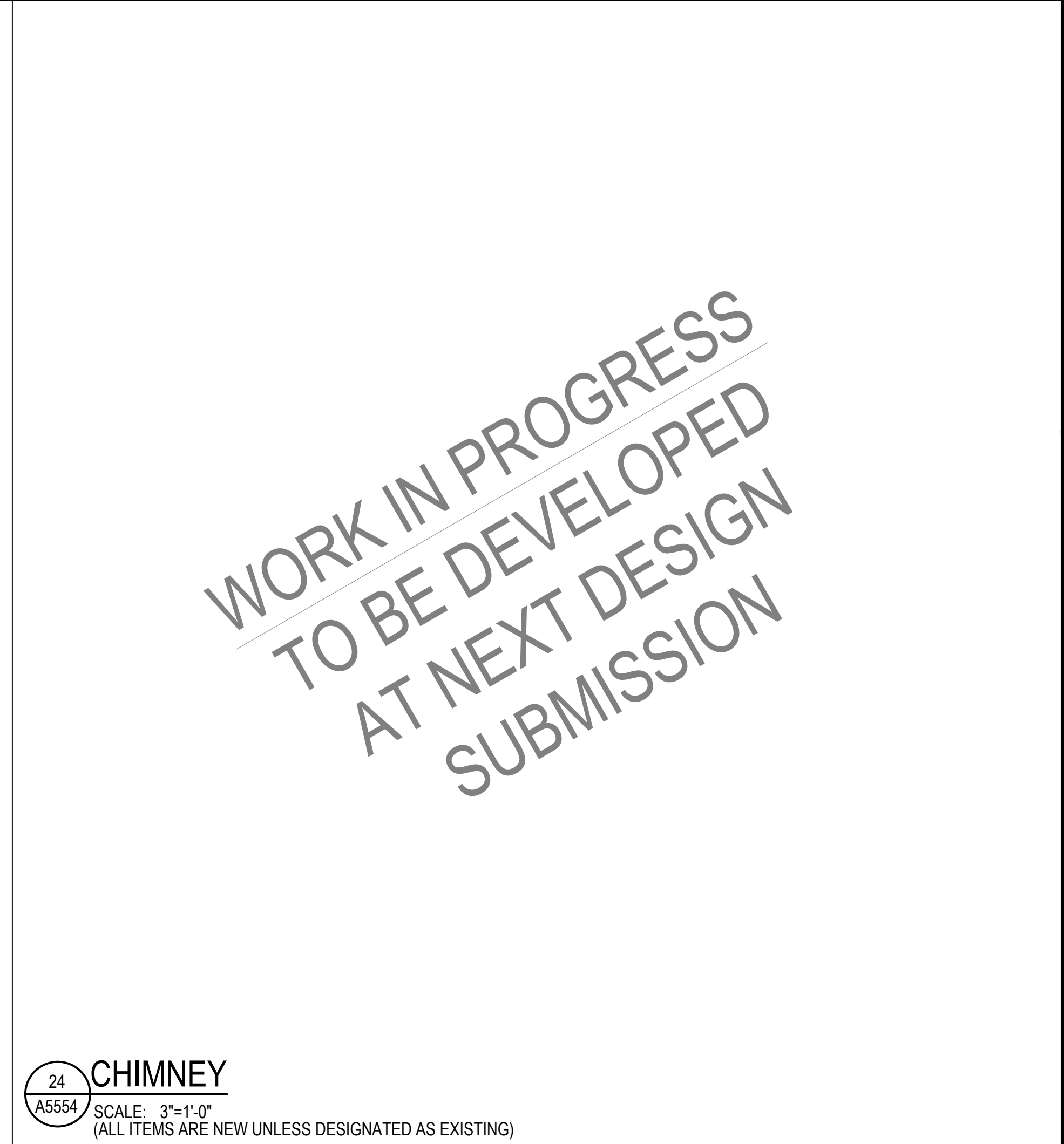
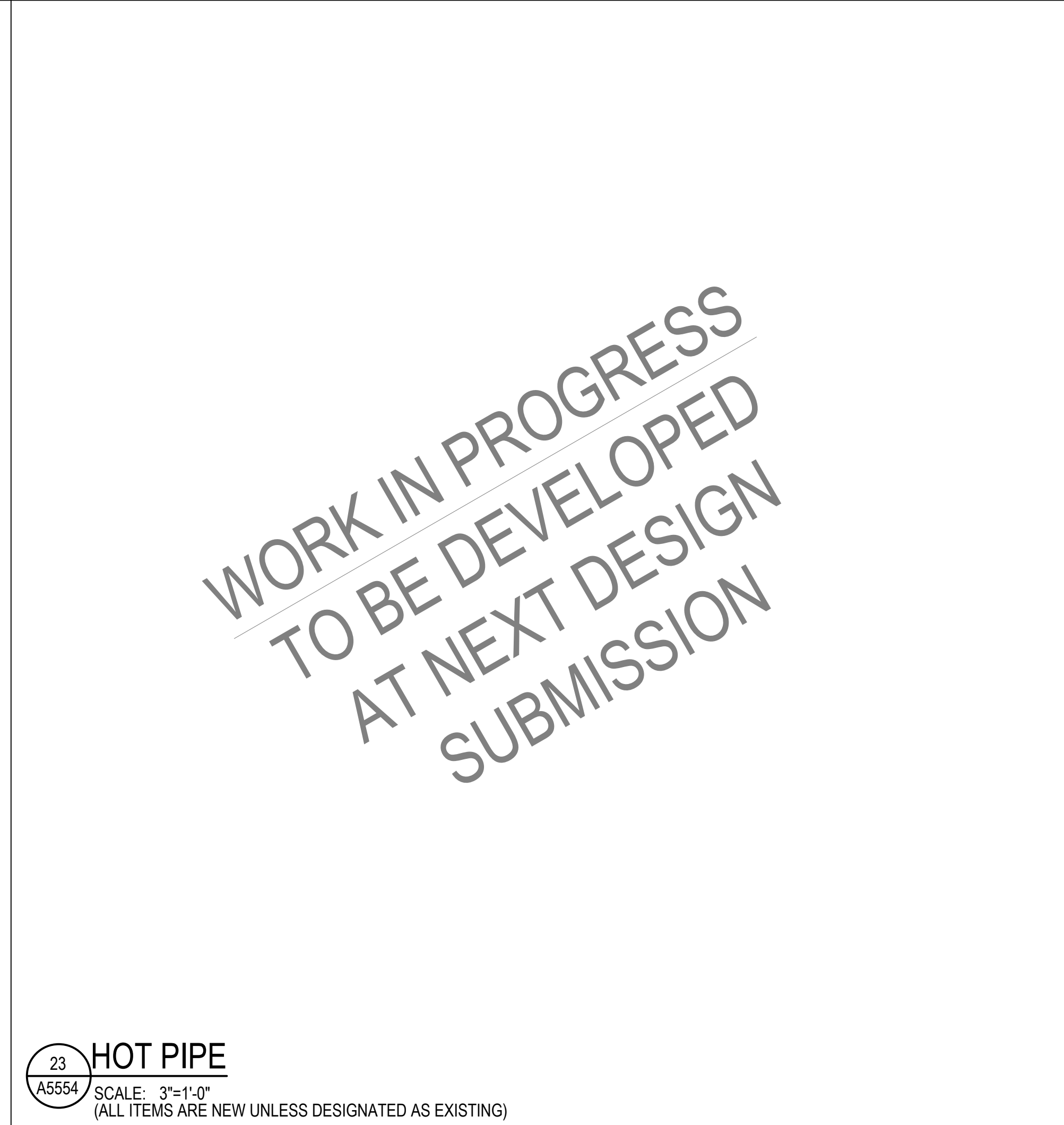
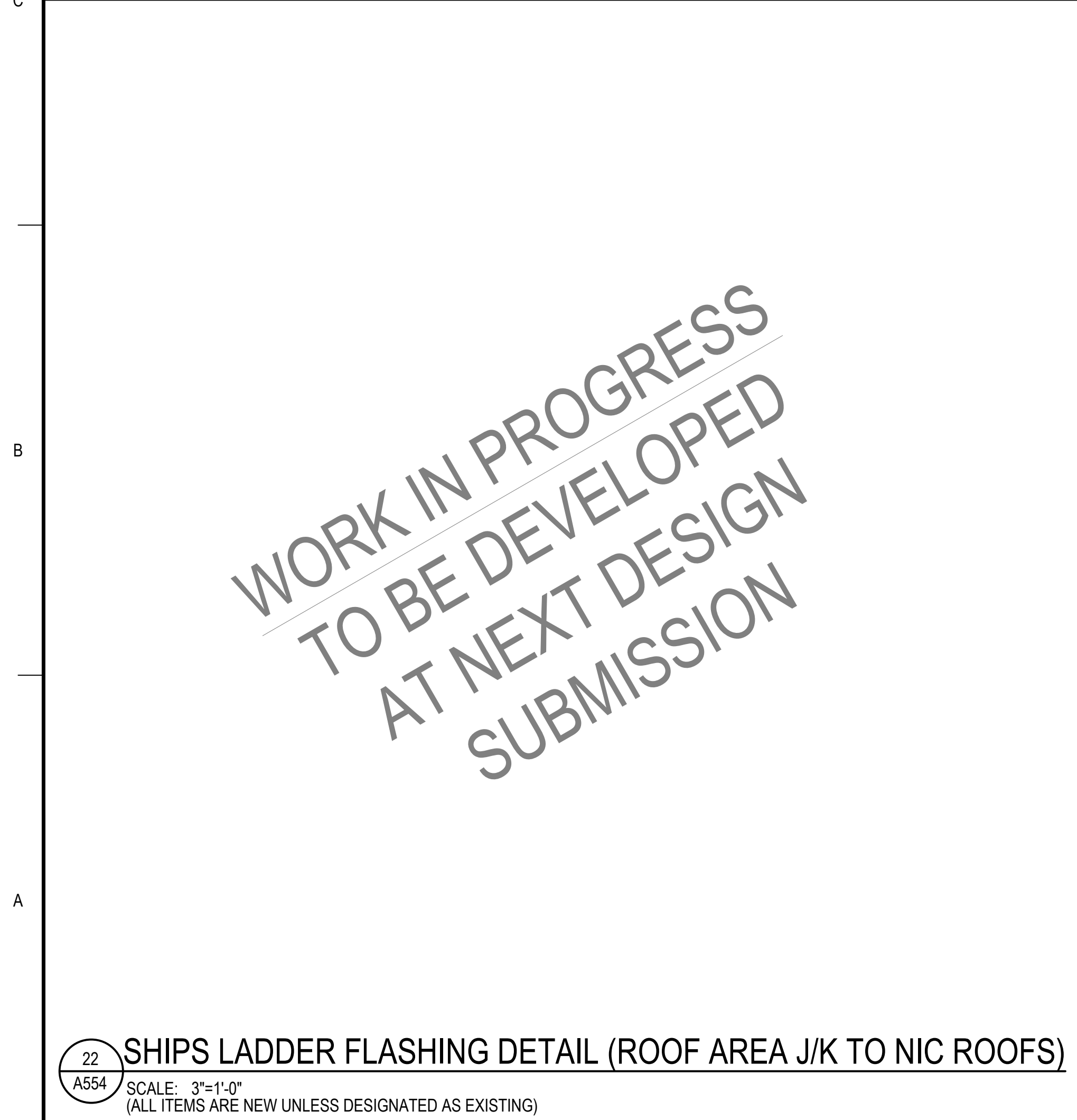
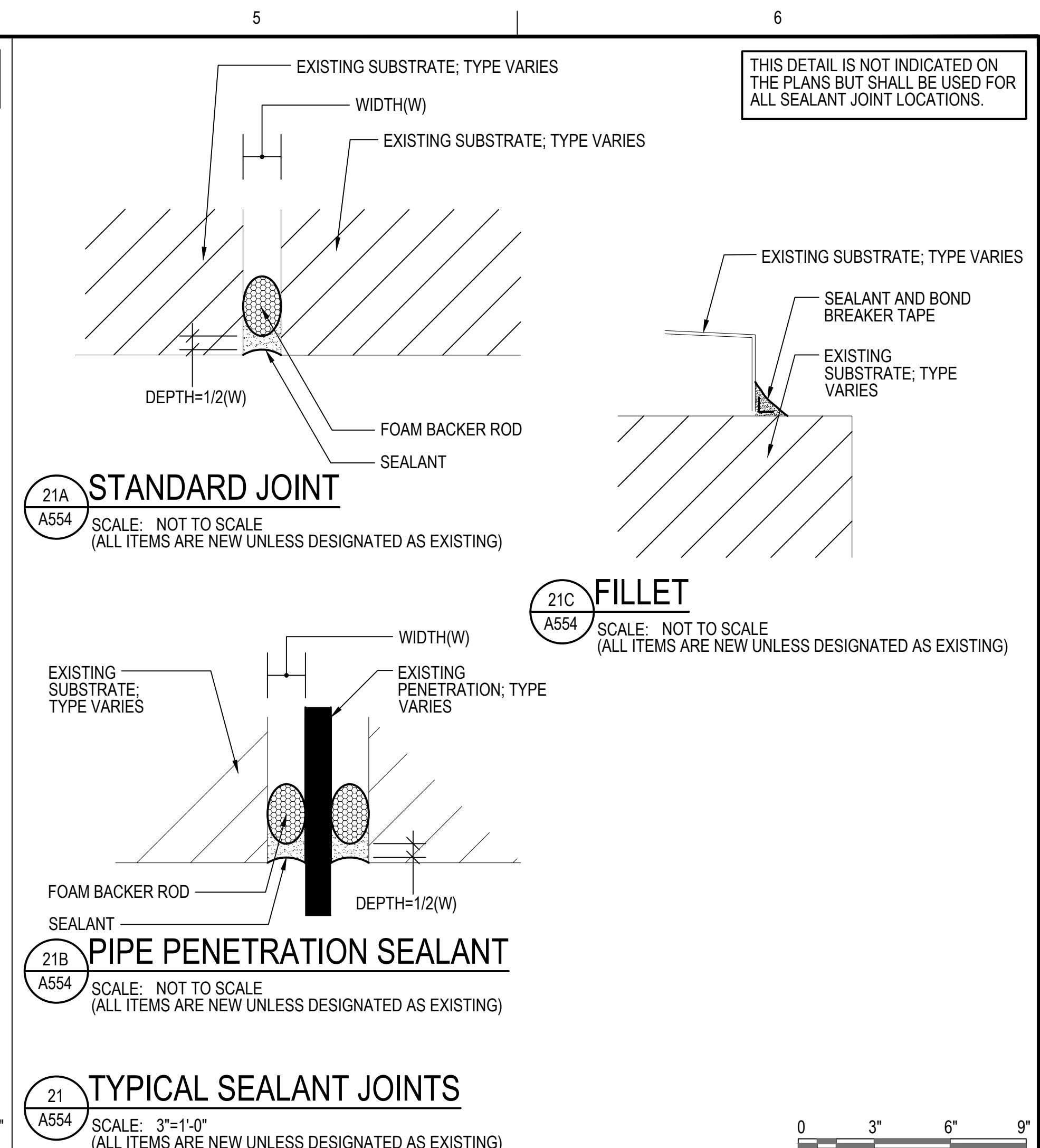
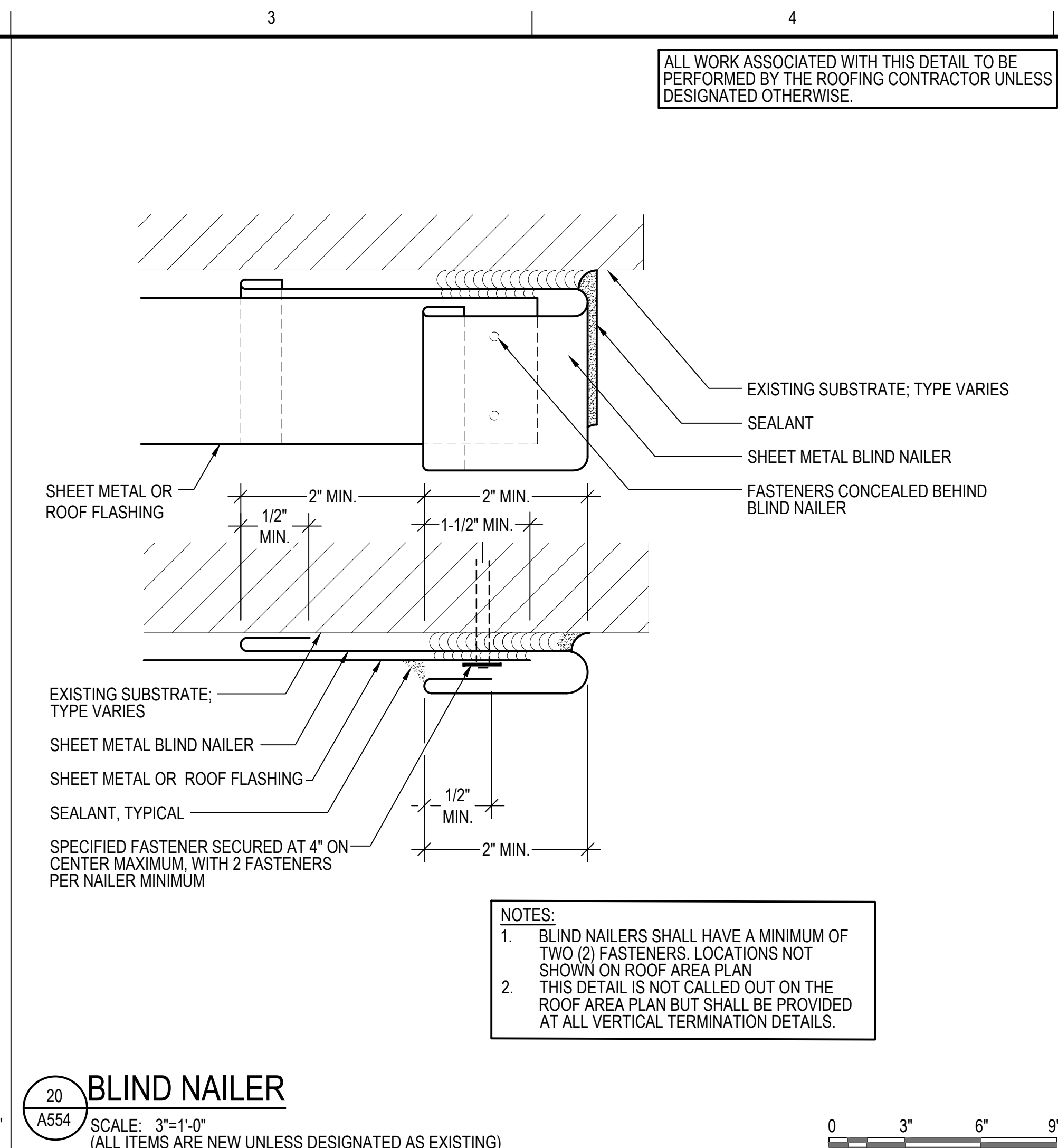
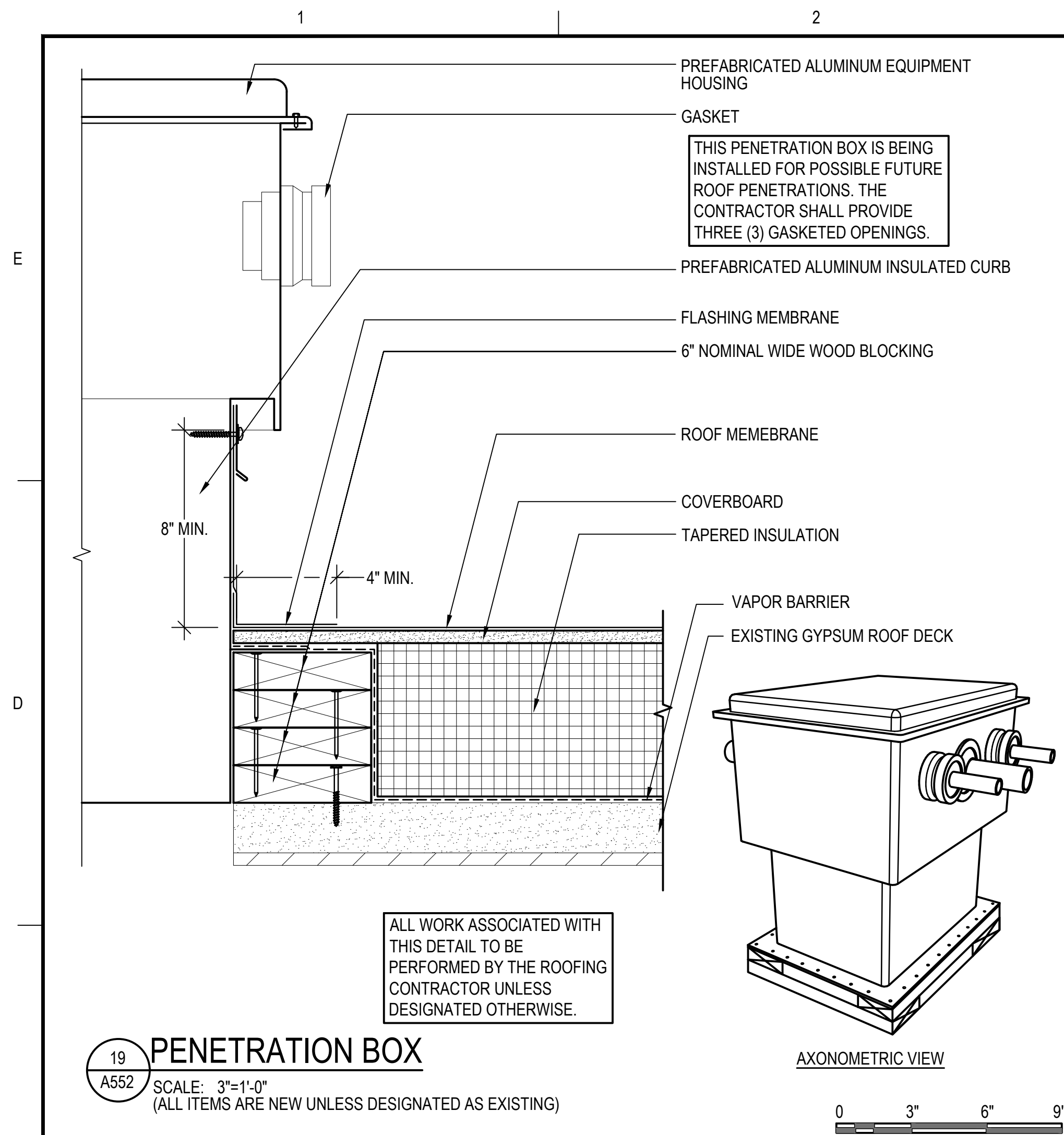
NO.	DATE	DESCRIPTION	BY
PROJECT NO.	845190		
CADD FILE	845190 A550s		
DESIGNED BY	KRC		
DRAWN BY	MAA/DS/HD		
CHECKED BY	BHN		
DATE	2/3/2026		
DRAWING SCALE	AS NOTED		

GRAPHIC SCALE

SHEET TITLE

TYPICAL DETAILS

DRAWING NO.
A553



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DRAWING SCALE	AS NOTED		

GRAPHIC SCALE

SHEET TITLE

TYPICAL DETAILS

DRAWING NO.
A554

WORK IN PROGRESS
 TO BE DEVELOPED
 AT NEXT DESIGN
 SUBMISSION

WORK IN PROGRESS
 TO BE DEVELOPED
 AT NEXT DESIGN
 SUBMISSION

WORK IN PROGRESS
 TO BE DEVELOPED
 AT NEXT DESIGN
 SUBMISSION

MECHANICAL SYMBOLS

EQUIPMENT DESIGNATIONS

SYMBOL	DESCRIPTION
F	FAN DESIGNATION
CU	CONDENSER UNIT DESIGNATION
GV	GRAVITY VENTILATOR DESIGNATION
AHU	AIR HANDLING UNIT DESIGNATION

LINETYPE SYMBOLS

DESIGNATION	DESCRIPTION
---	EXISTING WORK

PIPING SYMBOLS

SYMBOL	DESCRIPTION
---	PIPE DROP

SYMBOL	DESCRIPTION
	REVISION NUMBER
	DRAWING NOTE NUMBER
	EQUIPMENT TAG NUMBER - REFER TO EQUIPMENT SCHEDULE
	SECTION REFERENCE (SEE DATA BELOW FOR DETAILS)
	PARTIAL PLAN AND DETAIL REFERENCE
	SECTION / PART PLAN NUMBER
	SHEET NUMBER WHERE SECTION / PART PLAN IS DRAWN (OR IF VIEWING THE SECTION / PART PLAN THIS NUMBER REFERENCES THE SHEET WHERE THE VIEW IS TAKEN FROM)
	POINT OF CONNECTION
	POINT OF DISCONNECTION
	NORTH ARROW
	CENTERLINE
	COLUMN DESIGNATION

MECHANICAL ABBREVIATIONS

NG NATURAL GAS

MECHANICAL DEMOLITION NOTES

- NOTIFY THE OWNER, IN WRITING, AT LEAST TEN (10) DAYS IN ADVANCE OF ALL REQUIRED UTILITY OR SYSTEM SHUTDOWNS. UPON WRITTEN RECEIPT OF APPROVAL FROM OWNER, SHUTDOWN SHALL BE PERFORMED BETWEEN THE HOURS OF SIX (6) P.M. AND SIX (6) A.M. OR AS DIRECTED OTHERWISE BY THE OWNER AND SHALL BE ACCOMPLISHED AT NO ADDITIONAL CONTRACT COST. AT THE END OF EACH SHUTDOWN ALL SERVICES SHALL BE RESTORED SO THAT NORMAL USE OF THE UTILITIES AND SYSTEMS CAN CONTINUE.
- ALL WORK SHALL BE PERFORMED IN A SEQUENCE AND DURING HOURS TO MINIMIZE DISRUPTION TO THE BUILDING WHICH WILL REMAIN OCCUPIED DURING CONSTRUCTION.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE JURISDICTION'S APPLICABLE CODES AND THE LOCAL FIRE MARSHALL'S REQUIREMENTS.
- WHEN WORKING IN AND AROUND THE EXISTING BUILDING, EXTREME CARE SHALL BE EXERCISED WITH REGARD TO PROTECTION OF THE EXISTING STRUCTURE AND SERVICES WHICH WILL REMAIN. REPAIR, REPLACE, OR RESTORE TO THE SATISFACTION OF THE ARCHITECT ALL EXISTING WORK DAMAGED IN THE PERFORMANCE OF DEMOLITION AND/OR NEW WORK.
- ALL EXISTING PIPING, EQUIPMENT, DUCTWORK AND MATERIALS NOT REQUIRED FOR RE-USE OR RE-INSTALLATION (SHOWN OR OTHERWISE) SHALL BE REMOVED. ALL EXISTING MATERIALS AND EQUIPMENT WHICH ARE REMOVED AND ARE DESIRED BY THE OWNER OR ARE INDICATED TO REMAIN THE PROPERTY OF THE OWNER, SHALL BE DELIVERED TO THE OWNER ON THE PREMISES BY THE CONTRACTOR. ALL OTHER MATERIALS AND EQUIPMENT WHICH ARE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED BY THE CONTRACTOR FROM THE PREMISES.
- EXISTING CONDITIONS, I.E., PRESENCE AND LOCATION OF DUCTWORK, PIPING, EQUIPMENT AND MATERIALS, INDICATED ARE BASED ON INFORMATION OBTAINED FROM AVAILABLE RECORD DRAWINGS AND FIELD SURVEYS AND ARE NOT WARRANTED TO BE COMPLETE OR CORRECT. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF ALL DUCTWORK, PIPING, EQUIPMENT AND MATERIALS IN THE FIELD PRIOR TO STARTING ALL WORK.
- EXISTING DUCT, PIPE AND EQUIPMENT SIZES NOTED ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY AND ARE NOT WARRANTED TO BE CORRECT. CONTRACTOR SHALL VERIFY ALL SIZES IN THE FIELD IF THEY EFFECT HIS WORK.
- EXISTING PIPING NO LONGER REQUIRED TO REMAIN IN SERVICE (SHOWN OR OTHERWISE) SHALL BE DISCONNECTED AND REMOVED BACK TO SERVICE MAINS UNLESS OTHERWISE INDICATED OR NOTED ON THE PLANS. REMOVE EXISTING PIPE HANGERS, SUPPORTS, VALVES, ETC. EXISTING PIPING INDICATED OR REQUIRED TO REMAIN IN SERVICE OR IN PLACE SHALL BE CAPPED, PLUGGED, OR OTHERWISE SEALED. NO EXISTING PIPING SHALL BE LEFT OPEN ENDED.
- EXISTING DUCTWORK INDICATED TO BE DISCONNECTED AND REMOVED SHALL INCLUDE ALL RELATED AIR DEVICES, HANGERS, SUPPORTS, ETC., UNLESS OTHERWISE INDICATED OR NOTED ON THE PLANS. EXISTING DUCTWORK WHERE INDICATED TO BE CAPPED OR REQUIRED TO REMAIN IN SERVICE SHALL BE CAPPED WITH 18 GAUGE SHEET METAL. SECURE CAP WITH SHEET METAL SCREWS AND SEAL PERIMETER OF OPENING AIRTIGHT WITH DUCT SEALER. NO EXISTING DUCTWORK SHALL BE LEFT OPEN FOR ANY EXTENDED PERIOD OF TIME. CAP EXISTING DUCTWORK IMMEDIATELY AS REQUIRED OR DIRECTED BY THE ARCHITECT.
- EXISTING MECHANICAL EQUIPMENT, PIPING, DUCTWORK AND MATERIALS THAT SERVE OTHER PORTIONS OF THE BUILDING AND ARE AFFECTED BY DEMOLITION OR NEW WORK INSTALLATION AND REQUIRED TO REMAIN IN SERVICE SHALL BE RE-INSTALLED OR SUPPORTED AS REQUIRED FOR NORMAL OPERATION. ALL WORK SHALL BE COMPLETED TO THE SATISFACTION OF THE ARCHITECT AND AT NO ADDITIONAL CONTRACT COST.
- PATCH ALL DISTURBED SURFACES, INCLUDING WALLS, CEILINGS, ROOF, FIREPROOFING, AND FLOOR. PATCHING SHALL MATCH EXISTING ADJACENT SURFACES AS TO THICKNESS, TEXTURE, MATERIALS AND COLOR. ALL PATCHING SHALL BE PERFORMED TO THE SATISFACTION OF THE OWNER/ENGINEER AND AT NO ADDITIONAL CONTRACT COST.
- IN GENERAL, ALL PIPING, EQUIPMENT, DUCTWORK AND MATERIALS SHOWN "LIGHT" IS EXISTING TO REMAIN. ALL PIPING, CONDUITS, EQUIPMENT, DUCTWORK AND MATERIALS SHOWN "HEAVY AND DASHED" IS EXISTING AND SHALL BE DEMOLISHED.
- THIS CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ALL OTHER TRADES/SUBCONTRACTORS INCLUDING BUT NOT LIMITED TO AUTOMATIC TEMPERATURE CONTROLS, ELECTRICAL AND GENERAL TRADES.
- PROTECT ALL EXISTING LIFE SAFETY SYSTEMS, FIRE ALARM AND PUBLIC ADDRESS SYSTEMS AND MAINTAIN THEM IN OPERATION THROUGHOUT THE PROGRESS OF THE WORK. NOTIFY THE OWNER AND ARCHITECT/ENGINEER IN WRITING WHEN SHUTDOWNS ARE REQUIRED PRIOR TO ANY OUTAGE OF SERVICE. WHERE THE DURATION OF A PROPOSED OUTAGE CANNOT BE TOLERATED BY THE OWNER, PROVIDE TEMPORARY CONNECTIONS AS REQUIRED TO MAINTAIN SERVICE.
- CONTRACTOR SHALL MAINTAIN ACCESS TO ALL STAIRWELLS AND EGRESS CORRIDORS DURING CONSTRUCTION.
- VERIFY CONDITION OF EXISTING MECHANICAL SYSTEMS TO BE REUSED SO THAT COMPLETE, FULLY OPERATIONAL SYSTEMS ARE OBTAINED AT THE COMPLETION OF THE WORK. NOTIFY GENERAL CONTRACTOR OF ANY SYSTEMS FOUND TO BE OF QUESTIONABLE CONDITION.
- EXISTING EQUIPMENT WHERE INDICATED TO BE REMOVED SHALL BE UNFASTENED AT THE SUPPORTS OR ATTACHMENTS AND THEN THE SUPPORTS OR ATTACHMENTS SHALL BE REMOVED FROM THE BUILDING.
- TRACE AND LABEL ALL EXISTING SYSTEMS WITHIN THE DEMOLITION AREA AND BEYOND PRIOR TO DISCONNECTION AND REMOVAL TO ENSURE THAT NO AREA OUTSIDE THE DEMOLITION AREA IS AFFECTED. REVIEW IN DETAIL WITH THE GENERAL CONTRACTOR AND OWNER WHAT IS TO BE REMOVED AND REMAIN PRIOR TO THE COMMENCEMENT OF WORK. THERE SHALL BE NO INTERRUPTION OF SERVICES OUTSIDE THE DEMOLITION AREA WITHOUT PRIOR APPROVAL FROM THE OWNER.
- DO NOT USE CUTTING TORCHES UNTIL THE WORK AREA IS CLEARED OF FLAMMABLE MATERIALS. AT CONCEAL SPACES, SUCH AS DUCT AND PIPE INTERIORS, VERIFY CONDITIONS AND CONTENTS OF HIDDEN SPACE BEFORE STARTING FLAME-CUTTING OPERATIONS. MAINTAIN FIRE WATCH AND PORTABLE FIRE SUPPRESSION DEVICES DURING FLAME-CUTTING OPERATIONS. MAINTAIN ADEQUATE VENTILATION WHEN USING CUTTING TORCHES.
- NOTIFY UTILITY COMPANIES IN ACCORDANCE WITH THEIR REQUIREMENTS PRIOR TO DEMOLITION. VERIFY THAT THE UTILITIES HAVE BEEN DISCONNECTED, VALVED, CAPPED, AND MADE SAFE PRIOR TO DEMOLITION.
- DRAIN, PURGE, OR OTHERWISE REMOVE, COLLECT, AND PROPERLY DISPOSE OF CHEMICALS, LIQUIDS, GASES, EXPLOSIVES, ACIDS, FLAMMABLES, OR OTHER DANGEROUS MATERIALS BEFORE PROCEEDING WITH DEMOLITION OPERATIONS.

MECHANICAL NEW WORK NOTES

- PRIOR TO PREPARING THE BID, THE CONTRACTOR AND SUBCONTRACTORS SHALL VISIT THE SITE TO FAMILIARIZE THEMSELVES WITH ALL EXISTING CONDITIONS AND MAKE ALL NECESSARY INVESTIGATIONS AS TO THE LOCATIONS OF UTILITIES AND ALL OTHER MATTERS WHICH CAN AFFECT THE WORK. NO ADDITIONAL COMPENSATION WILL BE MADE TO THE CONTRACTOR AS A RESULT OF THEIR FAILURE TO FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS UNDER WHICH THE WORK MUST BE PERFORMED.
- THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS AND BUILDING DIMENSIONS PRIOR TO WORK. ANY VARIATIONS, DISCREPANCIES, OR FIELD ALTERATIONS TO THESE DESIGN DRAWINGS SHALL BE BROUGHT TO THE ARCHITECT ATTENTION PRIOR TO WORK. IF CONTRACTOR COMMENCES WORK WITHOUT NOTIFYING ARCHITECT OF VARIATIONS, DISCREPANCIES, OR FIELD ALTERATIONS, THAT SHALL CONSTITUTE WAIVER TO ANY CLAIM BY CONTRACTOR FOR ADDITIONAL EXPENSES NECESSARY TO PERFORM WORK ASSOCIATED WITH THOSE CONDITIONS.
- THIS CONTRACT REQUIRES COMPLETE, FINISHED WORKABLE PROJECT OF THE AREAS INDICATED BY THE CONTRACT DOCUMENTS AND SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY TO COMPLETE THE SAME, REGARDLESS OF WHETHER OR NOT EACH AND EVERY NECESSARY WORK OR ITEM IS SPECIFICALLY INDICATED ON ANY OTHER PORTION OF THE DRAWING AND/OR NOTES.
- AS A MINIMUM, ALL WORK SHALL CONFORM TO THE APPLICABLE FEDERAL, STATE, COUNTY AND LOCAL CODES AND ORDINANCES ADOPTED BY THE JURISDICTION OF THE WORK. WHERE MORE STRINGENT CODES ARE ADOPTED, THEY SHALL GOVERN THE WORK.
- CONTRACTOR SHALL FURNISH ALL INFORMATION AND DOCUMENTATION TO SECURE ALL REQUIRED PERMITS AND SHALL COORDINATE THIS DATA WITH THE CONSTRUCTION DOCUMENTS WHERE REQUIRED.
- CONTRACTOR SHALL COORDINATE THE WORK WITH OTHER CONTRACTORS SO THAT THE WORK AND SCHEDULE ARE NOT IMPEDED. SCHEDULE WORK PROGRESS THROUGHOUT THE ENTIRE PROJECT TO PREVENT CONFLICTS AND INTERFERENCE, OBTAIN ALL NECESSARY INFORMATION SUCH AS SIZES, LOCATIONS, TEMPLATES, LAYOUT, DIMENSIONS AND ALL OTHER INFORMATION NECESSARY FOR A PROPER AND WELL-COORDINATED INSTALLATION. PRIOR TO INSTALLATION OF ITEMS, CONFER WITH EACH CONTRACTOR EXACT LOCATION OF ALL ITEMS.
- WHERE MATERIALS REFERENCED ON DRAWINGS, OR NECESSARY TO COMPLETE THE WORK OF THIS CONTRACT ARE NOT SPECIFIED HEREIN, PROVIDE BEST QUALITY MATERIALS. WHERE MATERIALS ARE INTENDED TO MATCH EXISTING, PROVIDE CLOSEST POSSIBLE MATCH. SUBJECT TO OWNER'S APPROVAL. ALL ITEMS AND WORK ON DRAWINGS ARE NEW UNLESS INDICATED OTHERWISE. ALL WORK WHICH HAS BEEN DAMAGED SHALL BE REPAIRED OR REPLACED. WHERE ITEM CANNOT BE REPAIRED TO A "NEW CONDITION", OR WHERE THE STRUCTURAL INTEGRITY HAS BEEN AFFECTED, ITEM SHALL BE REPLACED.
- DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL BE CONSTRUED TO APPLY TO ANY SIMILAR SITUATION ELSEWHERE ON THE PROJECT, EXCEPT WHERE A DIFFERENT DETAIL IS SHOWN.
- COORDINATE FINAL EQUIPMENT/FIXTURE LOCATIONS WITH THE GENERAL CONTRACTOR. THE LOCATION AS INDICATED ON THE DRAWING IS APPROXIMATE. INSTALL ALL MECHANICAL EQUIPMENT SUCH THAT MANUFACTURER'S MAINTENANCE AREA IS CLEAR.
- PROVIDE AND INSTALL ALL NECESSARY HARDWARE, BRACKETS, BRACING, ANCHORING, INSERTS, BLOCKING, FURRING OR OTHER SUPPLEMENTARY ITEMS NEEDED FOR COMPLETE INSTALLATION OF EQUIPMENT, FIXTURES AND ACCESSORIES.
- DRAWING PLANS, SCHEMATICS AND DIAGRAMS INDICATE GENERAL LOCATION AND ARRANGEMENT OF DUCTWORK AND PIPING SYSTEMS. INDICATED LOCATIONS AND ARRANGEMENTS ARE USED TO SIZE DUCTWORK AND PIPE AND CALCULATE FRICTION LOSS, EXPANSION AND OTHER DESIGN CONSIDERATIONS. INSTALL DUCTWORK AND PIPING AS INDICATED UNLESS DEVIATIONS TO LAYOUT ARE APPROVED ON COORDINATION DRAWINGS.
- PROVIDE A FLEXIBLE DUCT FLEXIBLE CONNECTION AT BOTH THE INLET AND OUTLET DUCT FAN CONNECTION. FABRICATE ALL DUCTWORK IN ACCORDANCE WITH SMACNA STANDARDS. ALL DUCTWORK SHALL BE A MINIMUM OF 26 GAUGE.
- PROVIDE MANUAL AIR VENTS AT ALL HIGH POINTS & DRAIN VALVES WITH CAPPED HOSE CONNECTIONS AT ALL LOW POINTS OF PIPING SYSTEMS.
- INSTALL SHUT-OFF VALVES IN PIPING WHERE SHOWN ON THE DRAWINGS AND WHERE CALLED FOR IN THE SPECIFICATION.
- DO NOT ROUTE ANY WET MECHANICAL PIPING THROUGH ELECTRICAL, DATA/COMMUNICATION OR ELEVATOR EQUIPMENT ROOMS WITHOUT PRIOR APPROVAL FROM ARCHITECT.
- CONTRACTOR SHALL PROVIDE THE FOLLOWING SERVICES, AS APPLICABLE, ON ALL EXISTING EQUIPMENT INDICATED TO BE REUSED: 1) FILTER CHANGES, 2) BALANCING, 3) LUBRICATION. CONTRACTOR SHALL REPORT ANY EQUIPMENT DEFICIENCIES FOUND TO THE ARCHITECT AND/OR ENGINEER.
- THE FIRE PROOFING OF THE BUILDING STRUCTURE IS NOT TO BE REMOVED FOR THE INSTALLATION OF HANGERS, SUPPORTS, DUCTWORK, ETC. IF FIRE PROOFING IS DAMAGED, IT SHALL BE REPAIRED AT THE EXPENSE OF THE TRADE.



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PROJECT
MSBA ARP ROOF SYSTEM REPLACEMENT
HAMILTON-WENHAM REGIONAL HIGH SCHOOL
775 BAY ROAD
SOUTH HAMILTON, MA 01982

OWNER
HAMILTON-WENHAM REGIONAL SCHOOL DISTRICT
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1	1/29/2026	60% SUBMISSION	
NO.	DATE	DESCRIPTION	BY
PROJECT NO.		845190	
CADD FILE			
DESIGNED BY			
DRAWN BY			
CHECKED BY			
DATE		9/5/2025	
DRAWING SCALE			

GRAPHIC SCALE

1/32" = 1'

SHEET TITLE

MECHANICAL LEGENDS, SYMBOLS, ABBREVIATIONS AND NOTES

DRAWING NO.

M001



GENERAL NOTES

1. ALL OPENINGS IN ROOF DUE TO THE TEMPORARY REMOVAL TO ACCOMMODATE THE ROOF REPLACEMENT SHALL BE PROTECTED THROUGHOUT THE WORK. ALL FLASHING AND NEW ROOF CURBS SHALL BE PROVIDED BY GALE.

DRAWING NOTES

① EXISTING FANS SHALL BE DISCONNECTED FROM EXISTING CONTROL WIRING, POWER WIRING, AND DUCTWORK AND REMOVED FROM ITS BASE OR CURB AND STORED FOR FUTURE REUSE. EXISTING VIBRATION ISOLATORS SHALL ALSO BE REMOVED. UPON COMPLETION OF THE ROOF REPLACEMENT, REINSTALL THE FANS ON THE CURBS OR BASES PROVIDED BY GALE AND RECONNECT ALL DUCTWORK AND WIRING. PROVIDE UTILITY SET TYPE FANS (3 IN TOTAL) WITH NEW SPRING VIBRATION ISOLATORS SIZED FOR 1" DEFLECTION.

② EXISTING ROOF MOUNTED DUCTWORK SERVING UTILITY SET EXHAUST FANS SHALL BE CUT, REMOVED AND STORED FOR FUTURE REUSE. UPON COMPLETION OF THE ROOF REPLACEMENT, REINSTALL THE DUCTWORK AND RECONNECT IT TO THE REINSTALLED FANS AND ROOF PENETRATION. PROVIDE NEW FLEXIBLE CONNECTIONS IF REQUIRED.

③ EXISTING DX SPLIT SYSTEM AIR COOLED CONDENSING UNITS AND THEIR ASSOCIATED MOUNTING STANDS SHALL BE DISCONNECTED FROM THE EXISTING CONTROL WIRING, POWER WIRING, AND REFRIGERANT PIPING AND STORED FOR FUTURE REUSE. PRIOR TO REFRIGERANT PIPING DISCONNECTION, THE REFRIGERANT PIPING SHALL BE PURGED, REFRIGERANT RECLAIMED, AND PIPING CAPPED. UPON COMPLETION OF THE ROOF REPLACEMENT, REINSTALL THE AIR COOLED CONDENSING UNITS AND ASSOCIATED STANDS AND RECONNECT EXISTING WIRING AND PIPING. REFILL AND PRESSURE TEST THE REFRIGERANT SYSTEM. PROVIDE NEW ELASTOMERIC FOAM INSULATION ON ALL OUTDOOR REFRIGERANT PIPING AND COAT WITH 2 LAYERS OF UV PROTECTIVE PAINT.

④ EXISTING ROOF MOUNTED AIR HANDLING UNITS SHALL BE DISCONNECTED FROM EXISTING CONTROL WIRING, POWER WIRING, AND DUCTWORK AND REMOVED FROM ITS BASE OR CURB AND STORED FOR FUTURE REUSE. EXISTING VIBRATION ISOLATORS SHALL ALSO BE REMOVED. UPON COMPLETION OF THE ROOF REPLACEMENT, REINSTALL THE ROOF MOUNTED AIR HANDLING UNITS ON THE CURBS OR BASES PROVIDED BY GALE AND RECONNECT ALL DUCTWORK AND WIRING.

⑤ EXISTING GRAVITY VENTS SHALL BE CUT, REMOVED AND STORED FOR FUTURE REUSE. UPON COMPLETION OF THE ROOF REPLACEMENT, REINSTALL AND RECONNECT THE DUCTS TO THE NEW FLASHED BASES PROVIDED BY GALE.

⑥ EXISTING ROOF MOUNTED DUCTWORK SHALL BE CUT, REMOVED AND STORED FOR FUTURE REUSE. UPON COMPLETION OF THE ROOF REPLACEMENT, REINSTALL AND RECONNECT THE DUCTS TO THE NEW FLASHED BASES PROVIDED BY GALE.

⑦ EXISTING NATURAL GAS PIPING TO BE REPLACED IN KIND, PRESERVING EXISTING DIMENSIONS AND LAYOUT. PROVIDE ROOF MOUNTED PIPE SUPPORTS.

NOT FOR CONSTRUCTION

1 HVAC ROOF PLAN
SCALE: 1/32" = 1'-0"



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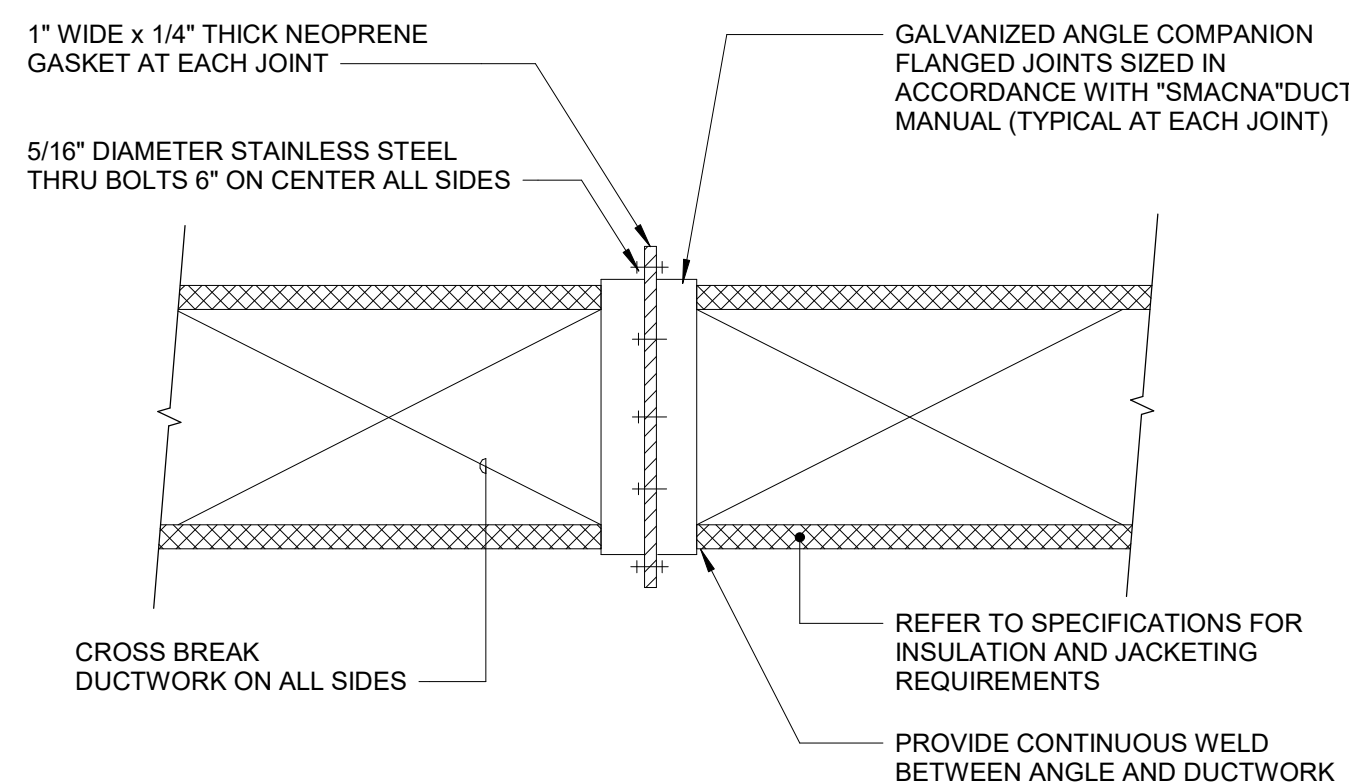
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DRAWING SCALE			

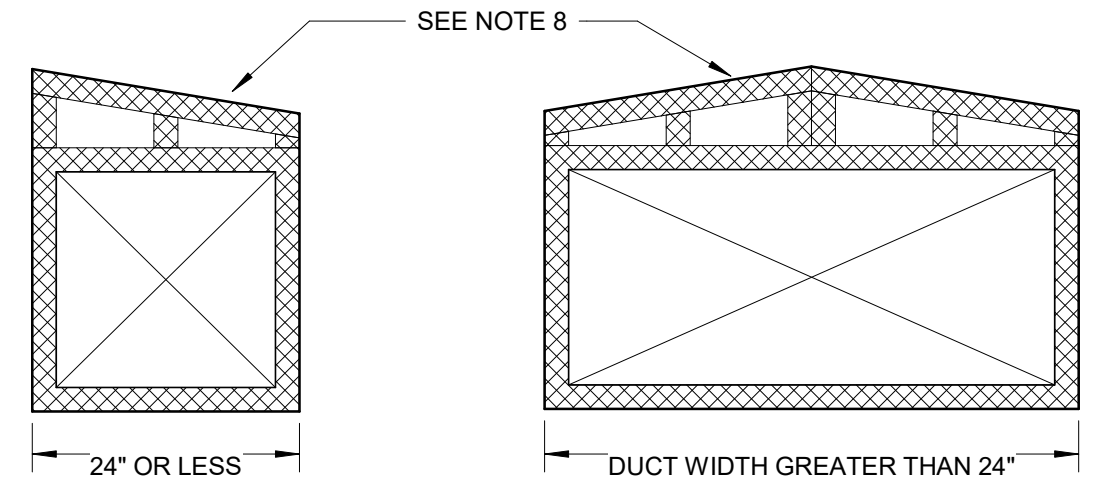
GRAPHIC SCALE
1/32" = 1'

SHEET TITLE
HVAC ROOF PLANS

DRAWING NO.	M100
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EXTERIOR DUCT CONSTRUCTION DETAIL



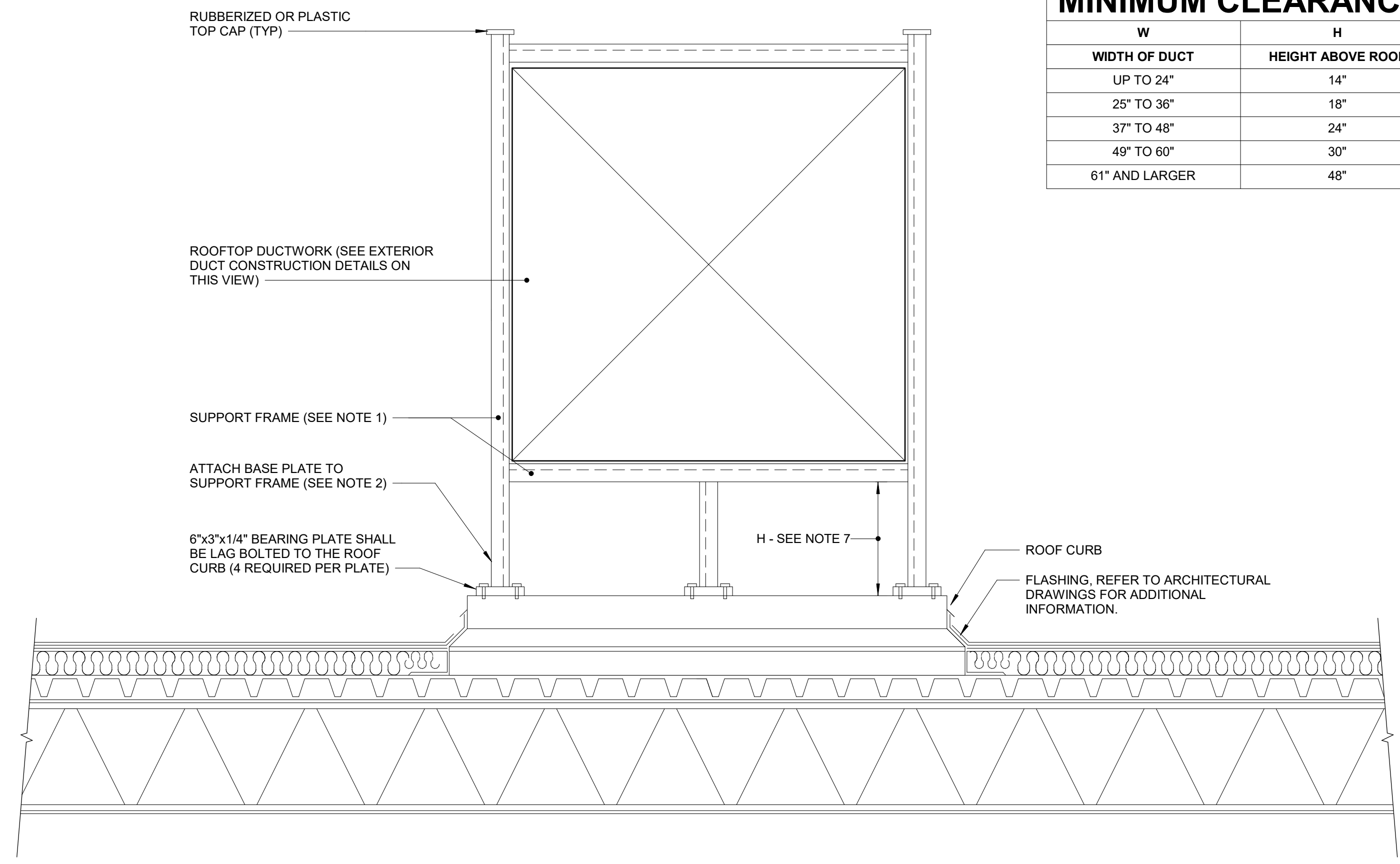
EXTERIOR DUCT CONSTRUCTION DETAIL (SECTION VIEW)

NOTES:

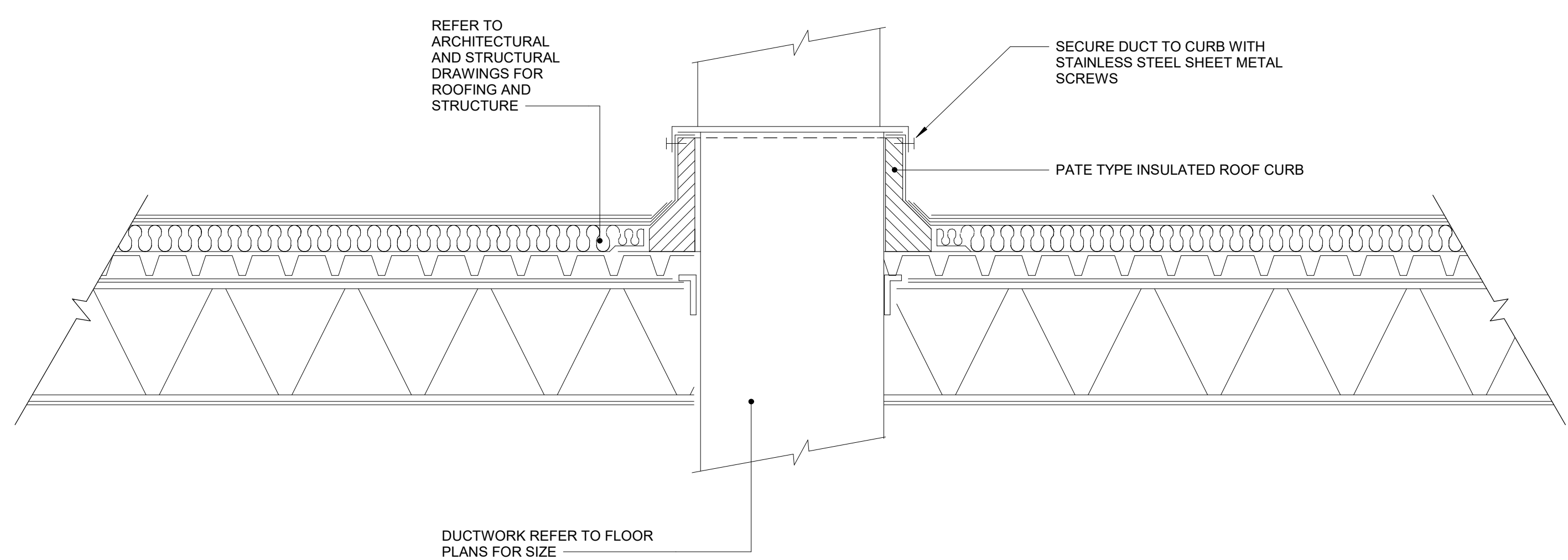
- CONTRACTOR SHALL FURNISH AND INSTALL HOT DIP GALVANIZED, STAINLESS-STEEL, OR ALUMINUM MATERIALS CAPABLE OF HANDLING THE LOAD SHALL BE USED FOR THE SUPPORT FRAME AND FASTENERS. ZINC PLATED HANGERS AND ATTACHMENTS ARE NOT ACCEPTABLE FOR EXTERIOR USE. FASTENER MATERIALS SHALL BE SELECTED TO PREVENT GALVANIC CORROSION WITH SELECTED FRAME MATERIAL.
- JOINT CONSTRUCTION SHALL BE EITHER BOLTED OR CONTINUOUS WELD. CONTINUOUS WELD FRAMES SHALL BE HOT DIPPED GALVANIZED AFTER WELDING.
- PROVIDE SUPPORTS IN ACCORDANCE WITH "SMACNA" DUCT MANUAL. SUPPORT SPACING MAXIMUM 10'-0" ON CENTER.
- CONTRACTOR SHALL FIELD COORDINATE THE LOCATION OF SUPPORTS WITH THE ARCHITECT AND/OR ROOFING CONSULTANT.
- CONTRACTOR SHALL COORDINATE DUCT SUPPORT FRAME DIMENSIONS WITH ACTUAL INSTALLED DUCTWORK PLUS INSULATION. REFER TO SPECIFICATIONS FOR INSULATION REQUIREMENTS.
- INSTALL ALL SEAMS ON BOTTOM SIDE OF DUCT. PROVIDE WATERTIGHT CONSTRUCTION.
- REFER TO THE "MINIMUM CLEARANCE" SCHEDULE TO DETERMINE THE HEIGHT OF THE SUPPORT FRAME.
- CONTRACTOR SHALL PROVIDE AN ADDITIONAL LAYER OF INSULATION ON TOP OF DUCTWORK WITH A MINIMUM SLOPE OF 1/4" OF FALL PER EVERY 12" OF HORIZONTAL LENGTH. PROVIDED BLOCKING TO SUPPORT INSULATION PER THE MANUFACTURERS WRITTEN INSTRUCTIONS.

1 DETAIL - ROOF MOUNTED DUCTWORK SUPPORT

SCALE: N.T.S.

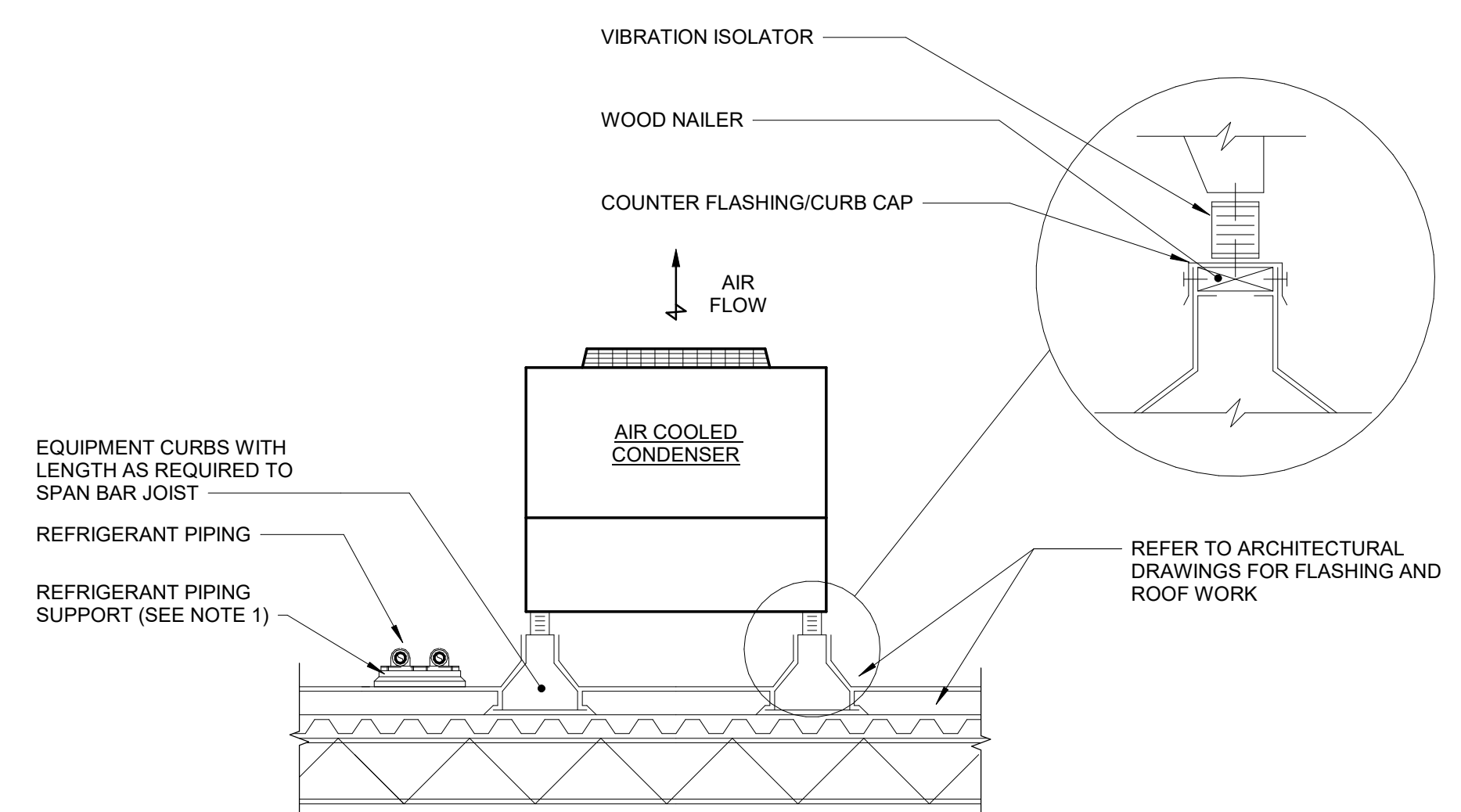


MINIMUM CLEARANCE	
W WIDTH OF DUCT	H HEIGHT ABOVE ROOF
UP TO 24"	14"
25" TO 36"	18"
37" TO 48"	24"
49" TO 60"	30"
61" AND LARGER	48"



2 DETAIL - DUCT ROOF PENETRATION

SCALE: N.T.S.



NOTES:

- REFER TO THE MECHANICAL DETAIL "NON-PENETRATING PIPE ROOF SUPPORT" FOR ADDITIONAL REQUIREMENTS FOR REFRIGERANT PIPING SUPPORT.

3 AIR COOLED CONDENSING UNIT - ROOF

SCALE: N.T.S.



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PROJECT
MSBA ARP ROOF SYSTEM REPLACEMENT
HAMILTON-WENHAM REGIONAL HIGH SCHOOL
775 BAY ROAD
SOUTH HAMILTON, MA 01982

OWNER
HAMILTON-WENHAM REGIONAL SCHOOL DISTRICT
5 SCHOOL STREET
WENHAM, MA 01984

1	1/29/2026	60% SUBMISSION	
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NO.	DATE	DESCRIPTION	BY
PROJECT NO.		845190	
CADD FILE			
DESIGNED BY			
DRAWN BY			
CHECKED BY			
DATE	9/5/2025		
DRAWING SCALE			

GRAPHIC SCALE
1/32" = 1'

SHEET TITLE

MECHANICAL DETAILS

DRAWING NO.	M200
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GRAPHIC SCALE

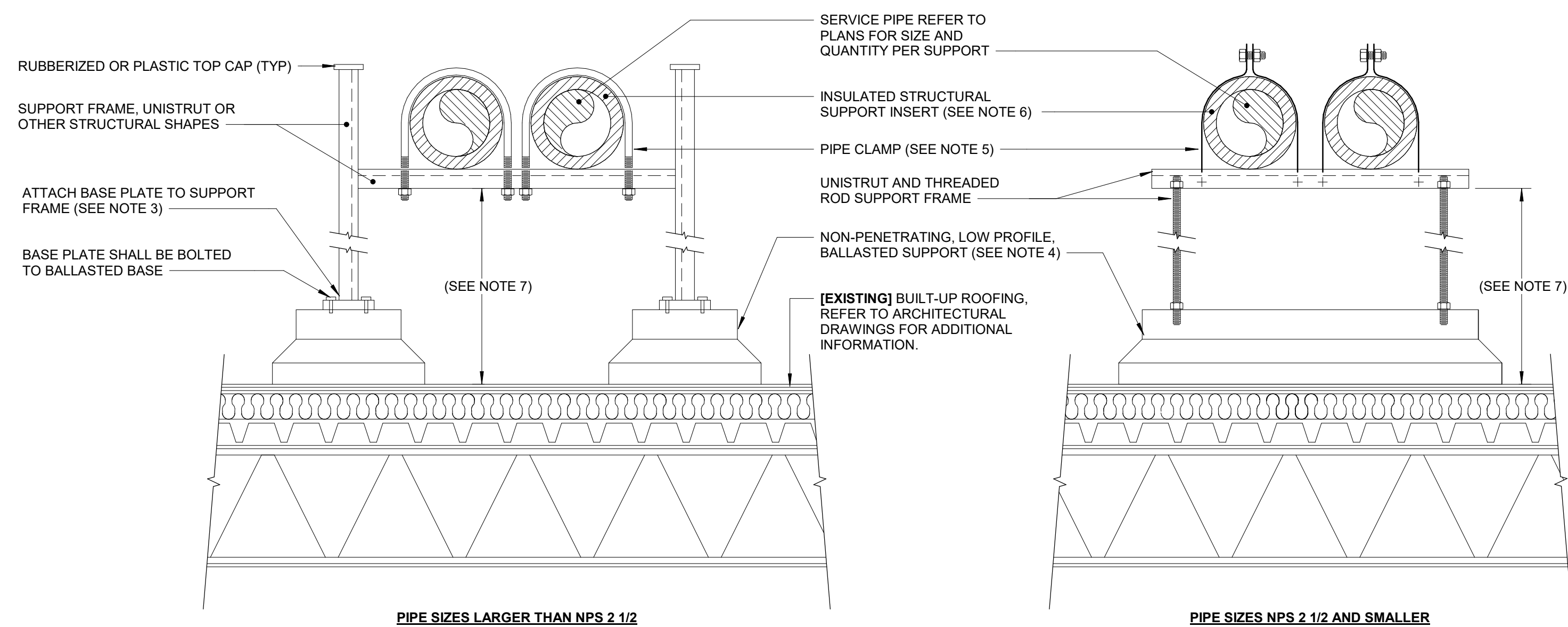
1/32" = 1'

SHEET TITLE

MECHANICAL DETAILS

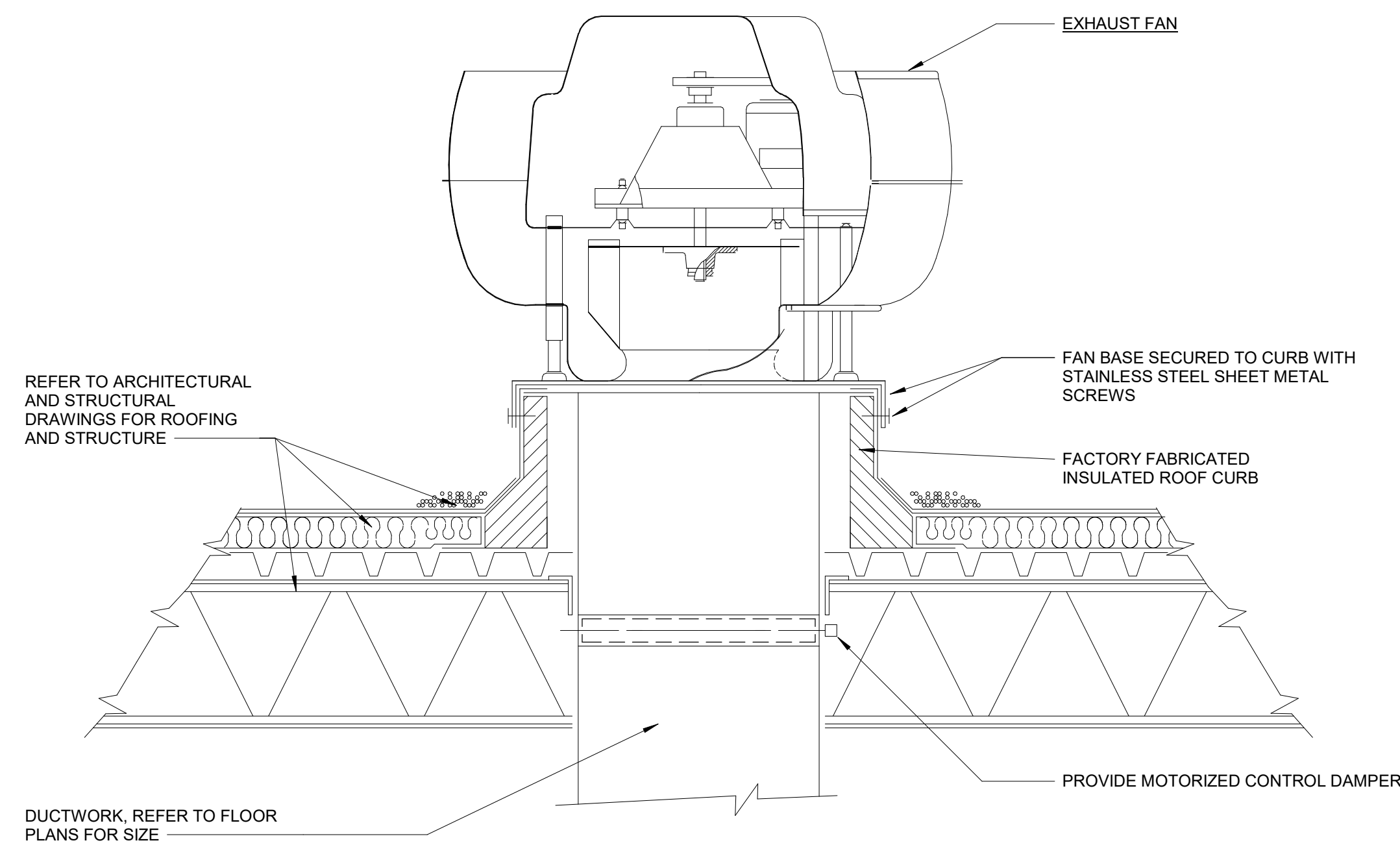
DRAWING NO.

M201

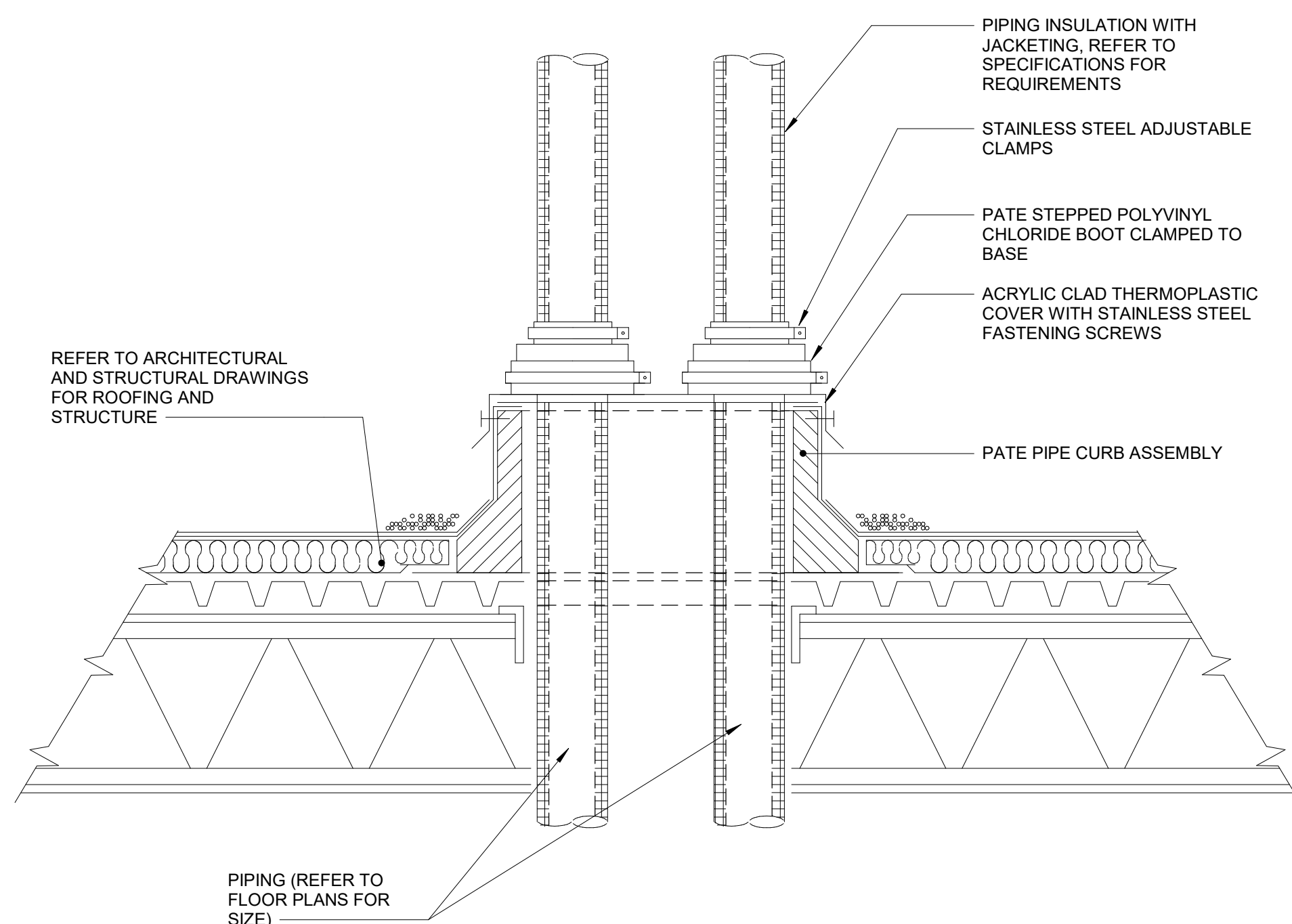


- NOTES:**
- CONTRACTOR SHALL COORDINATE PIPING SUPPORT FRAME DIMENSIONS WITH ACTUAL INSTALLED PIPING PLUS INSULATION. REFER TO SPECIFICATIONS FOR INSULATION REQUIREMENTS.
 - CONTRACTOR SHALL FURNISH AND INSTALL HOT DIP GALVANIZED, STAINLESS-STEEL, OR ALUMINUM MATERIALS CAPABLE OF HANDLING THE LOAD SHALL BE USED FOR THE SUPPORT FRAME AND FASTENERS. ZINC PLATED HANGERS AND ATTACHMENTS ARE NOT ACCEPTABLE FOR EXTERIOR USE. FASTENER MATERIALS SHALL BE SELECTED TO PREVENT GALVANIC CORROSION WITH SELECTED FRAME MATERIAL.
 - JOINT CONSTRUCTION SHALL BE EITHER BOLTED OR CONTINUOUS WELD. CONTINUOUS WELD FRAMES SHALL BE HOT DIPPED GALVANIZED AFTER WELDING.
 - ALL BALLASTED SUPPORTS SHALL BE SIZED BY THE MANUFACTURER TO SUPPORT THE REQUIRED LOADS AND NOT EXCEED THE RATED LOAD DISTRIBUTION FOR THE ROOF. CONTRACTOR SHALL FURNISH AND INSTALL SUPPORTS BY MIRO INDUSTRIES OR APPROVED EQUAL.
 - REFER TO THE SPECIFICATIONS FOR PIPE CLAMP TYPE AND INSTALLATION REQUIREMENTS.
 - REFER TO THE SPECIFICATIONS FOR MATERIAL AND INSTALLATION REQUIREMENTS FOR THE PIPE INSULATION, STRUCTURAL INSERT, AND JACKETING. STRUCTURAL INSERT SHALL BE INSTALLED SO THE PIPE IS PROPERLY SUPPORTED AND THE INSULATION IS NOT COMPRESSED.
 - CONTRACTOR FIELD COORDINATE THE HEIGHT OF THE SUPPORT FRAME TO MATCH THE REQUIRED PIPING SLOPE LISTED IN THE SPECIFICATIONS.

1 NON-PENETRATING PIPE ROOF SUPPORT
SCALE: N.T.S.



2 ROOF MOUNTED UPBLAST FAN
SCALE: N.T.S.



3 PIPE THROUGH ROOF
SCALE: N.T.S.