

# 2025 Waterford School District Lutes Campus Roofing Replacement 5195 Pontiac Lake Road Waterford, Michigan 48327



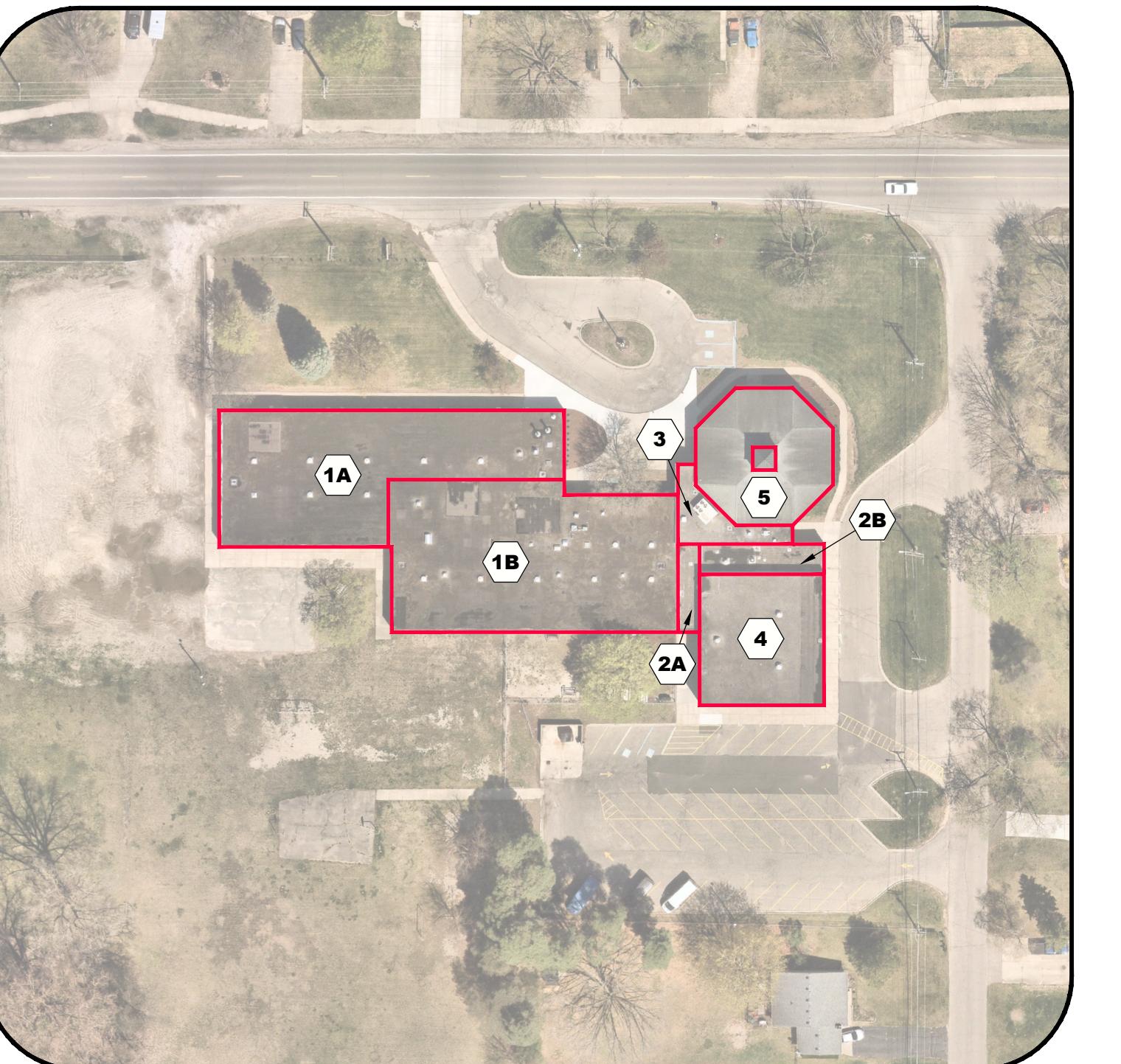
**Project**  
**2025 WATERFORD SCHOOL  
DISTRICT  
LUTES CAMPUS  
ROOFING REPLACEMENT**

**Project Location**

1

## GENERAL NOTES:

1. THE SUMMARY OF WORK CONTAINED IN THESE NOTES AND SHOWN ON THE PLANS MAY NOT INCLUDE ALL ITEMS AND ACTIVITIES NECESSARY TO COMPLETE THE WORK. IN ADDITION TO THE REQUIREMENTS SHOWN IN THE DRAWINGS, TAKE MEASURES REASONABLY NECESSARY TO PROVIDE THE DESIRED WORK RESULT AND TO COMPLETE THE WORK AT NO ADDITIONAL COST TO THE OWNER.
2. ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS, INCLUDING SAFETY, AND PROTECTION OF PROPERTY AND PEDESTRIANS. PROVIDE AND MAINTAIN SAFETY DEVICES IN COMPLIANCE WITH LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.
3. DO NOT SCALE DRAWINGS. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. DIMENSIONS SHOWN ON DRAWINGS ARE BASED UPON LIMITED FIELD VERIFICATION, AND HAVE NOT BEEN COMPLETELY FIELD VERIFIED. THE OWNER AND ENGINEER TAKE NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING DIMENSIONS SHOWN ON THE DRAWINGS.
4. NOTIFY THE OWNER AND ENGINEER OF ANTICIPATED CHANGES OR ADDITIONS TO THE WORK PRIOR TO THE START OF ACTIVITIES. THE GENERAL LIMITS OF THE WORK ARE NOTED ON THE PROJECT DRAWINGS WITH WORK BOUNDARIES TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
5. PROMPTLY REPORT UNANTICIPATED CONDITIONS UNCOVERED THAT ARE CONTRARY TO THE DRAWINGS OR WILL ADVERSELY IMPACT THE WORK TO THE OWNER AND ENGINEER FOR ADVISEMENT.
6. PROVIDE TEMPORARY PROTECTION, BARRICADES, TEMPORARY STRUCTURES, AND OTHER MEASURES AS NEEDED TO PROTECT THE PEDESTRIAN AND VEHICULAR TRAFFIC ADJACENT TO AND IN THE VICINITY OF THE WORK AREA.
7. PROVIDE TEMPORARY PROTECTION WATERPROOFING, TIE-INS, WATER BLOCKS, AND INTERIOR PROTECTION AS NEEDED DURING THE WORK TO PREVENT LEAKAGE INTO THE BUILDING AND WATER DAMAGE TO THE INTERIOR. PROVIDE TARPAULINS OR PLASTIC SHEETING FOR TEMPORARY PROTECTION INSIDE THE BUILDING AS NEEDED DURING CONSTRUCTION. INTERIOR PROTECTION (SUSPENDED PLASTIC SHEETING) IS REQUIRED BENEATH ROOF AREA 4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT INTERIOR OPERATIONS ARE NOT INTERRUPTED AND THAT INTERIOR SURFACES AND FINISHES ARE NOT DAMAGED BY ROOFING REPLACEMENT OPERATIONS BENEATH EACH ROOF AREA. FOLLOWING ROOFING REPLACEMENT, REMOVE PLASTIC SHEETING AND CLEAN INTERIOR SURFACES TO PRE-CONSTRUCTION CONDITION AT NO ADDITIONAL COST TO OWNER.
8. PROVIDE TEMPORARY PROTECTION OF EXISTING EQUIPMENT DURING THE WORK, SATISFYING OWNER'S REQUIREMENTS. RESTORE EXISTING EQUIPMENT, BUILDING COMPONENTS, SIDEWALK, AND GROUNDS DAMAGED DURING THIS WORK TO ORIGINAL CONDITION OR REPLACE WITH NEW MATERIALS AS DIRECTED BY THE OWNER. DAMAGED EQUIPMENT/COMPONENTS WILL BE REPLACED AT NO COST TO THE OWNER.
9. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR DELIVERY, STORAGE, MIXING, SURFACE PREPARATION, APPLICATION, AND CURING OF MATERIALS USED FOR RESTORATION WORK.
10. SECURE SITE STAGING AREA FOR STORAGE TO BE COORDINATED WITH OWNER PRIOR TO BEGINNING WORK.
11. STORAGE OF MATERIALS INSIDE THE BUILDING IS PROHIBITED. DO NOT STORE FLAMMABLE MATERIALS ON THE ROOFS OR IN THE STAGING AREA. REMOVE FLAMMABLE MATERIALS FROM THE SITE AND SECURELY STORE THEM AT THE END OF EACH WORK DAY.
12. TAKE DUE CARE AND CAUTION TO AVOID TRACKING DUST, DEBRIS, OR LOOSE MATERIALS TO AREAS OUTSIDE OF THE CONSTRUCTION AREA. REMOVE MATERIALS TRACKED TO AREAS OUTSIDE OF THE CONSTRUCTION AREA AS SOON AS POSSIBLE, AT NO ADDITIONAL COST TO THE OWNER. CONDUCT AN INSPECTION AT THE END OF EACH WORK DAY OF THE PROJECT AREA AND TAKE STEPS TO ENSURE THAT THE ENTIRE WORK AREA IS CLEAN. THIS REQUIREMENT INCLUDES DEBRIS FROM THE CONTRACTOR'S EMPLOYEES EATING LUNCH OR ON BREAKS.
13. REMOVE WASTE MATERIALS AND DEBRIS RESULTING FROM THE WORK FROM THE SITE AND DISPOSE OF IN A LEGAL MANNER.
14. REMOVE STAINING/CONTAMINANTS FROM BUILDING SURFACES AND THE GROUNDS, INCLUDING SPILLED OR SMEARED SEALANTS, BITUMINOUS MATERIALS, GASOLINE AND FUEL SPILLS, AND HYDRAULIC LEAKAGE FROM THE EQUIPMENT USED ONSITE.
15. PROVIDE PROTECTION OF SIDEWALKS OR OTHER PAVEMENTS AGAINST BREAKAGE DUE TO MANLIFT USE OR OTHER EQUIPMENT. RESTORE DAMAGED SIDEWALKS AND PAVEMENTS TO PRE-PROJECT CONDITIONS.
16. MAINTAIN UP-TO-DATE SET OF PROJECT DOCUMENTS AT THE JOB-SITE. KEEP ACCURATE AND LEGIBLE RECORDS OF CHANGES TO THE WORK THAT OCCUR DURING CONSTRUCTION AND INFORMATION ON 'AS-BUILT' EXISTING OR CONSTRUCTED CONDITIONS. KEEP RECORDS OF CHANGES AND AS-BUILT CONDITIONS DOCUMENTED ON A SET OF DRAWINGS TO BE PROVIDED TO THE ENGINEER AT CONSTRUCTION COMPLETION.
17. UPON COMPLETION OF THE WORK, CLEAR THE ENTIRE SITE OF EQUIPMENT, UNUSED MATERIALS, AND RUBBISH. RESTORE DISTURBED AREAS TO THE SATISFACTION OF THE OWNER.

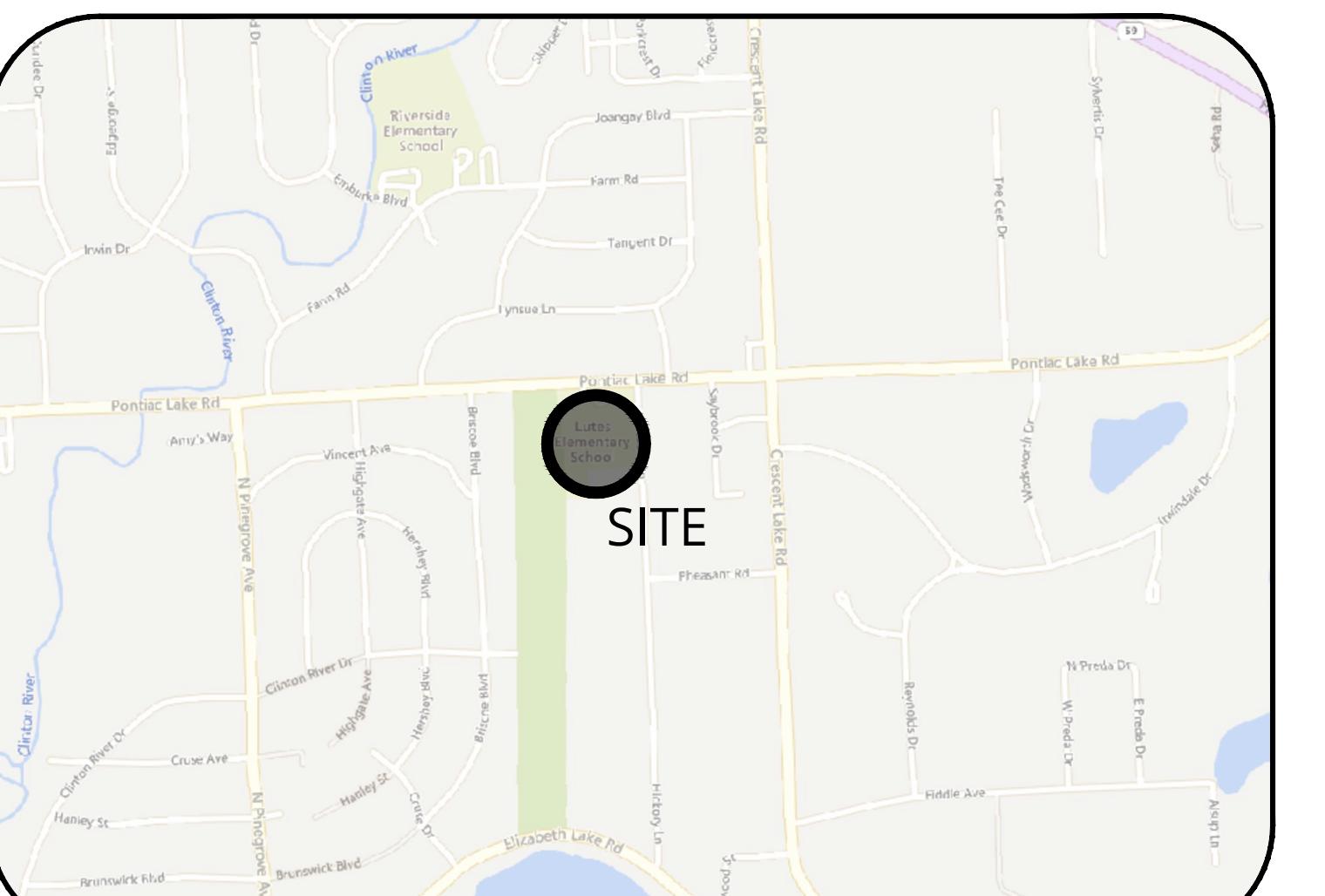




# OVERALL SITE PLAN

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NOT TO SCALE





# LOCATION MAP

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NOT TO SCALE

## ABBREVIATION INDEX

DIA	DIAMETER
EX	EXISTING
GA	GAUGE
MAX	MAXIMUM
MIN	MINIMUM
OC	ON CENTER
SIM	SIMILAR
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VIF	VERIFY IN FIELD

# ENGINEER

SME  
43980 PLYMOUTH OAKS BLVD.  
PLYMOUTH, MI 48170

CONTACT: KYLE DAMEROW, PE, RRC  
PHONE: 734.454.9900  
EMAIL: KYLE.DAMEROW@SME-USA.COM

SME PROJECT NO. 100594.00

## OWNER / CLIENT

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WATERFORD SCHOOL DISTRICT  
501 N. CASS LAKE ROAD  
WATERFORD MI 48328

OWNER REPRESENTATIVE : MR. SIDNEY TIPPETT  
PHONE: 248-674-3193  
EMAIL: TIPPE01@WSDMI.ORG

## APPLICABLE CODES

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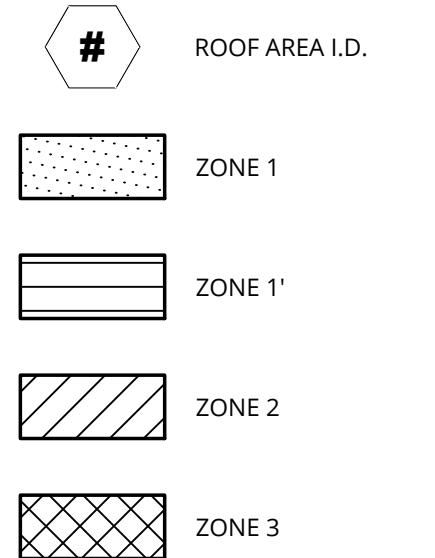
2021 MICHIGAN REHABILITATION CODE

## LIST OF DRAWINGS

SHEET NO.	SHEET TITLE
G0.1	TITLE SHEET
G1.1	ROOF WIND DESIGN LOADING / ZONE PLAN AREAS 1A, 1B, 2A, 2B, 3, 4, AND 5
A1.1	ROOF PLAN AREAS 1A, 1B, 2A, 2B, 3, 4, AND 5
A5.1	FLASHING DETAILS
A5.2	FLASHING DETAILS
A5.3	FLASHING DETAILS



## LEGEND



WIND DESIGN CRITERIA (MBC 2021)

ULTIMATE DESIGN (FACTORED) BASIC WIND SPEED (3 SECOND GUST) =	115 MPH
NOMINAL WIND SPEED =	89 MPH
EXPOSURE CATEGORY =	B
RISK CLASSIFICATION =	III
INTERNAL PRESSURE COEFFICIENT =	+/- 0.18

NOTES:

1. WORK WIND DESIGN LOADING ZONE PLAN WITH TABLE 1, THIS SHEET.
2. WIND UPLIFT PRESSURE GIVEN IN TABLE 1 TO BE USED FOR DESIGN OF ROOFING FASTENING SYSTEM(S).
3. DESIGN PRESSURES BASED ON EFFECTIVE WIND AREA OF 10FT<sup>2</sup> OR LESS.

TABLE 1

SERVICE (UNFACTORED) DESIGN WIND LOADS - COMPONENTS AND CLADDING	
ROOF SURFACE VERTICAL PRESSURE (PSF)	
ZONE 1	-33
ZONE 1'	-19
ZONE 2 AND TOP/SIDE OF PARAPET	-43
ZONE 3 AND TOP/SIDE OF PARAPET	-59

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NOTE:  
" - # " INDICATES PRESSURE ACTING AWAY FROM THE ROOF SURFACE, I.E. SUCTION

**Project**

**2025 WATERFORD SCHOOL  
DISTRICT  
LUTES CAMPUS  
ROOFING REPLACEMENT**

**Project Location**

Environ S

Revision

Date

**SME Project No.**

## Project Manager:

**Designer:**

**J. SITTON**

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**J. NICHOLAS**

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**K. DAMEROW**

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# **E. MURRELL**

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1A

G1 1

This architectural floor plan illustrates a building layout with the following dimensions and features:

- Overall Building Dimensions:** The building is 182' wide and 151' deep, with a total area of 27,540 sq ft.
- Rooms and Areas:**
  - 1A:** A room 16' wide by 44'-6" deep, containing a 16' x 44'-6" rectangular area.
  - 1B:** A room 16' wide by 44'-6" deep, containing a 16' x 44'-6" rectangular area.
  - 2A:** A room 16' wide by 44'-6" deep, containing a 16' x 44'-6" rectangular area.
  - 2B:** A room 16' wide by 44'-6" deep, containing a 16' x 44'-6" rectangular area.
  - 3:** A room 16' wide by 44'-6" deep, containing a 16' x 44'-6" rectangular area.
  - 4:** A room 16' wide by 44'-6" deep, containing a 16' x 44'-6" rectangular area.
  - 5:** A room 16' wide by 44'-6" deep, containing a 16' x 44'-6" rectangular area.
  - NIC:** A room 12'-0" wide by 12'-0" deep, containing a 12' x 12' rectangular area.
- Walls and Ceilings:** The building features 8' high walls and 10' high ceilings.
- Rooms:** The building contains 10 rooms, each 16' wide by 44'-6" deep, with a 16' x 44'-6" rectangular area.
- Exterior:** The building has a 12' wide entrance on the left and a 12' wide entrance on the right.
- Dimensions:** The building is 182' wide, 151' deep, and 30' high. The rooms are 16' wide by 44'-6" deep.



# **ROOF WIND DESIGN LOADING / ZONE PLAN**

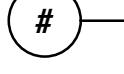
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## **AREAS 1A, 1B, 2A, 2B, 3, 4, AND 5**

SEARCH AREA, 11.500 - 11.500



## ROOFING LEGEND

	VALLEY
	HIP/RIDGE
	ACTIVE CONDUIT
	ROOF AREA I.D.
<b>NIC</b>	ROOF AREA NOT IN CONTRACT
	HVAC ROOF TOP UNIT ON CURB RE: 13/A5.3
	CURBED MECHANICAL UNIT RE: 12/A5.2
	EXHAUSTS FAN RE: 12/A5.2
	AIR CONDITIONING UNIT RE: 12/A5.2
	CONDENSING UNIT RE: 19/A5.3
	CAPPED MECHANICAL CURB RE: 20/A5.3
 RD	ROOF DRAIN RE: 14/A5.3
	PIPE PENETRATION RE:15/A5.3 (EPDM) 18/A5.3 (ASPHALT SHINGLES)
	FLUE GAS VENT STACK RE: 16/A5.3
	MULTI PENETRATION RE: 17/A5.3
	WATER SHED DIRECTION
	1/4" PER FOOT TAPERED SADDLE
	1/2" PER FOOT TAPERED SADDLE
	1/8" PER FOOT TAPERED SYSTEM
	DETAILED CALL OUT RE:A5.1 FOR DETAILS 1-5, A5.2 FOR DETAILS 6-11 A5.3 FOR DETAIL 21

**Project**  
**2025 WATERFORD SCHOOL  
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LUTES CAMPUS  
ROOFING REPLACEMENT**

**Project Location**

**5195 PONTIAC LAKE ROAD**

**WATERFORD, MI 48327**

10.1007/s00332-010-9000-0

Engineer's Se

## Revisions

Date

**100594.00**

## **Project Manager:**

**R. DAMEROW**

1 SITTON

## **CADD:**

**J. NICHOLAS**

**Checked By:**

**R. DAMEROW**

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Reviewed By: **E. MURRELL**

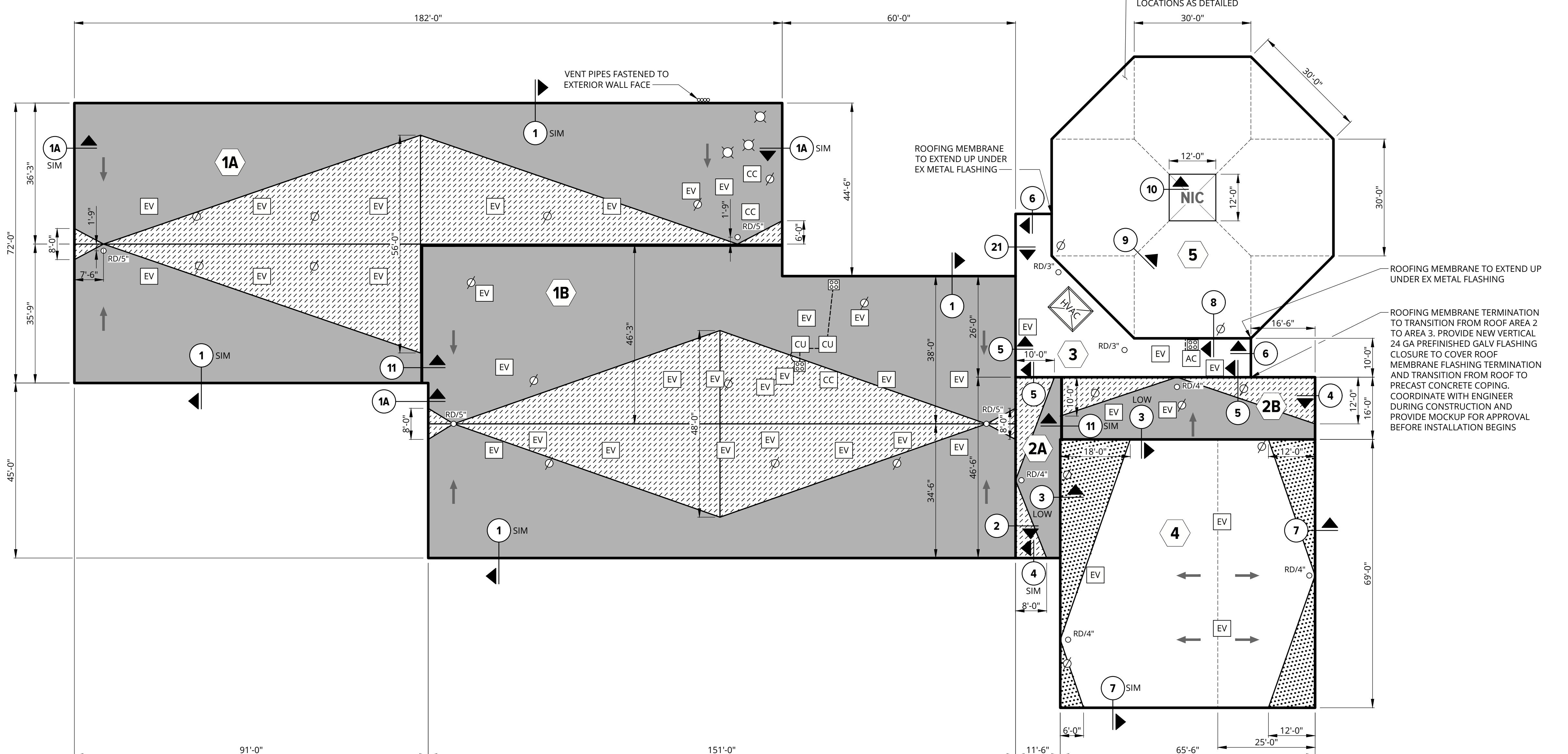
Chapter N

A11

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# ROOF PLAN AREAS 1A, 1B, 2A, 2B, 3, 4, AND 5

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SCALE: 1/16" = 1'-0"

ROOF AREAS	ROOF ASSEMBLY (MEMBRANE TO DECK)
<b>1A</b> <b>1B</b>	<p>MEMBRANE: BLACK, 45-MIL, UNREINFORCED EPDM MEMBRANE, FULLY ADHERED IN BONDING ADHESIVE</p> <p>TAPERED INSULATION SYSTEM: 1/8"/FT, MECHANICALLY ATTACHED TO CEMENTITIOUS WOOD FIBER DECK</p> <p>BASE INSULATION: 1 LAYER OF 2.6" ISO INSULATION, MECHANICALLY ATTACHED TO CEMENTITIOUS WOOD FIBER DECK</p>
<b>2A</b> <b>2B</b>	<p>MEMBRANE: BLACK, 45-MIL, UNREINFORCED EPDM MEMBRANE, FULLY ADHERED IN BONDING ADHESIVE</p> <p>TAPERED INSULATION SYSTEM: 1/8"/FT, MECHANICALLY ATTACHED TO STEEL DECK</p> <p>BASE INSULATION: 2 LAYERS OF 2" ISO INSULATION, MECHANICALLY ATTACHED TO STEEL DECK</p>
<b>3</b>	<p>MEMBRANE: BLACK, 45-MIL, UNREINFORCED EPDM MEMBRANE, FULLY ADHERED IN BONDING ADHESIVE, STRIP-IN ALL SEAMS</p> <p>BASE INSULATION: 1 LAYER OF 2" INSULATION (BOTTOM LAYER), 1 LAYER OF 1.5" INSULATION (TOP LAYER), MECHANICALLY ATTACHED TO STEEL DECK</p>
<b>4</b>	<p>MEMBRANE: BLACK, 45-MIL, UNREINFORCED EPDM MEMBRANE, FULLY ADHERED IN BONDING ADHESIVE</p> <p>BASE INSULATION: 2 LAYERS OF 2.6" ISO INSULATION, MECHANICALLY ATTACHED TO STEEL DECK</p>
ROOF AREAS	ROOF ASSEMBLY (SHINGLE TO DECK)
<b>5</b>	<p>SHINGLE: ARCHITECTURAL LAMINATE ASPHALT SHINGLES</p> <p>UNDERLayment: SYNTHETIC UNDERLayment AND ICE BARRIER MEMBRANE AS DETAILED</p> <p>COVER BOARD: EXISTING PLYWOOD NAILABLE BASE TO REMAIN</p> <p>BASE INSULATION: EXISTING POLYISO INSULATION TO REMAIN</p>



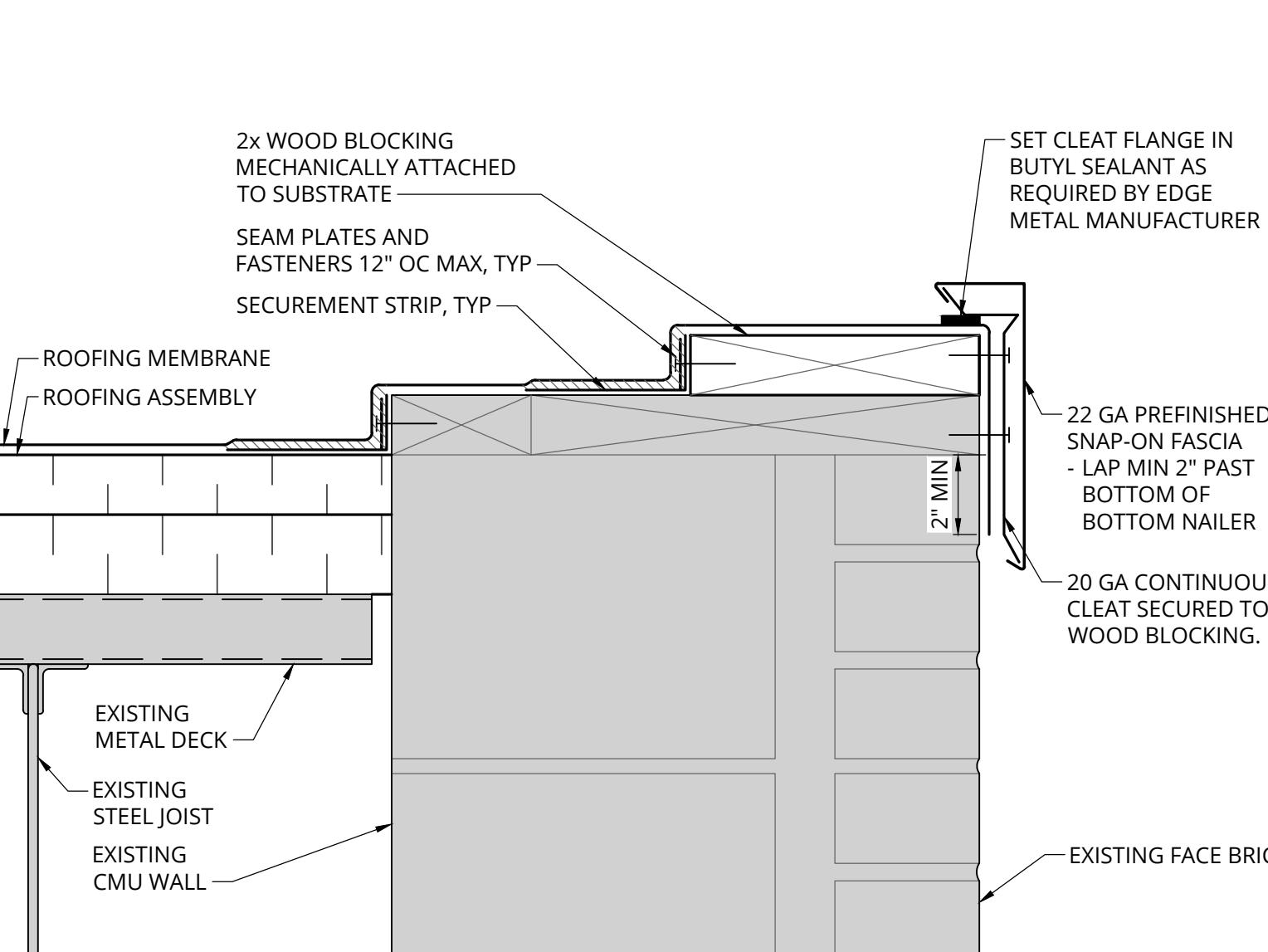




Project  
**2025 WATERFORD SCHOOL DISTRICT LUTES CAMPUS ROOFING REPLACEMENT**

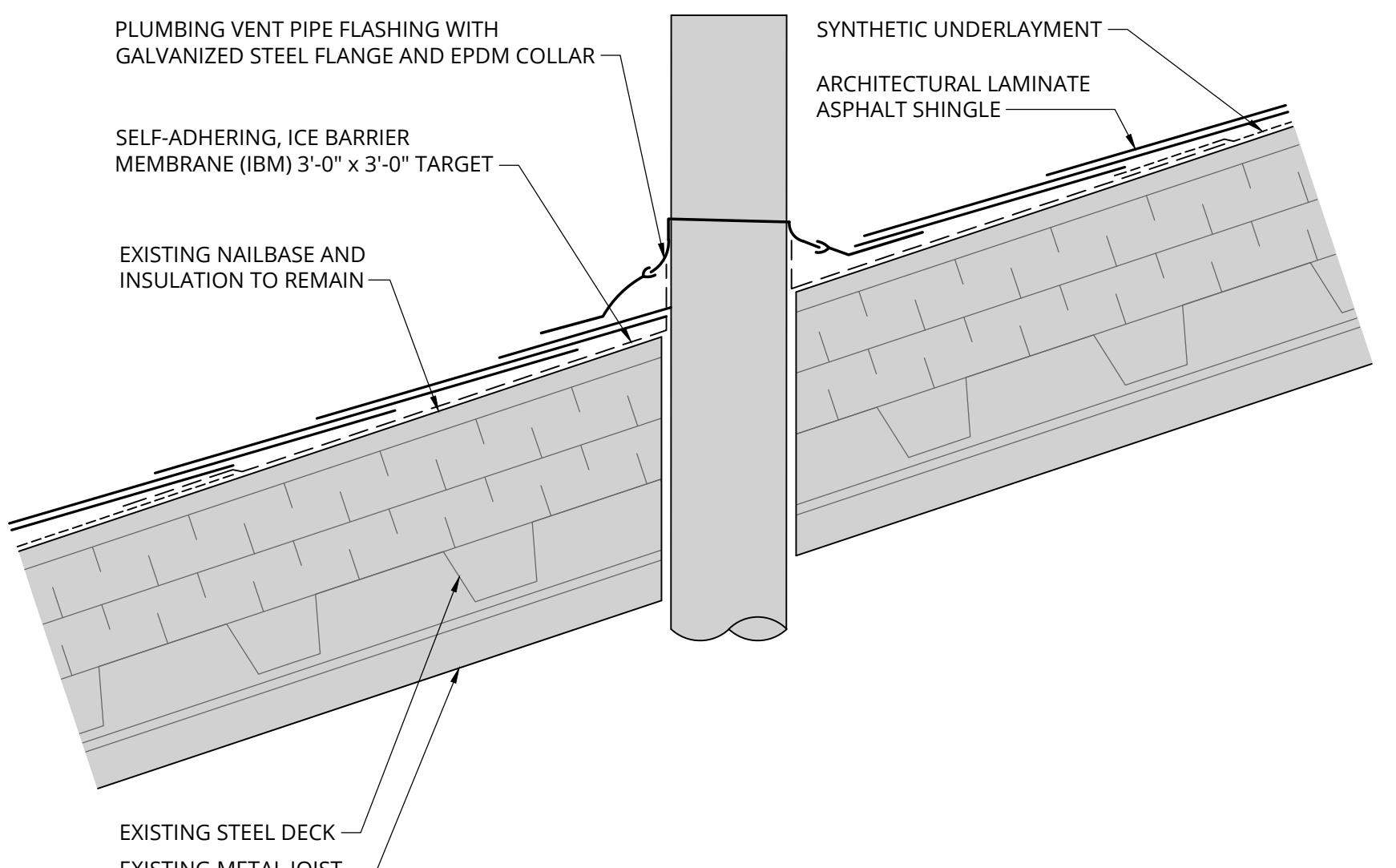
Project Location  
**5195 PONTIAC LAKE ROAD WATERFORD, MI 48327**

Engineer's Seal



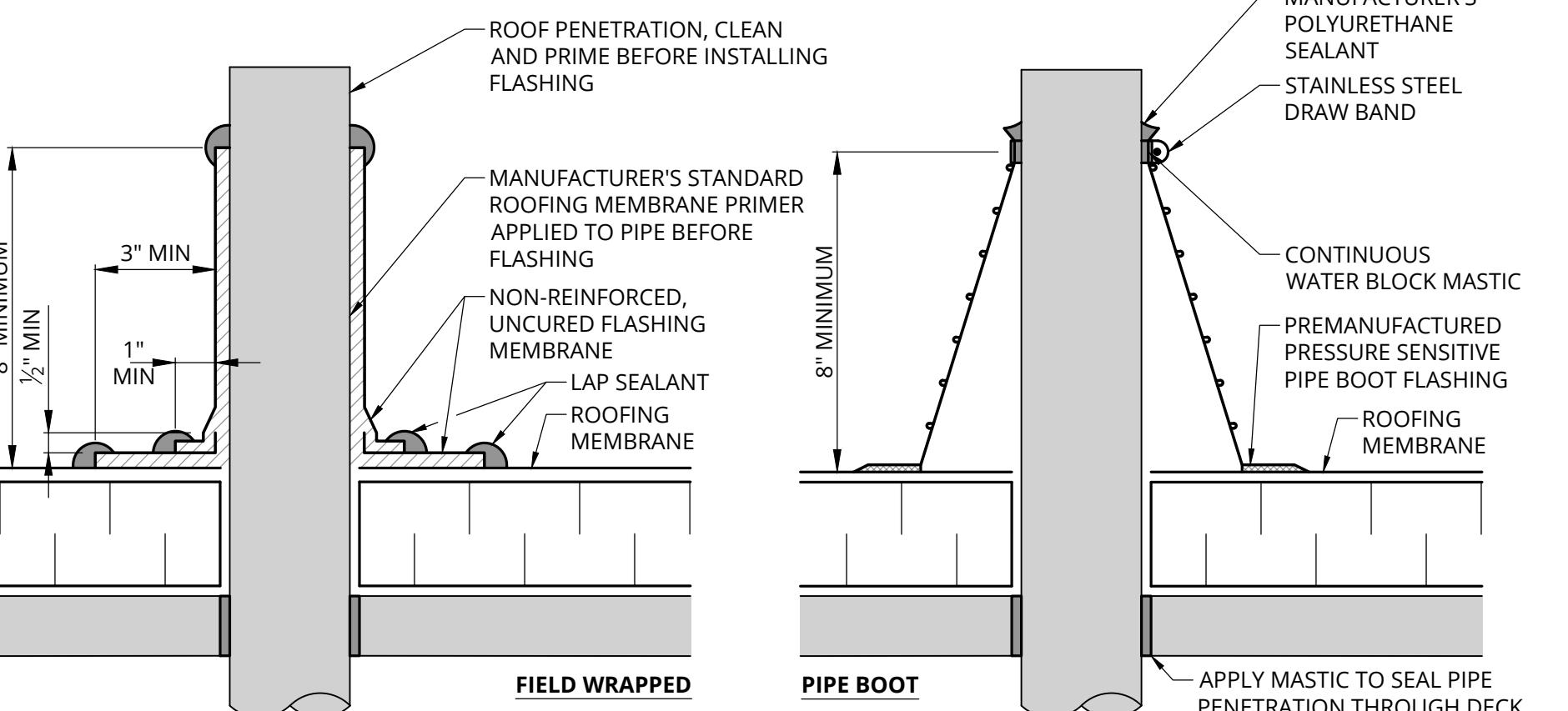
**21** ROOF AREA 3 FASCIA

SCALE: 3" = 1'-0"



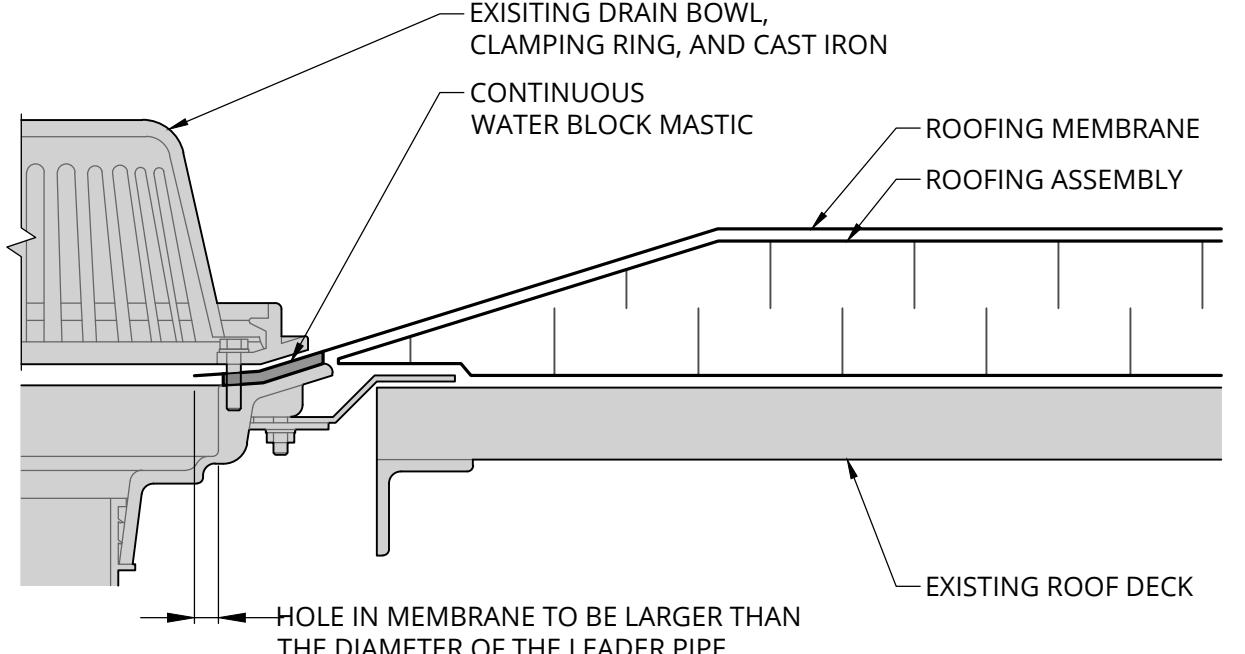
**18** PLUMBING VENT STACK

NOT TO SCALE



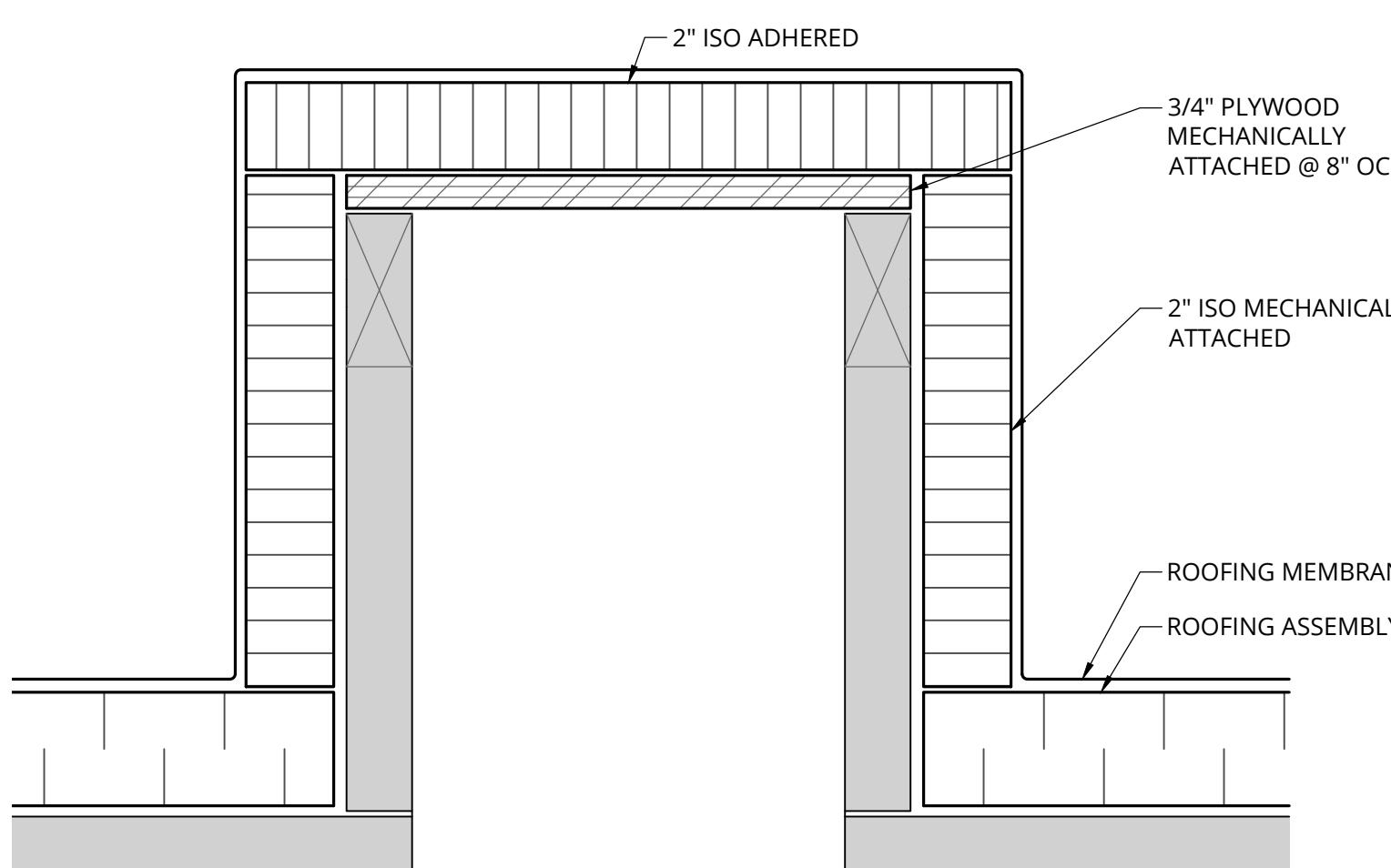
**15** ROUND PENETRATION FLASHING

NOT TO SCALE



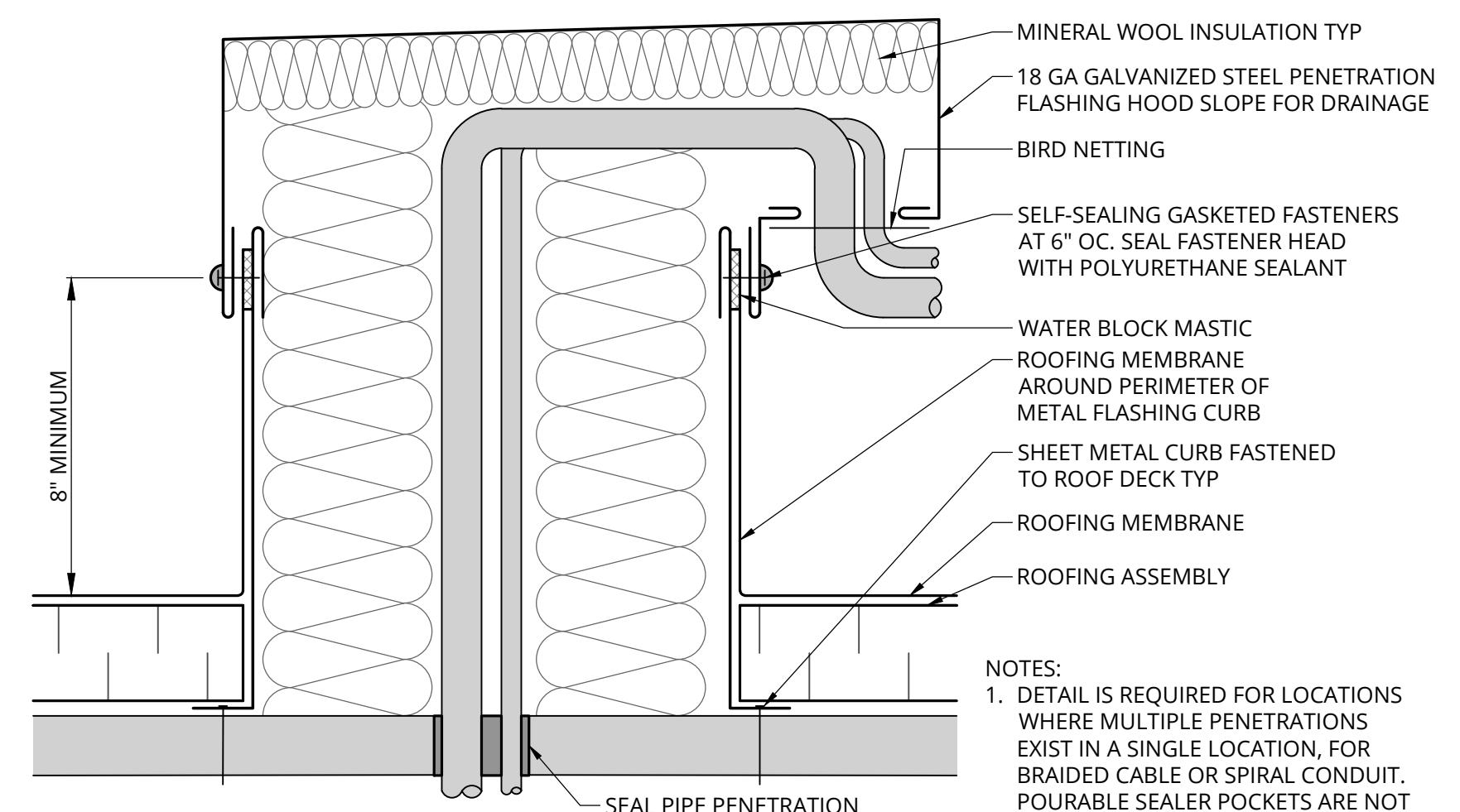
**14** ROOF DRAIN

NOT TO SCALE



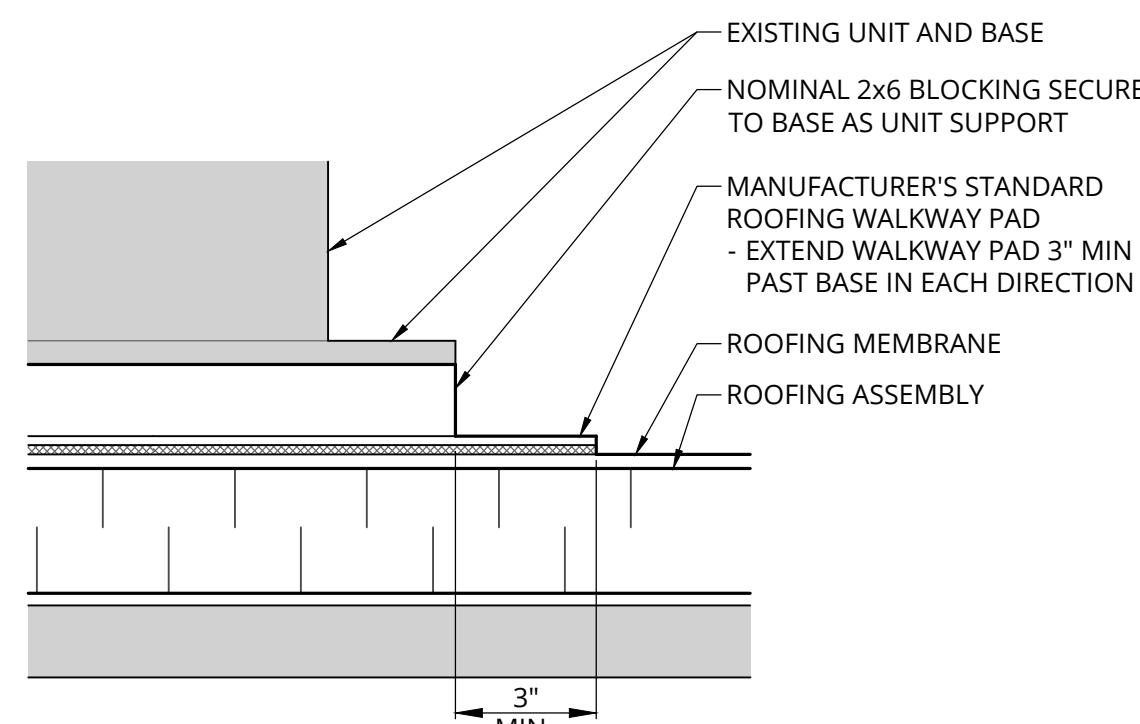
**20** CAPPED CURB FLASHING

NOT TO SCALE



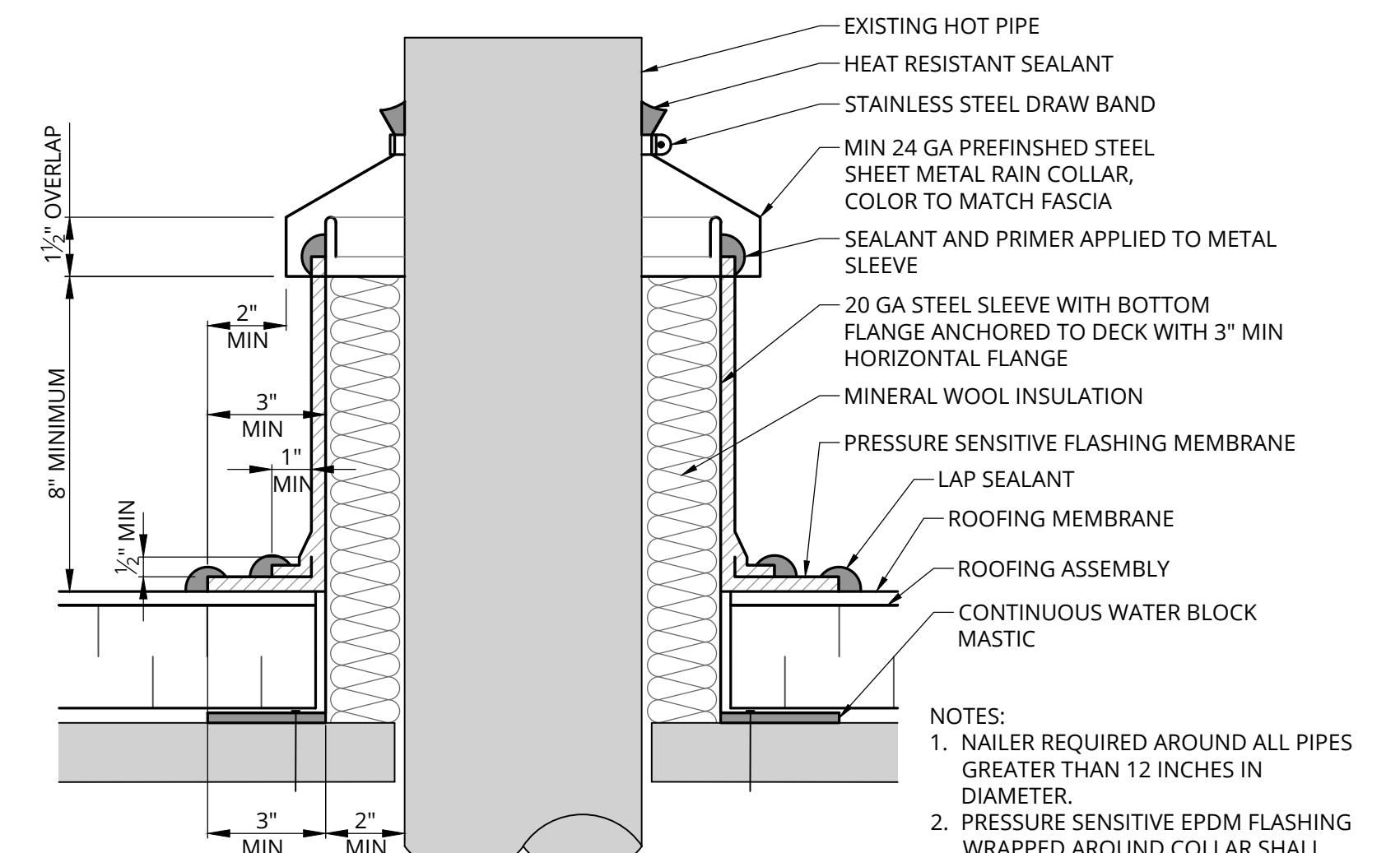
**17** MULTIPLE PENETRATION BOX WITH HOOD

NOT TO SCALE



**19** EXISTING UNIT ON WALKWAY PADS

NOT TO SCALE



**16** HOT PIPE FLASHING

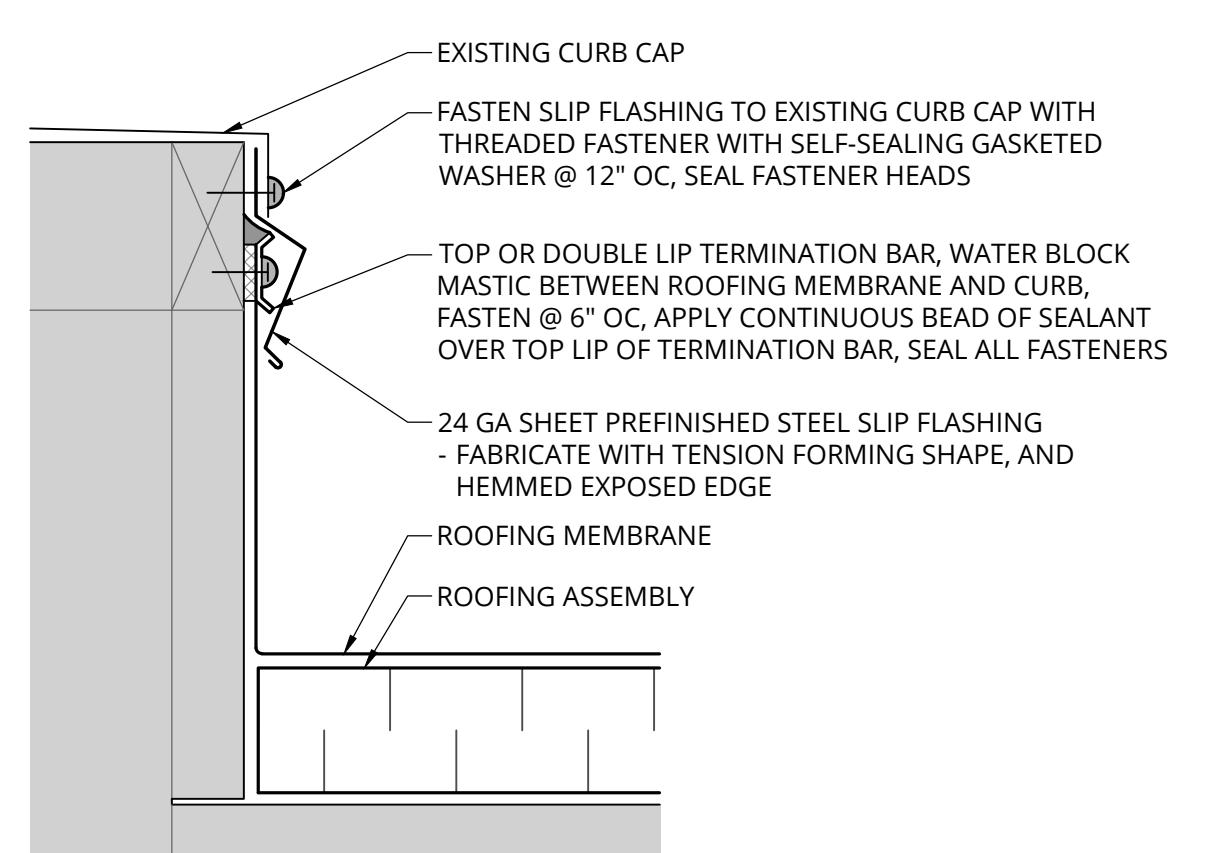
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NOTES:

1. NAILER REQUIRED AROUND ALL PIPES GREATER THAN 12 INCHES IN DIAMETER.
2. PRESSURE SENSITIVE EPDM FLASHING WRAPPED AROUND COLLAR SHALL HAVE 3 INCH MINIMUM SPLICE ONTO FIELD MEMBRANE.
3. TEMPERATURE OF METAL SLEEVE MUST NOT EXCEED 180° F.

**13** TYPICAL CURB CAP WITH SLIP FLASHING

NOT TO SCALE



**A5.3**