

2023 Waterford School District Kettering High School Roofing Replacement 2800 Kettering Drive Waterford Twp., Michigan 48329



Orientation	Scale
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Project
2023 WATERFORD SCHOOL DISTRICT
KETTERING HIGH SCHOOL
ROOFING REPLACEMENT

Project Location
2800 KETTERING DR.,
WATERFORD TWP., MI 48329

Sheet Name
COVER SHEET

Seal

REV	ISSUED FOR	DATE	BY
	FOR BID	3-9-23	KD

SME Project No.
090588.04

Project Manager:
KD

Designer:
KD

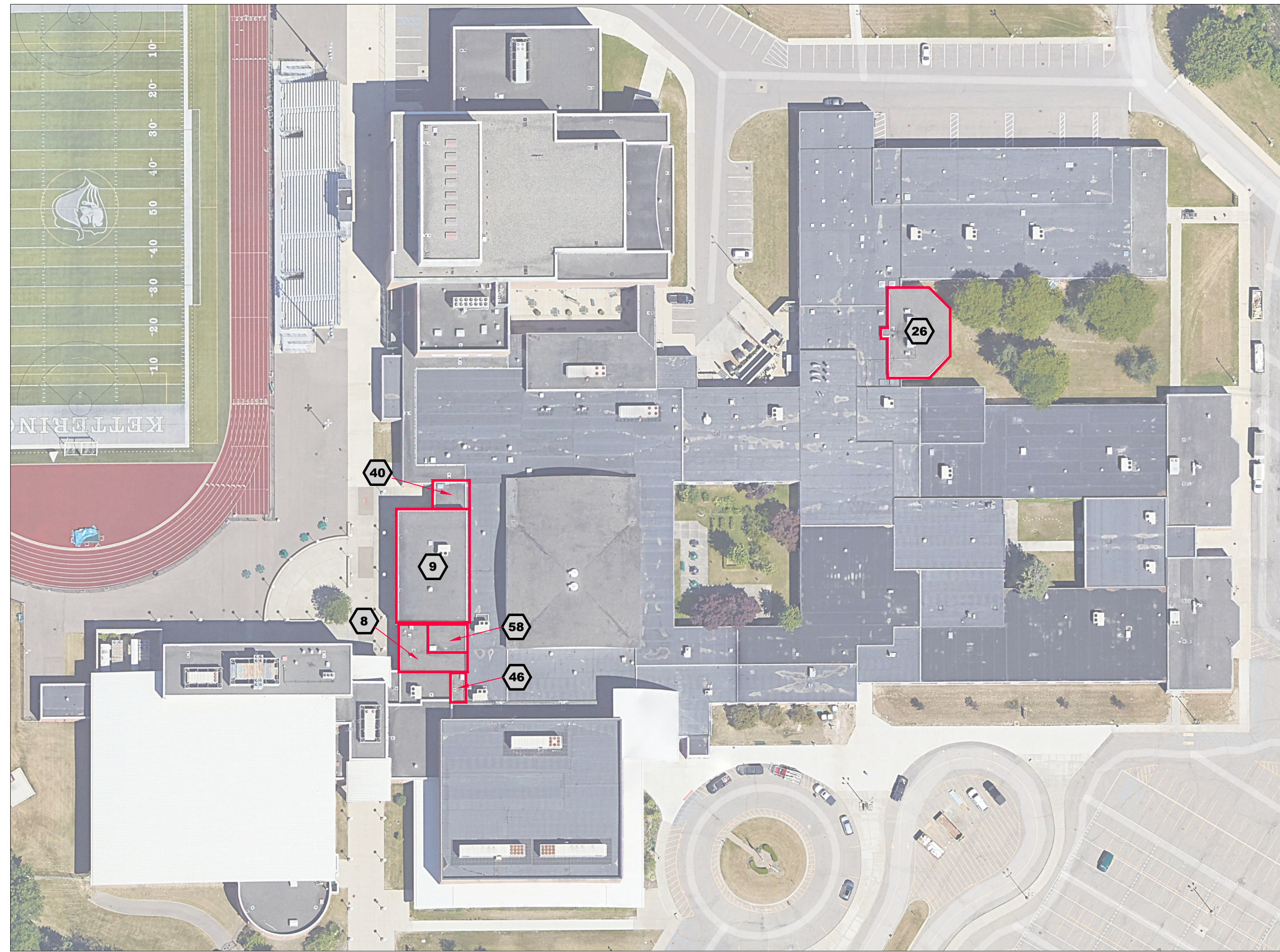
CADD:
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Checked By:
KD

Reviewed By:
LD

Sheet No.
GO.0

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OVERALL SITE AERIAL IMAGE
NOT TO SCALE



LOCATION MAP
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GENERAL NOTES

- THE BUILDING WILL REMAIN PARTIALLY OCCUPIED WITH THE OWNER'S SCHEDULED SUMMER MAINTENANCE, CONSTRUCTION AND ACADEMIC/ATHLETIC ACTIVITIES DURING THE COURSE OF THIS PROJECT. CLOSELY COORDINATE WORK WITH THE OWNER'S REPRESENTATIVE AND OTHER ACTIVITIES THAT MAY BE OCCURRING AT THE SITE.
- WHERE NOT INDICATED ON THE PROJECT DRAWINGS OR DESCRIBED IN THE SUMMARY OF WORK, PROVIDE THE MANUFACTURER'S STANDARD DETAILS. PROVIDE SPECIFIED CONTRACTOR'S SHOP DRAWINGS AND SPECIAL DETAILING REQUIREMENTS WITH THE PROJECT SUBMITTALS.
- PROVIDE NECESSARY TEMPORARY FENCING, BARRICADES, OR STRUCTURES AND OTHER SUCH MEASURES AS NEEDED TO PROTECT PEDESTRIAN AND VEHICLE TRAFFIC ADJACENT TO THE WORK AREA.
- PROVIDE TEMPORARY PROTECTION FOR EXTERIOR WALLS AND WINDOWS, ENTRANCES, LANDSCAPING AND PAVEMENTS. RESTORE DAMAGES CAUSED BY ROOFING OPERATIONS TO PRE-PROJECT CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
- IN ADDITION TO ITEM 4 ABOVE, PROVIDE TEMPORARY PROTECTION FOR ROOFING THAT WILL BE TRAFFICKED OVER, OR USED FOR STAGING PURPOSES, INCLUDING BOTH NEW AND OLD ROOF AREAS, TO REDUCE THE POTENTIAL FOR LEAKAGE. SECTIONS ADJACENT TO THE WORK AREAS NOT INCLUDED IN THIS PROJECT ARE TO BE PROTECTED DURING THE FLASHING TIE-INS. THE CONTRACTOR WILL BE HELD RESPONSIBLE TO REPAIR SECTIONS DAMAGED DURING THIS PROJECT.
- PROVIDE TEMPORARY ROOFING, TIE-INS, WATER BLOCKS, AND INTERIOR PROTECTION DURING THE ROOFING REPLACEMENT TO PREVENT LEAKAGE INTO THE BUILDING, AND WATER DAMAGE TO INTERIOR FURNISHINGS, FINISHES, STORED MATERIALS AND EQUIPMENT.
- SPREAD OUT STORED MATERIALS ON THE ROOF SO AS NOT TO OVERLOAD THE ROOF DECKS.
- STORE MATERIALS OFF THE GROUND ON PALLETS, AND COVERED WITH OPAQUE, BREATHABLE WATERPROOF TARPULINS TO PROTECT FROM UV EXPOSURE AND WET WEATHER.
- STORE CONTAINERS OF MATERIALS SENSITIVE TO HIGH TEMPERATURES IN THE SHADE, OR IN CLIMATE CONTROLLED LOCATIONS.
- STORAGE OF MATERIALS INSIDE THE BUILDING IS PROHIBITED UNLESS WRITTEN AUTHORIZATION IS RECEIVED FROM THE OWNER'S REPRESENTATIVE. NO STORAGE OF FLAMMABLE MATERIALS ON OR WITHIN THE BUILDING IS PERMITTED. HOIST FLAMMABLES TO THE GROUND AND EITHER SECURELY STORE OR REMOVE FROM THE SITE AT THE END OF EACH WORK DAY. STORE FLAMMABLE FLUIDS A MINIMUM 50 FEET AWAY FROM THE BUILDING WHEN NOT IN USE.
- REMOVE DEBRIS FROM THE ROOF AND GROUNDS DAILY AND DISPOSE IN A PROPER MANNER.
- PROMPTLY REPORT UNANTICIPATED CONDITIONS UNCOVERED DURING ROOFING REMOVAL AND REPLACEMENT THAT ARE CONTRARY TO THE PROJECT DOCUMENTS, OR WILL NEGATIVELY IMPACT THE NEW ROOFING SYSTEM, TO THE ENGINEER AND OWNER'S REPRESENTATIVE FOR REVIEW.
- VERIFY DIMENSIONS AND FIELD CONDITIONS BEFORE ORDERING MATERIALS. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING AND VERIFYING WORK ITEMS REQUIRED FOR A COMPLETE WORK PRODUCT. THE CONTRACTOR IS RESPONSIBLE TO REVIEW THE UNDERSIDE OF THE ROOF DECK FOR CONDUITS OF OTHER UTILITIES THAT MAY BE DAMAGED FROM THE ROOFING PROJECT.
- INSTALL NEW ROOFING IN COMPLIANCE WITH THE REQUIREMENTS AND RECOMMENDATIONS OF THE LATEST REVISED EDITION OF THE NRCA ROOFING AND WATERPROOFING MANUAL, AND THE ROOFING MANUFACTURER.
- PROVIDE SHEET METAL COMPONENTS THAT COMPLY WITH THE LATEST EDITION OF THE SMACNA ARCHITECTURAL SHEET METAL MANUAL. COPINGS AND PERIMETER EDGE FLASHINGS TO BE TESTED AND INSTALLED ANSI-SPRI ES-1 ASSEMBLIES.
- SUBMIT THE SPECIFIC ROOFING MANUFACTURER'S PRODUCT DATA SHEETS, INSTALLATION GUIDELINES AND CONSTRUCTION DETAILS, AND THE SHEET METAL MANUFACTURER'S PRODUCT DATA SHEETS AND INSTALLATION INSTRUCTIONS TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ORDERING ANY MATERIALS.
- PROVIDE LICENSED ELECTRICAL, PLUMBING, OR HVAC SUBCONTRACTORS TO DISCONNECT AND RECONNECT MECHANICAL UNITS, ADJUST OR RELOCATE UTILITIES, RAISE CURBS, ABANDON DESIGNATED CURBS, RAISE DUCTWORK, INSTALL NEW DRAINS OR SCUPPER COMPONENTS, AND ABANDON DESIGNATED DRAINS AND PIPING. IN-PLACE SYSTEMS SHALL ACCOMMODATE NEW INSULATION THICKNESSES AND MEET WARRANTY REQUIREMENTS FOR FLASH HEIGHT BY ROOFING MANUFACTURER. ALL MECHANICAL UNITS AND UTILITIES MUST BE OPERATIONAL AND DRAINS FREE FLOWING AT THE COMPLETION OF THE PROJECT. THIS INCLUDES CONDUITS DAMAGED BY SCREWS OR OTHER ITEMS THAT MAY DAMAGE UTILITIES. WORK TO BE COMPLETED IN ACCORDANCE WITH LOCAL CODES AND JURISDICTION(S) OF AUTHORITY. DO NOT SHUT OFF OR INHIBIT UTILITY SERVICES WITHOUT NOTIFYING OWNER'S REPRESENTATIVE IN ADVANCE.
- EXISTING DRAINS ARE TO BE REPLACED DOWN TO THE FIRST CONTINUOUS SECTION OF VERTICAL OR HORIZONTAL PIPING BENEATH THE DECK FOR ALL STANDARD DRAIN AND OVERFLOW DRAINS THAT ARE TO BE REMOVED AND REPLACED.
- NEW DRAIN LOCATIONS SHALL BE CONNECTED TO NEAREST ROOF STORM WATER PLUMBING SYSTEM.

LIST OF DRAWINGS

SHEET NO.	SHEET TITLE
G0.0	COVER SHEET
G1.0	ROOF AREA 26 WIND DESIGN LOADING / ZONE PLAN
G1.1	ROOF AREAS 9 AND 40 WIND DESIGN LOADING / ZONE PLAN
G1.2	ROOF AREAS 8, 46, AND 58 WIND DESIGN LOADING / ZONE PLAN
A1.0	ROOF PLAN AREA 26
A1.1	ROOF PLAN AREA 9 AND 40
A1.2	ROOF PLAN AREAS 8, 46, AND 58
A5.0	FLASHING DETAILS
A5.1	FLASHING DETAILS

ENGINEER

SME
43980 PLYMOUTH OAKS BLVD.
PLYMOUTH, MI 48170
(734) 454-9900
CONTACT: KYLE DAMEROW, EIT

OWNER / CLIENT

WATERFORD SCHOOL DISTRICT
501N. CASS LAKE ROAD
WATERFORD, MICHIGAN 48328
(248) 682-7800
OWNER REPRESENTATIVE: MR. JOHN KEGLOVITZ
WWW.WATERFORD.K12.MI.US

APPLICABLE CODES

2015 MICHIGAN BUILDING CODE

SCOPE OF WORK

BASE BID WORK:
WORK INCLUDES PROVIDING LABOR, MATERIALS, EQUIPMENT, AND ADMINISTRATION NECESSARY TO INTEGRATE A NEW ADHERED, BLACK REINFORCED 60-MIL EPDM SINGLE-PLY ROOFING MEMBRANE, WITH A 20-YEAR WARRANTY, INTO THE TOTAL BUILDING SYSTEM AS SHOWN ON THIS DRAWING SET.

ROOF AREAS:

- ROOF AREA 8 IS APPROXIMATELY 1,260 SQUARE FEET.
- ROOF AREA 9 IS APPROXIMATELY 4,505 SQUARE FEET.
- ROOF AREA 26 IS APPROXIMATELY 2,770 SQUARE FEET.
- ROOF AREA 40 IS APPROXIMATELY 495 SQUARE FEET.
- ROOF AREA 46 IS APPROXIMATELY 200 SQUARE FEET.
- ROOF AREA 58 IS APPROXIMATELY 640 SQUARE FEET.
- TOTAL ROOF AREA IS APPROXIMATELY 9,870 SQUARE FEET.

WORK TASKS INCLUDE:

- REMOVE THE EXISTING AGGREGATE SURFACED BUILT-UP ROOF (BUR) MEMBRANE AND INSULATION TO EXPOSE THE STRUCTURAL DECKS.
- REVIEW ROOFING SUBSTRATES AND REPAIR OR REPLACE DETERIORATED ROOF DECK, PARAPET WALLS AND NAILERS AS NEEDED BASED ON UNCOVERED CONDITIONS DURING SELECTIVE DEMOLITION.
- INSTALL SUBSTRATE BOARD AS DESCRIBED IN 01 10 00 SUMMARY OF WORK AND 07 53 23 ETHYLENE-PROPYLENE-DIENE-MONOMER (EPDM) ROOFING.
- INSTALL VAPOR RETARDER TO SUBSTRATE BOARD AS DESCRIBED IN 01 10 00 SUMMARY OF WORK AND 07 60 00 VAPOR RETARDERS.
- INSTALL POLYISOCYANURATE INSULATION AS DESCRIBED IN 01 10 00 SUMMARY OF WORK AND 07 53 23 ETHYLENE-PROPYLENE-DIENE-MONOMER (EPDM) ROOFING. INSULATION SYSTEM TO MEET R-30.
- INSTALL COVER BOARD AS DESCRIBED IN 01 10 00 SUMMARY OF WORK AND 07 53 23 ETHYLENE-PROPYLENE-DIENE-MONOMER (EPDM) ROOFING.
- INSTALL NEW METAL FLASHINGS AS SHOWN ON THE PROJECT DRAWINGS AND AS DESCRIBED IN 01 10 00 SUMMARY OF WORK AND 07 62 00 SHEET METAL FLASHING AND TRIM.
- WHERE MECHANICAL UNITS ARE LIFTED TO ALLOW ROOF REPLACEMENT, REINSTALL FASTENERS WITH INTEGRAL RUBBER GASKETS ON ALL SIDES OF THE UNIT.

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Orientation Scale

Project
**2023 WATERFORD SCHOOL DISTRICT
 KETTERING HIGH SCHOOL
 ROOFING REPLACEMENT**

Project Location
**2800 KETTERING DR.,
 WATERFORD TWP., MI 48329**

Sheet Name
**ROOF AREA 26
 WIND DESIGN LOADING /
 ZONE PLAN**

Seal

Revisions

REV	ISSUED FOR	DATE	BY
	FOR BID	3-9-23	KD

SME Project No.
090588.04

Project Manager:
KD

Designer:
KD

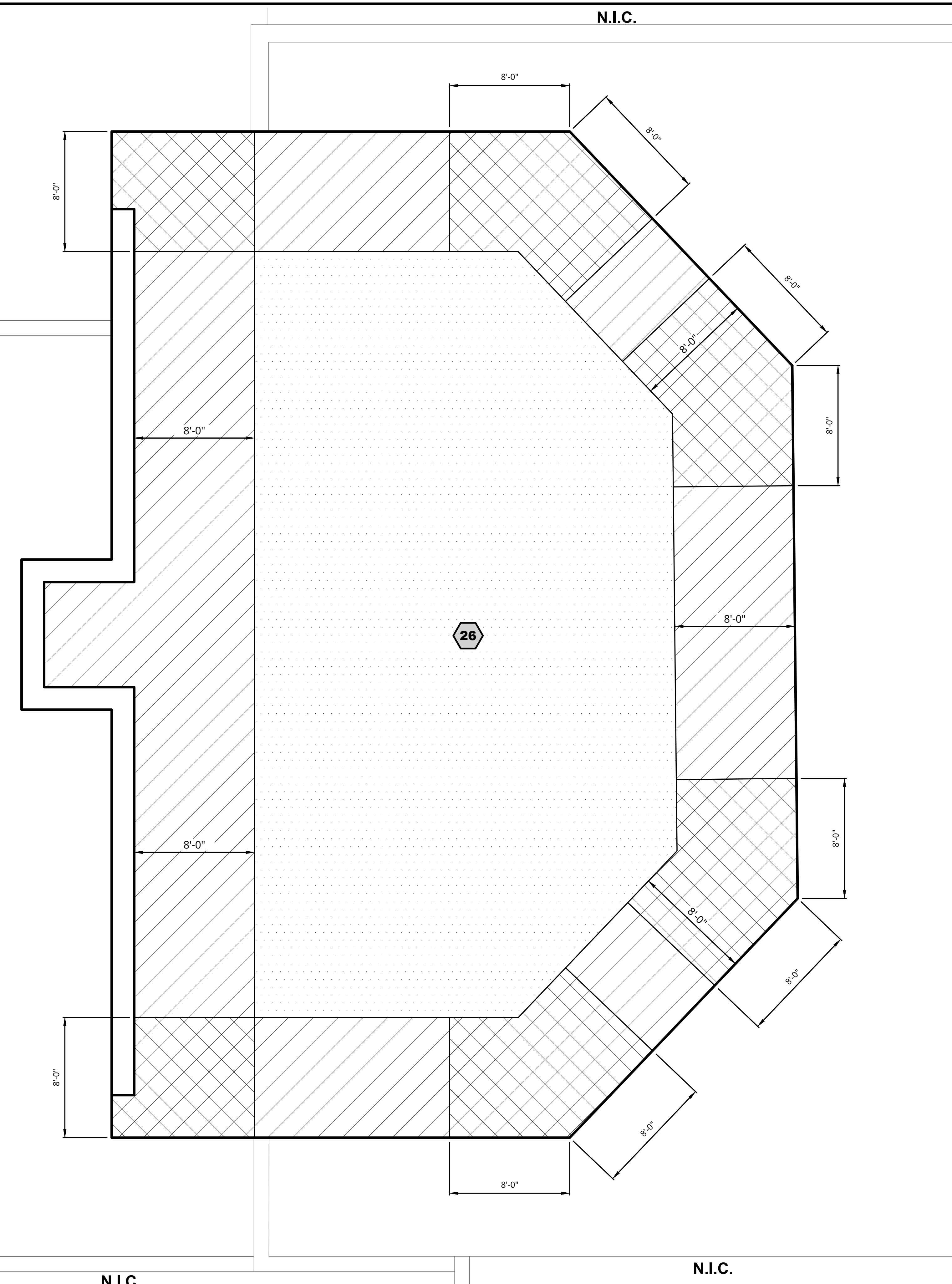
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Checked By:
KD

Reviewed By:
LD

Sheet No.
G1.0

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LEGEND

- ROOF AREA
- ZONE 1
- ZONE 2
- ZONE 3

WIND DESIGN CRITERIA (MBC 2015)
 KETTERING HIGH SCHOOL
 ULTIMATE DESIGN (FACTORED) BASIC WIND SPEED (3 SECOND GUST) = 120 MPH
 NOMINAL WIND SPEED = 93 MPH
 EXPOSURE CATEGORY = C
 RISK CLASSIFICATION = III
 INTERNAL PRESSURE COEFFICIENT (ENCLOSED BUILDING) = +/- 0.18

TABLE 1
 SERVICE (UNFACTORED) DESIGN WIND LOADS - COMPONENTS AND CLADDING

ROOF SURFACE VERTICAL PRESSURE (PSF)	
ZONE 1	- 21
ZONE 2 AND TOP/SIDE OF PARAPET	- 36
ZONE 3 AND TOP/SIDE OF PARAPET	- 53

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

- 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 10FT² OR LESS.

N.I.C.

N.I.C.

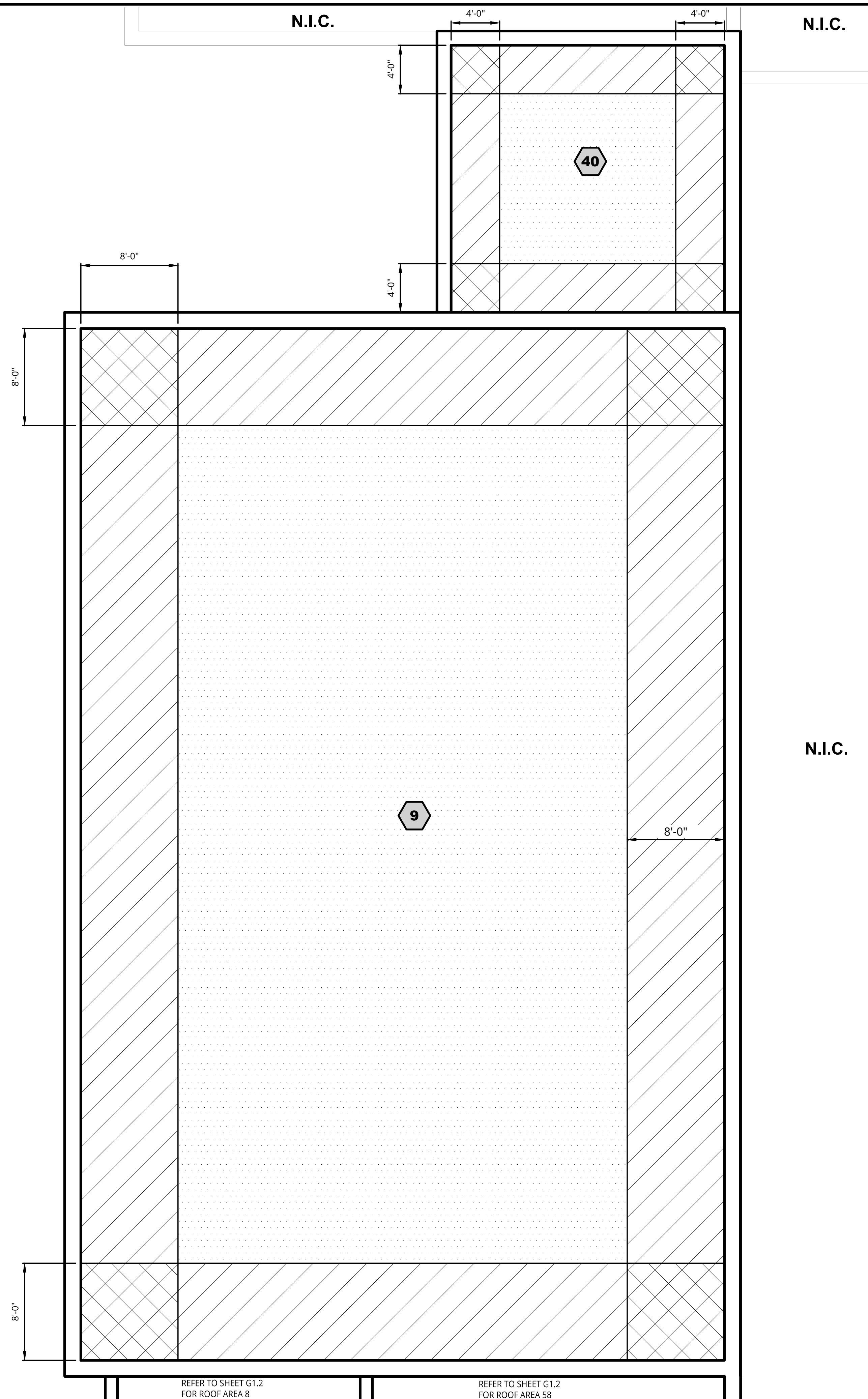
N.I.C.

N.I.C.

**ROOF AREA 26
 WIND DESIGN LOADING / ZONE PLAN**
 SCALE: 1/4" = 1'-0"

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Mar 07, 2023 - 2:42pm - gus.lurd@... FILE LOCATION: \\sme-hcp\p\WP\090588.04\CAD\Design Files\MAT\Rev1\FB\090588.04-WIND UPLIFT.dwg



LEGEND

- ROOF AREA
- ZONE 1
- ZONE 2
- ZONE 3

WIND DESIGN CRITERIA (MBC 2015)

KETTERING HIGH SCHOOL
 ULTIMATE DESIGN (FACTORED) BASIC WIND SPEED (3 SECOND GUST) = 120 MPH
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 3. DESIGN PRESSURES BASED ON EFFECTIVE WIND AREA OF 10FT² OR LESS.

REFER TO SHEET G1.2 FOR ROOF AREA 8 REFER TO SHEET G1.2 FOR ROOF AREA 58

ROOF AREAS 9 AND 40
WIND DESIGN LOADING / ZONE PLAN
 SCALE: 3/16" = 1'-0"

ISSUED FOR BID



Orientation	Scale
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Project
 2023 WATERFORD SCHOOL DISTRICT
 KETTERING HIGH SCHOOL
 ROOFING REPLACEMENT

Project Location
 2800 KETTERING DR.,
 WATERFORD TWP., MI 48329

Sheet Name
 ROOF AREAS 9 AND 40
 WIND DESIGN LOADING /
 ZONE PLAN

Seal

Revisions

REV	ISSUED FOR	DATE	BY
	FOR BID	3-9-23	KD

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Project Manager:
KD

Designer:
KD

CADD:
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KD

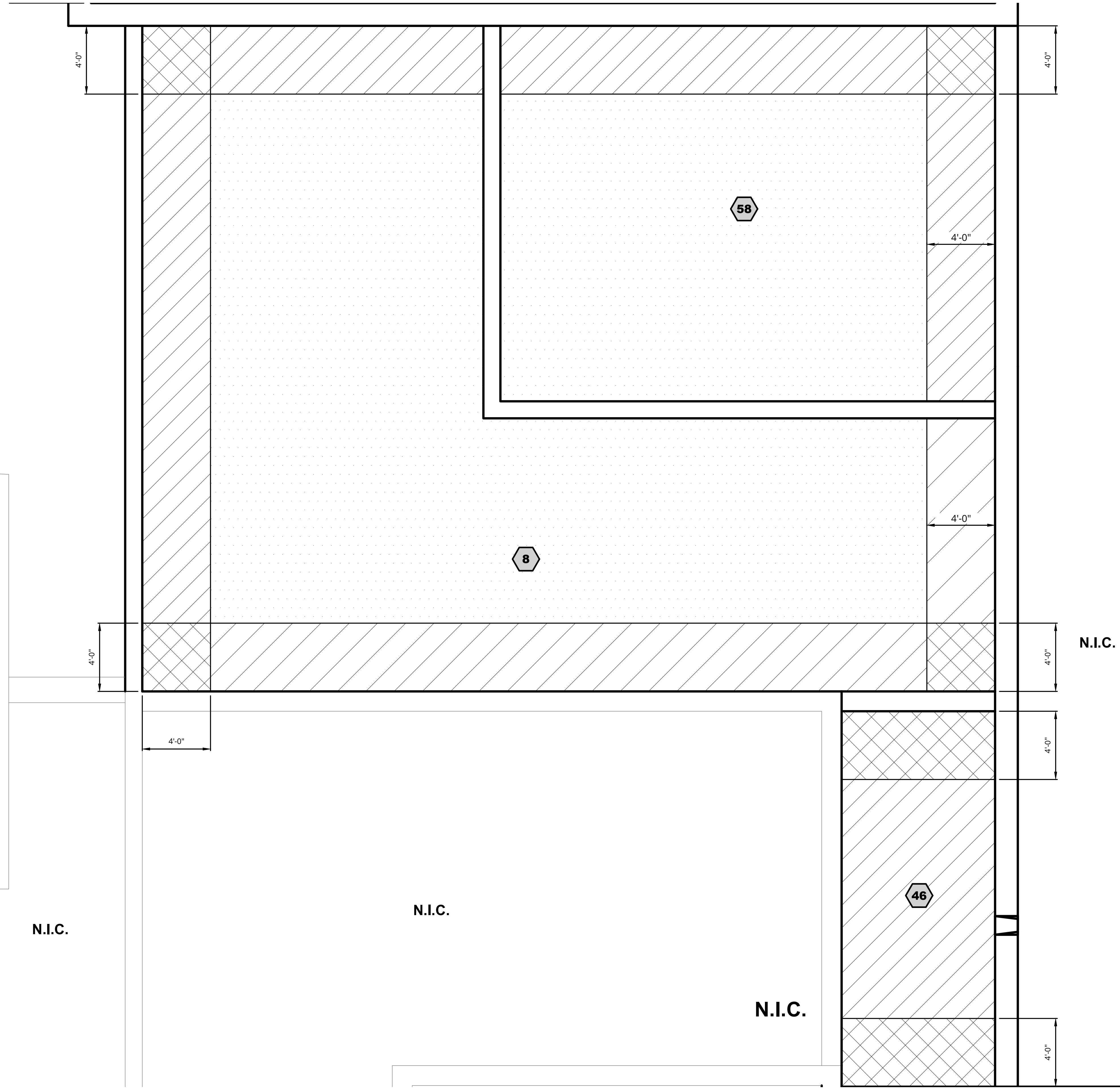
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G1.1

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REFER TO SHEET G1.1
FOR ROOF AREA 9



**ROOF AREAS 8, 46, AND 58
WIND DESIGN LOADING / ZONE PLAN**

SCALE: 5/16" = 1'-0"

REFER TO SHEET G1.3
FOR ROOF AREA 10

LEGEND

- ROOF AREA
- ZONE 1
- ZONE 2
- ZONE 3

WIND DESIGN CRITERIA (MBC 2015)

KETTERING HIGH SCHOOL
 ULTIMATE DESIGN (FACTORED) BASIC WIND SPEED (3 SECOND GUST) = 120 MPH
 NOMINAL WIND SPEED = 93 MPH
 EXPOSURE CATEGORY = C
 RISK CLASSIFICATION = III
 INTERNAL PRESSURE COEFFICIENT (ENCLOSED BUILDING) = +/- 0.18

TABLE 1

SERVICE (UNFACTORED) DESIGN WIND LOADS - COMPONENTS AND CLADDING

ROOF SURFACE VERTICAL PRESSURE (PSF)	
ZONE 1	- 21
ZONE 2 AND TOP/SIDE OF PARAPET	- 36
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NOTE:
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- 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 10FT² OR LESS.



Orientation Scale

Project
**2023 WATERFORD SCHOOL DISTRICT
 KETTERING HIGH SCHOOL
 ROOFING REPLACEMENT**

Project Location
**2800 KETTERING DR.,
 WATERFORD TWP., MI 48329**

Sheet Name
**ROOF AREAS 8, 46, AND 58
 WIND DESIGN LOADING /
 ZONE PLAN**

Seal

Revisions

REV	ISSUED FOR	DATE	BY
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SME Project No.
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Project Manager:
KD

Designer:
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KD

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LD

Sheet No.
G1.2

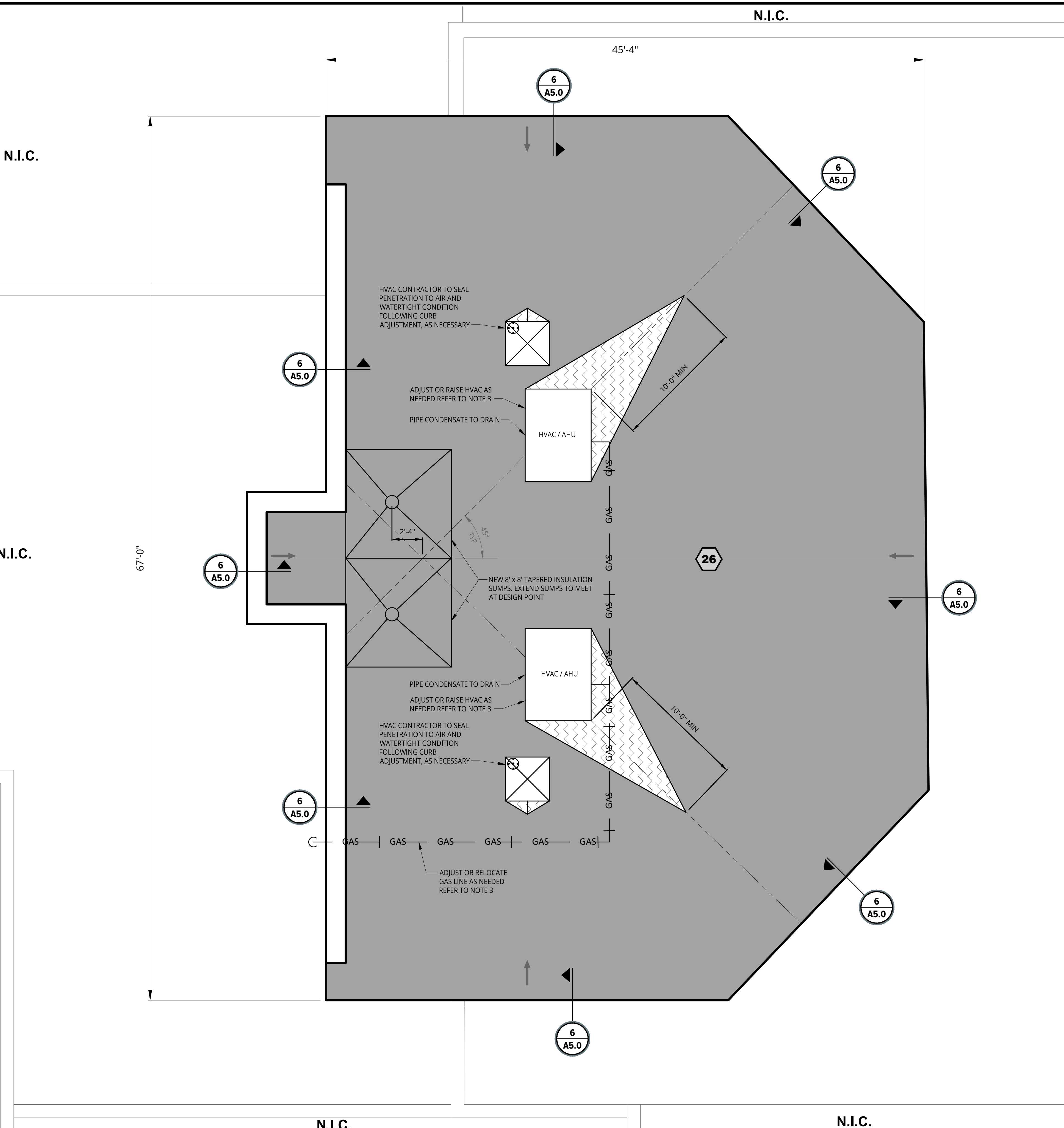
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Revisions

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LEGEND

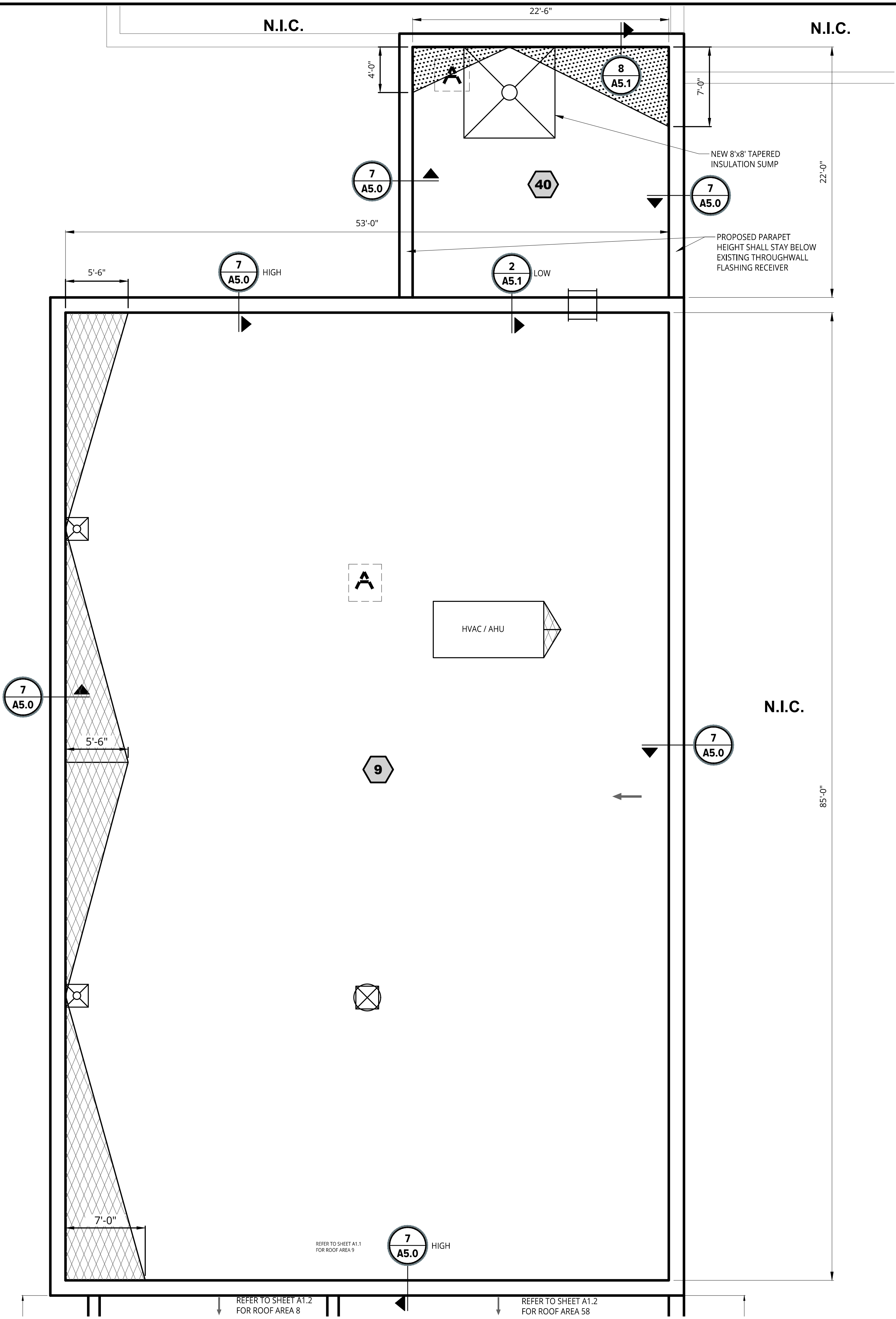
- ROOF AREA
- EXISTING ROOF DRAIN WITH SUMP, PER DETAIL 1 ON SHEET A5.0
- EXISTING CONDENSING UNIT ON CURB, PER DETAIL 4 ON SHEET A5.0
- HVAC / AHU ON CURB, PER DETAIL 5 ON SHEET A5.0
- WATER SHED DIRECTION
- N.I.C.** ROOF AREA NOT IN CONTRACT
- ACTIVE GAS PIPE TO REMAIN, PER DETAIL 3 ON SHEET A5.0
- 1/2" PER FOOT TAPERED SADDLE
- 3/8" PER FOOT TAPERED SYSTEM
- VALLEY LINE
- DETAIL CALL OUT

- KETTERING HIGH SCHOOL NOTES:
- FIELD VERIFY ALL DIMENSIONS.
 - PROVIDE LICENSED ELECTRICAL, PLUMBING, OR HVAC SUBCONTRACTORS TO ADJUST OR RELOCATE UTILITIES. IN-PLACE SYSTEMS SHALL ACCOMMODATE NEW INSULATION THICKNESSES AND MEET WARRANTY REQUIREMENTS FOR FLASH HEIGHT BY ROOFING MANUFACTURER.
 - IF LARGE HVAC / AHU UNITS NEED RAISED, CONTRACTOR SHALL PROVIDE AN ENGINEERED DETAIL FOR NEW RAISED HVAC / AHU SUPPORT(S) (SIGNED AND STAMPED BY AN ENGINEER LICENSED IN THE STATE OF MICHIGAN). DETAIL TO BE PROVIDED TO SME (ENGINEER) FOR REVIEW AND SUBSEQUENT APPROVAL PRIOR TO INSTALLATION.

Mar 07, 2023 - 2:45pm - gus.lund@... FILE LOCATION: \\name-hpc\p\W\090588.04\CAD\Design Files\MAT\Rev1\FB\090588.04-ROOF PLAN.dwg

Revisions

REV	ISSUED FOR	DATE	BY
	FOR BID	3-9-23	KD



LEGEND

	ROOF AREA
	EXISTING ROOF DRAIN, PER DETAIL 1 ON SHEET A5.0
	CURBED MOUNT POWERED VENT (24"x24"), PER DETAIL 4 ON SHEET A5.0
	EXISTING LADDER MOUNTED TO WALL
	ABANDONED CURB, VERIFY ABANDONMENT WITH OWNERS REPRESENTATIVE. REFER TO NOTE 2
	HVAC / AHU ON CURB, PER DETAIL 5 ON SHEET A5.0
	WATER SHED DIRECTION
	ROOF AREA NOT IN CONTRACT
	1" PER FOOT TAPERED SADDLE
	1/2" PER FOOT TAPERED SADDLE
	DETAIL CALL OUT

KETTERING HIGH SCHOOL NOTES:

- FIELD VERIFY ALL DIMENSIONS.
- AT ABANDONED UNITS AND CURBS, CONTRACTOR SHALL PROVIDE AN ENGINEERED DETAIL FOR STEEL DECK INFILL (SIGNED AND STAMPED BY AN ENGINEER LICENSED IN THE STATE OF MICHIGAN). DETAIL TO BE PROVIDED TO SME (ENGINEER) FOR REVIEW AND SUBSEQUENT APPROVAL PRIOR TO INSTALLATION.

ROOF PLAN AREAS 9 AND 40
SCALE: 3/16" = 1'-0"

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Orientation	Scale
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Project
2023 WATERFORD SCHOOL DISTRICT KETTERING HIGH SCHOOL ROOFING REPLACEMENT

Project Location
2800 KETTERING DR., WATERFORD TWP., MI 48329

Sheet Name
FLASHING DETAILS

Seal

Revisions

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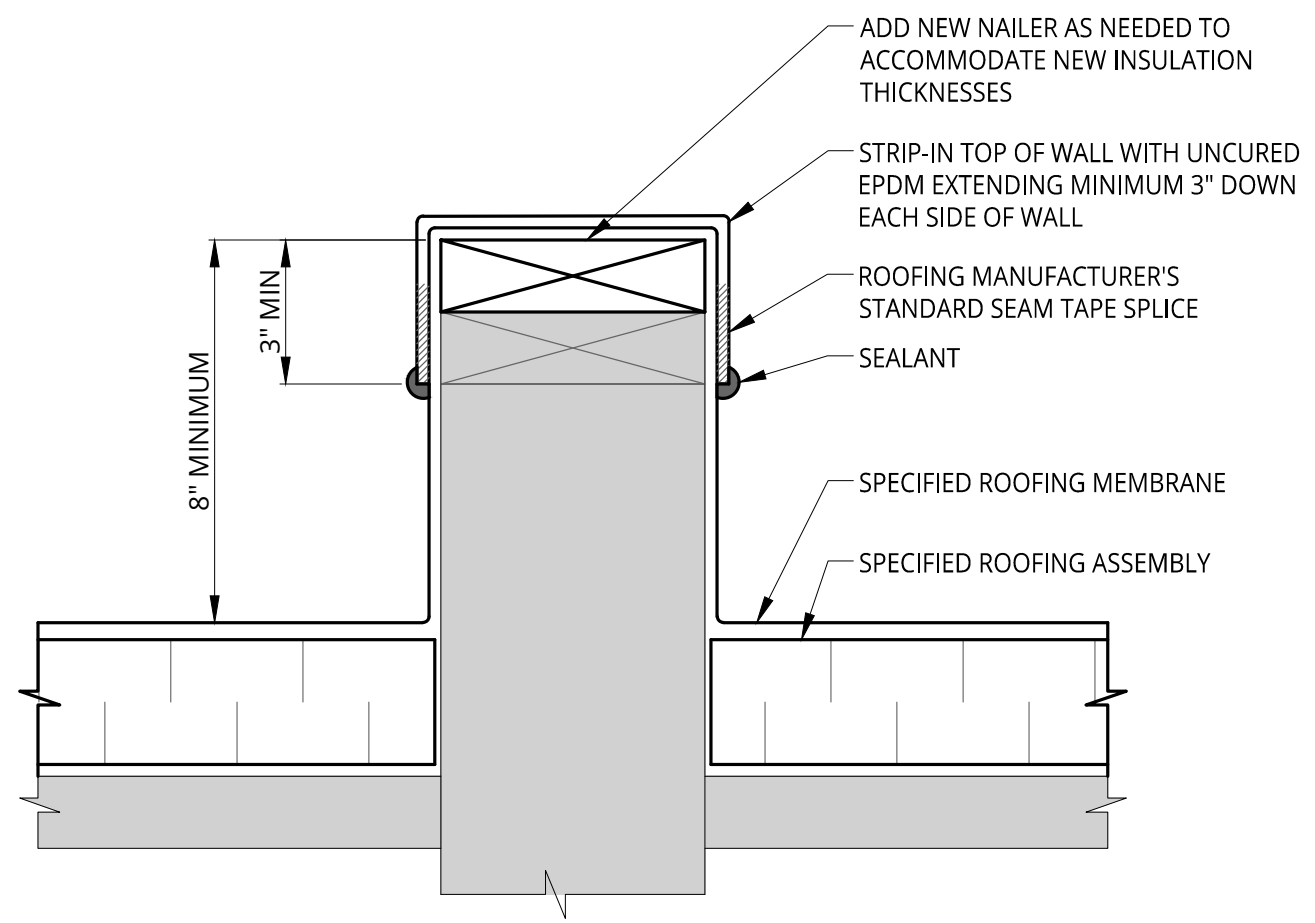
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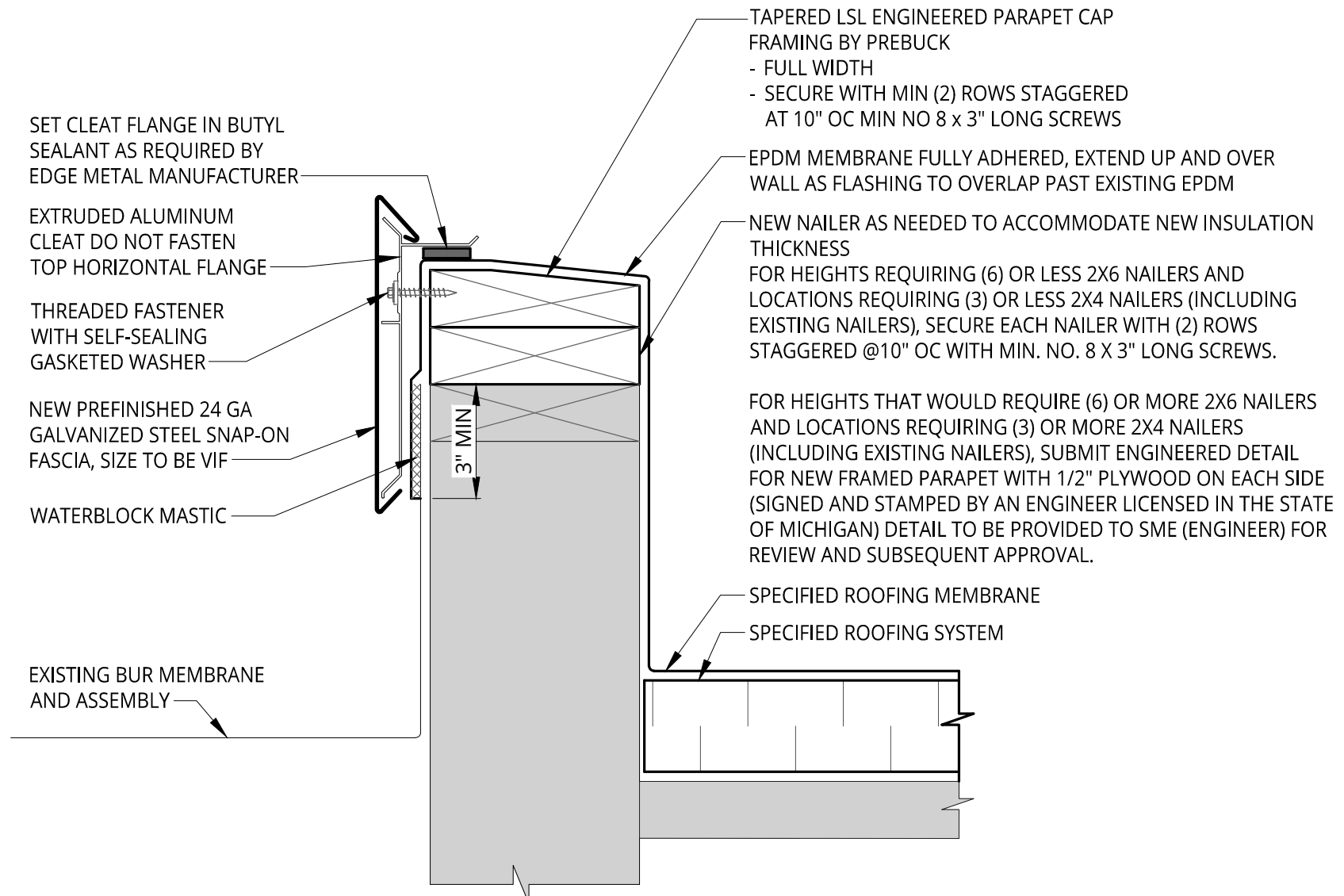
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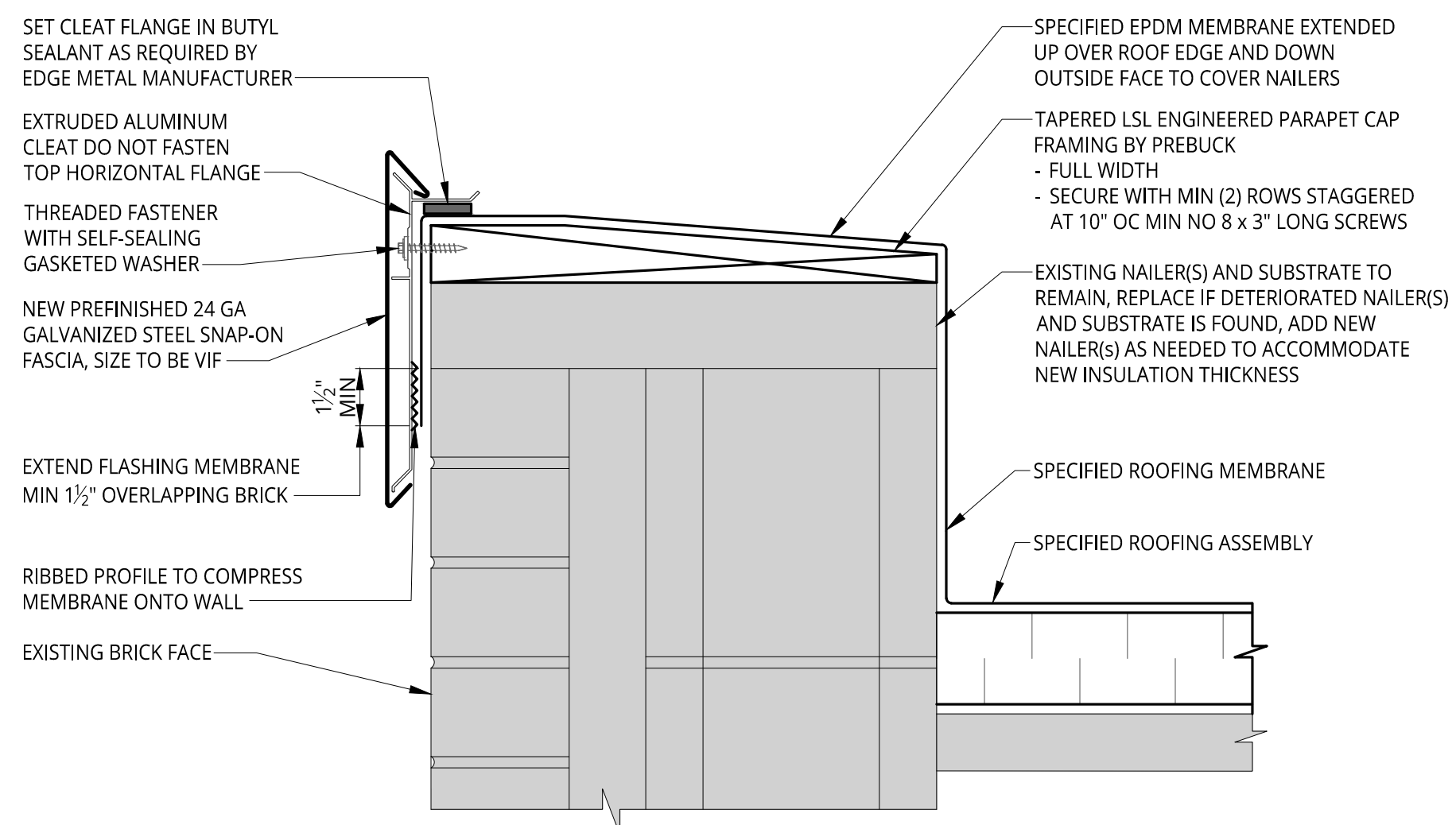
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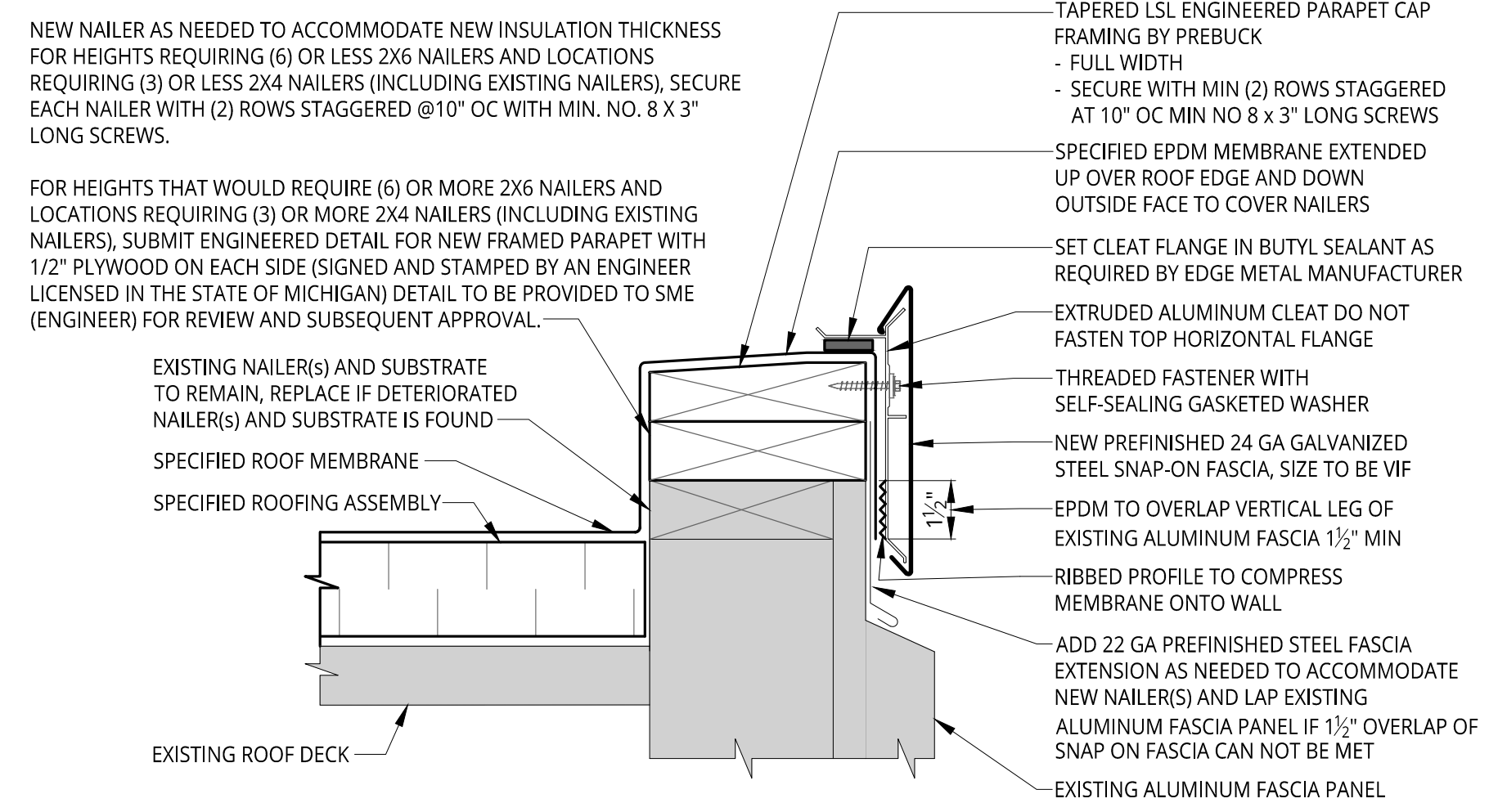
9 KNEE WALL FLASHING
A1.0 NOT TO SCALE



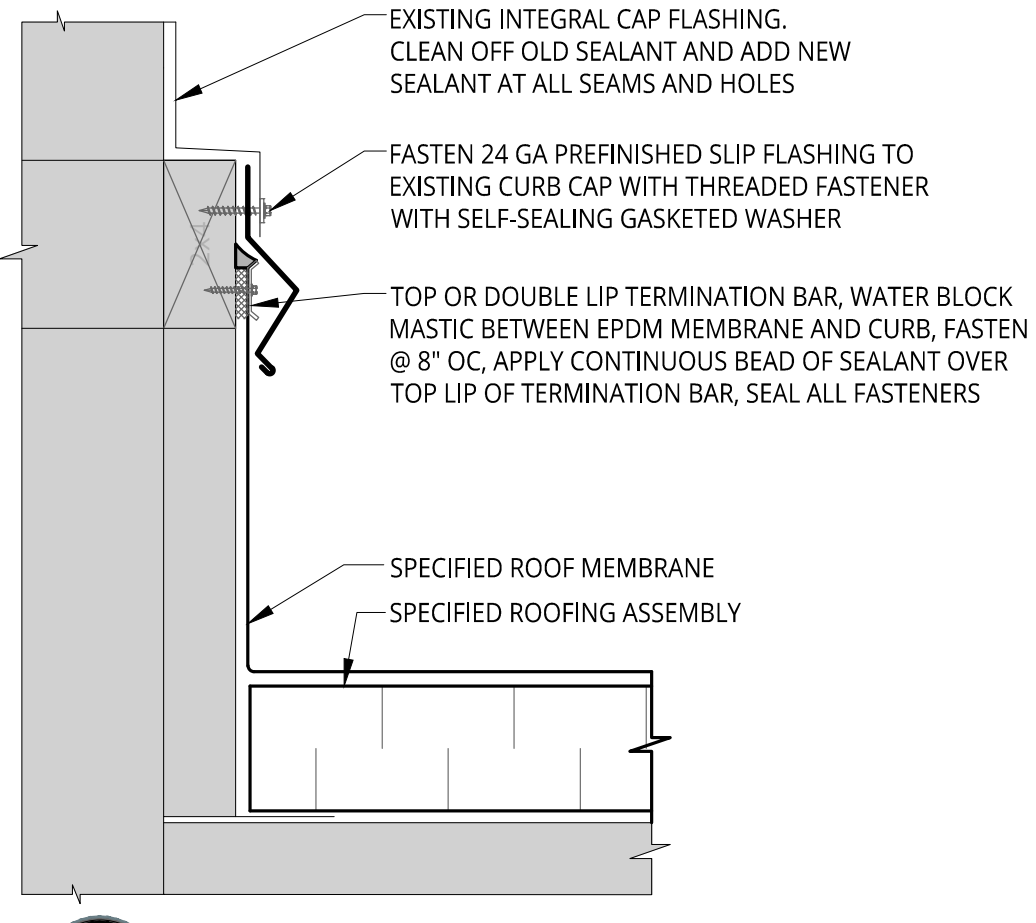
8 KNEE WALL FLASHING
A1.0 NOT TO SCALE
NOTE: 0.040 PREFINISHED ALUMINUM MAY BE USED INSTEAD OF PREFINISHED 24 GA GALVANIZED STEEL



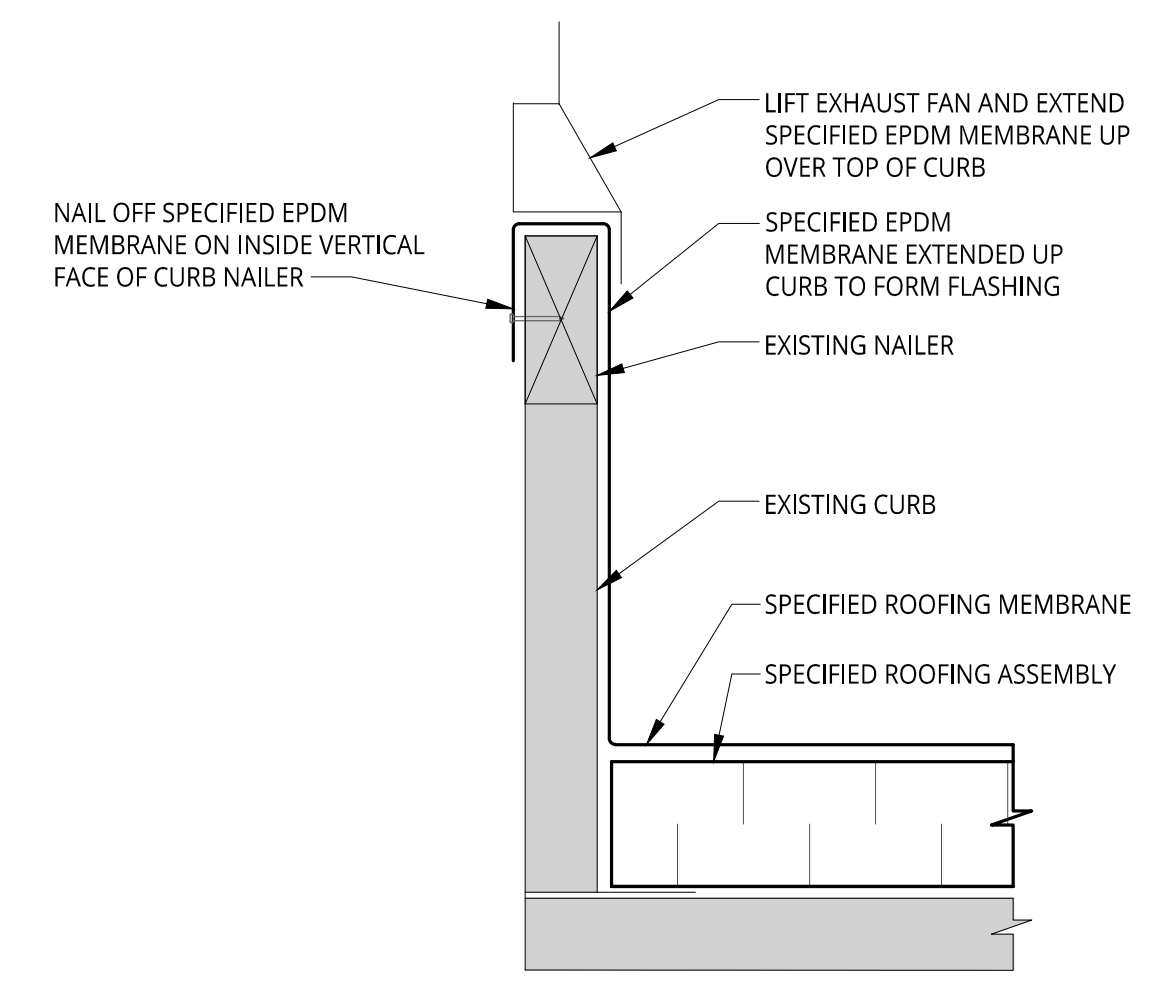
7 PERIMETER EDGE METAL FLASHING
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NOTE: 0.040 PREFINISHED ALUMINUM MAY BE USED INSTEAD OF PREFINISHED 24 GA GALVANIZED STEEL



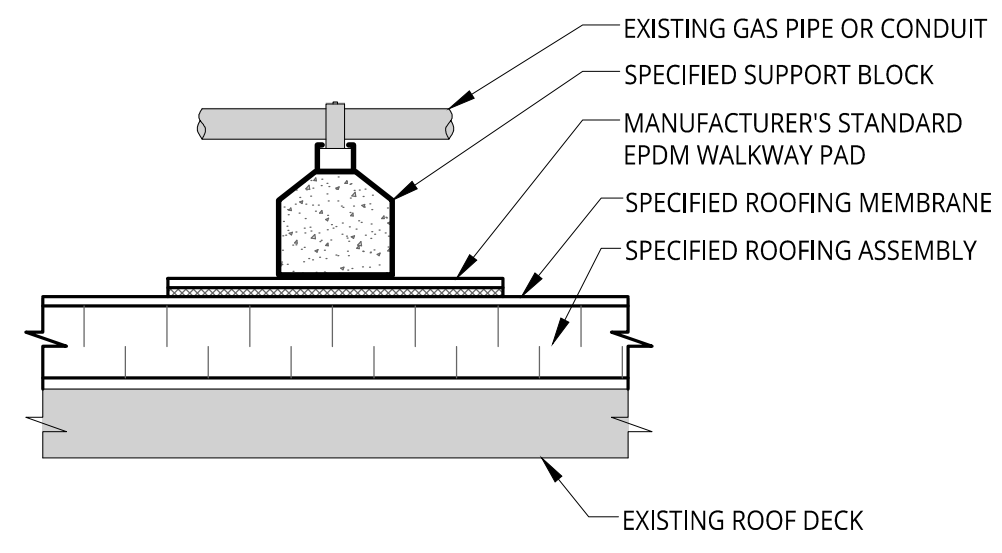
6 FASCIA AT METAL PANEL
A1.0 NOT TO SCALE



5 TYPICAL CURB WITH SLIP FLASHING
A1.0 NOT TO SCALE

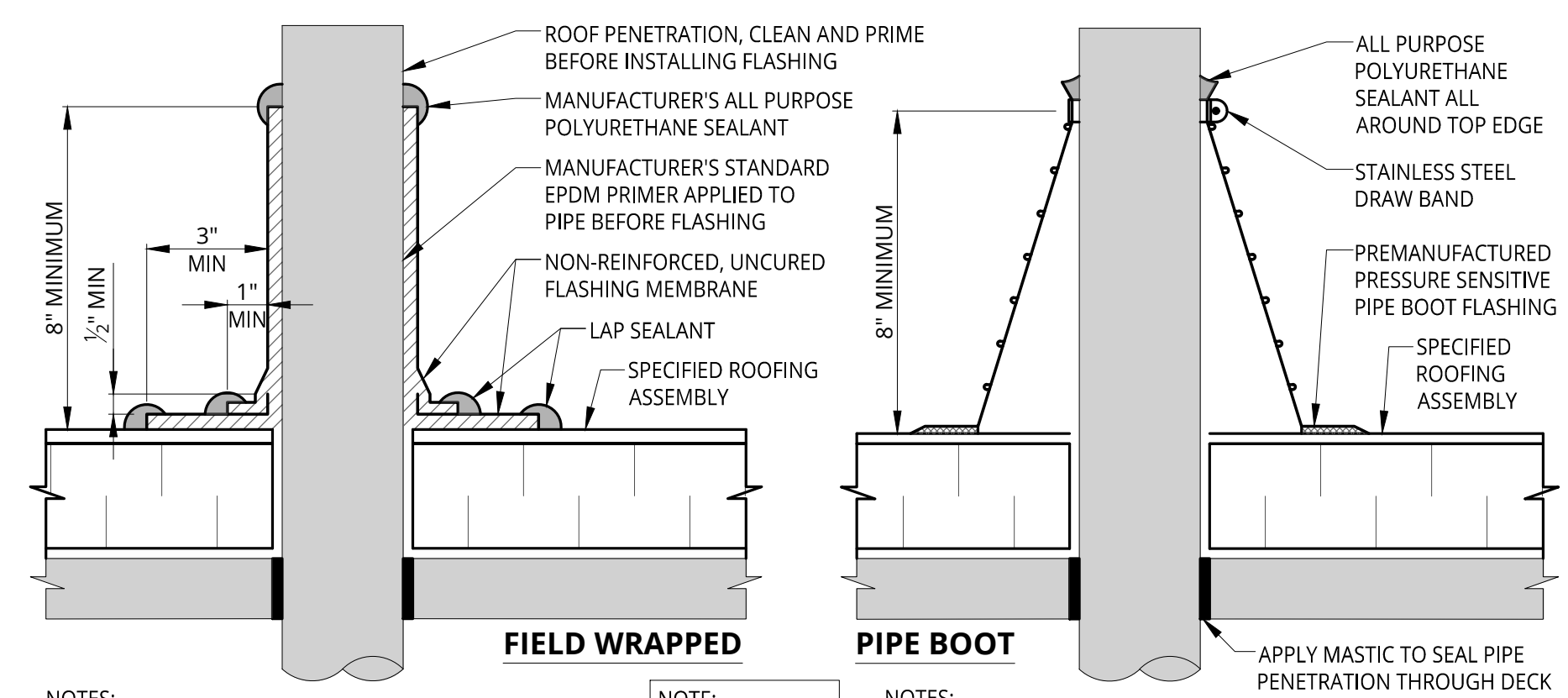


4 TYPICAL CURB UP AND OVER FLASHING
A1.0 NOT TO SCALE



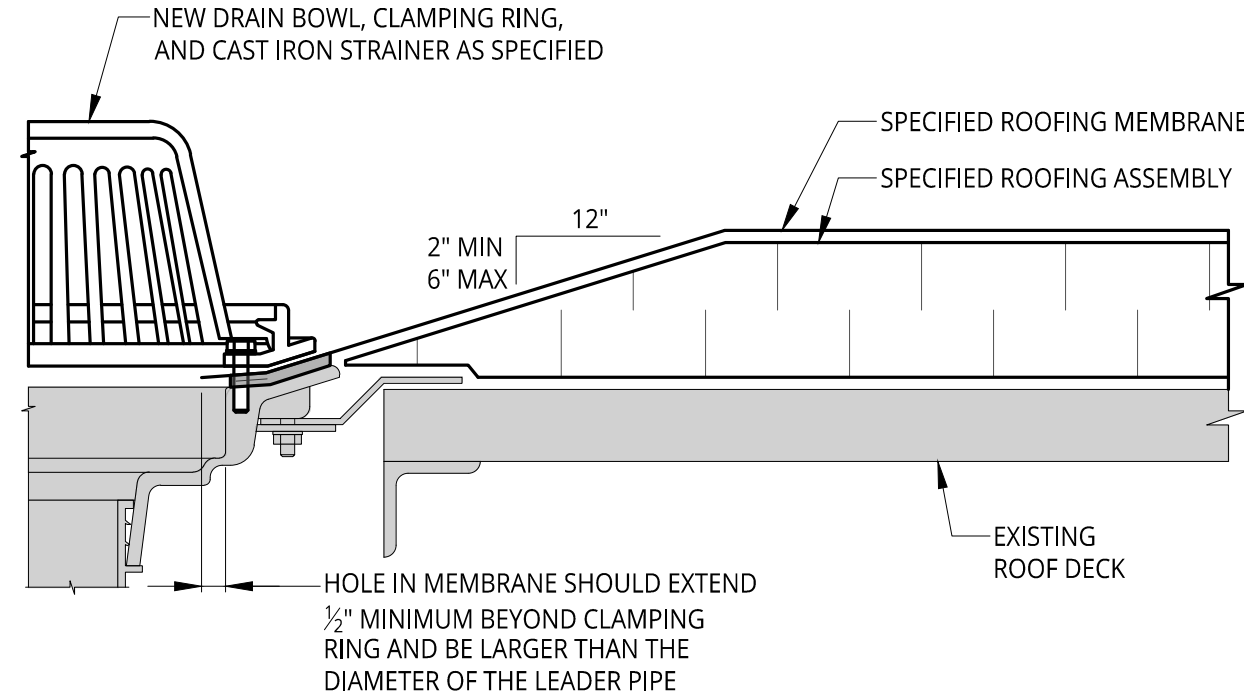
- NOTES:**
- EQUIPMENT SUPPORTS OVER WALKWAY PADS MAY VARY BASED ON USE. SEVERAL WALKWAY PADS MAY BE REQUIRED AT SUPPORTS.
 - THIS ROOF PROTECTION AND SUPPORT DETAIL SHALL NOT BE USED FOR HVAC EQUIPMENT SUPPORT CURBS THAT REQUIRE ATTACHMENT TO THE ROOF DECK FOR PROPER INSTALLATION.
 - WALKWAY PADS SHALL BE APPLIED IN WHOLE UNITS UNLESS SPECIFIC CONDITIONS REQUIRE SMALLER PIECES.
 - THE USE OF WOOD BLOCKING FOR PIPE OR CONDUIT IS NOT PERMITTED.

3 CONDUIT / GAS PIPE SUPPORT BLOCK
A1.0 NOT TO SCALE



- NOTES:**
- REMOVE ALL EXISTING FLASHING BEFORE INSTALLING FIELD-FABRICATED PIPE SEAL.
 - NAILER REQUIRED TO STABILIZE STEEL DECK AROUND ALL PIPES GREATER THAN 12" DIA.
 - MANUFACTURER'S PREFABRICATED PIPE BOOT MAY BE INSTALLED IN LIEU OF THIS DETAIL WHERE APPLICABLE.
 - DO NOT USE FOR HOT EXHAUST STACKS.
 - FASTENERS AROUND PIPES 4" DIA MAY BE OMITTED IF APPROVED BY ROOFING MEMBRANE MANUFACTURER.
- NOTE:**
CAN USE EITHER OF THESE DETAILS
- NOTES:**
- THE USE OF LAP SEALANT TO SEAL TOP EDGE OF PIPE BOOT IS NOT PERMITTED. CONTRACTOR SHALL USE ROOFING MANUFACTURER'S MULTIPURPOSE POLYURETHANE SEALANT OR SEALANT LISTED IN SPECIFICATIONS.
 - PIPE BOOTS ARE NOT TO BE APPLIED DIRECTLY TO HOT VENTS.
 - NAILERS REQUIRED TO STABILIZE STEEL DECK AT PENETRATIONS LARGER THAN 12" DIA.
 - FASTENERS MAY BE OMITTED AT PENETRATIONS LESS THAN 18" DIA OR AS OTHERWISE INDICATED BY THE ROOFING MANUFACTURER.

2 ROUND PENETRATION FLASHING
A1.0 NOT TO SCALE



- NOTES:**
- DO NOT RUN SEAMS THROUGH DRAINS OR SUMPS.
 - WHERE FIELD SEAMS ARE WITHIN 18" OF DRAINS, THEY SHALL BE STRIPPED IN WITH 5" WIDE UNCURED EPDM.
 - DRAIN HEIGHT TO REMAIN AS IS. INSTALL TAPERED INSULATION TO CREATE A 4"x4" (UNO) SLUMP AREA AROUND EACH DRAIN. WITH MODIFICATIONS AS NEEDED AT EXPANSION JOINTS AND TIGHT SPACES. NEW INSULATION MAY NEED TO BE OMITTED TO ALLOW SLUMPED AREA.
 - AT EXISTING DRAIN LOCATIONS, REPLACE DRAIN PIPING TO FIRST CONTINUOUS STRETCH. DIAMETER TO MATCH EXISTING.
 - NEW DRAIN LOCATIONS, SHALL BE CONNECTED TO NEAREST ROOF STORM WATER PLUMBING SYSTEM.

1 ROOF DRAIN
A1.0 NOT TO SCALE

Mar 08, 2023 - 8:44am - gus.kurd@... FILE LOCATION: \\sme-hpc\p\WIP\090588.04\CAD\Design Files\MAT\Rev\FB\090588.04-DETAILS.dwg

Orientation	Scale
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Project
2023 WATERFORD SCHOOL DISTRICT
KETTERING HIGH SCHOOL
ROOFING REPLACEMENT

Project Location
2800 KETTERING DR.,
WATERFORD TWP., MI 48329

Sheet Name
FLASHING DETAILS

Seal

Revisions

REV	ISSUED FOR	DATE	BY
	FOR BID	3-9-23	KD

SME Project No.
090588.04

Project Manager:
KD

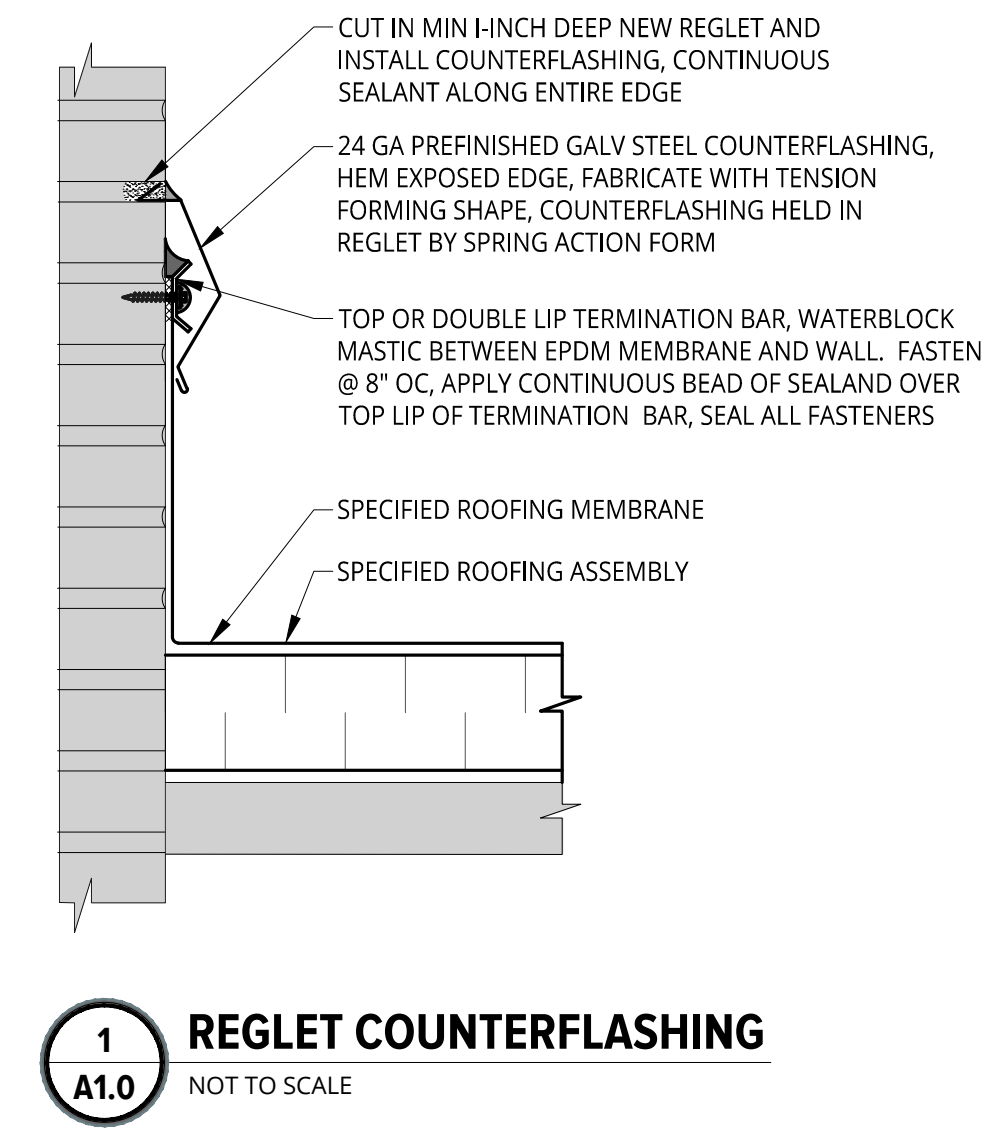
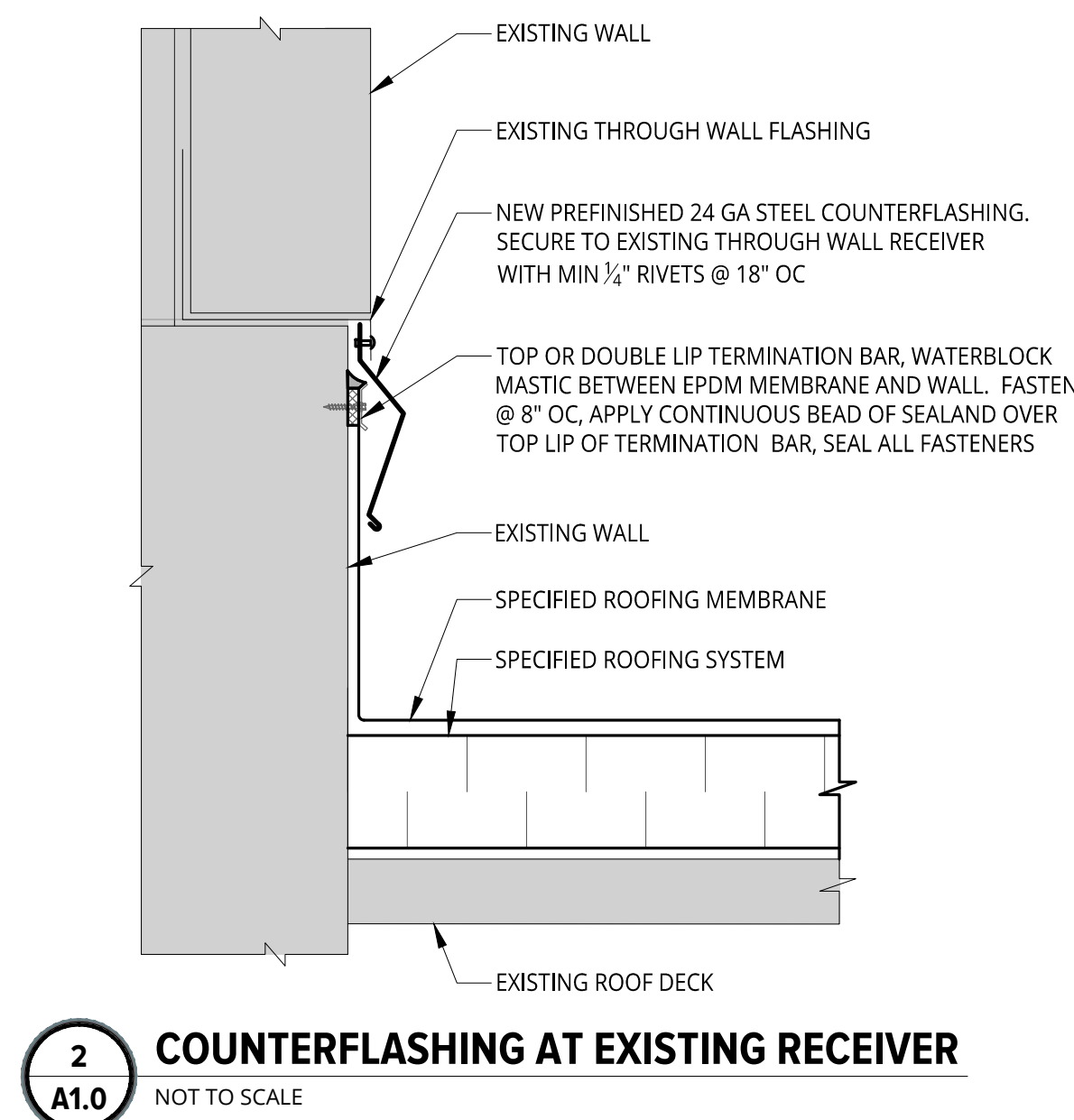
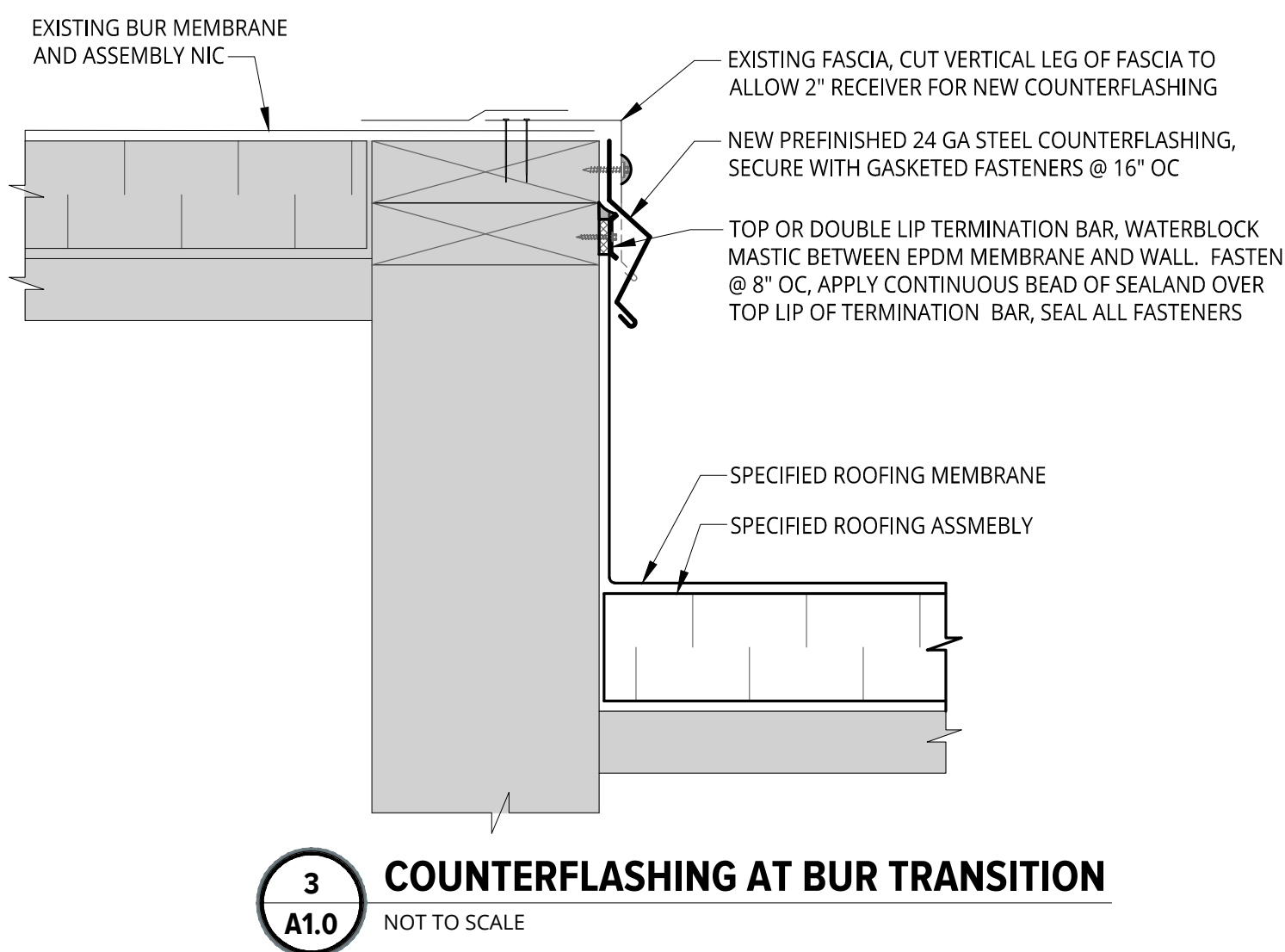
Designer:
KD

CADD:
GUS

Checked By:
KD

Reviewed By:
LD

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A5.1



ISSUED FOR BID

Mar 07, 2023 3:26pm - gus.lurdell FILE LOCATION: \\sme-hq\p\WP\090588.04\CAD\Design Files\MAT\Rev1\FB\090588.04-DETAILS.dwg