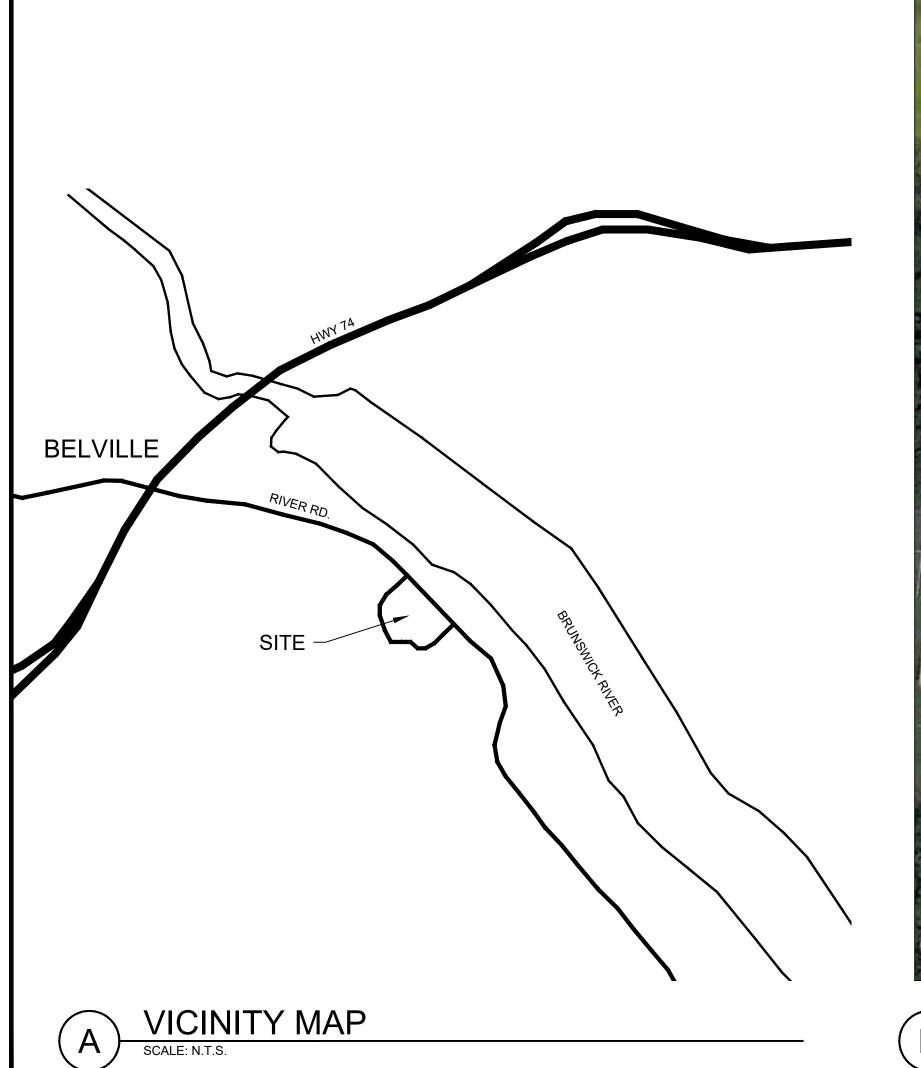
BRUNSWICK COUNTY BOARD OF EDUCATION

BELVILLE ELEMENTARY SCHOOL ROOF REPLACEMENT

575 RIVER RD. SE LELAND, NORTH CAROLINA 28451

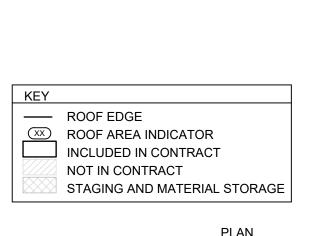
REI PROJECT NO. 022CLT-253

DATE: 10/04/24

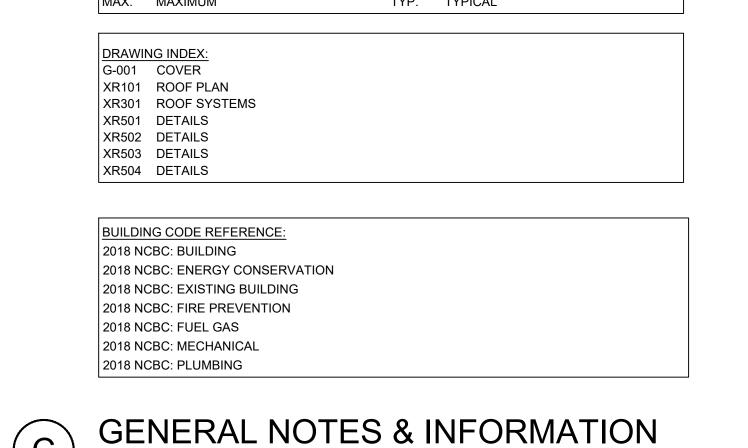




SITE PLAN







THESE DOCUMENTS ARE THE PROPERTY OF REI ENGINEERS, INC. (REI) AND REI RETAINS ALL RIGHTS THEREIN, INCLUDING COPYRIGHTS. IT MAY ONLY BE USED IN A MANNER

CONSISTENT WITH REI'S RIGHTS WHILE REI IS PROVIDING SERVICE FOR THE SPECIFIC

BE USED FOR ANY OTHER PURPOSE EXCEPT WITH THE EXPRESS WRITTEN AGREEMENT

DIMENSIONS, DETAIL COMPONENTS AND EQUIPMENT PENETRATION LOCATIONS ARE

FOR INFORMATION ONLY. CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY ALL

ONLY ONE DETAIL INDICATOR MAY BE SHOWN FOR EACH TYPE OF ROOF PENETRATION.

ALL OTHER SIMILAR PENETRATIONS ARE TO BE FLASHED AS REQUIRED BY THE TYPICAL

NOTES ARE INTENDED TO PROVIDE TYPICAL LOCATIONS OF WORK. IT IS THE

DETAIL NOTES

1. LIGHT LINES REPRESENT EXISTING CONSTRUCTION TO REMAIN AND DARK LINES

MIN. MINIMUM
N.I.C NOT IN CONTRACT

OVERFLOW

SQUARE FEET

S.S. STAINLESS STEEL

PRESSURE SENSITIVE

POLYVINYL CHLORIDE

TERM. TERMINATE/TERMINATION

N.T.S. NOT TO SCALE

O.C. ON CENTER

SIM. SIMILAR

NOM. NOMINAL

OF, AND COMPENSATION TO, REI ENGINEERS, INC.

DETAIL INDICATOR, UNLESS OTHERWISE NOTED.

REPRESENT NEW COMPONENTS TO BE PROVIDED.

ALUM. ALUMINUM

CONTROL JOINT

EXPANSION JOINT

EPDM ETHYLENE PROPYLENE DIENE

DOWNSPOUT

EXISTING

HEIGHT

GALV. GALVANIZE

BLDG. BUILDING

CONTRACTORS RESPONSIBILITY TO QUANTIFY ALL LOCATIONS.



SEALS:



PROJECT NAME:

BRUNSWICK COUNTY BOARD OF EDUCATION

BELVILLE ELEMENTARY SCHOOL ROOF REPLACEMENT

> 575 RIVER RD. SE LELAND, NORTH CAROLINA 28451

PROJ. NO:

022CLT-253

SSUE:

NO. DATE DESCRIPTION

CD 10/04/2024 CONTRACT DOCUMENTS

THIS LINE IS 1 INCH ON THE ORIGINAL DRAWING

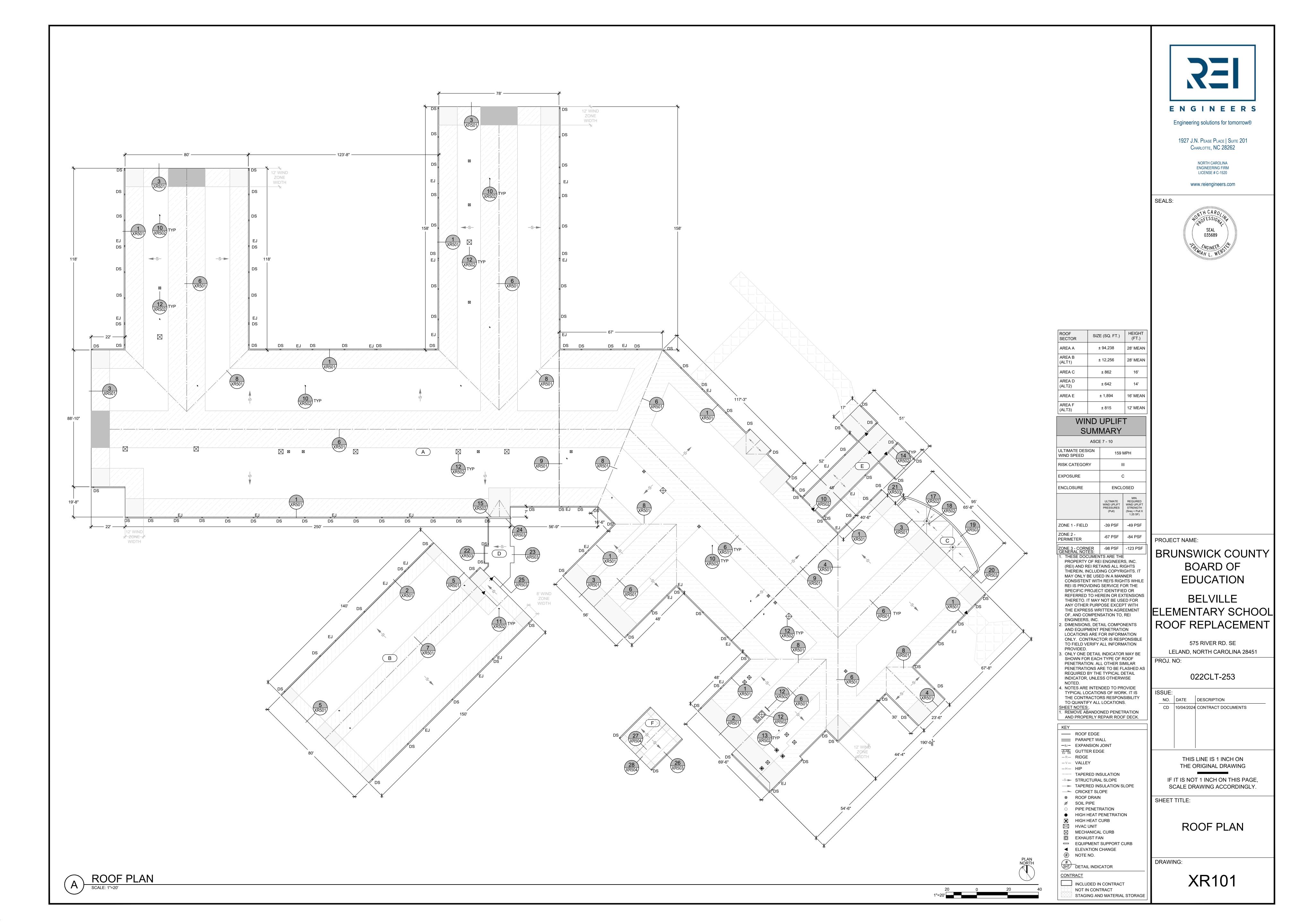
IF IT IS NOT 1 INCH ON THIS PAGE, SCALE DRAWING ACCORDINGLY.

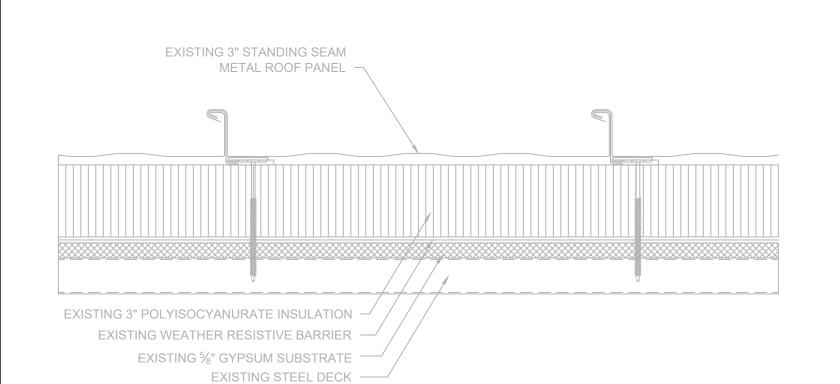
SHEET TITLE:

COVER

DRAWING:

G-001

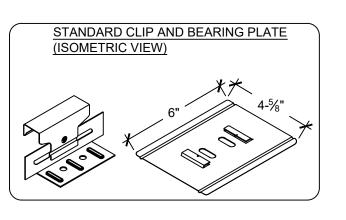


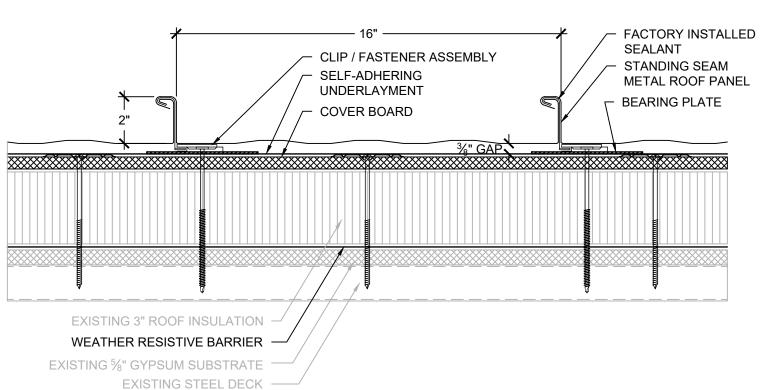


EXISTING ROOF SYSTEM COMPOSITION SHOWN IS BASED UPON RANDOM SAMPLING. CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY INFORMATION PROVIDED. 3. REMOVE COMPONENTS DOWN TO THE EXISTING STEEL DECK TO REMAIN.

EXISTING ROOF SYSTEM - AREAS A & E

SCALE: 3" = 1'-0"

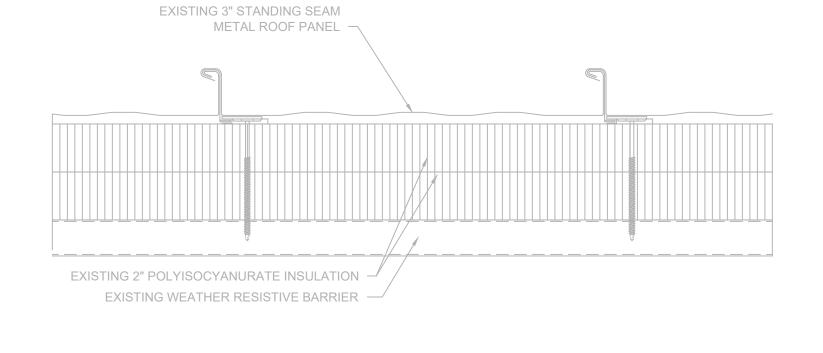




1. STANDING SEAM METAL ROOF PANEL ASSEMBLY SHALL BE A TESTED ASSEMBLY IN ACCORDANCE WITH FM 4474, UL 580 OR UL 1897 TO RESIST THE WIND UPLIFT PRESSURES SPECIFIED IN SECTION 07 41 13 OF THE CONTRACT DOCUMENTS. PROVIDE SUBMITTAL INCLUDING DOCUMENTATION OF TESTED ASSEMBLY ALONG WITH ENGINEERED CALCULATIONS FOR ATTACHMENT OF THE STANDING SEAM METAL ROOF PANEL ASSEMBLY.

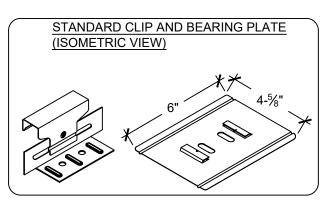
2. THERMAL BLOCKS NOT SHOWN FOR CLARIFY. PROVIDE IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.

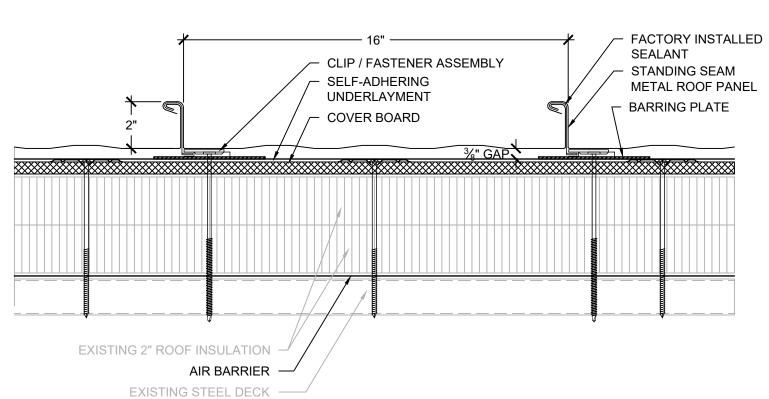
ROOF SYSTEM - AREAS A & E



1. EXISTING ROOF SYSTEM COMPOSITION SHOWN IS BASED UPON RANDOM SAMPLING. CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY INFORMATION PROVIDED. 3. REMOVE COMPONENTS DOWN TO THE EXISTING STEEL DECK TO REMAIN.

EXISTING ROOF SYSTEM - AREAS B & D

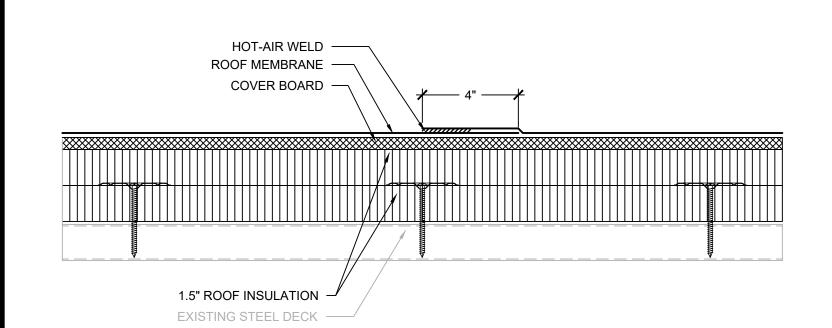




1. STANDING SEAM METAL ROOF PANEL ASSEMBLY SHALL BE A TESTED ASSEMBLY IN ACCORDANCE WITH FM 4474, UL 580 OR UL 1897 TO RESIST THE WIND UPLIFT PRESSURES SPECIFIED IN SECTION 07 41 13 OF THE CONTRACT DOCUMENTS. PROVIDE SUBMITTAL INCLUDING DOCUMENTATION OF TESTED ASSEMBLY ALONG WITH ENGINEERED CALCULATIONS FOR ATTACHMENT OF THE STANDING SEAM METAL ROOF PANEL ASSEMBLY. 2. THERMAL BLOCKS NOT SHOWN FOR CLARIFY. PROVIDE IN ACCORDANCE WITH MANUFACTURER'S

INSTALLATION INSTRUCTIONS.



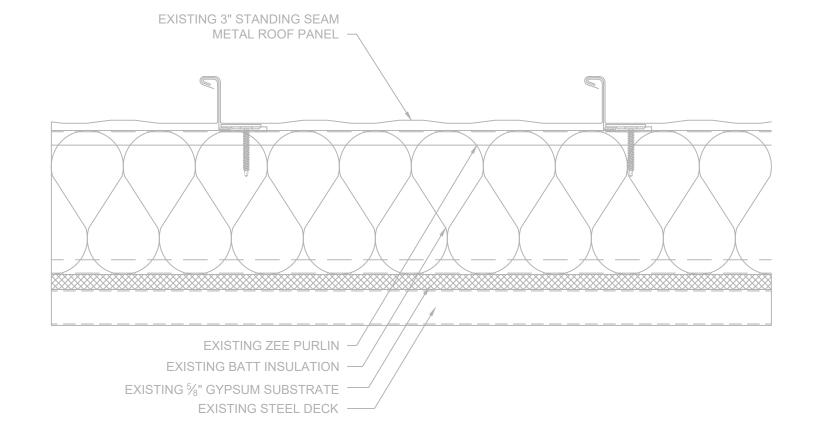


1. ROOF SYSTEM SHALL BE A TESTED ASSEMBLY IN ACCORDANCE WITH FM 4474, UL 580 OR UL 1897 TO RESIST THE WIND UPLIFT PRESSURES SPECIFIED IN SECTION 07 54 00 OF THE CONTRACT DOCUMENTS. PROVIDE SUBMITTAL INCLUDING DOCUMENTATION OF TESTED ASSEMBLY ALONG WITH ATTACHMENT REQUIREMENTS FOR THE ASSEMBLY. ANY WHOLE OR PARTIAL INSULATION BOARD OR PORTION OF ANY BOARD WHICH FALLS IN THE

PERIMETERS & CORNERS OUTLINED SHALL BE SUBJECT TO THE FASTENING REQUIREMENTS FOR THE

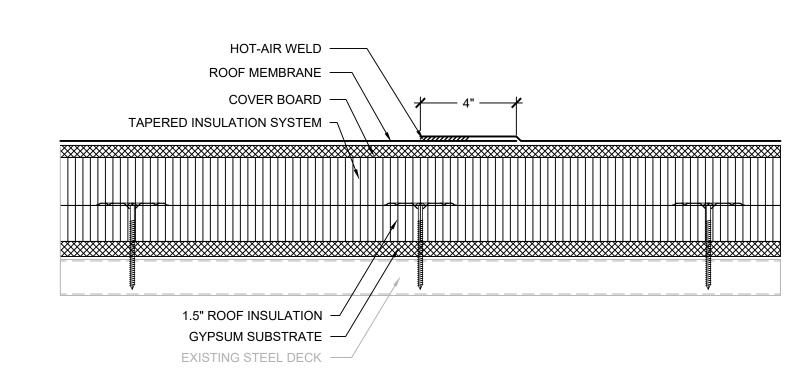
B3 ROOF SYSTEM - AREA D

HIGHEST WIND ZONE ENCOUNTERED, ACROSS THE ENTIRE BOARD.



1. EXISTING ROOF SYSTEM COMPOSITION SHOWN IS BASED UPON RANDOM SAMPLING. CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY INFORMATION PROVIDED. 3. REMOVE COMPONENTS DOWN TO THE EXISTING STEEL DECK TO REMAIN.

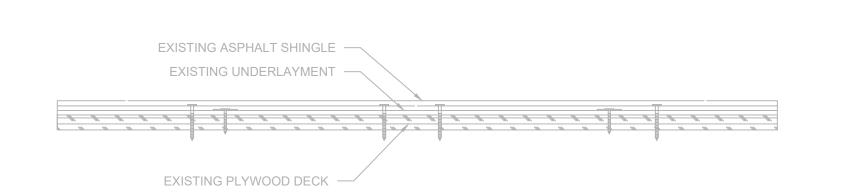
EXISTNG ROOF SYSTEM - AREA C



1. ROOF SYSTEM SHALL BE A TESTED ASSEMBLY IN ACCORDANCE WITH FM 4474, UL 580 OR UL 1897 TO RESIST THE WIND UPLIFT PRESSURES SPECIFIED IN SECTION 07 54 00 OF THE CONTRACT DOCUMENTS. PROVIDE SUBMITTAL INCLUDING DOCUMENTATION OF TESTED ASSEMBLY ALONG WITH ATTACHMENT REQUIREMENTS FOR THE ASSEMBLY.

2. ANY WHOLE OR PARTIAL INSULATION BOARD OR PORTION OF ANY BOARD WHICH FALLS IN THE PERIMETERS & CORNERS OUTLINED SHALL BE SUBJECT TO THE FASTENING REQUIREMENTS FOR THE HIGHEST WIND ZONE ENCOUNTERED, ACROSS THE ENTIRE BOARD.



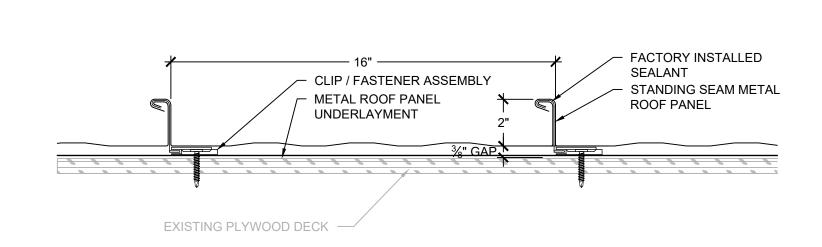


1. EXISTING ROOF SYSTEM COMPOSITION SHOWN IS BASED UPON RANDOM SAMPLING AT TEST CUT LOCATIONS INDICATED ON ROOF PLAN.

AREA F EXISTING ROOF SYSTEM

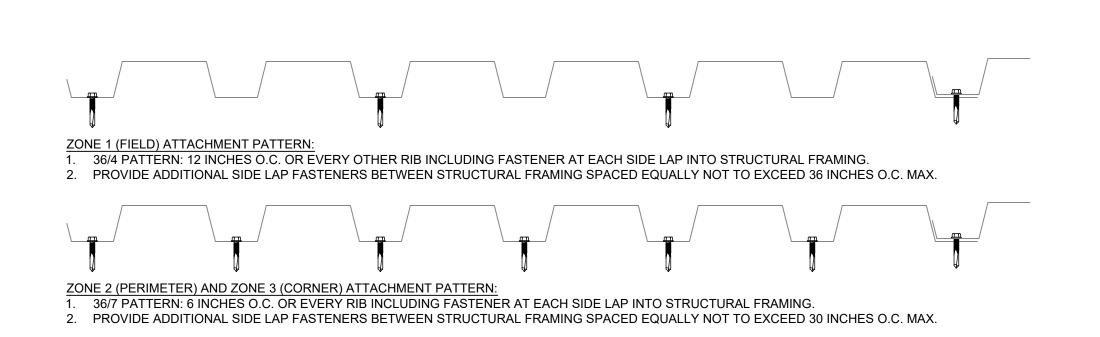
2. CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY INFORMATION PROVIDED.

3. REMOVE COMPONENTS DOWN TO THE EXISTING PLYWOOD DECK TO REMAIN.

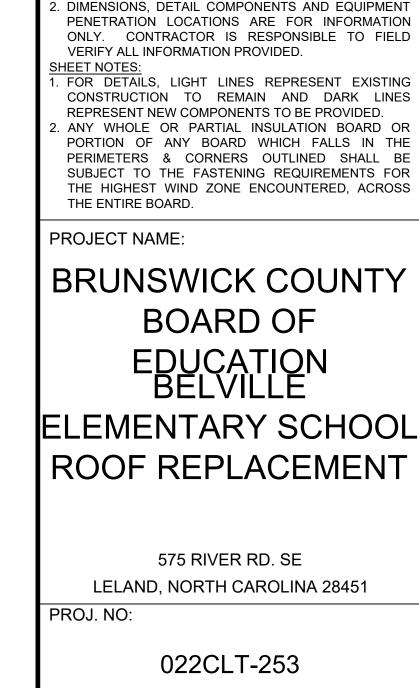


1. STANDING SEAM METAL ROOF PANEL ASSEMBLY SHALL BE A TESTED ASSEMBLY IN ACCORDANCE WITH FM 4474, UL 580 OR UL 1897 TO RESIST THE WIND UPLIFT PRESSURES SPECIFIED IN SECTION 07 41 13 OF THE CONTRACT DOCUMENTS. PROVIDE SUBMITTAL INCLUDING DOCUMENTATION OF TESTED ASSEMBLY ALONG WITH ENGINEERED CALCULATIONS FOR ATTACHMENT OF THE STANDING SEAM METAL ROOF PANEL ASSEMBLY. THERMAL BLOCKS NOT SHOWN FOR CLARIFY. PROVIDE IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.

AREA F ROOF SYSTEM







ENGINEERS

Engineering solutions for tomorrow®

1927 J.N. Pease Place | Suite 201 CHARLOTTE, NC 28262

> NORTH CAROLINA **ENGINEERING FIRM** LICENSE # C-1520

www.reiengineers.com

035689

GENERAL NOTES: I. THESE DOCUMENTS ARE THE PROPERTY OF RE

ENGINEERS, INC. (REI) AND REI RETAINS ALL RIGHTS THEREIN, INCLUDING COPYRIGHTS. IT MAY ONLY BE USED IN A MANNER CONSISTENT WITH REI'S RIGHTS WHILE REI IS PROVIDING SERVICE FOR THE SPECIFIC PROJECT IDENTIFIED OR REFERRED TO HEREIN OF

EXTENSIONS THERETO. IT MAY NOT BE USED FOR ANY OTHER PURPOSE EXCEPT WITH THE EXPRESS

WRITTEN AGREEMENT OF, AND COMPENSATION TO

REI ENGINEERS, INC.

SEALS:

THIS LINE IS 1 INCH ON THE ORIGINAL DRAWING

NO. DATE DESCRIPTION

CD 10/04/2024 CONTRACT DOCUMENTS

IF IT IS NOT 1 INCH ON THIS PAGE.

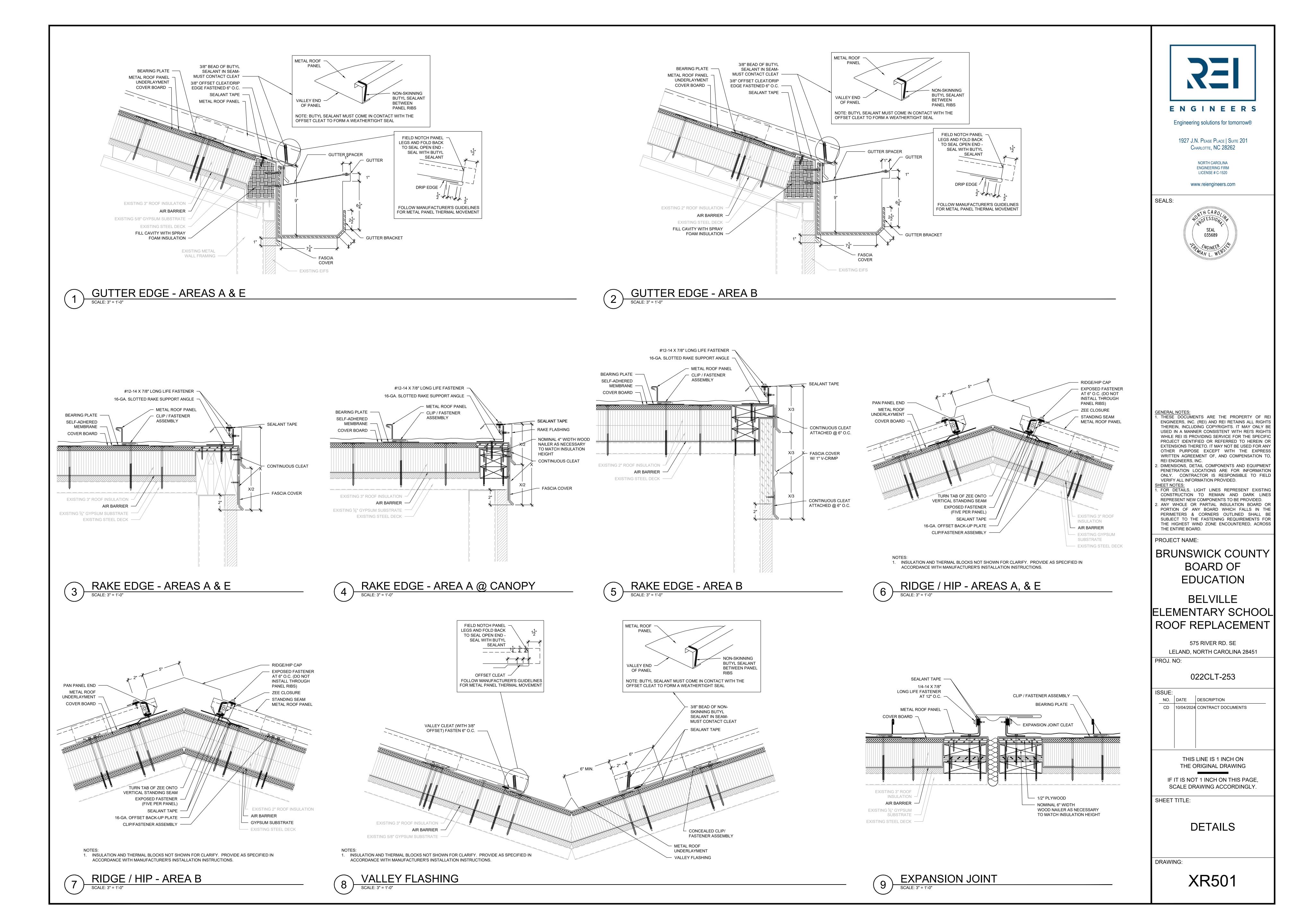
SCALE DRAWING ACCORDINGLY.

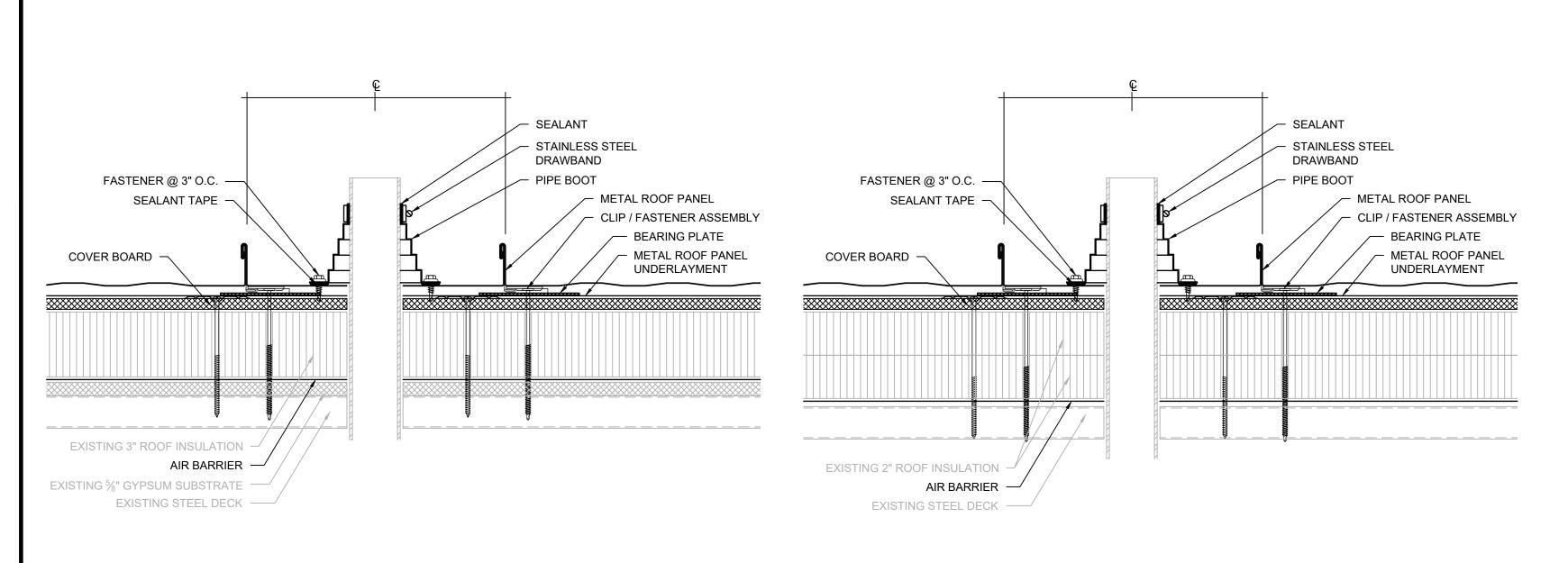
SHEET TITLE:

ROOF SYSTEMS

DRAWING:

XR301





1. RELOCATE PIPE PENETRATION TO CENTER OF PANEL TO PROVIDE PIPE BOOT. ALTERNATIVELY, PROVIDE FLAT CURB ACROSS TWO PANELS TO PROVIDE PIPE BOOT FLASHING WITHOUT INTERFERENCE WITH METAL ROOF PANEL SEAM.

SILICONE SEALANT

STAINLESS STEEL DRAWBAND

· WATERTIGHT UMBRELLA / CURB COVER

- PROVIDE MINERAL WOOD INSULATION

PROVIDE ROOF CURB AND FLASHING

AS SHOWN IN DETAIL NO. 12

TO SEPARATE PENETRATION FROM CURB

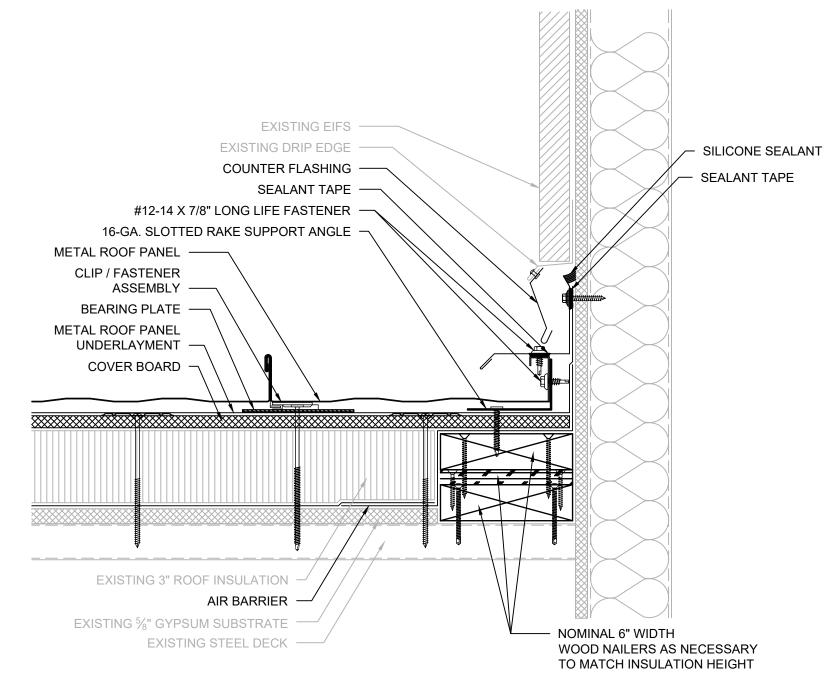
PIPE PENETRATION - AREA A

ROOF DRAIN

1. RELOCATE PIPE PENETRATION TO CENTER OF PANEL TO PROVIDE PIPE BOOT. ALTERNATIVELY, PROVIDE FLAT CURB ACROSS TWO PANELS TO PROVIDE PIPE BOOT FLASHING WITHOUT INTERFERENCE WITH METAL ROOF PANEL SEAM.

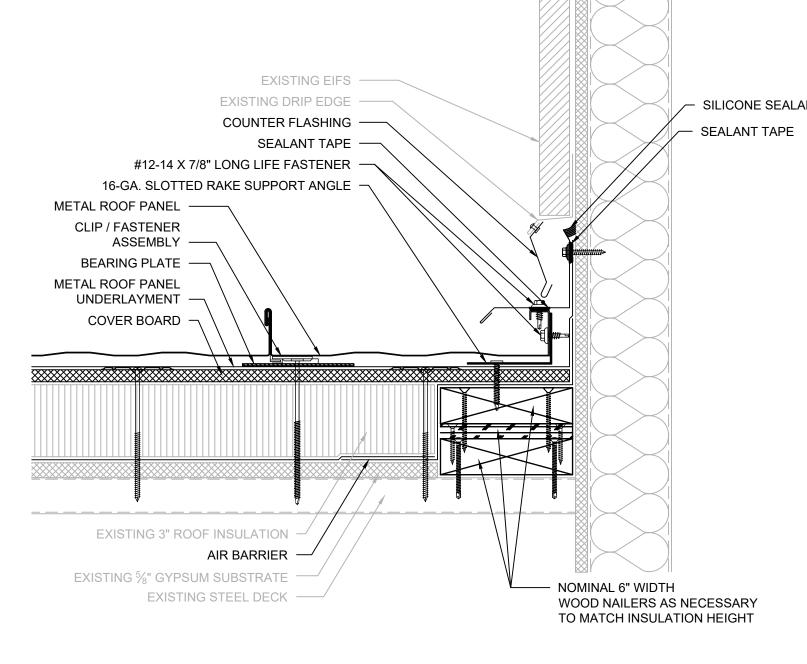
PIPE PENETRATION - AREA B





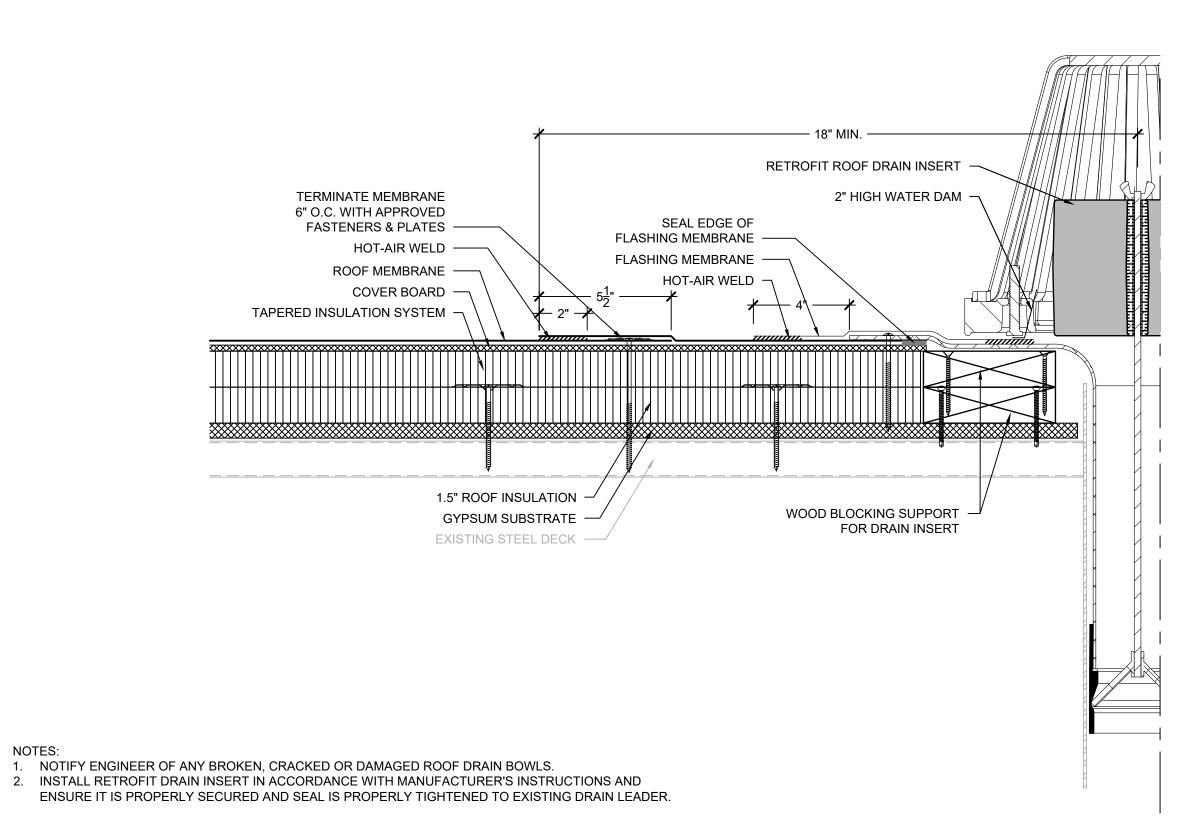
SIDE WALL FLASHING - AREA E

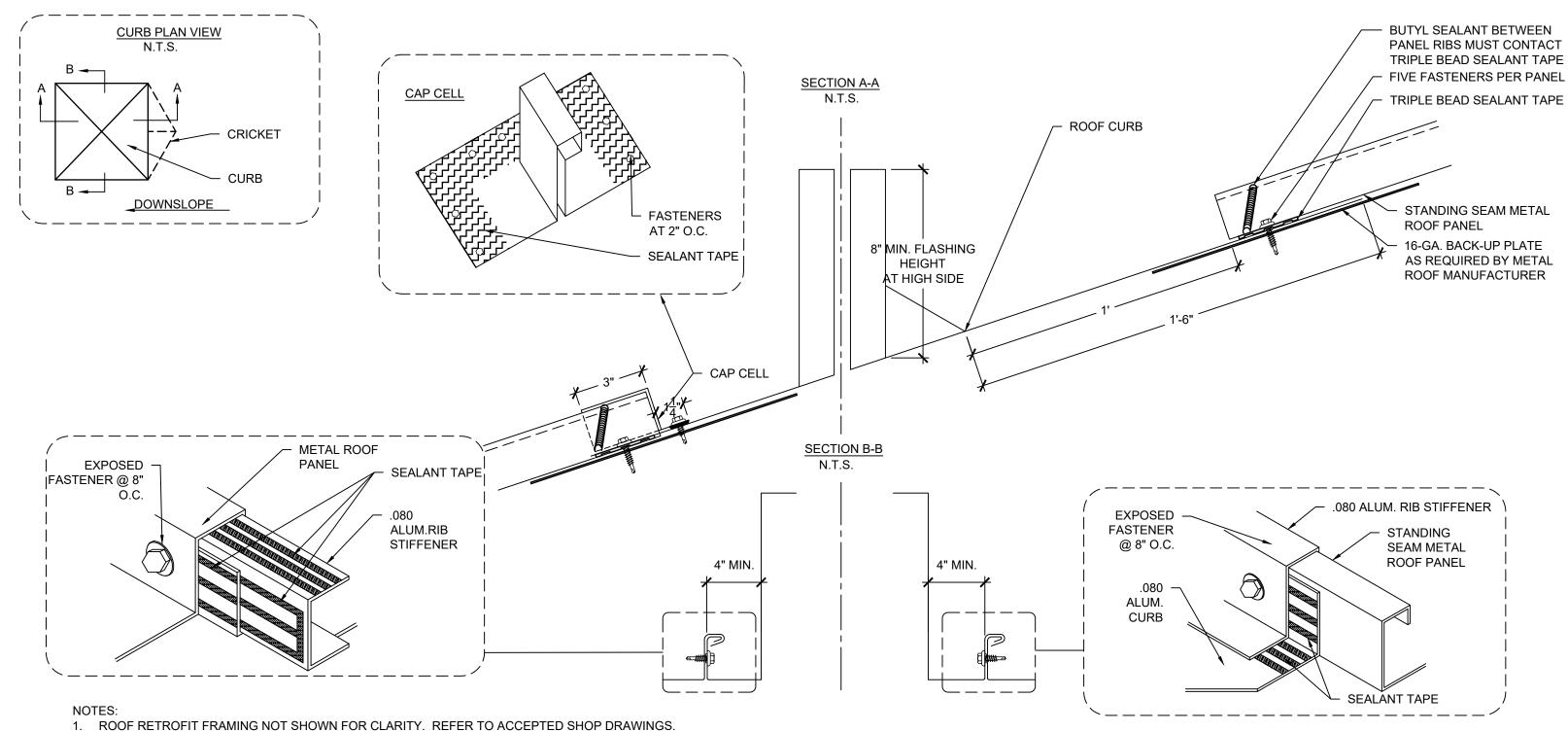
SCALE: 3" = 1'-0"



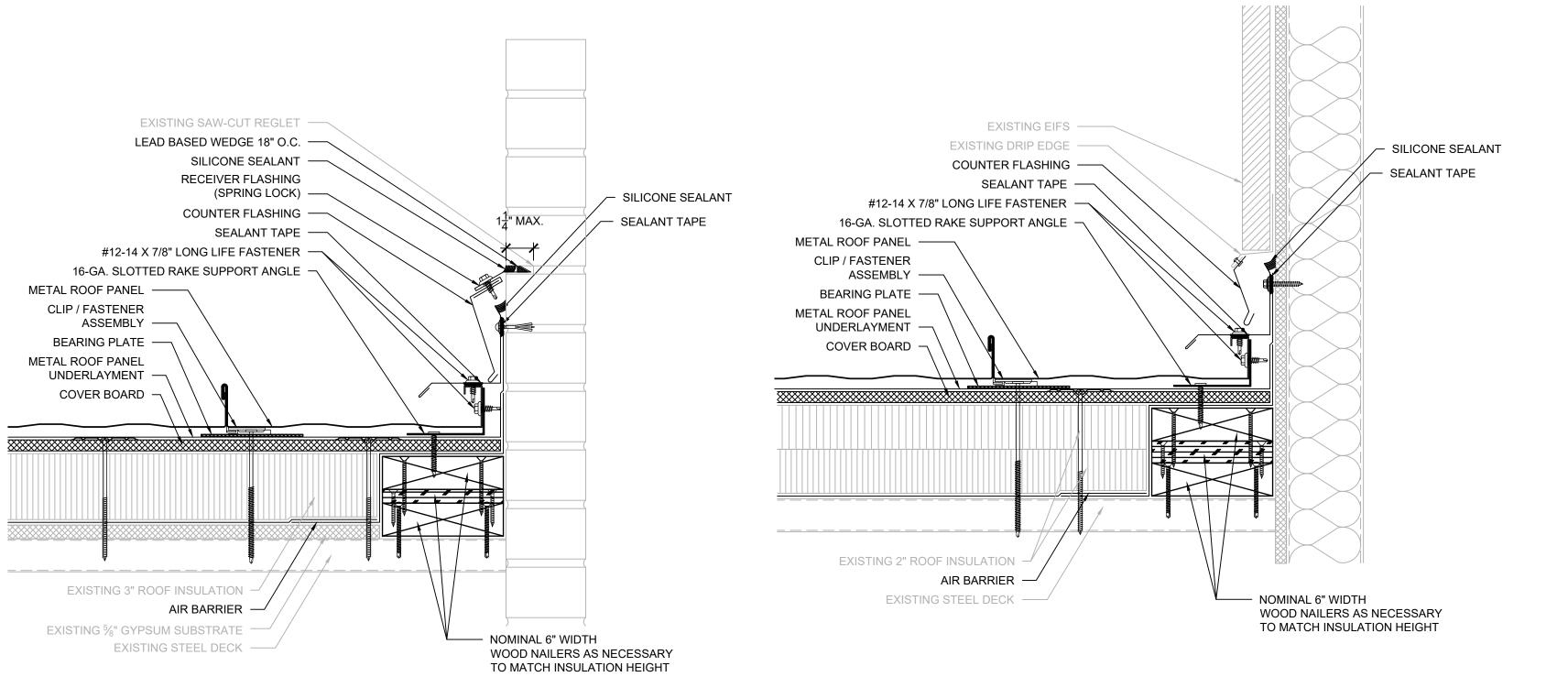
SIDE WALL FLASHING - AREA A @ PARAPET

SCALE: 3" = 1'-0"

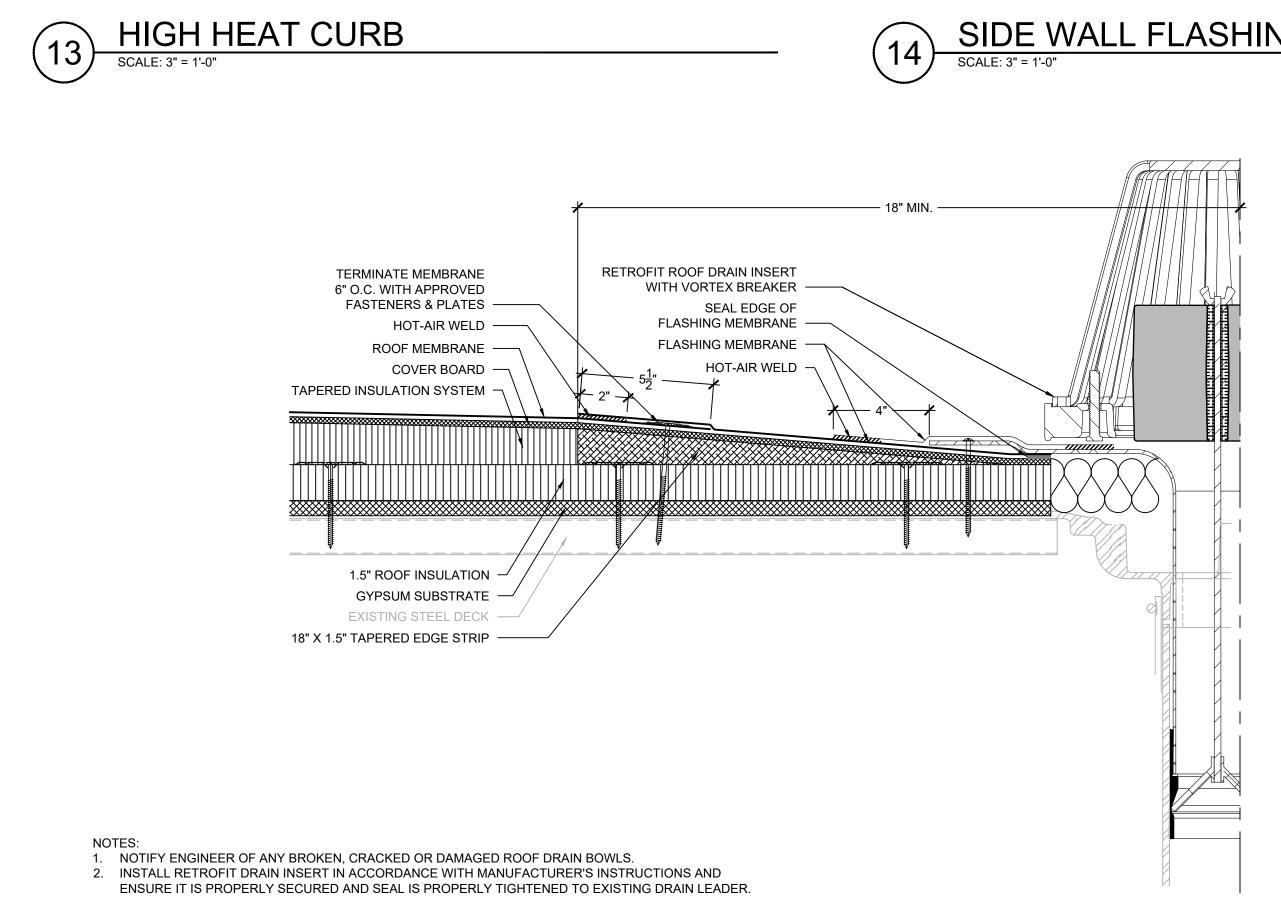




MECHANICAL CURB



SIDE WALL FLASHING - AREA B
SCALE: 3" = 1'-0"



OVERFLOW DRAIN



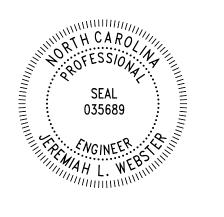
CHARLOTTE, NC 28262 NORTH CAROLINA **ENGINEERING FIRM**

LICENSE # C-1520

1927 J.N. Pease Place | Suite 201

www.reiengineers.com

SEALS:



GENERAL NOTES:

1. THESE DOCUMENTS ARE THE PROPERTY OF RE! ENGINEERS, INC. (REI) AND REI RETAINS ALL RIGHTS THEREIN, INCLUDING COPYRIGHTS. IT MAY ONLY BE USED IN A MANNER CONSISTENT WITH REI'S RIGHTS WHILE REI IS PROVIDING SERVICE FOR THE SPECIFIC PROJECT IDENTIFIED OR REFERRED TO HEREIN OF EXTENSIONS THERETO. IT MAY NOT BE USED FOR ANY OTHER PURPOSE EXCEPT WITH THE EXPRESS

WRITTEN AGREEMENT OF, AND COMPENSATION TO REI ENGINEERS, INC. DIMENSIONS, DETAIL COMPONENTS AND EQUIPMENT PENETRATION LOCATIONS ARE FOR INFORMATION ONLY. CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY ALL INFORMATION PROVIDED.

FOR DETAILS, LIGHT LINES REPRESENT EXISTING CONSTRUCTION TO REMAIN AND DARK LINES REPRESENT NEW COMPONENTS TO BE PROVIDED. ANY WHOLE OR PARTIAL INSULATION BOARD OF PORTION OF ANY BOARD WHICH FALLS IN THE PERIMETERS & CORNERS OUTLINED SHALL BE SUBJECT TO THE FASTENING REQUIREMENTS FOR THE HIGHEST WIND ZONE ENCOUNTERED, ACROSS THE ENTIRE BOARD.

PROJECT NAME:

BRUNSWICK COUNTY **BOARD OF EDUCATION**

BELVILLE ELEMENTARY SCHOOL ROOF REPLACEMENT

575 RIVER RD. SE LELAND, NORTH CAROLINA 28451

PROJ. NO:

022CLT-253

NO. DATE DESCRIPTION CD 10/04/2024 CONTRACT DOCUMENTS

> THIS LINE IS 1 INCH ON THE ORIGINAL DRAWING

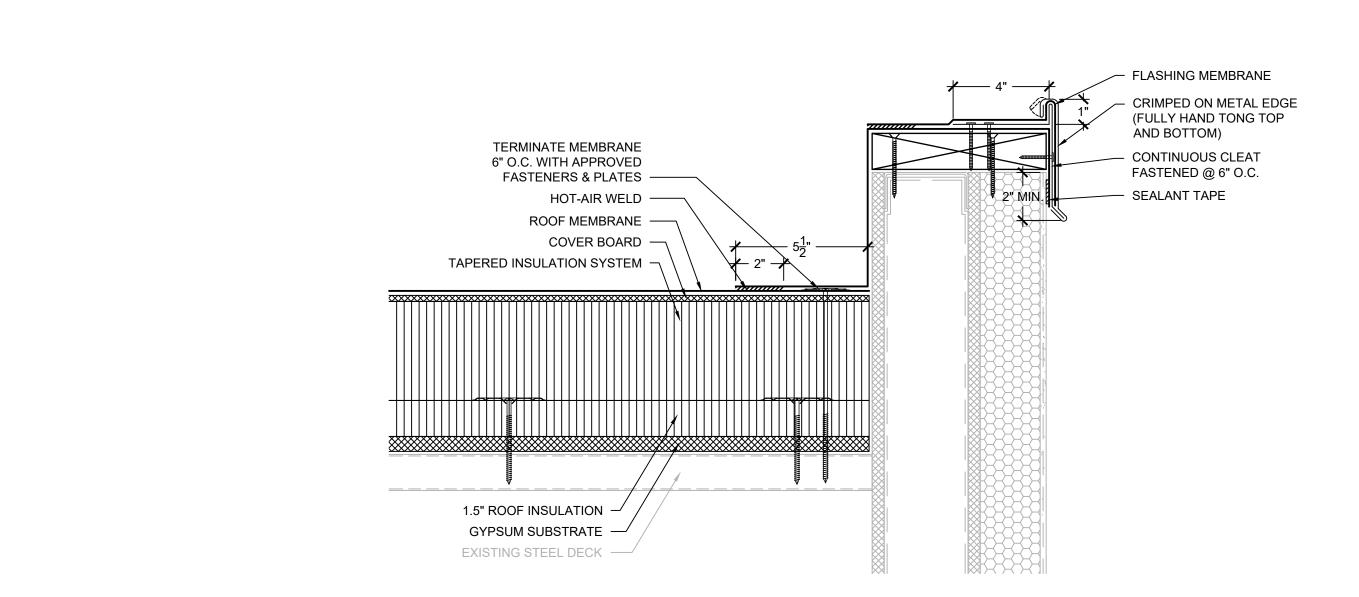
IF IT IS NOT 1 INCH ON THIS PAGE, SCALE DRAWING ACCORDINGLY.

SHEET TITLE:

DETAILS

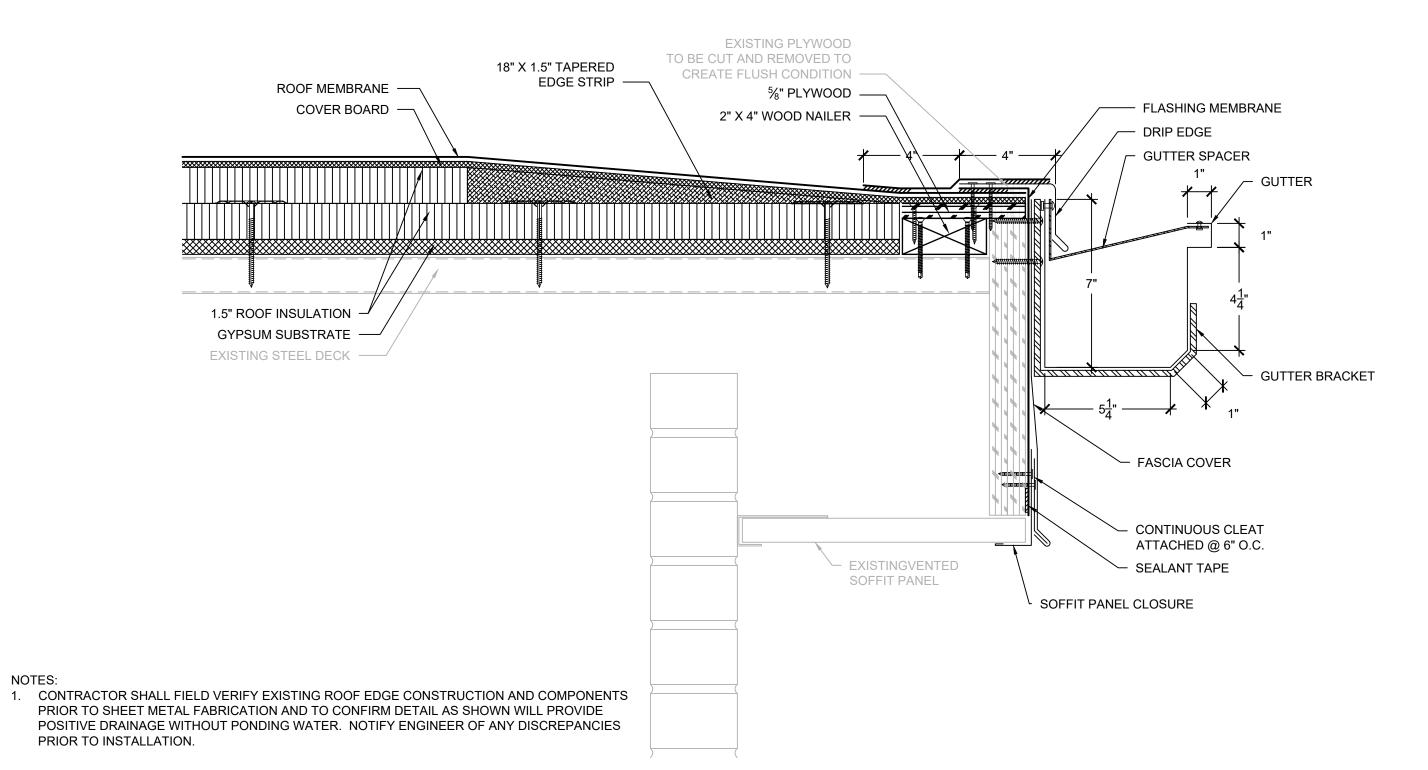
DRAWING:

XR502

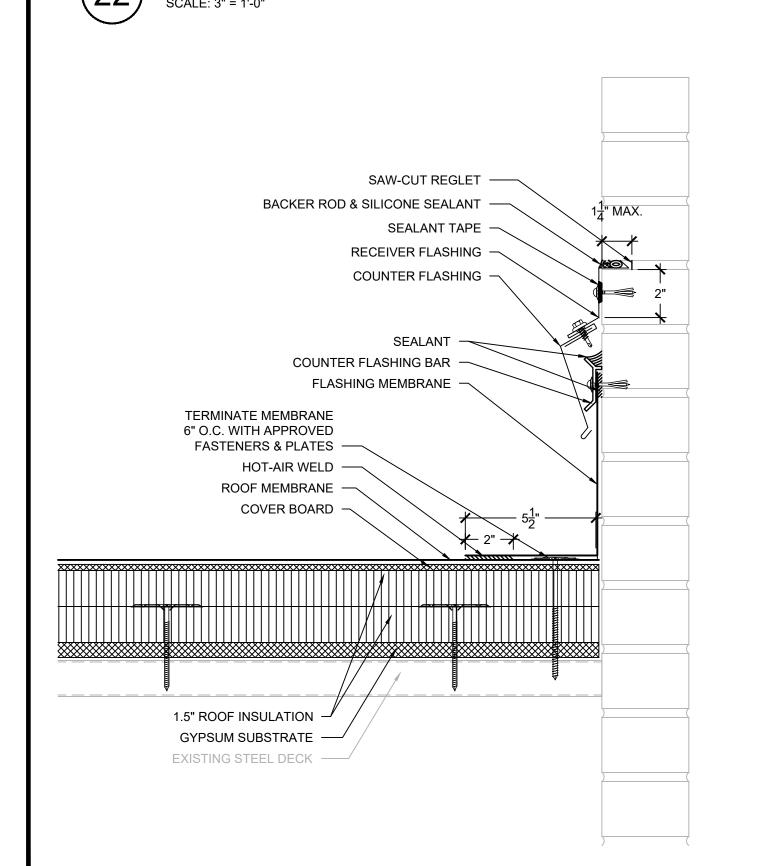


- 1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONSTRUCTION AND COMPONENTS PRIOR TO SHEET
- METAL FABRICATION. 2. METAL EDGE SHALL BE TESTED FOR RESISTANCE TO WIND UPLIFT PRESSURES SPECIFIED IN ACCORDANCE WITH ANSI/SPRI ES-1 TEST METHOD RE-3. CONTRACTOR SHALL PROVIDE SHOP DRAWING DEPICTING SHEET METAL COMPONENTS WITH DIMENSIONS AND PROVIDE EVIDENCE OF
- TESTING TO RESIST THE SPECIFIED WIND UPLIFT PRESSURES. 3. PROVIDE SEPARATE FASCIA COVER EXTENSION WHERE EDGE METAL DIMENSIONS EXCEED ALLOWABLE TESTED ASSEMBLY REQUIREMENTS.

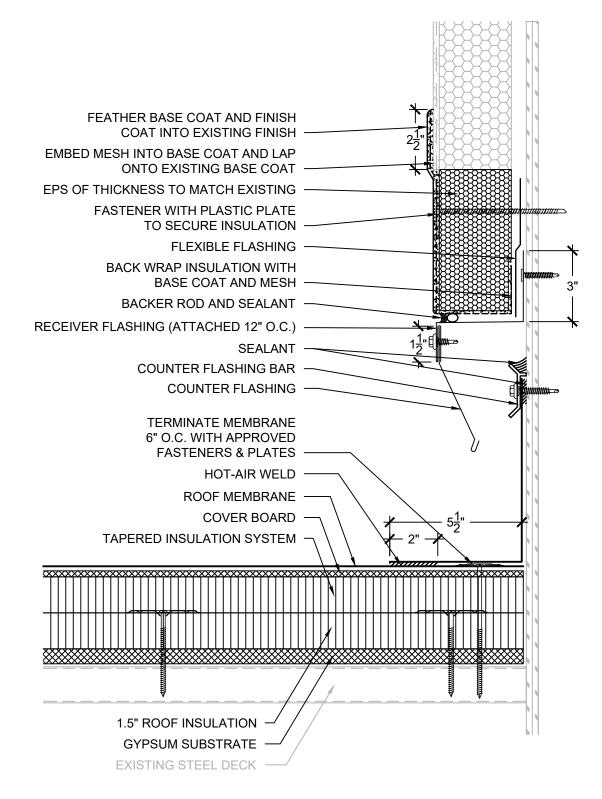
PARAPET WALL METAL EDGE



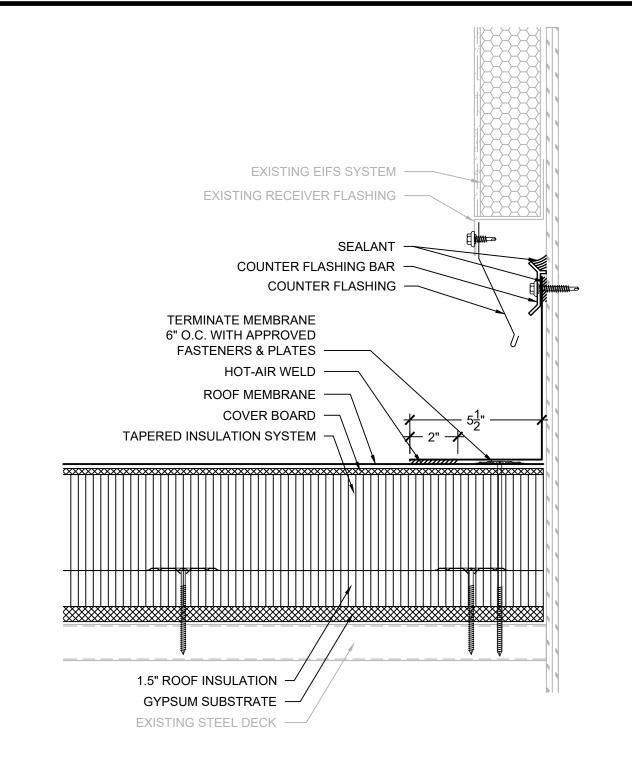
GUTTER EDGE - AREA D SCALE: 3" = 1'-0"



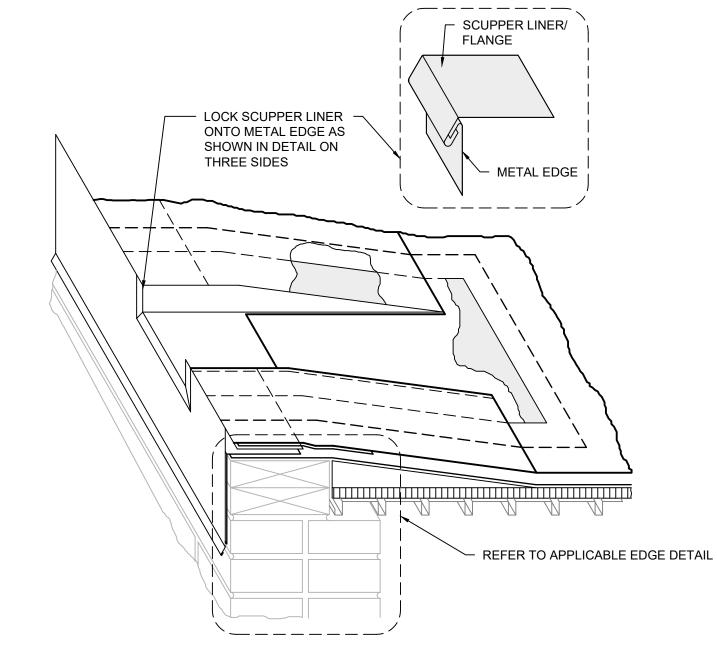
ELEVATION WALL FLASHING - AREA D



ELEVATION WALL - AREA D @ EIFS



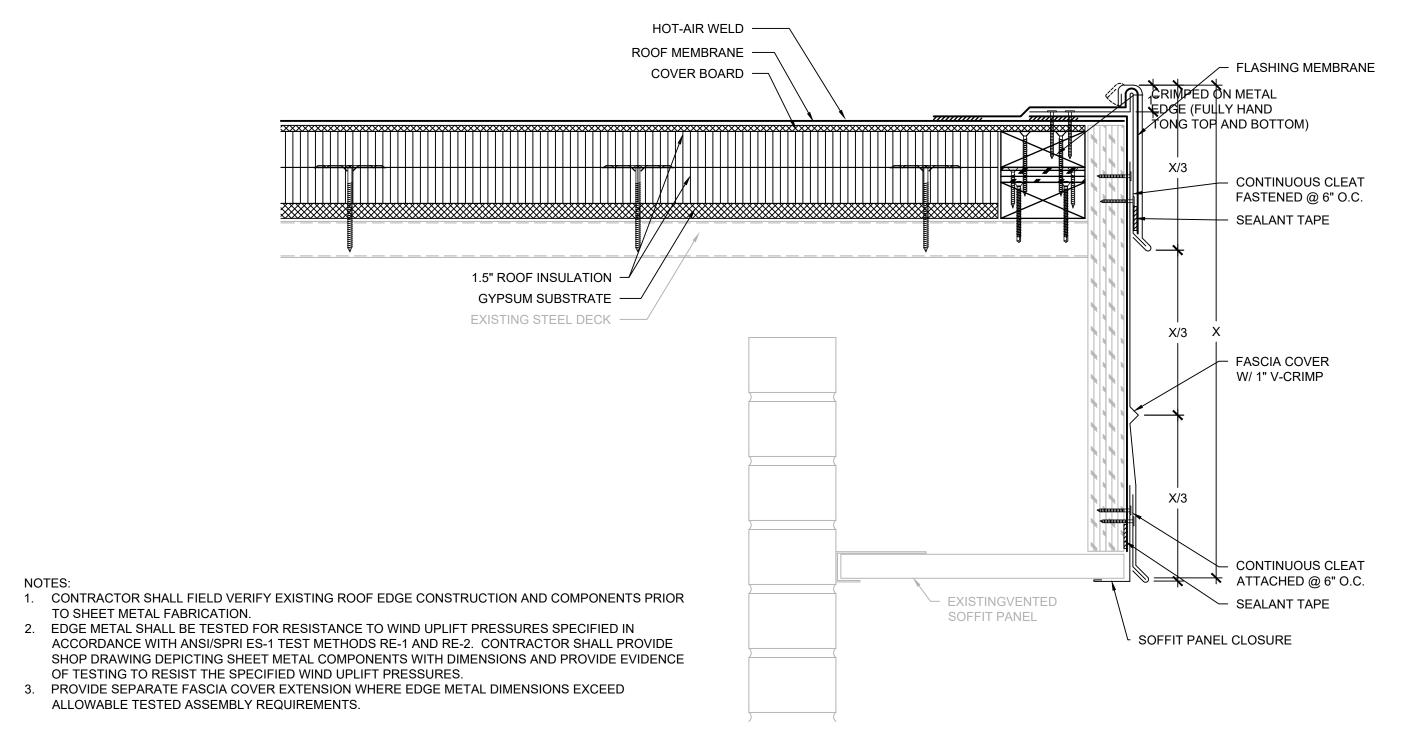




1. DETAIL IS FOR GENERAL REPRESENTATION ONLY. REFER TO CROSS SECTION FOR SPECIFIC ORDER AND CALLOUT OF COMPONENTS. PRIME FLANGES OF SCUPPER LINER AND SET IN FULL BED OF ROOF CEMENT.

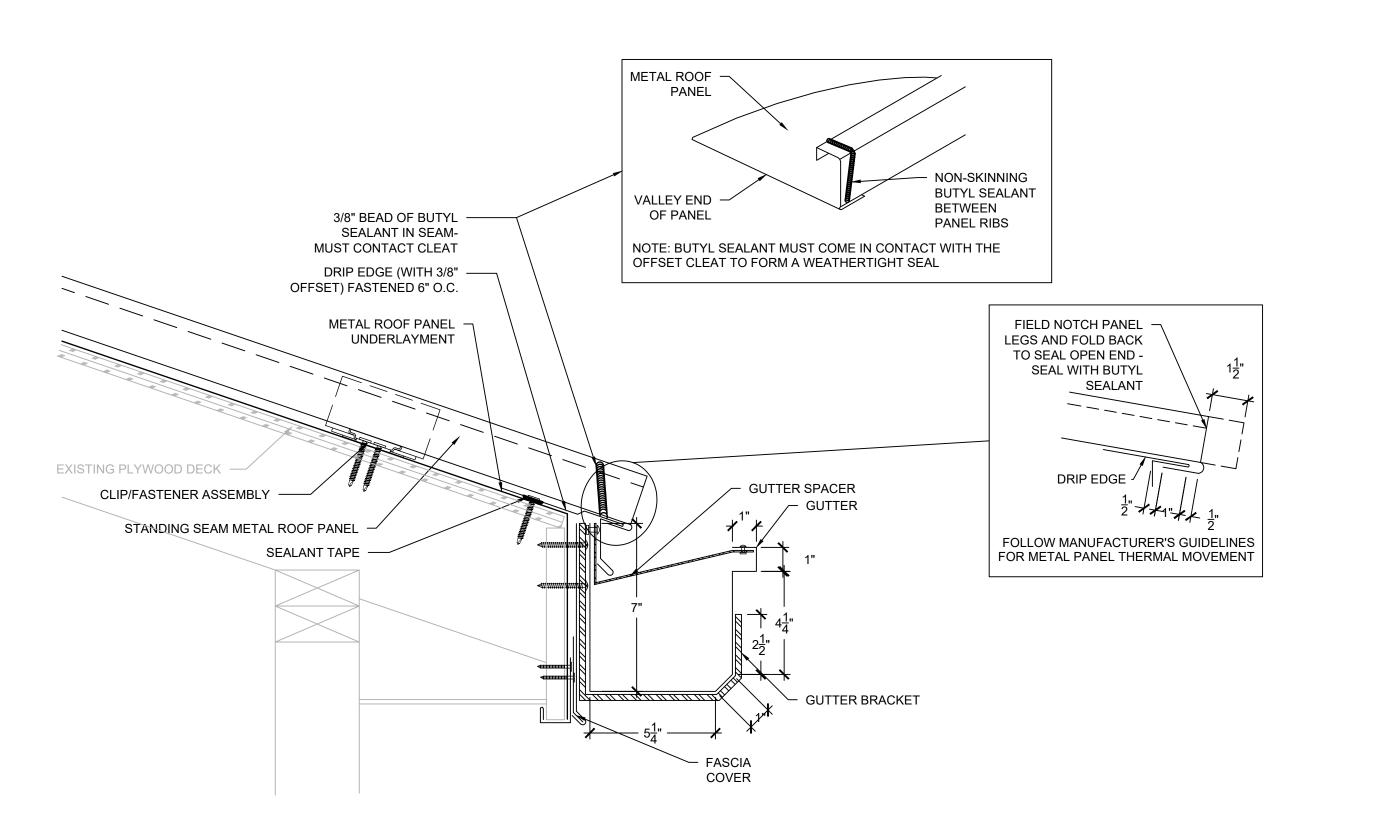
3. SCUPPER LINER/FLANGE SHALL BE ONE PIECE WITH JOINTS FULLY SOLDERED.

THROUGH EDGE SCUPPER

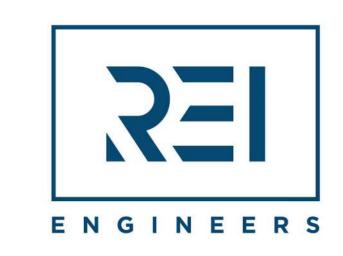


METAL EDGE - AREA D

SCALE: 3" = 1'-0"



GUTTER EDGE - AREA F ALTERNATE 3



Engineering solutions for tomorrow®

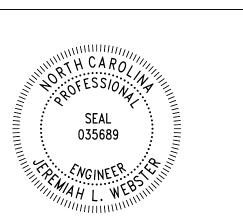
1927 J.N. Pease Place | Suite 201

CHARLOTTE, NC 28262

NORTH CAROLINA **ENGINEERING FIRM** LICENSE # C-1520

www.reiengineers.com

SEALS:



<u>GENERAL NOTES:</u> 1. THESE DOCUMENTS ARE THE PROPERTY OF RE ENGINEERS, INC. (REI) AND REI RETAINS ALL RIGHTS THEREIN, INCLUDING COPYRIGHTS. IT MAY ONLY BE USED IN A MANNER CONSISTENT WITH REI'S RIGHTS WHILE REI IS PROVIDING SERVICE FOR THE SPECIFIC PROJECT IDENTIFIED OR REFERRED TO HEREIN OF EXTENSIONS THERETO. IT MAY NOT BE USED FOR ANY OTHER PURPOSE EXCEPT WITH THE EXPRESS WRITTEN AGREEMENT OF, AND COMPENSATION TO

REI ENGINEERS, INC. DIMENSIONS, DETAIL COMPONENTS AND EQUIPMENT PENETRATION LOCATIONS ARE FOR INFORMATION ONLY. CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY ALL INFORMATION PROVIDED.

FOR DETAILS, LIGHT LINES REPRESENT EXISTING CONSTRUCTION TO REMAIN AND DARK LINES REPRESENT NEW COMPONENTS TO BE PROVIDED. ANY WHOLE OR PARTIAL INSULATION BOARD OR PORTION OF ANY BOARD WHICH FALLS IN THE PERIMETERS & CORNERS OUTLINED SHALL BE SUBJECT TO THE FASTENING REQUIREMENTS FOR THE HIGHEST WIND ZONE ENCOUNTERED, ACROSS

PROJECT NAME:

THE ENTIRE BOARD.

BRUNSWICK COUNTY **BOARD OF EDUCATION**

BELVILLE ELEMENTARY SCHOOL ROOF REPLACEMENT

> 575 RIVER RD. SE LELAND, NORTH CAROLINA 28451

PROJ. NO:

022CLT-253

NO. DATE DESCRIPTION CD 10/04/2024 CONTRACT DOCUMENTS

> THIS LINE IS 1 INCH ON THE ORIGINAL DRAWING

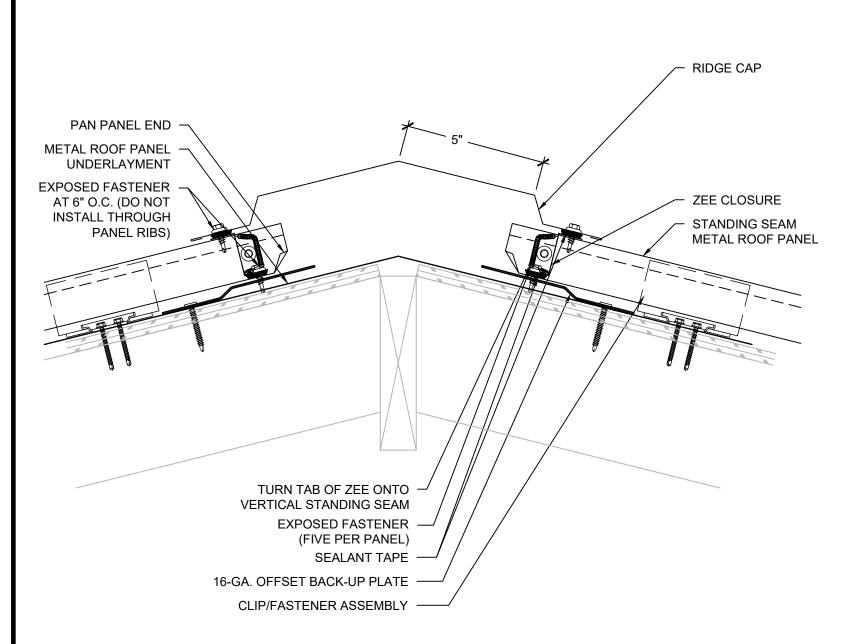
IF IT IS NOT 1 INCH ON THIS PAGE, SCALE DRAWING ACCORDINGLY.

SHEET TITLE:

DETAILS

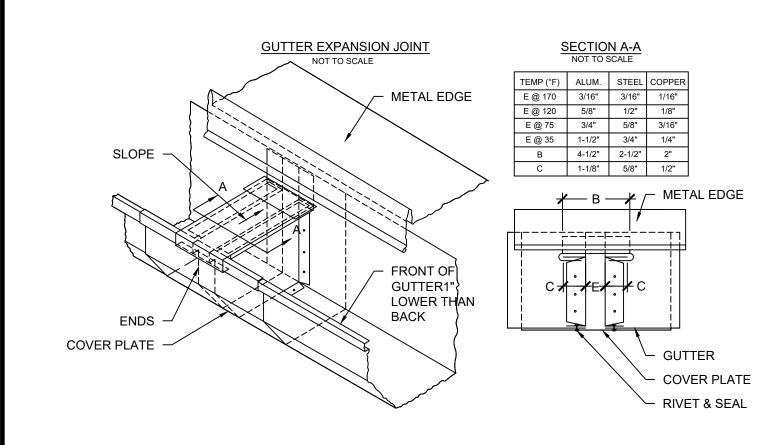
DRAWING:

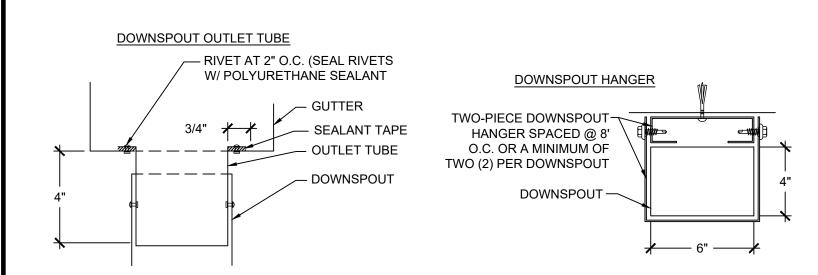
XR503



1. INSULATION AND THERMAL BLOCKS NOT SHOWN FOR CLARIFY. PROVIDE AS SPECIFIED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.

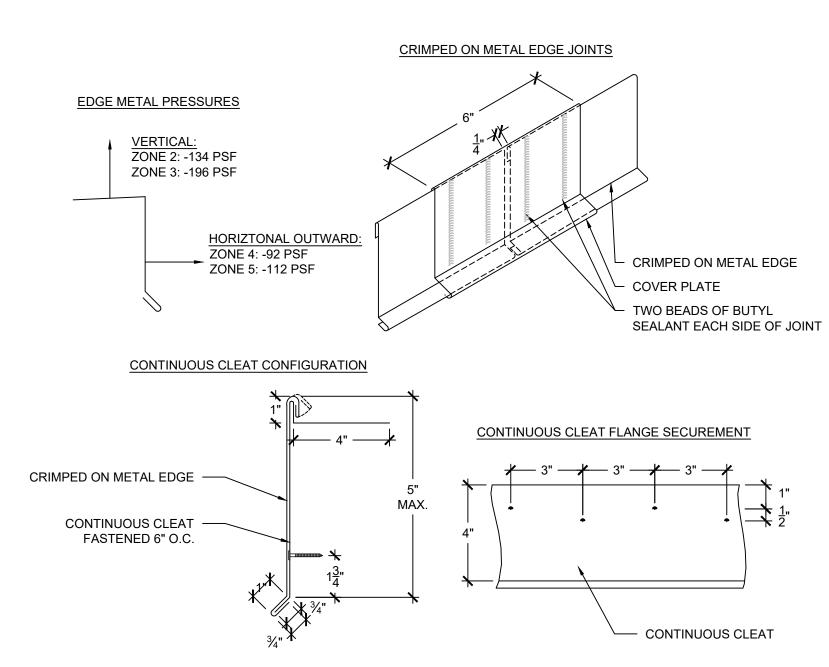
RIDGE - AREA F ALTERNATE 3





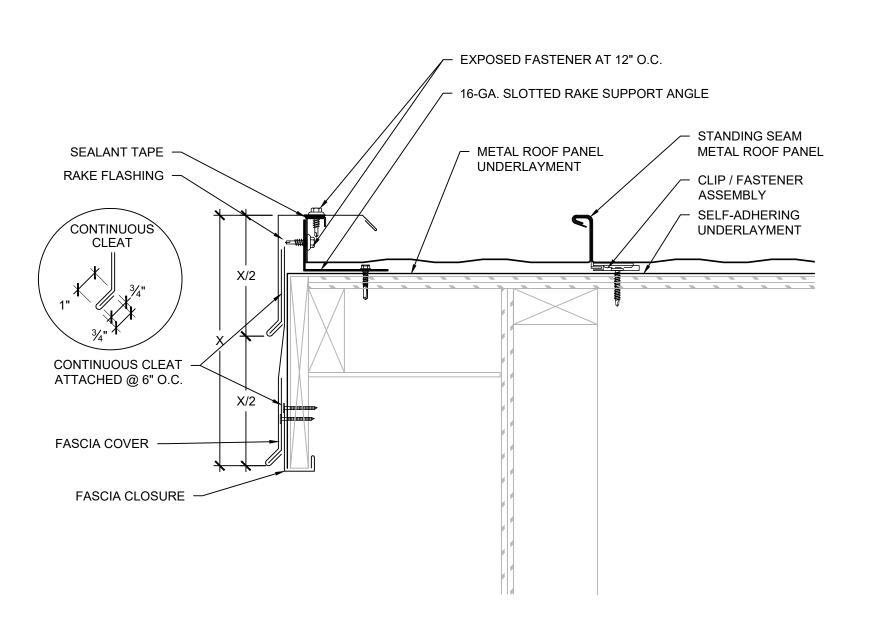
GUTTER/DOWNSPOUT COMPONENTS

SCALE: 3" = 1'-0"



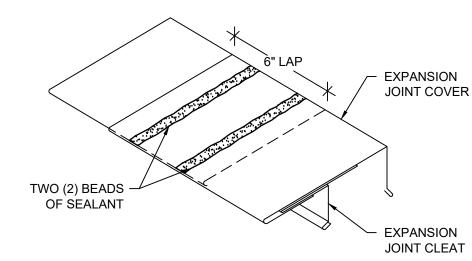
1. EDGE METAL SHALL BE TESTED FOR RESISTANCE TO WIND PRESSURES SPECIFIED IN WIND UPLIFT SUMMARY IN ACCORDANCE WITH ANSI/SPRI ES-1 TEST METHODS RE-1 AND RE-2. 2. CONTRACTOR SHALL PROVIDE SHOP DRAWING DEPICTING SHEET METAL COMPONENTS WITH DIMENSIONS AND PROVIDE EVIDENCE OF TESTING TO RESIST THE SPECIFIED WIND PRESSURES.

3. PROVIDE SEPARATE FASCIA COVER EXTENSION WHERE EDGE METAL DIMENSIONS EXCEED ALLOWABLE TESTED ASSEMBLY REQUIREMENTS. CRIMPED ON METAL EDGE COMPONENTS (32) SCALE: 3" = 1'-0"



RAKE EDGE - AREA F ALTERNATE 3

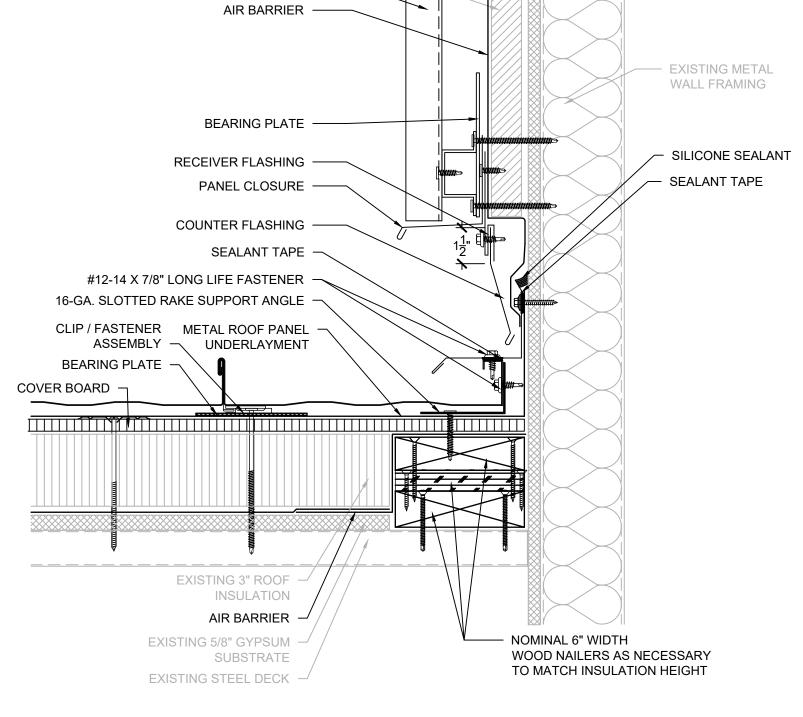
SCALE: 3" = 1'-0"



1. SIX INCH LAP SHOWN SHALL PERTAIN TO COVER & CLEAT 2. LAPS SHALL BE INSTALLED IN A SHINGLE FASHION w/ ROOF SLOPE.

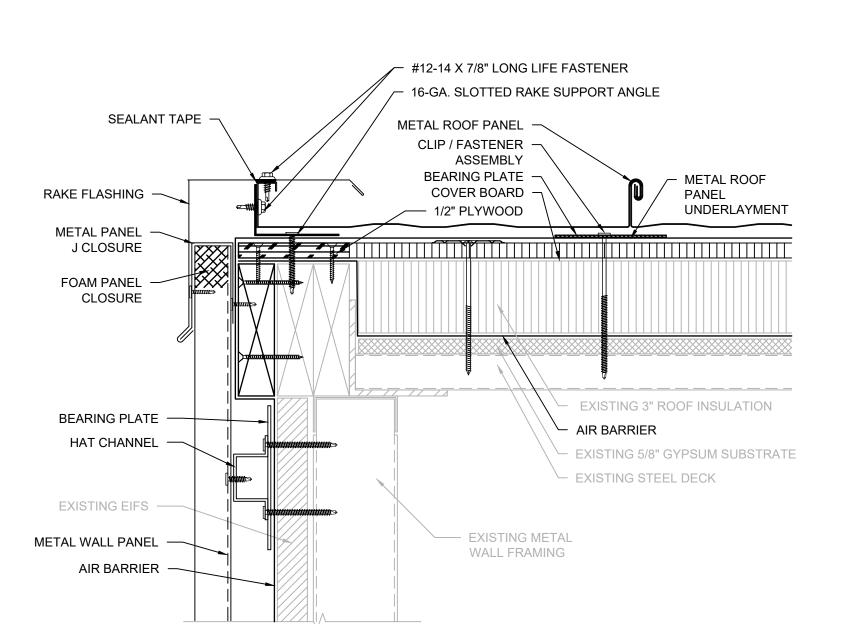
SHEET METAL EXPANSION JOINT SEAMS

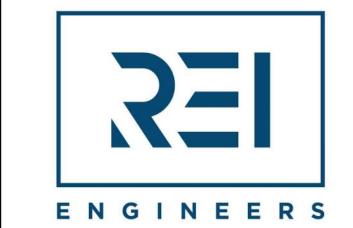
SCALE: 3" = 1'-0"



EXISTING EIFS ——

METAL WALL PANEL -





Engineering solutions for tomorrow®

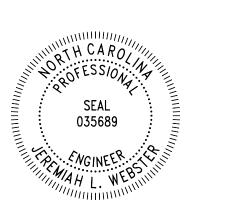
NORTH CAROLINA **ENGINEERING FIRM**

LICENSE # C-1520

1927 J.N. Pease Place | Suite 201 CHARLOTTE, NC 28262

www.reiengineers.com

SEALS:



<u>GENERAL NOTES:</u> 1. THESE DOCUMENTS ARE THE PROPERTY OF REI ENGINEERS, INC. (REI) AND REI RETAINS ALL RIGHTS THEREIN, INCLUDING COPYRIGHTS. IT MAY ONLY BE USED IN A MANNER CONSISTENT WITH REI'S RIGHTS WHILE REI IS PROVIDING SERVICE FOR THE SPECIFIC PROJECT IDENTIFIED OR REFERRED TO HEREIN OF EXTENSIONS THERETO. IT MAY NOT BE USED FOR ANY OTHER PURPOSE EXCEPT WITH THE EXPRESS WRITTEN AGREEMENT OF, AND COMPENSATION TO

REI ENGINEERS, INC. . DIMENSIONS, DETAIL COMPONENTS AND EQUIPMENT PENETRATION LOCATIONS ARE FOR INFORMATION ONLY. CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY ALL INFORMATION PROVIDED.

<u>SHEET NOTES:</u> 1. FOR DETAILS, LIGHT LINES REPRESENT EXISTING CONSTRUCTION TO REMAIN AND DARK LINES REPRESENT NEW COMPONENTS TO BE PROVIDED. . ANY WHOLE OR PARTIAL INSULATION BOARD OR PORTION OF ANY BOARD WHICH FALLS IN THE PERIMETERS & CORNERS OUTLINED SHALL BE SUBJECT TO THE FASTENING REQUIREMENTS FOR THE HIGHEST WIND ZONE ENCOUNTERED, ACROSS

PROJECT NAME:

THE ENTIRE BOARD.

BRUNSWICK COUNTY **BOARD OF EDUCATION**

BELVILLE ELEMENTARY SCHOOL ROOF REPLACEMENT

> 575 RIVER RD. SE LELAND, NORTH CAROLINA 28451

PROJ. NO:

022CLT-253

NO. DATE DESCRIPTION CD 10/04/2024 CONTRACT DOCUMENTS

> THIS LINE IS 1 INCH ON THE ORIGINAL DRAWING

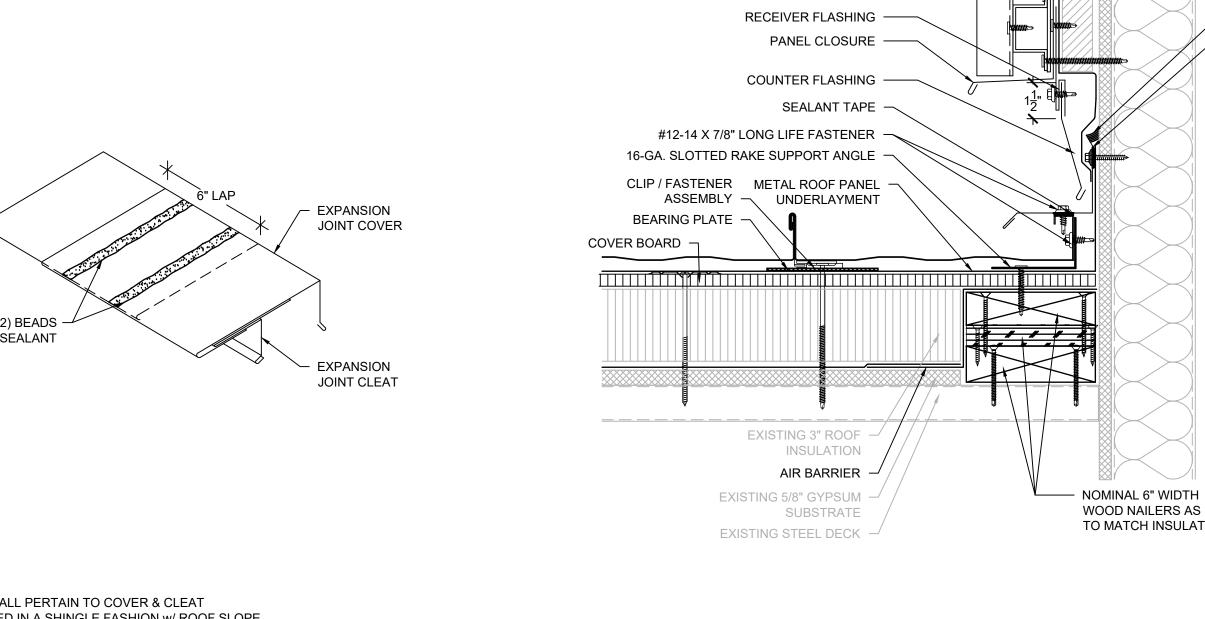
IF IT IS NOT 1 INCH ON THIS PAGE, SCALE DRAWING ACCORDINGLY.

SHEET TITLE:

DETAILS

DRAWING:

XR504



METAL WALL PANEL - ALTERNATE 4

SCALE: 3" = 1'-0"