

IMPORTANT NOTICE

The following document is NOT comprehensive for design, bidding, or installation when used in isolation. Please refer to all related documents in their entirety for complete information regarding this ACM panel system. Such documents include, but may not be limited to, Technical Guides, Architectural Color Chart, Approved Materials List, Systems Guides, Technical Bulletins, Technical Data Sheets, CAD Drawings, Specifications, and Submittals. Visit <u>LaminatorsInc.com</u> for information on the latest documents regarding this panel system.

INSTALLATION GUIDE ERRATA - ROUT & RETURN

- 1. [Effective 2/7/2020] Modify Page 6, Step 7 as follows:
 - This step is to be omitted. No fasteners are to be installed in reinforcing angles (Part No. 44DS-ANGLE)

CONTACT US

To consult directly with one of our Professional Engineers regarding our ACM panel systems, contact Laminators Technical Support between the hours of 8:00am – 5:00pm EST:

800.523.2347
<u>LaminatorsInc.com</u>
<u>engineering@laminatorsinc.com</u>



The following document contains a detail set for the application of the Rout & Return Installation System over a basic form of Continuous Insulation (CI) that consists of discrete structural rails or Z-girts combined with uncompressed insulation. Such "Alternate" CI (ALT CI or ACI) may be preferred to Laminators Omega CI (OCI) rigid insulation panels. Although many forms of proprietary CI are available, the detail set is intended to represent the relationship of a Rout & Return installation over basic ALT CI.

Laminators has not performed fire testing of the Rout & Return Installation System over any ALT CI, nor has any application of an engineering extension been made with respect to NFPA 285 compliance. Therefore, no claims can be made by Laminators regarding potential impact of ALT CI on the fire performance of the project-specific exterior wall assembly. As such, all specialized detailing requirements for NFPA 285 compliance represented in the detail set are specific to the installation system "layer" of the exterior wall assembly based on historical fire testing without ALT CI.

INSTRUCTIONS FOR NFPA 285 COMPLIANCE

With respect to fire performance, note the following when detailing the Rout & Return Installation System over basic ALT CI comprised of <u>horizontal</u> structural rails or Z-girts combined with uncompressed insulation (ACI-H):

- The following document represents the referenced system as it has been designed, detailed, and tested and its relationship with a typical exterior wall assembly. As such, the document may be considered a baseline for the system and appropriately applied to project-specific conditions.
 - a. Laminators defines the NFPA 285 Zone as the area contained within a 10'-0" height above any window by the width of the window opening. The following document does not include a partial elevation that outlines the NFPA 285 Zone and related dimensions, notes, and sections. However, in order to maintain NFPA 285 compliance, specialized detailing is still required in the NFPA 285 Zone and at window heads as follows:
 - All horizontal panel joints within the NFPA 285 Zone require additional fasteners per detail RR-ACI-V-01HA or must have rivets installed (contact Laminators Technical Support for information regarding rivet installation).
 - Additional layers of steel flashing are required at window heads per detail RR-ACI-V-02A.
 - iii. Vertical panel joints are not permitted above window openings within the NFPA 285 Zone. All vertical joints must align with vertical window jambs or mullions.
- 2. Through the use of a specific Engineering Evaluation (EEV) available from Laminators, engineering extensions may be made (in lieu of what has been tested) with respect to base wall framing, fire-stopping at floor lines, cavity insulation, and water-resistive barrier (WRB) components while maintaining NFPA 285 compliance. Note that with respect to CI, the engineering extensions provided in the EEV are only applicable to Laminators OCI rigid insulation panels and do not address basic ALT CI or any other form of proprietary CI. The EEV may be required for submission to the Authority Having Jurisdiction (AHJ) to support the extensions.
- 3. If one or more engineering extensions are required beyond what is provided in the EEV available from Laminators, it is the responsibility of a third-party to pursue obtaining a separate



EEV that adequately addresses each intended substitution. Note that Laminators <u>cannot</u> serve as the third-party in efforts to obtain such an EEV.

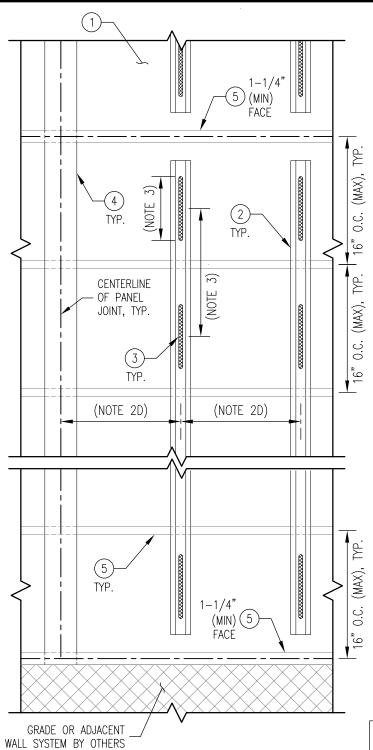
Note that the application of any engineering extension for NFPA 285 compliance will need to be evaluated by the Design Professional of Record (DPR) with respect to potential impact on any air, structural, and water performance of the project-specific exterior wall assembly. It is possible that components substituted to achieve fire testing compliance will affect the assembly differently with respect to air, structural, and water performance and need to be coordinated.

If the Rout & Return Installation System is intended to be installed over a different substrate (e.g. fire-retardant-treated wood (FRTW) structural sheathing (panels), gypsum (non-structural) sheathing, CMU, concrete, or Omega CI rigid insulation panels), please defer to the appropriate detail set.



DRAWING INDEX - RR-ACI-H DETAIL SET (Rev 00, 01/19/2021)

DWG NO.	TITLE	REV DATE	REV	CHANGE FROM PREVIOUS REV
RR-ACI-H-EL	Partial System Elevation	1/19/2021	00	
RR-ACI-H-ST	Panel Stiffener Detail	1/19/2021	00	
RR-ACI-H-01H	Horizontal Joint Detail	1/19/2021	00	
RR-ACI-H-01HA	Horizontal Joint Detail (NFPA 285 Zone)	1/19/2021	00	
RR-ACI-H-01V	Vertical Joint Detail	1/19/2021	00	
RR-ACI-H-02	Window Head Detail	1/19/2021	00	
RR-ACI-H-02A	Window Head Detail (NFPA 285 Zone)	1/19/2021	00	
RR-ACI-H-03	Window Sill Detail	1/19/2021	00	
RR-ACI-H-04	Window Jamb / Vertical Edge Detail	1/19/2021	00	
RR-ACI-H-05	Top of Wall Detail	1/19/2021	00	
RR-ACI-H-06	Base of Wall (Grade) Detail	1/19/2021	00	
RR-ACI-H-07	Inside Corner Detail	1/19/2021	00	
RR-ACI-H-08	Outside Corner Detail	1/19/2021	00	
RR-ACI-H-09	Fascia-to-Soffit Transition Detail	1/19/2021	00	
RR-ACI-H-10	Soffit Vent Requirements	1/19/2021	00	



PARTIAL SYSTEM ELEVATION (PANELS AND EXTRUSIONS NOT SHOWN)

- CONTINUOUS INSULATION (CI) SYSTEM OVER EXTERIOR WALL
 ASSEMBLY; LOCATION OF AIR AND WATER BARRIER AND DRAINAGE
 PLANE TO BE DETERMINED BY DESIGN PROFESSIONAL OF RECORD
- ig(2ig) PANEL STIFFENERS (7/8" HAT CHANNELS, 18 GA. MIN)
 - A. MAINTAIN 3" GAPS BETWEEN ENDS OF PANEL STIFFENERS AND PANEL EDGES
 - B. PANEL STIFFENERS MUST BE ORIENTED <u>VERTICALLY</u> AND SUPPORTED BY A MINIMUM OF (2) HORIZONTAL CI RAILS
 - C. FASTEN STIFFENERS TO HORIZONTAL CI RAILS USING (2) #10 X 1/2" (MIN) SELF-DRILLING SCREWS PER RAIL LOCATION ALONG HAT CHANNEL FLANGES (REFER TO DETAIL RR-ACI-H-ST)
 - REQUIRED PANEL STIFFENER SPACING TO BE BASED ON PROJECT SPECIFIC WIND LOADS:
 - UP TO 40 PSF (ASD): STIFFENERS REQUIRED AT 16" O.C.
- 3) 1/4" (MIN) TO 3/8" (MAX) BEAD OF LAMINATORS APPROVED PANEL ADHESIVE APPLIED TO PANEL STIFFENERS (REFER TO DETAIL RR-ACI-H-ST); LENGTH AND SPACING OF ADHESIVE BEADS TO BE BASED ON PROJECT SPECIFIC WIND LOADS:
 - UP TO 40 PSF (ASD): 8" ADHESIVE LENGTHS AT 16" O.C.
- (4) CONTINUOUS 4" COLD-FORMED STRAPPING (18 GA. MIN) FASTENED TO HORIZONTAL CI RAILS USING (3) #8 X 1/2" PPH SELF-DRILLING SCREWS PER RAIL LOCATION
 - VERTICAL STRAPPING INSTALLED AT ALL VERTICAL PANEL JOINTS/EDGES
- (5) HORIZONTAL CI RAILS INSTALLED AT 16" O.C. (MAX)
 - A. RAIL DESIGN AND ATTACHMENT TO STRUCTURE TO BE DETERMINED BY DESIGN PROFESSIONAL OF RECORD
 - B. RAILS TO BE 18 GA. (MIN) COLD-FORMED STEEL
 - C. RAILS TO BE LOCATED AT ALL HORIZONTAL PANEL JOINTS AND HORIZONTAL EDGES AND COORDINATED WITH WALL FRAMING
 - D. FACE OF RAILS MUST MEET THE FOLLOWING GEOMETRIC REQUIREMENTS FOR PANEL SYSTEM INSTALLATION:
 - HORIZONTAL JOINT SUPPORTS: 1-1/4" (MIN) FACE WIDTH
 - HORIZONTAL EDGE SUPPORTS: 1-1/4" (MIN) FACE WIDTH

IMPORTANT NOTICE

PROJECT-SPECIFIC COMPONENTS AND CLADDING WIND LOADS (REQUIRED STRENGTH, Ra) SHALL NOT EXCEED AVAILABLE LOAD-CARRYING CAPACITY OF SYSTEM (ALLOWABLE STRENGTH, ${\rm Rn}/\Omega$)

- A. PROJECT-SPECIFIC COMPONENTS AND CLADDING WIND LOADS ARE TO BE DETERMINED BY THE DESIGN PROFESSIONAL OF RECORD
- B. AVAILABLE LOAD-CARRYING CAPACITY OF SYSTEM (UP TO 40 PSF) IS BASED ON ALLOWABLE STRENGTH DESIGN (ASD) METHOD
- C. FOR PROJECT—SPECIFIC COMPONENTS AND CLADDÍNG WIND LOADS GREATER THAN 40 PSF, CONTACT LAMINATORS TECHNICAL SUPPORT FOR PROJECT—SPECIFIC DETAILING REQUIREMENTS

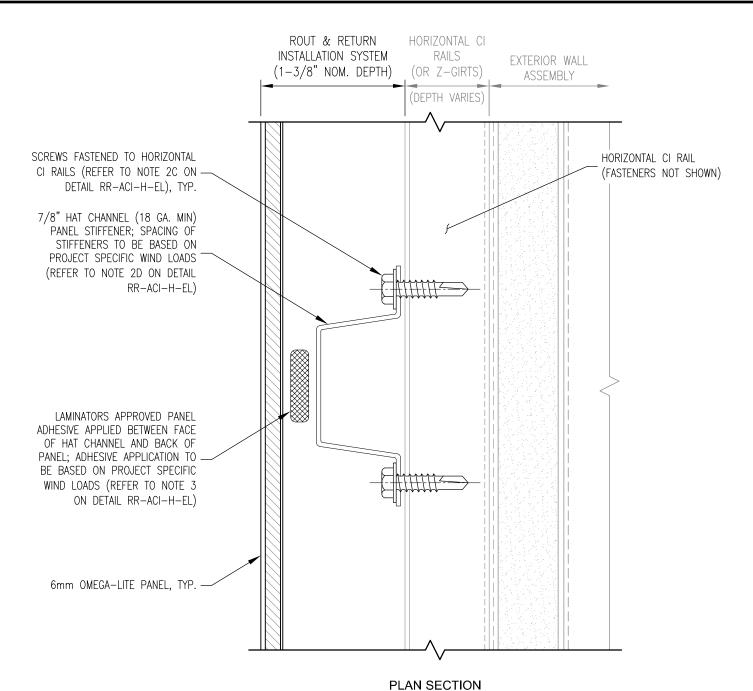


PARTIAL SYSTEM ELEVATION

ROUT & RETURN INSTALLATION SYSTEM
OVER ALT CI SYSTEM (WITH HORIZONTAL RAILS)

Date: Drawn By: 1/19/2021 JJM

Dwg. No.: Rev: RR-ACI-H-EL 00



- SPACING SHOWN BETWEEN SOME INSTALLATION SYSTEM COMPONENTS EXAGGERATED FOR CLARITY
- PANEL STIFFENERS TO BE FASTENED TO SUBSTRATE PRIOR TO PANEL INSTALLATION; REFER TO DETAIL RR-ACI-H-EL FOR ADDITIONAL INFORMATION
- FULL CONTACT OF PANEL ADHESIVE WITH BACK OF PANEL REQUIRED AT ALL APPLICATION LOCATIONS

OMEGA PANEL PRODUCTS Ω LAMINATORS INC.

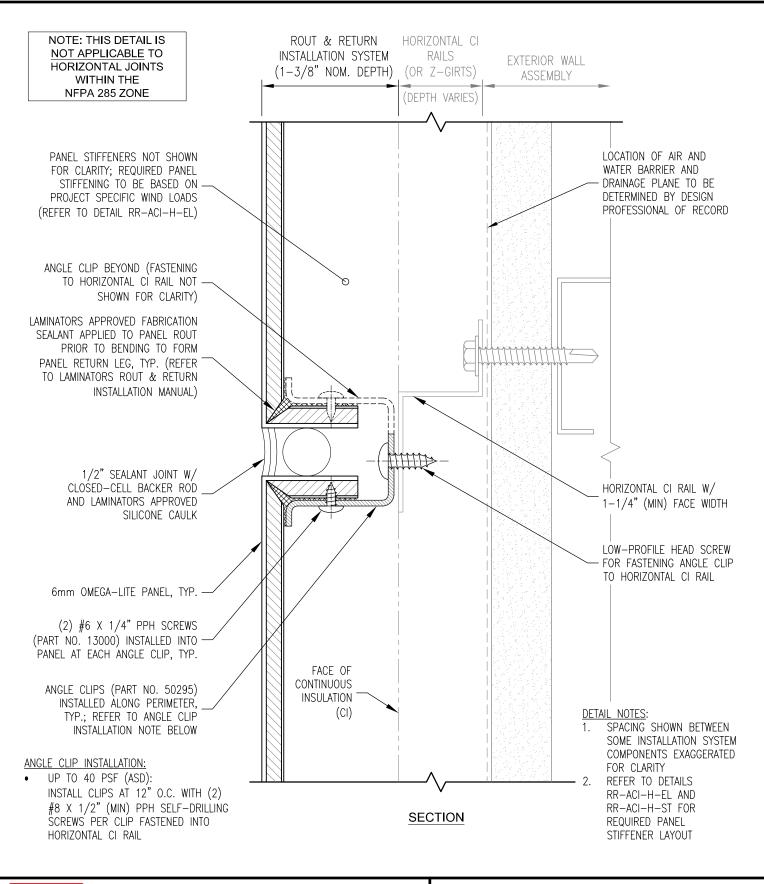
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PANEL STIFFENER DETAIL

ROUT & RETURN INSTALLATION SYSTEM OVER ALT CI SYSTEM (WITH HORIZONTAL RAILS)

Date: Drawn By: 1/19/2021 JJM

Dwg. No.: Rev: RR-ACI-H-ST 00





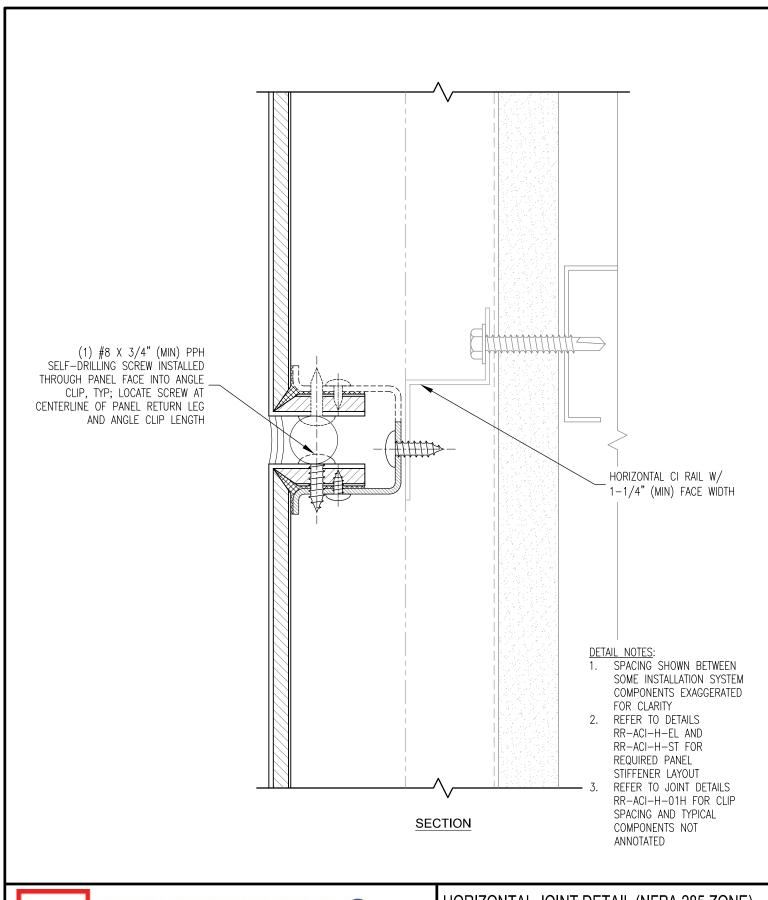
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HORIZONTAL JOINT DETAIL

ROUT & RETURN INSTALLATION SYSTEM
OVER ALT CI SYSTEM (WITH HORIZONTAL RAILS)

Date: Drawn By: 1/19/2021 JJM

Dwg. No.: Rev: RR-ACI-H-01H 00





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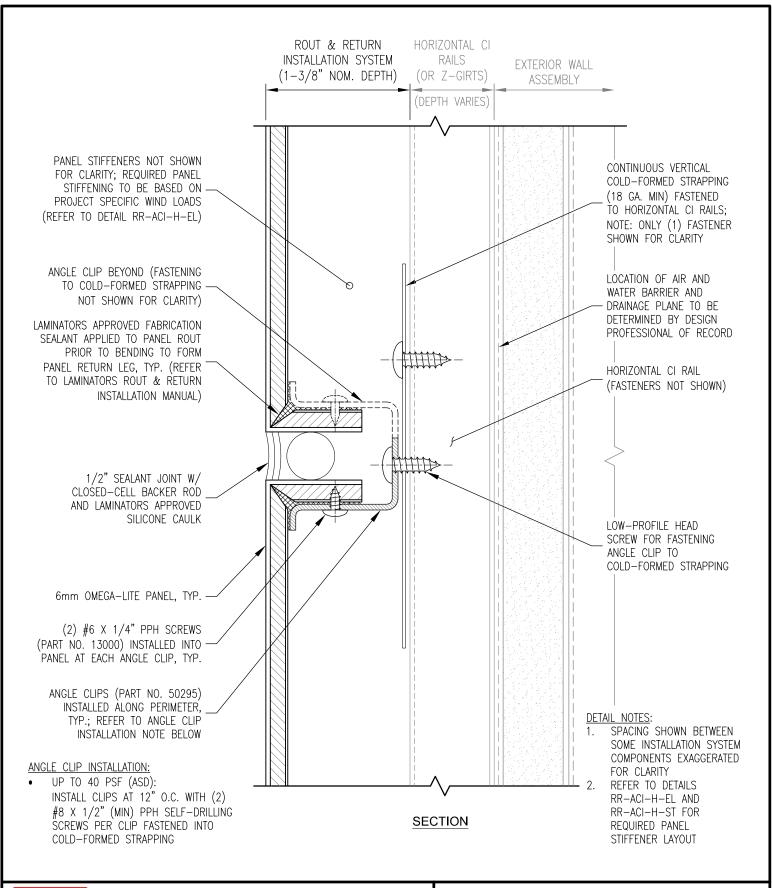
HORIZONTAL JOINT DETAIL (NFPA 285 ZONE)

ROUT & RETURN INSTALLATION SYSTEM OVER ALT CI SYSTEM (WITH HORIZONTAL RAILS)

Date: 1/19/2021

JJM

Drawn By: Dwg. No.: Rev: RR-ACI-H-01HA 00





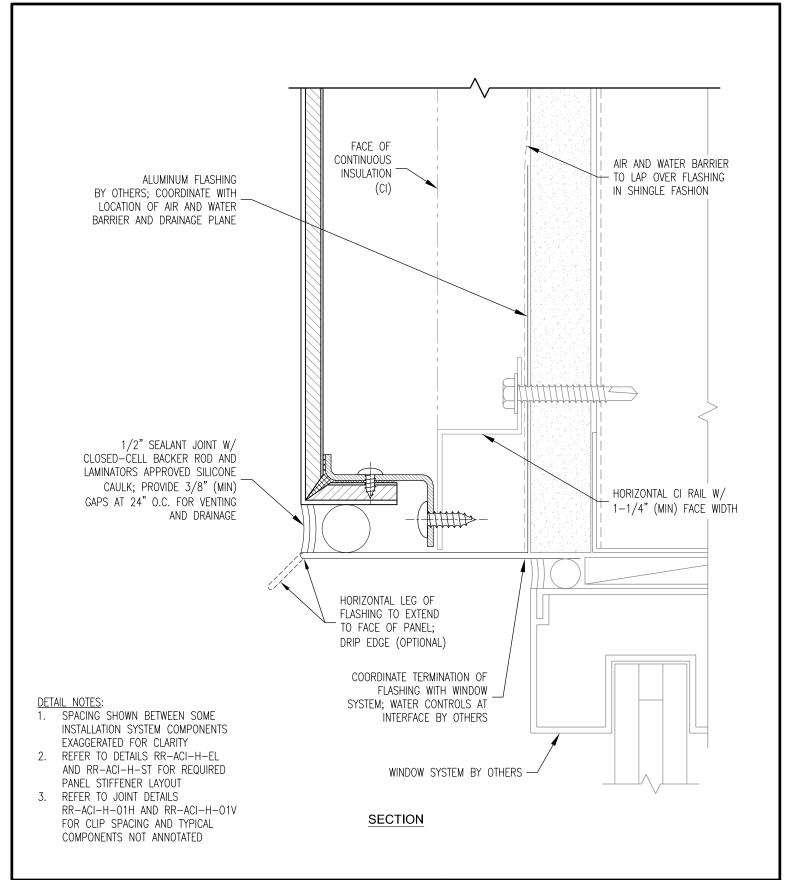
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VERTICAL JOINT DETAIL

ROUT & RETURN INSTALLATION SYSTEM OVER ALT CI SYSTEM (WITH HORIZONTAL RAILS)

Date: Drawn By: 1/19/2021 JJM

Dwg. No.: Rev: RR-ACI-H-01V 00





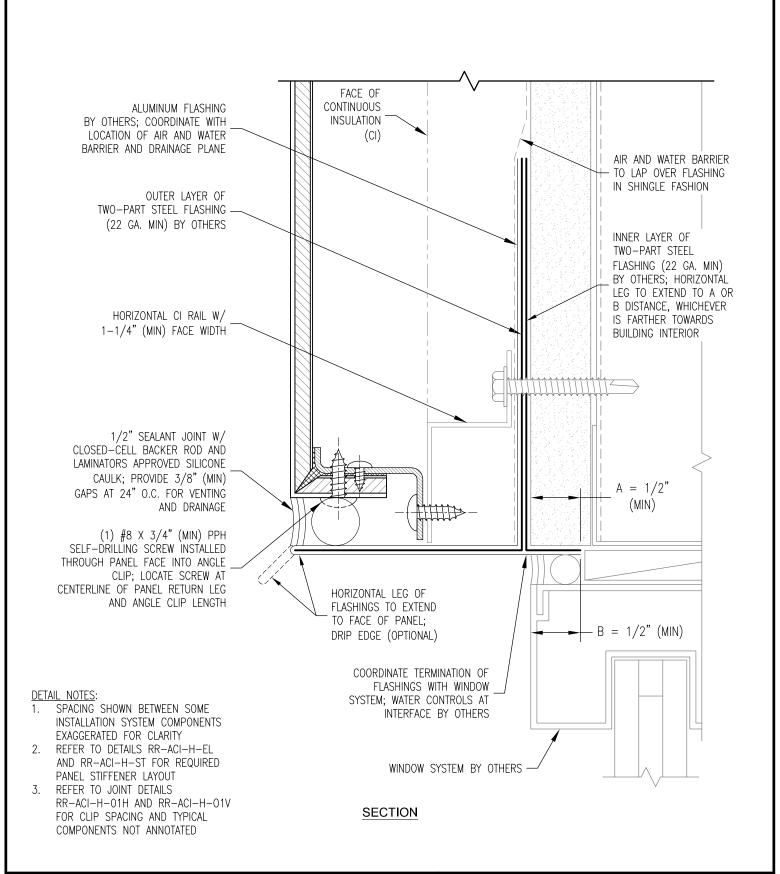
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WINDOW HEAD DETAIL

ROUT & RETURN INSTALLATION SYSTEM OVER ALT CI SYSTEM (WITH HORIZONTAL RAILS)

Date: Drawn By: 1/19/2021 JJM

Dwg. No.: Rev: RR-ACI-H-02 00





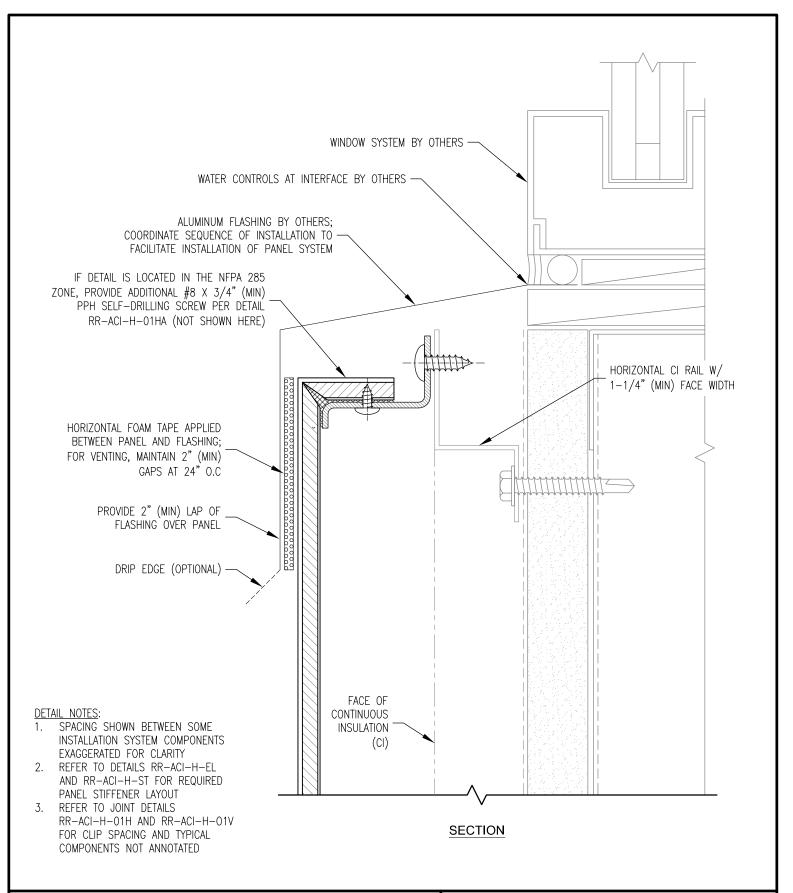
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WINDOW HEAD DETAIL (NFPA 285 ZONE)

ROUT & RETURN INSTALLATION SYSTEM
OVER ALT CI SYSTEM (WITH HORIZONTAL RAILS)

Date: Drawn By: 1/19/2021 JJM

Dwg. No.: Rev: RR-ACI-H-02A 00





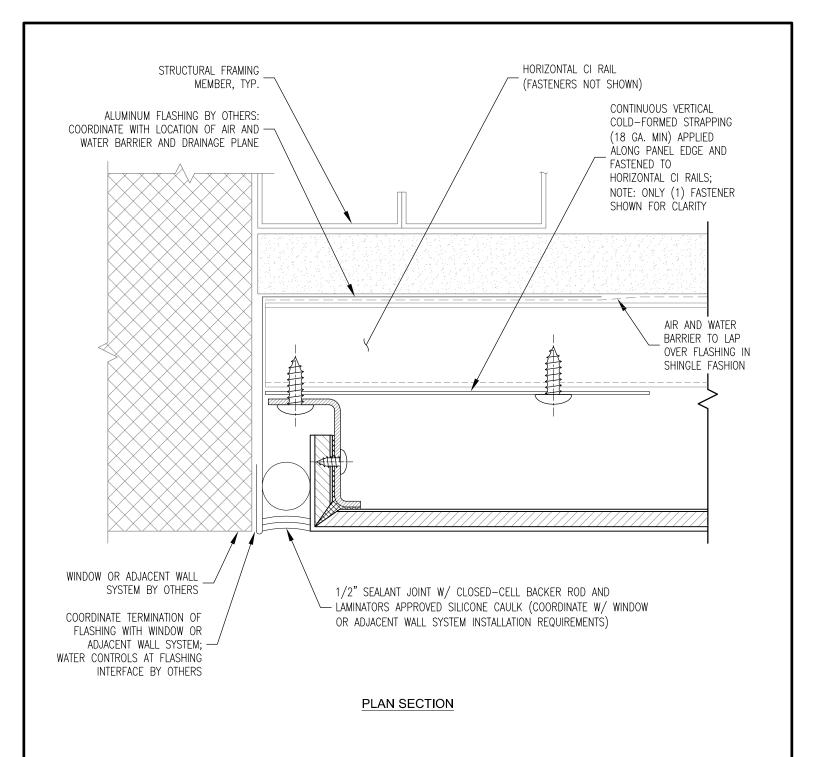
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WINDOW SILL DETAIL

ROUT & RETURN INSTALLATION SYSTEM OVER ALT CI SYSTEM (WITH HORIZONTAL RAILS)

Date: Drawn By: 1/19/2021 JJM

Dwg. No.: Rev: RR-ACI-H-03 00



- SPACING SHOWN BETWEEN SOME INSTALLATION SYSTEM COMPONENTS EXAGGERATED FOR CLARITY
- REFER TO DETAILS RR-ACI-H-EL AND RR-ACI-H-ST FOR REQUIRED PANEL STIFFENER LAYOUT
- REFER TO JOINT DETAILS RR-ACI-H-01H AND RR-ACI-H-01V FOR CLIP SPACING AND TYPICAL COMPONENTS NOT ANNOTATED



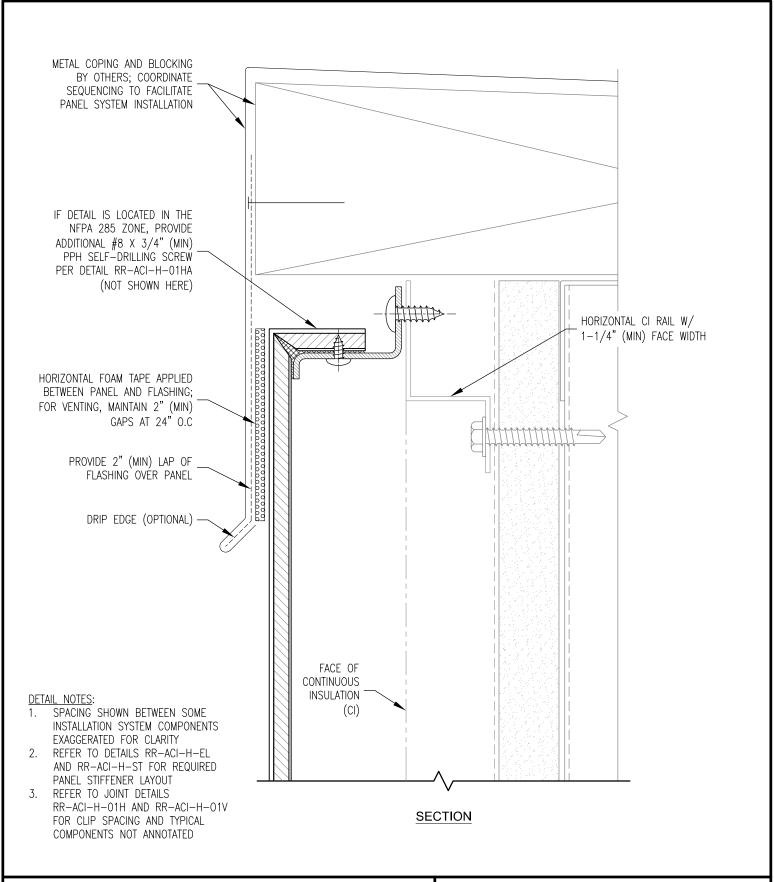
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WINDOW JAMB / VERTICAL EDGE DETAIL

ROUT & RETURN INSTALLATION SYSTEM OVER ALT CI SYSTEM (WITH HORIZONTAL RAILS)

Date: Drawn By: 1/19/2021 JJM

Dwg. No.: Rev: RR-ACI-H-04 00





TOP OF WALL DETAIL

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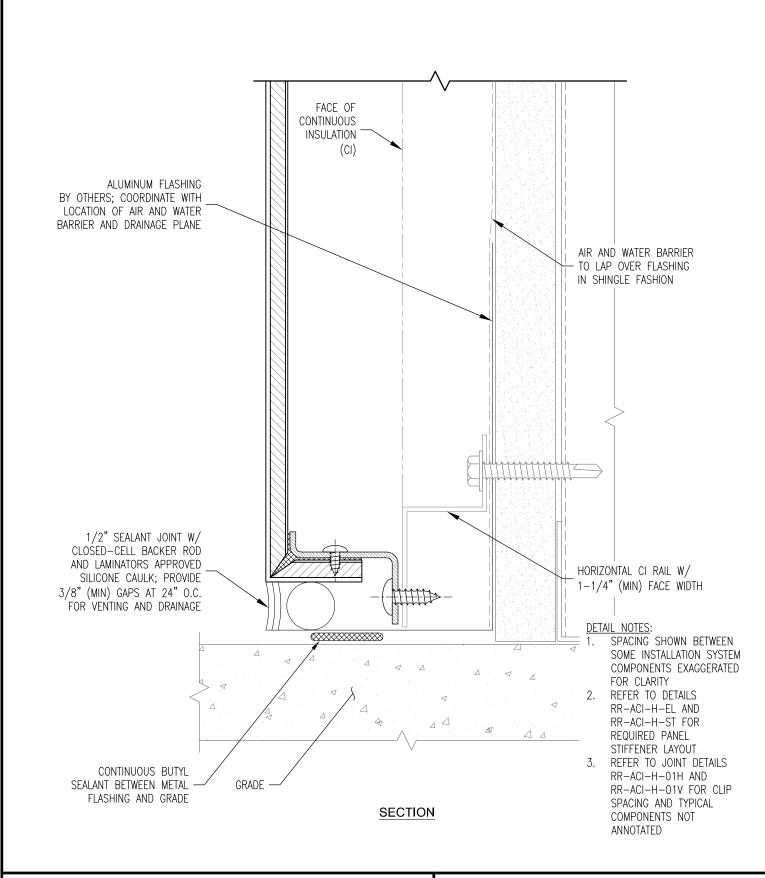
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ROUT & RETURN INSTALLATION SYSTEM
OVER ALT CI SYSTEM (WITH HORIZONTAL RAILS)

Date: 1/19/2021 Dwg. No.: Rev: RR-ACI-H-05 00

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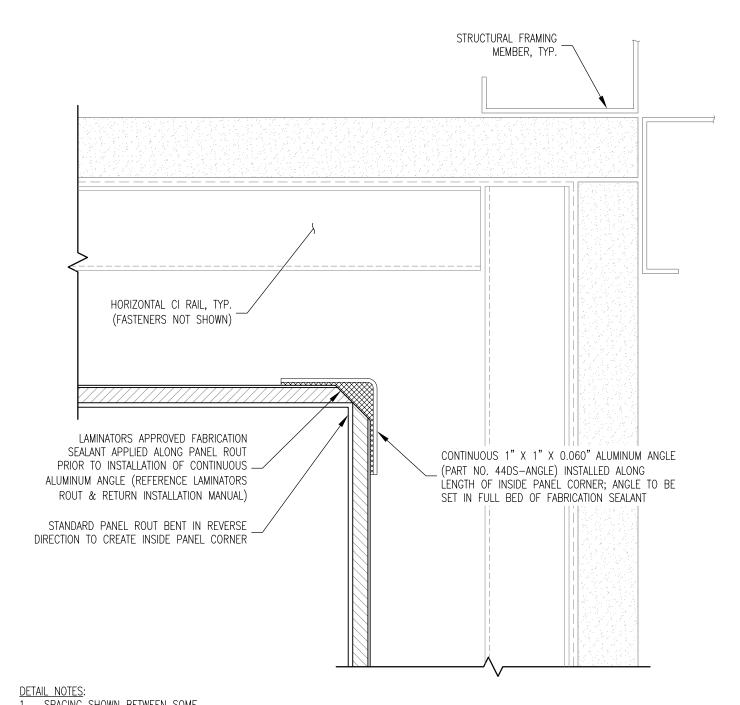
BASE OF WALL (GRADE) DETAIL

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ROUT & RETURN INSTALLATION SYSTEM OVER ALT CI SYSTEM (WITH HORIZONTAL RAILS)

Date: 1/19/2021

Drawn By: Dwg. No.: RR-ACI-H-06



- SPACING SHOWN BETWEEN SOME INSTALLATION SYSTEM COMPONENTS EXAGGERATED FOR CLARITY
- REFER TO DETAILS RR-ACI-H-EL AND RR-ACI-H-ST FOR REQUIRED PANEL STIFFENER LAYOUT
- 3. REFER TO JOINT DETAILS
 RR-ACI-H-01H AND RR-ACI-H-01V
 FOR CLIP SPACING AND TYPICAL
 COMPONENTS NOT ANNOTATED

PLAN SECTION

NOTE: THIS DETAIL IS ALSO APPLICABLE FOR SOFFIT-TO-WALL TRANSITIONS



INSIDE CORNER DETAIL

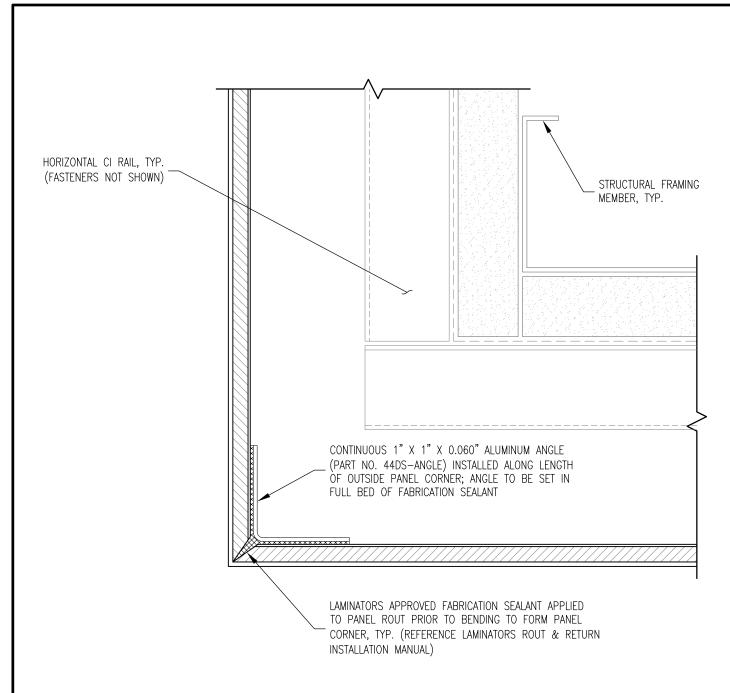
Drawn By:

JJM

ROUT & RETURN INSTALLATION SYSTEM
OVER ALT CI SYSTEM (WITH HORIZONTAL RAILS)

Date: 1/19/2021

Dwg. No.: F RR-ACI-H-07 0



- SPACING SHOWN BETWEEN SOME INSTALLATION SYSTEM COMPONENTS EXAGGERATED FOR CLARITY
- REFER TO DETAILS RR-ACI-H-EL AND RR-ACI-H-ST FOR REQUIRED PANEL STIFFENER LAYOUT
- REFER TO JOINT DETAILS RR-ACI-H-01H AND RR-ACI-H-01V FOR CLIP SPACING AND TYPICAL COMPONENTS NOT ANNOTATED

PLAN SECTION

NOTE: REFER TO DETAIL RR-ACI-H-09 FOR FASCIA-TO-SOFFIT TRANSITIONS



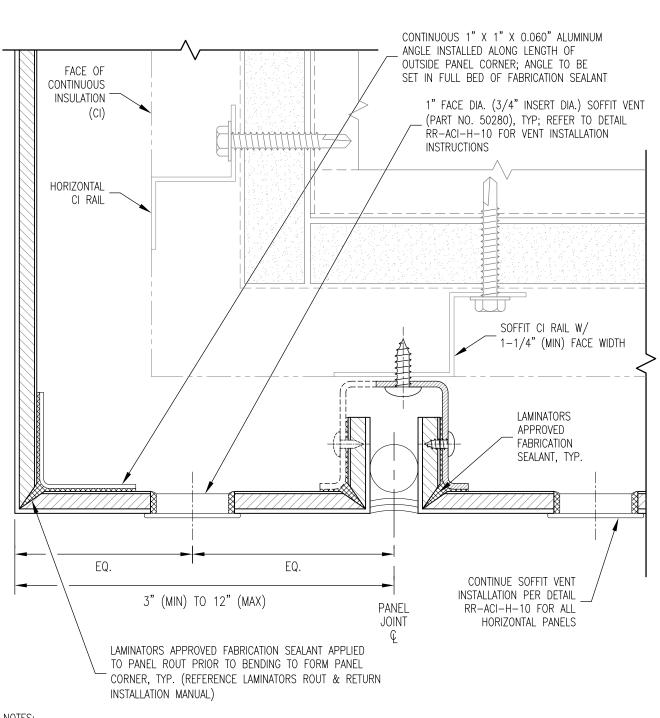
OUTSIDE CORNER DETAIL

JJM

ROUT & RETURN INSTALLATION SYSTEM OVER ALT CI SYSTEM (WITH HORIZONTAL RAILS)

Date: 1/19/2021

Drawn By: Dwg. No.: RR-ACI-H-08



- SPACING SHOWN BETWEEN SOME INSTALLATION SYSTEM COMPONENTS EXAGGERATED FOR CLARITY
- 2. REFER TO DETAILS RR-ACI-H-EL AND RR-ACI-H-ST FOR REQUIRED PANEL STIFFENER LAYOUT
- REFER TO JOINT DETAILS RR-ACI-H-01H AND RR-ACI-H-01V FOR CLIP SPACING AND TYPICAL COMPONENTS NOT ANNOTATED



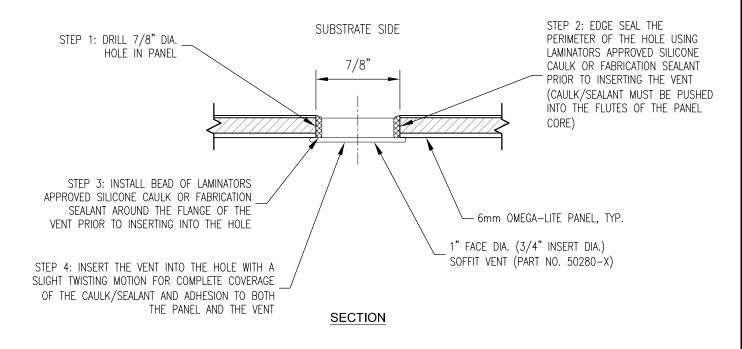
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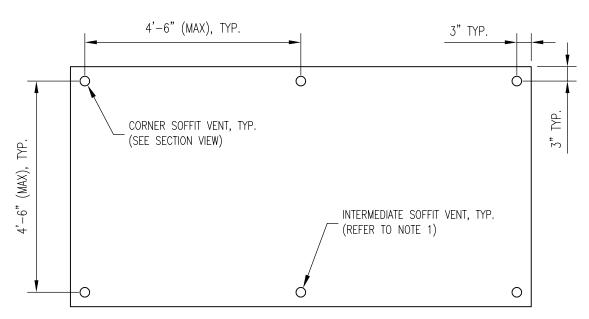
FASCIA-TO-SOFFIT TRANSITION DETAIL

ROUT & RETURN INSTALLATION SYSTEM OVER ALT CI SYSTEM (WITH HORIZONTAL RAILS)

Date: Drawn By: 1/19/2021 JJM

Dwg. No.: RR-ACI-H-09





OMEGA-LITE SOFFIT PANEL

DETAIL NOTES:

- 1. FOR PANEL EDGE DIMENSIONS LARGER THAN 5'-0", INTERMEDIATE VENTS SHALL BE INSTALLED WITH EQUAL SPACING
- 2. FOR PANEL EDGE DIMENSIONS 12" AND SMALLER, A SINGLE ROW OF VENTS MAY BE INSTALLED ALONG THE CENTERLINE OF THE PANEL IN THE LONGER DIRECTION (IN PLACE OF TWO ROWS AS SHOWN ABOVE)
- 3. CONTACT LAMINATORS TECHNICAL SUPPORT FOR ADDITIONAL INFORMATION ON REQUIRED SOFFIT VENT INSTALLATION FOR UNIQUE PROJECT—SPECIFIC PANEL GEOMETRIES



SOFFIT VENT REQUIREMENTS

ROUT & RETURN INSTALLATION SYSTEM OVER ALT CI SYSTEM (WITH HORIZONTAL RAILS)

Date: Drawn By: 1/19/2021 JJM

Dwg. No.: Rev: RR-ACI-H-10 00