## 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 LaminatorsInc.com 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

LaminatorsInc.com
engineering@laminatorsinc.com

OMEGA PANEL PRODUCTS $\Omega$
LAMINATORS imc.

## INSTRUCTIONS FOR NFPA 285 COMPLIANCE

With respect to fire performance, note the following when detailing the Rout \& Return Installation System over gypsum (non-structural) sheathing:

1. 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 $10^{\prime}-0^{\prime \prime}$ 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:
i. All horizontal panel joints within the NFPA 285 Zone require additional fasteners per detail RR-GYP-01A or must have rivets installed per detail RR-GYP-01B.
ii. Additional layers of steel flashing are required at window heads per detail RR-GYP-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. 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 cannot 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), CMU, concrete, or Omega CI rigid insulation panels), please defer to the appropriate detail set.

DRAWING INDEX - RR-GYP DETAIL SET (Rev 01, 12/03/2020)

| DWG NO. | TITLE | REV DATE | REV | CHANGE FROM PREVIOUS REV |
| :--- | :--- | :--- | :--- | :--- |
| RR-GYP-EL | Partial System Elevation |  |  | Stiffener to joint spacing clarified; <br> Min screw length specified |
| RR-GYP-ST | Panel Stiffener Detail | $12 / 3 / 2020$ | 01 |  |
|  |  | $12 / 3 / 2020$ | 01 | System depth added; <br> Min screw length specified |
| RR-GYP-01 | Joint Detail | $12 / 3 / 2020$ | 01 | Min screw length specified |
| RR-GYP-01A | Horizontal Joint Detail (NFPA 285 Zone) | 120 |  |  |
| RR-GYP-01B | Joint Detail (Rivet Option) | $8 / 4 / 2020$ | 00 |  |
| RR-GYP-02 | Window Head Detail | $8 / 4 / 2020$ | 00 |  |
| RR-GYP-02A | Window Head Detail (NFPA 285 Zone) | $12 / 3 / 2020$ | 01 | Min screw length specified |
| RR-GYP-03 | Window Sill Detail | $8 / 4 / 2020$ | 00 |  |
| RR-GYP-04 | Window Jamb / Vertical Edge Detail | $8 / 4 / 2020$ | 00 |  |
| RR-GYP-05 | Top of Wall Detail | $8 / 4 / 2020$ | 00 |  |
| RR-GYP-06 | Base of Wall (Grade) Detail | $8 / 4 / 2020$ | 00 |  |
| RR-GYP-07 | Inside Corner Detail | $8 / 4 / 2020$ | 00 |  |
| RR-GYP-08 | Outside Corner Detail | $8 / 4 / 2020$ | 00 |  |
| RR-GYP-09 | Fascia-to-Soffit Transition Detail | $8 / 4 / 2020$ | 00 |  |
| RR-GYP-10 | Soffit Vent Requirements | $8 / 4 / 2020$ | 00 |  |


$\frac{\text { PARTIAL SYSTEM ELEVATION }}{(\text { PANELS NOT SHOWN) }}$
(1) $5 / 8^{\prime \prime}$ (MAX) EXTERIOR-GRADE GYPSUM SHEATHING W/ AIR AND WATER BARRIER (AWB); TYPE OF AWB TO BE SELECTED BY DESIGN PROFESSIONAL OF RECORD
(2) PANEL STIFFENERS (7/8" HAT CHANNELS, 18 GA. MIN)
A. MAINTAIN 3" GAPS BETWEEN ENDS OF PANEL STIFFENERS AND PANEL EDGES FOR DRAINAGE
B. PANEL STIFFENERS MUST BE ORIENTED HORIZONTALLY
C. FASTEN STIFFENERS THROUGH SHEATHING TO STRUCTURAL FRAMING BEHIND USING (2) \#10 $\times 1^{\prime \prime}$ (MIN) SELF-DRILLING SCREWS PER FRAMING MEMBER ALONG HAT CHANNEL FLANGES (REFER TO DETALL RR-GYP-ST); STRUCTURAL FRAMING TO BE 16" O.C. (MAX)
D. REQUIRED PANEL STIFFENER SPACING TO BE BASED ON PROJECT SPECIFIC WIND LOADS:

- UP TO 40 PSF (ASD): STIFFENERS REQUIRED AT $16^{\prime \prime} 0 . C$.
(3) $1 / 4^{\prime \prime}$ (MIN) TO $3 / 8^{\prime \prime}$ (MAX) BEAD OF LAMINATORS APPROVED PANEL ADHESIVE APPLIED TO PANEL STIFFENERS (REFER TO DETALL RR-GYP-ST); LENGTH AND SPACING OF ADHESIVE BEADS TO BE BASED ON PROJECT SPECIFIC WIND LOADS:
- UP TO 40 PSF (ASD): $8^{\prime \prime}$ ADHESIVE LENGTHS AT 16" 0.C.
(4) CONTINUOUS 4" COLD-FORMED STRAPPING (18 GA. MIN) FASTENED THROUGH SHEATHING TO STRUCTURAL FRAMING BEHIND USING (3) \#8 $\times 1$ " (MIN) PPH SELF-DRILLING SCREWS PER FRAMING MEMBER
- HORIZONTAL STRAPPING INSTALLED AT ALL HORIZONTAL PANEL JOINTS/EDGES
- VERTICAL STRAPPING TO BE INSTALLED AT ALL VERTICAL PANEL JOINTS/EDGES; WHERE VERTICAL PANEL JOINTS DO NOT ALIGN WITH STRUCTURAL STUD FRAMING, VERTICAL STRAPPING TO BE FASTENED TO HORIZONTAL STRAPPING USING (4) \#8 X 1 " (MIN) PPH SELF-DRILLING SCREWS AT EACH INTERSECTION


## IMPORTANT NOTICE

PROJECT-SPECIFIC COMPONENTS AND CLADDING WIND LOADS (REQUIRED STRENGTH, Ra) SHALL NOT EXCEED AVAILABLE LOAD-CARRYING CAPACITY OF SYSTEM (ALLOWABLE STRENGTH, 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 CLADDING WIND LOADS GREATER THAN 40 PSF, CONTACT LAMINATORS TECHNICAL SUPPORT FOR PROJECT-SPECIFIC DETAILING REQUIREMENTS

| OMEGA PANEL PRODUCTS $\Omega$ LAMINATORS inc. <br> www.LaminatorsInc.com <br> 877.0MEGA. 77 | PARTIAL SYSTEM ELEVATION |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | ROUT \& RETURN INSTALLATION SYSTEM OVER GYPSUM (NON-STRUCTURAL) SHEATHING |  |  |  |
|  | Date: <br> 123120 | Drawn By: |  | Rev: |

SCREWS FASTENED THROUGH SHEATHING TO STRUCTURAL STUD FRAMING BEHIND (REFER TO NOTE 2C ON DETALL RR-GYP-EL), TYP.

7/8" HAT CHANNEL (18 GA. MIN)
PANEL STIFFENER; SPACING OF STIFFENERS TO BE BASED ON PROJECT SPECIFIC WIND LOADS (REFER TO NOTE 2D ON DETAIL RR-GYP-EL)

LAMINATORS APPROVED PANEL ADHESIVE APPLIED BETWEEN FACE
OF HAT CHANNEL AND BACK OF PANEL; ADHESIVE APPLICATION TO BE BASED ON PROJECT SPECIFIC WIND LOADS (REFER TO NOTE 3 ON DETAIL RR-GYP-EL)

6 mm OMEGA-LITE PANEL, TYP.


SECTION

DETAIL NOTES:

1. SPACING SHOWN BETWEEN SOME

INSTALLATION SYSTEM COMPONENTS
EXAGGERATED FOR CLARITY
2. PANEL STIFFENERS TO BE FASTENED TO

SUBSTRATE PRIOR TO PANEL INSTALLATION;
REFER TO DETAL RR-GYP-EL FOR
ADDITIONAL INFORMATION
3. FULL CONTACT OF PANEL ADHESIVE WITH

BACK OF PANEL REQUIRED AT ALL
APPLICATION LOCATIONS

(1) \#8 $\times 3 / 4^{\prime \prime}$ (MIN) PPH SELF-DRILLING SCREW INSTALLED through panel face into angle CLIP, TYP; LOCATE SCREW AT CENTERLINE OF PANEL RETURN LEG AND ANGLE CLIP LENGTH


DETAIL NOTES:

1. SPACING SHOWN BETWEEN SOME INSTALLATION SYSTEM COMPONENTS EXAGGERATED FOR CLARITY
2. REFER TO DETALLS RR-GYP-EL AND RR-GYP-ST FOR REQUIRED PANEL STIFFENER LAYOUT
3. REFER TO JOINT DETALL RR-GYP-01 FOR CLIP SPACING AND TYPICAL COMPONENTS NOT ANNOTATED
(2) $1 / 8^{\prime \prime}$ DIA. ALUMINUM BUTTONHEAD BLIND RIVETS INSTALLED THRU PANEL AT

EACH ANGLE CLIP, TYP.


DETAIL NOTES:

1. SPACING SHOWN BETWEEN SOME INSTALLATION SYSTEM COMPONENTS EXAGGERATED FOR CLARITY
2. REFER TO DETALLS RR-GYP-EL AND RR-GYP-ST FOR REQUIRED PANEL STIFFENER LAYOUT
3. REFER TO JOINT DETALL RR-GYP-01 FOR CLIP SPACING AND TYPICAL COMPONENTS NOT ANNOTATED

CONTINUOUS HORIZONTAL COLD-FORMED STRAPPING (18 GA. MIN) APPLIED ALONG PANEL EDGE; NOTE: ONLY (1) FASTENER SHOWN FOR CLARITY ALUMINUM FLASHING BY OTHERS

1/2" SEALANT JOINT W/ CLOSED-CELL BACKER ROD AND LAMINATORS APPROVED SILICONE

CAULK; PROVIDE 3/8" (MIN) GAPS AT 24" O.C. FOR VENTING AND DRAINAGE

DETALL NOTES:

1. SPACING SHOWN BETWEEN SOME INSTALLATION SYSTEM COMPONENTS EXAGGERATED FOR CLARITY
2. REFER TO DETALLS RR-GYP-EL AND RR-GYP-ST FOR REQUIRED PANEL STIFFENER LAYOUT
3. REFER TO JOINT DETAIL RR-GYP-01 FOR CLIP SPACING AND TYPICAL COMPONENTS NOT ANNOTATED


COORDINATE TERMINATION OF FLASHING WITH WINDOW SYSTEM; WATER CONTROLS AT INTERFACE BY OTHERS

WINDOW SYSTEM BY OTHERS


SECTION

CONTINUOUS HORIZONTAL COLD-FORMED STRAPPING ( 18 GA. MIN) APPLIED ALONG PANEL EDGE; NOTE: ONLY (1) FASTENER SHOWN FOR CLARITY

OUTER LAYER OF TWO-PART STEEL FLASHING (22 GA. MIN) BY OTHERS

1/2" SEALANT JOINT W/ CLOSED-CELL BACKER ROD AND LAMINATORS APPROVED SILICONE CAULK; PROVIDE 3/8" (MIN) GAPS AT $24^{\prime \prime}$ O.C. FOR VENTING AND DRAINAGE
(1) \#8 $\times 3 / 4^{\prime \prime}$ (MIN) PPH

SELF-DRILLING SCREW INSTALLED THROUGH PANEL FACE INTO ANGLE CLIP; LOCATE SCREW AT CENTERLINE OF PANEL RETURN LEG AND ANGLE CLIP LENGTH

DETALL NOTES:

1. SPACING SHOWN BETWEEN SOME INSTALLATION SYSTEM COMPONENTS EXAGGERATED FOR CLARITY
2. REFER TO DETALLS RR-GYP-EL AND RR-GYP-ST FOR REQUIRED PANEL STIFFENER LAYOUT
3. REFER TO JOINT DETAIL RR-GYP-01 FOR CLIP SPACING AND TYPICAL COMPONENTS NOT ANNOTATED
 IN SHINGLE FASHION

INNER LAYER OF TWO-PART STEEL FLASHING (22 GA. MIN) BY OTHERS; HORIZONTAL LEG TO EXTEND TO A OR B DISTANCE, WHICHEVER IS FARTHER TOWARDS BUILDING INTERIOR

| OMEGA PANEL PRODUCTS | WINDOW HEAD DETAIL (NFPA 285 ZONE) |  |  |  |
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| I, MTNMTIPS INC | ROUT \& RETURN INSTALLATION SYSTEM OVER GYPSUM (NON-STRUCTURAL) SHEATHING |  |  |  |
| 877.0MEGA. 77 | Date: <br> 123202 | Drawn By: | Dwg. No.: | Rev: |



HORIZONTAL FOAM TAPE APPLIED BETWEEN PANEL AND FLASHING; FOR VENTING, MAINTAIN 2" (MIN) GAPS AT $24^{\prime \prime} 0 . C$

PROVIDE 2" (MIN) LAP OF FLASHING OVER PANEL

DETAIL NOTES:

1. SPACING SHOWN BETWEEN SOME INSTALLATION SYSTEM COMPONENTS EXAGGERATED FOR CLARITY
2. REFER TO DETALLS RR-GYP-EL AND RR-GYP-ST FOR REQUIRED PANEL STIFFENER LAYOUT
3. REFER TO JOINT DETAIL RR-GYP-01

FOR CLIP SPACING AND TYPICAL
COMPONENTS NOT ANNOTATED

|  | WINDOW SILL DETAIL |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| OTMTNATOPS | ROUT \& RETURN INSTALLATION SYSTEM OVER GYPSUM (NON-STRUCTURAL) SHEATHING |  |  |  |
| www.LaminatorsInc.com 877.0MEGA.77 | Date: 8412020 | Drawn B <br> JJM | Dwg. No.: RR-GYP-03 | $\begin{aligned} & \text { Rev! } \\ & \hline 00 \end{aligned}$ |



DETAIL NOTES:

1. SPACING SHOWN BETWEEN SOME INSTALLATION SYSTEM COMPONENTS EXAGGERATED FOR CLARITY
2. REFER TO DETALLS RR-GYP-EL AND RR-GYP-ST FOR REQUIRED PANEL STIFFENER LAYOUT
3. REFER TO JOINT DETALL RR-GYP-01 FOR CLIP SPACING AND TYPICAL COMPONENTS NOT ANNOTATED



CONTINUOUS $1 " \times 1 " \times 0.060 "$ ALUMINUM
ANGLE (PART NO. 44DS-ANGLE) INSTALLED
ALONG LENGTH OF INSIDE PANEL CORNER;
ANGLE TO BE SET IN FULL BED OF



LAMINATORS APPROVED FABRICATION SEALANT APPLIED ALONG PANEL ROUT PRIOR TO INSTALLATION OF CONTINUOUS ALUMINUM ANGLE (REFERENCE LAMINATORS ROUT \& RETURN INSTALLATION MANUAL)

STANDARD PANEL ROUT BENT IN REVERSE DIRECTION TO CREATE INSIDE PANEL CORNER

1. SPACING SHOWN BETWEEN SOME INSTALLATION SYSTEM COMPONENTS EXAGGERATED FOR CLARITY

PLAN SECTION
2. REFER TO DETALLS RR-GYP-EL AND RR-GYP-ST FOR REQUIRED PANEL STIFFENER LAYOUT
3. REFER TO JOINT DETALL RR-GYP-01 FOR CLIP SPACING AND TYPICAL COMPONENTS NOT ANNOTATED

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

CONTINUOUS 1" X 1" X 0.060" ALUMINUM ANGLE (PART NO. 44DS-ANGLE) INSTALLED ALONG LENGTH OF OUTSIDE PANEL CORNER; ANGLE TO BE SET IN FULL BED OF FABRICATION SEALANT


PLAN SECTION
DETAIL NOTES:

1. SPACING SHOWN BETWEEN SOME INSTALLATION SYSTEM COMPONENTS EXAGGERATED FOR CLARITY
2. REFER TO DETALLS RR-GYP-EL AND RR-GYP-ST FOR REQUIRED PANEL STIFFENER LAYOUT
3. REFER TO JOINT DETAIL RR-GYP-01 FOR CLIP SPACING AND TYPICAL COMPONENTS NOT ANNOTATED
 TO PANEL ROUT PRIOR TO BENDING TO FORM PANEL CORNER, TYP. (REFERENCE LAMINATORS ROUT \& RETURN INSTALLATION MANUAL)

DETALL NOTES:

1. SPACING SHOWN BETWEEN SOME INSTALLATION SYSTEM COMPONENTS

EXAGGERATED FOR CLARITY
2. REFER TO DETAILS RR-GYP-EL AND RR-GYP-ST FOR REQUIRED PANEL STIFFENER LAYOUT
3. REFER TO JOINT DETAIL RR-GYP-01 FOR CLIP SPACING AND TYPICAL COMPONENTS NOT ANNOTATED

## SECTION

STEP 1: DRILL 7/8" DIA. HOLE IN PANEL

SUBSTRATE SIDE

STEP 3: INSTALL BEAD OF LAMINATORS APPROVED SILICONE CAULK OR FABRICATION SEALANT AROUND THE FLANGE OF THE VENT PRIOR TO INSERTING INTO THE HOLE

STEP 4: INSERT THE VENT INTO THE HOLE WITH A SLIGHT TWISTING MOTION FOR COMPLETE COVERAGE OF THE CAULK/SEALANT AND ADHESION TO BOTH

THE PANEL AND THE VENT


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

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| :---: | :---: | :---: | :---: | :---: |
|  | ROUT \& RETURN INSTALLATION SYSTEM OVER GYPSUM (NON-STRUCTURAL) SHEATHING |  |  |  |
|  | Date: 8/4/2020 | Drawn By: <br> JJM | Dwg. No.: RR-GYP-10 | Rev: 00 |

