



DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION
Section: 07 42 43 – Composite Wall Panels

REPORT HOLDER:
Alucoil North America LLC
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REPORT SUBJECT:
larson by Alucoil® 4mm FR ACM Panels

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2020 *Florida Building Code*® - Building (FBC) (excluding High Velocity Hurricane Zones)

1.2 The larson by Alucoil® 4mm FR ACM Panels have been evaluated for the following properties (see Table 1):

- Physical properties
- Wind loads
- Durability

1.3 The larson by Alucoil® 4mm FR ACM Panels have been evaluated for the following uses (see Table 1):

- Exterior wall covering in accordance with FBC Section 1407

2.0 STATEMENT OF COMPLIANCE

The larson by Alucoil® 4mm FR ACM Panels comply with the Codes listed in Section 1.1, for the properties stated in Section 1.2, and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.0.

3.0 DESCRIPTION

The larson by Alucoil® FR 4 mm ACM Panels consist of 0.5mm aluminum skins on both sides with a proprietary,

fire resistant (FR) core, resulting in panels with a total thickness of 4 mm. Standard widths are 1000, 1270, and 1575 mm (39.4, 50, and 62 in.).

The panels are installed with the East Coast Metal Systems EC-200 ACM wall system (reference Florida Product Approval # FL13754).

4.0 PERFORMANCE CHARACTERISTICS

4.1 Flame Spread Characteristics: The panels have a Class A classification (flame spread index no greater than 25 and smoke developed index no greater than 450 when tested in accordance with ASTM E84) in accordance with FBC Section 803.

4.2 Wind Resistance: The maximum allowable transverse loads for the panels, when installed in accordance with this report, are 40 psf positive and 35 psf negative.

5.0 INSTALLATION

5.1 General: The larson by Alucoil® FR 4 mm ACM Panels must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.

The panels must be installed over a water-resistive barrier complying with FBC Section 1404.2.

5.2 Panel Fabrication and Attachment: The rout-and-return assembly consists of flat panels formed into shallow "pans" by means of routing a groove in the back face of the panel, along each panel edge, and mechanically folding all four edges. The system's fabricator must install 0.070 in. thick I-shaped extruded aluminum stiffeners on the back of the panels, running the full panel width, parallel to the panel span at a maximum spacing of 24 in. on center. The stiffeners are attached at each end to the EC-200 framing system using a pair of aluminum L-brackets (see Figure 2 for details).



The stiffeners must be adhered to the panels using butyl tape. The panel length measured in the direction parallel to the stiffeners shall not exceed 60 in. The panels are attached to the East Coast Metal Systems EC-200 system. See Figures 1, 2 and 3 for details.

5.3 Design: The ACM Panel system attachment and the structural wall framing to which the ACM panel system is attached must be designed in accordance with the applicable Code for the specific project design requirements.

6.0 CONDITIONS OF USE

6.1 Installation must comply with this Research Report, the manufacturer's published installation instructions, and the applicable Code. In the event of a conflict, this report governs.

The design of the panel system, vapor retarders, framing members, connections, and curtain wall framing members must be submitted to and approved by the Code Official for each project.

6.2 Required wind design pressure determined from allowable stress (nominal) design wind speeds (V_{asd}) in accordance with FBC Section 1609.3.1 shall not exceed the allowable transverse loads for the panels specified in 5.2 of this report.

6.3 The panel system fabricator must provide a certificate of compliance to the Code Official attesting that the system fabrication includes the use of adhesives approved for use, that the adhesive application complies with the adhesive manufacturer's installation guidelines, and that the panel system fabrication complies with approved construction documents.

6.4 The larson by Alucoil® 4mm FR ACM Panels are manufactured under a quality control program with inspections by Intertek Testing Services NA, Inc.

7.0 SUPPORTING EVIDENCE

7.1 Reports of tests in accordance with ASTM E72, ASTM E84, and TAS 202.

7.2 Intertek CCRR-0287.

7.3 Intertek Listing Report "Alucoil North America LLC – larson by Alucoil® FR ACM Panels", on the [Intertek Directory of Building Products](#).

8.0 IDENTIFICATION

The larson by Alucoil® 4mm FR ACM Panels are identified with the Alucoil name and address, the product name, the flame-spread and smoke developed indices, the Intertek Mark as shown below, the words "Code Compliance" and the Florida Research Report number (FBCR-0102).



9.0 OTHER CODES

This section is not applicable.

10.0 FLORIDA BUILDING CODE REPORT USE

10.1 Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

10.2 Florida Building Code Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

10.3 Reference to the Intertek Directory of Building Products at <https://bpdirectory.intertek.com> is recommended to ascertain the current version and status of this report.





TABLE 1 - PROPERTIES EVALUATED

PROPERTY	2020 FBC - BUILDING
Physical properties	1407
Wind resistance	1405.1
Surface burning characteristics	803

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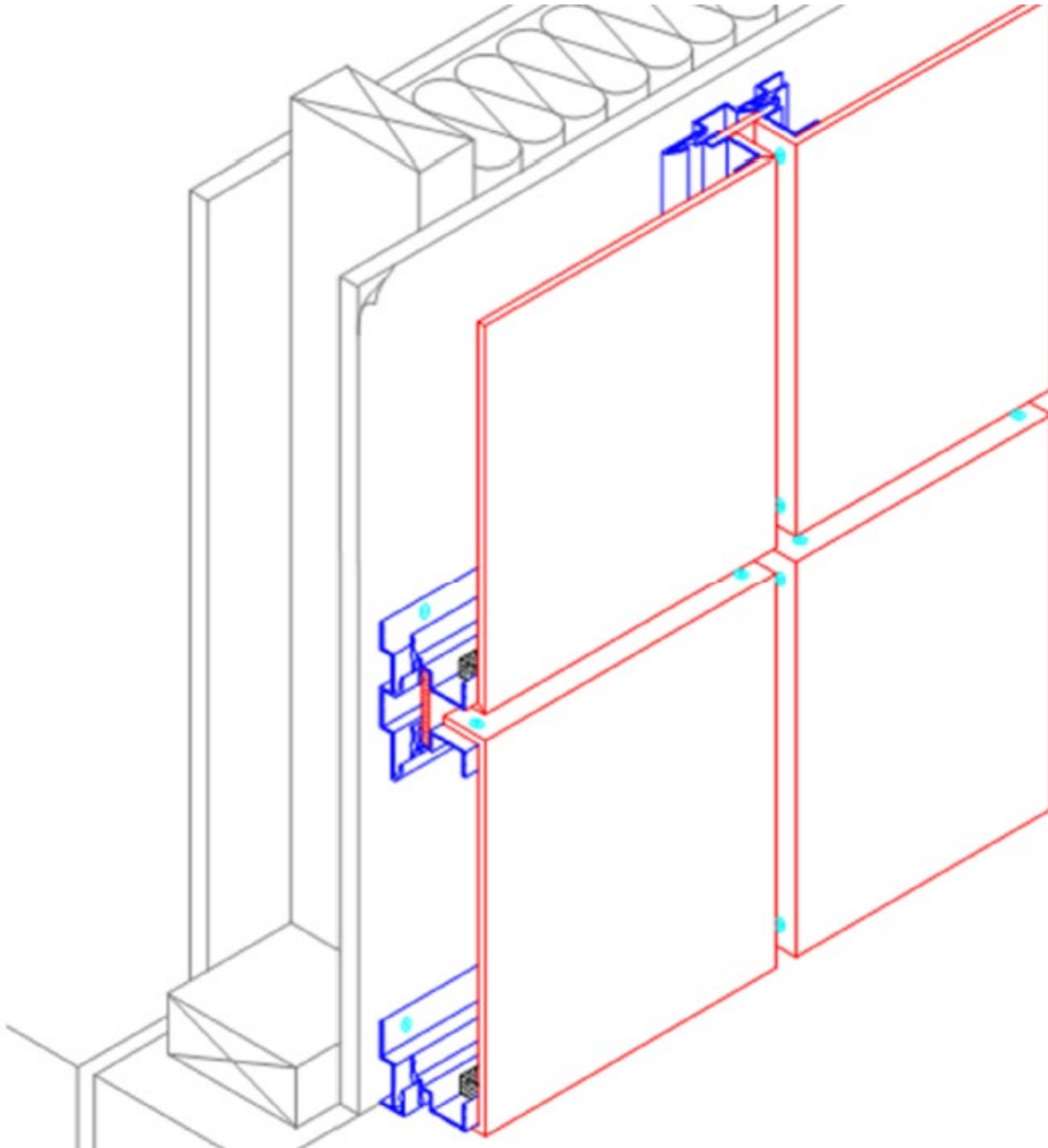


Figure 1 – ECMS EC 200 SYSTEM

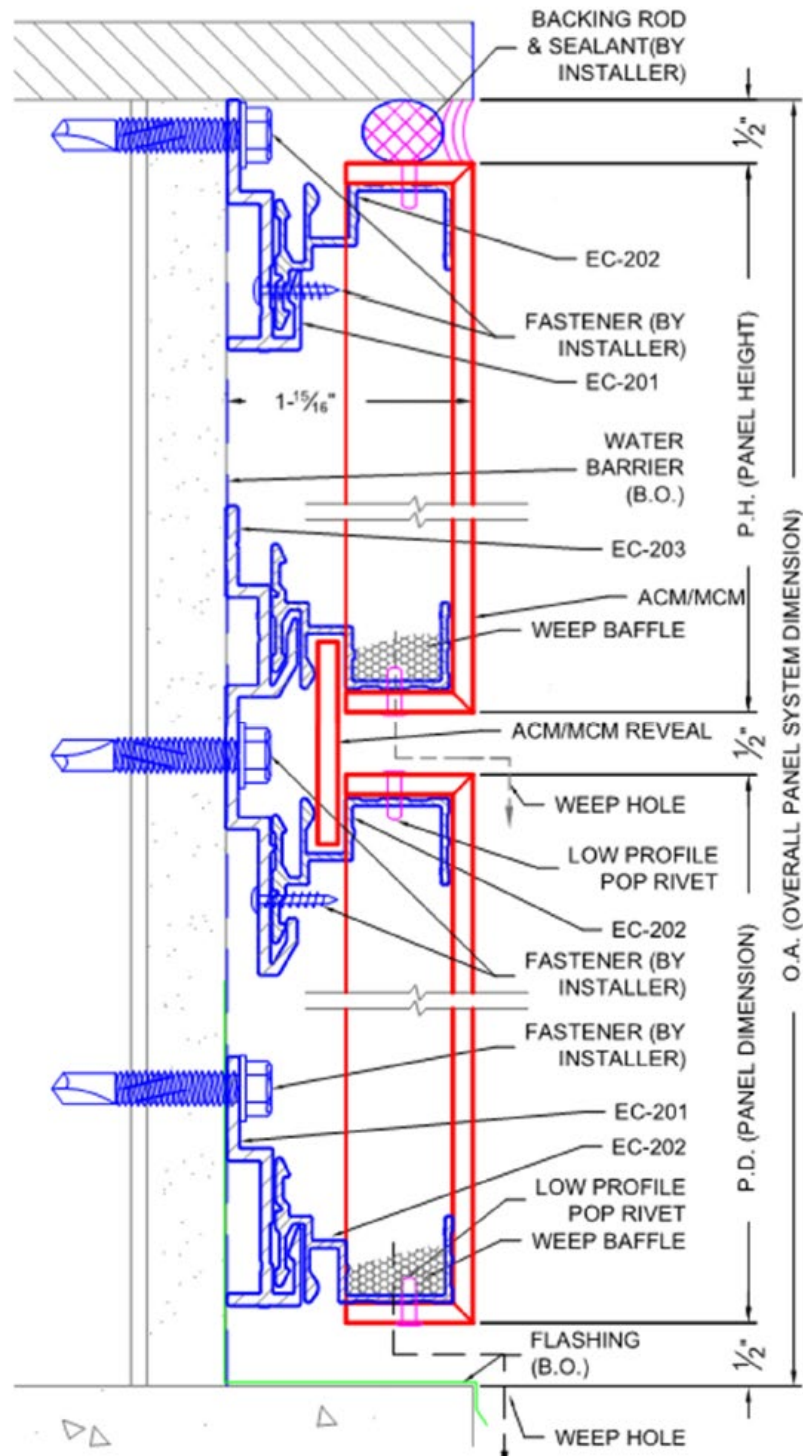


FIGURE 1 – CONTINUED

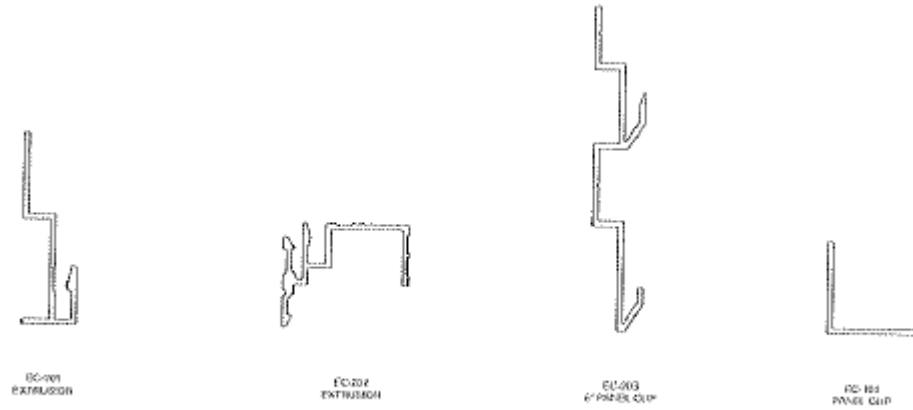


FIGURE 2 – STANDARD EXTRUSIONS FOR EC-200 COMPOSITE PANEL SYSTEM

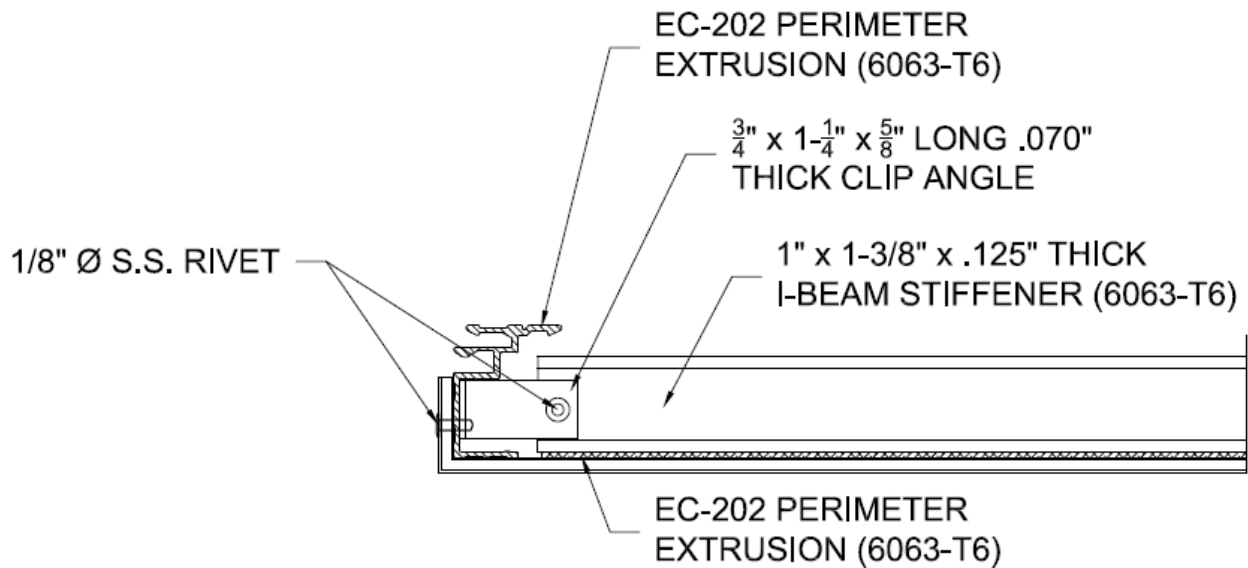
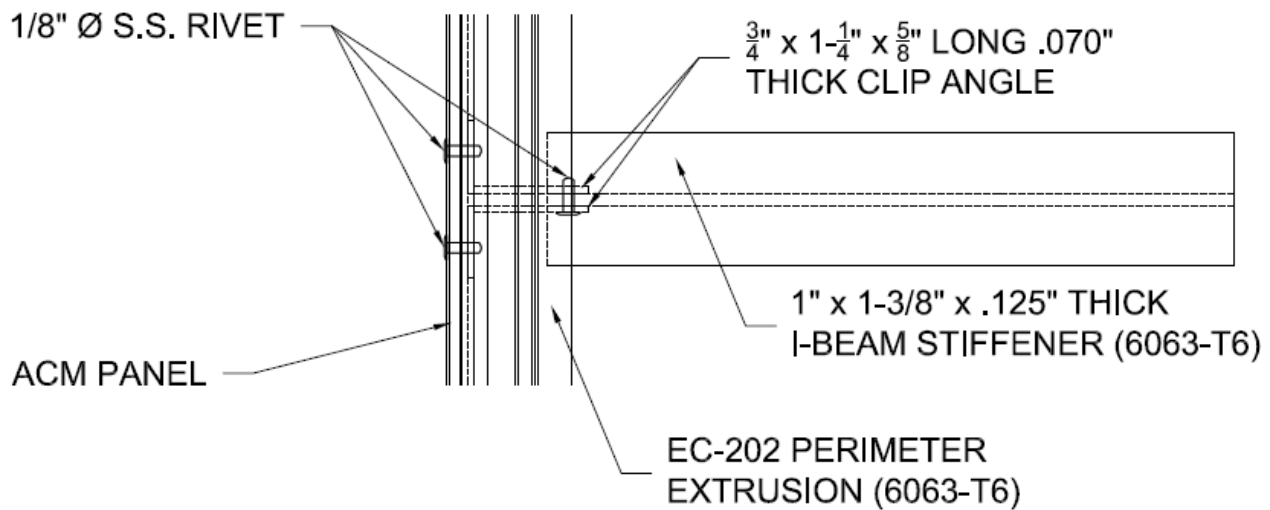


FIGURE 3 – STIFFENER CONNECTION