**Alfrex, Inc.**
**Design No. UCL/MCMWP 30-05**
**Exterior Wall Systems**
**6 mm Alfrex FR ACM Panels**
**NFPA 285**
**Rating: Meets Conditions of Acceptance**



**Figure 1 – Wall Assembly**



.040 ALUMINUM CLOSURE TRIM
4MM COMPOSITE SPLINE
6MM COMPOSITE PANEL
1" #12 TEK3 FASTENER
3" 18 GAUGE CONTINOUS ZGIRT
2" #12 TEK3 FASTENER
3" MINERAL WOOL 6.2 PSF SINGLE DENSITY INSULATION

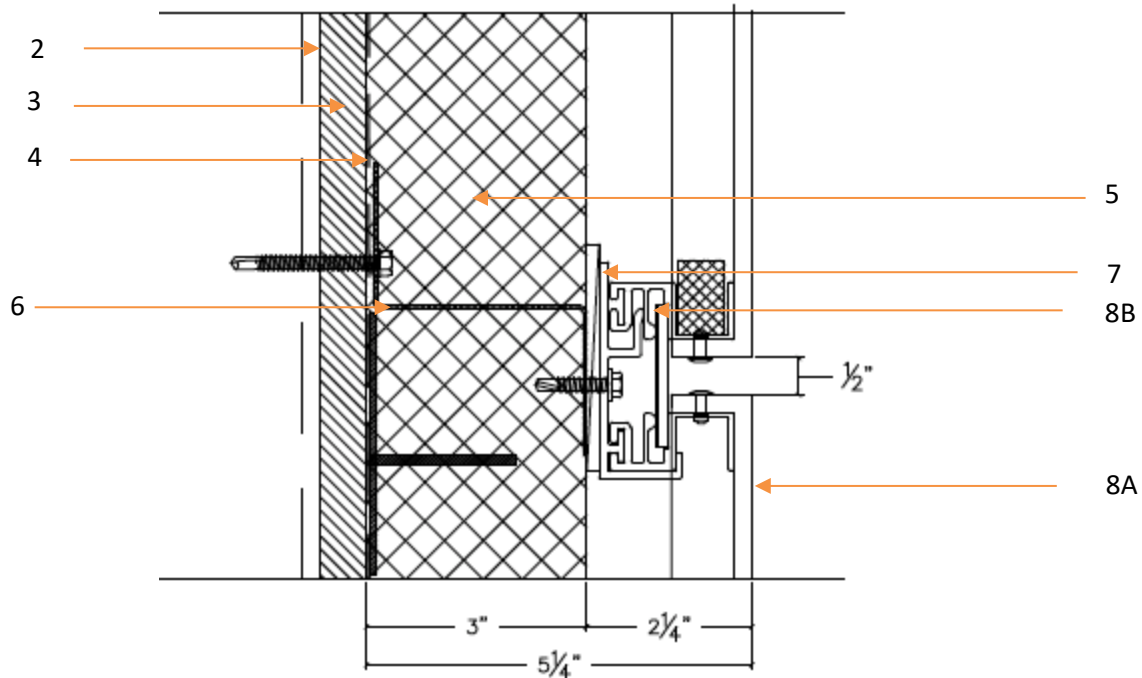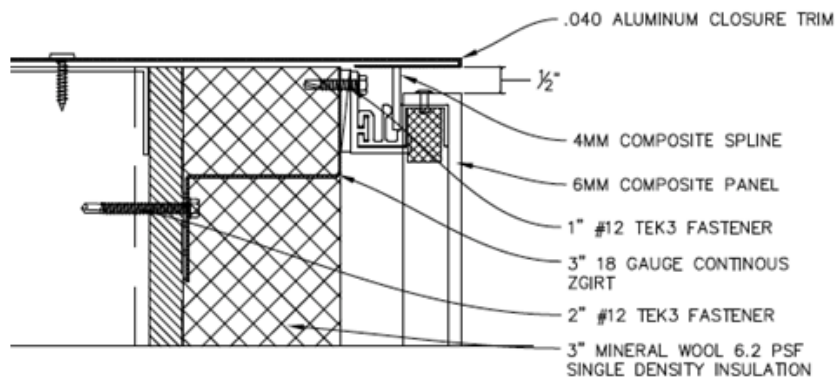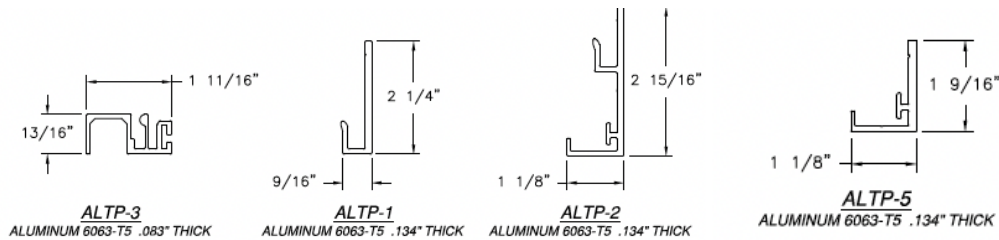**Figure 2 – ACM Attachment Details**

**Figure 3- Wall Clip Details**

1. **INTERIOR SHEATHING (Not Shown):** Install one layer of 4 ft. x 8 ft., 5/8 in. thick, Type X gypsum board with long dimension perpendicular to the studs. Secure the sheathing to the framing with #6 x 1-1/4 in. self-drilling, zinc-plated, bugle-head screws, spaced 8 in. on center (oc) around the perimeter and 12 in. oc in the field.

2. **FRAMING:** Install 3-5/8 in. x 18 ft., 18 GA steel studs spaced max. 24 in. oc.  Attach the steel framing to 14 ft. x 3-5/8 in., 18 GA top and bottom steel tracks using #6 x 1/2 in. long self-drilling screws.

3. **EXTERIOR SHEATHING:** Install 4 ft. x 8 ft., 5/8 in. thick DensGlass® Gold Exterior Sheathing with long edges oriented perpendicular to the studs. Secure the exterior sheathing with #6, 1-1/4 in. self-drilling screws spaced 8 in. at the joints and around the perimeter with a 12 in. spacing in the field.

4. **WEATHER BARRIER:** Apply a single layer of VaproShield® PanelShield™ Self-Adhered Vapor Permeable Air Barrier over the exterior sheathing, oriented horizontally, and self-adhered into position.

5. **INSULATION:** Install 3 in. thick ROCKWOOL CavityRock® Semi-rigid Stone Wool Insulation Board, featuring a dual-density layer of 6.2 psf for outer layer and 3.8 psf for inner layer, between the weather vapor barrier and the ACM panels.

Secure the insulation using 3 in. long self-adhering pins distributed evenly along the perimeter.

6. **Z-GIRTS:** Install 3 in. tall 18 GA continuous steel Z-girts horizontally placed to align with the upper joints of the panels and on an average spacing of 16 in. vertically. Secure Z-girts with 2 in. long #12 Tek 3 fasteners to each framing member.

7. **WALL CLIPS:** The 2 in. x 3 in. 6063 T5 aluminum wall clips (Figure 3) are installed progressively as the ACM panels are installed. The wall clips are attached to the Z-girts using two #12 x 1-1/4 in. self-drilling fasteners per clip. Wall clips may use optional shims to level the exterior surface. The clips are provided by the ACM system Fabricator.

8. **EXTERIOR CLADDING:**

   **CERTIFIED PRODUCT:** 6mm Alfrex FR Aluminum Composite Panels – Installed with a Progressive ACM Attachment System

   A. COMPOSITE PANEL – The 6mm Alfrex FR ACM panels are fabricated with a rout-and-return edge on four sides.

   B. ALTP-3 Aluminum Extrusion – The extrusion is fixed to the panel edge with 1/8 in. 5052 alloy aluminum pop rivets located max. 3 in. from each end and spaced max. 16 in. oc.

PANEL ATTACHMENT – Secure the first row of 6mm Alfrex FR ACM panels by inserting the bottom edge of the aluminum extrusions to the top mating edge of the starter wall clips (ALTP-1). Clips (ALTP-2) are located on vertical edges at each Z-girt and two clips are used on the top edge. Subsequent rows are installed progressively, leaving a 1/2 in. gap between vertical and horizontal panel edges.

Fill the vertical and horizontal joints with friction-fitted 4mm composite splines.

9. **WINDOW OPENING (Not Shown):** Install 0.040 in. thick (18 GA) aluminum closure trim, 10-1/2 in. wide with a 5/8 in. drip edge.

10. **FLOORLINE FIRETOPPING:** Nominal 4 in. thick, 4 pcf mineral fiber insulation must be installed at floorlines.

*Consult the listing report on the Directory of Building Products (https://bpdirectory.intertek.com) for the edition of the standard(s) evaluated.*

*Compliance of the assembly described in this Design Listing with the referenced standard relies on verification that the assembly constructed in the field is consistent with that described herein. Intertek certified products may be verified by the approved Intertek label; other products must be verified by the Authority Having Jurisdiction as meeting the specifications stated herein.*