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## ENGINEERING EVALUATION REPORT

Date	2022-11-04
Report Number	0093-9-1
Client Name	FastPlank Systems Inc.
Address	101-4441 76th Ave SE, Calgary, AB T2C 2G8

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### Subject

QuickPanel Systems with Larson by Alucoil FR 4mm ACM, NFPA 285 Fire Propagation Testing Results.

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### Product Description

The product being evaluated is identified as an Aluminum Composite Material (ACM) exterior building cladding. The composite panel is nominally 4mm in thickness, composed of an inside and outside skin of nominal 0.5mm thick aluminum sheets bonded to a nominal 3mm thickness inner core of polyethylene with mineral (magnesium hydroxide) fire-retardant. Panels are fit in to QP Reveal aluminum horizontal and vertical track and fastened to the exterior wall framing.

Further details of the components of complete tested wall assembly are provided in the Evaluation section.

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### Evaluation

Testing of the wall assembly has been conducted in accordance with NFPA 285, *Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Wall Assemblies Containing Combustible Components*, 2019 edition, on November 6, 2020, at Intertek Elmendorf, TX location. Intertek is an independent testing laboratory accredited by the International Code Council Accreditation Service (IAS).

The test report concludes that the test assembly described herein **met the conditions of acceptance** of the test standard.

#### TEST SPECIMEN DESCRIPTION

##### Interior Wall Gypsum Sheathing:

5/8 in. C1396 type X gypsum wallboard was used as the interior cladding and is fastened 24 in. on center (oc) horizontally and every 12 in. vertically in a staggered fashion.

##### Base Wall Framing:

20 GA 3-5/8 in. deep steel studs spaced 24 in. oc with steel track fastened horizontally along the top and bottom of the window opening as well as on the top and bottom of the wall assembly. 4 pcf mineral fiber fire blocking stuffed at floor lines.

##### Exterior Wall Gypsum Sheathing:

Densglass wallboard in 1/2 in. thickness was used as the exterior sheathing and was fastened 24 in. oc horizontally and every 12 in. vertically in a staggered fashion.

##### Exterior Insulation:

One layer of 2 in. thick DuPont Thermax fastened at the corners and installed horizontally over studs with the vertical edges lining up over the studs. DuPont LiquidArmor flashing/sealant was applied over the board joints. Metal z-girts installed between the foam boards provided as framework for which the boards were situated.



**Air Gap Between Insulation and ACM Panels:**

There was an approximate air gap of 1/2 in. between the exterior insulation and the ACM Panels.

**Exterior Cladding:**

4 mm Larson by Alucoil ACM Panels installed with QuickPanel Systems EasyTrim reveals system. Continuous perforated metal flashing was installed horizontally every 2-1/2 ft and designated as QP 04 (formerly QP 1)<sup>1</sup>. Over the QP 04 the general horizontal REVEAL® Trim was fastened and designated as QP07F (formerly QP 30)<sup>1</sup>. All Weather sheathing tape was applied over the QP 04 and QP 07F. Tremco® Spectrem®1 was applied between the QP 07F and the QuickPanel® ACM panel. The ACM panels were installed within the QP 07F trims. Offset approximately 1 ft for the centerline of the window opening was the vertical main wall REVEAL® Trim designated as QP 05 (formerly QP 33)<sup>1</sup> and was installed in similar fashion as the QP 07F.

1. Part number designations have been updated since the drawing part numbers that appear in the test report. The corresponding former part number designations shown in brackets are those part numbers that appear in the test report.

**Window Flashing:**

18 GA steel flashing of dimensions 7 in horizontally with a 2 in vertical lip were used as the window flashing. The 2 in vertical lip was installed between the wall base frame and the interior sheathing.

Drawings of the tested assembly that appear in the test report are provided in the attachments of this report (with some part numbers updated).

**Source Documents**

The published versions of the following sources, current on the date of this evaluation, were used as reference material to support the conclusions made:

1. NFPA 285-19 results: Intertek report G104467050SAT-001 R2, dated 12/08/20.

**Signed**

This report has been prepared and reviewed on behalf of BOCA by:

Chris Bowness, P.Eng., P.E.

2022-11-04

Date



**ATTACHMENTS:**

Test Assembly Drawings \_\_\_\_\_ (6 pages)

**EVALUATION REPORT TERMS:**

*This report is a general evaluation of the testing standards as identified and applies only to the samples that were evaluated. It does not imply any endorsement or warranty, nor that the signatory Engineer is the Designer of Record of any construction project for which the information is used.*

-END-

1A

# Z GIRT VIEW

NTS



## QUICKPANEL SYSTEM®

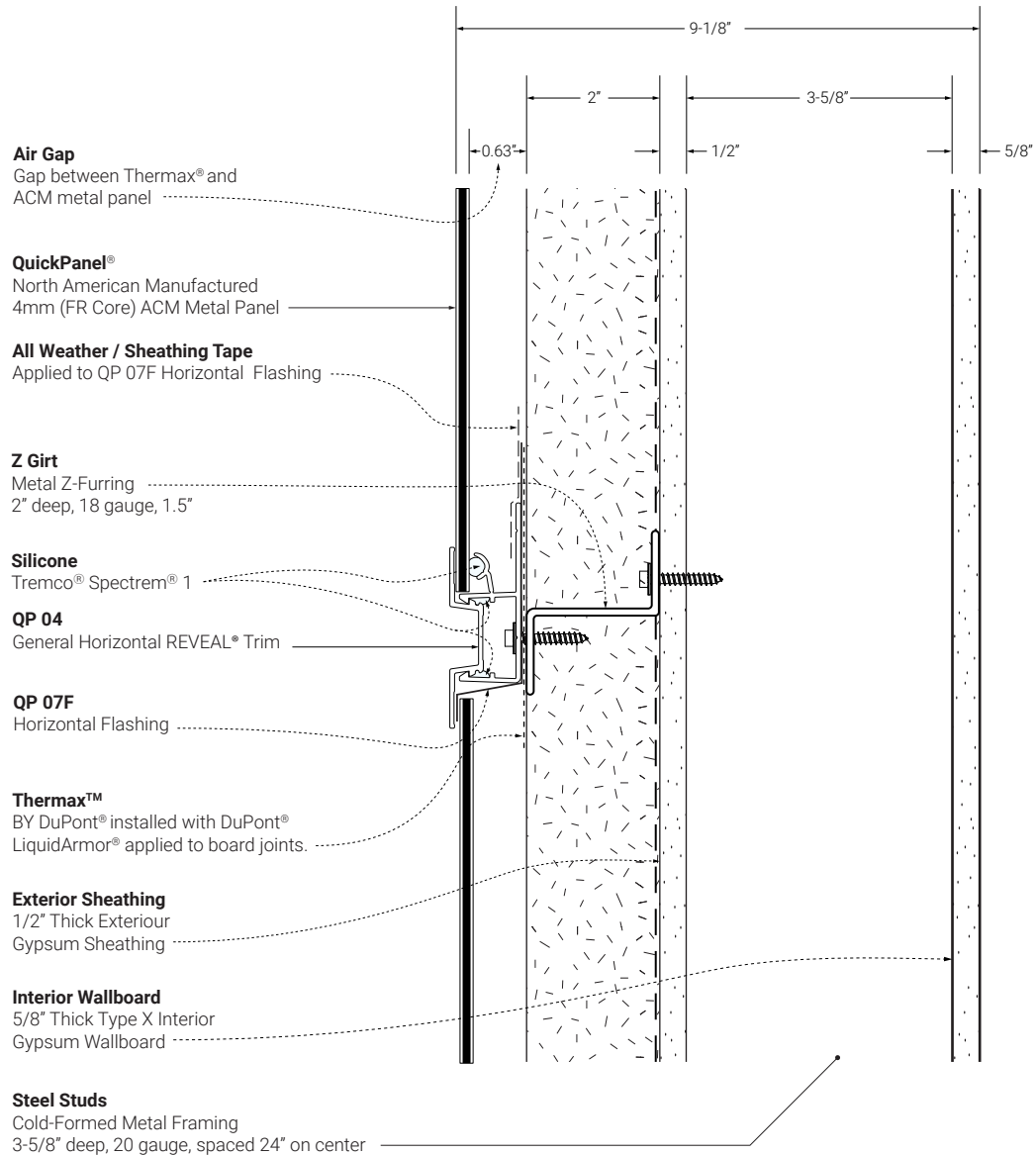
1-877-973-8746  
www.quickpanels.com  
info@quickpanels.com

### 4mm ACM QuickPanel® Pressure-Equalized Rainscreen System

by  
EasyTrim Reveals® Inc.

Scale: NTS

Date: 11-02-2022



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# HEADER & FLASHING DETAIL

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**Air Gap**

Gap between Thermax<sup>®</sup> and ACM metal panel

**Steel Studs**

Cold-Formed Metal Framing  
3-5/8" deep, 20 gauge, spaced 24" on center

**QuickPanel<sup>®</sup>**

North American Manufactured  
4mm (FR Core) ACM Metal Panel

**Z Girt**

Metal Z-Furring  
2" deep, 18 gauge, 1.5" connection faces

**All Weather / Sheathing Tape**

Applied to QP 07F Horizontal Flashing

**QP 17**

Termination REVEAL<sup>®</sup> Trim

**QP 07F**

Horizontal Flashing

**Metal Flashing (18 GA)**

By OTHER installed underneath  
QP 07F Horizontal Flashing

**Metal Flashing (18 GA)**

By OTHER installed underneath  
QP 17 Termination REVEAL<sup>®</sup> Trim Top Cap

**QP 17**

Termination REVEAL<sup>®</sup> Trim

**Thermax<sup>™</sup>**

BY DuPont<sup>®</sup> installed with DuPont<sup>®</sup>  
LiquidArmor<sup>®</sup> applied to board joints.

**Exterior Sheathing**

1/2" Thick Exterior  
Gypsum Sheathing

**Interior Wallboard**

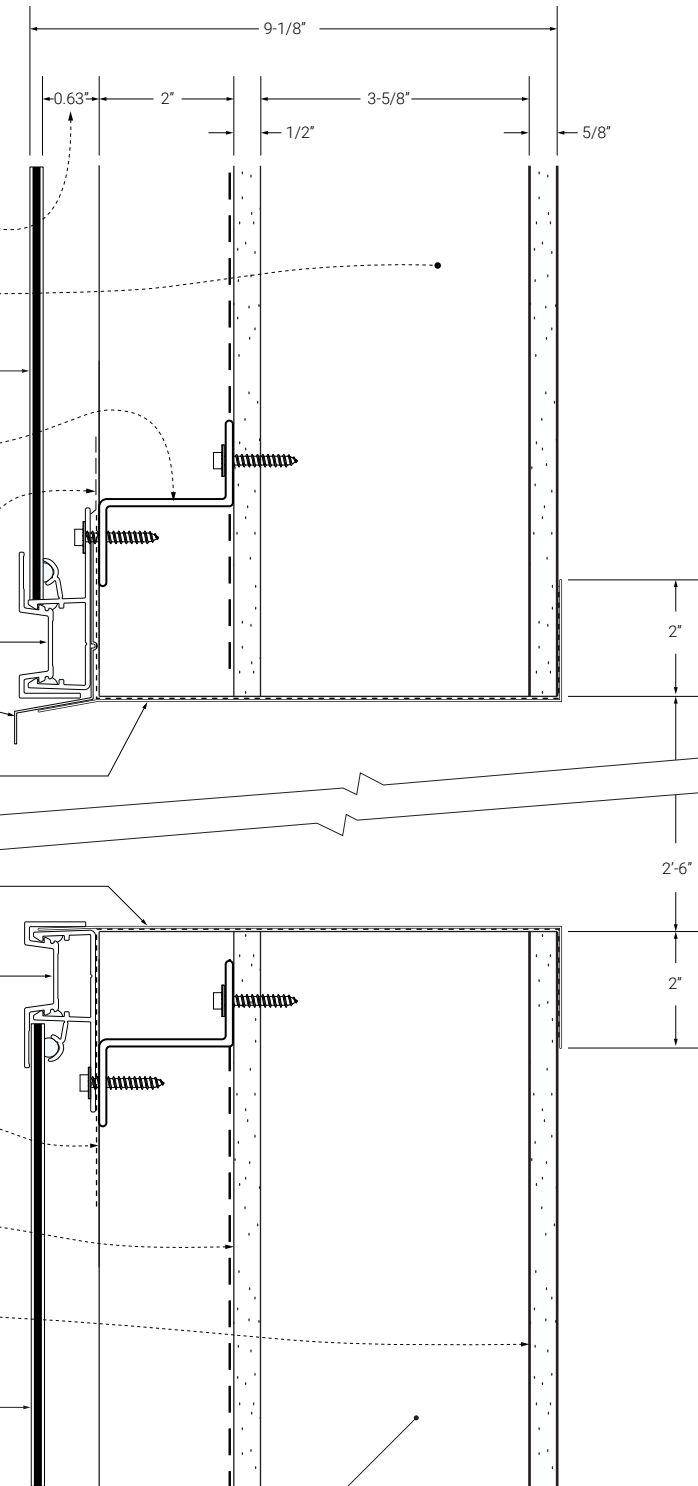
5/8" Thick Type X Interior  
Gypsum Wallboard

**QuickPanel<sup>®</sup>**

North American Manufactured  
4mm (FR Core) ACM Metal Panel

**Steel Studs**

Cold-Formed Metal Framing  
3-5/8" deep, 20 gauge, spaced 24" on center



**QUICKPANEL SYSTEM<sup>®</sup>**

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**4mm ACM QuickPanel<sup>®</sup>  
Pressure-Equalized Rainscreen  
System**

by  
EasyTrim Reveals<sup>®</sup> Inc.

Scale: NTS

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# Z GIRT TOP VIEW

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4mm ACM QuickPanel®  
Pressure-Equalized Rainscreen  
System

Gypsum Wall Board  
(Type X) by  
EasyTrim Reveals® Inc.

Scale: NTS

Date: 11-02-2022

**Thermax™**  
BY DuPont® installed with  
DuPont® LiquidArmor®  
applied to board joints.

**QP 05**  
Vertical Main Wall  
REVEAL® Trim

**Silicone**  
Tremco® Spectrem® 1

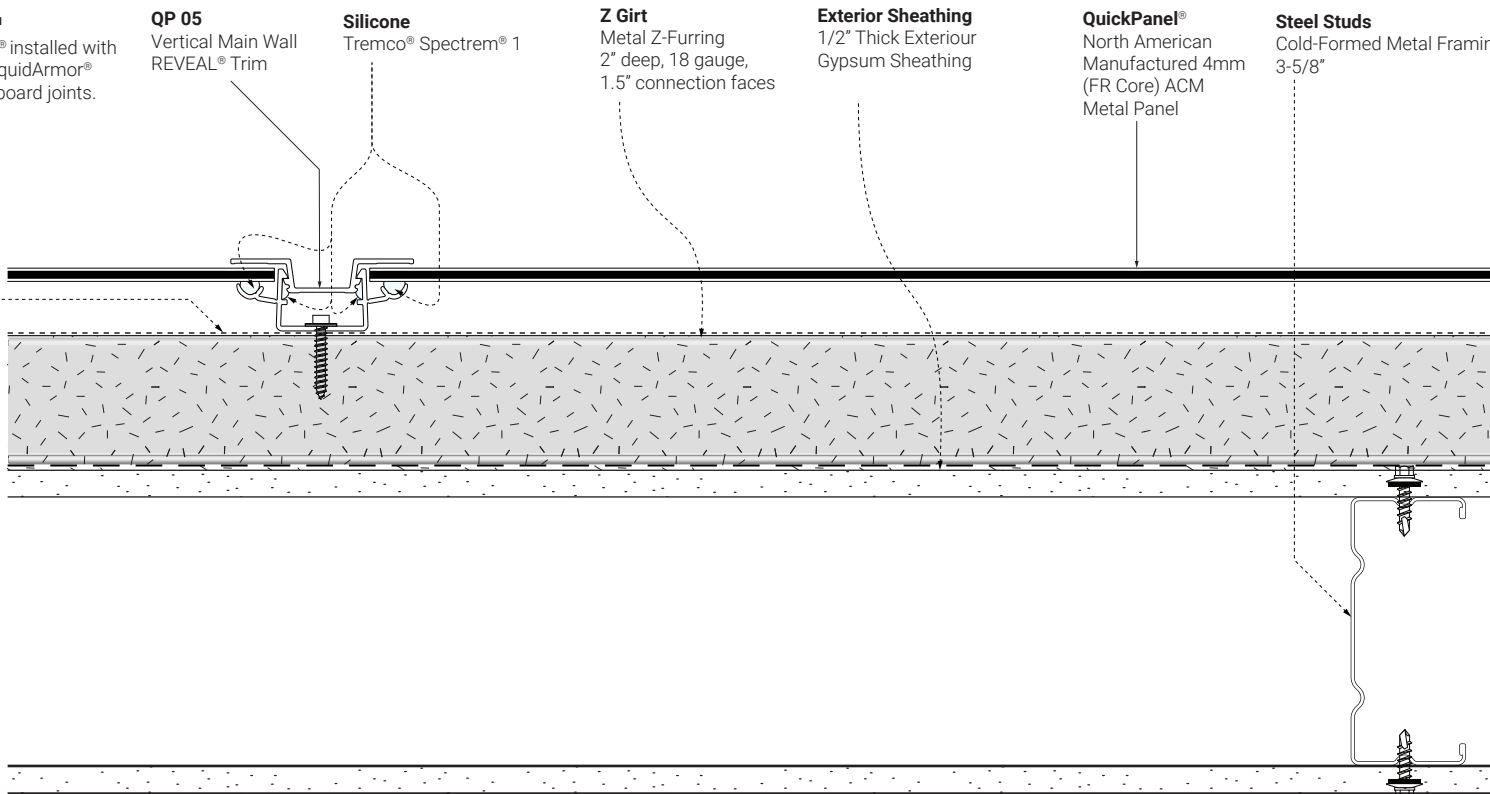
**Z Girt**  
Metal Z-Furring  
2" deep, 18 gauge,  
1.5" connection faces

**Exterior Sheathing**  
1/2" Thick Exterior  
Gypsum Sheathing

**QuickPanel®**  
North American  
Manufactured 4mm  
(FR Core) ACM  
Metal Panel

**Steel Studs**  
Cold-Formed Metal Framing  
3-5/8"

**Interior Wallboard**  
5/8" Thick Type X Interior  
Gypsum Wallboard



**1A** HEADER & FLASHING DETAIL  
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**QUICKPANEL SYSTEM®**

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**4mm ACM QuickPanel®**  
Pressure-Equalized Rainscreen  
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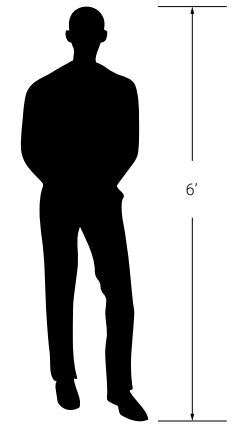
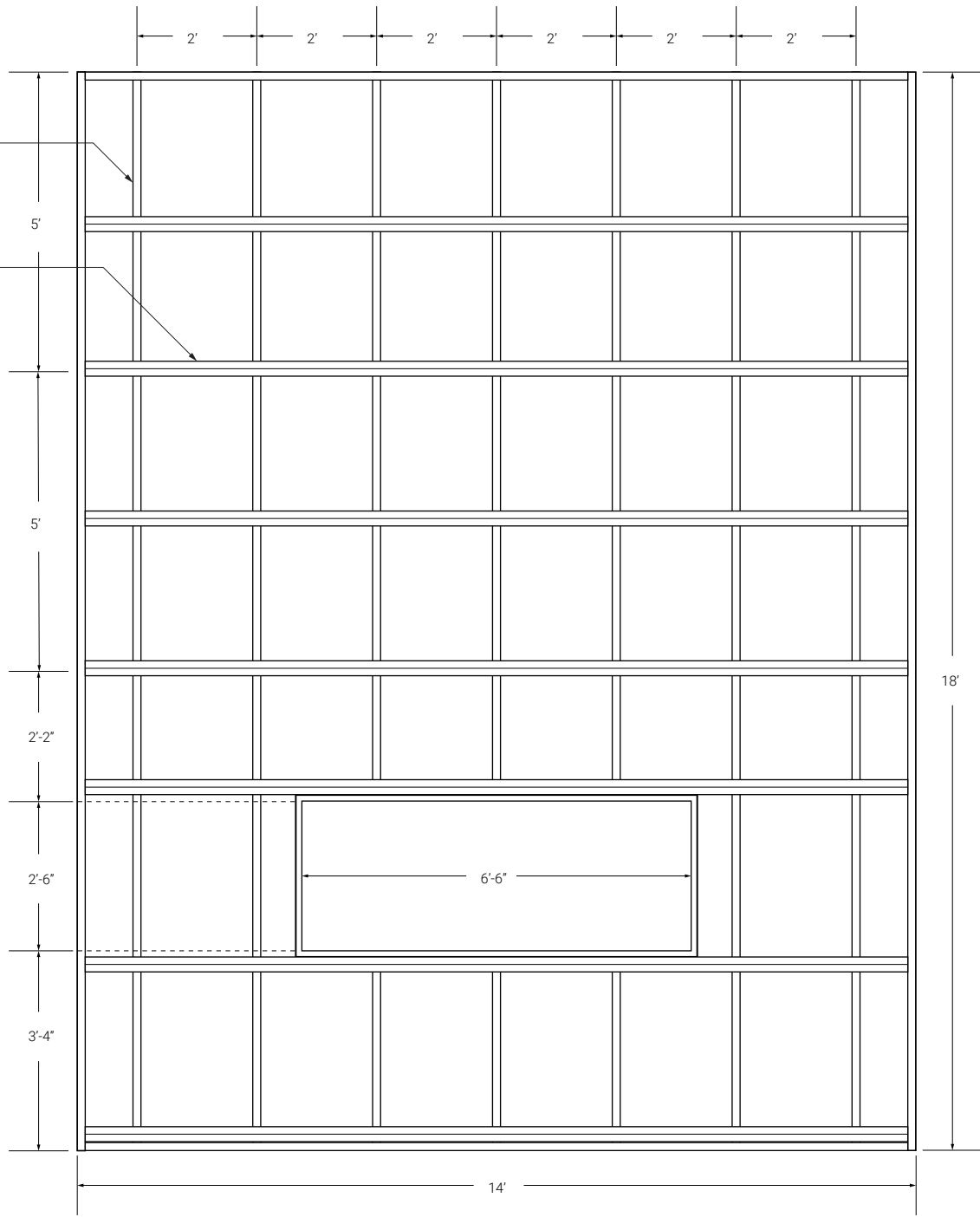
by  
EasyTrim Reveals® Inc.

Scale: NTS

Date: 11-02-2022

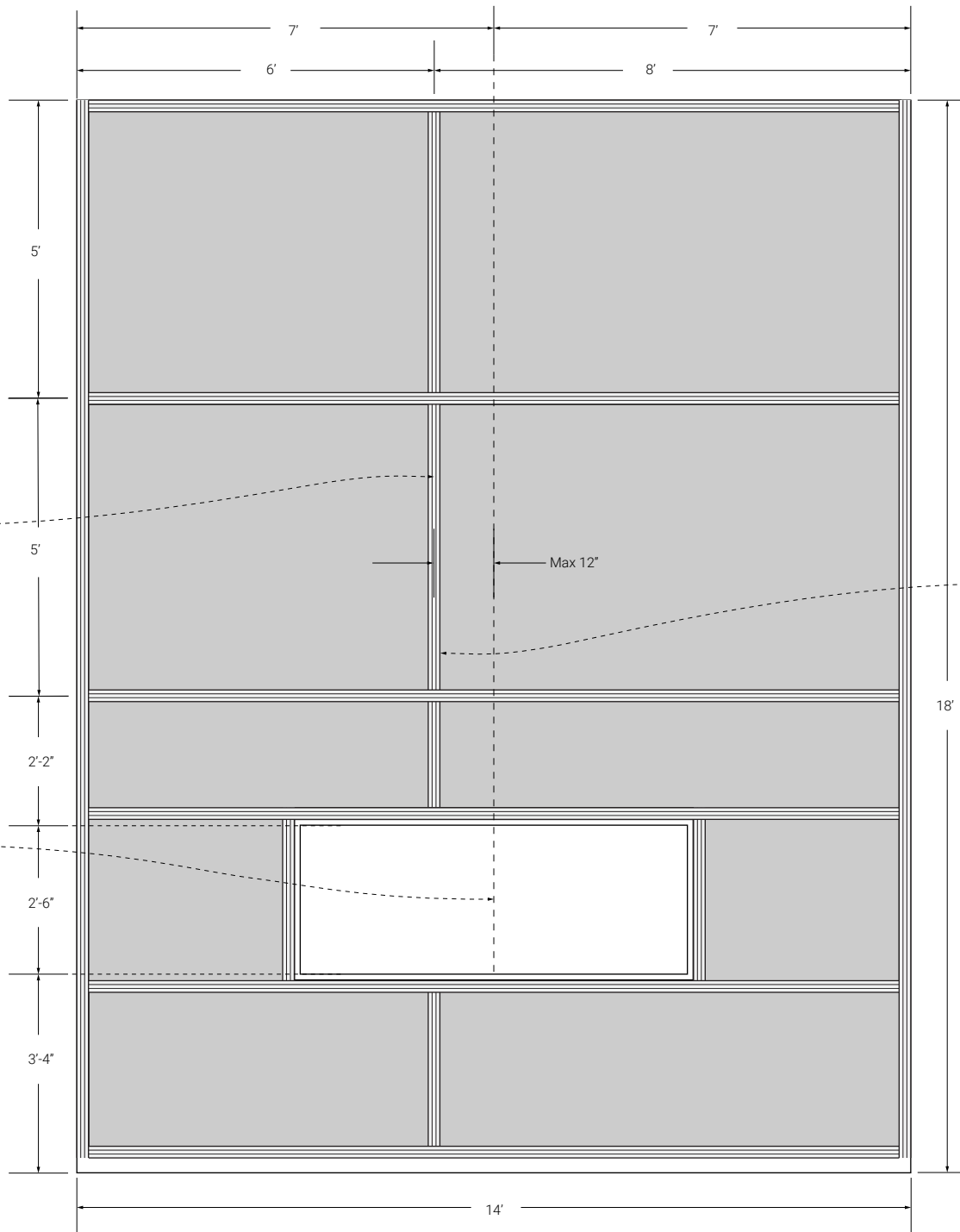
**Steel Studs**  
Cold-Formed Metal Framing  
3-5/8" 20 Gauge x 6

**Z Girt**  
Metal Z-Furring

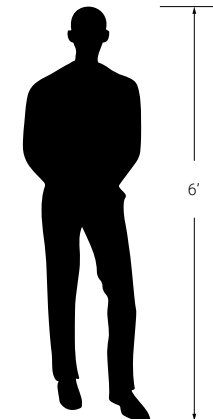


Vertical centerline joint located 1' to left of window centerline

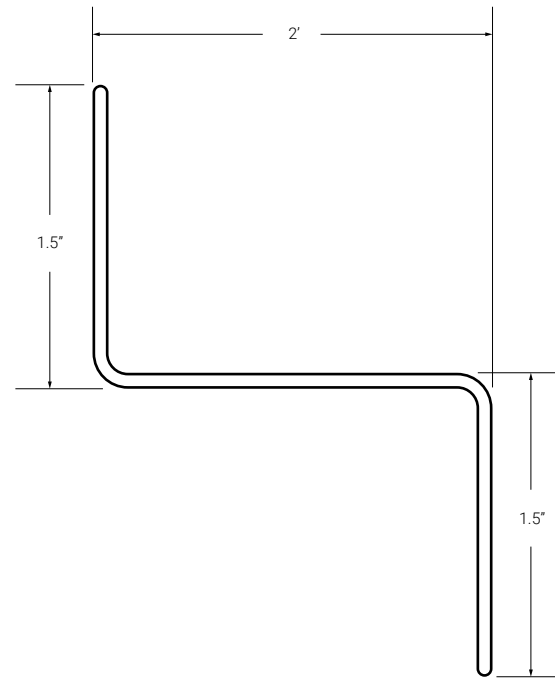
Window Centerline



Make sure ENTIRE joint assembly is no more than 1' off centerline. Do not position such that any piece of Reveal™ Trim piece is more than 1' off centerline of window.



1A Z GIRT  
NTS



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