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ENGAGE BUILDING PRODUCTS INC.

TEST REPORT

TEST REPORT ISSUED TO
Engage Building Products Inc.
101-4441 76th Ave. S.E
Calgary, AB T2C 2G8
Canada

SPECIFICATION(S) / STANDARD(S)
AAMA 508-21

PRODUCT SERIES & TYPE
Quickpanel - Rain Screen System

EVALUATION PROPERTIES
Pressure Equalization, Static Water Penetration Resistance, Dynamic Water Penetration Resistance

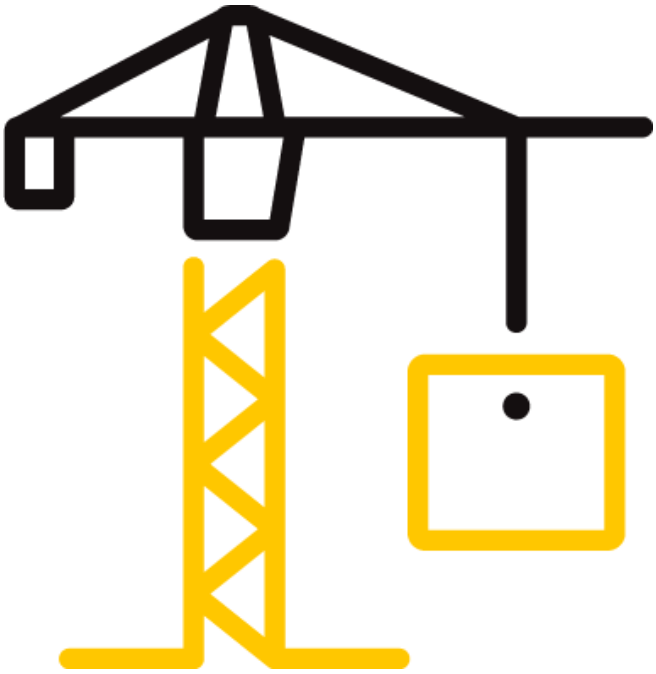
REPORT NUMBER
106028953COQ-010

TEST DATE(S)
03/19/25

ISSUE DATE
05/13/25

PAGES
21

DOCUMENT CONTROL NUMBER
GFT-OP-10c (09/29/20)



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TEST REPORT FOR ENGAGE BUILDING PRODUCTS INC.
Report No.: 106028953COQ-010
Date: 05/13/25

SECTION 1
SCOPE

Intertek Building & Construction (B&C) was contracted by Engage Building Products Inc. to perform testing on the Quickpanel - Rain Screen System, in accordance with the following standard/specifications:

- AAMA 508-21, *Voluntary Test Method and Specification for Pressure Equalized Rain Screen Wall Cladding Systems*

Results obtained are tested values and were secured by using the designated test method. Testing was conducted at the Intertek test facility in Coquitlam, BC.

Unless differently required, Intertek reports apply the "Simple Acceptance" rule also called “Shared Risk approach,” of ILAC-G8:09/2019, Guidelines on Decision Rules and Statements of Conformity.

For INTERTEK B&C:

COMPLETED BY:	Jason Komorski	**REVIEWED BY:**	David Park
TITLE:	Technician – Building Products	**TITLE:**	Reviewer – Building Products
SIGNATURE:		**SIGNATURE:**	
DATE:	05/13/25	**DATE:**	05/13/25

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SECTION 2

SUMMARY OF TEST RESULTS

A summary of results are as indicated in the table below:

System Model Name	Classification
Pressure Equalization	Pass
Static Water Penetration Resistance	Pass – 300 Pa (6.2 psf)
Dynamic Water Penetration Resistance	Pass – 14.3 m/s (32.0 mph)

Details of the tested results can be found in Section 8 of this report.

SECTION 3

TEST METHOD

The specimen was tested and evaluated in accordance with the following:

- **AAMA 508-21**, *Voluntary Test Method and Specification for Pressure Equalized Rain Screen Wall Cladding Systems*

SECTION 4

MATERIAL SOURCE

Samples were randomly selected at the Engage Building Products Inc. facility at 101-4441 76th Ave. S.E., Calgary, AB, T2C 2G8, by Intertek representative Sam Thomas on February 19, 2025. The products were selected in accordance with recognized independent sampling procedures and were received by the test facility on March 3, 2025 (Coquitlam ID# VAN2503031354-001).

SECTION 5

EQUIPMENT

ASSET #	DESCRIPTION	CAL DUE DATE
60650	Fenestration Control Unit	09/14/25
60651	Water Spray Assembly	05/26/25
60652	Water Spray Assembly	05/26/25
ITS1	Water Spray Assembly	05/26/25
D7810	Micro Mule	11/05/25
INT00712	Rain Screen Pressure Box	03/14/26

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SECTION 6
TEST PROCEDURE

CONDITIONING
Sample materials were maintained in standard laboratory conditions for a minimum of 48 hours at a temperature of 73 ± 4°F (23 ± 2°C) and relative humidity of 50 ± 5%.

AIR LEAKAGE

The Air Leakage (Air Infiltration) was conducted in accordance with ASTM E283 while following the procedures of AAMA 508. As per AAMA 508, using a chamber pressure of 75 Pa (1.57 psf), air leakage was induced in the system to provide a leakage rate of 0.6 L/s*m^2.

PRESSURE EQUALIZATION

The Pressure Equalization test was tested in accordance with ASTM E1233 and evaluated to AAMA 508. The test was performed at a specified pressure differential of 240 Pa (5 psf) to 1200 Pa (25 psf) for a minimum of 100 cycles.

STATIC WATER PENETRATION RESISTANCE

The Static Water Penetration test was tested in accordance with ASTM E331 and evaluated to Section 6.1 of AAMA 508. This test was performed at the specified pressure differential of 300 Pa (6.2 psf) and a water spray rate of at least 204 L/m^2 per hour (5.0 U.S. gal/ft^2 per hour). The test was run for fifteen minutes, during which the pressure and water spray were continuously applied.

DYNAMIC WATER PENETRATION RESISTANCE

The Dynamic Water Penetration test was tested in accordance with AAMA 501.1 and evaluated to Section 6.1 of AAMA 508. The test was performed using an approximate wind speed of 14.3 m/s (32.0 mph), pressure differential equivalence of 300 Pa (6.2 psf), generated using a Wind Generator, and a water spray rate of at least 204 L/m^2 per hour (5.0 U.S. gal/ft^2 per hour). This test consisted of fifteen minutes, during which the wind and water spray were continuously applied.

DEVIATION FROM STANDARD METHOD
There were no noted deviations from the test standards used in the evaluation reported herein.

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SECTION 7
TEST SPECIMEN DESCRIPTION

Series/Model: Quickpanel
Overall Test Size: 2438 mm (96”) wide by 2438 mm (96”) high
ACM Panel Sizes (4x): 1190 mm (46.9”) x 1180 mm (46.5”) x 4mm (0.16”)
Fasteners: #10 x 1-1/2” self-tapping hex head screws with EPDM Washer

Construction of each Quickpanel Rain Screen System was performed as per the drawings provided by the client, within Section 11 of this report.

Each length of starter track and head track profile was secured with 7x fasteners, one into each stud. The jamb tracks are secured with 7x fasteners, spaced approximately 406 mm (16”) o.c. The horizontal track used mid-span was secured with 5x fasteners, one into each stud except the jambs. An aluminum drip-cap flashing was used behind the horizontal track, secured with the same fasteners. 2x vertical tracks were used mid-span, each secured with 3x fasteners, spaced approximately 406 mm (16”) o.c.
The tracks used for the panel stiffeners were each secured with 2x fasteners, each going into the studs adjacent to mid-span. The stiffener profile snaps onto the stiffener track, and was adhered to each panel with 2x lengths of 25 mm (1”) wide 3M VHB Double Sided Tape with 3M AP111 Primer.
Aluminum spacer profiles, each approximately 152 mm (6”) long were secured to the wall with 1x fastener each, with an EPDM gasket used behind the wall, approximately 3 mm (0.12”) thick x 25 mm (1”) wide. 2x spacers were used for each panel, positioned at the top of the panel into the corresponding stud.
Each ACM panel was set against the legs of the corresponding track profiles, adhered and sealed to the profile with Dowsil 995 structural silicone. Silicon was applied around the full perimeter, except for the bottom two panels which did not have silicone along the top of the panels. Aluminum cap profiles were snapped into place into each corresponding track to secure the edges of the panels.

Rain Screen Test Wall Set-Up: A 96” wide by 96” high steel stud wall was constructed using 16 ga. 2x6 steel studs placed at 16” on center. The wall was then sheathed with 1/2” thick clear poly carbonate sheet. The rain screen panel system was then installed onto the clear polycarbonate in a manner consistent as mentioned above. The jambs of the rain screen system to the test buck were sealed using sheathing tape as to eliminate the non-typical end terminations from evaluation.

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SECTION 8
TEST RESULTS

AIR LEAKAGE RESISTANCE

Air leakage test data is indicated in the following table:

Test Pressure for all samples	75 Pa
Overall Area of each sample	5.94 m^2 (63.98 ft^2)
Air Leakage	0.6 L/s*m^2 (0.12 cfm/ft^2)
No. of 1/8" Holes Drilled	58

PRESSURE EQUALIZATION

During the Pressure Equalization test cycling at a pressure differential from 240 Pa (5 psf) to 1200 Pa (25 psf) for 100 cycles the systems lag times was below the required 0.08 seconds and the differential between the cavities and cyclic wind pressure did not exceed 50% of the maximum test pressure. Refer to Section 13 for a graph on one cycle during this test. The tested specimen **met** the performance requirements for Pressure Equalization of AAMA 508.

STATIC WATER PENETRATION RESISTANCE

During the 15-minute test period, using a pressure differential of 300 Pa (6.2 psf), there was no continuous stream of water on the substrate nor did the water mist or droplets that total more than 5% of the surface area. The sample **met** the performance requirements for Static Water Penetration of ASTM E331.

DYNAMIC WATER PENETRATION RESISTANCE

During the 15-minute test period, using wind speed of approximately 14.3 m/s (32.0 mph), there was no continuous stream of water on the substrate nor did the water mist or droplets that total more than 5% of the surface area. The sample **met** the performance requirements for Dynamic Water Penetration of AAMA 501.1.

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SECTION 9
CONCLUSION

The test specimen met the specified performance requirements as described in Section 8.

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SECTION 10
PHOTOGRAPHS

Photo No. 1
Quickpanel – 4 Panel system

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Photo No. 2
ASTM E331 – Static water test setup

Photo No. 3
AAMA 501.1 - Dynamic water test setup

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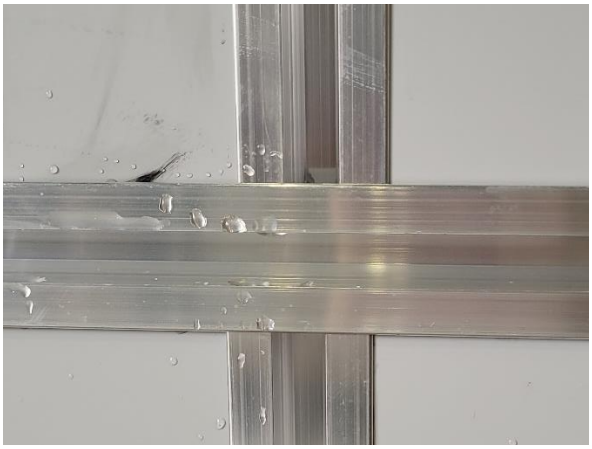

Photo No. 4
Center joint

Photo No. 5
Horizontal joint at jamb

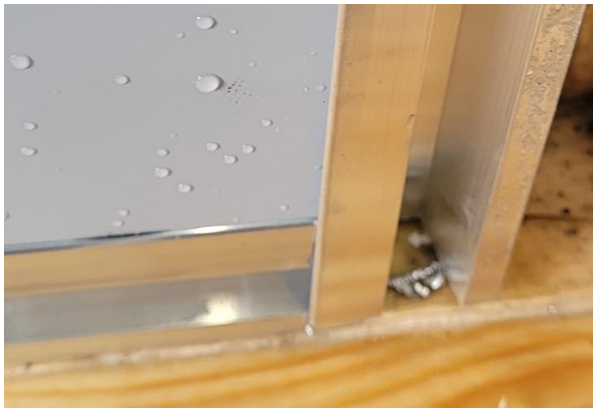

Photo No. 6
Jamb connection at sill

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Photo No. 7
Vertical joint at sill

Photo No. 8
Stiffener track secured to wall

Photo No. 9
Fastener with EPDM washer

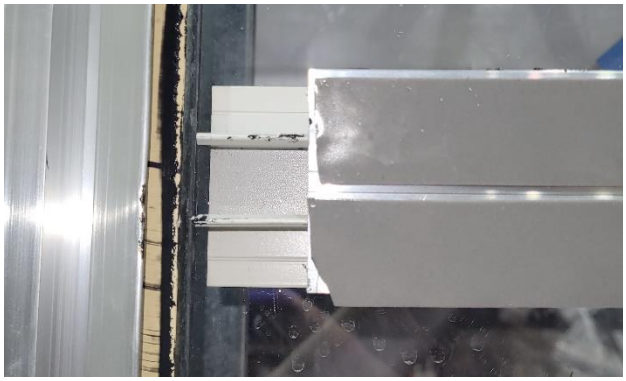

Photo No. 10
Double-sided tape on stiffener profile

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Photo No. 11
Spacer profiles at top of system

Photo No. 12
Horizontal track at mid-span with flashing and silicone

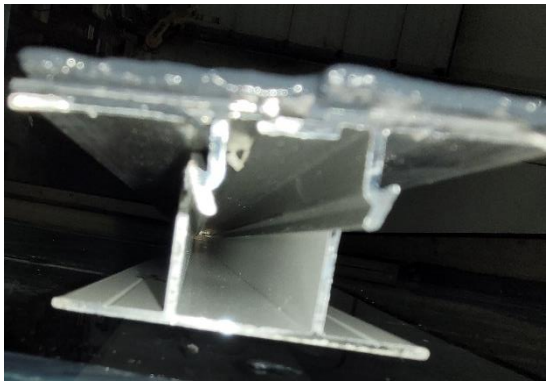

Photo No. 13
Stiffener profile and track

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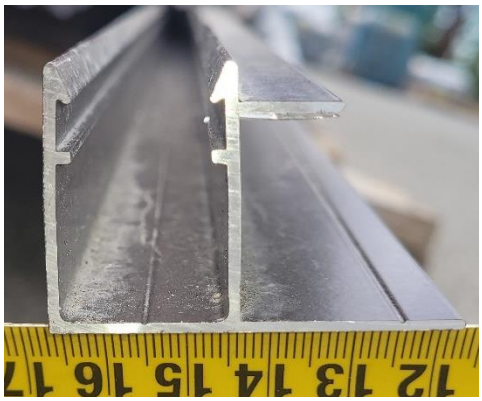
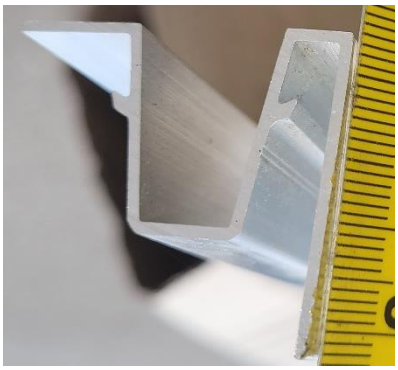


Photo No. 14
Track profile



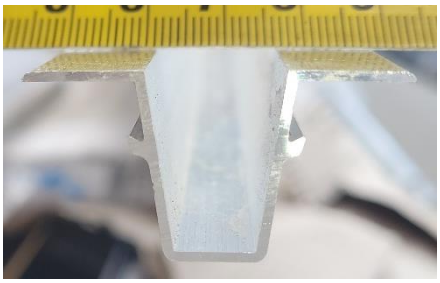


Photo No. 15 & 16
Jamb cap and mid-span cap profiles

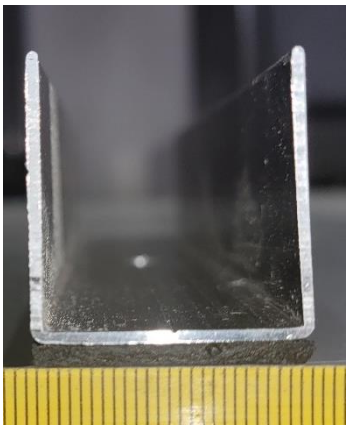


Photo No. 17
Spacer profile with EPDM gasket

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SECTION 11
DRAWINGS

The drawings for the Quickpanel Rain Screen System, as provided by the client, have been reviewed by Intertek B&C and are representative of the sample reported herein. Sample construction was verified by Intertek B&C per the drawings included in this report. Any deviations are documented herein or on the drawings.

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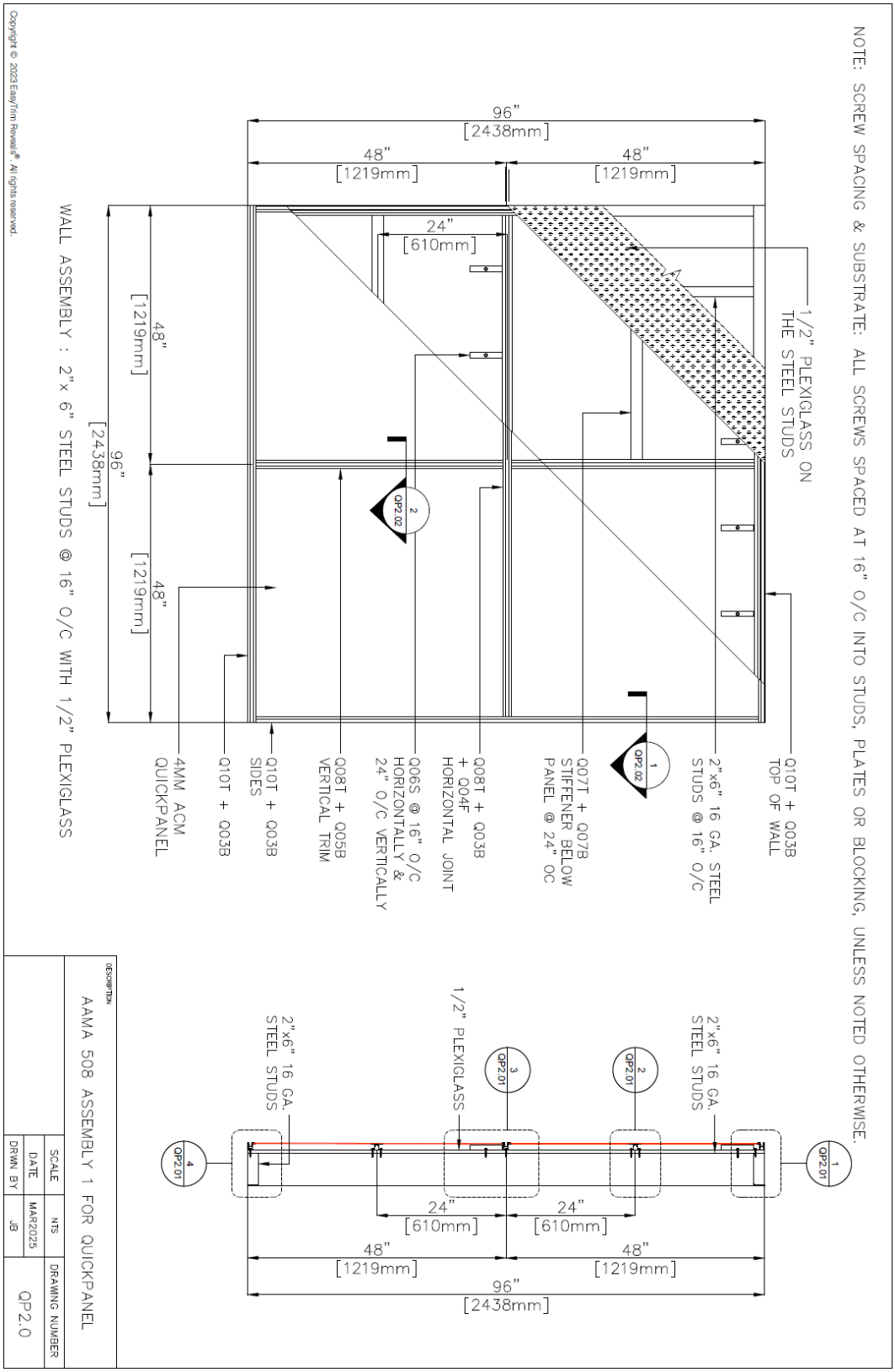

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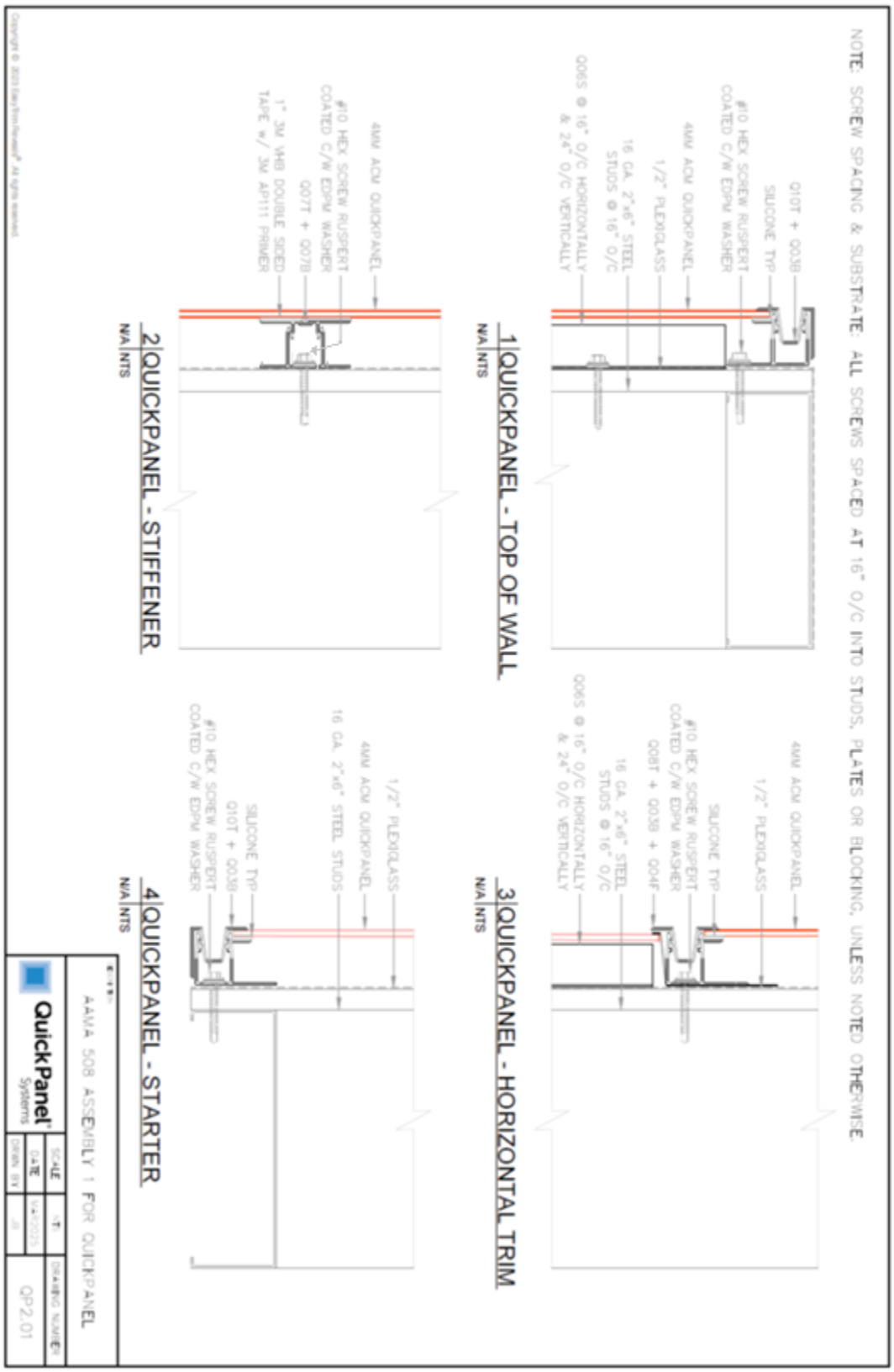

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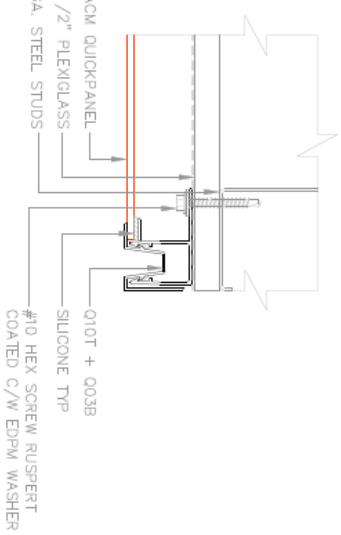
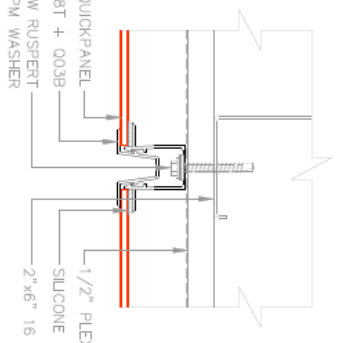
NOTE: SCREW SPACING & SUBSTRATE: ALL SCREWS SPACED AT 16" O/C INTO STUDS, PLATES OR BLOCKING, UNLESS NOTED OTHERWISE.



1 QUICKPANEL - VERTICAL TERMINATION
N/A NTS



2 QUICKPANEL - VERTICAL MAINBODY
N/A NTS

AAMA 508 ASSEMBLY 1 FOR QUICKPANEL

QuickPanel Systems

SCALE	NTS	DRAWING NUMBER
DATE	MAY2025	QP2.02
DRWN BY	JB	

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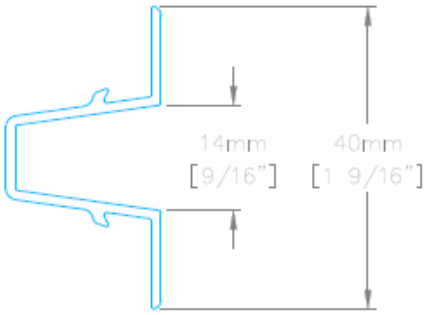

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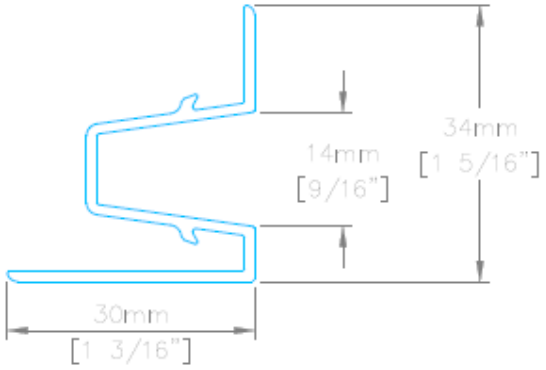

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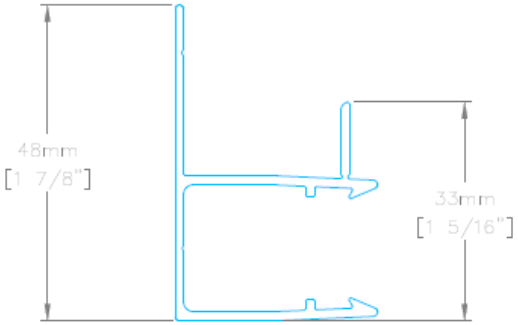

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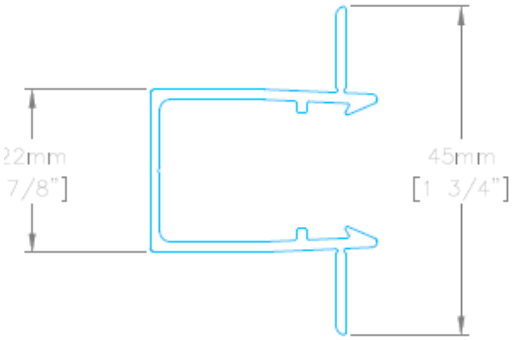

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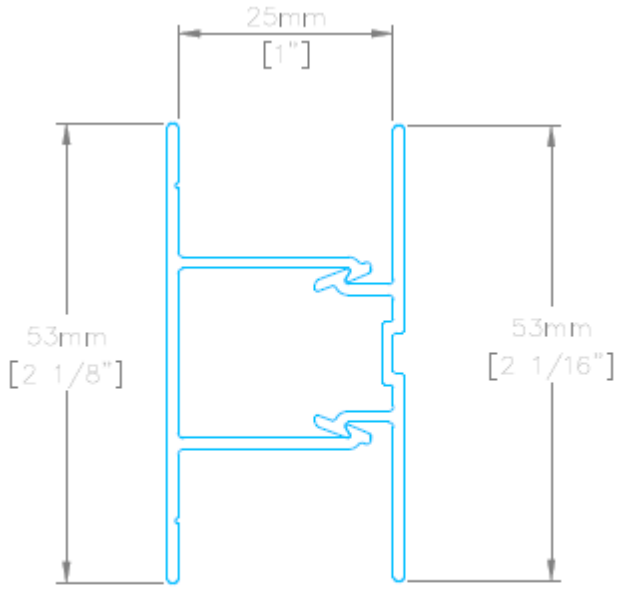
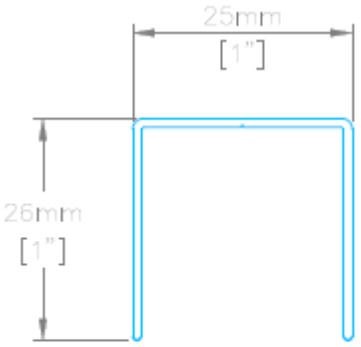
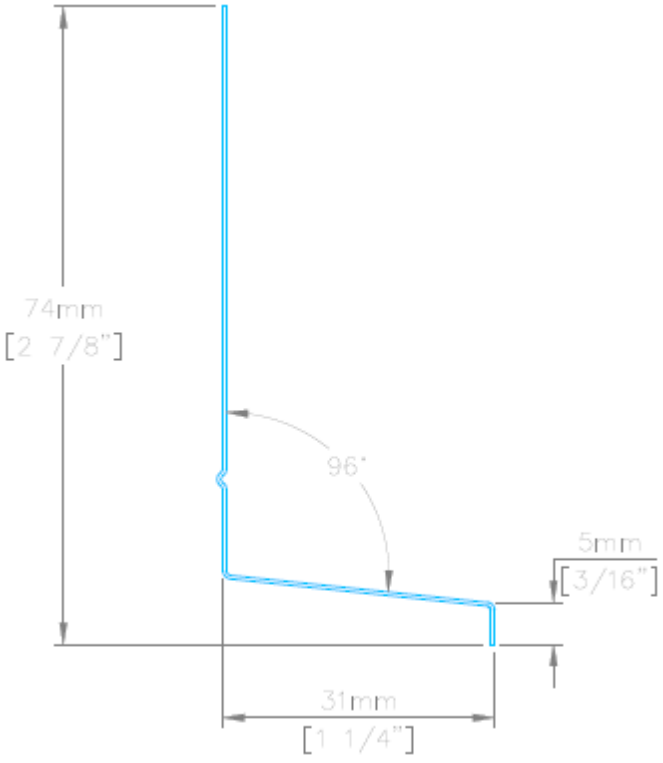


QP07B QP07T



Q06S (PVC)



Q04F

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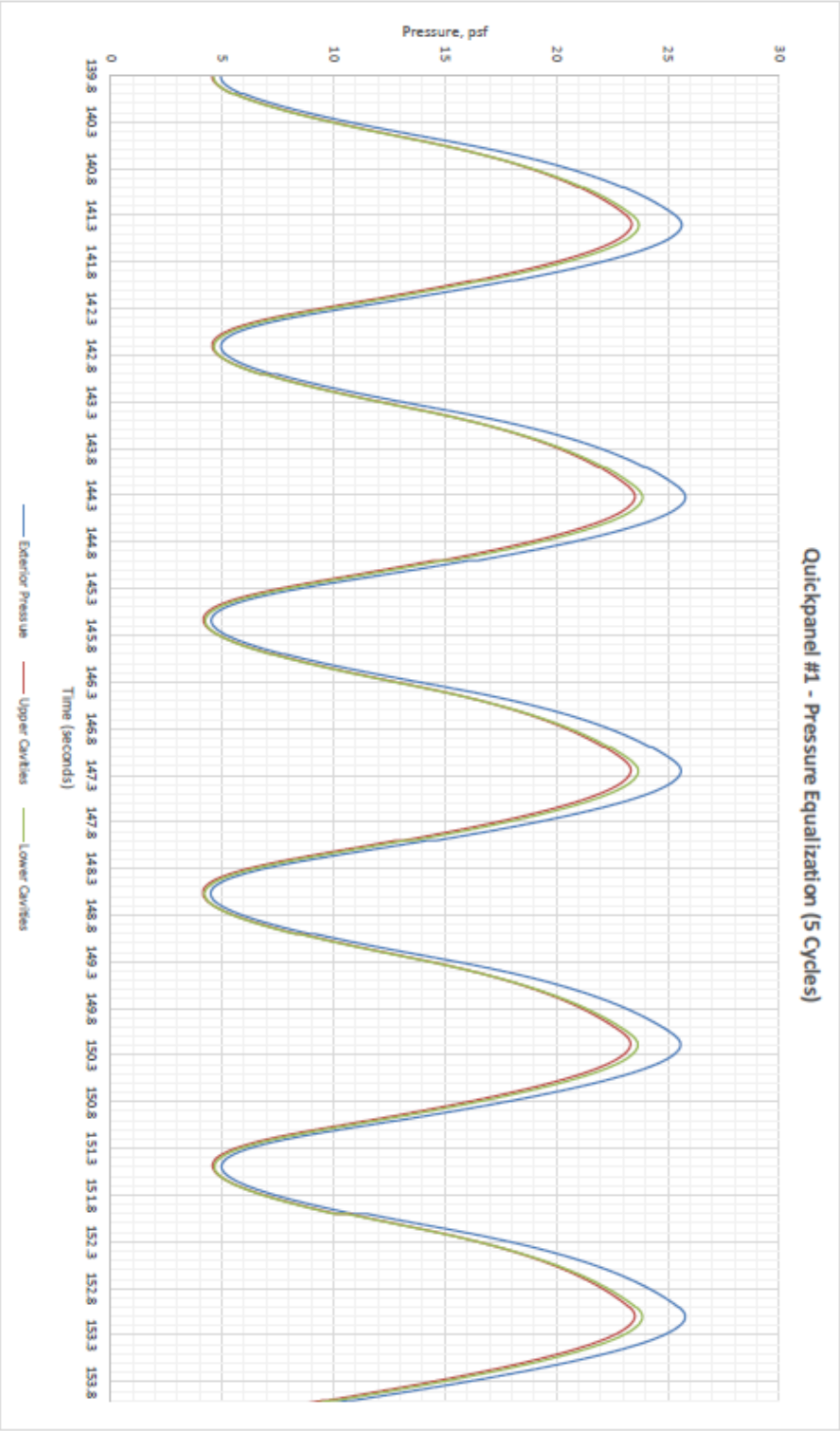
SECTION 12

PRESSURE EQUALIZATION GRAPH



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SECTION 13
REVISION LOG

REVISION #	DATE	SECTION	REVISION
0	05/13/25	N/A	Original Report Issue