

## TEST REPORT

AAMA 501.5

REPORT No.: 11123.03-106-11

RENDERED TO: DESANA PARTNERS  
Cranston, Rhode Island

PRODUCT TYPE: Brick Rainscreen System (without mortar)

SERIES / MODEL: RWD

**Test Completion Date:** 1/12/2022  
**Report Date:** 2/21/2022

Reference must be made to Report No. 11123.03-106-11, dated 2/21/2022 for complete test specimen description and detailed test results.

**CLIENT INFORMATION:** DESANA PARTNERS  
68 Fox Run  
Cranston, Rhode Island 02920

**TEST LABORATORY:** Molimo, LLC  
1410 Eden Road  
York, Pennsylvania 17402  
717-900-6034

**PROJECT SUMMARY:**

**PRODUCT TYPE:** Brick Rainscreen System (without mortar)

**SERIES/MODEL:** RWD

**PROJECT SUMMARY:**

Molimo, LLC was contracted to perform testing on the above referenced product. The results are tested values and were secured by using the designated test method.

**PROJECT DETAILS:**

**Test Dates:** 1/12/2022

**Test Record Retention End Date:** 1/12/2026

**Test Location:** Molimo, LLC test facility in York, Pennsylvania.

**Test Specimen Source:** The test specimen was provided by the client. Representative samples of the test specimen will be retained by Molimo for a minimum of four years from the test completion date.

**Drawing Reference:** The test specimen drawings were supplied by the client. The test specimen construction was verified by Molimo and was found to be representative of the product tested. Test specimen drawings are located in Appendix B of this report.

**WITNESSES:**

The following representatives witnessed all or part of the testing.

Name	Company
Michael D. Stremmel, P.E.	Molimo, LLC
Robert J. Beatty	Molimo, LLC

**TEST METHOD:**

AAMA 501.5-07 – *Test Method for Thermal Cycling of Exterior Walls*

**TEST SPECIMEN DESCRIPTION:**
**PRODUCT SIZES:**

Test Specimen #1				
Overall Area: 5.9 m <sup>2</sup> (64.0 ft <sup>2</sup> )	Width		Height	
	Millimeters	Inches	Millimeters	Inches
<b>Overall Size:</b>	813	32	19	48

**INSTALLATION:** The specimen was installed onto a 8' x 8' test wall constructed of 6", 16-gauge steel studs spaced 16" on center. The steel stud wall was sheathed with 5/8" thick dens glass, secured to the steel studs with #8 x 1" self-drilling screws, spaced 12" on center at each stud location.

**RAINSCREEN CONSTRUCTION AND INSTALLATION:**

Rainscreen Member	Material	Detail
Field clips	Aluminum	1-9/16" base by 3-3/8" high by 2-3/8" deep, 0.10" thick 6063-T66 extruded aluminum angles. The field clips were secured with two #10 x 2" self-tapping stainless-steel fasteners per clip fastened through the clip into the studs. The clips were located 32" on center (vertically) at each stud location.
Head clips	Aluminum	1-9/16" base by 6-1/4" high by 2-3/8" deep, 0.10" thick 6063-T66 extruded aluminum. The head clips were secured with four #14 x 2" self-tapping stainless-steel fasteners per clip fastened through the clip into the studs. The clips were located at the top of each stud.
Vertical rails	Aluminum	1-1/2" wide by 1-7/8" high by 96" long, L shaped, aluminum angle. The vertical rails were secured to the field and head clips, spaced 16" on center, with two #10 x 3/4" self-tapping hex head washer screws.

**TEST SPECIMEN DESCRIPTION:**
**RAINSCREEN CONSTRUCTION AND INSTALLATION:**

Rainscreen Member	Material	Detail
Horizontal rails	Stainless Steel	96" wide by 2-1/2" high by 5/8" deep formed stainless steel with a serrated edge (teeth) at the top edge. The horizontal trays were secured WO/W, #8 x 3/4" stainless-steel, self-tapping, Phillips head screws located 16" on center (horizontally) through the horizontal trays into the vertical profile.
Brick	Clay	7-5/8" wide by 2-1/4" high by 3/4" thick. The bricks were inserted into the serrated trays with a rubber mallet and Tremco Spectrum 2 Structural Silicone between the brick and the tray.

**TEST RESULTS:** The temperature during testing was 22°C (72°F).

**THERMAL CYCLING TESTING:** (per AAMA 501.5)

Six thermal cycles were performed from 0° F to 180° F with 1 hour of water spray at 75°F, (reference Chart in Appendix A for details)

Cycle	Results
1	No bricks loosed or became dislodged from the specimen. No visible change to the specimen was observed.
2	No bricks loosed or became dislodged from the specimen. No visible change to the specimen was observed.
3	No bricks loosed or became dislodged from the specimen. No visible change to the specimen was observed.
4	No bricks loosed or became dislodged from the specimen. No visible change to the specimen was observed.
5	No bricks loosed or became dislodged from the specimen. No visible change to the specimen was observed.
6	No bricks loosed or became dislodged from the specimen. No visible change to the specimen was observed.

**Final Observations:**

*At the completion of the thermal cycle test, the specimen was visually inspected. There were no signs of bricks loosening or becoming dislodged from the specimen. Over the duration of the testing, the bricks experienced some slight decolorization.*

**General Note:** All testing was performed in accordance with reference test methods.

A copy of this report, detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation will be retained by Molimo, LLC for the entire test record retention period. At the end of this retention period, the service life of this report will expire.

Results obtained are tested values and were secured by using the designated test methods. This test report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the specimen(s) tested. This report may not be reproduced, except in full, without the written permission of Molimo, LLC.

For MOLIMO, LLC:

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Robert J. Beatty  
Project Manager – Product Testing

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Michael D. Stremmel, P.E.  
Senior Project Engineer

RJB:mds

Attachments (pages): This report is complete only when all attachments listed are included.

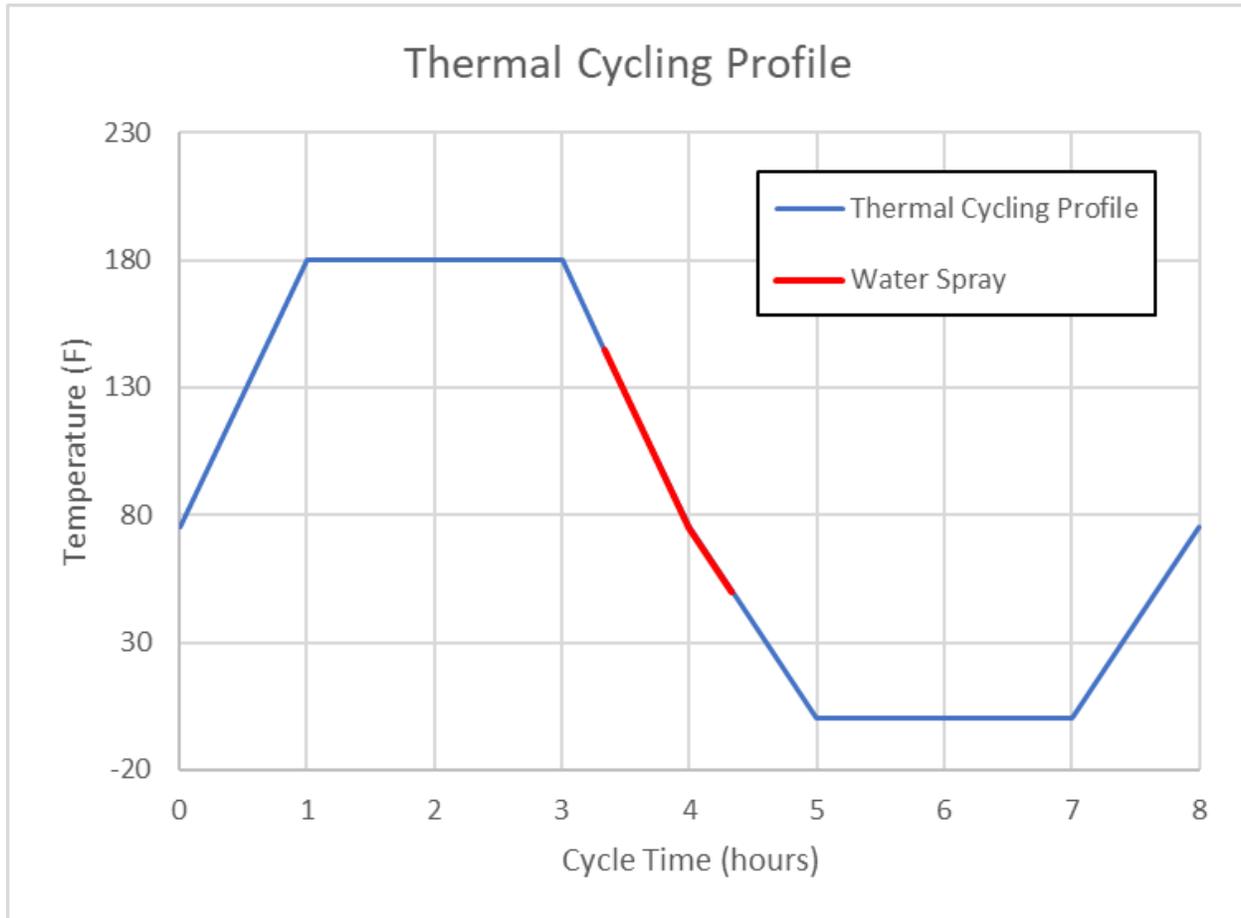
Appendix-A: Photographs (1)

Appendix-B: Drawings (4)

This report was produced from controlled document template MMO 00014, Rev 4, 6/3/2021.

**Appendix A**

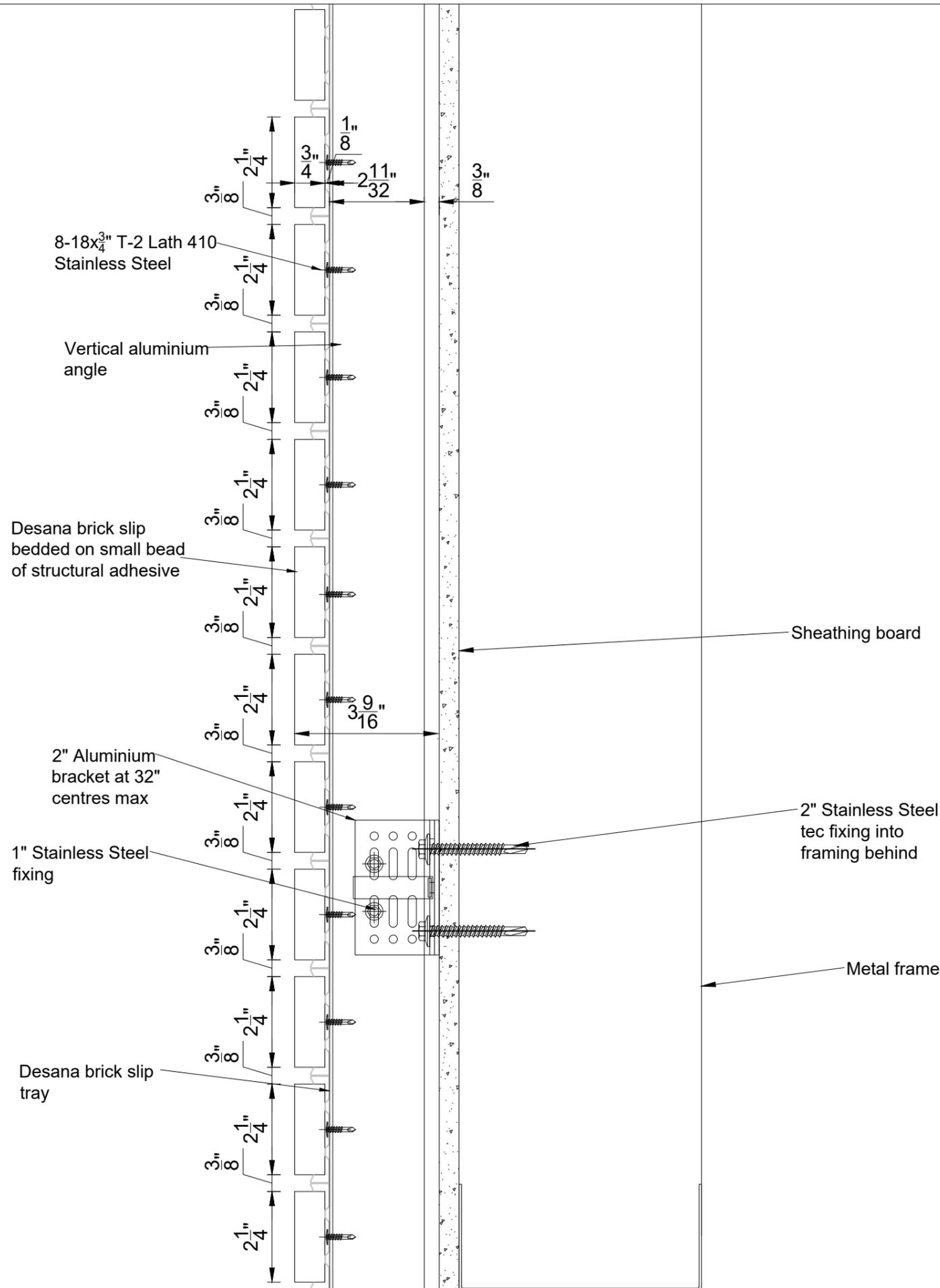
**Thermal Cycling Chart**



## **Appendix B**

### **Drawings**

ALL ELEVATIONS ARE VIEWED FROM OUTSIDE UNLESS OTHERWISE STATED



Rev.	Date	By	Comments
-	04-02-22	CDB	Approval
Drawing Status :			
<b>FOR INFORMATION</b>			
Contract :			
Desana Brick Slip Test Rig			



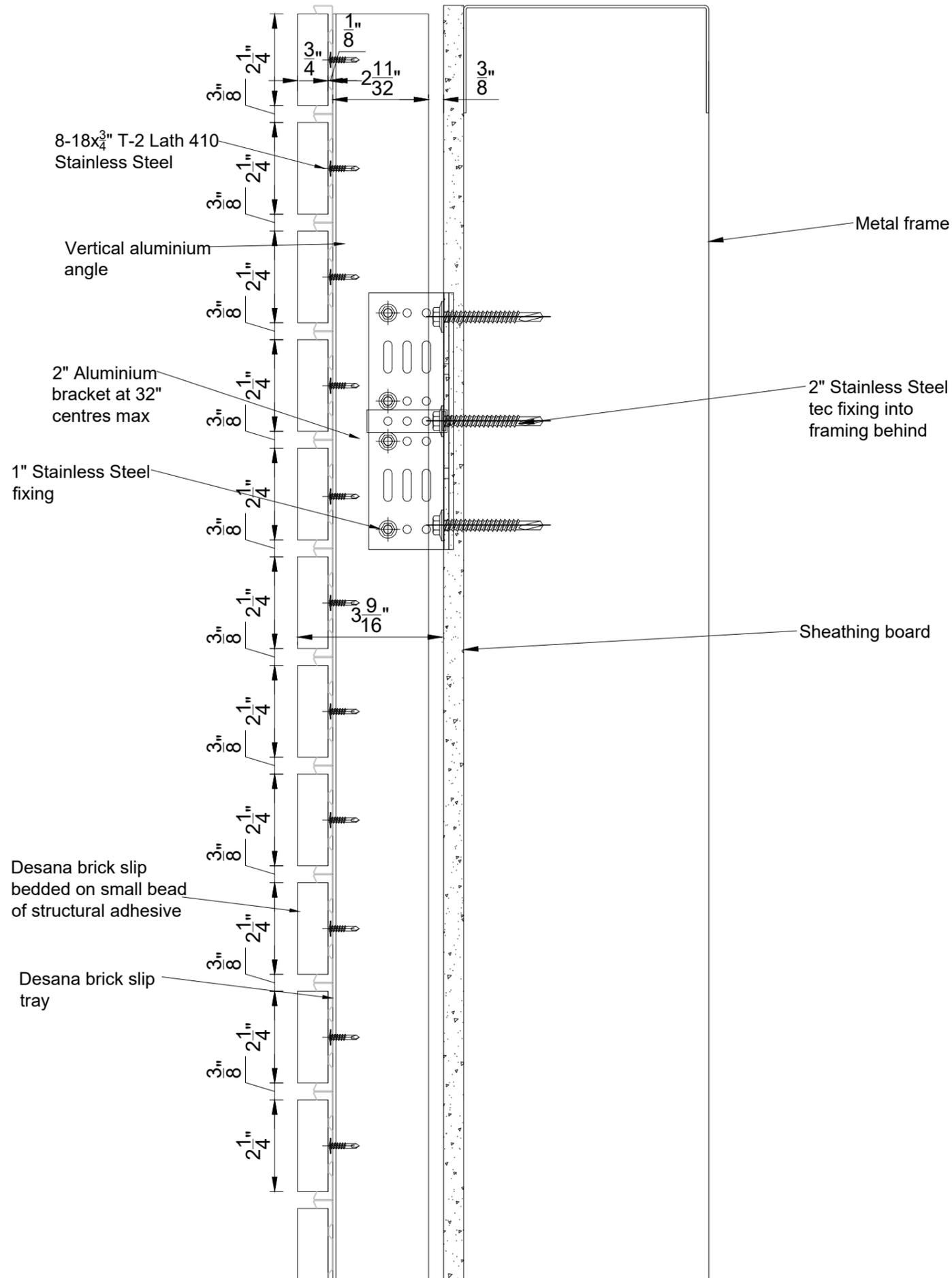
Do not scale from this drawing. If in doubt ask			
Drawing Title :			
Vertical section detail through Desana brick slip base			
Scale :	Checked :	Drawn : CB	
1:3	Date :	Date : 04-02-22	
Size	Drawing No.	Rev.	
A3	DEN-TR-DT-001	/	

**Molimo**<sup>TM</sup>  
Architectural Product Testing

Report #: 11123.01-106-11

Date: 2/21/2022

By: M. Stremmel



Rev.	Date	By	Comments
-	04-02-22	CDB	Approval

Drawing Status :

**FOR INFORMATION**

Contract :  
Desana Brick Slip Test Rig



Do not scale from this drawing. If in doubt ask

Drawing Title :  
Vertical section detail through Desana brick slip head

Scale :	Checked :	Drawn :
1:3	Date :	CB
	Date :	04-02-22

Size	Drawing No.	Rev.
A3	DEN-TR-DT-002	/

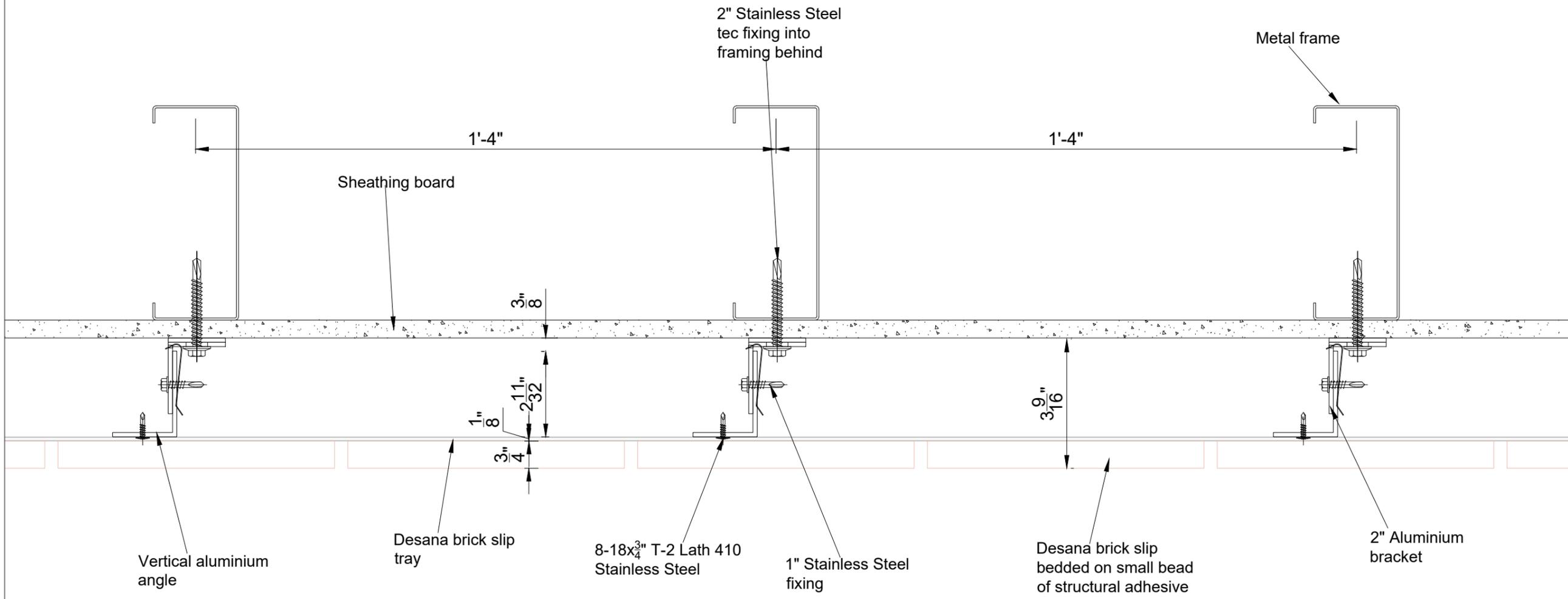
**Molimo**<sup>TM</sup>  
Architectural Product Testing

Report #: 11123.01-106-11

Date: 2/21/2022

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ALL ELEVATIONS ARE VIEWED FROM OUTSIDE UNLESS OTHERWISE STATED



Rev.	Date	By	Comments
-	04-02-22	CDB	Approval

Drawing Status : **FOR INFORMATION**

Contract :  
Desana Brick Slip Test Rig



Do not scale from this drawing. If in doubt ask

Drawing Title :  
Horizontal section detail through Desana brick slip

Scale :	Checked :	Drawn :
1:3	Date :	CB
	Date :	04-02-22

Size	Drawing No.	Rev.
A3	DEN-TR-DT-003	/

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Report #: 11123.01-106-11

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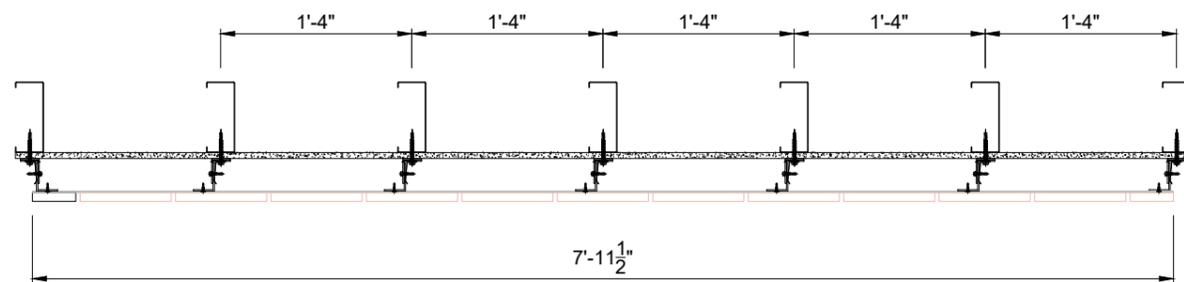
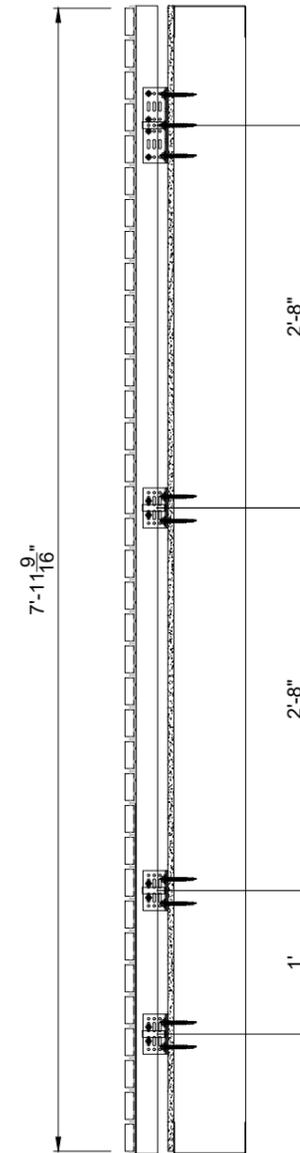
By: M. Stremmel

ALL ELEVATIONS ARE VIEWED FROM OUTSIDE  
UNLESS OTHERWISE STATED

Brackets to be spaced at 32"  
centres max

Vertical rails space at 16"  
centres max

Bricks to be stack bonded  
 $7\frac{5}{8} \times 2\frac{1}{4} \times \frac{3}{4}$ "



Rev.	Date	By	Comments
-	04-02-22	CDB	Approval

Drawing Status :

**FOR INFORMATION**

Contract :  
Desana Brick SlipTest Rig



Do not scale from this drawing. If in doubt ask

Drawing Title :  
Elevation setting out to Desana  
Brick slip open joints

Scale :	Checked :	Drawn :
1:7.5	Date :	CB
		Date : 04-02-22

Size	Drawing No.	Rev.
A1	DEN-TR-EL-001	/

 **Molimo**<sup>TM</sup>  
Architectural Product Testing

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By: M. Stremmel