

L. Roberto Lomas P.E.

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Engineering Evaluation Report

Report No.: 514689

Manufacturer: Altech Panel Systems, Inc.
1 Johnson Street, Suite 118
Cartersville, GA 30120

Product Line: Accu-Trac DS/ALFREX FR Reinforced Wall System Panel - Impact

Compliance:

The above mentioned product has been evaluated for compliance with the requirements of the Florida Department of Business and Professional Regulation for Statewide Acceptance per Rule 61G20-3.005 method 1(d). The product listed herein complies with requirements of the current Florida Building Code.

Supporting Technical Documentation:

1. Approval document: drawing number 08-03594, prepared, signed and sealed by Luis Roberto Lomas P.E.
2. Report No.: K8138.01-550-18 R1 signed and sealed by Vinu J. Abraham P.E.
Intertek, Lithia Springs, GA.
TAS 201 Large Missile Impact Test, Level D, Wind Zone 4
TAS 202 Uniform Static Air Pressure, ± 75.0 psf design pressure, 20.0psf water penetration.
TAS 203 Cyclic Pressure loading ± 75.0 psf design pressure
3. Report No.: K8138.02-550-18 R1 signed by James Blakely
Intertek, Lithia Springs, GA.
ASTM E330 Uniform static air pressure ± 75.0 psf, 20.0psf water penetration.
ASTM E1886/ E1996 Large Missile Impact, Level D, Wind Zone 4
ASTM E1886/ E1996 Cyclic Load Test, ± 75.0 psf design pressure
4. Anchor calculations and comparative analysis, report number 514689-1, prepared, signed and sealed by Luis Roberto Lomas P.E.

Limitations and Conditions of use:

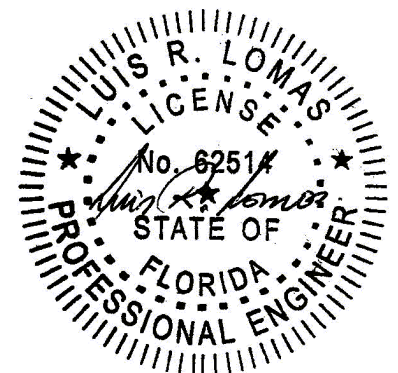
- Design pressure: ± 75.0 psf
- Panel Size: 120" x 60"
- This product is rated to be used in the HVHZ.
- Panel material to be composite with 3003-H16 aluminum faces 5/32" thickness Alfrex FR MCM.
- Stiffener material to be Extruded Aluminum.
- All clips material to be Extruded Aluminum.
- Panels maybe obtained under the following brand names and manufacturers:
 - Alfrex, LLC
- Mechanical properties of composite material:
 - ASTM E8 Tensile strength: 7900PSI
Yield strength: 7500PSI
Elongation: 3.6%
 - ASTM C393/D790 Flexural Elasticity: 5740×10^3 PSI
 - ASTM E413 Sound transmission loss: 27 STC

Installation:

Units must be installed in accordance with manufacturer's installation instructions and approval document 08-03594.

Certification of Independence:

Please note that I don't have nor will acquire a financial interest in any company manufacturing or distributing the product(s) for which this report is being issued. Also, I don't have nor will acquire a financial interest in any other entity involved in the approval process of the listed product(s).



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

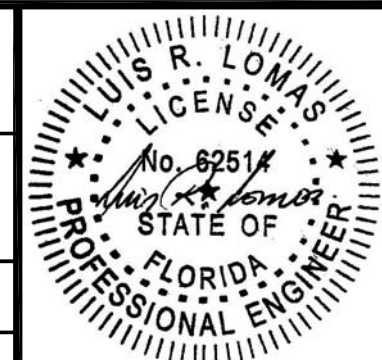
NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE FLORIDA BUILDING CODE INCLUDING THE HVHZ.
2. METAL FRAMING TO BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO STRUCTURE. FRAMING STRUCTURE IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
3. SHEATHING TO BE 5/8" THICK MINIMUM AND SECURED TO FRAMING TO PROPERLY TRANSFER ALL LOADS TO STRUCTURE. FRAMING STRUCTURE IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
4. PANEL THICKNESS TO BE 4MM OR 6MM.
5. PANEL MATERIAL TO BE COMPOSITE WITH A 3003-H16 ALUMINUM FACE 5/32" MINIMUM THICKNESS ALFLEX FR MCM.
6. MAXIMUM PANEL SIZE: 60" X 120"
7. PANELS MAY BE OBTAINED FROM THE FOLLOWING MANUFACTURERS AND UNDER THESE BRAND NAMES:
ALFLEX, LLC
8. SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH LOAD BEARING SHIM. SHIM WHERE SPACE OF 1/16" OR GREATER OCCURS.
9. FOR ANCHORING INTO METAL STRUCTURE USE #12 SMS OR SELF DRILLING SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE 3 THREADS MINIMUM BEYOND STRUCTURE INTERIOR WALL. LOCATE ANCHORS 3" MAX FROM EACH END AND 16" MAX O.C. THEREAFTER AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
10. FOR ANCHORING PANELS INTO EXTRUSIONS USE 1/8" 5052 ALUMINUM POP RIVETS. LOCATE RIVETS 3" MAX FROM EACH END AND 16" MAX O.C. THEREAFTER AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
11. ALL FASTENERS TO BE CORROSION RESISTANT.
12. INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BELOW:
A. METAL STRUCTURE: GALVANIZED STEEL 16GA FY: 55KSI MIN.

SIGNED: 09/18/2020

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1	NOTES
2	ELEVATION
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ALTECH PANEL SYSTEM LLC 1 JOHNSON STREET, SUITE 118 CARTERSVILLE, GA 30120		
ACCU-TRAC DS/ALFLEX FR REINFORCED WALL PANEL SYSTEM IMPACT NOTES		
DRAWN: A.R.	DWG NO. 08-03594	REV -
SCALE NTS	DATE 08/04/2020	SHEET 1 OF 5
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		



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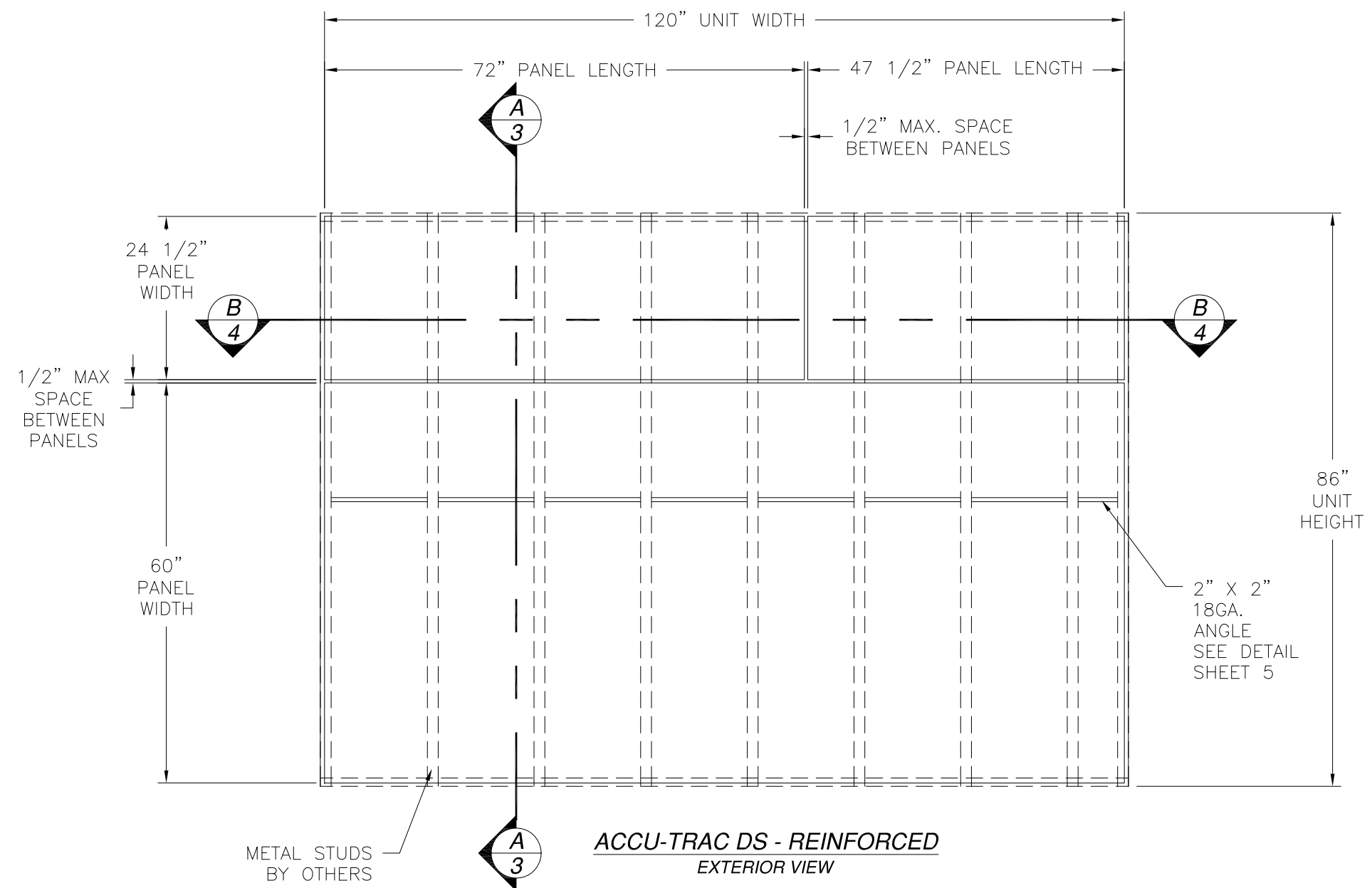


Chart #2

Design pressure (psf)	Rivet spacing (in)	
	20.0	30.0
30.0	40.0	18.00
40.0	50.0	18.00
50.0	60.0	14.00
70.0	75.0	12.00
75.0		11.00

ACCU-TRAC DS - REINFORCED
EXTERIOR VIEW

DESIGN PRESSURE RATING	IMPACT RATING
±75.0PSF	LARGE AND SMALL MISSILE IMPACT

MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

60" X 120" PANEL SHOWN. OTHER SIZES ARE APPROVED AS LONG AS PANEL AREA DOES NOT EXCEED 50.0 FT²

Chart #1

Design pressure (psf)	Stiffener spacing (in)							
	Panel width (in)							
	24.00	30.00	36.00	42.00	48.00	54.00	60.00	
20.0	NO STF REQ'D	NO STF REQ'D	NO STF REQ'D	NO STF REQ'D	NO STF REQ'D	53.00	43.00	
30.0	NO STF REQ'D	NO STF REQ'D	NO STF REQ'D	58.00	45.00	35.00	28.00	
40.0	NO STF REQ'D	NO STF REQ'D	60.00	44.00	33.00	26.00	21.00	
50.0	NO STF REQ'D	NO STF REQ'D	48.00	35.00	27.00	21.00	17.00	
60.0	NO STF REQ'D	57.00	40.00	29.00	22.00	17.00	14.00	
70.0	NO STF REQ'D	49.00	34.00	25.00	19.00	15.00	12.00	
75.0	NO STF REQ'D	46.00	32.00	23.00	18.00	14.00	11.00	

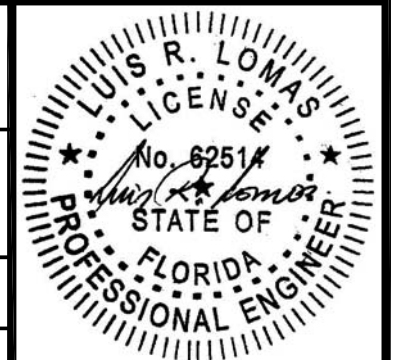
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ALTECH PANEL SYSTEM LLC
1 JOHNSON STREET, SUITE 118
CARTERSVILLE, GA 30120

ACCU-TRAC DS/ALFLEX FR REINFORCED
WALL PANEL SYSTEM IMPACT
ELEVATION

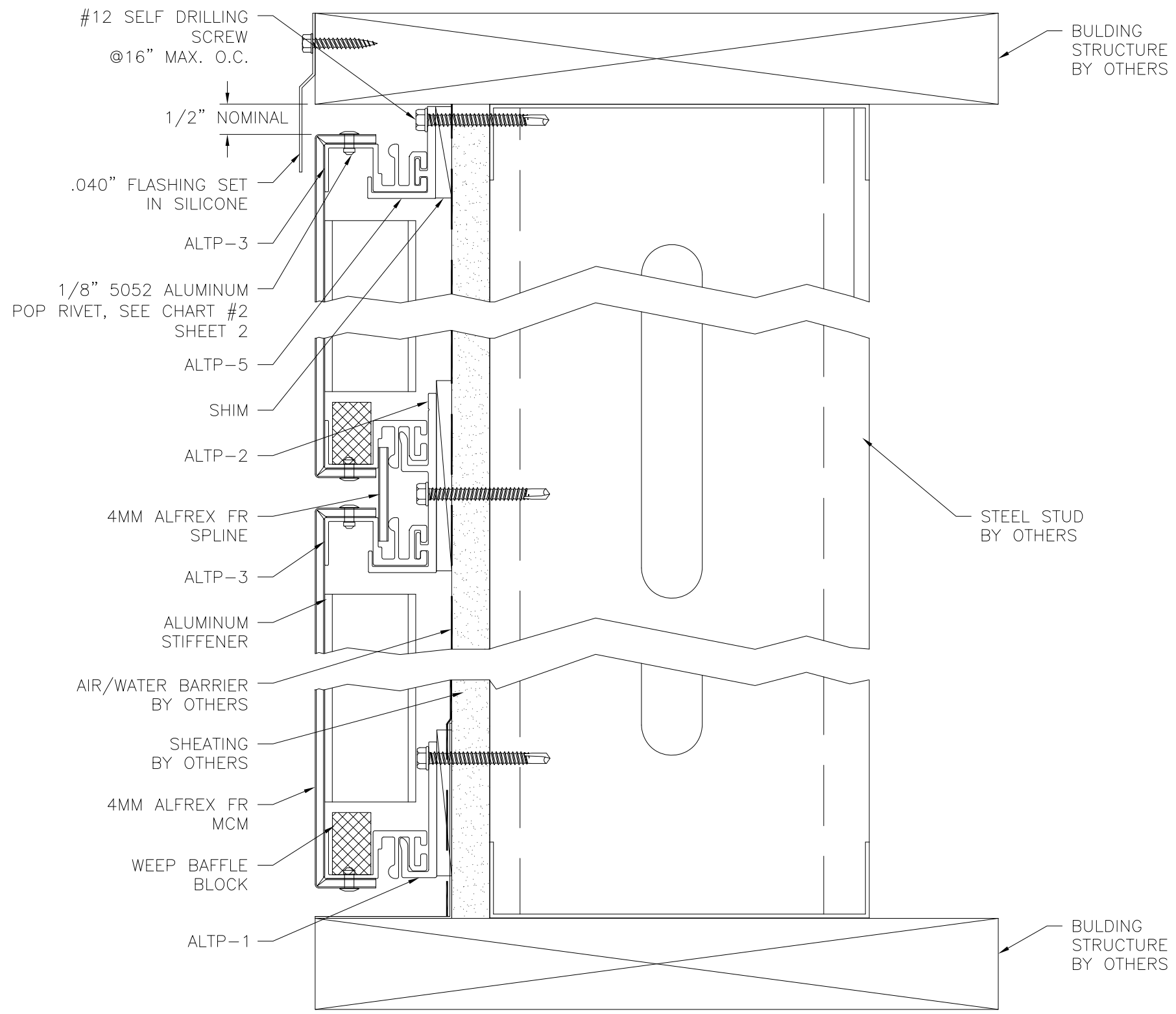
DRAWN: A.R.	DWG NO. 08-03594	REV -
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A
3 **VERTICAL SECTION**
INSTALLATION DETAILS

ALTECH PANEL SYSTEM LLC
1 JOHNSON STREET, SUITE 118
CARTERSVILLE, GA 30120

ACCU-TRAC DS/ALFLEX FR REINFORCED
WALL PANEL SYSTEM IMPACT
INSTALLATION DETAILS AND COMPONENTS

DRAWN: A.R.	DWG NO. 08-03594	REV -
SCALE NTS	DATE 08/04/2020	SHEET 3 OF 5

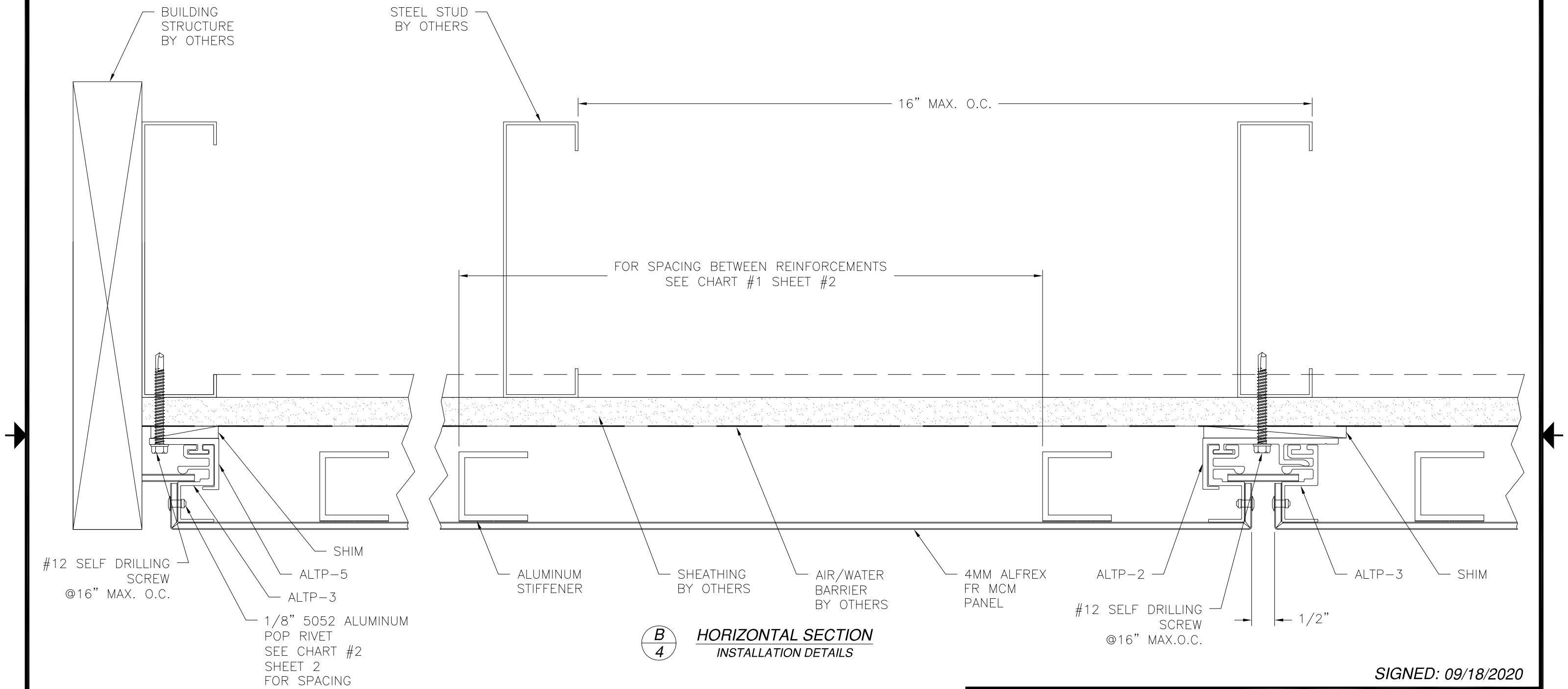
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B
4

HORIZONTAL SECTION
INSTALLATION DETAILS

SIGNED: 09/18/2020

ALTECH PANEL SYSTEM LLC
1 JOHNSON STREET, SUITE 118
CARTERSVILLE, GA 30120

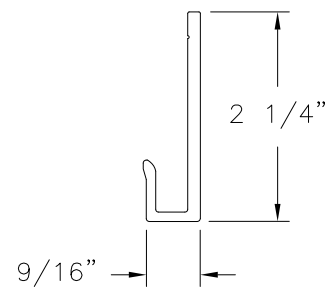
ACCU-TRAC DS/ALFREX FR REINFORCED
WALL PANEL SYSTEM IMPACT
INSTALLATION DETAILS

DRAWN: A.R.	DWG NO. 08-03594	REV -
SCALE NTS	DATE 08/04/2020	SHEET 4 OF 5

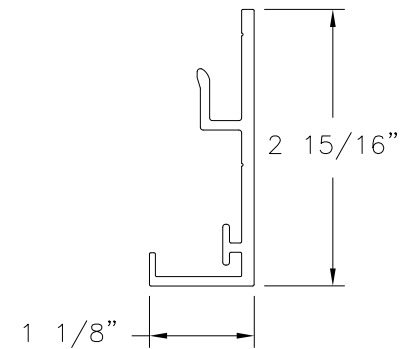
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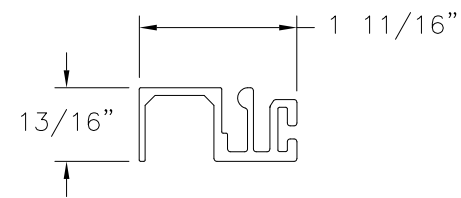
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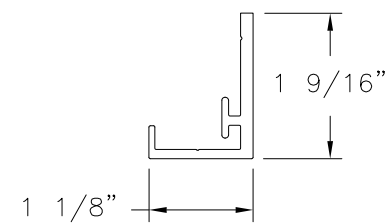
ALTP-1
ALUMINUM 6063-T5 .134" THICK



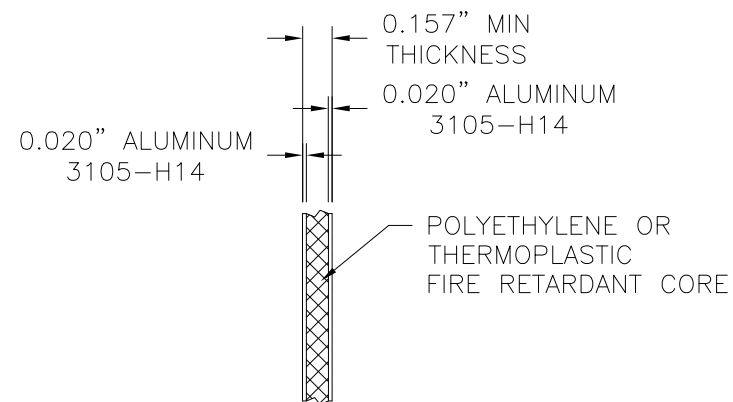
ALTP-2
ALUMINUM 6063-T5 .134" THICK



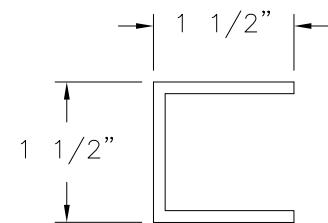
ALTP-3
ALUMINUM 6063-T5 .083" THICK



ALTP-5
ALUMINUM 6063-T5 .134" THICK



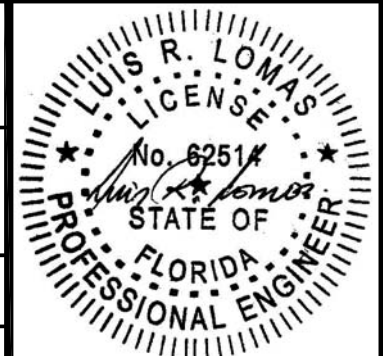
PANEL DETAIL



STIFFENER
ALUMINUM 6063-T5 .125" THICK

ALTECH PANEL SYSTEM LLC 1 JOHNSON STREET, SUITE 118 CARTERSVILLE, GA 30120		
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