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**Product Approval**  
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<p>FL #</p> <p>Application Type</p> <p>Code Version</p> <p>Application Status</p> <p>Comments</p> <p>Archived</p> <p>Product Manufacturer</p> <p>Address/Phone/Email</p> <p>Authorized Signature</p> <p>Technical Representative</p> <p>Address/Phone/Email</p> <p>Quality Assurance Representative</p> <p>Address/Phone/Email</p> <p>Category</p> <p>Subcategory</p> <p>Compliance Method</p>	<p>FL5499-R4</p> <p>Revision</p> <p>2017</p> <p>Approved</p> <p></p> <p>Elite Aluminum Corporation</p> <p>4650 Lyons Technology Parkway</p> <p>Coconut Creek, FL 33073</p> <p>(954) 949-3200</p> <p>dk@dokimengineering.net</p> <p>Frank Bennardo</p> <p>frank@engineeringexpress.com</p> <p>Bruce Peacock</p> <p>4650 Lyons Technology Parkway</p> <p>Coconut Creek, FL 33073</p> <p>(954) 949-3200</p> <p>bpeacock@elitealuminum.com</p> <p></p> <p>Panel Walls</p> <p>Storefronts</p> <p>Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer</p> <p>Evaluation Report - Hardcopy Received</p>																		
<p>Florida Engineer or Architect Name who developed the Evaluation Report</p> <p>Florida License</p> <p>Quality Assurance Entity</p> <p>Quality Assurance Contract Expiration Date</p> <p>Validated By</p> <p>Certificate of Independence</p>	<p>Frank L. Bennardo, P.E.</p> <p>PE-0046549</p> <p>QAI Laboratories</p> <p>04/30/2021</p> <p>Troy Bishop, P.E.</p> <p><input type="checkbox"/> Validation Checklist - Hardcopy Received</p> <p><a href="#">FL5499_R4_COI_Indep.pdf</a></p>																		
<p>Referenced Standard and Year (of Standard)</p>	<table border="0"> <thead> <tr> <th style="text-decoration: underline;">Standard</th> <th style="text-decoration: underline;">Year</th> </tr> </thead> <tbody> <tr><td>AAMA 501</td><td>2005</td></tr> <tr><td>ASTM E1300</td><td>2009</td></tr> <tr><td>ASTM E283</td><td>2004</td></tr> <tr><td>ASTM E330</td><td>2002</td></tr> <tr><td>ASTM E331</td><td>2000</td></tr> <tr><td>TAS 201</td><td>1994</td></tr> <tr><td>TAS 202</td><td>1994</td></tr> <tr><td>TAS 203</td><td>1994</td></tr> </tbody> </table>	Standard	Year	AAMA 501	2005	ASTM E1300	2009	ASTM E283	2004	ASTM E330	2002	ASTM E331	2000	TAS 201	1994	TAS 202	1994	TAS 203	1994
Standard	Year																		
AAMA 501	2005																		
ASTM E1300	2009																		
ASTM E283	2004																		
ASTM E330	2002																		
ASTM E331	2000																		
TAS 201	1994																		
TAS 202	1994																		
TAS 203	1994																		

Equivalence of Product Standards  
 Certified By

Florida Licensed Professional Engineer or Architect  
[FL5499\\_R4\\_Equiv\\_Equiv.pdf](#)

Sections from the Code

Product Approval Method Method 1 Option D

Date Submitted 10/20/2017  
 Date Validated 10/20/2017  
 Date Pending FBC Approval 10/26/2017  
 Date Approved 12/12/2017

**Summary of Products**

FL #	Model, Number or Name	Description
5499.1	Elite 2000 Storefront	Aluminum Storefront Glazing System Large and Small Missile Impact
<b>Limits of Use</b> Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: N/A Other: For use within and outside the HVHZ. Large and Small Missile Impact Resistant.		<b>Installation Instructions</b> <a href="#">FL5499_R4_II_Dwg1.pdf</a> Verified By: Frank L. Bennardo, P.E. PE-0046549 Created by Independent Third Party: Yes <b>Evaluation Reports</b> <a href="#">FL5499_R4_AE_Eval1.pdf</a> Created by Independent Third Party: Yes
5499.2	Elite 2000 Storefront	Aluminum Storefront Glazing System Non-Impact Resistant
<b>Limits of Use</b> Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: No Design Pressure: N/A Other: For use within and outside the HVHZ. Non-Impact Resistant.		<b>Installation Instructions</b> <a href="#">FL5499_R4_II_Dwg2.pdf</a> Verified By: Frank L. Bennardo, P.E. PE0046549 Created by Independent Third Party: Yes <b>Evaluation Reports</b> <a href="#">FL5499_R4_AE_Eval2.pdf</a> Created by Independent Third Party: Yes

[Back](#) [Next](#)

Contact Us :: 2601 Blair Stone Road, Tallahassee FL 32399 Phone: 850-487-1824

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Credit Card  
**Safe**

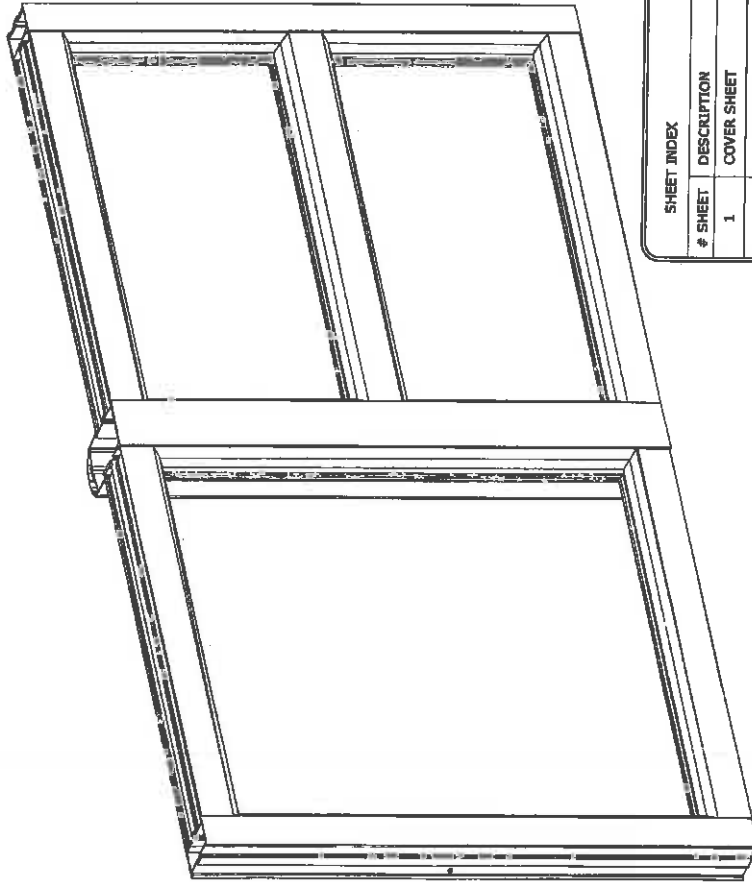


# ELITE 2000

## ALUMINUM STOREFRONT GLAZING SYSTEM LARGE AND SMALL MISSILE IMPACT (LEVEL "D" IMPACT RESISTANT)

### GENERAL NOTES

- THE SYSTEM DESCRIBED HEREIN HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE SIXTH EDITION (2017), FOR USE WITHIN AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE. SYSTEM TESTED PER:
  - TAS 201-94
  - TAS 202-94
  - TAS 203-94
  - AAMA 501-05
- NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS SYSTEM. WIND LOAD DURATION FACTOR Cd=1.6 HAS BEEN USED FOR WOOD ANCHOR DESIGN.
- POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED BY OTHERS ON A JOB-SPECIFIC BASIS IN ACCORDANCE WITH THE GOVERNING CODE. SITE SPECIFIC LOAD WIND LOAD REQUIREMENTS SHALL BE DETERMINED IN ACCORDANCE WITH ASCE 7 AND THE FLORIDA BUILDING CODE SIXTH EDITION (2017) BY SEPARATE ENGINEERING CERTIFICATION AND SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE CAPACITY VALUE LISTED HEREIN FOR ANY ASSEMBLY WITHIN THE LIMITATIONS STATED HEREIN.
- THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT.
- PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS. WOOD BUCKS (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE EXISTING STRUCTURE.
- ANCHOR EMBEDMENT SPECIFIED IS INTO HOST STRUCTURE MINIMUM.
- ALL EXTRUSIONS SHALL BE 6063-T5 ALUMINUM ALLOY, UNLESS NOTED OTHERWISE.
- EXTERIOR SEAM OF FRAME CORNERS, INSTALLATION SCREWS, AND GLAZING BEAD ENDS SHALL BE SEALED WITH SILICONE.
- ALL BOLTS & WASHERS SHALL BE ZINC COATED STEEL, GALVANIZED STEEL, OR STAINLESS STEEL WITH A MINIMUM TENSILE YIELD STRENGTH OF 60 KSI.
- ALL DISSIMILAR MATERIALS SHALL BE PAINTED OR PLATED AS PRESCRIBED IN THE FLORIDA BUILDING CODE.
- SAF GLASS, I.L.C. - N.O.A # 13.1105.10 - 0.100" THK.  
KURARAY AMERICA INC. - SENTRYGLAS INTERLAYER N.O.A.# 14-0916.11 - 0.090 THK
- APPROVED FOR LARGE AND SMALL MISSILE IMPACT APPLICATIONS. SEE GLASS TYPES FOR ANY RESTRICTIONS
- TEST REPORTS: HURRICANE ENGINEERING AND TESTING REPORT # HETI-08-2164B, HETI-08-2164A, HETI-08-2509B AND HETI-09-2509-A.  
CONSTRUCTION TESTING CORP. REPORT # 00-030
- THIS SYSTEM MAY BE USED IN CONJUNCTION WITH ELITE DOOR SERIES 3000 OUT SWING ENTRY DOOR
- CODE REQUIREMENTS FOR SAFEGUARDS MUST BE OBSERVED AND ARE NOT IN THIS CERTIFICATION.
- WINDOW TO SUBSTRATE WATER PROOFING IS NOT INCLUDED IN THIS DOCUMENT AND MUST BE ADDRESSED ON A SITE SPECIFIC BASIS. NOT BY ELITE ALUMINUM CORP.
- PRODUCT SHALL BE PERMANENTLY LABELED WITH A MINIMUM OF ONE LABEL PER SYSTEM CONTAINING THE FOLLOWING:
  - ELITE ALUMINUM CORPORATION
  - 4650 LYONS TECHNOLOGY PARKWAY
  - COCONUT CREEK, FLORIDA 33073
  - TAS 201/202/203
  - APPROVED BY FLORIDA BUILDING COMMISSION
  - FLORIDA PRODUCT APPROVAL NUMBER FL#5499.1



SHEET INDEX	
# SHEET	DESCRIPTION
1	COVER SHEET
2	ELEVATIONS
3-4	DETAILS
5-7	GLASS LOADING CHARTS
8-10	MULLION LOADING CHARTS
11	ANCHORING SCHEDULE
12	PARTS & PARTS LIST
13	FRAME ASSEMBLY

MAXIMUM PRESSURE RATING = -85/+75 Psf (ASD)

**FRANK L. BERRY, P.E.**  
 PROFESSIONAL ENGINEER  
 STATE OF FLORIDA  
 10/28/2017  
 160 SW 12TH AVE, SUITE 100  
 DEERFIELD BEACH, FL 33442  
 (561) 991-5454  
 F: FRANK@FRANKLBERRY.COM  
 E: FRANKLBERRY@FRANKLBERRY.COM  
 CERT. OF AUTH. #9855

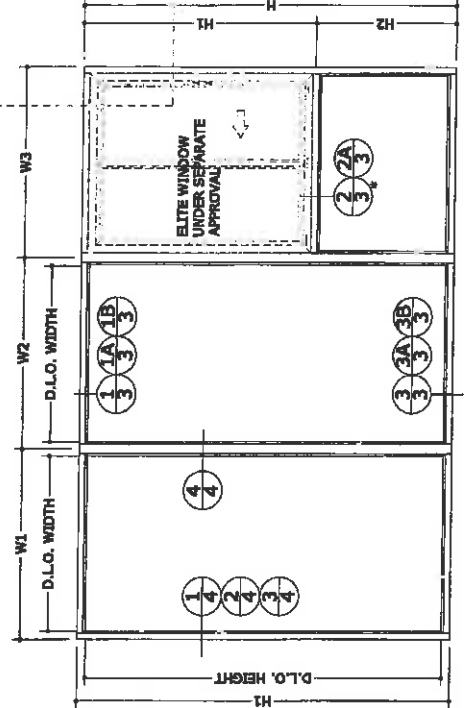
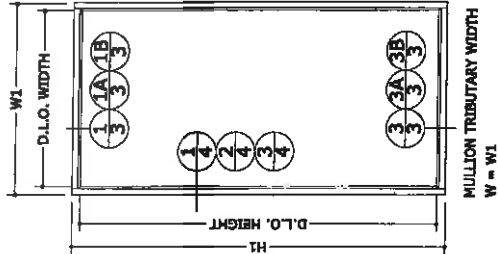
**ELITE ALUMINUM CORPORATION**  
 Building Innovators  
 4650 LYONS TECHNOLOGY PARKWAY  
 COCONUT CREEK, FL 33073  
 FLORIDA STATEWIDE APPROVAL-FL#FL #5499.1  
 MISSILE LEVEL "D" IMPACT RESISTANT  
 ELITE 2000 STOREFRONT GLAZING SYSTEM

ITEM NO.	DATE	DESCRIPTION
1	10/28/2017	ISSUED FOR PERMITTING
2	11/01/2017	REVISIONS TO PERMITTING
3	11/01/2017	REVISIONS TO PERMITTING
4	11/01/2017	REVISIONS TO PERMITTING
5	11/01/2017	REVISIONS TO PERMITTING
6	11/01/2017	REVISIONS TO PERMITTING
7	11/01/2017	REVISIONS TO PERMITTING
8	11/01/2017	REVISIONS TO PERMITTING
9	11/01/2017	REVISIONS TO PERMITTING
10	11/01/2017	REVISIONS TO PERMITTING
11	11/01/2017	REVISIONS TO PERMITTING
12	11/01/2017	REVISIONS TO PERMITTING
13	11/01/2017	REVISIONS TO PERMITTING

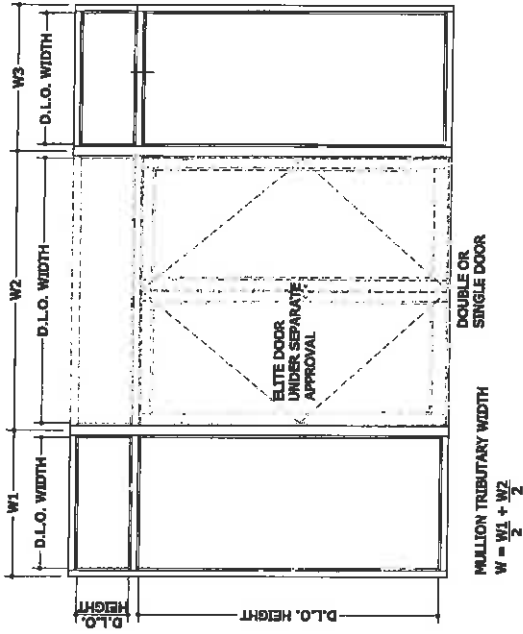
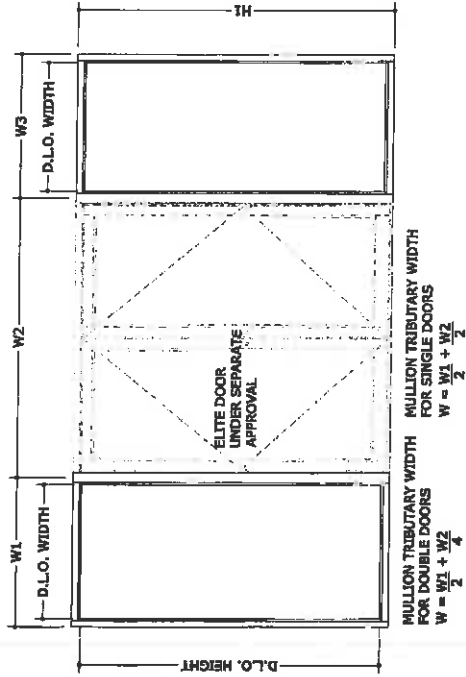
14-1439  
 REGISTERED PROFESSIONAL ENGINEER  
 13

FL #5499.1

**TYPICAL ELEVATIONS**



\* NOTE: MULLION 2/2 IS NOT APPROVED FOR USE IN HVHZ

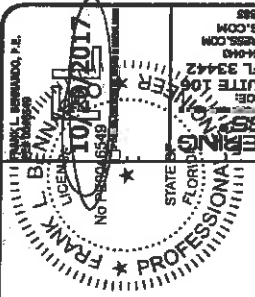


**INSTRUCTIONS TO DETERMINE DESIGN PRESSURE RATING**

STEP 1: USE THE GLASS LOADING TABLES TO DETERMINE THE ALLOWABLE PRESSURE OF THE GLASS.

STEP 2: USE THE MULLION LOADING TABLE TO DETERMINE THE ALLOWABLE PRESSURES FOR THE MULLIONS.

STEP 3: THE MINIMUM VALUE BETWEEN STEP 1 AND STEP 2 WILL DETERMINE THE DESIGN LOAD PRESSURE FOR THIS SYSTEM.



**ENGINEERING EXPRESS**  
CORPORATE OFFICE  
160 SW 12th AVE, SUITE 105  
DEERFIELD BEACH, FL 33442  
P: (561) 291-6880 F: (561) 291-0443  
E: INFO@ENGINEERINGEXPRESS.COM  
CENT. OF AUTH. #5688

**ELITE ALUMINUM CORPORATION**  
Building Innovation  
Panel Products  
4650 LYONS STORMONT GLAZING SYSTEM  
COCONUT CREEK, FL 33073  
FLORIDA STATEWIDE APPROVAL - F.F.R.L. #5499.1  
MISSILE LEVEL, D' IMPACT RESISTANT

ITEM NO.	DATE	DESCRIPTION
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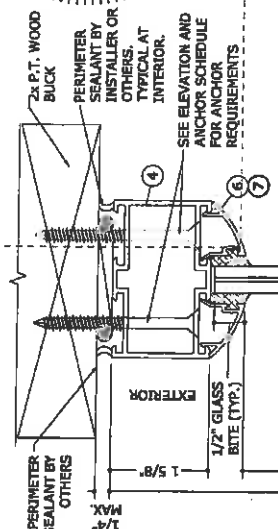
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PERMITTED UNLESS NOTED  
13

**EXPRESS ENGINEERING**  
 CORPORATE OFFICE  
 160 SW 12TH AVE, SUITE 200  
 DORFELD BEACH, FL 33428  
 P: (888) 848-8888 F: (888) 848-8888  
 E: INFO@EXPRESSENGINEERING.COM  
 ENGINEERING PROFESSIONALS  
 STATE OF FLORIDA  
 PROFESSIONAL ENGINEERING  
 LICENSE NO. 12517  
 BEARINGS  
 10/20/2017

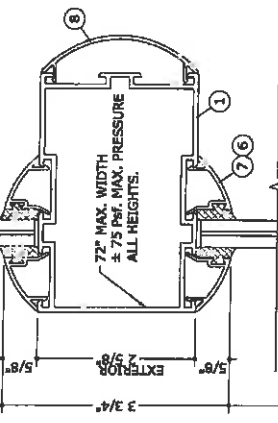
**ELITE ALUMINUM CORPORATION**  
 Building Innovation  
 4650 LYONS TECHNOLOGY PARKWAY  
 COCONUT CREEK, FL 33073  
 ELITE 2000 STOREFRONT GLAZING SYSTEM  
 MISSILE LEVEL, D+ IMPACT RESISTANT  
 FLORIDA STATEWIDE APPROVAL - F-FL #5499.1

REVISION	DATE	DESCRIPTION
1	08/22/06	CL
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3	01/29/07	CL
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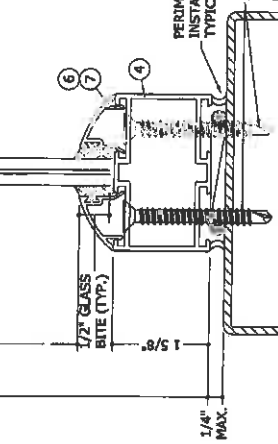
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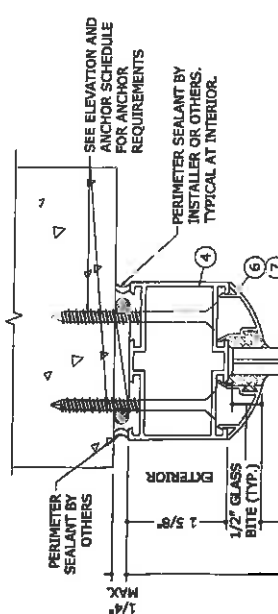
**1A HEAD DETAIL**  
 INTO METAL STRUCTURES  
 6" - 1'-0"



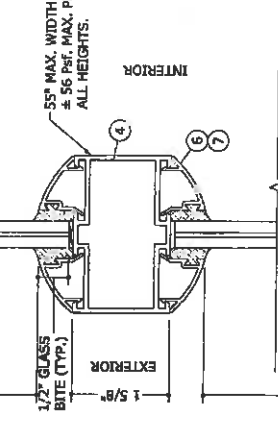
**2A HORIZONTAL INTERMEDIATE DETAIL**  
 6" - 1'-0"



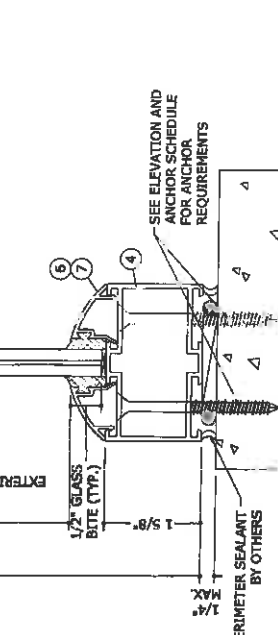
**3A SILL DETAIL**  
 INTO METAL STRUCTURES  
 6" - 1'-0"



**1B HEAD DETAIL**  
 INTO WOOD STRUCTURES  
 6" - 1'-0"



**2B HORIZONTAL INTERMEDIATE DETAIL**  
 6" - 1'-0"



**3B SILL DETAIL**  
 INTO WOOD STRUCTURES  
 6" - 1'-0"

FRANK T. BSM  
 10/29/2017  
 No PEONAGE

FRANK T. BSM  
 PROFESSIONAL ENGINEER  
 STATE OF FLORIDA  
 No PEONAGE

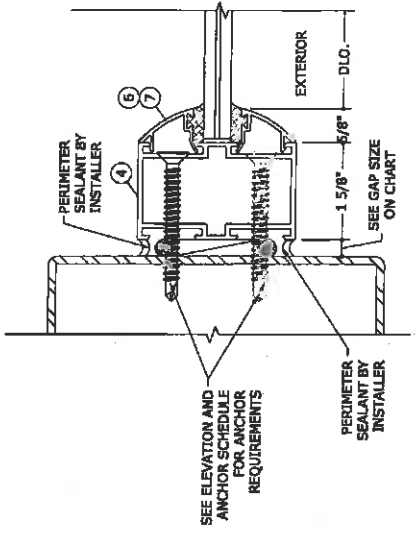
**ENGINEERING EXPRESS**  
 CORPORATE OFFICE:  
 160 SW 12th AVE, SUITE 105  
 DEERFIELD BEACH, FL 33442  
 (561) 894-4444  
 F: 800-846-8448  
 E: HLD@ENGINEERINGEXPRESS.COM  
 ENGINEERINGEXPRESS.COM  
 CERT. OF AUTH. #9888

**ELITE ALUMINUM CORPORATION**  
 Building Innovations  
 4650 LYONS TECHNOLOGY PARKWAY  
 COCONUT CREEK, FL 33073  
 ELITE 2000 STORMFRONT GLAZING SYSTEM  
 MISSILE LEVEL, "D" IMPACT RESISTANT  
 FLORIDA STATEWIDE APPROVAL-F.#FL.#5499.1

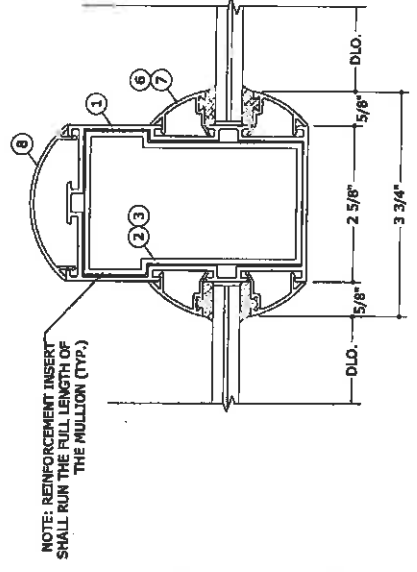
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03	12/01/16	REVISED PERMITS
04	01/20/17	REVISED PERMITS
05	07/28/17	REVISED PERMITS
06	10/27/17	REVISED PERMITS

14-1439  
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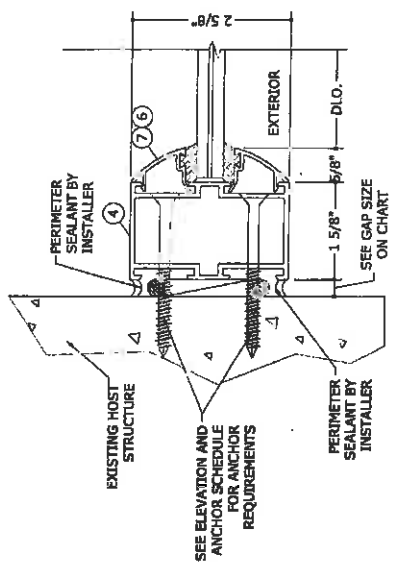
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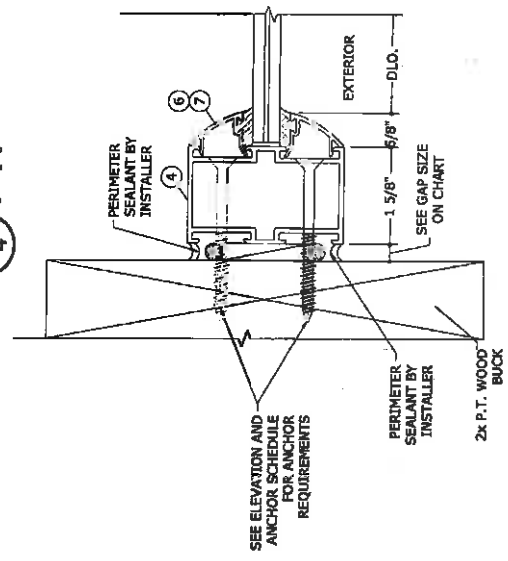
**1 JAMB DETAIL**  
 6" = 1'-0"



**VERTICAL INTERMEDIATE DETAIL**  
 6" = 1'-0"



**2 JAMB DETAIL**  
 6" = 1'-0"



**3 JAMB DETAIL**  
 6" = 1'-0"



DESIGN PRESSURE CHART (ASD)

GLASS TYPE 'B'		
D.L.O. WIDTH (ft)	D.L.O. HEIGHT (ft)	POSITIVE (Psf)
24	24	55.3
30	30	55.3
36	36	55.3
42	42	55.3
48	48	55.3
54	54	55.3
60	60	55.3
66	66	55.3
72	72	55.3
78	78	55.3
84	84	55.3
90	90	55.3
96	96	55.3
102	102	55.3
108 1/4	108 1/4	55.3
114	114	55.3
120	120	55.3
126	126	55.3
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138	138	55.3
144	144	55.3
150	150	55.3
156	156	55.3
162	162	55.3

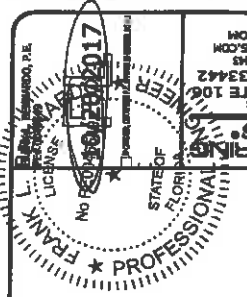
GLASS TYPE 'B'		
D.L.O. WIDTH (ft)	D.L.O. HEIGHT (ft)	POSITIVE (Psf)
24	24	55.3
30	30	55.3
36	36	55.3
42	42	55.3
48	48	55.3
54	54	55.3
60	60	55.3
66	66	55.3
72	72	55.3
78	78	55.3
84	84	55.3
90	90	55.3
96	96	55.3
102	102	55.3
108 1/4	108 1/4	55.3
114	114	55.3
120	120	55.3
126	126	55.3
132	132	55.3
138	138	55.3
144	144	55.3
150	150	55.3
156	156	55.3
162	162	55.3

GLASS TYPE 'B'		
D.L.O. WIDTH (ft)	D.L.O. HEIGHT (ft)	POSITIVE (Psf)
24	24	55.3
30	30	55.3
36	36	55.3
42	42	55.3
48	48	55.3
54	54	55.3
60	60	55.3
66	66	55.3
72	72	55.3
78	78	55.3
84	84	55.3
90	90	55.3
96	96	55.3
102	102	55.3
108 1/4	108 1/4	55.3
114	114	55.3
120	120	55.3
126	126	55.3
132	132	55.3
138	138	55.3
144	144	55.3
150	150	55.3
156	156	55.3
162	162	55.3

GLASS TYPE 'B'		
D.L.O. WIDTH (ft)	D.L.O. HEIGHT (ft)	POSITIVE (Psf)
24	24	55.3
30	30	55.3
36	36	55.3
42	42	55.3
48	48	55.3
54	54	55.3
60	60	55.3
66	66	55.3
72	72	55.3
78	78	55.3
84	84	55.3
90	90	55.3
96	96	55.3
102	102	55.3
108 1/4	108 1/4	55.3
114	114	55.3
120	120	55.3
126	126	55.3
132	132	55.3
138	138	55.3
144	144	55.3
150	150	55.3
156	156	55.3
162	162	55.3

GLASS TYPE 'B'		
D.L.O. WIDTH (ft)	D.L.O. HEIGHT (ft)	POSITIVE (Psf)
24	24	55.3
30	30	55.3
36	36	55.3
42	42	55.3
48	48	55.3
54	54	55.3
60	60	55.3
66	66	55.3
72	72	55.3
78	78	55.3
84	84	55.3
90	90	55.3
96	96	55.3
102	102	55.3
108 1/4	108 1/4	55.3
114	114	55.3
120	120	55.3
126	126	55.3
132	132	55.3
138	138	55.3
144	144	55.3
150	150	55.3
156	156	55.3
162	162	55.3

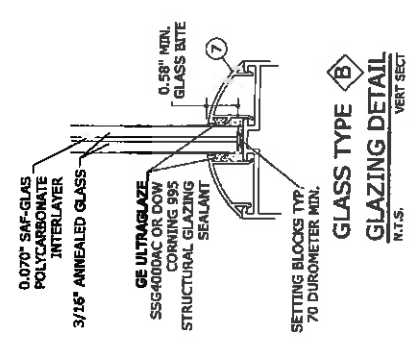
GLASS TYPE 'B'		
D.L.O. WIDTH (ft)	D.L.O. HEIGHT (ft)	POSITIVE (Psf)
24	24	55.3
30	30	55.3
36	36	55.3
42	42	55.3
48	48	55.3
54	54	55.3
60	60	55.3
66	66	55.3
72	72	55.3
78	78	55.3
84	84	55.3
90	90	55.3
96	96	55.3
102	102	55.3
108 1/4	108 1/4	55.3
114	114	55.3
120	120	55.3
126	126	55.3
132	132	55.3
138	138	55.3
144	144	55.3
150	150	55.3
156	156	55.3
162	162	55.3



**EXPRESS ENGINEERING**  
 CORP. OF FLORIDA  
 160 SW 42ND AVENUE, SUITE 100  
 DRETFIELD BEACH, FL 33442  
 (904) 244-9494  
 E. HELD@EXPRESS-ENG.COM  
 EXPRESS-ENG.COM  
 CERT. OF AUTH. #9128

**ELITE ALUMINUM CORPORATION**  
 Building Innovation  
 4620 LYONS TECHNOLOGY PARKWAY  
 COONTS CREEK, FL 33073  
 ELITE 2000 STORMOROT GLAZING SYSTEM  
 MISSILE LEVEL, 10' IMPACT RESISTANT  
 FLORIDA STATEWIDE APPROVAL-FL-FPL #5499.1

REVISION	DATE	BY	CHKD.	DESCRIPTION
1	12/20/17	ML	ML	ISSUED FOR PERMITTING
2	12/20/17	ML	ML	ISSUED FOR PERMITTING
3	12/20/17	ML	ML	ISSUED FOR PERMITTING
4	12/20/17	ML	ML	ISSUED FOR PERMITTING
5	12/20/17	ML	ML	ISSUED FOR PERMITTING
6	12/20/17	ML	ML	ISSUED FOR PERMITTING
7	12/20/17	ML	ML	ISSUED FOR PERMITTING
8	12/20/17	ML	ML	ISSUED FOR PERMITTING
9	12/20/17	ML	ML	ISSUED FOR PERMITTING
10	12/20/17	ML	ML	ISSUED FOR PERMITTING
11	12/20/17	ML	ML	ISSUED FOR PERMITTING
12	12/20/17	ML	ML	ISSUED FOR PERMITTING
13	12/20/17	ML	ML	ISSUED FOR PERMITTING
14	12/20/17	ML	ML	ISSUED FOR PERMITTING
15	12/20/17	ML	ML	ISSUED FOR PERMITTING
16	12/20/17	ML	ML	ISSUED FOR PERMITTING
17	12/20/17	ML	ML	ISSUED FOR PERMITTING
18	12/20/17	ML	ML	ISSUED FOR PERMITTING
19	12/20/17	ML	ML	ISSUED FOR PERMITTING
20	12/20/17	ML	ML	ISSUED FOR PERMITTING



**GLASS TYPE B**  
**GLAZING DETAIL**  
 N.T.S.  
 VERT. SECT.

NOTE:  
 GLASS CAPACITY ON THIS SHEET IS BASED  
 ON ASTM E1300-09 (3 SEC GUST)

NOTE:  
 AN ALUMINUM SKIN PLYWOOD PANEL CONSISTING OF 3/4\"/>



**DESIGN PRESSURE CHART (ASD)**

GLASS TYPE 'C'		
D.L.O. WIDTH (in.)	D.L.O. HEIGHT (in.)	GLASS TYPE 'C' POSITIVE (Psf)
24	85	75
30	85	75
36	85	75
42	85	75
48	85	75
52 1/2	85	75
60	85	75
66	85	75
72	85	75
78	85	75
84	85	75
90	85	75
96	85	75
102	85	75
108 1/2	85	75
114	85	75
120	85	75
126	85	75
132	85	75
138	85	75
144	85	75
150	85	75
156	85	75
162	85	75

GLASS TYPE 'C'		
D.L.O. WIDTH (in.)	D.L.O. HEIGHT (in.)	GLASS TYPE 'C' POSITIVE (Psf)
24	85	75
30	85	75
36	85	75
42	85	75
48	85	75
52 1/2	85	75
60	85	75
66	85	75
72	85	75
78	85	75
84	85	75
90	85	75
96	85	75
102	85	75
108 1/2	85	75
114	85	75
120	85	75
126	85	75
132	85	75
138	85	75
144	85	75
150	85	75

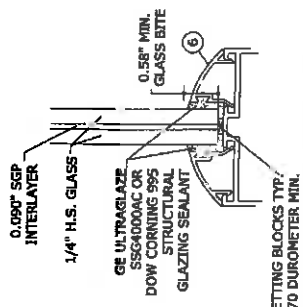
GLASS TYPE 'C'		
D.L.O. WIDTH (in.)	D.L.O. HEIGHT (in.)	GLASS TYPE 'C' POSITIVE (Psf)
24	85	75
30	85	75
36	85	75
42	85	75
48	85	75
52 1/2	85	75
60	85	75
66	85	75
72	85	75
78	85	75
84	85	75
90	85	75
96	85	75
102	85	75
108 1/2	85	75
114	85	75

GLASS TYPE 'C'		
D.L.O. WIDTH (in.)	D.L.O. HEIGHT (in.)	GLASS TYPE 'C' POSITIVE (Psf)
24	85	75
30	85	75
36	85	75
42	85	75
48	85	75
52 1/2	85	75
60	85	75
66	85	75
72	85	75
78	85	75
84	85	75
90	85	75
96	85	75
102	85	75
108 1/2	85	75
114	85	75

GLASS TYPE 'C'		
D.L.O. WIDTH (in.)	D.L.O. HEIGHT (in.)	GLASS TYPE 'C' POSITIVE (Psf)
24	85	75
30	85	75
36	85	75
42	85	75
48	85	75
52 1/2	85	75
60	85	75
66	85	75
72	85	75
78	85	75
84	85	75
90	85	75
96	85	75
102	85	75
108 1/2	85	75
114	85	75

GLASS TYPE 'C'		
D.L.O. WIDTH (in.)	D.L.O. HEIGHT (in.)	GLASS TYPE 'C' POSITIVE (Psf)
24	85	75
30	85	75
36	85	75
42	85	75
48	85	75
52 1/2	85	75
60	85	75
66	85	75
72	85	75
78	85	75
84	85	75
90	85	75
96	85	75
102	85	75
108 1/2	85	75
114	85	75

**NOTE:**  
AN ALUMINUM SKIN PLYWOOD PANEL CONSISTING OF 3/4" PLYWOOD AND 0.032" THICK 3105H154 ALUMINUM ON INTERIOR AND EXTERIOR IN LIEU OF GLASS 13 SQ. FT. MAX AREA.



**GLASS TYPE 'C'**  
**GLAZING DETAIL**  
N.T.S.  
VERY SEC.

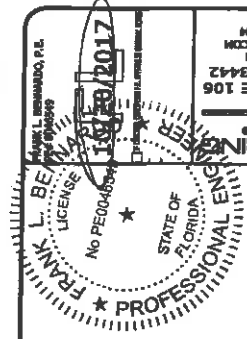
**NOTE:**  
GLASS CAPACITY ON THIS SHEET IS BASED ON ASTM E1300-09 (3 SEC GUST)

**PROFESSIONAL ENGINEER**  
STATE OF FLORIDA  
No. 10166/0301  
DATE: 10/15/2010  
PROJECT: 14-1439

**ELITE ALUMINUM CORPORATION**  
4650 LYONS TECHNOLOGY PARKWAY  
COCONA CREEK, FL 33073  
ELITE 2000 STORMPROOF GLAZING SYSTEM  
MISSILE LEVEL, D+ IMPACT RESISTANT  
FLORIDA STATEWIDE APPROVAL - FLS# 4599.1

REVISION	DATE	DESCRIPTION
1	10/15/10	ISSUE FOR PERMIT
2	10/15/10	ISSUE FOR PERMIT
3	10/15/10	ISSUE FOR PERMIT
4	10/15/10	ISSUE FOR PERMIT
5	10/15/10	ISSUE FOR PERMIT
6	10/15/10	ISSUE FOR PERMIT
7	10/15/10	ISSUE FOR PERMIT
8	10/15/10	ISSUE FOR PERMIT
9	10/15/10	ISSUE FOR PERMIT
10	10/15/10	ISSUE FOR PERMIT
11	10/15/10	ISSUE FOR PERMIT
12	10/15/10	ISSUE FOR PERMIT
13	10/15/10	ISSUE FOR PERMIT
14	10/15/10	ISSUE FOR PERMIT
15	10/15/10	ISSUE FOR PERMIT
16	10/15/10	ISSUE FOR PERMIT
17	10/15/10	ISSUE FOR PERMIT
18	10/15/10	ISSUE FOR PERMIT
19	10/15/10	ISSUE FOR PERMIT
20	10/15/10	ISSUE FOR PERMIT

**14-1439**  
SCALE: NOTED  
13



**EXPRESS**  
 ENGINEERING  
 CORPORATE OFFICE  
 160 SW 13th Ave, Suite 106  
 Deerfield Beach, FL 33442  
 Tel: (561) 892-5444  
 Fax: (561) 892-5444  
 E: ENGINEERING@EXPRESS.COM  
 CERT OF AUTH #9885

**ELITE ALUMINUM CORPORATION**  
 Building Innovation  
 4650 Lyons Technology Parkway  
 Coconut Creek, FL 33073  
**ELITE 2000 STOREFRONT GAZING SYSTEM**  
 MISSILE LEVEL W/ IMPACT RESISTANT  
 FLORIDA STATEWIDE APPROVAL #FL #5499.1

REVISION	DATE	BY	CHKD	APP'D	DESCRIPTION
01	10/20/17	FL	FL	FL	ISSUED FOR PERMIT
02	10/20/17	FL	FL	FL	REVISED PER COMMENTS
03	10/20/17	FL	FL	FL	REVISED PER COMMENTS
04	10/20/17	FL	FL	FL	REVISED PER COMMENTS
05	10/20/17	FL	FL	FL	REVISED PER COMMENTS
06	10/20/17	FL	FL	FL	REVISED PER COMMENTS
07	10/20/17	FL	FL	FL	REVISED PER COMMENTS
08	10/20/17	FL	FL	FL	REVISED PER COMMENTS
09	10/20/17	FL	FL	FL	REVISED PER COMMENTS
10	10/20/17	FL	FL	FL	REVISED PER COMMENTS
11	10/20/17	FL	FL	FL	REVISED PER COMMENTS
12	10/20/17	FL	FL	FL	REVISED PER COMMENTS
13	10/20/17	FL	FL	FL	REVISED PER COMMENTS

14-1439  
 SCALE: UNLESS NOTED  
 1/3

**WITH AND WITHOUT HORIZONTALS**

**MULLION W/ REINFORCEMENT TYPE 1**

NOMINAL DIMS	PRESSURES	
	NEGATIVE (Psi)	POSITIVE (Psi)
WIDTH (in) HEIGHT (in)		
24	61.9	61.9
30	61.9	61.9
36	61.9	61.9
42	61.9	61.9
48	61.9	61.9
51	61.9	61.9
54	61.9	61.9
58%	61.9	61.9

**MULLION W/ REINFORCEMENT TYPE 1**

NOMINAL DIMS	PRESSURES	
	NEGATIVE (Psi)	POSITIVE (Psi)
WIDTH (in) HEIGHT (in)		
24	61.9	61.9
30	61.9	61.9
36	61.9	61.9
42	61.9	61.9
48	61.9	61.9
51	61.9	61.9
54	61.9	61.9
58%	61.9	61.9

**MULLION W/ REINFORCEMENT TYPE 1**

NOMINAL DIMS	PRESSURES	
	NEGATIVE (Psi)	POSITIVE (Psi)
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24	61.9	61.9
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42	61.9	61.9
48	61.9	61.9
51	61.9	61.9
54	61.9	61.9
58%	61.9	61.9

**MULLION W/ REINFORCEMENT TYPE 1**

NOMINAL DIMS	PRESSURES	
	NEGATIVE (Psi)	POSITIVE (Psi)
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51	61.9	61.9
54	61.9	61.9
58%	61.9	61.9

**MULLION W/ REINFORCEMENT TYPE 1**

NOMINAL DIMS	PRESSURES	
	NEGATIVE (Psi)	POSITIVE (Psi)
WIDTH (in) HEIGHT (in)		
24	61.9	61.9
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42	61.9	61.9
48	61.9	61.9
51	61.9	61.9
54	61.9	61.9
58%	61.9	61.9

**MULLION W/ REINFORCEMENT TYPE 1**

NOMINAL DIMS	PRESSURES	
	NEGATIVE (Psi)	POSITIVE (Psi)
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42	61.9	61.9
48	61.9	61.9
51	61.9	61.9
54	61.9	61.9

**MULLION W/ REINFORCEMENT TYPE 1**

NOMINAL DIMS	PRESSURES	
	NEGATIVE (Psi)	POSITIVE (Psi)
WIDTH (in) HEIGHT (in)		
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51	61.9	61.9
54	61.9	61.9

**MULLION W/ REINFORCEMENT TYPE 1**

NOMINAL DIMS	PRESSURES	
	NEGATIVE (Psi)	POSITIVE (Psi)
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24	61.9	61.9
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36	61.9	61.9
42	61.9	61.9
48	61.9	61.9
51	61.9	61.9
54	61.9	61.9

**MULLION W/ REINFORCEMENT TYPE 1**

NOMINAL DIMS	PRESSURES	
	NEGATIVE (Psi)	POSITIVE (Psi)
WIDTH (in) HEIGHT (in)		
24	61.9	61.9
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48	61.9	61.9
51	61.9	61.9
54	61.9	61.9

**MULLION W/ REINFORCEMENT TYPE 1**

NOMINAL DIMS	PRESSURES	
	NEGATIVE (Psi)	POSITIVE (Psi)
WIDTH (in) HEIGHT (in)		
24	61.9	61.9
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36	61.9	61.9
42	61.9	61.9
48	61.9	61.9
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54	61.9	61.9

**MULLION W/ REINFORCEMENT TYPE 1**

NOMINAL DIMS	PRESSURES	
	NEGATIVE (Psi)	POSITIVE (Psi)
WIDTH (in) HEIGHT (in)		
24	61.9	61.9
30	61.9	61.9
36	61.9	61.9
42	61.9	61.9
48	61.9	61.9
51	61.9	61.9
54	61.9	61.9

**MULLION W/ REINFORCEMENT TYPE 1**

NOMINAL DIMS	PRESSURES	
	NEGATIVE (Psi)	POSITIVE (Psi)
WIDTH (in) HEIGHT (in)		
24	61.9	61.9
30	61.9	61.9
36	61.9	61.9
42	61.9	61.9
48	61.9	61.9
51	61.9	61.9
54	61.9	61.9

**MULLION W/ REINFORCEMENT TYPE 1**

NOMINAL DIMS	PRESSURES	
	NEGATIVE (Psi)	POSITIVE (Psi)
WIDTH (in) HEIGHT (in)		
24	61.9	61.9
30	61.9	61.9
36	61.9	61.9
42	61.9	61.9
48	61.9	61.9
51	61.9	61.9
54	61.9	61.9

**MULLION W/ REINFORCEMENT TYPE 1**

NOMINAL DIMS	PRESSURES	
	NEGATIVE (Psi)	POSITIVE (Psi)
WIDTH (in) HEIGHT (in)		
24	61.9	61.9
30	61.9	61.9
36	61.9	61.9
42	61.9	61.9
48	61.9	61.9
51	61.9	61.9
54	61.9	61.9

**MULLION W/ REINFORCEMENT TYPE 1**

NOMINAL DIMS	PRESSURES	
	NEGATIVE (Psi)	POSITIVE (Psi)
WIDTH (in) HEIGHT (in)		
24	61.9	61.9
30	61.9	61.9
36	61.9	61.9
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54	61.9	61.9

**MULLION W/ REINFORCEMENT TYPE 1**

NOMINAL DIMS	PRESSURES	
	NEGATIVE (Psi)	POSITIVE (Psi)
WIDTH (in) HEIGHT (in)		
24	61.9	61.9
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36	61.9	61.9
42	61.9	61.9
48	61.9	61.9
51	61.9	61.9
54	61.9	61.9

**MULLION W/ REINFORCEMENT TYPE 1**

NOMINAL DIMS	PRESSURES	
	NEGATIVE (Psi)	POSITIVE (Psi)
WIDTH (in) HEIGHT (in)		
24	61.9	61.9
30	61.9	61.9
36	61.9	61.9
42	61.9	61.9
48	61.9	61.9
51	61.9	61.9
54	61.9	61.9

**MULLION W/ REINFORCEMENT TYPE 1**

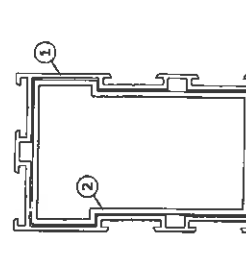
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	NEGATIVE (Psi)	POSITIVE (Psi)
WIDTH (in) HEIGHT (in)		
24	61.9	61.9
30	61.9	61.9
36	61.9	61.9
42	61.9	61.9
48	61.9	61.9
51	61.9	61.9
54	61.9	61.9

**MULLION W/ REINFORCEMENT TYPE 1**

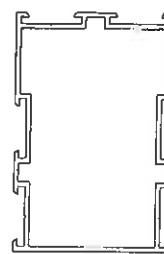
NOMINAL DIMS	PRESSURES	
	NEGATIVE (Psi)	POSITIVE (Psi)
WIDTH (in) HEIGHT (in)		
24	61.9	61.9
30	61.9	61.9
36	61.9	61.9
42	61.9	61.9
48	61.9	61.9
51	61.9	61.9
54	61.9	61.9

**MULLION W/ REINFORCEMENT TYPE 1**

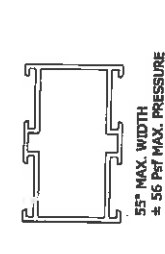
NOMINAL DIMS	PRESSURES	
	NEGATIVE (Psi)	POSITIVE (Psi)
WIDTH (in) HEIGHT (in)		
24	61.9	61.9
30	61.9	61.9
36	61.9	61.9
42	61.9	61.9
48	61.9	61.9
51	61.9	61.9
54	61.9	61.9



**21013 VERTICAL MULLION WITH REINFORCEMENT TYPE 1**

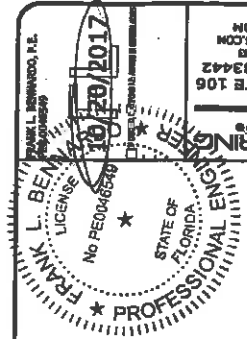


**72" MAX. WIDTH + 75 Pcf MAX. PRESSURE ALL HEIGHTS.**



**55" MAX. WIDTH + 56 Pcf MAX. PRESSURE ALL HEIGHTS.**

**21013 HORIZONTAL MULLION**



**EXPRESS ENGINEERING**  
CORPORATE OFFICE  
160 SW 12th Ave, Suite 106  
Deerfield Beach, FL 33442  
P: (561) 394-0443 F: (561) 394-0443  
E: HLO@ENGINEERINGEXPRESS.COM  
ENGINEERINGEXPRESS.COM  
CERT. OF AUTH. #5135

**ELITE ALUMINUM CORPORATION**  
Building Innovation  
4650 Lyons Technology Parkway  
Coconut Creek, FL 33073  
MISSILE LEVEL, D<sup>o</sup> IMPACT RESISTANT  
FLORIDA STATEWIDE APPROVAL-FL#L #5499.1

REV	DATE	DESCRIPTION
01	04/22/17	ISSUE FOR PERMITS
02	07/28/17	REVISED PER COMMENTS
03	08/17/17	REVISED PER COMMENTS
04	08/17/17	REVISED PER COMMENTS
05	08/17/17	REVISED PER COMMENTS
06	08/17/17	REVISED PER COMMENTS
07	08/17/17	REVISED PER COMMENTS
08	08/17/17	REVISED PER COMMENTS
09	08/17/17	REVISED PER COMMENTS
10	08/17/17	REVISED PER COMMENTS
11	08/17/17	REVISED PER COMMENTS
12	08/17/17	REVISED PER COMMENTS
13	08/17/17	REVISED PER COMMENTS
14	08/17/17	REVISED PER COMMENTS
15	08/17/17	REVISED PER COMMENTS
16	08/17/17	REVISED PER COMMENTS
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20	08/17/17	REVISED PER COMMENTS
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22	08/17/17	REVISED PER COMMENTS
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39	08/17/17	REVISED PER COMMENTS
40	08/17/17	REVISED PER COMMENTS
41	08/17/17	REVISED PER COMMENTS
42	08/17/17	REVISED PER COMMENTS
43	08/17/17	REVISED PER COMMENTS
44	08/17/17	REVISED PER COMMENTS
45	08/17/17	REVISED PER COMMENTS
46	08/17/17	REVISED PER COMMENTS
47	08/17/17	REVISED PER COMMENTS
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50	08/17/17	REVISED PER COMMENTS
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53	08/17/17	REVISED PER COMMENTS
54	08/17/17	REVISED PER COMMENTS
55	08/17/17	REVISED PER COMMENTS
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65	08/17/17	REVISED PER COMMENTS
66	08/17/17	REVISED PER COMMENTS
67	08/17/17	REVISED PER COMMENTS
68	08/17/17	REVISED PER COMMENTS
69	08/17/17	REVISED PER COMMENTS
70	08/17/17	REVISED PER COMMENTS
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72	08/17/17	REVISED PER COMMENTS
73	08/17/17	REVISED PER COMMENTS
74	08/17/17	REVISED PER COMMENTS
75	08/17/17	REVISED PER COMMENTS
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77	08/17/17	REVISED PER COMMENTS
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79	08/17/17	REVISED PER COMMENTS
80	08/17/17	REVISED PER COMMENTS
81	08/17/17	REVISED PER COMMENTS
82	08/17/17	REVISED PER COMMENTS
83	08/17/17	REVISED PER COMMENTS
84	08/17/17	REVISED PER COMMENTS
85	08/17/17	REVISED PER COMMENTS
86	08/17/17	REVISED PER COMMENTS
87	08/17/17	REVISED PER COMMENTS
88	08/17/17	REVISED PER COMMENTS
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97	08/17/17	REVISED PER COMMENTS
98	08/17/17	REVISED PER COMMENTS
99	08/17/17	REVISED PER COMMENTS
100	08/17/17	REVISED PER COMMENTS

**14-1439**  
SCALE: NOT UTILIZED NOTED  
DATE: 10/20/2017

**WITH AND WITHOUT HORIZONTALS**

MULLION W/ REINFORCEMENT TYPE 2			PRESSURES		
NOMINAL DIMS	HEIGHT (in)	WIDTH (in)	NEGATIVE (Psi)	POSITIVE (Psi)	HEIGHT (in)
24	75	24	85	75	75
30	75	30	85	75	75
36	75	36	85	75	75
42	75	42	85	75	75
48	75	48	85	75	75
51	75	51	85	75	75
54	75	54	85	75	75
58%	75	58%	85	75	75
66	75	66	85	75	75
72	75	72	85	75	75
78	75	78	85	75	75
84	75	84	85	75	75
90	75	90	85	75	75
96	75	96	85	75	75
99	75	99	85	75	75
102	75	102	85	75	75
108	75	108	85	75	75
109%	75	109%	85	75	75
132	75	132	85	75	75
144	75	144	85	75	75
150	75	150	85	75	75
156	75	156	85	75	75
162	75	162	85	75	75

MULLION W/ REINFORCEMENT TYPE 2			PRESSURES		
NOMINAL DIMS	HEIGHT (in)	WIDTH (in)	NEGATIVE (Psi)	POSITIVE (Psi)	HEIGHT (in)
24	75	24	85	75	75
30	75	30	85	75	75
36	75	36	85	75	75
42	75	42	85	75	75
48	75	48	85	75	75
51	75	51	85	75	75
54	75	54	85	75	75
58%	75	58%	85	75	75
66	75	66	85	75	75
72	75	72	85	75	75
78	75	78	85	75	75
84	75	84	85	75	75
90	75	90	85	75	75
96	75	96	85	75	75
99	75	99	85	75	75
102	75	102	85	75	75
108	75	108	85	75	75
109%	75	109%	85	75	75
132	75	132	85	75	75
144	75	144	85	75	75
150	75	150	85	75	75
156	75	156	85	75	75
162	75	162	85	75	75

MULLION W/ REINFORCEMENT TYPE 2			PRESSURES		
NOMINAL DIMS	HEIGHT (in)	WIDTH (in)	NEGATIVE (Psi)	POSITIVE (Psi)	HEIGHT (in)
24	75	24	85	75	75
30	75	30	85	75	75
36	75	36	85	75	75
42	75	42	85	75	75
48	75	48	85	75	75
51	75	51	85	75	75
54	75	54	85	75	75
58%	75	58%	85	75	75
66	75	66	85	75	75
72	75	72	85	75	75
78	75	78	85	75	75
84	75	84	85	75	75
90	75	90	85	75	75
96	75	96	85	75	75
99	75	99	85	75	75
102	75	102	85	75	75
108	75	108	85	75	75
109%	75	109%	85	75	75
132	75	132	85	75	75
144	75	144	85	75	75
150	75	150	85	75	75
156	75	156	85	75	75
162	75	162	85	75	75

MULLION W/ REINFORCEMENT TYPE 2			PRESSURES		
NOMINAL DIMS	HEIGHT (in)	WIDTH (in)	NEGATIVE (Psi)	POSITIVE (Psi)	HEIGHT (in)
24	75	24	85	75	75
30	75	30	85	75	75
36	75	36	85	75	75
42	75	42	85	75	75
48	75	48	85	75	75
51	75	51	85	75	75
54	75	54	85	75	75
58%	75	58%	85	75	75
66	75	66	85	75	75
72	75	72	85	75	75
78	75	78	85	75	75
84	75	84	85	75	75
90	75	90	85	75	75
96	75	96	85	75	75
99	75	99	85	75	75
102	75	102	85	75	75
108	75	108	85	75	75
109%	75	109%	85	75	75
132	75	132	85	75	75
144	75	144	85	75	75
150	75	150	85	75	75
156	75	156	85	75	75
162	75	162	85	75	75

MULLION W/ REINFORCEMENT TYPE 2			PRESSURES		
NOMINAL DIMS	HEIGHT (in)	WIDTH (in)	NEGATIVE (Psi)	POSITIVE (Psi)	HEIGHT (in)
24	75	24	85	75	75
30	75	30	85	75	75
36	75	36	85	75	75
42	75	42	85	75	75
48	75	48	85	75	75
51	75	51	85	75	75
54	75	54	85	75	75
58%	75	58%	85	75	75
66	75	66	85	75	75
72	75	72	85	75	75
78	75	78	85	75	75
84	75	84	85	75	75
90	75	90	85	75	75
96	75	96	85	75	75
99	75	99	85	75	75
102	75	102	85	75	75
108	75	108	85	75	75
109%	75	109%	85	75	75
132	75	132	85	75	75
144	75	144	85	75	75
150	75	150	85	75	75
156	75	156	85	75	75
162	75	162	85	75	75

MULLION W/ REINFORCEMENT TYPE 2			PRESSURES		
NOMINAL DIMS	HEIGHT (in)	WIDTH (in)	NEGATIVE (Psi)	POSITIVE (Psi)	HEIGHT (in)
24	75	24	85	75	75
30	75	30	85	75	75
36	75	36	85	75	75
42	75	42	85	75	75
48	75	48	85	75	75
51	75	51	85	75	75
54	75	54	85	75	75
58%	75	58%	85	75	75
66	75	66	85	75	75
72	75	72	85	75	75
78	75	78	85	75	75
84	75	84	85	75	75
90	75	90	85	75	75
96	75	96	85	75	75
99	75	99	85	75	75
102	75	102	85	75	75
108	75	108	85	75	75
109%	75	109%	85	75	75
132	75	132	85	75	75
144	75	144	85	75	75
150	75	150	85	75	75
156	75	156	85	75	75
162	75	162	85	75	75

MULLION W/ REINFORCEMENT TYPE 2			PRESSURES		
NOMINAL DIMS	HEIGHT (in)	WIDTH (in)	NEGATIVE (Psi)	POSITIVE (Psi)	HEIGHT (in)
24	75	24	85	75	75
30	75	30	85	75	75
36	75	36	85	75	75
42	75	42	85	75	75
48	75	48	85	75	75
51	75	51	8		

WITH AND WITHOUT HORIZONTALS

MULLION W/ REINFORCEMENT TYPE 2			PRESSURES		
NOMINAL DIMS	HEIGHT (in.)	WIDTH (in.)	PRESSURES		HEIGHT (in.)
			NEGATIVE (Psi)	POSITIVE (Psi)	
24	66	24	85	75	75
30		30	85	75	75
36		36	85	75	75
42		42	85	75	75
48		48	85	75	75
54		54	85	75	75
58%		58%	85	75	75
66		66	85	75	75
72		72	85	75	75
78		78	85	75	75
84	84	85	75	75	
90	90	85	75	75	
96	96	85	75	75	
99	99	85	75	75	

MULLION W/ REINFORCEMENT TYPE 2			PRESSURES		
NOMINAL DIMS	HEIGHT (in.)	WIDTH (in.)	PRESSURES		HEIGHT (in.)
			NEGATIVE (Psi)	POSITIVE (Psi)	
24	84	24	85	75	75
30		30	85	75	75
36		36	85	75	75
42		42	85	75	75
48		48	85	75	75
54		54	85	75	75
58%		58%	85	75	75
66		66	85	75	75
72		72	85	75	75
78		78	85	75	75

MULLION W/ REINFORCEMENT TYPE 2			PRESSURES		
NOMINAL DIMS	HEIGHT (in.)	WIDTH (in.)	PRESSURES		HEIGHT (in.)
			NEGATIVE (Psi)	POSITIVE (Psi)	
24	90	24	85	75	75
30		30	85	75	75
36		36	85	75	75
42		42	85	75	75
48		48	85	75	75
54		54	85	75	75
58%		58%	85	75	75
66		66	85	75	75
72		72	85	75	75
78		78	85	75	75

MULLION W/ REINFORCEMENT TYPE 2			PRESSURES		
NOMINAL DIMS	HEIGHT (in.)	WIDTH (in.)	PRESSURES		HEIGHT (in.)
			NEGATIVE (Psi)	POSITIVE (Psi)	
24	96	24	85	75	75
30		30	85	75	75
36		36	85	75	75
42		42	85	75	75
48		48	85	75	75
54		54	85	75	75
58%		58%	85	75	75
66		66	85	75	75
72		72	85	75	75
78		78	85	75	75

MULLION W/ REINFORCEMENT TYPE 2			PRESSURES		
NOMINAL DIMS	HEIGHT (in.)	WIDTH (in.)	PRESSURES		HEIGHT (in.)
			NEGATIVE (Psi)	POSITIVE (Psi)	
24	99	24	85	75	75
30		30	85	75	75
36		36	85	75	75
42		42	85	75	75
48		48	85	75	75
54		54	85	75	75
58%		58%	85	75	75
66		66	85	75	75
72		72	85	75	75
78		78	85	75	75

WITH AND WITHOUT HORIZONTALS

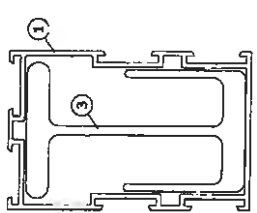
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NOMINAL DIMS	HEIGHT (in.)	WIDTH (in.)	PRESSURES		HEIGHT (in.)
			NEGATIVE (Psi)	POSITIVE (Psi)	
24	102	24	85	75	75
30		30	85	75	75
36		36	85	75	75
42		42	85	75	75
48		48	85	75	75
54		54	85	75	75
58%		58%	85	75	75
66		66	85	75	75
72		72	85	75	75
78		78	85	75	75

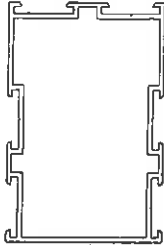
MULLION W/ REINFORCEMENT TYPE 2			PRESSURES		
NOMINAL DIMS	HEIGHT (in.)	WIDTH (in.)	PRESSURES		HEIGHT (in.)
			NEGATIVE (Psi)	POSITIVE (Psi)	
24	108	24	85	75	75
30		30	85	75	75
36		36	85	75	75
42		42	85	75	75
48		48	85	75	75
54		54	85	75	75
58%		58%	85	75	75
66		66	85	75	75
72		72	85	75	75
78		78	85	75	75

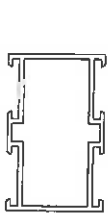
MULLION W/ REINFORCEMENT TYPE 2			PRESSURES		
NOMINAL DIMS	HEIGHT (in.)	WIDTH (in.)	PRESSURES		HEIGHT (in.)
			NEGATIVE (Psi)	POSITIVE (Psi)	
24	109%	24	85	75	75
30		30	85	75	75
36		36	85	75	75
42		42	85	75	75
48		48	85	75	75
54		54	85	75	75
58%		58%	85	75	75
66		66	85	75	75
72		72	85	75	75
78		78	85	75	75



21013 VERTICAL MULLION WITH REINFORCEMENT TYPE 2



72" MAX. WIDTH ± 75 Pcf MAX. PRESSURE ALL HEIGHTS.



55" MAX. WIDTH ± 56 Pcf MAX. PRESSURE ALL HEIGHTS.

21013 HORIZONTAL MULLION

FRANK L. BERNARDI, P.E.  
10/20/2017  
PROFESSIONAL ENGINEER  
STATE OF FLORIDA  
LICENSE No. PE00046549

EXPRESS ENGINEERS  
CORPORATE OFFICE  
160 SW 12th AVE, SUITE 106  
DEERFIELD BEACH, FL 33442  
P: (561) 351-0600 F: (561) 351-0400  
E: INFO@EXPRESSENGINEERS.COM  
C: 1801 W. PALM BLVD. SUITE 100  
DEERFIELD BEACH, FL 33442

ELITE ALUMINUM CORPORATION  
4650 LYONS TECHNOLOGY PARKWAY  
COCONUT CREEK, FL 33073  
MISSILE LEVEL, D7 IMPACT RESISTANT  
ELITE 2000 STOREFRONT GLAZING SYSTEM  
FLORIDA STATEWIDE APPROVAL - F.P. #499.1

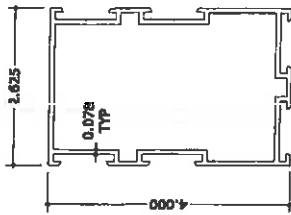
REVISION	DATE	BY	CHKD
1	10/20/17	FRANK L. BERNARDI	FRANK L. BERNARDI

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14-1439  
SCALE: NTS UNLESS NOTED  
18  
10



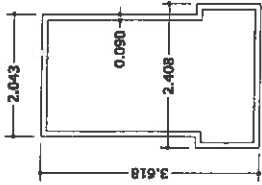
# PARTS LIST



1 VERTICAL MULLION



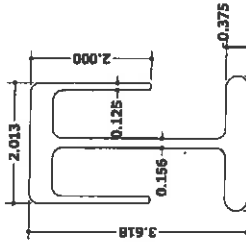
5 GLAZING CLIP (ROUNDED)



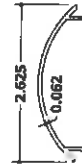
2 VERTICAL MULLION INSERT (REIN.)



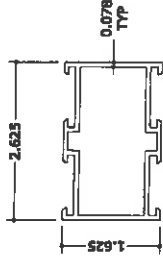
7 GLAZING CLIP (ROUNDED)



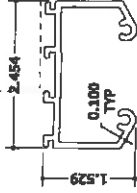
3 VERTICAL MULLION REINFORCEMENT



8 SNAP TRIM (ROUNDED)



4 PERIMETER EXTRUSION



5 CONNECTION BRACKET



**ENGINEERING EXPRESS**  
CORPORATE OFFICE  
160 SW 12th Ave, Suite 106  
Deerfield Beach, FL 33442  
P: (561) 254-4545  
E: HILL@ENGINEERINGEXPRESS.COM  
ENGINEERINGEXPRESS.COM  
CERT OF AUTH #9828

**ELITE ALUMINUM CORPORATION**  
Building Innovation  
Panel Products  
4650 LYONS TECHNOLOGY PARKWAY  
COCONUT CREEK, FL 33073  
ELITE 2000 STOREFRONT GLAZING SYSTEM  
MISSILE LEVEL, D\* IMPACT RESISTANT  
FLORIDA STATEWIDE APPROVAL-FL#FL #5499.1

REVISION	DATE	BY	CHK	APP	REVISION
1	10/20/17				REV. FROM PERMITS (REV. 01/2016)
2	10/20/17				REV. FROM PERMITS (REV. 01/2016)
3	10/20/17				REV. FROM PERMITS (REV. 01/2016)
4	10/20/17				REV. FROM PERMITS (REV. 01/2016)
5	10/20/17				REV. FROM PERMITS (REV. 01/2016)
6	10/20/17				REV. FROM PERMITS (REV. 01/2016)
7	10/20/17				REV. FROM PERMITS (REV. 01/2016)
8	10/20/17				REV. FROM PERMITS (REV. 01/2016)

14-1439  
SCALE: INTO UNLESS NOTED  
1/3

FRANK L. BEAM  
 LICENSE  
 No. PE0046548  
 STATE OF FLORIDA  
 PROFESSIONAL ENGINEER

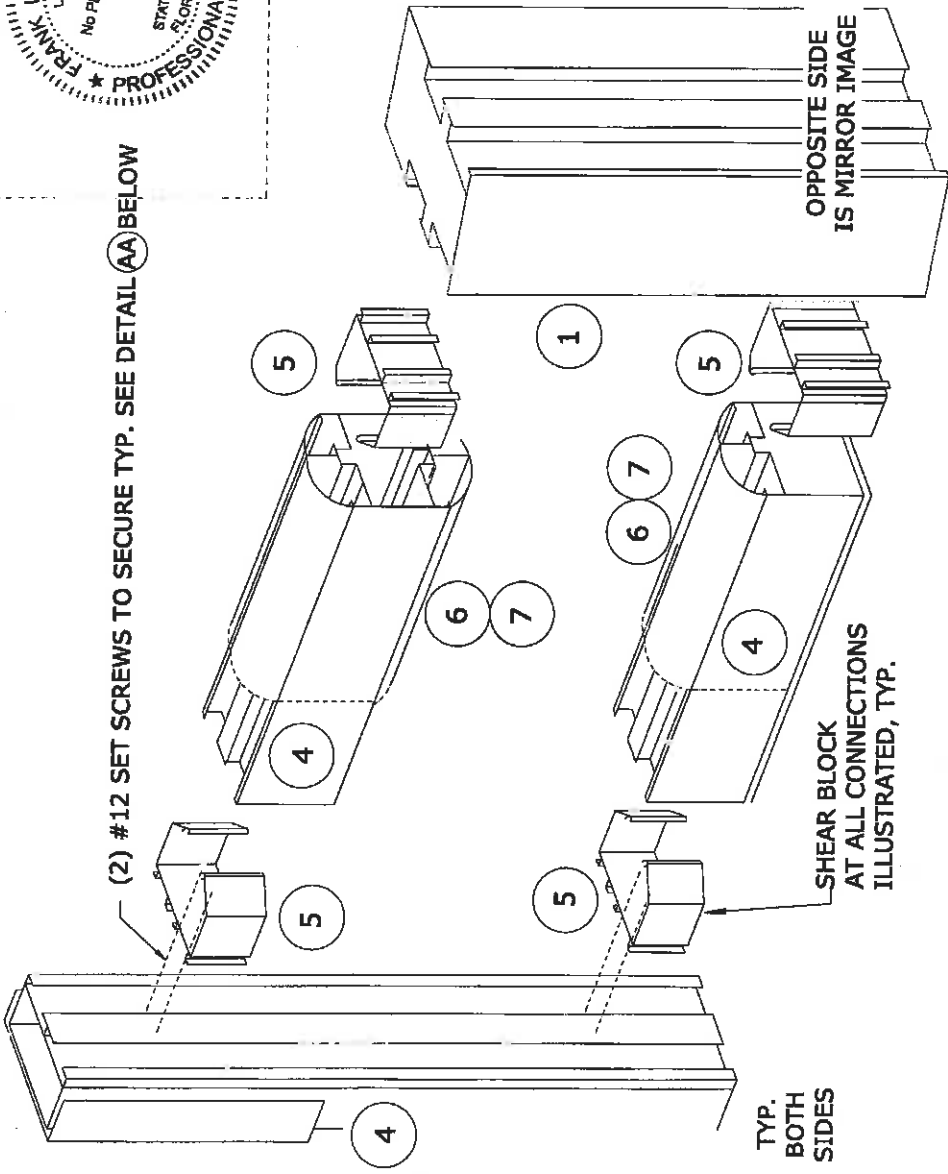
ENGINEERING EXPRESS  
 CORPORATE OFFICE  
 160 SW 12TH AVE, SUITE 106  
 DEERFIELD BEACH, FL 33442  
 P: (561) 241-4400  
 F: (561) 241-4400  
 E: HELL@ENGINEERINGEXPRESS.COM  
 ENGINEERINGEXPRESS.COM  
 CERT. OF AUTH. #9235

ELITE ALUMINUM  
 Building Innovations  
**ELITE**  
 Panel Products  
 4650 LYONS TECHNOLOGY PARKWAY  
 COCONUT CREEK, FL 33073  
 ELITE 2000 STORMWIND GLAZING SYSTEM  
 MISSILE LEVEL, D7 IMPACT RESISTANT  
 FLORIDA STATEWIDE APPROVAL-FL#FL #9499.1

REVISION	DATE	DESCRIPTION
1	01/20/2017	ISSUED FOR PERMITS
2	01/20/2017	REVISED PER COMMENTS
3	01/20/2017	REVISED PER COMMENTS
4	01/20/2017	REVISED PER COMMENTS
5	01/20/2017	REVISED PER COMMENTS
6	01/20/2017	REVISED PER COMMENTS
7	01/20/2017	REVISED PER COMMENTS

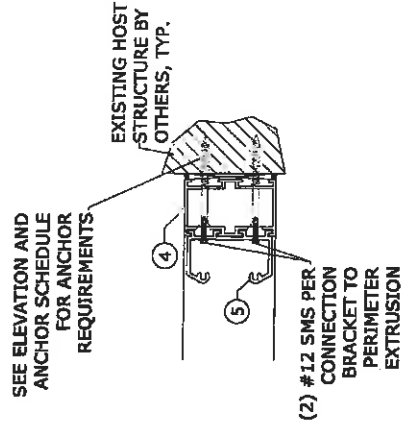
14-1439  
 DRAWING UNLESS NOTED  
 13

(2) #12 SET SCREWS TO SECURE TYP. SEE DETAIL AA BELOW



NOTE:  
 SEAL ALL CORNERS WITH  
 DOW 795 SILICONE OR  
 C.R. LAURENCE 5388  
 NARROW JOINT SEALER.

**FRAME ASSEMBLY DETAIL**



CONNECTION  
 BRACKET DETAIL  
 SECTION  
 AA  
 N.T.S.



## Product Evaluation Report

October 20, 2017

Application Number: FL# 5499.1-R4  
FLB Project Number: 14-1439

Product Manufacturer: Elite Aluminum Corporation  
Manufacturer Address: 4650 Lyons Technology Parkway  
Coconut Creek, FL 33073

Product Name & Description: Elite 2000 Aluminum Storefront Glazing System  
Large and Small Missile Impact

### Scope of Evaluation:

This Product Evaluation Report is being issued in accordance with the requirements of the Florida Department of Business and Professional Regulation (Florida Building Commission) Rule Chapter 61G20-3.005, F.A.C., for statewide acceptance per Method 1(d). The product noted above has been tested and/or evaluated as summarized herein to show compliance with the Florida Building Code Sixth Edition (2017) and is, for the purpose intended, at least equivalent to that required by the Code. Re-evaluation of this product shall be required following pertinent Florida Building Code modifications or revisions.

### Substantiating Data:

- **PRODUCT EVALUATION DOCUMENTS**

EX drawing #14-1439 titled "Elite 2000 Aluminum Storefront Glazing System Large and Small Missile Impact", sheets 1-13, prepared by Engineering Express, signed & sealed by Frank L. Bennardo, P.E. is an integral part of this Evaluation Report.

- **TEST REPORTS**

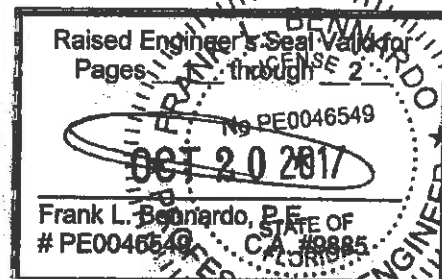
Uniform static structural performance has been tested in accordance with TAS 202 test standards per test report(s) #00-030 by Construction Testing Corporation (CTC). Signed by Yamil G. Kuri, P.E.

Uniform static structural performance, water and air infiltration performance have been tested in accordance with ASTM E330-02, ASTM E331-00 and ASTM E263-04, respectively. Large missile impact resistance and cyclic loading performance have been tested in accordance with TAS 201 & 203 test standards per test report(s) #00-030 by Construction Testing Corporation (CTC) Signed by Yamil G. Kuri, P.E. & test report(s) HETI-08-2164A/B, HETI-09-2509A/B by Hurricane Engineering and Testing Inc. Signed by Candido F. Font, P.E.

- **STRUCTURAL ENGINEERING CALCULATIONS**

Structural engineering calculations have been prepared which evaluate the product based on comparative and/or rational analysis to qualify the following design criteria:

1. Maximum Allowable Spans
2. Minimum Allowable Pressures
3. Anchor Spacing
4. Glass Capacity





No 33% increase in allowable stress has been used in the design of this product.

The following is approved for use in the HVHZ as specified in its corresponding NOA:

- Polycarbonate Interlayer by SAF-GLAS, LLC. (NOA #13-1105.10) or a superseded version approved by Miami-Dade BCCO.

### ***Impact Resistance:***

Large Impact Resistance has been demonstrated as evidenced in previously listed test reports, and is accounted for in the engineering design of this product.

### ***Wind Load Resistance***

This product has been designed to resist wind loads as indicated in the span schedule(s) on the Product Evaluation Document (i.e. engineering drawing).

### ***Installation***

The product listed above shall be installed in strict compliance with the Product Evaluation Document (i.e. engineering drawing), along with all components noted therein.

The product components shall be of the material specified in the Product Evaluation Document (i.e. engineering drawing).

### ***Limitations & Conditions of Use:***

Use of this product shall be in strict accordance with the Product Evaluation Document (i.e. engineering drawing) as noted herein.

All supporting host structures shall be designed to resist all superimposed loads and shall be of a material listed in this product's respective anchor schedule. Host structure conditions which are not accounted for in this product's respective anchor schedule shall be designed for on a site-specific basis by a registered professional engineer.

All components which are permanently installed shall be protected against corrosion, contamination, and other such damage at all times.

This product has been designed for use within and outside the High Velocity Hurricane Zone (HVHZ).



October 20, 2017


Florida Department of Business and Professional Regulation  
1940 North Monroe Street, Tallahassee FL 32399

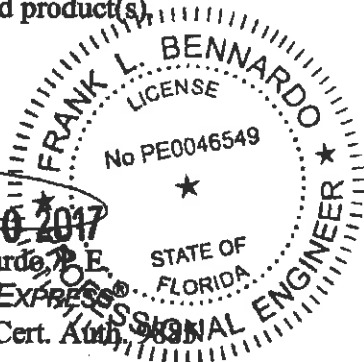
Regarding: Elite Aluminum Corporation  
Elite 2000 Aluminum Storefront Glazing Systems  
Project #14-1439

To Whom It May Concern:

Please be advised that the below-signed engineer does not have nor will acquire a financial interest in the company manufacturing or distributing the product(s) for which an evaluation report or validation certification has been prepared, as referenced above. This engineer is not owned, operated, nor controlled by the manufacturer or distributor noted above and does not have any financial interest in any other entity involved in the approval process of the above-noted product(s).

Respectfully,

  
OCT 20 2017  
Frank L. Bennardo, P.E.  
ENGINEERING EXPRESS®  
#PE0046549 | Cert. Auth. #1439



160 SW 12<sup>TH</sup> AVENUE SUITE 106, DEERFIELD BEACH, FLORIDA 33442  
PHONE: (954) 354-0660 - FAX: (954) 354-0443  
ENGINEERINGEXPRESS.COM



October 20, 2017

Florida Department of Business and Professional Regulation  
1940 North Monroe Street, Tallahassee FL 32399

Regarding: Elite Aluminum Corporation  
Elite 2000 Aluminum Storefront Glazing System  
Project #14-1439

To Whom It May Concern:

This office has reviewed test reports showing structural performance of the above-noted product. These test reports pertain to testing performed in accordance with ASTM E330-02, ASTM E331-00 and ASTM E283-04 for uniform static structural performance, water and air infiltration, respectively. The combination of these test standards is equivalent to AAMA 501 and is compliant with Section 1709.8.4 of the Florida Building Code Sixth Edition (2017).

Respectfully,

A circular professional engineer seal for Frank L. Bennardo, State of Florida, License No. PE0046549. The seal includes the text 'FRANK L. BENNARDO', 'LICENSE', 'No PE0046549', 'STATE OF FLORIDA', and 'PROFESSIONAL ENGINEER'. A star is in the center. A date stamp 'OCT 20 2017' is stamped over the seal.

Frank L. Bennardo, P.E.  
Frank L. Bennardo, P.E., Inc.  
FL PE 0046549  
Cert of Auth #9885

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