



Product Approval
USER: Public User

[Product Approval Menu](#) > [Product or Application Search](#) > [Application List](#) > **Application Detail**

OFFICE OF THE
SECRETARY

FL #	FL20805-R5																
Application Type	Revision																
Code Version	2023																
Application Status	Approved																
Comments																	
Archived	<input type="checkbox"/>																
Product Manufacturer	Sol-A-Trol Aluminum Products																
Address/Phone/Email	4101 NW 132 St Miami, FL 33054 (350) 681-2020 Ext 209 Edith@SOLATROL.COM																
Authorized Signature	Yiping Wang mcyengineering@outlook.com																
Technical Representative	Edith Todzey																
Address/Phone/Email	4101 NW 132nd St. Miami, FL 33054 (305) 681-2020 edith@solatrol.com																
Quality Assurance Representative																	
Address/Phone/Email																	
Category	Windows																
Subcategory	Single Hung																
Compliance Method	Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer <input type="checkbox"/> Evaluation Report - Hardcopy Received																
Florida Engineer or Architect Name who developed the Evaluation Report	Christopher Stanton																
Florida License	PE-69316																
Quality Assurance Entity	National Accreditation and Management Institute																
Quality Assurance Contract Expiration Date	12/31/2026																
Validated By	Yiping Wang, P.E. <input checked="" type="checkbox"/> Validation Checklist - Hardcopy Received																
Certificate of Independence	FL20805_R5_COI_535_single_hung_FBC_cover_2023_signed.pdf																
Referenced Standard and Year (of Standard)	<table border="0"> <thead> <tr> <th>Standard</th> <th>Year</th> </tr> </thead> <tbody> <tr> <td>ASTM E283</td> <td>2012</td> </tr> <tr> <td>ASTM E330</td> <td>2014</td> </tr> <tr> <td>ASTM E331</td> <td>2016</td> </tr> <tr> <td>ASTM F588</td> <td>2014</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	ASTM E283	2012	ASTM E330	2014	ASTM E331	2016	ASTM F588	2014	TAS 201	1994	TAS 202	1994	TAS 203	1994
Standard	Year																
ASTM E283	2012																
ASTM E330	2014																
ASTM E331	2016																
ASTM F588	2014																
TAS 201	1994																
TAS 202	1994																
TAS 203	1994																

Equivalence of Product Standards
Certified By

Sections from the Code

Product Approval Method

Method 1 Option D

Date Submitted

10/21/2024

Date Validated

10/21/2024

Date Pending FBC Approval

10/21/2024

Date Approved

12/10/2024

Summary of Products

FL #	Model, Number or Name	Description
20805.1	Series 535 Aluminum Single Hung Window-LMI	Series 535 Aluminum Single Hung Window-large missile impact
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: +90/-100 Other: for window sizes vs. design load refer to installation intrsuction		Installation Instructions FL20805_R5_II_535SH-FullSet (8.20.2024) signed.pdf Verified By: Christopher Stanton PE #69316 Created by Independent Third Party: Yes Evaluation Reports FL20805_R5_AE_535 SH EVALUATION REPORT 2023 signed.pdf FL20805_R5_AE_IG Lab 1371 1908 F16 Trulite Glass and Aluminum Orlando FL IGCC 1908.pdf 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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Product Approval Accepts:



PRODUCT APPROVAL EVALUATION REPORT

RULE CHAPTER #61G20-3

MANUFACTURER

SOL-A-TROL ALUMINUM PRODUCTS

4101 NW 132 ND. STREET MIAMI, FL

PRODUCT

SERIES 535

ALUMINUM SINGLE HUNG WINDOW - LMI

FL20805.1

MAX. FRAME SIZE: 53 1/8" X 80" (EQUAL LITES)

DESIGN PRESSURE: (MAX.) = -100/+90 PSF

MAX. FRAME SIZE: 53 1/8" X 80" (EQUAL LITES) - INSULATED

DESIGN PRESSURE: (MAX.) = -80/+80 PSF

MAX. FRAME SIZE: 42" X 102" (FULL VIEW)

DESIGN PRESSURE: (MAX.) = -90/+70 PSF

NOTE: THIS PRODUCT COMPLIES WITH THE HIGH VELOCITY HURRICANE ZONE (HVHZ) TESTING REQUIREMENTS

SEE CHARTS ON PRODUCT APPROVAL DRAWINGS TO COORDINATE ALLOWABLE DESIGN PRESSURES FOR SPECIFIC FRAME SIZES, GLASS TYPE COMBINATIONS

COMPARATIVE ANALYSIS HAS NOT BEEN UTILIZED IN THE PREPERATION OF THIS APPROVAL

MANITORY TESTS (TESTED IN ACCORDENCE WITH AAMA 101/ I.S.2/ NAPS-02/ TAS 201/ TAS202/TAS203)

TEST	DESCRIPTION	TEST LOCATION	TEST REPORT #	TEST DATE	ENGINEER
ASTM E283	AIR INFILTRATION	HURRICANE ENGINEERING & TESTING, INC.	HETI-04-1398 HETI-05-1460	7/22/2004 8/05/2005	IVONNE GHIA, PE IVONNE GHIA, PE
ASTM E331 ASTM 547 & TAS 202	WATER PENETRATION	HURRICANE ENGINEERING & TESTING, INC.	HETI-04-1398 HETI-05-1460	7/22/2004 8/05/2005	IVONNE GHIA, PE IVONNE GHIA, PE
ASTM E-330 & TAS 202	UNIFORM STATIC AIR PRESSURE	HURRICANE ENGINEERING & TESTING, INC.	HETI-04-1398 HETI-05-1460 HETI-10-3098 FTL 12574	7/22/2004 8/05/2005 9/10/2010 5/11/2021	IVONNE GHIA, PE IVONNE GHIA, PE IDALMIS ORTEGA, P.E.
ASTM F 588	FORCED ENTRY	HURRICANE ENGINEERING & TESTING, INC.	HETI-04-1398 HETI-05-1460	7/22/2004 8/05/2005	IVONNE GHIA, PE IVONNE GHIA, PE

SUPPLIMENTAL TESTS (TESTED IN ACCORDANCE WITH TAS 201 & TAS 203)

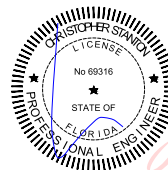
FBC 1626.2 TAS 201 & TAS 203	LARGE MISSILE IMPACT & CYCLIC	HURRICANE ENGINEERING & TESTING, INC.	HETI-05-2056 HETI-05-1966 HETI-05-1912 HETI-10-3101 HETI-10-3099 FTL 12574	12/14/2005 11/14/2005 12/21/2005 10/10/2010 10/10/2010 5/11/2021	IVONNE GHIA, PE IVONNE GHIA, PE IVONNE GHIA, PE IVONNE GHIA, PE CANDIDO F. FONT, PE IDALMIS ORTEGA, P.E.
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UNDER THE LIMITATIONS OF THE ATTACHED INSTALLATION DRAWINGS, TO THE BEST OF MY KNOWLEDGE, THE ABOVE WINDOW PRODUCT CONFORMS TO THE REQUIREMENTS OF THE 2023 FLORIDA BUILDING CODE

EVALUATION REPORT ENGINEER

Christopher Stanton, P.E.
Fla. P.E. #69316

STANTON ENGINEERING INC.
CERT. OF AUTHORIZATION
2701 BOCA RATON BLVD. SUITE #204
BOCA RATON, FL 33431



Digitally signed by
Christopher Stanton
Date: 2024.10.09
13:50:17 -04'00'



Quality Accuracy Assurance

Fenestration Testing Laboratory, Inc.

8148 N.W. 74th Avenue Medley, FL 33166 Phone: (305) 885-3328 Fax: (305) 885-3329 (888) 819-7877
 e-mail: clientservices@ftl-inc.com www.ftl-inc.com

Report Date: 9/8/2016
 Page Number: 1 of 2
 Lab Number: 1371

Client: IGCC
 100 West Main Street, P.O. Box 730
 Sackets Harbor, NY 13651

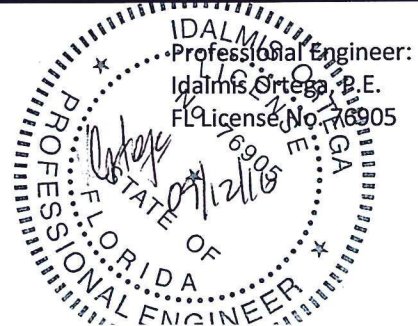
Specification: ASTM E2190-10

Attention: Mr. John G. Kent

IGCC Number:	1908 F16 Trulite Glass and Aluminum Solutions- Orlando, Florida
IG Test Size:	14" x 20"
Glass Composition:	3/16" – 1/4"
Coatings:	C2 SN-68
Spacer Composition and Configuration:	1/2" AA by All Metal
Corner Construction:	Galvanized steel joiner BC4/GSJ/IC by All Metal
Desiccant:	DES – 2000 LF by ISC
Tubes:	None
Muntins:	2v - 2h
Primary Sealant Type:	PIB – 29 PIB by Kommerling/Royal
Secondary Sealant Type:	DC – 982 by Dow Corning
Manufacture Date:	5/2/2016

Specimen No.	Primary Sealant Width (min-max)	Initial Dew/Frost Point	After 2 Weeks HH	After 9 weeks AW	After 4 weeks HH	Volatile Fog Test Day 1	Volatile Fog Test Day 2	Volatile Fog Test Day 7	Comments
Start Date:	5/16/16	5/16/16	5/16/16	6/2/16	8/5/16	8/23/16	8/23/16	8/23/16	
Completion Date:	5/16/16	5/16/16	5/30/16	8/4/16	9/2/16	8/24/16	8/25/16	8/31/16	
1	12-13 mm	< - 80	< - 80	< - 80	< - 80				
2	12-13 mm	< - 80	< - 80	< - 80	< - 80				
3	12-13 mm	< - 80	< - 80	< - 80	< - 80				
4	11-13 mm	< - 80	< - 80	< - 80	< - 80				
5	12-14 mm	< - 80	< - 80	< - 80	< - 80				
6	10-11 mm	< - 80	< - 80	< - 80	< - 80				
7	11-13 mm					No Fog	No Fog	No Fog	
8	12-14 mm					No Fog	No Fog	No Fog	
Requirements	n/a	n/a	≤-40	≤-40	≤-40	No Fog	No Fog	No Fog	

Minimum Fog Test Temperature: 119° F Maximum Fog Test Temperature: 122 ° F





Quality Accuracy Assurance

Fenestration Testing Laboratory, Inc.

8148 N.W. 74th Avenue Medley, FL 33166 Phone: (305) 885-3328 Fax: (305) 885-3329 (888) 819-7877

e-mail: clientservices@ftl-inc.com www.ftl-inc.com

Report Date: 9/8/2016

Page Number: 2 of 2

Lab Number: 1371

Remarks: Specimen construction information was obtained from the Insulated Glass Certification Council. Passing samples are kept for 30 days and failed samples are kept for 90 days from the date of final test report. Data Sheets, supporting documentation and copy of test report will be retained by Fenestration Testing Laboratory for a period of four years. Test results obtained represent the actual value of the test specimens and do not constitute opinion, endorsement or certification by this laboratory. This test report is considered the exclusive property of the client named herein and is applicable to the samples tested. This report may not be reproduced without the approval of Fenestration Testing Laboratory.

Revision	Description	Author	Effective Date
0	Initial Release	Jose Sanchez	9/8/2016

FENESTRATION TESTING LABORATORY, INC.

Laboratory Technician:
Willy Ruiz

Jose Sanchez
Jose Sanchez
President

Professional Engineer:
Idalmis Ortega, P.E.
FL License No. 76905





Administrative Management Systems, Inc.
100 West Main
P.O. Box 730
Sackets Harbor, NY 13685
Phone 315-646-2234
Fax 315-646-2297
E-mail: staff@amscert.com

Results of Product Audit

(6-10-04 Form ID-20)



Plant Name and Location: Trulite Glass and Aluminum Solutions - Orlando, FL		Plant ID: AAG07FL
Product Certification #: 1908 - C	Audited By: 3	Plant Contact Initials:
Permanent Label: IGCC®/IGMA® TRULITE W04 2016	Glass Type Tested (Thickness, Uncoated/Coated Type): 3/16" Clear 1/4" C2 SN-68	
Last Report Rec'd: 8/27/14	Test Frequency (year): 2	Next Test Period: F18
Designated Test Lab: Fenestration Testing Laboratory Inc. - Medley, FL		Next Multiple Airspace Test: Participant in Gas Prog? No

	PREVIOUS AUDIT RESULTS	CURRENT AUDIT RESULTS
Visit Date:	F16 5/2/2016	L16
Audit (A) or Fab (F):	Fab	
Number and Size of Test Samples	15 - 14x20 (3 with muntins)	
# Sides filled	1 long and 1 short	
Frame Construction	4 bent corners with steel joiner; 2 desiccant holes, punched and butyled	

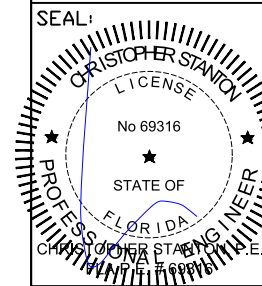
	Model (Style, Thickness, Type)	Generic Type	Manufacturer	Model (Style, Thickness, Type)	Generic Type	Manufacturer
Spacer Model	1/2"	AA	Allmetal			
Corner Model	Galvanized Steel Joiner	BC4/GSJ/IC	Allmetal			
Primary Sealant	PB-29	PIB	Kommerling/Royal			
Secondary Sealant	DC-982	S2	Dow Corning			
Internal Components	Muntins by Allmetal					
Desiccant	DES-2000	LF	ISC			

ACPF grams/ft = weight of Desiccant Product (g) 34.7 X Absorption Capacity (wt%) 20 /5.66 X 100 = 1.23

Note: For all 14 x 20 inch test specimens the perimeter is 5.66 feet

Approved
Alternates:

Comments:



NOTE:

(1) ANCHOR REQUIRED EACH SIDE OF MEETING RAIL.
 FOR ANCHOR TYPES 1, 2 & 6 WHERE D.P. EXCEEDS +/-56.0 PSF, INSTALL (2) ANCHORS EACH SIDE OF MEETING RAIL.

THESE WINDOWS ARE RATED FOR LARGE MISSILE IMPACT. SHUTTERS ARE NOT REQUIRED.

SERIES 535 ALUMINUM SINGLE HUNG WINDOW.

DESIGN LOAD RATING FOR THESE WINDOWS TO BE AS PER CHARTS SHOWN ON SHEET 7 OF 9.

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE COMBINATIONS OF S.H./S.H. OR SINGLE HUNG WITH OTHER WINDOW TYPES IN MODULES OF TWO OR MORE WINDOWS USING FBC/ MIAMI-DADE COUNTY APPROVED MULLIONS IN BETWEEN. LOWER DESIGN PRESSURE FROM WINDOWS OR MULLION APPROVAL WILL APPLY TO ENTIRE SYSTEM.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE 2023 EDITION INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

WOOD BUCKS, BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE.

ANCHORS SHALL BE AS LISTED AND SPACED AS SHOWN ON DETAILS. ANCHOR EMBEDMENT INTO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.

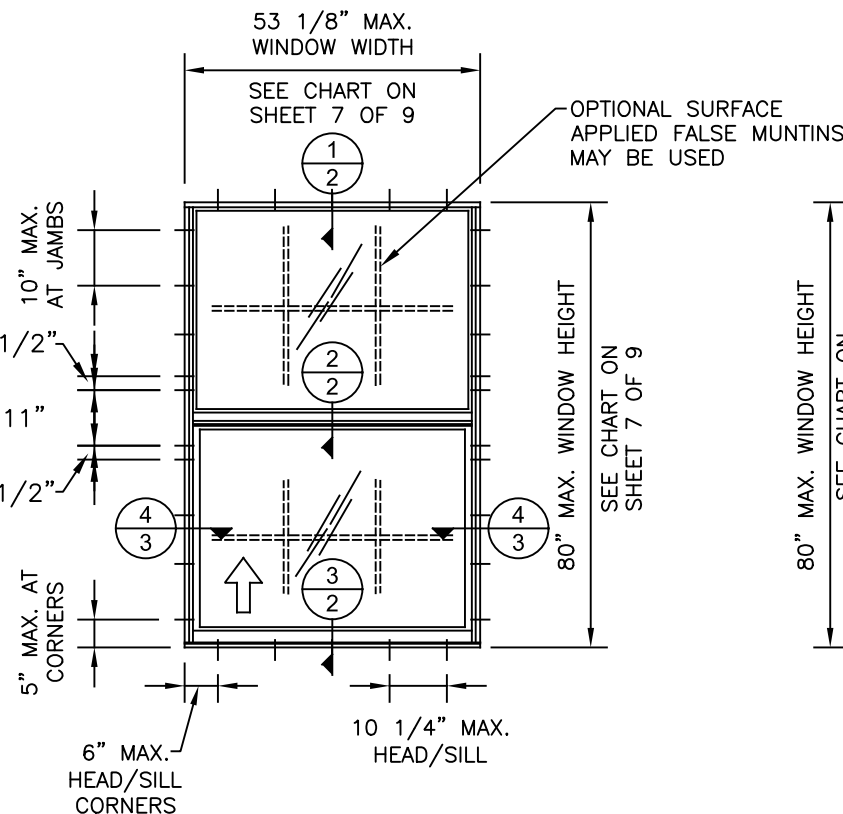
A LOAD DURATION INCREASE IN ALLOWABLE STRESS WAS NOT USED IN DESIGN OF THIS SYSTEM.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF 2020 FLORIDA BLDG. CODE

NO.	DATE	REVISIONS
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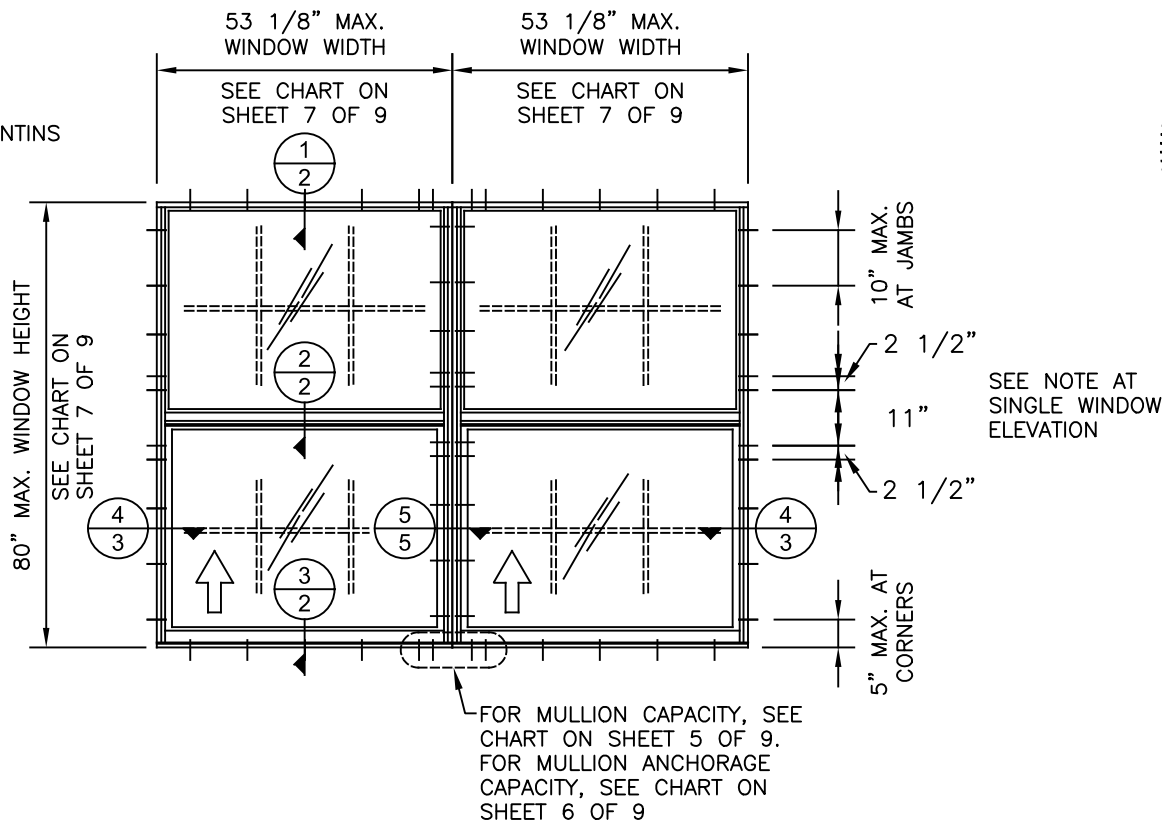
**TYPICAL ELEVATION
SINGLE WINDOW (1/1)**

TESTED UNIT



**TYPICAL ELEVATION
MULTIPLE WINDOWS (1/1)**

TESTED UNIT



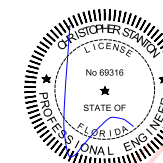
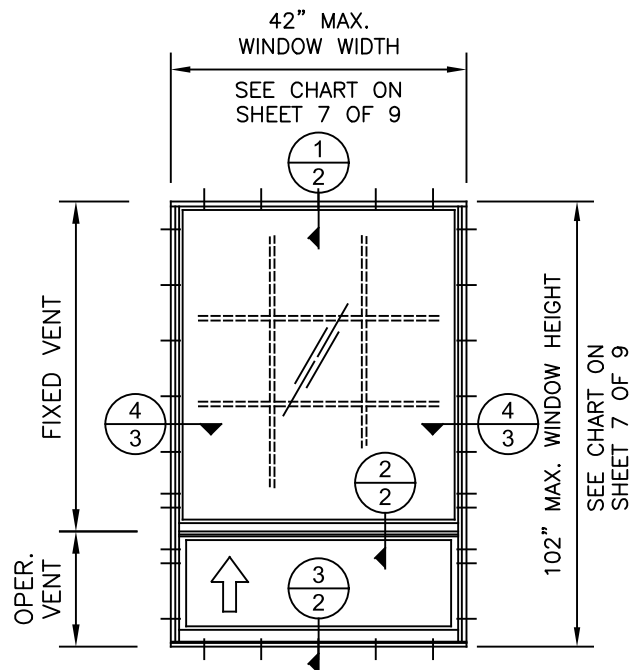
**LAMINATED GLASS &
INSULATED LAMINATED GLASS
LARGE MISSILE IMPACT**

**TYPICAL FULL VIEW
SINGLE WINDOW (FULL VIEW)**

TESTED UNIT

SEE SINGLE HUNG WINDOW (1/1) ELEVATION FOR ANCHORAGE.

****MAX. FIXED VENT D.L.O. LIMITED TO 17.5 SQ. FT. GLASS TYPES "C" & "G" ONLY**



Digitally signed by Christopher Stanton
 Date: 2024.10.09 13:48:27 -04'00'

FPA FL#20805.1

STANTON ENGINEERING, INC.
STRUCTURAL ENGINEERING SERVICES
 2701 NW BOCA RATON BLVD, SUITE 204
 BOCA RATON, FL 33431
 TEL: (561) 393-1003 FAX: (561) 393-1008

SERIES 535 ALUMINUM SINGLE HUNG WINDOW (L.M.I.)

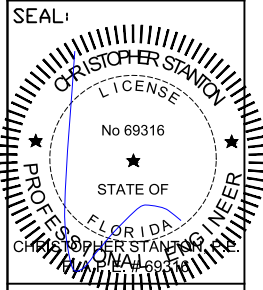
SOL-A-TROL
 aluminum products, inc.
 4101 N.W. 132nd Street
 Miami, Florida 33054
 Phone: (305) 681-2020
 Fax: (305) 681-2035

SCALE: NOTED
 DATE: 8/20/2024
 DRAWN BY: DGI
 CHECKED BY: C.S.

535SH
 DRAWING NO.

SHEET NO.

1 of 9



WOOD BUCKS AND METAL STRUCTURE NOT BY SOL-A-TROL MUST SUPPORT LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

TYPICAL ANCHORS:
SEE ELEVATIONS FOR SPACING

- TYPE 1 - 1/4" TAPCONS**
THRU 1BY WOOD BUCKS INTO 3000 PSI MIN. CONC. OR C-90 GROUT FILLED BLOCK.
1 1/4" MIN. EMBED. INTO CONC. OR MASONRY
- DIRECTLY INTO 3000 PSI MIN. CONCRETE OR C-90 GROUT FILLED BLOCK.
1 1/4" MIN. EMBED. INTO CONC. OR MASONRY
- TYPE 2 - 1/4" TAPCONS**
INTO 2BY WOOD BUCKS OR WOOD SUBSTRATES
1 1/2" MIN. PENETRATION INTO #2 SYP (G=0.55)
- TYPE 3 - #14 SMS (MIN. GRADE 2 CRS)**
INTO METAL STRUCTURES
- METAL STUDS: 16 GA. MIN.
STEEL: 1/8" THK. MIN. (Fy = 36 KSI MIN.)
ALUMINUM: 1/8" MIN. THK. (6063-T5 MIN.)
(STEEL IN CONTACT WITH ALUM. TO BE PLATED OR PAINTED)
- TYPE 4 - 1/4" ELCO DRILL FLEX**
INTO METAL STRUCTURES
- METAL STUDS: 16 GA. MIN.
STEEL: 1/8" THK. MIN. (Fy = 36 KSI MIN.)
ALUMINUM: 1/8" MIN. THK. (6063-T5 MIN.)
(STEEL IN CONTACT WITH ALUM. TO BE PLATED OR PAINTED)
- TYPE 5 - #12 SMS (MIN. GRADE 2 CRS)**
INTO APPROVED MULLIONS (1/8" MIN. THK.)
1/4" MAX. SHIM SPACE
- TYPE 6 - #14 WOOD SCREWS**
INTO 2BY WOOD BUCKS OR WOOD SUBSTRATES
1 3/8" MIN. PENETRATION INTO #2 SYP (G=0.55)

LAMINATED GLASS SHOWN:
ACCEPTABLE FOR INSULATED LAMINATED. SEE SHEET 7 OF 9 FOR WINDOW SIZE, CONFIGURATION & DESIGN CAPACITY LIMITATIONS

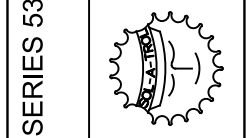
TYPICAL EDGE DISTANCE
INTO CONC. OR MASONRY = 2 1/2" MIN.
INTO WOOD STRUCTURE = 1" MIN.
INTO METAL STRUCTURE = 1/2" MIN.

SEALANTS:
ALL FRAME AND VENT CORNERS SEALED WITH SCHNEE MOREHEAD SEAM SEALER.

FPA FL#20805.1

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STRUCTURAL ENGINEERING SERVICES
2701 NW BOCA RATON BLVD, SUITE 204
BOCA RATON, FL 33431
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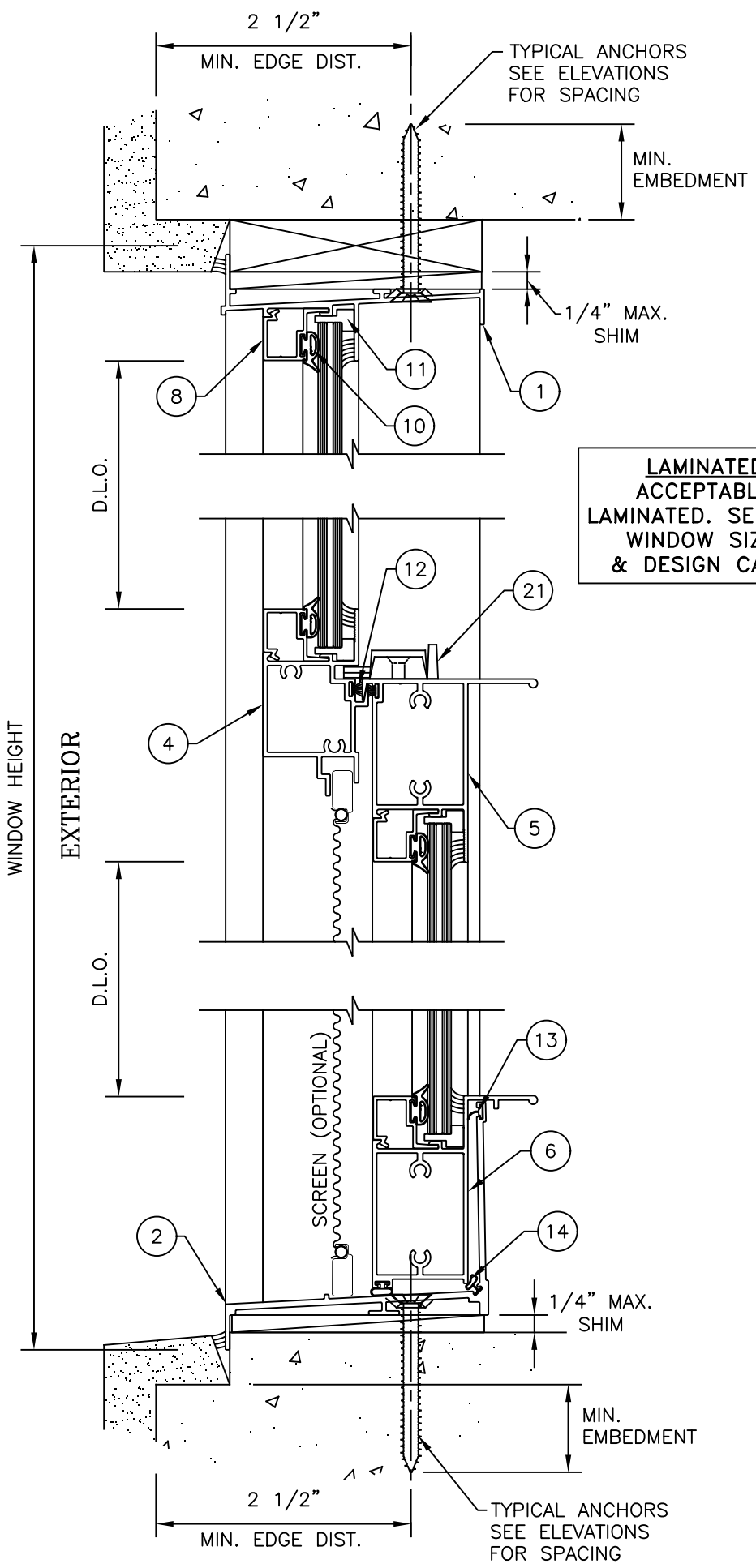
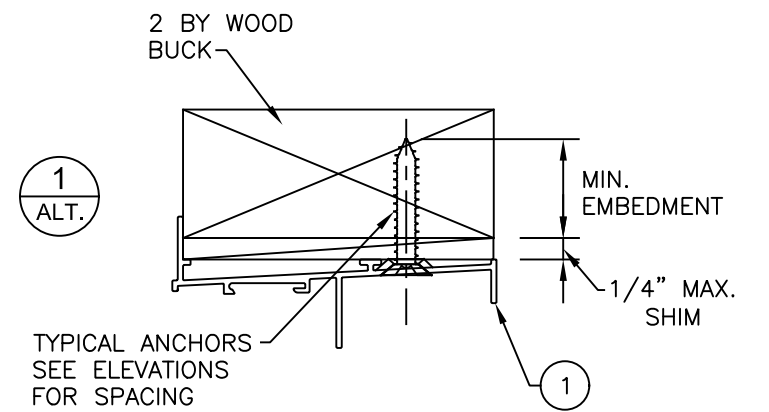
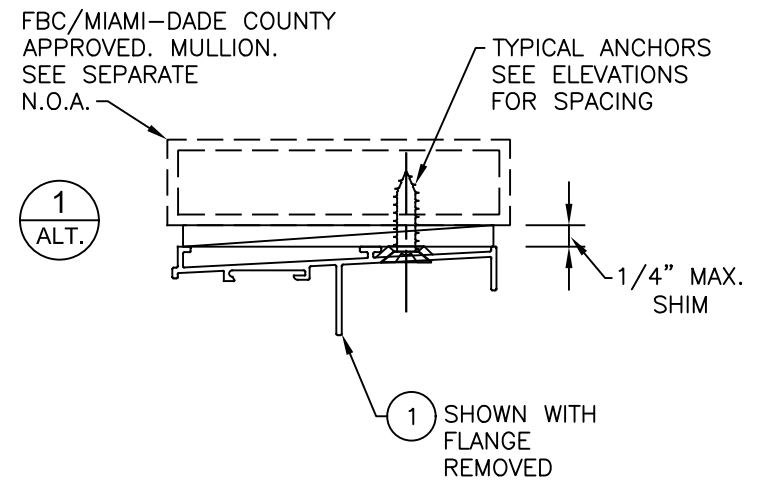
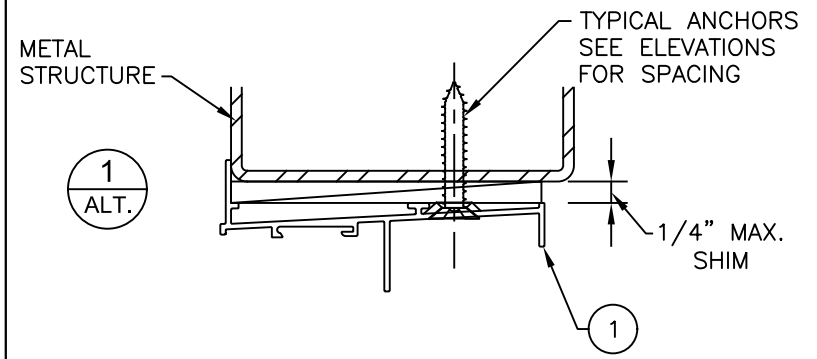
SERIES 535 ALUMINUM SINGLE HUNG WINDOW (L.M.I.)
SOL-A-TROL
aluminum products, inc.
4101 N.W. 132nd Street
Miami, Florida 33054
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Fax: (305) 681-2035



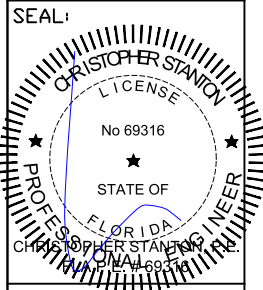
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535SH
DRAWING NO.

SHEET NO.



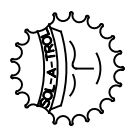
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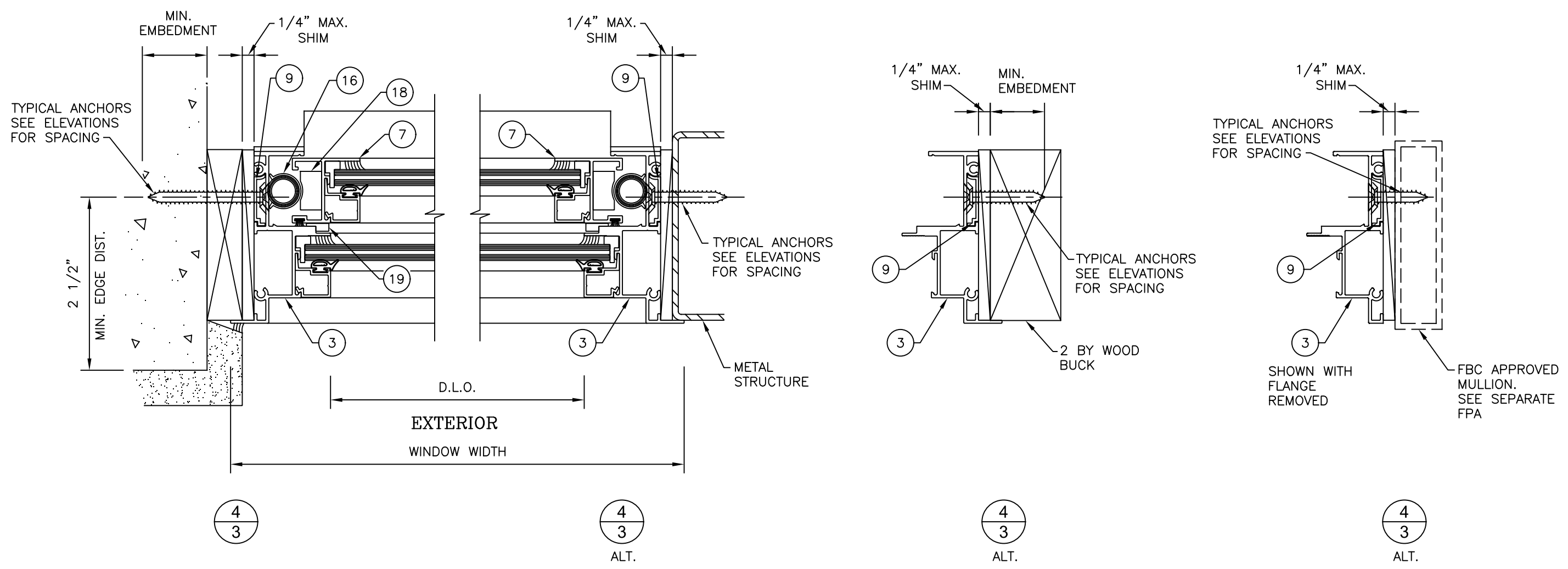


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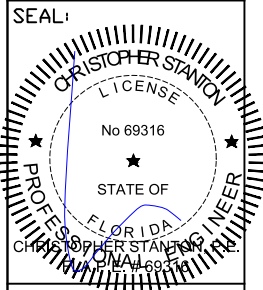
3 of 9



LAMINATED GLASS SHOWN:
 ACCEPTABLE FOR INSULATED
 LAMINATED. SEE SHEET 7 OF 9 FOR
 WINDOW SIZE, CONFIGURATION
 & DESIGN CAPACITY LIMITATIONS

FPA FL#20805.1

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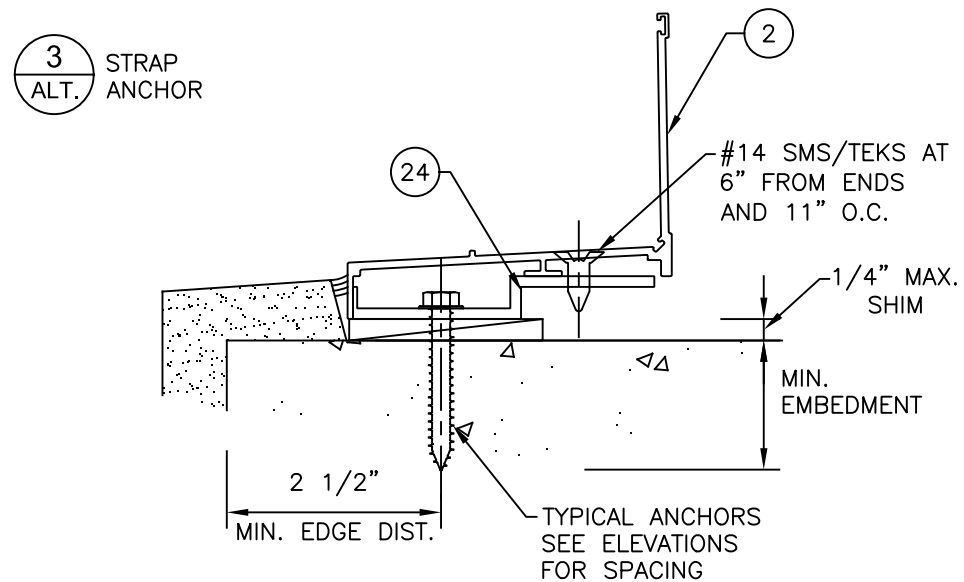
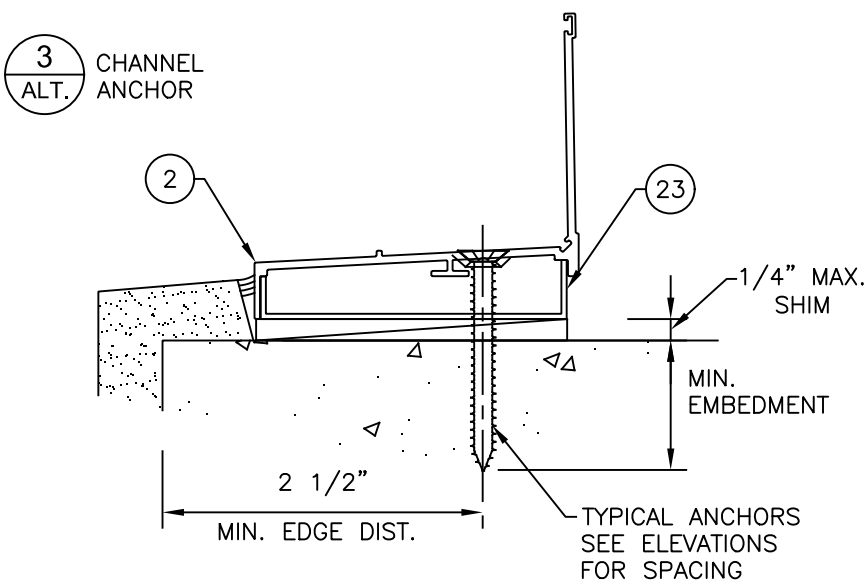
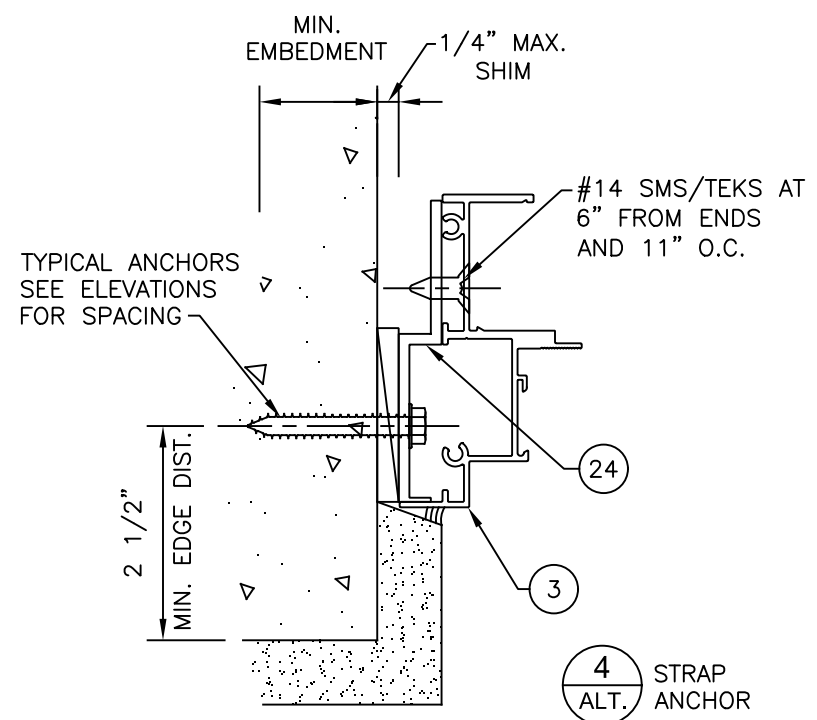
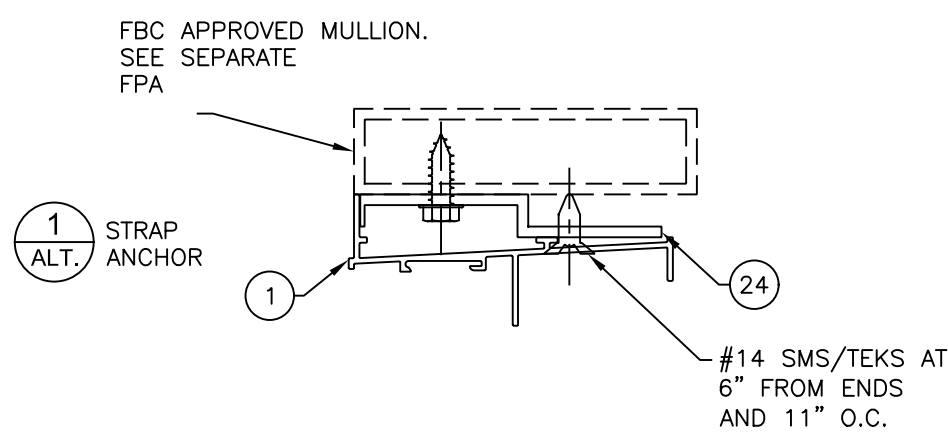
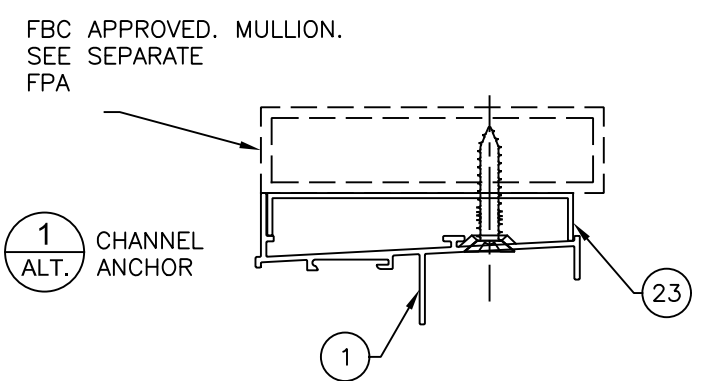
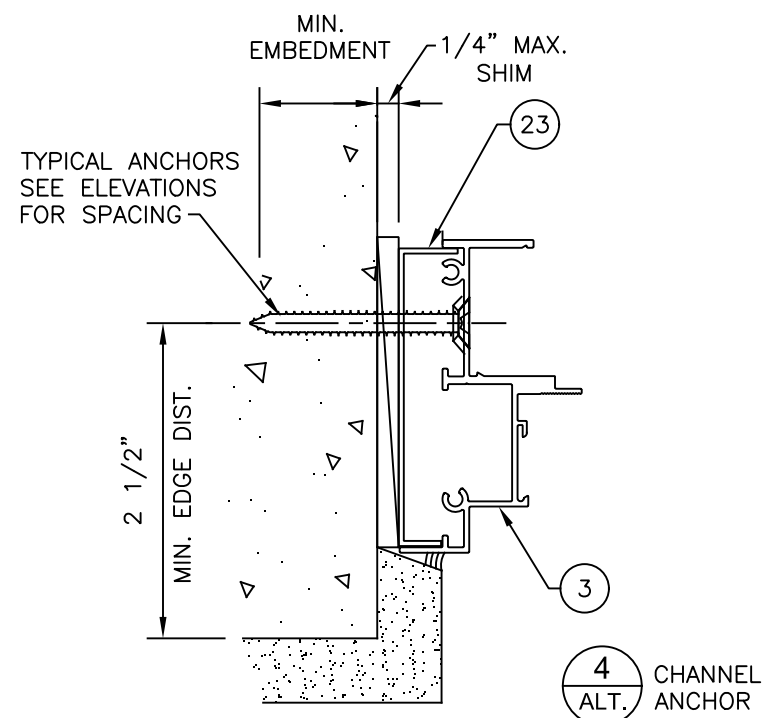
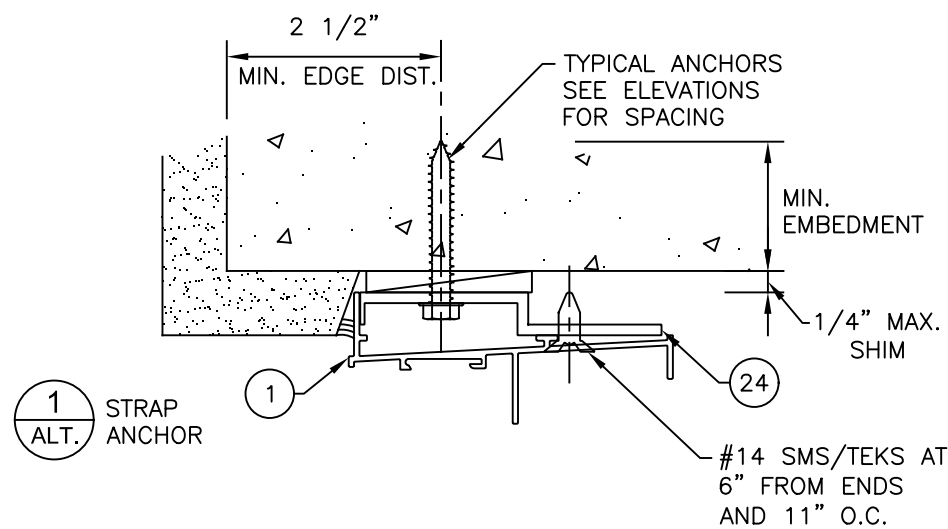
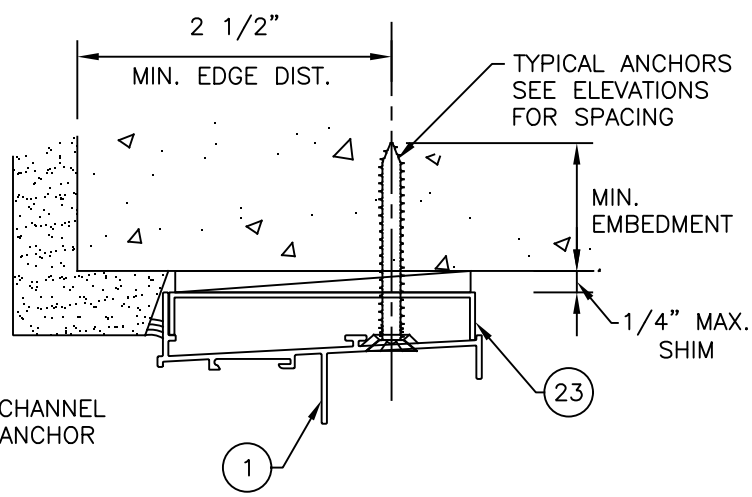
SERIES 535 ALUMINUM SINGLE HUNG WINDOW (L.M.I.)

SOL-A-TROL
 aluminum products, inc.
 4101 N.W. 132nd Street
 Miami, Florida 33054
 Phone: (305) 681-2020
 Fax: (305) 681-2035

SCALE: NOTED
 DATE: 8/20/2024
 DRAWN BY: DGI
 CHECKED BY: C.S.

535SH
 DRAWING NO.

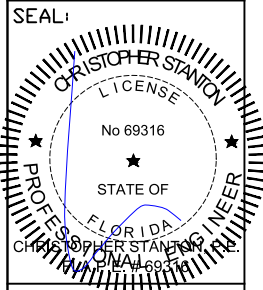
SHEET NO.



INSTALLATION DETAILS FOR ALTERNATE CHANNEL AND STRAP ANCHORS

NO.	DATE	REVISIONS
1		
2		
3		
4		
5		

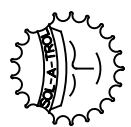
FPA FL#20805.1



STANTON ENGINEERING, INC.
STRUCTURAL ENGINEERING SERVICES
 2701 NW BOCA RATON BLVD, SUITE 204
 BOCA RATON, FL 33431
 TEL: (561) 393-1003 FAX: (561) 393-1008

SERIES 535 ALUMINUM SINGLE HUNG WINDOW (L.M.I.)

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 Phone: (305) 681-2020
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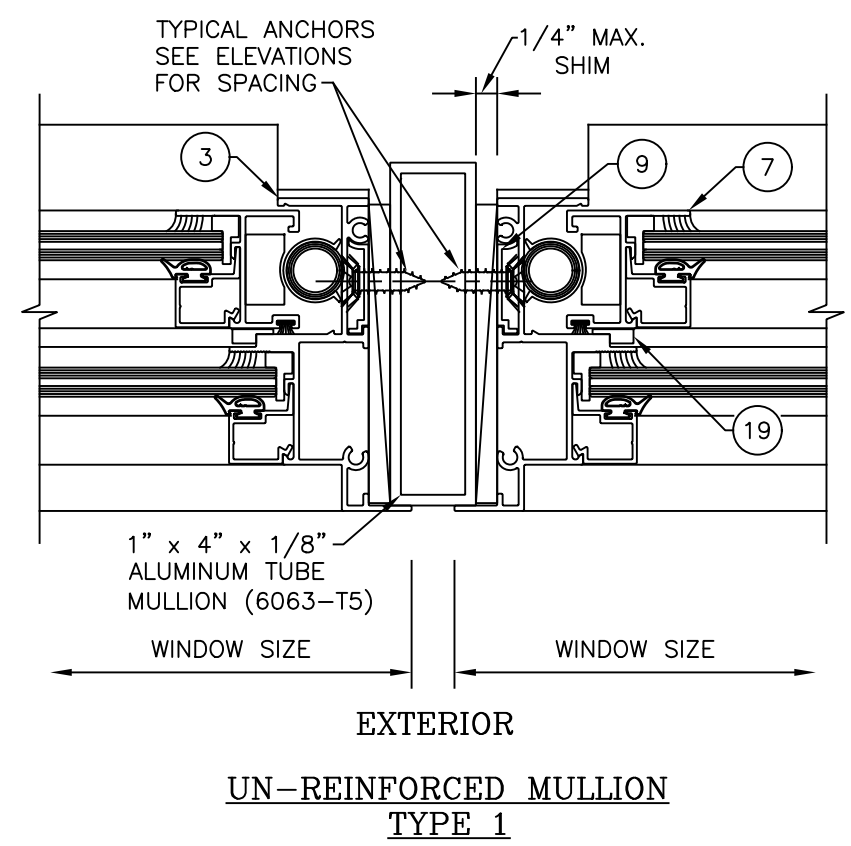


SCALE: NOTED
 DATE: 8/20/2024
 DRAWN BY: DGI
 CHECKED BY: C.S.

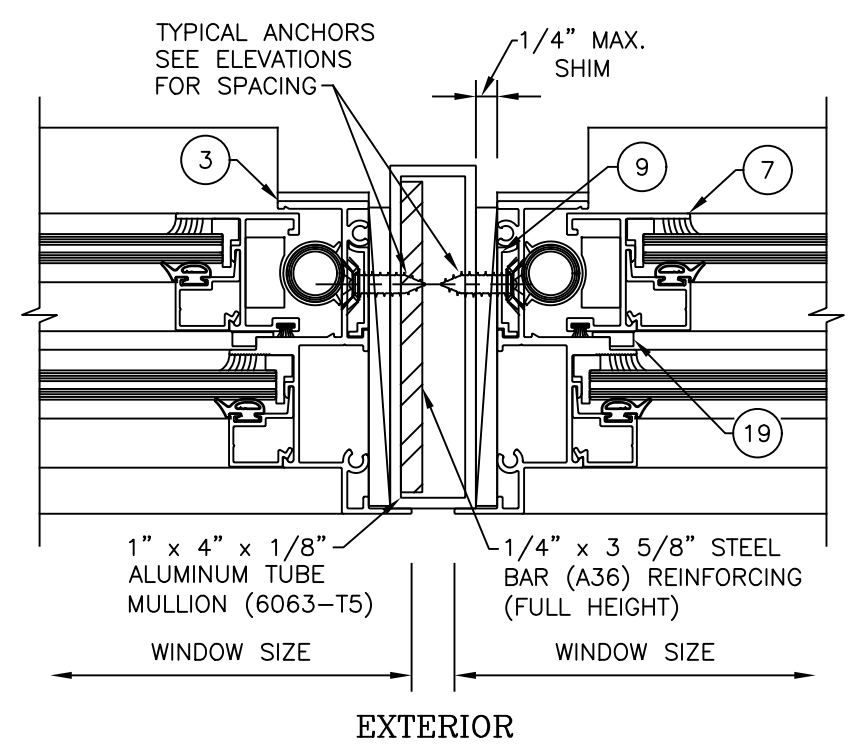
535SH
 DRAWING NO.

SHEET NO.

MULLION LOAD CAPACITY - PSF					
WINDOW DIMS.		TYPE '1'		TYPE '2'	
WIDTH (W)	LENGTH (L)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
26-1/2"	38-3/8"	90.0	100.0	90.0	100.0
32"		90.0	100.0	90.0	100.0
37"		90.0	100.0	90.0	100.0
42"		90.0	100.0	90.0	100.0
48"		90.0	100.0	90.0	100.0
53-1/8"		90.0	100.0	90.0	100.0
26-1/2"	50-5/8"	90.0	100.0	90.0	100.0
32"		90.0	100.0	90.0	100.0
37"		90.0	100.0	90.0	100.0
42"		90.0	100.0	90.0	100.0
48"		90.0	100.0	90.0	100.0
53-1/8"		90.0	100.0	90.0	100.0
26-1/2"	60"	90.0	100.0	90.0	100.0
32"		90.0	100.0	90.0	100.0
37"		90.0	100.0	90.0	100.0
42"		90.0	100.0	90.0	100.0
48"		90.0	100.0	90.0	100.0
53-1/8"		90.0	100.0	90.0	100.0
26-1/2"	63"	90.0	100.0	90.0	100.0
32"		90.0	100.0	90.0	100.0
37"		90.0	100.0	90.0	100.0
42"		90.0	100.0	90.0	100.0
48"		90.0	100.0	90.0	100.0
53-1/8"		90.0	100.0	90.0	100.0
26-1/2"	72"	90.0	100.0	90.0	100.0
32"		90.0	100.0	90.0	100.0
37"		90.0	100.0	90.0	100.0
42"		90.0	100.0	90.0	100.0
48"		90.0	100.0	90.0	100.0
53-1/8"		90.0	100.0	90.0	100.0
26-1/2"	76"	90.0	100.0	90.0	100.0
32"		90.0	100.0	90.0	100.0
37"		90.0	100.0	90.0	100.0
42"		90.0	100.0	90.0	100.0
48"		90.0	100.0	90.0	100.0
53-1/8"		90.0	100.0	90.0	100.0
26-1/2"	80"	90.0	100.0	90.0	100.0
32"		90.0	100.0	90.0	100.0
37"		90.0	100.0	90.0	100.0
42"		90.0	100.0	90.0	100.0
48"		90.0	95.0	90.0	100.0
53-1/8"		86.0	86.0	90.0	100.0



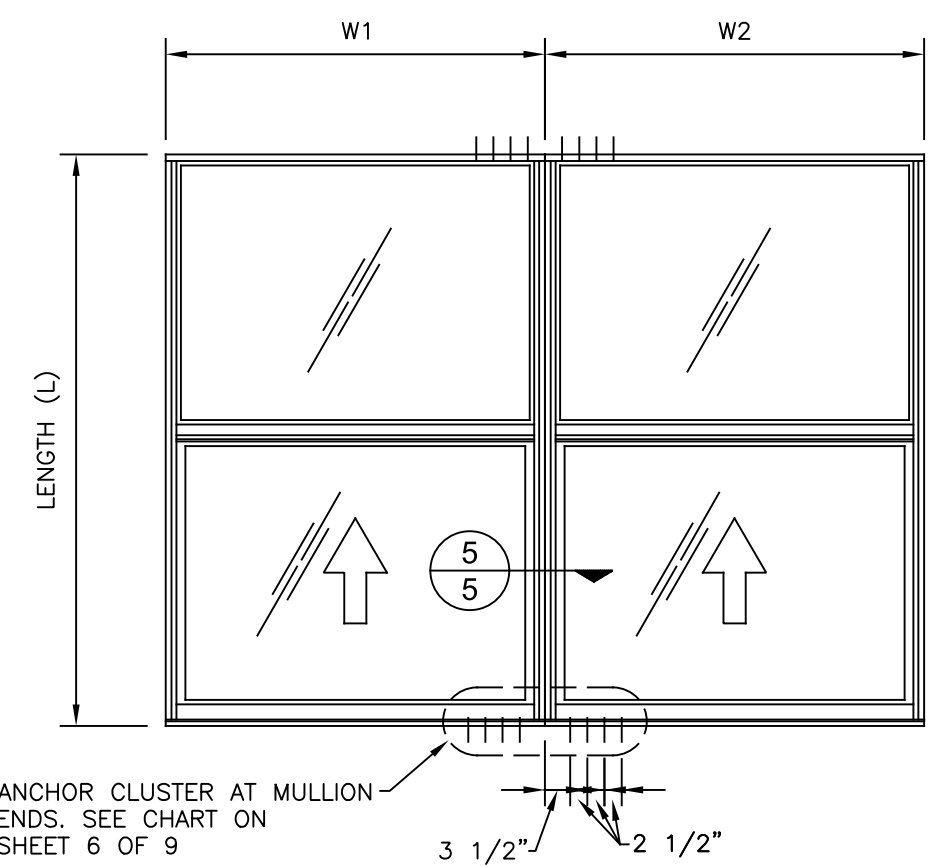
UN-REINFORCED MULLION TYPE 1



REINFORCED MULLION TYPE 2



ALT.



TYPICAL ELEVATION
 SIDE BY SIDE WINDOWS
 SIDE BY SIDE APPLIES TO 2 OR MORE WINDOWS

ALL OTHER ANCHORS PER ELEVATION ON SHEET 1 OF 9

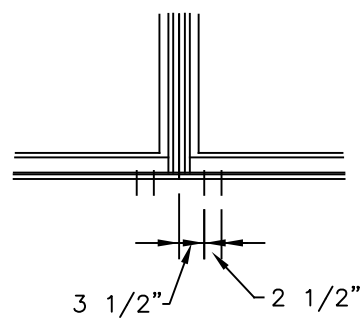
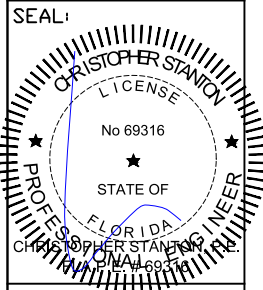
$$WIDTH (W) = \frac{W1 + W2}{2}$$

LAMINATED GLASS SHOWN:
 ACCEPTABLE FOR INSULATED LAMINATED. SEE SHEET 7 OF 9 FOR WINDOW SIZE, CONFIGURATION & DESIGN CAPACITY LIMITATIONS

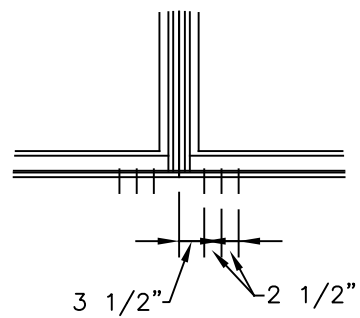
- NOTES:**
- USE CHART ON THIS SHEET FOR SIDE BY SIDE CONNECTION CAPACITY OF WINDOW MULLION.
 - FOR SINGLE WINDOW CAPACITY SEE SHEET 7 OF 9.
 - LOWER VALUES FROM STEPS 1 OR 2 WILL APPLY TO ENTIRE SYSTEM.

FPA FL#20805.1

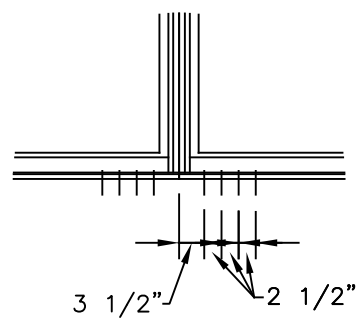
NO.	DATE	REVISIONS
1		
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(2) EA. SIDE



(3) EA. SIDE



(4) EA. SIDE

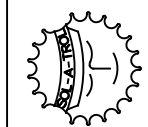
WINDOW DIMS.		MULLION ANCHOR LOAD CAPACITY - PSF															
		ANCHOR TYPE 1				ANCHOR TYPE 2				ANCHOR TYPE 3		ANCHOR TYPE 4		ANCHOR TYPE 5		ANCHOR TYPE 6	
WIDTH (W)	LENGTH (L)	(2) EA. SIDE		(3) EA. SIDE		(3) EA. SIDE		(4) EA. SIDE		(2) EA. SIDE		(2) EA. SIDE		(2) EA. SIDE		(3) EA. SIDE	
		EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
26-1/2" 37" 40" 48"	38-3/8"	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
		90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
		90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
		90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
26-1/2" 37" 40" 48"	50-5/8"	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
		90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
		90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
		90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
26-1/2" 37" 40" 48"	60"	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
		90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
		90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
		86.0	86.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
26-1/2" 37" 40" 48"	63"	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
		90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
		90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
		90.0	91.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
26-1/2" 37" 40" 48"	72"	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
		90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
		90.0	96.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
		80.0	80.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
26-1/2" 37" 40" 48"	76"	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
		90.0	98.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
		90.0	91.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
		75.0	75.0	90.0	100.0	90.0	99.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
26-1/2" 37" 40" 48"	80"	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
		93.0	93.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
		86.0	86.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
		72.0	72.0	90.0	100.0	90.0	94.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	100.0
26-1/2"	53-1/8"	65.0	65.0	90.0	97.0	85.0	85.0	90.0	100.0	90.0	100.0	90.0	100.0	90.0	99.0	90.0	97.0

ALL OTHER ANCHORS PER
ELEVATION ON SHEET 1 OF 9

FPA FL#20805.1

SERIES 535 ALUMINUM SINGLE HUNG WINDOW (L.M.I.)

SOL-A-TROL
aluminum products, inc.
4101 N.W. 132nd Street
Miami, Florida 33054
Phone: (305) 681-2020
Fax: (305) 681-2035



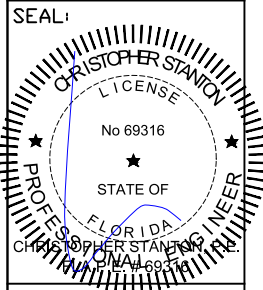
SCALE: NOTED
DATE: 8/20/2024
DRAWN BY: DGI
CHECKED BY: C.S.

535SH
DRAWING NO.

SHEET NO.

6 of 9

NO.	DATE	REVISIONS
1		
2		
3		
4		
5		



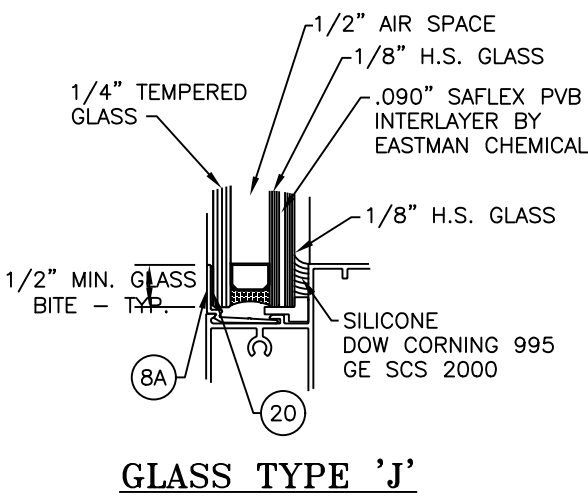
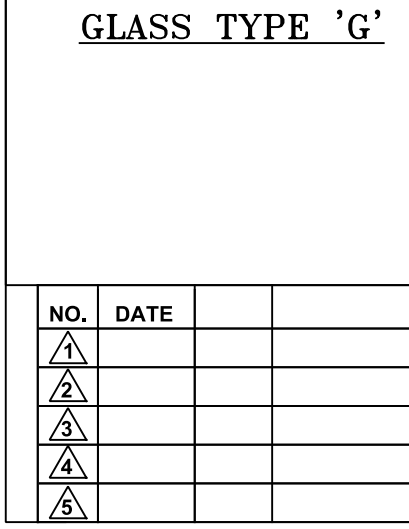
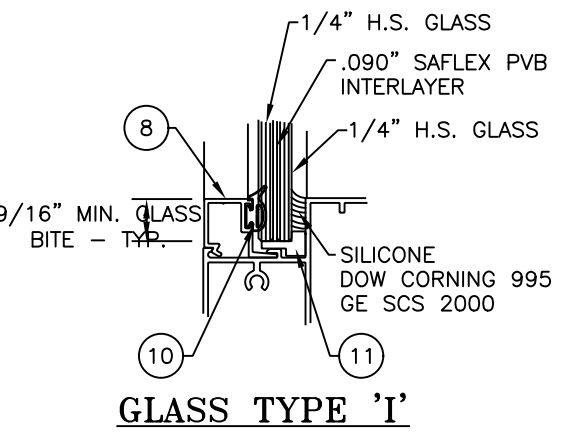
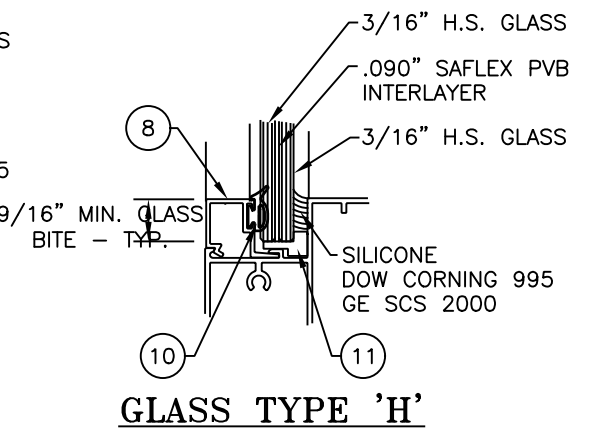
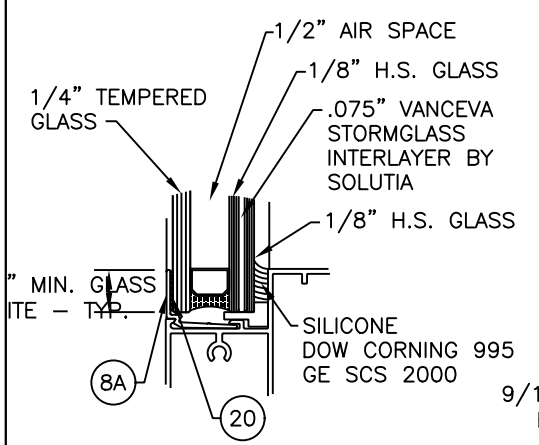
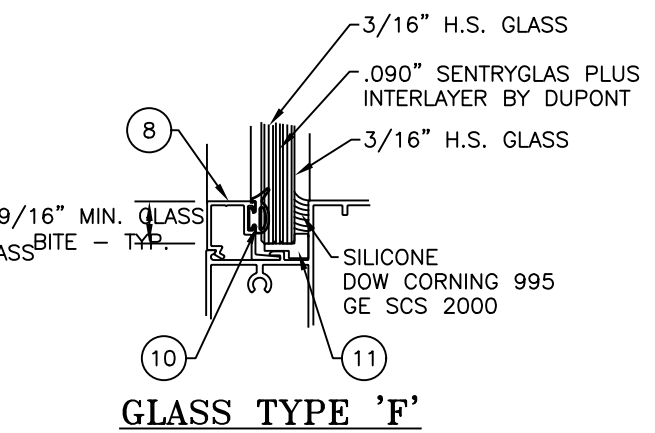
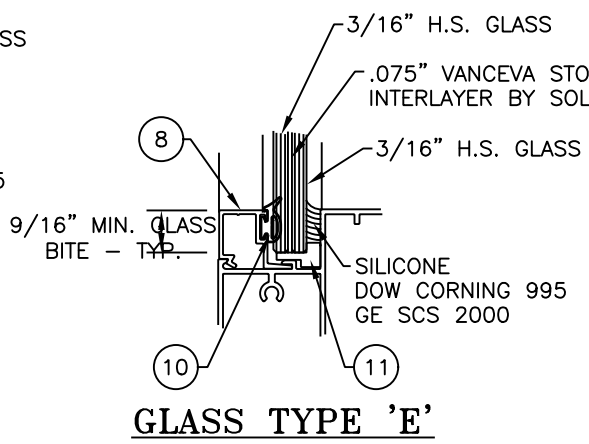
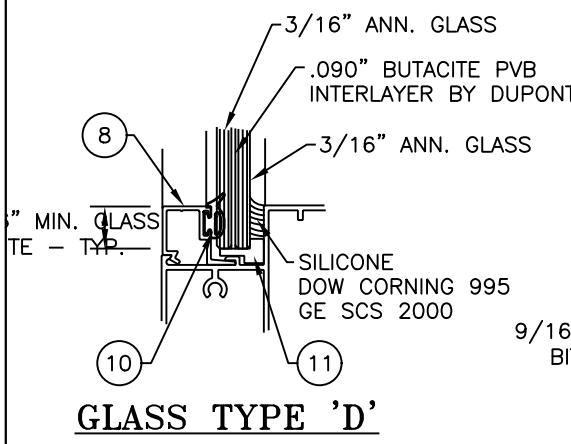
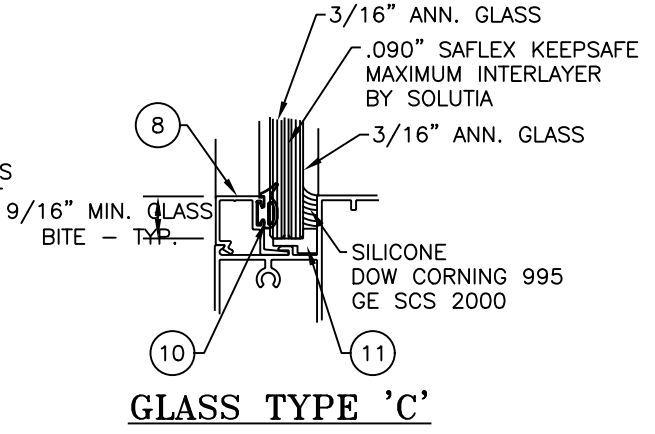
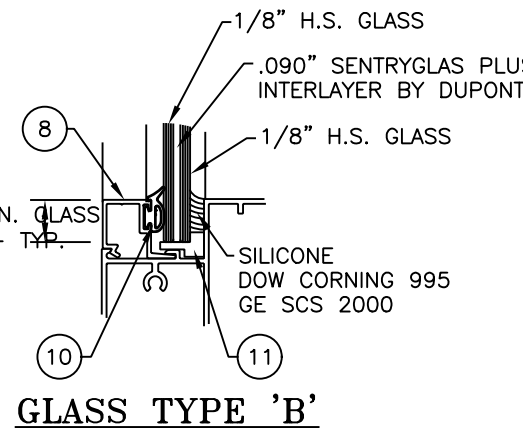
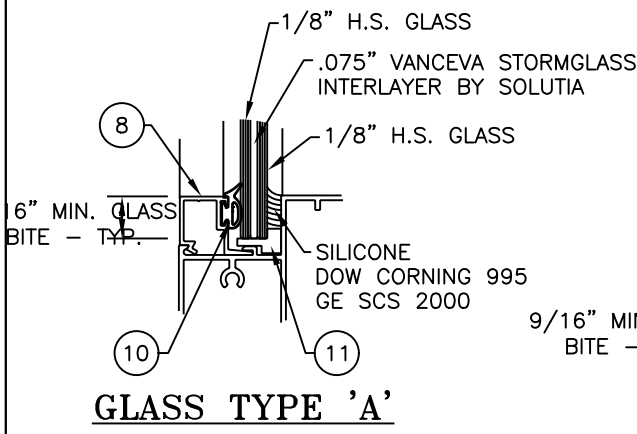
STANTON ENGINEERING, INC.
STRUCTURAL ENGINEERING SERVICES
 2701 NW BOCA RATON BLVD, SUITE 204
 BOCA RATON, FL 33431
 TEL: (561) 393-1003 FAX: (561) 393-1008

SERIES 535 ALUMINUM SINGLE HUNG WINDOW (L.M.I.)
SOL-A-TROL
 aluminum products, inc.
 4101 N.W. 132nd Street
 Miami, Florida 33054
 Phone: (305) 681-2020
 Fax: (305) 681-2035

SCALE: NOTED
 DATE: 8/20/2024
 DRAWN BY: DGI
 CHECKED BY: C.S.

535SH
 DRAWING NO.

SHEET NO.



(1/1) DESIGN LOAD CAPACITY - PSF									
WINDOW DIMS. (1/1)		GLASS TYPES 'A', 'B' & 'G' *		GLASS TYPES 'C' & 'D'		GLASS TYPES 'E' & 'F' *		GLASS TYPES 'H', 'I' & 'J'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
26-1/2"	38-3/8"	86.7	100.0	80.0	80.0	86.7	100.0	80.0	80.0
		86.7	100.0	80.0	80.0	86.7	100.0	80.0	80.0
		86.7	100.0	80.0	80.0	86.7	100.0	80.0	80.0
		86.7	100.0	80.0	80.0	86.7	100.0	80.0	80.0
26-1/2"	50-5/8"	86.7	100.0	80.0	80.0	86.7	100.0	80.0	80.0
		86.7	100.0	80.0	80.0	86.7	100.0	80.0	80.0
		86.7	100.0	80.0	80.0	86.7	100.0	80.0	80.0
		86.7	100.0	80.0	80.0	86.7	100.0	80.0	80.0
26-1/2"	60"	86.7	100.0	80.0	80.0	86.7	100.0	80.0	80.0
		86.7	100.0	80.0	80.0	86.7	100.0	80.0	80.0
		86.7	100.0	80.0	80.0	86.7	100.0	80.0	80.0
		86.7	100.0	80.0	80.0	86.7	100.0	80.0	80.0
26-1/2"	63"	86.7	100.0	80.0	80.0	86.7	100.0	80.0	80.0
		86.7	100.0	80.0	80.0	86.7	100.0	80.0	80.0
		86.7	100.0	80.0	80.0	86.7	100.0	80.0	80.0
		86.7	100.0	80.0	80.0	86.7	100.0	80.0	80.0
26-1/2"	72"	86.7	100.0	80.0	80.0	86.7	100.0	80.0	80.0
		86.7	100.0	80.0	80.0	86.7	100.0	80.0	80.0
		86.7	100.0	80.0	80.0	86.7	100.0	80.0	80.0
		86.7	100.0	80.0	80.0	86.7	100.0	80.0	80.0
26-1/2"	76"	86.7	100.0	-	-	86.7	100.0	80.0	80.0
		86.7	100.0	-	-	86.7	100.0	80.0	80.0
		86.7	100.0	-	-	86.7	100.0	80.0	80.0
		86.7	100.0	-	-	86.7	100.0	80.0	80.0
26-1/2"	80"	86.7	100.0	-	-	86.7	100.0	80.0	80.0
		86.7	100.0	-	-	86.7	100.0	80.0	80.0
		86.7	100.0	-	-	86.7	100.0	80.0	80.0
		86.7	100.0	-	-	86.7	100.0	80.0	80.0

* PRESSURES SHOWN IN CHART ARE LIMITED BY WATER INFILTRATION RESISTANCE. FOR GLASS TYPES 'A' 'B' 'E' & 'F' ONLY, USE +90.0/-100.0 PSF FOR INSTALLATIONS WHERE WATER INFILTRATION RESISTANCE IS NOT REQD.

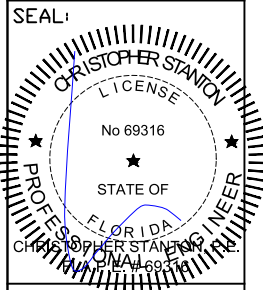
NOTE: GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300 (3 SEC. GUSTS)

(FULL VIEW) DESIGN LOAD CAPACITY - PSF			
WINDOW DIMS. (FULL VIEW)		GLASS TYPE "C" & "G"	
WIDTH **	HEIGHT **	EXT.(+)	INT.(-)
UP TO MAX. 42"	UP TO MAX. 102"	70.0	90.0

** MAX. FIXED VENT SIZE DLO = 17.5 SQ. FT.

FPA FL#20805.1

NO.	DATE	REVISIONS
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STANTON ENGINEERING, INC.
STRUCTURAL ENGINEERING SERVICES
 2701 NW BOCA RATON BLVD, SUITE 204
 BOCA RATON, FL 33431
 TEL: (561) 393-1003 FAX: (561) 393-1008

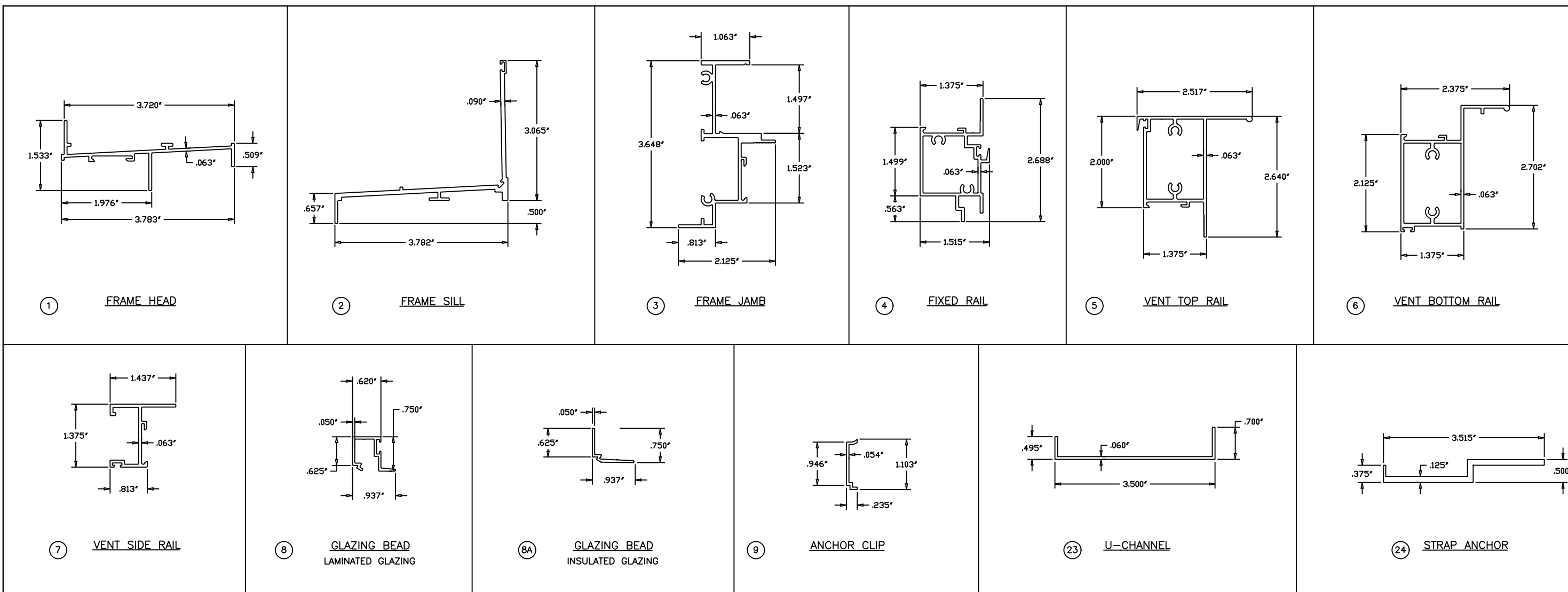
SERIES 535 ALUMINUM SINGLE HUNG WINDOW (L.M.I.)



SCALE: NOTED
 DATE: 8/20/2024
 DRAWN BY: DGI
 CHECKED BY: C.S.

535SH
 DRAWING NO.

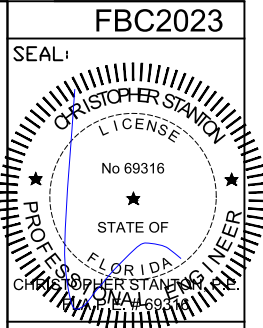
SHEET NO.



ITEM #	PART #	REQD.	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	ARSO-954	1	FRAME HEAD	6063-T6	-
2	ARSO-958	1	FRAME SILL	6063-T6	-
3	ARSO-955	2	FRAME JAMB	6063-T6	-
4	ARSO-959	1	FIXED MTG. RAIL	6063-T6	-
5	ARSO-956	1	VENT TOP RAIL	6063-T6	-
6	ARSO-951	1	VENT BOTTOM RAIL	6063-T6	-
7	ARSO-960	2	VENT SIDE RAIL	6063-T5	-
8	ARSO-953A	AS RQD.	GLAZING BEAD (LAMINATED GLAZING)	6063-T6	-
8A	ARSO-991	AS RQD.	GLAZING BEAD (INSULATED GLAZING)	6063-T6	-
9	-	AS REQD.	ANCHOR CLIP, 2" LONG	6063-T6	-
10	TR8384E	AS RQD.	GLAZING GASKET	VINYL	TREMCO
11	326-FP-894B	AS RQD.	SETTING BLOCK	VINYL	PROTOTYPE PLASTICS
12	00935-18701	AS REQD.	PILE W'STRIPPING	-	POLYPILE
13	326-FP-150S-B	AS REQD.	FLAP W'STRIPPING	VINYL	PROTOTYPE PLASTICS
14	326-FP-216SB	AS REQD.	BULB W'STRIPPING	VINYL	PROTOTYPE PLASTICS
15	326-FP-261AB	AS REQD.	BOTTOM RAIL BULB W'STRIPPING	VINYL	PROTOTYPE PLASTICS
16	LL-50	2/VENT	SPIRAL BALANCE	-	UNIQUE BALANCE
17	FBSS8CFD3	1/ BALANCE	BALANCE HOOK	-	UNIQUE BALANCE
18	-	2	SASH TOP GUIDE	-	M&M PLASTICS
19	FG-200	2	SASH FACE GUIDE	PLASTIC	M&M PLASTICS
20	-	AS REQ'D.	1/8" x 1/2" GLAZING TAPE	PVC	-
21	672205K38	2/VENT	SWEEP LOCK AT 9-7/8" FROM ENDS	ZINC	DECO PRODUCTS, SECURED W/ (2) #8X1" FH SMS
22	#10 X 1"	AS REQD.	FRAME & VENT ASSEMBLY SCREWS	ST. STEEL	PH SMS
23	-	AS REQD.	U-CHANNEL	ALUMINUM	-
24	ARSO-979	AS REQD.	STRAP ANCHOR	6063-T5	-

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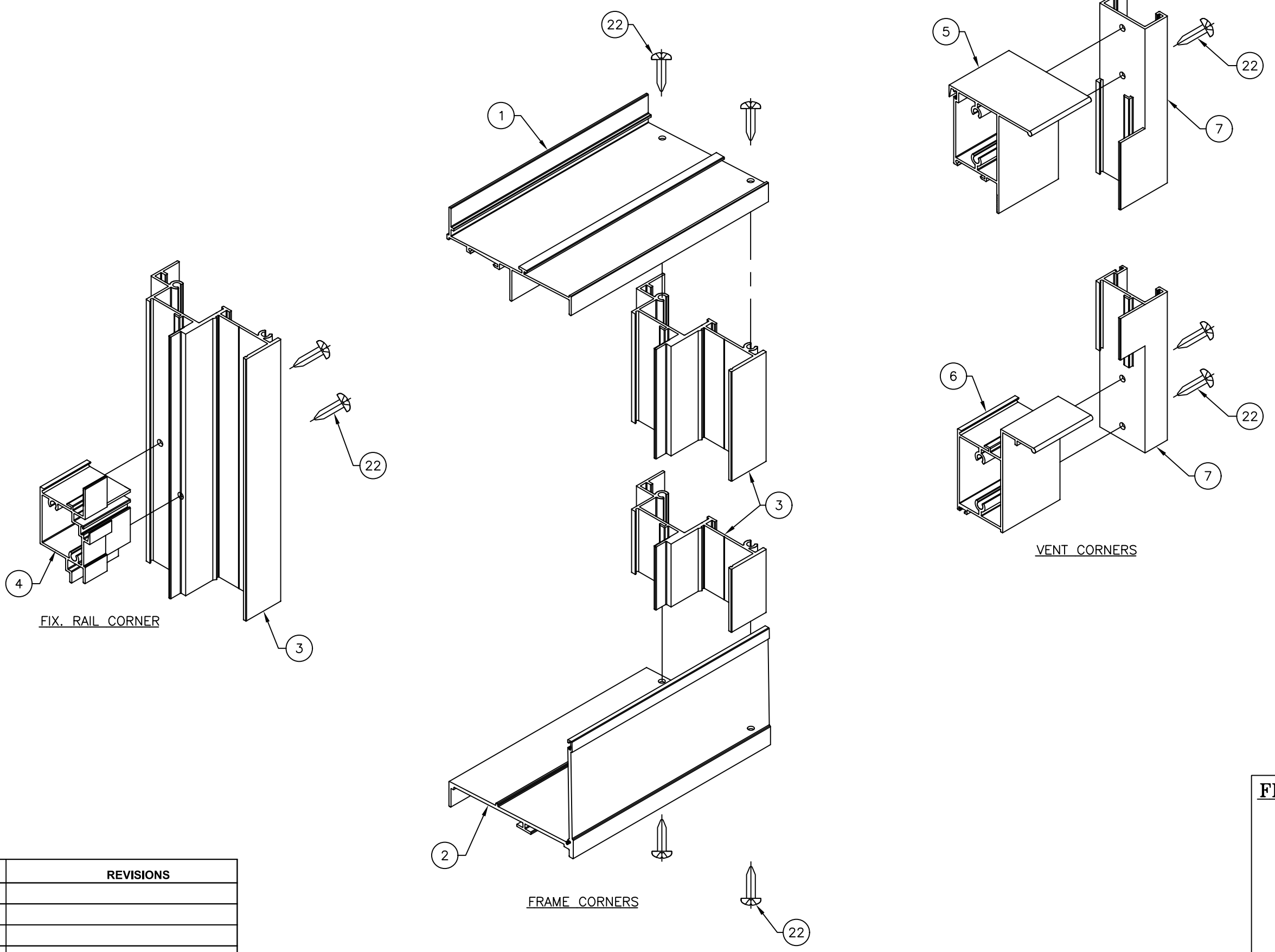
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 BOCA RATON, FL 33431
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SERIES 535 ALUMINUM SINGLE HUNG WINDOW (L.M.I.)
SOL-A-TROL
 aluminum products, inc.
 4101 N.W. 132nd Street
 Miami, Florida 33054
 Phone: (305) 681-2020
 Fax: (305) 681-2035

SCALE: NOTED
 DATE: 8/20/2024
 DRAWN BY: DGI
 CHECKED BY: C.S.

535SH
 DRAWING NO.

SHEET NO.
9 of 9



NO.	DATE	REVISIONS
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FPA FL#20805.1