Engineering Evaluation Report #375-011923-02

Prepared by:
A. Lynn Miller, P.E.
1070 Technology Dr.
N. Venice, FL 34275
(941) 480-1600
Registration Number: #29296

Manufacturer:
WinDoor Incorporated
104 Triple Diamond Blvd.
North Venice, FL 34275
(833) 554-5432

Product Description:
HR375 Series Aluminum SMI HVHZ Horizontal Roller Window – FL19692

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 61 G20-3.005 method 1(d). The product listed herein complies with requirements of the current Florida Building Code.

Supporting Technical Documentation:
1. Approval Document: drawing number HR375SMI-FPA, signed and sealed by A. Lynn Miller, P.E.
2. Test Report CTLA-3056 WA, WB, WC dated 03/03/15, 03/03/15 and 04/16/15, prepared by Certified Test Laboratories, signed, and sealed by Ramesh C Patel P.E.

TAS 201-94 Large Missile Impact Test
TAS 202-94 Uniform Static Air Pressure Test
TAS 203-94 Cyclic Pressure Loading Test

3. Anchor Calculations and Structural Analysis, dated 03/26/20 and revised on 06/03/20, prepared by manufacturer, and signed and sealed by Anthony Lynn Miller, P.E.

Limitations and Conditions of use:
- Units must be glazed per ASTM E1300-04/09, refer to approval document for glazing details.
- This product is rated to be used in the HVHZ.
- This product is small missile impact resistant and does not require impact protection in wind borne debris regions when installed above 30' height.
- Units must be installed in accordance with Approval Document.



SERIES 375 'ESTATE' ALUMINUM HORIZONTAL ROLLER WINDOW

SMALL MISSILE

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

2). 1ST OR 2BY WOOD BUCKS & BUCK FASTENERS BY OTHERS, MUST BE DESIGNED AND INSTALLED ADEQUATELY TO TRANSFER APPLIED PRODUCT LOADS TO THE BUILDING STRUCTURE.

3). ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS AND INSTALLED PER MANUF'S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO. ALL ANCHOR HEAD TYPES ARE ACCEPTABLE.

4). A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

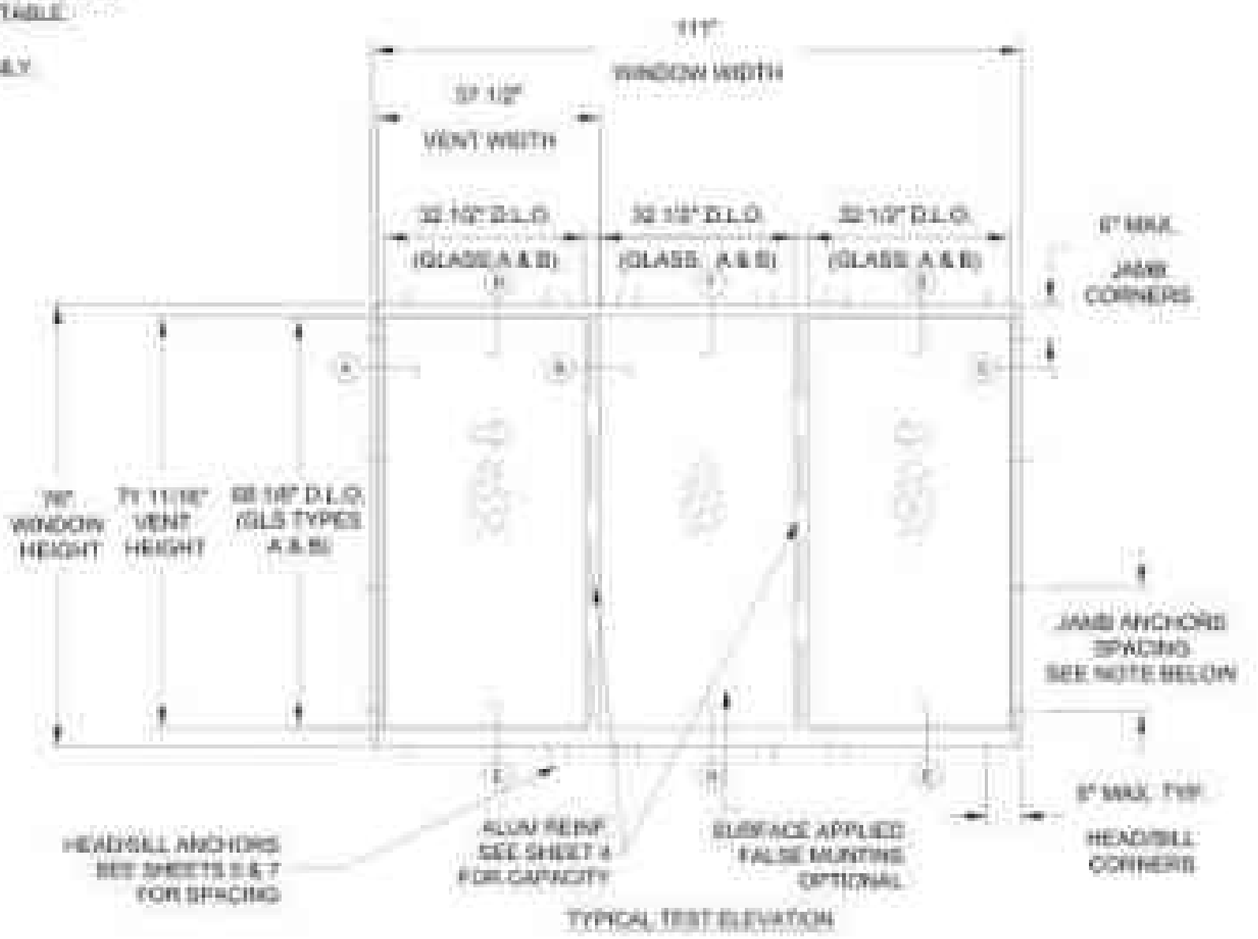
5). ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

6). MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE & ADOPTED STANDARDS.

7). THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, I.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC. CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.

8). FRAME FLANGES MAY BE TRIMMED IN-FIELD TO CREATE AN EQUAL LEG FRAME. THE EXPOSED ALUMINUM EDGE MUST BE PAINTED TO PROTECT AGAINST CORROSION.

THESE WINDOWS ARE RATED FOR SMALL MISSILE IMPACT. FLORIDA PRODUCTS APPROVED IMPACT RESISTANT SHUTTERS REQUIRED FOR INSTALLATIONS UP TO 30 FT. OF GRADE. SHUTTERS NOT REQD. FOR INSTALLATIONS ABOVE 30 FT. OF GRADE.



TYPICAL TEST ELEVATION

JAMB ANCHOR SPACING
22" MAX. FOR SHIMS UP TO 1/4".
16" MAX. FOR SHIMS GREATER THAN 1/4" TO 1/2".

INSTRUCTIONS FOR USING CAPACITY CHARTS:

STEP 1: DETERMINE THE REQUIRED DESIGN PRESSURES FOR A GIVEN WINDOW OPENING.

STEP 2: DETERMINE THE CAPACITY OF THE WINDOW SIZE/CONFIGURATION/GLASS TYPE FROM CHARTS ON SHEETS 5 AND 8.
FOR INSTALLATION ANCHOR TYPES SEE SHEETS 6 & 9.
EXTRA ANCHORS AT HEAD & SILL ARE SHOWN ON SHEETS 6, 7, 9 & 10.

STEP 3: IF ALUMINUM BUCKS ARE USED, VERIFY THE BUCK INSTALLATION CAPACITY FROM SHEETS 16 & 17.

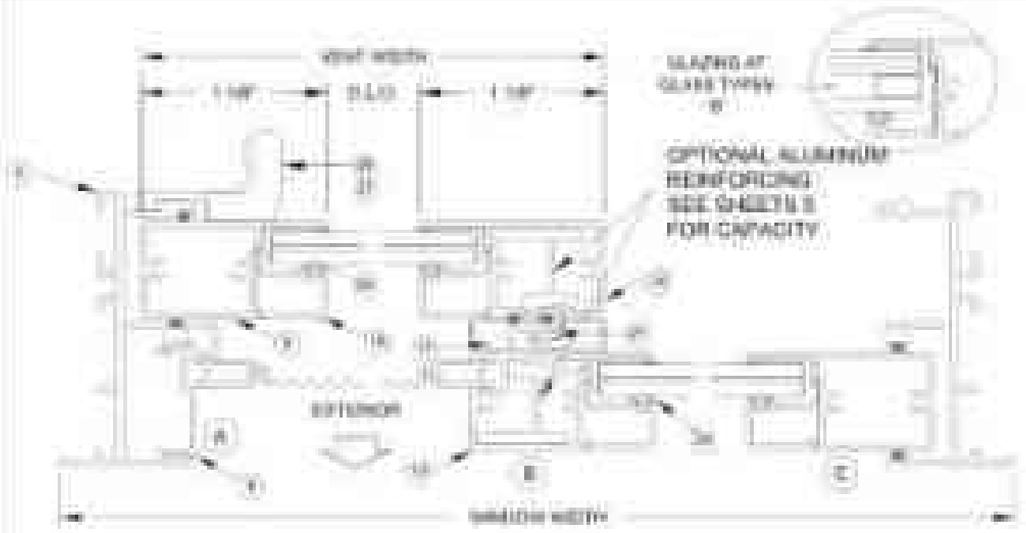
STEP 4: FOR UNCLIPPED MULLED WINDOWS DETERMINE MULLION CAPACITY FOR THE TUBE FROM CHARTS ON SHEET 14.

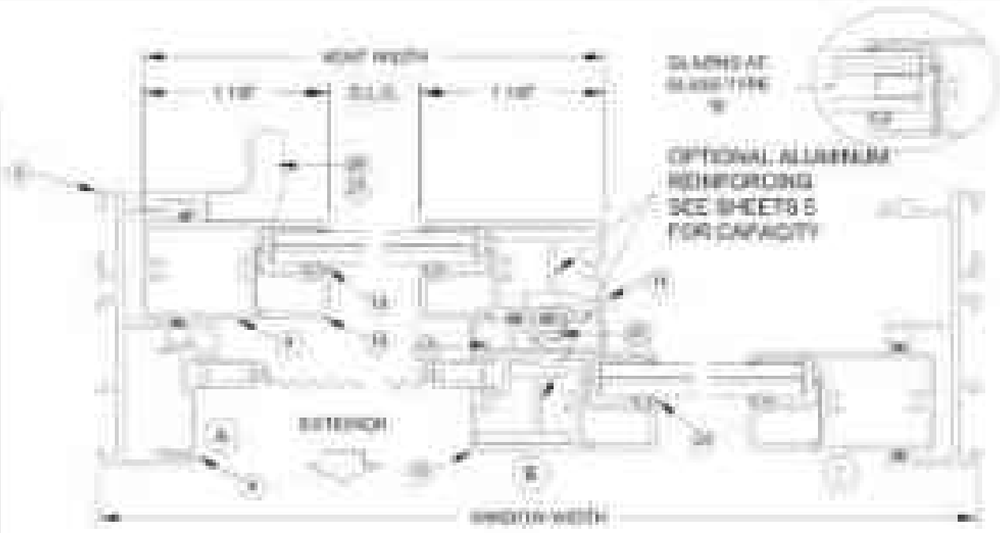
STEP 5: FOR MULLION ANCHOR CAPACITY SEE CHART ON SHEET 15.

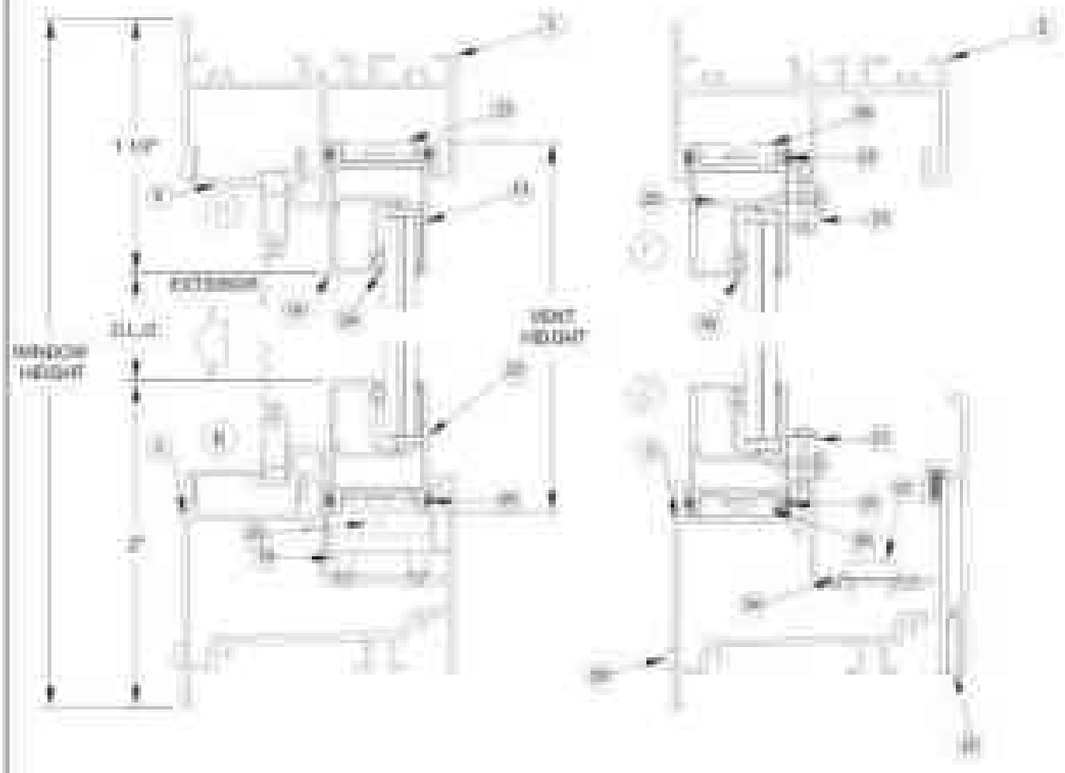
THE LOWEST SELECTED VALUE APPLY TO THE INSTALLATION AND MUST EQUAL OR EXCEED THE REQUIRED DESIGN PRESSURES OBTAINED FROM STEP 1.

WINDOOR	PREPARED BY: A. LYNN MILLER, P.E. 6376 TEDDER CIRCLE W. LYNN HAVEN, FL 32404 (850) 481-7300
	SERIES 375 'ESTATE' ALUM. HORIZONTAL ROLLER WINDOW
	ELEVATION & GENERAL NOTES
	SHEETS
	1 OF 18
	A. LYNN MILLER
	10/29/20
	4

STATE OF FLORIDA
PROFESSIONAL ENGINEER
ANTHONY LYNN MILLER
No. 59706
A. LYNN MILLER, P.E.

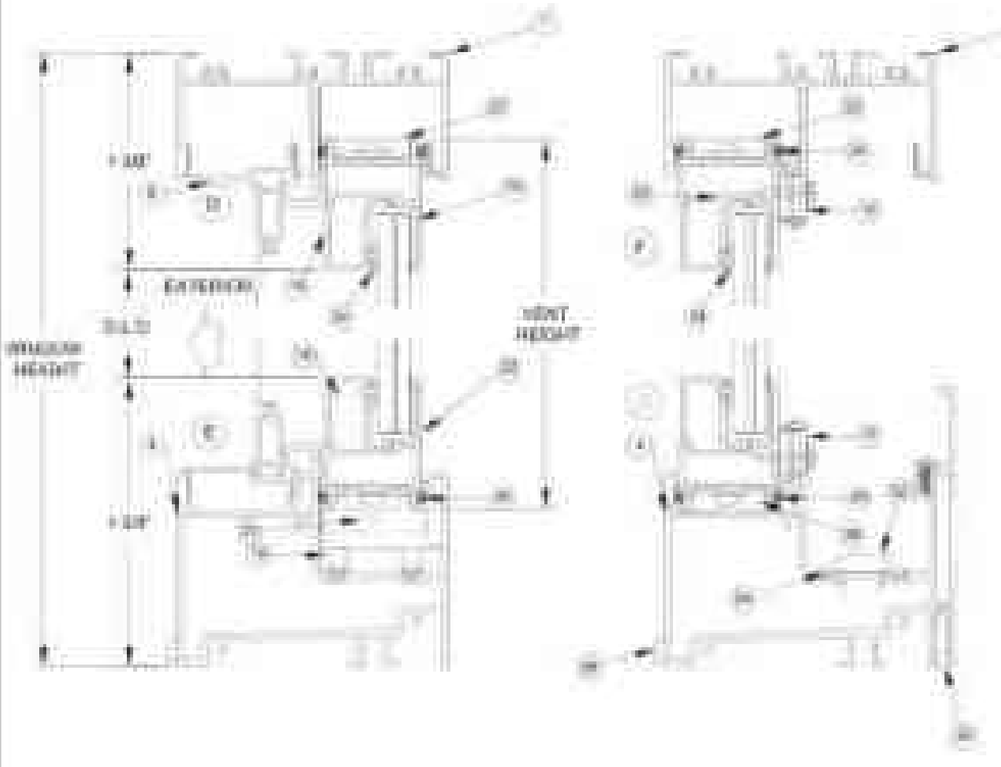






GENERAL WINDOW SECTIONS
FLANGE FRAME

GLASS TYPE 'A'



GLASS TYPE 'A'

GENERAL WINDOW SECTIONS
EQUAL LEG FRAME

WINDOOR
WINDOW & DOOR MANUFACTURERS ASSOCIATION

SERIES TRP ALUMINUM HORIZONTAL ROLLING WINDOW
SECTION DETAILS FLANGE FRAME

WDMA PRODSTDBK

A	10/08/10	MRS

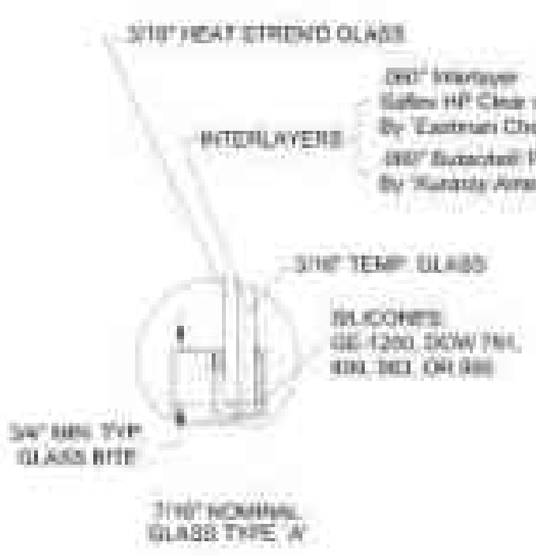
3 OF 10

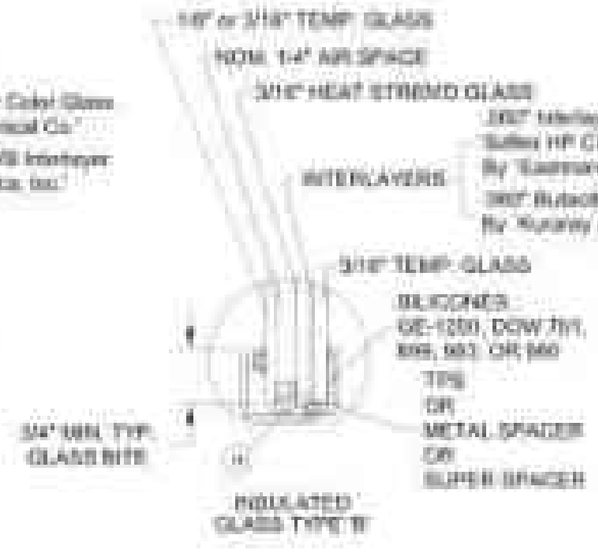
SHEETS

PREPARED BY: A. LYNN MILLER, P.E.
ENGINEERING CONSULTANTS, INC.
FLANGE FRAME
EQUAL LEG FRAME
TEL (352) 490-9662
FAX (352) 490-9663

ANTHONY LYNN MILLER
LICENSE
No. 39704
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E. # 39704

GLASS TYPES





4	03/2020	WAS RESUBMITTED	
3	03/2019	WAS RESUBMITTED	
2	03/2018	WAS RESUBMITTED	
1	03/2017	WAS RESUBMITTED	

WINDOOR®

SERIES "TEP" ALUM. HORIZONTAL SLIDING WINDOW

GLASS TYPES

ANTHONY LYNN MILES
LICENSE
No. 90705
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A.L.MILES P.E.
FS 6809

Design Load Capacity (lbs/ft²)

Glass Types 1 & 2 W.I.C. Reinforcing Requirements

Window Rough Width (in)

Glass Panel Width (in)	39-3/4		51		58-1/2		63		75		75-1/16		87		90		100		111		117		119-1/4		125		139-7/8	
Glass Panel Height (in)	35-1/2		39		47		47		48		47-5/8		52		48		60		72		42		78		78-1/2		84		83-7/8	
36	+130	-130	-130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130
38 3/4	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130
48	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130
50 3/4	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130		
54	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130		
60	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130		
66	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130		
72	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130						
78	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130								

Design Load Capacity (lbs/ft²)

Glass Types 1 & 2 W.I.C. Reinforcing Requirements

Window Rough Width (in)

Glass Panel Width (in)	39-3/4		48		51-1/2		63		75		75-1/16		87		99		100		111		117		119-1/4		125		139-7/8	
Glass Panel Height (in)	35-1/2		48		47		48		48		47-5/8		54		50		48		72		74		78		78-1/2		84		83-7/8	
36	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130
38 3/4	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130
48	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130
50 3/4	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130		
54	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130		
60	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130		
66	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130		
72	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130						
78	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130	+130	-130								

GLAZING/REINFORCEMENT PERFORMANCE VALUES EQUAL PANELS

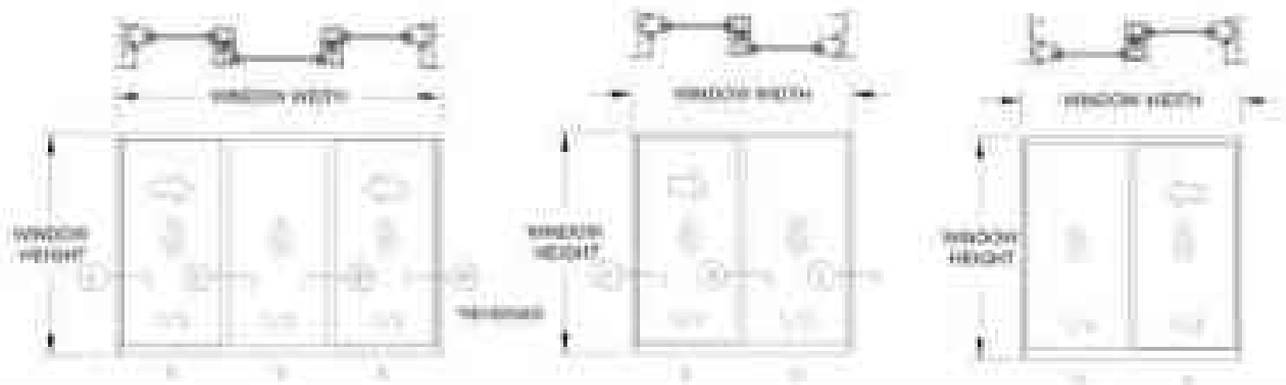
NOTE
GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E 330-02A (3 SEC. GUSTS)

MINIMUM VENT SIZE IS 14.7 SQ. FT.
AND MINIMUM VENT HEIGHT IS 21 11/16"

VALUES FOR EXTERIOR CASUALTY SHOWN ABC

FOR SILL WITH WATERBAR ADAPTER
FOR WINDOWS WITHOUT WATERBAR ADAPTER

UNIT POSITIVE LOADS TO 60.0 PSF



WINDOOR

ANTHONY LYNN MILLER
LICENSED
No. 39756
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER P.E.
P.E. # 39756

DESIGN PRESSURE

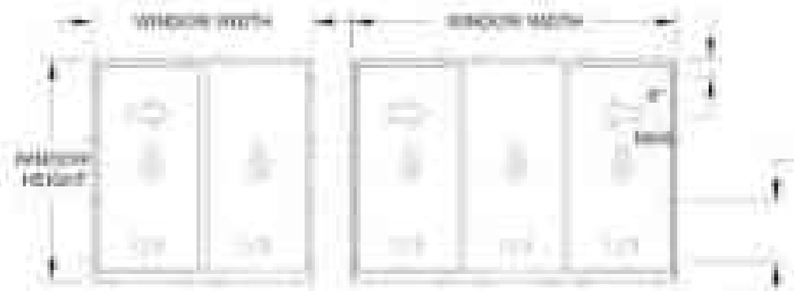
WINDOW & DOOR MANUFACTURERS ASSOCIATION, INC.
MIAMI-DADE COUNTY PRODUCT CONTROL SECTION
TYPE APPROVED

NO.	DATE	BY
1	10/26/10	
2	11/15/10	
3	4/26/11	
4	5/27/11	

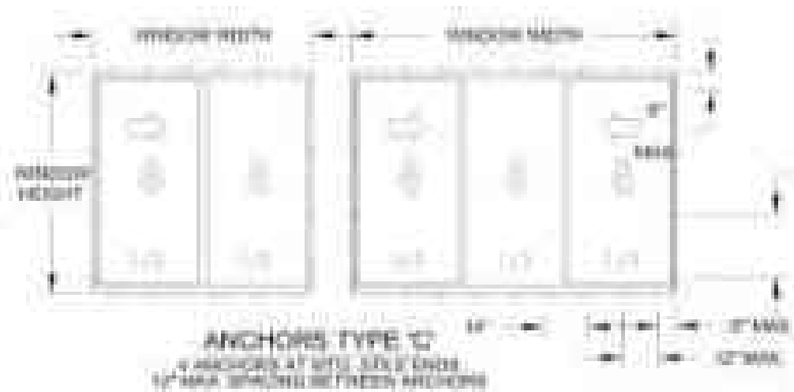
WINDOW WIDTH			1/2" GLASS OPTION		3/4" GLASS OPTION		1" GLASS OPTION	
WIDTH (1/16 MM)	WIDTH (MM)	PROJECT	ALLOWABLE TYPE 'B' PSF (KPA)	ALLOWABLE TYPE 'C' PSF (KPA)	ALLOWABLE TYPE 'B' PSF (KPA)	ALLOWABLE TYPE 'C' PSF (KPA)	ALLOWABLE TYPE 'B' PSF (KPA)	ALLOWABLE TYPE 'C' PSF (KPA)
36"	34"	36"	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
40"	38"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
44"	42"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
48"	46"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
52"	50"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
56"	54"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
60"	58"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
64"	62"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
68"	66"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
72"	70"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
76"	74"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
80"	78"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
84"	82"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
88"	86"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
92"	90"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
96"	94"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
100"	98"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
104"	102"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
108"	106"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
112"	110"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
116"	114"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
120"	118"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
36"	34"	42"	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
40"	38"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
44"	42"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
48"	46"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
52"	50"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
56"	54"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
60"	58"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
64"	62"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
68"	66"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
72"	70"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
76"	74"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
80"	78"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
84"	82"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
88"	86"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
92"	90"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
96"	94"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
100"	98"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
104"	102"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
108"	106"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
112"	110"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
116"	114"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
120"	118"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
36"	34"	48"	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
40"	38"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
44"	42"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
48"	46"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
52"	50"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
56"	54"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
60"	58"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
64"	62"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
68"	66"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
72"	70"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
76"	74"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
80"	78"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
84"	82"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
88"	86"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
92"	90"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
96"	94"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
100"	98"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
104"	102"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
108"	106"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
112"	110"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
116"	114"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
120"	118"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)

ALL VALUES SHOWN ARE DESIGN PSF (POUNDS PER SQUARE FOOT)

WINDOW WIDTH			1/2" GLASS OPTION		3/4" GLASS OPTION		1" GLASS OPTION	
WIDTH (1/16 MM)	WIDTH (MM)	PROJECT	ALLOWABLE TYPE 'B' PSF (KPA)	ALLOWABLE TYPE 'C' PSF (KPA)	ALLOWABLE TYPE 'B' PSF (KPA)	ALLOWABLE TYPE 'C' PSF (KPA)	ALLOWABLE TYPE 'B' PSF (KPA)	ALLOWABLE TYPE 'C' PSF (KPA)
36"	34"	72"	210.0 (10.1)	210.0 (10.1)	178.7 (8.6)	210.0 (10.1)	136.7 (6.5)	172.3 (8.2)
40"	38"		184.4 (8.8)	210.0 (10.1)	157.1 (7.5)	191.4 (9.2)	118.0 (5.6)	148.8 (7.1)
44"	42"		161.3 (7.7)	203.7 (9.8)	134.0 (6.4)	167.5 (8.0)	104.0 (5.0)	130.0 (6.2)
48"	46"		142.4 (6.8)	179.3 (8.6)	118.1 (5.7)	148.9 (7.1)	92.4 (4.4)	115.6 (5.5)
52"	50"		128.1 (6.1)	161.3 (7.7)	107.2 (5.1)	134.0 (6.4)	83.2 (4.0)	104.0 (5.0)
56"	54"		117.2 (5.6)	146.7 (7.0)	97.5 (4.7)	121.8 (5.8)	75.6 (3.6)	94.5 (4.5)
60"	58"		107.9 (5.2)	134.4 (6.4)	89.3 (4.3)	111.7 (5.3)	69.3 (3.3)	86.7 (4.1)
64"	62"		200.8 (9.6)	210.0 (10.1)	165.0 (7.9)	210.0 (10.1)	131.4 (6.3)	164.2 (7.9)
68"	66"		174.7 (8.4)	210.0 (10.1)	145.1 (6.9)	181.4 (8.7)	113.8 (5.4)	142.0 (6.8)
72"	70"		152.8 (7.3)	191.1 (9.1)	126.5 (6.1)	158.7 (7.6)	98.5 (4.7)	123.2 (5.9)
76"	74"	74"	135.8 (6.5)	169.8 (8.1)	112.8 (5.4)	141.1 (6.8)	87.6 (4.2)	109.5 (5.2)
80"	78"		122.2 (5.9)	152.8 (7.3)	101.6 (4.9)	126.9 (6.1)	78.8 (3.8)	98.5 (4.7)
84"	82"		111.2 (5.3)	139.0 (6.7)	92.3 (4.4)	115.4 (5.5)	71.7 (3.4)	89.6 (4.3)
88"	86"		101.9 (4.9)	127.4 (6.1)	84.6 (4.0)	105.8 (5.1)	65.7 (3.1)	82.1 (3.9)
92"	90"		94.1 (4.5)	117.6 (5.6)	78.1 (3.7)	97.7 (4.7)	60.7 (2.9)	75.8 (3.6)
96"	94"		87.4 (4.2)	109.2 (5.2)	72.5 (3.5)	90.7 (4.3)	56.4 (2.7)	70.5 (3.4)
100"	98"		81.5 (3.9)	101.9 (4.9)	67.7 (3.2)	84.6 (4.0)	52.6 (2.5)	65.8 (3.1)
104"	102"		76.4 (3.7)	95.5 (4.6)	63.4 (3.0)	79.3 (3.8)	49.3 (2.4)	61.7 (2.9)
108"	106"		71.9 (3.4)	89.9 (4.3)	59.7 (2.9)	74.6 (3.6)	46.4 (2.2)	58.0 (2.8)
112"	110"		67.9 (3.2)	84.9 (4.1)	56.4 (2.7)	70.5 (3.4)	43.8 (2.1)	54.8 (2.6)
116"	114"		64.3 (3.1)	80.4 (3.8)	53.4 (2.6)	66.8 (3.2)	41.5 (2.0)	51.9 (2.5)
120"	118"		61.1 (2.9)	76.4 (3.7)	50.8 (2.4)	63.5 (3.0)	39.4 (1.9)	49.3 (2.4)
36"	34"	96"	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
40"	38"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
44"	42"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
48"	46"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
52"	50"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
56"	54"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
60"	58"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
64"	62"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
68"	66"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
72"	70"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
76"	74"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
80"	78"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
84"	82"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
88"	86"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
92"	90"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
96"	94"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
100"	98"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
104"	102"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
108"	106"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
112"	110"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
116"	114"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
120"	118"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
36"	34"	120"	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
40"	38"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
44"	42"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
48"	46"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
52"	50"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
56"	54"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
60"	58"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
64"	62"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
68"	66"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
72"	70"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
76"	74"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
80"	78"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
84"	82"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
88"	86"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
92"	90"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
96"	94"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
100"	98"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
104"	102"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
108"	106"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
112"	110"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
116"	114"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)
120"	118"		210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)	210.0 (10.1)



ANCHORS TYPE 'B'
4 ANCHORS AT 9/16" DIA.@ ONE
24" MAX. SPACING BETWEEN ANCHORS



ANCHORS TYPE 'C'
4 ANCHORS AT 9/16" DIA.@ ONE
12" MAX. SPACING BETWEEN ANCHORS

JAMB ANCHOR SPACING
20" MAX. FOR 24MM UP TO 1-1/2"
12" MAX. FOR 51MM GREATER
(1MM= 1/4" TO 1/2"

ALL VALUES SHOWN ARE DESIGN PSF.
VALUES FOR POS(+) LOADS SHOWN ARE FOR
GLL WITH WATERBAR ADAPTER.
FOR WINDOWS WITHOUT WATERBAR ADAPTER
LIMIT POS(+) LOADS TO 65.0 PSF

ANCHOR CAPACITY
EQUAL PANELS

WinDoor
WINDOW SYSTEMS

WWW.WINDOR.COM

DESIGN PRESSURE 'F'

SHEET 2 OF 10

ANTHONY LYNN MILLER
LICENSE
REG. SEPTO
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 62735

Design Load Capacity (lbs/ft²)

Design Load Capacity (lbs/ft²)

GLAZING/REINFORCEMENT PERFORMANCE VALUES UNEQUAL PANELS

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300-09/13 SEC. G2/ST3.1

VALUES FOR PSF LOADS (+) SHOWN ARE FOR ES, WITH WATERBAR ADAPTER FOR WINDOWS WITHOUT WATERBAR ADAPTER LIMIT ITEM (+) LOADS TO 65.0 PSF

MAXIMUM VENT SIZE IS 10 FT SQ. FT. AND MAXIMUM VENT HEIGHT IS 11 11/16"



WINDOOR

ANTHONY LYNN MILLER
LICENSE
No. 66704
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E. # 66704

WIND PRESSURE

DESIGN PRESSURE (-)

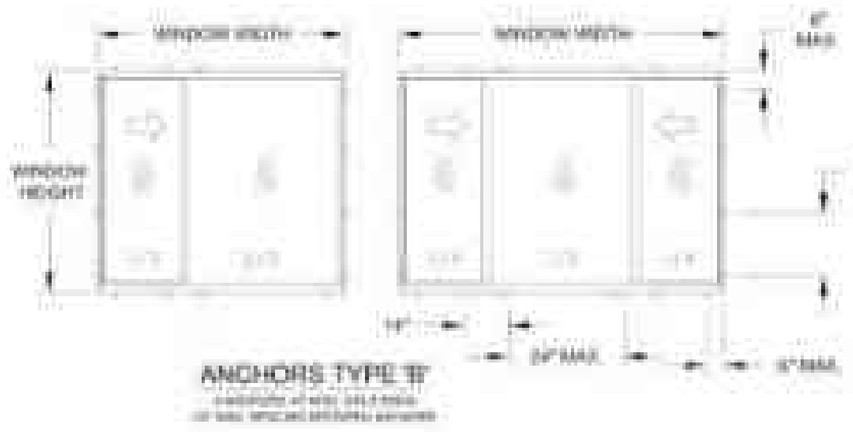
#8275

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WINDOW WIDTH (FRAME)	WINDOW WIDTH (VINYL)	HEIGHT	1/4" GLASS THICKNESS		3/8" GLASS THICKNESS		1/2" GLASS THICKNESS	
			MAX HORIZ SPACING TYPE 'A'	MAX HORIZ SPACING TYPE 'B'	MAX HORIZ SPACING TYPE 'A'	MAX HORIZ SPACING TYPE 'B'	MAX HORIZ SPACING TYPE 'A'	MAX HORIZ SPACING TYPE 'B'
			POS (+) NEG (-)	POS (+) NEG (-)	POS (+) NEG (-)	POS (+) NEG (-)	POS (+) NEG (-)	POS (+) NEG (-)
35"	34"	36"	210.0	210.0	210.0	210.0	210.0	210.0
41"	40"		210.0	210.0	210.0	210.0	210.0	210.0
46"	44"		210.0	210.0	210.0	208.3	210.0	210.0
52"	50"		210.0	210.0	210.0	210.0	189.4	210.0
58"	56"		210.0	210.0	210.0	210.0	168.4	208.8
64"	62"		210.0	210.0	194.8	210.0	151.3	188.1
70"	68"		210.0	210.0	176.7	210.0	136.7	170.8
76"	74"		198.8	210.0	164.8	206.3	125.0	155.0
81"	79"		184.4	210.0	153.1	191.4	116.2	144.8
87"	85"		167.3	201.7	134.0	167.5	102.0	126.9
93"	91"		143.4	179.3	115.1	143.8	87.9	110.8
35"	34"	48"	210.0	210.0	210.0	210.0	208.4	210.0
41"	40"		210.0	210.0	210.0	210.0	178.4	210.0
46"	44"		210.0	210.0	201.0	210.0	156.0	195.0
52"	50"		210.0	210.0	178.7	210.0	138.7	173.3
58"	56"		193.6	210.0	160.8	201.0	124.8	156.0
64"	62"		176.8	210.0	146.2	182.7	113.5	141.8
70"	68"		161.3	201.7	134.0	167.5	104.2	130.3
76"	74"		148.8	186.0	123.7	154.6	96.6	120.8
81"	79"		138.3	172.8	114.8	143.5	89.1	111.4
35"	34"	60"	210.0	210.0	210.0	210.0	194.9	210.0
41"	40"		210.0	210.0	204.2	210.0	168.0	196.0
46"	44"		210.0	210.0	178.7	210.0	148.7	171.3
52"	50"		191.2	210.0	158.8	198.5	123.4	154.1
58"	56"		172.1	210.0	141.9	176.7	110.9	138.7
64"	62"		156.4	195.6	129.9	162.4	100.8	126.1
70"	68"		143.4	179.3	119.1	148.9	92.4	115.6
81"	79"		129.8	210.0	210.0	210.0	168.4	208.8
87"	85"		118.5	210.0	193.8	210.0	142.2	176.3
93"	91"		108.8	210.0	160.9	201.0	124.6	156.0
35"	34"	72"	172.1	210.0	142.9	178.7	110.9	138.7
41"	40"		154.8	193.6	128.6	160.8	99.8	124.8
46"	44"		140.8	176.0	116.9	146.2	90.8	113.5
52"	50"		129.0	210.0	210.0	210.0	151.3	189.1
58"	56"		118.5	210.0	193.8	210.0	128.7	160.9
64"	62"		109.4	210.0	167.1	208.8	110.9	138.6
70"	68"		101.6	210.0	145.2	181.5	96.6	120.8
76"	74"		94.9	189.8	127.5	159.4	84.5	105.6
81"	79"		89.1	178.2	118.8	148.5	77.2	96.5
87"	85"		83.4	166.8	111.2	139.0	72.2	90.3
93"	91"		78.5	157.0	104.7	130.8	68.0	85.0

ALL VALUES SHOWN ARE DESIGN PSF (POUNDS PER SQUARE FOOT)

WINDOW WIDTH (FRAME)	WINDOW WIDTH (VINYL)	HEIGHT	1/4" GLASS THICKNESS		3/8" GLASS THICKNESS		1/2" GLASS THICKNESS	
			MAX HORIZ SPACING TYPE 'A'	MAX HORIZ SPACING TYPE 'B'	MAX HORIZ SPACING TYPE 'A'	MAX HORIZ SPACING TYPE 'B'	MAX HORIZ SPACING TYPE 'A'	MAX HORIZ SPACING TYPE 'B'
			POS (+) NEG (-)	POS (+) NEG (-)	POS (+) NEG (-)	POS (+) NEG (-)	POS (+) NEG (-)	POS (+) NEG (-)
35-1/2"	35-5/16"	36"-48"	210.0	210.0	210.0	210.0	210.0	210.0
37"	36-13/16"		210.0	210.0	210.0	210.0	210.0	210.0
53-1/8"	51"		210.0	210.0	210.0	210.0	170.8	210.0
74"	69"		195.7	210.0	152.8	203.2	126.1	157.7
78-1/2"	73"		182.8	210.0	151.8	189.7	111.8	147.8
109-1/4"	142"		126.4	175.0	113.3	141.6	87.5	109.9
35-1/2"	35-5/16"	49"-60"	210.0	210.0	210.0	210.0	210.0	210.0
37"	36-13/16"		210.0	210.0	210.0	210.0	189.8	210.0
53-1/8"	51"		206.8	210.0	171.8	210.0	133.3	166.7
74"	69"		148.4	185.4	123.7	154.3	96.5	119.6
78-1/2"	73"		132.5	172.3	116.1	143.8	89.3	111.8
35-1/2"	35-5/16"	61"-72"	210.0	210.0	210.0	210.0	210.0	210.0
37"	36-13/16"		210.0	210.0	210.0	210.0	198.4	210.0
53-1/8"	51"		168.2	210.0	168.7	210.0	139.4	174.2
74"	69"		121.2	151.4	121.2	151.4	100.8	126.0
78-1/2"	73"		108.3	135.4	108.3	135.4	89.8	112.3
35-1/2"	35-5/16"	73"-96"	210.0	210.0	210.0	210.0	178.8	210.0
37"	36-13/16"		198.8	210.0	184.7	208.8	127.8	159.8
53-1/8"	51"		117.8	172.2	114.4	143.0	86.8	111.6



ANCHORS TYPE 'B'



ANCHORS TYPE 'C'

JAMB ANCHOR SPACING
20" MAX. FOR SIZES UP TO 14"
12" MAX. FOR SIZES GREATER
THAN 14" TO 12"

ALL VALUES SHOWN ARE DESIGN PSF
VALUES FOR POS(+) LOADS SHOWN ARE FOR
SILL WITH WATERBAR ADAPTER
FOR WINDOWS WITHOUT WATERBAR ADAPTER
LIMIT POS(+) LOADS TO 65.0 PSF

ANCHOR CAPACITY UNEQUAL PANELS

WinDoor

SERIES "R700" ALUM. HORIZONTAL SLIDER
(DW)
DESIGN PRESSURE #

DRAWN BY	A. MOHLER
CHECKED BY	
DATE	10/30/20
SCALE	NTS
SHEET	4 OF 16

ANTHONY LYNN MILLER
LICENSE
No. 56726
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E. #56726

INSTALLATION CONDITIONS FLANGE FRAME

FLANGE FRAME INSTALLATION TYPE 'F'
THRU 1 BY WOOD BUCK

TYPICAL ANCHORS
SEE ELEV. FOR SPACING
SEE SHEET 13 FOR DESCRIPTION

BUCK BED IN SEALANT (TYP)

SEALANT (TYP)

BUCK INSTALLATION
NOT PART OF
THIS SUBMITTAL

3 1/2"
MIN

2 3/4"

2 x 6 BEVELED PRESSURE TREATED
WOOD BUCK (TYP)

1 1/2"
MIN

FLANGE FRAME INSTALLATION TYPE 'J'
THRU 2 BY WOOD BUCK

TYPICAL ANCHORS
SEE ELEV. FOR SPACING
SEE SHEET 13 FOR DESCRIPTION

BUCK BED IN SEALANT (TYP)

SEALANT (TYP)

BUCK INSTALLATION
NOT PART OF
THIS SUBMITTAL

3 1/2"
MIN

2 3/4"

2 x 6 BEVELED PRESSURE TREATED
WOOD BUCK (TYP)

OPTIONAL
NON-BEVELED
WOOD BUCK
(NOT REQ)

WOOD STRUCTURES
CONCRETE OR MASONRY

BUCK INSTALLATION
NOT PART OF
THIS SUBMITTAL

OPTIONAL
NON-BEVELED
WOOD BUCK
(NOT REQ)

WOOD STRUCTURES
CONCRETE OR MASONRY

BUCK INSTALLATION
NOT PART OF
THIS SUBMITTAL

2 3/4" MIN

3" MIN

2 3/4" MIN

OPTIONAL PRE-CAST SILL

WOOD BUCKS NOT BY WINDOOR CORP., MUST SUSTAIN
LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER
THEM TO THE BUILDING STRUCTURE

4	10/2020		
3	10/2020		
2	10/2020		
1	10/2020		

WINDOOR
WINDOOR CORPORATION
2401 WEST 15TH STREET
HIALEAH, FL 33010
(305) 885-1501

SERIES "TFP" ALUM. HORIZONTAL ROLLER WINDOW

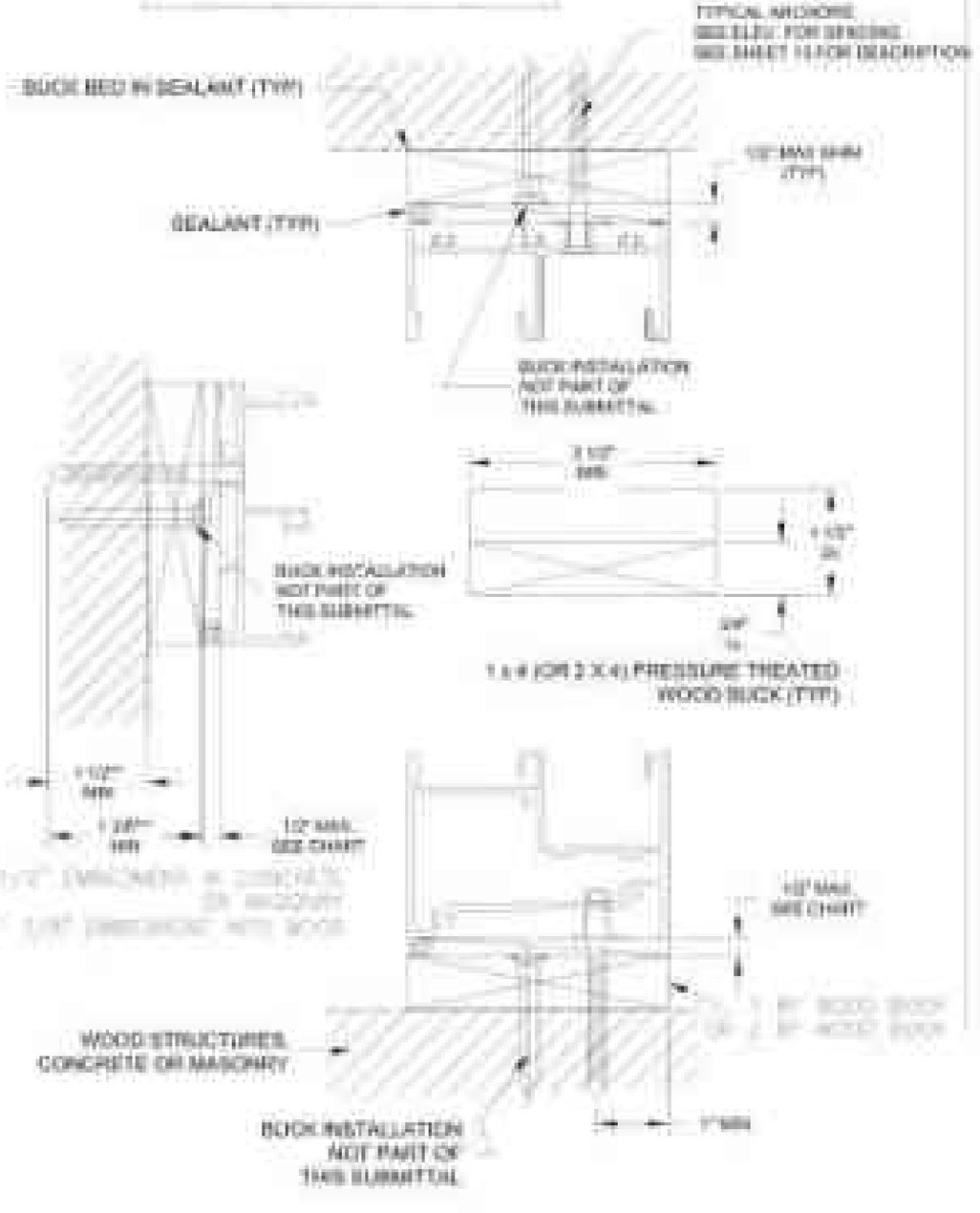
FLANGE INSTALLATION

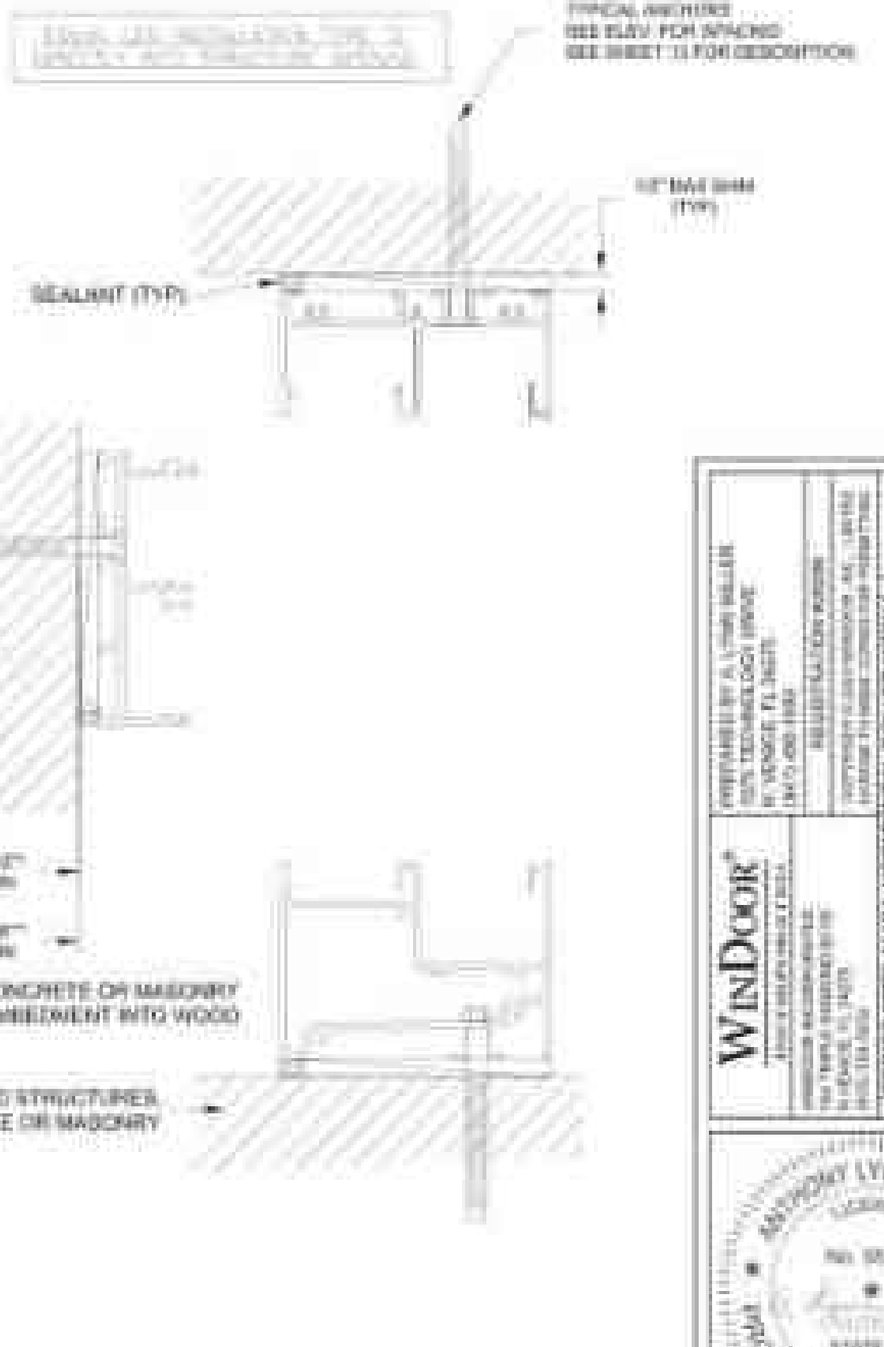
DRAWN BY	A. MORILLEAU
CHECKED BY	
DATE	10/2020
SCALE	3" = 1'-0"
SHEET	9 OF 19

ANTHONY LYNN MILLER
LICENSE
No. 56705
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER P.E.
FL# 56705

INSTALLATION CONDITIONS EQUAL LEG FRAME

EQUAL LEG INSTALLATION TYPE "I"
SHIM 1 OR 2 BY WOOD BUCK





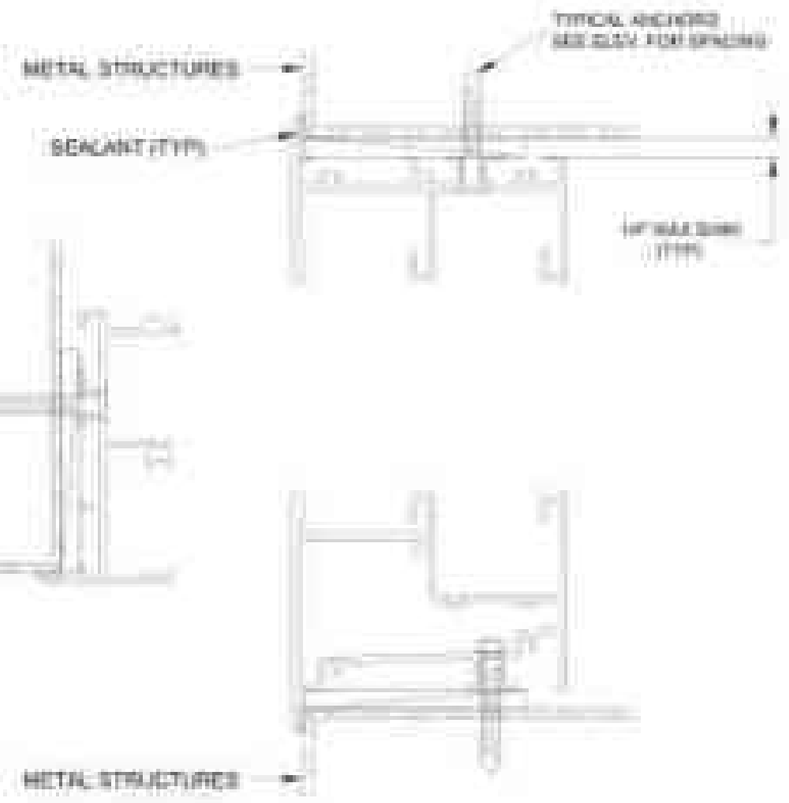
WOOD BUCKS NOT BY WINDOOR CORP., MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

4	03/20/20		
		WINDOOR®	WALL PRESSURE
		ARCHITECTURAL ALUMINUM WINDOWS & DOORS	ARCHITECTURAL
		2300 E. VERNON AVE. VERNON, CA 90058 (323) 582-2220 FAX (323) 582-2228	SERIES "TFP" ALUM. HORIZONTAL SLIDING DOOR
			EQUAL LEG INSTALLATION
			6-19
			1/2"=1'-0"

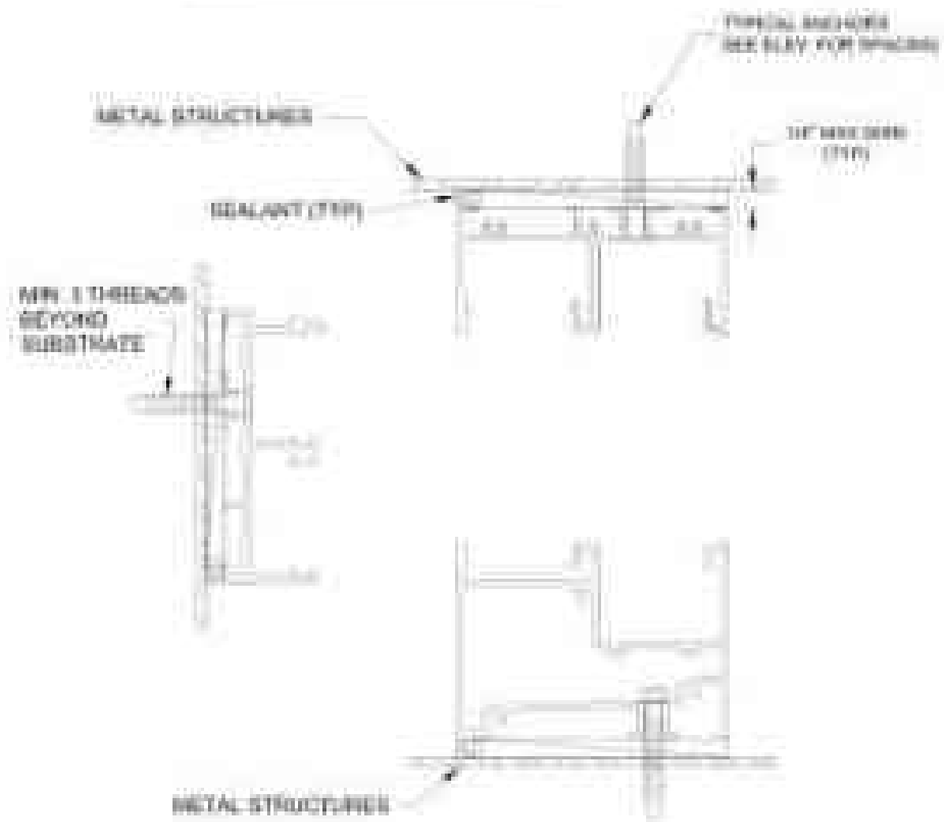
ANTHONY LYNN MILES
LICENSED
No. 90705
STATE OF CALIFORNIA
PROFESSIONAL ENGINEER
A. LYNN MILES P.E.
P.E.#90705

INSTALLATION CONDITIONS METAL STRUCTURES

FLANGE FRAME INSTALLATION



EQUAL LEG FRAME INSTALLATION



Anchor Type	Substrate	Frame Members	Min. Edge Distance	Min. Embedment or Metal Thickness
1/4" Dia. Hex Head con it	Southern Pine (SG = 0.55)	All	1"	1-1/2"
	Thru 1BV Buck into Concrete/Masonry	Jambs	2-1/2"	1-1/4"
	Thru 1BV Buck into Concrete	Head/Sill	2-1/2"	1-1/4"
	Concrete/Masonry	Jambs	2-1/2"	1-1/2"
	Concrete (min. 3.0 ksi)	Head/Sill	2-1/2"	1-1/2"
1/4" Dia. TEKS or Self Drilling Screw	Mulino PPA approved	All	3/4"	(3) Threads min. to extended beyond metal thickness
	Steel Stud, 12 GA	All	3/4"	(3) Threads min. to extended beyond metal thickness
	Aluminum 1/8" Thk Min. (6063-T5)	All	3/4"	(3) Threads min. to extended beyond metal thickness
1/4" Dia. Ultracon II	Southern Pine (SG = 0.55)	All	1"	1-3/8"
	Thru 1BV Buck into Concrete/Masonry	Jambs	2-1/2"	1-1/8"
	Thru 1BV Buck into Concrete	Head/Sill	2-1/2"	1"
	Concrete/Masonry	Jambs	2-1/2"	1-1/8"
	Concrete	Head/Sill	2-1/2"	1"

MATERIAL PROPERTIES

Material	Min. F_y	Min. F_u
1/4" Tekx or Self Drilling Steel Screw, Gr. 5	92 ksi	120 ksi
1/4" 18-8 SS Bolt, Gr. 1	33.0 ksi	85.0 ksi
1/4" Ultracon	130 ksi	177 ksi
1/4" Zamak Ultracon	140 ksi	164 ksi
6063-T5 Aluminum	16 ksi	24 ksi
A36 Steel	36 ksi	58 ksi
12 GA Steel Stud	50 ksi	65 ksi

ANCHOR SPACING
24" MAX. FOR SHIMS UP TO 1/4"
16" MAX. FOR SHIMS OVER 1/4" TO 1/2"

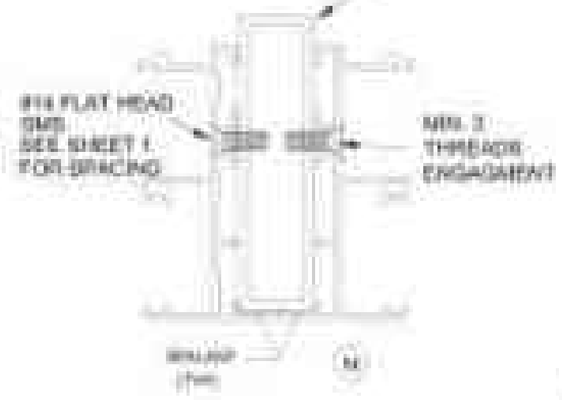
NO.	DESCRIPTION	DATE
1	INSTALLATION INTO METAL	11-01-21
2	ADDED TRANSOM INTO ANCHOR DETAIL	11-15-21
3	ADDED TRANSOM INTO ANCHOR DETAIL	12-01-21
4	ADDED TRANSOM INTO ANCHOR DETAIL	12-09-21

WINDOOR

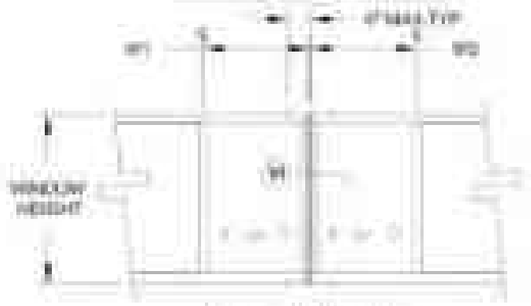
ARMOUR LYNN MILLER
LICENSED
No. 92705
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
FLA #92705

MULLION PERFORMANCE

MULLION AT FLANGE WINDOWS
1" x 4" x 1/8" THK. ALUMINUM TUBE MULLION (6063-T6)
(UNCLIPPED AT ENDS)
(MULL LENGTH = WDW HEIGHT - 1")

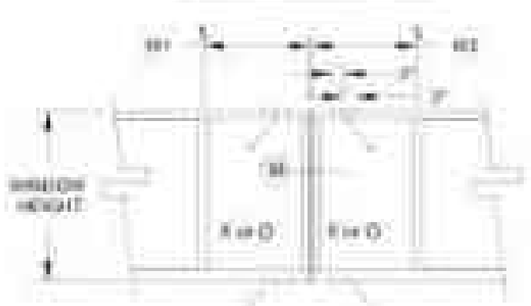


STANDARD INSTALLATION



MULTIPLE OPENING
(2 OR MORE WINDOWS)
w/ 1 SCREW ON EACH SIDE OF MULLION

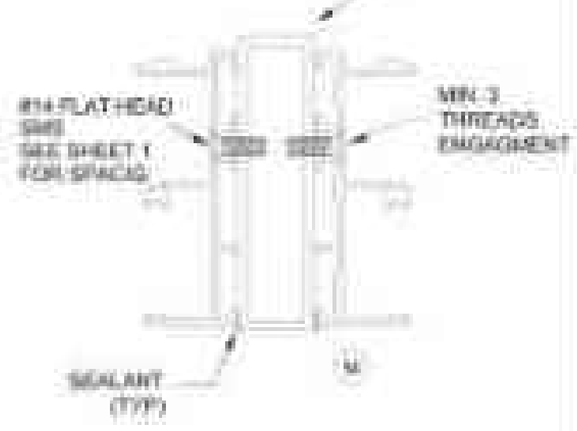
HIGH LOAD INSTALLATION



MULTIPLE OPENING
(2 OR MORE WINDOWS)
w/ 2 OR 3 SCREWS ON EACH SIDE OF MULLION
(* = ADDITIONAL HOLES TO BE DRILLED BY INSTALLER)

TRIBUTARY WIDTH = $\frac{W1 + W2}{2}$

MULLION AT FLANGE WINDOWS
1" x 4" x 1/8" THK. ALUMINUM TUBE MULLION (6063-T6)
(UNCLIPPED AT ENDS)
(MULL LENGTH = WDW HEIGHT - 1")



MULLION WORK LOAD CAPACITY - PSF		
TRIBUTARY WIDTH	WINDOW HEIGHT	RESULT W1/L1
24"	54"	216.0
26"		216.0
28"		216.0
30"		216.0
32"		216.0
34"		216.0
36"		216.0
38"		216.0
40"	54"	216.0
42"		216.0
44"		216.0
46"		216.0
48"		216.0
52"		216.0
24"		216.0
26"		216.0
28"		216.0
30"		216.0
32"		216.0
34"	60"	216.0
36"		216.0
38"		216.0
40"		216.0
42"		216.0
44"		216.0
46"		216.0
47"		216.0
24"		216.0
26"		216.0
28"		216.0
30"		216.0
32"	66"	216.0
34"		216.0
36"		216.0
38"		216.0
40"		216.0
42"		216.0

MULLION WORK LOAD CAPACITY - PSF		
TRIBUTARY WIDTH	WINDOW HEIGHT	RESULT W1/L1
24"	54"	216.0
26"		216.0
28"		216.0
30"		216.0
32"	72"	216.0
34"		216.0
36"		216.0
24"	78"	216.0
26"		216.0
28"		216.0
30"		216.0
32"		216.0
34"		216.0
36"		216.0
38"		216.0
40"		216.0
42"		216.0
44"		216.0
46"		216.0
47"		216.0

MULLION WORK LOAD CAPACITY - PSF		
TRIBUTARY WIDTH	WINDOW HEIGHT	RESULT W1/L1
18"	54"	216.0
20-1/2"		216.0
23"	54"-60"	216.0
24"		216.0
26"		216.0
27"		216.0
18"	60"-66"	216.0
20-1/2"		216.0
23"		216.0
24"		216.0
26"		216.0
27"		216.0
18"	66"-72"	216.0
20-1/2"		216.0
23"		216.0
24"		216.0
26"		216.0
27"		216.0
18"	72"-78"	216.0
20-1/2"		216.0
23"		216.0
24"		216.0
26"		216.0
27"		216.0

ALL VALUES SHOWN ARE DESIGN PSF (POUNDS PER SQUARE FOOT)

NOTES:
VALUES FROM CHARTS MAY BE INTERPOLATED BETWEEN SIZES.

ALL VALUES SHOWN ARE DESIGN PSF.
VALUES FOR PSF (LOADS) SHOWN ARE FOR ALL WITH WATERBAR ADAPTER.
FOR WINDOWS WITHOUT WATERBAR ADAPTER LIMIT PSF (LOADS) TO 90 PSF.

DRAWING BY:	A. WOHLEBEN
CHECKED BY:	
DATE:	11/08/22
SCALE:	
DRAWING NO:	
REVISIONS:	A
SHEET NO:	11 OF 16

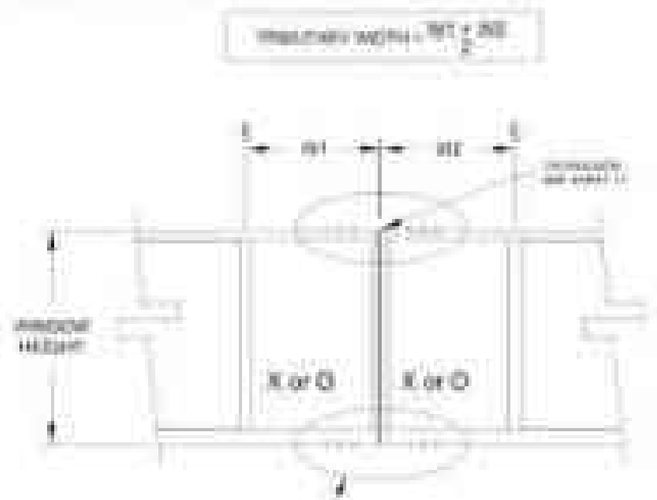
WINDOOR®
WINDOW & DOOR MANUFACTURERS ASSOCIATION
MULLION DP
SERIES PW-PLUMB INSWING/VINYL ROLLER WDW
WITH/WITHOUT WATERBAR ADAPTER (5.9)

ANTHONY LYNN MILLER
No. 39200
STATE OF FLORIDA
PROFESSIONAL ENGINEER

24"	64"	197.9	215.0	215.0	88.3	176.1	215.0	88.3	136.7	206.0
28"		82.2	184.4	215.0	79.8	103.1	215.0	59.4	116.6	174.3
32"		68.0	172.1	215.0	71.5	142.9	215.0	55.5	110.9	166.4
36"		60.7	161.2	215.0	67.3	134.6	201.9	52.0	104.0	156.0
40"		51.7	143.4	215.0	59.6	119.1	178.7	46.2	92.4	138.7
48"		42.6	107.6	161.5	44.7	89.3	134.0	34.7	69.3	104.0
24"	84"	84.8	169.6	215.0	80.4	140.8	215.0	62.4	124.8	187.2
28"		63.0	168.8	215.0	68.9	137.8	206.7	53.5	107.0	160.5
32"		77.8	154.9	215.0	64.3	128.6	193.0	49.9	99.8	149.8
36"		72.5	145.2	215.0	60.3	120.6	180.9	46.8	93.6	140.4
40"		64.6	129.1	193.6	53.6	107.3	160.9	41.6	83.2	124.9
24"	96"	88.0	176.0	215.0	73.1	146.2	215.0	56.7	113.5	170.2
28"		75.4	150.9	215.0	62.6	125.2	187.9	48.6	97.2	145.9
32"		65.4	140.8	215.0	58.5	116.9	175.4	45.4	90.8	136.1
36"		60.0	132.0	198.0	54.8	109.6	164.5	42.5	85.1	127.6
40"		58.7	117.3	176.0	48.7	97.3	146.2	37.8	75.6	113.5
24"	72"	90.7	181.3	215.0	67.0	134.0	201.0	52.0	104.0	156.0
28"		69.1	138.3	207.4	57.4	114.9	172.3	44.6	89.1	133.7
32"		64.5	129.1	193.6	53.6	107.2	160.8	41.6	83.2	124.8
36"		60.5	121.0	181.5	50.3	100.5	150.8	39.0	78.0	117.0
40"		53.8	107.6	161.3	44.7	89.3	134.0	34.7	69.3	104.0
24"	84"	76.4	152.8	215.0	63.5	126.9	190.4	49.2	98.3	147.5
28"		65.5	131.0	196.5	54.4	108.8	163.2	42.2	84.3	126.5
32"		61.1	122.3	183.4	50.8	101.6	152.3	39.4	78.8	118.2
36"		57.3	114.6	171.9	47.6	95.2	142.9	36.9	73.9	110.8
40"		50.9	101.9	152.8	42.3	84.6	126.9	32.8	65.7	98.5

ALL VALUES SHOWN ARE DESIGN PSF (POUNDS PER SQUARE FOOT)

16"	36-5/8"	201.8	215.0	215.0	167.8	215.0	215.0	130.1	215.0	215.0
20-1/2"		137.1	215.0	215.0	113.8	215.0	215.0	88.4	176.7	215.0
27"		96.2	192.3	215.0	91.3	183.1	215.0	83.3	166.6	199.8
44"		82.8	165.1	215.0	86.8	157.7	225.7	53.2	106.4	159.6
56"		64.9	129.7	194.6	51.9	107.7	161.6	47.8	95.6	129.4
71"		51.2	102.3	153.5	42.8	85.6	127.7	33.0	66.0	98.9
16"	36-5/8"	163.0	215.0	215.0	137.1	215.0	215.0	88.6	167.2	215.0
20-1/2"		103.9	207.8	215.0	96.3	172.6	215.0	87.0	134.0	200.9
27"		79.4	148.8	215.0	91.8	123.6	185.4	66.0	99.9	149.8
44"		62.6	125.2	187.7	52.0	104.0	155.9	40.3	80.7	121.0
16"	60"	122.9	215.0	215.0	103.1	206.2	215.0	78.2	156.5	215.0
20-1/2"		83.5	167.0	215.0	86.2	138.7	208.0	53.8	107.9	161.5
27"		59.8	119.6	179.4	49.7	99.3	149.0	38.5	77.1	115.6
44"		56.3	109.8	164.8	41.8	83.5	125.3	33.4	64.8	97.2
16"	72"	107.6	215.0	215.0	86.3	172.7	215.0	68.3	136.7	205.0
20-1/2"		73.1	146.1	219.3	80.7	121.4	182.0	47.1	94.2	141.3
27"		52.3	104.6	157.0	43.5	86.9	130.4	33.7	67.3	101.2
16"	76"	101.6	203.0	215.0	84.6	169.3	215.0	66.7	133.4	187.1
20-1/2"		69.2	138.4	207.6	57.5	115.0	172.5	44.6	89.2	133.8
27"		49.6	99.1	148.7	41.2	82.3	123.5	32.0	63.9	95.8



NOTE:
VALUES FROM CHARTS ARE
BE INTERPOLATED BETWEEN SIZES

ALL VALUES SHOWN ARE DESIGN PSF
VALUES FOR ROE (+) LOADS SHOWN ARE FOR
SILL WITH WATERBAR ADAPTER
FOR WINDOWS WITHOUT WATERBAR ADAPTER
USE FOR (+) LOADS TO BE 6/4 PSF

MULLION ANCHORS
ADJACENT TO MULLIONS AT HEAD & SILL
ALL OTHER WINDOW ANCHORS
AS PER SHEETS 8 THRU 11

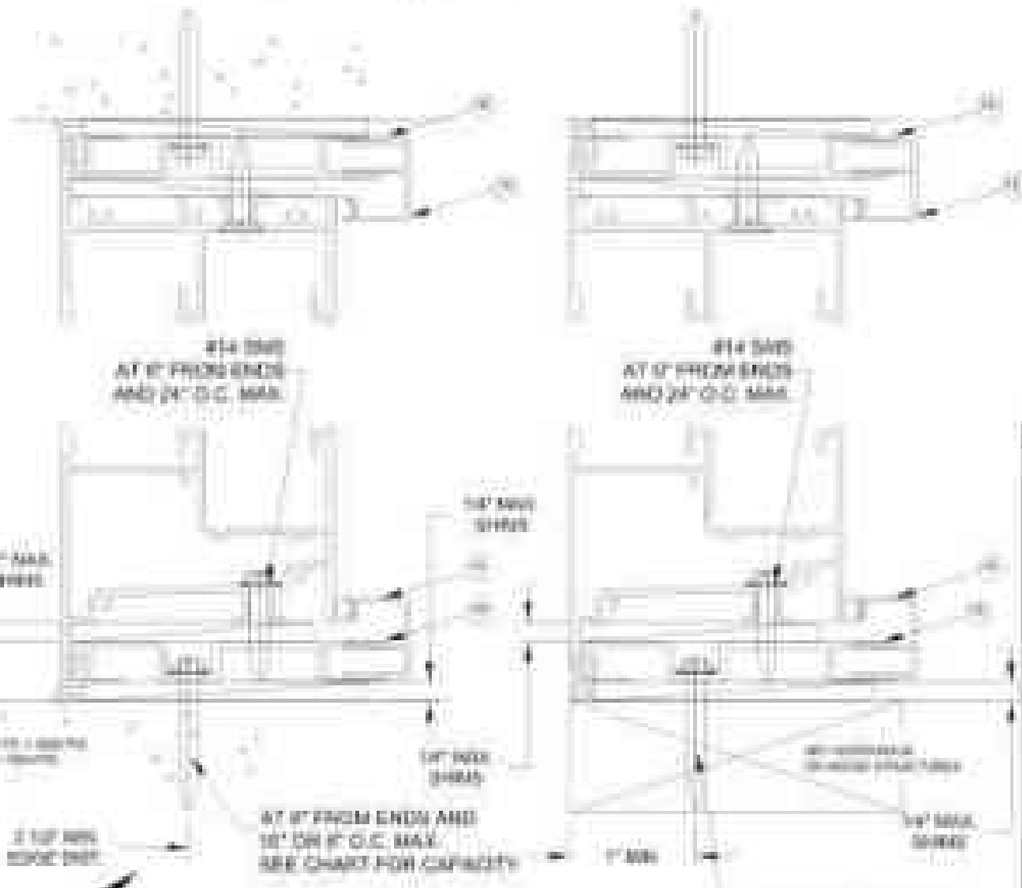
WINDOOR
MULLION CP-2
WALL OPENING
SHEET 10 OF 11
REVISIONS
DESIGN
DRAWN
CHECKED

ALUMINUM BUCK FRAMING DETAILS

REFER TO CHARTS 1 & 2 FOR ADDITIONAL INFORMATION
USE LOWER RATED VALUES

WIDTH	HEIGHT	ANCHORS AT 18" O.C.			ANCHORS AT 8" O.C.		
		BLOCK	CONC.	WOOD	BLOCK	CONC.	WOOD
36"	36"	140.8	219.2	300.0	210.0	210.0	210.0
	48"	128.3	219.2	180.0	192.5	210.0	210.0
	60"	101.1	179.8	126.3	170.8	210.0	210.0
	72"	91.4	165.0	104.3	160.0	210.0	200.6
	84"	104.0	162.8	130.4	167.0	210.0	208.7
	96"	96.6	168.8	111.1	144.9	210.0	200.0
	108"	92.9	162.6	116.1	154.8	210.0	193.6
	120"	87.2	152.7	109.1	146.8	210.0	191.8
	132"	82.3	144.0	102.9	139.8	210.0	188.6
	144"	98.2	165.8	187.7	147.7	210.0	184.6
	156"	74.7	130.7	93.3	138.7	210.0	171.5
	168"	83.7	140.0	100.1	140.5	210.0	175.7
	180"	77.6	135.8	97.0	140.5	210.0	181.8
	192"	98.5	165.0	100.6	142.0	210.0	171.6
	204"	76.2	133.3	95.2	137.1	210.0	171.4
48"	36"	128.3	219.2	160.4	192.6	210.0	210.0
	48"	120.0	219.2	150.0	180.0	210.0	210.0
	60"	95.0	167.5	112.5	157.5	210.0	196.9
	72"	85.8	148.0	102.5	146.5	210.0	175.8
	84"	90.9	167.2	113.6	144.6	210.0	180.8
	96"	79.8	137.3	99.8	138.8	210.0	166.6
	108"	77.1	135.0	96.4	135.8	210.0	160.7
	120"	73.8	128.9	92.0	135.0	210.0	160.4
	132"	67.5	118.1	84.4	122.8	210.0	158.7
	144"	70.0	122.5	87.5	126.8	210.0	158.6
	156"	60.0	105.0	75.0	111.4	188.6	139.3
	168"	65.5	114.5	81.9	116.5	200.9	142.2
	180"	63.8	108.8	77.6	116.1	203.2	142.2
	192"	60.5	111.2	75.4	112.8	197.6	141.2
	204"	60.0	105.0	75.0	108.0	189.0	135.0
60"	36"	108.7	188.7	135.9	210.0	210.0	210.0
	48"	96.5	168.8	120.6	168.6	210.0	210.0
	60"	86.3	150.5	115.3	164.5	210.0	193.1
	72"	77.6	135.8	97.0	135.8	210.0	166.7
	84"	86.5	151.4	108.1	139.4	210.0	173.6
	96"	71.1	124.4	88.8	126.6	210.0	160.6
	108"	72.5	126.8	90.6	131.8	210.0	150.9
	120"	67.4	117.9	84.2	112.5	186.5	140.4
	132"	62.6	109.5	78.2	115.4	202.0	144.3
	144"	64.8	113.6	81.2	111.3	194.8	136.1
	156"	55.5	96.9	69.1	102.7	179.8	128.4
	168"	60.3	105.4	75.3	106.4	184.3	111.8
	180"	58.8	98.5	71.1	106.7	186.7	133.2
	192"	58.2	101.8	72.7	103.4	181.0	129.3
	204"	54.7	95.7	68.4	98.5	172.5	123.1
72"	36"	91.4	160.0	114.3	160.0	210.0	200.0
	48"	90.0	148.0	108.0	140.0	210.0	175.0
	60"	77.1	135.0	96.4	135.0	210.0	168.8
	72"	76.8	134.4	96.0	134.4	210.0	168.0
	84"	76.8	134.4	96.0	134.4	210.0	168.0
	96"	68.8	120.0	86.7	120.4	210.0	154.3
	108"	68.1	121.0	85.6	119.2	201.6	144.0
	120"	64.9	113.5	80.6	109.7	186.7	133.3
	132"	58.8	104.3	74.5	106.3	181.2	136.6
	144"	61.1	106.9	76.4	104.7	183.3	130.4
	156"	51.7	90.5	64.6	96.6	168.9	120.6
	168"	56.2	98.3	70.3	98.1	171.7	122.8
	180"	53.0	92.7	66.2	99.3	173.8	124.1
	192"	54.0	94.4	67.5	96.8	169.2	120.8

WIDTH	HEIGHT	ANCHORS AT 18" O.C.			ANCHORS AT 8" O.C.		
		BLOCK	CONC.	WOOD	BLOCK	CONC.	WOOD
36"	36"	100.0	175.0	125.0	140.0	210.0	210.0
	48"	85.7	150.0	107.1	137.1	210.0	171.4
	60"	81.2	142.1	101.5	129.6	210.0	162.4
	72"	76.8	134.4	96.0	126.0	210.0	160.0
	84"	79.4	139.0	99.1	126.0	210.0	158.4
	96"	67.1	117.5	83.9	120.8	210.0	151.0
	108"	66.8	117.0	83.6	113.4	198.5	138.3
	120"	61.6	107.8	77.0	102.7	179.7	128.3
	132"	57.1	100.0	71.4	104.1	182.2	130.9
	144"	58.2	101.8	72.7	99.7	174.5	124.7
	156"	48.6	85.5	61.1	90.8	159.6	113.6
	168"	53.0	92.8	66.2	92.8	162.4	116.0
	180"	48.8	87.2	62.3	91.3	160.4	116.8
	192"	58.0	100.9	72.5	96.6	169.0	120.8
48"	36"	110.0	192.5	137.5	192.5	210.0	210.0
	48"	105.0	183.8	131.3	165.0	210.0	210.0
	60"	93.1	162.7	116.4	146.2	210.0	186.0
	72"	84.5	147.8	105.6	132.8	210.0	168.9
	84"	87.5	116.1	94.4	121.5	210.0	157.5
	96"	82.7	116.7	83.3	120.0	210.0	150.0
	108"	85.5	114.0	81.8	108.1	189.2	136.4
	120"	80.5	105.0	75.3	116.6	175.8	134.0
	132"	70.4	96.9	69.2	101.1	177.7	126.6
	144"	70.0	96.0	75.0	96.0	168.0	120.0
	156"	49.7	87.7	62.3	90.7	157.7	108.3
	168"	56.5	86.4	63.2	86.4	154.7	110.5
	180"	52.8	144.8	103.4	148.6	210.0	186.7
	192"	48.2	127.2	96.9	124.8	210.0	155.8
	204"	56.3	113.5	86.4	115.7	203.5	144.6
60"	36"	92.8	159.4	106.2	148.6	210.0	186.7
	48"	80.0	135.0	75.0	96.0	168.0	120.0
	60"	58.6	102.7	74.9	107.7	186.8	134.4
	72"	54.1	93.8	70.1	96.8	171.4	123.4
	84"	54.6	96.0	84.2	100.0	175.1	126.1
	96"	53.8	96.0	69.9	94.1	164.8	117.8
	108"	46.5	79.8	59.8	84.5	147.8	105.6



TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES USING ALUMINUM BUCK SYSTEM

NOTE:
VALUES FROM CHARTS MAY
BE INTERPOLATED BETWEEN SIZES

ALL VALUES SHOWN ARE DESIGN PSF
VALUES FOR POS(+) LOADS SHOWN ARE FOR
SILL WITH WATERBAR ADAPTER
FOR WINDOWS WITHOUT WATERBAR ADAPTER
LIMIT POS(+) LOADS TO 60.0 PSF

ALL VALUES SHOWN ARE DESIGN PSF (POUNDS PER SQUARE FOOT)

WINDOOR
WINDOW & DOOR MFG.
ENGINEERED PRODUCTS

SERIES "TP" ALUM. HORIZONTAL ROLLER
(TWO)
ALUMINUM BUCK SYSTEM

NO.	DESCRIPTION	DATE
1	ADDED METRIC	10/20/03
2	ADDED WATERBAR ADAPTER	11/20/03
3	ADDED 72" WIDE	12/15/03
4	ADDED 96" WIDE	1/15/04

DRAWN BY: A. LYNN MILLER
ENGINEERED BY: A. LYNN MILLER
CHECKED BY: A. LYNN MILLER
APPROVED BY: A. LYNN MILLER
DRAWING NO. 1
SHEET NO. 1 OF 1

ANTHONY LYNN MILLER
LICENSE
No. 50705
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER P.E.
P.E. # 50705

PERFORMABLE VALUES
OF ALUMINUM BUCK
INSTALLATION METHODS
ASTM E1886/E1996

PRODUCT SIZE		REQUIRED DP RATING			REQUIRED DP RATING		
WIDTH	HEIGHT	50 PSF	60 PSF	70 PSF	50 PSF	60 PSF	70 PSF
36-1/2"	35-3/8"	168.7	210.0	166.8	218.0	240.0	240.0
60-1/8"		168.7	186.8	132.7	189.8	210.0	210.0
75-11/16"		164.0	166.1	111.4	148.4	210.0	166.1
108-1/4"		72.4	126.7	90.6	134.0	210.0	168.1
111"		70.5	127.3	88.1	127.3	210.0	171.7
118-1/4"		72.0	130.0	90.0	135.0	210.0	168.8
158-3/8"		70.7	123.7	88.3	128.0	210.0	168.8
36-1/2"	59-3/8"	138.6	210.0	174.5	224.4	210.0	210.0
60-1/8"		166.0	171.6	122.7	181.8	210.0	202.3
75-11/16"		76.0	151.6	94.2	125.3	210.0	156.9
108-1/4"		69.0	100.3	73.8	106.6	141.9	127.1
111"		63.7	111.5	79.7	113.3	165.2	139.4
118-1/4"		68.1	101.7	72.7	109.0	156.8	136.3
158-3/8"		58.0	88.0	70.0	91.6	176.2	127.3
36-1/2"	83"	137.1	210.0	163.8	206.7	210.0	210.0
60-1/8"		88.2	156.2	111.6	143.8	210.0	178.5
75-11/16"		88.0	118.5	85.4	113.8	156.2	142.3
108-1/4"		61.4	89.0	64.2	95.4	167.0	119.3
111"		59.2	96.6	69.0	96.6	168.1	125.8
118-3/4"		59.0	87.3	62.8	93.8	164.1	117.2
36-1/2"	72"	111.0	164.2	136.7	169.8	210.0	210.0
60-1/8"		71.6	125.3	89.8	129.8	210.0	161.1
75-11/16"		69.8	119.4	82.4	108.8	162.3	131.3
108-1/4"		47.8	83.7	59.8	89.6	155.4	111.8
111"		51.2	89.6	64.0	89.6	156.8	112.0
36-1/2"	95"	103.4	181.4	129.4	157.0	210.0	210.0
60-1/8"		65.8	115.1	82.2	118.4	207.3	148.0
75-11/16"		59.8	104.7	74.8	107.7	188.5	134.6
108-1/4"		36.6	81.6	58.3	86.6	151.6	108.3
111"		49.6	87.2	62.3	87.2	152.6	108.9

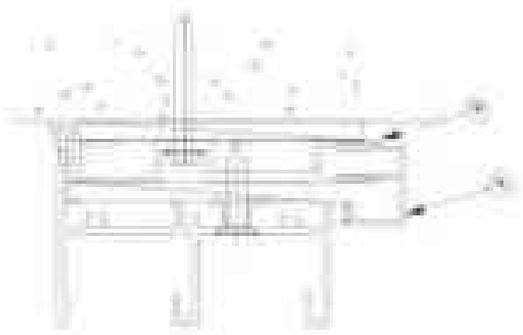
ALL VALUES SHOWN ARE DESIGN PSF (POUNDS PER SQUARE FOOT)

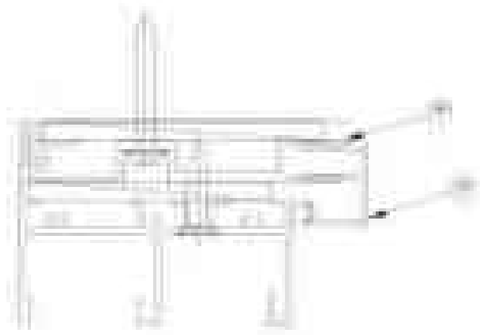
NOTE:
VALUES FROM CHARTS MAY
BE INTERPOLATED BETWEEN SIZES

ALL VALUES SHOWN ARE DESIGN PSF
VALUES FOR TOS (+/-) LOADS SHOWN ARE FOR
SILL WITH WATERBAR ADAPTER
FOR WINDOWS WITHOUT WATERBAR ADAPTER
LIMIT PSF (+) LOADS TO 65.0 PSF

ALUMINUM BUCK FRAMING DETAILS

REFER TO SHEETS 5 & 6 FOR WINDOW CAPACITIES
USE LOWER APPLICABLE VALUES



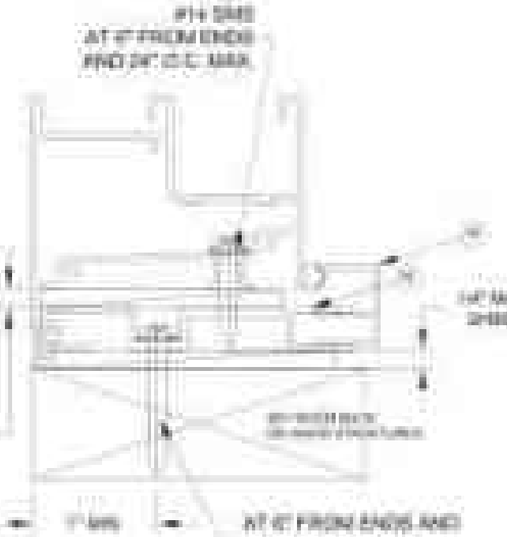


#14 SMS
AT 6" FROM ENDS
AND 24" O.C. MAX.



AT 6" FROM ENDS AND
30" OR 8" O.C. MAX.
SEE CHART FOR CAPACITY

#14 SMS
AT 6" FROM ENDS
AND 24" O.C. MAX.



AT 6" FROM ENDS AND
30" OR 8" O.C. MAX.
SEE CHART FOR CAPACITY



SOLID OAK ALUMINUM CLAD
WITH OPTIONAL WATERBAR

TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES USING ALUMINUM BUCK SYSTEM

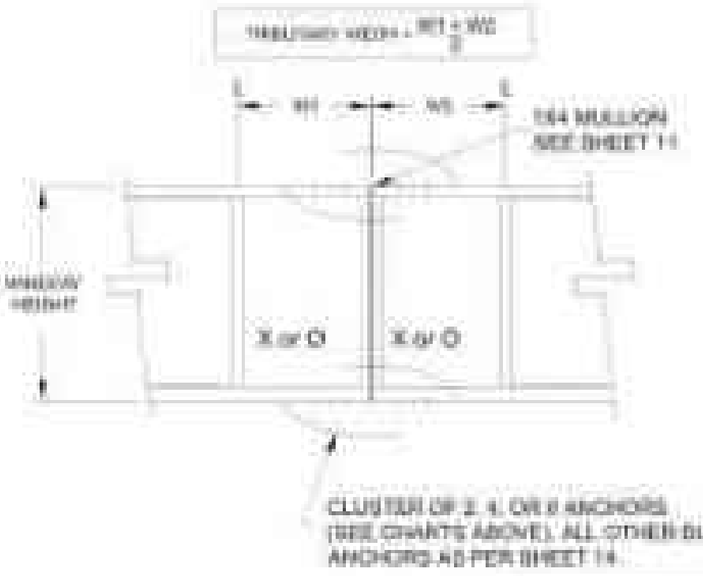
WINDOOR®	SERIES 7700 ALUMINUM CLAD WOOD DP 50
	ALUMINUM BUCK DP 50
	SHEET NO. 14 OF 16
	DRAWN BY:
	CHECKED BY:
	DATE: 12/20/21
	REVISIONS
	1

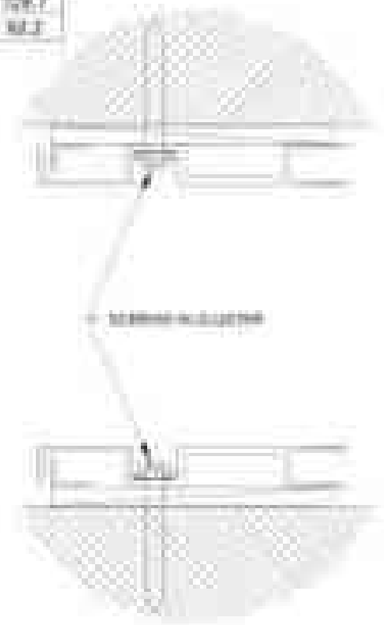
ANTHONY LYNN MILLER
LICENSE
No. 90705
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E. # 90705

MAXIMUM WIDTH (in.)	MAXIMUM HEIGHT (in.)	DESIGN PRESSURE (psf)	SINGLE WITH 2 ANCHORS			SINGLE WITH 4 ANCHORS			SINGLE WITH 6 ANCHORS		
			CLUSTER (2)	CLUSTER (4)	CLUSTER (6)	CLUSTER (2)	CLUSTER (4)	CLUSTER (6)	CLUSTER (2)	CLUSTER (4)	CLUSTER (6)
			24" o.c.	24" o.c.	24" o.c.	24" o.c.	24" o.c.	24" o.c.	24" o.c.	24" o.c.	24" o.c.
24"	54"	15	53.3	106.7	160.0	93.3	186.7	210.0	93.7	153.3	205.9
30"		20	45.7	91.4	137.1	80.0	160.0	210.0	57.1	114.3	171.4
32"		25	40.0	80.0	120.0	70.0	140.0	210.0	50.0	100.0	150.0
36"		30	35.6	71.1	106.7	62.2	124.4	186.7	44.4	88.9	133.3
38"		35	32.0	63.6	96.0	57.4	114.8	172.2	41.0	82.1	123.1
42"		40	30.5	54.0	96.0	50.0	112.0	168.0	40.0	80.0	120.0
42"		15	35.5	61.0	91.4	62.2	106.7	160.0	39.1	76.2	114.3
44"		20	34.1	58.2	87.3	59.6	101.8	152.7	36.4	72.7	109.1
46"		25	27.9	55.7	83.6	48.7	97.4	146.1	34.8	69.6	104.3
48"		30	26.7	53.3	80.0	46.7	93.3	140.0	33.3	66.7	100.0
52"		35	24.6	49.2	73.8	43.1	86.2	129.2	30.8	61.5	92.3
54"	66"	15	48.0	96.0	144.0	84.0	168.0	210.0	84.0	126.0	189.0
58"		20	41.1	82.3	123.4	72.0	144.0	210.0	51.4	102.8	154.3
62"		25	36.0	72.0	108.0	63.0	126.0	189.0	45.0	90.0	135.0
66"		30	32.0	64.0	96.0	56.0	112.0	168.0	40.0	80.0	120.0
68"		35	29.5	59.1	88.6	51.7	103.4	155.1	36.9	73.9	110.8
70"		40	28.8	57.6	86.4	50.4	100.8	151.2	36.0	72.0	108.0
72"		45	27.4	54.9	82.3	48.0	96.0	144.0	34.3	68.6	102.8
76"		50	26.2	52.4	78.5	45.8	91.6	137.3	32.7	65.5	98.2
78"		55	25.6	50.1	75.1	43.8	87.7	131.5	31.3	62.6	93.9
84"	80"	15	45.6	87.3	130.8	79.4	152.7	210.0	54.5	109.1	163.6
88"		20	37.4	74.8	112.2	65.3	130.9	196.4	46.8	93.5	140.3
92"		25	32.7	65.5	98.2	57.3	114.5	171.8	40.9	81.8	122.7
96"		30	29.1	58.2	87.3	50.9	101.8	152.7	36.4	72.7	109.1
98"		35	26.8	53.7	80.6	47.0	94.0	141.0	33.6	67.1	100.7
102"		40	26.2	52.4	78.6	45.8	91.6	137.3	32.7	65.5	98.2
106"		45	24.9	49.8	74.8	43.6	87.3	130.9	31.2	62.3	93.5
114"	96"	15	40.0	80.0	120.0	70.0	140.0	210.0	50.0	100.0	150.0
118"		20	34.3	68.6	102.8	60.0	120.0	180.0	42.9	85.7	128.6
122"		25	30.0	60.0	90.0	52.5	105.0	157.5	37.5	75.0	112.5
126"		30	26.7	53.3	80.0	46.7	93.3	140.0	33.3	66.7	100.0
128"		35	24.6	49.2	73.8	43.1	86.2	129.2	30.8	61.5	92.3
134"	112"	15	37.5	75.0	112.7	65.3	130.6	196.0	47.0	94.7	142.1
138"		20	32.5	65.0	97.4	56.8	113.7	170.5	40.6	81.2	121.8
142"		25	28.5	56.9	85.3	49.7	99.2	148.8	35.5	71.1	106.6
146"		30	25.5	50.5	75.8	44.3	88.4	132.6	31.6	63.2	94.7

ALL VALUES SHOWN ARE DESIGN PSF (POUNDS PER SQUARE FOOT)

MAXIMUM WIDTH (in.)	MAXIMUM HEIGHT (in.)	DESIGN PRESSURE (psf)	SINGLE WITH 2 ANCHORS			SINGLE WITH 4 ANCHORS			SINGLE WITH 6 ANCHORS		
			CLUSTER (2)	CLUSTER (4)	CLUSTER (6)	CLUSTER (2)	CLUSTER (4)	CLUSTER (6)	CLUSTER (2)	CLUSTER (4)	CLUSTER (6)
			24" o.c.	24" o.c.	24" o.c.	24" o.c.	24" o.c.	24" o.c.	24" o.c.	24" o.c.	24" o.c.
18"	108 3/8"	15	108.1	216.1	210.0	175.1	210.0	210.0	135.1	210.0	210.0
26-1/2"		20	88.0	176.0	203.8	118.8	210.0	210.0	88.0	168.0	210.0
37"		25	68.7	97.4	146.0	85.2	170.4	210.0	68.9	137.7	182.4
44"		30	40.0	81.6	122.8	71.8	143.3	210.0	57.2	102.3	153.3
58"		35	33.2	66.3	98.5	58.5	112.8	168.8	46.2	80.4	120.6
71"		40	25.4	50.7	76.1	44.4	88.8	133.2	31.7	63.4	95.1
18"	84 5/8"	15	70.0	181.7	210.0	132.7	210.0	210.0	84.8	169.6	210.0
39-1/2"		20	51.5	103.0	154.6	90.2	180.3	210.0	68.4	128.8	193.2
37"		25	38.8	73.9	110.7	64.8	129.5	193.7	48.1	92.3	138.4
44"		30	31.0	62.1	93.1	54.3	108.6	162.8	38.8	77.6	116.4
18"	60"	15	61.0	121.9	182.8	106.7	210.0	210.0	76.2	152.4	210.0
26-1/2"		20	41.4	82.8	124.2	72.5	144.9	210.0	51.8	103.5	155.3
37"		25	29.7	59.5	89.0	51.8	103.8	155.7	37.1	74.1	111.2
44"		30	24.9	49.9	74.8	43.6	87.3	130.9	31.2	62.3	93.5
18"	72"	15	52.1	104.7	160.0	91.3	182.7	210.0	65.3	133.3	200.0
26-1/2"		20	35.2	72.5	108.7	62.4	126.8	190.2	45.3	90.6	136.8
37"		25	25.6	51.9	77.8	45.4	90.8	136.2	32.4	64.8	97.3
18"	96"	15	62.5	101.1	151.8	86.4	176.8	210.0	63.2	126.3	189.5
26-1/2"		20	34.2	68.5	103.2	60.1	120.1	180.2	42.9	85.8	128.7
37"		25	24.6	49.2	73.7	43.0	86.0	129.0	30.8	61.5	92.2





NOTE:
ALUMINUM BUCKS ARE SUPPLIED WITH
CLUSTER OF 2 (+) SCREW HOLE PER SIDE, STANDARD
EXTRA HOLES MUST BE FIELD DRILLED IF REQUIRED.

ALL VALUES SHOWN ARE DESIGN PSF
VALUES FOR POS (+) LOADS SHOWN ARE FOR
SILL WITH WATERWAY ADAPTER.
FOR WINDOWS WITHOUT WATERWAY ADAPTER
LIMIT POS (+) LOADS TO 85.6 PSF.

VALUES FROM CHARTS MAY
BE INTERPOLATED BETWEEN SIZES.

ALUMINUM BUCK ANCHORS
ADJACENT TO MULLIONS AT HEAD & SILL
ALL OTHER ALUMINUM BUCK ANCHORS
AS PER SHEET 13

WINDOOR®

ANTHONY LYNN MILLER
LICENSE
No. 59704
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E. # 59704

NO.	DESCRIPTION	DATE
1		
2		
3	REVISED PER COMMENTS	10/15/21
4	REVISED PER COMMENTS	12/20/21

PREPARED BY: A. LYNN MILLER, P.E.
1075 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 497-9992

PROJECT: MULLION OPT. 1
ANCHORAGE TRANSOM / MULLION
SHEET 12

NOA # 19-0531.08

1 - FLANGE FRAME HEAD

2 - EQUAL LEG FRAME HEAD

3 - SCREEN ADAPTOR

4 - GLAZING BEAD

5 - FRAME HEAD SILL

6 - EQUAL LEG FRAME SILL

7 - GLAZING BEAD

8 - WATERBAR

9 - FLANGE FRAME JAMB

10 - EQUAL LEG FRAME JAMB

11 - REINFORCEMENT

12 - SQUARE LOCK STILE

13 - SQUARE FIXED INTERLOCK

14 - SQ. OPERABLE INTERLOCK

15 - SQUARE TOPMEETING RAIL

16 - COVER

17 - ALUM. BLOCK

ITEM	PART #	DESCRIPTION	MATERIAL
1	2701-000	FLANGE FRAME HEAD	6063-T5
2	2702-000	EQUAL LEG FRAME HEAD	6063-T5
3	2703-000	FRAME HEAD SILL	6063-T5
4	2704-000	EQUAL LEG FRAME SILL	6063-T5
5	2705-000	FLANGE FRAME JAMB	6063-T5
6	2706-000	EQUAL LEG FRAME JAMB	6063-T5
7	2707-000	REINFORCEMENT	6063-T5
8	2708-000	SCREEN ADAPTOR	6063-T5
9	2709-000	GLAZING BEAD	6063-T5
10	2710-000	EQUAL LEG FRAME/REINFORCE	6063-T5
11	2711-000	EQUAL OPERABLE INTERLOCK	6063-T5
12	2712-000	EQUAL TOPMEETING RAIL	6063-T5
13	2713-000	GLAZING BEAD	6063-T5
14	2714-000	WATERBAR	6063-T5
15		OPTIONAL COVER	6063-T5
16		ALUMINUM BLOCK	6063-T5
17	2717-000	TPE SQUARE BLOCK TPE SQUARE OP TO FIXED INTERLOCK SEAL TPE SQUARE FIXED TO FIXED INTERLOCK SEAL	EPDM
18	2718-000	TPE SQUARE BLOCK	6063-T5
19	2719-000	SQUARE LOCK STILE	6063/T6
20	2720-000	SQUARE FIXED INTERLOCK	6063/T6
21	2721-000	SQUARE OP TO FIXED INTERLOCK	6063/T6
22	2722-000	SQUARE TOPMEETING RAIL	6063/T6
23	2723-000	SQUARE COVER	6063/T6
24	2724-000	ALUM. BLOCK	6063/T6
25	2725-000	SQUARE OP TO FIXED INTERLOCK	6063/T6
26	2726-000	SQUARE FIXED TO FIXED INTERLOCK	6063/T6
27	2727-000	SQUARE OP TO OP INTERLOCK	6063/T6
28	2728-000	SQUARE OP TO OP INTERLOCK SEAL	EPDM
29	2729-000	SQUARE OP TO FIXED INTERLOCK SEAL	EPDM
30	2730-000	SQUARE FIXED TO FIXED INTERLOCK SEAL	EPDM
31	2731-000	LOW SCHLEGEL BULB SEAL (EPDM, WHITE)	EPDM
32	2732-000	SCREEN MESH COVER RUBBER RETENTION SEAL MIN. 10 MM DIAMETER SPLINE, BLACK	EPDM
33		SCREEN MESH MIN. 18 X 16 MESH	PVC
34		SCREEN MESH MIN. 18 X 16 MESH	ALUM.

REVISIONS			
NO.	DESCRIPTION	DATE	APPROVED
1	ADDED NOTE 1	10/30/09	

WINDOOR
WINDOW & DOOR MANUFACTURERS ASSOCIATION
1400 EAST TOUHY AVE., SUITE 470
DES PLAINES, IL 60018
PHONE: 847-299-5200
FAX: 847-299-1183
WWW.WINDOOR.COM

WDMA PRESCRIPTIVE
ALUMINUM HORIZONTAL SLIDING WINDOW
SIZE: C40
SCALE: NONE
SHEET: 10 OF 11
DRAWING NO.: 2701-2732

ANTHONY LYNN MILLER
LICENSE
No. 62705
STATE OF ILLINOIS
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E. # 62705