Engineering Evaluation Report #238-092823-02

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:
PW 238 Designer Series Aluminum LMI HVHZ Fixed Window – FL15709

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 PW238DLMI-FPA, signed and sealed by A. Lynn Miller, P.E.
2. Test Report CTLA-3056 WA, B and C dated 03/03/15 and 04/16/15, prepared by Certified Test Laboratories, signed and sealed by Ramesh C. Patel. P.E.; Testing Standards: TAS 201-94, TAS 202-94 & TAS 203-94
3. Test Report HETI-08-2143, 08-2144, 07-4287 and 07-4298, dated 06/27/08 and 07/17/08 prepared by Hurricane Test Laboratory, Inc., signed and sealed by Candido F, Font P.E.; Testing Standards: TAS 201-94, TAS 202-94 & TAS 203-94
4. Test Report HTL- 0080-0301-07, 0905-07, 0080-0303-96, 1107-98, 1127-98,0606-99, 1020-99 AMD 0203-99 dated 10/10/06, 08/28/07, 03/06/96, 09/08/96, 11/10/98, 12/23/98, AND 02/05-15/99, 06/07/99 and 10/28/99 prepared by Hurricane Test Laboratory, signed and sealed by Vinu J. Abraham and Timothy S. Marshal P.E.; Testing Standards: TAS 201-94, TAS 202-94 & TAS 203-94
5. Test Report ATL-1209.01-94 dated 02/20/65, prepared by American Test Lab of South Florida, Inc, signed and sealed by Gerard B. Sullivan, P.E.; Testing Standards: TAS 201-94, TAS 202-94 & TAS 203-94
6. Anchor Calculations and Structural Analysis, dated 09/21/17, prepared by Al-Farooq Corporation, and signed and sealed by Javad Ahmad

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 impact resistant and does not require impact protection in wind borne debris regions.
- Units must be installed in accordance with Approval Document.



SERIES "238 DESIGNER" ALUMINUM FIXED WINDOWS - LARGE MISSILE

NOTES:

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). 1BY 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.

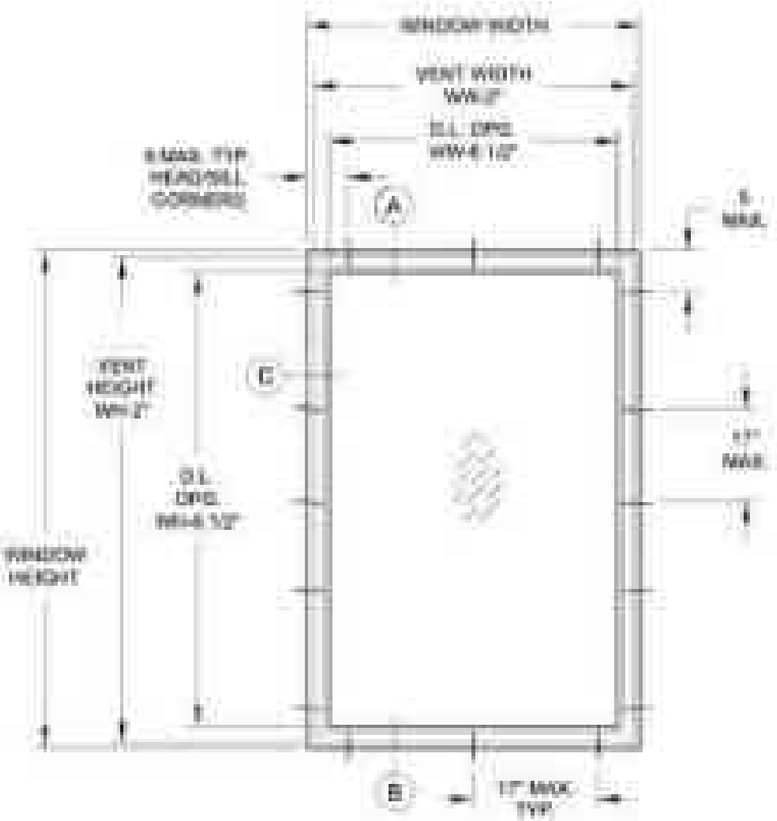
4). A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

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 BLDG. CODE & ADOPTED STANDARDS.

7). THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR THE SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND THE SEALING AROUND THE 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). ALL TEMPERED AND LAMINATED GLASS OPTIONS IN THIS APPROVAL HAVE BEEN CERTIFIED BY THE SGCC FOR COMPLIANCE TO ANSI Z97.1, CLASS A AND CPSC 16 CFR 1201, CATEGORY II. THIS INCLUDES LAMINATED GLASS THAT IS MANUFACTURED WITH ANNEALED GLASS PLIES. FOR APPLICATIONS WHERE THE WINDOW IS BEING USED AS A GUARD, HH OR 1/1 LAMINATED GLASS MUST BE USED.



TYPICAL ELEVATION

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

INSTRUCTIONS:
USE CHARTS AS FOLLOWS.

STEP 1: DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.

STEP 2: SEE CHARTS ON SHEETS 4 THRU 8 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE/TYPE.

STEP 3: USING CHART ON SHEETS 9 & 10 SELECT ANCHOR OPTION WITH DESIGN RATING MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.

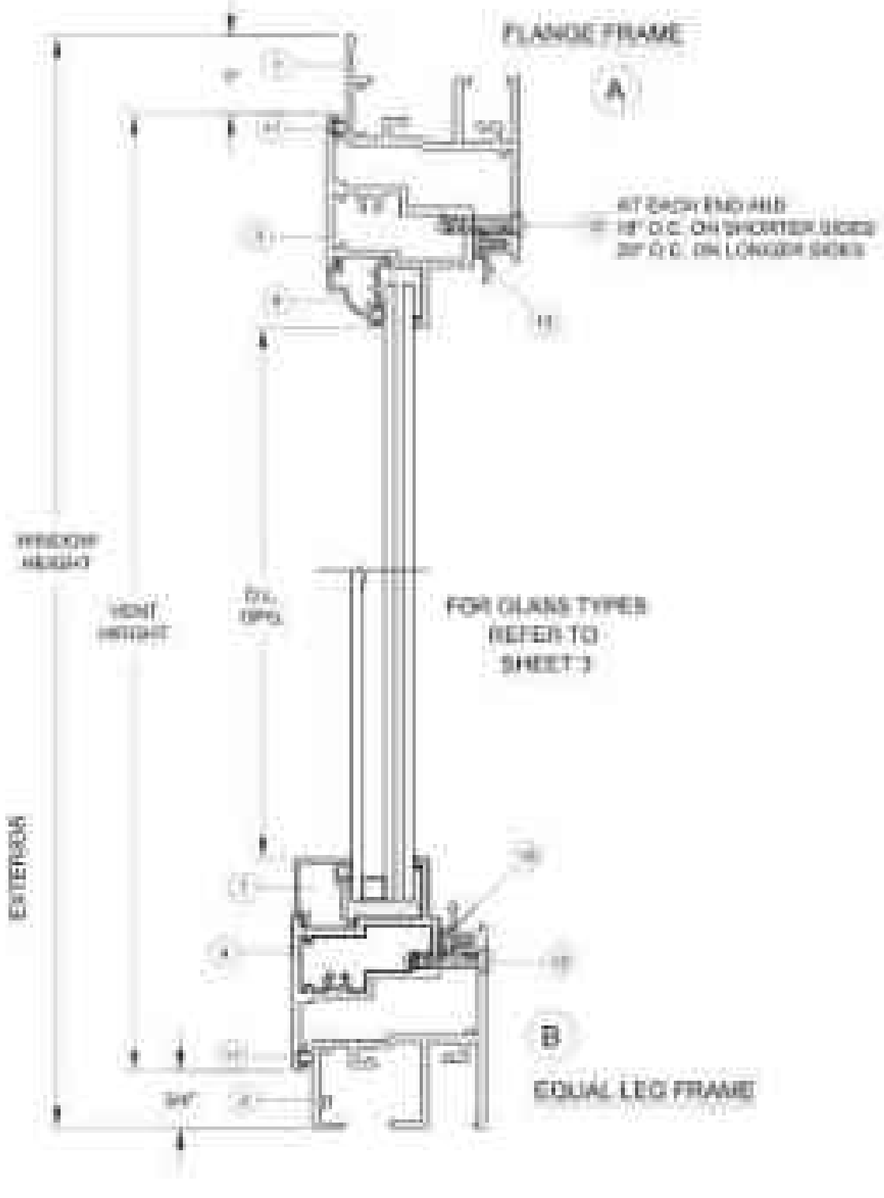
STEP 4: IF ALUMINUM BUCK SYSTEM IS USED USE CHART ON SHEETS 11 & 12 TO DETERMINE CAPACITY.

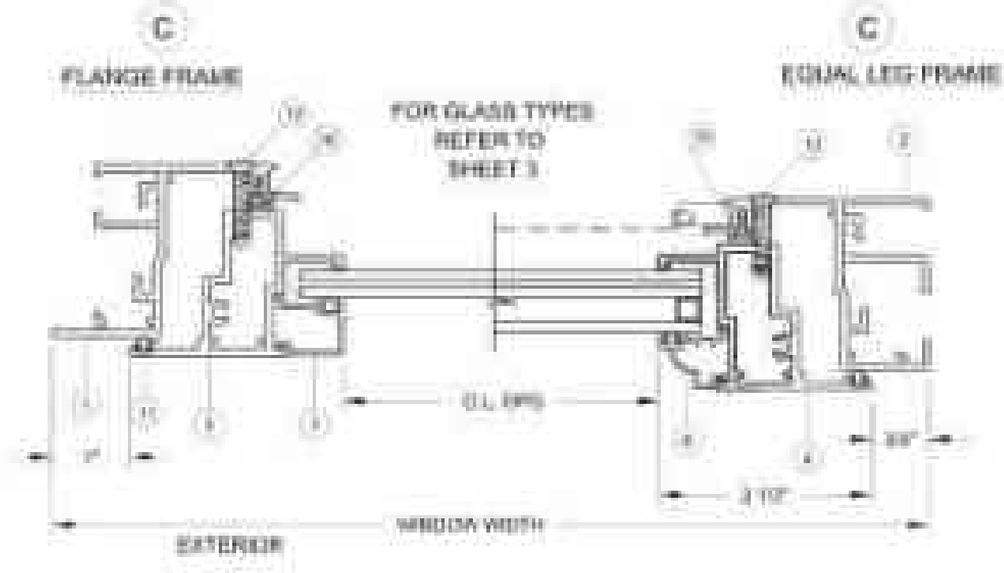
STEP 5: THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 SHALL APPLY TO ENTIRE SYSTEM.

WINDOOR®	A. WOLLESEN	1/28/20	PW20350
		1 OF 10	PW20350
		ELEVATION & GENERAL NOTES	PW20350
		ALUM. FIXED WINDOW, SHAPES (LM)	PW20350

ANTHONY LYNN SELLER
LICENSE
No. 58705
STATE OF
Florida
PROFESSIONAL ENGINEER
A. LYNN SELLER, P.E.
P.E.# 58705

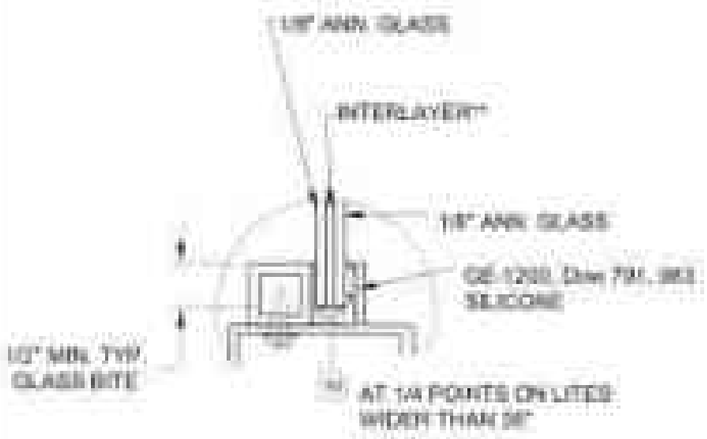
GENERAL WINDOW SECTIONS





FOR MULLION/MULTIPLE UNITS, REFER TO SEPARATE MULLION APPROVAL

WINDOW	
SERIES	
SECTION DETAILS	
PASSED	
3 OF 10	
PASSED	



5/16" NOMINAL
GLASS TYPE '1'

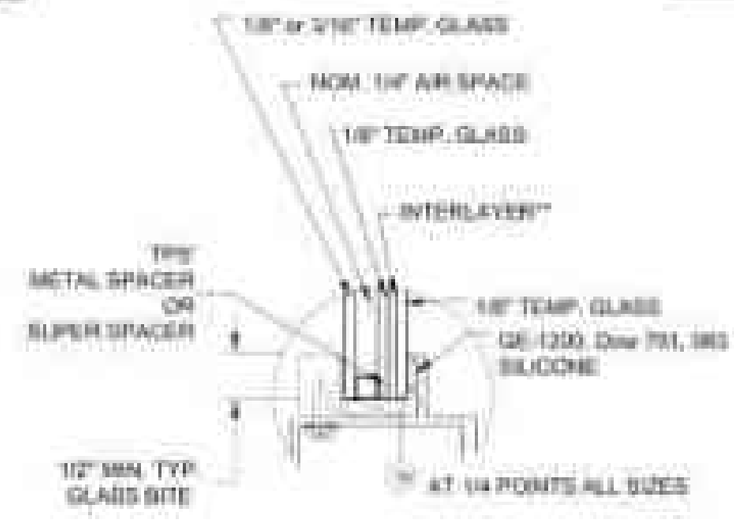


7/16" NOMINAL
GLASS TYPE '2'

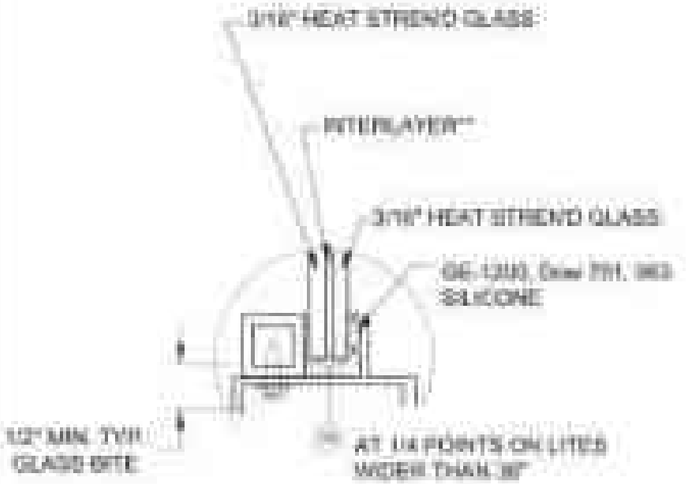
** INTERLAYER OPTIONS

.060" Saflex Clear And Color Glass
By Eastman Chemical Co.'

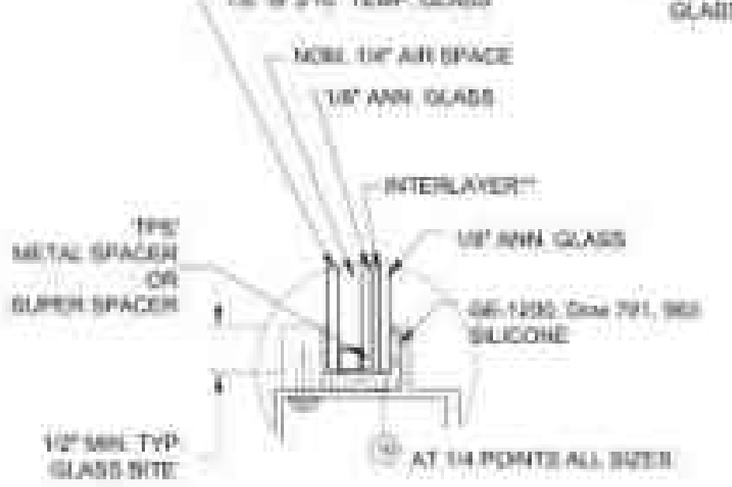
.090" Trosifol PVB
By Kuraray America, Inc.'



INSULATED
GLASS TYPE '5'



7/16" NOMINAL
GLASS TYPE '3'



INSULATED
GLASS TYPE '4'

A	5/27/23

PANSOPHIA

H. MOSLEH	
1/29/23	
3 OF 10	
PASSED	

GLASS TYPES

WINDOOR

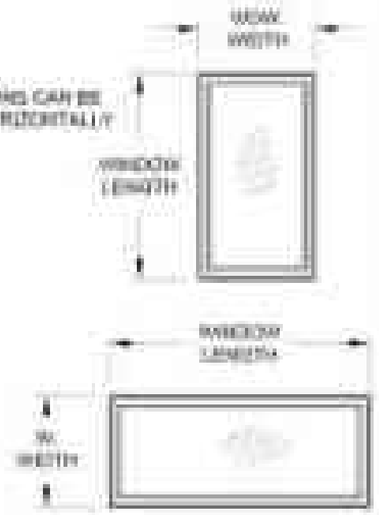


Window Height (in)	Glass Type	Design Load Capacity (lbs/ft²) — Window Rough Width (in)																	
		24 1/8		31		36 1/2		42		48		54		60 1/8		66		72	
24		+113.0	-87.0	+110.0	-92.0	+110.0	-96.0	+110.0	-100.0	+110.0	-103.0	+110.0	-106.0	+110.0	-108.0	+110.0	-109.0	+110.0	-110.0
36		+110.0	-82.0	+110.0	-88.0	+110.0	-92.0	+110.0	-96.0	+110.0	-100.0	+110.0	-103.0	+110.0	-105.0	+110.0	-107.0	+110.0	-108.0
39 3/4		+110.0	-81.0	+110.0	-86.0	+110.0	-90.0	+110.0	-94.0	+110.0	-98.0	+110.0	-101.0	+110.0	-103.0	+110.0	-105.0	+110.0	-106.0
40		+110.0	-80.0	+110.0	-85.0	+110.0	-89.0	+110.0	-93.0	+110.0	-97.0	+110.0	-100.0	+110.0	-102.0	+110.0	-104.0	+110.0	-105.0
48		+110.0	-74.0	+110.0	-79.0	+110.0	-83.0	+110.0	-87.0	+110.0	-91.0	+110.0	-94.0	+110.0	-96.0	+110.0	-98.0	+110.0	-99.0
53 3/16		+110.0	-70.0	+110.0	-75.0	+110.0	-79.0	+110.0	-83.0	+110.0	-87.0	+110.0	-90.0	+110.0	-92.0	+110.0	-94.0	+110.0	-95.0
56		+110.0	-68.0	+110.0	-73.0	+110.0	-77.0	+110.0	-81.0	+110.0	-85.0	+110.0	-88.0	+110.0	-90.0	+110.0	-92.0	+110.0	-93.0
60		+110.0	-65.0	+110.0	-70.0	+110.0	-74.0	+110.0	-78.0	+110.0	-82.0	+110.0	-85.0	+110.0	-87.0	+110.0	-89.0	+110.0	-90.0
72		+110.0	-56.0	+110.0	-61.0	+110.0	-65.0	+110.0	-69.0	+110.0	-73.0	+110.0	-76.0	+110.0	-78.0	+110.0	-80.0	+110.0	-81.0
76 3/16		+110.0	-52.0	+110.0	-57.0	+110.0	-61.0	+110.0	-65.0	+110.0	-69.0	+110.0	-72.0	+110.0	-74.0	+110.0	-76.0	+110.0	-77.0
79		+109.0	-50.0	+110.0	-55.0	+110.0	-59.0	+110.0	-63.0	+110.0	-67.0	+110.0	-70.0	+110.0	-72.0	+110.0	-74.0	+110.0	-75.0
84		+105.0	-46.0	+110.0	-51.0	+110.0	-55.0	+110.0	-59.0	+110.0	-63.0	+110.0	-66.0	+110.0	-68.0	+110.0	-70.0	+110.0	-71.0
96		+93.0	-37.0	+110.0	-42.0	+110.0	-46.0	+110.0	-50.0	+110.0	-54.0	+110.0	-57.0	+110.0	-59.0	+110.0	-61.0	+110.0	-62.0
120		+74.0	-28.0	+94.0	-33.0	+110.0	-37.0	+110.0	-41.0	+110.0	-45.0	+110.0	-48.0	+110.0	-50.0	+110.0	-52.0	+110.0	-53.0
127		+70.0	-26.0	+89.0	-31.0	+106.0	-35.0	+110.0	-39.0	+110.0	-43.0	+110.0	-46.0	+110.0	-48.0	+110.0	-50.0	+110.0	-51.0

Window Height (in)	Glass Type	Design Load Capacity (lbs/ft²) — Window Rough Width (in)																	
		24 1/8		31		36 1/2		42		48		54		60 1/8		66		72	
24		+113.0	-87.0	+110.0	-92.0	+110.0	-96.0	+110.0	-100.0	+110.0	-103.0	+110.0	-106.0	+110.0	-108.0	+110.0	-109.0	+110.0	-110.0
36		+110.0	-82.0	+110.0	-88.0	+110.0	-92.0	+110.0	-96.0	+110.0	-100.0	+110.0	-103.0	+110.0	-105.0	+110.0	-107.0	+110.0	-108.0
39 3/4		+110.0	-81.0	+110.0	-86.0	+110.0	-90.0	+110.0	-94.0	+110.0	-98.0	+110.0	-101.0	+110.0	-103.0	+110.0	-105.0	+110.0	-106.0
40		+110.0	-80.0	+110.0	-85.0	+110.0	-89.0	+110.0	-93.0	+110.0	-97.0	+110.0	-100.0	+110.0	-102.0	+110.0	-104.0	+110.0	-105.0
48		+110.0	-74.0	+110.0	-79.0	+110.0	-83.0	+110.0	-87.0	+110.0	-91.0	+110.0	-94.0	+110.0	-96.0	+110.0	-98.0	+110.0	-99.0
53 3/16		+110.0	-70.0	+110.0	-75.0	+110.0	-79.0	+110.0	-83.0	+110.0	-87.0	+110.0	-90.0	+110.0	-92.0	+110.0	-94.0	+110.0	-95.0
56		+110.0	-68.0	+110.0	-73.0	+110.0	-77.0	+110.0	-81.0	+110.0	-85.0	+110.0	-88.0	+110.0	-90.0	+110.0	-92.0	+110.0	-93.0
60		+110.0	-65.0	+110.0	-70.0	+110.0	-74.0	+110.0	-78.0	+110.0	-82.0	+110.0	-85.0	+110.0	-87.0	+110.0	-89.0	+110.0	-90.0
72		+110.0	-56.0	+110.0	-61.0	+110.0	-65.0	+110.0	-69.0	+110.0	-73.0	+110.0	-76.0	+110.0	-78.0	+110.0	-80.0	+110.0	-81.0
76 3/16		+110.0	-52.0	+110.0	-57.0	+110.0	-61.0	+110.0	-65.0	+110.0	-69.0	+110.0	-72.0	+110.0	-74.0	+110.0	-76.0	+110.0	-77.0
79		+109.0	-50.0	+110.0	-55.0	+110.0	-59.0	+110.0	-63.0	+110.0	-67.0	+110.0	-70.0	+110.0	-72.0	+110.0	-74.0	+110.0	-75.0
84		+105.0	-46.0	+110.0	-51.0	+110.0	-55.0	+110.0	-59.0	+110.0	-63.0	+110.0	-66.0	+110.0	-68.0	+110.0	-70.0	+110.0	-71.0
96		+93.0	-37.0	+110.0	-42.0	+110.0	-46.0	+110.0	-50.0	+110.0	-54.0	+110.0	-57.0	+110.0	-59.0	+110.0	-61.0	+110.0	-62.0
120		+74.0	-28.0	+94.0	-33.0	+110.0	-37.0	+110.0	-41.0	+110.0	-45.0	+110.0	-48.0	+110.0	-50.0	+110.0	-52.0	+110.0	-53.0
127		+70.0	-26.0	+89.0	-31.0	+106.0	-35.0	+110.0	-39.0	+110.0	-43.0	+110.0	-46.0	+110.0	-48.0	+110.0	-50.0	+110.0	-51.0

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300-09 (3 SEC. GUST).

NOTE:
NO SHUTTERS REQUIRE.
REFER TO SHEETS 6 AND 7 FOR INSTALLATION DETAILS.



NOTE:
WIDTH AND LENGTH DIMENSIONS CAN BE ORIENTED VERTICALLY OR HORIZONTALLY AS SHOWN.



NOTE:
USEFUL LOAD CAPACITY OF WINDOW BY INSCRIBING SHAPE OF WINDOW WITHIN A RECTANGULAR OR SQUARE SHAPE AND USING THOSE DIMENSIONS TO CONSULT CHARTS ON SHEET 4, 5, & 6 FOR GLASS AND SHEET 8 FOR ANCHORS AS ON THIS SAMPLES.

WINDOOR
WINDOOR INC.
PREPARED BY: A. LYNN MILLER
DRAWING TITLE: DR VALUES
A. WORKSHEET
DRAWING NO.: 4 OF 10
PASSED
DATE: 5/27/23
A

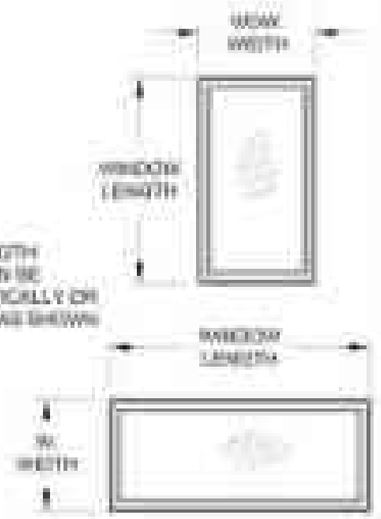
ANTHONY LYNN MILLER
LICENSE
No. 59708
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.O. BOX 59708

Design Load Capacity (lbs/ft²)

Window Size (width by height)

Glass Type & Thickness	20 x 36		24 x 36		28 x 36		32 x 36		36 x 36		40 x 36		48 x 36		60 x 36		72 x 36		84 x 36		96 x 36		120 x 36	
	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
2G	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
3L	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
3A-3A	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
4G	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
4L	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
4L-4L/4R	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
5G	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
5L	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
5L-5L/5R	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
6G	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
6L	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
6L-6L/6R	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
7G	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
7L	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
7L-7L/7R	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
8G	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
8L	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
8L-8L/8R	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
9G	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
9L	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
9L-9L/9R	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
10G	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
10L	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
10L-10L/10R	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0

NOTE:
WIDTH AND LENGTH DIMENSIONS CAN BE ORIENTED VERTICALLY OR HORIZONTALLY AS SHOWN ABOVE



Design Load Capacity (lbs/ft²)

Window Size (width by height)

Glass Type & Thickness	20 x 48		24 x 48		28 x 48		32 x 48		36 x 48		40 x 48		48 x 48		60 x 48		72 x 48		84 x 48		96 x 48		120 x 48	
	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
2G	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
3L	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
3A-3A	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
4G	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
4L	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
4L-4L/4R	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
5G	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
5L	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
5L-5L/5R	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
6G	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
6L	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
6L-6L/6R	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
7G	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
7L	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
7L-7L/7R	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
8G	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
8L	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
8L-8L/8R	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
9G	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
9L	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
9L-9L/9R	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
10G	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
10L	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0
10L-10L/10R	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0	+70.0	-70.0

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300-16(1) SPEC. GUIDE B.

NOTE:
NO SHUTTERS REQUIRE
REFER TO SHEETS 6 AND 7 FOR INSTALLATION DETAILS



NOTE:
VERIFY LOAD CAPACITY OF WINDOW BY INSCRIBING SHAPE OF WINDOW WITHIN A RECTANGULAR OR SQUARE SHAPE AND USING THOSE DIMENSIONS TO CONSULT CHARTS ON SHEET 4, 5, & 6 FOR GLASS AND SHEET 8 FOR ANCHORS AS ON THIS SHAPE (S).

WINDOOR

PREPARED BY: A. LYNN MILLER, P.E.
STATE OF FLORIDA

ALUM. FIXED HARDWOOD SHAPES (LHS)

DP VALUES

PASSED

A

SHEET 5 OF 10

PASSED

A. LYNN MILLER, P.E.
No. 59708
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Design Load Capacity (lbs/ft²)

Window Size Width (')

Glass Type & Thickness	4'-0"	5'	5'-6"	6'	6'-6"	7'	7'-6"	8'	8'-6"	9'	9'-6"	10'	10'-6"	11'	11'-6"	12'
3/16" Annealed	+110.0 / -110.0	+88.0 / -88.0	+80.0 / -80.0	+73.3 / -73.3	+67.7 / -67.7	+62.9 / -62.9	+58.7 / -58.7	+55.0 / -55.0	+51.8 / -51.8	+48.9 / -48.9	+46.3 / -46.3	+44.0 / -44.0	+41.9 / -41.9	+40.0 / -40.0	+38.3 / -38.3	+36.7 / -36.7
1/4" Annealed	+110.0 / -110.0	+88.0 / -88.0	+80.0 / -80.0	+73.3 / -73.3	+67.7 / -67.7	+62.9 / -62.9	+58.7 / -58.7	+55.0 / -55.0	+51.8 / -51.8	+48.9 / -48.9	+46.3 / -46.3	+44.0 / -44.0	+41.9 / -41.9	+40.0 / -40.0	+38.3 / -38.3	+36.7 / -36.7
5/16" Annealed	+110.0 / -110.0	+88.0 / -88.0	+80.0 / -80.0	+73.3 / -73.3	+67.7 / -67.7	+62.9 / -62.9	+58.7 / -58.7	+55.0 / -55.0	+51.8 / -51.8	+48.9 / -48.9	+46.3 / -46.3	+44.0 / -44.0	+41.9 / -41.9	+40.0 / -40.0	+38.3 / -38.3	+36.7 / -36.7
3/8" Annealed	+110.0 / -110.0	+88.0 / -88.0	+80.0 / -80.0	+73.3 / -73.3	+67.7 / -67.7	+62.9 / -62.9	+58.7 / -58.7	+55.0 / -55.0	+51.8 / -51.8	+48.9 / -48.9	+46.3 / -46.3	+44.0 / -44.0	+41.9 / -41.9	+40.0 / -40.0	+38.3 / -38.3	+36.7 / -36.7
1/2" Annealed	+110.0 / -110.0	+88.0 / -88.0	+80.0 / -80.0	+73.3 / -73.3	+67.7 / -67.7	+62.9 / -62.9	+58.7 / -58.7	+55.0 / -55.0	+51.8 / -51.8	+48.9 / -48.9	+46.3 / -46.3	+44.0 / -44.0	+41.9 / -41.9	+40.0 / -40.0	+38.3 / -38.3	+36.7 / -36.7
5/8" Annealed	+110.0 / -110.0	+88.0 / -88.0	+80.0 / -80.0	+73.3 / -73.3	+67.7 / -67.7	+62.9 / -62.9	+58.7 / -58.7	+55.0 / -55.0	+51.8 / -51.8	+48.9 / -48.9	+46.3 / -46.3	+44.0 / -44.0	+41.9 / -41.9	+40.0 / -40.0	+38.3 / -38.3	+36.7 / -36.7
3/4" Annealed	+110.0 / -110.0	+88.0 / -88.0	+80.0 / -80.0	+73.3 / -73.3	+67.7 / -67.7	+62.9 / -62.9	+58.7 / -58.7	+55.0 / -55.0	+51.8 / -51.8	+48.9 / -48.9	+46.3 / -46.3	+44.0 / -44.0	+41.9 / -41.9	+40.0 / -40.0	+38.3 / -38.3	+36.7 / -36.7
1" Annealed	+110.0 / -110.0	+88.0 / -88.0	+80.0 / -80.0	+73.3 / -73.3	+67.7 / -67.7	+62.9 / -62.9	+58.7 / -58.7	+55.0 / -55.0	+51.8 / -51.8	+48.9 / -48.9	+46.3 / -46.3	+44.0 / -44.0	+41.9 / -41.9	+40.0 / -40.0	+38.3 / -38.3	+36.7 / -36.7
1-1/4" Annealed	+110.0 / -110.0	+88.0 / -88.0	+80.0 / -80.0	+73.3 / -73.3	+67.7 / -67.7	+62.9 / -62.9	+58.7 / -58.7	+55.0 / -55.0	+51.8 / -51.8	+48.9 / -48.9	+46.3 / -46.3	+44.0 / -44.0	+41.9 / -41.9	+40.0 / -40.0	+38.3 / -38.3	+36.7 / -36.7
1-1/2" Annealed	+110.0 / -110.0	+88.0 / -88.0	+80.0 / -80.0	+73.3 / -73.3	+67.7 / -67.7	+62.9 / -62.9	+58.7 / -58.7	+55.0 / -55.0	+51.8 / -51.8	+48.9 / -48.9	+46.3 / -46.3	+44.0 / -44.0	+41.9 / -41.9	+40.0 / -40.0	+38.3 / -38.3	+36.7 / -36.7
2" Annealed	+110.0 / -110.0	+88.0 / -88.0	+80.0 / -80.0	+73.3 / -73.3	+67.7 / -67.7	+62.9 / -62.9	+58.7 / -58.7	+55.0 / -55.0	+51.8 / -51.8	+48.9 / -48.9	+46.3 / -46.3	+44.0 / -44.0	+41.9 / -41.9	+40.0 / -40.0	+38.3 / -38.3	+36.7 / -36.7

Design Load Capacity (lbs/ft²)

Window Size Width (')

Glass Type & Thickness	4'-0"	5'	5'-6"	6'	6'-6"	7'	7'-6"	8'	8'-6"	9'	9'-6"	10'	10'-6"	11'	11'-6"	12'
3/16" Annealed	+110.0 / -110.0	+88.0 / -88.0	+80.0 / -80.0	+73.3 / -73.3	+67.7 / -67.7	+62.9 / -62.9	+58.7 / -58.7	+55.0 / -55.0	+51.8 / -51.8	+48.9 / -48.9	+46.3 / -46.3	+44.0 / -44.0	+41.9 / -41.9	+40.0 / -40.0	+38.3 / -38.3	+36.7 / -36.7
1/4" Annealed	+110.0 / -110.0	+88.0 / -88.0	+80.0 / -80.0	+73.3 / -73.3	+67.7 / -67.7	+62.9 / -62.9	+58.7 / -58.7	+55.0 / -55.0	+51.8 / -51.8	+48.9 / -48.9	+46.3 / -46.3	+44.0 / -44.0	+41.9 / -41.9	+40.0 / -40.0	+38.3 / -38.3	+36.7 / -36.7
5/16" Annealed	+110.0 / -110.0	+88.0 / -88.0	+80.0 / -80.0	+73.3 / -73.3	+67.7 / -67.7	+62.9 / -62.9	+58.7 / -58.7	+55.0 / -55.0	+51.8 / -51.8	+48.9 / -48.9	+46.3 / -46.3	+44.0 / -44.0	+41.9 / -41.9	+40.0 / -40.0	+38.3 / -38.3	+36.7 / -36.7
3/8" Annealed	+110.0 / -110.0	+88.0 / -88.0	+80.0 / -80.0	+73.3 / -73.3	+67.7 / -67.7	+62.9 / -62.9	+58.7 / -58.7	+55.0 / -55.0	+51.8 / -51.8	+48.9 / -48.9	+46.3 / -46.3	+44.0 / -44.0	+41.9 / -41.9	+40.0 / -40.0	+38.3 / -38.3	+36.7 / -36.7
1/2" Annealed	+110.0 / -110.0	+88.0 / -88.0	+80.0 / -80.0	+73.3 / -73.3	+67.7 / -67.7	+62.9 / -62.9	+58.7 / -58.7	+55.0 / -55.0	+51.8 / -51.8	+48.9 / -48.9	+46.3 / -46.3	+44.0 / -44.0	+41.9 / -41.9	+40.0 / -40.0	+38.3 / -38.3	+36.7 / -36.7
5/8" Annealed	+110.0 / -110.0	+88.0 / -88.0	+80.0 / -80.0	+73.3 / -73.3	+67.7 / -67.7	+62.9 / -62.9	+58.7 / -58.7	+55.0 / -55.0	+51.8 / -51.8	+48.9 / -48.9	+46.3 / -46.3	+44.0 / -44.0	+41.9 / -41.9	+40.0 / -40.0	+38.3 / -38.3	+36.7 / -36.7
3/4" Annealed	+110.0 / -110.0	+88.0 / -88.0	+80.0 / -80.0	+73.3 / -73.3	+67.7 / -67.7	+62.9 / -62.9	+58.7 / -58.7	+55.0 / -55.0	+51.8 / -51.8	+48.9 / -48.9	+46.3 / -46.3	+44.0 / -44.0	+41.9 / -41.9	+40.0 / -40.0	+38.3 / -38.3	+36.7 / -36.7
1" Annealed	+110.0 / -110.0	+88.0 / -88.0	+80.0 / -80.0	+73.3 / -73.3	+67.7 / -67.7	+62.9 / -62.9	+58.7 / -58.7	+55.0 / -55.0	+51.8 / -51.8	+48.9 / -48.9	+46.3 / -46.3	+44.0 / -44.0	+41.9 / -41.9	+40.0 / -40.0	+38.3 / -38.3	+36.7 / -36.7
1-1/4" Annealed	+110.0 / -110.0	+88.0 / -88.0	+80.0 / -80.0	+73.3 / -73.3	+67.7 / -67.7	+62.9 / -62.9	+58.7 / -58.7	+55.0 / -55.0	+51.8 / -51.8	+48.9 / -48.9	+46.3 / -46.3	+44.0 / -44.0	+41.9 / -41.9	+40.0 / -40.0	+38.3 / -38.3	+36.7 / -36.7
1-1/2" Annealed	+110.0 / -110.0	+88.0 / -88.0	+80.0 / -80.0	+73.3 / -73.3	+67.7 / -67.7	+62.9 / -62.9	+58.7 / -58.7	+55.0 / -55.0	+51.8 / -51.8	+48.9 / -48.9	+46.3 / -46.3	+44.0 / -44.0	+41.9 / -41.9	+40.0 / -40.0	+38.3 / -38.3	+36.7 / -36.7
2" Annealed	+110.0 / -110.0	+88.0 / -88.0	+80.0 / -80.0	+73.3 / -73.3	+67.7 / -67.7	+62.9 / -62.9	+58.7 / -58.7	+55.0 / -55.0	+51.8 / -51.8	+48.9 / -48.9	+46.3 / -46.3	+44.0 / -44.0	+41.9 / -41.9	+40.0 / -40.0	+38.3 / -38.3	+36.7 / -36.7

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300-09 (3 SEC. GUSTS).

NOTE:
NO SHUTTERS REQUIRE.
REFER TO SHEETS 6 AND 7 FOR INSTALLATION DETAILS.





NOTE:
WIDTH AND LENGTH DIMENSIONS CAN BE ORIENTED VERTICALLY OR HORIZONTALLY AS SHOWN ABOVE.

NOTE:
VERIFY LOAD CAPACITY OF WINDOW BY INSCRIBING SHAPE OF WINDOW WITHIN A RECTANGULAR OR SQUARE SHAPE AND USING THOSE DIMENSIONS TO CONSULT CHARTS ON SHEET 4, 5, & 6 FOR GLASS AND SHEET 8 FOR ANCHORS AS ON THIS SHAPE (S).

WINDOOR®

PREPARED BY:
STATE OF FLORIDA
PROFESSIONAL ENGINEER
No. 59708

ALUM. FIXED HARDWOOD SHAPES (1) (2)

DP VALUES

PASSED

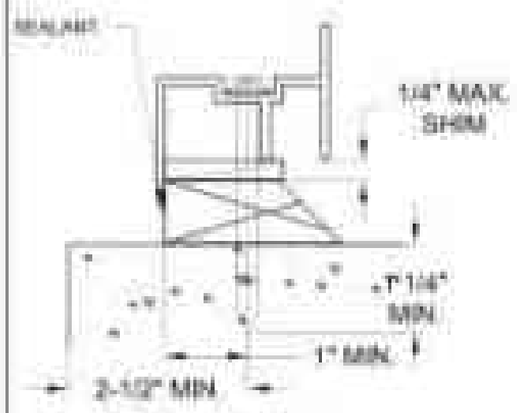
SHEET 5 OF 10

SIZE 22x17

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INSTALLATION CONDITIONS (APPLIES TO ALL FOUR SIDES)

FOR ANCHOR PERFORMANCE VALUES SEE SHEET 6



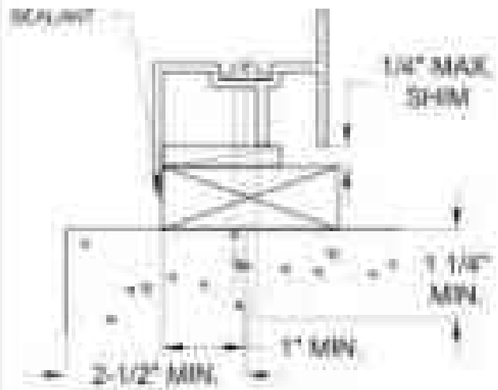
INSTALLATION TYPE '1'



WOOD BUCK TYPE '1'

MATERIAL PRESSURE TREATED

TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES USING WOOD



INSTALLATION TYPE '2'



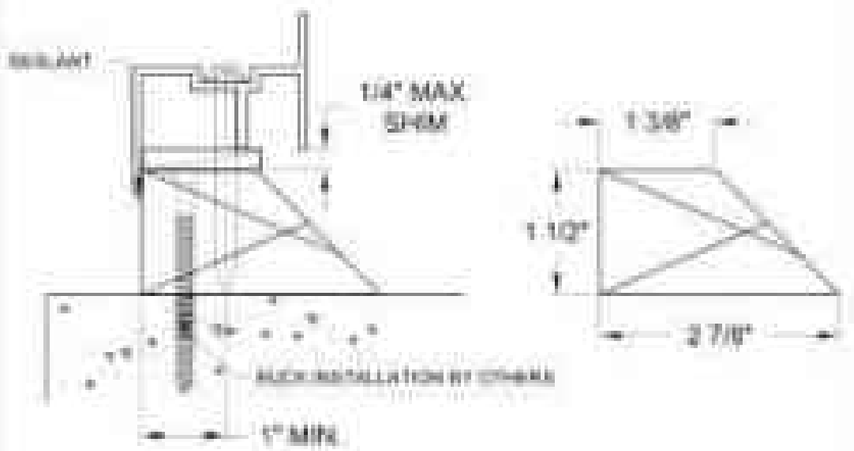
WOOD BUCK TYPE '2'

MATERIAL PRESSURE TREATED

TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES USING WOOD



ATTACHMENT TO
METAL STRUCTURES

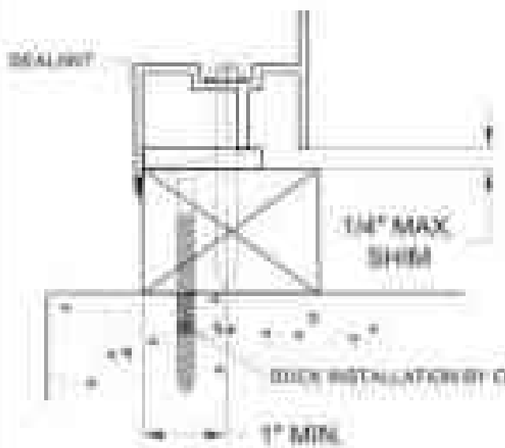


INSTALLATION TYPE '3'

WOOD BUCK TYPE '3'

MATERIAL PRESSURE TREATED

TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES USING WOOD



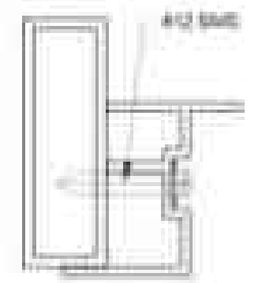
INSTALLATION TYPE '4'



WOOD BUCK TYPE '4'

MATERIAL PRESSURE TREATED

TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES USING WOOD



ATTACHMENT TO
APPROVED MULLIONS

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

A	5/27/23

WINDOOR®

PREPARED BY: A. LYNN MILLER, P.E. FL 59708 — 10/9/23 — A. MOSLEH

PRODUCT APPROVAL NUMBER: FL 16975.1

ALUM. FIXED HARDWOOD SHAPES (LHS)

ANCHOR INSTALLATION

7 OF 10

PASSED

STATE OF FLORIDA PROFESSIONAL ENGINEER — A. LYNN MILLER, P.E. No. 59708

PERFORMANCE VALUES (IF INSTALLATION ANCHORS)
REFER TO SHEET T-1 FOR DETAILS

WINDOW SIZE WIDTH	WINDOW SIZE HEIGHT	PSF (+/-) MIN. (+/-)
24"	36"	210.0
30"		210.0
36"		210.0
42"		210.0
48"		210.0
54"		210.0
60"		190.5
66"		173.2
72"		158.8
78"		146.5
84"		136.0
90"		127.0
24"	42"	210.0
30"		210.0
36"		210.0
42"		210.0
48"		210.0
54"		207.6
60"		178.6
66"		156.1
72"		139.7
78"		126.4
84"		115.4
90"		106.0
24"	48"	210.0
30"		210.0
36"		210.0
42"		210.0
48"		210.0
54"		210.0
60"		190.5
66"		173.2
72"		158.8
78"		146.5
84"		136.0
90"		127.0

PERFORMANCE VALUES (IF INSTALLATION ANCHORS)
REFER TO SHEET T-1 FOR DETAILS

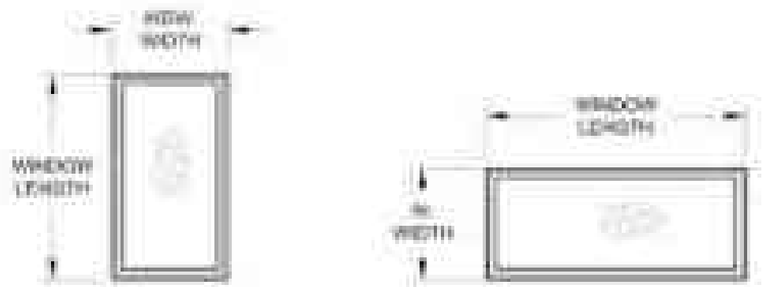
WINDOW SIZE WIDTH	WINDOW SIZE HEIGHT	PSF (+/-) MIN. (+/-)
24"	36"	210.0
30"		210.0
36"		195.4
42"		168.1
48"		166.3
54"		148.1
60"		142.9
66"		141.1
72"		139.9
78"		138.9
84"		138.2
90"		119.0
24"	42"	210.0
30"		210.0
36"		190.5
42"		173.2
48"		158.8
54"		146.5
60"		136.0
66"		127.0
72"		119.0
78"		112.0
84"		105.8
90"		100.0
24"	48"	210.0
30"		209.7
36"		181.8
42"		163.3
48"		150.0
54"		140.4
60"		133.3
66"		130.0
72"		126.3
78"		126.0
84"		117.6
90"		111.1
24"	60"	210.0
30"		187.5
36"		166.7
42"		151.4
48"		138.9
54"		130.7
60"		125.0
66"		122.9
72"		118.3
78"		118.3
84"		118.3
90"		111.1

PERFORMANCE VALUES (IF INSTALLATION ANCHORS)
REFER TO SHEET T-1 FOR DETAILS

WINDOW SIZE WIDTH	WINDOW SIZE HEIGHT	PSF (+/-) MIN. (+/-)
24"	36"	210.0
30"		180.6
36"		155.6
42"	108"	137.5
48"		123.6
54"		113.2
60"		107.7
66"		104.6
24"	120"	210.0
30"		182.8
36"		158.8
42"		139.5
48"		125.0
54"		114.7
60"		109.0
30"	132"	184.8
36"		161.8
42"		139.0
48"		125.0
24"	144"	206.3
30"		170.2
36"		144.9
42"		127.8

PERFORMANCE VALUES (IF INSTALLATION ANCHORS)
REFER TO SHEET T-1 FOR DETAILS

WINDOW SIZE WIDTH	WINDOW SIZE HEIGHT	PSF (+/-) MIN. (+/-)
18-1/8"	26"	210.0
26-1/2"		210.0
37"		210.0
53-1/8"		210.0
18-1/8"	36-3/8"	210.0
26-1/2"		210.0
37"		210.0
53-1/8"		210.0
18-1/8"	50-5/8"	210.0
26-1/2"		210.0
37"		210.0
53-1/8"		204.5
18-1/8"	62"	210.0
26-1/2"		210.0
37"		174.9
53-1/8"		148.6
18-1/8"	74-1/4"	210.0
26-1/2"		210.0
37"		174.5
53-1/8"		142.1



NOTE:
GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300-09 (3 SEC. GUSTS).

NOTE:
WIDTH AND LENGTH DIMENSIONS CAN BE ORIENTED VERTICALLY OR HORIZONTALLY AS SHOWN ABOVE.

Anchor Type	Description	Substrate	Fastener Embedment	Min. Edge Distance	Min. Embedment or Wood Thickness
A	#8 Screw	Min. 20 PT Wood Stud or Wood Structure	As	1"	1 1/2"
		Min. 4K (3.4K PSI) Concrete or Masonry	As	2 1/2"	1 1/4"
		Concrete Over Concrete or Masonry	As	2 1/2"	1 1/2"
A1	#8 Screw	Min. 20 PT Wood Stud or Wood Structure	As	1"	1 1/2"
		Min. 4K (3.4K PSI) Concrete or Masonry	As	2 1/2"	1 1/4"
		Concrete over Concrete or Masonry	As	2 1/2"	1 1/2"
B	#10 (NS)	Min. Steel 18 GA Min.	As	3/4"	(2) Screws min. in anchor leg into wood Substrate
		Min. Steel (typ.) 16" o.c.	As	1/2"	(2) Screws min. in anchor leg into wood Substrate
C	#10 (NS)	Min. Steel 18 GA Min.	As	3/4"	(2) Screws min. in anchor leg into wood Substrate
		Min. Steel (typ.) 16" o.c.	As	3/4"	(2) Screws min. in anchor leg into wood Substrate

ROCO AT HEAD, SILL OR JAMBS SG = 0.55 MIN.
CONCRETE AT HEAD, SILL OR JAMBS Fc = 3000 PSI MIN.
C-90 HOLLOW FILLED BLOCK AT JAMBS Fm = 2000 PSI MIN.

WINDOOR

PREPARED BY: ALI YOUNESI, PE
STE 110 TECHNOLOGY PARK
W. MELBOURNE, FL 32904
(321) 724-1555

ALI YOUNESI, PE
STATE OF FLORIDA
PROFESSIONAL ENGINEER
No. 59708

ALI YOUNESI, P.E.
P.E. #59708

ARCHIVED INFORMATION

PASSED

8 OF 10

PASSED

SIZING

A

No.	DATE	REVISION
1	1/24/23	PER COMMENTS

PERFORMANCE VALUES OF ALUMINUM BUCK INSTALLATION WINDOWS			
WINDOW SIZE		APPLICABLE AT 17" (43.2 CM)	APPLICABLE AT 19" (48.3 CM)
WIDTH	HEIGHT	POS. (+) NEG. (-)	POS. (+) NEG. (-)
24"	36"	207.8	210.0
30"		198.9	210.0
36"		189.7	210.0
42"		136.5	184.7
48"		147.7	184.7
54"		122.1	184.7
60"		105.5	156.3
63"		98.8	170.4
66"		115.4	161.8
69"		108.8	152.1
72"		102.6	143.8
75"		97.2	136.0
78"		92.3	129.2
81"		87.8	122.9
84"		83.7	117.2
87"		80.0	112.0
90"		76.5	107.1
24"	42"	196.2	210.0
30"		187.7	197.0
36"		178.5	184.7
42"		135.7	180.9
48"		135.7	175.9
54"		115.1	172.7
60"		97.8	146.1
63"		90.4	136.3
66"		105.5	141.7
69"		99.6	136.3
72"		93.1	130.4
75"		87.6	140.7
78"		83.0	133.3
81"		85.0	126.8
84"		80.4	120.7
87"		76.3	126.6
90"		82.6	123.9
24"	48"	184.7	210.0
30"		161.2	201.5
36"		147.7	184.7
42"		135.7	175.9
48"		126.5	173.1
54"		116.8	166.2
60"		93.3	138.9
63"		89.2	149.2
66"		94.9	136.5
69"		92.3	129.3
72"		86.8	121.2
75"		81.5	130.4
78"		76.9	123.1
81"		82.5	116.8
84"		78.1	124.7
87"		74.1	118.7
90"		70.5	113.4

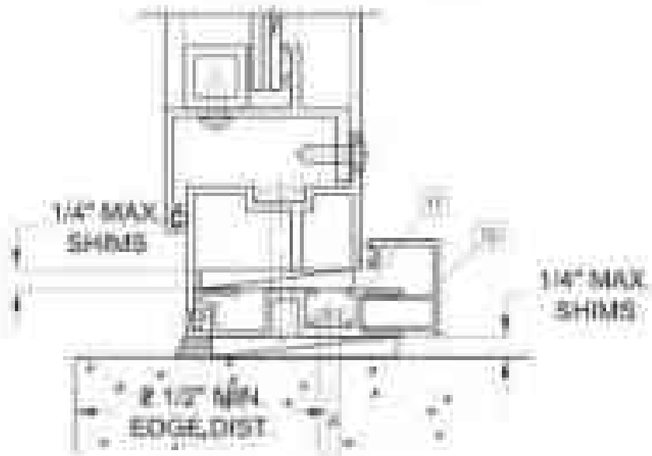
PERFORMANCE VALUES OF ALUMINUM BUCK INSTALLATION WINDOWS			
WINDOW SIZE		APPLICABLE AT 17" (43.2 CM)	APPLICABLE AT 19" (48.3 CM)
WIDTH	HEIGHT	POS. (+) NEG. (-)	POS. (+) NEG. (-)
24"	54"	118.3	210.0
30"		138.6	204.8
36"		123.1	184.7
42"		115.1	174.7
48"		110.8	166.2
54"		109.4	164.1
60"		99.5	134.3
63"		92.1	140.8
66"		94.7	132.8
69"		87.9	123.1
72"		82.1	114.8
75"		76.8	123.1
78"		72.4	116.9
81"		68.1	109.4
84"		77.8	116.8
87"		73.5	110.8
90"		70.2	105.5
24"	60"	138.6	207.8
30"		118.2	177.3
36"		105.5	158.3
42"		97.4	146.1
48"		92.3	138.5
54"		89.5	134.3
60"		84.6	133.0
63"		80.8	133.0
66"		86.8	130.3
69"		82.2	119.3
72"		78.1	110.8
75"		73.9	110.2
78"		69.3	110.8
81"		76.2	106.3
84"		71.8	110.8
87"		70.0	105.0
90"		66.5	99.7
24"	72"	138.6	207.8
30"		118.6	177.9
36"		105.5	158.3
42"		92.3	147.7
48"		86.9	139.0
54"		84.7	132.6
60"		79.8	119.7
63"		72.9	109.4
66"		77.5	108.5
69"		72.1	107.8
72"		68.2	102.3
75"		64.2	107.0
78"		61.0	102.3
81"		67.9	97.3
84"		65.6	102.3
87"		63.9	95.9
90"		60.7	91.0
24"	84"	138.6	207.8
30"		118.6	177.9
36"		105.7	151.1
42"		90.4	135.7
48"		83.3	124.7
54"		77.8	116.6
60"		73.8	110.8
63"		73.4	109.5
66"		71.1	106.7
69"		70.1	105.1
72"		68.3	103.9
75"		68.9	102.9
78"		65.8	102.3
81"		67.9	97.3
84"		65.6	97.4
87"		63.8	102.3
90"		60.7	91.0
24"	96"	138.6	207.8
30"		118.6	177.9
36"		105.7	158.3
42"		92.3	147.7
48"		83.3	133.3
54"		78.9	123.1
60"		72.4	113.9
63"		69.2	109.2
66"		66.4	106.2
69"		68.2	105.5
72"		65.7	105.1
75"		65.8	104.9
78"		65.6	97.4
81"		65.6	102.3
84"		63.9	95.9
87"		63.8	95.9
90"		60.7	91.0
24"	108"	138.6	207.8
30"		118.6	177.9
36"		105.7	151.1
42"		90.4	135.7
48"		83.3	124.7
54"		77.8	116.6
60"		73.8	110.8
63"		73.4	109.5
66"		71.1	106.7
69"		70.1	105.1
72"		68.3	103.9
75"		68.9	102.9
78"		65.8	102.3
81"		67.9	97.3
84"		65.6	97.4
87"		63.8	102.3
90"		60.7	91.0
24"	120"	138.6	207.8
30"		118.6	177.9
36"		105.7	151.1
42"		90.4	135.7
48"		83.3	124.7
54"		77.8	116.6
60"		73.8	110.8
63"		73.4	109.5
66"		71.1	106.7
69"		70.1	105.1
72"		68.3	103.9
75"		68.9	102.9
78"		65.8	102.3
81"		67.9	97.3
84"		65.6	97.4
87"		63.8	102.3
90"		60.7	91.0

PERFORMANCE VALUES OF ALUMINUM BUCK INSTALLATION WINDOWS			
WINDOW SIZE		APPLICABLE AT 17" (43.2 CM)	APPLICABLE AT 19" (48.3 CM)
WIDTH	HEIGHT	POS. (+) NEG. (-)	POS. (+) NEG. (-)
24"	108"	121.2	180.4
30"		106.1	157.3
36"		96.2	135.4
42"		76.4	125.1
48"		69.1	106.8
54"		63.8	100.3
60"		59.7	93.9
63"		57.6	91.0
24"	120"	123.1	184.7
30"		101.3	152.9
36"		88.9	130.4
42"		78.2	115.1
48"		69.2	102.4
54"		63.5	97.2
24"	132"	124.7	185.7
30"		105.3	147.7
36"		87.2	126.4
42"		77.0	111.2
48"		69.3	100.3
54"		113.3	166.9
30"	144"	92.9	154.6
36"		79.1	121.9
42"		69.5	115.5
48"		61.3	103.0
24"	156"	115.4	184.7
30"		98.3	150.9
36"		86.3	129.3
42"		76.3	112.6

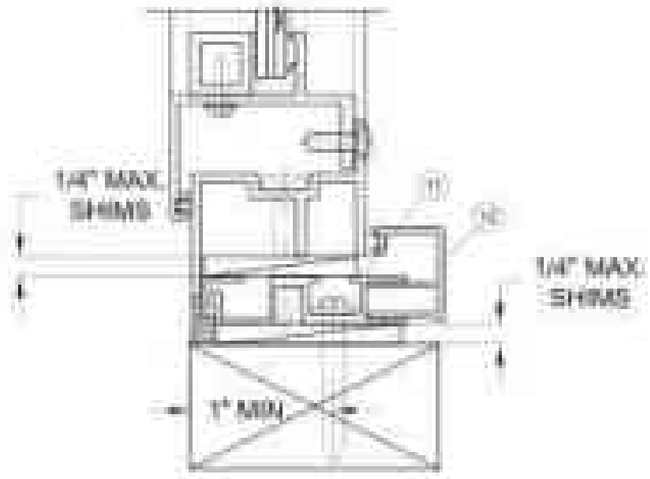
PERFORMANCE VALUES OF ALUMINUM BUCK INSTALLATION WINDOWS			
WINDOW SIZE		APPLICABLE AT 17" (43.2 CM)	APPLICABLE AT 19" (48.3 CM)
WIDTH	HEIGHT	POS. (+) NEG. (-)	POS. (+) NEG. (-)
19-1/8"	36"	210.0	210.0
25-1/2"		210.0	210.0
37"		191.6	210.0
53-1/8"		152.6	210.0
19-1/8"	36-3/8"	210.0	210.0
25-1/2"		176.7	210.0
37"		160.7	210.0
53-1/8"		122.6	183.8
19-1/8"	60-3/8"	203.2	210.0
25-1/2"		161.1	201.4
37"		134.2	167.8
53-1/8"		113.3	155.8
19-1/8"	63"	196.1	210.0
25-1/2"		151.0	210.0
37"		96.0	160.0
53-1/8"		83.4	144.2
19-1/8"	74-1/4"	161.2	210.0
25-1/2"		123.8	167.4
37"		96.7	154.7
53-1/8"		76.7	126.0

ALUMINUM BUCK FRAMING DETAILS

REFER TO SHEETS 3 THRU 8 FOR WINDOW CAPACITIES
USE LOWER APPLICABLE VALUES



INSTALLATION TYPE 'I'



INSTALLATION TYPE 'II'
(EY WOOD BUCK OR WOOD STRUCTURES

TYPICAL INSTALLATION DETAIL
(IN ALL FOUR SIDE SIDING ALUMINUM BUCK SYSTEM

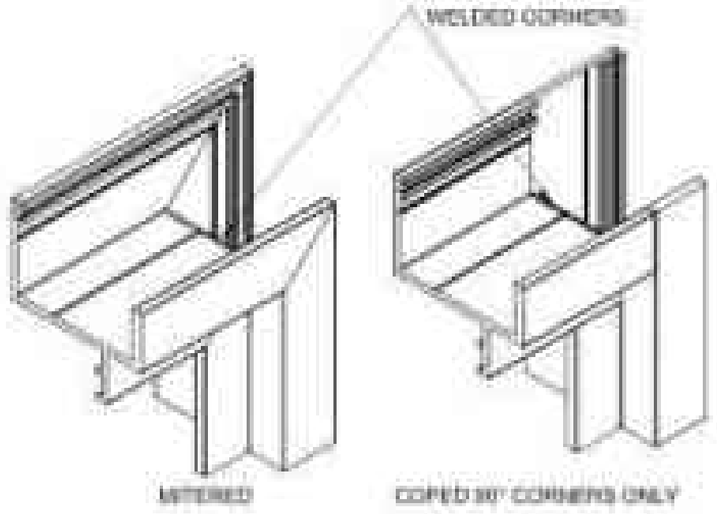
WINDOOR

PREPARED BY: A. LYNN MILLER, P.E.
STATE OF FLORIDA
PROFESSIONAL ENGINEER
No. 56708

A. LYNN MILLER, P.E.
P.O. BOX 5035

ALUMINUM BUCK FRAMING DETAILS
FOR WINDOOR WINDOWS

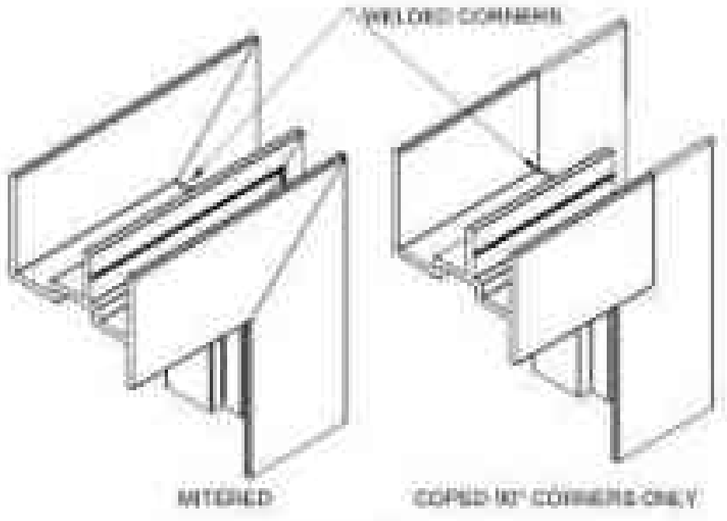
DRAWN	
CHECKED	
SCALE	1/4"=1'-0"
DATE	4/1/2005
REVISIONS	
SHEET	2 OF 8
PROJECT	



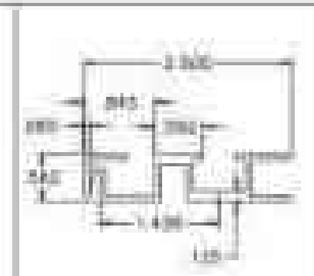
VENT CORNER

ALL FRAME AND VENT CORNERS TO BE SEALED WITH GE SILPRUF OR EQUIV.

ITEM	PART #	DESCRIPTION	MATERIAL
1	[illegible]	FRAME	[illegible]
2	[illegible]	VENT	[illegible]
3	[illegible]	GLAZING BEAD 'E'	[illegible]
3A	[illegible]	GLAZING BEAD LAMB	[illegible]
4	-	GLAZING HEAD SCREWS @ C.C. OF SASH @ 4" FROM ENDS & @ 9" C.C. MAX.	SS
5	-	GLAZING COMPOUND SEE CON. DOOR TYP. (CONCAVE)	SILICONE
6	-	SINGLE PIECE GLAZING TAPE 1/2" x 3/8"	RUBBER
7	[illegible]	VENT WEATHERSTRIPPING	CLEAR
8	-	VENT CORNER KEYS @ 1" MAX @ 1" C.C. TYP.	SS
9	-	FRAME AND VENT ASSEMBLY SCREWS PER C.I.W. SPEC	SS
10	-	SETTING BLOCK SUPPORTING SILL	EPDM
11	-	ALUMINUM SILL	ALUMINUM
12	-	OPTIONAL COVER	ALUMINUM



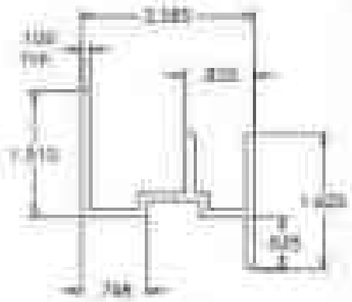
FRAME CORNER



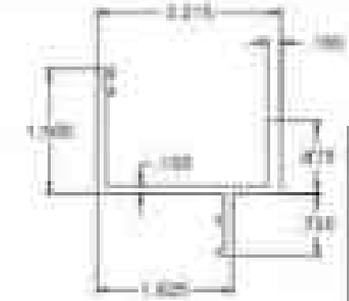
(1) ALUMINUM BUCK



(2) OPTIONAL COVER



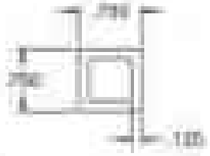
(3) FRAME



(4) VENT



(5) GLAZING BEAD 'E'



(6) GLAZING BEAD

A	5/27/23	

PREPARED BY: A. LYNN MILLER
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WINDOOR, INC.
FT. WORTH, TX
(817) 439-1000

1/29/23	A. MOULDER	PWDB/WPA

WINDOOR®

ALUM. FIXED WINDOW, SHAPES (1.5/8)

ROW & EXTRUSIONS	10 OF 10	
PASSED		

