



MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208
Miami, FL 33175

T (786) 315-2590 F (786) 315-2599

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

www.miamidade.gov/economy

NOTICE OF ACCEPTANCE (NOA)

WinDoor, Inc.
104 Triple Diamond Blvd.
North Venice, FL 34275

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami-Dade County) and/or the AHJ (in areas other than Miami-Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "238" Outswing Aluminum Casement Window - L.M.I.

APPROVAL DOCUMENT: Drawing No. CA238NOA-1, titled "238 Casement Window-LMI", sheets 1 through 9 of 9, dated 05/15/20, prepared, signed and sealed by Anthony Lynn Miller, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **revises NOA#18-1001.15** and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by **Sifang Zhao, P.E.**



S.Z.

11/26/2020

NOA No. 20-0528.08
Expiration Date: October 26, 2023
Approval Date: November 26, 2020
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No. CA238NOA-1, titled "238 Casement Window-LMI", sheets 1 through 9 of 9, dated 05/15/20, prepared, signed and sealed by Anthony Lynn Miller, P.E.,

B. TESTS TESTS

1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
4) Large Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with marked-up drawings and installation diagram of all CGI Windows and Doors, Inc. and PGT Industries, Inc., representative units listed below and tested to qualify **Dowsil 791** and **Dowsil 983** silicones, per Proposal #19-1155TP, prepared by Fenestration Testing Laboratory, Inc., Test Reports No.:

CGI Windows and Doors Inc. test specimens:

- FTL-20-2108.1**, CGI SH360 Aluminum Single Hung Window (unit 1 in proposal)
FTL-20-2108.2, CGI CA238 Alum. Outswing Casement Window (unit 2 in proposal)
FTL-20-2108.3, CGI SGD560 Aluminum Sliding Glass Door (unit 3 in proposal)
FTL-20-2108.4, CGI PW410 Aluminum Fixed Window (unit 4 in proposal) and
FTL-20-2108.5, CGI SH360 Aluminum Single Hung Window (unit 5 in proposal)all dated 08/24/20 and signed and sealed by Idalmis Ortega, P.E.

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC 7th Edition (2020)**, dated 05/22/20, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
2. Glazing complies with **ASTM E1300-04, -09, -12 and -16**.

D. QUALITY ASSURANCE


1. Miami Dade Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **17-0808.02** issued to **Kuraray America, Inc.** for their "**SentryGlas® (Clear and White) Glass Interlayers**", expiring on 07/04/23.

F. STATEMENTS

1. Statement letters of conformance to FBC 2017 (6th Edition) and FBC 2020 (7th Edition), dated 04/20/20, prepared, signed & sealed by Lynn Miller, P. E.
2. Notification of Successor Engineer per the Florida Administrative Code Section 61G15-27.001, notifying original engineer that the successor engineer is assuming full professional and legal responsibility for all engineering documents pertaining to this NOA, dated 06/12/20, signed and sealed by A. Lynn Miller, P.E.



Sifang Zhao, P.E.
Product Control Examiner
NOA No. 20-0528.08
Expiration Date: October 26, 2023
Approval Date: November 26, 2020

WinDoor, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

G. OTHERS

1. Private labeling agreement between WinDoor, Inc. and CGI Windows and Doors, Inc. document in conformance of RER guideline dated 09/12/2018.
(Submitted under NOA #18-1001.15)
2. Notice of Acceptance No. **18-1001.15**, issued to Windoor, Inc. for their Series “238” Aluminum Casement Window - L.M.I., approved on 12/13/2018 and expiring on 10/26/23.
3. Notice of Acceptance No. **20-0528.04**, issued to CGI Windows and Doors, Inc. for their Series “238” Aluminum Casement Window - L.M.I., approved on 11/12/2020 and expiring on 10/26/23.



Sifang Zhao, P.E.
Product Control Examiner
NOA No. 20-0528.08
Expiration Date: October 26, 2023
Approval Date: November 26, 2020

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

NOTES:

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2017 (6TH EDITION)/2020 (7TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

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

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.

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

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

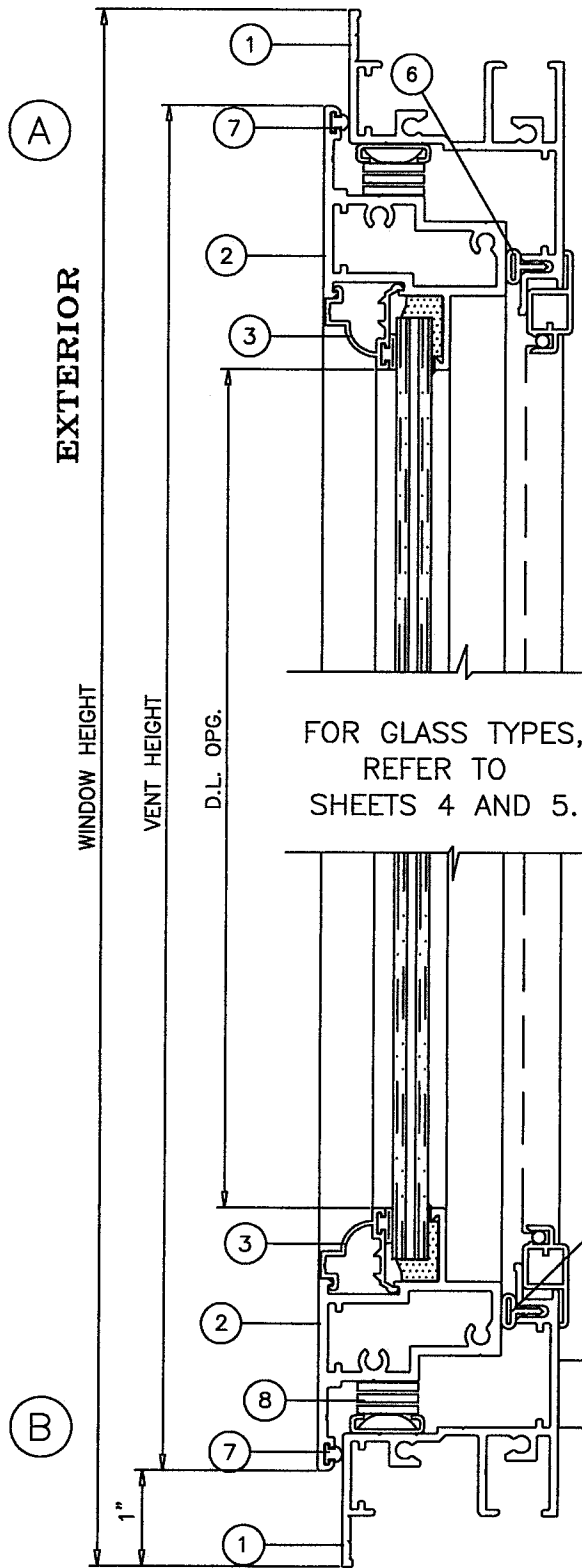
MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2017/2020 FLORIDA BUILDING CODE & ADOPTED STANDARDS.

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.

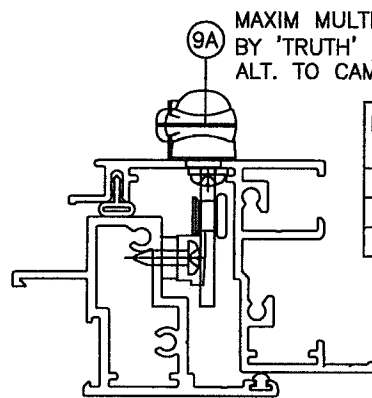
INSTRUCTIONS: USE CHARTS AS FOLLOWS.

- 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 AND 5 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE/TYPE.
- STEP 3** USING CHART ON SHEET 8 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 SHEET 9 TO DETERMINE CAPACITY.
- STEP 5** THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 SHALL APPLY TO ENTIRE SYSTEM.

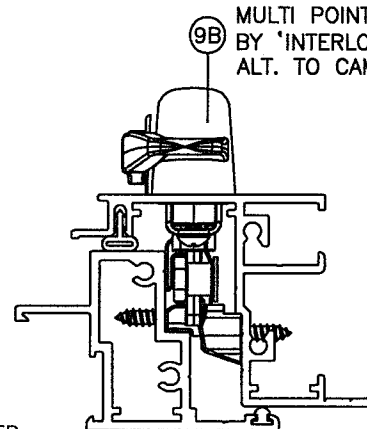
FOR GLASS TYPES, REFER TO SHEETS 4 AND 5.



**GENERAL WINDOW SECTIONS
FLANGE FRAME**

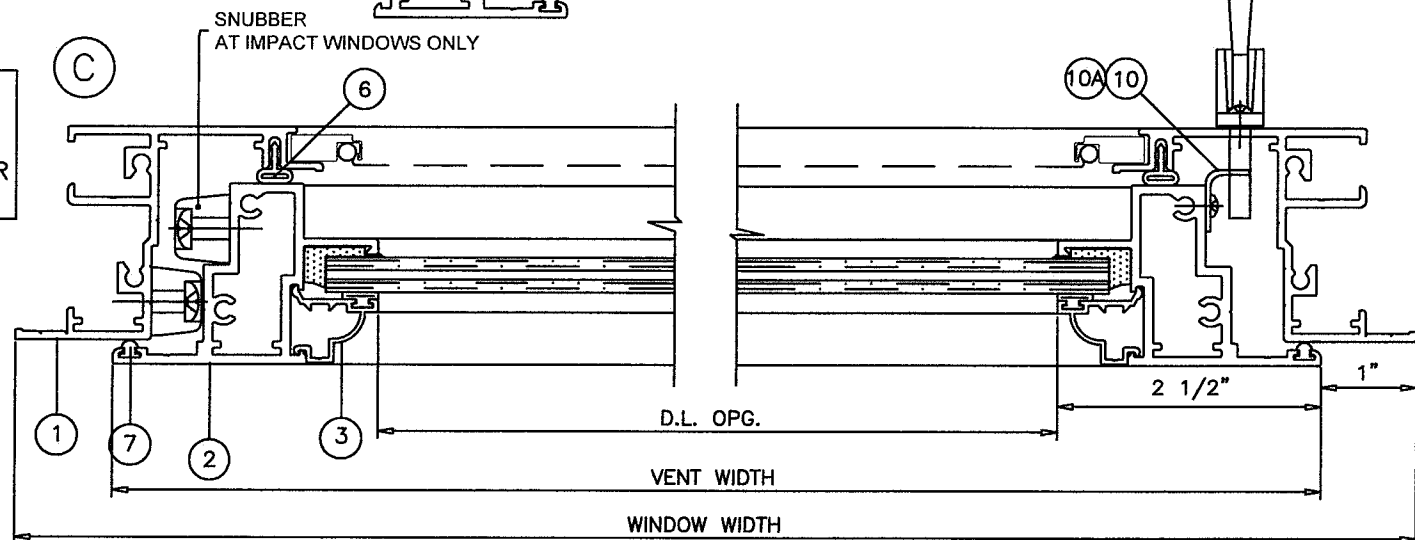


MAX. WDW. HEIGHT	LOCK POINTS
42"	2
63"	3
84"	4



MAX. WDW. HEIGHT	LOCK POINTS
38"	2
56"	3
74"	4
84"	5

FOR MULLION/MULTIPLE UNITS, REFER TO SEPARATE WINDOWOR MULLION NOA.



**TYPICAL ELEVATION
(FLANGE FRAME)**

EXTERIOR

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 20-0528.08
Expiration Date 10/26/2023
By *[Signature]*
Miami-Dade Product Control

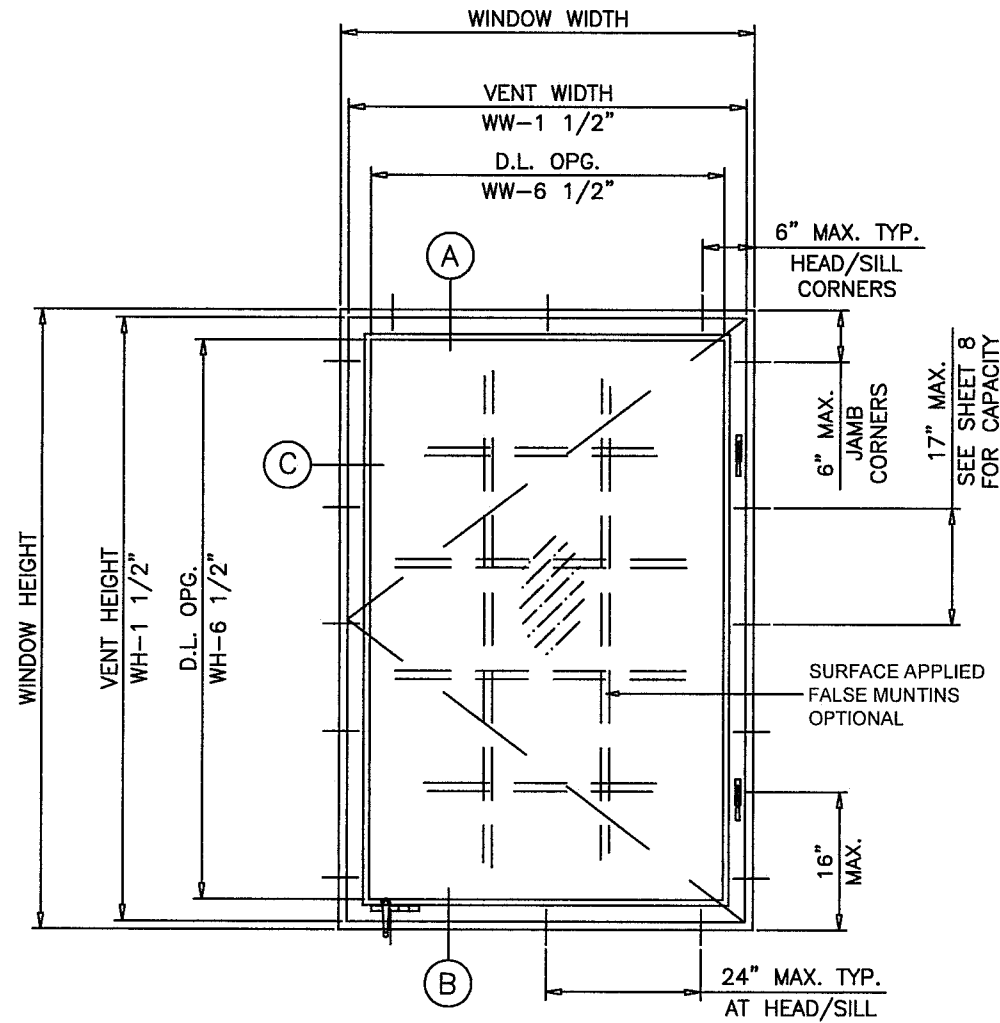
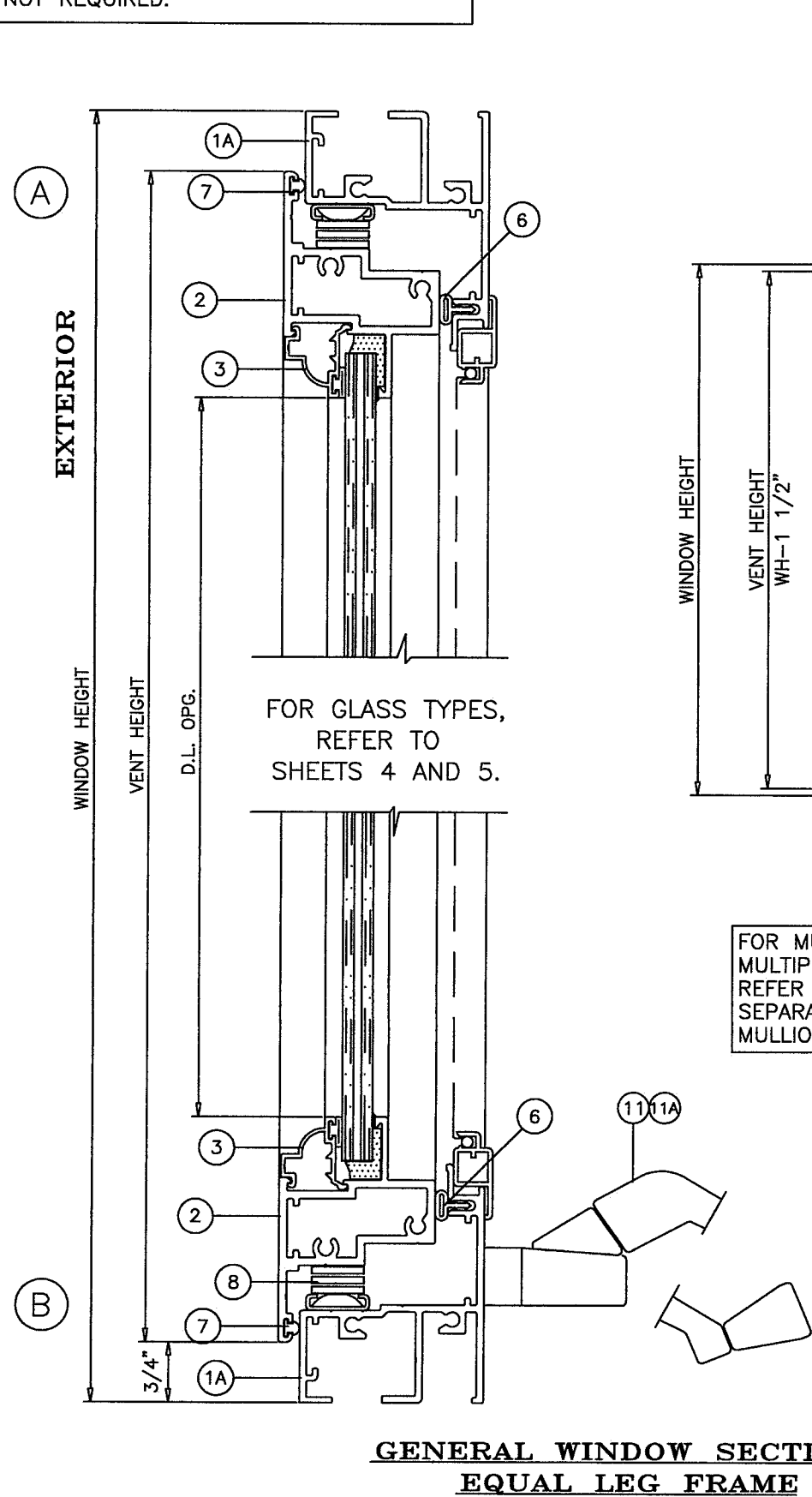
Revision: REVISED FOR 2020 FBC, ADDED ANCHOR TYPE & REFORMATTED. - JR - 5/15/20

PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	REGISTRATION #29296	Date	05/15/20	Rev.	A
	SERIES 238 CASEMENT WINDOW - LMI	Drawn	J ROSOWSKI	No.	CA238NOA-1
GEN. NOTES, ELEV. & FL. X-SECTIONS	Scale	NTS	Sheet	1 OF 9	DWG
CA238	Series Desc.	Title			

WINDOOR
INCORPORATED
104 TRIPLE DIAMOND BLVD.
N. VENICE, FL 34275
(407) 481-8400

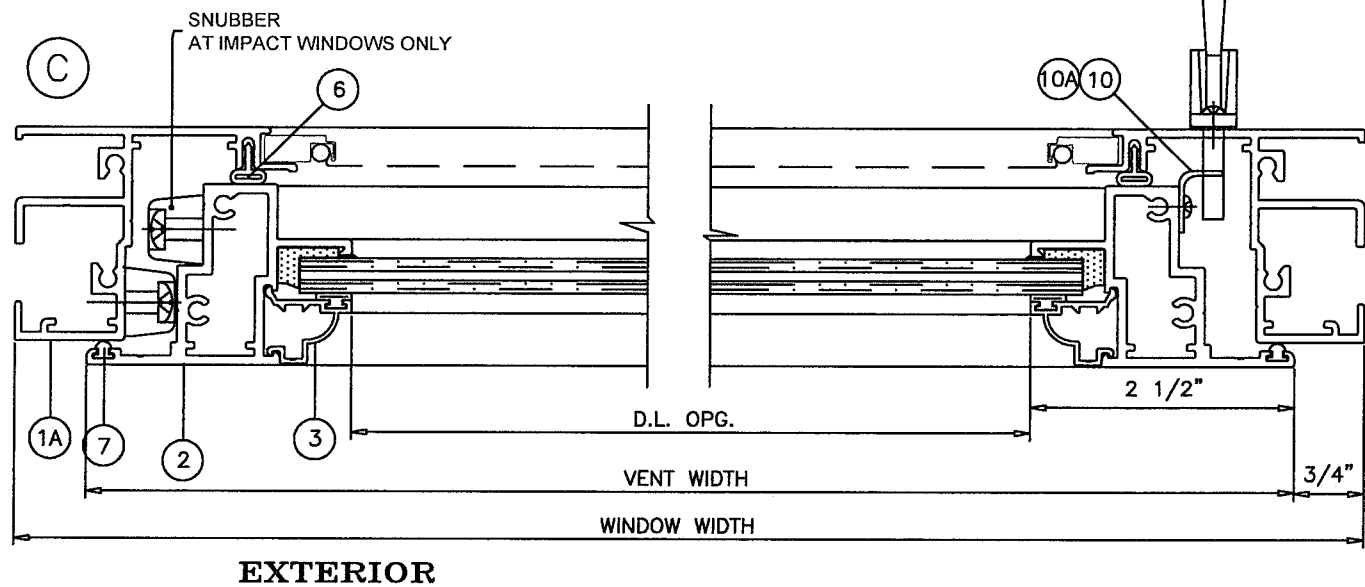
ANTHONY LYNN MILLER
LICENSE
No. 58705
5/22/20
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705

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



FOR MULLION/
MULTIPLE UNITS,
REFER TO
SEPARATE WINDOW
MULLION NOA.

TYPICAL ELEVATION
(EQUAL LEG FRAME)



MAXIM MULTI POINT LOCK
BY 'TRUTH'
ALT. TO CAM LOCKS

MAX. WD. HEIGHT	LOCK POINTS
42"	2
63"	3
84"	4

MULTI POINT LOCK
BY 'INTERLOCK'
ALT. TO CAM LOCKS

MAX. WD. HEIGHT	LOCK POINTS
38"	2
56"	3
74"	4
84"	5

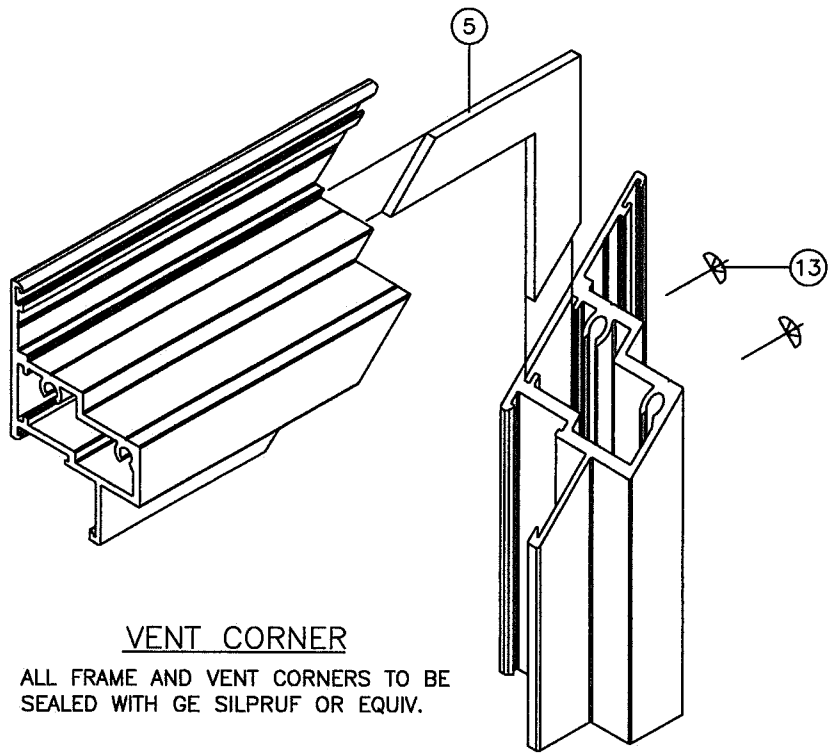
CAM LOCKS
2 LOCK POINTS
ALL SIZES

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0528.08
Expiration Date 10/26/2023
By
Miami-Dade Product Control

Revision:

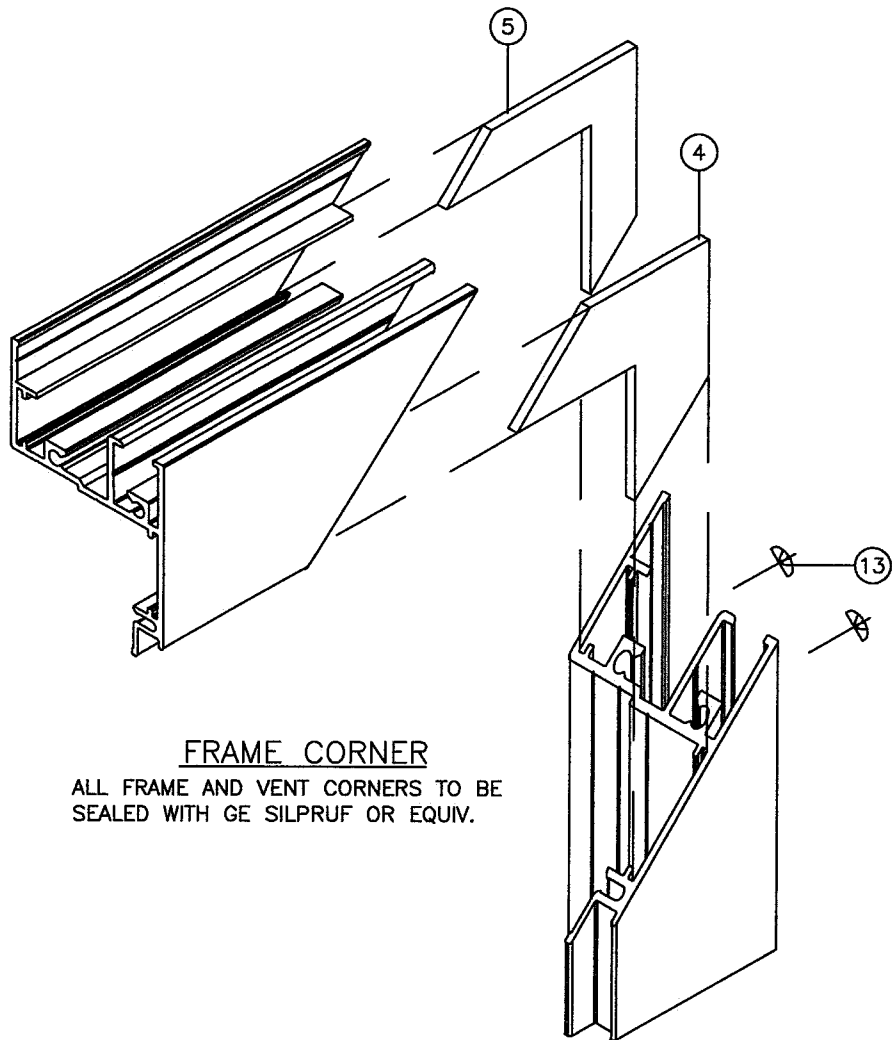
PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	REGISTRATION #29296	Date	05/15/20	Rev.	A
	SERIES 238 CASEMENT WINDOW - LMI	Drawn By	J ROSOWSKI	DWG No.	CA238NOA-1
WINDOOR INCORPORATED 104 TRIPLE DIAMOND BLVD. N. VENICE, FL 34275 (407) 481-8400	ELEV. & EL. X-SECTIONS	Scale	NTS	Sheet	2 OF 9
Series Desc. Title	CA238	Scale	NTS	Sheet	2 OF 9

ANTHONY LYNN MILLER
LICENSE
No. 58705
A. Lynn Miller
2/22/20
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705



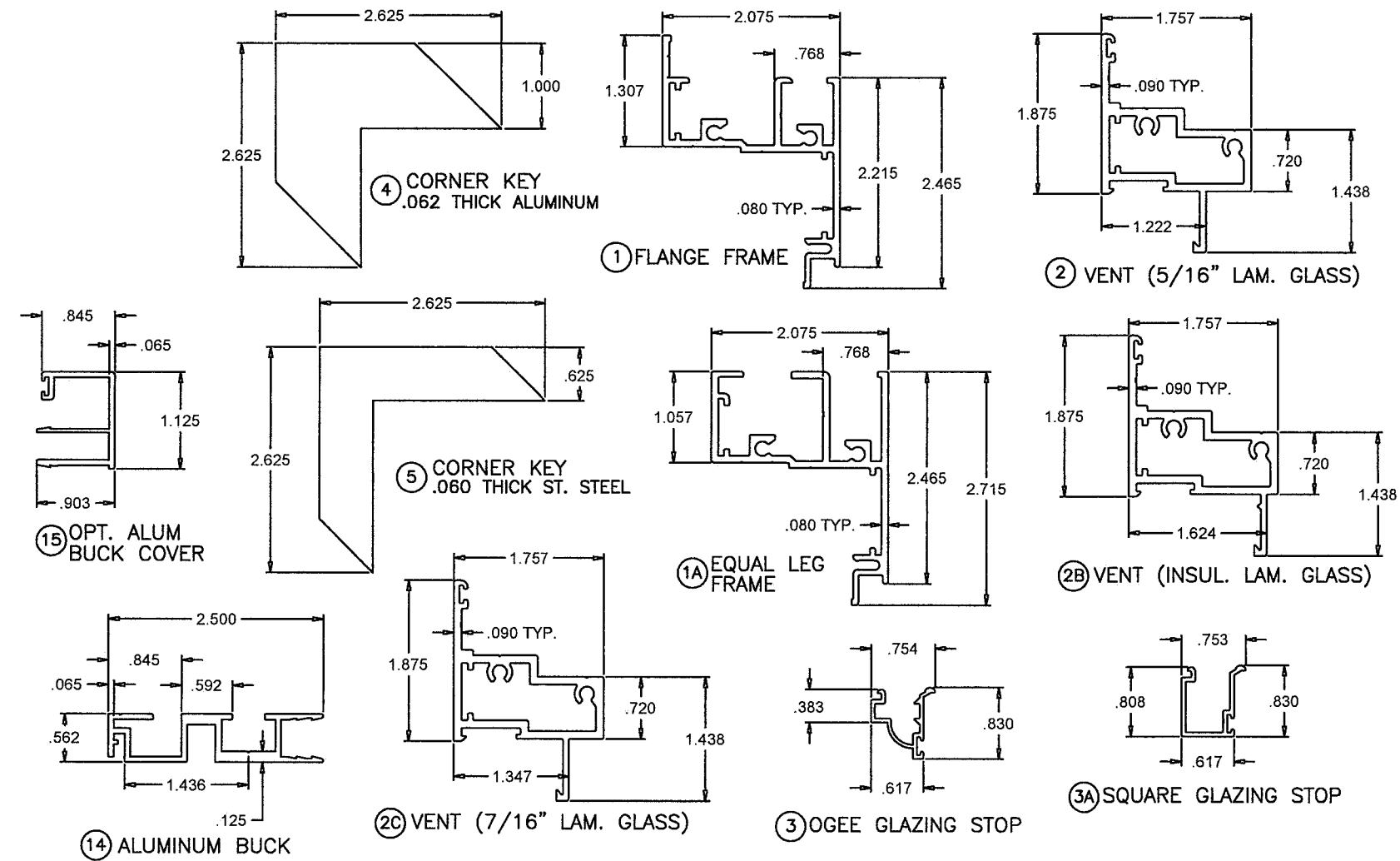
VENT CORNER

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



FRAME CORNER

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



ITEM	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	CGI-373	4	FLANGE FRAME	6063-T6	INDALEX OR EQUIV.
1A	CGI-397	4	EQUAL LEG FRAME	6063-T6	INDALEX OR EQUIV.
2	CGI-378	4	VENT (5/16" LAM. GLASS)	6063-T6	INDALEX OR EQUIV.
2B	CGI-381	4	VENT (INSUL. LAM. GLASS)	6063-T6	INDALEX OR EQUIV.
2C	CGI-385	4	VENT (7/16" LAM. GLASS)	6063-T6	INDALEX OR EQUIV.
3	CGI-375	4	OGEE GLAZING BEAD	6063-T5	INDALEX OR EQUIV.
3A	CGI-396	4	SQUARE GLAZING BEAD	6063-T5	INDALEX OR EQUIV.
4	-	4	.060 THICK CORNER KEY	ALUMINUM	-
5	-	8	.060 THICK CORNER KEY	ST. STEEL	-
6	AP-425	AS REQD.	FRAME WEATHERSTRIPPING	-	SCHLEGEL APTUS
7	Q250-K-190	AS REQD.	VENT WEATHERSTRIPPING	-	SCHLEGEL Q-LON
8	35-10-00-101	2/ VENT	4 BAR HINGE, AT TOP AND BOTTOM	STEEL	TRUTH, ATTACHED W/ (6) #8 X 3/8" SS SMS
9	24-13-00-202	2/ VENT	FACE MOUNT LOCK	STEEL	TRUTH, ATTACHED W/ (2) #8 X 3/8" SMS
9A	-	1/ VENT	MULTI POINT LOCK	-	TRUTH
9B	-	1/ VENT	MULTI POINT LOCK	-	INTERLOCK
10	-	2/ VENT	.110 THICK LOCK KEEPER, AT FRAME JAMB FACING LOCK	STEEL	CGI, ATTACHED W/ (2) #10 X 3/8" SS SMS
11	-	1	OPERATOR (OPTIONAL)	STEEL	TRUTH, ATTACHED W/ (2) #8 X 3/8" SS SMS
11A	-	1	OPERATOR (OPTIONAL)	STEEL	INTERLOCK
12	30175	1	OPERATOR TRACK	STEEL	TRUTH, ATTACHED W/ (2) #8 X 3/8" SS SMS
13	-	2/ CORNER	FRAME AND VENT ASSEMBLY SCREWS	-	#10 X 1-1/4" SS SMS
14	-	-	ALUMINUM BUCK	6063-T6	INDALEX OR EQUIV.
15	-	-	OPTIONAL ALUMINUM BUCK COVER	6063-T6	INDALEX OR EQUIV.

PRODUCT REVISED
 as complying with the Florida
 Building Code
 NOA-No. 20-0528.08
 Expiration Date 10/26/2023
 By *[Signature]*
 Miami-Dade Product Control

Revision:

PREPARED BY A. LYNN MILLER
 1070 TECHNOLOGY DRIVE
 N. VENICE, FL 34275
 (941) 480-1600

REGISTRATION #29296

DATE 05/15/20

DRAWN BY J. ROSOWSKI

SERIES 238 CASEMENT WINDOW - LMI

BOM & EXTRUSIONS

CA238NOA-1

3 OF 9

CA238

NTS

Sheet

Scale

Series Desc. Title

WINDOOR
 INCORPORATED
 104 TRIPLE DIAMOND BLVD.
 N. VENICE, FL 34275
 (407) 481-8400

ANTHONY LYNN MILLER
 LICENSE
 No. 58705
 5/22/20
 STATE OF
 FLORIDA
 PROFESSIONAL ENGINEER

A. LYNN MILLER, P.E.
 P.E.# 58705

PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS
NO SHUTTERS REQUIRED
REFER TO SHEETS 6 THRU 9 FOR INSTALLATION DETAILS

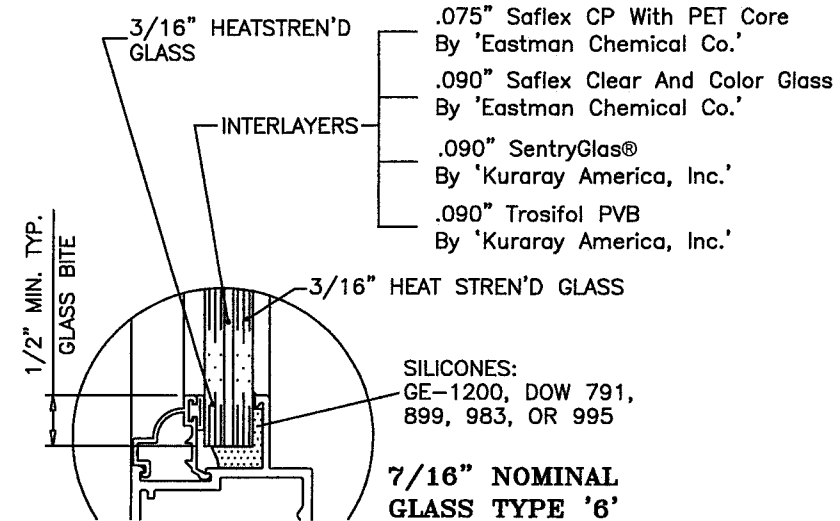
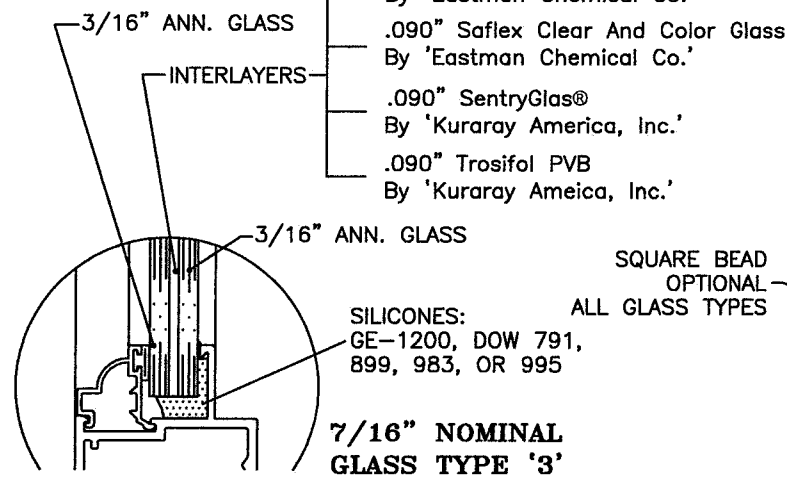
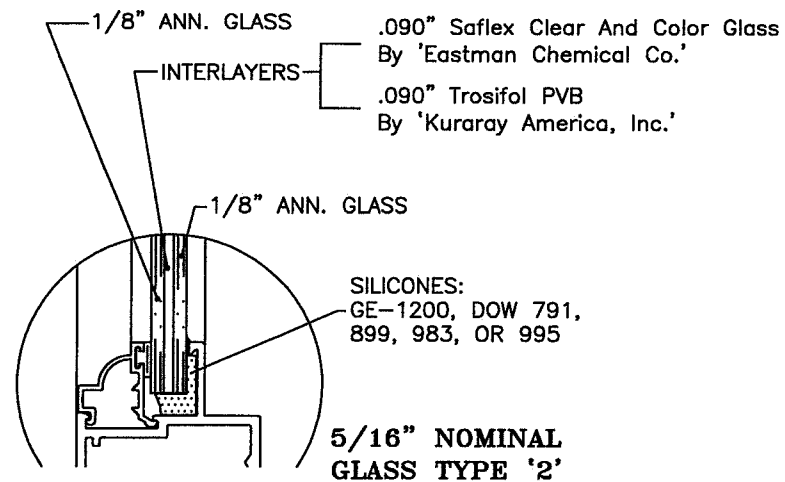
WINDOW DIMS.		GLASS TYPE '2'		GLASS TYPE '3'		GLASS TYPE '6'	
WIDTH	HEIGHT	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
20"	36"	110.0	194.3	110.0	195.0	110.0	195.0
24"		110.0	161.9	110.0	195.0	110.0	195.0
28"		110.0	138.8	110.0	195.0	110.0	195.0
30"		110.0	129.5	110.0	195.0	110.0	195.0
32"		110.0	121.4	110.0	195.0	110.0	195.0
36"		107.9	107.9	110.0	195.0	110.0	195.0
40"		97.1	97.1	110.0	195.0	110.0	120.0
42"		92.5	92.5	110.0	120.0	60.0	60.0
20"		42"	110.0	166.5	110.0	195.0	110.0
24"	110.0		138.8	110.0	195.0	110.0	195.0
28"	110.0		118.9	110.0	195.0	110.0	195.0
30"	110.0		111.0	110.0	195.0	110.0	195.0
32"	104.1		104.1	110.0	195.0	110.0	120.0
36"	92.5		92.5	110.0	120.0	110.0	120.0
40"	83.3		83.3	110.0	120.0	110.0	120.0
42"	79.3		79.3	110.0	120.0	60.0	60.0
20"	48"		110.0	145.7	110.0	195.0	110.0
24"		110.0	121.4	110.0	195.0	110.0	195.0
28"		103.8	104.1	110.0	195.0	110.0	120.0
30"		97.1	97.1	110.0	195.0	110.0	120.0
32"		91.1	91.1	110.0	120.0	110.0	120.0
36"		80.9	80.9	110.0	120.0	110.0	120.0
40"		72.8	72.8	110.0	120.0	110.0	120.0
42"		69.4	69.4	110.0	120.0	60.0	60.0
20"		54"	110.0	129.5	110.0	195.0	110.0
24"	98.0		107.9	110.0	195.0	110.0	195.0
28"	88.2		92.5	110.0	120.0	110.0	120.0
30"	84.4		86.3	110.0	120.0	110.0	120.0
32"	80.9		80.9	110.0	120.0	110.0	120.0
36"	71.9		71.9	110.0	120.0	110.0	120.0
40"	64.8		64.8	110.0	120.0	110.0	120.0
42"	61.7		61.7	110.0	120.0	60.0	60.0

PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS
NO SHUTTERS REQUIRED
REFER TO SHEETS 6 THRU 9 FOR INSTALLATION DETAILS

WINDOW DIMS.		GLASS TYPE '2'		GLASS TYPE '3'		GLASS TYPE '6'			
WIDTH	HEIGHT	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)		
20"	60"	98.8	112.6	110.0	195.0	110.0	195.0		
24"		85.8	95.4	110.0	195.0	110.0	120.0		
28"		76.7	83.3	110.0	120.0	110.0	120.0		
30"		73.2	77.7	110.0	120.0	110.0	120.0		
32"		70.2	72.8	110.0	120.0	110.0	120.0		
36"		64.8	64.8	110.0	120.0	110.0	120.0		
40"		-	-	60.0	60.0	60.0	60.0		
42"		-	-	60.0	60.0	60.0	60.0		
20"		66"	86.7	86.7	110.0	195.0	110.0	195.0	
24"	73.4		73.4	110.0	120.0	110.0	120.0		
28"	64.2		64.2	110.0	120.0	110.0	120.0		
30"	60.6		60.6	110.0	120.0	110.0	120.0		
32"	57.5		57.5	110.0	120.0	110.0	120.0		
36"	-		-	60.0	60.0	60.0	60.0		
40"	-		-	60.0	60.0	60.0	60.0		
20"	72"		66.4	66.4	110.0	195.0	110.0	120.0	
24"			56.1	56.1	110.0	120.0	110.0	120.0	
28"		48.9	48.9	110.0	120.0	110.0	120.0		
30"		46.0	46.0	110.0	120.0	110.0	120.0		
32"		43.6	43.6	110.0	120.0	110.0	120.0		
36"		-	-	60.0	60.0	60.0	60.0		
32"		76"	-	-	60.0	60.0	60.0	60.0	
36"			-	-	60.0	60.0	60.0	60.0	
20"			78"	52.0	52.0	110.0	120.0	110.0	120.0
24"	43.8			43.8	110.0	120.0	110.0	120.0	
28"	38.1			38.1	110.0	120.0	110.0	120.0	
30"	-			-	110.0	120.0	60.0	60.0	
32"	-			-	60.0	60.0	60.0	60.0	
20"	84"			41.5	41.5	110.0	120.0	110.0	120.0
24"				34.9	34.9	110.0	120.0	110.0	120.0
28"		-		-	110.0	120.0	54.5	54.5	
30"		-		-	51.2	51.2	51.2	51.2	
32"		-	-	48.3	48.3	48.3	48.3		

PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS
NO SHUTTERS REQUIRED
REFER TO SHEETS 6 THRU 9 FOR INSTALLATION DETAILS

WINDOW DIMS.		GLASS TYPE '2'		GLASS TYPE '3'		GLASS TYPE '6'	
WIDTH	HEIGHT	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
19-1/8"	26"	110.0	195.0	110.0	195.0	110.0	195.0
26-1/2"		110.0	195.0	110.0	195.0	110.0	195.0
37"		110.0	145.4	110.0	195.0	110.0	195.0
42"		110.0	128.1	110.0	195.0*	110.0	195.0*
19-1/8"	38-3/8"	110.0	190.6	110.0	195.0	110.0	195.0
26-1/2"		110.0	137.5	110.0	195.0	110.0	195.0
37"		98.5	98.5	110.0	194.5	110.0	120.0
42"		86.8	86.8	110.0	120.0	110.0	120.0
19-1/8"	50-5/8"	110.0	144.5	110.0	195.0	110.0	195.0
26-1/2"		99.7	104.3	110.0	195.0	110.0	195.0
37"		74.7	74.7	110.0	120.0	110.0	120.0
42"		65.8	65.8	110.0	120.0	110.0	120.0
19-1/8"	63"	96.7	104.2	110.0	195.0	110.0	195.0
26-1/2"		74.9	77.9	110.0	120.0	110.0	120.0
37"		60.0	60.0	110.0	120.0	110.0	120.0
42"		-	-	60.0	60.0	60.0	60.0
19-1/8"	74-1/4"	63.0	63.0	110.0	195.0	110.0	120.0
26-1/2"		46.6	46.6	110.0	120.0	110.0	120.0
37"		-	-	59.8	59.8	59.8	59.8
42"		-	-	59.8	59.8	59.8	59.8
37"	77"	-	-	56.3	56.3**	56.3**	56.3**

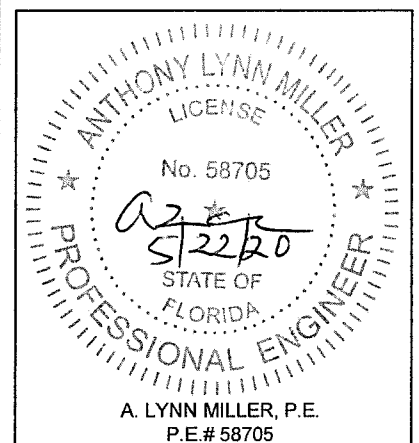


NOTES:
GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300-09 (3 SEC. GUSTS) AND FLORIDA BUILDING COMMISSION DECLARATORY STATEMENT DCA05-DEC-219
LOAD/AREA LIMITS
FOR +110.0, -120.0 PSF = 16.34 SQ. FT.
FOR +110.0, -195.0 PSF = 10.00 SQ. FT.
*LIMIT MAX. LOADS TO 171.0 PSF WHEN MULTI POINT LOCK BY 'INTERLOCK' (®) IS USED.
**SIZE 37" X 77" APPLICABLE TO FLANGE FRAMES ONLY SEE SHEET 1.

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 20-0528.08
Expiration Date 10/26/2023
By *[Signature]*
Miami-Dade Product Control

REFORMATED & ADDED BACKBEDDING - JR - 5/15/20

Prepared by A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	REGISTRATION #29296	Date	05/15/20	J ROSOWSKI	CA238NOA-1	A
	SERIES 238 CASEMENT WINDOW - LMI	By				
WINDOOR INCORPORATED 104 TRIPLE DIAMOND BLVD. N. VENICE, FL 34275 (407) 481-8400	GLASS & WINDOW DP 1	Scale	4 OF 9	CA238	NTS	Sheet
		Desc.	4 OF 9			



PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS
NO SHUTTERS REQUIRED
REFER TO SHEETS 6 THRU 9 FOR INSTALLATION DETAILS

WINDOW DIMS.		GLASS TYPE '2A'		GLASS TYPE '3A'	
WIDTH	HEIGHT	EXT. (+)	1NT. (-)	EXT. (+)	1NT. (-)
20"	36"	110.0	194.3	110.0	195.0
24"		110.0	161.9	110.0	195.0
28"		110.0	138.8	110.0	195.0
30"		110.0	129.5	110.0	195.0
32"		110.0	121.4	110.0	195.0
36"		107.9	107.9	110.0	195.0
40"		97.1	97.1	110.0	120.0
42"		92.5	92.5	110.0	120.0
20"		42"	110.0	166.5	110.0
24"	110.0		138.8	110.0	195.0
28"	110.0		118.9	110.0	195.0
30"	110.0		111.0	110.0	195.0
32"	104.1		104.1	110.0	120.0
36"	92.5		92.5	110.0	120.0
40"	83.3		83.3	110.0	120.0
42"	79.3		79.3	110.0	120.0
20"	48"		110.0	145.7	110.0
24"		110.0	121.4	110.0	195.0
28"		104.1	104.1	110.0	120.0
30"		97.1	97.1	110.0	120.0
32"		91.1	91.1	110.0	120.0
36"		80.9	80.9	110.0	120.0
40"		72.8	72.8	110.0	120.0
42"		69.4	69.4	110.0	120.0
20"		54"	110.0	129.5	110.0
24"	98.0		107.9	110.0	195.0
28"	92.5		92.5	110.0	120.0
30"	84.4		86.3	110.0	120.0
32"	80.9		80.9	110.0	120.0
36"	71.9		71.9	110.0	120.0
40"	64.8		64.8	110.0	120.0
42"	61.7		61.7	110.0	120.0

PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS
NO SHUTTERS REQUIRED
REFER TO SHEETS 6 THRU 9 FOR INSTALLATION DETAILS

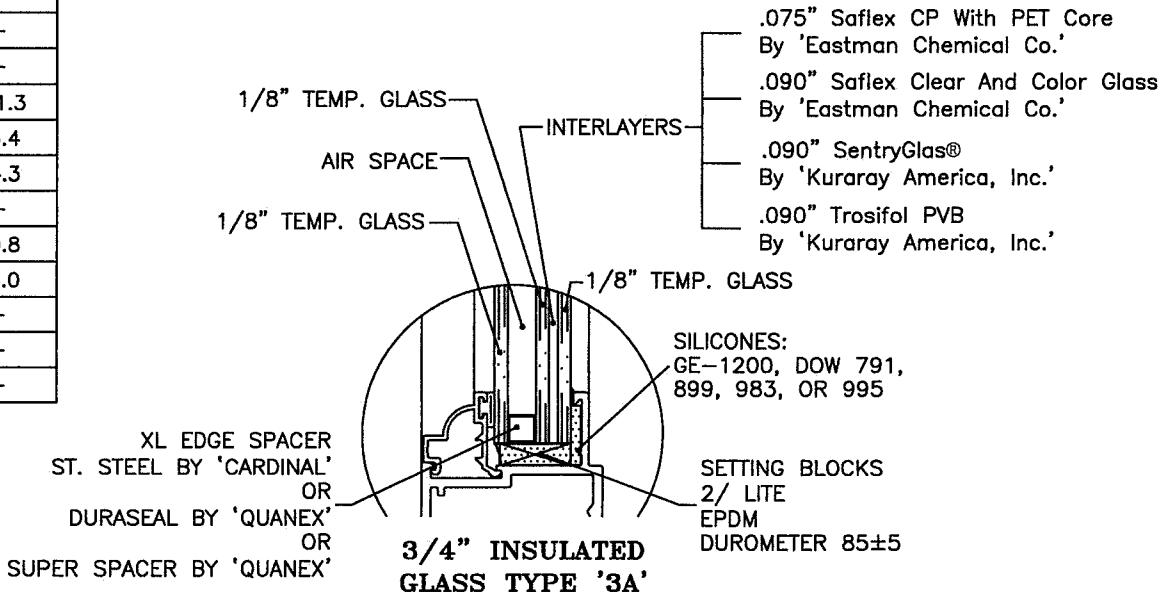
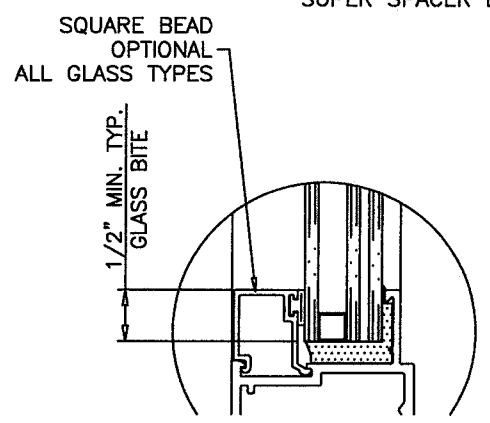
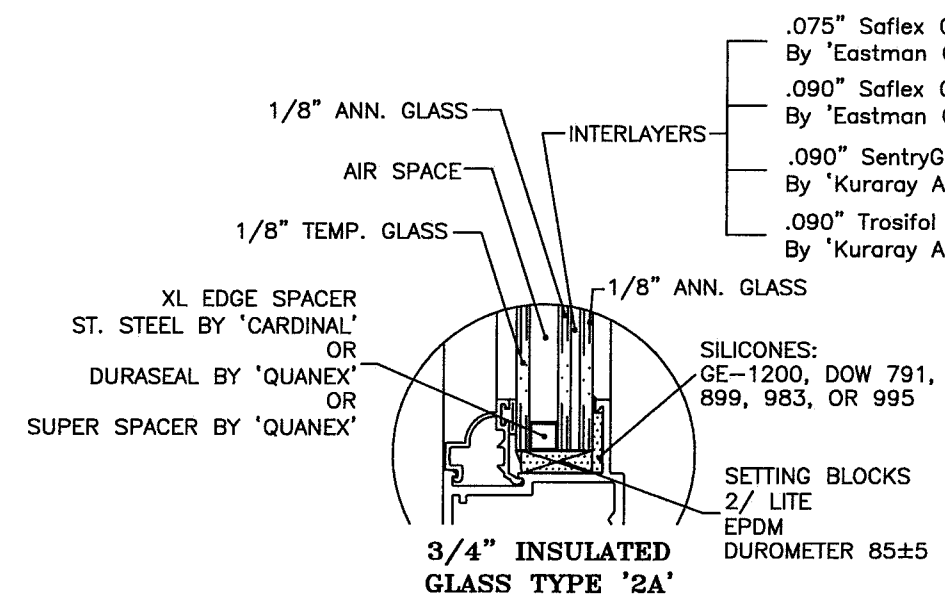
WINDOW DIMS.		GLASS TYPE '2A'		GLASS TYPE '3A'		
WIDTH	HEIGHT	EXT. (+)	1NT. (-)	EXT. (+)	1NT. (-)	
20"	60"	98.8	112.6	110.0	195.0	
24"		85.8	95.4	110.0	120.0	
28"		76.7	83.3	110.0	120.0	
30"		73.2	77.7	110.0	120.0	
32"		70.2	72.8	110.0	120.0	
36"		64.8	64.8	110.0	120.0	
40"		60.0	60.0	-	-	
42"		60.0	60.0	-	-	
20"		66"	86.7	86.7	110.0	169.0
24"	73.4		73.4	110.0	120.0	
28"	64.2		64.2	110.0	120.0	
30"	60.6		60.6	110.0	118.2	
32"	57.5		57.5	110.0	112.2	
36"	60.0		60.0	-	-	
40"	60.0		60.0	-	-	
20"	72"		66.4	66.4	110.0	120.0
24"			56.1	56.1	109.3	109.3
28"		48.9	48.9	95.3	95.3	
30"		46.0	46.0	89.8	89.8	
32"		43.6	43.6	85.0	85.0	
36"		60.0	60.0	-	-	
20"		76"	60.0	60.0	-	-
24"			52.0	52.0	101.3	101.3
28"			43.8	43.8	85.4	85.4
30"	38.1		38.1	74.3	74.3	
32"	60.0		60.0	-	-	
20"	84"		41.5	41.5	80.8	80.8
24"			34.9	34.9	68.0	68.0
28"			54.5	54.5	-	-
30"			51.2	51.2	-	-
32"		48.3	48.3	-	-	

PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS
NO SHUTTERS REQUIRED
REFER TO SHEETS 6 THRU 9 FOR INSTALLATION DETAILS

WINDOW DIMS.		GLASS TYPE '2A'		GLASS TYPE '3A'	
WIDTH	HEIGHT	EXT. (+)	1NT. (-)	EXT. (+)	1NT. (-)
19-1/8"	26"	110.0	195.0	110.0	195.0
26-1/2"		110.0	203.0	110.0	195.0
37"		110.0	145.4	110.0	195.0
42"		110.0	128.1	110.0	195.0*
19-1/8"	38-3/8"	110.0	190.6	110.0	195.0
26-1/2"		110.0	137.5	110.0	195.0
37"		98.5	98.5	110.0	120.0
42"		86.8	86.8	110.0	120.0
19-1/8"	50-5/8"	110.0	144.5	110.0	195.0
26-1/2"		99.7	104.3	110.0	195.0
37"		74.7	74.7	110.0	120.0
42"		65.8	65.8	110.0	120.0
19-1/8"	63"	96.7	104.2	110.0	195.0
26-1/2"		74.9	77.9	110.0	120.0
37"		60.0	60.0	110.0	117.0
42"		60.0	60.0	-	-
19-1/8"	74-1/4"	63.0	63.0	110.0	120.0
26-1/2"		46.6	46.6	90.9	90.9
37"		59.8	59.8	-	-
37"	77"	56.3**	56.3**	-	-

*LIMIT MAX. LOADS TO 171.0 PSF WHEN MULTI POINT LOCK BY 'INTERLOCK' (9B) IS USED.

**SIZE 37" X 77" APPLICABLE TO FLANGE FRAMES ONLY SEE SHEET 1.



NOTES:
GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300-09 (3 SEC. GUSTS) AND FLORIDA BUILDING COMMISSION DECLARATORY STATEMENT DCA05-DEC-219

LOAD/AREA LIMITS
FOR +110.0, -120.0 PSF = 16.34 SQ. FT.
FOR +110.0, -195.0 PSF = 10.00 SQ. FT.

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 20-0528.08
Expiration Date 10/26/2023
By *[Signature]*
Miami-Dade Product Control

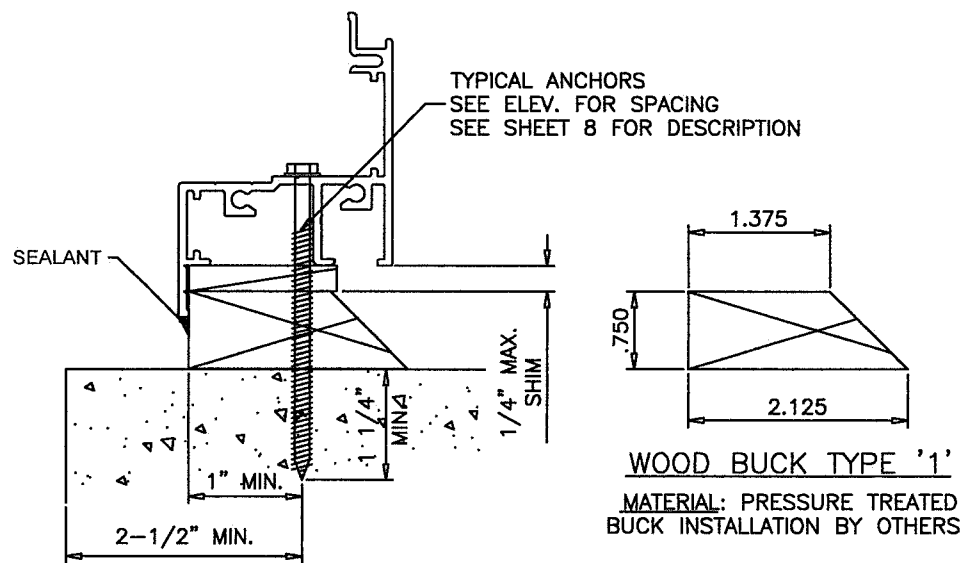
Revision: REFORMATED & ADDED BACKBEDDING - JR - 5/15/20

PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	REGISTRATION #29296	Date	05/15/20	Drawn	J ROSOWSKI	Rev.	A
		No.	CA238NOA-1				
WINDOOR INCORPORATED 104 TRIPLE DIAMOND BLVD. N. VENICE, FL 34275 (407) 481-8400	SERIES 238 CASEMENT WINDOW - LMI GLASS & WINDOW DP 2	Scale	NTS	Sheet	5 OF 9	DWG	CA238
		Title	CA238				

ANTHONY LYNN MILLER
LICENSE
No. 58705
5/22/20
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705

INSTALLATION CONDITIONS FLANGE FRAME (APPLIES TO ALL FOUR SIDES)

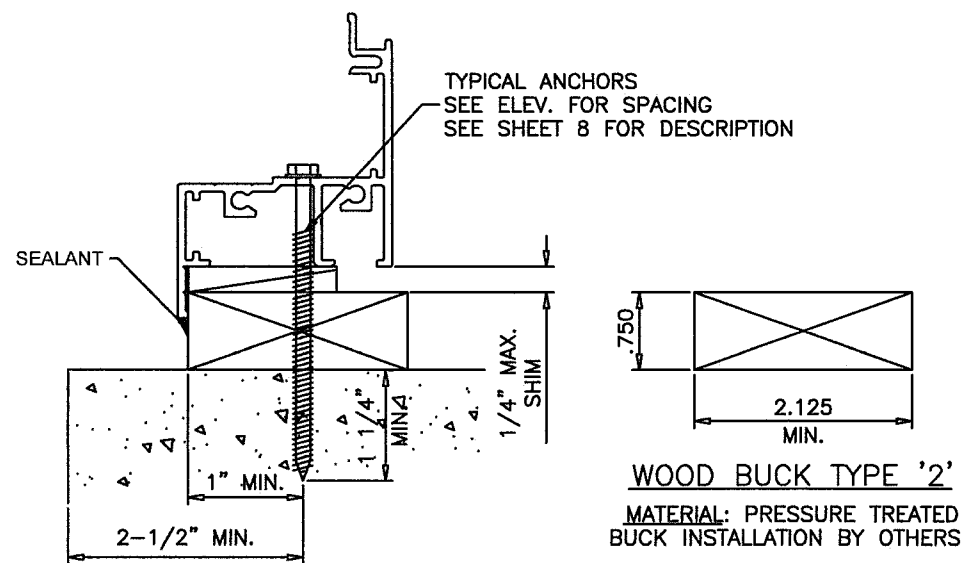
FOR ANCHOR PERFORMANCE VALUES SEE SHEET 8



WOOD BUCK TYPE '1'

MATERIAL: PRESSURE TREATED
BUCK INSTALLATION BY OTHERS

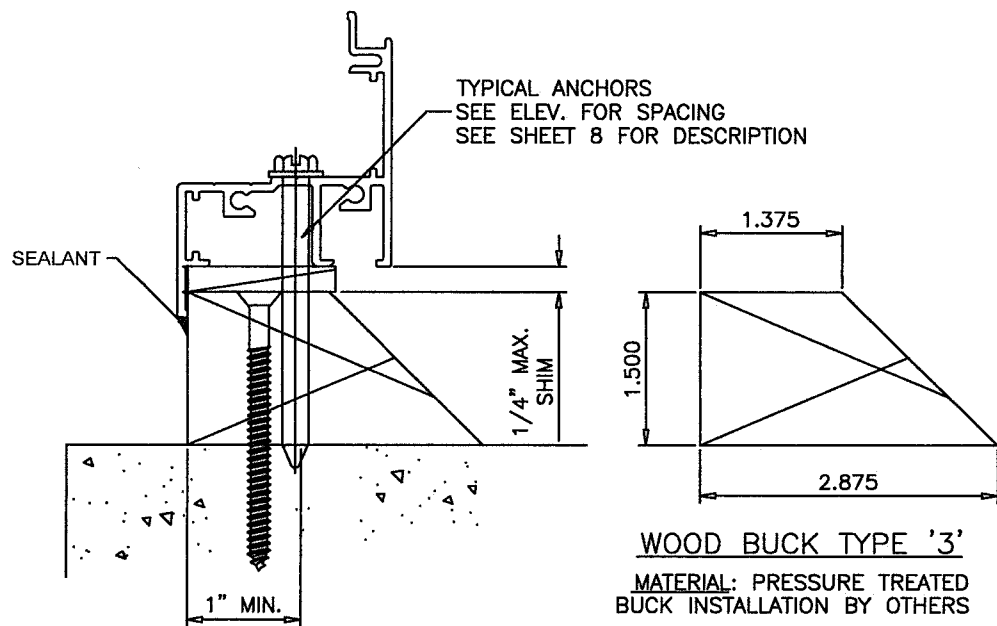
INSTALLATION TYPE '1'
TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



WOOD BUCK TYPE '2'

MATERIAL: PRESSURE TREATED
BUCK INSTALLATION BY OTHERS

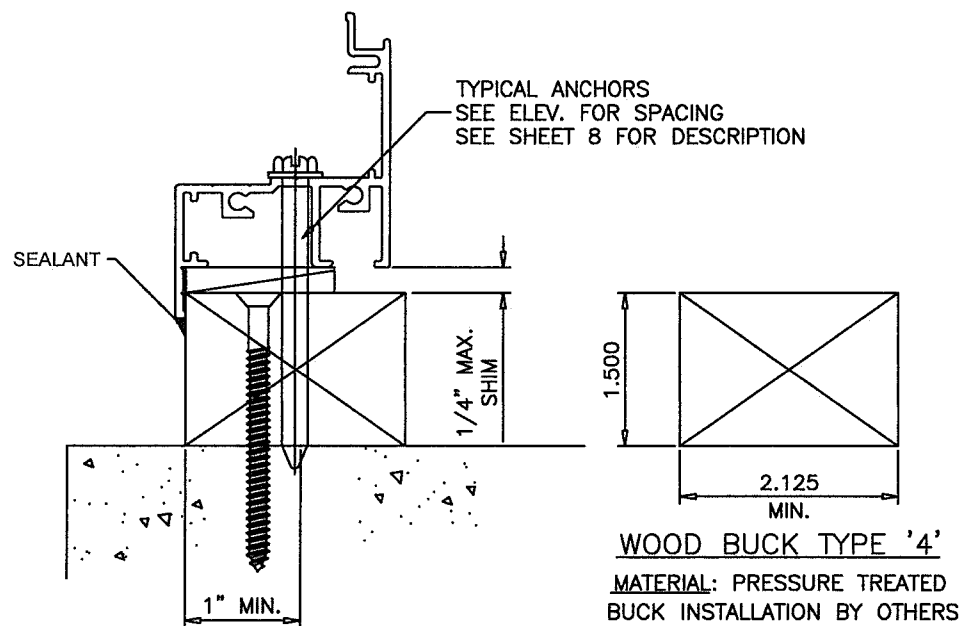
INSTALLATION TYPE '2'
TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



WOOD BUCK TYPE '3'

MATERIAL: PRESSURE TREATED
BUCK INSTALLATION BY OTHERS

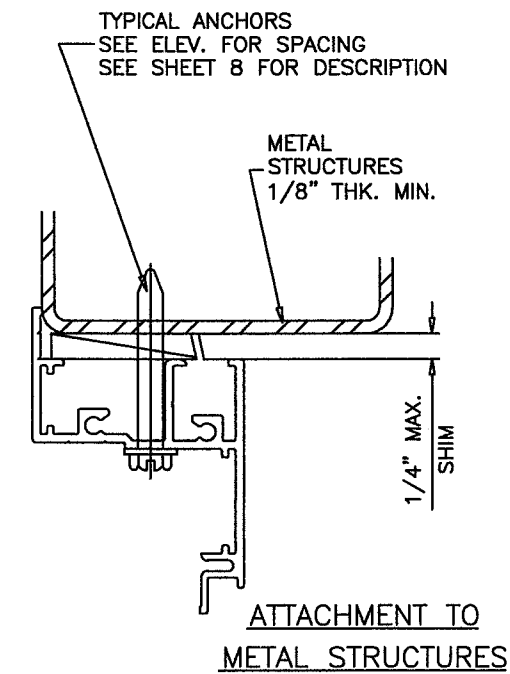
INSTALLATION TYPE '3'
TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



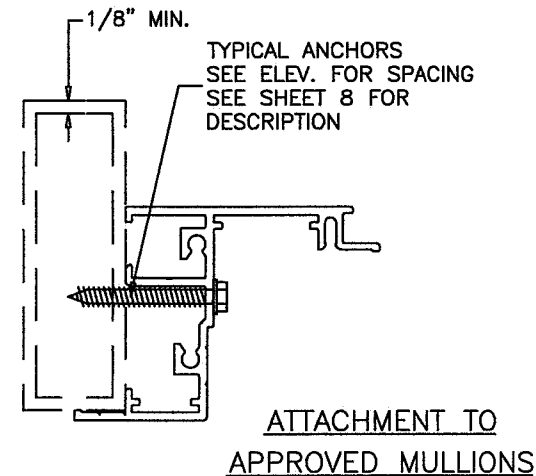
WOOD BUCK TYPE '4'

MATERIAL: PRESSURE TREATED
BUCK INSTALLATION BY OTHERS

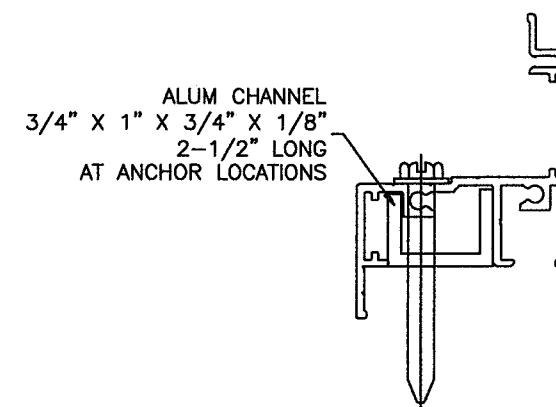
INSTALLATION TYPE '4'
TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



**ATTACHMENT TO
METAL STRUCTURES**



**ATTACHMENT TO
APPROVED MULLIONS**



**ALT. ANCHOR LOCATION
WITH SHEAR CLIP**

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

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0528.08
Expiration Date 10/26/2023
By *[Signature]*
Miami-Dade Product Control

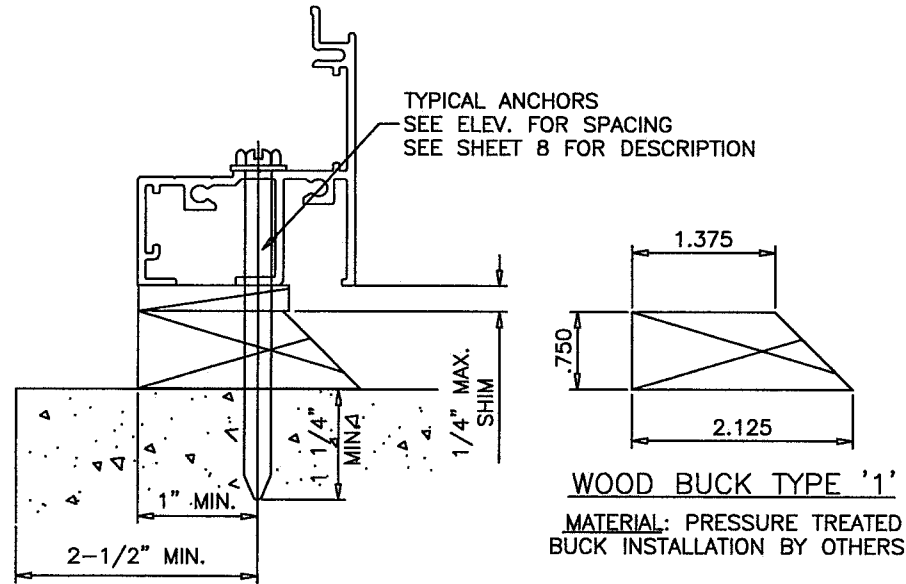
Revision:

PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	REGISTRATION #29296	DATE	05/15/20	REV.	A
	SERIES 238 CASEMENT WINDOW - LMI	DRAWN BY	J ROSOWSKI	DWG No.	CA238NOA-1
WINDOOR® INCORPORATED 104 TRIPLE DIAMOND BLVD. N. VENICE, FL 34275 (407) 481-8400	INSTALLATION CONDITIONS, FL.	SHEET	6 OF 9	SCALE	NTS
SERIES 238 CASEMENT WINDOW - LMI		SERIES	CA238		

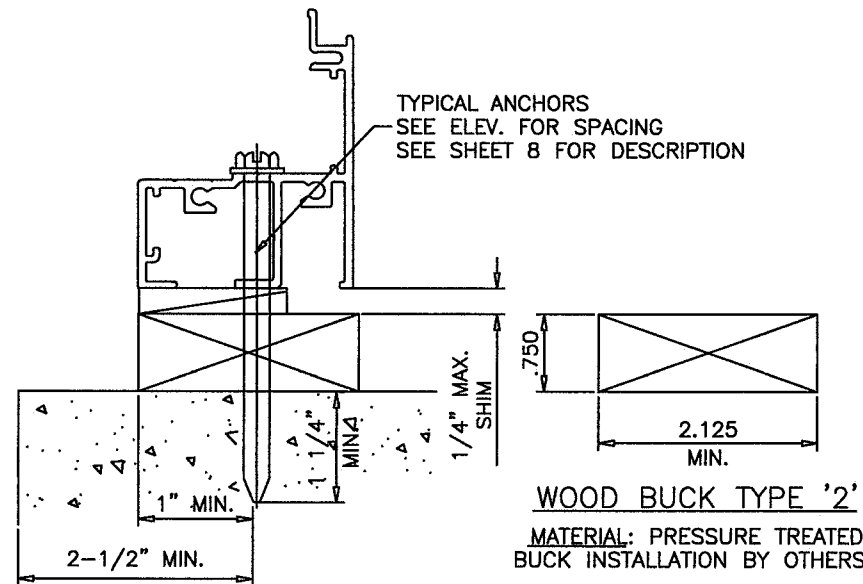
ANTHONY LYNN MILLER
LICENSE
No. 58705
[Signature]
5/22/20
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705

INSTALLATION CONDITIONS EQUAL LEG FRAME (APPLIES TO ALL FOUR SIDES)

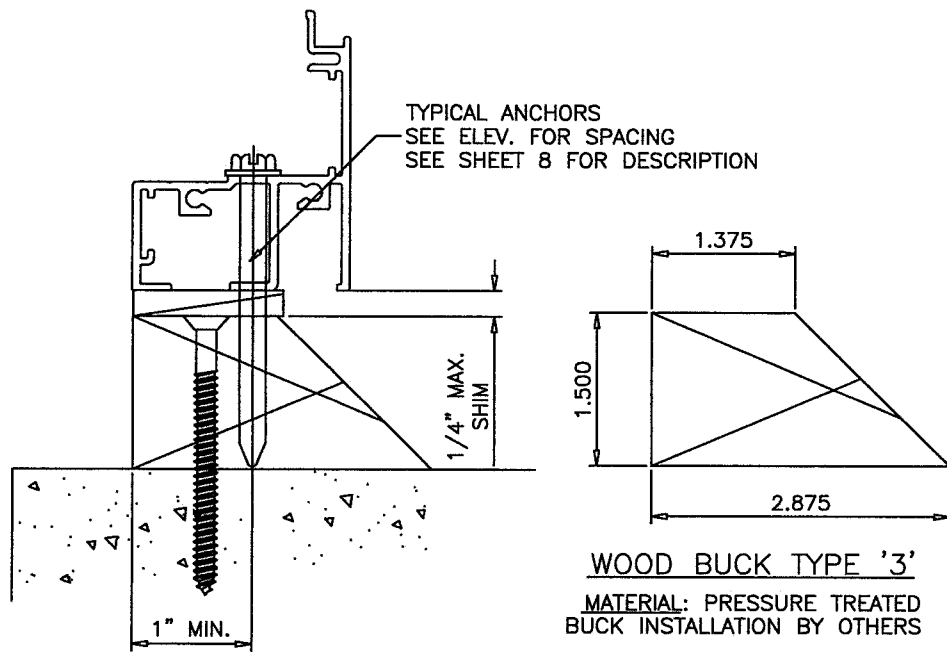
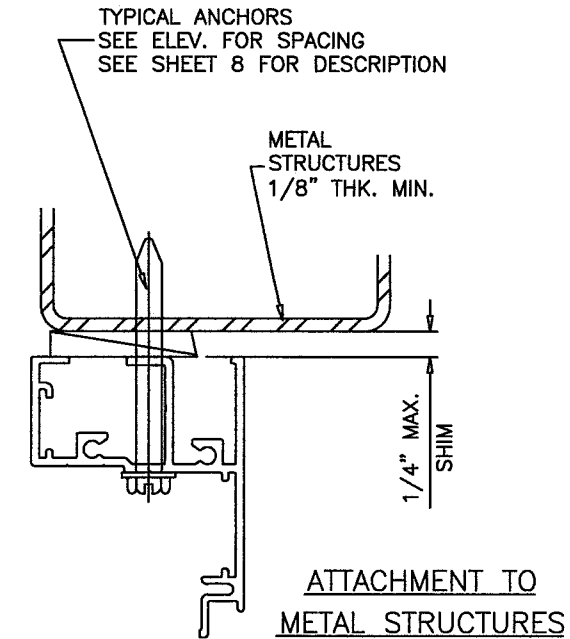
FOR ANCHOR PERFORMANCE VALUES SEE SHEET 8



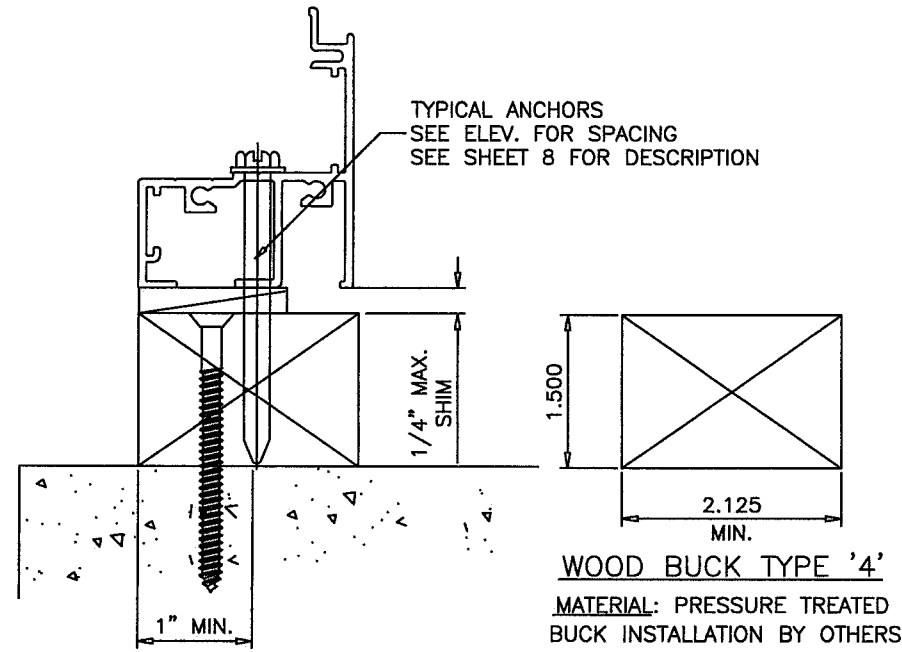
INSTALLATION TYPE '1'
TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



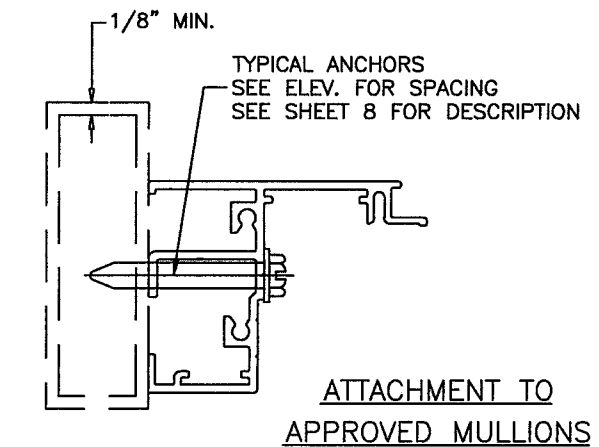
INSTALLATION TYPE '2'
TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



INSTALLATION TYPE '3'
TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



INSTALLATION TYPE '4'
TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



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

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 20-0528.08
Expiration Date 10/26/2023
By *[Signature]*
Miami-Dade Product Control

Revision:

PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	REGISTRATION #29296	DATE	05/15/20	Rev	A
	SERIES 238 CASEMENT WINDOW - LMI	DRAWN BY	J ROSOWSKI	No.	CA238NOA-1
INSTALLATION CONDITIONS, EL.	Scale	7 OF 9	DWG		
CA238	Sheet	NTS			

WINDOOR
INCORPORATED
104 TRIPLE DIAMOND BLVD.
N. VENICE, FL 34275
(407) 481-8400

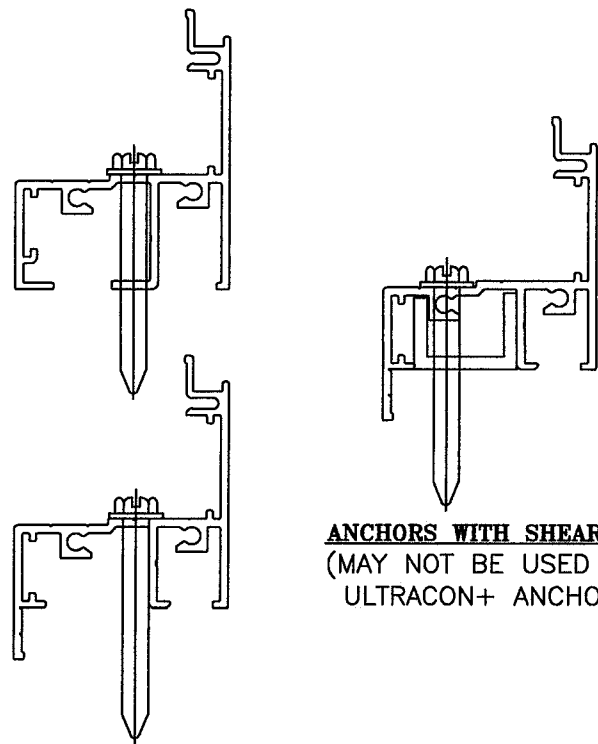
ANTHONY LYNN MILLER
LICENSE
No. 58705
5/22/20
STATE OF FLORIDA
PROFESSIONAL ENGINEER

A. LYNN MILLER, P.E.
P.E.# 58705

PERFORMANCE VALUES OF INSTALLATION ANCHORS					
REFER TO SHEETS 6 & 7 FOR DETAILS					
WINDOW DIMS.		ANCHORS W/O SHEAR CLIP		ANCHORS WITH SHEAR CLIP	
		AT 17" O.C.	AT 10" O.C.	AT 17" O.C.	AT 10" O.C.
WIDTH	HEIGHT	EXT.(+)/INT.(-)	EXT.(+)/INT.(-)	EXT.(+)/INT.(-)	EXT.(+)/INT.(-)
20"	36"	195.0	195.0	154.8	195.0
24"		195.0	195.0	129.0	172.0
28"		192.9	195.0	110.6	147.4
30"		180.0	195.0	103.2	137.6
32"		168.8	195.0	96.8	129.0
36"		150.0	195.0	86.0	114.7
40"		135.0	180.0	77.4	103.2
42"		128.6	171.4	73.7	98.3
20"	42"	195.0	195.0	132.7	176.9
24"		192.9	195.0	110.6	147.4
28"		165.3	195.0	94.8	126.4
30"		154.3	195.0	88.5	117.9
32"		144.6	192.9	82.9	110.6
36"		128.6	171.4	73.7	98.3
40"		115.7	154.3	66.3	88.5
42"		110.2	146.9	63.2	84.2
20"	48"	195.0	195.0	154.8	193.5
24"		195.0	195.0	129.0	161.3
28"		192.9	195.0	110.6	138.2
30"		180.0	195.0	103.2	129.0
32"		168.8	195.0	96.8	120.9
36"		150.0	187.5	86.0	107.5
40"		135.0	168.8	77.4	96.8
42"		128.6	160.7	73.7	92.1
20"	54"	195.0	195.0	137.6	195.0
24"		195.0	195.0	114.7	172.0
28"		171.4	195.0	98.3	147.4
30"		160.0	195.0	91.7	137.6
32"		150.0	195.0	86.0	129.0
36"		133.3	195.0	76.4	114.7
40"		120.0	180.0	68.8	103.2
42"		114.3	171.4	65.5	98.3
20"	60"	195.0	195.0	123.8	185.8
24"		180.0	195.0	103.2	154.8
28"		154.3	195.0	88.5	132.7
30"		144.0	195.0	82.6	123.8
32"		135.0	195.0	77.4	116.1
36"		120.0	180.0	68.8	103.2
40"		108.0	162.0	61.9	92.9
42"		102.9	154.3	59.0	88.5
20"	66"	195.0	195.0	140.7	195.0
24"		195.0	195.0	117.3	164.2
28"		175.3	195.0	100.5	140.7
30"		163.6	195.0	93.8	131.3
32"		153.4	195.0	88.0	123.1
36"		136.4	190.9	78.2	109.5
40"		122.7	171.8	70.4	98.5

PERFORMANCE VALUES OF INSTALLATION ANCHORS						
REFER TO SHEETS 6 & 7 FOR DETAILS						
WINDOW DIMS.		ANCHORS W/O SHEAR CLIP		ANCHORS WITH SHEAR CLIP		
		AT 17" O.C.	AT 10" O.C.	AT 17" O.C.	AT 10" O.C.	
WIDTH	HEIGHT	EXT.(+)/INT.(-)	EXT.(+)/INT.(-)	EXT.(+)/INT.(-)	EXT.(+)/INT.(-)	
20"	72"	195.0	195.0	129.0	180.6	
24"		187.5	195.0	107.5	150.5	
28"		160.7	195.0	92.1	129.0	
30"		150.0	195.0	86.0	120.4	
32"		140.6	195.0	80.6	112.9	
36"		125.0	175.0	71.7	100.3	
32"		76"	133.2	195.0	76.4	122.2
36"			118.4	189.5	67.9	108.6
20"	78"		195.0	195.0	119.1	190.5
24"			173.1	195.0	99.2	158.8
28"		148.4	195.0	85.1	136.1	
30"		138.5	195.0	79.4	127.0	
32"		129.8	195.0	74.4	119.1	
20"		84"	195.0	195.0	132.7	195.0
24"			195.0	195.0	110.6	165.9
28"			165.3	195.0	94.8	142.2
32"	154.3		195.0	88.5	132.7	

PERFORMANCE VALUES OF INSTALLATION ANCHORS					
REFER TO SHEETS 6 & 7 FOR DETAILS					
WINDOW DIMS.		ANCHORS W/O SHEAR CLIP		ANCHORS WITH SHEAR CLIP	
		AT 17" O.C.	AT 10" O.C.	AT 17" O.C.	AT 10" O.C.
WIDTH	HEIGHT	EXT.(+)/INT.(-)	EXT.(+)/INT.(-)	EXT.(+)/INT.(-)	EXT.(+)/INT.(-)
19-1/8"	26"	195.0	195.0	149.4	195.0
26-1/2"		195.0	195.0	107.8	161.8
37"		195.0	195.0	77.2	115.9
19-1/8"	38-3/8"	195.0	195.0	151.9	195.0
26-1/2"		191.2	195.0	109.6	146.1
37"	50-5/8"	136.9	182.6	78.5	104.7
19-1/8"		195.0	195.0	153.5	191.9
26-1/2"	63"	193.2	195.0	110.8	138.5
37"		138.4	173.0	79.3	99.2
19-1/8"		195.0	195.0	123.3	195.0
26-1/2"	74-1/4"	155.3	195.0	89.0	155.8
37"		111.2	194.6	63.8	111.6
42"	74-1/4"	98.0	171.4	56.2	98.3
19-1/8"		195.0	195.0	130.8	195.0
26-1/2"		164.7	195.0	94.4	151.1
37"		117.9	188.6	67.6	108.1



ANCHORS W/O SHEAR CLIP

**ANCHORS WITH SHEAR CLIP
(MAY NOT BE USED WITH
ULTRACON+ ANCHORS)**

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

- 1/4" DIA. KWIK-CON II BY 'HILTI' (Fu=163 KSI, Fy=157 KSI)
- 1/4" DIA. ULTRACON BY 'ELCO' (Fu=177 KSI, Fy=155 KSI)
- 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)

INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
1-1/2" MIN. PENETRATION INTO WOOD
THRU 1BY BUCKS INTO CONC. OR MASONRY
1-1/4" MIN. EMBED INTO CONC. OR MASONRY
DIRECTLY INTO CONC. OR MASONRY
1-1/4" MIN. EMBED INTO CONC. OR MASONRY
(ULTRACON+ ANCHORS MAY NOT BE USED WITH THE SHEAR CLIP)

#14 SMS OR SELF DRILLING SCREWS (GRADE 2 CRS)
INTO MIAMI-DADE COUNTY APPROVED MULLIONS (MIN. THK. = .090")
INTO METAL STRUCTURES

STEEL : 1/8" THK. MIN. (Fy = 36 KSI MIN.)
ALUMINUM : 1/8" THK. MIN. (6063-T5 MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

TYPICAL EDGE DISTANCE

INTO CONCRETE AND MASONRY = 2-1/2" MIN.
INTO WOOD STRUCTURE = 1" MIN.
INTO METAL STRUCTURE = 3/4" MIN.

CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN.
C-90 HOLLOW/FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0528.08
Expiration Date 10/26/2023
By *[Signature]*
Miami-Dade Product Control

REFORMATED & ADDED
ANCHOR TYPE - JR -
5/15/20

PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	Date	05/15/20	Drawn By J ROSOWSKI	Rev. A
	REGISTRATION #29296 SERIES 238 CASEMENT WINDOW - LMI ANCHORS & DP	DWG No. CA238NOA-1		

WINDOOR®
INCORPORATED
104 TRIPLE DIAMOND BLVD.
N. VENICE, FL 34275
(407) 481-8400

ANTHONY LYNN MILLER
LICENSE
No. 58705
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
[Signature]
A. LYNN MILLER, P.E.
P.E.# 58705

PERFORMANCE VALUES OF ALUMINUM BUCK INSTALLATION ANCHORS			
WINDOW DIMS.		EXT.(+)	INT.(-)
WIDTH	HEIGHT		
20"	36"	110.0	195.0
24"		110.0	195.0
28"		110.0	186.5
30"		110.0	182.4
32"		110.0	179.5
36"		110.0	177.3
40"		105.8	145.1
42"		97.0	120.0
20"	42"	110.0	179.5
24"		110.0	159.6
28"		106.9	146.6
30"		103.5	141.9
32"		100.7	138.1
36"		97.0	120.0
40"		95.2	120.0
42"		95.0	120.0
20"	48"	110.0	195.0
24"		110.0	177.3
28"		110.0	160.9
30"		110.0	154.8
32"		109.1	120.0
36"		103.5	120.0
40"		99.8	120.0
42"		95.0	120.0
20"	54"	110.0	174.1
24"		110.0	152.0
28"		99.8	120.0
30"		95.5	120.0
32"		91.9	120.0
36"		86.2	118.2
40"		82.2	112.7
42"		80.6	110.5
20"	60"	110.0	153.2
24"		97.0	133.0
28"		86.8	119.0
30"		82.8	113.5
32"		79.4	108.8
36"		73.9	101.3
40"		60.0	60.0
42"		60.0	60.0
20"	66"	110.0	171.0
24"		107.8	120.0
28"		95.9	120.0
30"		91.3	120.0
32"		87.3	119.7
36"		60.0	60.0
40"		60.0	60.0

PERFORMANCE VALUES OF ALUMINUM BUCK INSTALLATION ANCHORS				
WINDOW DIMS.		EXT.(+)	INT.(-)	
WIDTH	HEIGHT			
20"	72"	110.0	154.5	
24"		97.0	120.0	
28"		86.0	117.9	
30"		81.7	112.0	
32"		77.9	106.9	
36"		60.0	60.0	
20"		76"	105.8	120.0
24"			90.9	120.0
28"	80.5		110.3	
30"	76.3		104.7	
32"	60.0		60.0	
36"	60.0		60.0	
20"	78"		102.7	120.0
24"			88.2	120.0
28"		77.9	120.0	
30"		73.9	101.3	
32"		60.0	60.0	
20"		84"	110.0	120.0
24"			97.0	120.0
28"			85.5	117.3
30"	60.0		60.0	
32"	60.0		60.0	

PERFORMANCE VALUES OF ALUMINUM BUCK INSTALLATION ANCHORS			
WINDOW DIMS.		EXT.(+)	INT.(-)
WIDTH	HEIGHT		
19-1/8"	26"	110.0	195.0
26-1/2"		110.0	195.0
37"		110.0	184.2
42"		110.0	152.4
19-1/8"	38-3/8"	110.0	195.0
26-1/2"		110.0	172.6
37"		110.0	156.3
42"		95.7	120.0
19-1/8"	50-5/8"	110.0	195.0
26-1/2"		110.0	154.7
37"		94.0	120.0
42"		89.8	120.0
19-1/8"	63"	109.3	149.9
26-1/2"		84.8	116.2
37"		67.9	93.1
42"		60.0	60.0
19-1/8"	74-1/4"	110.0	154.8
26-1/2"		86.4	118.5
37"		60.0	60.0
19-1/8"		76"	109.9
26-1/2"	84.0		115.2
37"	60.0		60.0
19-1/8"	77"		108.3
26-1/2"		82.7	113.4
37"		60.0	60.0

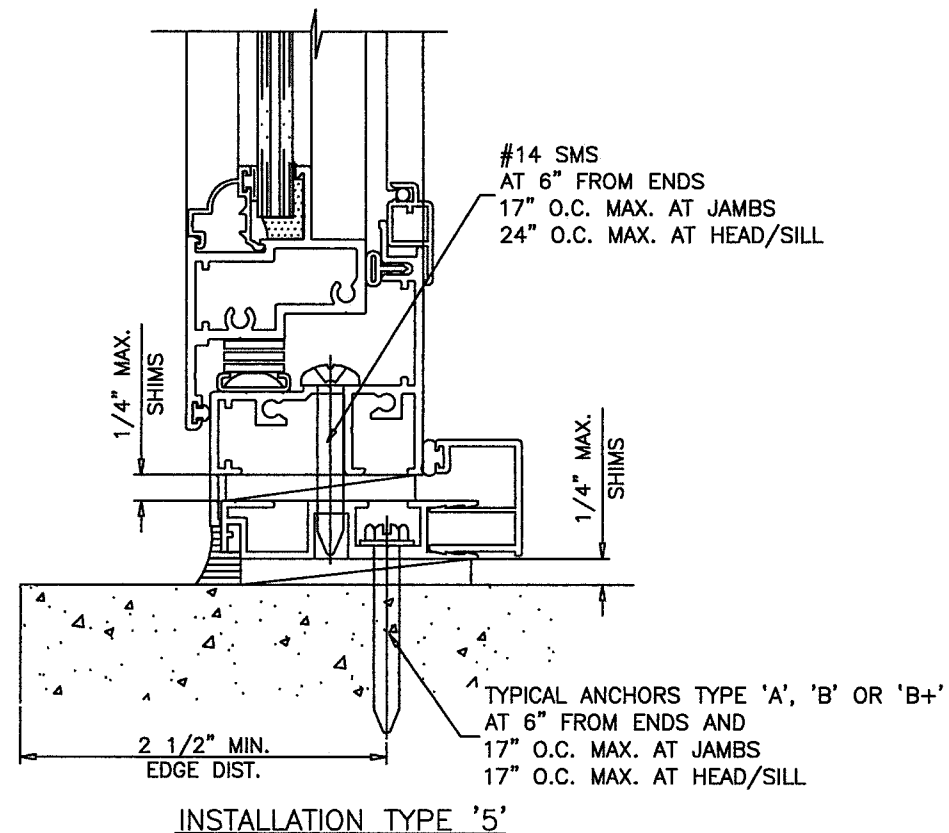
TYPICAL ANCHORS:

SEE ELEV. FOR SPACING

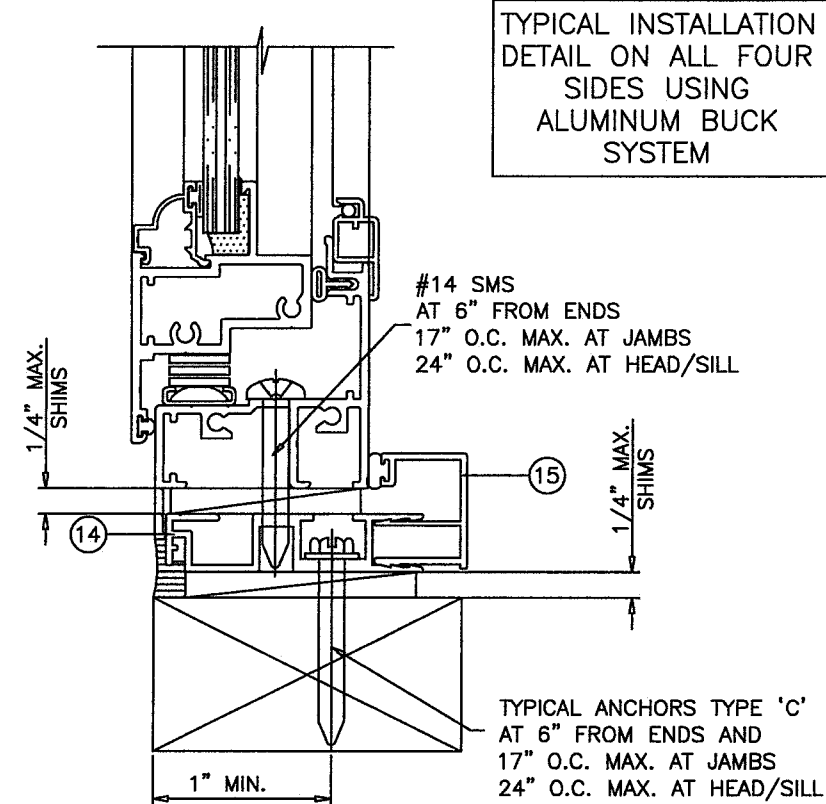
- A - 1/4" DIA. KWIK-CON II BY 'HILTI' (Fu=163 KSI, Fy=157 KSI)
DIRECTLY INTO CONC. OR MASONRY
1-1/4" MIN. EMBED INTO CONC. OR MASONRY
 - B - 1/4" DIA. ULTRACON BY 'ELCO' (Fu=177 KSI, Fy=155 KSI)
DIRECTLY INTO CONC. OR FILLED BLOCK
1-1/4" MIN. EMBED INTO CONCRETE
2-1/4" MIN. EMBED INTO GROUT FILLED BLOCKS
 - B+ - 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)
DIRECTLY INTO CONC. OR FILLED BLOCK
1" MIN. EMBED INTO CONCRETE
2-1/4" MIN. EMBED INTO GROUT FILLED BLOCKS
 - C - #14 SMS (GRADE 2 CRS)
INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
1-1/2" MIN. PENETRATION INTO WOOD
- TYPICAL EDGE DISTANCE
INTO CONCRETE AND MASONRY BLOCK = 2-1/2" MIN.
INTO WOOD STRUCTURE = 1" MIN.
- CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN.
C-90 HOLLOW/FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.

ALUMINUM BUCK FRAMING DETAILS

REFER TO SHEETS 4 THRU 8 FOR WINDOW CAPACITIES
USE LOWER APPLICABLE VALUES.



INSTALLATION TYPE '5'



INSTALLATION TYPE '6'
2BY WOOD BUCK OR WOOD STRUCTURES

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0528.08
Expiration Date 10/26/2023
By *[Signature]*
Miami-Dade Product Control

Revision: REFORMATED & ADDED
ANCHOR TYPE - JR -
5/15/20

PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	REGISTRATION #29296	Date	05/15/20	Rev.	A
	SERIES 238 CASEMENT WINDOW - LMI	Drawn	J ROSOWSKI	No.	CA238NOA-1
WINDOOR® INCORPORATED 104 TRIPLE DIAMOND BLVD. N. VENICE, FL 34275 (407) 481-8400	ANCHORS & DP, ALUM. BUCK INSTALL.	Scale	NTS	Sheet	9 OF 9
		Series Desc.	CA238	DMC	CA238NOA-1

ANTHONY LYNN MILLER
LICENSE
No. 58705
A2
5/22/20
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705