



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

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/economy

CGI Windows & Doors, Inc.
3780 W. 103rd Street
Hialeah, FL 33018

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 "450" Aluminum Outswing Opaque Doors w/w/o Sidelites - Impact

APPROVAL DOCUMENT: Drawing No. **450FD2-NOA Rev A** (former **W12-22 Rev C**), titled "Series 450 Outswing Door & Sidelites", sheets 1 thru 17 of 17, prepared by manufacture, dated 06/12/20, signed and sealed by Lynn Miller, P.E., bearing the Miami-Dade County Product Control Renewal 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

Limitations:

1. Lock **10D** or **10E** is limited to max 38-9/16 W x 94-7/8 H door.
2. Sills (threshold) types SS-1 & SS-2 are not rated for water infiltration. See thresholds (sills) **9** & **12**.
3. Narrow stile sidelites are limited to **18"** or less.
4. The frame of alternate sizes must **not** exceed **125 ft²**, nor panel tested area and max. panel height.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and series and following statement: "Miami-Dade County Product Control Approved", 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 **renews # 20-0619.06** and consists of this page 1 and evidence pages E-1, E-2, E-3, E-4 & E-5, as well as approval document mentioned above.

The submitted documentation was reviewed by **Ishaq I. Chanda, P.E.**



Ishaq I. Chanda

NOA No. 22-0822.03
Expiration Date: October 25, 2027
Approval Date: September 29, 2022
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA'S

A. DRAWINGS

1. Manufacturer's die drawings and sections (Submitted under files below).
2. Drawing No. **W12-22 Rev B**, titled "Series 450 Outswing Doors & Sidelites", sheets 1, 1.1, 1.2, 1.3, 2, 2.1, 2.2, 2.3, 3, 3.1, 4, 5, 6, 7 7.1 and 7.2 of 7, prepared by Al-Farooq Corporation, dated 05-22-12 and last revised on SEP 02, 2015, signed and sealed by Javad Ahmad, P.E.

B. TESTS (Submitted under files #12-0706.02)

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(+50.0 PSF, sill S-I only)
4) Large Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
6) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94

Along with manufacturer's parts and section drawing marked-up drawings of aluminum out swing / Inswing door w/wo sidelites, by Hurricane Testing Laboratory, Inc., Test Report No. **HTL-0080-0304-11** dated 11/28/2011 and **HTL-0080-0902-11**, signed and sealed by Vinu J. Abraham, P.E.

Note: This test report has been revised by addendum letters, issued by Architectural Testing (Former Hurricane Testing Lab), dated 01/20/12 and 04/03/12, both signed and sealed by Vinu J. Abraham, P.E.

Along with manufacturer's parts and section drawing marked-up drawings of double aluminum outswing doors, issued by Architectural Testing, Test Report No(s) **B-5234.02-450-18** dated 12/19/2011, signed and sealed by Vinu J. Abraham, P.E.

2. 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
6) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94.

Along with manufacturer's parts and section drawing marked-up drawings of aluminum Out/In swing door w/sidelites, by Hurricane Testing Laboratory, Inc., Test Report No. **HTL-97055 (0080-912-97)** dated 09/23/97 thru 02/27/98 for specimen #1, 2, 3, 4 tested per PA202-94, specimen #4, 5A, 5B, 5C tested per PA201-94 & PA203-94, signed and sealed by Timothy S. Marshall, P.E.

Along with manufacturer's parts and section drawing marked-up drawings of aluminum out swing door w/sidelites, by Hurricane Testing Laboratory, Inc., Test Report No. **HTL-01071 (0080-0402-02)** dated 04/01/2002 tested per PA201-94 & PA203-94, signed and sealed by Vinu J. Abraham, P.E. (submitted in file # **09-0723.04**). Original tests conducted per SFBC, PA 201, 202 & 203-94 now known as FBC. TAS 201. 202 & 203-94.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 22-0822.03
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NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

B. TESTS (continued):

3. Reference Certified Testing Laboratories test report # CTLA **3056WA**, issued to CGI Windows & Door, Inc. per TAS 201, 202 and 203-94 for specimen #1 thru #30 for laminated PVB glass, insulated PVB laminated glass with Duraseal and super spacers, signed and sealed by Ramesh C. Patel, P.E.

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with FBC-2014(**5th Edition**), prepared by Al Farooq Corporation, dated 10/27/14 and last revised on AUG 27, 2015, signed and sealed by Javad Ahmad, P.E.
2. Additional intermediate horizontal mull calculations, prepared by Al Farooq Corporation, dated JUN 29, 2012, signed and sealed by Javad Ahmad, P.E. (Submitted under file # **11-1025.02**)

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. None

F. STATEMENTS

1. Statement letter of conformance to FBC 2014(**5th Edition**) and letter of no financial interest, prepared by Al Farooq Corporation, dated 09/30/14, signed and sealed by Javad Ahmad, P.E.
2. Lab compliance and addendum letters, as part of the above referenced test reports.

G. OTHER

1. This NOA **revises # 12-0706.02**, expiring on 10/25/17.
2. Hardware cut sheets verified and marked-up by the Architectural Testing (former Hurricane Testing lab).
3. Test proposals dated 12/16/14 approved by RER & Test proposal # **10-0940**, dated 11/17/10 approved by BNC.

2. EVIDENCE SUBMITTED under previous NOA(s)

A. DRAWINGS

1. Drawing No. **W12-22 Rev C**, titled "Series 450 Outswing Doors & Sidelites", sheets 1, 1.1, 1.2, 1.3, 2, 2.1, 2.2, 2.3, 3, 3.1, 4, 5, 6, 7 7.1 and 7.2 of 7, prepared by Al-Farooq Corporation, dated 05/22/17 and last revised on 09/21/17, signed and sealed by Javad Ahmad, P.E.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 22-0822.03
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NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

B. TESTS

1. None.

C. CALCULATIONS

1. Mullion analysis, complying with **FBC 5th Edition (2014)** and **FBC 6th Edition (2017)**), prepared by Al Farooq Corporation, dated 09/29/17, signed and sealed by Javad Ahmad, P.E.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS

1. Statement letter of conformance with **FBC 5th Edition (2014)** and **FBC 6th Edition (2017)**, and of no financial interest, dated 08/30/17, signed and sealed by Javad Ahmad, P. E.

G. OTHERS

1. This NOA revises and renews NOA # **17-1011.14**, expiring on 10/25/22.

3. Evidence submitted under previous approval

A. DRAWINGS

1. Drawing No. **450FD2-NOA Rev A** (former **W12-22 Rev C**), titled "Series 450 Outswing Doors & Sidelites", sheets 1 thru 17 of 17, prepared by manufacture, dated 06/12/20, signed and sealed by Lynn Miller, P.E.

B. 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.:

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 22-0822.03
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NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

B. TESTS (continue)

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.

PGT Industries, Inc. test specimens:

FTL-7897, PGT PW5520 PVC Fixed Window (unit 6 in proposal), dated 09/03/14
FTL-20-2107.1, PGT SGD780 Aluminum Sliding Glass Door (unit 7 in proposal) **FTL-20-2107.2**, PGT CA740 Alum. Outswing Casement Window (unit 8 in proposal) **FTL-20-2107.3**, PGT PW7620A Aluminum Fixed Window (unit 9 in proposal) and **FTL-20-2107.4**, PGT PW7620A Aluminum Fixed Window (unit 10 in proposal) all dated 07/13/20 and signed and sealed by Idalmis Ortega, P.E.

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC 2020, 7th Edition**, prepared by manufacturer, dated 04/20/20, signed and sealed by A. 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. None.

F. STATEMENTS

1. Statement letter of conformance to FBC 2020 (7th Edition), issued by manufacturer, dated 6/20/20, signed and 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.

G. OTHER

1. This NOA **revises # 17-1011.13** and updates to FBC 2020, **expiring 10/25/22**.
2. RER Test proposals **#19-1155** dated 01/10/20 approved by Ishaq I. Chanda, P.E.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 22-0822.03
Expiration Date: October 25, 2027
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CGI Windows & Doors, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

4. New Evidence submitted

A. DRAWINGS

1. Drawing No. **450FD2-NOA Rev A** (former **W12-22 Rev C**), titled “Series 450 Outswing Doors & Sidelites”, sheets 1 thru 17 of 17, prepared by manufacture, dated 06/12/20, signed and sealed by Lynn Miller, P.E.

B. TESTS

1. None.

C. CALCULATIONS (submitted under previous approval)

3. None
4. 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

2. None.

G. STATEMENTS

1. Statement letter of conformance to FBC 2020 (7th Edition), issued by manufacturer, dated 08/15/22, signed and sealed by Lynn Miller, P. E.
2. Statement letter of conformance to FBC 2020 (7th Edition), issued by manufacturer, dated 6/20/20, signed and sealed by Lynn Miller, P. E.

G. OTHER

1. This NOA **renews # 20-0619.06**, expiring **10/25/27**.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.

Product Control Unit Supervisor

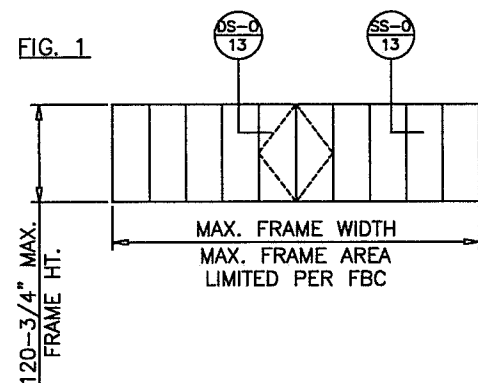
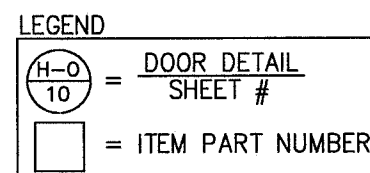
NOA No. 22-0822.03

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SERIES 450 ALUM. OUTSWING OPAQUE DOORS WITH OR WITHOUT SIDELITES, LARGE & SMALL MISSILE

- 1) 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).
- 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 2017/2020 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) EGRESS REQUIREMENTS TO BE REVIEWED BY BUILDING OFFICIAL.
FRAME HEIGHT = PANEL HEIGHT + 1-7/8" (STD. THRESHOLD)
FRAME HEIGHT = PANEL HEIGHT + 1-5/8" (ADA THRESHOLD)
FRAME WIDTH = PANEL WIDTH + 2-13/16"

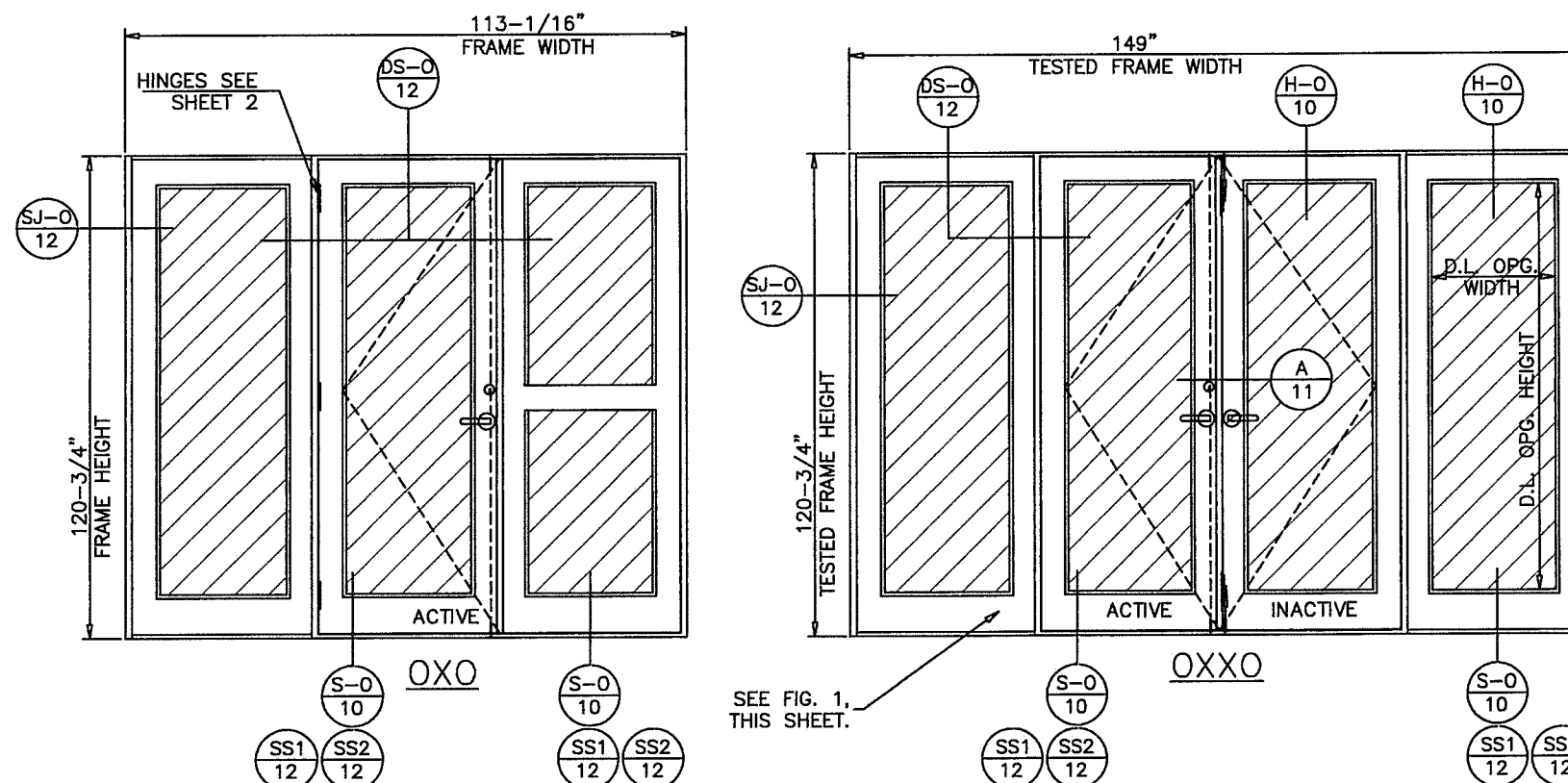
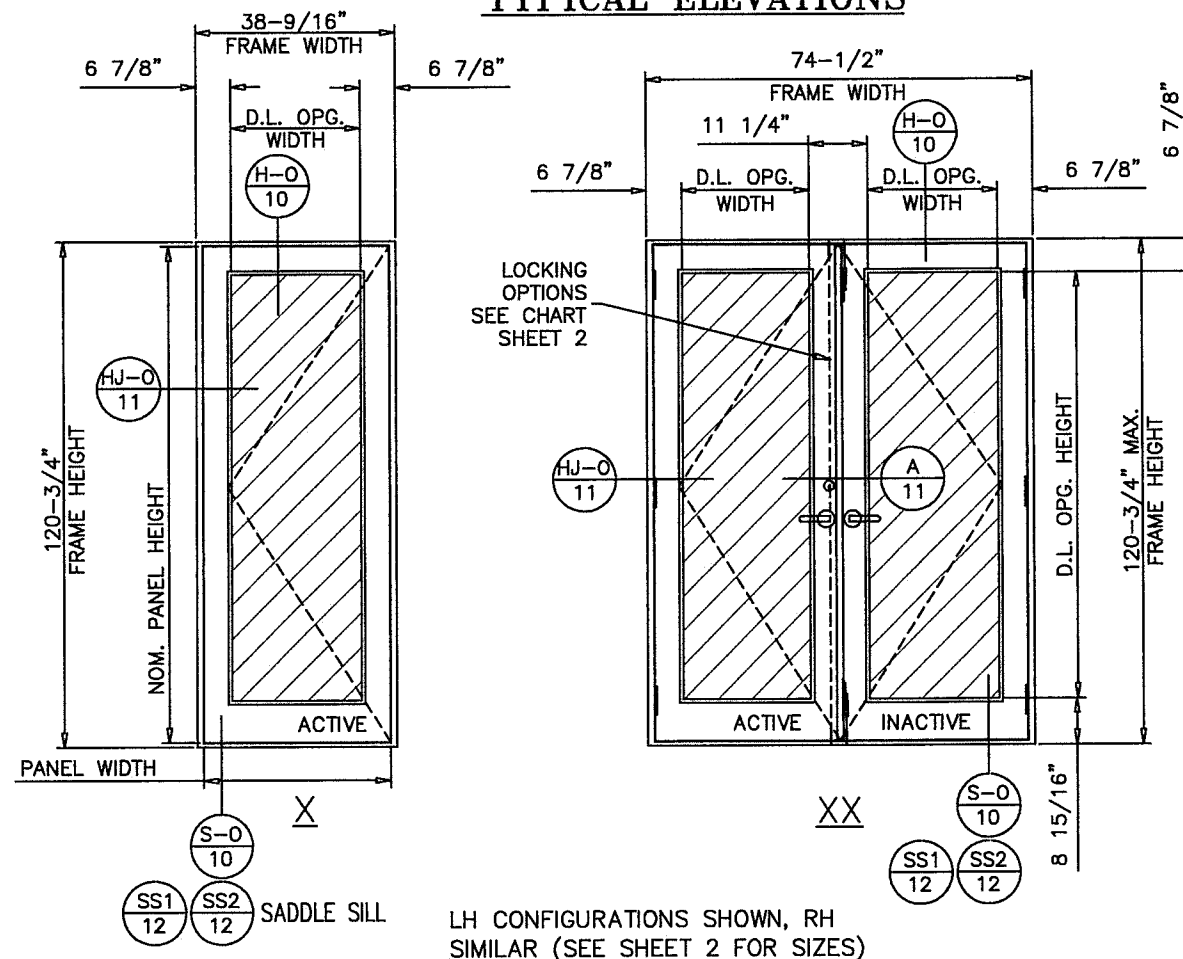


MULTIPLE SIDELITES W/ DOORS
WITHIN TESTED FRAME AREA ARE
AVAILABLE (SEE SHEET 14) 125 SQ.
FT. TESTED FRAME AREA

STEPS TO USE CHARTS:

- 1) DETERMINE WIND LOAD BASED ON PROVISIONS OF 2017/2020 FLORIDA BLDG. CODE.
- 2) DETERMINE WATER INFILTRATION REQUIREMENTS BASED ON PROVISIONS OF FBC.
- 3) SELECT A DOOR SYSTEM I.E. OUTSWING AND TYPE OF THRESHOLD FROM SHEET 14 AND LOCK OPTIONS FROM SHEET 2.
- 4) CHECK THE ALLOWABLE EXTERIOR AND INTERIOR LOADS FROM APPROPRIATE CHARTS ON SHEETS 2, 13 & 14. THE ALLOWABLE LOADS MUST MEET OR EXCEED THE DESIGN LOADS REQUIREMENTS.
- 5) SELECT AND CHECK ANCHORS TO MEET LOAD. (SEE SHEETS 15 & 16)
- 6) FOR MULLED SIDELITE REFER TO MULLION CAPACITY ON SHEET 13.
- 7) LOWER DESIGN PRESSURE FROM LOCKS CHART, PANEL PERFORMANCE CHART, MULLION PERFORMANCE CHART AND ANCHOR CAPACITY CHARTS AT MULLION AND MTG. STILE ENDS SHALL CONTROL THE ENTIRE SYSTEM.
- 8) 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.

TYPICAL ELEVATIONS



PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 22-0822.03

Expiration Date 10/25/2027

By Ishag I. Chank
Miami-Dade Product Control

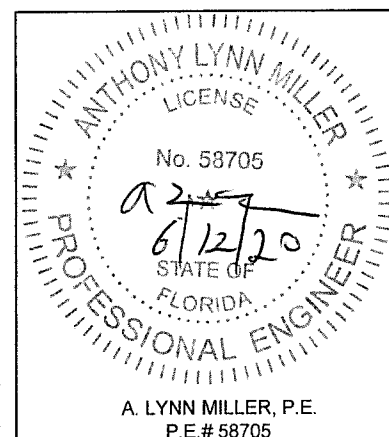
PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0619.06

Expiration Date 10/25/2022

By Ishag I. Chank
Miami-Dade Product Control

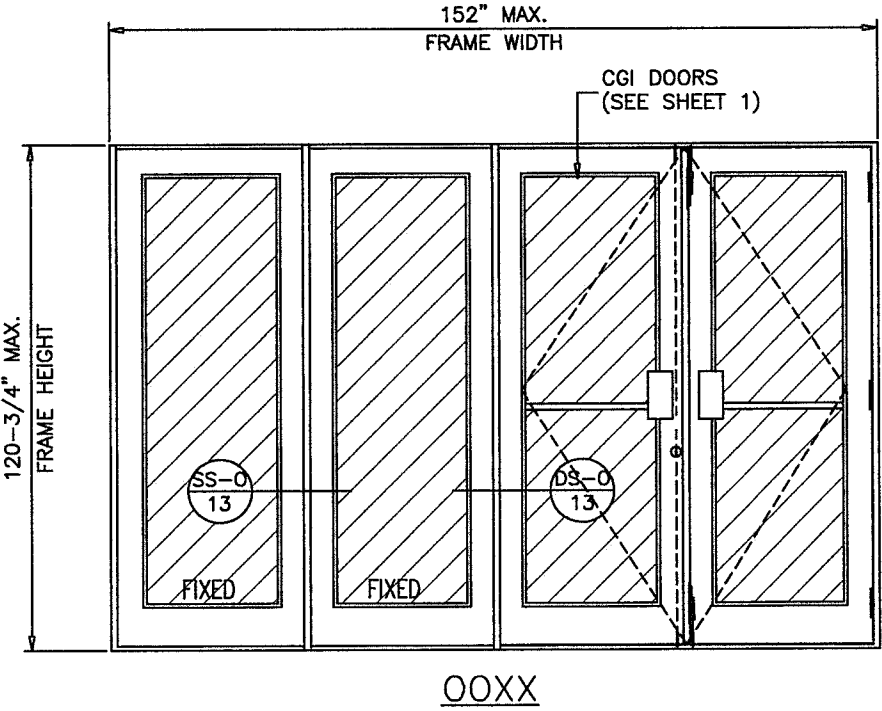
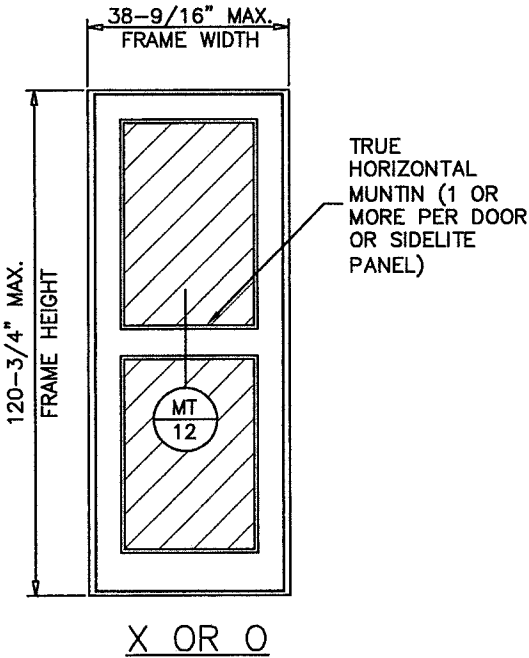
REVISION:
REVISED FOR 2020 FBC,
ADDED GEN. NOTES,
ANCHOR TYPE,
BACKBEDDING TYPES &
REFORMATTED - JR - 6/11/20

PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	REGISTRATION #29296	Date 06/12/2020	By J ROSOWSKI	Rev.	A
				No.	450FD2-NOA
				DWG	1 OF 17
				Sheet	NTS
Impact Resistant Windows & Doors WERE STRONGER™ CGI WINDOWS AND DOORS, INC. 3780 W 104TH STREET HIALEAH, FL 33018 (305) 593-6590	450 ALUM. FRENCH DOOR - OPAQUE & OS (LM)	GEN. NOTES AND ELEVATIONS	FD450 OUTSWING	Scale	
				Title	
				Series	
				Desc.	



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

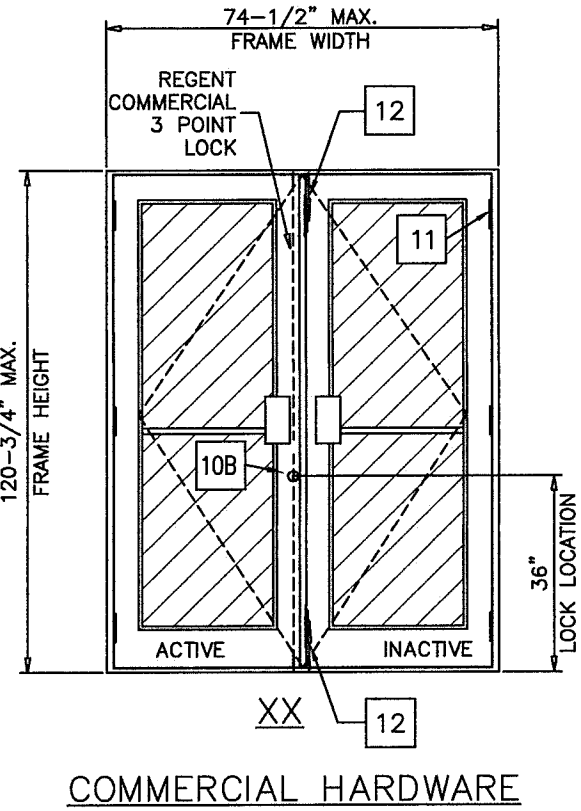
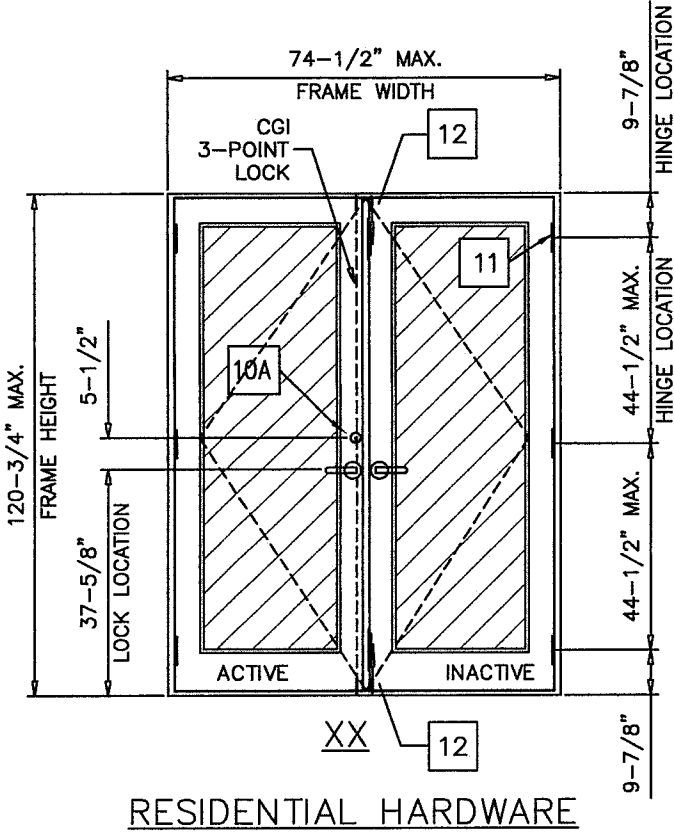
HARDWARE DESCRIPTION, TYPICAL ELEVATIONS



PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0619.06
Expiration Date 10/25/2022
By Ishag I. Chank
Miami-Dade Product Control

HINGE LOCATIONS		
MAX. FRAME HEIGHT	NO. REQD.	MAX. SPACING
UP TO 90-3/4"	3	35 1/2"
ABOVE 90-3/4" UPTO 120-3/4"	4	44 1/2"

DOORS WITH 3 HINGES LIMITED TO 100 PSF



FRAME HEIGHT		LOCK OPTIONS AND CAPACITY											
		10A		10AA		10B		10C & 10CC		10D & 10E		10 F	
		EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
84-3/4"		90.0	90.0	100.0	110.0	100.0	110.0	65.0	65.0	80.0	80.0	100.0	110.0
96-3/4"		90.0	90.0	100.0	110.0	100.0	110.0	65.0	65.0	70.0	70.0	90.0	90.0
108-3/4"		-	-	100.0	110.0	100.0	110.0	-	-	-	-	90.0	90.0
120-3/4"		-	-	70.0	70.0	70.0	70.0	-	-	-	-	70.0	70.0

- 10A : COPPER CREEK W/ CGI 3 POINT
10AA : BALDWIN W/ CGI 3 POINT
10B : REGENT COMMERCIAL 3 POINT
10C : BALDWIN SINGLE POINT LOCK
10CC : COPPER CREEK SINGLE POINT LOCK
10D : DOR-O-MATIC SERIES 1690
10E : JACKSON SERIES 2085/2065
10F : SURFACE MOUNTED LOCK

FRAME WIDTH (X)	FRAME WIDTH (XX)	DOOR/SIDELITE PANEL WIDTH	D.L. OPG. WIDTH
26-9/16"	50-1/2"	23-3/4"	12-3/4"
32-9/16"	62-1/2"	29-3/4"	18-3/4"
38-9/16"	74-1/2"	35-3/4"	24-3/4"
44-9/16"	86-1/2"	41-3/4"	30-3/4"

FRAME HEIGHT	DOOR/SIDELITE PANEL * HEIGHT	D.L. OPG. HEIGHT
82-3/4"	80-7/8"	67-3/8"
84-3/4"	82-7/8"	69-3/8"
90-3/4"	88-7/8"	75-3/8"
96-3/4"	94-7/8"	81-3/8"
102-3/4"	100-7/8"	87-3/8"
108-3/4"	106-7/8"	93-3/8"
114-3/4"	112-7/8"	99-3/8"
120-3/4"	118-7/8"	105-3/8"

* HEIGHTS FOR STD. THRESHOLD

LEGEND
H-O 10 = DOOR DETAIL SHEET #
[Box] = ITEM PART NUMBER

LH CONFIGURATIONS SHOWN, RH
SIMILAR (SEE SHEET 2 FOR SIZES)

FRAME HEIGHT = PANEL HEIGHT + 1-7/8" (STD. THRESHOLD)
FRAME HEIGHT = PANEL HEIGHT + 1-5/8" (ADA THRESHOLD)
FRAME WIDTH = PANEL WIDTH + 2-13/16"

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 22-0822.03
Expiration Date 10/25/2027
By Ishag I. Chank
Miami-Dade Product Control

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

REGISTRATION #29296

DATE 06/12/2020
BY J ROSOWSKI
DRAWN 450FD2-NOA

REVISION: A

Impact Resistant
Windows & Doors
WE'RE STRONGER™

CGI WINDOWS AND DOORS, INC.
3780 W 104TH STREET
HIALEAH, FL 33018
(305) 593-6590

450 ALUM. FRENCH DOOR - OPAQUE & OS (LM)

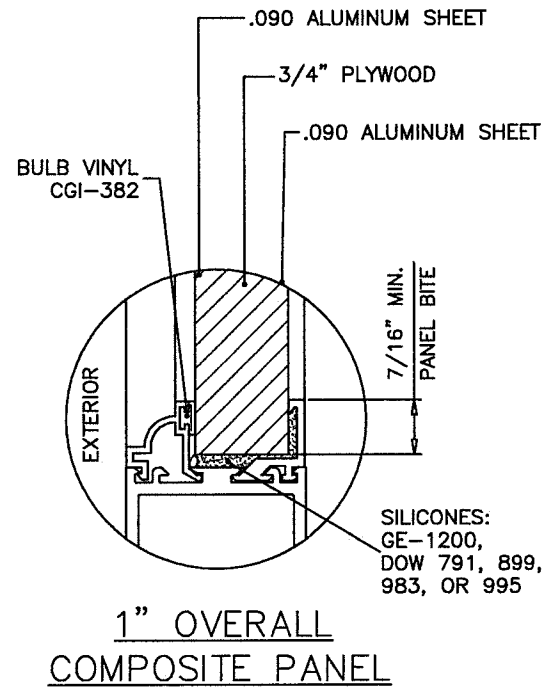
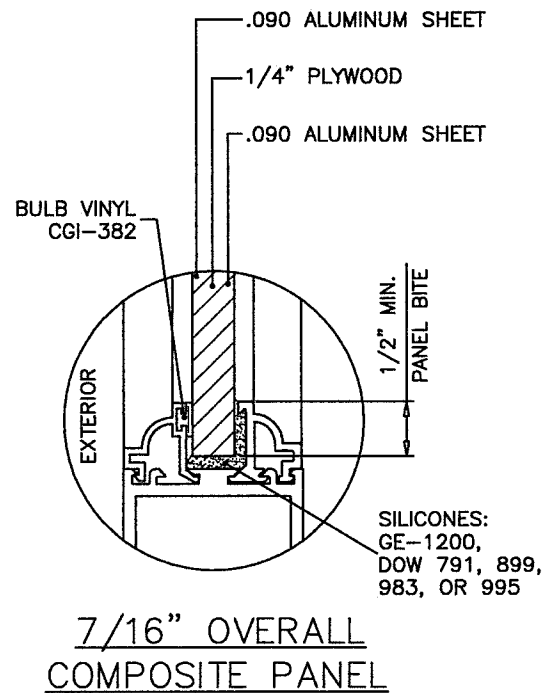
DESIGN PRESSURES AND ELEVATIONS

FD450 OUTSWING

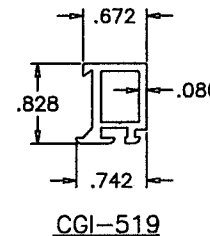
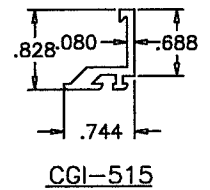
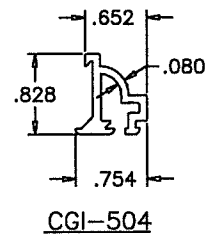
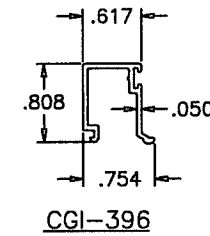
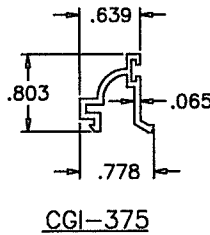
ANTHONY LYNN MILLER
LICENSE
No. 58705
6/12/20
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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

GLAZING OPTIONS



GLAZING STOP OPTIONS



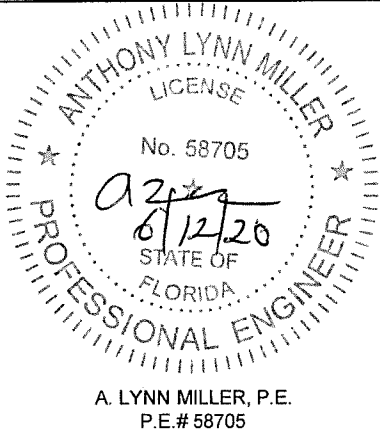
DOORS AND SIDELITES CAN BE GLAZED USING SQUARE OR OGEE GLAZING BEADS/ADAPTERS

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0619.06
Expiration Date 10/25/2022
By Ishag I. Chank
Miami-Dade Product Control

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 22-0822.03
Expiration Date 10/25/2027
By Ishag I. Chank
Miami-Dade Product Control


ADDED BACKBEDDING
TYPES - JR - 6/11/20

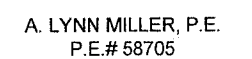
PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	REGISTRATION #29296	Date 06/12/2020	By J ROSOWSKI	Rev.	A
				No.	450FD2-NOA
Impact Resistant Windows & Doors WE'RE STRONGER™ CGI WINDOWS AND DOORS, INC. 3780 W 104TH STREET HIALEAH, FL 33018 (305) 593-6590	450 ALUM. FRENCH DOOR - OPAQUE & OS (LM)	GLAZING DETAILS	FD450 OUTSWING	DWG	3 OF 17
				Sheet	NTS
CGI	450 ALUM. FRENCH DOOR - OPAQUE & OS (LM)	GLAZING DETAILS	FD450 OUTSWING	Scale	NTS
				Series	FD450 OUTSWING



38 9/16" FRAME WIDTH
 4 1/4"
 3"
 24" MAX.
 H-O 10
 9 7/8"
 25 5/8" MAX.
 HJ-O 11
 96 1/2" FRAME HEIGHT
 94 7/8" PANEL HEIGHT
 9 5/8"
 25 5/8" MAX.
 10D OR 10E
 CONCEALED VERTICAL ROD
 ACTIVE
 6"
 7 1/4"
 SS1 12
 7 1/4"
 JAMB ANCHOR SPACING
 SEE DETAIL HJ-O ON SHEET 10

JACKSON SERIES 2085/2086 CONCEALED VERTICAL
ROD EXIT DEVICE

 Impact Resistant Windows & Doors WE'RE STRONGER™	PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600		REGISTRATION #29296	
	CGI WINDOWS AND DOORS, INC. 3780 W 104TH STREET HIALEAH, FL 33018 (305) 593-6590			
450 ALUM. FRENCH DOOR - OPAQUE & OS (LM)	06/12/2020			
STD. DARDWARE ANCHOR LAYOUT	J ROSOWSKI			
FD450 OUTSWING	4 OF 17	DWG No.	450FD2-NOA	Rev.



[illegible]

LOCK OPTIONS 10D AND 10E

ANTHONY LYNN MILLER
LICENSE
No. 58705
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

A2
6/12/20

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

BILL OF MATERIALS

ITEM	DESCRIPTION
1	#12 X 1 1/4" HEX HEAD S/S SMS (3 PER CORNER CONNECTION)
2A	3/8-16 FULLY THREADED CONTINUOUS ROD
2B	3/8-16 HEX NUT
2C	1 1/2" X 1 1/2" X 3/16"THK. ALUMINUM PLATE
3	SHEAR CLIP (EXT. NO. 506)
4	DOUBLE 9/32" DIA. JAMB INSTLL. HOLES AT 6" FROM ENDS & 24" O.C. MAX.
5	9/32" DIA. HEAD & SILL INSTLL. HOLES AT 6" FROM ENDS, 3 @ CENTER OF PAIRS SPACED 6" O.C. & 24" O.C. MAX.
6	#10 X 1" PH-PH-SS TEKS SCREW, @ 3" & 7" FROM ENDS & 19-3/8" O.C. MAX.
7	#14 X 3/4" HEX HEAD S/S TEKS SCREW AT 6" FROM ENDS & 24 3/16" O.C. MAX.
8	.320 HIGH WOOL PILE WITH CENTER FIN (ULTRAFAB # 3032)
9	.350 HIGH FOAM-TITE WEATHERSEAL (AMESBURY # 32011)
10	ACTIVE PANEL LOCK OPTIONS (SEE SHEET 1.1 FOR LIMITS)
10A	CGI CUSTOM 3 POINT LOCK 4503PL, CONSISTING OF (2) CGI CUSTOM END BOLTS (TOP & BOTTOM), ATTACHED WITH #10 X 3/4" PH SMS, (1) CGI CUSTOM INTERIOR LINKAGE MECHANISM, (1) DEADBOLT BY COPPER CREEK SERIES E MODEL D82410.
10AA	CGI CUSTOM 3 POINT LOCK 4503PL, CONSISTING OF (2) CGI CUSTOM END BOLTS (TOP & BOTTOM), ATTACHED WITH #10 X 3/4" PH SMS, (1) CGI CUSTOM INTERIOR LINKAGE MECHANISM, (1) DEADBOLT BY BALDWIN SERIES 8200, KWIKSET 780.
10B	REGENT COMMERCIAL 2222 THREE POINT LOCK MECHANISM WITH MORTISE LOCK.
10C	SINGLE POINT LOCK (1) DEADBOLT BY BALDWIN SERIES 8200.
10CC	SINGLE POINT LOCK (1) DEADBOLT BY COPPER CREEK SERIES D82410.
10D	DOR-O-MATIC SERIES 1690 TOUCHBAR PANIC EXIT DEVICE WITH CONCEALED VERTICAL ROD SEE SHEET 5.
10E	JACKSON 20 SERIES PANIC EXIT WITH 2085/2086 CONCEALED VERTICAL ROD EXIT DEVICE SEE SHEET 5.
10F	CGI CUSTOM SURFACE MOUNTED SLIDE BOLTS WITH CGI END BOLTS AT ACTIVE LEAF (AT TOP & BOTTOM) WITH BALDWIN SERIES 8200 DEAD BOLT.

11	HAGER 4 1/2" X 4" HINGE IN SOLID BRASS OR STAINLESS STEEL CGI 4-1/2" X 4" HINGE IN ALUMINUM SECURED WITH (8) #12-24 X 1/2" F.H. M.S. (3 PER PANEL UP TO 7'-6 3/4" HIGH) (4 PER PANEL OVER 7'-6 3/4")
12	CGI FLUSHBOLT AT TOP & BOTTOM OF INACTIVE LEAF, HOUSING ATTACHED TO PANEL STILE WITH #10 X 3/4" PH SMS, ACTIVATOR ATTACHED WITH #8 X 1/2" PH SMS.
13	SEE SHEET 3 FOR GLAZING OPTIONS
14	SILICONES:GE-1200, DOW 791, 899, 983, OR 995
17	1/2" X 1/2" CONTINUOUS CLOSED CELL FOAM TAPE WITH ONE SIDE ADHESIVE
18	PLASTIC WEEP BAFFLE
19	7/8" X 5" X 1/8" THK. CONTINUOUS ALUMINUM SILL ANGLE ADAPTER

EXTRUSION LIST: 500A, 501, 502, 503, 504, 507, 509, 510, 514, 515, 519, 539, & 540 ALL EXTRUSIONS ARE 6063-T6. 375, 396, 505, 508, 511 EXTRUSIONS ARE 6063-T5.

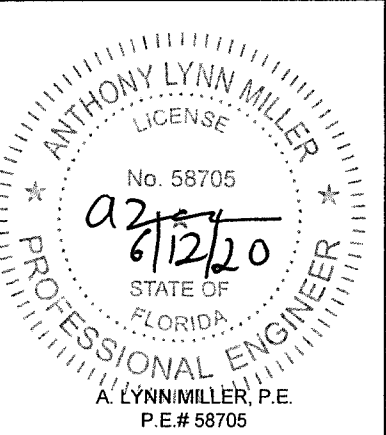
PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0619.06
Expiration Date 10/25/2022
By Ishag I. Chande
Miami-Dade Product Control

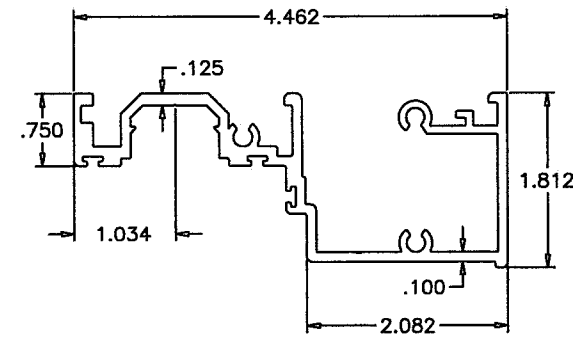
Material	Min. F _y	Min. F _u
#14 Steel Screw, Gr 5	81 ksi	105 ksi
1/4" Elco UltraCon	155 ksi	177 ksi
1/4" DeWalt UltraCon+	148 ksi	164 ksi
5/16" Elco UltraCon	155 ksi	177 ksi
5/16" DeWalt UltraCon+	155 ksi	177 ksi
6063-T5 Aluminum	16 ksi	22 ksi
A36 Steel	36 ksi	58 ksi
Gr. 33 Steel Stud	33 ksi	45 ksi

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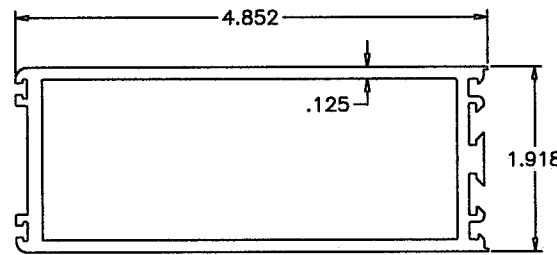
ADDED BACKBEDDING
TYPES - JR - 6/11/20

PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	REGISTRATION #29296	Date	06/12/2020	J ROSOWSKI	Rev.	A
		By			DWG	No.
		Drawn			6 OF 17	450FD2-NOA
		Scale	NTS		Sheet	
Impact Resistant Windows & Doors WERE STRONGER™	CGI WINDOWS AND DOORS, INC. 3780 W 104TH STREET HIALEAH, FL 33018 (305) 593-6590	450 ALUM. FRENCH DOOR - OPAQUE & OS (LM)		BILL OF MATERIALS		FD450 OUTSWING

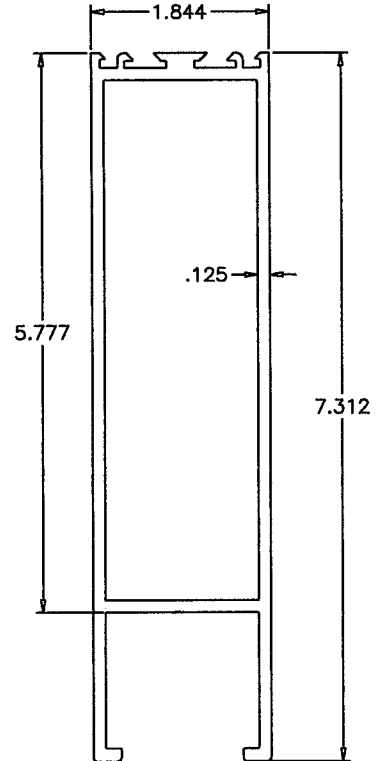




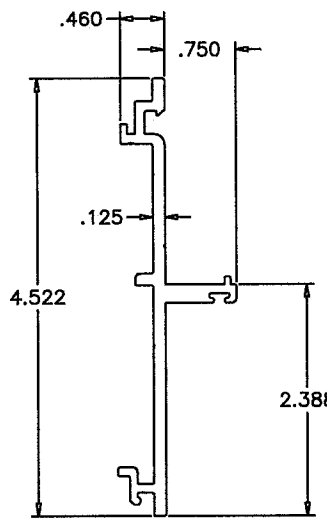
CGI-507
DOOR FRAME HEAD/SILL



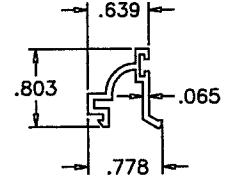
CGI-502
JAMB/LOCK/SIDELITE STILE



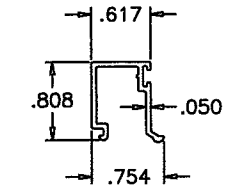
CGI-501
BOTTOM RAIL



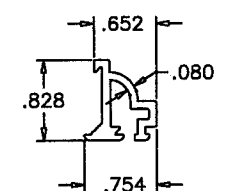
CGI-510
SIDELITE MULLION



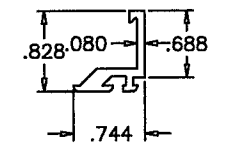
CGI-375



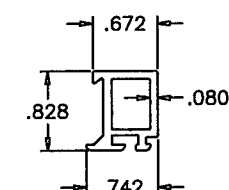
CGI-396



CGI-504

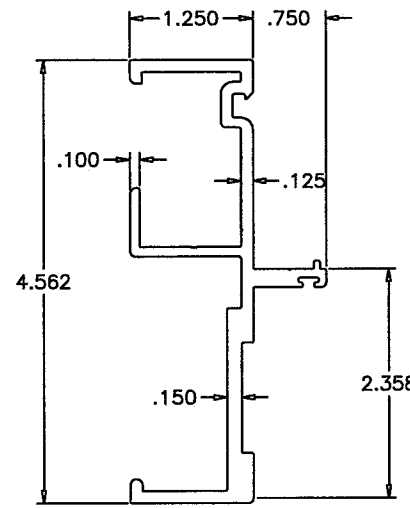


CGI-515

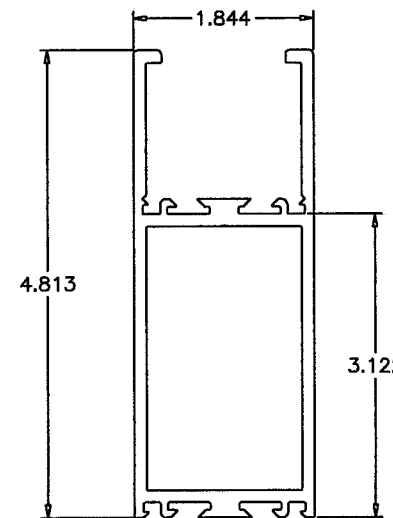


CGI-519

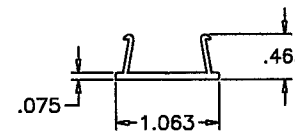
**GLAZING STOP
OPTIONS**



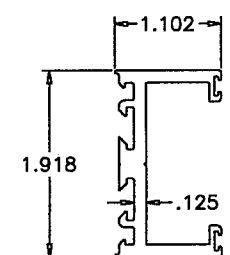
CGI-509
FRAME JAMB/MULLION



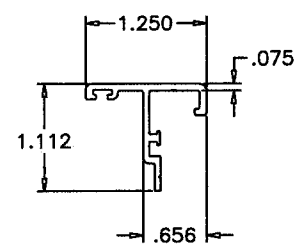
CGI-500A
TOP RAIL



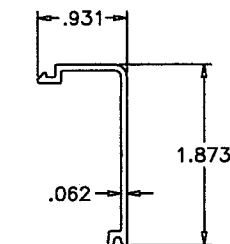
CGI-508
FRAME COVER



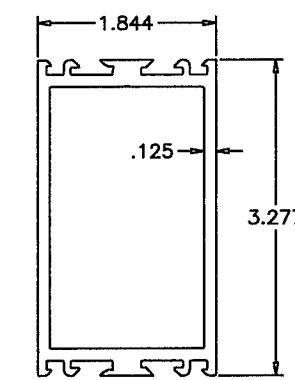
CGI-503
NARROW SIDELITE STILE



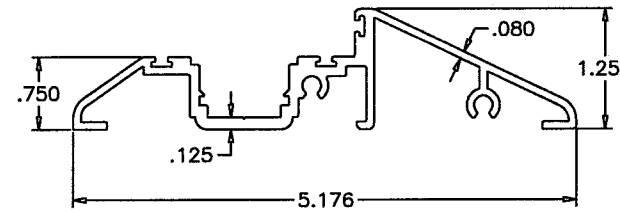
CGI-505
ASTRAGAL



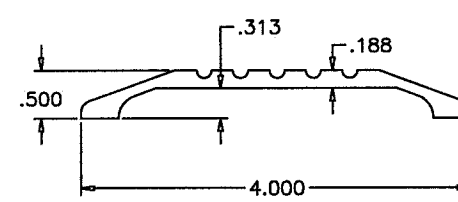
CGI-511
JAMB COVER



CGI-514
HORIZONTAL MUNTIN



CGI-539
RES. SADDLE THRESHOLDS



CGI-540
COM. SADDLE/ADA THRESHOLD

PRODUCT REVISED
as complying with the Florida
Building Code

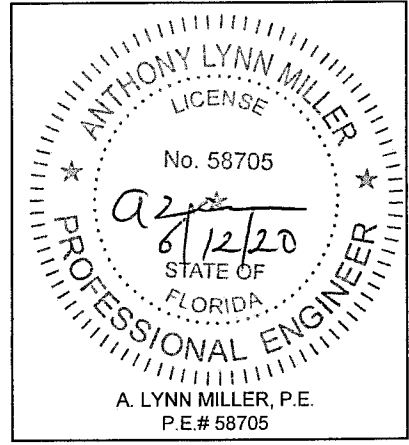
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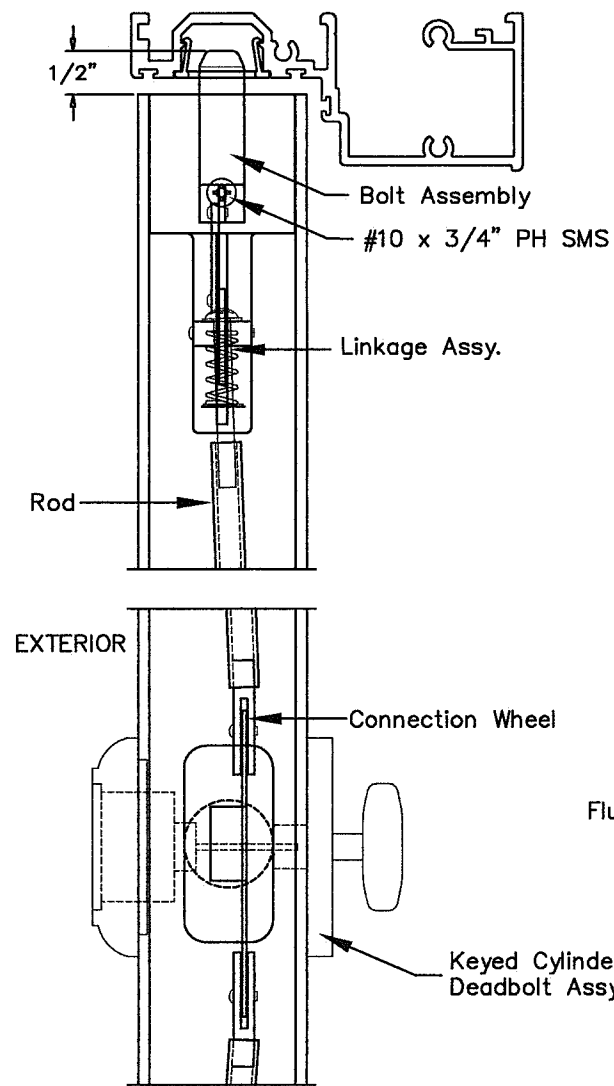
Expiration Date 10/25/2022

By Ishaq I. Chande
Miami-Dade Product Control

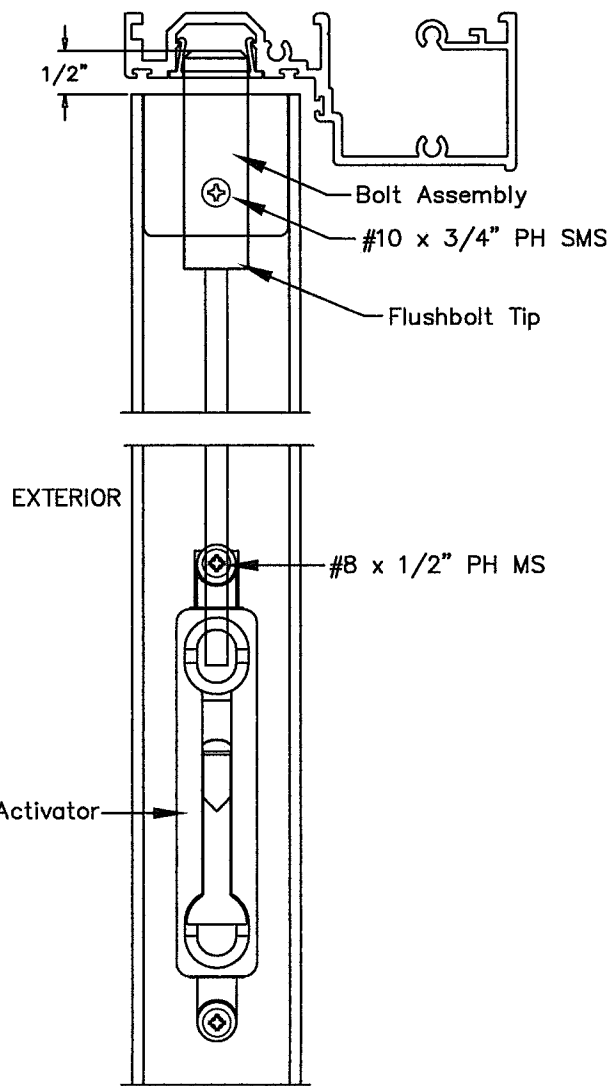
PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 22-0822.03
Expiration Date 10/25/2027
By Ishaq I. Chande
Miami-Dade Product Control

PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	REGISTRATION #29296	Date	06/12/2020	By	J ROSOWSKI	Rev.	A
						No.	450FD2-NOA
						DWG	7 OF 17
						Sheet	NTS
Impact Resistant Windows & Doors WE'RE STRONGER™ CGI WINDOWS AND DOORS, INC. 3780 W 104TH STREET HIALEAH, FL 33018 (305) 593-6590	450 ALUM. FRENCH DOOR - OPAQUE & OS (LM)	Title	EXTRUSIONS	FD450 OUTSWING	Series	Desc.	Title

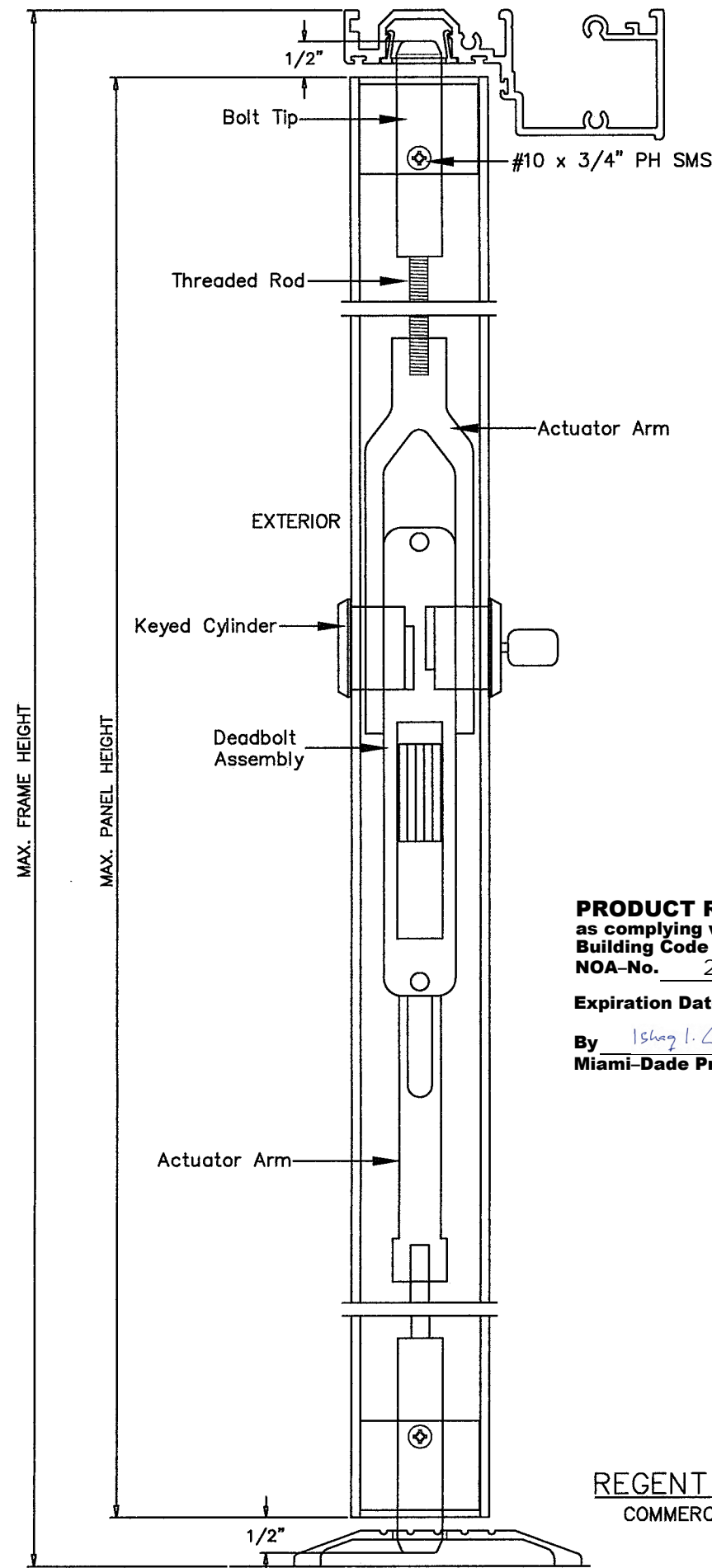




CGI CUSTOM
3-POINT LOCK
TOP SECTION SHOWN
(BOTTOM SIMILAR)



12 FLUSHBOLTS
(INACTIVE PANEL)
TOP SECTION SHOWN
(BOTTOM SIMILAR)



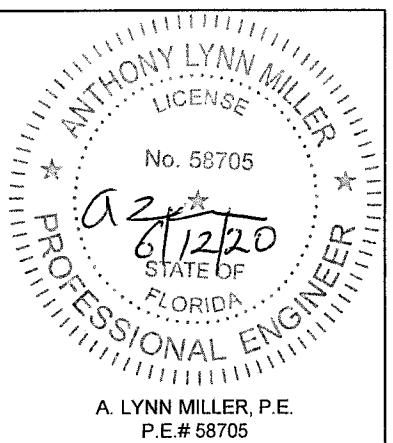
PRODUCT REVISED
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Building Code
NOA-No. 20-0619.06
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By Ishag I. Chande
Miami-Dade Product Control

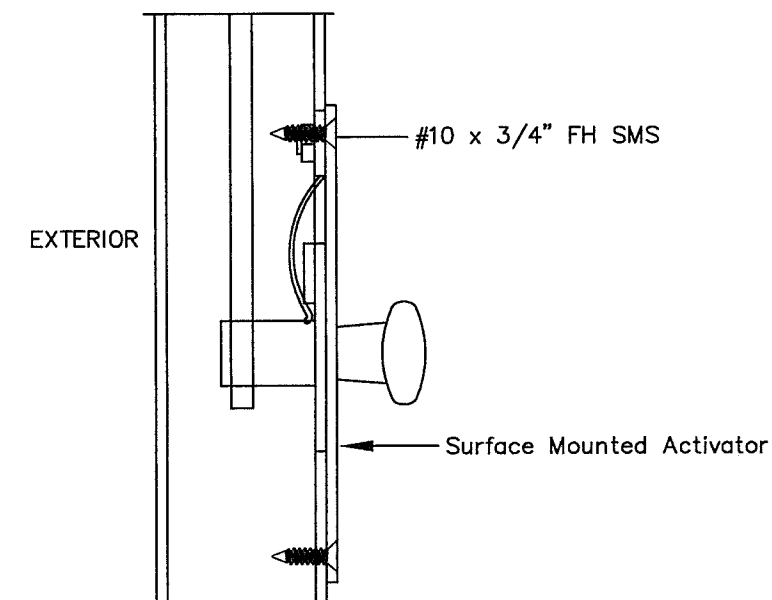
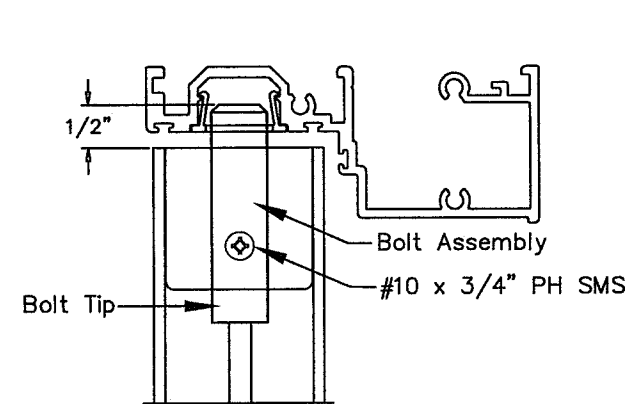
REGENT 3 POINT
COMMERCIAL LOCK

PRODUCT RENEWED
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By Ishag I. Chande
Miami-Dade Product Control

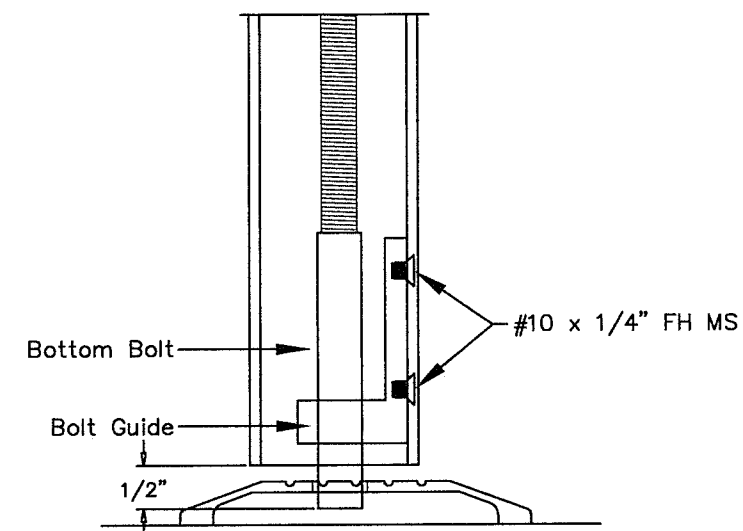
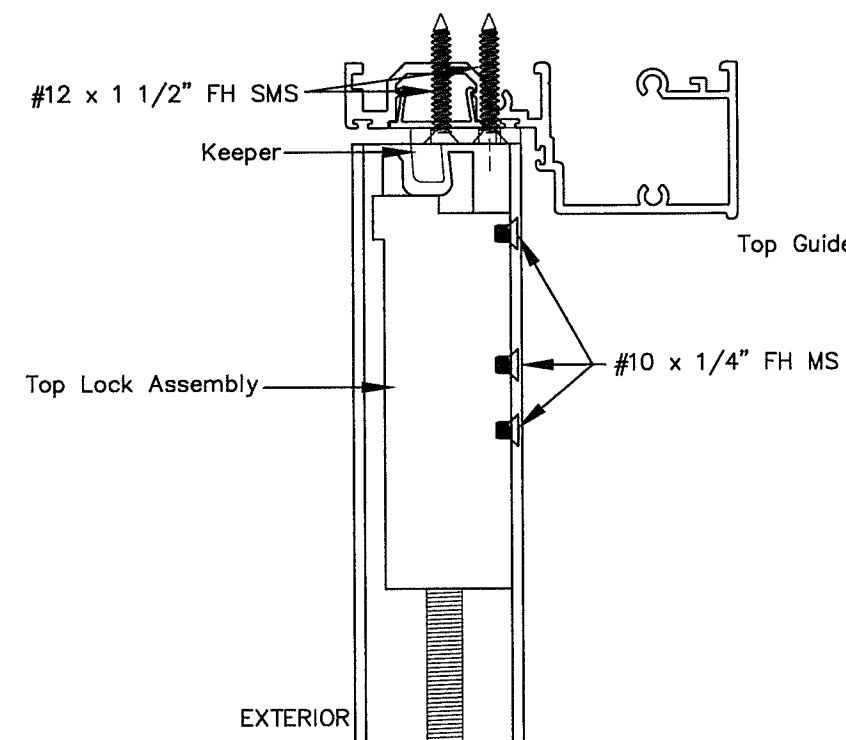
Revision:

PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	REGISTRATION #29296	Date 06/12/2020	By J ROSOWSKI	No. 450FD2-NOA	DWG No. 8 OF 17	Sheet NTS	Scale	Series Desc. Title
Impact Resistant Windows & Doors WERE STRONGER™ CGI WINDOWS AND DOORS, INC. 3780 W 104TH STREET HIALEAH, FL 33018 (305) 593-6590	450 ALUM. FRENCH DOOR - OPAQUE & OS (LM)	HARDWARE DETAILS 1	FD450 OUTSWING	A	Rev.	A		

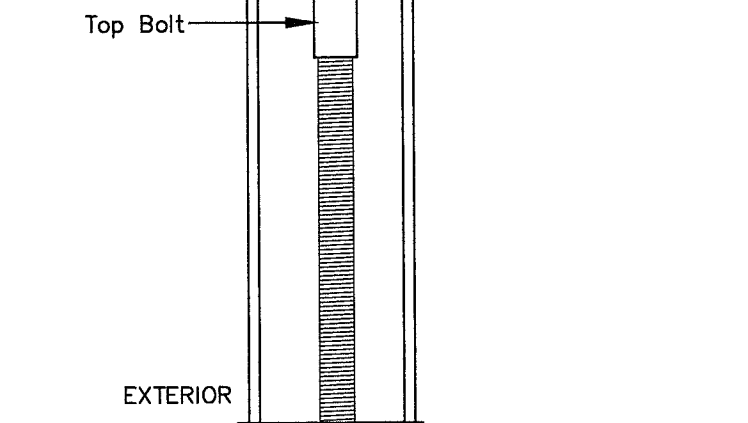
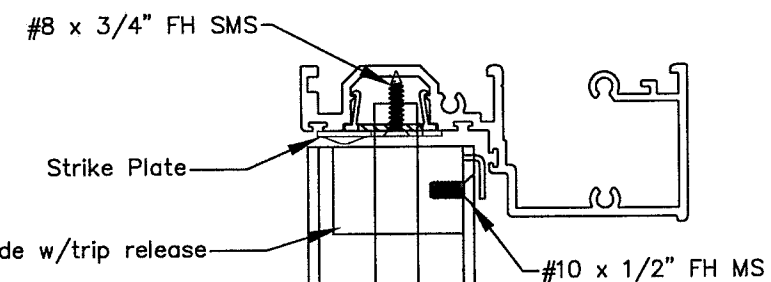




**SURFACE MOUNT SLIDE
BOLT WITH BALDWIN
DEAD BOLT**
TOP SECTION SHOWN
(BOTTOM SIMILAR)



DOR-O-MATIC 1690



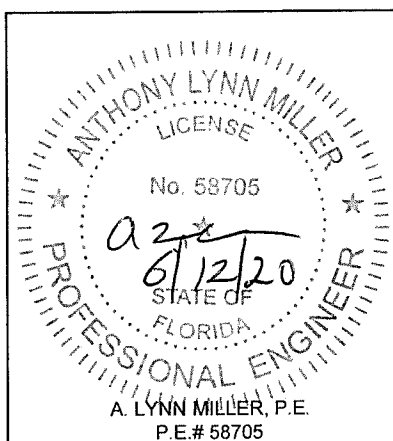
JACKSON 2086I

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0619.06
Expiration Date 10/25/2022
By *Ishag I. Chande*
Miami-Dade Product Control

PRODUCT RENEWED
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By *Ishag I. Chande*
Miami-Dade Product Control

Revision:

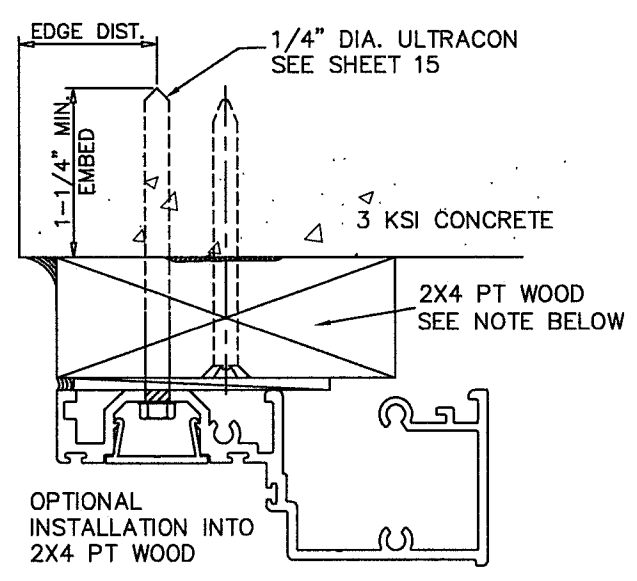
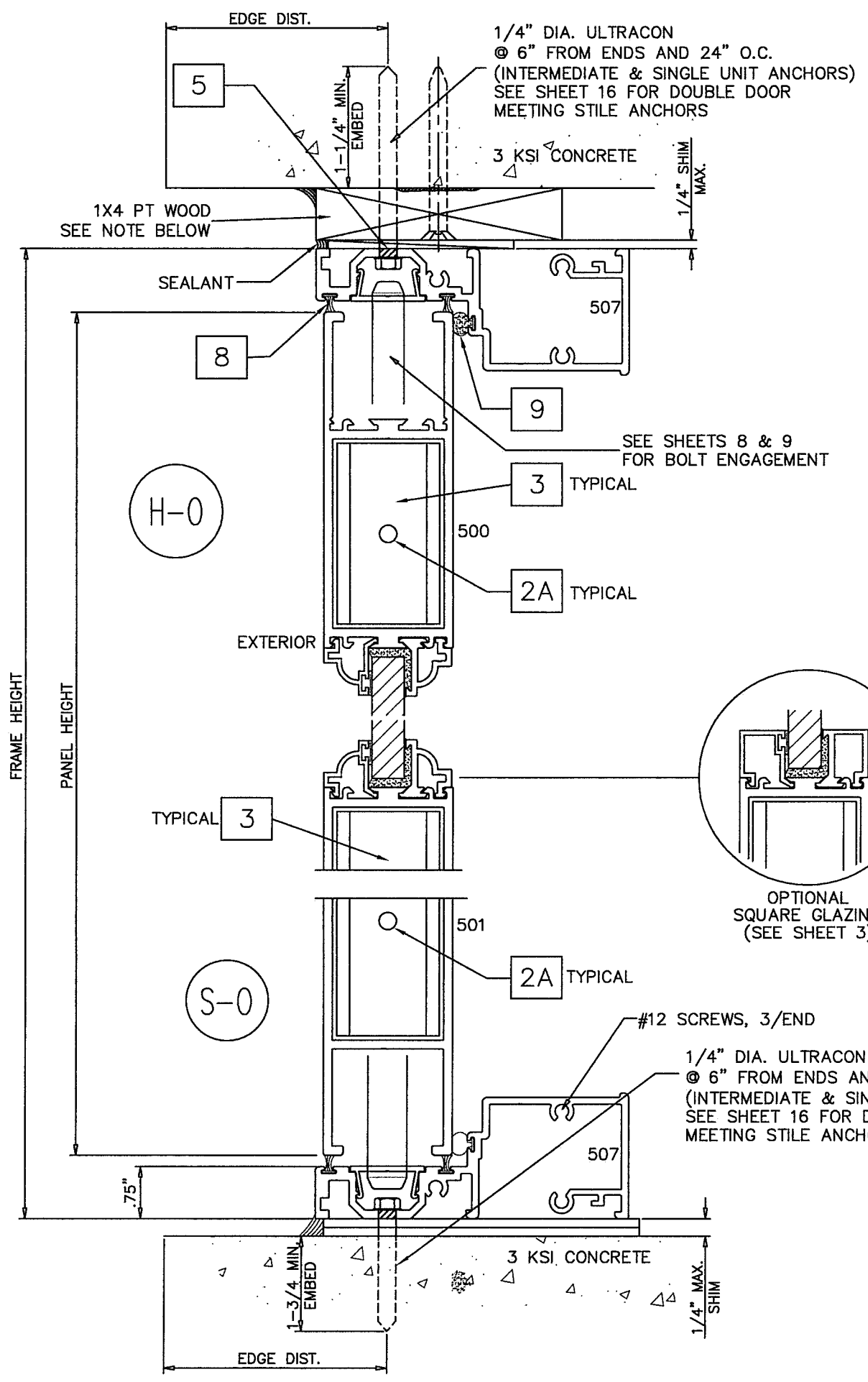
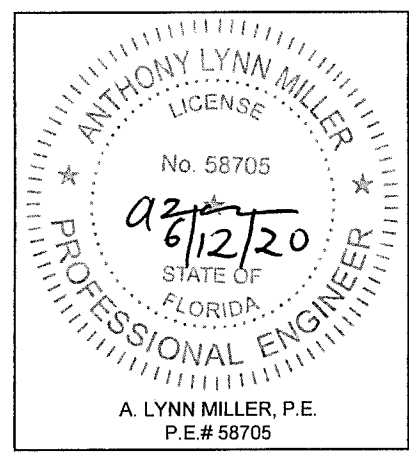
PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	REGISTRATION #29296	Date	06/12/2020	By	J ROSOWSKI	No.	450FD2-NOA	Rev.	A
		DWG	9 OF 17	Scale	NTS	Sheet			
Impact Resistant Windows & Doors WERE STRONGER™ CGI WINDOWS AND DOORS, INC. 3780 W 104TH STREET HIALEAH, FL 33018 (305) 593-6590	450 ALUM. FRENCH DOOR - OPAQUE & OS (LM)	HARDWARE DETAILS 2		FD450 OUTSWING					



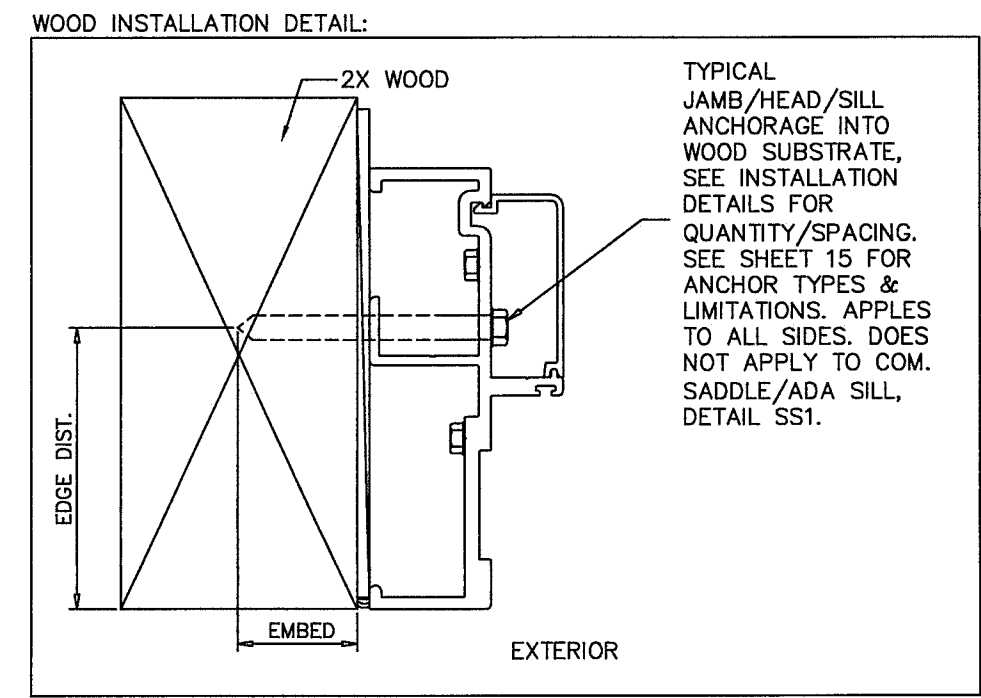
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Miami-Dade Product Control

Revision: ADDED WOOD
INSTALLATION DETAIL - JR -
6/11/20

PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	REGISTRATION #29296	Date	06/12/2020	By	J ROSOWSKI	Rev.	A
		No.	DWG	10 OF 17	Sheet	450FD2-NOA	
Impact Resistant Windows & Doors WE'RE STRONGER™ CGI WINDOWS AND DOORS, INC. 3780 W 104TH STREET HIALEAH, FL 33018 (305) 593-6590	450 ALUM. FRENCH DOOR - OPAQUE & OS (LM)	INSTALLATION DETAILS 1	FD450 OUTSWING	Scale	NTS	Series	Desc.

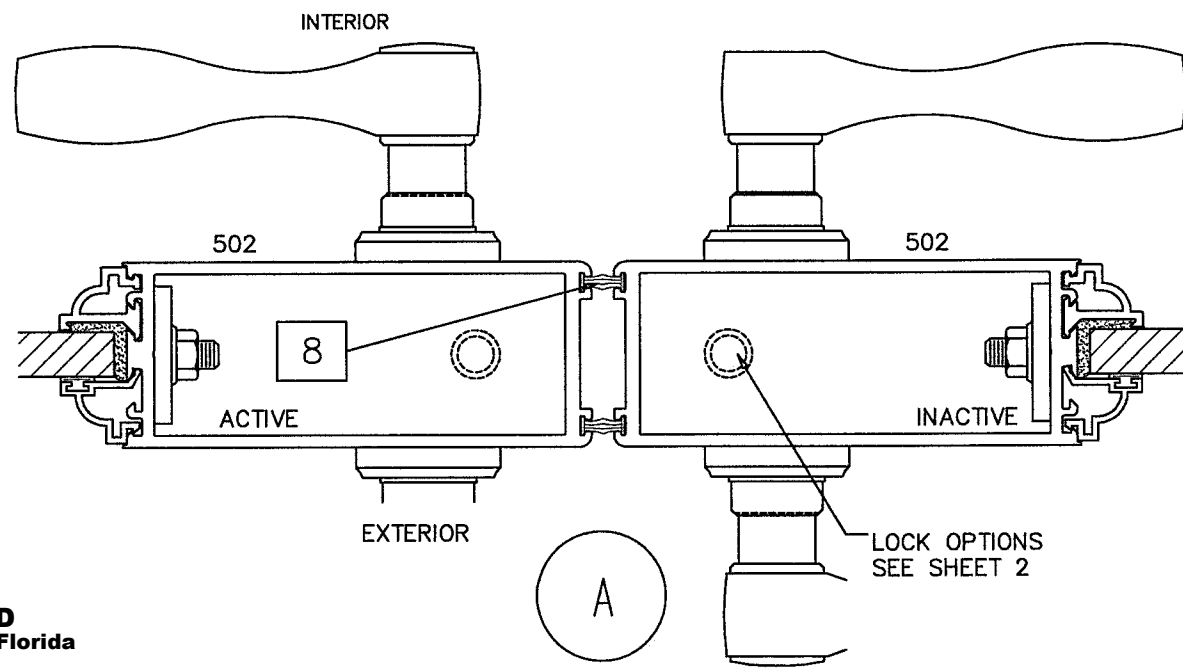
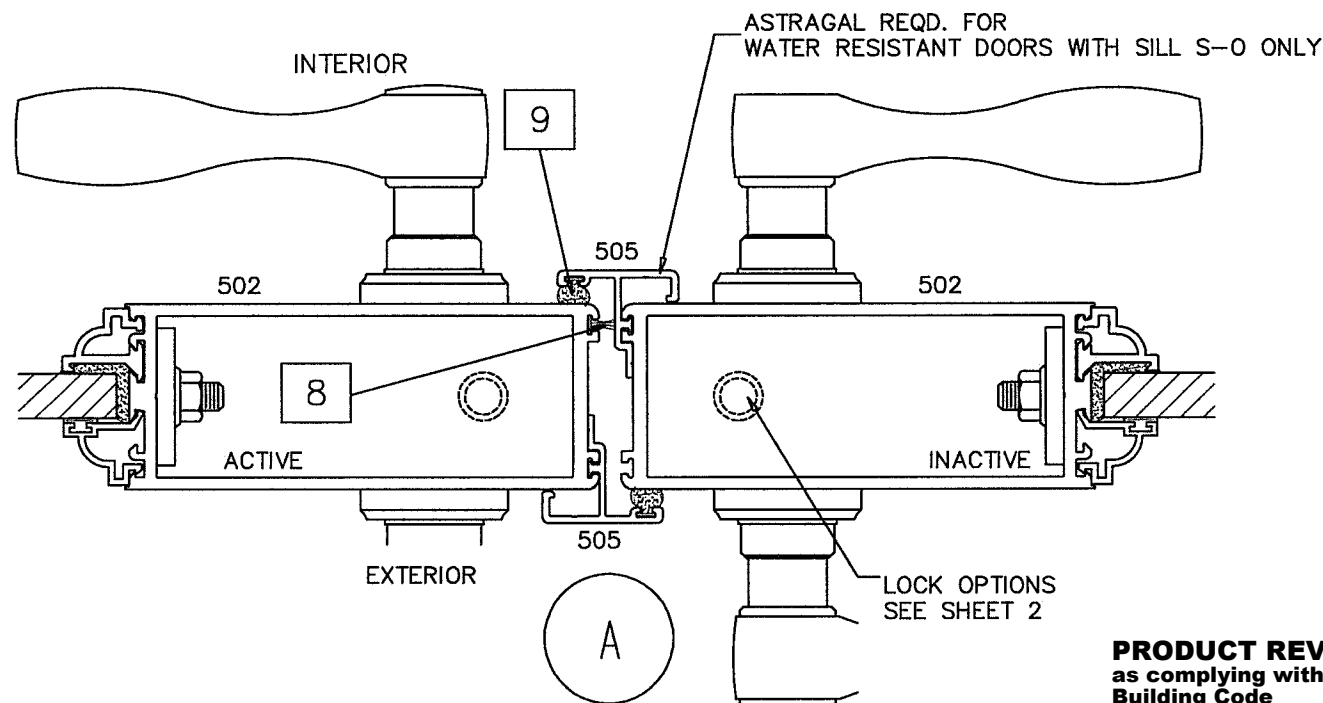


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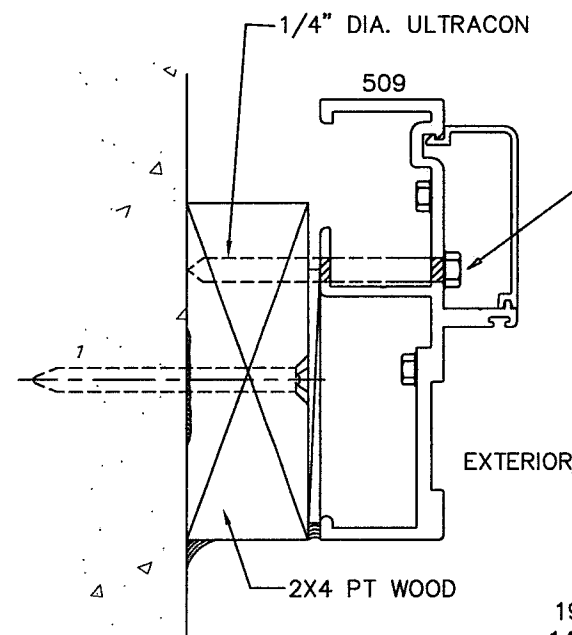


OPTIONAL INSTALLATION
DIRECTLY INTO 2X WOOD

- NOTES:**
- 1) ALL JAMB ANCHOR CONDITIONS SHOWN ON SHEETS 10, 12 AND 13 MAY BE DIRECTLY TO MASONRY WITH 1/4" MAX. SHIM SPACE WITHOUT VARIATION IN CAPACITY.
 - 2) 1X OR 2X WOOD BUCKS NOT BY CGI MUST BE PROPERLY SECURED AND MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM.



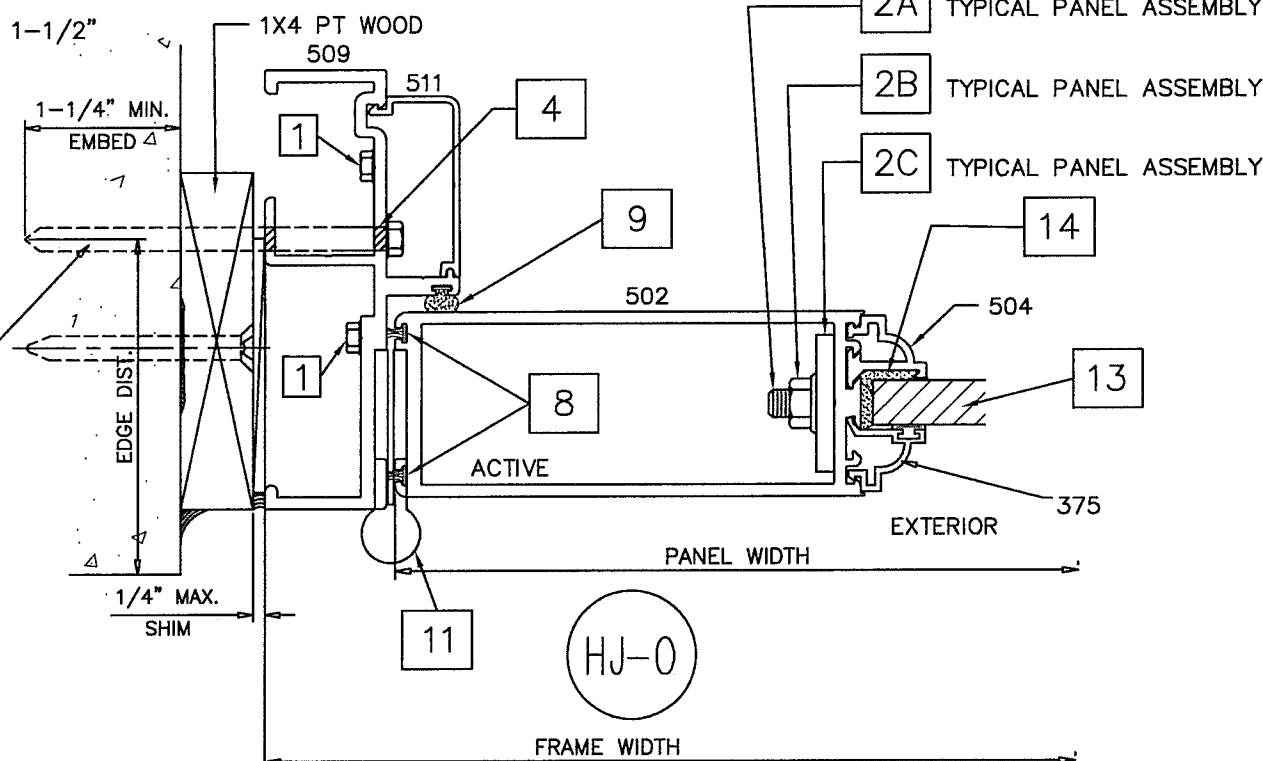
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Miami-Dade Product Control



**OPTIONAL INSTALLATION
INTO 2X4 PT WOOD**
SEE NOTE BELOW

TYPICAL JAMB ANCHORS
1/4" DIA. ULTRACON
@ 6" FROM ENDS AND
19-3/8" O.C. FOR LOADS UPTO 70 PSF
14-1/2" O.C. FOR LOADS ABOVE 70 PSF
2-1/2" EDGE DIST.
EMBEDMENT INTO 2BY WOOD BUCK = 1-1/2"

TYPICAL JAMB ANCHORS
1/4" DIA. ULTRACON
@ 6" FROM ENDS AND
19-3/8" O.C. FOR LOADS UPTO 70 PSF
14-1/2" O.C. FOR LOADS UPTO 110 PSF
12" O.C. FOR LOADS ABOVE 110 PSF
(SEE SHEET 15)
2-1/2" MIN. EDGE DIST.



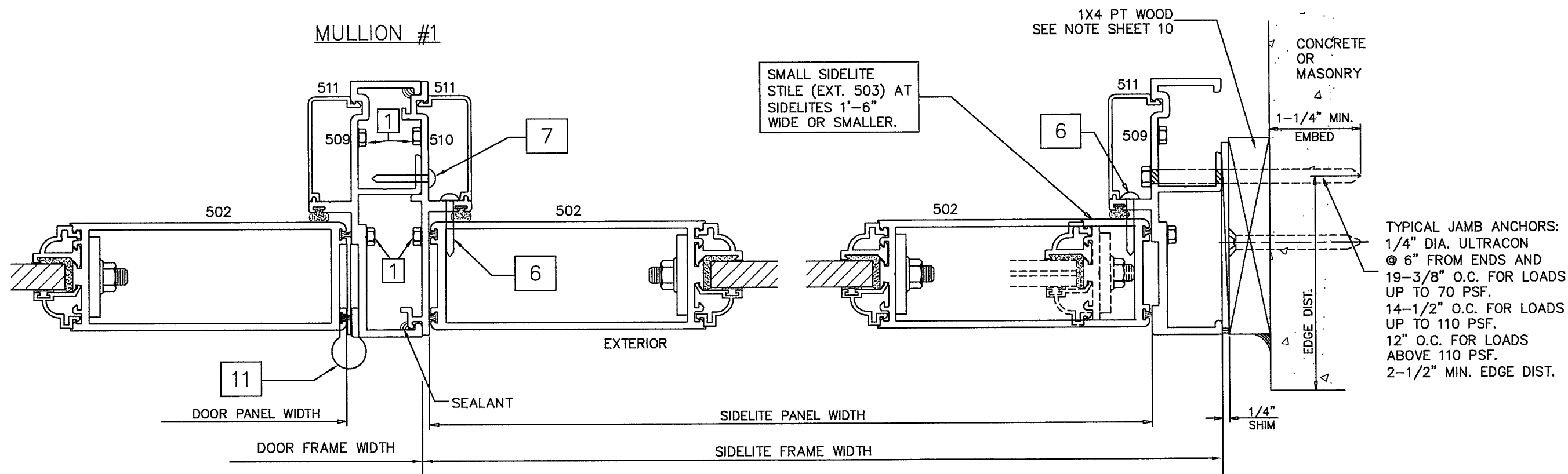
NOTE:
1X OR 2X WOOD BUCKS NOT BY CGI MUST BE
PROPERLY SECURED AND MUST SUSTAIN
LOADS IMPOSED BY GLAZING SYSTEM.

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 22-0822.03
Expiration Date 10/25/2027
By *Ishag I. Chank*
Miami-Dade Product Control

Revision:

PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	REGISTRATION #29296	06/12/2020	By <i>J ROSOWSKI</i>	A
Impact Resistant Windows & Doors WE'RE STRONGER™ CGI WINDOWS AND DOORS, INC. 3780 W 104TH STREET HIALEAH, FL 33018 (305) 593-6590	450 ALUM. FRENCH DOOR - OPAQUE & OS (LM)	INSTALLATION DETAILS 2	Sheet	11 OF 17
CGI	FD450 OUTSWING	Scale	NTS	450FD2-NOA

ANTHONY LYNN MILLER
LICENSE
No. 58705
6/12/20
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705



DS-0

SJ-0

THIS SILL IS
NOT RATED
FOR WATER

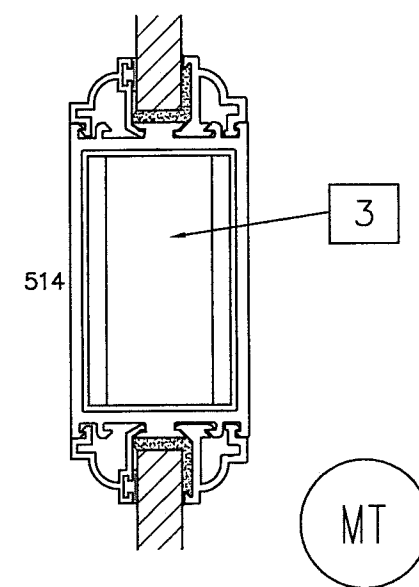
THIS SILL IS
NOT RATED
FOR WATER

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0619.06

Expiration Date 10/25/2022

By *Ishag I. Chande*
Miami-Dade Product Control

1/4" DIA. ULTRACON
1-3/4" MIN. EMBED
@ 6" FROM ENDS & 24" O.C. AND
3" O.C. AT MTG. STILE LOCATION
SEE SHEET 16 FOR CAPACITY



REFER TO SHEET 6 OF 17 FOR
TYPICAL BILL OF MATERIALS

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 22-0822.03

Expiration Date 10/25/2027

By *Ishag I. Chande*
Miami-Dade Product Control

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

REGISTRATION #29296

Date 06/12/2020

By J. ROSOWSKI

No. 450FD2-NOA

DWG

12 OF 17

Sheet

NTS

Scale

FD450 OUTSWING

Series

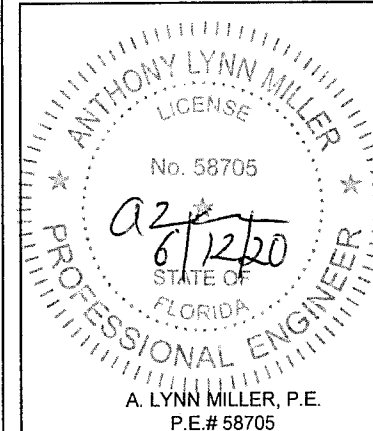
**Impact Resistant
Windows & Doors**
WE'RE STRONGER™



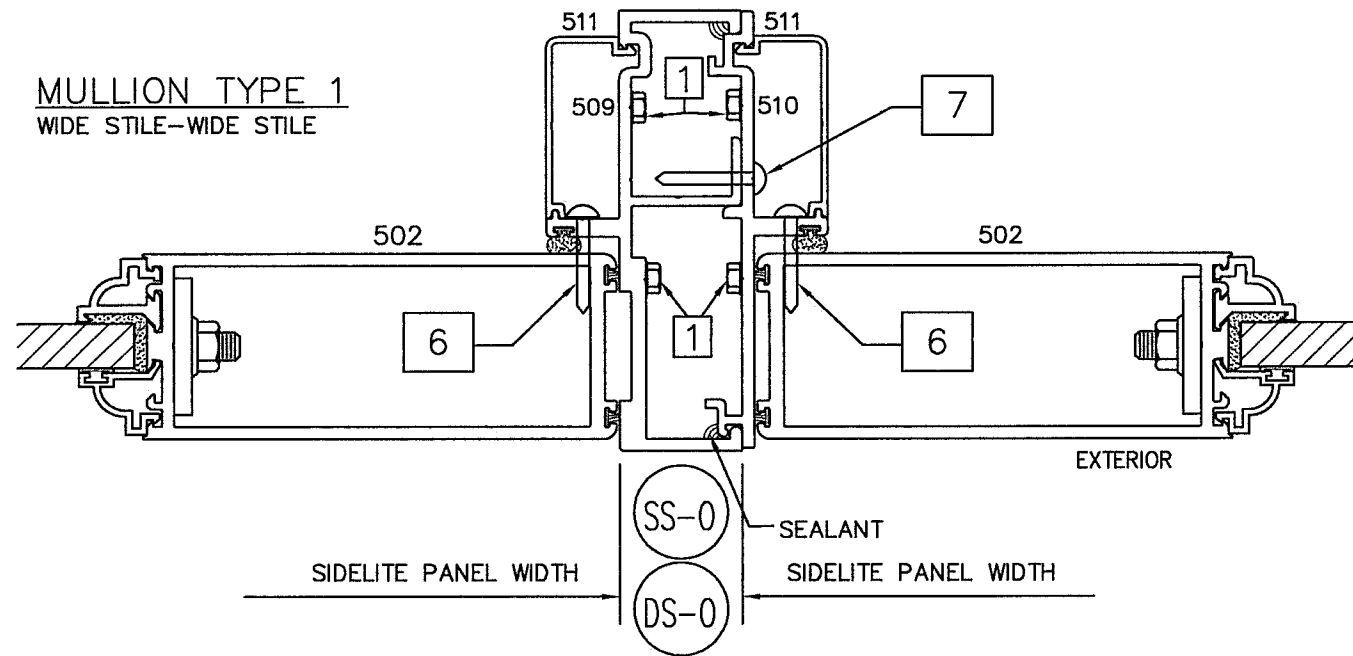
CGI WINDOWS AND DOORS, INC.
3780 W 104TH STREET
HIALEAH, FL 33018
(305) 593-6590

450 ALUM. FRENCH DOOR - OPAQUE & OS (LM)

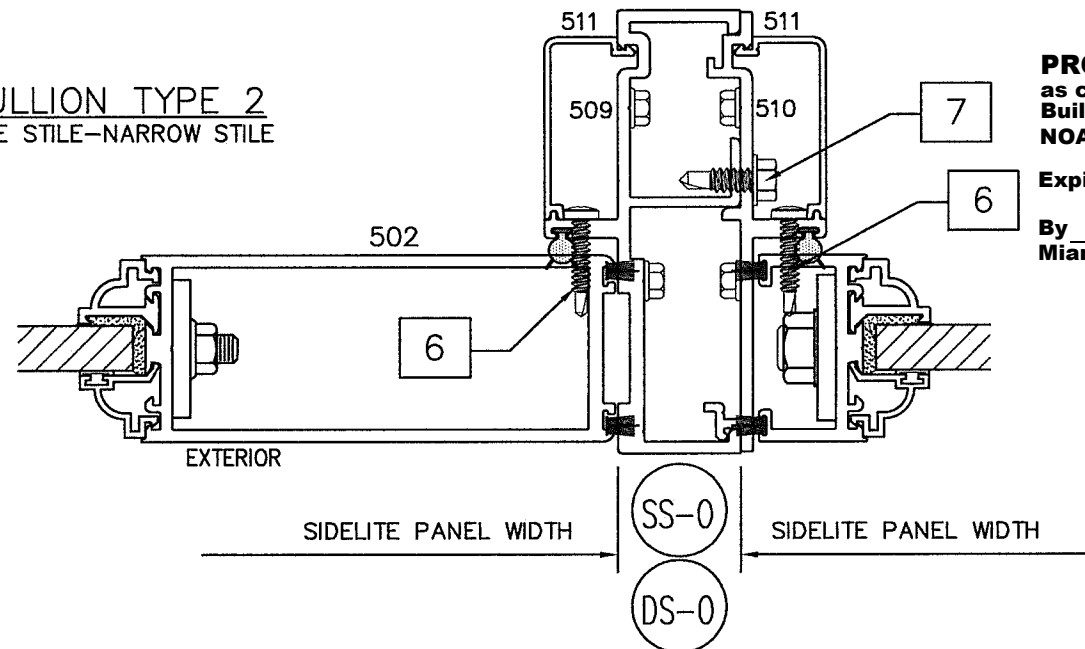
INSTALLATION DETAILS 3



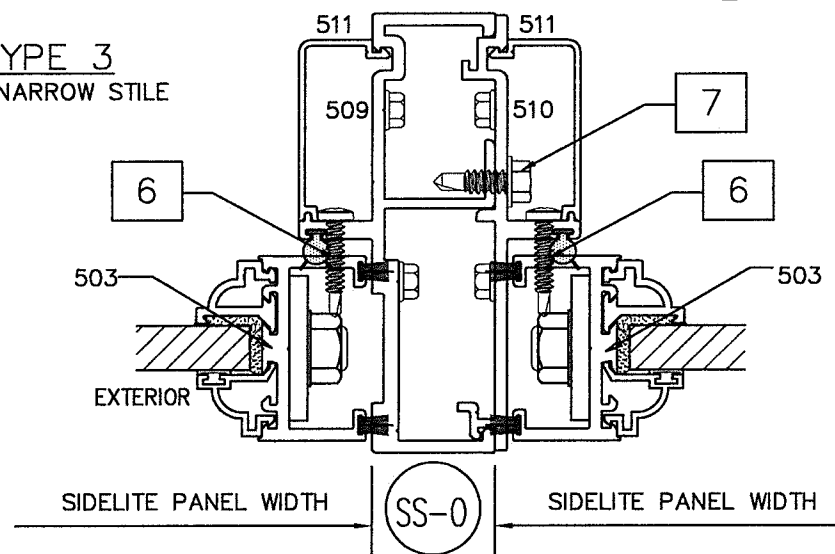
MULLION TYPE 1
WIDE STILE-WIDE STILE



MULLION TYPE 2
WIDE STILE-NARROW STILE



MULLION TYPE 3
NARROW STILE-NARROW STILE



PRODUCT REVISED
as complying with the Florida
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NOA-No. 20-0619.06
Expiration Date 10/25/2022
By Ishag I. Chank
Miami-Dade Product Control

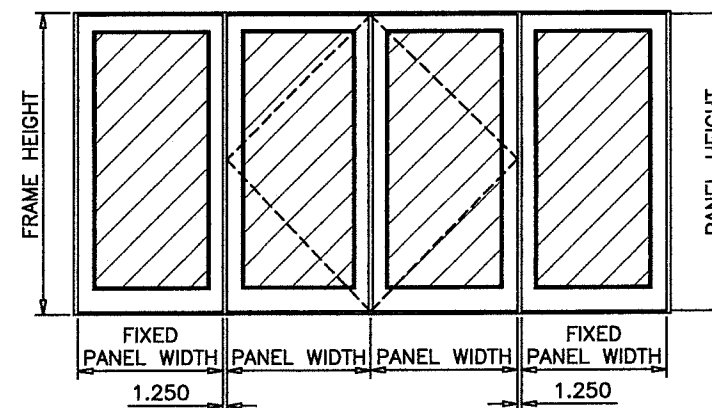
NOTES:
1) LOWER DESIGN LOAD FROM PANEL
PERFORMANCE CHART ON SHEET 14
OR MULLION PERFORMANCE CHART
ABOVE SHALL CONTROL.

2) REFER TO SHEET 6 OF 17 FOR
TYPICAL BILL OF MATERIALS.

MULLION PERFORMANCE CHART
DESIGN LOAD CAPACITY - PSF

NOMINAL DIMS.		MULL TYPE 1		MULL TYPE 2		MULL TYPE 3	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
1/6	82-3/4"	100.0	110.0	100.0	110.0	100.0	110.0
2/0		100.0	110.0	100.0	110.0	100.0	110.0
2/6		100.0	110.0	100.0	110.0	-	-
3/0		100.0	110.0	100.0	110.0	-	-
3/6		94.2	94.2	70.0	70.0	-	-
1/6	84-3/4"	100.0	110.0	100.0	110.0	100.0	110.0
2/0		100.0	110.0	100.0	110.0	100.0	110.0
2/6		100.0	110.0	100.0	110.0	-	-
3/0		100.0	110.0	100.0	110.0	-	-
3/6		94.2	94.2	-	-	-	-
1/6	90-3/4"	100.0	110.0	100.0	110.0	100.0	110.0
2/0		100.0	110.0	100.0	110.0	70.0	70.0
2/6		100.0	110.0	100.0	110.0	-	-
3/0		100.0	110.0	70.0	70.0	-	-
3/6		94.2	94.2	-	-	-	-
1/6	96-3/4"	100.0	110.0	100.0	110.0	100.0	110.0
2/0		100.0	110.0	100.0	110.0	70.0	70.0
2/6		100.0	110.0	100.0	110.0	-	-
3/0		100.0	110.0	-	-	-	-
3/6		59.9	59.9	-	-	-	-
1/6	102-3/4"	100.0	110.0	100.0	110.0	100.0	110.0
2/0		100.0	110.0	100.0	110.0	-	-
2/6		100.0	110.0	100.0	100.4	-	-
3/0		98.9	98.9	-	-	-	-
3/6		59.9	59.9	-	-	-	-
1/6	108-3/4"	100.0	110.0	100.0	110.0	100.0	110.0
2/0		100.0	110.0	100.0	104.1	-	-
2/6		98.1	98.1	70.0	70.0	-	-
3/0		82.9	82.9	-	-	-	-
1/6	114-3/4"	70.0	70.0	70.0	70.0	100.0	110.0
2/0		70.0	70.0	70.0	70.0	-	-
2/6		70.0	70.0	-	-	-	-
3/0		70.0	70.0	-	-	-	-
1/6	120-3/4"	70.0	70.0	70.0	70.0	70.0	70.0
2/0		70.0	70.0	70.0	70.0	-	-
2/6		70.0	70.0	-	-	-	-
3/0		59.9	59.9	-	-	-	-

$$\text{WIDTH (W)} = \frac{\text{DOOR PANEL} + \text{FIXED PANEL}}{2} + 1.250$$



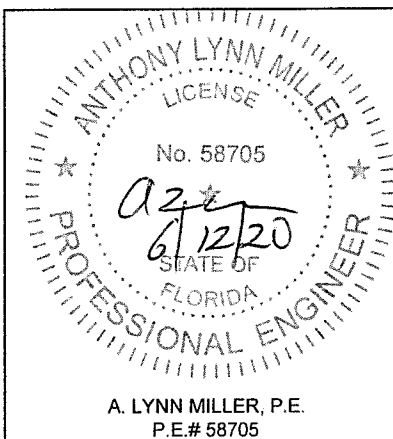
PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 22-0822.03

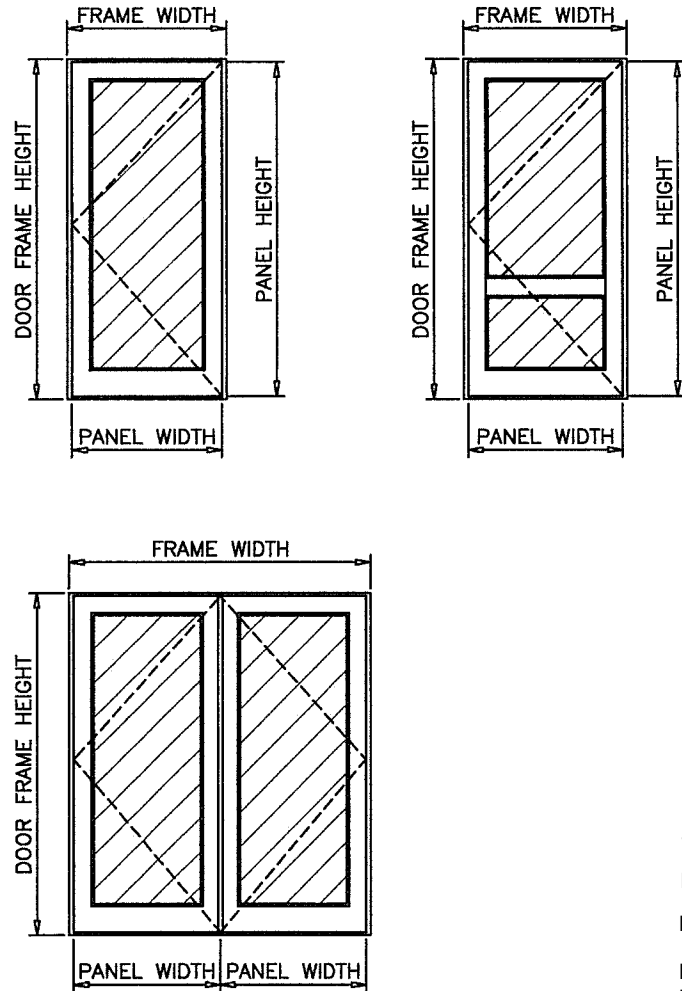
Expiration Date 10/25/2027

By Ishag I. Chank
Miami-Dade Product Control

Revision:

PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	REGISTRATION #29296	Date	06/12/2020	By	J ROSOWSKI	Rev.	A
		Drawn				No.	450FD2-NOA
Impact Resistant Windows & Doors WE'RE STRONGER™ CGI WINDOWS AND DOORS, INC. 3780 W 104TH STREET HIALEAH, FL 33018 (305) 593-6590	450 ALUM. FRENCH DOOR - OPAQUE & OS (LM)	MULLION X-SECTION AND DPS	FD450 OUTSWING	Scale	Sheet	13 OF 17	DWC





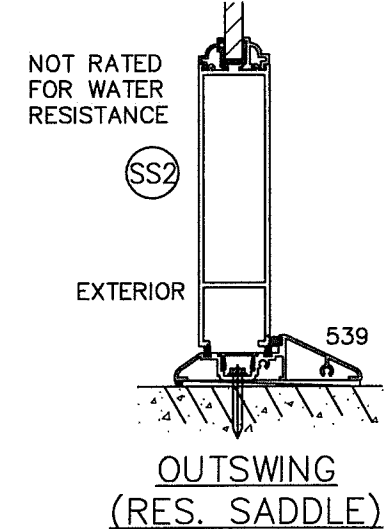
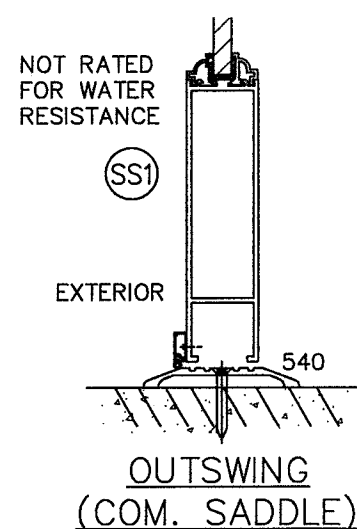
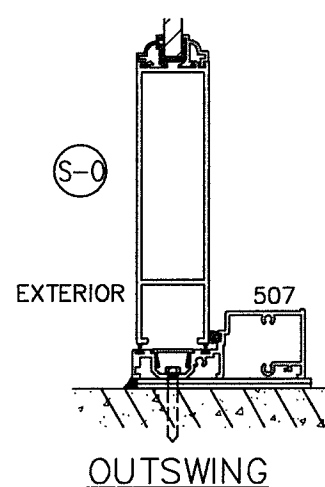
PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0619.06
Expiration Date 10/25/2022
By Ishag I. Chank
Miami-Dade Product Control

NOTES:

- 1) FOR SINGLE OR DOUBLE LEAF DOORS AND SINGLE SIDELITES CAPACITY SEE CHART ON THIS SHEET.
- 2) SEE BELOW FOR THRESHOLD TYPES.
- 3) SEE SHEET 2 FOR LOCK CAPACITIES FOR SINGLE AND DOUBLE DOORS.
- 4) SEE SHEET 13 FOR MULLION TYPES AND DESIGN LOAD CAPACITY.
- 5) SEE CHART ON SHEET 15 FOR MULLION ANCHORS CAPACITY.
- 6) SEE CHART ON SHEET 16 FOR MTG. STILE ANCHORS AT DOUBLE DOOR.
- 7) LOWEST VALUE FROM THESE CHARTS WILL APPLY TO ENTIRE ASSEMBLY.

PANEL PERFORMANCE CHART FOR SINGLE & DOUBLE DOORS & SINGLE SIDELITES (NARROW STILE SIDELITES LIMITED TO 18" OR LESS) DESIGN LOAD CAPACITY - PSF					
NOMINAL DIMS.			7/16" COMPOSITE PANELS 1" COMPOSITE PANELS		
FRAME WIDTH (X)	FRAME WIDTH (XX)	FRAME HEIGHT	EXT. (+)	INT. (-)	
26-9/16"	50-1/2"	82-3/4"	100.0	110.0	
32-9/16"	62-1/2"		100.0	110.0	
38-9/16"	74-1/2"		100.0	110.0	
44-9/16"	86-1/2"		94.2	94.2	
26-9/16"	50-1/2"	84-3/4"	100.0	110.0	
32-9/16"	62-1/2"		100.0	110.0	
38-9/16"	74-1/2"		100.0	110.0	
44-9/16"	86-1/2"		94.2	94.2	
26-9/16"	50-1/2"	90-3/4"	100.0	110.0	
32-9/16"	62-1/2"		100.0	110.0	
38-9/16"	74-1/2"		100.0	110.0	
44-9/16"	86-1/2"		94.2	94.2	
26-9/16"	50-1/2"	96-3/4"	100.0	110.0	
32-9/16"	62-1/2"		100.0	110.0	
38-9/16"	74-1/2"		100.0	110.0	
44-9/16"	86-1/2"		59.9	59.9	
26-9/16"	50-1/2"	102-3/4"	100.0	110.0	
32-9/16"	62-1/2"		100.0	110.0	
38-9/16"	74-1/2"		100.0	110.0	
44-9/16"	86-1/2"		59.9	59.9	
26-9/16"	50-1/2"	108-3/4"	100.0	110.0	
32-9/16"	62-1/2"		100.0	110.0	
38-9/16"	74-1/2"		100.0	110.0	
44-9/16"	86-1/2"		70.0	70.0	
26-9/16"	50-1/2"	114-3/4"	70.0	70.0	
32-9/16"	62-1/2"		70.0	70.0	
38-9/16"	74-1/2"		70.0	70.0	
44-9/16"	86-1/2"		70.0	70.0	
26-9/16"	50-1/2"	120-3/4"	70.0	70.0	
32-9/16"	62-1/2"		70.0	70.0	
38-9/16"	74-1/2"		70.0	70.0	
44-9/16"	86-1/2"		70.0	70.0	

LOADS SHOWN ABOVE ARE FOR DOORS USING THRESHOLDS S-O IN ANY CONDITION AND SS1 & SS2 WHERE WATER INFILTRATION REQUIREMENTS ARE NOT APPLICABLE.



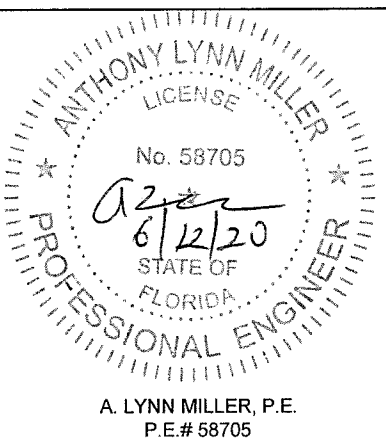
PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 22-0822.03

Expiration Date 10/25/2027

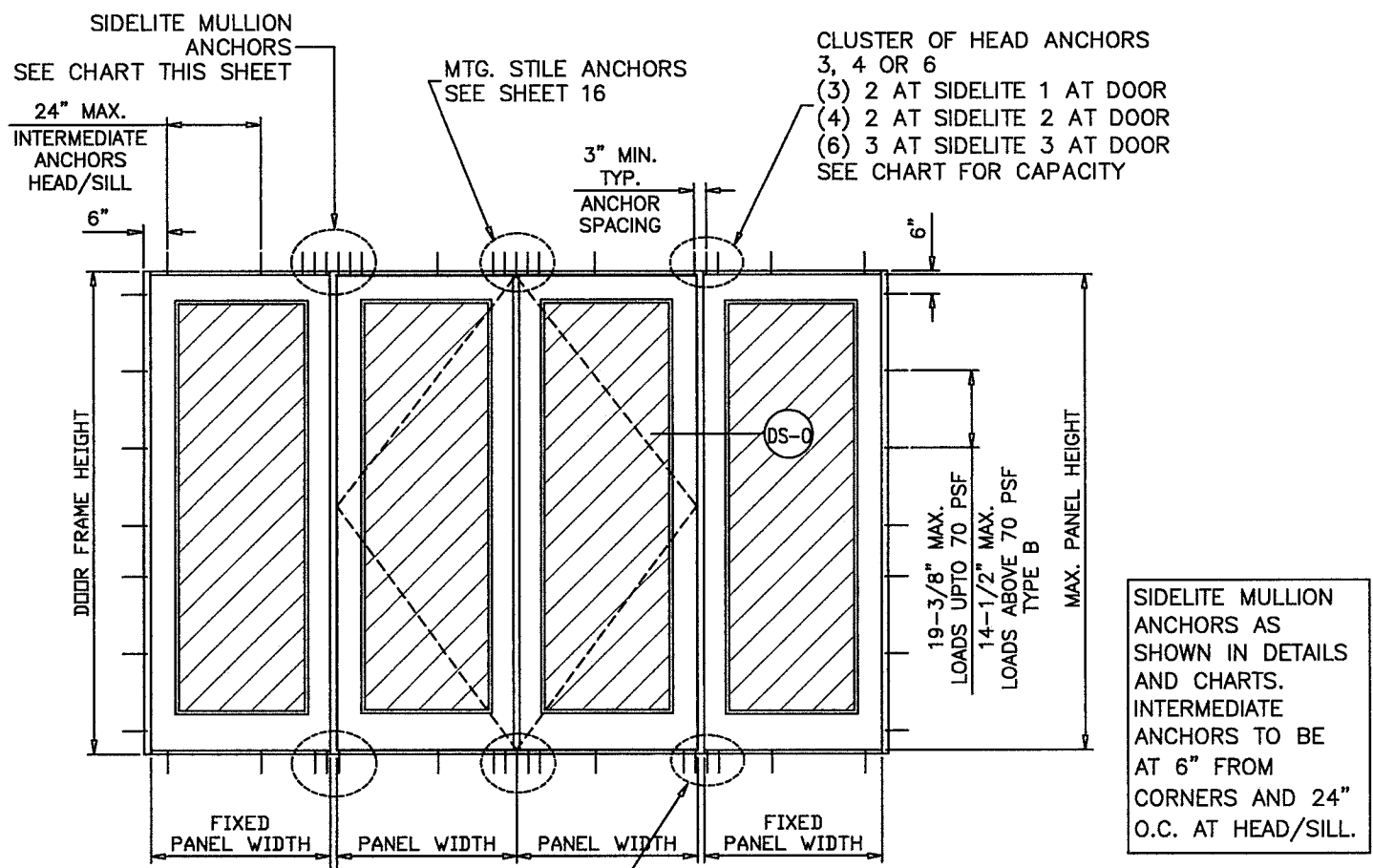
By Ishag I. Chank
Miami-Dade Product Control

Revision:

PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	REGISTRATION #29296	Date	06/12/2020	By	J ROSOWSKI	Rev.	A
		Drawn				No.	450FD2-NOA
						DWG	14 OF 17
						Sheet	NTS
Impact Resistant Windows & Doors WE'RE STRONGER™ CGI WINDOWS AND DOORS, INC. 3780 W 104TH STREET HIALEAH, FL 33018 (305) 593-6590	450 ALUM. FRENCH DOOR - OPAQUE & OS (LM)	COMPOSITE PANEL DP		FD450 OUTSWING		Scale	
						Title	
						Desc.	
						Series	



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



CLUSTER OF SILL ANCHORS
3 OR 4
(3) 2 AT SIDELITE 1 AT DOOR
(4) 2 AT SIDELITE 2 AT DOOR
SEE CHART FOR CAPACITY

ANCHORS:

TYPE 'B' - 1/4" DIA. ULTRACON BY 'ELCO' (Fu=177 KSI, Fy=155 KSI)
INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
1-1/2" MIN. PENETRATION INTO WOOD
THRU 1BY WOOD BUCKS INTO CONC./HOLLOW BLOCK
1-1/4" MIN. EMBED INTO CONC./HOLLOW BLOCK
DIRECTLY INTO CONCRETE
1-1/4" MIN. EMBED INTO CONCRETE

EDGE DISTANCES
INTO CONCRETE/HOLLOW BLOCK = 2-1/2" MIN.
INTO WOOD STRUCTURE = 1" MIN.

TYPE 'B+' - 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 WOOD BUCKS INTO CONC./HOLLOW BLOCK
1-1/4" MIN. EMBED INTO HOLLOW BLOCK
1-3/4" MIN. EMBED INTO CONCRETE
DIRECTLY INTO CONCRETE
1-3/4" MIN. EMBED INTO CONCRETE

EDGE DISTANCES
INTO CONCRETE/HOLLOW BLOCK = 2-1/2" MIN.
INTO WOOD STRUCTURE = 1" MIN.

WOOD AT HEAD OR JAMBS SG = 0.55 MIN.
CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN.
C-90 HOLLOW/FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.

- NOTES:**
- 1) FOR SINGLE OR DOUBLE LEAF DOORS AND SINGLE SIDELITES CAPACITY SEE CHART ON SHEET 14.
 - 2) SEE SHEET 2 FOR LOCK CAPACITIES FOR SINGLE AND DOUBLE DOORS.
 - 3) SEE BELOW FOR THRESHOLD TYPES.
 - 4) SEE SHEET 13 FOR MULLION TYPES AND DESIGN LOAD CAPACITY.
 - 5) SEE CHART ON THIS SHEET FOR MULLION ANCHORS CAPACITY.
 - 6) SEE CHART ON SHEET 16 FOR MTG. STILE ANCHORS AT DOUBLE DOOR.
 - 7) LOWEST VALUE FROM THESE CHARTS WILL APPLY TO ENTIRE ASSEMBLY.

TYPE 'C' - 1/4" DIA. ULTRACON BY 'ELCO' (Fu=177 KSI, Fy=155 KSI)
1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)
AT HEAD OR JAMBS
DIRECTLY INTO CONCRETE
1-3/4" MIN. EMBED INTO CONC.
EDGE DISTANCES
INTO CONCRETE = 2-1/2" MIN.

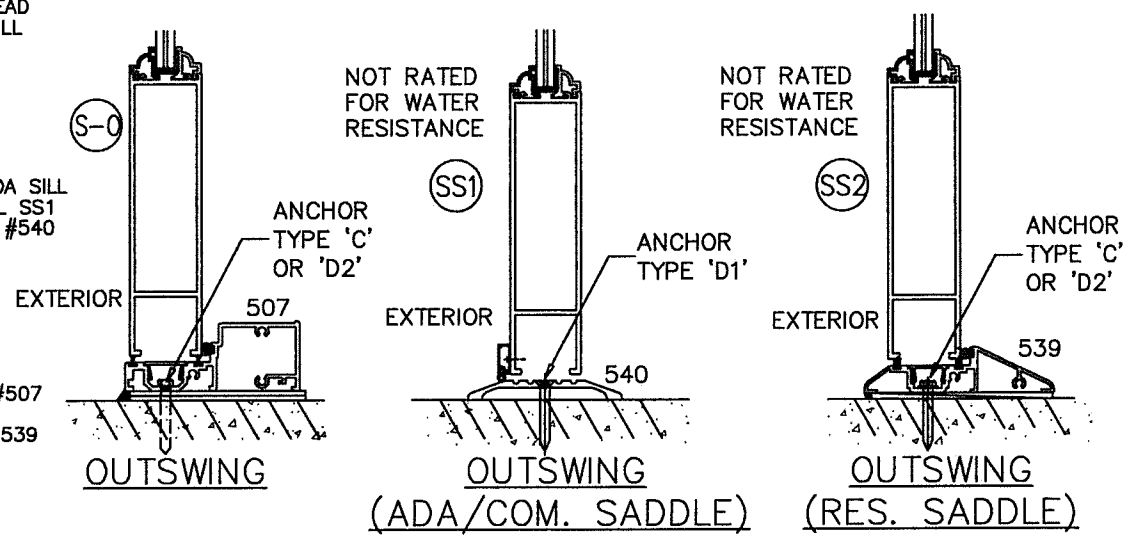
TYPE 'D1' - 5/16" DIA. ULTRACON BY 'ELCO' (Fu=177 KSI, Fy=155 KSI)
5/16" DIA. ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI)
AT HEAD OR JAMBS
DIRECTLY INTO CONCRETE
1-3/4" MIN. EMBED INTO CONC.
EDGE DISTANCES
INTO CONCRETE = 3-1/8" MIN.

TYPE 'D2' - #14 SMS (GRADE 5 CRS)
INTO WOOD STRUCTURES
WITH 1-3/8" MIN. PENETRATION INTO WOOD
EDGE DISTANCES
INTO WOOD = 1" MIN.

MULLION ANCHORS AT SIDELITES								
NOMINAL DIMS.		DESIGN LOAD CAPACITY-PSF						
		TYPE 'B' OR 'B+' AT HEAD			TYPE 'C' AT HEAD		TYPE 'C' AT HEAD	
		CLUSTER OF 3 ANCHORS	CLUSTER OF 4 ANCHORS	CLUSTER OF 6 ANCHORS	TYPE 'C' AT S-I & SS2 SILL	CLUSTER OF 3 ANCHORS	CLUSTER OF 4 ANCHORS	TYPE 'D1' AT SS1 SILL OR TYPE 'D2' AT S-I & SS2 SILL
WIDTH (W)	FRAME HEIGHT							
2/0	82-3/4"	106.7	110.0	110.0	110.0	110.0	110.0	110.0
2/6		86.2	110.0	110.0	110.0	110.0	110.0	110.0
3/0		72.3	96.4	110.0	109.3	110.0	101.0	110.0
3/6		62.3	83.0	110.0	94.2	110.0	87.0	110.0
2/0	84-3/4"	104.2	110.0	110.0	110.0	110.0	110.0	110.0
2/6		84.2	110.0	110.0	110.0	110.0	110.0	110.0
3/0		70.6	94.1	110.0	106.7	110.0	98.7	110.0
3/6		60.8	81.1	110.0	91.9	110.0	85.0	108.7
2/0	90-3/4"	97.3	110.0	110.0	110.0	110.0	110.0	110.0
2/6		78.6	104.8	110.0	110.0	110.0	109.8	110.0
3/0		65.9	87.9	110.0	99.7	110.0	92.1	110.0
3/6		56.8	75.7	110.0	85.9	110.0	79.4	101.5
2/0	96-3/4"	91.2	110.0	110.0	110.0	110.0	110.0	110.0
2/6		73.7	98.3	110.0	110.0	110.0	103.0	110.0
3/0		61.9	82.5	110.0	93.5	110.0	86.4	110.0
3/6		53.3	71.0	106.5	80.5	107.4	74.4	95.2
2/0	102-3/4"	85.9	110.0	110.0	110.0	110.0	110.0	110.0
2/6		69.4	92.6	110.0	104.9	110.0	97.0	110.0
3/0		58.2	77.7	110.0	88.0	110.0	81.4	104.1
3/6		50.2	66.9	100.3	75.8	101.1	70.1	89.6
2/0	108-3/4"	81.2	108.2	110.0	110.0	110.0	110.0	110.0
2/6		65.6	87.5	110.0	99.2	110.0	91.7	110.0
3/0		55.0	73.4	110.0	83.2	110.0	76.9	98.3
3/6		47.9	66.1	99.1	74.9	99.9	69.2	88.6
2/0	114-3/4"	76.9	102.6	110.0	110.0	110.0	107.5	110.0
2/6		62.2	82.9	110.0	94.0	110.0	86.9	110.0
3/0		52.2	69.5	104.3	78.8	105.1	72.9	93.2
3/6		45.1	61.1	99.1	70.8	97.9	66.2	86.6
2/0	120-3/4"	73.1	97.5	110.0	110.0	110.0	102.2	110.0
2/6		59.1	78.8	110.0	89.3	110.0	82.5	105.6
3/0		49.6	66.1	99.1	74.9	99.9	69.2	88.6
3/6		42.5	58.8	94.2	67.8	92.9	63.9	81.6

LOADS SHOWN ABOVE ARE FOR INSTALLATIONS WHERE WATER INFILTRATION RESISTANCE IS NOT REQUIRED. LIMIT EXT.(+) LOADS TO 50.0 PSF FOR THRESHOLDS S-I WHERE WATER INFILTRATION RESISTANCE IS REQUIRED. THRESHOLDS SS1 AND SS2 ARE NOT RATED FOR WATER INFILTRATION.

WIDTH (W) = $\frac{\text{DOOR PANEL} + \text{FIXED PANEL}}{2} + 1.250$



PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 22-0822.03
Expiration Date 10/25/2027
By Ishag I. Chank
Miami-Dade Product Control

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 20-0619.06
Expiration Date 10/25/2022
By Ishag I. Chank
Miami-Dade Product Control

ADDED ANCHOR TYPE, & REFORMATTED - JR - 6/11/20

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

REGISTRATION #29296

06/12/2020
Date

J ROSOWSKI
By

450FD2-NOA
No.

15 OF 17
DWG

NTS
Scale

FD450 OUTSWING
Series

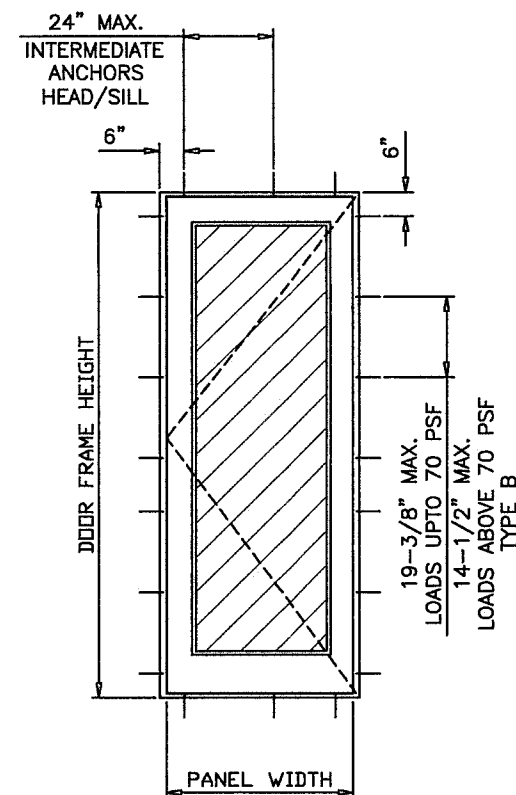
ANCHOR DP
Desc.

450 ALUM. FRENCH DOOR - OPAQUE & OS (LM)
Title

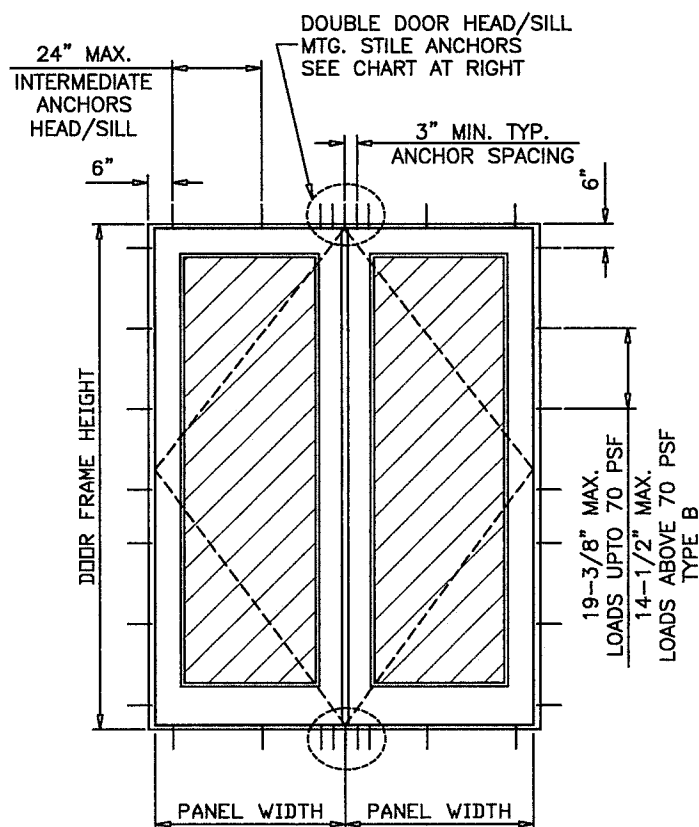
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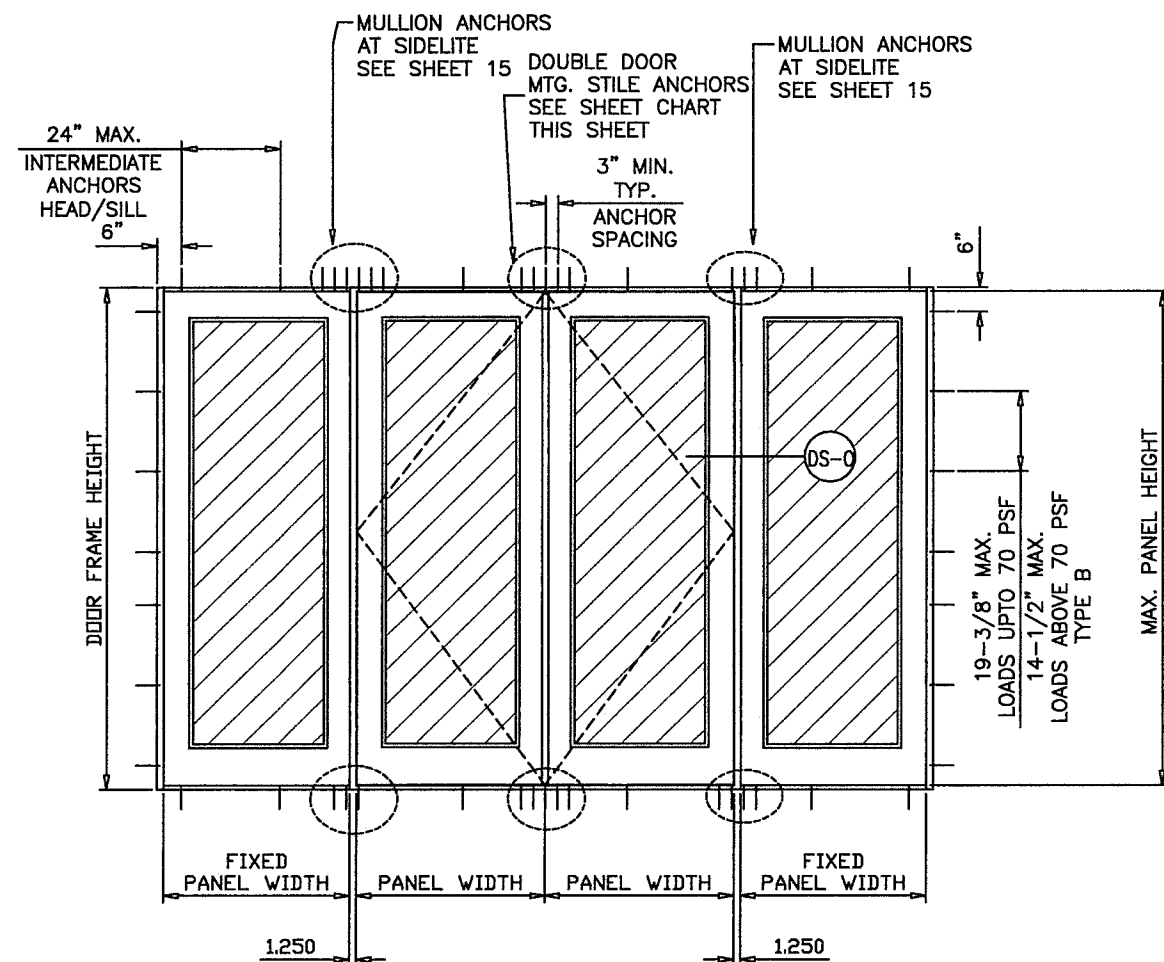
ANTHONY LYNN MILLER
LICENSE
No. 58705
6/12/20
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705



SINGLE DOOR OR SIDELITE



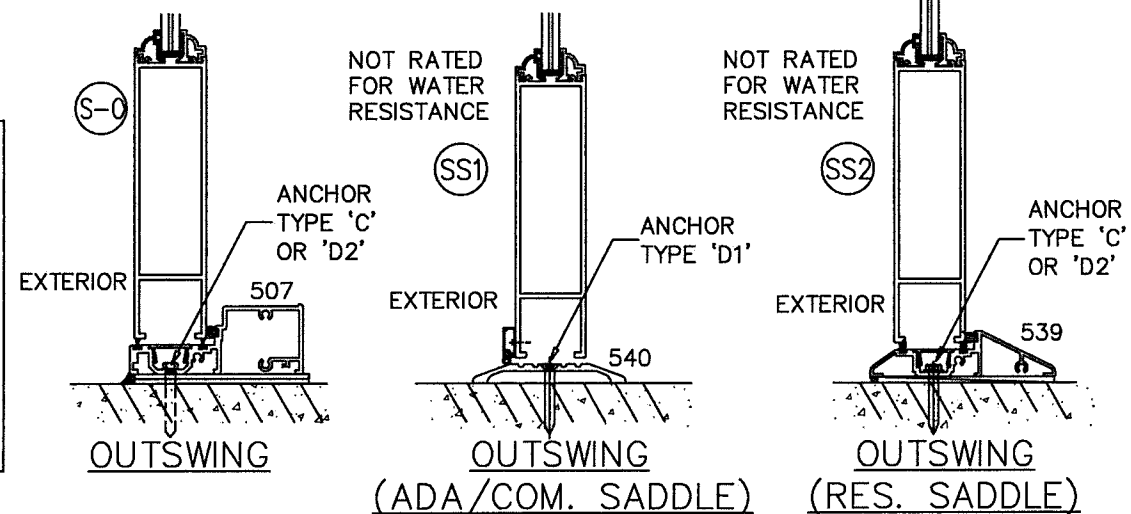
DOUBLE DOOR



MEETING STILE ANCHORS AS SHOWN IN DETAILS AND CHARTS
INTERMEDIATE ANCHORS TO BE AT 6" FROM CORNERS AND 24" O.C. AT HEAD/SILL.

NOMINAL DIMS.		MTG. STILE ANCHORS AT DOUBLE DOORS							
		DESIGN LOAD CAPACITY-PSF							
		TYPE 'B' OR 'B+' AT HEAD			TYPE 'C' AT HEAD TYPE 'C' AT S-I & SS2 SILL		TYPE 'C' AT HEAD TYPE 'D1' AT SS1 SILL OR TYPE 'D2' AT S-I & SS2 SILL		
FRAME WIDTH (XX)	FRAME HEIGHT	CLUSTER OF 3 ANCHORS	CLUSTER OF 4 ANCHORS	CLUSTER OF 5 ANCHORS	CLUSTER OF 3 ANCHORS	CLUSTER OF 4 ANCHORS	CLUSTER OF 3 ANCHORS	CLUSTER OF 4 ANCHORS	
50-1/2"	82-3/4"	106.7	110.0	110.0	110.0	110.0	110.0	110.0	
62-1/2"		86.2	110.0	110.0	110.0	110.0	100.7	110.0	
74-1/2"		72.3	96.4	110.0	109.3	110.0	84.5	110.0	
86-1/2"		62.3	83.0	103.8	94.2	110.0	72.8	97.0	
50-1/2"	84-3/4"	104.2	110.0	110.0	110.0	110.0	110.0	110.0	
62-1/2"		84.2	110.0	110.0	110.0	110.0	98.4	110.0	
74-1/2"		70.6	94.1	110.0	106.7	110.0	82.5	110.0	
86-1/2"		60.8	81.1	101.4	91.9	110.0	71.1	94.8	
50-1/2"	90-3/4"	97.3	110.0	110.0	110.0	110.0	110.0	110.0	
62-1/2"		78.6	104.8	110.0	110.0	110.0	91.9	110.0	
74-1/2"		65.9	87.9	109.9	99.7	110.0	77.1	102.7	
86-1/2"		56.8	75.7	94.7	85.9	110.0	66.4	88.5	
50-1/2"	96-3/4"	91.2	110.0	110.0	110.0	110.0	106.6	110.0	
62-1/2"		73.7	98.3	110.0	110.0	110.0	86.2	110.0	
74-1/2"		61.9	82.5	103.1	93.5	110.0	72.3	96.4	
86-1/2"		53.3	71.0	88.8	80.5	107.4	62.3	83.0	
50-1/2"	102-3/4"	85.9	110.0	110.0	110.0	110.0	100.4	110.0	
62-1/2"		69.4	92.6	110.0	104.9	110.0	81.1	108.2	
74-1/2"		58.2	77.7	97.1	88.0	110.0	68.1	90.7	
86-1/2"		50.2	66.9	83.6	75.8	101.1	58.6	78.2	
50-1/2"	108-3/4"	81.2	108.2	110.0	110.0	110.0	94.9	110.0	
62-1/2"		65.6	87.5	109.3	99.2	110.0	76.7	102.2	
74-1/2"		55.0	73.4	91.7	83.2	110.0	64.3	85.7	
86-1/2"		46.9	62.6	82.6	74.9	99.9	57.9	77.2	

- 1) SEE SHEET 15 FOR ANCHORS DESCRIPTION AND SILL ANCHOR OPTIONS.
- 2) FOR SINGLE OR DOUBLE LEAF DOORS, SINGLE SIDELITES AND THRESHOLD CAPACITY SEE CHART ON SHEET 14.
- 3) SEE SHEET 2 FOR LOCK CAPACITIES FOR SINGLE AND DOUBLE DOORS.
- 4) SEE SHEET 13 FOR MULLION TYPES AND DESIGN LOAD CAPACITY.
- 5) SEE CHART ON SHEET 15 FOR MULLION ANCHORS CAPACITY.
- 6) SEE CHART ON THIS SHEET FOR MTG. STILE ANCHORS AT DOUBLE DOOR.
- 7) LOWEST VALUE FROM THESE CHARTS WILL APPLY TO ENTIRE ASSEMBLY.



PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 22-0822.03
Expiration Date 10/25/2027
By Ishag I. Chank
Miami-Dade Product Control

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 20-0619.06
Expiration Date 10/25/2022
By Ishag I. Chank
Miami-Dade Product Control

Revision: ADDED ANCHOR TYPE, & REFORMATTED - JR - 6/11/20

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

REGISTRATION #29296

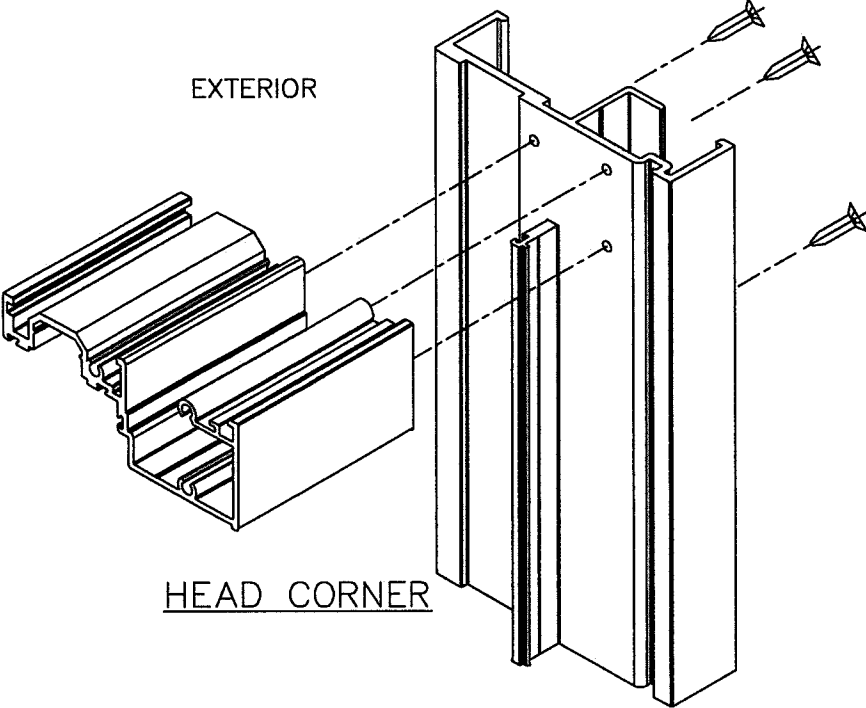
DATE 06/12/2020
BY J ROSOWSKI
DRAWN BY J ROSOWSKI
NO. 450FD2-NOA
DWG. 16 OF 17
SHEET NTS
SCALE
ANCHOR DP
FD450 OUTSWING

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CGI WINDOWS AND DOORS, INC.
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450 ALUM. FRENCH DOOR - OPAQUE & OS (LM)

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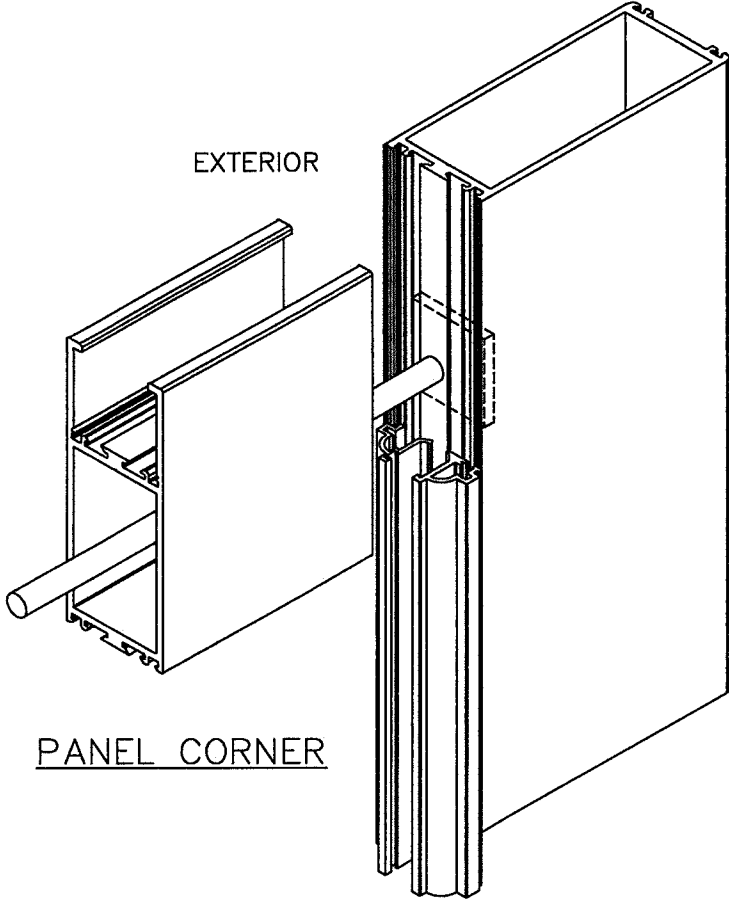
CORNER DETAILS



EXTERIOR

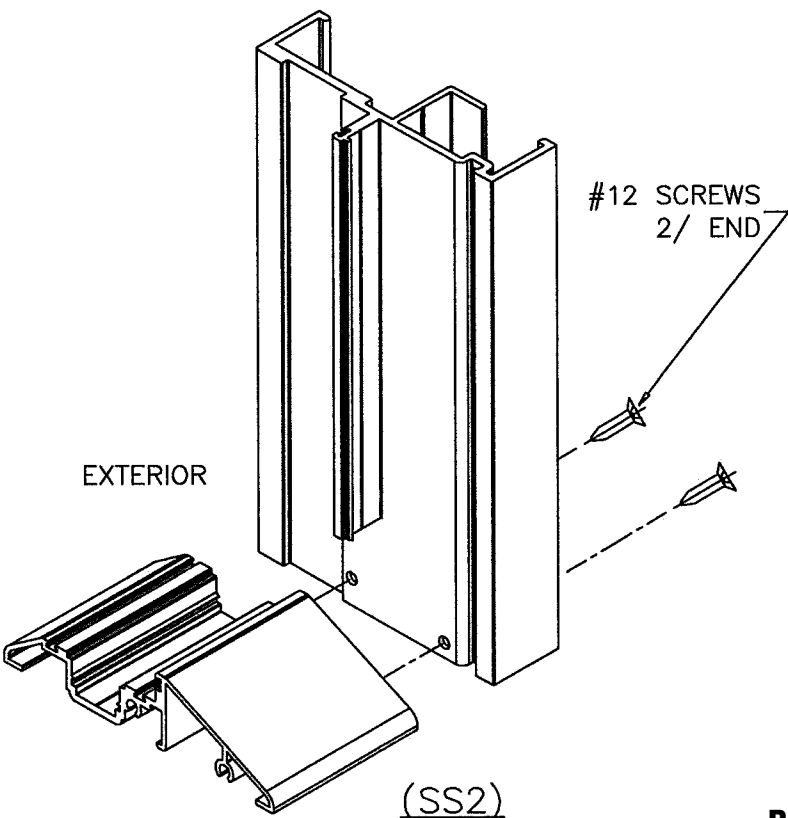
HEAD CORNER

CORNERS TO BE SEALED WITH LOW MODULUS SILICONE SILPRUF.



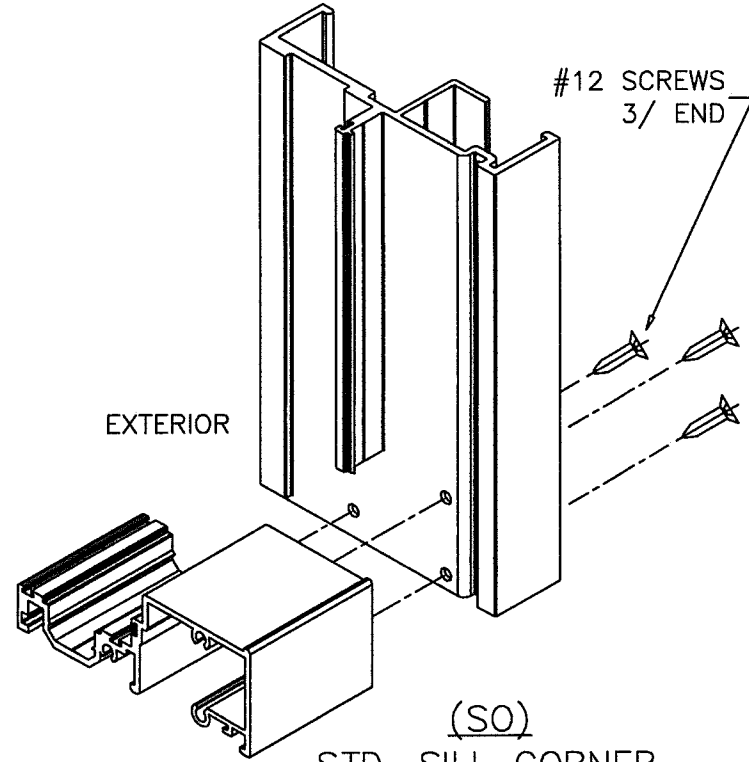
EXTERIOR

PANEL CORNER



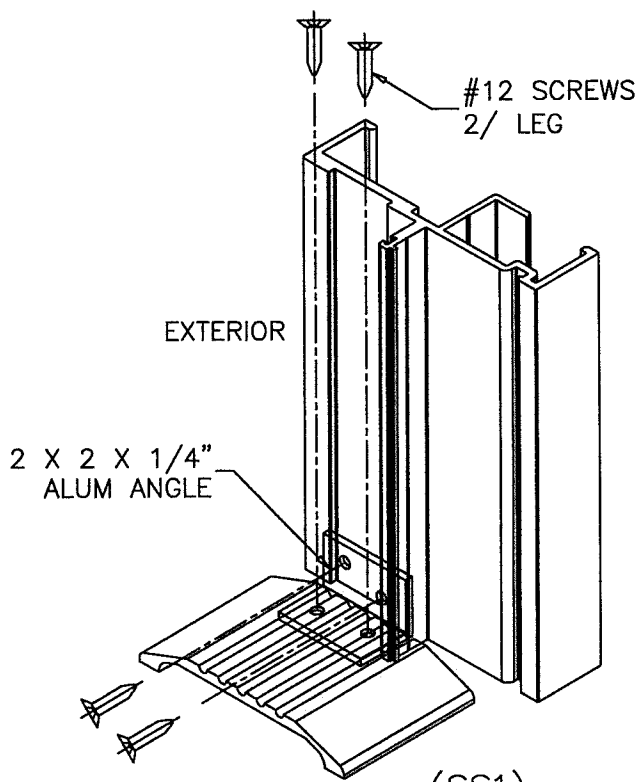
EXTERIOR

(SS2)
RESIDENTIAL SADDLE SILL



EXTERIOR

(SO)
STD. SILL CORNER



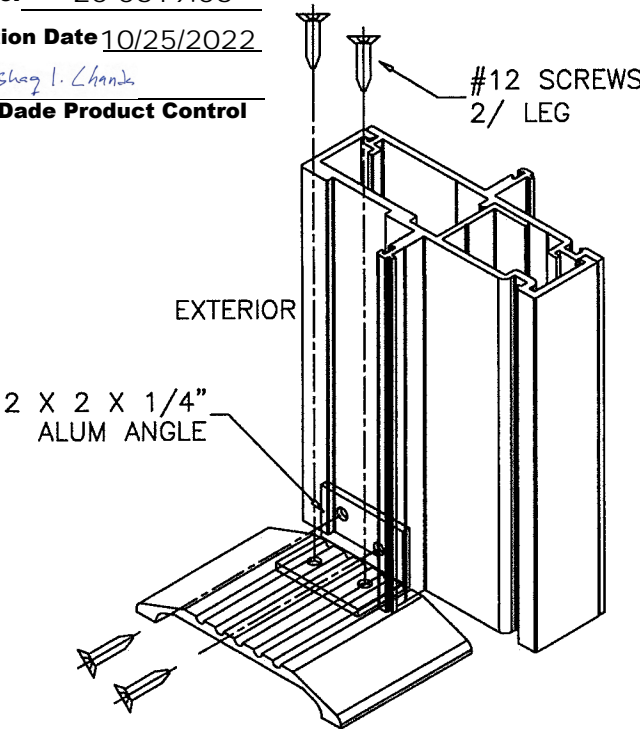
EXTERIOR

(SS1)
ADA SILL CORNER

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0619.06

Expiration Date 10/25/2022

By *Ishag I. Chande*
Miami-Dade Product Control



EXTERIOR

ADA SILL @ MULLION

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 22-0822.03

Expiration Date 10/25/2027

By *Ishag I. Chande*
Miami-Dade Product Control

Revision:

PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	REGISTRATION #29296	Date 06/12/2020	By J ROSOWSKI	No. 450FD2-NOA	DWC 17 OF 17	Sheet NTS	Scale FD450 OUTSWING	Series CORNER DETAILS	Title FD450 OUTSWING

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