

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

# NOTICE OF ACCEPTANCE (NOA)

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

PRODUCT CONTROL SECTION

MIAMI-DADE COUNTY

PGT Industries, Inc. 1070 Technology Drive, 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 "770HP" Aluminum Sliding Glass Doors w / Reinforcements & 90º/135ºcorners-LMI

**APPROVAL DOCUMENT:** Drawing No.**PGT0004 Rev I**, titled "Series 770 H.P. Aluminum SGD-LMI", sheets 1 through 10 of 10, prepared by manufacturer, dated 08/05/07 and last revised on 06/18/23, signed and sealed by 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 Missile Impact Resistant

Limitations:

- 1. See tables **1& 1A** in sheet **4** of this approved drawing set for applicable SGD unit sizes, design pressures, reinforcements, glass types, sill riser and anchors requirements. See approved configurations in sheet **2**.
- 2. Applicable operable door Egress min clear width & height requirements must comply per FBC, to be reviewed by Building official.
- 3. See glazing options G4, G4A, G6 and G6A in sheet 3.

**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", 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 # 20-0429.10 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.

MIAMI-DADE COUNTY
APPROVED

Ishaq I. Chands

NOA No. 23-0710.05 Expiration Date: March 24, 2025 Approval Date: August 03, 2023 Page 1

#### 1. Evidence submitted under previous approvals

#### **DRAWINGS** A.

- 1. Manufacturer's die drawings and sections (Submitted under files # 11-1018.16/#09-0826.12).
- 2. Drawing No. PGT0004 Rev D, titled "Series 770 H.P. Aluminum SGD-LMI", sheets 1 through 10 of 10, prepared by manufacturer, dated 08/05/07 and last revised on 02/13/14, signed and sealed by Lynn Miller, P.E.

#### В. **TESTS**

- Test report on 1) Air Infiltration Test, per FBC, TAS 202-94 1.
  - 2) Uniform Static Air Pressure Test, 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 (b) and TAS 202-94

Along with marked-up drawings and installation diagram of Aluminum Sliding Glass Doors(Samples A-1, A-2, B-1, B-2 and C-1), prepared by Fenestration Testing Laboratory, Inc., Test Report No FTL-7468, dated 09/13/2013, all signed and sealed by Martin D. Brinson, P.E.

Note: This test report has addendum letter dated Jan 13, 2014, issued by Fenestration Testing Lab.

- Test report on 1) Air Infiltration Test, per FBC, TAS 202-94 2.
  - 2) Uniform Static Air Pressure Test, 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 (b) and TAS 202-94

Along with marked-up drawings and installation diagram of Aluminum Sliding Glass Doors, prepared by Fenestration Testing Laboratory, Inc., Test Report No FTL-5998, FTL-6005 and FTL-6012, dated 08/10/09, all signed and sealed by Julio Gonzales, P.E. (Submitted under files #11-1018.16/#09-0826.12) Note: The test reports No. FTL 5998 has been revised and reissued on 12/29/09, signed and sealed by Julio Gonzales, P.E.

3. Additional reference supporting test reports # FTL 5254 and ATI72138.01-401-18.

#### C. **CALCULATIONS**

- Anchor verification and comparative analysis dated 01/24/14 and last revised on 02/13/14, sheets 1 thru 45, prepared by PGT, signed and sealed by Lynn Miller, P. E.
- Glazing complies with ASTME-1300-02 &-04.

#### D. **QUALITY ASSURANCE**

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

#### Ε. **MATERIAL CERTIFICATIONS**

Notice of Acceptance No. 11-0624.02 issued to E.I. DuPont De Nemours & CO., Inc. for "DuPont SentryGlas ® interlayer", expiring on 01/14/2017.

#### F. **STATEMENTS**

1.	Statement letter dated OCT 04, 2013 of compliance to FB	3C 2010 and "No	financial interest",
	prepared by PGT, signed & sealed by Lynn Miller, P.E.		•
2.	Letter of lab compliance, part of the above test reports	Ishaq 1. Che	inde

Ishaq I. Chanda, P.E. **Product Control Unit Supervisor** NOA No. 23-0710.05 **Expiration Date: March 24, 2025** 

Approval Date: August 03, 2023

# G. OTHER

- 1. This NOA revises # 11-1018.16, expiring March 24, 2015.
- 2. Test proposal dated 6/4/13 approved by Jaime Gascon, P.E.
- 3. Test proposals No(s) **09-0177**, **0177-A**, **B** & C approved by BCCO.
- 4. Letter of commitment dated February 20, 2014, issued by PGT, signed by A. Lynn Miller, P.E.

# 2. Evidence submitted under previous approvals

# A. DRAWINGS (submitted under file #16-2609.06/#15-0106.07/#13-1009.07)

1. Drawing No. **PGT0004**, titled "Series 770 H.P. Aluminum SGD – L.M.I.", sheets 01 through 10 of 10, dated 08/05/07, prepared by manufacturer, revision "F" dated 05/05/16, signed and sealed by Anthony Lynn Miller, P. E.

## B. TESTS

- 1. Reference Test report on 1) Uniform Static Air Pressure Test, per FBC, TAS 202-94
  - 2) Large Missile Impact Test per FBC, TAS 201-94
  - 3) Cyclic Wind Pressure Loading per FBC, TAS 203-94

Along with marked-up drawings and installation diagram of Aluminum Sliding Glass Doors (w/ PS, Super, Cardinal & Duraseal Spacers), prepared by Fenestration Testing Laboratory, Inc., Test Reports No(s) **FTL-8717**, **FTL-8970** and **FTL-8968**, dated 02/15/16, 06/07/16 and 06/20/16, all signed & sealed by Idalmis Ortega, 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, and TAS 202–94

along with marked—up drawings and installation diagram of Aluminum Sliding Glass Door (XOX), prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL–7825**, dated 06/10/2014, signed and sealed by Idalmis Ortega, P. E.

- 3. 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, and TAS 202-94

along with marked-up drawings and installation diagram of Aluminum Sliding Glass Doors (Samples A-1, A-2, B-1, B-2 and C-1), prepared by Fenestration Testing Laboratory, Inc., Test Report No. FTL-7468, dated 09/13/2013, signed and sealed by Martin D. Brinson, P. E.

# C. CALCULATIONS

- 1. Anchor verification calculations and structural analysis, complying with FBC 5<sup>th</sup> Addition (2014), prepared by manufacturer, dated 03/05/15, signed and sealed by Anthony Lynn Miller, P.E.
- 2. Glazing complies with ASTM E1300–04/09

# D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER). | Shan I. Chank

Ishaq I. Chanda, P.E. Product Control Unit Supervisor NOA No. 23-0710.05 Expiration Date: March 24, 2025

# E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. 14–0916.10 issued to Kuraray America, Inc. for their "Kuraray PVB Glass Interlayer" dated 03/12/15, expiring on 12/11/16.

## F. STATEMENTS

- 1. Statement letter of conformance to and complying with FBC 5<sup>th</sup> Edition (2014), issued by manufacturer, dated 12/31/14, signed and sealed by Anthony Lynn Miller, P. E
- 2. Test proposal No. 16-0152 dated 03/09/16 approved by RER.
- **3.** Proposals No.'s **09–0177–A**, dated 05/05/09, **–B**, dated 05/27/09 and **–C**, dated 05/27/09, all issued by the Product Control, signed by Ishaq Chanda, P. E.

# G. OTHERS

- 1. Notice of Acceptance No. 15-0106.08, issued to PGT Industries, Inc. for their Series "770–HP Aluminum Sliding Glass Doors w / Reinforcements L.M.I.", expiring on 03/24/20.
- 3. Evidence submitted under previous approval

# A. DRAWINGS

- 1. Drawing No. **PGT0004 Rev G**, titled "Series 770 H.P. Aluminum SGD-LMI", sheets 1 through 10 of 10, prepared by manufacturer, dated 08/05/07 and last revised on 11/22/19, signed and sealed by Lynn Miller, P.E.
- B. TESTS (submitted under file #17-0420.13)
  - 1. None
- C. CALCULATIONS (submitted under file #17-0420.13)
  - 1. None

# 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 letter of conformance to FBC 2017 (6<sup>th</sup> Edition) and letter of no financial interest, prepared by PGT, dated 11/22/19, signed and sealed by Lynn Miller, P.E.

## G. OTHER

- 1. This NOA renews NOA # 17-0420.13, expiring 03/24/2025.
- 4. Evidence submitted under previous approval

# A. DRAWINGS

1. Drawing No. **PGT0004 Rev H**, titled "Series 770 H.P. Aluminum SGD-LMI", sheets 1 through 10 of 10, prepared by manufacturer, dated 08/05/07 and last revised on 04/22/20, signed and sealed by Lynn Miller, P.E.

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 23-0710.05
Expiration Date: March 24, 2025
Approval Date: August 03, 2023

#### 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 PGT Industries, Inc. representative units listed below and tested to qualify **Dowsil 791** and **Dowsil 983** silicones, prepared by Fenestration Testing Laboratory, Inc., Test Reports No.:

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) dated 07/13/20, all signed and sealed by Idalmis Ortega, P.E.

# C. CALCULATIONS

- 1. Anchor verification calculations and structural analysis, complying with **FBC** 7<sup>th</sup> **Edition** (2020), dated 04/20/20, 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 2020(7th Edition), dated 04/20/20, prepared, signed & sealed by Lynn Miller, P. E.

# G. OTHER

- 1. This NOA revises NOA #19-1126.04 and updates FBC 2020 (7th Edition), expiring 03/24/25.
- 2. RER Test proposals #19-1155 dated 01/10/20 approved by Ishaq I. Chanda, P.E, expiring 04/14/21 expiring 04/07/25.

Ishaq I. Chank

Ishaq I. Chanda, P.E. Product Control Unit Supervisor NOA No. 23-0710.05

Expiration Date: March 24, 2025 Approval Date: August 03, 2023

## **PGT Industries Inc.**

# **NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

### 5. New Evidence submitted

# A. DRAWINGS

- 1. Drawing No.**PGT0004 Rev I**, titled "Series 770 H.P. Aluminum SGD-LMI", sheets 1 through 10 of 10, prepared by manufacturer, dated 08/05/07 and last revised on 06/18/23, signed and sealed by Lynn Miller, P.E.
- **B.** TESTS (submitted under previous approval)
  - 1. None
- C. CALCULATIONS (submitted under previous approval)
  - 1. None

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# D. QUALITY ASSURANCE

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

# E. MATERIAL CERTIFICATIONS

1. None.

## F. STATEMENTS

- Statement letter of conformance, complying with FBC 7<sup>th</sup> Edition (2020) and the FBC 8<sup>th</sup> Edition (2023), dated 06-18-23, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
- 2. Statement letters of conformance to FBC 2020(**7th** Edition), dated 04/20/20, prepared, signed & sealed by Lynn Miller, P. E.

## G. OTHER

1. This NOA revises NOA #20-0429.10 and updates to FBC 2023 (8<sup>th</sup> Edition), expiring 03/24/25.

Ishaq 1. Chands

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 23-0710.05
Expiration Date: March 24, 2025

Approval Date: August 03, 2023

# SERIES 770 HP, LARGE MISSILE IMPACT RESISTANT SLIDING GLASS DOOR

- 1) THIS PRODUCT HAS BEEN DESIGNED & TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE, INCLUDING THE HIGH VELOCITY HURRICANE ZONE (HVHZ).
- 2) SHUTTERS <u>ARE NOT</u> REQUIRED WHEN USED IN WIND-BORNE DEBRIS REGIONS. FOR INSULATED GLASS INSTALLATIONS ABOVE 30' IN THE HVHZ, THE OUTBOARD LITE (CAP) MUST BE TEMPERED.
- 3) FOR MASONRY APPLICATIONS IN MIAMI-DADE COUNTY, USE ONLY MIAMI-DADE COUNTY APPROVED MASONRY ANCHORS. MATERIALS USED FOR ANCHOR EVALUATIONS WERE SOUTHERN PINE, ASTM C90 CONCRETE MASONRY UNITS AND CONCRETE WITH MIN. KSI PER ANCHOR TYPE.
- 4) ALL WOOD BUCKS LESS THAN 1-1/2" THICK ARE TO BE CONSIDERED 1X INSTALLATIONS. 1X WOOD BUCKS ARE OPTIONAL IF UNIT IS INSTALLED DIRECTLY TO SUBSTRATE. WOOD BUCKS DEPICTED AS 2X ARE 1-1/2" THICK OR GREATER. 1X AND 2X BUCKS (WHEN USED) SHALL BE DESIGNED AND SECURED TO PROPERLY TRANSFER LOADS TO THE STRUCTURE. WOOD BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER, (EOR) OR ARCHITECT OF RECORD, (AOR).
- 5) ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO. USE ANCHORS OF SUFFICIENT LENGTH TO ACHIEVE REQUIRED MIN. EMBEDMENT. SILL ANCHORS MUST BE SEALED. INSTALLATION SCREWS, FRAME AND PANEL CORNERS TO BE SEALED WITH NARROW JOINT SEALANT. OVERALL SEALING/FLASHING STRATEGY FOR WATER RESISTANCE OF INSTALLATION SHALL BE DONE BY OTHERS AND IS BEYOND THE SCOPE OF THESE INSTRUCTIONS.
- 6) 1/4" MAX. SHIMS ARE REQUIRED AT EACH ANCHOR LOCATION WHERE THE PRODUCT IS NOT FLUSH TO THE SUBSTRATE. USE SHIMS CAPABLE OF TRANSFERRING APPLIED LOADS.

#### 7) DESIGN PRESSURES:

- A. NEGATIVE DESIGN LOADS BASED ON STRUCTURAL TESTING AND GLASS PER ASTM E1300.
- B. POSITIVE DESIGN LOADS BASED ON WATER TEST PRESSURE, STRUCTURAL TESTING AND GLASS PER ASTM E1300.
- C. DESIGN LOADS ARE BASED ON ALLOWABLE STRESS DESIGN, ASD.
- 8) THE ANCHORAGE METHODS SHOWN HAVE BEEN DESIGNED TO RESIST THE WINDLOADS CORRESPONDING TO THE REQUIRED DESIGN PRESSURE. THE 33-1/3% STRESS INCREASE HAS NOT BEEN USED IN THE DESIGN OF THIS PRODUCT. THE 1.6 LOAD DURATION FACTOR WAS USED FOR THE EVALUATION OF ANCHORS INTO WOOD. ANCHORS THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE FOR CORROSION RESISTANCE.
- 9) METAL SUBSTRATE TO MEET MIN. STRENGTH AND THICKNESS REQUIREMENTS PER CURRENT FLORIDA BUILDING CODE AND TO BE REVIEWED BY THE AUTHORITY HAVING JURISDICTION.
- 10) APPLICABLE EGRESS REQUIREMENTS TO BE REVIEWED BY BUILDING OFFICIAL.
- 11) IF SILL IS TIGHT TO SUBSTRATE, GROUT OR OTHER MATERIAL IS NOT REQUIRED. IF USED, NON-SHRINK, NON-METALLIC GROUT, MAX. 1/4" THICK & 3400 PSI MIN., (DONE BY OTHERS) MUST FULLY SUPPORT THE ENTIRE LENGTH OF THE SILL THAT IS NOT TIGHT TO THE SUBSTRATE, AND TRANSFER SHEAR LOAD TO SUBSTRATE. IF SUBSTRATE IS WOOD, 30# FELT PAPER OR MASTIC IS REQUIRED BETWEEN THE GROUT AND WOOD SUBSTRATE, OR AS APPROVED BY THE AUTHORITY HAVING JURISDICTION.
- 12) REFERENCES: TEST REPORTS FTL-5998, FTL-6005, FTL-7468, FTL-6012 & FTL-7825; DEWALT ULTRACON+ NOA; ELCO ULTRACON NOA; DEWALT/ELCO CRETEFLEX NOA AND AGGREGATOR NOA

DESIGN PRESSURE RATING	IMPACT RATING
SEE TABLE 1 ON SHEET 4	RATED FOR LARGE & SMALL MISSILE IMPACT RESISTANCE

TABLE A:

Anchor Group	Anchor Type	Frame Member	Substrate	Min. Edge Distance	Min. O.C. Distance	Min. Embedment or Metal Thickness			
			Southern Pine (SG = 0.55)	9/16"	7/8"	1-3/8"			
	#12 18-8 or	All	6063-T5 Aluminum	3/8"	9/16"	0.071" (20 Ga)			
	410 SS SMS	All	A36 Steel	3/8"	9/16"	0.050"			
Α			Gr. 33 Steel Stud	0.045" (18 Ga)					
^		All	Concrete (min. 2.22 ksi)	1-1/2"	3"	1-3/8"			
	1/4" Elco	Jamb	Filled Block (ASTM C90)	2"	3"	2"			
	Aggre-Gator	Jamb	Hollow Block (ASTM C90)	2"	3"	1-1/4"			
	P-0320	All	Southern Pine (SG = 0.55)	1"	1"	1-3/8"			
			Southern Pine (SG = 0.55)	9/16"	7/8"	1-3/8"			
В	#12 Steel SMS (Gr. 5)	All	6063-T5 Aluminum	3/8"	9/16"	0.071" (20 Ga)			
			A36 Steel	3/8"	9/16"	0.050"			
			Gr. 33 Steel Stud	3/8"	9/16"	0.045" (18 Ga)			
		Head / Sill	Concrete (min. 3 ksi)	1-5/16"	4"	1-3/8"			
	1/4" DeWalt	Jamb	Concrete (min. 3 ksi)	1"	4"	1-3/8"			
С	UltraCon+	Jamb	Hollow Block (ASTM C90)	1"	3"	1-1/4"			
		All	Southern Pine (SG = 0.55)	1"	1"	1-3/8"			
		Head / Sill	Concrete (min. 3.35 ksi)	1"	4"	1-3/4"			
	1/4" 410 SS	Jamb	Concrete (min. 3.35 ksi)	1"	6"	1-3/4"			
D	Elco CreteFlex	Jamb	Hollow Block (ASTM C90)	2-1/2"	6"	1-1/4"			
		All	Southern Pine (SG = 0.55)	1"	1"	1-3/8"			

- 1) WHERE SUBSTRATE CONDITIONS REQUIRE ANCHORAGE FROM MORE THAN ONE OF THE ANCHOR GROUPS ABOVE, CHOOSE THE ANCHOR GROUP OF THE LOWEST LETTER FOR ALL TABLES IN THIS APPROVAL.
- 2) ALL ANCHOR HEAD TYPES ARE APPLICABLE.
- 3) FOR THE MINIMUM STRENGTHS OF ANCHORS AND SUBSTRATES, SEE TABLE 3, SHEET 9.
- 4) HOLLOW BLOCK VALUES MAY ALSO BE USED IN FILLED BLOCK APPLICATIONS.
- 5) ANCHORS MUST BE OF SUFFICIENT LENGTH SO THAT A MINIMUM OF 3 THREADS EXTEND BEYOND METAL SUBSTRATE.

DLO WIDTH = NOM. PANEL WIDTH - 7"
PANEL HEIGHT = DOOR UNIT HEIGHT - 1-7/8"
DLO HEIGHT = DOOR UNIT HEIGHT - 10-1/8"
DLO HEIGHT = PANEL HEIGHT - 8-1/4"

# CODES / STANDARDS USED:

- 2023 FLORIDA BUILDING CODE (FBC), 8TH EDITION
  2020 FLORIDA BUILDING CODE (FBC), 7TH EDITION
- ASTM E1300-09
- ANSI/AF&PA NDS-2018 FOR WOOD CONSTRUCTION
- ALUMINUM DESIGN MANUAL, ADM-2020
- AISI S100-16
- AISC 360-16

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-		

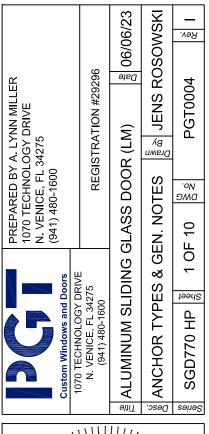
PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 23-0710.05

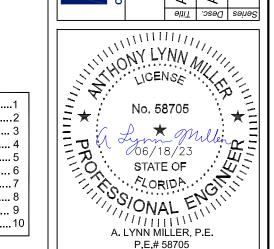
Expiration Date 03/24/2025

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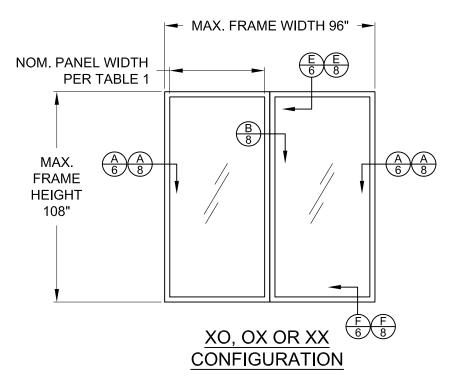
Miami-Dade Product Control

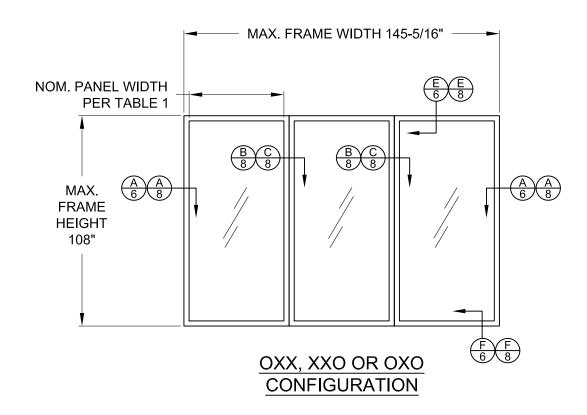
UPDATED TO 2023 FBC, REFORMATED TITLE BLOCK & LAYOUT. JR - 06/06/23

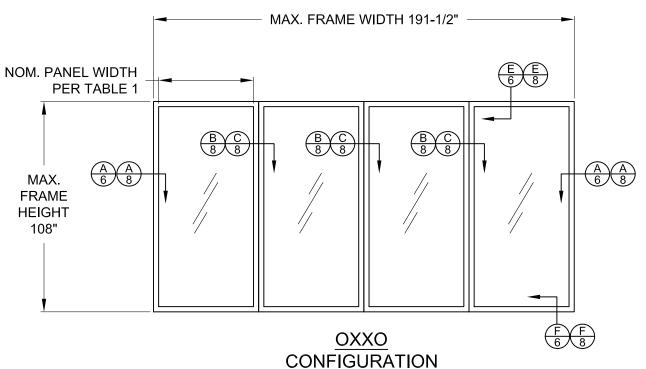




# **EXAMPLE CONFIGURATIONS**







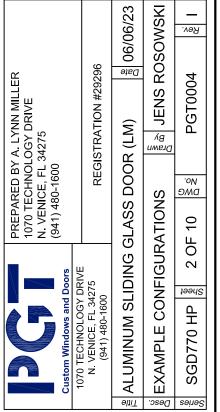
DLO WIDTH = NOM. PANEL WIDTH - 7"
PANEL HEIGHT = DOOR UNIT HEIGHT - 1-7/8"
DLO HEIGHT = DOOR UNIT HEIGHT - 10-1/8"
DLO HEIGHT = PANEL HEIGHT - 8-1/4"

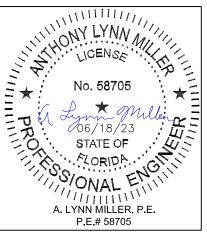
PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 23-0710.05

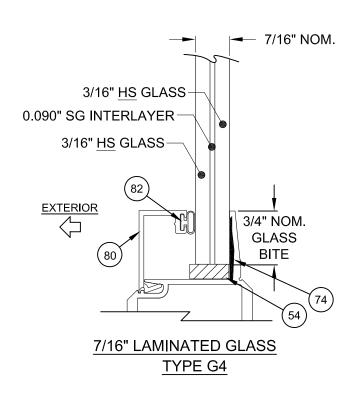
Expiration Date 03/24/2025

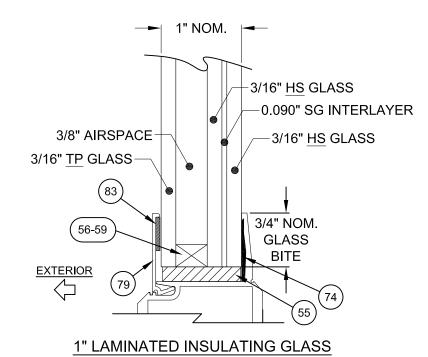
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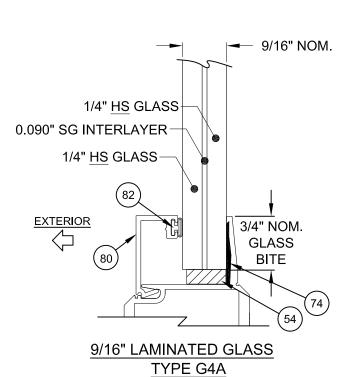


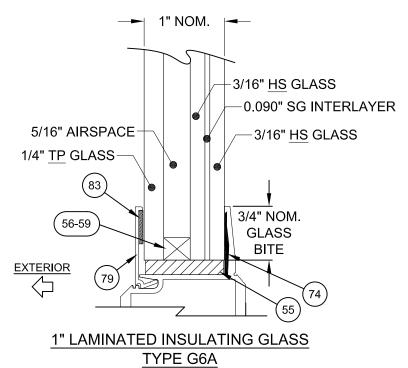


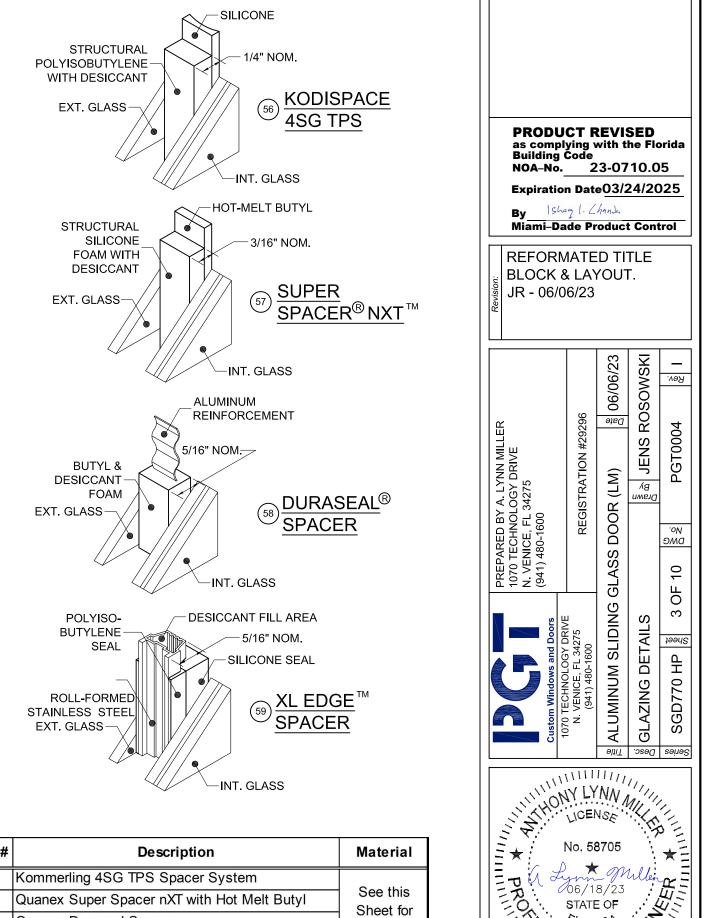




TYPE G6







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as complying with the Florida
Building Code

NOA-No. 23-0710.05

Ishaq I. Chands

REFORMATED TITLE

**BLOCK & LAYOUT.** 

JR - 06/06/23

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

Expiration Date 03/24/2025

Miami-Dade Product Control

Date 06/06/23

GLASS DOOR (LM)

**ALUMINUM SLIDING** 

STATE OF

A. LYNN MILLER, P.E.

P.E.# 58705

GLAZING DETAILS

REGISTRATION #29296

DENS ROSOWSKI

Rev.

No.

10

OF

Sheet

SGD770 HP

Part #	Description	Material
56	Kommerling 4SG TPS Spacer System	0 11:
57	Quanex Super Spacer nXT with Hot Melt Butyl	See this Sheet for
58	Quanex Duraseal Spacer	Materials
59	Cardinal XL Edge Spacer	

REFERENCE TEST REPORTS: FTL-8717, 8968 & 8970

"AN" = ANNEALED

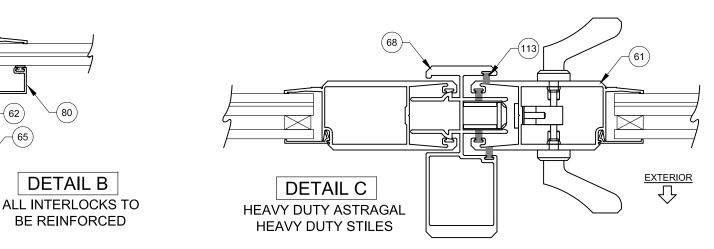
"HS" = HEAT STRENGTHENED

"TP" = TEMPERED

"SG" = SENTRYGLAS® INTERLAYER BY KURARAY AMERICA, INC.

TAB	LE 1:																																	
								<b>esigr</b> (For al									•																	
			Frame Height																															
Reinforced Interlocks			80	0"		84"				90"			98"			102"				108"														
Heavy-duty Astragal				69-7/8	B" DLO			73-7/8	" DLO		79-7/8" DLO					87-7/8	" DLO			91-7/8	" DLO			97-7/8	" DLO									
	H	leavy-d	uty Stiles		Ancho	r Group	)		Ancho	r Group	)		Ancho	r Group	)		Ancho	Group	)		Anchor	Group	)		Ancho	r Group	<u> </u>							
				Α	В	С	D	Α	В	С	D	Α	В	С	D	Α	В	С	D	Α	В	С	D	Α	В	С	D							
		Design Pressure			+90/-130			+90/	-130		+90/-130			+90/	-130			+90/-	-130		+90/-130													
	24"	"   1/ DLO	Head/Sill	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2							
			Jamb	10	8	8	8	10	8	8	8	10	10	10	10	12	10	10	10	12	10	10	10	14	10	10	10							
		23"	Design Pressure		+90/	′-130		+90/-130				+90/-130			+90/-130			+90/-130			+90/-130													
(in)	30"	DLO	Head/Sill	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2	C5+2	C6+2	C6+2	C6+2	C6+2	C6+2	C6+2	C6+2	C6+2	C6+2	C6+2	C6+2	C6+2							
Width (in)			Jamb	12	10	8	8	12	10	8	8	12	10	10	10	14	12	10	10	14	12	10	10	16	12	10	10							
		29"	Design Pressure		+90/	′-130			+90/-130			+90/-130		+90/-130				+90/-130				+90/-130												
anel	36"	5" DLO	Head/Sill	C5+2	C5+2	C5+2	C5+2	C6+2	C6+2	C5+2	C5+2	C6+2	C6+2	C6+2	C6+2	C7+2	C7+2	C6+2	C6+2	C7+2	C7+2	C7+2	C7+2	C7+2	C7+2	C7+2	C7+2							
Д			Jamb	12	10	8	8	14	12	8	8	14	12	10	10	16	14	10	10	18	14	10	10	18	14	12	10							
Nominal		35"	Design Pressure			′-130			+90/				+90/				+90/				+90/-				+90/-									
Non	42"					DLO	' I I			Head/Sill	C6+2	C6+2	C6+2	C6+2	C6+2	C6+2	C6+2	C6+2	C7+2	C7+2	C6+2	C6+2	C7+2	C7+2	C7+2	C7+2	C8+2	C8+2	C7+2	C7+2	C8+2	C8+2	C7+2	C7+2
			Jamb	14	12	8	8	16	12	10	8	16	14	10	10	18	14	12	10	20	16	12	10	20	16	12	10							
		41"	Design Pressure			′-130			+90/				+90/				+90/				+90/-1					′-110								
	48"	DLO	Head/Sill	C6+3			C6+3														C8+3				C8+3	C7+2	C7+2							
1		1	l l-	1 40	40	1 40		40	1 44	40	۱ ،	ا ۱۸۰	4.4	۱ ۸۰	1 40	20	40	40	40	~~	ا مد ا	40	40		1 40 \	40	1/ 40 '							

NOTE: JAMB ANCHORS ARE SPECIFIED AS THE TOTAL QUANTITY, DIVIDE BY 2 FOR PAIRS TO BE INSTALLED.



**EXAMPLE ON SHEET 5** 



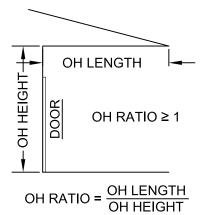
**DETAIL B** 

2) WHEN USING THE 2 1/2" SILL, POSITIVE DP IS 46.67 PSF MAX. AND WITH THE 3 1/4" SILL, POSITIVE PRESSURES IS 60.0 PSF MAX. (NEGATIVE PRESSURES UNCHANGED). SEE TABLE 1A ON THIS SHEET.

**DETAIL B** 

- 3) 2-1/2", 3-1/4" AND 4" SILL HEIGHTS ARE TESTED FOR WATER INFILTRATION WHEREAS THE 1-1/2" SILL IS NOT AND MUST ONLY BE USED WHERE WATER RESISTANCE IS NOT REQUIRED. POSITIVE DESIGN PRESSURES SHOWN IN TABLE 1 MAY BE USED WHEN THE DOOR IS PROTECTED BY AN OVERHANG COMPLYING WITH THE FLORIDA BUILDING CODE (SEE ADJACENT DIAGRAM); THIS CONDITION IS NOT RATED FOR WATER INFILTRATION.
- 4) SEE SHEETS 6 & 7 FOR ANCHORAGE SPACING AND EMBEDMENT INFORMATION. DOOR SIZE TO COMPLY WITH FBC EGRESS REQUIREMENTS.

DLO WIDTH = NOM. PANEL WIDTH - 7" PANEL HEIGHT = DOOR UNIT HEIGHT - 1-7/8" DLO HEIGHT = DOOR UNIT HEIGHT - 10-1/8" DLO HEIGHT = PANEL HEIGHT - 8-1/4"



### TABLE 1A:

17.10-11.11	1/\DLL 1/\.										
_	Sill Height to Max. (+) DP (Water Infiltration Rating)										
Sill Riser Height (Flat or Box, see Sheet 9)	(+) Design Pressure, psf										
Flush - 1-1/2"	see note 3										
Low - 2-1/2"	+ 46.67										
Medium - 3-1/4"	+ 60.0										
High - 4"	+ 90.0										

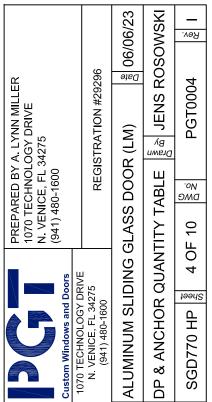
SEE NOTES 1-3

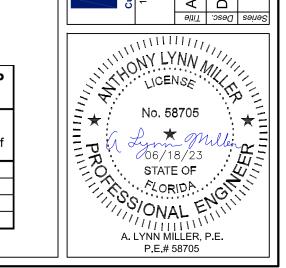
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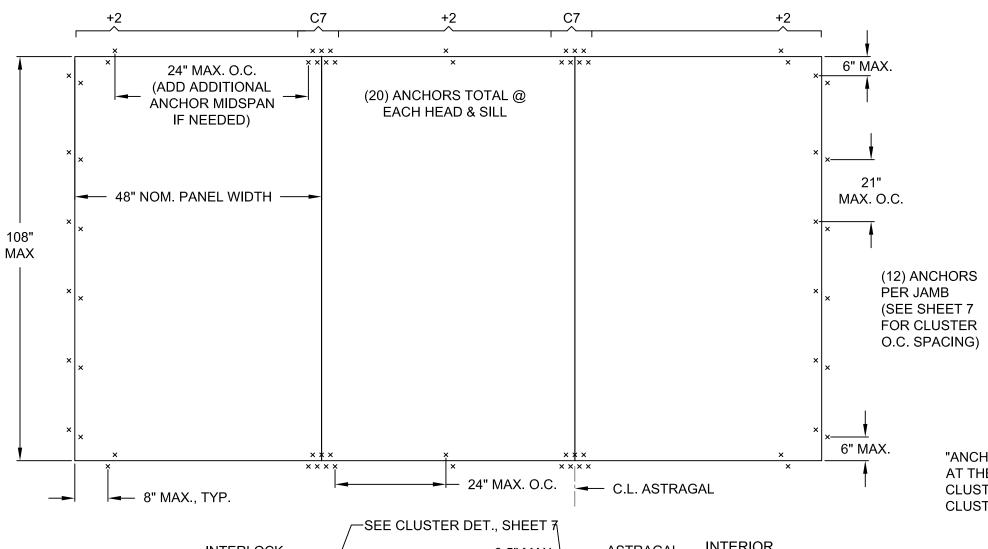
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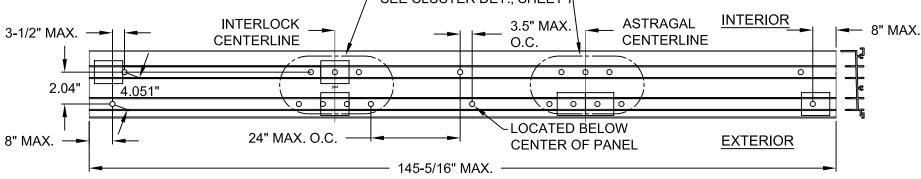


# **EXAMPLE OXX ANCHORAGE PLAN:**

(3) PANEL, 48" x 108" DOOR FROM TABLE ON SHEET 4, ANCHOR TYPES C IN CONCRETE SUBSTRATE



"ANCHORS PER PANEL" ARE THOSE AT THE HEAD AND SILL BETWEEN CLUSTERS OR THOSE BETWEEN A CLUSTER AND A FRAME JAMB.



# **ANCHORAGE REQUIREMENTS NOTES:**

- 1. APPROVED ANCHOR TYPES: SEE TABLE A, SHEET1.
- 2. ANCHOR LOCATION SPACING FOR ANCHOR QUANTITIES SPECIFIED IN TABLE 1 ON SHEET 4:

ADDITIONAL ANCHORS 24" MAX. ON CENTER.

SEE EXAMPLE ANCHORAGE PLANS ABOVE AND EXAMPLE CLUSTERS AT ASTRAGAL / INTERLOCKS ON SHEET 7.

JAMBS...... 6" MAX. FROM BOTTOM AND 21" MAX. O.C.
UTILIZING JAMB ANCHOR QUANTITIES FROM
TABLE ON SHEET 4.

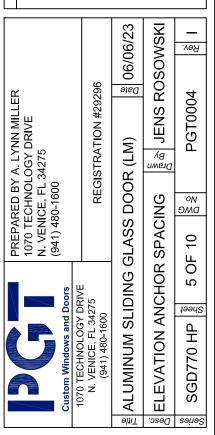
DLO WIDTH = NOM. PANEL WIDTH - 7"
PANEL HEIGHT = DOOR UNIT HEIGHT - 1-7/8"
DLO HEIGHT = DOOR UNIT HEIGHT - 10-1/8"
DLO HEIGHT = PANEL HEIGHT - 8-1/4"

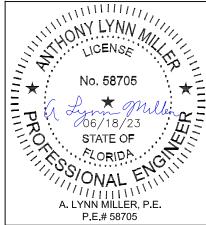
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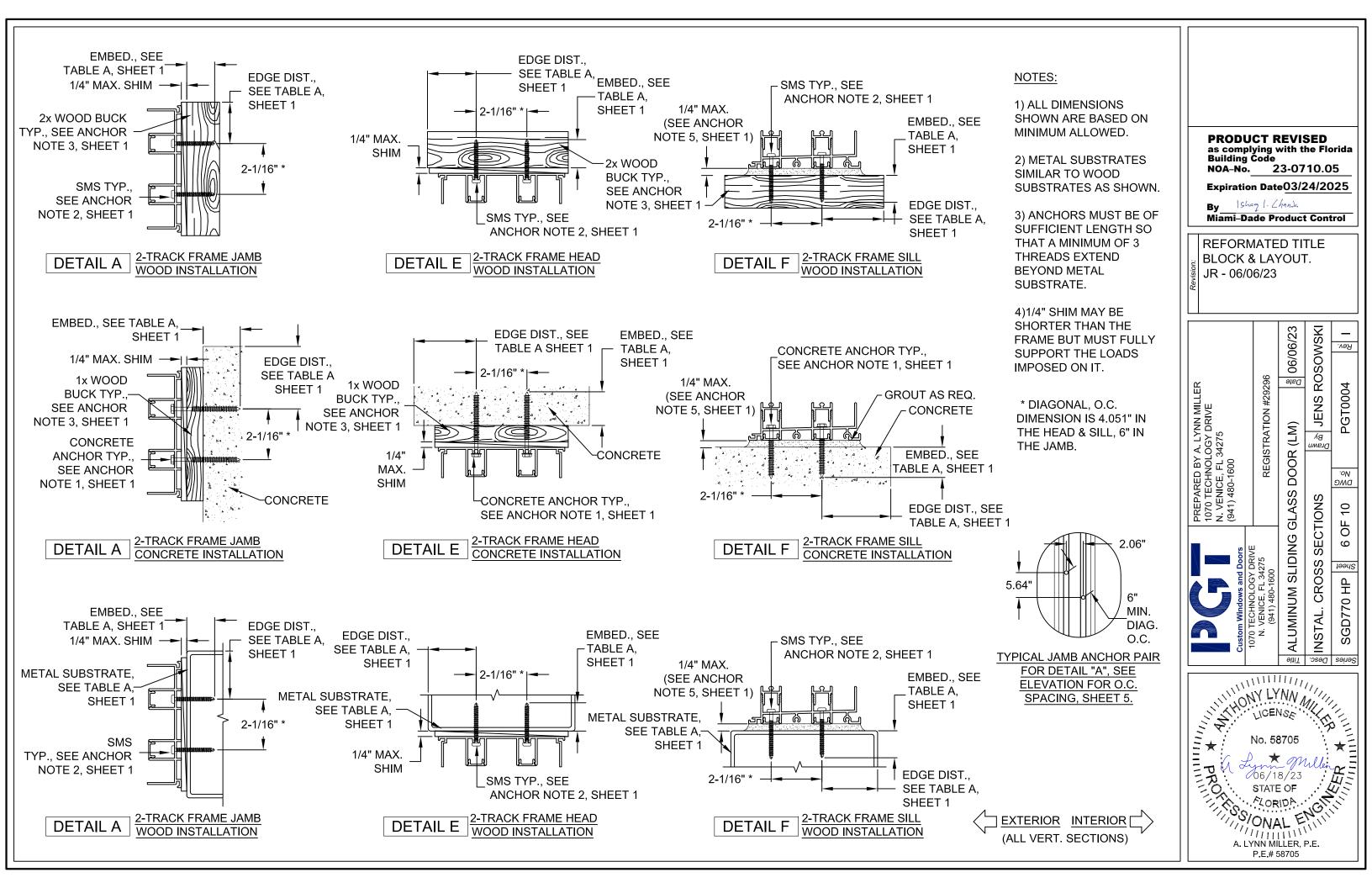
Expiration Date 03/24/2025

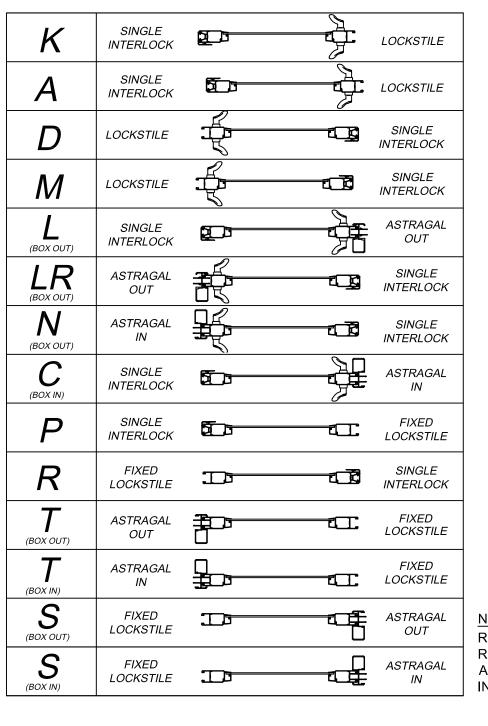
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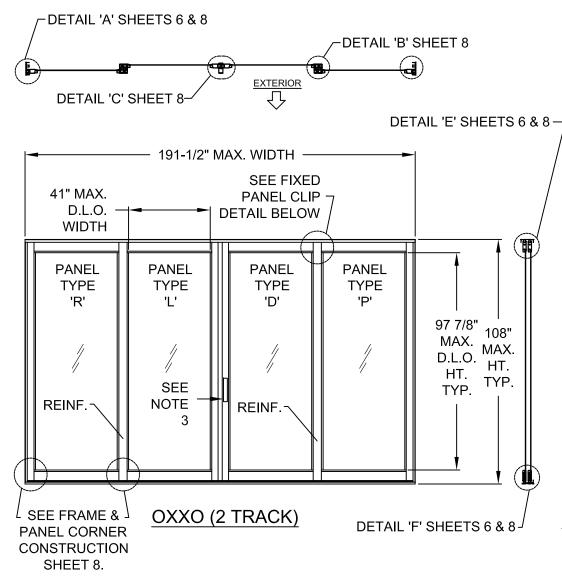
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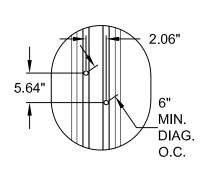






### NOTES:

- 1) SEE THIS SHEET FOR INDIVIDUAL PANEL CONFIGURATIONS. SEE SHEET 8 FOR SECTION **DETAILS AND SHEETS 4-6** FOR ANCHORAGE DETAILS.
- 2) DLO WIDTH = 41" MAX. DLO HEIGHT = 97-7/8" MAX.
- 3) (1) LOCK (ITEMS 75 & 107) AT EACH LOCKSTILE, LOCKING INTO KEEPER (ITEM 103) AT FRAME JAMB OR ASTRAGAL.
- 4) MAXIMUM NOMINAL PANEL WIDTH FOR ALL PANEL CONFIGURATIONS EQUALS 48".



TYPICAL JAMB ANCHOR PAIR FOR DETAIL 'A', SEE ELEVATION FOR O.C. SPACING, SHEET 5

#### NOTE: **INTERIOR** REINFORCEMENT **REQUIRED AT** (ALL PANEL TYPES) ALL **EXTERIOR** INTERLOCKS.

# NOTES FOR FIGS 1-4

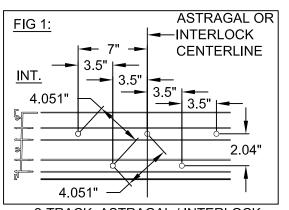
- 1) ALL DIMENSIONS SHOWN ARE BASED ON MINIMUM ALLOWED.
- 2) METAL SUBSTRATES SIMILAR TO WOOD SUBSTRATES AS SHOWN.

MAX.

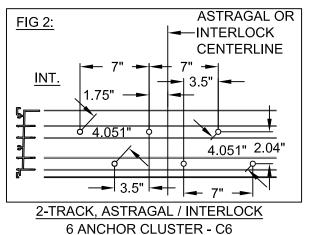
HT.

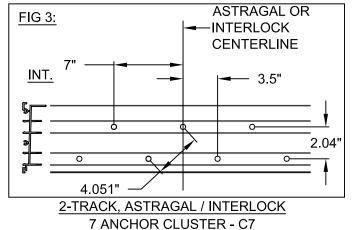
TYP.

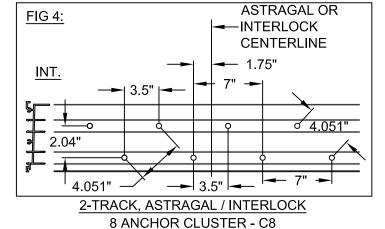
3) DIAGONAL, O.C. DIMENSION IS 4.051" IN THE HEAD & SILL, 6" IN THE JAMB.



2-TRACK, ASTRAGAL / INTERLOCK 5 ANCHOR CLUSTER - C5





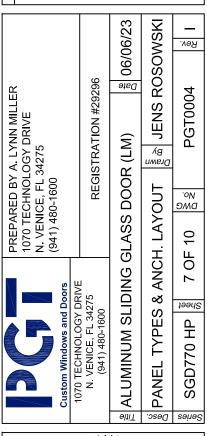


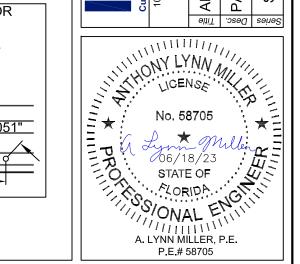
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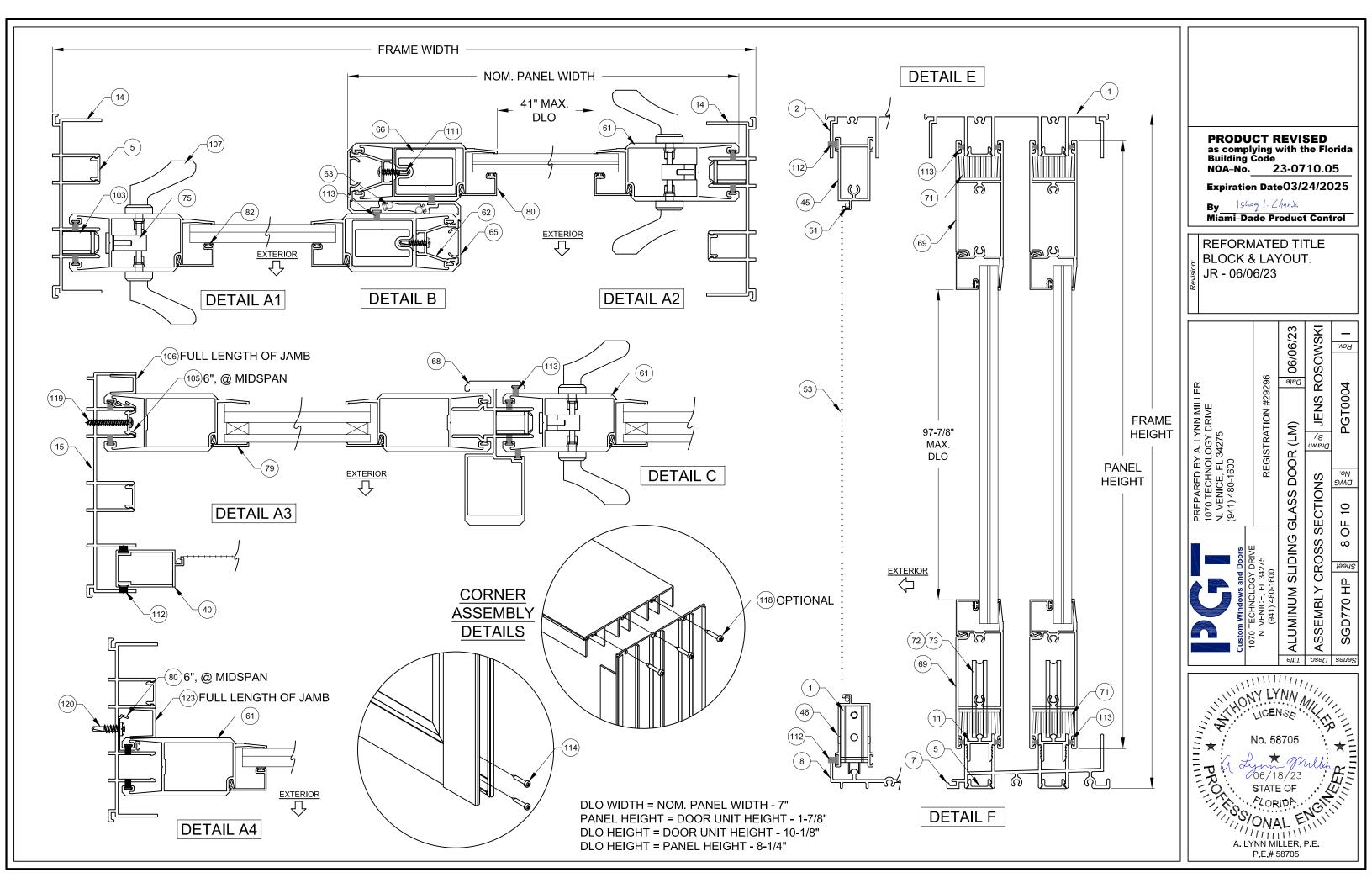


TABLE	2:		
ITEM	PGT. #	Description	Material
1	617306	2-TRACK HEAD	6063-T6 ALUM.
2	617303	2-TRACK HEAD WITH SCREEN RAIL	6063-T6 ALUM.
5	617314	FRAME SCREW COVER	6063-T6 ALUM.
7	617304	2-TRACK SILL	6063-T6 ALUM.
8	617301	2-TRACK SILL WITH SCREEN RAIL	6063-T6 ALUM.
11	617313	FRAME SILL TRACK INSERT	6063-T6 ALUM.
14	617305	2-TRACK JAMB	6063-T6 ALUM.
15	617302	2-TRACK JAMB WITH SCREEN RAIL	6063-T6 ALUM.
18	617322	SILL RISER, FLAT, 1-1/2"	6063-T6 ALUM.
19	617319	SILL RISER, BOX, 1-1/2"	6063-T6 ALUM.
20	617321	SILL RISER, FLAT, 2-1/2"	6063-T6 ALUM.
21	617318	SILL RISER, BOX, 2-1/2"	6063-T6 ALUM.
22	617355	SILL RISER, FLAT, 3-1/4"	6063-T6 ALUM.
23	617354	SILL RISER, BOX, 3-1/4"	6063-T6 ALUM.
24	617320	SILL RISER, FLAT, 4"	6063-T6 ALUM.
25	617323	SILL RISER, BOX, 4"	6063-T6 ALUM.
40	612258	SCREEN SIDE RAIL - LOCKSTILE	6063-T6 ALUM.
41	7LOCKWGSK	SCREEN LOCKSET	
42	41818	SCREEN KEEPER SPACER SET	
45	612256	SCREEN TOP RAIL	6063-T6 ALUM.
46	612257	SCREEN BOTTOM RAIL	6063-T6 ALUM.
47	7SRAZ	STANDARD ROLLER	
48	7SRAX	STANDARD ROLLER - ST. STL.	STAINLESS STEEL
51	61692	SCREEN SPLINE165	
53	61816C20	SCREEN CLOTH	
54		1/2" x 4" x 1/16" SETTING BLOCK	NEOPRENE
55		1" X 4" X 1/16" SETTING BLOCK	NEOPRENE
61	617326	PANEL STILE (HEAVY DUTY)	6063-T6 ALUM.
62	617327	INTERLOCK ADAPTOR	6063-T6 ALUM.
63	6TP248	VINYL BULB WSTP THIN (INSIDE INTERLOCK)	
64	71729	SILL END WEATHERSTRIP PAD	
65	617328	INTERLOCK SCREW COVER	6063-T6 ALUM.
66	617346	INTERLOCK ALUM REINFORCEMENT	6063-T6 ALUM.
68	617339	HEAVY DUTY ASTRAGAL	6063-T6 ALUM.
69	617324	TOP & BOTTOM RAIL	6063-T6 ALUM.
70	417350	WEATHERSTRIP EXTENSION (INJECTION MOLDED)	
71	71695	1-1/2" X 1" X 3/4" HIGH FIN SEAL DUST PLUGS	
72	78153X	TANDEM ROLLER ASSY.	STAINLESS STEEL
73	78153N	TANDEM ROLLER ASSY.	NYLON
74	SILICONE	DOW 791, 899, 983, 995 OR GE 7700	
75	78185X	GEMINI MORTICE 3-PLY LOCK W/LONG TRIM PLATE	
76	71032X1FPFX	#10-32 X 1" FH SCREW W/ TYPE "F" TIP	STAINLESS STEEL
77	7103239	10-32 STEEL U-NUT	ZINC
70	C470E7	AULO DEAD	COCO TO ALLINA

6063-T6 ALUM.

6063-T6 ALUM.

79

80

617357

617359

1" IG BEAD

FIXED PANEL CLIP

ITEM	PGT.#	Description	Material
82	6TP247K	VINYL BULB WEATHERSTRIP	
83	IGTAPE	1/2" X 1/16" SINGLE SIDE ADHESIVE TAPE	
100	48052	ROLLER ADJ. HOLE PLUG	
101	72087	JAMB BUMPER	
102	71696	DUST PLUG	PVC
103	78186X	1" KEEPER	
104	7SDKEEP	SCREEN LOCK KEEPER	
105	617344	FIXED PANEL CLIP - 6" LONG	6063-T6 ALUM.
106	617352	EXTERIOR FIXED PANEL RETAINER	6063-T6 ALUM.
107	varies	HANDLE KIT	
111	710X34PPSDAX	#10 X 3/4" PH. PN. TEK	STAINLESS STEEL
112	67S16	WSTP, 0.270" X 0.170" FIN SEAL	
113	64066	WSTP, 0.187" X.230 FINSEAL	
114	710X115PPX	#10 X 1-1/2" SMS	STAINLESS STEEL
115	710XPPT	#10 X 1" SMS	STAINLESS STEEL
116	720X1X	#14-20 X 1" MS	STAINLESS STEEL
117	720X112X	#14-20 X 1-1/2" MS	STAINLESS STEEL
118		#8 X 1" SMS	STAINLESS STEEL
119		#8 X 1-1/4" SMS	STAINLESS STEEL
120		#10 X 1" SMS	STAINLESS STEEL

ITEMS # 3, 4, 6, 9, 10, 12, 13, 16, 17, 26-39, 43, 44, 49, 50, 52, 56-60, 67, 81, 78, 84-99 & 108-110 ARE NOT USED AND ARE NOT PART OF THIS APPROVAL.

TABLE 3:		
Material	Min. F <sub>y</sub>	Min. F <sub>u</sub>
#12 Steel Screw	92 ksi	120 ksi
#12 18-8 Screw	60 ksi	95 ksi
#12 410 Screw	90 ksi	110 ksi
1/4" DeWalt/Elco Aggre-Gator®	57 ksi	96 ksi
1/4" DeWalt UltraCon+®	148 ksi	164 ksi
1/4" 410 SS DeWalt/Elco CreteFlex®	127.4 ksi	189.7 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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By | Shag |. Chank

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