

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) NOTICE OF ACCEPTANCE (NOA)

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 "CA-5440" Outswing PVC Casement Window – N.I.

APPROVAL DOCUMENT: Drawing No. **MD-5440C.0 Rev D** titled "Vinyl Casement Window NOA (NI)", sheets 1 through 11 of 11, dated 09/09/14 and last revised on 06/06/23, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: None. Approved Hurricane Protection, complying HVHZ (FBC) required

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

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

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

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

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

This NOA **revises NOA No. 20-0402.04** and consists of this page 1 and evidence pages E-1, E-2, E-3, E-4, and E-5 as well as approval document mentioned above.

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



Ishaq 1. Chandes

NOA No. 23-0816.10 Expiration Date: September 17, 2025 Approval Date: September 07, 2023 Page 1

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

A. DRAWINGS

- 1. Manufacturer's die drawings and sections. *(Submitted under NOA No. 15-0420.12)*
- Drawing No. MD-5440C.0 titled "Vinyl Casement Window NOA (NI)", sheets 1 through 11 of 11, dated 09/09/14, with revision B dated 05/15/17, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E. (Submitted under NOA No. 17-0614.17)

B. TESTS

2.

- 1. Test reports on: 1) Uniform Static Air Pressure Test, Loading 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 a PVC sliding glass door, a PVC fixed window and an aluminum sliding glass door, using: Kodispace 4SG TPS spacer system, Duraseal[®] spacer system, Super Spacer[®] NXTTM spacer system and XL EdgeTM spacer system at insulated glass, prepared by Fenestration Testing Laboratory, Inc., Test Reports No. FTL-8717, FTL-8968 and FTL-8970, dated 11/16/15, 06/07/16 and 06/02/16 respectively, all signed and sealed by Idalmis Ortega, P.E. (Submitted under previous NOA No. 16-0714.12)

(Submitted under previous NOA No. 10-0/14.12)

- 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) Forced Entry Test, per FBC 2411.3.2.1, and TAS 202-94

along with marked-up drawings and installation diagram of a series CA5440 vinyl outswing casement windows, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-8139**, dated 03/31/14, signed and sealed by Idalmis Ortega, P.E. *(Submitted under NOA No. 15-0420.12)*

- **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) Forced Entry Test, per FBC 2411.3.2.1, and TAS 202-94
 - 5) Large Missile Impact Test per FBC, TAS 201-94
 - 6) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with marked-up drawings and installation diagram of a series 5540/5440 vinyl fixed windows w/tube mullion, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-8174**, dated 03/31/14, signed and sealed by Idalmis Ortega, P.E. *(Submitted under NOA No. 15-0420.12)*

Ishag 1. Chandes

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's (CONTINUED)

B. TESTS (CONTINUED)

Reference Awning Window Test Report No. FTL-8183, per TAS 201, 202 & 203-94, with an addendum issued by Fenestration Testing Laboratory, Inc. (Submitted under NOA No. 15-0420.12)

C. CALCULATIONS

Anchor verification calculations and structural analysis, complying with FBC-5th Edition (2014), dated 08/28/15, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
 (Submitted under NO 4 No. 15, 0420 12)

(Submitted under NOA No. 15-0420.12)

2. Glazing complies with ASTM E1300-09

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

- 1. Notice of Acceptance No. 16-0712.03 issued to ENERGI Fenestration Solutions USA for their "White Rigid PVC Exterior Extrusions for Windows and Doors" dated 08/10/17, expiring on 02/28/18.
- Notice of Acceptance No. 16-0712.04 issued to ENERGI Fenestration Solutions USA, Inc. for their "Bronze and Lighter Shades of Cap Coated White Rigid PVC Exterior Extrusions for Windows and Doors" dated 09/15/16, expiring on 04/16/20.
- 3. Notice of Acceptance No. 16-0712.05 issued to ENERGI Fenestration Solutions USA, Inc. for their "Performance Core Rigid PVC Exterior Extrusions for Windows and Doors" dated 09/15/16, expiring on 04/16/20.

E. STATEMENTS

Statement letter of conformance, complying with FBC 5th Edition (2014) and FBC 6th Edition (2017), dated August 29, 2017, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
 (Statement and NO 4 No. 17 0(14, 17))

(Submitted under NOA No. 17-0614.17)

- Statement letter of no financial interest, dated June 9, 2017, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E. (Submitted under NOA No. 17-0614.17)
- Proposal issued by the Product Control Section, dated 09/29/14 and revised on 10/15/14, signed by Jaime D. Gascon, P.E.
 (Submitted under NOA No. 15-0420.12)
- Proposal No. 16-0125 issued by the Product Control Section, dated March 09, 2016, signed by Ishaq Chanda, P.E.
 (Submitted under NOA No. 16-0714.12)

Ishaq I. Chanda, P.E. **Product Control Unit Supervisor** NOA No. 23-0816.10 **Expiration Date: September 17, 2025 Approval Date: September 07, 2023**

F. OTHERS

1. Notice of Acceptance No. 16-0714.12, issued to PGT Industries, Inc. for their Series "CA-5440" Outswing Vinyl Casement Window – N.I., approved on 08/25/16 and expiring on 09/17/20.

2. EVIDENCE SUBMITTED under previous approval

A. DRAWINGS

1. Drawing No. **MD-5440C.0** titled "Vinyl Casement Window NOA (NI)", sheets 1 through 11 of 11, dated 09/09/14, with revision C dated 03/19/20, prepared by manufacturer, signed and sealed by Anthony 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
 - 6) Forced Entry Test, per ASTM F588 and TAS 202-94

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

 Anchor verification calculations and structural analysis, complying with FBC 6th Edition (2017), prepared by manufacturer, dated 08/28/15, and revised and updated to the FBC 7th Edition (2020) on 03/25/20, signed and sealed by Anthony Lynn Miller, P.E.

D. QUALITY ASSURANCE

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

Ishaq I. Chands

2. EVIDENCE SUBMITTED under previous approval(CONTINUED)

E. MATERIAL CERTIFICATIONS

- 1. Notice of Acceptance No. 18-0122.02, issued to ENERGI Fenestration Solutions USA, Inc., for their White Rigid PVC Exterior Extrusions for Windows and Doors, approved on 03/08/18, expiring on 02/28/23.
- Notice of Acceptance No. 18-1217.15, issued to ENERGI Fenestration Solutions USA, Inc., for their Bronze and Lighter Shades of Cap Coated Rigid PVC Exterior Extrusions for Windows and Doors, approved on 01/17/19, expiring on 04/16/20.
- 3. Notice of Acceptance No. 18-1217.16, issued to ENERGI Fenestration Solutions USA, Inc., for their Performance Core Rigid PVC Exterior Extrusions for Windows and Doors, approved on 01/17/19, expiring on 02/04/21.

F. STATEMENTS

- 1. Statement letter of conformance, complying with FBC 6th Edition (2017) and the FBC 7th Edition (2020), dated March 10, 2020, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
- 2. Statement letter of no financial interest, dated March 10, 2020, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
- **3.** Proposal No. **19-1155 TP** issued by the Product Control Section, dated January 10, 2020, signed by Ishaq Chanda, P.E.

G. OTHERS

1. Notice of Acceptance No. **17-0614.17**, issued to PGT Industries, Inc. for their Series "CA-5440" Outswing PVC Casement Window - N.I." approved on 09/14/17 and expiring on 09/17/20.

Ishag 1. Chanda

3. NEW EVIDENCE SUBMITTED

A. DRAWINGS

- 1. Drawing No. **MD-5440C.0 Rev D** titled "Vinyl Casement Window NOA (NI)", sheets 1 through 11 of 11, dated 09/09/14 and last revised on 06/06/23, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
- B. **TESTS**(submitted under previous approval)
 - 1. None.
- C. CALCULATIONS(submitted under previous approval) 1. None.
- D. QUALITY ASSURANCE
 - **1.** Miami-Dade Department of Regulatory and Economic Resources (RER)
- E. MATERIAL CERTIFICATIONS
 - 1. Notice of Acceptance No. **19-0305.02** issued to **Kuraray America, Inc.** for their "**Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers**" dated 05/09/19, expiring on 07/08/24.
 - 2. Notice of Acceptance No. 18-0725.11 issued to Kuraray America, Inc. for their "Kuraray SentryGlas[®] Xtra[™] (SGX[™]) Clear Glass Interlayer" dated 05/23/19, expiring on 05/23/24.
 - 3. NOA No. 21-1109.04 issued to Vision Extrusions Group Limited, for their "White Rigid PVC Exterior Extrusions for Windows and Doors", expiring on 09/30/24.
 - 4. NOA No. 22-0104.04 issued to Vision Extrusions Group limited for their "Bronze and Lighter Shades of Cap Coated Rigid PVC Exterior Extrusions for Windows and Doors", expiring on 04/16/25.
 - 5. NOA No. 20-0203.04 issued to ENERGI Fenestration Solutions USA, Inc. for their "Performance Core Rigid PVC Exterior Extrusions for Windows and Doors" dated 02/27/20, expiring on 04/16/25.

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 8th Edition (2023)**, dated 07/31/23, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.

G. OTHERS

1. This NOA revises NOA No. 20-0402.04, updates to FBC 2023, expiring on 09/17/25.

Ishag I. Chands

SERIES CA5440 NON-IMPACT RESISTANT VINYL CASEMENT WINDOW

I) 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 ARE REQUIRED WHEN USED IN WIND-BORNE DEBRIS REGIONS.

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 EMBEDMENT. INSTALLATION ANCHORS SHOULD BE SEALED. OVERALL SEALING/FLASHING STRATEGY FOR WATER RESISTANCE OF INSTALLATION SHALL BE DONE BY OTHERS AND IS BEYOND THE SCOPE OF THESE INSTRUCTIONS.

6) MAX. 1/4" SHIMS ARE REQUIRED AT EACH ANCHOR LOCATION WHERE THE PRODUCT IS NOT FLUSH TO THE SUBSTRATE. USE SHIMS CAPABLE OF TRANSFERRING APPLIED LOADS. WOOD BUCKS, BY OTHERS, MUST BE SUFFICIENTLY ANCHORED TO RESIST LOADS IMPOSED ON THEM BY THE WINDOW.

7) DESIGN PRESSURES: A. NEGATIVE DESIGN LOADS BASED ON STRUCTURAL TEST PRESSURE, FRAME ANALYSIS AND GLASS PER ASTM E1300.

B. POSITIVE DESIGN LOADS BASED ON WATER TEST PRESSURE, STRUCTURAL TEST PRESSURE, FRAME ANALYSIS AND GLASS PER ASTM E1300. C. DESIGN LOADS ARE BASED ON ALLOWABLE STRESS DESIGN, ASD.

8) THE ANCHORAGE METHODS SHOWN HAVE BEEN DESIGNED AND SECURED 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.

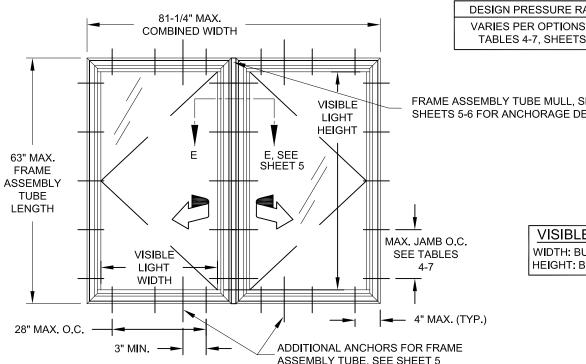
9) METAL SUBSTRATE TO MEET MIN. STRENGTH AND THICKNESS REQUIREMENTS PER CURRENT FLORIDA BUILDING CODE AND TO BE REVIEWED BY THE AUTHORITY HAVING JURISDICTION.

10) REFERENCES: TEST REPORTS FTL-8139, 8174: DEWALT ULTRACON+ NOA: ELCO/DEWALT CRETEFLEX NOA; ELCO/DEWALT AGGRE-GATOR NOA; ENERGI WINDOW AND DOOR PROFILES, LTD WHITE & BRONZE/LIGHTER SHADES OF CAP COATED PVC EXTRUSION NOA'S; NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION. ANSI/AF&PA NDS & ALUMINUM **DESIGN MANUAL**

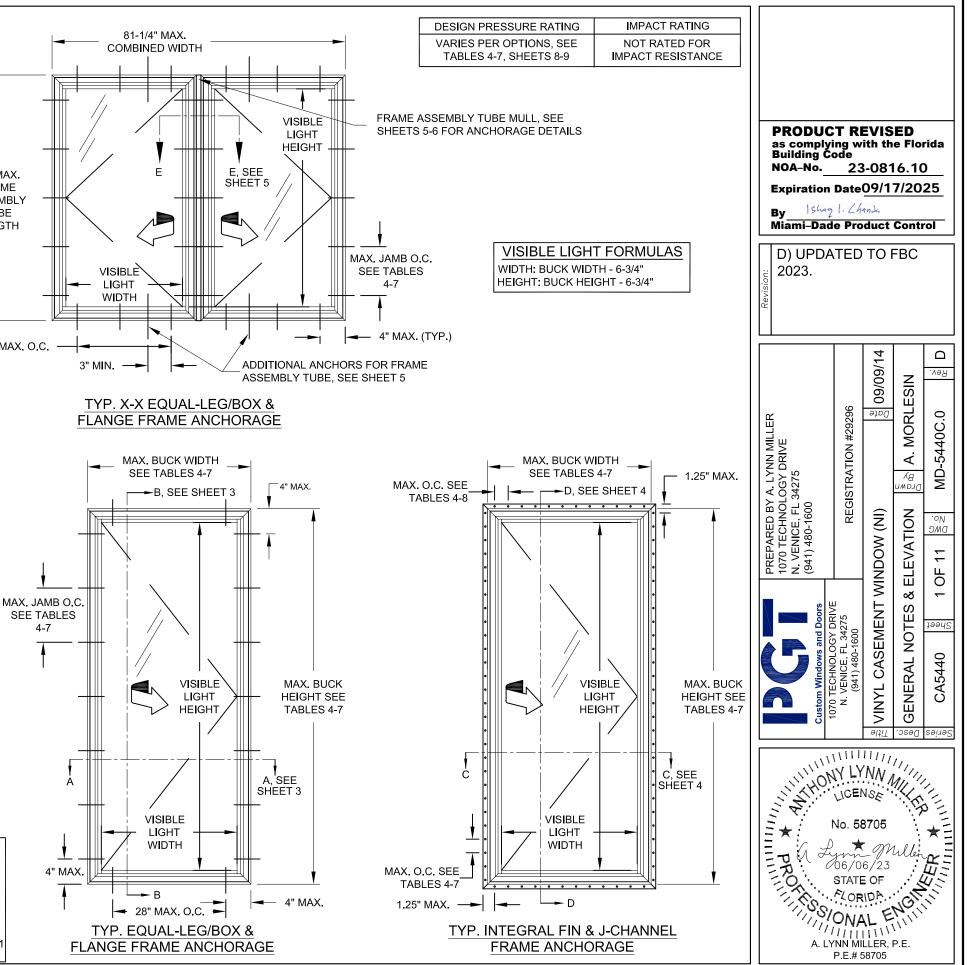
11) APPLICABLE EGRESS REQUIREMENTS TO BE REVIEWED BY BUILDING OFFICIAL.

12) FRAME FLANGES OR INTEGRAL FINS MAY BE TRIMMED IN-FIELD TO CREATE AN EQUAL LEG.

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	GENERAL NOTES & ELEVATIONS
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FLANGE FRAME ANCHORAGE



Glass		Dosc	ription	Table	Sheet	"A" = ANNEA
Туре		Dest		#	#	"T" = TEMPE
1	3/4" I.G.: 1/8" A Exteri	or Ca	o + 1/2" Air Space + 1/8" A	4	8	
2	3/4" I.G.: 1/8" T Exterio	or Cap) + 1/2" Air Space + 1/8" T	5&6	8 & 9	
3			ap + 3/8" Air Space + 3/16" A	5&7	8 & 9	
4			ap + 3/8" Air Space + 3/16" T		8 & 9	
ABLE 2		IROUG	GH FRAME			
Group	Anchor		Substrate	Min. Edge Distance		Min. edment*
	#10 CMC	P.1	. Southern Pine (SG=0.55)	7/16"		1-3/8"
	#10 SMS		Steel, A36*	3/8"	(0.050"
А	(steel, 18-8 S.S. or 410 S.S.)	;	Steel Stud, A653 Gr. 33*	3/8"	0.045	1" (18 Ga.)
A	Aluminum, (Aluminum, 6063-T5*	3/8"	(0.050"
	3/16" steel Ultracon+		. Southern Pine (SG=0.55)	7/16"		1-3/8"
		Concrete (min. 3 ksi)		1"		1-3/8"
	3/16" steel Ultracon+	Unę	grouted CMU, (ASTM C-90)	1"		1-1/4"
	#12 SMS	#12 SMS P.T. Southern Pine (SG=0.55) 9/10		9/16"		1-3/8"
	#12 SMS (steel, 18-8 S.S.		Steel, A36*		(0.050"
	or 410 S.S.)		Steel Stud, A653 Gr. 33*	3/8"	0.045	1" (18 Ga.)
В	01410 0.0.)		Aluminum, 6063-T5*	3/8"	(0.063"
	1/4" steel Ultracon+	P.1	. Southern Pine (SG=0.55)	1"		1-3/8"
	1/4" steel Creteflex	P.1	Г. Southern Pine (SG=0.55)	1"		1-3/8"
	1/4" steel Aggre-Gator	P.1	. Southern Pine (SG=0.55)	1"		1-3/8"
	1/4" steel Ultracon+		Concrete (min. 3 ksi)	1-3/16"		1-3/4"
С		Ungrouted CMU, (ASTM C-90)		1"		1-1/4"
	1/4" steel Creteflex	Concrete (min. 3.35 ksi)		1"		1-3/4"
	1/4" steel Ultracon+		Concrete (min. 3 ksi)	2-1/2"		1-3/4"
	1/4" steel Ultracon+	Un	grouted CMU, (ASTM C-90)	2-1/2"		1-1/4"
D	1/4" steel Creteflex		Concrete (min. 3.35 ksi)	2-1/2"		1-3/4"
D	1/4 SIEEI CIEIEIIEX	Ung	grouted CMU, (ASTM C-90)	2-1/2"		1-1/4"
	1/4" steel Aggre-Gator		Concrete (min. 3.275 ksi)	1-1/2"		1-3/8"
	1/4 Steel / tggie-Gator	G	routed CMU, (ASTM C-90)	2"		2"
ABLE 3	: ANCHORS INSTALLED TH	IROUC	GH INTEGRAL FIN			
Group	Anchor		Substrate	Min. Edge Distance		Min. Ibedment*
Е	2-1/2" x .131" Common	Nail	P.T. Southern Pine (SG=.55)	3/8"		2-7/16"
		. Mail	P.T. Southern Pine (SG=.55)	3/8"		2-7/16"
	2-1/2" Ring-shank Roofing	j ivali	P.I. Southern Pine $(3G=.55)$	3/0		2-1/10

* MIN. OF 3 THREADS **BEYOND THE METAL** SUBSTRATE.

"UNGROUTED CMU" VALUES MAY BE USED FOR GROUTED CMU APPLICATIONS.

0.050"

0.0451" (18 Ga.)

0.050"

1-3/8"

0.063"

0.050"

0.050"

3/8"

3/8"

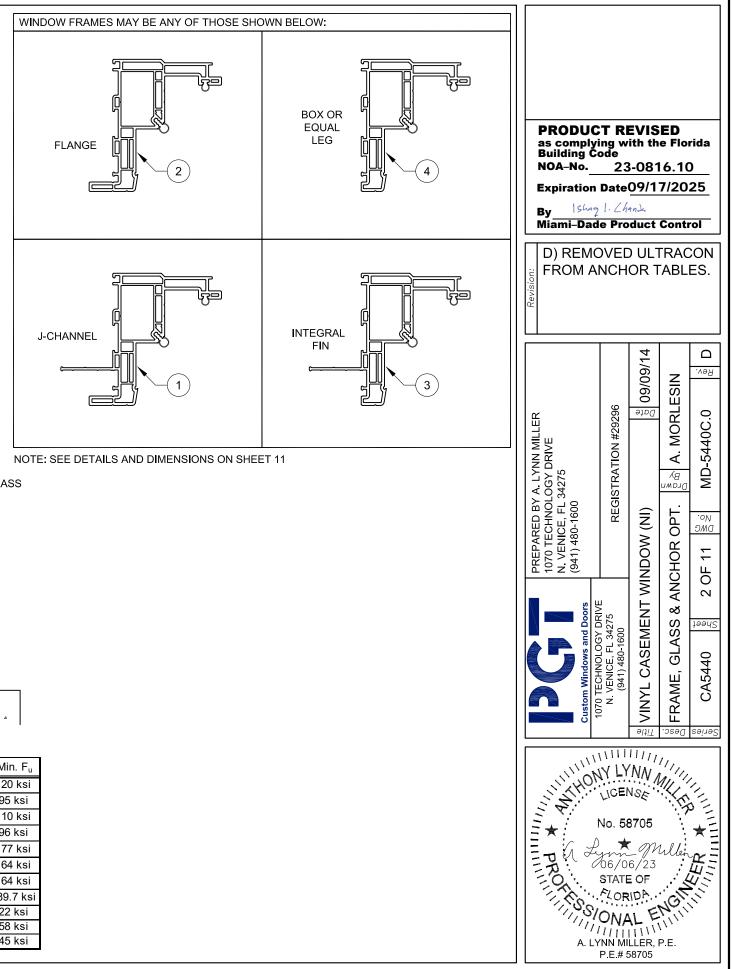
3/8"

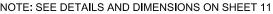
9/16"

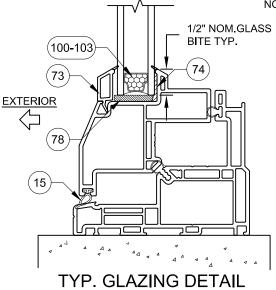
3/8"

3/8"

3/8"







Material	Min. F _y	Min. F _u
Steel Screw	92 ksi	120 ksi
18-8 Screw	60 ksi	95 ksi
410 Screw	90 ksi	110 ksi
Elco/DeWalt Aggre-Gator®	57 ksi	96 ksi
Elco UltraCon®	155 ksi	177 ksi
3/16" DeWalt UltraCon+®	117 ksi	164 ksi
1/4" DeWalt UltraCon+®	148 ksi	164 ksi
410 SS Elco/Dewalt 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

ANCHOR NOTES:

F

* MIN. OF 3 THREADS BEYOND THE METAL SUBSTRATE. FOR STEEL STUDS, MIN. Fu=45 KSI & Fy=33 KSI. 1)

Aluminum, 6063-T5*

Steel Stud, Gr. 33*

Steel, A36*

P.T. Southern Pine (SG=.55)

Aluminum, 6063-T5*

Steel Stud, Gr. 33*

Steel, A36*

2) "UNGROUTED CMU" VALUES MAY BE USED FOR GROUTED CMU APPLICATIONS.

3) ALL ANCHOR HEAD TYPES ACCEPTABLE.

#10 Trusshead SMS

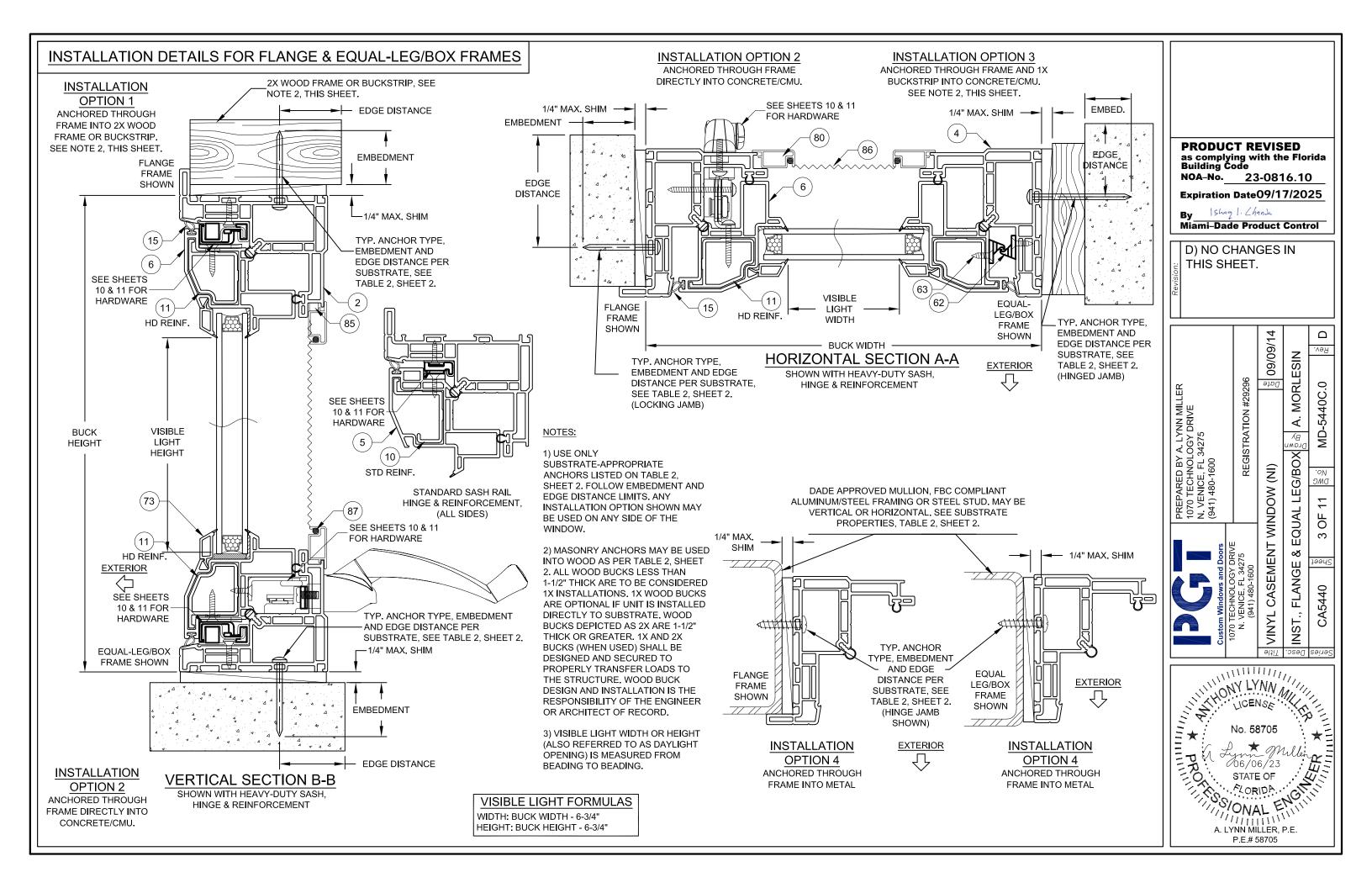
(steel, 18-8 S.S.

or 410 S.S.)

#12 SMS

(steel, 18-8 S.S.

or 410 S.S.)



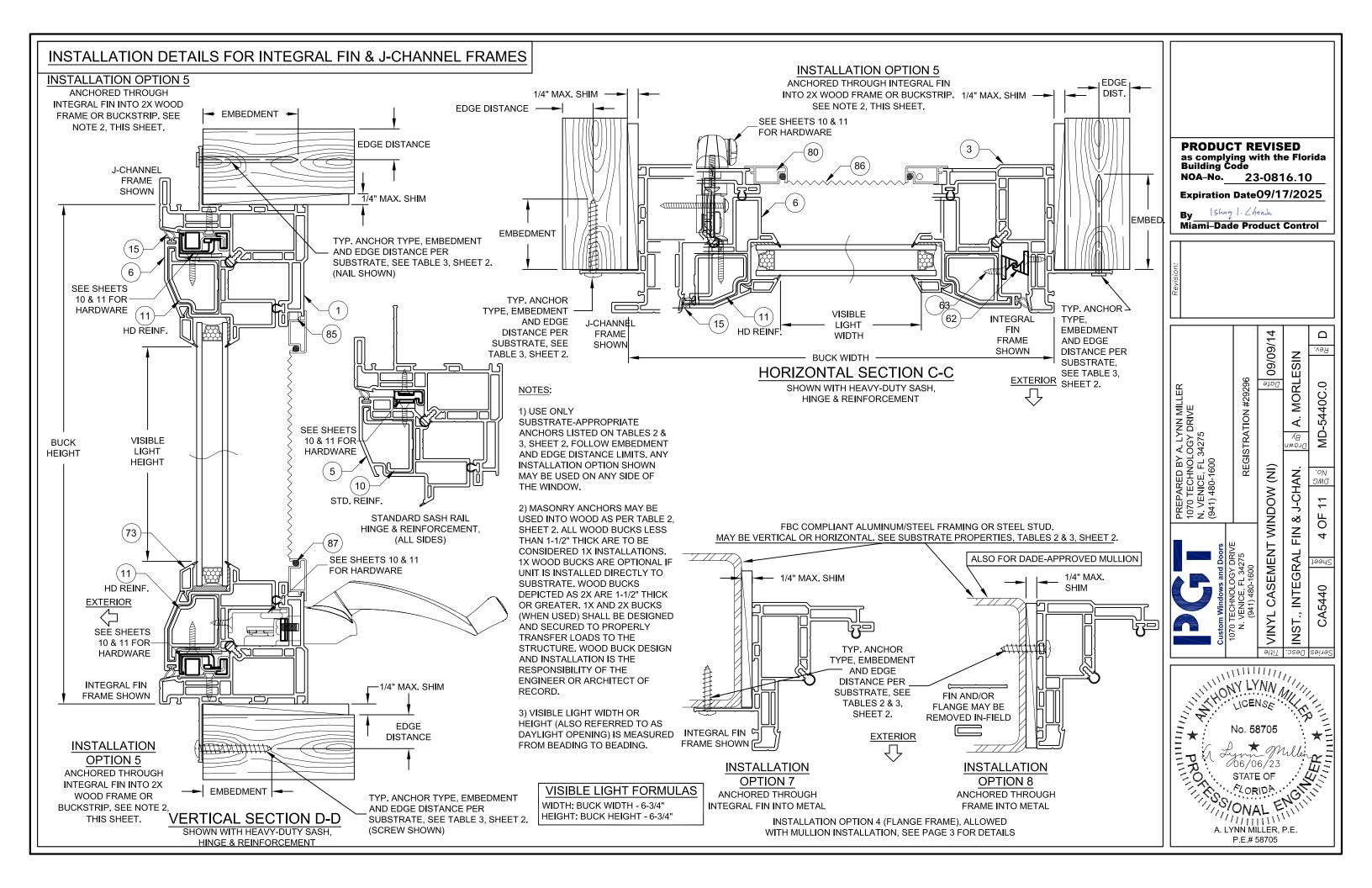
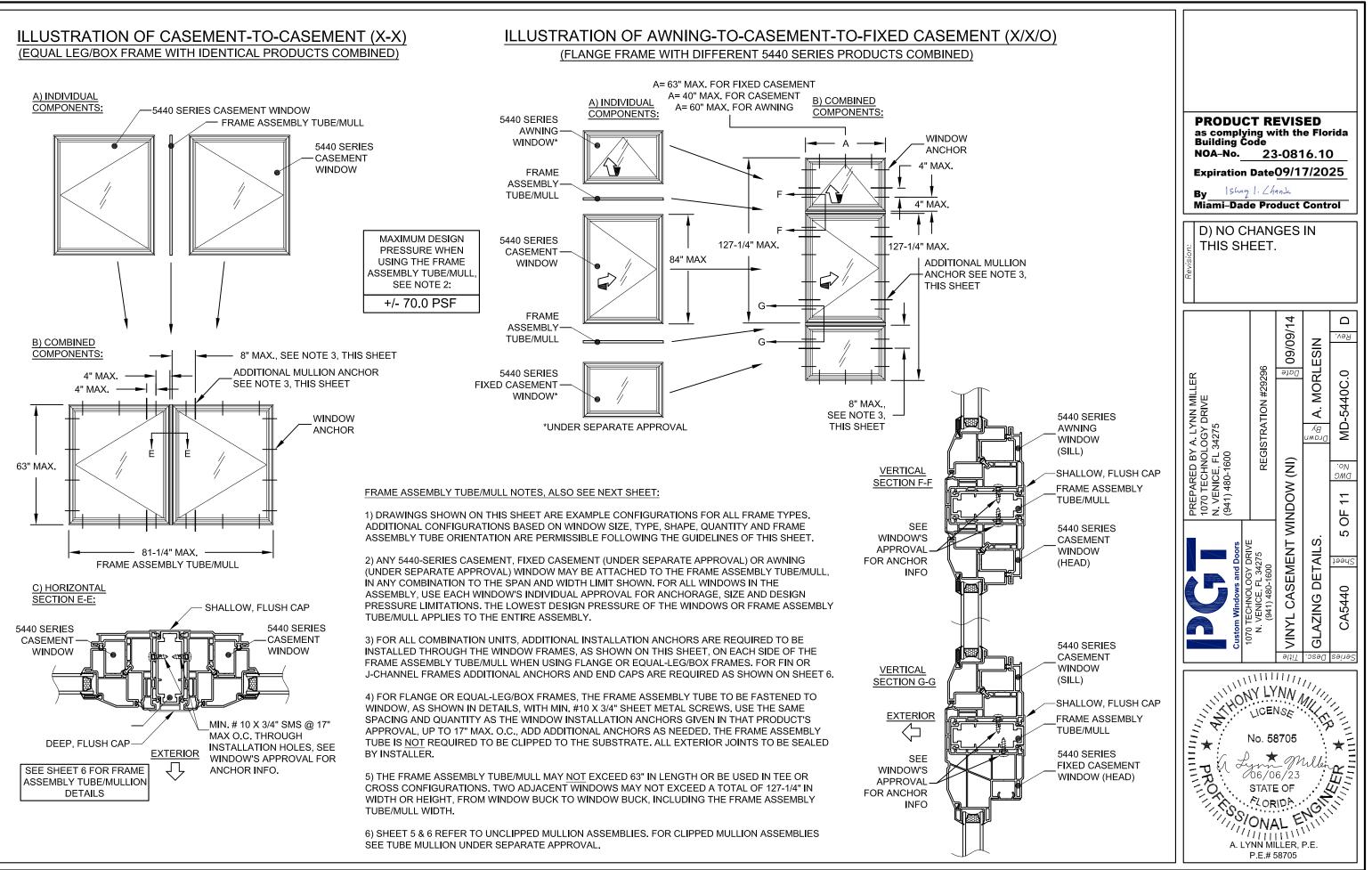
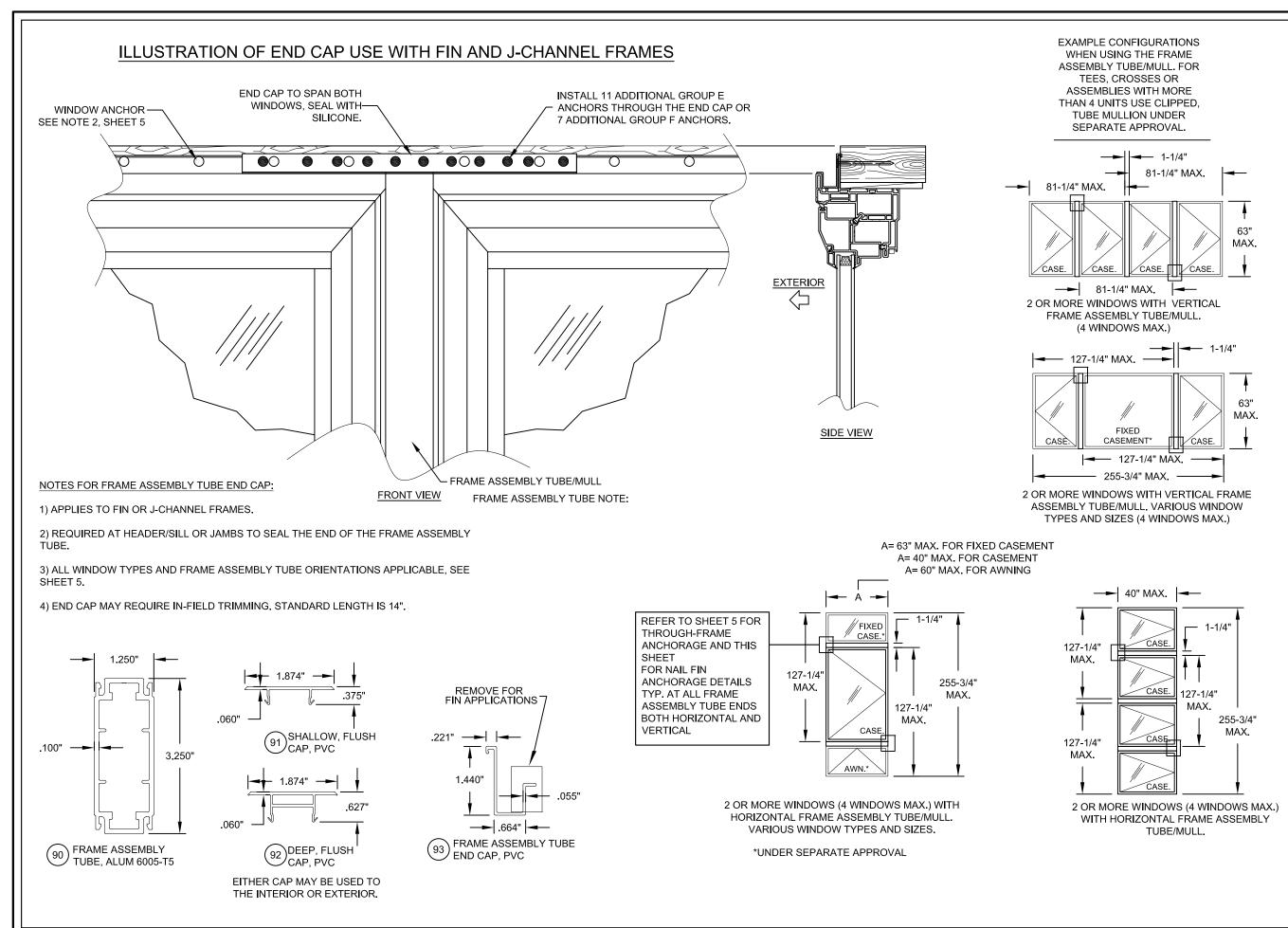
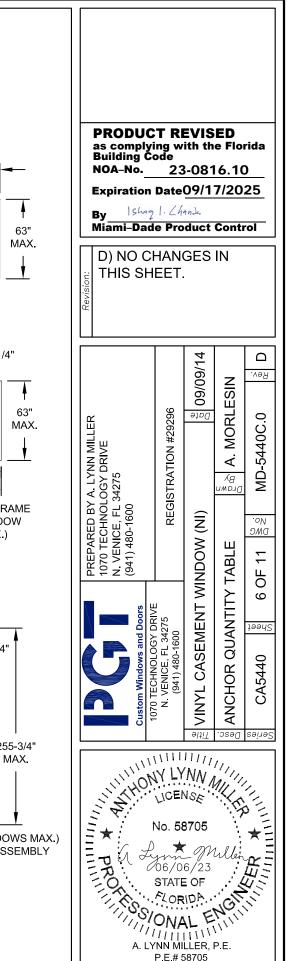


ILLUSTRATION OF CASEMENT-TO-CASEMENT (X-X)





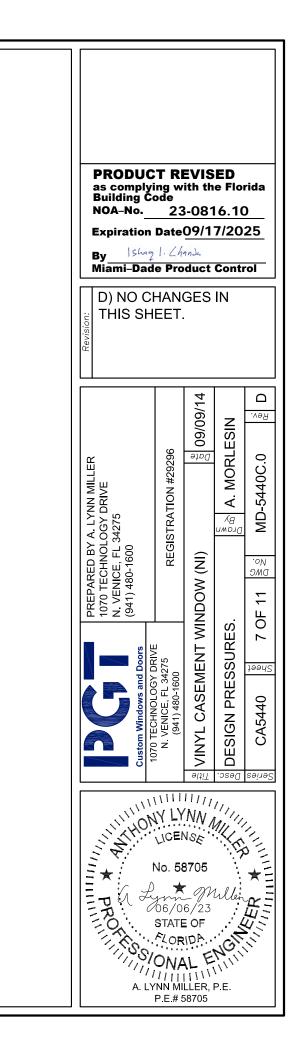


3/4" NOM. 3/4" NOM. 3/4" NOM. 3/4" NOM. 1/8" <u>A</u> GLASS -1/8" T GLASS -3/16" <u>A</u> GLASS 3/16" <u>T</u> GLASS 1/2" AIR SPACE 1/2" AIR SPACE 3/8" AIR SPACE 3/8" AIR SPACE 1/8" <u>A</u> GLASS-1/8" T GLASS 3/16" A GLASS-3/16" T GLASS- $\left< \square \underline{\mathsf{EXTERIOR}} \right.$ (100-103 (100-103) (100-103) (100-103) **GLASS TYPE 2 GLASS TYPE 3 GLASS TYPE 4 GLASS TYPE 1** ALUMINUM REINFORCEMENT -SILICONE -HOT-MELT BUTYL POLYISO-DESICCANT FILL AREA STRUCTURAL BUTYLENE ð - 5/16" NOM. SILICONE SEAL STRUCTURAL 3/16" NOM. FOAM -SILICONE SEAL /4" NOM. BUTYL & POLYISOBUTYLENE WITH ROLL-FORMED DESICCANT WITH DESICCANT DESICCANT STAINLESS STEEL FOAM EXT. GLASS-EXT. GLASS-EXT. GLASS EXT. GLASS--INT. GLASS -INT. GLASS -INT. GLASS -INT. GLASS <u>XL EDGE</u>™ <u>SPACER</u> ,DURASEAL[®] KODISPACE SUPER (100) (103 (101 (102) SPACER[®] NXT[™] 4SG TPS SPACER Part # Material Description Kommerling 4SG TPS Spacer System 100 See this 101 Quanex Super Spacer nXT with Hot Melt Butyl Sheet for 102 Quanex Duraseal Spacer Materials 103 Cardinal XL Edge Spacer REFERENCE TEST REPORTS: FTL-8717, 8968 & 8970

"T" = TEMPERED

GLAZING NOTES: "A" = ANNEALED

REFER TO TYP. GLAZING DETAIL ON SHEET 2.



	Win	idow Desi	Standard	Use this table for Glass	4			
						Sash, Hinge & Reinforcement		1
	Window			В	uck Width (i	n)		
D	imensions	mensions 24 26 28 30		32	34	36		
	24	+65/-114	+65/-114	+65/-114	+65/-114	+65/-114	+65/-114	+65/-114
	30	+65/-95	+65/-92.9	+65/-91.6	+65/-91.2	+65/-91.2	+65/-91.2	+65/-91.2
	36	+65/-85.5	+65/-82.4	+65/-79.9	+65/-78.2	+65/-77	+65/-76.2	+65/-76
t (in)	42	+65/-79.8	+65/-76.2	+65/-73.3	+65/-70.9	+65/-69.1	+65/-67.6	+65/-66.5
Height	48	+65/-76	+65/-72.2	+65/-69	+65/-66.3	+/-64.1	+/-62.3	+/-60.8
	54	+65/-73.3	+65/-69.3	+65/-66	+/-63.1	+/-60.8	+/-58.7	+/-57
Buck	60	+65/-71.3	+65/-67.2	+/-63.7	+/-60.8	+/-58.3	+/-56.1	+/-54.3
ш	66	+65/-69.7	+/-61.2	+/-55.8	+/-54.6	+/-54.9	+/-54.2	+/-52.3
	72	+65/-67.1	+/-56.6	+/-50.9	+/-48	+/-47.6	+/-48.4	+/-48.9
	75	+65/-65.8	+/-54.9	+/-48.8	+/-45.7	+/-45.1	+/-45.3	+/-46

1	OTES:		
1) BUCK	DIMENSIONS	SHC

2) FOR SIZES NOT SHOWN, ROUND <u>UP</u> TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION.

MAX. JAMB O.C. SPACING IF ANCHORING THROUGH THE FRAME PER SHEETS 3 & 4	MAX. O.C. SPACING IF ANCHORING THROUGH THE INTEGRAL FIN PER SHEET 4
APPLIES TO A, B, C OR D ANCHORS (SEE TABLE 2)	APPLIES TO E OR F ANCHORS (SEE TABLE 3)
12.67"	3.05" FOR E ANCHORS, 4" FOR F ANCHOR

TABLE 5:

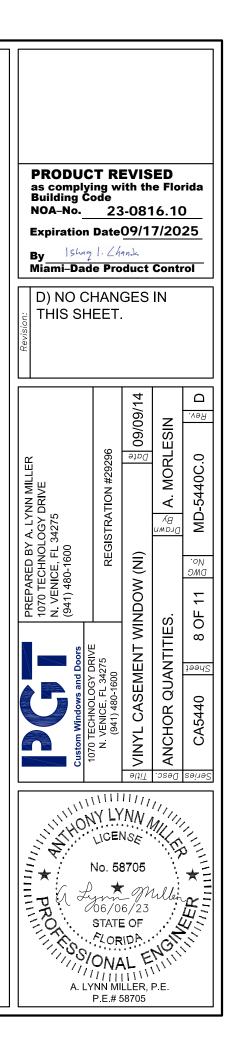
	Wir	ndow Desi	gn Pressu	re, (+/- psf)			
		1/8" T CAF	Standard Sash, Hinge &	Use this table for Glass	2,3&4			
						Reinforcement	Type:	2, 3 & 4
		3/16" T CAF	P, AIRSPACE	E, 3/16" T				
	Window		n)					
D	imensions	24	26	28	30	32	34	36
	24	+65/-114	+65/-114	+65/-114	+65/-114	+65/-114	+65/-114	+65/-114
	30	+65/-95	+65/-92.9	+65/-91.6	+65/-91.2	+65/-91.2	+65/-91.2	+65/-91.2
	36	+65/-85.5	+65/-82.4	+65/-79.9	+65/-78.2	+65/-77	+65/-76.2	+65/-76
t (in)	42	+65/-79.8	+65/-76.2	+65/-73.3	+65/-70.9	+65/-69.1	+65/-67.6	+65/-66.5
Height	48	+65/-76	+65/-72.2	+65/-69	+65/-66.3	+/-64.1	+/-62.3	+/-60.8
	54	+65/-73.3	+65/-69.3	+65/-66	+/-63.1	+/-60.8	+/-58.7	+/-57
Buck	60	+65/-71.3	+65/-67.2	+/-63.7	+/-60.8	+/-58.3	+/-56.1	+/-54.3
ш	66	+65/-69.7	+65/-65.5	+/-62	+/-59	+/-56.4	+/-54.2	+/-52.3
	72	+65/-68.4	+/-64.2	+/-60.7	+/-57.6	+/-55	+/-52.7	+/-50.7
	75	+65/-67.9	+/-63.6	+/-60.1	+/-57	+/-54.3	+/-52	+/-50

MAX. JAMB O.C. SPACING IF ANCHORING THROUGH THE FRAME PER SHEETS 3 & 4	MAX. O.C. SPACING IF ANCHORING THROUGH THE INTEGRAL FIN PER SHEET 4
APPLIES TO A, B, C OR D ANCHORS (SEE TABLE 2)	APPLIES TO E OR F ANCHORS (SEE TABLE 3)
12.67"	3.05" FOR E ANCHORS, 4" FOR F ANCHORS

OWN.







		Win	dow Desi	gn Pressu	ıre, (+/- pst	-)		Heavy-Duty Sash, Hinge &	Use this table for Glass			
1/8		T CAP, AIRS	PACE, 1/8" ⁻	Reinforcement	Type:	2&4						
	Window		Buck Width (in)									
Di	imensions	24	26	28	30	32	34	36	38	40		
	24	+65/-130	+65/-130	+65/-130	+65/-130	+65/-130	+65/-130	+65/-130	+65/-130	+65/-130		
ſ	30	+65/-130	+65/-130	+65/-130	+65/-130	+65/-130	+65/-130	+65/-130	+65/-130	+65/-130		
Ī	36	+65/-130	+65/-128.4	+65/-124.7	+65/-121.9	+65/-120	+65/-118.9	+65/-118.5	+65/-118.5	+65/-118.		
	42	+65/-124.4	+65/-118.8	+65/-114.3	+65/-110.6	+65/-107.7	+65/-105.4	+65/-103.7	+65/-102.5	+65/-101.		
t (in)	48	+65/-118.5	+65/-112.5	+65/-107.6	+65/-103.4	+65/-100	+65/-97.2	+65/-94.8	+65/-92.9	+65/-91.4		
Height	54	+65/-114.3	+65/-108.1	+65/-102.9	+65/-98.5	+65/-94.7	+65/-91.6	+65/-88.9	+65/-86.6	+65/-84.7		
	60	+65/-111.1	+65/-104.7	+65/-99.4	+65/-94.8	+65/-90.9	+65/-87.6	+65/-84.7	+65/-82.2	+65/-80		
Suck	66	+65/-108.6	+65/-102.2	+65/-96.7	+65/-92	+65/-88	+65/-84.5	+65/-81.5	+65/-78.8	+65/-76.5		
<u>م</u>	72	+65/-106.7	+65/-100.1	+65/-94.6	+65/-89.8	+65/-85.7	+65/-82.1	+65/-79	+65/-76.3	+65/-73.8		
Ī	76	+65/-105.6	+65/-99	+65/-93.4	+65/-88.6	+65/-84.4	+65/-80.8	+65/-77.7	+65/-74.9	+65/-72.4		
Ī	80	+65/-104.6	+65/-98	+65/-92.4	+65/-87.5	+65/-83.3	+65/-79.7	+65/-76.5	+65/-73.6	+65/-71.1		
ľ	84	+65/-103.7	+65/-97.1	+65/-91.4	+65/-86.6	+65/-82.4	+65/-78.7	+65/-75.4	+65/-72.6	+65/-70		

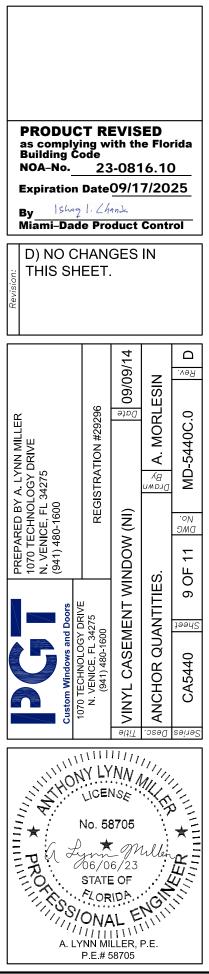
MAX. JAMB O.C. SPACING IF ANCHORING THROUGH THE FRAME PER SHEETS 3 & 4	MAX. O.C. SPA THROUGH THE INT
APPLIES TO B, C OR D ANCHORS	APPLIES T
(SEE TABLE 2)	(SEE
12.67"	

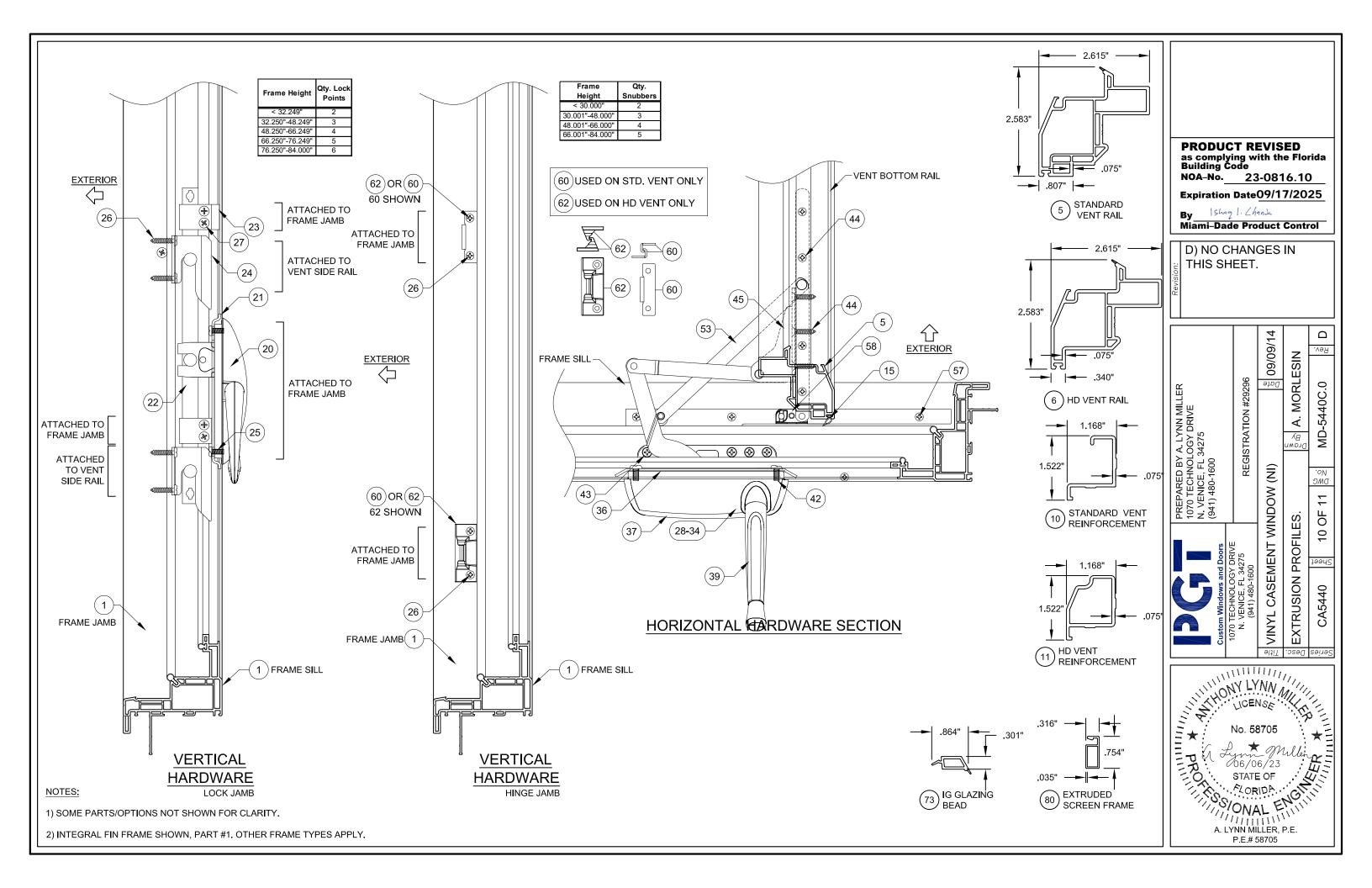
TABLE 7:

	<u>_</u> _ / :	Win	dow Desi	gn Pressu	re, (+/- pst	F)		Heavy-Duty Sash, Hinge &	Use this table for Glass	3		
								Reinforcement		3		
	Window		Buck Width (in)									
D	imensions	24	26	28	30	32	34	36	38	40		
	24	+65/-130	+65/-130	+65/-130	+65/-130	+65/-130	+65/-130	+65/-130	+65/-130	+65/-130		
	30	+65/-130	+65/-130	+65/-130	+65/-130	+65/-130	+65/-130	+65/-130	+65/-130	+65/-130		
	36	+65/-130	+65/-128.4	+65/-124.7	+65/-121.9	+65/-120	+65/-118.9	+65/-118.5	+65/-118.5	+65/-118.5		
	42	+65/-124.4	+65/-118.8	+65/-114.3	+65/-110.6	+65/-107.7	+65/-105.4	+65/-103.7	+65/-102.5	+65/-101.8		
t (in)	48	+65/-118.5	+65/-112.5	+65/-107.6	+65/-103.4	+65/-100	+65/-97.2	+65/-94.8	+65/-92.9	+65/-91.4		
Height	54	+65/-114.3	+65/-108.1	+65/-102.9	+65/-98.5	+65/-94.7	+65/-91.6	+65/-88.9	+65/-86.6	+65/-84.7		
ΚHe	60	+65/-111.1	+65/-104.7	+65/-99.4	+65/-94.8	+65/-90.9	+65/-87.6	+65/-84.7	+65/-82.2	+65/-80		
Buck	66	+65/-108.6	+65/-102.2	+65/-96.7	+65/-92	+65/-88	+65/-84.5	+65/-81.5	+65/-78.8	+65/-76.5		
В	72	+65/-106.7	+65/-100.1	+65/-94.6	+65/-89.8	+65/-85.7	+65/-80.2	+65/-76	+65/-74.2	+65/-73.6		
	76	+65/-105.6	+65/-99	+65/-93.4	+65/-88.6	+65/-83.2	+65/-75.3	+65/-71.7	+65/-70	+65/-69		
	80	+65/-104.6	+65/-98	+65/-92.4	+65/-87.5	+65/-79.9	+65/-72.5	+65/-68.2	+65/-65.6	+/-64.5		
	84	+65/-103.7	+65/-97.1	+65/-91.4	+65/-86.6	+65/-77.1	+65/-70	+/-65	+/-61.7	+/-59.7		

MAX. JAMB O.C. SPACING IF ANCHORING THROUGH THE FRAME PER SHEETS 3 & 4	MAX. O.C. SPA THROUGH THE IN
APPLIES TO B, C OR D ANCHORS	APPLIES
(SEE TABLE 2)	(SE
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NOTES: 1) BUCK DIMENSIONS SHOWN. 2) FOR SIZES NOT SHOWN, ROUND <u>UP</u> TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION.	
D.C. SPACING IF ANCHORING I THE INTEGRAL FIN PER SHEET 4	
PPLIES TO F ANCHORS (SEE TABLE 3)	
4"	
D.C. SPACING IF ANCHORING I THE INTEGRAL FIN PER SHEET 4	
PPLIES TO F ANCHORS (SEE TABLE 3) 4"	





#	8: Part #	Description	Material
1	620125	J-channel Frame	PVC
2	620126	Flange Frame	PVC
3	620127	Integral Fin Frame	PVC
4	620128	Equal Leg/Box Frame	PVC
5	620130	Standard Vent Rail	PVC
6	620173	HD Vent Rail	PVC
10	620163	Standard Vent Reinforcement (Full Length)	Alum. 6005-T5
11	620164	HD Vent Reinforcement (Full Length)	Alum. 6005-T5
15	6TP247	Weatherstrip, 65 +/-1 duro.	Flex PVC
-	-		
20	7024	Multi-Point Lock	C Steel
21	7011	Multi-Point Lock Flat Support Plate	C Steel
22	varies with size	Tie Bar	C Steel
23	20222	Tie Bar Guide	C Steel
24	7014	Multi-Lock Keeper	C Steel
25	71024X0562PPFX	#10-24 x 9/16" Phl. PH Machine Screw	SS
26	78X34PPTX410	#8 x 3/4" Phl. PH Tek	SS
27	78X112PSAX	#8 x 1-1/2" Phl. FH Tek	SS
28	20249/50	Dyad Operator (narrow vent < or = to 24"), L/R	C Steel
29	20249X/50X	Dyad Operator (narrow vent < or = to $24"$), L/R	SS
30	20251/52	Dual Arm Operator (wide vent >24"), L/R	C Steel
31	20251X/52X	Dual Arm Operator (wide vent >24'), L/R	SS
32	7033	Dual Arm Operator Track	SS
33	20241/42	HD Dual Arm Operator, L/R	C Steel
34	20241/42 20241X/42X	HD Dual Arm Operator, L/R	SS
-			
35	20244	HD Operator Track	SS
36	7031	Operator Backing Plate	C Steel
37	20253	Operator Cover	
38	7030	Operator Gasket White	Neoprene
39		Standard Handle	C Steel
40	7018	Folding Handle	C Steel
41	7019	T-Handle (Thumbturn)	C Steel
42	78X12PPMSX	#8-32 x 1/2" Phl. PH Machine Screw	SS
43	78S34PFAX	#8 x 3/4" Phl. FH	SS
44	78X1PSDX	#8 x 1" Phl. FH Tek	SS
45	7MC7032LH/RH	Stud Bracket, L/R	C Steel
46	7MC7032LHX/RHX	Stud Bracket.L/R	SS
47	20243	HD Stud Bracket, non-handed	C Steel
48	20243X	HD Stud Bracket, non-handed	SS
49	73337LH/RH	Egress Hinge, L/R	C Steel
50	73337LHX/RHX	Egress Hinge, L/R	SS
51	73338LH/RH	Washable Hinge, L/R	C Steel
52	73338LHX/RHX	-	SS
		Washable Hinge, L/R HD Washable Hinge, L/R	
53	20245/6	3	C Steel
54	20245X/6X	HD Washable Hinge, L/R	SS
55	720247/8	HD Washable Hinge Track, L/R	C Steel
56	720247X/8X	HD Washable Hinge Track, L/R	SS
57	78X34FPAX	#8 x 3/4" Phl. FH w/ #7 Head	SS
58	731877	Operator Slide	Plastic
60	73346	Snubber	C Steel
62	720256	HD Snubber	Die-cast Zinc
63	78X12PPSMSX	#8 x 1/2" Phl. PH	SS
64	20187	Anchor Hole Plug	PVC
73	720136	IG Glazing Bead	PVC
74		Backbedding, GE 7700 or Dow 791 or Dow 983	Silicone
78	71646N	Setting Block (7/8" x 1" x 1/8"), 85 +/- 5 duro.	EPDM
80	67006	Extruded Screen Frame	
84	47040	Screen Corner Key	+
		· · · · · · · · · · · · · · · · · · ·	+
85	7CASPM	Tension Spring	
86	61816C34	Screen Cloth	┫
87	61635/24	.140" Screen Spline (Machine/Hand Rolled)	
90	620160A	Frame Assembly Tube	Alum. 6005-T5
91	620177	Shallow, Flush Cap	PVC
92	620178	Deep, Flush Cap	PVC
93	620132	Frame Assembly Tube End Cap	PVC

