



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

MIAMI-DADE COUNTY  
PRODUCT CONTROL SECTION  
11805 SW 26 Street, Room 208  
T (786) 315-2590 F (786) 315-2599  
[www.miamidade.gov/economy](http://www.miamidade.gov/economy)

**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 "HR-810" Aluminum Horizontal Rolling Window - L.M.I.**

**APPROVAL DOCUMENT:** Drawing No. MD-HR810-LA, titled "Horizontal Roller Window Details-LM", sheets 1 through 6 of 6, dated 05/05/12, with revision C dated 03/27/17, 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: Large and Small Missile Impact Resistant**

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

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

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

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

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

This NOA **revises** and **renews** NOA# 16-0714.10 and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by **Jorge M. Plasencia, P.E.**



*Jorge M. Plasencia*  
8/20/17

NOA No. 17-0411.03  
Expiration Date: November 01, 2022  
Approval Date: August 31, 2017  
Page 1

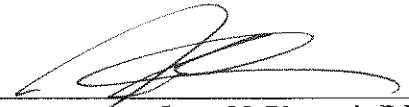
**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. Manufacturer's die drawings and sections.  
*(Submitted under NOA No. 12-0718.06)*
2. Drawing No. **MD-HR810-LA**, titled "Horizontal Roller Window Details - LM", sheets 1 through 6 of 6, dated 05/05/12, with revision C dated 03/27/17, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.

**B. TESTS**

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® NXT™ spacer system and XL Edge™ 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. 16-0714.10)*
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 a series HR-810 aluminum horizontal roller window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-7421**, dated 06/21/13, signed and sealed by Jorge A. Naya, Jr., P.E.  
*(Submitted under NOA No. 14-0320.04)*
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) Small Missile Impact Test per FBC, TAS 201-94  
6) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
7) Forced Entry Test, per FBC 2411.3.2.1, and TAS 202-94  
along with marked-up drawings and installation diagram of an aluminum horizontal sliding window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-6890**, dated 06/04/12, signed and sealed by Marlin D. Brinson, P.E.  
*(Submitted under NOA No. 12-0718.06)*

  
\_\_\_\_\_  
Jorge M. Plasencia P.E.  
Product Control Unit Supervisor  
NOA No. 17-0411.03  
Expiration Date: November 01, 2022  
Approval Date: August 31, 2017

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

**C. CALCULATIONS**

1. Anchor calculations and structural analysis, complying with **FBC-5<sup>th</sup> Edition (2014) and FBC-6<sup>th</sup> edition (2017)**, dated 03/31/17, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
2. Glazing complies with **ASTM E1300-09**.

**D. QUALITY ASSURANCE**

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

**E. MATERIAL CERTIFICATIONS**

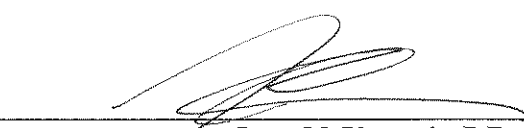
1. Notice of Acceptance No. **14-0916.11** issued to **Kuraray America, Inc.** for their "**Kuraray SentryGlas® (Clear and White) Glass Interlayers**" dated 06/25/15, expiring on 07/04/18.

**F. STATEMENTS**

1. Statement letter of conformance, complying with **FBC-5<sup>th</sup> Edition (2014) and FBC-6<sup>th</sup> edition (2017)**, dated 08/02/17, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
2. Statement letter of no financial interest and independence, issued by manufacture, dated 03/31/17, signed and sealed by A. Lynn Miller, P.E.
3. Proposal No. **16-1372B** issued by the Product Control Section, dated 11/09/16, signed by Manuel Perez, P.E.
4. Proposal No. **16-0125** issued by the Product Control Section, dated 03/09/16, signed by Ishaq Chanda, P.E.  
*(Submitted under previous NOA No. 16-0714.10)*
5. Proposal approved by Product Control Section, dated 04/30/13, signed by Jaime Gascon, P.E., Supervisor, Product Control Section.  
*(Submitted under NOA No. 14-0320.04)*
6. Laboratory compliance letter for Test Report No. **FTL-6890**, issued by Fenestration Testing Laboratory, Inc., dated 06/04/12, signed and sealed by Marlin D. Brinson, P.E.  
*(Submitted under NOA No. 12-0718.06)*

**G. OTHERS**


1. Notice of Acceptance No. **16-0714.10**, issued to PGT Industries, Inc. for their Series "HR-810" Aluminum Horizontal Rolling Window - L.M.I., approved on 08/25/16 and expiring on 11/01/17.

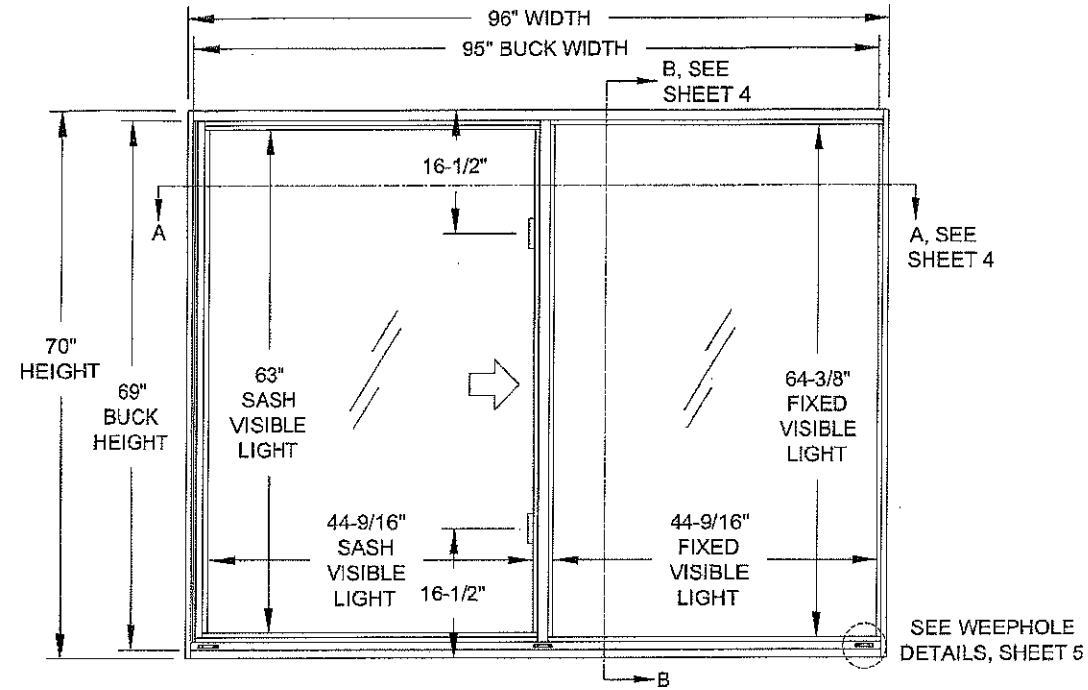
  
\_\_\_\_\_  
Jorge M. Plasencia, P.E.  
Product Control Unit Supervisor  
NOA No. 17-0411.03  
Expiration Date: November 01, 2022  
Approval Date: August 31, 2017

**GENERAL NOTES: SERIES 810 IMPACT- RESISTANT HORIZONTAL ROLLER WINDOW**

- 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 ARE NOT 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, SEE TABLE 7, SHEET 4.
- 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 TO PROPERLY TRANSFER LOADS TO THE STRUCTURE. WOOD BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD.
- 5) ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO. USE ANCHORS OF SUFFICIENT EMBEDMENT AS SPECIFIED ON TABLE 7, SHEET 4. NARROW JOINT SEALANT IS USED ON ALL FOUR CORNERS OF THE FRAME. 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) 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 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) REFERENCES: TEST REPORTS FTL-6890, FTL-7421; CURRENT ELCO ULTRACON NOA; CURRENT ELCO CRETEFLEX NOA; ANSII/AF&PA NDS FOR WOOD CONSTRUCTION AND ADM ALUMINUM DESIGN MANUAL.
- 10) I.G. GLASS CAPS TO BE TEMPERED WHEN INSTALLED IN LOCATIONS OVER 30FT IN THE HVHZ.

DESIGN PRESSURE RATING	IMPACT RATING
VARIABLES, SEE TABLE 1, THIS SHEET	RATED FOR LARGE & SMALL MISSILE IMPACT RESISTANCE

**PRODUCT REVISED**  
 as complying with the Florida Building Code  
 NOA-No. **17-0411.03**  
 Expiration Date **11/01/2022**  
 By   
 Miami-Dade Product Control



MAX. DIMENSIONS OF HORIZONTAL ROLLER, XO (OX SIM.)

Drawn By: <b>J ROSOWSKI</b>	Drawn Date: <b>05/05/12</b>
Updated Anchor Type & Quantity per FBC 2017:	Revision:
Date: <b>03/27/17</b>	Date:
Revised By: <b>JR</b>	Revised By:
Description: <b>GENERAL NOTES &amp; ELEVATION</b>	
Title: <b>HORIZONTAL ROLLER WINDOW DETAILS - LM</b>	
Series/Model: <b>HR-810</b>	Scale: <b>NTS</b>
Sheet: <b>1 OF 6</b>	Rev: <b>C</b>

TABLE 1:

Overall Window Width	Maximum Design Pressure (+/- psf)										
	Overall Window Height / Glass Type										
	38-3/8"		44"		50-5/8"		63"		67"		70"
	G1-G3	G4-G6	G1-G3	G4-G6	G1-G3	G4-G6	G1-G3	G4-G6	G1-G3	G1-G3	G1-G3
32.9"	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-128	+90/-128	+90/-120	+90/-116	+90/-116
37"	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130
53-1/8"	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+77.8/-116.8	+73.7/-110.5	+73.7/-110.5
61"	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+70.2/-105.4	+66.3/-99.5	+66.3/-99.5
64"	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+67.9/-101.8	+64.1/-96.1	+64.1/-96.1
67"	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+65.8/-98.7	+62/-93	+62/-93
70"	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+63.9/-95.8	+60.2/-90.3	+60.2/-90.3
74"	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+61.7/-92.5	+58/-87	+58/-87
80"	+90/-130		+90/-130		+90/-130		+64.4/-96.6		+58.8/-88.2	+55.2/-82.9	+55.2/-82.9
84"	+90/-130		+90/-130		+89.7/-130		+62.8/-94.2		+57.2/-85.8	+53.7/-80.5	+53.7/-80.5
90"	+90/-130		+90/-130		+88.2/-130		+60.8/-91.1		+55.2/-82.8	+51.7/-77.5	+51.7/-77.5
96"	+90/-130		+90/-130		+87.4/-128.6		+59.2/-88.7		+53.6/-80.3	+50/-75	+50/-75

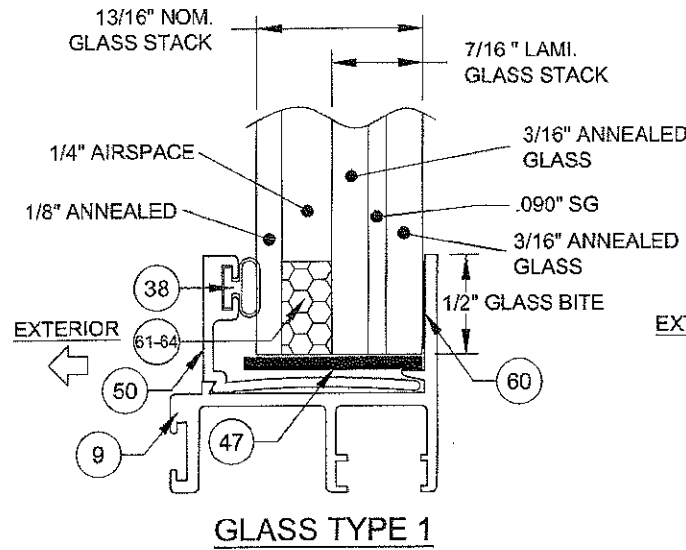
SEE GLASS TYPE DESCRIPTIONS, SHEET 2.

GENERAL NOTES.....	1
ELEVATION (SIZE).....	1
DESIGN PRESSURES.....	1
GLASS TYPES.....	2
ELEVATION (ANCHORS).....	3
ANCHOR SPACING/QUANTITIES...	3
ANCHOR SPECIFICATIONS.....	4
INSTALLATION.....	4
ASSEMBLY DETAILS.....	5
EXTRUSION PROFILES.....	6
PARTS LIST.....	6

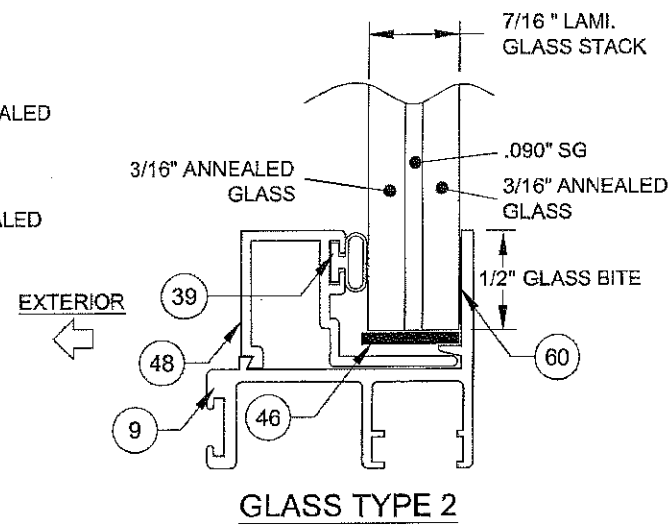
CODES / STANDARDS USED:

- 2017 FLORIDA BUILDING CODE (FBC), 6TH EDITION
- 2014 FLORIDA BUILDING CODE (FBC), 5TH EDITION
- ASTM E1300-09
- ANSII/AF&PA NDS-2015 FOR WOOD CONSTRUCTION
- ALUMINUM DESIGN MANUAL, ADM-2015
- AISI S100-12
- AISC 360-10

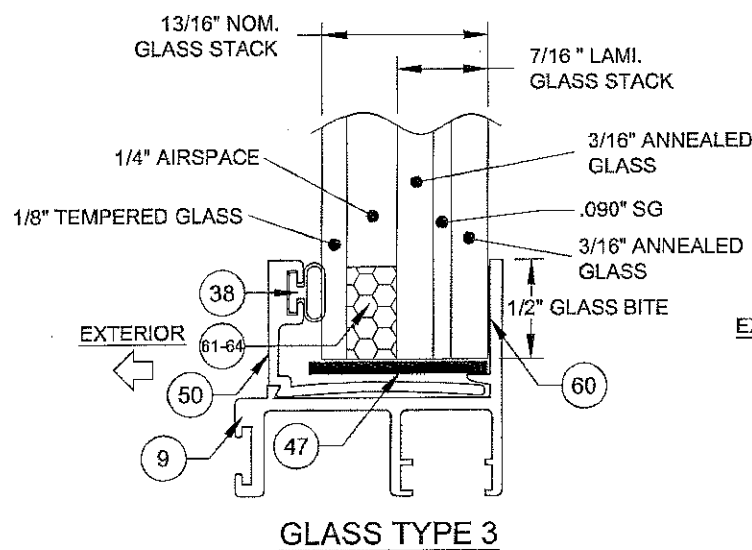
A. LYNN MILLER, P.E.  
 P.E.# 58705



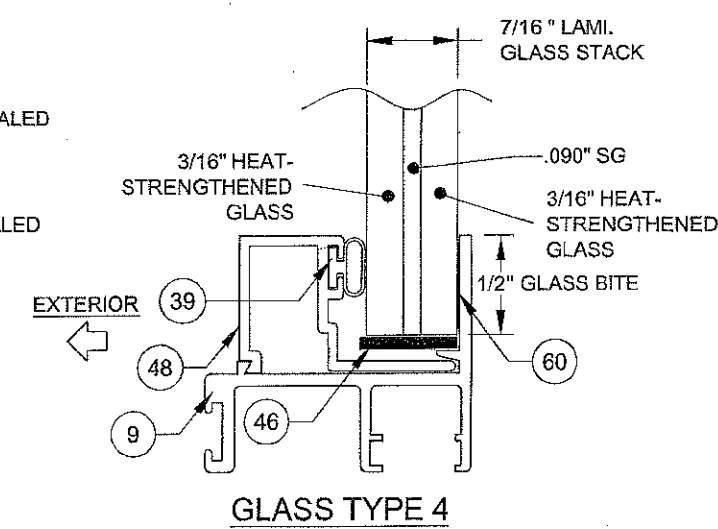
GLASS TYPE 1



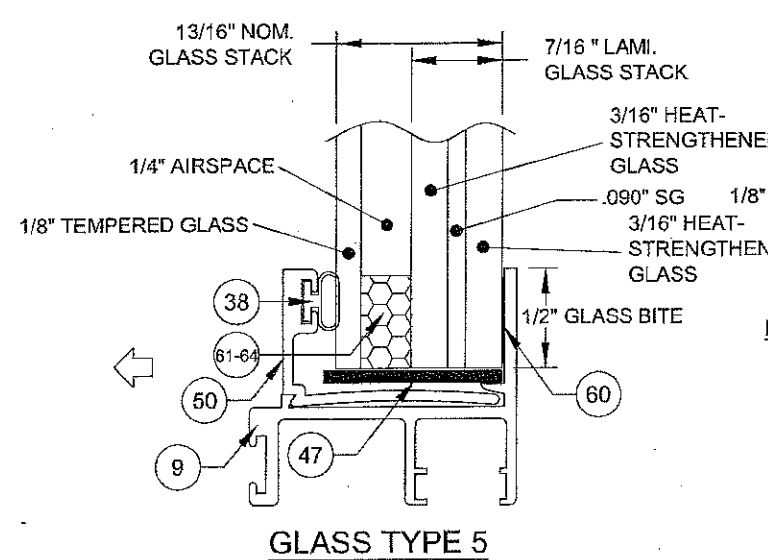
GLASS TYPE 2



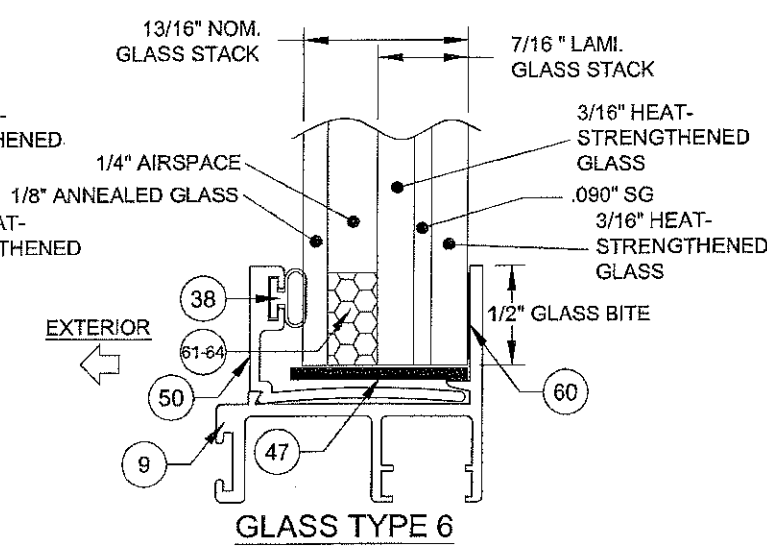
GLASS TYPE 3



GLASS TYPE 4



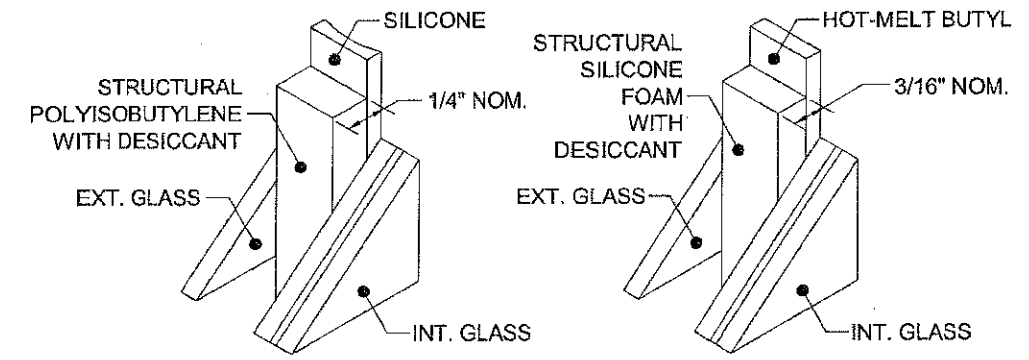
GLASS TYPE 5



GLASS TYPE 6

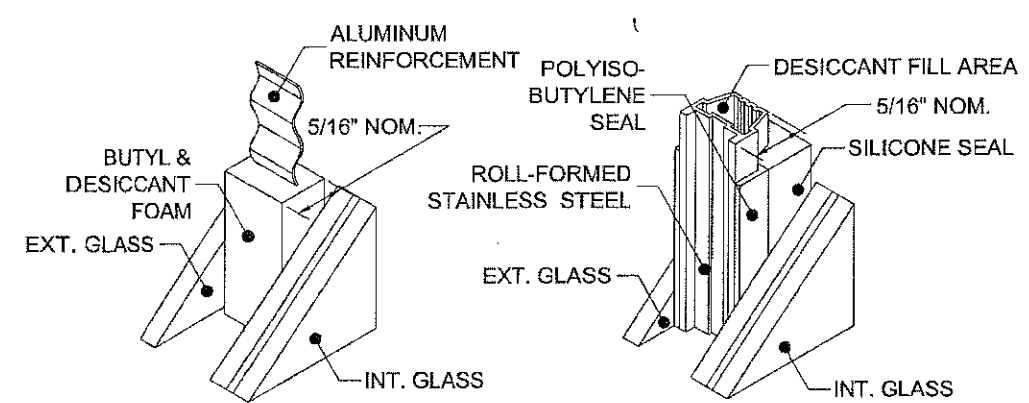
TABLE 2:

Glass Type	Description (Listed from Exterior to Interior)
G1	13/16" Lami IG: (1/8" Annealed Cap - 1/4" Airspace - 3/16" Annealed - 0.90" SG - 3/16" Annealed )
G2	7/16" Lami: (3/16" Annealed - 0.90" SG - 3/16" Annealed)
G3	13/16" Lami IG: (1/8" Tempered - 1/4" Airspace - 3/16" Annealed - 0.90" SG - 3/16" Annealed )
G4	7/16" Lami: (3/16" Heat Strengthened - 0.90" SG - 3/16" Heat Strengthened)
G5	13/16" Lami IG: (1/8" Tempered Cap - 1/4" Airspace - 3/16" Heat Strengthened - 0.90" SG - 3/16" Heat Strengthened)
G6	13/16" Lami IG: (1/8" Annealed Cap - 1/4" Airspace - 3/16" Heat Strengthened - 0.90" SG - 3/16" Heat Strengthened)



61 KODISPACE 4SG TPS

62 SUPER SPACER NXT



63 DURASEAL SPACER

64 XL EDGE SPACER

TABLE 3:

Part #	Description	Material
61	Kommerling 4SG TPS Spacer System	See this Sheet for Materials
62	Quanex Super Spacer nXT with Hot Melt Butyl	
63	Quanex Duraseal Spacer	
64	Cardinal XL Edge Spacer	

REFERENCE TEST REPORTS: FTL-8717, 8968 & 8970

**PRODUCT REVISED**  
as complying with the Florida Building Code  
NOA-No. **17-0411.03**  
Expiration Date **11/01/2022**  
By *[Signature]*  
Miami-Dade Product Control

Drawn By: **J ROSOWSKI**  
Drawn Date: **05/05/12**  
Revised By: **JR**  
Revised Date: **03/27/17**  
Description: **GLAZING DETAILS**  
Title: **HORIZONTAL ROLLER WINDOW DETAILS - LM**  
Series/Model: **HR-810**  
Scale: **NTS**  
Sheet: **2 OF 6**  
Drawing No.: **MD-HR810-LA**  
Rev: **C**

**PG**  
1070 TECHNOLOGY DRIVE  
N. VENICE, FL 34275  
(941) 480-1600  
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CERT. OF AUTH. #29296

ANTHONY LYNN MILLER  
LICENSE  
No. 58705  
3/31/17  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER  
A. LYNN MILLER, P.E.  
P.E.# 58705

GLAZING NOTES:  
SG = .090" SENTRYGLAS® BY KURARAY AMERICA, INC.

TABLE 4:

Anchors Quantities Required at Head & Sill, Fixed Lite and Sash																		
Overall Frame Width	Overall Frame Height																	
	38-3/8"			44"			50-5/8"			63"			67"			70"		
	Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group A	Anchor Group B	Anchor Group C
32.9"	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37"	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
53-1/8"	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1
61"	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1
64"	2	2	1	2	2	1	2	2	1	2	2	1	2	1	1	2	1	1
67"	2	2	1	2	2	1	2	2	1	2	2	1	2	1	1	2	1	1
70"	3	2	1	3	2	1	3	2	1	3	2	1	2	1	1	2	1	1
74"	3	2	1	3	2	1	3	2	1	3	2	1	2	1	1	2	1	1
80"	3	2	2	3	2	2	3	2	2	3	2	1	2	2	1	2	2	1
84"	3	2	2	4	2	2	4	2	2	3	2	1	2	2	1	2	2	1
90"	4	3	2	4	3	2	4	3	2	3	2	1	3	2	1	3	2	1
96"	4	3	2	4	3	2	4	3	2	3	2	2	3	2	1	3	2	1

TABLE 5:

Anchors Quantities Required at Jamb																		
Overall Frame Width	Overall Frame Height																	
	38-3/8"			44"			50-5/8"			63"			67"			70"		
	Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group A	Anchor Group B	Anchor Group C
32.9"	2	2	2	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4
37"	2	2	2	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4
53-1/8"	2	2	2	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4
61"	2	2	2	3	3	3	3	3	3	4	3	3	4	4	4	4	4	4
64"	2	2	2	3	3	3	3	3	3	4	4	3	4	4	4	4	4	4
67"	2	2	2	3	3	3	3	3	3	4	4	3	4	4	4	4	4	4
70"	2	2	2	3	3	3	3	3	3	4	4	3	4	4	4	4	4	4
74"	2	2	2	3	3	3	3	3	3	4	4	3	4	4	4	4	4	4
80"	2	2	2	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4
84"	2	2	2	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4
90"	2	2	2	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4
96"	2	2	2	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4

- NOTES:
- 1) USE THIS TABLE FOR ALL WINDOWS PER THE ELEVATION ON SHEET 1. DIMENSIONS SHOWN ARE TIP-TO-TIP.
  - 2) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION SHOWN ON THE TABLE.
  - 3) I.G. GLASS CAPS TO BE TEMPERED WHEN INSTALLED IN LOCATIONS OVER 30' IN THE HVHZ.
  - 4) FOR BUCK DIMENSIONS, SUBTRACT 1" FROM THE OVERALL DIMENSIONS SHOWN.
  - 5) SEE TABLE 7, SHEET 4 FOR ANCHOR GROUP DESCRIPTIONS.

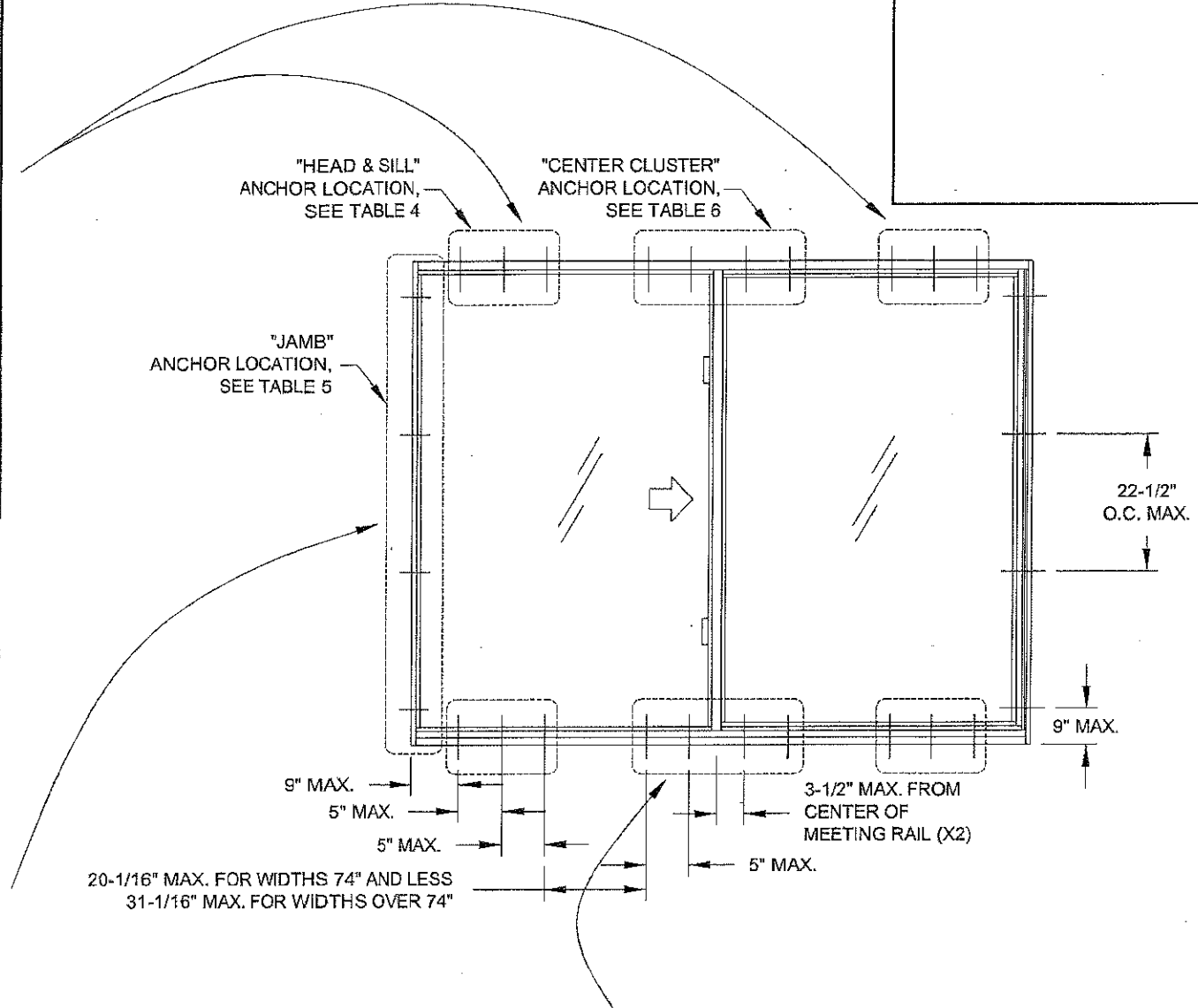


TABLE 6:

Anchors Quantities Required at Head & Sill Clusters																		
Overall Frame Width	Overall Frame Height																	
	38-3/8"			44"			50-5/8"			63"			67"			70"		
	Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group A	Anchor Group B	Anchor Group C
32.9"	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
37"	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
53-1/8"	4	4	4	4	4	4	4	4	4	6	4	4	6	4	4	6	4	4
61"	4	4	4	4	4	4	4	4	4	6	4	4	6	4	4	6	4	4
64"	4	4	4	4	4	4	4	4	4	6	4	4	6	4	4	6	4	4
67"	4	4	4	4	4	4	4	4	4	6	4	4	6	4	4	6	4	4
70"	4	4	4	4	4	4	4	4	4	6	4	4	6	4	4	6	4	4
74"	4	4	4	4	4	4	6	4	4	6	4	4	6	4	4	6	4	4
80"	4	4	4	4	4	4	6	4	4	6	4	4	6	4	4	6	4	4
84"	4	4	4	4	4	4	6	4	4	6	4	4	6	4	4	6	4	4
90"	4	4	4	4	4	4	6	4	4	6	4	4	6	4	4	6	4	4
96"	4	4	4	4	4	4	6	4	4	6	4	4	6	4	4	6	4	4

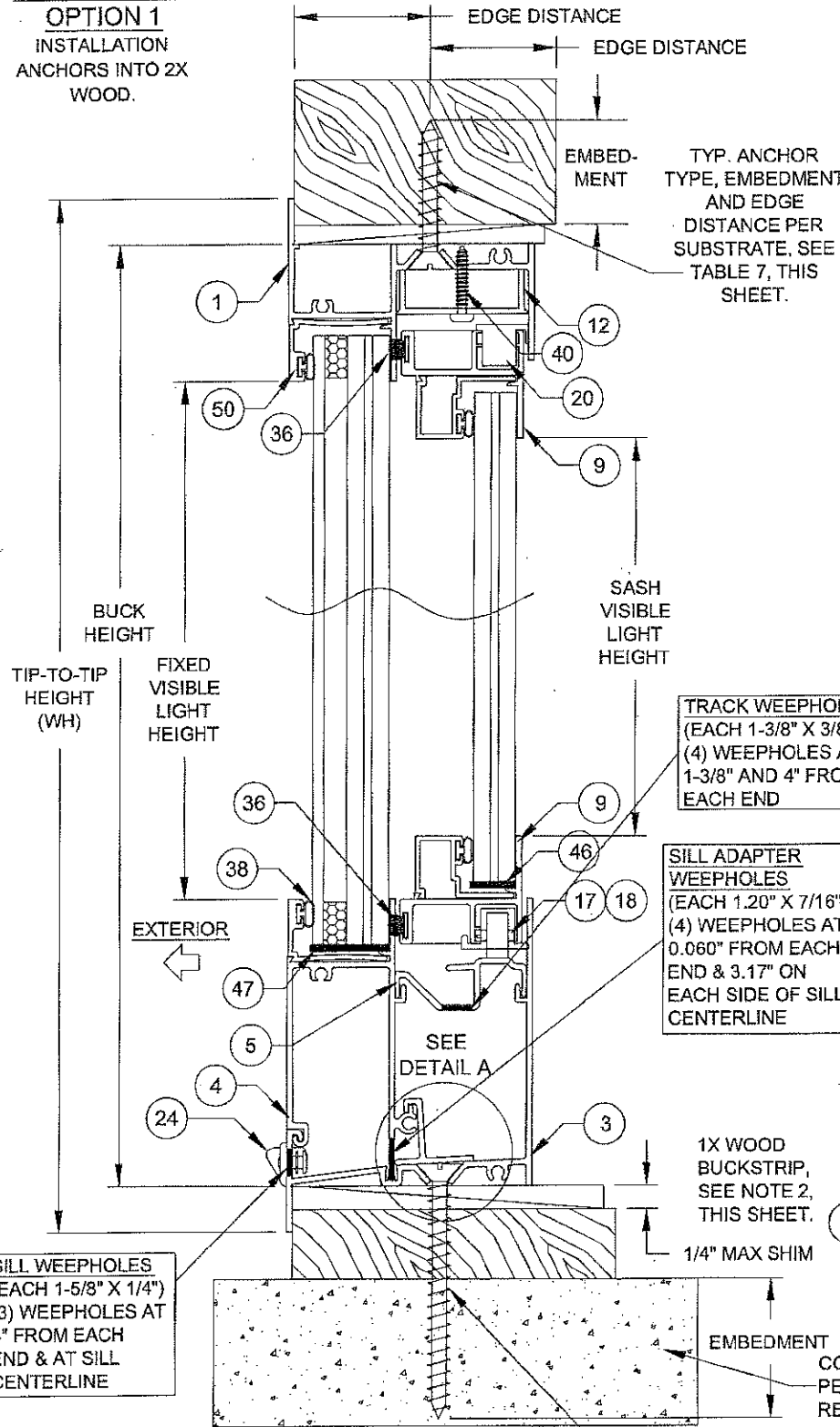
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NOA-No. **17-0411.03**  
Expiration Date **11/01/2022**  
By   
Miami-Dade Product Control

Drawn By: **J ROSOWSKI**  
Drawn Date: **05/05/12**  
Revised By: **JR**  
Revised Date: **03/27/17**  
Description: **ANCHOR QUANTITIES AND SPACING**  
Title: **HORIZONTAL ROLLER WINDOW DETAILS - LM**  
Series/Model: **HR-810**  
Scale: **NTS**  
Sheet: **3 OF 6**  
Drawing No.: **MD-HR810-LA**  
Rev: **C**

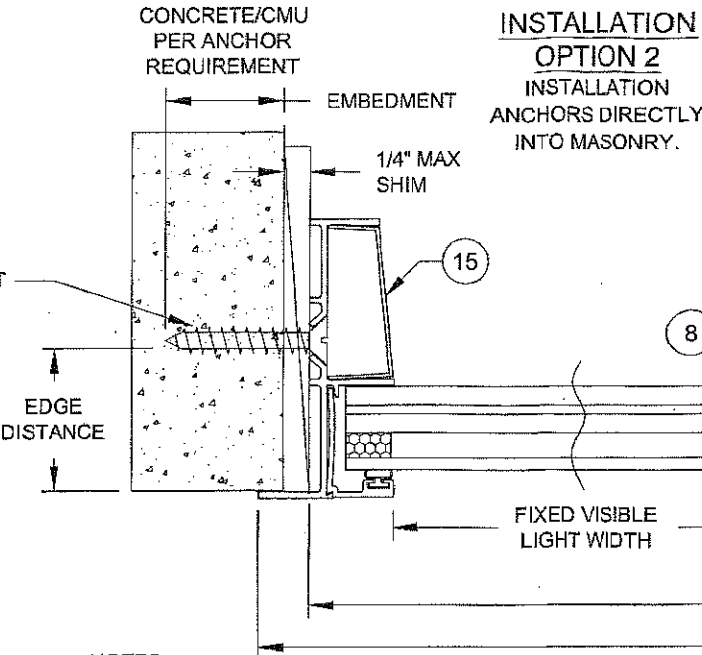
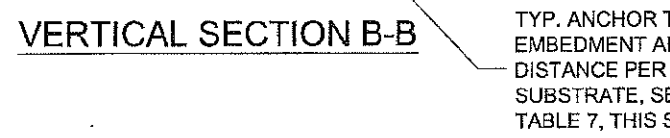
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ANTHONY LYNN MILLER  
LICENSE  
No. 58705  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER  
A. LYNN MILLER, P.E.  
P.E.# 58705

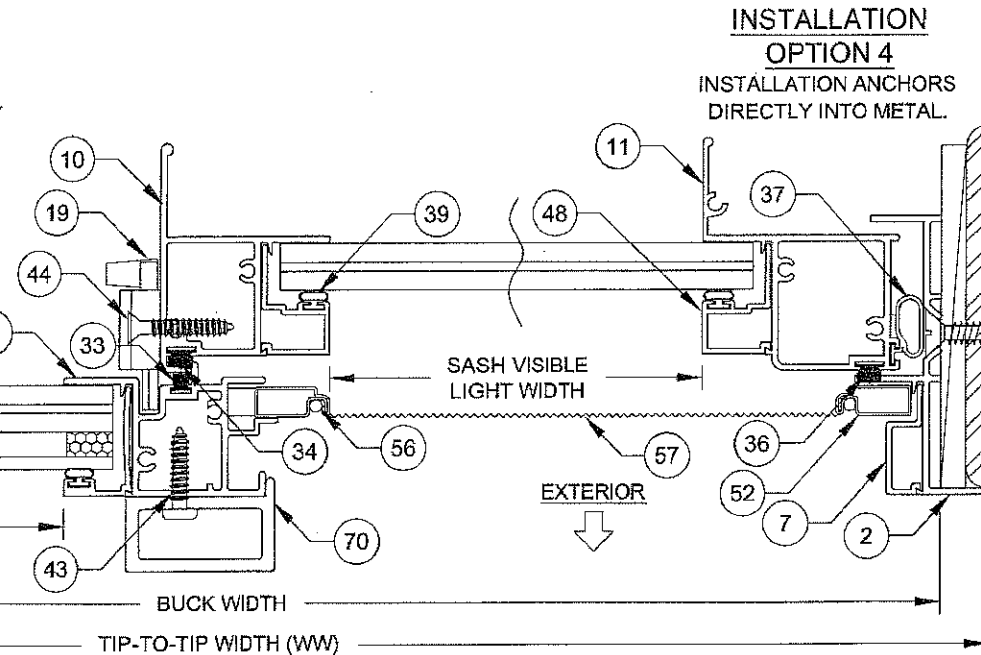
**INSTALLATION OPTION 1**  
INSTALLATION ANCHORS INTO 2X WOOD.



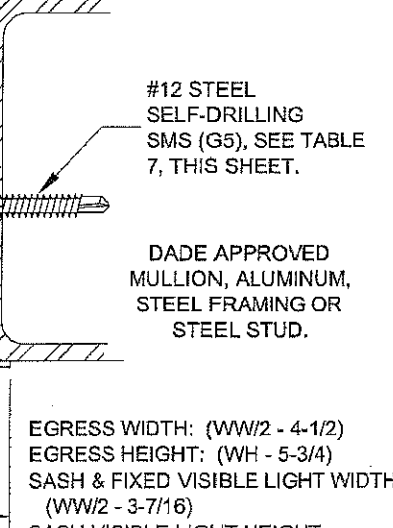
**INSTALLATION OPTION 3**  
INSTALLATION ANCHORS THROUGH 1X BUCKSTRIP INTO MASONRY.



**INSTALLATION OPTION 2**  
INSTALLATION ANCHORS DIRECTLY INTO MASONRY.



**INSTALLATION OPTION 4**  
INSTALLATION ANCHORS DIRECTLY INTO METAL.

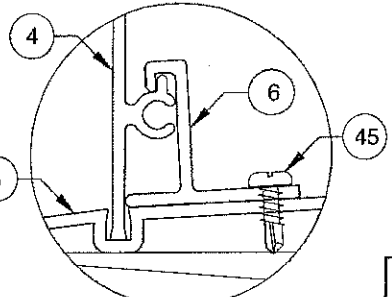


**HORIZONTAL SECTION A-A**

**NOTES:**  
1) USE ONLY SUBSTRATE-APPROPRIATE ANCHORS LISTED ON TABLE 7 OF THIS SHEET. FOLLOW EMBEDMENT AND EDGE DISTANCE LIMITS. ANY INSTALLATION OPTION SHOWN MAY BE USED ON ANY SIDE OF THE WINDOW.  
2) ALL WOOD BUCKS LESS THAN 1-1/2" THICK ARE TO BE CONSIDERED 1X INSTALLATIONS. 1X WOOD BUCKS ARE OPTIONAL. UNIT MAY BE 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 TO PROPERLY TRANSFER LOADS TO THE STRUCTURE. WOOD BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD. MAXIMUM SHIM THICKNESS TO BE 1/4".

**TRACK WEEPHOLES**  
(EACH 1-3/8" X 3/8")  
(4) WEEPHOLES AT 1-3/8" AND 4" FROM EACH END

**SILL ADAPTER WEEPHOLES**  
(EACH 1.20" X 7/16")  
(4) WEEPHOLES AT 0.060" FROM EACH END & 3.17" ON EACH SIDE OF SILL CENTERLINE



**DETAIL A:**  
6" WINDLOAD ADAPTER  
INSTALL WITH (4) #12 X 3/8" SMS @ 3/4" FROM EACH END AND 1-1/2" O.C.

TABLE 7:

Anchor Group	Anchor Type	Substrate	Min. Edge Distance	Min. O.C. Distance	Min. Embedment or Metal Thickness
A	#12 Steel SMS (Gr. 5), or #12 410 SS SMS, (min. of 3 threads beyond metal substrate)	Southern Pine (SG = 0.55)	9/16"	7/8"	1-3/8"
		6063-T5 Aluminum	3/8"	9/16"	0.071" (20 Ga)
		A36 Steel	3/8"	9/16"	0.063"
		Gr. 33 Steel Stud	3/8"	9/16"	0.045" (18 Ga)
B	1/4" Elco UltraCon®	Hollow Block (ASTM C90)	1-3/4"	6"	1-1/4"
		Concrete (min. 2.85 ksi)	1"	4"	1-3/8"
	5/16" Elco UltraCon®	Hollow Block (ASTM C90)	3-1/8"	6"	1-1/4"
		Concrete (min. 3.5 ksi)	1-1/4"	5"	1"
1/4" 410 SS Elco CreteFlex®	Hollow Block (ASTM C90)	2-1/2"	5"	1-1/4"	
	Concrete (min. 3.35 ksi)	1"	5"	1-3/4"	
C	1/4" Elco UltraCon®	Hollow Block (ASTM C90)	2-1/2"	6"	1-1/4"
		Concrete (min. 3.5 ksi)	1-1/4"	5"	1-3/4"
	5/16" Elco UltraCon®	Concrete (min. 3.5 ksi)	2-3/16"	5"	1"
	1/4" 410 SS Elco CreteFlex®	Concrete (min. 3.35 ksi)	2-1/2"	4"	1-3/4"

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) HOLLOW BLOCK INSTALLATION IS LIMITED TO JAMBS ONLY.

Min. Metal Properties, ksi		
	Fu	Fy
#12 Steel SMS (Gr. 5)	120	92
#12 410 SS SMS	110	90
1/4" & 5/16" Elco UltraCon®	177	155
1/4" 410 SS Elco CreteFlex®	189.7	127.4
6063-T5 Aluminum	22	16
A36 Steel	58	36
Gr. 33 Steel Stud	45	33

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Miami-Dade Product Control

**ANTHONY LYNN MILLER**  
LICENSE  
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3/31/17  
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PROFESSIONAL ENGINEER  
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Revised By: <b>JR</b>	Date: <b>03/27/17</b>	UPDATED ANCHOR TABLE
Revised By:	Date:	Revision:

Description: **INSTALLATION DETAILS**

Title: **HORIZONTAL ROLLER WINDOW DETAILS - LM**

Series/Model: **HR-810** Scale: **NTS** Sheet: **4 OF 6**

Drawn By: **J ROSOWSKI**

Date: **05/05/12**

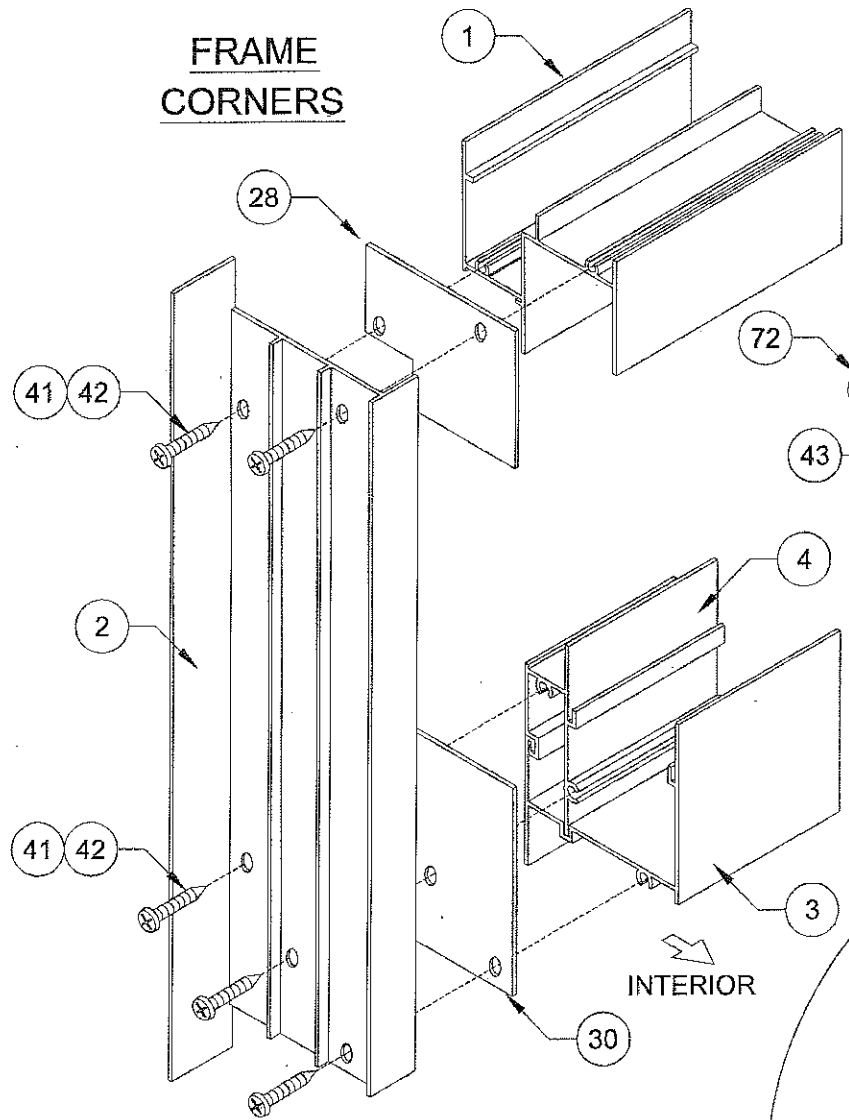
Drawing No. **MD-HR810-LA** Rev: **C**

**ASSEMBLY DETAILS**

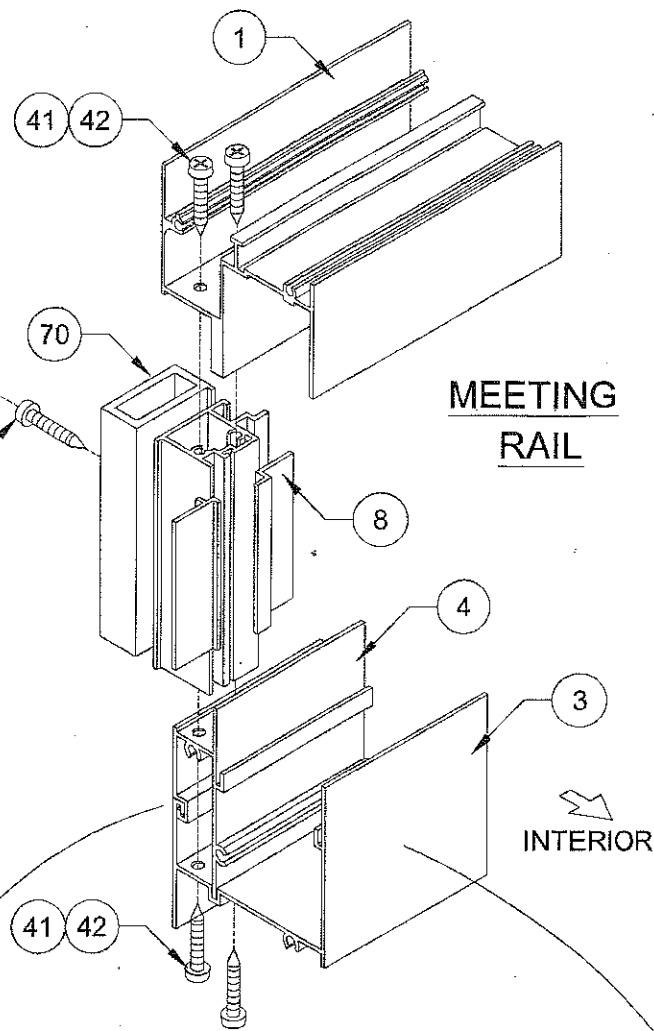
ALL DETAILS SHOWN FROM THE INTERIOR

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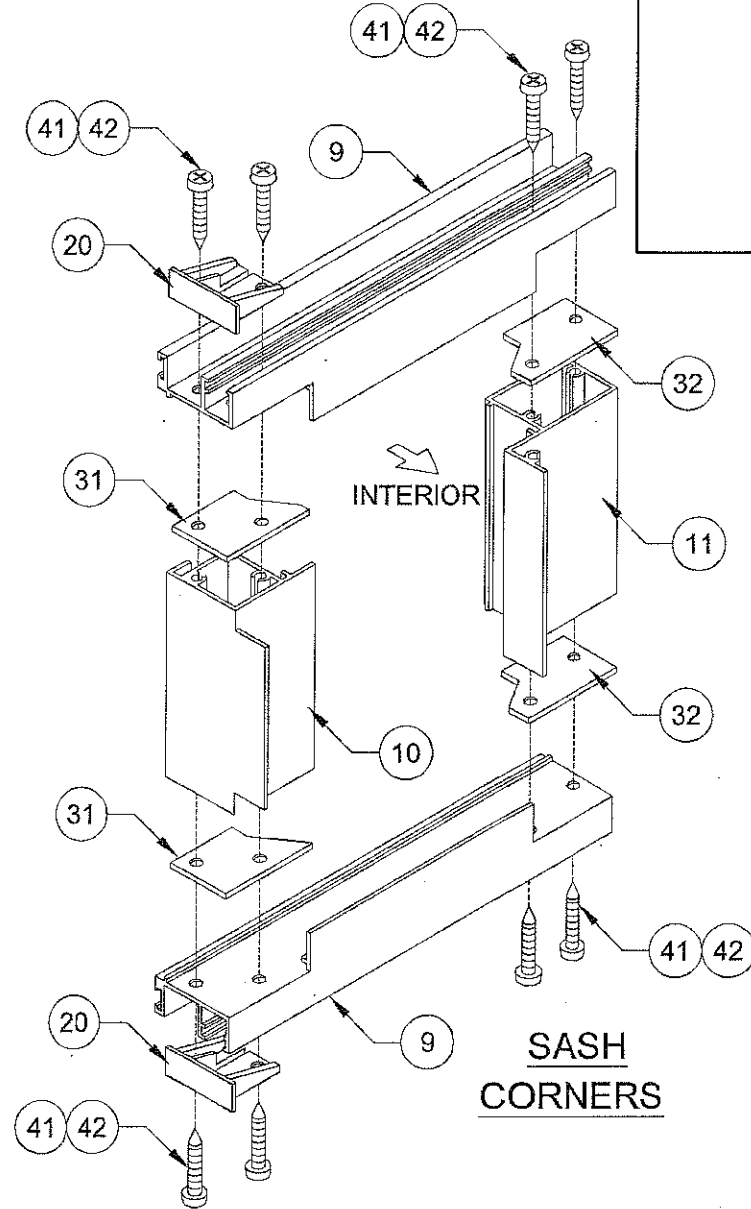
**FRAME  
CORNERS**



**MEETING  
RAIL**

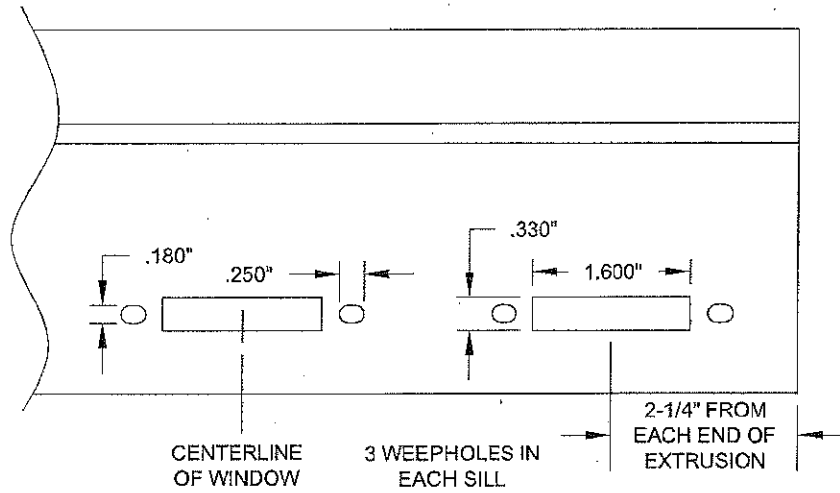
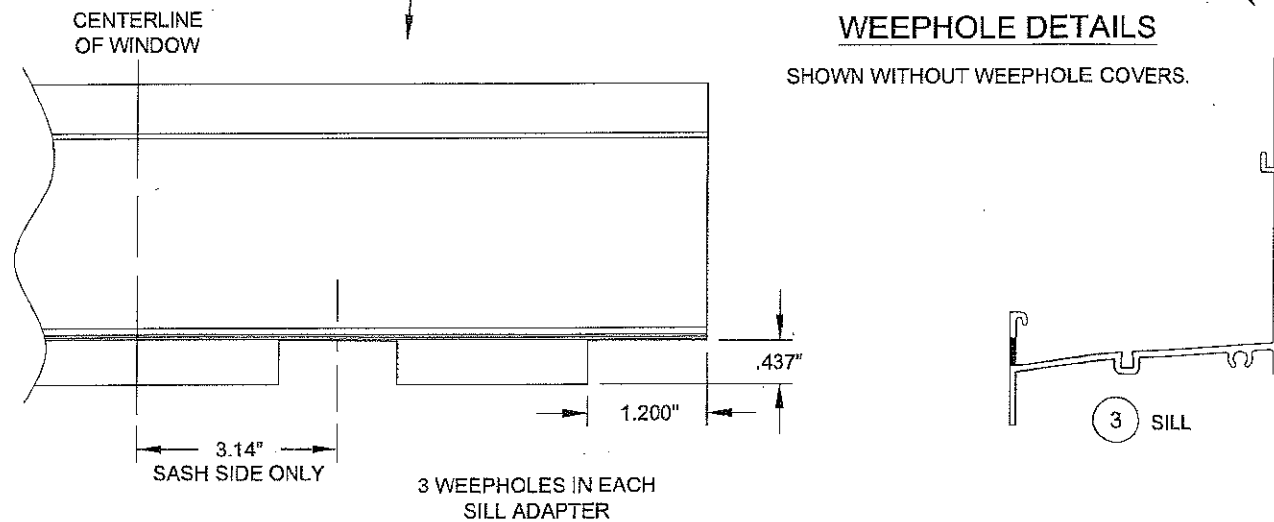


**SASH  
CORNERS**



**WEEPHOLE DETAILS**

SHOWN WITHOUT WEEPHOLE COVERS.



Drawn By: **J ROSOWSKI**

Drawn Date: **05/05/12**

NO CHANGES THIS SHEET.

Revision:

Date: **03/27/17**

Date:

Revised By: **JR**

Revised By:

Description: **ASSEMBLY & WEEPHOLE DETAILS**

Title: **HORIZONTAL ROLLER WINDOW DETAILS - LM**

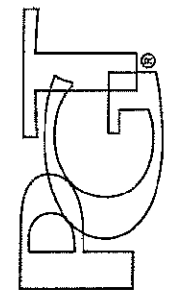
Series/Model: **HR-810**

Scale: **NTS**

Sheet: **5 OF 6**

Drawing No. **MD-HR810-LA**

Rev: **C**



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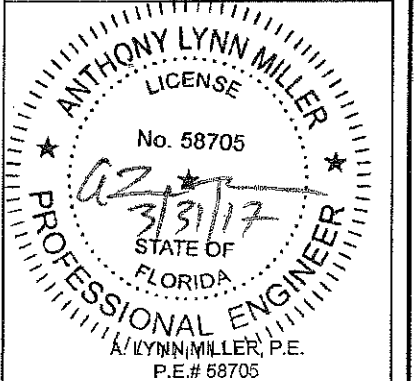
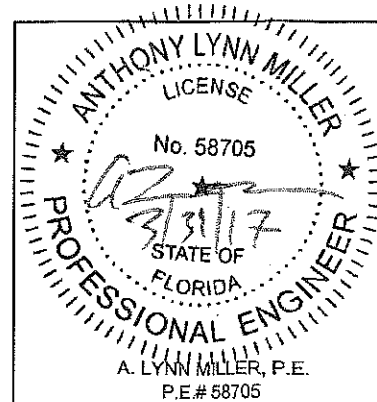
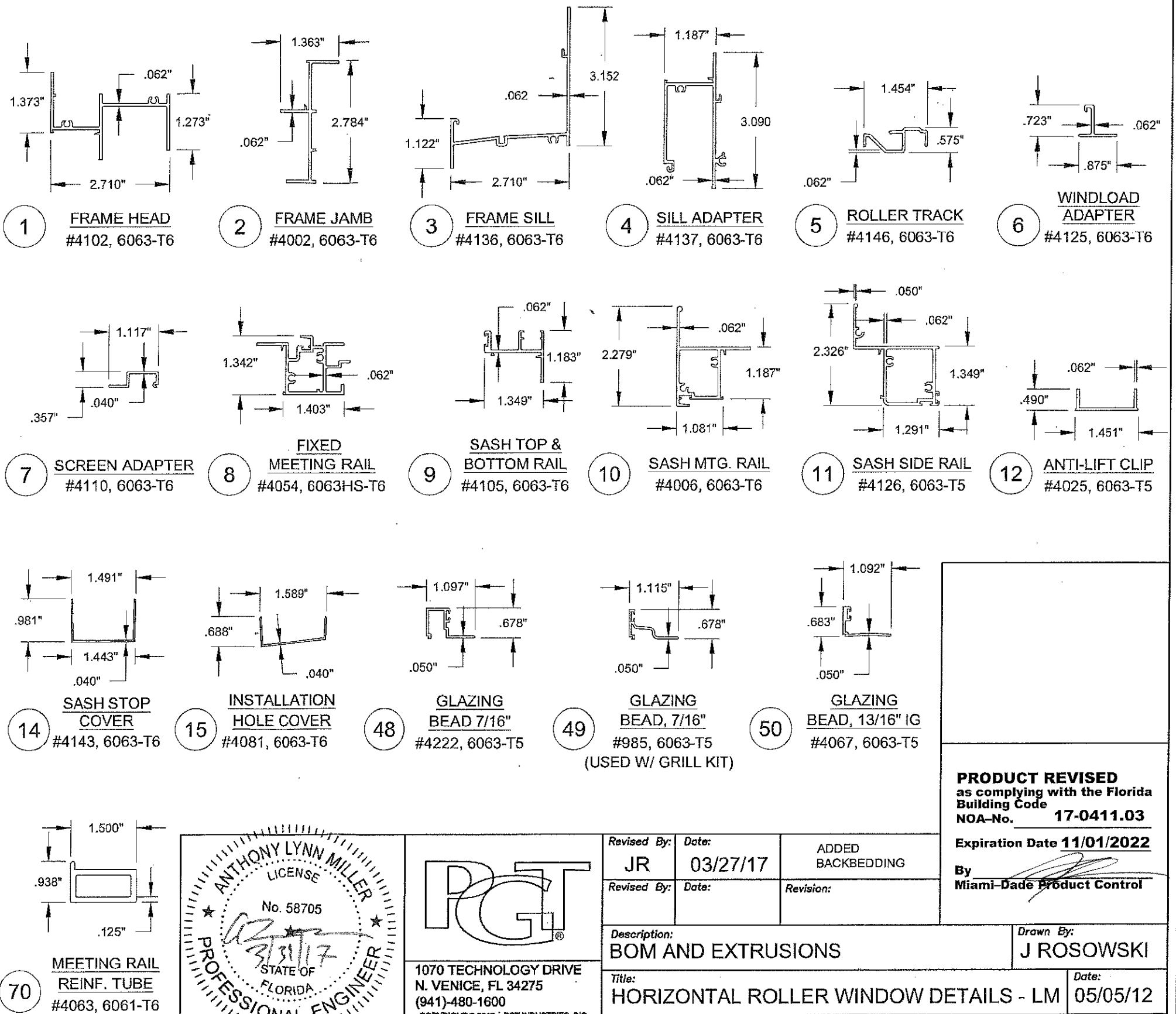




TABLE 8:

Item	Dwg. #	Description	Mat.
1	4102	Frame Head	6063-T6 Alum.
2	4002	Frame Jamb	6063-T6 Alum.
3	4136	Frame Sill	6063-T6 Alum.
4	4137	Sill Adaptor	6063-T6 Alum.
5	4146	Roller Track	6063-T6 Alum.
6	4125	Windload Adapter, 6"	6063-T6 Alum.
7	4110	Screen Adaptor	6063-T6 Alum.
8	4054	Fixed Meeting Rail	6063HS-T6 Alum.
9	4105	Sash Top/Bottom Rail	6063-T6 Alum.
10	4006	Sash Meeting Rail	6063-T6 Alum.
11	4126	Sash Side Rail	6063-T5 Alum.
12	4025	Anti-lift Clip	6063-T5 Alum.
14	4143	Sash Stop Cover	6063-T6 Alum.
15	4081	Installation Hole Cover	6063-T6 Alum.
17	225-1	Roller Housing & Sash Guide	Vinyl
18	226	Tandem Roller Wheels, 2.5" from each end of vent	Brass
19	1096	Sweep Latch	Die-cast Zinc
20	4133	Top/Bottom Rail Cover	Nylon
23	4080B	Mtg Rail Sweep Latch Plug	Vinyl Foam
24	1298	Weep Hole Cover	Polypropolene
25	4150	Sash Rail Cover Cap (1 Left & Right)	Rigid PVC
27	4151	Lock Rail Cover Cap (1 Left & Right)	Rigid PVC
28	4130	Main Frame Head Joint Gasket	Polyethylene
29	1626	Adhesive Open Cell Foam Pad	Foam
30	4134C	Main Frame Sill Joint Gasket	Polyethylene
31	4148	Sash Interlock Gaskets A	Polyethylene
32	4147	Sash Siderail Gaskets B	Polyethylene
33	4066	.187" x .230" Wstp. Fin Seal	
34	1235	.170" x .270" Wstp. Fin Seal	
36	1683	.250" x .270" Wstp. Fin Seal	
37	7070	Bulb Wstp - .187" x .275"	Flex PVC 70
38	1224	Vinyl Bulb Beading Wstp, Thin	Flex PVC 70
39	1225	Vinyl Bulb Beading Wstp, Thick	Flex PVC 70
40		#8 x 3/4" Ph. Pn. SMS	Steel
41	1155	#8 x 1" Quad Pn. SMS	Steel
42	1155-1	#8 x 1" Sq. Pn. Twin Fast SMS	410 S. S.
43	1179	#10 x 3/4" Ph. Pn. SMS, @10-3/4" O.C. & 3/8" from ends	18-8 S. S.
44	1016	#8 x 5/8" Ph. Fl. SMS	Steel
45		#12 x 3/8" Ph. Pn. SMS, @3/4" & 1-1/2" O.C.	Steel
46	1265-3	Mono Setting Block 3/32" x 1/4" x 1"	EPDM, 85 Duro.
47	1715	Lami IG Setting Block 1/8" x 3/4" x 1-1/14"	EPDM, 85 Duro.
48	4222A	7/16" Lami Glaz. Bead	6063-T5 Alum.
49	985C	7/16" Lami Grid Glaz. Bead	6063-T5 Alum.
50	4067B	13/16" Lami IG Glaz. Bead	6063-T5 Alum.
52	1014F	Screen Frame	3105-H14 Alum.
53	1630	Screen Corner Key with Rings	Polypropolene
54	1631	Screen Corner Key without Rings	Polypropolene
55	320B	Screen Spring	Stainless Steel
56	1624	Screen Spline - .135"	EM. PVC
57		Screen Cloth	Fiberglass
60		Dow 791, 899 or GE 7700 Backbedding	Silicone
70	4063	Meeting Rail Reinforcement Tube	6061-T6 Alum.
71	4064	Meeting Rail Reinforcement Tube End Cap	Polypropolene
72	947	Hote Plug	Polypropolene



Revised By: JR	Date: 03/27/17	ADDED BACKBEDDING
Revised By:	Date:	Revision:
Description: BOM AND EXTRUSIONS		Drawn By: J ROSOWSKI
Title: HORIZONTAL ROLLER WINDOW DETAILS - LM		Date: 05/05/12
Series/Model: HR-810	Scale: NTS	Sheet: 6 OF 6
Drawing No. MD-HR810-LA	Rev: C	

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