



MIAMI-DADE COUNTY, FLORIDA
PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208

Miami, Florida 33175-2474

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

www.miamidade.gov/economy

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

NOTICE OF ACCEPTANCE (NOA)

Harmon, Inc.

1209 Edgewater Drive, Suite 200

Orlando, FL 32804

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 "HI 7000" Pressure Plate Glazed, Aluminum Curtain Wall System – S.M.I.

APPROVAL DOCUMENT: Drawing No. **HI7000SM**, titled "Harmon HI 7000 Small Missile – Preglazed & Unitized Pressure Plate Glazing, Aluminum Curtainwall System", sheets 01 through 41 of 41, dated 06/28/04, with revision #9 dated 08/12/25, prepared by manufacturer, signed and sealed by Ethan A. Charpentier, 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: Small Missile Impact Resistant

LABELLING: Each unit shall bear a permanent label with the manufacturer's name or logo, 4290 Port Union Road, West Chester, OH 45011, model/series, and the 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 No. 19-0409.07** and consists of this page 1 and evidence pages E-1, E-2, E-3 and E-4, as well as approval document mentioned above.

The submitted documentation was reviewed by **Manuel Perez, P.E.**




9/19/25

NOA No. 25-0902.04
Expiration Date: September 02, 2029
Approval Date: September 25, 2025
Page 1

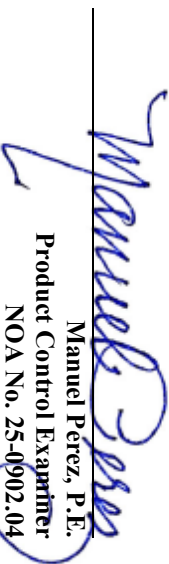
NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's
A. DRAWINGS

1. Manufacturer's die drawings and sections.
(Submitted under NOA No. 04-0217.13)
2. Drawing No. **HI7000SM**, titled "Harmon HI 7000 Small Missile Preglazed & Unitized Pressure Plate Glazing, Aluminum Curtainwall System", sheets 01 through 41 of 41, dated 06/28/04, with revision #7 dated 03/05/19, prepared by manufacturer, signed and sealed by Ethan A. Charpentier, P.E.
(Submitted under NOA No. 19-0409.07)

B. TESTS

1. TESTS
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
along with marked-up drawings and installation diagram of an aluminum unitized window wall system, prepared by Hurricane Test Laboratory, Inc., Test Report No. **HTL-0319-0509-06**, dated 08/15/08, signed and sealed by Vinu J. Abraham, P.E.
(Submitted under NOA No. 08-1015.04)
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) Small Missile Impact Test per FBC, TAS 201-94
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 an aluminum window wall system (specimens 10, 11, 12 & 13), prepared by Hurricane Test Laboratory, Inc., Test Report No. **HTL-0319-0107-03**, various dates, signed and sealed by Vinu J. Abraham, P.E.
(Submitted under NOA No. 04-0217.13)
3. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
2) Small Missile Impact Test per FBC, TAS 201-94
3) Large Missile Impact Test per FBC, TAS 201-94
4) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with marked-up drawings and installation diagram of an aluminum window wall system (specimen 1), prepared by Hurricane Test Laboratory, Inc., Test Report No. **HTL-0319-0511-03**, dated 5/06-08/03, signed and sealed by Vinu J. Abraham, P.E.
(Submitted under NOA No. 04-0217.13)


Manuel Perez, P.E.

Product Control Examiner

NOA No. 25-0902.04

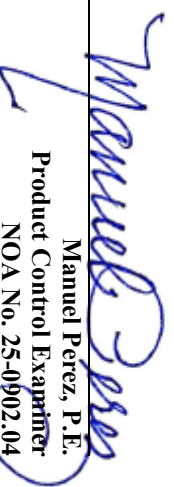
Expiration Date: September 02, 2029

Approval Date: September 25, 2025

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

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

4. 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) Small Missile Impact Test per FBC, TAS 201-94
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 an aluminum window wall system (specimen 1), prepared by Hurricane Test Laboratory, Inc., Test Report No. **HTL-0319-0711-03**, dated 7/7-16/03, signed and sealed by Vinu J. Abraham, P.E.
(Submitted under **NOA No. 04-0217.13**)
5. 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 an aluminum window wall system (specimen W1), prepared by Hurricane Test Laboratory, Inc., Test Report No. **HTL-0319-0627-03**, dated 06/23/03, signed and sealed by Vinu J. Abraham, P.E.
(Submitted under **NOA No. 04-0217.13**)
6. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
2) Small 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 an aluminum window wall system (specimens 2, 3, & 4), prepared by Hurricane Test Laboratory, Inc., Test Report No. **HTL-0319-1122-02**, dated 11/15-18/02, signed and sealed by Vinu J. Abraham, P.E.
(Submitted under **NOA No. 04-0217.13**)
7. Test reports on: 1) Large Missile Impact Test per FBC, TAS 201-94
2) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with marked-up drawings and installation diagram of an aluminum window wall system (specimens 1 & 2), prepared by Hurricane Test Laboratory, Inc., Test Report No. **HTL-0319-1125-03**, dated 11/24-26/03, signed and sealed by Vinu J. Abraham, P.E.
(Submitted under **NOA No. 04-0217.13**)


Manuel Perez, P.E.
Product Control Examiner
NOA No. 25-0902.04

Expiration Date: September 02, 2029
Approval Date: September 25, 2025

Harmon, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

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

1. Anchor verification calculations and structural analysis, complying with FBC 5th Edition (2014), prepared by Larson Engineering, Inc., dated 07/22/08, 09/18/08 and, revised and updated on 07/18/16, signed and sealed by Ethan A. Charpentier, P.E. (*Submitted partly under NOA No. 08-1015.04*)
2. Glazing complies with **ASTM E1300-04**

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

E. MATERIAL CERTIFICATIONS

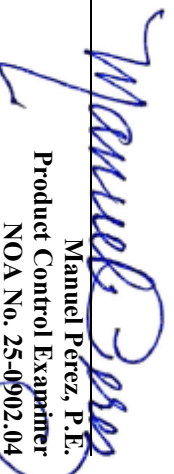
1. Notice of Acceptance No. **18-0301.05** issued to **Eastman Chemical Company (MA)** for their “**Saflex HP Clear or Color Glass Interlayers**” dated 05/10/18, expiring on 04/14/23.

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 6th Edition (2017)**, dated March 25, 2019, signed and sealed by Ethan A. Charpentier, P.E. (*Submitted under NOA No. 19-0409.07*)
2. Statement letter of no financial interest, dated July 18, 2016, signed and sealed by Ethan A. Charpentier, P.E. (*Submitted under NOA No. 16-0726.07*)
3. Laboratory compliance letter for Test Report no. **HTL-0319-0509-06**, issued by Hurricane Test Laboratory, Inc., dated 08/09/06, signed and sealed by Vinu J. Abraham, P.E. (*Submitted under NOA No. 08-1015.04*)

G. OTHER

1. Notice of Acceptance No. **16-0726.07**, issued to Harmon, Inc. for their Series “HI 7000” Pressure Plate Glazed, Aluminum Curtain Wall System – S.M.I., approved on 02/23/17 and expiring on 09/02/19.


Manuel Perez, P.E.
Product Control Examiner
NOA No. 25-0902.04

Expiration Date: September 02, 2029
Approval Date: September 25, 2025

Harmon, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. **HI7000SM**, titled “Harmon HI 7000 Small Missile Preglazed & Unitized Pressure Plate Glazing, Aluminum Curtainwall System”, sheets 01 through 41 of 41, dated 06/28/04, with revision #9 dated 08/12/25, prepared by manufacturer, signed and sealed by Ethan A. Charpentier, P.E.

B. TESTS

1. None

C. CALCULATIONS

1. None

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

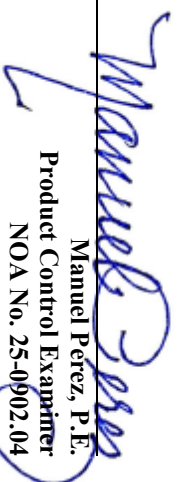
1. Notice of Acceptance No. **23-0713.20** issued to **Eastman Chemical Company (MA)** for their “**Saflex® HP Clear and Colored Interlayers for Laminated Glass**” dated 08/17/23, expiring on 04/14/28.

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 8th Edition (2023)**, dated August 19, 2025, signed and sealed by Ethan A. Charpentier, P.E.
2. Statement letter of no financial interest, dated August 19, 2025, signed and sealed by Ethan A. Charpentier, P.E.

G. OTHERS

1. Notice of Acceptance No. **19-0409.07**, issued to Harmon, Inc. for their Series “HI 7000” Pressure Plate Glazed, Aluminum Curtain Wall System – S.M.I., approved on 06/06/19 and expiring on 09/02/24.


Manuel Perez, P.E.
Product Control Examiner
NOA No. 25-0902.04
Expiration Date: September 02, 2029
Approval Date: September 25, 2025

HARMON HI 7000 SMALL MISSILE
PREGLAZED & UNITIZED PRESSURE PLATE
GLAZING, ALUMINUM CURTAINWALL SYSTEM

THIS NOA INCLUDES WINDOW WALL, STOREFRONT & PUNCH OPENING SINGLE LITE APPLICATIONS
AS WELL AS OPTION 2-SIDED STRUCTURAL SILICONE GLAZING DESIGN

DESIGN PARAMETERS

THIS PRODUCT HAS BEEN DESIGNED & TESTED IN ACCORDANCE WITH THE CURRENT FLORIDA 2023
BUILDING CODE 8th EDITION REQUIREMENTS INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ)

TAS-201 – LARGE & SMALL MISSILE IMPACT

TAS-202 – AIR LEAKAGE, WATER PENETRATION & STRUCTURAL PERFORMANCE

(WATER @ 20 psf, STRUCTURAL @ +110/-130 psf & +79.2/-148.9 psf)

TAS-203 – CYCLING

ASTM STANDARDS (MIAMI)

E283 – AIR LEAKAGE

E330 – STRUCTURAL PERFORMANCE

E331 – WATER PENETRATION

E1886 LEVEL "D" – IMPACT BY "MISSILE" & CYCLIC PRESSURES

E1996 – IMPACT BY WINDBORNE DEBRIS

△ AAMA – TIR – A9-14

SYSTEM DIMENSIONS

2 1/2" X 8" (MONOLITHIC GLASS)

2 1/2" X 8 3/4" (INSULATED GLASS)

FINISH

ON A PER JOB BASIS (EXPOSED AREAS)

CLEAR ANODIZED (NON-EXPOSED AREAS)

MILL FINISH (NON-EXPOSED AREAS) SETTING CHAIRS, ANCHORS, ETC.

ALUMINUM IN CONTACT WITH DISSIMILAR MATERIALS SHALL BE PROTECTED

AS SPECIFIED IN SECTION 2003.8.4 OF THE FLORIDA BUILDING CODE

ALUMINUM ALLOY

6063-T5 6063-T6 6005-T5 6105-T5

SEE ALSO ALUMINUM MATERIAL LIST ON SHT 2

STEEL

ALL CLIP ANGLES OR REINFORCING STEEL SHALL BE PER ASTM-36 (PRIME PAINTED)

WELDING

CURRENT ASTM STANDARDS E70 – XX ELECTRODES UNLESS OTHERWISE NOTED

GLASS

SEE SHEET 7.

GASKETS

SILICONE OR EPDM ---- SEE GASKET CHART ON SHEET 2

SEALANTS

STRUCTURAL SILICONE – DOW CORNING 983 (TWO PART) / RE-GLAZING – DOW CORNING 995

FRAME ASSEMBLY SEALS – DOW CORNING 795 OR DOW CORNING 791

PERIMETER WEATHER SEAL, BACKER ROD AND DOW CORNING 795

ANCHORAGE

FASTENERS TO BE CORROSION RESISTANT AS DETAILED HEREIN AND CONFORM TO F.B.C.

SEE ASSEMBLY SCREW CHART ON SHEET 2

SYSTEM SELECTION

CURTAINWALL

TWIN SPAN – SHEET 5

STACK C.W. – SHEET 6 & 24

CORNERS – SHEET 24

WINDOW WALL / STOREFRONT / PUNCH OPENING

SINGLE SPAN – SHEET 4

CORNERS – SHEET 24

2-SIDED SILICONE OPTIONS SEE PAGE 15

INDEX OF DRAWINGS

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1	COVER SHEET – DESIGN PARAMETERS
2	MATERIAL LISTS
3	GLAZING DETAILS & RE-GLAZING DETAILS
4	ELEVATION – SINGLE SPAN WINDOW WALL / STOREFRONT
5	ELEVATION – TWIN SPAN CURTAINWALL
6	ELEVATION – TWIN SPAN W/ STACK HORIZONTAL CURTAINWALL
7	GLASS SCHEDULE – SMALL MISSILE
8	PART DRAWINGS
9	PART DRAWINGS
10	MULLION APPLICATION CHARTS SINGLE SPAN WINDOW WALL/STOREFRONT
11	MULLION APPLICATION CHARTS TWIN SPAN CURTAINWALL
12	MULLION APPLICATION CHARTS TWIN SPAN WITH STACK RAIL CURTAINWALL
13	ANCHOR APPLICATIONS
14	DETAILS OF TYPICAL HEADS, SILLS, & INTERMEDIATE HORIZONTALS
15	DETAILS OF TYPICAL VERTICALS
16	DETAIL OF DOOR, HEAD & JAMB AND SEGMENTED VERTICAL
17	DETAIL OF 90 DEGREE OUTSIDE CORNER (BOX)
18	DETAIL OF 5" STACK HORIZONTAL W/ SPLICE SLEEVE
19	STRAP ANCHOR & THRU-FRAME ANCHOR
20	ANGLES IN VERTICAL ANCHOR & ALUMINUM LUG IN VERTICAL ANCHOR
21	MID-SPAN ANCHOR & STACK WALL ANCHOR
22	JAMB ANCHORS / STACK WALL ANCHOR – EXPLODED ISOMETRIC VIEW
23	JAMB WINDLOAD CHARTS
24	ELEVATION – TWIN SPAN W/ STACK HORIZ. & 90° CORNER MULL.
25	HORIZONTAL DETAILS WITH MONOLITHIC ADAPTORS AND INS. SILL
26	HORIZONTAL DETAILS WITH BACK PANS
27	3 3/8" STACK HORIZONTAL DETAIL WITH SECTION CUT
28	3 3/8" STACK HORIZONTAL DETAIL WITH SECTION CUT
29	3 3/8" STACK HORIZ. DETAIL WITH SECTION CUT AT BACK PAN DETAILS
30	VERTICAL DETAILS BACK PAN AND MONOLITHIC ADAPTORS
31	VERTICAL DETAILS BACK PAN
32	90° CORNER MULLION DETAILS (PART)
33	VERTICAL JAMB DETAILS
34	DEADLOAD ANCHOR DETAIL WITH SECTION CUT
35	WINDLOAD ANCHOR DETAIL WITH SECTION CUT
36	OUTSIDE 90° CORNER DEADLOAD ANCHOR DETAIL
37	OUTSIDE 90° CORNER WINDLOAD ANCHOR DETAIL
38	OUTSIDE 90° CORNER @ SILL DETAIL
39	OUTSIDE 90° CORNER @ STACK DETAIL
40	VERTICAL JAMB AT SILL ANCHOR DETAIL
41	VERTICAL SILL ANCHOR AT MULLION, STIFFENER & REINFORCEMENT

 **Larson** Engineering, Inc.
3524 Labore Road
White Bear Lake, MN 55110
(P) 651.481.9120 (F) 651.481.9201

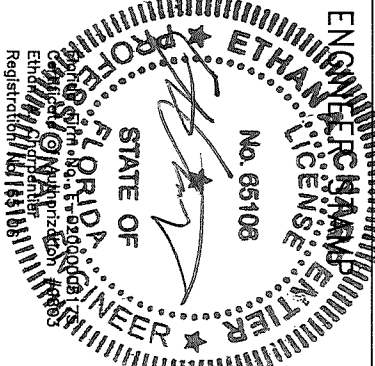
DADE CO. STAMP

PRODUCT REVISED
As complying with the Florida
Building Code

NOA-No. **25-0902.04**

Expiration Date: **09/02/2029**

By: *Manuel Jover*
Miami-Dade Product Control



 **Harmon**
HI 7000 SMALL MISSILE
COVER SHEET

DATE: 06/28/04 / 6/17/16

DATE: 11/18/08 / 03/05/19

DATE: 3/10/09 / 02/25/21

DATE: 3/16/09 / 08/12/25

DATE: 4/5/22/12

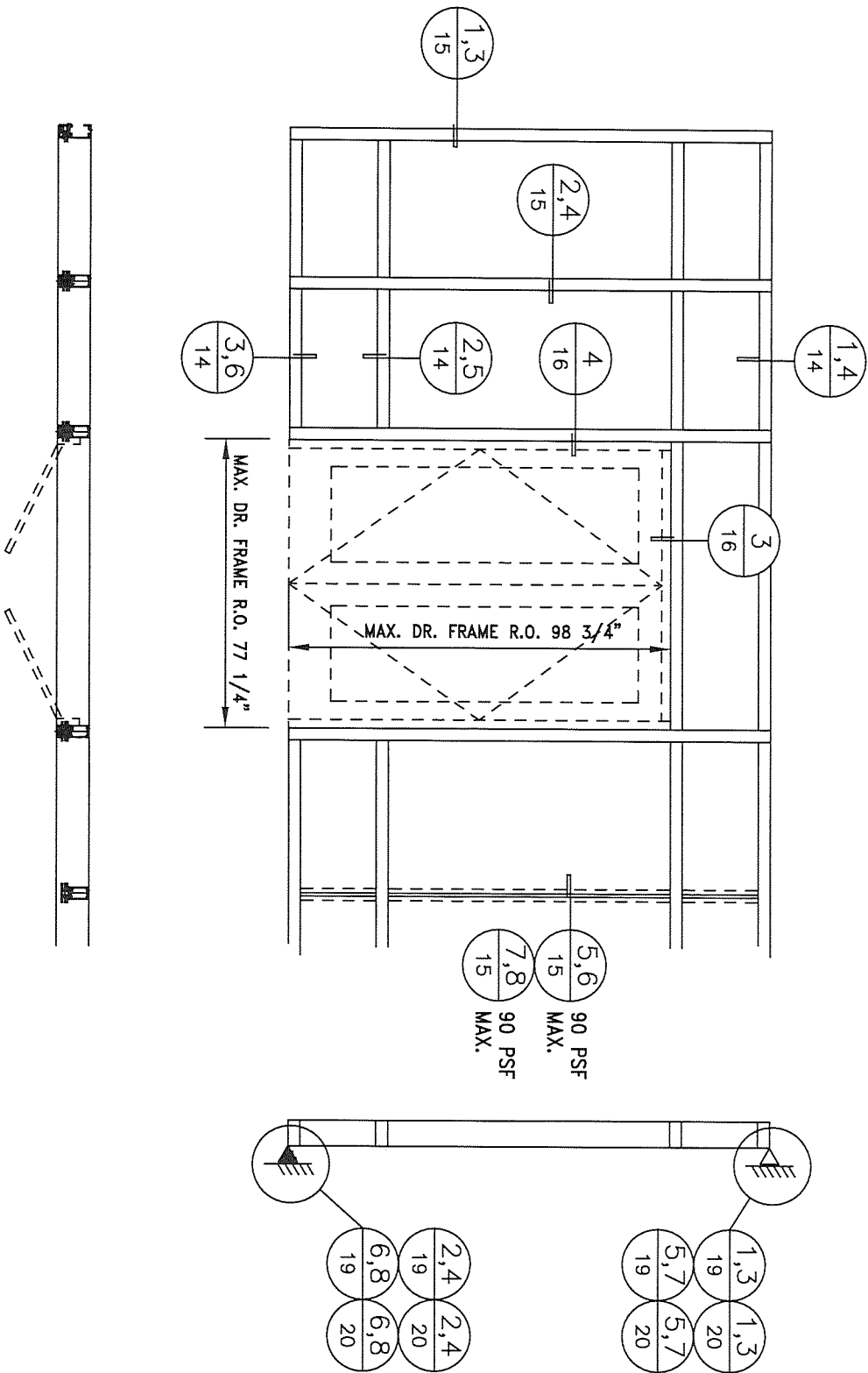
DATE: 5/10/03/14

DWG. NO. HI7000SM

SHEET 01 OF 41

FRAME ASSEMBLY FASTENER LIST				GASKET CHART				ALUMINUM MATERIAL LIST																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															

STOREFRONT, WINDOW WALL & PUNCHED OPENING



SYSTEM APPLICATION GUIDELINES:

- 1 SELECT GLASS FROM CHARTS ON SHEET 7. NOTE THE GLASS THICKNESS AND 4-SIDE CAPTURED VERSUS CAPTURED/SSG OPTIONS.
- 2 SELECT MULLION & REINFORCING AS REQUIRED FROM CHARTS ON SHEET 10 FOR SINGLE SPAN APPLICATION. APPLICATION BASED ON WIND LOAD, MODULE "B", AND SPAN "L". REFER TO GENERAL NOTES AND GUIDELINES REGARDING SPAN LIMITATIONS AND COMBINATIONS.
- 3 SELECT ANCHOR APPLICATIONS FROM SHEET 13. MAKE SELECTION BASED ON PERIMETER CONDITION AND END REACTIONS. NOTE MAXIMUM TESTED END REACTIONS FOR PROPER APPLICATION.
- 4 SELECT APPROPRIATE DETAILS FROM ELEVATION AT LEFT, BASED ON GLASS APPLICATION AND MULLION REINFORCING REQUIREMENTS. FOR SPECIFIC ANCHOR DETAILS, SEE DETAILS REFERENCED ON ANCHOR APPLICATION SHEET 13.
- 5 SELECT JAMB MULLION & REINFORCING AS REQUIRED FROM CHARTS ON SHEET 23.
6. LOWEST VALUE OF ALL TABLES SHALL APPLY FOR THE ENTIRE ASSEMBLY.

GENERAL NOTES:

- DOOR AREA TESTED IS 90 PSF.
- SILICONE VERTICAL JOINTS AND GASKET JOINTS ARE TESTED TO 90 PSF
- DOORS AND DOOR FRAMES ARE NOT PART OF THIS SUBMISSION. ANY DOOR USED MUST MEET DADE COUNTY NOA.

Larson Engineering, Inc.
3524 Lobore Road
White Bear Lake, MN 55110
(P) 651.481.9120 (F) 651.481.9201

8.19.25

Harmon
HI 7000 SMALL MISSILE

DADE CO. STAMP

ENGINEER'S STAMP

SINGLE SPAN APPLICATION
JAMBS

DATE: 06/28/04 / 6/17/16

11/18/08 / 03/05/19

3/10/09 / 02/25/21

3/16/09 / 08/12/25

5/22/12

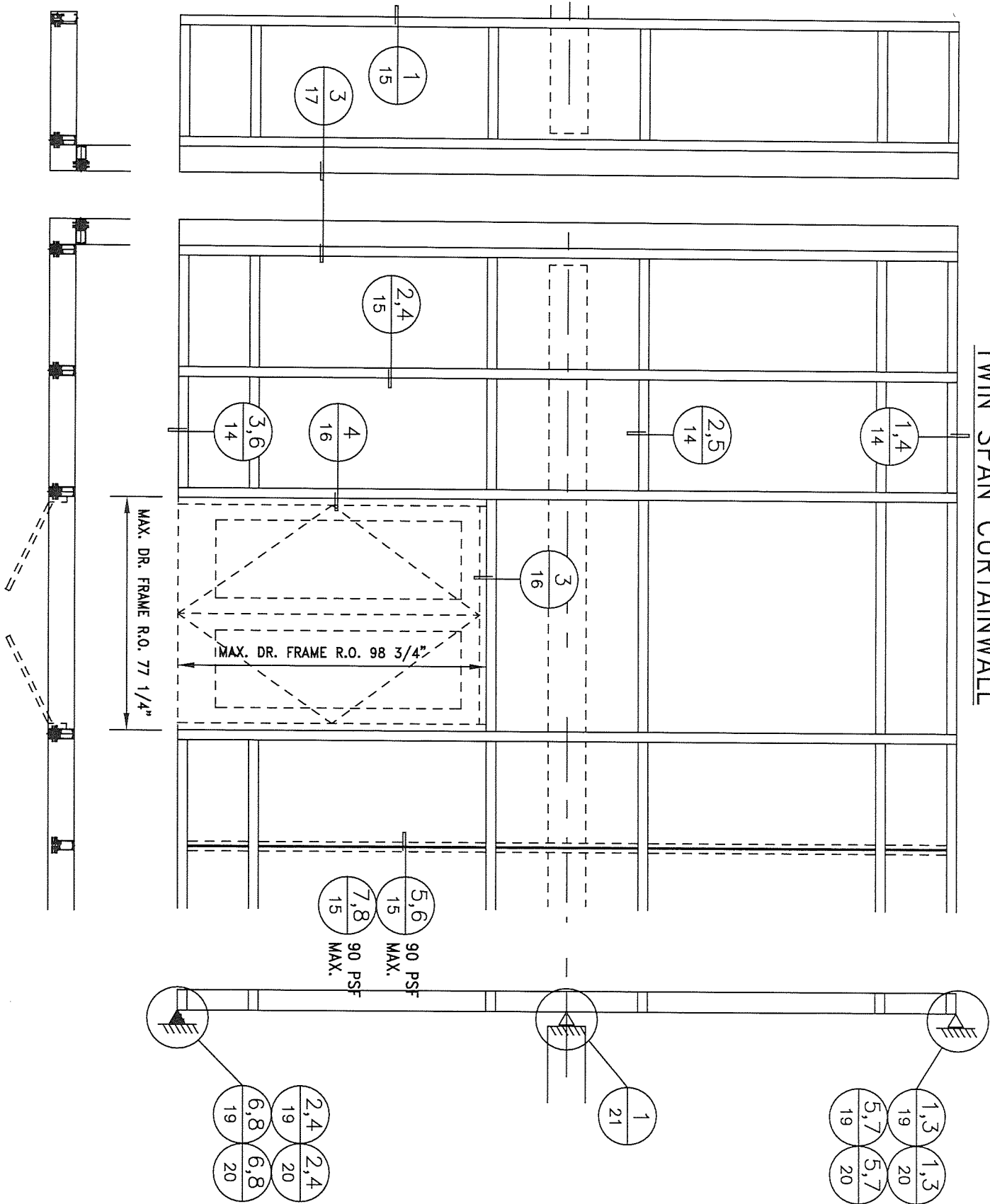
10/03/14

DWG. NO. H17000SM

SHEET 04 OF 41

ETHAN A. LARSON
Professional Engineer
No. 665108
STATE OF FLORIDA
Expiration Date: 09/02/2029
By: *Manuel Jose*
Miami-Dade Product Control

TWIN SPAN CURTAINWALL



GENERAL NOTES:

- DOOR AREA TESTED IS 90 PSF.
- SILICONE VERTICAL JOINTS AND GASKET JOINTS ARE TESTED TO 90 PSF
- DOORS AND DOOR FRAMES ARE NOT PART OF THIS SUBMISSION. ANY DOOR USED MUST MEET DADE COUNTY NOA.

SYSTEM APPLICATION GUIDELINES:

- 1 SELECT GLASS FROM CHARTS ON SHEET 7. NOTE THE GLASS THICKNESS AND 4-SIDE CAPTURED VERSES CAPTURED/SSG OPTIONS.
- 2 SELECT MULLION & REINFORCING AS REQUIRED FROM CHARTS ON SHEET 11 FOR TWIN SPAN APPLICATION. APPLICATION BASED ON WIND LOAD, MODULE "B", AND SPAN "L". REFER TO GENERAL NOTES AND GUIDELINES REGARDING SPAN LIMITATIONS AND COMBINATIONS.
- 3 SELECT ANCHOR APPLICATIONS FROM SHEET 13. MAKE SELECTION BASED ON PERIMETER CONDITION AND END REACTIONS. NOTE MAXIMUM TESTED END REACTIONS FOR PROPER APPLICATION.
- 4 SELECT APPROPRIATE DETAILS FROM ELEVATION AT LEFT, BASED ON GLASS APPLICATION AND MULLION REINFORCING REQUIREMENTS. FOR SPECIFIC ANCHOR DETAILS, SEE DETAILS REFERENCED ON ANCHOR APPLICATION SHEET 13.
- 5 SELECT JAMB MULLION & REINFORCING AS REQUIRED FROM CHARTS ON SHEET 23.
6. LOWEST VALUE OF ALL TABLES SHALL APPLY FOR THE ENTIRE ASSEMBLY.

Larson Engineering, Inc.
3524 Labore Road
White Bear Lake, MN 55110
(P) 651.481.9120 (F) 651.481.9201

8.19.25

DADE CO. STAMP

ENGINEER'S STAMP

HI 7000 SMALL MISSILE
TWIN SPAN APPLICATION

Harmon

DATE: 06/28/04 6/6/17/16

11/18/08 03/05/19

3/10/09 8/02/25/21

3/16/09 9/08/12/25

4/5/22/12

5/10/03/14

DWG. NO. H17000SM

SHEET 05 OF 41

PRODUCT REVISED

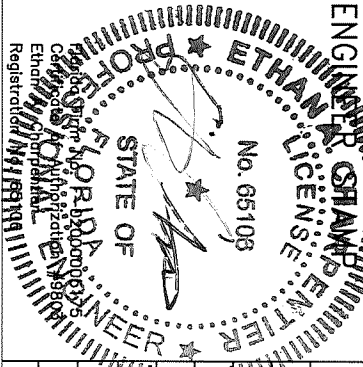
As complying with the Florida Building Code

NOA-No. 25-0902.04

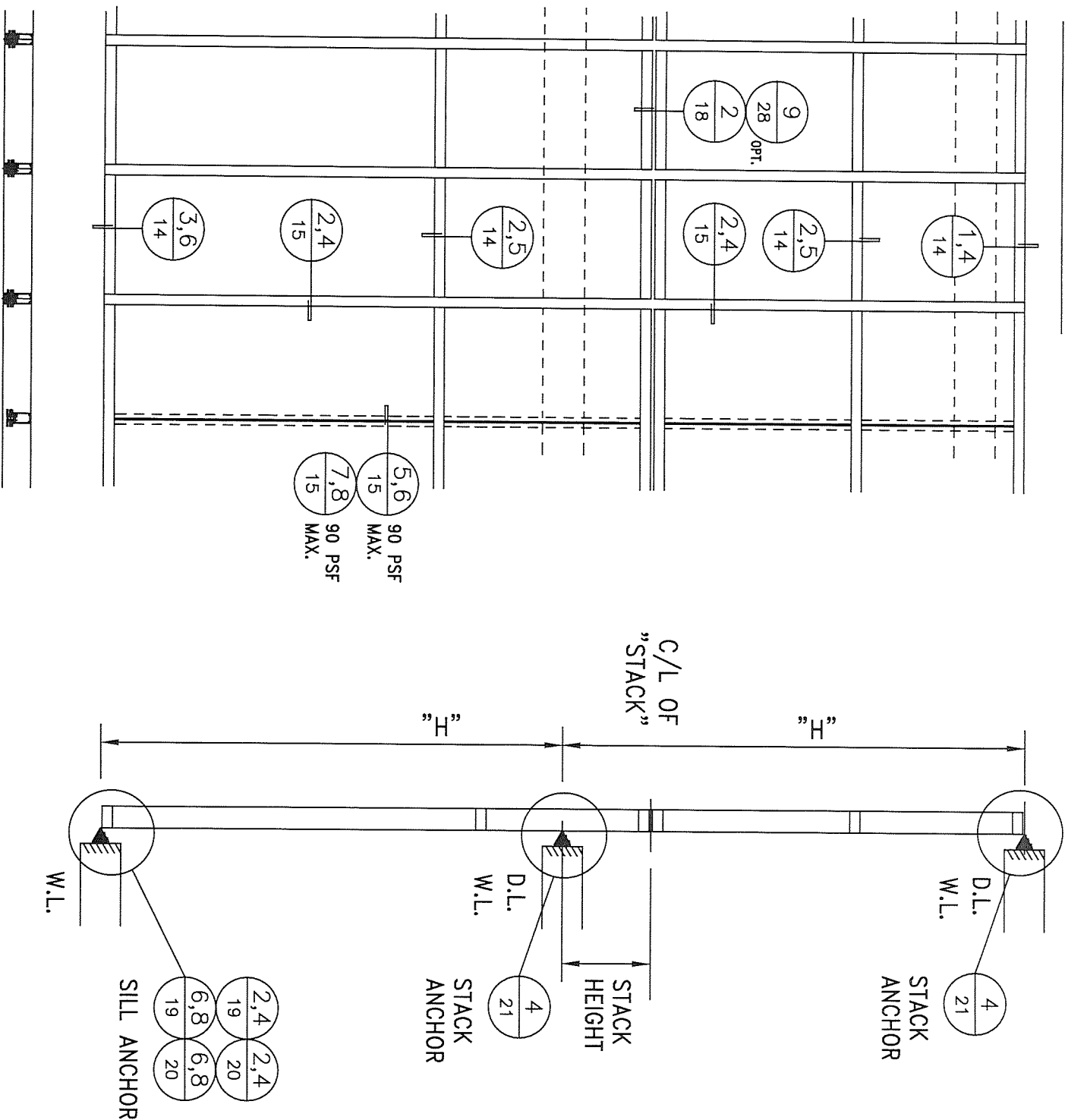
Expiration Date: 09/02/2029

By: *Manuel Jose*

Miami-Dade Product Control



STACK CURTAINWALL



SYSTEM APPLICATION GUIDELINES:

- 1 SELECT GLASS FROM CHARTS ON SHEET 7. NOTE THE GLASS THICKNESS AND 4-SIDE CAPTURED VERSES CAPTURED/SSG OPTIONS.
- 2 SELECT MULLION & REINFORCING AS REQUIRED FROM CHARTS ON SHEET 12 FOR TWIN SPAN W/ STACK HORIZONTAL APPLICATION. APPLICATION BASED ON WIND LOAD, MODULE "B", AND SPAN "L". REFER TO GENERAL NOTES AND GUIDELINES REGARDING SPAN LIMITATIONS AND COMBINATIONS.
- 3 SELECT ANCHOR APPLICATIONS FROM SHEET 13. MAKE SELECTION BASED ON PERIMETER CONDITION AND END REACTIONS. NOTE MAXIMUM TESTED END REACTIONS FOR PROPER APPLICATION.
- 4 SELECT APPROPRIATE DETAILS FROM ELEVATION AT LEFT, BASED ON GLASS APPLICATION AND MULLION REINFORCING REQUIREMENTS. FOR SPECIFIC ANCHOR DETAILS, SEE DETAILS REFERENCED ON ANCHOR APPLICATION SHEET 13.
- 5 SELECT JAMB MULLION & REINFORCING AS REQUIRED FROM CHARTS ON SHEET 23.
6. LOWEST VALUE OF ALL TABLES SHALL APPLY FOR THE ENTIRE ASSEMBLY.

GENERAL NOTES:

- SILICONE VERTICAL JOINTS AND GASKET JOINTS ARE TESTED TO 90 PSF
- SEE SHEET 24 FOR OPTIONAL STACK AND CORNER APPLICATION GUIDELINES

**Larson** Engineering, Inc.
3524 Lobore Road
White Bear Lake, MN 55110
(P) 651.481.9120 (F) 651.481.9201

8.19.25

**Harmon**
HI 7000 SMALL MISSILE
TWIN SPAN APPLICATION
W/ STACK HORIZONTAL

DADE CO. STAMP

ENGINEER'S STAMP

DATE: 06/28/04

11/18/08

3/10/09

3/16/09

5/22/12

10/03/14

DWG. NO. H17000SM

SHEET 06 OF 41

PRODUCT REVISED

As complying with the Florida Building Code

NOA-No. **25-0902.04**

Expiration Date: **09/02/2029**

By: *Manuel Jose*

Miami-Dade Product Control

No. 65106

STATE OF

PROFESSIONAL ENGINEER

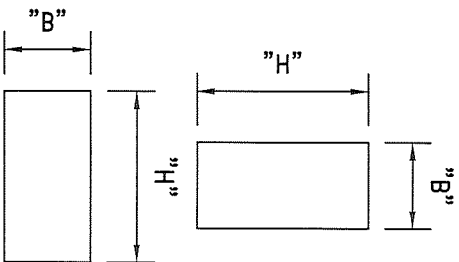
Registration No. 19119

Professional Seal

Signature

HI 7000 Glass Load Capacity				Monolithic Glass Types		Insulated Glass Types	
DLO "B"	DLO "H"	SF		Type 8		Type 9	
30"	54"	11.25 SF		+110/-148 PSF		+110/-148 PSF	
36"	54"	13.5 SF		+110/-148 PSF		+110/-148 PSF	
42"	54"	15.75 SF		+110/-148 PSF		+110/-148 PSF	
48"	54"	18 SF		+110/-148 PSF		+110/-148 PSF	
54"	54"	20.25 SF		+110/-148 PSF		+110/-148 PSF	
60"	54"	22.5 SF		+110/-148 PSF		+110/-148 PSF	
66"	54"	24.75 SF		+110/-148 PSF		+110/-148 PSF	
72"	54"	27 SF		+110/-148 PSF		+110/-148 PSF	
36"	60"	15 SF		+110/-148 PSF		+110/-148 PSF	
42"	60"	17.5 SF		+110/-148 PSF		+110/-148 PSF	
48"	60"	20 SF		+110/-148 PSF		+110/-148 PSF	
54"	60"	22.5 SF		+110/-148 PSF		+110/-148 PSF	
60"	60"	25 SF		+110/-148 PSF		+110/-148 PSF	
66"	60"	27.5 SF		+110/-148 PSF		+110/-148 PSF	
72"	60"	30 SF		+110/-148 PSF		+110/-148 PSF	
36"	66"	16.5 SF		+110/-148 PSF		+110/-148 PSF	
42"	66"	19.25 SF		+110/-148 PSF		+110/-148 PSF	
48"	66"	22 SF		+110/-148 PSF		+110/-148 PSF	
54"	66"	24.75 SF		+110/-148 PSF		+110/-148 PSF	
60"	66"	27.5 SF		+110/-148 PSF		+110/-148 PSF	
66"	66"	30.25 SF		+110/-148 PSF		+110/-148 PSF	
72"	66"	33 SF		+110/-130 PSF		+110/-130 PSF	
36"	72"	18 SF		+110/-148 PSF		+110/-148 PSF	
42"	72"	21 SF		+110/-148 PSF		+110/-148 PSF	
48"	72"	24 SF		+110/-148 PSF		+110/-148 PSF	
54"	72"	27 SF		+110/-148 PSF		+110/-148 PSF	
60"	72"	30 SF		+110/-148 PSF		+110/-148 PSF	
66"	72"	33 SF		+110/-130 PSF		+110/-130 PSF	
72"	72"	36 SF		+110/-130 PSF		+110/-130 PSF	
36"	78"	19.5 SF		+110/-148 PSF		+110/-148 PSF	
42"	78"	22.75 SF		+110/-148 PSF		+110/-148 PSF	
48"	78"	26 SF		+110/-148 PSF		+110/-148 PSF	
54"	78"	29.25 SF		+110/-148 PSF		+110/-148 PSF	
60"	78"	32.5 SF		+110/-130 PSF		+110/-130 PSF	
66"	78"	35.75 SF		+110/-130 PSF		+110/-130 PSF	
36"	84"	21 SF		+110/-148 PSF		+110/-148 PSF	
42"	84"	24.5 SF		+110/-148 PSF		+110/-148 PSF	
48"	84"	28 SF		+110/-148 PSF		+110/-148 PSF	
54"	84"	31.5 SF		+110/-130 PSF		+110/-130 PSF	
60"	84"	35 SF		+110/-130 PSF		+110/-130 PSF	
36"	90"	22.5 SF		+110/-148 PSF		+110/-148 PSF	
42"	90"	26.25 SF		+110/-148 PSF		+110/-148 PSF	
48"	90"	30 SF		+110/-148 PSF		+110/-148 PSF	
54"	90"	33.75 SF		+110/-130 PSF		+110/-130 PSF	
60"	90"	37.5 SF		+110/-130 PSF		+110/-130 PSF	
36"	96"	24 SF		+110/-148 PSF		+110/-148 PSF	
42"	96"	28 SF		+110/-148 PSF		+110/-148 PSF	
46"	96"	32 SF		+110/-130 PSF		+110/-130 PSF	
54"	96"	36 SF		+110/-130 PSF		+110/-130 PSF	
36"	102"	25.5 SF		+110/-148 PSF		+110/-148 PSF	
42"	102"	29.75 SF		+110/-148 PSF		+110/-148 PSF	
48"	102"	34 SF		+110/-130 PSF		+110/-130 PSF	
36"	108"	27 SF		+110/-148 PSF		+110/-148 PSF	
42"	108"	31.5 SF		+110/-130 PSF		+110/-130 PSF	
48"	108"	36 SF		+110/-130 PSF		+110/-130 PSF	
30"	114"	23.75 SF		+110/-148 PSF		+110/-148 PSF	
36"	114"	28.5 SF		+110/-148 PSF		+110/-148 PSF	
42"	114"	33.25 SF		+110/-130 PSF		+110/-130 PSF	
48"	114"	38 SF		+110/-130 PSF		+110/-130 PSF	
24"	120"	20 SF		+110/-148 PSF		+110/-148 PSF	
30"	120"	25 SF		+110/-148 PSF		+110/-148 PSF	
36"	120"	30 SF		+110/-148 PSF		+110/-148 PSF	
42"	120"	35 SF		+110/-130 PSF		+110/-130 PSF	
24"	132"	22 SF		+110/-148 PSF		+110/-148 PSF	
30"	132"	27.5 SF		+110/-148 PSF		+110/-148 PSF	
36"	132"	33 SF		+110/-130 PSF		+110/-130 PSF	
24"	143"	23.83 SF		+110/-148 PSF		+110/-148 PSF	
30"	143"	29.79 SF		+110/-148 PSF		+110/-148 PSF	
36"	143"	35.75 SF		+110/-130 PSF		+110/-130 PSF	

MONOLITHIC GLASS – SMALL MISSILE				NOTES:
8 9/16" (.060) SAFLEX HP HS / HS	TEST PRESSURE: +110/-130 PSF DLO SF <=38.03 SF +79 PSF/-148 PSF DLO SF <=31.15 SF	1/4" HS  .060 EASTMAN CHEMICAL COMPANY SAFLEX HP 5	8 ALL GLASS SIZES MUST MEET ASTM E1300-16 WITH THE SQUARE FOOT LESS THAN OR EQUAL TO THE TESTED SQUARE FOOT SIZES AT THE TESTED PRESSURES.	
INSULATED GLASS – SMALL MISSILE				
9 1 5/16" (.060) SAFLEX HP HS / HS – TEMP	TEST PRESSURE: +110/-130 PSF DLO SF <=38.03 SF +79 PSF/-148 PSF DLO SF <=31.15 SF	1/4" HS 1/4" HS AIR SPACE 1/4" TEMPERED  .060 EASTMAN CHEMICAL COMPANY SAFLEX HP 5		



DIM. "B" AND "H"
REFER TO DLO ON
SHOP DRAWINGS

NOTE:
ALL GLASS TYPES HAVE BEEN
TESTED FOR 4-SIDE CAPTURED
APPLICATION.

ONLY GLASS TYPES 8 & 9
HAVE BEEN TESTED FOR
VERTICAL SSG APPLICATION FOR
MAXIMUM 90 PSF.

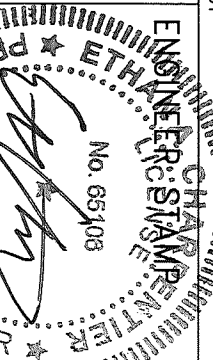
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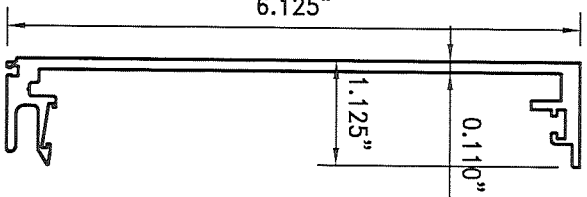
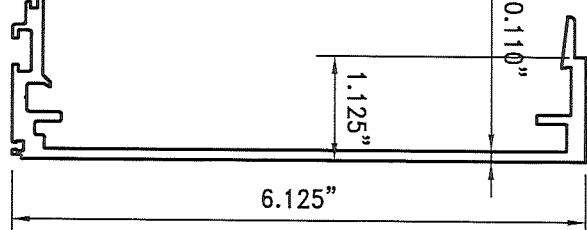
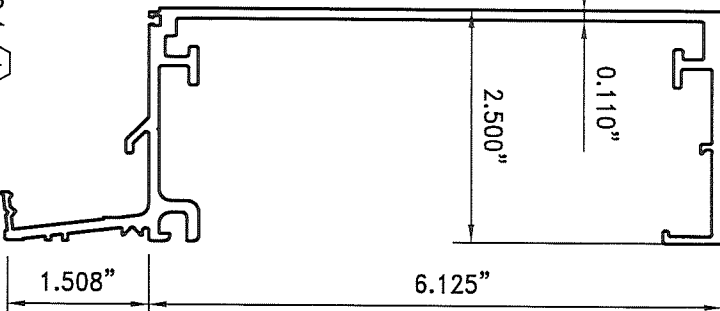
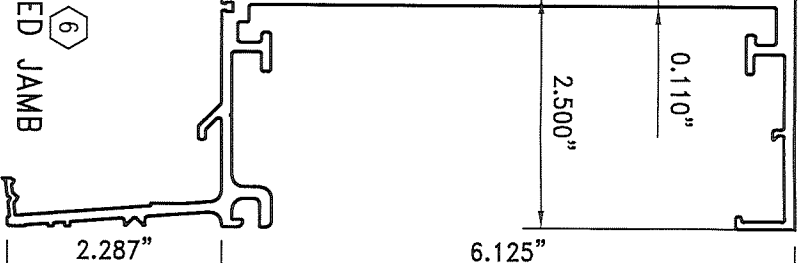
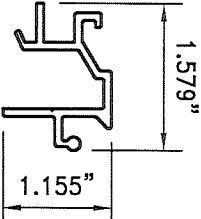
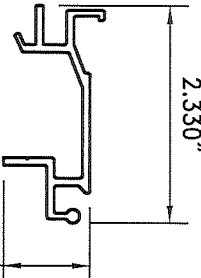
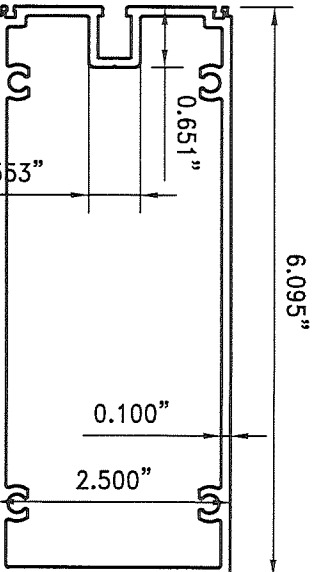
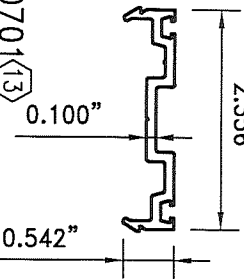
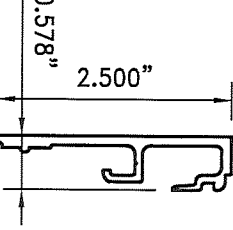
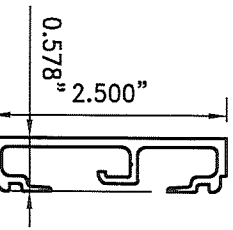
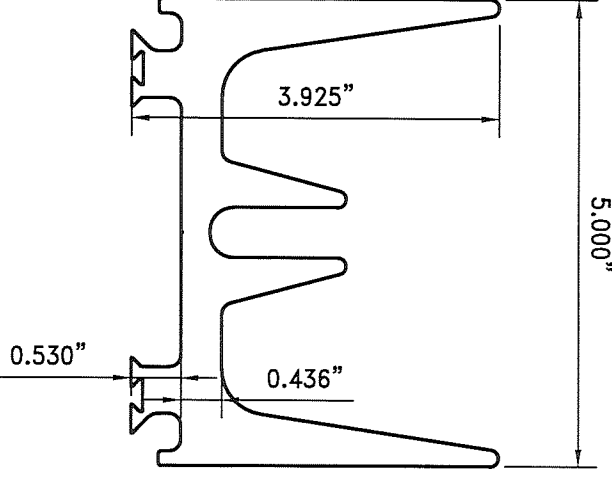
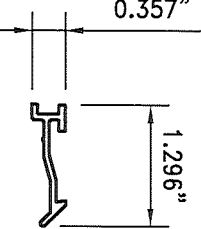
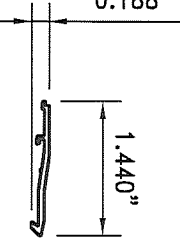
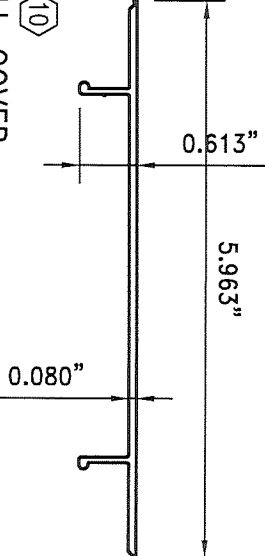
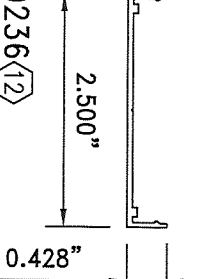
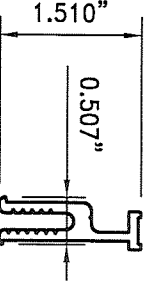
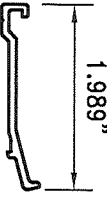
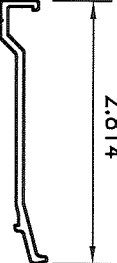
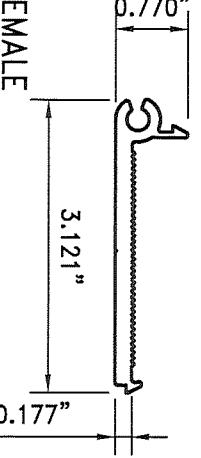
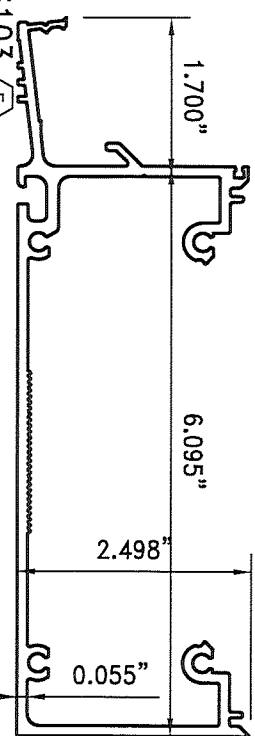
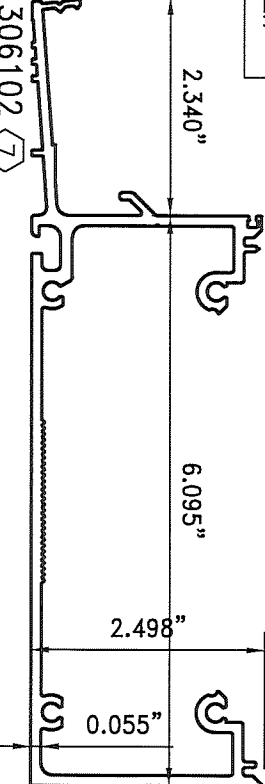
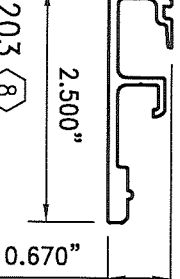
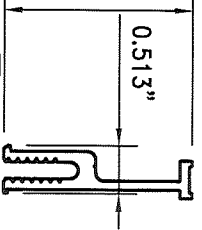
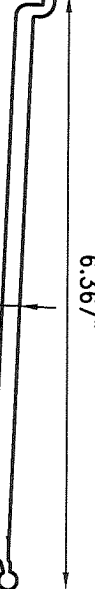
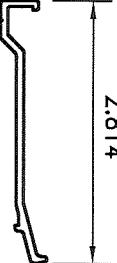
8.19.25

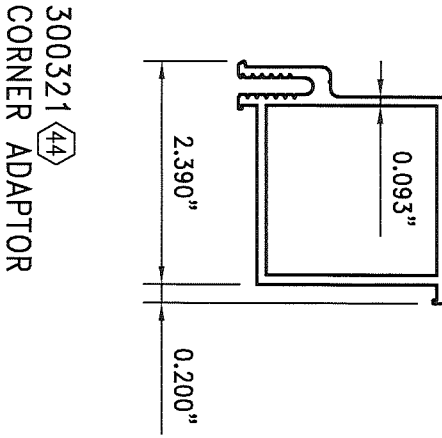
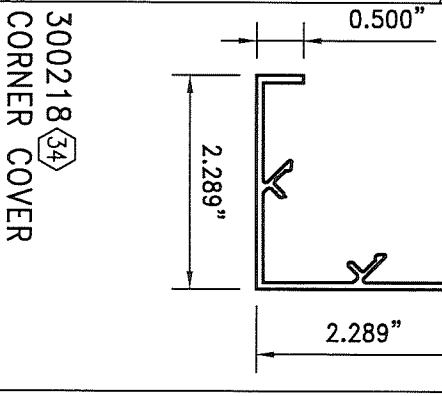
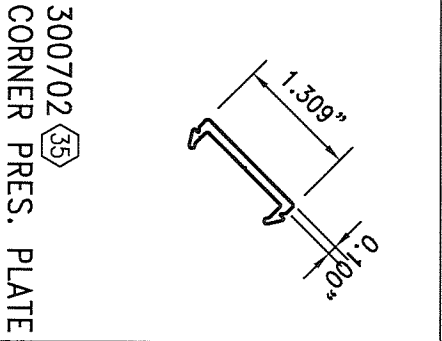
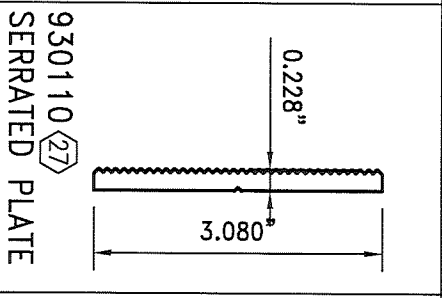
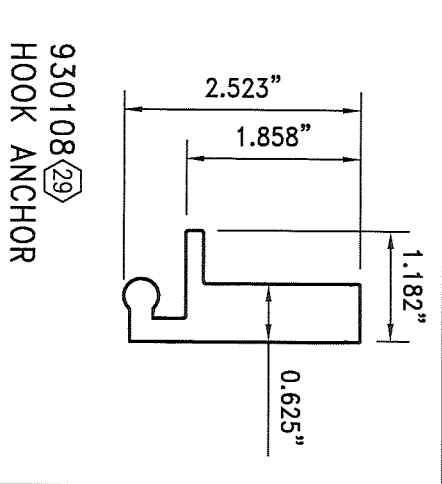
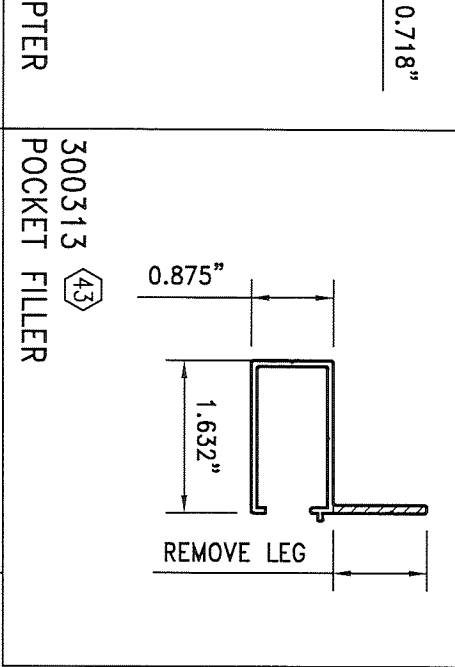
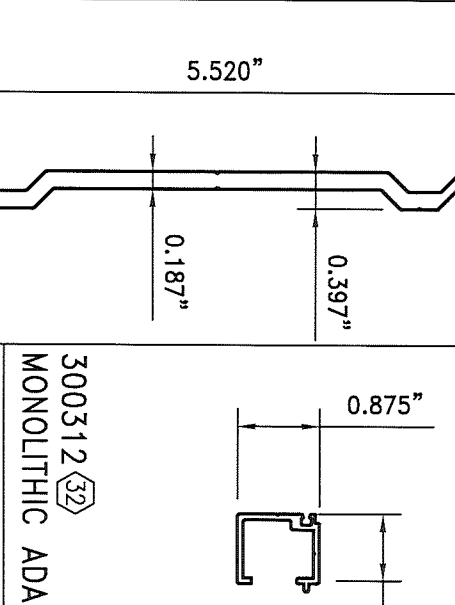
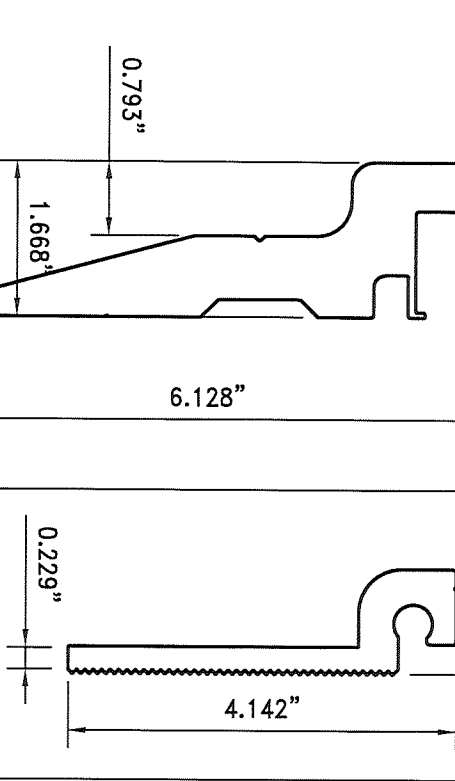
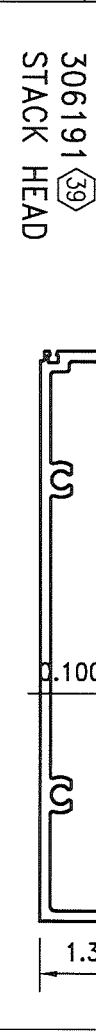
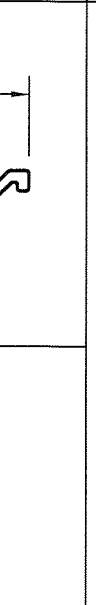
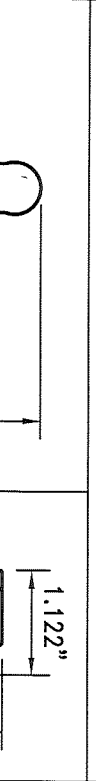
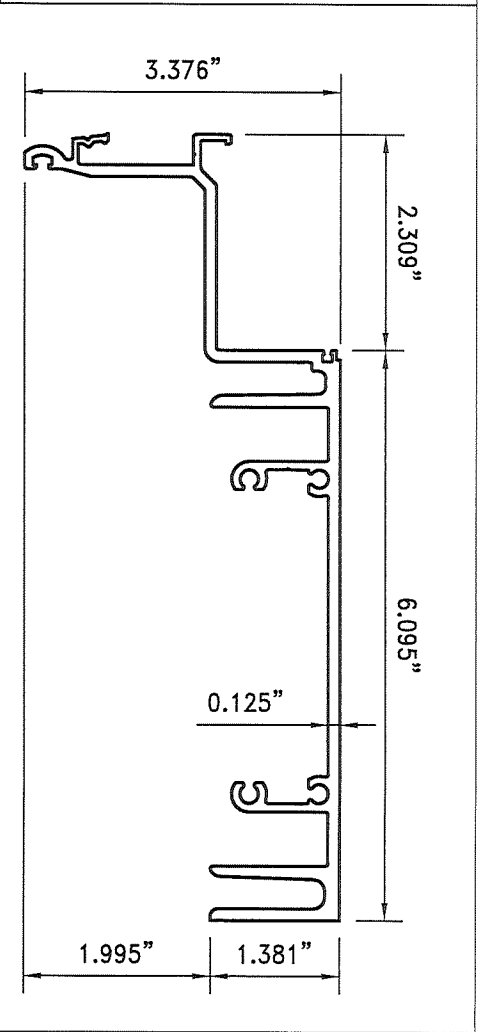
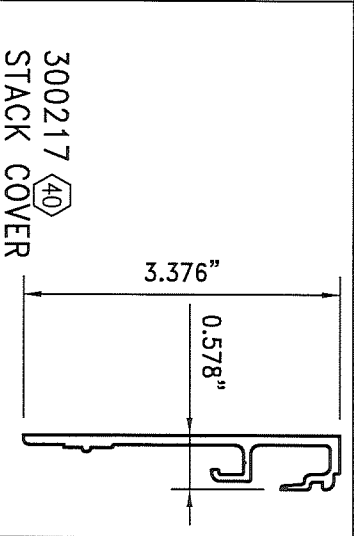
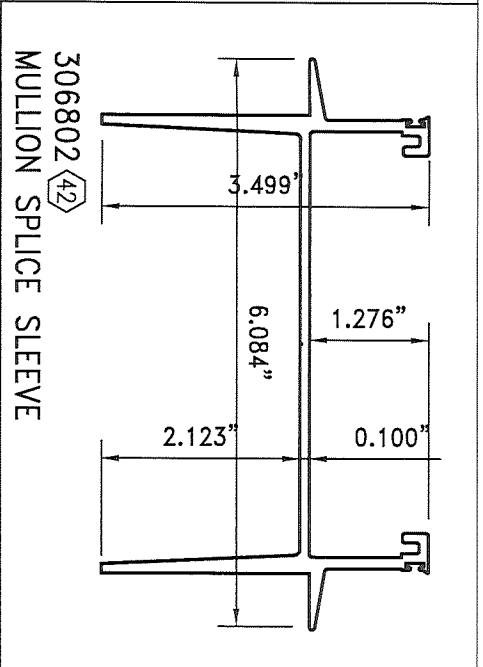
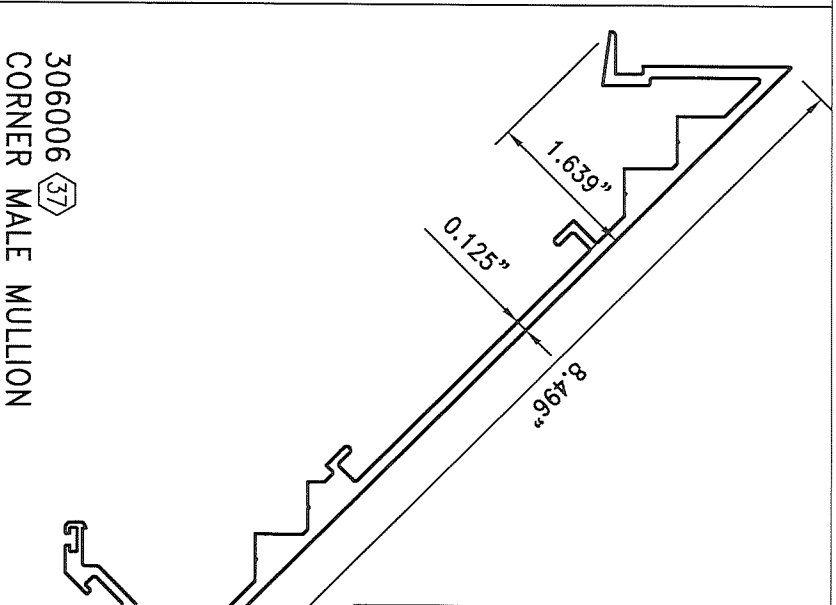
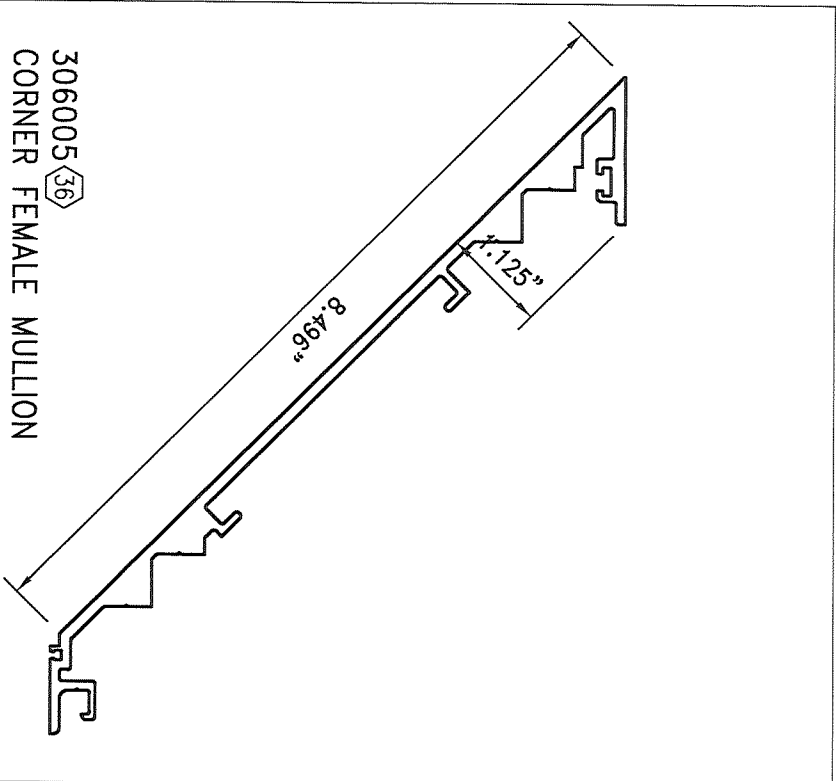
**Harmon**
HI 7000 SMALL MISSILE
GLASS APPLICATIONS
SMALL MISSILE
DATE: 06/28/04 6/17/16
11/18/08 03/05/19
3/10/09 02/25/21
3/16/09 08/12/25
4/5/22/12
5/10/03/14
DWG. NO. HI7000SM
SHEET 07 OF 41

DADE CO. STAMP

PRODUCT REVISED
As complying with the Florida
Building Code **25-0902.04**
NOA-No. _____
Expiration Date: **09/02/2029**
By: *Manuel Jose*
Miami-Dade Product Control

**ENGINEER'S STAMP**
No. 65106
STATE OF FLORIDA
Ethan A. Gaudin
Registration No. 65106

 306001  1 FEMALE MULLION	 306002  2 MALE MULLION	 306004  4 MONOLITHIC JAMB	 306003  6 INSULATED JAMB	 300305  14 MONO-PERIM.ADAPT.	 300304  15 INS- PERIM. ADAPT.	 306101  3 INTERMEDIATE HORIZONTAL
 300701  13 PERSSURE BAR	 300202  9 HD/SILL COVER	 300201  11 HORIZ. COVER	 930105  24 SLIDING ANCHOR FEMALE	 300310  21 ANTI-BUCKLING CLIP	 300306  20 ANTI-BUCKLING CLIP	 306401  10 HEAD/SILL COVER
 300236  12 VERTICAL COVER	 300308  18 MONO-VERT. ADAPT.	 300303  16 MONO-HORIZ.ADAPT.	 930104  25 SLIDING ANCHOR MALE	 930102  22 STRAP ANCHOR FEMALE	 306103  5 MONO- HEAD/SILL	 306102  7 INSULATED HEAD/SILL
 300203  8 JAMB COVER	 300301  19 INS.-VERT. ADAPT.	 930106  23 STRAP ANCHOR MALE	 300302  17 INS.-HORIZ.ADAPT.	NOTES: FOR STACK AND CORNER COMPONENT PART DRAWINGS SEE PAGE 09	DADE CO. STAMP PRODUCT REVISED As complying with the Florida Building Code 25-0902.04 NOA-No. _____ Expiration Date: 09/02/2029 By: <i>Manuel Jose</i> Miami-Dade Product Control	ENGINEERING STAMP ETHAN A. LARSON No. 65108 STATE OF FLORIDA Professional Engineer Expiration Date: 03/05/19 03/10/09 03/16/09 08/02/25/21 08/12/25 HI 7000 SMALL MISSILE PARTS DRAWINGS DATE: 06/28/04 6/6/17/16 11/18/08 03/05/19 3/10/09 08/02/25/21 5/22/12 08/12/25 10/03/14 DWG. NO. H17000SM SHEET 08 OF 41

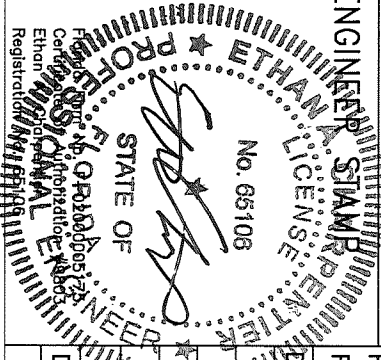


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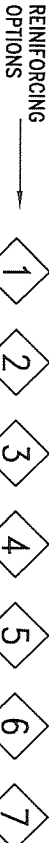
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Harmon
HI 7000 SMALL MISSILE
PART DRAWINGS
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6/17/16
03/05/19
02/25/21
08/12/25
DWG. NO. H17000SM
SHEET 09 OF 41

PRODUCT REVISED
As complying with the Florida Building Code
NOA-No. **25-0902.04**
Expiration Date: **09/02/2029**
By: *Manuel J. Jara*
Miami-Dade Product Control



SINGLE SPAN APPLICATION



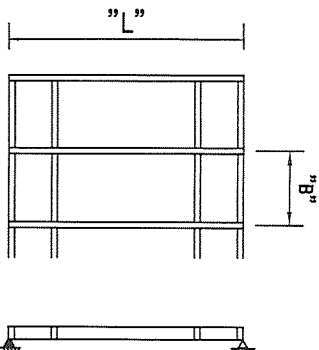
	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7
"B"	"L"/"R"	"L"/"R"	"L"/"R"	"L"/"R"	"L"/"R"	"L"/"R"	"L"/"R"
3-0"	10'-4"	13'-9"	16'-6"	17'-7"	18'-3"	19'-6"	20'-8"
UP TO MAXIMUM 60 PSF POS. OR NEG. LOAD	933	1243	1490	1587	1645	1768	1862
	8'-11"	11'-11"	14'-4"	15'-6"	16'-8"	18'-2"	19'-2"
	1077	1435	1721	1863	2002	2161	2310
	8'-0"	10'-8"	12'-9"	13'-10"	14'-10"	17'-0"	18'-2"
	1204	1605	1924	2083	2238	2554	2731
	7'-3"	9'-9"	11'-8"	12'-8"	13'-7"	15'-6"	17'-4"
	1319	1758	2107	2282	2451	2768	3131
	9'-7"	12'-9"	15'-3"	16'-7"	17'-6"	18'-9"	19'-10"
UP TO MAXIMUM 70 PSF POS. OR NEG. LOAD	1007	1343	1610	1743	1847	1973	2090
	8'-3"	11'-0"	13'-3"	14'-4"	15'-5"	17'-5"	18'-6"
	1163	1550	1859	2013	2162	2448	2593
	7'-5"	9'-10"	11'-10"	12'-10"	13'-9"	15'-9"	17'-6"
	1301	1733	2078	2250	2417	2759	3065
	6'-9"	9'-0"	10'-10"	11'-8"	12'-7"	14'-4"	16'-1"
	1425	1899	2276	2465	2648	3022	3391
	8'-11"	11'-11"	14'-4"	15'-6"	16'-8"	18'-2"	19'-2"
UP TO MAXIMUM 80 PSF POS. OR NEG. LOAD	1077	1435	1721	1863	2002	2181	2310
	7'-9"	10'-4"	12'-4"	13'-5"	14'-5"	16'-5"	17'-10"
	1244	1657	1987	2152	2311	2638	2866
	6'-11"	9'-3"	11'-1"	12'-0"	12'-10"	14'-8"	16'-6"
	1390	1853	2221	2405	2584	2949	3309
	6'-4"	8'-5"	10'-1"	10'-11"	11'-9"	13'-5"	15'-1"
	1523	2030	2433	2635	2830	3231	3625
	8'-5"	11'-3"	13'-6"	14'-7"	15'-8"	17'-7"	18'-8"
UP TO MAXIMUM 90 PSF POS. OR NEG. LOAD	1142	1522	1825	1976	2123	2382	2523
	7'-3"	9'-9"	11'-8"	12'-8"	13'-7"	15'-6"	17'-4"
	1319	1758	2107	2282	2451	2798	3131
	6'-6"	8'-8"	10'-5"	11'-4"	12'-2"	13'-10"	15'-7"
	1475	1965	2356	2551	2741	3128	3510
	5'-11"	7'-11"	9'-6"	10'-4"	11'-1"	12'-8"	14'-2"
	1615	2153	2581	2795	3002	3426	3845
	6'-0"						



	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7
"B"	"L"/"R"	"L"/"R"	"L"/"R"	"L"/"R"	"L"/"R"	"L"/"R"	"L"/"R"
3-0"	8'-0"	10'-8"	12'-9"	13'-10"	14'-10"	17'-0"	18'-2"
UP TO MAXIMUM 100 PSF POS. OR NEG. LOAD	1204	1605	1924	2083	2238	2554	2731
	6'-11"	9'-3"	11'-1"	12'-0"	12'-10"	14'-8"	16'-6"
	1390	1853	2221	2405	2584	2949	3309
	6'-2"	8'-3"	9'-11"	10'-9"	11'-6"	13'-2"	14'-9"
	1554	2072	2483	2689	2889	3297	3700
	5'-8"	7'-6"	9'-0"	9'-9"	10'-6"	12'-0"	13'-6"
	1703	2269	2720	2946	3164	3612	4053
	7'-7"	10'-2"	12'-2"	13'-2"	14'-2"	16'-2"	17'-9"
	1263	1683	2018	2185	2347	2679	2933
	6'-7"	8'-9"	10'-7"	11'-5"	12'-3"	14'-0"	15'-9"
	1458	1943	2330	2523	2710	3093	3471
	5'-11"	7'-10"	9'-5"	10'-3"	11'-0"	12'-6"	14'-1"
UP TO MAXIMUM 110 PSF POS. OR NEG. LOAD	1630	2173	2605	2821	3030	3458	3881
	5'-4"	7'-2"	8'-7"	9'-4"	10'-0"	11'-5"	12'-10"
	1786	2380	2853	3090	3319	3788	4251
	7'-3"	9'-9"	11'-8"	12'-8"	13'-7"	15'-6"	17'-4"
UP TO MAXIMUM 120 PSF POS. OR NEG. LOAD	1319	1758	2107	2282	2451	2798	3131
	6'-4"	8'-5"	10'-1"	10'-11"	11'-9"	13'-5"	15'-1"
	1523	2030	2433	2635	2830	3231	3625
	5'-8"	7'-6"	9'-0"	9'-9"	10'-6"	12'-0"	13'-6"
	1703	2269	2720	2946	3164	3612	4053
	5'-2"	6'-10"	8'-3"	8'-11"	9'-7"	10'-11"	12'-3"
	1865	2486	2980	3227	3466	3956	4440
	7'-0"	9'-4"	11'-2"	12'-2"	13'-0"	14'-11"	16'-9"
UP TO MAXIMUM 130 PSF POS. OR NEG. LOAD	1373	1830	2193	2375	2551	2912	3268
	6'-1"	8'-1"	9'-8"	10'-6"	11'-3"	12'-11"	14'-6"
	1585	2113	2533	2743	2946	3362	3773
	5'-5"	7'-3"	8'-8"	9'-5"	10'-1"	11'-6"	12'-11"
	1772	2362	2831	3066	3294	3759	4219
	4'-11"	6'-7"	7'-11"	8'-7"	9'-2"	10'-6"	11'-6"
	1941	2587	3102	3359	3608	4118	4515
	6'-0"						

GENERAL NOTES:

- "L" = MAXIMUM MULLION SPAN
- "B" = C/L TO C/L SPACING
- "B" = $\frac{W1 + W2}{2}$
- FOR SINGLE SPAN MAXIMUM DEFL. = L/180 or 1"
- (WHEN STEEL RIENF. IS USED, LENGTH OF STEEL IS LENGTH OF MULLION MINUS 12")
- SPANS ARE LIMITED BY MAXIMUM TESTED END REACTIONS
- R= REACTION (REFER TO PAGE 13 FOR BUILDING CONDITION TYPES AND PAGES 19, 20, 21, 23 FOR REACTION DETAIL OPTIONS)



REINFORCING OPTIONS

1	COMBINED Ix = 12,941 in ⁴	2	COMBINED Ix = 22,993 in ⁴	3	COMBINED Ix = 33,045 in ⁴
NO REINFORCING	1/4" x 5 1/2" STL BAR	(2) 1/4" x 5 1/2" STL BARS			
4	COMBINED Ix = 38,751 in ⁴	5	COMBINED Ix = 44,714 in ⁴	6	COMBINED Ix = 58,254 in ⁴
C5x9	1/4" x 5 1/2" STL BAR	1 1/2" x 5" STL BAR	2" x 5" STL BAR		

SINGLE SPAN

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Harmon

DADE CO. STAMP

ENGINEER STAMP

MULLION APPLICATIONS
LOAD TABLES SINGLE SPAN

No. 65108

DATE: 06/28/04

PRODUCT REVISED
As complying with the Florida Building Code
NOA-No. **25-0902.04**

11/18/08

Expiration Date: **09/02/2029**

3/10/09

By: *Manuel Jose*

5/22/12

Miami-Dade Product Control

3/16/09

STATE OF FLORIDA

8/02/25/21

Professional Seal

10/03/14

DWG. NO. H17000SM

08/12/25

TWIN SPAN APPLICATION

REINFORCING OPTIONS							
	1	2	3	4	5	6	7
	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7
"B"	L ^u / _v /R ^u	L ^u / _v /R ^u	L ^u / _v /R ^u	L ^u / _v /R ^u	L ^u / _v /R ^u	L ^u / _v /R ^u	L ^u / _v /R ^u
3' 0"	12'-8"	14'-7"	14'-7"	14'-7"	14'-7"	14'-7"	14'-7"
RE	872	1006	1006	1006	1006	1006	1006
RM	2781	3209	3209	3209	3209	3209	3209
UP TO MAXIMUM 60 PSF POS. OR NEG. LOAD	10'-11"	13'-6"	14'-7"	14'-7"	14'-7"	14'-7"	14'-7"
RE	1007	1238	1342	1342	1342	1342	1342
RM	3211	3946	4278	4278	4278	4278	4278
5' 0"	9'-10"	12'-1"	14'-5"	14'-7"	14'-7"	14'-7"	14'-7"
RE	1126	1384	1668	1677	1677	1677	1677
RM	3590	4411	5288	5348	5348	5348	5348
6' 0"	8'-11"	11'-0"	13'-2"	14'-7"	14'-7"	14'-7"	14'-7"
RE	1233	1516	1817	2012	2012	2012	2012
RM	3932	4832	5793	6417	6417	6417	6417
3' 0"	11'-9"	14'-5"	14'-7"	14'-7"	14'-7"	14'-7"	14'-7"
RE	942	1158	1174	1174	1174	1174	1174
RM	3003	3691	3744	3744	3744	3744	3744
4' 0"	10'-2"	12'-6"	14'-7"	14'-7"	14'-7"	14'-7"	14'-7"
RE	1088	1337	1565	1565	1565	1565	1565
RM	3468	4262	4991	4991	4991	4991	4991
5' 0"	9'-1"	11'-2"	13'-4"	14'-7"	14'-7"	14'-7"	14'-7"
RE	1216	1494	1791	1957	1957	1957	1957
RM	3877	4765	5712	6239	6239	6239	6239
6' 0"	8'-3"	10'-2"	12'-2"	13'-10"	14'-2"	14'-7"	14'-7"
RE	1332	1637	1962	2229	2283	2348	2348
RM	4247	5219	6257	7106	7278	7487	7487
3' 0"	10'-11"	13'-6"	14'-7"	14'-7"	14'-7"	14'-7"	14'-7"
RE	1007	1238	1342	1342	1342	1342	1342
RM	3211	3946	4278	4278	4278	4278	4278
4' 0"	9'-6"	11'-8"	14'-0"	14'-7"	14'-7"	14'-7"	14'-7"
RE	1163	1429	1713	1789	1789	1789	1789
RM	3707	4556	5462	5704	5704	5704	5704
5' 0"	8'-6"	10'-5"	12'-6"	14'-3"	14'-7"	14'-7"	14'-7"
RE	1300	1597	1915	2175	2228	2236	2236
RM	4145	5094	6106	6935	7103	7130	7130
6' 0"	7'-9"	9'-6"	11'-5"	13'-0"	13'-3"	14'-7"	14'-7"
RE	1424	1750	2098	2382	2440	2683	2683
RM	4540	5580	6689	7597	7781	8556	8556
3' 0"	10'-4"	12'-8"	14'-7"	14'-7"	14'-7"	14'-7"	14'-7"
RE	1068	1313	1509	1509	1509	1509	1509
RM	3405	4185	4813	4813	4813	4813	4813
4' 0"	8'-11"	11'-0"	13'-2"	14'-7"	14'-7"	14'-7"	14'-7"
RE	1233	1516	1817	2012	2012	2012	2012
RM	3932	4832	5793	6417	6417	6417	6417
5' 0"	8'-0"	9'-10"	11'-9"	13'-5"	13'-9"	14'-7"	14'-7"
RE	1379	1694	2031	2307	2363	2515	2515
RM	4396	5402	6477	7356	7534	8021	8021
6' 0"	7'-3"	9'-0"	10'-9"	12'-3"	12'-6"	14'-7"	14'-7"
RE	1510	1856	2225	2527	2588	3018	3018
RM	4816	5918	7095	8058	8253	9625	9625

REINFORCING OPTIONS							
	1	2	3	4	5	6	7
	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7
"B"	L ^u / _v /R ^u	L ^u / _v /R ^u	L ^u / _v /R ^u	L ^u / _v /R ^u	L ^u / _v /R ^u	L ^u / _v /R ^u	L ^u / _v /R ^u
3' 0"	9'-10"	12'-1"	14'-5"	14'-7"	14'-7"	14'-7"	14'-7"
RE	1126	1384	1658	1677	1677	1677	1677
RM	3590	4411	5288	5348	5348	5348	5348
UP TO MAXIMUM 100 PSF POS. OR NEG. LOAD	8'-6"	10'-5"	12'-6"	14'-3"	14'-7"	14'-7"	14'-7"
RE	1300	1597	1915	2175	2228	2236	2236
RM	4145	5094	6106	6935	7103	7130	7130
5' 0"	7'-7"	9'-4"	11'-2"	12'-8"	13'-0"	14'-7"	14'-7"
RE	1453	1786	2141	2432	2490	2795	2795
RM	4634	5695	6827	7754	7941	8912	8912
6' 0"	6'-11"	8'-6"	10'-2"	11'-7"	11'-11"	14'-3"	14'-7"
RE	1592	1956	2345	2664	2728	3266	3354
RM	5076	6238	7478	8494	8699	10414	10695
3' 0"	9'-4"	11'-6"	13'-9"	14'-7"	14'-7"	14'-7"	14'-7"
RE	1181	1451	1739	1845	1845	1845	1845
RM	3765	4626	5546	5882	5882	5882	5882
4' 0"	8'-1"	9'-11"	11'-11"	13'-7"	13'-11"	14'-7"	14'-7"
RE	1363	1675	2008	2281	2336	2460	2460
RM	4347	5342	6404	7274	7449	7843	7843
5' 0"	7'-3"	8'-11"	10'-8"	12'-1"	12'-5"	14'-7"	14'-7"
RE	1524	1873	2245	2550	2612	3074	3074
RM	4860	5973	7160	8132	8329	9804	9804
6' 0"	6'-7"	8'-1"	9'-9"	11'-1"	11'-4"	13'-7"	14'-5"
RE	1670	2052	2460	2794	2861	3425	3634
RM	5324	6543	7843	8908	9124	10922	11587
3' 0"	8'-11"	11'-0"	13'-2"	14'-7"	14'-7"	14'-7"	14'-7"
RE	1233	1516	1817	2012	2012	2012	2012
RM	3932	4832	5793	6417	6417	6417	6417
4' 0"	7'-9"	9'-6"	11'-5"	13'-0"	13'-3"	14'-7"	14'-7"
RE	1424	1750	2098	2382	2440	2683	2683
RM	4540	5580	6689	7597	7781	8556	8556
5' 0"	6'-11"	8'-6"	10'-2"	11'-7"	11'-11"	14'-3"	14'-7"
RE	1592	1956	2345	2664	2728	3266	3354
RM	5076	6238	7478	8494	8699	10414	10695
6' 0"	6'-4"	7'-9"	9'-4"	10'-7"	10'-10"	13'-0"	13'-2"
RE	1744	2143	2569	2918	2988	3577	3634
RM	5561	6834	8192	9304	9529	11408	11587
3' 0"	8'-7"	10'-7"	12'-8"	14'-5"	14'-7"	14'-7"	14'-7"
RE	1284	1577	1891	2148	2180	2180	2180
RM	4093	5029	6029	6848	6952	6952	6952
4' 0"	7'-5"	9'-2"	11'-0"	12'-6"	12'-9"	14'-7"	14'-7"
RE	1482	1821	2183	2480	2540	2907	2907
RM	4726	5807	6962	7907	8098	9269	9269
5' 0"	6'-8"	8'-2"	9'-10"	11'-2"	11'-5"	13'-8"	14'-7"
RE	1657	2036	2441	2772	2839	3399	3633
RM	5283	6493	7784	8840	9054	10839	11586
6' 0"	6'-1"	7'-5"	8'-11"	10'-2"	10'-5"	12'-2"	12'-2"
RE	1815	2231	2674	3037	3110	3634	3634
RM	5788	7113	8527	9684	9918	11587	11587

GENERAL NOTES:

- "H" = MULLION LENGTH
- "L" = SPAN BETWEEN ANCHORS
- "B" = C/L TO C/L SPACING
- "B" = $\frac{W1 + W2}{2}$
- FOR TWIN SPAN MAXIMUM DEFL. = L/180 OR 1"
- (WHEN STEEL RIENF. IS USED, LENGTH OF STEEL IS LENGTH OF MULLION MINUS 12")
- SPANS ARE LIMITED BY MAXIMUM TESTED END REACTIONS
- RE = REACTION AT HEAD AND SILL (SEE PAGE 13)
- RM = REACTION AT MIDPOINT ANCHOR (SEE PAGE 13)

REINFORCING OPTIONS

1	2	3	
COMBINED Ix = 12.941 in ⁴	COMBINED Ix = 22.993 in ⁴ 1/4" x 5 1/2" STL BAR	COMBINED Ix = 33.045 in ⁴ (2) 1/4" x 5 1/2" STL BARS	
NO REINFORCING			
4	5	6	7
COMBINED Ix = 38.751 in ⁴	COMBINED Ix = 44.714 in ⁴ C5x6.7 w/ 1/4" x 5 1/2" STL BAR	COMBINED Ix = 58.254 in ⁴ 1 1/2" x 5" STL BAR	COMBINED Ix = 73.538 in ⁴ 2" x 5" STL BAR
C5x9			

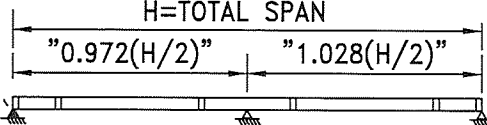
TWIN SPAN

NO "TOTAL SPAN" SHALL BE GREATER THAN 28'-4 3/4" (TESTED)

TESTED LENGTHS ARE 165 3/4" (LOWER) AND 175" (UPPER).
TOTAL LENGTH OF MULLION = (H)

(H) = $\left(\frac{\text{CHART "L"}}{1.028} \right)^2$

THESE LENGTHS ARE BASED ON THE TESTED "TWIN-SPAN" LENGTH RATIOS.



CENTER ANCHOR IS PERMITTED TO BE LOCATED $\frac{H}{2} \pm 2.8\%$ (H/2)

Larson Engineering, Inc.
3524 Labore Road
White Bear Lake, MN 55110
(P) 651.481.9120 (F) 651.481.9201

DADE CO. STAMP

ENGINEER STAMP

Harmon
HI 7000 SMALL MISSILE
MULLION APPLICATIONS

LOAD TABLES

DATE: 06/28/04 / 6/17/16

1 11/18/08 / 3/05/19

2 3/10/09 / 8/02/25/21

3 3/16/09 / 9/08/12/25

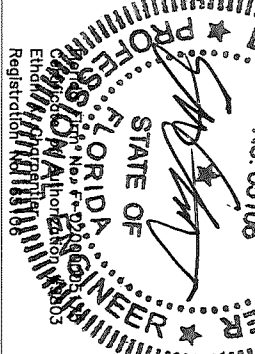
4 5/22/12

5 10/03/14

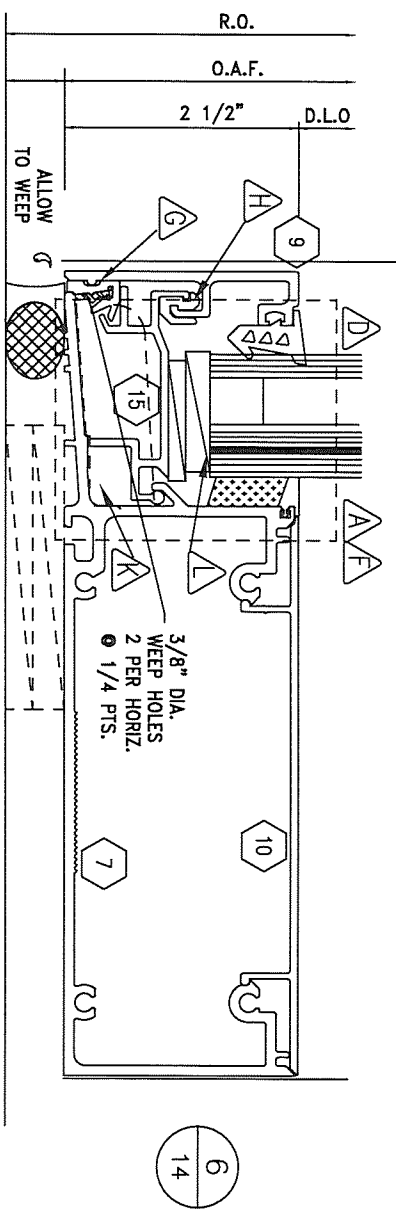
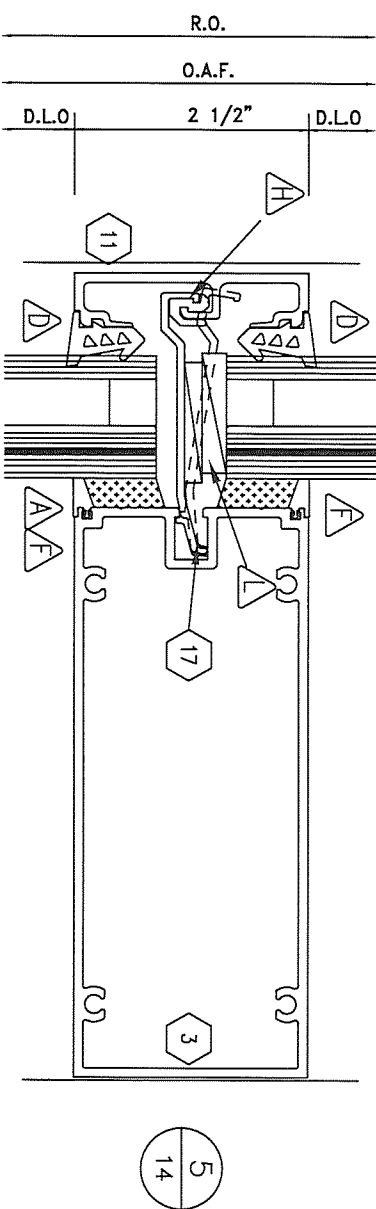
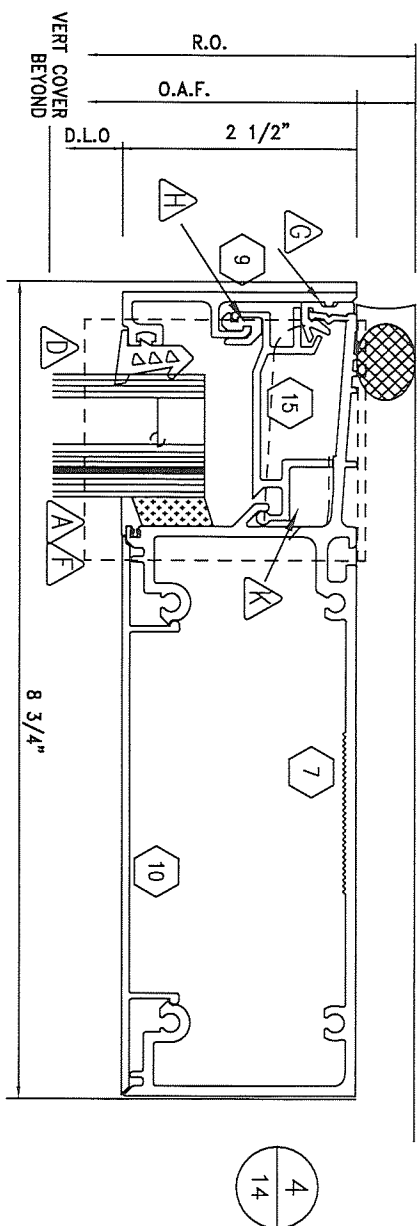
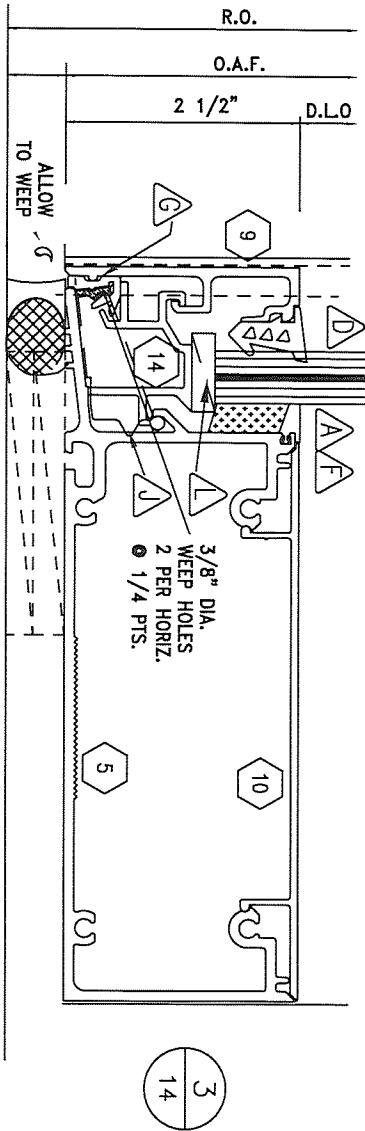
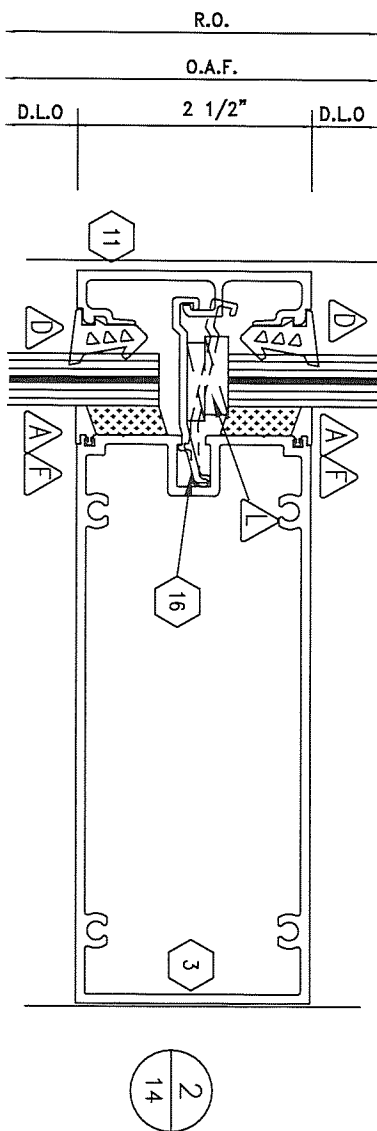
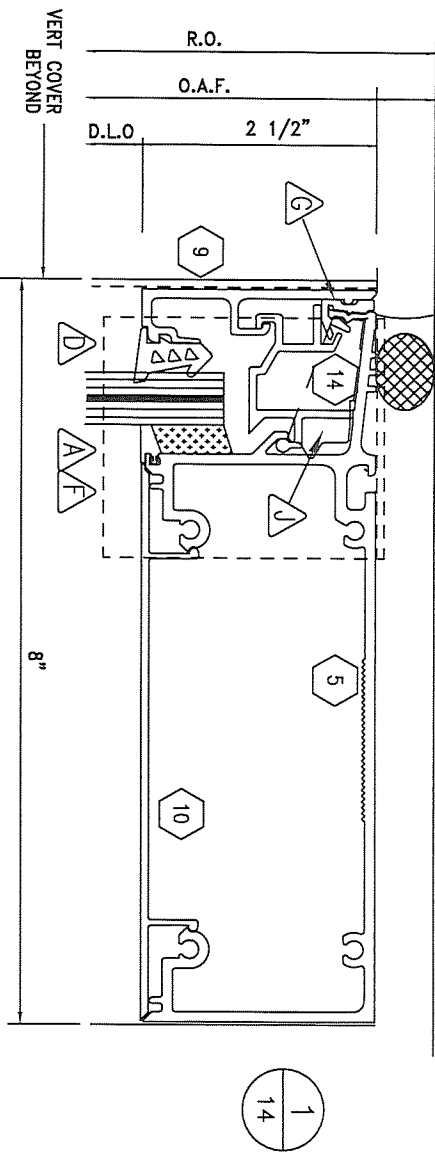
DWG. NO. H17000SM

SHEET 11 OF 41

PRODUCT REVISED
As complying with the Florida Building Code
NOA-No. **25-0902.04**
Expiration Date: **09/02/2029**
By: *Manuel Jose*
Miami-Dade Product Control



ANCHOR TYPE SUBSTRATE		STRAP-ANCHOR ANCHOR	THRU-FRAME ANCHOR	STEEL ANGLES IN VERTICAL	ALUMINUM LUGS IN VERTICAL	TWIN SPAN MID-SPAN ANCHOR	TWIN-SPAN w/ STACK HORIZ. INTER. ANCHOR	JAMB ANCHOR			
WOOD											
CONC.								MAXIMUM END REACTION (1) STRAP-5" LONG = 1870# SEE DETAIL 1/22			
STEEL											
METAL STUD											
		MAXIMUM END REACTION (2) STRAPS-8" LONG = 2,715# SEE SHEET 19 FOR DETAILS	MAXIMUM END REACTION = 1,345# SEE SHEET 19 FOR DETAILS	MAXIMUM END REACTION (2) ANGLES = 4,520# TYP. ANGLES w/ (2) FASTENERS REIN. ANGLES w/ (1) FASTENER SEE SHEET 20 FOR DETAILS	MAXIMUM END REACTION = 2,715# (PER TEST ELEV. 12) SEE SHEET 20 FOR DETAILS	MAXIMUM WL REACTION = 8,890# SEE SHEET 21 FOR DETAILS	MAXIMUM WL REACTION 13 1/2" LONG = 10,500# 8" LONG = 5,890# SEE SHEET 21 FOR DETAILS				
GENERAL NOTES: - SIZES OF ANCHOR COMPONENTS LISTED ABOVE ARE A MINIMUM, BASED ON MOCKUP CALCULATIONS COMPLYING WITH CURRENT FBC - ACTUAL LENGTH AND NUMBER & SIZE OF HOLES TO BE DETERMINED BY PROJECT SPECIFIC PERIMETER CONDITIONS AND TYPES OF FASTENERS USED.				CORNER ANCHORS - SILL / HEAD REACTION= <= 3100 LBS. SEE DETAIL 24 ON 38 - INTERMEDIATE D.L. REACTION= <= 2890 LBS. D.L. SEE DETAIL 22 ON 36 <= 850 LBS. W.L. SEE DETAIL 22 ON 36 - INTERMEDIATE W.L. ONLY REACTION= < 2890 LBS. SEE DETAIL 23 ON 37				DADE CO. STAMP ENGINEER'S SEAL No. 65106 STATE OF FLORIDA Professional Engineer Ethel A. Harmon Registration No. 65106		HI 7000 SMALL MISSILE ANCHOR APPLICATIONS DATE: 06/28/04 6/17/16 11/18/08 3/10/09 3/16/09 5/22/12 10/03/14 DWG. NO. H17000SM SHEET 13 OF 41	
				Larson Engineering, Inc. 3524 Lobore Road White Bear Lake, MN 55110 (P) 651.481.9120 (F) 651.481.9201				Harmon			
				8.19.25							
				PRODUCT REVISED As complying with the Florida Building Code NOA-No. 25-0902.04 Expiration Date: 09/02/2029 By: <i>Manuel Jose</i> Miami-Dade Product Control							



GENERAL NOTES:

- FOR ANCHOR DETAILS REFER TO SHEET 13
- FOR PART IDENTIFICATION REFER TO SHEET 2

- FOR GLAZING DETAILS, GLASS BITE & GASKET CONFIGURATIONS SEE SHEET 3.

- FASTENERS
- GASKETS
- ALUMINUM EXTRUSIONS

DADE CO. STAMP

Larson Engineering, Inc.
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White Bear Lake, MN 55110
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ENGINEER CHAMP

HI 7000 SMALL MISSILE
HORIZONTAL DETAILS

DATE: 06/28/04

11/18/08

3/10/09

3/16/09

5/22/12

10/03/14

DWG. NO. H17000SM

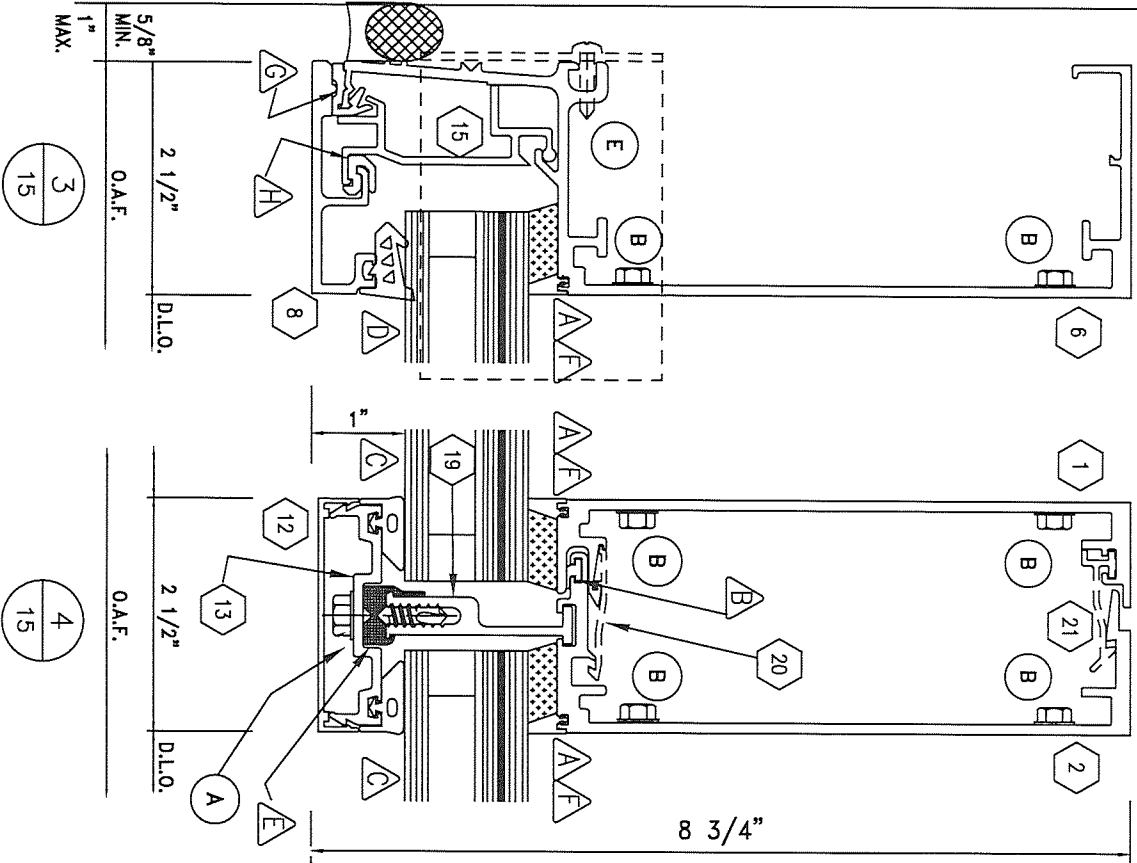
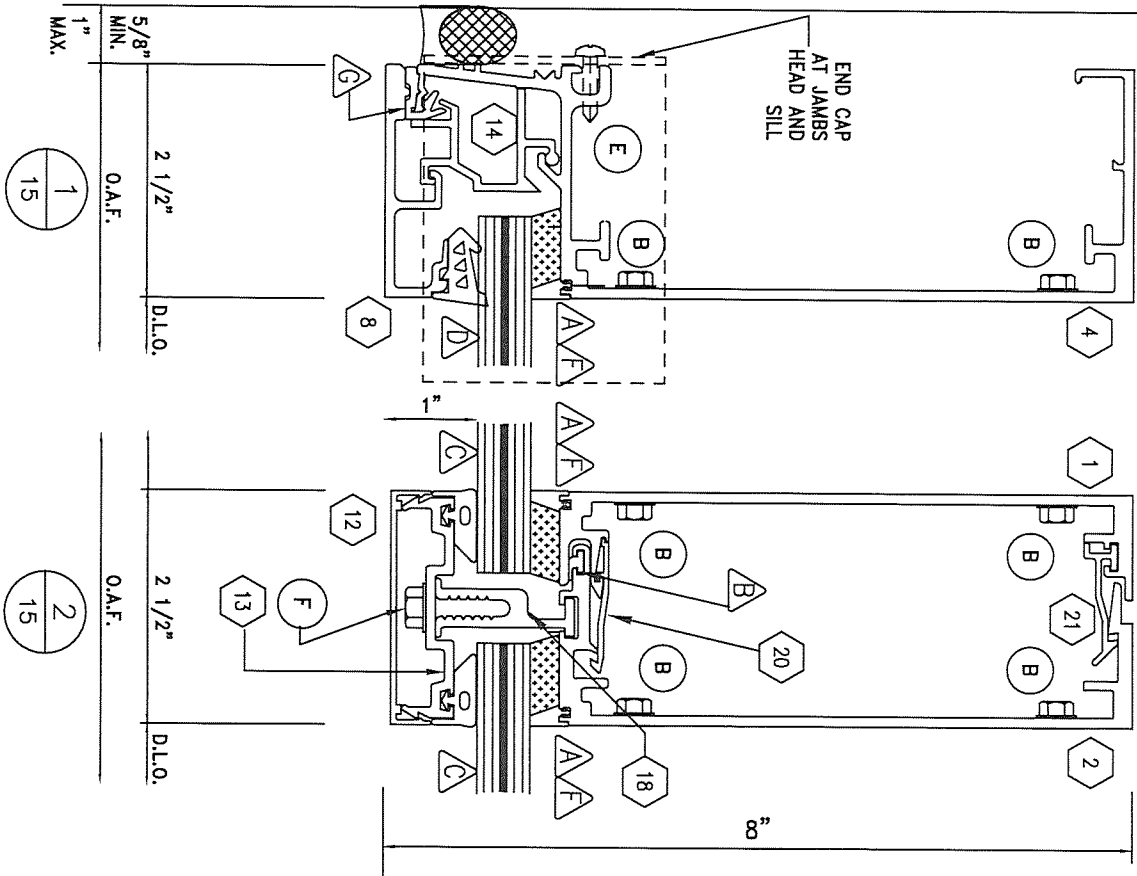
SHEET 14 OF 41



PRODUCT REVISED
As complying with the Florida Building Code
NOA-No. **25-0902.04**
Expiration Date: **09/02/2029**
By: *Manuel Jose*
Miami-Dade Product Control

8.19.25

Harmon



SILICONE OR GASKET GLASS JOINT DESIGN:

SILICONE OF GASKET GLASS JOINT DESIGN
TESTED TO 90 PSF.

DETERMINE THE DESIGNED WINDLOAD AND THE
SMALLEST LEG OF THE LARGEST LITE OF
GLASS FOR THE PROJECT.

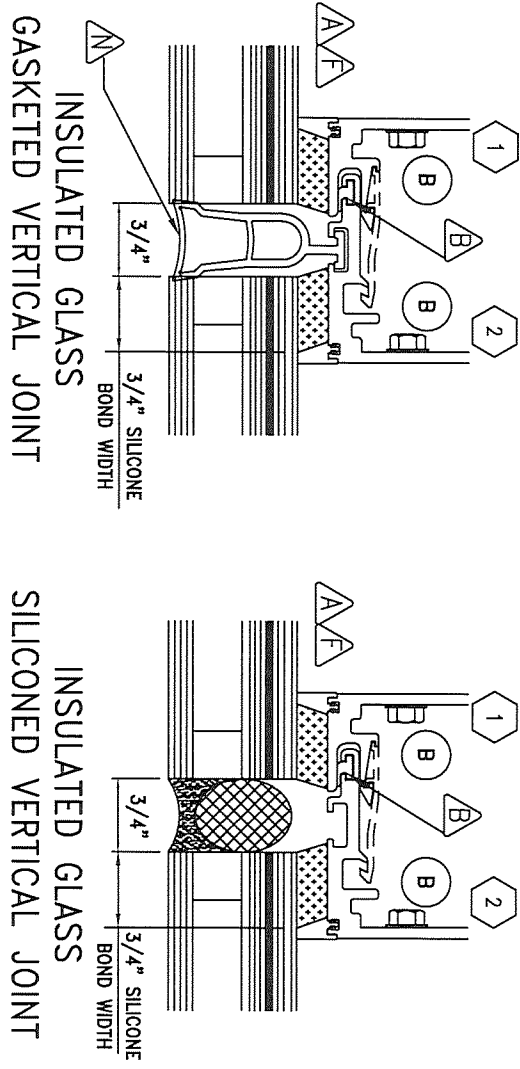
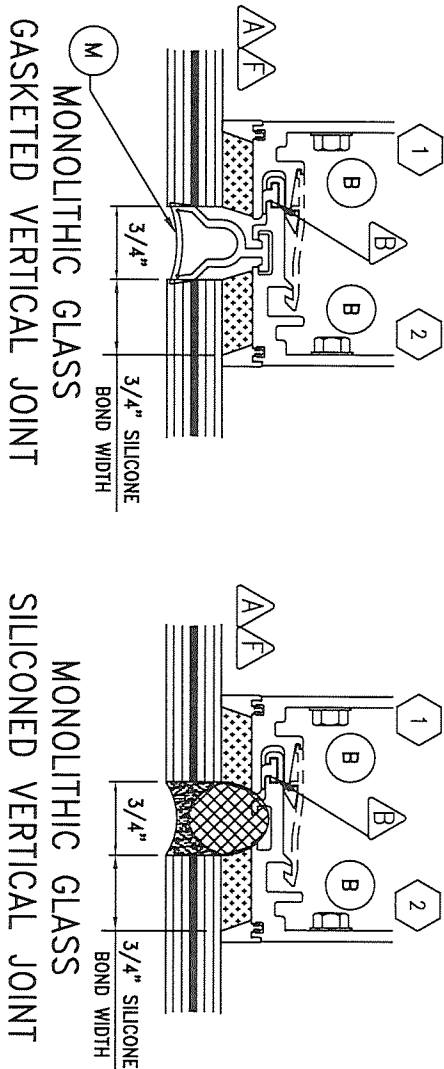
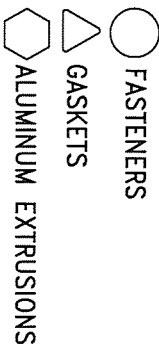
FOLLOW THE CHART FOR THE 3/4" SILICONE
BOND WIDTH TO DETERMINE IF YOUR GLASS
SIZE IS ACCEPTABLE FOR THE PROJECT.

IF YOUR SIZE AND WINDLOAD ARE NOT
APPROVED, CONSULT THE ARCHITECT OR
ENGINEER OF OPTIONS.

3/4" Silicone Bond Width Chart												
Smallest leg of largest lite of glass												
Windload	24"	30"	36"	42"	48"	54"	60"	66"	72"			
20 PSF	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK			
30 PSF	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK			
40 PSF	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK			
50 PSF	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK			
60 PSF	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK			
70 PSF	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK			
80 PSF	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK			
90 PSF	3/4" OK	3/4" OK	3/4" OK	3/4" OK	3/4" OK	Not Apvd	Not Apvd	Not Apvd	Not Apvd			

GENERAL NOTES:

- FOR ANCHOR DETAILS REFER TO SHEET 13
- FOR PART IDENTIFICATION REFER TO SHEET 2
- FOR GLAZING DETAILS, GLASS BITE & GASKET CONFIGURATIONS SEE SHEET 3.



Larson Engineering, Inc.
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8.19.25

DADE CO. STAMP

ENGINEER'S STAMP

HI 7000 SMALL MISSILE
VERTICAL DETAILS

PRODUCT REVISED
As complying with the Florida
Building Code

NOA-No. **25-0902.04**

Expiration Date: **09/02/2029**

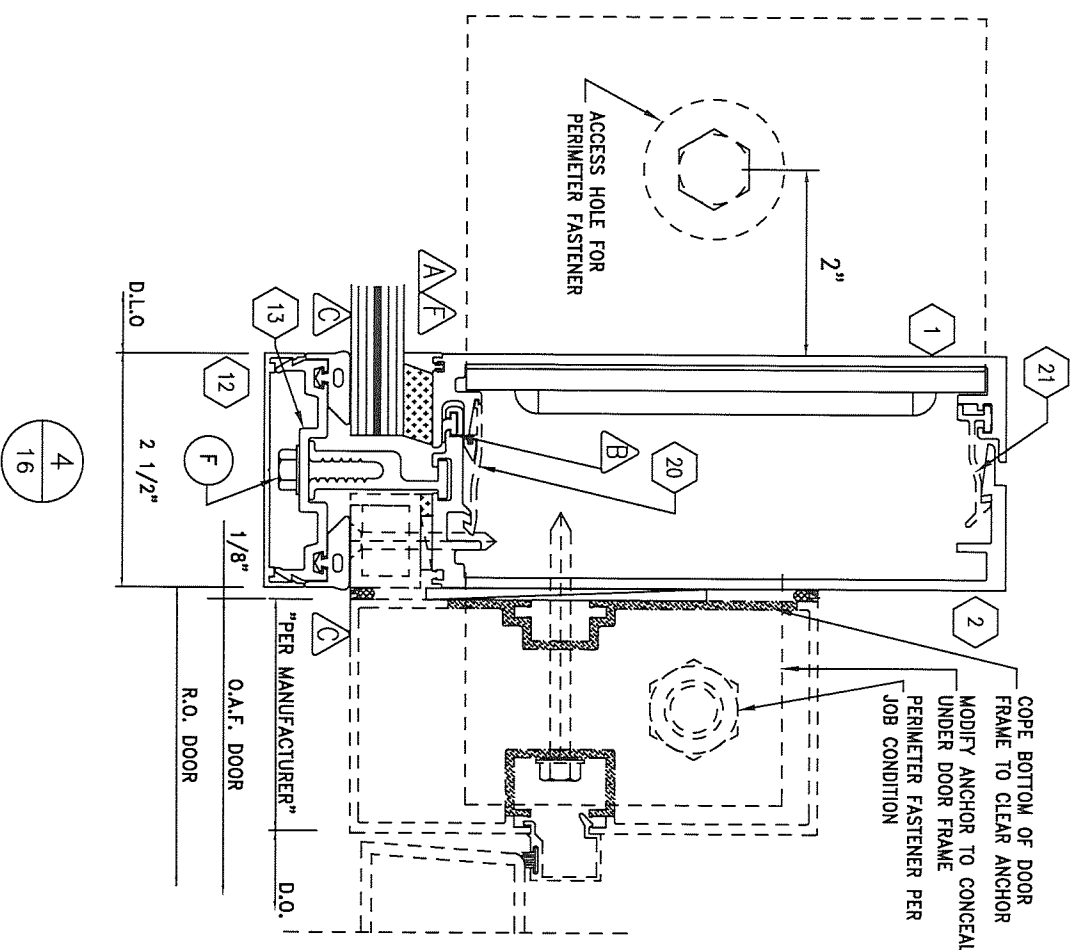
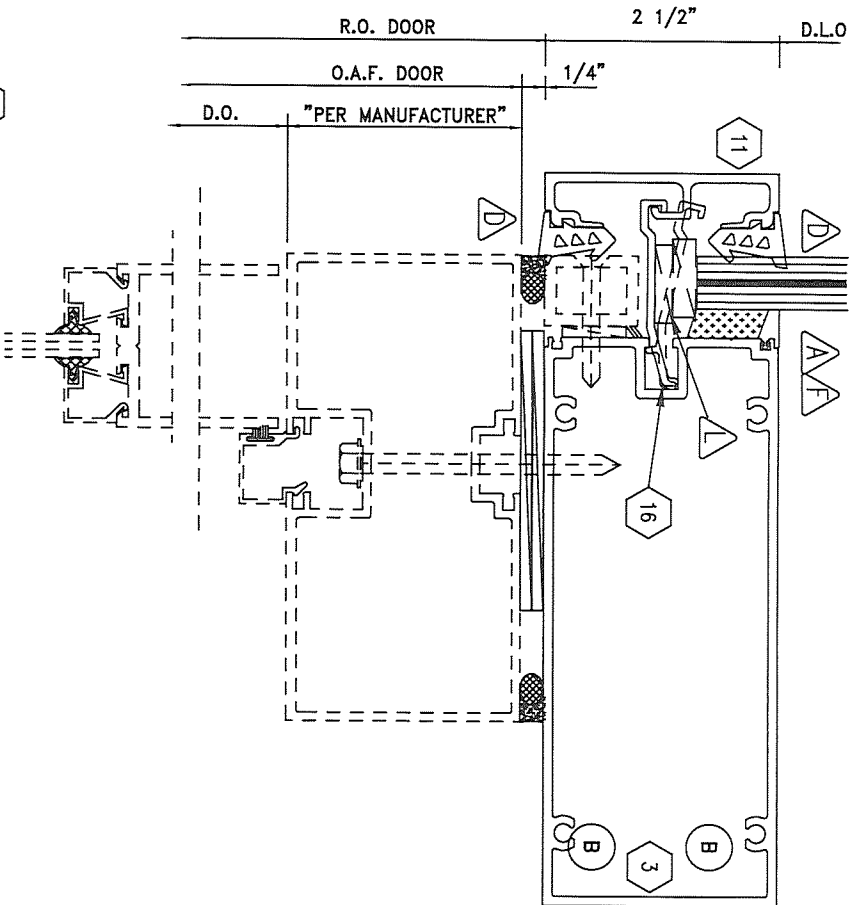
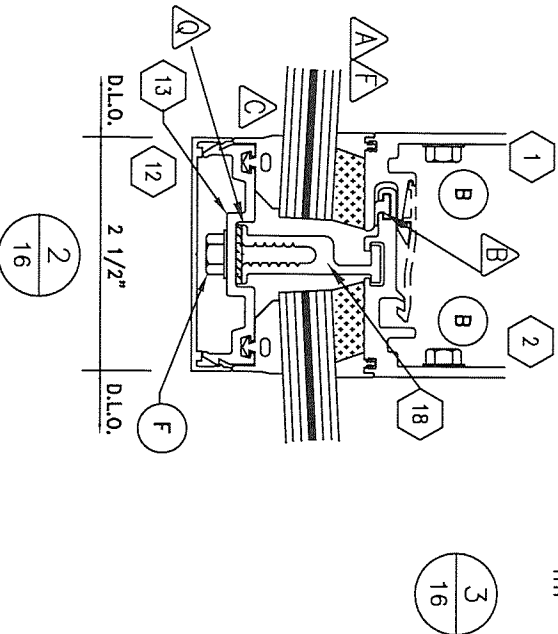
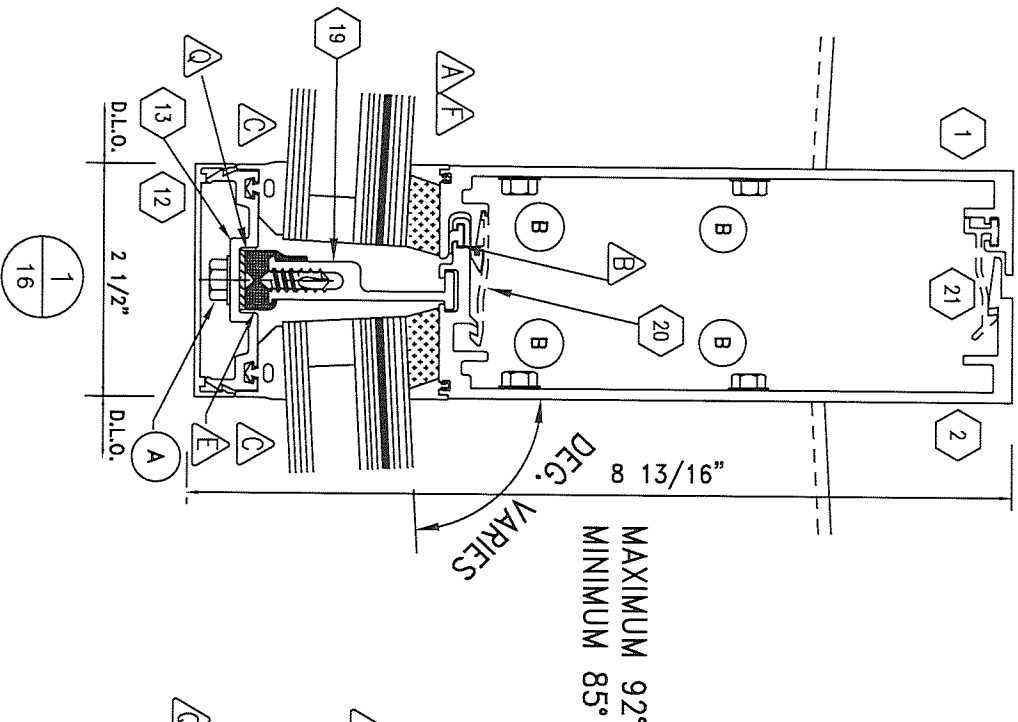
By: *Manuel Jera*
Miami-Dade Product Control



DATE: 06/28/04	6	6/17/16
11/18/08	7	03/05/19
3/10/09	8	02/25/21
3/16/09	9	08/12/25
5/22/12		
10/03/14		
DWG. NO. H17000SM		
SHEET 15 OF 41		

NOTE: SHALLOW HORIZONTALS MAY BE DESIRED TO AVOID EXPOSED EDGES AT VERTICALS DUE TO MITRE.

MAX. 90 P S F WITH THE SHORT HORIZ.



SEGMENTED MULLION INSULATED GLASS

SEGMENTED MULLION MONOLITHIC GLASS

GENERAL NOTES:

- FOR ANCHOR DETAILS REFER TO SHEET 13
- FOR PART IDENTIFICATION REFER TO SHEET 2

- FOR GLAZING DETAILS, GLASS BITE & GASKET CONFIGURATIONS SEE SHEET 3.

- FASTENERS
- △ GASKETS
- ◇ ALUMINUM EXTRUSIONS

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8-19-25

Harmon
HI 7000 SMALL MISSILE

DADE CO. STAMP

ENGINEER'S STAMP

SEGMENTED MULLION &
DOOR DETAILS

PRODUCT REVISED

As complying with the Florida
Building Code

NOA-No. **25-0902.04**

Expiration Date: **09/02/2029**

By: *Manuel Jose*

Miami-Dade Product Control

No. 65108

STATE OF

DATE: 06/28/04

11/18/08

3/10/09

3/16/09

DATE: 06/28/04

11/18/08

3/10/09

3/16/09

5/22/12

10/03/14

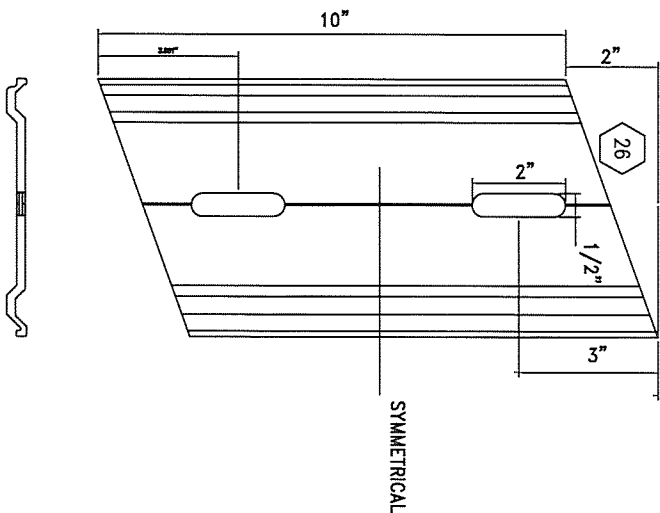
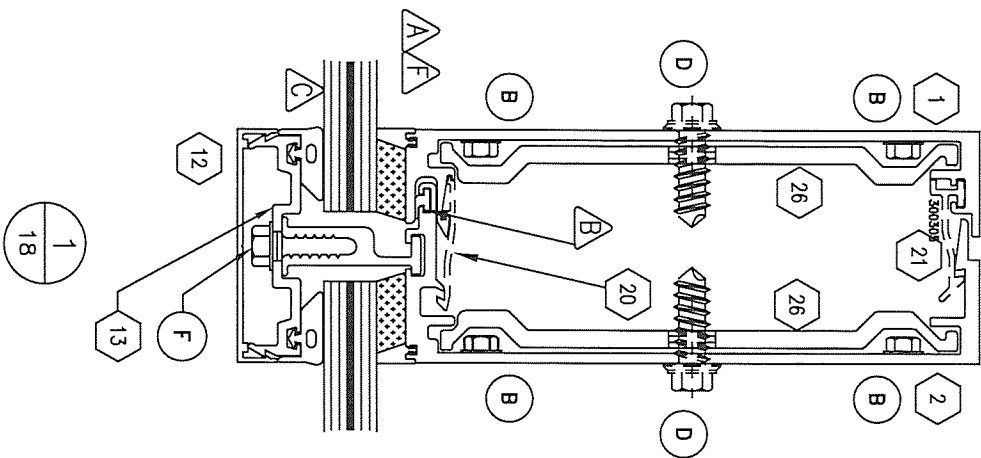
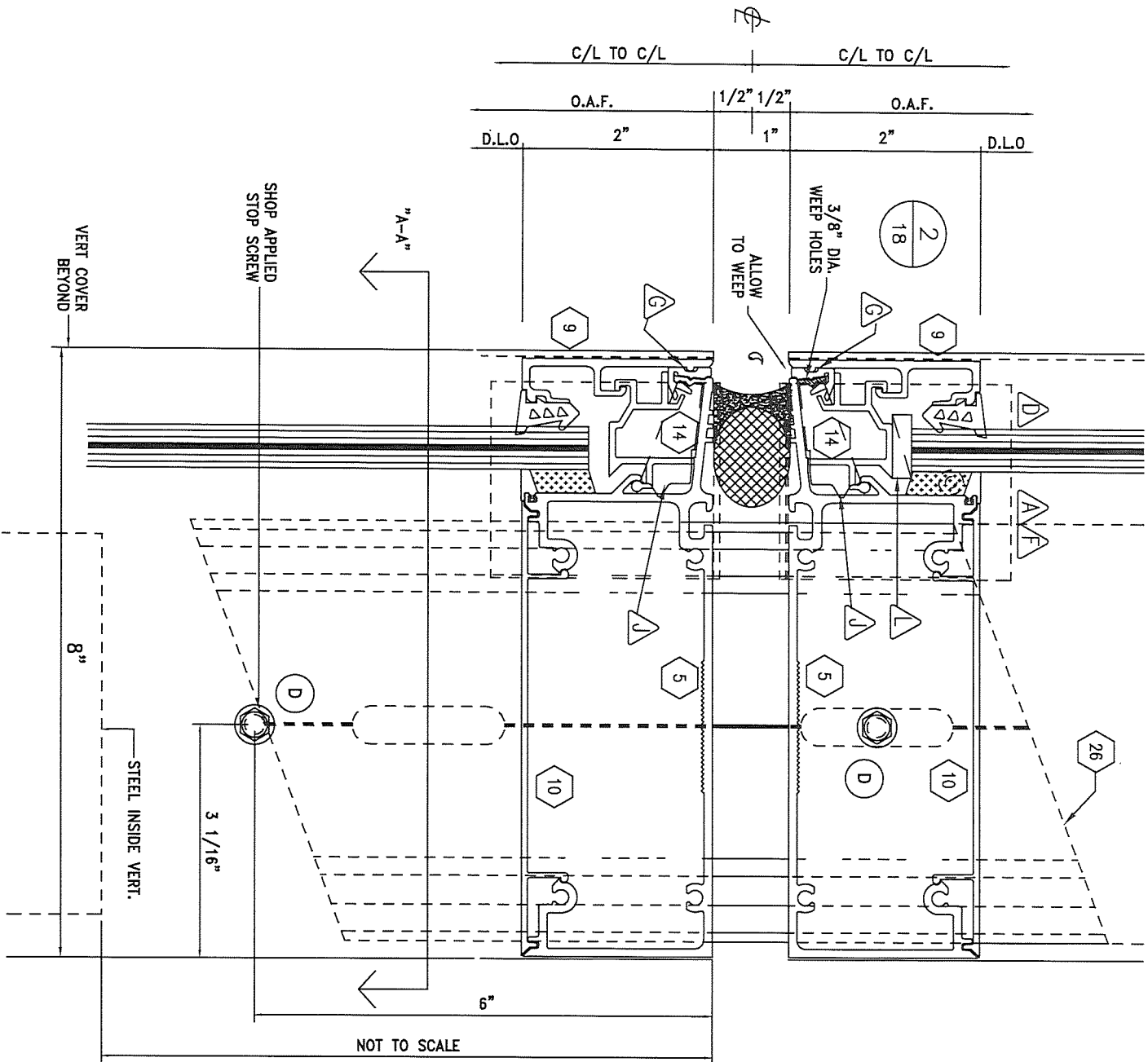
03/05/19

02/25/21

08/12/25

DWG. NO. H17000SM

SHEET 16 OF 41



GENERAL NOTES:

– FOR PART IDENTIFICATION REFER TO SHEET 2

– FOR GLAZING DETAILS, GLASS BITE & GASKET CONFIGURATIONS SEE SHEET 3.

- FASTENERS
- GASKETS
- ALUMINUM EXTRUSIONS

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DADE CO. STAMP

PRODUCT REVISED
As complying with the Florida Building Code
NOA-No. **25-0902.04**
Expiration Date: **09/02/2029**
By: *Manuel Jose*
Miami-Dade Product Control

ENGINEER STAMP

ETHAN A. REPENT
No. 65106
STATE OF FLORIDA
Professional Engineer
Registration No. 65106

Harmon

HI 7000 SMALL MISSILE
MULLION SPLICE DETAIL

DATE: 06/28/04 6/6/17/16

11/18/08 03/05/19

3/10/09 02/25/21

3/16/09 08/12/25

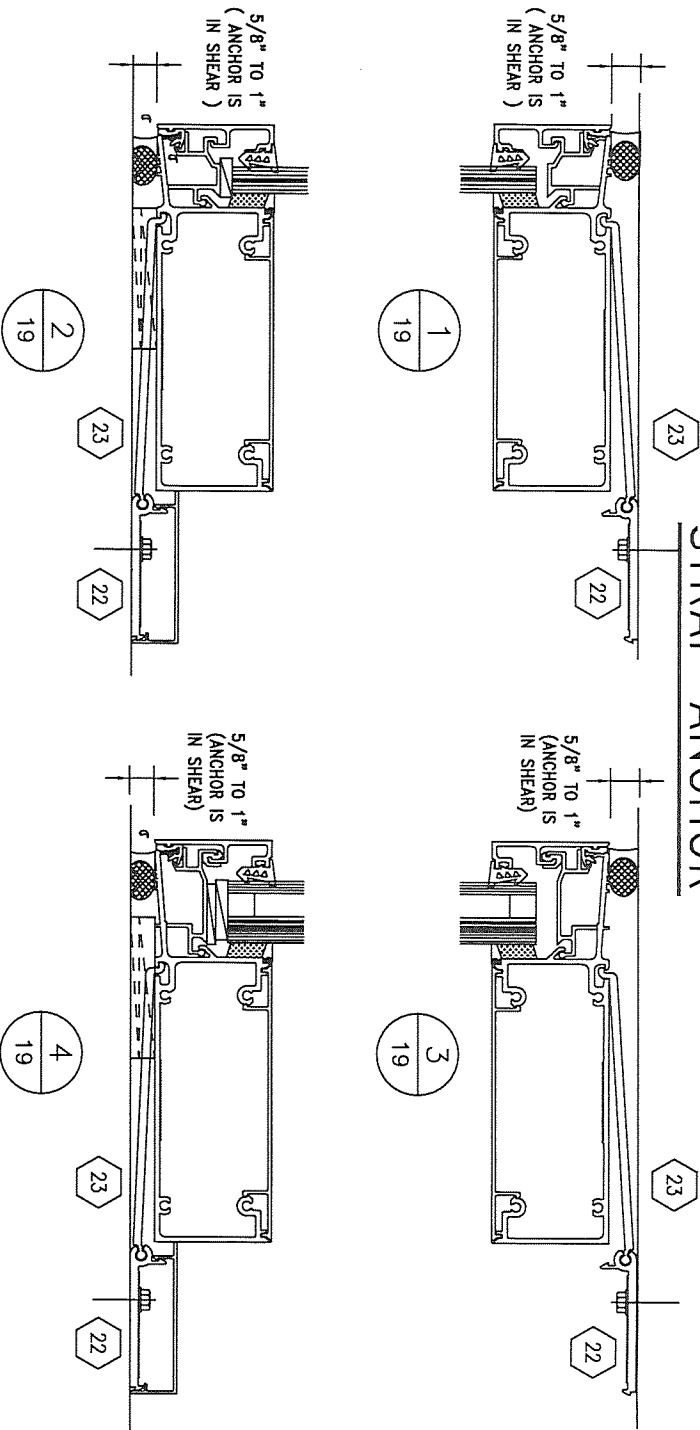
5/22/12

10/03/14

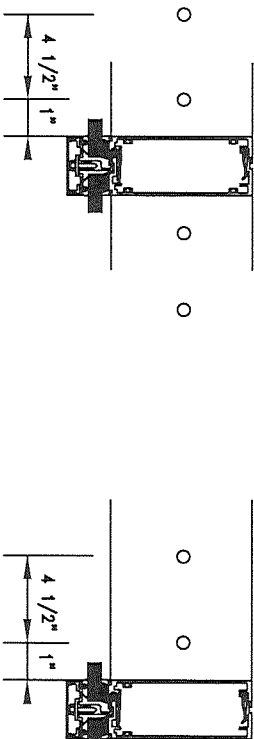
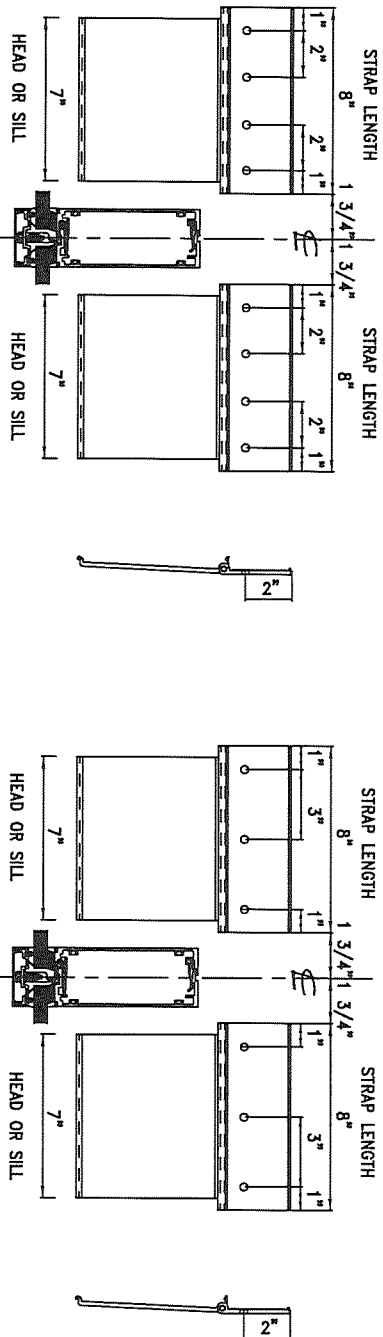
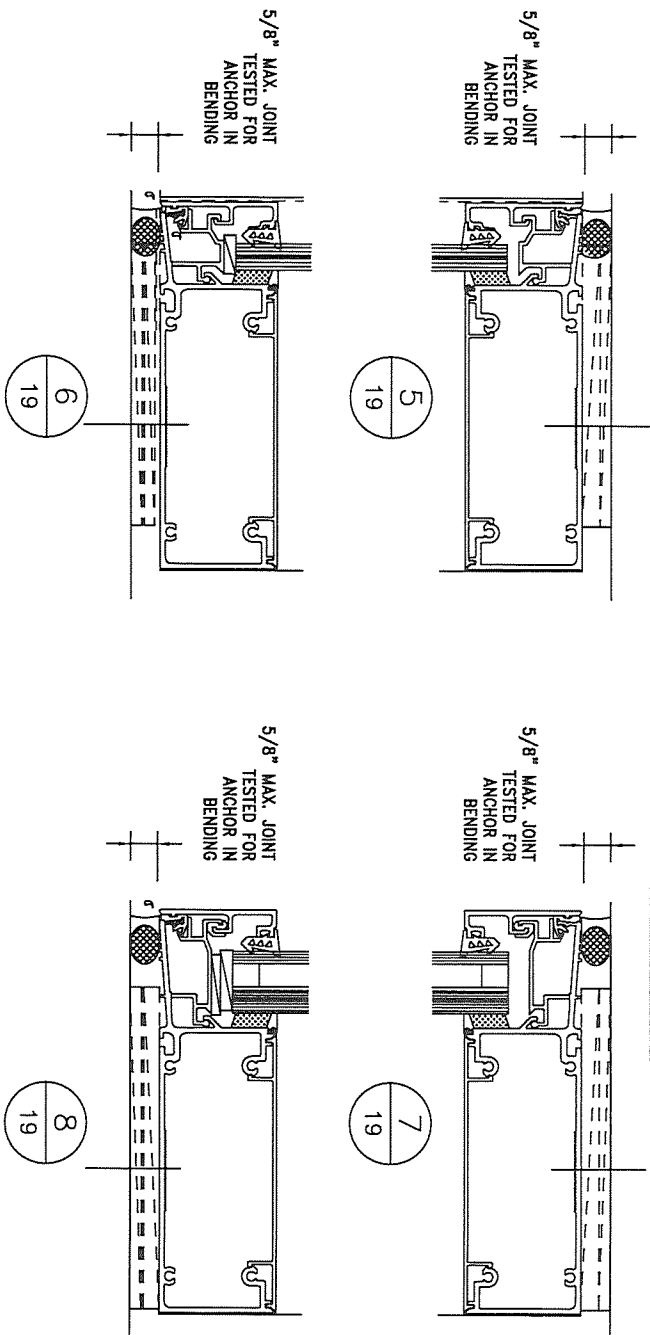
DWG. NO. HI7000SM

SHEET 18 OF 41

STRAP ANCHOR



THRU-FRAME ANCHOR



TESTED CONDITIONS SHOWN ABOVE.

- (2) 8” STRAPS TESTED TO 2715# END REACTION
- (1) 8” STRAP TESTED TO 1,345# END REACTION
- ANCHORS MAY BE MADE LONGER TO ACCOMMODATE FASTENERS BASED ON PERIMETER CONDITIONS.
- A MINIMUM OF TWO (2) FASTENERS SHALL ALWAYS BE USED.

ANCHOR FASTENER REQUIREMENTS					
SUBSTRATE	REACTION	FASTENER TYPE	QTY.	MIN. EMBED.	MIN. EDGE DIST.
WOOD	1,305 #	3/8"x3 1/2" LAG BOLT	3	3"	1 1/2"
CONCRETE	2910 #	3/8" DIA POWERS	2	3"	4 1/2"
STEEL	2,715 #	#14 DRIL-FLEX	3	N/A	1"
METAL STUD	2,230 #	#14 DRIL-FLEX	4	N/A	1"

TESTED CONDITIONS SHOWN ABOVE.

- (4) FASTENERS, (2) EITHER SIDE @ INTERMEDIATE
- VERTICAL TESTED TO 1,345# END REACTION
- (1) FASTENER ON SAME SIDE @ JAMBS TESTED TO 1185# END REACTION
- FASTENER SPACING AND QUANTITY MAY CHANGE BASED ON PERIMETER CONDITIONS.
- A MINIMUM OF TWO (2) FASTENERS SHALL ALWAYS BE USED (EXCEPT AT JAMBS).

ANCHOR FASTENER REQUIREMENTS					
SUBSTRATE	REACTION	FASTENER TYPE	QTY.	MIN. EMBED.	MIN. EDGE DIST.
WOOD	1,345 #	3/8" DIA LAG BOLT	4	3"	1 1/2"
CONCRETE	1,345 #	3/8" DIA.	4	3"	2 11/16"
STEEL	1,345 #	3/8" DIA	4	N/A	1"
METAL STUD	1,345 #	1/4" DIA DRIL-FLEX	4	N/A	1"

GENERAL NOTES:

- SIZES OF ANCHOR COMPONENTS LISTED ABOVE ARE A MINIMUM, BASED ON MOCKUP CALCULATIONS COMPLYING WITH CURRENT FBC
- ACTUAL LENGTH AND NUMBER & SIZE OF HOLES TO BE DETERMINED BY PROJECT SPECIFIC PERIMETER CONDITIONS AND TYPES OF FASTENERS USED.
- CONCRETE STRENGTH MUST BE A MINIMUM OF Fc=4,500 PSI
- ALL WOOD AND SHEET METAL SCREWS SHALL BE CARBON STEEL GRADE 5

- ALL SELF DRILLING SCREWS SHALL BE ELCO "DRIL-FLEX" WITH STALGUARD COATING.
- ALL CONCRETE ANCHORS TO BE POWERS "WEDGE BOLTS".

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8.14.25

Harmon
HI 7000 SMALL MISSILE

DADE CO. STAMP

ENGINEER'S STAMP

ANCHOR APPLICATIONS
STRAP & THRU-FRAME

No. 66108
STATE OF FLORIDA
Professional Engineer
Expiring 03/05/19

DATE: 06/28/04
11/18/08
3/10/09
3/16/09
5/22/12
10/03/14

PRODUCT REVISED

As complying with the Florida Building Code

NOA-No. 25-0902.04

Expiration Date: 09/02/2029

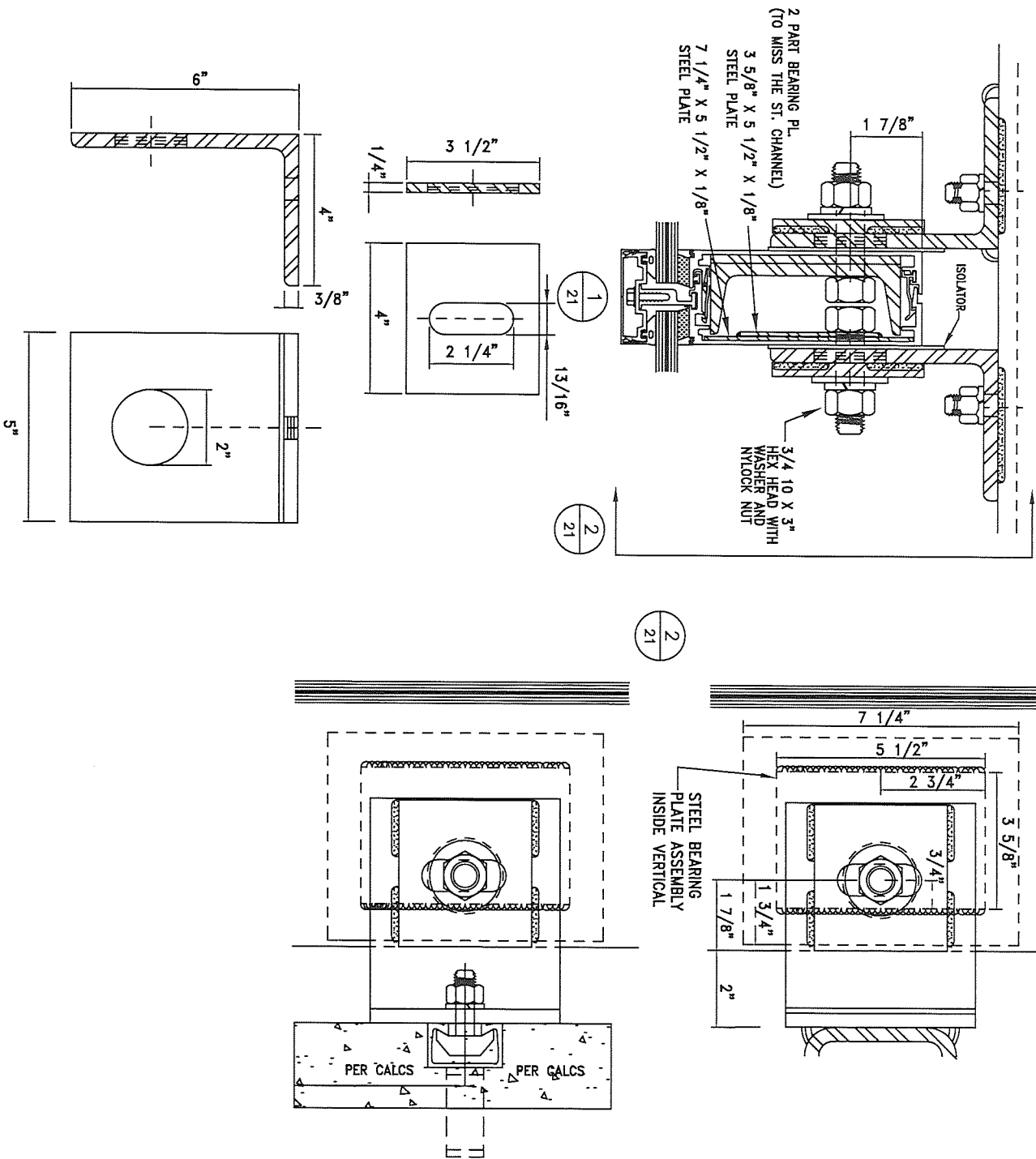
By: *Manuel J. Jara*

Miami-Dade Product Control

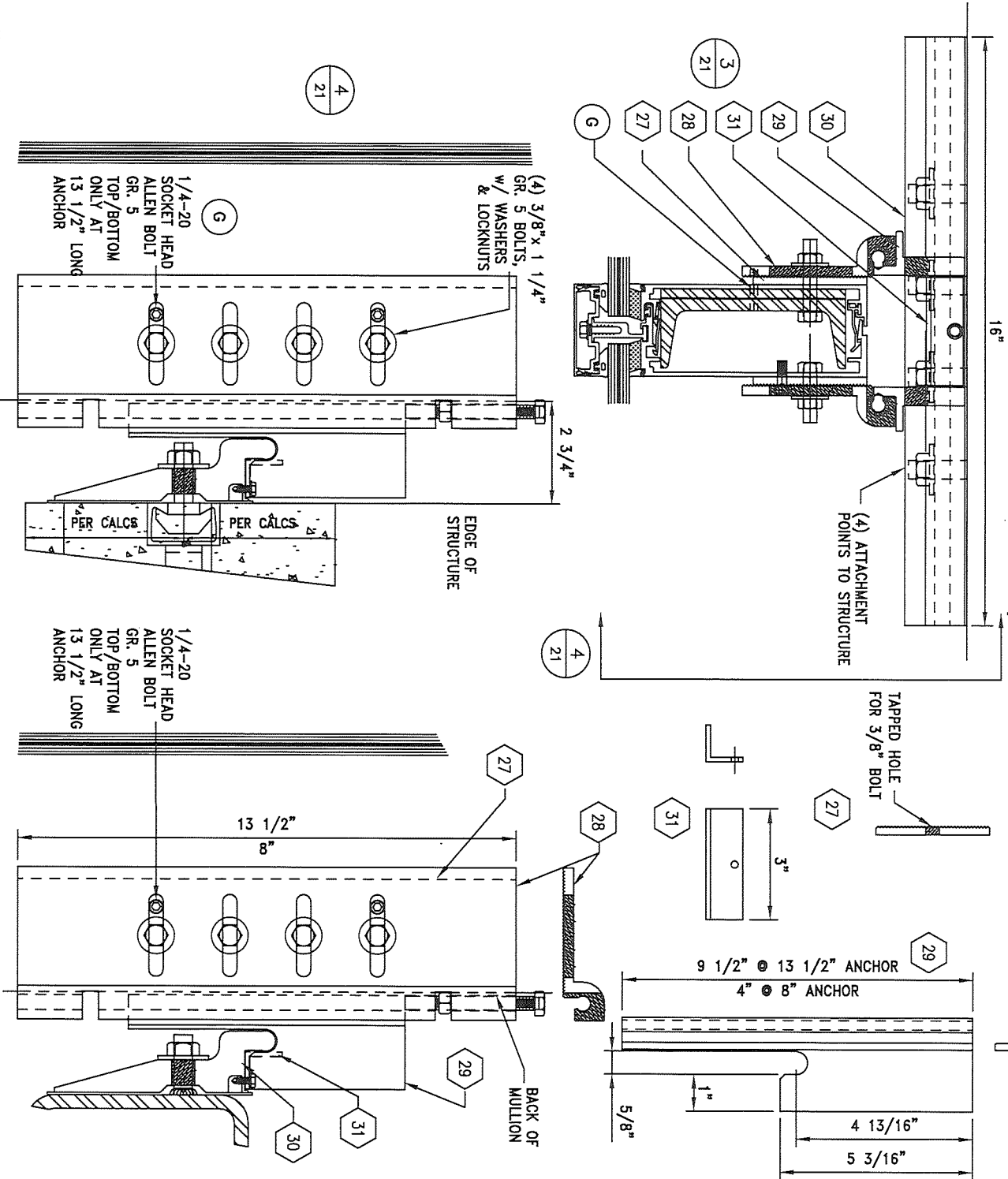
STATE OF FLORIDA
Professional Engineer
Expiring 03/05/19

DWG. NO. H17000SM
SHEET 19 OF 41

TWIN SPAN MIDPOINT ANCHOR



TWIN SPAN W/STACK ANCHOR



TESTED CONDITION SHOWN ABOVE.

- ANCHOR ACCOMODATED 8,890 # WL REACTION
- ANCHORS MAY BE MADE LONGER TO ACCOMMADATE MORE FASTENERS BASED ON PERIMETER CONDITIONS.
- WELD SIZES TO BE DETERMINED ON A PER JOB BASIS.

TESTED CONDITION SHOWN ABOVE.

- ANCHOR ACCOMODATED 10,500# WL REACTION, 1,000# DL REACTION FOR 13 1/2" LONG ANCHOR
- ANCHORS MAY BE MADE LONGER TO ACCOMMADATE MORE FASTENERS BASED ON PERIMETER CONDITIONS.
- 8" ANCHOR ACCOMODATED 10,500# WL REACTION, WHEN USED AS WINDLOAD ONLY
- 8" ANCHOR ACCOMODATED 4,400# WL WITH 1,000# DEADLOAD APPLIED

GENERAL NOTES:

- SIZES OF ANCHOR COMPONENTS LISTED ABOVE ARE A MINIMUM, BASED ON MOCKUP CALCULATIONS COMPLYING WITH CURRENT FBC
- ACTUAL LENGTH AND NUMBER & SIZE OF HOLES TO BE DETERMINED BY PROJECT SPECIFIC PERIMETER CONDITIONS AND TYPES OF FASTENERS USED.
- CONCRETE STRENGTH MUST BE A MINIMUM OF Fc=4,500 PSI
- ALL WOOD AND SHEET METAL SCREWS SHALL BE CARBON STEEL GRADE 5

- ALL SELF DRILLING SCREWS SHALL BE ELCO "DRIL-FLEX" WITH STALGUARD COATING.
- ALL CONCRETE ANCHORS TO BE POWERS "WEDGE BOLTS".

DADE CO. STAMP

ENGINEER'S STAMP

HI 7000 SMALL MISSILE MATERIAL LISTS

DATE: 06/28/04 6/6/17/16

No. 66108

STATE OF FLORIDA

Professional Engineer

By: *Manuel Jose*

Expiration Date: 09/02/2029

As complying with the Florida Building Code

NOA-No. 25-0902.04

Harmon

DATE: 06/28/04 6/6/17/16

11/18/08 03/05/19

3/10/09 02/25/21

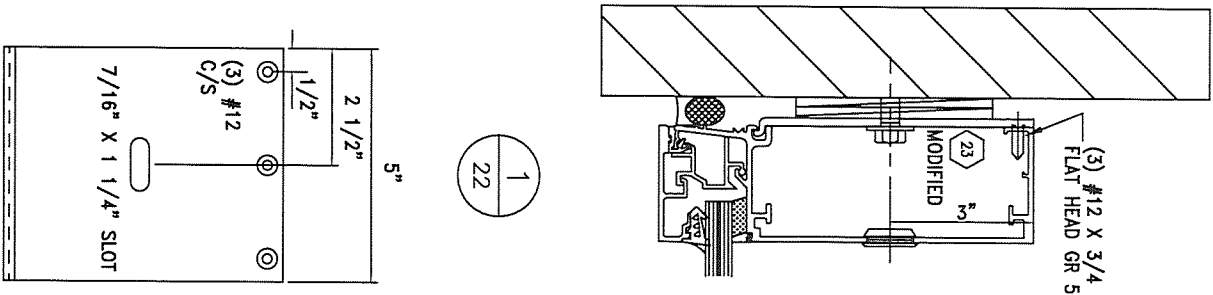
3/16/09 08/12/25

5/22/12 10/03/14

DWG. NO. H17000SM

SHEET 21 OF 41

JAMB ANCHOR



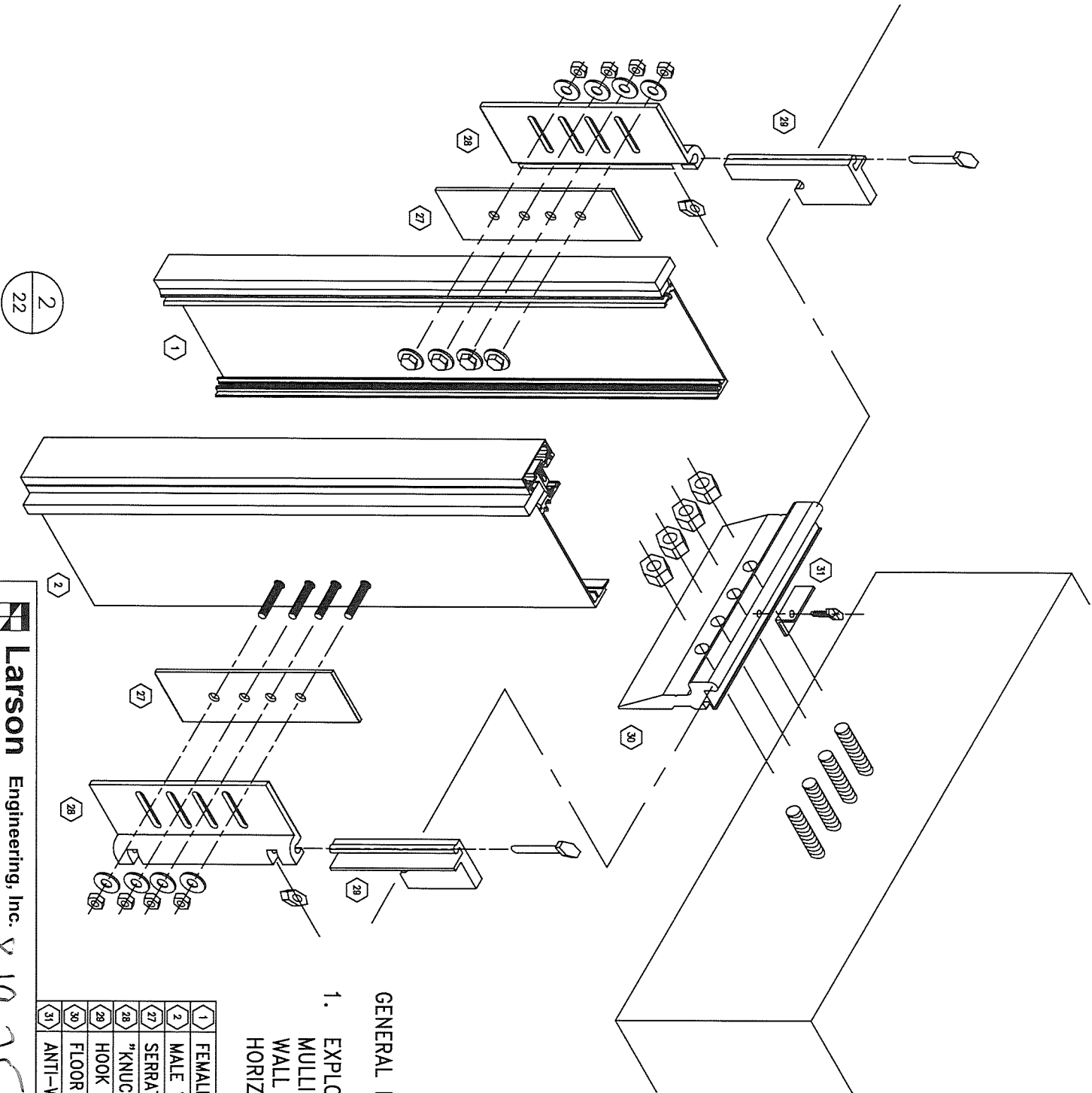
TESTED CONDITIONS SHOWN ABOVE.

- (1) 5” MODIFIED STRAP TESTED TO 1870# END REACTION
- ANCHORS MAY BE MADE LONGER TO ACCOMMADATE MORE FASTENERS BASED ON JOB SPECIFIC PERIMETER CONDITIONS.

GENERAL NOTES:

- SIZES OF ANCHOR COMPONENTS LISTED ABOVE ARE A MINIMUM, BASED ON MOCKUP CALCULATIONS COMPLYING WITH CURRENT FBC
- ACTUAL LENGTH AND NUMBER & SIZE OF HOLES TO BE DETERMINED BY PROJECT SPECIFIC PERIMETER CONDITIONS AND TYPES OF FASTENERS USED.
- CONCRETE STRENGTH MUST BE A MINIMUM OF $f_c=4,500$ PSI
- ALL WOOD AND SHEET METAL SCREWS SHALL BE CARBON STEEL GRADE 5

EXPLODED VIEW OF TYP. CURTAIN WALL ANCHOR



GENERAL NOTES:

1. EXPLODED VIEW OF TYPICAL MULLION ANCHOR FOR CURTAIN WALL APPLICATION WITH STACK HORIZONTAL

1	FEMALE VERTICAL MULLION	306001
2	MALE VERTICAL MULLION	306002
27	SERRATED PLATE	930110
28	"KNUCKLE" ANCHOR	930109
29	HOOK ANCHOR	930108
30	FLOOR EDGE PLATE	930111
31	ANTI-WALK ANGLE	.

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ENGINEER'S STAMP

ANCHOR APPLICATIONS
EXPLODED VIEW

DATE: 06/28/04 6/17/16

11/18/08 03/05/19

3/10/09 02/25/21

3/16/09 08/12/25

5/22/12

10/03/14

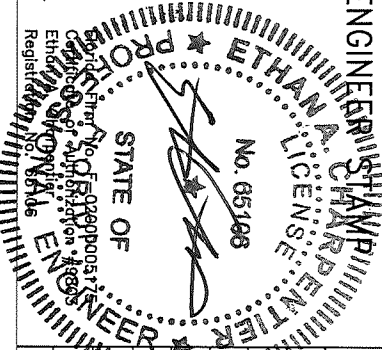
DWG. NO. H17000SM

SHEET 22 OF 41

PRODUCT REVISED
As complying with the Florida Building Code
NOA-No. **25-0902.04**

Expiration Date: **09/02/2029**

By: *Maribel Jerez*
Miami-Dade Product Control



8.19.25

Harmon
HI 7000 SMALL MISSILE

JAMB
MULLIONS

SINGLE SPAN

REINFORCING
OPTIONS

8 9 10 11

	Case 8	Case 9	Case 10	Case 11
"B"	$\frac{L_u}{L_u+R}$	$\frac{L_u}{L_u+R}$	$\frac{L_u}{L_u+R}$	$\frac{L_u}{L_u+R}$
UP TO MAXIMUM 60 PSF POS. OR NEG. LOAD	3'-0" 13'-7" 656	16'-5" 793	18'-3" 879	20'-1" 967
	4'-0" 11'-10"	15'-4" 972	17'-0" 1077	18'-9" 1185
	5'-0" 10'-8"	14'-3" 836	16'-2" 1118	17'-9" 1264
	6'-0" 9'-9"	13'-1" 912	15'-5" 1442	17'-0" 1587
	3'-0" 12'-7"	15'-10" 1708	17'-6" 890	19'-3" 987
	4'-0" 11'-0"	14'-8" 811	16'-4" 1209	18'-0" 1331
	5'-0" 9'-10"	13'-2" 902	15'-6" 1207	17'-1" 1419
	6'-0" 9'-0"	12'-1" 985	14'-10" 1318	16'-4" 1618
	3'-0" 11'-9"	15'-3" 767	16'-1" 984	18'-8" 1091
	4'-0" 10'-3"	13'-9" 867	15'-10" 1160	17'-5" 1337
	5'-0" 9'-3"	12'-4" 965	15'-0" 1291	16'-6" 1568
	6'-0" 8'-5"	11'-4" 1053	13'-11" 1409	15'-10" 1732
	3'-0" 11'-1"	14'-10" 803	16'-5" 1074	18'-1" 1191
	4'-0" 9'-8"	12'-11" 920	15'-4" 1230	16'-1" 1460
	5'-0" 8'-8"	11'-8" 1023	14'-4" 1369	16'-0" 1683
	6'-0" 7'-11"	10'-8" 1117	13'-1" 1484	15'-4" 1837
	3'-0" 10'-6"	14'-1" 847	16'-0" 1133	17'-8" 1289
	4'-0" 9'-2"	12'-3" 970	15'-0" 1297	16'-6" 1580
	5'-0" 8'-3"	11'-0" 1079	13'-7" 1443	15'-7" 1774
	6'-0" 7'-6"	10'-1" 1177	12'-5" 1575	14'-11" 1936
	3'-0" 10'-0"	13'-5" 888	15'-8" 1188	17'-3" 1385
	4'-0" 8'-9"	11'-8" 1017	14'-5" 1360	16'-1" 1672
	5'-0" 7'-10"	10'-6" 1131	12'-11" 1513	15'-3" 1860
	6'-0" 7'-2"	9'-8" 1235	11'-10" 1652	13'-9" 2031
	3'-0" 9'-7"	12'-10" 927	15'-4" 1241	16'-10" 1478
	4'-0" 8'-4"	11'-2" 1062	13'-9" 1421	15'-9" 1746
	5'-0" 7'-6"	10'-1" 1181	12'-5" 1581	14'-11" 1943
	6'-0" 6'-11"	9'-3" 1290	11'-4" 1726	12'-7" 2121
	3'-0" 9'-3"	12'-4" 965	15'-0" 1291	16'-6" 1569
	4'-0" 8'-0"	10'-9" 1105	13'-3" 1479	15'-5" 1818
	5'-0" 7'-3"	9'-8" 1230	11'-11" 1645	13'-10" 2022
	6'-0" 6'-7"	8'-10" 1342	10'-11" 1796	11'-8" 2208

JAMB
MULLIONS

TWIN SPAN

REINFORCING
OPTIONS

8 9 10 11

		Case 8	Case 9	Case 10	Case 11
	"B"	$\frac{L_u}{L_u+R}$	$\frac{L_u}{L_u+R}$	$\frac{L_u}{L_u+R}$	$\frac{L_u}{L_u+R}$
UP TO MAXIMUM 60 PSF POS. OR NEG. LOAD	3' 0"	14'-7"	14'-7"	14'-7"	14'-7"
	RE	538	538	538	538
	RM	1716	1716	1716	1716
	4' 0"	13'-7"	14'-7"	14'-7"	14'-7"
	RE	658	706	706	706
UP TO MAXIMUM 80 PSF POS. OR NEG. LOAD	5' 0"	2096	2251	2251	2251
	RE	12'-3"	14'-7"	14'-7"	14'-7"
	RM	732	874	874	874
	4' 0"	2332	2785	2785	2785
	RE	11'-2"	14'-7"	14'-7"	14'-7"
UP TO MAXIMUM 70 PSF POS. OR NEG. LOAD	6' 0"	799	1041	1041	1041
	RM	2546	3320	3320	3320
	3' 0"	14'-5"	14'-7"	14'-7"	14'-7"
	RE	620	628	628	628
	RM	1977	2002	2002	2002
UP TO MAXIMUM 90 PSF POS. OR NEG. LOAD	4' 0"	12'-7"	14'-7"	14'-7"	14'-7"
	RE	710	824	824	824
	RM	2264	2626	2626	2626
	5' 0"	11'-4"	14'-7"	14'-7"	14'-7"
	RE	790	1019	1019	1019
UP TO MAXIMUM 80 PSF POS. OR NEG. LOAD	6' 0"	2519	3250	3250	3250
	RM	10'-4"	13'-11"	14'-7"	14'-7"
	3' 0"	2750	3679	3873	3973
	RE	863	1154	1215	1215
	RM	2639	3679	3873	3973
UP TO MAXIMUM 80 PSF POS. OR NEG. LOAD	4' 0"	11'-9"	14'-7"	14'-7"	14'-7"
	RE	759	941	941	941
	RM	2420	3001	3001	3001
	5' 0"	10'-7"	14'-2"	14'-7"	14'-7"
	RE	845	1130	1165	1165
UP TO MAXIMUM 90 PSF POS. OR NEG. LOAD	6' 0"	2693	3602	3714	3714
	RM	8'-8"	13'-0"	14'-7"	14'-7"
	3' 0"	922	1234	1386	1386
	RE	2940	3933	4427	4427
	RM	12'-9"	14'-7"	14'-7"	14'-7"
UP TO MAXIMUM 90 PSF POS. OR NEG. LOAD	4' 0"	703	807	807	807
	RE	2242	2574	2574	2574
	RM	11'-1"	14'-7"	14'-7"	14'-7"
	5' 0"	805	1059	1059	1059
	RE	10'-0"	13'-4"	14'-7"	14'-7"
UP TO MAXIMUM 90 PSF POS. OR NEG. LOAD	6' 0"	2567	3376	3376	3376
	RM	10'-0"	13'-4"	14'-7"	14'-7"
	3' 0"	2856	3821	4178	4178
	RE	9'-2"	12'-3"	14'-7"	14'-7"
	RM	978	1308	1562	1562
UP TO MAXIMUM 90 PSF POS. OR NEG. LOAD	4' 0"	3118	4172	4980	4980
	RE	978	1308	1562	1562
	RM	3118	4172	4980	4980
	3' 0"	3118	4172	4980	4980
	RE	3118	4172	4980	4980

LEGEND

- WINDLOAD ANCHOR LOCATION
- DEADLOAD ANCHOR LOCATION
- 11 GA. GALVANIZED STEEL PANEL

HI-7000 OPTIONS

SYSTEM APPLICATION GUIDELINES:

- SELECT GLASS FROM CHARTS ON SHEET 7. NOTE THE GLASS THICKNESS AND 4-SIDE CAPTURED VERSUS CAPTURED/SSG OPTIONS.
- SELECT MULLION & REINFORCING AS REQUIRED FROM CHARTS ON SHEET 12 FOR TWIN SPAN W/ STACK HORIZONTAL APPLICATION. APPLICATION BASED ON WIND LOAD, MODULE "B", AND SPAN "L". REFER TO GENERAL NOTES AND GUIDELINES REGARDING SPAN LIMITATIONS AND COMBINATIONS.
- SELECT ANCHOR APPLICATIONS FROM SHEET 13. MAKE SELECTION BASED ON PERIMETER CONDITION AND END REACTIONS. NOTE MAXIMUM TESTED END REACTIONS FOR PROPER APPLICATION.
- SELECT APPROPRIATE DETAILS FROM ELEVATION AT LEFT, BASED ON GLASS APPLICATION AND MULLION REINFORCING REQUIREMENTS. FOR SPECIFIC ANCHOR DETAILS, SEE DETAILS REFERENCED ON ANCHOR APPLICATION SHEET 13.

CORNER APPLICATION

13'-9" SPAN (MAX.) ANCHOR TO ANCHOR
5'-0" MODULE (MAX.)

SEE SHEET 32 FOR DETAILS
SEE DETAIL 22A ON SHEET 36 FOR
CAPTURED OPTION.

STACK APPLICATION

57 1/2" DLO MAXIMUM.
MAXIMUM TESTED SHEAR
IN STACK HORIZONTAL= 3,695 #

SEE SHEET 27 FOR DETAILS



8.19.25



DADE CO. STAMP

ENGINEER'S STAMP

TWIN SPAN APPLICATION

W/ STACK HORIZONTAL

DATE: 06/28/04

11/18/08

3/10/09

3/16/09

5/22/12

10/03/14

PRODUCT REVISED

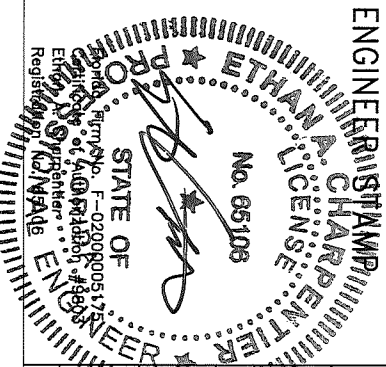
As complying with the Florida Building Code

NOA-No. 25-0902.04

Expiration Date: 09/02/2029

By: Manuel J. Perez

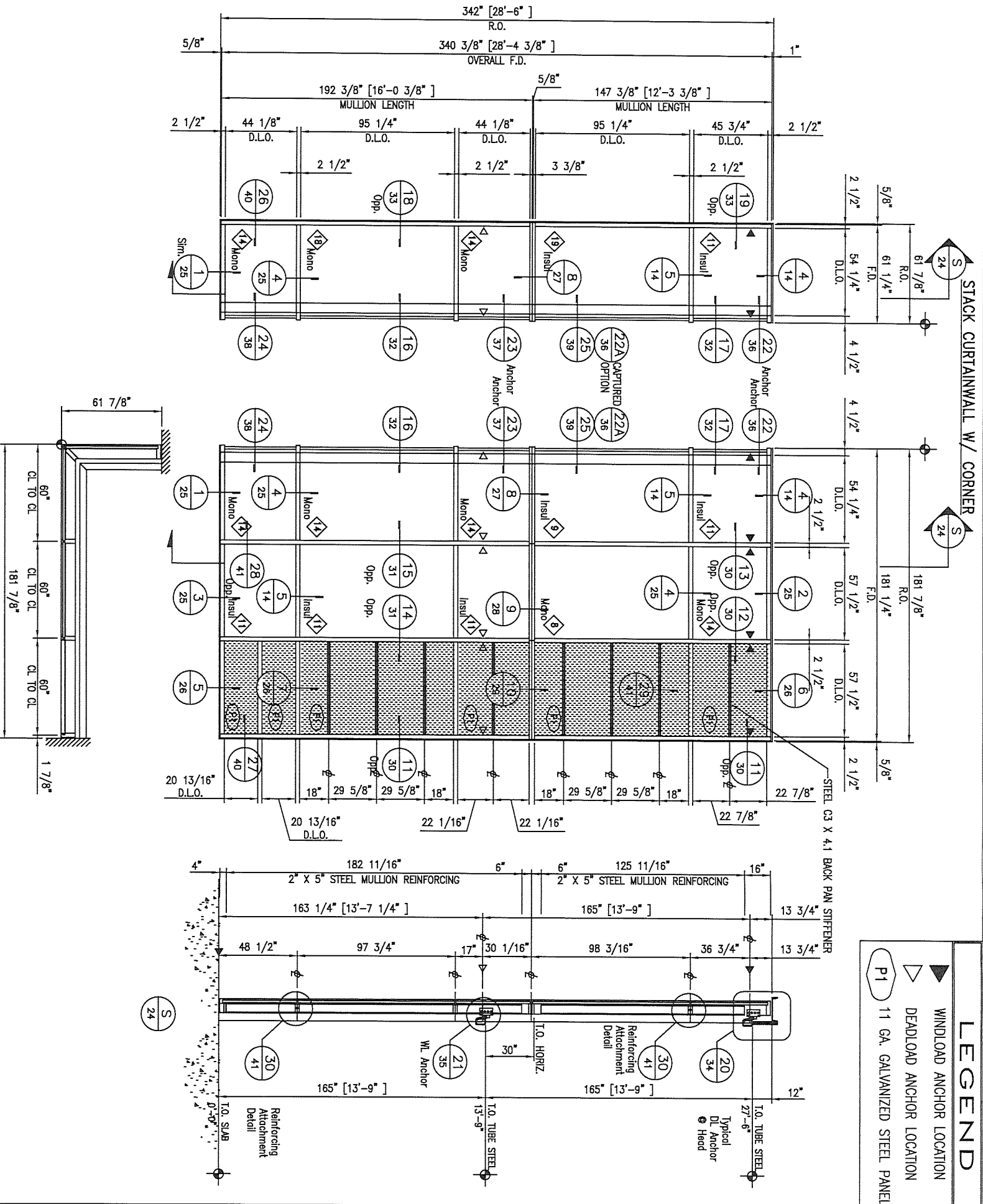
Miami-Dade Product Control

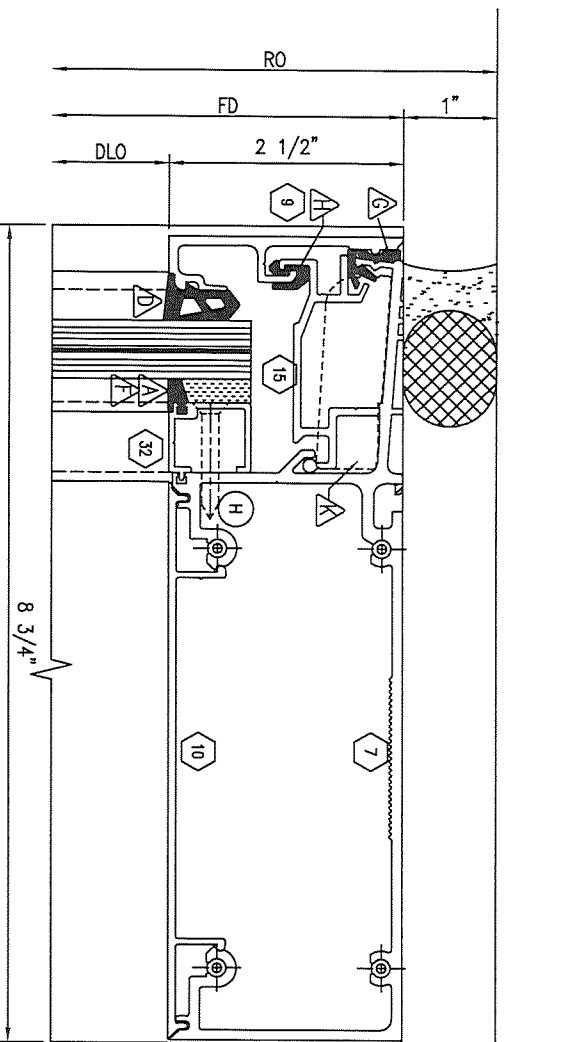


DWG. NO. HI7000SM

SHEET 24 OF 41

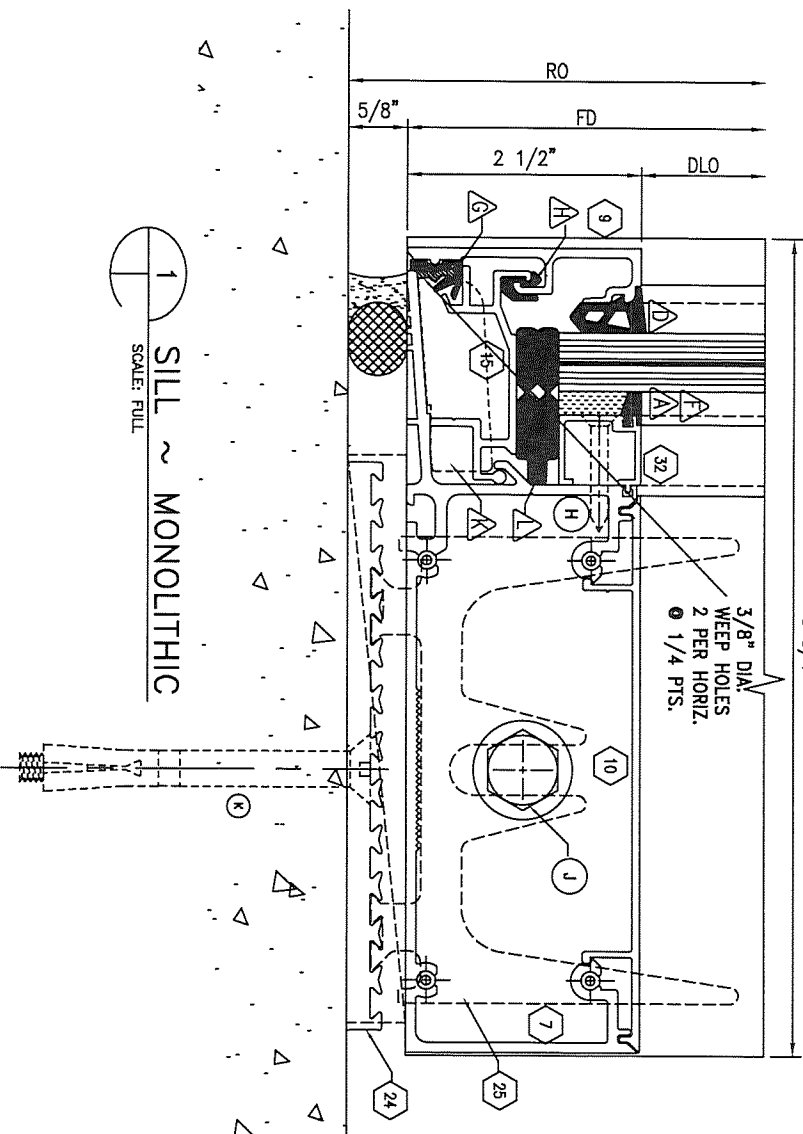
GENERAL NOTES:



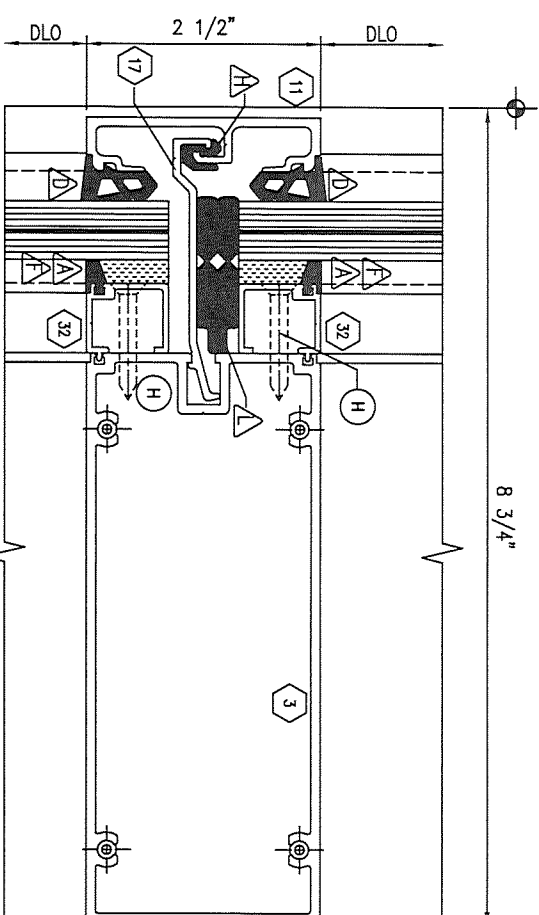


2 HEAD ~ MONOLITHIC
SCALE: FULL

8 3/4"

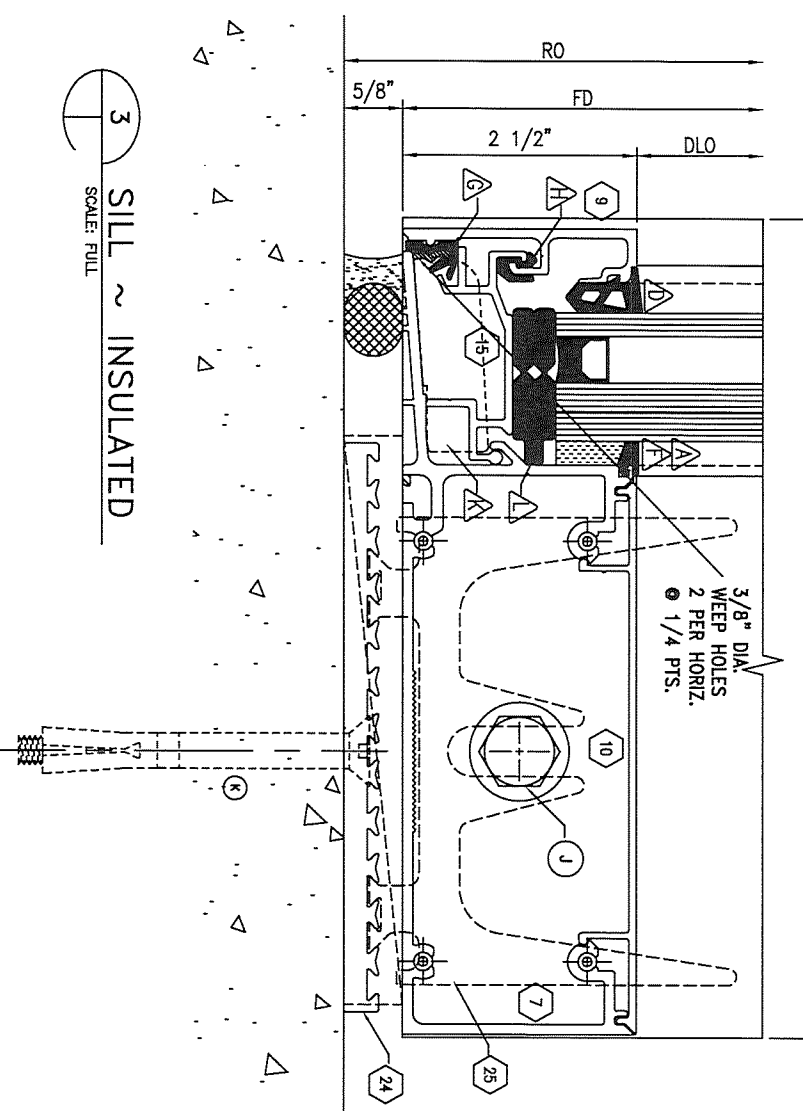


1 SILL ~ MONOLITHIC
SCALE: FULL



4 HORIZONTAL ~ MONOLITHIC
SCALE: FULL

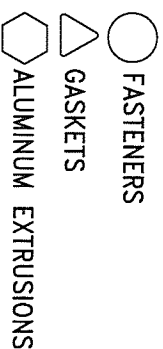
8 3/4"



3 SILL ~ INSULATED
SCALE: FULL

GENERAL NOTES:

- FOR ANCHOR DETAILS REFER TO SHEET 20
- FOR PART IDENTIFICATION REFER TO SHEET 2



- FOR GLAZING DETAILS, GLASS BITE & GASKET CONFIGURATIONS SEE SHEET 3.

Larson Engineering, Inc.
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White Bear Lake, MN 55110
(P) 651.481.9120 (F) 651.481.9201

8.19.25

Harmon

DADE CO. STAMP

ENGINEER STAMP

HI 7000 SMALL MISSILE
HORIZONTAL DETAILS

PRODUCT REVISED
As complying with the Florida
Building Code

NOA-No. **25-0902.04**

Expiration Date: **09/02/2029**

By: *Manuel J. Jara*

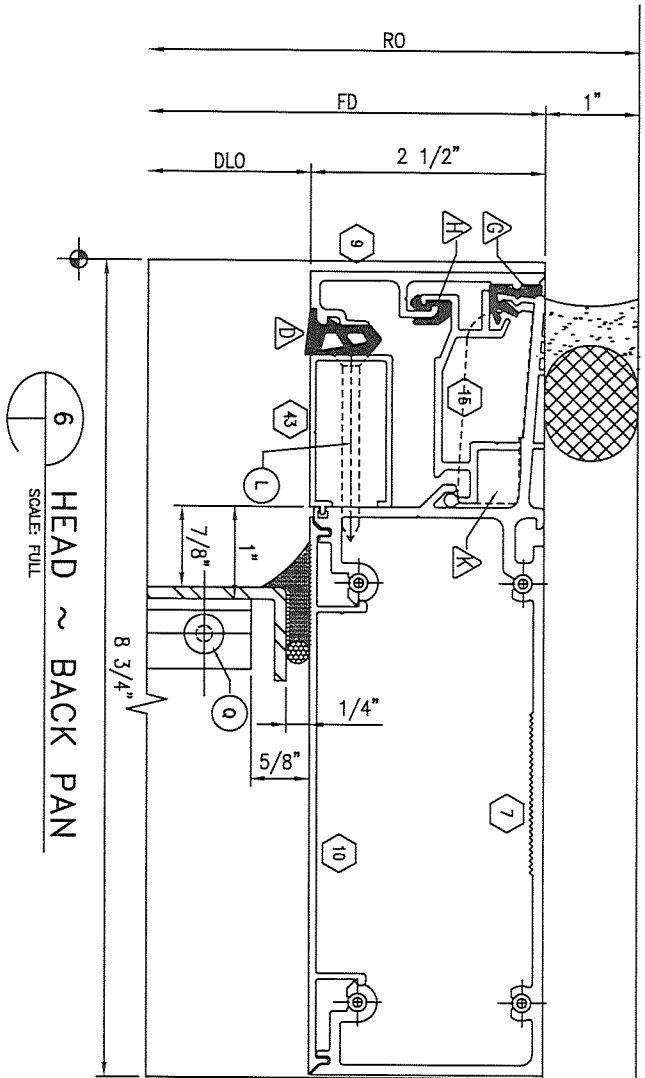
Miami-Dade Product Control

STATE OF FLORIDA
No. 66106
DATE: 06/28/04

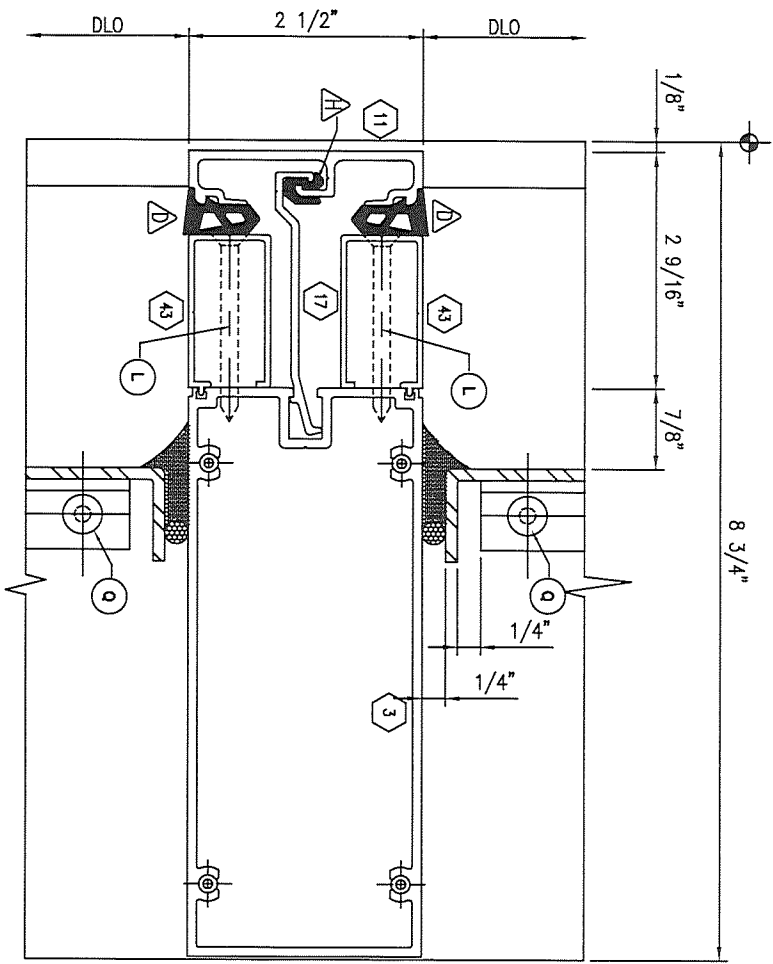
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11/18/08
3/10/09
3/16/09
5/22/12
10/03/14

6/17/16
03/05/19
02/25/21
08/12/25

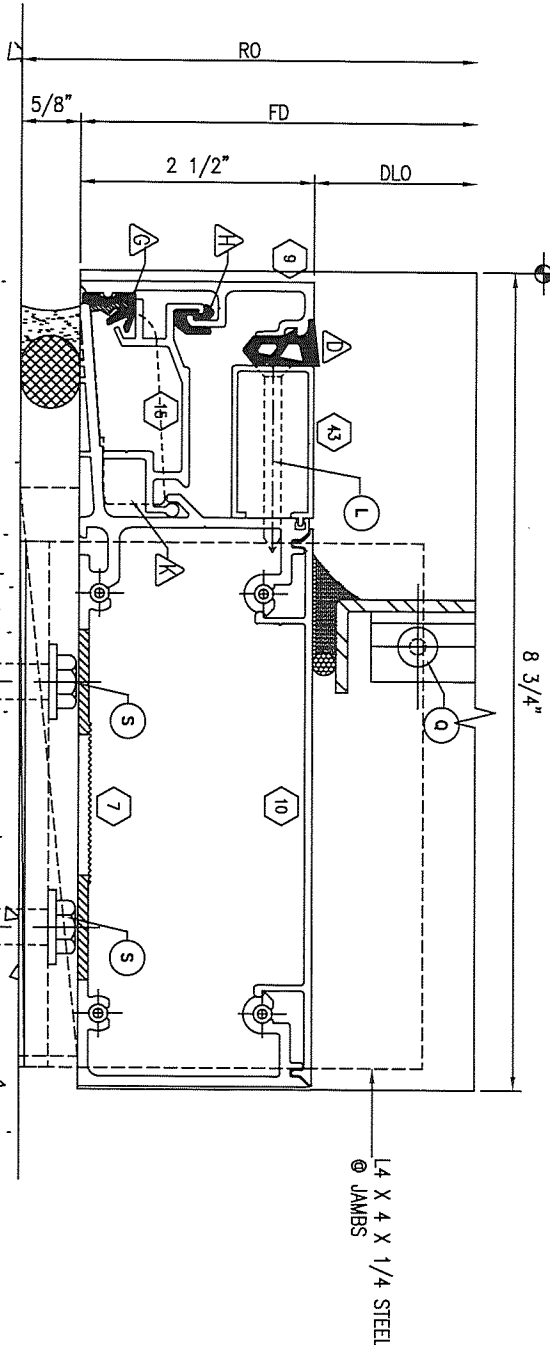
DWG. NO. H17000SM
SHEET 25 OF 41



6 HEAD ~ BACK PAN
SCALE: FULL



7 HORIZONTAL ~ BACK PAN
SCALE: FULL



5 SILL ~ BACK PAN
SCALE: FULL

GENERAL NOTES:

- FOR ANCHOR DETAILS REFER TO SHEET 20
- FOR PART IDENTIFICATION REFER TO SHEET 2

- FOR GLAZING DETAILS, GLASS BITE & GASKET CONFIGURATIONS SEE SHEET 3.

- FASTENERS
- △ GASKETS
- ◇ ALUMINUM EXTRUSIONS

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PRODUCT REVISED
As complying with the Florida
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NOA-No. **25-0902.04**
Expiration Date: **09/02/2029**
By: *Manuel Jose*
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ENGINEER STAMP

STATE OF FLORIDA
No. 65108
Expiration Date: 09/02/2029
By: *Manuel Jose*
Miami-Dade Product Control

Harmon

HI 7000 SMALL MISSILE
HORIZONTAL DETAILS

DATE: 06/28/04 6 6/17/16

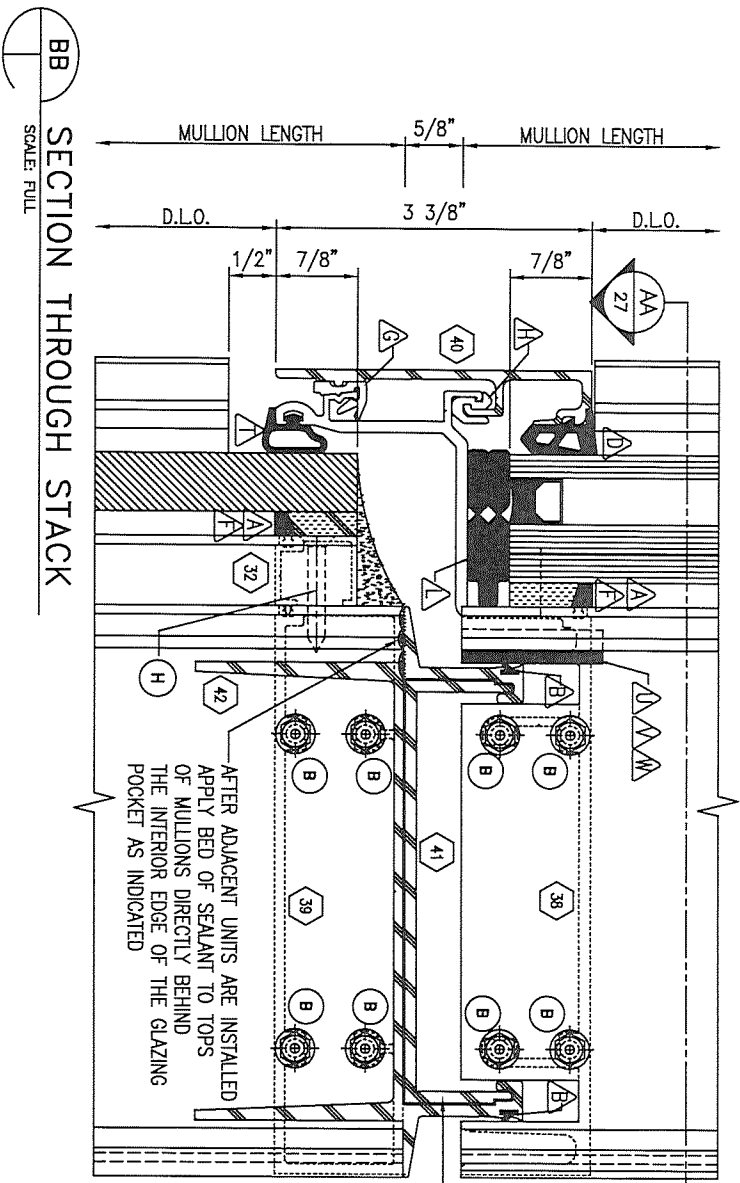
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3/10/09 8 02/25/21

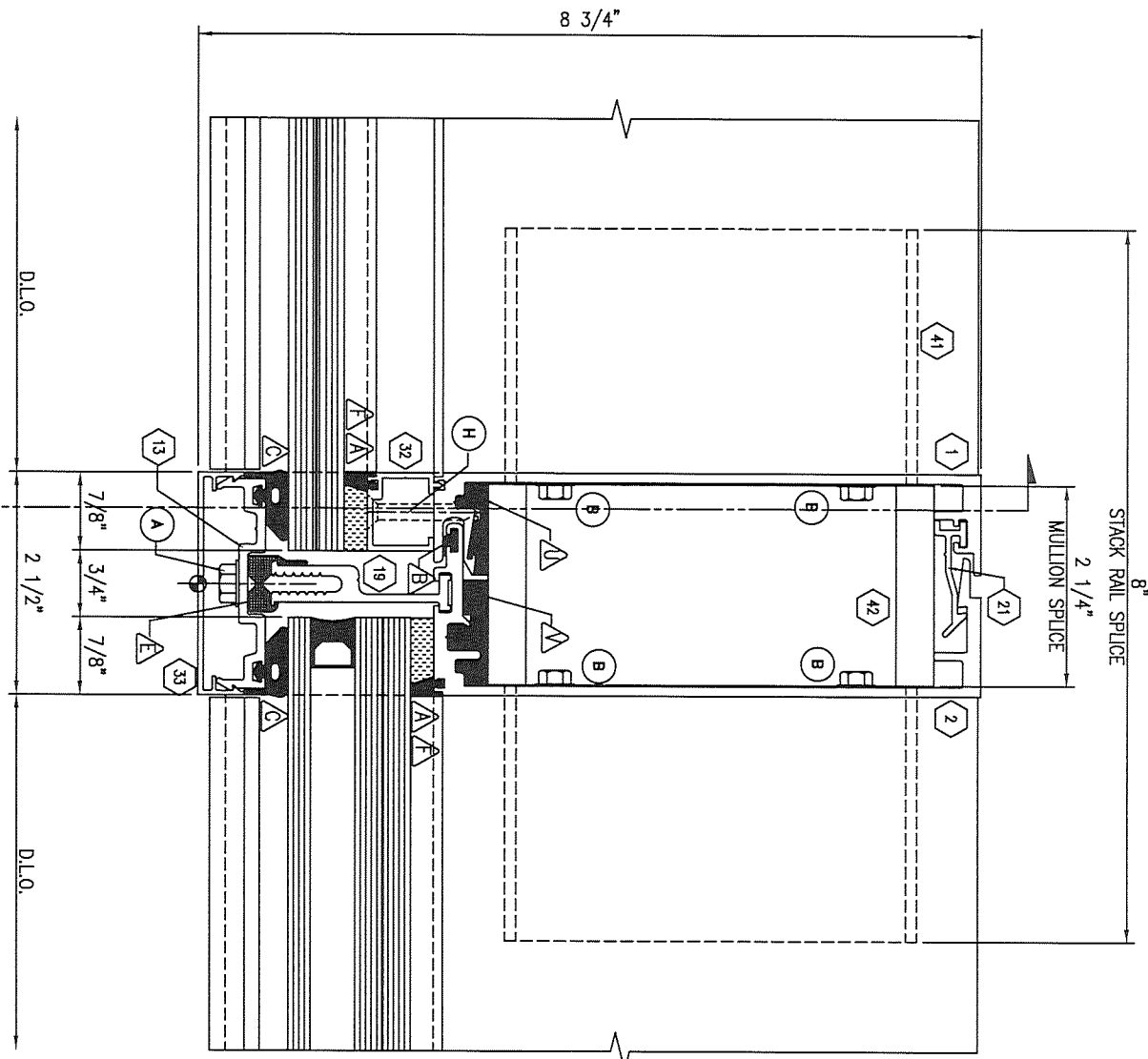
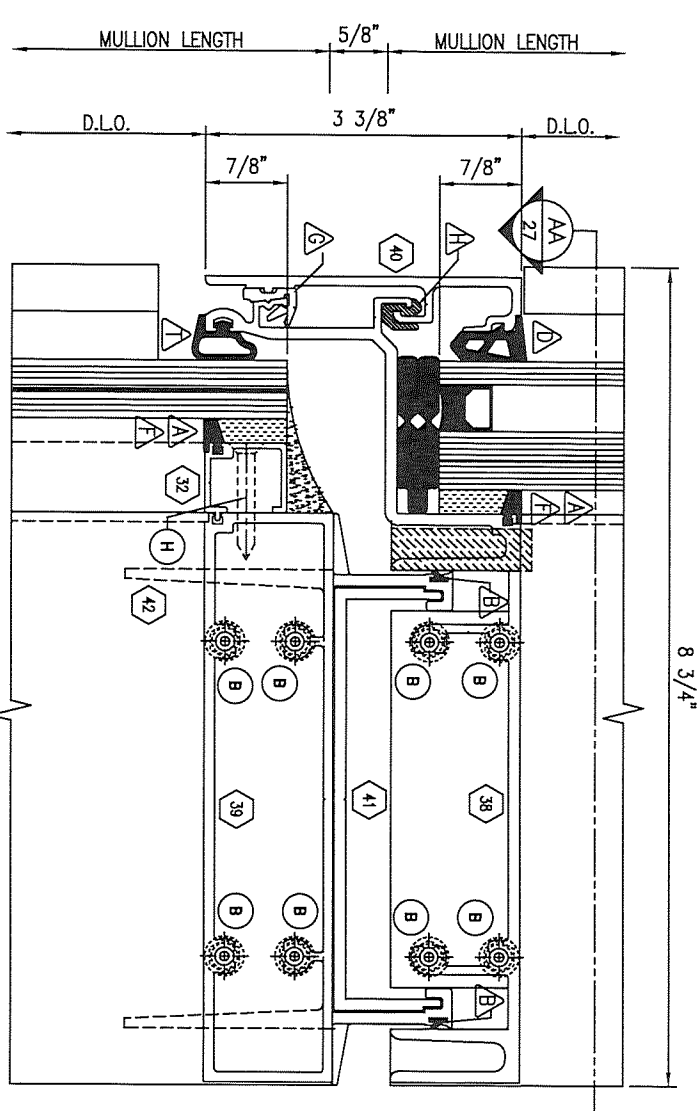
3/16/09 9 08/12/25

10/03/14 5 10/03/14

DWG. NO. HI7000SM
SHEET 26 OF 41



8" LONG STACK RAIL SPLICE
SLID INTO THE STACK RAIL ON FEMALE SIDE
OF UNIT AND TAPED INTO PLACE FOR SHIPPING.
SLIDE OVER TO CENTERLINE OF MULLION @ TIME
OF FRAME ASSEMBLY



GENERAL NOTES:

- FOR PART IDENTIFICATION REFER TO SHEET 2

- FOR GLAZING DETAILS, GLASS BITE & GASKET CONFIGURATIONS SEE SHEET 3.

- FASTENERS
- GASKETS
- ALUMINUM EXTRUSIONS

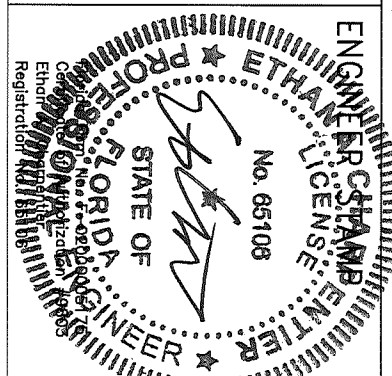


MAXIMUM DLO WIDTH=57 1/2"
MAXIMUM SHEAR AT STACK=3,695#

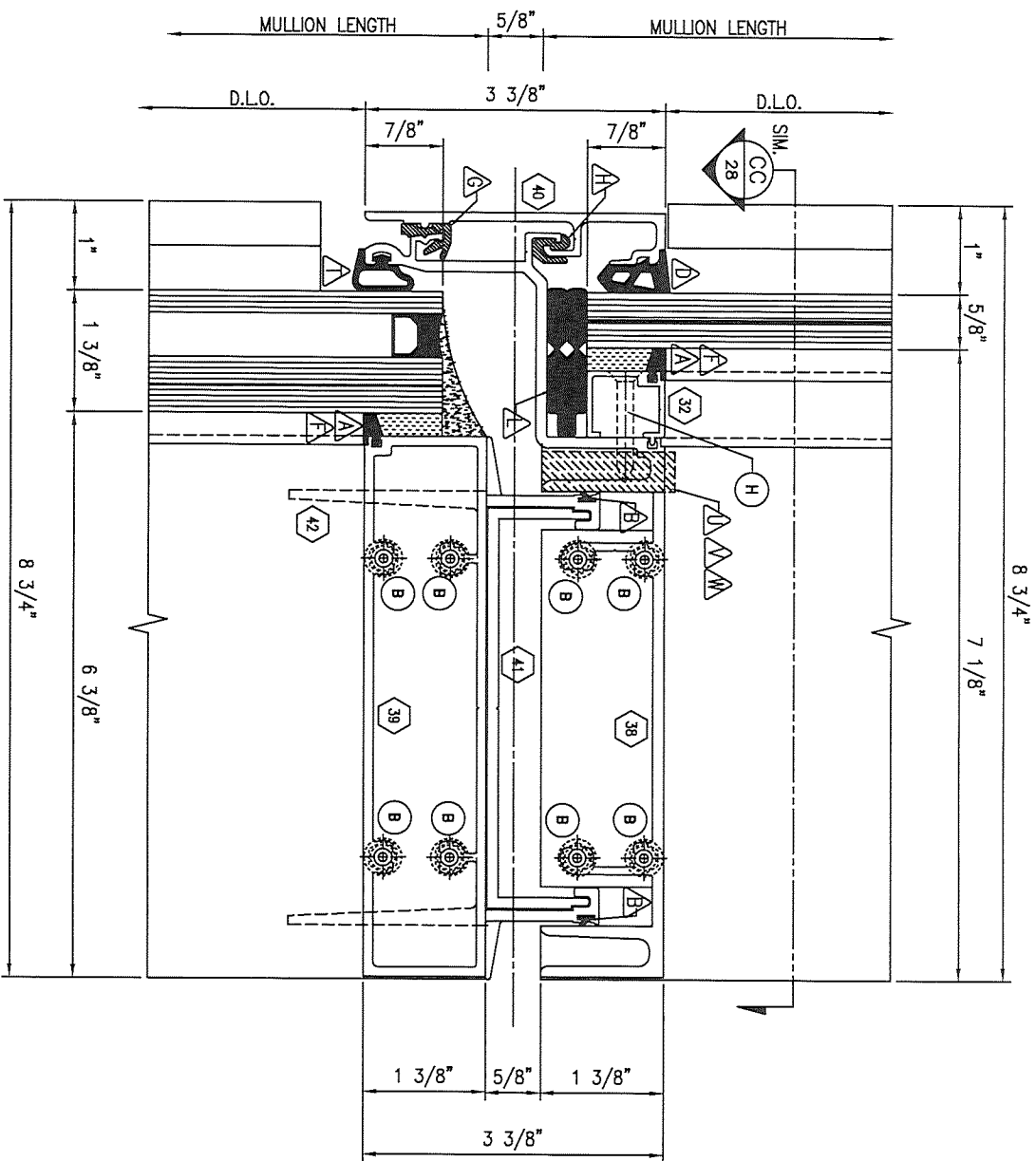
Larson Engineering, Inc.
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White Bear Lake, MN 55110
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NOA-No. **25-0902.04**
Expiration Date: **09/02/2029**
By: *Manuel Jose*
Miami-Dade Product Control



HI 7000 SMALL MISSILE	
STACK HORIZONTAL DETAIL	
SECTION CUTS	
DATE: 06/28/04	6/6/17/16
1/11/18/08	7/03/05/19
2/3/10/09	8/02/25/21
3/3/16/09	9/08/12/25
4/5/22/12	
5/10/03/14	
DWG. NO. H17000SM	
SHEET 27 OF 41	



9 STACK HORIZONTAL
SCALE: FULL

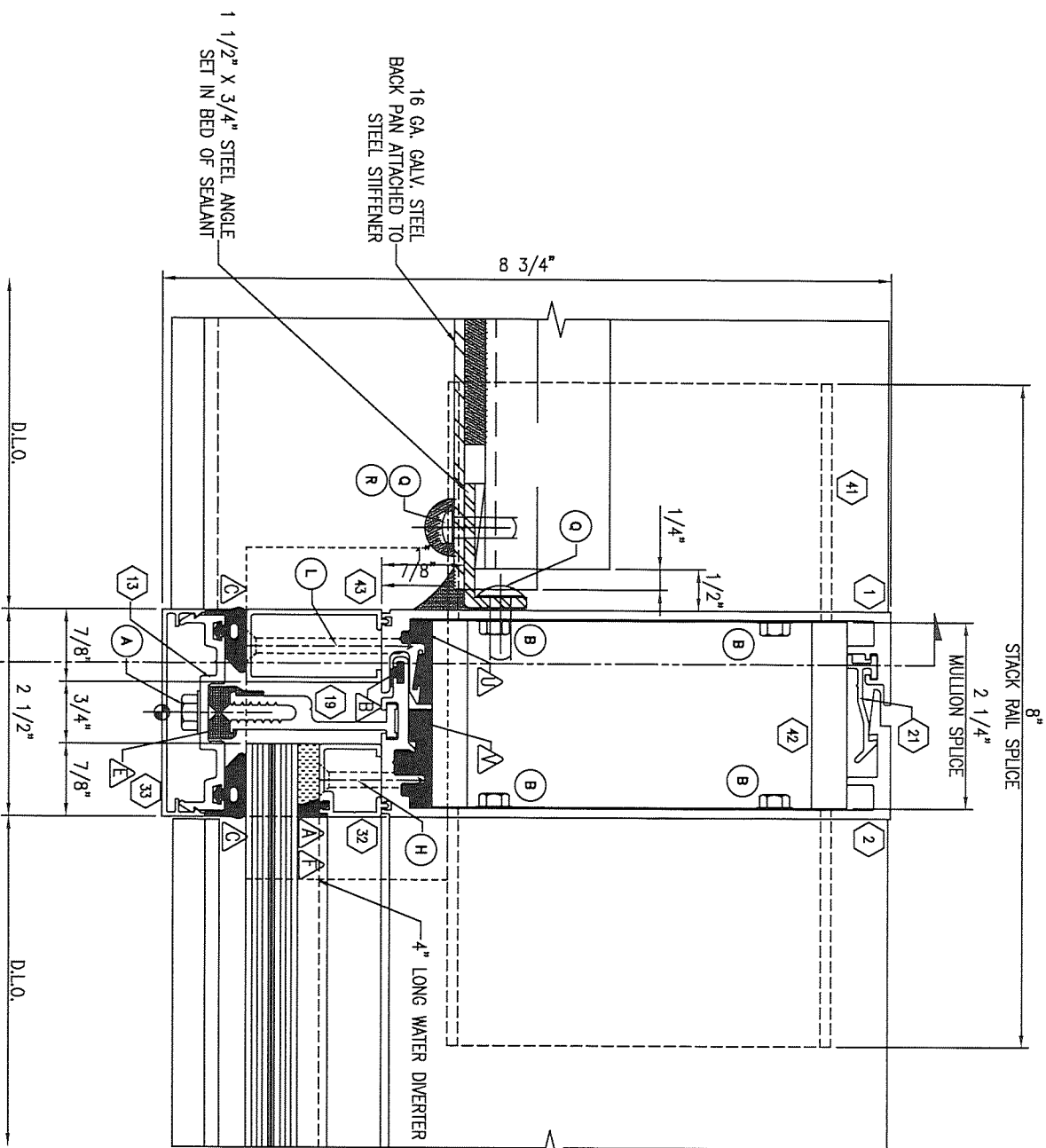
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MAXIMUM SHEAR AT STACK=3,695#

GENERAL NOTES:

- FOR PART IDENTIFICATION REFER TO SHEET 2

- FOR GLAZING DETAILS, GLASS BITE & GASKET CONFIGURATIONS SEE SHEET 3.

- FASTENERS
- GASKETS
- ALUMINUM EXTRUSIONS



CC MULLION @ STACK
SCALE: FULL

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By: *Manuel J. Jara*
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ENGINEER STAMP



Harmon
HI 7000 SMALL MISSILE

STACK HORIZONTAL DETAIL
& SECTION CUT

DATE: 06/28/04

11/18/08

3/10/09

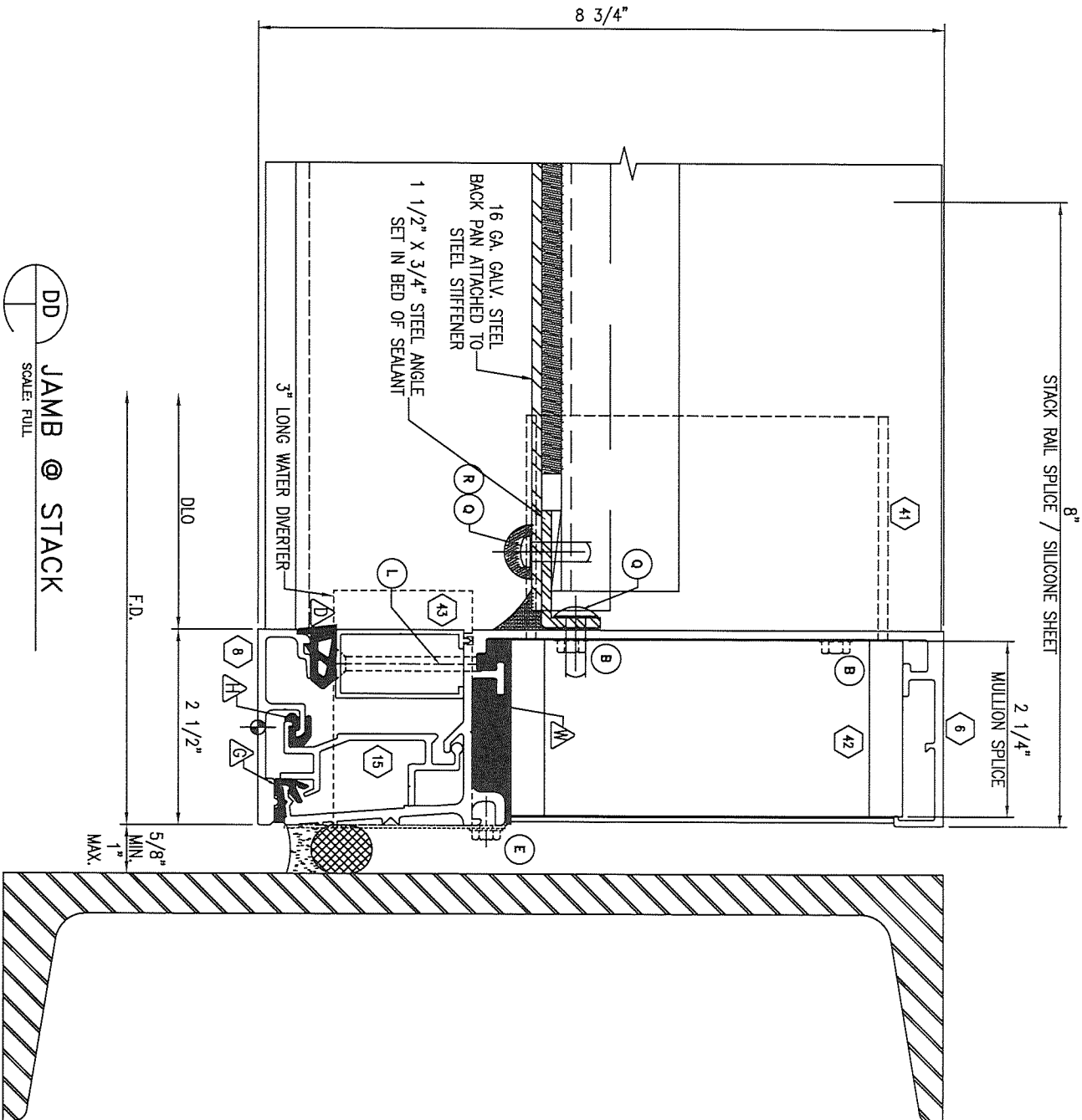
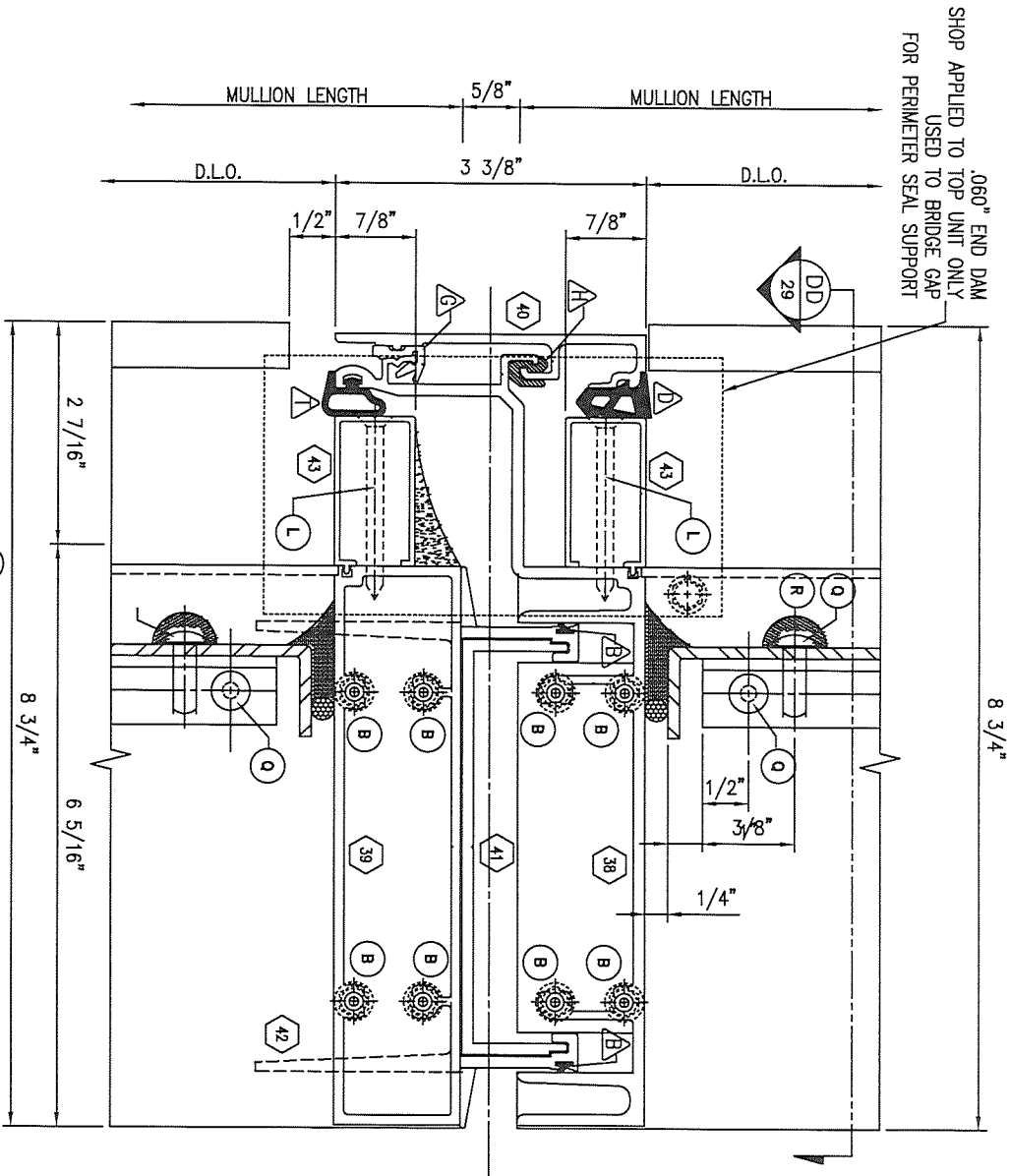
3/16/09

5/22/12

10/03/14

DWG. NO. HI7000SM

SHEET 28 OF 41



GENERAL NOTES:

– FOR PART IDENTIFICATION REFER TO SHEET 2

– FOR GLAZING DETAILS, GLASS BITE & GASKET CONFIGURATIONS SEE SHEET 3.

- FASTENERS
- △ GASKETS
- ◻ ALUMINUM EXTRUSIONS

MAXIMUM DLO WIDTH=57 1/2"
MAXIMUM SHEAR AT STACK=3,695#

DD JAMB @ STACK
SCALE: FULL

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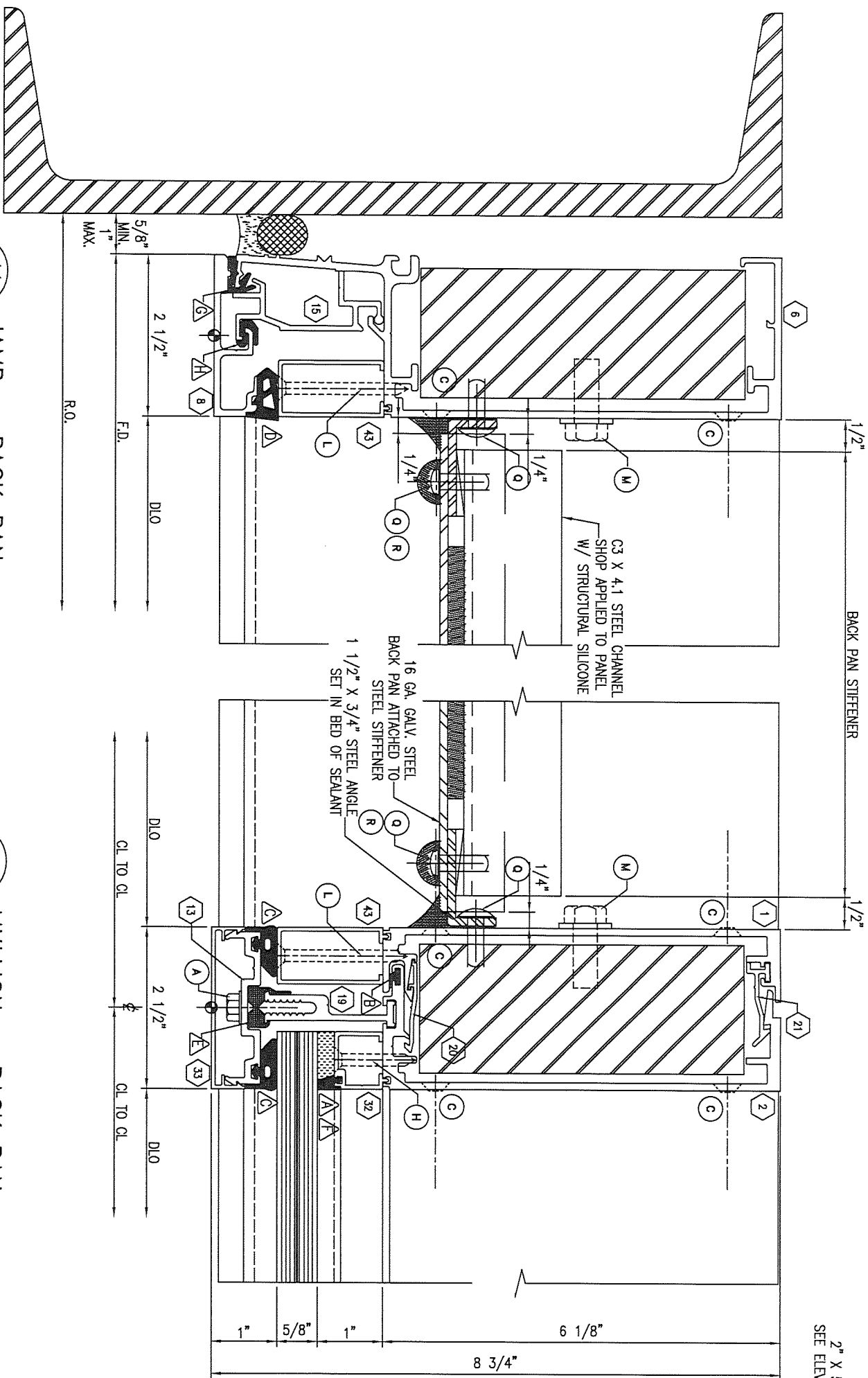
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As complying with the Florida Building Code
NOA-No. **25-0902.04**
Expiration Date: **09/02/2029**
By: *Manuel Jose*
Miami-Dade Product Control

ENGINEER STAMP
No. 65108
STATE OF FLORIDA
Professional Seal
Registration

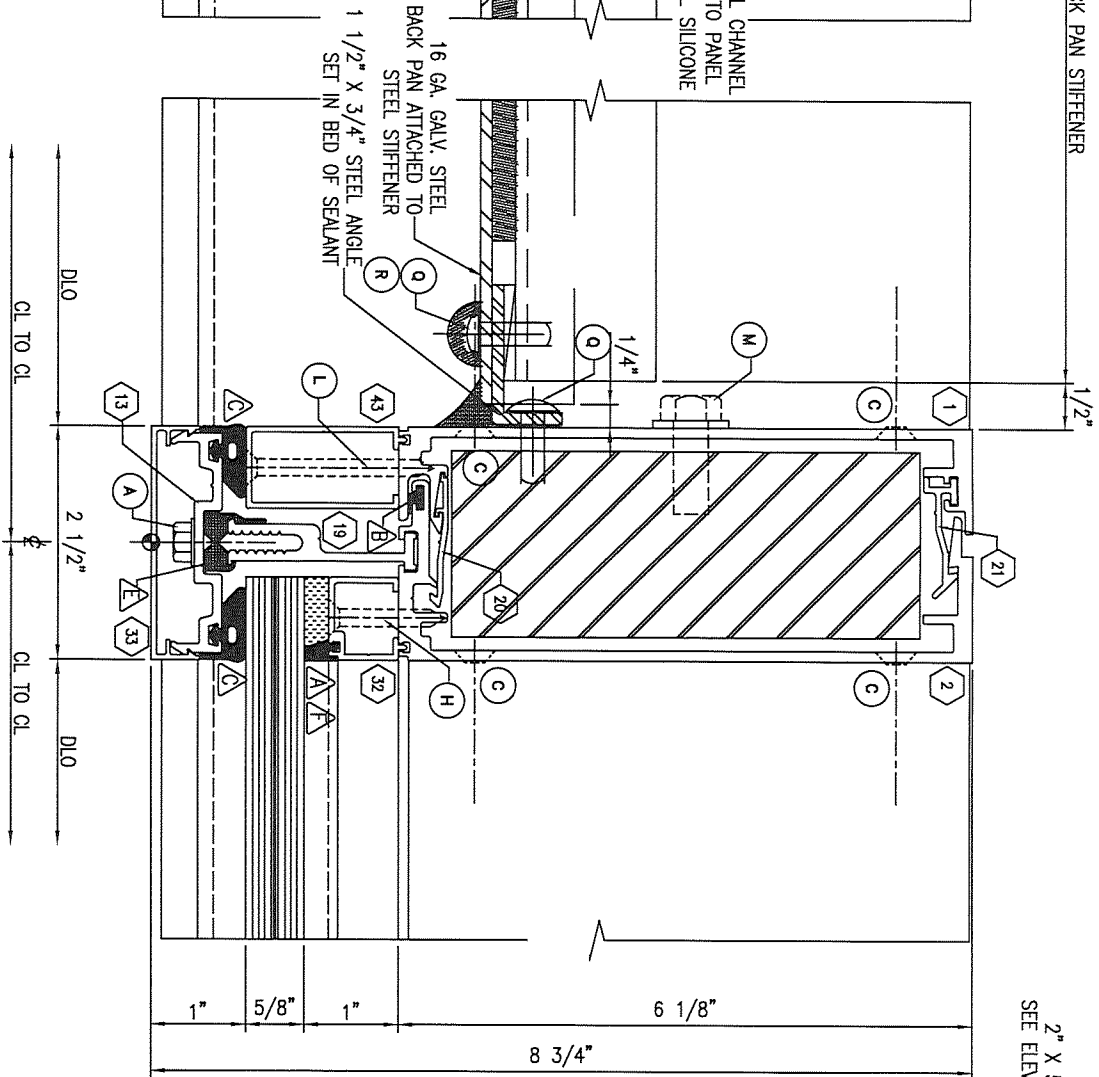
Harmon
HI 7000 SMALL MISSILE
STACK HORIZONTAL DETAIL & SECTION CUT

DATE: 06/28/04
11/18/08
3/10/09
3/16/09
5/22/12
10/03/14

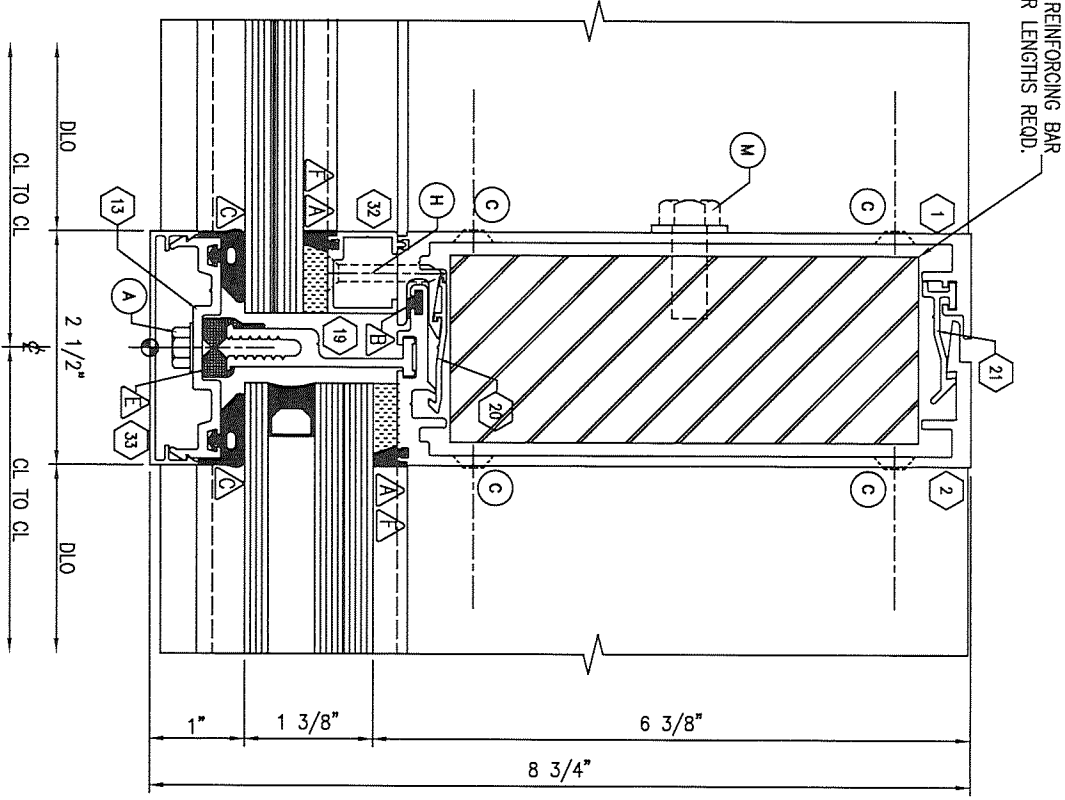
6/17/16
03/05/19
02/25/21
08/12/25
08/12/25
10/03/14
DWG. NO. HI7000SM
SHEET 29 OF 41



11 JAMB ~ BACK PAN
SCALE: FULL



12 MULLION ~ BACK PAN
SCALE: FULL



13 MULLION DETAIL
SCALE: FULL

GENERAL NOTES:

- FOR PART IDENTIFICATION REFER TO SHEET 2

- FASTENERS
- GASKETS
- ALUMINUM EXTRUSIONS

- FOR GLAZING DETAILS, GLASS BITE & GASKET CONFIGURATIONS SEE SHEET 3.

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ENGINEER STAMP

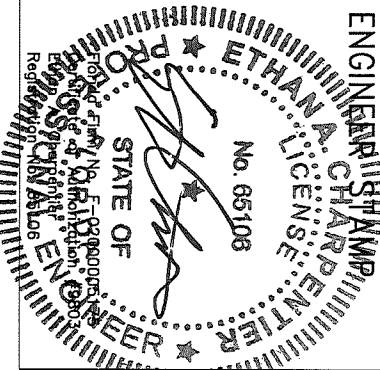
Harmon
HI 7000 SMALL MISSILE
VERTICAL DETAILS

PRODUCT REVISED
As complying with the Florida Building Code

NOA-No. **25-0902.04**

Expiration Date: **09/02/2029**

By: *Manuel Jose*
Miami-Dade Product Control



DATE: 06/28/04 6/17/16

11/18/08 03/05/19

3/10/09 02/25/21

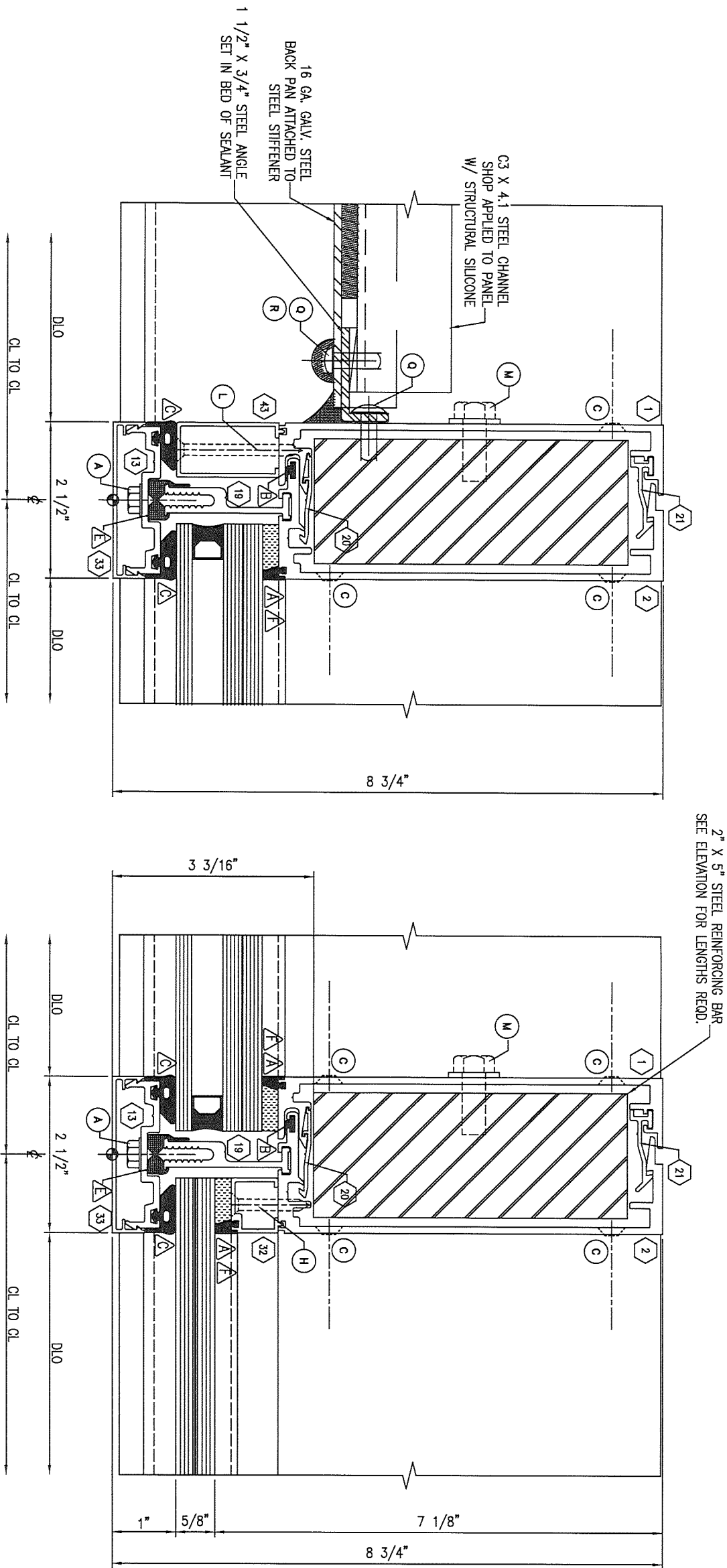
3/16/09 08/12/25

5/22/12

10/03/14

DWG. NO. HI7000SM

SHEET 30 OF 41



GENERAL NOTES:

– FOR PART IDENTIFICATION REFER TO SHEET 2

– FOR GLAZING DETAILS, GLASS BITE & GASKET CONFIGURATIONS SEE SHEET 3.

- ☐ FASTENERS
- ☐ GASKETS
- ☐ ALUMINUM EXTRUSIONS

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NOA-No. **25-0902.04**
Expiration Date: **09/02/2029**
By: *Manuel Jose*
Miami-Dade Product Control

ENGINEER STAMP

No. 65108

STATE OF

Harmon

HI 7000 SMALL MISSILE

VERTICAL DETAILS

DATE: 06/28/04

1 11/18/08

2 3/10/09

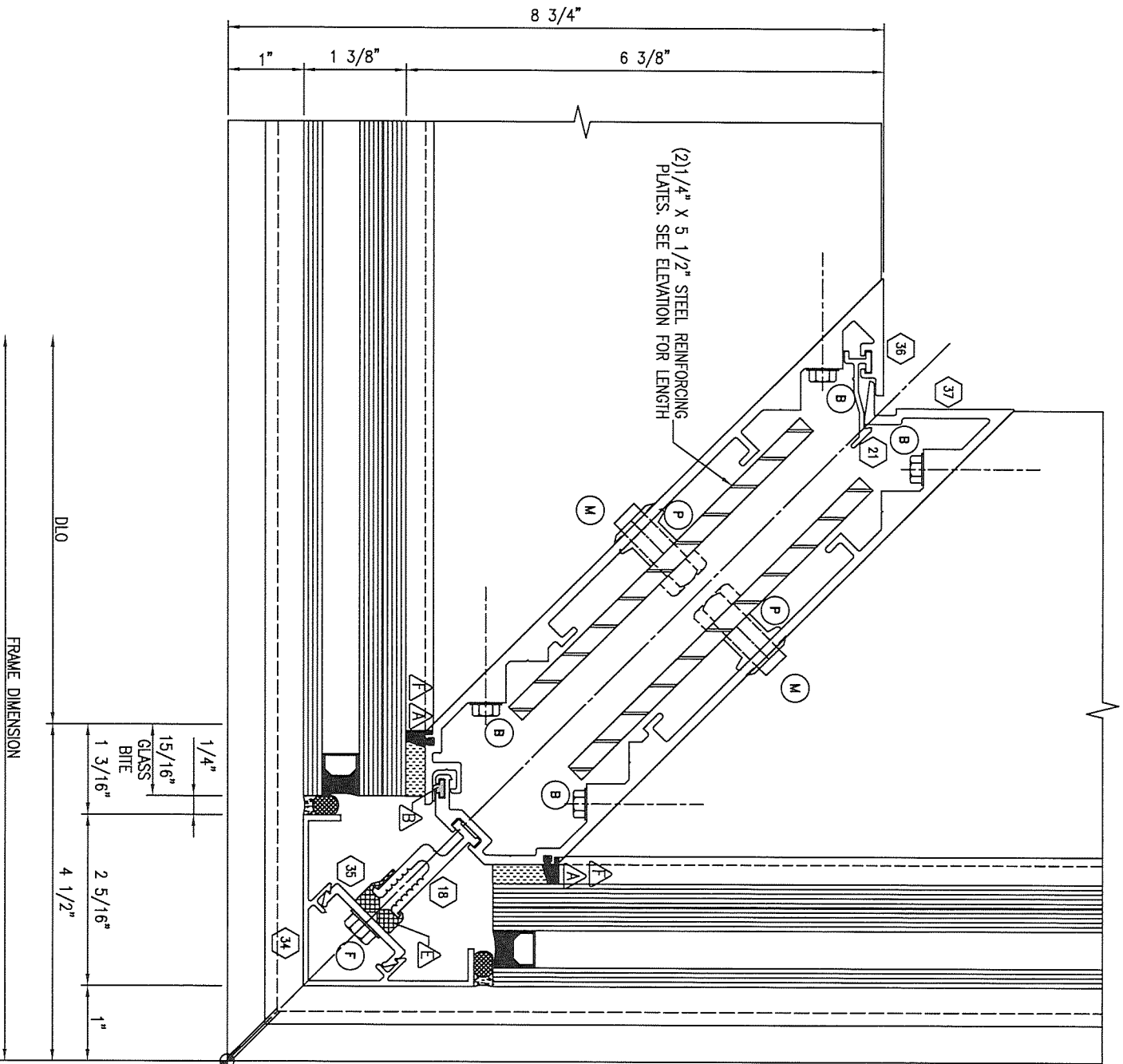
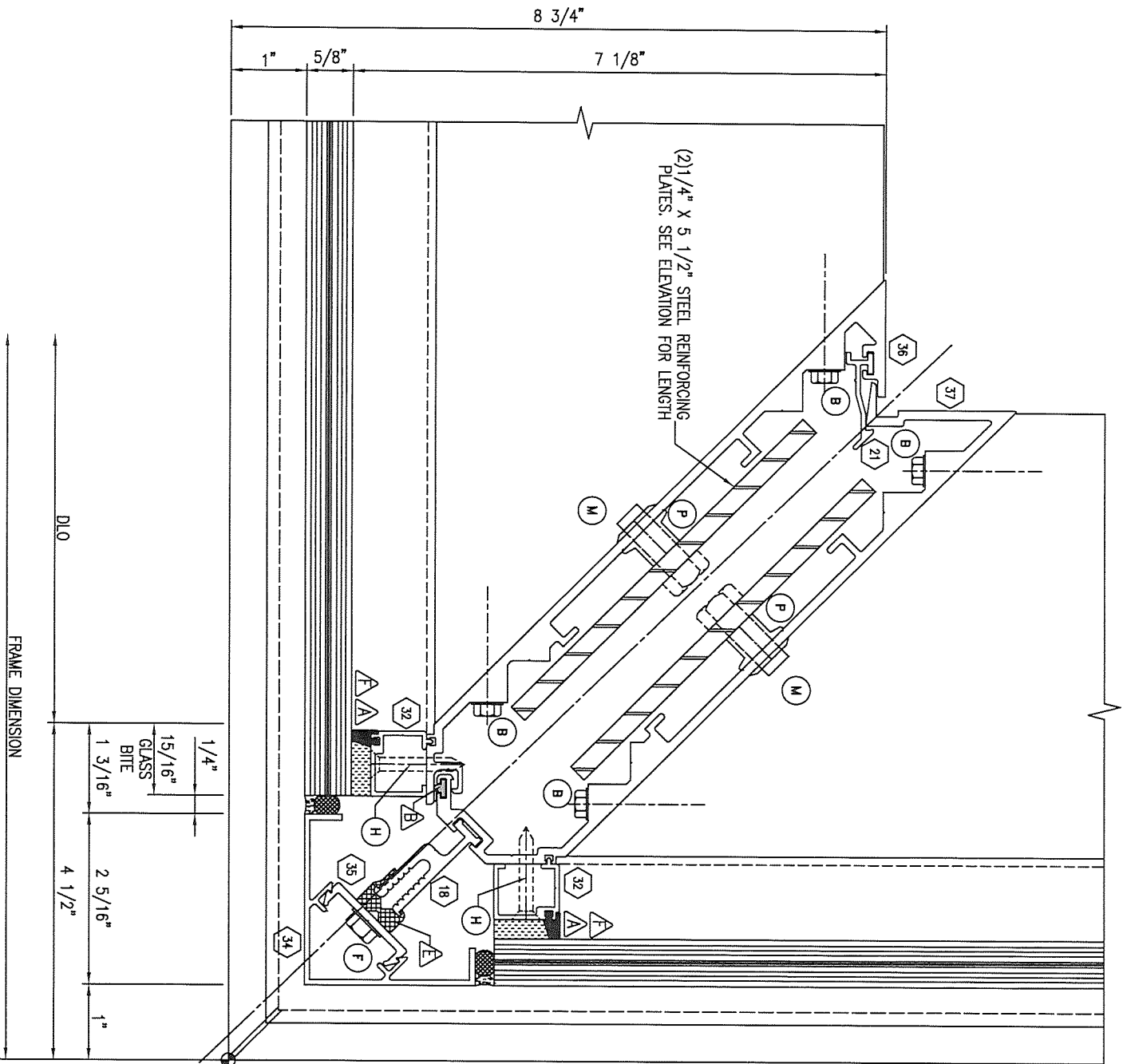
3 3/16/09

4 5/22/12

5 10/03/14

DWG. NO. HI7000SM

SHEET 31 OF 41



GENERAL NOTES:

– FOR PART IDENTIFICATION REFER TO SHEET 2

– FOR GLAZING DETAILS, GLASS BITE & GASKET CONFIGURATIONS SEE SHEET 3.

-  FASTENERS
-  GASKETS
-  ALUMINUM EXTRUSIONS

16 OUTSIDE CORNER
SCALE: FULL

17 OUTSIDE CORNER
SCALE: FULL

DADE CO. STAMP

ENGINEER STAMP

CORNER DETAILS

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8.19.25

Harmon
HI 7000 SMALL MISSILE

PRODUCT REVISED

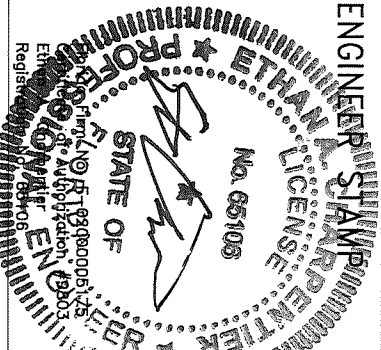
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NOA-No. **25-0902.04**

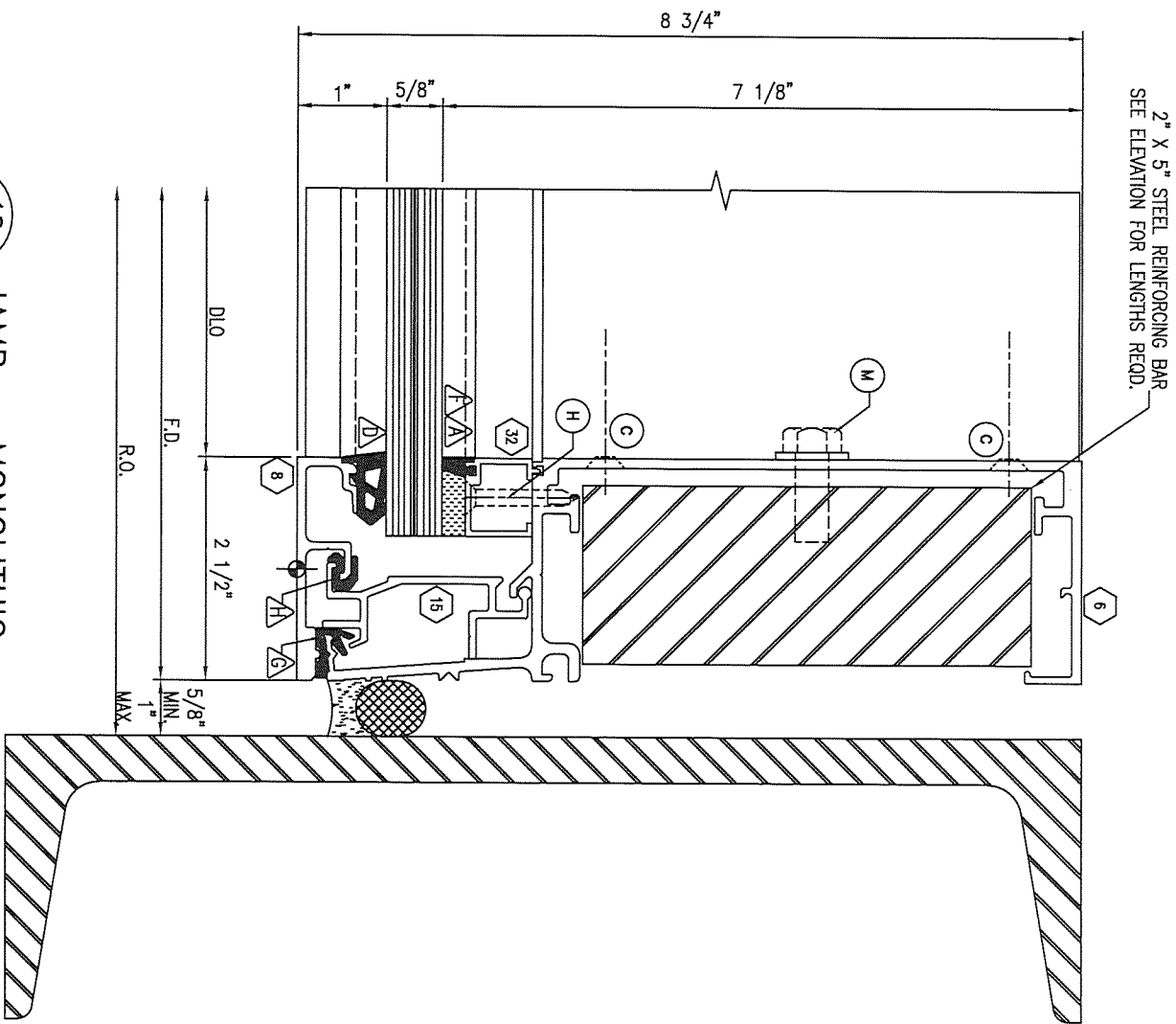
Expiration Date: **09/02/2029**

By: *Manuel Jose*

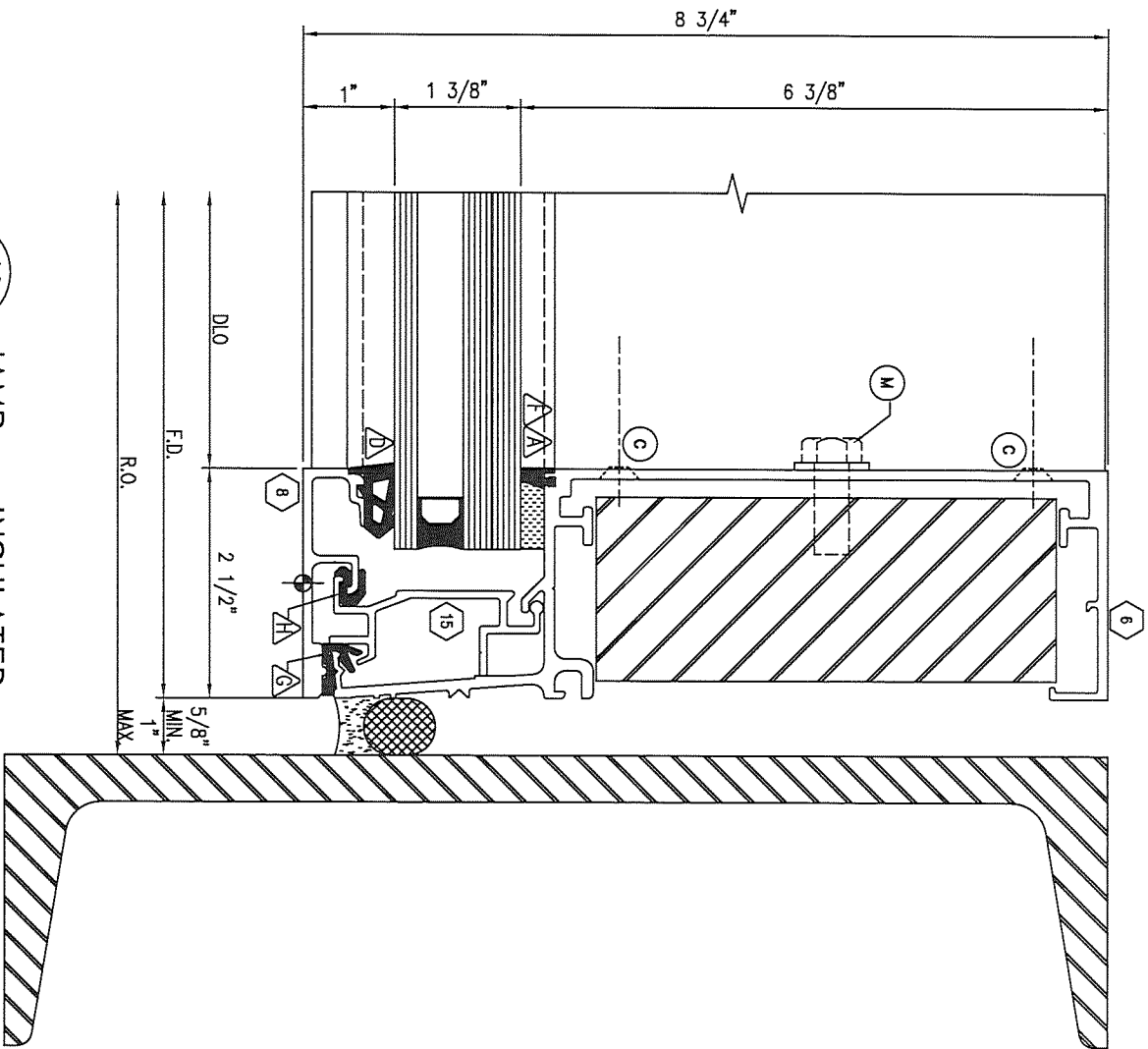
Miami-Dade Product Control



DATE: 06/28/04	6/6/17/16
11/18/08	03/05/19
3/10/09	02/25/21
3/16/09	08/12/25
5/22/12	
10/03/14	
DWG. NO. H17000SM	
SHEET 32 OF 41	



18 JAMB ~ MONOLITHIC
SCALE: FULL



19 JAMB ~ INSULATED
SCALE: FULL

GENERAL NOTES:

- FOR PART IDENTIFICATION REFER TO SHEET 2

- FOR GLAZING DETAILS, GLASS BITE & GASKET CONFIGURATIONS SEE SHEET 3.

- FASTENERS
△ GASKETS
◻ ALUMINUM EXTRUSIONS

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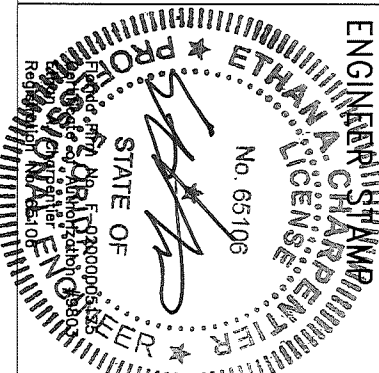
As complying with the Florida Building Code

NOA-No. **25-0902.04**

Expiration Date: **09/02/2029**

By: *Manuel Jera*

Miami-Dade Product Control



Harmon

HI 7000 SMALL MISSILE

VERTICAL DETAILS

DATE: 06/28/04 6/17/16

11/18/08 03/05/19

3/10/09 02/25/21

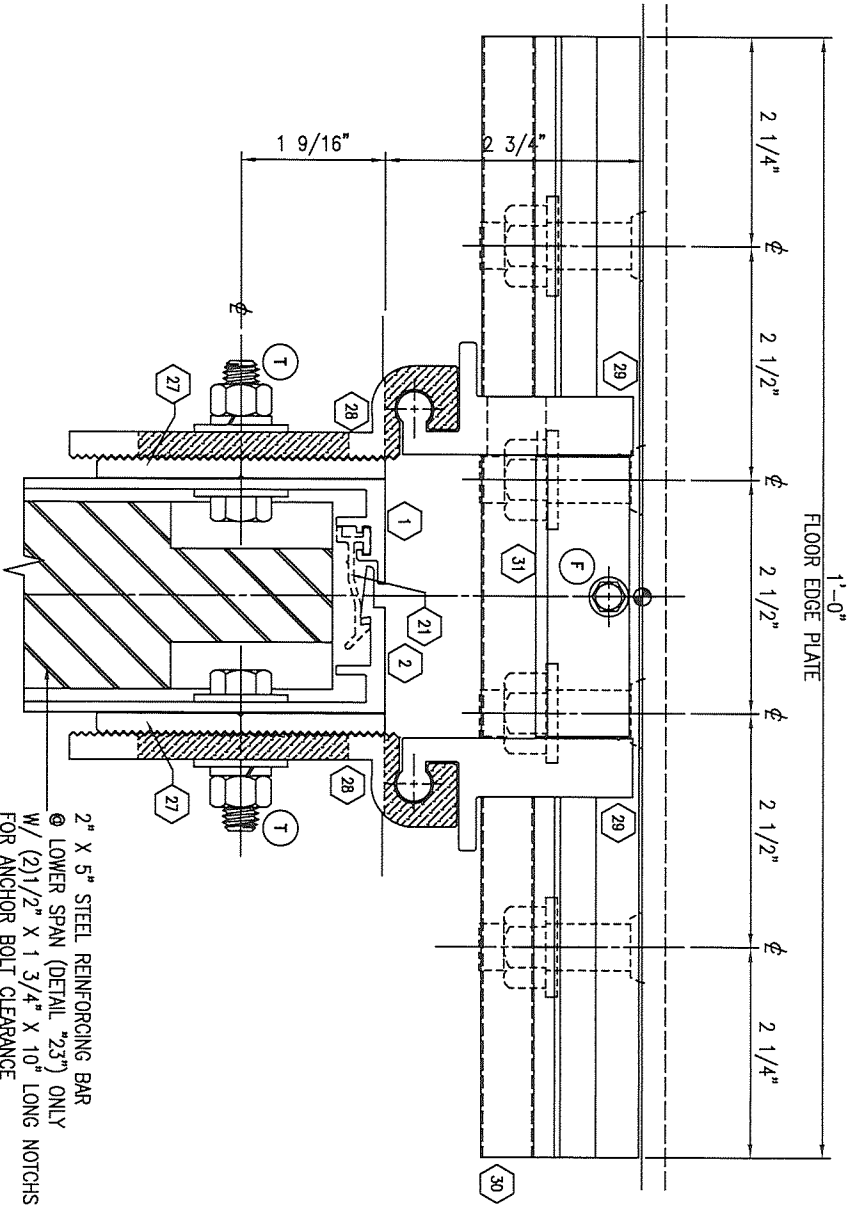
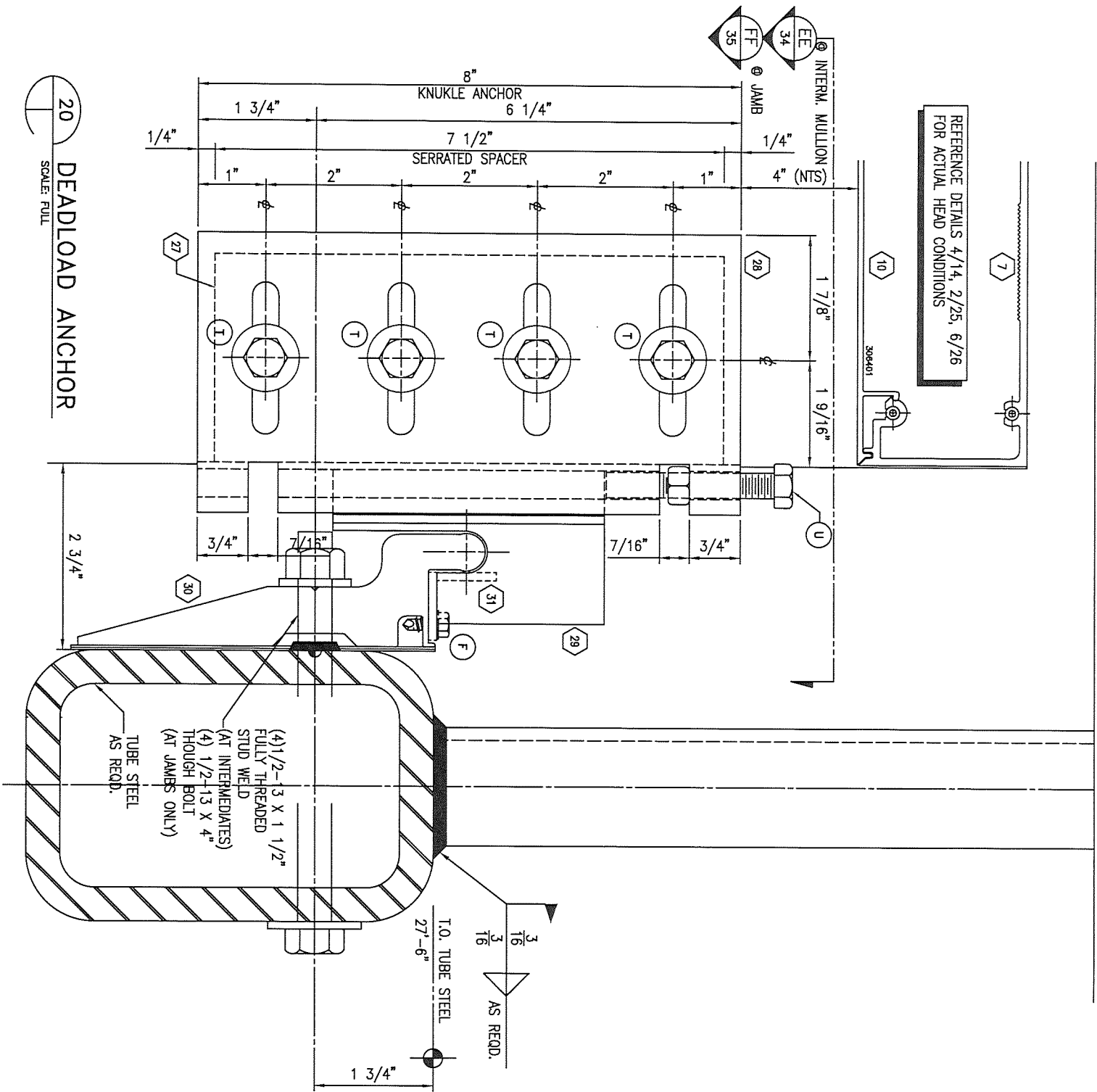
3/16/09 08/12/25

5/22/12

10/03/14

DWG. NO. HI7000SM

SHEET 33 OF 41



GENERAL NOTES:

– FOR PART IDENTIFICATION REFER TO SHEET 2

- FASTENERS
- GASKETS
- ALUMINUM EXTRUSIONS

– FOR GLAZING DETAILS, GLASS BITE & GASKET CONFIGURATIONS SEE SHEET 3.

Larson Engineering, Inc.
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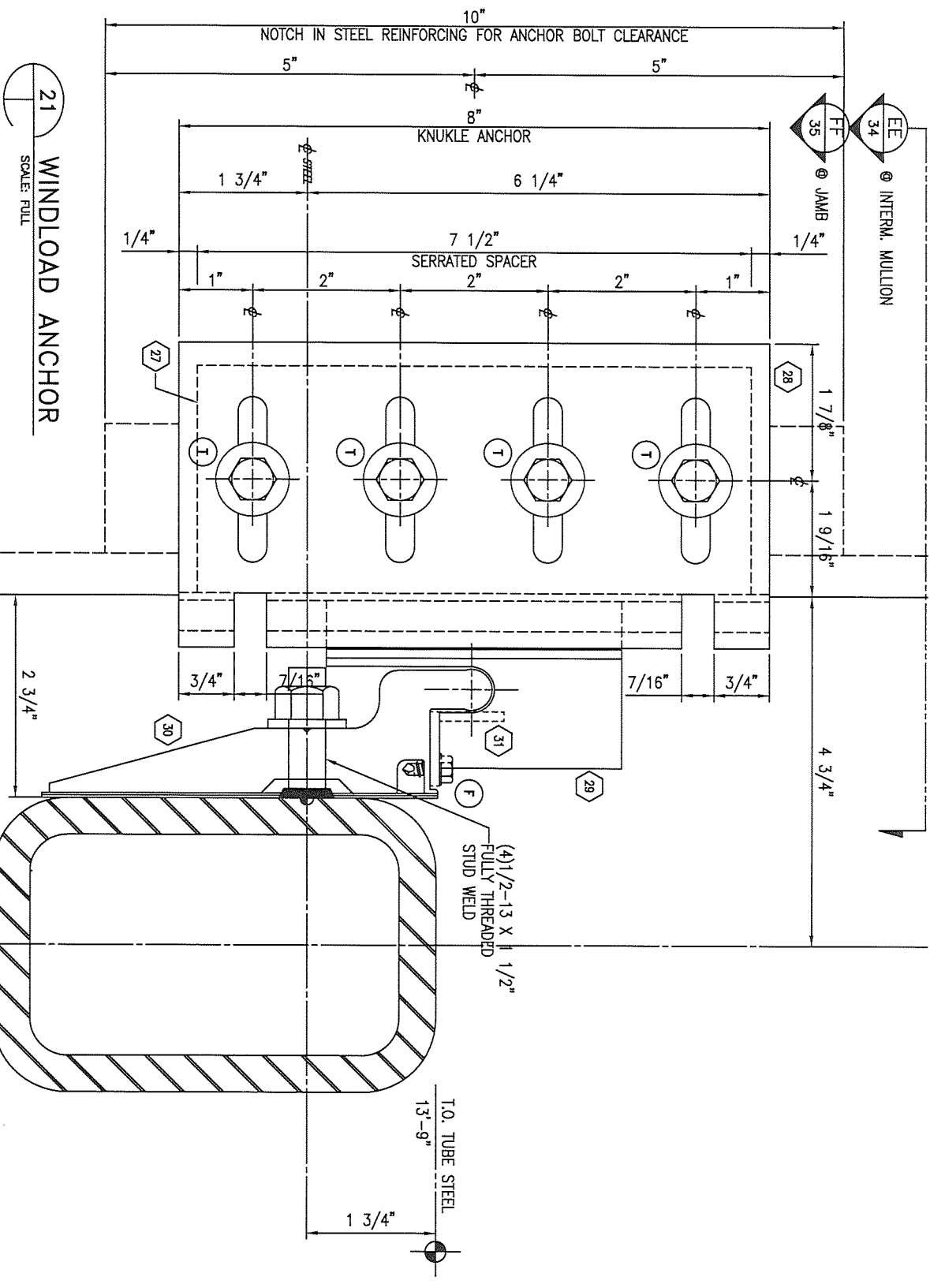
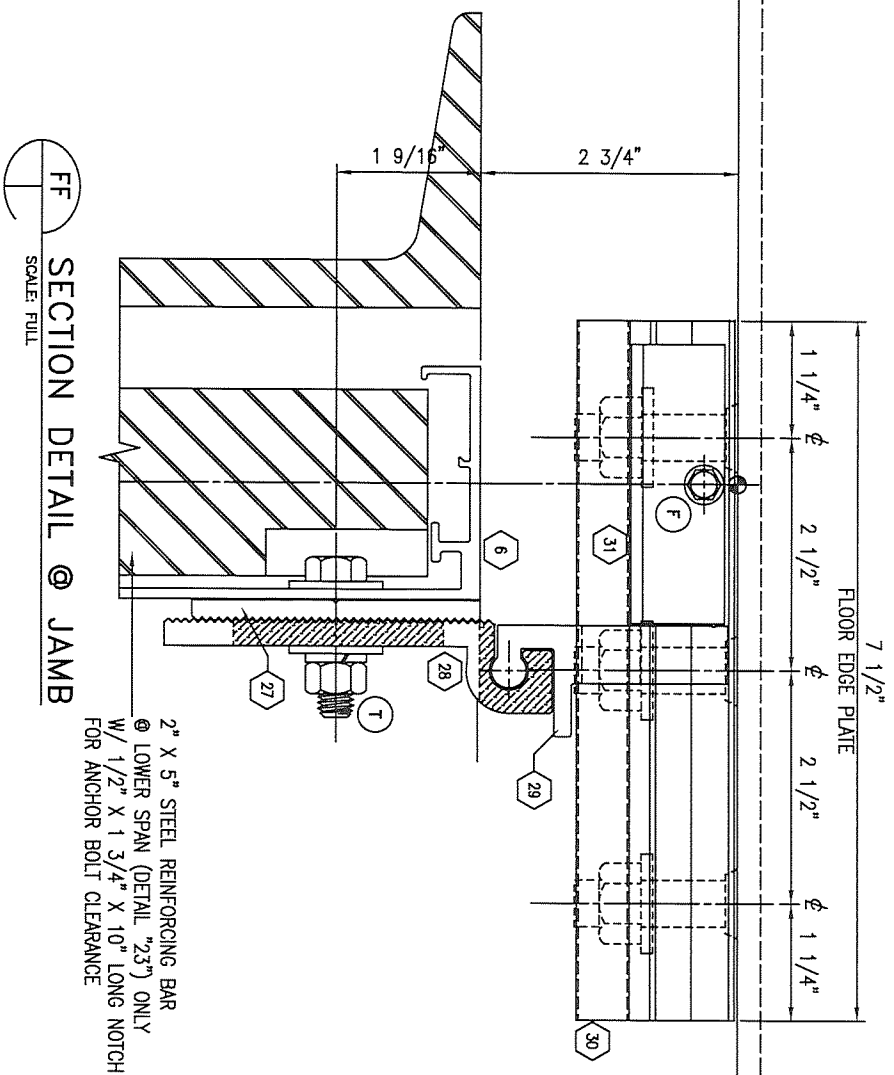
PRODUCT REVISED
As complying with the Florida Building Code
NOA-No. **25-0902.04**
Expiration Date: **09/02/2029**
By: *Manuel Jose*
Miami-Dade Product Control

ENGINEER'S STAMP
LICENSE

STATE OF FLORIDA
No. 66106
DATE: 06/28/04
DATE: 11/18/08
DATE: 3/10/09
DATE: 3/16/09
DATE: 5/22/12
DATE: 10/03/14
DATE: 06/17/16
DATE: 03/05/19
DATE: 02/25/21
DATE: 08/12/25

Harmon
HI 7000 SMALL MISSILE
ANCHOR DETAIL AND
INTERMEDIATE ANCHOR SECTION

DWG. NO. HI7000SM
SHEET 34 OF 41



GENERAL NOTES:

– FOR PART IDENTIFICATION REFER TO SHEET 2

– FOR GLAZING DETAILS, GLASS BITE & GASKET CONFIGURATIONS SEE SHEET 3.

-  FASTENERS
-  GASKETS
-  ALUMINUM EXTRUSIONS

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White Bear Lake, MN 55110
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DADE CO. STAMP

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NOA-No. **25-0902.04**

Expiration Date: **09/02/2029**

By: *Manuel J. Jara*

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Harmon
HI 7000 SMALL MISSILE

ANCHOR DETAIL AND

JAMB ANCHOR SECTION CUT

DATE: 06/28/04  6/17/16

DATE: 11/18/08  03/05/19

DATE: 3/10/09  02/25/21

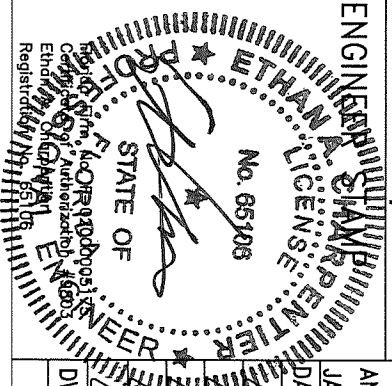
DATE: 3/16/09  08/12/25

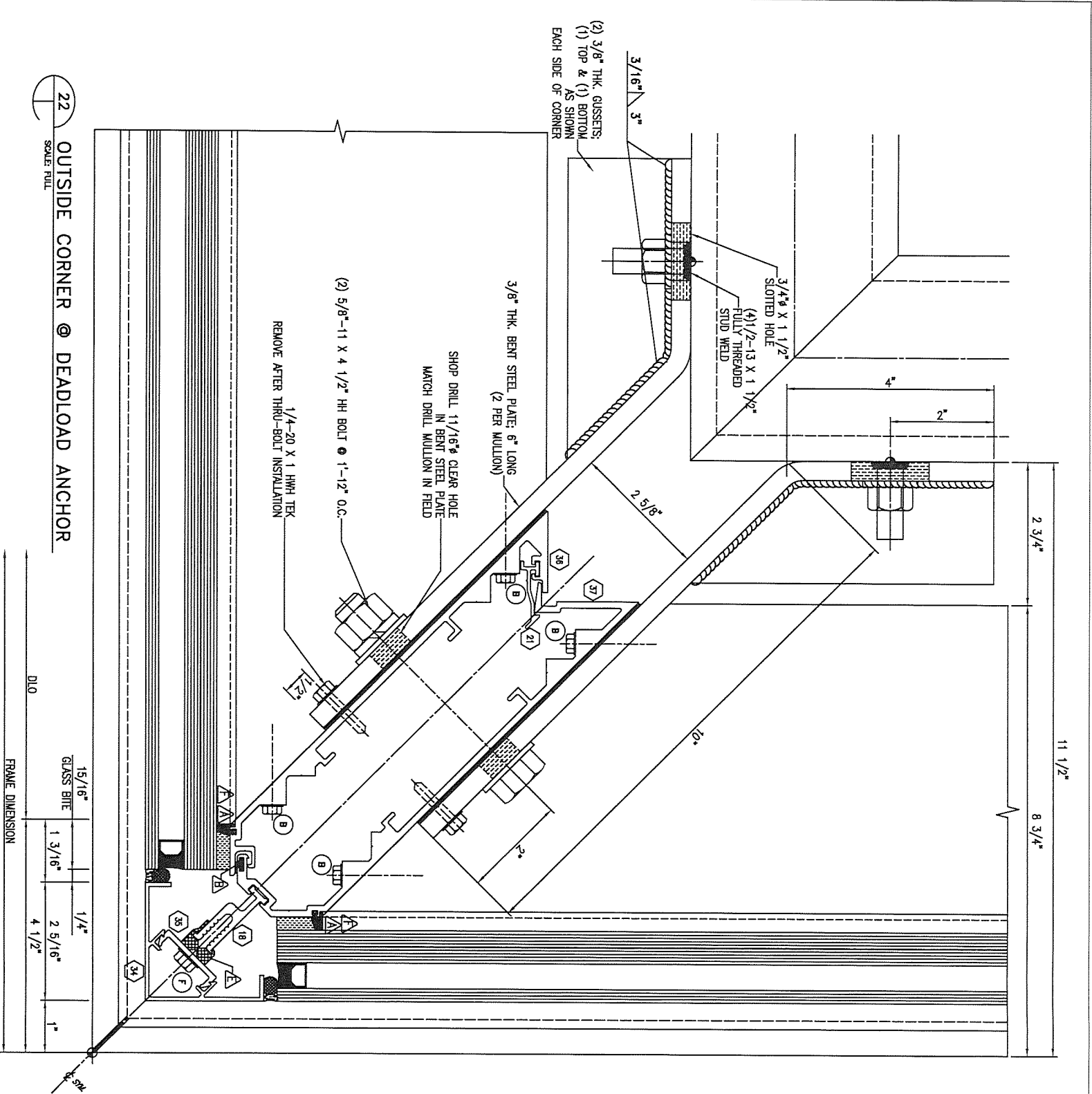
DATE: 5/22/12

DATE: 10/03/14

DWG. NO. HI7000SM

SHEET 35 OF 41



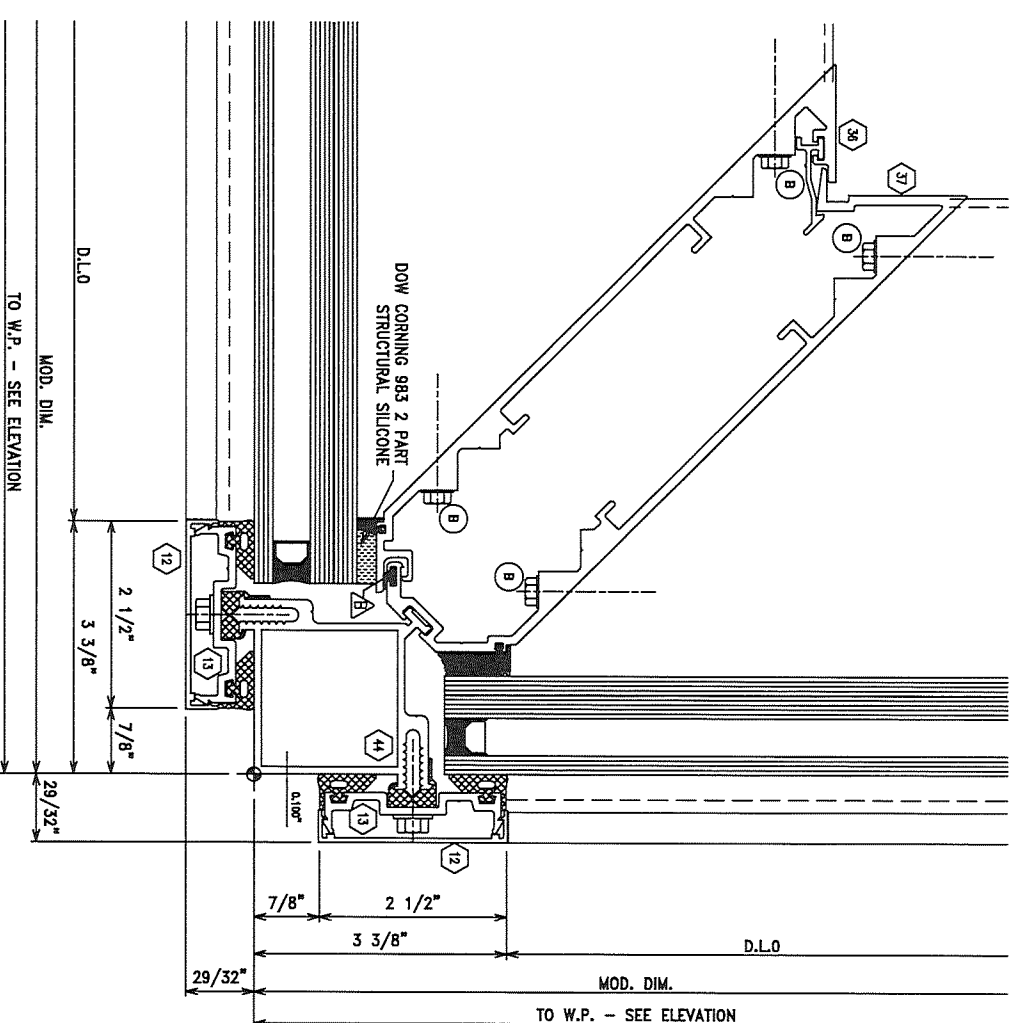


GENERAL NOTES:

- FOR PART IDENTIFICATION REFER TO SHEET 2

- FOR GLAZING DETAILS, GLASS BITE & GASKET CONFIGURATIONS SEE SHEET 3.

- FASTENERS
- △ GASKETS
- ◇ ALUMINUM EXTRUSIONS

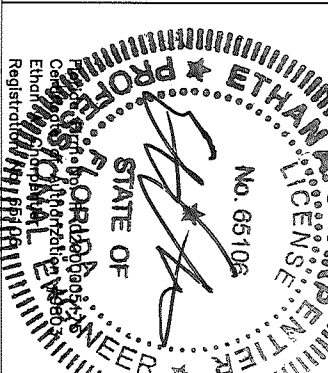


Larson Engineering, Inc.
3524 Labore Road
White Bear Lake, MN 55110
(P) 651.481.9120 (F) 651.481.9201

DADE CO. STAMP

PRODUCT REVISED
As complying with the Florida
Building Code **25-0902.04**
NOA-No. _____
Expiration Date: **09/02/2029**
By: *Manuel Jose*
Miami-Dade Product Control

ENGINEER'S STAMP



Harmon
HI 7000 SMALL MISSILE

CORNER ANCHOR DETAIL
OPTIONAL CORNER COVER

DATE: 06/28/04

11/18/08

3/10/09

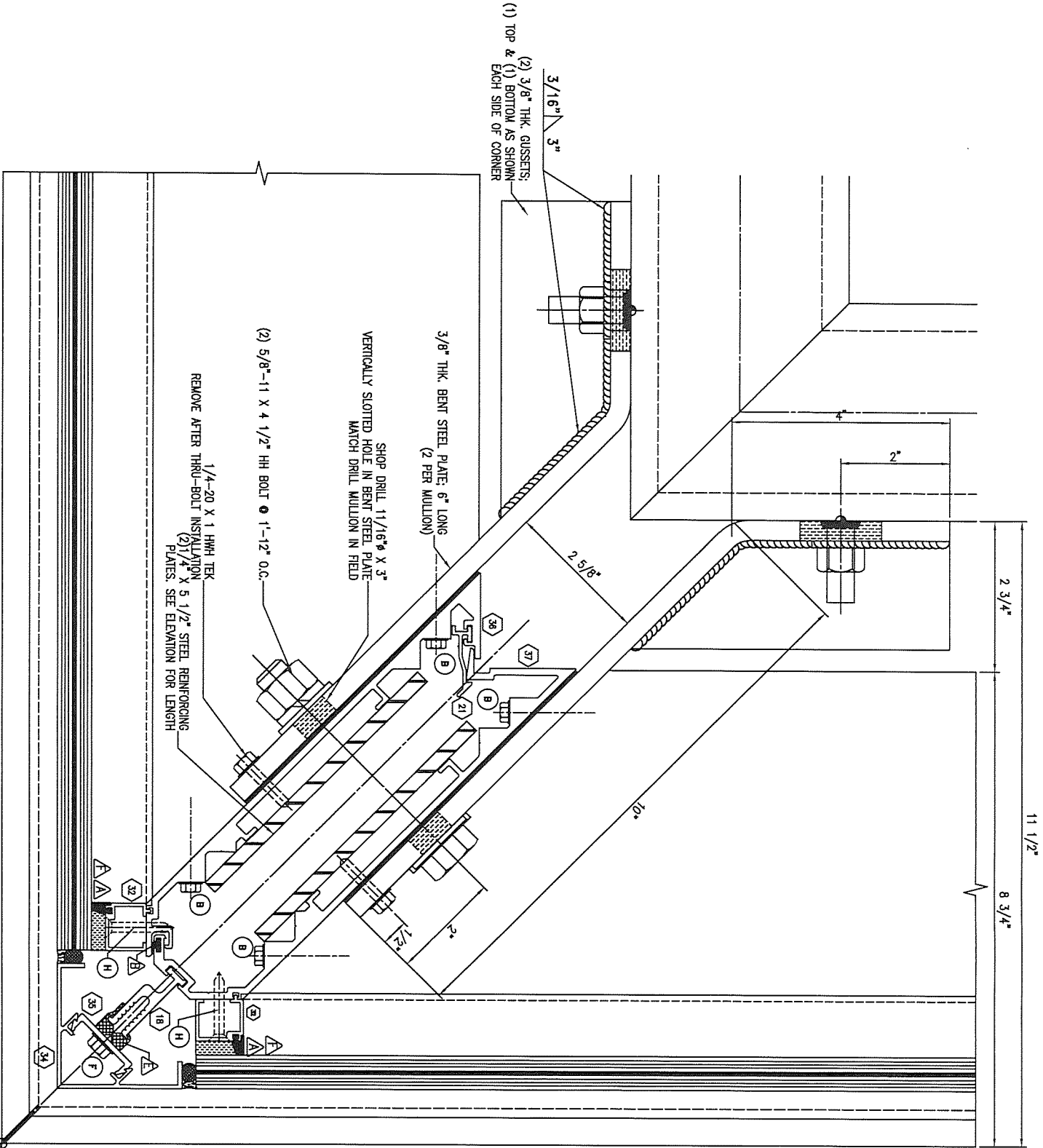
3/16/09

5/22/12

10/03/14

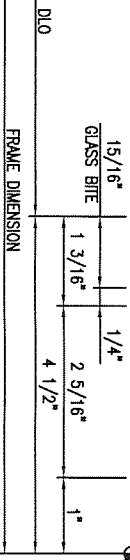
DWG. NO. HI7000SM

SHEET 36 OF 41



23 OUTSIDE CORNER @ WINDLOAD ANCHOR

SCALE: FULL



GENERAL NOTES:

- FOR PART IDENTIFICATION REFER TO SHEET 2

- FOR GLAZING DETAILS, GLASS BITE & GASKET CONFIGURATIONS SEE SHEET 3.

- FASTENERS
- △ GASKETS
- ◻ ALUMINUM EXTRUSIONS

Larson Engineering, Inc.
3524 Labore Road
White Bear Lake, MN 55110
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DADE CO. STAMP

PRODUCT REVISED
As complying with the Florida Building Code
NOA-No. **25-0902.04**
Expiration Date: **09/02/2029**
By: *Manuel Jose*
Miami Dade Product Control

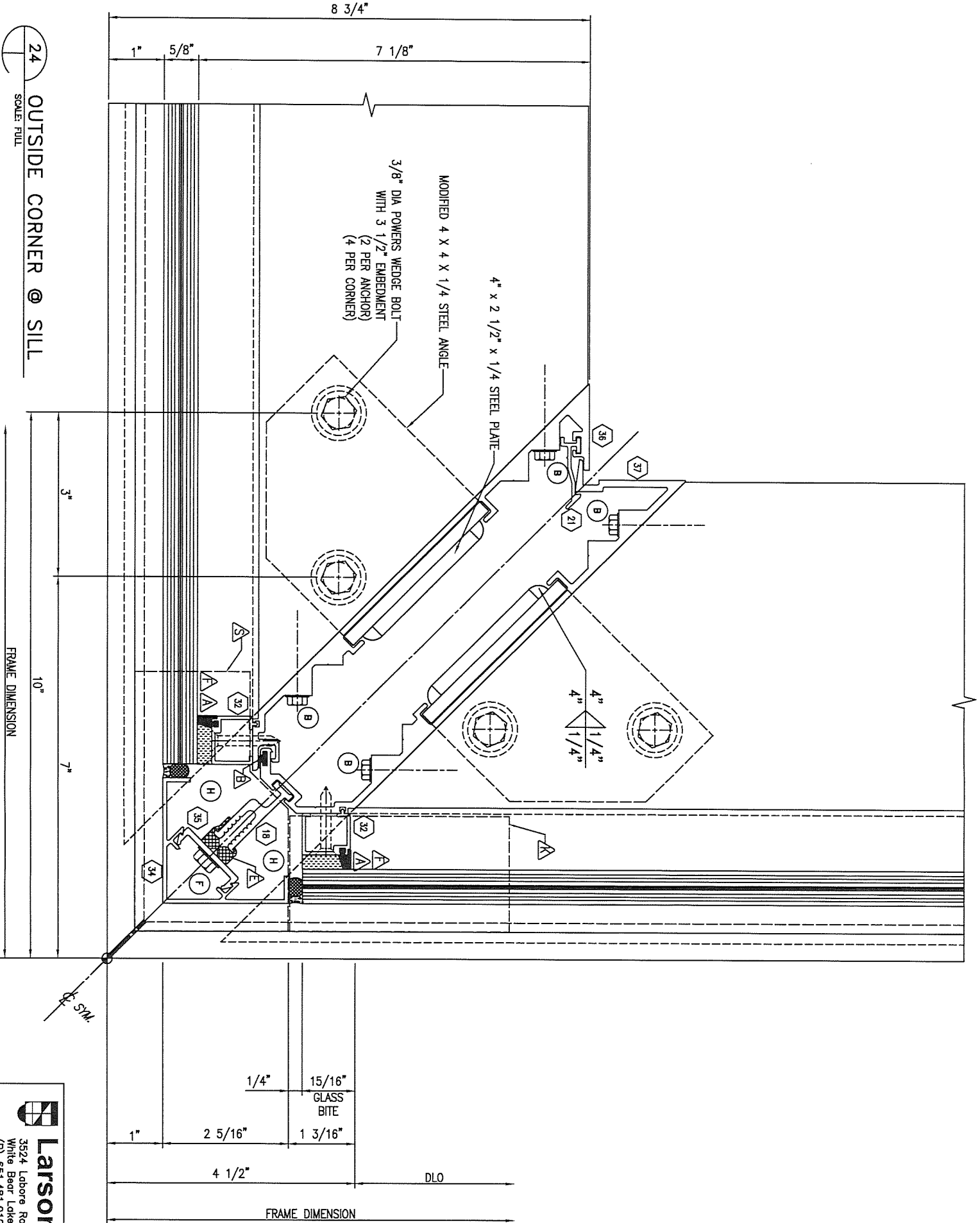
8.19.25

Harmon

HI 7000 SMALL MISSILE
CORNER ANCHOR DETAIL

ENGINEER'S STAMP
No. 65109
STATE OF FLORIDA
Professional Engineer
Registration No. 65109

		No. 65106	
Florida State Board of Professional Engineers	Registration No. 65106	1	11/18/08
Certified by the State Board of Professional Engineers	Registration No. 65106	2	3/10/09
Ethan A. 10877777	Registration No. 65106	3	3/16/09
Registration No. 65106	Registration No. 65106	4	5/22/12
Registration No. 65106	Registration No. 65106	5	10/03/14
DWG. NO. H17000SM		6	03/05/19
SHEET 37 OF 41		7	02/25/21
		8	08/12/25

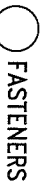


24 OUTSIDE CORNER @ SILL
SCALE: FULL

GENERAL NOTES:

- FOR PART IDENTIFICATION REFER TO SHEET 2

- FOR GLAZING DETAILS, GLASS BITE & GASKET CONFIGURATIONS SEE SHEET 3.



FASTENERS



GASKETS



ALUMINUM EXTRUSIONS

Larson Engineering, Inc.
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White Bear Lake, MN 55110
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8.19.25

Harmon

DADE CO. STAMP

ENGINEER'S STAMP

HI 7000 SMALL MISSILE
CORNER ANCHOR DETAIL

PRODUCT REVISED

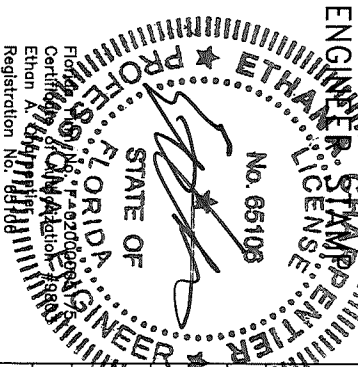
As complying with the Florida
Building Code

NOA-No. **25-0902.04**

Expiration Date: **09/02/2029**

By: *Manuel Jose*

Miami-Dade Product Control



DATE: 06/28/04

DATE: 11/18/08

DATE: 3/10/09

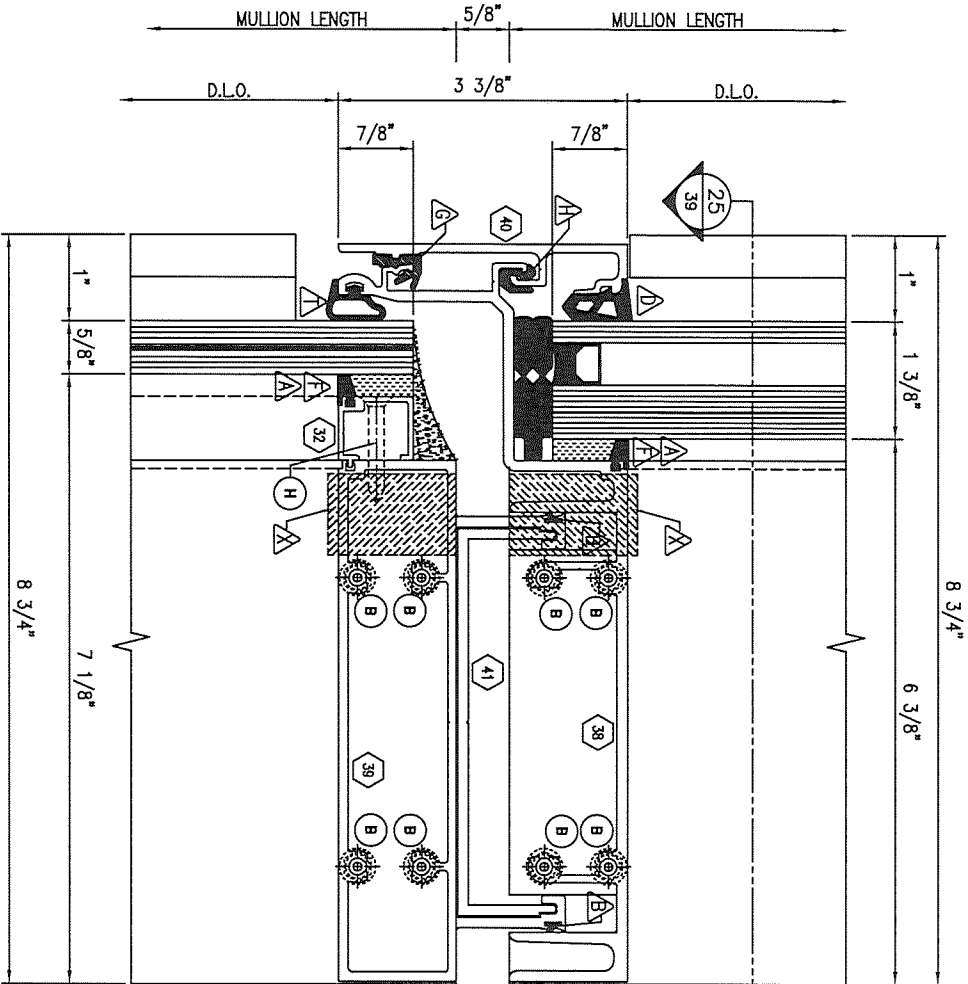
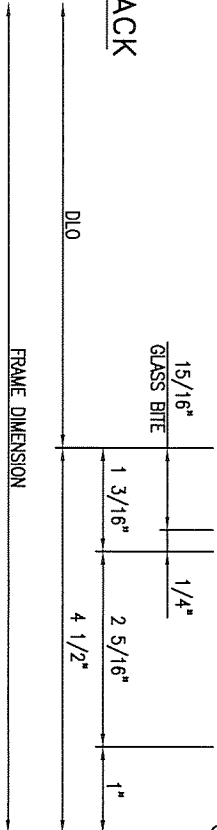
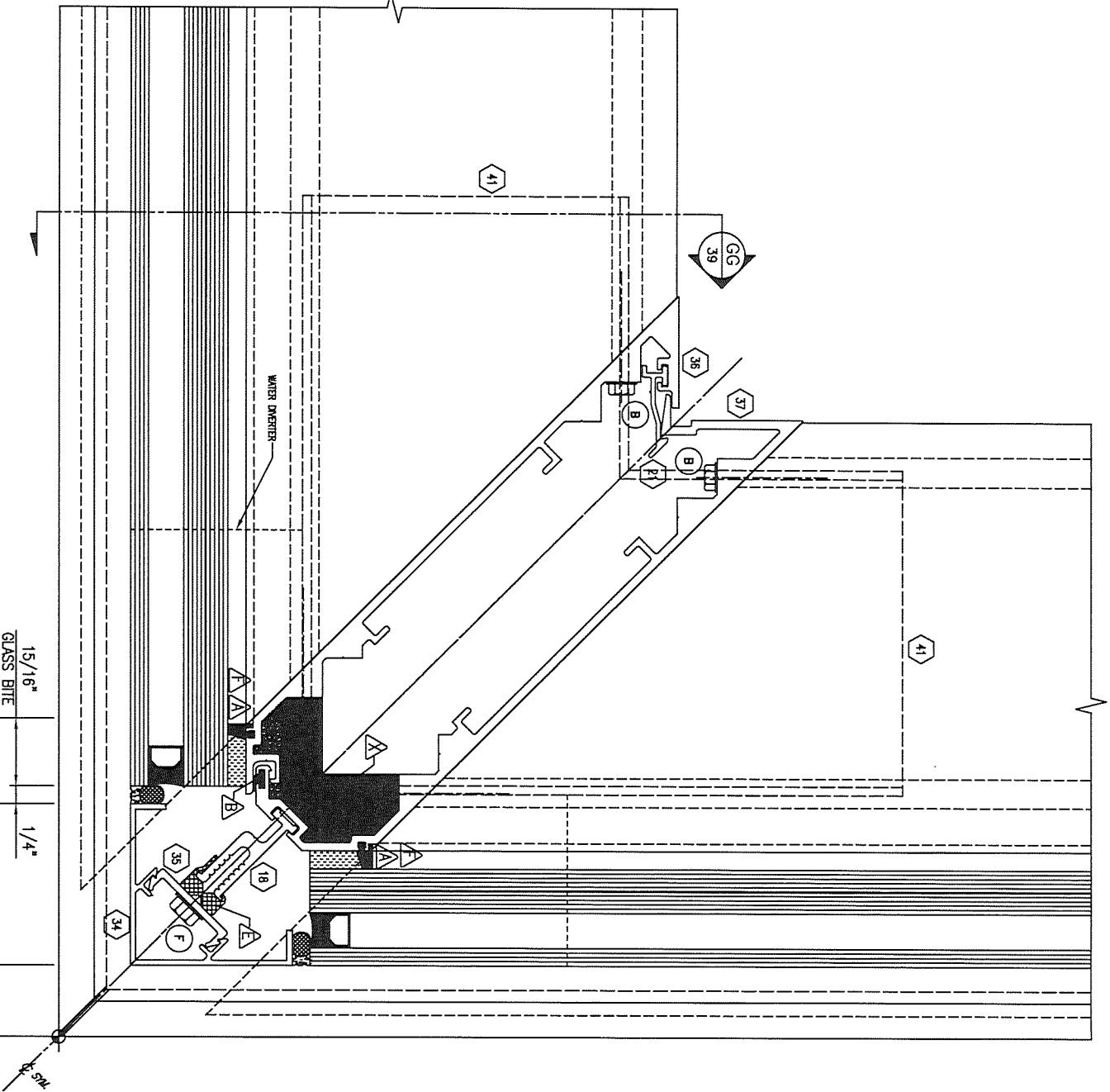
DATE: 3/16/09

DATE: 5/22/12

DATE: 10/03/14

DWG. NO. HI7000SM

SHEET 38 OF 41



GENERAL NOTES:

- FOR PART IDENTIFICATION REFER TO SHEET 2

- FOR GLAZING DETAILS, GLASS BITE & GASKET CONFIGURATIONS SEE SHEET 3.

- FASTENERS
- GASKETS
- ALUMINUM EXTRUSIONS

CG STACK HORIZONTAL @ CORNER

Larson Engineering, Inc.
3524 Labore Road
White Bear Lake, MN 55110
(P) 651.481.9120 (F) 651.481.9201

8.19.25

Harmon

HI 7000 SMALL MISSILE
CORNER DETAIL AND
SECTION CUT AT STACK HORIZ.

ENGINEER'S STAMP
DATE: 06/28/04
6/17/16
6/03/05/19
6/02/25/21
6/08/12/25
6/05/22/12
6/10/03/14

DADE CO. STAMP

PRODUCT REVISED

As complying with the Florida Building Code

NOA-No. 25-0902.04

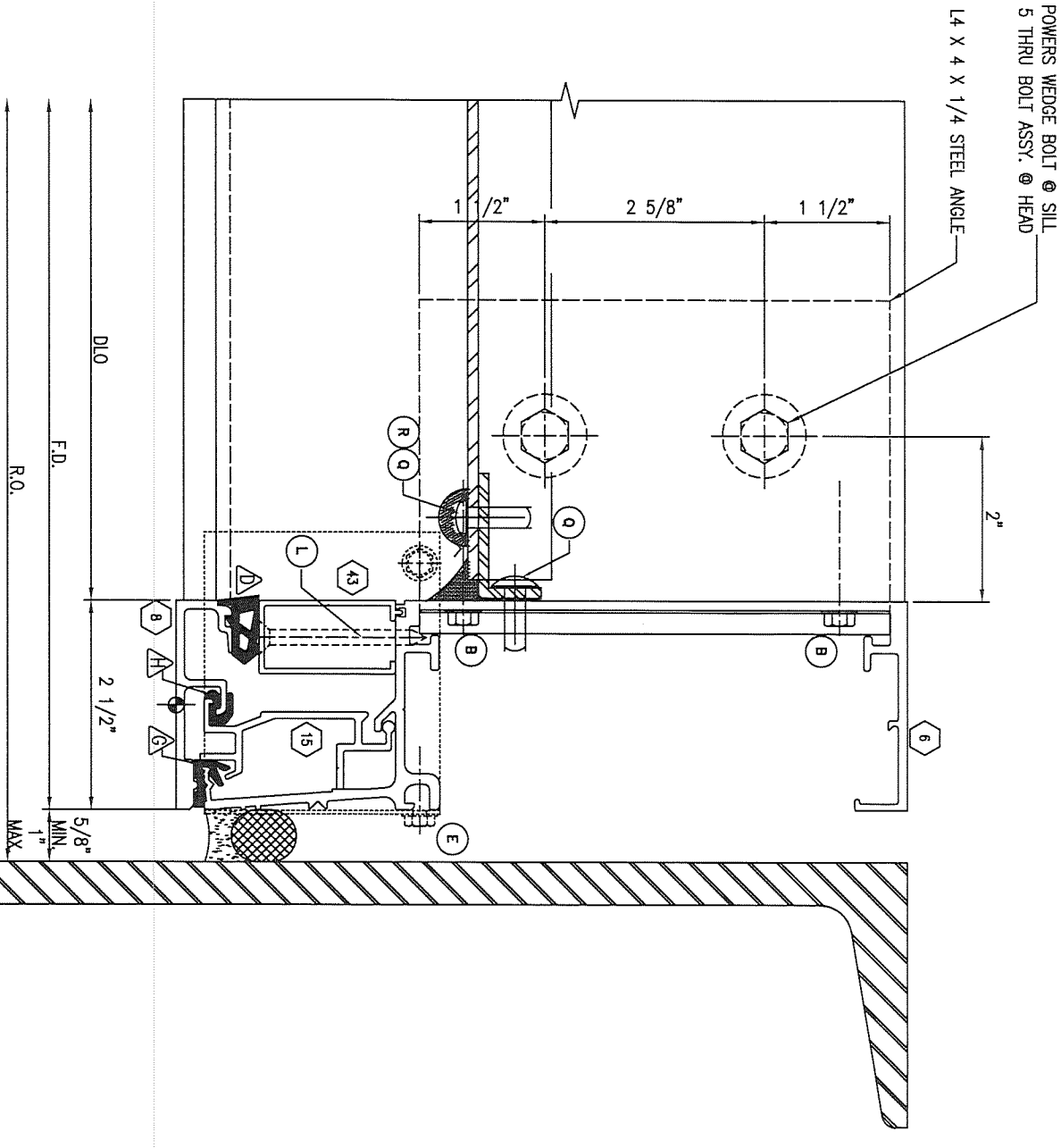
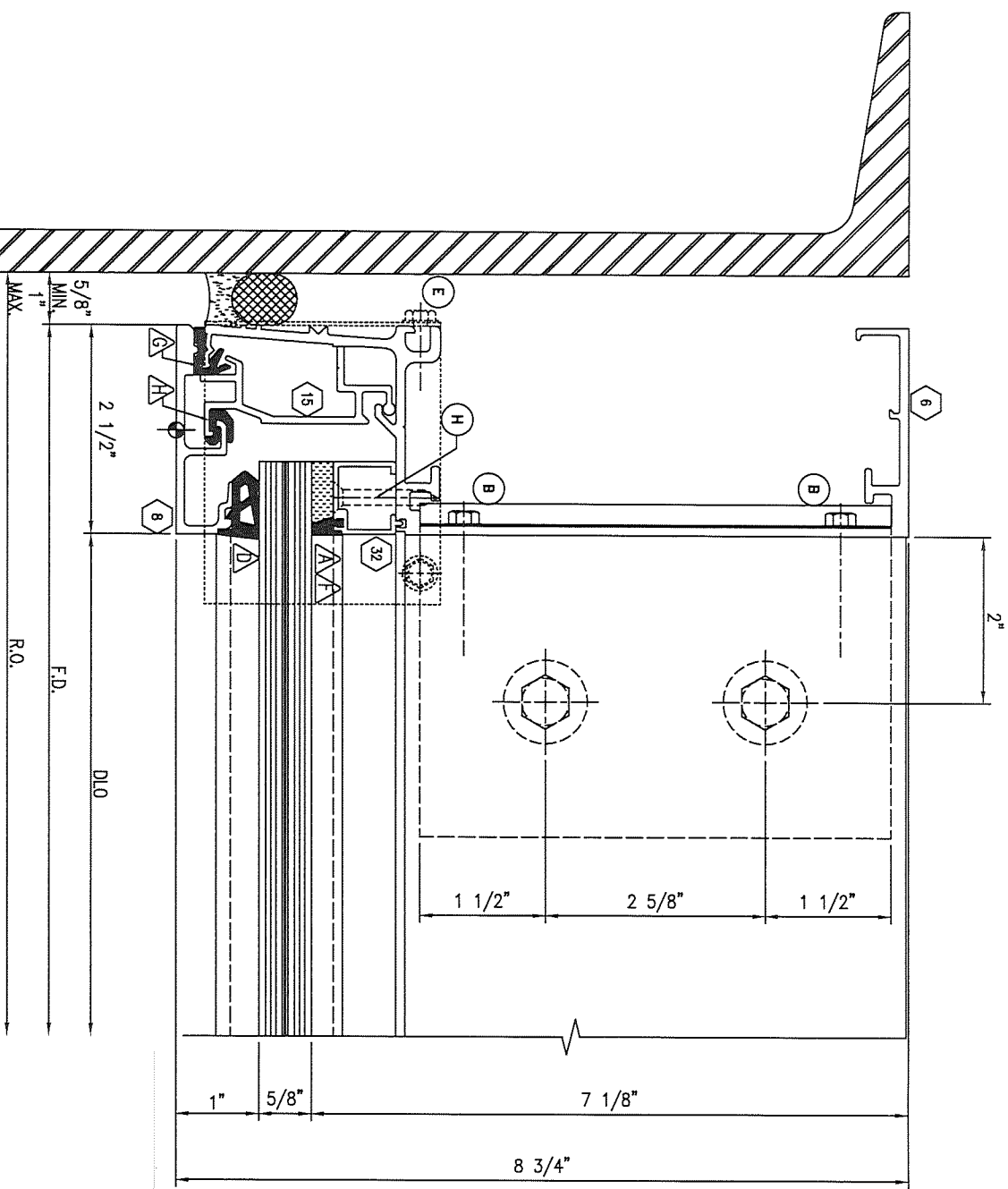
Expiration Date: 09/02/2029

By: *Manuel J. Jara*

Miami-Dade Product Control

PROFESSIONAL ENGINEER
STATE OF FLORIDA
No. 65108
DATE: 06/28/04
6/17/16
6/03/05/19
6/02/25/21
6/08/12/25
6/05/22/12
6/10/03/14

DWG. NO. H17000SM
SHEET 39 OF 41



GENERAL NOTES:

– FOR PART IDENTIFICATION REFER TO SHEET 2

– FOR GLAZING DETAILS, GLASS BITE & GASKET CONFIGURATIONS SEE SHEET 3.

- FASTENERS
- GASKETS
- ALUMINUM EXTRUSIONS

**Larson** Engineering, Inc.
3524 Labore Road
White Bear Lake, MN 55110
(P) 651.481.9120 (F) 651.481.9201

819-25

**Harmon**

HI 7000 SMALL MISSILE

DADE CO. STAMP

ENGINEER STAMP

PRODUCT REVISED

As complying with the Florida Building Code

NOA-No. **25-0902.04**

Expiration Date: **09/02/2029**

By: *Manuel Jose*

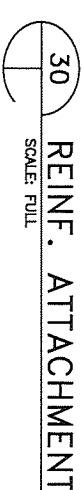
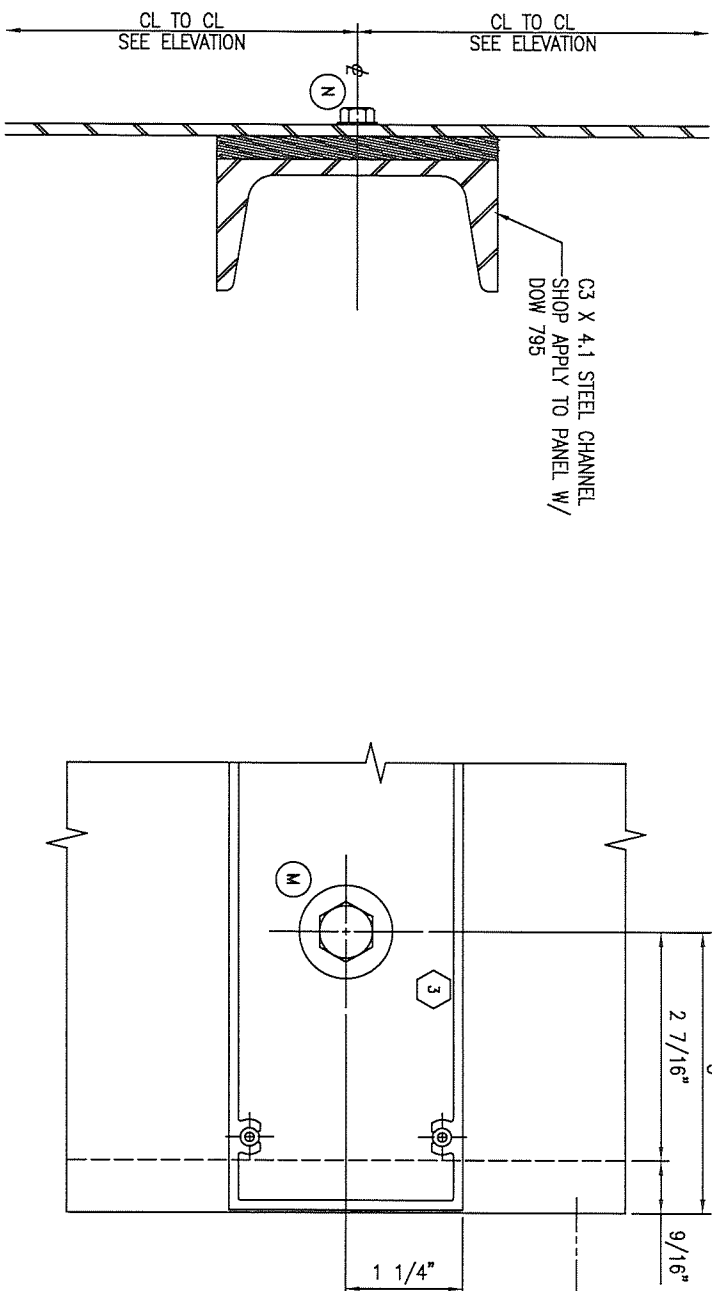
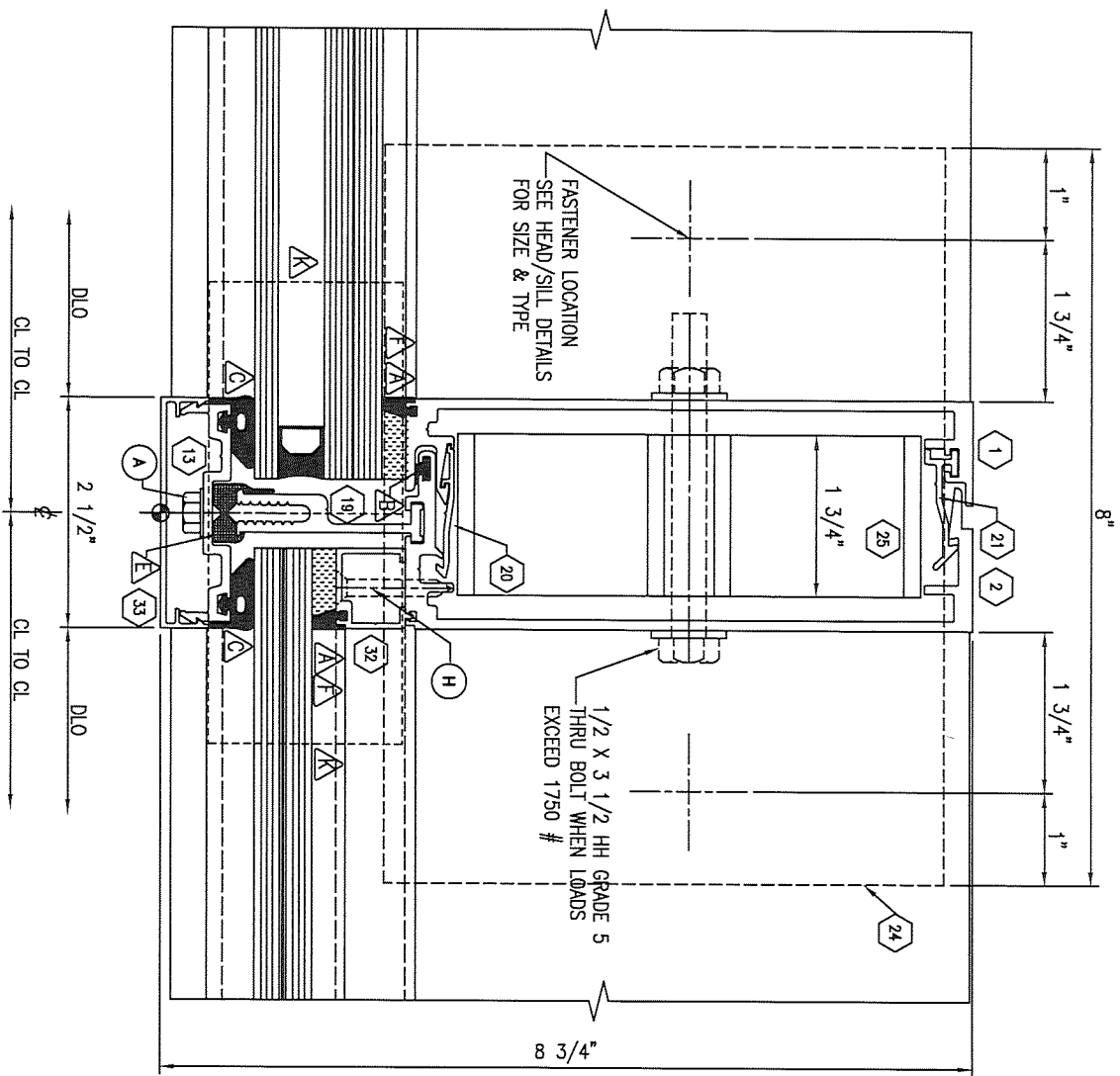
Miami-Dade Product Control

ETHAN L. LINDSEY
No. 65106
STATE OF FLORIDA
Professional Engineer
Expiring 09/02/2029

VERTICAL DETAILS			
DATE:	06/28/04	06/17/16	
1	11/18/08	03/05/19	
2	3/10/09	02/25/21	
3	3/16/09	08/12/25	
4	5/22/12		
5	10/03/14		

DWG. NO. H17000SM

SHEET 40 OF 41



GENERAL NOTES:

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- FOR GLAZING DETAILS, GLASS BITE & GASKET CONFIGURATIONS SEE SHEET 3.

-  FASTENERS
-  GASKETS
-  ALUMINUM EXTRUSIONS

28 SILL ANCHOR @ MULLION

SCALE: FULL

29 BACK-PAN STIFFENER

SCALE: FULL

30 REINF. ATTACHMENT

SCALE: FULL

Larson Engineering, Inc.
3524 Lobore Road
White Bear Lake, MN 55110
(P) 651.481.9120 (F) 651.481.9201

DADE CO. STAMP

PRODUCT REVISED
As complying with the Florida Building Code
NOA-No. **25-0902.04**
Expiration Date: **09/02/2029**
By: *Manuel Jose*
Miami-Dade Product Control

ENGINEER'S STAMP
No. 66106
STATE OF FLORIDA
Professional Engineer
Ethan R. C. Stamp
Registration No. 111106

Harmon
HI 7000 SMALL MISSILE

SILL ANCHOR DETAIL, STIFFENER
DETAIL & REINF. ATTACHMENT

DATE: 06/28/04	6	6/17/16
1 11/18/08	7	03/05/1
2 3/10/09	8	02/25/2
3 3/16/09	9	08/12/2
4 5/22/12		
5 10/03/14		
DWG. NO. H17000SM		
SHEET 41 OF 41		