



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

NOTICE OF ACCEPTANCE (NOA)

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

Eco Window Systems, LLC
9114 NW 106 Street
Medley, FL 33178

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, include ing the High Velocity Hurricane Zone.

DESCRIPTION: Series "400" Aluminum Window Wall System (with window inserts) – L.M.I.

APPROVAL DOCUMENT: Drawing No. W09-42, titled "Series 400 Alum. Window Wall System (L.M.I.)", sheets 1, 1.1, 2 and 3 through 9 of 9, dated 08/13/09, with revision C dated 01/13/15, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E., bearing the Miami-Dade County Product Control Section Revision Stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

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

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

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

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

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

This NOA revises NOA# 12-0801.02 and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

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



MP
5/5/15

NOA No. 14-0910.07
Expiration Date: December 20, 2017
Approval Date: April 30, 2015
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. **DRAWINGS**

1. Manufacturer's die drawings and sections.
2. Drawing No. **W09-42**, titled "Series 400 Alum Window Wall System (L.M.I.)", sheets 1 through 9 of 9, dated 08/13/09, with revision C dated 01/13/15, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.

B. **TESTS**

1. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with marked-up drawings and installation diagram of an aluminum window wall system, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-7233**, dated 02/01/13, signed and sealed by Marlin D. Brinson, P.E.
2. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
along with marked-up drawings and installation diagram of an aluminum window wall system, prepared by Hurricane Engineering & Testing, Inc., Test Report No. **HETI-10-3129**, dated 10/18/10, signed and sealed by Candido F. Font, P.E.
"Submitted under previous NOA# 12-0801.02"
3. 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, prepared by Hurricane Engineering & Testing, Inc., Test Reports No. **HETI-10-3071, HETI-10-3072, HETI-10-3073, HETI-10-3074 and HETI-10-3075**, all dated 10/18/10, all signed and sealed by Candido F. Font, P.E.
"Submitted under previous NOA# 12-0801.02"
4. Test reports on: 1) Safety Performance Test, (class A, Sec. 5) per ANSI Z97.1-1984
CPSC 16 CFR, CH II, Part 1201
along with marked-up drawings and installation diagram of an aluminum window wall system, prepared by Hurricane Engineering & Testing, Inc., Test Report No. **HETI-10-3096**, dated 10/18/10, signed and sealed by Candido F. Font, P.E.
"Submitted under previous NOA# 12-0801.02"


Manuel Perez, P.E.

Product Control Examiner
NOA No. 14-0910.07

Expiration Date: December 20, 2017

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C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC-5th Edition (2014)**, prepared by Al-Farooq Corporation, dated 08/18/14 and 04/09/15, signed and sealed by Javad Ahmad, P.E.
2. Glazing complies with **ASTM E1300-09**

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **11-0624.02** issued to **E.I. DuPont DeNemours & Co., Inc.** for their "**DuPont SentryGlas® Interlayer**" dated 08/25/11, expiring on 01/14/17.
2. Notice of Acceptance No. **13-0129.27** issued to **E.I. DuPont DeNemours & Co., Inc.** for their "**DuPont Butacite® PVB Interlayer**" dated 04/11/13, expiring on 12/11/16.

F. STATEMENTS

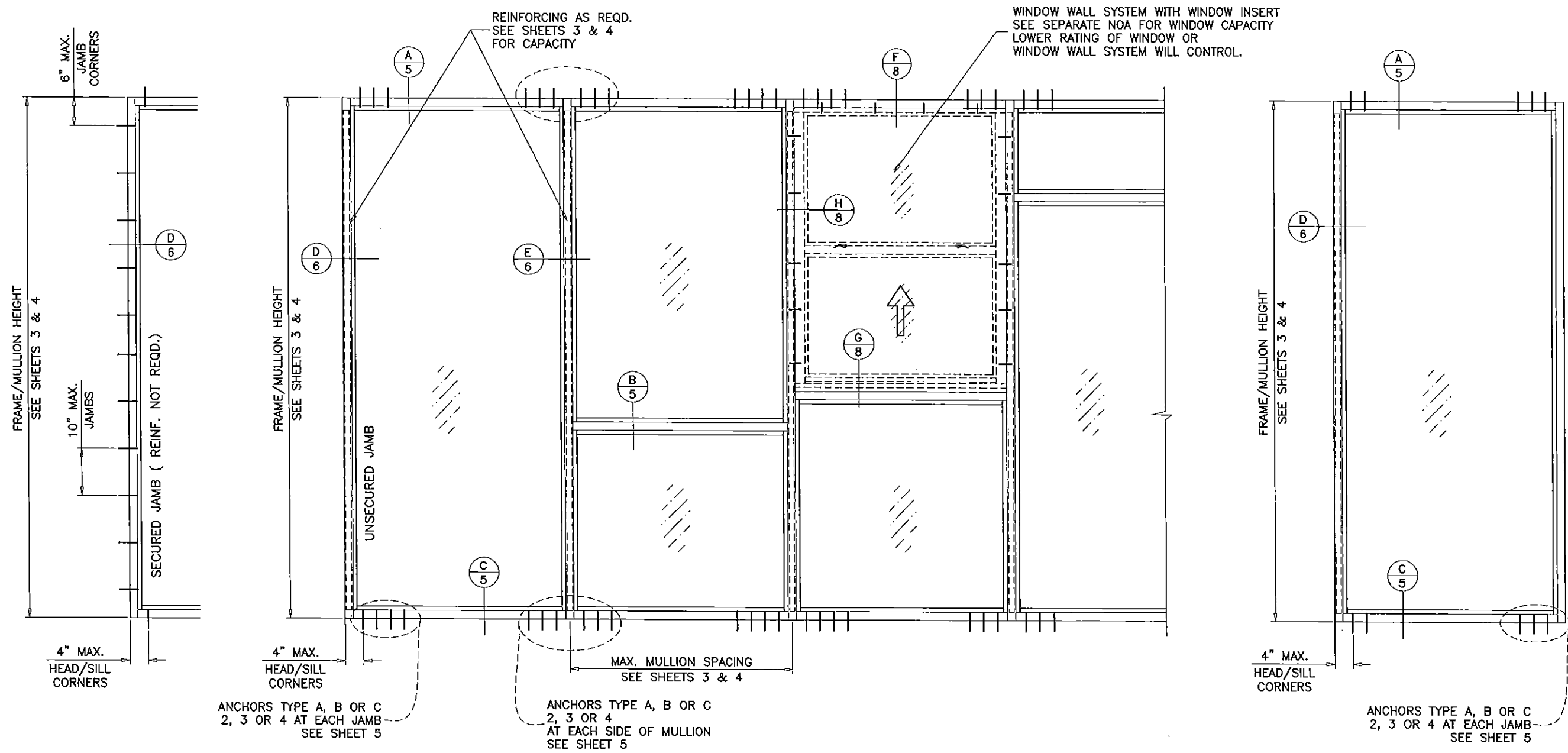
1. Statement letter of conformance, complying with **FBC-5th Edition (2014)**, and of no financial interest, dated August 25, 2014, issued by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.
2. Laboratory compliance letters for Test Reports No **HETI-10-3071, HETI-10-3072, HETI-10-3073, HETI-10-3074, HETI-10-3075, HETI-10-3096** and **HETI-10-3129**, all issued by Hurricane Engineering & Testing, Inc., dated 10/18/10, and signed and sealed by Candido F. Font, P.E.
3. Proposal No. **10-0233R** issued by the Product Control Section, dated 07/12/10, signed by Manuel Perez, P.E.
4. Proposal issued by the Product Control Section, dated 01/11/13, signed by Jaime Gascon, P.E., Supervisor, Product Control Section.

G. OTHERS

1. Notice of Acceptance No. **12-0801.02**, issued to Eco Window Systems, LLC for their Series "400" Aluminum Window Wall System With Window Inserts – L.M.I, approved on 12/20/12 and expiring on 12/20/17.


Manuel Perez, P.E.

Product Control Examiner
NOA No. 14-0910.07
Expiration Date: December 20, 2017
Approval Date: April 30, 2015



SERIES 400 ALUMINUM WINDOW WALL SYSTEM

THIS SYSTEM IS RATED FOR LARGE & SMALL MISSILE IMPACT SHUTTERS ARE NOT REQUIRED.

CODE REQUIREMENTS FOR SAFEGUARDS MUST BE OBSERVED.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE.

ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS, ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE.

INSTRUCTIONS:

USE CHARTS AS FOLLOWS.

- STEP 1** DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.
- STEP 2** CHECK GLASS CAPACITY TABLE ON SHEET 2 FOR GLASS TYPE, GLASS DIMENSIONS (WIDTH & HEIGHT) AND PRESSURE CAPACITY. THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 3** CHECK WINDOW WALL SYSTEM CAPACITY FOR DESIRED HEIGHT AND MULLION SPACING USING CHARTS ON SHEETS 3 & 4. THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 4** USING CHARTS ON SHEET 5 SELECT ANCHOR OPTION WITH DESIGN RATING MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.
- STEP 5** VERIFY UNANCHORED JAMBS, IF USED AS PER SHEETS 3, 4 AND 7.
- STEP 6** THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 SHALL APPLY TO ENTIRE SYSTEM.

LARGE MISSILE IMPACT

Engr: JAVAD AHMAD
 CIVIL
 FLA. PE # 70592
 C.A.N. 3438
 APR 9 2015

PRODUCT REVISED
 as complying with the Florida
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 By *Manuel Perez*
 Miami Dade Product Control

afC

AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 1235 S.W. 87 AVE
 MIAMI, FLORIDA 33174
 TEL. (305) 264-8100 FAX. (305) 262-6978
 STORE\W09-42ECO

SERIES 400 ALUM WINDOW WALL SYSTEM (L.M.I.)
ECO WINDOW SYSTEMS, LLC.
 9114 N.W. 106 STREET
 MEDLEY, FL. 33178
 TEL. (305) 885-5299 FAX (305) 885-5902

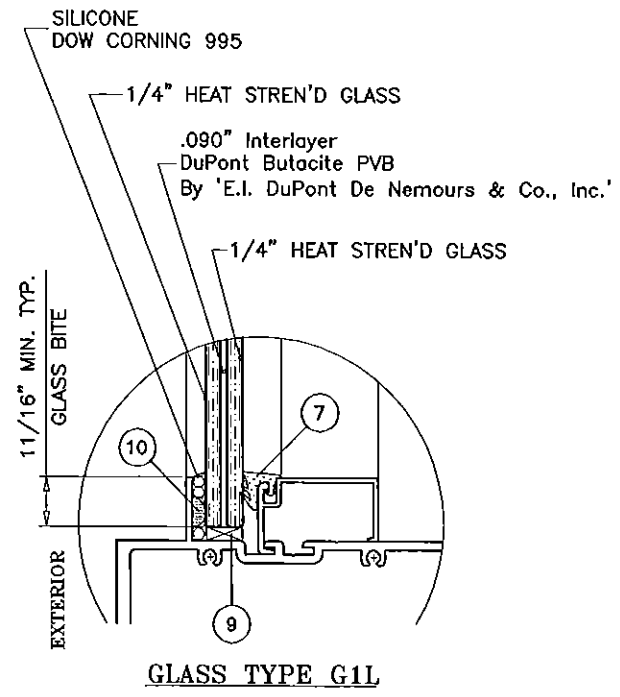
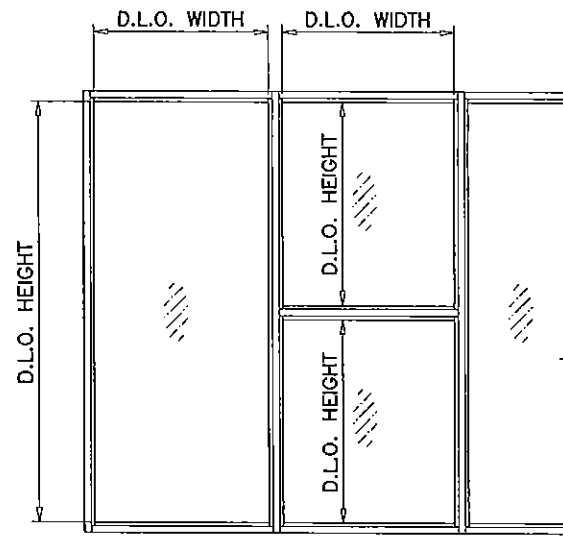
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A	12.11.12	REV. PER	REV. PER COMMENTS
B	08.27.14	GENERAL	REVISION
C	01.13.15	REV. PER	REV. PER COMMENTS

date: 08-13-09
 scale: 1/2"=1'-0"
 dr. by: H-AMID
 chk. by:

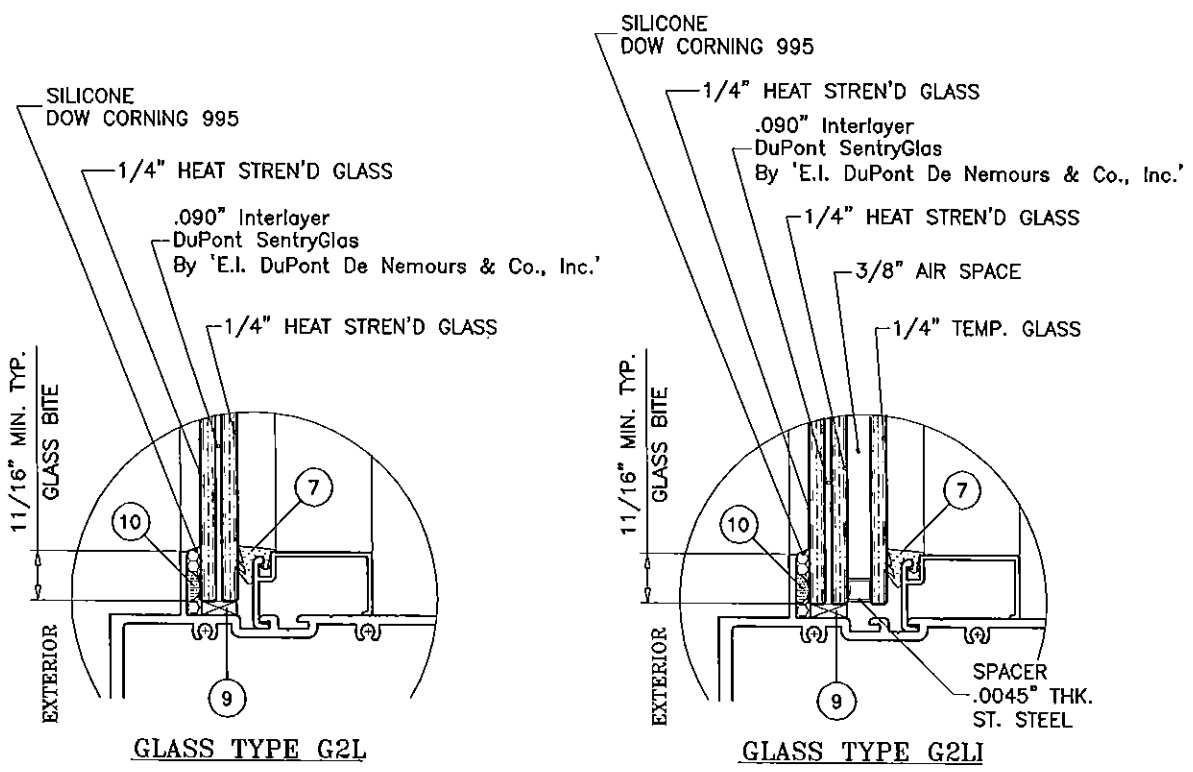
drawing no.
W09-42
 sheet 1 of 9

GLASS LOAD CAPACITY - PSF					
NOMINAL DIMS.		GLASS TYPE 'G1L'		GLASS TYPES 'G2L' & 'G2LI'	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
26-1/2"	78-3/4"	65.0	75.0	80.0	130.0
32-1/2"		65.0	75.0	80.0	130.0
38-1/2"		65.0	75.0	80.0	130.0
44-1/2"		65.0	75.0	80.0	130.0
50-1/2"		65.0	75.0	80.0	130.0
56-1/2"		65.0	75.0	80.0	130.0
26-1/2"	84-3/4"	65.0	75.0	80.0	130.0
32-1/2"		65.0	75.0	80.0	130.0
38-1/2"		65.0	75.0	80.0	130.0
44-1/2"		65.0	75.0	80.0	130.0
50-1/2"		65.0	75.0	80.0	130.0
56-1/2"		65.0	75.0	80.0	100.0
26-1/2"	90-3/4"	65.0	75.0	80.0	130.0
32-1/2"		65.0	75.0	80.0	130.0
38-1/2"		65.0	75.0	80.0	130.0
44-1/2"		65.0	75.0	80.0	130.0
50"		65.0	75.0	80.0	130.0
50-1/2"		65.0	75.0	80.0	100.0
56-1/2"	65.0	75.0	80.0	100.0	
26-1/2"	96-3/4"	65.0	75.0	80.0	130.0
32-1/2"		65.0	75.0	80.0	130.0
38-1/2"		65.0	75.0	80.0	130.0
44-1/2"		65.0	75.0	80.0	130.0
47"		65.0	75.0	80.0	130.0
50-1/2"		65.0	75.0	80.0	100.0
26-1/2"	102-3/4"	65.0	75.0	80.0	130.0
32-1/2"		65.0	75.0	80.0	130.0
38-1/2"		65.0	75.0	80.0	130.0
44"		65.0	75.0	80.0	130.0
44-1/2"		65.0	75.0	80.0	100.0
49"		65.0	75.0	80.0	100.0
26-1/2"	108-3/4"	65.0	75.0	80.0	130.0
32-1/2"		65.0	75.0	80.0	130.0
38-1/2"		65.0	75.0	80.0	130.0
41"		65.0	75.0	80.0	130.0
44-1/2"		65.0	75.0	80.0	100.0
47"		65.0	75.0	80.0	100.0
26-1/2"	114-3/4"	65.0	75.0	80.0	130.0
32-1/2"		65.0	75.0	80.0	130.0
38-1/2"		65.0	75.0	80.0	130.0
39"		65.0	75.0	80.0	130.0
44-1/2"		65.0	75.0	80.0	100.0
26-1/2"		120-3/4"	65.0	75.0	80.0
32-1/2"	65.0		75.0	80.0	130.0
37"	65.0		75.0	80.0	130.0
38-1/2"	65.0		75.0	80.0	100.0
42"	65.0		75.0	80.0	100.0
26-1/2"	126-3/4"		65.0	75.0	80.0
32-1/2"		65.0	75.0	80.0	130.0
35"		65.0	75.0	80.0	130.0
38-1/2"		65.0	75.0	80.0	100.0
40"		65.0	75.0	80.0	100.0

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



GLASS TYPE G1L



GLAZING OPTIONS

NOTE: GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300-09 (3 SEC. GUSTS).

Engr: JAVAD AHMAD
CML
FLA. PE # 170592
C.A.N. 3538
APR 9 2015

PRODUCT REVISED
as complying with the Florida
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By Manuel Pina
Miami Dade Product Control

afC
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MIAMI, FLORIDA 33174
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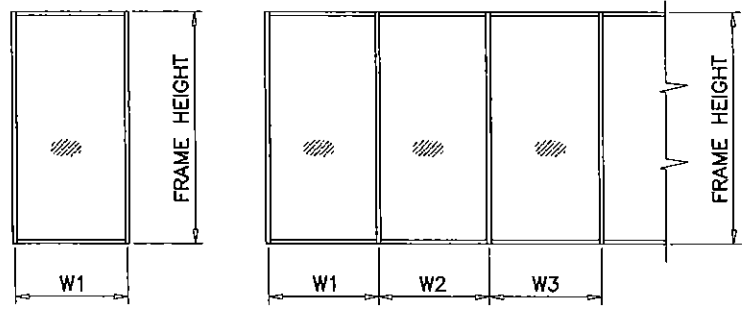
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C	01.13.15	REV. PER PER COMMENTS

date: 08-13-09
scale: 1/2" = 1'-0"
dr. by: HAMID
chk. by:

drawing no.
W09-42
sheet 2 of 9

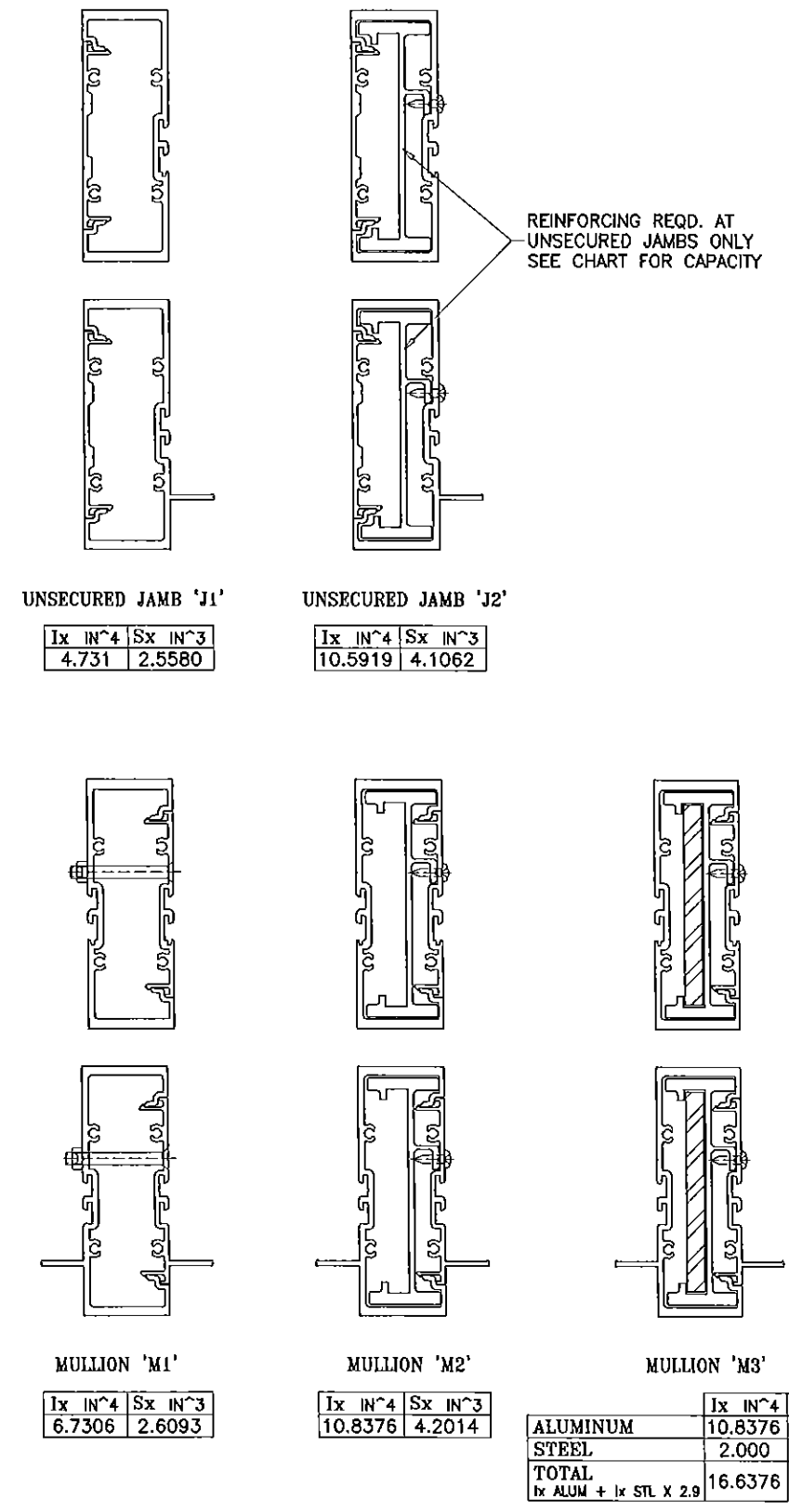
JAMB & MULLION LOAD CAPACITY - PSF
JAMBS & MULLIONS WITHOUT INTERMEDIATE HORIZONTALS

NOMINAL DIMS.		JAMB 'J1' MULL 'M1'		JAMB 'J2' MULL 'M2'		JAMB 'J2' MULL 'M3'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30"	84"	80.0	100.0	80.0	100.0	80.0	130.0
36"		80.0	100.0	80.0	100.0	80.0	130.0
42"		80.0	100.0	80.0	100.0	80.0	130.0
48"		80.0	100.0	80.0	100.0	80.0	130.0
54"		80.0	100.0	80.0	100.0	80.0	130.0
60"		80.0	100.0	80.0	100.0	80.0	130.0
30"	90"	80.0	100.0	80.0	100.0	80.0	130.0
36"		80.0	100.0	80.0	100.0	80.0	130.0
42"		80.0	100.0	80.0	100.0	80.0	130.0
48"		80.0	100.0	80.0	100.0	80.0	130.0
54"		80.0	100.0	80.0	100.0	80.0	130.0
60"		80.0	94.8	80.0	100.0	80.0	130.0
30"	96"	80.0	100.0	80.0	100.0	80.0	130.0
36"		80.0	100.0	80.0	100.0	80.0	130.0
42"		80.0	100.0	80.0	100.0	80.0	130.0
48"		80.0	95.9	80.0	100.0	80.0	130.0
54"		80.0	87.3	80.0	100.0	80.0	130.0
60"		80.0	80.9	80.0	100.0	80.0	130.0
30"	102"	80.0	100.0	80.0	100.0	80.0	130.0
36"		80.0	100.0	80.0	100.0	80.0	130.0
42"		80.0	90.3	80.0	100.0	80.0	130.0
48"		80.0	80.8	80.0	100.0	80.0	130.0
54"		73.6	73.6	80.0	100.0	80.0	130.0
60"		71.7	71.7	80.0	100.0	80.0	130.0
30"	108"	80.0	100.0	80.0	100.0	80.0	130.0
36"		80.0	86.6	80.0	100.0	80.0	130.0
42"		75.5	75.5	80.0	100.0	80.0	130.0
48"		67.4	67.4	80.0	100.0	80.0	130.0
53"		62.1	62.1	80.0	99.2	80.0	130.0
54"		-	-	-	-	80.0	123.4
60"	-	-	-	-	80.0	113.4	
30"	114"	80.0	86.9	80.0	100.0	80.0	100.0
36"		73.3	73.3	80.0	100.0	80.0	100.0
42"		63.8	63.8	80.0	100.0	80.0	100.0
48"		56.8	56.8	80.0	95.0	80.0	100.0
50"		54.9	54.9	80.0	91.6	80.0	100.0
54"		-	-	-	-	80.0	80.0
60"	-	-	-	-	80.0	80.0	
30"	120"	74.3	74.3	80.0	100.0	80.0	100.0
36"		62.6	62.6	80.0	100.0	80.0	100.0
42"		54.4	54.4	80.0	91.2	80.0	100.0
48"		48.3	48.3	80.0	81.1	80.0	100.0
54"		-	-	-	-	80.0	80.0
60"		-	-	-	-	80.0	80.0
30"	126"	-	-	-	-	80.0	80.0
36"		-	-	-	-	80.0	80.0
42"		-	-	-	-	80.0	80.0
48"		-	-	-	-	80.0	80.0
30"	132"	-	-	-	-	80.0	80.0
36"		-	-	-	-	80.0	80.0
42"		-	-	-	-	80.0	80.0



WIDTH (W) = W1
AT FRAME JAMB

WIDTH (W) = $\frac{W2 + W3}{2}$
AT FRAME MULLION



REINFORCING REQD. AT UNSECURED JAMBS ONLY SEE CHART FOR CAPACITY

af c
AL-FAROOQ CORPORATION
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Revisions:

no	date	by	description
A	12.11.12	REV. PER	COMMENTS
B	08.27.14	GENERAL	REVISION
C	01.13.15	REV. PER	COMMENTS

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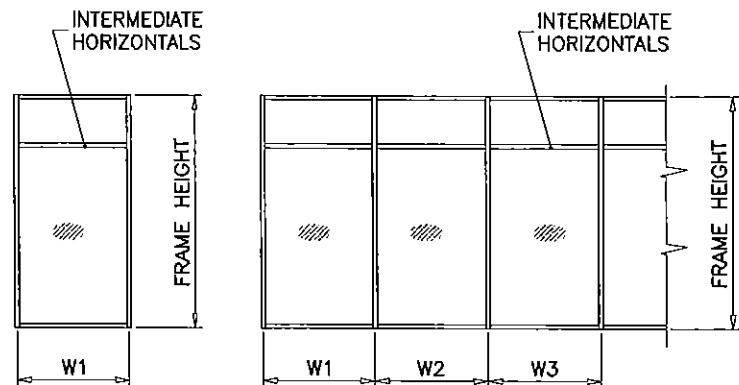
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By *Manuel P...*
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chk. by:

drawing no.
W09-42
sheet 3 of 9

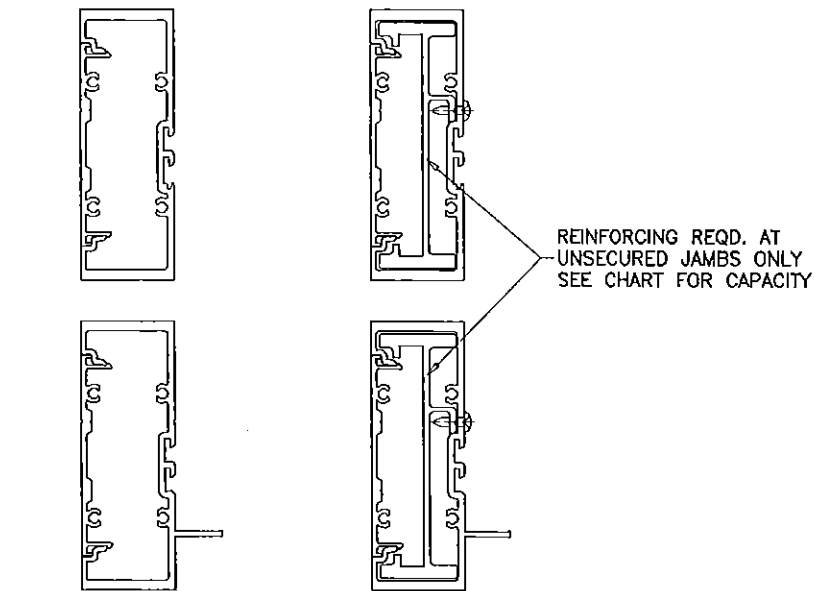
JAMB & MULLION LOAD CAPACITY - PSF
JAMBS & MULLIONS WITH INTERMEDIATE HORIZONTALS

NOMINAL DIMS.		JAMB 'J1' MULL 'M1'		JAMB 'J2' MULL 'M2'		JAMB 'J2' MULL 'M3'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30"	84"	80.0	100.0	80.0	100.0	80.0	130.0
36"		80.0	100.0	80.0	100.0	80.0	130.0
42"		80.0	100.0	80.0	100.0	80.0	130.0
48"		80.0	100.0	80.0	100.0	80.0	130.0
54"		80.0	100.0	80.0	100.0	80.0	130.0
60"		80.0	93.8	80.0	100.0	80.0	130.0
30"	90"	80.0	100.0	80.0	100.0	80.0	130.0
36"		80.0	100.0	80.0	100.0	80.0	130.0
42"		80.0	100.0	80.0	100.0	80.0	130.0
48"		80.0	100.0	80.0	100.0	80.0	130.0
54"		80.0	89.9	80.0	100.0	80.0	130.0
60"		80.0	80.9	80.0	100.0	80.0	130.0
30"	96"	80.0	100.0	80.0	100.0	80.0	130.0
36"		80.0	100.0	80.0	100.0	80.0	130.0
42"		80.0	100.0	80.0	100.0	80.0	130.0
48"		80.0	88.1	80.0	100.0	80.0	130.0
54"		78.3	78.3	80.0	100.0	80.0	130.0
60"		70.5	70.5	80.0	100.0	80.0	129.1
30"	102"	80.0	100.0	80.0	100.0	80.0	130.0
36"		80.0	98.6	80.0	100.0	80.0	130.0
42"		80.0	84.5	80.0	100.0	80.0	130.0
48"		73.9	73.9	80.0	100.0	80.0	130.0
54"		65.7	65.7	80.0	100.0	80.0	130.0
60"		63.4	63.4	80.0	99.4	80.0	127.1
30"	108"	80.0	99.6	80.0	100.0	80.0	130.0
36"		80.0	83.0	80.0	100.0	80.0	130.0
42"		71.2	71.2	80.0	100.0	80.0	130.0
48"		62.3	62.3	80.0	100.0	80.0	130.0
53"		56.4	56.4	80.0	93.6	80.0	127.5
54"		-	-	-	-	80.0	113.3
60"	-	-	-	-	80.0	102.0	
30"	114"	80.0	84.7	80.0	100.0	80.0	100.0
36"		70.6	70.6	80.0	100.0	80.0	100.0
42"		60.5	60.5	80.0	100.0	80.0	100.0
48"		52.9	52.9	80.0	88.8	80.0	100.0
50"		50.8	50.8	80.0	85.3	80.0	100.0
54"		-	-	-	-	80.0	80.0
60"	-	-	-	-	80.0	80.0	
30"	120"	72.6	72.6	80.0	100.0	80.0	100.0
36"		60.5	60.5	80.0	100.0	80.0	100.0
42"		51.9	51.9	80.0	87.0	80.0	100.0
48"		45.4	45.4	76.2	76.2	80.0	94.0
54"		-	-	-	-	80.0	80.0
60"		-	-	-	-	80.0	80.0
30"	126"	-	-	-	-	80.0	80.0
36"		-	-	-	-	80.0	80.0
42"		-	-	-	-	80.0	80.0
48"		-	-	-	-	80.0	80.0
54"		-	-	-	-	80.0	80.0
60"		-	-	-	-	74.9	74.9
30"	132"	-	-	-	-	80.0	80.0
36"		-	-	-	-	80.0	80.0
42"		-	-	-	-	80.0	80.0
48"		-	-	-	-	80.0	80.0
54"		-	-	-	-	75.9	75.9
60"		-	-	-	-	68.3	68.3



WIDTH (W) = W1
AT FRAME JAMB

WIDTH (W) = $\frac{W2 + W3}{2}$
AT FRAME MULLION

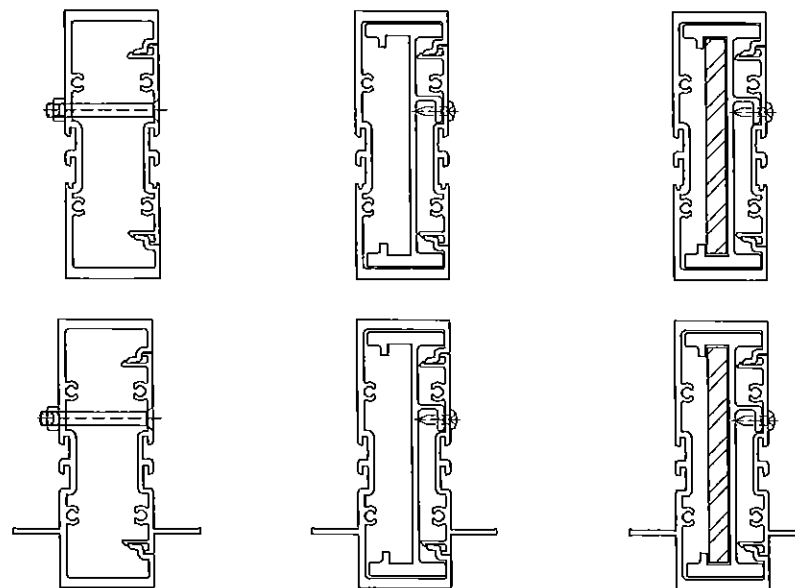


UNSECURED JAMB 'J1'

Ix IN ⁴	Sx IN ³
4.731	2.5580

UNSECURED JAMB 'J2'

Ix IN ⁴	Sx IN ³
10.5919	4.1062



MULLION 'M1'

Ix IN ⁴	Sx IN ³
6.7306	2.6093

MULLION 'M2'

Ix IN ⁴	Sx IN ³
10.8376	4.2014

MULLION 'M3'

ALUMINUM	Ix IN ⁴	Sx IN ³
	10.8376	4.2014
STEEL	2.000	1.0000
TOTAL		
bx ALUM + 1x STL X 2.9	16.6376	

Engr: JAVAD AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3588

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Acceptance No 14-0910.07
Expiration Date Dec 20, 2017

By *Manuel Perez*
Miami Dade Product Control

af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
1235 S.W. 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6978
STORE W09-42ECO

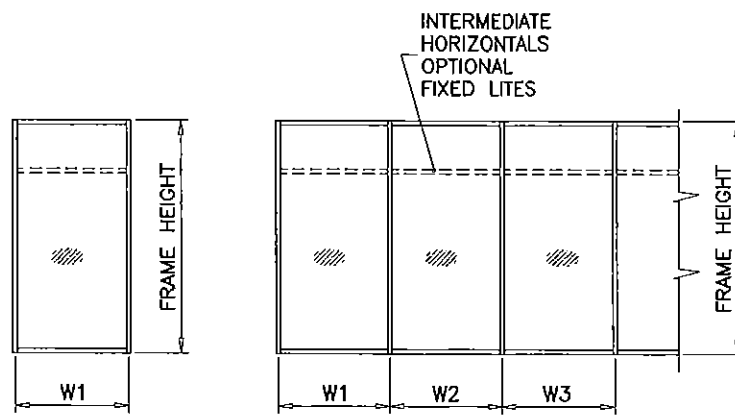
SERIES 400 ALUM WINDOW WALL SYSTEM (L.M.I.)
ECO WINDOW SYSTEMS, LLC.
9114 N.W. 106 STREET
MEDLEY, FL. 33178
TEL (305) 885-5299 FAX (305) 885-5902

REVISIONS:	
no	date
A	12.11.12
B	08.27.14
C	01.13.15
by	description
REV. PER PER COMMENTS	
GENERAL REVISION	
REV. PER PER COMMENTS	

date: 08-13-09
scale: 1/2"=1'-0"
dr. by: HAMID
chk. by:

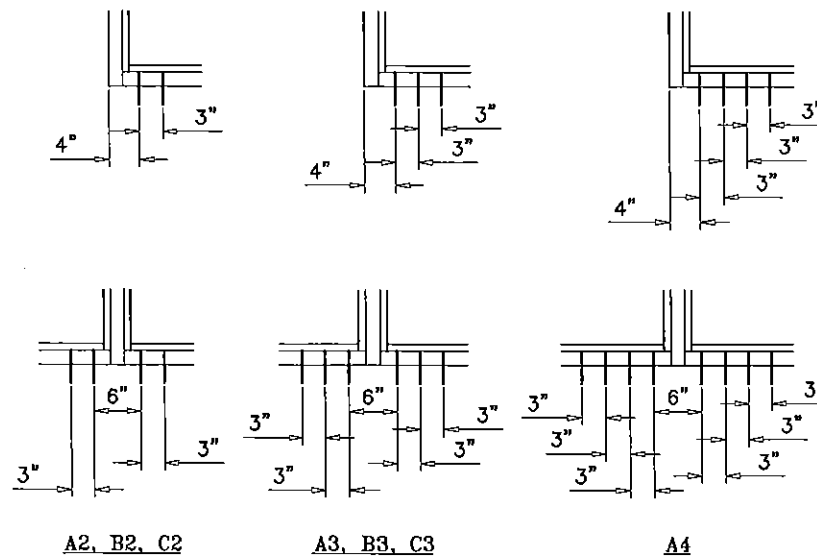
drawing no.
W09-42
sheet 4 of 9

ANCHOR LOAD CAPACITY - PSF EXT.(+) & INT.(-)							
NOMINAL DIMS.		ANCHORS TYPE 'A'			ANCHORS TYPE 'B' & 'C'		
WIDTH (W)	FRAME HEIGHT	A2	A3	A4	B2/C2	B3/C3	B4/C4
30"	84"	123.0	130.0	130.0	130.0	130.0	130.0
36"		102.5	130.0	130.0	130.0	130.0	130.0
42"		87.8	130.0	130.0	112.3	130.0	130.0
48"		76.9	115.3	130.0	98.3	130.0	130.0
54"		68.3	102.5	130.0	87.4	130.0	130.0
60"		61.5	92.2	123.0	78.6	117.9	130.0
30"	90"	114.8	130.0	130.0	130.0	130.0	130.0
36"		95.6	130.0	130.0	122.3	130.0	130.0
42"		82.0	123.0	130.0	104.8	130.0	130.0
48"		71.7	107.6	130.0	91.7	130.0	130.0
54"		63.8	95.6	127.5	81.5	122.3	130.0
60"		57.4	86.1	114.8	73.4	110.1	130.0
30"	96"	107.6	130.0	130.0	130.0	130.0	130.0
36"		89.7	130.0	130.0	114.7	130.0	130.0
42"		76.9	115.3	130.0	98.3	130.0	130.0
48"		67.3	100.9	130.0	86.0	129.0	130.0
54"		59.8	89.7	119.6	76.4	114.7	130.0
60"		53.8	80.7	107.6	68.8	103.2	130.0
30"	102"	101.3	130.0	130.0	129.5	130.0	130.0
36"		84.4	126.6	130.0	107.9	130.0	130.0
42"		72.3	108.5	130.0	92.5	130.0	130.0
48"		63.3	94.9	126.6	80.9	121.4	130.0
54"		56.3	84.4	112.5	71.9	107.9	130.0
60"		50.6	76.0	101.3	64.8	97.1	129.5
30"	108"	95.6	130.0	130.0	122.3	130.0	130.0
36"		79.7	119.6	130.0	101.9	130.0	130.0
42"		68.3	102.5	130.0	87.4	130.0	130.0
48"		59.8	89.7	119.6	76.4	114.7	130.0
54"		53.1	79.7	106.3	68.0	101.9	130.0
60"		47.8	71.7	95.6	61.2	91.7	122.3
30"	114"	90.6	130.0	130.0	115.9	130.0	130.0
36"		75.5	113.3	130.0	96.6	130.0	130.0
42"		64.7	97.1	129.4	82.8	124.2	130.0
48"		56.6	84.9	113.3	72.4	108.6	130.0
54"		50.3	75.5	100.7	64.4	96.6	128.7
60"		45.3	68.0	90.6	57.9	86.9	115.9
30"	120"	86.1	129.1	130.0	110.1	130.0	130.0
36"		71.7	107.6	130.0	91.7	130.0	130.0
42"		61.5	92.2	123.0	78.6	117.9	130.0
48"		53.8	80.7	107.6	68.8	103.2	130.0
54"		47.8	71.7	95.6	61.2	91.7	122.3
60"		43.0	64.6	86.1	55.0	82.6	110.1
30"	126"	82.0	123.0	130.0	104.8	130.0	130.0
36"		68.3	102.5	130.0	87.4	130.0	130.0
42"		58.6	87.8	117.1	74.9	112.3	130.0
48"		51.2	76.9	102.5	65.5	98.3	130.0
54"		45.5	68.3	91.1	58.2	87.4	116.5
60"		41.0	61.5	82.0	52.4	78.6	104.8
30"	132"	78.3	117.4	130.0	100.1	130.0	130.0
36"		65.2	97.8	130.0	83.4	125.1	130.0
42"		55.9	83.8	111.8	71.5	107.2	130.0
48"		48.9	73.4	97.8	62.5	93.8	125.1
54"		43.5	65.2	86.9	55.6	83.4	111.2
60"		39.1	58.7	78.3	50.0	75.1	100.1



WIDTH (W) = W1
AT FRAME JAMB

WIDTH (W) = $\frac{W2 + W3}{2}$
AT FRAME MULLION



ANCHORS TYPES: SEE SHEET 6 FOR DESCRIPTION

A2 = (2) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION
B2 = (2) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION
C2 = (2) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION

A3 = (3) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION
B3 = (3) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION
C3 = (3) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION

A4 = (4) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION

NOTE:
USE SEAR CLIP UW-403 AT
ANCHOR LOCATIONS OF SUFFICIENT LENGTH
TO COVER ALL ANCHOR SPACINGS

Engr: JAVAD AHMAD
CML
FLA. PE # 70592
C.A.N. 3538

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Expiration Date Dec 20, 2017
By Manuel Jose
Miami Dade Product Control

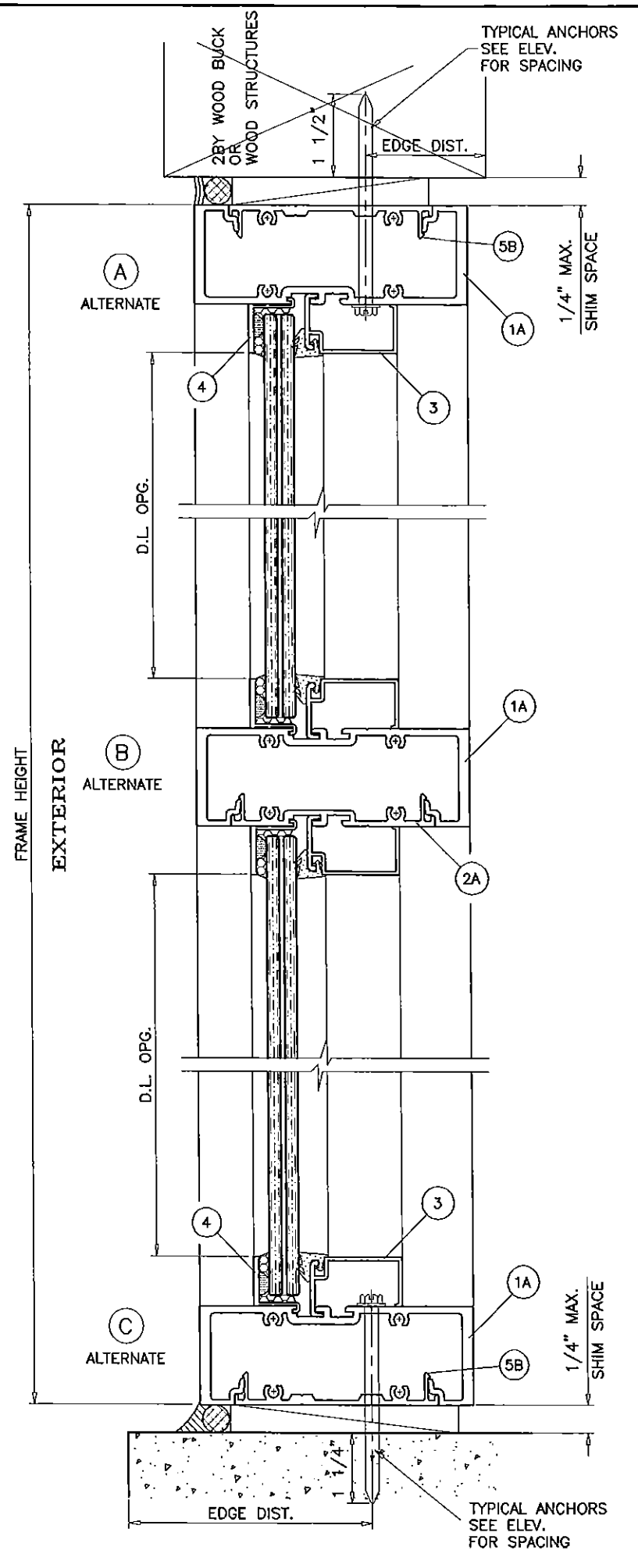
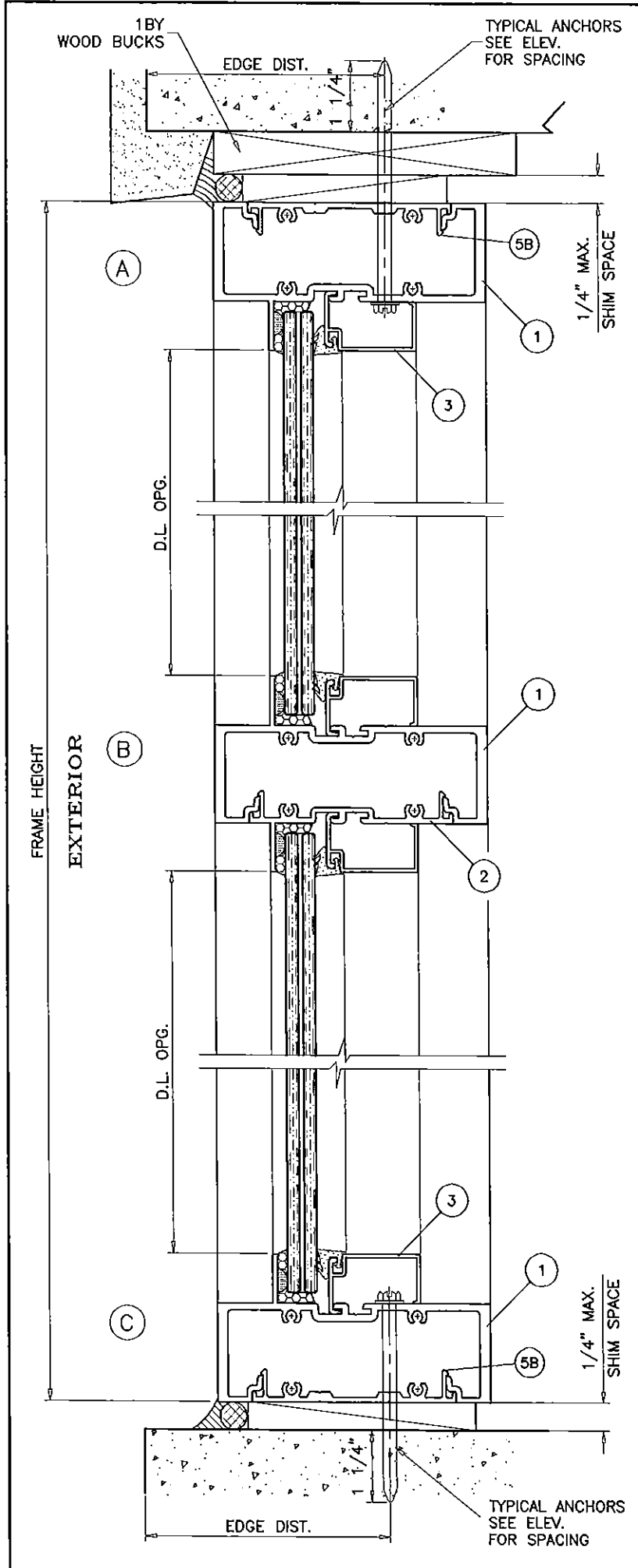
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1235 S.W. 87 AVE
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TEL (305) 264-8100 FAX (305) 262-6978
STORE W09-42ECO

SERIES 400 ALUM WINDOW WALL SYSTEM (L.M.I.)
ECO WINDOW SYSTEMS, LLC.
9114 N.W. 106 STREET
MEDLEY, FL. 33178
TEL (305) 885-5299 FAX (305) 885-5902

no	date	description
A	12.11.12	NO CHANGE THIS SHEET
B	08.27.14	GENERAL REVISION
C	01.13.15	REV. PER PER COMMENTS

date: 08-13-09
scale: 1/2" = 1'-0"
dr. by: HAMID
chk. by:

drawing no.
W09-42
sheet 5 of 9



WOOD BUCKS AND METAL STRUCTURE NOT BY ECO WINDOWS MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

TYPE 'A'
 1/4" DIA ULTRACON BY 'ELCO' (Fu=177 KSI, Fy=155 KSI)
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURES WITH 1-1/2" MIN. PENETRATION INTO WOOD
 THRU 1BY WOOD BUCKS INTO CONCRETE WITH 1-1/4" MIN. EMBED INTO CONCRETE
 DIRECTLY INTO CONCRETE OR MASONRY WITH 1-1/4" MIN. EMBED INTO CONC. OR MASONRY
ANCHOR EDGE DISTANCES
 INTO CONCRETE AND MASONRY = 2-1/2" MIN.
 INTO WOOD STRUCTURE = 1" MIN.

TYPE 'B'
 5/16" DIA ULTRACON BY 'ELCO' (Fu=177 KSI, Fy=155 KSI)
 INTO WOOD STRUCTURES WITH 1-7/8" MIN. PENETRATION INTO WOOD
 THRU 1BY OR 2BY WOOD BUCKS INTO CONCRETE WITH 1-1/4" MIN. EMBED INTO CONCRETE
 DIRECTLY INTO CONCRETE OR MASONRY WITH 1-1/4" MIN. EMBED INTO CONC. OR MASONRY
ANCHOR EDGE DISTANCES
 INTO CONCRETE AND MASONRY = 3" MIN.
 INTO WOOD STRUCTURE = 1-1/4" MIN.

TYPE 'C'
 #14 SMS OR SELF DRILLING SCREWS ST/ST (GRADE 2 CRS)
 INTO METAL STRUCTURES
 STEEL : 12 GA. MIN. (Fy = 36 KSI MIN.)
 ALUMINUM : 1/8" THK. MIN. (6063-T5 MIN.)
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)
ANCHOR EDGE DISTANCES
 INTO METAL STRUCTURE = 1/2" MIN.

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

SEALANTS:
 ALL FRAME JOINTS AND SEAMS SEALED WITH SCHNEE-MOREHEAD SM5504 ACRYL-R SEAM SEALER.

Engr: JAVAD AHMAD
 CIVIL
 FLA. PE # 70592
 C.A.N. 3538
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 By *Manuel Perez*
 Miami Dade Product Control

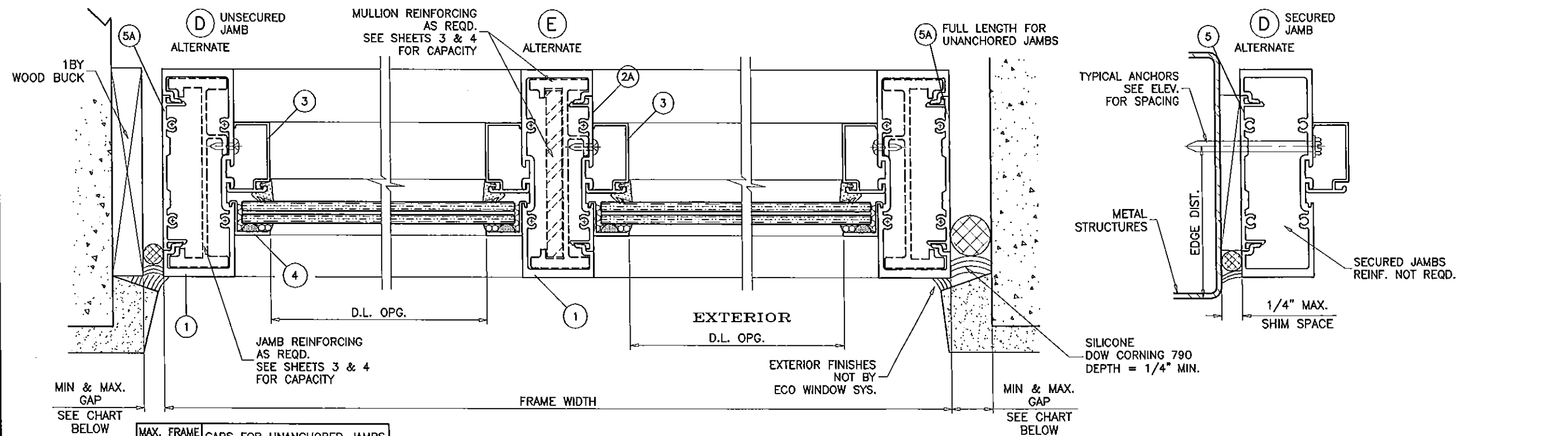
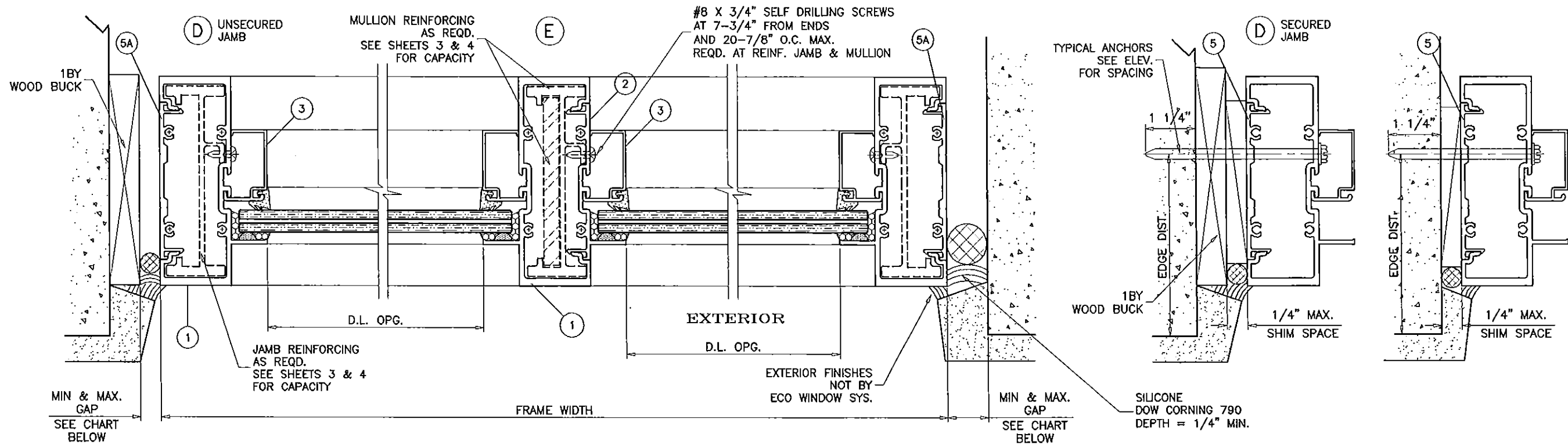
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 9114 N.W. 106 STREET
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 TEL (305) 885-5299 FAX (305) 885-5902

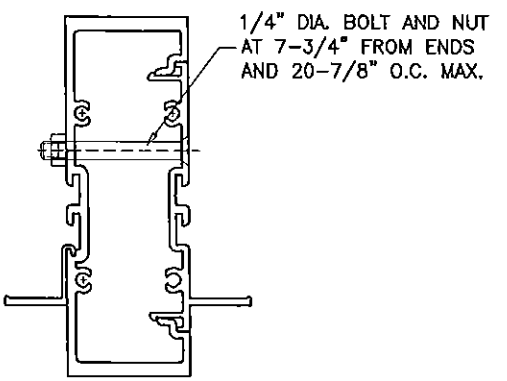
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date: 08-13-09
 scale: 3/8" = 1"
 dr. by: HAMID
 chk. by:

drawing no.
W09-42
 sheet 6 of 9



MAX. FRAME HEIGHT UPTO	GAPS FOR UNANCHORED JAMBS	
	MIN.	MAX.
120"	1/4"	1"
132"	3/8"	1"



NOTE:
 MAX. MOVEMENT CONSIDERED=100% STRETCH.
 PLEASE REFER TO SEALANT MANUFACTURER'S DATA AND APPLICATION MANUAL FOR COMPATABILITY OF SEALANT TO SUBSTRATE & WINDOWALL MATERIAL/FINISH AND COMPLIANCE FOR WARRANTY.
 REFER TO ACI-117-10 FOR CONSTRUCTION TOLERANCES.
 ALTERNATE SEALANTS AT JAMB GAPS CAN BE DESIGNED BY ENGINEER OF RECORD BASED ON MANUFACTURER GUIDE LINES.
 GAPS LESS THAN 1/4" MAY BE DESIGNED BY ENGINEER OF RECORD BY THE USE OF BOND BREAKER TAPE OR 15% OF GAP ALLOWED MOVEMENT.
 REFER TO SHEETS 4 THRU 7 FOR SELECTION OF MULLION/JAMB WITH REINFORCED & UNREINFORCED FRAMES.

Engr: JAVAD AHMAD
 CIVIL
 FLA. PE # 70592
 C.A.N. 3538
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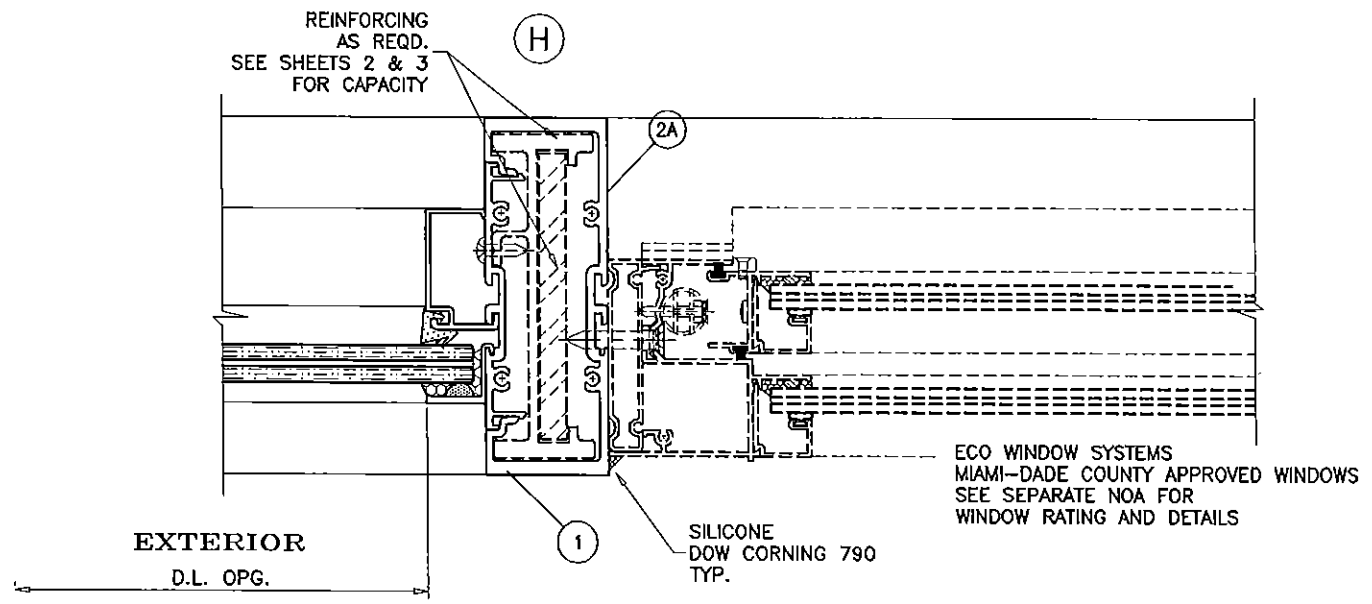
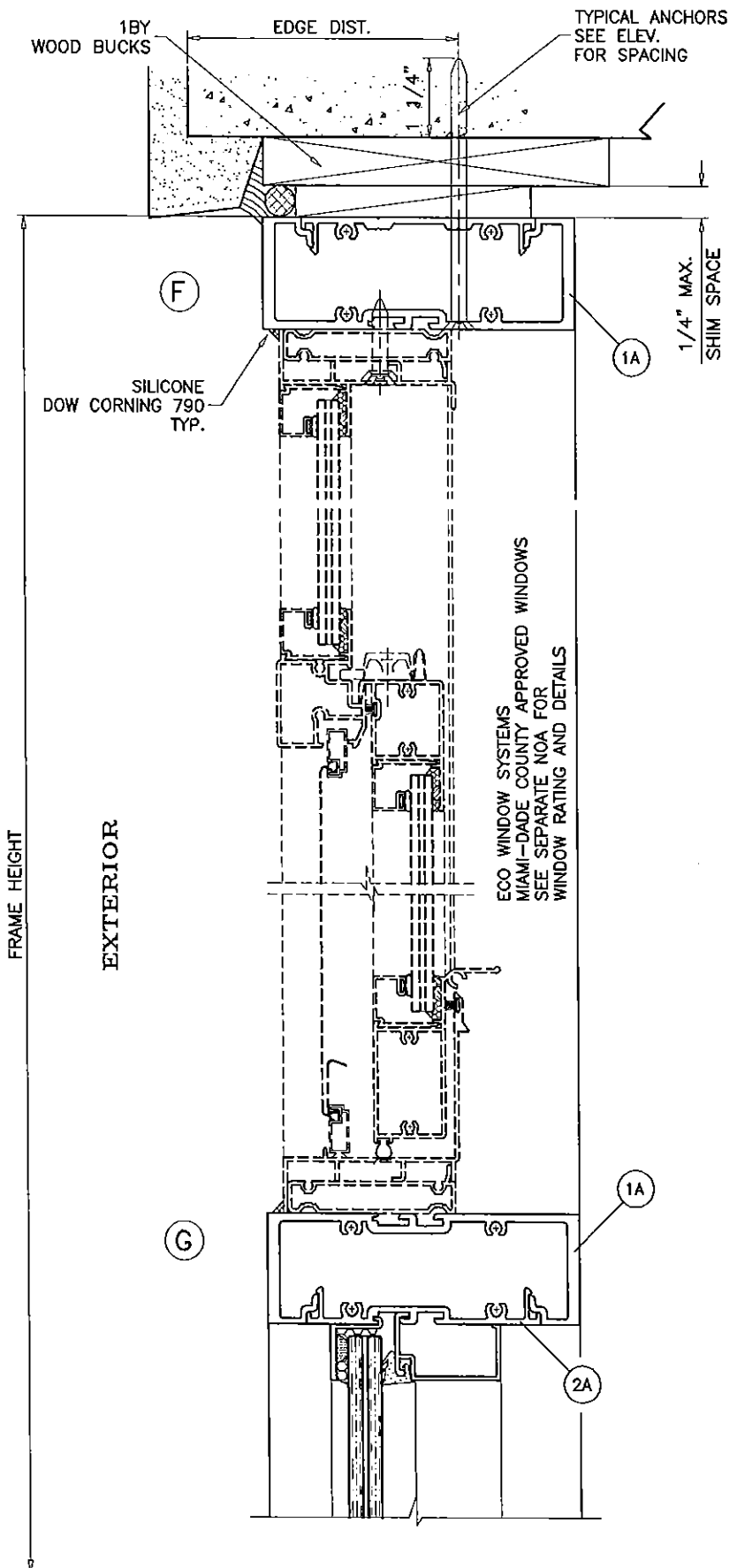
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 9114 N.W. 106 STREET
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no	date	description
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C	01.13.15	REV. PER RER COMMENTS

revisions:

date: 08-13-09
 scale: 3/8" = 1"
 dr. by: HAMID
 chk. by:

drawing no. **W09-42**
 sheet 7 of 9



Engr: JAVAD AHMAD
 CIVIL
 FLA. PE # 70592
 C.A.N. 3538

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By *Manuel Perez*
 Miami Dade Product Control

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 ENGINEERS & PRODUCT DEVELOPMENT
 1235 S.W. 87 AVE
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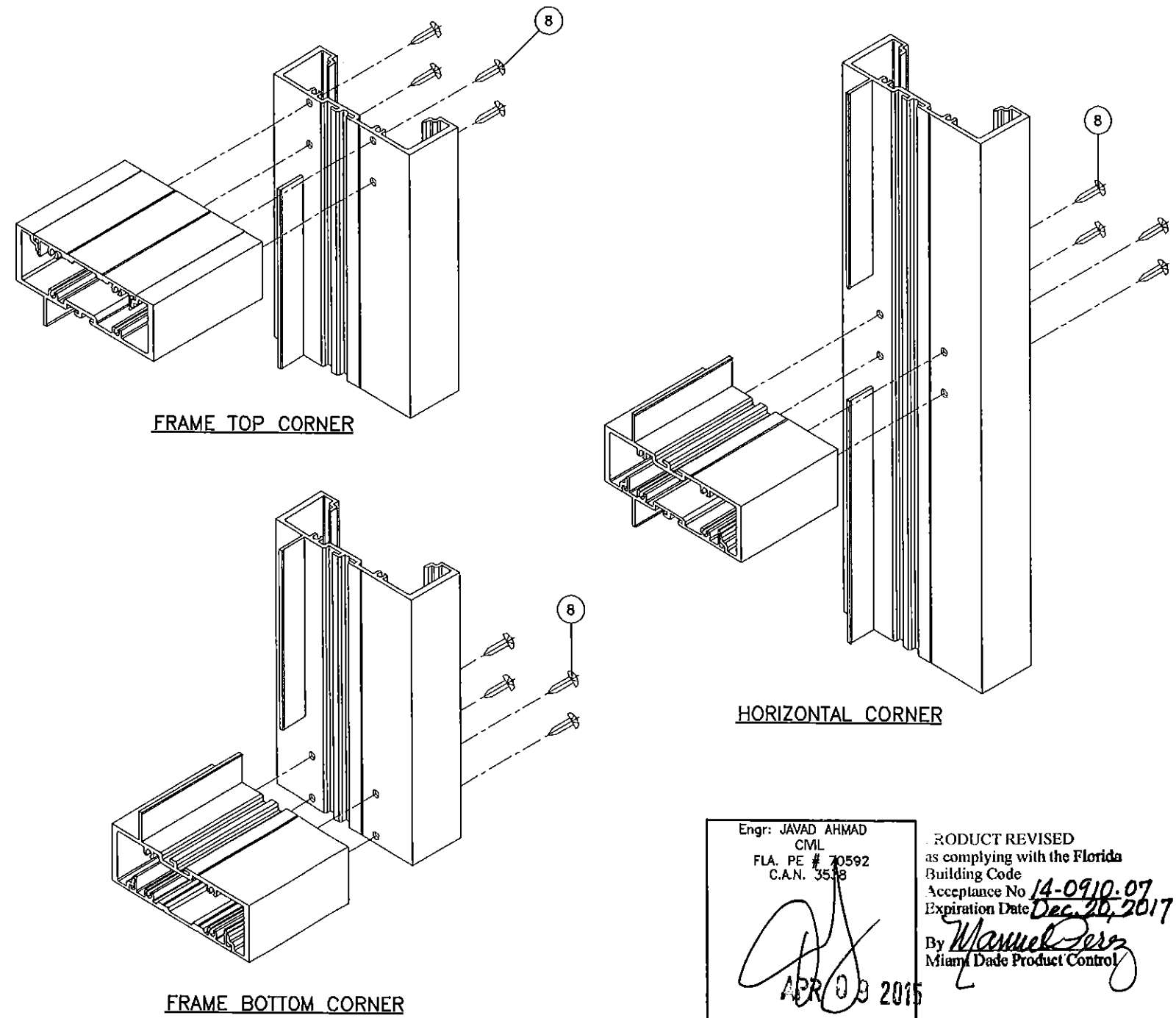
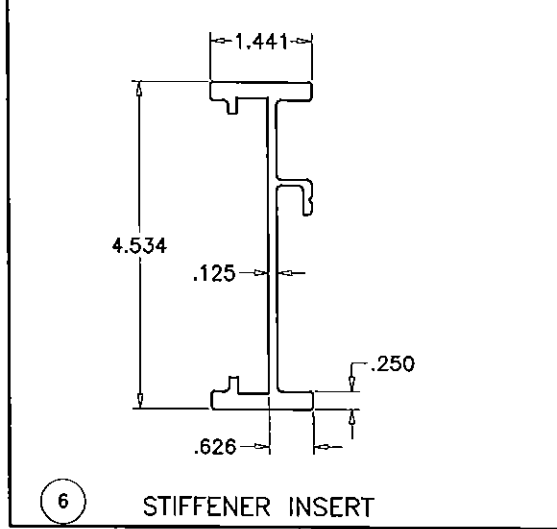
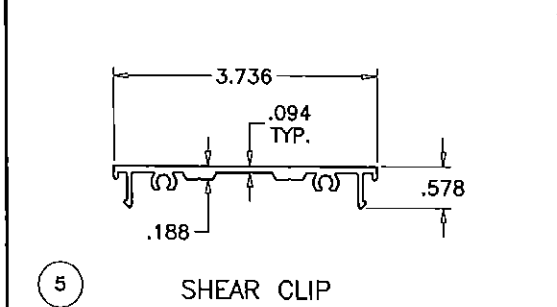
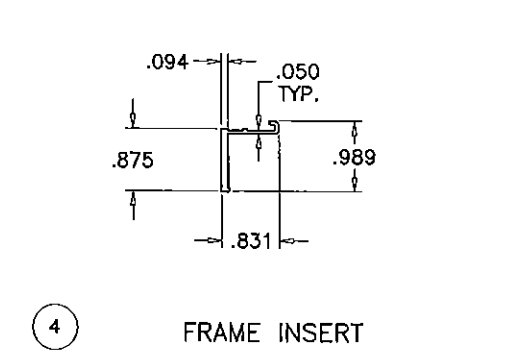
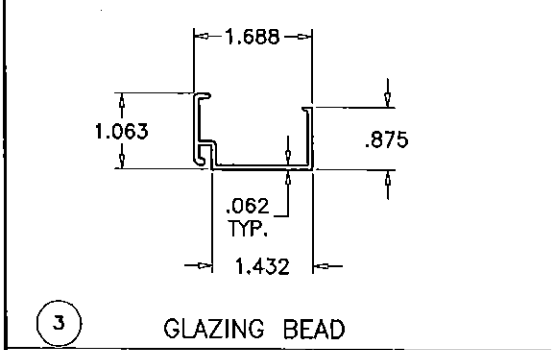
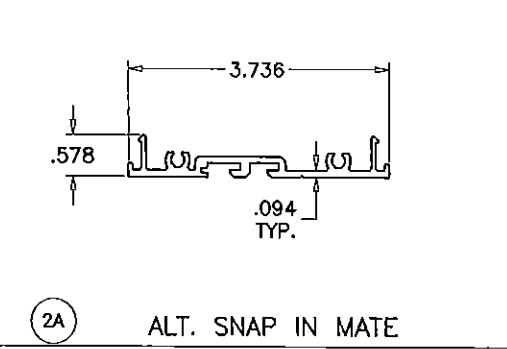
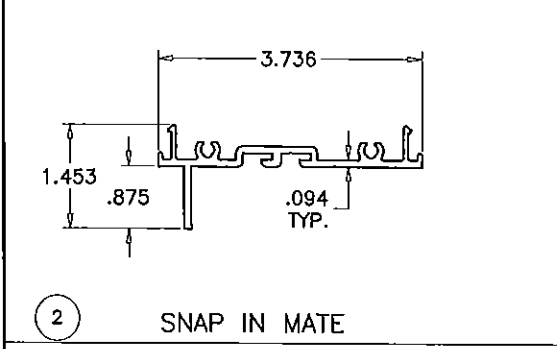
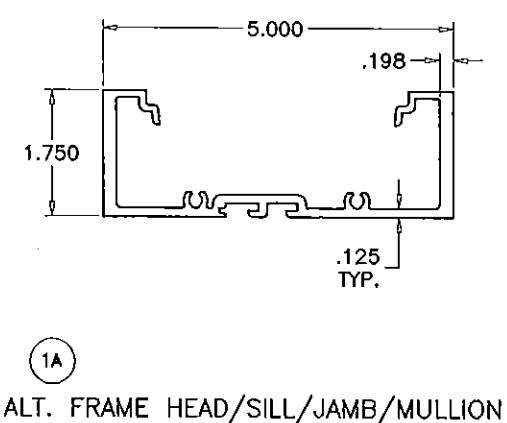
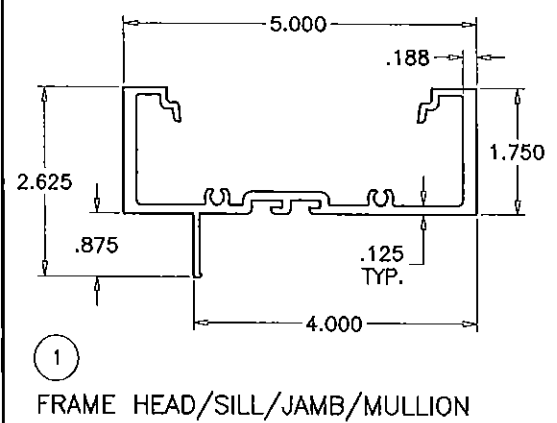
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no	date	BY	DESCRIPTION
A	12.11.12	REV. PER	COMMENTS
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date: 08-13-09
 scale: 3/8" = 1"
 dr. by: HAMID
 chk. by:

drawing no.
W09-42
 sheet 8 of 9

ITEM NO.	PART NUMBER	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	UW-401	AS REQD.	FRAME HEAD/SILL/JAMB/MULLION	6063-T6	-
1A	UW-407	AS REQD.	ALT. FRAME HEAD/SILL/JAMB/MULLION	6063-T6	-
2	UW-402	AS REQD.	SNAP-IN MATE	6063-T6	-
2A	UW-402	AS REQD.	ALT. SNAP-IN MATE	6063-T6	-
3	UW-404	AS REQD.	GLAZING BEAD	6063-T6	-
4	UW-408	AS REQD.	FRAME INSERT	6063-T6	-
5	UW-403	AS REQD.	SHEAR CLIP, 3-3/4" LONG AT JAMB ANCHORS	6063-T6	-
5A	UW-403	AS REQD.	SHEAR CLIP, FULL LENGTH	6063-T6	-
5B	UW-403	AS REQD.	SHEAR CLIP, LENGTH VARIES TO COVER ANCHOR SPACINGS	6063-T6	-
6	UW-408	AS REQD.	STIFFENER INSERT	6063-T6	-
6A	-	AS REQD.	STIFFENER BAR	GALV. STEEL	-
7	UW-406	AS REQD.	GLAZING GASKET	NEOPRENE	DUROMETER 55±5 SHORE A
8	#12 X 1-1/4"	4/ CORNER	FRAME ASSEMBLY SCREWS	-	PH SMS
9	-	2/ LITE	SETTING BLOCKS AT 1/4 POINTS	NEOPRENE	3/16" X 1/2" X 2" LONG
10	-	AS REQD.	GLASS SPACER	SILICONE	FRANK LOWE



afC
AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 1235 S.W. 87 AVE
 MIAMI, FLORIDA 33174
 TEL. (305) 264-8100 FAX (305) 262-6978
 STORE W09-42ECO

SERIES 400 ALUM WINDOW WALL SYSTEM (L.M.I.)
ECO WINDOW SYSTEMS, LLC.
 9114 N.W. 106 STREET
 MEDLEY, FL. 33178
 TEL. (305) 885-5299 FAX (305) 885-5902

NO	DATE	DESCRIPTION
A	12.11.12	NO CHANGE THIS SHEET
B	08.27.14	NO CHANGE THIS SHEET
C	01.13.15	NO CHANGE THIS SHEET

date: 08-13-09
 scale: 3/8" = 1"
 dr. by: HAMID
 chk. by:

drawing no.
W09-42
 sheet 9 of 9

Engr: JAVAD AHMAD
 CIVIL
 FLA. PE # 70592
 C.A.N. 3538

PRODUCT REVISED
 as complying with the Florida
 Building Code
 Acceptance No 14-0910.07
 Expiration Date Dec. 20, 2017

By *Manuel Ferraz*
 Miami Dade Product Control

APR 09 2015