



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

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

**NOTICE OF ACCEPTANCE (NOA)**

Eco Window Systems, LLC  
8502 NW 80 Street  
Medley, FL 33166

**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 "Eco-Guard 200" Aluminum Horizontal Rolling Window – L.M.I.**

**APPROVAL DOCUMENT:** Drawing No. **W09-12**, titled "Eco-Guard Series-200 Alum. Horiz. Rolling Wdw. (L.M.I.)" sheets 1 through 7 of 7, dated 02/24/09, with revision **F** dated 10/19/17, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

**MISSILE IMPACT RATING: Large and Small Missile Impact Resistant**

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

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

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

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

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

This NOA revises **NOA# 15-0728.05** and consists of this page 1 and evidence pages E-1, E-2 and E-3, as well as approval document mentioned above.

The submitted documentation was reviewed by **Sifang Zhao, P.E.**



S.Z.  
01/05/2018

NOA No. 17-1102.23  
Expiration Date: May 27, 2019  
Approval Date: January 11, 2018  
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

**A. DRAWINGS**

1. Manufacturer's die drawings and sections.  
*(Submitted under NOA#09-0312.08)*
2. Drawing No **W09-12**, titled "Eco-Guard Series-200 Alum. Horiz. Rolling Wdw. (L.M.I.)", sheets 1 through 7 of 7, dated 02/24/09, with revision **F** dated 10/19/17, 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  
4) Forced Entry Test, per FBC 2411.3.2.1, and TAS 202-94  
along with marked-up drawings and installation diagram of an aluminum horizontal sliding window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-7635**, dated 12/09/14, signed and sealed by Marlin D. Brinson, P.E.  
*(Submitted under NOA#14-0317.01)*
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) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94  
along with marked-up drawings and installation diagram of a XOX aluminum horizontal sliding window, prepared by Hurricane Engineering & Testing, Inc., Test Report No. **HETI-08-2226A**, dated 01/15/09, signed and sealed by Candido F. Font, P.E.  
*(Submitted under NOA#09-0312.08)*
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 a XOX aluminum horizontal sliding window, prepared by Hurricane Engineering & Testing, Inc., Test Report No. **HETI-08-2226B**, dated 01/15/09, signed and sealed by Candido F. Font, P.E.  
*(Submitted under NOA#09-0312.08)*
4. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94  
along with marked-up drawings and installation diagram of a XOX aluminum horizontal sliding window, prepared by Hurricane Engineering & Testing, Inc., Test Report No. **HETI-08-2227**, dated 01/15/09, signed and sealed by Candido F. Font, P.E.  
*(Submitted under NOA#09-0312.08)*

*Sifang Zhao*

Sifang Zhao, P.E.

Product Control Examiner

NOA No. 17-1102.23

Expiration Date: May 27, 2019

Approval Date: January 11, 2018

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

**B. TESTS (CONTINUED)**

5. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94  
2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94  
3) Water Resistance Test, per FBC, TAS 202-94  
4) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94  
along with marked-up drawings and installation diagram of a XOX aluminum horizontal sliding window, prepared by Hurricane Engineering & Testing, Inc., Test Report No. **HETI-08-2228A**, dated 01/15/09, signed and sealed by Candido F. Font, P.E. *(Submitted under NOA#09-0312.08)*
6. 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 a XOX aluminum horizontal sliding window, prepared by Hurricane Engineering & Testing, Inc., Test Report No. **HETI-08-2228B**, dated 01/15/09, signed and sealed by Candido F. Font, P.E. *(Submitted under NOA#09-0312.08)*
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 a XOX aluminum horizontal sliding window, prepared by Hurricane Engineering & Testing, Inc., Test Report No. **HETI-08-2229**, dated 01/15/09, signed and sealed by Candido F. Font, P.E. *(Submitted under NOA#09-0312.08)*
8. 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 a XOX aluminum horizontal sliding window, prepared by Hurricane Engineering & Testing, Inc., Test Report No. **HETI-08-2230A**, dated 01/15/09, signed and sealed by Candido F. Font, P.E. *(Submitted under NOA#09-0312.08)*
9. 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 a XOX aluminum horizontal sliding window, prepared by Hurricane Engineering & Testing, Inc., Test Report No. **HETI-08-2230B**, dated 01/15/09, signed and sealed by Candido F. Font, P.E. *(Submitted under NOA#09-0312.08)*

**C. CALCULATIONS**

1. Anchor verification calculations and structural analysis, complying with **FBC 5<sup>th</sup> Edition (2014)**, dated 07/08/15, complying with **FBC 6<sup>th</sup> Edition (2017)**, dated 10/12/17 prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.
2. Glazing complies with **ASTM E1300-09**

*Sifang Zhao*

Sifang Zhao, P.E.

Product Control Examiner

NOA No. 17-1102.23

Expiration Date: May 27, 2019

Approval Date: January 11, 2018

Eco Window Systems, LLC.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

**D. QUALITY ASSURANCE**

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

**E. MATERIAL CERTIFICATIONS**

1. Notice of Acceptance No. **16-1117.01** issued to **Kuraray America, Inc.** for their “**Trosifol® Ultraclear, Clear and Color PVB Interlayers**” dated 01/19/17, expiring on 07/08/19.
2. Notice of Acceptance No. **14-0916.11** issued to **Kuraray America, Inc.** for their “**SentryGlas® (Clear and White) Glass Interlayers**” dated 06/25/15, expiring on 07/04/18.

**F. STATEMENTS**

1. Statement letter of conformance, complying with **FBC 5<sup>th</sup> Edition (2014)**, with **FBC 6<sup>th</sup> Edition (2017)**, and of no financial interest, dated October 12, 2017, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.

**G. OTHER**

1. Notice of Acceptance No. **15-0728.05**, issued to Eco Window Systems, LLC for their Series “Eco-Guard 200” Aluminum Horizontal Rolling Window - L.M.I.”, approved on 09/03/15 and expiring on 05/27/19.

*Sifang Zhao*

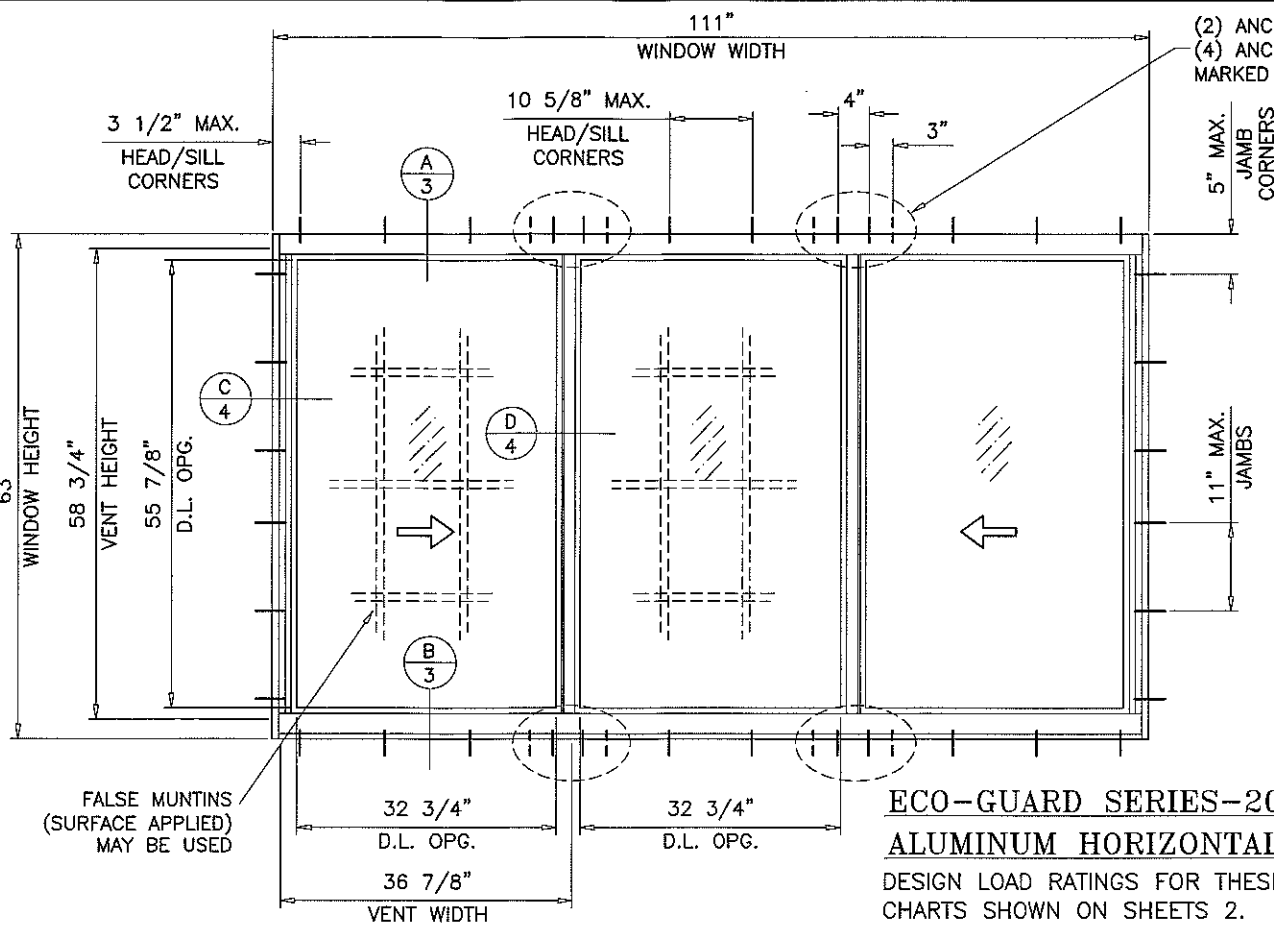
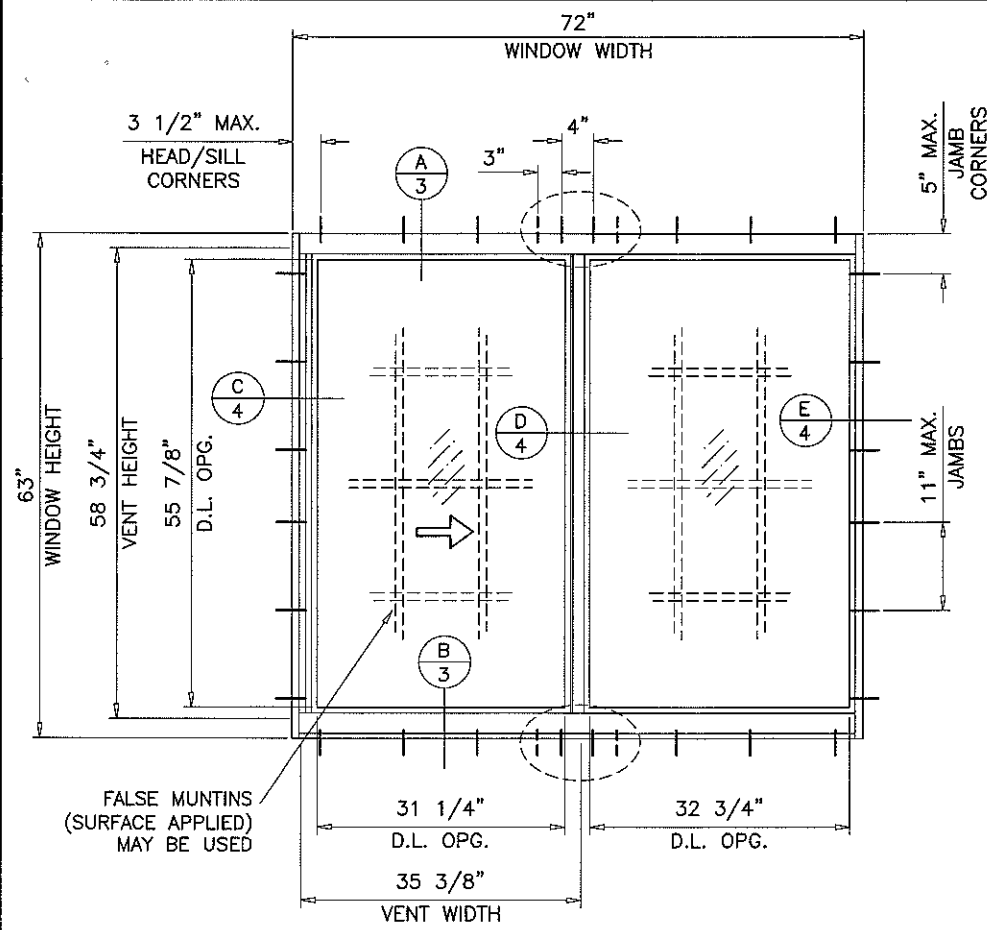
Sifang Zhao, P.E.

Product Control Examiner

NOA No. 17-1102.23

Expiration Date: May 27, 2019

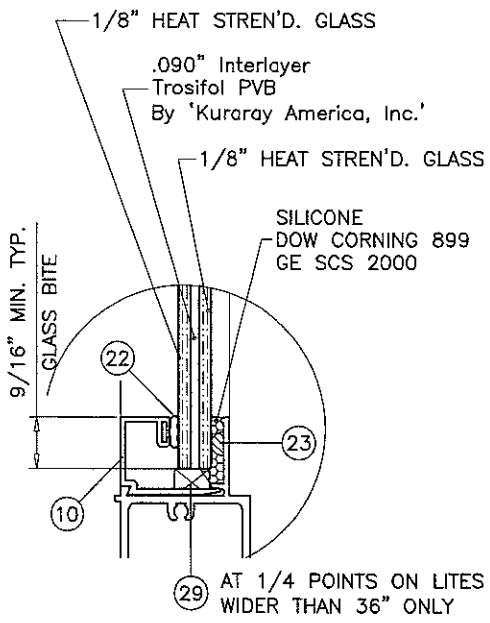
Approval Date: January 11, 2018



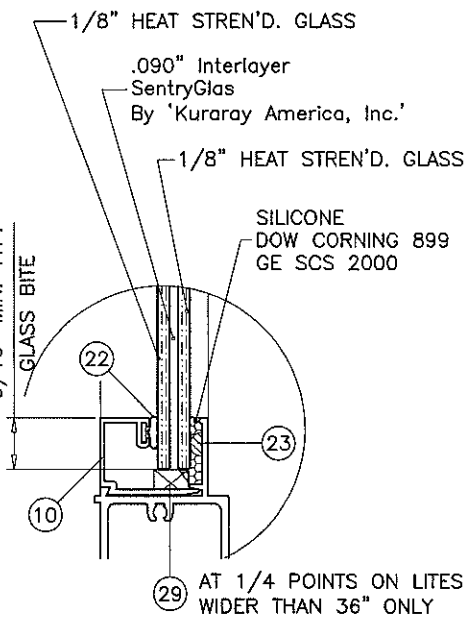
TYPICAL ELEVATIONS

THESE WINDOWS ARE RATED FOR LARGE & SMALL MISSILE IMPACT. SHUTTERS ARE NOT REQUIRED.

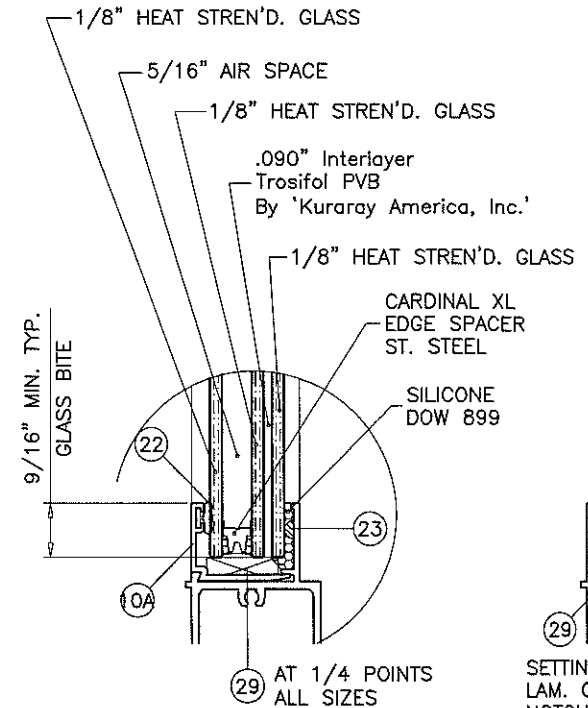
TO QUALIFY FOR SMALL MISSILE IMPACT RATING EXTERIOR PLY OF GLASS TYPE 'C' MUST BE TEMPERED.



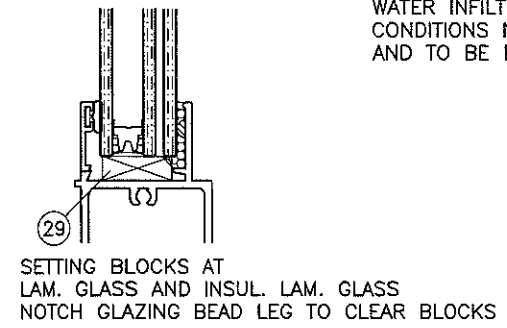
GLASS TYPE 'A'



GLASS TYPE 'B'



GLASS TYPE 'C'



SETTING BLOCKS AT 1/4 POINTS ALL SIZES  
LAM. GLASS AND INSUL. LAM. GLASS  
NOTCH GLAZING BEAD LEG TO CLEAR BLOCKS

**ECO-GUARD SERIES-200  
ALUMINUM HORIZONTAL ROLLING WINDOW**

DESIGN LOAD RATINGS FOR THESE WINDOWS TO BE AS PER CHARTS SHOWN ON SHEETS 2.

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE COMBINATIONS OF H.R./H.R. OR HORIZONTAL ROLLING WITH OTHER WINDOW TYPES IN MODULES OF TWO OR MORE WINDOWS USING MIAMI-DADE COUNTY APPROVED MULLIONS IN BETWEEN. LOWER DESIGN PRESSURE FROM WINDOWS OR MULLION APPROVAL WILL APPLY TO ENTIRE SYSTEM.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2014 (5TH EDITION)/2017 (6TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

1BY OR 2BY WOOD BUCKS & BUCK FASTENERS BY OTHERS, MUST BE DESIGNED AND INSTALLED ADEQUATELY TO TRANSFER APPLIED PRODUCT LOADS TO THE BUILDING STRUCTURE.

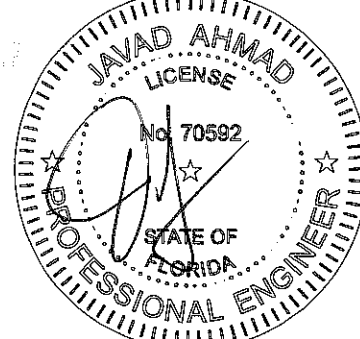
ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS AND INSTALLED PER MANUF'S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

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 2014/2017 FLORIDA BLDG. CODE & ADOPTED STANDARDS.

THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, I.E. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC. CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.

PRODUCT REVISED as complying with the Florida Building Code  
Acceptance No 17-1102-23  
Expiration Date 05/21/2019  
By Sifang Zhao  
Miami Dade Product Control



**af c**  
**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE, SUITE 220  
MIAMI, FLORIDA 33173 (C.A.N. 3538)  
TEL. (305) 264-8100 FAX. (305) 262-6978  
COMP-ANL W09-12ECO

ECO-GUARD SERIES-200 ALUM. HORIZ. ROLLING WDW. (L.M.I.)  
**ECO WINDOW SYSTEMS, LLC.**  
8502 N.W. 80th STREET  
MEDLEY, FL. 33166  
TEL. (305) 885-5299 FAX (305) 885-5902

| no | date     | by                  | description |
|----|----------|---------------------|-------------|
| C  | 01.11.13 | MANUF. ADDRESS REV. |             |
| D  | 02.12.14 | GLASS OPTION ADDED  |             |
| E  | 07.15.15 | UPDATED TO 2014 FBC |             |
| F  | 10.19.17 | UPDATED TO 2017 FBC |             |

date: 02-24-09  
scale: 1/2"=1'-0"  
dr. by: TARIQ  
chk. by:

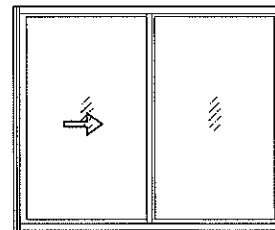
drawing no.  
**W09-12**

sheet 1 of 7

| DESIGN LOAD CAPACITY - PSF (XO, OX OR XX SIZES) |                |      |            |         |             |         |            |         |
|-------------------------------------------------|----------------|------|------------|---------|-------------|---------|------------|---------|
| WINDOW DIMS.                                    |                | A    | W/O REINF. |         | WITH REINF. |         |            |         |
|                                                 |                |      | GLASS TYPE |         | GLASS TYPE  |         | GLASS TYPE |         |
|                                                 |                |      | 'A'        | 'B'     | 'C'         | 'A'     | 'B'        | 'C'     |
| WIDTH                                           | HEIGHT         |      | EXT.(+)    | INT.(-) | EXT.(+)     | INT.(-) | EXT.(+)    | INT.(-) |
| 26-1/2"                                         | 26"<br>(3)     | 4    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 37"                                             |                | 4    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 53-1/8"                                         |                | 6    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 74"                                             |                | 8    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 26-1/2"                                         | 38-3/8"<br>(4) | 4    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 37"                                             |                | 4    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 53-1/8"                                         |                | 6    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 74"                                             |                | 8    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 26-1/2"                                         | 50-5/8"<br>(5) | 4    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 37"                                             |                | 4    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 53-1/8"                                         |                | 6    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 74"                                             |                | 8    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 26-1/2"                                         | 63"<br>(6)     | 4    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 37"                                             |                | 4    | 68.9       | 77.5    | 80.0        | 90.0    | 70.0       | 80.0    |
| 53-1/8"                                         |                | 6    | 70.0       | 70.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 74"                                             |                | 8    | 70.0       | 70.0    | 80.0        | 80.4*   | 70.0       | 80.0    |
| 24"                                             | 24"<br>(3)     | 4    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 36"                                             |                | 4    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 48"                                             |                | 6    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 60"                                             |                | 6    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 72"                                             | 8              | 70.0 | 80.0       | 80.0    | 90.0        | 70.0    | 80.0       |         |
| 24"                                             | 36"<br>(4)     | 4    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 36"                                             |                | 4    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 48"                                             |                | 6    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 60"                                             |                | 6    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 72"                                             | 8              | 70.0 | 80.0       | 80.0    | 90.0        | 70.0    | 80.0       |         |
| 24"                                             | 48"<br>(5)     | 4    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 36"                                             |                | 4    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 48"                                             |                | 6    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 60"                                             |                | 6    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 72"                                             | 8              | 70.0 | 80.0       | 80.0    | 90.0        | 70.0    | 80.0       |         |
| 24"                                             | 60"<br>(6)     | 4    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 36"                                             |                | 4    | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 48"                                             |                | 6    | 70.0       | 70.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 60"                                             |                | 6    | 70.0       | 70.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 72"                                             | 8              | 70.0 | 70.0       | 80.0    | 87.6*       | 70.0    | 80.0       |         |

A = NO. OF ANCHORS PER HEAD & SILL  
( ) = NO. OF ANCHORS PER JAMB

\* MAX. LOAD FOR THESE SIZES IS -90.0 PSF WITH (4) ANCHORS AT MTG. STILE ENDS



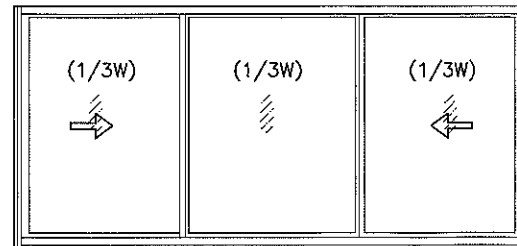
LEFT AND RIGHT VENTS TO BE OF EQUAL GLASS DLO WIDTHS

'XO OR OX'

| DESIGN LOAD CAPACITY - PSF (XOX SIZES) |                |    |            |         |             |         |            |         |
|----------------------------------------|----------------|----|------------|---------|-------------|---------|------------|---------|
| WINDOW DIMS.                           |                | A  | W/O REINF. |         | WITH REINF. |         |            |         |
|                                        |                |    | GLASS TYPE |         | GLASS TYPE  |         | GLASS TYPE |         |
|                                        |                |    | 'A'        | 'B'     | 'C'         | 'A'     | 'B'        | 'C'     |
| WIDTH                                  | HEIGHT         |    | EXT.(+)    | INT.(-) | EXT.(+)     | INT.(-) | EXT.(+)    | INT.(-) |
| 74"                                    | 26"<br>(3)     | 9  | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 106-1/4"                               |                | 12 | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 111"                                   |                | 12 | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 74"                                    | 38-3/8"<br>(4) | 9  | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 106-1/4"                               |                | 12 | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 111"                                   |                | 12 | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 74"                                    | 50-5/8"<br>(5) | 9  | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 106-1/4"                               |                | 12 | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 111"                                   |                | 12 | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 74"                                    | 63"<br>(6)     | 9  | 70.0       | 70.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 106-1/4"                               |                | 12 | 70.0       | 70.0    | 80.0        | 82.6*   | 70.0       | 80.0    |
| 111"                                   |                | 12 | 70.0       | 70.0    | 80.0        | 80.4*   | 70.0       | 80.0    |
| 72"                                    | 24"<br>(3)     | 9  | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 84"                                    |                | 9  | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 96"                                    |                | 12 | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 108"                                   |                | 12 | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 72"                                    | 36"<br>(4)     | 9  | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 84"                                    |                | 9  | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 96"                                    |                | 12 | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 108"                                   |                | 12 | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 72"                                    | 48"<br>(5)     | 9  | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 84"                                    |                | 9  | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 96"                                    |                | 12 | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 108"                                   |                | 12 | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 72"                                    | 60"<br>(6)     | 9  | 70.0       | 70.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 84"                                    |                | 9  | 70.0       | 70.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 96"                                    |                | 12 | 70.0       | 70.0    | 80.0        | 90.0*   | 70.0       | 80.0    |
| 108"                                   |                | 12 | 70.0       | 70.0    | 80.0        | 87.6*   | 70.0       | 80.0    |

A = NO. OF ANCHORS PER HEAD & SILL  
( ) = NO. OF ANCHORS PER JAMB

\* MAX. LOAD FOR THESE SIZES IS -90.0 PSF WITH (4) ANCHORS AT MTG. STILE ENDS



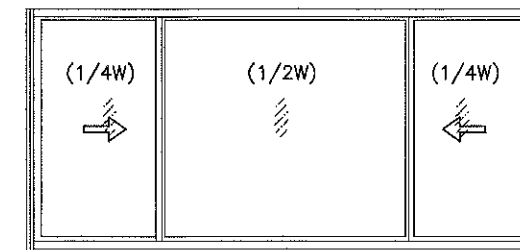
OPERATING VENTS TO BE 1/3 OF THE WINDOW WIDTH

'XOX'

ALL EXTERIOR(+) LOADS SHOWN ON THIS SHEET ARE FOR WINDOWS WITH ADD-ON RISER AT FRAME SILL FOR STD. SILL (NO RISER) LIMIT EXT.(+) LOADS TO 67.0 PSF SEE SHEET 3 FOR DETAIL.

| DESIGN LOAD CAPACITY - PSF (XOX SIZES) |                |    |            |         |             |         |            |         |
|----------------------------------------|----------------|----|------------|---------|-------------|---------|------------|---------|
| WINDOW DIMS.                           |                | A  | W/O REINF. |         | WITH REINF. |         |            |         |
|                                        |                |    | GLASS TYPE |         | GLASS TYPE  |         | GLASS TYPE |         |
|                                        |                |    | 'A'        | 'B'     | 'C'         | 'A'     | 'B'        | 'C'     |
| WIDTH                                  | HEIGHT         |    | EXT.(+)    | INT.(-) | EXT.(+)     | INT.(-) | EXT.(+)    | INT.(-) |
| 74"                                    | 26"<br>(3)     | 9  | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 106-1/4"                               |                | 12 | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 111"                                   |                | 12 | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 74"                                    | 38-3/8"<br>(4) | 9  | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 106-1/4"                               |                | 12 | -          | -       | 80.0        | 90.0    | 70.0       | 80.0    |
| 111"                                   |                | 12 | -          | -       | 80.0        | 90.0    | 70.0       | 80.0    |
| 74"                                    | 50-5/8"<br>(5) | 9  | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 106-1/4"                               |                | 12 | -          | -       | 80.0        | 90.0    | 70.0       | 80.0    |
| 111"                                   |                | 12 | -          | -       | 80.0        | 90.0    | 70.0       | 80.0    |
| 74"                                    | 63"<br>(6)     | 9  | 70.0       | 70.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 106-1/4"                               |                | 12 | 70.0       | 70.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 111"                                   |                | 12 | 70.0       | 70.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 72"                                    | 24"<br>(3)     | 9  | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 84"                                    |                | 9  | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 108"                                   |                | 12 | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 72"                                    | 36"<br>(4)     | 9  | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 84"                                    |                | 9  | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 108"                                   |                | 12 | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 72"                                    | 48"<br>(5)     | 9  | 70.0       | 80.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 84"                                    |                | 9  | 70.0       | 70.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 96"                                    |                | 12 | 70.0       | 70.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 72"                                    | 60"<br>(6)     | 9  | 70.0       | 70.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 84"                                    |                | 9  | 70.0       | 70.0    | 80.0        | 90.0    | 70.0       | 80.0    |
| 96"                                    |                | 12 | 70.0       | 70.0    | 80.0        | 90.0    | 70.0       | 80.0    |

A = NO. OF ANCHORS PER HEAD & SILL  
( ) = NO. OF ANCHORS PER JAMB

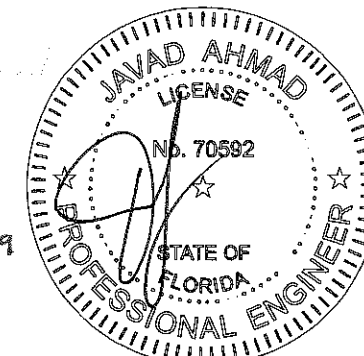


OPERATING VENTS TO BE 1/4 OF THE WINDOW WIDTH

'XOX'

NOTE:  
GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300-09 (3 SEC. GUSTS) AND FLORIDA BUILDING COMMISSION DECLARATORY STATEMENT DCA05-DEC-219

PRODUCT REVIEWED as complying with the Florida Building Code  
Acceptance No 17-1102.23  
Expiration Date 05/27/2019  
By Sifang Zhao  
Miami Dade Product Control

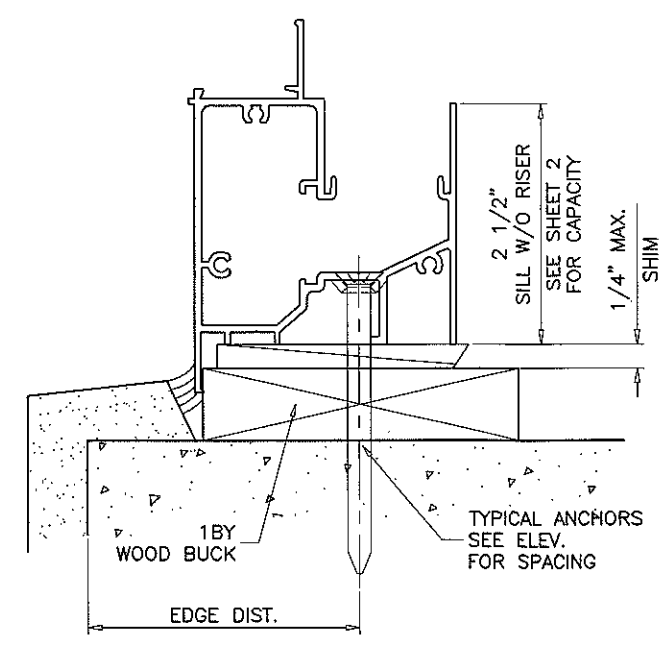
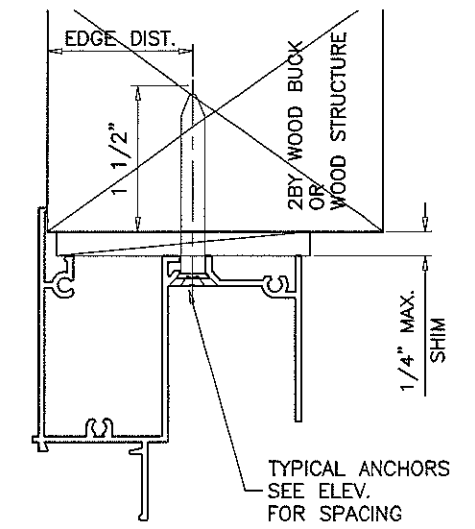
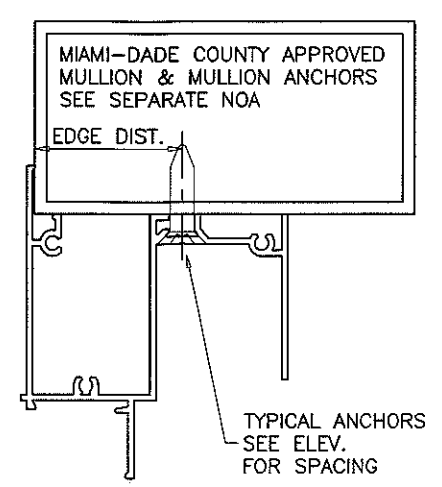
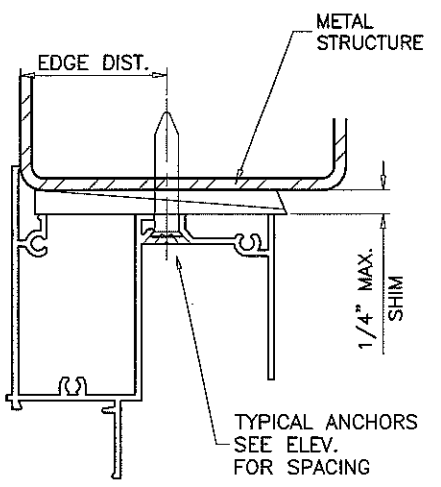
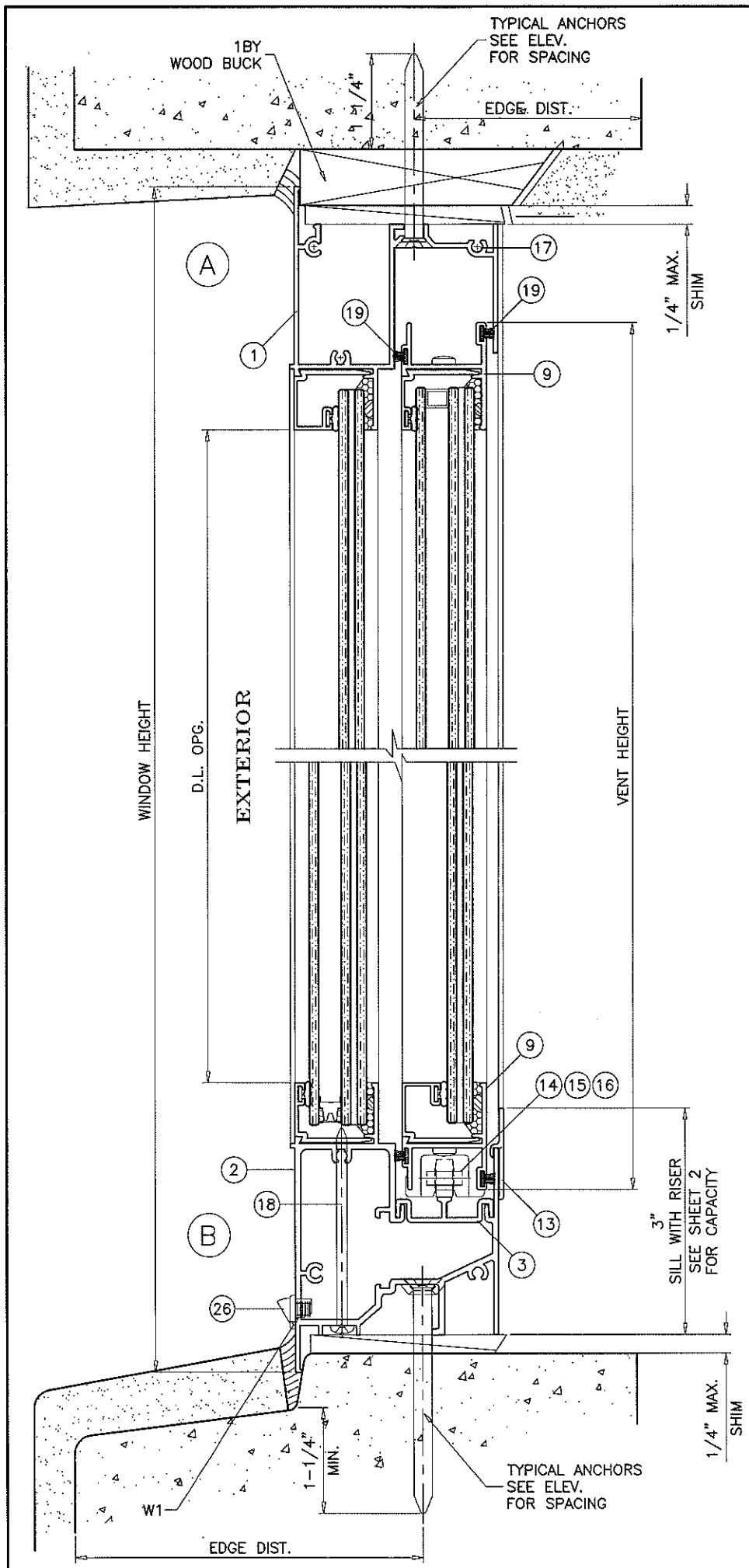


**afC**  
**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE, SUITE 220  
MIAMI, FLORIDA 33173  
TEL. (305) 264-8100 FAX. (305) 262-6978  
COMP-ANL \W09-12ECO

ECO-GUARD SERIES-200 ALUM. HORIZ. ROLLING WDW. (L.M.I.)  
**ECO WINDOW SYSTEMS, LLC.**  
8502 N.W. 80th STREET  
MEDLEY, FL. 33166  
TEL. (305) 885-5299 FAX (305) 885-5902

| no | date     | description         |
|----|----------|---------------------|
| C  | 01.11.13 | MANUF. ADDRESS REV. |
| D  | 02.12.14 | GLASS OPTION ADDED  |
| E  | 07.15.15 | UPDATED TO 2014 FBC |
| F  | 10.19.17 | UPDATED TO 2017 FBC |

date: 02-24-09  
scale: -  
dr. by: TARIQ  
chk. by:  
drawing no. **W09-12**  
sheet 2 of 7



**WEEPHOLES:**

W1 = 3/8" X 2-1/4" WEEPHOLES AT EACH END AND 37" O.C. MAX.

**SEALANT:**

ALL JOINTS AND FRAME CONNECTIONS SEALED WITH JOINT SEALER.

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

**TYPICAL ANCHORS:** SEE ELEV. FOR SPACING  
 1/4" DIA. ULTRACON BY 'ELCO' (Fu=177 KSI, Fy=155 KSI)  
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURES  
 1-1/2" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS)

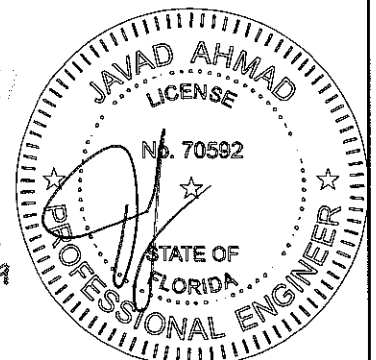
THRU 1BY BUCKS INTO CONC. OR BLOCKS  
 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)  
 1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)  
 DIRECTLY INTO CONCRETE OR BLOCKS  
 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)  
 1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)

**#14 SMS OR SELF DRILLING SCREWS** (GRADE 2 CRS)  
 INTO MIAMI-DADE COUNTY APPROVED MULLIONS OR  
 INTO METAL STRUCTURES (HEAD/SILL/JAMBS)  
 (3) THREADS MIN. PENETRATION BEYOND SUBSTRATE  
 ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)  
 STEEL: 1/8" THK. MIN. (Fy = 36 KSI MIN.)  
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

**TYPICAL EDGE DISTANCE**  
 INTO CONCRETE AND MASONRY = 2-1/2" MIN.  
 INTO WOOD STRUCTURE = 1" MIN.  
 INTO METAL STRUCTURE = 3/4" 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.

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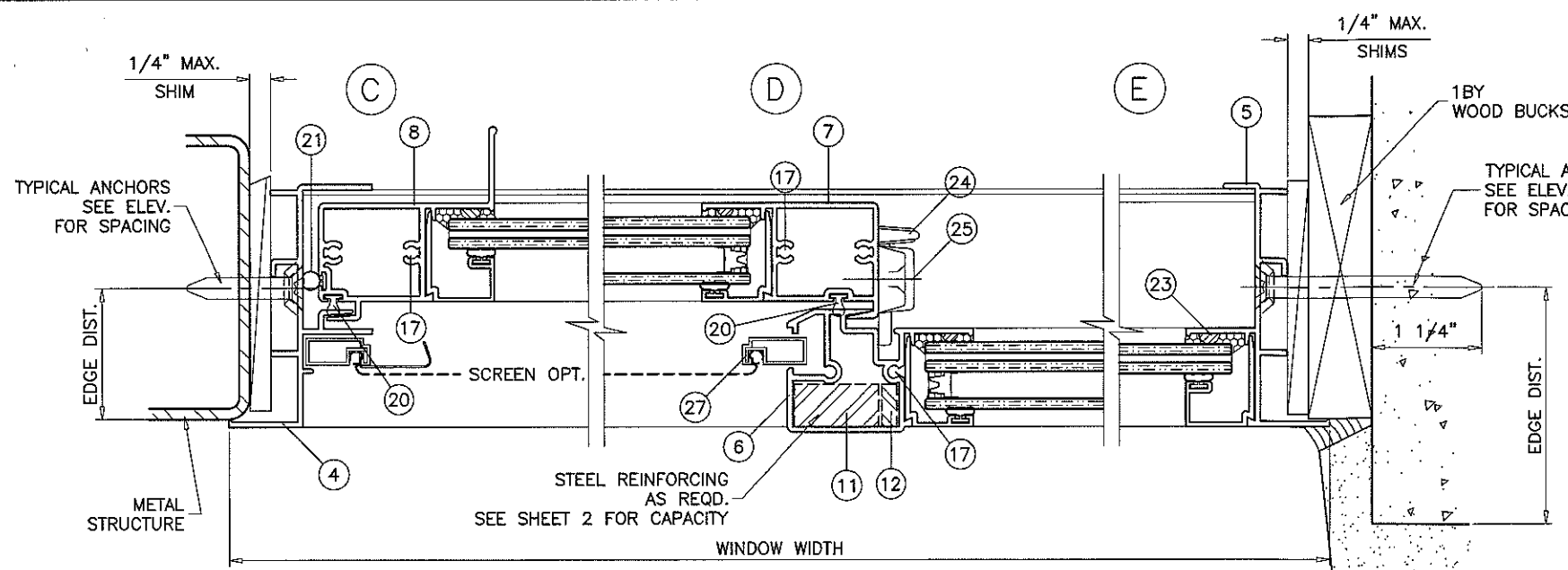
**af c**  
**AL-FAROOQ CORPORATION**  
 ENGINEERS & PRODUCT DEVELOPMENT  
 9360 SUNSET DRIVE, SUITE 220  
 MIAMI, FLORIDA 33173 (C.A.N. 3538)  
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 COMP-ANL\W09-12ECO

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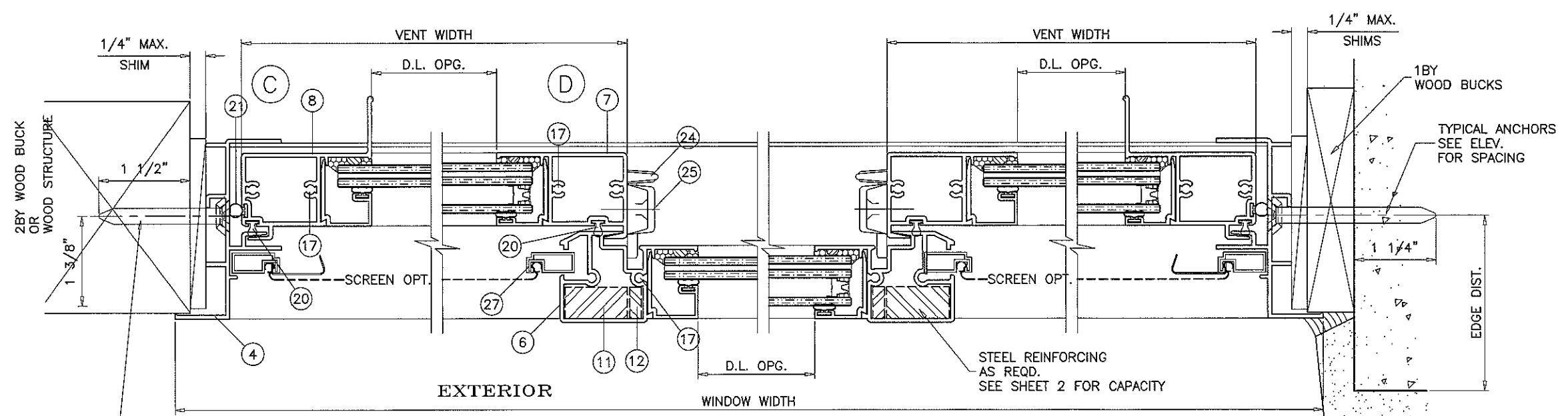
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|----|----------|---------|--------------|
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| D  | 02.12.14 | GLASS   | OPTION ADDED |
| E  | 07.15.15 | UPDATED | TO 2014 FBC  |
| F  | 10.19.17 | UPDATED | TO 2017 FBC  |

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 scale: 1/2" = 1"  
 dr. by: TARIQ  
 chk. by:

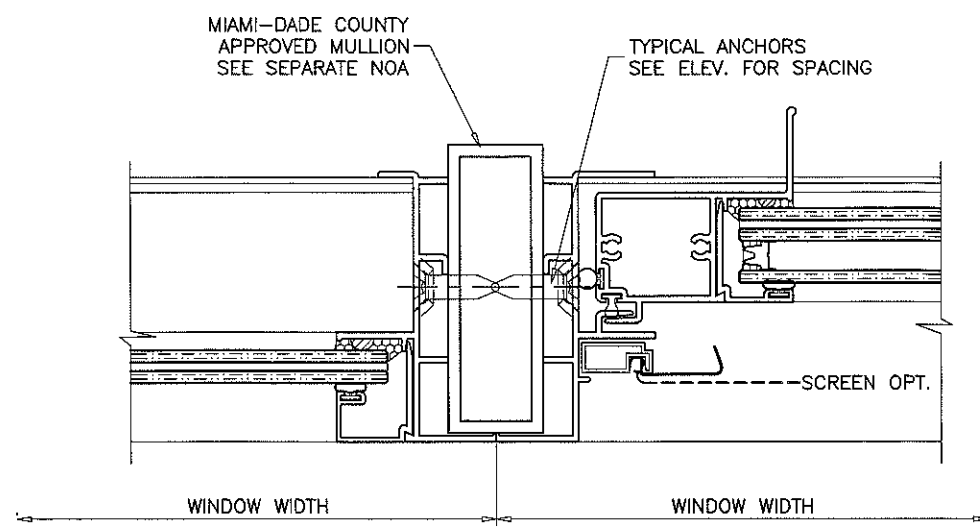
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**W09-12**  
 sheet 3 of 7



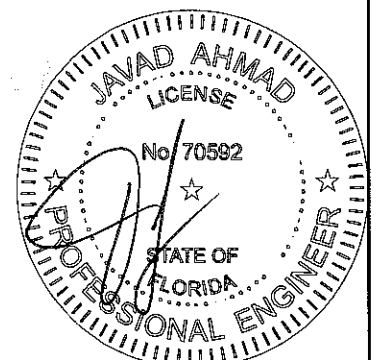
**XO LAYOUT**



**XOX LAYOUT**



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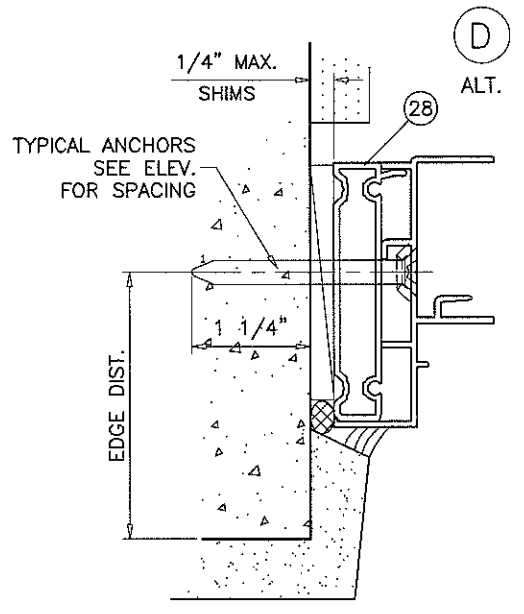
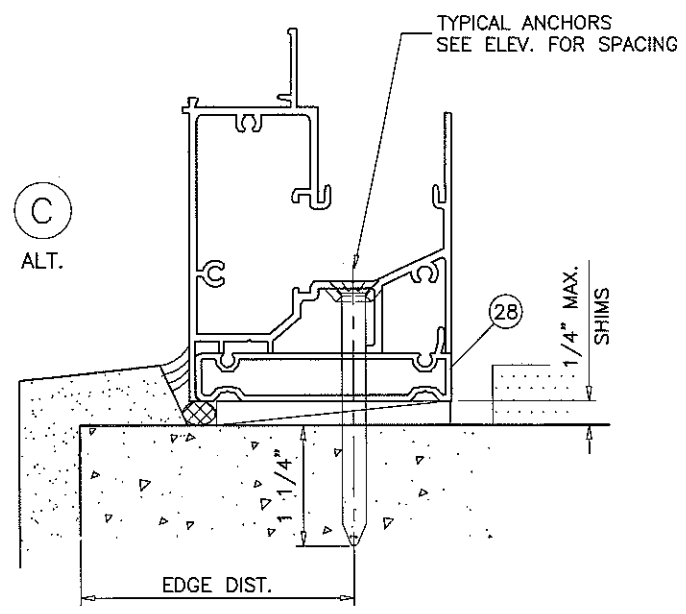
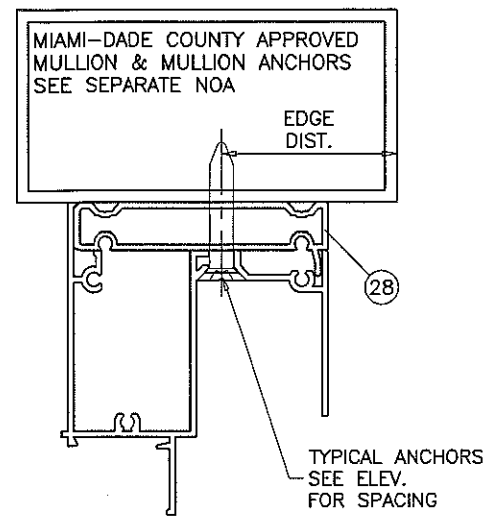
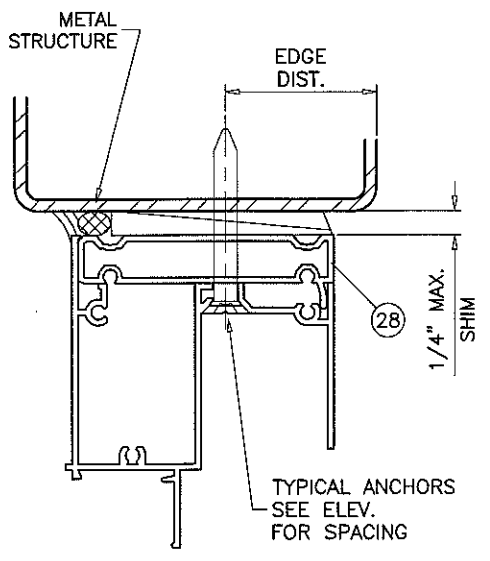
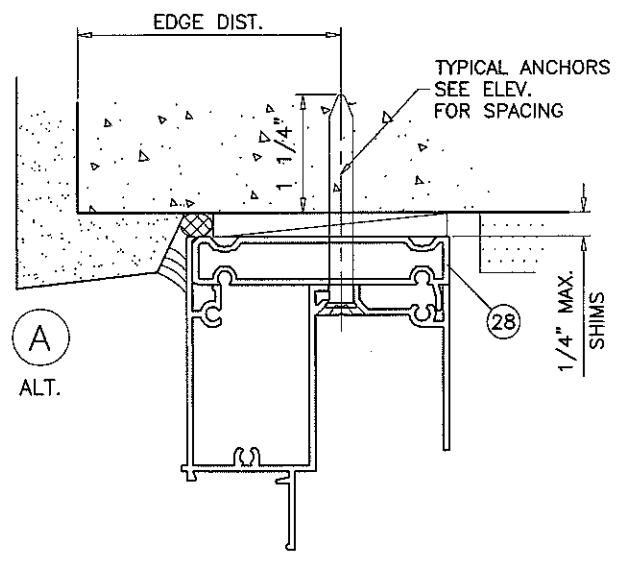
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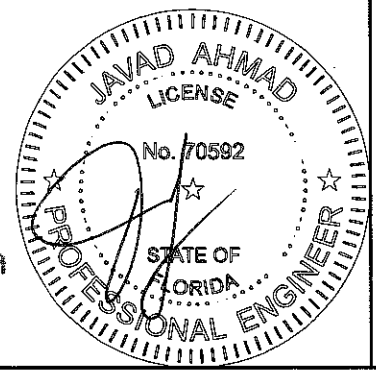
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 chk. by:  
 drawing no.  
**W09-12**  
 sheet 4 of 7





INSTALLATION DETAILS WITH FLUSH FRAME ADAPTER

PRODUCT REVISED  
 as complying with the Florida  
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 Expiration Date 05/21/2019  
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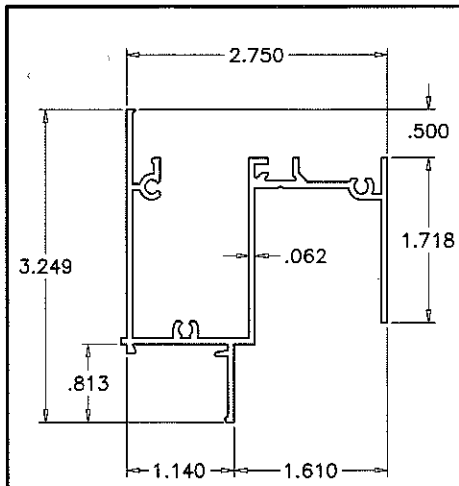
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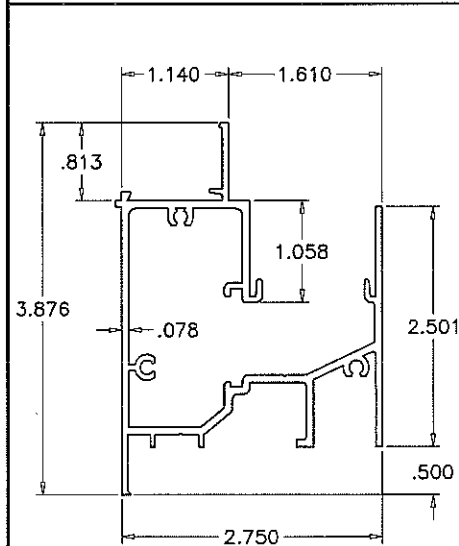
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| no | date     | by | description          |
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| D  | 02.12.14 |    | NO CHANGE THIS SHEET |
| E  | 07.15.15 |    | UPDATED TO 2014 FBC  |
| F  | 10.19.17 |    | UPDATED TO 2017 FBC  |

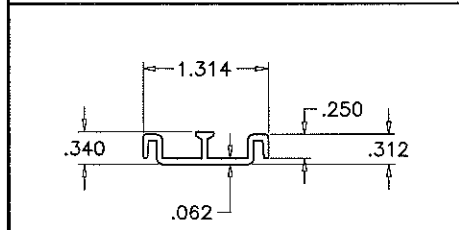
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**W09-12**  
 sheet 5 of 7



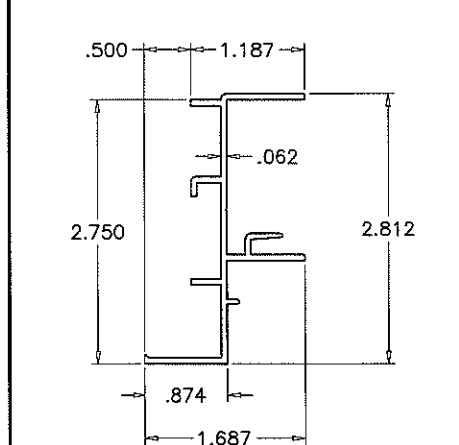
① FRAME HEAD



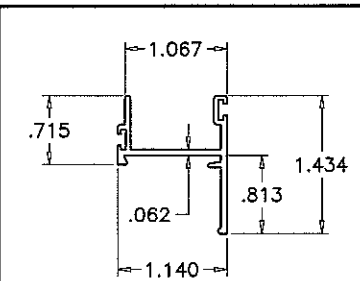
② FRAME SILL



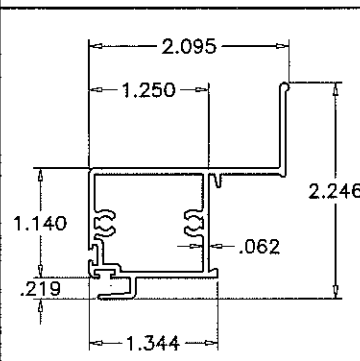
③ SILL TRACK



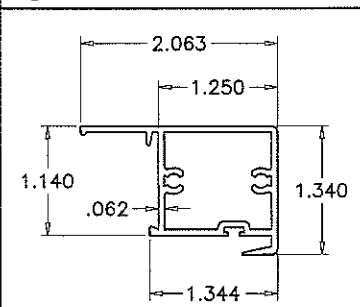
④ MOV. FRAME JAMB



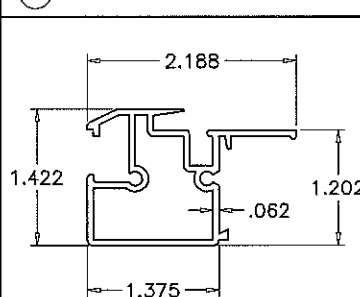
⑨ VENT TOP/BOTTOM RAIL



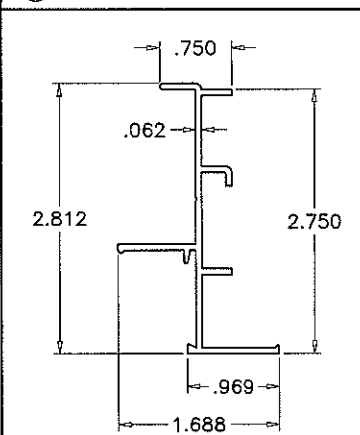
⑧ JAMB STILE



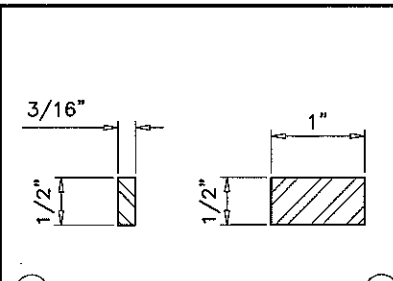
⑦ MEETING RAIL



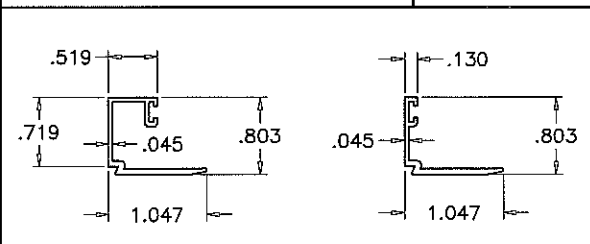
⑥ FIXED MTG. RAIL



⑤ FIXED FRAME JAMB



STEEL REINFORCING



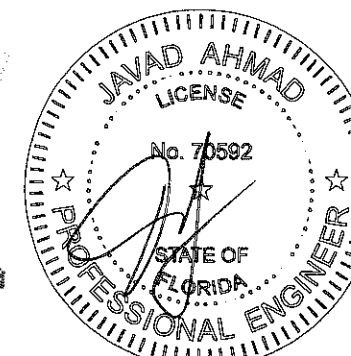
GLAZING BEADS



⑳ FLUSH FRAME ADAPTER

| ITEM | PART #    | QUANTITY  | DESCRIPTION                      | MATERIAL   | MANF./SUPPLIER/REMARKS   |
|------|-----------|-----------|----------------------------------|------------|--------------------------|
| 1    | FY201     | 1         | FRAME HEAD                       | 6063-T6    | -                        |
| 2    | FY202     | 1         | FRAME SILL                       | 6063-T6    | -                        |
| 3    | FY203     | 1         | SILL TRACK INSERT                | 6063-T6    | -                        |
| 4    | FY205     | AS REQD.  | MOV. FRAME JAMB                  | 6063-T6    | -                        |
| 5    | FY101     | AS REQD.  | FIXED FRAME JAMB                 | 6063-T6    | -                        |
| 6    | FY104     | 1/ VENT   | FIXED MTG. RAIL                  | 6063-T6    | -                        |
| 7    | FY105     | 1/ VENT   | VENT INTERLOCK                   | 6063-T6    | -                        |
| 8    | FY206     | 1/ VENT   | JAMB STILE                       | 6063-T6    | -                        |
| 9    | FY107     | 2/ VENT   | TOP AND BOTTOM RAIL              | 6063-T6    | -                        |
| 10   | FY108     | AS REQD.  | GLAZING BEAD (LAM. GLASS)        | 6063-T6    | -                        |
| 10A  | FY110     | AS REQD.  | GLAZING BEAD (INSUL. LAM. GLASS) | 6063-T6    | -                        |
| 11   | -         | AS REQD.  | REINFORCING BAR                  | STEEL      | -                        |
| 12   | -         | AS REQD.  | REINFORCING BAR                  | STEEL      | -                        |
| 13   | FY204     | AS RTEQD. | ADD-ON SILL RISER                | 6063-T6    | USE AS REQD.             |
| 14   | FY208     | 4/ VENT   | ROLLER HOUSING & GUIDE           | CELCON     | -                        |
| 15   | FY209     | 2/ VENT   | ROLLER                           | BRASS      | -                        |
| 16   | FY210     | 2/ VENT   | ROLLER PIN                       | ST. STEEL  | -                        |
| 17   | #8 X 1"   | AS REQD.  | FRAME/VENT ASSEMBLY SCREWS       | CRS        | P.H. SMS                 |
| 18   | #8 X 3"   | 2/ VENT   | FIX. RAIL SILL SCREWS (SILL END) | CRS        | P.H. SMS                 |
| 19   | W23181    | AS REQD.  | FIN SEAL W'STRIPPING             | -          | ULTRAFAB                 |
| 20   | Q300T190  | AS REQD.  | BULB SEAL                        | Q-LON      | SCHLEGEL                 |
| 21   | E207      | AS REQD.  | BULB SEAL                        | SANTOPRENE | ULTRAFAB, DUROMETER 65±5 |
| 22   | E203      | AS REQD.  | GLAZING BEAD BULB                | SANTOPRENE | ULTRAFAB, DUROMETER 65±5 |
| 23   | FLB-50    | AS REQD.  | GLASS SPACER                     | SILICONE   | FRANK LOWE               |
| 24   | SL203P    | 2/ VENT   | SWEEP LATCH                      | -          | SULLIVAN & ASSOC.        |
| 25   | #8 X 1/8" | 2/ LATCH  | LATCH INST. SCREW                | ST. STEEL  | OH SMS                   |
| 26   | WA2L      | 2/ WDW.   | WEEP VALVE                       | -          | PREFERRED ENG. PRODUCTS  |
| 27   | -         | 1/ VENT   | 5/16" BOX SCREEN                 | -          | OPTIONAL                 |
| 28   | FY120     | -         | FLUSH FRAME ADAPTER              | 6063-T6    | OPTIONAL                 |
| 29   | -         | 2/ LITE   | SETTING BLOCK                    | EPDM       | DUROMETER 80±5 SHORE A   |

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 MIAMI, FLORIDA 33173 (C.A.N. 3538)  
 TEL. (305) 284-8100 FAX. (305) 262-6978  
 COMP-ANL W09-12ECO

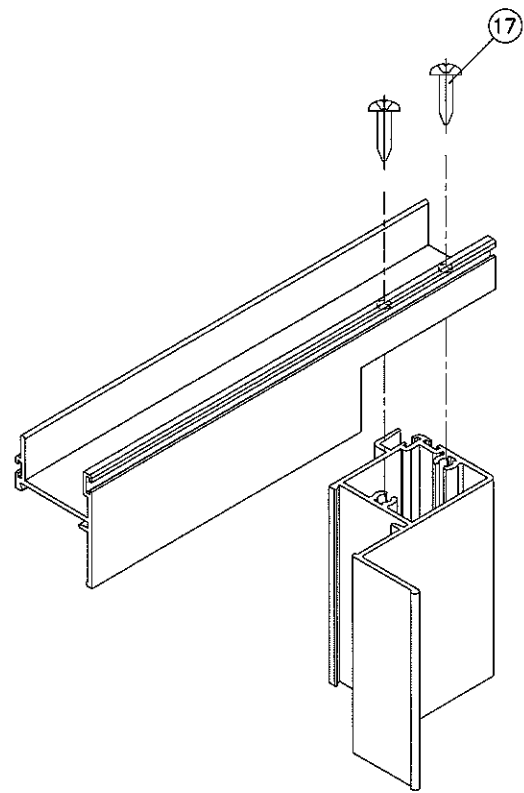
ECO-GUARD SERIES-200 ALUM. HORIZ. ROLLING WDW. (L.M.I.)  
**ECO WINDOW SYSTEMS, LLC.**  
 8502 N.W. 80th STREET  
 MEDLEY, FL. 33166  
 TEL. (305) 885-5299 FAX (305) 885-5902

Revisions:

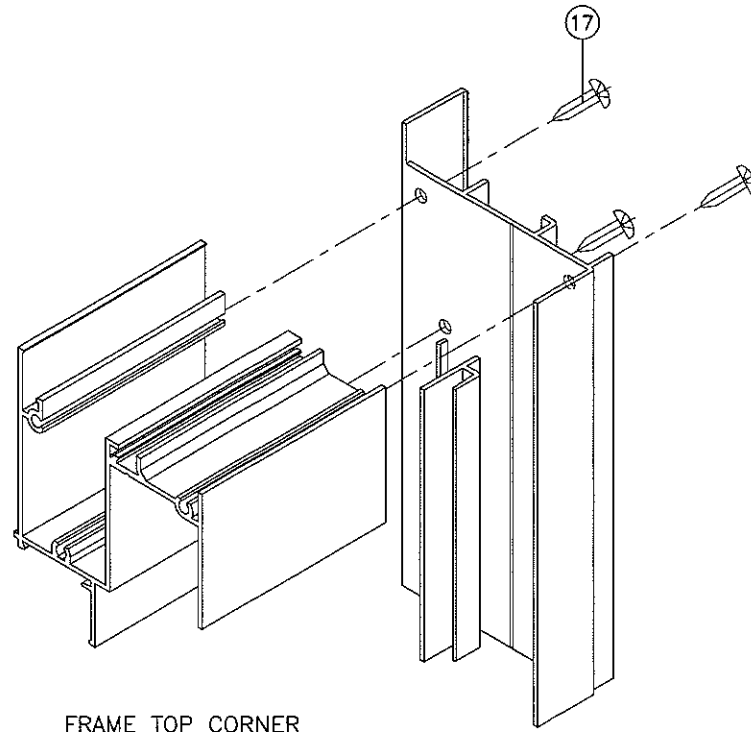
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| C  | 01.11.13 | MANUF. ADDRESS REV. |
| D  | 02.12.14 | GLASS OPTION ADDED  |
| E  | 07.15.15 | UPDATED TO 2014 FBC |
| F  | 10.19.17 | UPDATED TO 2017 FBC |

date: 02-24-09  
 scale: 1/2" = 1"  
 dr. by: TARIQ  
 chk. by:

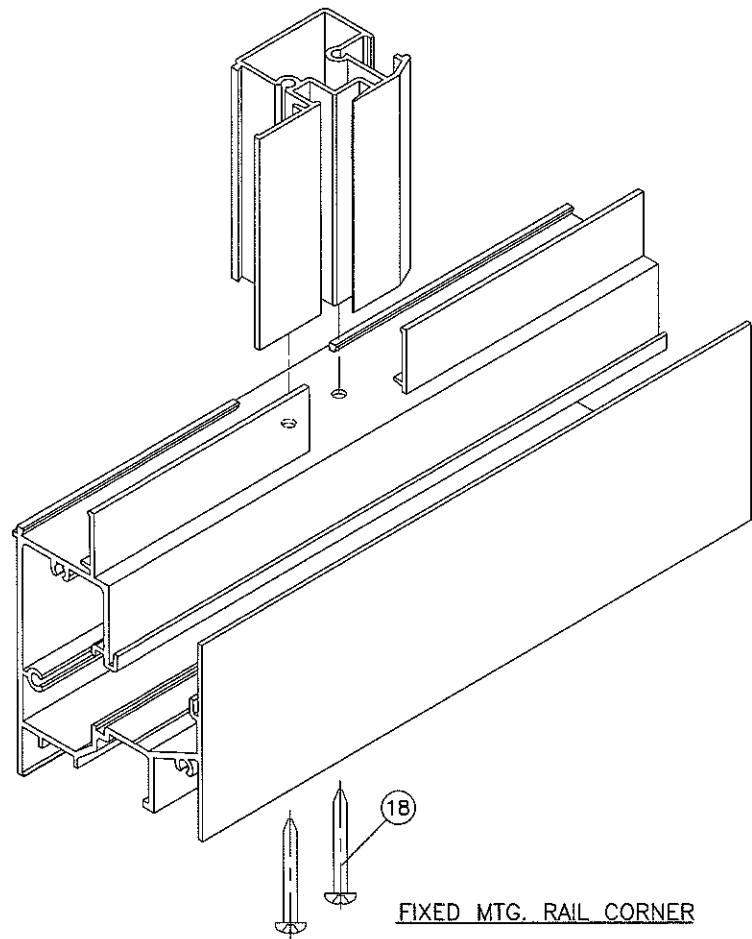
drawing no.  
**W09-12**  
 sheet 6 of 7



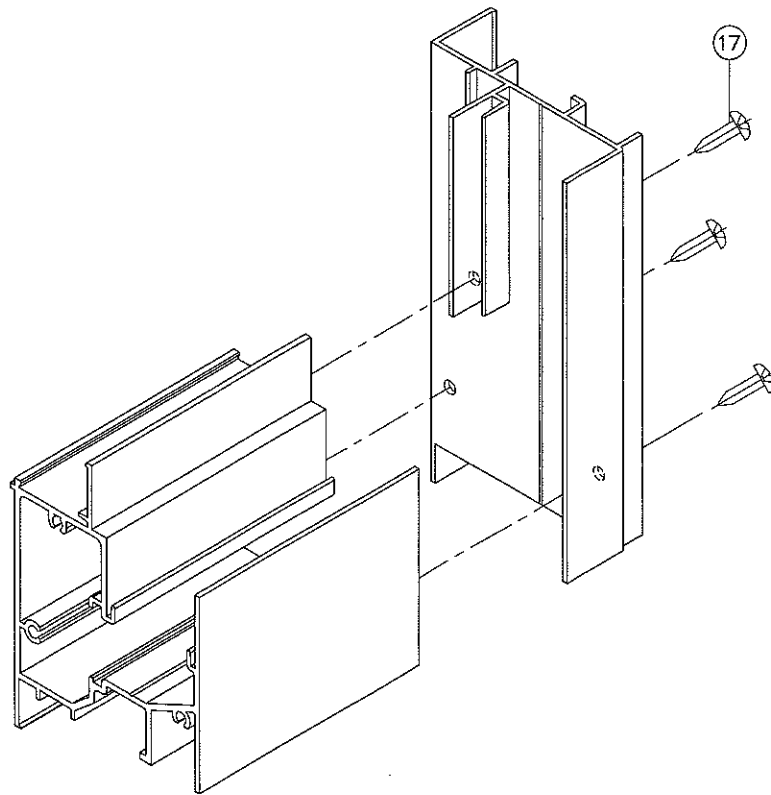
VENT TOP/BOTTOM CORNERS



FRAME TOP CORNER

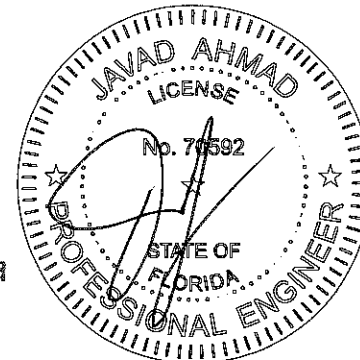


FIXED MTG. RAIL CORNER



FRAME BOTTOM CORNER

PRODUCT REVISED  
 as complying with the Florida  
 Building Code  
 Acceptance No 17-1102.23  
 Expiration Date 05/21/2019  
 By Sifang Zhao  
 Miami Dade Product Control



**afc**  
**AL-FAROOQ CORPORATION**  
 ENGINEERS & PRODUCT DEVELOPMENT  
 9360 SUNSET DRIVE, SUITE 220 (C.A.N. 3538)  
 MIAMI, FLORIDA 33173  
 TEL. (305) 264-8100 FAX. (305) 262-6978  
 COMP-ANL\W09-12ECO

ECO-GUARD SERIES-200 ALUM HORIZ. ROLLING WDW. (L.M.I.)  
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 MEDLEY, FL. 33166  
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| no. | date     | by | description          |
|-----|----------|----|----------------------|
| C   | 01.11.13 |    | MANUF. ADDRESS REV.  |
| D   | 02.12.14 |    | NO CHANGE THIS SHEET |
| E   | 07.15.15 |    | NO CHANGE THIS SHEET |
| F   | 10.19.17 |    | UPDATED TO 2017 FBC  |

date: 02-24-09  
 scale: 1/2" = 1"  
 dr. by: TARIQ  
 chk. by:

drawing no.  
**W09-12**  
 sheet 7 of 7