

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

WINDOWS NOT RATED FOR IMPACT.  
INSTALLATION OF THIS SYSTEM OUTSIDE THE HVHZ AREA SHALL MEET  
THE APPLICABLE REQUIREMENTS FOR WIND BORNE DEBRIS PROTECTION.

**SERIES ES-P250 (N.I.)**  
**ALUMINUM THERMALLY BROKEN CASEMENT WINDOW**

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE  
COMBINATIONS OF CASMT./CASMT. OR CASEMENT WITH OTHER  
WINDOW TYPES IN MODULES OF TWO OR MORE WINDOWS USING  
F.B.C. 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 2020 (7TH EDITION)/2023 (8TH EDITION) FLORIDA  
BUILDING CODE FOR NON HIGH VELOCITY HURRICANE ZONE.

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.

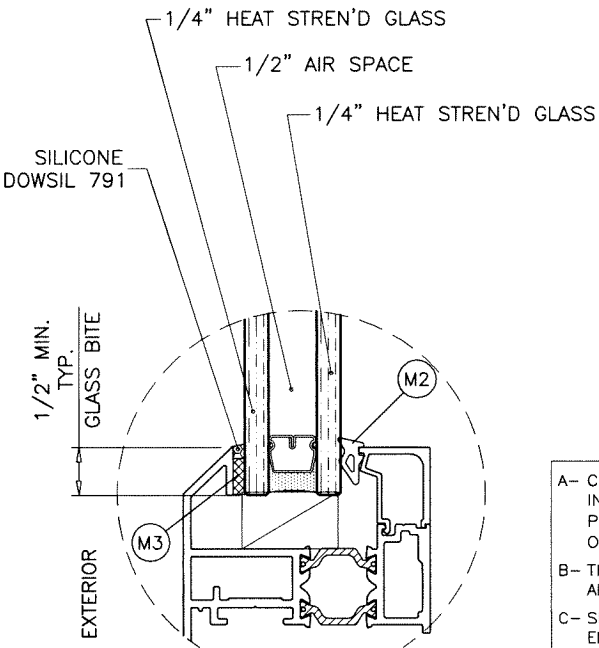
ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT  
COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE  
REQUIREMENTS OF THE 2020/2023 FLORIDA BLDG. CODE & ADOPTED STANDARDS.

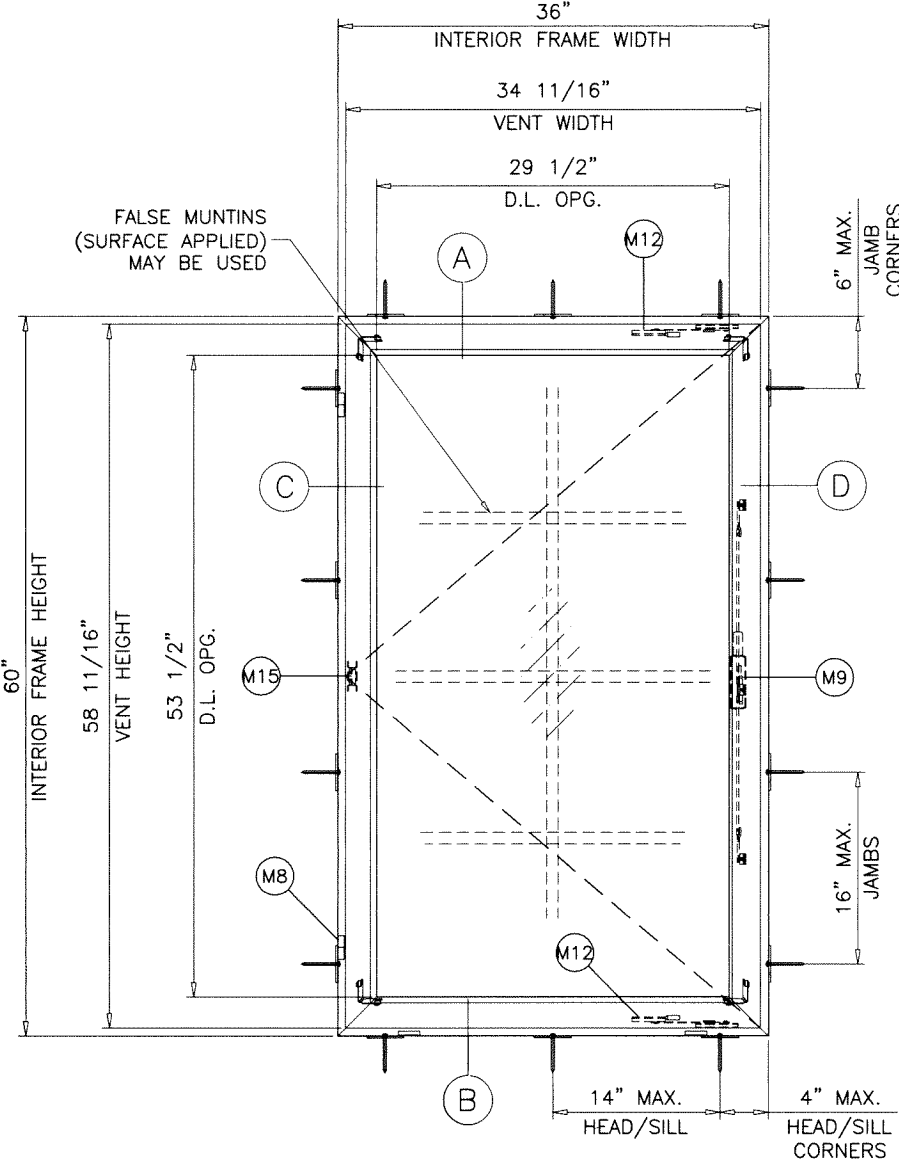
THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION  
FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY  
OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR  
WATER INFILTRATION RESISTANCE ETC.  
CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED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

DESIGN LOADS SHOWN ARE BASED ON 'ALLOWABLE STRESS DESIGN (ASD)'.

MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION  
IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE.  
LABELING TO COMPLY WITH SECTION 1709.9.2.



**GLAZING DETAIL**  
1" OVERALL INSUL. GLASS



**TYPICAL ELEVATION**

**MAXIMUM DESIGN LOAD RATING = + 70.0 PSF**  
(FOR SIZE SHOWN ABOVE OR SMALLER) - 70.0 PSF

Sealed: 10/9/2023

FL #19068

A- CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND  
INSTALLATION OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION  
PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED  
ON THIS DOCUMENT.

B- THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF  
ALTERED BY ANY MEANS.

C- SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED  
ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.)  
FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER  
USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED  
ENGINEER TO THE P.E.D. ENGINEER SHALL SUBMIT TO THIS LATTER THE SITE  
SPECIFIC DRAWINGS FOR REVIEW.

D- THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF  
THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.



**af c**

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

ES-P250 ALUM THERMALLY BROKEN CASEMENT W. (N.I.)

**E.S. WINDOWS, LLC**  
3550 N.W. 49 STREET  
MIAMI, FL. 33142  
TEL. (305) 638-5151 FAX. (305) 638-5158

| no | date     | by | description         |
|----|----------|----|---------------------|
| A  | 10.13.17 |    | UPDATED TO 2017 FBC |
| B  | 01.22.21 |    | UPDATED TO 2020 FBC |
| C  | 09.27.23 |    | UPDATED TO 2023 FBC |

date: 10-09-15

scale: 3/4"=1'-0"

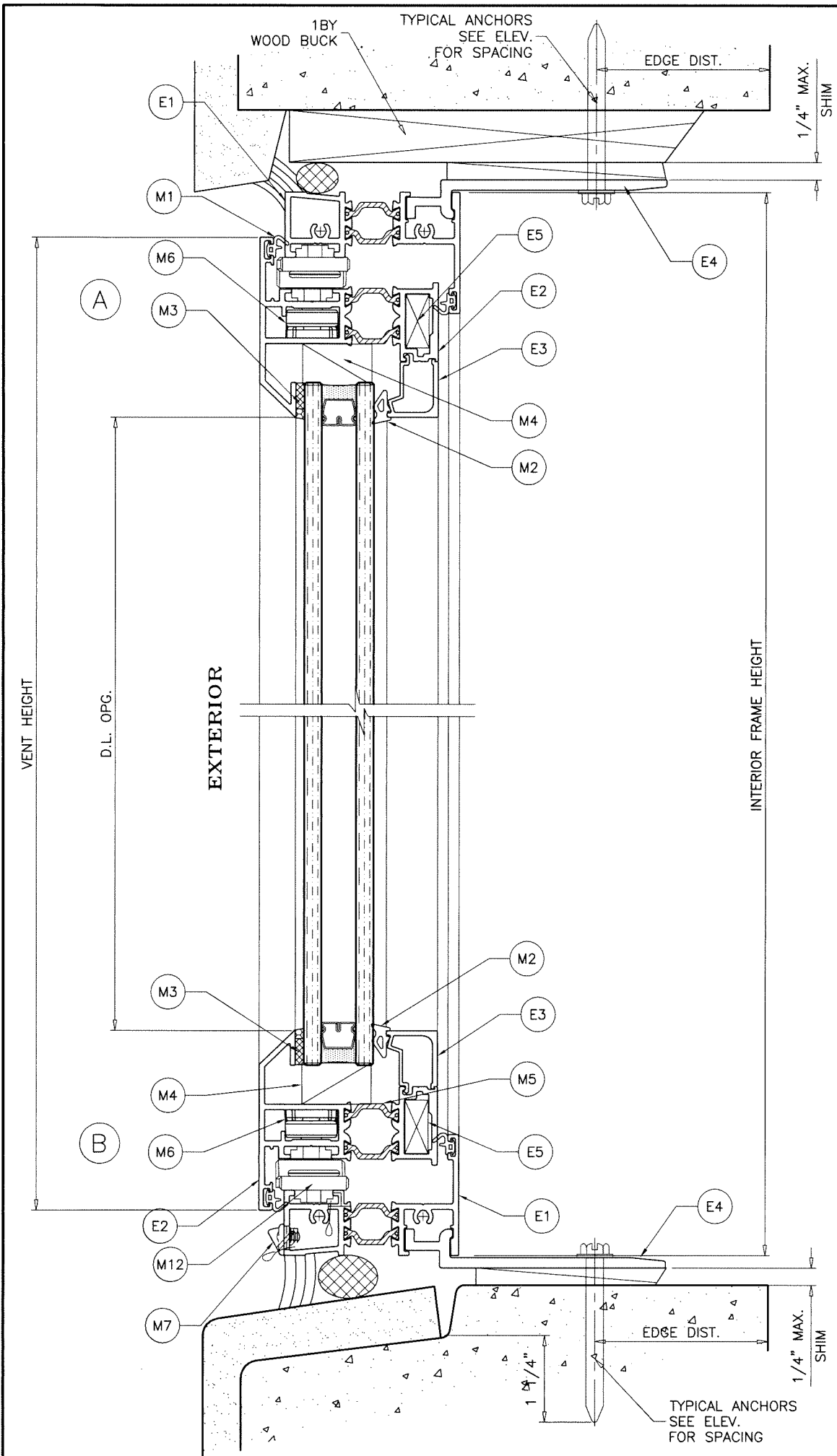
dr. by: TARIQ

chk. by:

drawing no.

**W15-76**

sheet 1 of 5

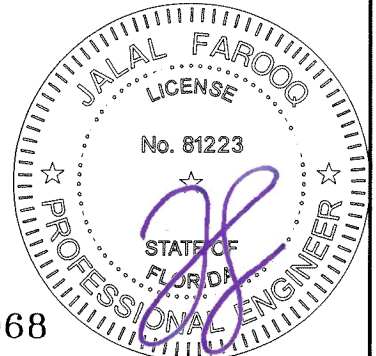


**WEEPHOLES:**

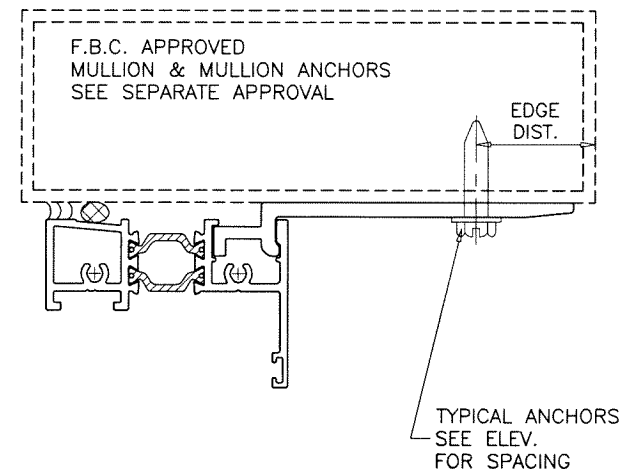
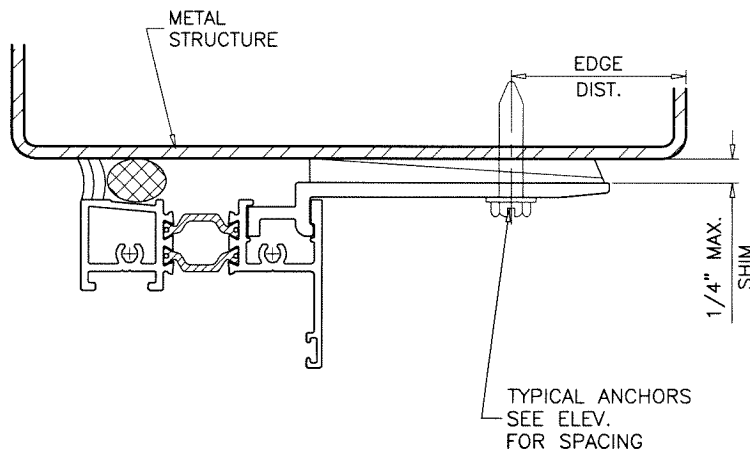
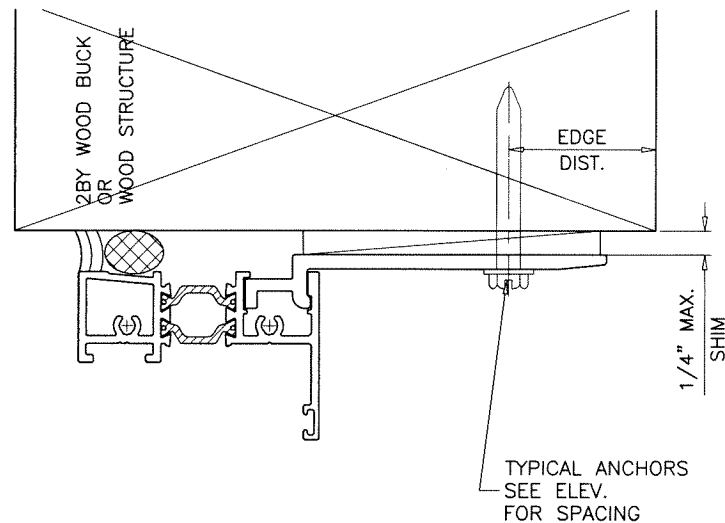
W1 = 1-1/4" X 1/4" WEEPHOLES WITH WEEP COVERS AT 7" FROM EACH END

Sealed: 10/9/2023

FL #19068



|                                                                                                                                                                                          |                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| <b>AL-FAROOQ CORPORATION</b><br>ENGINEERS & PRODUCT DEVELOPMENT<br>9360 SUNSET DRIVE, SUITE 220<br>MIAMI, FLORIDA 33173<br>TEL. (305) 264-8100 FAX. (305) 262-6978<br>COMP-ANL W15-76ESW |                                                                 |
| ES-P250 ALUM THERMALLY BROKEN CASEMENT W. (N.I.)                                                                                                                                         |                                                                 |
| <b>E.S. WINDOWS, LLC</b><br>3550 N.W. 49 STREET<br>MIAMI, FL. 33142<br>TEL. (305) 638-5151 FAX. (305) 638-5158                                                                           |                                                                 |
| revisions:<br>no. date by description                                                                                                                                                    | date: 10-09-15<br>scale: 1/2" = 1"<br>dr. by: TARIQ<br>chk. by: |
| drawing no.<br><b>W15-76</b>                                                                                                                                                             |                                                                 |
| sheet 2 of 5                                                                                                                                                                             |                                                                 |



**TYPICAL ANCHORS:** SEE ELEV. FOR SPACING

**#14 DIA. CRETE-FLEX SS4 BY 'DEWALT'** (Fu=190 KSI, Fy=127 KSI)

**1/4" DIA. AGGRE-GATOR 300 BY 'DEWALT'** (Fu=96 KSI, Fy=57 KSI)

**1/4" DIA. ULTRACON+ BY 'DEWALT'** (Fu=164 KSI, Fy=148 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)

1-1/4" MIN. EMBED INTO CONC. OR BLOCKS (JAMBS)

DIRECTLY INTO CONC. OR BLOCKS

1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL)

1-1/4" MIN. EMBED INTO CONC. OR BLOCKS (JAMBS)

**1/4" DIA. ULTRACON SS4 410 BY 'DEWALT'** (Fu=190 KSI, Fy=164 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)

1-1/4" MIN. EMBED INTO CONC. OR GROUT-FILLED BLOCKS (JAMBS)

DIRECTLY INTO CONC. OR BLOCKS

1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL)

1-1/4" MIN. EMBED INTO CONC. OR GROUT-FILLED BLOCKS (JAMBS)

**1/4" DIA. BI-FLEX 300 SELF DRILLING SCREWS BY 'DEWALT'**

**1/4" DIA. DRIL-FLEX SELF DRILLING SCREWS BY 'DEWALT'** (GRADE 5 CRS)

INTO F.B.C. APPROVED MULLIONS

AND

INTO METAL STRUCTURES (HEAD/SILL/JAMBS)

(3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS

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)

#### **ANCHOR EDGE DISTANCES**

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.

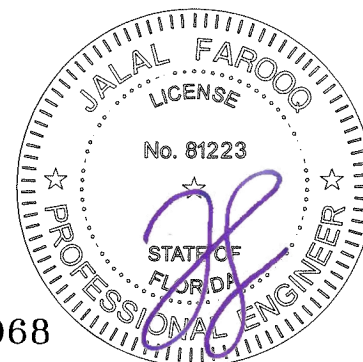
CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN.

C-90 HOLLOW/FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.

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

Sealed: 10/9/2023

FL #19068



ES-P250 ALUM THERMALLY BROKEN CASEMENT W. (N.I.)

**E.S. WINDOWS, LLC**

3550 N.W. 49 STREET

MIAMI, FL. 33142

TEL. (305) 638-5151 FAX. (305) 638-5158

revisions: no date by description

date: 10-09-15

scale: 1/2" = 1"

dr. by: TARIQ

chk. by:

drawing no.

**W15-76**

sheet 3 of 5

**a f c**

**AL-FAROOQ CORPORATION**

ENGINEERS & PRODUCT DEVELOPMENT

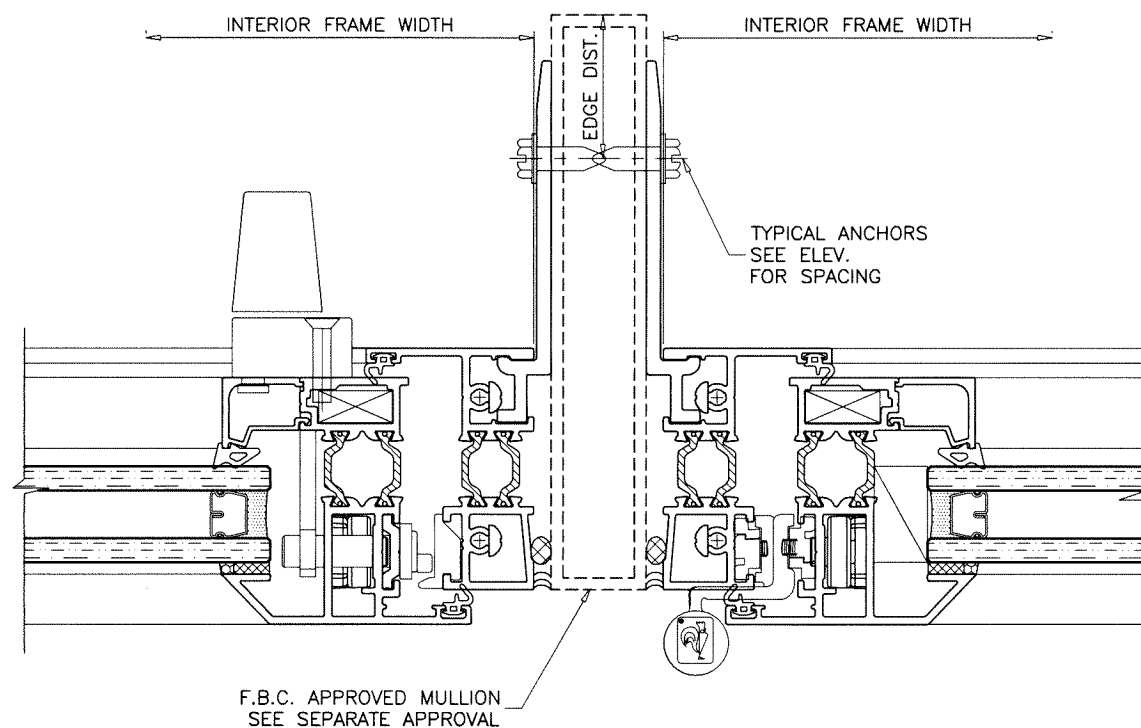
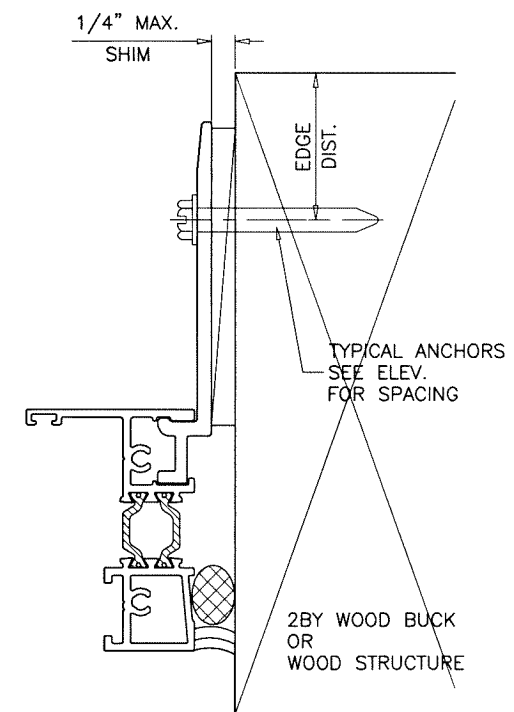
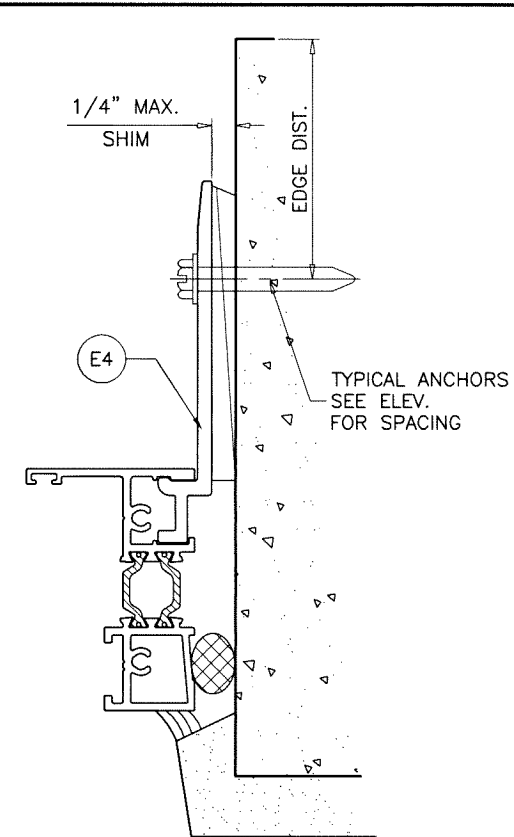
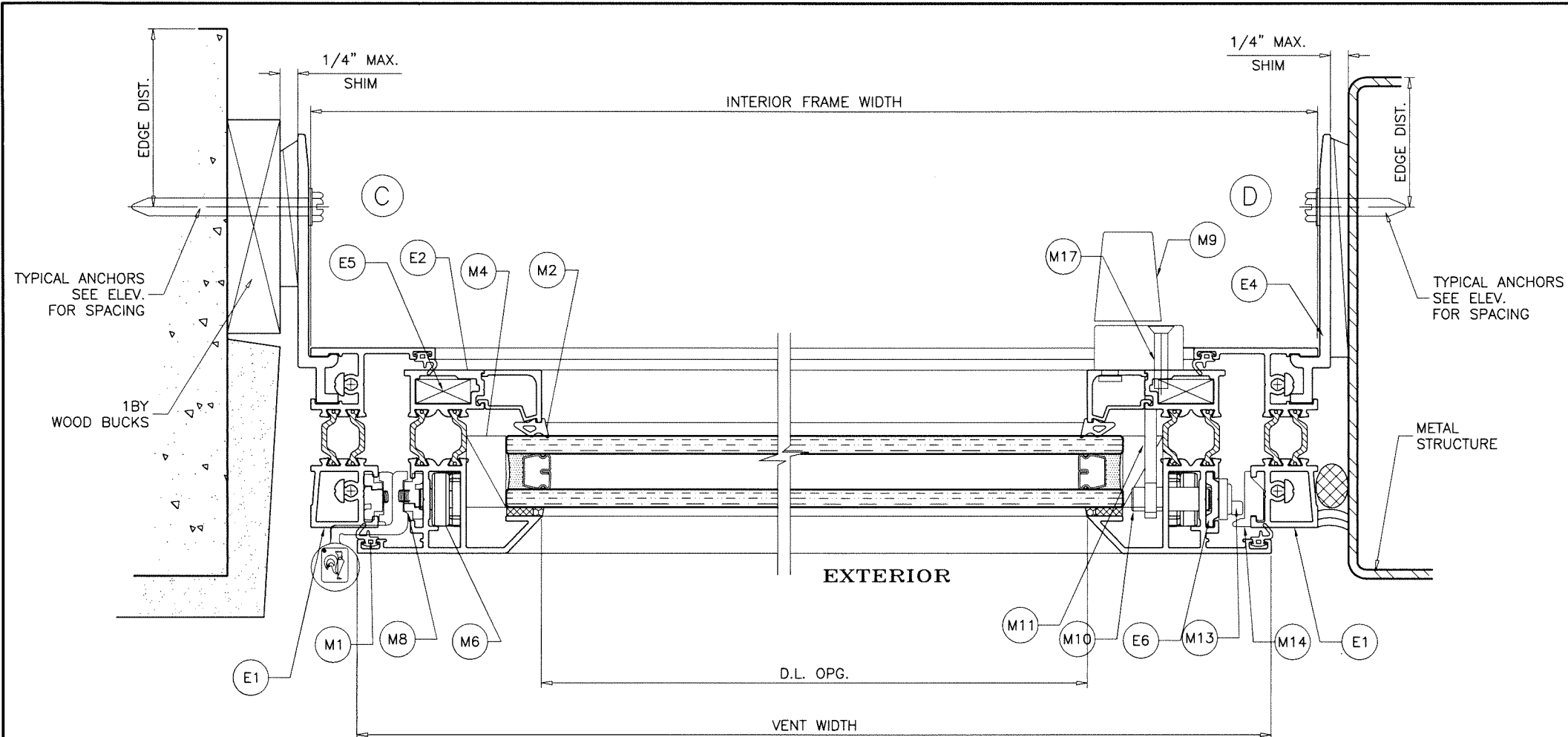
9360 SUNSET DRIVE, SUITE 220

MIAMI, FLORIDA 33173

TEL. (305) 264-8100 FAX. (305) 262-6978

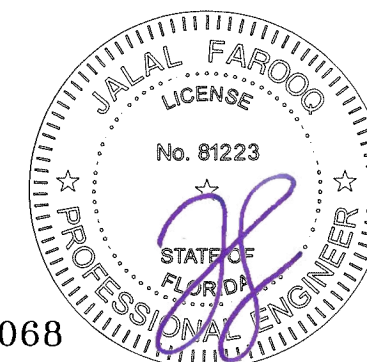
(C.A.N. 3538)

COMP-ANL\W15-76ESW

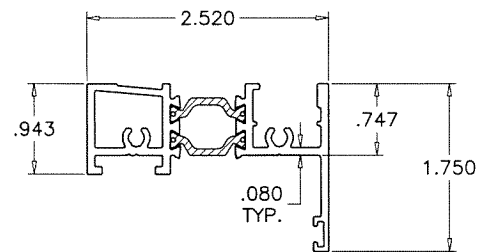


Sealed: 10/9/2023

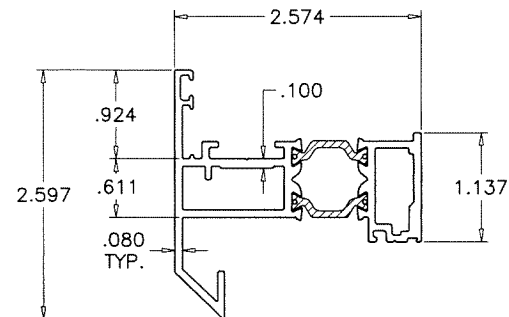
FL #19068



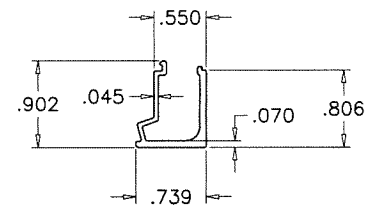
|                                                                                                                                                                                     |                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| <b>AL-FAROOQ CORPORATION</b><br>ENGINEERS & PRODUCT DEVELOPMENT<br>9360 SUNSET DRIVE, SUITE 220<br>MIAMI, FLORIDA 33173<br>TEL. (305) 264-8100 FAX. (305) 262-6978<br>(C.A.N. 3538) |                                                                 |
| ES-P250 ALUM THERMALLY BROKEN CASEMENT W. (N.I.)                                                                                                                                    |                                                                 |
| <b>E.S. WINDOWS, LLC</b><br>3550 N.W. 49 STREET<br>MIAMI, FL. 33142<br>TEL. (305) 638-5151 FAX. (305) 638-5158                                                                      |                                                                 |
| revisions:<br>no date by description                                                                                                                                                | date: 10-09-15<br>scale: 1/2" = 1"<br>dr. by: TARIQ<br>chk. by: |
| drawing no.<br><b>W15-76</b>                                                                                                                                                        |                                                                 |
| sheet 4 of 5                                                                                                                                                                        |                                                                 |



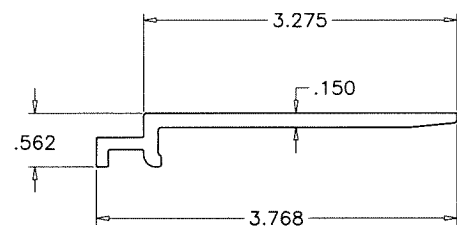
E1 FLUSH FRAME HEAD/SILL/JAMB



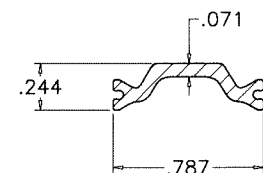
E2 VENT



E3 GLASS STOP



E4 STRAP ANCHOR



M5 20MM OFFSET

TECATHERM® 66 GF INSULBAR  
SCALE 1:1

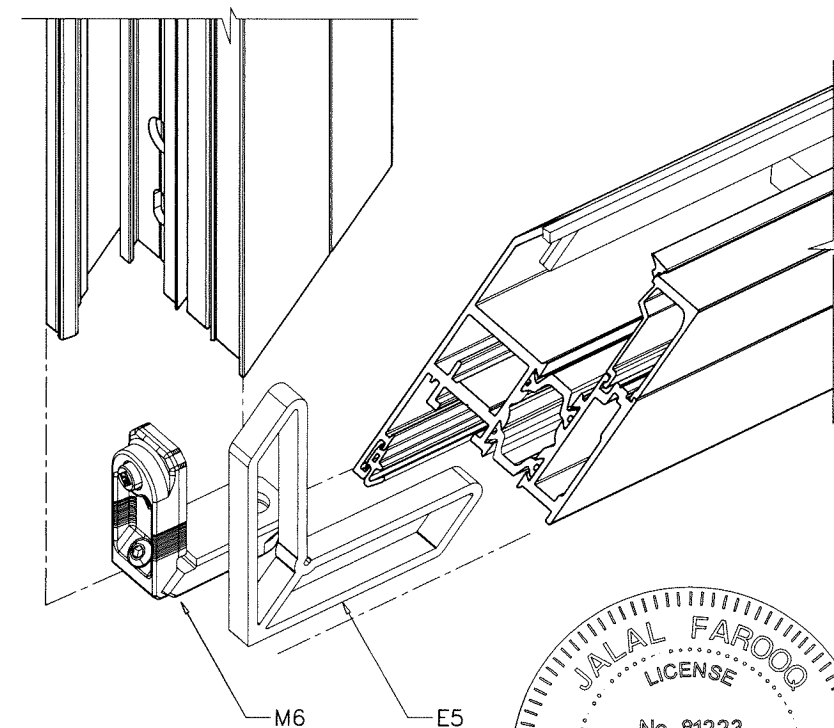
MATERIAL = POLYAMIDE  
TENSILE STRENGTH = 13031 PSI  
RATE OF BURN = .752 IN./MIN.  
SELF IGNITION TEMP. = 793° F  
FLASH IGNITION TEMP. = 781°C  
SMOKE DENSITY = 1.63

| ITEM # | PART #          | REQD.     | DESCRIPTION                           | MATERIAL      | MANF./SUPPLIER/REMARKS                       |
|--------|-----------------|-----------|---------------------------------------|---------------|----------------------------------------------|
| E1     | ES-P250-001-002 | 4         | WINDOW FRAME                          | 6063-T6       | -                                            |
| E2     | ES-P250-003-004 | 4         | VENT                                  | 6063-T6       | -                                            |
| E3     | ES-P250-005     | 4         | GLASS STOP                            | 6063-T5       | -                                            |
| E4     | ES-P252-007     | AS REQD.  | STRAP ANCHOR, 4" LONG                 | 6005-T5       | -                                            |
| E5     | ES-P251-018     | 1/ CORNER | CORNER KEY, 3/8" LONG                 | 6005-T5       | -                                            |
| E6     | ES-EUR-001      | -         | EURO BAR                              | 6063-T6       | -                                            |
| M1     | ES-P251-G01     | AS REQD.  | INTERIOR AND EXTERIOR W'STRIPPING     | EPDM          | TREMCO TR-19602E, DUROMETER 70±5 SHORE A     |
| M2     | ES-P251-G03     | AS REQD.  | GLAZING GASKET (INTERIOR)             | EPDM          | TREMCO TR-3234E, DUROMETER 70±5 SHORE A      |
| M3     | V2200           | AS REQD.  | 1/4" X 1/8" SINGLE FACE GLAZING TAPE  | POLYURETHANE  | NORTON                                       |
| M4     | ES-21-B02       | 2/ SIDE   | SETTING BLOCK, 4" LONG, AT 1/4 POINTS | EPDM          | SOLUCIONES EN CAUCHO, DUROMETER 80±5 SHORE A |
| M5     | 2479            | AS REQD.  | INSULBAR 20MM OFFSET                  | POLYAMIDE     | ENSINGER                                     |
| M6     | 0337            | 1/ CORNER | CORNER JOINT                          | CAST ALUMINUM | MASTER                                       |
| M7     | WA2L            | AS REQD.  | WEEP COVER                            | RIGID PVC     | PREFERRED                                    |
| M8     | A105X0036       | -         | BUTT HINGE KLEMMBAND                  | ALUMINUM      | DR. HAHND                                    |
| M9     | MHSS1500-525010 | -         | HANDLE SI-LINE LMDA                   | CAST ALUMINUM | SIEGENIA                                     |
| M10    | 899915          | -         | HANDLE PIN SET                        | ST. STEEL     | SIEGENIA                                     |
| M11    | 895955          | -         | HANDLE FORK                           | CAST ALUMINUM | SIEGENIA                                     |
| M12    | 876-8           | -         | LIMIT DEVICE                          | ST. STEEL     | AMC                                          |
| M13    | 717875          | -         | LOCKING BOLT DOUBLE                   | CAST ALUMINUM | SIEGENIA                                     |
| M14    | 859322          | -         | STRIKER                               | CAST ALUMINUM | SIEGENIA                                     |
| M15    | 857052          | -         | SNUBBER KIT                           | CAST ALUMINUM | SIEGENIA                                     |
| M16    | #10 X 1-1/4"    | -         | ASSEMBLY FASTENERS                    | ST/ST         | PH SMS                                       |
| M17    | #8 X 1-1/2"     | -         | HANDLE ASSEMBLY FASTENER              | ST/ST         | FH SMS                                       |
| M18    | #10 X 1/2"      | -         | LIMIT DEVICE SECURITY SCREW           | ST/ST         | FH PIN IN-HEX                                |

NOTE: HARDWARE AS SHOWN OR EQUIVALENT.

### SEALANT:

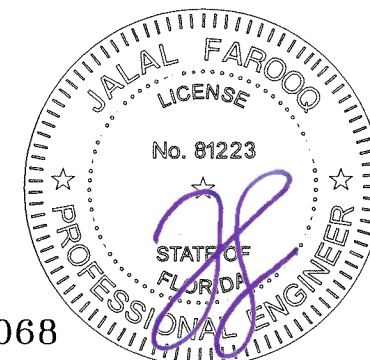
ALL JOINTS AND FRAME CONNECTIONS SEALED WITH  
WHITE/ALUMINUM COLORED SILICONE.



VENT ASSEMBLY

Sealed: 10/9/2023

FL #19068



ES-P250 ALUM THERMALLY BROKEN CASEMENT W. (N.I.)

E.S. WINDOWS, LLC  
3550 N.W. 49 STREET  
MIAMI, FL. 33142

TEL. (305) 638-5151 FAX. (305) 638-5158

AL-FAROOQ CORPORATION  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE, SUITE 220  
MIAMI, FLORIDA 33173  
TEL. (305) 264-8100 FAX. (305) 262-6978  
(C.A.N. 3538)

COMP-ANL\W15-76ESW

revisions:  
no date by description

date: 10-09-15

scale: 1/2" = 1"

dr. by: TARIQ

chk. by:

drawing no.

W15-76

sheet 5 of 5