

**PRODUCT EVALUATION REPORT****EKU-53 OUTSWING ALUMINUM CASEMENT WINDOW:**

**Product: FL18426.1**  
**EKU-53 Outswing Aluminum Casement Window**  
**Large Missile Small Impact Resistant.**

**Manufacturer: La Finestra**  
2790 N.W. 104 Court  
Miami, FL 33172  
(305) 599-8093

**Statement of Compliance:** This report evaluates the above-listed product per the requirements of FAC Product Approval Rule Chapter 9N-3.005 (4), using 9N-3.005 Method 1-D (Engineering Evaluation). This product complies with the requirements of the Florida Building Code both inside and outside of the High Velocity Hurricane Zone. The product testing standards performed are outlined below.

**Technical Documentation:**

- 1) Installation Drawings **FN-EKU53**, Signed and Sealed by William D. Cook, P.E. on 08/28/2015.
  
- 2) Testing to TAS 201, TAS 202, and TAS 203 from
  - Hurricane Engineering & Testing Inc. 6120 NW 104 Court, Doral, Florida 33178, Test Reports No.: **HETI-11-3365, HETI-10-3010, HETI-10-3009, HETI-10-3003, HETI-10-3002, HETI-09-2677, HETI-09-2627** all dated 04/14/10, all Signed and Sealed by Candido Font, P.E.,
  - Hurricane Engineering & Testing Inc. 6120 NW 104 Court, Doral, Florida 33178, Test Reports No.: **HETI-11-3365**, dated 05/28/13, Signed and Sealed by Candido Font, P.E.,
  - Fenestration Testing Laboratory, Inc. 1677 West 31<sup>st</sup> Place, Hialeah, Florida 33012, Test Reports No. **FTL-4531**, dated 07/11/05 and Test Report No. **FTL-3881** dated 10/18/04, both signed and sealed by Edmundo Largaespada, P.E.
  
- 3) Supplemental Calculations to support **FN-EKU53**, signed and sealed by William D. Cook, P.E.

# Bromley • Cook | ENGINEERING

STRUCTURAL ENGINEERING SERVICES

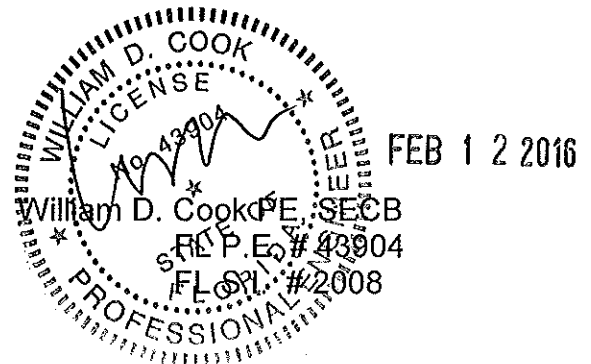
5440 N.W. 33rd Avenue  
Suite 100  
Fort Lauderdale, FL 33309  
tel: 954-772-4624  
fax: 954-772-4634

## Limitations of Use for this product:

- See Installation Drawings **FN-EKU53** for approved anchor methods and spacing.
- Product is impact rated and does not require the use of shutters in windborne debris regions.
- May be used inside and outside the High Velocity Hurricane Zone.
- See Installation Drawings **FN-EKU53** for size and design pressure limitations

**Certification of Independence:** Bromley-Cook Engineering and William D. Cook, P.E. do not have nor will acquire financial interest in the company manufacturing or distributing the product or in any other entity involved in the approval process of the product named in this evaluation report.

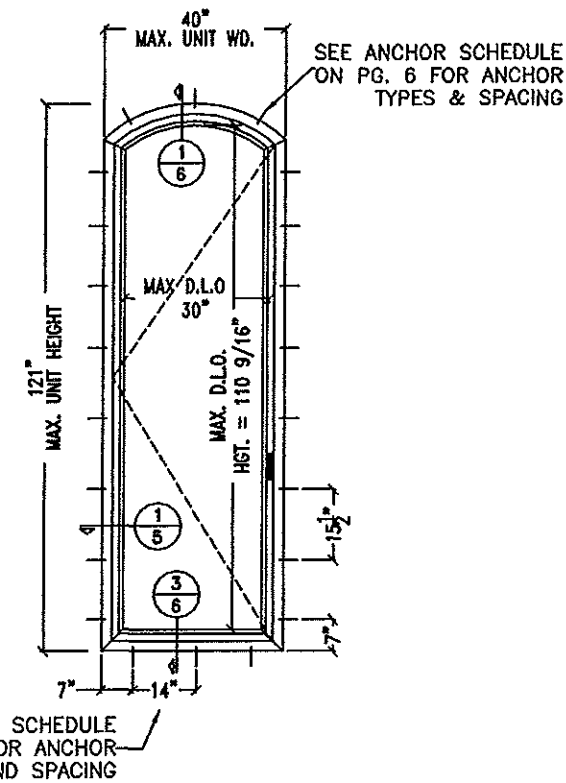
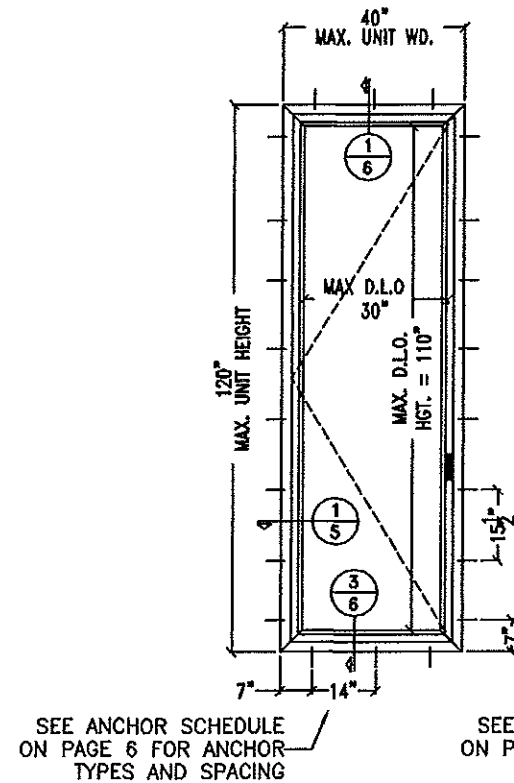
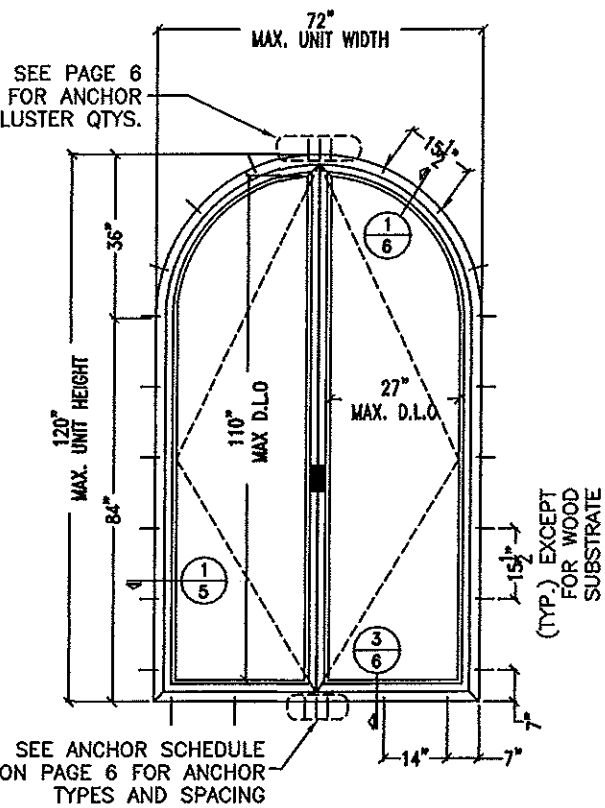
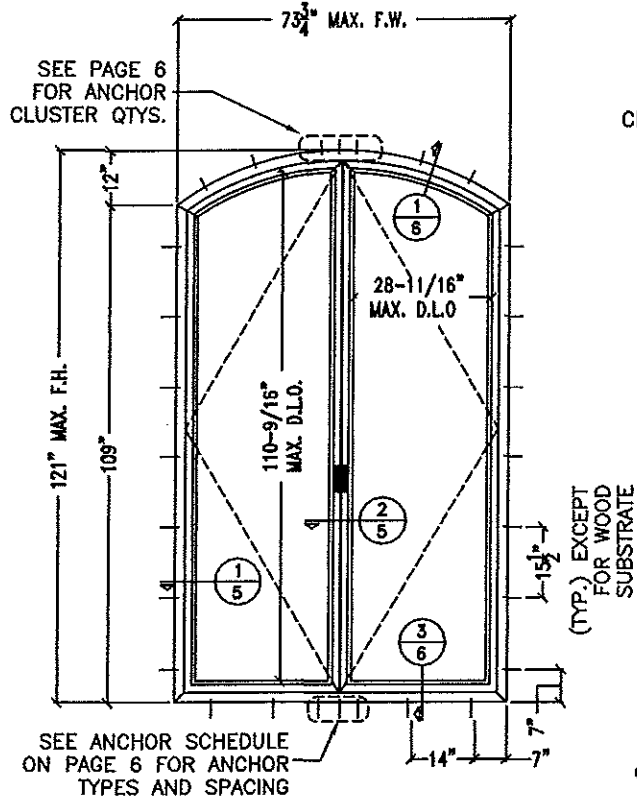
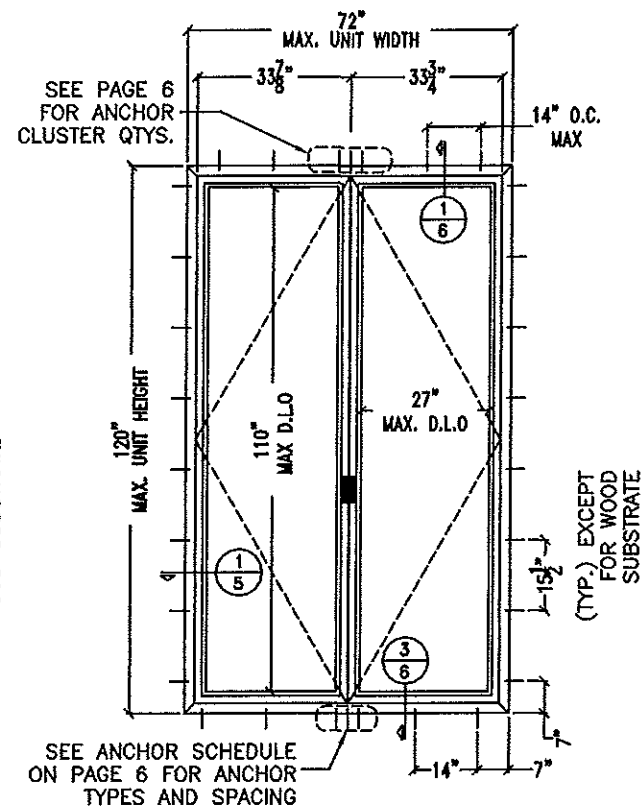
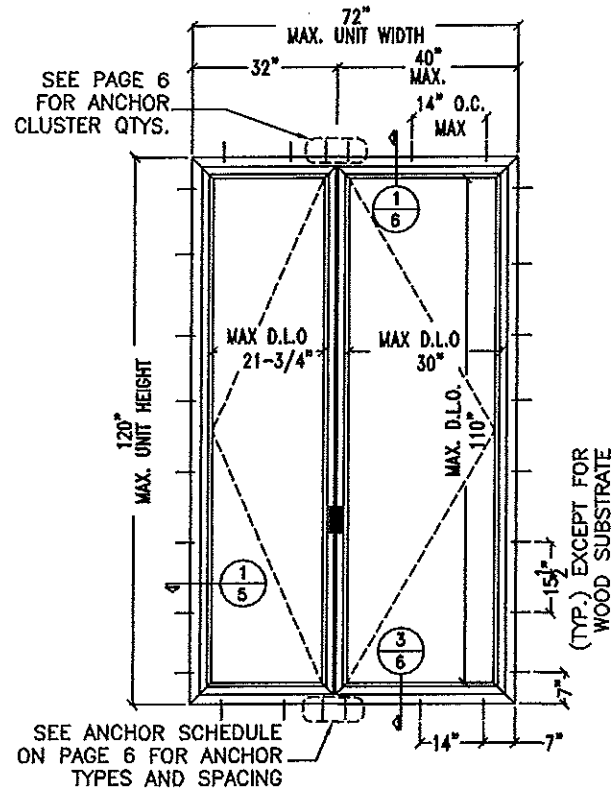
For further questions please contact this firm.



LA FINESTRA, LC SERIES: EKU 53 OUTSWING CASEMENT WINDOW (HIGH LOAD)

TYPICAL UNIT ELEVATIONS

MAX. WINDOW SIZES SHOWN  
 MULTIPLE UNITS STACKED SIDE BY SIDE  
 MUST HAVE APPROVED MULLIONS BETWEEN EACH WINDOW FRAME  
 \*(SEE ALTERNATE CONFIGURATIONS ON PAGE 2)



NOTES:

1. THIS SYSTEM HAS BEEN DESIGNED TO COMPLY WITH THE REQUIREMENTS OF THE HIGH VELOCITY HURRICANE ZONE AS DESCRIBED IN THE FLORIDA BUILDING CODE 5TH EDITION (2014)
2. THIS WINDOW SYSTEM HAS BEEN TESTED, ENGINEERED AND APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN SCHEDULE.
3. BUCK, OPENINGS & BUCK FASTENERS MUST BE DESIGNED & INSTALLED TO WITHSTAND WIND LOADS FOR EACH APPLICATION. THE DESIGN & ENGINEERING OF BUCKS SHALL BE PROVIDED BY "THE ENGINEER OF RECORD"
4. BUCK FASTENERS MAY NOT EXCEED 16" O.C. SPACING AROUND OPENINGS.
5. THE SYSTEM SHOWN HEREIN WAS TESTED FOR WATER, AIR, IMPACT, CYCLIC & UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH DADE COUNTY PROTOCOLS TAS-201, 202 & 203.
6. ONE-THIRD INCREASE IN ALLOWABLE MATERIAL STRESS LIMITS FOR SHORT DURATION WIND LOAD NOT USED IN THE DESIGN CALCULATIONS, EXCEPT 1.6 WINDLOAD FACTOR FOR WOOD.

SEE PAGE 4 FOR ALLOWABLE WIND PRESSURES AND GLASS CHART.

**LA FINESTRA, L.C.**  
 ITALIAN WINDOWS & DOORS  
 2790 Northwest 104th Court  
 Miami, FL 33172-2175  
 Phone (305) 599-8093  
 Fax (305) 592-4671

**PROFESSIONAL ENGINEER**  
 WILLIAM D. COLE, INC.  
 STRUCTURAL ENGINEERING & SURVEYING  
 3840 N.W. 35th Avenue, Suite 100  
 Fort Lauderdale, FL 33309  
 AUG 28 2015  
 MAX S. TORRELOPEZ, P.E.

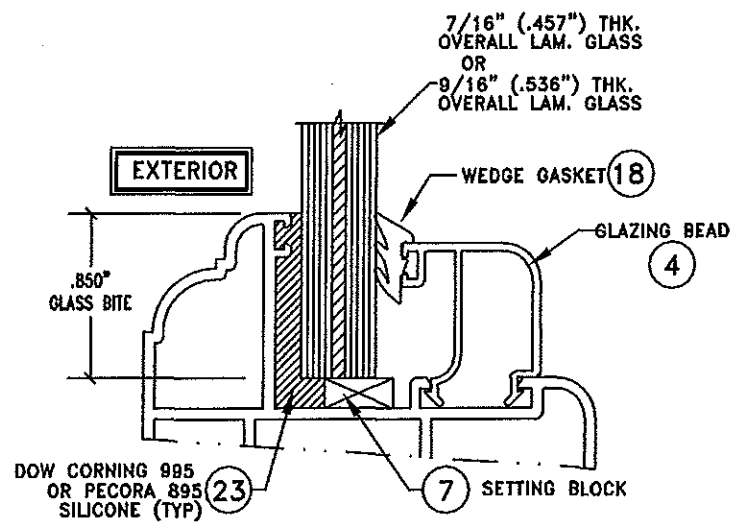
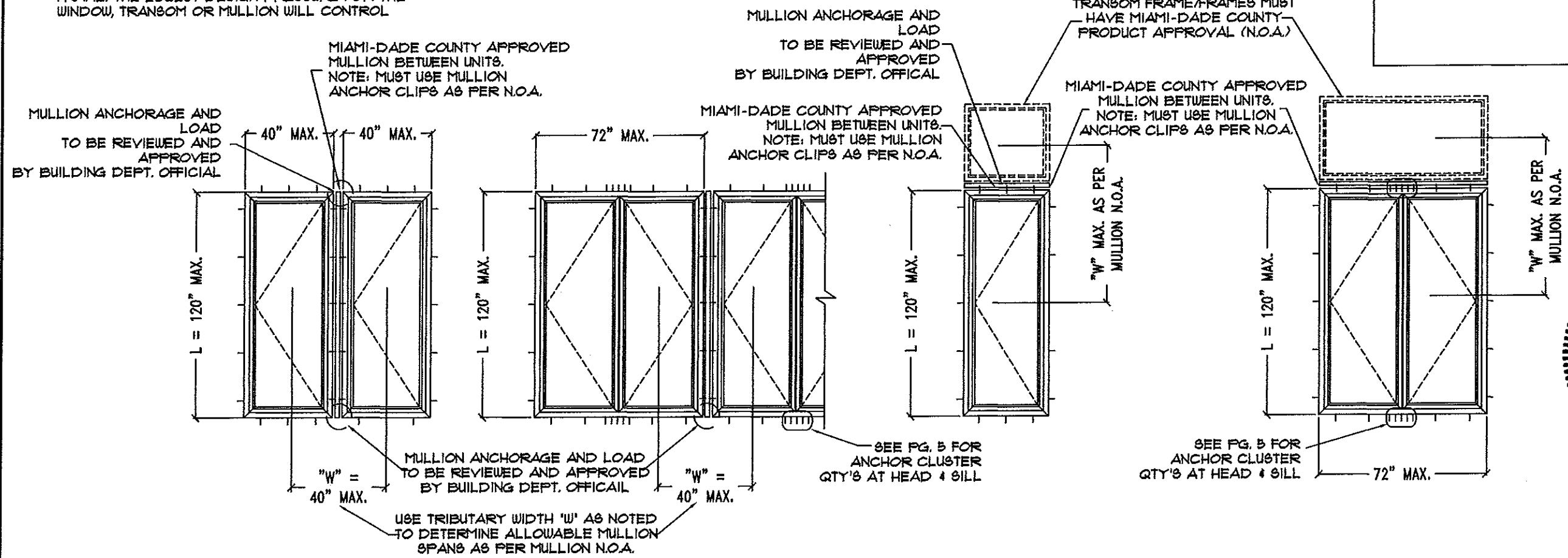
PRODUCT:  
**EKU-53  
 IMPACT  
 WINDOWS**

| REVISIONS | DATE | BY | DESCRIPTION |
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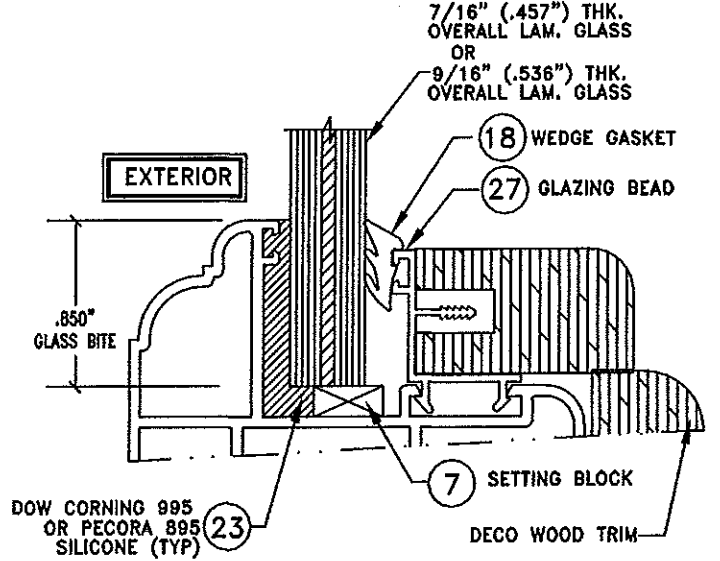
DATE: 06/20/2015  
 SCALE: 3/8" = 1'-0"  
 DWG. BY: LA FIN  
 CHK. BY:  
 DRAWING No.:  
**FN-EKU53**  
 SHEET: 1 OF 15

# ALTERNATE CONFIGURATIONS

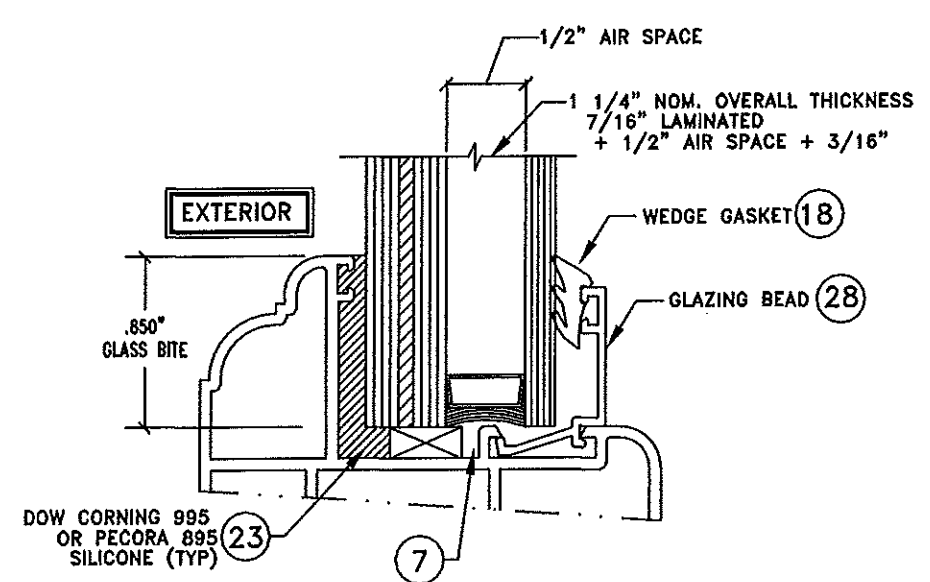
UNITS MAY BE INSTALLED WITH A MIAMI-DADE COUNTY APPROVED MULLION BETWEEN EACH WINDOW AND/OR FRAME. THE LOWEST DESIGN PRESSURE FOR THE WINDOW, TRANSOM OR MULLION WILL CONTROL



**GLAZING DETAIL**  
**GL-1, GL-3 THRU GL-8 (LAMINATED)**  
 SCALE: N.T.S.  
 NOTE: SEE ALLOWABLE D.I.O. SCHEDULE ON PG. 4 FOR MAX. DESIGN PRESSURES

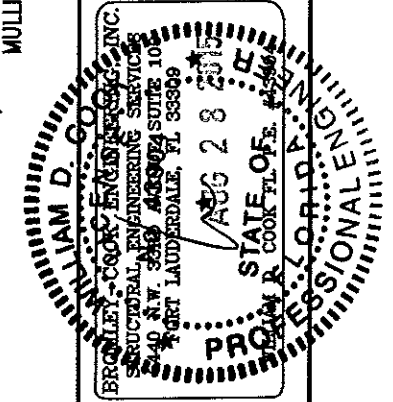
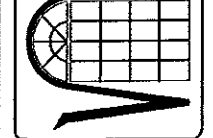


**"OPTIONAL" GLAZING DETAIL GL-1 (WITH WOOD TRIM)**  
 SCALE: N.T.S.  
 NOTE: MAX. DESIGN PRESSURE = +80, -80 P.S.F.



**GLAZING DETAIL GL-2 (LAMINATED/INSULATED)**  
 SCALE: N.T.S.  
 NOTE: MAX. DESIGN PRESSURE = +80, -80 P.S.F.

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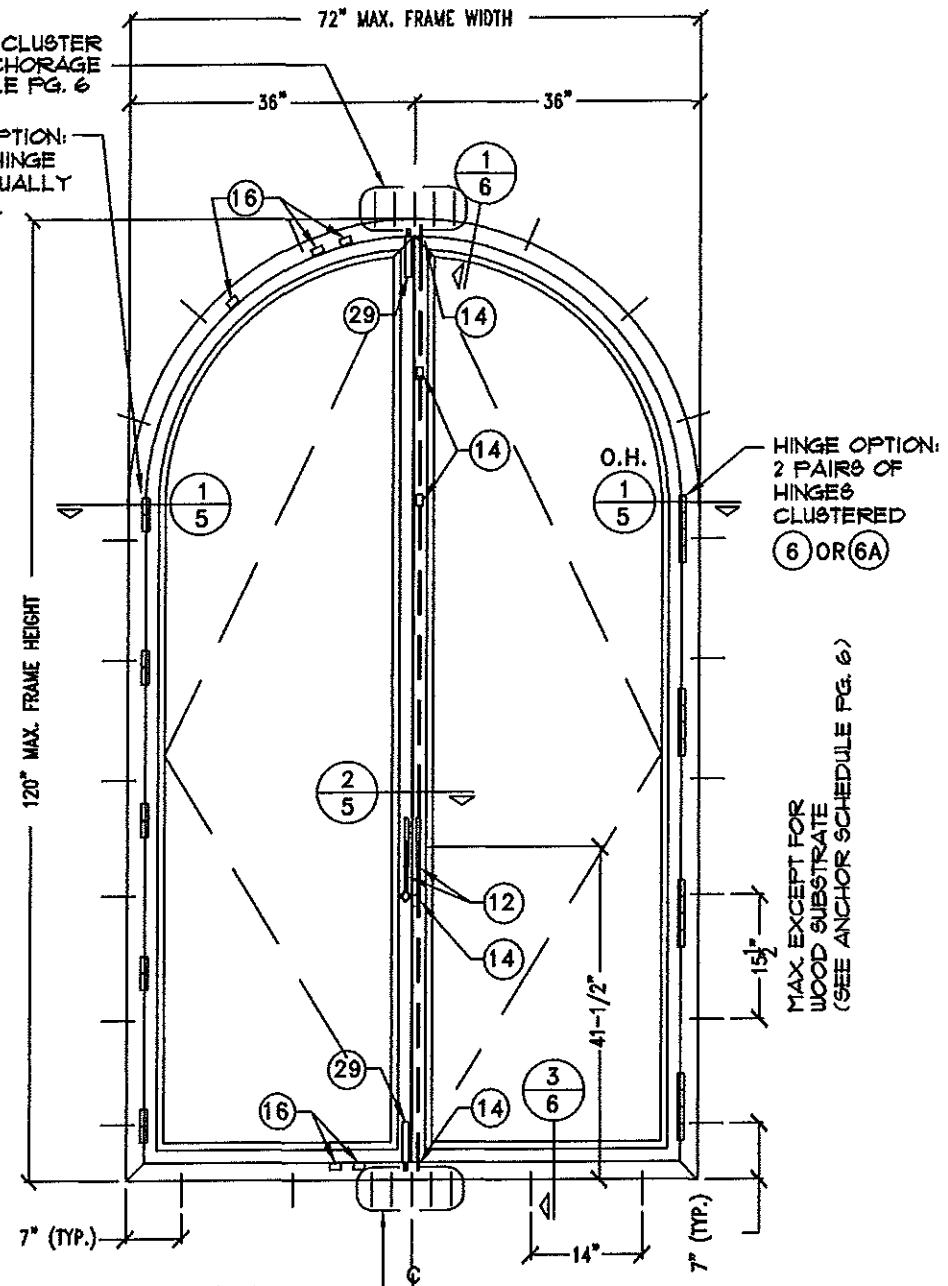
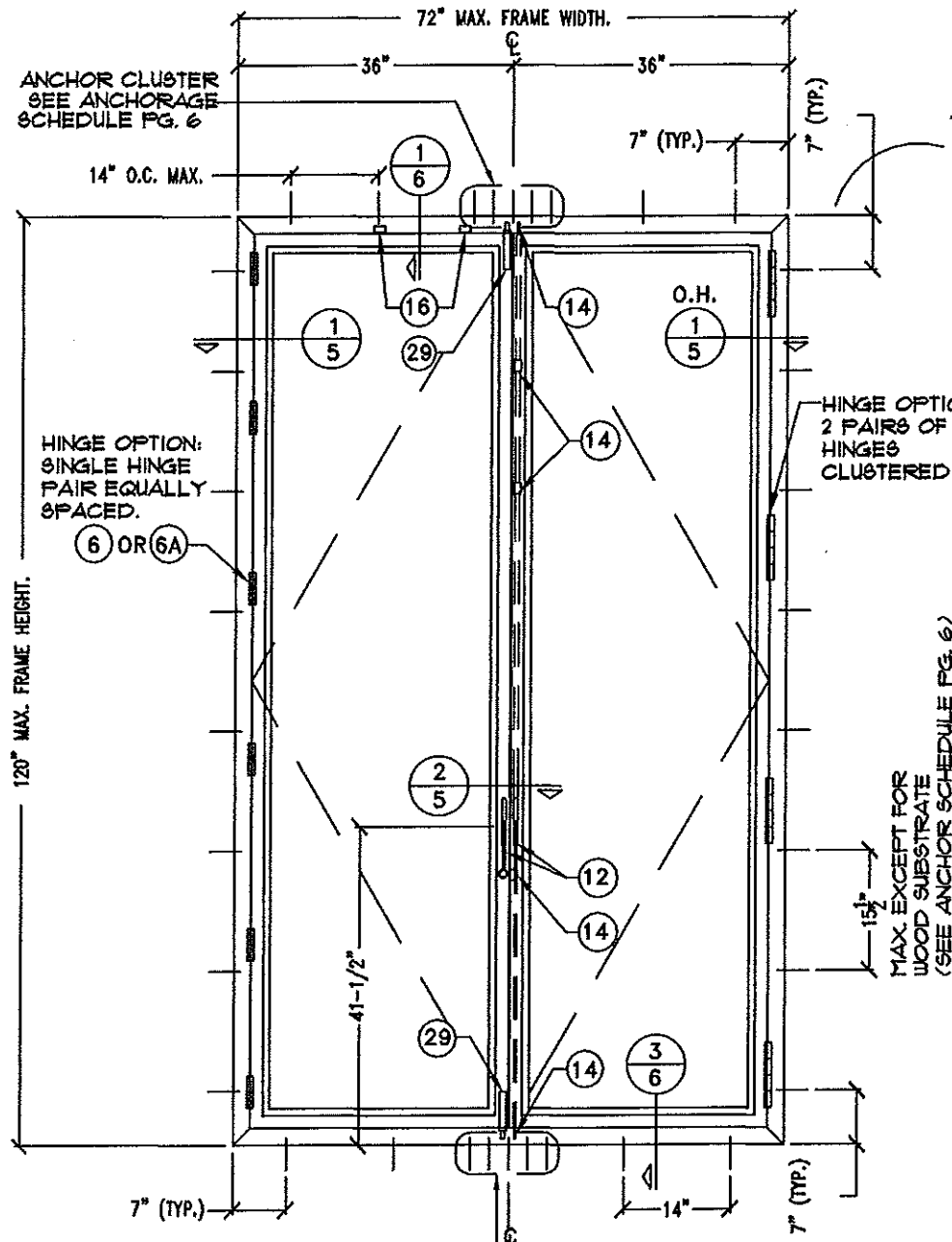
PRODUCT:  
**EKU-53**  
**IMPACT**  
**WINDOWS**

| REVISIONS | DATE | BY | DESCRIPTION |
|-----------|------|----|-------------|
| No.       |      |    |             |

DATE: 06/20/2015  
 SCALE: 3/8" = 1'-0"  
 DWG. BY: LA FIN  
 CHK. BY:

DRAWING No.:  
**FN-EKU53**  
 SHEET: 2 OF 15

# SERIES EKU-53 ALUMINUM CASEMENT WINDOWS (UNIT ELEVATIONS VIEWED FROM EXTERIOR)



| HARDWARE  |
|---|
| <ul style="list-style-type: none"> <li>(12) OPERATING HANDLE</li> <li>(14) 5-POINT LOCKING SYSTEM</li> <li>(16) MUSHROOM HEAD AND KEEPERS</li> <li>(29) FLUSH BOLT</li> </ul>   |
| HINGE OPTIONS PER LEAF:   |
| <ul style="list-style-type: none"> <li>(6) OR (6A)</li> <li>RECTANGULAR DOOR 120' TALL:<br/>6 INDIVIDUAL PAIRS<br/>OR<br/>(4) CLUSTERS OF 2 PAIRS.</li> <li>ARCH TOP DOOR 120' TALL:<br/>5 INDIVIDUAL PAIRS<br/>OR<br/>(4) CLUSTERS OF 2 PAIRS.</li> <li>RECTANGULAR DOOR 96' TALL:<br/>4 INDIVIDUAL PAIRS<br/>OR<br/>(3) CLUSTERS OF 2 PAIRS.</li> <li>ARCH TOP DOOR 96' TALL:<br/>4 INDIVIDUAL PAIRS<br/>OR<br/>(3) CLUSTERS OF 2 PAIRS.</li> </ul> |
| GLAZING   |
| SEE ALLOWABLE GLASS D.L.O. CHART ON PAGE 4  |

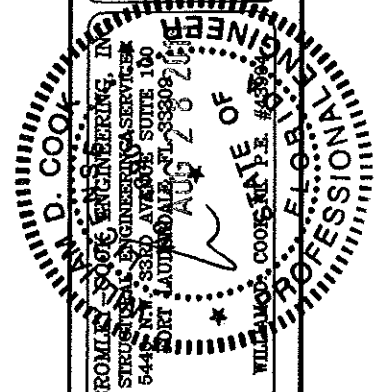
SEE ANCHOR SCHEDULE ON PAGE 6 FOR ANCHOR TYPES AND SPACING

NOTE: FOR ODD NUMBER OF ANCHORS IN CLUSTER, INSTALL ONE ANCHOR IN CENTER OF INTERLOCK.

SEE ANCHOR SCHEDULE ON PAGE 6 FOR ANCHOR TYPES AND SPACING

NOTE: FOR ODD NUMBER OF ANCHORS IN CLUSTER, INSTALL ONE ANCHOR IN CENTER OF INTERLOCK.

**L.A. FINESTRA, L.C.**  
**ITALIAN WINDOWS & DOORS**  
 2790 Northwest 104th Court  
 Miami, FL 33172-2175  
 Phone (305) 599-8093  
 Fax (305) 592-4671



PRODUCT:  
**EKU-53  
 IMPACT  
 WINDOWS**

| REVISIONS |                     |
|-----------|---------------------|
| No.       | DATE BY DESCRIPTION |
|           |                     |
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DATE: 08/20/2015  
 SCALE: 1/2" = 1'-0"  
 DWG. BY: LA FIN  
 CHK. BY:

DRAWING No.:  
**FN-EKU53**  
 SHEET: 3 OF 15

**WINDOW SIZE CHART**  
**MAX. ALLOWABLE DESIGN LOADS (P.S.F.)**  
**FOR IMPACT WINDOWS**

| D.L.O. SIZE |            | GLASS TYPE GL-1 |        | GLASS TYPE GL-2 |        | GLASS TYPE GL-3 |        | GLASS TYPE GL-4 |        | GLASS TYPE GL-5 |        | GLASS TYPE GL-6 |        | GLASS TYPE GL-7 |        | GLASS TYPE GL-8 |        |
|-------------|------------|-----------------|--------|-----------------|--------|-----------------|--------|-----------------|--------|-----------------|--------|-----------------|--------|-----------------|--------|-----------------|--------|
| WIDTH (W)   | HEIGHT (L) | EXT(+)          | EXT(-) | EXT(+)          | EXT(-) | EXT(+)          | EXT(-) | EXT(+)          | EXT(-) | EXT(+)          | EXT(-) | EXT(+)          | EXT(-) | EXT(+)          | EXT(-) | EXT(+)          | EXT(-) |
| 21 3/4"     | 70 3/4"    | 110             | 110    | 80              | 80     | 110             | 110    | 110             | 110    | 110             | 110    | 110             | 110    | 80              | 80     | 80              | 80     |
| 25 3/4"     |            | 110             | 110    | 80              | 80     | 110             | 110    | 110             | 110    | 110             | 110    | 110             | 110    | 80              | 80     | 80              | 80     |
| 27 1/2"     |            | 110             | 110    | 80              | 80     | 110             | 110    | 90              | 90     | 110             | 110    | 80              | 80     | 80              | 80     | 80              | 80     |
| 28 15/16"   |            | 110             | 110    | 80              | 80     |                 |        | 90              | 90     | 110             | 110    | 80              | 80     | 80              | 80     | 80              | 80     |
| 30"         |            | 110             | 110    | 80              | 80     |                 |        | 90              | 90     | 110             | 110    | 80              | 80     | 80              | 80     | 80              | 80     |
| 30 3/4"     |            |                 |        |                 |        |                 |        | 90              | 90     | 110             | 110    | 80              | 80     | 80              | 80     | 80              | 80     |
| 42 3/8"     |            |                 |        |                 |        |                 |        | 90              | 90     |                 |        | 80              | 80     | 80              | 80     | 80              | 80     |
| 65 3/4"     |            |                 |        |                 |        |                 |        |                 |        |                 | 80     | 80              | 80     | 80              | 80     | 80              |        |
| 21 3/4"     | 80"        | 110             | 110    | 80              | 80     | 110             | 110    | 110             | 110    | 110             | 110    |                 |        |                 |        |                 |        |
| 25 3/4"     |            | 110             | 110    | 80              | 80     | 110             | 110    | 110             | 110    |                 |        |                 |        |                 |        |                 |        |
| 27 1/2"     |            | 110             | 110    | 80              | 80     | 110             | 110    | 90              | 90     |                 |        |                 |        |                 |        |                 |        |
| 28 15/16"   |            | 110             | 110    | 80              | 80     |                 |        | 90              | 90     |                 |        |                 |        |                 |        |                 |        |
| 30"         |            | 110             | 110    | 80              | 80     |                 |        | 90              | 90     |                 |        |                 |        |                 |        |                 |        |
| 42 3/8"     |            |                 |        |                 |        |                 | 90     | 90              |        |                 |        |                 |        |                 |        |                 |        |
| 21 3/4"     | 85"        | 110             | 110    | 80              | 80     | 110             | 110    | 110             | 110    | 110             | 110    |                 |        |                 |        |                 |        |
| 25 3/4"     |            | 110             | 110    | 80              | 80     | 110             | 110    | 110             | 110    |                 |        |                 |        |                 |        |                 |        |
| 27 1/2"     |            | 110             | 110    | 80              | 80     | 110             | 110    | 90              | 90     |                 |        |                 |        |                 |        |                 |        |
| 28 15/16"   |            | 110             | 110    | 80              | 80     | 98.9            | 98.9   | 90              | 90     |                 |        |                 |        |                 |        |                 |        |
| 30"         |            | 110             | 110    | 80              | 80     | 98.9            | 98.9   | 90              | 90     |                 |        |                 |        |                 |        |                 |        |
| 42 3/8"     |            |                 |        |                 | 98.9   | 98.9            | 90     | 90              |        |                 |        |                 |        |                 |        |                 |        |
| 21 3/4"     | 87"        | 110             | 110    | 80              | 80     |                 |        | 90              | 90     |                 |        |                 |        |                 |        |                 |        |
| 27 1/2"     |            | 110             | 110    | 80              | 80     |                 |        | 90              | 90     |                 |        |                 |        |                 |        |                 |        |
| 28 15/16"   |            | 110             | 110    | 80              | 80     |                 |        | 90              | 90     |                 |        |                 |        |                 |        |                 |        |
| 30 3/4"     |            | 110             | 110    | 80              | 80     |                 |        | 90              | 90     |                 |        |                 |        |                 |        |                 |        |
| 42 3/8"     |            |                 |        |                 |        |                 | 90     | 90              |        |                 |        |                 |        |                 |        |                 |        |
| 21 3/4"     | 90"        | 80              | 80     | 80              | 80     |                 |        |                 |        |                 |        |                 |        |                 |        |                 |        |
| 27 1/2"     |            | 80              | 80     | 80              | 80     |                 |        |                 |        |                 |        |                 |        |                 |        |                 |        |
| 28 15/16"   |            | 80              | 80     | 80              | 80     |                 |        |                 |        |                 |        |                 |        |                 |        |                 |        |
| 21 3/4"     | 96"        | 80              | 80     | 80              | 80     |                 |        |                 |        |                 |        |                 |        |                 |        |                 |        |
| 27 1/2"     |            | 80              | 80     | 80              | 80     |                 |        |                 |        |                 |        |                 |        |                 |        |                 |        |
| 28 15/16"   |            | 80              | 80     | 80              | 80     |                 |        |                 |        |                 |        |                 |        |                 |        |                 |        |
| 21 3/4"     | 104"       | 80              | 80     | 80              | 80     |                 |        |                 |        |                 |        |                 |        |                 |        |                 |        |
| 27 1/2"     |            | 80              | 80     | 80              | 80     |                 |        |                 |        |                 |        |                 |        |                 |        |                 |        |
| 28 15/16"   |            | 80              | 80     | 80              | 80     |                 |        |                 |        |                 |        |                 |        |                 |        |                 |        |
| 21 3/4"     | 108"       | 80              | 80     | 80              | 80     |                 |        |                 |        |                 |        |                 |        |                 |        |                 |        |
| 27 1/2"     |            | 80              | 80     | 80              | 80     |                 |        |                 |        |                 |        |                 |        |                 |        |                 |        |
| 28 15/16"   |            | 80              | 80     | 80              | 80     |                 |        |                 |        |                 |        |                 |        |                 |        |                 |        |
| 21 3/4"     | 110 1/2"   | 80              | 80     | 80              | 80     |                 |        |                 |        |                 |        |                 |        |                 |        |                 |        |
| 27 1/2"     |            | 80              | 80     | 80              | 80     |                 |        |                 |        |                 |        |                 |        |                 |        |                 |        |
| 28 15/16"   |            | 80              | 80     | 80              | 80     |                 |        |                 |        |                 |        |                 |        |                 |        |                 |        |

✕ = NOT ALLOWABLE

**MAX. PANEL FRAME WIDTH**  
D.L.O. +9" FOR DIE #16012 (#2)  
D.L.O. + 7.62" for die #16013 (#2A)

**MAX. PANEL FRAME HEIGHT**  
D.L.O. +9" FOR DIE #16012 (#2)  
D.L.O. + 7.62" for die #16013 (#2A)

**WATER INFILTRATION TEST PRESSURE**

-WINDOWS UP TO 96" TALL : 16.5 PSF

-WINDOWS UP TO 120" TALL : 12 PSF WITH STANDARD THRESHOLD

**GLASS SCHEDULE**  
**LARGE MISSILE IMPACT RESISTANT**

**GL-1** = 7/16" (.458") LAMINATED  
3/16" (.182") H.S. -  
.090" BUTACITE PVB BY KURARAY AMERICA INC. -  
3/16" H.S.

**GL-2** = 1-1/4" (1.136") INSULATED/LAMINATED  
3/16" (.182") H.S. -  
.090" BUTACITE PVB BY KURARAY AMERICA INC. -  
3/16" H.S. -  
1/2" AIR SPACE -  
3/16" TEMPERED

**GL-3** = 7/16" (.458") LAMINATED  
3/16" (.182") ANN.-  
.090" P.V.B. SAFLEX BY EASTMAN CHEMICAL COMPANY INTERLAYER -  
3/16" ANN.

**GL-4** = 7/16" (.454") LAMINATED  
3/16" (.182") H.S. -  
.090" P.V.B. SAFLEX BY EASTMAN CHEMICAL COMPANY INTERLAYER -  
3/16" H.S.

**GL-5** = 7/16" (.454") LAMINATED  
3/16" (.182") ANN. -  
.090" BUTACITE PVB BY KURARAY AMERICA INC. -  
3/16" ANN.

**GL-6** = 9/16" (.536") LAMINATED  
1/4" (.223") H.S. -  
.090" BUTACITE PVB BY KURARAY AMERICA INC. -  
1/4" H.S.

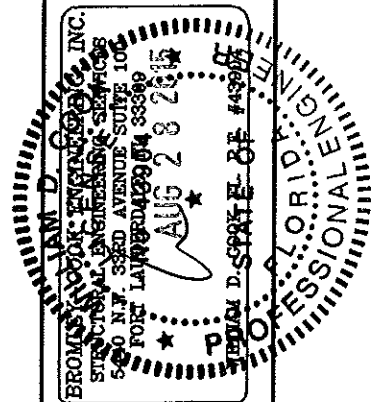
**GL-7** = 9/16" (.536") LAMINATED  
1/4" (.223") H.S. -  
.090" SENTRYGLAS BY KURARAY AMERICA INC. -  
1/4" H.S.

**GL-8** = 7/16" (.454") LAMINATED  
3/16" (.182") H.S. -  
.090" SENTRYGLAS BY KURARAY AMERICA INC. -  
3/16" H.S.

**TESTED GLASS TYPES (MAX. D.L.O. SIZE & PRESSURES)**

| GLASS TYPE | MAXIMUM D.L.O.                                 | MAX DESIGN PRESSURE                  |
|------------|--|--------------------------------------|
| GL-1       | 30" W x 87" H<br>27" W x 110" H                | +110.0/-110.0 PSF<br>+80.0/-80.0 PSF |
| GL-2       | 27 1/2" W x 110 1/2" H<br>28 15/16" W x 110" H | +80.0/-80.0 PSF<br>+80.0/-80.0 PSF   |
| GL-3       | 27 1/2" W x 85" H<br>30" W x 85" H             | +110.0/-110.0 PSF<br>+98.9/-98.9 PSF |
| GL-4       | 30" W x 85" H<br>28 15/16" W x 110" H          | +110.0/-110.0 PSF<br>+80.0/-80.0 PSF |
| GL-5       | 21 3/4" W x 85" H                              | +110.0/-110.0 PSF                    |
| GL-6       | 30 3/4" W x 70 3/4" H                          | +100.0/-110.0 PSF                    |
| GL-7       | 65 3/4" W x 70 3/4" H                          | +80.0/-80.0 PSF                      |
| GL-8       | 65 3/4" W x 70 3/4" H                          | +80.0/-80.0 PSF                      |

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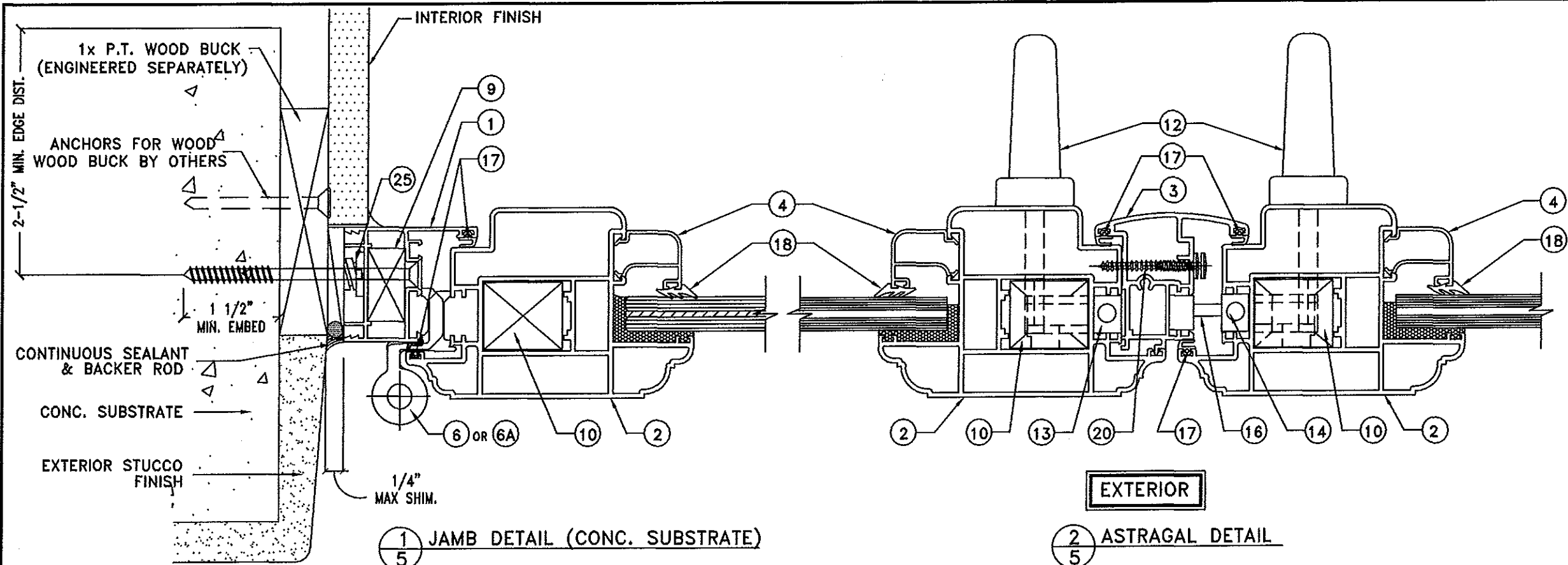
PRODUCT:  
**EKU-53**  
**IMPACT**  
**WINDOWS**

REVISIONS

| No. | DATE | BY | DESCRIPTION |
|-----|------|----|-------------|
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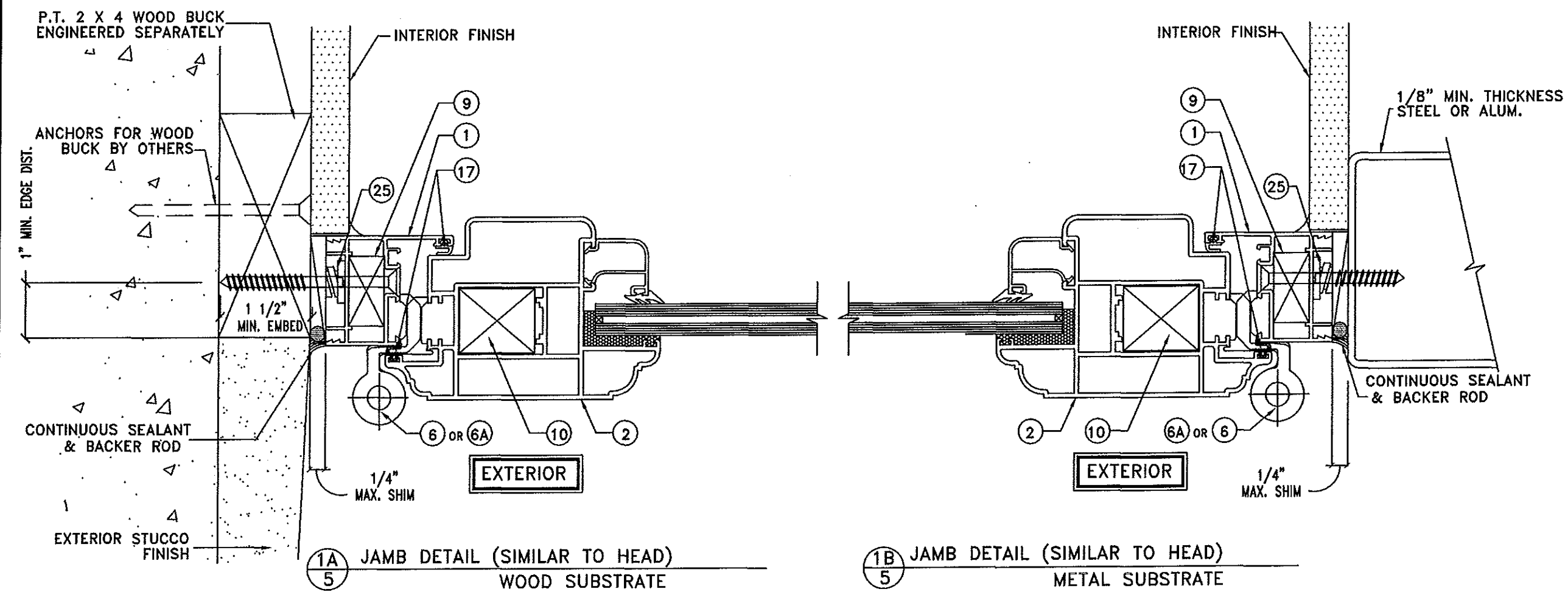
DATE: 08/20/2015  
SCALE: 1/2" = 1'-0"  
DWG. BY: LA FIN  
CHK. BY:

DRAWING No.:  
**FN-EKU53**  
SHEET: 4 OF 15



1 JAMB DETAIL (CONC. SUBSTRATE)  
5

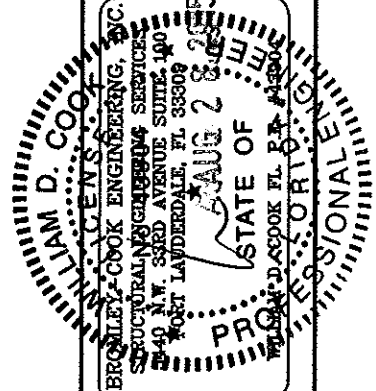
2 ASTRAGAL DETAIL  
5



1A JAMB DETAIL (SIMILAR TO HEAD)  
5 WOOD SUBSTRATE

1B JAMB DETAIL (SIMILAR TO HEAD)  
5 METAL SUBSTRATE

**L.A. FINESTRA, L.C.**  
**ITALIAN WINDOWS & DOORS**  
 2790 Northwest 104th Court  
 Miami, FL 33172-2175  
 Phone (305) 599-8093  
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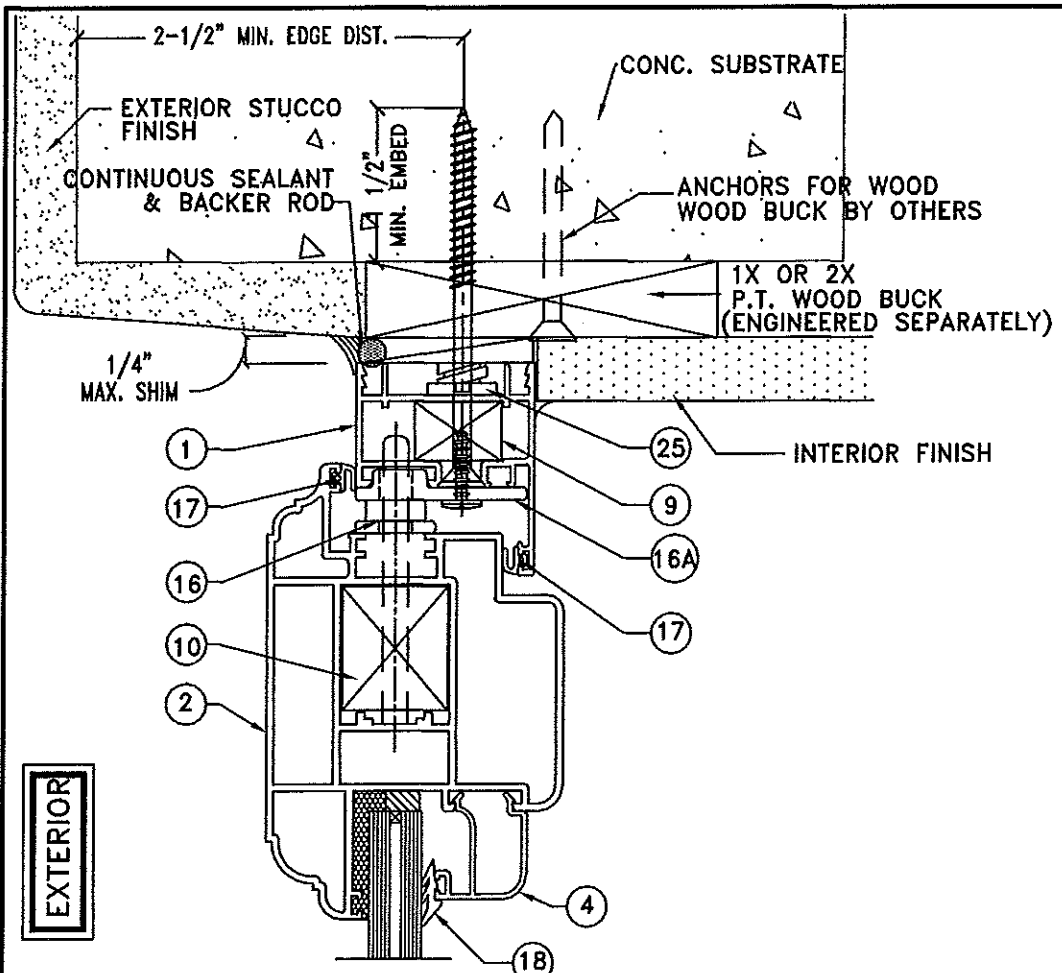


PRODUCT:  
**EKU-53**  
**IMPACT**  
**WINDOWS**

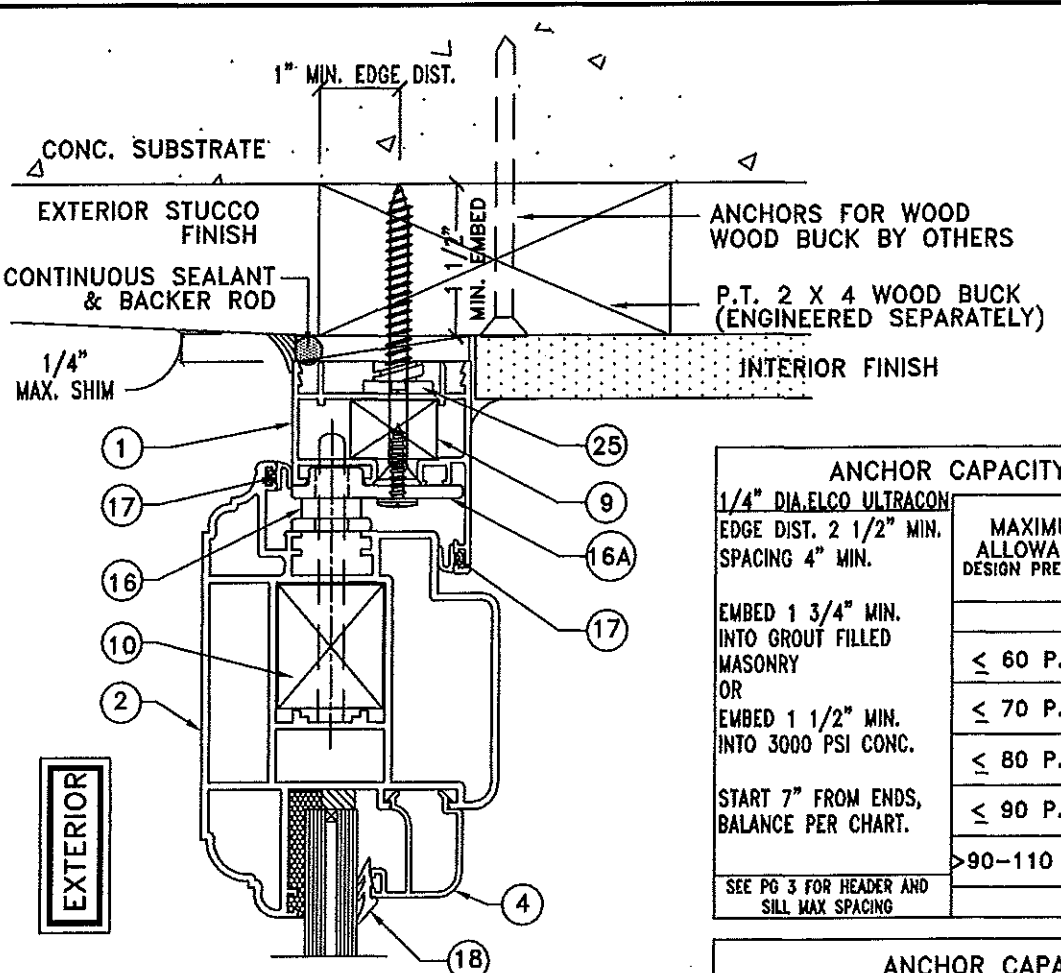
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DATE: 08/20/2015  
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 DWG. BY: LA FN  
 CHK. BY:

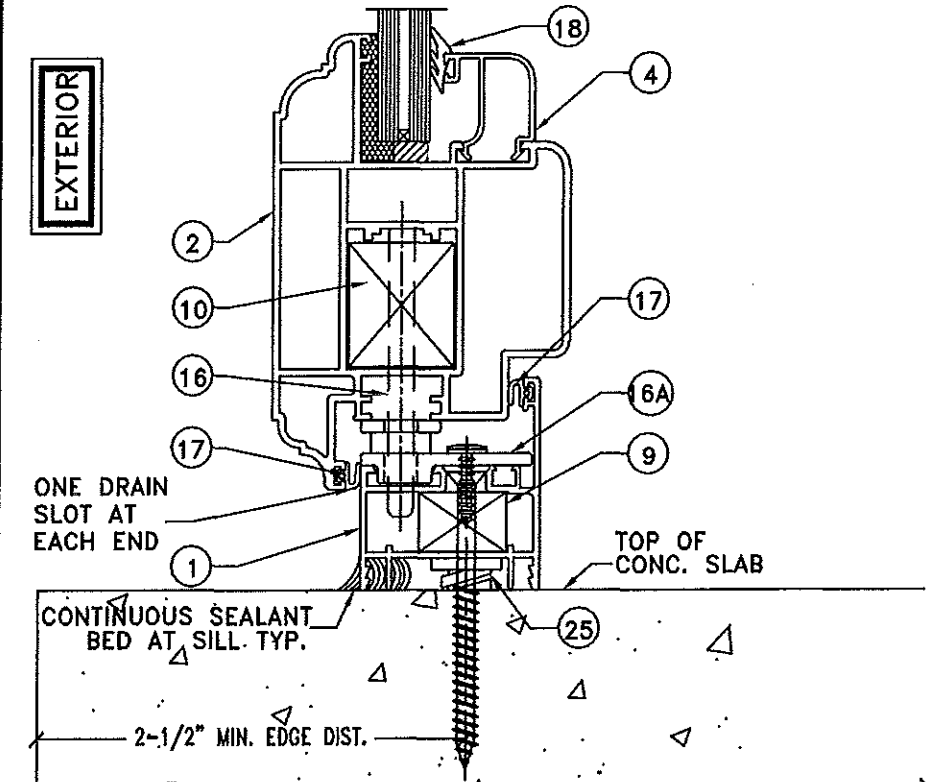
DRAWING No.:  
**FN-EKU53**  
 SHEET: 5 OF 15



1 HEAD DETAIL (CONC. SUBSTRATE)  
6



3 HEAD DETAIL (WOOD SUBSTRATE)  
6



2 SILL DETAIL (STANDARD THRESHOLD)  
6

**ANCHOR CAPACITY CHART (CONCRETE SUBSTRATE)**

1/4" DIA. ELCO ULTRACON  
EDGE DIST. 2 1/2" MIN.  
SPACING 4" MIN.

| MAXIMUM ALLOWABLE DESIGN PRESSURE              | ANCHORS AT JAMBS | QTY. ANCHORS AT HEAD OR SILL INTERLOCK |            |
|--|------------------|--|------------|
|  |                  | (W/ FRAME INSERT)                      |            |
|  |                  | UP TO 96"                              | UP TO 120" |
| EMBED 1 3/4" MIN. INTO GROUT FILLED MASONRY OR | 15-1/2" C/C      | 2                                      | 3          |
| EMBED 1 1/2" MIN. INTO 3000 PSI CONC.          | 15-1/2" C/C      | 2                                      | 3          |
| START 7" FROM ENDS, BALANCE PER CHART.         | 15-1/2" C/C      | 3                                      | 3          |
|  | 15-1/2" C/C      | 3                                      | N/A        |
|  | 15-1/2" C/C      | 3                                      | N/A        |

SEE PG 3 FOR HEADER AND SILL MAX SPACING

SPACED 4" APART

**ANCHOR CAPACITY CHART (STEEL SUBSTRATE)**

#14 P.H.S.M.S. OR #14 SELF DRILLING  
INTO 1/8" THK. ASTM A36  
START 7" FROM ENDS, BALANCE PER CHART.

| MAXIMUM ALLOWABLE DESIGN PRESSURE | ANCHORS AT JAMBS | QTY. ANCHORS AT HEAD OR SILL INTERLOCK |            |
|-----------------------------------|------------------|--|------------|
|                                   |                  | (W/ FRAME INSERT)                      |            |
|                                   |                  | UP TO 96"                              | UP TO 120" |
| ≤ 60 P.S.F.                       | 15-1/2" C/C      | 2                                      | 3          |
| ≤ 70 P.S.F.                       | 15-1/2" C/C      | 2                                      | 3          |
| ≤ 80 P.S.F.                       | 15-1/2" C/C      | 3                                      | 3          |
| ≤ 90 P.S.F.                       | 15-1/2" C/C      | 3                                      | N/A        |
| > 90-110 P.S.F.                   | 15-1/2" C/C      | 3                                      | N/A        |

SEE PG 3 FOR HEADER AND SILL MAX SPACING

SPACED 2 1/2" APART

**ANCHOR CAPACITY CHART (WOOD SUBSTRATE)**

#14 P.H.S.M.S. OR #14 WOOD SCREW  
EMBED 1 1/2" MIN. INTO NO. 2 SYP.  
START 7" FROM ENDS, BALANCE PER CHART.

| MAXIMUM ALLOWABLE DESIGN PRESSURE | ANCHORS AT JAMBS | QTY. ANCHORS AT HEAD OR SILL INTERLOCK |            |
|-----------------------------------|------------------|--|------------|
|                                   |                  | (W/ FRAME INSERT)                      |            |
|                                   |                  | UP TO 96"                              | UP TO 120" |
| ≤ 60 P.S.F.                       | 12" C/C          | 4                                      | 5          |
| ≤ 70 P.S.F.                       | 12" C/C          | 4                                      | 5          |
| ≤ 80 P.S.F.                       | 12" C/C          | 5                                      | 6          |
| ≤ 90 P.S.F.                       | 12" C/C          | 5                                      | N/A        |
| > 90-110 P.S.F.                   | 12" C/C          | 6                                      | N/A        |

SEE PG 3 FOR HEADER AND SILL MAX SPACING

SPACED 2 1/2" APART

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Miami, FL 33172-2175  
Phone (305) 599-8093  
Fax (305) 592-4671

PROFESSIONAL ENGINEER  
STATE OF FLORIDA  
No. 10000  
DATE: AUG 28 2015  
BY: [Signature]  
FOR: [Signature]

PRODUCT: **EKU-53 IMPACT WINDOWS**

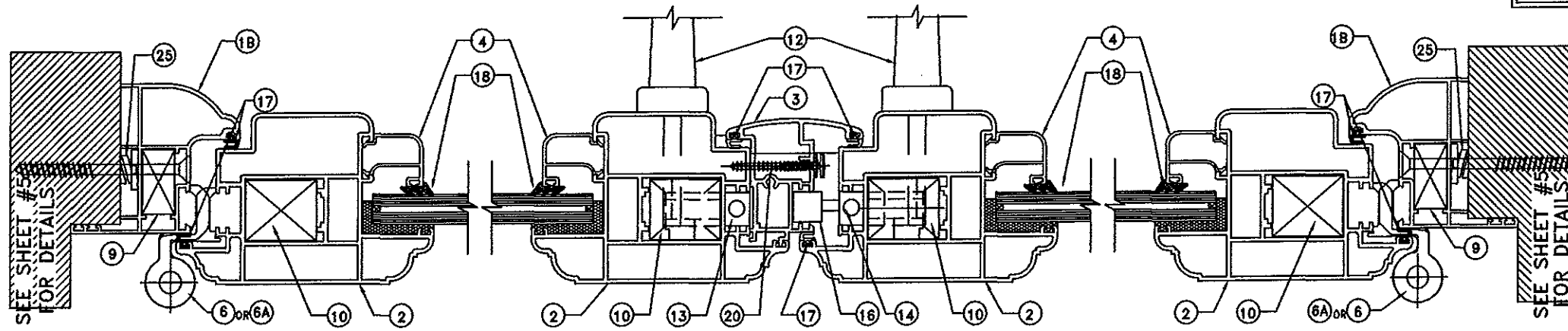
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| No.       |      |    |             |

DATE: 06/20/2015  
SCALE: 3/16" = 1'-0"  
DWG. BY: LA FIN  
CHK. BY:  
DRAWING No.: **FN-EKU53**  
SHEET: 6 OF 15



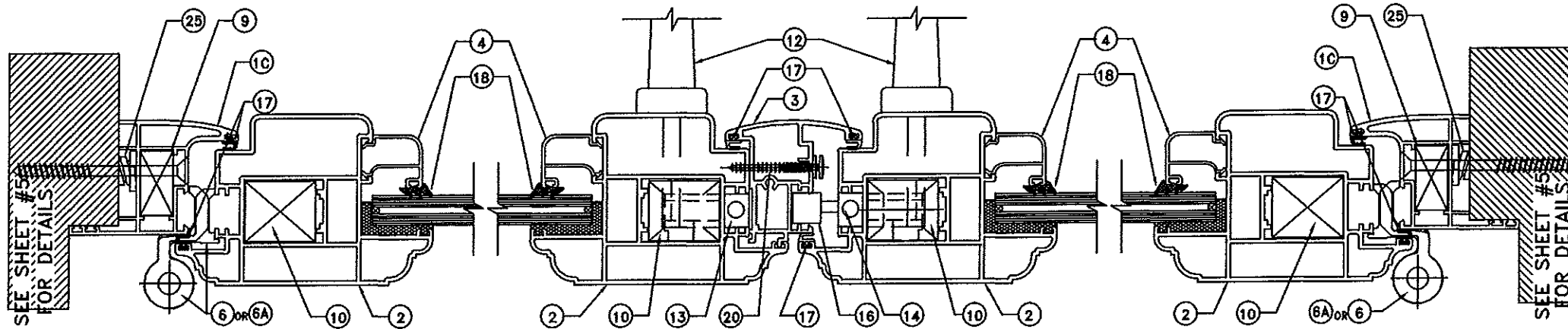
# PROFILE COMBINATIONS

NOTE: PLEASE SEE  
D.P. LIMITATIONS FOR  
GLAZING ON SHEET 4



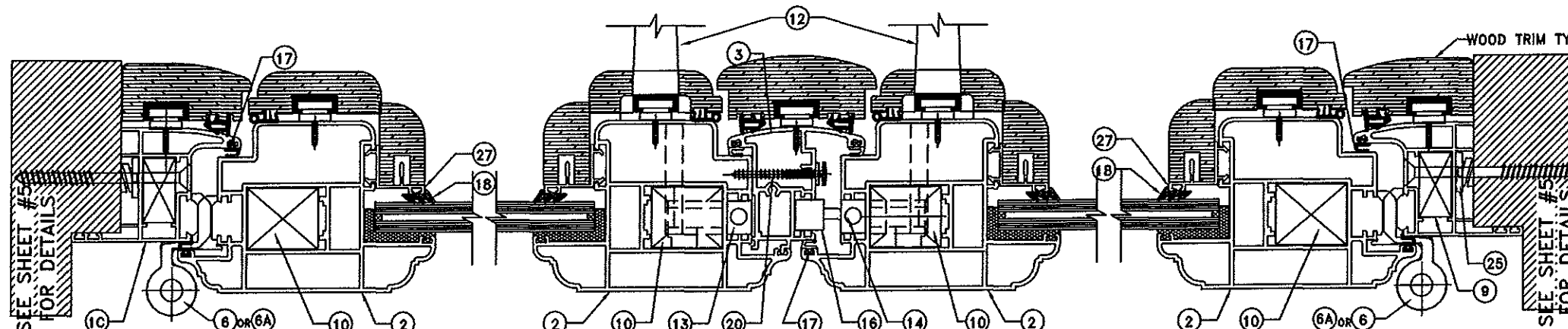
COMBINATION 1

MAXIMUM P.S.F. @ 96" +110.00 -110.00 DESIGN PRESSURE - WATER INFILTRATION TEST PRESSURE = 13.5 PSF  
 MAXIMUM P.S.F. @ 120" +80.00 -80.00 DESIGN PRESSURE - WATER INFILTRATION TEST PRESSURE = 12.0 PSF



COMBINATION 2

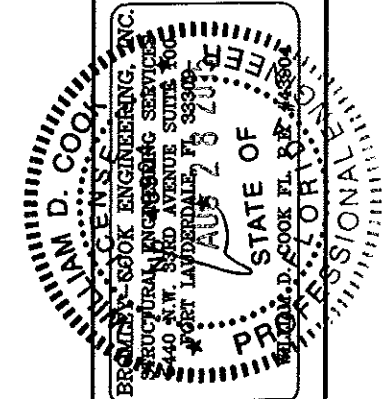
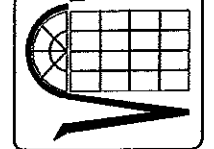
MAXIMUM P.S.F. @ 96" +110.00 -110.00 DESIGN PRESSURE - WATER INFILTRATION TEST PRESSURE = 13.5 PSF  
 MAXIMUM P.S.F. @ 120" +80.00 -80.00 DESIGN PRESSURE - WATER INFILTRATION TEST PRESSURE = 12.0 PSF



COMBINATION 2 WITH WOOD TRIM

MAXIMUM P.S.F. @ 120" +80.00 -80.00 DESIGN PRESSURE - WATER INFILTRATION TEST PRESSURE = 12.0 PSF

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PRODUCT:  
**EKU-53  
 IMPACT  
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| No. | DATE | BY | DESCRIPTION |
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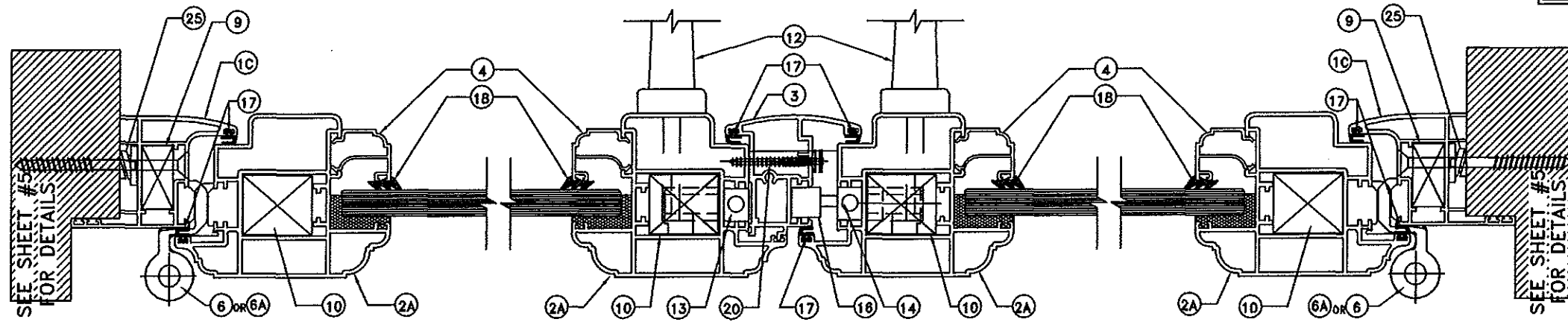
DATE: 08/20/2015  
 SCALE: AS NOTED  
 DWG. BY: LA FIN  
 CHK. BY:

DRAWING No.:  
**FN-EKU53**

SHEET: 7 OF 15

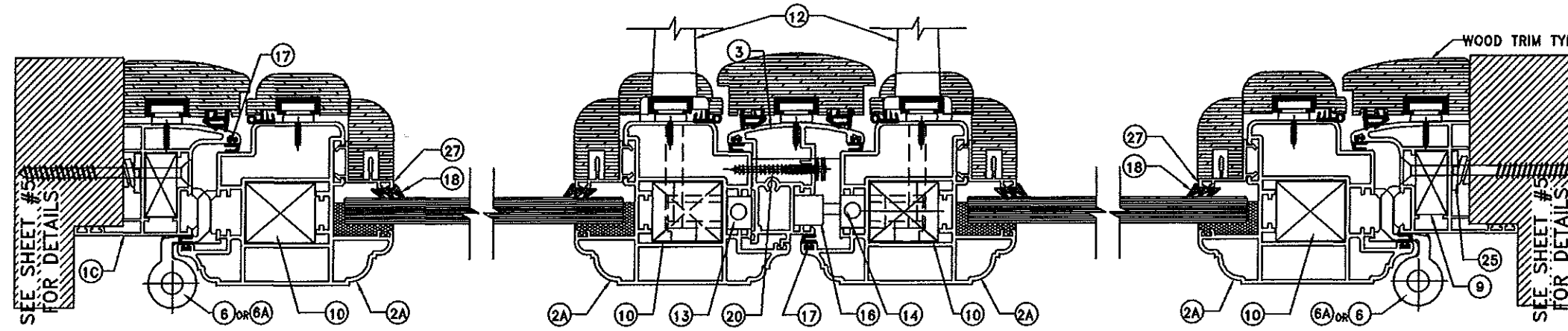
# PROFILE COMBINATIONS

NOTE: PLEASE SEE D.P. LIMITATIONS FOR GLAZING ON SHEET 4



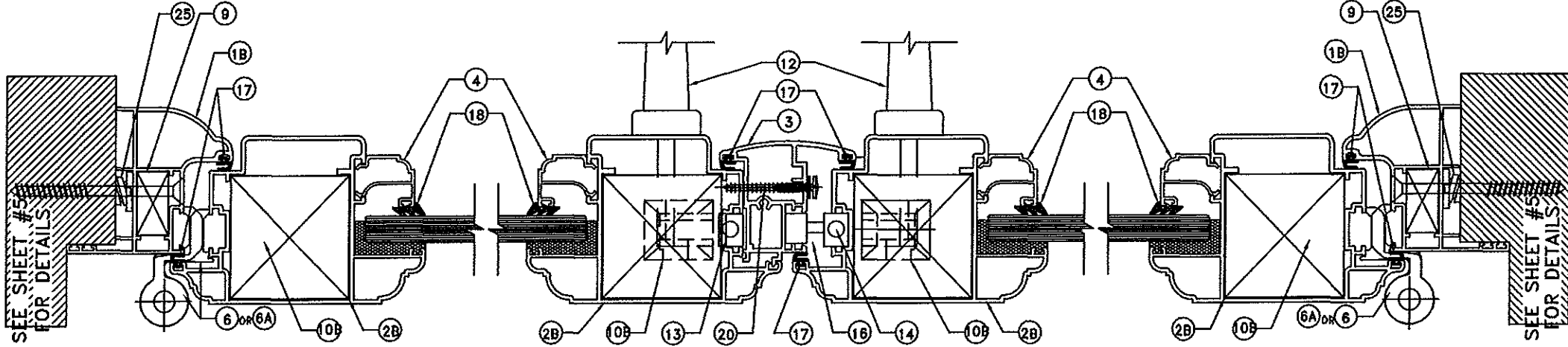
COMBINATION 3

MAXIMUM P.S.F. @ 96" +110.00 -110.00 DESIGN PRESSURE - WATER INFILTRATION TEST PRESSURE = 13.5 PSF  
 MAXIMUM P.S.F. @ 120" +80.00 -80.00 DESIGN PRESSURE - WATER INFILTRATION TEST PRESSURE = 12.0 PSF



COMBINATION 3 WITH WOOD TRIM

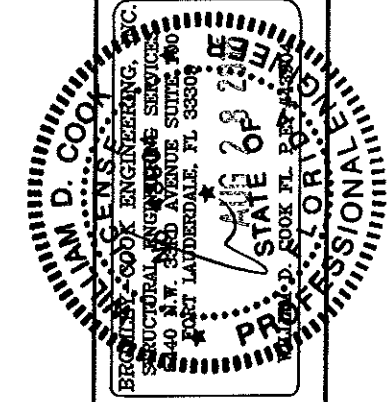
MAXIMUM P.S.F. @ 120" +80.00 -80.00 DESIGN PRESSURE - WATER INFILTRATION TEST PRESSURE = 12.0 PSF



COMBINATION 4

MAXIMUM P.S.F. @ 96" +110.00 -110.00 DESIGN PRESSURE - WATER INFILTRATION TEST PRESSURE = 13.5 PSF  
 MAXIMUM P.S.F. @ 120" +80.00 -80.00 DESIGN PRESSURE - WATER INFILTRATION TEST PRESSURE = 12.0 PSF

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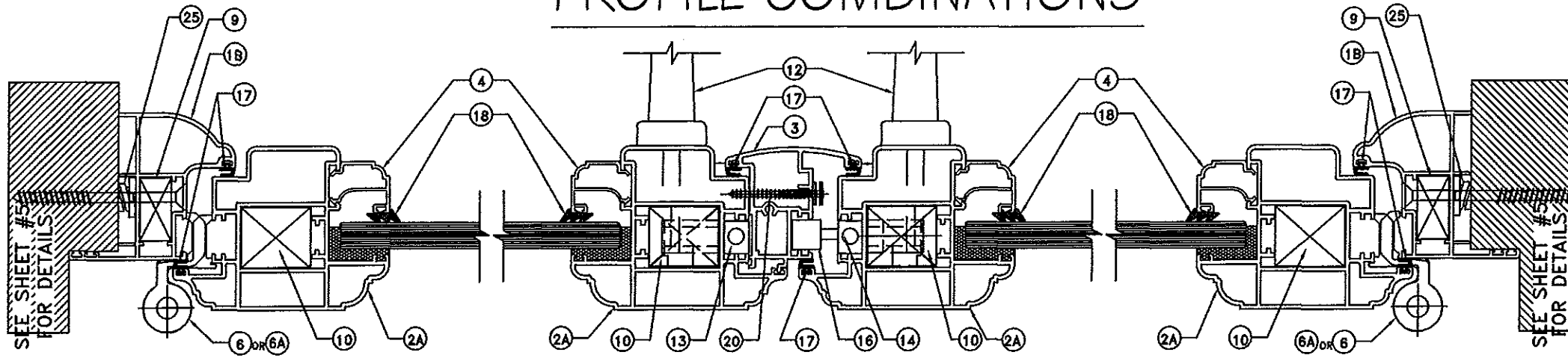
PRODUCT:  
 EKU-53  
 IMPACT  
 WINDOWS

| REVISIONS | DATE | BY | DESCRIPTION |
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DATE: 08/20/2015  
 SCALE: AS NOTED  
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 CHK. BY:  
 DRAWING No.:  
 FN-EKU53  
 SHEET: 8 OF 15

# PROFILE COMBINATIONS

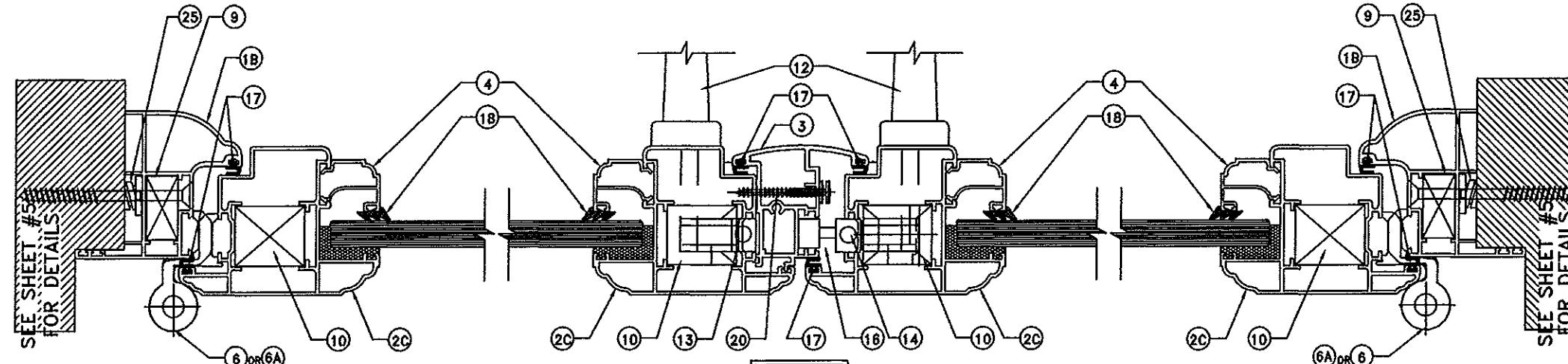
NOTE: PLEASE SEE D.P. LIMITATIONS FOR GLAZING ON SHEET 4



COMBINATION 5

EXTERIOR

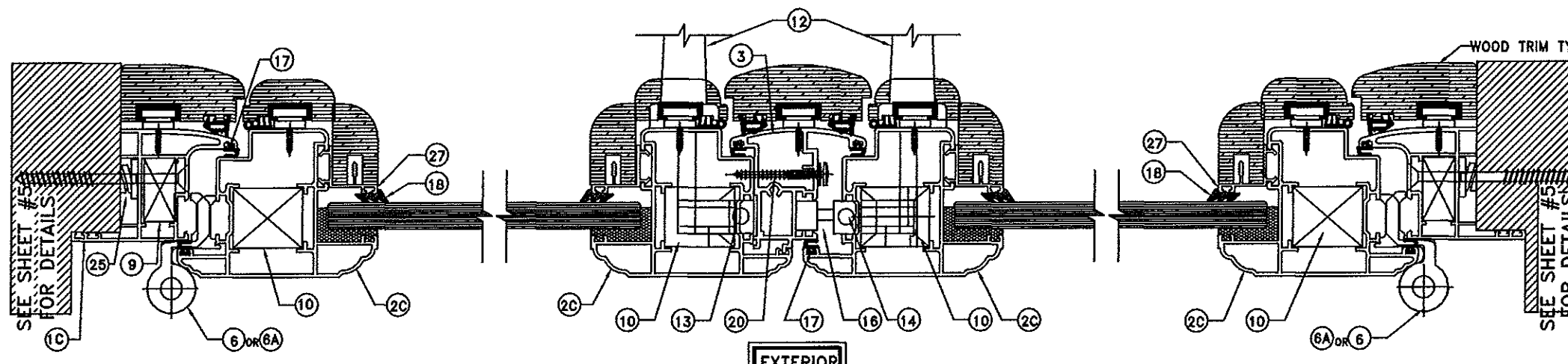
MAXIMUM P.S.F. @ 96" +110.00 -110.00 DESIGN PRESSURE - WATER INFILTRATION TEST PRESSURE = 13.5 PSF  
 MAXIMUM P.S.F. @ 120" +80.00 -80.00 DESIGN PRESSURE - WATER INFILTRATION TEST PRESSURE = 12.0 PSF



COMBINATION 6

EXTERIOR

MAXIMUM OF 96" H D.P. = +80 / -80 PSF WATER @ 12.0 PSF



COMBINATION 7 WITH WOOD TRIM

EXTERIOR

MAXIMUM OF 96" H D.P. = +80 / -80 PSF WATER @ 12.0 PSF

NOTE: WOOD TRIM IS OPTIONAL

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WILLIAM D. COOK ENGINEERING, INC.  
 STRUCTURAL ENGINEERING SERVICES  
 9440 N.W. 33RD AVENUE, SUITE 100  
 FORT LAUDERDALE, FL 33306  
 AUG 2 2015  
 STATE OF FLORIDA  
 PROFESSIONAL ENGINEER

PRODUCT:  
 EKU-53  
 IMPACT  
 WINDOWS

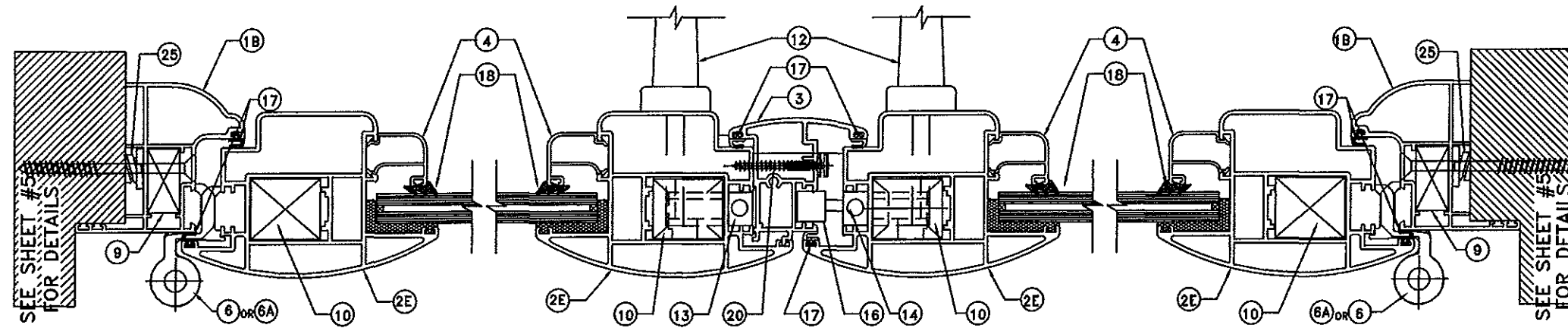
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DATE: 06/20/2015  
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DRAWING No.:  
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 SHEET: 9 OF 15

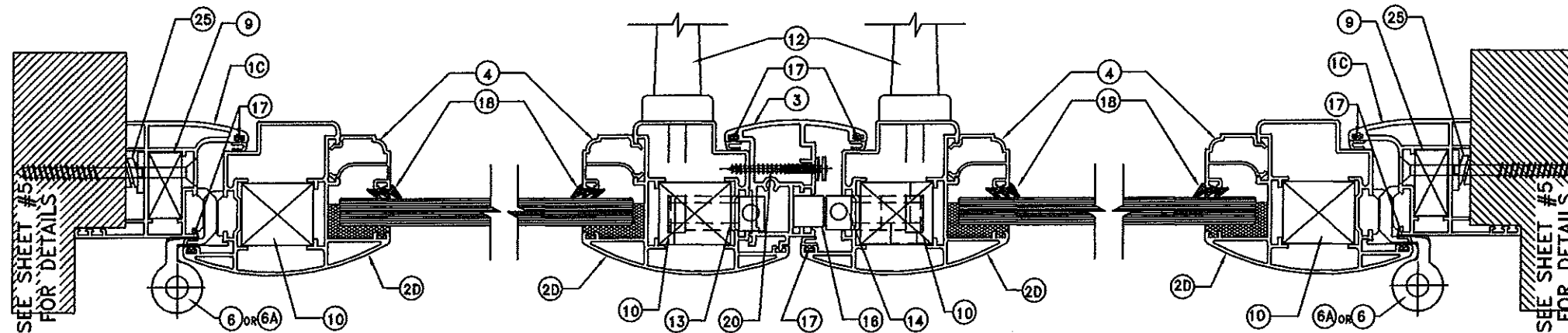
# PROFILE COMBINATIONS

NOTE: PLEASE SEE D.P. LIMITATIONS FOR GLAZING ON SHEET 4



COMBINATION 8 (ALTERNATE EXTRUSION)

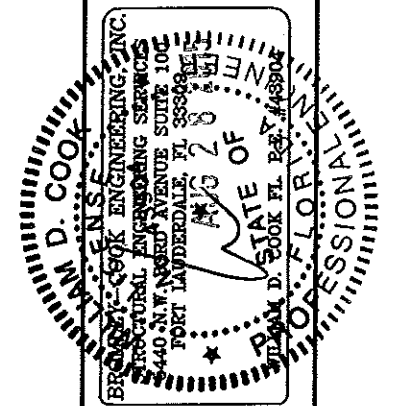
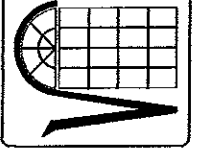
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 MAXIMUM P.S.F. @ 120" +80.00 -80.00 DESIGN PRESSURE - WATER INFILTRATION TEST PRESSURE = 12.0 PSF



COMBINATION 10 (ALTERNATE EXTRUSION)

MAXIMUM P.S.F. @ 96" +80 -80 DESIGN PRESSURE - WATER INFILTRATION TEST PRESSURE = 12 PSF

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PRODUCT:  
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| REVISIONS | DATE | BY | DESCRIPTION |
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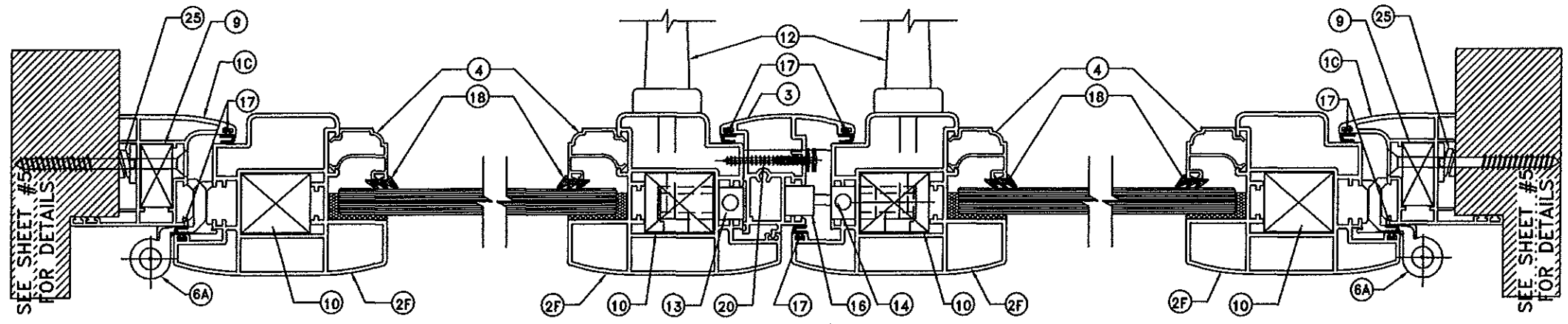
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 SCALE: AS NOTED  
 DWG. BY: LA FIN  
 CHK. BY:

DRAWING No.:  
 FN-EKU53

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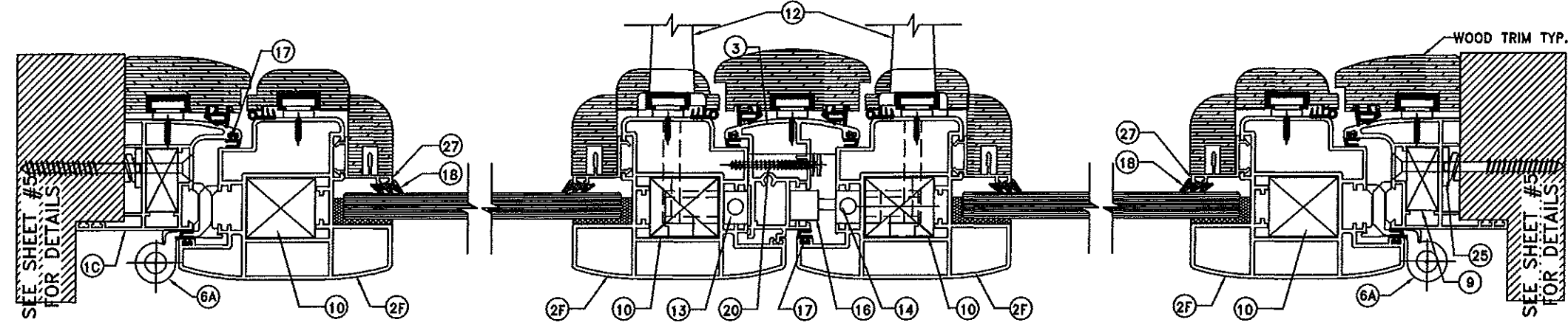
# PROFILE COMBINATIONS

NOTE: PLEASE SEE D.P. LIMITATIONS FOR GLAZING ON SHEET 4



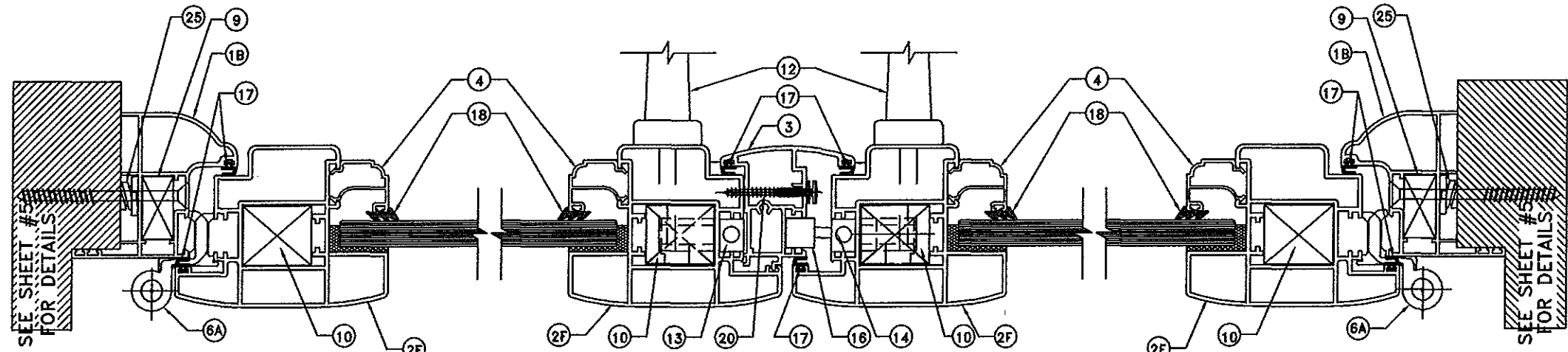
COMBINATION 11

MAXIMUM P.S.F. @ 96" +110.00 -110.00 DESIGN PRESSURE - WATER INFILTRATION TEST PRESSURE = 13.5 PSF  
 MAXIMUM P.S.F. @ 120" +80.00 -80.00 DESIGN PRESSURE - WATER INFILTRATION TEST PRESSURE = 12.0 PSF



COMBINATION 11 WITH WOOD TRIM

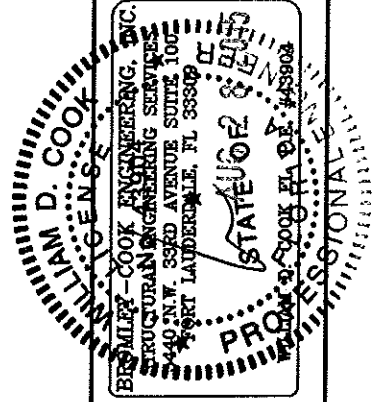
MAXIMUM P.S.F. @ 120" +80.00 -80.00 DESIGN PRESSURE - WATER INFILTRATION TEST PRESSURE = 12.0 PSF



COMBINATION 11 ALT. FRAME

MAXIMUM P.S.F. @ 96" +110.00 -110.00 DESIGN PRESSURE - WATER INFILTRATION TEST PRESSURE = 13.5 PSF  
 MAXIMUM P.S.F. @ 120" +80.00 -80.00 DESIGN PRESSURE - WATER INFILTRATION TEST PRESSURE = 12.0 PSF

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PRODUCT:  
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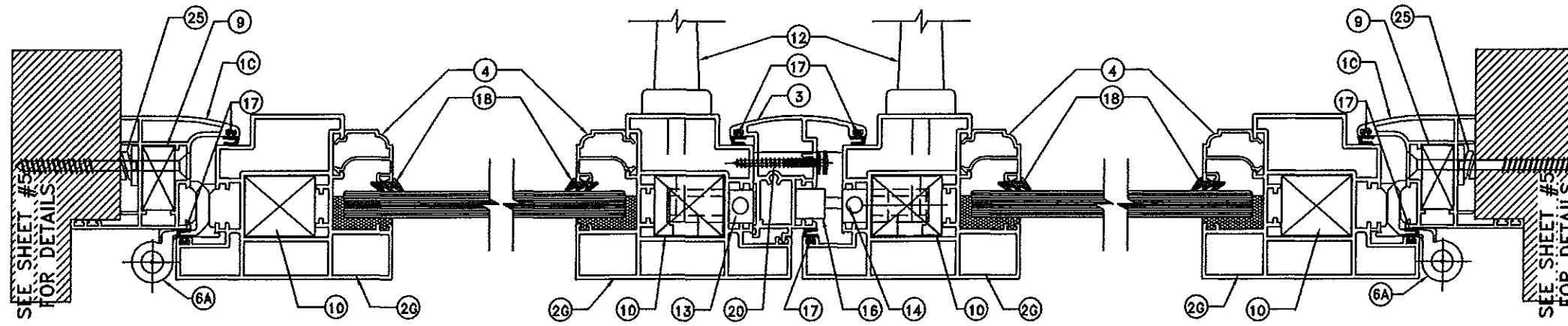
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DATE: 08/20/2015  
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DRAWING No.:  
 FN-EKU53  
 SHEET: 11 OF 15

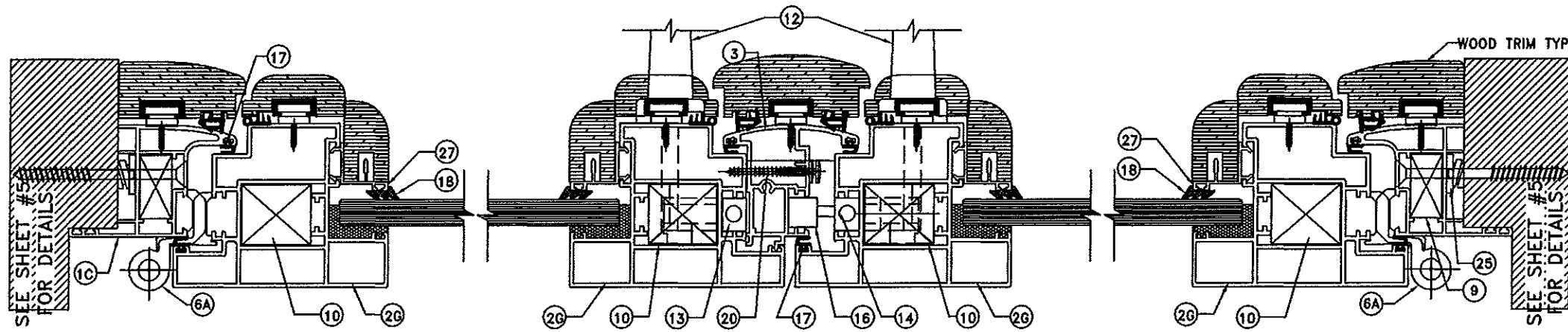
# PROFILE COMBINATIONS

NOTE: PLEASE SEE D.P. LIMITATIONS FOR GLAZING ON SHEET 4



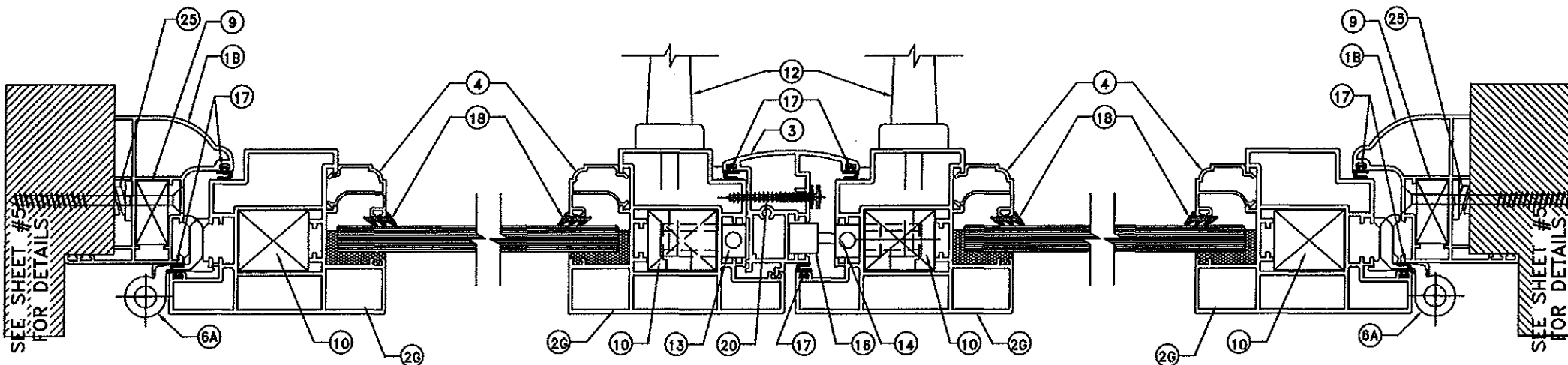
COMBINATION 12

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 MAXIMUM P.S.F. @ 120" +80.00 -80.00 DESIGN PRESSURE - WATER INFILTRATION TEST PRESSURE = 12.0 PSF



COMBINATION 12 WITH WOOD TRIM

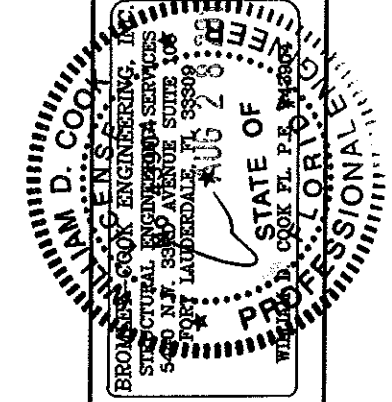
MAXIMUM P.S.F. @ 120" +80.00 -80.00 DESIGN PRESSURE - WATER INFILTRATION TEST PRESSURE = 12.0 PSF



COMBINATION 12 ALT. FRAME

MAXIMUM P.S.F. @ 96" +110.00 -110.00 DESIGN PRESSURE - WATER INFILTRATION TEST PRESSURE = 13.5 PSF  
 MAXIMUM P.S.F. @ 120" +80.00 -80.00 DESIGN PRESSURE - WATER INFILTRATION TEST PRESSURE = 12.0 PSF

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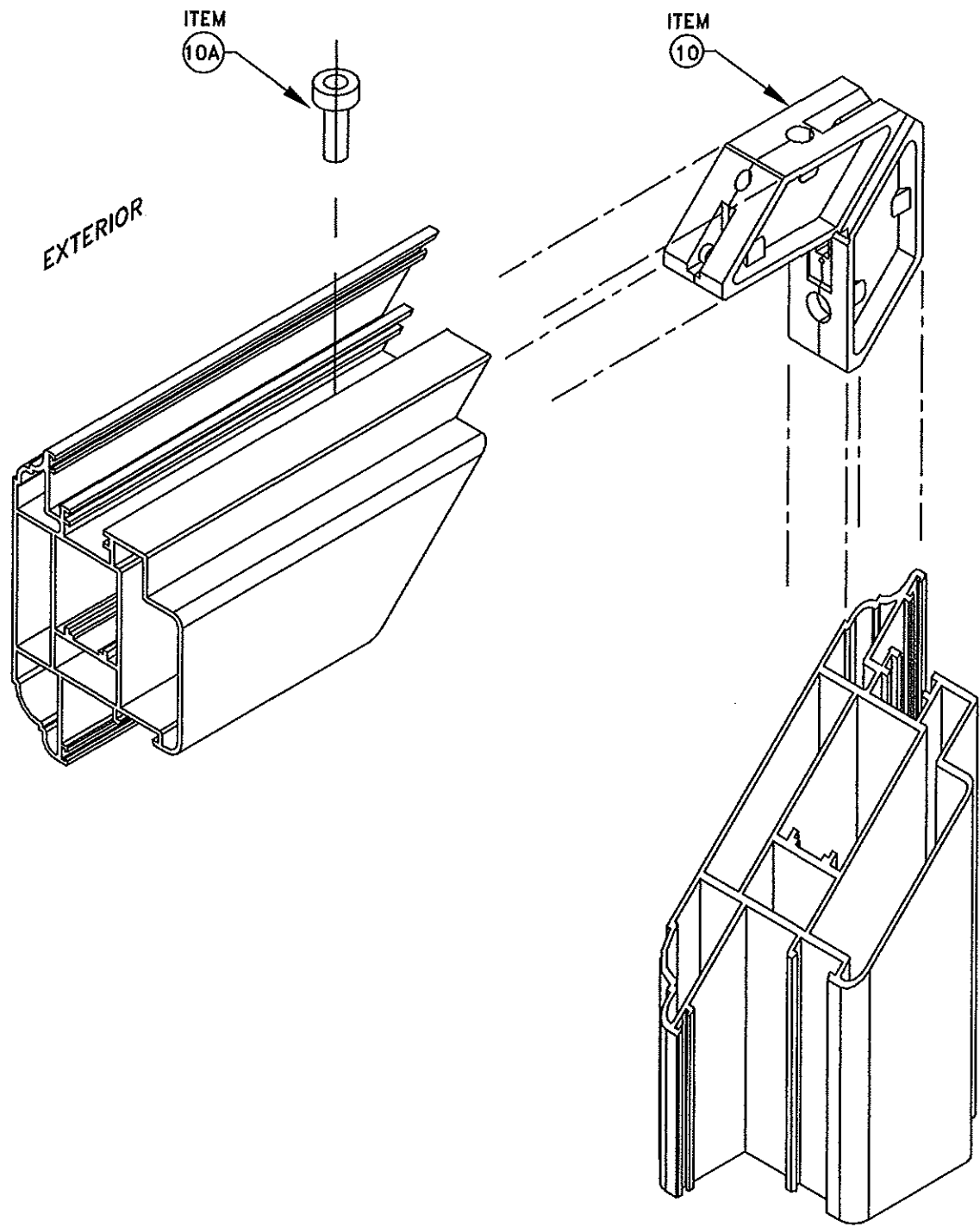


PRODUCT:  
 EKU-53  
 IMPACT  
 WINDOWS

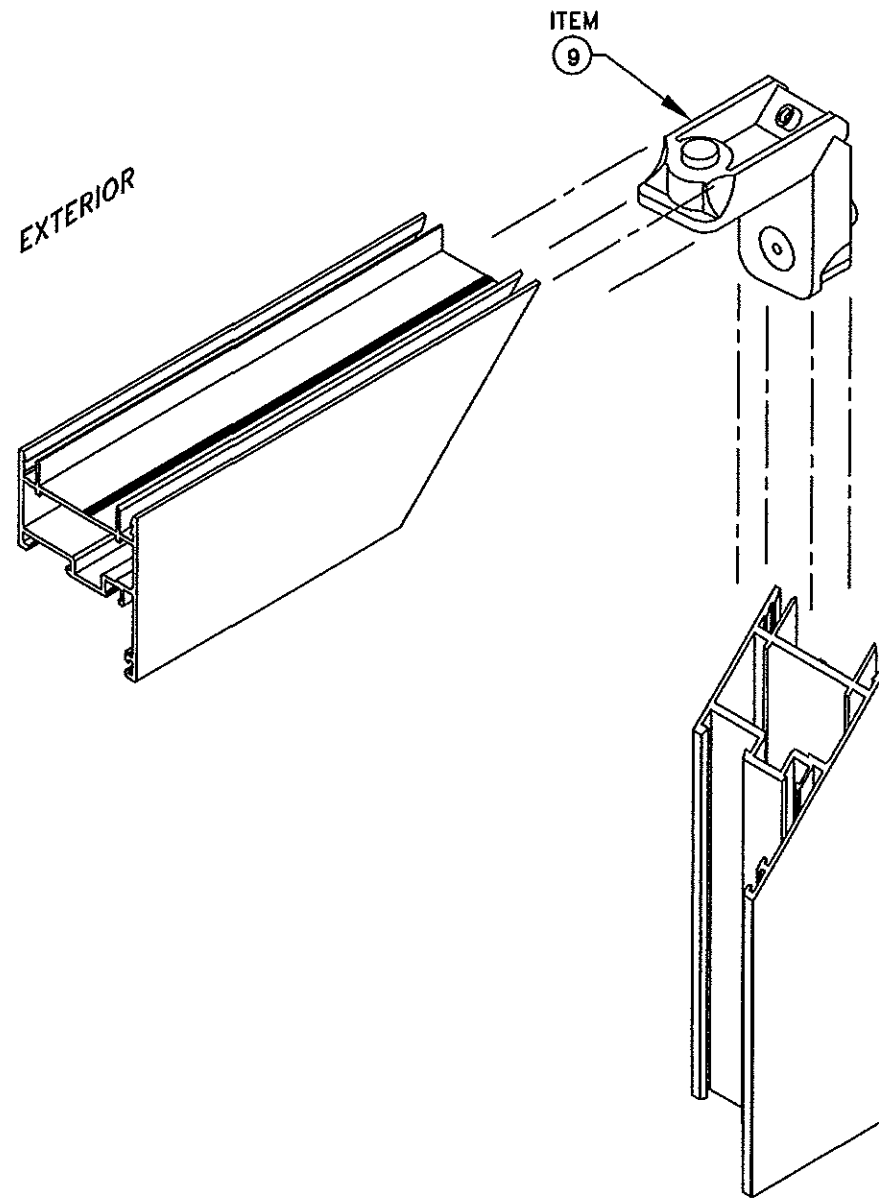
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DATE: 08/20/2015  
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DRAWING No.:  
 FN-EKU53  
 SHEET: 12 OF 15



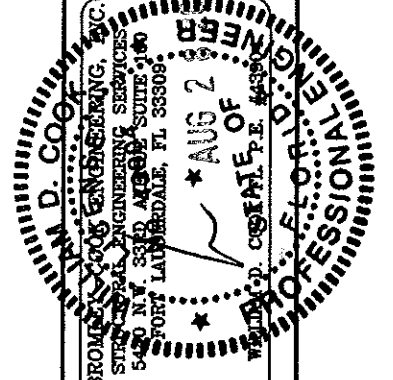
WINDOW PANEL CORNER DETAIL



WINDOW FRAME CORNER DETAIL

NOTE: SEAL JOINTS WITH  
POLYURETHANE SEALANT  
DURING ASSEMBLY

**L.A. FINESTRA, L.C.**  
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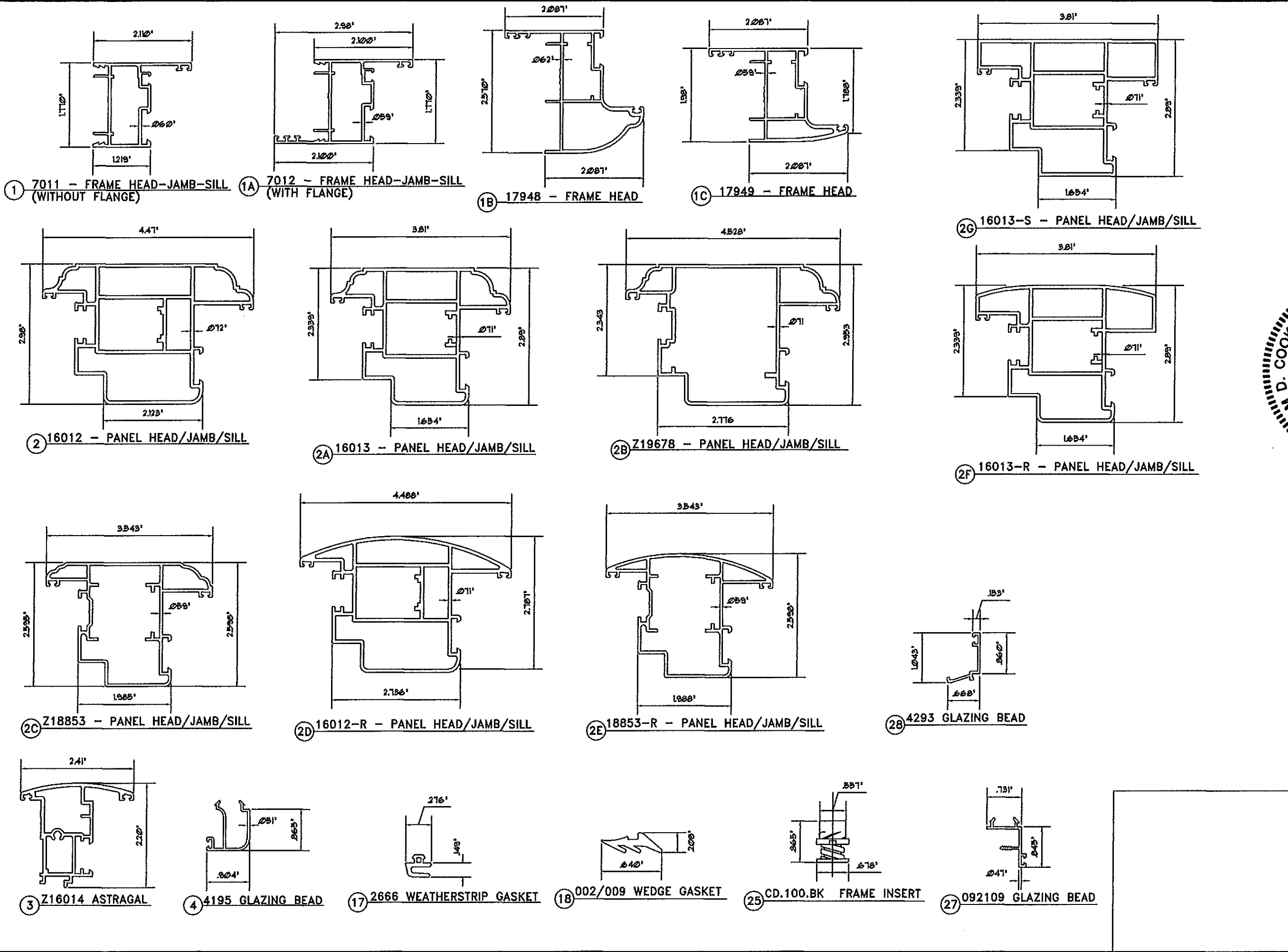
PRODUCT:  
**EKU-53  
IMPACT  
WINDOWS**

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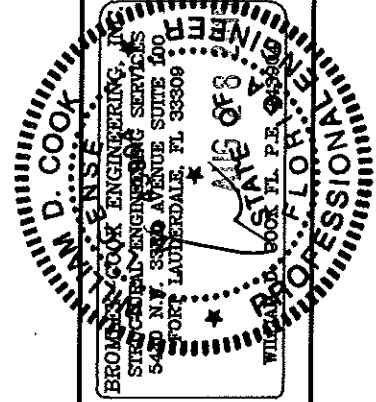
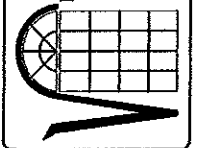
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SCALE: AS NOTED  
DWG. BY: LA FIN  
CHK. BY:

DRAWING No.:  
**FN-EKU53**

SHEET: 13 OF 15



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PRODUCT:  
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 IMPACT  
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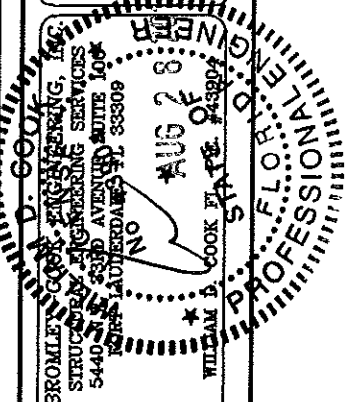
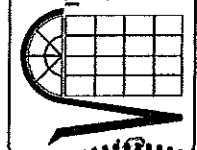


**BILL OF MATERIALS**

| ITEM | PART No.      | QUANTITY            | DESCRIPTION                        | MATERIAL          | LOCATION                           | MANUFACTURER          |
|------|---------------|---------------------|------------------------------------|-------------------|------------------------------------|-----------------------|
| 1    | 7011          | 4                   | FRAME HEAD/JAMB/RESIDENTIAL SILL   | AL.AL. -6060-T5   | WINDOW FRAME                       | PROFILATI SpA         |
| 1A   | 7012          | 4                   | FRAME HEAD/JAMB/RESIDENTIAL SILL   | AL.AL. -6060-T5   | WINDOW FRAME                       | PROFILATI SpA         |
| 1B   | 17948         | 4                   | FRAME HEAD/JAMB/RESIDENTIAL SILL   | AL.AL. -6063-T5   | WINDOW FRAME                       | PROFILATI SpA         |
| 1C   | 17949         | 4                   | FRAME HEAD/JAMB/RESIDENTIAL SILL   | AL.AL. -6063-T5   | WINDOW FRAME                       | PROFILATI SpA         |
| 2    | 16012         | 4                   | PANEL HEAD/JAMB/SILL               | AL.AL. -6060-T5   | WINDOW FRAME                       | PROFILATI SpA         |
| 2A   | 16013         | 4                   | PANEL HEAD/JAMB/SILL               | AL.AL. -6063-T5   | WINDOW FRAME                       | PROFILATI SpA         |
| 2B   | Z19678        | 4                   | PANEL HEAD/JAMB/SILL               | AL.AL. -6063-T5   | WINDOW FRAME                       | PROFILATI SpA         |
| 2C   | 18853         | 4                   | PANEL HEAD/JAMB/SILL               | AL.AL. -6063-T5   | WINDOW FRAME                       | PROFILATI SpA         |
| 2D   | 16012-R       | 4                   | PANEL HEAD/JAMB/SILL               | AL.AL. -6063-T5   | WINDOW FRAME                       | PROFILATI SpA         |
| 2E   | 18853-R       | 4                   | PANEL HEAD/JAMB/SILL               | AL.AL. -6063-T5   | WINDOW FRAME                       | PROFILATI SpA         |
| 2F   | 16013-R       | 4                   | PANEL HEAD/JAMB/SILL               | AL.AL. -6063-T5   | WINDOW FRAME                       | PROFILATI SpA         |
| 2G   | 16013-S       | 4                   | PANEL HEAD/JAMB/SILL               | AL.AL. -6063-T5   | WINDOW FRAME                       | PROFILATI SpA         |
| 3    | Z16014        | 1                   | ASTRAGAL                           | AL.AL. -6060-T5   | INACTIVE LEAF PANEL JAMB           | PROFILATI SpA         |
| 4    | 4195          | 4/VENT              | GLAZING BEAD                       | AL.AL. -6060-T5   | PANEL PERIMETER                    | PROFILATI SpA         |
| 5    | NOT USED      |                     |                                    |                   |                                    |                       |
| 6    | A8221         | 6/VENT              | 4" BUTTHINGES                      | AL.AL. -6060-T5   | PANEL AND FRAME JAMBS              | MASTER                |
| 6A   | 160/12        | 6/VENT              | 4" BUTTHINGES                      | AL.AL. -6060-T5   | PANEL AND FRAME JAMBS              | CASALI                |
| 7    | N/A           | 2 EA. LITE OF GLASS | 1/4" X 1/2" X 3" LG. SETTING BLOCK | EXTRUDED SILICONE | @ 6" FROM ENDS                     | GENERIC               |
| 9    | 0409          | 1 EA. CORNER        | FRAME CORNER KEY                   | CAST ALUMINUM     | FRAME CORNERS                      | MONTICELLI            |
| 10   | 5004          | 1 EA. CORNER        | PANEL CORNER KEY                   | CAST ALUMINUM     | PANEL CORNERS                      | MONTICELLI            |
| 10A  | 001           | 1 EA. CORNER        | PANEL CORNER KEY                   | EXT. ALUMINUM     | PANEL CORNERS                      | PROFILATI SpA         |
| 10B  | 002           | 1 EA. CORNER        | PANEL CORNER KEY                   | EXT. ALUMINUM     | PANEL CORNERS                      | PROFILATI SpA         |
| 12   | SERIES 800    | 1/VENT              | OPERATING HANDLE                   | ALUMINUM          | EACH PANEL JAMB                    | PASINI                |
| 13   | 1025          | 2                   | TRANSMISSION MOVEMENT DEVISE       | ZAMA/S.S.         | PANEL JAMB ASTRAGAL SIDE ONLY      | GSG                   |
| 14   | 1286          |                     | 5-POINT LOCKING SYSTEM             | S.S.              | ACTIVE PANEL                       | AMESBURY              |
| 15   | FB-1300-20-SS | 2                   | FLUSH BOLT                         | S.S.              | ACTIVE PANEL                       | SULLIVAN              |
| 16   | 4031          | AS SHOWN            | MUSHROOM HEAD AND KEEPERS          | S.S./ALUMINUM     | PANEL JAMB AT TOP & BOTTOM         | GSG/LAFIN             |
| 16A  | CD-MPK-100-SS |                     | MULTIPOINT KEEPER KIT              | S.S./ALUMINUM     | PANEL JAMB AT TOP & BOTTOM         | SULLIVAN              |
| 17   | 2666          | AS REQ'D.           | WEATHERSTRIP GASKET                | EPDM              | FRAME JAMB/ASTRAGAL/FRAME PANEL    | PROFILATI SpA         |
| 18   | 002/009       | AS REQ'D.           | WEDGE GASKET                       | EPDM              | PANEL GLAZING PERIM. (INTERIOR)    | PROFILATI SpA         |
| 19   | ---           | 2/EACH              | # 10 x 2 1/2" FH.SMS. (ASSEMBLY)   | PLATED STEEL      | FLUSHBOLT STRIKE PLATE             | ---                   |
| 20   | ---           | SEE ELEV.           | # 10 x 2" FH.SMS. (ASSEMBLY)       | PLATED STEEL      | ASTRAGAL (SINGLE ROW)              | ---                   |
| 22   | ---           | 2 EA. CORNER        | #14 X 3/4" FH. SMS. (PANEL ASS'Y)  | PLATED STEEL      | PANEL CORNERS                      | ---                   |
| 23   | 895/995       | CONTINUOUS          | STRUCTURAL SILICONE                | SILICONE          | PERIMETER GLASS TO METAL           | PECORA OR DOW CORNING |
| 25   | CD.100.BK     | AS REQ'D.           | FRAME INSERT                       | ALLUM/NYLON       | FRAME PERIMETER (SINGLE ROW)       | SULLIVAN              |
| 26   | SDG.SP.316    | AS REQ'D.           | STRIKE PLATE                       | S.S.              | ALONGSIDE FRAME (WHERE LOCK MEETS) | SULLIVAN              |
| 27   | 092109        | 4/VENT              | GLAZING BEAD                       | AL.AL. -6060-T5   | PANEL PERIMETER                    | PROFILATI SpA         |
| 28   | 4293          | 4/VENT              | GLAZING BEAD                       | AL.AL. -6060-T5   | PANEL PERIMETER                    | PROFILATI SpA         |
| 29   | 2167/2168     | 2                   | FLUSH BOLT                         | ZAMA              | INACTIVE PANEL                     | GSG                   |

NOT USED: 5  
8 21  
11 24

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PRODUCT:  
**EKU-53**  
**IMPACT**  
**WINDOWS**

| REVISIONS | DATE | BY | DESCRIPTION |
|-----------|------|----|-------------|
| No.       |      |    |             |
|           |      |    |             |
|           |      |    |             |
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|           |      |    |             |

DATE: 08/20/2015  
 SCALE: AS NOTED  
 DWG. BY: LA FIN  
 CHK. BY:

DRAWING No.:  
**FN-EKU53**  
 SHEET: 15 OF 15