



515 N. FRALEY STREET
KANE, PA 16735

Hurri-Kane Shield Level 3 Storm Barriers

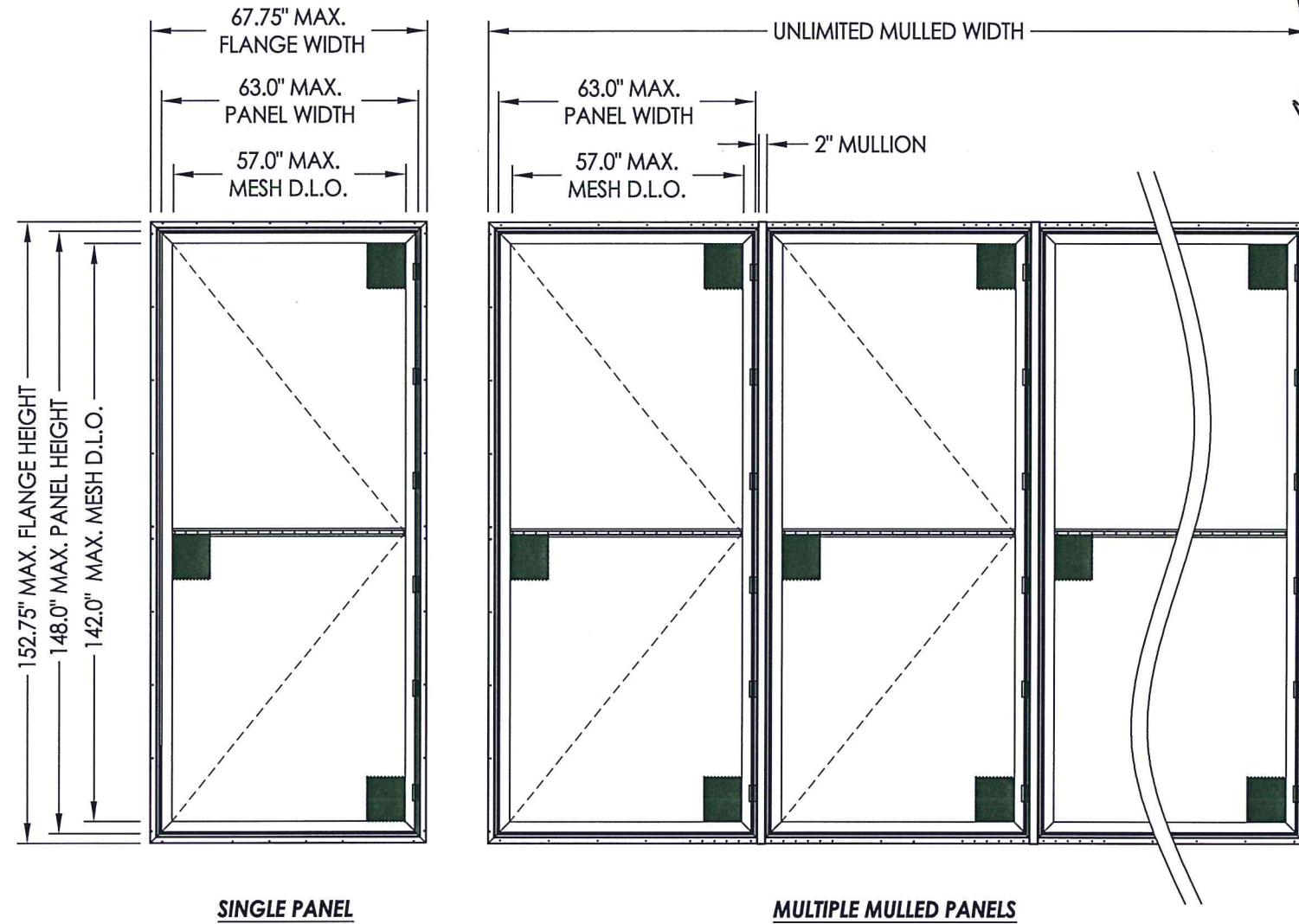
"IMPACT"

GENERAL NOTES

1. This product has been evaluated and is in compliance with the 6th Edition (2017) Florida Building Code (FBC) structural requirements including the "High Velocity Hurricane Zone" (HVHZ).
2. Product anchors shall be as listed and spaced as shown on details. Anchor embedment to base material shall be beyond wall dressing or stucco.
3. When used in the HVHZ, this product complies with Section 1626 of the FBC and does not require an impact resistant covering.
4. When used in areas requiring wind borne debris protection, this product complies with FBC Sections 1609.1.2 & R301.2.1.2 and does not require an impact resistant covering. This product meets missile level "D" and includes Wind Zone 4 as defined in ASTM E1996 and FBC Sections 1609.1.2.2 & R301.2.1.2.1.
5. Site conditions that deviate from the details of this drawing require further engineering analysis by a licensed engineer or registered architect.
6. All steel shall be protected as specified in Section 2222.6 of the FBC.

TABLE OF CONTENTS

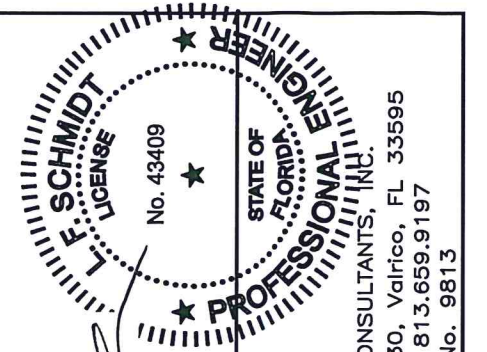
| SHEET # | DESCRIPTION |
|---------|---|
| 1 | Typical elevation, design pressures & general notes |
| 2 | Panel details |
| 3 | Elevatons |
| 4 | Horizontal cross sections |
| 5 | Vertical cross sections |
| 6 | Horizontal and vertical cross sections |
| 7 | Glass separation vertical cross sections |
| 8 | Single panel frame anchoring |
| 9 | Multiple mulled panels frame anchoring |
| 10 | Single panel frame anchoring |
| 11 | Multiple mulled panels frame anchoring |
| 12 | Bill of materials and components |



| ORIENTATION | MAX OVERALL FLANGE DIMENSION | MAX OVERALL PANEL DIMENSION | DESIGN PRESSURE (PSF) without Porosity Factor | | DESIGN PRESSURE (PSF) with Porosity Factor * | |
|-------------|------------------------------|-----------------------------|---|----------|--|----------|
| | | | POSITIVE | NEGATIVE | POSITIVE | NEGATIVE |
| VERTICAL | 67.75" X 152.75" | 63.0" X 148.0" | +62.0 | -70.0 | +102.0 | -115.0 |
| HORIZONTAL | 152.75" X 67.75" | 148.0" X 63.0" | +62.0 | -62.0 | +102.0 | -102.0 |

See Sheet 3 for Horizontal Orientation Elevations

* NOTE: The Design Pressure shown has been increased for the porosity of the barrier (61%). The consideration of the use of the porosity factor is at the discretion of the Design Professional or the Authority Having Jurisdiction.



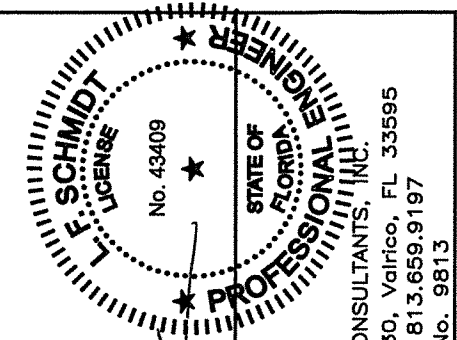
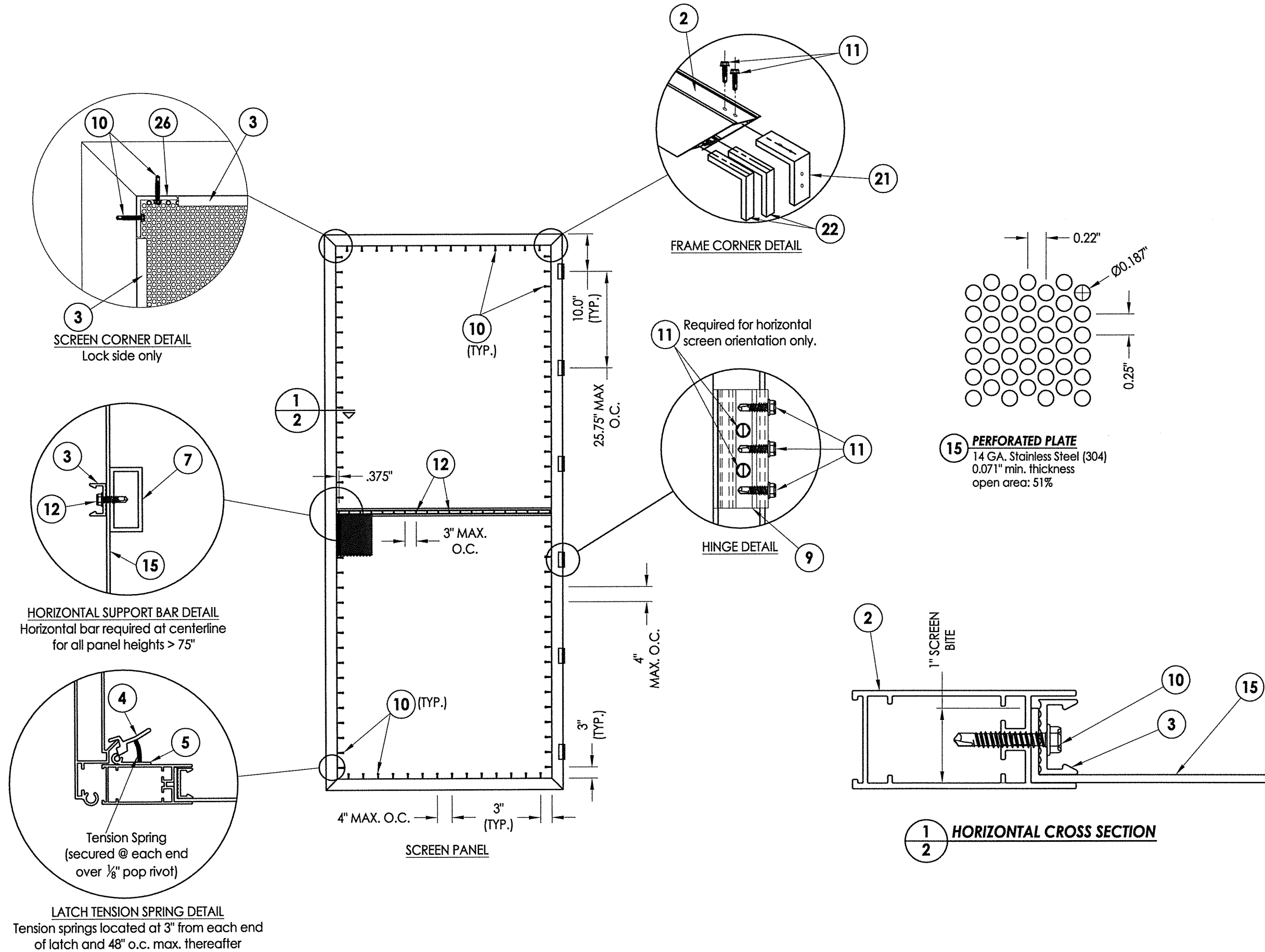
Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

R.W. BUILDING CONSULTANTS, INC.
P.O. Box 230, Vairico, FL 33595
Phone No.: 813.659.9197
FBPE C.A. No. 9813

PRODUCT: Storm Barriers
PART OR ASSEMBLY: TYPICAL ELEVATION, DESIGN PRESSURES & GENERAL NOTES

| NO. | DATE | REVISIONS |
|-----|---------|------------------------------|
| 1 | 9/26/17 | UPDATE TO 6TH ED. (2017) FBC |

DATE: 3/20/17
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-10238.4
SHEET 1 OF 14

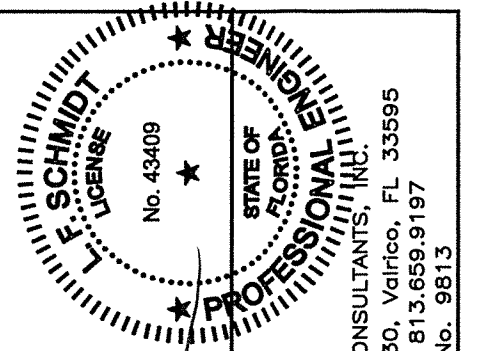
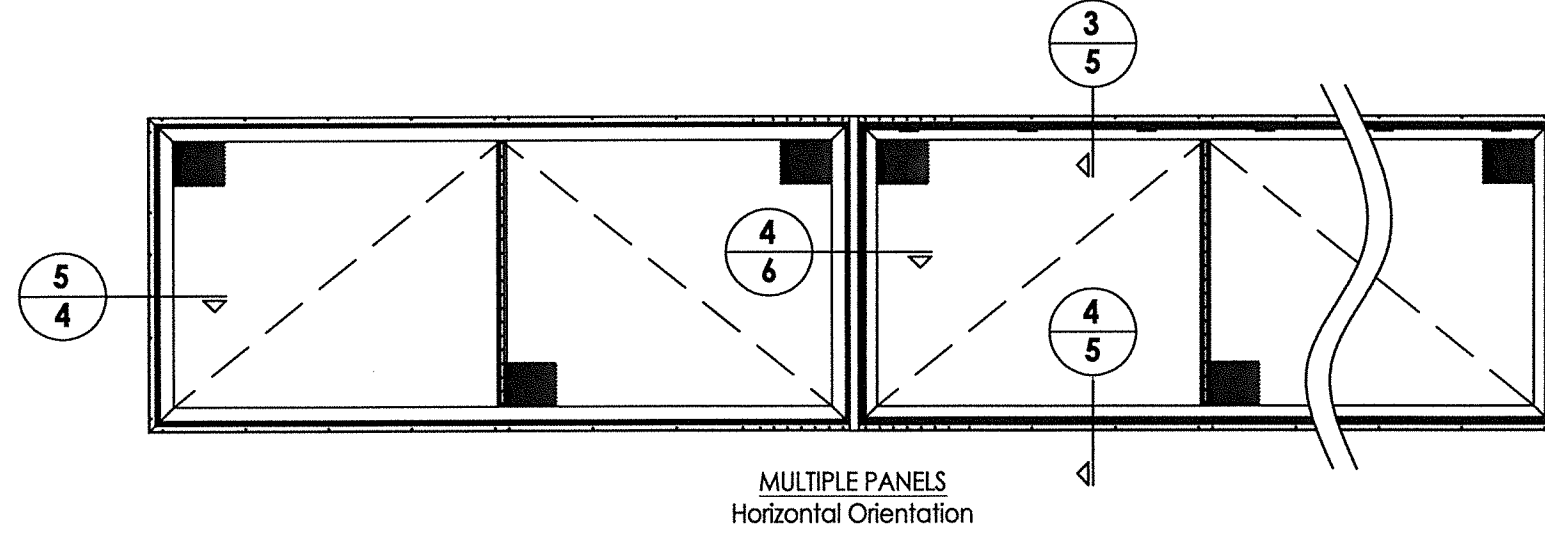
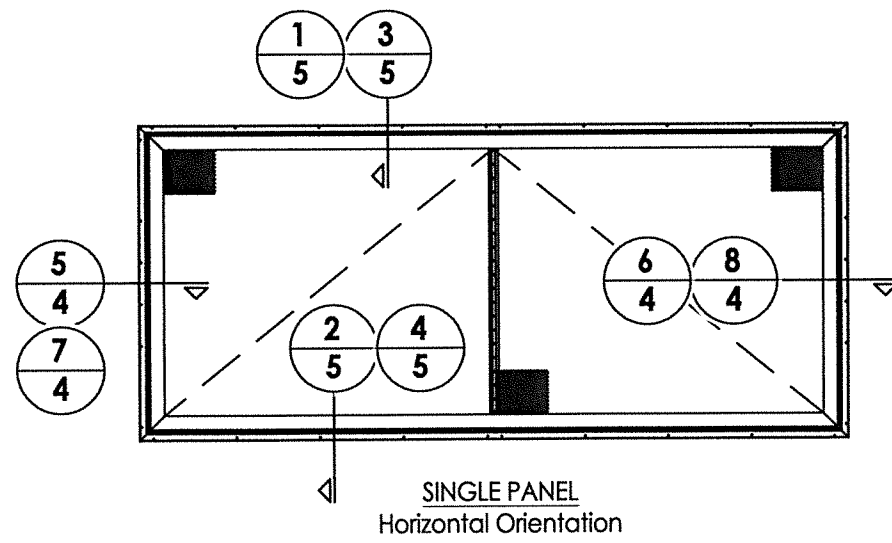
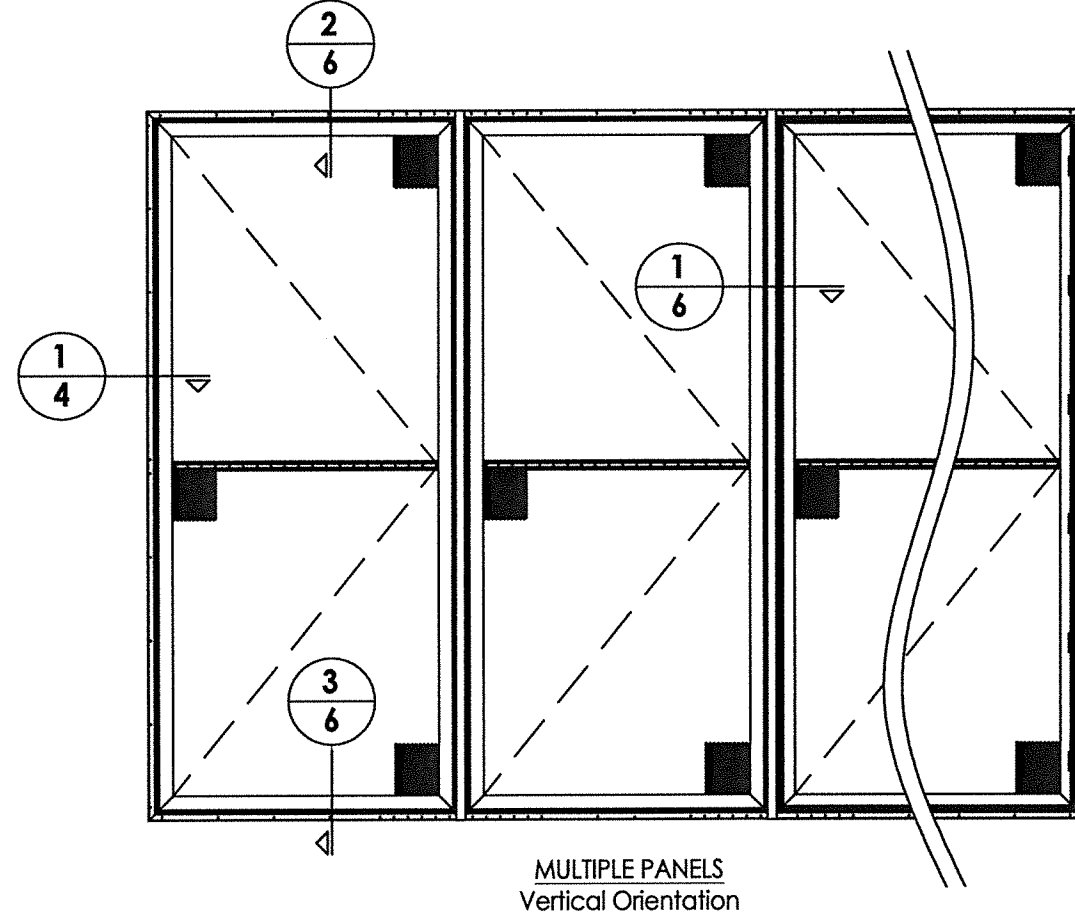
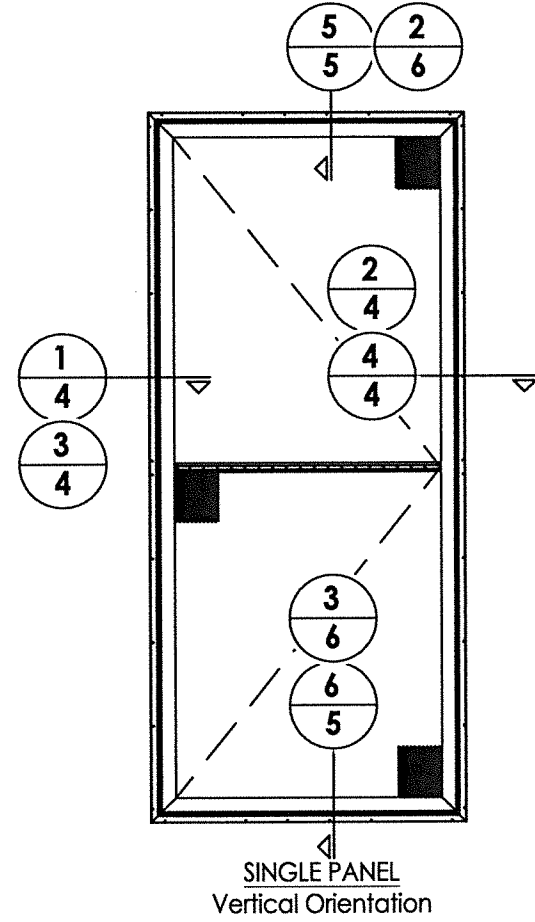


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LFS
3/17

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| | | | |
|-------------------------|---------|----------------|------------------------------|
| PRODUCT: | | Storm Barriers | |
| PART OR ASSEMBLY: | | PANEL DETAILS | |
| NO. | DATE | BY | REVISIONS |
| 1 | 9/26/17 | JK | UPDATE TO 6TH ED. (2017) FBC |
| DATE: 3/20/17 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: JK | | | |
| CHK. BY: LFS | | | |
| DRAWING NO.: FL-10238.4 | | | |
| SHEET 2 OF 14 | | | |



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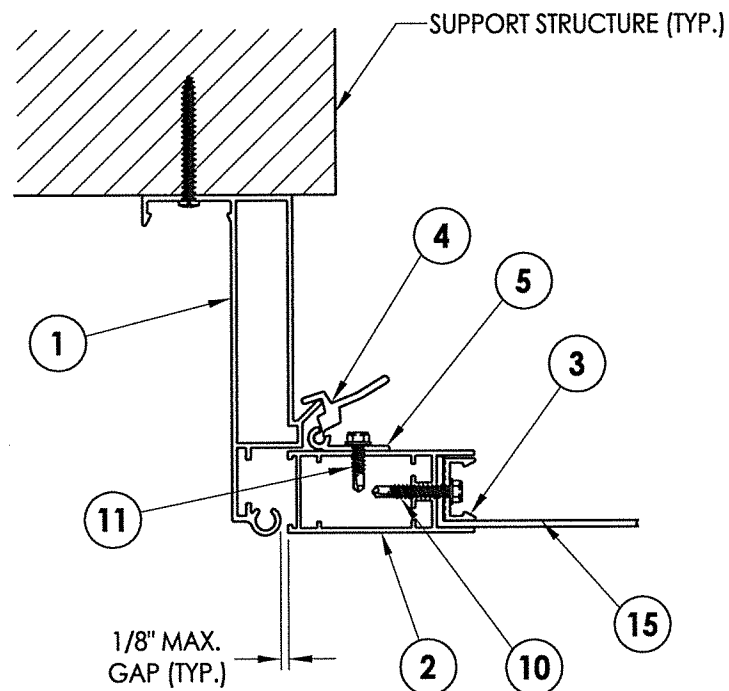
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P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE C.A. No. 9813

PRODUCT: Storm Barriers
PART OR ASSEMBLY: ELEVATIONS

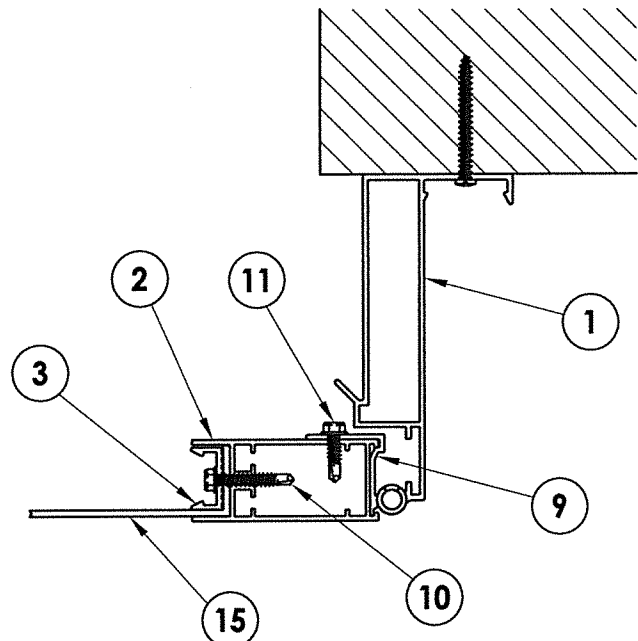
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DATE: 3/20/17
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-10238.4
SHEET 3 OF 14

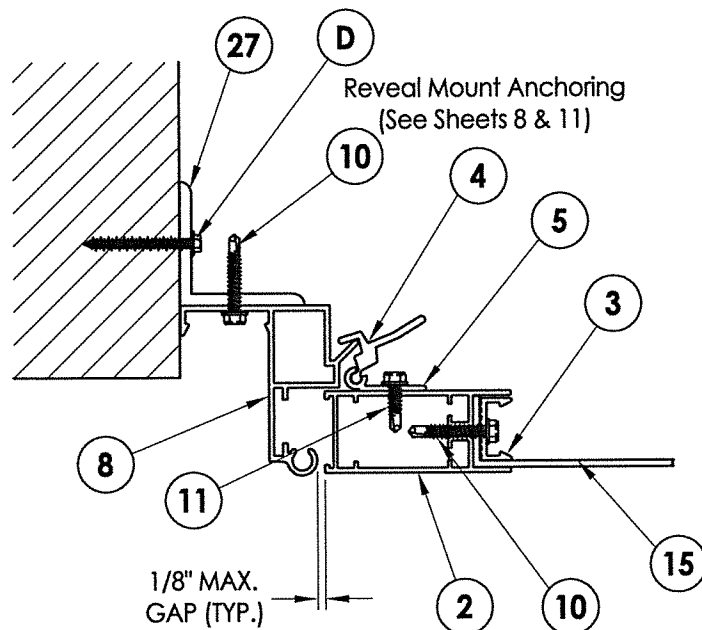
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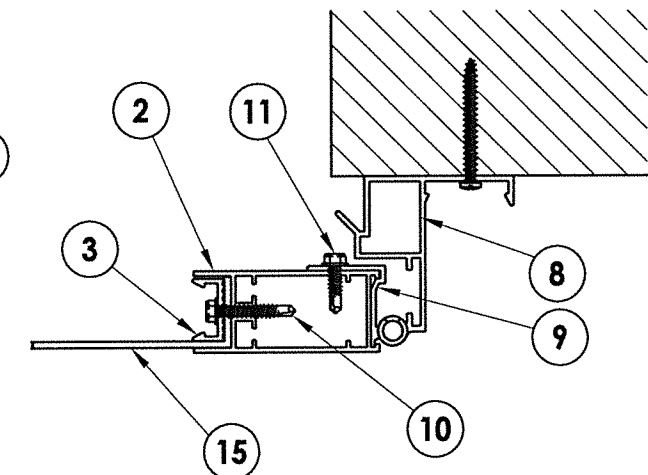
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4 HORIZONTAL CROSS SECTION



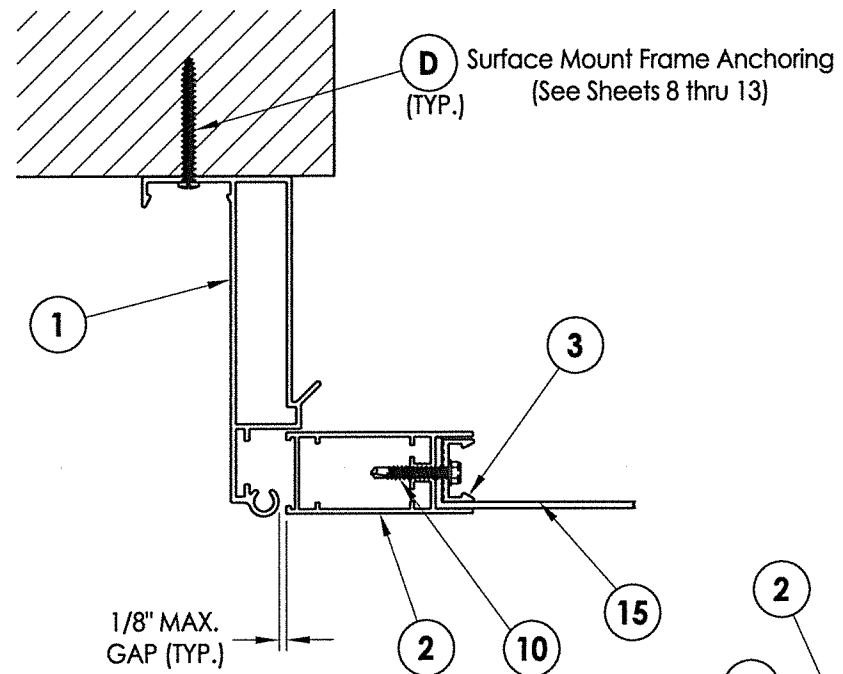
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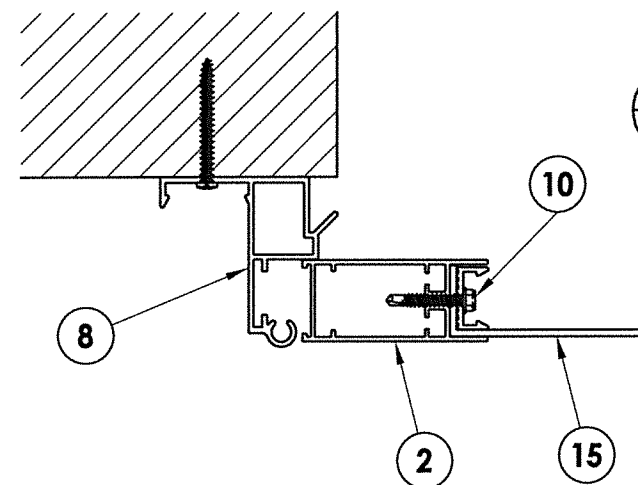
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4 HORIZONTAL CROSS SECTION
Shown w/ Reveal mount



4
4 HORIZONTAL CROSS SECTION

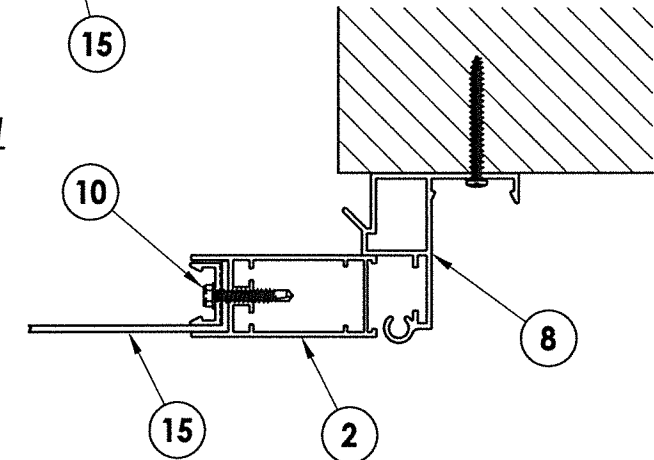


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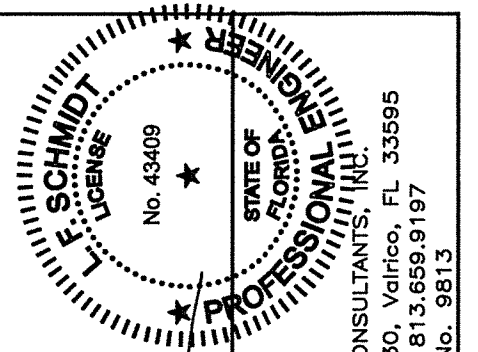


6
4 HORIZONTAL CROSS SECTION

7
4 HORIZONTAL CROSS SECTION



8
4 HORIZONTAL CROSS SECTION



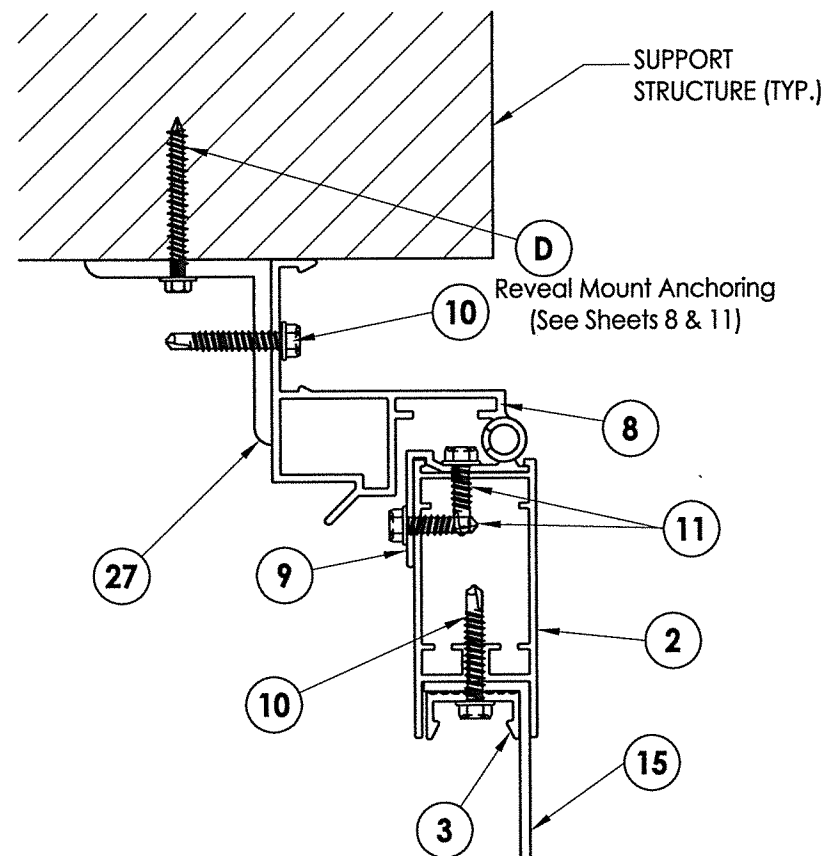
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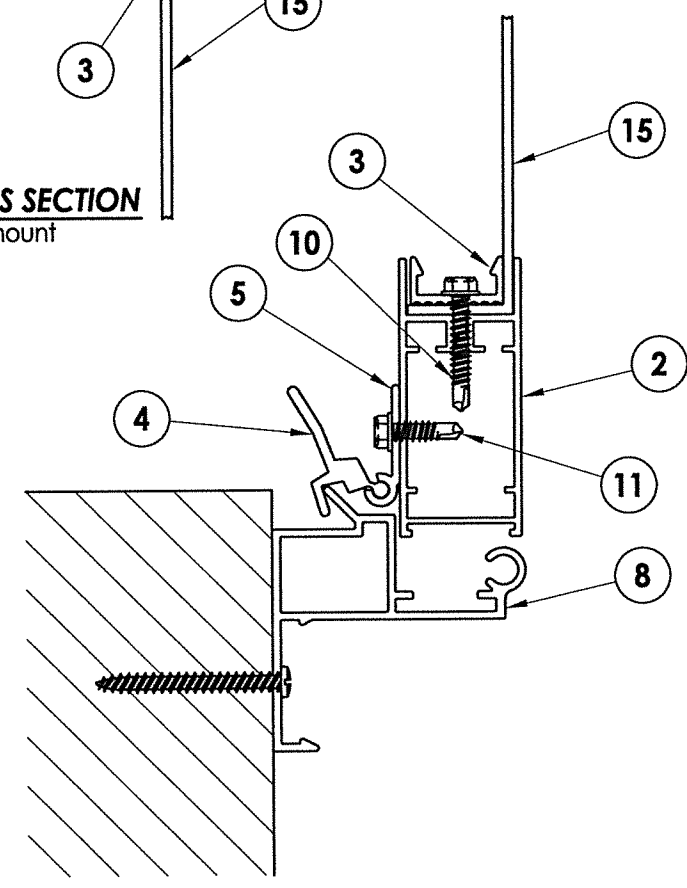
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| NO. | DATE | JK | BY |
| 1 | 9/26/17 | FBC | |
| REVISIONS | | | |
| DATE: 3/20/17 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: JK | | | |
| CHK. BY: LFS | | | |
| DRAWING NO.: FL-10238.4 | | | |
| SHEET 4 OF 14 | | | |

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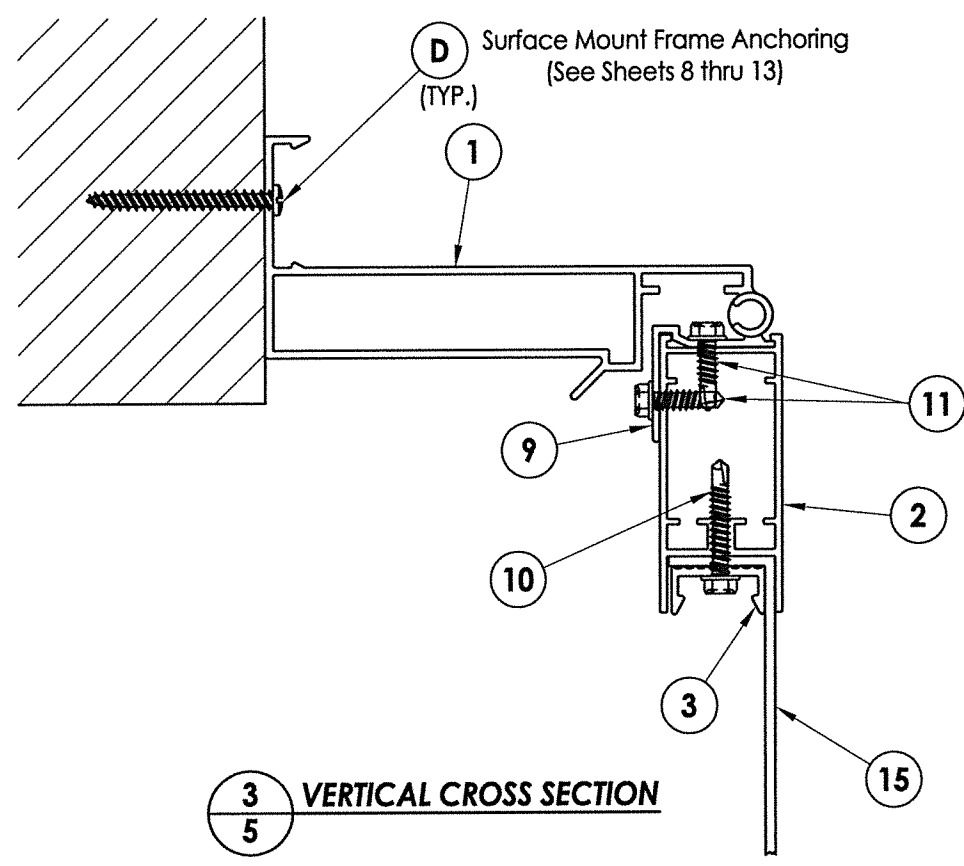
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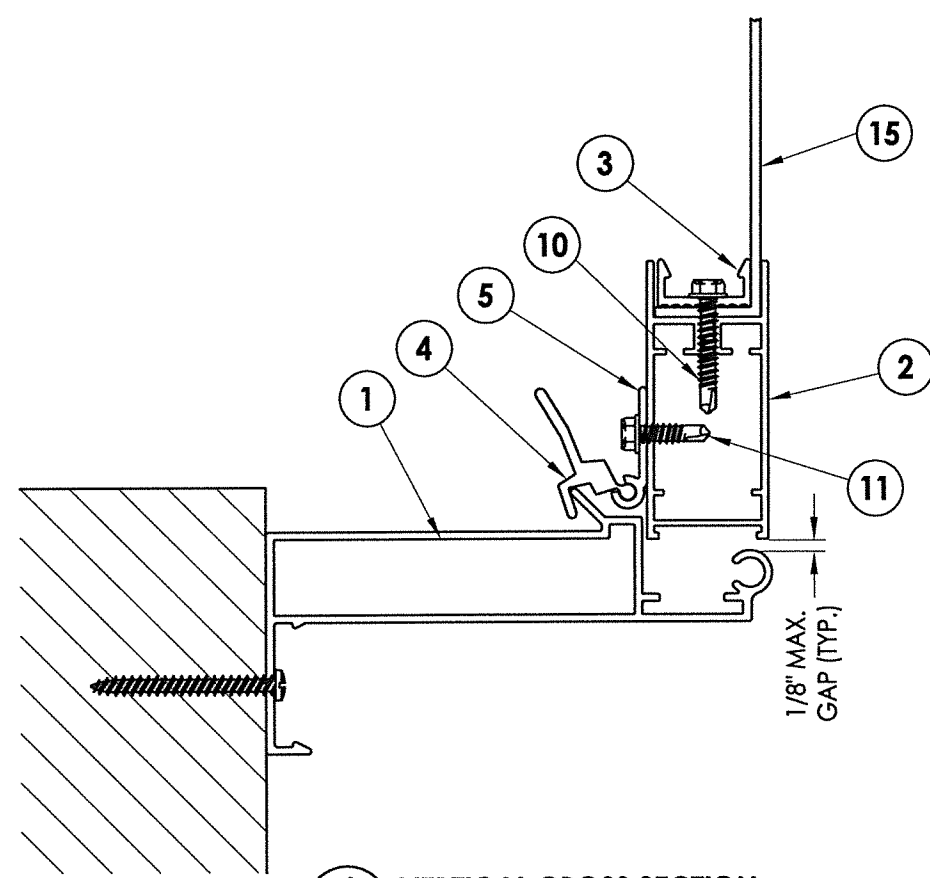
1 VERTICAL CROSS SECTION
5 Shown w/ Reveal mount



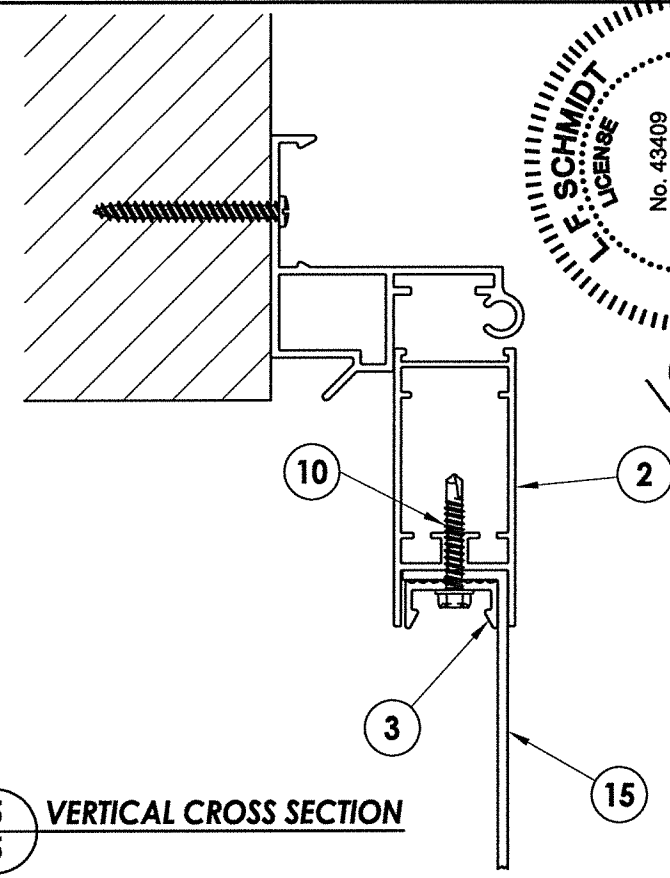
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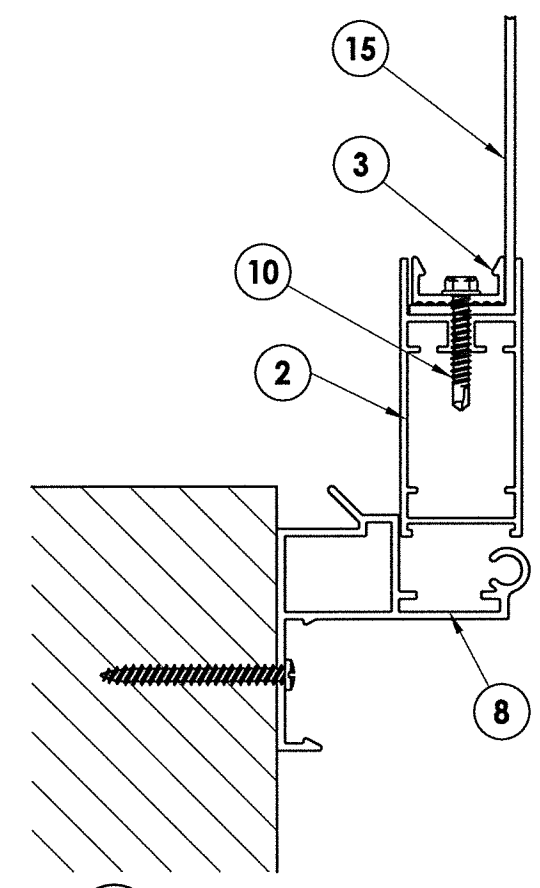
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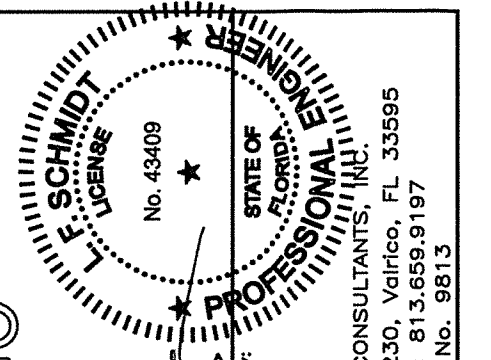
4 VERTICAL CROSS SECTION
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5 VERTICAL CROSS SECTION
5



6 VERTICAL CROSS SECTION
5

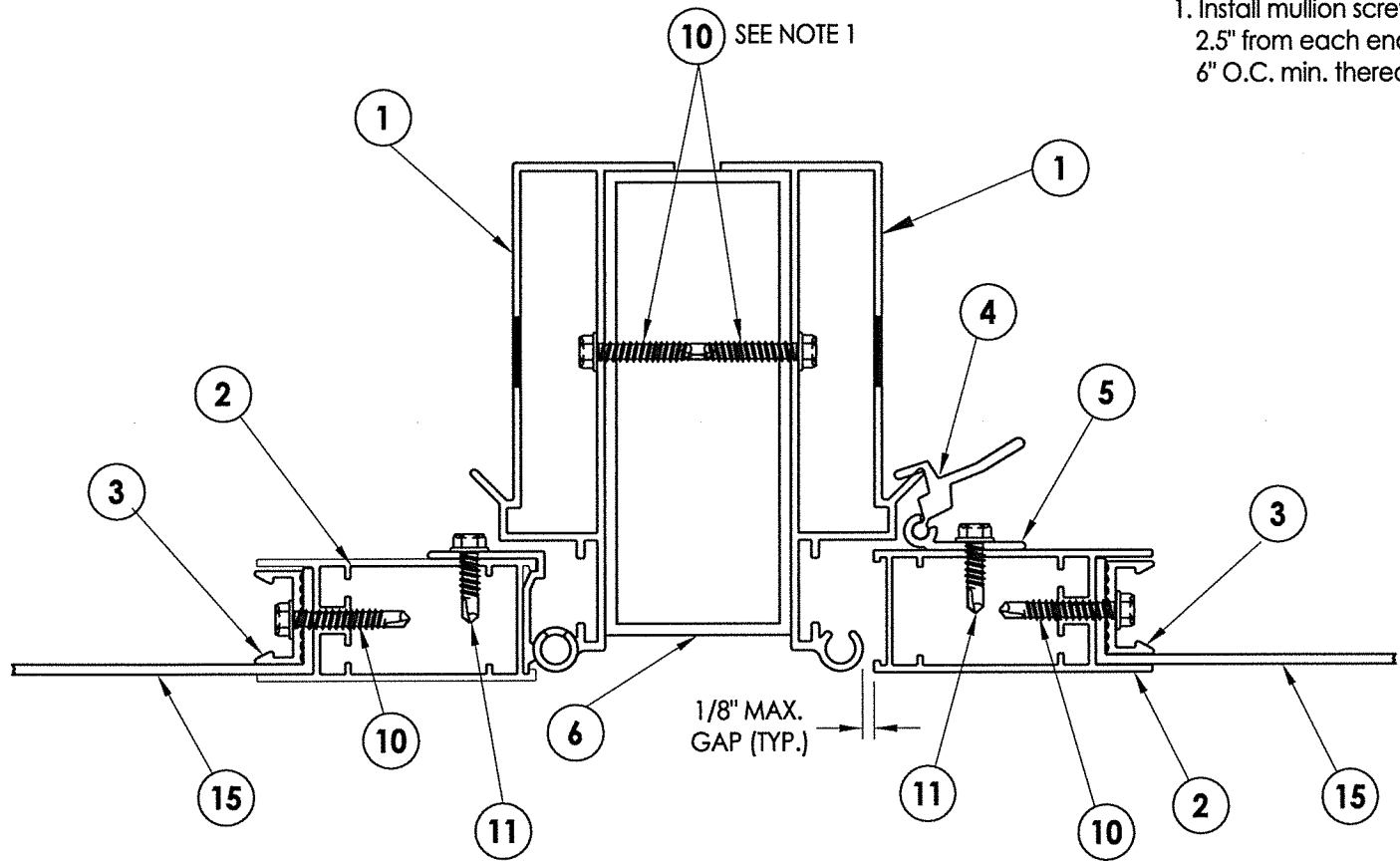


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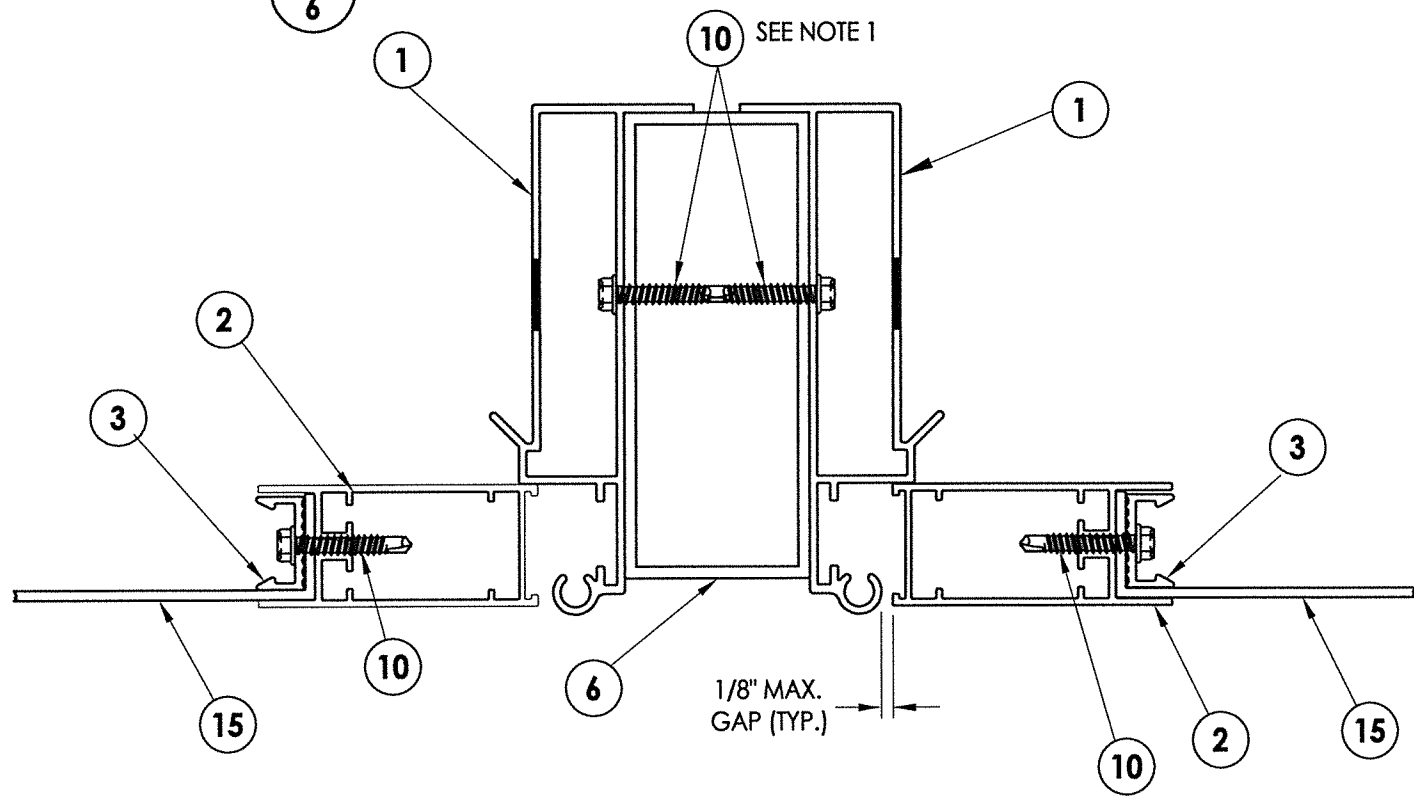
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| DATE: | 3/20/17 | |
| SCALE: | N.T.S. | |
| DWG. BY: | JK | |
| CHK. BY: | LFS | |
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| SHEET | 5 OF 14 | |
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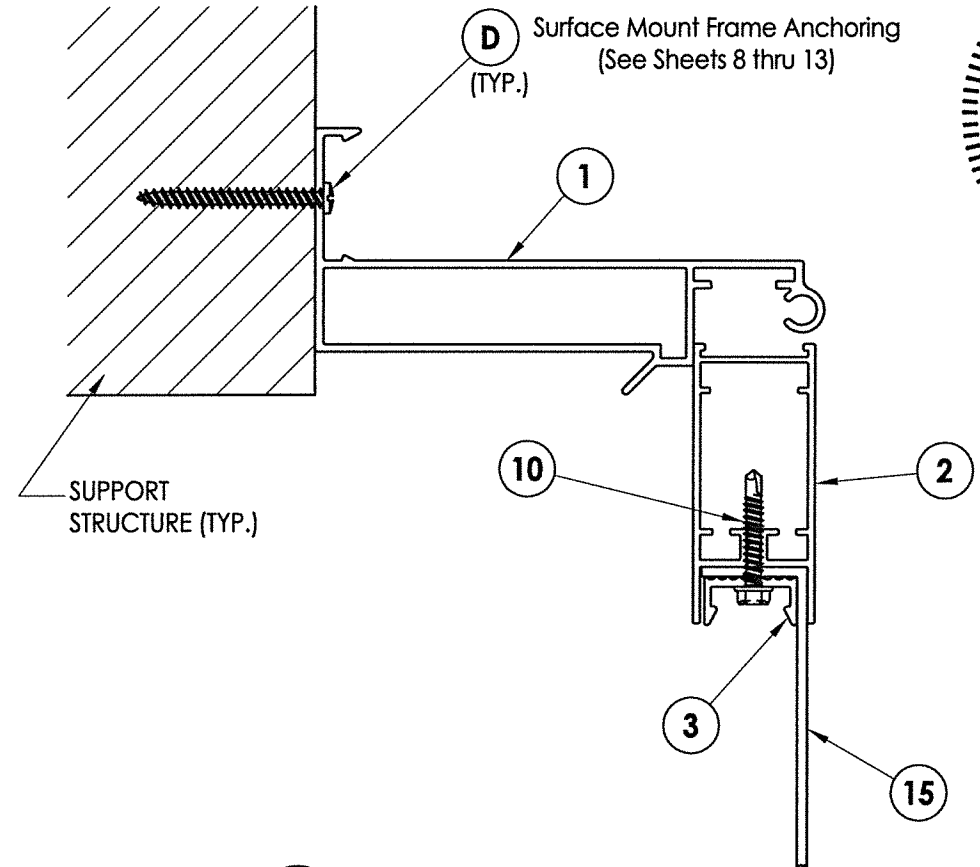
Note:
 1. Install mullion screws (item 10)
 2.5" from each end and
 6" O.C. min. thereafter.



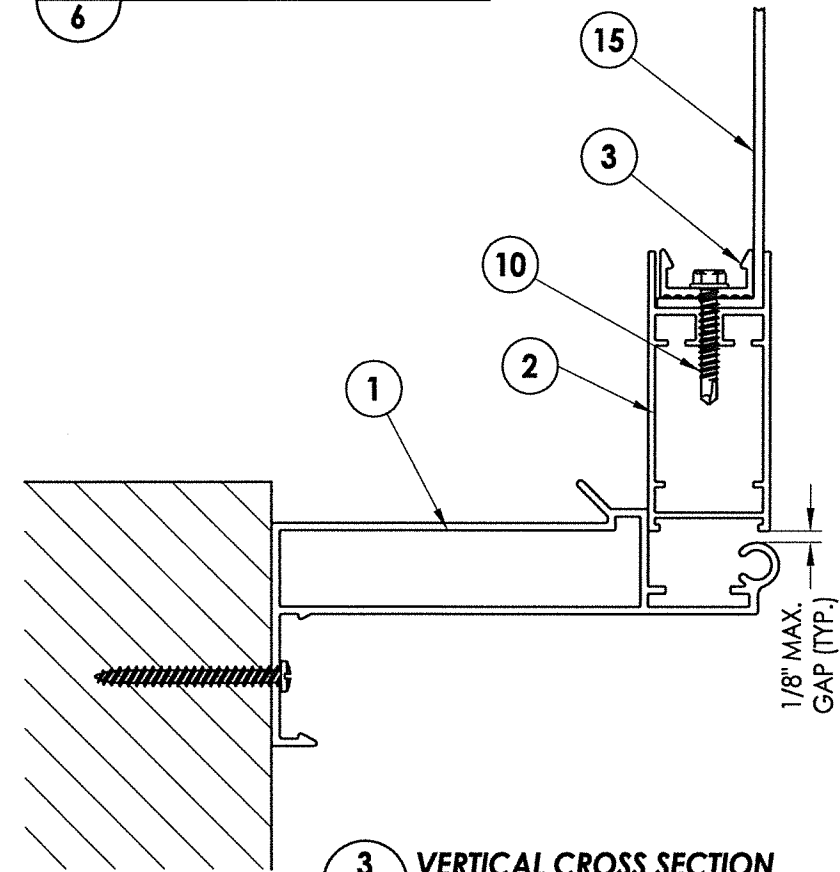
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6 HORIZONTAL CROSS SECTION



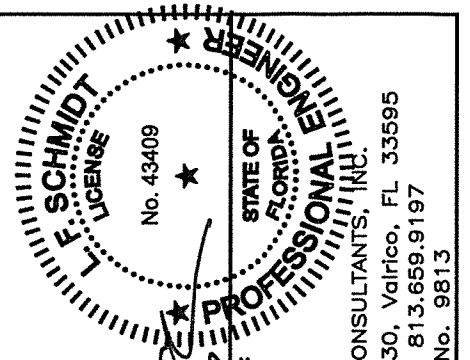
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6 HORIZONTAL CROSS SECTION



2
6 VERTICAL CROSS SECTION



3
6 VERTICAL CROSS SECTION



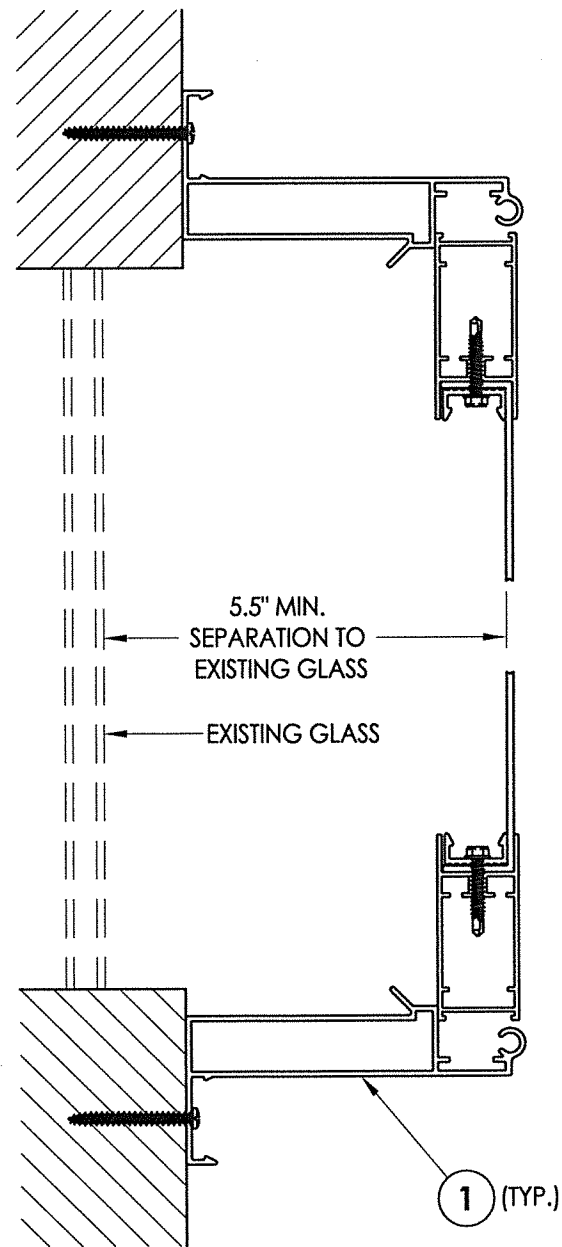
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| | |
|-------------------|--------------------------------------|
| PRODUCT: | Storm Barriers |
| PART OR ASSEMBLY: | HORIZONTAL & VERTICAL CROSS SECTIONS |

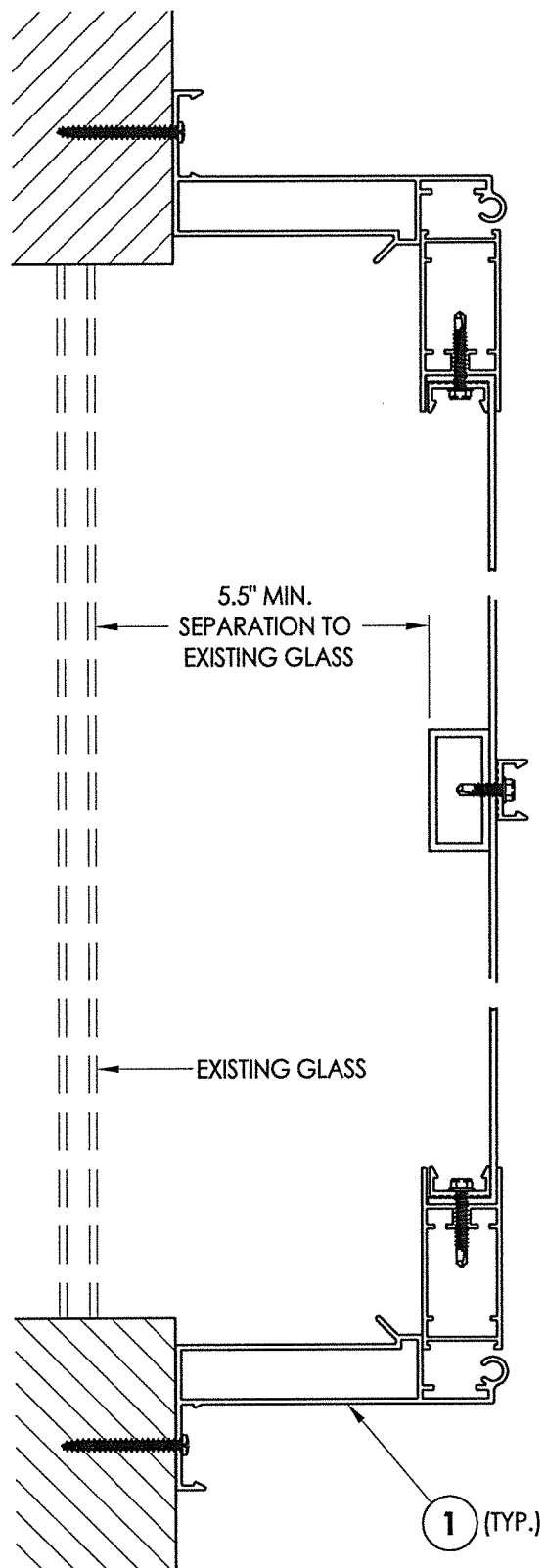
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| 1 | 9/26/17 | JK | UPDATE TO 6TH ED. (2017) FBC |

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| DATE: | 3/20/17 |
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| SHEET | 6 OF 14 |

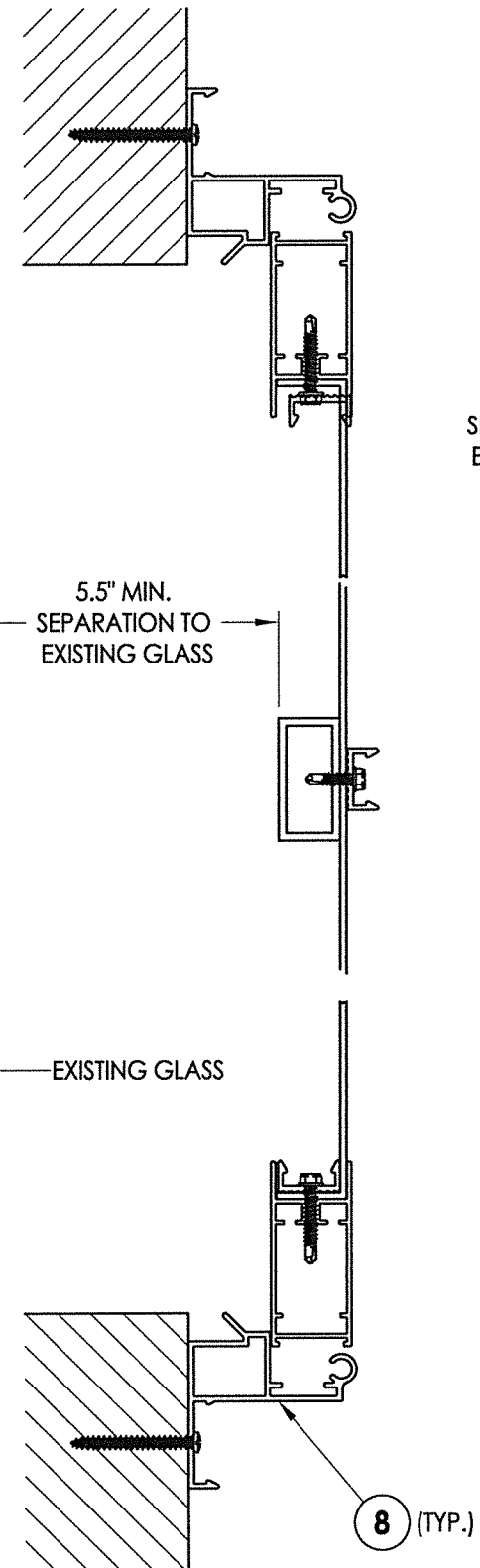
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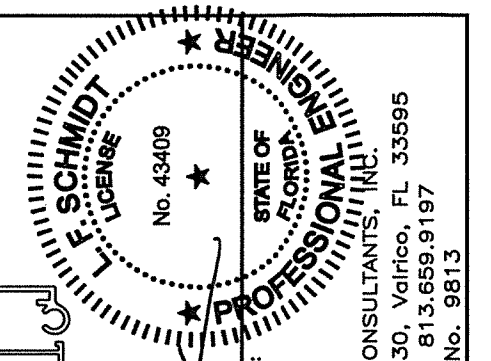
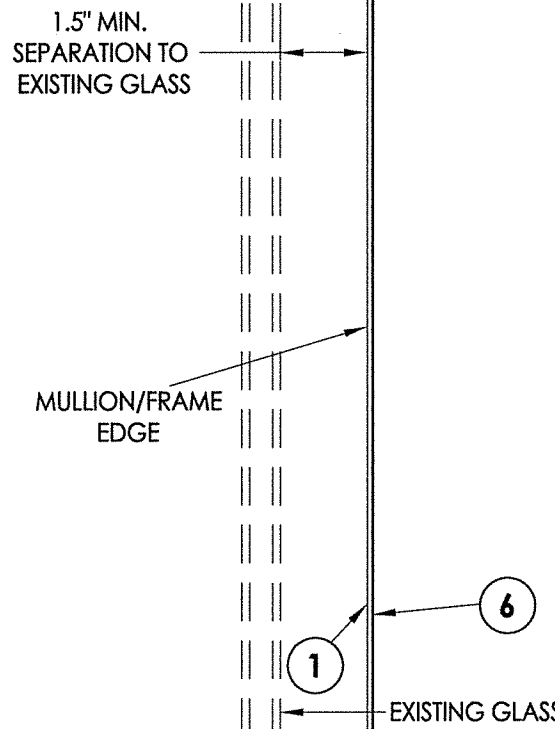
SINGLE PANEL GLASS SEPARATION w/o SUPPORT BAR
 Vertical orientation shown (max. panel height = 75")
 Horizontal orientation similar (max. panel length = 75")



SINGLE PANEL GLASS SEPARATION w/ SUPPORT BAR
 Vertical orientation shown
 Horizontal orientation similar

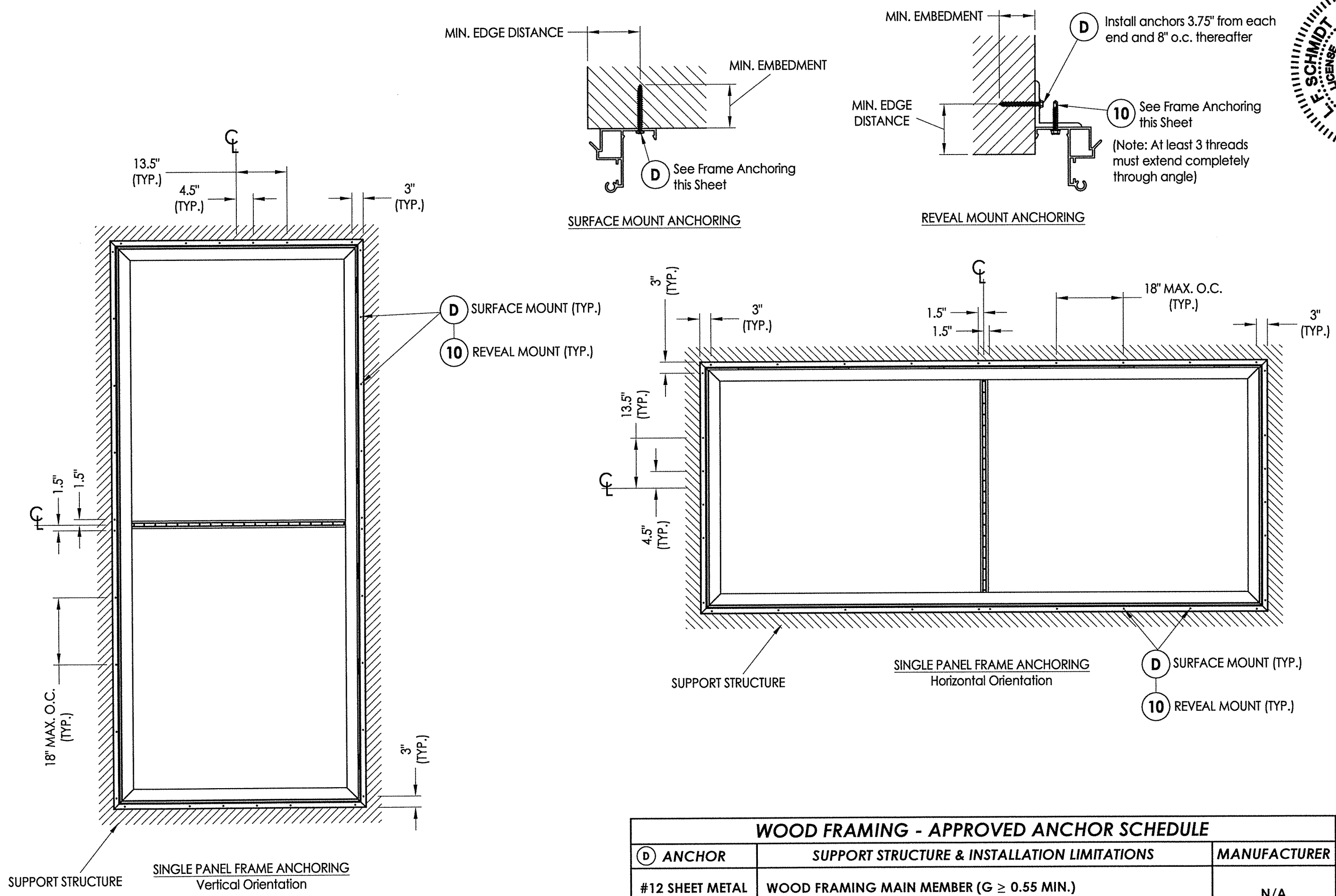


MULTIPLE MULLIONED PANELS GLASS SEPARATION
 Vertical orientation only



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 Phone No.: 813.659.9197
 FBPE C.A. No. 9813

| | | | |
|-------------------------|---------|--|------------------------------|
| PRODUCT: | | Storm Barriers | |
| PART OR ASSEMBLY: | | GLASS SEPARATION VERTICAL CROSS SECTIONS | |
| NO. | DATE | BY | REVISIONS |
| 1 | 9/26/17 | JK | UPDATE TO 6TH ED. (2017) FBC |
| DATE: 3/20/17 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: JK | | | |
| CHK. BY: LFS | | | |
| DRAWING NO.: FL-10238.4 | | | |
| SHEET 7 OF 14 | | | |



E. SCHMIDT
 LICENSE
 No. 43409
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER

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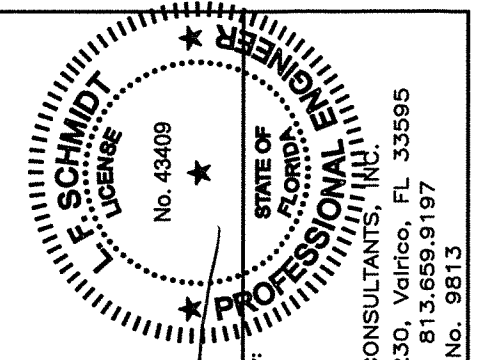
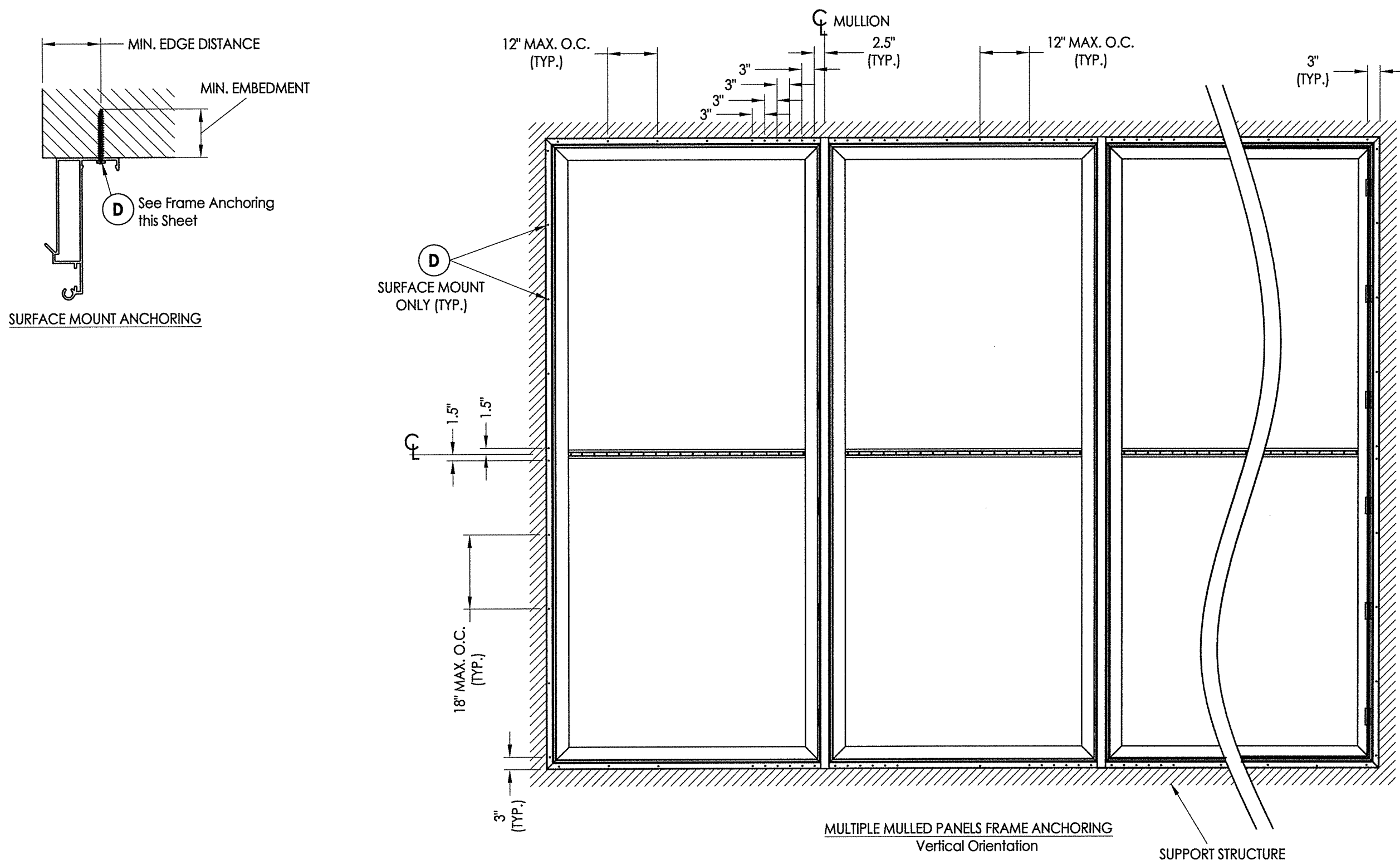
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 Phone No.: 813.659.9197
 FBPE C.A. No. 9813

18.3.17

| WOOD FRAMING - APPROVED ANCHOR SCHEDULE | | |
|---|--|--------------|
| (D) ANCHOR | SUPPORT STRUCTURE & INSTALLATION LIMITATIONS | MANUFACTURER |
| #12 SHEET METAL SCREW | WOOD FRAMING MAIN MEMBER ($G \geq 0.55$ MIN.) EMBEDMENT = 1.75" MIN., EDGE DISTANCE = 0.75" MIN. | N/A |

| | | |
|------------------------------|------------------------------|----|
| PRODUCT: | Storm Barriers | |
| PART OR ASSEMBLY: | SINGLE PANEL FRAME ANCHORING | |
| NO. | DATE | BY |
| 1 | 9/26/17 | JK |
| UPDATE TO 6TH ED. (2017) FBC | | |
| REVISIONS | | |
| DATE: | 3/20/17 | |
| SCALE: | N.T.S. | |
| DWG. BY: | JK | |
| CHK. BY: | LFS | |
| DRAWING NO.: | FL-10238.4 | |
| SHEET | 8 OF 14 | |

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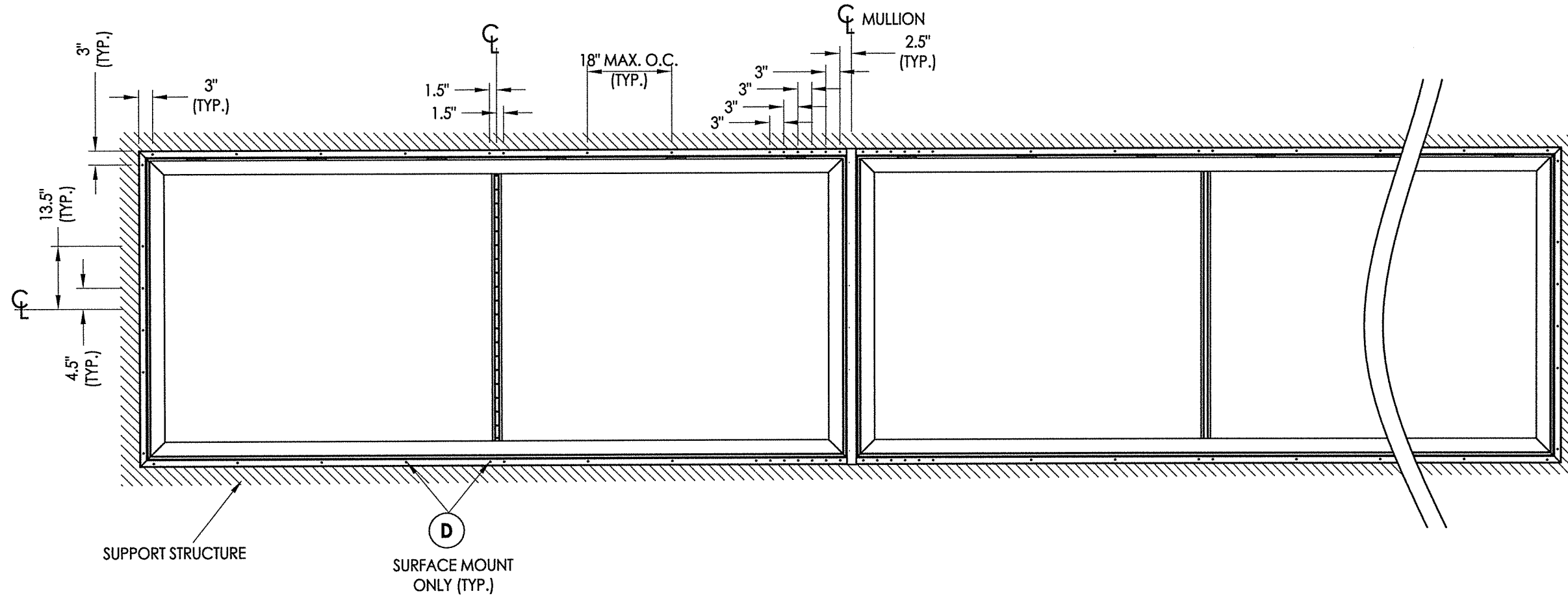
PRODUCT: Storm Barriers

PART OR ASSEMBLY: MULTIPLE MULLED PANELS FRAME ANCHORING

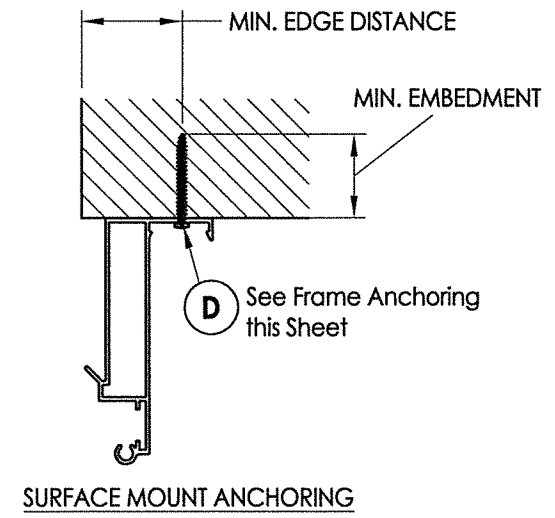
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DATE: 3/20/17
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DRAWING NO.: FL-10238.4
SHEET 9 OF 14

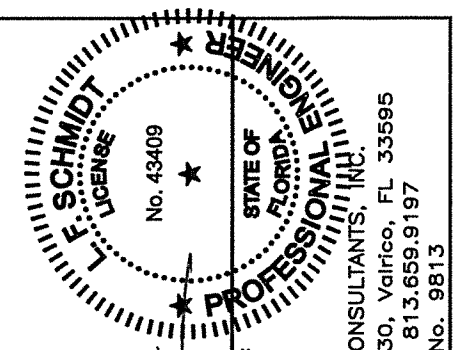
| WOOD FRAMING - APPROVED ANCHOR SCHEDULE | | |
|---|--|--------------|
| ⓓ ANCHOR | SUPPORT STRUCTURE & INSTALLATION LIMITATIONS | MANUFACTURER |
| #12 SHEET METAL SCREW | WOOD FRAMING MAIN MEMBER ($G \geq 0.55$ MIN.) EMBEDMENT = 1.75" MIN., EDGE DISTANCE = 0.75" MIN. | N/A |



MULTIPLE MULLED PANELS FRAME ANCHORING
Horizontal Orientation



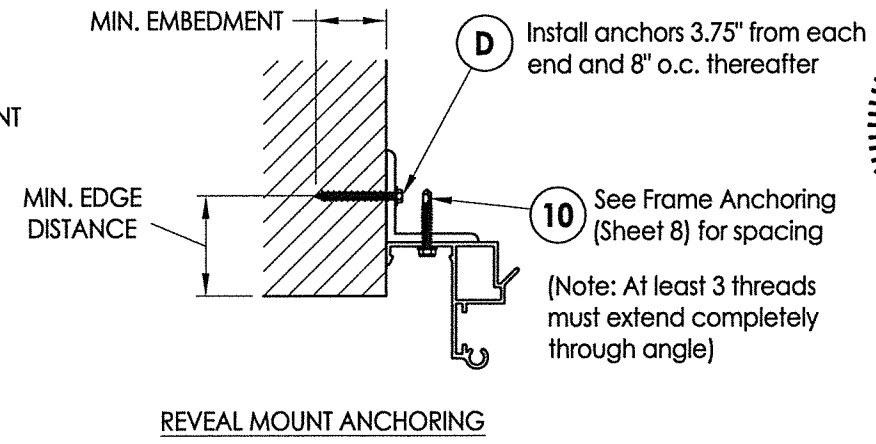
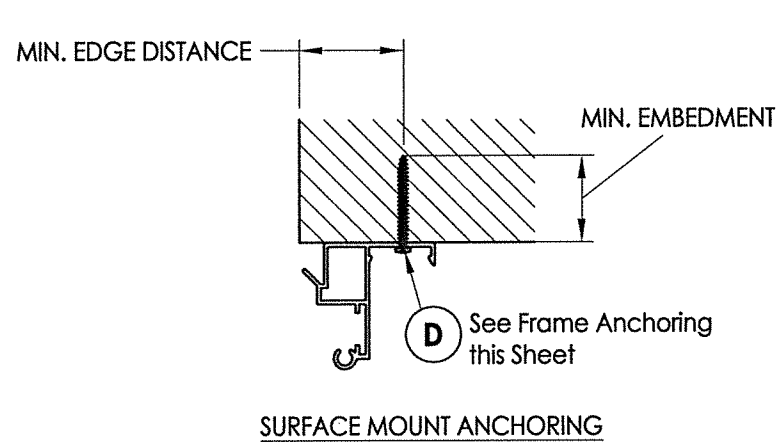
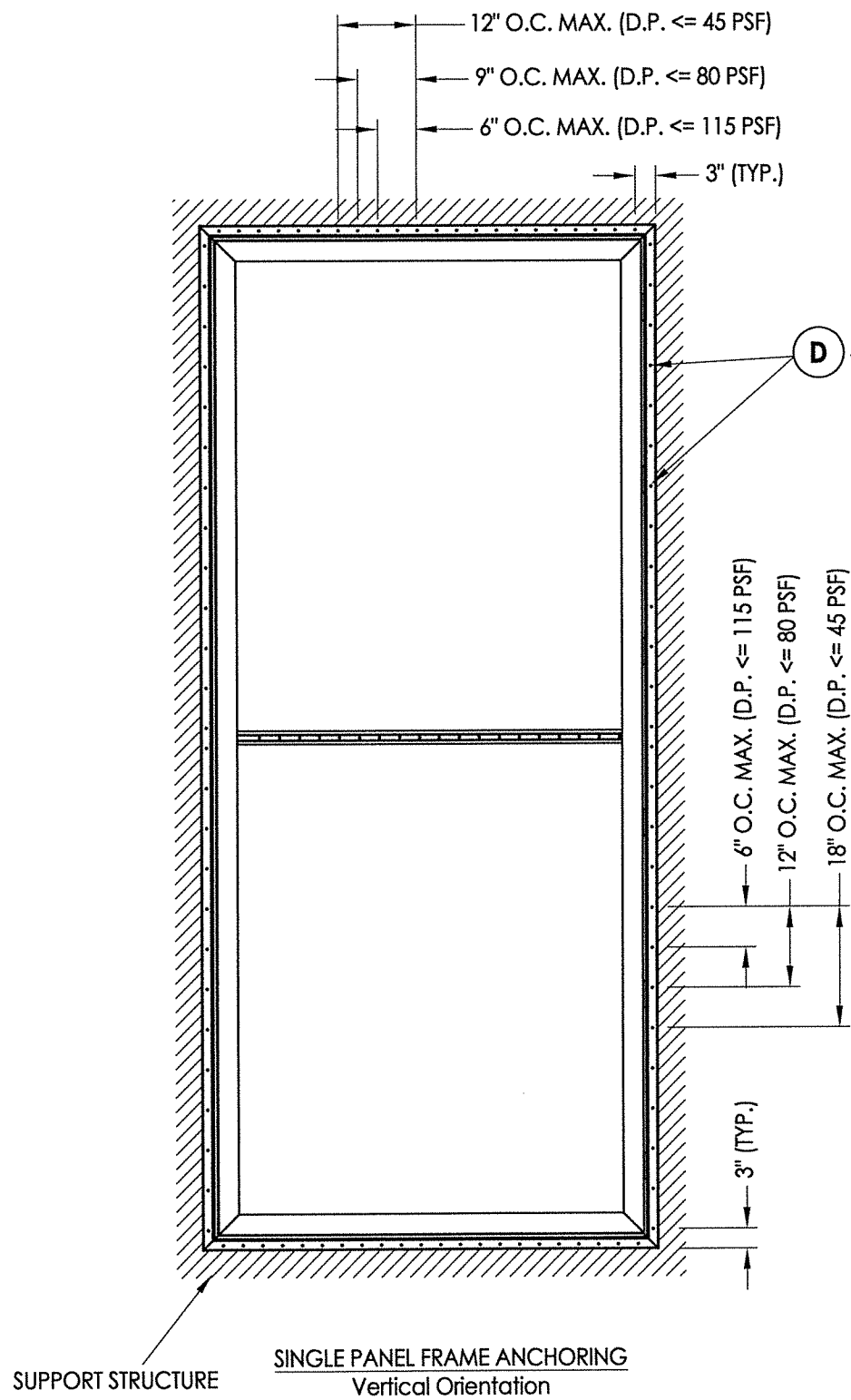
| WOOD FRAMING - APPROVED ANCHOR SCHEDULE | | |
|---|--|--------------|
| ANCHOR | SUPPORT STRUCTURE & INSTALLATION LIMITATIONS | MANUFACTURER |
| ⓓ #12 SHEET METAL SCREW | WOOD FRAMING MAIN MEMBER ($G \geq 0.55$ MIN.) EMBEDMENT = 1.75" MIN., EDGE DISTANCE = 0.75" MIN. | N/A |



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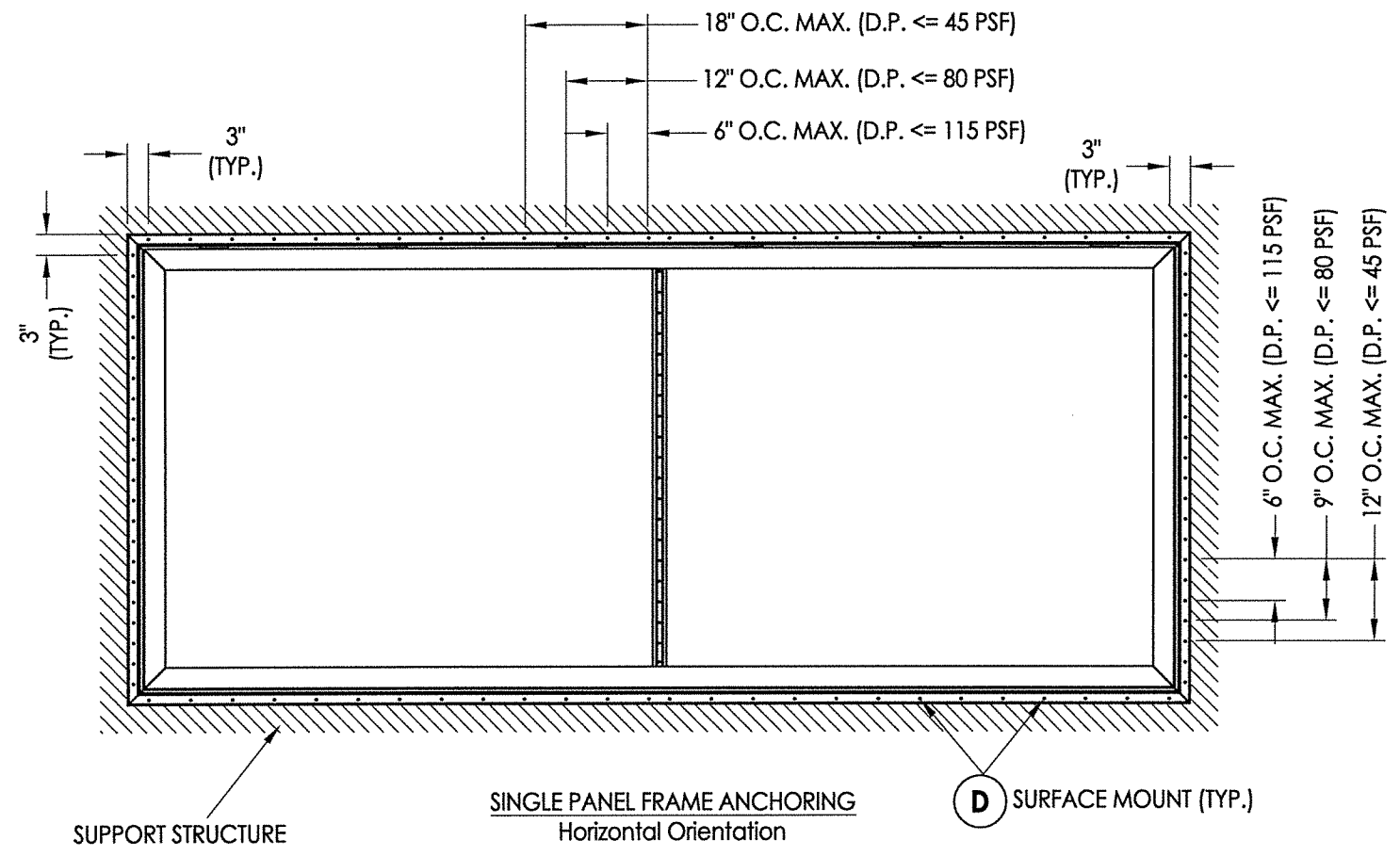
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P.O. Box 230, Vairico, FL 33595
Phone No.: 813.659.9197
FBPE C.A. No. 9813

| | | |
|------------------------------|---|----|
| PRODUCT: | Storm Barriers | |
| PART OR ASSEMBLY: | MULTIPLE MULLED PANELS FRAME ANCHORING | |
| NO. | DATE | BY |
| 1 | 9/26/17 | JK |
| UPDATE TO 6TH ED. (2017) FBC | | |
| REVISIONS | | |
| DATE: | 3/20/17 | |
| SCALE: | N.T.S. | |
| DWG. BY: | JK | |
| CHK. BY: | LFS | |
| DRAWING NO.: | FL-10238.4 | |
| SHEET | 10 OF 14 | |



SURFACE MOUNT ANCHORING

REVEAL MOUNT ANCHORING



SINGLE PANEL FRAME ANCHORING
Horizontal Orientation

| MASONRY - APPROVED ANCHOR SCHEDULE | | |
|------------------------------------|---|----------------|
| (D) ANCHOR | SUPPORT STRUCTURE & INSTALLATION LIMITATIONS | MANUFACTURER |
| 1/4" CONCRETE ANCHOR | CONCRETE = 3,000 PSI MIN. (CONFORMING TO ACI 301) OR HOLLOW BLOCK (CONFORMING TO ASTM C90) EMBEDMENT = 1.25" MIN., EDGE DISTANCE = 2.5" MIN., CL = 3.0" MIN. | ELCO ULTRACON® |

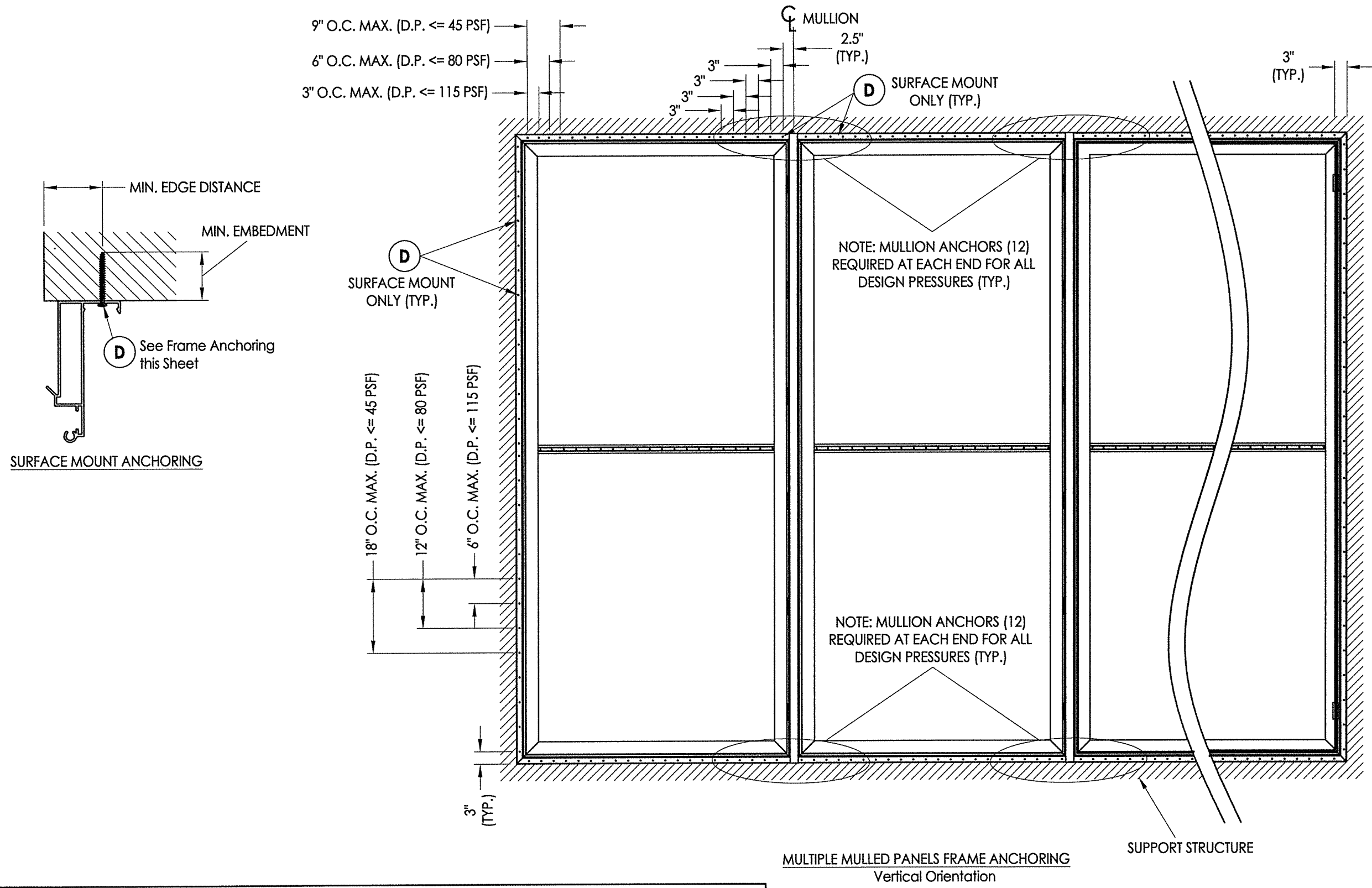
NOTE: Porosity Factor included in Design Pressures indicated.

Documents Prepared By: Lyndon F. Schmidt
 P.E. No. 43409
 10.3.17

PROFESSIONAL ENGINEER
 BUILDING CONSULTANTS, INC.
 P.O. Box 230, Vairico, FL 33595
 Phone No.: 813.659.9197
 FBPE C.A. No. 9813

| | | |
|------------------------------|------------------------------|----|
| PRODUCT: | Storm Barriers | |
| PART OR ASSEMBLY: | SINGLE PANEL FRAME ANCHORING | |
| NO. | DATE | BY |
| 1 | 9/26/17 | JK |
| UPDATE TO 6TH ED. (2017) FBC | | |
| REVISIONS | | |
| DATE: | 3/20/17 | |
| SCALE: | N.T.S. | |
| DWG. BY: | JK | |
| CHK. BY: | LFS | |
| DRAWING NO.: | FL-10238.4 | |
| SHEET | 11 of 14 | |

R:\Clients\Kane PERMANENTVA - Florida Product Approvals\FL-10238\C - Drawings\FL 10238 (2017)\FL-10238.4-5.dwg, 12.1



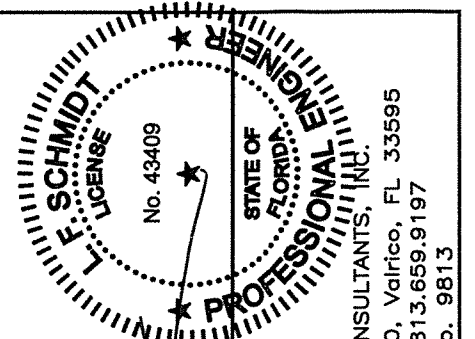
NOTE: MULLION ANCHORS (12) REQUIRED AT EACH END FOR ALL DESIGN PRESSURES (TYP.)

NOTE: MULLION ANCHORS (12) REQUIRED AT EACH END FOR ALL DESIGN PRESSURES (TYP.)

MULTIPLE MULLED PANELS FRAME ANCHORING
Vertical Orientation

| MASONRY - APPROVED ANCHOR SCHEDULE | | |
|------------------------------------|---|----------------|
| ⓓ ANCHOR | SUPPORT STRUCTURE & INSTALLATION LIMITATIONS | MANUFACTURER |
| 1/4" CONCRETE ANCHOR | CONCRETE = 3,000 PSI MIN. (CONFORMING TO ACI 301) OR HOLLOW BLOCK (CONFORMING TO ASTM C90) EMBEDMENT = 1.25" MIN., EDGE DISTANCE = 2.5" MIN., CL = 3.0" MIN. | ELCO ULTRACON® |

NOTE: Porosity Factor included in Design Pressures indicated.



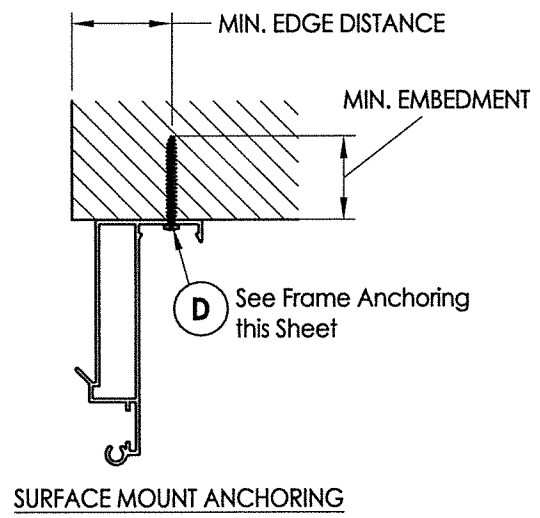
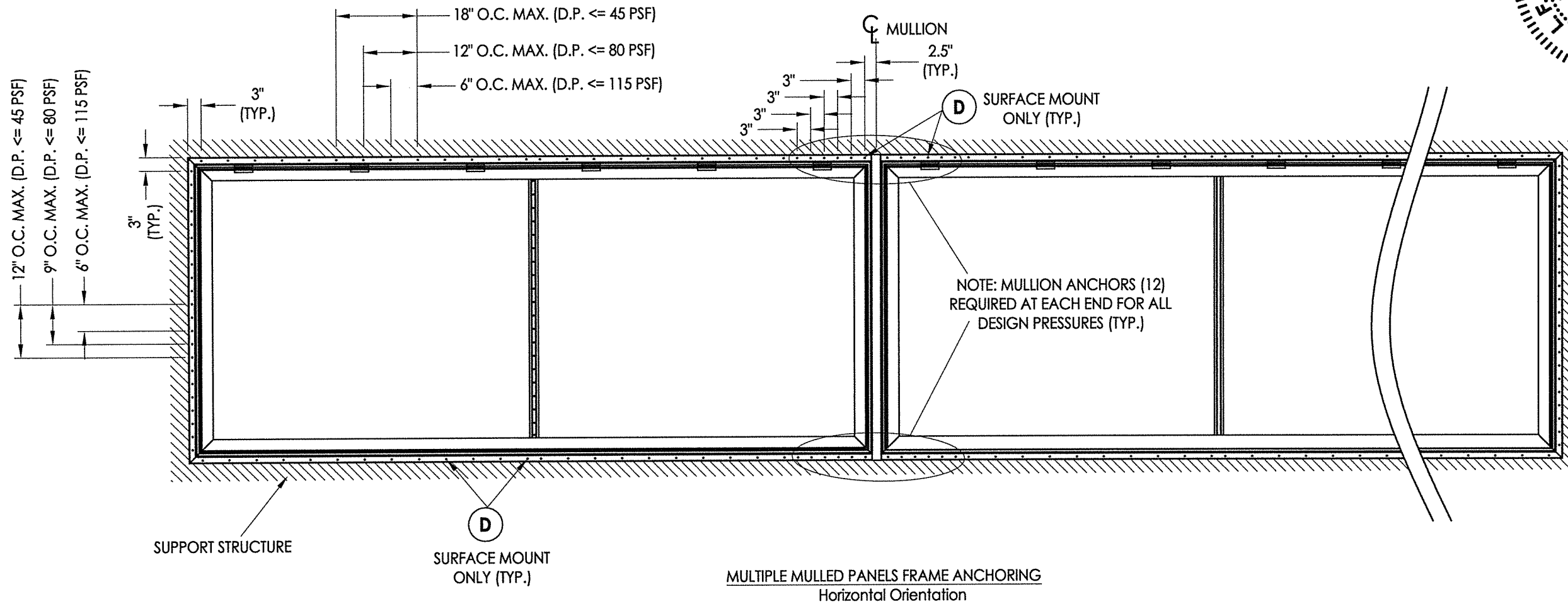
Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409
Date: 6.3.17

R.W. BUILDING CONSULTANTS, INC.
P.O. Box 230, Vairico, FL 33595
Phone No.: 813.659.9197
FBPE C.A. No. 9813

PRODUCT: Storm Barriers
PART OR ASSEMBLY: MULTIPLE MULLED PANELS FRAME ANCHORING

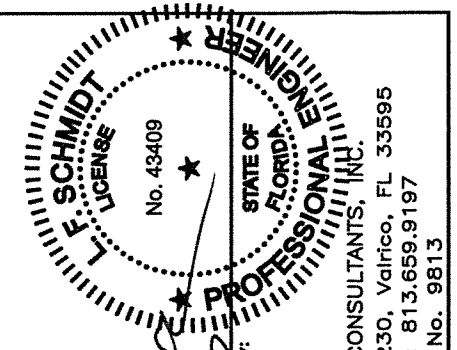
| NO. | DATE | BY | REVISIONS |
|-----|---------|----|------------------------------|
| 1 | 9/26/17 | JK | UPDATE TO 6TH ED. (2017) FBC |

DATE: 3/20/17
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-10238.4
SHEET 12 OF 14



| MASONRY - APPROVED ANCHOR SCHEDULE | | |
|------------------------------------|---|----------------|
| ⓓ ANCHOR | SUPPORT STRUCTURE & INSTALLATION LIMITATIONS | MANUFACTURER |
| 1/4" CONCRETE ANCHOR | CONCRETE = 3,000 PSI MIN. (CONFORMING TO ACI 301) OR HOLLOW BLOCK (CONFORMING TO ASTM C90) EMBEDMENT = 1.25" MIN., EDGE DISTANCE = 2.5" MIN., CL = 3.0" MIN. | ELCO ULTRACON® |

NOTE: Porosity Factor included in Design Pressures indicated.



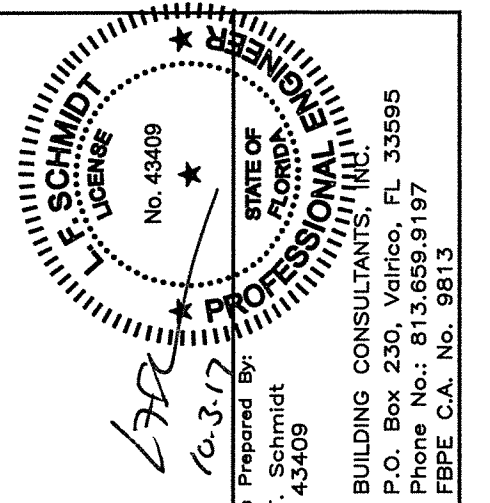
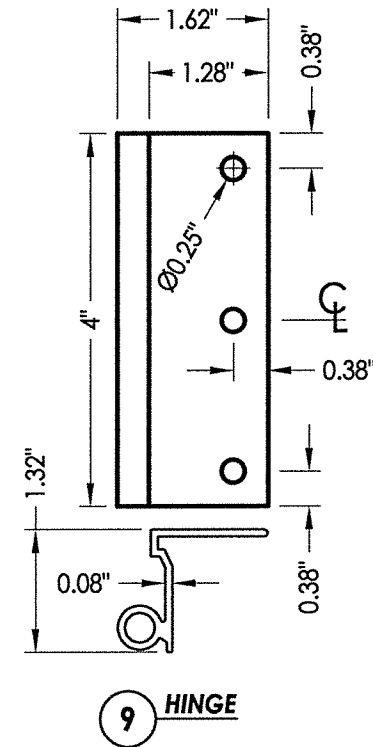
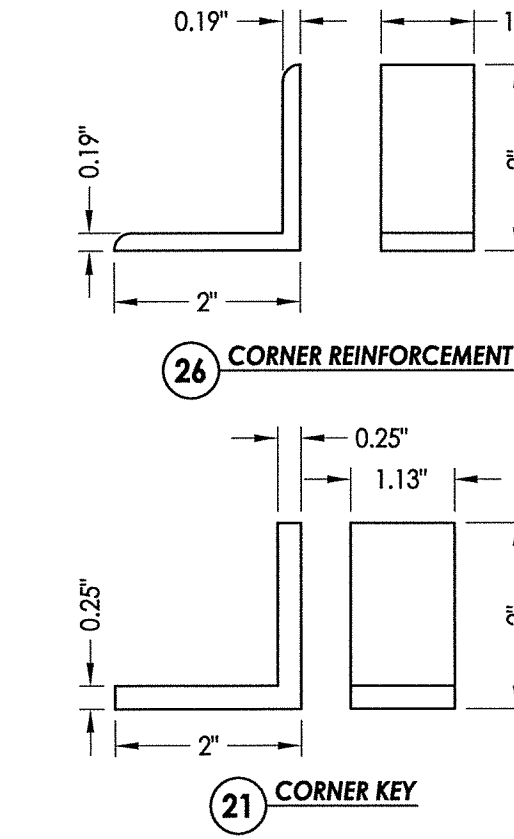
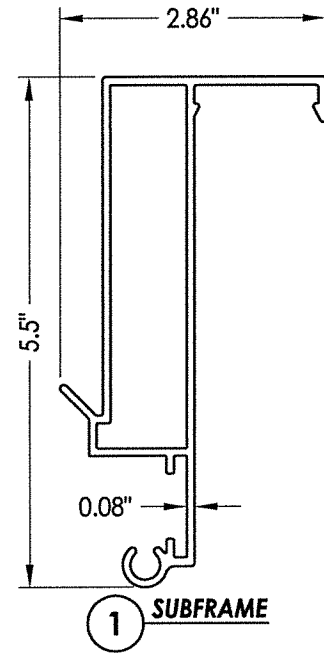
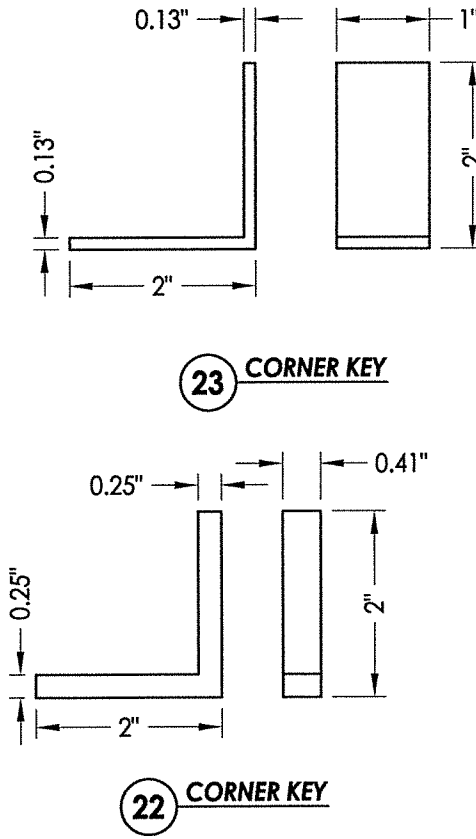
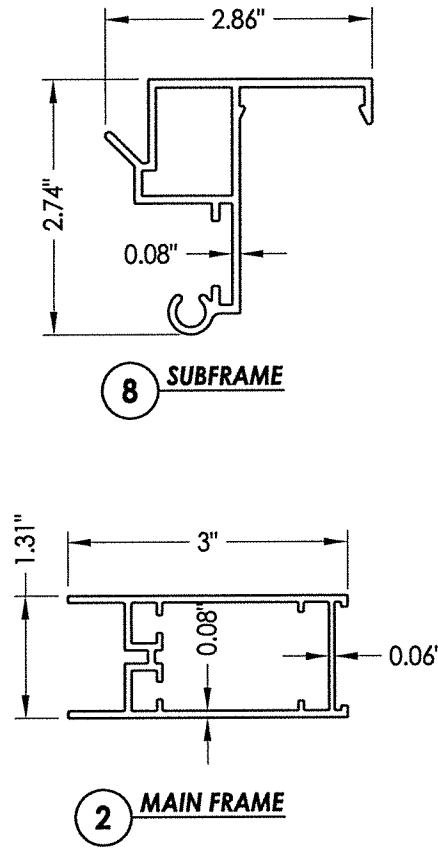
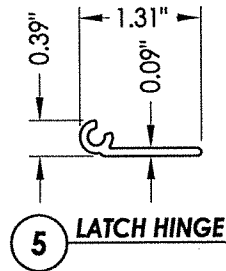
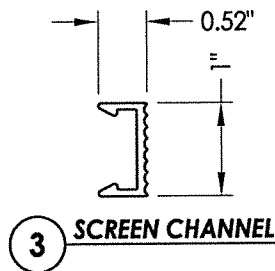
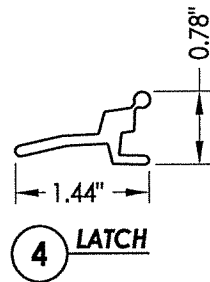
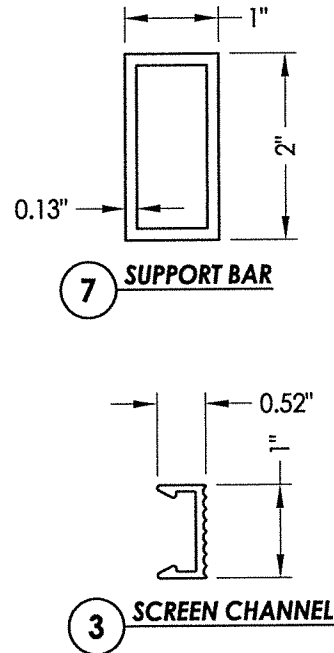
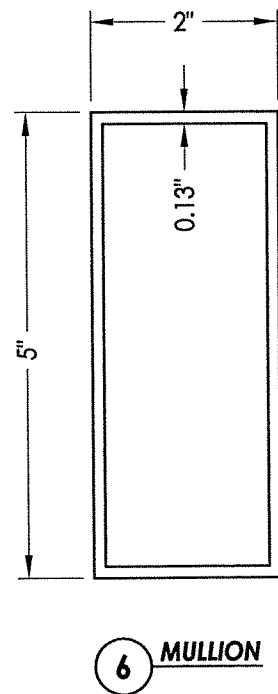
Documents Prepared By:
 Lyndon F. Schmidt
 P.E. No. 43409

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 Phone No.: 813.659.9197
 FBPE C.A. No. 9813

| | |
|-------------------|--|
| PRODUCT: | Storm Barriers |
| PART OR ASSEMBLY: | MULTIPLE MULLED PANELS FRAME ANCHORING |
| DATE: | 3/20/17 |
| SCALE: | N.T.S. |
| DWG. BY: | JK |
| CHK. BY: | LFS |
| DRAWING NO.: | FL-10238.4 |
| SHEET | 13 OF 14 |

BILL OF MATERIALS

| ITEM # | DESCRIPTION | MATERIAL |
|--------|--|--------------|
| D | SEE SHEETS 8 THRU 11 FOR ANCHORING | - |
| 1 | SUBFRAME (5.5) | 6063-T6 ALUM |
| 2 | MAIN FRAME | 6063-T6 ALUM |
| 3 | SCREEN CHANNEL | 6063-T6 ALUM |
| 4 | LATCH | 6063-T6 ALUM |
| 5 | LATCH HINGE | 6063-T6 ALUM |
| 6 | MULLION | 6063-T6 ALUM |
| 7 | SUPPORT BAR | 6063-T6 ALUM |
| 8 | SUBFRAME (2.75") | 6063-T6 ALUM |
| 9 | HINGE | 6063-T6 ALUM |
| 10 | #12 X 1-1/4" HWH SELF-DRILLING SMS | STEEL |
| 11 | #10 X 3/4" HWH SELF-DRILLING SMS | STEEL |
| 12 | #12 X 3/4" HWH SELF-DRILLING SMS | STEEL |
| 15 | PERFORATED PLATE (14GA. STAINLESS STEEL) | 304 SS |
| 21 | CORNER KEY | 6063-T6 ALUM |
| 22 | CORNER KEY | 6063-T6 ALUM |
| 23 | CORNER KEY | 6063-T6 ALUM |
| 25 | 3/16" I P ALUM POP RIVET (ARROW) | ALUM |
| 26 | CORNER REINFORCEMENT | 6063-T6 ALUM |
| 27 | 2" X 2" X 3/16" ANGLE | 6063-T6 ALUM |



Documents Prepared By:
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FBPE C.A. No. 9813

| | |
|--|---------|
| PRODUCT: Storm Barriers | |
| PART OR ASSEMBLY: BILL OF MATERIALS & COMPONENTS | |
| NO. | DATE |
| 1 | 9/26/17 |
| UPDATE TO 6TH ED. (2017) FBC | |
| JK | BY |
| REVISIONS | |
| DATE: 3/20/17 | |
| SCALE: N.T.S. | |
| DWG. BY: JK | |
| CHK. BY: LFS | |
| DRAWING NO.: FL-10238.4 | |
| SHEET 14 OF 14 | |