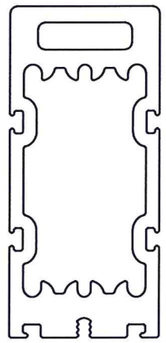
NewSouth WINDOW SOLUTIONS

4175
Extruded Aluminum Horizontal & Vertical Clipped Structural Mullions



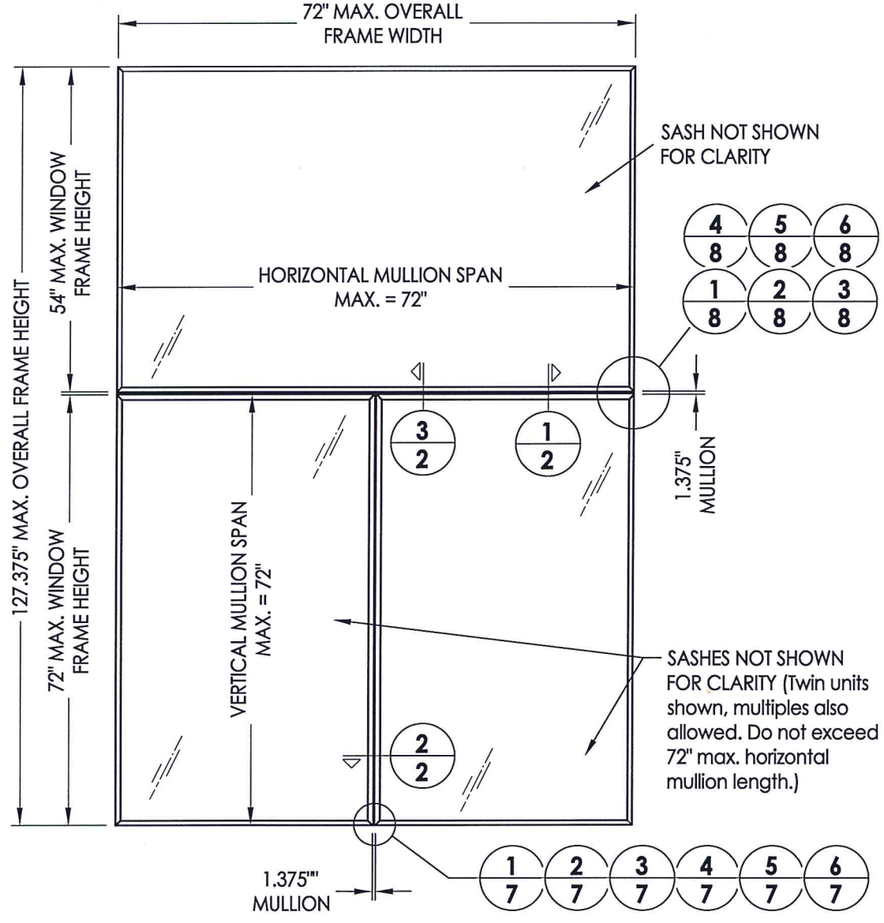
4175 Mullion

GENERAL NOTES

1. This product has been evaluated and is in compliance with the 7th Edition (2020) Florida Building Code (FBC) structural requirements, including the "High Velocity Hurricane Zone".
2. When used in the "HVHZ", this product (if mulled together with "HVHZ" impact rated windows), complies with Section 1626 of the FBC and does not require an impact resistant covering.
3. Wood bucks by others, must be anchored properly to transfer loads to the structure and be reviewed by the Building Official.
4. Separate product approvals for each glazing product used with these mullions must be submitted along with this mullion product approval. The design pressure rating of the assembly shall be the lesser of the load capacity of the mullion as specified using this approval or the design pressure rating of the individual glazing products used.
5. Anchoring of each glazing product to the mullion shall be as shown in this drawing or as shown in each individual glazing product approval, whichever is more stringent.
6. Mullion anchor embedment to base material shall be beyond wall dressing or stucco.
7. For 2x stud framing construction, anchoring of these units shall be the same as that shown for 2x buck masonry construction.
8. Any conditions not covered in this evaluation are subject to separate engineering evaluation.
9. Aluminum components, including fasteners, shall meet the requirements of FBC Section 2003.

TABLE OF CONTENTS

SHEET #	DESCRIPTION
1	Typical elevations & general notes
2	Component details & cross sections
3	Design pressure tables (concrete installation)
4	Design pressure tables (concrete installation)
5	Design pressure tables (wood installation)
6	Design pressure tables (wood installation)
7	Anchor bracket details (vertical mullion)
8	Anchor bracket details (horizontal mullion)
9	Buck anchoring



MULLED TRANSOM OVER TWIN WINDOW UNITS

See Sheets 3, 4, 5 & 6 for Design Pressure Ratings

July 30, 2020

Documents Prepared By:
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Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: CLIPPED MULLION

PART OR ASSEMBLY: TYPICAL ELEVATIONS & GENERAL NOTES

NO.	DATE	REVISIONS
1	7/29/20	UPDATE TO 7TH ED (2020) FBC
1	9/26/17	UPDATE TO 6TH ED. (2017) FBC

BY: JK LFS

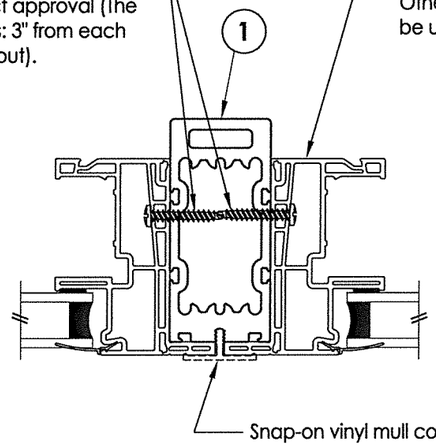
DATE: 12/3/15
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-15413.8
SHEET 1 OF 9

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#8 X 1" PH Self-Drilling SMS (See notes below): Use the frame anchor spacing as shown on the individual window product approval (The min. required screw spacing is: 3" from each end and 24" max. o.c. througout).

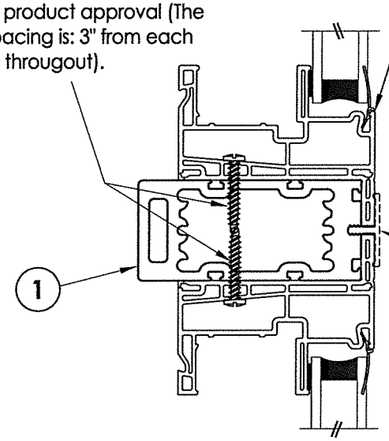
Shown with NewSouth Series 4000 single hung frame under separate approval. Other NewSouth approved frames may be used.



1/2 VERTICAL CROSS SECTION
4175 Mullion to Window Connection

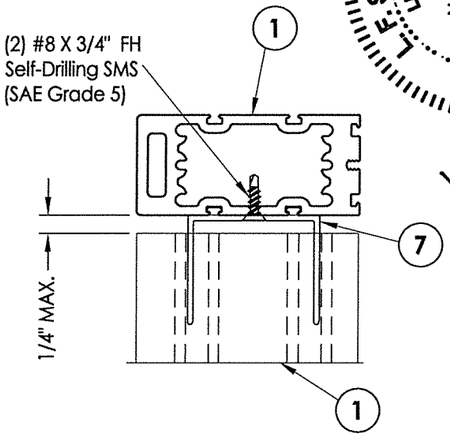
Shown with NewSouth Series 4000 single hung frame under separate approval. Other NewSouth approved frames may be used.

#8 X 1" PH Self-Drilling SMS (See notes below): Use the frame anchor spacing as shown on the individual window product approval (The min. required screw spacing is: 3" from each end and 24" max. o.c. througout).

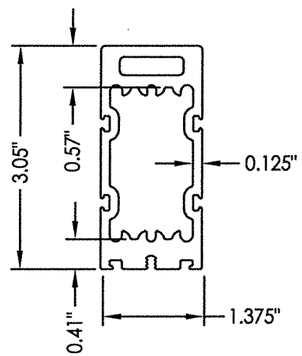


2/2 HORIZONTAL CROSS SECTION
4175 Mullion to Window Connection

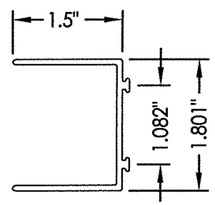
(2) #8 X 3/4" FH Self-Drilling SMS (SAE Grade 5)



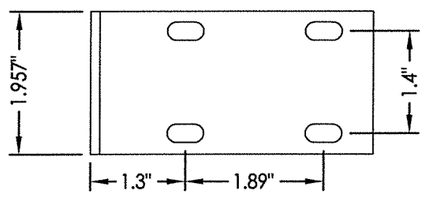
3/2 VERTICAL CROSS SECTION
4175 Mullion-to-mullion connection detail

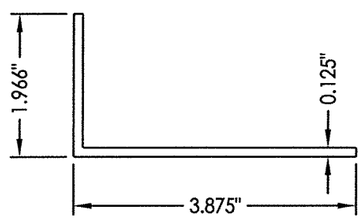


1 MULLION (4175)
6063-T6 ALUM

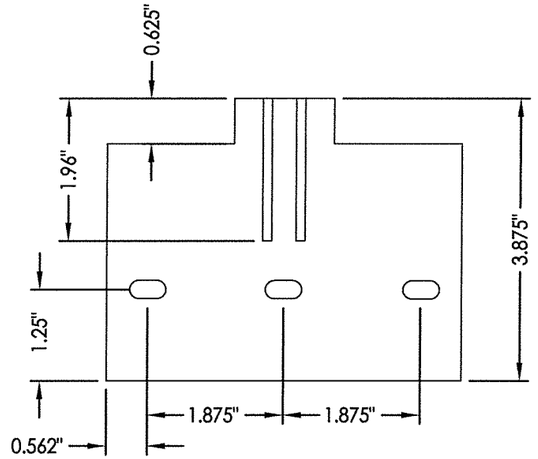


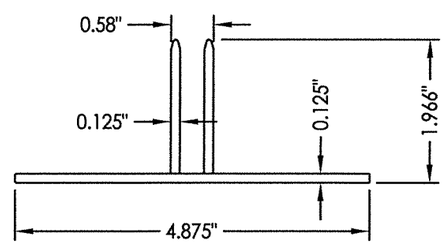
7 MULLION-TO-MULLION CLIP (3314)
6063-T6 ALUM (1.105" wide)





6 MULLION ANCHOR BRACKET (3418)
6063-T6 ALUM





5 MULLION ANCHOR BRACKET (3419)
6063-T6 ALUM

Notes:
1. Refer to individual window product approval for fabrication and installation requirements, including glazing details, frame reinforcement and anchoring specifications.
2. Sheet metal screws (self-drilling) shall have a minimum of 3 threads protrude completely through the mullion frame. Maintain a min. 1/2" edge distance.

T. F. SCHMIDT LICENSE No. 43409 STATE OF FLORIDA PROFESSIONAL ENGINEER

July 30, 2020

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FBPE Registry No. 9813

PRODUCT: *CLIPPED MULLION*

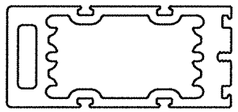
PART OR ASSEMBLY: *COMPONENT DETAILS & CROSS SECTIONS*

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

DATE: 12/3/15
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-15413.8
SHEET 2 OF 9

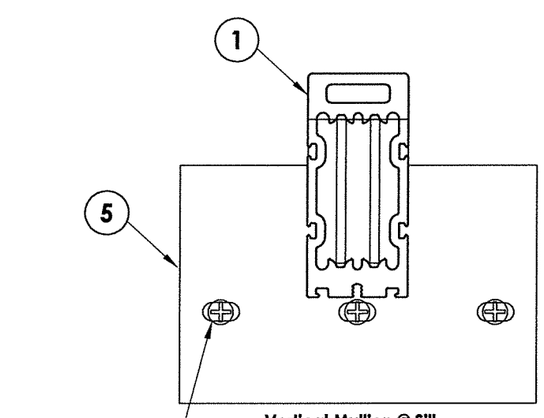
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4175 MULLION

4175 MULLION		DESIGN PRESSURE (PSF)							
		MAX. OVERALL FRAME HEIGHT							
		48"	62"	74"	86"	98"	110"	122"	127.375"
MAX. HORIZONTAL MULLION SPAN	72"	53	41	34	29	26	23	21	20
	69"	55	43	36	31	27	24	22	21
	66"	58	45	37	32	28	25	23	22
	63"	61	47	39	34	30	26	24	23
	60"	64	49	41	35	31	28	25	24
	54"	71	55	46	39	34	31	28	26
	48"	80	62	52	44	39	34	31	30



BRACKET (3419) TO MULLION DETAILS
Concrete Anchor Installation

Notes:
1. Design pressure tables are applicable only for the anchor bracket and anchors specified on this sheet. Refer to Sheets 7 & 8 for cross section details.

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July 30, 2020

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FBPE Registry No. 9813

PRODUCT: CLIPPED MULLION

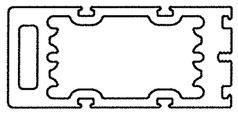
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NO.	DATE	REVISIONS	BY
1	7/29/20	UPDATE TO 7TH ED (2020) FBC	LFS
1	9/26/17	UPDATE TO 6TH ED. (2017) FBC	JK

DATE: 12/3/15
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-15413.8
SHEET 3 OF 9

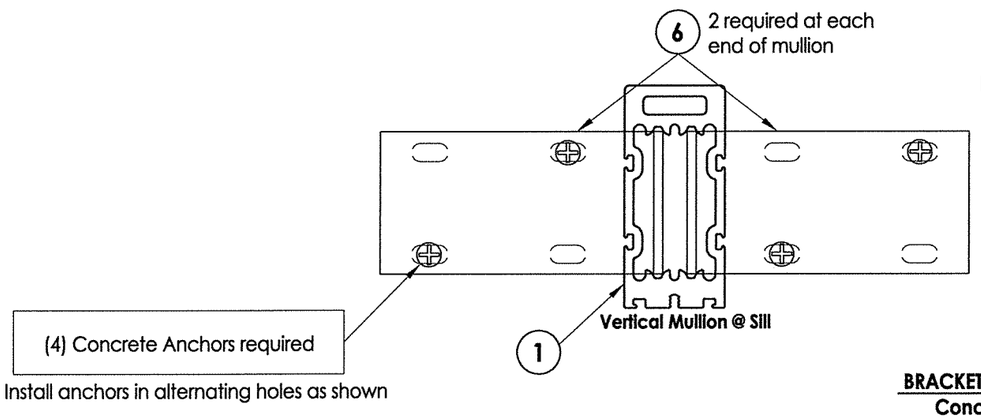
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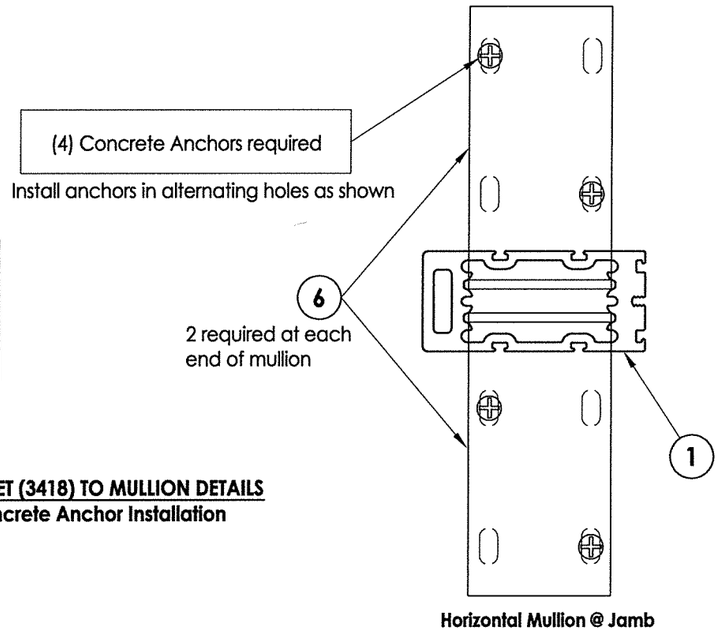
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4175 MULLION

4175 MULLION		DESIGN PRESSURE (PSF)							
		MAX. OVERALL FRAME HEIGHT							
		48"	62"	74"	86"	98"	110"	122"	127.375"
MAX. HORIZONTAL MULLION SPAN	72"	80	66	55	47	41	37	33	32
	69"	80	69	57	49	43	39	35	33
	66"	80	72	60	52	45	40	36	35
	63"	80	75	63	54	47	42	38	36
	60"	80	79	66	57	50	44	40	38
	54"	80	80	73	63	55	49	44	42
	48"	80	80	80	71	62	55	50	48





BRACKET (3418) TO MULLION DETAILS
Concrete Anchor Installation

Notes:
1. Design pressure tables are applicable only for the anchor bracket and anchors specified on this sheet. Refer to Sheets 7 & 8 for cross section details.

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July 30, 2020
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Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: CLIPPED MULLION

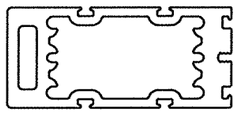
PART OR ASSEMBLY: DESIGN PRESSURE TABLES (CONCRETE INSTALLATION)

NO.	DATE	REVISIONS	BY
1	7/29/20	UPDATE TO 7TH ED (2020) FBC	LFS
1	9/26/17	UPDATE TO 6TH ED. (2017) FBC	JK

DATE: 12/3/15
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-15413.8
SHEET 4 OF 9

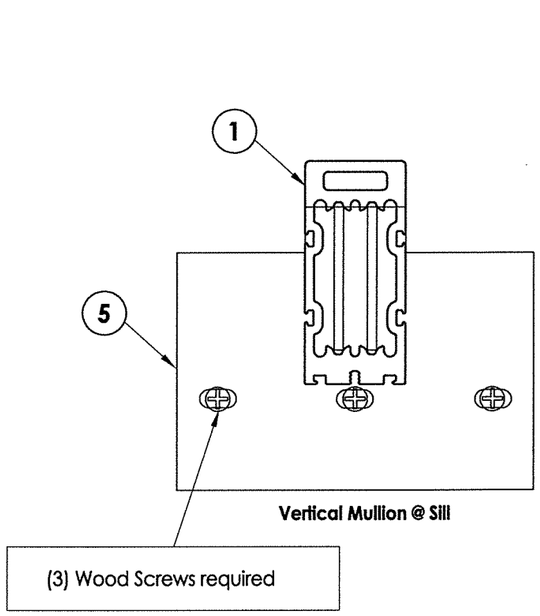
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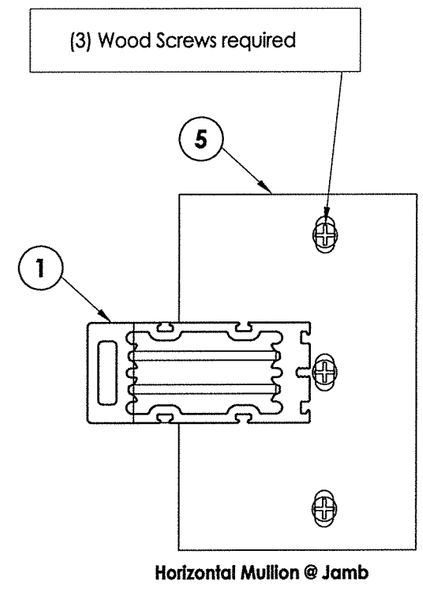
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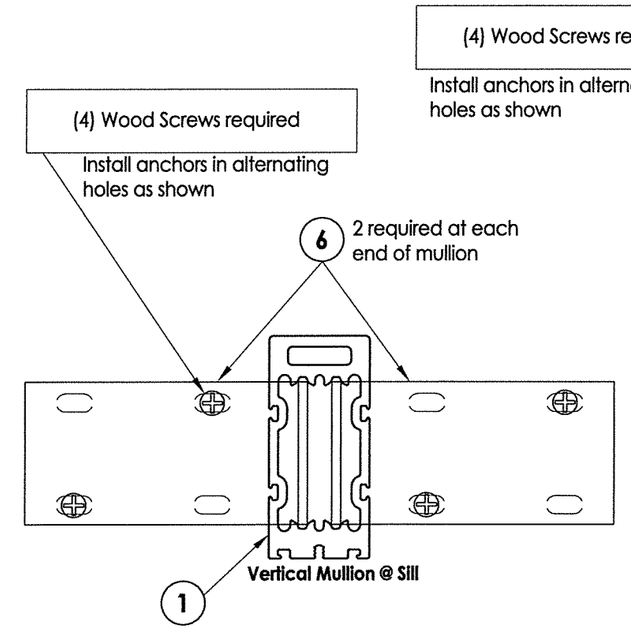
4175 MULLION

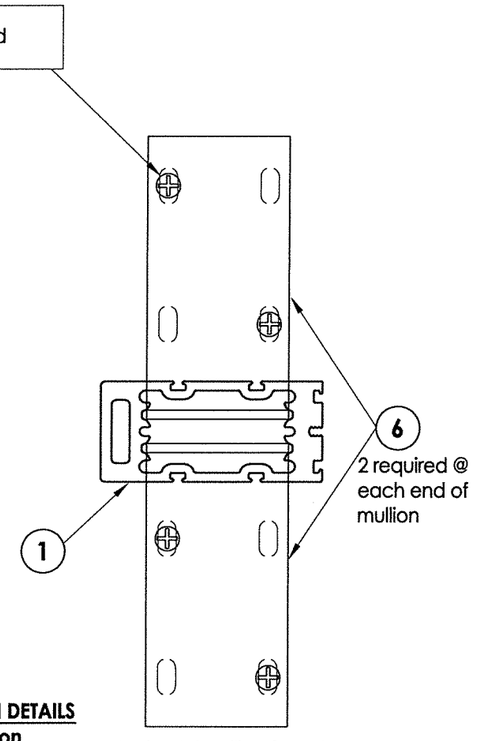
4175 MULLION		DESIGN PRESSURE (PSF)							
		MAX. OVERALL FRAME HEIGHT							
		48"	62"	74"	86"	98"	110"	122"	127.375"
MAX. HORIZONTAL MULLION SPAN	72"	80	66	55	47	41	37	33	32
	69"	80	69	57	49	43	39	35	33
	66"	80	72	60	52	45	40	36	35
	63"	80	75	63	54	47	42	38	36
	60"	80	79	66	57	50	44	40	38
	54"	80	80	73	63	55	49	44	42
	48"	80	80	80	71	62	55	50	48





BRACKET (3419) TO MULLION DETAILS
Wood Anchor Installation





BRACKET (3418) TO MULLION DETAILS
Wood Anchor Installation

Notes:
1. Design pressure tables are applicable only for the anchor bracket and anchors specified on this sheet. Refer to Sheets 7 & 8 for cross section details.

LYNDON F. SCHMIDT LICENSE No. 43409 STATE OF FLORIDA PROFESSIONAL ENGINEER
July 30, 2020
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Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: CLIPPED MULLION

PART OR ASSEMBLY: DESIGN PRESSURE TABLES (WOOD INSTALLATION)

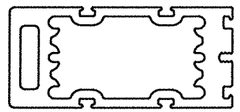
NO.	DATE	BY
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1	9/26/17	JK
	UPDATE TO 6TH ED. (2017) FBC	
	UPDATE TO 7TH ED (2020) FBC	

REVISIONS

DATE: 12/3/15
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-15413.8
SHEET 5 OF 9

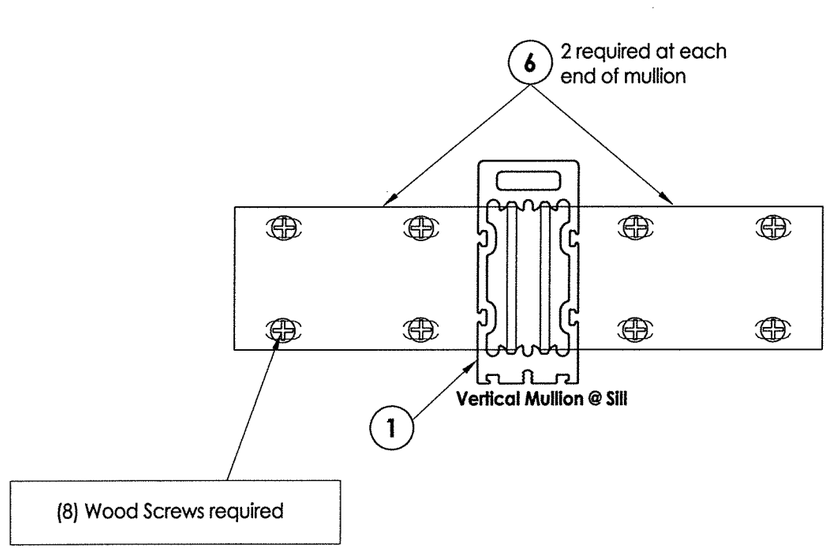
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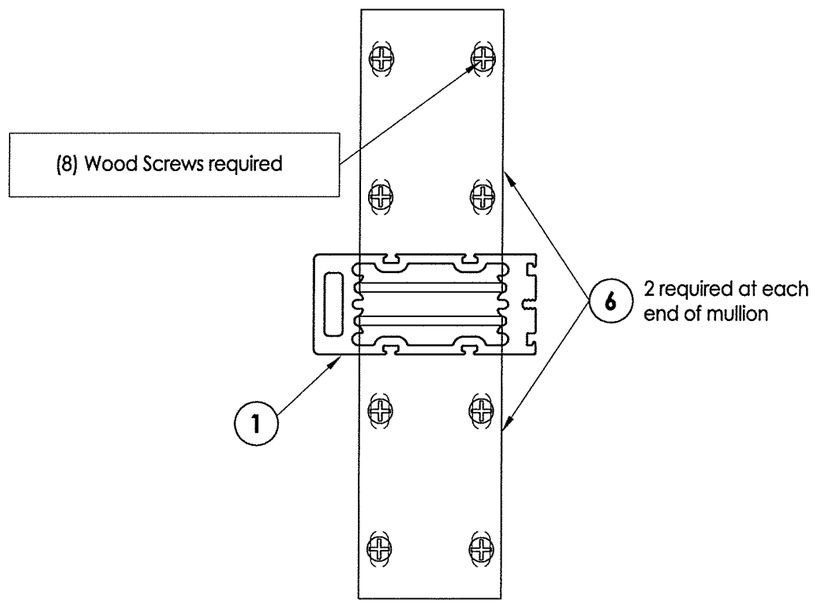
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4175 MULLION

4175 MULLION		DESIGN PRESSURE (PSF)							
		MAX. OVERALL FRAME HEIGHT							
		48"	62"	74"	86"	98"	110"	122"	127.375"
MAX. HORIZONTAL MULLION SPAN	72"	80	69	58	50	43	38	35	34
	69"	80	79	66	56	49	44	39	39
	66"	80	80	75	64	56	50	45	45
	63"	80	80	80	74	65	58	52	52
	60"	80	80	80	80	75	67	60	60
	54"	80	80	80	80	80	80	80	80
	48"	80	80	80	80	80	80	80	80





BRACKET (3418) TO MULLION DETAILS
Wood Anchor Installation

Notes:

1. Design pressure tables are applicable only for the anchor bracket and anchors specified on this sheet. Refer to Sheets 7 & 8 for cross section details.

L. F. SCHMIDT LICENSE No. 43409 STATE OF FLORIDA PROFESSIONAL ENGINEER
July 30, 2020
Documents Prepared By:
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FBPE Registry No. 9813

PRODUCT: CLIPPED MULLION

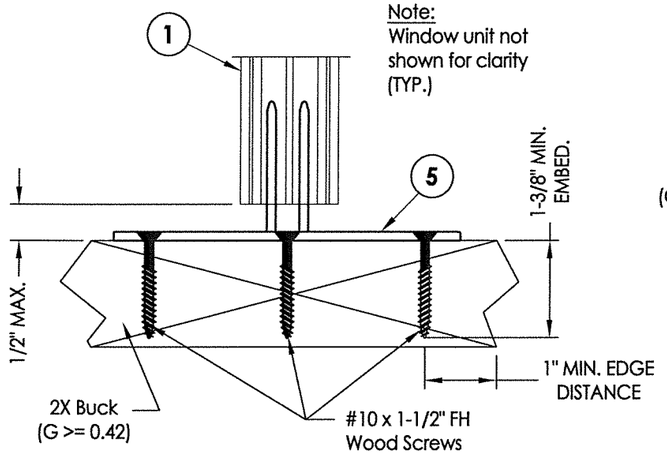
PART OR ASSEMBLY: DESIGN PRESSURE TABLES (WOOD INSTALLATION)

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

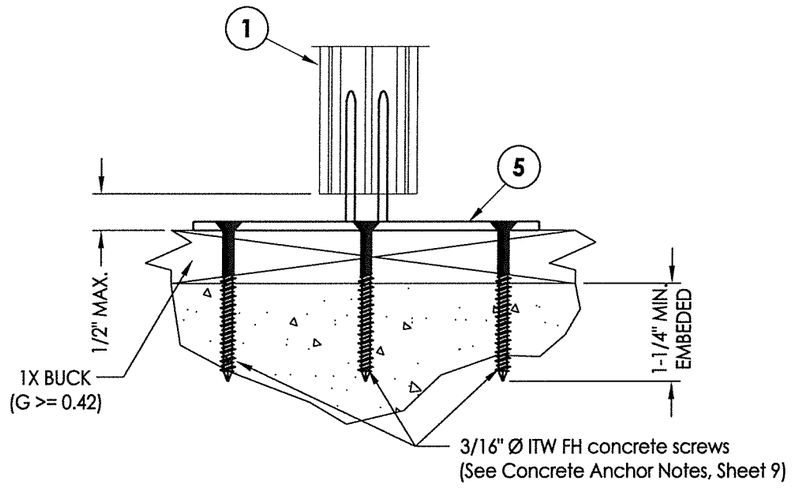
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CHK. BY: LFS
DRAWING NO.: FL-15413.8
SHEET 6 OF 9

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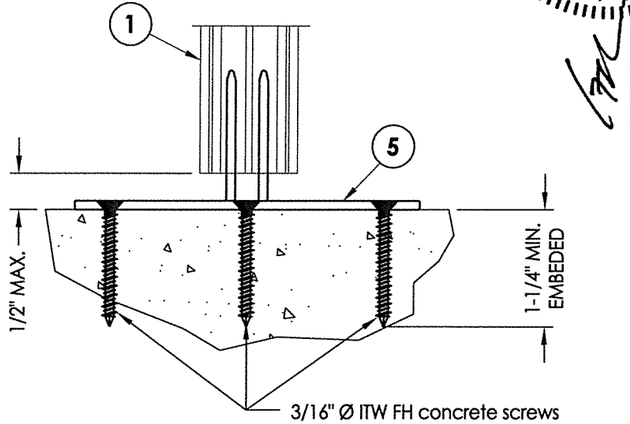
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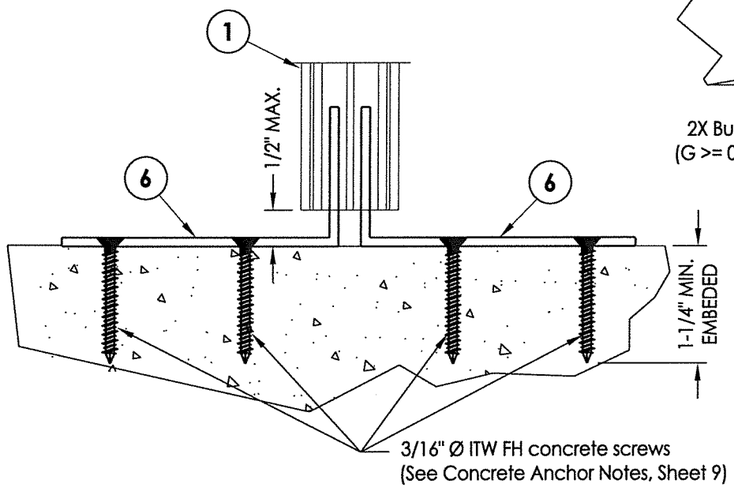
1/7 WOOD ANCHOR BRACKET DETAIL
Anchor to 2x Buck



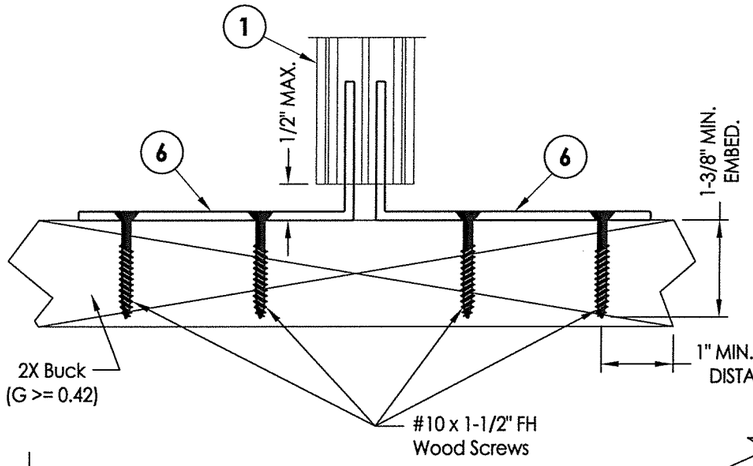
2/7 CONCRETE ANCHOR BRACKET DETAIL
Anchor to Masonry thru 1x Buck



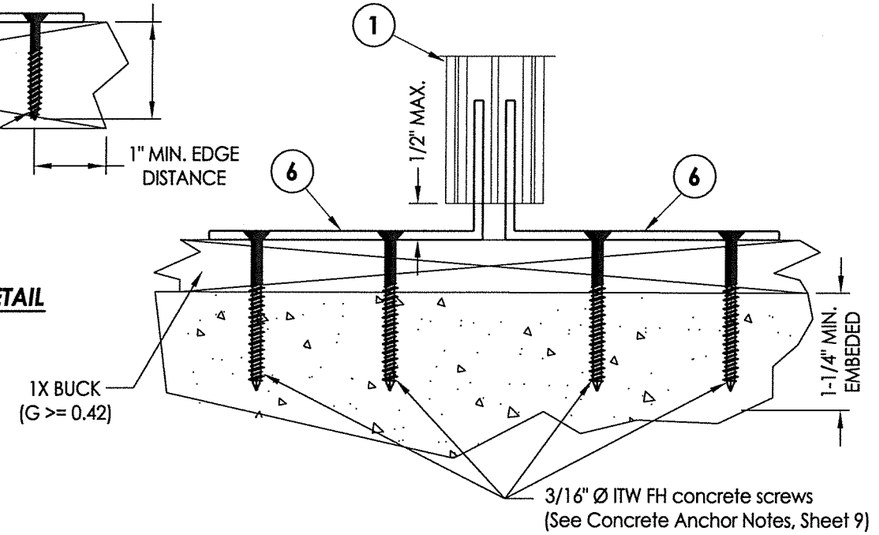
3/7 CONCRETE ANCHOR BRACKET DETAIL
Anchor Direct to Masonry



4/7 CONCRETE ANCHOR BRACKET DETAIL
Anchor Direct to Masonry



5/7 WOOD ANCHOR BRACKET DETAIL
Anchor to 2x Buck



6/7 CONCRETE ANCHOR BRACKET DETAIL
Anchor to Masonry thru 1x Buck

L.F. SCHMIDT LICENSE No. 43409 STATE OF FLORIDA PROFESSIONAL ENGINEER

July 30, 2020

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

BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: CLIPPED MULLION

PART OR ASSEMBLY: ANCHOR BRACKET DETAILS (VERTICAL MULLION)

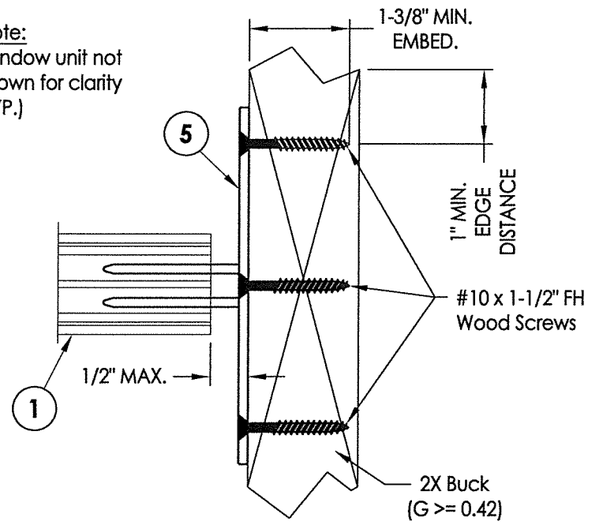
NO.	DATE	REVISIONS	BY
1	9/26/17	UPDATE TO 6TH ED. (2017) FBC	JK
2	7/29/20	UPDATE TO 7TH ED (2020) FBC	LFS

DATE: 12/3/15
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-15413.8
SHEET 7 OF 9

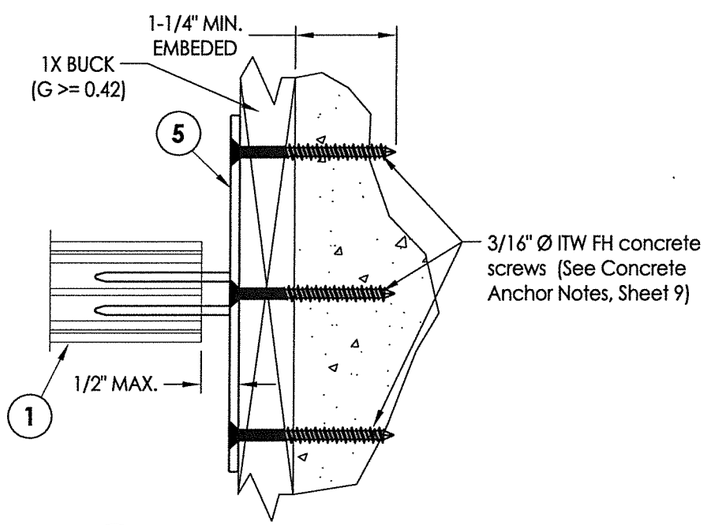
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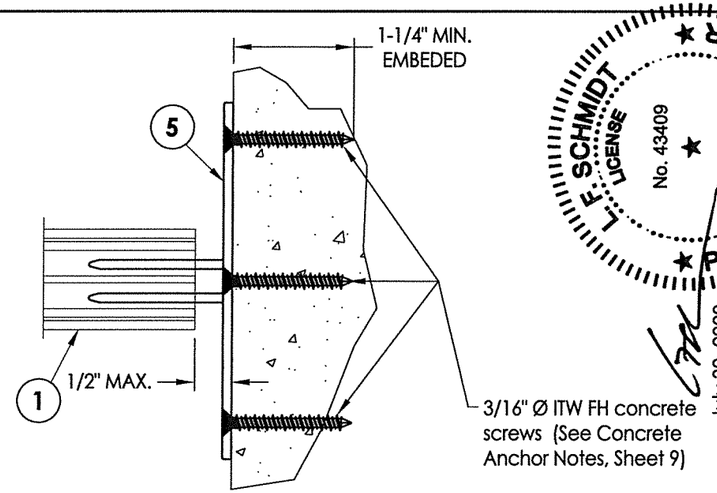
Note:
Window unit not shown for clarity (TYP.)



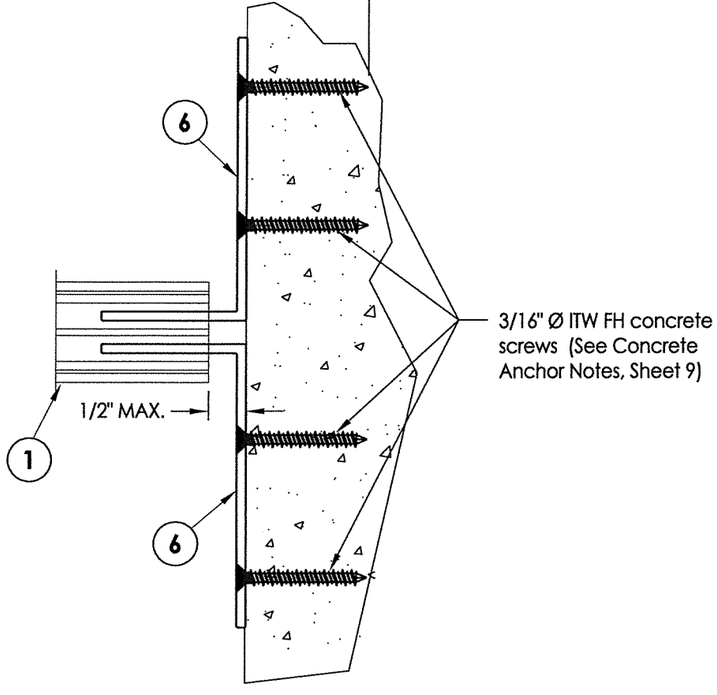
1/8 WOOD ANCHOR BRACKET DETAIL
Anchor to 2x Buck



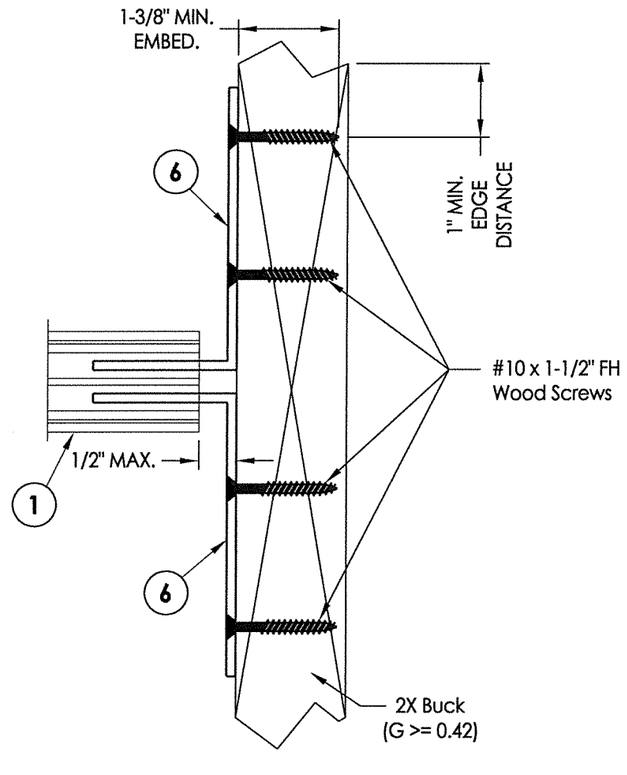
2/8 CONCRETE ANCHOR BRACKET DETAIL
Anchor to Masonry thru 1x Buck



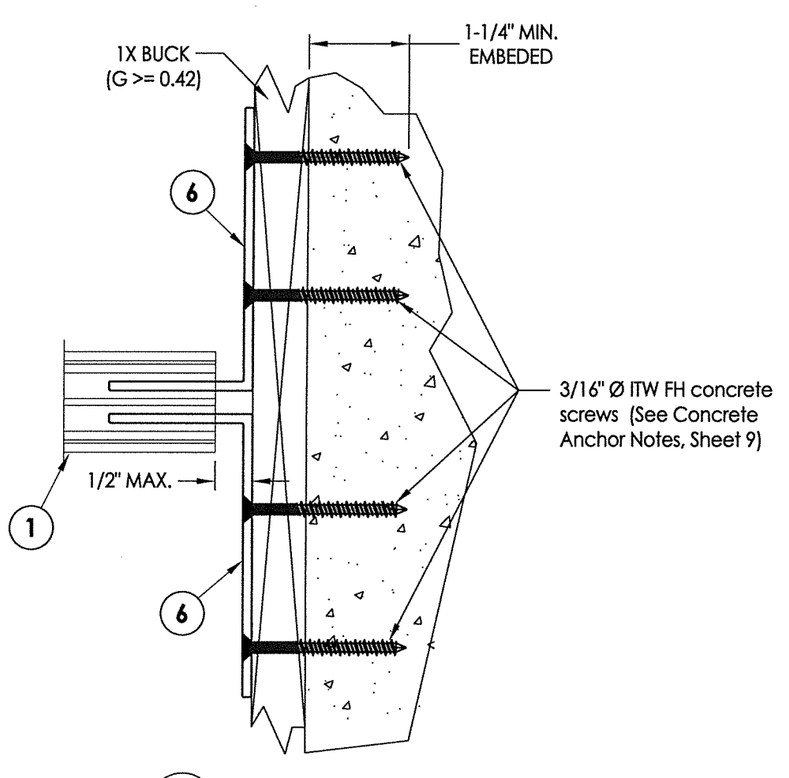
3/8 CONCRETE ANCHOR BRACKET DETAIL
Anchor Direct to Masonry



4/8 CONCRETE ANCHOR BRACKET DETAIL
Anchor Direct to Masonry



5/8 WOOD ANCHOR BRACKET DETAIL
Anchor to 2x Buck



6/8 CONCRETE ANCHOR BRACKET DETAIL
Anchor to 2x Buck

STATE OF FLORIDA PROFESSIONAL ENGINEER
LI F. SCHMIDT LICENSE No. 43409
July 30, 2020
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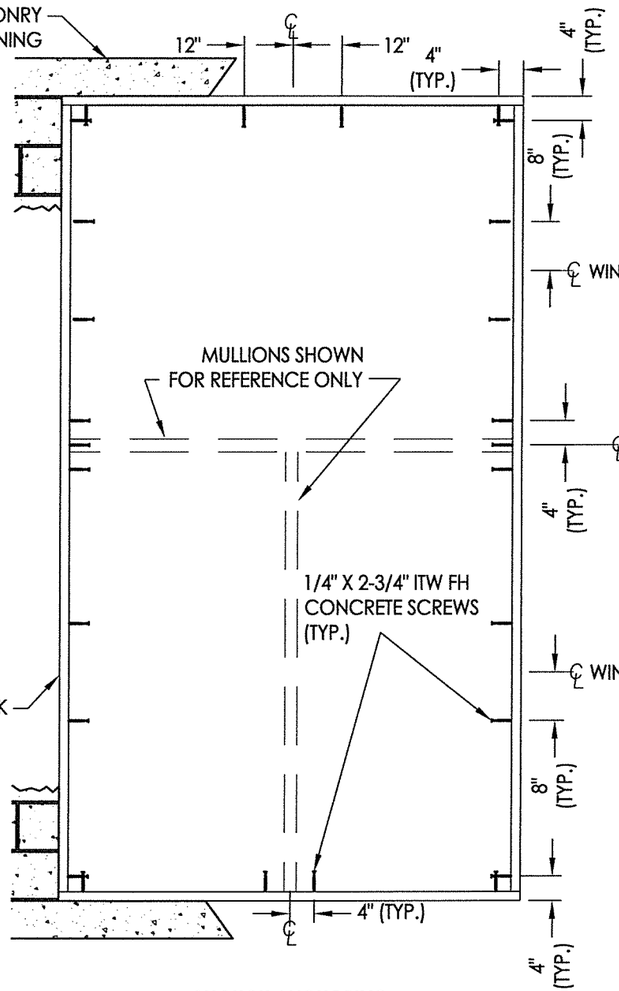
PRODUCT: CLIPPED MULLION
PART OR ASSEMBLY: ANCHOR BRACKET DETAILS (HORIZONTAL MULLION)

NO.	DATE	REVISIONS	BY
1	7/29/20	UPDATE TO 7TH ED (2020) FBC	LFS
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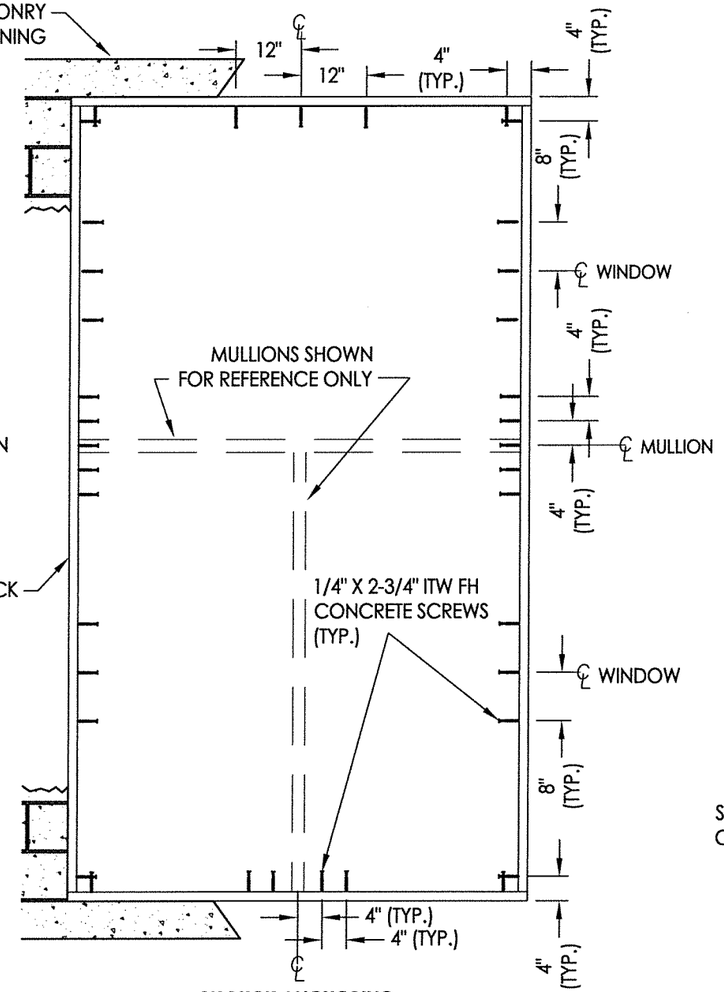
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SHEET 8 OF 9

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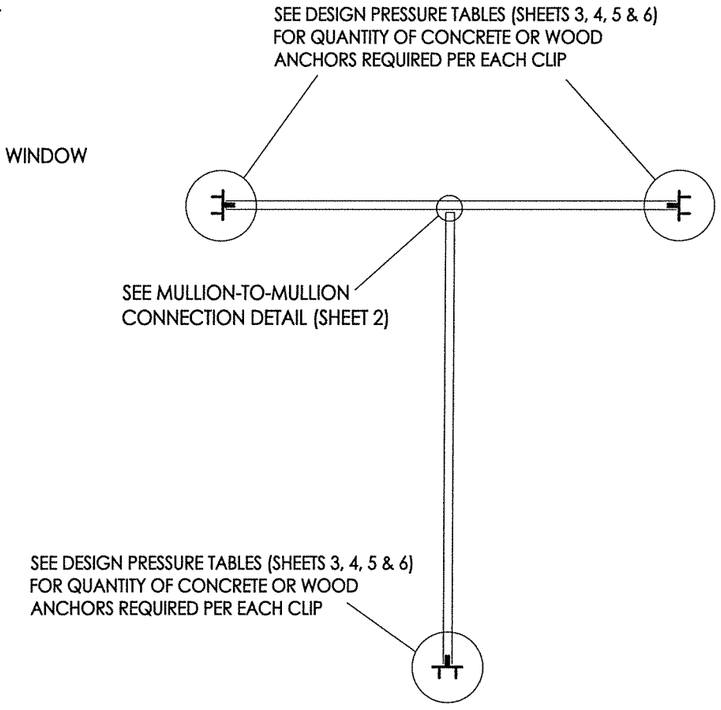
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2X BUCK ANCHORING
45 PSF D.P. MAX.



2X BUCK ANCHORING
80 PSF D.P. MAX.



MULLION ANCHORING

CONCRETE ANCHOR NOTES:

1. *Substitution of equal concrete anchors from a different supplier may have different edge distance and center distance requirements.*
2. *Concrete anchor locations at the corners may be adjusted to maintain the min. edge distance to mortar joints. If concrete anchor locations noted as "MAX. ON CENTER" must be adjusted to maintain the min. edge distance to mortar joints, additional concrete anchors may be required to ensure the "MAX. ON CENTER" dimensions are not exceeded.*
3. *Concrete anchor table:*

ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW TAPCON®	3/16"	1-1/4"	2"	1-7/8"
ITW TAPCON®	1/4"	1-1/4"	2-1/2"	3"

4. Concrete shall be 3,000 PSI conforming to ACI 301 or hollow block conforming to ASTM C90.

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PROFESSIONAL ENGINEER
L. F. SCHMIDT
LICENSE
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PRODUCT: *CLIPPED MULLION*

PART OR ASSEMBLY: *BUCK ANCHORING*

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