

WINCORE™

WINDOWS & DOORS

250 Staunton Turnpike, Parkersburg, WV 26104

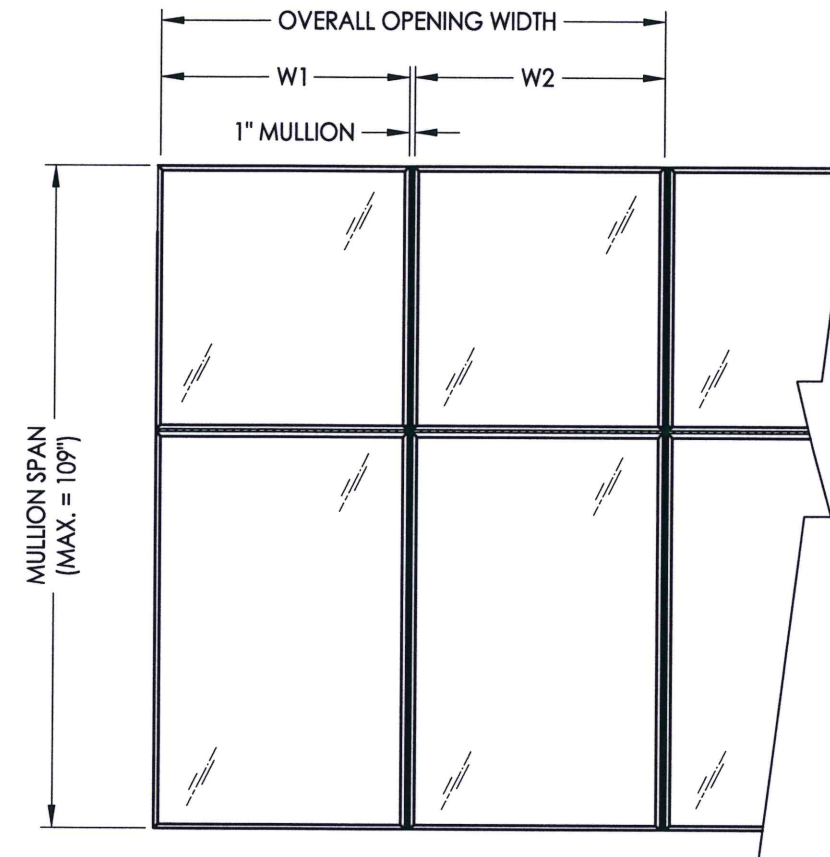
TMP-2603 EXTRUDED ALUMINUM VERTICAL CLIPPED COMBINATION MULLION



GENERAL NOTES

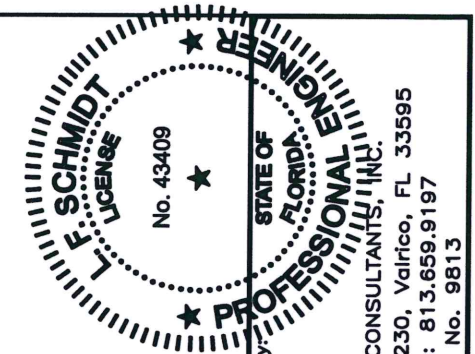
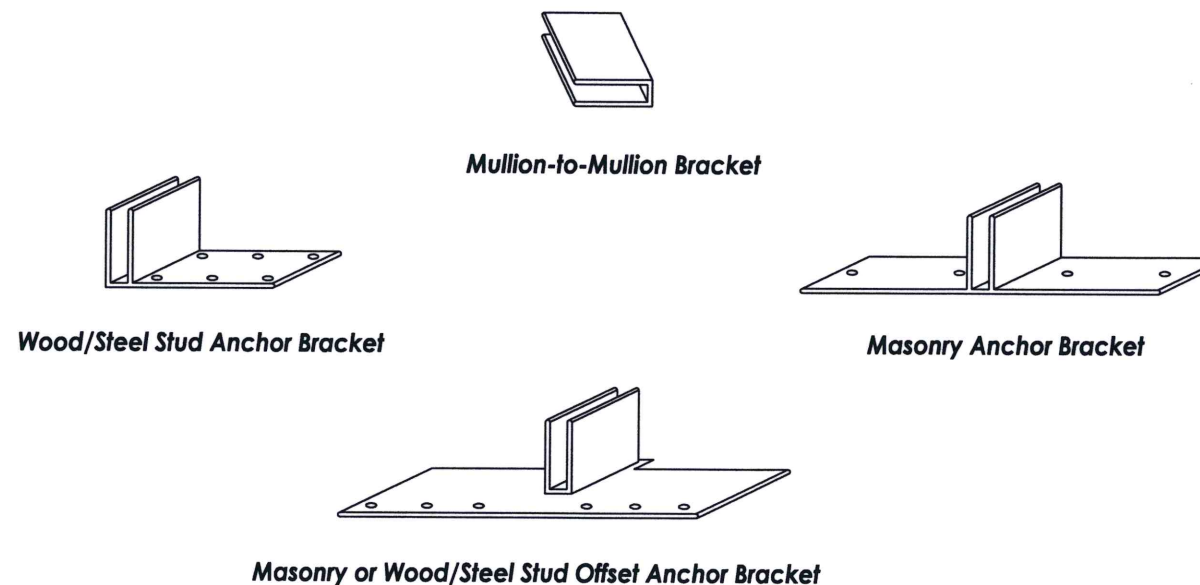
1. This product has been evaluated and is in compliance with the 5th Edition (2014) Florida Building Code (FBC) structural requirements, including the "High Velocity Hurricane Zone".
2. When used in the "HVHZ", this product (if mullied together with "HVHZ" impact rated windows), complies with Section 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. Any conditions not covered in this evaluation are subject to separate engineering evaluation.
8. Aluminum components, including fasteners, shall meet the requirements of FBC Section 2003.

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SHEET #	DESCRIPTION
1	Typical elevations & general notes
2	Mullion design pressure table & cross sections
3	Wood/Steel Stud Anchor Bracket details
4	Masonry Anchor Bracket details
5	Masonry or Wood/Steel Stud Offset Anchor Bracket details



VERTICAL MULLIED WINDOW UNITS

ADJOINING WINDOW UNITS CAN BE EQUAL OR UNEQUAL WIDTHS



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

PRODUCT:	ALUMINUM CLIPPED MULLION
PART OR ASSEMBLY:	TYPICAL ELEVATIONS & GENERAL NOTES
DATE:	10/01/13
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	FL-16542.6
SHEET	1 OF 5

CLIPPED MULLION		TMP-2603 EXTRUDED ALUMINUM VERTICAL CLIPPED COMBINATION MULLION LOAD TABLE (PSF)																								
		OVERALL OPENING WIDTH																								
		49"	53"	57"	61"	65"	69"	73"	77"	81"	85"	89"	93"	97"	101"	105"	109"	113"	117"	121"	125"	129"	133"	137"	141"	145"
MAXIMUM MULLION LENGTH	109"	27.5	25.5	23.5	22.5	21.5	20.0	19.0	18.0	17.0	16.0	15.5	15.0	-	-	-	-	-	-	-	-	-	-	-	-	-
	104"	32.0	29.5	27.0	25.0	23.5	22.5	21.5	20.5	19.5	18.5	18.0	17.5	16.5	16.0	15.5	-	-	-	-	-	-	-	-	-	-
	100"	34.0	31.5	29.0	27.5	26.0	24.5	23.5	22.0	21.0	20.5	19.5	19.0	18.0	17.5	17.0	16.5	16.0	15.5	15.0	-	-	-	-	-	-
	96"	42.0	39.0	36.5	34.0	32.0	30.0	28.0	26.5	25.0	24.0	23.0	22.0	21.0	20.5	20.0	19.5	18.0	17.5	17.0	16.5	16.0	15.5	15.0	-	-
	92"	47.5	44.0	40.5	37.5	35.5	33.0	31.5	30.0	28.5	27.5	26.0	25.0	24.0	23.0	22.0	21.0	20.5	20.0	19.5	19.0	18.0	17.5	17.0	16.5	16.0
	88"	54.0	50.0	45.5	43.0	40.5	38.0	36.0	34.0	32.0	31.5	30.0	28.5	27.5	26.5	25.5	24.5	23.5	23.0	22.5	21.5	21.0	20.0	19.5	19.0	18.5
	84"	63.0	58.0	54.0	50.0	47.0	44.0	41.5	39.5	37.5	35.5	33.5	32.0	31.0	29.5	28.0	27.0	26.0	25.0	24.0	23.5	22.5	22.0	21.0	20.5	20.0
	80"	73.0	67.5	63.0	58.5	55.0	51.5	48.5	46.0	43.5	41.5	39.5	37.5	36.0	34.5	33.0	31.5	30.5	29.5	28.5	27.5	26.5	25.5	25.0	24.0	23.5
	76"	75.0	75.0	73.0	68.5	64.0	60.5	57.0	54.0	51.0	48.5	46.0	44.0	42.5	40.5	39.0	37.5	36.0	34.5	33.5	32.5	31.0	30.0	29.5	28.5	27.5
	72"	75.0	75.0	75.0	75.0	73.0	71.5	67.5	63.5	60.5	57.5	55.0	52.5	50.0	48.0	46.0	44.0	42.5	41.0	39.5	38.5	37.0	36.0	35.0	34.0	33.0
	68"	75.0	75.0	75.0	75.0	75.0	75.0	75.0	73.0	72.5	69.0	65.5	62.5	60.0	57.5	55.0	53.0	51.0	49.0	47.0	46.0	44.5	43.0	42.0	40.5	39.5
	64"	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	73.0	72.0	69.5	67.0	64.0	62.0	59.5	57.5	55.5	54.0	52.5	50.5	49.5	47.5
	60"	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	73.5	71.5	69.5	67.5	65.5	63.5	61.5	59.5	57.5	56.0	54.5	52.5

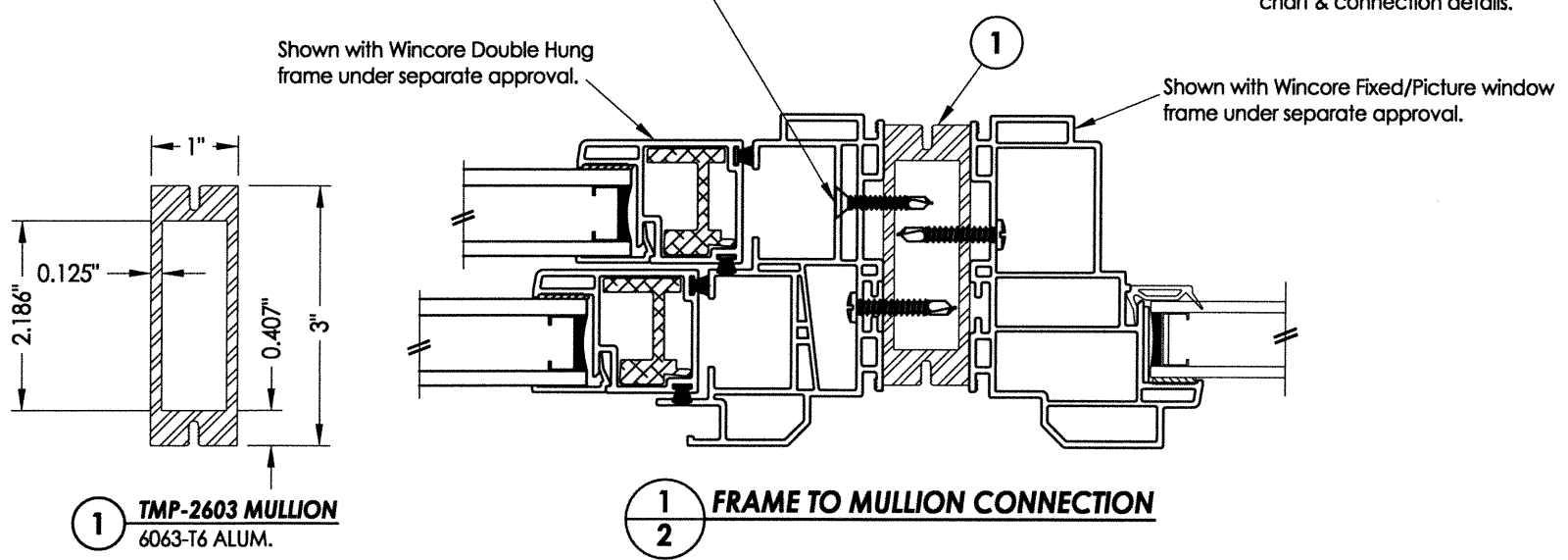
DESIGN PRESSURE TABLE NOTES:

1. Determine the Overall Opening Width for the two windows to be mullied together. If multiple units are to be mullied together, use the maximum Overall Opening Width for the two widest adjacent windows.
2. Enter the table at the intersection of the Mullion Length and the Overall Opening Width to determine the maximum approved Design Pressure.

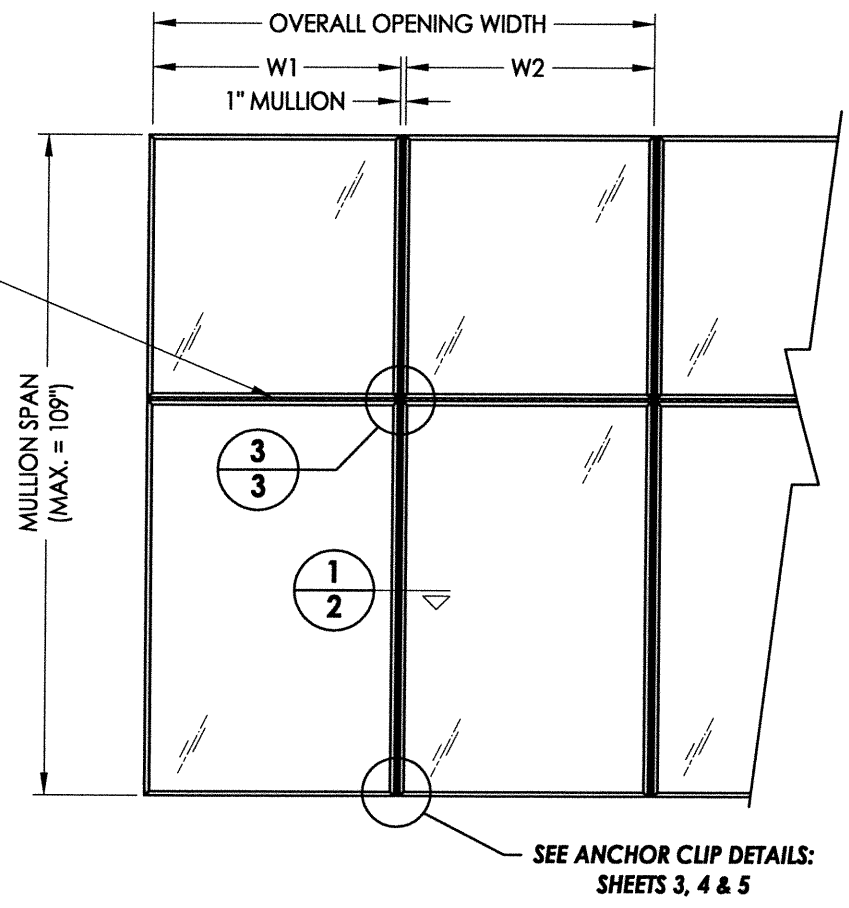
- APPROVED WINDOW UNIT TYPES**
- Fixed/Picture Windows
 - Casement Windows
 - Awning Windows
 - Horizontal Slider Windows
 - Single Hung Windows
 - Double Hung Windows

See Horizontal Clipped Mullion Approval (FL-16542.7), if applicable, for design pressure chart & connection details.

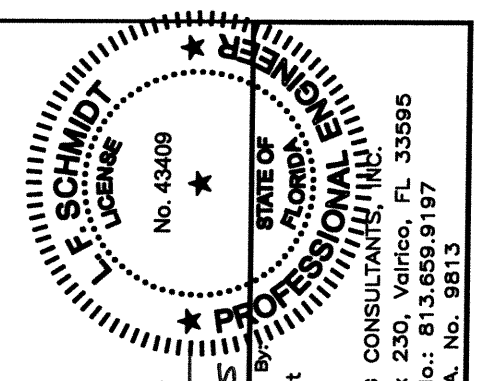
Refer to separate window approval for quantity, location, size & head type of anchors required to fasten window frame to mullion. At a minimum, substitute a #10-16 Self-Drilling SMS for each connector with at least 3 threads protruding completely through the mullion face.



OVERALL OPENING WIDTH = W1 + W2 + 1 (inch)

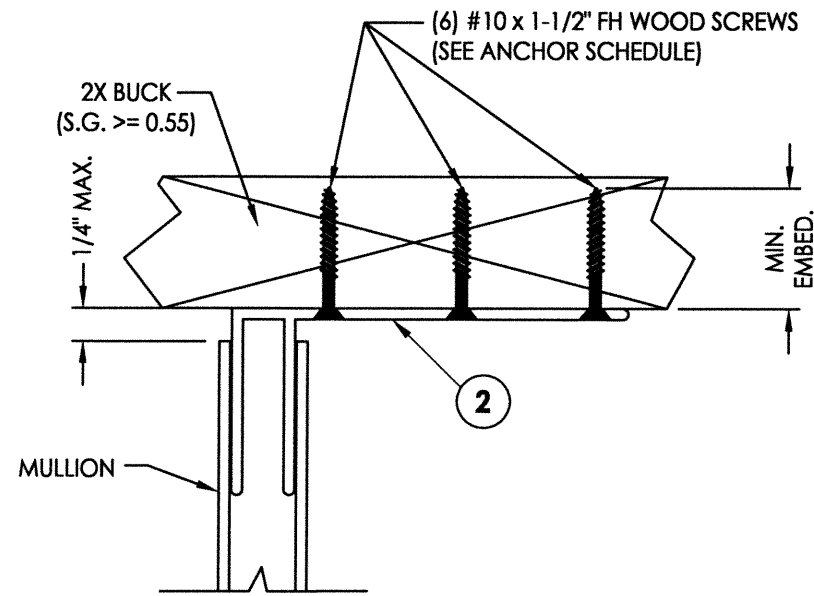


SEE ANCHOR CLIP DETAILS: SHEETS 3, 4 & 5

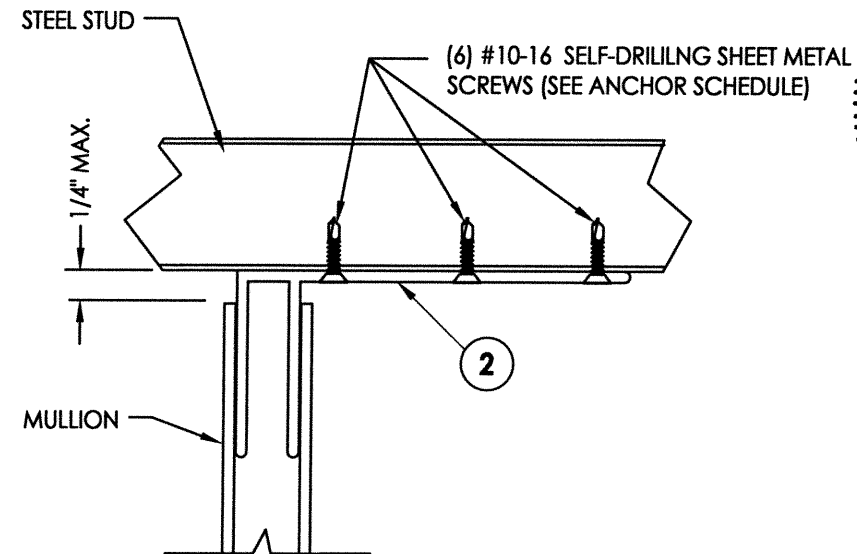


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.FBPE C.A. No. 9813

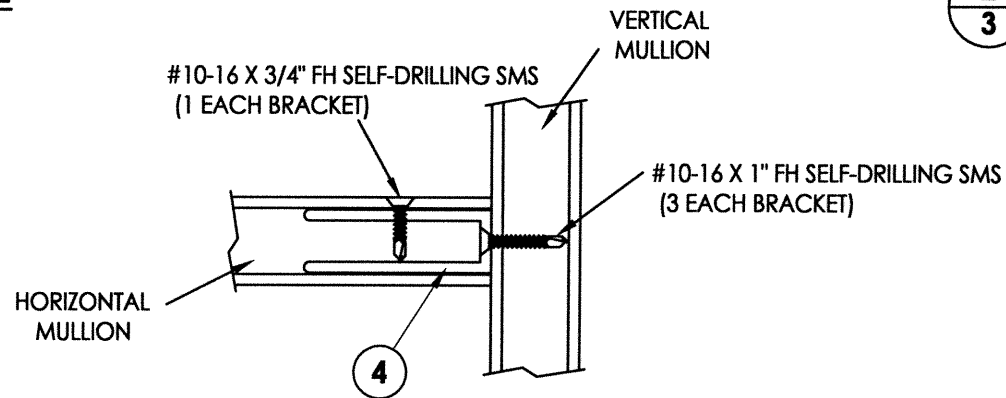
PRODUCT:		ALUMINUM CLIPPED MULLION	
PART OR ASSEMBLY:		MULLION DESIGN PRESSURE TABLE & CROSS SECTIONS	
NO.	DATE	BY	REVISIONS
2	1/28/15	JK	UPDATE TO 5TH ED. (2014) FBC
1	4/8/14	LFS	REVISE ANCHOR CLIPS
DATE: 10/01/13			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: FL-16542.6			
SHEET 2 OF 5			



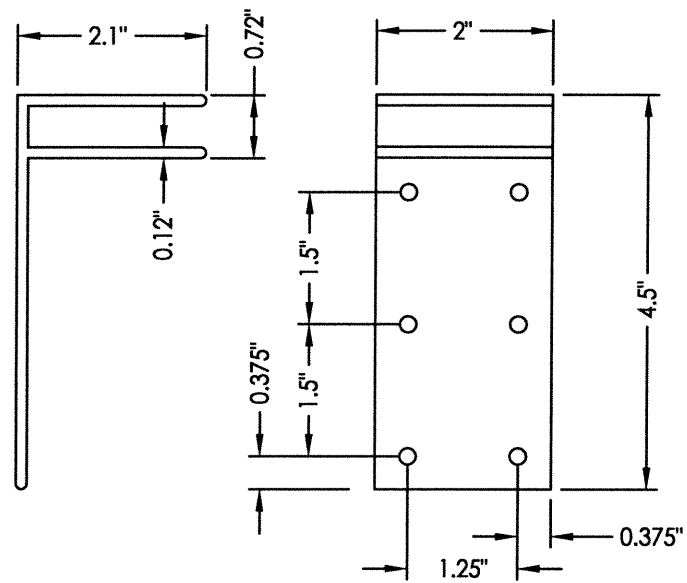
1 ANCHOR BRACKET DETAIL
3 Anchor to 2x Buck



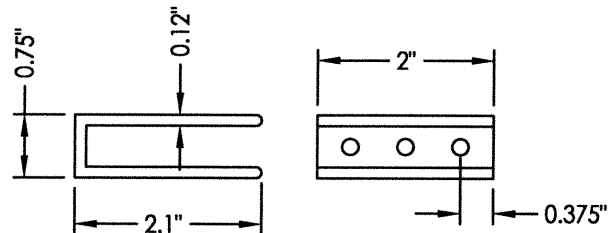
2 ANCHOR BRACKET DETAIL
3 Anchor to Steel Stud



3 HORIZONTAL CROSS SECTION
3 Mullion-to-Mullion connection



2 WOOD/STEEL STUD ANCHOR BRACKET
 6063-T6 ALUM.



4 MULLION-TO-MULLION ANCHOR BRACKET
 6063-T6 ALUM.

- Notes:**
- Refer to individual window product approval for fabrication and installation requirements, including glazing details, frame reinforcement and anchor specifications.
 - Mullion bracket anchoring details shown may be used at either end of mullion.

MULLION ANCHOR BRACKET ANCHOR SCHEDULE				
ANCHOR	SUBSTRATE	EMBEDMENT (MIN.)	EDGE DISTANCE (MIN.)	CENTER-TO-CENTER SPACING (MIN.)
#10 PFH WOOD SCREW	WOOD	1-3/8"	1"	1-1/4"
#10-16 SELF-DRILLING SHEET METAL SCREW	STEEL	A MIN. OF 3 THREADS SHALL PROTRUDE COMPLETELY THROUGH THE STEEL SUBSTRATE	1"	1-1/4"

WOOD FRAMING (S.G. >= 0.55)
 STEEL CONFORMING TO ASTM A653, 16 GA., 0.060" MIN. THICKNESS (F_y = 33,000 PSI, F_u = 45,000 PSI)
 SHEET METAL SCREWS (SAE GRADE 5 MIN.): HILTI KWIK-FLEX or ELCO DRIL-FLEX

FLORIDA PROFESSIONAL ENGINEER
 F. SCHMIDT
 LICENSE No. 43409

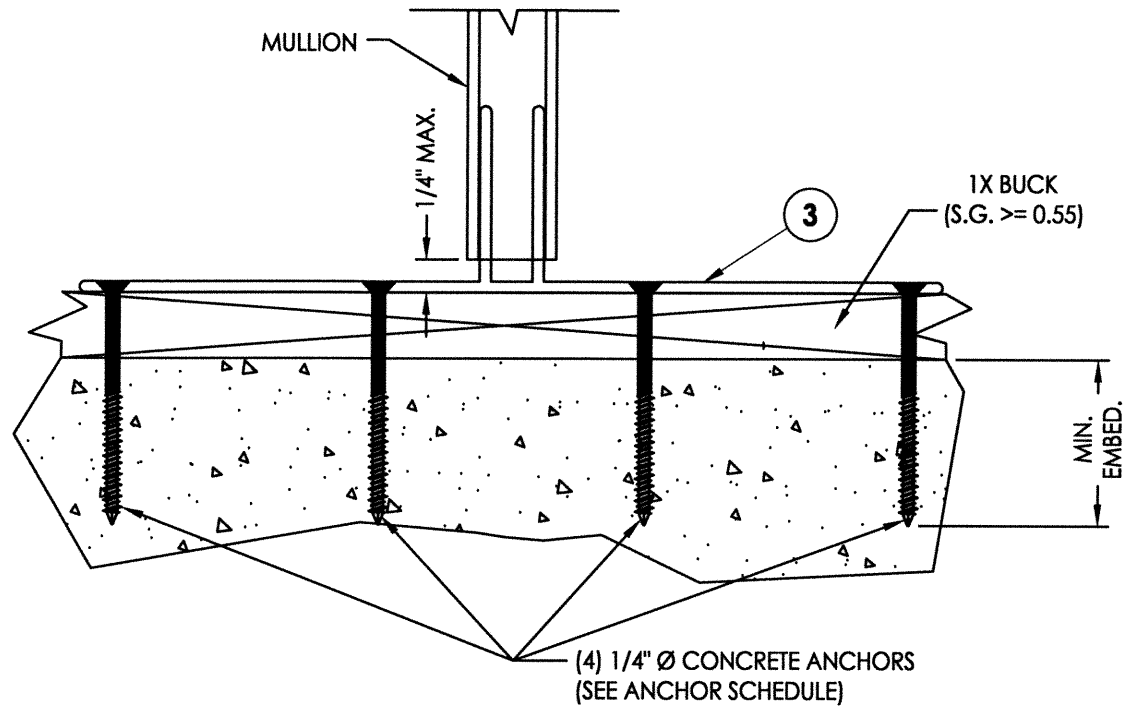
STATE OF FLORIDA
 PROFESSIONAL ENGINEER
 BUILDING CONSULTANTS, INC.

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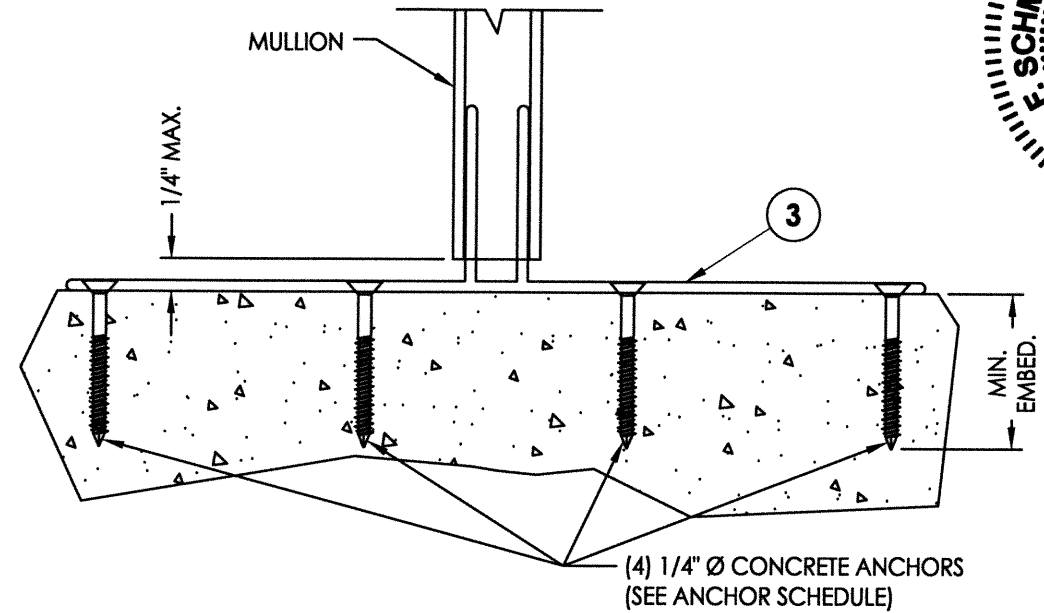
P.O. Box 230, Valrico, FL 33595
 Phone No.: 813.659.9197
 FBPE C.A. No. 9813

LFS
 2.10.15

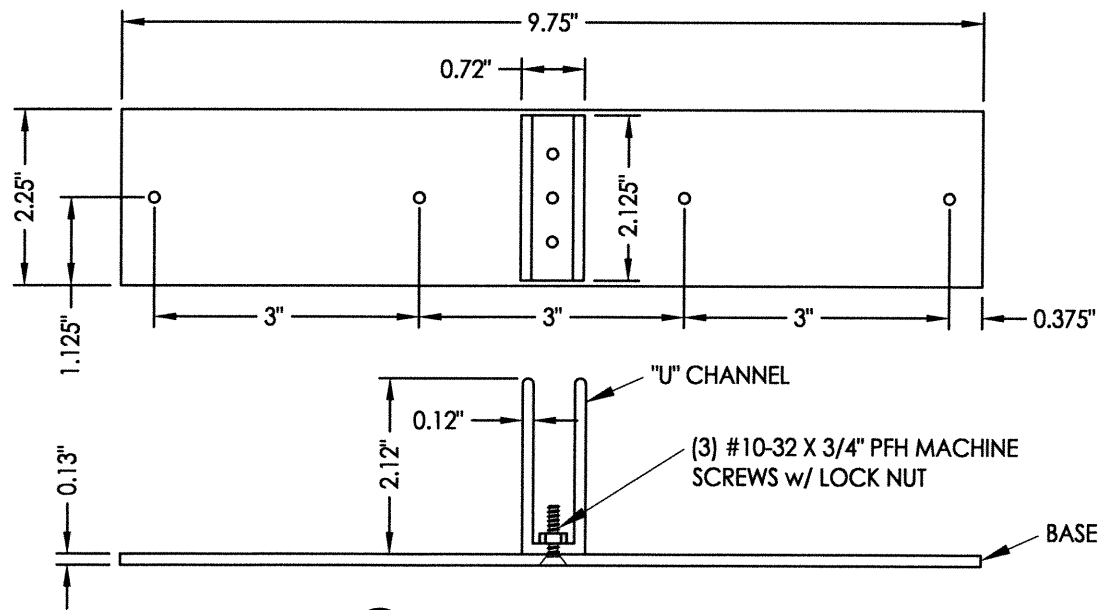
PRODUCT:	ALUMINUM CLIPPED MULLION
PART OR ASSEMBLY:	WOOD/STEEL STUD ANCHOR BRACKET DETAILS
DATE:	10/01/13
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	FL-16542.6
SHEET	3 of 5



1 ANCHOR BRACKET DETAIL
4 Anchor to Masonry thru 1x Buck

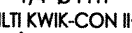


2 ANCHOR BRACKET DETAIL
4 Anchor Direct to Masonry

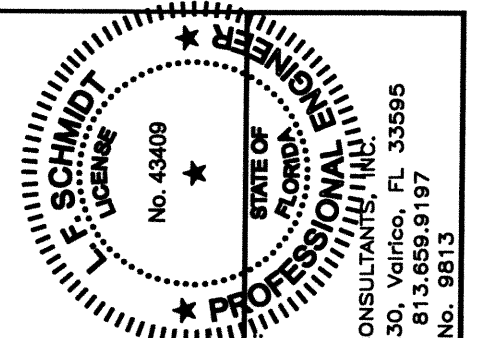


3 MASONRY ANCHOR BRACKET
 BASE (6061-T6 ALUM.)
 "U" CHANNEL (6063-T6 ALUM.)

- Notes:**
- Refer to individual window product approval for fabrication and installation requirements, including glazing details, frame reinforcement and anchor specifications.
 - Mullion bracket anchoring details shown may be used at either end of mullion.

MULLION ANCHOR BRACKET ANCHOR SCHEDULE				
ANCHOR	SUBSTRATE	EMBEDMENT (MIN.)	EDGE DISTANCE (MIN.)	CENTER-TO-CENTER SPACING (MIN.)
1/4" Ø PFH HILTI KWIK-CON II+ 	HOLLOW BLOCK	1-1/4"	2-1/2"	3"
	CONCRETE	1-1/4"	2-1/2"	3"

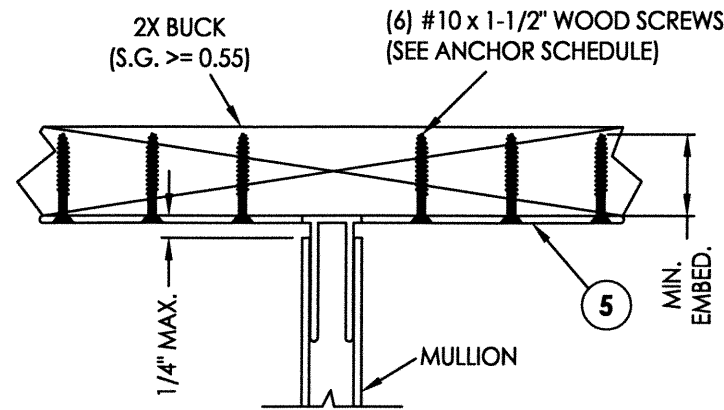
CONCRETE CONFORMING TO ACI 301 (3,000 PSI MIN.) OR HOLLOW BLOCK CONFORMING TO ASTM C90



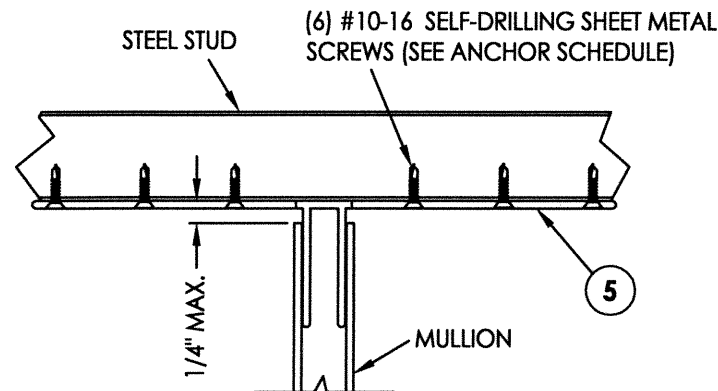
Documents Prepared By: *LFS*
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 P.O. Box 230, Valrico, FL 33595
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 FBPE C.A. No. 9813

PRODUCT:	ALUMINUM CLIPPED MULLION
PART OR ASSEMBLY:	MASONRY ANCHOR BRACKET DETAILS
DATE	NO.
1/28/15	2
4/8/14	1
DATE	NO.
1/28/15	2
4/8/14	1
DATE	NO.
10/01/13	
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	FL-16542.6
SHEET	4 OF 5

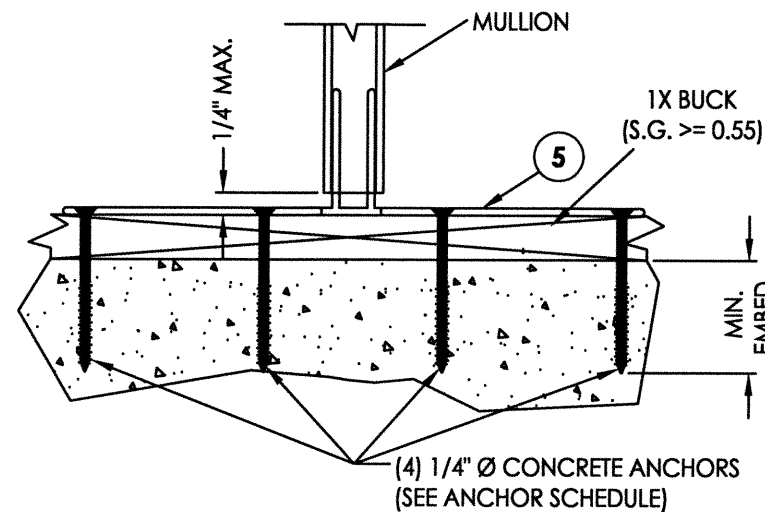
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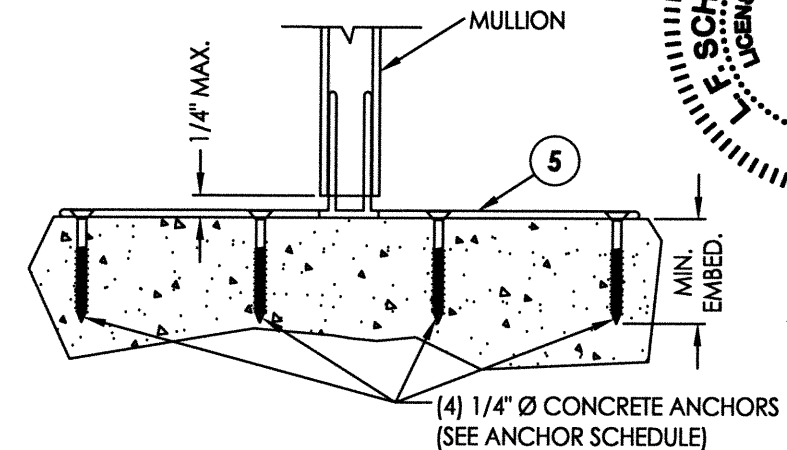
1 ANCHOR BRACKET DETAIL
5 Anchor to 2x Buck



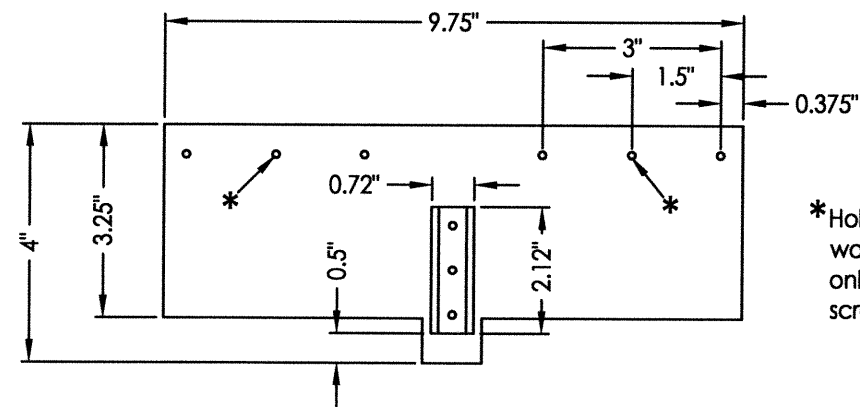
2 ANCHOR BRACKET DETAIL
5 Anchor to Steel Stud



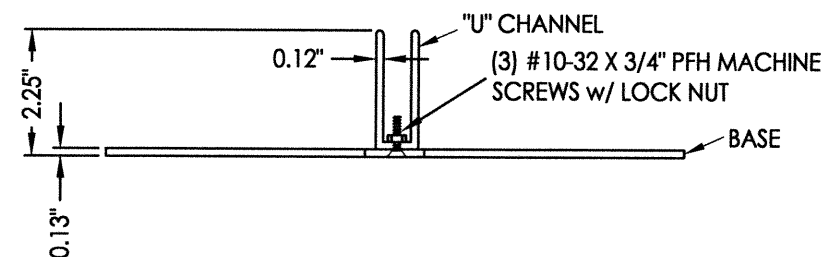
3 ANCHOR BRACKET DETAIL
5 Anchor to Masonry thru 1x Buck



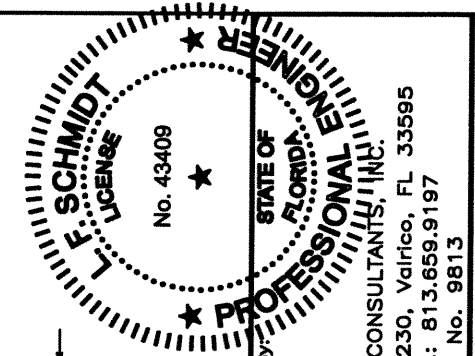
4 ANCHOR BRACKET DETAIL
5 Anchor Direct to Masonry



*Holes indicated to be used for wood/steel stud installations only. Do not use for concrete screws.



5 MASONRY OR WOOD/STEEL STUD ANCHOR BRACKET
BASE (6061-T6 ALUM.)
"U" CHANNEL (6063-T6 ALUM.)



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PRODUCT: ALUMINUM CLIPPED MULLION
PART OR ASSEMBLY: MASONRY OR WOOD/STEEL STUD OFFSET ANCHOR BRACKET DETAILS

NO.	DATE	BY	REVISIONS
2	1/28/15	JK	UPDATE TO 5TH ED. (2014)
1	4/8/14	LFS	REVISE ANCHOR CLIPS

DATE: 10/01/13
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-16542.6
SHEET 5 OF 5

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- Notes:**
- Refer to individual window product approval for fabrication and installation requirements, including glazing details, frame reinforcement and anchor specifications.
 - Mullion bracket anchoring details shown may be used at either end of mullion.

MULLION ANCHOR BRACKET ANCHOR SCHEDULE				
ANCHOR	SUBSTRATE	EMBEDMENT (MIN.)	EDGE DISTANCE (MIN.)	CENTER-TO-CENTER SPACING (MIN.)
#10 PFH WOOD SCREW	WOOD	1-3/8"	1"	1-1/4"
#10-16 SELF-DRILLING SHEET METAL SCREW	STEEL	A MIN. OF 3 THREADS SHALL PROTRUDE COMPLETELY THROUGH THE STEEL SUBSTRATE	1"	1-1/4"
1/4" Ø PFH HILTI KWIK-CON II+	HOLLOW BLOCK	1-1/4"	2-1/2"	3"
	CONCRETE	1-1/4"	2-1/2"	3"

WOOD FRAMING (S.G. >= 0.55)
STEEL CONFORMING TO ASTM A653, 16 GA., 0.060" MIN. THICKNESS (Fy = 33,000 PSI, Fu = 45,000 PSI)
SHEET METAL SCREWS (SAE GRADE 5 MIN.): HILTI KWIK-FLEX or ELCO DRIL-FLEX
CONCRETE CONFORMING TO ACI 301 (3,000 PSI MIN.) OR HOLLOW BLOCK CONFORMING TO ASTM C90