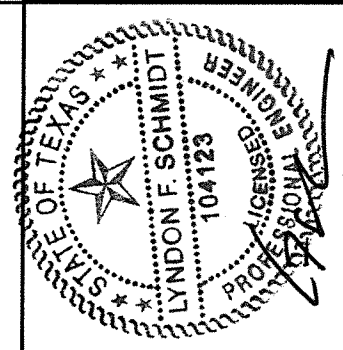




CLIPPED MULLION		TMP-2603 EXTRUDED ALUMINUM VERTICAL CLIPPED COMBINATION MULLION LOAD TABLE (PSF)																								
		OVERALL OPENING WIDTH																								
		49"	53"	57"	61"	65"	69"	73"	77"	81"	85"	89"	93"	97"	101"	105"	109"	113"	117"	121"	125"	129"	133"	137"	141"	145"
MAXIMUM MULLION LENGTH	109"	27.5	25.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	104"	32.0	29.5	27.0	25.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	100"	34.0	31.5	29.0	27.5	26.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	96"	42.0	39.0	36.5	34.0	32.0	30.0	28.0	26.5	25.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	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	-	-	-	-	-	-	-	-	-	-	-	-	-
	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	-	-	-	-	-	-	-	-	-	-
	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	-	-	-	-	-	-	-
	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	-	-
	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	



Documents Prepared By: Lyndon F. Schmidt, P.E.  
TEXAS P.E. #104123

**RW** BUILDING CONSULTANTS, INC.  
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Phone No.: 813.659.9197

TEXAS BOARD OF PROFESSIONAL ENGINEERS  
CERTIFICATE OF REGISTRATION # F-11852

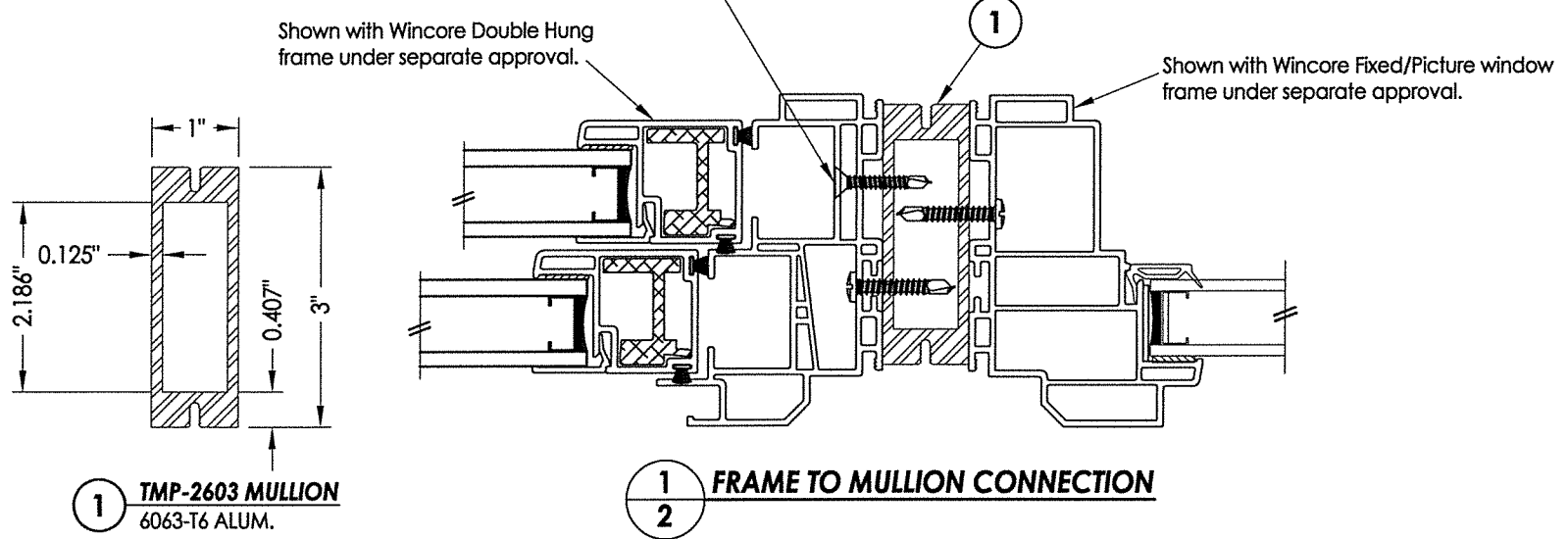
**DESIGN PRESSURE TABLE NOTES:**

- 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.
- Enter the table at the intersection of the Mullion Length and the Overall Opening Width to determine the maximum approved Design Pressure.

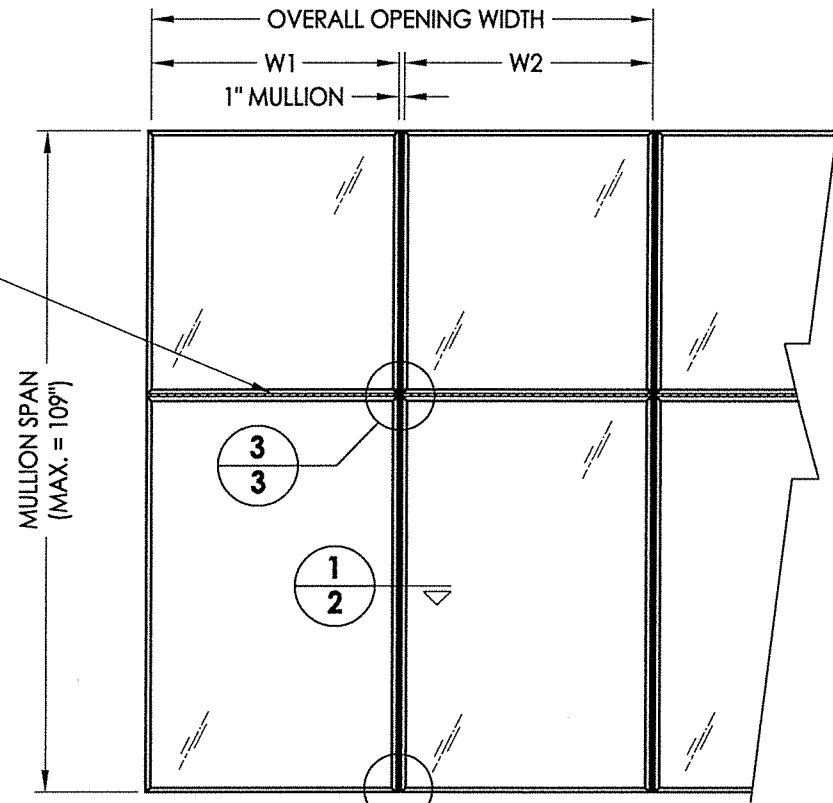
- APPROVED WINDOW UNIT TYPES**
- Fixed/Picture Windows
  - Casement Windows
  - Awning Windows
  - Horizontal Slider Windows
  - Single Hung Windows
  - Double Hung Windows

At a minimum, install #10-16 Self-Drilling SMS located 4" from each end of mullion and 8" o.c. max. thereafter. At least 3 threads must protrude completely through the mullion face.

See Horizontal Clipped Mullion Approval (TX-4388), if applicable, for design pressure chart & connection details.

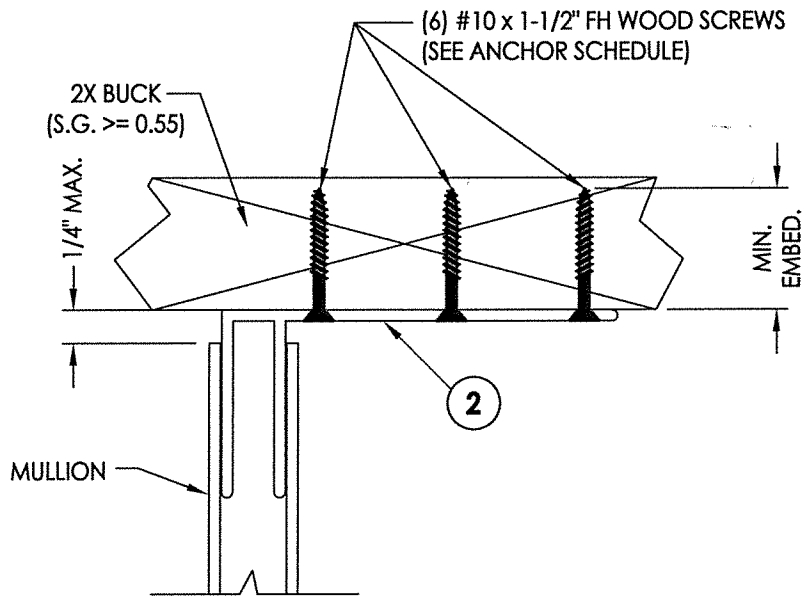


**OVERALL OPENING WIDTH = W1 + W2 + 1 (inch)**

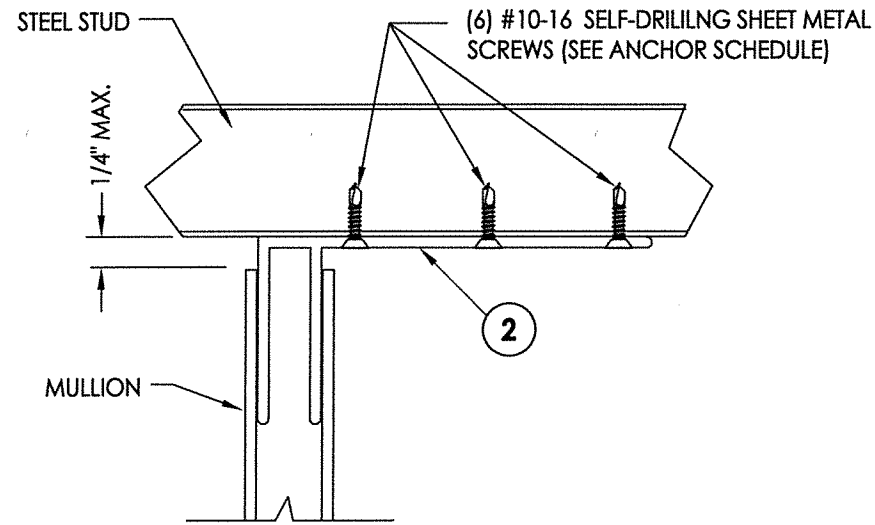


SEE ANCHOR BRACKET DETAILS:  
SHEETS 3 & 4

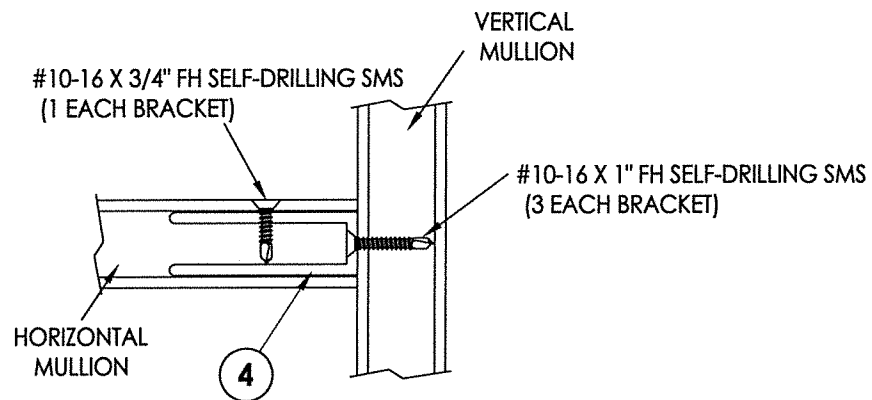
PRODUCT:	ALUMINUM CLIPPED MULLION	
PART OR ASSEMBLY:	MULLION DESIGN PRESSURE TABLE & CROSS SECTIONS	
NO.	DATE	REVISIONS
2	6/11/20	UPDATE TO 2018 IBC/IRC
1	5/04/16	MODIFY ANCHOR CLIP
DATE:	11/25/14	
SCALE:	N.T.S.	
DWG. BY:	JK	
CHK. BY:	LFS	
DRAWING NO.:	TX-4387	
SHEET	2	OF 4



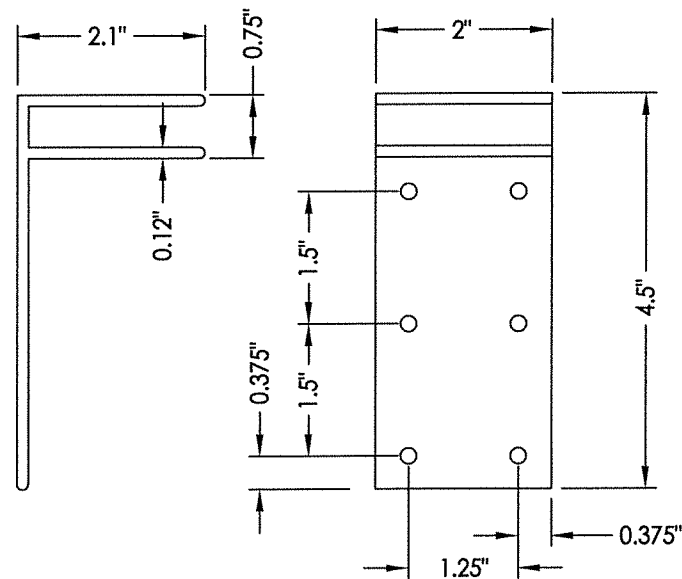
**1 ANCHOR BRACKET DETAIL**  
**3 Anchor to 2x Buck**



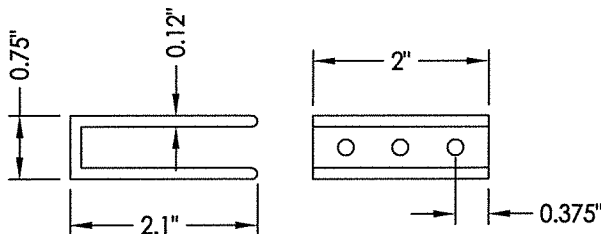
**2 ANCHOR BRACKET DETAIL**  
**3 Anchor to Steel Stud**



**3 HORIZONTAL CROSS SECTION**  
**3 Mullion-to-Mullion connection**



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

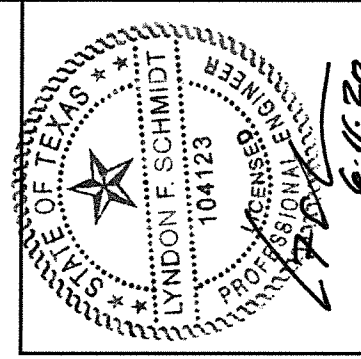


**4 MULLION-TO-MULLION ANCHOR BRACKET**  
 6063-T6 ALUM.

- 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. >= 0.42)  
 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



Documents Prepared By: Lyndon F. Schmidt, P.E.  
 TEXAS P.E. #104123

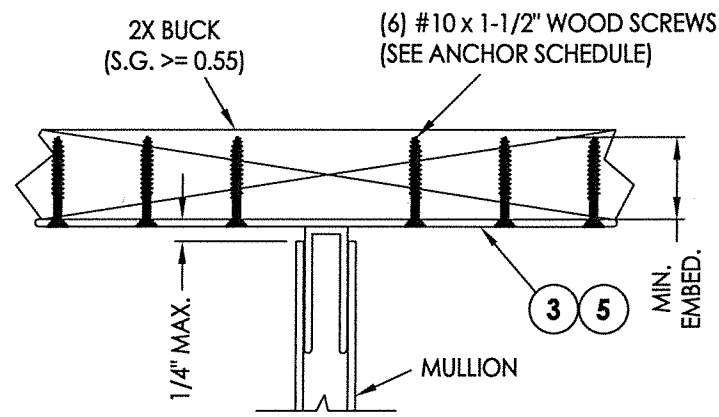
**RW** BUILDING CONSULTANTS, INC.  
 P.O. Box 230 Valrico FL 33595  
 Phone No.: 813.659.9197

TEXAS BOARD OF PROFESSIONAL ENGINEERS  
 CERTIFICATE OF REGISTRATION # F-11852

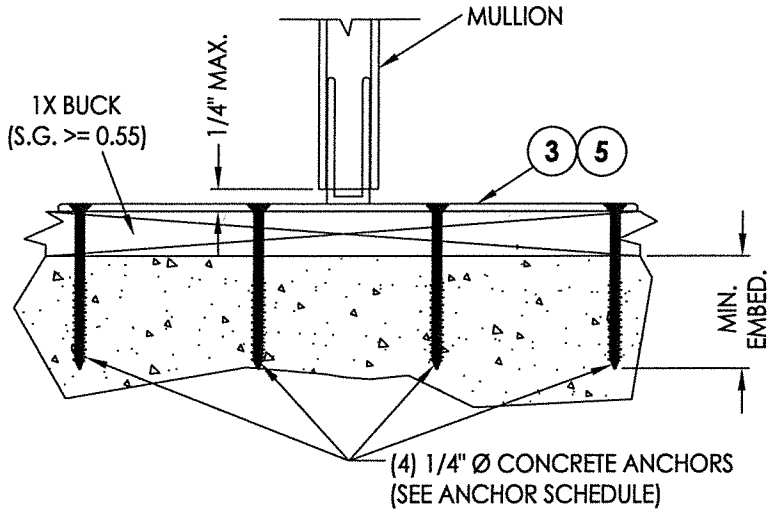
PRODUCT: ALUMINUM CLIPPED MULLION  
 PART OR ASSEMBLY: ANCHOR BRACKET DETAILS & CROSS SECTIONS

NO.	DATE	BY	REVISIONS
2	6/11/20	LFS	UPDATE TO 2018 IBC/IRC
1	5/04/16	LFS	MODIFY ANCHOR CLIP

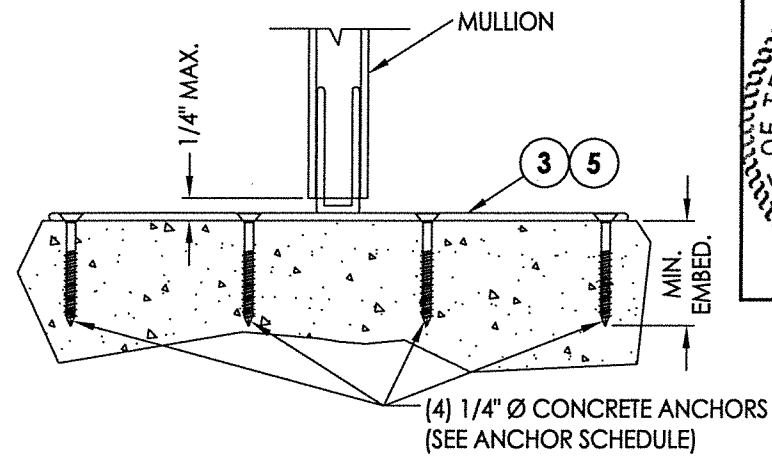
DATE: 11/25/14  
 SCALE: N.T.S.  
 DWG. BY: JK  
 CHK. BY: LFS  
 DRAWING NO.: TX-4387  
 SHEET 3 OF 4



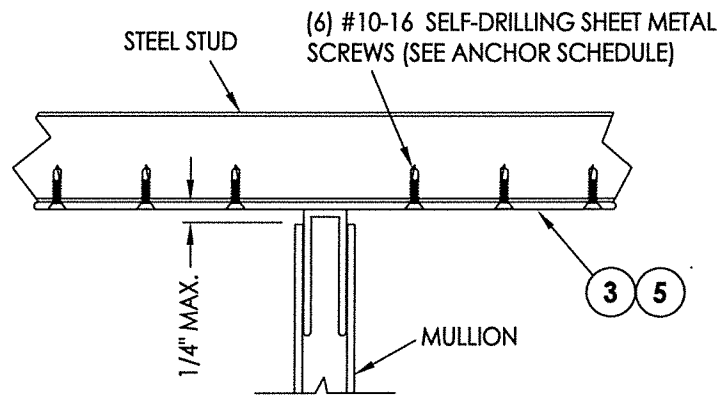
**1 ANCHOR BRACKET DETAIL**  
Anchor to 2x Buck



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



**4 ANCHOR BRACKET DETAIL**  
Anchor Direct to Masonry

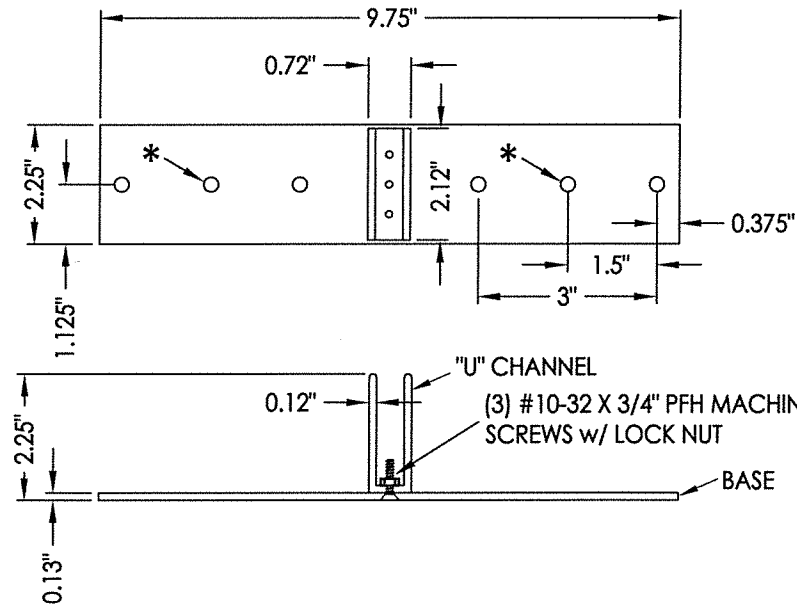


**2 ANCHOR BRACKET DETAIL**  
Anchor to Steel Stud

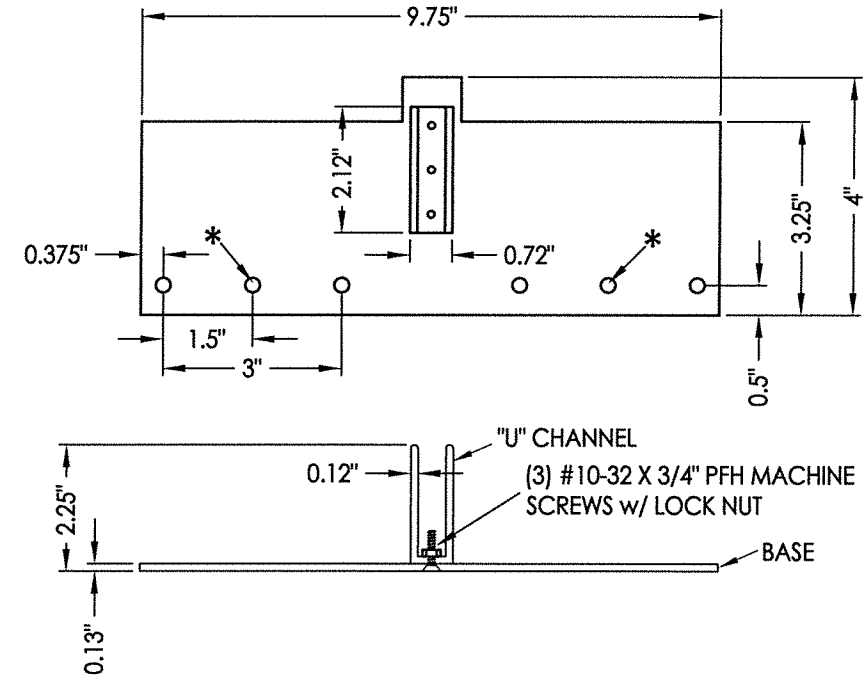
- Notes:
- Refer to individual window product approval for fabrication and installation requirements, including glazing details, frame reinforcement and anchor specifications.
  - Mullion bracket anchoring details shown may be used at either end of mullion.

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"	3/4"	1-1/4"
#10-16 SELF-DRILLING SHEET METAL SCREW	STEEL	A MIN. OF 3 THREADS SHALL PROTRUDE COMPLETELY THROUGH THE STEEL SUBSTRATE	3/4"	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

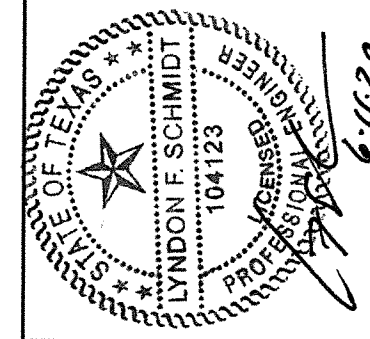


**3 MASONRY OR WOOD/STEEL STUD ANCHOR BRACKET**  
BASE (6061-T6 ALUM.)  
"U" CHANNEL (6063-T6 ALUM.)



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

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



Documents Prepared By: Lyndon F. Schmidt, P.E.  
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TEXAS BOARD OF PROFESSIONAL ENGINEERS  
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: ALUMINUM CLIPPED MULLION  
PART OR ASSEMBLY: ANCHOR BRACKET DETAILS & CROSS SECTIONS

NO.	DATE	REVISIONS
2	6/11/20	UPDATE TO 2018 IBC/IRC
1	5/04/16	MODIFY ANCHOR CLIP

DATE: 11/25/14  
 SCALE: N.T.S.  
 DWG. BY: JK  
 CHK. BY: LFS  
 DRAWING NO.: TX-4387  
 SHEET 4 OF 4