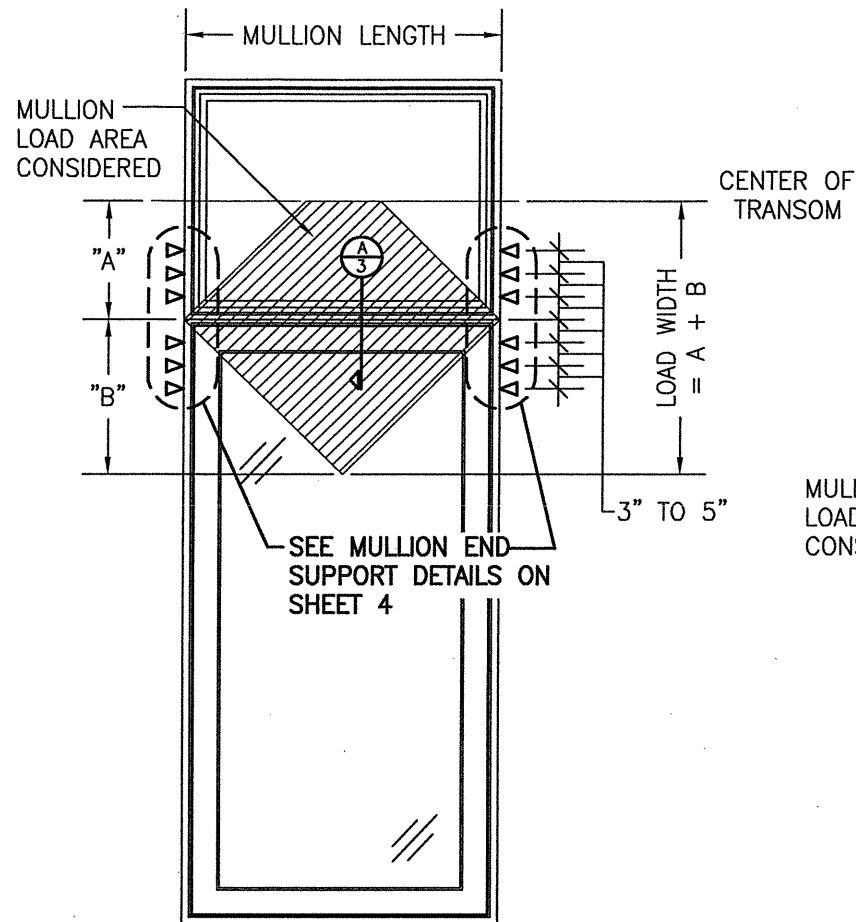




"A" = LESSER OF (MULLION LENGTH/2) OR (TRANSOM HEIGHT/2)

"B" = MULLION LENGTH/2

SINGLE WINDOW OR DOOR WITH FIXED TRANSOM

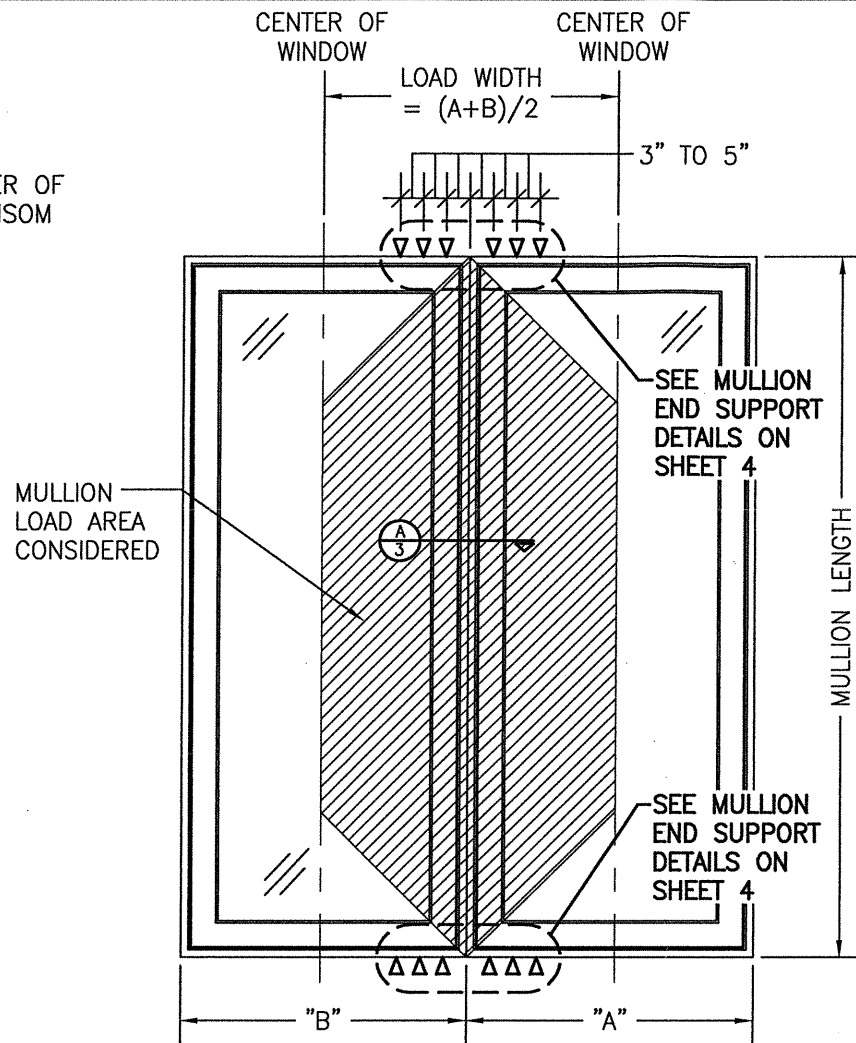
(SEE LOAD TABLE 1.0)

NOTE: WINDOW/DOOR MAY BE ANY FIXED OR OPERABLE UNIT

NOTE: MULLION MAY BE HORIZONTAL OR VERTICAL

GENERAL NOTES:

1. THESE MULLION SYSTEMS HAVE BEEN ANALYZED AND CERTIFIED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE LOAD TABLES.
2. OPENINGS, INCLUDING BUCKS (IF USED AS SUPPORT), MUST BE DESIGNED & CONSTRUCTED TO WITHSTAND WIND LOADS TRANSFERRED BY THE MULLIONS END REACTIONS & SUPPORTED WINDOWS/DOORS.
3. ALL MATERIALS & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & MAY NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS.
4. THESE MULLION SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH & MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).
5. ALLOWABLE PRESSURE ON THE MULLED UNIT SHALL BE CONTROLLED BY THE LESSER ALLOWABLE PRESSURE OF THE MULLION OR THE INDIVIDUAL DOOR/WINDOW UNITS.
6. WINDOW/DOOR SIZES SHALL BE AS RESTRICTED BY THEIR OWN INDIVIDUAL APPROVALS/CERTIFICATIONS.
7. FOR WINDOW OR DOOR FRAME TO OPENING ATTACHMENT, SEE THE RESPECTIVE PRODUCT CERTIFIED DRAWINGS/SPECIFICATIONS FOR THE WINDOW/DOOR.
8. MULLION LENGTHS ARE RESTRICTED BY THOSE SHOWN IN THE TABLES.
9. THE LOADS IN THESE TABLES CONSIDER WORSE CASE OF MULLION STRESS, DEFLECTION AND END REACTION.
10. ANY CONDITIONS NOT COVERED IN THIS CERTIFICATION SHALL BE SUBJECT TO SEPERATE ENGINEERING REVIEW.
11. ALL EMBEDMENTS SPECIFIED ARE TO BE BEYOND WALL FINISH.
12. MULLION BAR MUST BE CONTINUOUS END TO END WITH MAX. END SET-BACKS OF 2".
13. WHEN VERTICALLY STACKED, THE MANUFACTURER/INSTALLER SHALL INSURE THAT THE DEAD WEIGHT OF THE ABOVE WINDOWS WILL NOT CAUSE UNDO STRESS ON THE BELOW WINDOWS. THESE MULLIONS ARE DESIGNED TO SUPPORT WIND LOAD ONLY & ARE NOT CONSIDERED TO SUPPORT DEAD LOAD OF THE WINDOWS/DOORS.
14. ALL ANCHORS SPECIFIED HERE-IN THAT ARE TO PENETRATE PRESSURE TREATED (P.T.) LUMBER SHALL BE OF A MATERIAL CAPABLE OF RESISTING CORROSION CAUSED BY THE PRESSURE TREATING CHEMICALS IN THE WOOD.
15. DOORS & WINDOWS SHALL BE UNDER SEPERATE CERTIFICATION. SEE THE PRODUCTS SPECIFIC CERTIFICATION FOR THEIR USE.



FIXED WINDOW TO FIXED WINDOW WHEN WINDOW WIDTHS ARE LESS THAN OR EQUAL TO THE MULLION LENGTH

(SEE LOAD TABLE 1.0)

NOTE: MULLION MAY BE HORIZONTAL OR VERTICAL

EVALUATION OF THIS PRODUCT IS BASED ON APPLICABLE STANDARDS AND/OR INFORMATION & RESULTS FROM APPLICABLE TEST REPORTS. THE FLORIDA BUILDING CODE VERSION CONSIDERED WITH THIS EVALUATION WAS THAT IN FORCE AT THE TIME OF THE EVALUATION. IN THE EVENT OF CODE VERSION CHANGES/UPDATES OR IN THE EVENT THAT NEW OR ADDITIONAL TESTING IS COMPLETED ON THIS PRODUCT, PRIOR TO STATING CODE COMPLIANCE WITH THE STATE, THE MANUFACTURER SHALL CONFIRM WITH THE EVALUATION ENGINEER OF RECORD THAT EVERYTHING SPECIFIED HERE-IN IS CURRENT WITH ALL CURRENT TESTING, CODES AND APPLICABLE STANDARDS.

16. THE FOLLOWING PEETZ WINDOWS AND DOORS PRODUCTS SHALL BE APPLICABLE FOR USE WITH THIS MULLION APPROVAL:

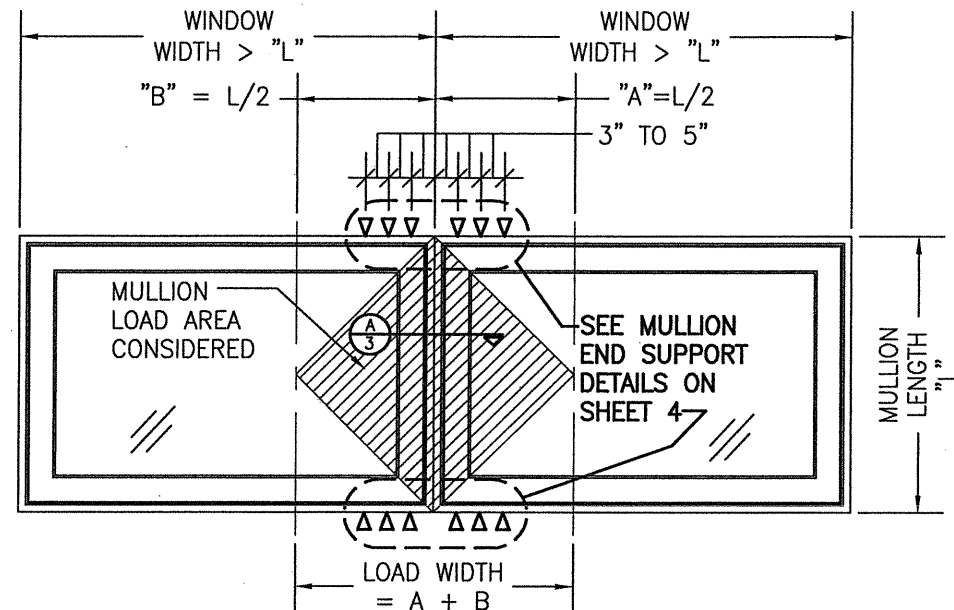
- AMERICAN & EUROPEAN DIRECT GLAZED WOOD WINDOWS
- AMERICAN IN-SWING & OUT-SWING FIXED & OPERABLE CASEMENT WOOD WINDOWS
- AMERICAN IN-SWING & OUT-SWING WOOD DOORS
- EUROPEAN IN-SWING FIXED & OPERABLE CASEMENT WINDOWS
- EUROPEAN OUT-SWING DOORS (FIXED & OPERABLE)
- OUT-SWING BI-FOLD DOORS

OTHER PRODUCTS NOT LISTED SHALL BE SUBJECT TO SEPERATE REVIEW/APPROVAL FOR USE WITH THIS MULLION APPROVAL.

17. THIS MULLION SYSTEM HAS SUCCESSFULLY PASSED TESTING TO THE FLORIDA BUILDING CODE PROTOCOLS TAS-201, 202 & 203 FOR LARGE MISSILE IMPACT.

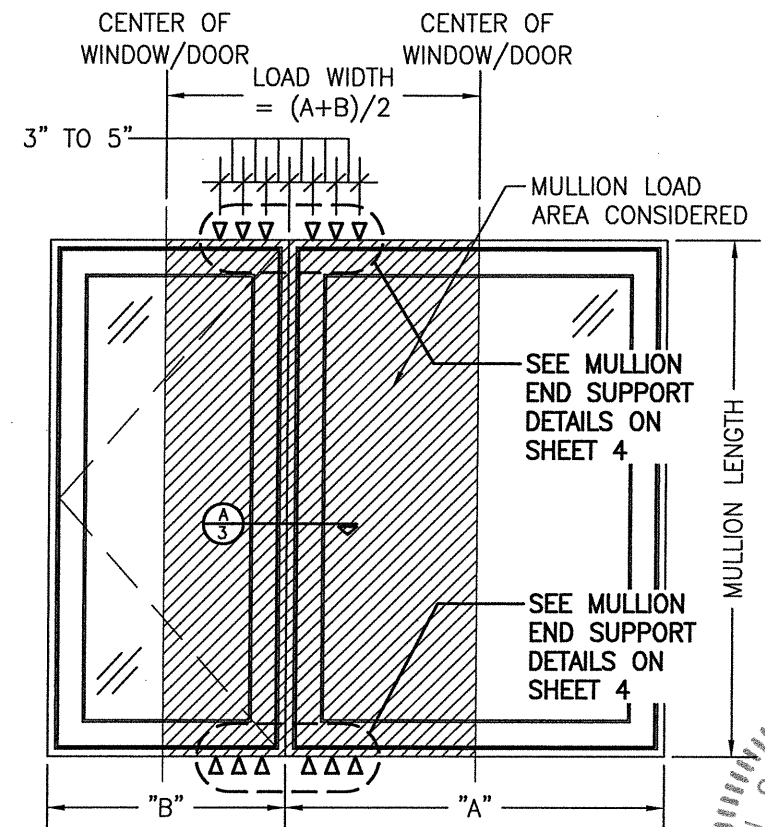
18. TO THE BEST OF OUR KNOWLEDGE, THE PRODUCT SHOWN HEREIN IS QUALITY ASSURED BY A FLORIDA STATE APPROVED CERTIFICATION/QA ENTITY & SHALL BE LABELED IN ACCORDANCE WITH THE FBC AND THE FLORIDA DEPARTMENT OF BUSINESS & PROFESSIONAL REGULATION SPECIFICATIONS. THESE DRAWINGS SHOW ALL APPLICABLE ELEVATION, COMBINATION, INSTALLATION & COMPARATIVE ANALYSIS CONDITIONS AS DETERMINED THROUGH TESTING & ENGINEERING RATIONAL ANALYSIS. PRODUCT ASSEMBLY SHALL BE IN ACCORDANCE WITH THESE DRAWINGS, THE MANUFACTURER'S QUALITY ASSURANCE SPECIFICATIONS & TESTING REPORTS.

19. CERTIFICATION OF THIS PRODUCT SHALL BE CONSIDERED VOID IF IT IS INSTALLED WITHOUT A BUILDING PERMIT FROM THE APPLICABLE LOCAL BUILDING DEPARTMENT OR IF IT IS INSTALLED BY ANYONE OTHER THAN A LICENSED CONTRACTOR EXPERIENCED WITH INSTALLATIONS OF THIS TYPE OF PRODUCT.



FIXED WINDOW TO FIXED WINDOW WHEN WINDOW WIDTHS ARE GREATER THAN THE MULLION LENGTH

(SEE LOAD TABLE 1.0)

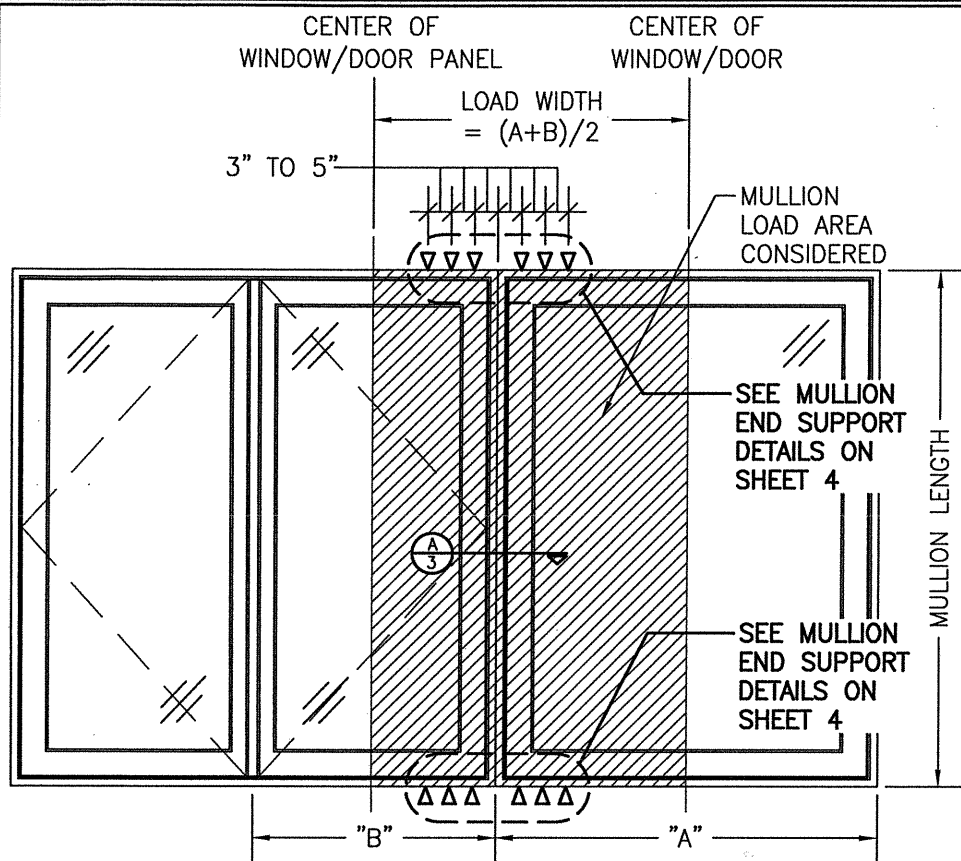


SINGLE OPERABLE DOOR/WINDOW TO A SINGLE OPERABLE OR FIXED DOOR/WINDOW

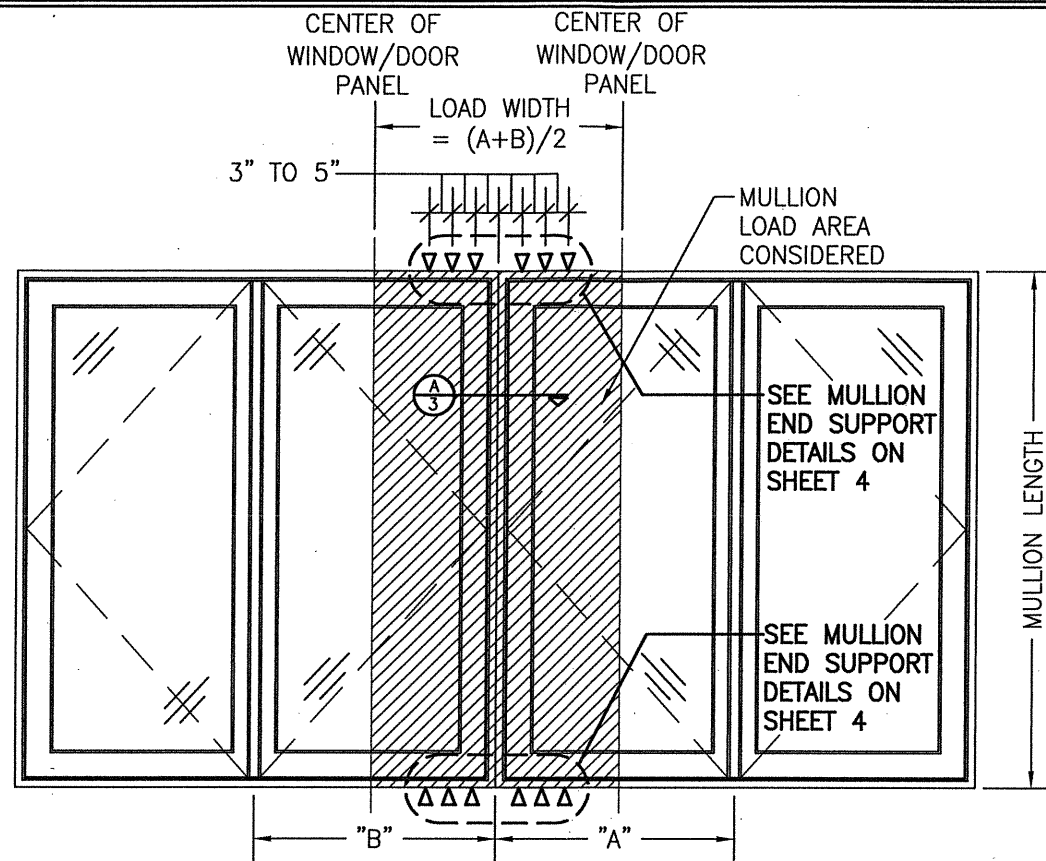
(SEE LOAD TABLE 2.0)

THESE DRAWINGS ARE APPLICABLE ONLY TO THE PRODUCT SPECIFIED. THEY MAY NOT BE USED FOR THE ASSEMBLY AND/OR INSTALLATION OF ANY OTHER PRODUCT NOR MAY THEY BE USED FOR RATIONAL AND/OR LOCAL APPROVAL OF ANY PRODUCT NOT PRODUCED BY THE MANUFACTURER STATED ON THESE DRAWINGS.

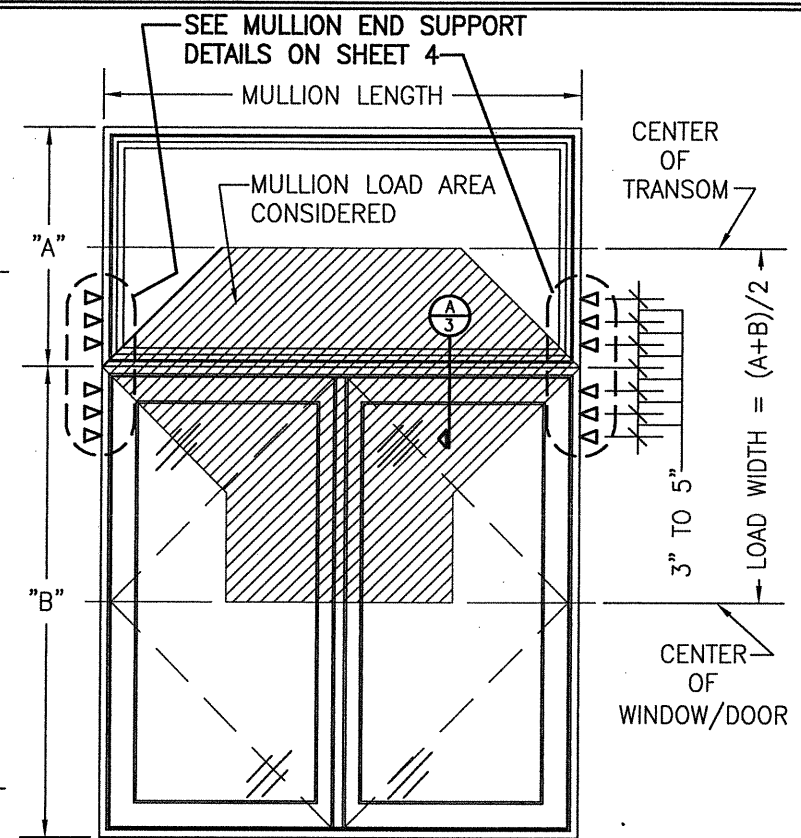
DRAWN BY: W.W.S.		CHECKED BY: W.W.S.	
PLOT: 1=24		DATE: 06/22/05	
NO.	REVISION DESCRIPTION	DATE	BY
A1	UPDATE TO PRESENT STANDARDS	05/04/10	WWS
B1	UPDATE TO PRESENT STANDARDS	04/06/15	WWS
C1	CHANGE TO STATE APPROVAL	04/17/20	WWS
DRAWING TITLE			
AMERICAN AND EUROPEAN UN-CLIPPED BAR REINFORCED MULLIONS			
CONSULTANTS			
W.W. SCHAEFER ENGINEERING & CONSULTING, P.A.			
7480 150TH COURT NORTH, PALM BEACH GARDENS, FL 33418			
PHONE: 561-744-3424			
MANUFACTURER			
PEETZ WINDOWS & DOORS			
15951 S.W. 41ST STREET, SUITE 150 WESTON, FL 33331			
954-659-3887			
DRAWING NO. 1327			
SHEET NO. 1 OF 5			



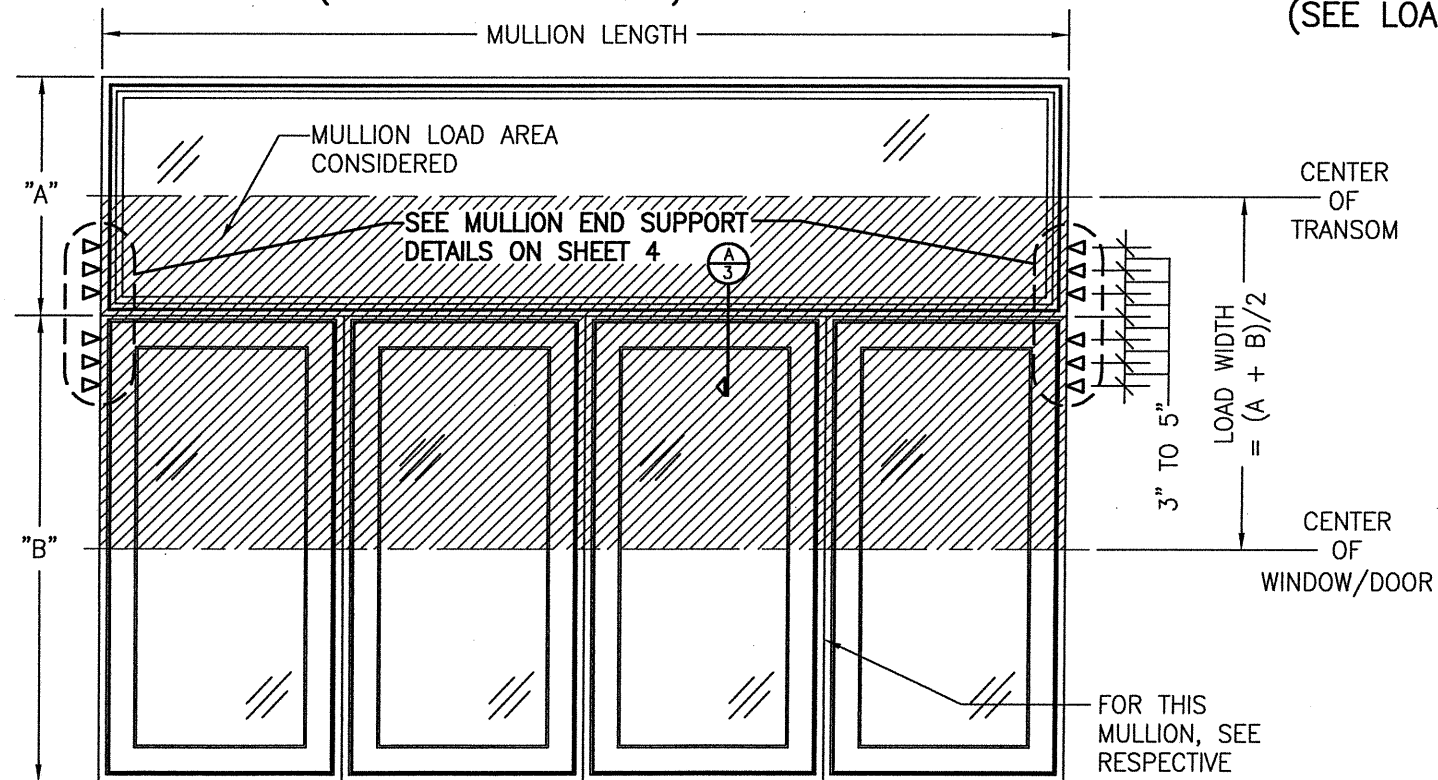
**DOUBLE PANEL OPERABLE DOOR/WINDOW
TO A SINGLE DOOR/WINDOW
(SEE LOAD TABLE 2.0)**



**DOUBLE PANEL OPERABLE DOOR/WINDOW TO
A DOUBLE PANEL DOOR/WINDOW
(SEE LOAD TABLE 2.0)**

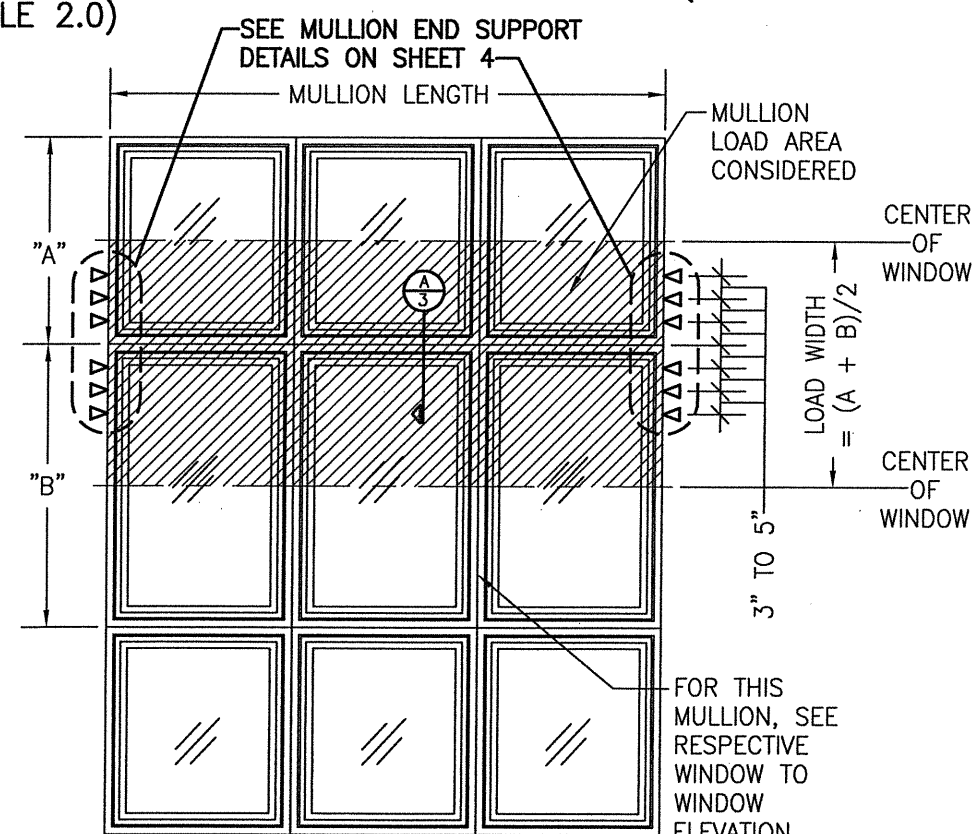


**DOUBLE PANEL DOOR OR CASEMENT
WINDOW WITH A SINGLE FIXED TRANSOM
(SEE LOAD TABLE 3.0)**



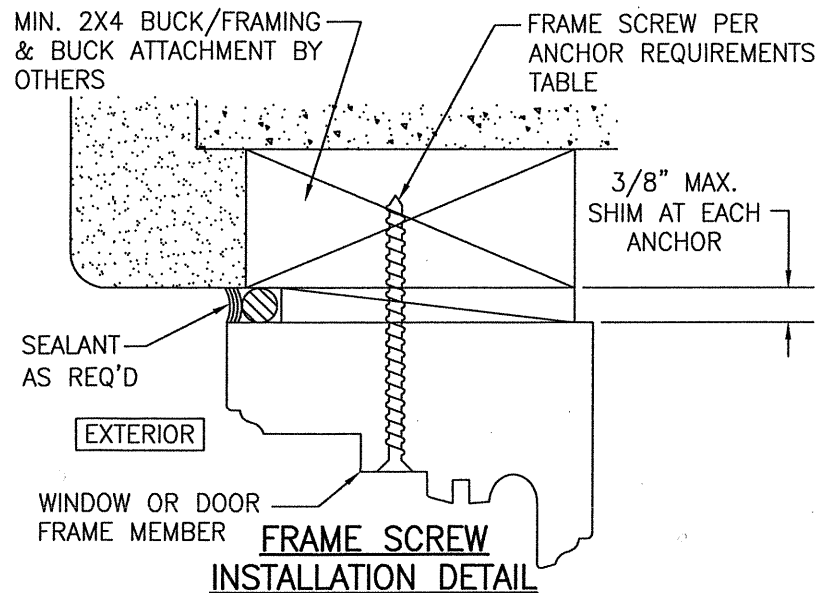
**MULTIPLE WINDOWS/DOORS WITH TRANSOM
(SEE LOAD TABLE 4.0)**

NOTES: 1. TRANSOM MAY BE SINGLE OR MULTIPLE WINDOWS.
2. CONTINUOUS MULLION MAY BE HORIZONTAL OR VERTICAL (HORIZONTAL SHOWN).



**MULTIPLE WINDOWS (SEE LOAD TABLE 4.0)
(CONTINUOUS MULLION MAY BE HORIZONTAL OR VERTICAL (HORIZONTAL SHOWN))**

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=24	DATE: 06/22/05
DATE	
BY	
REVISION DESCRIPTION	
NO.	
AMERICAN AND EUROPEAN UN-CLIPPED BAR REINFORCED MULLIONS MANUFACTURER PEETZ WINDOWS & DOORS 15951 S.W. 41ST STREET, SUITE 150 WESTON, FL 33331 954-659-3887	
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424	
DRAWING TITLE AMERICAN AND EUROPEAN UN-CLIPPED BAR REINFORCED MULLIONS	
CERTIFICATION JUN 02 2020 WARREN W. SCHAEFER P.E. NO. 44135	
DRAWING NO. 1327	REV. C
SHEET NO. 2	OF 5



**FRAME SCREW
INSTALLATION DETAIL**
(6 SCREWS PER MULLION END)

OUT-SWING FRAME CONDITION SHOWN. IN-SWING IS THE SAME EXCEPT FRAME MEMBER IS MIRRORED.

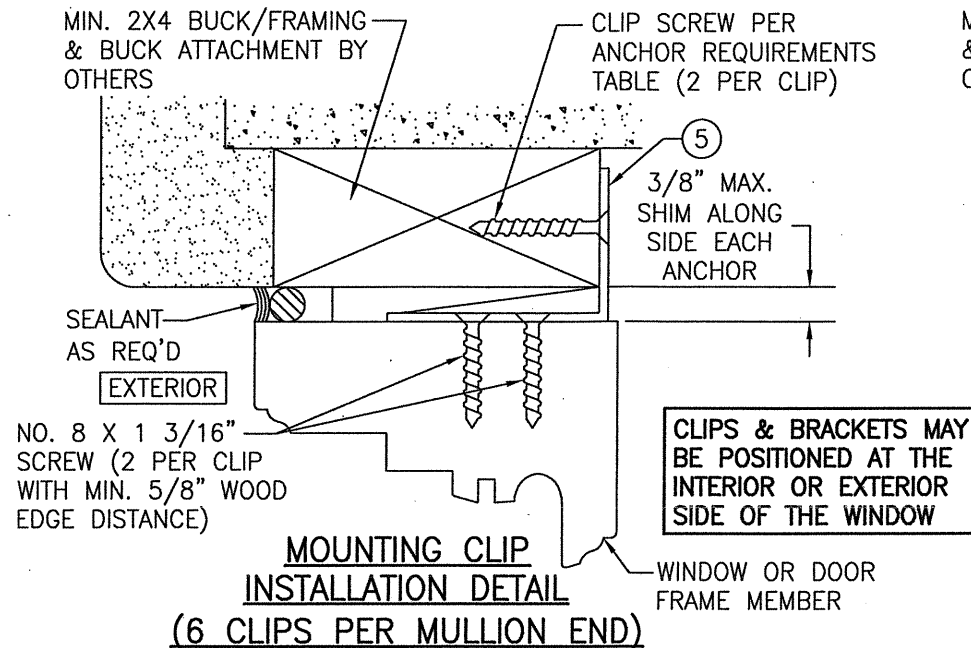
BUCK CONDITION IS SHOWN IN EACH OF THESE DETAILS. METAL STUD, STRUCTURAL STEEL, BLOCK OR CONCRETE SUBSTRATES ALSO APPLY IN LIEU OF BUCKS PER FRAME ANCHOR REQUIREMENTS TABLE ON THIS SHEET.

AMERICAN CASEMENT WINDOW FRAME MEMBERS ARE USED IN THESE DETAILS. ALL OTHER PRODUCT FRAMES LISTED AS APPLICABLE WITH THE BAR MULLION IN THIS APPROVAL APPLY AND ARE INSTALLED IDENTICAL TO THAT SHOWN IN THESE DETAILS.

FRAME ANCHOR REQUIREMENTS TABLE

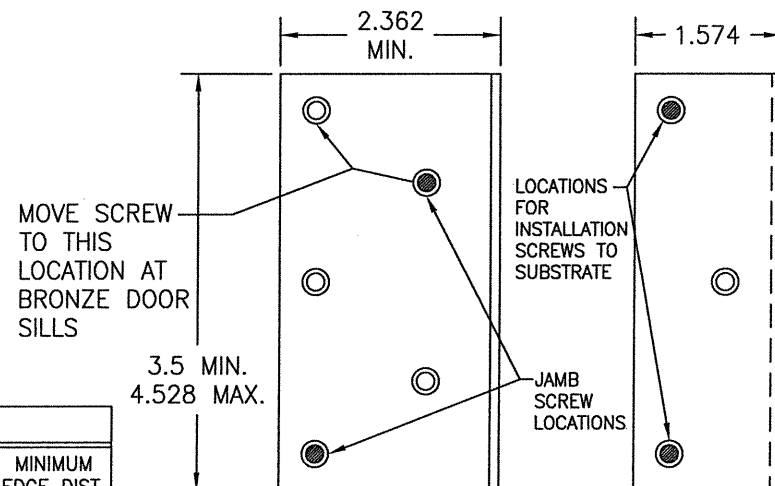
OPENING TYPE (SUBSTRATE)	FRAME/CLIP/BACKET TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.
FRAME SCREWS			
MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 14 SMS OR WOOD SCREW	1 1/4"	1"
MIN. 16 GA. 50 KSI METAL STUD	1/4" GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK STEEL OR ALUMINUM	1/4" GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. C-90 CMU OR 2500 PSI CONCRETE	(1) 1/4" CONCRETE SCREW	1 1/2"	2 1/2"
MOUNTING CLIP SCREWS			
MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 8 SMS OR WOOD SCREW	1 3/8"	1/2"
MIN. 1/8" THK STEEL OR ALUMINUM	NO. 8 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
NARROW MOUNTING BRACKET SCREWS			
MIN. 2X6 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 8 SMS OR WOOD SCREW	1 3/8"	1/2"
MIN. 18 GA. 33 KSI METAL STUD	NO. 8 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK STEEL OR ALUMINUM	NO. 8 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
WIDE MOUNTING BRACKET SCREWS			
MIN. 2X6 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 8 SMS OR WOOD SCREW	1 3/8"	1/2"
MIN. 18 GA. 33 KSI METAL STUD	NO. 8 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK STEEL OR ALUMINUM	NO. 8 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. C-90 CMU OR 2500 PSI CONCRETE	(1) 3/16" CONCRETE SCREW	1 1/2"	2"

(1) CONCRETE SCREWS SHALL BE ELCO ULTRACONS (C.S.), ELCO CRETE-FLEX (S.S.), ITW RAMSET/RED HEAD TAPCONS (C.S. OR S.S.) OR HILTI KWIK-CON II (C.S. OR S.S.).

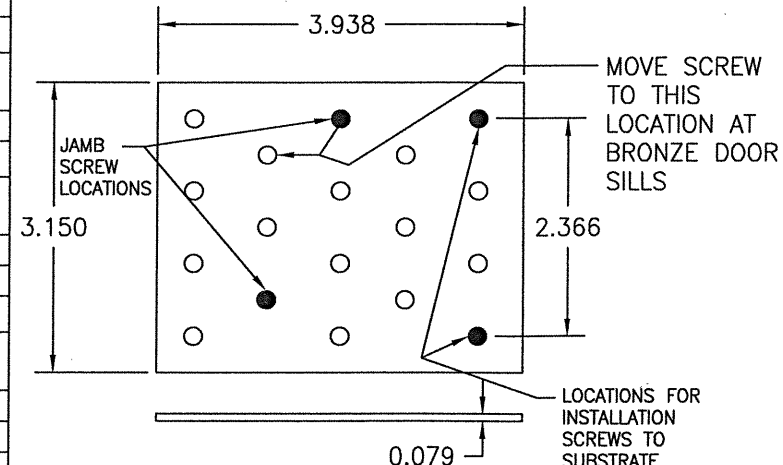


**MOUNTING CLIP
INSTALLATION DETAIL**
(6 CLIPS PER MULLION END)

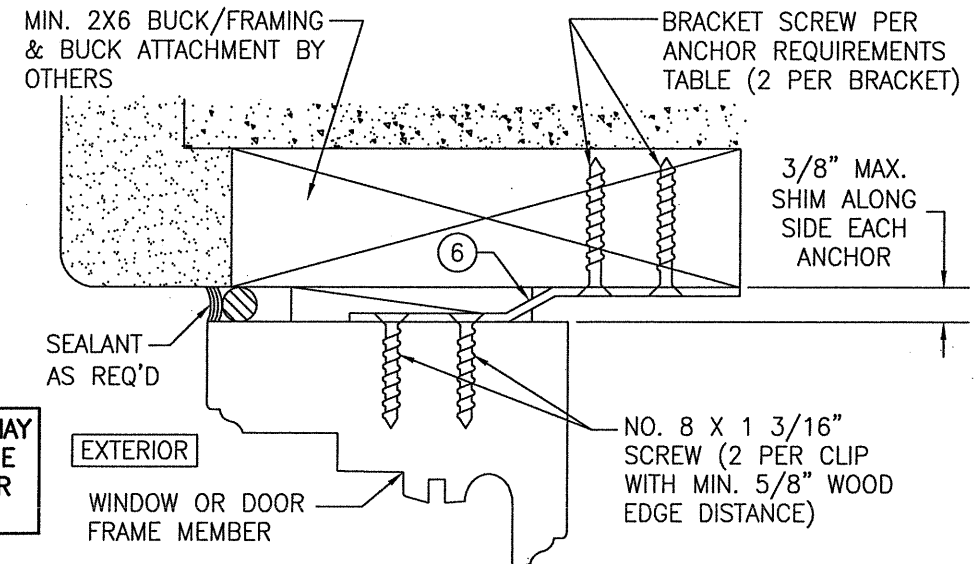
OUT-SWING FRAME CONDITION SHOWN. IN-SWING IS THE SAME EXCEPT FRAME MEMBER IS MIRRORED.



**5 ANGLE
MOUNTING
CLIP**

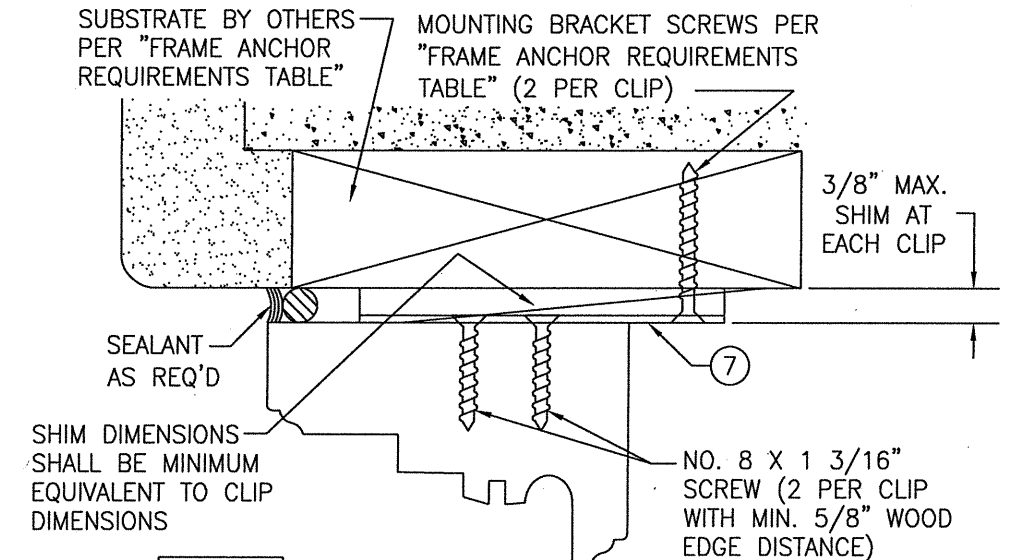


7 WIDE MOUNTING BRACKET



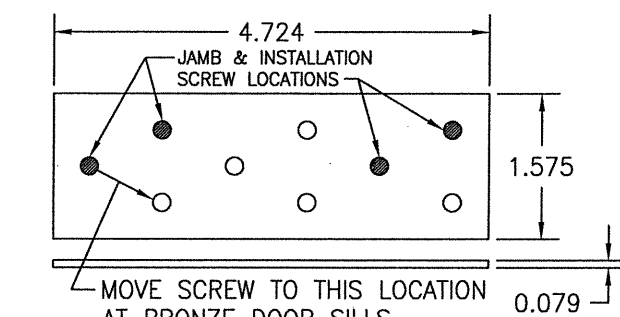
**NARROW MOUNTING BRACKET
INSTALLATION DETAIL**
(6 BRACKETS PER MULLION END)

OUT-SWING FRAME CONDITION SHOWN. IN-SWING IS THE SAME EXCEPT FRAME MEMBER IS MIRRORED.



**WIDE MOUNTING BRACKET
INSTALLATION DETAIL**
(6 BRACKETS PER MULLION END)

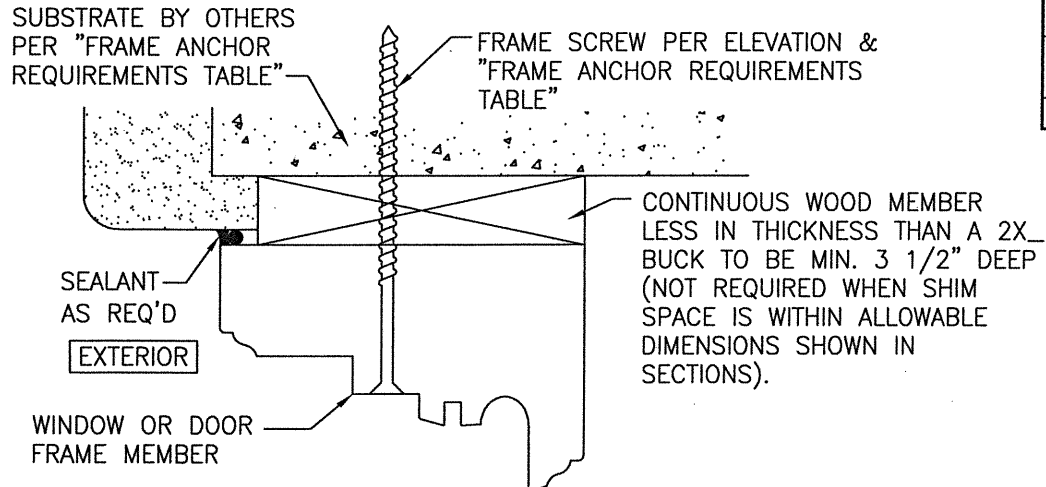
OUT-SWING FRAME CONDITION SHOWN. IN-SWING IS THE SAME EXCEPT FRAME MEMBER IS MIRRORED.



6 NARROW MOUNTING BRACKET

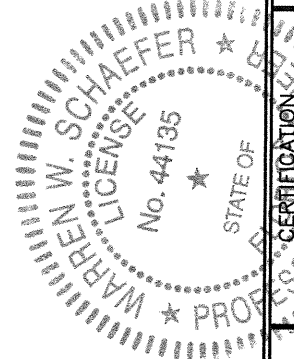
DRAWN BY: W.W.S.		CHECKED BY: W.W.S.	
PLOT: 1-2		DATE: 06/22/05	
DATE	BY	REVISION DESCRIPTION	NO.
AMERICAN AND EUROPEAN UN-CLIPPED BAR REINFORCED MULLIONS MANUFACTURER: PEETZ WINDOWS & DOORS 15951 S.W. 41ST STREET, SUITE 150 WESTON, FL 33331 954-659-3887 CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424 WARREN W. SCHAEFER, P.E. P.E. NO. 44135			
DRAWING NO. 1327		REV. C	
SHEET NO. 4		OF 5	

LOAD TABLE 1.0			LOAD TABLE 2.0			LOAD TABLE 3.0			LOAD TABLE 4.0					
MAXIMUM MULLION LENGTH (IN.)	MAXIMUM LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (PSF)	MAXIMUM MULLION LENGTH (IN.)	MAXIMUM LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (PSF)	MAXIMUM MULLION LENGTH (IN.)	MAXIMUM LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (PSF)	MAXIMUM MULLION LENGTH (IN.)	MAXIMUM LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (PSF)	MAXIMUM MULLION LENGTH (IN.)	MAXIMUM LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (PSF)
132	72	31.5	132	66	34.4	96	90	47.7	132	60	28.3	84	90	41.1
	66	34.4		60	37.8		84	51.1		48	35.3		84	44.1
	60	37.8		54	42.0		78	55.0		42	40.4		72	51.4
	54	42.0		48	47.3		72	59.6		36	47.1		60	61.7
	48	47.3		42	54.0		66	65.0		30	56.6		54	68.6
	42	54.0		39	58.2		60	70.0		24	70.0		48	70.0
	39	58.2		36	63.1	90	90	54.3	120	84	26.9	78	90	44.3
	36	63.1		30	70.0		84	58.1		72	31.4		84	47.5
	30	70.0		66	39.3		78	62.6		60	37.6		72	55.4
120	72	38.1	120	60	43.2		72	67.8		48	47.0		66	60.4
	66	41.6		54	48.0	84	66	70.0		42	53.8		60	66.5
	60	45.8		48	54.0		90	58.8		36	62.7		54	70.0
	54	50.9		42	61.7		84	63.0	108	30	70.0		90	48.0
	48	57.2		39	66.5		78	67.8		90	32.2		84	51.4
	42	65.4		36	70.0		72	70.0		84	34.3		72	60.0
108	39	70.0	108	66	43.6	78	90	63.3		72	40.0	66	66	65.5
	72	47.1		60	48.0		84	67.8		60	48.0		60	70.0
	66	51.4		54	53.3		78	70.0		48	60.0		90	52.4
	60	56.5		48	60.0	72	90	68.6		42	68.6		84	56.1
	54	62.8		42	68.6		84	70.0		36	70.0		72	65.5
96	48	70.0	96	39	70.0	66	66	49.1	96	90	36.0	60	66	70.0
	72	59.6		66	49.1		60	54.0		84	38.6		90	57.6
	66	65.0		60	54.0		54	60.0		72	45.0		84	61.7
90	60	70.0	90	48	67.5		48	67.5		60	54.0	54	72	70.0
	72	67.8		54	70.0		54	70.0		48	67.5		90	64.0
84	66	70.0	84	66	52.4		66	52.4	90	42	70.0		84	68.6
	72	70.0		66	52.4		60	57.6		90	38.4	48	72	70.0
96	66	65.0	96	60	54.0		54	64.0		84	41.1		90	70.0
	72	67.8		54	60.0		48	70.0		72	48.0			
	60	70.0		48	70.0		66	56.1		60	57.6			
	54	62.8		66	49.1		60	61.7		48	64.0			
	48	57.2		60	57.6		54	68.6		48	70.0			



OPTIONAL DIRECT MOUNT DETAIL
TO SUBSTRATE WITH SPACER OR SHIM
(ALTERNATE TO "FRAME SCREW INSTALLATION DETAIL")

NOTE: THE LOADS IN THESE TABLES ARE RESTRICTED TO A MAXIMUM OF 70 PSF. USE OF THESE MULLIONS WITH REQUIRED DESIGN PRESSURES ABOVE 70 PSF SHALL BE SUBJECT TO SEPERATE REVIEW BY A FLORIDA LICENSED STRUCTURAL ENGINEER AND SHALL BE UNDER SEPERATE APPROVAL.



DRAWN BY: W.W.S.
CHECKED BY: W.W.S.
PLOT: 1=2
DATE: 06/22/05

DATE
BY
REVISION DESCRIPTION
NO.

AMERICAN AND EUROPEAN UN-CLIPPED BAR REINFORCED MULLIONS
MANUFACTURER
PEETZ WINDOWS & DOORS
15951 S.W. 41ST STREET, SUITE 150
WESTON, FL 33331
954-659-3887

CONSULTANTS
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.
7480 150TH COURT NORTH
PALM BEACH GARDENS, FL 33418
PHONE: 561-744-3424

CERTIFICATION
WARREN W. SCHAEFER, P.E.
P.E. NO. 44135
JUN 02 2020

DRAWING NO. 1327
REV. C
SHEET NO. 5 OF 5