

MULLION SYSTEM IS RATED FOR LARGE MISSILE IMPACT.
AND CAN BE USED WITH ALL FLORIDA PRODUCT APPROVED
IMPACT AND NO-IMPACT RESISTANT PRODUCTS.

**RECTANGULAR ALUMINUM TUBE MULLIONS
USING MULLION PROPERTIES ONLY**

NOTES:

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE
REQUIREMENTS OF THE FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY
HURRICANE ZONE (HVHZ).

ALL GLAZING PRODUCTS USED WITH THESE MULLIONS MUST MEET THE
APPLICABLE BUILDING CODE REQUIREMENTS I.E.: WIND LOADS, WATER
FILTRATION, FORCED ENTRY RESISTANCE, SAFEGUARDS, ETC.

1BY OR 2BY WOOD BUCKS & BUCK FASTENERS BY OTHERS, MUST BE
DESIGNED AND INSTALLED ADEQUATELY TO TRANSFER APPLIED PRODUCT LOADS
TO THE BUILDING STRUCTURE.

ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS
AND INSTALLED PER MANUF’S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE
MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT
COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE
REQUIREMENTS OF THE FLORIDA BLDG. CODE & ADOPTED STANDARDS.

THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION
FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY
OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR
WATER INFILTRATION RESISTANCE ETC.

CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY,
AND TO BE REVIEWED BY BUILDING OFFICIAL.

DESIGN LOAD SHOWN ARE BASED ON 'ALLOWABLE STRESS DESIGN (ASD)'.

INSTRUCTIONS:

USE CHARTS AND GRAPHS AS FOLLOW.

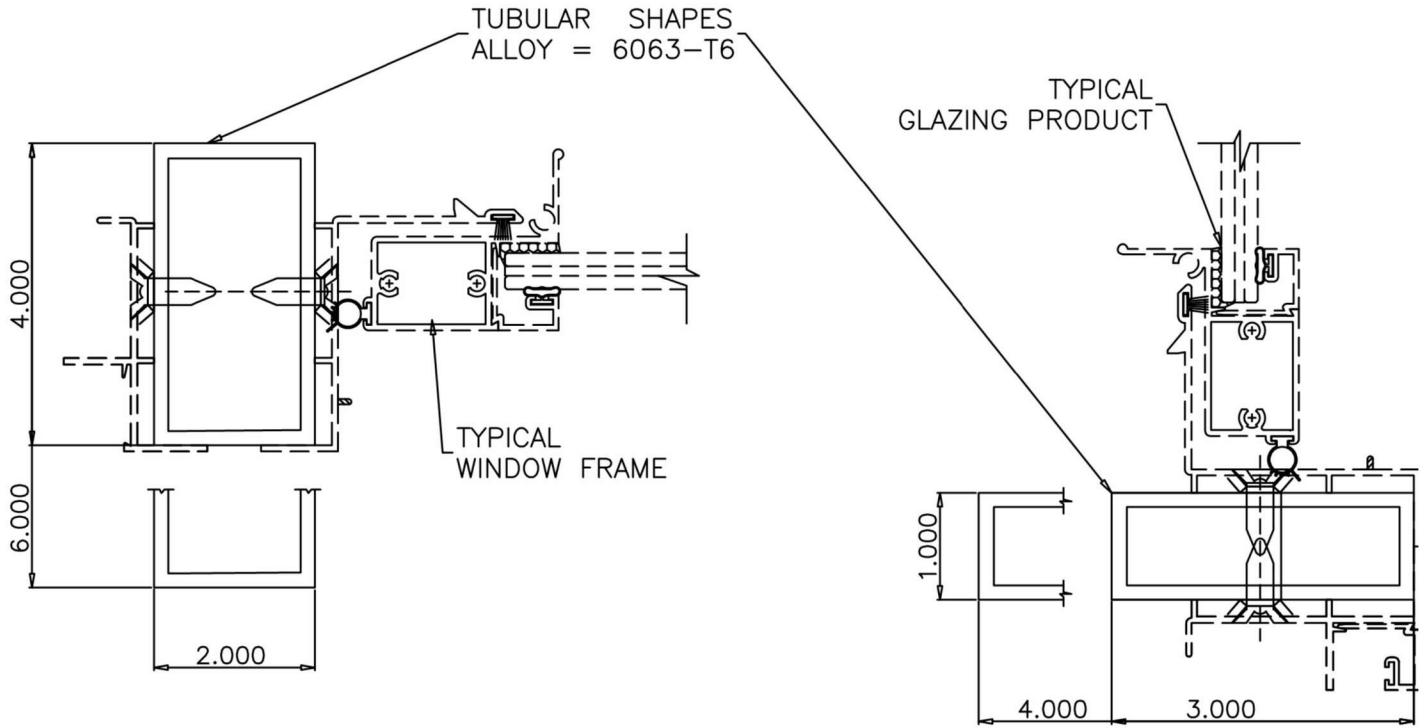
STEP 1 DETERMINE DESIGN LOADS REQUIRED PER ASCE 7 FOR PARTICULAR
OPENING.

STEP 2 USE FPA APPROVED GLAZING PRODUCTS MEETING ABOVE LOAD
REQUIREMENTS.

STEP 3 USE CONNECTION TO MULLION AS PER PRODUCT APPROVAL.

STEP 4 USING CHARTS ON SHEET 3 SELECT MULLION SIZE WITH DESIGN RATING
MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.

STEP 5 USING ANCHOR TYPE ON SHEET 5 THRU 9 AND ANCHOR CHARTS ON SHEET
4, SELECT ANCHOR TYPE WITH DESIGN RATING MORE THAN THE DESIGN
LOADS SPECIFIED IN STEP 1 ABOVE.



**MULLIONS CONTAINING TYPICAL GLAZING PRODUCTS
HORIZONTAL OR VERTICAL**

SEE WINDOW OR DOOR APPROVAL FOR FASTENERS SIZES AND SPACING.



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drawing no.	JA-1844-24	drawn by:	MA
date:	12/31/2024	check by:	BS
REVISION			
No.	DATE	BY	DESCRIPTION

ECO - GUARD CLIPPED ALUMINUM TUBE MULLION
(L.M.I.)
LARGE MISSILE IMPACT RATED



ECO WINDOW SYSTEMS, LLC.
8502 N.W. 80th ST. MEDLEY, FL 33166
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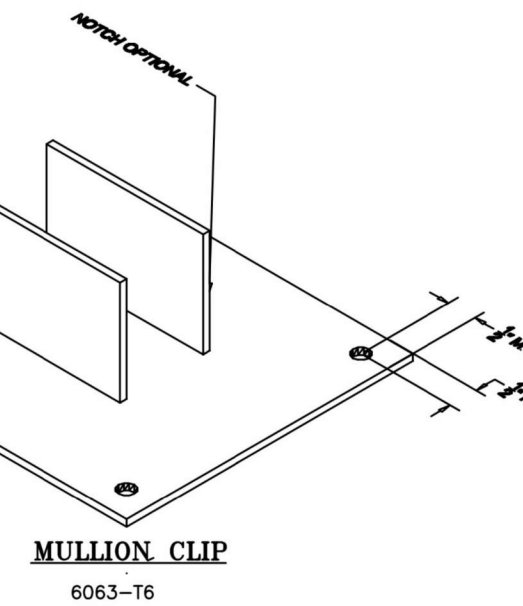
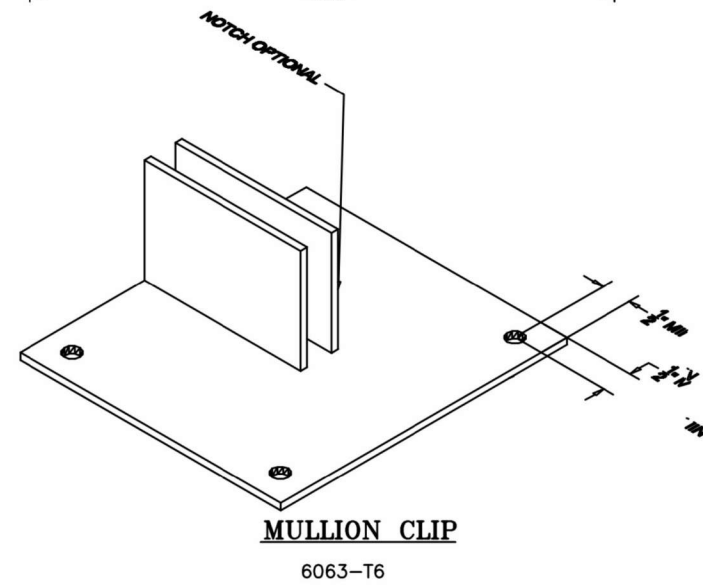
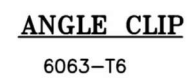
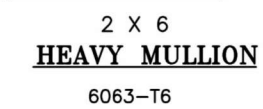
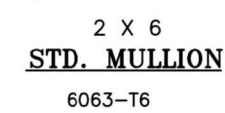
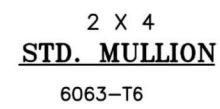
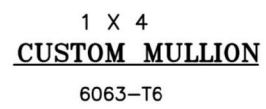
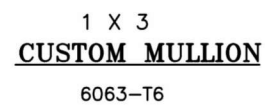
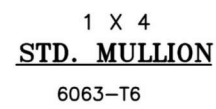
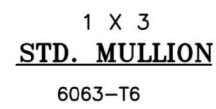


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FL#41740.1

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FL 33126

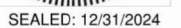
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ECO - GUARD CLIPPED ALUMINUM TUBE MULLION
(L.M.I)



FL#41740.1

Design Load Capacity - PSF (1 X 3 Tube Mullions)								
Width (W)	Mull Type	Mull Span (in.)						
		38-3/8"	42"	50-5/8"	63"	74-1/4"	84"	96"
19-1/8"	Std.	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-75.3	+/-52.0	+/-34.8
	Custom	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-84.2	+/-56.4
26-1/2"	Std.	+/-120.0	+/-120.0	+/-120.0	+/-89.0	+/-54.3	+/-37.5	+/-25.1
	Custom	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-88.0	+/-60.8	+/-40.7
30"	Std.	+/-120.0	+/-120.0	+/-120.0	+/-79.6	+/-48.0	+/-33.2	+/-22.1
	Custom	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-77.7	+/-53.7	+/-36.0
37"	Std.	+/-120.0	+/-120.0	+/-103.1	+/-63.7	+/-38.9	+/-26.9	-
	Custom	+/-120.0	+/-120.0	+/-120.0	+/-103.2	+/-63.0	+/-43.5	+/-29.2
42"	Std.	+/-120.0	+/-120.0	+/-90.8	+/-56.1	+/-34.3	+/-23.7	-
	Custom	+/-120.0	+/-120.0	+/-120.0	+/-90.9	+/-55.5	+/-38.3	+/-25.7
48"	Std.	+/-120.0	+/-116.8	+/-79.5	+/-49.1	+/-30.0	+/-20.7	-
	Custom	+/-120.0	+/-120.0	+/-120.0	+/-79.5	+/-48.6	+/-33.5	+/-22.5
54"	Std.	+/-120.0	+/-103.8	+/-70.6	+/-43.7	+/-26.7	-	
	Custom	+/-120.0	+/-120.0	+/-111.6	+/-70.7	+/-43.2	+/-29.8	
60"	Std.	+/-112.5	+/-93.4	+/-63.6	+/-39.3	+/-24.0	-	
	Custom	+/-120.0	+/-120.0	+/-100.4	+/-63.6	+/-38.9	+/-26.8	
66"	Std.	+/-102.3	+/-84.9	+/-57.8	+/-35.7	+/-21.8	-	
	Custom	+/-120.0	+/-120.0	+/-91.3	+/-57.8	+/-35.3	+/-24.4	
72"	Std.	+/-93.8	+/-77.9	+/-53.0	+/-32.7	-	-	
	Custom	+/-120.0	+/-120.0	+/-83.7	+/-53.0	+/-32.4	+/-22.4	

Design Load Capacity - PSF (2 X 4 Std. Tube Mullions)											
Width (W)	Mull Span (in.)										
	38-3/8"	42"	50-5/8"	63"	74-1/4"	84"	96"	108"	120"	132"	144"
19-1/8"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-109.3	+/-76.8	+/-56.0	+/-42.0	+/-32.4
26-1/2"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-117.7	+/-78.9	+/-55.4	+/-40.4	+/-30.3	+/-23.4
30"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-104.0	+/-69.7	+/-48.9	+/-35.7	+/-26.8	+/-20.6
37"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-116.3	+/-84.3	+/-56.5	+/-39.7	+/-28.9	+/-21.7	
42"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-102.4	+/-74.3	+/-49.8	+/-35.0	+/-25.5		
48"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-89.6	+/-65.0	+/-43.5	+/-30.6	+/-22.3		
54"	+/-120.0	+/-120.0	+/-120.0	+/-111.5	+/-79.7	+/-57.8	+/-37.8	+/-27.2			
60"	+/-120.0	+/-120.0	+/-120.0	+/-100.3	+/-71.7	+/-52.0	+/-34.8	+/-24.5			
66"	+/-120.0	+/-120.0	+/-120.0	+/-91.2	+/-65.2	+/-47.3	+/-31.7	+/-22.2			
72"	+/-120.0	+/-120.0	+/-120.0	+/-83.6	+/-59.7	+/-43.3	+/-29.0	+/-20.4			

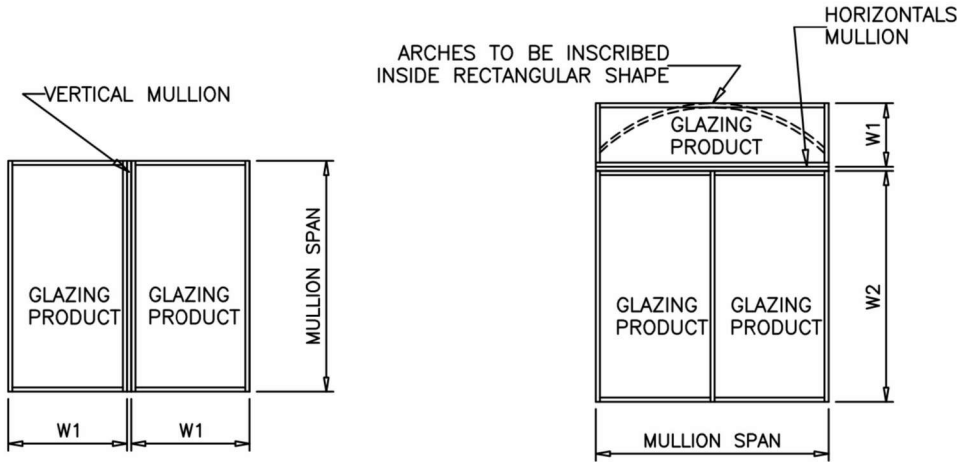
Design Load Capacity - PSF (2 X 6 Tube Mullions)												
Width (W)	Mull Type	Mull Span (in.)										
		38-3/8"	42"	50-5/8"	63"	74-1/4"	84"	96"	108"	120"	132"	144"
19-1/8"	Std.	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-116.8	+/-90.0
	Heavy	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0
26-1/2"	Std.	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-110.9	+/-84.3	+/-64.9
	Heavy	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-119.2
30"	Std.	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-97.9	+/-74.5	+/-57.4
	Heavy	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-105.3
37"	Std.	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-98.7	+/-79.4	+/-60.4	+/-46.5
	Heavy	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-110.8	+/-85.4
42"	Std.	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-110.9	+/-87.0	+/-69.9	+/-53.2	+/-41.0
	Heavy	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-97.6	+/-75.2
48"	Std.	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-97.0	+/-76.1	+/-61.2	+/-46.5	+/-35.8
	Heavy	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-111.8	+/-85.4	+/-65.8
54"	Std.	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-86.2	+/-67.6	+/-54.4	+/-41.4	+/-31.9
	Heavy	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-99.4	+/-75.9	+/-58.5
60"	Std.	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-77.6	+/-60.9	+/-49.0	+/-37.2	+/-28.7
	Heavy	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-111.3	+/-89.5	+/-68.4	+/-52.6
66"	Std.	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-70.6	+/-55.3	+/-44.5	+/-33.8	+/-26.1
	Heavy	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-101.2	+/-81.3	+/-62.1	+/-47.9
72"	Std.	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-64.7	+/-50.7	+/-40.8	+/-31.0	+/-23.9
	Heavy	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-118.3	+/-92.7	+/-74.6	+/-57.0	+/-43.9

Design Load Capacity - PSF (1 X 4 Tube Mullions)																
Width (W)	Mull Type	Mull Span (in.)														
		38-3/8"	42"	50-5/8"	63"	74-1/4"	84"	96"	108"	120"	132"	144"				
19-1/8"	Std.	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-110.6	+/-74.8	-	-	-	-				
	Custom	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-116.9	+/-82.1	+/-59.9	+/-45.0	+/-34.6				
26-1/2"	Std.	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-103.4	+/-79.8	+/-54.0	-	-	-	-				
	Custom	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-117.7	+/-84.4	+/-59.3	+/-43.2	+/-32.5	+/-25.0				
30"	Std.	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-91.3	+/-70.5	+/-47.7	-	-	-	-				
	Custom	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-104.0	+/-74.5	+/-52.3	+/-38.2	+/-28.7	+/-22.1				
37"	Std.	+/-120.0	+/-120.0	+/-120.0	+/-104.3	+/-74.0	+/-57.2	+/-38.7	-	-	-					
	Custom	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-111.9	+/-84.3	+/-60.4	+/-42.4	+/-30.9	+/-23.2					
42"	Std.	+/-120.0	+/-120.0	+/-120.0	+/-91.9	+/-65.2	+/-50.4	+/-34.1	-	-	-					
	Custom	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-98.6	+/-74.3	+/-53.2	+/-37.4	+/-27.3	+/-20.5					
48"	Std.	+/-120.0	+/-120.0	+/-120.0	+/-80.4	+/-57.1	+/-44.1	+/-29.8	-	-						
	Custom	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-86.3	+/-65.0	+/-46.6	+/-32.7	+/-23.8						
54"	Std.	+/-120.0	+/-120.0	+/-112.5	+/-71.5	+/-50.7	+/-39.2	+/-26.5	-	-						
	Custom	+/-120.0	+/-120.0	+/-120.0	+/-108.3	+/-76.7	+/-57.8	+/-41.4	+/-29.1	+/-21.2						
60"	Std.	+/-120.0	+/-120.0	+/-101.3	+/-64.3	+/-45.7	+/-35.3	+/-23.8	-							
	Custom	+/-120.0	+/-120.0	+/-120.0	+/-97.5	+/-69.0	+/-52.0	+/-37.3	+/-26.2							
66"	Std.	+/-120.0	+/-120.0	+/-92.1	+/-58.5	+/-41.5	+/-32.1	+/-21.7	-							
	Custom	+/-120.0	+/-120.0	+/-120.0	+/-88.6	+/-62.7	+/-47.3	+/-33.9	+/-23.8							
72"	Std.	+/-120.0	+/-120.0	+/-84.4	+/-53.6	+/-38.0	+/-29.4	-	-							
	Custom	+/-120.0	+/-120.0	+/-120.0	+/-81.3	+/-59.7	+/-43.3	+/-31.1	+/-21.8							

NOTE:

MULLIONS RATED IN THESE CHARTS MAY BE ORIENTED VERTICALLY OR HORIZONTALLY.

FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE WIDTH OR SPAN DIMENSION SHOWN ON THE TABLE. (INTERPOLATION BETWEEN WIDTHS ALLOWED)



TYPICAL MULLION ARRANGEMENTS

WIDTH (W) = $\frac{W1 + W2}{2}$

MULLIONS

FL#41740.1



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LARGE MISSILE IMPACT RATED

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8502 N.W. 80th ST. MEDLEY, FL 33166

TEL. (305) 885-5299 FAX. (305) 885-5902

SEALED: 12/31/2024

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Design Load Capacity - PSF (A2 Anchor Type)											
Width (W)	Mull Span (in.)										
	38-3/8"	42"	50-5/8"	63"	74-1/4"	84"	96"	108"	120"	132"	144"
19-1/8"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-108.8	+/-97.9	+/-89.0	+/-81.6
26-1/2"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-114.2	+/-100.9	+/-88.3	+/-78.5	+/-70.6	+/-64.2	+/-58.9
30"	+/-120.0	+/-120.0	+/-120.0	+/-118.9	+/-100.8	+/-89.1	+/-78.0	+/-69.3	+/-62.4	+/-56.7	+/-52.0
37"	+/-120.0	+/-120.0	+/-119.9	+/-96.4	+/-81.8	+/-72.3	+/-63.2	+/-56.2	+/-50.6	+/-46.0	+/-42.2
42"	+/-120.0	+/-120.0	+/-105.7	+/-84.9	+/-72.0	+/-63.7	+/-55.7	+/-49.5	+/-44.6	+/-40.5	+/-37.1
48"	+/-120.0	+/-111.4	+/-92.4	+/-74.3	+/-63.0	+/-55.7	+/-48.8	+/-43.3	+/-39.0	+/-35.5	+/-32.5
54"	+/-108.4	+/-99.0	+/-82.2	+/-66.0	+/-56.0	+/-49.5	+/-43.3	+/-38.5	+/-34.7	+/-31.5	+/-28.9
60"	+/-97.6	+/-89.1	+/-74.0	+/-59.4	+/-50.4	+/-44.6	+/-39.0	+/-34.7	+/-31.2	+/-28.4	+/-26.0
66"	+/-88.7	+/-81.0	+/-67.2	+/-54.0	+/-45.8	+/-40.5	+/-35.5	+/-31.5	+/-28.4	+/-25.8	+/-23.6
72"	+/-81.3	+/-74.3	+/-61.6	+/-49.5	+/-42.0	+/-37.1	+/-32.5	+/-28.9	+/-26.0	+/-23.6	+/-21.7

Design Load Capacity - PSF (A6 Anchor Type)											
Width (W)	Mull Span (in.)										
	38-3/8"	42"	50-5/8"	63"	74-1/4"	84"	96"	108"	120"	132"	144"
19-1/8"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0
26-1/2"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0
30"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0
37"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-110.3
42"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-116.6	+/-106.0	+/-97.1
48"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-113.3	+/-102.0	+/-92.7	+/-85.0
54"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-113.3	+/-100.7	+/-90.7	+/-82.4	+/-75.6
60"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-116.6	+/-102.0	+/-90.7	+/-81.6	+/-74.2	+/-68.0
66"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-119.9	+/-106.0	+/-92.7	+/-82.4	+/-74.2	+/-67.4	+/-61.8
72"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-109.9	+/-97.1	+/-85.0	+/-75.6	+/-68.0	+/-61.8	+/-56.7

Design Load Capacity - PSF (B4a Anchor Type)											
Width (W)	Mull Span (in.)										
	38-3/8"	42"	50-5/8"	63"	74-1/4"	84"	96"	108"	120"	132"	144"
19-1/8"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-112.9	+/-100.4	+/-90.4	+/-82.1	+/-75.3
26-1/2"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-105.4	+/-93.2	+/-81.5	+/-72.5	+/-65.2	+/-59.3	+/-54.3
30"	+/-120.0	+/-120.0	+/-120.0	+/-109.7	+/-93.1	+/-82.3	+/-72.0	+/-64.0	+/-57.6	+/-52.4	+/-48.0
37"	+/-120.0	+/-120.0	+/-110.7	+/-89.0	+/-75.5	+/-66.7	+/-58.4	+/-51.9	+/-46.7	+/-42.5	+/-38.9
42"	+/-120.0	+/-117.6	+/-97.5	+/-78.4	+/-66.5	+/-58.8	+/-51.4	+/-45.7	+/-41.1	+/-37.4	+/-34.3
48"	+/-112.6	+/-102.9	+/-85.3	+/-68.6	+/-58.2	+/-51.4	+/-45.0	+/-40.0	+/-36.0	+/-32.7	+/-30.0
54"	+/-100.1	+/-91.4	+/-75.9	+/-61.0	+/-51.7	+/-45.7	+/-40.0	+/-35.6	+/-32.0	+/-29.1	+/-26.7
60"	+/-90.1	+/-82.3	+/-68.3	+/-54.9	+/-46.5	+/-41.1	+/-36.0	+/-32.0	+/-28.8	+/-26.2	+/-24.0
66"	+/-81.9	+/-74.8	+/-62.1	+/-49.9	+/-42.3	+/-37.4	+/-32.7	+/-29.1	+/-26.2	+/-23.8	+/-21.8
72"	+/-75.0	+/-68.6	+/-56.9	+/-45.7	+/-38.8	+/-34.3	+/-30.0	+/-26.7	+/-24.0	+/-21.8	+/-20.0

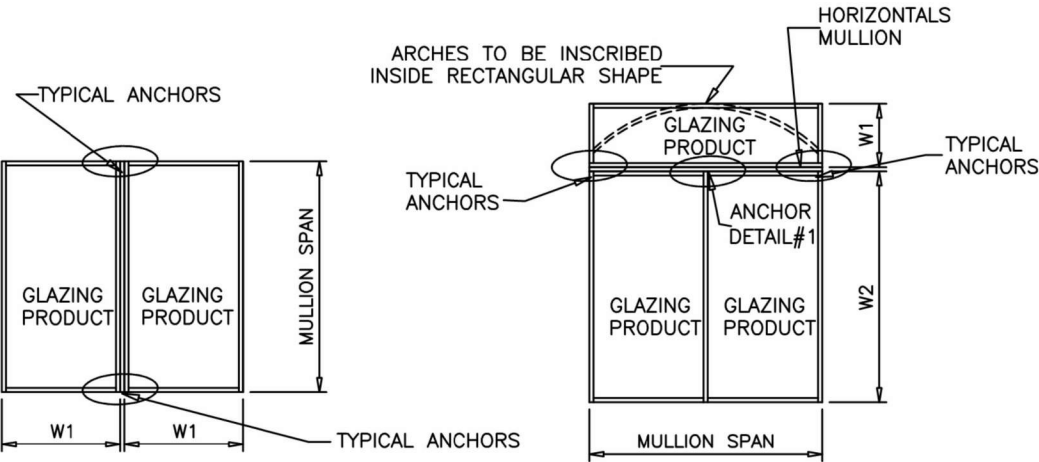
Design Load Capacity - PSF (B4b Anchor Type)											
Width (W)	Mull Span (in.)										
	38-3/8"	42"	50-5/8"	63"	74-1/4"	84"	96"	108"	120"	132"	144"
19-1/8"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-114.1	+/-104.6
26-1/2"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-113.2	+/-100.6	+/-90.6	+/-82.3	+/-75.5
30"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-114.3	+/-100.0	+/-88.9	+/-80.0	+/-72.7	+/-66.7
37"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-104.8	+/-92.7	+/-81.1	+/-72.1	+/-64.9	+/-59.0	+/-54.1
42"	+/-120.0	+/-120.0	+/-120.0	+/-108.8	+/-92.4	+/-81.6	+/-71.4	+/-63.5	+/-57.1	+/-51.9	+/-47.6
48"	+/-120.0	+/-120.0	+/-118.5	+/-95.2	+/-80.8	+/-71.4	+/-62.5	+/-55.6	+/-50.0	+/-45.5	+/-41.7
54"	+/-120.0	+/-120.0	+/-105.3	+/-84.7	+/-71.8	+/-63.5	+/-55.6	+/-49.4	+/-44.4	+/-40.4	+/-37.0
60"	+/-120.0	+/-114.3	+/-94.8	+/-76.2	+/-64.6	+/-57.1	+/-50.0	+/-44.4	+/-40.0	+/-36.4	+/-33.3
66"	+/-113.7	+/-103.9	+/-86.2	+/-69.3	+/-58.8	+/-51.9	+/-45.5	+/-40.4	+/-36.4	+/-33.1	+/-30.3
72"	+/-104.2	+/-95.2	+/-79.0	+/-63.5	+/-53.9	+/-47.6	+/-41.7	+/-37.0	+/-33.3	+/-30.3	+/-27.8

Design Load Capacity - PSF (A4 Anchor Type)											
Width (W)	Mull Span (in.)										
	38-3/8"	42"	50-5/8"	63"	74-1/4"	84"	96"	108"	120"	132"	144"
19-1/8"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0
26-1/2"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-112.0	+/-102.6
30"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-108.8	+/-98.9	+/-90.7
37"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-110.3	+/-98.0	+/-88.2	+/-80.2	+/-73.5
42"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-111.0	+/-97.1	+/-86.3	+/-77.7	+/-70.6	+/-64.8
48"	+/-120.0	+/-120.0	+/-120.0	+/-120.0	+/-109.9	+/-97.1	+/-85.0	+/-75.6	+/-68.0	+/-61.8	+/-56.7
54"	+/-120.0	+/-120.0	+/-120.0	+/-115.1	+/-97.7	+/-86.3	+/-75.6	+/-67.2	+/-60.4	+/-54.9	+/-50.4
60"	+/-120.0	+/-120.0	+/-120.0	+/-103.6	+/-87.9	+/-77.7	+/-68.0	+/-60.4	+/-54.4	+/-49.5	+/-45.3
66"	+/-120.0	+/-120.0	+/-117.2	+/-94.2	+/-79.9	+/-70.6	+/-61.8	+/-54.9	+/-49.5	+/-45.0	+/-41.2
72"	+/-120.0	+/-120.0	+/-107.5	+/-86.2	+/-73.3	+/-64.8	+/-56.7	+/-50.4	+/-45.3	+/-41.2	+/-37.8

Design Load Capacity - PSF (B2 Anchor Type)											
Width (W)	Mull Span (in.)										
	38-3/8"	42"	50-5/8"	63"	74-1/4"	84"	96"	108"	120"	132"	144"
19-1/8"	+/-120.0	+/-120.0	+/-120.0	+/-119.5	+/-101.4	+/-89.6	+/-78.4	+/-69.7	+/-62.7	+/-57.0	+/-52.3
26-1/2"	+/-120.0	+/-120.0	+/-107.3	+/-86.3	+/-73.2	+/-64.7	+/-56.6	+/-50.3	+/-45.3	+/-41.2	+/-37.7
30"	+/-120.0	+/-114.3	+/-94.8	+/-76.2	+/-64.6	+/-57.1	+/-50.0	+/-44.4	+/-40.0	+/-36.4	+/-33.3
37"	+/-101.4	+/-92.7	+/-76.9	+/-61.8	+/-52.4	+/-46.3	+/-40.5	+/-36.0	+/-32.4	+/-29.5	+/-27.0
42"	+/-89.3	+/-81.6	+/-67.7	+/-54.4	+/-46.2	+/-40.8	+/-35.7	+/-31.7	+/-28.6	+/-26.0	+/-23.8
48"	+/-78.2	+/-71.4	+/-59.3	+/-47.6	+/-40.4	+/-35.7	+/-31.3	+/-27.8	+/-25.0	+/-22.7	+/-20.8
54"	+/-69.5	+/-63.5	+/-52.7	+/-42.3	+/-35.9	+/-31.7	+/-27.8	+/-24.7	+/-22.2	+/-20.2	
60"	+/-62.5	+/-57.1	+/-47.4	+/-38.1	+/-32.3	+/-28.6	+/-25.0	+/-22.2	+/-20.0		
66"	+/-56.9	+/-51.9	+/-43.1	+/-34.6	+/-29.4	+/-26.0	+/-22.7	+/-20.2			
72"	+/-52.1	+/-47.6	+/-39.5	+/-31.7	+/-26.9	+/-23.8	+/-20.8				

NOTE:
ANY ANCHOR CONDITION SHOWN HEREIN MAY COVER LOCATIONS AT HEAD, SILL OR JAMB ENDS.
FOR ANCHORS DESCRIPTION SEE SHEETS 5 THRU 9.

FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE WIDTH OR SPAN DIMENSION SHOWN ON THE TABLE.
(INTERPOLATION BETWEEN WIDTHS OR SPANS ALLOWED)



TYPICAL MULLION ARRANGEMENTS

$$\text{WIDTH (W)} = \frac{W1 + W2}{2}$$

ANCHORS

FL#41740.1



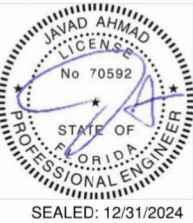
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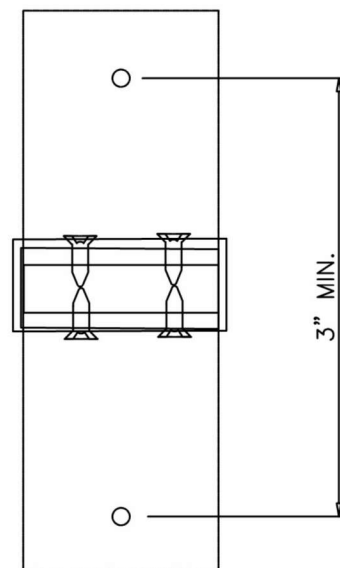
drawing no.	date:	JA-1844-24	12/31/2024	MA	BS	REVISION			
						DESCRIPTION	BY	DATE	No.

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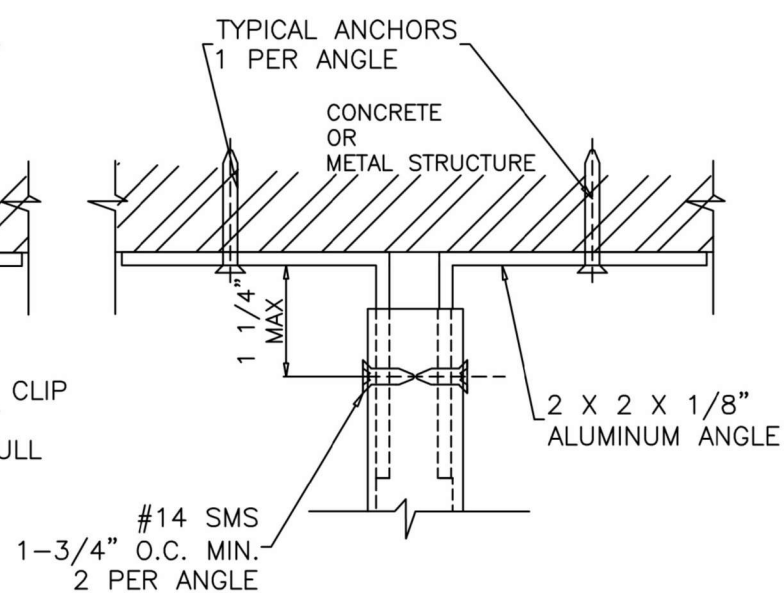
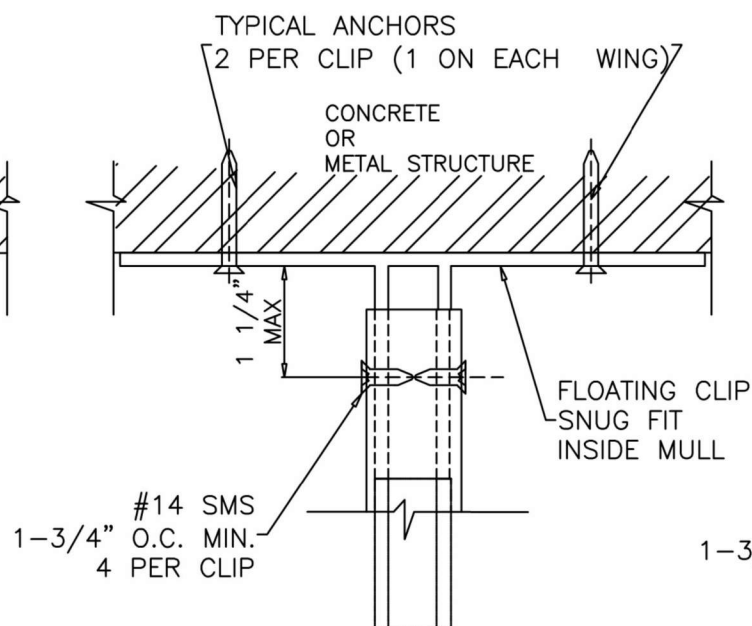
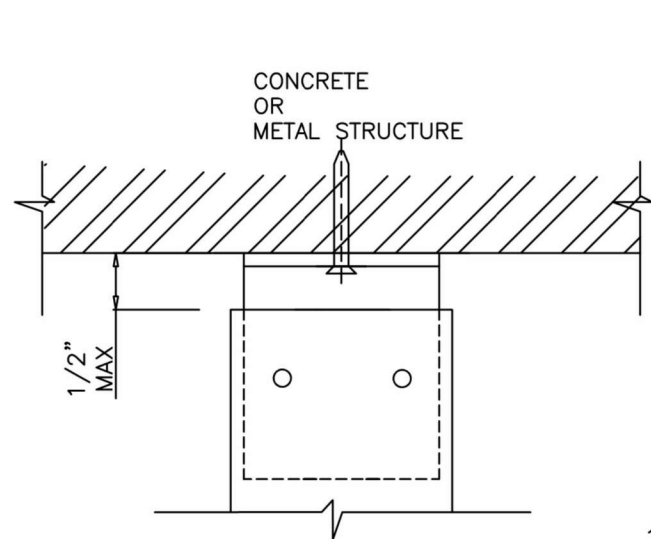
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ANCHORS TYPE 'A2'



TYPICAL ANCHORS:			
ANCHOR TYPES	SUBSTRATE	MIN. EMBED.	MIN. EDGE DIST.
1/4" DIA. ULTRACON + (Fu=164 KSI, fy=148 KSI)	CONCRETE	1-3/4"	2-1/2"
1/4" DIA. SELF DRILLING SCREWS (GRADE 5 CRS)	METAL	1/8"	3/4"

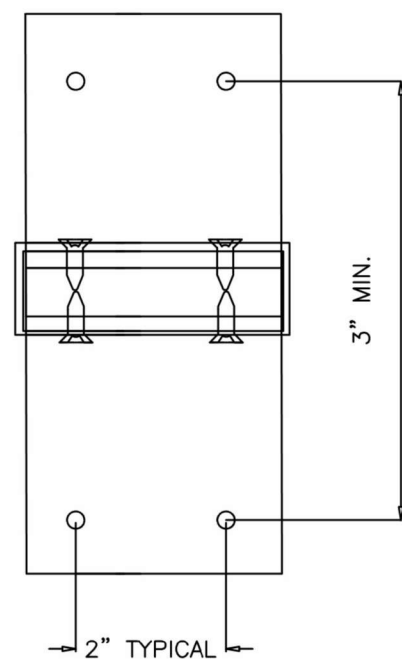
CONCRETE = f'_c = 3000 PSI MIN.

METAL = 1/8" MIN. THK. STEEL F_y = 36 KSI MIN.

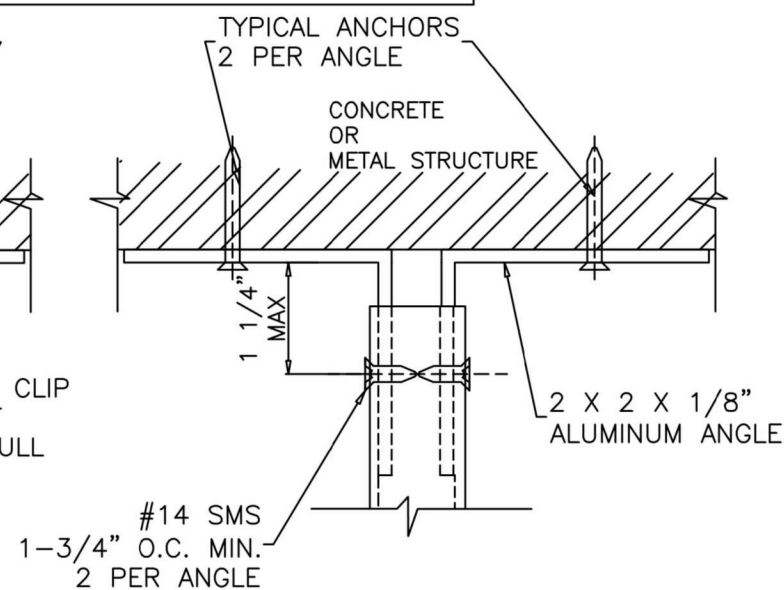
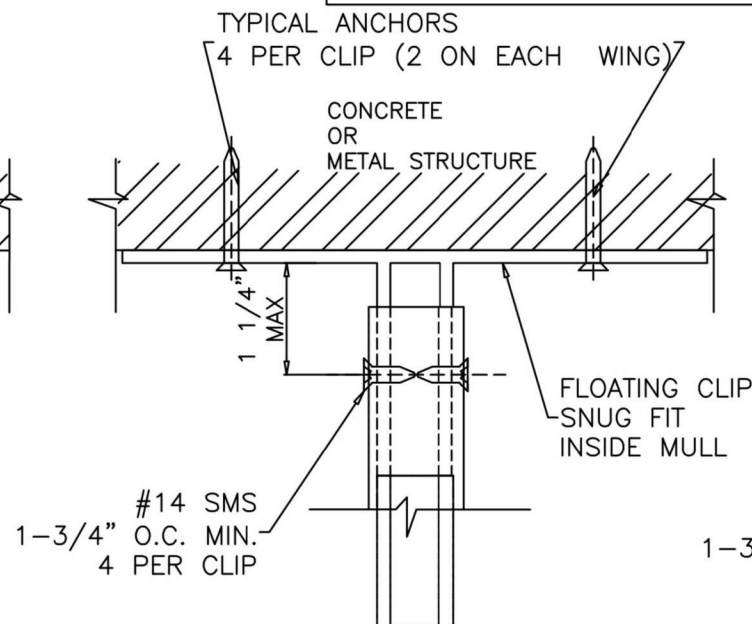
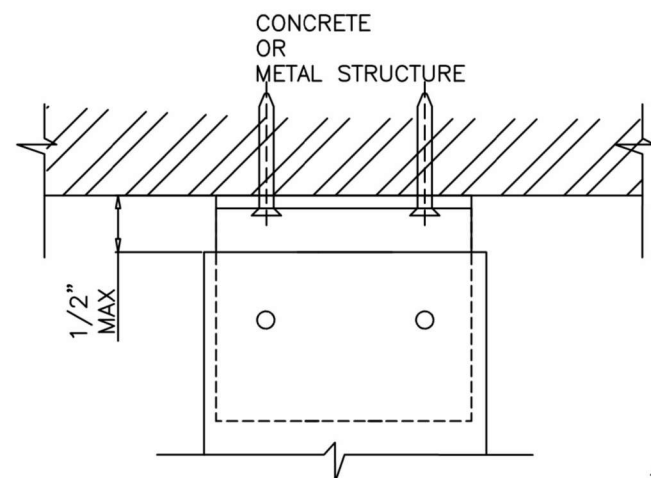
1/8" MIN. THK. ALUMINUM (6063-T5 MIN.)

ANCHORS MAY BE HEX OR FLAT HEAD.

ALL CLIPS AND ANGLES TO FIT SNUG INTO TUBE MULLIONS.
CLIPS OR ANGLES CONNECTED DIRECTLY TO MASONRY TO BE
PROTECTED
WITH ALKALI-RESISTANCE COATINGS, SUCH AS BUTUMINOUS
PAINT OR WATER-WHITE METHACRYLATE LACQUER



ANCHORS TYPE 'A4'



FL#41740.1



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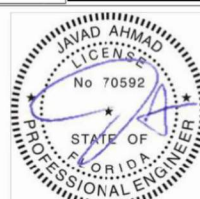
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JA-1844-24	12/31/2024	BY	
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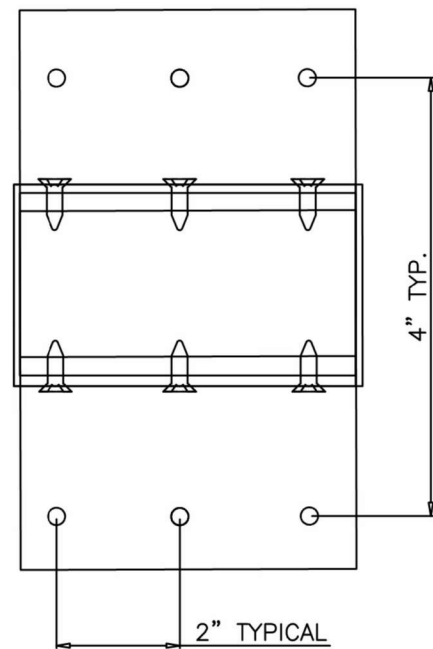
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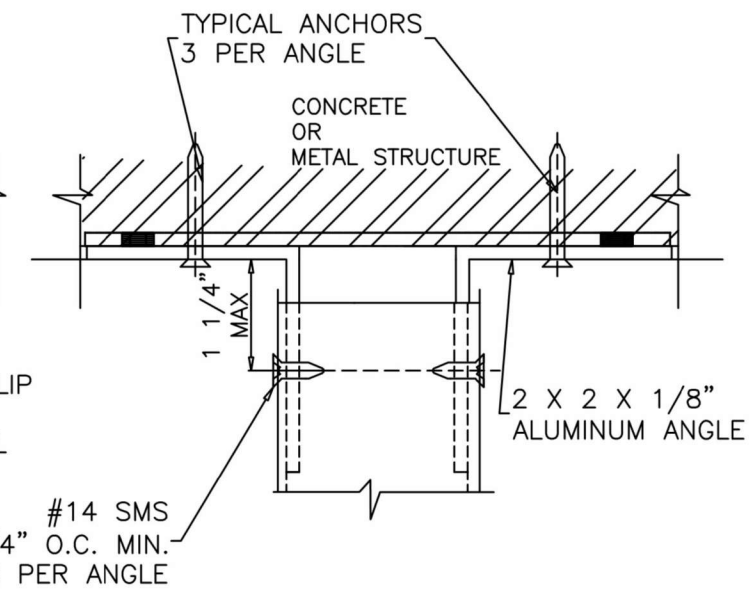
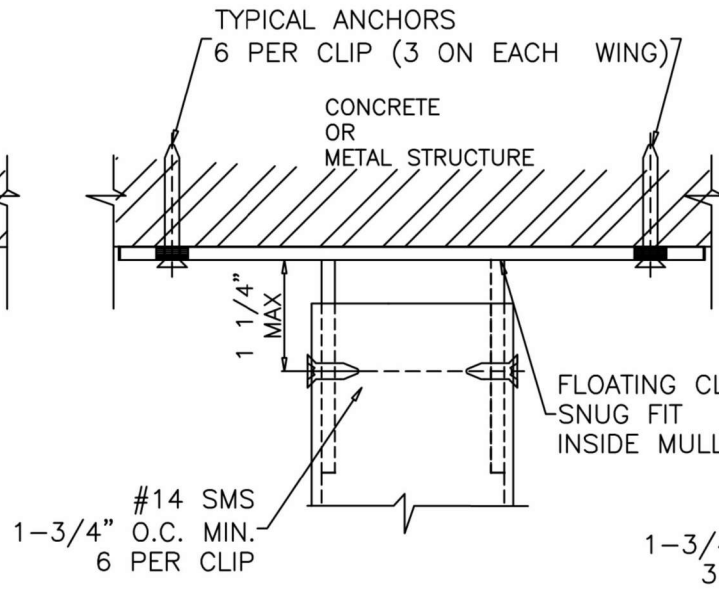
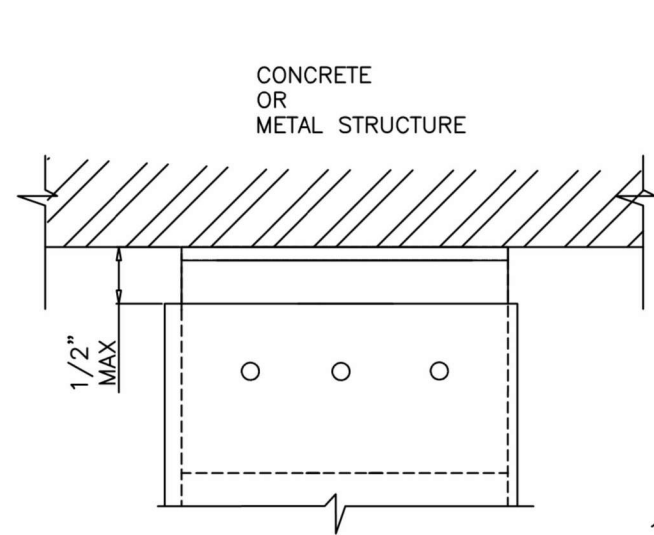
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ANCHORS TYPE 'A6'



TYPICAL ANCHORS:			
ANCHOR TYPES	SUBSTRATE	MIN. EMBED.	MIN. EDGE DIST.
1/4" DIA. ULTRACON + (Fu=164 KSI, fy=148 KSI)	CONCRETE	1-3/4"	2-1/2"
1/4" DIA. SELF DRILLING SCREWS (GRADE 5 CRS)	METAL	1/8"	3/4"

CONCRETE = f'c = 3000 PSI MIN.
 METAL = 1/8" MIN. THK. STEEL Fy = 36 KSI MIN.
 1/8" MIN. THK. ALUMINUM (6063-T5 MIN.)
 ANCHORS MAY BE HEX OR FLAT HEAD.

ALL CLIPS AND ANGLES TO FIT SNUG INTO TUBE MULLIONS.
 CLIPS OR ANGLES CONNECTED DIRECTLY TO MASONRY TO BE PROTECTED
 WITH ALKALI-RESISTANCE COATINGS, SUCH AS BUTUMINOUS PAINT OR WATER-WHITE METHACRYLATE LACQUER



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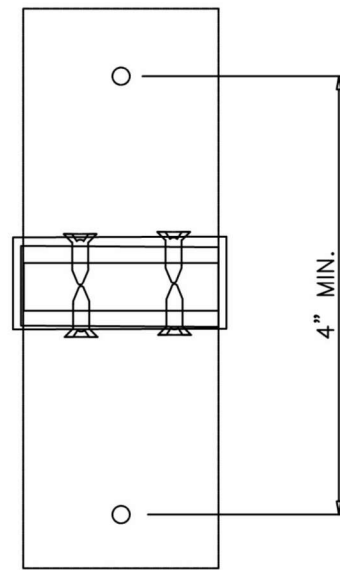
MA	BS	REVISION	DESCRIPTION
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drawing no.	date:	DATE	
		No.	

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(L.M.I.)
LARGE MISSILE IMPACT RATED

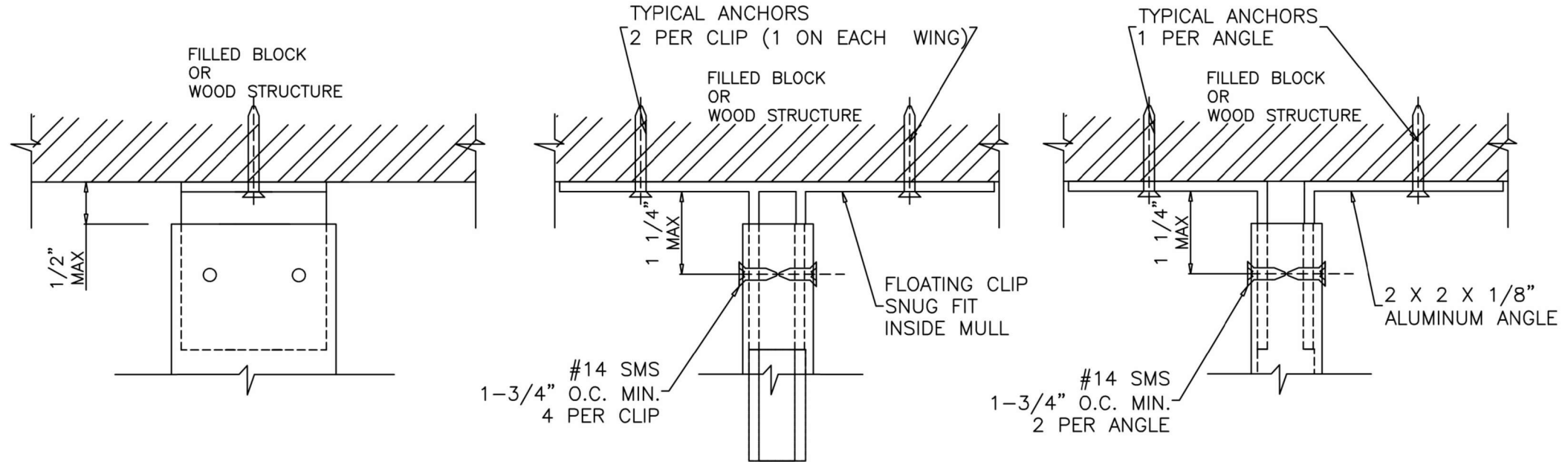
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ANCHORS TYPE 'B2'

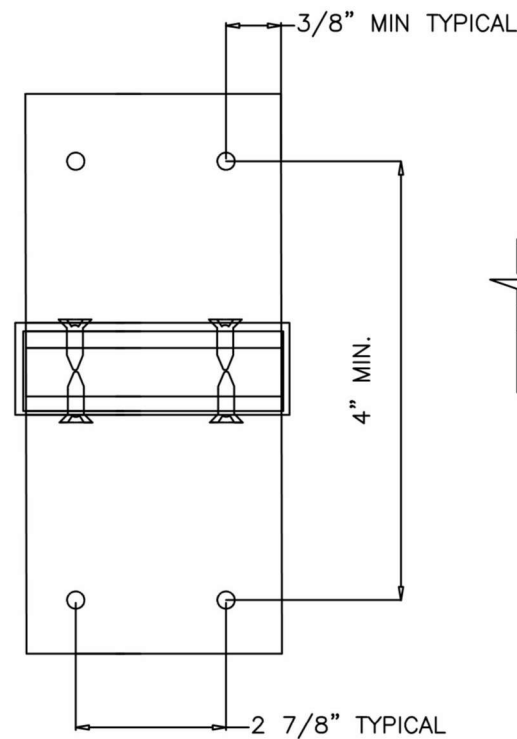


TYPICAL ANCHORS:			
ANCHOR TYPES	SUBSTRATE	MIN. EMBED.	MIN. EDGE DIST.
1/4" DIA. ULTRACON + (Fu=164 KSI, fy=148 KSI)	MASONRY	1-3/4"	2-1/2"
	WOOD	1-1/2"	1"

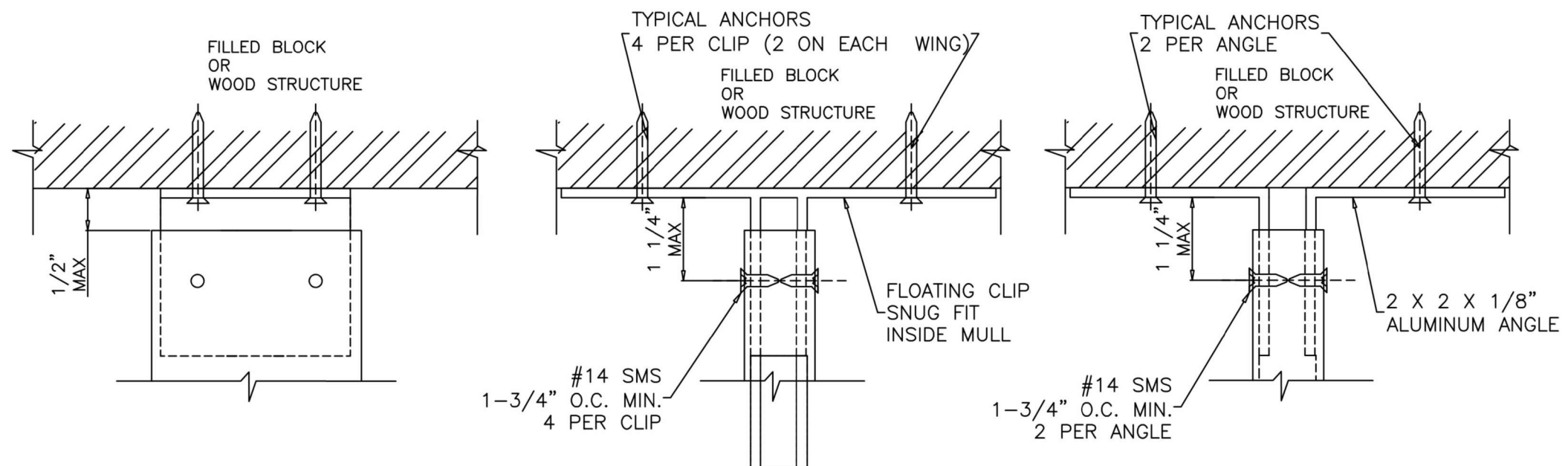
WOOD = 2BY WOOD BUCKS OR WOOD STRUCTURE S.G. = 0.55 MIN.
MASONRY = C-90 HOLLOW/FILLED BLOCK f'm = 2000 PSI MIN.

ANCHORS MAY BE HEX OR FLAT HEAD.

1BY OR 2BY WOOD BUCKS NOT BY 'ECO WINDOWS'
MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND
TRANSFER THEM TO BUILDING STRUCTURE



ANCHORS TYPE 'B4a'



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				DATE	
				No.	

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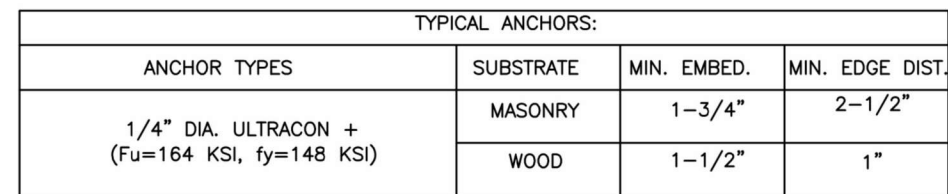


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WOOD = 2BY WOOD BUCKS OR WOOD STRUCTURE S.G. = 0.55 MIN.
MASONRY = C-90 HOLLOW/FILLED BLOCK f'_m = 2000 PSI MIN.

ANCHORS MAY BE HEX OR FLAT HEAD.

1BY OR 2BY WOOD BUCKS NOT BY 'ECO WINDOWS'
MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND
TRANSFER THEM TO BUILDING STRUCTURE

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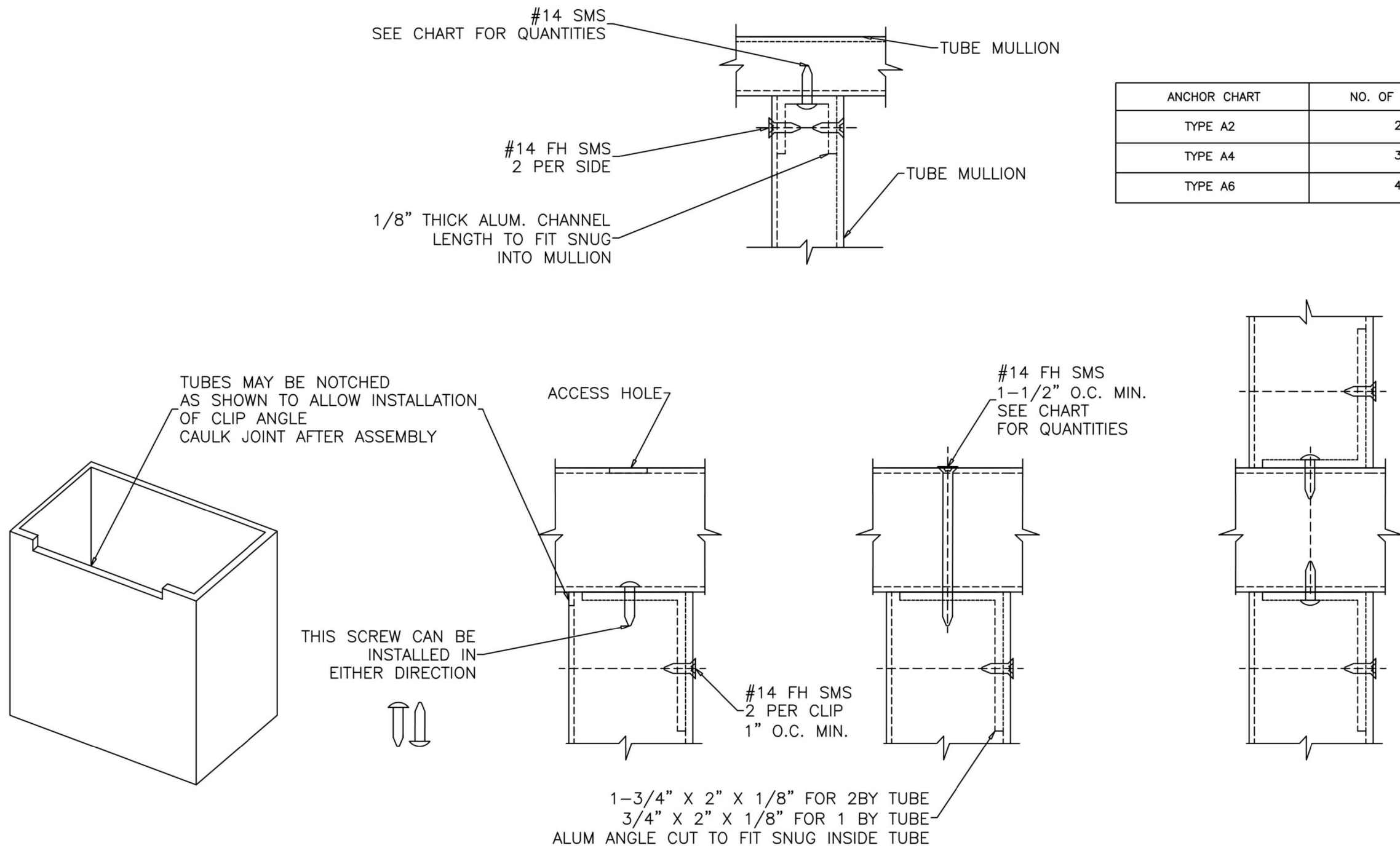
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ANCHOR CHART	NO. OF SCREWS
TYPE A2	2
TYPE A4	3
TYPE A6	4

ANCHORS DETAILS #1

METAL TO METAL CONNECTION

#14 SMS		
SUBSTRATE	Ed. = MIN. EDGE DIST.	MIN. CL TO CL SPACING
ALUMINUM	5/8"	1/2"



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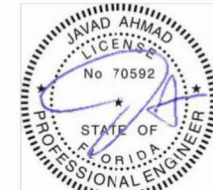
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			check by:	BS
		12/31/2024		
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