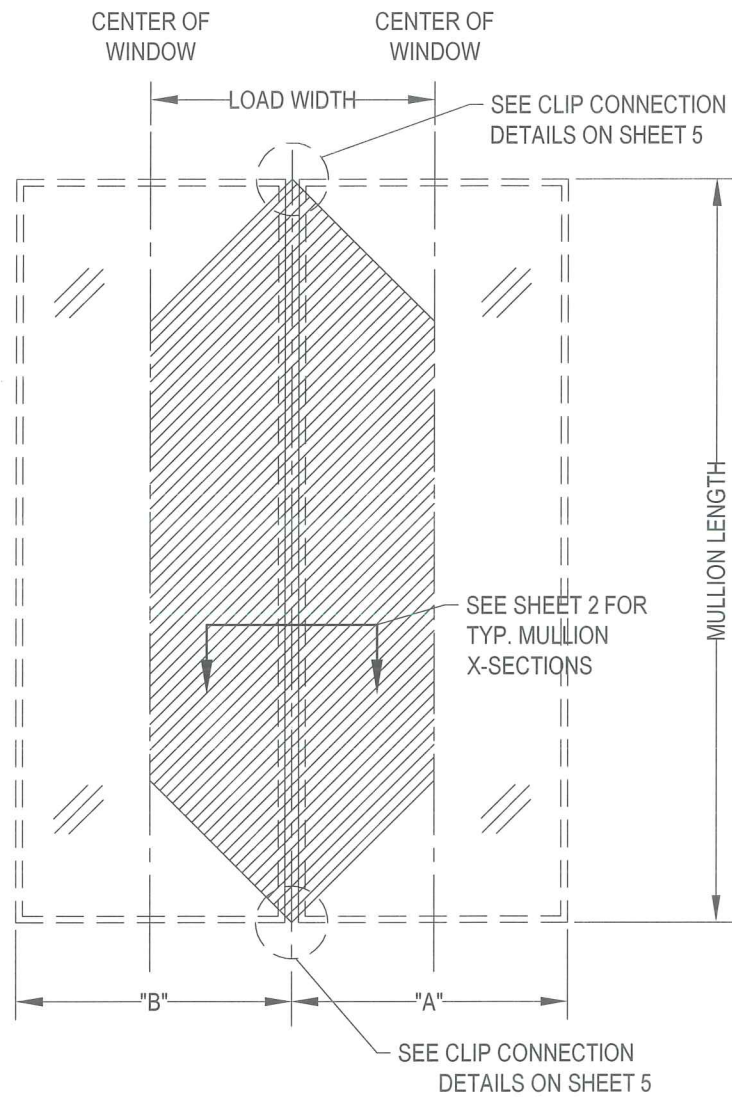
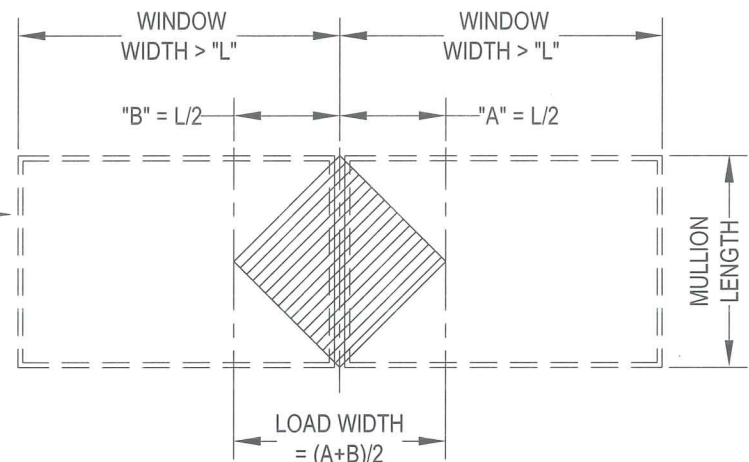




FIXED WINDOW TO FIXED WINDOW TABLE							
LENGTH (IN)	LOAD WIDTH (IN) A+B 2	ALLOWABLE PRESSURES (PSF)					
		4"x2"x3/16" TUBE		4"x2"x1/4" TUBE		5"x2"x1/4" TUBE	
		CONN. "A"	CONN. "B", "C" & "D"	CONN. "A"	CONN. "B", "C" & "D"	CONN. "A"	CONN. "B", "C" & "D"
78 OR LESS	74 OR LESS	85.0	85.0	85.0	85.0	85.0	85.0
84	66 OR LESS	76.7	85.0	76.7	85.0	76.7	85.0
	74	74.2	85.0	74.2	85.0	74.2	85.0
90	54 OR LESS	75.9	85.0	75.9	85.0	75.9	85.0
	60	71.7	85.0	71.7	85.0	71.7	85.0
	66	68.6	85.0	68.6	85.0	68.6	85.0
	74	65.8	85.0	65.8	85.0	65.8	85.0
96	42 OR LESS	81.9	85.0	81.9	85.0	81.9	85.0
	48	74.7	85.0	74.7	85.0	74.7	85.0
	54	69.3	85.0	69.3	85.0	69.3	85.0
	60	65.2	85.0	65.2	85.0	65.2	85.0
	66	62.1	85.0	62.1	85.0	62.1	85.0
	74	59.1	85.0	59.1	85.0	59.1	85.0
108	36 OR LESS	79.6	85.0	79.6	85.0	79.6	85.0
	42	70.6	85.0	70.6	85.0	70.6	85.0
	48	64.0	85.0	64.0	85.0	64.0	85.0
	54	59.0	85.0	59.0	85.0	59.0	85.0
	60	55.1	81.0	55.1	81.0	55.1	81.0
	66	52.1	76.6	52.1	76.6	52.1	76.6
	74	49.1	72.2	49.1	72.2	49.1	72.2

FIXED WINDOW TO FIXED WINDOW TABLE							
LENGTH (IN)	LOAD WIDTH (IN) A+B 2	ALLOWABLE PRESSURES (PSF)					
		4"x2"x3/16" TUBE		4"x2"x1/4" TUBE		5"x2"x1/4" TUBE	
		CONN. "A"	CONN. "B", "C", & "D"	CONN. "A"	CONN. "B", "C" & "D"	CONN. "A"	CONN. "B", "C" & "D"
120	30 OR LESS	85.0	85.0	85.0	85.0	85.0	85.0
	36	70.3	85.0	76.7	85.0	70.3	85.0
	42	62.1	85.0	74.2	85.0	62.1	85.0
	48	56.0	84.0	75.9	84.0	56.0	84.0
	54	51.4	73.9	71.7	77.1	51.4	77.1
	60	47.9	66.5	68.6	71.7	47.8	17.7
	66	44.9	60.5	65.8	67.4	44.9	67.4
	74	42.0	53.9	61.9	63.0	42.0	63.0
132	24 OR LESS	85.0	85.0	74.7	85.0	85.0	85.0
	30	73.5	85.0	69.3	85.0	73.5	85.0
	36	62.9	83.5	65.2	85.0	62.9	85.0
	42	55.4	71.4	62.1	83.0	55.4	83.0
	48	49.8	62.5	59.1	74.7	49.8	74.7
	54	45.5	55.5	79.6	68.3	45.5	68.3
	60	42.2	50.0	70.6	60.6	42.2	62.0
	66	39.5	45.4	64.0	55.0	39.5	58.0
	74	36.7	40.5	59.0	49.1	36.7	54.0
144	24 OR LESS	81.5	85.0	77.8	85.0	81.5	85.0
	30	66.7	75.6	66.7	85.0	66.7	85.0
	36	56.9	64.1	56.9	77.7	56.9	83.6
	42	50.0	55.0	50.0	66.6	50.0	73.4
	48	44.8	48.1	44.8	58.3	44.8	65.8
	54	40.8	42.8	40.8	51.8	40.8	60.0
	60	37.7	38.5	37.7	46.6	37.7	55.4
	66	35.0	35.0	35.2	42.4	35.2	51.8
	74	31.2	31.2	32.6	37.8	32.6	47.9

CONN "A" = CONNECTION METHOD "A" (SEE SHEET 5 FOR DETAIL).
CONN "B" = CONNECTION METHOD "B" (SEE SHEET 5 FOR DETAIL).
CONN "C" = CONNECTION METHOD "C" (SEE SHEET 5 FOR DETAIL).
CONN "D" = CONNECTION METHOD "D" (SEE SHEET 5 FOR DETAIL).
TUBE TO TUBE CONNECTION (SEE SHEET 5 FOR DETAIL) IS ACCEPTABLE FOR LOADS LISTED ABOVE.



ARE NOT REQUIRED.

NOTE: INDIVIDUAL UNIT SIZES & SHUTTER REQUIREMENTS ARE LIMITED BY THEIR OWN INDIVIDUAL "NOTICE OF ACCEPTANCE"

GENERAL NOTES (ALL DRAWING SHEETS):

- DOORS & WINDOWS ARE APPROVED UNDER SEPARATE N.O.A. WITH WOOD FILLER MULLION AS AN UN-CLIPPED MULLION. SEE THE PRODUCTS SPECIFIC N.O.A. FOR USE OF THESE MULLIONS WHEN THEY APPLY.
- THESE MULLION SYSTEMS HAVE BEEN TESTED, ANALYZED AND APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE ALOWN ON THESE DRAWINGS.
- BLOCK AND FRAME OPENINGS, INCLUDING BUCKS (IF USED AS SUPPORT), MUST BE DESIGNED & CONSTRUCTED TO WITHSTAND WIND LOADS TRANSFERRED BY THE MULLIONS END REACTIONS & SUPPORTED WINDOWS/DOORS.
- ALL MATERIALS & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & MAY NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS.
- THESE MULLION SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH TH CURRENT EDITION OF THE FLORIDA BUILDING CODE (FBC) INCLUDING THE HIGH VELOCITY HURRICANE ZONES (HVHZ) PROVISIONS.
- THIS MULLION PRODUCT HAS BEEN TESTED IN ACCORDANCE WITH FLORIDA BUILDING CODE PROTOCOLS TAS-201, TAS-202 & TAS-203 FOR LARGE AND SMALL MISSILE IMPACT RESISTANCE. WHEN USED WITH IMPACT RESISTANT DOORS AND WINDOWS, SHUTTERS

- ALL PRODUCTS TO BE USED WITH THESE MULLIONS MUST BE WOOD FRAMED PRODUCTS AND MUST HOLD A DADE COUNTY IMPACT OR NON-IMPACT NOTICE OF ACCEPTANCE (N.O.A.) AND/OR FLORIDA STATE APPROVAL.
- ALLOWABLE PRESSURE ON THE MULLED UNIT SHALL BE CONTROLLED BY THE LESSER ALLOWABLE PRESSURE OF THE MULLION OR THE INDIVIDUAL DOOR/WINDOW UNITS.
- FOR WINDOW OR DOOR FRAME TO OPENING ATTACHMENT, SEE THE RESPECTIVE PRODUCT APPROVAL DRAWINGS FOR THE WINDOW/DOOR.
- MULLION LENGTHS ARE RESTRICTED BY THOSE SHOWN IN THE TABLES.
- THE LOADS IN THESE TABLES CONSIDER WORSE CASE OF MULLION STRESS, DEFLECTION AND END REACTION.
- ANY CONDITIONS NOT COVERED IN THIS APPROVAL SHALL BE SUBJECT TO SEPARATE ENGINEERING REVIEW.
- ALL TUBES SHALL BE A46 STEEL ALL CONNECTION ANGLES & PLATES SHALL BE A36 MIN. 12 GAGE GALVANIZED STEEL.
- ALL EMBEDMENTS SPECIFIED ARE TO BEYOND WALL FINISH.

DATE: 8/25/14

DATE

6/15/15

REVISION DESCRIPTION

UPDATED TO 2014 FBC

NO.

1

CLIPPED STEEL TUBE MULLIONS FOR WOOD WIDNOWS + DOORS

LUXBAUM, LLC
WINDOWS + DOORS

1501 NORTHPOINT PARKWAY, SUITE 101
WEST PALM BEACH, FL 33407
Ph: (561) 684-1500
www.luxbaum.com

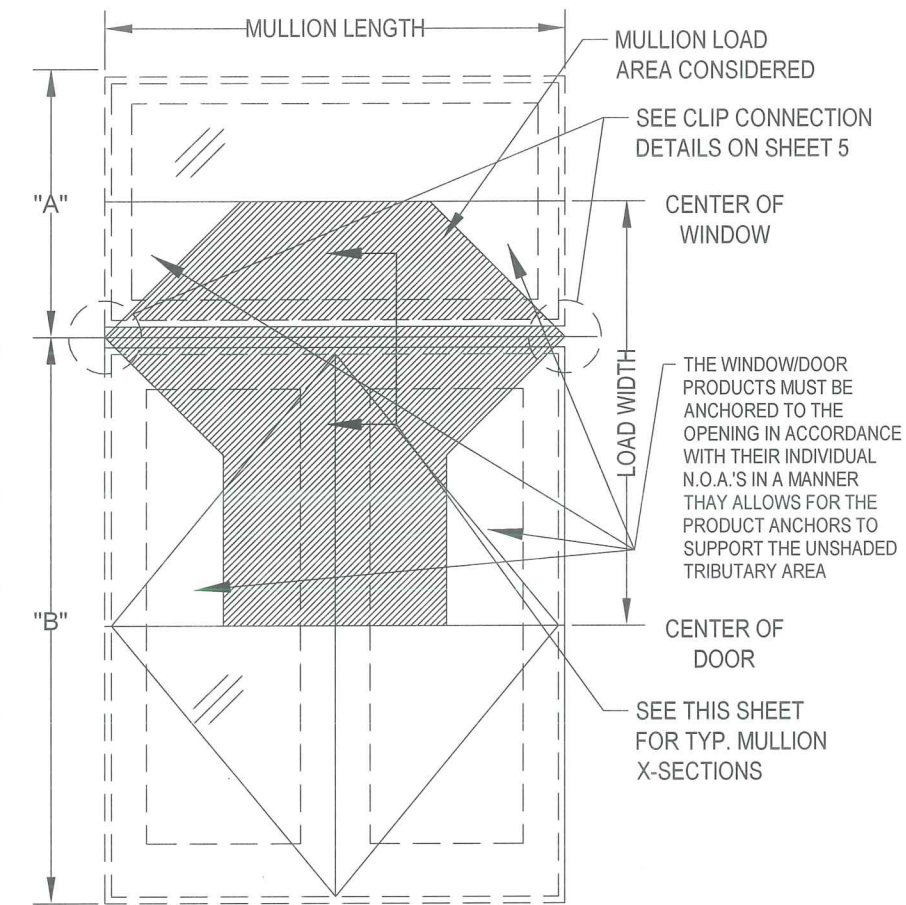


SCOTT WALTERS
FL PE# 62354

WALTERS ENGINEERING
(COA# 27194)
15211 97TH ROAD N
WEST PALM BEACH, FL 33412

DRAWING NO.
STEEL MULLION

SHEET NO.
1 OF 5



DOUBLE DOOR OR CASEMENT WITH TRANSOM
LOAD WIDTH = (A + B)/2

NOTE: "TRANSOM" MAY BE A SASH GLAZED FIXED OR A DIRECT GLAZED FIXED WINDOW OR A FIXED DOOR PANEL UNDER SEPARATE APPROVAL.

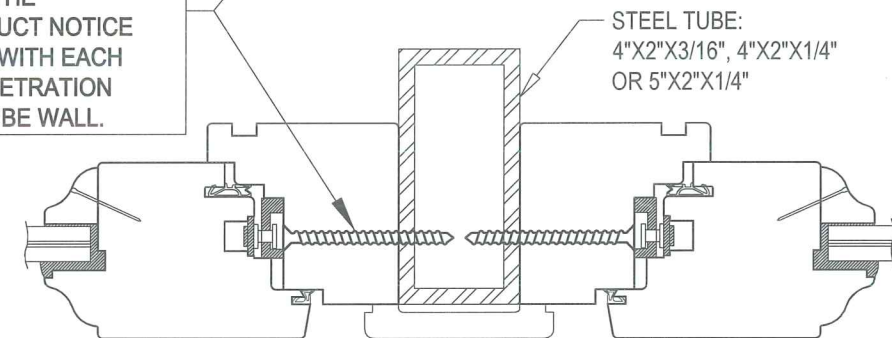
DOUBLE DOOR OR CASEMENT WITH TRANSOM			
LENGTH (IN)	LOAD WIDTH (IN) $\frac{A+B}{2}$	ALLOWABLE LOAD (PSF)	
		4"x2"x3/16" TUBE	
		CONN. "A"	CONN. "B", "C" & "D"
54	90 OR LESS	85.0	85.0
	96	85.0	85.0
60	78 OR LESS	79.6	85.0
	84	76.3	85.0
	90	74.7	85.0
66	96	74.0	85.0
	72 OR LESS	74.7	85.0
	78	70.6	85.0
	84	67.0	85.0
72	90	64.9	85.0
	96	64.0	85.0
	66 OR LESS	77.1	85.0
	72	68.9	85.0
	78	63.4	85.0
78	84	59.7	85.0
	90	57.3	83.6
	96	56.0	78.4
	60 OR LESS	82.4	85.0
	66	70.6	85.0
	72	62.9	85.0
84	78	57.6	85.0
	84	53.9	82.7
	90	51.4	77.2
	96	49.8	72.4
	54 OR LESS	85.0	85.0
	60	76.3	85.0
87	66	65.2	85.0
	72	57.8	85.0
	78	52.7	82.7
	84	49.1	76.8
	90	46.5	71.7
	96	44.8	67.2
87	54 OR LESS	85.0	85.0
	60	73.5	85.0
	66	62.7	85.0
	72	55.6	85.0
	78	50.6	75.9
	84	47.0	70.5
87	90	44.5	66.7
	96	42.7	64.0

CONN "A" = CONNECTION METHOD "A". SEE SHEET 5 FOR DETAIL.
CONN "B" = CONNECTION METHOD "B". SEE SHEET 5 FOR DETAIL.
CONN "C" = CONNECTION METHOD "C". SEE SHEET 5 FOR DETAIL.
CONN "D" = CONNECTION METHOD "D". SEE SHEET 5 FOR DETAIL.
NOTE: TUBE TO TUBE CONNECTION, AS DETAILED ON SHEET 5, IS ACCEPTABLE FOR ALL CONN. "A", "B", "C" & "D" LOADS.

NOTE: INDIVIDUAL UNIT SIZES & SHUTTER REQUIREMENTS ARE LIMITED BY THEIR OWN INDIVIDUAL "NOTICE OF ACCEPTANCE"

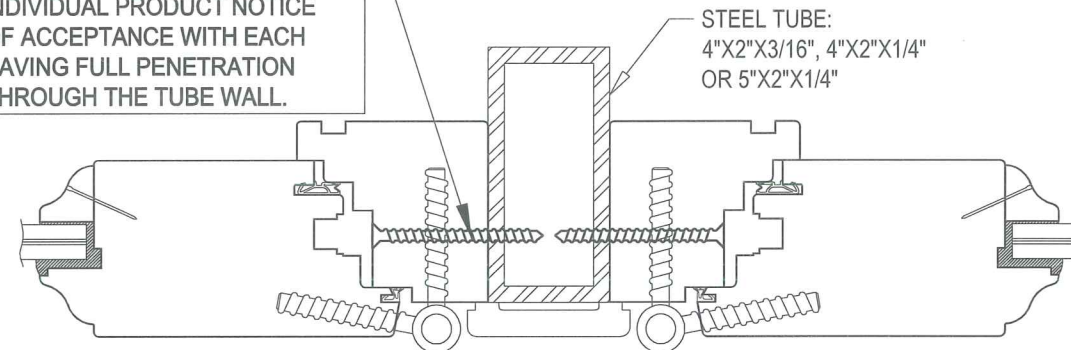
FASTENERS SECURING FRAMES TO MULLION TUBES SHALL BE THE SAME SIZE AND SPACING AS SPECIFIED IN THE INDIVIDUAL PRODUCT NOTICE OF ACCEPTANCE WITH EACH HAVING FULL PENETRATION THROUGH THE TUBE WALL.

SASH GLAZED FIXED WINDOW MULLIONS



CASEMENT WINDOW MULLIONS

FASTENERS SECURING FRAMES TO MULLION TUBES SHALL BE THE SAME SIZE AND SPACING AS SPECIFIED IN THE INDIVIDUAL PRODUCT NOTICE OF ACCEPTANCE WITH EACH HAVING FULL PENETRATION THROUGH THE TUBE WALL.



DOOR MULLIONS

TYPICAL MULLION CONDITIONS

NOTE: PRODUCTS CAN BE INTERMIXED & ARE NOT LIMITED TO THOSE SHOWN. PRODUCTS USED WITH THE MULLIONS MUST BE WOOD WINDOW/DOOR PRODUCTS SUPPLIED BY THE LANDFALL GROUP & MUST HOLD A MIAMI-DADE COUNTY "NOTICE OF ACCEPTANCE" OR FLORIDA STATE APPROVAL.

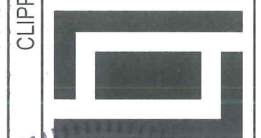
DATE: 8/25/14

DATE 6/15/15

REVISION DESCRIPTION
1 UPDATED TO 2014 FBC

NO. 1

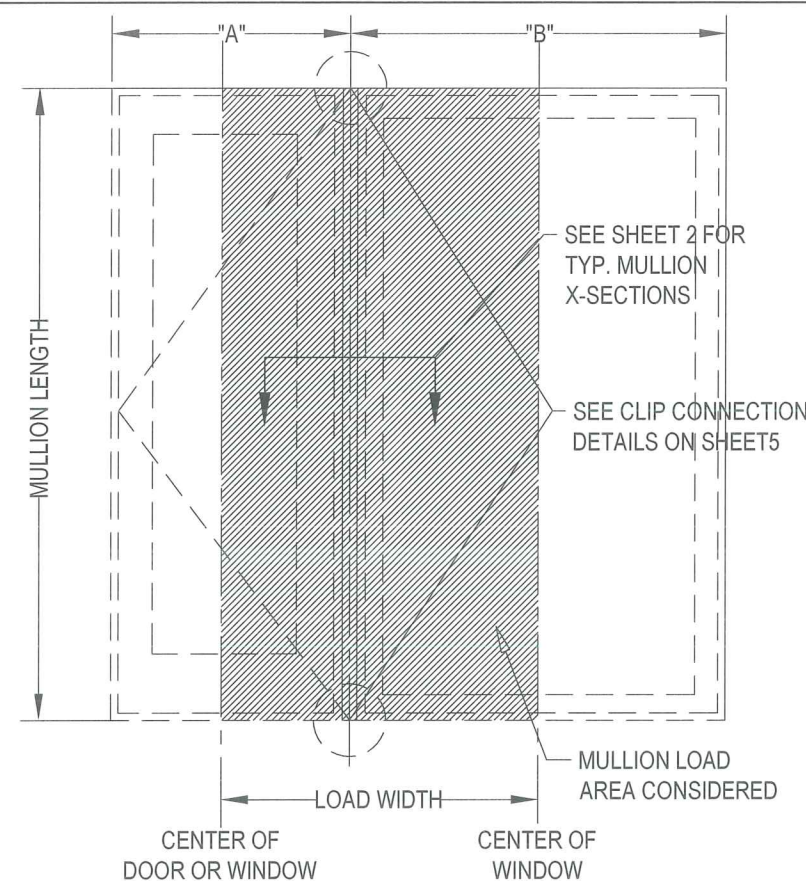
CLIPPED STEEL TUBE MULLIONS FOR WOOD WIDOWS + DOORS
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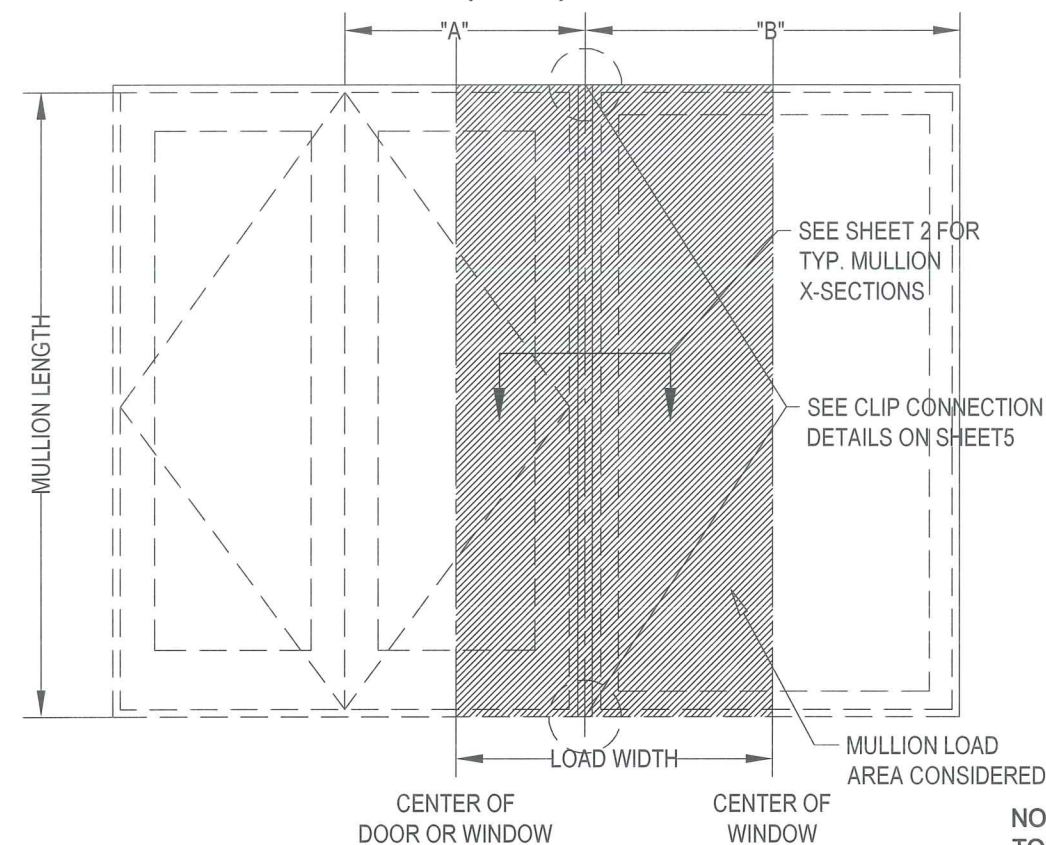
SCOTT WOLTERS
FL PE# 62354
WOLTERS ENGINEERING
(COA# 27194)
15211 97TH ROAD N
WEST PALM BEACH, FL 33412

DRAWING NO.
STEEL MULLION

SHEET NO.
2 OF 5



SINGLE DOOR OR OPERABLE WINDOW WITH SIDELIGHT
DOOR OR OPERABLE WINDOW TO OPERABLE WINDOW
LOAD WIDTH = (A + B)/2



DOUBLE DOOR OR CASEMENT W/ SIDELIGHT OR
DOUBLE DOOR/CASEMENT TO DOOR/CASEMENT
LOAD WIDTH = (A + B)/2

DOOR OR CASEMENT WITH SIDELIGHT			
LENGTH (IN)	LOAD WIDTH (IN) $\frac{A+B}{2}$	ALLOWABLE LOAD (PSF)	
		4"x2"x3/16" TUBE	
		CONN. "A"	CONN. "B", "C" & "D"
54 OR LESS	60 OR LESS	79.6	85.0
60	54 OR LESS	79.6	85.0
	60	71.7	85.0
66	48 OR LESS	81.5	85.0
	54	72.4	85.0
	60	65.2	85.0
72	42 OR LESS	85.0	85.0
	48	74.7	85.0
	54	66.4	85.0
78	60	59.7	85.0
	42 OR LESS	78.8	85.0
	48	68.9	85.0
84	54	61.3	85.0
	60	55.1	82.7
90	36 OR LESS	85.0	85.0
	42	73.1	85.0
	48	64.0	85.0
	54	85.3	85.0
96	60	73.1	76.8
	36 OR LESS	59.7	85.0
	42	53.1	85.0
	48	47.8	85.0
102	54	53.1	79.6
	60	47.8	71.7

NOTE: "SIDELIGHT" MAY BE A SASH GLAZED FIXED WINDOW, A DIRECT GLAZED FIXED WINDOW, OR A FIXED DOOR PANEL UNDER SEPARATE APPROVAL.

NOTE: IF A DOUBLE UNIT IS MULLED TO A DOUBLE UNIT, DIMENSION "B" WILL BE THE WIDTH OF THE DOOR PANEL AS WITH DIMENSION "A".

DOOR OR CASEMENT WITH SIDELIGHT			
LENGTH (IN)	LOAD WIDTH (IN) $\frac{A+B}{2}$	ALLOWABLE LOAD (PSF)	
		4"x2"x3/16" TUBE	
		CONN. "A"	CONN. "B", "C" & "D"
96	30 OR LESS	85.0	85.0
	36	74.7	85.0
	42	64.0	85.0
	48	56.0	84.0
	54	49.8	74.7
102	60	44.8	67.2
	30 OR LESS	84.3	85.0
	36	70.3	85.0
	42	60.2	85.0
	48	52.7	79.1
108	54	46.8	70.3
	60	42.2	63.2
	30 OR LESS	49.6	85.0
	36	66.4	85.0
	42	56.9	85.0
123	48	49.8	74.7
	54	44.2	66.4
	60	39.8	59.7
	24 OR LESS	85.0	85.0
	30	69.9	85.0
	36	58.3	85.0
	42	50.0	74.9
	48	43.7	65.6
	54	38.9	58.3
	60	35.0	52.4

CONN "A" = CONNECTION METHOD "A". SEE SHEET 5 FOR DETAIL.
 CONN "B" = CONNECTION METHOD "B". SEE SHEET 5 FOR DETAIL.
 CONN "C" = CONNECTION METHOD "C". SEE SHEET 5 FOR DETAIL.
 CONN "D" = CONNECTION METHOD "D". SEE SHEET 5 FOR DETAIL.
 NOTE: TUBE TO TUBE CONNECTION, AS DETAILED ON SHEET 5, IS ACCEPTABLE FOR ALL CONN. "A", "B", "C" & "D" LOADS.

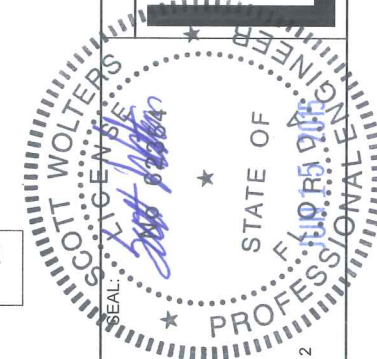
NOTE: INDIVIDUAL UNIT SIZES & SHUTTER REQUIREMENTS ARE LIMITED BY THEIR OWN INDIVIDUAL "NOTICE OF ACCEPTANCE"

DATE: 8/25/14

DATE	6/15/15
REVISION DESCRIPTION	UPDATED TO 2014 FBC
NO.	1

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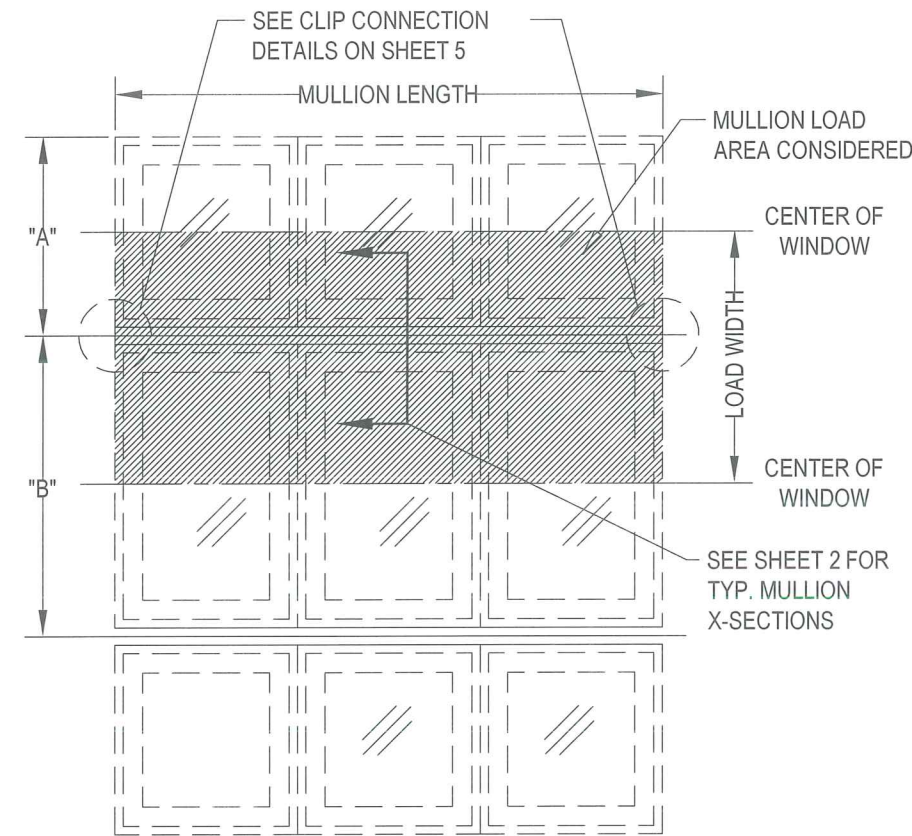


SCOTT WOLTERS
 FL PE# 82354

WOLTERS ENGINEERING
 (COA# 27194)
 15211 97TH ROAD N
 WEST PALM BEACH, FL 33412

DRAWING NO.
STEEL MULLION

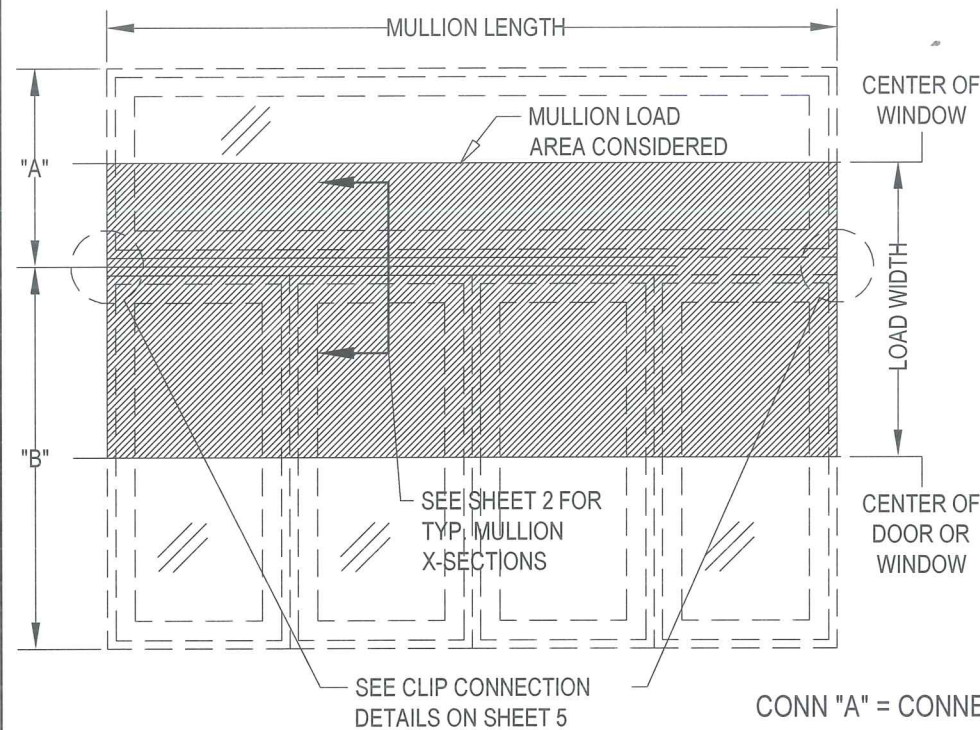
SHEET NO.
3 OF 5



MULTIPLE WINDOWS (HORIZONTAL MULLION)

$$\text{LOAD WIDTH} = (A + B)/2$$

MULLIONS MAY BE HORIZONTAL OR VERTICAL



MULTIPLE WINDOWS/DOORS WITH TRANSOM

$$\text{LOAD WIDTH} = (A + B)/2$$

TRANSOM MAY BE SINGLE OR MULTIPLE WINDOWS (SINGLE DOOR/WINDOW WITH TRANSOM ALSO APPLIES)

CONN "A" = CONNECTION METHOD "A". SEE SHEET 5 FOR DETAIL.
CONN "B" = CONNECTION METHOD "B". SEE SHEET 5 FOR DETAIL.
CONN "C" = CONNECTION METHOD "C". SEE SHEET 5 FOR DETAIL.
CONN "D" = CONNECTION METHOD "D". SEE SHEET 5 FOR DETAIL.
NOTE: TUBE TO TUBE CONNECTION, AS DETAILED ON SHEET 5, IS ACCEPTABLE FOR ALL CONN. "A", "B", "C" & "D" LOADS.

MULTIPLE WINDOWS/DOORS			
LENGTH (IN)	LOAD WIDTH (IN) A+B 2	ALLOWABLE LOAD (PSF)	
		4"x2"x3/16" TUBE	
		CONN. "A"	CONN. "B", "C" & "D"
48 OR LESS	66 OR LESS 72	81.5 74.7	85.0 85.0
54	60 OR LESS 66 72	79.6 72.4 66.4	85.0 85.0 85.0
60	54 OR LESS 60 66 72 78 84	79.6 71.7 65.2 59.7 55.1 51.2	85.0 85.0 85.0 85.0 82.7 76.8
66	48 OR LESS 54 60 66 72 78 84	81.5 72.4 65.2 59.2 54.3 50.1 46.5	85.0 85.0 85.0 85.0 81.5 75.2 69.8
72	42 OR LESS 48 54 60 66 72 78 84 90 96	85.0 74.7 66.4 59.7 54.3 49.8 45.9 42.7 39.2 37.3	85.0 85.0 85.0 85.0 81.5 74.7 68.9 64.0 59.7 56.0
78	42 OR LESS 48 54 60 66 72 78 84 90 96	78.8 68.9 61.3 55.1 50.1 45.9 42.4 39.4 36.8 34.5	85.0 85.0 85.0 82.7 75.2 68.9 63.6 59.1 55.1 51.7
84	36 OR LESS 42 48 54 60 66 72 78 84 90 96	85.0 73.1 64.0 56.9 51.2 46.5 42.7 39.4 36.6 34.1 32.0	85.0 85.0 85.0 85.0 76.8 69.8 64.0 59.1 54.9 51.2 48.0

MULTIPLE WINDOWS/DOORS			
LENGTH (IN)	LOAD WIDTH (IN) A+B 2	ALLOWABLE LOAD (PSF)	
		4"x2"x3/16" TUBE	
		CONN. "A"	CONN. "B", "C" & "D"
90	36 OR LESS 42 48 54 60 66 72 78 84 90 96	79.6 68.3 59.7 53.1 47.8 43.4 39.8 36.8 34.1 31.9 29.9	85.0 85.0 85.0 79.6 71.7 65.2 59.7 55.1 51.2 47.8 44.8
96	30 OR LESS 36 42 48 54 60 66 72 78 84 90 96	85.0 74.7 64.0 56.0 49.8 44.8 40.7 37.3 34.5 32.0 29.9 28.0	85.0 85.0 85.0 84.0 74.7 67.2 61.1 56.0 51.7 48.0 44.8 42.0
108	30 OR LESS 36 42 48 54 60 66 72 78 84 90 96	79.6 66.4 56.9 49.8 44.2 39.8 36.2 33.2 30.6 28.4 26.5	85.0 85.0 85.0 74.7 66.4 59.7 54.3 49.8 45.9 42.7 39.8 37.3
120	24 OR LESS 30 36 42 48 54 60 66 72 84 96	85.0 71.7 59.7 51.2 44.8 39.8 35.8 32.6 29.9	85.0 85.0 85.0 76.8 67.2 59.7 53.8 48.9 44.8 28.4 33.6
132	30 OR LESS 36 42 48 54 60 66 72 84 96	65.2 54.3 46.5 40.7 36.2 32.6 29.6 27.2	85.0 81.5 69.8 61.1 54.3 48.9 44.4 40.7 34.9 30.5

MULTIPLE WINDOWS/DOORS			
LENGTH (IN)	LOAD WIDTH (IN) A+B 2	ALLOWABLE LOAD (PSF)	
		4"x2"x3/16" TUBE	
		CONN. "A"	CONN. "B", "C" & "D"
144	30 OR LESS 36 42 48 54 60 72	59.7 49.8 42.7 37.3 33.2 29.9 -	77.0 64.1 55.0 48.1 42.8 38.5 32.1
156	30 OR LESS 36 42 48 54 60	551.0 45.9 39.4 34.5 30.6 27.6	60.5 50.5 43.2 37.8 33.6 30.3
4"x2"x1/4" STEEL TUBE			
144	30 OR LESS 36 42 48 54 60 72 84	59.7 49.8 42.7 37.3 33.2 29.9 24.9 21.3	85.0 74.7 64.0 56.0 49.8 44.8 37.3 32.0
156	30 OR LESS 36 42 48 54 60 66 72	55.1 45.9 39.4 34.5 30.6 27.6 -	73.4 61.1 52.4 45.9 40.8 36.7 33.4 30.6
5"x2"x1/4" STEEL TUBE			
144	30 OR LESS 36 42 48 54 60 72 84	59.7 49.8 42.7 37.3 33.2 29.9 24.9 21.3	85.0 74.7 64.0 56.0 49.8 44.8 37.3 32.0
156	30 OR LESS 36 42 48 54 60 66 72	55.1 45.9 39.4 34.5 30.6 -	82.7 68.9 59.1 51.7 45.9 41.4 37.6 34.5

NOTE: LOAD VALUES FOR 4X2X1/4 & 5X2X1/4 MULLIONS LESS THAN 144" IN LENGTH ARE THE SAME AS SPECIFIED FOR THE 4X2X3/16 MULLION. (SEE 4X2X3/16 TUBE LOAD TABLE)

NOTE: INDIVIDUAL UNIT SIZES & SHUTTER REQUIREMENTS ARE LIMITED BY THEIR OWN INDIVIDUAL "NOTICE OF ACCEPTANCE"

DATE: 8/25/14

DATE: 6/15/15

REVISION DESCRIPTION: UPDATED TO 2014 FBC

NO. 1

CLIPPED STEEL TUBE MULLIONS FOR WOOD WIDNOWS + DOORS

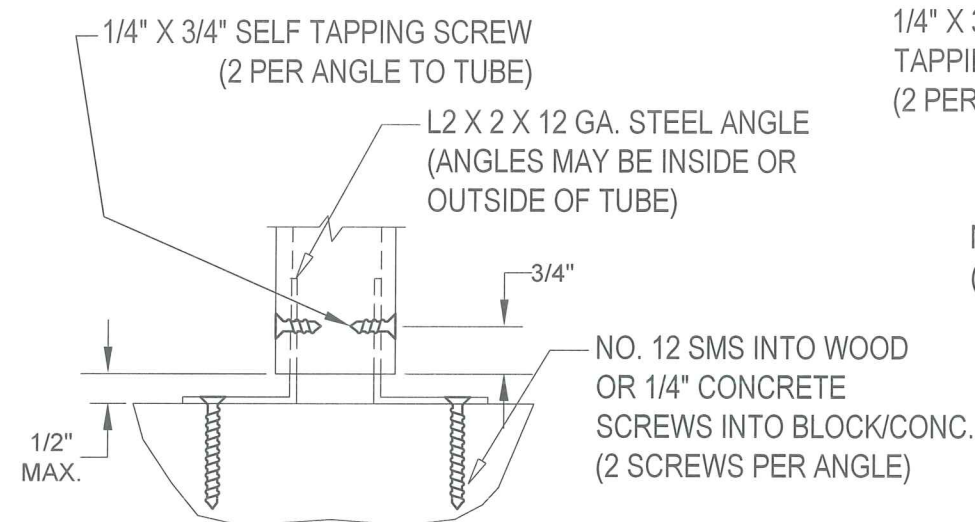
LUXBAUM, LLC
WINDOWS + DOORS
1501 NORTHPOINT PARKWAY, SUITE 101
WEST PALM BEACH, FL 33407
Ph: (561) 684-1500
www.luxbaum.com

SCOTT WOLTERS
FL PE# 62364

WOLTERS ENGINEERING
(COA# 27194)
15211 97TH ROAD N
WEST PALM BEACH, FL 33412

DRAWING NO. STEEL MULLION

SHEET NO. 4 OF 5



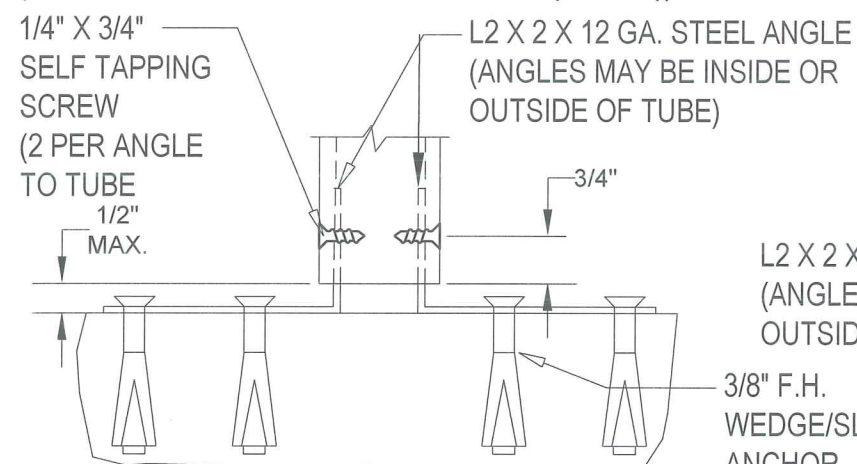
CONN "A" & "C"

(INTO BLOCK, CONCRETE OR WOOD)

"A" = INTO WOOD OR BLOCK

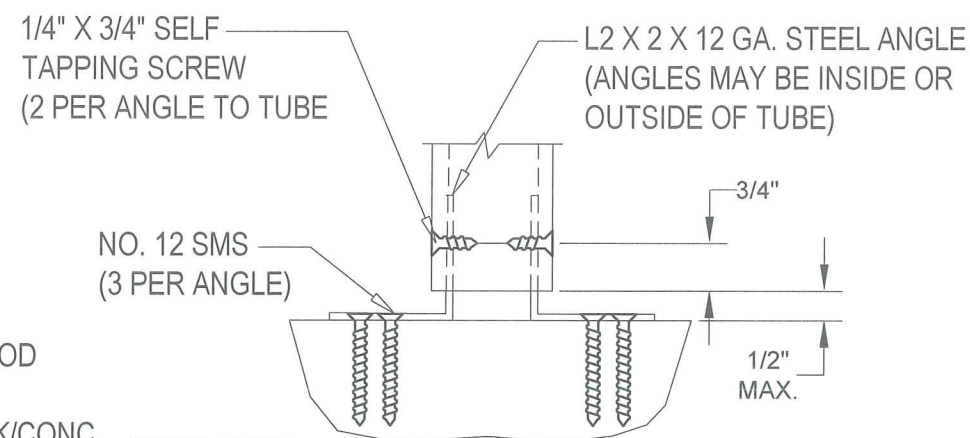
"C" = INTO MIN. 2500 PSI CONCRETE

(WOOD = MIN. NO. 3 SOUTHERN PINE (G=0.55))



CONN "D"

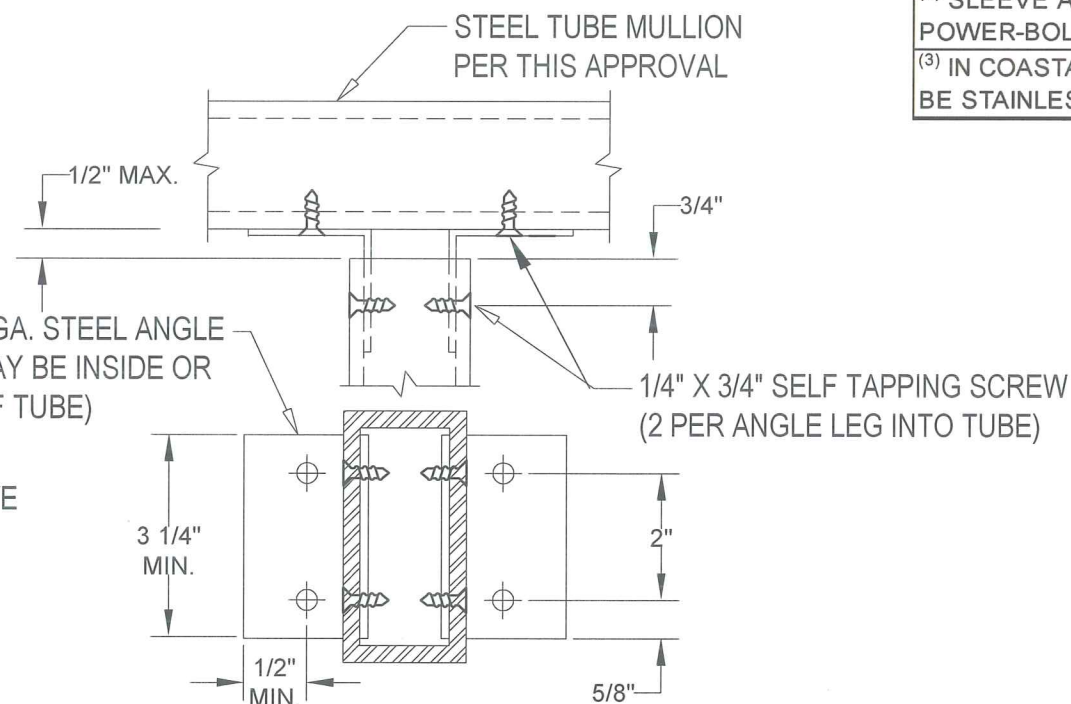
(INTO CONCRETE FILLED BLOCK OR CONCRETE)



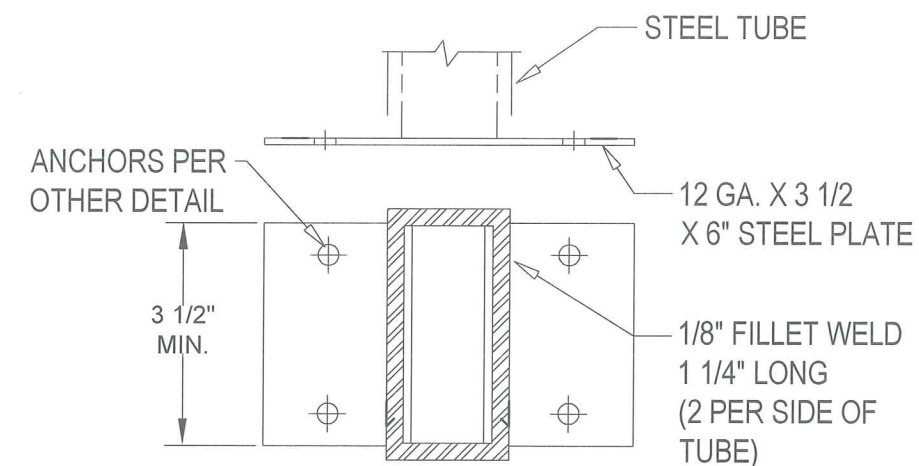
CONN "B"

(INTO WOOD)

MIN. NO. 3 SOUTHERN PINE (G=0.55)



TYP. TUBE TO TUBE CONNECTION



OPTIONAL END PLATE CONNECTION

(APPLICABLE TO ALL CONNECTION TYPES ON THIS SHEET)

ANCHOR REQUIREMENTS

(3) ANCHOR	SUBSTRATE	MIN. EMBED.	MIN. EDGE DIS.
#12 SMS	WOOD	1 1/2"	3/4"
(1) 1/4" CONCRETE SCREW	CONCRETE/CMU	1 1/2"	2 1/2"
(2) 3/8" SLEEVE ANCHOR	CONCRETE/CMU	2"	3 3/4"

(1) CONCRETE SCREWS MAY BE ELCO ULTRACONS, POWERS TAPPERS, OR HILTI KWI-KON II'S.

(2) SLEEVE ANCHORS MAY BE RAMSET DYNABOLT SLEEVE OR POWERS POWER-BOLT SLEEVE ANCHORS.

(3) IN COASTAL ZONES, ALL MULLION ANCHORS TO SUBSTRATE MUST BE STAINLESS STEEL.

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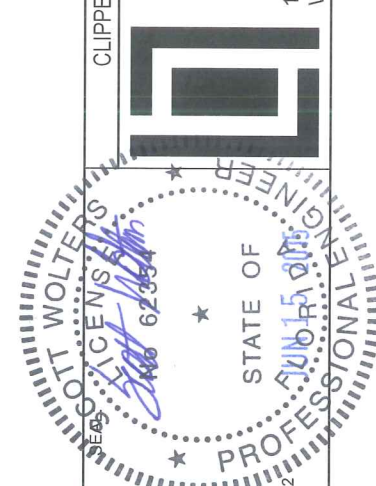
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DRAWING NO.
STEEL MULLION

SHEET NO.
5 OF 5