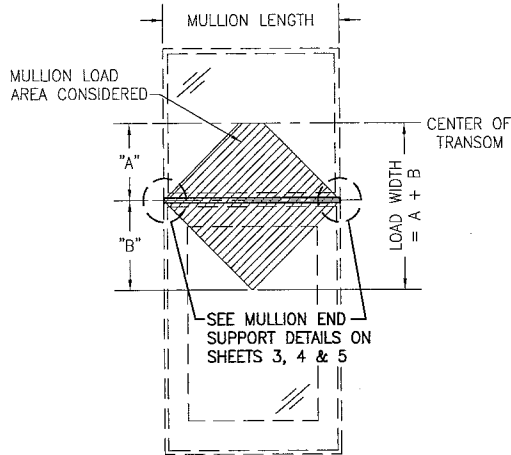


THESE DRAWINGS ARE APPLICABLE ONLY TO THE PRODUCT SPECIFIED. THEY MAY NOT BE USED FOR THE ASSEMBLY AND/OR INSTALLATION OF ANY OTHER PRODUCT NOR MAY THEY BE USED FOR RATIONAL AND/OR LOCAL APPROVAL OF ANY PRODUCT NOT PRODUCED BY THE MANUFACTURER STATED ON THESE DRAWINGS.

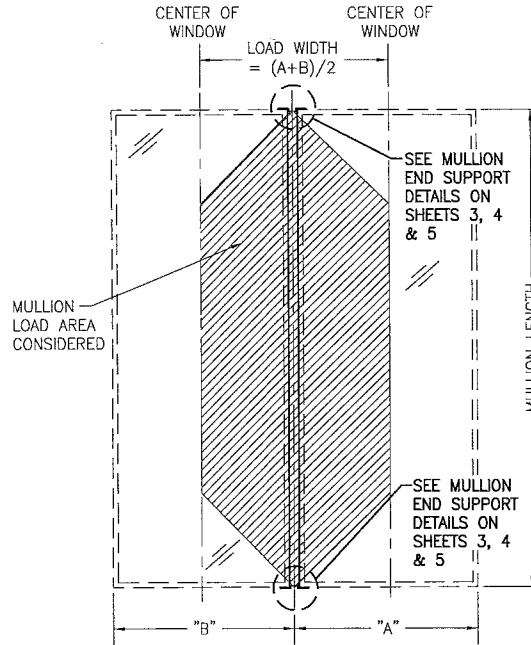


"A" = LESSER OF (MULLION LENGTH/2) OR (TRANSOM HEIGHT/2)
 "B" = MULLION LENGTH/2

SINGLE WINDOW OR DOOR WITH FIXED TRANSOM

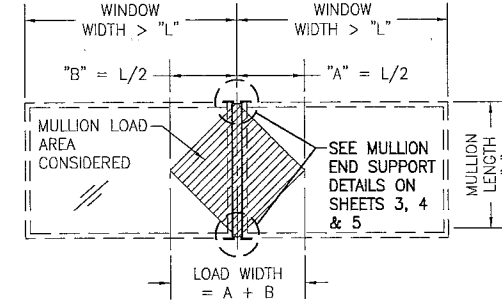
(SEE LOAD TABLE 1.0)

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



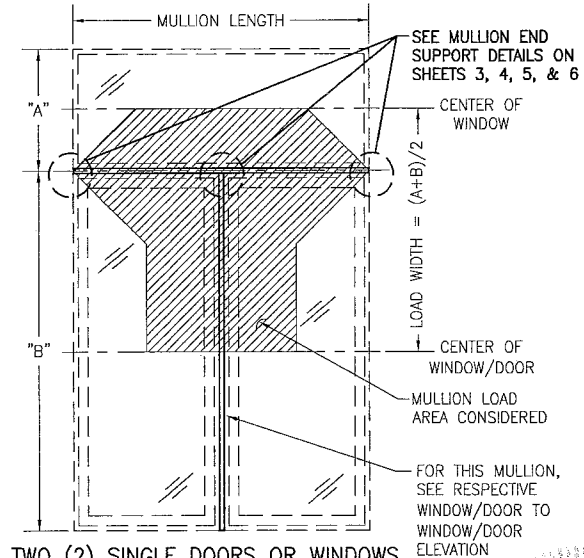
FIXED WINDOW TO FIXED WINDOW WHEN WINDOW WIDTHS ARE LESS THAN OR EQUAL TO THE MULLION LENGTH

(SEE LOAD TABLE 1.0)
 NOTE: MULLION MAY BE HORIZONTAL OR VERTICAL



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

(SEE LOAD TABLE 1.0)



TWO (2) SINGLE DOORS OR WINDOWS WITH A SINGLE FIXED TRANSOM

(SEE LOAD TABLE 2.0)

NOTE: DOORS/WINDOWS MAY BE OPERABLE OR FIXED.

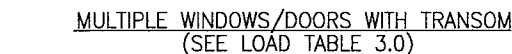
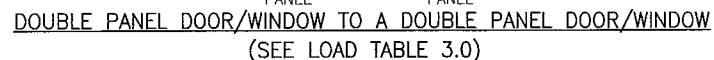
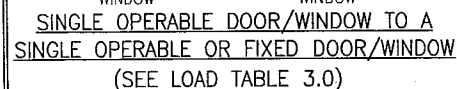
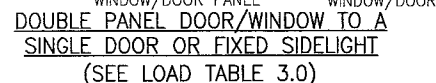
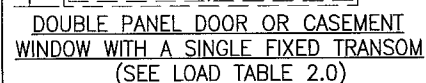
GENERAL NOTES (ALL DRAWING SHEETS):

- DOORS & WINDOWS SHALL BE UNDER SEPARATE CERTIFICATION. SEE THE PRODUCTS SPECIFIC CERTIFICATION FOR THEIR USE.
- THESE MULLION SYSTEMS HAVE BEEN ANALYZED AND CERTIFIED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE LOAD TABLES.
- 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 THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).
- ANY CERTIFIED WINDOW/DOOR BY C.P. LOEWEN ENTERPRISES MAY BE SUPPORTED BY THESE MULLIONS PROVIDING THEY ARE PROPERLY ANCHORED TO THE MULLION.
- ALLOWABLE PRESSURE ON THE MULLED UNIT SHALL BE CONTROLLED BY THE LESSER ALLOWABLE PRESSURE OF THE MULLION, THE MULLION END CONNECTION OR THE INDIVIDUAL WINDOW/DOOR UNITS.
- WINDOW/DOOR SIZES SHALL BE AS RESTRICTED BY THEIR OWN INDIVIDUAL APPROVALS/CERTIFICATIONS.
- FOR WINDOW OR DOOR FRAME TO OPENING ATTACHMENT, SEE THE RESPECTIVE PRODUCT CERTIFIED DRAWINGS/SPECIFICATIONS 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 CERTIFICATION SHALL BE SUBJECT TO SEPARATE ENGINEERING REVIEW.
- ALL TUBES SHALL BE 6063-T6 ALUMINUM. ALL CONNECTION ANGLES SHALL BE MIN. 6063-T5 ALUMINUM. ALL U-CLIPS & T-CLIPS SHALL BE MIN. 6063-T5 OR T6 ALUMINUM.
- ALL EMBEDMENTS SPECIFIED ARE TO BE BEYOND WALL FINISH.
- MULLION TUBES MUST BE CONTINUOUS FROM END TO END.
- 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.
- THESE MULLIONS ARE ACCEPTABLE FOR USE WITH IMPACT & NON-IMPACTED RATED WINDOWS & DOORS.
- 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.

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.

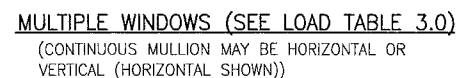
NOTE: ATTACHMENT OF WINDOW/DOOR FRAME TO MULLIONS SHALL BE AS REQUIRED BY THE INDIVIDUAL WINDOW/DOOR APPROVAL FOR ATTACHMENT TO BUCK/OPENING EXCEPT THAT SPECIFIED FRAME SCREWS MUST BE EQUIVALENT SIZE SMS SCREWS PREDILLED INTO TUBE OR SELF TAPPING/DRILLING SCREWS

DRAWN BY: K.P.S.		CHECKED BY: W.W.S.	
DATE: 04/13/11		DATE: 03/07/05	
BY: W.S.		BY: W.S.	
REVISION DESCRIPTION		REVISION DESCRIPTION	
A1 UPDATE TO CURRENT STANDARDS		B1 CHANGE TO STATE APPROVAL	
NO.		NO.	
ALUMINUM TUBE CLIPPED MULLIONS MANUFACTURER: C.P. LOEWEN ENTERPRISES 77 P.T.H. 52 WEST, BOX 2260 STEINBACH, MB CANADA R5G 1B2 204-326-6446 CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 1780 SOUTH COUNTY NORTH PALM BEACH, FL 33418 PALM PHONE: 561-744-3424			
CERTIFICATION DEC 14 2015 W. W. SCHAEFER P.E. P.E. NO. 47103			
DRAWING NO. 1396		REV. B	
SHEET NO. 1 OF 9			



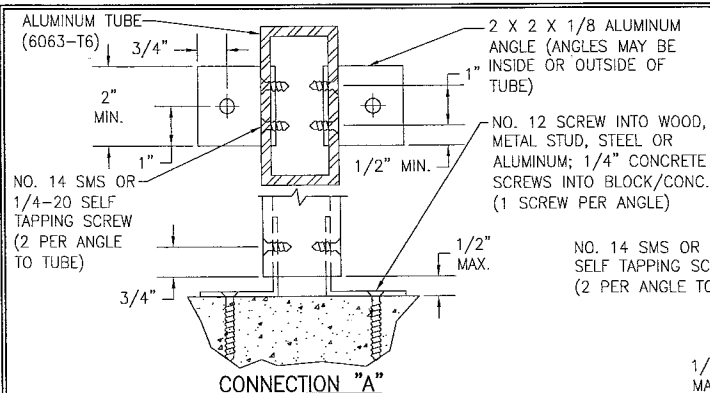
NOTES:

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

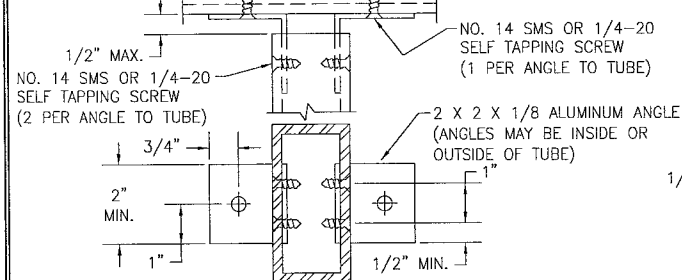


NOTE: ATTACHMENT OF WINDOW/DOOR FRAME TO MULLIONS SHALL BE AS REQUIRED BY THE INDIVIDUAL WINDOW/DOOR APPROVAL FOR ATTACHMENT TO BUCK/OPENING EXCEPT THAT SPECIFIED FRAME SCREWS MUST BE EQUIVALENT SIZE SMS SCREWS PREDILLED INTO TUBE OR SELF TAPPING/DRILLING SCREWS

DRAWING NO. 1396						REV B	
SHEET NO. 2 OF 9							
WAFBEN W. SCHAEFER, P.E. 77 P.T.H 52 WEST, BOX 2280 STEINBACH, MB R5G 1B2 CANADA							
CERTIFICATION I hereby certify that the above drawing was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer in the Province of Manitoba.							
DRAWING TITLE ALUMINUM TUBE CLIPPED MULLIONS							
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418							
MANUFACTURER C.P. LOEWEN ENTERPRISES 77 P.T.H 52 WEST, BOX 2280 STEINBACH, MB R5G 1B2 CANADA							
DRAWN BY: K.F.S.		CHECKED BY: W.W.S.		PLOT: 1=24		DATE: 03/07/06	
NO.		REVISION		DESCRIPTION		BY DATE	



CONNECTION "A"
(INTO WOOD, BLOCK/CONCRETE,
METAL STUD, STEEL OR ALUMINUM)



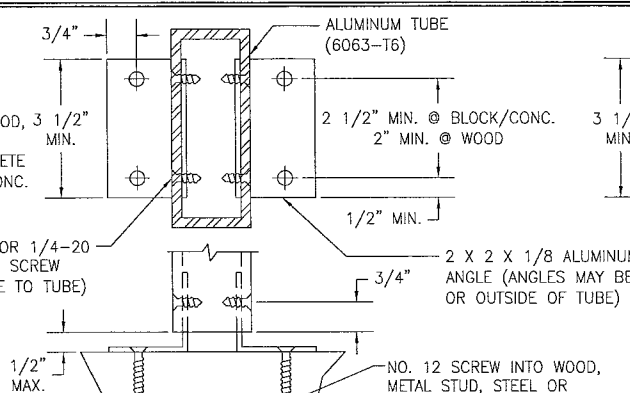
TYP. TUBE TO TUBE CONNECTION
(CONSIDER EQUIVALENT TO CONNECTION "A")

ANCHOR REQUIREMENTS

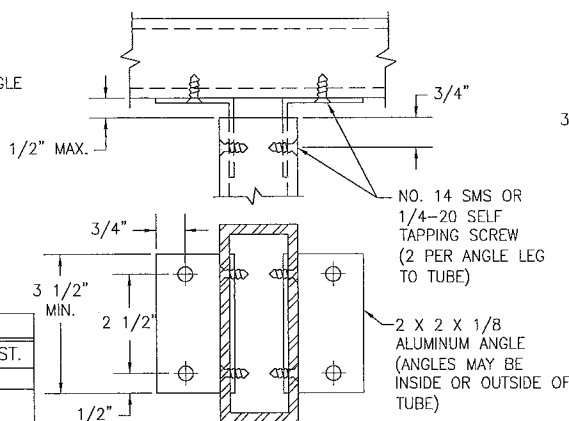
(3) ANCHOR	SUBSTRATE	MIN. EMBED	MIN. EDGE DIST.
(1) NO. 12 SMS	(4) WOOD	1 3/8"	3/4"
(7) NO. 12 SELF TAPPING/ DRILLING SCREW	(6) METAL STUD, STEEL OR ALUMINUM	FULL	1/2"
(1) 1/4" CONCRETE SCREW	(5) BLOCK/CONCRETE	1 1/4"	2 1/4"
(2) 3/8" WEDGE/SLEEVE ANCHOR	(5) CONCRETE FILLED BLOCK OR CONCRETE	2 1/2"	3"

- (1) CONCRETE SCREWS MAY BE HILTI KWIK-CON II'S, ELCO ULTRA-CON OR ELCO CRETE-FLEX SS4.
 (2) WEDGE/SLEEVE ANCHORS MAY BE RAMSET RED HEAD DYNABOLTS.
 (3) IN COASTAL AREAS, ALL MULLION ANCHORS TO SUBSTRATE MUST BE STAINLESS STEEL.
 (4) WOOD = MIN. NO. 3 GRADE SOUTHERN PINE (G = 0.55)
 (5) CONCRETE = MIN. 2500 PSI.
 (6) METAL STUD = MIN. 18 GA. Fy = 33 KSI; STEEL = MIN. 1/8" THICK A-36; ALUMINUM = MIN. 1/8" THICK 6063-T5.
 (7) SELF TAPPING/DRILLING SCREWS SHALL BE CORROSION RESISTANT MIN. SAE GR. 5 STEEL OR MIN. ALLOY GROUP 1, 2, & 3 CONDITION "A" STAINLESS STEEL.

NOTE: ALL SCREWS JOINING CONNECTORS TO TUBES MUST HAVE FULL THREAD PENETRATION THROUGH ALL MATERIAL & SHALL BE CORROSION RESISTANT MIN. GR. 2 STEEL OR MIN. ALLOY GROUP 1, 2, & 3 CONDITION "A" STAINLESS STEEL.

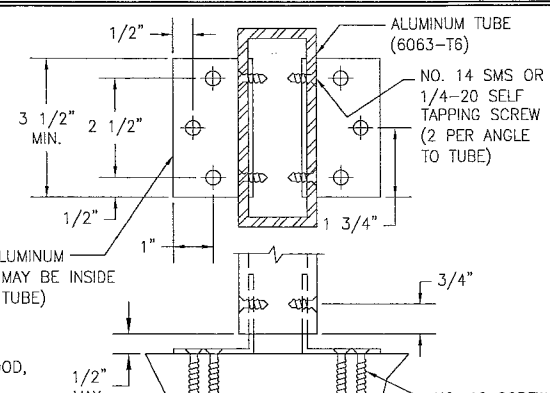


CONNECTION "B"
(INTO WOOD, BLOCK/CONCRETE,
METAL STUD, STEEL OR ALUMINUM)

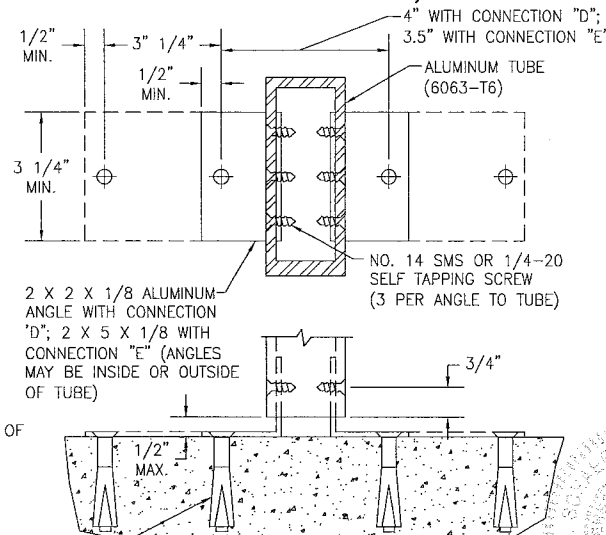


TYP. TUBE TO TUBE CONNECTION
(CONSIDER EQUIVALENT TO OR
STRONGER THAN ALL CONNECTIONS)

MULLION END CONNECTION DETAILS USING CLIP ANGLES

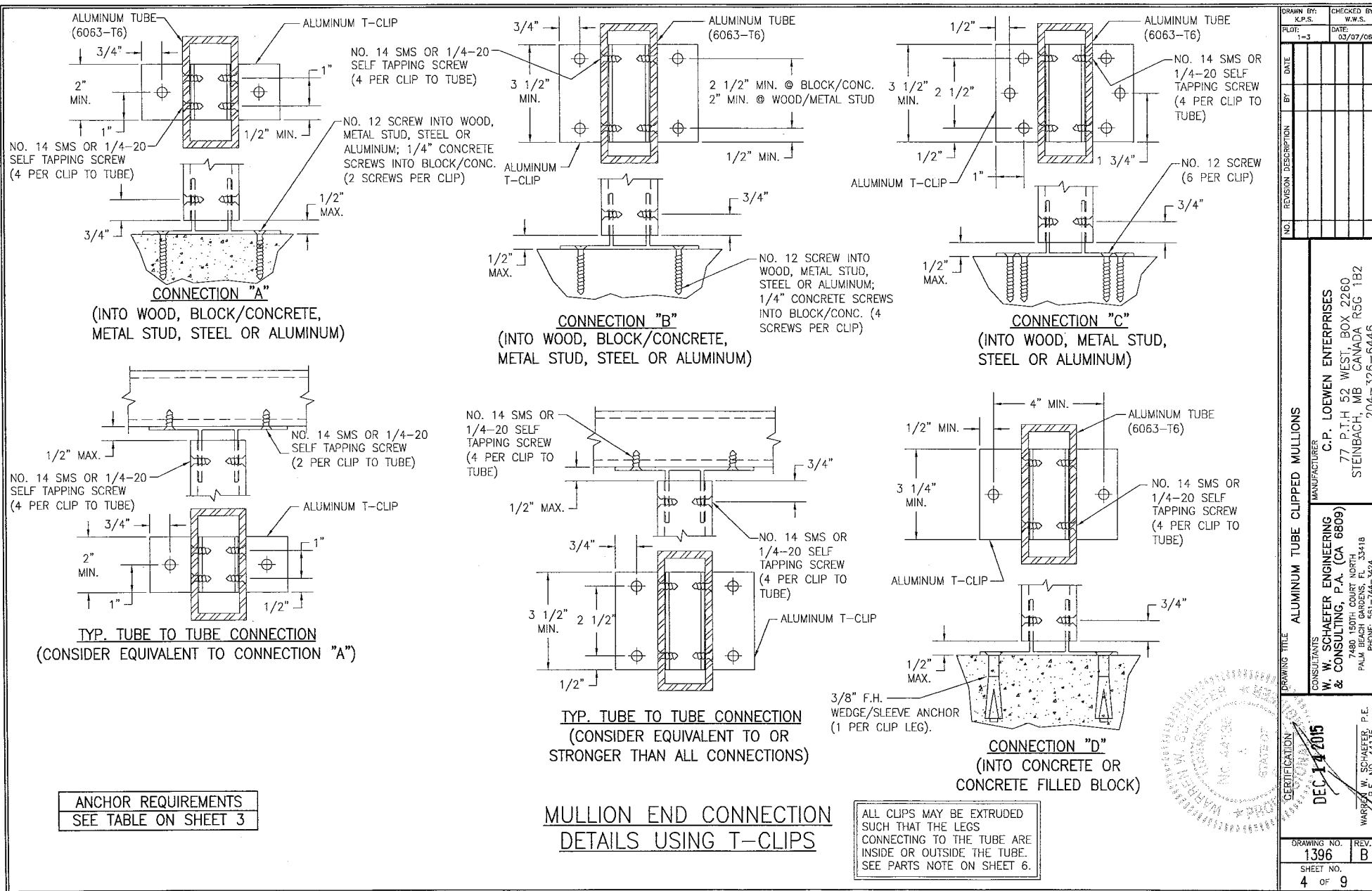


CONNECTION "C"
(INTO WOOD, METAL STUD,
STEEL OR ALUMINUM)

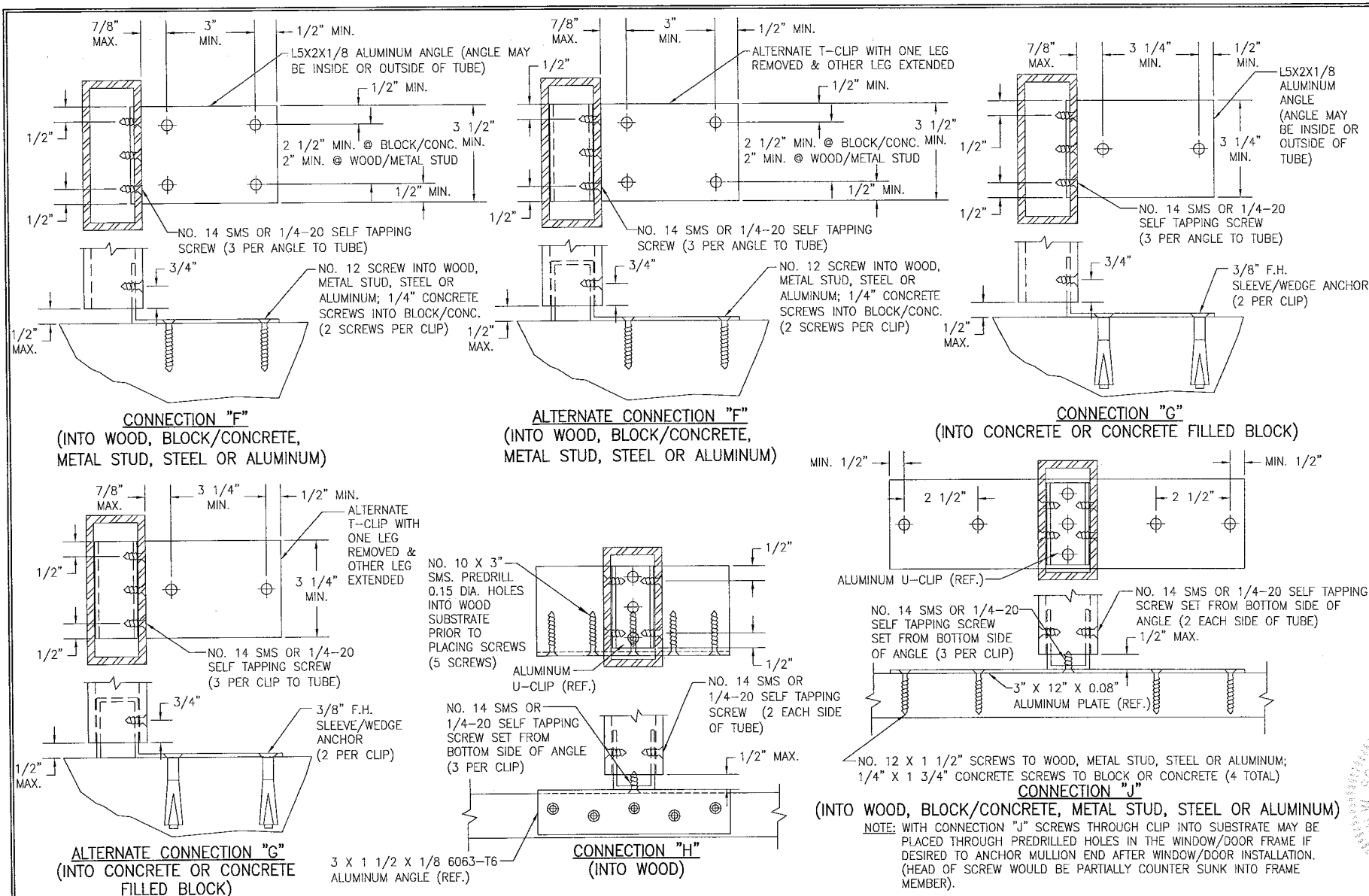


CONNECTION "D" & "E"
(INTO CONCRETE OR
CONCRETE FILLED BLOCK)
"D" = 2 ANCHORS & 2 X 2 ANGLES
"E" = 4 ANCHORS & 2 X 5 ANGLES

DRAWN BY: K.P.S.		CHECKED BY: W.W.S.	
PLOT: 1-3		DATE: 03/07/06	
NO.	REVISION	DESCRIPTION	DATE
ALUMINUM TUBE CLIPPED MULLIONS MANUFACTURER C.P. LOEWEN ENTERPRISES 77 P.T.H. 52 WEST BOX 2260 STEINBACH, MB CANADA R5G 1B2 204-326-6446			
CONSULTANTS W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 130TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE 561-744-5424			
CERTIFICATION DEC 14 2015 W. SCHAEFER, P.E. P.E. NO. 42135			
DRAWING NO. 1396		REV. B	
SHEET NO. 3		OF 9	

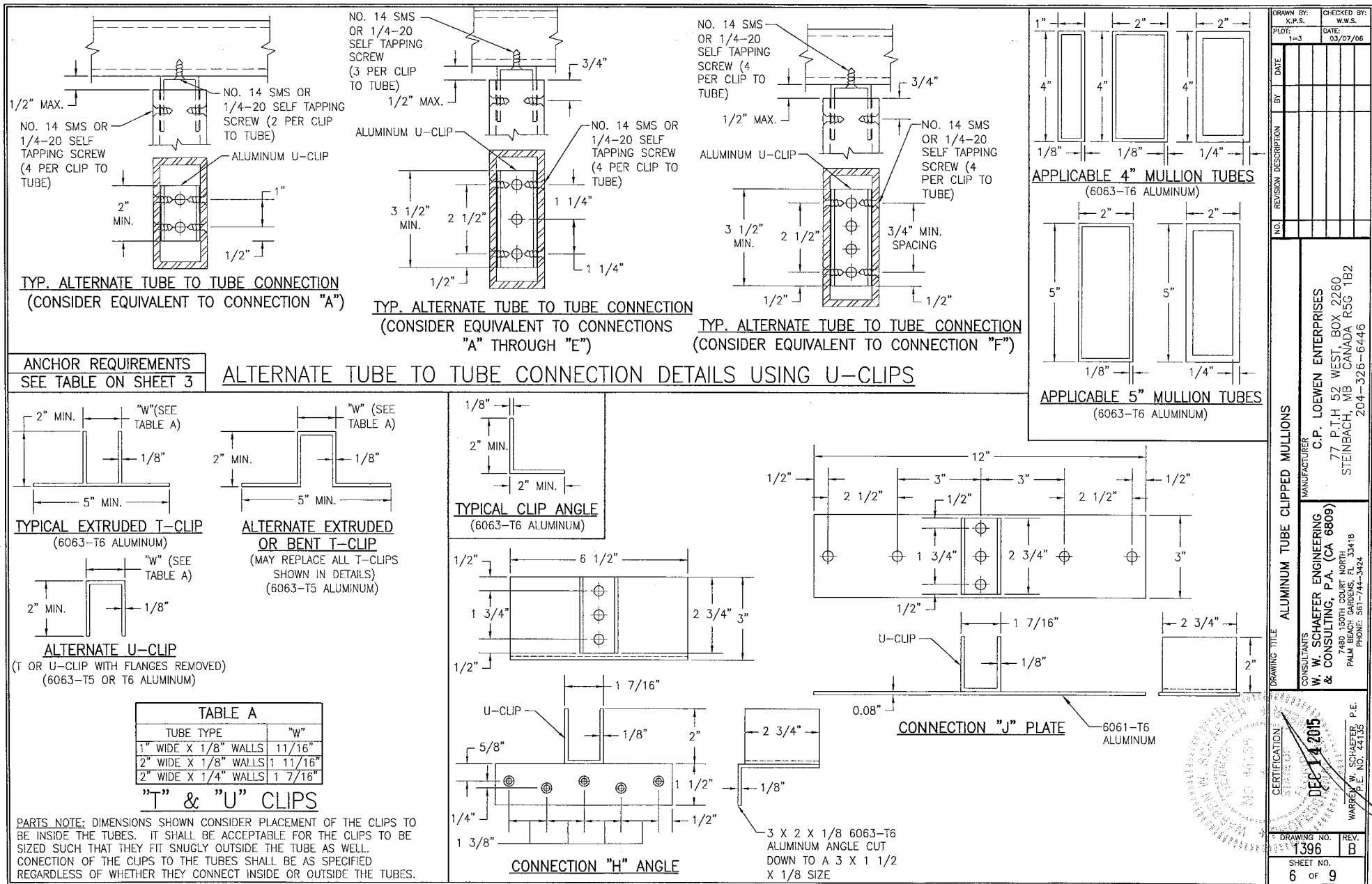


DRAWN BY: K.P.S.	CHECKED BY: W.W.S.
PLT: 1-3	DATE: 03/07/06
DATE	
BY	
REVISION DESCRIPTION	
NO.	
DRAWING TITLE ALUMINUM TUBE CLIPPED MULLIONS	
CONSULTANTS C.P. LOEWEN ENTERPRISES 77 P.T.H. 52 WEST, BOX 2260 STEINBACH, MB CANADA R5G 1B2 204-326-6446	
MANUFACTURER W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE 561-744-3424	
CERTIFICATION DEC 14 2015 W. W. SCHAEFER, P.E. P.E. NO. 44135	
DRAWING NO. 1396	REV. B
SHEET NO. 4 OF 9	



ANCHOR REQUIREMENTS
SEE TABLE ON SHEET 3

DRAWN BY: K.P.S.	CHECKED BY: W.W.S.
PLOT: 1-3	DATE: 03/07/06
DATE	BY
REVISION DESCRIPTION	NO.
DRAWING TITLE ALUMINUM TUBE CLIPPED MULLIONS	
CONSULTANTS C.P. LOEWEN ENTERPRISES 77 P.T.H. 52 WEST, BOX 2260 STEINBACH, MB CANADA R5G 1B2 204-326-6446	
MANUFACTURER W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7405 LINDEN COURT PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424	
CERTIFICATION DEC 14 2015 W. W. SCHAEFER, P.E. W. W. SCHAEFER, P.E. W. W. SCHAEFER, P.E.	
DRAWING NO. 1396	REV. B
SHEET NO. 5 of 9	



LOAD TABLE 1.0									
MAXIMUM MULLION LENGTH (IN.)	MAXIMUM LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (PSF)							
		4X1X1/8 TUBE	4X2X1/8 TUBE	4X2X1/4 OR 5X2X1/8 TUBE	5X2X1/4 TUBE	CONNECTION TYPES			
						"A" "F" & "G"	"B" "D" & "J"	"C" & "H"	"E"
60	48	85.0	85.0	85.0	85.0	76.0	85.0	85.0	85.0
	54	85.0	85.0	85.0	85.0	73.7	85.0	85.0	85.0
	60	81.5	85.0	85.0	85.0	73.0	85.0	85.0	85.0
66	30	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
	36	85.0	85.0	85.0	85.0	76.0	85.0	85.0	85.0
	42	85.0	85.0	85.0	85.0	69.5	85.0	85.0	85.0
	48	84.2	85.0	85.0	85.0	65.1	85.0	85.0	85.0
	54	74.9	85.0	85.0	85.0	62.4	85.0	85.0	85.0
	60	67.4	85.0	85.0	85.0	60.8	85.0	85.0	85.0
	66	61.2	85.0	85.0	85.0	60.3	85.0	85.0	85.0
72	24	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
	30	85.0	85.0	85.0	85.0	76.8	85.0	85.0	85.0
	36	85.0	85.0	85.0	85.0	67.6	85.0	85.0	85.0
	42	80.6	85.0	85.0	85.0	61.3	85.0	85.0	85.0
	48	70.6	85.0	85.0	85.0	57.0	85.0	85.0	85.0
	54	62.7	85.0	85.0	85.0	54.0	85.0	85.0	85.0
	60	56.4	82.5	85.0	85.0	52.1	85.0	85.0	85.0
78	66	51.3	75.0	85.0	85.0	51.0	85.0	85.0	85.0
	72	47.0	68.7	85.0	85.0	50.7	85.0	85.0	85.0
	24	85.0	85.0	85.0	85.0	82.9	85.0	85.0	85.0
	30	85.0	85.0	85.0	85.0	69.5	85.0	85.0	85.0
	36	74.0	85.0	85.0	85.0	60.8	85.0	85.0	85.0
	42	63.4	85.0	85.0	85.0	54.9	85.0	85.0	85.0
	48	55.5	81.1	85.0	85.0	50.7	85.0	85.0	85.0
84	54	49.3	72.1	85.0	85.0	47.7	85.0	85.0	85.0
	60	44.4	64.9	85.0	85.0	45.6	85.0	85.0	85.0
	66	40.4	59.0	85.0	85.0	44.2	85.0	85.0	85.0
	72	37.0	54.0	82.1	85.0	43.4	85.0	85.0	85.0
	24	85.0	85.0	85.0	85.0	76.0	85.0	85.0	85.0
	30	71.1	85.0	85.0	85.0	63.4	85.0	85.0	85.0
	36	59.2	85.0	85.0	85.0	55.3	85.0	85.0	85.0
90	42	50.8	74.2	85.0	85.0	49.6	85.0	85.0	85.0
	48	44.4	64.9	85.0	85.0	45.6	85.0	85.0	85.0
	54	39.5	57.7	85.0	85.0	42.7	85.0	85.0	85.0
	60	35.5	51.9	85.0	85.0	40.5	81.1	85.0	85.0
	66	32.3	47.2	77.3	85.0	39.0	78.0	85.0	85.0
	72	29.6	43.3	70.8	85.0	38.0	76.0	85.0	85.0
	18	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
96	24	72.2	85.0	85.0	85.0	70.2	85.0	85.0	85.0
	30	57.8	84.4	85.0	85.0	58.4	85.0	85.0	85.0
	36	48.2	70.4	85.0	85.0	50.7	85.0	85.0	85.0
	42	41.3	60.3	85.0	85.0	45.3	85.0	85.0	85.0
	48	36.1	52.8	85.0	85.0	41.5	82.9	85.0	85.0
	54	32.1	46.9	82.0	85.0	38.6	77.2	85.0	85.0
	60	28.9	42.2	73.8	85.0	36.5	73.0	85.0	85.0
90	66	26.3	38.4	67.1	85.0	34.9	69.8	85.0	85.0
	72	-	35.2	61.5	85.0	33.8	67.6	85.0	85.0

INSTRUCTIONS FOR TABLE USE:

1. DETERMINE REQUIRED WIND PRESSURE FOR THE OPENING.
2. DETERMINE THE MULLION LENGTH & LOAD WIDTH USING THE APPLICABLE ELEVATION ON SHEETS 1 & 2.
3. CHOOSE A TUBE SIZE THAT MEETS OR EXCEEDS THE REQUIRED PRESSURE FOR THE APPLICABLE MULLION LENGTH & LOAD WIDTH CONDITIONS.
4. CHOOSE A CONNECTION TYPE THAT MEETS OR EXCEEDS THE REQUIRED PRESSURE FOR THE APPLICABLE MULLION LENGTH & LOAD WIDTH CONDITIONS.

LOAD TABLE 1.0 (CONT.)									
MAXIMUM MULLION LENGTH (IN.)	MAXIMUM LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (PSF)							
		4X1X1/8 TUBE	4X2X1/8 TUBE	4X2X1/4 OR 5X2X1/8 TUBE	5X2X1/4 TUBE	CONNECTION TYPES			
						"A" "F" & "G"	"B" "D" & "J"	"C" & "H"	"E"
96	18	79.4	85.0	85.0	85.0	85.0	85.0	85.0	85.0
	24	59.5	85.0	85.0	85.0	85.0	85.0	85.0	85.0
	30	47.6	69.6	85.0	85.0	85.0	85.0	85.0	85.0
	36	39.7	58.0	85.0	85.0	85.0	85.0	85.0	85.0
	42	34.0	49.7	85.0	85.0	83.4	83.4	85.0	85.0
	48	29.8	43.5	76.0	85.0	38.0	76.0	85.0	85.0
	54	26.5	38.7	67.6	85.0	35.2	70.5	85.0	85.0
	60	-	34.8	60.8	85.0	33.2	66.3	85.0	85.0
	66	-	31.6	55.3	85.0	31.6	63.2	85.0	85.0
	72	-	29.0	50.7	85.0	30.4	60.8	85.0	85.0
	18	66.2	85.0	85.0	85.0	78.5	85.0	85.0	85.0
	24	49.6	72.5	85.0	85.0	60.8	85.0	85.0	85.0
102	30	39.7	58.0	85.0	85.0	50.3	85.0	85.0	85.0
	36	33.1	48.3	84.5	85.0	43.4	85.0	85.0	85.0
	42	28.4	41.4	72.5	85.0	38.6	77.2	85.0	85.0
	48	24.8	36.3	63.4	85.0	35.1	70.2	85.0	85.0
	54	-	32.2	56.4	85.0	32.4	64.9	85.0	85.0
	60	-	29.0	50.7	85.0	30.4	60.8	85.0	85.0
	66	-	26.4	46.1	83.7	28.8	57.7	85.0	85.0
	72	-	-	42.3	76.7	27.6	55.3	82.1	85.0
	18	55.7	81.4	85.0	85.0	73.7	85.0	85.0	85.0
	24	41.8	61.1	85.0	85.0	57.0	85.0	85.0	85.0
	30	33.4	48.9	85.0	85.0	47.1	85.0	85.0	85.0
	36	27.9	40.7	71.2	85.0	40.5	81.1	85.0	85.0
108	42	-	34.9	61.0	85.0	35.9	71.9	85.0	85.0
	48	-	30.5	53.4	85.0	32.6	65.1	85.0	85.0
	54	-	27.1	47.5	85.0	30.0	60.0	85.0	85.0
	60	-	-	42.7	77.5	28.1	56.1	83.3	85.0
	66	-	-	38.8	70.5	26.5	53.1	78.8	85.0
	72	-	-	35.6	64.6	25.3	50.7	75.2	85.0
	18	40.6	59.4	85.0	85.0	65.7	85.0	85.0	85.0
	24	30.5	44.5	77.9	85.0	50.7	85.0	85.0	85.0
	30	24.4	35.6	62.3	85.0	41.7	83.4	85.0	85.0
	36	-	29.7	51.9	85.0	35.8	71.5	85.0	85.0
	42	-	25.4	44.5	80.7	31.6	63.2	85.0	85.0
	48	-	-	38.9	70.6	28.5	57.0	84.6	85.0
120	54	-	-	34.6	62.8	26.2	52.3	77.6	85.0
	60	-	-	31.1	56.5	-	48.6	72.2	85.0
	66	-	-	28.3	51.4	-	45.7	67.9	85.0
	72	-	-	26.0	47.1	-	43.4	64.5	85.0
	18	-	51.3	85.0	85.0	62.4	85.0	85.0	85.0
	24	-	38.5	67.3	85.0	48.0	85.0	85.0	85.0
	30	-	30.8	53.8	85.0	39.4	78.9	85.0	85.0
	36	-	25.6	44.8	81.4	33.8	67.6	85.0	85.0
	42	-	-	38.4	69.7	29.8	59.6	85.0	85.0
	48	-	-	33.6	61.0	26.8	53.6	79.6	85.0
	54	-	-	29.9	54.2	-	49.1	72.9	85.0
	60	-	-	26.9	48.8	-	45.6	67.7	85.0
	66	-	-	24.5	44.4	-	42.8	63.5	85.0

TABLE NOTES:

1. ALL TUBES SHALL BE MIN. 6063-T6 ALUMINUM.
2. FOR ALL CONNECTION TYPES, SEE SHEETS 3, 4, 5 & 6 FOR DETAIL.
3. INDIVIDUAL UNIT SIZES & SHUTTER REQUIREMENTS ARE LIMITED BY THEIR OWN INDIVIDUAL "CERTIFICATION".
4. IN ORDER TO SIMPLIFY TABLES, TABLE PRESSURES ARE LIMITED TO 85 PSF. USE OF THESE MULLIONS FOR PRESSURES HIGHER THAN 85 PSF SHALL BE REVIEWED UNDER SEPARATE APPROVAL.
5. THESE LOAD TABLES ARE CERTIFIED AS CORRECT IN CONTENT. HOWEVER, CHOOSING OF THE CORRECT MULLION & CONNECTION FROM THESE TABLES FOR ITS SPECIFIC USE IS THE RESPONSIBILITY OF THOSE USING THE TABLES AND SHOULD BE VERIFIED BY THE BUILDING OFFICIAL OR A FLORIDA CERTIFIED ENGINEER.

DRAWN BY: K.P.S.		CHECKED BY: W.W.S.	
PLOT: 1=1		DATE: 03/07/08	
NO.	REVISION	DESCRIPTION	DATE
ALUMINUM TUBE CLIPPED MULLIONS CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 ESTABLISHMENT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424			
MANUFACTURER C.P. LOEWEN ENTERPRISES 77 P.T.H. 52 WEST, BOX 2260 STEINGACH, MB CANADA R5G 1B2 204-328-6446			
CERTIFICATION I, W. W. SCHAEFER , P.E. License No. 1396 Date: DEC 14 2015			
DRAWING NO. 1396		REV. B	
SHEET NO. 7 OF 9			

LOAD TABLE 3.0									
MAXIMUM MULLION LENGTH (IN.)	MAXIMUM LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (PSF)							
		4X1X1/8 TUBE	4X2X1/8 TUBE	4X2X1/4 OR 5X2X1/8 TUBE	CONNECTION TYPES				E"
					"A" "F" & "G"	"B" "D" & "H"	"C" "E" & "J"	"D" "E" & "H"	
36	60	85.0	85.0	85.0	85.0	60.8	85.0	85.0	85.0
	66	85.0	85.0	85.0	85.0	55.3	85.0	85.0	85.0
	72	85.0	85.0	85.0	85.0	50.7	85.0	85.0	85.0
	48	85.0	85.0	85.0	85.0	65.1	85.0	85.0	85.0
42	54	85.0	85.0	85.0	85.0	57.9	85.0	85.0	85.0
	60	85.0	85.0	85.0	85.0	52.1	85.0	85.0	85.0
	66	85.0	85.0	85.0	85.0	47.4	85.0	85.0	85.0
	72	85.0	85.0	85.0	85.0	43.4	85.0	85.0	85.0
48	42	85.0	85.0	85.0	85.0	65.1	85.0	85.0	85.0
	48	85.0	85.0	85.0	85.0	57.0	85.0	85.0	85.0
	54	85.0	85.0	85.0	85.0	50.7	85.0	85.0	85.0
	60	85.0	85.0	85.0	85.0	45.6	85.0	85.0	85.0
54	66	85.0	85.0	85.0	85.0	41.5	85.0	85.0	85.0
	72	85.0	85.0	85.0	85.0	38.0	76.0	74.6	85.0
	36	85.0	85.0	85.0	85.0	67.6	85.0	85.0	85.0
	42	85.0	85.0	85.0	85.0	57.9	85.0	85.0	85.0
60	48	85.0	85.0	85.0	85.0	50.7	85.0	85.0	85.0
	54	85.0	85.0	85.0	85.0	45.0	85.0	85.0	85.0
	60	85.0	85.0	85.0	85.0	40.5	81.1	85.0	85.0
	66	85.0	85.0	85.0	85.0	36.8	73.7	85.0	85.0
66	72	83.9	85.0	85.0	85.0	33.8	67.6	85.0	85.0
	36	85.0	85.0	85.0	85.0	60.8	85.0	85.0	85.0
	42	85.0	85.0	85.0	85.0	52.1	85.0	85.0	85.0
	48	85.0	85.0	85.0	85.0	45.6	85.0	85.0	85.0
72	54	85.0	85.0	85.0	85.0	40.5	81.1	85.0	85.0
	60	81.5	85.0	85.0	85.0	36.5	73.0	85.0	85.0
	66	74.1	85.0	85.0	85.0	33.2	66.3	85.0	85.0
	72	67.9	85.0	85.0	85.0	30.4	60.8	85.0	85.0
78	30	85.0	85.0	85.0	85.0	66.3	85.0	85.0	85.0
	36	85.0	85.0	85.0	85.0	55.3	85.0	85.0	85.0
	42	85.0	85.0	85.0	85.0	47.4	85.0	85.0	85.0
	48	84.2	85.0	85.0	85.0	41.5	82.9	85.0	85.0
84	54	74.9	85.0	85.0	85.0	36.8	73.7	85.0	85.0
	60	67.4	85.0	85.0	85.0	33.2	66.3	85.0	85.0
	66	61.2	85.0	85.0	85.0	30.1	60.3	85.0	85.0
	72	56.1	82.0	85.0	85.0	27.6	55.3	82.1	85.0
90	30	85.0	85.0	85.0	85.0	60.8	85.0	85.0	85.0
	36	85.0	85.0	85.0	85.0	50.7	85.0	85.0	85.0
	42	80.6	85.0	85.0	85.0	43.4	85.0	85.0	85.0
	48	70.6	85.0	85.0	85.0	38.0	76.0	85.0	85.0
96	54	62.7	85.0	85.0	85.0	33.8	67.6	85.0	85.0
	60	56.4	82.5	85.0	85.0	30.4	60.8	85.0	85.0
	66	51.3	75.0	85.0	85.0	27.6	55.3	82.1	85.0
	72	47.0	68.7	85.0	85.0	25.3	50.7	75.2	85.0
102	78	43.4	63.4	85.0	85.0	21.6	46.8	69.4	85.0
	84	40.3	58.9	82.6	85.0	19.4	43.4	64.5	85.0
	90	37.6	55.0	77.1	85.0	17.1	40.5	60.2	82.1
	30	85.0	85.0	85.0	85.0	56.1	85.0	85.0	85.0
108	36	74.0	85.0	85.0	85.0	46.8	85.0	85.0	85.0
	42	63.4	85.0	85.0	85.0	40.1	80.2	85.0	85.0
	48	55.5	81.1	85.0	85.0	35.1	70.2	85.0	85.0
	54	49.3	72.1	85.0	85.0	31.2	62.4	85.0	85.0
114	60	44.4	64.9	85.0	85.0	28.1	56.1	83.3	85.0
	66	40.4	59.0	85.0	85.0	25.5	51.0	75.7	85.0
	72	37.0	54.0	82.1	85.0	22.8	46.8	69.4	85.0
	78	34.1	49.9	75.8	85.0	20.4	43.2	64.1	85.0
120	84	31.7	46.3	70.4	85.0	18.1	40.1	59.5	81.2
	90	29.6	43.2	65.7	85.0	16.1	37.4	55.5	75.8
	30	71.1	85.0	85.0	85.0	52.1	85.0	85.0	85.0
	36	59.2	85.0	85.0	85.0	43.4	85.0	85.0	85.0
126	42	50.8	74.2	85.0	85.0	37.2	74.4	85.0	85.0
	48	44.4	64.9	85.0	85.0	32.6	65.1	85.0	85.0
	54	39.5	57.7	85.0	85.0	29.0	57.9	85.0	85.0
	60	35.5	51.9	85.0	85.0	26.1	52.1	77.4	85.0
132	66	32.3	47.2	77.3	85.0	23.4	47.4	70.3	85.0
	72	29.6	43.3	70.8	85.0	20.8	43.4	64.5	85.0
	78	27.3	39.9	65.4	85.0	18.7	40.1	59.5	81.2
	84	25.1	37.1	60.7	85.0	16.7	37.2	55.3	75.4
138	90	23.1	34.6	56.7	85.0	14.7	34.7	51.6	70.4

LOAD TABLE 3.0									
MAXIMUM MULLION LENGTH (IN.)	MAXIMUM LOAD WIDTH (IN.) A+B	ALLOWABLE PRESSURE (PSF)							
		4X1X1/8 TUBE	4X2X1/8 TUBE	4X2X1/4 OR 5X2X1/8 TUBE	CONNECTION TYPES				
					"A" "F" & "G"	"B" "D" & "J"	"C" & "H"	"E"	
90	30	57.8	84.4	85.0	85.0	48.6	85.0	85.0	85.0
	36	48.2	70.4	85.0	85.0	40.5	81.1	85.0	85.0
	42	41.3	60.3	85.0	85.0	34.7	69.5	85.0	85.0
	48	36.1	52.8	85.0	85.0	30.4	60.8	85.0	85.0
	54	32.1	46.9	82.0	85.0	27.0	54.0	80.2	85.0
	60	28.9	42.2	73.8	85.0	—	48.6	72.2	85.0
	66	26.3	38.4	67.1	85.0	—	44.2	65.6	85.0
	72	—	35.2	61.5	85.0	—	40.5	60.2	82.1
	78	—	32.5	56.8	85.0	—	37.4	55.5	75.8
	84	—	30.2	52.7	85.0	—	34.7	51.6	70.4
96	90	—	28.1	49.2	85.0	—	32.4	48.1	65.7
	30	47.6	69.6	85.0	85.0	45.6	85.0	85.0	85.0
	36	39.7	58.0	85.0	85.0	38.0	76.0	85.0	85.0
	42	34.0	49.7	85.0	85.0	32.6	65.1	85.0	85.0
	48	29.8	43.5	76.0	85.0	28.5	57.0	84.6	85.0
	54	26.5	38.7	67.6	85.0	25.3	50.7	75.2	85.0
	60	—	34.8	60.8	85.0	—	45.6	67.7	85.0
	66	—	31.6	55.3	85.0	—	41.5	61.5	84.0
	72	—	29.0	50.7	85.0	—	38.0	56.4	77.0
	78	—	—	46.8	84.9	—	35.1	52.1	71.1
108	84	—	—	43.5	78.8	—	32.6	48.4	66.0
	90	—	—	40.6	73.5	—	30.4	45.1	61.6
	30	33.4	48.9	85.0	85.0	40.5	81.1	85.0	85.0
	36	27.9	40.7	71.2	85.0	33.8	67.6	85.0	85.0
	42	—	34.9	61.0	85.0	29.0	57.9	85.0	85.0
	48	—	30.5	53.4	85.0	25.3	50.7	75.2	85.0
	54	—	27.1	47.5	85.0	—	45.0	66.9	85.0
	60	—	—	42.7	77.5	—	40.5	60.2	82.1
	66	—	—	38.8	70.5	—	36.8	54.7	74.7
	72	—	—	35.6	64.6	—	33.8	50.1	68.4
120	78	—	—	32.9	59.6	—	31.2	46.3	63.2
	84	—	—	30.5	55.4	—	29.0	43.0	58.7
	90	—	—	28.5	51.7	—	27.0	40.1	54.8
	30	—	35.6	62.3	85.0	36.5	73.0	85.0	85.0
	36	—	29.7	51.9	85.0	30.4	60.8	85.0	85.0
	42	—	25.4	44.5	80.7	26.1	52.1	77.4	85.0
	48	—	—	38.9	70.6	—	45.6	67.7	85.0
	54	—	—	34.6	62.8	—	40.5	60.2	82.1
	60	—	—	31.1	56.5	—	36.5	54.2	73.9
	66	—	—	28.3	51.4	—	33.2	49.2	67.2
132	72	—	—	47.1	—	—	30.4	45.1	61.6
	78	—	—	43.5	—	—	28.1	41.7	56.9
	84	—	—	40.4	—	—	26.1	38.7	52.8
	90	—	—	37.7	—	—	24.3	36.7	48.9
	30	—	46.8	70.8	33.2	66.3	85.0	85.0	85.0
	36	—	39.0	64.9	27.6	55.3	82.1	85.0	85.0
	42	—	33.4	60.7	—	47.4	70.3	85.0	85.0
	48	—	29.3	53.1	—	41.5	61.5	84.0	85.0
	54	—	—	47.2	—	36.8	54.7	74.7	85.0
	60	—	—	42.5	—	33.2	49.2	67.2	85.0
144	66	—	—	38.6	—	30.1	44.8	61.1	85.0
	72	—	—	35.4	—	27.6	41.0	56.0	85.0
	78	—	—	32.7	—	25.5	37.9	51.7	85.0
	84	—	—	30.3	—	23.7	35.2	48.0	85.0
	90	—	—	28.3	—	22.1	32.8	44.8	85.0
	30	—	36.0	65.4	30.4	60.8	85.0	85.0	85.0
	36	—	30.0	54.5	25.3	50.7	75.2	85.0	85.0
	42	—	25.7	46.7	—	43.4	64.5	85.0	85.0
	48	—	—	40.9	—	38.0	56.4	77.0	85.0
	54	—	—	36.3	—	33.8	50.1	68.4	85.0
152	60	—	—	32.7	—	30.4	45.1	61.6	85.0
	66	—	—	29.7	—	27.6	41.0	56.0	85.0
	72	—	—	26.8	28.8	57.6	85.0	85.0	85.0
	30	—	—	48.3	—	48.0	71.3	85.0	85.0
	36	—	—	39.7	—	41.1	61.1	83.4	85.0
	42	—	—	34.8	—	36.0	53.4	72.9	85.0
	48	—	—	30.9	—	32.0	47.5	64.8	85.0
	54	—	—	27.9	26.7	53.4	79.3	85.0	85.0
	60	—	—	24.9	—	44.5	66.0	85.0	85.0
	66	—	—	21.7	—	38.1	56.6	77.3	85.0
164	72	—	—	18.6	—	33.4	49.5	67.3	85.0
	78	—	—	16.6	—	30.4	45.1	61.6	85.0