

PELLA CORPORATION

STRUCTURAL MULLIONS 3" AND 4-1/4"

INSTALLATION ANCHORAGE DETAILS

GENERAL NOTES:

1. THIS PRODUCT HAS BEEN EVALUATED AND IS DESIGNED TO COMPLY WITH THE CURRENT EDITION OF THE FLORIDA BUILDING CODE - BUILDING AND RESIDENTIAL VOLUMES AND IS ACCEPTABLE FOR USE WITH NON-IMPACT AND IMPACT RATED FENESTRATION PRODUCTS IN WIND ZONE 3 AND BELOW AS DEFINED IN ASTM E1996-14A AND MODIFIED BY CHAPTER 16 OF THE FBC. THIS PRODUCT EVALUATION DOCUMENT IS NOT FOR USE IN THE HIGH VELOCITY HURRICANE ZONE (HVHZ).
2. ADEQUACY OF THE EXISTING STRUCTURAL CONCRETE / MASONRY, 2X FRAMING AND METAL FRAMING SUBSTRATES AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE LICENSED PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT ACTING AS THE DESIGN PROFESSIONAL OF RECORD FOR THE PROJECT OF INSTALLATION.
3. 1X AND 2X BUCKS (WHEN USED) SHALL BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO THE STRUCTURE. BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE LICENSED PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT ACTING AS THE DESIGN PROFESSIONAL OF RECORD FOR THE PROJECT OF INSTALLATION.
4. WHEN INSTALLED IN LOCATIONS WHERE WINDBORNE DEBRIS PROTECTION REQUIREMENTS EXIST, THIS PRODUCT SHALL CONFORM TO THE FOLLOWING.

4.1. WHEN USED WITH NON-IMPACT WINDOWS:

4.1.1. USE OF AN IMPACT PROTECTIVE SYSTEM COMPLYING WITH THE FBC REQUIREMENTS FOR WINDBORNE DEBRIS REGIONS IS REQUIRED FOR THE PRODUCT(S) HEREIN.

4.2. WHEN USED WITH IMPACT WINDOWS:

4.2.1. USE OF AN IMPACT PROTECTIVE SYSTEM COMPLYING WITH THE FBC REQUIREMENTS FOR WINDBORNE DEBRIS REGIONS IS NOT REQUIRED FOR THE PRODUCT(S) HEREIN.
5. SEPERATE PRODUCT EVALUATION DOCUMENTS (PED) FOR EACH GLAZING PRODUCT USED IN CONJUNCTION WITH THESE MULLIONS MUST BE SUBMITTED ALONG WITH THIS PRODUCT EVALUATION DOCUMENT.
6. THE INSTALLATION DETAILS DESCRIBED IN THIS PRODUCT EVALUATION DOCUMENT ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED IN THIS PRODUCT EVALUATION DOCUMENT, SITE SPECIFIC DOCUMENTS SHALL BE PREPARED FOR USE WITH THIS DOCUMENT BY A LICENSED PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT
7. FOR MULLION DESIGN PRESSURE RATINGS SEE APPROPRIATE LOAD SPAN RATING TABLES AS LISTED IN THE TABLE OF CONTENTS.
8. THE DESIGN PRESSURE RATING OF THE ASSEMBLY SHALL BE THE LESSER OF THE LOAD CAPACITY OF THE MULLION AS DETERMINED USING THIS PRODUCT EVALUATION DOCUMENT OR THE CERTIFIED DESIGN PRESSURE RATING OF THE INDIVIDUAL GLAZING PRODUCTS USED.
9. BOUNDING BOX DIMENSIONS FOR GEOMETRIC TRANSOM SHAPES MUST BE EQUAL TO OR LESS THAN RECTANGULAR TRANSOM DIMENSIONS SHOWN HEREIN.
10. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE CURRENT EDITION OF THE FLORIDA BUILDING CODE - BUILDING AND RESIDENTIAL VOLUMES.
11. APPROVED TWIN UNITS OR APPROVED SINGLES CAN BE USED IN MULLION CONFIGURATIONS. THE VERTICAL AND HORIZONTAL MULLION CONFIGURATIONS CAN BE COMBINED TO MULL MULTIPLE SINGLE UNITS TOGETHER.

INSTALLATION NOTES:

1. PRODUCT ANCHORS SHALL BE AS DESIGNATED AND LOCATED AS SHOWN IN THIS PRODUCT EVALUATION DOCUMENT. ANCHOR EMBEDMENT AND EDGE DISTANCE EXCLUDE WALL FINISHES, INCLUDING BUT NOT LIMITED TO STUCCO, FOAM, BRICK VENEER AND SIDING.
2. SEE INSTALLATION ANCHOR SCHEDULE FOR TYPE AND GRADE OF ANCHOR, AND/OR MANUFACTURER'S ANCHOR SPECIFICATIONS, MINIMUM NOMINAL SIZE, MINIMUM EMBEDMENT INTO SUBSTRATE AND MINIMUM EDGE DISTANCES.

2.1. EDGE DISTANCES SHALL BE MEASURED FROM CENTERLINE OF ANCHOR TO EDGE OF STRUCTURAL SUBSTRATE EITHER TO THE INTERIOR OR EXTERIOR OF THE FENESTRATION PRODUCT.

2.2. SEE SHEET 2 FOR ILLUSTRATION OF ANCHOR EDGE DISTANCE AND SPACING.

2.3. MINIMUM EMBEDMENT SHALL BE BASED ON PENETRATION INTO MAIN WIND FORCE RESISTING SYSTEM SUBSTRATE.
3. SEE SHEETS 6 THROUGH 9 FOR SPECIFIC ANCHOR INSTALLATION DETAILS.

TABLE OF CONTENTS	
SHEET	SHEET DESCRIPTION
1	GENERAL NOTES AND ANCHOR SCHEDULE
2	APPROVED MULLED WINDOW CONFIGURATIONS AND MULLIONS
3	3" MULLION LOAD TABLE
4	4.25" MULLION LOAD TABLE
5	4.25" REINFORCED MULLION LOAD TABLE
6	3" MULLION CLIP ANCHOR DETAILS - TYPE A
7	3" MULLION CLIP ANCHOR DETAILS - TYPE B
8	4.25" MULLION CLIP ANCHOR DETAILS - TYPE A
9	4.25" MULLION CLIP ANCHOR DETAILS - TYPE B

INSTALLATION ANCHOR SCHEDULE									
CONNECTION	SUBSTRATE	HEAD TYPE	SIZE	MANUFACTURER AND/OR SPECIFICATION	MIN. EMBEDMENT (IN)	MIN. EDGE DISTANCE (IN)	MIN. SPACING (IN)	CAPACITIES USED IN ENGINEERING (LBS/ANCHOR)	CAPACITIES BASED ON
MULLION TO SUBSTRATE	CONCRETE	FLAT OR PAN HEAD	3/16"	ITW TAPCONS (3)	1-3/4"	1-1/8"	2"	208 lbs (2)	MIN. 2000 PSI CONCRETE
				ELCO CRETE-FLEX SS4	2"	1-7/8"	2"	208 lbs	MIN. 2500 PSI CONCRETE
				HILTI KWIK-CON II	1-1/2"	1-1/8"	2"	208 lbs	MIN. 2000 PSI CONCRETE
	MASONRY (BLOCK/CMU)	FLAT OR PAN HEAD	3/16"	ITW TAPCONS (3)	1"	2"	3"	205 lbs (2)	STRENGTH CONFORMANCE TO ASTM C-90, MEDIUM WEIGHT
				ELCO CRETE-FLEX SS4	1-1/4"	1-7/8"	3"	205 lbs	
				HILTI KWIK-CON II	1"	1-1/8"	3"	205 lbs	
	WOOD (1)	FLAT OR PAN HEAD	NO. 10	ANSI B18.6.1 (WOOD SCREW) ASME B18.6.4 (TAPPING SCREW)	1-1/2"	3/4"	3/4"	143 lbs	WOOD WITH A MINIMUM SPECIFIC GRAVITY OF 0.42
	1/8" THK. ALUMINUM	FLAT OR PAN HEAD	NO. 10	ASME B18.6.4 (TAPPING SCREW)	FULLY PENETRATE SUBSTRATE WITH 3 THREADS PROTRUDING INTERNALLY	3/8"	5/8"	172 lbs	ALUMINUM 6063-T5 ALUMINUM OR BETTER
	1/8" THK. STEEL	FLAT OR PAN HEAD	NO. 10	ASME B18.6.4 (TAPPING SCREW)		3/8"	5/8"	172 lbs	ASTM A-36 STEEL, 36 KSI YIELD STRENGTH STEEL OR BETTER
	20 GAUGE (0.0346" MIN. THK.) STEEL INCLUDING STEEL STUDS	FLAT OR PAN HEAD	NO. 10	ASME B18.6.4 (TAPPING SCREW)		3/8"	5/8"	172 lbs	ASTM A-653 STEEL, 33 KSI YIELD STRENGTH STEEL OR BETTER
MULLION TO MULLION	ALUMINUM 6063-T6	FLAT OR PAN HEAD	NO. 10	ASME B18.6.4 (TAPPING SCREW)		3/8"	5/8"	172 lbs	ALUMINUM 6063-T6 ALUMINUM OR BETTER
NOTES:									
1) FOR WOOD AND TAPPING SCREWS IF SPLITTING IS A CONCERN, DRILL 7/64" HOLE FOR NO. 10 WOOD SCREW AND NO. 10 TAPPING SCREW.									
2) ITW TAPCONS CONCRETE AND MASONRY (BLOCK/CMU) ANCHOR CAPACITIES ARE BASED ON PAIRS OF ANCHORS AT THE SPACING SHOWN. THE PER ANCHOR CAPACITY IS SHOWN AND MUST BE DOUBLED TO ARRIVE AT THE PAIRED ANCHOR CAPACITY.									
3) WHEN ITW TAPCONS ARE USED FOR CONCRETE/MASONRY INSTALLATION, THEY SHALL BE THE ADVANCED THREADFORM TECHNOLOGY TYPE.									

PROJECT # 420-0804				
	UPDATED TO 7TH EDITION (2020) FBC	9/9/20	RA	
	UPDATED TO 6TH EDITION (2017) FBC	1/10/18	RA	
	UPDATED TO 5TH EDITION (2014) FBC	05/20/15	RA	
	DESCRIPTION	DATE	BY	
	REV			

PELLA CORPORATION

102 MAIN STREET

PELLA, IA 50219

TITLE:

3" & 4.25" STRUCTURAL MULLIONS

GENERAL NOTES AND ANCHOR SCHEDULE

DRAWN BY:

RJA

DATE:

05/25/11

SCALE:

N.T.S.

DRAWING NO:

PELL0001

REV:

D

SHEET:

1 OF 9

PTC PRODUCT DESIGN GROUP, LLC

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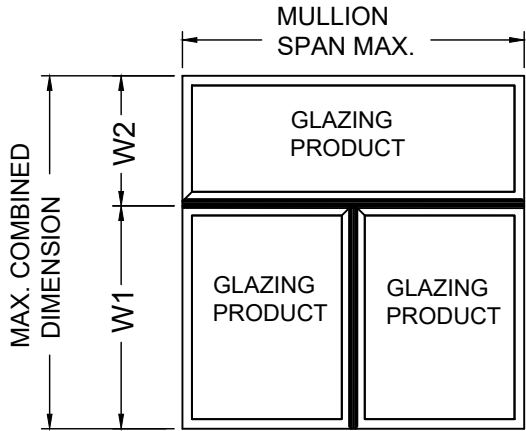
Robert J. Amoruso, P.E.

Florida P.E. No. 49752

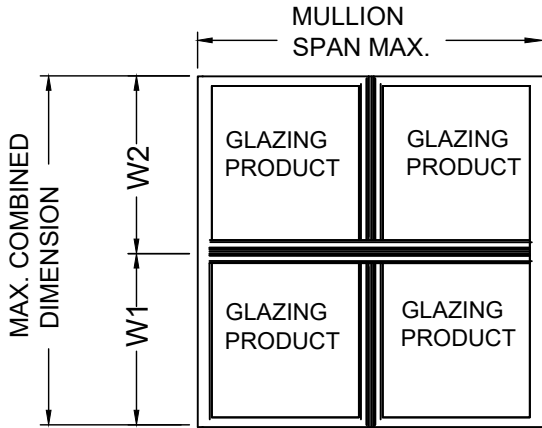
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Date: 2020.09.09 16:07:05 -04'00'

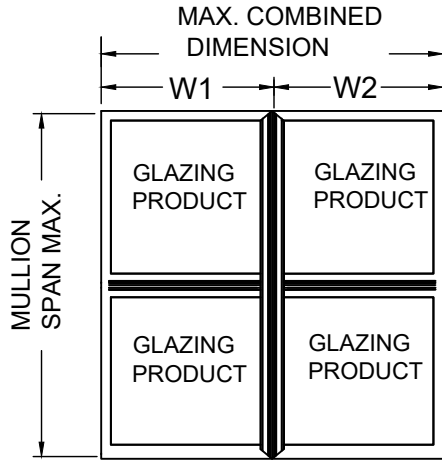
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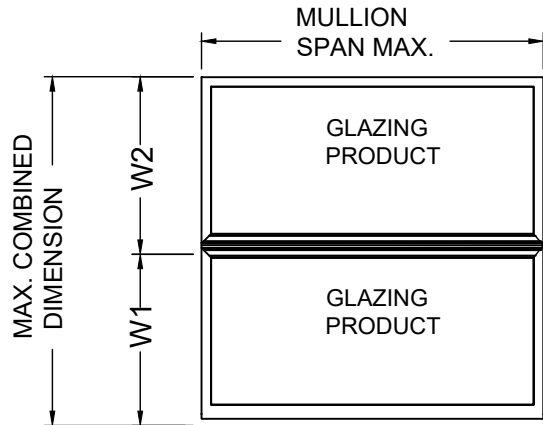
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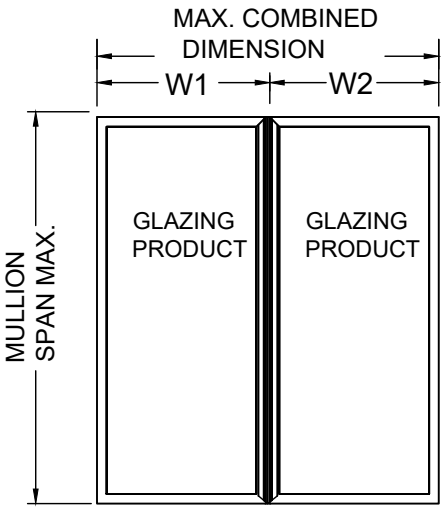
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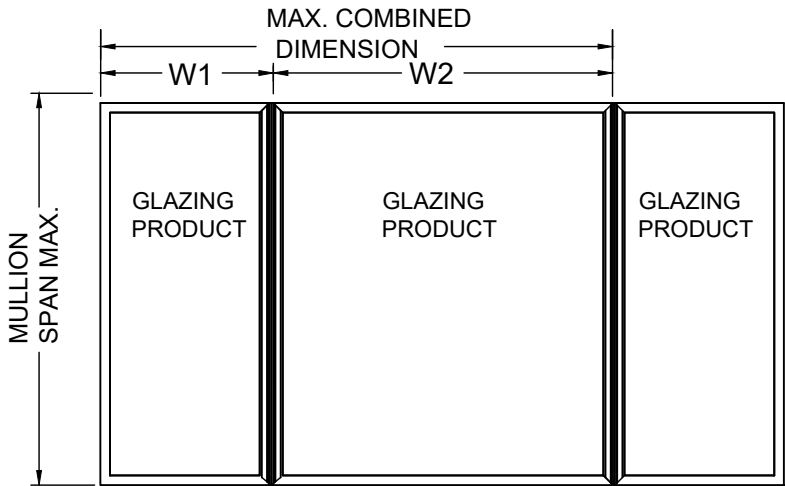
4-WAY VERTICAL MULLION CONFIGURATION



HORIZONTAL MULLION CONFIGURATION



2-WAY VERTICAL MULLION CONFIGURATION

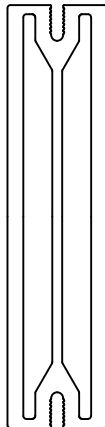


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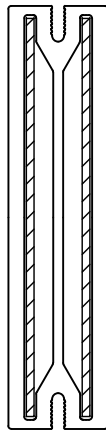
STRUCTURAL BEAM MULLIONS



3" MULLION

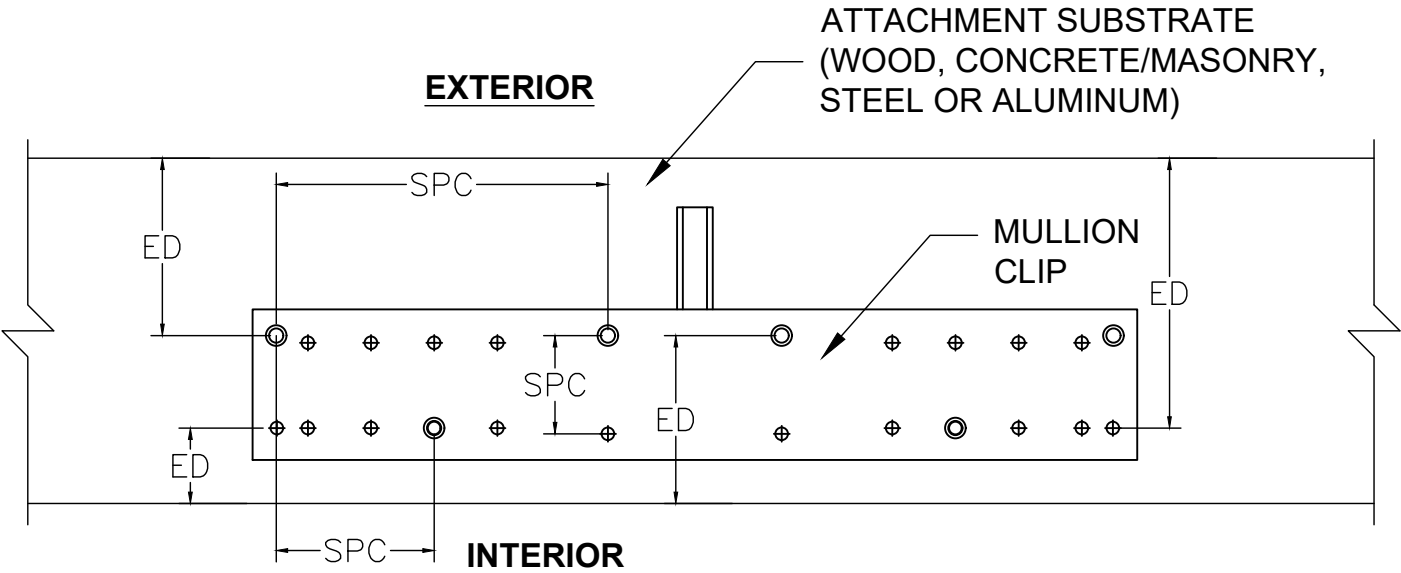


4-1/4" MULLION



4-1/4" MULLION WITH REINFORCEMENT

EDGE DISTANCE AND SPACING DESCRIPTION



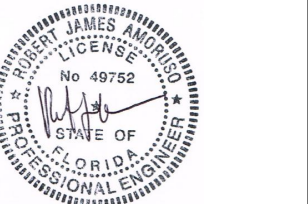
EDGE DISTANCES (ED) WILL BE MEASURED FROM CENTERLINE OF ANCHOR TO EDGE OF STRUCTURAL SUBSTRATE (EXCLUDING WALL FINISHES) EITHER TO THE INTERIOR OR EXTERIOR OF THE FENESTRATION PRODUCT.

SPACING (SPC) WILL BE MEASURED FROM THE CLOSEST ADJACENT ANCHORS, CENTERLINE TO CENTERLINE OF ANCHOR.

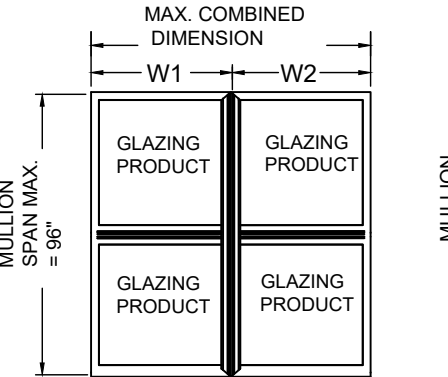
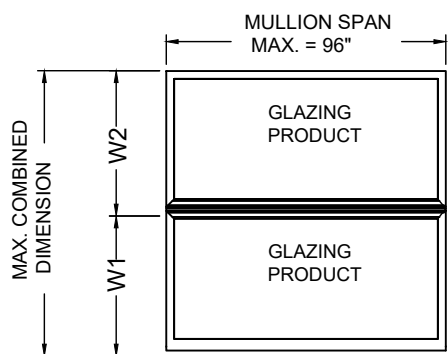
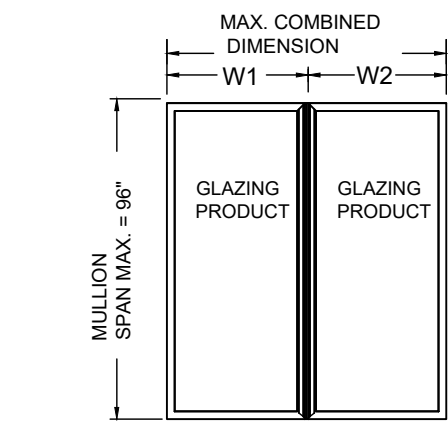
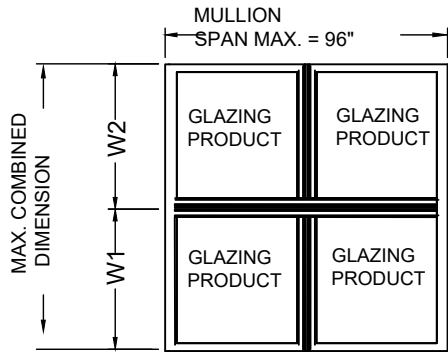
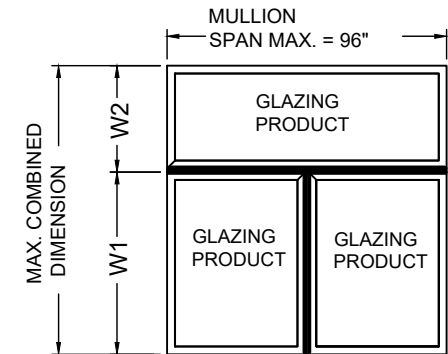
PROJECT # 420-0804		RA	RA	RA	BY
UPDATED TO 7TH EDITION (2020) FBC	9/9/20				DATE
UPDATED TO 6TH EDITION (2017) FBC	1/10/18				
UPDATED TO 5TH EDITION (2014) FBC	05/20/15				
REV	DESCRIPTION	B	C	D	

PELLA CORPORATION 102 MAIN STREET PELLA, IA 50219		3" & 4.25" STRUCTURAL MULLIONS APPROVED MULLED WINDOW CONFIGURATIONS AND MULLIONS		DATE: 05/25/11	DRAWING NO: PELL0001	SHEET: 2 OF 9	
DRAWN BY: RJA		SCALE: N.T.S.		REV: D	SHEET: 2 OF 9		
PREPARED BY:		DATE: 05/25/11		DRAWING NO: PELL0001		SHEET: 2 OF 9	
PTC PRODUCT DESIGN GROUP, LLC PO BOX 520775 LONGWOOD, FLORIDA 32752 FBPE C.A. NO. 25935		Phone: 321.690.1788 Fax: 321.690.1789 Email: info@ptc-corp.com		REV: D		SHEET: 2 OF 9	

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Florida P.E. No. 49752



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Robert J Amoruso
Date: 2020.09.09
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Approved End Anchor Conditions (A, B, C & D), See Sheets 6 and 7 for anchor requirements.							
Mull Span (in)	Load Width (in)	3" Tube Mullion, Clip Type "A"	3" Tube Mullion, Clip Type "B"	Mull Span (in)	Load Width (in)	3" Tube Mullion, Clip Type "A"	3" Tube Mullion, Clip Type "B"
24	20	75.0	75.0	36	20	75.0	75.0
	24	75.0	75.0		24	75.0	75.0
	28	75.0	75.0		28	75.0	75.0
	32	75.0	75.0		32	75.0	75.0
	36	75.0	75.0		36	75.0	75.0
	40	75.0	75.0		40	75.0	75.0
	44	75.0	75.0		44	75.0	75.0
	48	75.0	75.0		48	75.0	75.0
	52	75.0	75.0		52	75.0	75.0
	56	75.0	75.0		56	75.0	75.0
28	20	75.0	75.0	40	20	75.0	75.0
	24	75.0	75.0		24	75.0	75.0
	28	75.0	75.0		28	75.0	75.0
	32	75.0	75.0		32	75.0	75.0
	36	75.0	75.0		36	75.0	75.0
	40	75.0	75.0		40	75.0	75.0
	44	75.0	75.0		44	75.0	75.0
	48	75.0	75.0		48	75.0	75.0
	52	75.0	75.0		52	75.0	75.0
	56	75.0	75.0		56	75.0	75.0
32	20	75.0	75.0	44	20	75.0	75.0
	24	75.0	75.0		24	75.0	75.0
	28	75.0	75.0		28	75.0	75.0
	32	75.0	75.0		32	75.0	75.0
	36	75.0	75.0		36	75.0	75.0
	40	75.0	75.0		40	75.0	75.0
	44	75.0	75.0		44	75.0	75.0
	48	75.0	75.0		48	75.0	75.0
	52	75.0	75.0		52	75.0	75.0
	56	75.0	75.0		56	75.0	75.0

PELLA 1" X 3" STRUCTURAL BEAM MULLION LOAD TABLE (PSF)																							
Mull Span (in)	Load Width (in)	3" Tube Mullion, Clip Type "A"	3" Tube Mullion, Clip Type "B"	Mull Span (in)	Load Width (in)	3" Tube Mullion, Clip Type "A"	3" Tube Mullion, Clip Type "B"	Mull Span (in)	Load Width (in)	3" Tube Mullion, Clip Type "A"	3" Tube Mullion, Clip Type "B"	Mull Span (in)	Load Width (in)	3" Tube Mullion, Clip Type "A"	3" Tube Mullion, Clip Type "B"	Mull Span (in)	Load Width (in)	3" Tube Mullion, Clip Type "A"	3" Tube Mullion, Clip Type "B"	Mull Span (in)	Load Width (in)	3" Tube Mullion, Clip Type "A"	3" Tube Mullion, Clip Type "B"
24	20	75.0	75.0	48	20	75.0	75.0	60	20	75.0	75.0	72	20	75.0	61.6	84	20	48.5	47.2	96	20	32.5	32.5
	24	75.0	75.0		24	75.0	75.0		24	75.0	75.0		24	64.2	58.6		24	40.5	40.5		24	27.1	27.1
	28	75.0	75.0		28	75.0	75.0		28	75.0	75.0		28	55.1	55.1		28	34.7	34.7		28	23.2	23.2
	32	75.0	75.0		32	75.0	75.0		32	75.0	75.0		32	48.2	48.2		32	30.3	30.3		32	20.3	20.3
	36	75.0	75.0		36	75.0	75.0		36	75.0	75.0		36	42.8	42.8		36	27.0	27.0		36	18.1	18.1
	40	75.0	75.0		40	75.0	75.0		40	66.6	66.6		40	38.5	38.5		40	24.3	24.3		40	16.3	16.3
	44	75.0	75.0		44	75.0	75.0		44	60.6	60.6		44	35.0	35.0		44	22.1	22.1		44	14.8	14.8
	48	75.0	75.0		48	75.0	75.0		48	55.5	55.5		48	32.1	32.1		48	20.2	20.2		48	13.6	13.6
	52	75.0	75.0		52	75.0	72.6		52	51.2	51.2		52	29.6	29.6		52	18.7	18.7		52	12.5	12.5
	56	75.0	75.0		56	75.0	70.7		56	47.6	47.6		56	27.5	27.5		56	17.3	17.3		56	11.6	11.6
28	20	75.0	75.0	52	20	75.0	75.0	64	20	75.0	75.0	76	20	65.5	56.1	88	20	42.2	42.2	96	20	32.5	32.5
	24	75.0	75.0		24	75.0	75.0		24	75.0	75.0		24	54.6	53.4		24	35.2	35.2		24	27.1	27.1
	28	75.0	75.0		28	75.0	75.0		28	75.0	75.0		28	46.8	46.8		28	30.2	30.2		28	23.2	23.2
	32	75.0	75.0		32	75.0	75.0		32	75.0	75.0		32	41.0	41.0		32	26.4	26.4		32	20.3	20.3
	36	75.0	75.0		36	75.0	75.0		36	75.0	75.0		36	36.4	36.4		36	23.5	23.5		36	18.1	18.1
	40	75.0	75.0		40	75.0	75.0		40	54.9	54.9		40	32.8	32.8		40	21.1	21.1		40	16.3	16.3
	44	75.0	75.0		44	75.0	75.0		44	49.9	49.9		44	29.8	29.8		44	19.2	19.2		44	14.8	14.8
	48	75.0	75.0		48	75.0	75.0		48	45.7	45.7		48	27.3	27.3		48	17.6	17.6		48	13.6	13.6
	52	75.0	75.0		52	75.0	75.0		52	42.2	42.2		52	25.2	25.2		52	16.2	16.2		52	12.5	12.5
	56	75.0	75.0		56	75.0	75.0		56	39.2	39.2		56	23.4	23.4		56	15.1	15.1		56	11.6	11.6
32	20	75.0	75.0	56	20	75.0	75.0	68	20	75.0	75.0	80	20	56.2	51.3	92	20	37.0	37.0	96	20	32.5	32.5
	24	75.0	75.0		24	75.0	75.0		24	75.0	75.0		24	46.8	46.8		24	30.2	30.2		24	27.1	27.1
	28	75.0	75.0		28	75.0	75.0		28	75.0	75.0		28	40.1	40.1		28	26.4	26.4		28	23.2	23.2
	32	75.0	75.0		32	75.0	75.0		32	75.0	75.0		32	35.1	35.1		32	23.5	23.5		32	20.3	20.3
	36	75.0	75.0		36	75.0	75.0		36	75.0	75.0		36	31.2	31.2		36	20.5	20.5		36	18.1	18.1
	40	75.0	75.0		40	75.0	75.0		40	45.8	45.8		40	28.1	28.1		40	18.5	18.5		40	16.3	16.3
	44	75.0	75.0		44	75.0	75.0		44	41.6	41.6		44	25.5	25.5		44	16.8	16.8		44	14.8	14.8
	48	75.0	75.0		48	75.0	75.0		48	38.1	38.1		48	23.4	23.4		48	15.4	15.4		48	13.6	13.6
	52	75.0	75.0		52	75.0	75.0		52	35.2	35.2		52	21.6	21.6		52	14.2	14.2		52	12.5	12.5
	56	75.0	75.0		56	75.0	75.0		56	32.7	32.7		56	20.1	20.1		56	13.2	13.2		56	11.6	11.6

INSTRUCTIONS FOR USE OF THE END ANCHORS:

- A. 2 X STUD OR 2X WOOD BUCK
B. THROUGH 1X WOOD BUCK
C. DIRECT TO MASONRY/CONCRETE
D. DIRECT TO ANOTHER TUBE MULLION OR ALUMINUM/STEEL SUBSTRATE

INSTRUCTIONS FOR USE OF THE MULLION LOAD TABLE:

1. DETERMINE THE WIND LOAD REQUIREMENT (D.P. PSF) FOR THE PARTICULAR OPENING.
2. FOR THE PARTICULAR OPENING, DETERMINE THE TRIBUTARY WIDTH AND MULLION SPAN. REFERENCE THE SKETCHES ON THIS SHEET FOR MULLION SPAN AND TRIBUTARY WIDTH DETERMINATION.
3. IN THE FIRST COLUMN IN THE TABLE, LOCATE MULLION SPAN. IN FIRST ROW OF THE TABLE , LOCATE THE TRIBUTARY WIDTH. AT THE INTERSECTION OF THE ROW CONTAINING THE TRIBUTARY WIDTH, READ THE MULLION LOAD RATING GIVEN IN PSF. THE MULLION LOAD RATING MUST BE EQUAL TO OR GREATER THAN THE DESIGN LOAD REQUIREMENT DEFINED IN STEP 1 ABOVE.

TRIBUTARY WIDTH = $\frac{W1 + W2}{2}$

PROJECT # 420-0804				RA	BY
UPDATED TO 7TH EDITION (2020) FBC				9/9/20	
UPDATED TO 6TH EDITION (2017) FBC				1/10/18	
UPDATED TO 5TH EDITION (2014) FBC				05/20/15	
DESCRIPTION				DATE	

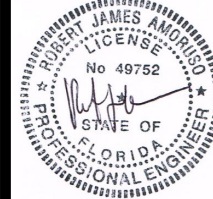
PELLA CORPORATION
102 MAIN STREET
PELLA, IA 50219

TITLE:
3" & 4.25" STRUCTURAL MULLIONS
3" MULLION LOAD TABLE

PREPARED BY:
RJA
SCALE:
N.T.S.
REV:
D

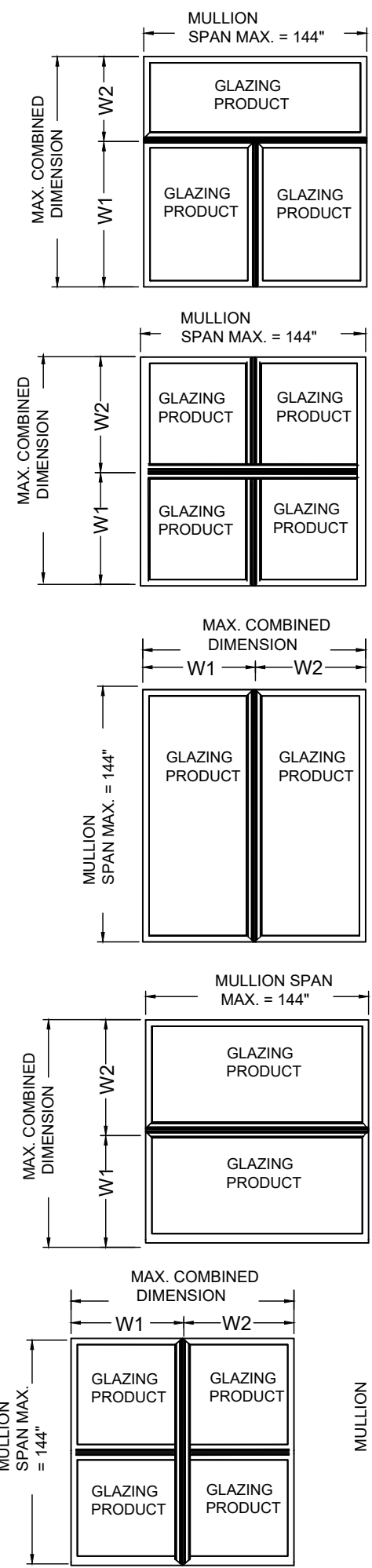
DATE:
05/25/11
DRAWING NO:
PELL0001
SHEET:
3 OF 9

PTC PRODUCT DESIGN GROUP, LLC
PO BOX 520775
LONGWOOD, FLORIDA 32752
Phone: 321.690.1789
Fax: 321.690.1789
Email: info@ptc-corp.com
FPE CA NO. 23585



Robert J. Amoruso, P.E.
Florida P.E. No. 49752

Digitally signed by Robert J Amoruso
Date: 2020.09.09 16:07:29 -04'00'



Approved End Anchor Conditions (A, B, C & D), See Sheets 8 and 9 for anchor requirements.								PELLA 1" X 4-1/4" STRUCTURAL BEAM MULLION LOAD TABLE (PSF)															
Mull Span (in)	Load Width (in)	4.25" Tube Mullion. Clip Type "A"	4.25" Tube Mullion. Clip Type "B"	Mull Span (in)	Load Width (in)	4.25" Tube Mullion. Clip Type "A"	4.25" Tube Mullion. Clip Type "B"	Mull Span (in)	Load Width (in)	4.25" Tube Mullion. Clip Type "A"	4.25" Tube Mullion. Clip Type "B"	Mull Span (in)	Load Width (in)	4.25" Tube Mullion. Clip Type "A"	4.25" Tube Mullion. Clip Type "B"	Mull Span (in)	Load Width (in)	4.25" Tube Mullion. Clip Type "A"	4.25" Tube Mullion. Clip Type "B"	Mull Span (in)	Load Width (in)	4.25" Tube Mullion. Clip Type "A"	4.25" Tube Mullion. Clip Type "B"
48	20	75.0	75.0	66	20	75.0	71.6	84	20	75.0	47.2	102	20	67.1	33.5	120	20	42.7	25.1	138	20	28.1	19.5
	24	75.0	75.0		24	75.0	68.0		24	75.0	44.9		24	58.0	32.1		24	35.6	24.1		24	23.4	18.8
	28	75.0	75.0		28	75.0	65.0		28	75.0	43.0		28	49.7	30.8		28	30.5	23.2		28	20.1	18.2
	32	75.0	75.0		32	75.0	62.5		32	75.0	41.4		32	43.5	29.7		32	26.7	22.4		32	17.6	17.6
	36	75.0	75.0		36	75.0	68.2		36	69.2	40.0		36	38.7	28.7		36	23.7	21.7		36	15.6	15.6
	40	75.0	75.0		40	75.0	63.7		40	62.3	38.8		40	34.8	27.8		40	21.4	21.1		40	14.1	14.1
	44	75.0	75.0		44	75.0	60.1		44	56.6	43.3		44	31.6	27.1		44	19.4	19.4		44	12.8	12.8
	48	75.0	75.0		48	75.0	57.0		48	51.9	40.9		48	29.0	26.4		48	17.8	17.8		48	11.7	11.7
	52	75.0	75.0		52	75.0	54.4		52	47.9	38.8		52	26.8	26.8		52	16.4	16.4		52	10.8	10.8
	56	75.0	75.0		56	75.0	52.2		56	44.5	37.1		56	24.9	24.9		56	15.3	15.3		56	10.0	10.0
54	60	75.0	75.0		60	75.0	50.4		60	41.5	35.6		60	23.2	23.2		60	14.2	14.2		60	9.4	9.4
	20	75.0	75.0	72	20	75.0	61.6	90	20	75.0	41.8	108	20	58.6	30.3	126	20	36.9	23.0	144	20	24.7	18.1
	24	75.0	75.0		24	75.0	58.6		24	75.0	39.9		24	48.9	29.0		24	30.8	22.1		24	20.6	17.4
	28	75.0	75.0		28	75.0	56.0		28	72.4	38.2		28	41.9	27.9		28	26.4	21.3		28	17.7	16.9
	32	75.0	75.0		32	75.0	53.9		32	63.3	36.8		32	36.6	26.9		32	23.1	20.6		32	15.5	15.5
	36	75.0	75.0		36	75.0	60.7		36	56.3	35.6		36	32.6	26.0		36	20.5	20.0		36	13.7	13.7
	40	75.0	75.0		40	75.0	56.7		40	50.7	34.5		40	29.3	25.3		40	18.5	18.5		40	12.4	12.4
	44	75.0	75.0		44	75.0	53.3		44	46.1	33.5		44	26.7	24.6		44	16.8	16.8		44	11.2	11.2
	48	75.0	75.0		48	75.0	50.5		48	42.2	37.2		48	24.4	23.9		48	15.4	15.4		48	10.3	10.3
	52	75.0	73.2		52	75.0	48.1		52	39.0	35.4		52	22.6	22.6		52	14.2	14.2		52	9.5	9.5
	56	75.0	70.9		56	69.9	46.1		56	36.2	33.7		56	20.9	20.9		56	13.2	13.2		56	8.8	8.8
60	60	75.0	69.0		60	65.3	44.3		60	33.8	32.3		60	19.5	19.5		60	12.3	12.3		60	8.2	8.2
	20	75.0	75.0	78	20	75.0	53.6	96	20	74.6	37.3	114	20	49.9	27.5	132	20	32.1	21.2		20		
	24	75.0	75.0		24	75.0	51.1		24	69.6	35.7		24	41.5	26.4		24	26.8	20.4		24		
	28	75.0	75.0		28	75.0	48.9		28	59.6	34.2		28	35.6	25.4		28	22.9	19.7		28		
	32	75.0	75.0		32	75.0	47.0		32	52.2	32.9		32	31.2	24.5		32	20.1	19.0		32		
	36	75.0	75.0		36	75.0	45.4		36	46.4	31.8		36	27.7	23.7		36	17.8	17.8		36		
	40	75.0	72.7		40	75.0	50.9		40	41.7	30.9		40	24.9	23.0		40	16.1	16.1		40		
	44	75.0	68.6		44	70.7	47.8		44	37.9	30.0		44	22.7	22.4		44	14.6	14.6		44		
	48	75.0	65.3		48	64.9	45.2		48	34.8	34.2		48	20.8	20.8		48	13.4	13.4		48		
	52	75.0	62.5		52	59.9	43.0		52	32.1	32.1		52	19.2	19.2		52	12.4	12.4		52		
	56	75.0	60.2		56	55.6	41.1		56	29.8	29.8		56	17.8	17.8		56	11.5	11.5		56		
60	60	75.0	58.3		60	51.9	39.5		60	27.8	27.8		60	16.6	16.6		60	10.7	10.7		60		

INSTRUCTIONS FOR USE OF THE END ANCHORS:

- A. 2 X STUD OR 2X WOOD BUCK
- B. THROUGH 1X WOOD BUCK
- C. DIRECT TO MASONRY/CONCRETE
- D. DIRECT TO ANOTHER TUBE MULLION OR ALUMINUM/STEEL SUBSTRATE

INSTRUCTIONS FOR USE OF THE MULLION LOAD TABLE:

1. DETERMINE THE WINDLOAD REQUIREMENT (D.P. PSF) FOR THE PARTICULAR OPENING.
2. FOR THE PARTICULAR OPENING, DETERMINE THE TRIBUTARY WIDTH AND MULLION SPAN. REFERENCE THE SKETCHES ON THIS SHEET FOR MULLION SPAN AND TRIBUTARY WIDTH DETERMINATION.
3. IN THE FIRST COLUMN IN THE TABLE, LOCATE MULLION SPAN. IN FIRST ROW OF THE TABLE , LOCATE THE TRIBUTARY WIDTH. AT THE INTERSECTION OF THE ROW CONTAINING THE TRIBUTARY WIDTH, READ THE MULLION LOAD RATING GIVEN IN PSF. THE MULLION LOAD RATING MUST BE EQUAL TO OR GREATER THAN THE DESIGN LOAD REQUIREMENT DEFINED IN STEP 1 ABOVE.

TRIBUTARY WIDTH = $\frac{W1 + W2}{2}$

PROJECT # 420-0804

PELLA CORPORATION
102 MAIN STREET
PELLA, IA 50219

3" & 4.25" STRUCTURAL MULLIONS
4.25" MULLION LOAD TABLE

DATE: 05/25/11
DRAWING NO: PELL0001
SHEET: 4 OF 9

PREPARED BY: RJA
SCALE: N.T.S.
REV: D

PTC PRODUCT DESIGN GROUP, LLC
PO BOX 520775
LONGWOOD, FLORIDA 32752
Phone: 321.690.1788
Fax: 321.690.1789
Email: info@ptc-corp.com

UPDATED TO 7TH EDITION (2020) FBC

9/9/20

RA

DATE

DESCRIPTION

REV

UPDATED TO 6TH EDITION (2017) FBC

1/10/18

RA

DATE

DESCRIPTION

REV

UPDATED TO 5TH EDITION (2014) FBC

05/20/15

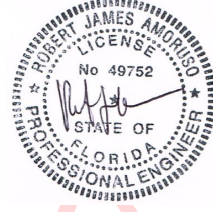
RA

DATE

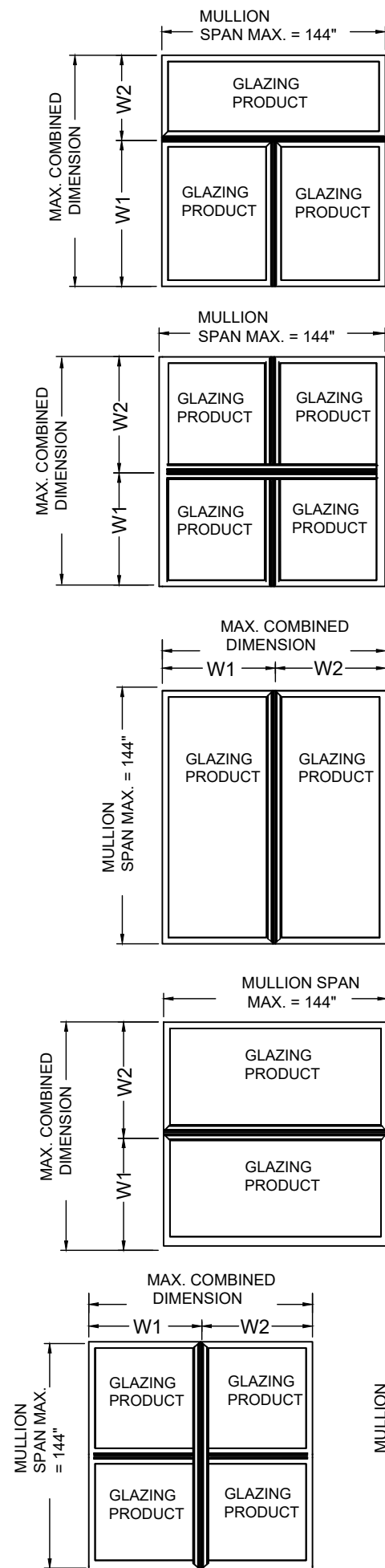
DESCRIPTION

REV

Robert J. Amoruso, P.E.
Florida P.E. No. 49752



Digitally signed by Robert J Amoruso
Date: 2020.09.09
16:07:41 -04'00'



Approved End Anchor Conditions (A, B, C & D), See Sheets 8 and 9 for anchor requirements.								PELLA V983691 1" X 4-1/4" WITH STEEL REINFORCEMENT STRUCTURAL BEAM MULLION LOAD TABLE (PSF)															
Mull Span (in)	Load Width (in)	4.25" Tube Mullion. Clip Type "A"	4.25" Tube Mullion. Clip Type "B"	Mull Span (in)	Load Width (in)	4.25" Tube Mullion. Clip Type "A"	4.25" Tube Mullion. Clip Type "B"	Mull Span (in)	Load Width (in)	4.25" Tube Mullion. Clip Type "A"	4.25" Tube Mullion. Clip Type "B"	Mull Span (in)	Load Width (in)	4.25" Tube Mullion. Clip Type "A"	4.25" Tube Mullion. Clip Type "B"	Mull Span (in)	Load Width (in)	4.25" Tube Mullion. Clip Type "A"	4.25" Tube Mullion. Clip Type "B"	Mull Span (in)	Load Width (in)	4.25" Tube Mullion. Clip Type "A"	4.25" Tube Mullion. Clip Type "B"
48	20	75.0	75.0	66	20	75.0	71.6	84	20	75.0	47.2	102	20	67.1	33.5	120	20	50.2	25.1	138	20	37.1	19.5
	24	75.0	75.0		24	75.0	68.0		24	75.0	44.9		24	64.2	32.1		24	47.0	24.1		24	30.9	18.8
	28	75.0	75.0		28	75.0	65.0		28	75.0	43.0		28	61.6	30.8		28	40.3	23.2		28	26.5	18.2
	32	75.0	75.0		32	75.0	62.5		32	75.0	41.4		32	57.4	29.7		32	35.2	22.4		32	23.2	17.6
	36	75.0	75.0		36	75.0	68.2		36	75.0	40.0		36	51.0	28.7		36	31.3	21.7		36	20.6	17.1
	40	75.0	75.0		40	75.0	63.7		40	75.0	38.8		40	45.9	27.8		40	28.2	21.1		40	18.5	16.6
	44	75.0	75.0		44	75.0	60.1		44	74.7	43.3		44	41.7	27.1		44	25.6	20.5		44	16.8	16.1
	48	75.0	75.0		48	75.0	57.0		48	68.5	40.9		48	38.2	26.4		48	23.5	20.0		48	15.4	15.4
	52	75.0	75.0		52	75.0	54.4		52	63.2	38.8		52	35.3	29.9		52	21.7	19.5		52	14.3	14.3
	56	75.0	75.0		56	75.0	52.2		56	58.7	37.1		56	32.8	28.5		56	20.1	19.1		56	13.2	13.2
60	75.0	75.0	60	75.0	50.4	60	54.8	35.6	60	30.6	27.2	60	18.8	18.8	60	12.4	12.4						
54	20	75.0	75.0	72	20	75.0	61.6	90	20	75.0	41.8	108	20	60.6	30.3	126	20	46.0	23.0	144	20	32.6	18.1
	24	75.0	75.0		24	75.0	58.6		24	75.0	39.9		24	58.1	29.0		24	40.6	22.1		24	27.2	17.4
	28	75.0	75.0		28	75.0	56.0		28	75.0	38.2		28	55.2	27.9		28	34.8	21.3		28	23.3	16.9
	32	75.0	75.0		32	75.0	53.9		32	73.6	36.8		32	48.3	26.9		32	30.4	20.6		32	20.4	16.3
	36	75.0	75.0		36	75.0	60.7		36	71.1	35.6		36	42.9	26.0		36	27.0	20.0		36	18.1	15.8
	40	75.0	75.0		40	75.0	56.7		40	66.8	34.5		40	38.7	25.3		40	24.3	19.4		40	16.3	15.4
	44	75.0	75.0		44	75.0	53.3		44	60.7	33.5		44	35.1	24.6		44	22.1	18.9		44	14.8	14.8
	48	75.0	75.0		48	75.0	50.5		48	55.7	37.2		48	32.2	23.9		48	20.3	18.4		48	13.6	13.6
	52	75.0	73.2		52	75.0	48.1		52	51.4	35.4		52	29.7	23.4		52	18.7	18.0		52	12.5	12.5
	56	75.0	70.9		56	75.0	46.1		56	47.7	33.7		56	27.6	26.4		56	17.4	17.4		56	11.6	11.6
60	75.0	69.0	60	73.1	44.3	60	44.5	32.3	60	25.8	25.2	60	16.2	16.2	60	10.9	10.9						
60	20	75.0	75.0	78	20	75.0	53.6	96	20	74.6	37.3	114	20	55.1	27.5	132	20	42.3	21.2		20		
	24	75.0	75.0		24	75.0	51.1		24	71.3	35.7		24	52.8	26.4		24	35.3	20.4		24		
	28	75.0	75.0		28	75.0	48.9		28	68.4	34.2		28	46.9	25.4		28	30.2	19.7		28		
	32	75.0	75.0		32	75.0	47.0		32	65.9	32.9		32	41.1	24.5		32	26.5	19.0		32		
	36	75.0	75.0		36	75.0	45.4		36	61.1	31.8		36	36.5	23.7		36	23.5	18.4		36		
	40	75.0	72.7		40	75.0	50.9		40	55.0	30.9		40	32.9	23.0		40	21.2	17.9		40		
	44	75.0	68.6		44	75.0	47.8		44	50.0	30.0		44	29.9	22.4		44	19.2	17.4		44		
	48	75.0	65.3		48	75.0	45.2		48	45.9	34.2		48	27.4	21.8		48	17.6	17.0		48		
	52	75.0	62.5		52	75.0	43.0		52	42.3	32.4		52	25.3	21.3		52	16.3	16.3		52		
	56	75.0	60.2		56	73.3	41.1		56	39.3	30.9		56	23.5	20.9		56	15.1	15.1		56		
60	75.0	58.3	60	68.4	39.5	60	36.7	29.5	60	21.9	21.9	60	14.1	14.1	60								

INSTRUCTIONS FOR USE OF THE END ANCHORS:

- A. 2 X STUD OR 2X WOOD BUCK
B. THROUGH 1X WOOD BUCK
C. DIRECT TO MASONRY/CONCRETE
D. DIRECT TO ANOTHER TUBE MULLION OR ALUMINUM/STEEL SUBSTRATE

INSTRUCTIONS FOR USE OF THE MULLION LOAD TABLE:

1. DETERMINE THE WINDLOAD REQUIREMENT (D.P. PSF) FOR THE PARTICULAR OPENING.
2. FOR THE PARTICULAR OPENING, DETERMINE THE TRIBUTARY WIDTH AND MULLION SPAN. REFERENCE THE SKETCHES ON THIS SHEET FOR MULLION SPAN AND TRIBUTARY WIDTH DETERMINATION.
3. IN THE FIRST COLUMN IN THE TABLE, LOCATE MULLION SPAN. IN FIRST ROW OF THE TABLE, LOCATE THE TRIBUTARY WIDTH. AT THE INTERSECTION OF THE ROW CONTAINING THE TRIBUTARY WIDTH, READ THE MULLION LOAD RATING GIVEN IN PSF. THE MULLION LOAD RATING MUST BE EQUAL TO OR GREATER THAN THE DESIGN LOAD REQUIREMENT DEFINED IN STEP 1 ABOVE.

$$\text{TRIBUTARY WIDTH} = \frac{W1 + W2}{2}$$

PROJECT # 420-0804			
UPDATED TO 7TH EDITION (2020) FBC	9/9/20	RA	RA
UPDATED TO 6TH EDITION (2017) FBC	1/10/18	RA	RA
UPDATED TO 5TH EDITION (2014) FBC	05/20/15	RA	RA
DESCRIPTION	DATE	BY	BY

PELLA CORPORATION
102 MAIN STREET
PELLA, IA 50219

3" & 4.25" STRUCTURAL MULLIONS
4.25" REINFORCED MULLION LOAD TABLE

DATE: 05/25/11
DRAWING NO: PELL0001
SHEET: 5 OF 9

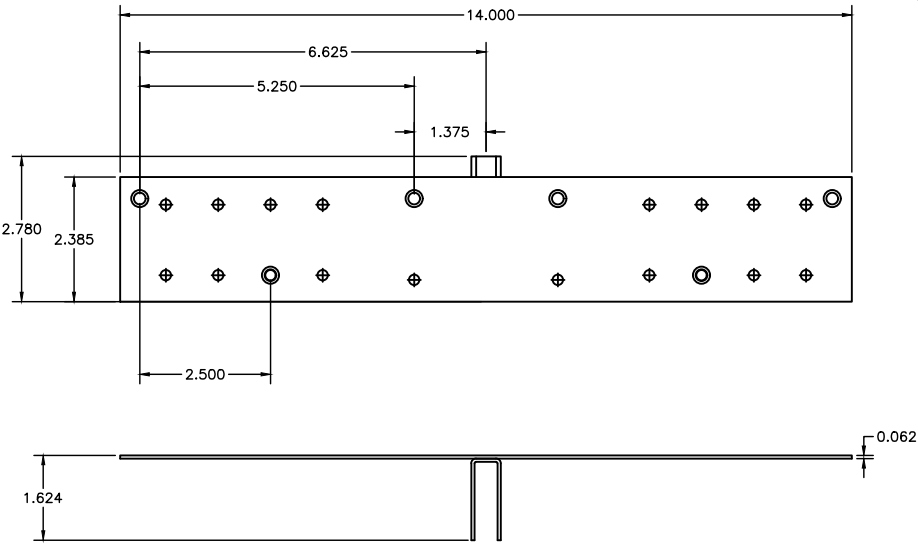
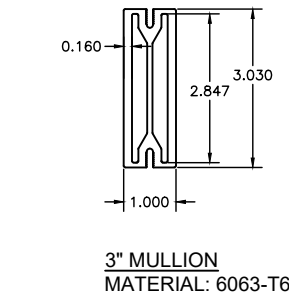
PELLA

PTC PRODUCT DESIGN GROUP, LLC
PO BOX 520775
LONGWOOD, FLORIDA 32752
Phone: 321.690.1789
Fax: 321.690.1789
Email: info@ptc-corp.com

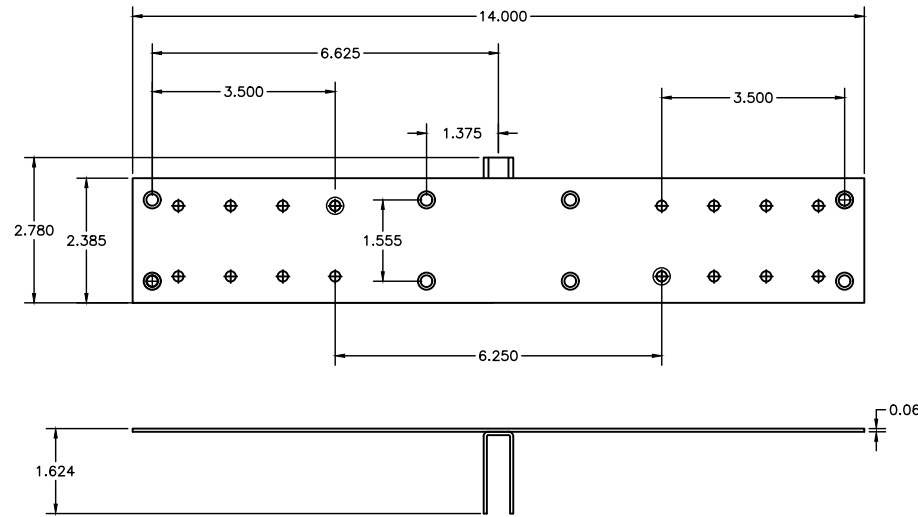
Robert J. Amoruso, P.E.
Florida P.E. No. 49752

Digitally signed by Robert J Amoruso
Date: 2020.09.09 16:07:53 -04'00'

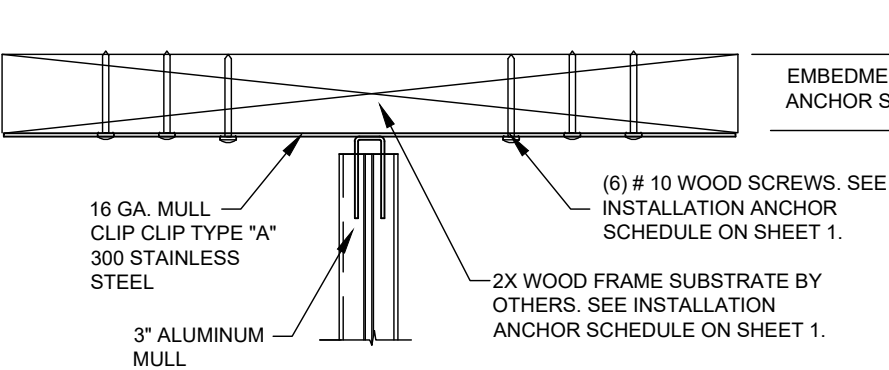
FLORIDA PROFESSIONAL ENGINEER
No 49752
STATE OF FLORIDA



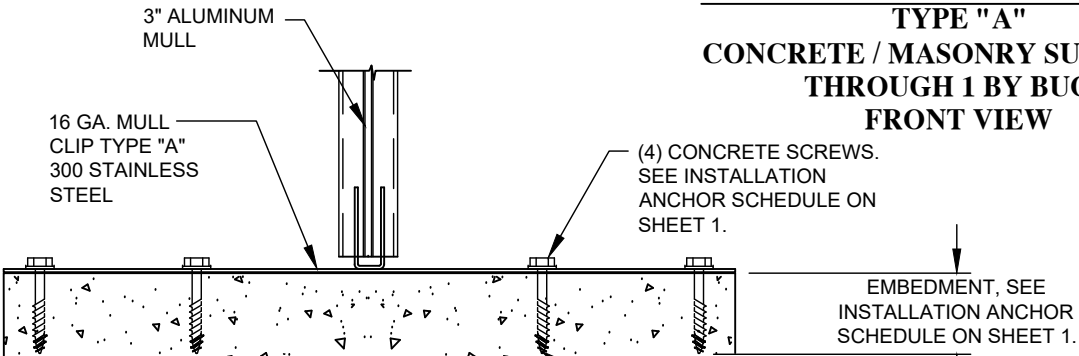
MULLION ANCHOR BRACKET TYPE "A"
MATERIAL: 300 SERIES STAINLESS STEEL
FOR METAL/WOOD SCREW ANCHORING,
MULLION TO MULLION ANCHORING AND
MULLION TO STEEL/ALUMINUM SUBSTRATE ANCHORING.



MULLION ANCHOR BRACKET TYPE "A"
MATERIAL: 300 STAINLESS STEEL
FOR CONCRETE SCREW ANCHORING



MULL CLIP ATTACHMENT
TYPE "A"
WOOD FRAME SUBSTRATE
2 BY BUCK OR STUD
FRONT VIEW



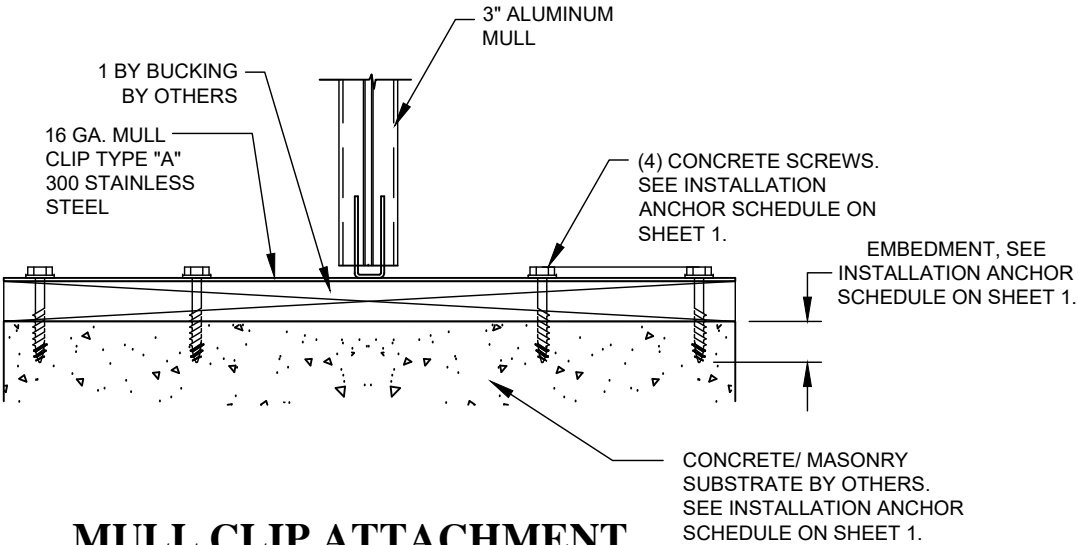
MULL CLIP ATTACHMENT
TYPE "A"
CONCRETE / MASONRY SUBSTRATE
FRONT VIEW

ANCHOR NOTES
TYPE "A" CLIP:

- USE (1) ONE MULL CLIP INSERTED INTO EACH END OF INTERIOR SIDE OF MULLION. SEE DETAIL ON THIS SHEET. SEE INSTALLATION ANCHOR SCHEDULE ON SHEET 1 FOR ADDITIONAL REQUIREMENTS.
- FOR MULL CLIP ATTACHMENT TO WOOD FRAME SUBSTRATES, USE (3) THREE #10 WOOD SCREWS AT EACH CLIP LEG WITH SUFFICIENT LENGTH TO ACHIEVE A 1-1/2" EMBEDMENT INTO FRAMING. SEE DETAIL ON THIS SHEET.
- FOR MULL CLIPS INTO CONCRETE / MASONRY INSTALLATION USE (2) TWO 3/16" CONCRETE SCREWS AT EACH CLIP LEG WITH SUFFICIENT LENGTH TO ACHIEVE THE REQUIRED MINIMUM EMBEDMENT INTO CONCRETE / MASONRY SUBSTRATE SHOWN IN THE INSTALLATION ANCHOR SCHEDULE ON SHEET 1. SEE DETAILS ON THIS SHEET.
- FOR MULL CLIP ATTACHMENT TO 3" ALUMINUM MULL, MIN. 1/8" A-36 STEEL, MIN. 20 GAUGE A-653 STEEL STUD AND MIN. 1/8" 6063-T5 ALUMINUM FRAME SUBSTRATES, USE (3) THREE # 10 SELF TAPPING SCREWS AT EACH CLIP LEG WITH SUFFICIENT LENGTH TO ACHIEVE 3-THREAD PITCH LENGTH INTO METAL FRAMING. SEE DETAIL ON THIS SHEET.

EMBEDMENT, SEE INSTALLATION
ANCHOR SCHEDULE ON SHEET 1.

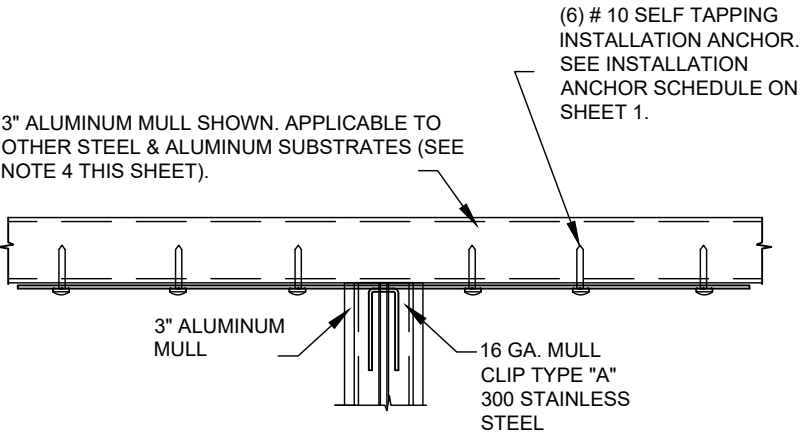
TYPE "A" END ANCHOR CLIP
3" MULLION



MULL CLIP ATTACHMENT
TYPE "A"
CONCRETE / MASONRY SUBSTRATE
THROUGH 1 BY BUCK
FRONT VIEW

EMBEDMENT, SEE
INSTALLATION ANCHOR
SCHEDULE ON SHEET 1.

CONCRETE / MASONRY
SUBSTRATE. SEE
INSTALLATION ANCHOR
SCHEDULE ON SHEET 1.

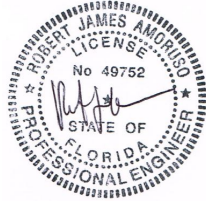


VERTICAL TO HORIZONTAL
TYPE "A"
MULLION OR ALUMINUM/STEEL
SUBSTRATE ATTACHMENT

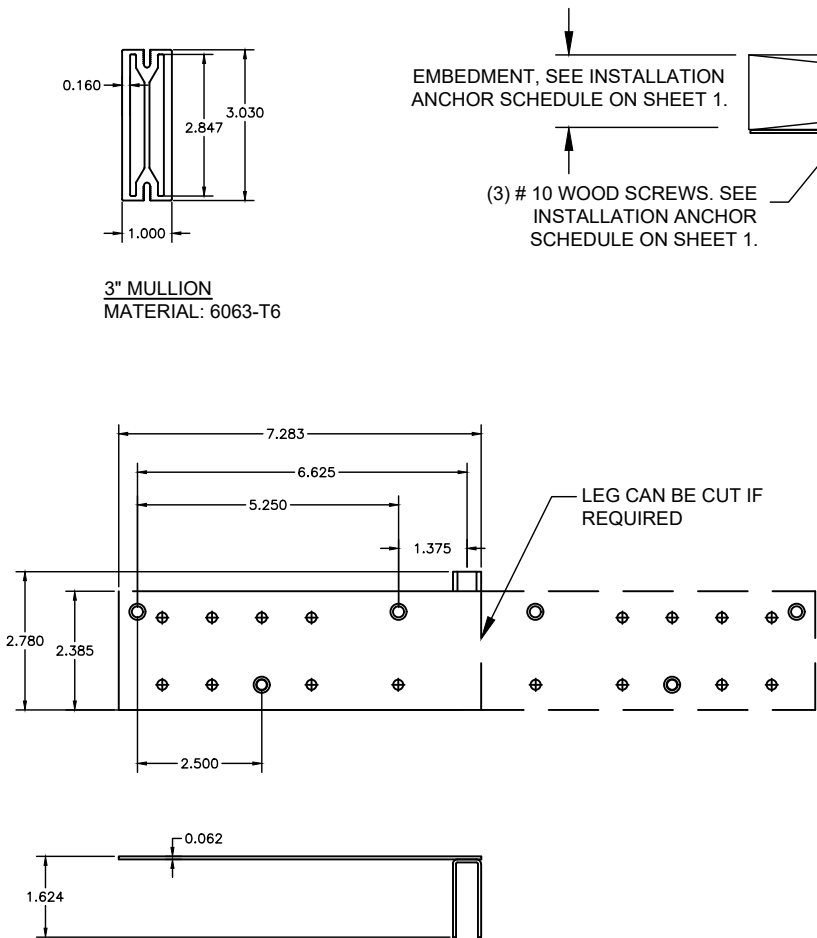
PROJECT # 420-0804				RA	BY
UPDATED TO 7TH EDITION (2020) FBC	9/9/20	RA			
UPDATED TO 6TH EDITION (2017) FBC	1/10/18	RA			
UPDATED TO 5TH EDITION (2014) FBC	05/20/15	RA			
REV	DESCRIPTION	DATE			

PELLA CORPORATION 102 MAIN STREET PELLA, IA 50219				DATE: 05/25/11	DRAWING NO: PELL0001	SHEET: 6 OF 9
TITLE: 3" & 4.25" STRUCTURAL MULLIONS 3" MULLION CLIP ANCHOR DETAILS - TYPE A				DRAWN BY: RJA	SCALE: N.T.S.	REV: D
PREPARED BY:				DATE: 05/25/11	DRAWING NO: PELL0001	SHEET: 6 OF 9
PELLA CORPORATION 102 MAIN STREET PELLA, IA 50219				DATE: 05/25/11	DRAWING NO: PELL0001	SHEET: 6 OF 9
PTC PRODUCT DESIGN GROUP, LLC PO BOX 520775 LONGWOOD, FLORIDA 32752				DATE: 05/25/11	DRAWING NO: PELL0001	SHEET: 6 OF 9
Phone: 321.690.1788 Fax: 321.690.1789 Email: info@ptc-corp.com				DATE: 05/25/11	DRAWING NO: PELL0001	SHEET: 6 OF 9

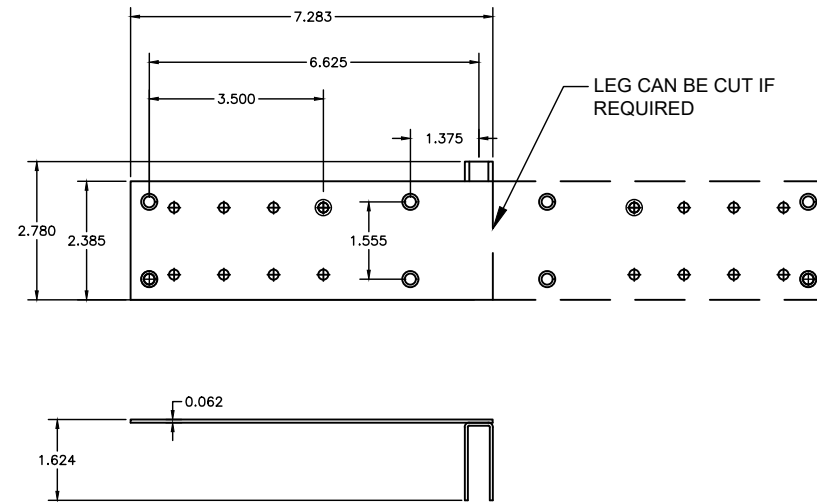
Robert J. Amoruso, P.E.
Florida P.E. No. 49752



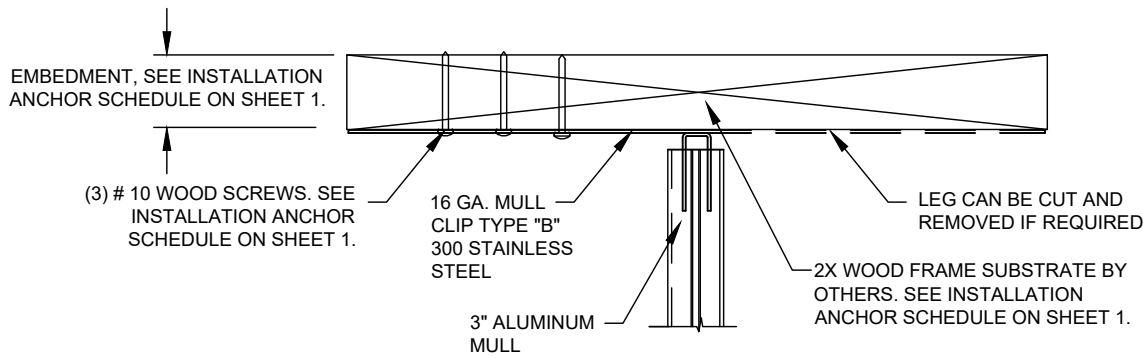
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Robert J
Amoruso
Date:
2020.09.09
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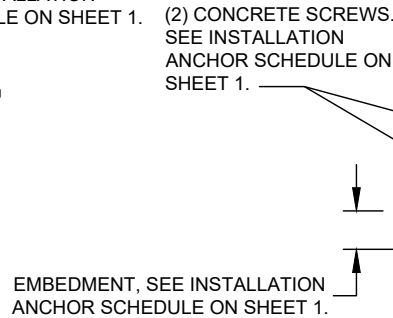
MULLION ANCHOR BRACKET TYPE "B"
MATERIAL: 300 SERIES STAINLESS STEEL
FOR METAL/WOOD SCREW ANCHORING,
MULLION TO MULLION ANCHORING AND
MULLION TO STEEL/ALUMINUM SUBSTRATE ANCHORING.



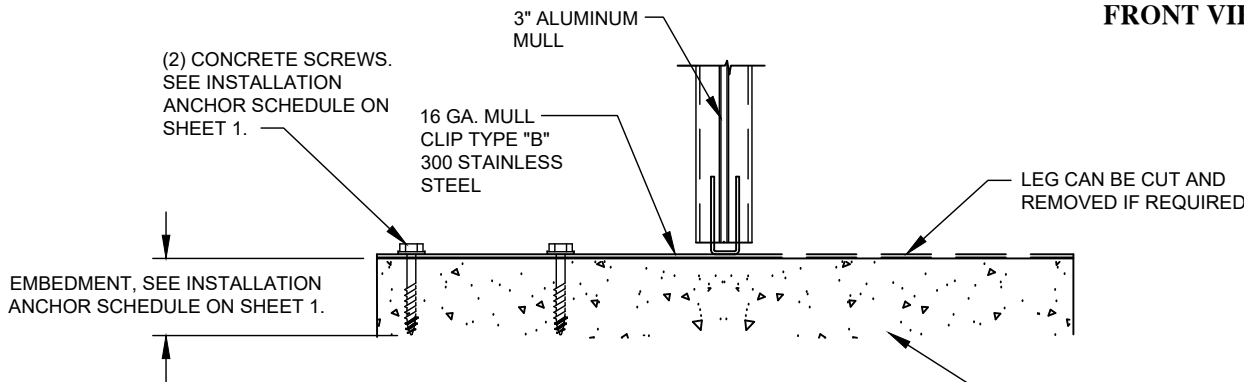
MULLION ANCHOR BRACKET TYPE "B"
MATERIAL: 300 STAINLESS STEEL
FOR CONCRETE SCREW ANCHORING



MULL CLIP ATTACHMENT TYPE "B" WOOD FRAME SUBSTRATE 2 BY BUCK OR STUD FRONT VIEW



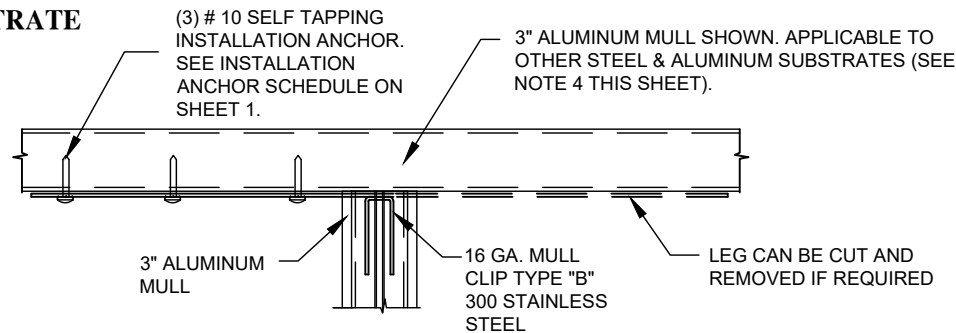
MULL CLIP ATTACHMENT TYPE "B" CONCRETE / MASONRY SUBSTRATE THROUGH 1 BY BUCK FRONT VIEW



MULL CLIP ATTACHMENT TYPE "B" CONCRETE / MASONRY SUBSTRATE FRONT VIEW

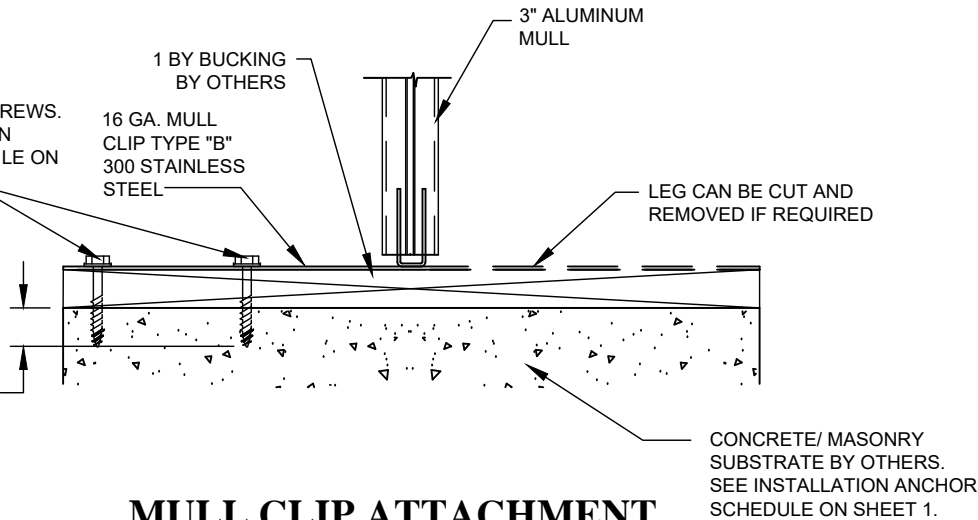
ANCHOR NOTES TYPE "B" CLIP:

- USE (1) ONE MULL CLIP INSERTED INTO EACH END OF INTERIOR SIDE OF MULLION. SEE DETAIL ON THIS SHEET. SEE INSTALLATION ANCHOR SCHEDULE ON SHEET 1 FOR ADDITIONAL REQUIREMENTS.
- FOR MULL CLIP ATTACHMENT TO WOOD FRAME SUBSTRATES, USE (3) THREE #10 WOOD SCREWS AT ONE CLIP LEG WITH SUFFICIENT LENGTH TO ACHIEVE A 1-1/2" EMBEDMENT INTO FRAMING. SEE DETAIL ON THIS SHEET.
- FOR MULL CLIPS INTO CONCRETE / MASONRY INSTALLATION USE (2) TWO CONCRETE SCREWS AT ONE CLIP LEG WITH SUFFICIENT LENGTH TO ACHIEVE THE REQUIRED MINIMUM EMBEDMENT INTO CONCRETE / MASONRY SUBSTRATE SHOWN IN THE INSTALLATION ANCHOR SCHEDULE ON SHEET 1. SEE DETAILS ON THIS SHEET.
- FOR MULL CLIP ATTACHMENT TO 3" ALUMINUM MULL, MIN. 1/8" A-36 STEEL, MIN. 20 GAUGE A-653 STEEL STUD AND MIN. 1/8" 6063-T5 ALUMINUM FRAME SUBSTRATES, USE (3) THREE # 10 SELF TAPPING SCREWS AT ONE CLIP LEG WITH SUFFICIENT LENGTH TO ACHIEVE 3-THREAD PITCH LENGTH INTO METAL FRAMING. SEE DETAIL ON THIS SHEET.



VERTICAL TO HORIZONTAL TYPE "B" MULLION OR ALUMINUM/STEEL SUBSTRATE ATTACHMENT

TYPE "B" END ANCHOR CLIP 3" MULLION



PROJECT # 420-0804

REV	DESCRIPTION	DATE	BY
D	UPDATED TO 7TH EDITION (2020) FBC	9/9/20	RA
C	UPDATED TO 6TH EDITION (2017) FBC	1/10/18	RA
B	UPDATED TO 5TH EDITION (2014) FBC	05/20/15	RA

PELLA CORPORATION
102 MAIN STREET
PELLA, IA 50219

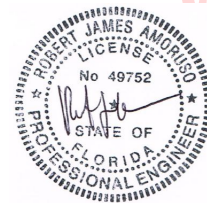
TITLE: 3" & 4.25" STRUCTURAL MULLIONS
3" MULLION CLIP ANCHOR DETAILS - TYPE B

PREPARED BY: RJA
DATE: 05/25/11
DRAWING NO: PELL0001

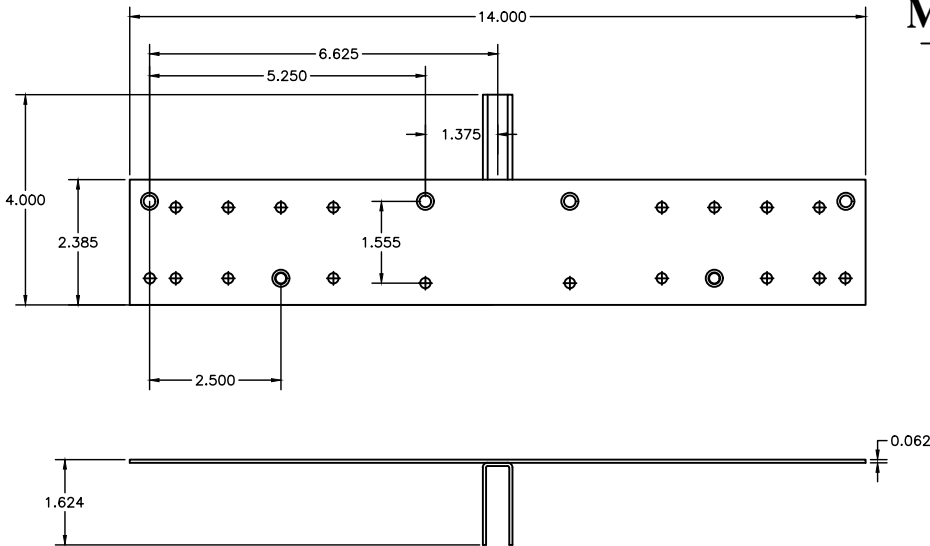
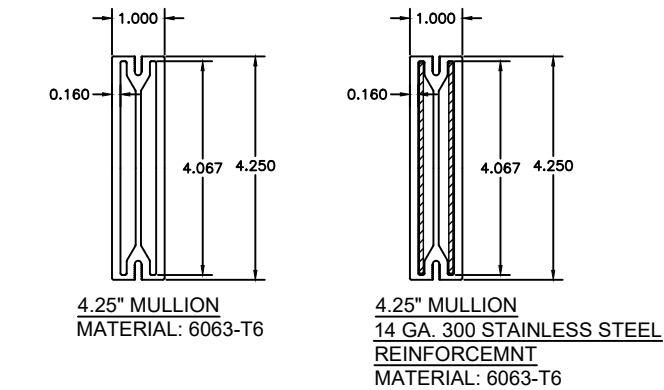
SCALE: N.T.S.
REV: D
SHEET: 7 OF 9

PTC PRODUCT DESIGN GROUP, LLC
PO BOX 520775
LONGWOOD, FLORIDA 32752
Phone: 321.690.1788
Fax: 321.690.1789
Email: info@ptc-corp.com
PDP CA NO. 23585

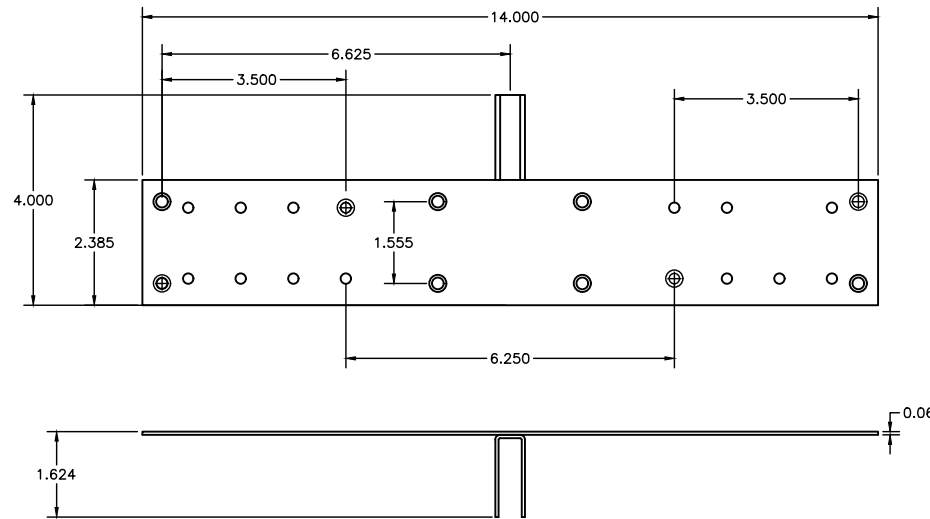
Robert J. Amoroso, P.E.
Florida P.E. No. 49752



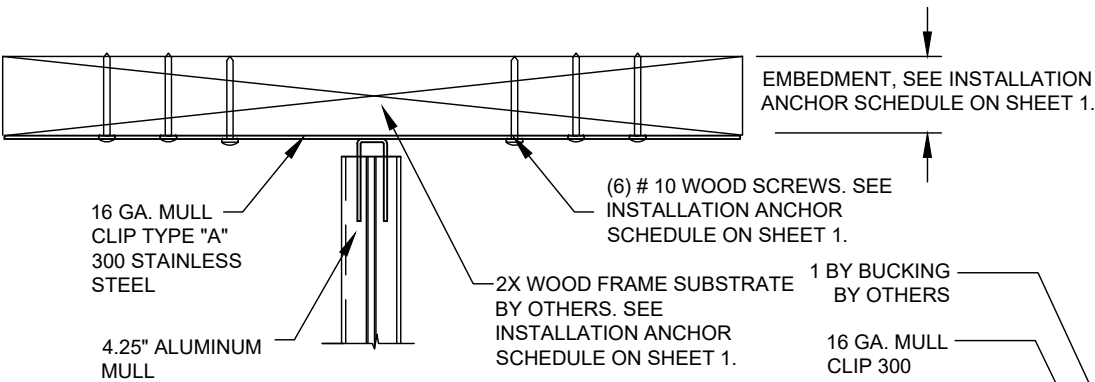
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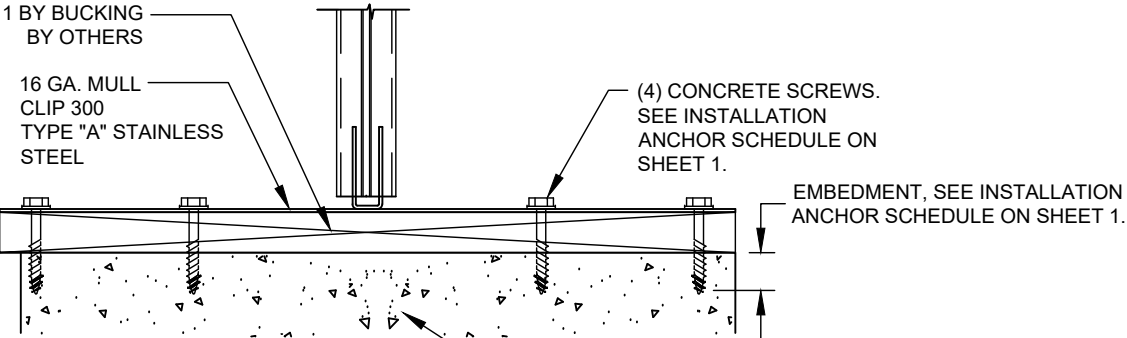
MULLION ANCHOR BRACKET TYPE "A"
MATERIAL: 300 SERIES STAINLESS STEEL
FOR METAL/WOOD SCREW ANCHORING,
MULLION TO MULLION ANCHORING AND
MULLION TO STEEL/ALUMINUM SUBSTRATE ANCHORING.



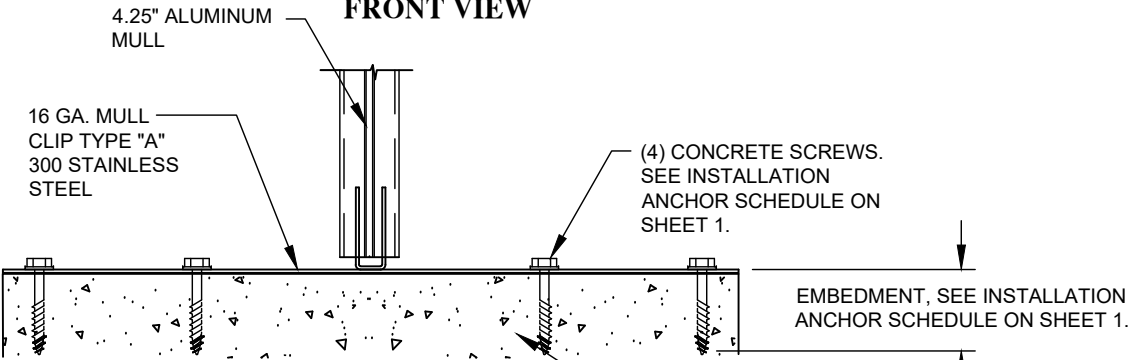
MULLION ANCHOR BRACKET TYPE "A"
MATERIAL: 300 STAINLESS STEEL
FOR CONCRETE SCREW ANCHORING



MULL CLIP ATTACHMENT
TYPE "A"
WOOD FRAME SUBSTRATE
2 BY BUCK OR STUD
FRONT VIEW



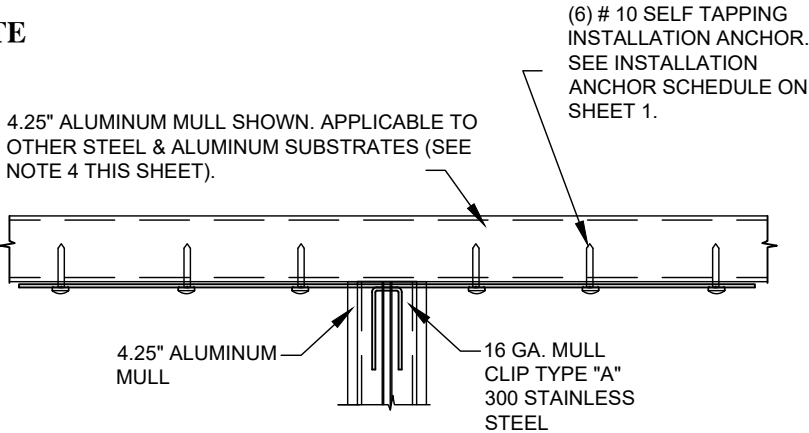
MULL CLIP ATTACHMENT
TYPE "A"
CONCRETE / MASONRY SUBSTRATE
THROUGH 1 BY BUCK
FRONT VIEW



MULL CLIP ATTACHMENT
TYPE "A"
CONCRETE / MASONRY SUBSTRATE
FRONT VIEW

ANCHOR NOTES
TYPE "A" CLIP:

- USE (1) ONE MULL CLIP INSERTED INTO EACH END OF INTERIOR SIDE OF MULLION. SEE DETAIL ON THIS SHEET. SEE INSTALLATION ANCHOR SCHEDULE ON SHEET 1 FOR ADDITIONAL REQUIREMENTS.
- FOR MULL CLIP ATTACHMENT TO WOOD FRAME SUBSTRATES, USE (3) THREE #10 WOOD SCREWS AT EACH CLIP LEG WITH SUFFICIENT LENGTH TO ACHIEVE A 1-1/2" EMBEDMENT INTO FRAMING. SEE DETAIL ON THIS SHEET.
- FOR MULL CLIPS INTO CONCRETE / MASONRY INSTALLATION USE (2) TWO 3/16" CONCRETE SCREWS AT EACH CLIP LEG WITH SUFFICIENT LENGTH TO ACHIEVE THE REQUIRED MINIMUM EMBEDMENT INTO CONCRETE / MASONRY SUBSTRATE SHOWN IN THE INSTALLATION ANCHOR SCHEDULE ON SHEET 1. SEE DETAILS ON THIS SHEET.
- FOR MULL CLIP ATTACHMENT TO 4.25" ALUMINUM MULLION, MIN. 1/8" A-36 STEEL, MIN. 20 GAUGE A-653 STEEL STUD AND MIN. 1/8" 6063-T5 ALUMINUM FRAME SUBSTRATES, USE (3) THREE # 10 SELF TAPPING SCREWS AT EACH CLIP LEG WITH SUFFICIENT LENGTH TO ACHIEVE 3-THREAD PITCH LENGTH INTO METAL FRAMING.



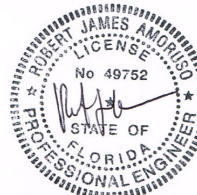
VERTICAL TO HORIZONTAL
TYPE "A"
MULLION OR ALUMINUM/STEEL

TYPE "A" END ANCHOR CLIP
4-1/4" MULLION

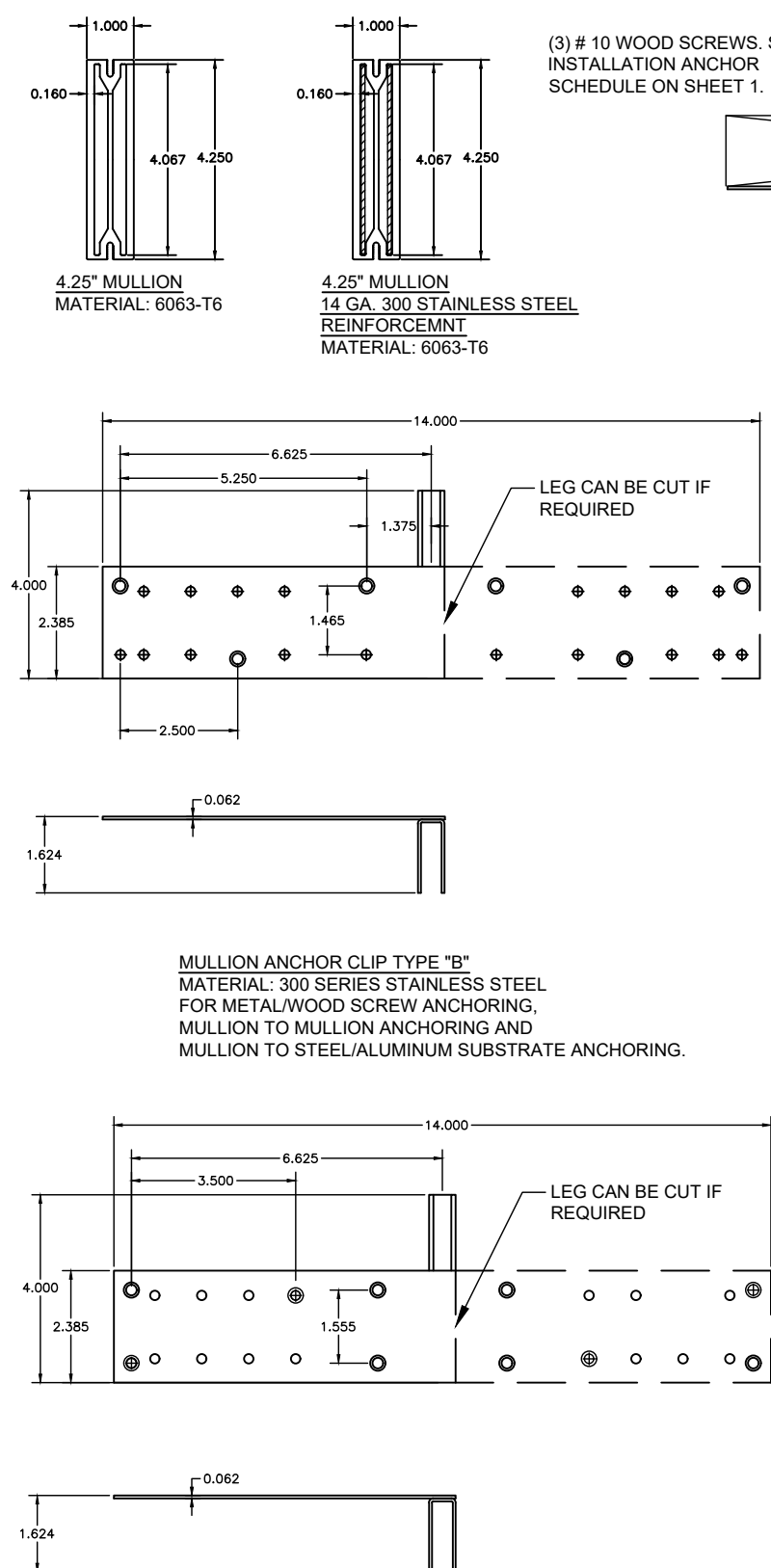
PROJECT # 420-0804				RA	BY
UPDATED TO 7TH EDITION (2020) FBC	9/9/20	RA	RA	RA	DATE
UPDATED TO 6TH EDITION (2017) FBC	1/10/18	C	B	B	REV
UPDATED TO 5TH EDITION (2014) FBC	05/20/15	D	C	B	REV

PELLA CORPORATION 102 MAIN STREET PELLA, IA 50219				DATE: 05/25/11	DRAWING NO: PELL0001	SHEET: 8 OF 9
TITLE: 3" & 4.25" STRUCTURAL MULLIONS 4.25" MULLION CLIP ANCHOR DETAILS - TYPE A				DRAWN BY: RJA	SCALE: N.T.S.	REV: D
PREPARED BY: PTC PRODUCT DESIGN GROUP, LLC PO BOX 520775 LONGWOOD, FLORIDA 32752 FAX: 321.690.1789 EMAIL: info@ptc-corp.com				DATE: 05/25/11	DRAWING NO: PELL0001	SHEET: 8 OF 9

Robert J. Amoruso, P.E.
Florida P.E. No. 49752



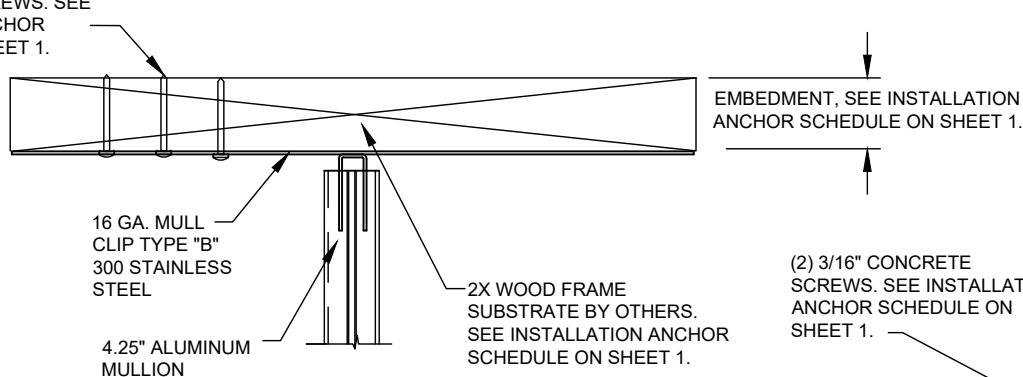
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signed by
Robert J
Amoruso
Date:
2020.09.09
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MULLION ANCHOR CLIP TYPE "B"
MATERIAL: 300 SERIES STAINLESS STEEL
FOR METAL/WOOD SCREW ANCHORING,
MULLION TO MULLION ANCHORING AND
MULLION TO STEEL/ALUMINUM SUBSTRATE ANCHORING.

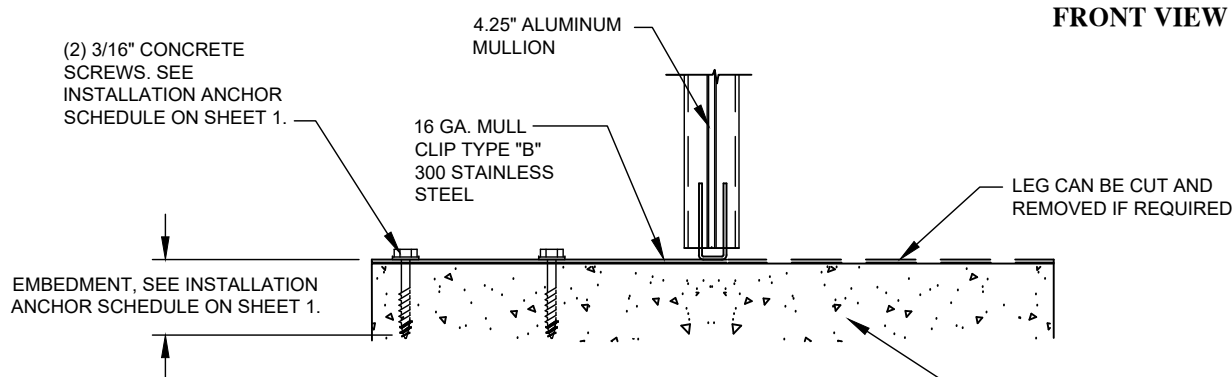
MULLION ANCHOR CLIP TYPE "B"
MATERIAL: 300 STAINLESS STEEL
FOR CONCRETE SCREW ANCHORING

(3) # 10 WOOD SCREWS. SEE
INSTALLATION ANCHOR
SCHEDULE ON SHEET 1.



MULL CLIP ATTACHMENT
TYPE "B"
WOOD FRAME SUBSTRATE
2 BY BUCK OR STUD
FRONT VIEW

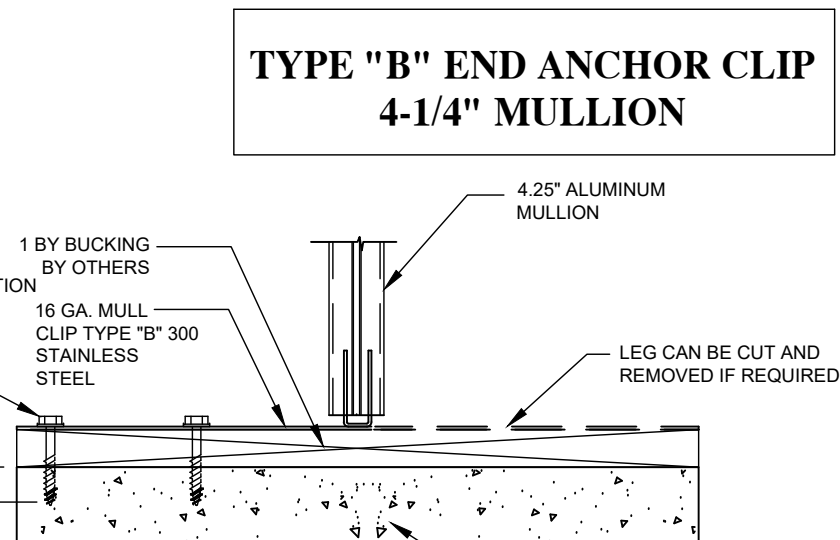
EMBEDMENT, SEE INSTALLATION
ANCHOR SCHEDULE ON SHEET 1.



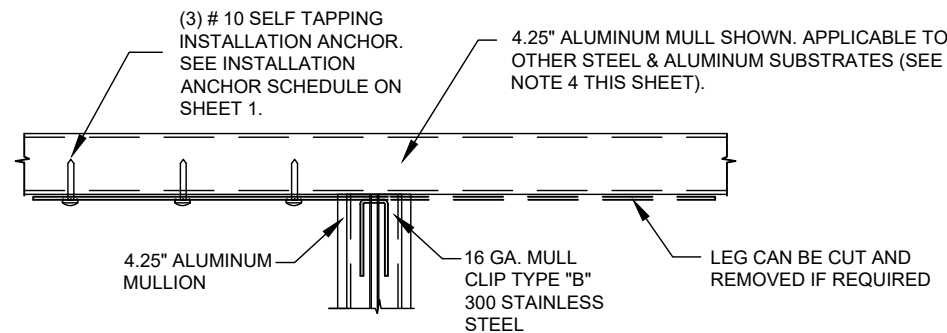
MULL CLIP ATTACHMENT
TYPE "B"
CONCRETE / MASONRY SUBSTRATE
FRONT VIEW

ANCHOR NOTES
TYPE "B" CLIP:

1. USE (1) ONE MULL CLIP INSERTED INTO EACH END OF INTERIOR SIDE OF MULLION. SEE DETAIL ON THIS SHEET. SEE INSTALLATION ANCHOR SCHEDULE ON SHEET 1 FOR ADDITIONAL REQUIREMENTS.
2. FOR MULL CLIP ATTACHMENT TO WOOD FRAME SUBSTRATES, USE (3) THREE #10 WOOD SCREWS AT ONE CLIP LEG WITH SUFFICIENT LENGTH TO ACHIEVE A 1-1/2" EMBEDMENT INTO FRAMING. SEE DETAIL ON THIS SHEET.
3. FOR MULL CLIPS INTO CONCRETE / MASONRY INSTALLATION USE (2) TWO 3/16" CONCRETE SCREWS AT ONE CLIP LEG WITH SUFFICIENT LENGTH TO ACHIEVE THE REQUIRED MINIMUM EMBEDMENT INTO CONCRETE / MASONRY SUBSTRATE SHOWN IN THE INSTALLATION ANCHOR SCHEDULE ON SHEET 1. SEE DETAILS ON THIS SHEET.
4. FOR MULL CLIP ATTACHMENT TO 4.25" ALUMINUM MULLION , MIN. 1/8" A-36 STEEL, MIN. 20 GAUGE A-653 STEEL STUD AND MIN. 1/8" 6063-T5 ALUMINUM FRAME SUBSTRATES, USE (3) THREE # 10 SELF TAPPING SCREWS AT ONE CLIP LEG WITH SUFFICIENT LENGTH TO ACHIEVE 3-THREAD PITCH LENGTH INTO METAL FRAMING. SEE DETAIL ON THIS SHEET.



MULL CLIP ATTACHMENT
TYPE "B"
CONCRETE / MASONRY SUBSTRATE
THROUGH 1 BY BUCK
FRONT VIEW



VERTICAL TO HORIZONTAL
TYPE "B"
MULLION OR ALUMINUM/STEEL
SUBSTRATE ATTACHMENT

TYPE "B" END ANCHOR CLIP
4-1/4" MULLION

PROJECT # 420-0804

DATE	BY	DESCRIPTION
9/9/20	RA	UPDATED TO 7TH EDITION (2020) FBC
1/10/18	RA	UPDATED TO 6TH EDITION (2017) FBC
05/20/15	RA	UPDATED TO 5TH EDITION (2014) FBC
REV	B	

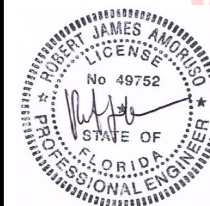
PELLA CORPORATION
102 MAIN STREET
PELLA, IA 50219

TITLE:
3" & 4.25" STRUCTURAL MULLIONS
4.25" MULLION CLIP ANCHOR DETAILS - TYPE B

DATE:	05/25/11
DRAWING NO:	PELL0001
SCALE:	N.T.S.
REV:	D
SHEET:	9 OF 9

PTC PRODUCT DESIGN GROUP, LLC
PO BOX 520775
LONGWOOD, FLORIDA 32752
Phone: 321.690.1788
Fax: 321.690.1789
Email: info@ptc-corp.com

Robert J. Amoruso, P.E.
Florida P.E. No. 49752



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