JELD-WEN

CLIPPED ALUMINUM TUBE MULLION - IMPACT RESISTANT

MULLION SPAN VS. LOAD WIDTH TABLES - INSTALLATION ANCHORAGE DETAILS

GENERAL NOTES:

1. THE SYSTEM DESCRIBED HEREIN IS DESIGNED TO COMPLY WITH THE 2006 INTERNATIONAL BUILDING CODE WITH TEXAS REVISIONS AND THE 2006 INTERNATIONAL RESIDENTIAL CODE WITH TEXAS REVISIONS AT THE DESIGN PRESSURES STATED HEREIN.
2. POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED BY OTHERS ON A JOB SPECIFIC BASIS IN ACCORDANCE WITH CHAPTER 16 OF THE 2006 INTERNATIONAL BUILDING CODE WITH TEXAS REVISIONS AND CHAPTER 3 OF THE 2006 INTERNATIONAL RESIDENTIAL CODE WITH TEXAS REVISIONS.
3. THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT IF REQUIRED.
4. PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS. WOOD BUCKS (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE EXISTING STRUCTURE.
5. ALL EXTRUSIONS SHALL BE 6063-T6 ALUMINUM ALLOY, UNLESS NOTED OTHERWISE.
6. ALL FENESTRATION PRODUCTS TO BE USED WITH THESE MULLIONS SHALL MEET ALL APPLICABLE CODE REQUIREMENTS, e.g. WIND LOAD RESISTANCE, AIR & WATER INFILTRATION, FORCED ENTRY, SAFEGUARDS, ETC.
7. TOP & BOTTOM DETAILS SHOWN MAY BE INTERCHANGED AS FIELD CONDITIONS DICTATE. MULLIONS MAY BE MOUNTED VERTICALLY OR HORIZONTALLY AS APPLICABLE.
8. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
9. MINIMUM ANCHOR EMBEDMENT SHALL BE AS NOTED IN HEREIN. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO, FOAM, BRICK, AND OTHER WALL FINISHES.
10. MULLIONS SHOWN HEREIN MAY BE USED IN LARGE MISSILE IMPACT, SMALL MISSILE IMPACT, AND NON-IMPACT APPLICATIONS. WHERE OPENING PROTECTION IS REQUIRED, FENESTRATION PRODUCTS USED WITH THESE PRODUCTS MUST MEET WIND BORNE DEBRIS IMPACT RESISTANT REQUIREMENTS FOR OPENING PROTECTION OR AN APPROVED IMPACT RESISTANT SHUTTER USED.

TABLE OF CONTENTS

SHEET	SHEET DESCRIPTION
1	GENERAL NOTES, INSTALLATION NOTES & ANCHOR SCHEDULE
2	ELEVATION
3	COMPONENTS
4	C-CLIP AND T-CLIP INSTALLATION DETAILS
5	'GOAL-POST' CLIP INSTALLATION DETAILS
6 & 7	MULLION SPAN VS. LOAD WIDTH TABLES

INSTALLATION NOTES:

1. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
2. ENSURE MINIMUM EDGE DISTANCE FOR ALL ANCHORS AS 2-1/4" TO CONCRETE AND 2" TO HOLLOW BLOCK.
3. WHERE ANCHORS FASTEN TO NARROW FACE OF STUD FRAMING, ANCHOR SHALL BE LOCATED IN CENTER OF NOMINAL 2x (MIN) WOOD STUD (i.e. 3/4" EDGE DISTANCE IS ACCEPTABLE FOR ANCHORS TO WOOD FRAMING).
4. ANCHORS TO STEEL OR ALUMINUM SHALL HAVE A MINIMUM EDGE DISTANCE OF 1/2".
5. WOOD HOST STRUCTURE SHALL HAVE SPECIFIC GRAVITY (SG) = 0.55 OR GREATER.
6. ANCHOR REQUIREMENTS AS SHOWN HEREIN, INCLUDING MINIMUM EMBEDMENT AND EDGE DISTANCE, EXCLUDES STUCCO, FOAM, BRICK, AND OTHER WALL FINISHES.
7. WHERE EXISTING STRUCTURE IS WOOD FRAMING, EXISTING CONDITIONS MAY VARY. FIELD VERIFY THAT FASTENERS ARE INTO STRUCTURAL WOOD FRAMING MEMBERS, NOT SHEATHING.
8. PRESSURE TREATED WOOD BUCKS (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE EXISTING STRUCTURE.
9. ANCHORS TO CONCRETE AND HOLLOW CONCRETE BLOCK MAY NOT BE USED IN CONJUNCTION WITH 'GOAL-POST' CLIP AND CUP PLATE.
10. INSTALLATION OF THE WINDOW TO MULLION SHALL USE THE SAME SIZE WOOD SUBSTRATE INSTALLATION SCREW REQUIRED BY THE WINDOW'S APPROVED TDI PRODUCT EVALUATION REPORT (WIN NO. LISTED BELOW IN NOTE 10.4). A THREAD-FORMING, THREAD-CUTTING OR SELF-DRILLING SCREW MEETING THE REQUIREMENTS SHOWN IN THE ANCHOR SCHEDULE, NOTE 5 BELOW SHALL BE USED. IN ALL CASES A MINIMUM NO. 10 SCREW IS REQUIRED UNLESS THE APPROVED TDI PRODUCT EVALUATION REPORT REQUIRES A LARGER DIAMETER SCREW, IN WHICH CASE THAT SIZE GOVERNS. THE FOLLOWING SHALL ALSO BE ADHERED TO.
    - 10.1. THE ANCHOR QUANTITY AND/OR SPACING SHOWN IN THE WINDOW'S APPROVED TDI PRODUCT EVALUATION REPORT FOR INSTALLATION INTO WOOD SUBSTRATE SHALL BE USED FOR THE INSTALLATION OF THE THREAD-FORMING, THREAD-CUTTING OR SELF-DRILLING SCREW WHEN ATTACHING THE WINDOW TO THE ALUMINUM MULLION.
    - 10.2. FOR FIN WINDOW INSTALLATIONS, THE FIN SHALL BE REMOVED AND THE WINDOW ATTACHED TO THE MULLION USING THE FRAME INSTALLATION METHOD. SEE SHEET 5 FOR TYPICAL DETAIL.
    - 10.3. FOR FRAME WINDOW INSTALLATIONS, THE WINDOW SHALL BE ATTACHED TO THE MULLION USING THE FRAME INSTALLATION METHOD. SEE SHEET 5 FOR TYPICAL DETAIL.
    - 10.4. THE FOLLOWING APPROVED TDI PRODUCT EVALUATION REPORTS ARE APPLICABLE FOR USE WITH THE MULLION SYSTEM.
        - 10.4.1. PREMIUM ATLANTIC ALUMINUM WIN NO. 1359, 1437, 1441, 1442.
        - 10.4.2. BUILDERS ATLANTIC ALUMINUM WIN NO. 1324 AND 1335
        - 10.4.3. PREMIUM ATLANTIC VINYL WIN NO. 760, 761, 782, 940, 1072, 1340, 1342, 1343, 1344, 1351 AND 1414.
        - 10.4.4. BUILDERS VINYL WIN NO. 1153 AND 1478

ANCHOR SCHEDULE:

1. MULL CLIP TO CONCRETE BLOCK
    - 1.1. 3/16" DIA. ITW ADVANCED THREADFORM TAPCONS WITH 1" MINIMUM EMBEDMENT AND 2" MINIMUM EDGE DISTANCE.
    - 1.2. ATTACHMENT MAY BE MADE THROUGH 1X OR 2X WOOD BUCKS OR DIRECTLY INTO MASONRY.
2. MULL CLIP TO 2500 PSI MINIMUM CONCRETE
    - 2.1. 3/16" DIA. ITW ADVANCE THREADFORM TAPCONS WITH 1-1/2" MINIMUM EMBEDMENT AND 2-1/4" MINIMUM EDGE DISTANCE.
    - 2.2. ATTACHMENT MAY BE MADE THROUGH 1X OR 2X WOOD BUCKS OR DIRECTLY INTO CONCRETE.
3. MULL CLIP TO 2X WOOD BUCK OR 2X WOOD FRAME HOST SUBSTRATE
    - 3.1. #10 WOOD SCREWS OF #10 TAPPING SCREWS (SMS OR SDS) WITH 1-1/2" MINIMUM EMBEDMENT AND 3/4" MINIMUM EDGE DISTANCE.
4. MULL CLIP TO 1/8"' THICK MINIMUM 6063-T5 ALUMINIUM OR STEEL SUBSTRATE (Ftu = Fty = 22 KSI MINIMUM)
    - 4.1. #10 316 STAINLESS STEEL SHEET METAL SCREW (SMS) OR SELF DRILLING SCREW (SDS) WITH FULL THREAD PENETRATION THROUGH HOST SUBSTRATE AND 1/2" MINIMUM EDGE DISTANCE.
5. WINDOW TO MULLION
    - 5.1. MINIMUM #10 THREAD-FORMING, THREAD-CUTTING OR SELF-DRILLING TAPPING SCREW AS FOLLOWS. SEE INSTALLATION NOTE 10 ON THIS SHEET FOR MORE DETAILS.
        - 5.1.1. ASME B18.6.4, TYPE B THREAD-FORMING
        - 5.1.2. ASME B18.6.4, TYPE F, D(1) OR T(23) THREAD-CUTTING
        - 5.1.3. ITW TEKS OR SUPER TEKS SELF-DRILLING
6. ALL SCREWS SHALL BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.

REV	DESCRIPTION	DATE	BY
A	REVISED FOR CLARIFICATION OF WINDOW TO MULLION ATTACHMENT	9/21/15	RJA

PROJECT NO. 415-0310

JELD-WEN INC.
3737 LAKEPORT BOULEVARD
KLAMATH FALLS, OR 97601

TITLE: CLIPPED ALUMINUM TUBE MULLION - IMPACT RESISTANT
GENERAL NOTES, INST. NOTES & ANCHOR SCHEDULE

DRAWN BY: RJA | DATE: 1/15/14
SCALE: NONE | DRAWING NO: JELD0109
REV: A | SHEET: 1 OF 7

PREPARED BY:

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Robert J. Amoruso. P.E.
Texas PE No. 80817

9/21/15

STATE OF TEXAS
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80817
LICENSED
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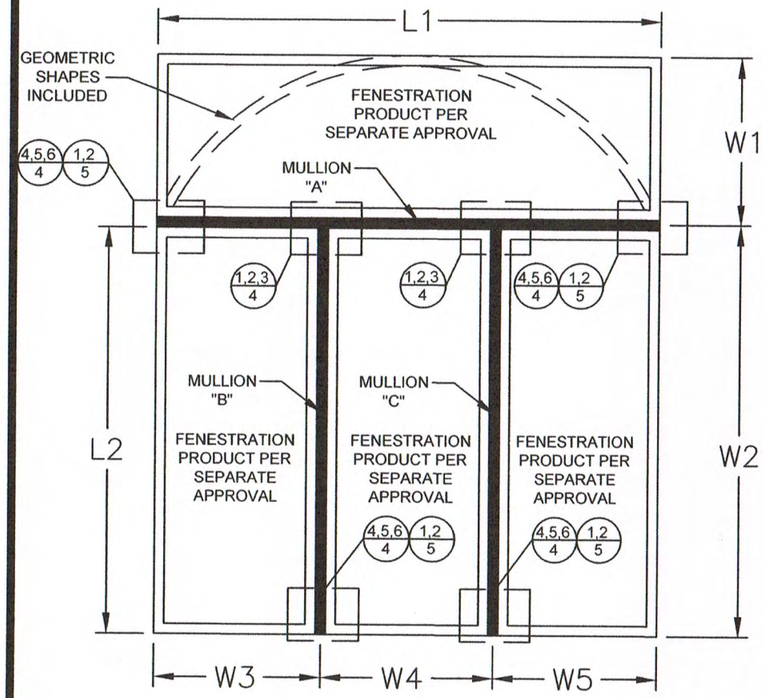
NOTE: MULLION DESIGNATIONS (MULLION "A", MULLION "B" AND MULLION "C") PROVIDED IN DETAILS 1/1, 2/1 AND 3/1 ARE PROVIDED ONLY TO ILLUSTRATE THE DETERMINATION OF MULLION SPANS AND TRIBUTARY WIDTHS. ALL MULLIONS SHOWN IN THE REFERENCED DETAILS MAY BE ANY MULLION APPROVED HEREIN.

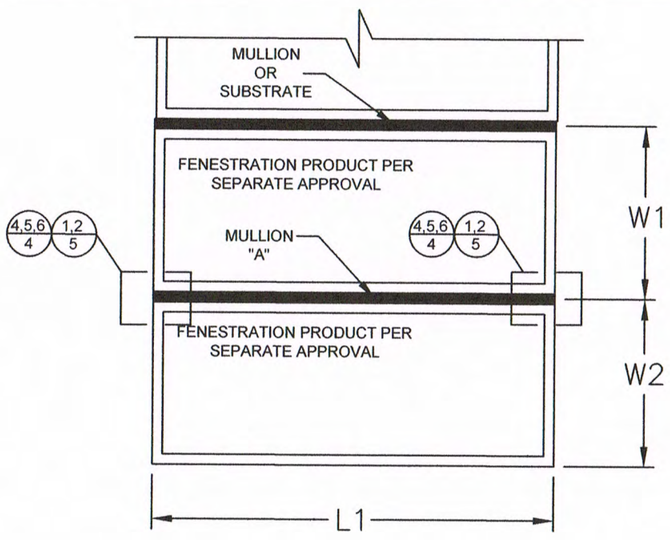


NOTES:

1. NUMBER OF FENESTRATION PRODUCTS UNDERNEATH TRANSOM MAY BE UNLIMITED PROVIDED THAT MULLION LIMITATIONS NOTED HEREIN ARE NOT EXCEEDED.
2. ANCHORAGE OF FENESTRATION PRODUCTS TO MULLIONS SHALL BE PER INSTALLATION NOTE 10 ON SHEET 1.
3. ALLOWABLE DESIGN PRESSURES SHALL BE DETERMINED FROM DESIGN SCHEDULES.
4. MULLION SPANS AND TRIBUTARY WIDTHS SHALL BE DETERMINED AS FOLLOWS:
   - 4.1. MULLION "A"
     - 4.1.1. MULLION SPAN = L1
     - 4.1.2. TRIBUTARY WIDTH = (W1 + W2)/2
   - 4.2. MULLION "B"
     - 4.2.1. MULLION SPAN = L2
     - 4.2.2. TRIBUTARY WIDTH = (W3 + W4)/2
   - 4.3. MULLION "C"
     - 4.3.1. MULLION SPAN = L3
     - 4.3.2. TRIBUTARY WIDTH = (W4 + W5)/2

1/1 MULLED FENESTRATION PRODUCTS WITH TRANSOM

EXTERIOR ELEVATION SHOWN



NOTES:

1. UNLIMITED NUMBER OF FENESTRATION PRODUCTS MAY BE MULLED TOGETHER AS SHOWN PROVIDED THAT MULLION LIMITATIONS NOTED HEREIN ARE NOT EXCEEDED.
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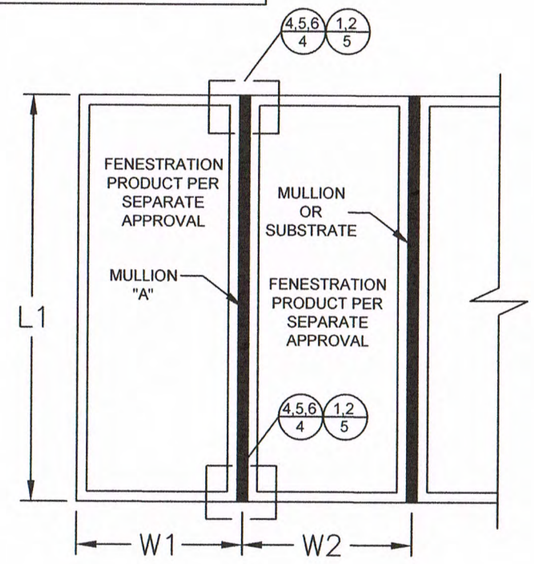
     - 4.1.1. MULLION SPAN = L1
     - 4.1.2. TRIBUTARY WIDTH = (W1 + W2)/2

2/1 FENESTRATION PRODUCTS MULLED VERTICALLY

EXTERIOR ELEVATION SHOWN



NOTES:

1. UNLIMITED NUMBER OF FENESTRATION PRODUCTS MAY BE MULLED TOGETHER AS SHOWN PROVIDED THAT MULLION LIMITATIONS NOTED HEREIN ARE NOT EXCEEDED.
2. ANCHORAGE OF FENESTRATION PRODUCTS TO MULLIONS SHALL BE PER INSTALLATION NOTE 10 ON SHEET 1.
3. ALLOWABLE DESIGN PRESSURES SHALL BE DETERMINED FROM DESIGN SCHEDULES.
4. MULLION SPANS AND TRIBUTARY WIDTHS SHALL BE DETERMINED AS FOLLOWS:
   - 4.1. MULLION "A"
     - 4.1.1. MULLION SPAN = L1
     - 4.1.2. TRIBUTARY WIDTH = (W1 + W2)/2

3/1 FENESTRATION PRODUCTS MULLED HORIZONTALLY

EXTERIOR ELEVATION SHOWN

REV	DESCRIPTION	DATE	BY
A	REVISED FOR CLARIFICATION OF WINDOW TO MULLION ATTACHMENT	9/21/15	RJA

PROJECT NO. 415-0310

JELD-WEN INC.
3737 LAKEPORT BOULEVARD
KLAMATH FALLS, OR 97601

TITLE: CLIPPED ALUMINUM TUBE MULLION - IMPACT RESISTANT ELEVATIONS

DRAWN BY: RJA
DATE: 1/15/14
SCALE: NONE
DRAWING NO: JELD0109
REV: A
SHEET: 2 OF 7

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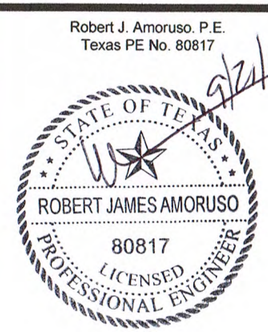
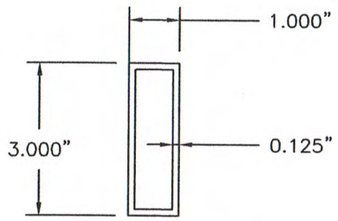
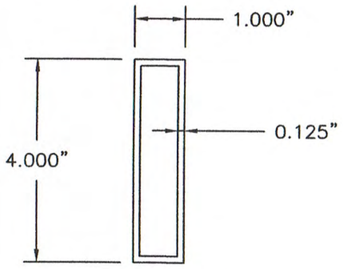
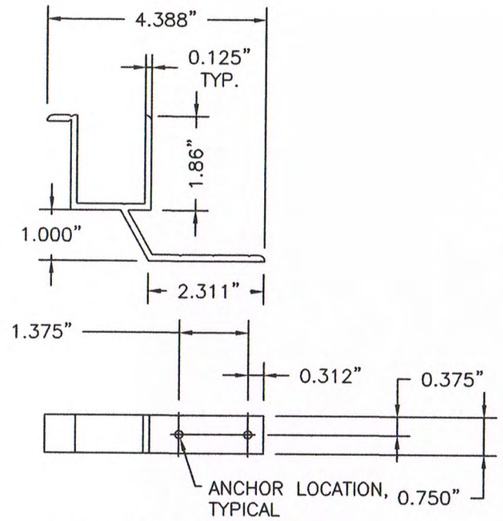




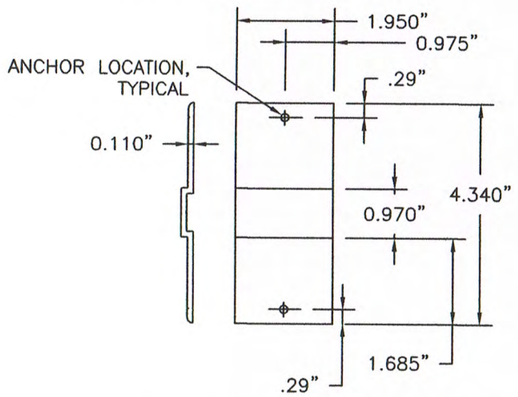
1 1" X 3" MULLION
6063-T6 ALUM.



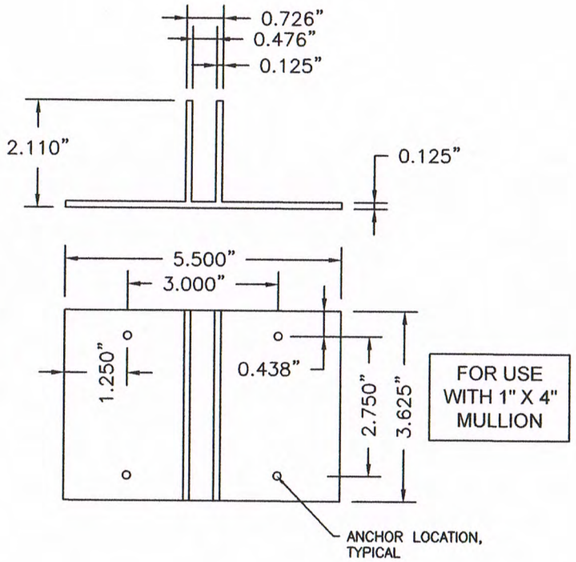
2 1" X 4" MULLION
6063-T6 ALUM.

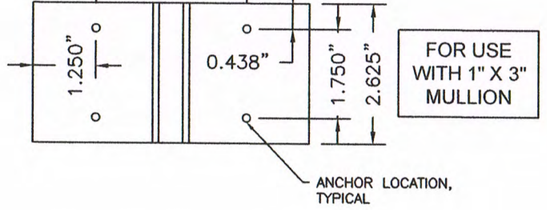


3 'GOAL-POST' CLIP
6063-T6 ALUM.

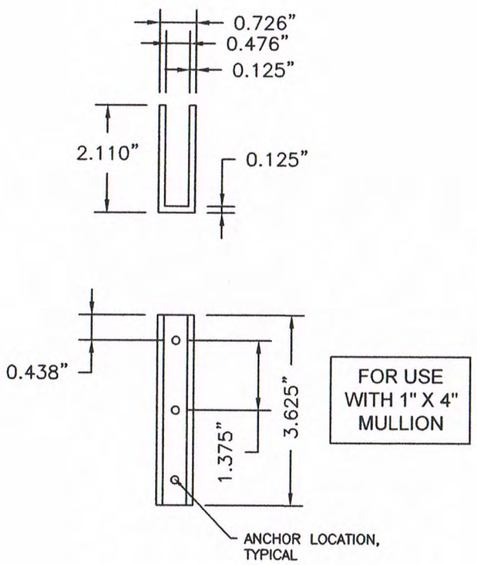


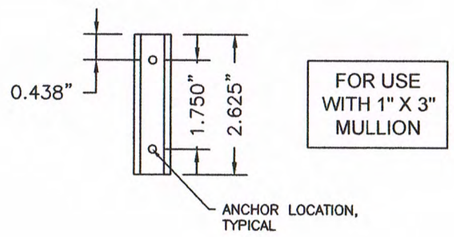
4 'GOAL-POST' CLIP PLATE
6063-T6 ALUM.





5 T-CLIP
6063-T6 ALUM.





6 C-CLIP
6063-T6 ALUM.

REV	DESCRIPTION	DATE	BY
A	REVISED FOR CLARIFICATION OF WINDOW TO MULLION ATTACHMENT	9/21/15	RJA

PROJECT NO. 415-0310

JELD-WEN INC.
3737 LAKEPORT BOULEVARD
KLAMATH FALLS, OR 97601

TITLE: CLIPPED ALUMINUM TUBE MULLION - IMPACT RESISTANT COMPONENTS

DRAWN BY: RJA | DATE: 1/15/14
SCALE: NONE | DRAWING NO: JELD0109
REV: A | SHEET: 3 OF 7

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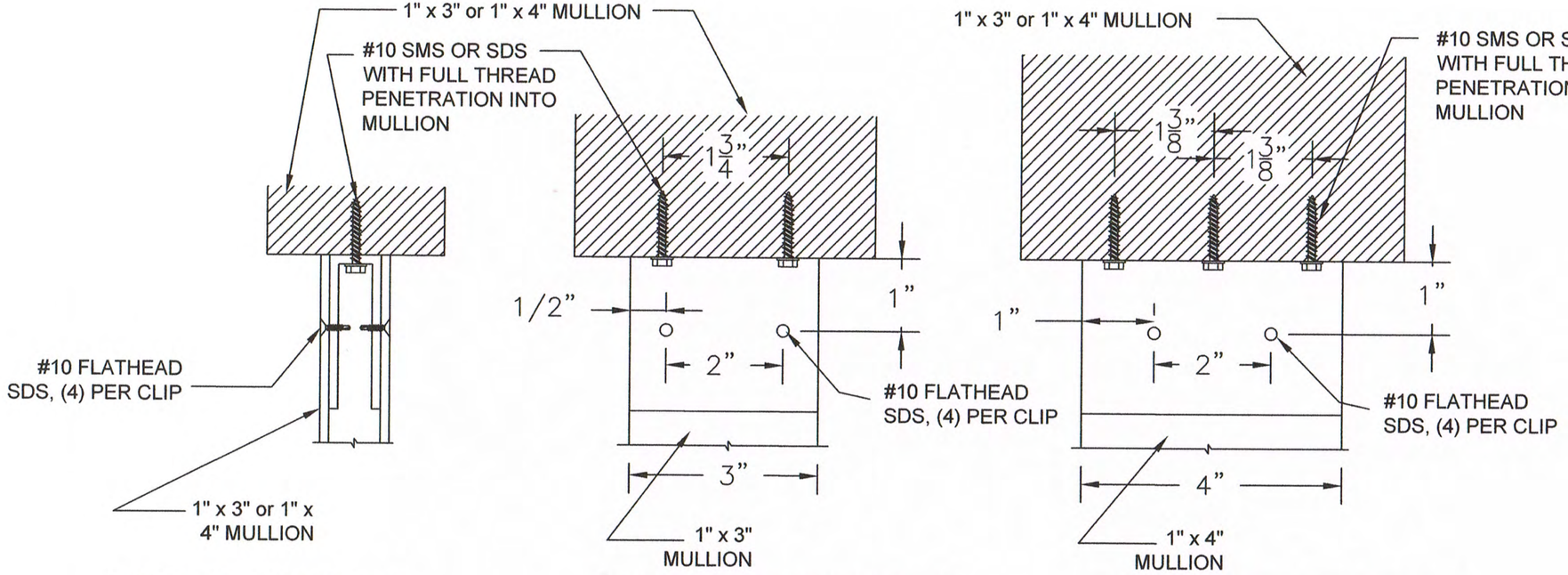
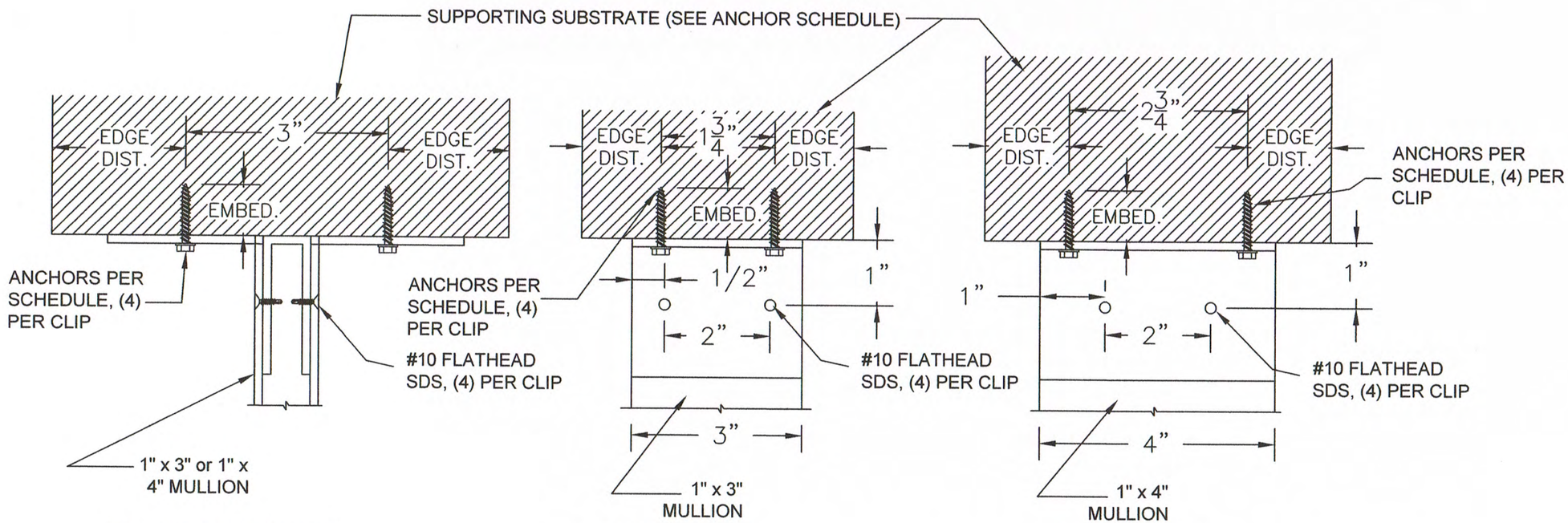


1/4 TYPICAL ATTACHMENT AT MULLION INTERSECTION W/C-CLIP
VERTICAL SECTION

2/4 1" X 3" MULLION ATTACHMENT AT MULLION INTERSECTION W/C-CLIP
SIDE ELEVATION

3/4 1" X 4" MULLION ATTACHMENT AT MULLION INTERSECTION W/C-CLIP
SIDE ELEVATION



4/4 TYPICAL ATTACHMENT WITH T-CLIP
VERTICAL SECTION

5/4 1" X 3" MULLION ATTACHMENT WITH T-CLIP
SIDE ELEVATION

6/4 1" X 4" MULLION ATTACHMENT WITH T-CLIP
SIDE ELEVATION

REV	DESCRIPTION	DATE	BY
A	REVISED FOR CLARIFICATION OF WINDOW TO MULLION ATTACHMENT	9/21/15	RJA

PROJECT NO. 415-0310

JELD-WEN INC.
3737 LAKEPORT BOULEVARD
KLAMATH FALLS, OR 97601

TITLE: CLIPPED ALUMINUM TUBE MULLION - IMPACT RESISTANT C-CLIP AND T-CLIP INSTALLATION DETAILS

DRAWN BY: RJA
DATE: 1/15/14
SCALE: NONE
DRAWING NO: JELD0109
REV: A
SHEET: 4 OF 7

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9/21/15

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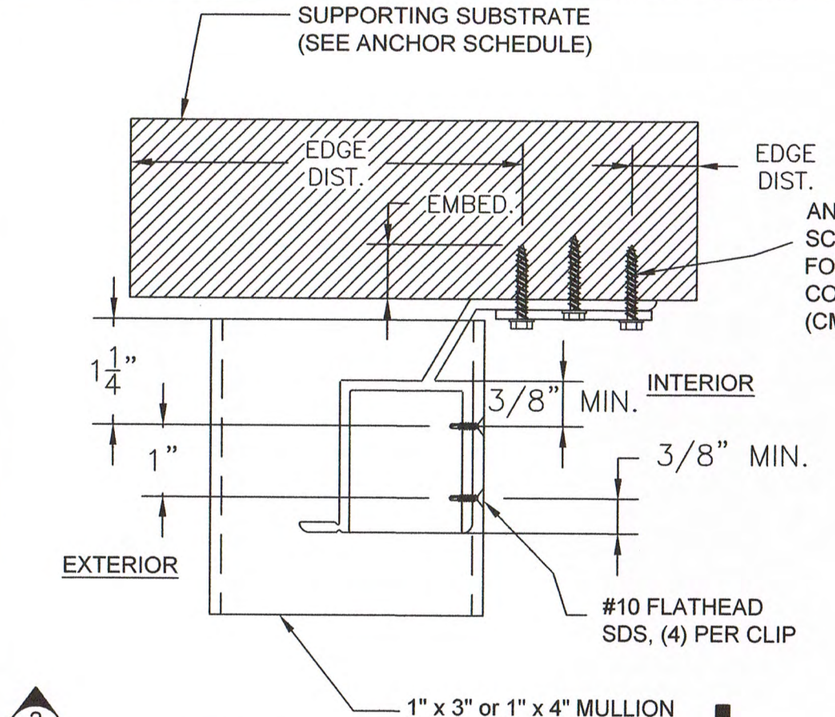
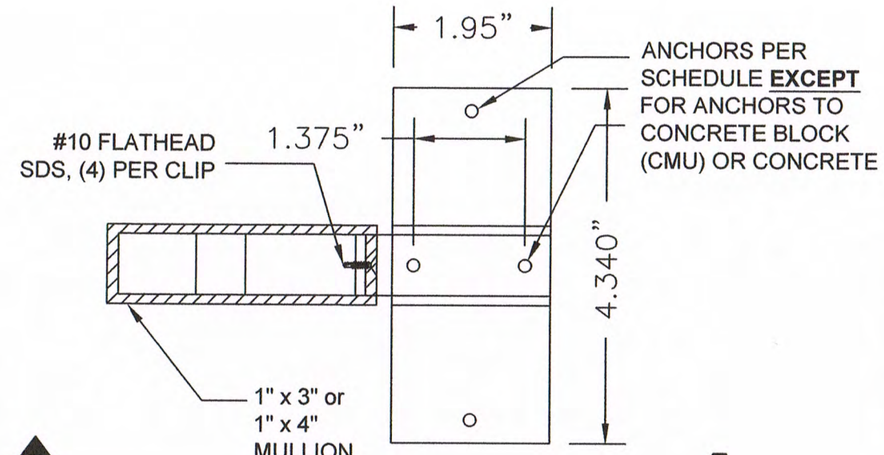


2/5

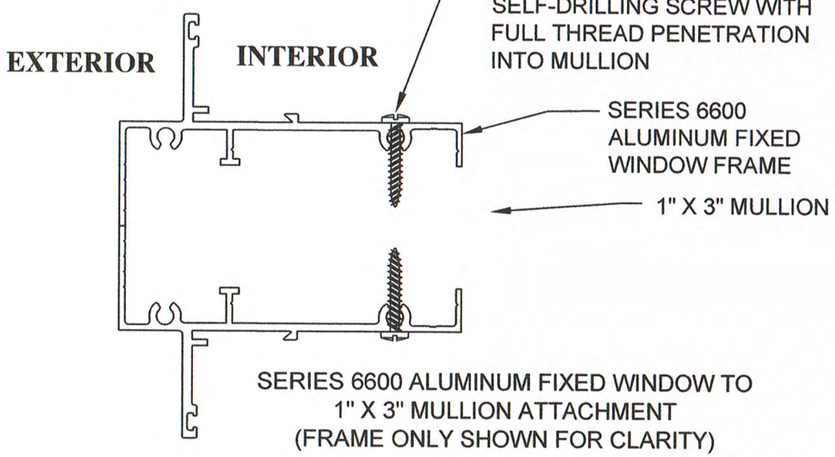
TYPICAL ATTACHMENT WITH 'GOAL-POST' CLIP
1/5 SIDE ELEVATION

NOTE: 'GOAL-POST' CLIP AND CLIP PLATE SHALL **NOT** BE USED WITH 3/16" TAPCONS FOR ANCHORAGE TO CONCRETE OR HOLLOW CONCRETE BLOCK. MAY BE USED ONLY FOR ANCHORAGE TO WOOD, ALUMINUM OR STEEL.

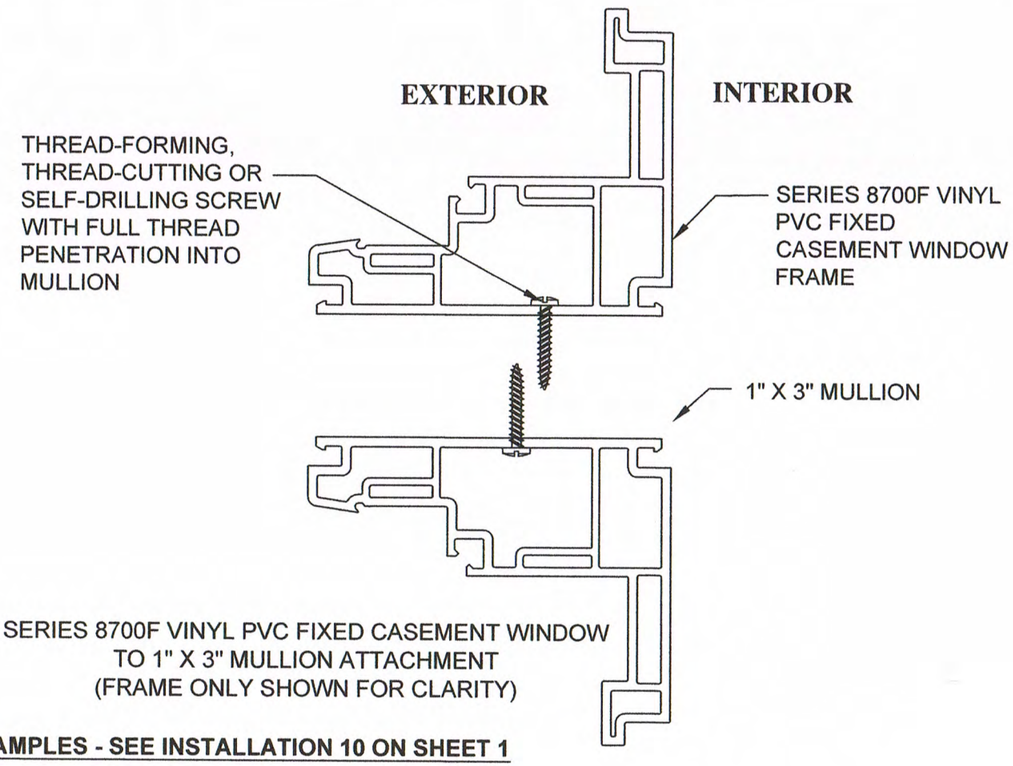


1/5

TYPICAL ATTACHMENT WITH 'GOAL-POST' CLIP
2/5 SECTION



SERIES 6600 ALUMINUM FIXED WINDOW TO 1" X 3" MULLION ATTACHMENT
(FRAME ONLY SHOWN FOR CLARITY)



SERIES 8700F VINYL PVC FIXED CASEMENT WINDOW TO 1" X 3" MULLION ATTACHMENT
(FRAME ONLY SHOWN FOR CLARITY)

WINDOW TO MULLION INSTALLATION EXAMPLES - SEE INSTALLATION 10 ON SHEET 1

REV	DESCRIPTION	DATE	BY
A	REVISED FOR CLARIFICATION OF WINDOW TO MULLION ATTACHMENT	9/21/15	RJA

PROJECT NO. 415-0310

JELD-WEN INC.
3737 LAKEPORT BOULEVARD
KLAMATH FALLS, OR 97601

TITLE: CLIPPED ALUMINUM TUBE MULLION - IMPACT RESISTANT 'GOAL-POST' CLIP INSTALLATION DETAILS

DRAWN BY: RJA
DATE: 1/15/14
SCALE: NONE
DRAWING NO: JELD0109
REV: A
SHEET: 5 OF 7

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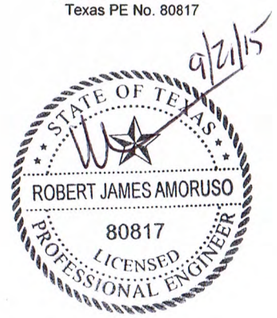

DESIGN SCHEDULE - 1" X 3" MULLION SPAN/LOAD WIDTH TABLES

1" x 3" MULLION AND GOAL-POST CLIP W/O PLATE

Mullion Span (in) \ Tributary Load Width (in)	18	21	24	27	30	33	36	39	42	45	48	53
106	28.3	24.4	21.4	19.2	17.4	15.9	14.7	13.7	12.8	12.1	11.4	10.5
100	33.8	29.1	25.6	22.9	20.8	19.0	17.6	16.4	15.4	14.5	13.7	12.7
96	38.2	32.9	29.0	26.0	23.5	21.6	20.0	18.6	17.5	16.5	15.7	14.5
90	46.5	40.1	35.3	31.6	28.7	26.4	24.4	22.8	21.4	20.3	19.3	17.9
86	53.4	46.0	40.6	36.4	33.1	30.4	28.2	26.3	24.8	23.5	22.4	20.9
84	57.3	49.5	43.6	39.1	35.6	32.7	30.3	28.4	26.7	25.3	24.2	22.5
80	64.4	55.6	49.0	43.9	39.9	36.6	34.0	31.8	29.9	28.3	27.0	25.2
78	67.8	58.5	51.6	46.3	42.1	38.7	35.9	33.6	31.6	30.0	28.6	26.7
76	71.5	61.7	54.5	48.9	44.4	40.9	37.9	35.5	33.5	31.8	30.4	28.5
72	75.0	69.0	60.9	54.7	49.8	45.9	42.7	40.0	37.8	36.0	34.4	32.4
66	75.0	75.0	73.0	65.7	60.0	55.4	51.7	48.6	46.1	44.1	42.4	40.3
60	75.0	75.0	75.0	75.0	73.7	68.3	64.0	60.5	57.7	55.4	53.7	51.7
54	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	74.6	72.4	70.8	69.6
50.6	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
48	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
42	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
38.4	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
36	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
30	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
24	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0

1" X 3" MULLION AND GOAL-POST CLIP W/PLATE OR T-CLIP

Mullion Span (in) \ Tributary Load Width (in)	18	21	24	27	30	33	36	39	42	45	48	53
106	28.3	24.4	21.4	19.2	17.4	15.9	16.4	13.7	12.8	12.1	11.4	10.5
100	33.8	29.1	25.6	22.9	20.8	19.0	18.6	16.4	15.4	14.5	13.7	12.7
96	38.2	32.9	29.0	26.0	23.5	21.6	22.8	18.6	17.5	16.5	15.7	14.5
90	46.5	40.1	35.3	31.6	28.7	26.4	26.3	22.8	21.4	20.3	19.3	17.9
86	53.4	46.0	40.6	36.4	33.1	30.4	28.4	26.3	24.8	23.5	22.4	20.9
84	57.3	49.5	43.6	39.1	35.6	32.7	31.8	28.4	26.7	25.3	24.2	22.5
80	64.4	55.6	49.0	43.9	39.9	36.6	33.6	31.8	29.9	28.3	27.0	25.2
78	67.8	58.5	51.6	46.3	42.1	38.7	35.5	33.6	31.6	30.0	28.6	26.7
76	71.5	61.7	54.5	48.9	44.4	40.9	40.0	35.5	33.5	31.8	30.4	28.5
72	75.0	69.0	60.9	54.7	49.8	45.9	48.6	40.0	37.8	36.0	34.4	32.4
66	75.0	75.0	73.0	65.7	60.0	55.4	60.5	48.6	46.1	44.1	42.4	40.3
60	75.0	75.0	75.0	75.0	73.7	68.3	75.0	60.5	57.7	55.4	53.7	51.7
54	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	74.6	72.4	70.8	69.6
50.6	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
48	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
42	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
38.4	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
36	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
30	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
24	75.0	75.0	75.0	75.0	75.0	75.0	0.0	75.0	75.0	75.0	75.0	75.0

1" x 3" MULLION AND C-CLIP

Mullion Span (in) \ Tributary Load Width (in)	18	21	24	27	30	33	36	39	42	45	48	53
106	28.3	24.4	21.4	19.2	17.4	15.9	14.7	13.7	12.8	12.1	11.4	10.5
100	33.8	29.1	25.6	22.9	20.8	19.0	17.6	16.4	15.4	14.5	13.7	12.7
96	38.2	32.9	29.0	26.0	23.5	21.6	20.0	18.6	17.5	16.5	15.7	14.5
90	46.5	40.1	35.3	31.6	28.7	26.4	24.4	22.8	21.4	20.3	19.3	17.9
86	53.4	46.0	40.6	36.4	33.1	30.4	28.2	26.3	24.8	23.5	22.4	20.9
84	57.3	49.5	43.6	39.1	35.6	32.7	30.3	28.4	26.7	25.3	24.2	22.5
80	64.4	55.6	49.0	43.9	39.9	36.6	34.0	31.8	29.9	28.3	27.0	25.2
78	67.8	58.5	51.6	46.3	42.1	38.7	35.9	33.6	31.6	30.0	28.6	26.7
76	71.5	61.7	54.5	48.9	44.4	40.9	37.9	35.5	33.5	31.8	30.4	28.5
72	75.0	69.0	60.9	54.7	49.8	45.9	42.7	40.0	37.8	36.0	34.4	32.4
66	75.0	75.0	73.0	65.7	60.0	55.4	51.7	48.6	46.1	44.1	42.4	40.3
60	75.0	75.0	75.0	75.0	73.7	68.3	64.0	60.5	57.7	55.4	53.7	51.7
54	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	74.6	72.4	70.8	69.6
50.6	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
48	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
42	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
38.4	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
36	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
30	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
24	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0

DESIGN SCHEDULE NOTES:

1. DESIGN SCHEDULES PROVIDE MAXIMUM ALLOWABLE POSITIVE (+) AND NEGATIVE(-) DESIGN PRESSURES FOR USE WITH MULLION SYSTEM IN POUNDS PER SQUARE FOOT (PSF).
2. FOR DETERMINATION OF MULLION SPANS AND TRIBUTARY WIDTHS, SEE ELEVATIONS ON SHEET 2.
3. FOR INSTALLATIONS UTILIZING MORE THAN ONE TYPE OF CLIP PER MULLION, USE THE LESSER ALLOWABLE DESIGN PRESSURE.
4. 'GOAL-POST' CLIP MAY NOT BE USED FOR INSTALLATIONS TO CONCRETE OR CONCRETE BLOCK (CMU).

PROJECT NO. 415-0310

REV	DESCRIPTION	DATE	BY
A	REVISED FOR CLARIFICATION OF WINDOW TO MULLION ATTACHMENT	9/21/15	RJA

JELD-WEN INC.
3737 LAKEPORT BOULEVARD
KLAMATH FALLS, OR 97601

TITLE: CLIPPED ALUMINUM TUBE MULLION - IMPACT RESISTANT MULLION SPAN VS. LOAD WIDTH TABLES

DRAWN BY: RJA | DATE: 1/15/14
SCALE: NONE | DRAWING NO: JELD0109
REV: A | SHEET: 6 OF 7

PREPARED BY:
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Phone: 321.690.1788
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Robert J. Amoruso. P.E.
Texas PE No. 80817

9/21/15

STATE OF TEXAS
ROBERT JAMES AMORUSO
80817
LICENSED
PROFESSIONAL ENGINEER

DESIGN SCHEDULE - 1" X 4" MULLION SPAN/LOAD WIDTH TABLES

1" x 4" MULLION AND GOAL-POST CLIP W/O PLATE

Span vs. LW		Tributary Load Width (in)											
		18	21	24	27	30	33	36	39	42	45	48	53
Mullion Span (in)	106	58.6	50.4	44.3	39.5	35.8	32.7	30.2	28.0	26.2	24.7	23.4	21.5
	100	65.9	56.7	49.9	44.5	40.3	36.9	34.1	31.7	29.7	28.0	26.5	24.4
	96	71.6	61.6	54.2	48.4	43.9	40.2	37.1	34.6	32.4	30.5	28.9	26.7
	90	75.0	70.3	61.8	55.3	50.2	46.0	42.5	39.6	37.2	35.1	33.3	30.9
	86	75.0	75.0	67.9	60.8	55.1	50.6	46.8	43.7	41.0	38.8	36.9	34.3
	84	75.0	75.0	71.2	63.8	57.9	53.1	49.2	45.9	43.2	40.9	38.9	36.2
	80	75.0	75.0	75.0	70.6	64.1	58.9	54.6	51.1	48.1	45.6	43.4	40.5
	78	75.0	75.0	75.0	74.4	67.6	62.2	57.7	54.0	50.8	48.2	46.0	43.0
	76	75.0	75.0	75.0	75.0	71.4	65.7	61.0	57.1	53.9	51.1	48.8	45.8
	72	75.0	75.0	75.0	75.0	75.0	73.8	68.6	64.3	60.8	57.8	55.4	52.1
	66	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	74.2	70.8	68.1	64.7
	60	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
	54	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
	50.6	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
	48	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
	42	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
	38.4	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
	36	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
	30	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
	24	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0

1" X 4" MULLION AND GOAL-POST CLIP W/PLATE OR T-CLIP

Span vs. LW		Tributary Load Width (in)											
		18	21	24	27	30	33	36	39	42	45	48	53
Mullion Span (in)	106	58.6	50.4	44.3	39.5	35.8	32.7	31.7	28.0	26.2	24.7	23.4	21.5
	100	65.9	56.7	49.9	44.5	40.3	36.9	34.6	31.7	29.7	28.0	26.5	24.4
	96	71.6	61.6	54.2	48.4	43.9	40.2	39.6	34.6	32.4	30.5	28.9	26.7
	90	75.0	70.3	61.8	55.3	50.2	46.0	43.7	39.6	37.2	35.1	33.3	30.9
	86	75.0	75.0	67.9	60.8	55.1	50.6	45.9	43.7	41.0	38.8	36.9	34.3
	84	75.0	75.0	71.2	63.8	57.9	53.1	51.1	45.9	43.2	40.9	38.9	36.2
	80	75.0	75.0	75.0	70.6	64.1	58.9	54.0	51.1	48.1	45.6	43.4	40.5
	78	75.0	75.0	75.0	74.4	67.6	62.2	57.1	54.0	50.8	48.2	46.0	43.0
	76	75.0	75.0	75.0	75.0	71.4	65.7	64.3	57.1	53.9	51.1	48.8	45.8
	72	75.0	75.0	75.0	75.0	75.0	73.8	75.0	64.3	60.8	57.8	55.4	52.1
	66	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	74.2	70.8	68.1	64.7
	60	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
	54	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
	50.6	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
	48	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
	42	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
	38.4	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
	36	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
	30	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
	24	75.0	75.0	75.0	75.0	75.0	75.0	0.0	75.0	75.0	75.0	75.0	75.0

1" x 4" MULLION AND C-CLIP

Span vs. LW		Tributary Load Width (in)											
		18	21	24	27	30	33	36	39	42	45	48	53
Mullion Span (in)	106	58.6	50.4	44.3	39.5	35.8	32.7	30.2	28.0	26.2	24.7	23.4	21.5
	100	65.9	56.7	49.9	44.5	40.3	36.9	34.1	31.7	29.7	28.0	26.5	24.4
	96	71.2	61.6	54.2	48.4	43.9	40.2	37.1	34.6	32.4	30.5	28.9	26.7
	90	75.0	66.8	59.5	54.0	49.5	46.0	42.5	39.6	37.2	35.1	33.3	30.9
	86	75.0	70.3	62.8	56.9	52.3	48.6	45.5	43.0	40.8	38.8	36.9	34.3
	84	75.0	72.2	64.5	58.6	53.8	50.0	46.9	44.3	42.1	40.3	38.7	36.2
	80	75.0	75.0	68.3	62.1	57.2	53.2	49.9	47.2	45.0	43.1	41.5	39.3
	78	75.0	75.0	70.4	64.0	59.0	54.9	51.6	48.9	46.6	44.6	43.0	40.8
	76	75.0	75.0	72.6	66.0	60.9	56.8	53.4	50.6	48.2	46.3	44.7	42.5
	72	75.0	75.0	75.0	70.6	65.2	60.9	57.3	54.4	52.0	50.0	48.4	46.2
	66	75.0	75.0	75.0	75.0	72.8	68.2	64.5	61.5	59.0	56.9	55.3	53.2
	60	75.0	75.0	75.0	75.0	75.0	75.0	73.7	70.6	68.0	66.0	64.5	62.8
	54	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
	50.6	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
	48	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
	42	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
	38.4	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
	36	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
	30	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
	24	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0

DESIGN SCHEDULE NOTES:

1. DESIGN SCHEDULES PROVIDE MAXIMUM ALLOWABLE POSITIVE (+) AND NEGATIVE(-) DESIGN PRESSURES FOR USE WITH MULLION SYSTEM IN POUNDS PER SQUARE FOOT (PSF).
2. FOR DETERMINATION OF MULLION SPANS AND TRIBUTARY WIDTHS, SEE ELEVATIONS ON SHEET 2.
3. FOR INSTALLATIONS UTILIZING MORE THAN ONE TYPE OF CLIP PER MULLION, USE THE LESSER ALLOWABLE DESIGN PRESSURE.
4. 'GOAL-POST' CLIP MAY NOT BE USED FOR INSTALLATIONS TO CONCRETE OR CONCRETE BLOCK (CMU).

PROJECT NO. 415-0310

REV	DESCRIPTION	DATE	BY
A	REVISED FOR CLARIFICATION OF WINDOW TO MULLION ATTACHMENT	9/21/15	RJA

JELD-WEN INC.
3737 LAKEPORT BOULEVARD
KLAMATH FALLS, OR 97601

TITLE: CLIPPED ALUMINUM TUBE MULLION - IMPACT RESISTANT MULLION SPAN VS. LOAD WIDTH TABLES

DRAWN BY: RJA | DATE: 1/15/14
SCALE: NONE | DRAWING NO: JELD0109
REV: A | SHEET: 7 OF 7

PREPARED BY:
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9/21/15

STATE OF TEXAS
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