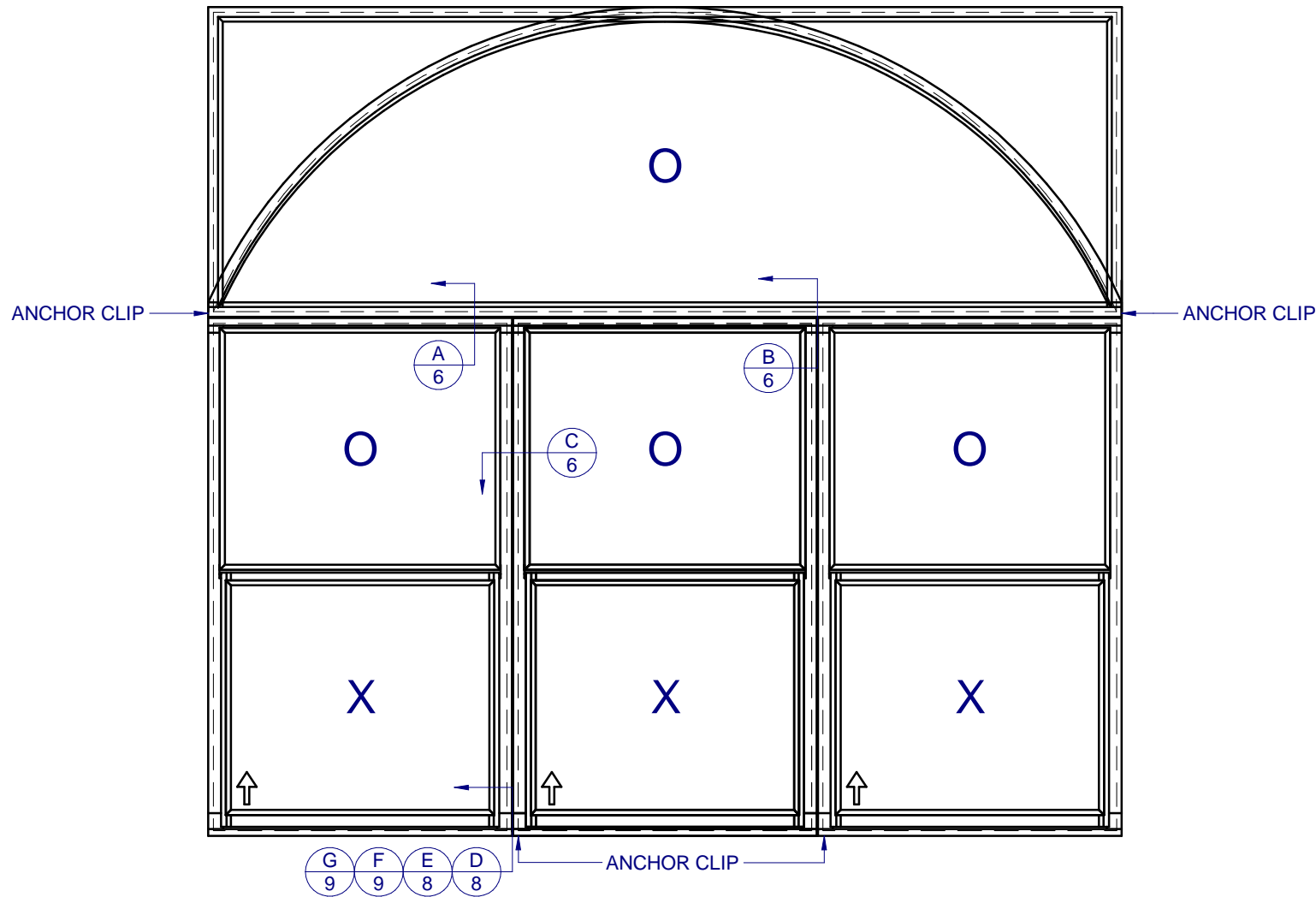


5-1/2" PVC MULL BAR - LARGE MISSILE IMPACT



EXAMPLE HORIZ./VERT. MULLION FOR SECTION VIEW ONLY

GENERAL NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE FLORIDA BUILDING CODE (FBC), CURRENT EDITION INCLUDING THE HIGH VELOCITY HURRICANE ZONE (HVHZ) AND IS RATED FOR WIND ZONE 4 MISSILE LEVEL D IMPACT USE AS DEFINED IN ASTM E 1996 PER THE FBC.
2. CONFIGURATIONS (SEE SHEETS 2-3): VERTICAL OR HORIZONTAL.
3. SEE MULLION CHARTS FOR MAX. DESIGN PRESSURES AND LENGTH. (REFER TO SHEETS 2-3)
4. ANCHORAGE: THE 33 1/3% STRESS INCREASE HAS NOT BEEN USED IN THE DESIGN OF THIS PRODUCT. SEE SHEETS 8-9 FOR ANCHOR DETAILS. WINDLOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
5. PRODUCT APPROVED FOR IMPACT RESISTANCE. USE OF SHUTTERS IS NOT REQUIRED.
6. DESIGN PRESSURE OF MULLED UNITS SHALL BE CONTROLLED BY THE LESSER DESIGN PRESSURE OF THE MULLION OR THE INDIVIDUAL WINDOW UNITS.
7. DESIGN PRESSURES AND INSTALLATION DETAILS SHOWN IN THIS DOCUMENT APPLY ONLY TO THE MULLION. WINDOWS MUST BE APPROVED UNDER SEPARATE APPROVAL.
8. RESPONSIBILITY OF SELECTING FENESTRATION PRODUCTS TO MEET ANY APPLICABLE LOCAL LAWS, BUILDING CODES, ORDINANCES OR OTHER SAFETY REQUIREMENTS RESTS SOLELY WITH THE ARCHITECT, ENGINEER OF RECORD, BUILDING OWNER OR CONTRACTOR.
9. SINGLE UNITS TO BE MULLED ARE NOT LIMITED TO THOSE SHOWN IN THIS DRAWING. SINGLE UNITS TO BE MULLED TOGETHER MUST BE MANUFACTURED BY CUSTOM WINDOW SYSTEMS, INC. AND MUST BE MADE OUT OF VINYL PVC OR EXTRUDED ALUMINUM.
10. VERTICAL MULLED UNITS MAY BE MULLED INDEFINITELY AS LONG AS THE SINGLE UNIT WIDTH AND HEIGHT ARE NOT EXCEEDED, AND MULLIONS ARE ANCHORED AS SHOWN HERE IN.
11. HORIZONTAL MULLION SHALL EXTEND THE ENTIRE WIDTH OF THE MULLED UNIT. VERTICAL MULLION IS USED TO MULL SIDE BY SIDE UNITS TOGETHER.



5-1/2" PVC MULL BAR IMPACT

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FLORIDA APPROVAL NO.:
9520



9/20/2023

LUCAS A. TURNER, P.E.
 FL PE # 58201
 Turner Engineering & Consulting, Inc.
 2428 Old Natchez Trc Trl
 Camden, TN 38320
 PH. 941-380-1574

SHEET DESCRIPTION:
GENERAL NOTES AND ELEVATIONS

DRAWN BY: MCS	DATE: 9/8/2023
DWG #: CWS-838	REV.: D
SCALE: 1:20	SHEET 1 OF 9

TABLE OF CONTENTS

GENERAL NOTES & ELEVATIONS.....	1
DP CHARTS.....	2-3
BOM & EXTRUSIONS.....	4
EXTRUSIONS.....	5
SECTION VIEWS.....	6
CONFIGURATIONS & ANCHOR NOTES.....	7
INSTALLATION DETAILS.....	8-9

Design Pressure Chart, PSF, for Non-Intersected Impact PVC 5 1/2" Mullion H-1760, w/1603 or 1767 clips. See note below chart for anchorage requirements.

		OPENING SIZE (in.)																
		51	57	63	69	75	81	87	93	99	104	110	116	122	128	134	140	146
MULL LENGTH (in.)	63	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
	66 3/4	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
	72	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	109.9	107.5	105.1	103.1	101.6	100.4	99.7	99.3	99.2
	76	110.0	110.0	110.0	110.0	110.0	110.0	110.0	109.0	104.8	101.4	98.9	96.4	94.3	92.6	91.3	90.3	89.6
	80	110.0	110.0	110.0	110.0	110.0	106.3	101.5	97.4	94.0	91.6	89.0	86.9	85.2	83.7	82.5	81.6	81.0
	84	110.0	110.0	110.0	110.0	105.1	99.6	95.0	91.0	87.7	85.3	82.7	80.6	78.8	77.3	76.0	75.0	74.2
	90	110.0	110.0	109.9	102.4	96.2	91.0	86.6	82.8	79.6	77.3	74.8	72.7	70.8	69.3	67.9	66.8	65.8
	96	110.0	110.0	101.7	94.6	88.8	83.8	79.6	76.0	72.9	70.6	68.2	66.2	64.4	62.8	61.4	60.2	59.2
	102	110.0	102.8	94.6	87.9	82.4	77.7	73.7	70.2	67.2	65.1	62.8	60.7	59.0	57.4	56.0	54.8	
	106 3/8	107.7	97.9	90.1	83.6	78.3	73.7	69.8	66.5	63.6	61.5	59.3	57.3	55.6	54.0	52.7		
	110 3/4	102.9	93.5	85.9	79.7	74.5	70.2	66.4	63.2	60.4	58.3	56.2	54.2	52.5	51.0	49.7		
	114	80.0	80.0	80.0	77.0	72.0	67.7	64.1	60.9	58.2	56.2	54.0	52.2	50.5	49.0			
120	80.0	80.0	78.3	72.5	67.7	63.6	60.2	57.2	54.5	52.6	50.5	48.7	47.1					
122	80.0	80.0	76.8	71.1	66.4	62.4	59.0	56.0	53.4	51.5	49.5	47.7	46.1					

DP CHART IS FOR:
 NON-INTERSECTED IMPACT 5-1/2" MULLION 1760, HORIZONTAL OR VERTICAL, USING (PER END):
 1603 or 1767 CLIPS
 - (8) #10 SCREWS INTO WOOD or METAL
 - (8) 3/16" ITW TAPCONS or DEWALT ULTRACON+ INTO SOLID CONCRETE or WOOD
 - (8) 1/4" DEWALT ULTRACON+ INTO HOLLOW or GROUT-FILLED BLOCK

Design Pressure Chart, PSF, for Non-Intersected Impact PVC 5 1/2" Mullion H-1760, with 1767 clips. See note below chart for anchorage requirements.

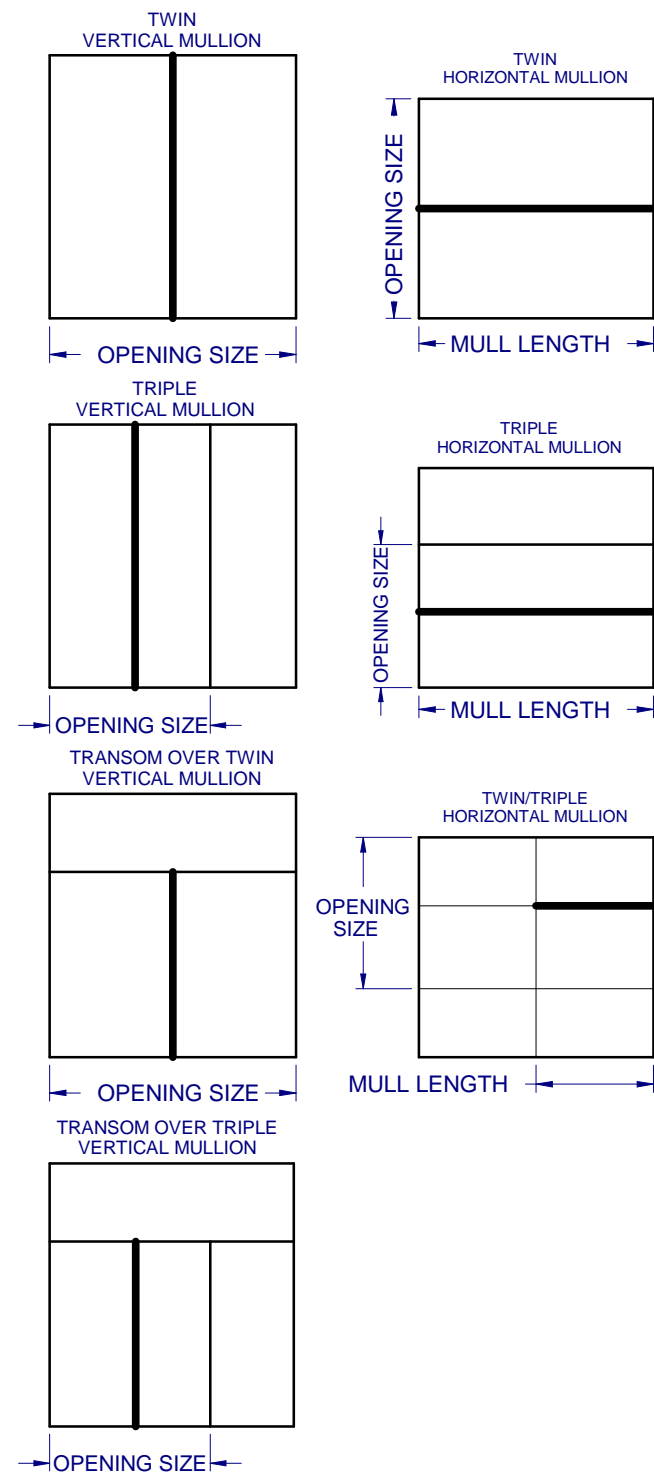
		OPENING SIZE (in.)																
		51	57	63	69	75	81	87	93	99	104	110	116	122	128	134	140	146
MULL LENGTH (in.)	63	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
	66 3/4	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
	72	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
	76	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
	80	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
	84	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
	90	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	107.9	104.8	102.2	99.9	98.0	80.0	80.0
	96	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	109.7	105.2	101.9	98.5	95.5	92.8	80.0	80.0	80.0
	102	110.0	110.0	110.0	110.0	110.0	110.0	110.0	106.3	101.3	97.0	93.9	90.5	87.6	80.0	80.0	80.0	79.1
	106 3/8	110.0	110.0	110.0	110.0	110.0	106.3	100.8	96.0	91.8	88.8	85.5	80.0	80.0	77.9	76.0		
	110 3/4	110.0	110.0	110.0	110.0	107.5	101.2	95.8	91.2	87.1	84.2	81.0	78.2	75.8	73.6	71.7		
	114	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	78.7	75.9	72.9	70.3	67.9		
120	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	78.7	75.9	72.9	70.3	67.9				
122	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	77.1	74.3	71.4	68.8	66.5					

DP CHART IS FOR:
 NON-INTERSECTED IMPACT 5-1/2" MULLION 1760, HORIZONTAL OR VERTICAL, USING (PER END):
 1767 CLIPS
 - (10) #10 SCREWS INTO WOOD or METAL
 - (10) 3/16" ITW TAPCONS or DEWALT ULTRACON+ INTO SOLID CONCRETE or WOOD
 - (12) 1/4" DEWALT ULTRACON+ INTO HOLLOW or GROUT-FILLED BLOCK

Design Pressure Chart, PSF, for Non-Intersected Impact PVC 5 1/2" Mullion H-1760, with 1767 clips. See note below chart for anchorage requirements.

		OPENING SIZE (in.)																
		51	57	63	69	75	81	87	93	99	104	110	116	122	128	134	140	146
MULL LENGTH (in.)	63	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
	66 3/4	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
	72	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
	76	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
	80	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
	84	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	80.0
	90	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	80.0	80.0
	96	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	80.0	80.0	80.0
	102	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	80.0	80.0	80.0	80.0
	106 3/8	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	109.5	80.0	80.0	80.0		
	110 3/4	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	107.8	103.8	80.0	80.0	80.0		
	114	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0			
120	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	77.3				
122	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	79.7	76.3	73.3					

DP CHART IS FOR:
 NON-INTERSECTED IMPACT 5-1/2" MULLION 1760, HORIZONTAL OR VERTICAL, USING (PER END):
 1767 CLIPS
 - (10) #12 SCREWS INTO WOOD or METAL
 - (10) 1/4" DEWALT ULTRACON+ INTO SOLID CONCRETE or WOOD



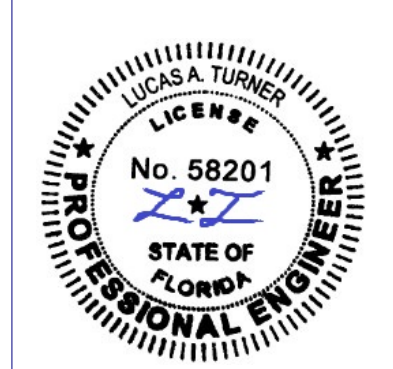
- NOTES:
1. THE MULL BAR IN FOCUS FOR ANY GIVEN CONFIGURATION IS SHOWN IN BOLD.
 2. AN INTERSECTED MULL BAR HAS OTHER MULL BAR(S) ATTACHED TO IT (SHOWN IN DASHES) THROUGH THE USE OF MULL BAR CLIPS. AN INTERSECTED MULL BAR WILL ALWAYS BE ATTACHED TO THE SUBSTRATE AT BOTH ENDS.
 3. NON-INTERSECTED MULL BARS CAN BE ATTACHED TO THE SUBSTRATE AND OTHER MULL BARS.



5-1/2" PVC MULL BAR IMPACT

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FLORIDA APPROVAL NO.:
 9520



9/20/2023
 LUCAS A. TURNER, P.E.
 FL PE # 58201
 Turner Engineering & Consulting, Inc.
 2428 Old Natchez Trc Trl
 Camden, TN 38320
 PH. 941-380-1574

SHEET DESCRIPTION:
 DP CHART
 NON-INTERSECTED MULLS

DRAWN BY: MCS	DATE: 9/8/2023
DWG #: CWS-838	REV.: D
SCALE: 1:1	SHEET 2 OF 9



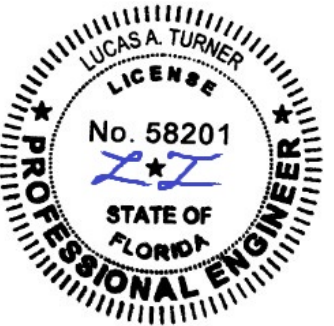
1900 SW 44TH AVE.
OCALA, FLORIDA 34474
WWW.CWS.CC

5-1/2" PVC MULL BAR IMPACT

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SHEET DESCRIPTION:

DP CHART INTERSECTED MULLS

DRAWN BY:	DATE:
MCS	9/8/2023
DWG #:	REV.:
CWS-838	D
SCALE:	SHEET
1:1	3 OF 9

Design Pressure Chart, PSF, for Intersected Impact PVC 5 1/2" Mullion H-1760, w/1603 or 1767 clips. See note below chart for anchorage requirements.

MULL LENGTH (in.)	OPENING SIZE (in.)																
	51	57	63	69	75	81	87	93	99	104	110	116	122	128	134	140	146
37	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
42 3/4	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
48 3/4	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	106.9	102.7
53 1/8	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	106.1	101.7	97.6	93.8
57	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	107.9	102.9	98.4	94.3	90.6	87.1
63	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	106.9	101.6	96.8	92.5	88.4	84.7	81.4	78.2
66 3/4	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	105.0	100.4	95.4	90.9	86.8	83.1	79.7	76.5	73.5
72	110.0	110.0	110.0	110.0	110.0	110.0	108.3	102.0	96.5	92.4	87.8	83.7	80.0	76.5	73.4	70.5	67.8
76	110.0	110.0	110.0	110.0	110.0	108.4	101.8	96.1	90.9	87.0	82.8	78.9	75.4	72.2	69.2	66.5	64.0
80	110.0	110.0	110.0	110.0	109.2	102.2	96.1	90.7	85.9	82.2	78.2	74.6	71.3	68.2	65.4	62.9	60.5
84	110.0	110.0	110.0	110.0	103.2	96.7	91.0	85.8	81.3	77.8	74.1	70.6	67.6	64.7	62.1	59.6	57.4
90	110.0	110.0	109.9	102.0	95.2	89.3	84.0	79.4	75.2	72.0	68.6	65.4	62.6	60.0	57.6	55.3	53.2
96	110.0	110.0	101.7	94.5	88.3	82.8	78.0	73.7	69.9	67.0	63.8	60.9	58.2	55.8	53.6	51.5	49.6
102	110.0	102.8	94.6	87.9	82.2	77.2	72.7	68.8	65.2	62.5	59.6	56.9	54.4	52.2	50.1	48.2	
106 3/8	107.7	97.9	90.1	83.6	78.2	73.5	69.2	65.5	62.1	59.6	56.8	54.2	51.9	49.8	47.8		
110 3/4	102.9	93.5	85.9	79.7	74.5	70.0	66.1	62.5	59.3	56.9	54.2	51.8	49.6	47.6	45.7		
114	80.0	80.0	80.0	77.0	72.0	67.7	63.8	60.4	57.4	55.0	52.5	50.1	48.0	46.0			
120	80.0	80.0	78.3	72.5	67.7	63.6	60.1	56.9	54.0	51.8	49.5	47.3	45.3				
122	80.0	80.0	76.8	71.1	66.4	62.4	58.9	55.8	53.0	50.9	48.5	46.4	44.4				

DP CHART IS FOR:
INTERSECTED IMPACT 5-1/2" MULLION 1760, HORIZONTAL OR VERTICAL, USING (PER END):
1603 or 1767 CLIPS
- (8) #10 SCREWS INTO WOOD or METAL
- (8) 3/16" ITW TAPCONS or DEWALT ULTRACON+ INTO SOLID CONCRETE or WOOD
- (8) 1/4" DEWALT ULTRACON+ INTO HOLLOW or GROUT-FILLED BLOCK

Design Pressure Chart, PSF, for Intersected Impact PVC 5 1/2" Mullion H-1760, w/1767 clips. See note below chart for anchorage requirements.

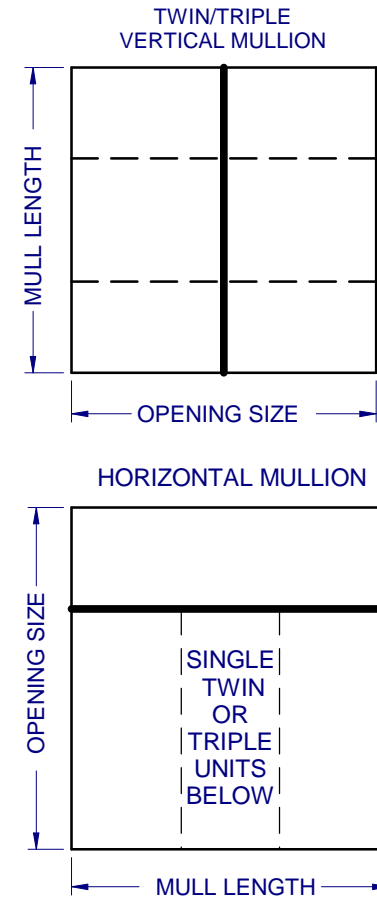
MULL LENGTH (in.)	OPENING SIZE (in.)																
	51	57	63	69	75	81	87	93	99	104	110	116	122	128	134	140	146
63	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
66.75	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	106.1
72	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	105.9	101.7	97.9
76	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	108.7	104.1	99.8	96.0	92.4
80	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	107.6	102.8	98.4	94.4	90.7	87.3
84	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	106.8	101.9	97.5	93.3	89.5	86.0	80.0
90	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	108.5	103.9	99.0	94.4	90.3	86.5	83.0	79.8	76.8
96	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	106.4	100.8	96.6	92.0	87.9	84.0	80.0	77.3	71.6
102	110.0	110.0	110.0	110.0	110.0	110.0	104.9	99.2	94.1	90.2	85.9	82.0	78.5	75.3	72.3	69.5	
106.375	110.0	110.0	110.0	110.0	110.0	106.0	99.9	94.5	89.6	85.9	81.9	78.2	74.9	71.8	69.0		
110.75	110.0	110.0	110.0	110.0	107.5	101.0	95.3	90.2	85.6	82.1	78.2	74.7	71.5	68.6	65.9		
114	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	79.4	75.7	72.3	69.2	66.4			
120	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	77.9	74.8	71.3	68.2	65.3				
122	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	76.4	73.4	70.0	66.9	64.1				

DP CHART IS FOR:
INTERSECTED IMPACT 5-1/2" MULLION 1760, HORIZONTAL OR VERTICAL, USING (PER END):
1767 CLIPS
- (10) #10 SCREWS INTO WOOD or METAL
- (10) 3/16" ITW TAPCONS or DEWALT ULTRACON+ INTO SOLID CONCRETE or WOOD
- (12) 1/4" DEWALT ULTRACON+ INTO HOLLOW or GROUT-FILLED BLOCK

Design Pressure Chart, PSF, for Intersected Impact PVC 5 1/2" Mullion H-1760, with 1767 clips. See note below chart for anchorage requirements.

MULL LENGTH (in.)	OPENING SIZE (in.)																
	51	57	63	69	75	81	87	93	99	104	110	116	122	128	134	140	146
63	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
66.75	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
72	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
76	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
80	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
84	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	80.0
90	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	106.4	80.0	80.0
96	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	107.6	80.0	80.0	80.0	80.0
102	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	105.1	80.0	80.0	80.0		
106.375	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	105.0	80.0	80.0	80.0			
110.75	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	109.6	105.1	100.2	80.0	80.0	80.0			
114	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0			
120	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	78.7	74.9				
122	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	78.9	74.9	71.3				

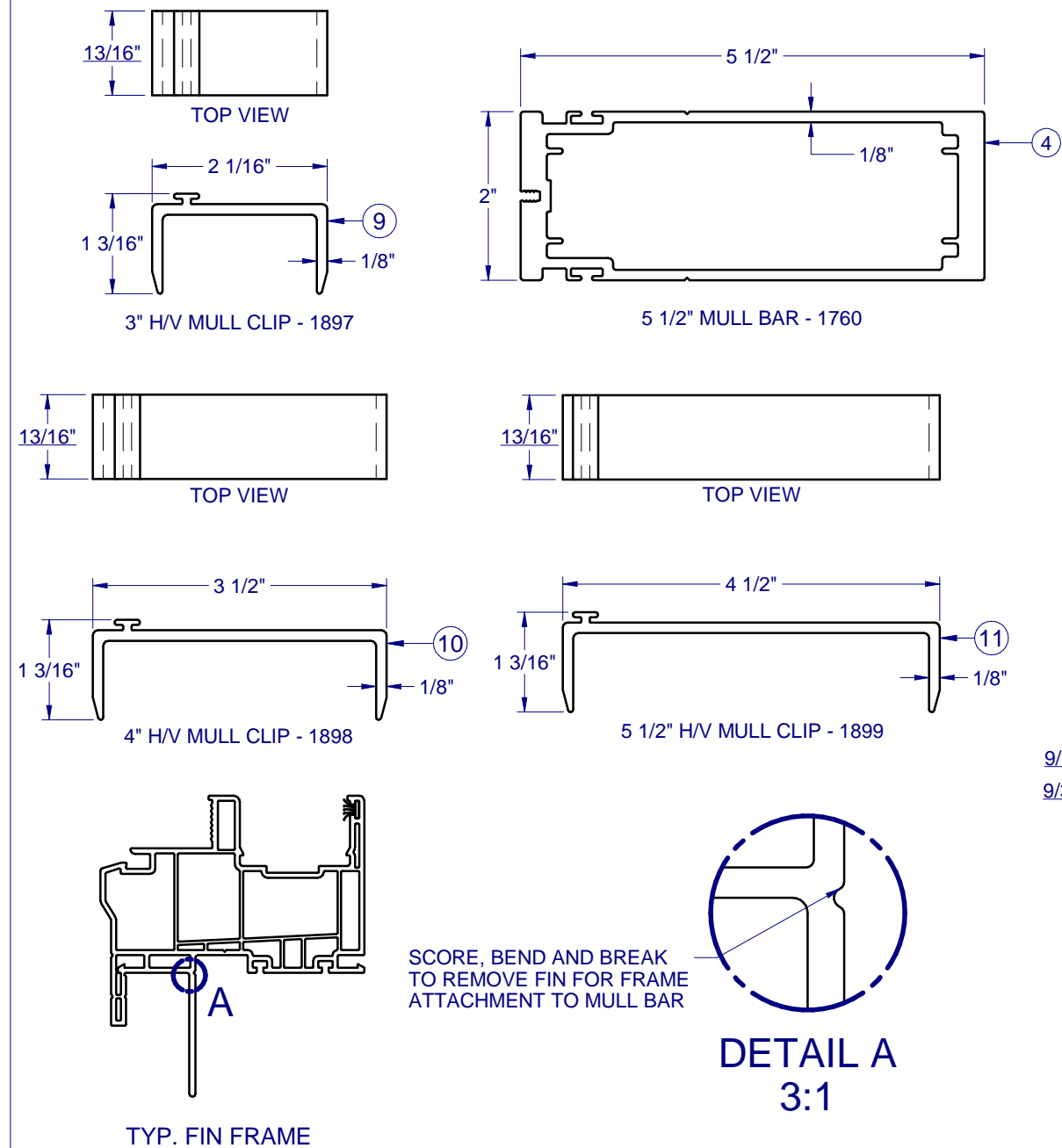
DP CHART IS FOR:
INTERSECTED IMPACT 5-1/2" MULLION 1760, HORIZONTAL OR VERTICAL, USING (PER END):
1767 CLIPS
- (10) #12 SCREWS INTO WOOD or METAL
- (10) 1/4" DEWALT ULTRACON+ INTO SOLID CONCRETE or WOOD



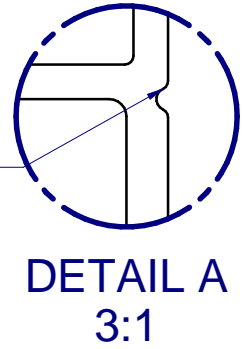
- NOTES:
1. THE MULL BAR IN FOCUS FOR ANY GIVEN CONFIGURATION IS SHOWN IN BOLD.
 2. AN INTERSECTED MULL BAR HAS OTHER MULL BAR(S) ATTACHED TO IT (SHOWN IN DASHES) THROUGH THE USE OF MULL BAR CLIPS. AN INTERSECTED MULL BAR WILL ALWAYS BE ATTACHED TO THE SUBSTRATE AT BOTH ENDS.
 3. NON-INTERSECTED MULL BARS CAN BE ATTACHED TO THE SUBSTRATE AND OTHER MULL BARS.

ITEM	PART #	DESCRIPTION	MATERIAL
1	F-1767-003	CLIP, NEW CONST. FLANGE/BOX	ALUMINUM
2	F-1767-006	CLIP, FIN, NEW CONST.	ALUMINUM
3	F-1767-008	CLIP, RETRO CONST., FLANGE/BOX	ALUMINUM
4	H-1760	2" x 5-1/2" MULL BAR	ALUMINUM
5		#10 OR #12 HEX WASHER HEAD TEK SCREW *(see note below)	STEEL
7	S-1895	DRIP EDGE, HORZ MULL	ALUMINUM
8	S-1896	FLANGE ADAPATOR, 5-1/2" PVC MULL, VERT MULL	ALUMINUM
9	S-1897	3" MULL CLIP ADAPTOR, HORZ./VERT., INTERSECT	ALUMINUM
10	S-1898	4" MULL CLIP ADAPTOR, HORZ./VERT., INTERSECT	ALUMINUM
11	S-1899	5" MULL CLIP ADAPTOR, HORZ./VERT., INTERSECT	ALUMINUM
12	S-6076	2" MULL BAR COVER, FIN/BOX	PVC
13	F-1603-001	CLIP, NEW CONST.	ALUMINUM
14	F-1603-003	CLIP, FIN CONST.	ALUMINUM
15		#10 HEX WASHER HEAD TEK SCREW	STEEL
16		#10 FH TEK SCREW	STEEL

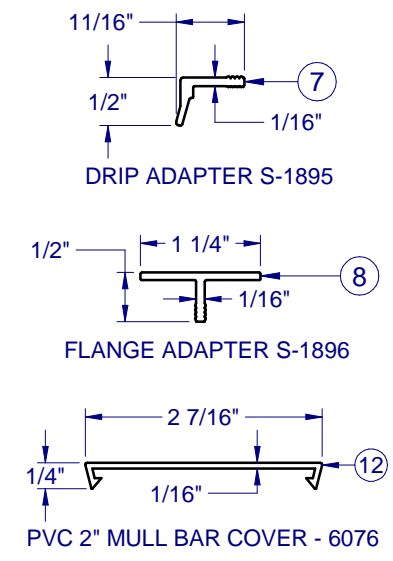
* USE WOOD SCREW SIZE (#10 OR #12), SPECIFIED IN WINDOW UNIT APPROVAL DOCUMENT



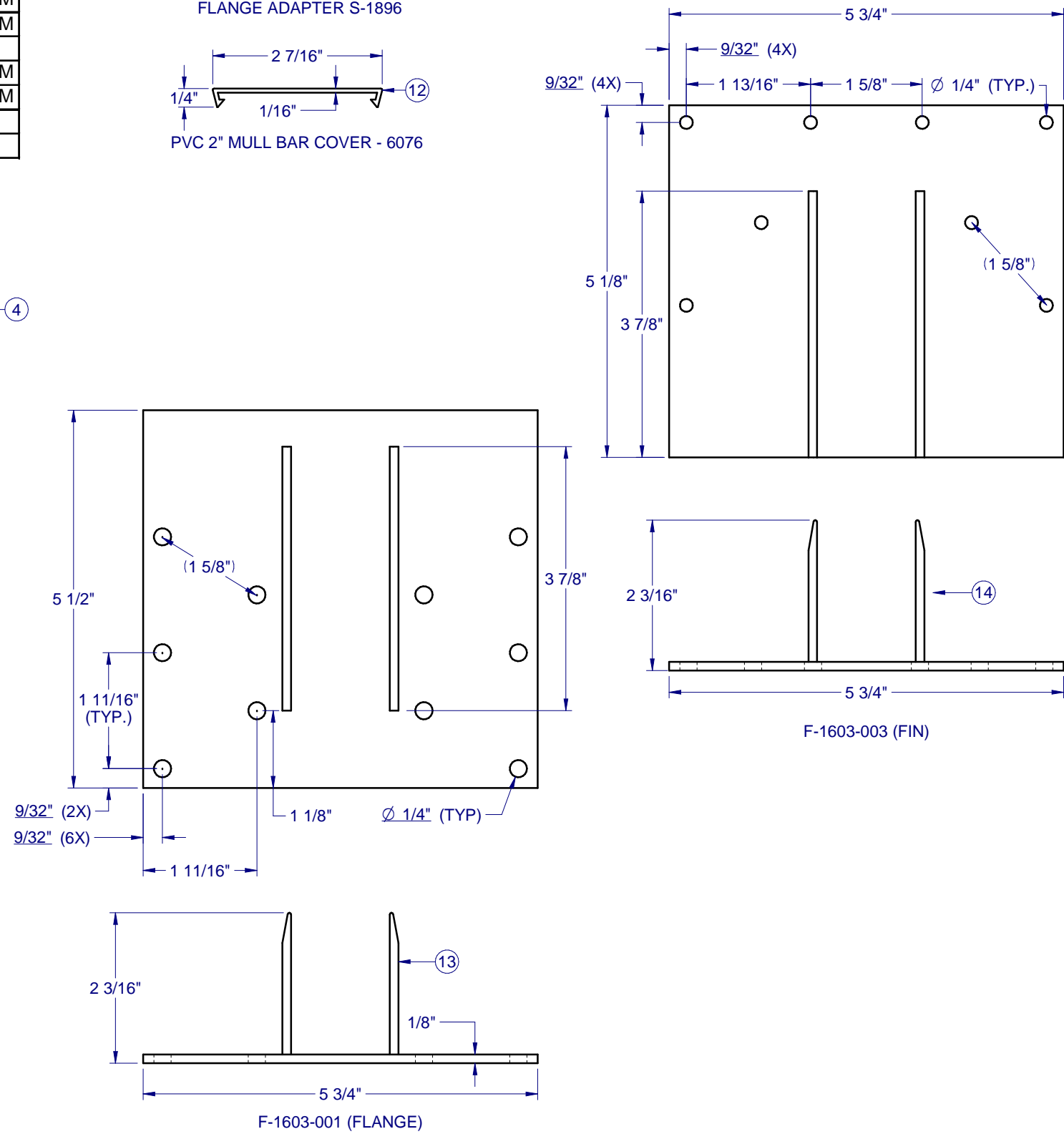
SCORE, BEND AND BREAK TO REMOVE FIN FOR FRAME ATTACHMENT TO MULL BAR



NOTE: ALL EXTRUSIONS ARE ALUMINUM 6063-T6 UNLESS OTHERWISE NOTED.



FRAME TYPE	OPENING	"T" MULLBAR CLIP (F-1522-XXX)	"L" MULLBAR CLIP (F-1767-XXX)
FLANGE	NEW	NOT RECOMMENDED	F-1767-003 (L&R)
	RETRO	F-1603-001	F-1767-008 (L&R)
FIN	NEW	F-1603-003	F-1767-006 (L&R)
	RETRO	F-1603-003	F-1767-006 (L&R)
BOX	NEW	NOT RECOMMENDED	F-1767-003 (L&R)
	RETRO	F-1603-001	F-1767-008 (L&R)



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5-1/2" PVC MULL BAR IMPACT

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9/20/2023
LUCAS A. TURNER, P.E.
FL PE # 58201
Turner Engineering & Consulting, Inc.
2428 Old Natchez Trc Trl
Camden, TN 38320
PH. 941-380-1574

SHEET DESCRIPTION:
BOM AND EXTRUSIONS

DRAWN BY: MCS	DATE: 9/8/2023
DWG #: CWS-838	REV.: D
SCALE: 1:2	SHEET 4 OF 9

FRAME TYPE	OPENING	"T" MULLBAR CLIP (F-1522-XXX)	"L" MULLBAR CLIP (F-1767-XXX)
FLANGE	NEW	NOT RECOMMENDED	F-1767-003 (L&R)
	RETRO	F-1603-001	F-1767-008 (L&R)
FIN	NEW	F-1603-003	F-1767-006 (L&R)
	RETRO	F-1603-003	F-1767-006 (L&R)
BOX	NEW	NOT RECOMMENDED	F-1767-003 (L&R)
	RETRO	F-1603-001	F-1767-008 (L&R)

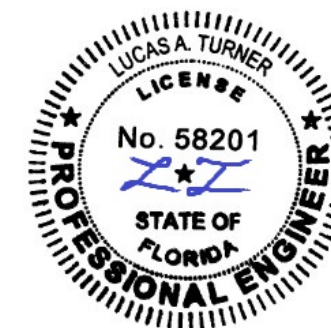


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5-1/2" PVC MULL BAR IMPACT

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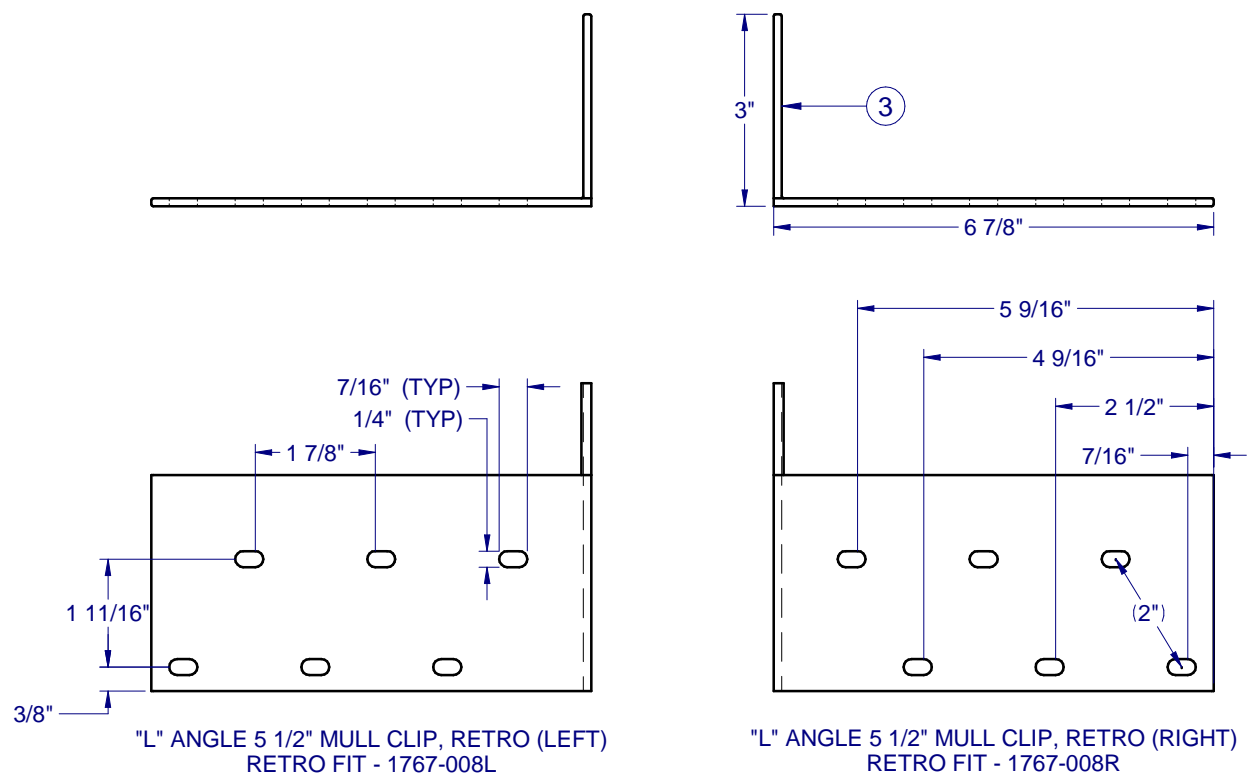
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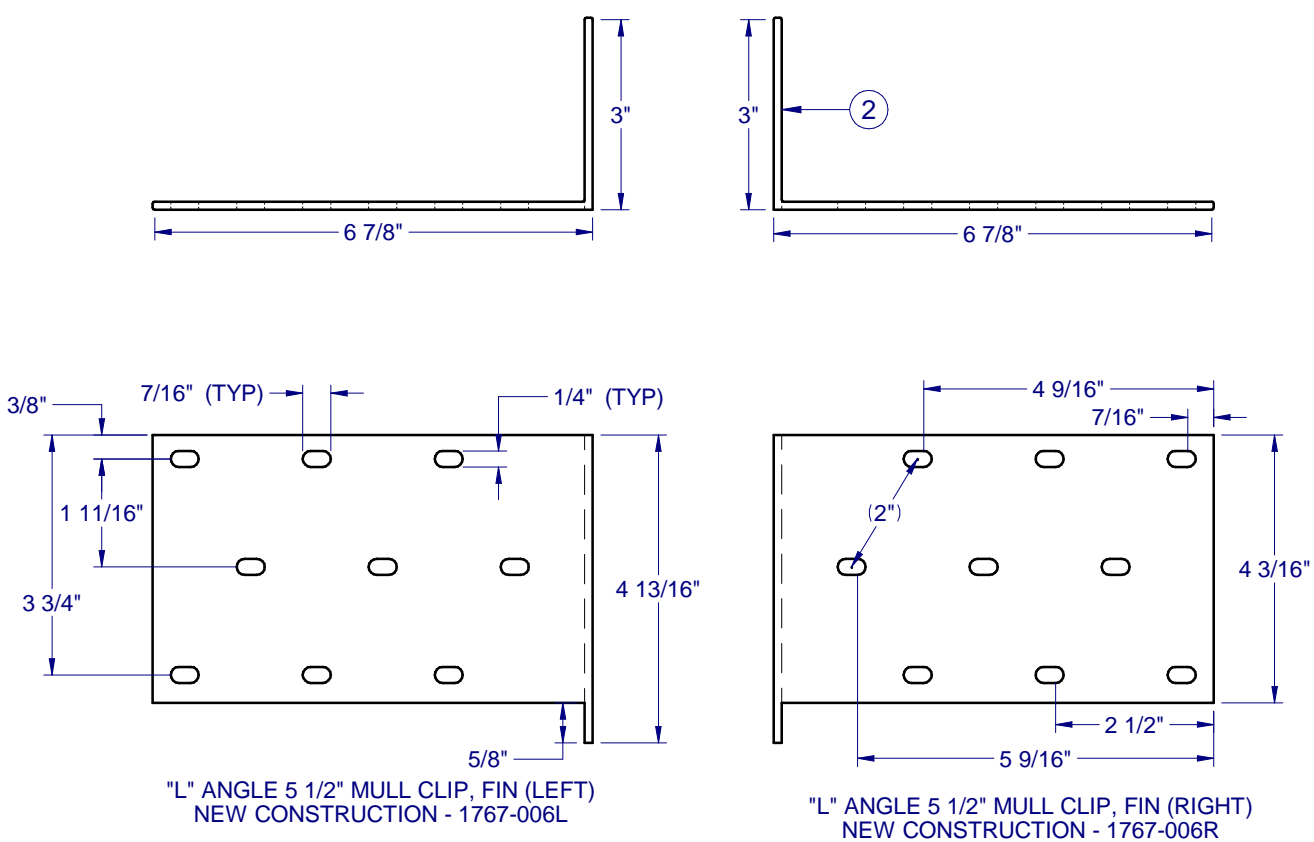
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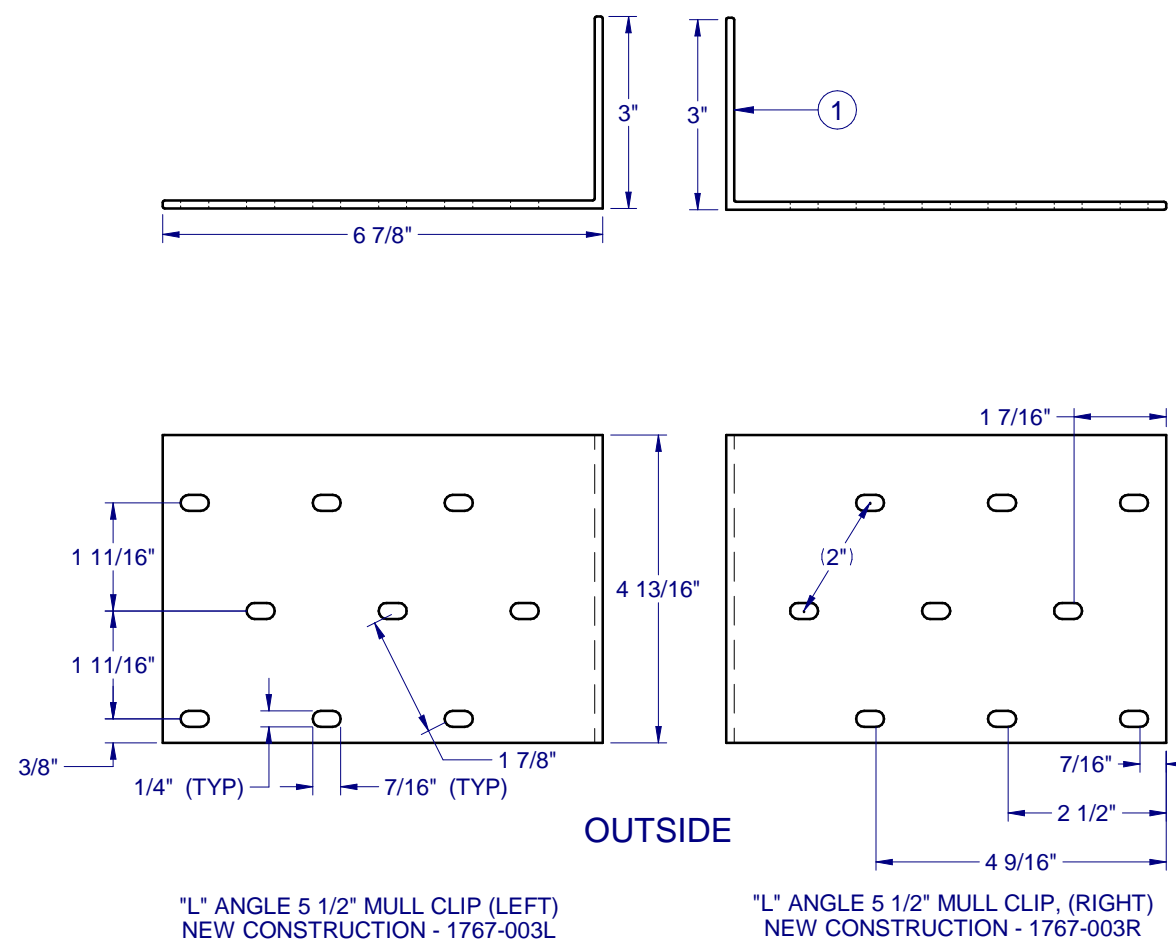
DRAWN BY:	DATE:
MCS	9/8/2023
DWG #:	REV.:
CWS-838	D
SCALE:	SHEET
1:3	5 OF 9



OUTSIDE



OUTSIDE

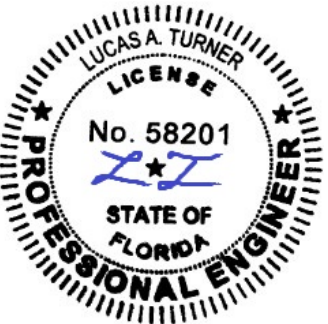


OUTSIDE

5-1/2" PVC MULL BAR IMPACT

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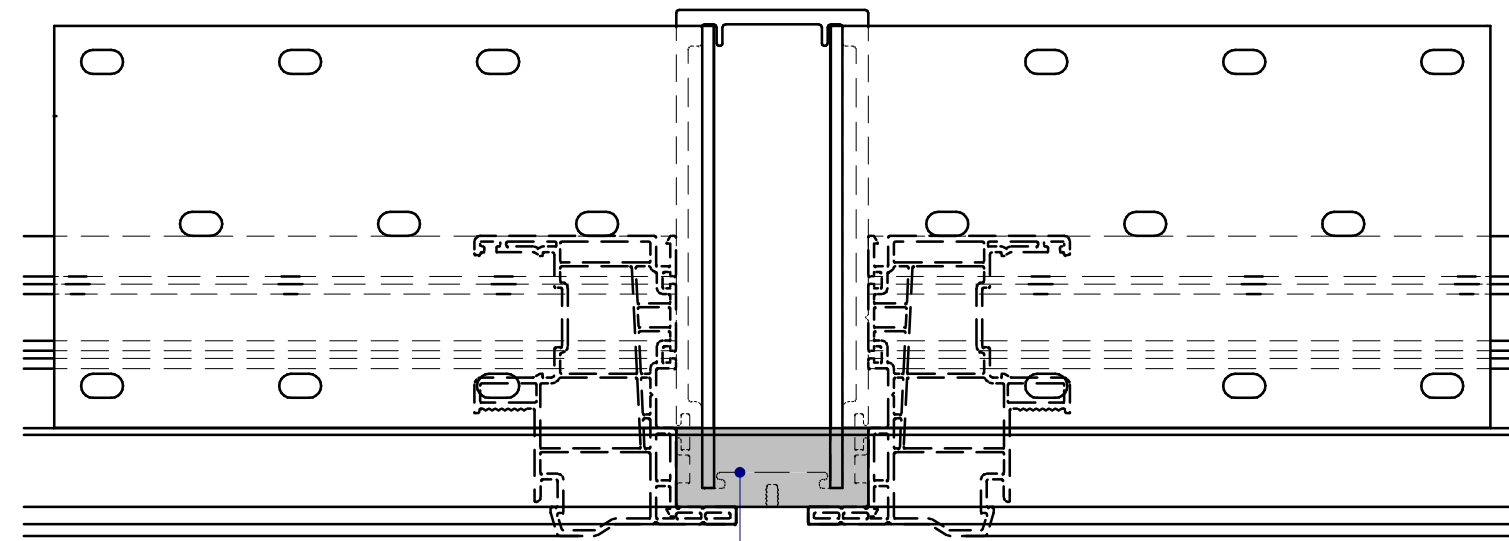
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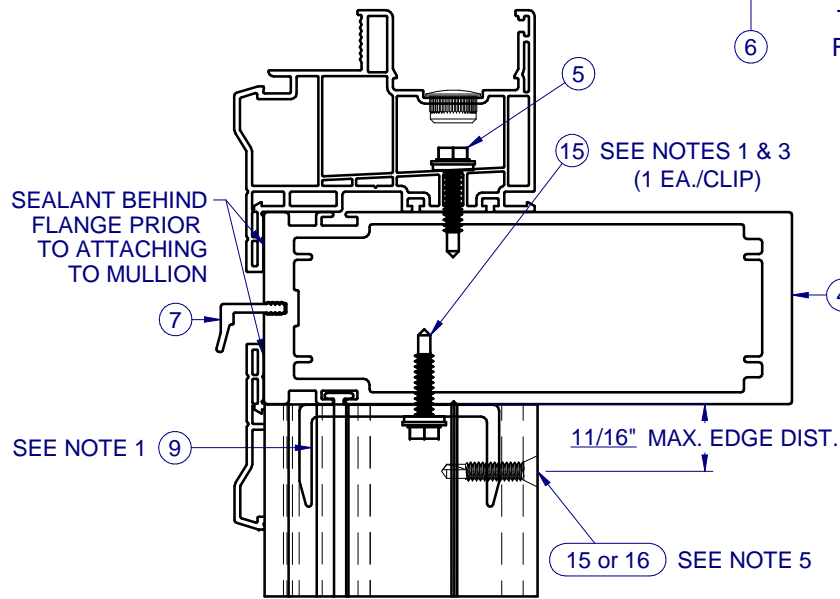
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SECTION VIEWS

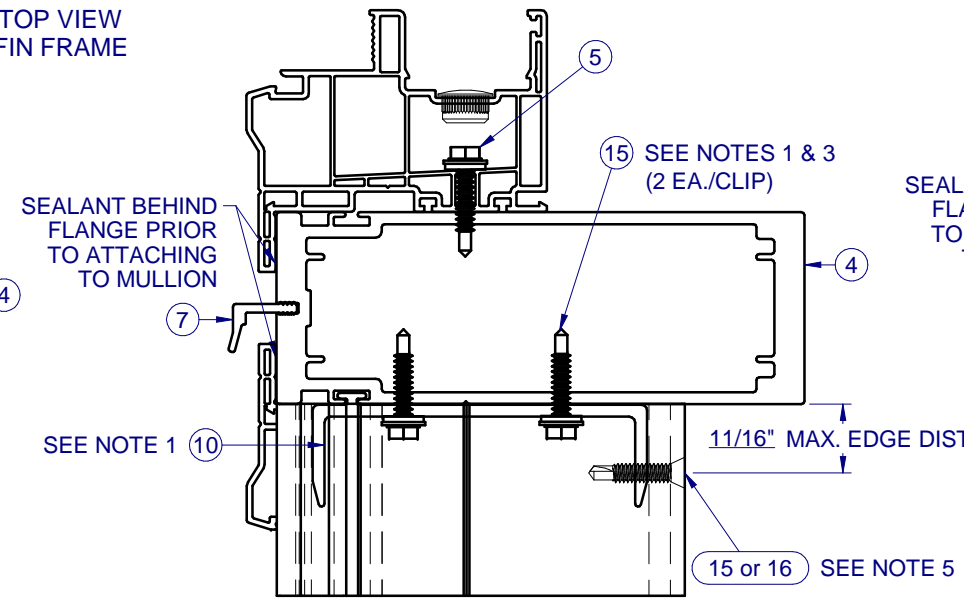
DRAWN BY:	DATE:
MCS	9/8/2023
DWG #:	REV.:
CWS-838	D
SCALE:	SHEET
1:2	6 OF 9



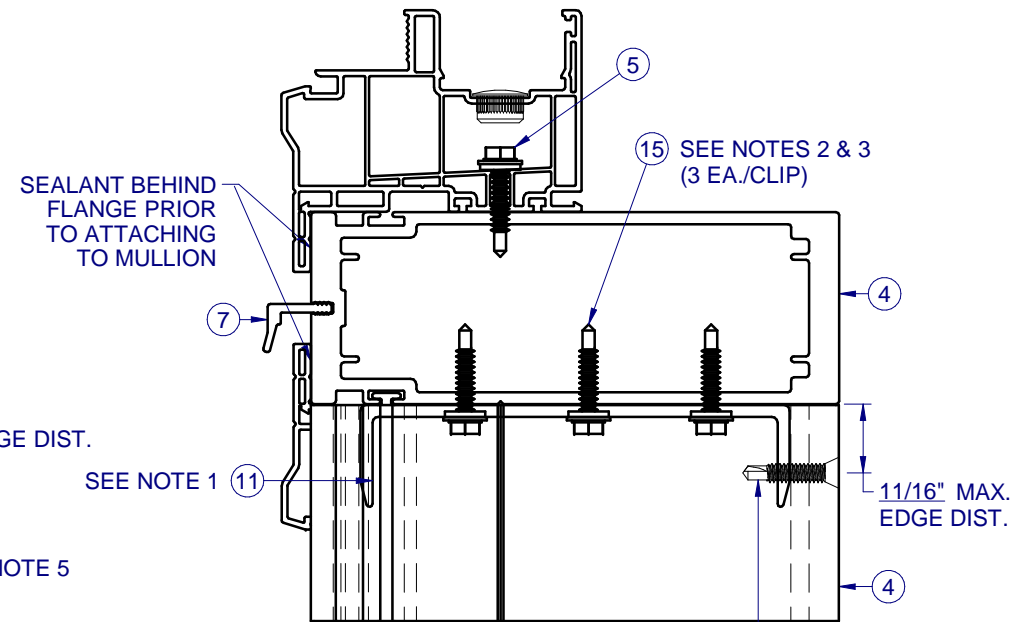
TOP VIEW
FIN FRAME



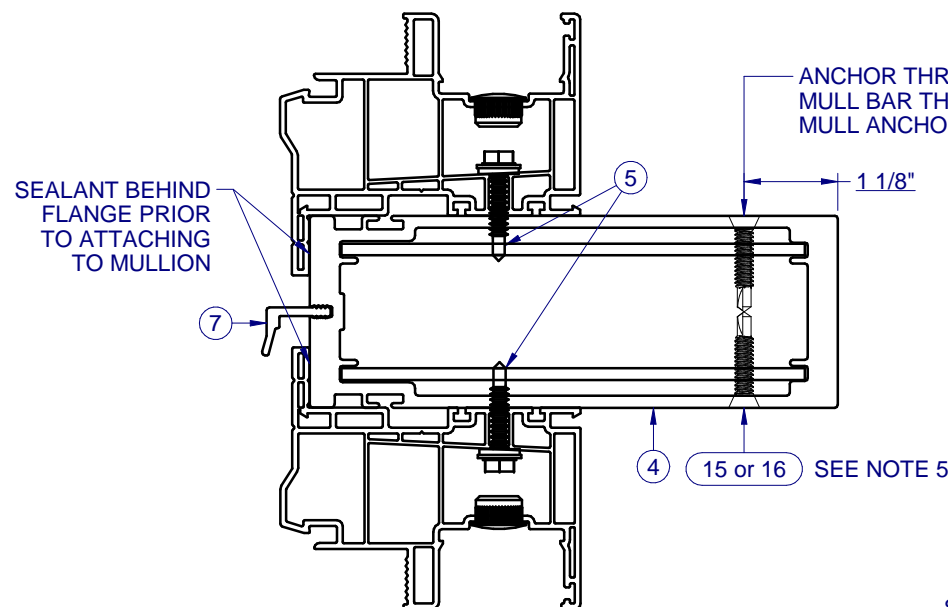
A
6 HORIZONTAL SECTION
5 1/2" & 3" INTERSECTION



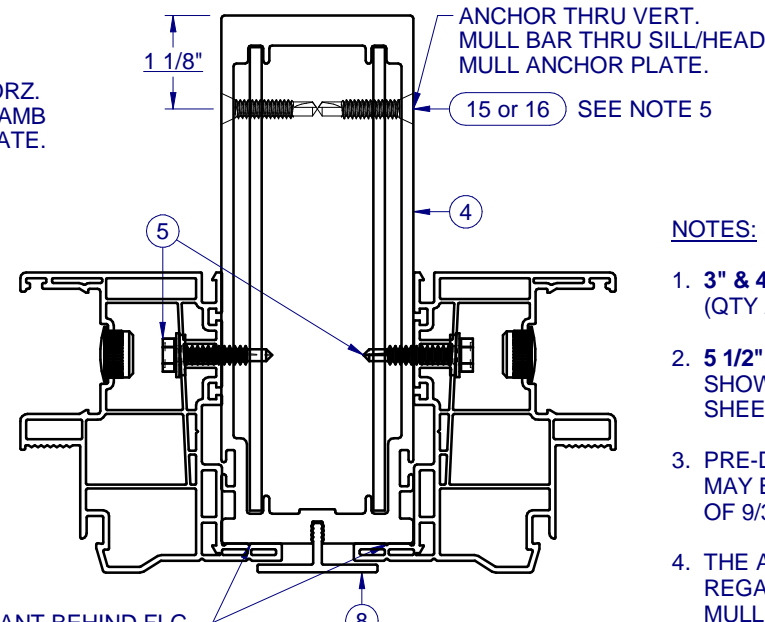
A
6 HORIZONTAL SECTION
5 1/2" & 4" INTERSECTION



A
6 HORIZONTAL SECTION
5 1/2" & 5 1/2" INTERSECTION



B
6 HORIZONTAL SECTION
5 1/2" MULL BAR

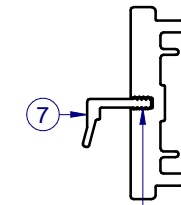
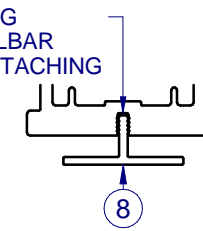


C
6 VERTICAL SECTION
5 1/2" MULL BAR

NOTES:

- 3" & 4" VERTICAL MULLS: SLIDE CLIP INTO LOCATION AND SECURE WITH ITEM 15 (QTY 2), AS SHOWN ABOVE.
- 5 1/2" VERTICAL MULL: SLIDE CLIP INTO LOCATION AND SECURE WITH ITEM 15, AS SHOWN ABOVE, WITH QTY OF FASTENERS AS DETERMINED FROM DP CHARTS, SHEETS 2 & 3.
- PRE-DRILLED HOLES (THRU H/V CLIPS 1897, 1898, OR 1899), BY THE INSTALLER, MAY BE LOCATED AS NEEDED WHILE MAINTAINING A MINIMUM CLIP EDGE DISTANCE OF 9/32" AND A MINIMUM CENTER TO CENTER SPACING OF 1/2".
- THE ABOVE SECTIONS APPLY TO ALL MULLBAR-TO-MULLBAR CONNECTIONS, REGARDLESS OF ORIENTATION (i.e., HORIZONTAL OR VERTICAL). THE FULL LENGTH MULL MUST BE THE SAME DEPTH, OR GREATER, THAN THE INTERSECTING MULL.
- INTERIOR MULL ANCHOR ATTACHMENT SCREW THRU VERTICAL MULL INTO MULL CLIP. PRE-DRILL PILOT HOLE THRU ALL MATERIAL.

APPLY SEALANT ALONG FULL LENGTH OF MULLBAR GROOVE PRIOR TO ATTACHING FLANGE ADAPTOR



APPLY SEALANT ALONG FULL LENGTH OF MULLBAR GROOVE PRIOR TO ATTACHING DRIP ADAPTOR

SEALANT BEHIND FLANGE PRIOR TO ATTACHING TO MULLION

SEALANT BEHIND FLANGE PRIOR TO ATTACHING TO MULLION

SEALANT BEHIND FLANGE PRIOR TO ATTACHING TO MULLION

SEE NOTE 1

SEE NOTE 1

SEE NOTE 1

11/16" MAX. EDGE DIST.

11/16" MAX. EDGE DIST.

11/16" MAX. EDGE DIST.

15 or 16 SEE NOTE 5

15 or 16 SEE NOTE 5

15 or 16 SEE NOTE 5

ANCHOR THRU HORZ. MULL BAR THRU JAMB MULL ANCHOR PLATE.

ANCHOR THRU VERT. MULL BAR THRU SILL/HEAD MULL ANCHOR PLATE.

15 or 16 SEE NOTE 5

SEALANT BEHIND FLANGE PRIOR TO ATTACHING TO MULLION

SEALANT BEHIND FLG. PRIOR TO ATTACHING TO MULLION

15 or 16 SEE NOTE 5

1 1/8"

1 1/8"



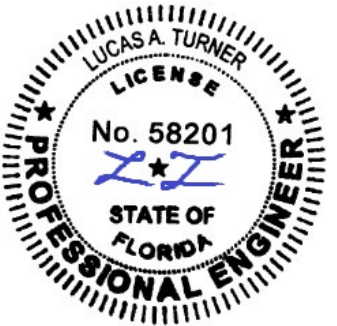
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**5-1/2" PVC
MULL BAR
IMPACT**

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2428 Old Natchez Trc Trl
Camden, TN 38320
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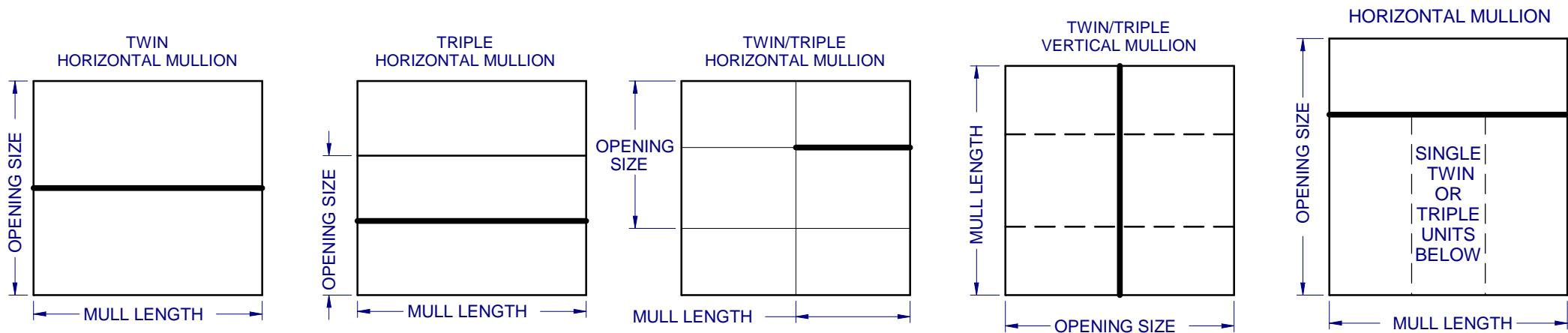
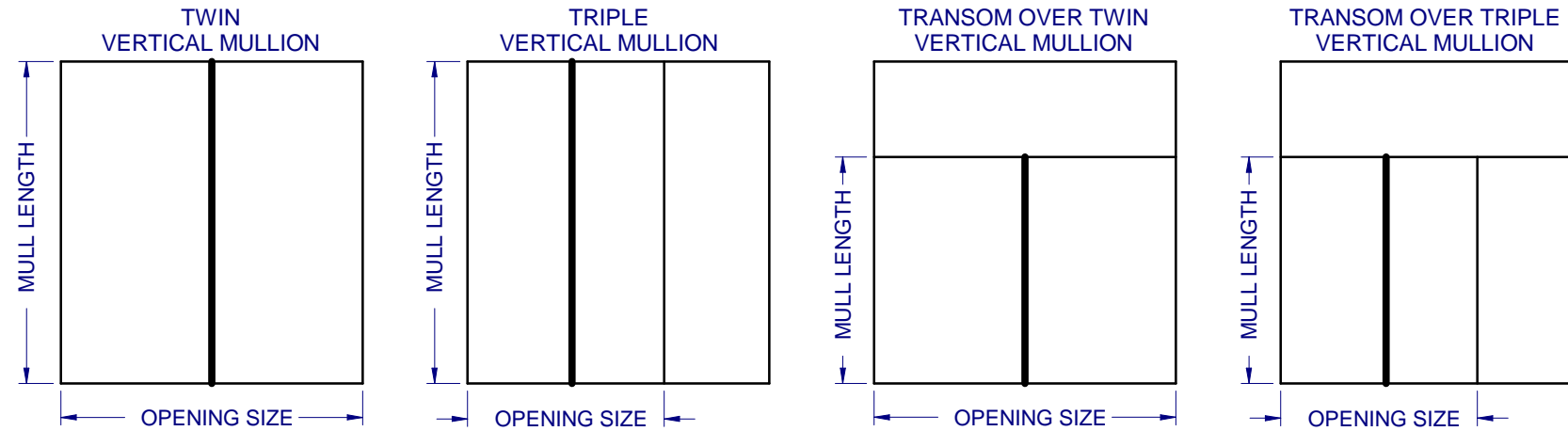
SHEET DESCRIPTION:

**CONFIGURATIONS AND
ANCHORAGE NOTES**

DRAWN BY:	DATE:
MCS	9/8/2023
DWG #:	REV.:
CWS-838	D
SCALE:	SHEET
1:1	7 OF 9

NOTES:

1. THE MULL BAR IN FOCUS FOR ANY GIVEN CONFIGURATION IS SHOWN IN BOLD.
2. AN INTERSECTED MULL BAR HAS OTHER MULL BAR(S) ATTACHED TO IT (SHOWN IN DASHES) THROUGH THE USE OF MULL BAR CLIPS. AN INTERSECTED MULL BAR WILL ALWAYS BE ATTACHED TO THE SUBSTRATE AT BOTH ENDS.
3. NON-INTERSECTED MULL BARS CAN BE ATTACHED TO THE SUBSTRATE AND OTHER MULL BARS.



NOTES:

1. AT MULLION LOCATION, ATTACH WINDOW UNIT(S) TO MULLBAR THRU FRAME AS SPECIFIED IN WINDOW UNIT APPROVAL DOCUMENTS. IF ALUMINUM ATTACHMENT IS NOT SPECIFIED IN THE WINDOW UNIT APPROVAL DOCUMENTS, FOLLOW THE ANCHOR SPACING AS INDICATED IN THE WINDOW APPROVAL FOR ATTACHMENT TO WOOD SUBSTRATE, USING A HEX WASHER HEAD TEK SCREW OF THE SAME SIZE (#10 OR #12) AS THE WOOD SCREW INDICATED IN THE WINDOW APPROVAL. TEK SCREWS SHALL BE LONG ENOUGH TO ENSURE THREE (3) THREADS OF PENETRATION BEYOND THE INSIDE WALL OF MULLBAR.
2. MULL CLIP INSTALLATION ANCHOR TYPE, SIZE, SPACING AND EMBEDMENT SHALL BE AS SPECIFIED IN THESE DRAWINGS, SEE TABLE 1, SHEET 8.
3. ALL MULL CLIP INSTALLATION ANCHORS MUST BE MADE OF OR PROTECTED WITH A CORROSION RESISTANT MATERIAL OR COATING. DISSIMILAR METALS OR MATERIALS IN CONTACT WITH PRESSURE TREATED WOOD MUST BE PROTECTED TO PREVENT REACTION.
4. INSTALLATION ANCHORS SHALL BE IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM SPECIFIED IN TABLE 1, SHEET 8.
5. ANCHOR EMBEDMENT TO SUBSTRATE SHALL BE BEYOND WALL DRESSING OR STUCCO. FOR CONCRETE/CMU OPENINGS, EMBEDMENT SHALL BE BEYOND WOOD BUCKS, IF USED, INTO SUBSTRATE - 1X BUCKS ARE OPTIONAL.
6. A MINIMUM CENTER-TO-CENTER SPACING SHALL BE MAINTAINED AS INDICATED BY THE PRE-DRILLED HOLES AS SHOWN IN THE CLIP LAYOUTS ON SHEETS 4-5.
7. WOOD OR MASONRY OPENINGS, BUCKS AND BUCK FASTENERS SHALL BE PROPERLY DESIGNED BY THE ARCHITECT OR ENGINEER OF RECORD AND INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE. SUBSTRATES SHALL MEET THE MINIMUM STRENGTH REQUIREMENTS AS SHOWN IN TABLE 1, SHEET 8. CONCRETE AND MASONRY SUBSTRATES MAY NOT BE CRACKED.
8. SEALING AND FLASHING STRATEGIES FOR OVERALL WATER RESISTANCE OF INSTALLATION SHALL BE DONE BY OTHERS FOLLOWING THE CURRENT VERSION OF THE REFERENCE DOCUMENTS: FMA/AAMA 100(FIN WINDOWS), FMA/AAMA 200(FLANGE WINDOWS), FMA/WDMA 250(BOX WINDOWS), FMA/AAMA/WDMA 300(EXTERIOR DOORS)



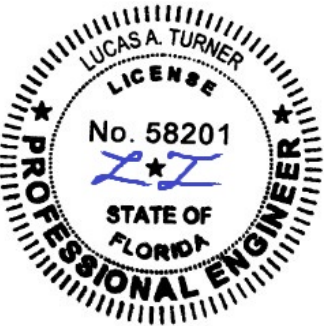
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5-1/2" PVC MULL BAR IMPACT

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2428 Old Natchez Trc Trl
Camden, TN 38320
PH. 941-380-1574

SHEET DESCRIPTION:

INSTALLATION DETAILS
FLANGE

DRAWN BY:

MCS

DATE:

9/8/2023

DWG #:

CWS-838

REV.:

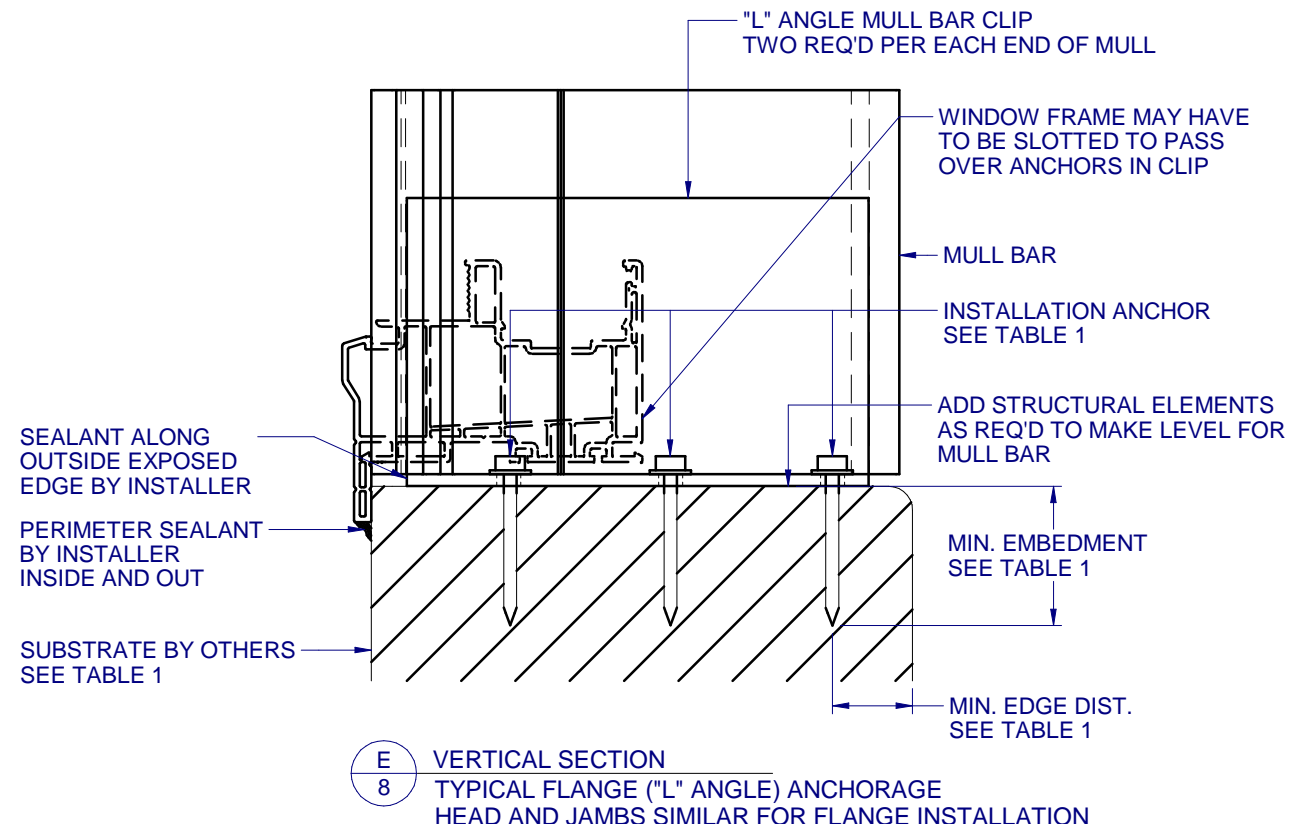
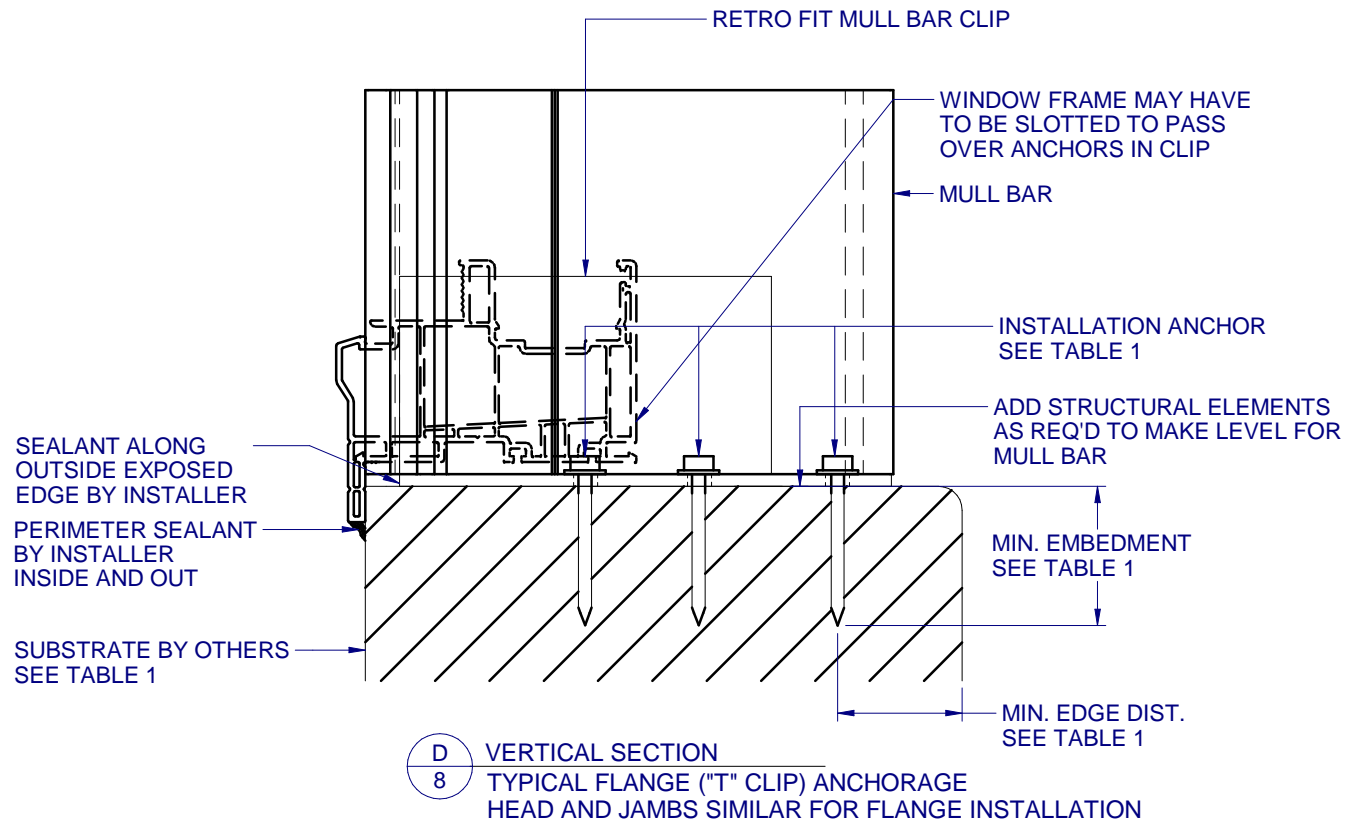
D

SCALE:

1:2

SHEET

8 OF 9



SUBSTRATE TYPE	ANCHOR TYPE	MIN. EMBEDMENT	MIN. EDGE DIST.
CONCRETE (2.0 KSI MIN.)	3/16" ITW TAPCON	1	3"
CONCRETE (3.05 KSI MIN.)	3/16" DEWALT ULTRACON+	1-3/4"	1"
HOLLOW or GROUT-FILLED CMU (ASTM C-90) or 1767 CLIP INTO SOLID CONCRETE (3.05 KSI MIN.)	1/4" DEWALT ULTRACON+	1-1/4"	2-1/2"
2X MIN. SOUTHERN PINE (G=0.55)	3/16" ITW TAPCON OR DEWALT ULTRACON+	1-3/8"	7/8"
2X MIN. SOUTHERN PINE (G=0.55)	#10 WOOD SCREW	1-3/8"	7/8"
16 GAUGE (0.060") MIN. STEEL STUD (33 KSI YIELD MIN)	#10-16 HILTI KWIK-FLEX OR ITW TEKS SELF-DRILLING SCREW	FULL THREAD THRU 0.060"	7/16"
1/8" ALUM. (6063-T5 MIN.) OR 1/8" STEEL (33 KSI MIN.)	#10 GRADE 5 SELF-TAPPING / DRILLING SCREW	FULL THREAD THRU 0.125"	7/16"

NOTES:

1. BOX FRAME MULL INSTALLATION SIMILAR TO FLANGE FRAME.
2. SILL STOOL MUST BE FLUSH AGAINST INSIDE OF MULLED WINDOWS AFTER INSTALLATION.
3. RECESS RETRO MULLION CLIP 3/8" MAX. FOR CLEARANCE OF WINDOW UNIT AS NEEDED.
4. EIGHT (8) ANCHORS REQUIRED PER "T" MULL CLIP, SEE SHEETS 2-3. FIVE (5) OR SIX (6) ANCHORS REQUIRED PER "L" MULL CLIP, SEE SHEETS 2-3.
5. SEAT MULLION TIGHT TO MULL CLIP.
6. FOR ANCHORAGE DETAILS FOR THE WINDOW, REFER TO THE WINDOW SPECIFIC INSTALLATION DETAILS.



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5-1/2" PVC MULL BAR IMPACT

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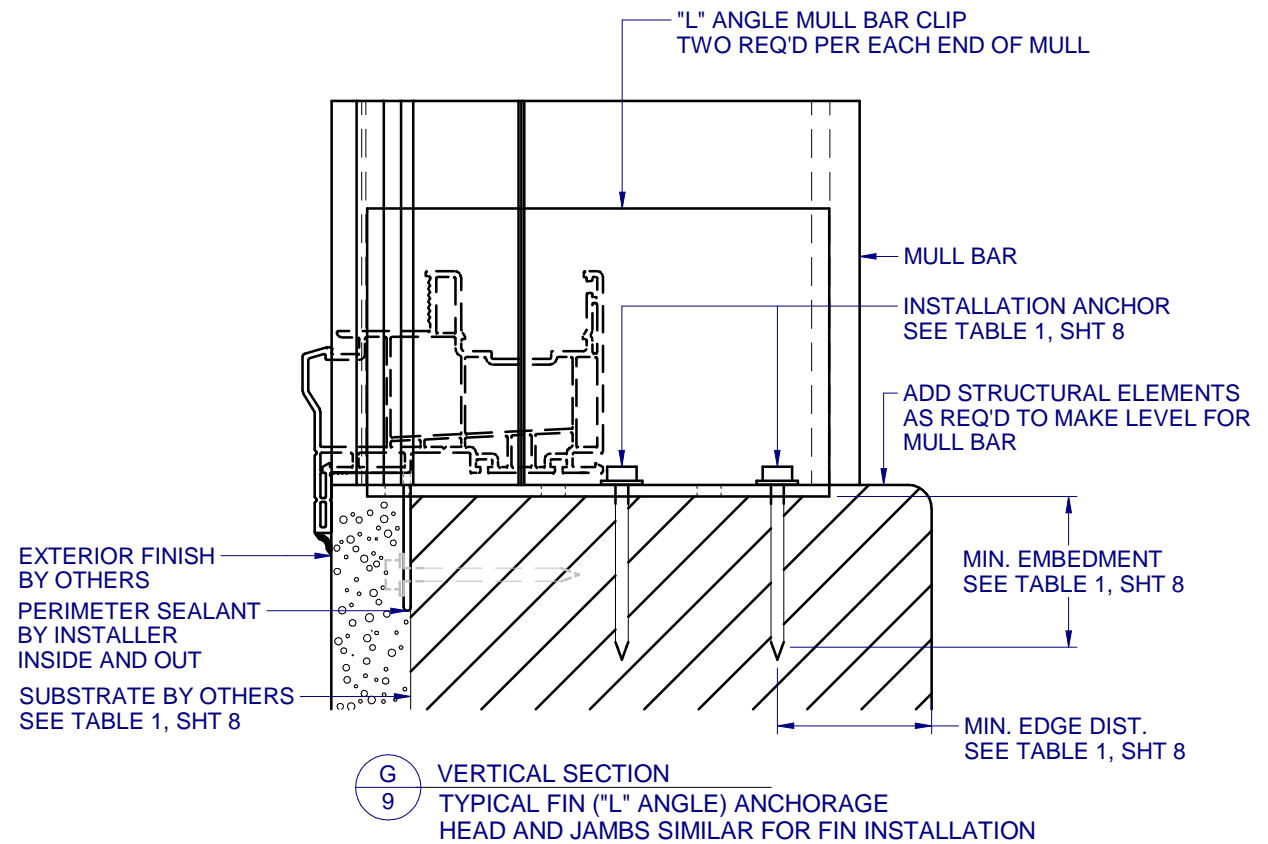
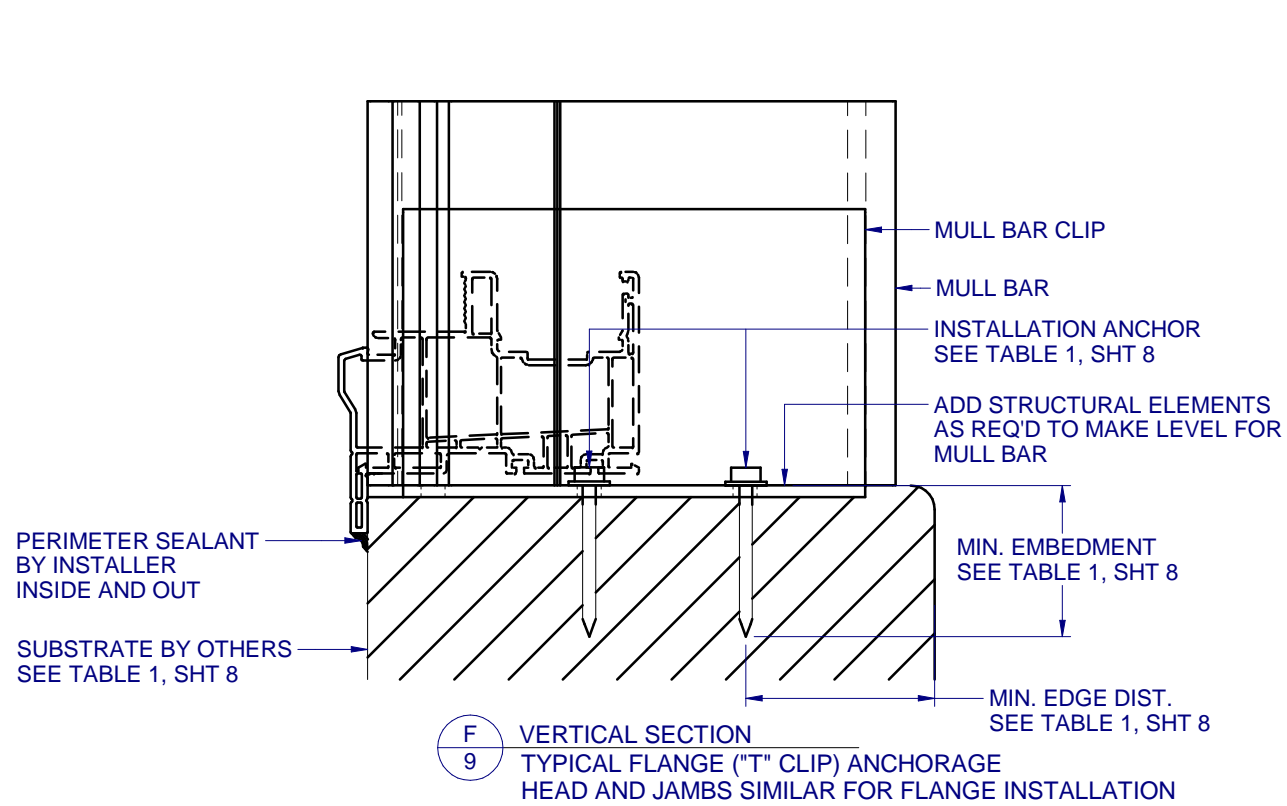


9/20/2023

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SHEET DESCRIPTION:
INSTALLATION DETAILS
FIN

DRAWN BY: MCS	DATE: 9/8/2023
DWG #: CWS-838	REV.: D
SCALE: 1:2	SHEET 9 OF 9



NOTES:

1. SILL STOOL MUST BE FLUSH AGAINST INSIDE OF MULLED WINDOWS AFTER INSTALLATION.
2. RECESS RETRO MULLION CLIP 3/8" MAX. FOR CLEARANCE OF WINDOW UNIT AS NEEDED.
3. EIGHT (8) ANCHORS REQUIRED PER "T" MULL CLIP, SEE SHEETS 2-3. FIVE (5) OR SIX (6) ANCHORS REQUIRED PER "L" MULL CLIP, SEE SHEETS 2-3.
4. SEAT MULLION TIGHT TO MULL CLIP.
5. FOR ANCHORAGE DETAILS FOR THE WINDOW, REFER TO THE WINDOW SPECIFIC INSTALLATION DETAILS.