

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE FLORIDA BUILDING CODE.
2. WOOD FRAMING TO BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO STRUCTURE. FRAMING IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
3. ALLOWABLE STRESS INCREASE OF 1/3 WAS NOT USED IN THE DESIGN OF THE PRODUCT SHOWN HEREIN. WIND LOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
4. APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS UP TO WIND ZONE 3.
5. DESIGN PRESSURE AND INSTALLATION DETAILS SHOWN IN THIS DOCUMENT APPLY ONLY TO MULLION. WINDOWS MUST BE APPROVED UNDER SEPARATE APPROVAL.
6. SINGLE WINDOWS TO BE MULLED ARE NOT LIMITED TO THOSE SHOWN IN THIS DRAWING. WINDOWS MUST BE MANUFACTURED BY MI WINDOWS AND DOORS, INC.
7. DESIGN PRESSURE OF MULLED UNIT SHALL BE CONTROLLED BY THE LESSER DESIGN PRESSURE OF THE MULLION OR THE INDIVIDUAL WINDOW OR DOOR UNIT.
8. UNITS MAY BE MULLED TOGETHER INDEFINITELY AS LONG AS SINGLE UNIT WIDTH AND HEIGHT ARE NOT EXCEEDED AND MULLION IS ANCHORED AS SHOWN HEREIN.
9. MULLION VERTICAL INSTALLATION IS SHOWN, MULLION MAY BE USED IN HORIZONTAL APPLICATIONS AS LONG AS DIMENSIONS INDICATED HEREIN ARE NOT EXCEEDED AND MULLION IS ANCHORED ACCORDING TO THIS DOCUMENT.

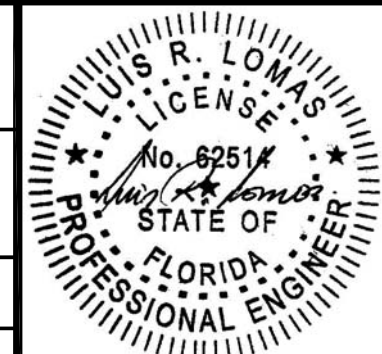
ANCHORING NOTES:

1. FOR ANCHORING INTO WOOD FRAMING OR 2X BUCK USE #10 WOOD SCREW WITH SUFFICIENT LENGTH TO ACHIEVE A 1 1/4" MINIMUM EMBEDMENT. LOCATE ANCHORS AS SHOWN IN INSTALLATION DETAILS.
2. FOR ANCHORING INTO CONCRETE USE 1/4" TAPCON WITH SUFFICIENT LENGTH TO ACHIEVE A 1 3/4" MINIMUM EMBEDMENT WITH 1 1/2" MINIMUM EDGE DISTANCE. LOCATE ANCHORS AS SHOWN IN INSTALLATION DETAILS.
3. FOR ANCHORING INTO METAL FRAMING USE #10 SMS OR SELF DRILLING SCREW WITH SUFFICIENT LENGTH TO ACHIEVE A 3 THREADS MINIMUM BEYOND STRUCTURE INTERIOR WALL. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
4. FOR ATTACHING WINDOW UNITS TO MULLION USE #10 SMS OR SELF DRILLING SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE A MINIMUM EMBEDMENT OF THREE THREADS PAST THE MULLION WALL. LOCATE SCREWS 6" FROM EACH MULLION END AND 12" MAX. O.C. THEREAFTER.
5. FOR ANCHORING WINDOW OR DOOR UNITS TO BUILDING REFER TO WINDOW OR DOOR APPROVAL DOCUMENTATION.
6. ALL FASTENERS TO BE CORROSION RESISTANT.
7. INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BELOW:
 - 7.1. WOOD – MINIMUM SPECIFIC GRAVITY OF G=0.42
 - 7.2. CONCRETE – MINIMUM COMPRESSIVE STRENGTH OF 4,200 PSI.
 - 7.3. MASONRY – STRENGTH CONFORMANCE TO ASTM C-90, GRADE N, TYPE 1 (OR GREATER).
 - 7.4. METAL – STEEL 18GA (.048") FY=33KSI/FU=52KSI OR ALUMINUM 6063-T5 FU=30KSI .125" THICK MINIMUM.

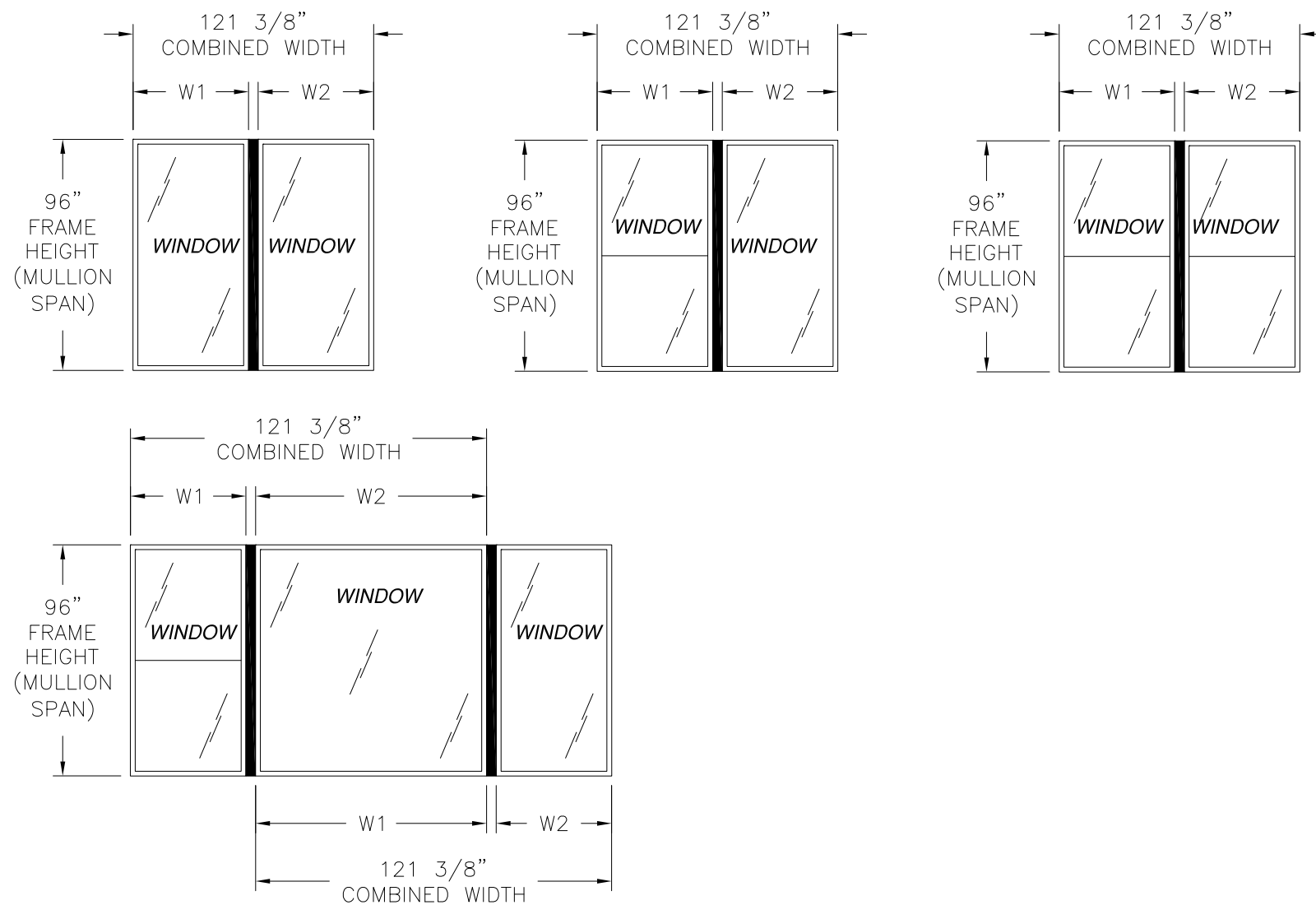
SIGNED: 04/24/2023

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MI WINDOWS AND DOORS 650 WEST MARKET STREET GRATZ, PA 17030-0370		
M-9310 VERTICAL MULLION NOTES		
DRAWN: A.R.	DWG NO. 08-03678	REV -
SCALE NTS	DATE 01/25/21	SHEET 1 OF 4
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Luis R. Lomas P.E.
FL No.: 62514



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- DESIGN PRESSURE TABLE INSTRUCTIONS:
1. DEFINE REQUIRED DESIGN LOAD PER FLORIDA BUILDING CODE CHAPTER 16.
 2. DETERMINE TRIBUTARY WIDTH AND MULLION SPAN BASED ON PRODUCT TO BE INSTALLED. SEE FORMULA FOR TRIBUTARY WIDTH.
 3. LOCATE MULLION SPAN (UNIT HEIGHT) AND TRIBUTARY WIDTH. AT THE INTERSECTION OF ROW AND COLUMN CONTAINING THE MULLION SPAN AND TRIBUTARY WIDTH RESPECTIVELY IS THE MULLION RATING FOR PRODUCT IN STEP 2. MULLION RATING MUST BE EQUAL OR GREATER THAN REQUIRED DESIGN PRESSURE OBTAINED IN STEP 1.

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

APPROVED CONFIGURATIONS

MULTIPLE UNITS MAYBE MULLED TOGETHER AS LONG AS COMBINED WIDTH DOES NOT EXCEED 121 3/8" AS SHOWN HEREIN.

Mullion span (in)	Mullion rating (psf)						
	Tributary width (in)						
	24.00	30.00	36.00	42.00	48.00	54.00	60.00
36.00	120.0	120.0	120.0	120.0	120.0	120.0	120.0
42.00	120.0	120.0	120.0	120.0	120.0	120.0	120.0
48.00	120.0	120.0	120.0	120.0	120.0	120.0	120.0
54.00	120.0	120.0	120.0	117.4	113.0	111.6	111.6
60.00	120.0	120.0	107.6	99.3	94.1	91.3	90.4
66.00	120.0	106.3	94.1	86.1	80.7	77.2	75.3
72.00	113.0	95.1	83.7	75.9	70.6	66.9	64.5
78.00	102.7	86.1	75.3	67.9	62.8	59.1	56.5
84.00	94.1	78.6	68.5	61.5	56.5	52.8	49.5
90.00	86.9	72.3	62.8	55.1	49.4	45.2	42.0
96.00	79.9	64.8	55.0	48.0	42.9	39.1	36.2
102.00	66.4	53.8	45.6	39.8	35.6	32.4	30.0
107.00	57.4	46.5	39.3	34.2	30.5	27.8	25.6

Large and small missile impact up to wind zone 3

MI WINDOWS AND DOORS
 650 WEST MARKET STREET
 GRATZ, PA 17030-0370

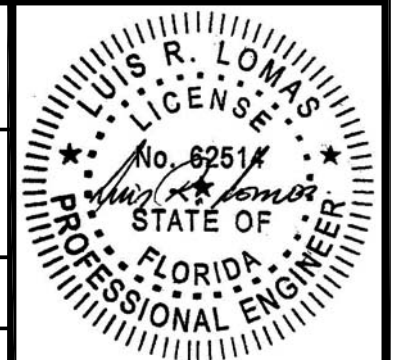
M-9310
 VERTICAL MULLION
 CONFIGURATIONS AND DP CHARTS

DRAWN: A.R. DWG NO. 08-03678 REV -

SCALE NTS DATE 01/25/21 SHEET 2 OF 4

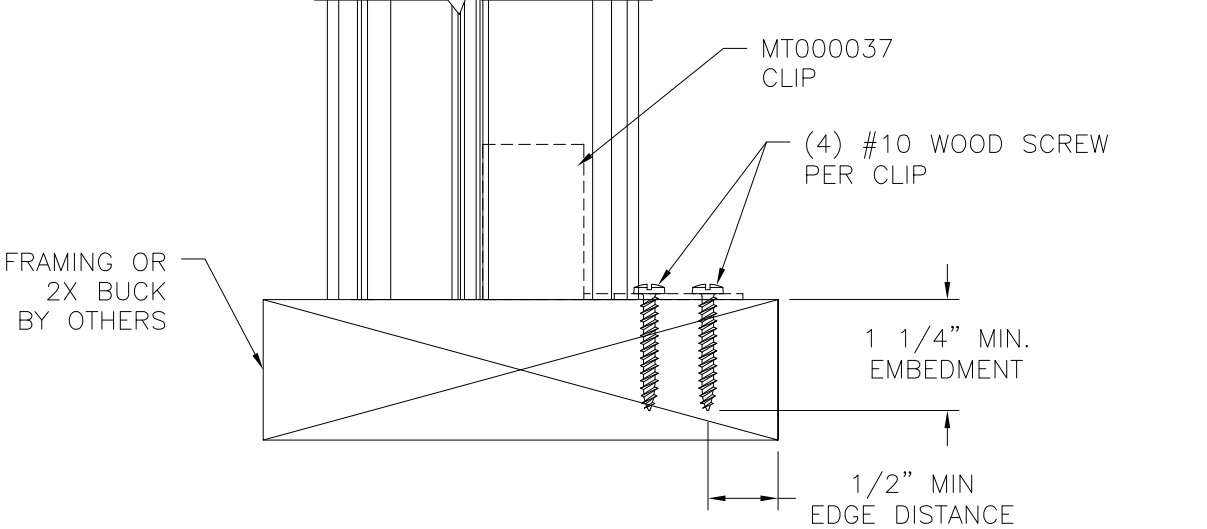
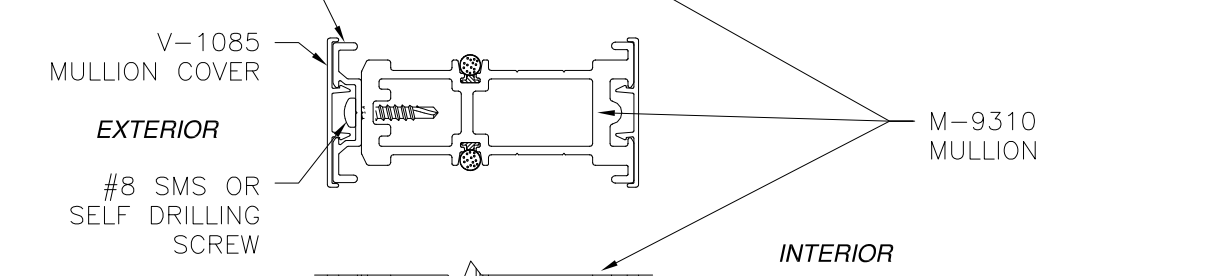
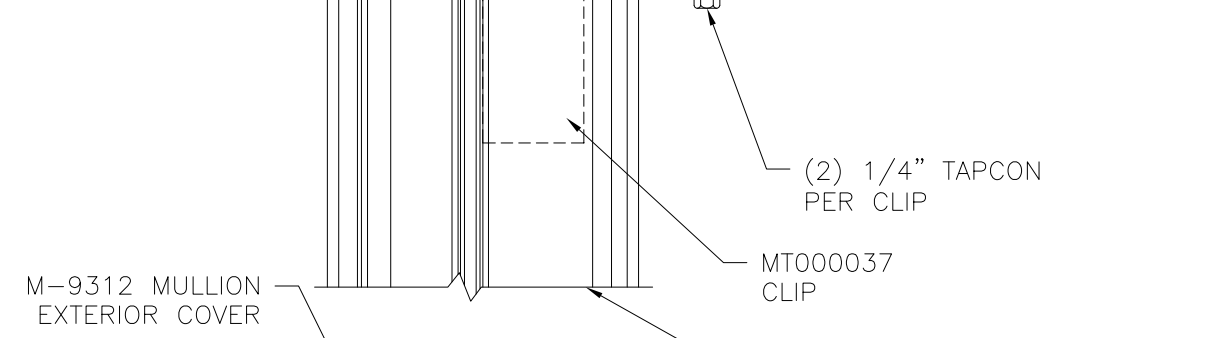
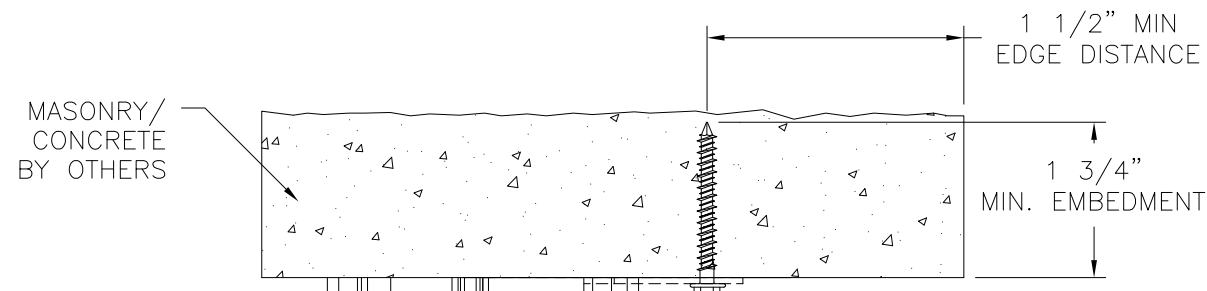
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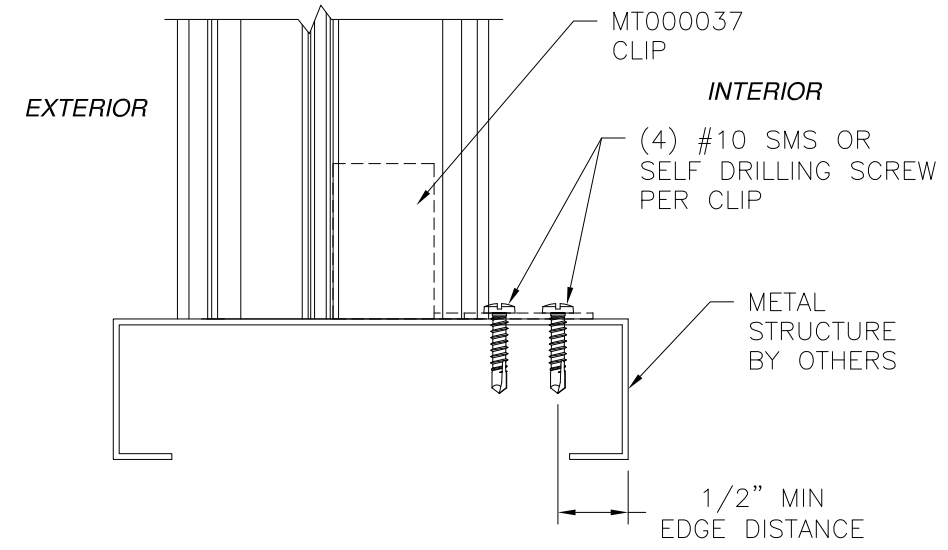


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VERTICAL CROSS SECTION
MASONRY/CONCRETE AND WOOD FRAMING
INSTALLATION



VERTICAL CROSS SECTION
METAL STRUCTURE INSTALLATION

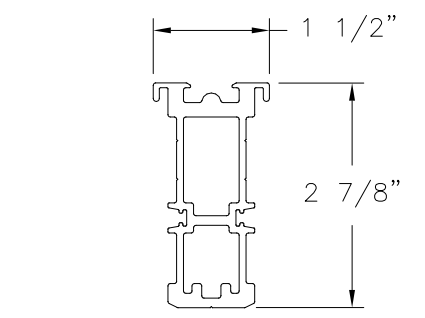
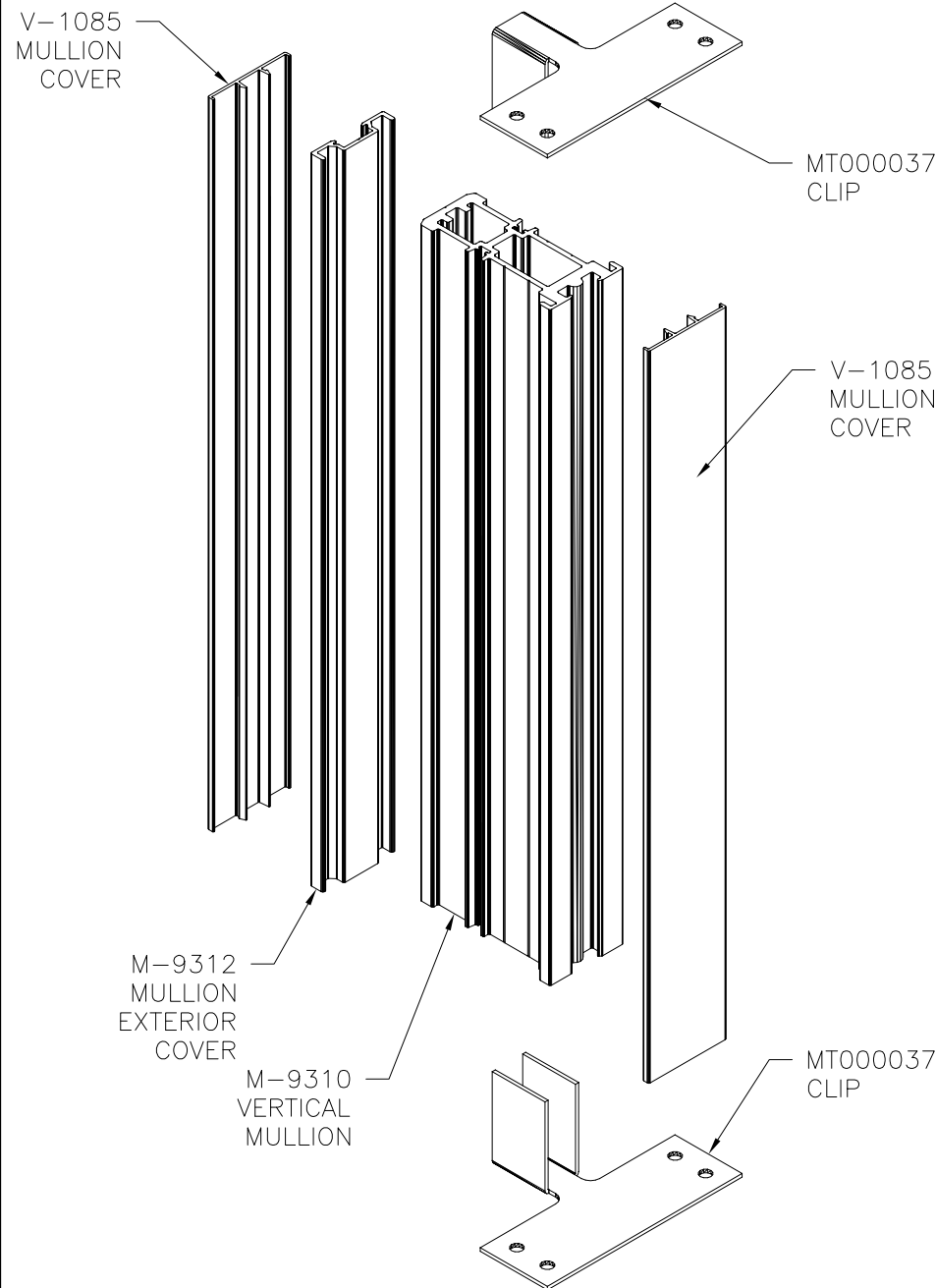
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MI WINDOWS AND DOORS 650 WEST MARKET STREET GRATZ, PA 17030-0370		
M-9310 VERTICAL MULLION INSTALLATION DETAILS		
DRAWN: A.R.	DWG NO. 08-03678	REV -
SCALE NTS	DATE 01/25/21	SHEET 3 OF 4
L. ROBERTO LOMAS P.E. 400 S. PALM AVE, INDIALANTIC, FL 32903 434-688-0609 rllomas@rlomaspe.com		

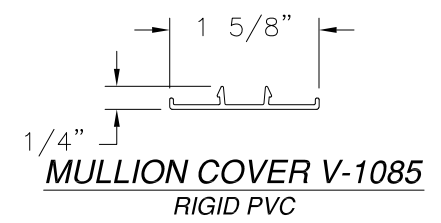
Professional Engineer Seal for Luis R. Lomas, State of Florida, License No. 62514.

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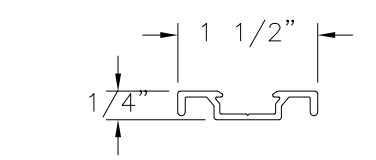
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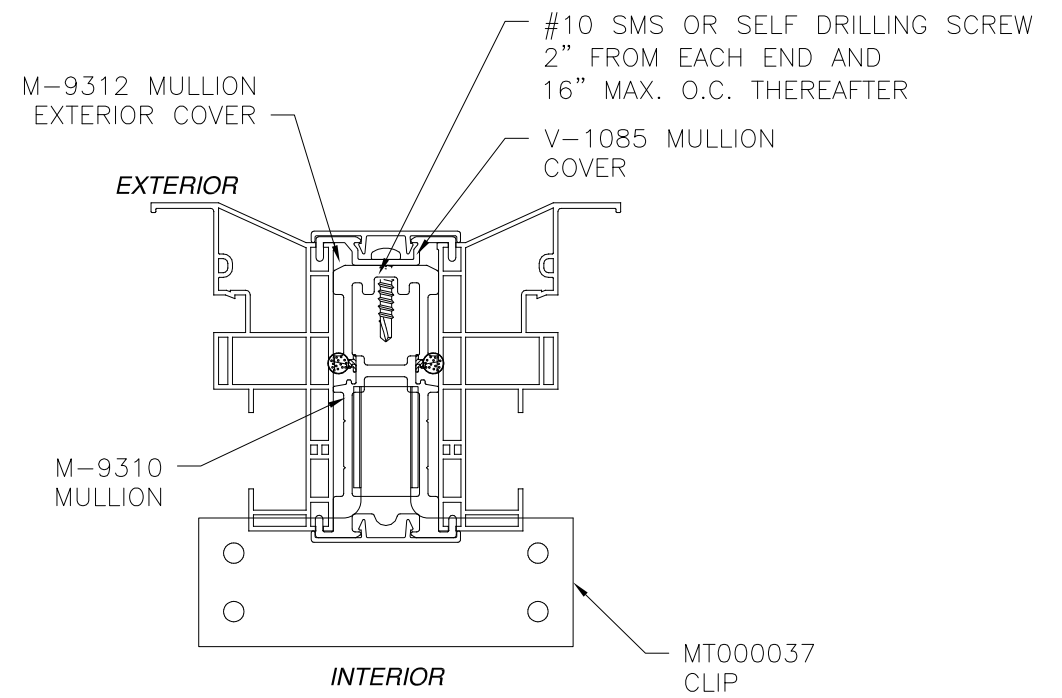
M-9310 MULLION
ALUMINUM 6005-T5
OR 6105-T5



MULLION COVER V-1085
RIGID PVC

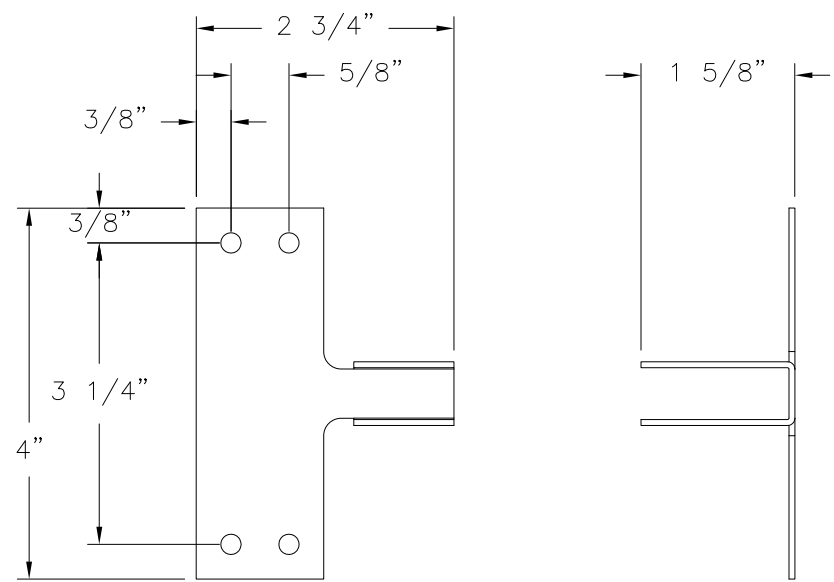


MULLION EXTERIOR COVER
M-9312
ALUMINUM 6005-T5
OR 6105-T5



WINDOW & MULLION ASSEMBLY
MULLION CAN BE USED WITH NUMEROUS WINDOW PROFILES

CLIP INSTALLATION



MT000037 CLIP
16GA (.063") GALVANIZED STEEL

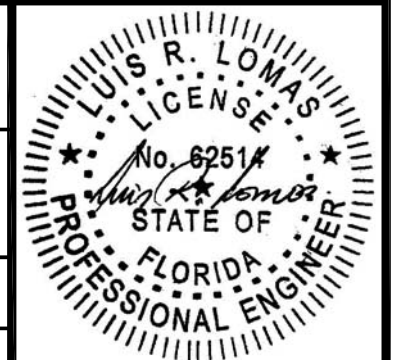
MI WINDOWS AND DOORS
650 WEST MARKET STREET
GRATZ, PA 17030-0370

M-9310
VERTICAL MULLION
INSTALLATION DETAILS & COMPONENTS

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