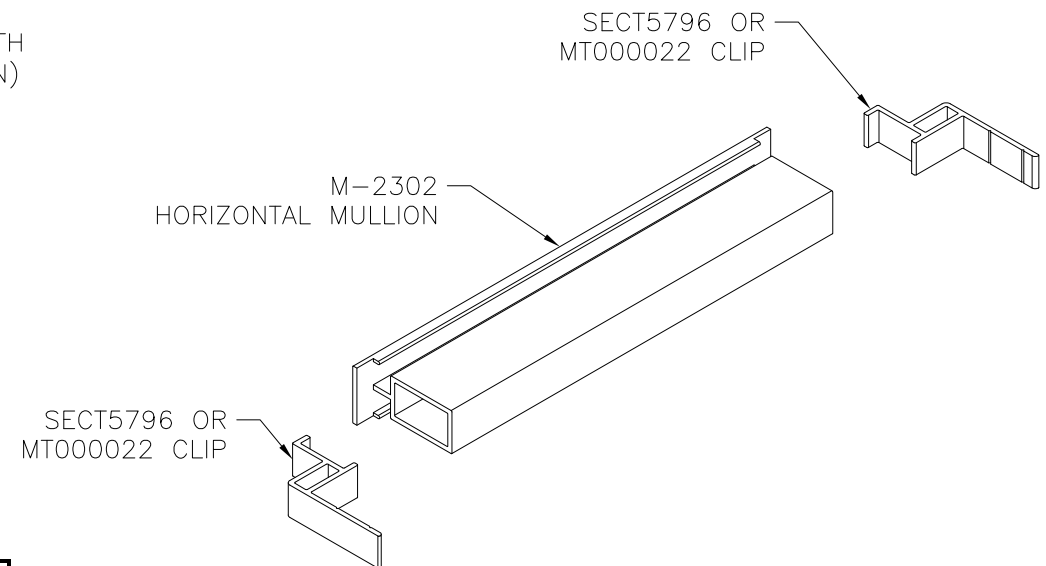
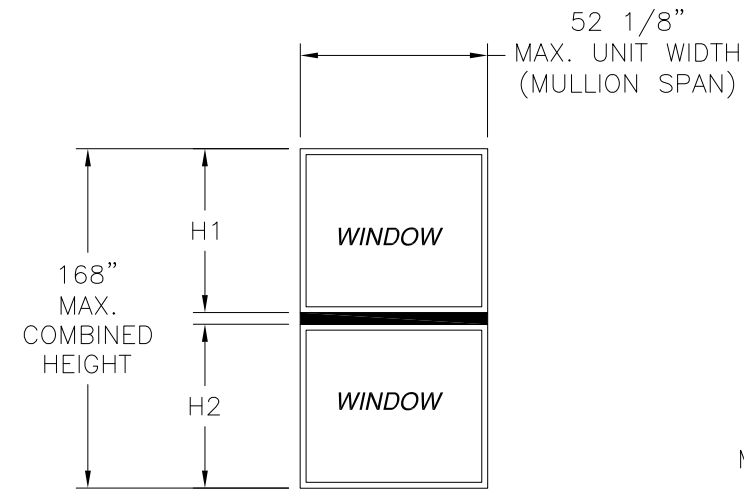


REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REMOVED TWIN & TRIPLE CONFIGURATIONS	11/21/2019	R.L.



NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE 2006 IBC AND THE 2006 IRC WITH STATE OF TEXAS MODIFICATIONS AND WITH THE 2015 IBC, 2015 IRC, 2018 IBC AND 2018 IRC.
2. WOOD FRAMING AND MASONRY OPENING TO BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO STRUCTURE. FRAMING AND MASONRY OPENING 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 THE MULLION. WINDOWS MUST BE APPROVED UNDER SEPARATE APPROVAL.
6. SINGLE UNITS TO BE MULLED ARE NOT LIMITED TO THOSE SHOWN IN THIS DRAWING. SINGLE UNITS TO BE MULLED TOGETHER MUST BE MANUFACTURED BY MI WINDOWS AND DOORS.
7. DESIGN PRESSURE OF MULLED UNIT SHALL BE CONTROLLED BY THE LESSER DESIGN PRESSURE OF THE MULLION OR THE INDIVIDUAL WINDOW UNIT.

Maximum design presssure (psf)

Tributary height	Mullion span (in)						
	18.00	24.00	30.00	36.00	42.00	48.00	52.13
18.00	120.0	120.0	120.0	120.0	120.0	120.0	119.1
24.00	120.0	120.0	120.0	120.0	120.0	107.0	96.0
30.00	120.0	120.0	120.0	120.0	114.1	93.4	83.0
36.00	120.0	120.0	120.0	120.0	107.0	85.6	75.3
42.00	120.0	120.0	120.0	116.1	104.8	81.5	70.7
48.00	120.0	120.0	120.0	92.9	88.5	80.3	68.5
54.00	120.0	120.0	120.0	77.4	72.4	69.7	68.1
60.00	120.0	120.0	120.0	66.3	61.2	58.1	56.7
66.00	120.0	120.0	120.0	58.1	53.1	49.8	48.2
72.00	120.0	120.0	120.0	51.6	46.8	43.5	41.9
78.00	120.0	120.0	120.0	46.4	41.9	38.7	37.1
84.00	120.0	120.0	120.0	42.2	37.9	34.8	33.2

LARGE AND SMALL MISSILE IMPACT, LEVEL D, WIND ZONE 3
DIMENSIONS IN CHART ARE FRAME DIMENSIONS AND DO NOT INCLUDE FLANGE

DESIGN PRESSURE TABLE INSTRUCTIONS:

1. DEFINE REQUIRED DESIGN LOAD PER TEXAS BUILDING CODE CHAPTER 16.
2. DETERMINE TRIBUTARY HEIGHT AND MULLION SPAN BASED ON PRODUCT TO BE INSTALLED. SEE FORMULA FOR TRIBUTARY HEIGHT.
3. LOCATE MULLION SPAN (UNIT WIDTH) AND TRIBUTARY HEIGHT. AT THE INTERSECTION OF COLUMN AND ROW 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.

$$\text{TRIBUTARY HEIGHT} = \frac{H1 + H2}{2}$$

TABLE OF CONTENTS	
SHEET NO.	DESCRIPTION
1	ELEVATION, NOTES AND DESIGN PRESSURE CHARTS
2	INSTALLATION DETAILS
3	COMPONENTS

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

M-2302 HORIZONTAL MULLION
SINGLE WITH TRANSOM
ELEVATION AND GENERAL NOTES

DRAWN: A.R.	DWG NO. 08-03265	REV A
SCALE NTS	DATE 06/05/18	SHEET 1 OF 3

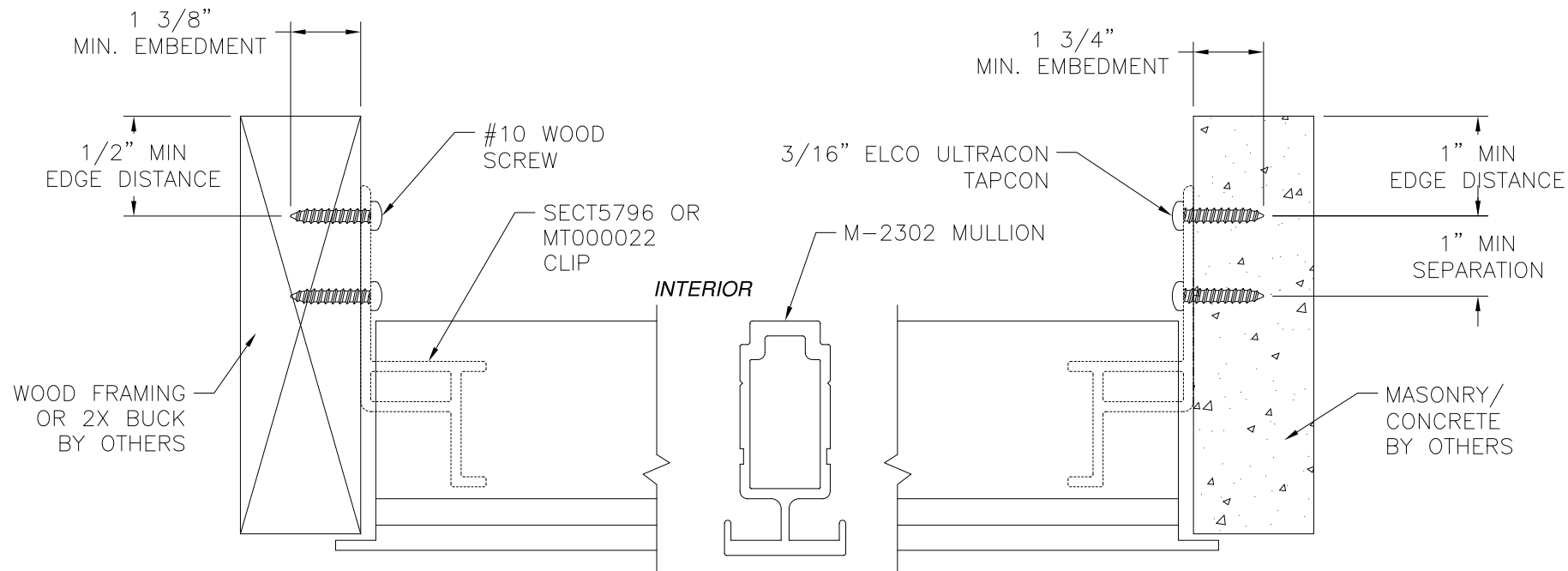
L. ROBERTO LOMAS P.E.
1432 WOODFORD RD LEWISVILLE, NC 27023
434-688-0609 rllomas@rlomaspe.com

SIGNED: 12/10/2019

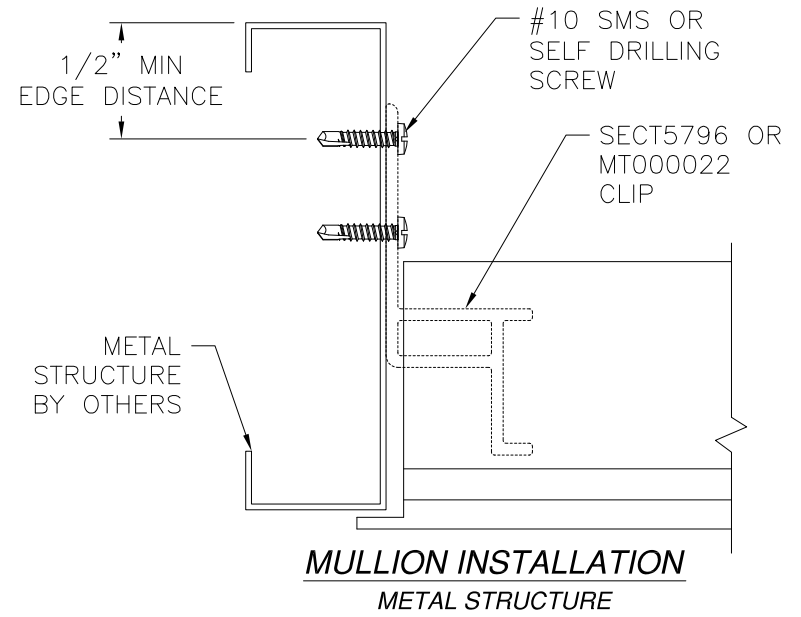


Luis R. Lomas P.E.
TX No.: 101889

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REMOVED TWIN & TRIPLE CONFIGURATIONS	11/21/2019	R.L.



EXTERIOR
MULLION INSTALLATION
WOOD & CONCRETE



ANCHORING NOTES:

- FOR ANCHORING INTO CONCRETE USE 3/16" ELCO ULTRACON TAPCONS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 3/4" MINIMUM EMBEDMENT INTO SUBSTRATE WITH 1" MINIMUM EDGE DISTANCE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
- FOR ANCHORING INTO WOOD FRAMING OR 2X BUCK USE #10 WOOD SCREW WITH SUFFICIENT LENGTH TO ACHIEVE A 1 3/8" MINIMUM EMBEDMENT INTO SUBSTRATE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
- 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.
- FOR ATTACHING WINDOW UNITS TO MULLION USE #10 TEK SELF TAPPING 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. STAGGER SCREWS AT EACH WINDOW.
- FOR WINDOW UNITS ANCHORING SCHEDULE REFER TO WINDOW APPROVED INSTALLATION INSTRUCTIONS.
- ALL FASTENERS TO BE CORROSION RESISTANT.
- 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:
 - WOOD - MINIMUM SPECIFIC GRAVITY OF G=0.42
 - CONCRETE - MINIMUM COMPRESSIVE STRENGTH OF 3,200 PSI.
 - METAL STRUCTURE - STEEL 18GA (.048") FY=33KSI/FU=52KSI OR ALUMINUM 6063-T5 FU=30KSI .048" THICK MINIMUM.

SIGNED: 12/10/2019

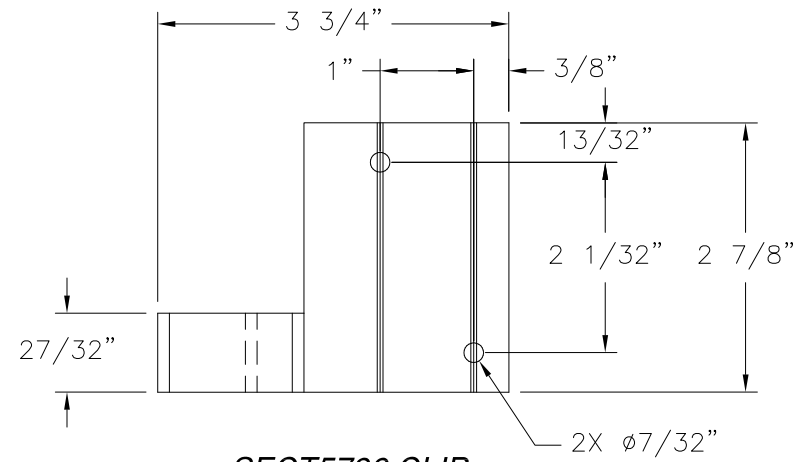
MI WINDOWS AND DOORS, LLC 650 WEST MARKET STREET GRATZ, PA 17030		
M-2302 HORIZONTAL MULLION SINGLE WITH TRANSOM INSTALLATION DETAILS		
DRAWN: A.R.	DWG NO. 08-03265	REV A
SCALE NTS	DATE 06/05/18	SHEET 2 OF 3
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@rlomaspe.com		



Luis R. Lomas P.E.
TX No.: 101889

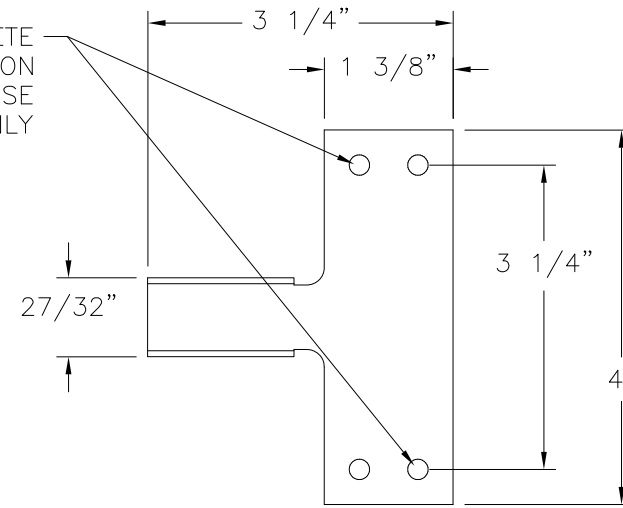
REVISIONS

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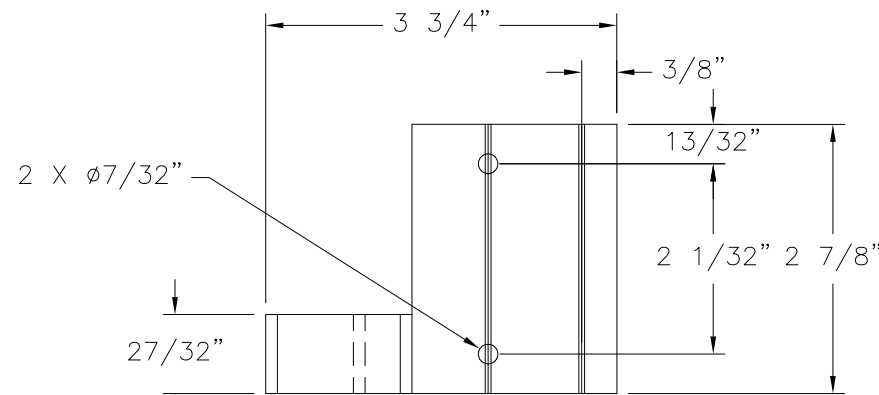


SECT5796 CLIP
FOR CONCRETE INSTALLATION
ALUMINUM 6063-T5 .125" THICK

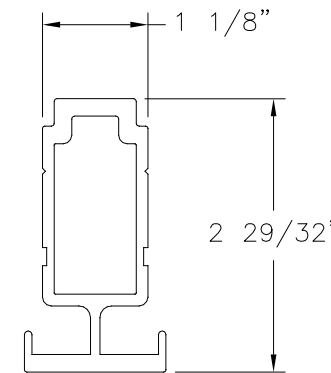
FOR CONCRETE
INSTALLATION
USE THESE
HOLES ONLY



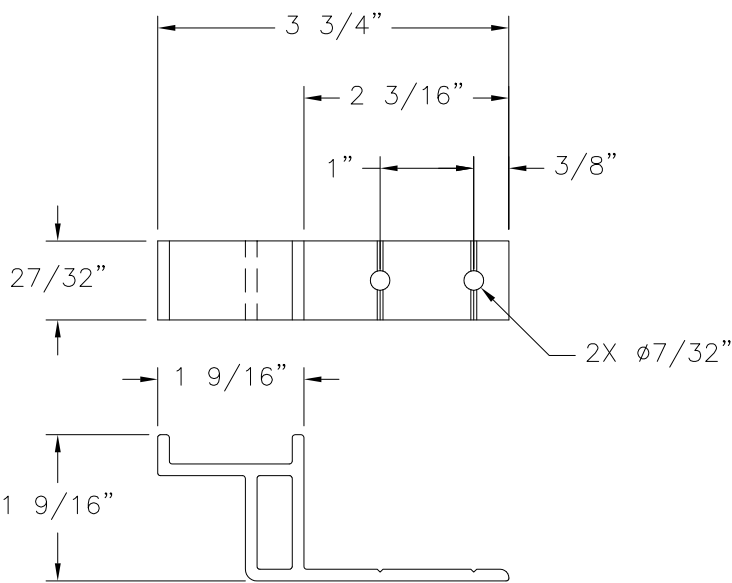
MT000022 CLIP
16GA (.063") GALVANIZED STEEL
FOR WOOD AND METAL FRAMING INSTALL (4)
ANCHORS PER CLIP
FOR MASONRY/CONCRETE INSTALLATION USE (2)
ANCHORS PER CLIP AS SHOWN



SECT5796 CLIP
FOR CONCRETE INSTALLATION
ALUMINUM 6063-T5 .125" THICK



M-2302 MULLION
ALUMINUM 6063-T5 .125" THICK



SECT5796 CLIP
FOR WOOD AND METAL FRAMING INSTALLATION
ALUMINUM 6063-T5 .125" THICK

SIGNED: 12/10/2019

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

M-2302 HORIZONTAL MULLION
SINGLE WITH TRANSOM
COMPONENTS

DRAWN: A.R.	DWG NO. 08-03265	REV A
SCALE NTS	DATE 06/05/18	SHEET 3 OF 3

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