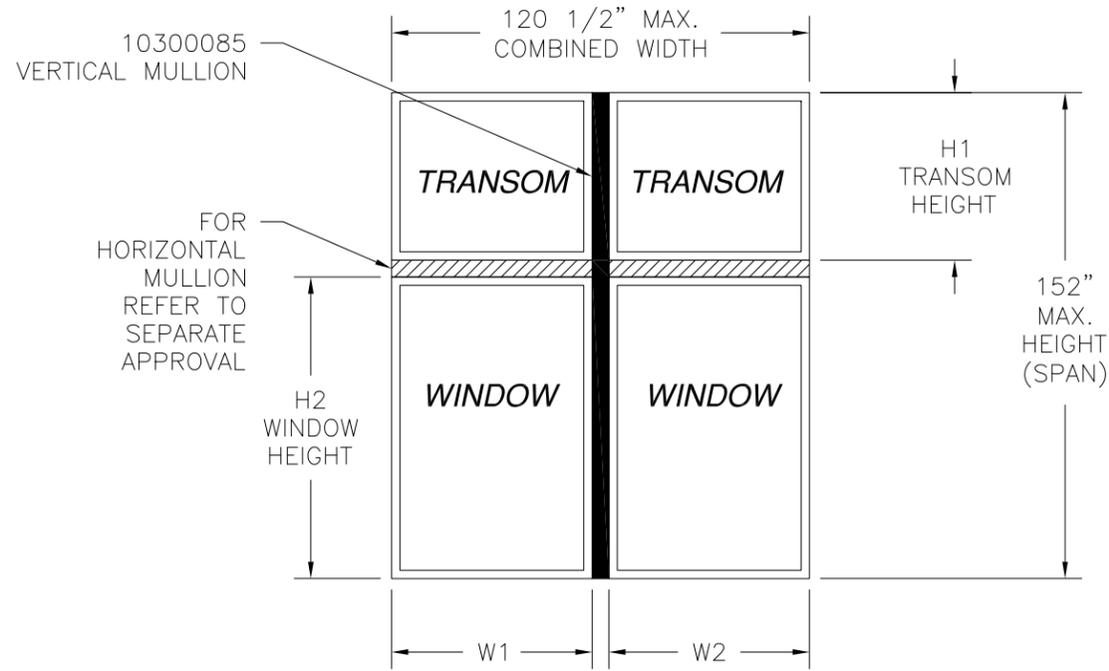


REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



**10300085 ALUMINUM X MULLION
REINFORCED LMI WIND ZONE 3**

NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE 2006 IBC AND WITH THE 2006 IRC WITH STATE OF TEXAS MODIFICATIONS AND WITH THE 2009 IBC, 2009 IRC, 2012 IBC, 2012 IRC, 2015 IBC AND 2015 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.
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 WINDOW MART.
7. DESIGN PRESSURE OF MULLED UNIT SHALL BE CONTROLLED BY THE LESSER DESIGN PRESSURE OF THE MULLION OR THE INDIVIDUAL WINDOW UNIT.
8. UNITS MAYBE MULLED INDEFINITELY.

DESIGN PRESSURE TABLE INSTRUCTIONS:

- 1) DEFINE REQUIRED DESIGN LOAD PER INTERNATIONAL BUILDING CODE OR INTERNATIONAL RESIDENTIAL CODE.
- 2) DETERMINE TRIBUTARY WIDTH, HEIGHT AND MULLION SPAN BASED ON PRODUCT TO BE INSTALLED. SEE FORMULA FOR TRIBUTARY WIDTH AND HEIGHT.
- 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.

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

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

Maximum design pressure chart (psf)
Design Pressures Are Positive And Negative

Mullion span (in)	Tributary Height (in)	Tributary width (in)										
		24.00	28.00	32.00	36.00	40.00	44.00	48.00	52.00	54.00	60.00	
48.00	24.00	135.3	121.8	110.7	101.5	93.7	87.0	81.2	76.1	73.8	67.7	
56.00	28.00	110.7	99.4	90.8	83.5	77.3	72.0	67.4	63.3	61.4	56.4	
64.00	32.00	93.7	83.5	76.1	70.3	65.3	60.9	57.1	53.7	52.2	48.1	
72.00	36.00	81.2	72.0	65.3	60.1	56.0	52.4	49.2	46.4	45.1	41.6	
80.00	40.00	71.6	63.3	56.9	51.3	46.9	43.3	40.2	37.5	36.2	33.0	
88.00	44.00	54.8	47.6	42.3	38.1	34.8	32.1	29.8	27.8	26.9	24.5	
96.00	48.00	42.0	36.4	32.3	29.0	26.5	24.4	22.6	21.1	20.5	18.7	
104.00	52.00	32.8	28.4	25.2	22.6	20.6	19.0	17.6	16.4	15.9	-	
112.00	56.00	26.1	22.6	20.0	18.0	16.4	15.0	-	-	-	-	
120.00	60.00	21.2	18.3	16.2	-	-	-	-	-	-	-	
128.00	64.00	17.4	15.0	-	-	-	-	-	-	-	-	

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TABLE OF CONTENTS	
SHEET NO.	DESCRIPTION
1	ELEVATION, NOTES AND DESIGN PRESSURE CHART
2, 3	INSTALLATION DETAILS AND BILL OF MATERIALS
4	COMPONENTS

WINDOW MART
5760 ALBERT PIKE
ROYAL, AR 71968

10300085 ALUMINUM X MULLION
REINFORCED LMI WIND ZONE 3
ELEVATION, NOTES AND DESIGN PRESSURE CHART

DRAWN: A.P.	DWG NO. 08-01925	REV -
SCALE NTS	DATE 02/13/13	SHEET 1 OF 4

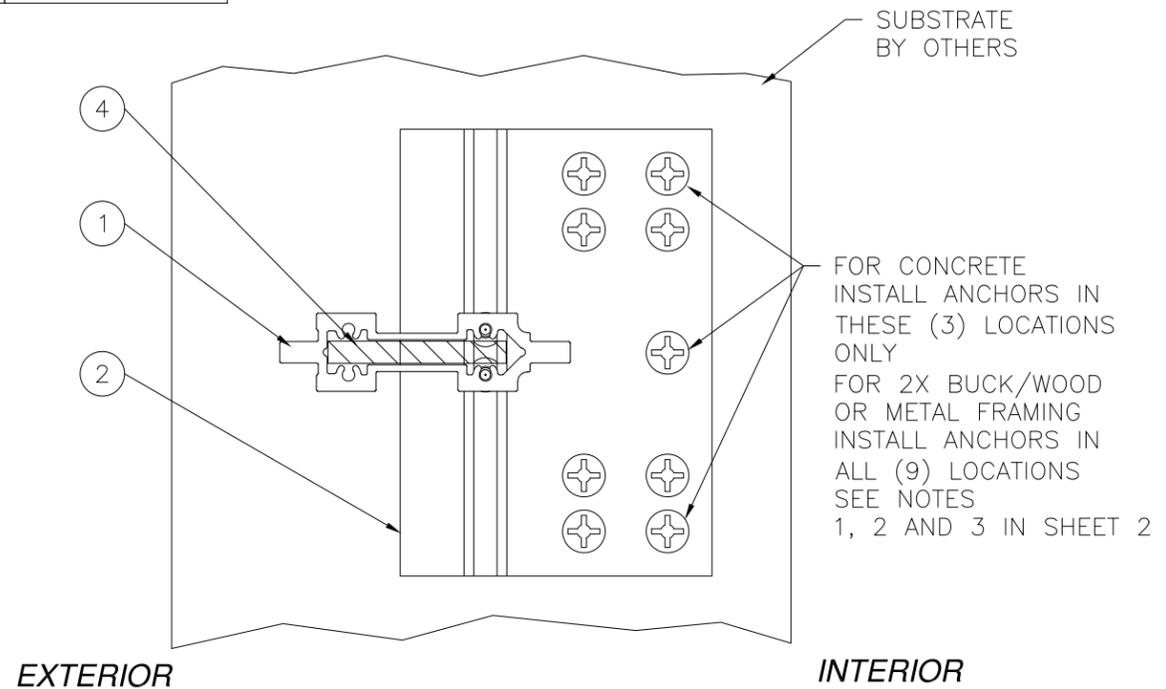
L. ROBERTO LOMAS P.E.
1432 WOODFORD RD LEWISVILLE, NC 27023
434-688-0609 rllomas@rlomaspe.com



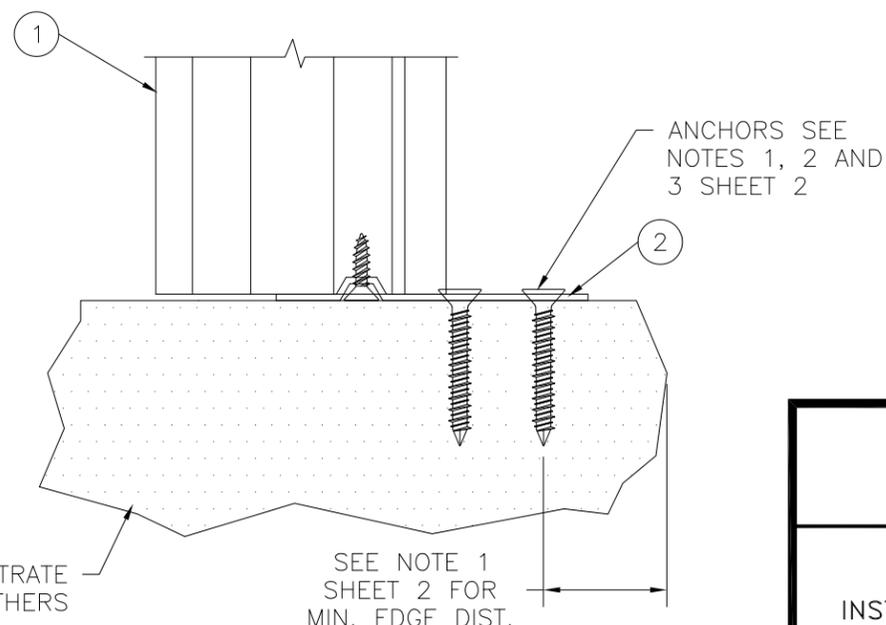
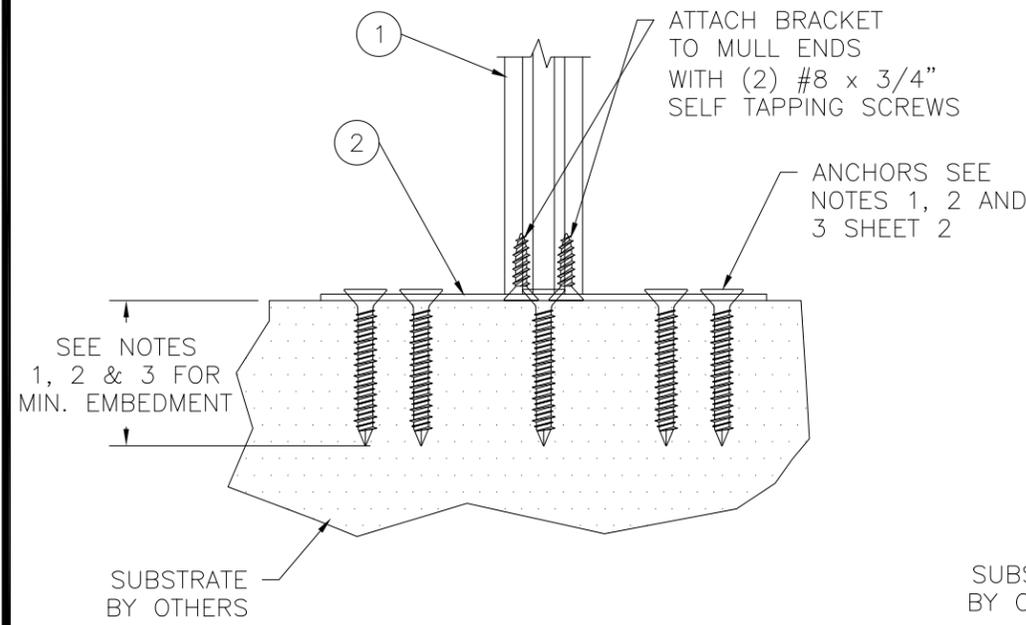
Luis R. Lomas P.E.
TX No.: 101889

PARTS LIST				
NO.	PART NUMBER	DESCRIPTION	MANUFACTURER	MATERIAL
1	10300085	ALUMINUM VERTICAL MULLION	DECEUNINCK	ALUMINUM 6005-T5
2	10203000	15GA. STEEL MULLION BRACKET	DECEUNINCK	GALVANIZED STEEL
3	10300093	MULL CLIP	DECEUNINCK	ALUMINUM 6005-T5
4		MULLION REINFORCEMENT		STEEL
5	10300087	ANGLE CLIP	WINDOW MART	ALUMINUM 6005-T5

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



- ANCHORING NOTES:
- 1) FOR ANCHORING MULLION BRACKET OR MULL CLIP INTO MASONRY/CONCRETE USE 3/16" ITW TAPCONS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 3/4" MINIMUM EMBEDMENT INTO SUBSTRATE WITH 2 5/8" MINIMUM EDGE DISTANCE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
 - 2) FOR ANCHORING MULLION BRACKET OR MULL CLIP 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.
 - 3) FOR ANCHORING MULLION BRACKET OR MULL CLIP INTO 16GA. MINIMUM METAL FRAMING USE #10 SELF TAPPING SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE A MINIMUM EMBEDMENT OF THREE THREADS PAST SUBSTRATE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
 - 4) FOR ATTACHING WINDOW UNITS TO MULLION USE #10 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 24" MAX. O.C. THEREAFTER. STAGGER SCREWS AT EACH WINDOW.
 - 5) FOR WINDOW UNIT ANCHORING SCHEDULE TO SUBSTRATE REFER TO INDIVIDUAL WINDOW APPROVAL INSTALLATION INSTRUCTIONS.
 - 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:
 A. WOOD - MINIMUM SPECIFIC GRAVITY OF G=0.42
 B. CONCRETE - MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI.
 C) METAL FRAMING - 16GA. MINIMUM.



STEEL MULLION BRACKET 10203000
INSTALLATION DETAILS
 SILL, HEAD AND JAMBS TYP.

WINDOW MART
 5760 ALBERT PIKE
 ROYAL, AR 71968

10300085 ALUMINUM X MULLION
 REINFORCED LMI WIND ZONE 3
 INSTALLATION DETAILS AND BILL OF MATERIALS

DRAWN: A.P.	DWG NO. 08-01925	REV -
SCALE NTS	DATE 02/13/13	SHEET 2 OF 4

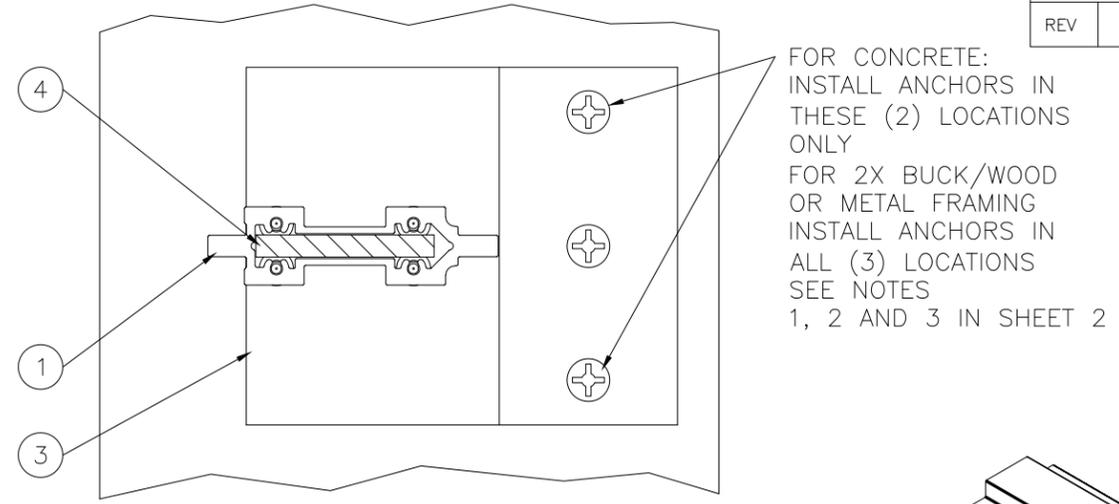
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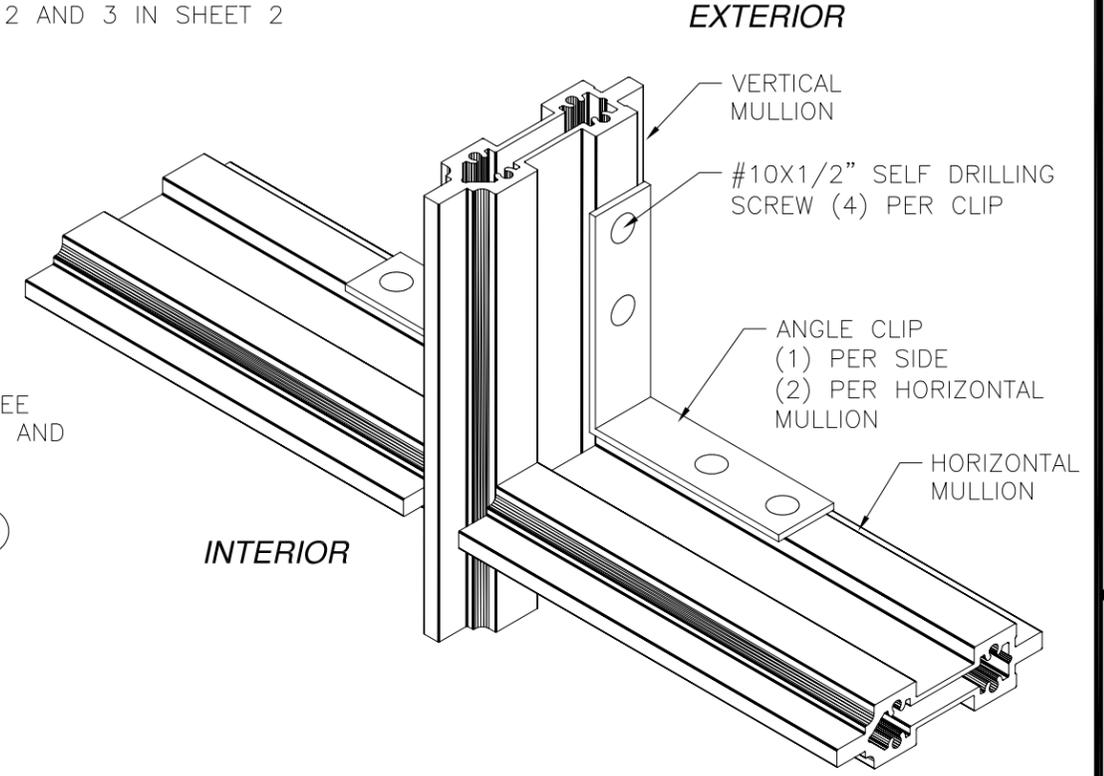


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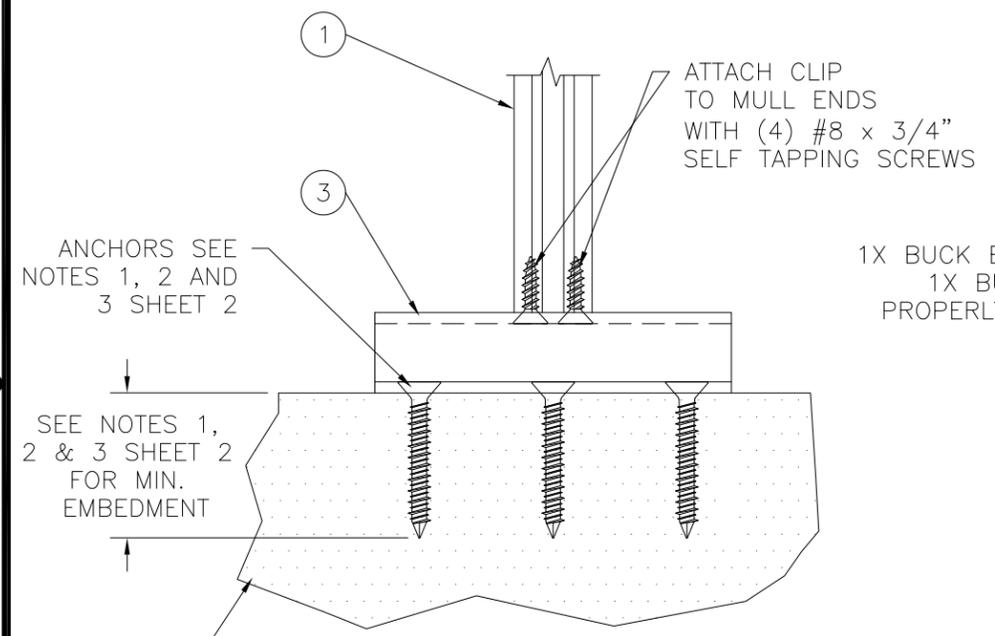
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



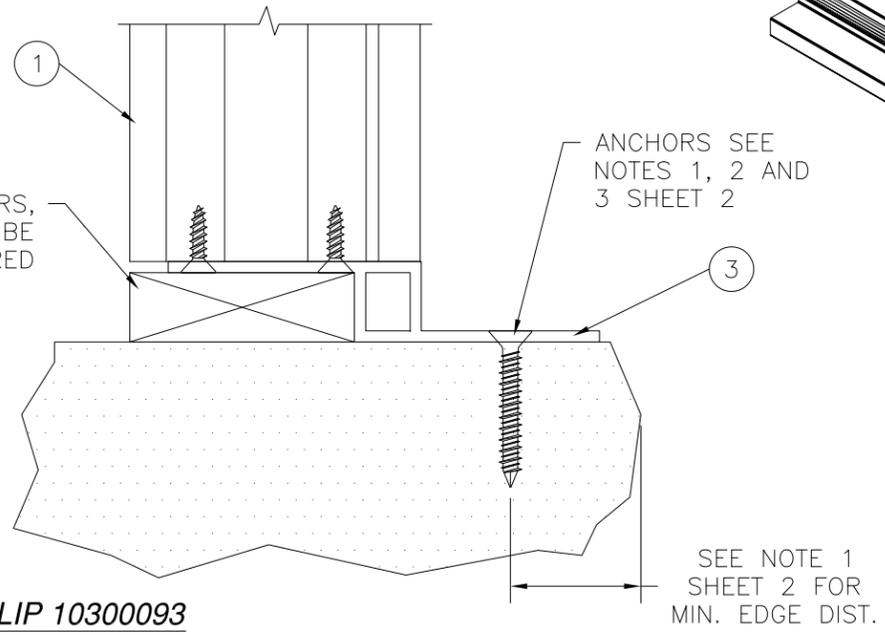
FOR CONCRETE:
INSTALL ANCHORS IN THESE (2) LOCATIONS ONLY
FOR 2X BUCK/WOOD OR METAL FRAMING
INSTALL ANCHORS IN ALL (3) LOCATIONS
SEE NOTES 1, 2 AND 3 IN SHEET 2



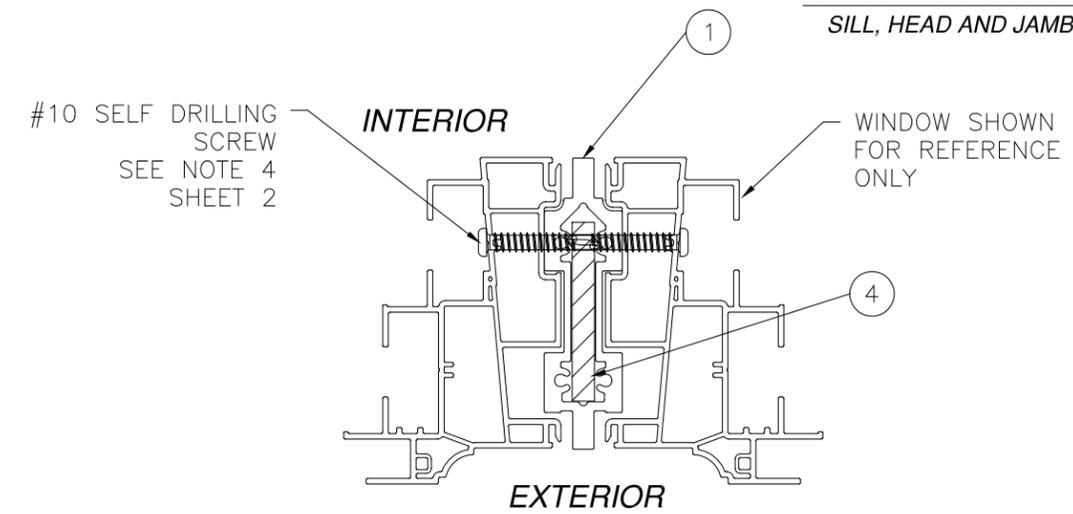
HORIZONTAL/VERTICAL MULLION CONNECTION DETAIL



ALTERNATE MULL CLIP 10300093 INSTALLATION DETAILS SILL, HEAD AND JAMBS TYP.



SEE NOTE 1 SHEET 2 FOR MIN. EDGE DIST.



WINDOW TO MULLION INSTALLATION DETAIL

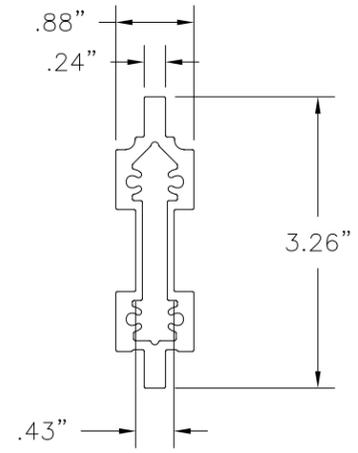
SIGNED: 08/01/2019

WINDOW MART 5760 ALBERT PIKE ROYAL, AR 71968		
10300085 ALUMINUM X MULLION REINFORCED LMI WIND ZONE 3 INSTALLATION DETAILS		
DRAWN: A.P.	DWG NO. 08-01925	REV -
SCALE NTS	DATE 02/13/13	SHEET 3 OF 4
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		

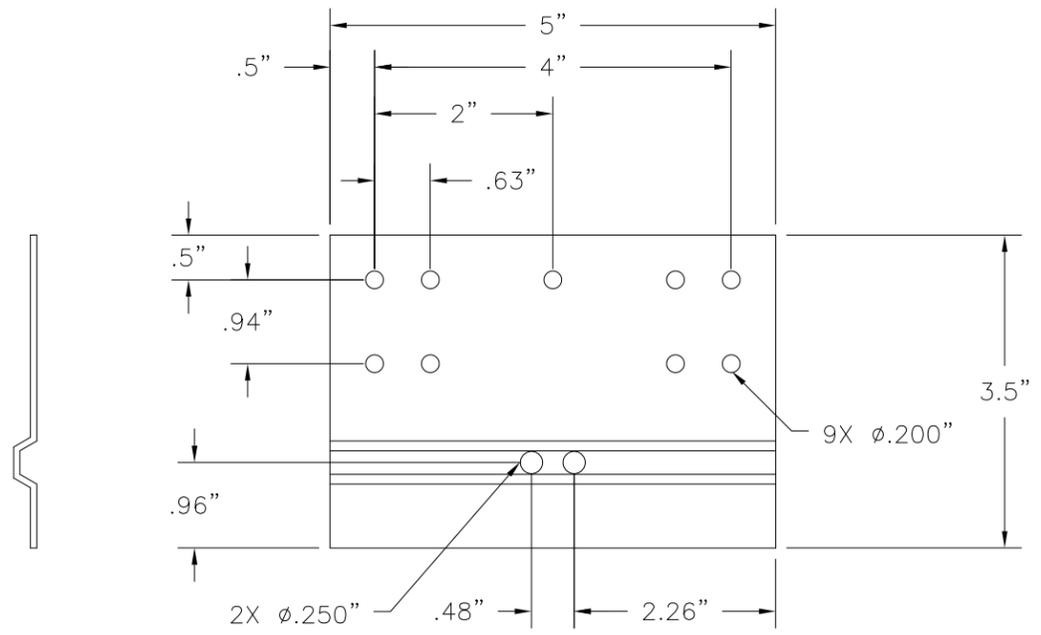


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TX No.: 101889

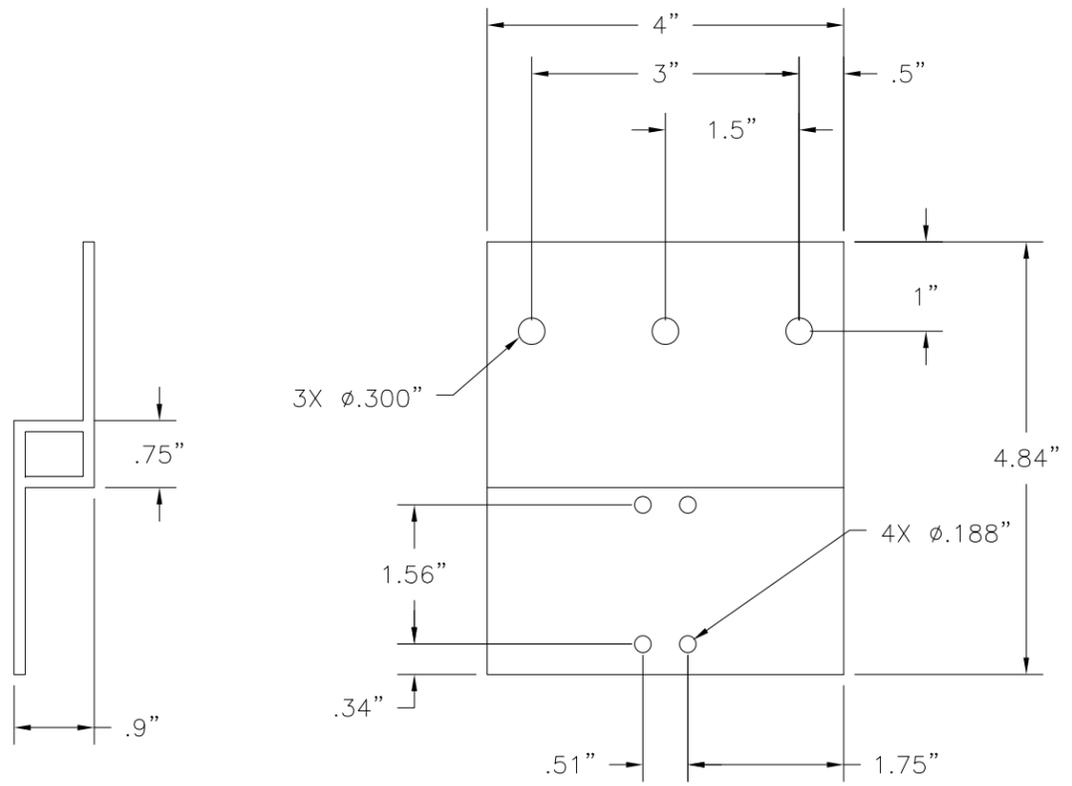
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



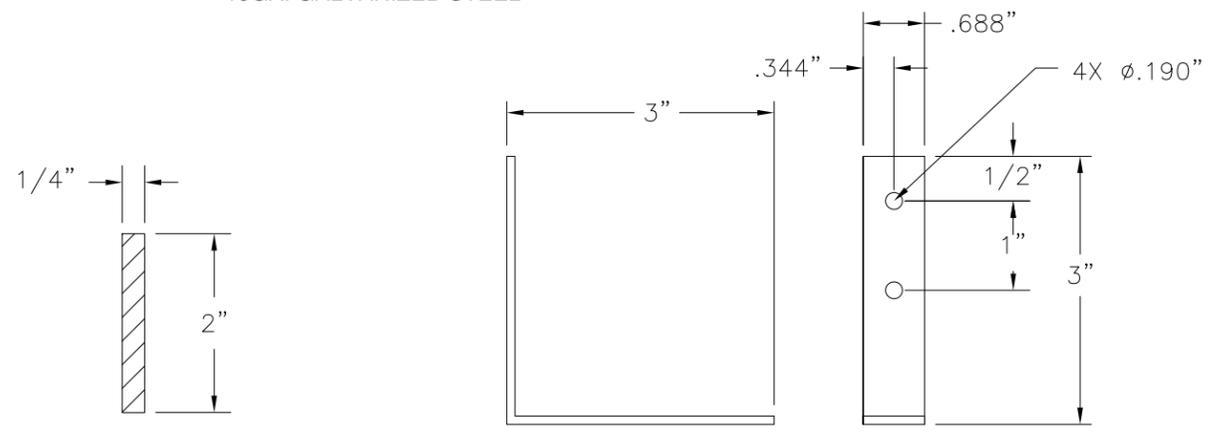
① **10300085 ALUMINUM MULLION**
ALUMINUM 6005-T5 .075" THICK MINIMUM



② **STEEL MULLION BRACKET**
15GA. GALVANIZED STEEL



③ **MULL CLIP**
ALUMINUM 6005-T5 .125" THICK



④ **MULLION REINFORCEMENT**
STEEL 1/4" THICK

⑤ **ANGLE CLIP**
ALUMINUM 6005-T5 .125" THICK

SIGNED: 08/01/2019

WINDOW MART 5760 ALBERT PIKE ROYAL, AR 71968		
10300085 ALUMINUM X MULLION REINFORCED LMI WIND ZONE 3 COMPONENTS		
DRAWN: A.P.	DWG NO. 08-01925	REV -
SCALE NTS	DATE 02/13/13	SHEET 4 OF 4
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