

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
C	ADDED CORROSION CHART	09/04/26	R.L.

NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE FLORIDA BUILDING CODE.
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. WHERE SHIM OR BUCK THICKNESS IS LESS THAN 1-1/2" UNITS MUST BE ANCHORED THROUGH THE FRAME IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS. ANCHORS SHALL BE SECURELY FASTENED DIRECTLY INTO MASONRY, CONCRETE OR OTHER STRUCTURAL SUBSTRATE MATERIAL.
4. WHERE WOOD BUCK THICKNESS IS 1-1/2" OR GREATER, BUCK SHALL BE SECURELY FASTENED TO MASONRY, CONCRETE OR OTHER STRUCTURAL SUBSTRATE. UNITS MAY BE ANCHORED THROUGH FRAME TO SECURED WOOD BUCK IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS.
5. WHERE 1X BUCK IS NOT USED DISSIMILAR MATERIALS MUST BE SEPARATED WITH APPROVED COATING OR MEMBRANE. SELECTION OF COATING OR MEMBRANE IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
6. BUCKS SHALL EXTEND BEYOND UNIT FRAME INTERIOR FACE SO THAT FULL FRAME SUPPORT IS PROVIDED.
7. SHIM AS REQUIRED AT EACH ANCHOR LOCATION WITH LOAD BEARING SHIM. SHIM WHERE SPACE OF 1/16" OR GREATER OCCURS. MAXIMUM ALLOWABLE SHIM STACK TO BE 1/4".
8. SHIMS SHALL BE LOCATED, APPLIED AND MADE FROM MATERIALS AND THICKNESS CAPABLE OF SUSTAINING APPLICABLE LOADS.
9. WIND LOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
10. FRAME MATERIAL: EXTRUDED ALUMINUM 6063-T5.
11. UNITS MUST BE GLAZED PER ASTM E1300.
12. APPROVED IMPACT PROTECTIVE SYSTEM IS REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.
13. FOR ANCHORING THROUGH FRAME INTO WOOD FRAMING OR 2X BUCK USE #12 WOOD SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 1/4" MINIMUM EMBEDMENT INTO SUBSTRATE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.

14. FOR ANCHORING THROUGH FRAME INTO MASONRY/CONCRETE USE 1/4" TAPCONS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 1/4" MINIMUM EMBEDMENT INTO SUBSTRATE WITH 2" MINIMUM EDGE DISTANCE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
15. FOR ANCHORING THROUGH FRAME INTO METAL STRUCTURE USE #12 SMS OR SELF DRILLING SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE 3 THREADS MINIMUM BEYOND STRUCTURE INTERIOR WALL. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
16. ALL FASTENERS TO BE CORROSION RESISTANT.
17. 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. MASONRY: HOLLOW/FILLED BLOCK PER ASTM C90 WITH Fm=2,000PSI MINIMUM.
 - D. METAL STRUCTURE: STEEL 18GA (.048") FY=33KSI/FU=52KSI OR ALUMINUM 6063-T5 FU=30KSI 1/8" THICK MINIMUM

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US ALUMINUM

950 SOLON RD.
WAXAHACHIE, TX 75165

SERIES IR 451

STORE FRONT

NOTES

DRAWN:
V.L.

DWG NO.
08-01817

REV
C

SCALE NTS

DATE 10/08/12

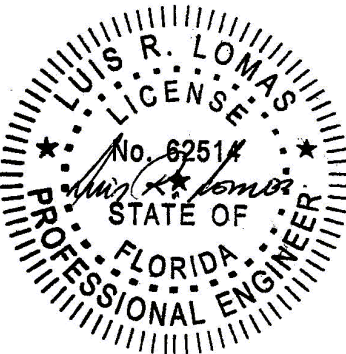
SHEET 1 OF 6

L. ROBERTO LOMAS P.E.

208 7th Ave, INDIALANTIC, FL 32903

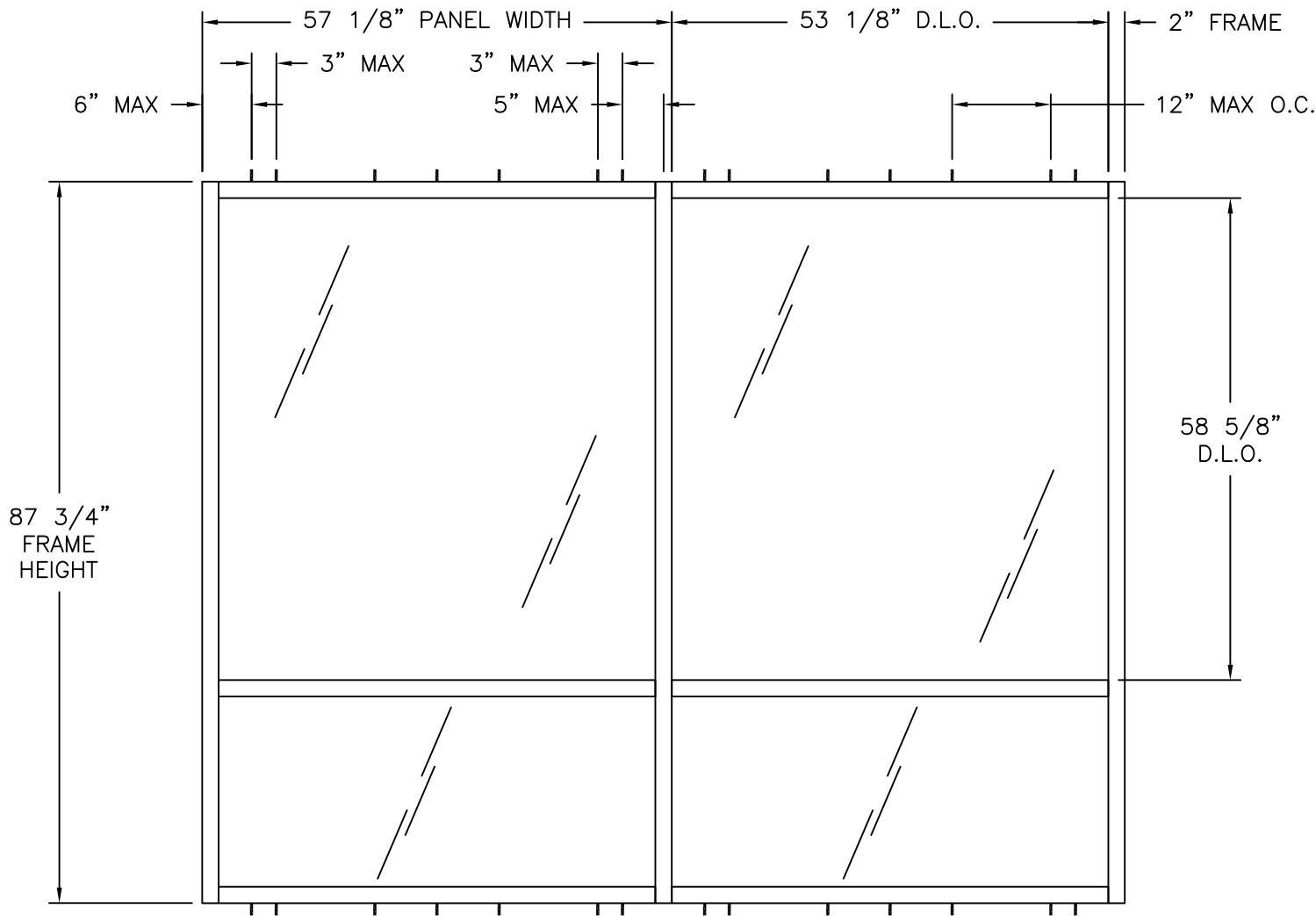
434-688-0609 rllomas@lrlomaspe.com

SIGNED: 09/04/2026



Luis R. Lomas P.E.
FL No.: 62514

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SERIES IT 451 STORE FRONT

EXTERIOR VIEW

UNLIMITED NUMBER OF PANELS IN UNLIMITED CONFIGURATION ARE APPROVED
AS LONG AS INDIVIDUAL PANEL SIZE DOES NOT EXCEED MAXIMUM PANEL SIZE AND USES
VERTICAL CONDITIONS AS SHOWN.

DESIGN PRESSURE RATING	IMPACT RATING
±25PSF	NONE

OTHER SIZES APPROVED, SEE CHART #1 THIS SHEET

CHART #1

Maximum design pressure capacity chart (psf)

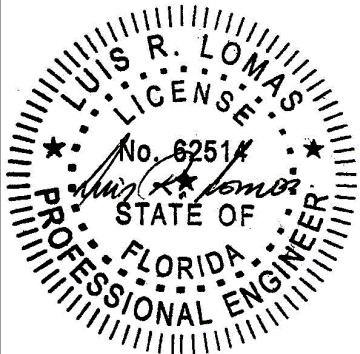
Frame Height (in)	Single Panel Width (in)													
	24.00		30.00		36.00		42.00		48.00		54.00		57.13	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
24.00	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7
30.00	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7
36.00	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7
42.00	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7
48.00	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7
54.00	66.7	66.7	66.7	66.7	65.2	65.2	61.0	61.0	58.7	58.7	58.0	58.0	58.0	58.0
60.00	66.7	66.7	62.6	62.6	55.9	55.9	51.6	51.6	48.9	48.9	47.4	47.4	47.1	47.1
66.00	65.2	65.2	55.2	55.2	48.9	48.9	44.7	44.7	41.9	41.9	40.1	40.1	39.5	39.5
72.00	58.7	58.7	49.4	49.4	43.5	43.5	39.5	39.5	36.7	36.7	34.8	34.8	34.1	34.1
78.00	53.4	53.4	44.7	44.7	39.1	39.1	35.3	35.3	32.6	32.6	30.7	30.7	29.9	29.9
84.00	48.9	48.9	40.8	40.8	35.6	35.6	31.9	31.9	29.3	29.3	27.5	27.5	26.7	26.7
87.75	46.5	46.5	38.7	38.7	33.7	33.7	30.2	30.2	27.6	27.6	25.8	25.8	25.0	25.0

Anchors and anchor connectors corrosion resistance chart

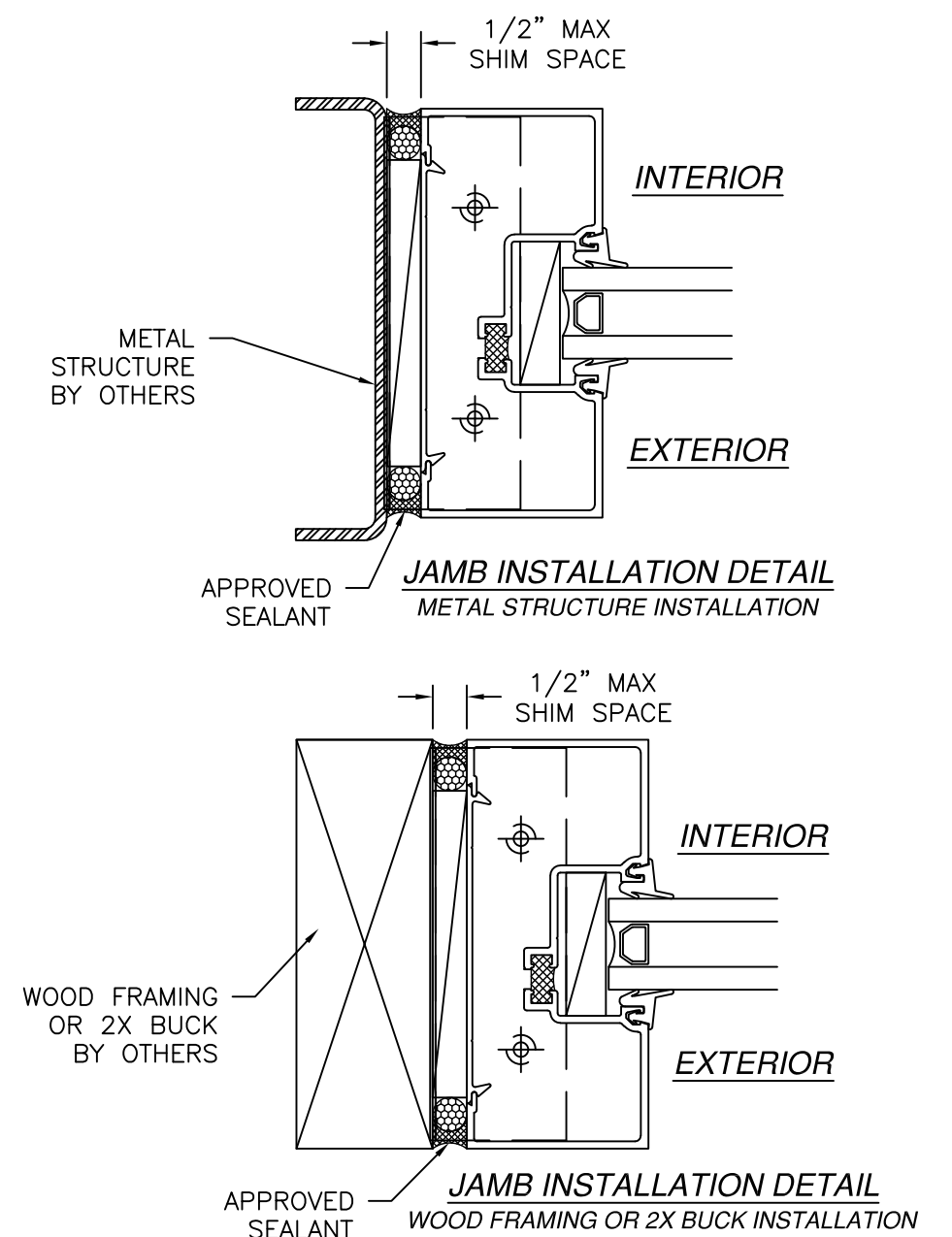
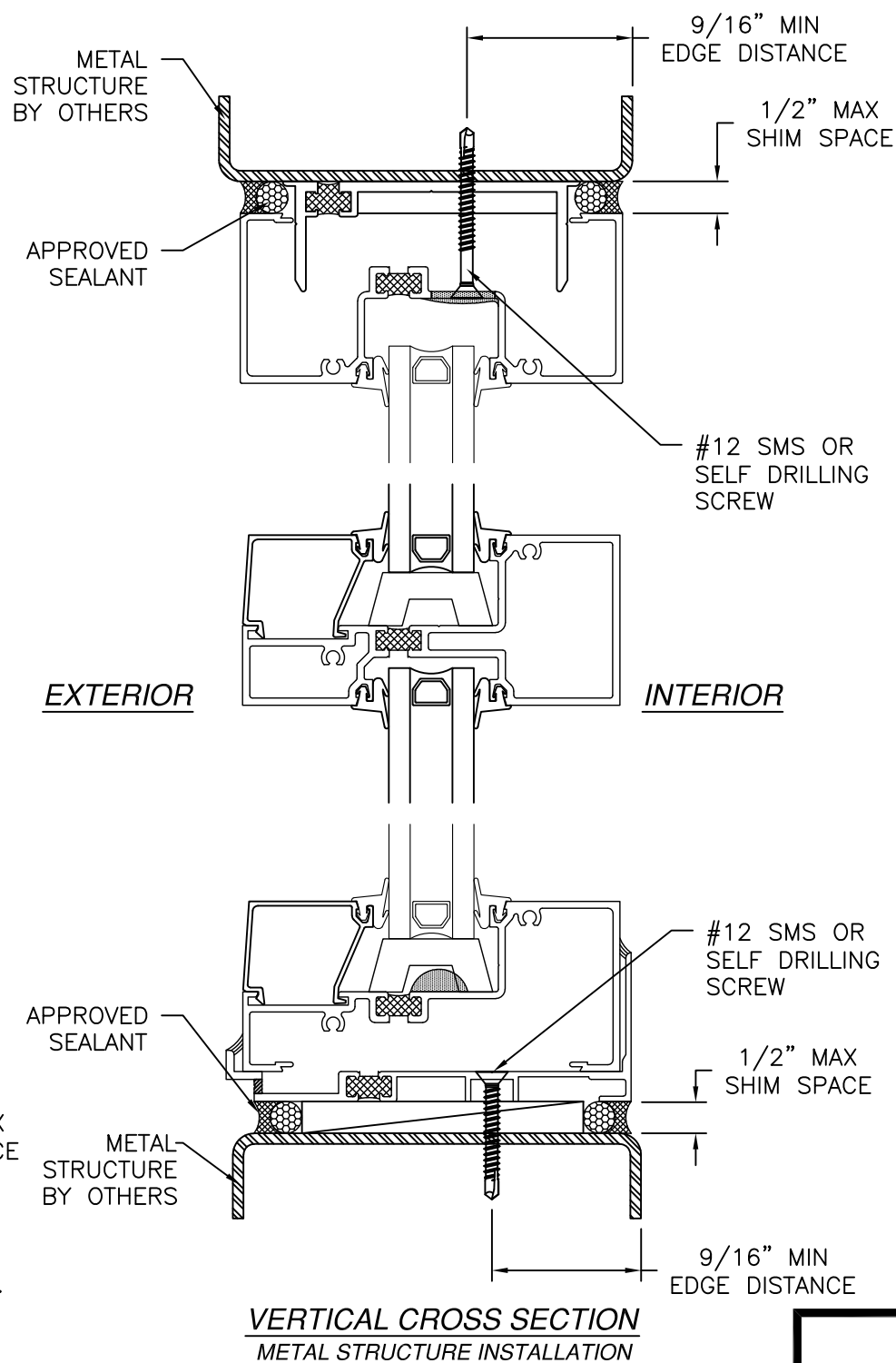
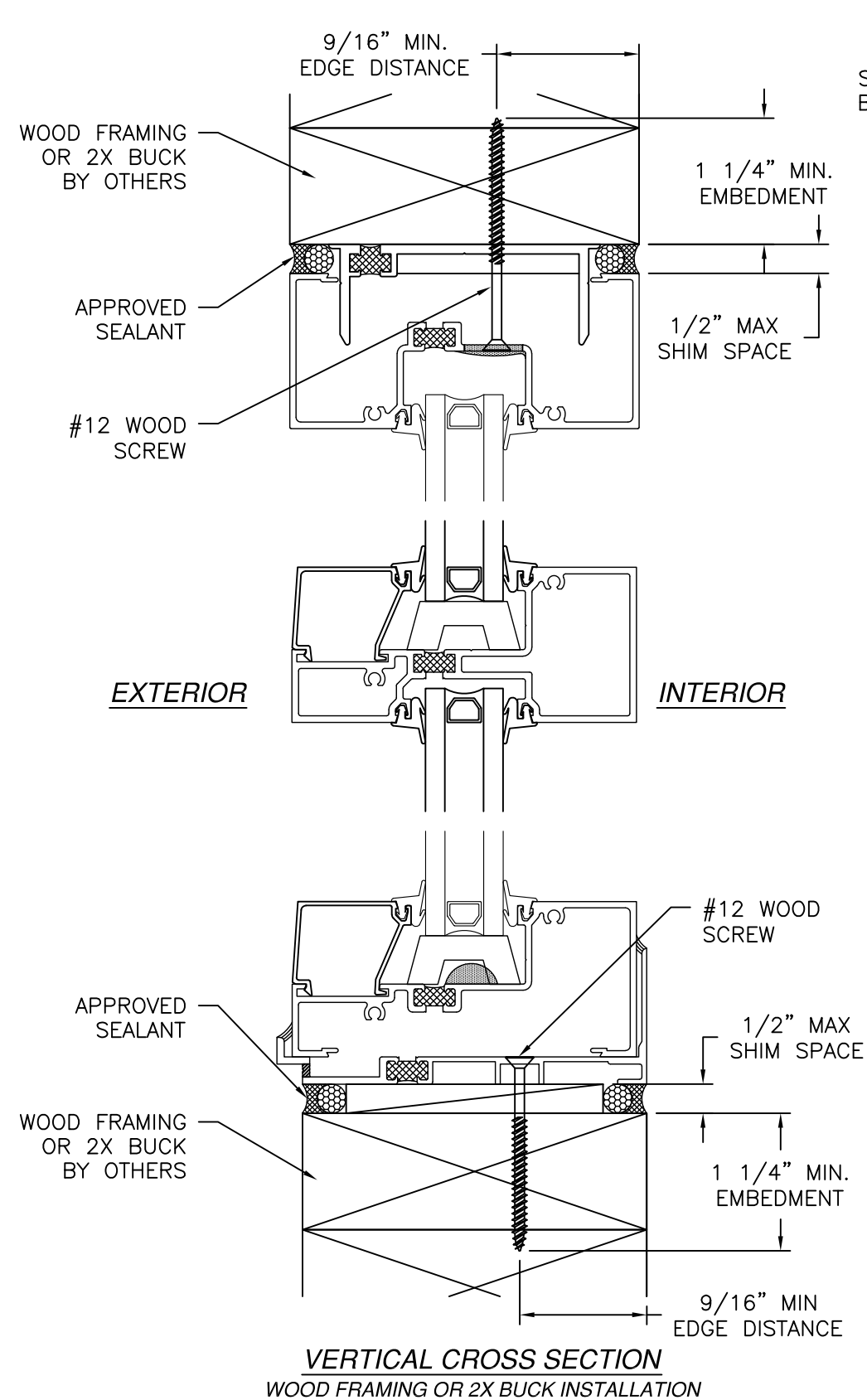
Exposure	Distance from coastal shoreline	
	0' up to 300'	>300' up to 3000'
Exterior - partially sheltered	304 or A305 or 306 Stainless steel per ASTM A240	Galvanized per ASTM A153 class D or ASTM A641 class 3S
Exterior - open exposed	304 or A305 or 306 Stainless steel per ASTM A240	Galvanized per ASTM A153 class D or ASTM A641 class 3S
Unconditioned interior-vented enclosed	Galvanized per ASTM A153 class D or ASTM A641 class 3S	Galvanized per ASTM A153 class D or ASTM A641 class 3S
Unconditioned interior-unvented enclosed	Galvanized per ASTM A153 class D or ASTM A641 class 3S	Galvanized per ASTM A153 class D or ASTM A641 class 3S

SIGNED: 09/04/2026

US ALUMINUM 950 SOLON RD. WAXAHACHIE, TX 75165		
SERIES IR 451 STORE FRONT ELEVATION AND DESIGN PRESSURE CHART		
DRAWN: V.L.	DWG NO. 08-01817	REV C
SCALE NTS	DATE 10/08/12	SHEET 2 OF 6
L. ROBERTO LOMAS P.E. 208 7th Ave, INDIALANTIC, FL 32903 434-688-0609 rllomas@lrlomaspe.com		



Luis R. Lomas P.E.
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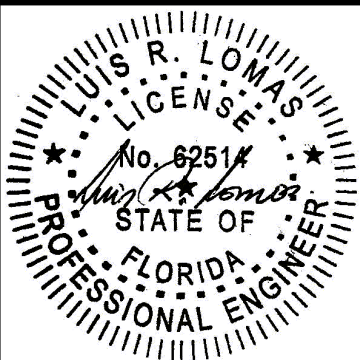


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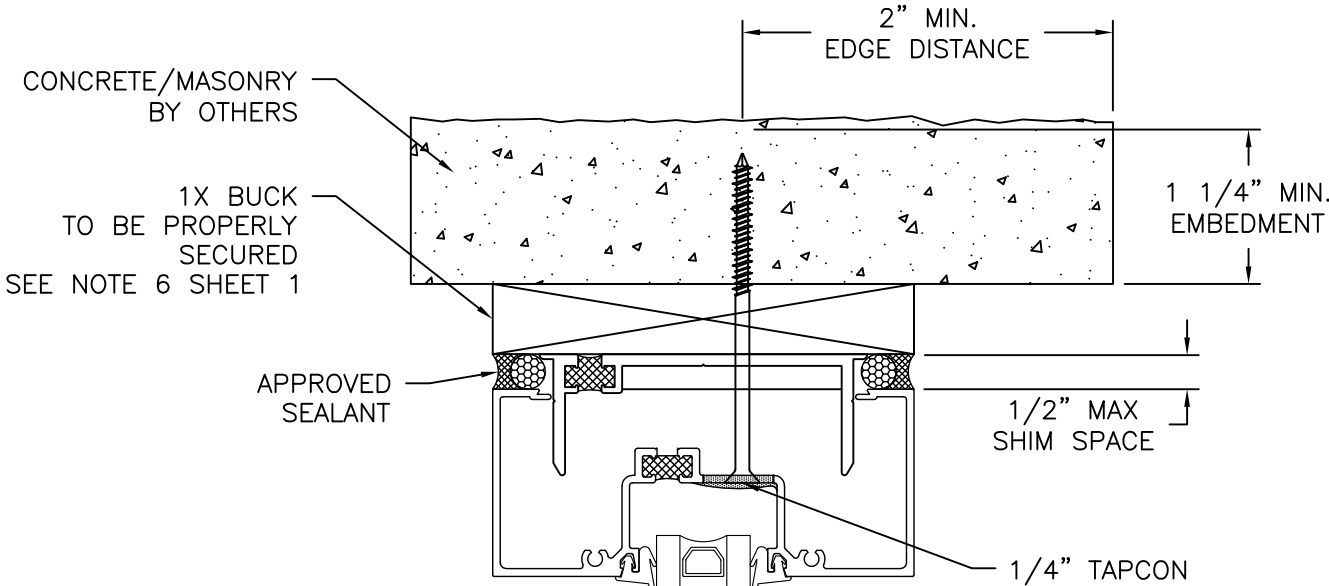
- NOTES:
1. INTERIOR AND EXTERIOR FINISHES, BY OTHERS, NOT SHOWN FOR CLARITY.
 2. PERIMETER AND JOINT SEALANT BY OTHERS TO BE DESIGNED IN ACCORDANCE WITH ASTM E2112

US ALUMINUM 950 SOLON RD. WAXAHACHIE, TX 75165		
SERIES IR 451 STORE FRONT INSTALLATION DETAILS		
DRAWN: V.L.	DWG NO. 08-01817	REV C
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L. ROBERTO LOMAS P.E. 208 7th Ave, INDIALANTIC, FL 32903 434-688-0609 rllomas@lrlomaspe.com		



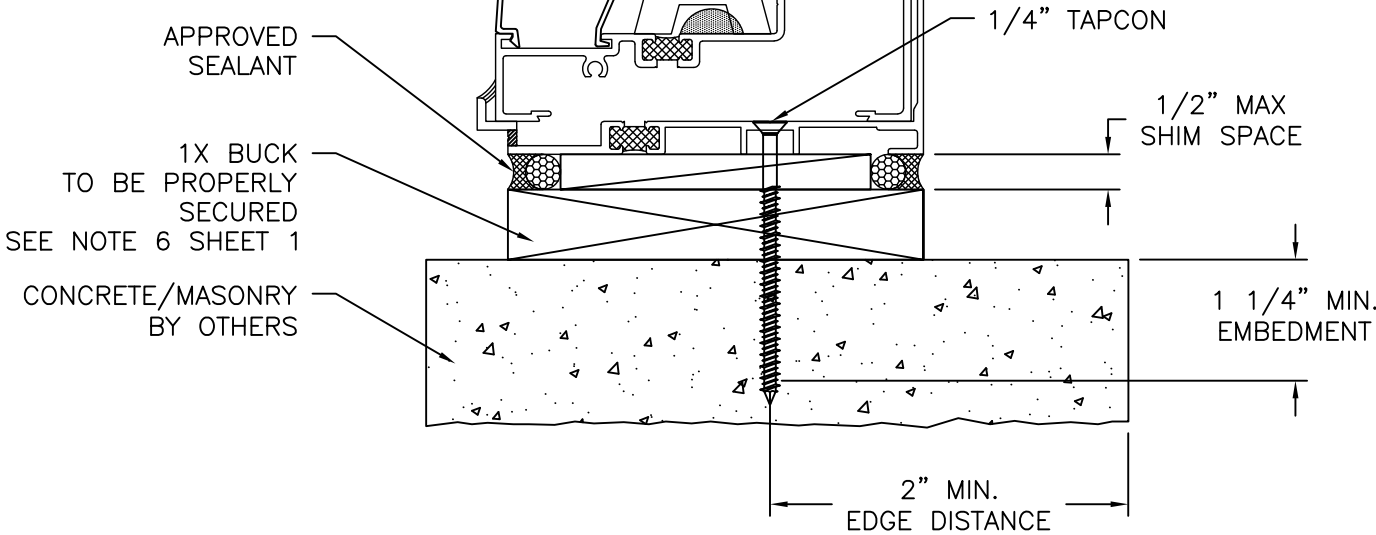
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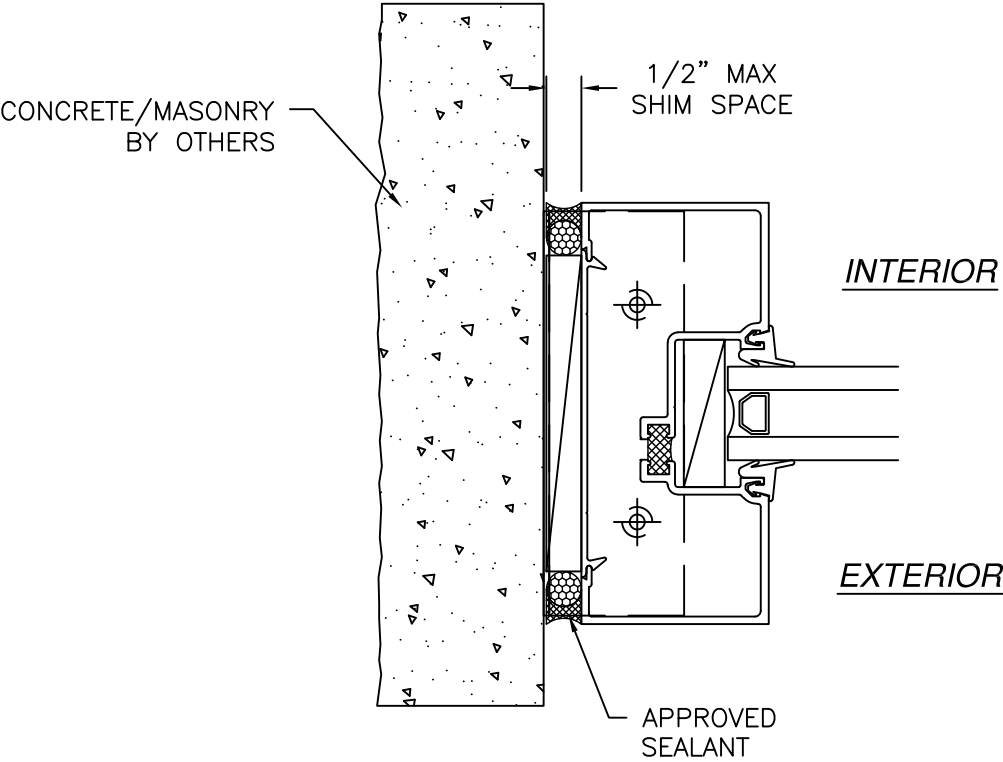
EXTERIOR

INTERIOR



VERTICAL CROSS SECTION

CONCRETE/MASONRY INSTALLATION WITH 1X BUCK INSTALLATION
FOR CONCRETE/MASONRY WITHOUT 1X BUCK REFER TO JAMB
INSTALLATION DETAILS



JAMB INSTALLATION DETAIL

CONCRETE/MASONRY WITHOUT 1X BUCK INSTALLATION
FOR CONCRETE/MASONRY INSTALLATION WITH 1X BUCK REFER
TO HEAD AND SILL INSTALLATION DETAILS

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WAXAHACHIE, TX 75165

SERIES IR 451

STORE FRONT

INSTALLATION DETAILS

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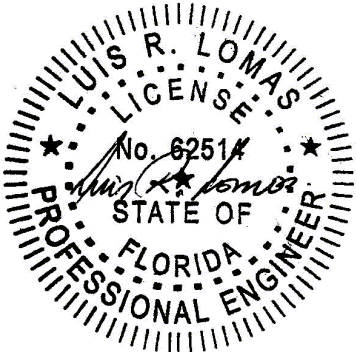
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SHEET 4 OF 6

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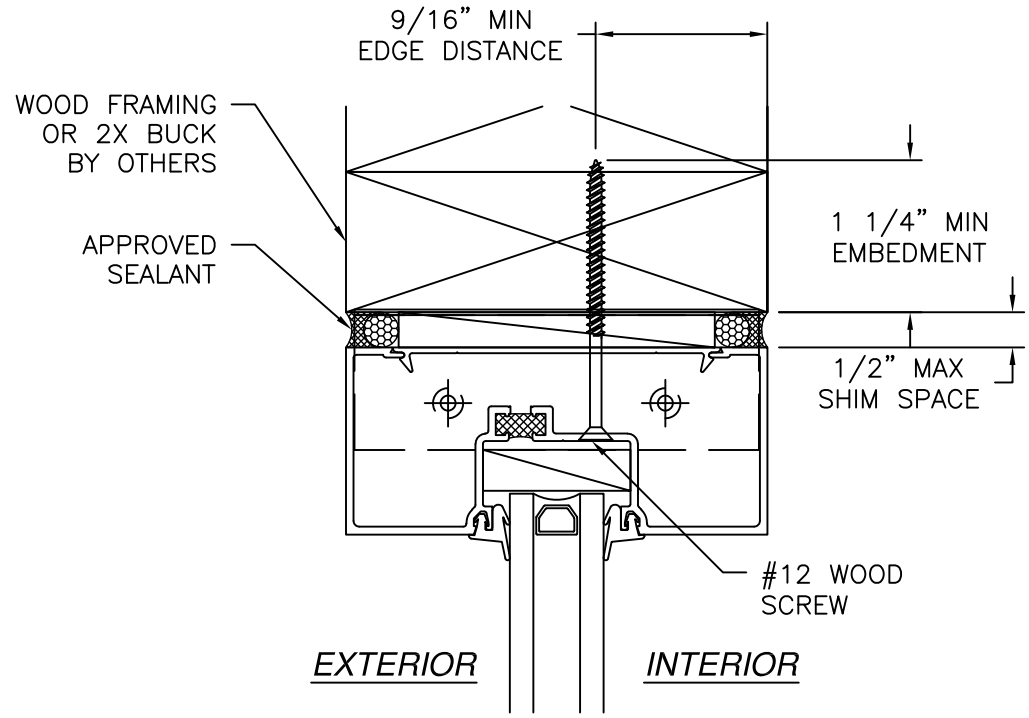
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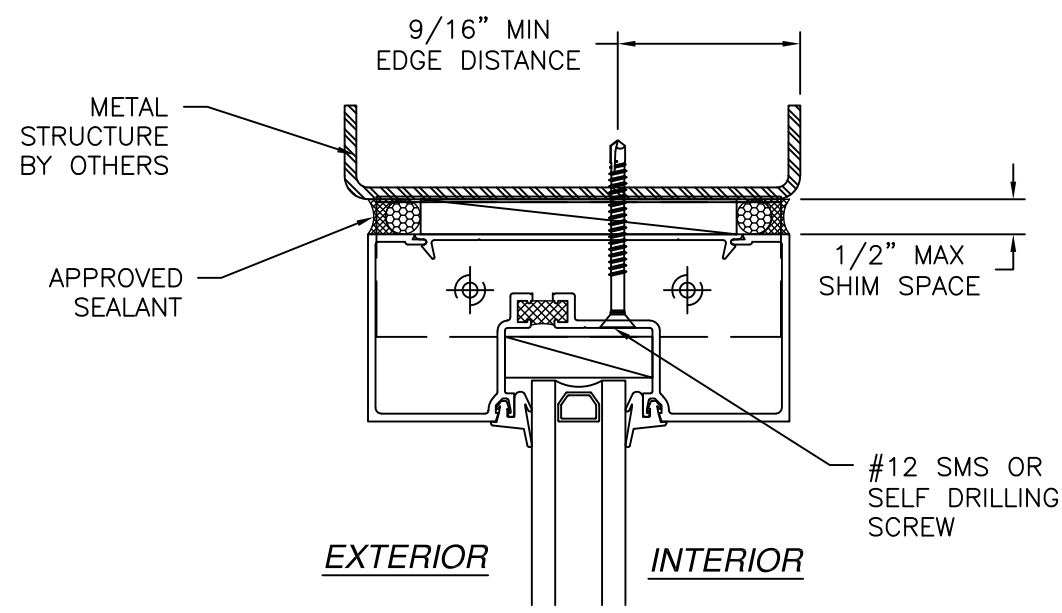


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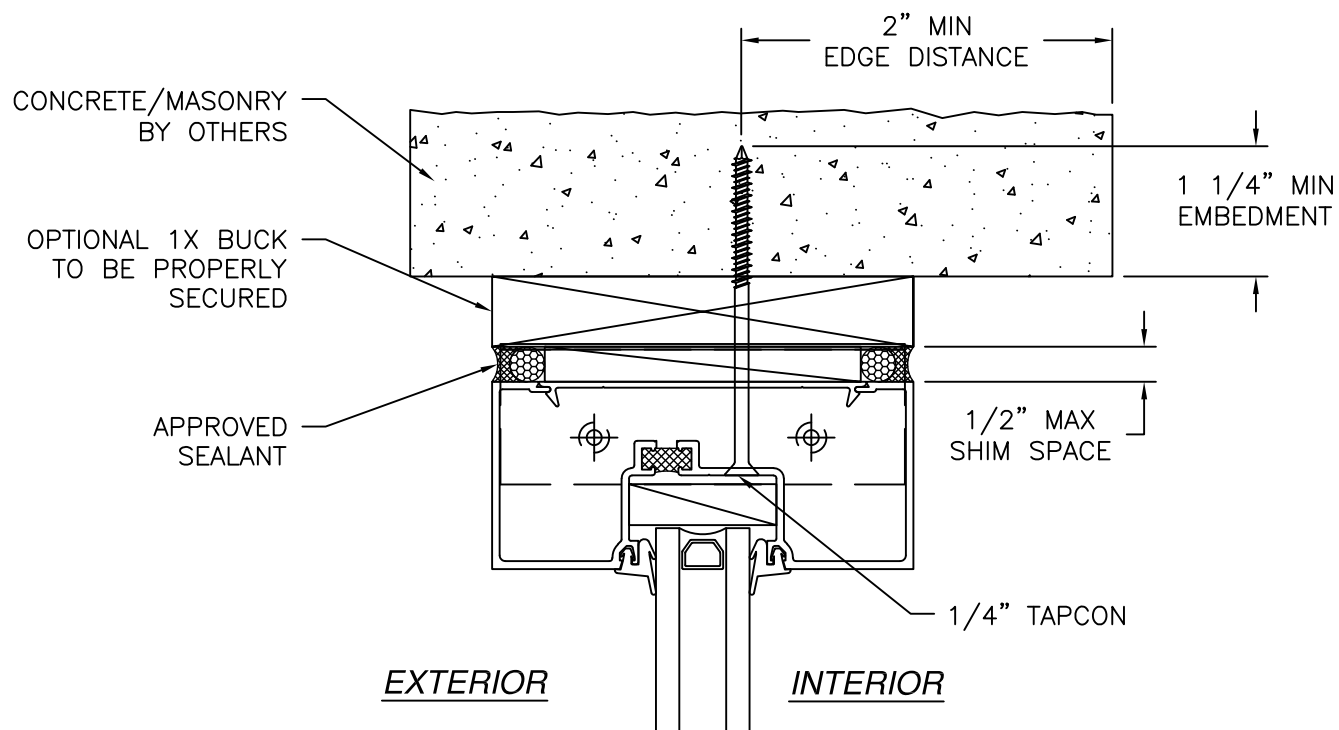
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VERTICAL CROSS SECTION
WOOD FRAMING OR 2X BUCK INSTALLATION
OPTIONAL HEAD CONFIGURATION



VERTICAL CROSS SECTION
METAL STRUCTURE INSTALLATION
OPTIONAL HEAD CONFIGURATION



VERTICAL CROSS SECTION
CONCRETE/MASONRY INSTALLATION
OPTIONAL HEAD CONFIGURATION

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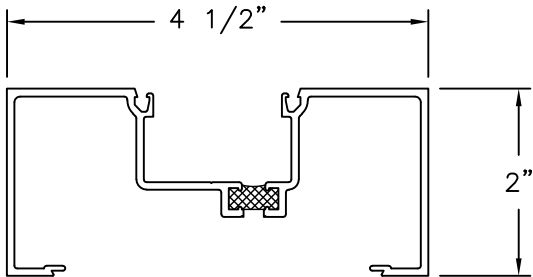
SHEET
5 OF 6

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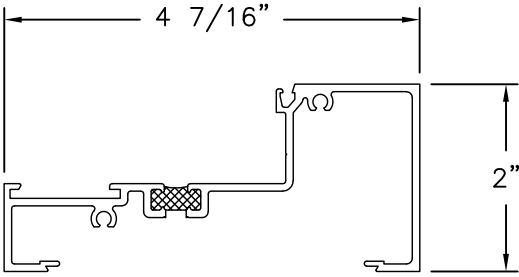
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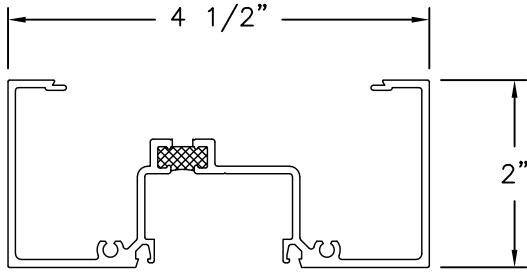
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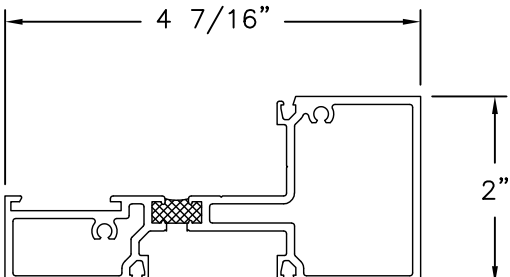
HEAD
ALUMINUM 6063-T5 (IT422)



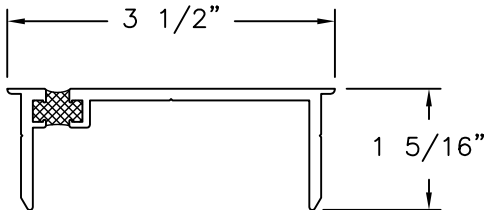
SILL
ALUMINUM 6063-T5 (IT433)



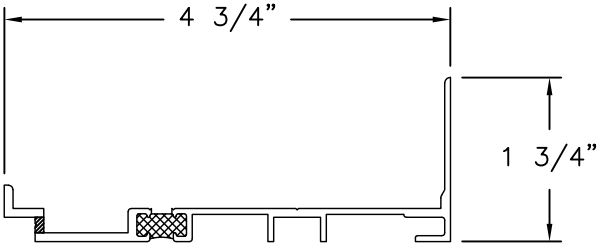
JAMB
ALUMINUM 6063-T5 (IT422)



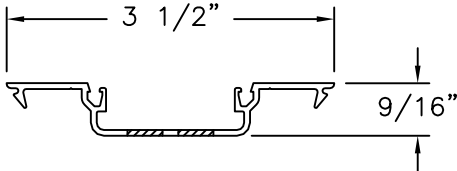
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ALUMINUM 6063-T5 (IT423)



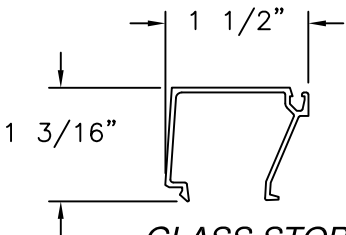
HEAD CHANNEL
ALUMINUM 6063-T6 (HT250)



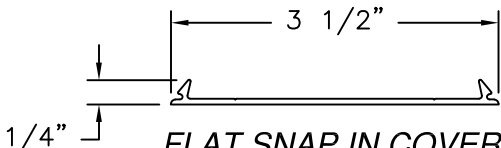
SUB-SILL
ALUMINUM 6063-T5 (FT400)



INT. VERT. FILLER
ALUMINUM 6063-T5 (IX200)



GLASS STOP
ALUMINUM 6063-T5 (IM-453)



FLAT SNAP IN COVER
ALUMINUM 6063-T5 (PS100)

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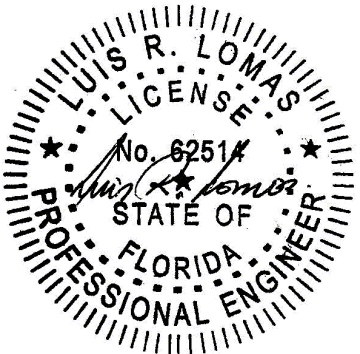
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