

REVISIONS			
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NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE FLORIDA BUILDING CODE INCLUDING THE HVHZ.
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. 1X BUCK OVER MASONRY/CONCRETE IS OPTIONAL.
4. 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.
5. 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.
6. 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.
7. BUCKS SHALL EXTEND BEYOND UNIT FRAME INTERIOR FACE SO THAT FULL FRAME SUPPORT IS PROVIDED.
8. 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”.
9. SHIMS SHALL BE LOCATED, APPLIED AND MADE FROM MATERIALS AND THICKNESS CAPABLE OF SUSTAINING APPLICABLE LOADS.
10. WIND LOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
11. FRAME MATERIAL: ALUMINUM 6063–T5.
12. UNITS MUST BE GLAZED PER ASTM E1300, WITH SAFETY GLAZING.
13. APPROVED IMPACT PROTECTIVE SYSTEM IS REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.
14. FOR ANCHORING THROUGH FRAME INTO WOOD FRAMING OR 2X BUCK USE #14 WOOD SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 7/16” MINIMUM EMBEDMENT INTO SUBSTRATE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.

15. FOR ANCHORING THROUGH FRAME INTO MASONRY/CONCRETE USE 1/4” TAPCONS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 3/4” MINIMUM EMBEDMENT INTO SUBSTRATE WITH 1 1/2” MINIMUM EDGE DISTANCE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
16. FOR ANCHORING THROUGH FRAME INTO METAL STRUCTURE USE #14 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.
17. ALL FASTENERS TO BE CORROSION RESISTANT.
18. 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: GROUT 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 .125” THICK MINIMUM

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LANAI DOORS
941 NORTH ELM STREET, SUITE C
ORANGE, CA 92867

SERIES E3 HURRICANE INSWING
ALUMINUM BI-FOLD DOOR, NON-IMPACT HVHZ
NOTES

DRAWN:
A.R.

DWG NO.
08-03611

REV
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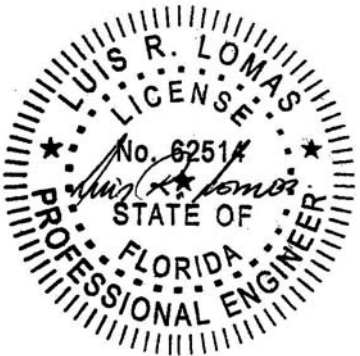
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SHEET 1 OF 11

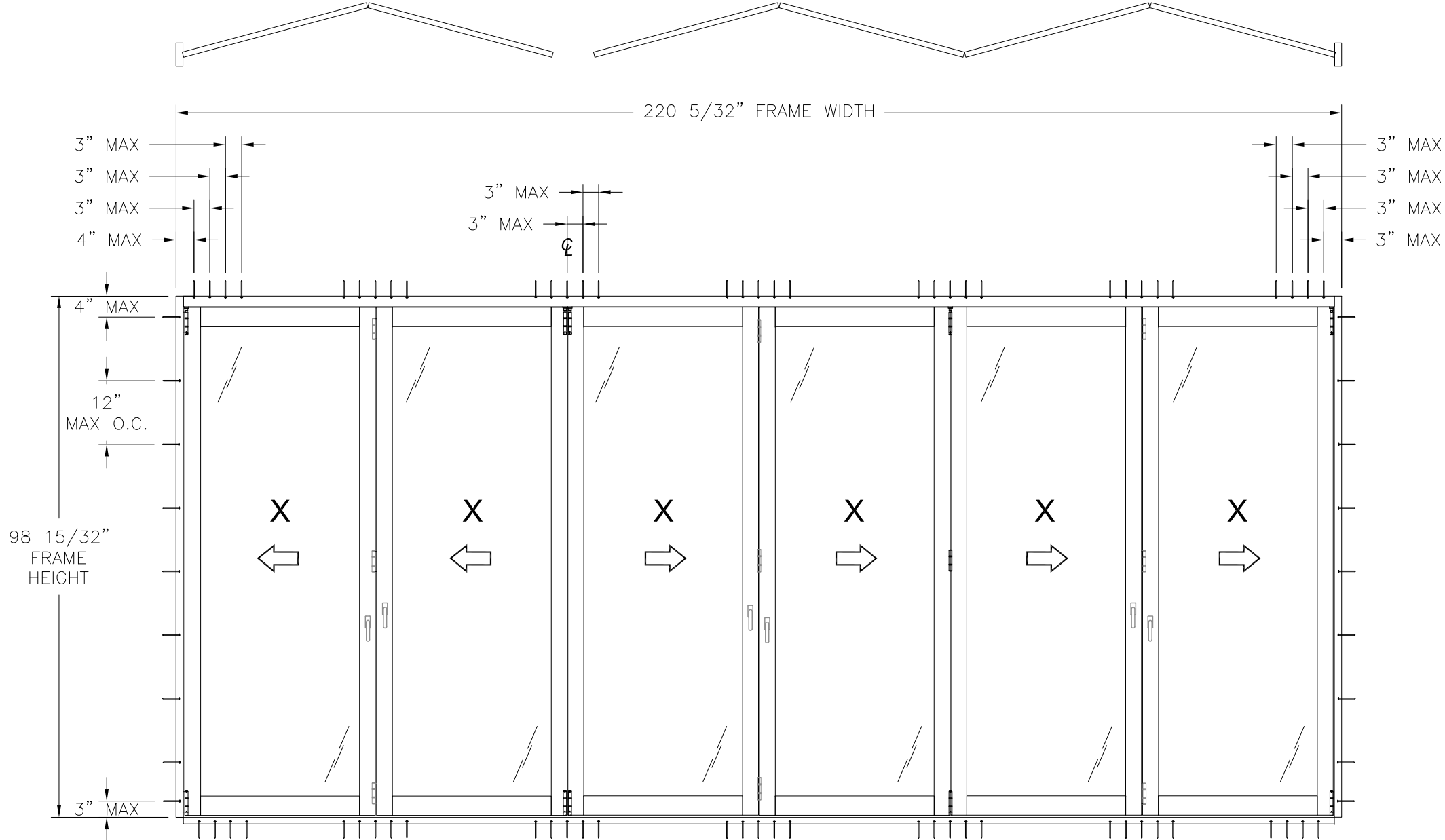
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NOTES:
1. PANEL SIZE: 36" X 96"
2. D.L.O. SIZE: 30" X 88 3/4"

WITH STANDARD THRESHOLD	
DESIGN PRESSURE RATING	IMPACT RATING
+80.0/-100.0PSF	NONE
THIS SYSTEM WAS NOT TESTED FOR WATER INFILTRATION AND IS TO BE INSTALLED ONLY WHERE WATER RESISTANCE IS NOT REQUIRED	
SEE CHART #1 SHEET 3 FOR OTHER SIZES	

WITH FLUSH GUIDE, COMMERCIAL FLUSH GUIDE AND LOW RISE THRESHOLD	
DESIGN PRESSURE RATING	IMPACT RATING
±70.0PSF	NONE
THIS SYSTEM WAS NOT TESTED FOR WATER INFILTRATION AND IS TO BE INSTALLED ONLY WHERE WATER RESISTANCE IS NOT REQUIRED	
SEE CHART #2 SHEET 3 FOR OTHER SIZES	

SERIES E3 HURRICANE INWARD OPENING BIFOLD DOORS

EXTERIOR VIEW

6 PANEL UNIT (2L4R) SHOWN. UNLIMITED NUMBER OF PANELS ARE APPROVED AS LONG AS PANEL AREA DOES NOT EXCEED 24 FT² AND TOTAL FRAME AREA DOES NOT EXCEED 225.8 FT²

HARDWARE SCHEDULE	
A.	(1) INTERLOCK USA 4-POINT DOOR HANDLE ASSEMBLY AT RIGHT SWING DOOR
B.	(5) INTERLOCK USA 2-POINT HANDLE AT LEFT SWING DOOR AND TWO AT EACH LOCKING STILE
C.	(12) SHOOT BOLT GUIDES REINFORCED AT TOP AND BOTTOM PANEL STILES AT EACH LOCKING POINT
D.	(3) DOUBLE SHOOT BOLT CUPS AT SILL AT EACH SHOOT BOLT
E.	(1) STRIKE PLATE AT LEFT SWING DOOR ADJACENT TO DOOR HANDLE ASSEMBLY
F.	(2) FLATE PLATE WITH HANDLE AT CENTER OF EACH SHOOT BOLT FOLDING PANEL JOINT
G.	(6) OFFSET HINGE, 6" FROM TOP AND BOTTOM OF EACH FOLDING PANEL AND CENTER OF EACH FOLDING PANEL
H.	(2) FLAT HINGE AT CENTER OF EACH ROLLER FOLDING PANEL JOINT
I.	(4) PIVOT HINGE AT TOP AND BOTTOM OF EACH PANEL AT JAMB
J.	(2) INTERMEDIATE CARRIER WITH HINGE AT TOP OF EACH ROLLER PANEL JOINT
K.	(2) CONCEALED INTERMEDIATE GUIDE AT BOTTOM OF EACH ROLLER PANEL JOINT
L.	END CARRIERS ON 2L 4R SYSTEM



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SERIES E3 HURRICANE INSWING
ALUMINUM BI-FOLD DOOR, NON-IMPACT HVHZ
ELEVATION

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SHEET
2 OF 11

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Chart #1
Maximum Design pressure (psf)

Panel Height (in)	Single Panel Width (in)											
	24.0		27.0		30.0		33.0		36.0		39.0	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
80.0	120.0	150.0	120.0	150.0	115.2	144.0	104.7	130.9	96.0	120.0	88.6	110.8
84.0	120.0	150.0	118.0	147.5	108.5	135.7	99.7	124.7	91.4	114.3	84.4	105.5
90.0	120.0	150.0	108.8	135.9	99.8	124.8	92.6	115.8	85.3	106.7	-	-
96.0	111.4	139.3	100.8	126.1	92.4	115.6	85.6	107.0	80.0	100.0	-	-
102.0	96.6	120.8	86.4	108.0	78.3	97.9	71.7	89.6	-	-	-	-
108.0	81.2	101.5	72.6	90.7	65.7	82.1	-	-	-	-	-	-
114.0	68.9	86.1	61.5	76.9	55.7	69.6	-	-	-	-	-	-
120.0	59.0	73.7	52.6	65.8	-	-	-	-	-	-	-	-
126.0	50.9	63.6	45.4	56.7	-	-	-	-	-	-	-	-
132.0	44.2	55.2	-	-	-	-	-	-	-	-	-	-
138.0	38.6	48.3	-	-	-	-	-	-	-	-	-	-
144.0	34.0	42.4	-	-	-	-	-	-	-	-	-	-

Chart #2
Maximum Design pressure (psf)

Panel Height (in)	Single Panel Width (in)											
	24.0		27.0		30.0		33.0		36.0		39.0	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
80.0	105.0	105.0	105.0	105.0	100.8	100.8	91.6	91.6	84.0	84.0	77.5	77.5
84.0	105.0	105.0	103.3	103.3	95.0	95.0	87.3	87.3	80.0	80.0	73.8	73.8
90.0	105.0	105.0	95.2	95.2	87.4	87.4	81.0	81.0	74.7	74.7	-	-
96.0	97.5	97.5	88.2	88.2	80.9	80.9	74.9	74.9	70.0	70.0	-	-
102.0	84.5	84.5	75.6	75.6	68.5	68.5	62.7	62.7	-	-	-	-
108.0	71.1	71.1	63.5	63.5	57.5	57.5	-	-	-	-	-	-
114.0	60.3	60.3	53.8	53.8	48.7	48.7	-	-	-	-	-	-
120.0	51.6	51.6	46.1	46.1	-	-	-	-	-	-	-	-
126.0	44.5	44.5	39.7	39.7	-	-	-	-	-	-	-	-
132.0	38.7	38.7	-	-	-	-	-	-	-	-	-	-
138.0	33.8	33.8	-	-	-	-	-	-	-	-	-	-
144.0	29.7	29.7	-	-	-	-	-	-	-	-	-	-



LANAI DOORS
941 NORTH ELM STREET, SUITE C
ORANGE, CA 92867

SERIES E3 HURRICANE INSWING
ALUMINUM BI-FOLD DOOR, NON-IMPACT HVHZ
DESIGN PRESSURE CHARTS

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A.R.

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08-03611

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SHEET 3 OF 11

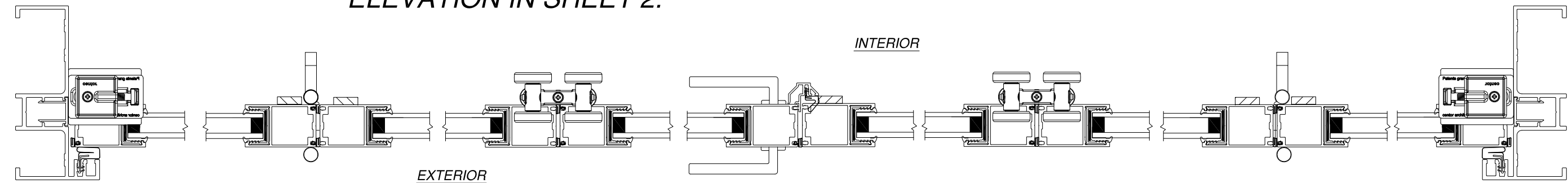
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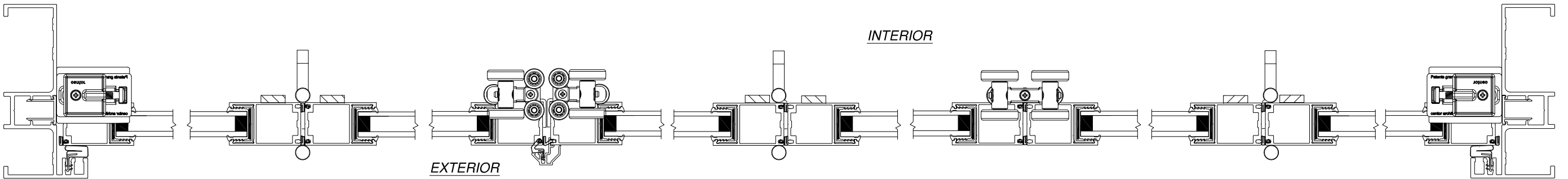
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HORIZONTAL CROSS SECTIONS ARE SHOWN FOR REFERENCE ONLY.
UNLIMITED NUMBER OF PANELS ARE APPROVED, SEE NOTE UNDER
ELEVATION IN SHEET 2.

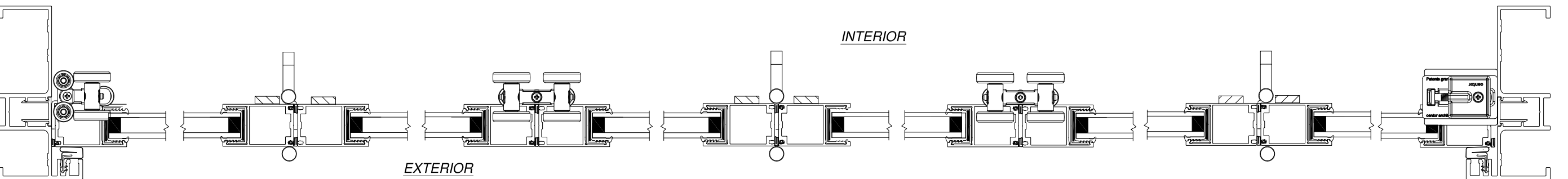
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3L 3R OUTSWING AND STANDARD THRESHOLD
HORIZONTAL VIEW



2L 4R OUTSWING AND FLUSH GUIDE THRESHOLD
HORIZONTAL VIEW



6R AND LOW RISE THRESHOLD
HORIZONTAL VIEW

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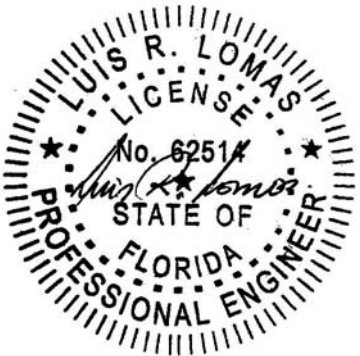


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SERIES E3 HURRICANE INSWING
ALUMINUM BI-FOLD DOOR, NON-IMPACT HVHZ
APPROVED CONFIGURATIONS

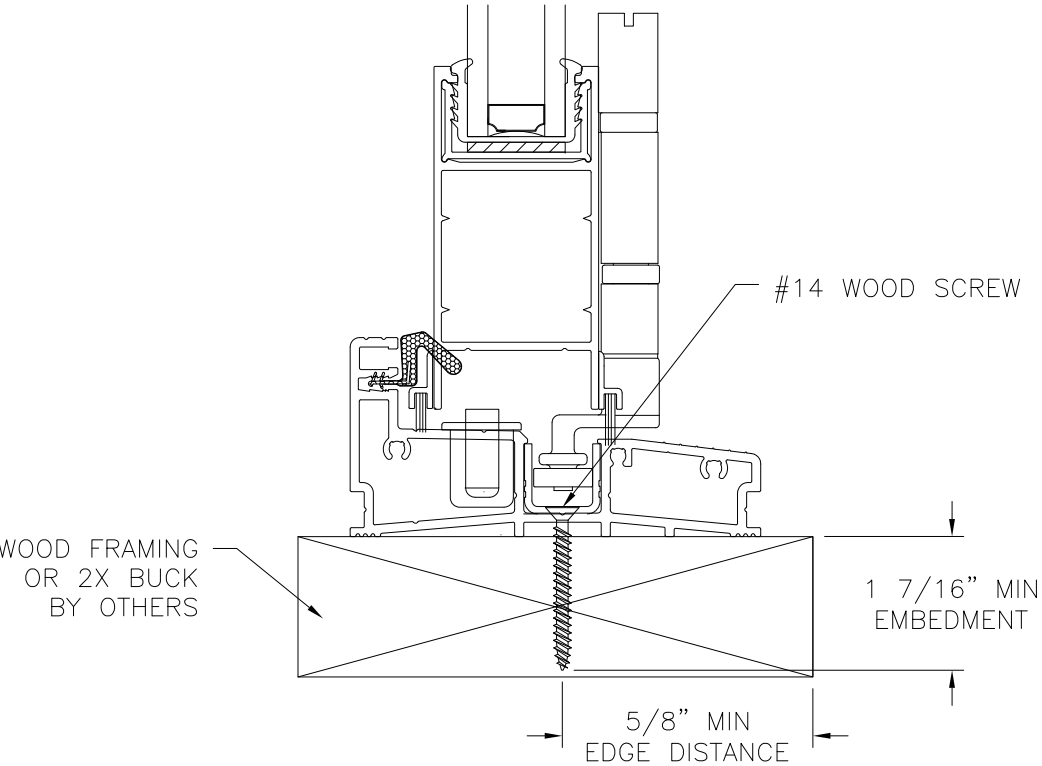
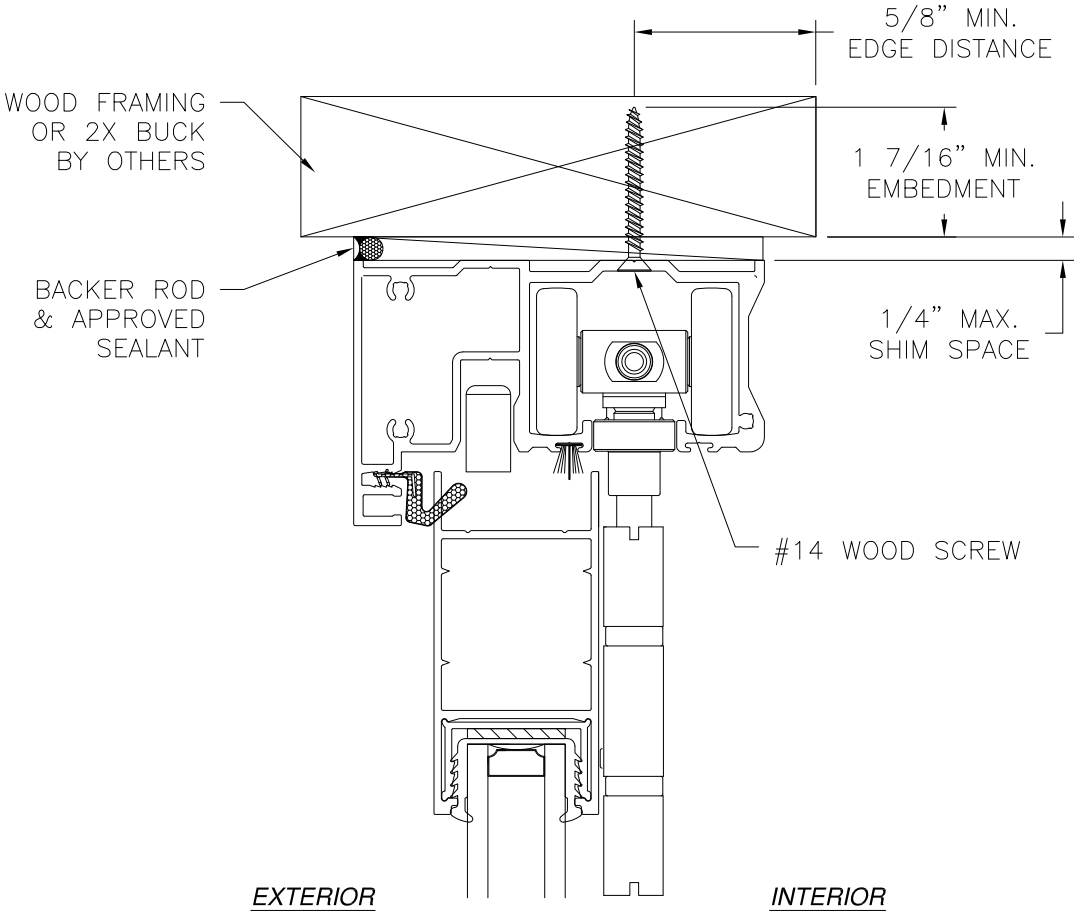
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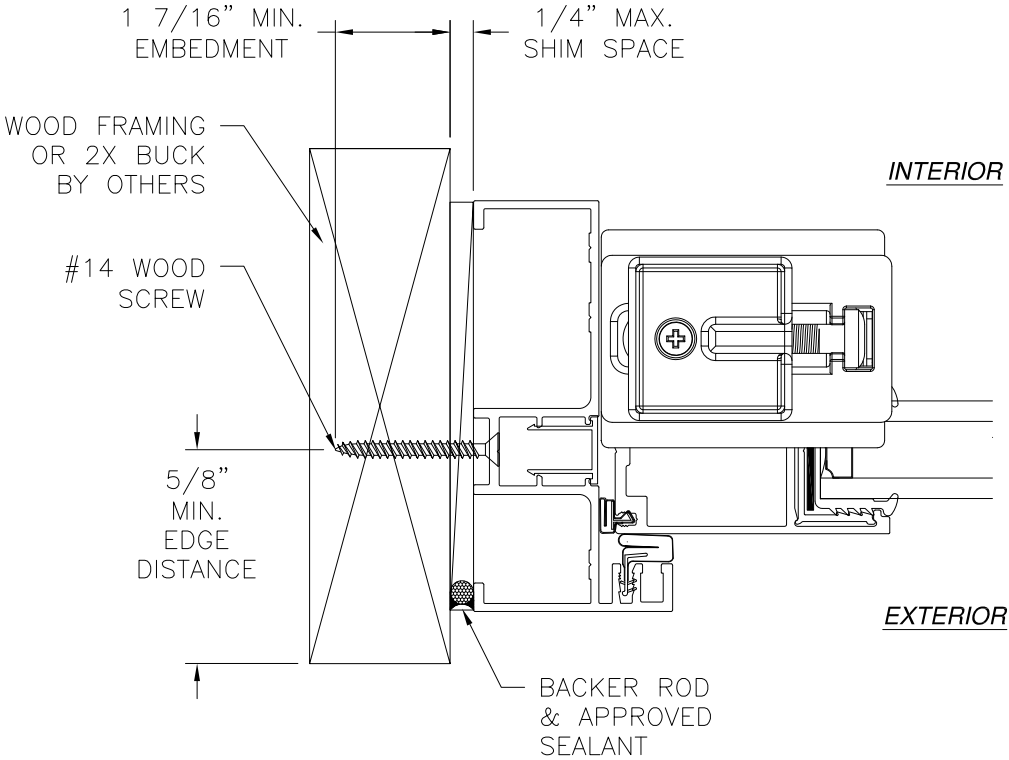


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VERTICAL CROSS SECTION
WOOD FRAMING OR 2X BUCK INSTALLATION
STANDARD THRESHOLD SHOWN
SEE SHEETS 8 AND 9 FOR OTHER THRESHOLDS INSTALLATIONS



JAMB INSTALLATION DETAIL
WOOD FRAMING OR 2X BUCK INSTALLATION

- 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



LANAI DOORS

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ORANGE, CA 92867

SERIES E3 HURRICANE INSWING
ALUMINUM BI-FOLD DOOR, NON-IMPACT HVHZ
INSTALLATION DETAILS

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SHEET 5 OF 11

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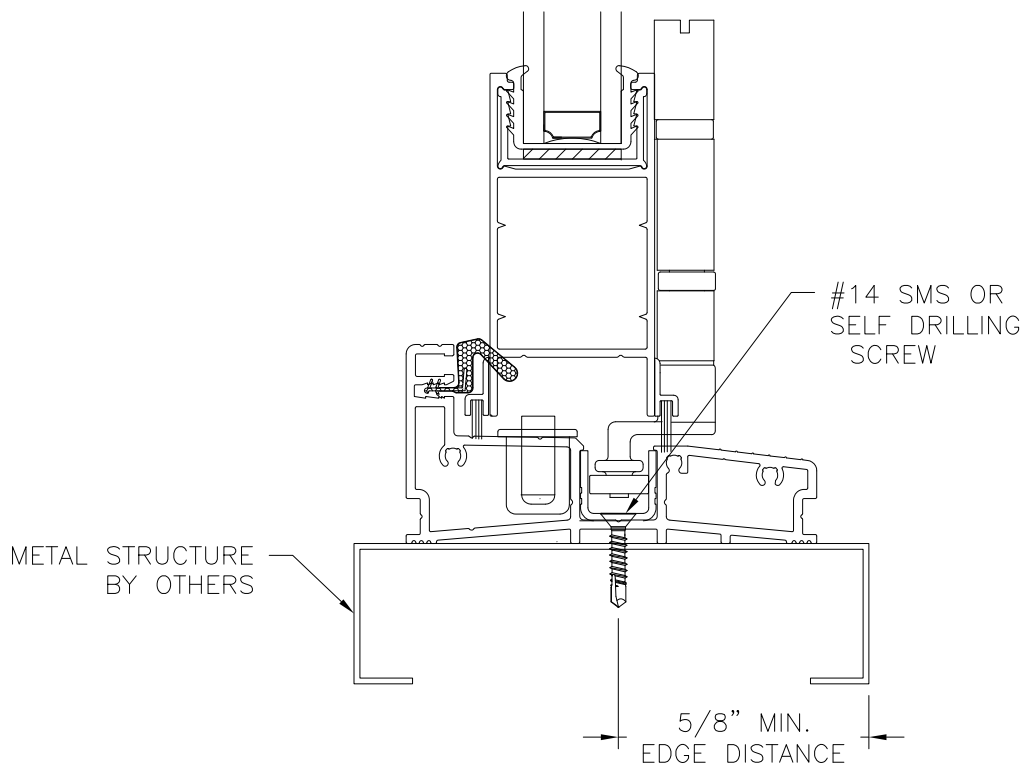
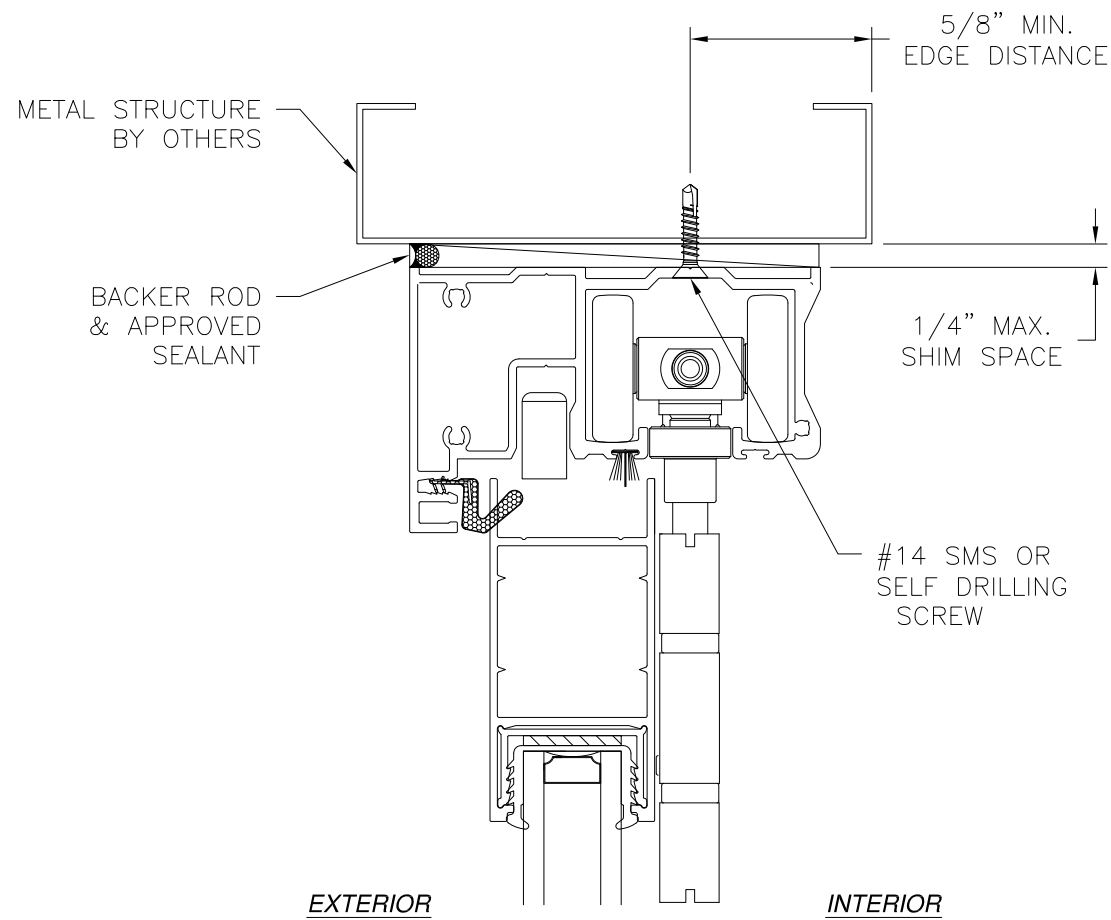
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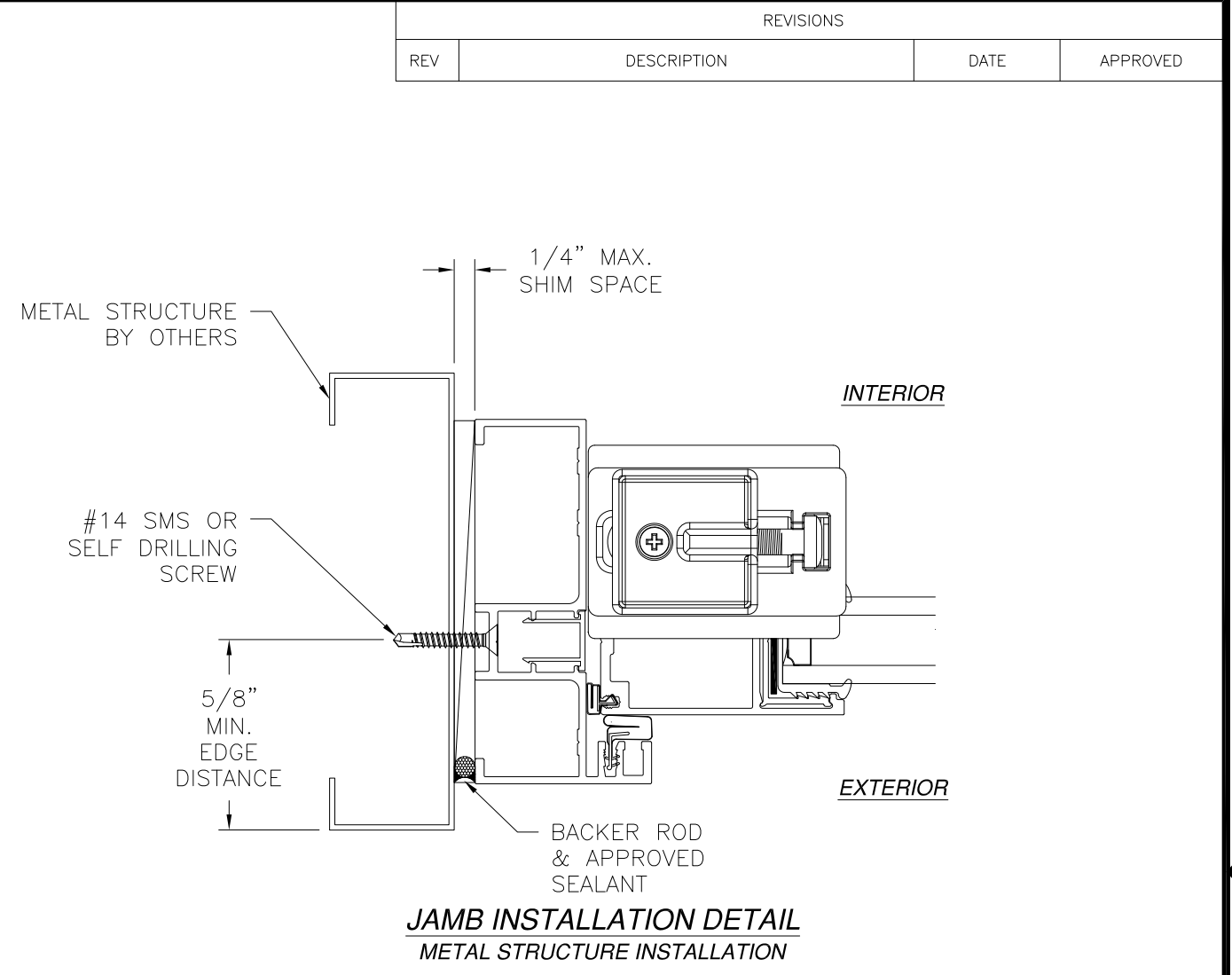
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VERTICAL CROSS SECTION
METAL STRUCTURE INSTALLATION
STANDARD THRESHOLD SHOWN
SEE SHEETS 8 AND 9 FOR OTHER THRESHOLDS INSTALLATIONS



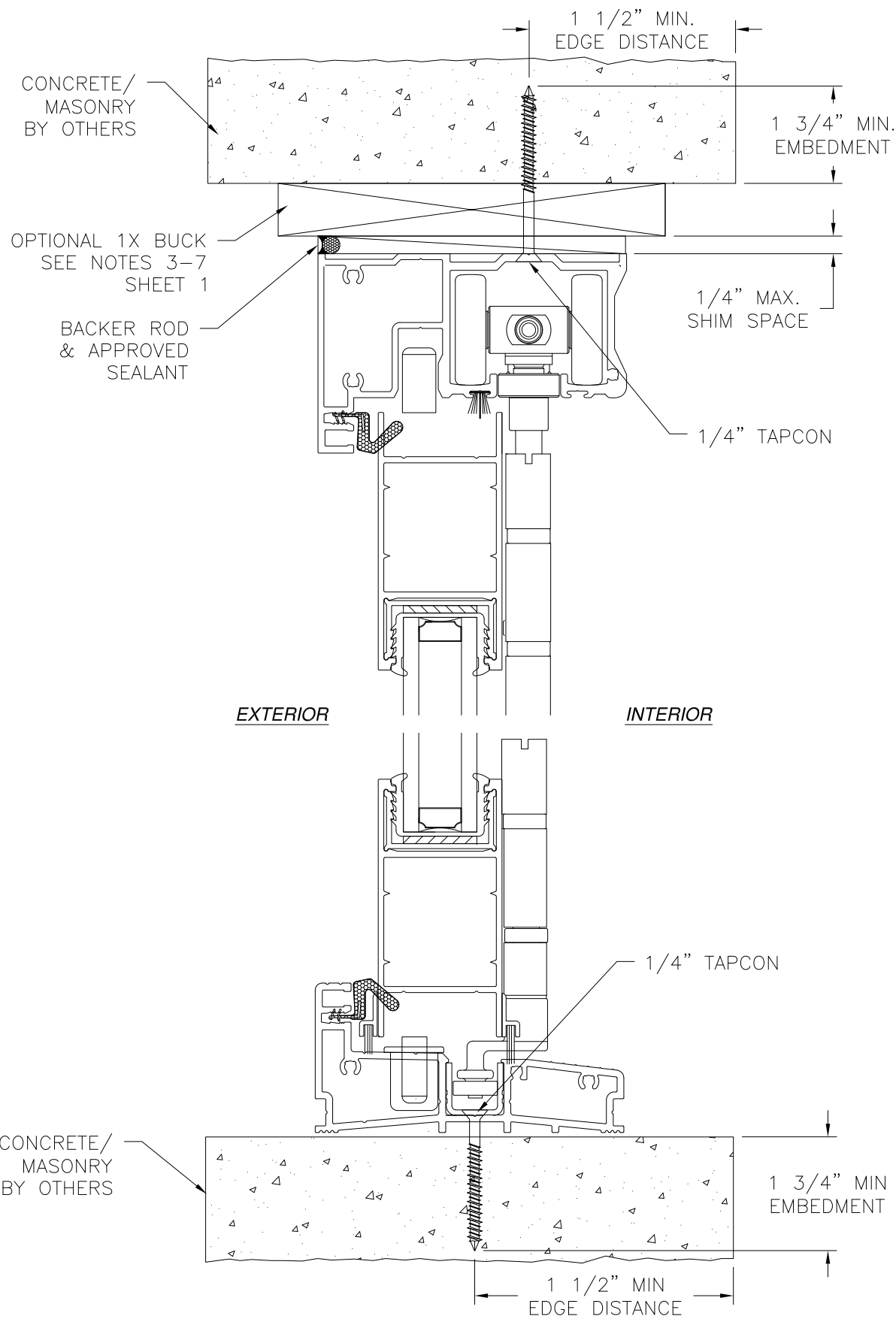
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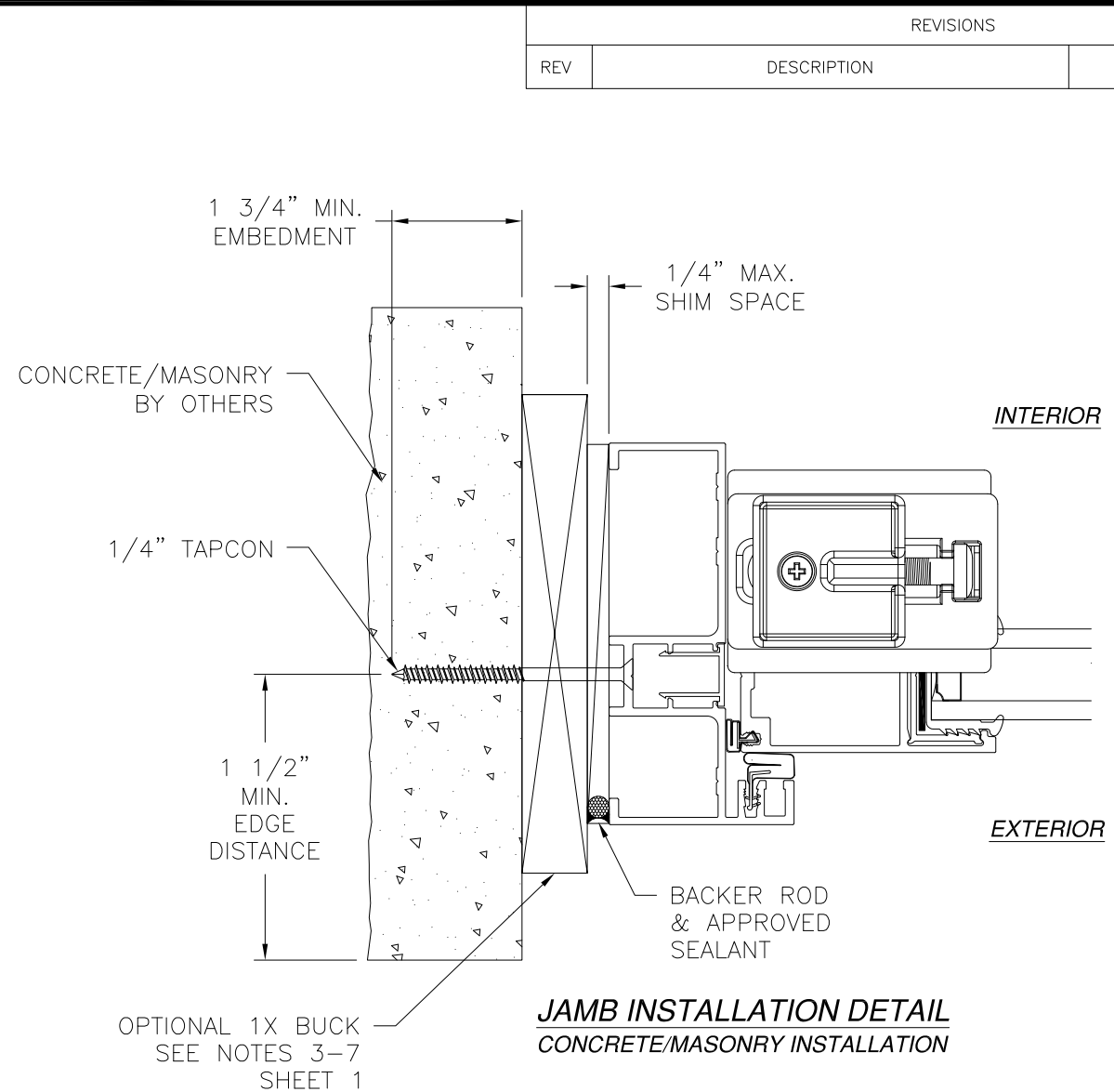
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SERIES E3 HURRICANE INSWING ALUMINUM BI-FOLD DOOR, NON-IMPACT HVHZ INSTALLATION DETAILS		
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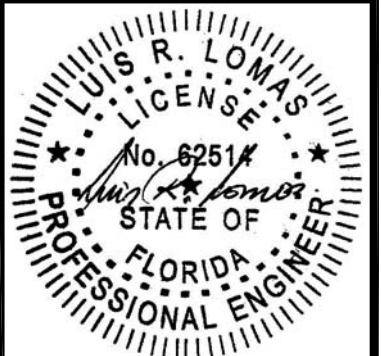
VERTICAL CROSS SECTION
CONCRETE/MASONRY INSTALLATION
 STANDARD THRESHOLD SHOWN
 SEE SHEETS 8 AND 9 FOR OTHER THRESHOLDS INSTALLATIONS



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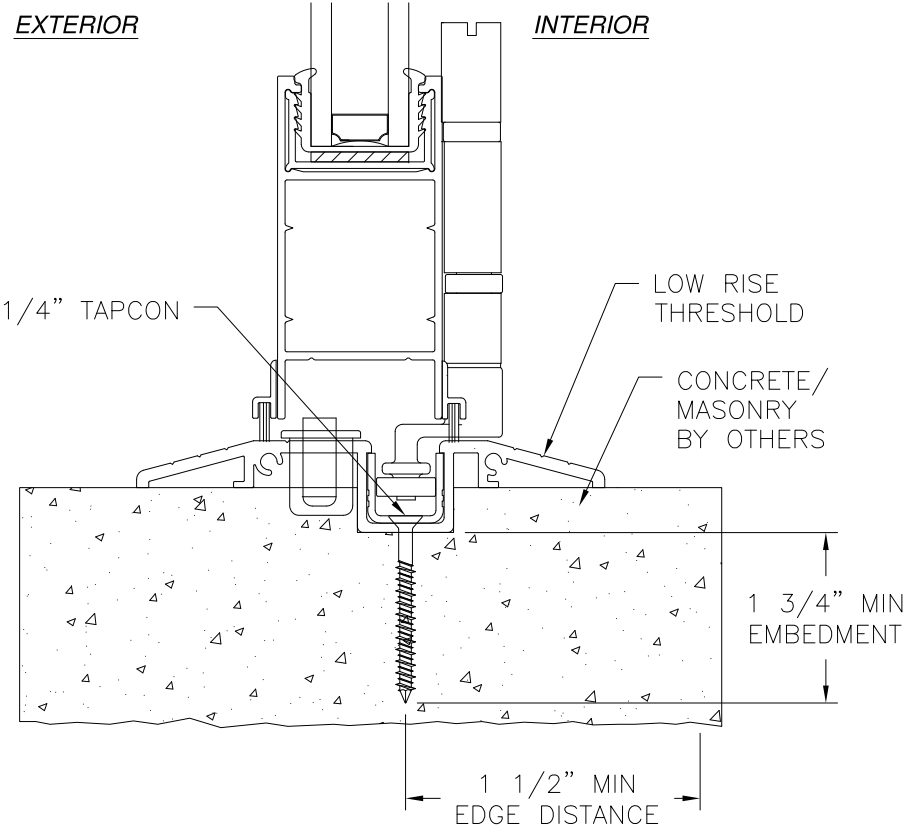
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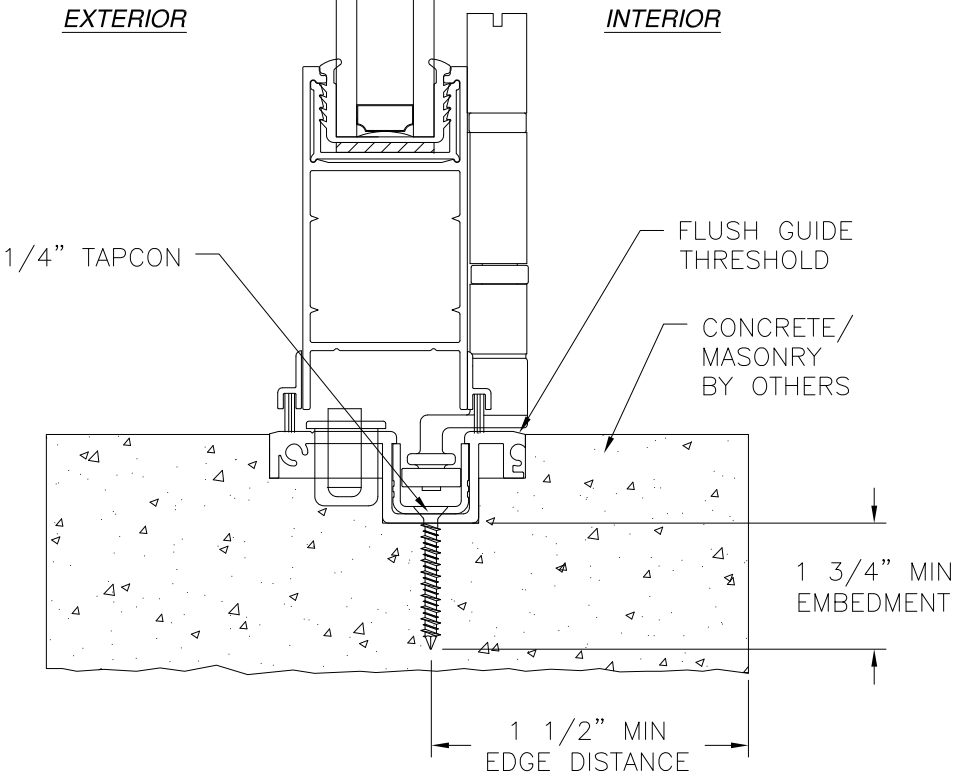
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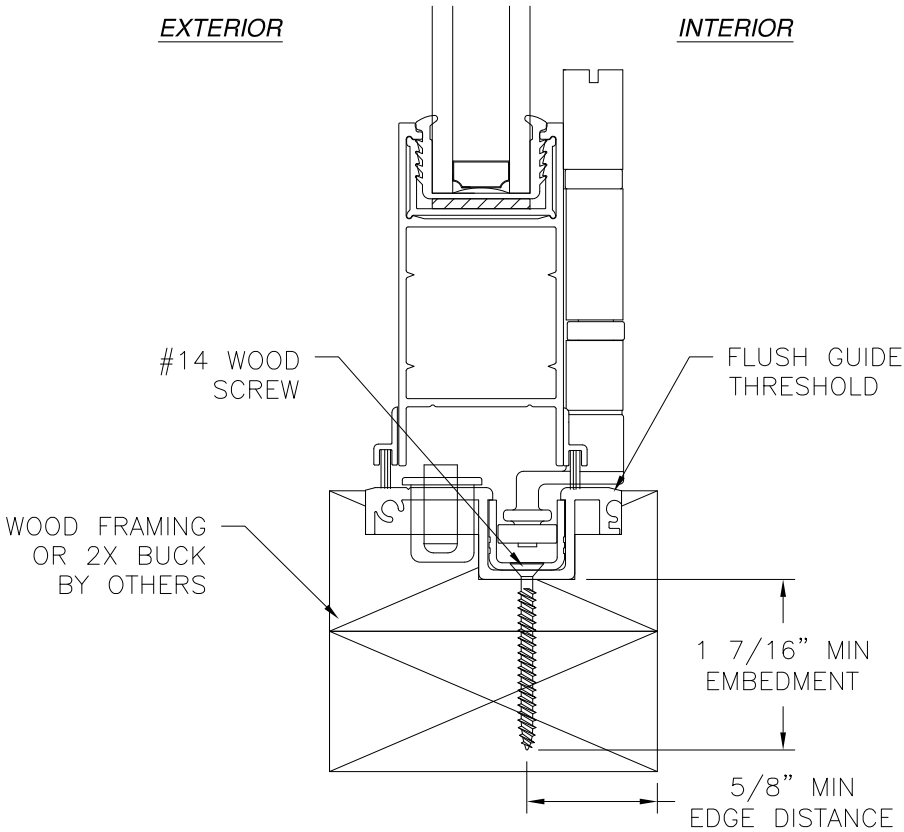
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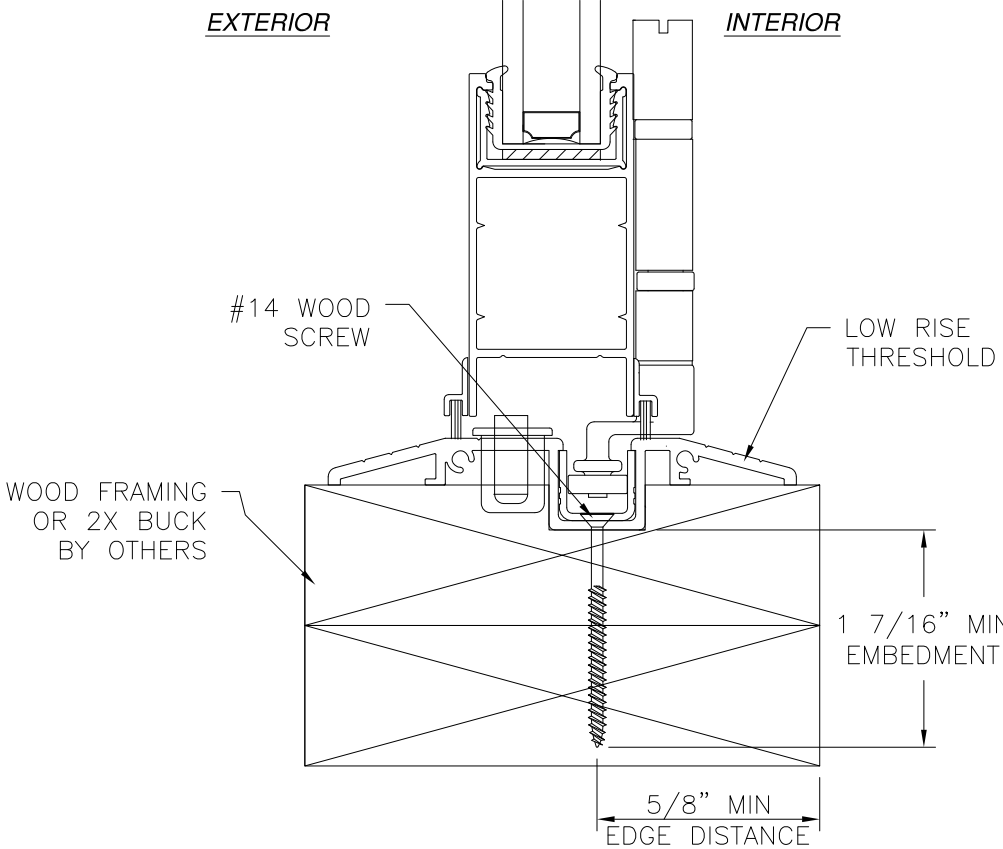
VERTICAL CROSS SECTION
CONCRETE/MASONRY INSTALLATION
LOW RISE THRESHOLD



VERTICAL CROSS SECTION
CONCRETE/MASONRY INSTALLATION
FLUSH GUIDE THRESHOLD



VERTICAL CROSS SECTION
CONCRETE/MASONRY INSTALLATION
FLUSH GUIDE THRESHOLD



VERTICAL CROSS SECTION
WOOD FRAMING INSTALLATION
LOW RISE THRESHOLD

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ALUMINUM BI-FOLD DOOR, NON-IMPACT HVHZ
INSTALLATION DETAILS

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SHEET 8 OF 11

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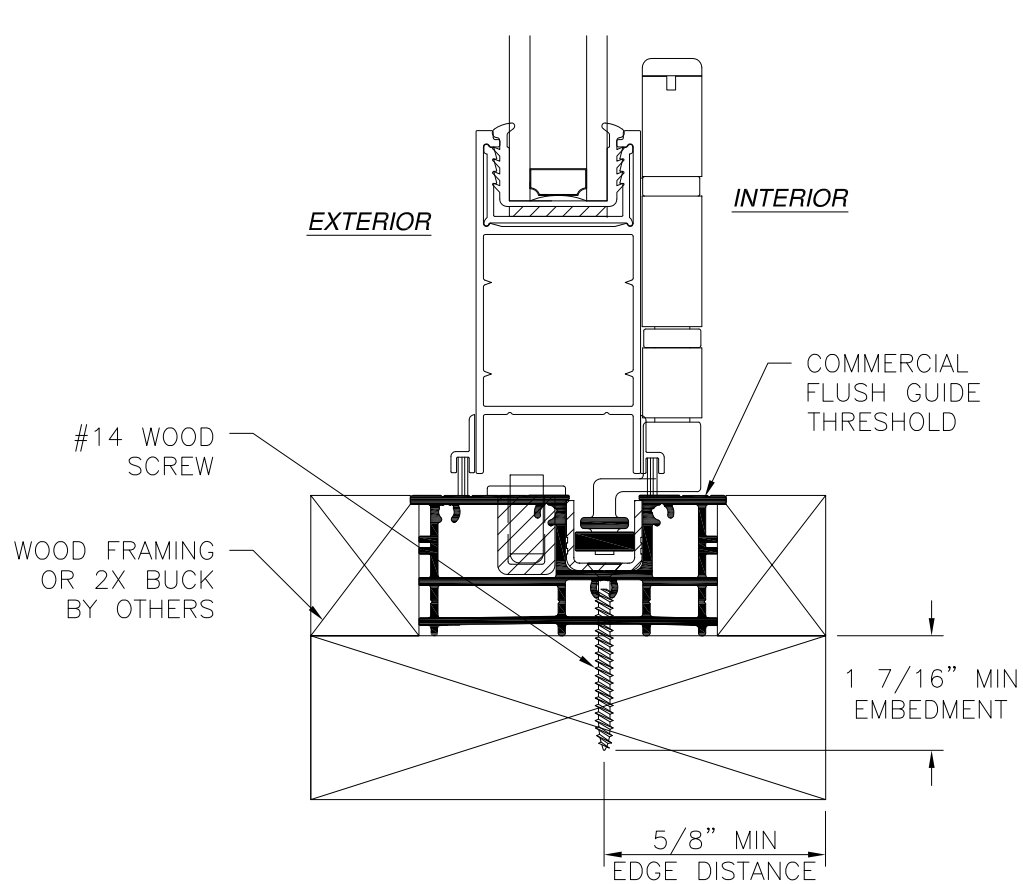
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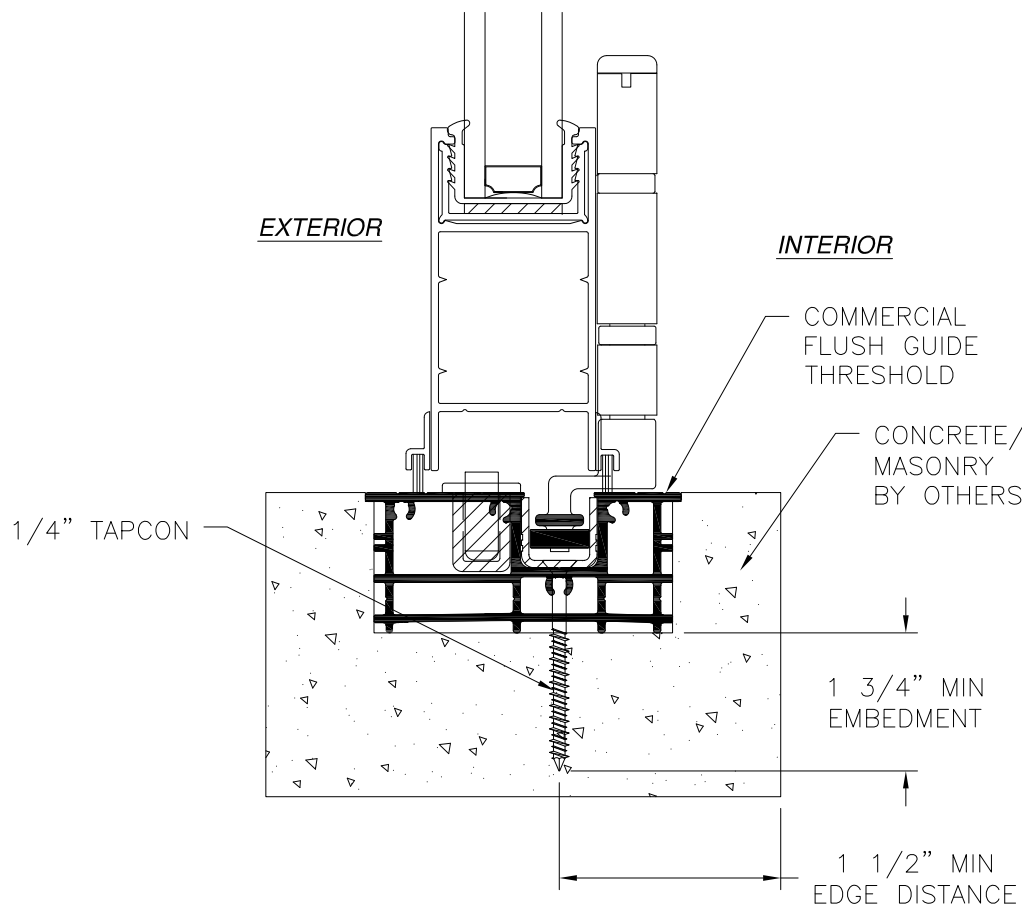


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VERTICAL CROSS SECTION
WOOD FRAMING INSTALLATION
COMMERCIAL FLUSH GUIDE THRESHOLD



VERTICAL CROSS SECTION
CONCRETE/MASONRY INSTALLATION
COMMERCIAL FLUSH GUIDE THRESHOLD

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INSTALLATION DETAILS

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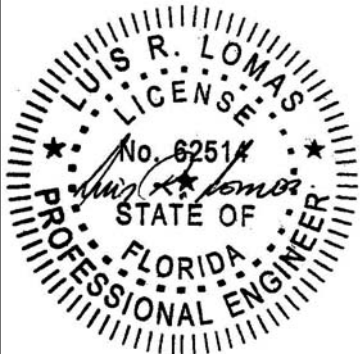
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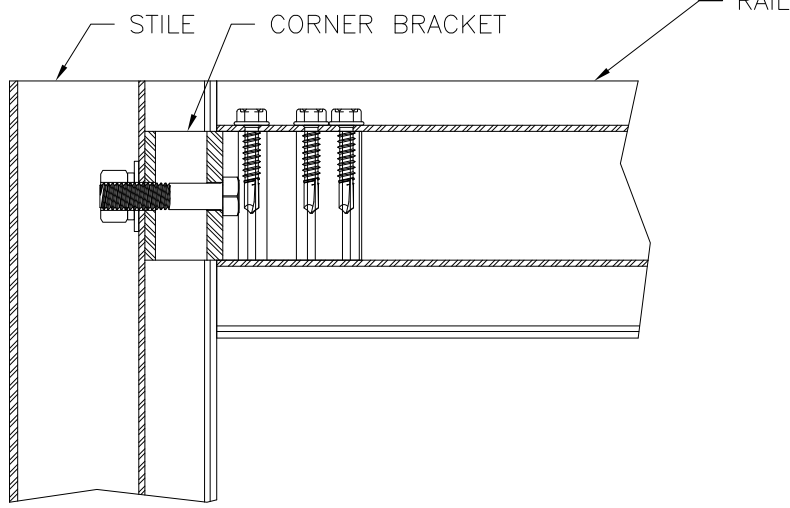
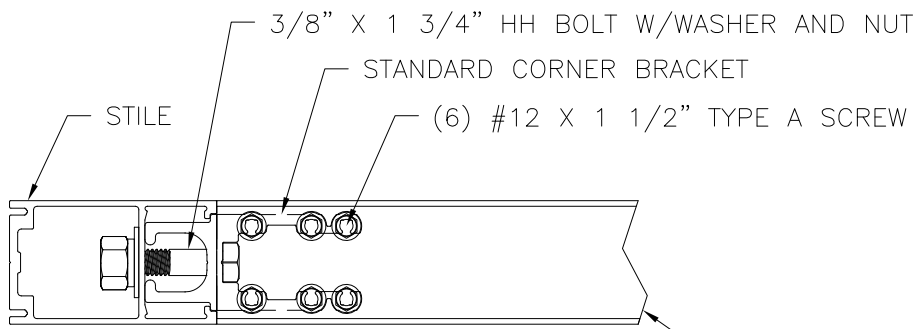
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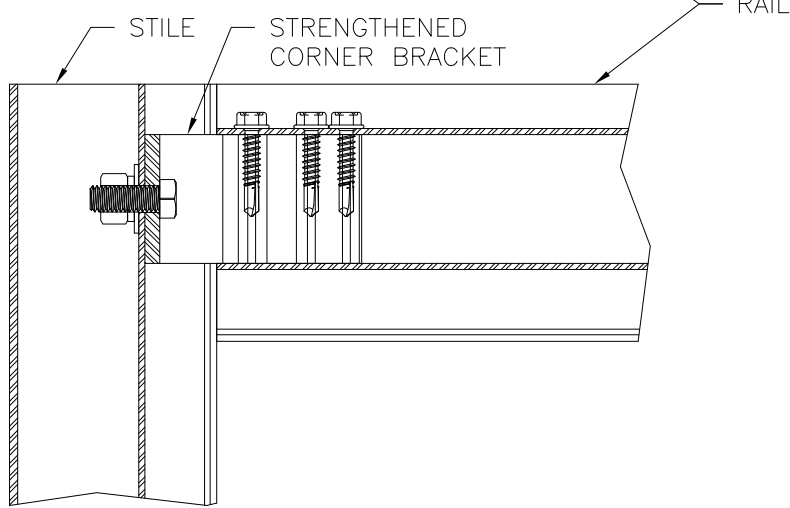
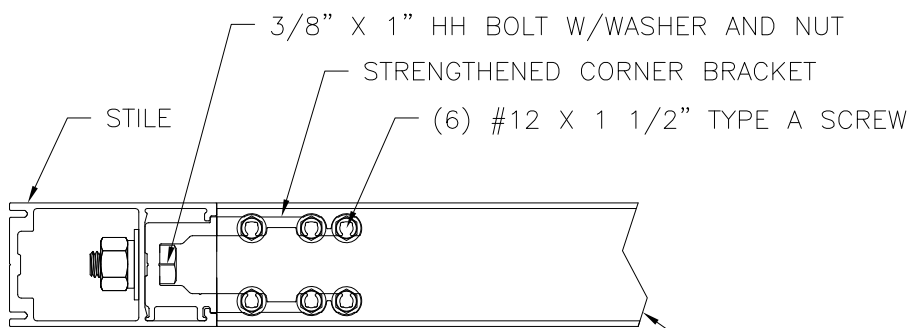
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FL No.: 62514

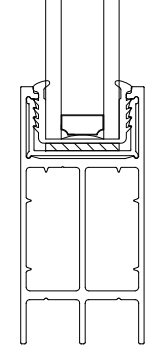
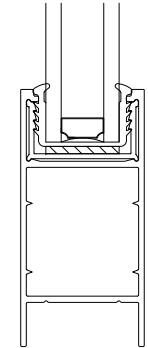
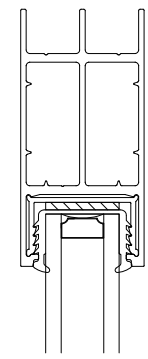
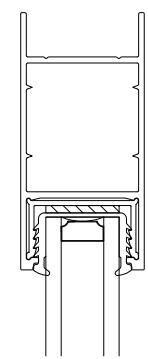


CORNER CONNECTION
W/ STANDARD CORNER BRACKET



CORNER CONNECTION
W/ STRENGTHENED CORNER BRACKET

APPROVED PANELS

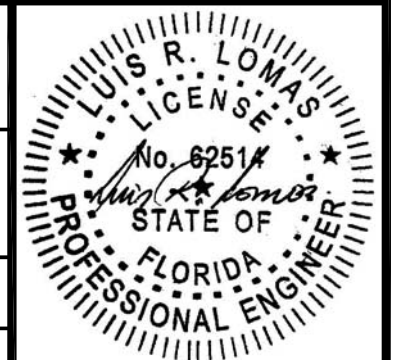


STANDARD RAIL

STRENGTHENED RAIL



LANAI DOORS 941 NORTH ELM STREET, SUITE C ORANGE, CA 92867		
SERIES E3 HURRICANE INSWING ALUMINUM BI-FOLD DOOR, NON-IMPACT HVHZ COMPONENTS AND GLAZING DETAILS		
DRAWN: A.R.	DWG NO. 08-03611	REV -
SCALE NTS	DATE 09/18/2020	SHEET 10 OF 11
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		

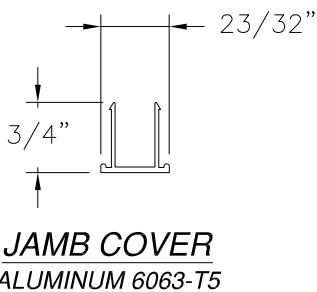
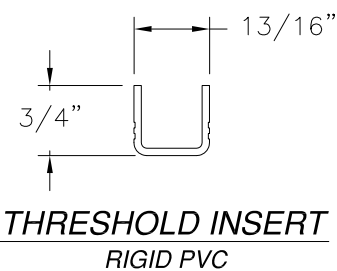
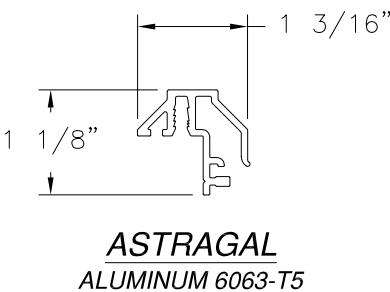
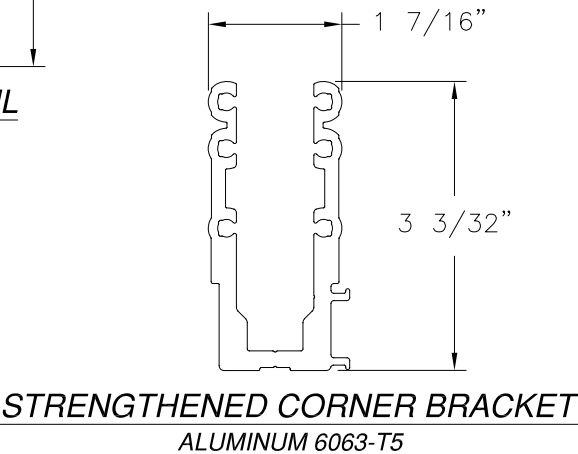
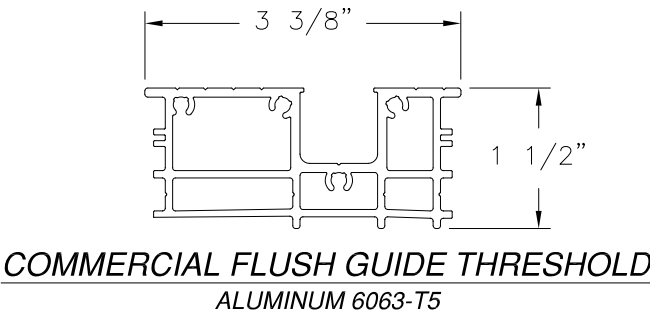
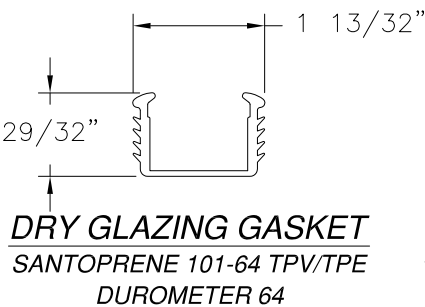
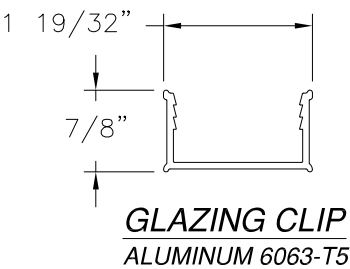
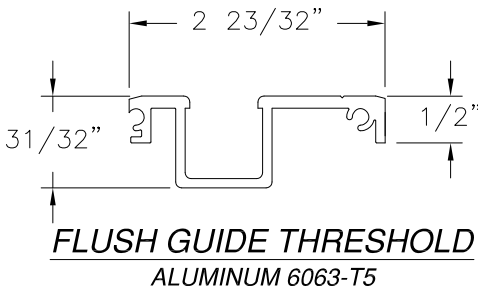
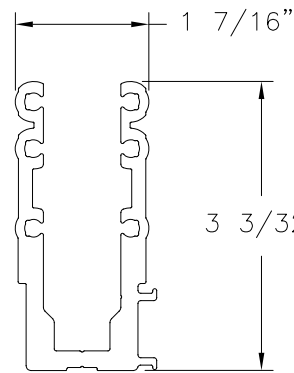
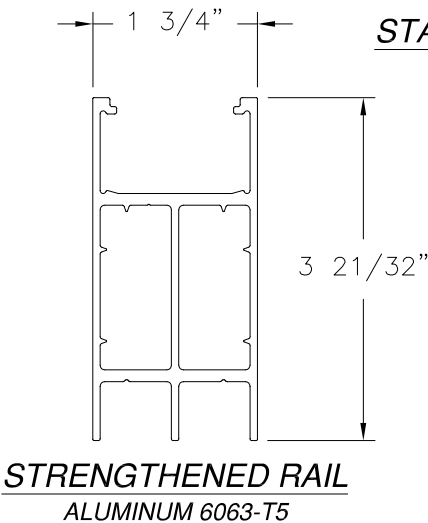
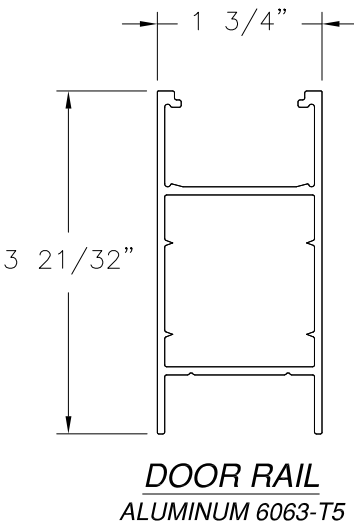
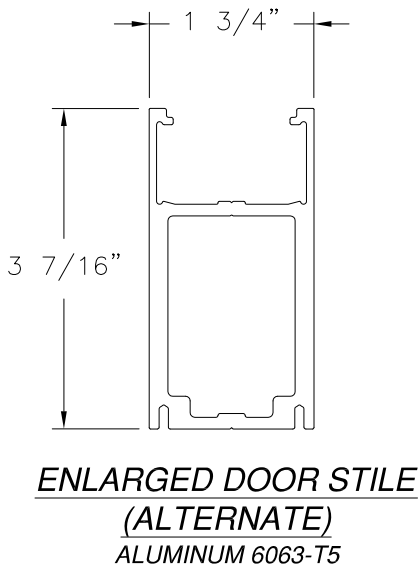
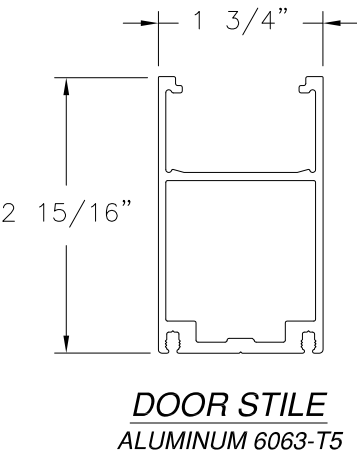
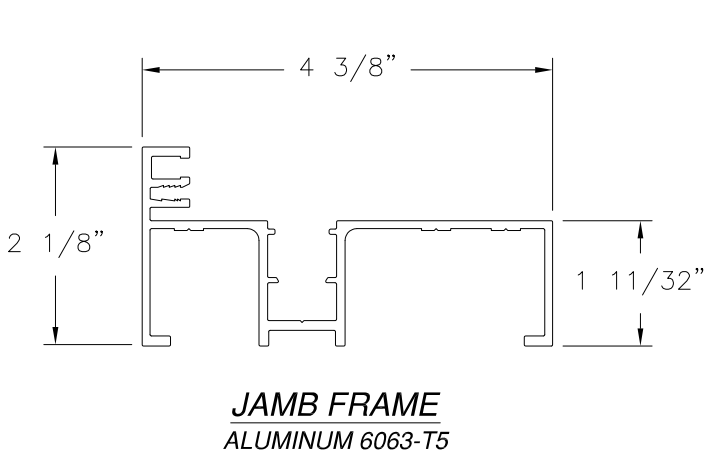
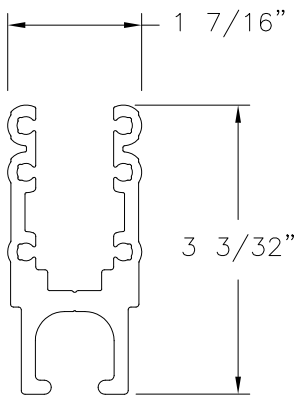
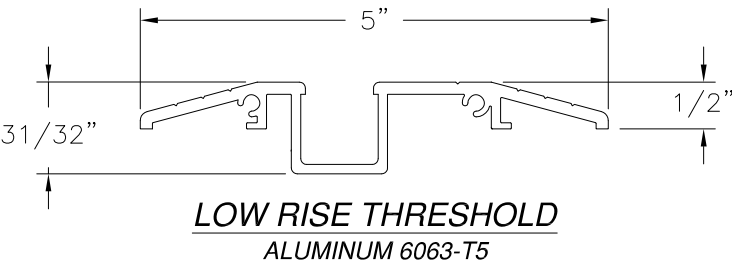
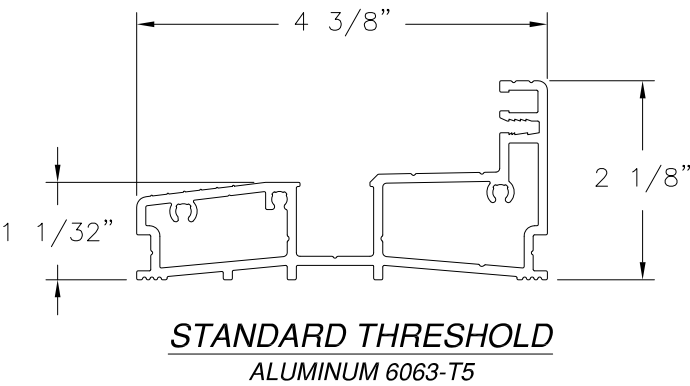
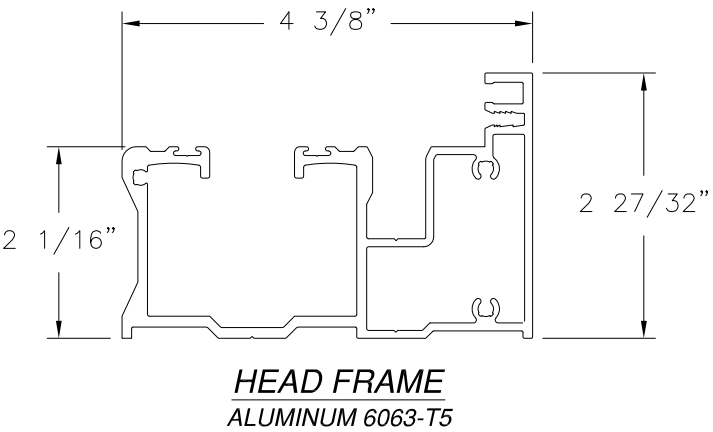


SIGNED: 09/18/2020

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

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



LANAI DOORS

941 NORTH ELM STREET, SUITE C
ORANGE, CA 92867

SERIES E3 HURRICANE INSWING
ALUMINUM BI-FOLD DOOR, NON-IMPACT HVHZ
COMPONENTS

DRAWN:
A.R.

DWG NO.
08-03611

REV
-

SCALE
NTS

DATE
09/18/2020

SHEET
11 OF 11

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434-688-0609 rllomas@lrlomaspe.com

SIGNED: 09/18/2020

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