

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

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 #12 WOOD SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 3/8" 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 #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.
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

E+ ALUMINUM BI-FOLD IN-SWING DOOR
NON-IMPACT HVHZ
NOTES

DRAWN:
A.R.

DWG NO.
08-03694

REV
-

SCALE NTS

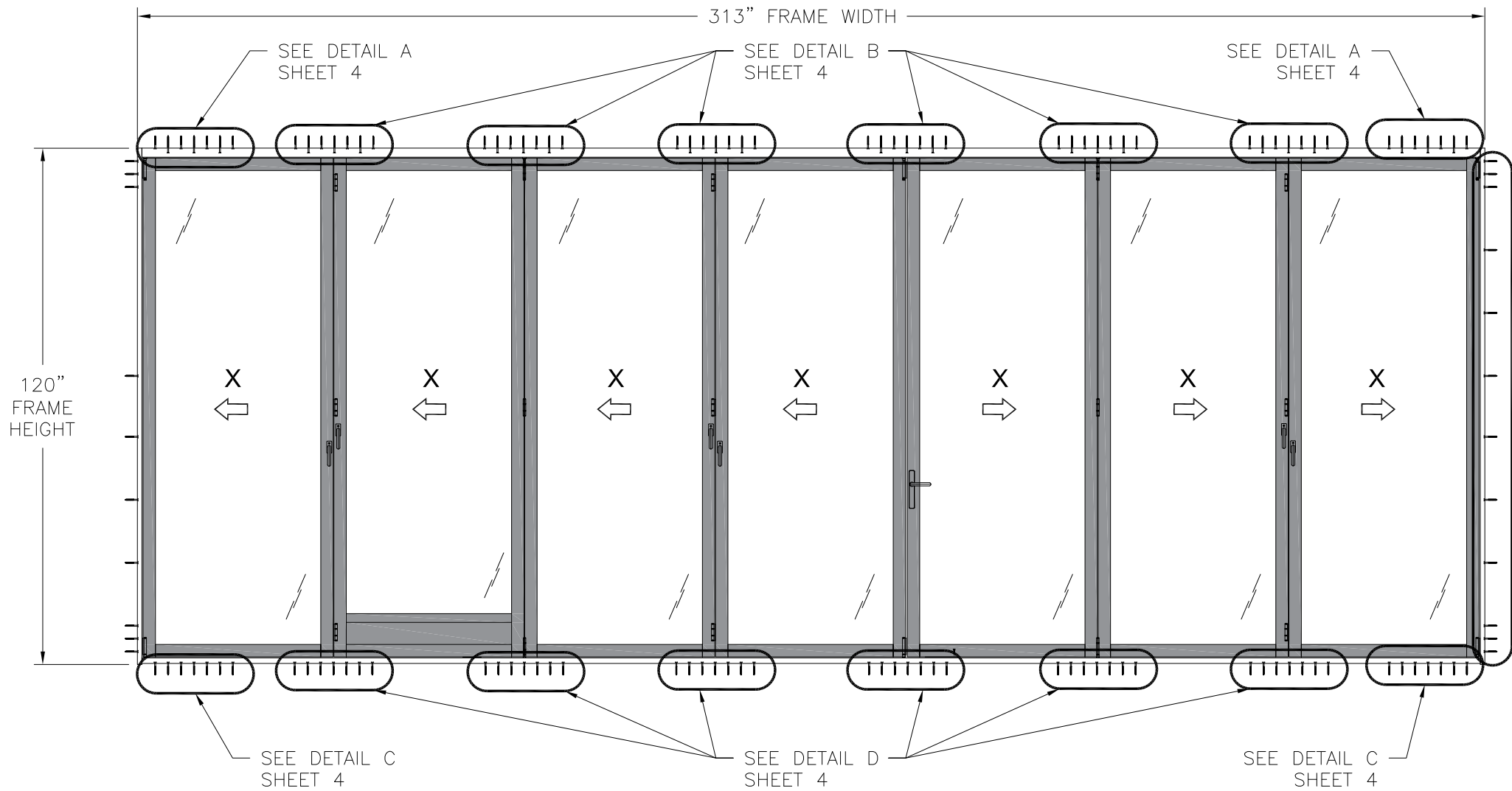
DATE 03/11/2021

SHEET 1 OF 11

L. ROBERTO LOMAS P.E.
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- NOTES:
- PANEL SIZE: 44" X 115 5/8"
 - D.L.O.: 38 5/16" X 109 7/8"

E+ ALUMINUM BI-FOLD IN-SWING DOOR

EXTERIOR VIEW

7 PANEL UNIT (4L3R) SHOWN. UNLIMITED NUMBER OF PANELS ARE APPROVED AS LONG AS INDIVIDUAL PANEL AREA DOES NOT EXCEED 35.3FT² AND TOTAL FRAME AREA DOES NOT EXCEED 391.3FT²

DESIGN PRESSURE RATING	IMPACT RATING
±60.0PSF	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

HARDWARE SCHEDULE	
A.	(8) HINGES AT LEFT AND RIGHT INTERMEDIATE PANELS
B.	(4) PIVOTS AT TOP AND BOTTOM OF LATERAL PANELS
C.	(2) ROLLER CARRIAGE AND HINGE ASSEMBLY AT TOP OF INTERMEDIATE PANELS
D.	(2) GUIDE ROLLER AND HINGE ASSEMBLY AT BOTTOM OF INTERMEDIATE PANELS
E.	(3) TWIN BOLT LOCK AT OUTER PANELS AND RIGHT CENTER PANEL STILES
F.	(1) INTERLOCK LCL LOCK AT LEFT CENTER PANEL STILE
G.	(3) SHOOT BOLT CUPS IN THRESHOLD 41" FROM EACH END



LANAI DOORS 941 NORTH ELM STREET, SUITE C ORANGE, CA 92867		
E+ ALUMINUM BI-FOLD IN-SWING DOOR NON-IMPACT HVHZ ELEVATION FRAME INSTALLATION		
DRAWN: A.R.	DWG NO. 08-03694	REV -
SCALE NTS	DATE 03/11/2021	SHEET 2 OF 11
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		

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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		44.0		48.0	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
80.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	86.7	86.7	79.5	79.5
84.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	82.6	82.6	75.7	75.7
90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	87.0	87.0	77.1	77.1	70.7	70.7
96.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	88.0	88.0	81.5	81.5	72.3	72.3	66.2	66.2
102.0	90.0	90.0	90.0	90.0	90.0	90.0	87.6	87.6	81.7	81.7	76.7	76.7	68.0	68.0	62.3	62.3
108.0	90.0	90.0	90.0	90.0	88.6	88.6	81.9	81.9	76.3	76.3	71.6	71.6	64.2	64.2	-	-
114.0	90.0	90.0	90.0	90.0	83.2	83.2	76.8	76.8	71.5	71.5	67.1	67.1	60.9	60.9	-	-
115.6	90.0	90.0	89.6	89.6	81.9	81.9	75.6	75.6	70.3	70.3	65.9	65.9	60.0	60.0	-	-
120.0	90.0	90.0	84.2	84.2	76.1	76.1	69.6	69.6	64.1	64.1	59.6	59.6	-	-	-	-
126.0	81.3	81.3	72.6	72.6	65.6	65.6	59.9	59.9	55.2	55.2	51.3	51.3	-	-	-	-
132.0	70.6	70.6	63.0	63.0	56.9	56.9	52.0	52.0	47.9	47.9	-	-	-	-	-	-
138.0	61.8	61.8	55.1	55.1	49.7	49.7	45.4	45.4	41.8	41.8	-	-	-	-	-	-
144.0	54.3	54.3	48.4	48.4	43.7	43.7	39.9	39.9	-	-	-	-	-	-	-	-



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

E+ ALUMINUM BI-FOLD IN-SWING DOOR
NON-IMPACT HVHZ
DESIGN PRESSURE CHART

DRAWN:
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DWG NO.
08-03694

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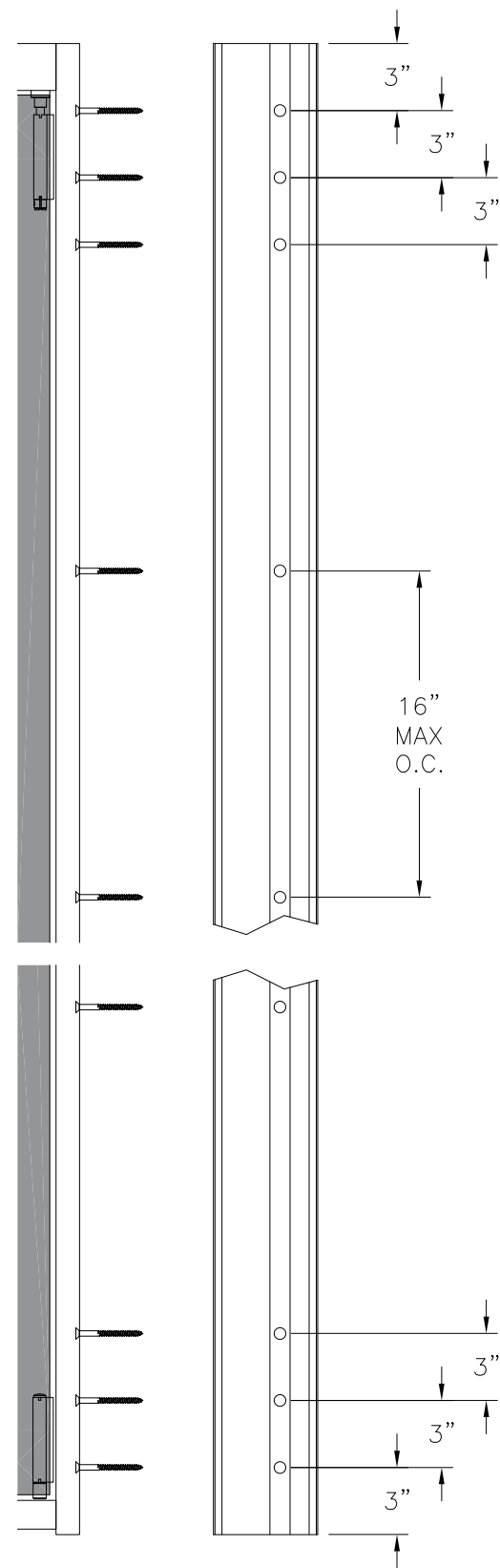
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SHEET 3 OF 11

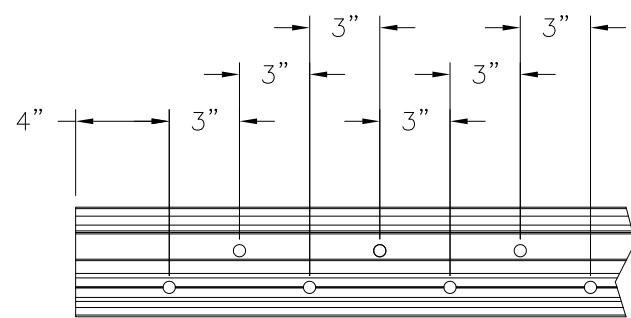
L. ROBERTO LOMAS P.E.
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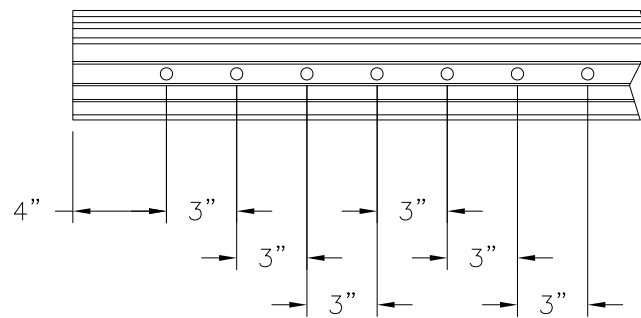
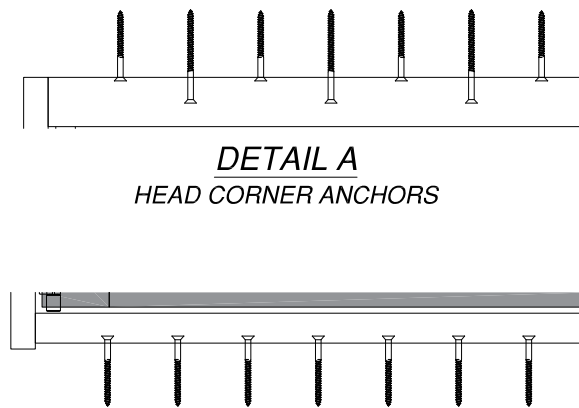
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FL No.: 62514



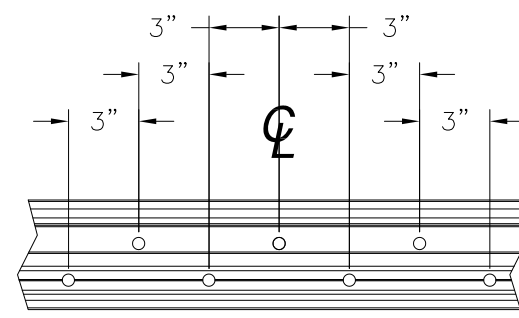
DETAIL E
JAMB ANCHORS



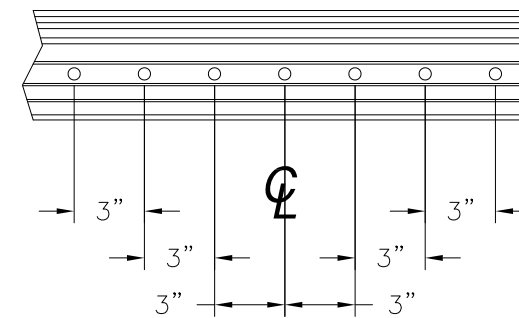
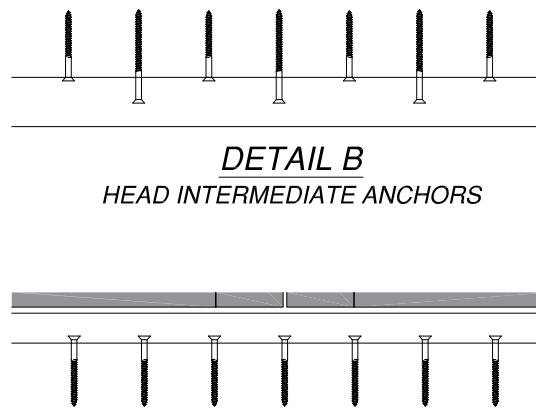
DETAIL A
HEAD CORNER ANCHORS



DETAIL C
SILL CORNER ANCHORS



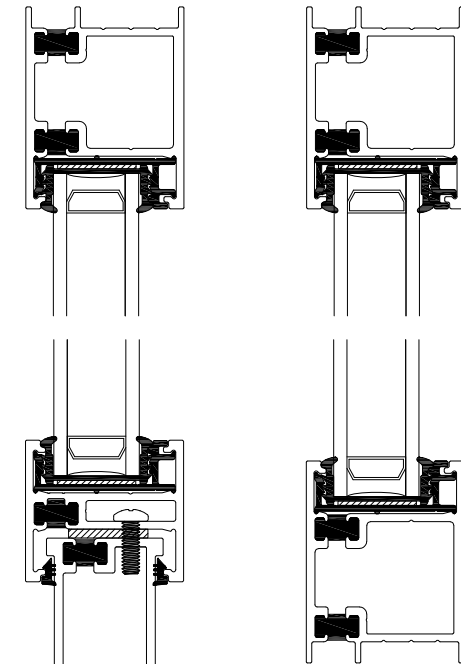
DETAIL B
HEAD INTERMEDIATE ANCHORS



DETAIL D
SILL INTERMEDIATE ANCHORS

REVISIONS			
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APPROVED PANELS



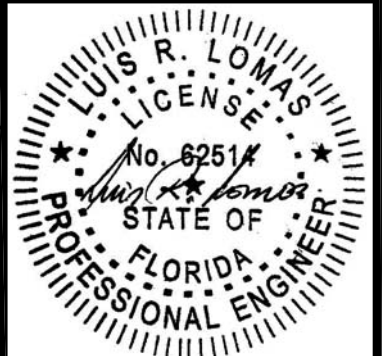
PANEL STANDARD

PANEL W/10" BOTTOM RAIL



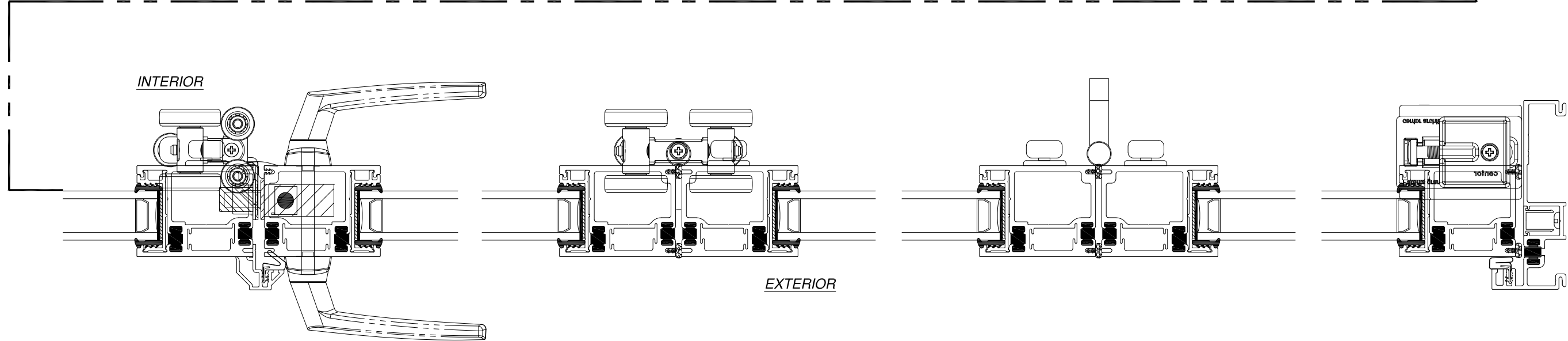
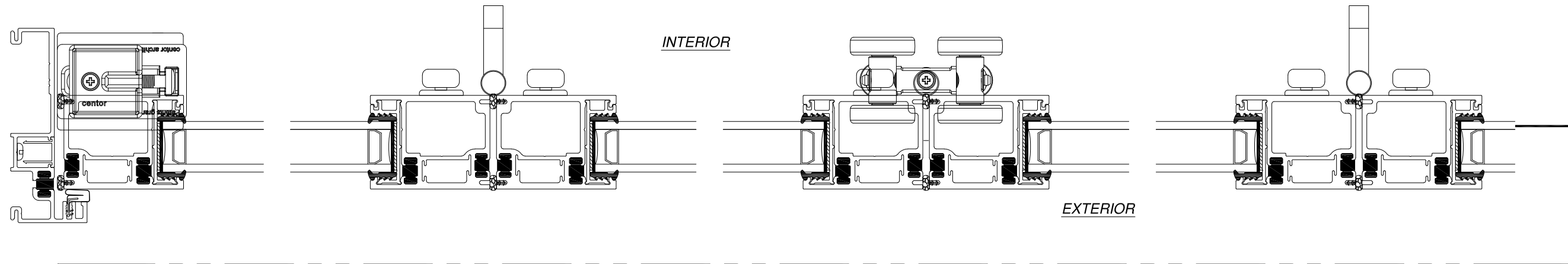
LANAI DOORS 941 NORTH ELM STREET, SUITE C ORANGE, CA 92867		
E+ ALUMINUM BI-FOLD IN-SWING DOOR NON-IMPACT HVHZ ANCHORING DETAILS		
DRAWN: A.R.	DWG NO. 08-03694	REV -
SCALE NTS	DATE 03/11/2021	SHEET 4 OF 11
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HORIZONTAL CROSS SECTION



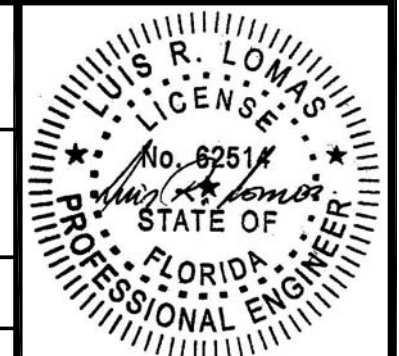
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941 NORTH ELM STREET, SUITE C
ORANGE, CA 92867

E+ ALUMINUM BI-FOLD IN-SWING DOOR
NON-IMPACT HVHZ
HORIZONTAL CROSS SECTION

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SCALE NTS	DATE 03/11/2021	SHEET 5 OF 11

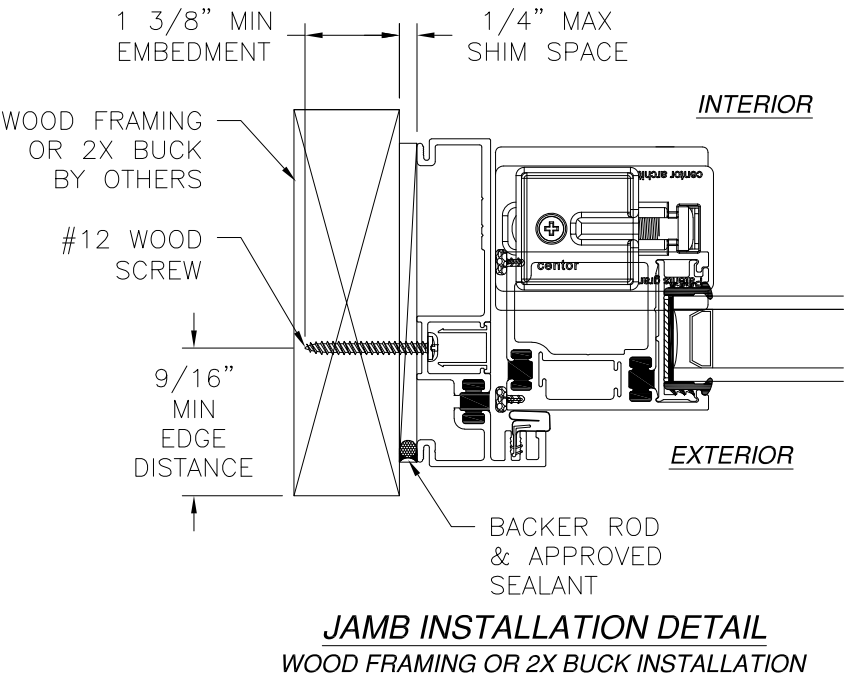
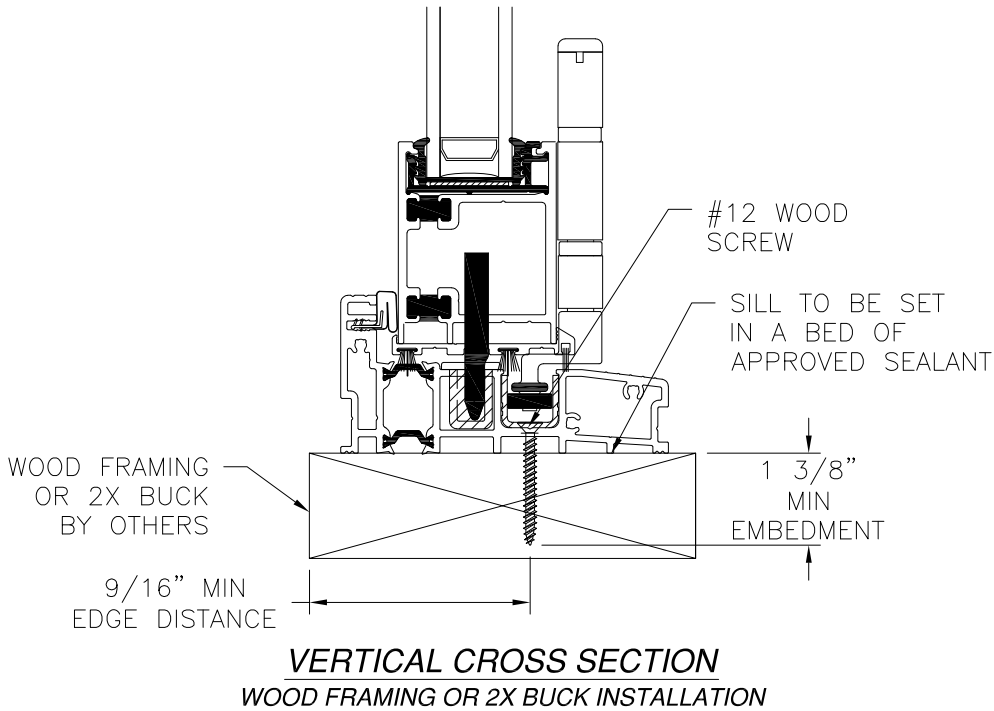
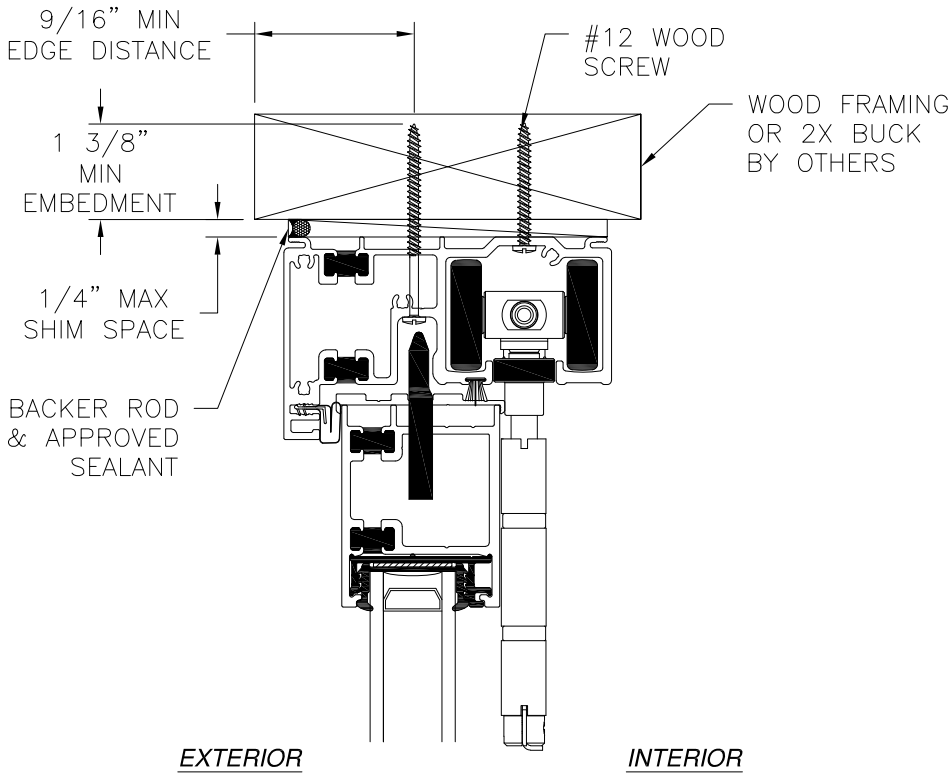
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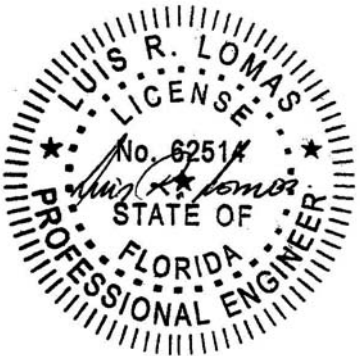


- NOTES:**
1. INTERIOR AND EXTERIOR FINISHES, BY OTHERS, NOT SHOWN FOR CLARITY.
 2. PERIMETER AND JOINT SEALANT BY OTHERS TO BE DESIGNED IN ACCORDANCE WITH ASTM E2112



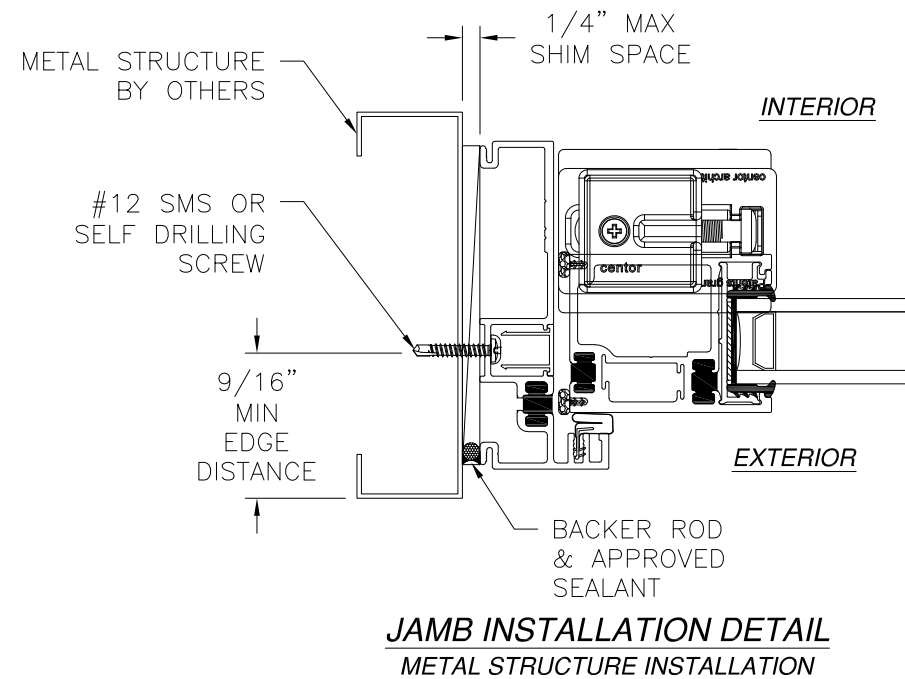
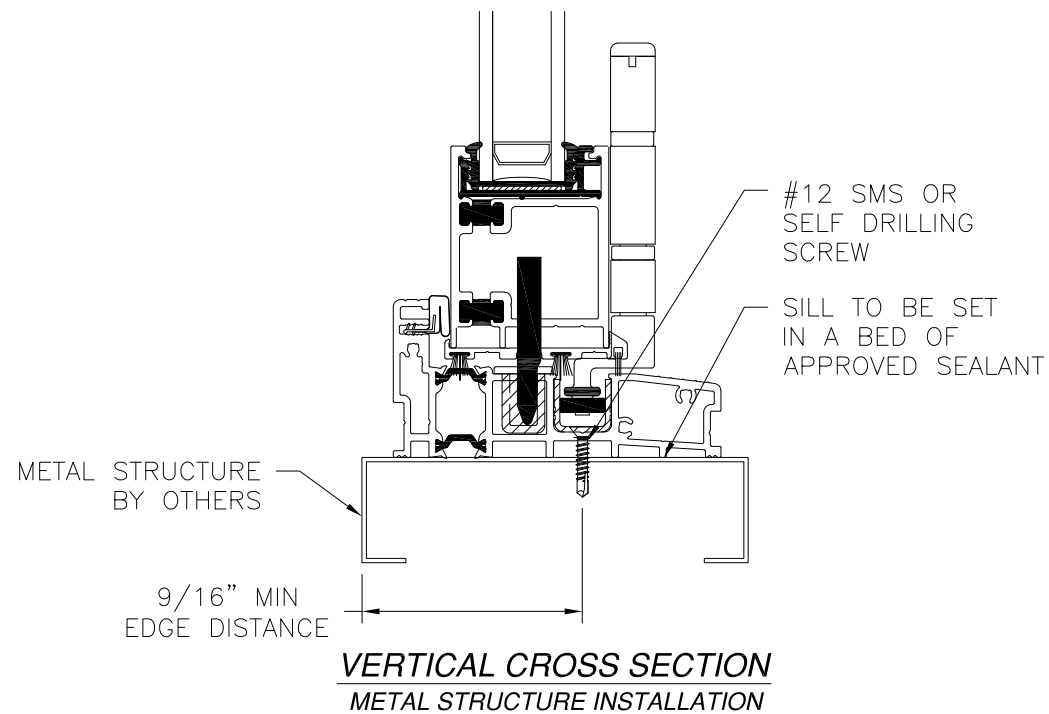
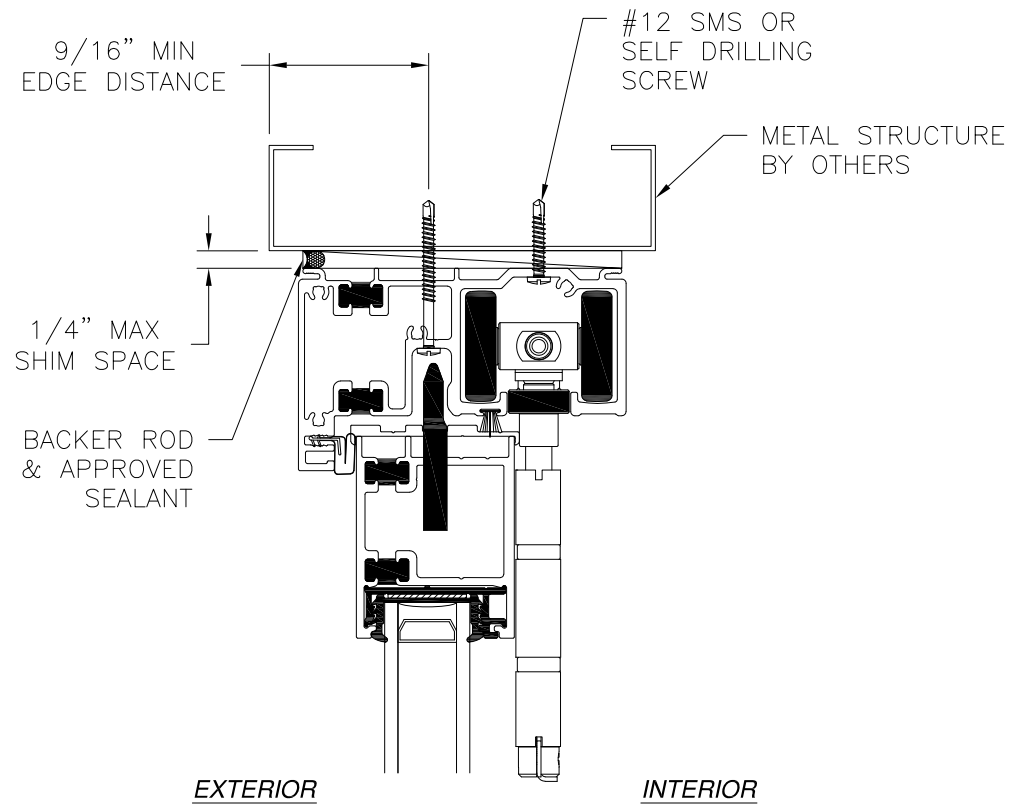
LANAI DOORS 941 NORTH ELM STREET, SUITE C ORANGE, CA 92867		
E+ ALUMINUM BI-FOLD IN-SWING DOOR NON-IMPACT HVHZ INSTALLATION DETAILS STANDARD THRESHOLD		
DRAWN: A.R.	DWG NO. 08-03694	REV -
SCALE NTS	DATE 03/11/2021	SHEET 6 OF 11
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		

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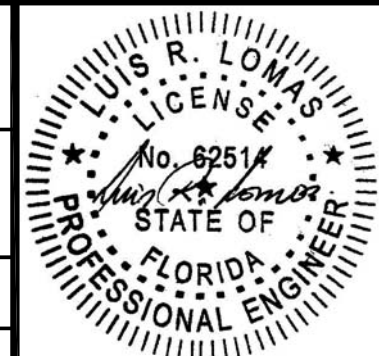
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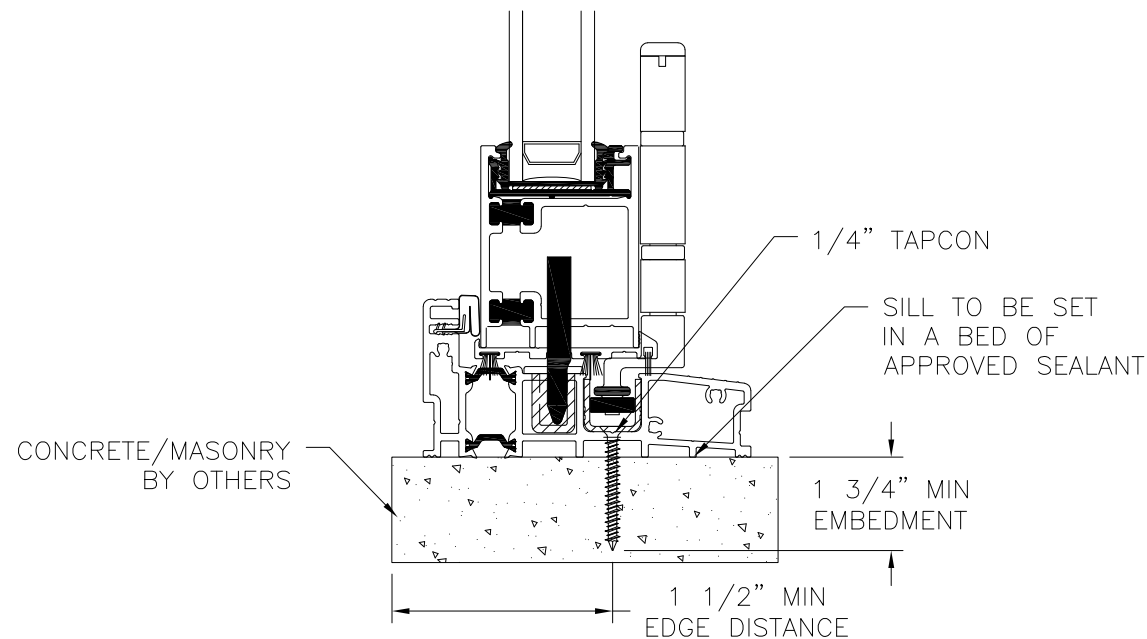
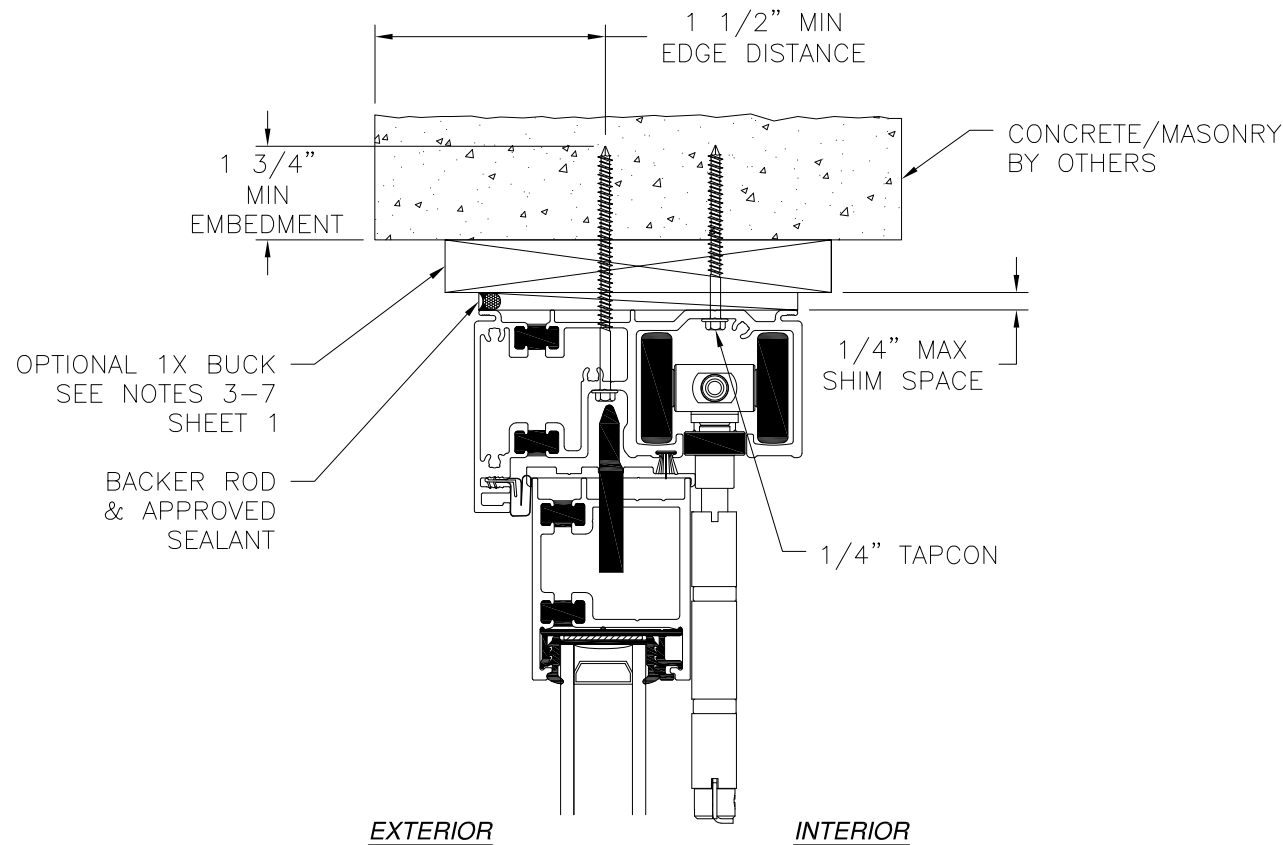


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E+ ALUMINUM BI-FOLD IN-SWING DOOR NON-IMPACT HVHZ INSTALLATION DETAILS STANDARD THRESHOLD		
DRAWN: A.R.	DWG NO. 08-03694	REV -
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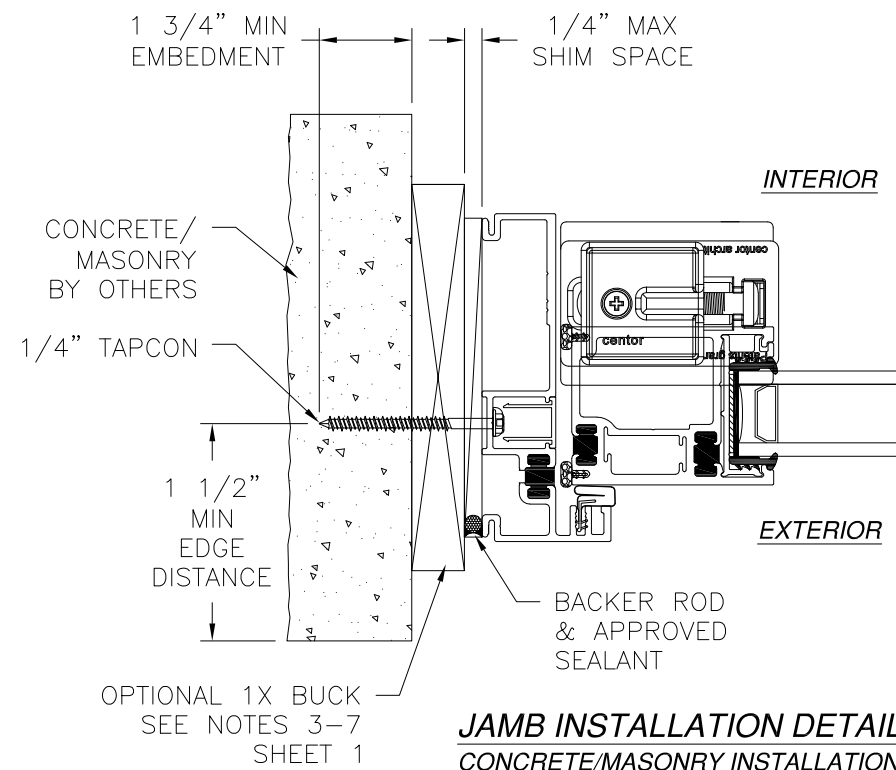


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VERTICAL CROSS SECTION
CONCRETE/MASONRY INSTALLATION



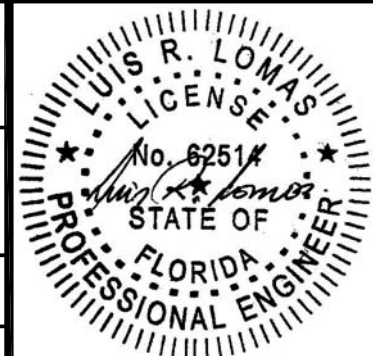
JAMB INSTALLATION DETAIL
CONCRETE/MASONRY INSTALLATION

- NOTES:**
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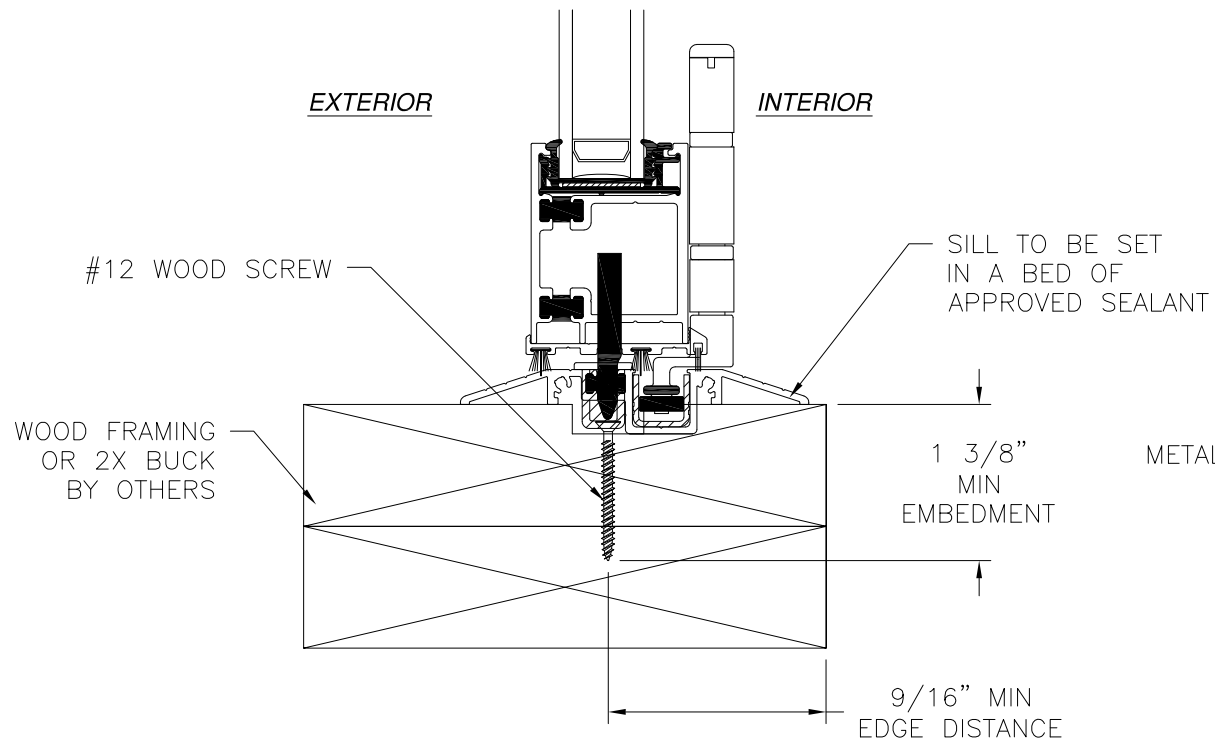
LANAI DOORS 941 NORTH ELM STREET, SUITE C ORANGE, CA 92867		
E+ ALUMINUM BI-FOLD IN-SWING DOOR NON-IMPACT HVHZ INSTALLATION DETAILS STANDARD THRESHOLD		
DRAWN: A.R.	DWG NO. 08-03694	REV -
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L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		

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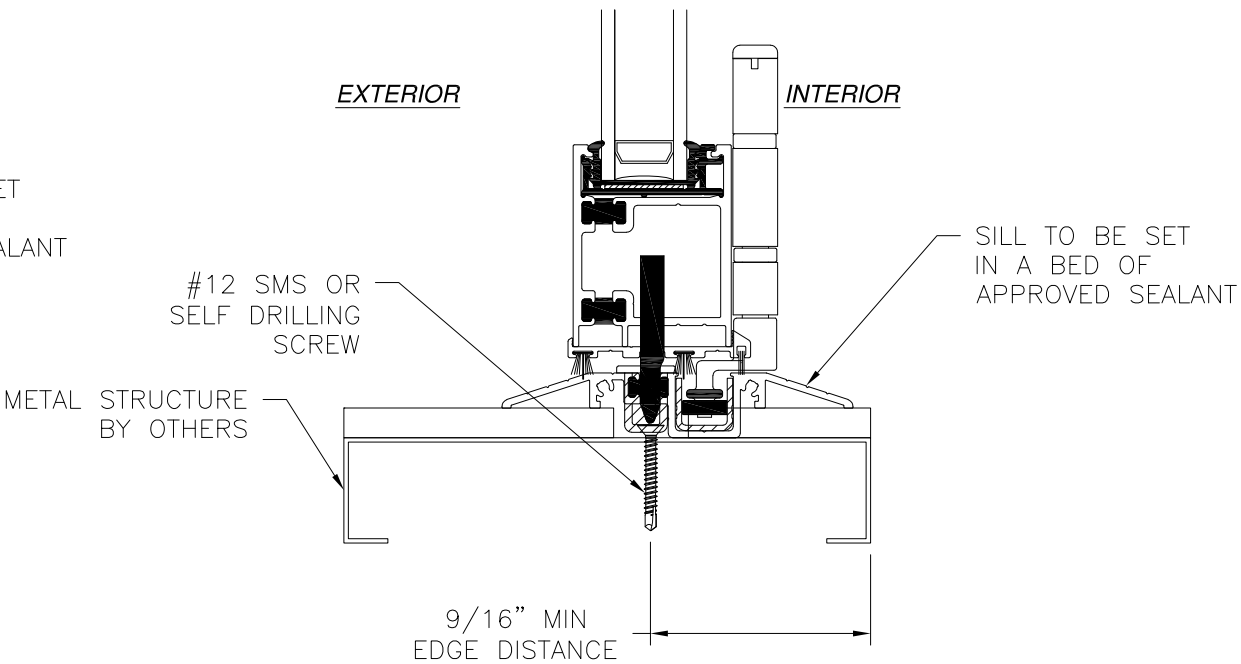


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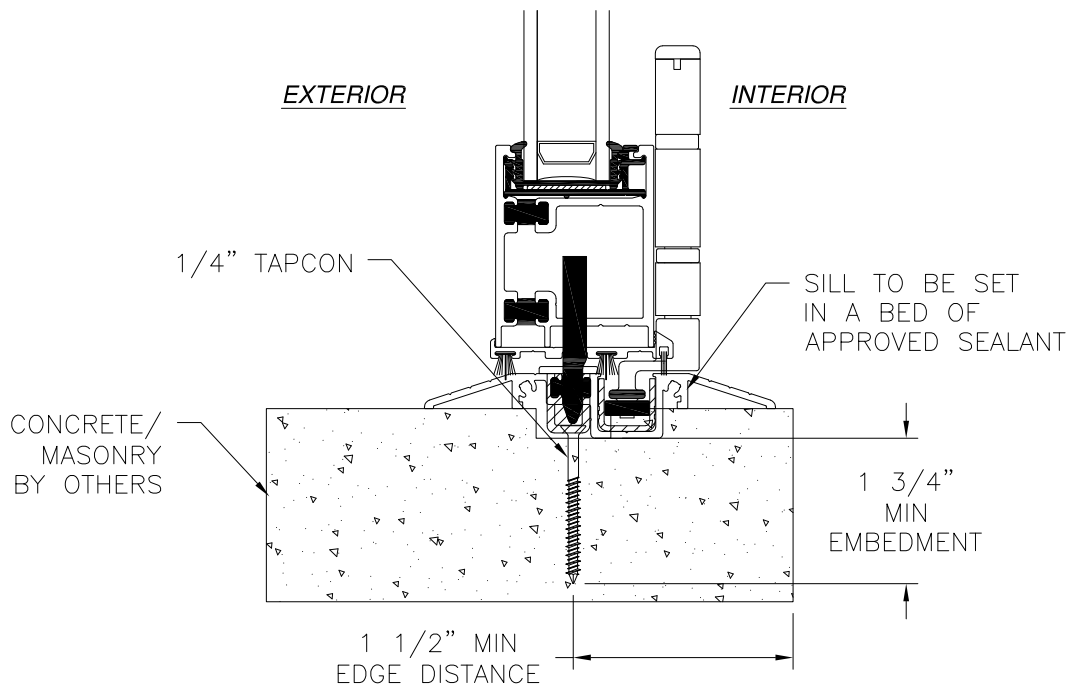
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LOW RISE THRESHOLD
WOOD FRAMING OR 2X BUCK INSTALLATION



LOW RISE THRESHOLD
METAL STRUCTURE INSTALLATION



LOW RISE THRESHOLD
CONCRETE/MASONRY INSTALLATION

- NOTES:**
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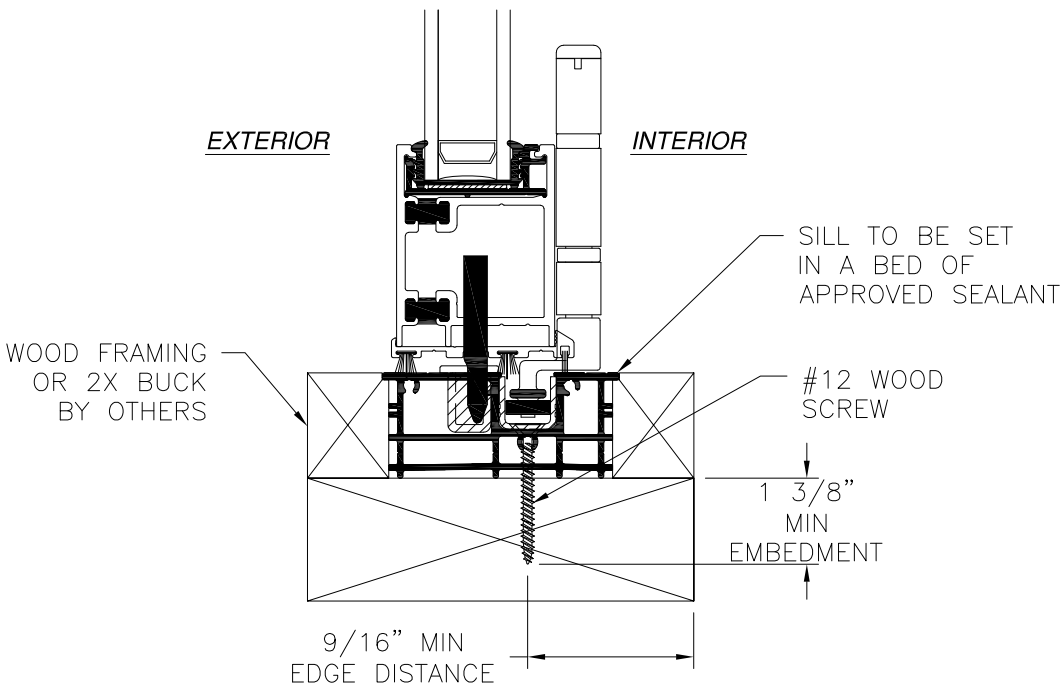
LANAI DOORS 941 NORTH ELM STREET, SUITE C ORANGE, CA 92867		
E+ ALUMINUM BI-FOLD IN-SWING DOOR NON-IMPACT HVHZ INSTALLATION DETAILS LOW RISE THRESHOLD		
DRAWN: A.R.	DWG NO. 08-03694	REV -
SCALE NTS	DATE 03/11/2021	SHEET 9 OF 11
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		

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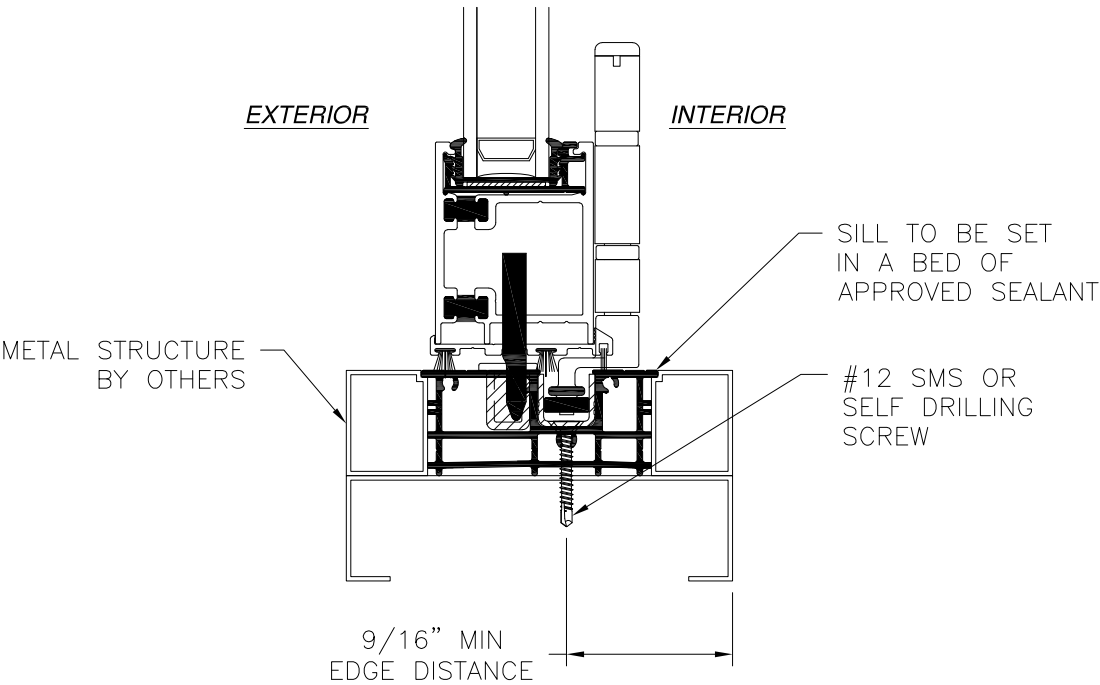


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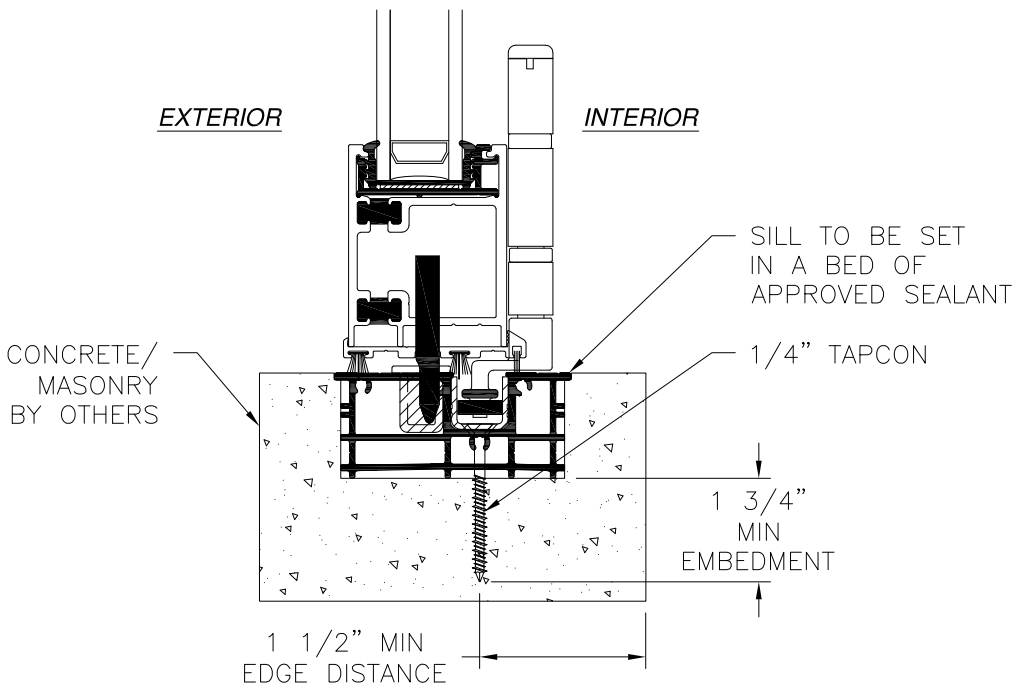
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VERTICAL CROSS SECTION
WOOD FRAMING OR 2X BUCK INSTALLATION



VERTICAL CROSS SECTION
METAL STRUCTURE INSTALLATION



VERTICAL CROSS SECTION
CONCRETE/MASONRY INSTALLATION

- NOTES:**
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LANAI DOORS

941 NORTH ELM STREET, SUITE C

ORANGE, CA 92867

E+ ALUMINUM BI-FOLD IN-SWING DOOR

NON-IMPACT HVHZ

INSTALLATION DETAILS FLUSH THRESHOLD

DRAWN: A.R.

DWG NO. 08-03694

REV -

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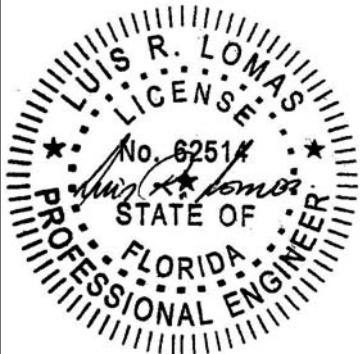
SHEET 10 OF 11

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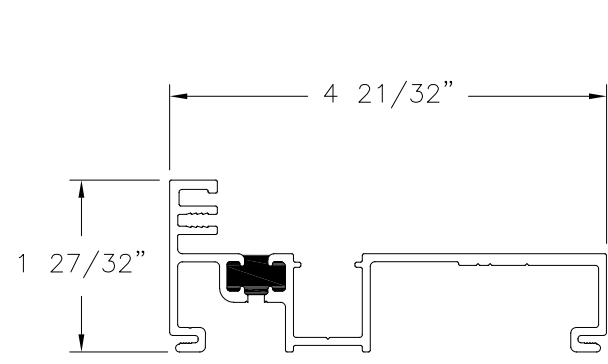
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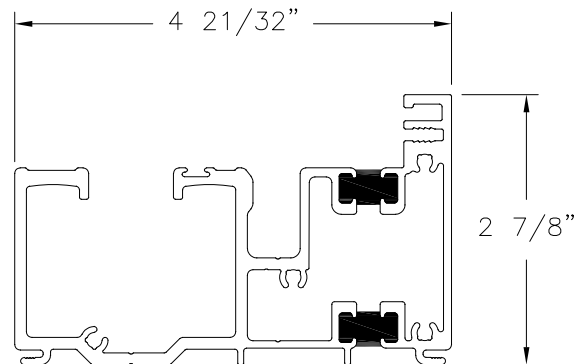
SIGNED: 03/18/2021



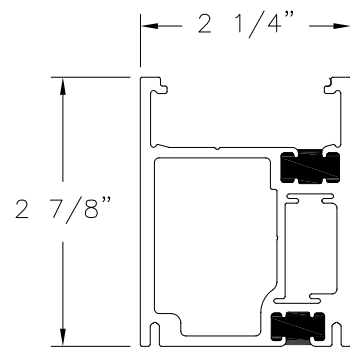
Luis R. Lomas P.E.
FL No.: 62514



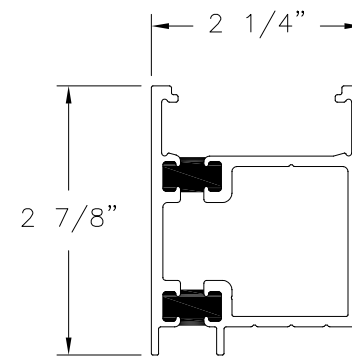
JAMB FRAME
ALUMINUM 6063-T5



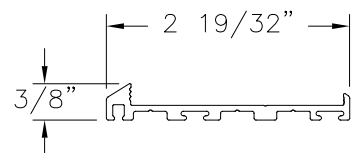
HEAD FRAME
ALUMINUM 6063-T5



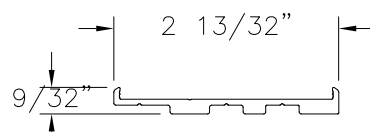
STILE
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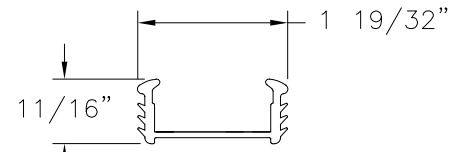
TOP/BOTTOM RAIL
ALUMINUM 6063-T5



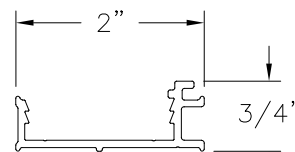
DOOR BOOT
ALUMINUM 6063-T5



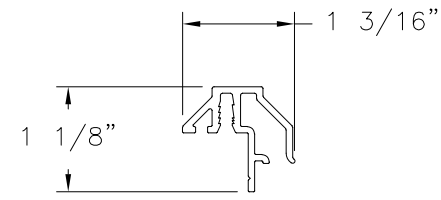
DOOR CAP
ALUMINUM 6063-T5



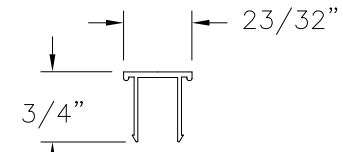
GLAZING GASKET
SANTOPRENE



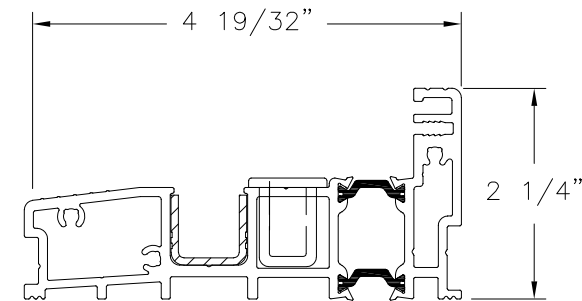
GLAZING CLIP
ALUMINUM 6063-T5



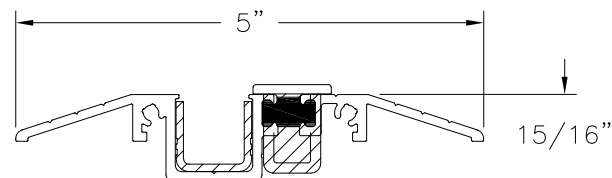
ASTRAGAL
ALUMINUM 6063-T5



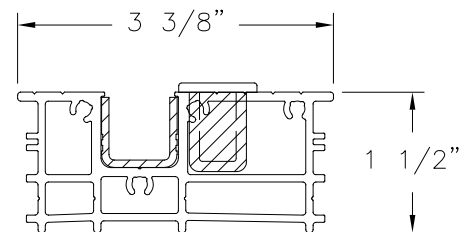
JAMB COVER
ALUMINUM 6063-T5



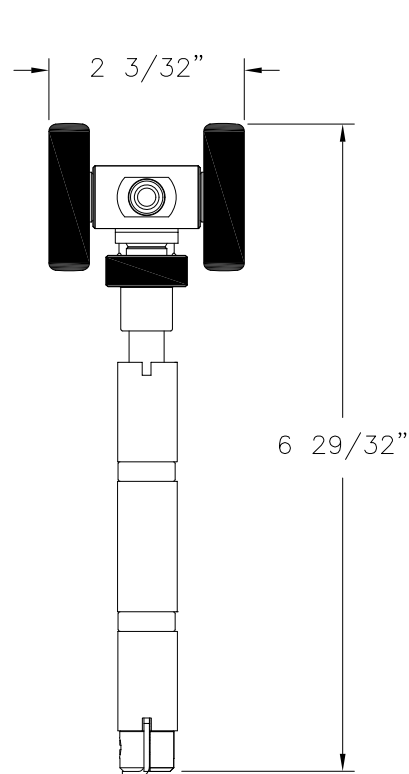
STANDARD THRESHOLD ASSY
ALUMINUM 6063-T5



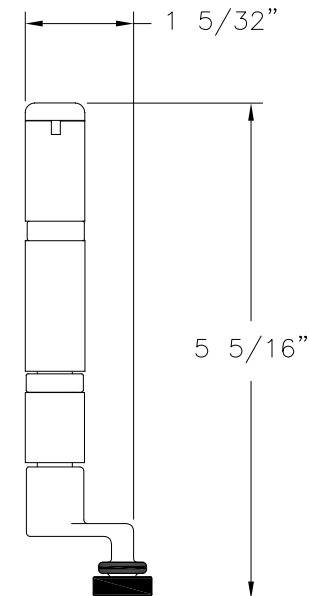
LOW RISE THRESHOLD ASSY
ALUMINUM 6063-T5



COMMERCIAL FLUSH THRESHOLD ASSY
ALUMINUM 6063-T5



CARRIAGE & HINGE ASSY



GUIDE & HINGE ASSY



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

SIGNED: 03/18/2021

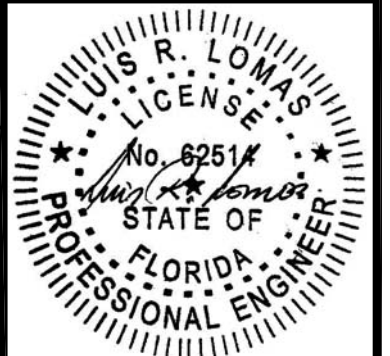
LANAI DOORS

941 NORTH ELM STREET, SUITE C
ORANGE, CA 92867

E+ ALUMINUM BI-FOLD IN-SWING DOOR
NON-IMPACT HVHZ
COMPONENTS

DRAWN: A.R.	DWG NO. 08-03694	REV -
SCALE NTS	DATE 03/11/2021	SHEET 11 OF 11

L. ROBERTO LOMAS P.E.
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