

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

TABLE OF CONTENTS	
SHEET NO.	DESCRIPTION
1	NOTES
2 - 3	ELEVATION AND CHARTS
4	ANCHORING DETAILS
5	HORIZONTAL CROSS SECTION
5 - 10	INSTALLATION DETAILS
11	COMPONENTS



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

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

DRAWN:
A.R.

DWG NO.
08-03620

REV
-

SCALE NTS

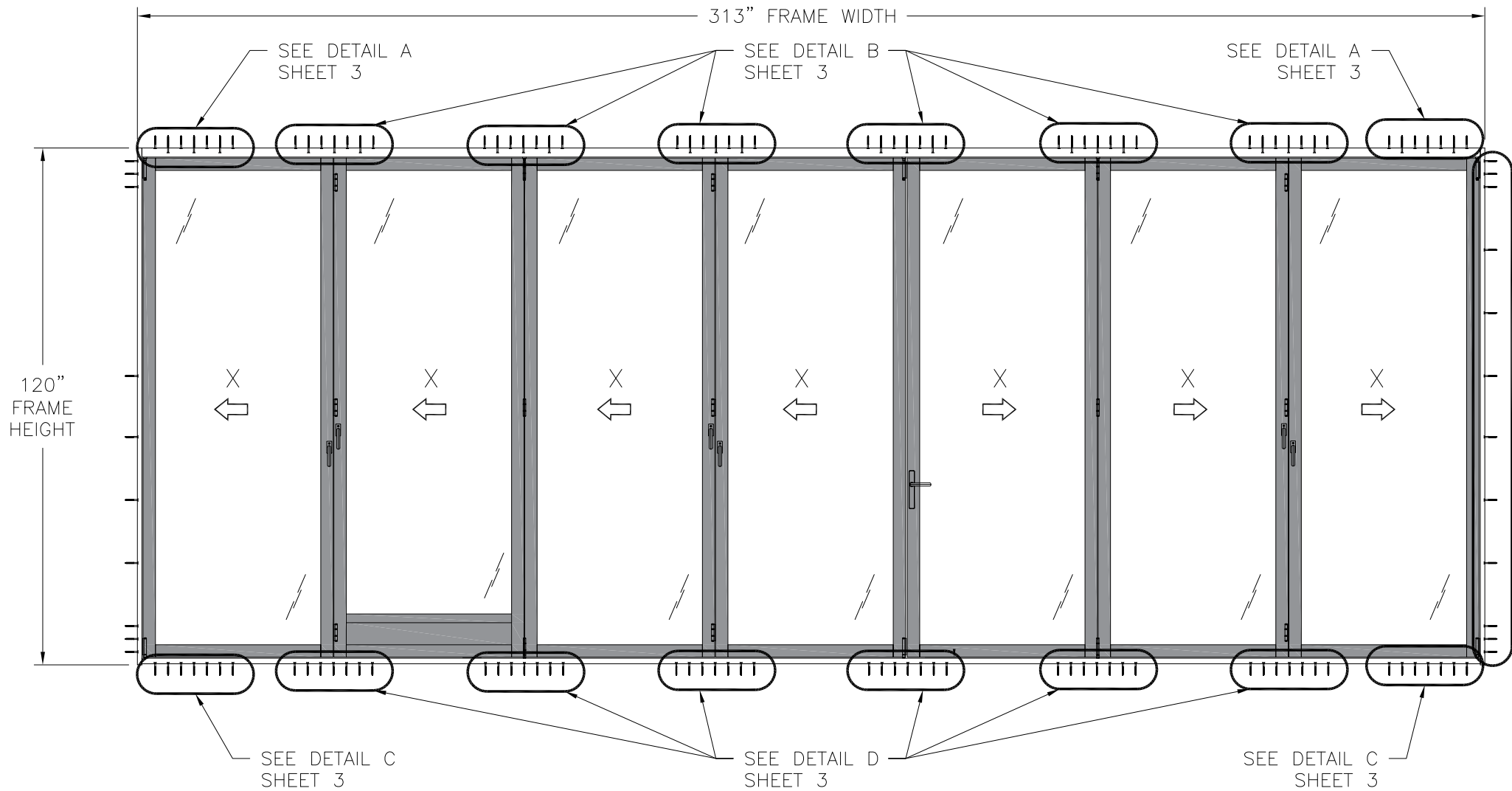
DATE 09/24/2020

SHEET 1 OF 11

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

SIGNED: 09/25/2020

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



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

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

E+ ALUMINUM BI-FOLD OUT-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

WHERE WATER PENETRATION RESISTANCE IS REQUIRED

DESIGN PRESSURE RATING	IMPACT RATING
+50.0/-60.0PSF	NONE

WITH STANDARD SILL
SEE CHART #1, SHEET 3 FOR OTHER SIZES RATINGS

WHERE WATER PENETRATION RESISTANCE IS NOT REQUIRED

DESIGN PRESSURE RATING	IMPACT RATING
±60.0PSF	NONE

WITH STANDARD, FLUSH OR LOW RISE SILL
SEE CHART #2, SHEET 3 FOR OTHER SIZES RATINGS

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 OUT-SWING DOOR NON-IMPACT HVHZ ELEVATION FRAME INSTALLATION		
DRAWN: A.R.	DWG NO. 08-03620	REV -
SCALE NTS	DATE 09/24/2020	SHEET 2 OF 11
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		

SIGNED: 09/25/2020



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

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

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	50.0	90.0	50.0	90.0	50.0	90.0	50.0	90.0	50.0	90.0	50.0	90.0	50.0	86.7	50.0	79.5
84.0	50.0	90.0	50.0	90.0	50.0	90.0	50.0	90.0	50.0	90.0	50.0	90.0	50.0	82.6	50.0	75.7
90.0	50.0	90.0	50.0	90.0	50.0	90.0	50.0	90.0	50.0	90.0	50.0	87.0	50.0	77.1	50.0	70.7
96.0	50.0	90.0	50.0	90.0	50.0	90.0	50.0	90.0	50.0	88.0	50.0	81.5	50.0	72.3	50.0	66.2
102.0	50.0	90.0	50.0	90.0	50.0	90.0	50.0	87.6	50.0	81.7	50.0	76.7	50.0	68.0	50.0	62.3
108.0	50.0	90.0	50.0	90.0	50.0	88.6	50.0	81.9	50.0	76.3	50.0	71.6	50.0	64.2	-	-
114.0	50.0	90.0	50.0	90.0	50.0	83.2	50.0	76.8	50.0	71.5	50.0	67.1	50.0	60.9	-	-
115.6	50.0	90.0	50.0	89.6	50.0	81.9	50.0	75.6	50.0	70.3	50.0	65.9	50.0	60.0	-	-
120.0	50.0	90.0	50.0	84.2	50.0	76.1	50.0	69.6	50.0	64.1	50.0	59.6	-	-	-	-
126.0	50.0	81.3	50.0	72.6	50.0	65.6	50.0	59.9	50.0	55.2	50.0	51.3	-	-	-	-
132.0	50.0	70.6	50.0	63.0	50.0	56.9	50.0	52.0	47.9	47.9	-	-	-	-	-	-
138.0	50.0	61.8	50.0	55.1	49.7	49.7	45.4	45.4	41.8	41.8	-	-	-	-	-	-
144.0	50.0	54.3	48.4	48.4	43.7	43.7	39.9	39.9	-	-	-	-	-	-	-	-

Where water penetration resistance is required

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		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	88.0	88.0	81.5	81.5	72.3	72.3	66.2	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	-	-	-	-	-	-	-	-

Where water penetration resistance is NOT required



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

E+ ALUMINUM BI-FOLD OUT-SWING DOOR
NON-IMPACT HVHZ
ELEVATION FRAME INSTALLATION

DRAWN:
A.R.

DWG NO.
08-03620

REV
-

SCALE
NTS

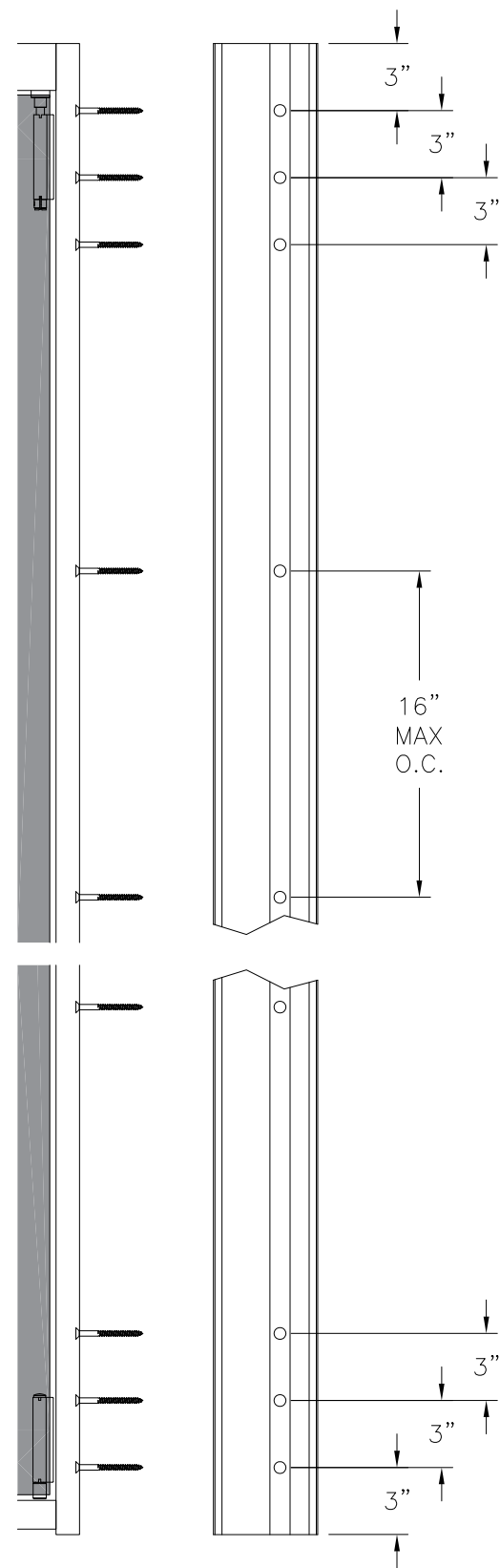
DATE
09/24/2020

SHEET
2 OF 11

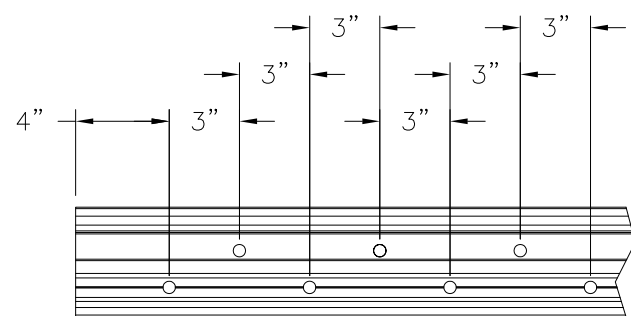
L. ROBERTO LOMAS P.E.
1432 WOODFORD RD LEWISVILLE, NC 27023
434-688-0609 rllomas@lrlomaspe.com

SIGNED: 09/25/2020

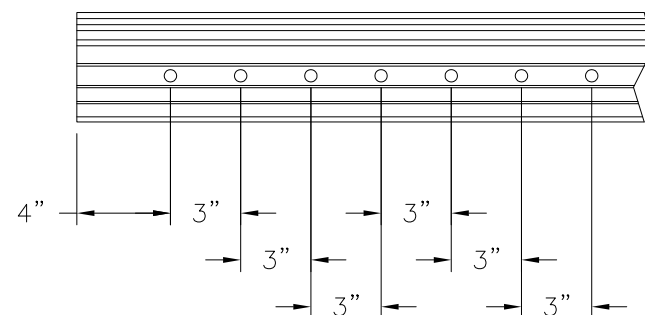
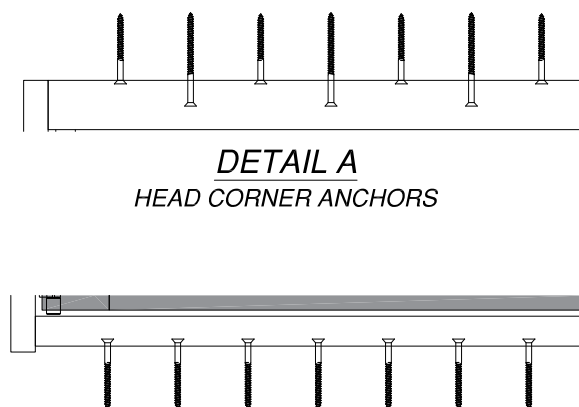
Luis R. Lomas P.E.
FL No.: 62514



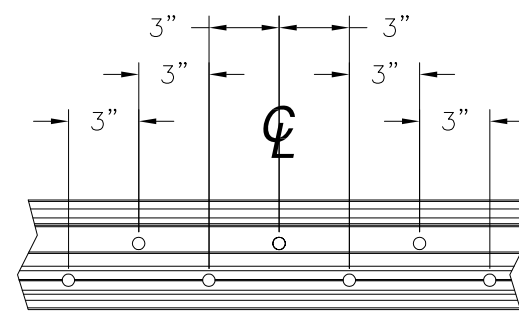
DETAIL E
JAMB ANCHORS



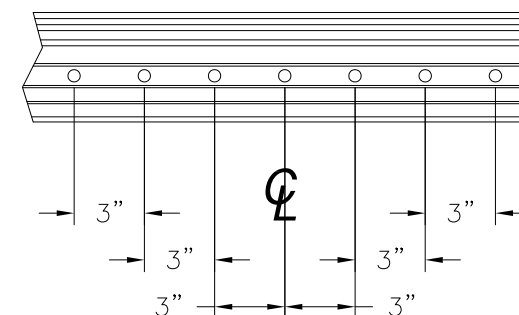
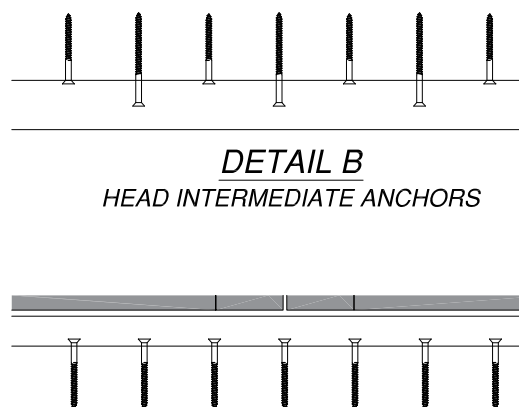
DETAIL A
HEAD CORNER ANCHORS



DETAIL C
SILL CORNER ANCHORS



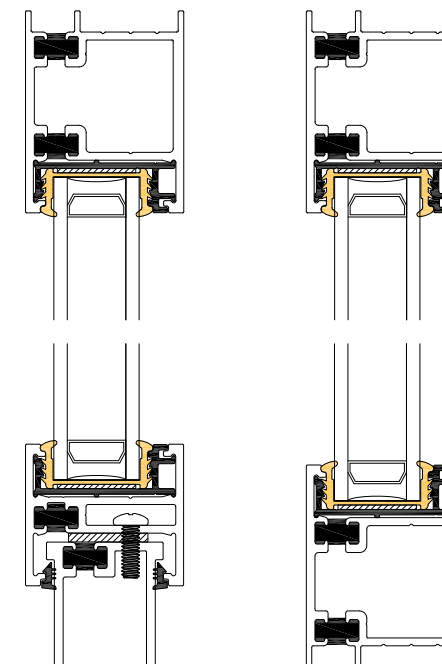
DETAIL B
HEAD INTERMEDIATE ANCHORS



DETAIL D
SILL INTERMEDIATE ANCHORS

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

APPROVED PANELS



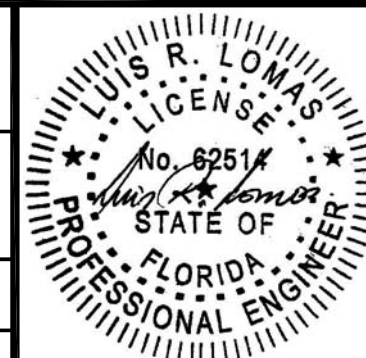
PANEL STANDARD

PANEL W/10" BOTTOM RAIL



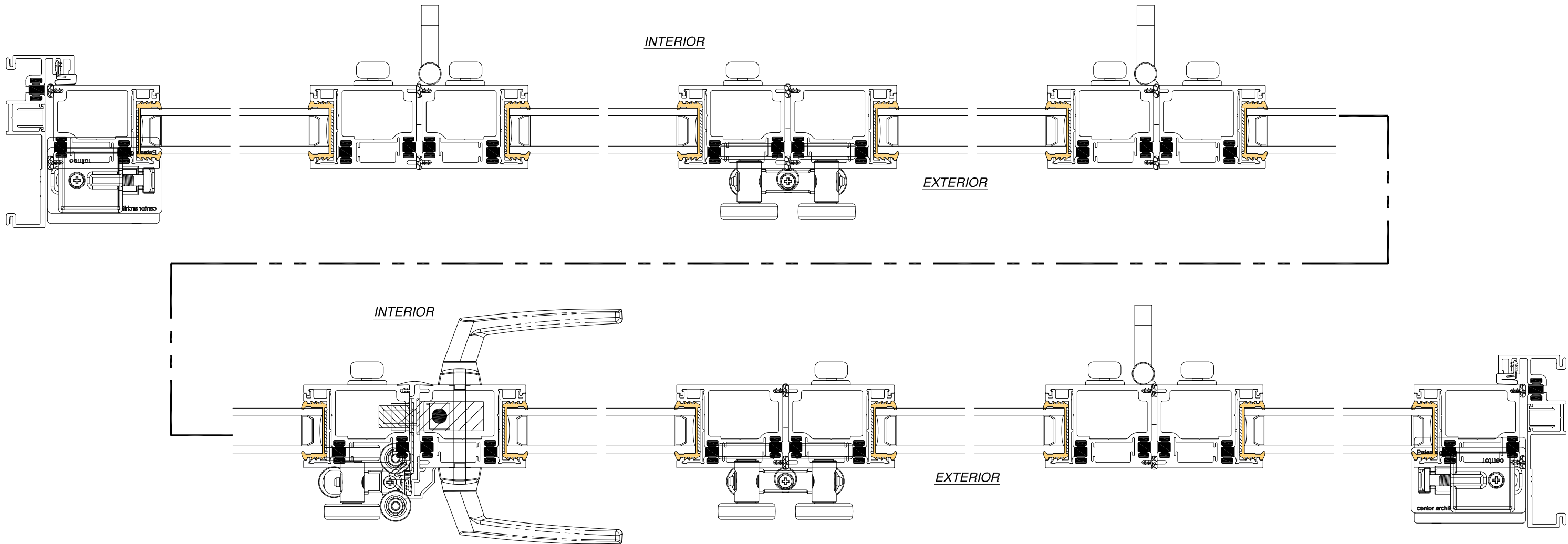
LANAI DOORS 941 NORTH ELM STREET, SUITE C ORANGE, CA 92867		
E+ ALUMINUM BI-FOLD OUT-SWING DOOR NON-IMPACT HVHZ ANCHORING DETAILS		
DRAWN: A.R.	DWG NO. 08-03620	REV -
SCALE NTS	DATE 09/24/2020	SHEET 3 OF 11
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		

SIGNED: 09/25/2020



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

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

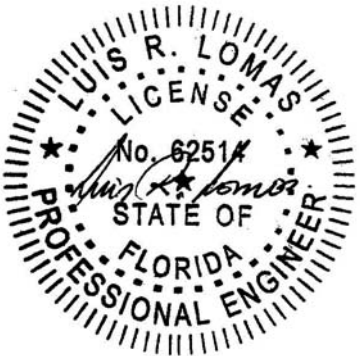


HORIZONTAL CROSS SECTION



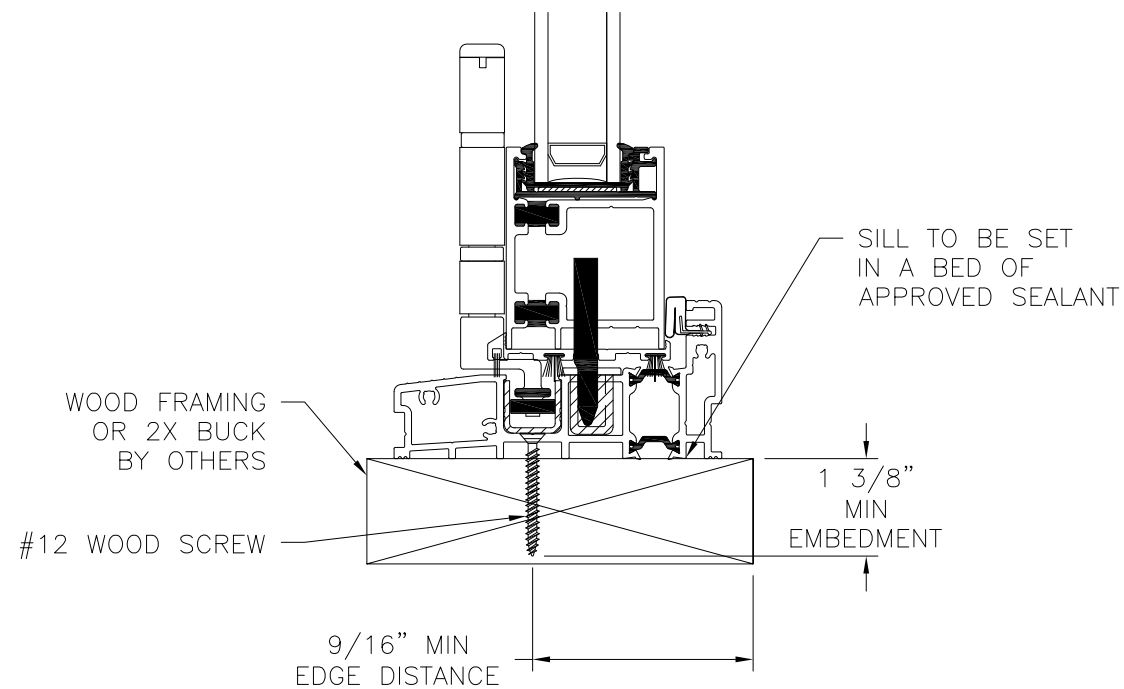
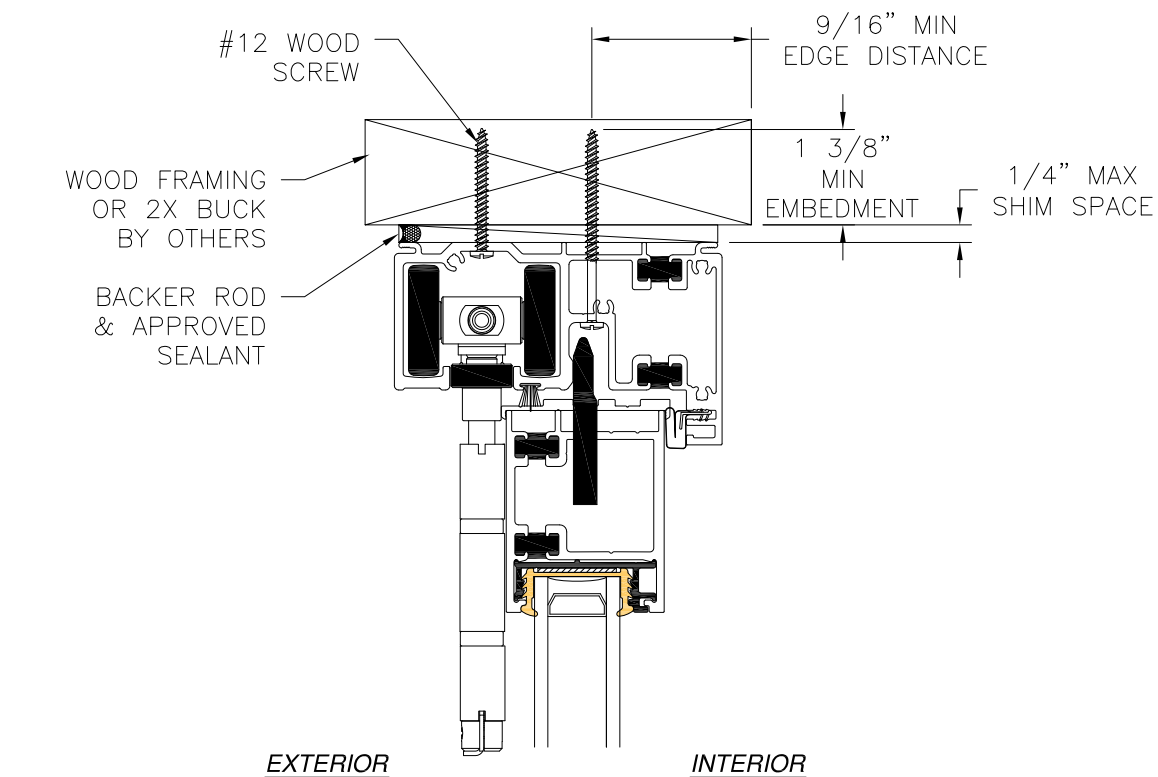
LANAI DOORS 941 NORTH ELM STREET, SUITE C ORANGE, CA 92867		
E+ ALUMINUM BI-FOLD OUT-SWING DOOR NON-IMPACT HVHZ HORIZONTAL CROSS SECTION		
DRAWN: A.R.	DWG NO. 08-03620	REV -
SCALE NTS	DATE 09/24/2020	SHEET 4 OF 11
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		

SIGNED: 09/25/2020

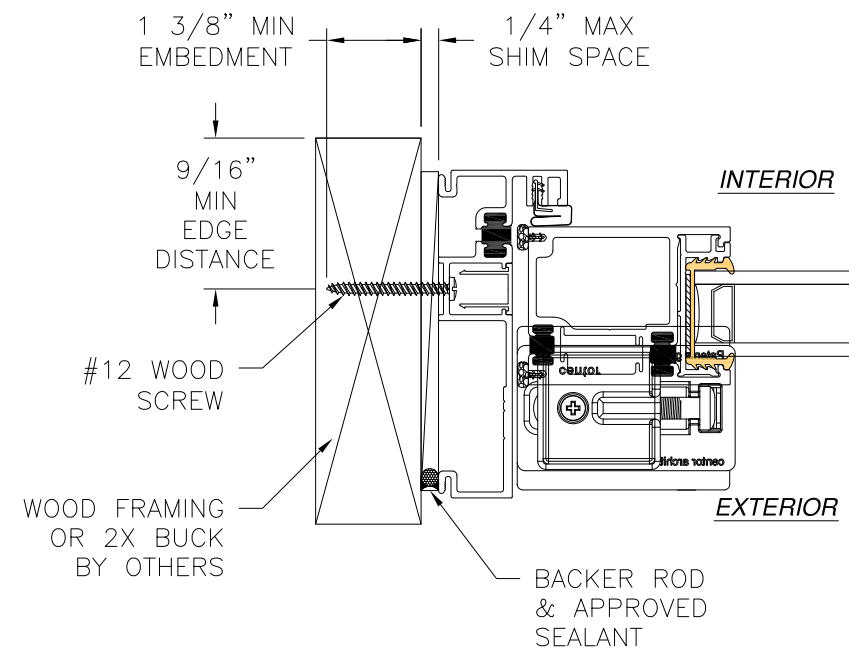


Luis R. Lomas P.E.
FL No.: 62514

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



VERTICAL CROSS SECTION
WOOD FRAMING OR 2X BUCK INSTALLATION



JAMB INSTALLATION DETAIL
WOOD FRAMING OR 2X BUCK INSTALLATION

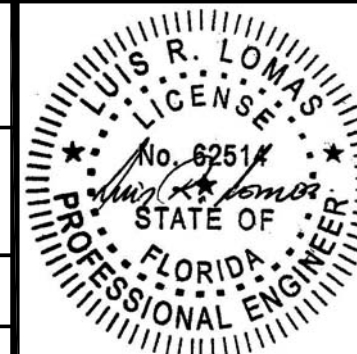
NOTES:

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



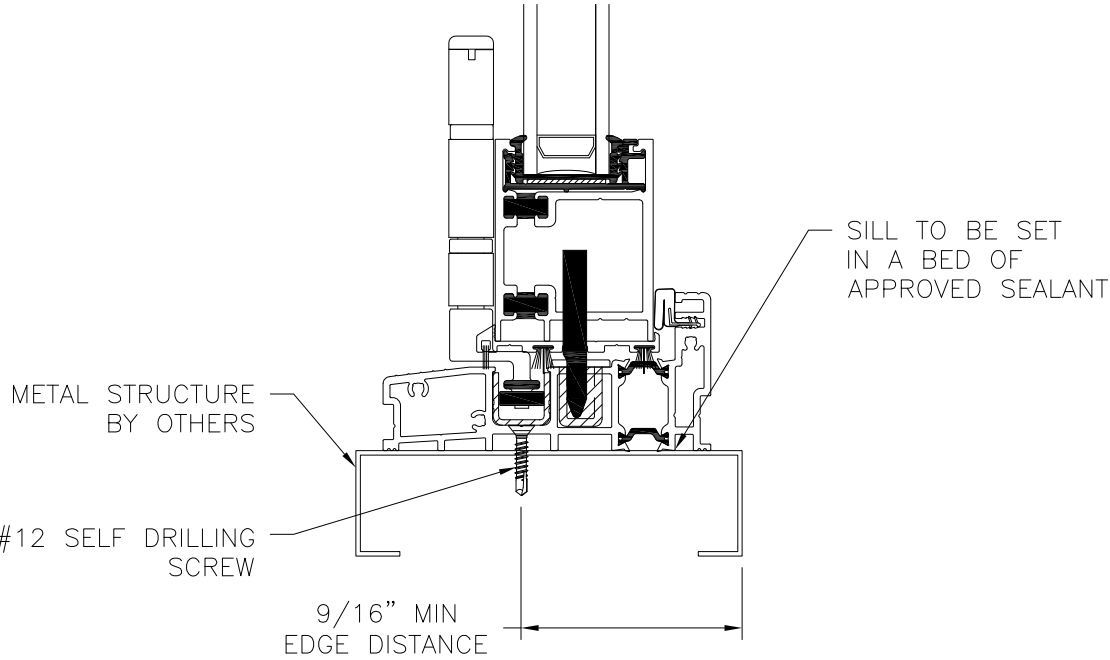
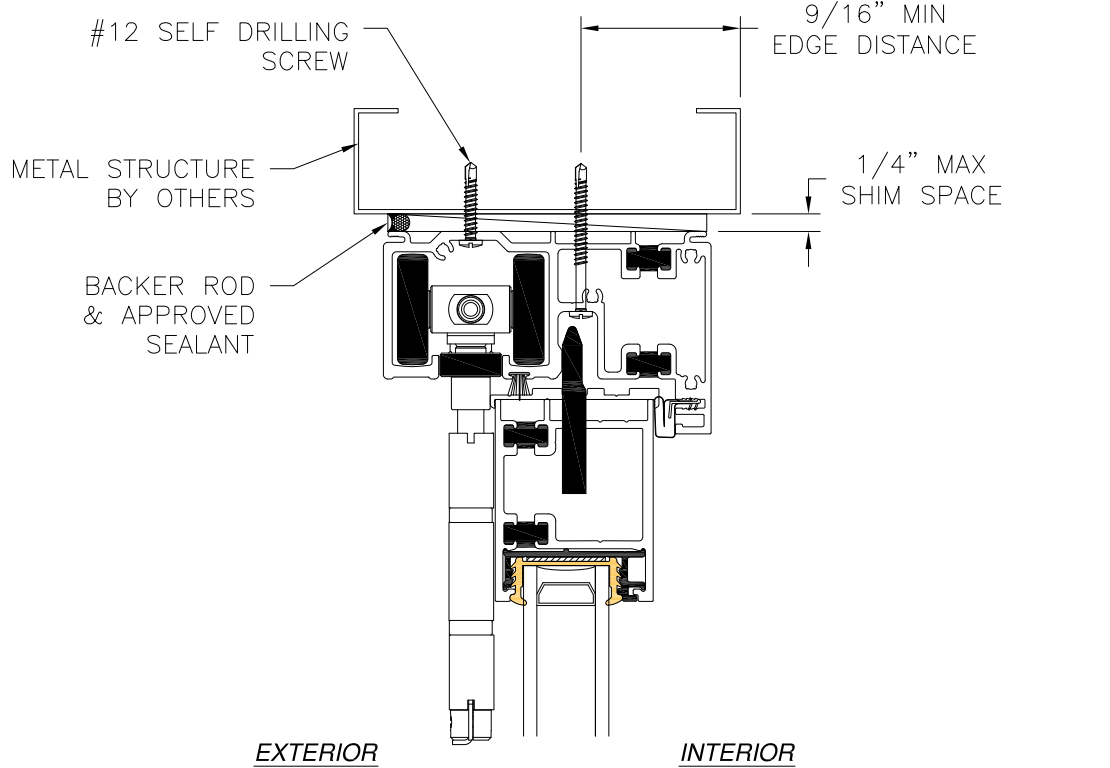
LANAI DOORS 941 NORTH ELM STREET, SUITE C ORANGE, CA 92867		
E+ ALUMINUM BI-FOLD OUT-SWING DOOR NON-IMPACT HVHZ INSTALLATION DETAILS STANDARD THRESHOLD		
DRAWN: A.R.	DWG NO. 08-03620	REV -
SCALE NTS	DATE 09/24/2020	SHEET 5 OF 11
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		

SIGNED: 09/25/2020

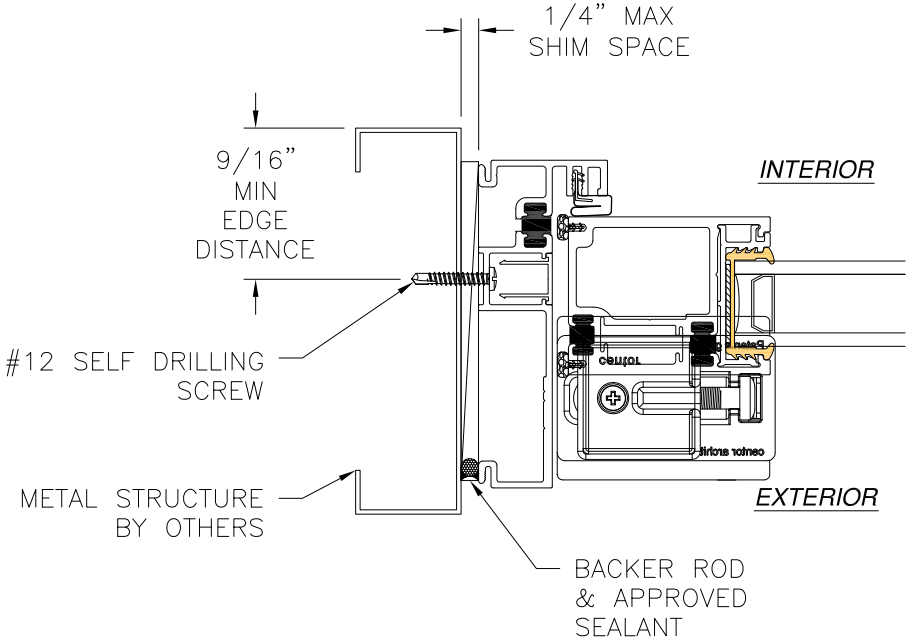


Luis R. Lomas P.E.
FL No.: 62514

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



VERTICAL CROSS SECTION
METAL STRUCTURE INSTALLATION



JAMB INSTALLATION DETAIL
METAL STRUCTURE 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

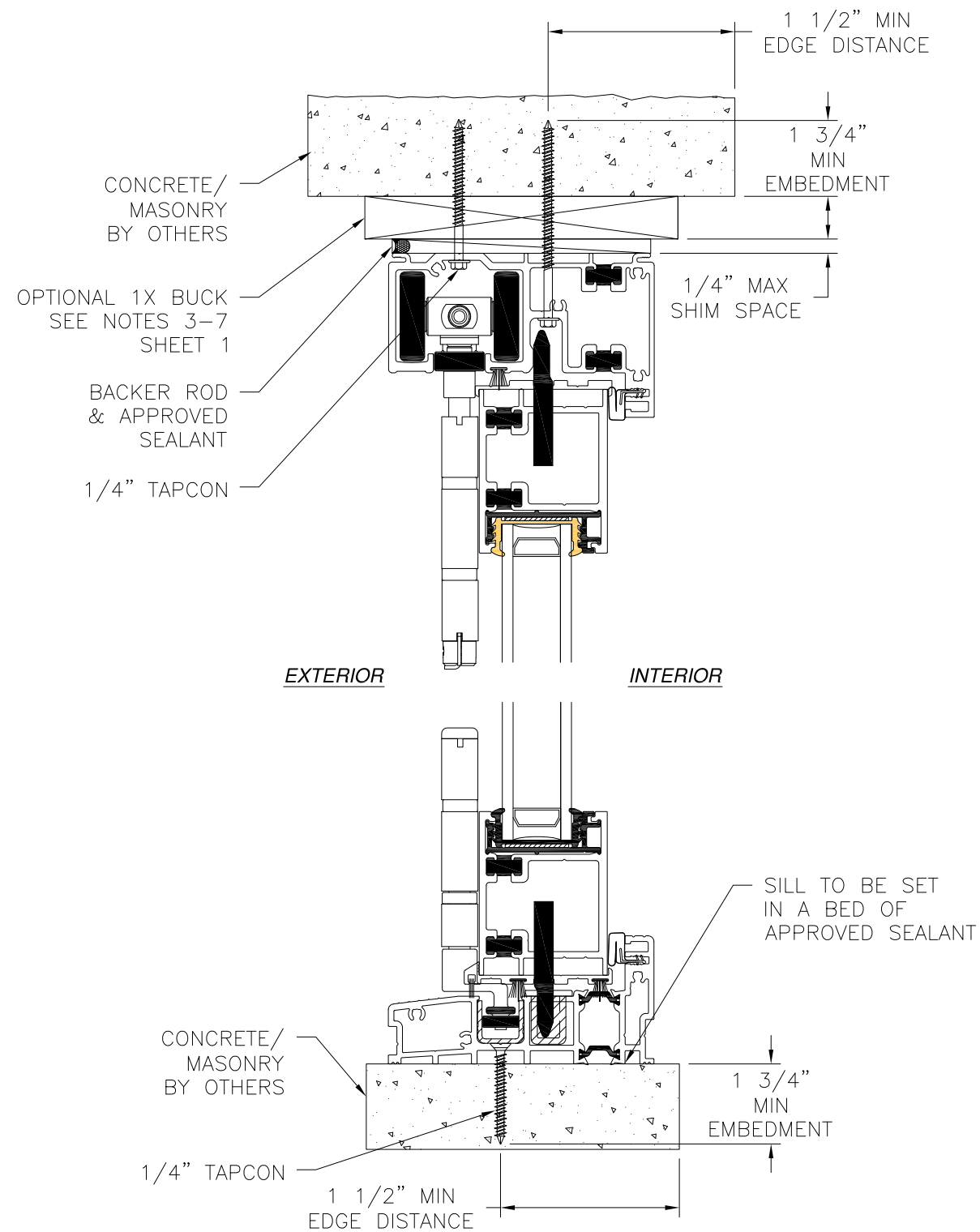


LANAI DOORS 941 NORTH ELM STREET, SUITE C ORANGE, CA 92867		
E+ ALUMINUM BI-FOLD OUT-SWING DOOR NON-IMPACT HVHZ INSTALLATION DETAILS STANDARD THRESHOLD		
DRAWN: A.R.	DWG NO. 08-03620	REV -
SCALE NTS	DATE 09/24/2020	SHEET 6 OF 11
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		

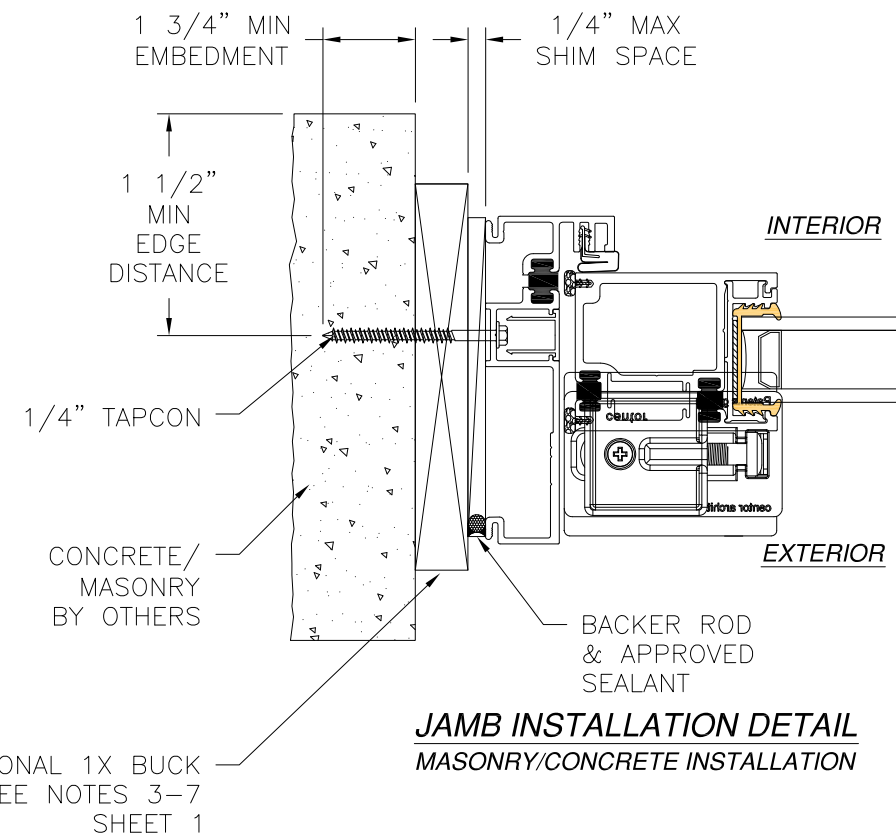
SIGNED: 09/25/2020



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



VERTICAL CROSS SECTION
CONCRETE/MASONRY INSTALLATION



JAMB INSTALLATION DETAIL
MASONRY/CONCRETE INSTALLATION

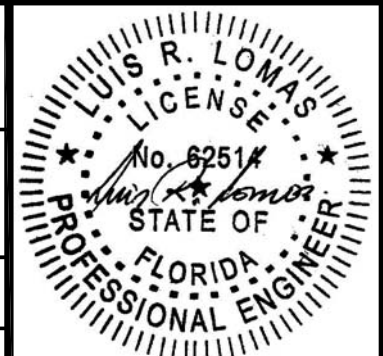
NOTES:

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



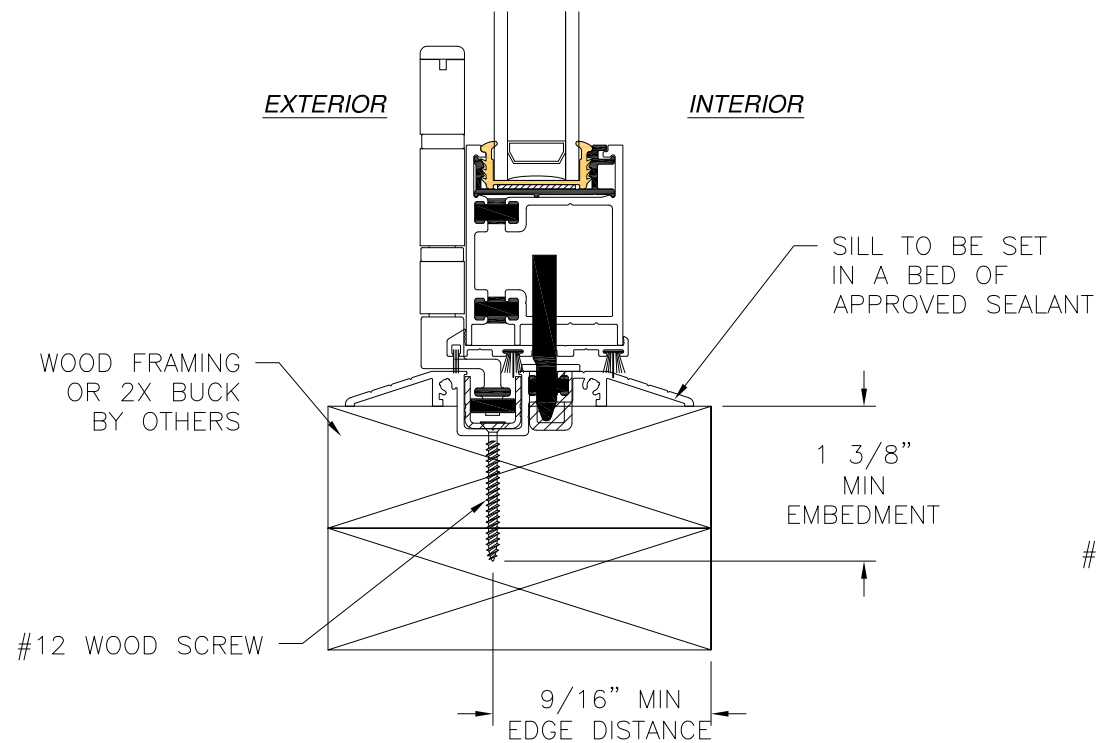
LANAI DOORS 941 NORTH ELM STREET, SUITE C ORANGE, CA 92867		
E+ ALUMINUM BI-FOLD OUT-SWING DOOR NON-IMPACT HVHZ INSTALLATION DETAILS STANDARD THRESHOLD		
DRAWN: A.R.	DWG NO. 08-03620	REV —
SCALE NTS	DATE 09/24/2020	SHEET 7 OF 11
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		

SIGNED: 09/25/2020

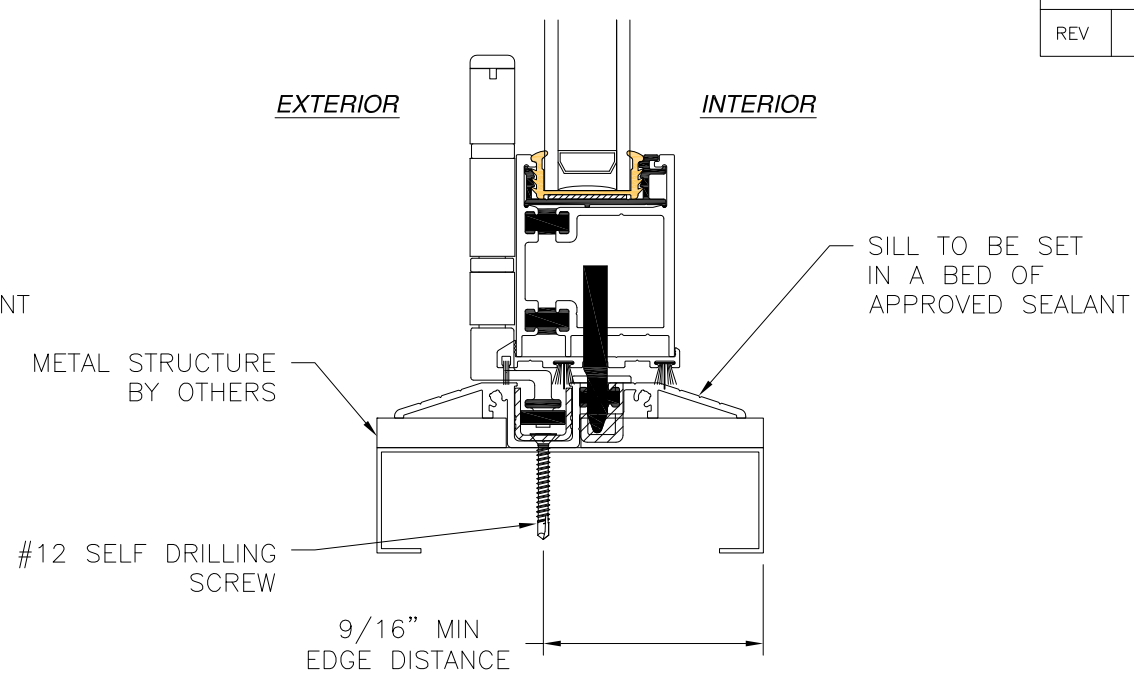


Luis R. Lomas P.E.
FL No.: 62514

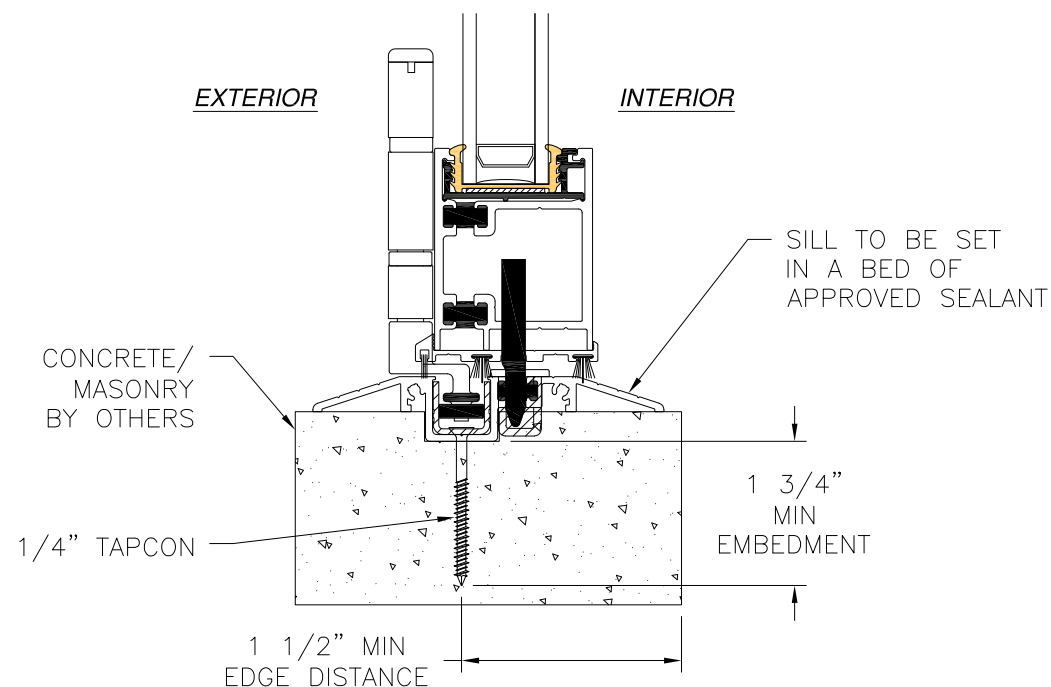
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



LOW RISE THRESHOLD
WOOD FRAMING OR 2X BUCK INSTALLATION



LOW RISE THRESHOLD
METAL STRUCTURE INSTALLATION



LOW RISE THRESHOLD
CONCRETE/MASONRY INSTALLATION

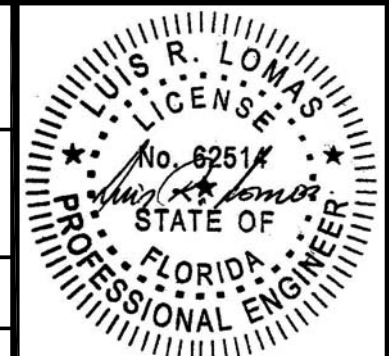
NOTES:

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



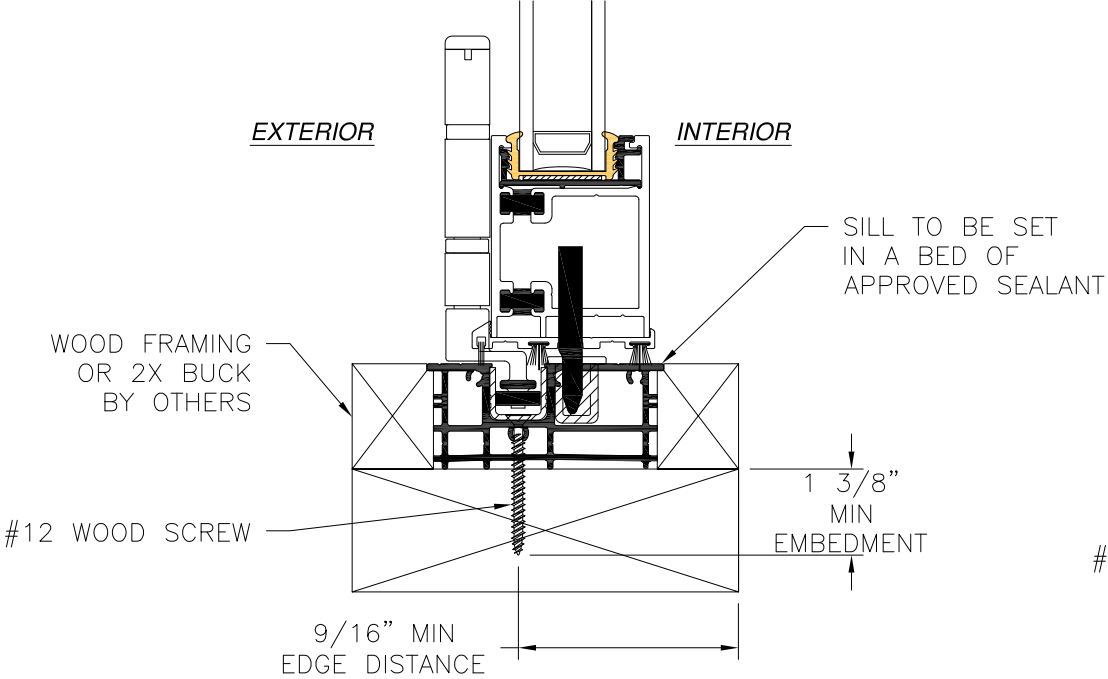
LANAI DOORS 941 NORTH ELM STREET, SUITE C ORANGE, CA 92867		
E+ ALUMINUM BI-FOLD OUT-SWING DOOR NON-IMPACT HVHZ INSTALLATION DETAILS LOW RISE THRESHOLD		
DRAWN: A.R.	DWG NO. 08-03620	REV -
SCALE NTS	DATE 09/24/2020	SHEET 8 OF 11
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		

SIGNED: 09/25/2020

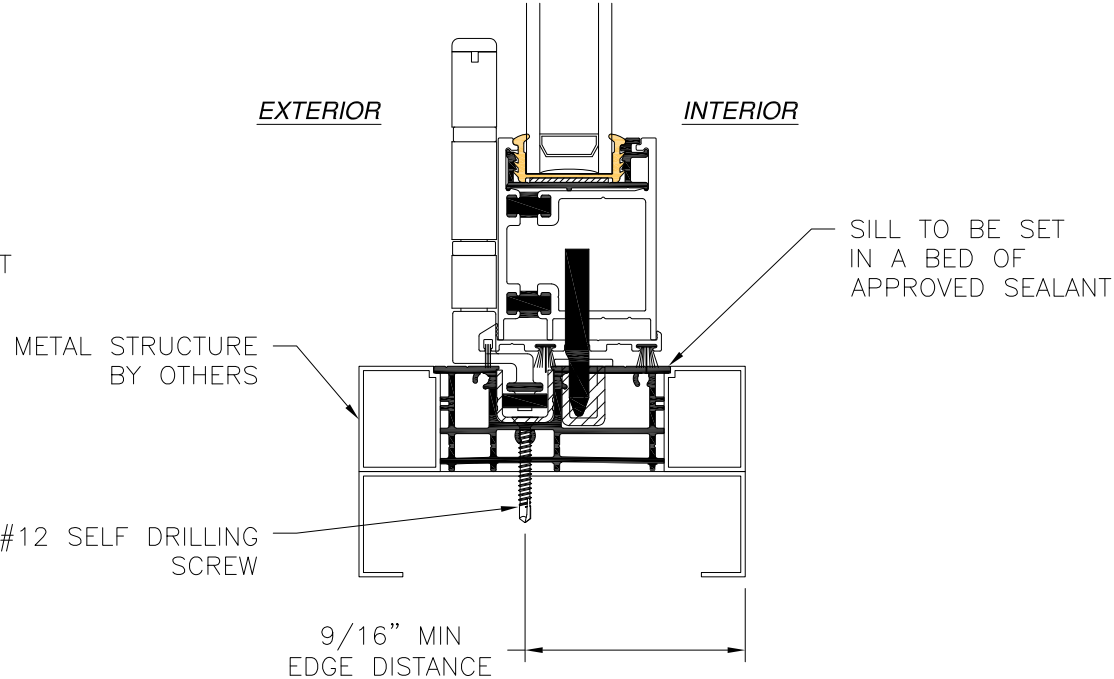


Luis R. Lomas P.E.
FL No.: 62514

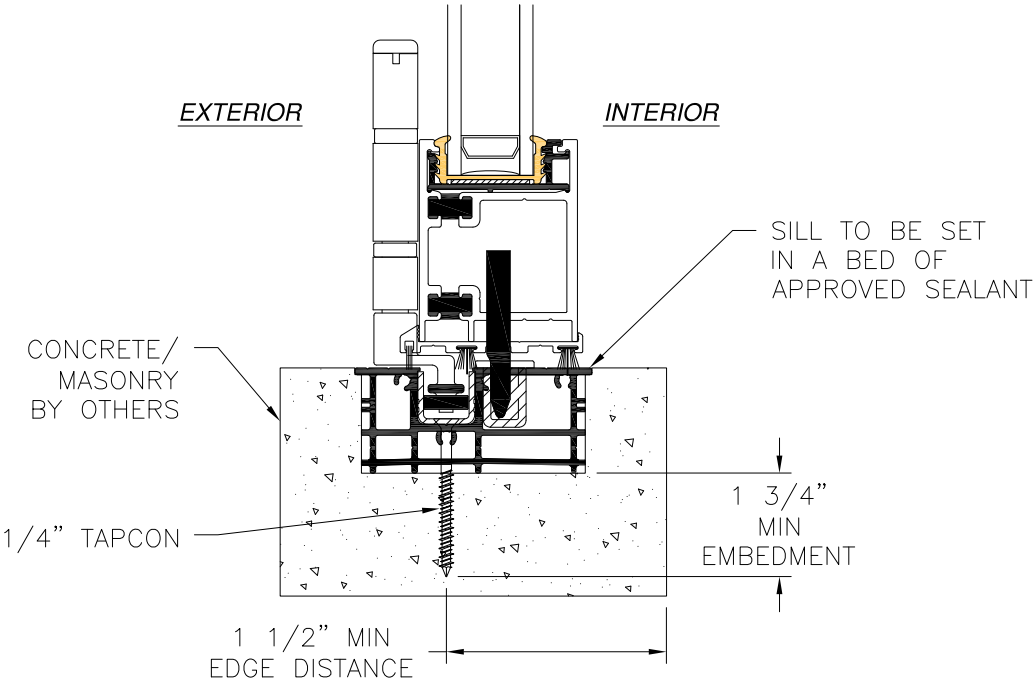
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



VERTICAL CROSS SECTION
WOOD FRAMING OR 2X BUCK INSTALLATION



VERTICAL CROSS SECTION
METAL STRUCTURE INSTALLATION



VERTICAL CROSS SECTION
CONCRETE/MASONRY 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

941 NORTH ELM STREET, SUITE C
ORANGE, CA 92867

E+ ALUMINUM BI-FOLD OUT-SWING DOOR
NON-IMPACT HVHZ
INSTALLATION DETAILS FLUSH THRESHOLD

DRAWN: A.R.

DWG NO. 08-03620

REV -

SCALE NTS

DATE 09/24/2020

SHEET 9 OF 11

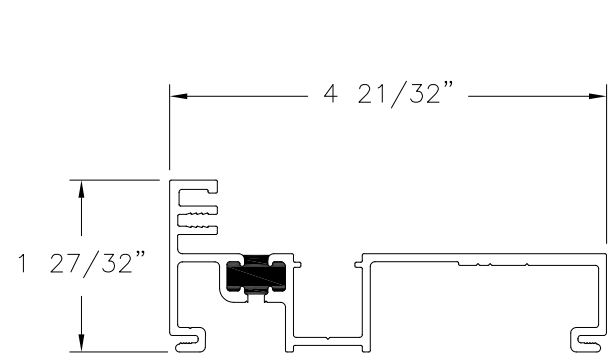
L. ROBERTO LOMAS P.E.

1432 WOODFORD RD LEWISVILLE, NC 27023

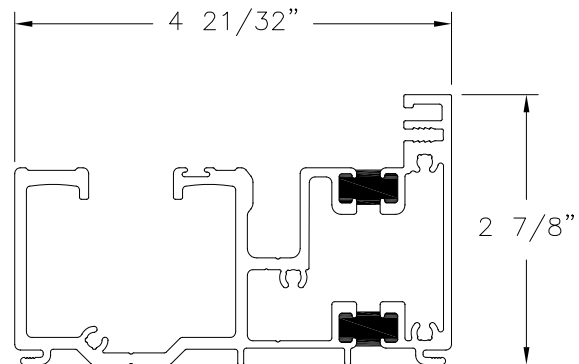
434-688-0609 rllomas@lrlomaspe.com

SIGNED: 09/25/2020

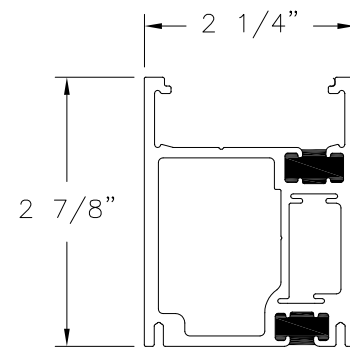
Luis R. Lomas P.E.
FL No.: 62514



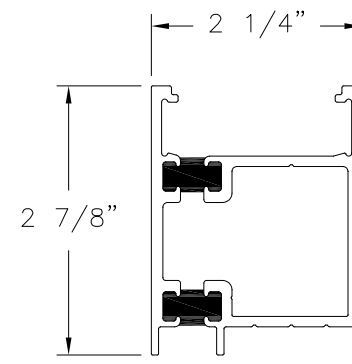
JAMB FRAME
ALUMINUM 6063-T5



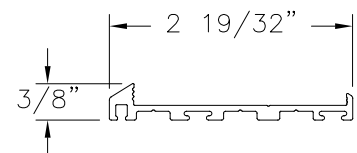
HEAD FRAME
ALUMINUM 6063-T5



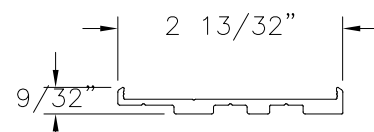
STILE
ALUMINUM 6063-T5



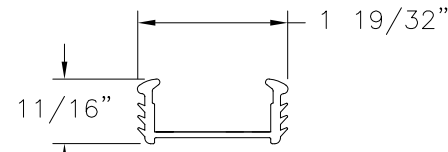
TOP/BOTTOM RAIL
ALUMINUM 6063-T5



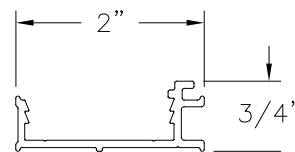
DOOR BOOT
ALUMINUM 6063-T5



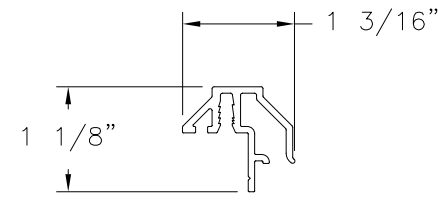
DOOR CAP
ALUMINUM 6063-T5



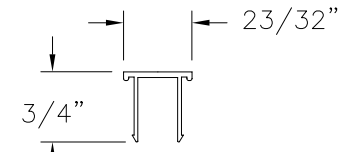
GLAZING GASKET
SANTOPRENE



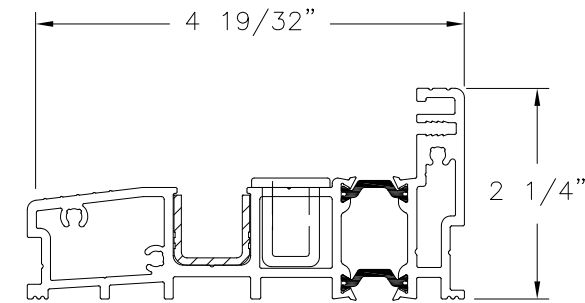
GLAZING CLIP
ALUMINUM 6063-T5



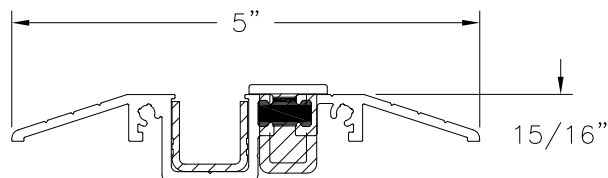
ASTRAGAL
ALUMINUM 6063-T5



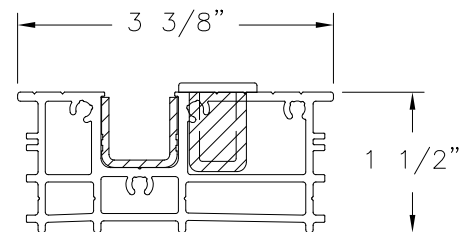
JAMB COVER
ALUMINUM 6063-T5



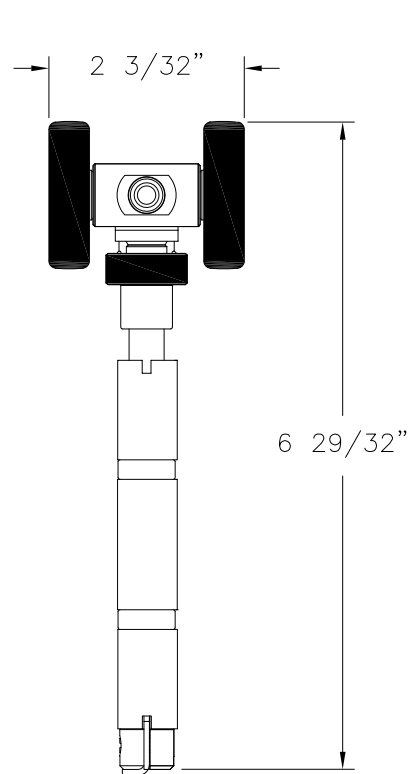
STANDARD THRESHOLD ASSY
ALUMINUM 6063-T5



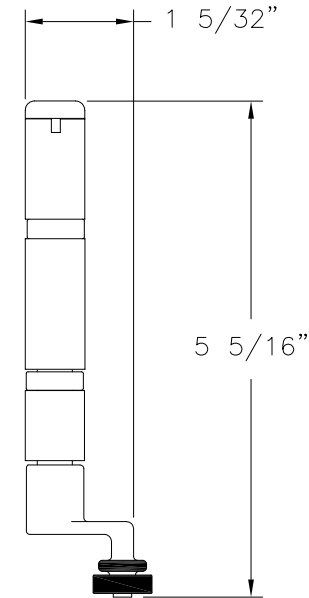
LOW RISE THRESHOLD ASSY
ALUMINUM 6063-T5



COMMERCIAL FLUSH THRESHOLD ASSY
ALUMINUM 6063-T5



CARRIAGE & HINGE ASSY



GUIDE & HINGE ASSY



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

SIGNED: 09/25/2020

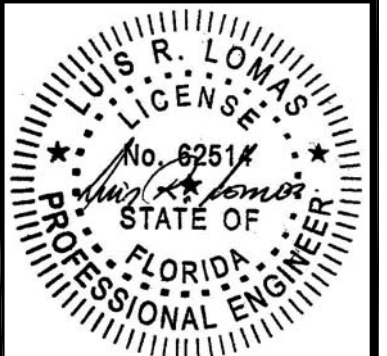
LANAI DOORS

941 NORTH ELM STREET, SUITE C
ORANGE, CA 92867

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

DRAWN: A.R.	DWG NO. 08-03620	REV -
SCALE NTS	DATE 09/24/2020	SHEET 10 OF 11

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



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