

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
D	REVISED DETAILS	04/22/26	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 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.
4. BUCKS SHALL EXTEND BEYOND UNIT FRAME INTERIOR FACE SO THAT FULL FRAME SUPPORT IS PROVIDED.
5. 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.
6. FRAME MATERIAL: EXTRUDED ALUMINUM 6063-T6.
7. UNITS MUST BE GLAZED PER ASTM E1300, WITH SAFETY GLASS.
8. APPROVED IMPACT PROTECTIVE SYSTEM IS REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.
9. SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH LOAD BEARING SHIM. SHIM WHERE SPACE OF 1/16" OR GREATER OCCURS. MAXIMUM ALLOWABLE SHIM STACK TO BE 3/8".

10. FOR ANCHORING INTO WOOD FRAMING OR 2X BUCK USE #10 OR #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.
11. FOR ANCHORING INTO MASONRY/CONCRETE USE 3/16" ELCO ULTRACON OR 1/4" ELCO CRETE-FLEX 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.
12. FOR ANCHORING INTO METAL STRUCTURE USE #10 OR #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.
13. ALL FASTENERS TO BE CORROSION RESISTANT.
14. 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 3,000 PSI.

C. MASONRY – STRENGTH CONFORMANCE TO ASTM C-90, GRADE N, TYPE 1 (OR GREATER).

D. METAL STRUCTURE: STEEL 18GA, 33KSI OR ALUMINUM 6063-T5 .125" THICK MINIMUM

TABLE OF CONTENTS	
SHEET NO.	DESCRIPTION
1	NOTES
2	ELEVATION
3	DESIGN PRESSURE CHARTS
4	CROSS SECTIONS
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8	COMPONENTS

SOLAR INNOVATIONS, INC.

31 ROBERTS RD
PINE GROVE, PA 17963

SERIES SI2100 PIVOT HINGED
ALUMINUM DOOR NON-IMPACT
NOTES

DRAWN:
V.L.

DWG NO.
08-01826

REV
D

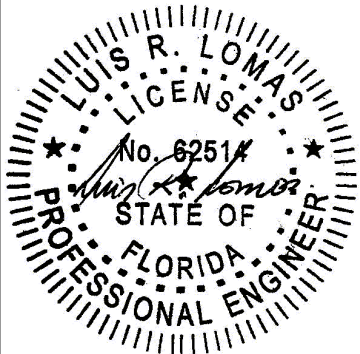
SCALE NTS

DATE 10/17/12

SHEET 1 OF 8

L. ROBERTO LOMAS P.E.
208 7th Ave, INDIALANTIC, FL 32903
434-688-0609 rllomas@lrlomaspe.com

SIGNED: 04/22/2026



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

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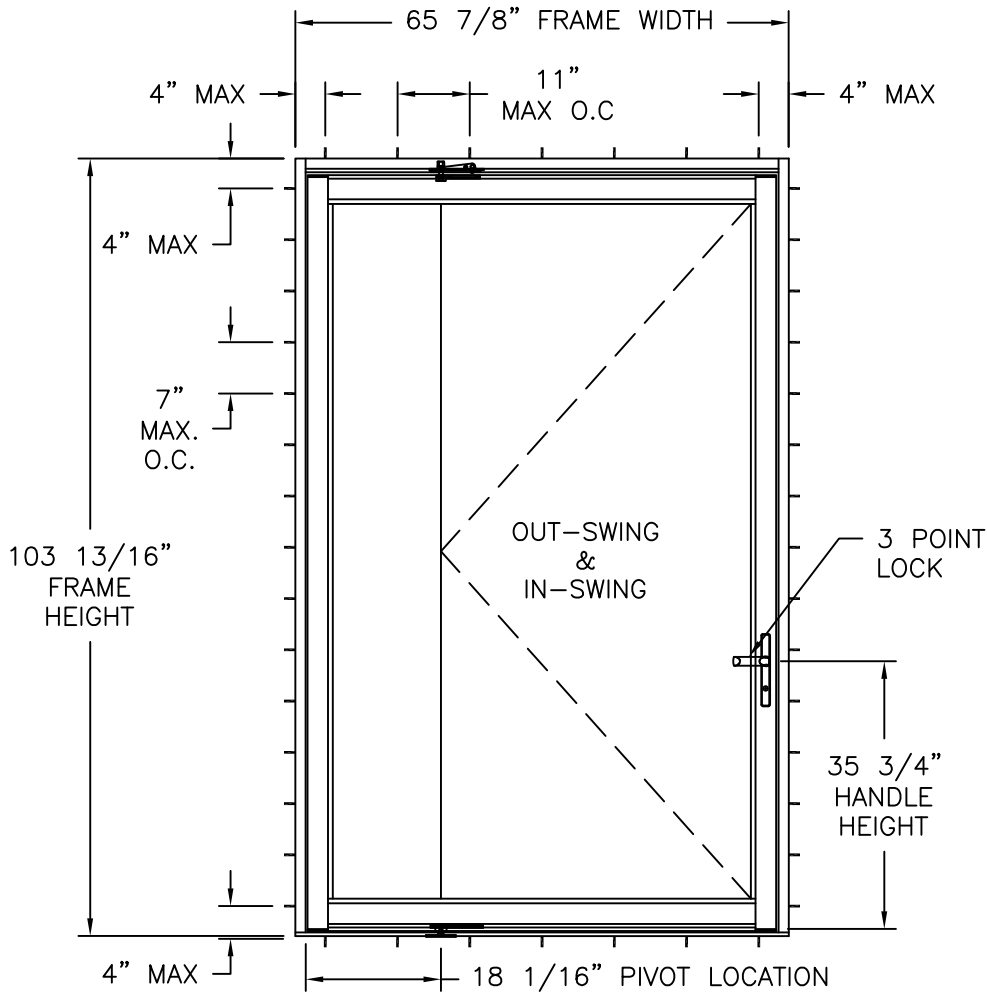
- NOTES:
- PANEL SIZE: 62 9/16" x 100 7/8"
 - D.L.O. SIZE: 57 1/16" x 92 3/4"

DESIGN PRESSURE RATING	IMPACT RATING
±30PSF	NONE
THIS SYSTEM WAS NOT TESTED FOR WATER INFILTRATION AND IS TO BE INSTALLED ONLY WHERE THE WATER REQUIREMENT IS NOT NEEDED	

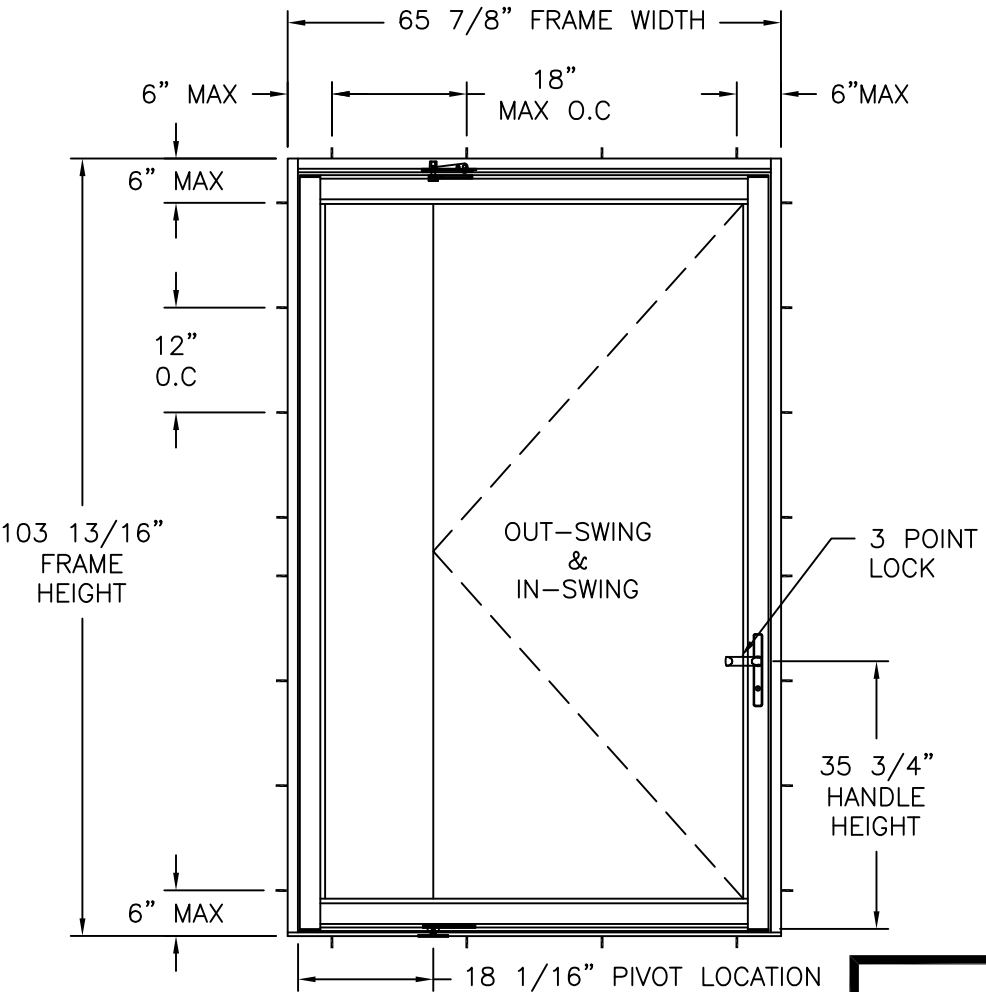
WITHOUT THROW BOLT, SEE CHART #1 SHEET 3

DESIGN PRESSURE RATING	IMPACT RATING
+100.0/-80.0PSF	NONE
THIS SYSTEM WAS NOT TESTED FOR WATER INFILTRATION AND IS TO BE INSTALLED ONLY WHERE THE WATER REQUIREMENT IS NOT NEEDED	

WITH THROW BOLT, SEE CHART #2 SHEET 3



SI2100 PIVOT HINGED ALUMINUM DOOR
EXTERIOR VIEW
WITH #10 ANCHORS AND 3/16" ELCO ULTRACON



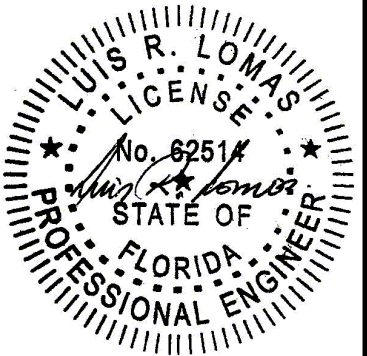
SI2100 PIVOT HINGED ALUMINUM DOOR
EXTERIOR VIEW
WITH #14 ANCHORS AND 1/4" ELCO CRETE-FLEX

65 7/8" X 103 13/16" UNIT SHOWN. OTHER SIZES APPROVED AS LONG AS
FRAME AREA DOES NOT EXCEED 47.49 FT²

HARDWARE SCHEDULE	
A.	(1) MULTI-POINT LOCK AND HANDLE ASSEMBLY
B.	METAL THUMB-ACTUATED THROW BOLT
C.	SINGLE RIXSON PIVOT HARDWARE

SOLAR INNOVATIONS, INC. 31 ROBERTS RD PINE GROVE, PA 17963		
SERIES SI2100 PIVOT HINGED ALUMINUM DOOR NON-IMPACT ELEVATION		
DRAWN: V.L.	DWG NO. 08-01826	REV D
SCALE NTS	DATE 10/17/12	SHEET 2 OF 8
L. ROBERTO LOMAS P.E. 208 7th Ave, INDIALANTIC, FL 32903 434-688-0609 rllomas@lrlomaspe.com		

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CHART #1

Maximum design pressure capacity chart (psf)																					
Frame Height (in)	Frame width (in)																				
	24.0		30.0		36.0		42.0		48.0		54.0		60.0		62.56		66.0		72.0		
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	
78.0	45.0	45.0	45.0	45.0	45.0	45.0	42.2	42.2	39.0	39.0	36.7	36.7	35.1	35.1	34.6	34.6	34.0	34.0	33.4	33.4	
80.0	45.0	45.0	45.0	45.0	45.0	45.0	41.8	41.8	38.5	38.5	36.2	36.2	34.5	34.5	34.0	34.0	33.4	33.4	32.7	32.7	
84.0	45.0	45.0	45.0	45.0	45.0	45.0	41.1	41.1	37.8	37.8	35.3	35.3	33.6	33.6	33.0	33.0	32.3	32.3	31.3	31.3	
90.0	45.0	45.0	45.0	45.0	45.0	45.0	40.2	40.2	36.8	36.8	34.3	34.3	32.4	32.4	31.7	31.7	31.0	31.0	-	-	
96.0	45.0	45.0	45.0	45.0	44.3	44.3	39.5	39.5	36.0	36.0	33.4	33.4	31.4	31.4	30.7	30.7	-	-	-	-	
100.88	45.0	45.0	45.0	45.0	43.8	43.8	38.9	38.9	35.4	35.4	32.7	32.7	30.7	30.7	30.0	30.0	-	-	-	-	
102.0	45.0	45.0	45.0	45.0	43.7	43.7	38.8	38.8	35.3	35.3	32.6	32.6	30.6	30.6	-	-	-	-	-	-	
108.0	45.0	45.0	45.0	45.0	43.2	43.2	38.3	38.3	34.7	34.7	32.0	32.0	-	-	-	-	-	-	-	-	
114.0	45.0	45.0	45.0	45.0	42.7	42.7	37.8	37.8	34.2	34.2	30.8	30.8	-	-	-	-	-	-	-	-	
120.0	45.0	45.0	45.0	45.0	42.3	42.3	37.4	37.4	32.9	32.9	-	-	-	-	-	-	-	-	-	-	
126.0	45.0	45.0	45.0	45.0	41.7	41.7	35.8	35.8	31.3	31.3	-	-	-	-	-	-	-	-	-	-	
132.0	45.0	45.0	45.0	45.0	39.8	39.8	34.2	34.2	-	-	-	-	-	-	-	-	-	-	-	-	
138.0	45.0	45.0	45.0	45.0	38.1	38.1	32.7	32.7	-	-	-	-	-	-	-	-	-	-	-	-	
144.0	45.0	45.0	43.8	43.8	36.5	36.5	31.3	31.3	-	-	-	-	-	-	-	-	-	-	-	-	

CHART #2

Maximum design pressure capacity chart (psf)																					
Frame Height (in)	Frame width (in)																				
	24.0		30.0		36.0		42.0		48.0		54.0		60.0		62.56		66.0		72.0		
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	
78.0	150.0	120.0	150.0	120.0	150.0	120.0	140.6	120.0	129.9	120.0	122.2	119.9	116.9	107.9	115.2	103.5	113.4	98.1	111.3	89.9	
80.0	150.0	120.0	150.0	120.0	150.0	120.0	139.3	120.0	128.5	120.0	120.6	116.9	115.1	105.2	113.3	100.9	111.3	95.6	109.0	87.7	
84.0	150.0	120.0	150.0	120.0	150.0	120.0	137.0	120.0	125.9	120.0	117.8	111.3	111.9	100.2	109.9	96.1	107.7	91.1	104.3	83.5	
90.0	150.0	120.0	150.0	120.0	149.9	120.0	134.0	120.0	122.6	116.9	114.2	103.9	107.9	93.5	105.7	89.7	103.3	85.0	-	-	
96.0	150.0	120.0	150.0	120.0	147.6	120.0	131.5	120.0	119.9	109.6	111.2	97.4	104.6	87.7	102.3	84.1	-	-	-	-	
100.88	150.0	120.0	150.0	120.0	145.9	120.0	129.8	119.2	118.0	104.3	109.1	92.7	102.4	83.4	100.0	80.0	-	-	-	-	
102.0	150.0	120.0	150.0	120.0	145.6	120.0	129.4	117.9	117.6	103.1	108.7	91.7	101.9	82.5	-	-	-	-	-	-	
108.0	150.0	120.0	150.0	120.0	143.9	120.0	127.6	111.3	115.6	97.4	106.6	86.6	-	-	-	-	-	-	-	-	
114.0	150.0	120.0	150.0	120.0	142.4	120.0	126.0	105.4	113.9	92.3	102.5	82.0	-	-	-	-	-	-	-	-	
120.0	150.0	120.0	150.0	120.0	141.1	116.9	124.6	100.2	109.6	87.7	-	-	-	-	-	-	-	-	-	-	
126.0	150.0	120.0	150.0	120.0	139.1	111.3	119.3	95.4	104.3	83.5	-	-	-	-	-	-	-	-	-	-	
132.0	150.0	120.0	150.0	120.0	132.8	106.2	113.8	91.1	-	-	-	-	-	-	-	-	-	-	-	-	
138.0	150.0	120.0	150.0	120.0	127.0	101.6	108.9	87.1	-	-	-	-	-	-	-	-	-	-	-	-	
144.0	150.0	120.0	146.1	116.9	121.7	97.4	104.3	83.5	-	-	-	-	-	-	-	-	-	-	-	-	

SIGNED: 04/22/2026

SOLAR INNOVATIONS, INC.

31 ROBERTS RD
PINE GROVE, PA 17963

SERIES SI2100 PIVOT HINGED
ALUMINUM DOOR NON-IMPACT
DESIGN PRESSURE CHARTS

DRAWN:
V.L.

DWG NO.
08-01826

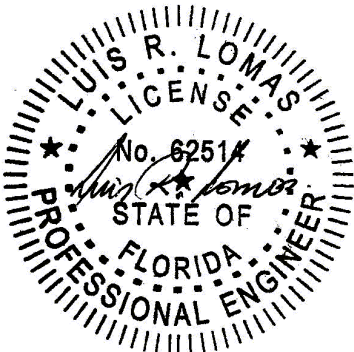
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SCALE NTS

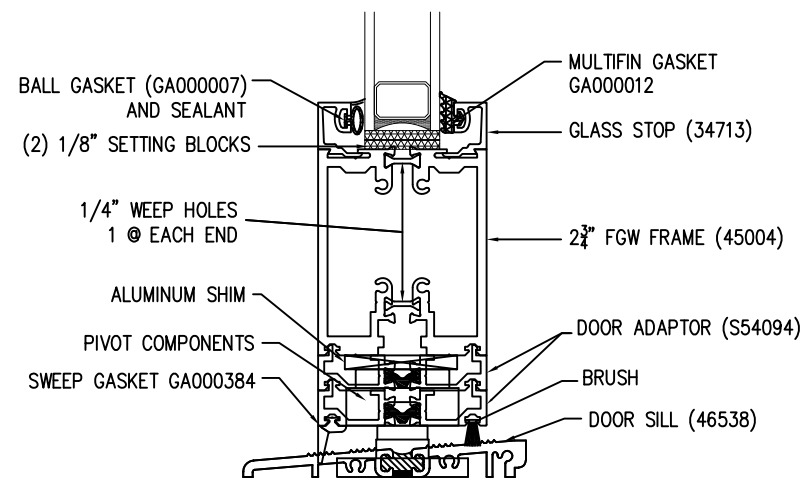
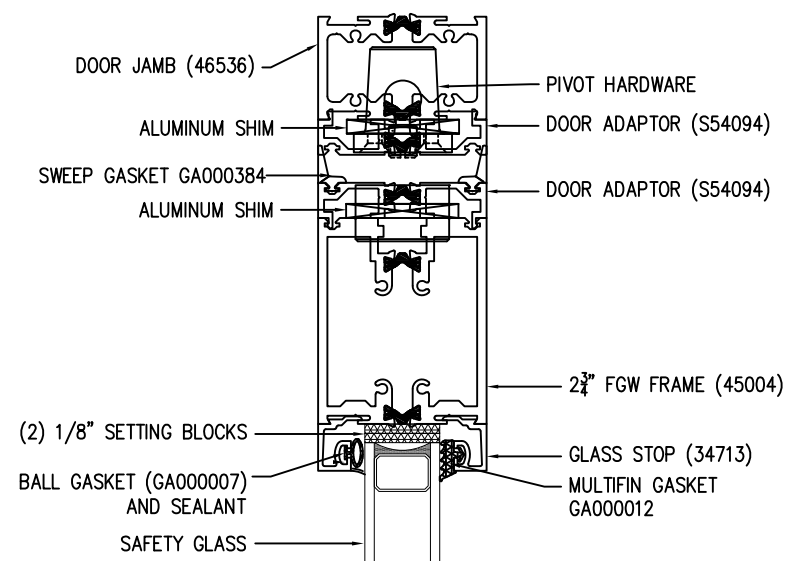
DATE 10/17/12

SHEET 3 OF 8

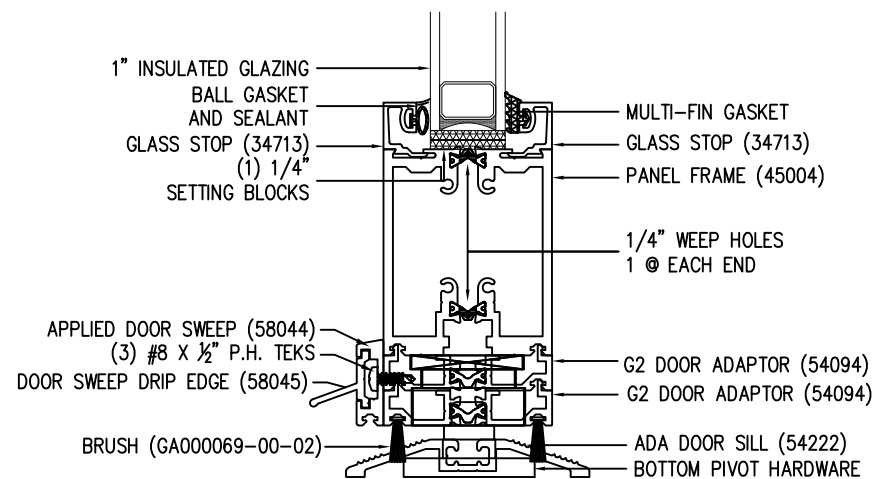
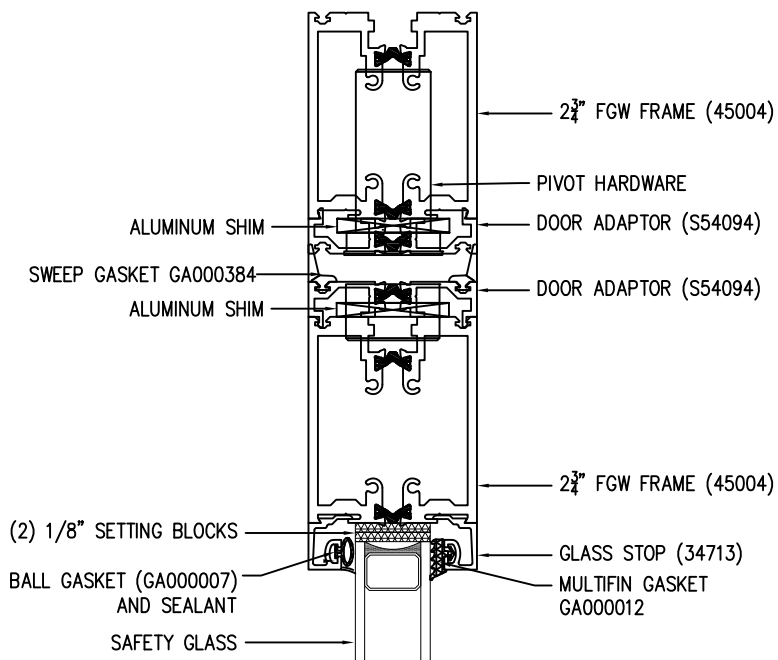
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Luis R. Lomas P.E.
FL No.: 62514

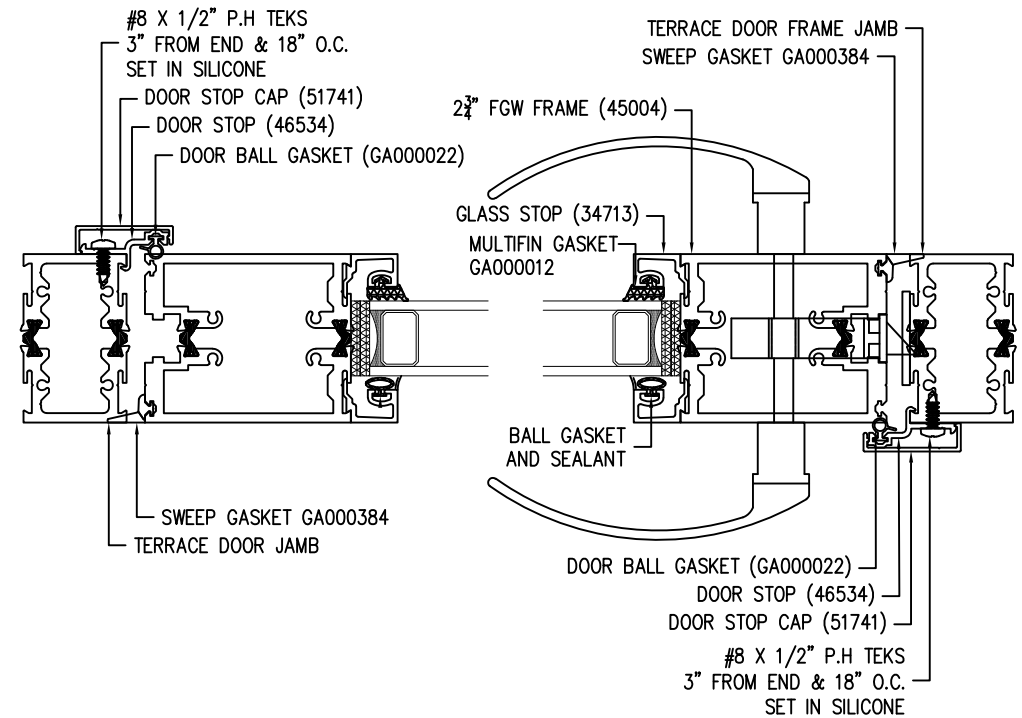


VERTICAL CROSS SECTION



VERTICAL CROSS SECTION, ALTERNATE
WITH 45004 HEAD FRAME
AND ADA SILL

REVISIONS			
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HORIZONTAL CROSS SECTION

SIGNED: 04/22/2026

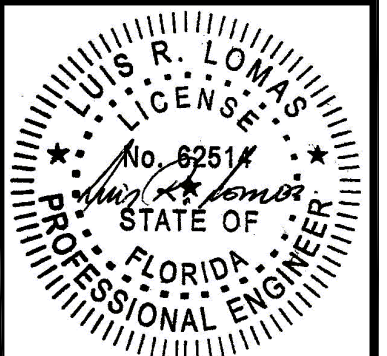
SOLAR INNOVATIONS, INC.

31 ROBERTS RD
PINE GROVE, PA 17963

SERIES SI2100 PIVOT HINGED
ALUMINUM DOOR NON-IMPACT
CROSS SECTIONS

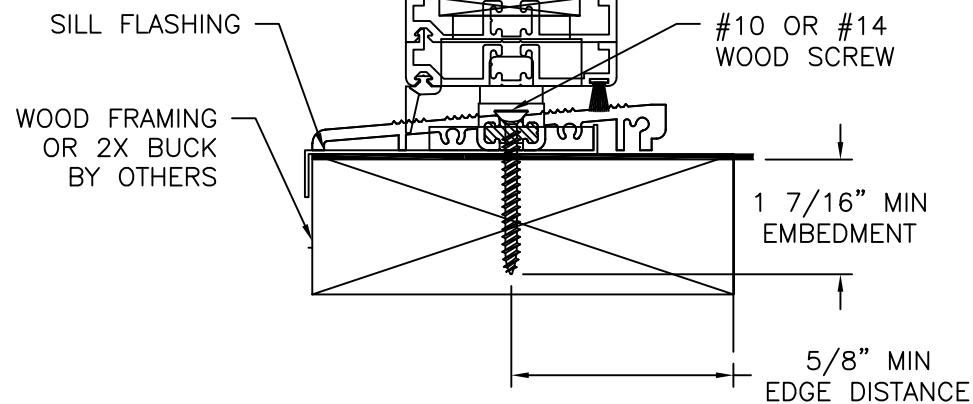
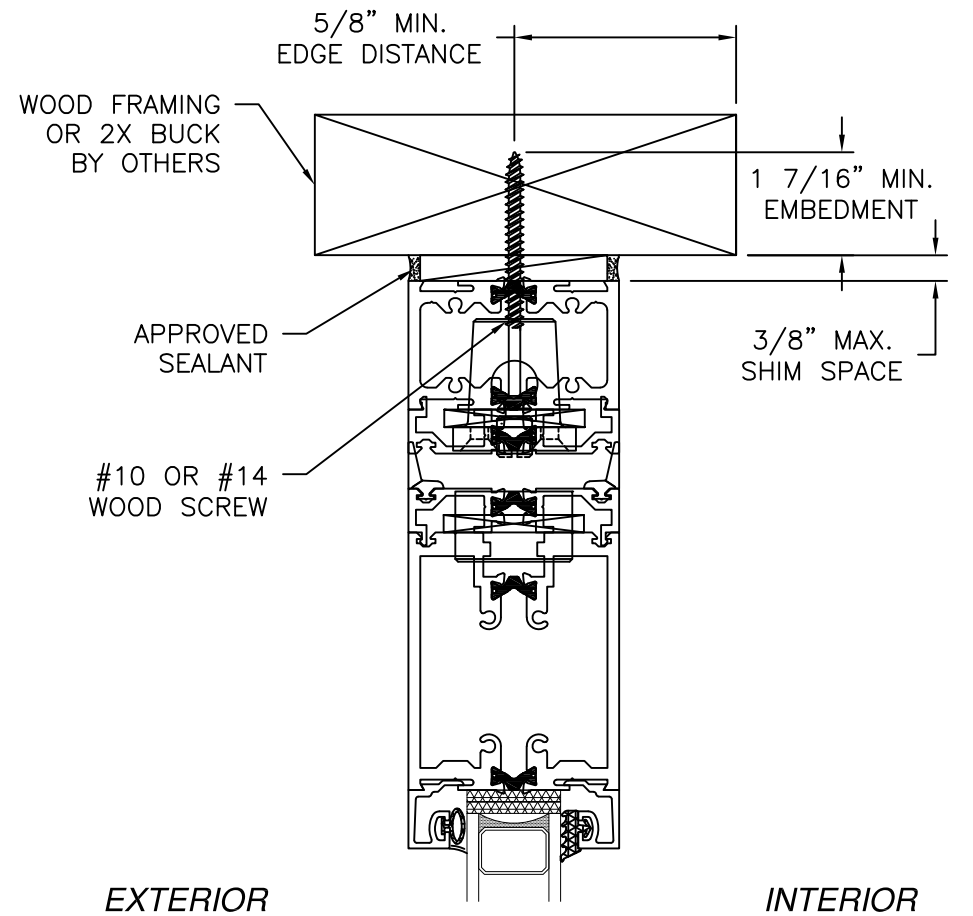
DRAWN: V.L.	DWG NO. 08-01826	REV D
SCALE NTS	DATE 10/17/12	SHEET 4 OF 8

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434-688-0609 rllomas@lrlomaspe.com

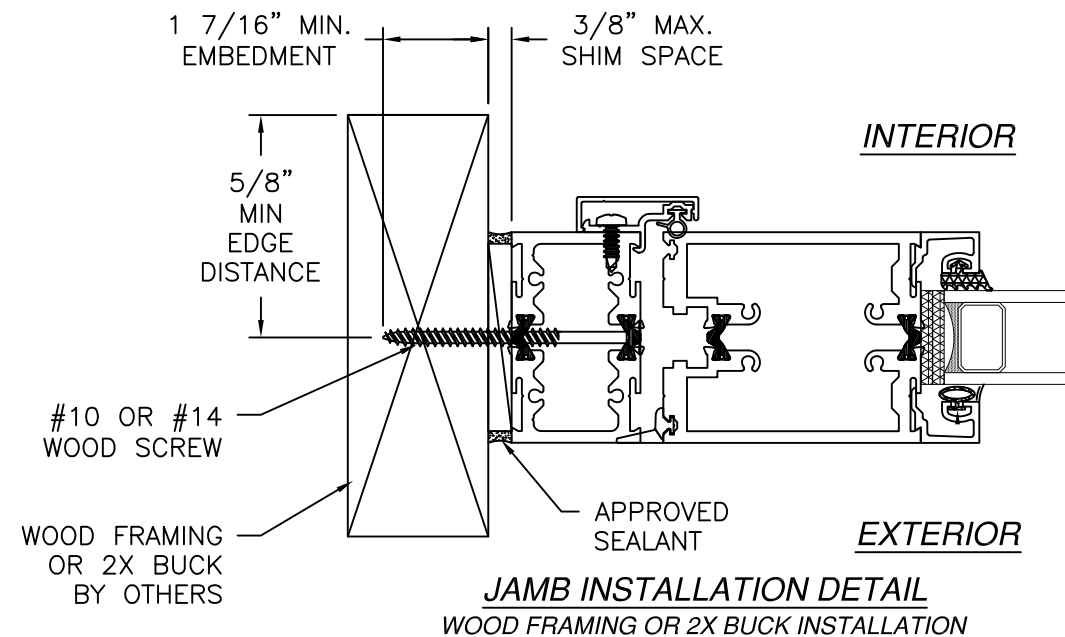


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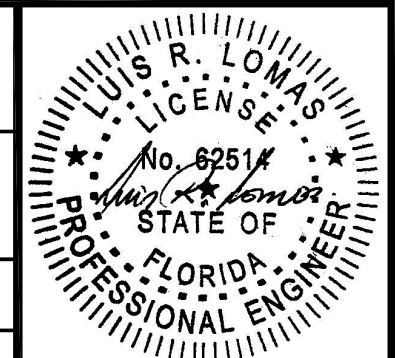
VERTICAL CROSS SECTION
WOOD FRAMING OR 2X BUCK INSTALLATION



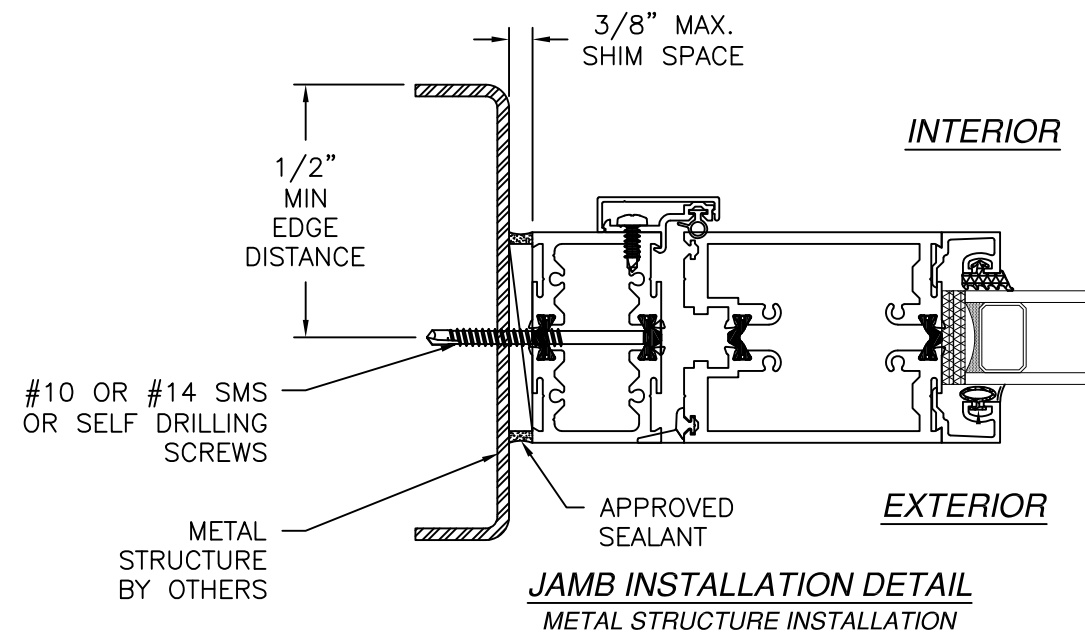
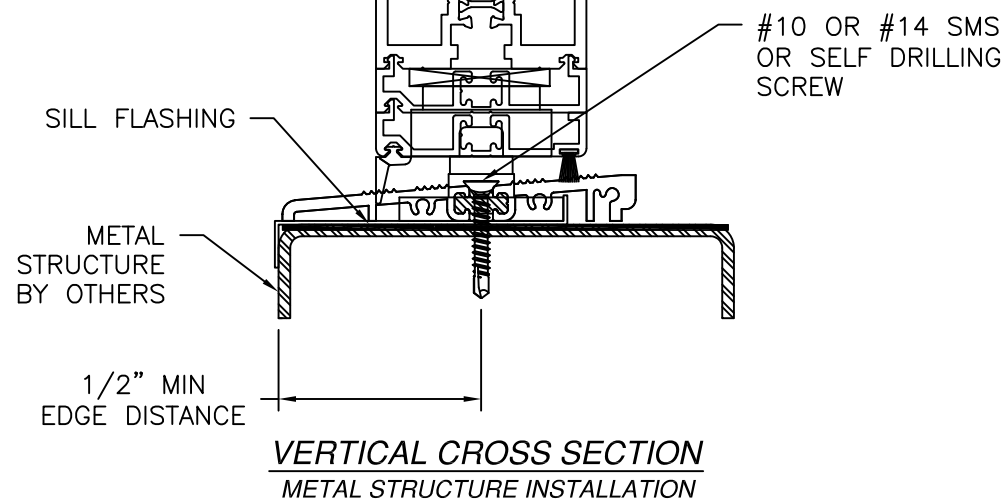
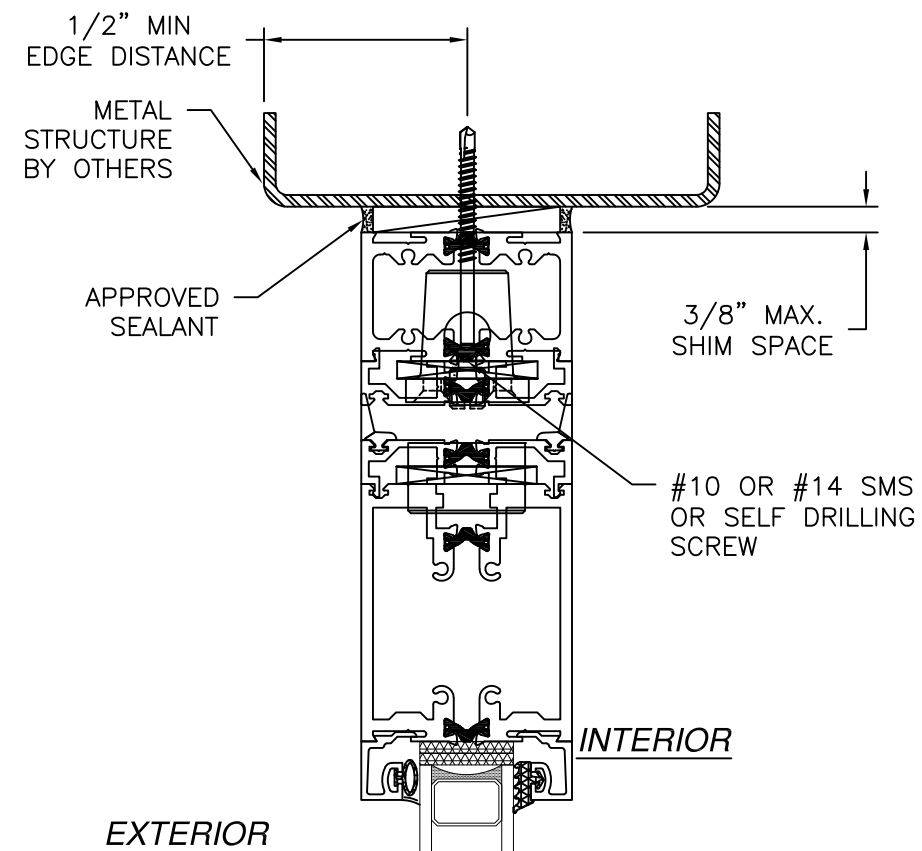
- NOTES:
1. INTERIOR AND EXTERIOR FINISHES, BY OTHERS, NOT SHOWN FOR CLARITY.
 2. PERIMETER AND JOINT SEALANT BY OTHERS TO BE DESIGNED IN ACCORDANCE WITH ASTM E2112

SIGNED: 04/22/2026

SOLAR INNOVATIONS, INC. 31 ROBERTS RD PINE GROVE, PA 17963		
SERIES SI2100 PIVOT HINGED ALUMINUM DOOR NON-IMPACT INSTALLATION DETAILS		
DRAWN: V.L.	DWG NO. 08-01826	REV D
SCALE NTS	DATE 10/17/12	SHEET 5 OF 8
L. ROBERTO LOMAS P.E. 208 7th Ave, INDIALANTIC, FL 32903 434-688-0609 rllomas@lrlomaspe.com		



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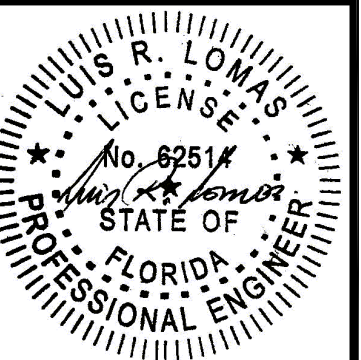


- NOTES:
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 2. PERIMETER AND JOINT SEALANT BY OTHERS TO BE DESIGNED IN ACCORDANCE WITH ASTM E2112

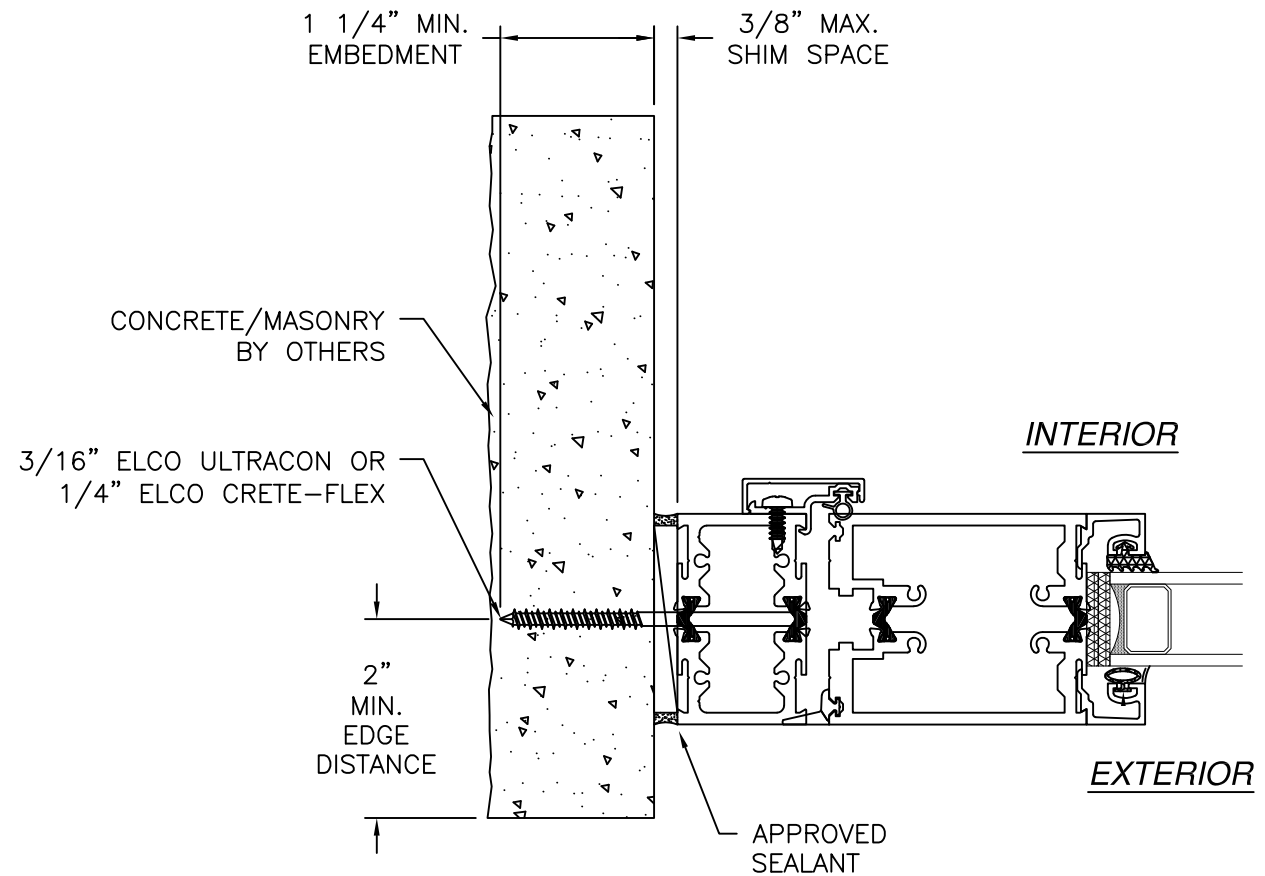
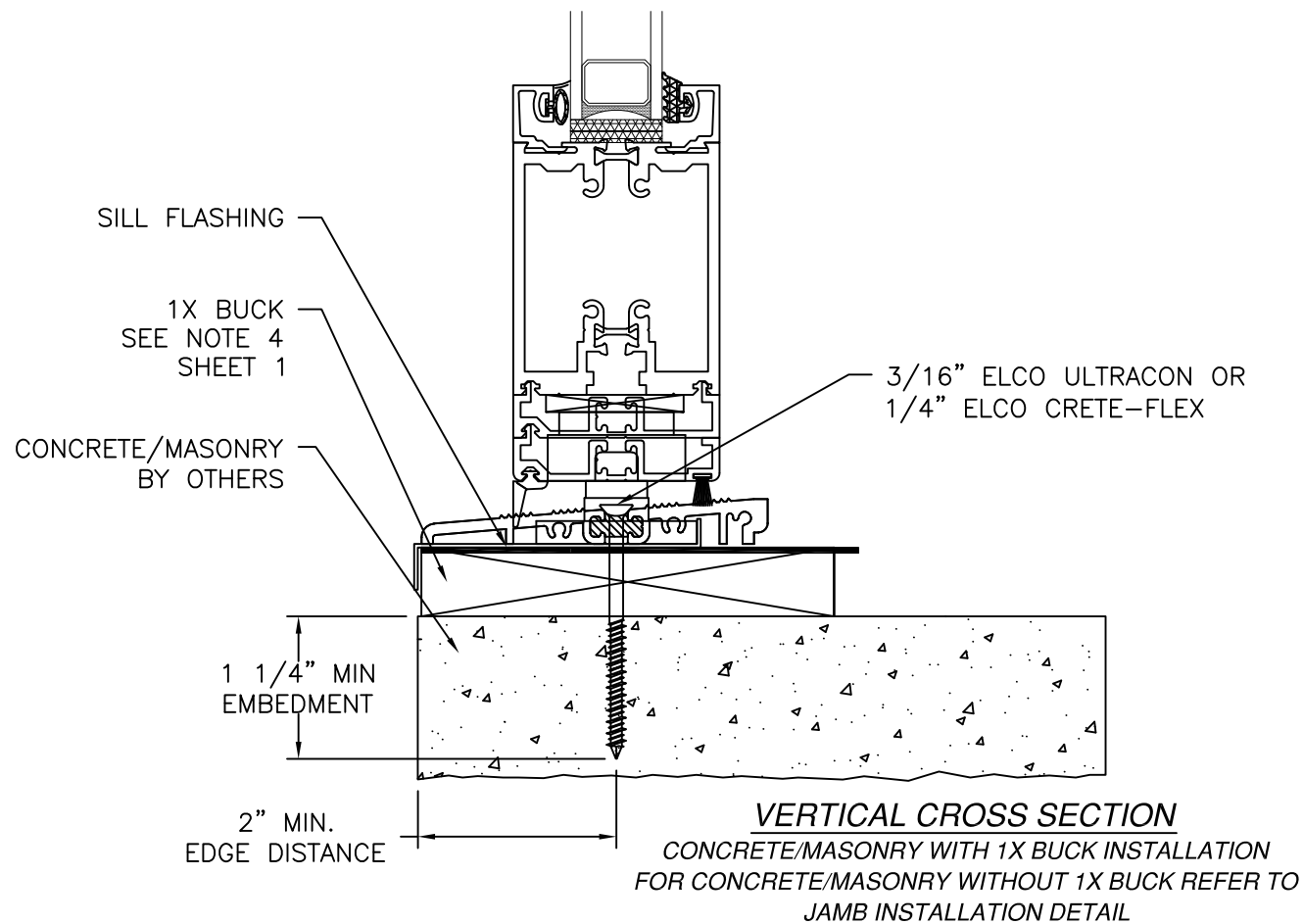
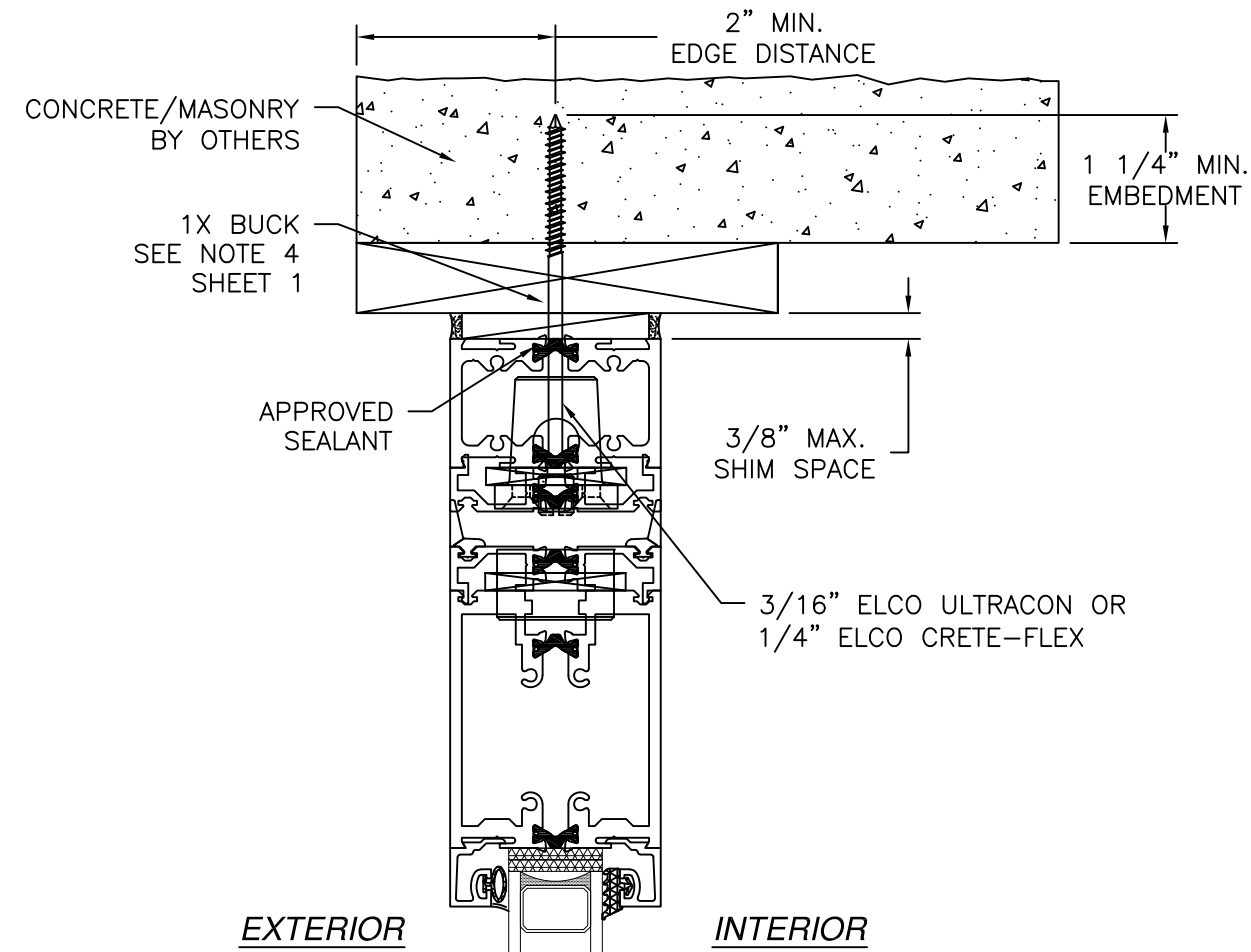
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DRAWN: V.L.	DWG NO. 08-01826	REV D
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L. ROBERTO LOMAS P.E. 208 7th Ave, INDIALANTIC, FL 32903 434-688-0609 rllomas@lrlomaspe.com		

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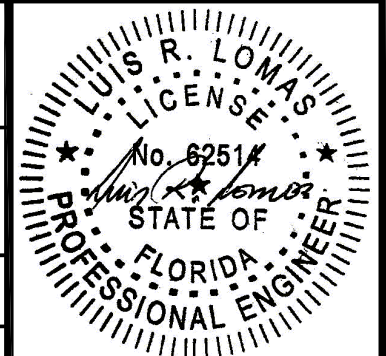


JAMB INSTALLATION DETAIL
CONCRETE/MASONRY WITHOUT 1X BUCK INSTALLATION
FOR CONCRETE/MASONRY WITH 1X BUCK REFER TO HEAD AND SILL INSTALLATION DETAILS

- 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

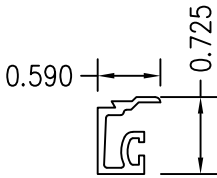
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31 ROBERTS RD PINE GROVE, PA 17963		
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SCALE NTS	DATE 10/17/12	SHEET 7 OF 8
L. ROBERTO LOMAS P.E. 208 7th Ave, INDIALANTIC, FL 32903 434-688-0609 rllomas@lrlomaspe.com		

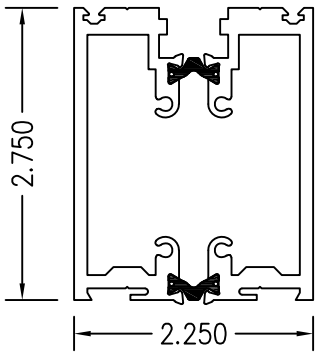


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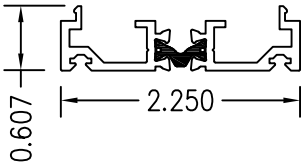
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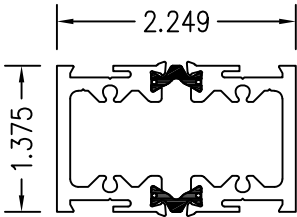
GLASS STOP



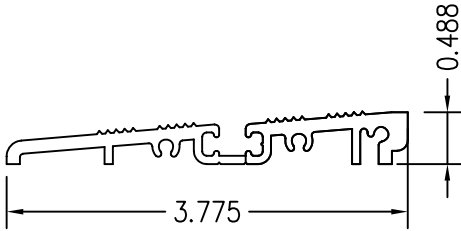
2 3/4" FGW FRAME



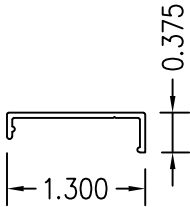
DOOR ADAPTER



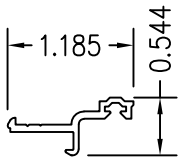
TERRACE DOOR
JAMB



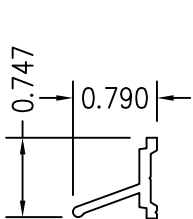
TERRACE DOOR
ALUMINUM DOOR SILL



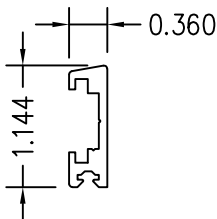
DOOR STOP CAP



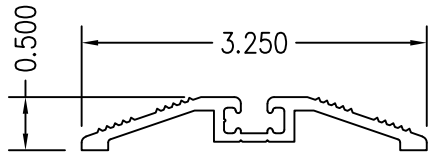
DOOR STOP



DOOR SWEEP
DRIP EDGE



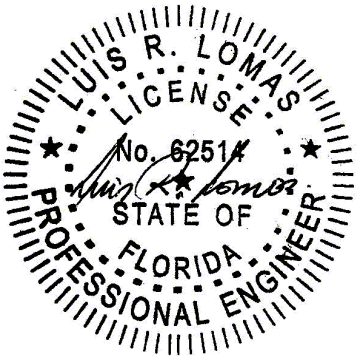
APPLIED DOOR
SWEEP



ADA DOOR SILL

SIGNED: 04/22/2026

SOLAR INNOVATIONS, INC. 31 ROBERTS RD PINE GROVE, PA 17963		
SERIES SI2100 PIVOT HINGED ALUMINUM DOOR NON-IMPACT COMPONENTS		
DRAWN: V.L.	DWG NO. 08-01826	REV D
SCALE NTS	DATE 10/17/12	SHEET 8 OF 8
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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