

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
C	REVISED PER NEW REQUIREMENTS	12/04/2023	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: ALUMINUM 6063-T6, 6063-T5 AND 6005A-T5.

7. UNITS MUST BE GLAZED PER ASTM E1300, WITH SAFETY GLAZING.

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 #14 WOOD SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 3/4" MINIMUM EMBEDMENT INTO SUBSTRATE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.

11. FOR ANCHORING 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.

12. FOR ANCHORING 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.

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:

14.1. WOOD – MINIMUM SPECIFIC GRAVITY OF G=0.42

14.2. CONCRETE – MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.

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

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

TABLE OF CONTENTS	
SHEET NO.	DESCRIPTION
1	NOTES
2	ELEVATION
3	ANCHORING LAYOUT & DESIGN PRESSURE CHARTS
4 – 5	VERTICAL CROSS SECTION
6	GLAZING DETAILS
7 – 8	HORIZONTAL CROSS SECTION
9 – 11	INSTALLATION DETAILS
12	WEEP DETAILS
13	COMPONENTS

SOLAR INNOVATIONS, INC.
31 ROBERTS RD
PINE GROVE, PA 17963

SERIES SI3000 FGW 3X8 PANEL OUTFOLD ALL WALL
NON IMPACT
NOTES

DRAWN:
V.L.

DWG NO.
08-01958

REV
C

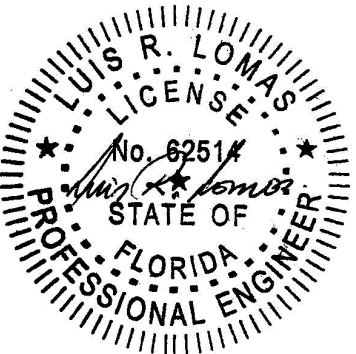
SCALE NTS

DATE 04/19/13

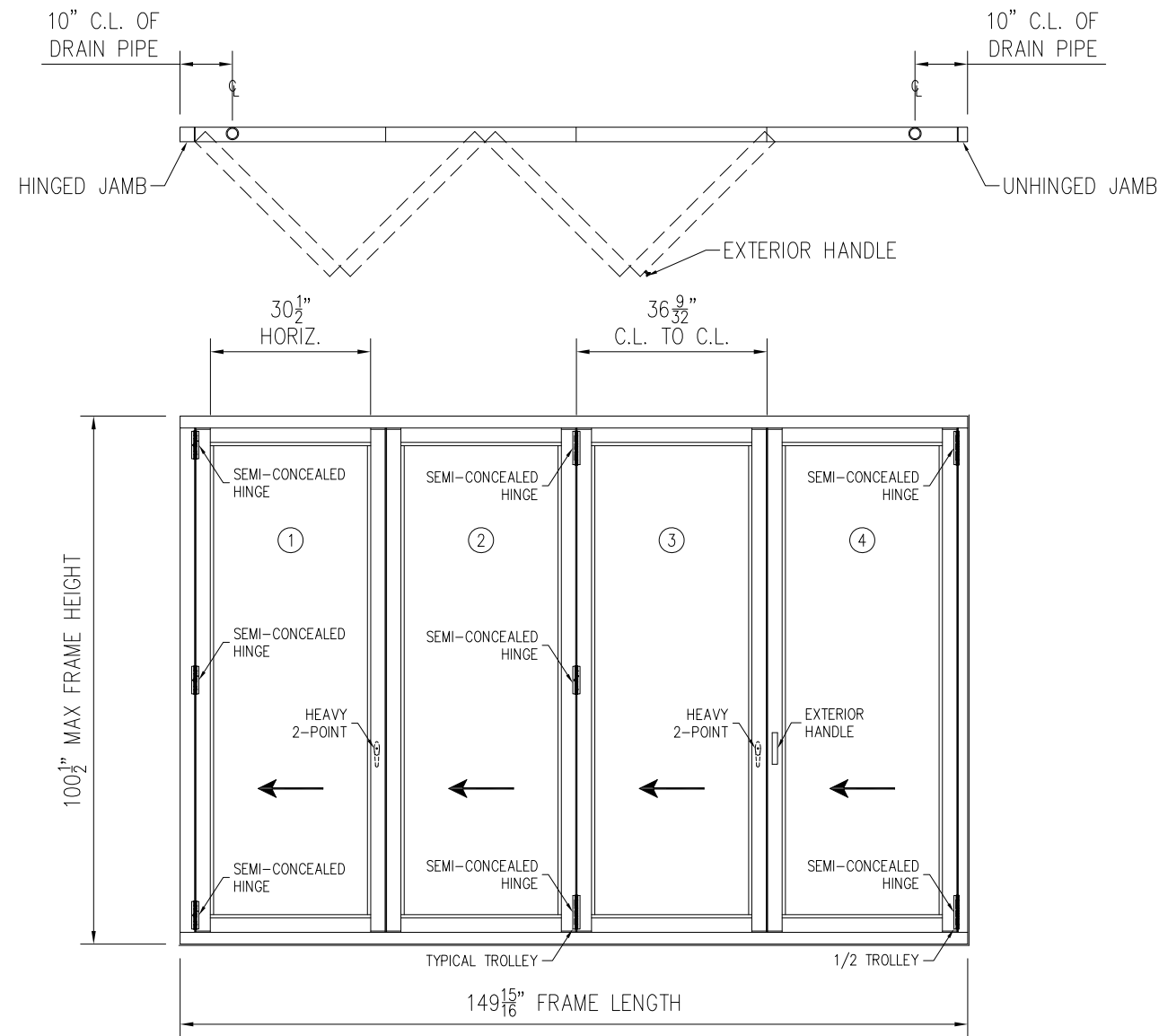
SHEET 1 OF 13

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SIGNED: 12/12/2023



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



SERIES SI3000 FGW 3X8 PANEL OUTFOLD ALL WALL
EXTERIOR VIEW

UNLIMITED NUMBER OF PANELS IN UNLIMITED CONFIGURATION ARE APPROVED
AS LONG AS INDIVIDUAL PANEL AREA DOES NOT EXCEED 24.06 FT² AND USES VERTICAL CONDITIONS AS SHOWN.

DESIGN PRESSURE RATING	IMPACT RATING
±80.0PSF	NONE

SEE CHART #1 SHEET 3

DESIGN PRESSURE RATING	IMPACT RATING
+60.0/-70.0PSF	NONE

WITH FLUSH SILL, SEE CHART #3 SHEET 3

DESIGN PRESSURE RATING	IMPACT RATING
±65.0PSF	NONE

WITH PANIC BAR OPTION, SEE CHART #2 SHEET 3

DESIGN PRESSURE RATING	IMPACT RATING
+60.0/-70.0PSF	NONE

WITH NON-THERMAL RAILS, SEE CHART #3 SHEET 3

HARDWARE SCHEDULE

- A. PANIC BAR BY SOLAR INNOVATIONS (OPTIONAL)
- B. SEMI-CONCEALED HINGE BY SOLAR INNOVATIONS
- C. HEAVY 2-POINT BY SOLAR INNOVATIONS

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NON IMPACT
ELEVATION

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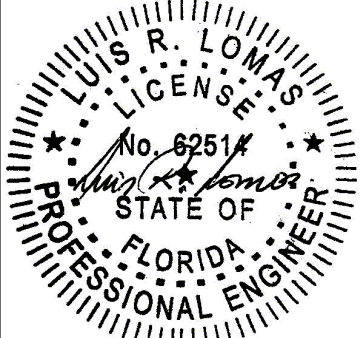
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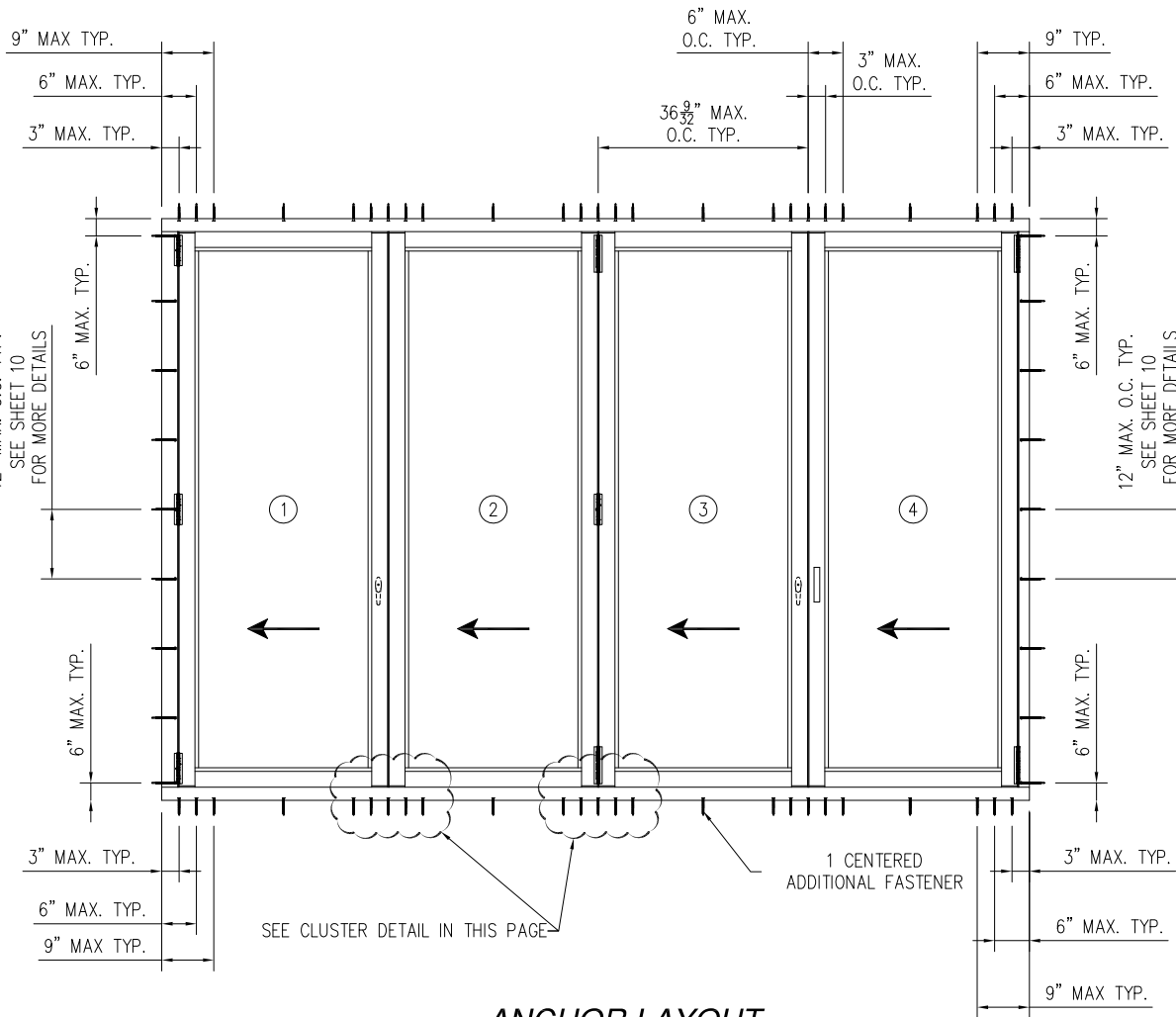
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04/19/13

SHEET
2 OF 13

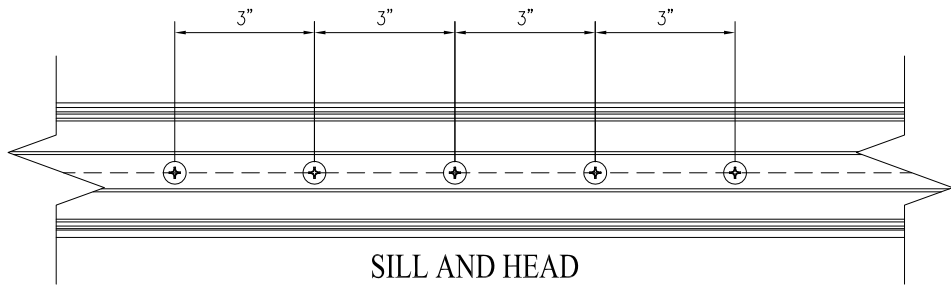
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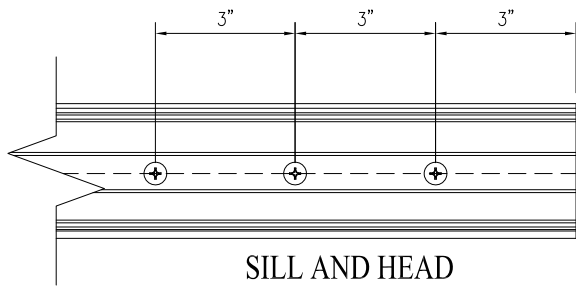
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ANCHOR LAYOUT
APPLICABLE TO ALL CONFIGURATIONS.



**SILL AND HEAD
CLUSTER DETAIL**



**SILL AND HEAD
END DETAIL**

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Chart #1 Maximum Design pressure (psf)										
Panel Height (in)	Single Panel Width (in)									
	24.0		30.0		36.281		42.00		44.000	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
78.0	100.0	120.0	100.0	119.1	98.5	98.5	85.1	85.1	81.2	81.2
84.0	100.0	120.0	100.0	109.2	91.4	91.4	-	-	-	-
90.0	100.0	120.0	100.0	100.4	85.3	85.3	-	-	-	-
96.0	100.0	112.1	93.0	93.0	80.0	80.0	-	-	-	-
102.0	97.3	97.3	78.8	78.8	-	-	-	-	-	-
108.0	81.8	81.8	66.1	66.1	-	-	-	-	-	-
114.0	69.4	69.4	56.1	56.1	-	-	-	-	-	-
120.0	59.4	59.4	-	-	-	-	-	-	-	-
126.0	51.2	51.2	-	-	-	-	-	-	-	-
132.0	44.5	44.5	-	-	-	-	-	-	-	-
138.0	38.9	38.9	-	-	-	-	-	-	-	-
144.0	34.2	34.2	-	-	-	-	-	-	-	-

Chart #2 Maximum Design pressure (psf)										
Panel Height (in)	Single Panel Width (in)									
	24.0		30.0		36.281		42.00		44.000	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
78.0	100.0	97.5	96.8	96.8	80.0	80.0	69.1	69.1	66.0	66.0
84.0	100.0	97.5	88.7	88.7	74.3	74.3	-	-	-	-
90.0	98.1	97.5	81.6	81.6	69.3	69.3	-	-	-	-
96.0	91.1	91.1	75.6	75.6	65.0	65.0	-	-	-	-
102.0	79.0	79.0	64.0	64.0	-	-	-	-	-	-
108.0	66.4	66.4	53.7	53.7	-	-	-	-	-	-
114.0	56.4	56.4	45.6	45.6	-	-	-	-	-	-
120.0	48.2	48.2	-	-	-	-	-	-	-	-
126.0	41.6	41.6	-	-	-	-	-	-	-	-
132.0	36.1	36.1	-	-	-	-	-	-	-	-
138.0	31.6	31.6	-	-	-	-	-	-	-	-
144.0	27.8	27.8	-	-	-	-	-	-	-	-

Chart #3 Maximum Design pressure (psf)										
Panel Height (in)	Single Panel Width (in)									
	24.0		30.0		36.281		42.00		44.000	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
78.0	60.0	105.0	60.0	104.2	60.0	86.2	60.0	74.4	60.0	71.0
84.0	60.0	105.0	60.0	95.5	60.0	80.0	-	-	-	-
90.0	60.0	105.0	60.0	87.9	60.0	74.7	-	-	-	-
96.0	60.0	98.1	60.0	81.4	60.0	70.0	-	-	-	-
102.0	60.0	85.1	60.0	69.0	-	-	-	-	-	-
108.0	60.0	71.5	57.9	57.9	-	-	-	-	-	-
114.0	60.0	60.7	49.1	49.1	-	-	-	-	-	-
120.0	52.0	52.0	-	-	-	-	-	-	-	-
126.0	44.8	44.8	-	-	-	-	-	-	-	-
132.0	38.9	38.9	-	-	-	-	-	-	-	-
138.0	34.0	34.0	-	-	-	-	-	-	-	-
144.0	29.9	29.9	-	-	-	-	-	-	-	-

SOLAR INNOVATIONS, INC.

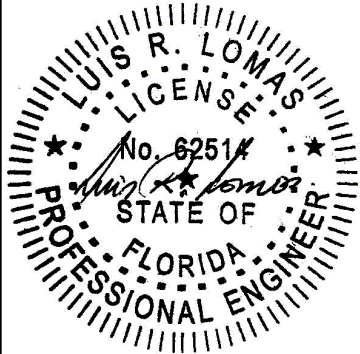
31 ROBERTS RD
PINE GROVE, PA 17963

SERIES SI3000 FGW 3X8 PANEL OUTFOLD ALL WALL
NON IMPACT
ANCHORING LAYOUT & DESIGN PRESSURE CHARTS

DRAWN: V.L.	DWG NO. 08-01958	REV C
SCALE NTS	DATE 04/19/13	SHEET 3 OF 13

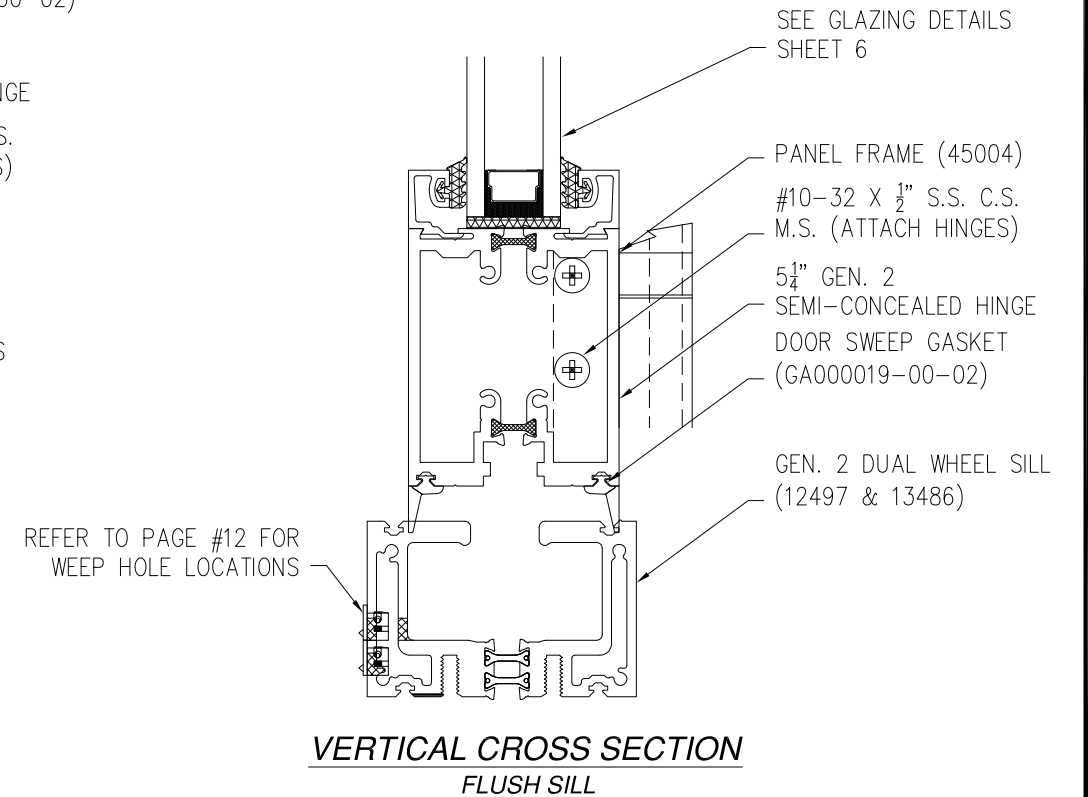
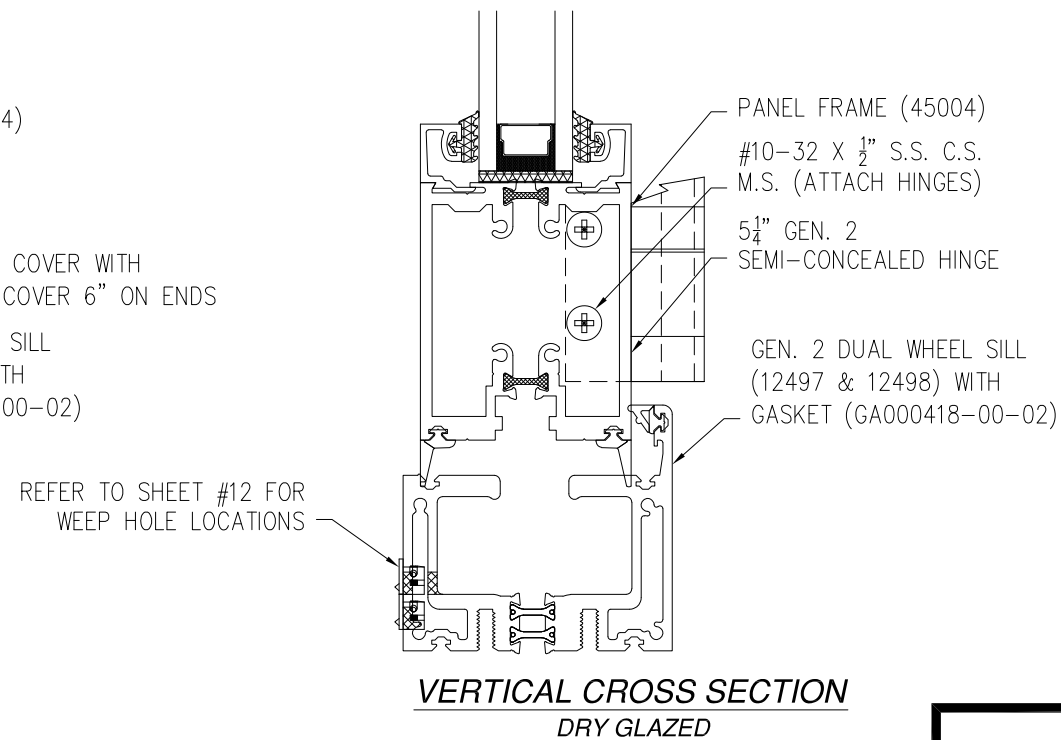
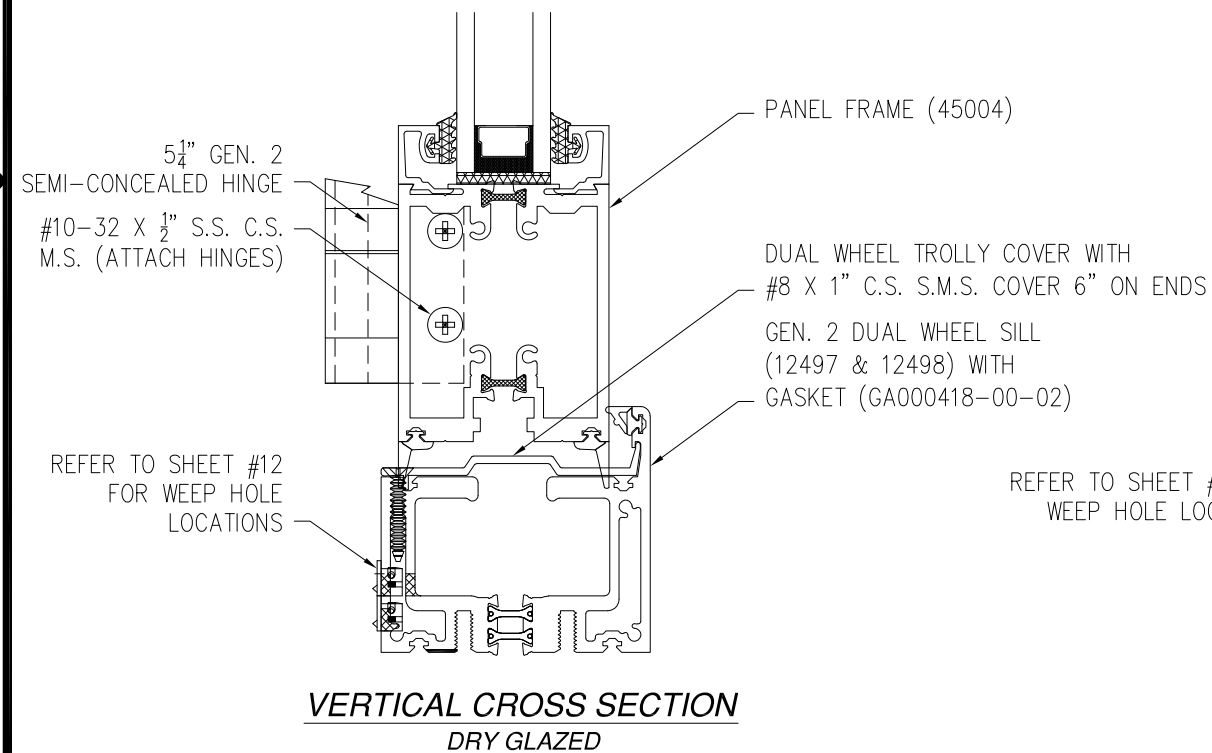
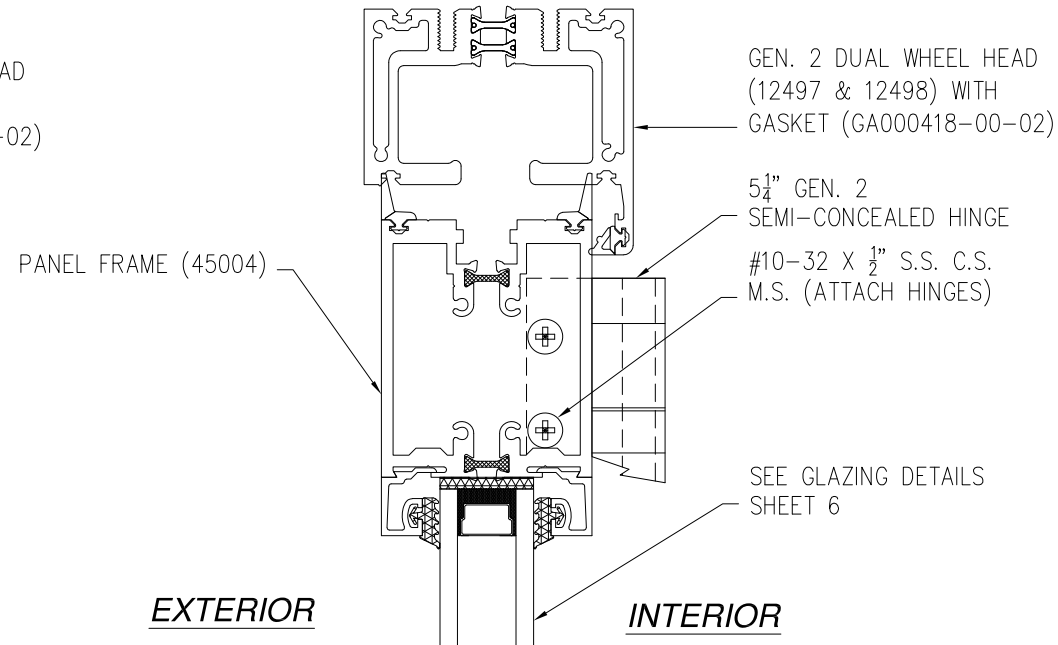
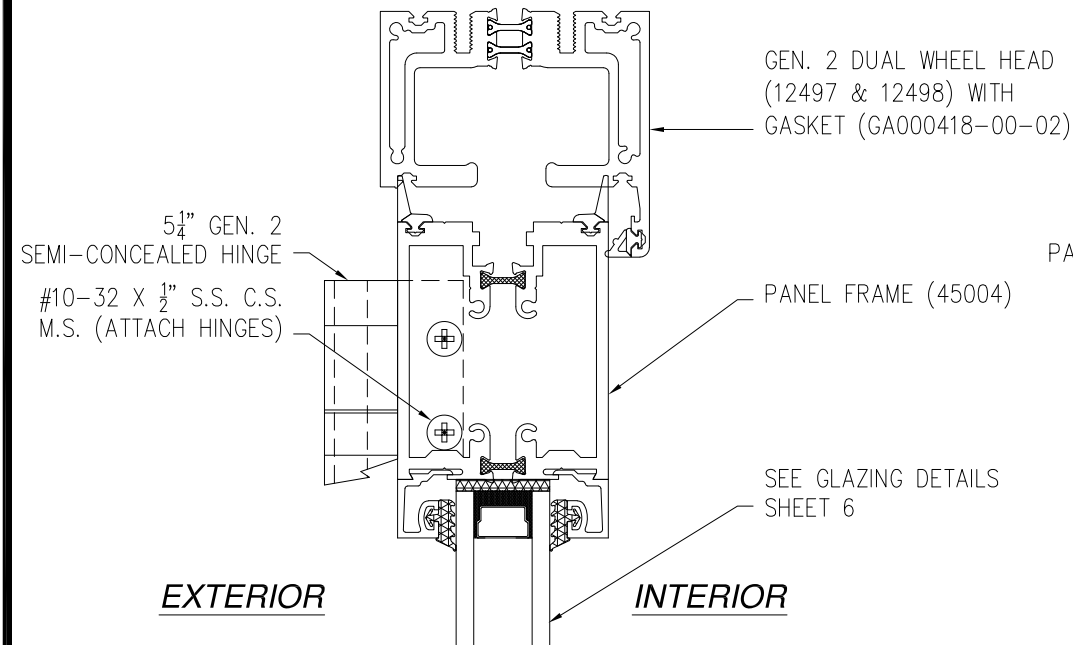
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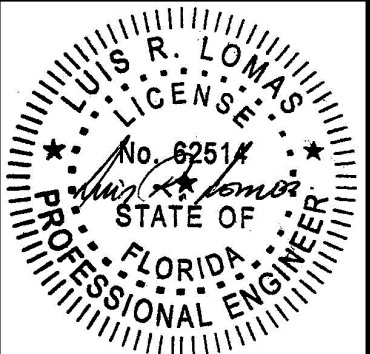
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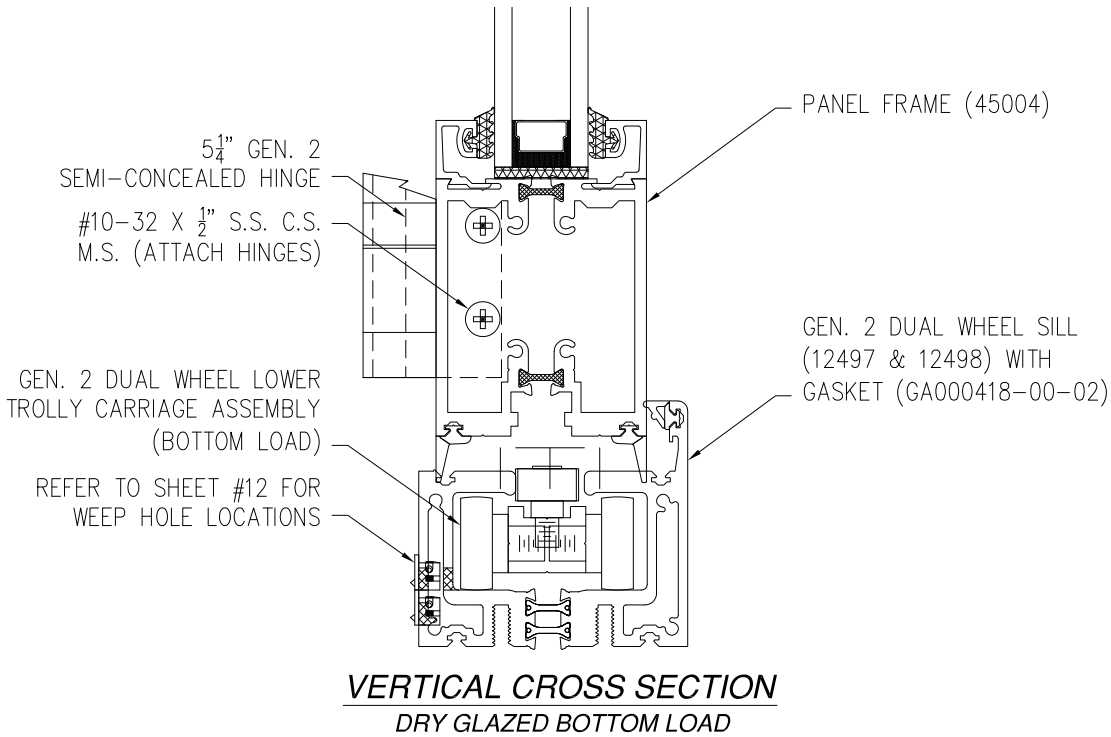
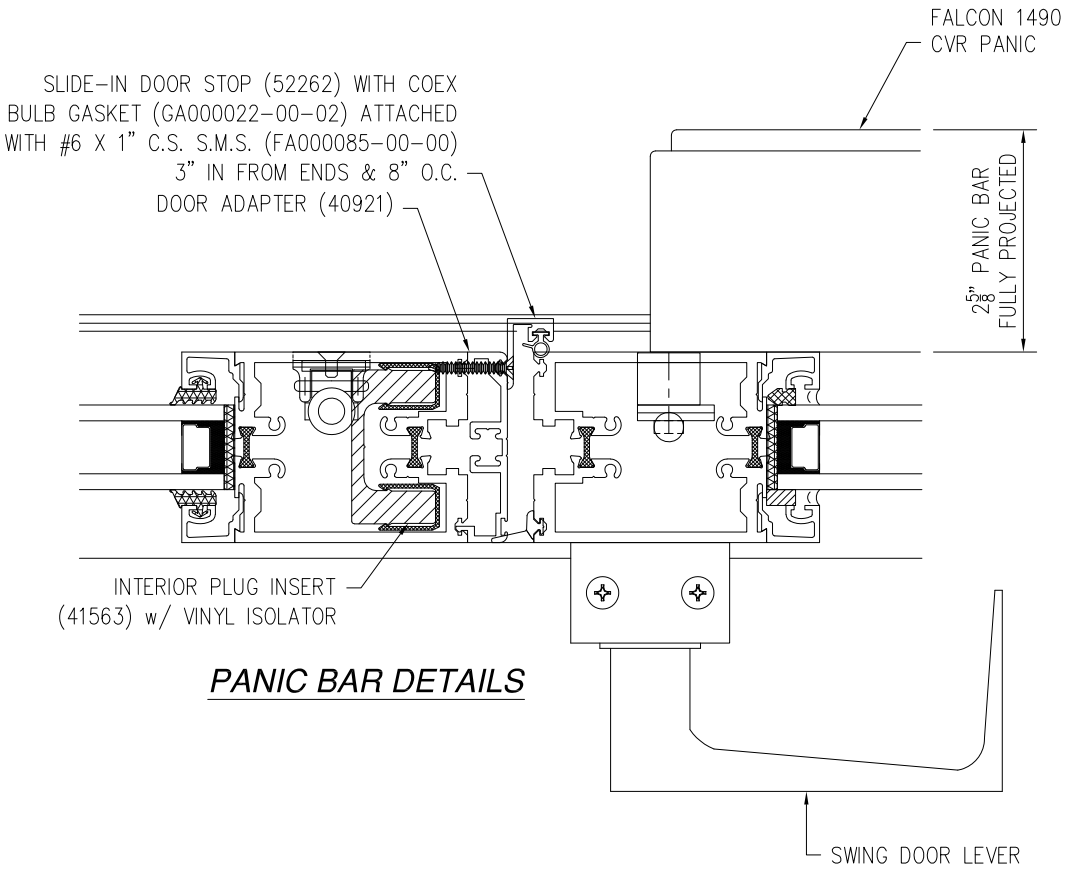
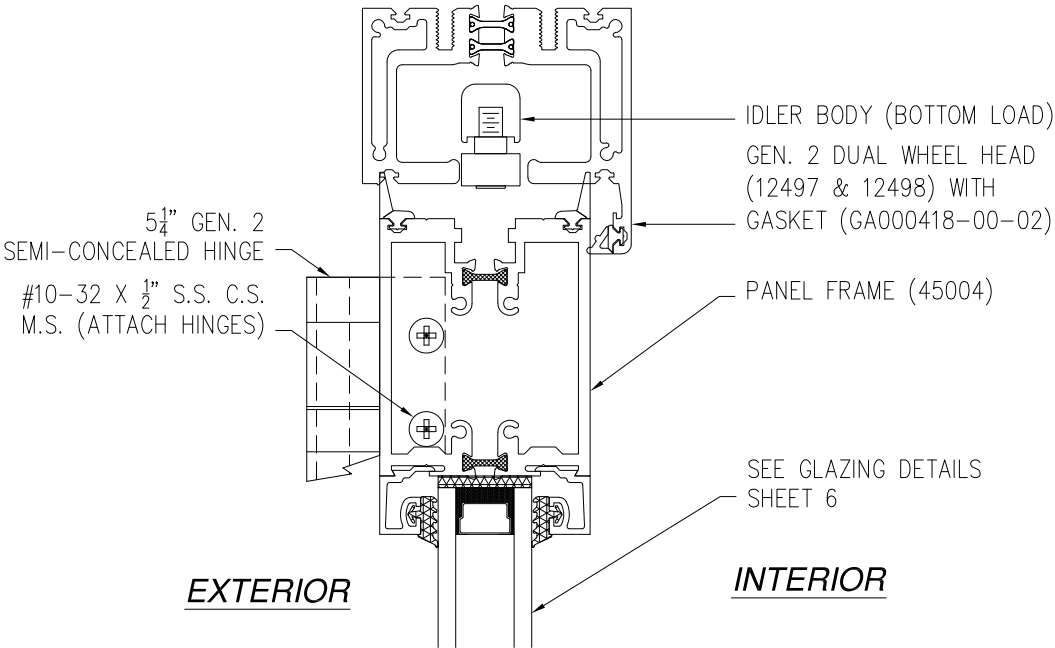
SOLAR INNOVATIONS, INC.		
31 ROBERTS RD PINE GROVE, PA 17963		
SERIES SI3000 FGW 3X8 PANEL OUTFOLD ALL WALL NON IMPACT VERTICAL CROSS SECTIONS		
DRAWN: V.L.	DWG NO. 08-01958	REV C
SCALE NTS	DATE 04/19/13	SHEET 4 OF 13
L. ROBERTO LOMAS P.E. 208 7th Ave, INDIALANTIC, FL 32903 434-688-0609 rllomas@lrlomaspe.com		

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31 ROBERTS RD
PINE GROVE, PA 17963

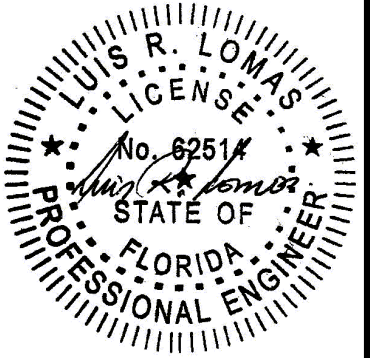
SERIES SI3000 FGW 3X8 PANEL OUTFOLD ALL WALL
NON IMPACT
VERTICAL CROSS SECTIONS

DRAWN: V.L. DWG NO. 08-01958 REV C

SCALE NTS DATE 04/19/13 SHEET 5 OF 13

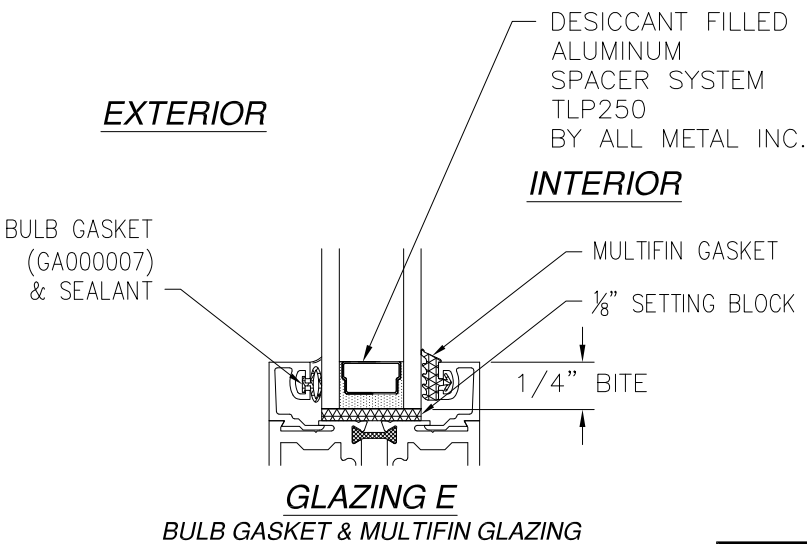
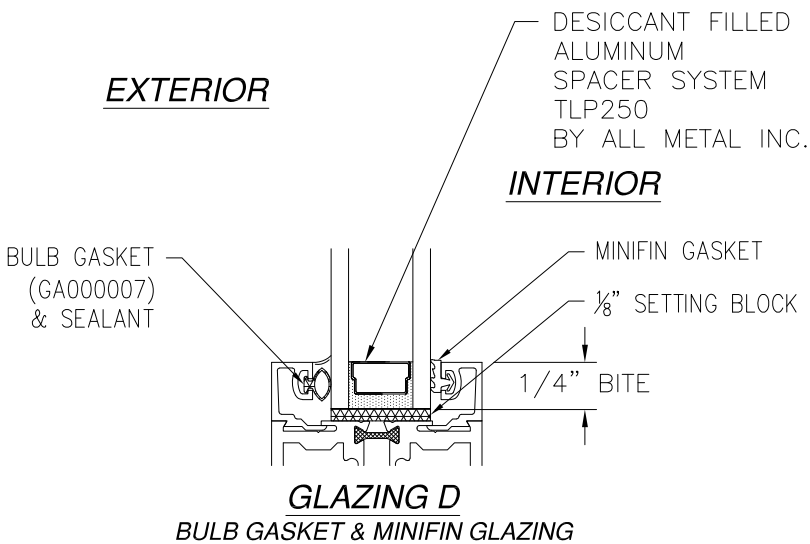
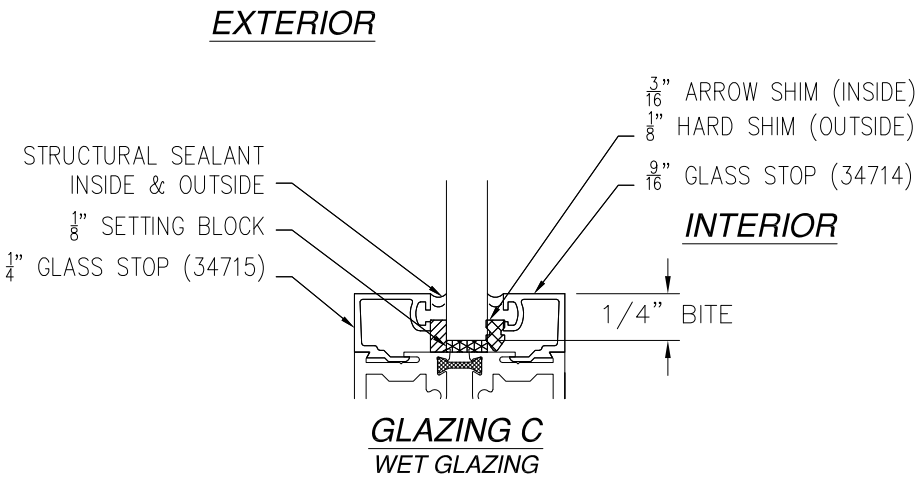
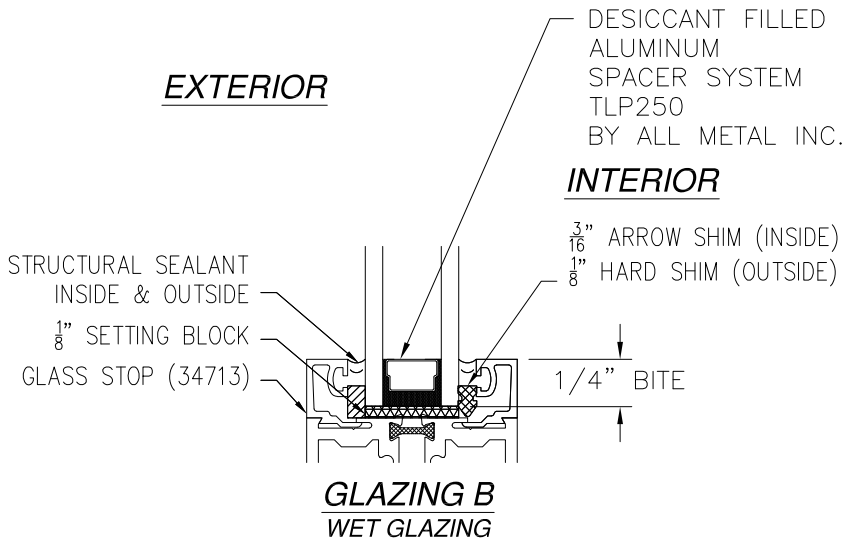
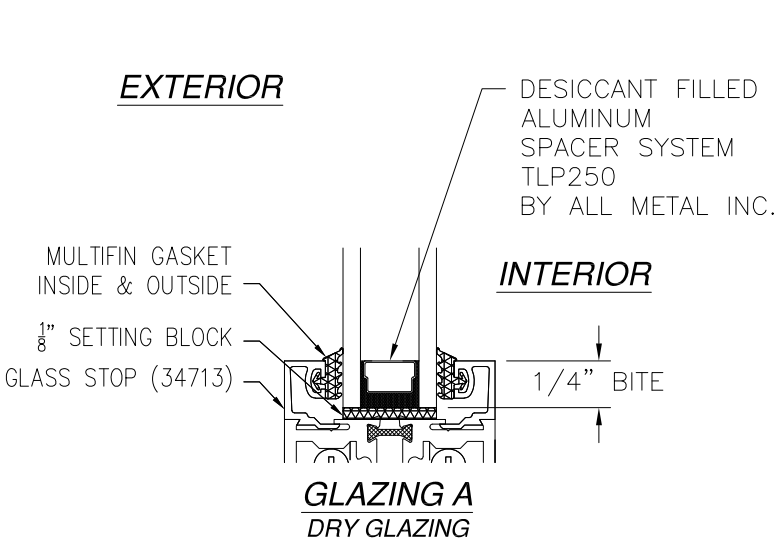
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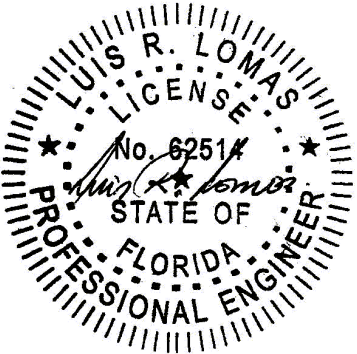
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NOTE:
GLASS FOR ALL CONFIGURATIONS MUST BE
SAFETY GLASS

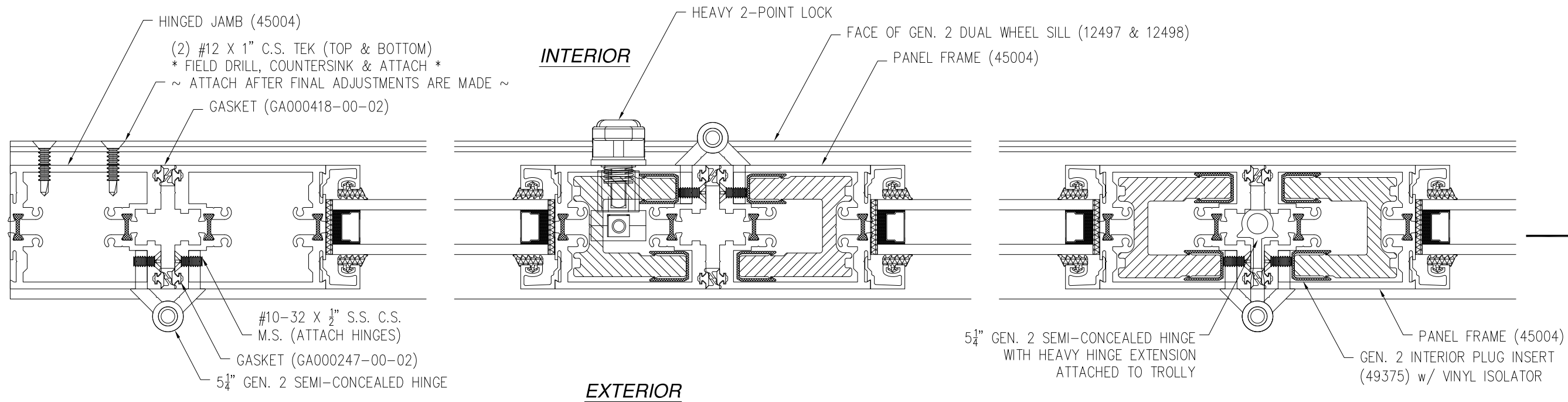
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SERIES SI3000 FGW 3X8 PANEL OUTFOLD ALL WALL NON IMPACT GLAZING DETAILS		
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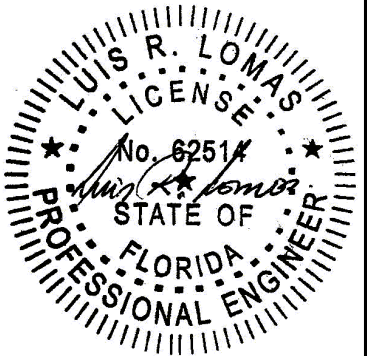


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IN SHEET 8

HORIZONTAL CROSS SECTION

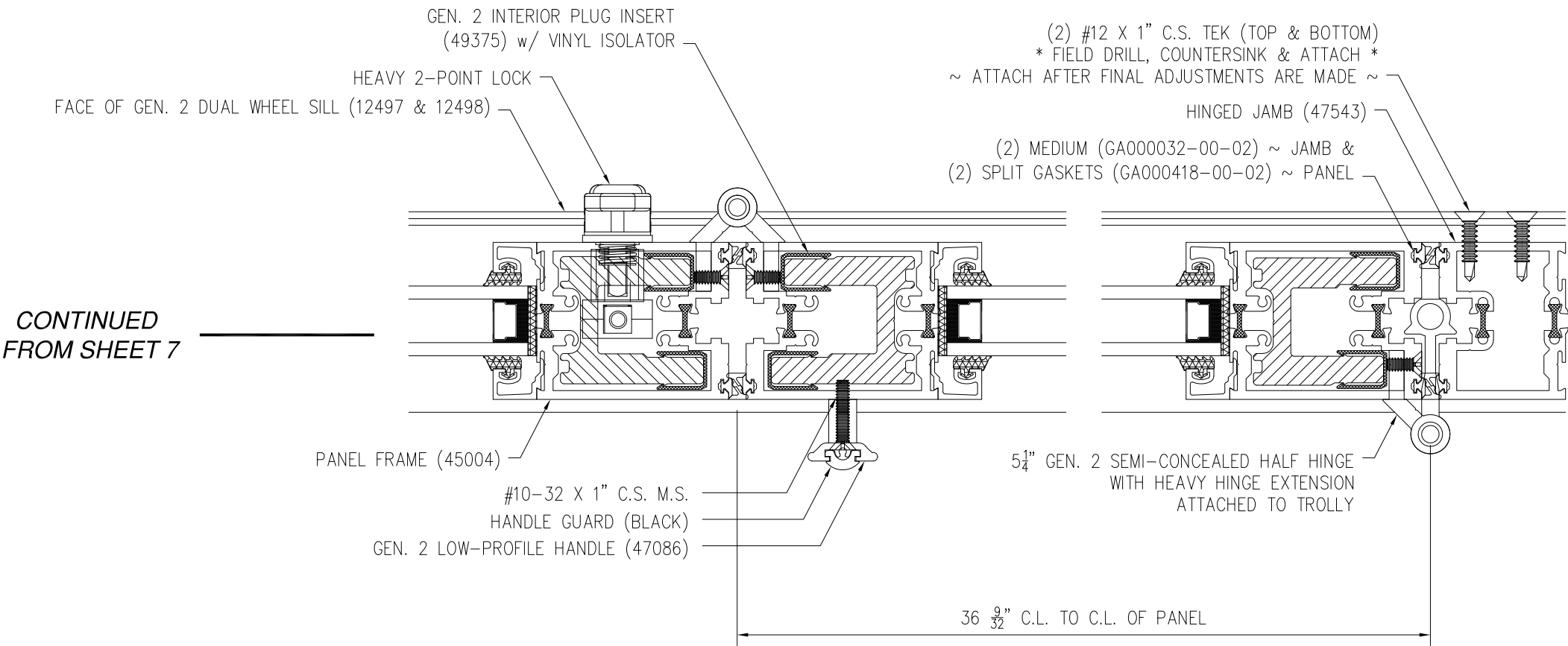
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HORIZONTAL CROSS SECTION

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HORIZONTAL CROSS SECTIONS

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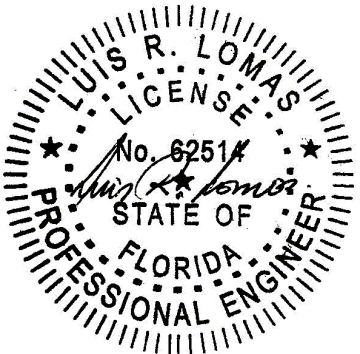
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04/19/13

SHEET
8 OF 13

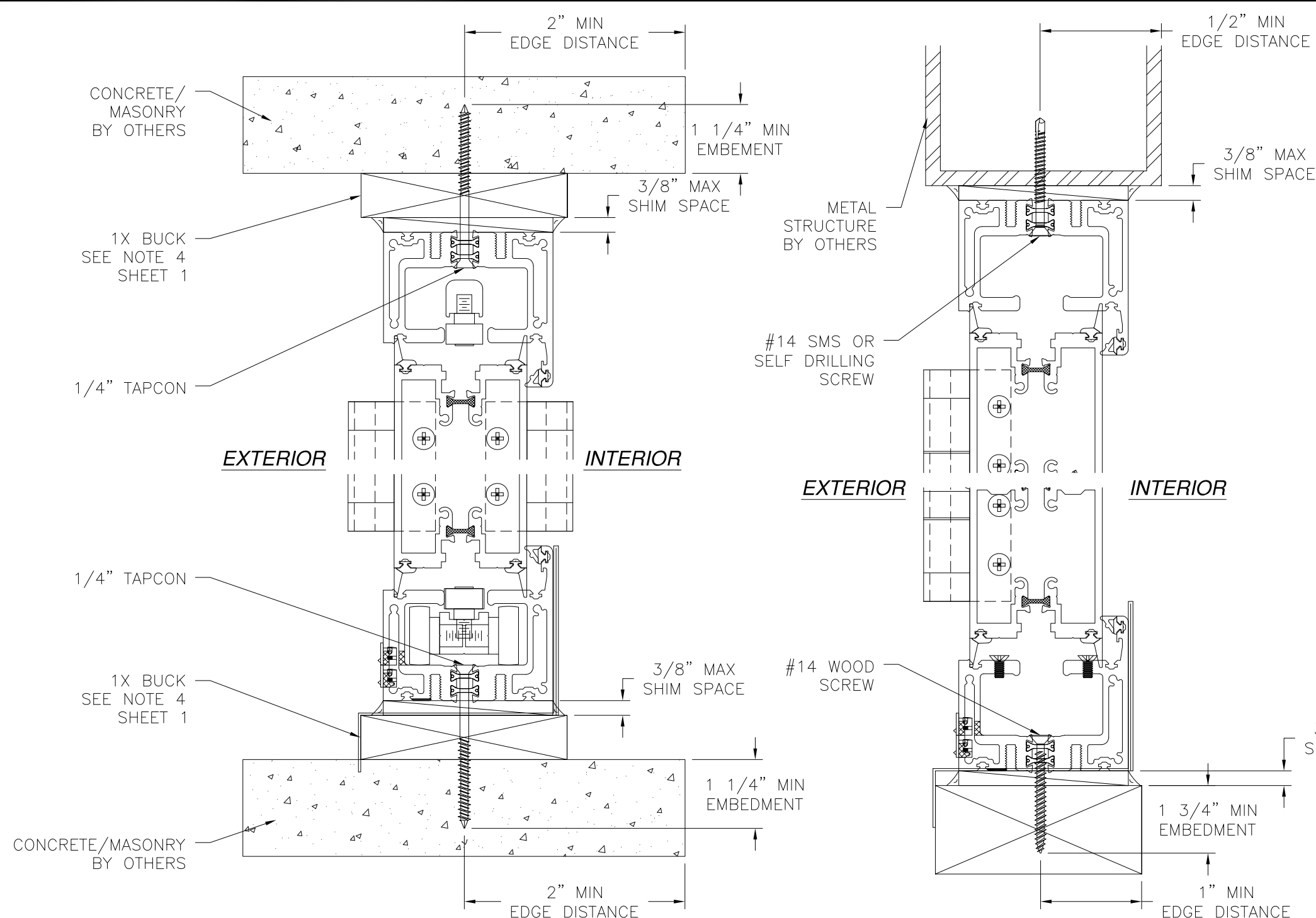
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NOTES:
1. INTERIOR AND EXTERIOR FINISHES, BY OTHERS, NOT SHOWN FOR CLARITY.
2. PERIMETER AND JOINT SEALANT BY OTHERS TO BE DESIGNED IN ACCORDANCE WITH ASTM E2112

VERTICAL CROSS SECTION
CONCRETE/MASONRY INSTALLATION
STANDARD SILL SHOWN
FLUSH SILL SIMILAR

VERTICAL CROSS SECTION
WOOD FRAMING OR 2X BUCK
OR METAL STRUCTURE INSTALLATION
STANDARD SILL SHOWN
FLUSH SILL SIMILAR

SOLAR INNOVATIONS, INC.
31 ROBERTS RD
PINE GROVE, PA 17963

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NON IMPACT
INSTALLATION DETAILS

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SCALE NTS	DATE 04/19/13	SHEET 9 OF 13

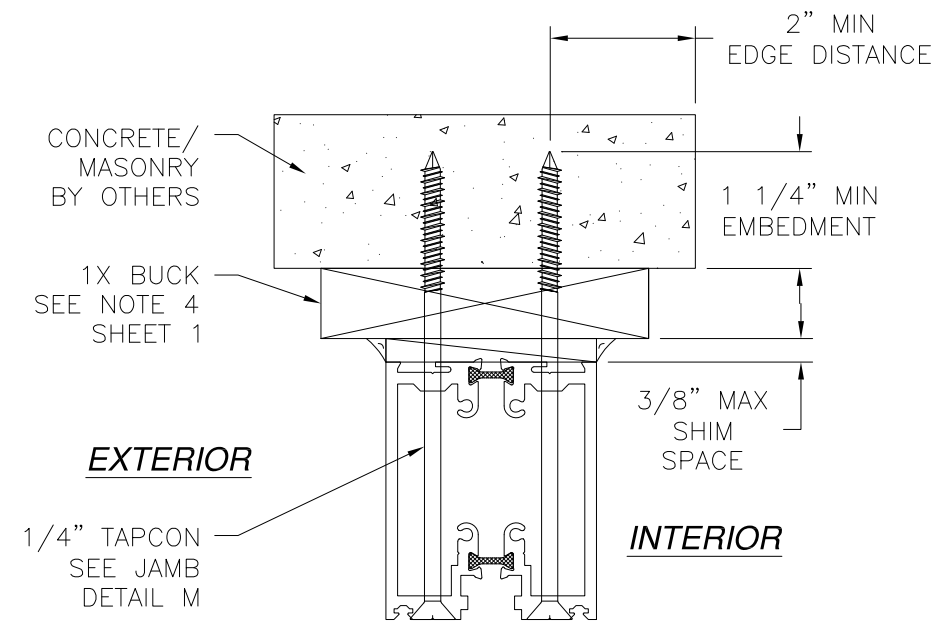
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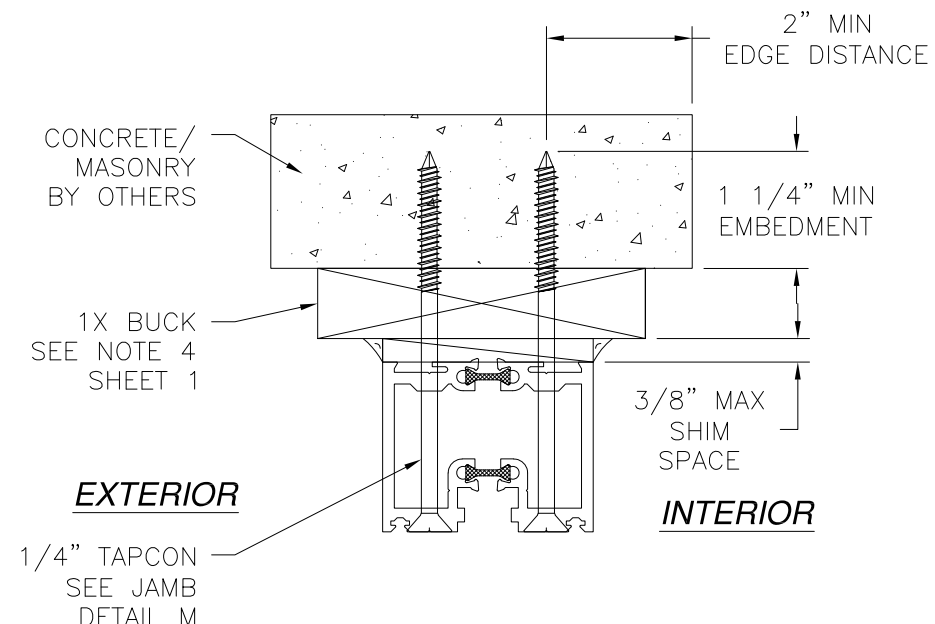
LUIS R. LOMAS
P.E.
No. 62514
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

Luis R. Lomas P.E.
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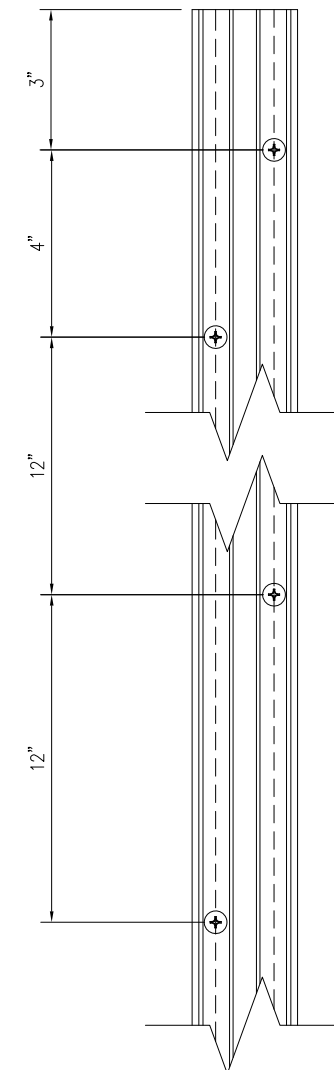
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JAMB INSTALLATION DETAIL
CONCRETE/MASONRY
S45004 NO REINFORCEMENT



JAMB INSTALLATION DETAIL
CONCRETE/MASONRY
S47543 NO REINFORCEMENT



JAMB INSTALLATION DETAIL M
JAMB WITHOUT REINFORCEMENT

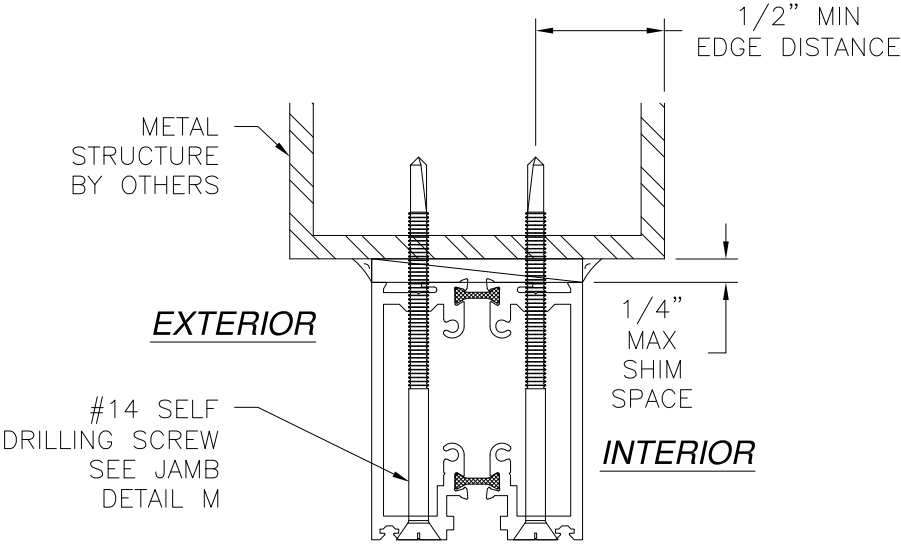
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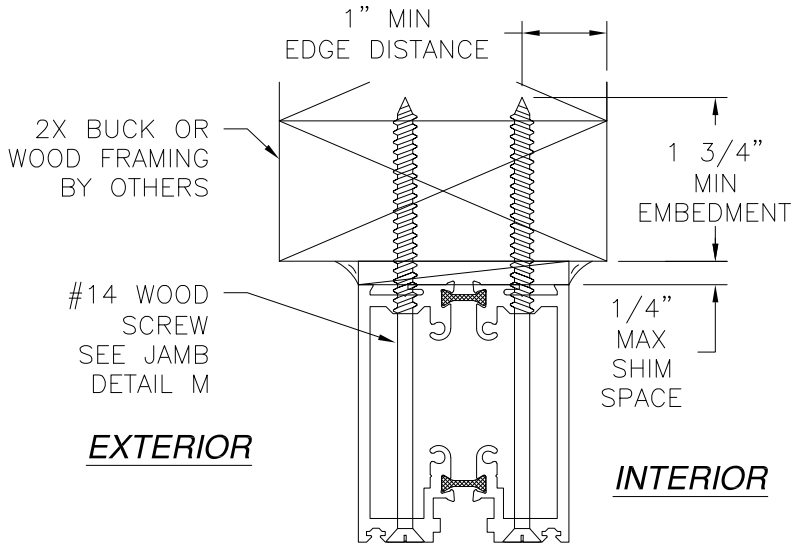
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SCALE NTS	DATE 04/19/13	SHEET 10 OF 13
L. ROBERTO LOMAS P.E. 208 7th Ave, INDIALANTIC, FL 32903 434-688-0609 rllomas@lrlomaspe.com		

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

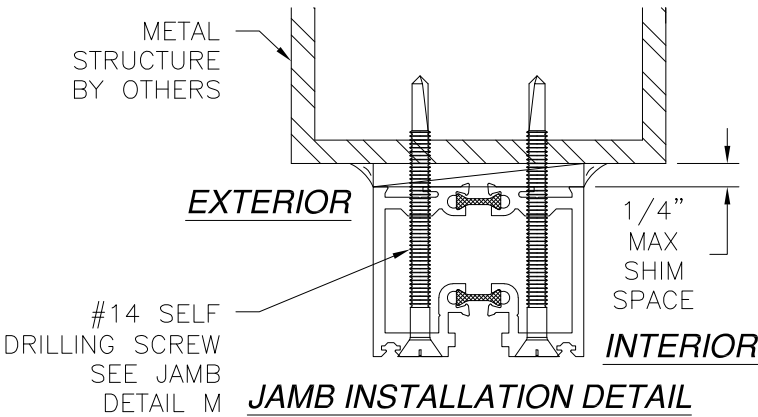
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
C	REVISED PER NEW REQUIREMENTS	12/04/2023	R.L.



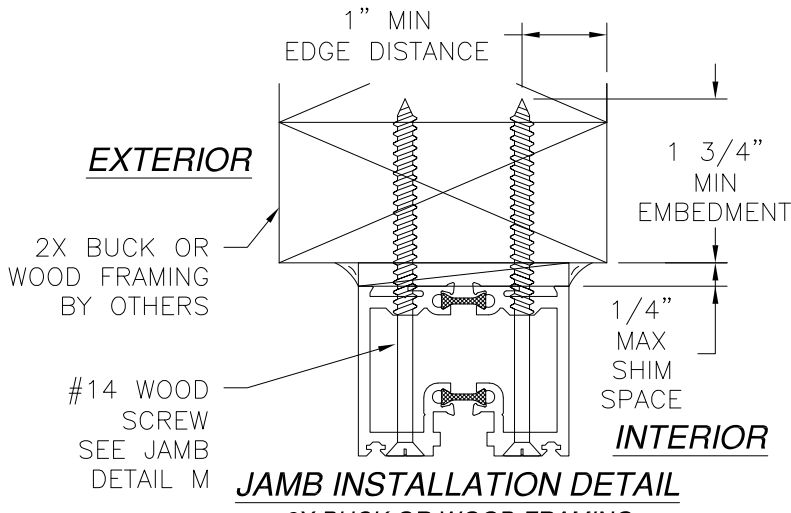
JAMB INSTALLATION DETAIL
METAL STRUCTURE
S45004 NO REINFORCEMENT



JAMB INSTALLATION DETAIL
2X BUCK OR WOOD FRAMING
S45004 NO REINFORCEMENT



JAMB INSTALLATION DETAIL
METAL STRUCTURE
S47543 NO REINFORCEMENT



JAMB INSTALLATION DETAIL
2X BUCK OR WOOD FRAMING
S47543 NO REINFORCEMENT

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

SOLAR INNOVATIONS, INC.
31 ROBERTS RD
PINE GROVE, PA 17963

SERIES SI3000 FGW 3X8 PANEL OUTFOLD ALL WALL
NON IMPACT
INSTALLATION DETAILS

DRAWN: V.L.	DWG NO. 08-01958	REV C
SCALE NTS	DATE 04/19/13	SHEET 11 OF 13

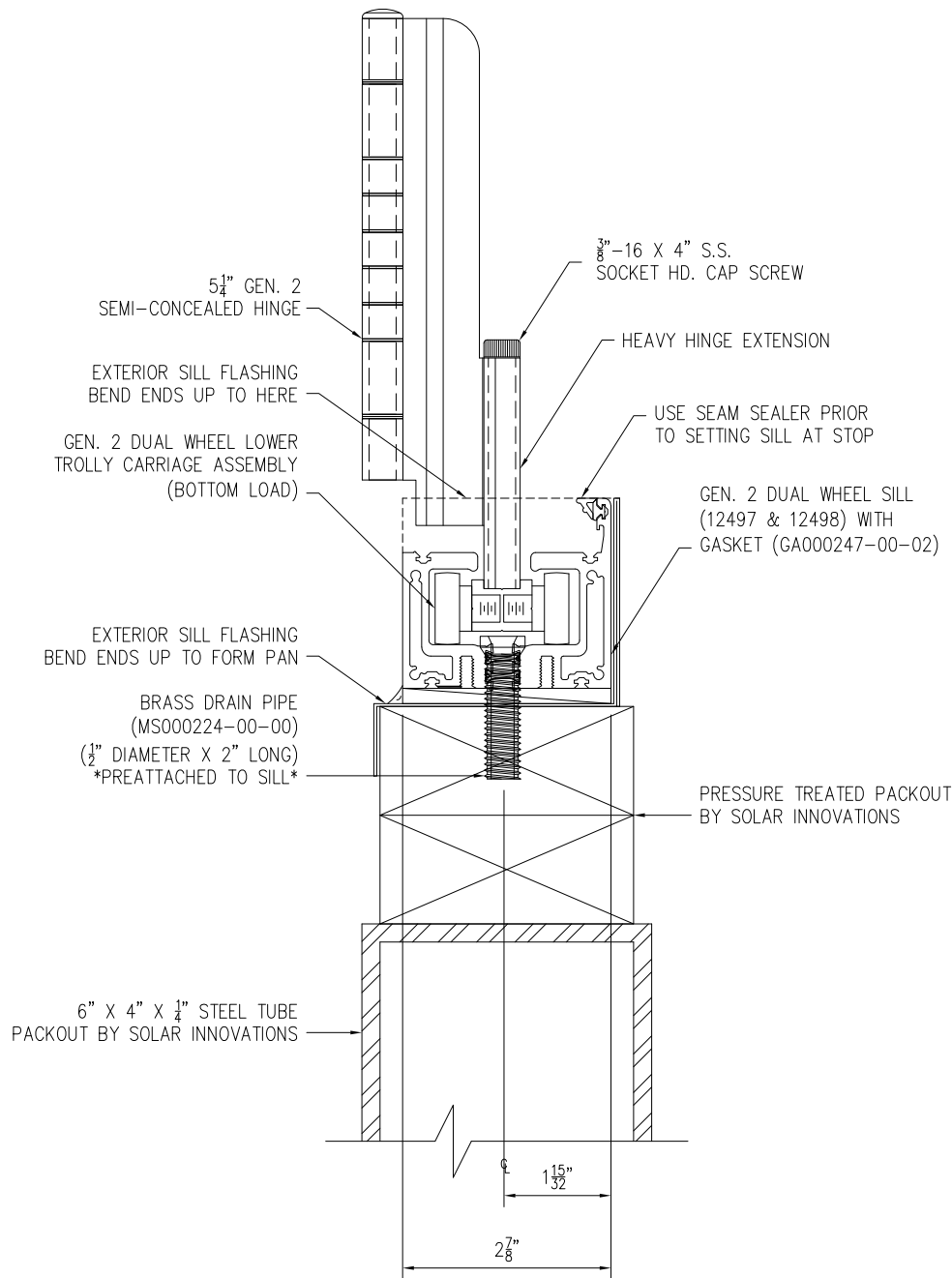
L. ROBERTO LOMAS P.E.
208 7th Ave, INDIALANTIC, FL 32903
434-688-0609 rllomas@lrlomaspe.com

SIGNED: 12/12/2023

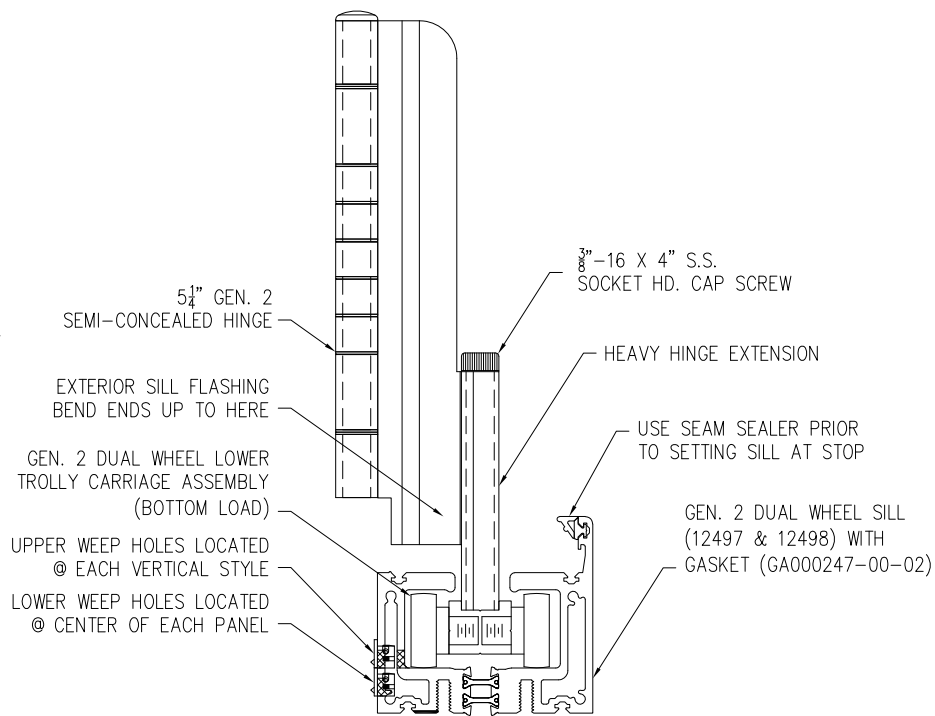
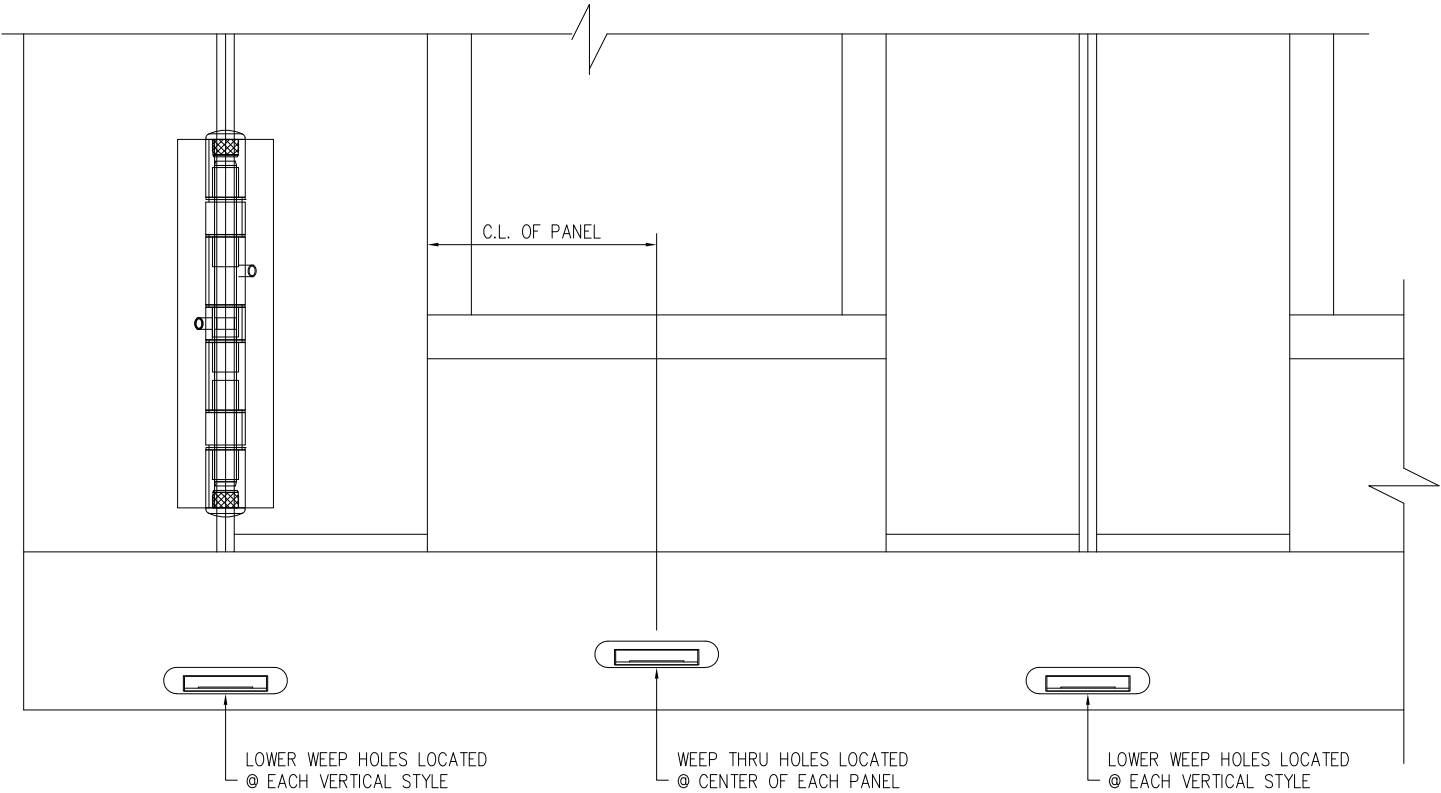
LUIS R. LOMAS
P.E.
No. 62514
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

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

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
C	REVISED PER NEW REQUIREMENTS	12/04/2023	R.L.



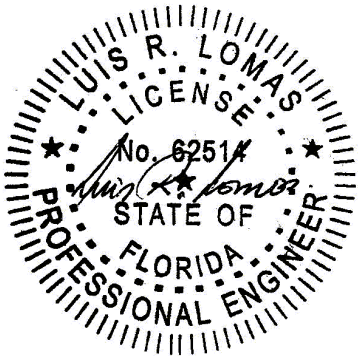
DRAIN PIPE AND HINGE EXTENSION DETAIL



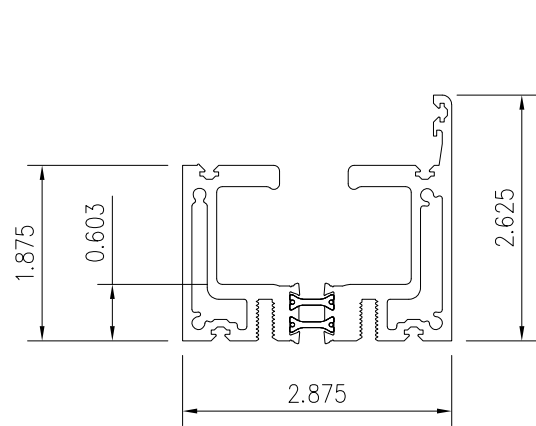
WEEP HOLE AND HINGE EXTENSION DETAIL

SOLAR INNOVATIONS, INC.		
31 ROBERTS RD PINE GROVE, PA 17963		
SERIES SI3000 FGW 3X8 PANEL OUTFOLD ALL WALL NON IMPACT WEEP DETAILS		
DRAWN: V.L.	DWG NO. 08-01958	REV C
SCALE NTS	DATE 04/19/13	SHEET 12 OF 13
L. ROBERTO LOMAS P.E. 208 7th Ave, INDIALANTIC, FL 32903 434-688-0609 rllomas@lrlomaspe.com		

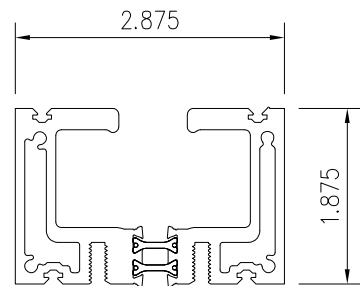
SIGNED: 12/12/2023



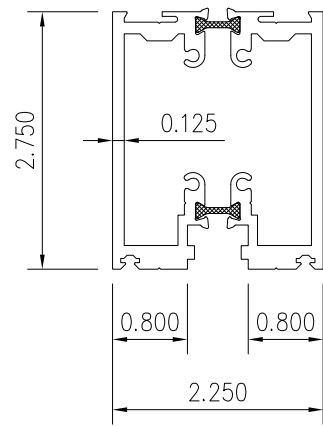
Luis R. Lomas P.E.
FL No.: 62514



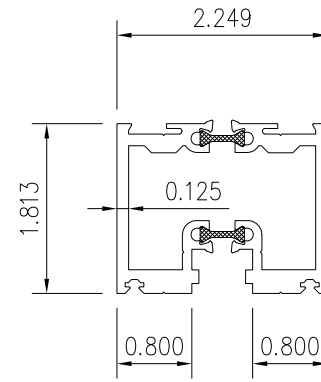
DUAL WHEEL
HEAD / SILL



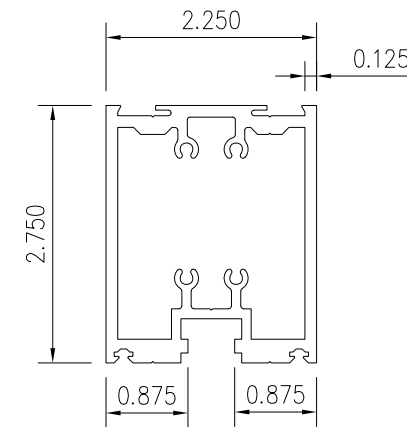
FLUSH SILL



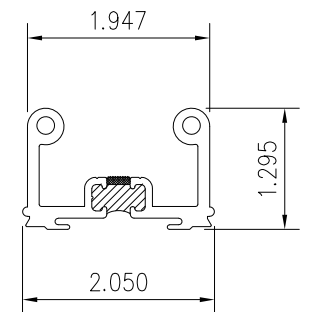
REGULAR THERMAL
FRAME



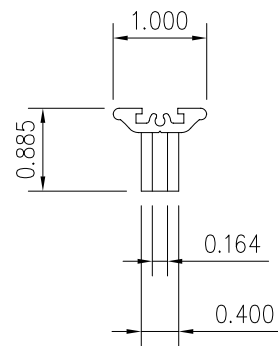
NARROW
FRAME



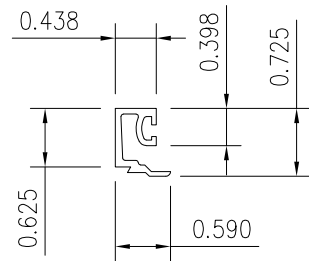
NON-THERMAL FRAME



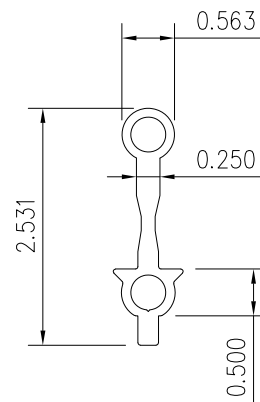
FRAME
LUG



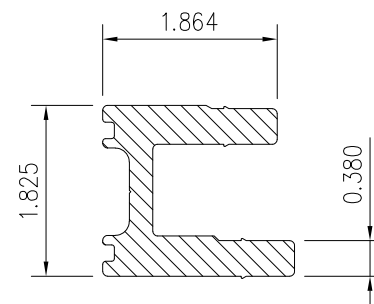
LOW-PROFILE
HANDLE



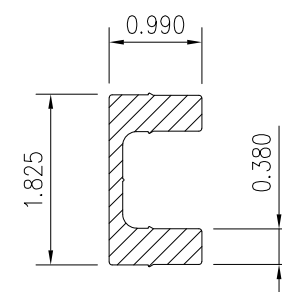
1" GLASS
STOP



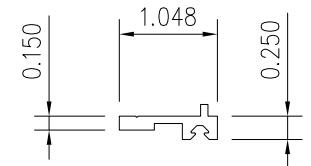
HEAVY HINGE
EXTENSION



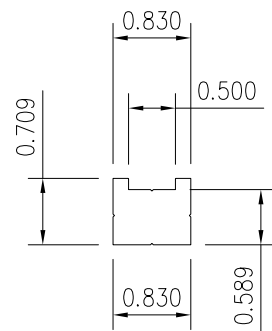
REGULAR RAIL
INSERT



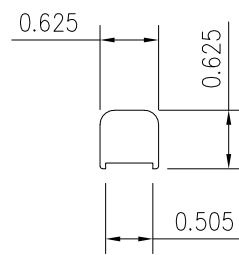
PANIC BAR
ALUMINUM INSERT



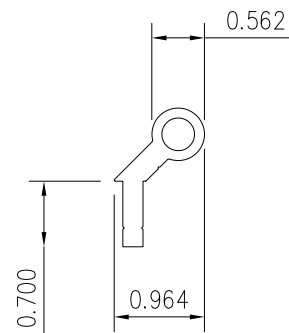
FRAME
CAP



TROLLEY
BODY



IDLER
BODY



5 1/4" SEMI-
CONCEALED HINGE

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
C	REVISED PER NEW REQUIREMENTS	12/04/2023	R.L.

SOLAR INNOVATIONS, INC.

31 ROBERTS RD
PINE GROVE, PA 17963

SERIES SI3000 FGW 3X8 PANEL OUTFOLD ALL WALL
NON IMPACT
COMPONENTS

DRAWN:
V.L.

DWG NO.
08-01958

REV
C

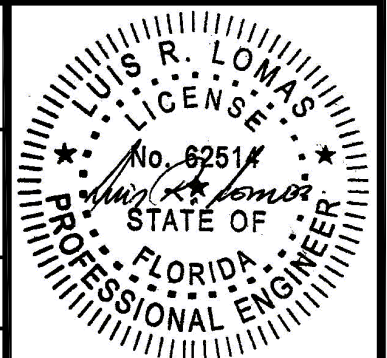
SCALE NTS

DATE 04/19/13

SHEET 13 OF 13

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

SIGNED: 12/12/2023



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