

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
C	REVISED PER CLIENT'S REQUIREMENTS	12/01/2023	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 SHIM OR BUCK THICKNESS IS LESS THAN 1–1/2” WINDOW 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.
4. WHERE WOOD BUCK THICKNESS IS 1–1/2” OR GREATER, BUCK SHALL BE SECURELY FASTENED TO MASONRY, CONCRETE OR OTHER STRUCTURAL SUBSTRATE. WINDOW UNITS MAY BE ANCHORED THROUGH FRAME TO SECURED WOOD BUCK IN ACCORDANCE WITH MANUFACTURER’S PUBLISHED INSTALLATION INSTRUCTIONS.
5. 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.
6. BUCKS SHALL EXTEND BEYOND WINDOW INTERIOR FACE SO THAT FULL FRAME SUPPORT IS PROVIDED.
7. FOR FRAME INSTALLATION 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 3/8”.
8. SHIMS SHALL BE LOCATED, APPLIED AND MADE FROM MATERIALS AND THICKNESS CAPABLE OF SUSTAINING APPLICABLE LOADS.
9. WIND LOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
10. FRAME MATERIAL: EXTRUDED ALUMINUM 6063–T6 AND 6005A–T5.
11. UNITS MUST BE GLAZED PER ASTM E1300, SEE SHEET 5 FOR GLASS DETAILS.
12. APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.

13. 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.
14. FOR ANCHORING THROUGH FRAME INTO MASONRY/CONCRETE USE 1/4” TAPCONS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 1/4” MINIMUM EMBEDMENT INTO SUBSTRATE WITH 2 1/2” MINIMUM EDGE DISTANCE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
15. 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.
16. ALL FASTENERS TO BE CORROSION RESISTANT.
17. 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:
 - 17.1. WOOD – MINIMUM SPECIFIC GRAVITY OF G=0.42
 - 17.2. CONCRETE – MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.
 - 17.3. MASONRY – STRENGTH CONFORMANCE TO ASTM C–90, GRADE N, TYPE 1 (OR GREATER).
 - 17.4. METAL STRUCTURE: STEEL 18GA (.048”) 33KSI OR ALUMINUM 6063–T5 .125” THICK MINIMUM

TABLE OF CONTENTS	
SHEET NO.	DESCRIPTION
1	NOTES
2	ELEVATION AND DESIGN PRESSURE CHART
3	ANCHOR LAYOUT & DETAILS
4 – 6	CROSS SECTIONS AND GLAZING DETAILS
7 – 9	INSTALLATION DETAILS
10	WEEP LOCATION AND DRAIN PIPE DETAIL

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

SERIES SI3000 IMPACT FGW 3’x7.6’ PANEL OUTFOLD
NON–REINFORCED
NOTES

DRAWN:
R.L.

DWG NO.
08–02621

REV
C

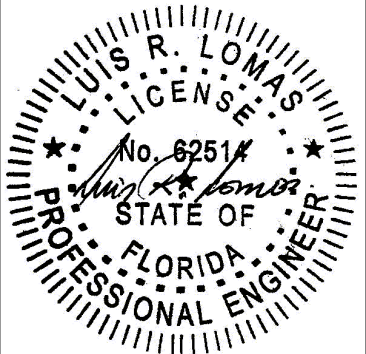
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SHEET 1 OF 10

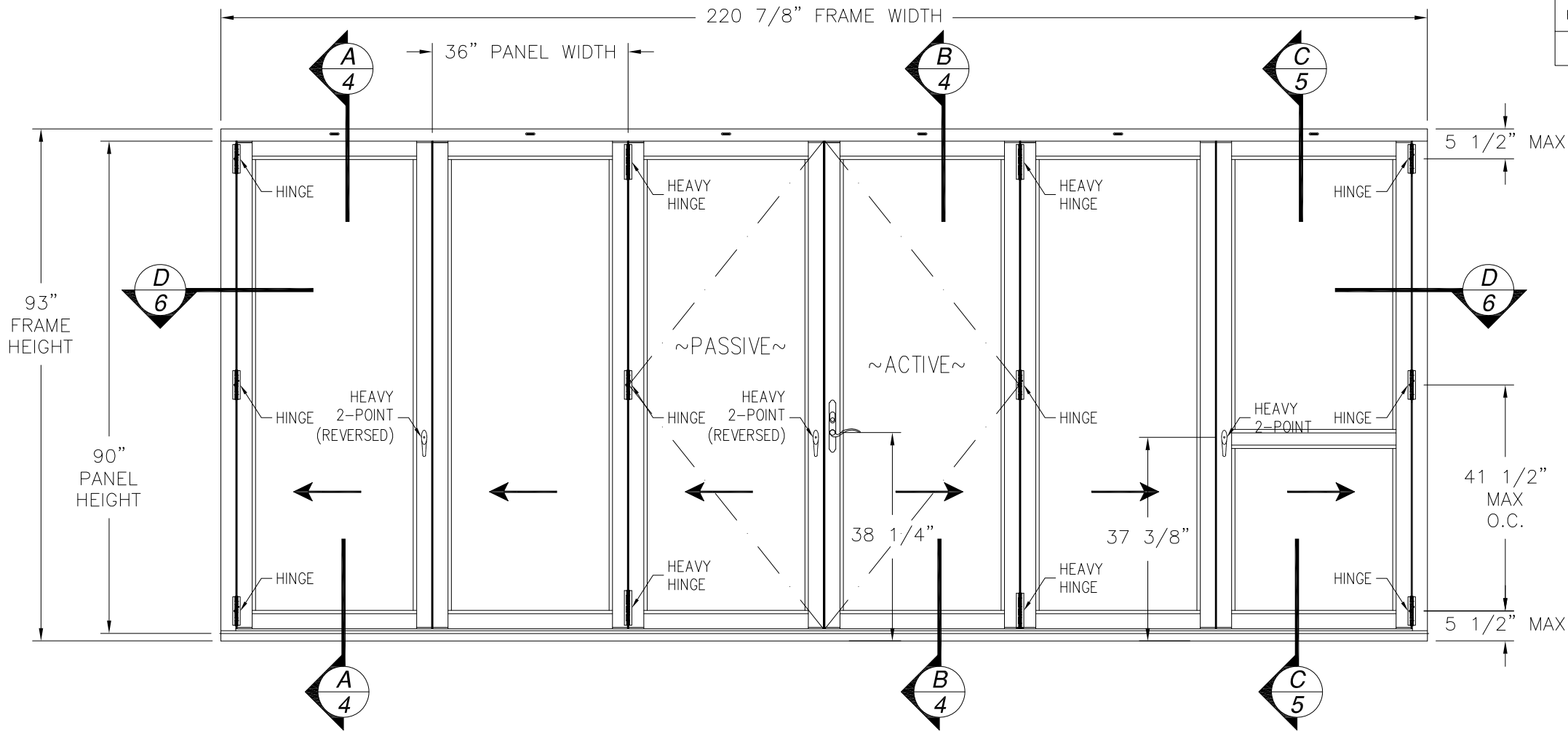
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SIGNED: 12/12/2023



Luis R. Lomas P.E.
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SERIES SI3000 IMPACT FGW 3' X 7.6' PANEL

EXTERIOR VIEW

UNLIMITED NUMBER OF PANELS IN UNLIMITED CONFIGURATIONS ARE APPROVED AS LONG AS INDIVIDUAL PANEL AREA DOES NOT EXCEED 22.14 FT² AND USES VERTICAL CONDITIONS AS SHOWN IN APPROVAL DOCUMENT.

DESIGN PRESSURE RATING	IMPACT RATING
+26.7/-55.0PSF	LARGE AND SMALL MISSILE IMPACT

MISSILE LEVEL D, WIND ZONE 4
WHERE WATER PENETRATION RESISTANCE IS REQUIRED
SEE CHART #1 THIS SHEET

DESIGN PRESSURE RATING	IMPACT RATING
±55.0PSF	LARGE AND SMALL MISSILE IMPACT

MISSILE LEVEL D, WIND ZONE 4
WHERE WATER PENETRATION RESISTANCE IS NOT REQUIRED
SEE CHART #2 THIS SHEET

- NOTES:
- DRAIN TUBE 1 1/2" I.D. AT 10", 28 1/2" FROM EACH CORNER AND (1) AT MIDSPAN OF SILL FACE.
 - PANEL SIZE: 36" X 90"
 - D.L.O.: 28 5/8" X 82 1/2"

HARDWARE SCHEDULE

A.	(4) POINT LOCK SYSTEM
B.	(2) POINT SINGLE HANDLE THROW-BOLT
C.	METAL KEEPER AT LOCK LOCATIONS
D.	EXTRUDED ALUMINUM THROW-BOLTS AT HEAD & SILL
E.	5 1/4" BUTT-TYPE HINGE AT TOP, BOTTOM & MISAN OF EACH JAMB
F.	TROLLEY SYSTEM (TOP LOAD)
G.	EXTRUDED ALUMINUM WEATHERSTRIP HOLDER AT PASSIVE MEETING STILE
H.	(2) EXTRUDED ALUMINUM PLATES AT TOP & BOTTOM OF EACH STILE

Chart #1

Maximum Design pressure (psf)								
Panel Height (in)	Single Panel Width (in)							
	24.0		30.0		35.6		36.0	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
78.0	26.7	65.0	26.7	65.0	26.7	63.5	26.7	62.8
84.0	26.7	65.0	26.7	65.0	26.7	58.9	26.7	58.3
90.0	26.7	65.0	26.7	62.9	26.7	55.0	-	-
96.0	26.7	64.7	26.7	52.5	-	-	-	-
102.0	26.7	53.8	26.7	43.6	-	-	-	-
108.0	26.7	45.2	-	-	-	-	-	-
114.0	26.7	38.4	-	-	-	-	-	-
120.0	26.7	32.8	-	-	-	-	-	-
126.0	26.7	28.3	-	-	-	-	-	-
132.0	24.6	24.6	-	-	-	-	-	-

Chart #2

Maximum Design pressure (psf)								
Panel Height (in)	Single Panel Width (in)							
	24.0		30.0		35.6		36.0	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
78.0	65.0	65.0	65.0	65.0	63.5	63.5	62.8	62.8
84.0	65.0	65.0	65.0	65.0	58.9	58.9	58.3	58.3
90.0	65.0	65.0	62.9	62.9	55.0	55.0	-	-
96.0	64.7	64.7	52.5	52.5	-	-	-	-
102.0	53.8	53.8	43.6	43.6	-	-	-	-
108.0	45.2	45.2	-	-	-	-	-	-
114.0	38.4	38.4	-	-	-	-	-	-
120.0	32.8	32.8	-	-	-	-	-	-
126.0	28.3	28.3	-	-	-	-	-	-
132.0	24.6	24.6	-	-	-	-	-	-

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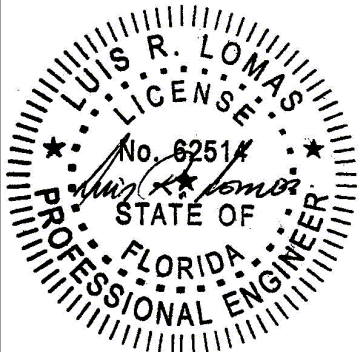
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NON-REINFORCED
ELEVATION AND DESIGN PRESSURE CHART

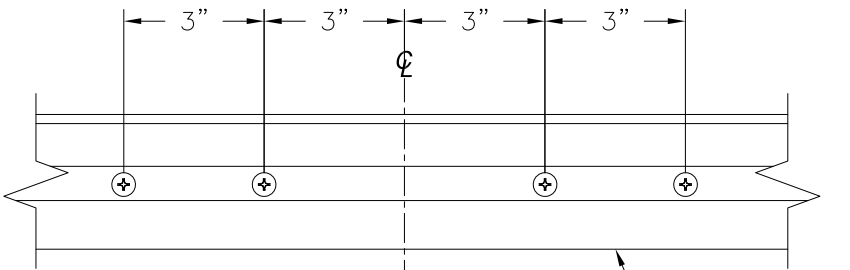
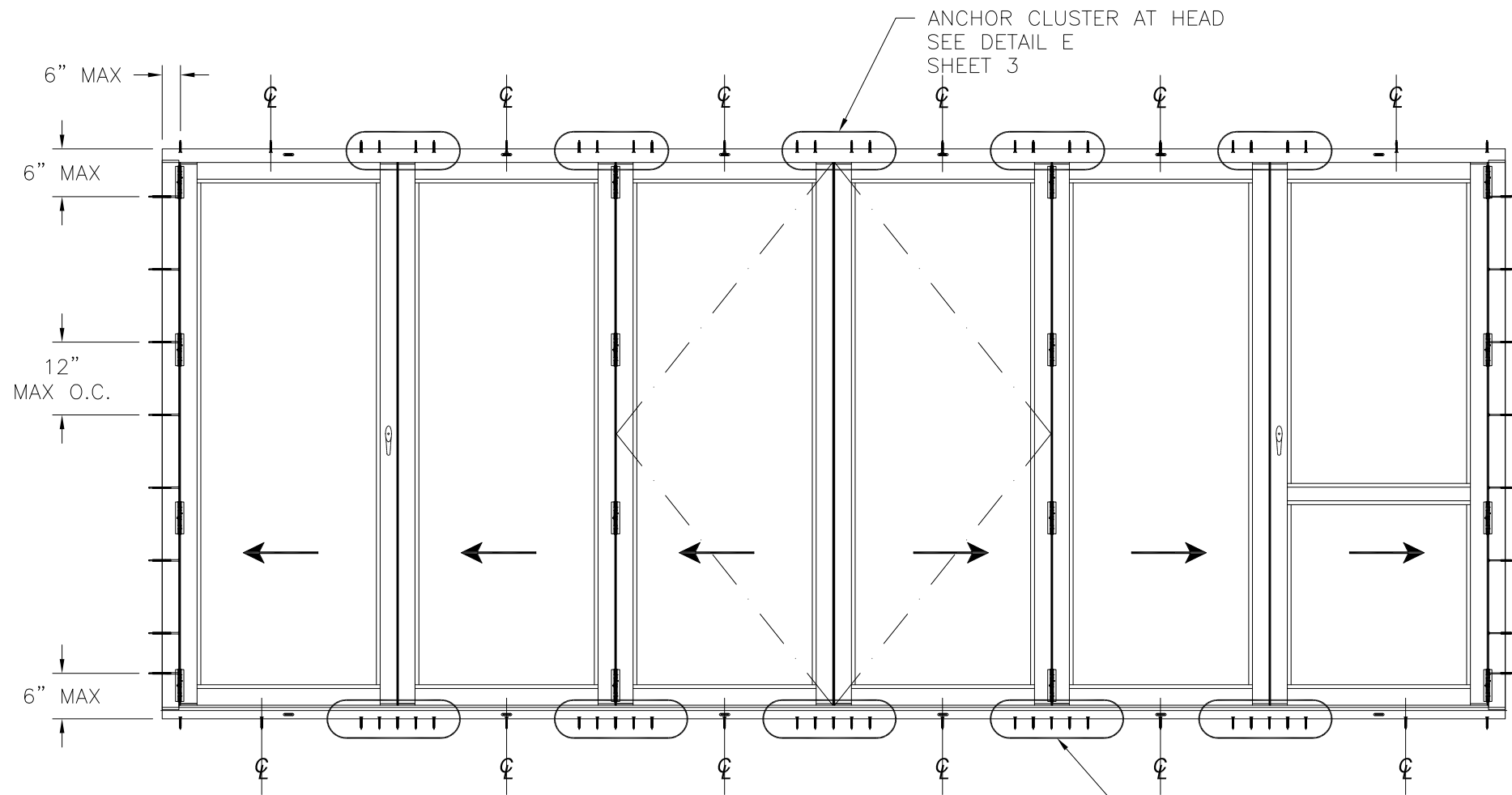
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SCALE NTS	DATE 01/07/15	SHEET 2 OF 10

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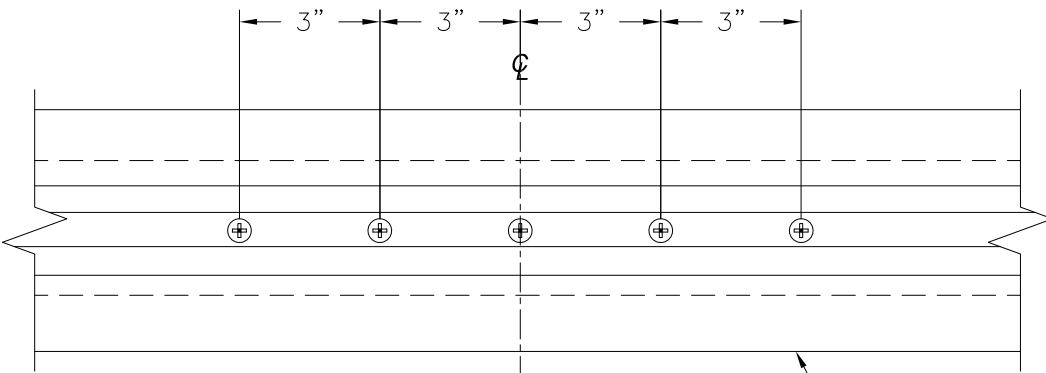


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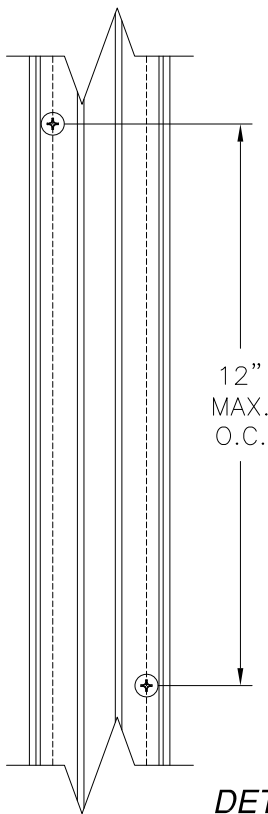
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DETAIL E
ANCHOR CLUSTER AT HEAD



DETAIL F
ANCHOR CLUSTER AT SILL



DETAIL G
JAMB ANCHOR INSTALLATION

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ANCHOR LAYOUT

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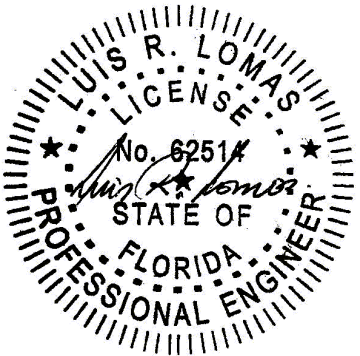
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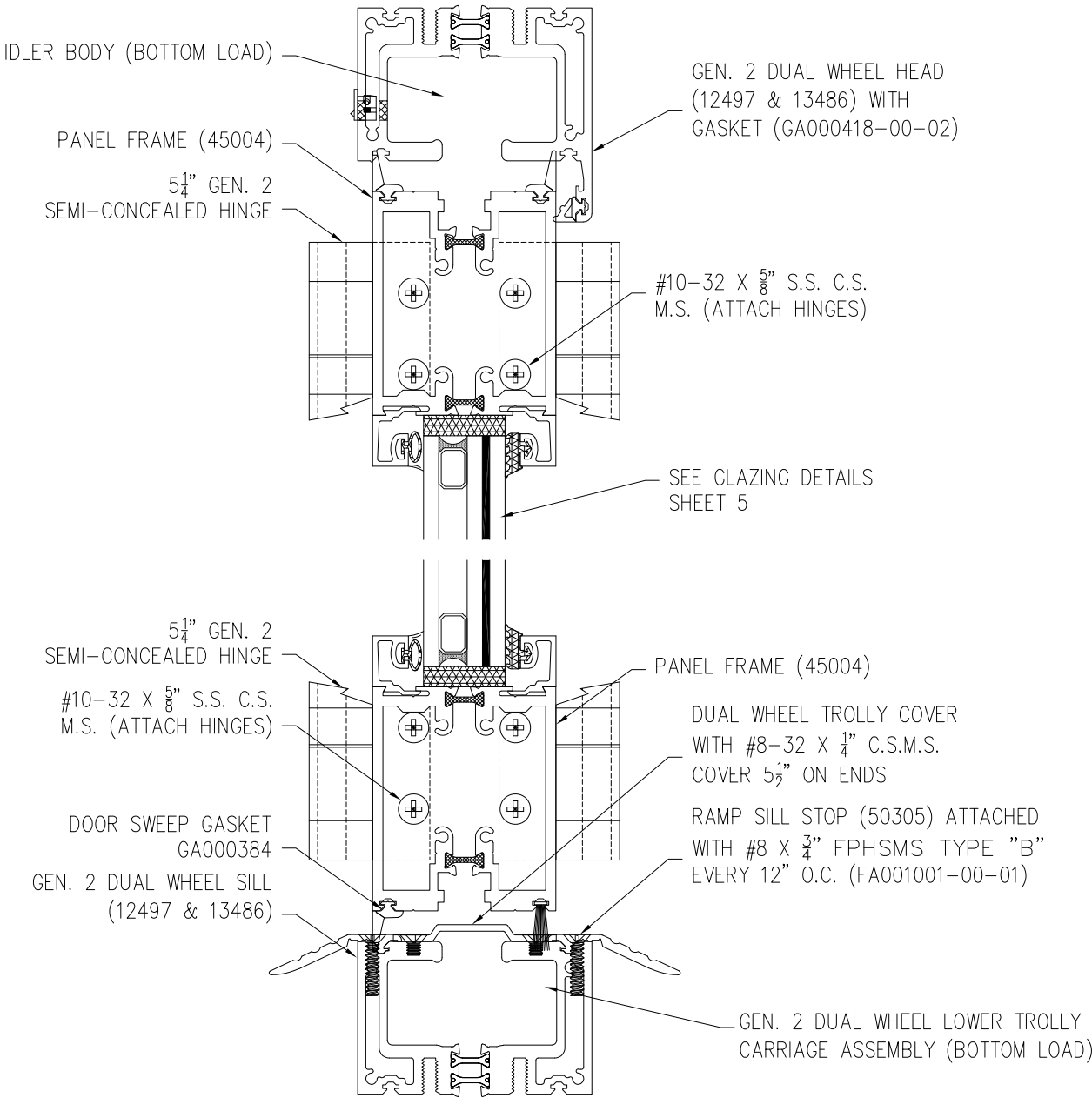
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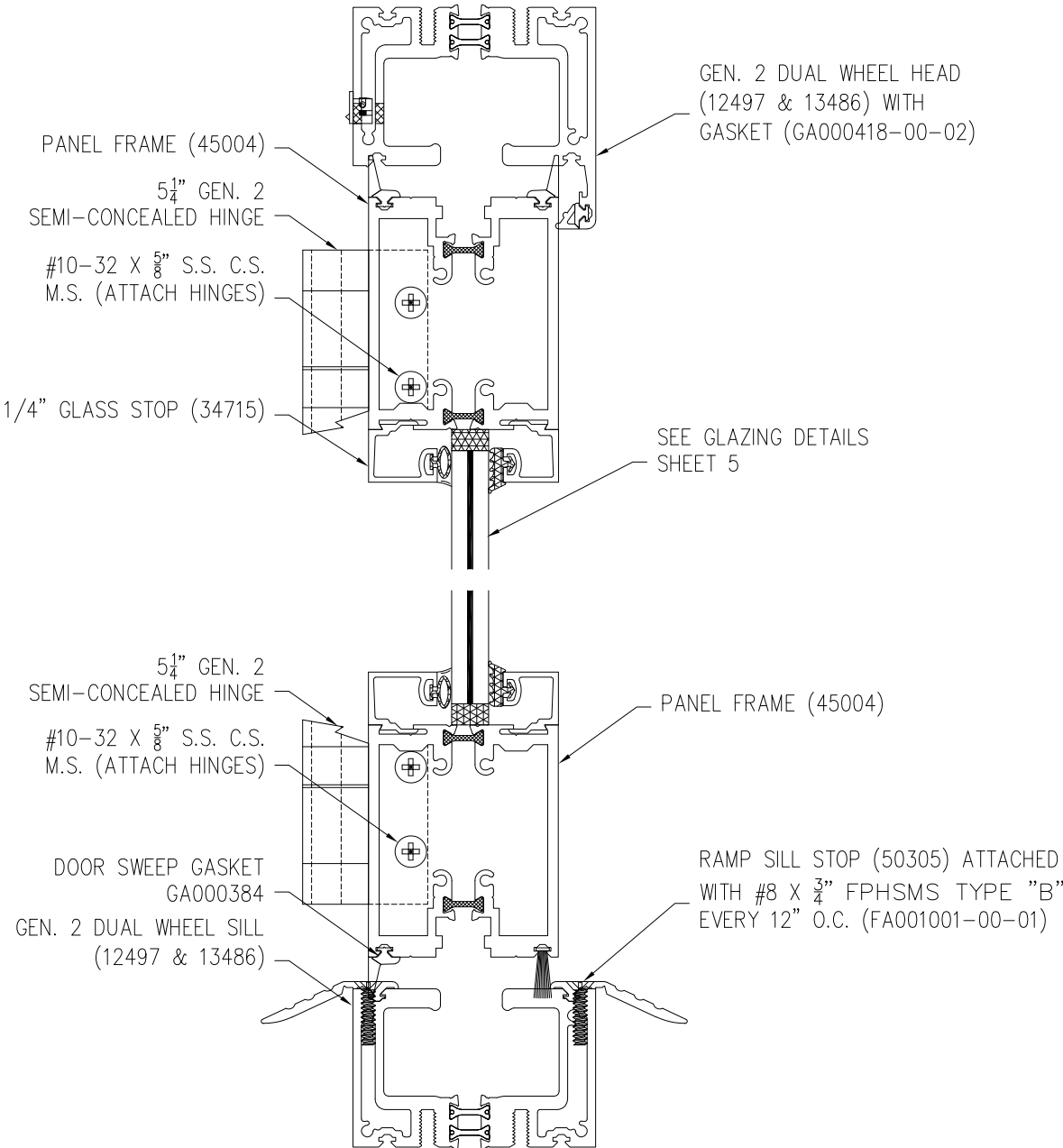
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FOR INSTALLATION DETAILS REFER TO SHEETS 6 - 9

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A
4
VERTICAL SECTION



B
4
VERTICAL SECTION

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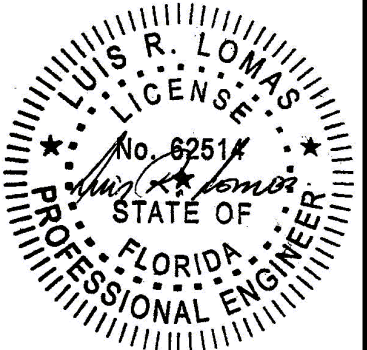
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SERIES SI3000 IMPACT FGW 3'x7.6' PANEL OUTFOLD
NON-REINFORCED
VERTICAL CROSS SECTIONS

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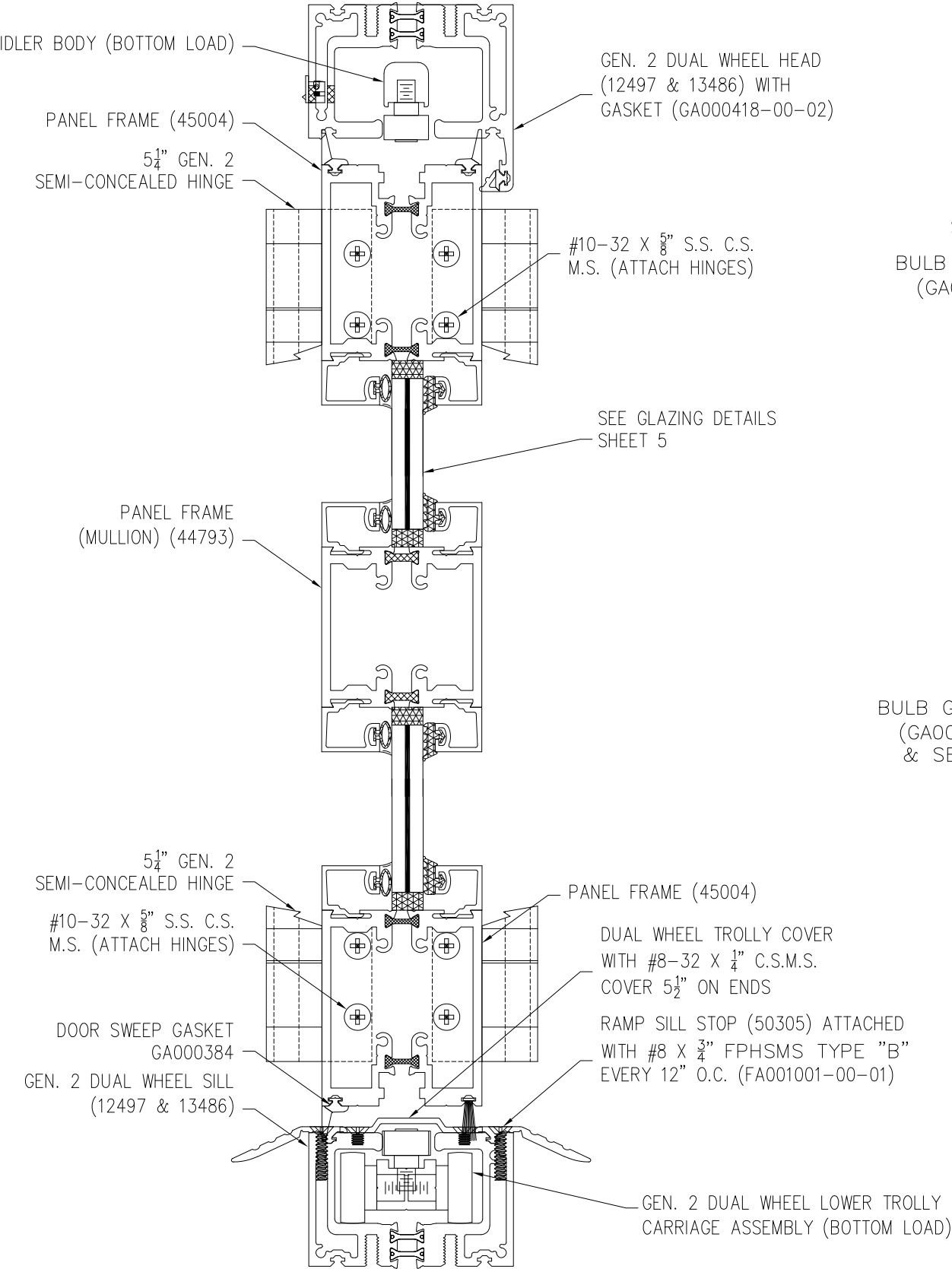
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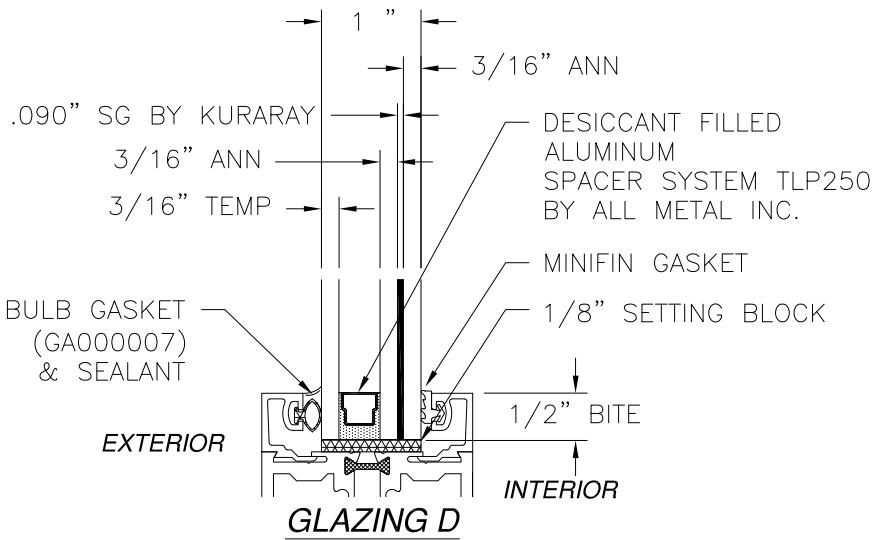
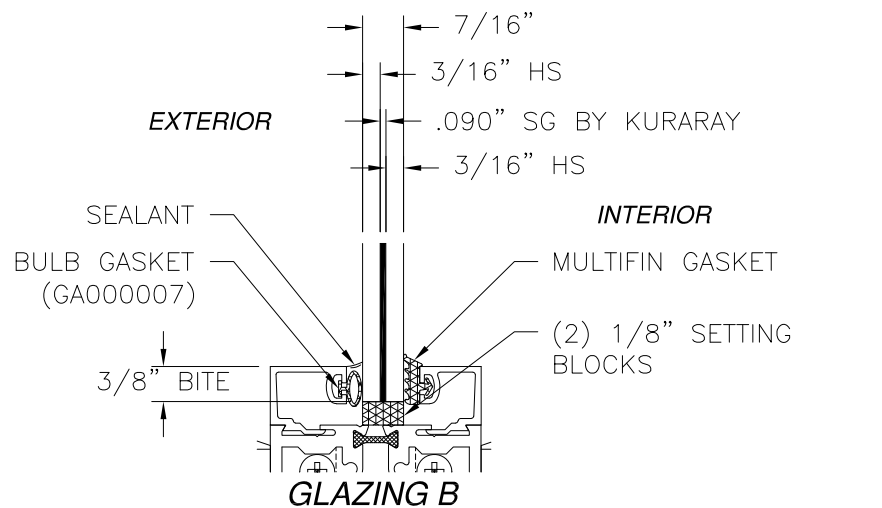
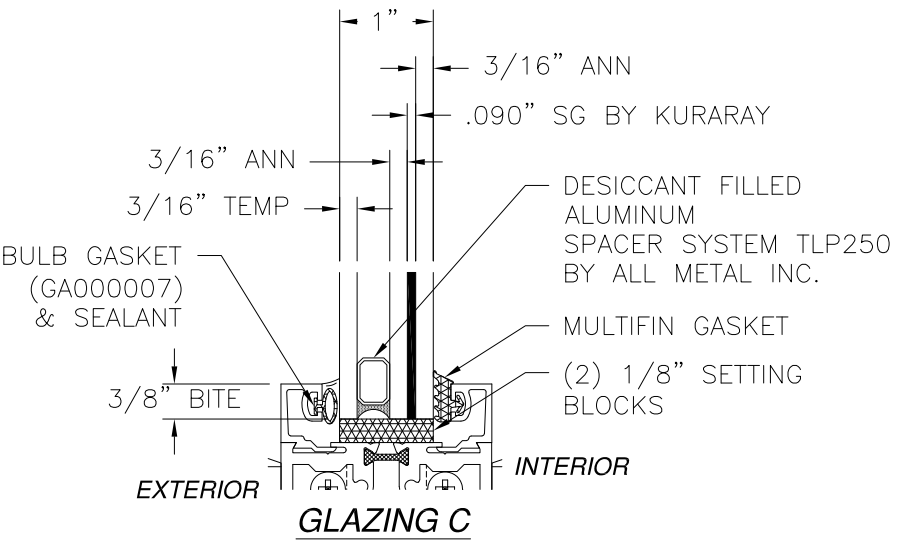
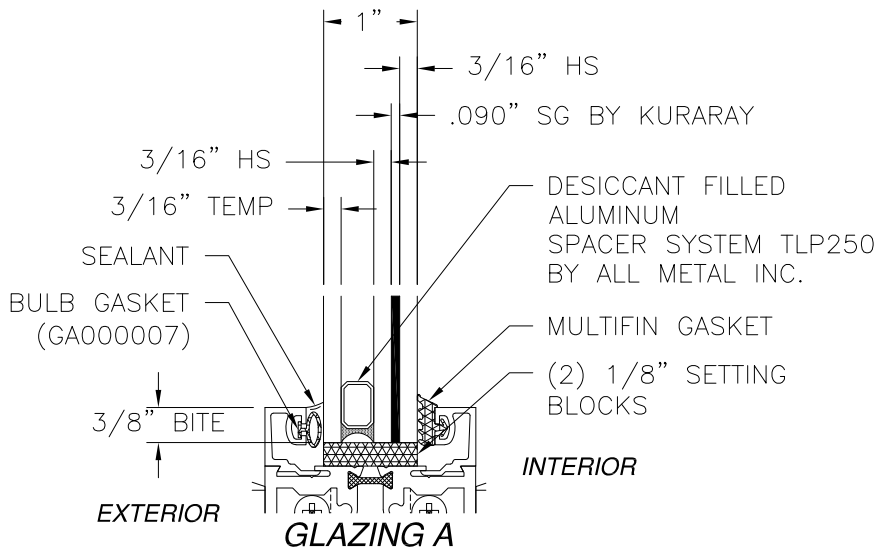


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C
5 VERTICAL SECTION



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VERTICAL CROSS SECTIONS AND GLAZING DETAILS

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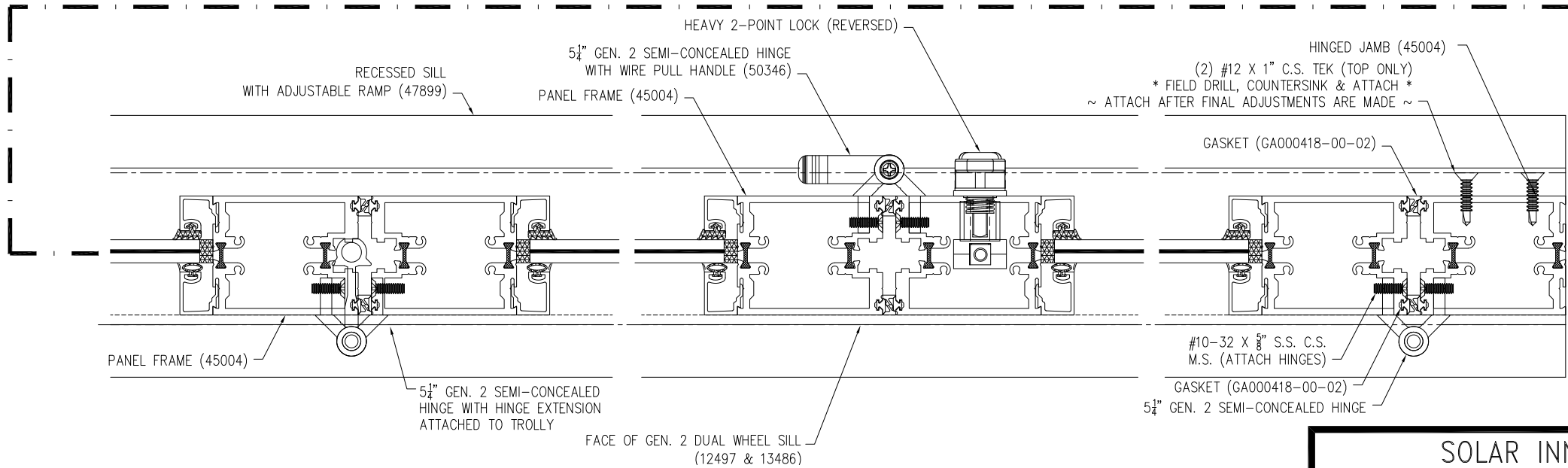
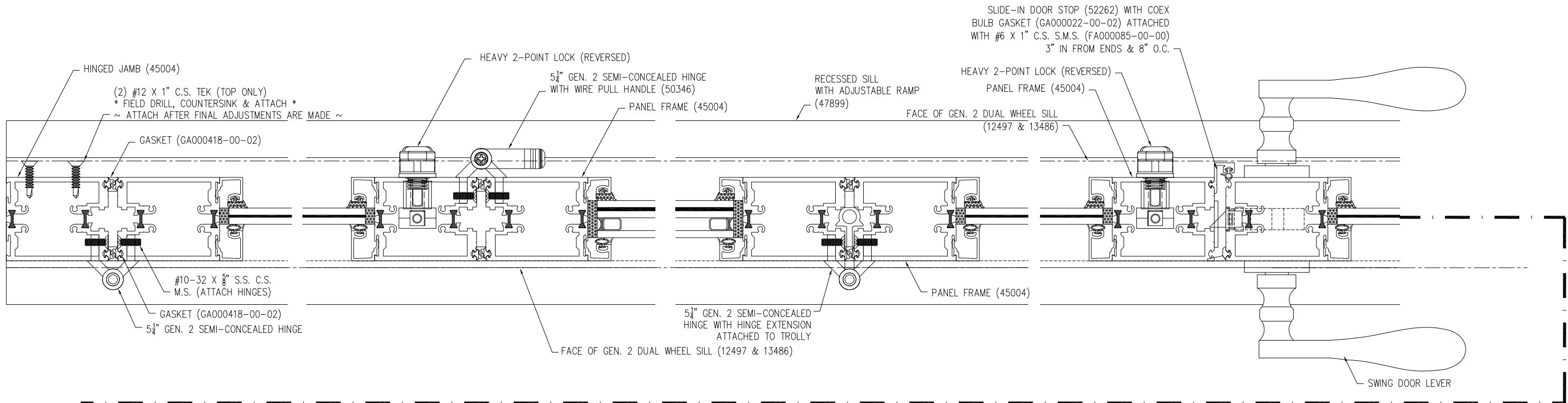
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PROFESSIONAL ENGINEER

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D
6 **HORIZONTAL SECTION**

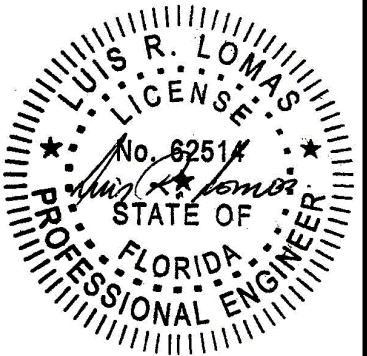
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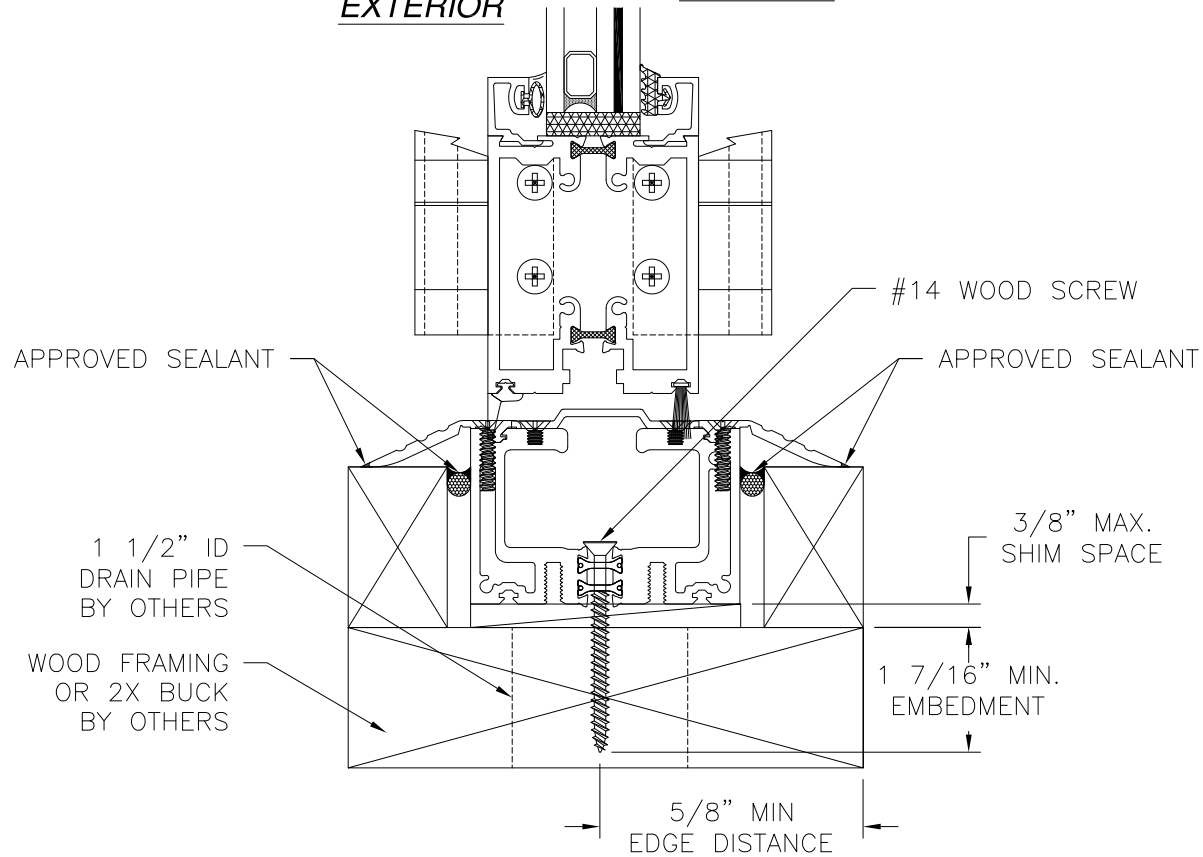
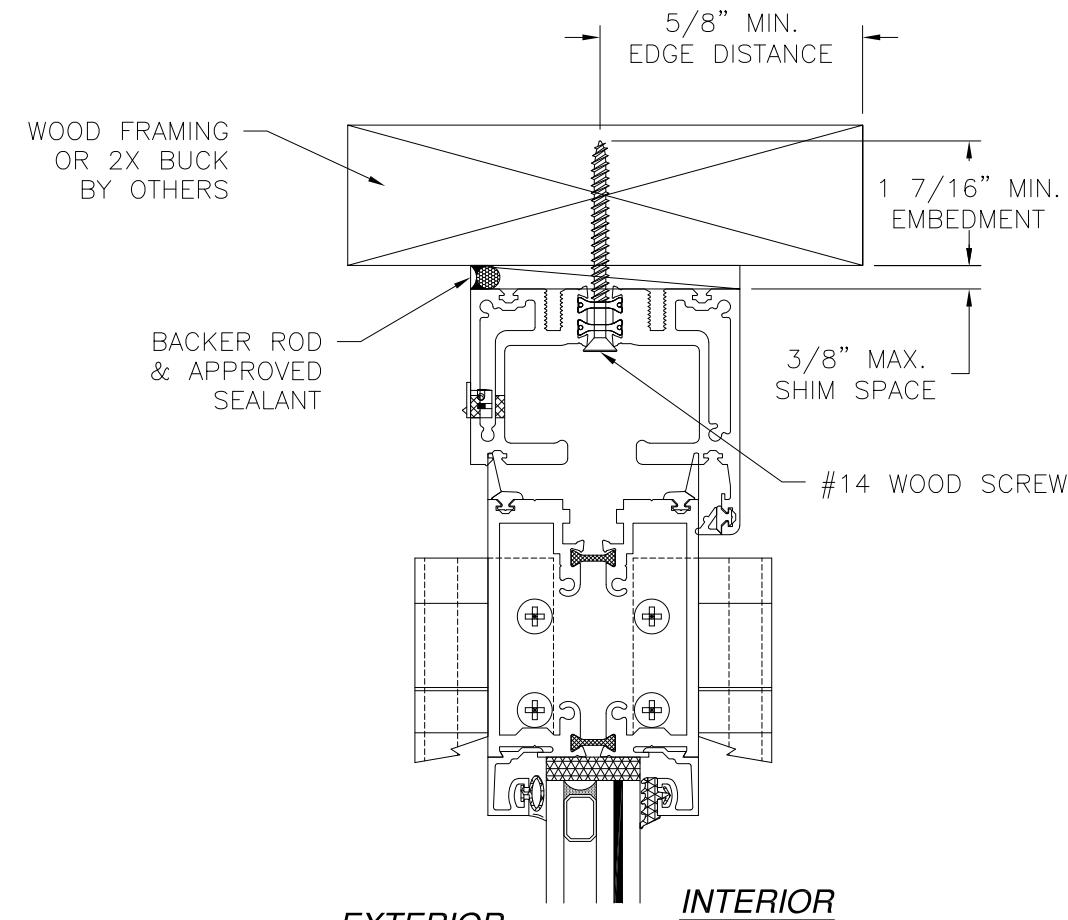
SERIES SI3000 IMPACT FGW 3'x7.6' PANEL OUTFOLD
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HORIZONTAL CROSS SECTIONS

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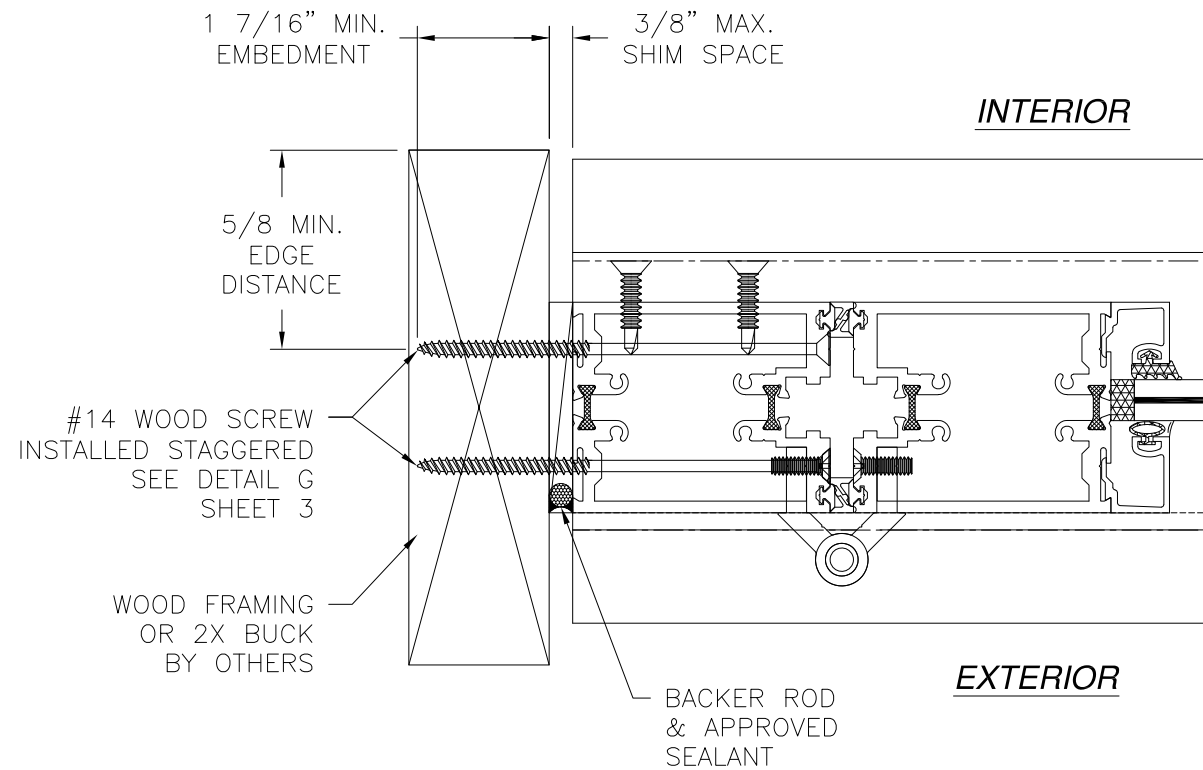
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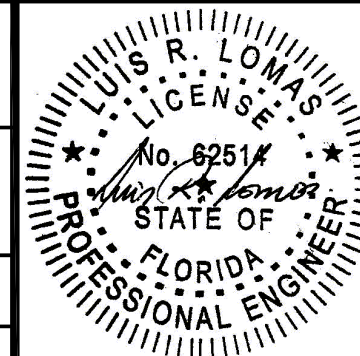
VERTICAL CROSS SECTION
WOOD FRAMING OR 2X BUCK INSTALLATION



JAMB INSTALLATION DETAIL
WOOD FRAMING OR 2X BUCK INSTALLATION

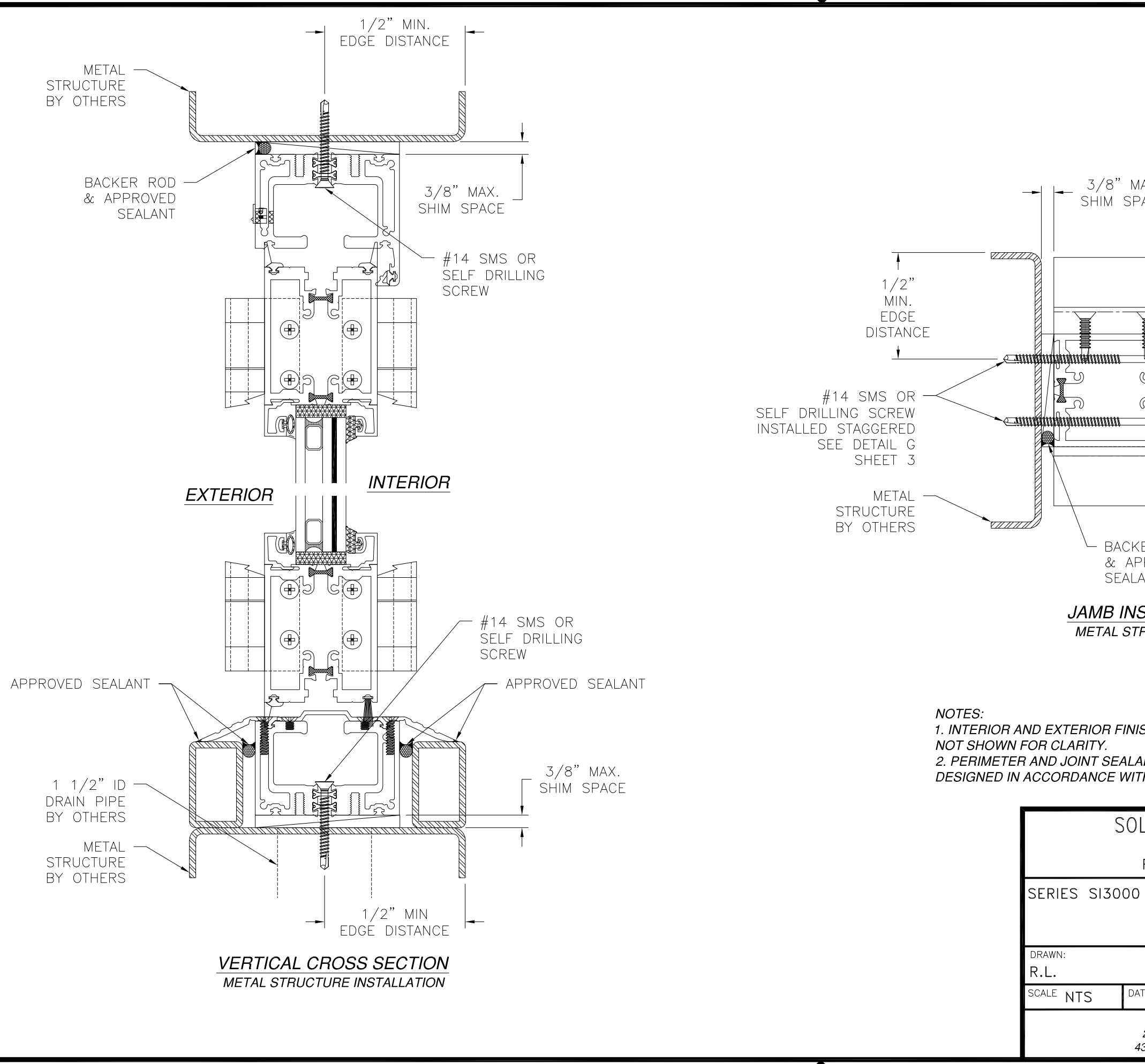
- NOTES:**
1. INTERIOR AND EXTERIOR FINISHES, BY OTHERS, NOT SHOWN FOR CLARITY.
 2. PERIMETER AND JOINT SEALANT BY OTHERS TO BE DESIGNED IN ACCORDANCE WITH ASTM E2112

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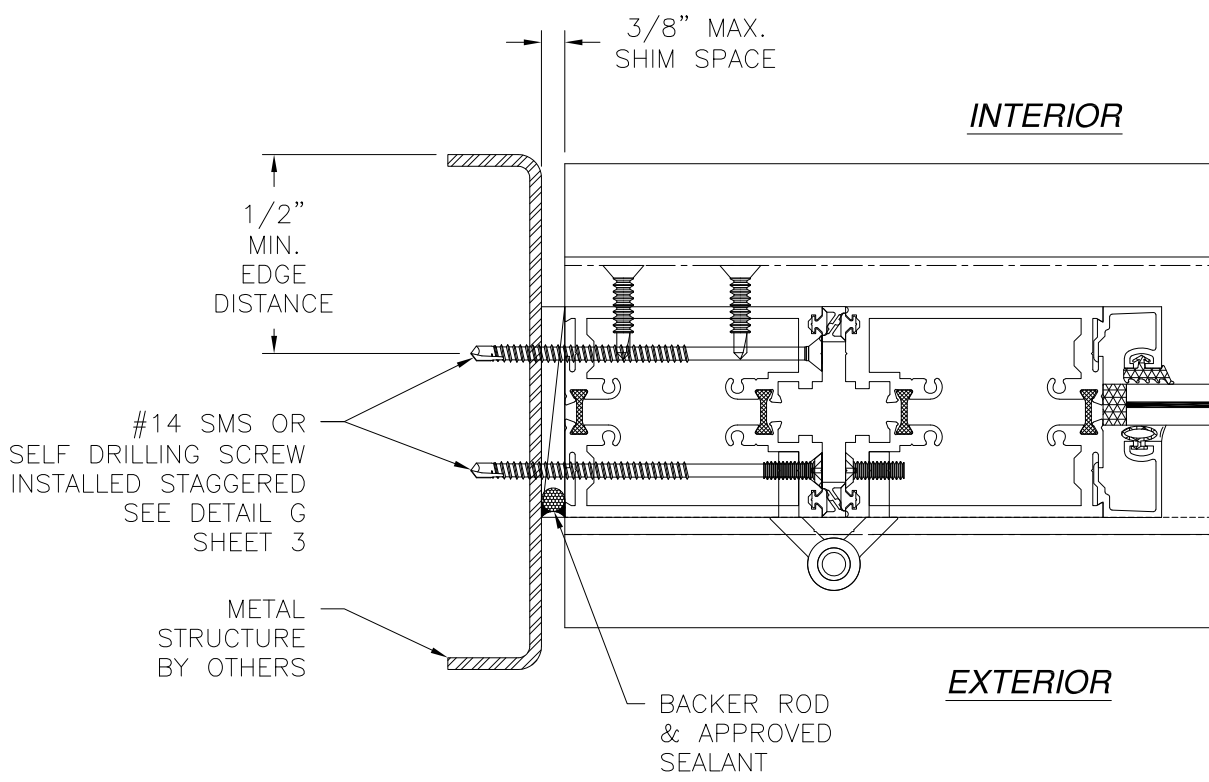


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JAMB INSTALLATION DETAIL
METAL STRUCTURE INSTALLATION

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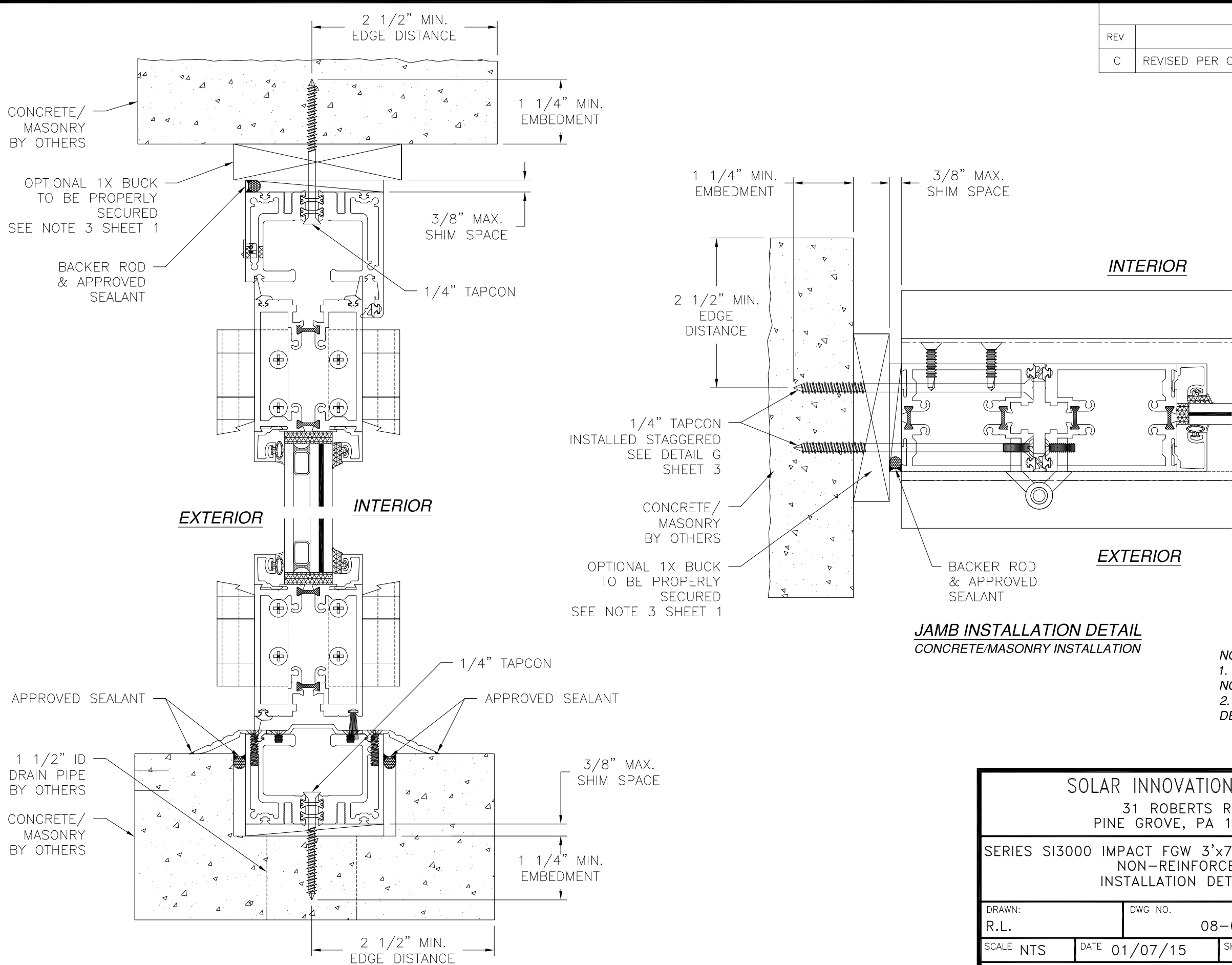
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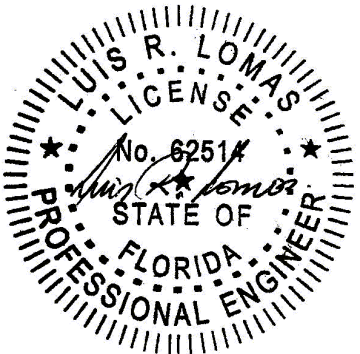
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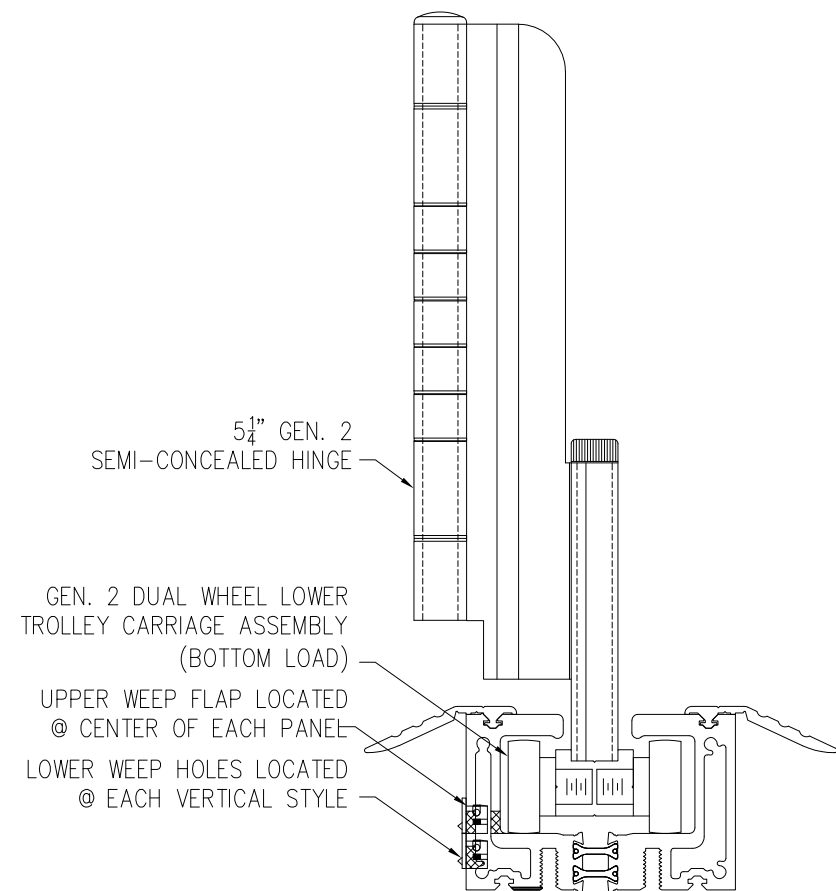
SHEET
9 OF 10

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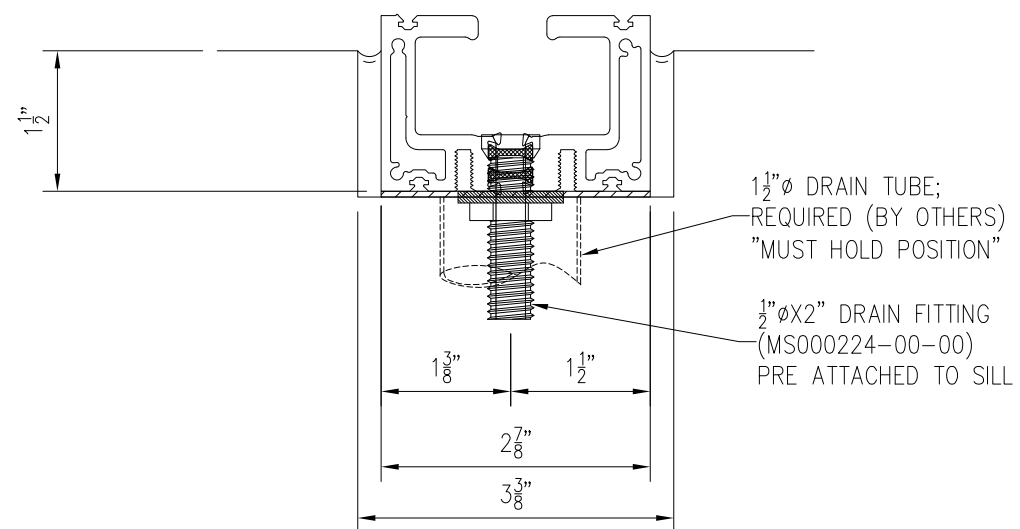


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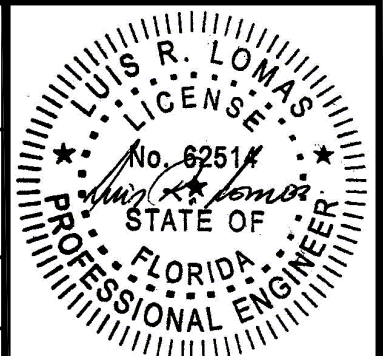
WEEP LOCATIONS



DRAIN PIPE DETAIL

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SOLAR INNOVATIONS, INC. 31 ROBERTS RD PINE GROVE, PA 17963		
SERIES SI3000 IMPACT FGW 3'x7.6' PANEL OUTFOLD NON-REINFORCED WEEP LOCATION AND DRAIN PIPE DETAIL		
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