

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE 2018 IBC AND 2018 IRC.
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" 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.
5. 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.
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 WINDOW 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: EXTRUDED RIGID PVC.
12. UNITS MUST BE GLAZED PER ASTM E1300, SEE PAGE 4 FOR GLAZING DETAILS.
13. APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.
14. FOR ANCHORING INTO WOOD FRAMING OR 2X BUCK USE #10 WOOD SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 1/4" MINIMUM EMBEDMENT INTO SUBSTRATE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.

15. FOR ANCHORING INTO MASONRY/CONCRETE USE 3/16" OR 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.
16. FOR ANCHORING INTO METAL STRUCTURE USE #10 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 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
19. APPROVED CONFIGURATIONS: OX, XO.

SIGNED: 04/01/2021

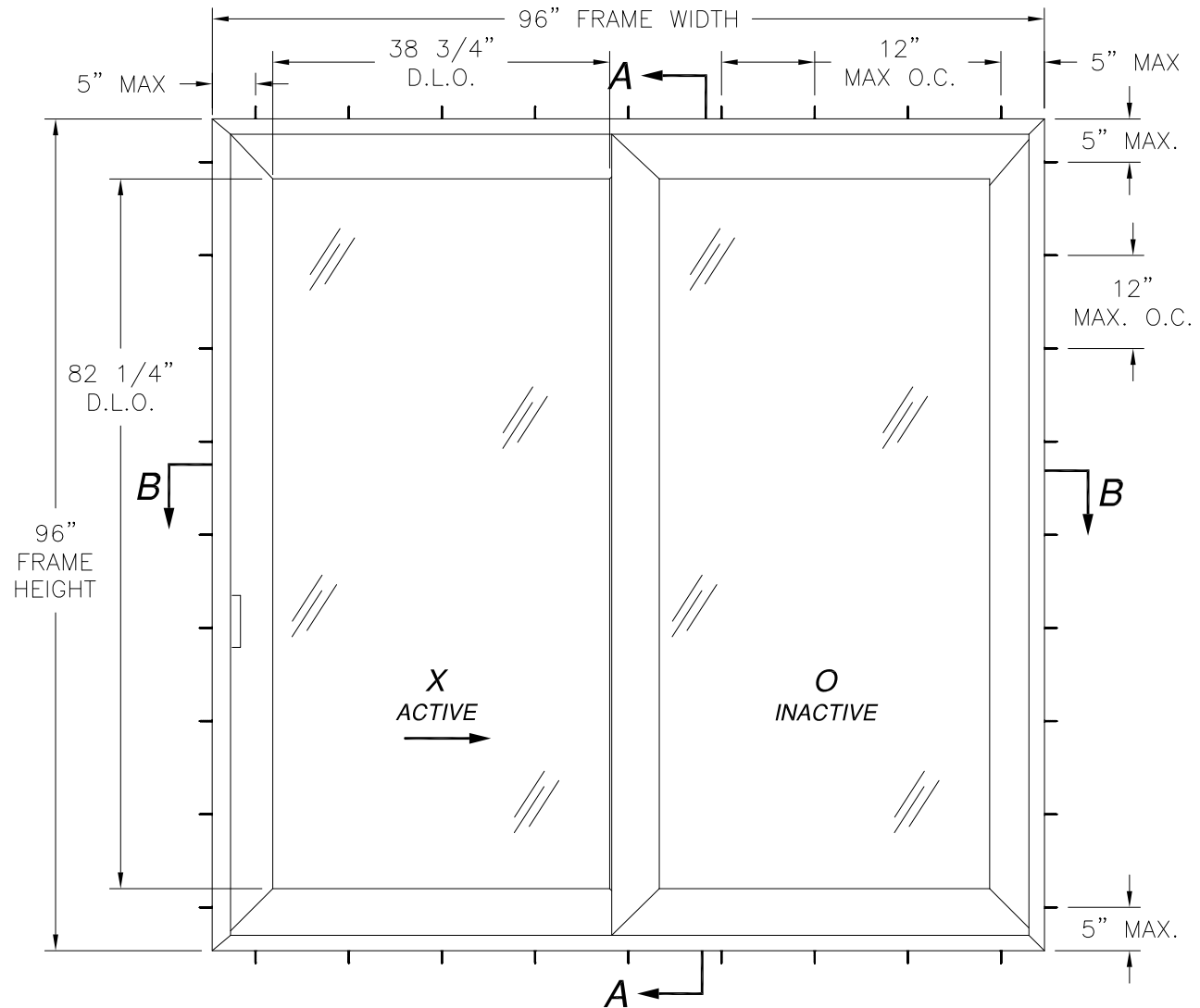
TABLE OF CONTENTS	
SHEET NO.	DESCRIPTION
1	NOTES
2 - 3	ELEVATION
4 - 5	CROSS SECTIONS, B.O.M. AND GLAZING DETAIL
6 - 12	INSTALLATION DETAILS
13	COMPONENTS

SOLAR INNOVATIONS, INC. 31 ROBERTS ROAD PINE GROVE, PA 17963		
SERIES SI4100V VINYL COMPOSITE SGD (OX & XO) 96" X 96" IMPACT NOTES		
DRAWN: A.R.	DWG NO. 08-03455	REV -
SCALE NTS	DATE 03/31/2021	SHEET 1 OF 13
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		

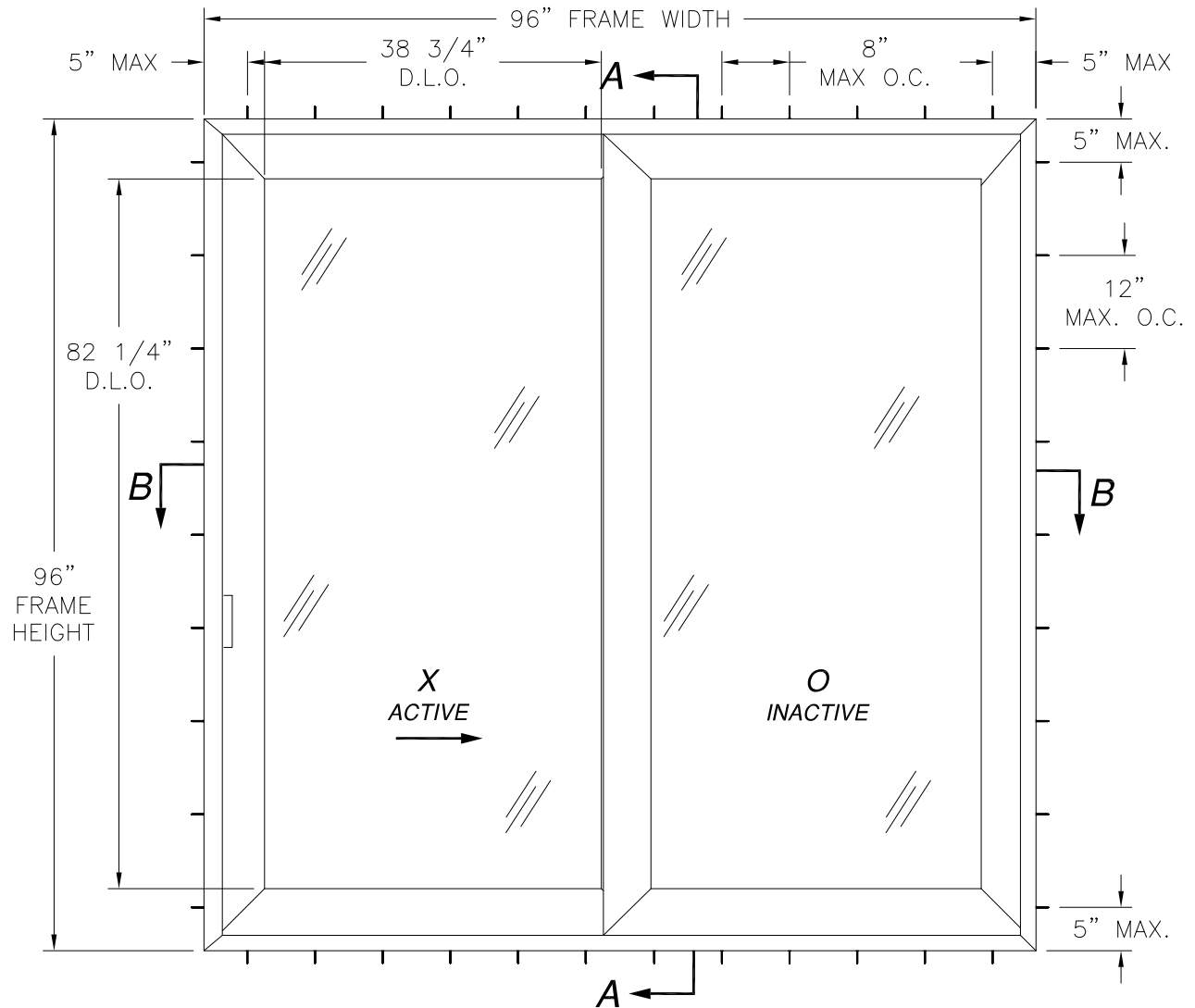


Luis R. Lomas P.E.
TX No.: 101889

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



SERIES SI4100V VINYL COMPOSITE SLIDING GLASS DOOR
 FRAME AND STRIP INSTALLATION
 EXTERIOR VIEW
 WITH #10 WOOD SCREWS, #10 SMS OR SELF DRILLING SCREWS AND 1/4" TAPCON



SERIES SI4100V VINYL COMPOSITE SLIDING GLASS DOOR
 FRAME AND STRIP INSTALLATION
 EXTERIOR VIEW
 WHEN INSTALLED INTO MASONRY WITH 3/16" TAPCONS

DESIGN PRESSURE RATING	IMPACT RATING
±50PSF	LARGE MISSILE IMPACT

MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

NOTES:
 1. PANEL SIZE: 49 1/4" X 92 3/4"

HARDWARE SCHEDULE	
A.	(2) POINT LOCK HANDLE, FROM BOTTOM RAIL ON LOCK STILE
B.	(1) SINGLE-POINT SPRING-LOADED PLUNGER-TYPE LOCK, AT TOP OF INTERIOR MEETING STILE
C.	(2) POINT MORTISE LOCK HANDLE, FROM BOTTOM RAIL ON LOCK STILE
D.	(2) POINT METAL, AT LOCK JAMB
E.	(1) PLUNGER-TYPE WITH KEEPER, AT HEAD
F.	CONTOUR-SHAPED ALUMINUM REINFORCEMENT, AT BOTTOM RAILS, TOP RAILS AND JAMB STILES
G.	RECTANGULAR-SHAPED STEEL REINFORCEMENT, AT MEETING STILES

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

SERIES SI4100V VINYL COMPOSITE SGD (OX & XO)
 96" X 96" IMPACT
 ELEVATIONS

DRAWN: A.R.	DWG NO. 08-03455	REV -
SCALE NTS	DATE 03/31/2021	SHEET 2 OF 13

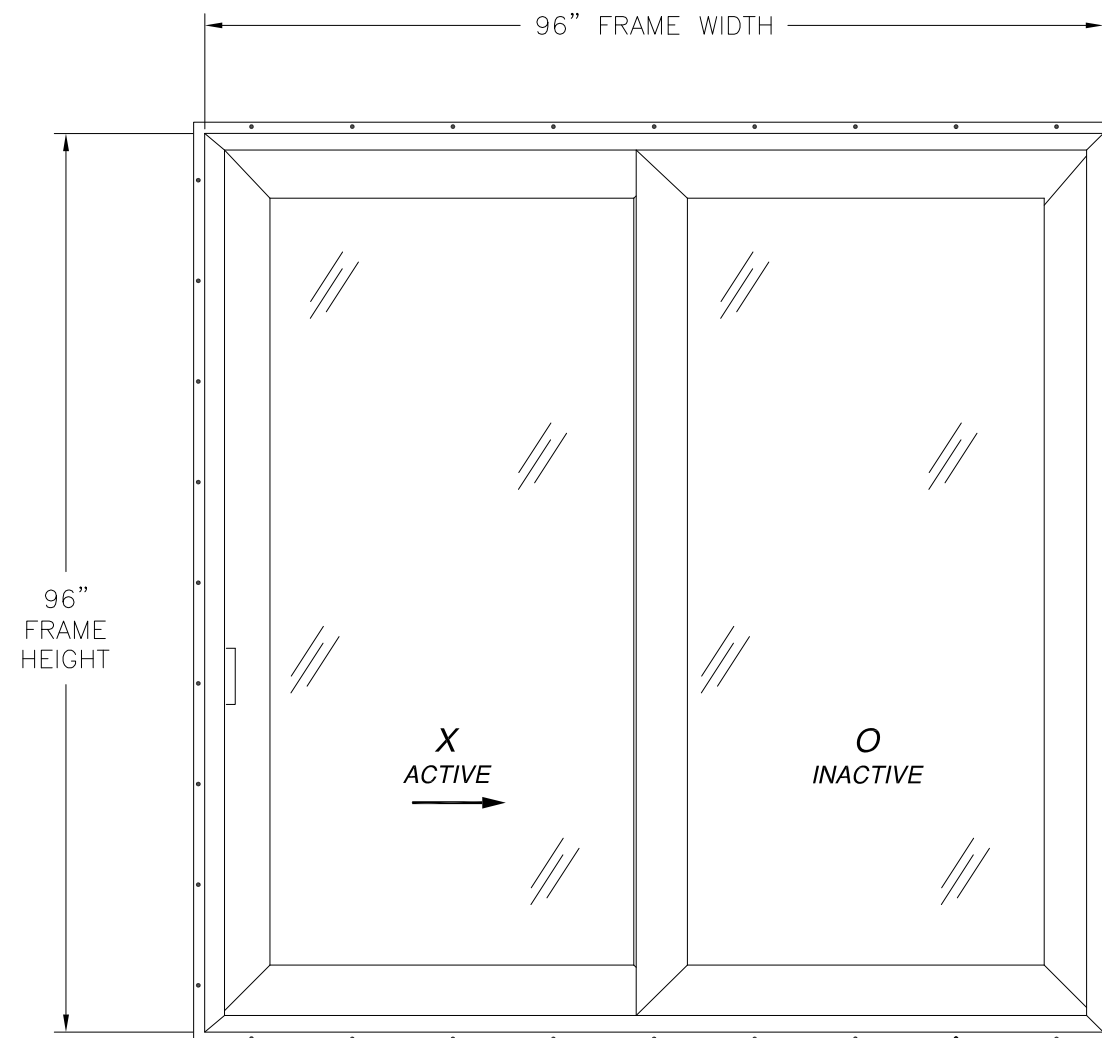
L. ROBERTO LOMAS P.E.
 1432 WOODFORD RD LEWISVILLE, NC 27023
 434-688-0609 rllomas@lrlomaspe.com

SIGNED: 04/01/2021



Luis R. Lomas P.E.
 TX No.: 101889

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



ANCHOR SPACING TO BE DETERMINED BY INSTALLER
THIS IS A TEMPORARY
INSTALLATION

SERIES SI4100V VINYL COMPOSITE SLIDING GLASS DOOR
FIN INSTALLATION IS FOR TEMPORARY PURPOSES ONLY.
ALL STRUCTURAL CONNECTIONS MUST BE INSTALLED AS SHOWN IN SHEET 2
EXTERIOR VIEW

SIGNED: 04/01/2021

SOLAR INNOVATIONS, INC. 31 ROBERTS ROAD PINE GROVE, PA 17963		
SERIES SI4100V VINYL COMPOSITE SGD (OX & XO) 96" X 96" IMPACT FIN ELEVATION (FOR TEMPORARY PURPOSES ONLY)		
DRAWN: A.R.	DWG NO. 08-03455	REV -
SCALE NTS	DATE 03/31/2021	SHEET 3 OF 13
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		

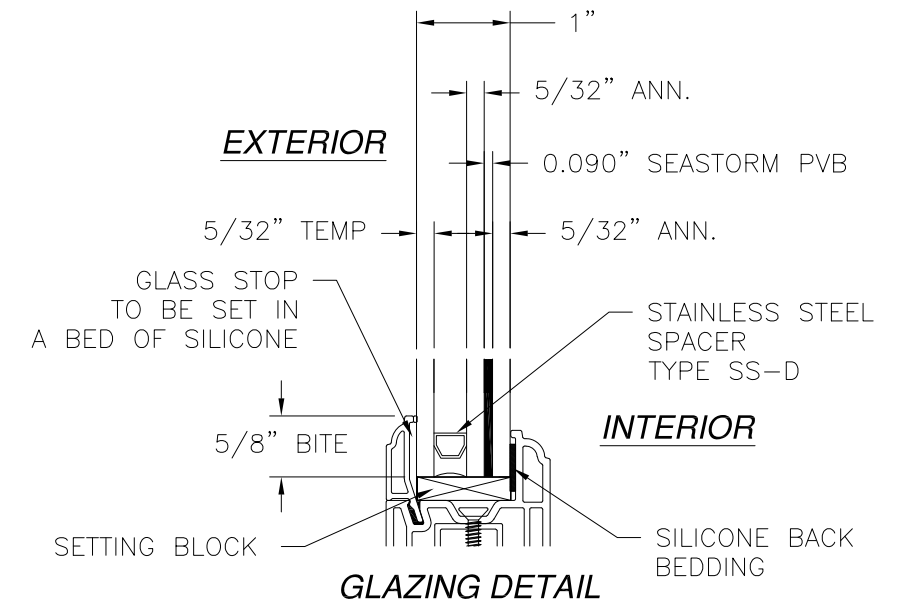
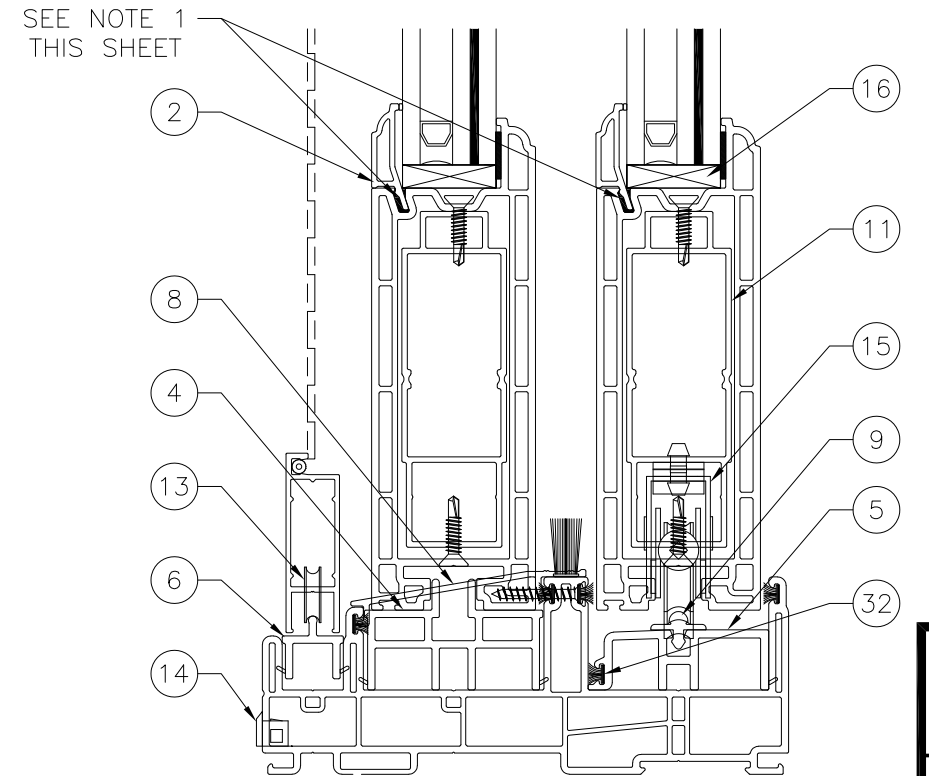
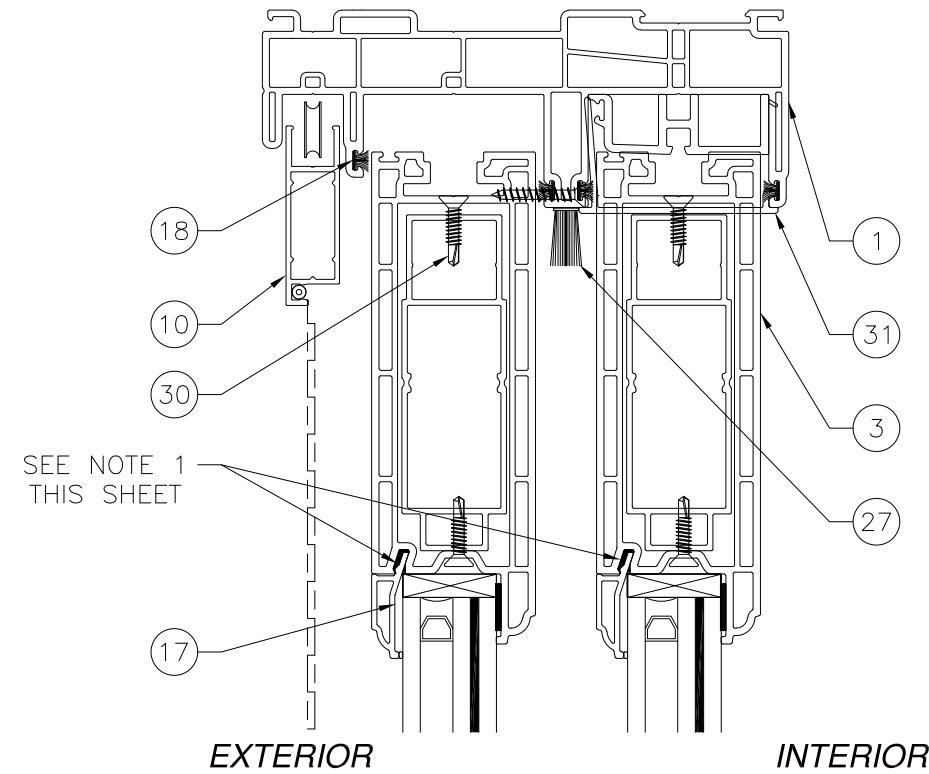


Luis R. Lomas P.E.
TX No.: 101889

PARTS LIST		
NO.	PART NUMBER	DESCRIPTION
1	S003	FRAME, PVC
2	S021	1" GLAZING BEAD, PVC
3	S017	SASH, PVC
4	S008	SUPPORT BLOCK, PVC
5	S018	SILL ADAPTER, PVC
6	7059	SCREEN ADAPTER
7	S084	SNAP-ON MEETING RAIL, PVC
8		SILL (ALUMINUM 6063-T5)
9		SASH RAIL (ALUMINUM 6063-T5)
10		SCREEN (ALUMINUM 6063-T5)
11		ROLLER SUPPORT (ALUMINUM 6063-T5)
12		SASH REINFORCEMENT (ALUMINUM)
13		SCREEN ROLLER
14	110-2550-10	WEEP COVER (RO-MAI)
15		TANDEM ROLLER
16		SETTING BLOCK (1"X.25"X2" 80 DUROMETER)
17		SEALANT DOW 995 (DOW CORNING)
18	HF-7320-187	WEATHER STRIP (SCHLEGEL)
19	SS-6945	WEATHERSTRIP (SCHLEGEL)
20		SCREEN HANDLE INTERIOR AND EXTERIOR
21		SCREEN KEEPER
22	893-0003	SASH KEEPER (ROYALPLAST)
23		SASH HANDLE INTERIOR AND EXTERIOR (FASCO)
24		SCREEN KEEPER SCREWS FH # 6 X 1/2"
25		SASH KEEPER SCREWS FH #8 X 5/8"
26		FIXED SASH SCREWS FH #6 X 1"
27	T5927AMW	6" WEATHERSTRIP (ULTRAFAB)
28	EAQ705	SCREW PLUG
29	S030	LOCK SIDE MOLDING
30		REINFORCEMENT SCREWS SMS #8 X 3/4"
31	S029	SASH STOP
32	PB-8322-187	WEATHERSTRIP (SCHLEGEL)
33		MEETING RAIL REINFORCEMENT (STEEL)
34		MEETING RAIL SCREWS FH #6 X 3/4"
35		INSTALLATION STRIP

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

**FOR ILLUSTRATION PURPOSES ONLY
FOR INSTALLATION DETAILS
REFER TO SHEETS 6 - 12**



NOTES:
1. INSTALL SILICONE 4" @ CORNERS BEFORE INSERTING GLAZING BEAD

SIGNED: 04/01/2021

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

SERIES SI4100V VINYL COMPOSITE SGD (OX & XO)
96" X 96" IMPACT
CROSS SECTIONS, B.O.M. AND GLAZING DETAIL

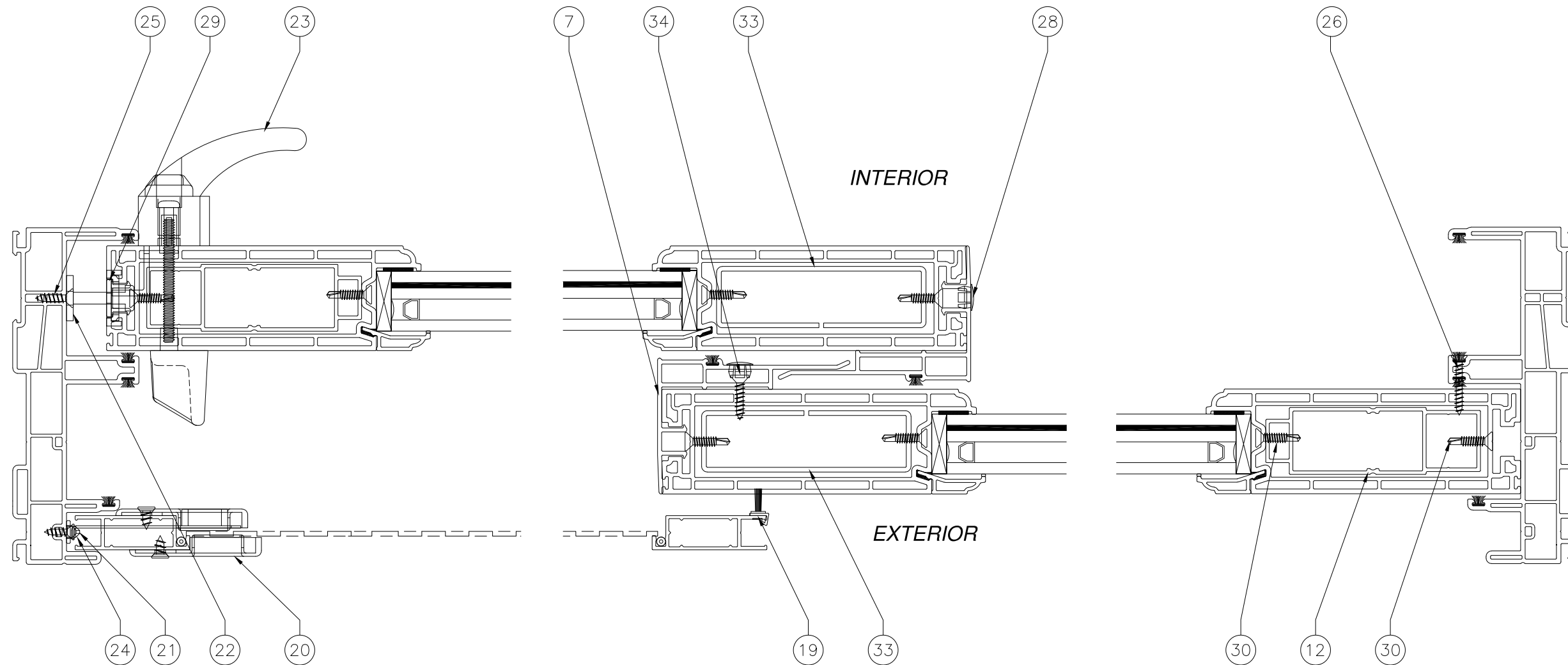
DRAWN: A.R.	DWG NO. 08-03455	REV -
SCALE NTS	DATE 03/31/2021	SHEET 4 OF 13

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



Luis R. Lomas P.E.
TX No.: 101889

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



SECTION B-B

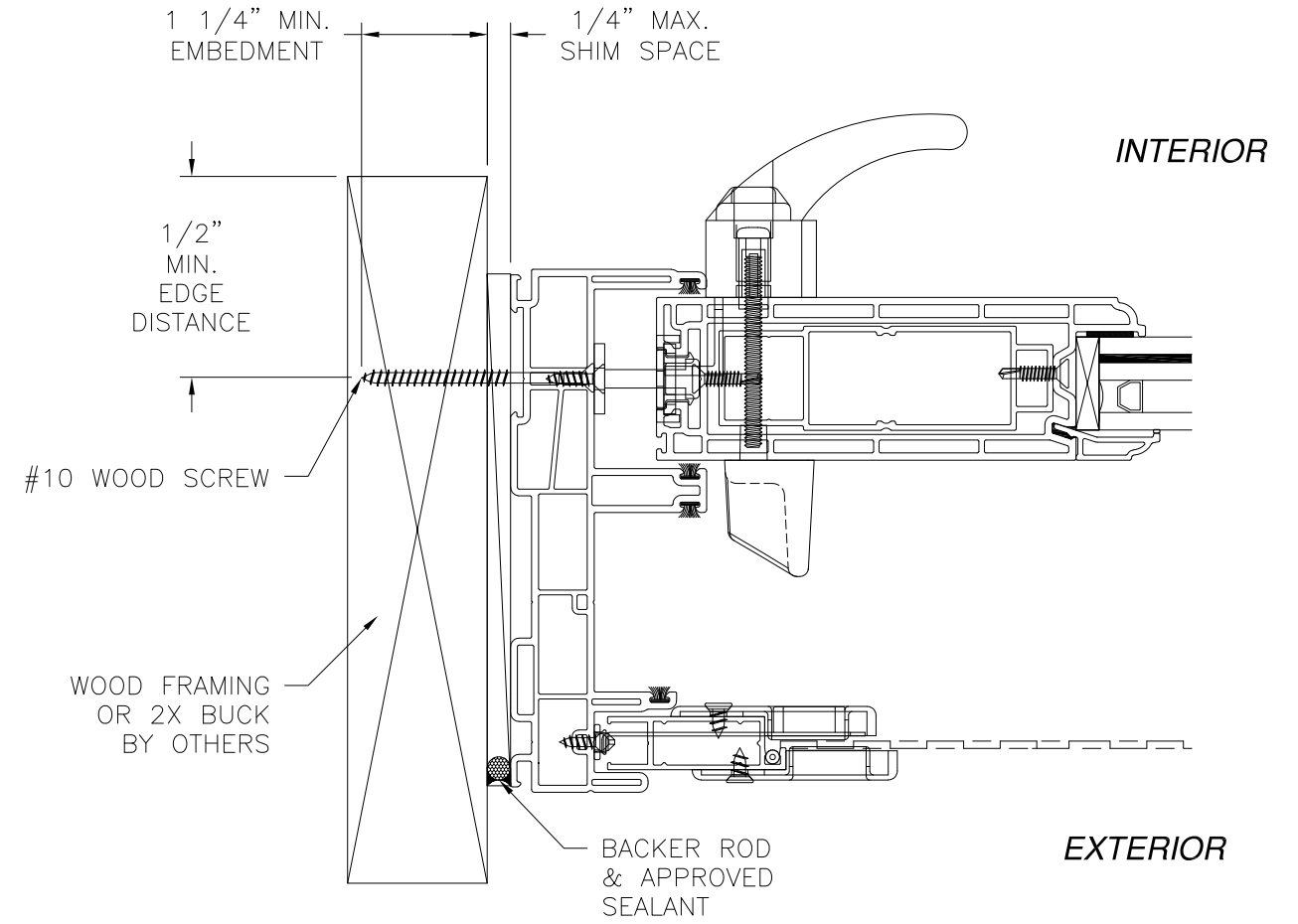
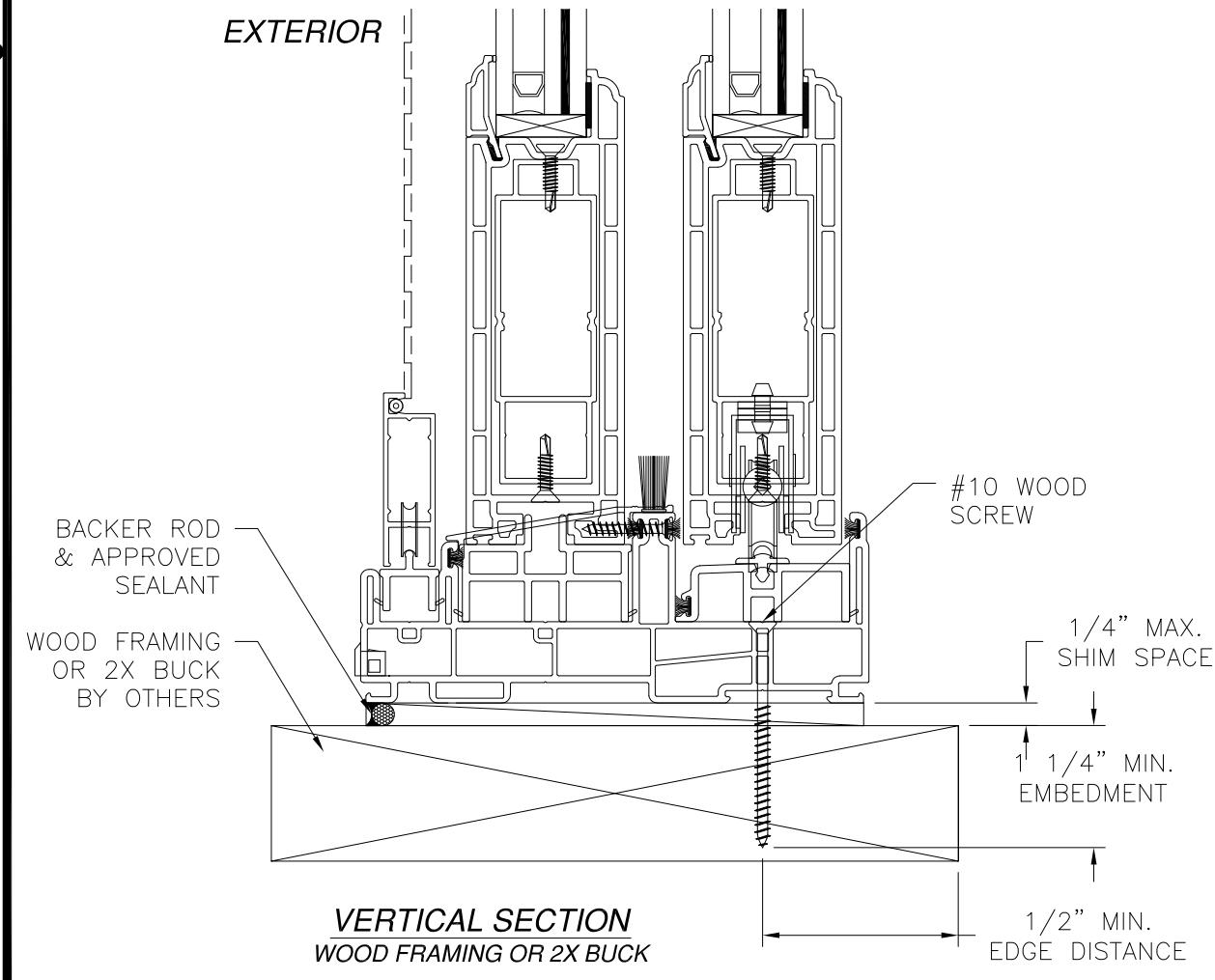
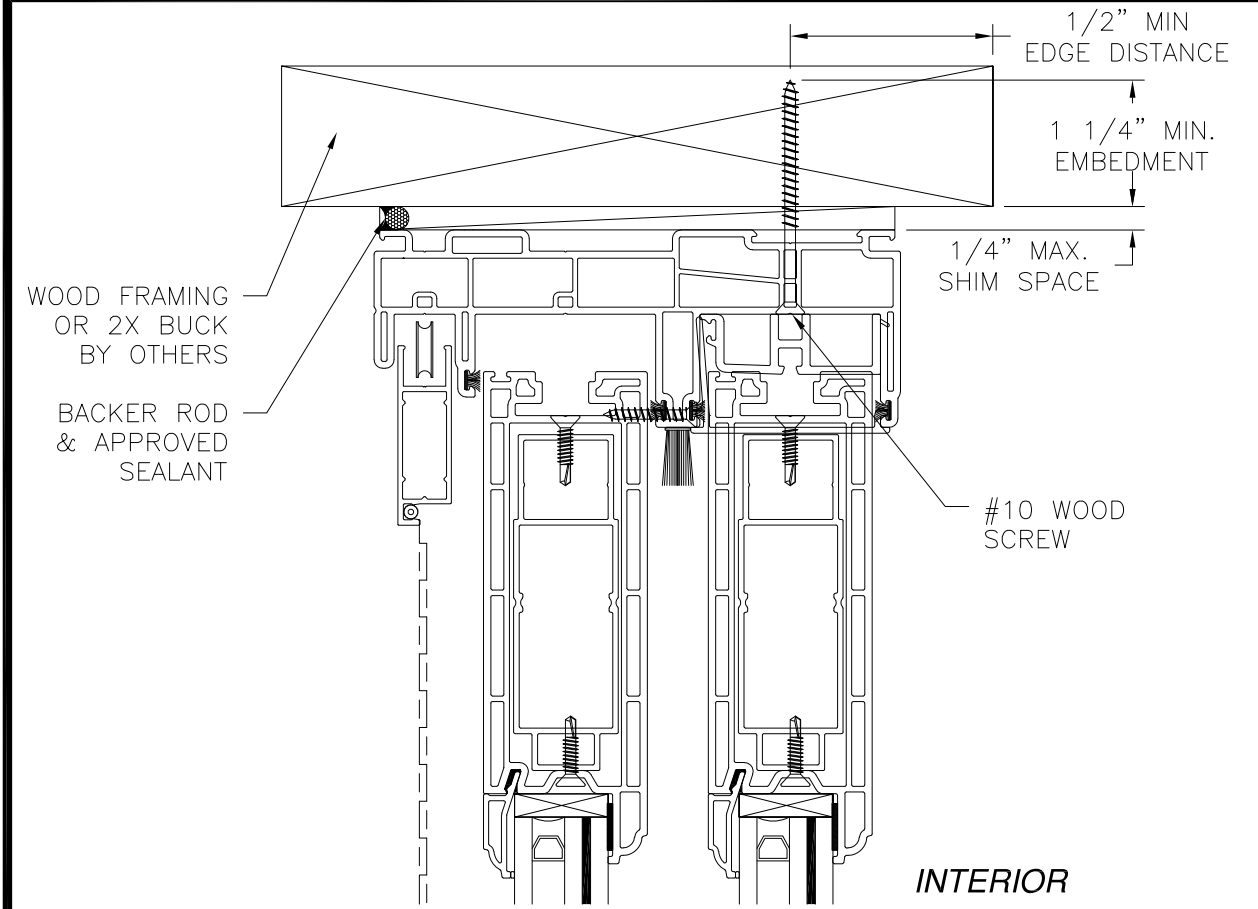
SIGNED: 04/01/2021

SOLAR INNOVATIONS, INC. 31 ROBERTS ROAD PINE GROVE, PA 17963		
SERIES SI4100V VINYL COMPOSITE SGD (OX & XO) 96" X 96" IMPACT CROSS SECTIONS		
DRAWN: A.R.	DWG NO. 08-03455	REV -
SCALE NTS	DATE 03/31/2021	SHEET 5 OF 13
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		



Luis R. Lomas P.E.
TX No.: 101889

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



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

HORIZONTAL SECTION
 WOOD FRAMING OR 2X BUCK

SIGNED: 04/01/2021

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

SERIES SI4100V VINYL COMPOSITE SGD (OX & XO)
 96" X 96" IMPACT
 FRAME INSTALLATION DETAILS

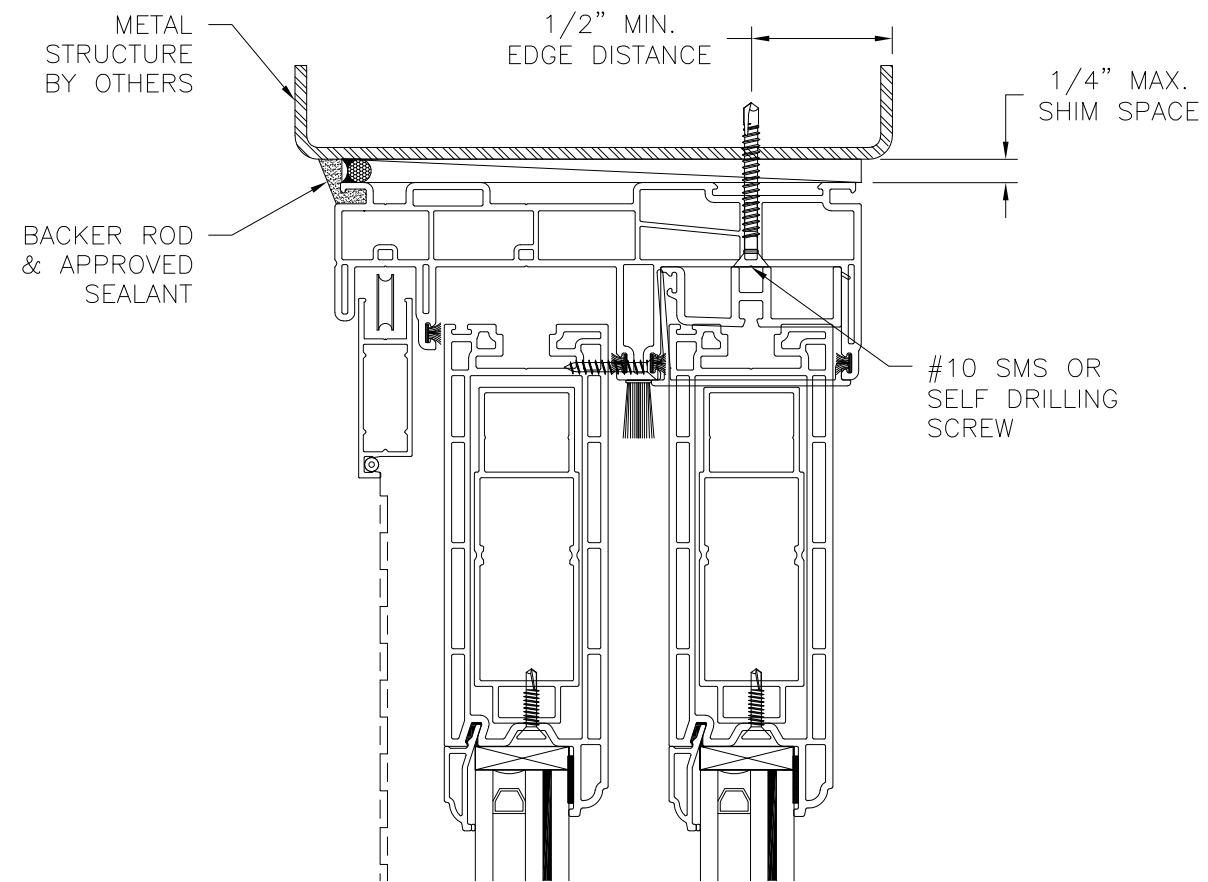
DRAWN: A.R.	DWG NO. 08-03455	REV -
SCALE NTS	DATE 03/31/2021	SHEET 6 OF 13

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



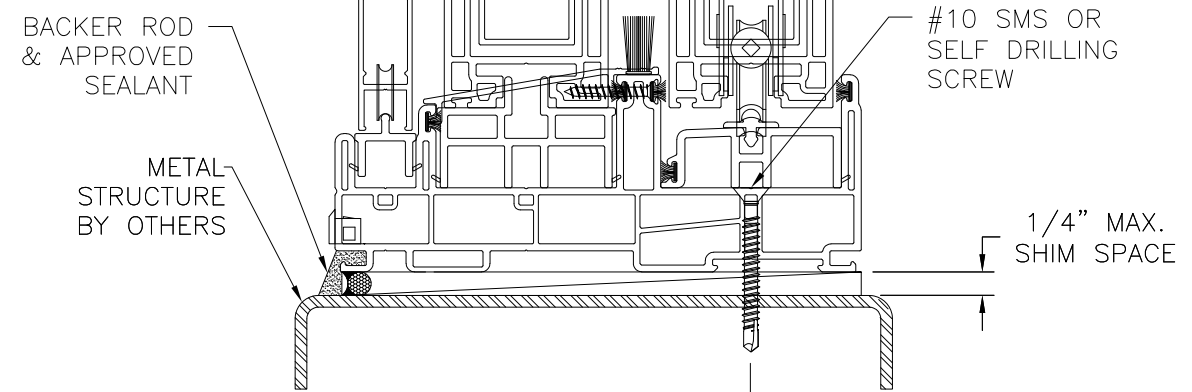
Luis R. Lomas P.E.
 TX No.: 101889

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



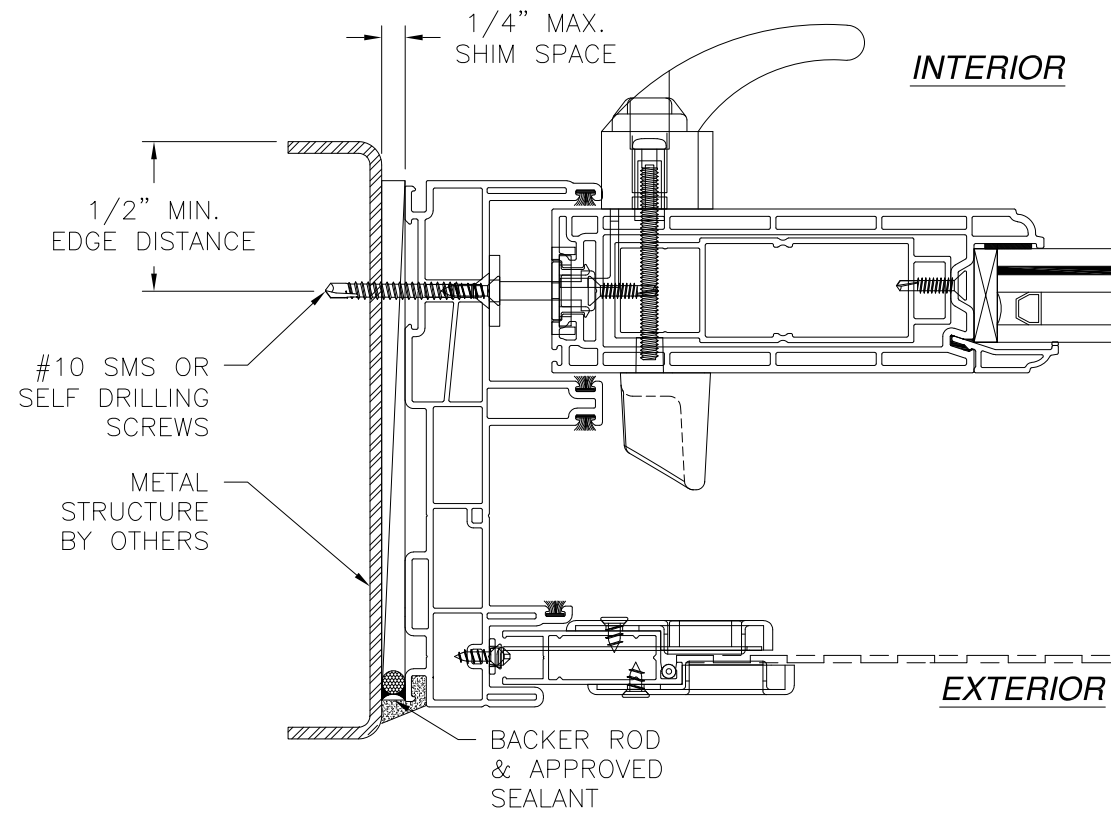
EXTERIOR

INTERIOR



**VERTICAL CROSS SECTION
METAL STRUCTURE INSTALLATION**

1/2" MIN. EDGE DISTANCE



INTERIOR

EXTERIOR

**HORIZONTAL CROSS SECTION
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

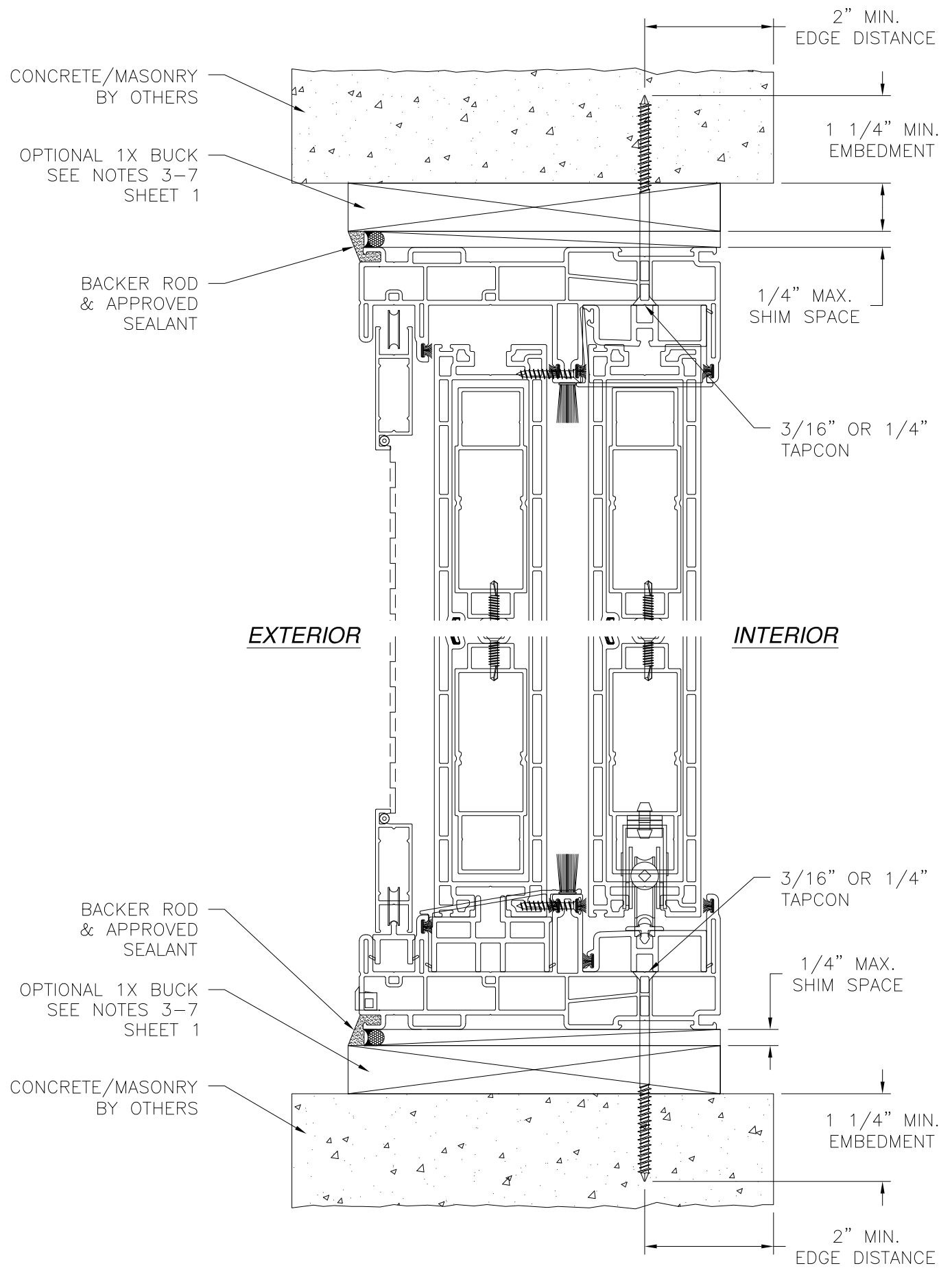
SIGNED: 04/01/2021

SOLAR INNOVATIONS, INC. 31 ROBERTS ROAD PINE GROVE, PA 17963		
SERIES SI4100V VINYL COMPOSITE SGD (OX & XO) 96" X 96" IMPACT FRAME INSTALLATION DETAILS		
DRAWN: A.R.	DWG NO. 08-03455	REV -
SCALE NTS	DATE 03/31/2021	SHEET 7 OF 13
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@rlomaspe.com		

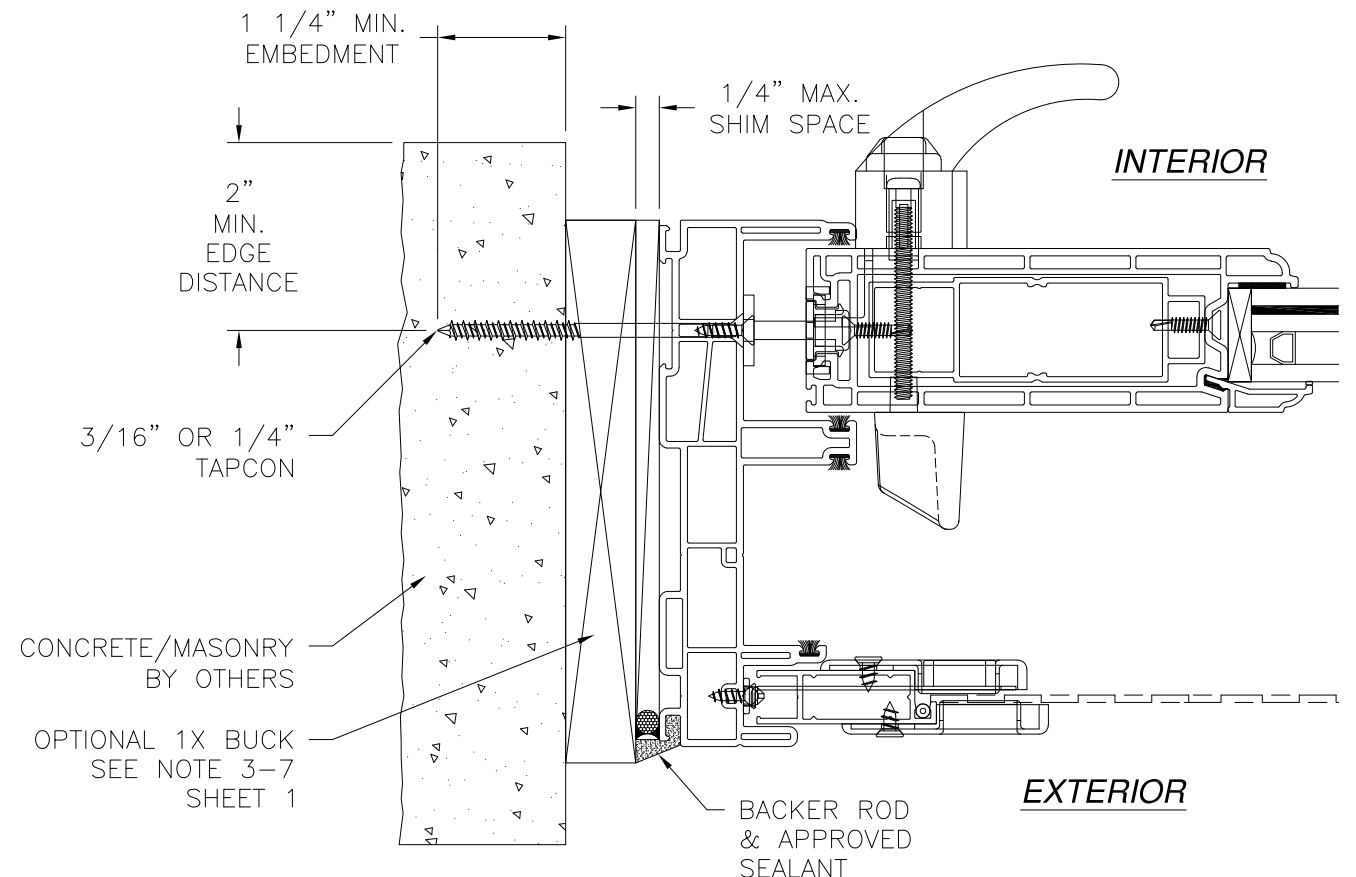


Luis R. Lomas P.E.
TX No.: 101889

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



VERTICAL CROSS SECTION
CONCRETE/MASONRY INSTALLATION



HORIZONTAL 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

SIGNED: 04/01/2021

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

SERIES SI4100V VINYL COMPOSITE SGD (OX & XO)
96" X 96" IMPACT
FRAME INSTALLATION DETAILS

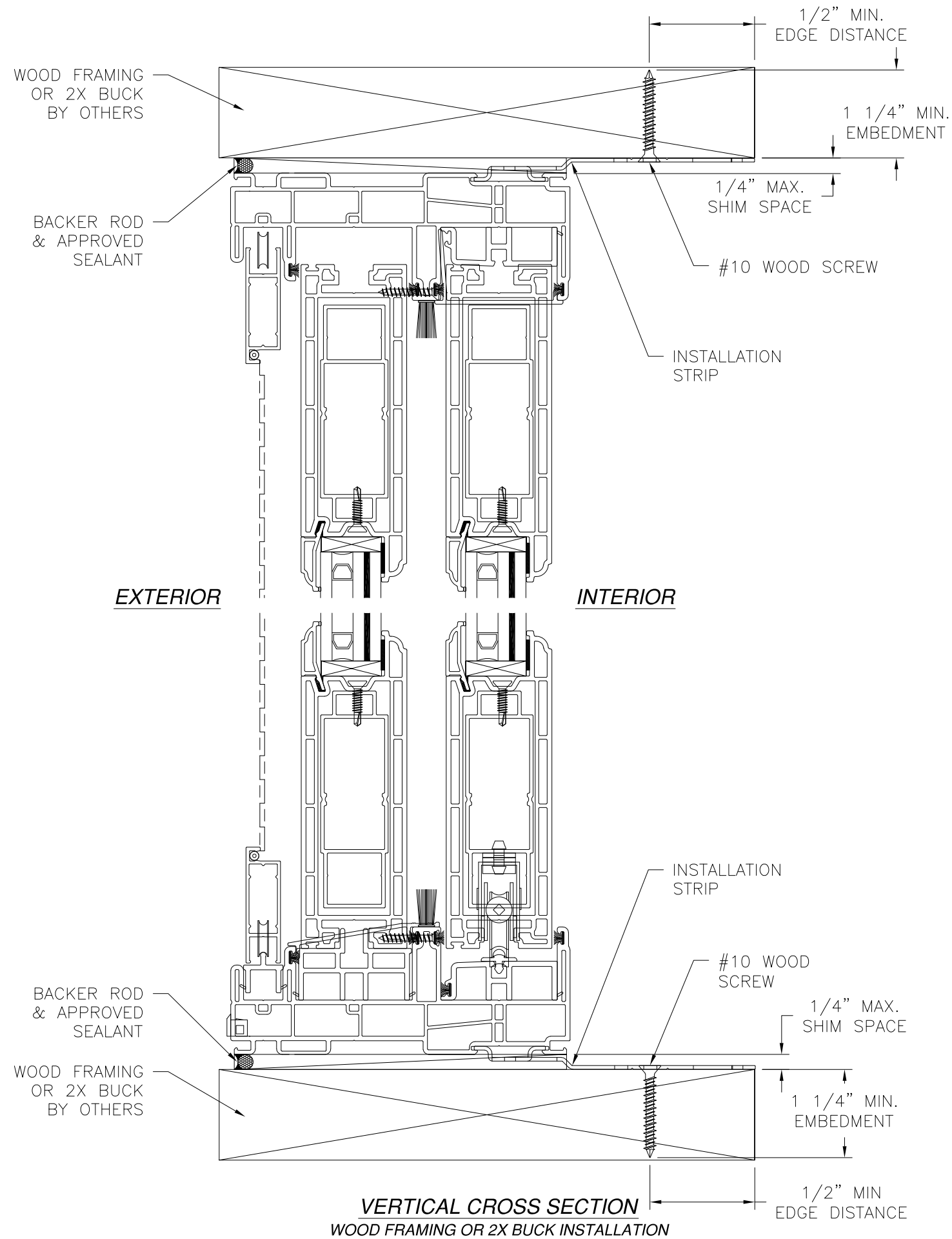
DRAWN: A.R.	DWG NO. 08-03455	REV -
SCALE NTS	DATE 03/31/2021	SHEET 8 OF 13

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

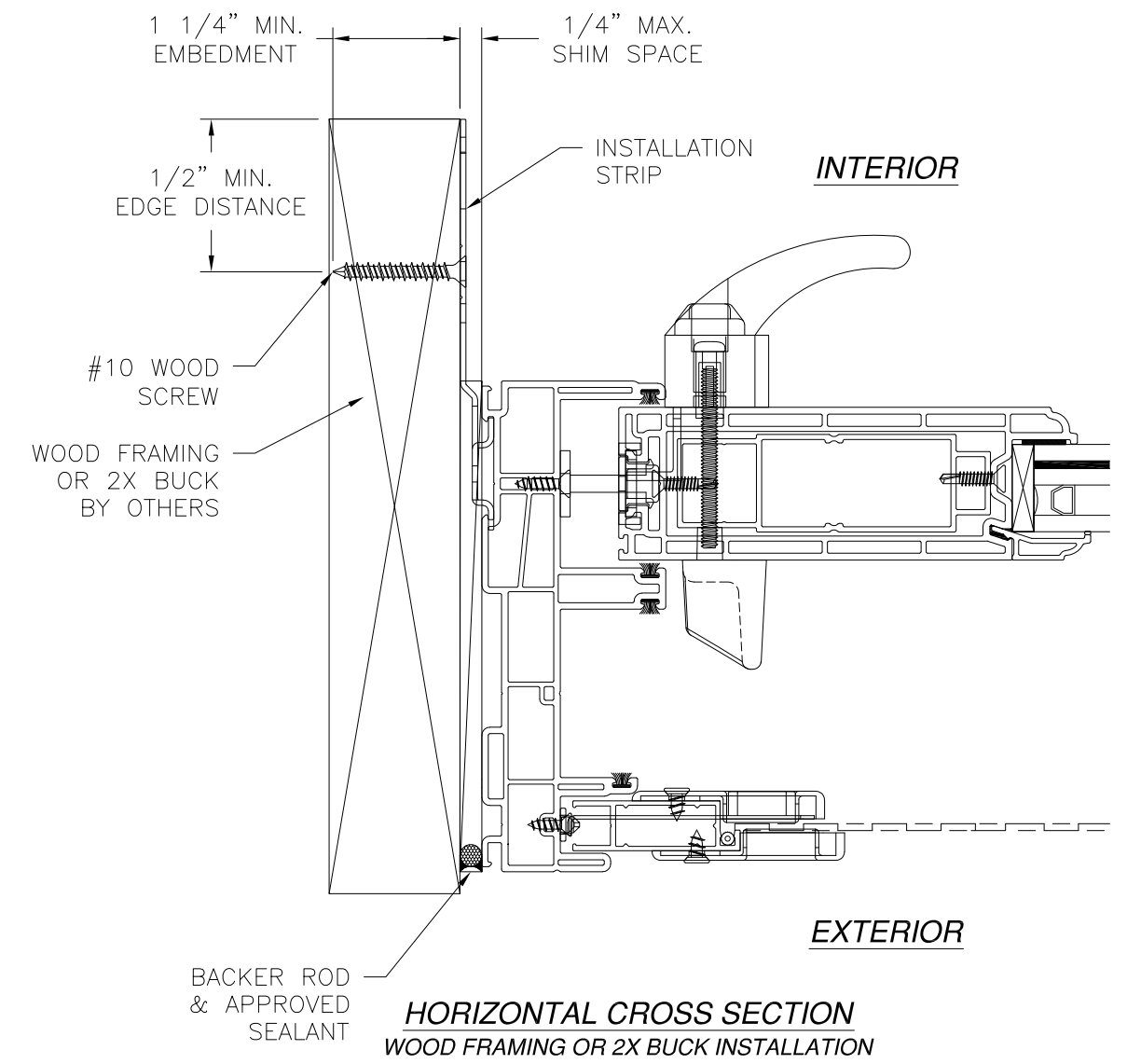


Luis R. Lomas P.E.
TX No.: 101889

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



VERTICAL CROSS SECTION
WOOD FRAMING OR 2X BUCK INSTALLATION



HORIZONTAL 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: 04/01/2021

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

SERIES SI4100V VINYL COMPOSITE SGD (OX & XO)
96" X 96" IMPACT
STRIP INSTALLATION DETAILS

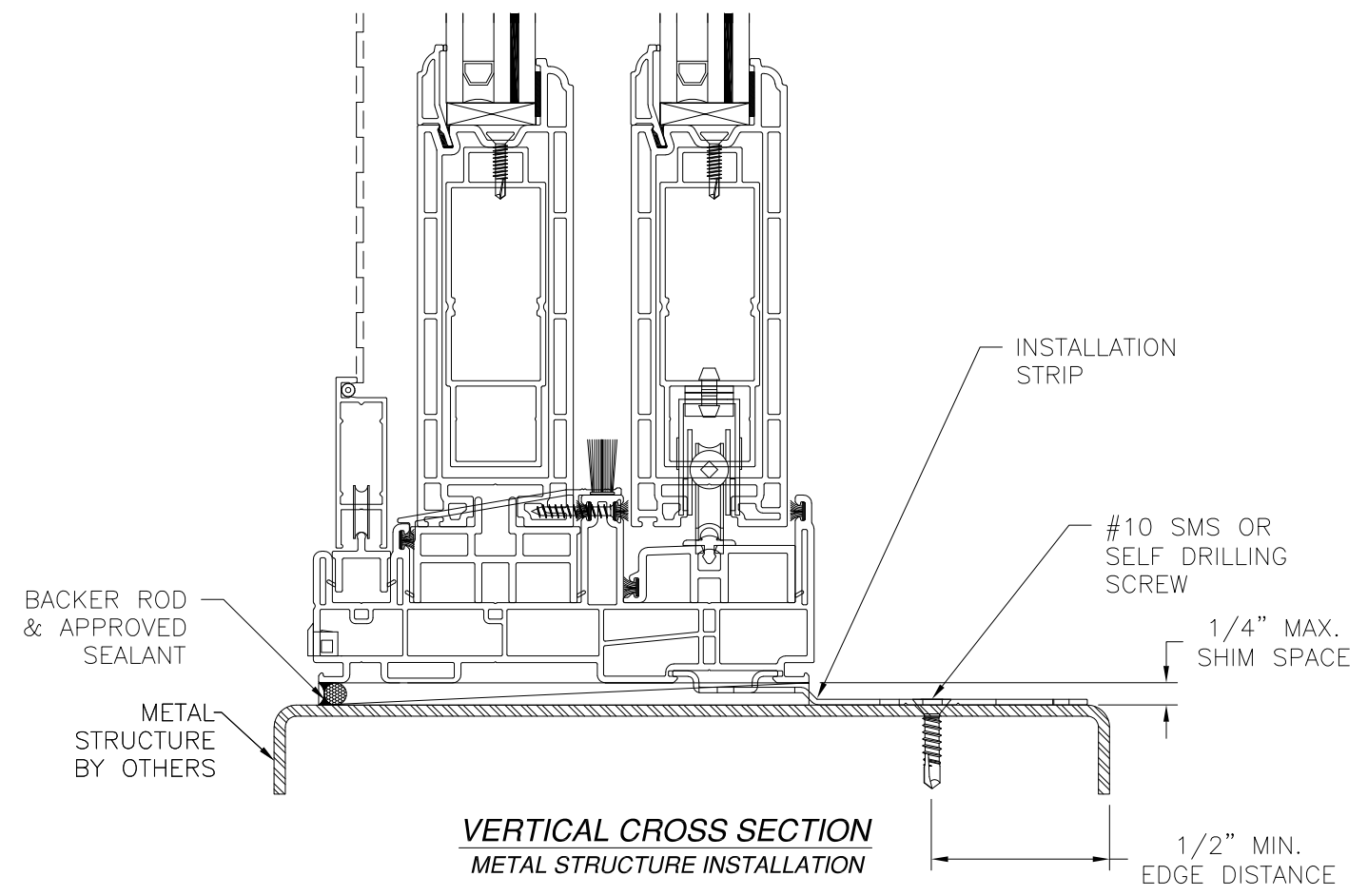
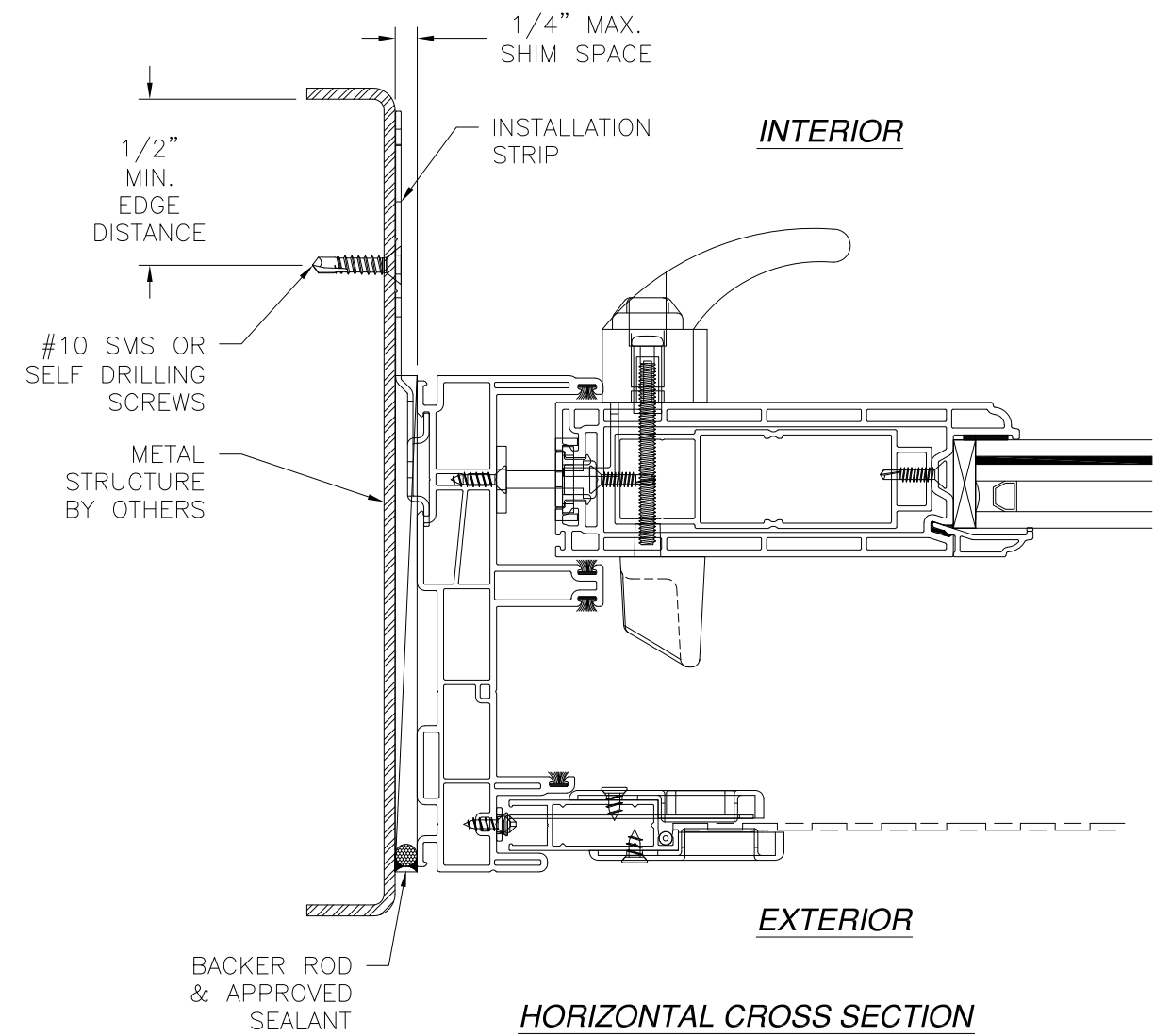
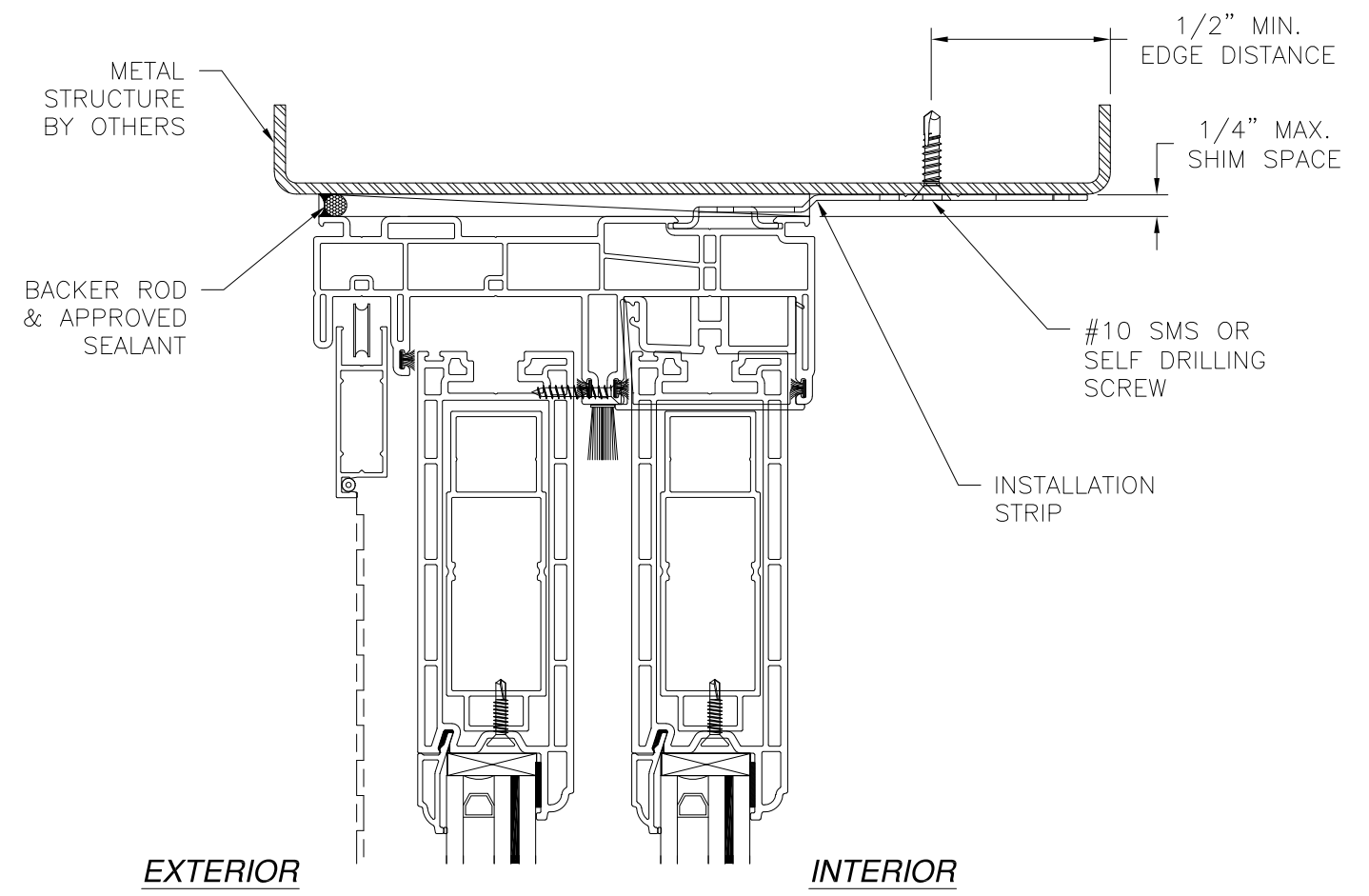
DRAWN: A.R.	DWG NO. 08-03455	REV -
SCALE NTS	DATE 03/31/2021	SHEET 9 OF 13

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



Luis R. Lomas P.E.
TX No.: 101889

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



HORIZONTAL CROSS SECTION
METAL STRUCTURE INSTALLATION

VERTICAL CROSS SECTION
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

SIGNED: 04/01/2021

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

SERIES SI4100V VINYL COMPOSITE SGD (OX & XO)
96" X 96" IMPACT
STRIP INSTALLATION DETAILS

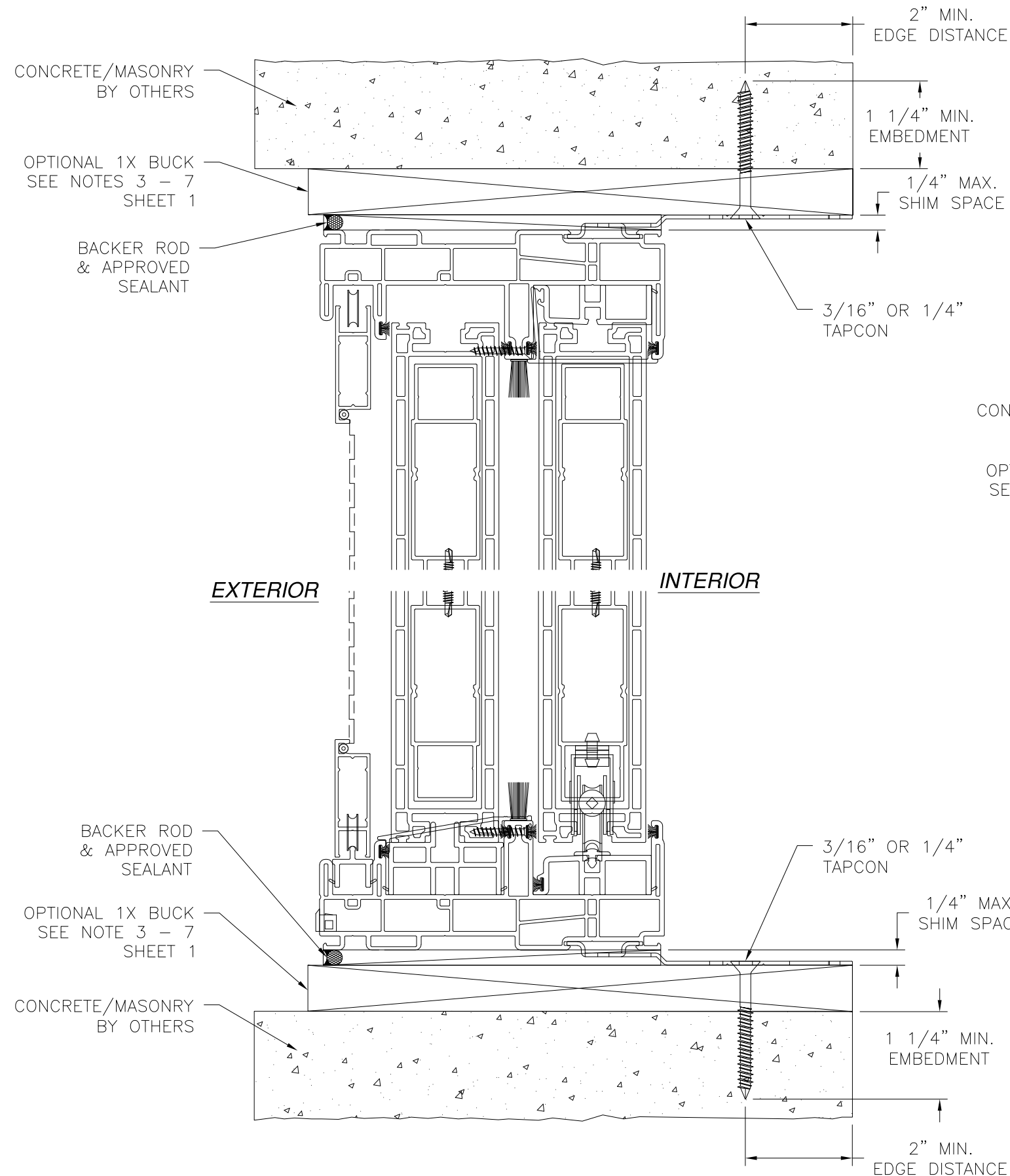
DRAWN: A.R.	DWG NO. 08-03455	REV -
SCALE NTS	DATE 03/31/2021	SHEET 10 OF 13

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

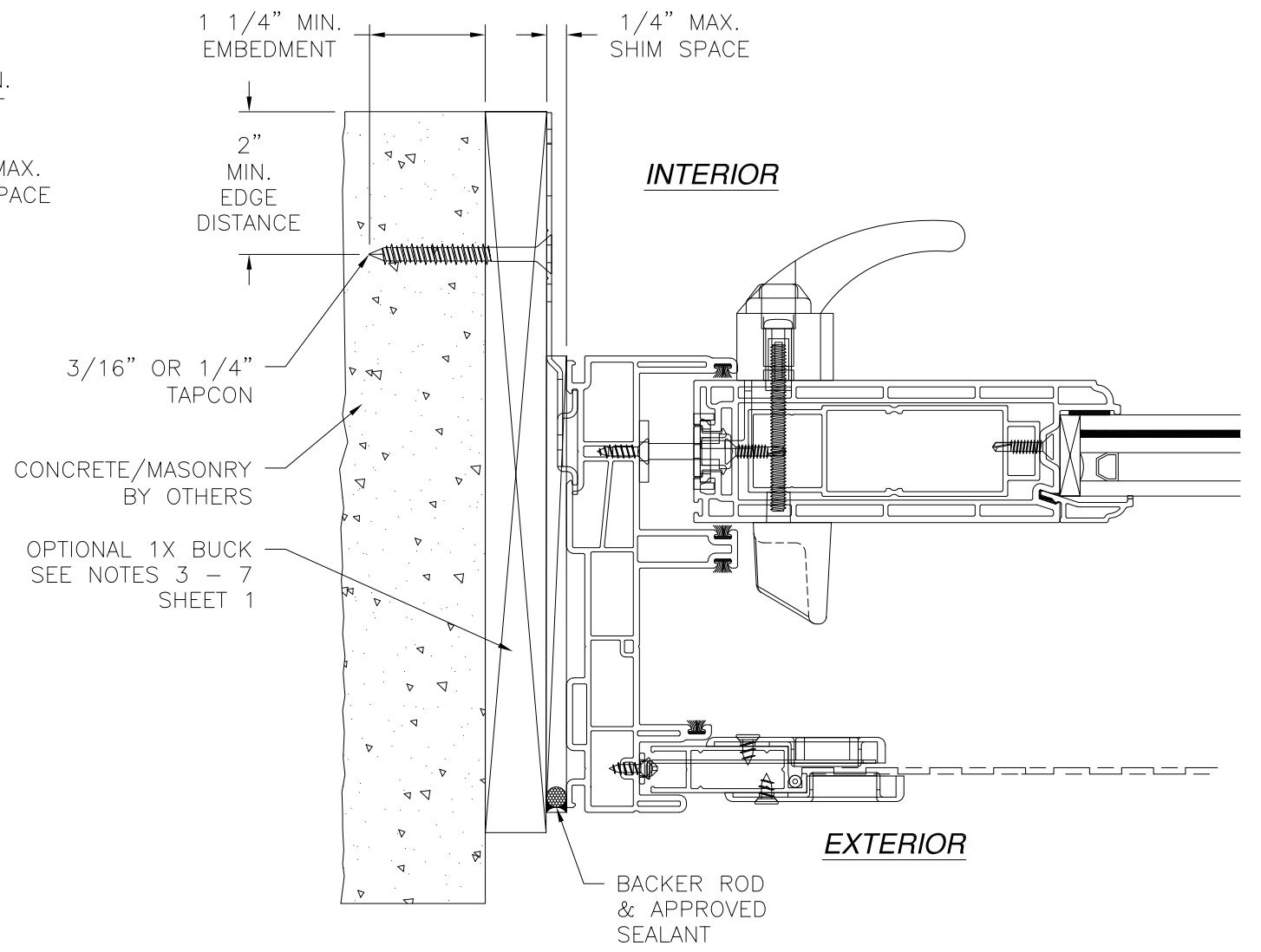


Luis R. Lomas P.E.
TX No.: 101889

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



**VERTICAL CROSS SECTION
CONCRETE/MASONRY INSTALLATION**



**JAMB INSTALLATION DETAIL
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

SIGNED: 04/01/2021

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

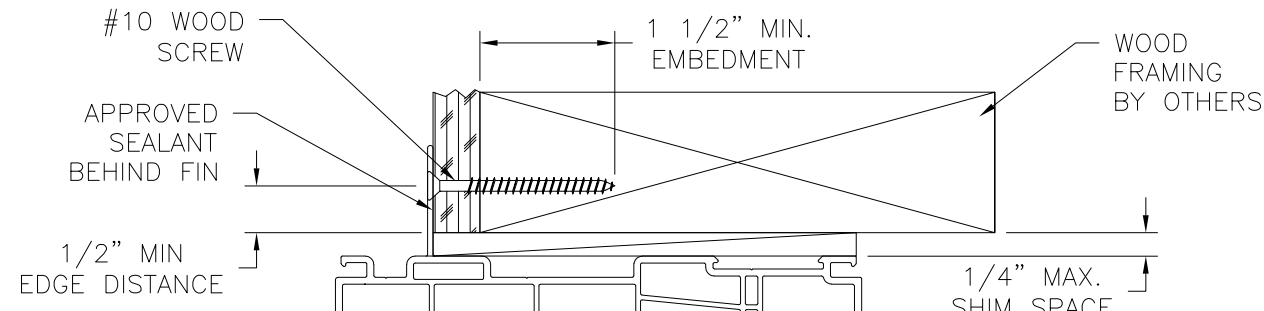
SERIES SI4100V VINYL COMPOSITE SGD (OX & XO)
 96" X 96" IMPACT
 STRIP INSTALLATION DETAILS

DRAWN: A.R.	DWG NO. 08-03455	REV -
SCALE NTS	DATE 03/31/2021	SHEET 11 OF 13

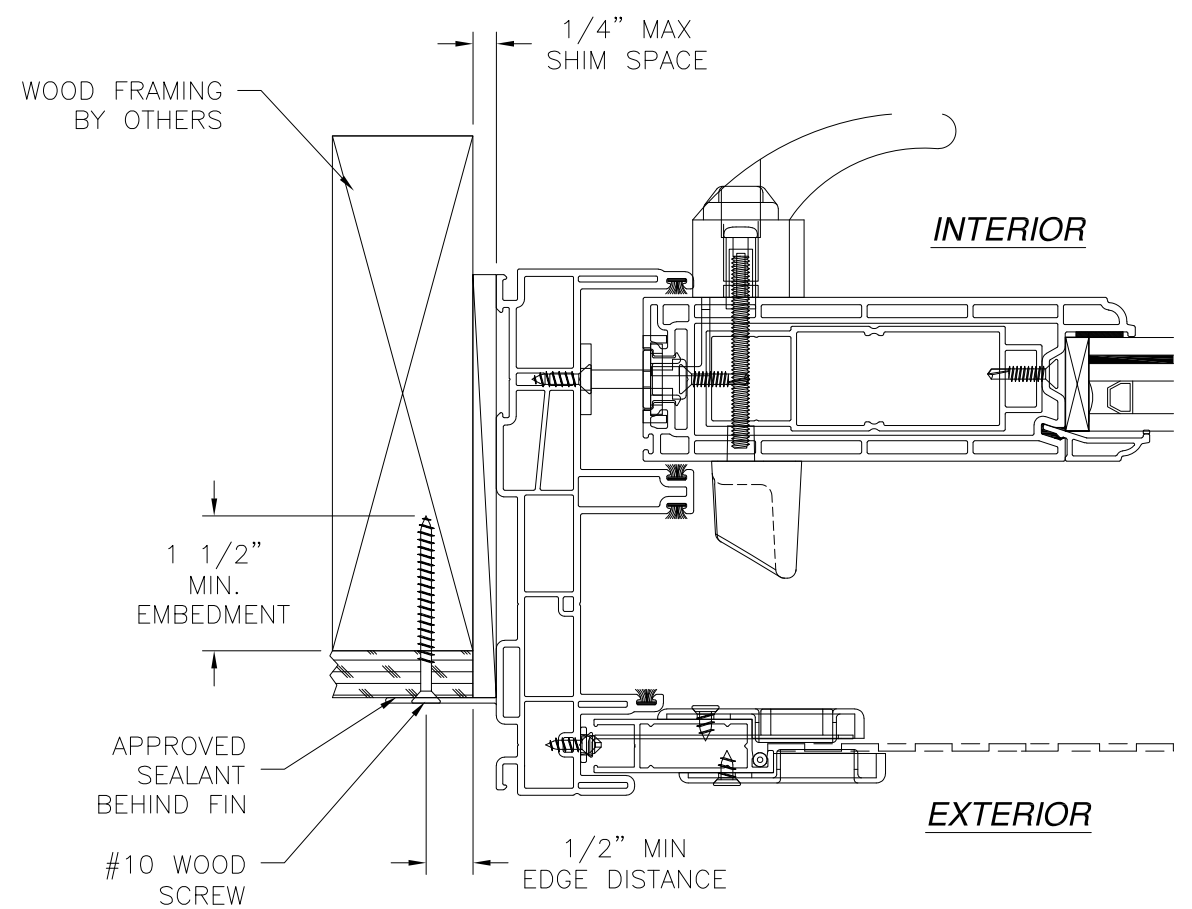
L. ROBERTO LOMAS P.E.
 1432 WOODFORD RD LEWISVILLE, NC 27023
 434-688-0609 rllomas@rlomaspe.com



Luis R. Lomas P.E.
 TX No.: 101889



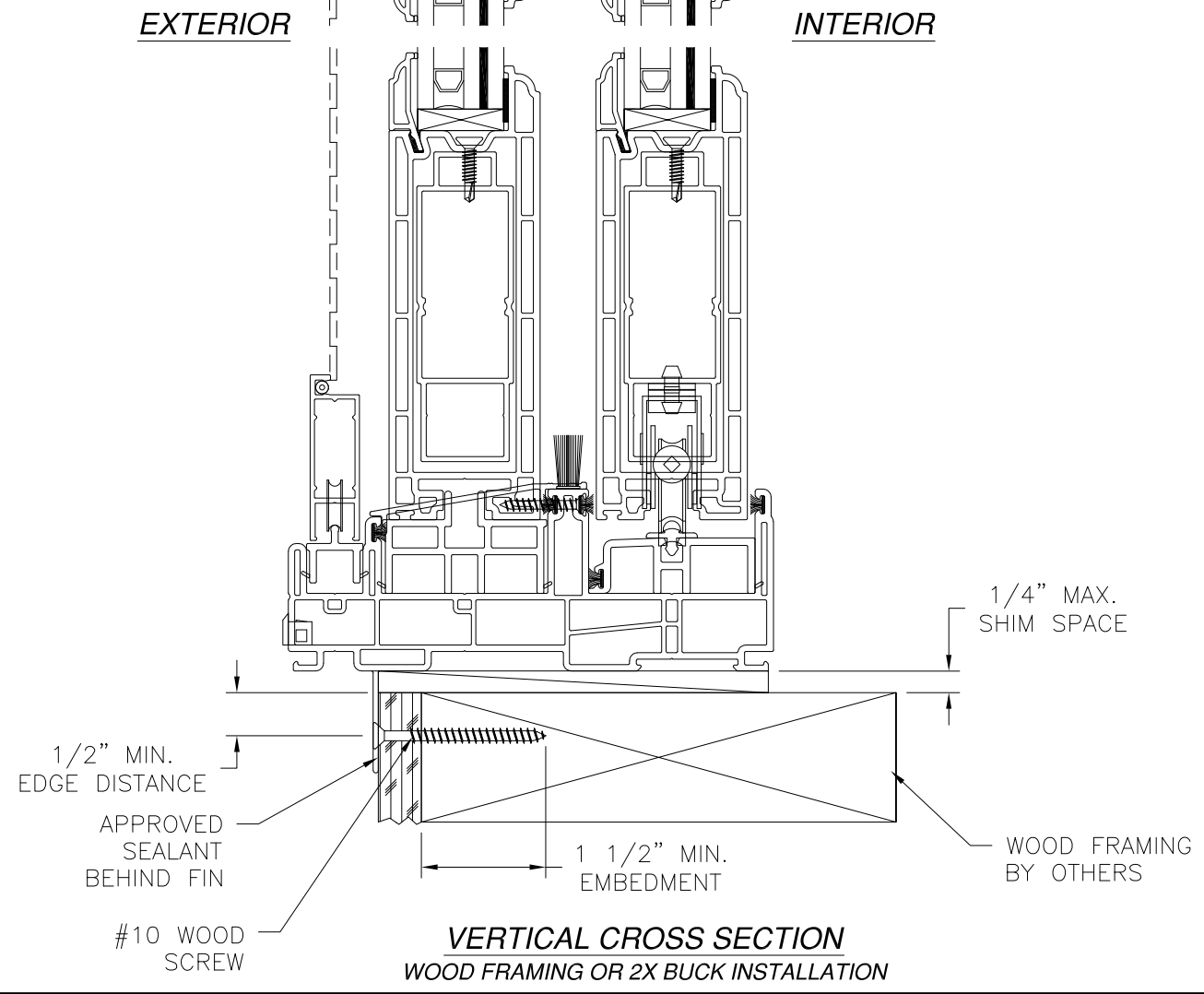
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



JAMB INSTALLATION DETAIL
WOOD FRAMING OR 2X BUCK INSTALLATION

FOR TEMPORARY INSTALLATION ONLY

SIGNED: 04/01/2021

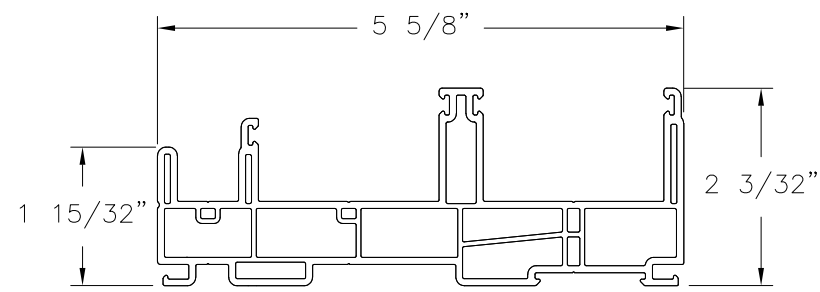


VERTICAL CROSS SECTION
WOOD FRAMING OR 2X BUCK INSTALLATION

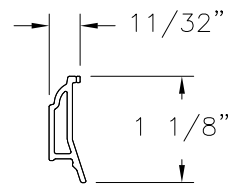
SOLAR INNOVATIONS, INC. 31 ROBERTS ROAD PINE GROVE, PA 17963		
SERIES SI4100V VINYL COMPOSITE SGD (OX & XO) 96" X 96" IMPACT FIN INSTALLATION DETAILS		
DRAWN: A.R.	DWG NO. 08-03455	REV -
SCALE NTS	DATE 03/31/2021	SHEET 12 OF 13
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@rlomaspe.com		



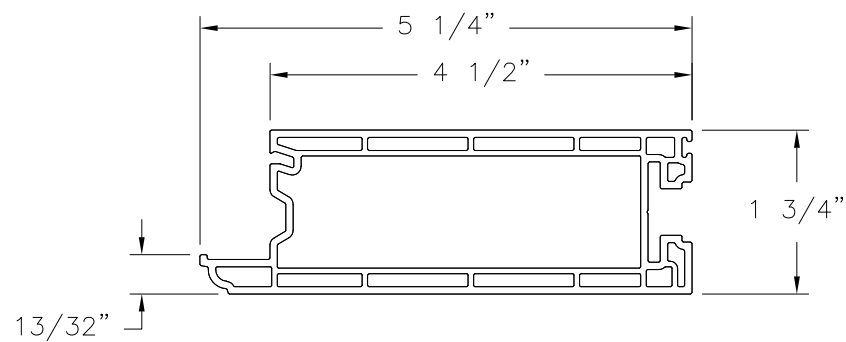
Luis R. Lomas P.E.
TX No.: 101889



① **FRAME**
VINYL PVC .075 THICK (S003C)

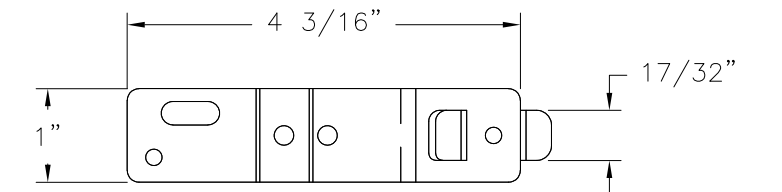


② **GLAZING BEAD**
VINYL PVC .055 THICK (S021)

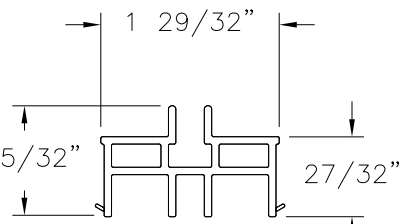
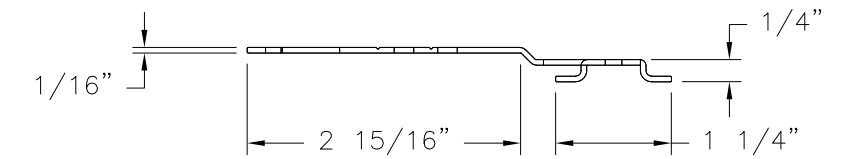


③ **SASH**
VINYL PVC .079 THICK (S017)

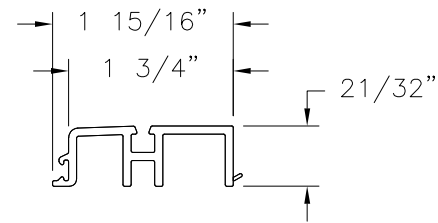
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



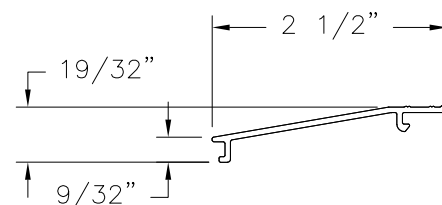
③⑤ **INSTALLATION STRIP**
GALVANIZED STEEL G60



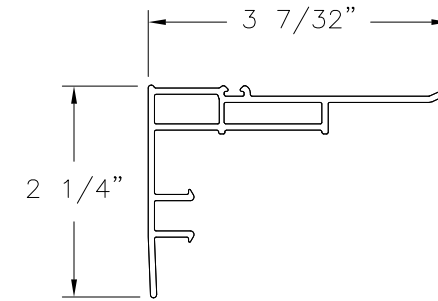
④ **SUPPORT BLOCK**
VINYL PVC .079 THICK (S008)



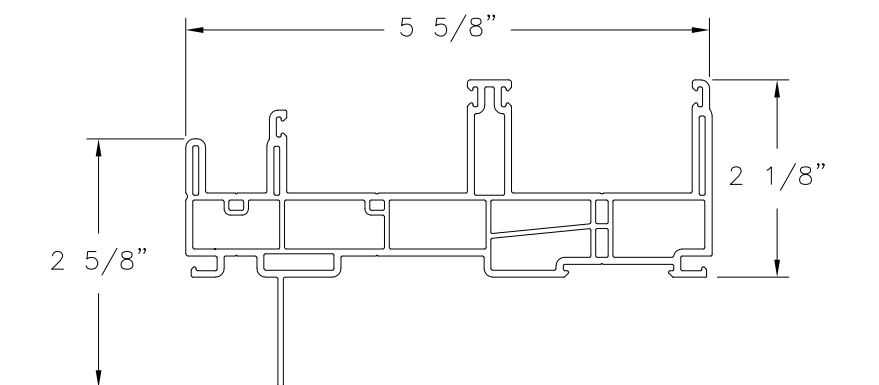
⑤ **SILL ADAPTER**
VINYL PVC .087 THICK (S018)



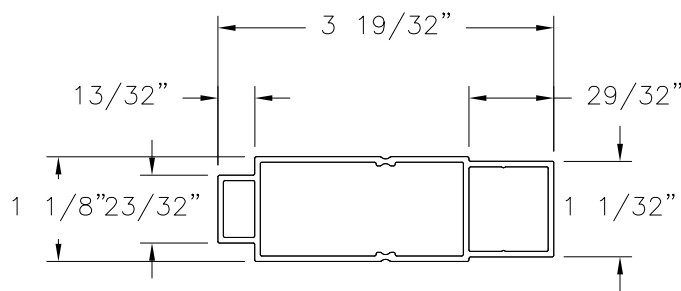
⑧ **SILL**
AL 6063-T5 .063 THICK (S-14307)



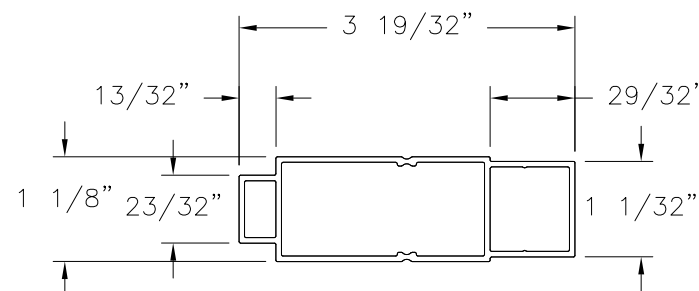
⑦ **SNAP-ON MEETING RAIL**
VINYL PVC .067 THICK (S084)



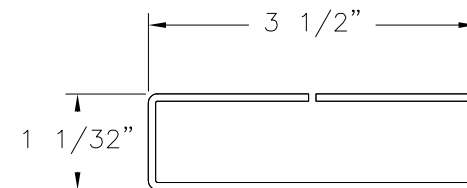
① **FIN FRAME**
VINYL PVC .075 THICK (S003-2)



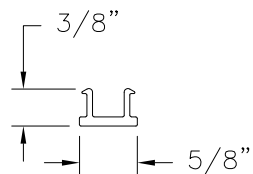
⑪ **ROLLER SUPORT**
AL 6063-T5 .059 THICK (V-14406)



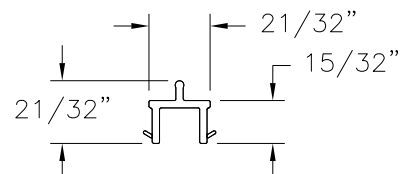
⑫ **SASH REINFORCEMENT**
AL 6063-T5 .059 THICK (V-14406)



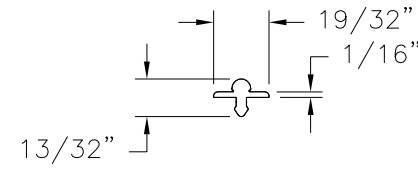
⑬ **RAIL REINFORCEMENT**
STEEL .079 THICK (S017)



⑲ **LOCK SIDE MOLDING**
RIGID PVC (RS-S030)



⑥ **SCREEN ADAPTER**
VINYL PVC .079 THICK (L7059)



⑨ **SASH RAIL**
AL 6063-T5 .059 THICK (S-11150)

SIGNED: 04/01/2021

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

SERIES SI4100V VINYL COMPOSITE SGD (OX & XO)
96" X 96" IMPACT COMPONENTS

DRAWN: A.R.	DWG NO. 08-03455	REV -
SCALE NTS	DATE 03/31/2021	SHEET 13 OF 13

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



Luis R. Lomas P.E.
TX No.: 101889