

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, METAL STRUCTURE 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” 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. 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 UNIT FRAME INTERIOR FACE SO THAT FULL FRAME SUPPORT IS PROVIDED.
7. SHIM AS NEEDED AT EACH ANCHOR LOCATION WITH LOAD BEARING SHIM. SHIM WHERE SPACE OF 1/16” OR GREATER OCCURS. MAXIMUM ALLOWABLE SHIM STACK TO BE 1/2”.
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: ALUMINUM 6063–T6.
11. UNITS MUST BE GLAZED PER ASTM E1300, SEE SHEET 4 FOR GLASS DETAILS.
12. APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.

13. FOR ANCHORING INTO WOOD FRAMING OR 2X BUCK USE 1/4 LAG SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 1/2” MINIMUM EMBEDMENT INTO SUBSTRATE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
14. FOR ANCHORING INTO MASONRY/CONCRETE USE 1/4” ELCO ULTRACON 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.
15. FOR ANCHORING INTO METAL STRUCTURE USE 1/4” 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:
 - 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

SIGNED: 02/06/2025

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8	COMPONENTS

TITONI WINDOWS

145 ARENA STREET
EL SEGUNDO, CA 90245

HS50 FIXED FACADE
IMPACT – HVHZ
NOTES

DRAWN:
A.R.

DWG NO.
08-04119

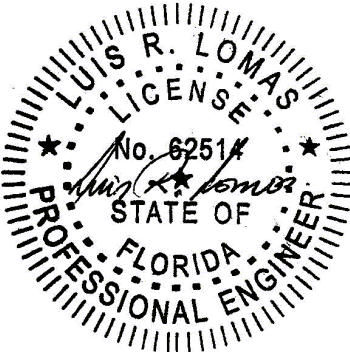
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01/09/2025

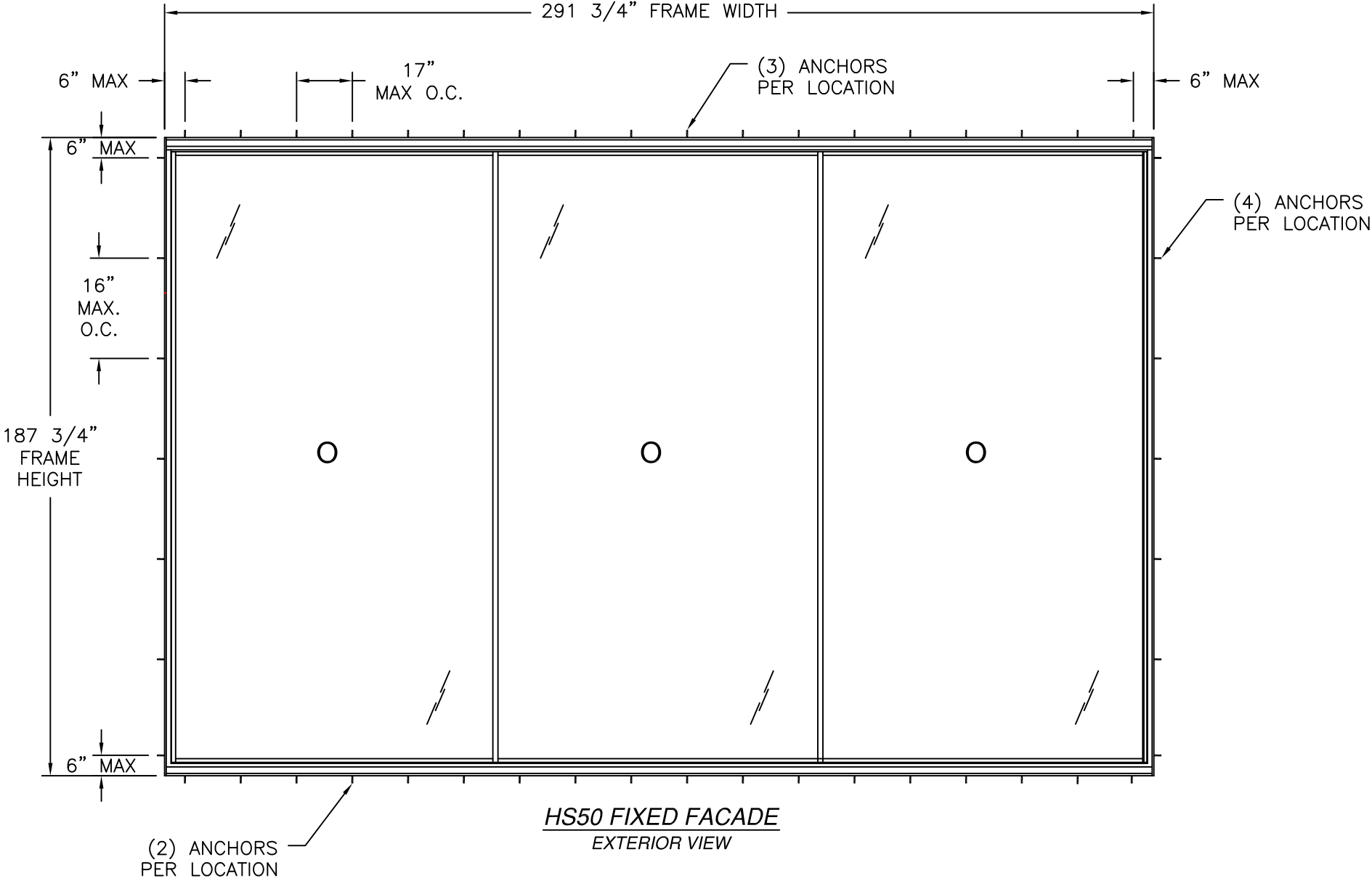
SHEET
1 OF 8

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DESIGN PRESSURE RATING	IMPACT RATING
±65.0PSF	LARGE & SMALL MISSILE IMPACT

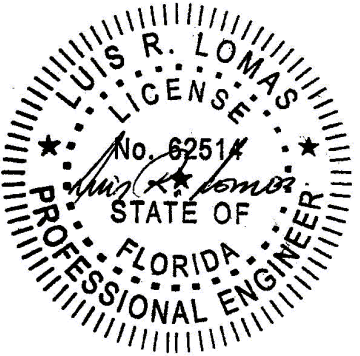
MISSILE LEVEL D, WIND ZONE 4 AND HVHZ
FOR OTHER SIZES SEE CHART #1, SHEET 3

3 PANELS SHOWN, UNLIMITED NUMBER OF PANELS ARE APPROVED
AS LONG AS INDIVIDUAL PANEL AREA DOES NOT EXCEED 122.8 FT²
AND FRAME AREA DOES NOT EXCEED 572.9 FT² AND USES VERTICAL
CONDITIONS AS SHOWN.

- NOTES:
- PANEL SIZE: 97 11/16" X 184"
 - D.L.O.: 94 1/16" X 177 1/2"

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TITONI WINDOWS 145 ARENA STREET EL SEGUNDO, CA 90245		
HS50 FIXED FACADE IMPACT – HVHZ ELEVATION		
DRAWN: A.R.	DWG NO. 08-04119	REV -
SCALE NTS	DATE 01/09/2025	SHEET 2 OF 8
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Chart #1

Panel Height (in)	Single Panel Width (in)																			
	30.00	36.00	42.00	48.00	54.00	60.00	66.00	72.00	78.00	84.00	90.00	97.25	102.00	108.00	114.00	120.00	126.00	132.00	138.00	144.00
108.00	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
120.00	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
132.00	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	-	-
144.00	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	-	-	-	-
156.00	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	-	-	-	-	-
168.00	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	-	-	-	-	-	-	-
184.00	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	-	-	-	-	-	-	-	-
192.00	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	63.8	60.3	-	-	-	-	-	-	-	-	-
204.00	65.0	65.0	65.0	65.0	65.0	65.0	65.0	60.4	56.2	52.7	-	-	-	-	-	-	-	-	-	-
216.00	65.0	65.0	65.0	65.0	65.0	59.9	54.8	50.6	47.1	-	-	-	-	-	-	-	-	-	-	-
228.00	65.0	65.0	65.0	62.8	56.1	50.8	46.4	42.8	39.8	-	-	-	-	-	-	-	-	-	-	-
240.00	65.0	65.0	61.2	53.8	48.0	43.4	39.7	36.6	-	-	-	-	-	-	-	-	-	-	-	-
252.00	65.0	61.4	52.8	46.4	41.4	37.4	34.2	-	-	-	-	-	-	-	-	-	-	-	-	-
264.00	63.9	53.4	45.9	40.3	35.9	32.5	29.6	-	-	-	-	-	-	-	-	-	-	-	-	-
276.00	55.9	46.7	40.1	35.2	31.4	28.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288.00	49.2	41.1	35.3	31.0	27.6	24.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
300.00	43.5	36.3	31.2	27.4	24.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
312.00	38.7	32.3	27.7	24.3	21.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
324.00	34.5	28.8	24.7	21.7	19.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
336.00	30.9	25.8	22.2	19.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
348.00	27.8	23.2	19.9	17.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
360.00	25.1	21.0	18.0	15.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
372.00	22.8	19.0	16.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
384.00	20.7	17.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
396.00	18.9	15.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
408.00	17.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Ratings are positive and negative
Missile level D, Wind zone 4 and HVHZ

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TITONI WINDOWS
145 ARENA STREET
EL SEGUNDO, CA 90245

HS50 FIXED FACADE
IMPACT – HVHZ
DESIGN PRESSURE CHART

DRAWN:
A.R.

DWG NO.
08-04119

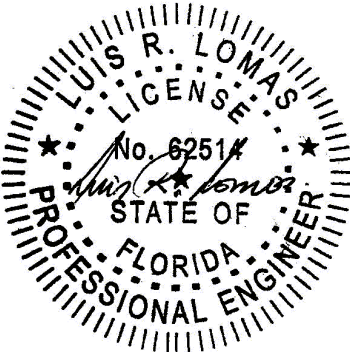
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SCALE NTS

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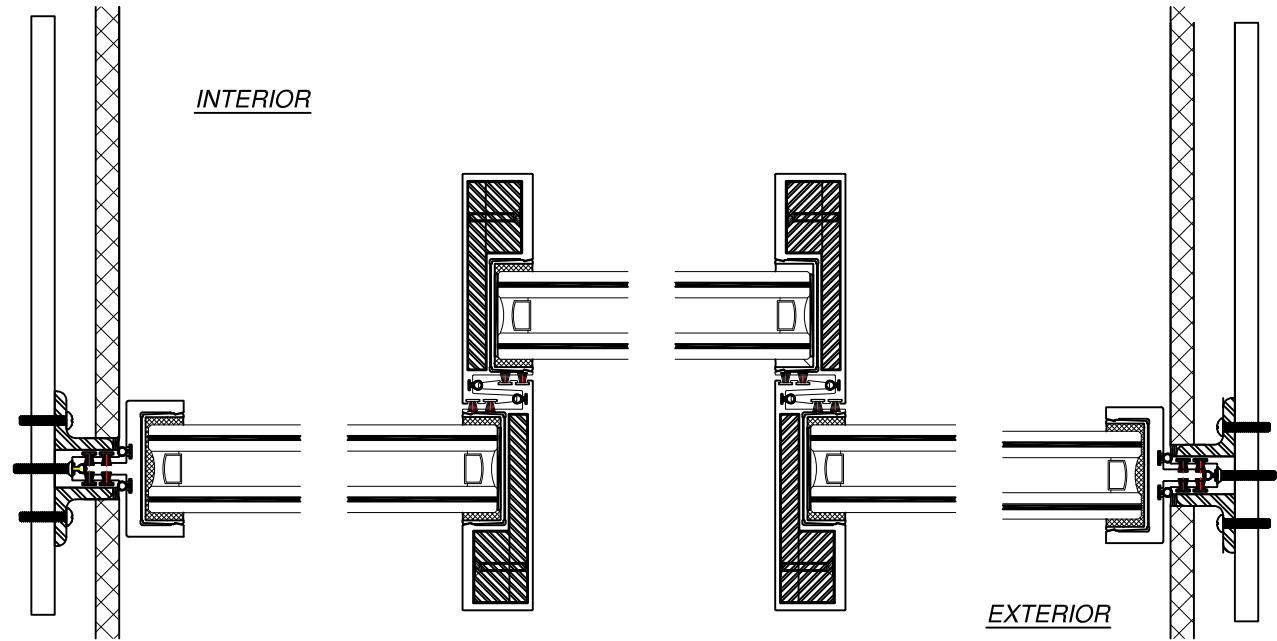
SHEET 3 OF 8

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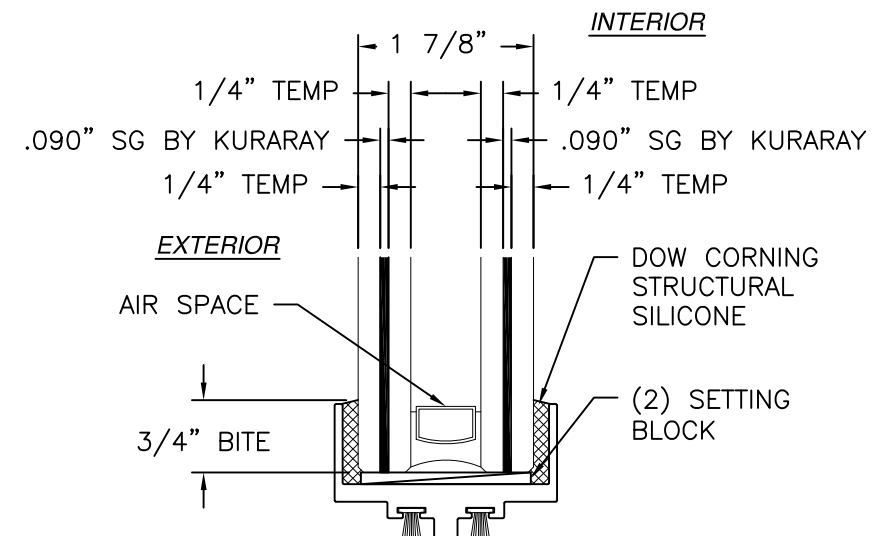


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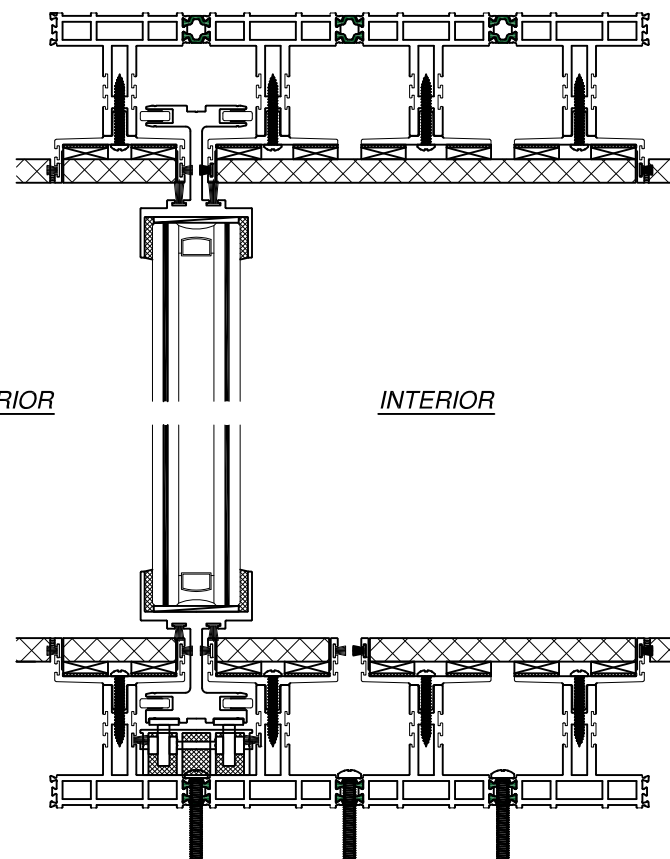
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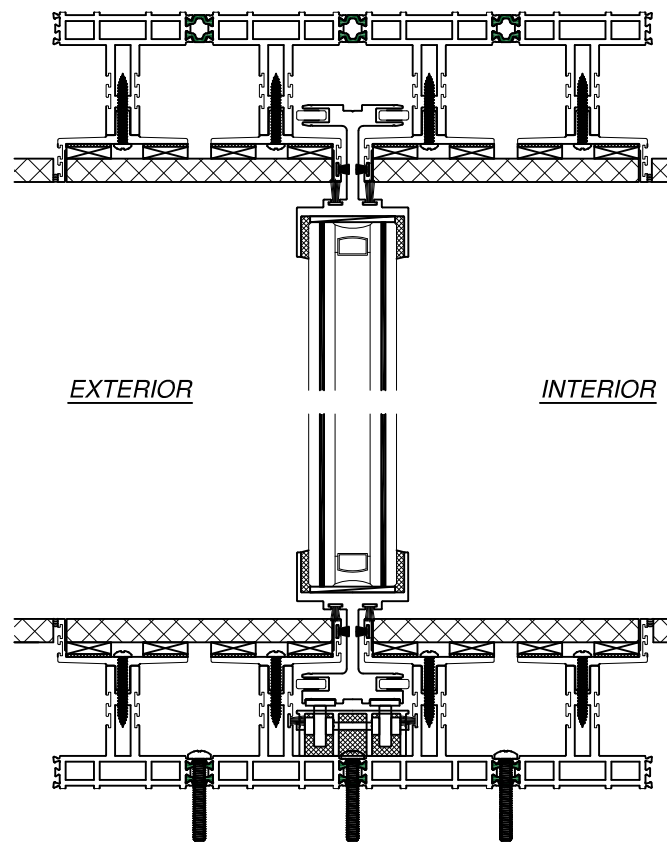
HORIZONTAL CROSS SECTION



GLAZING DETAIL



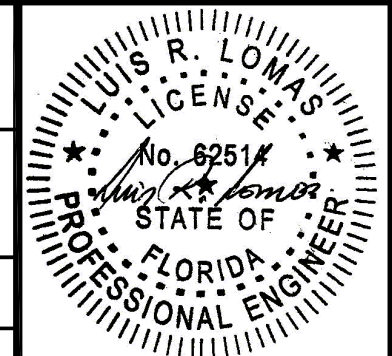
*VERTICAL CROSS SECTION
EXTERIOR PANEL*



*VERTICAL CROSS SECTION
INTERIOR PANEL*

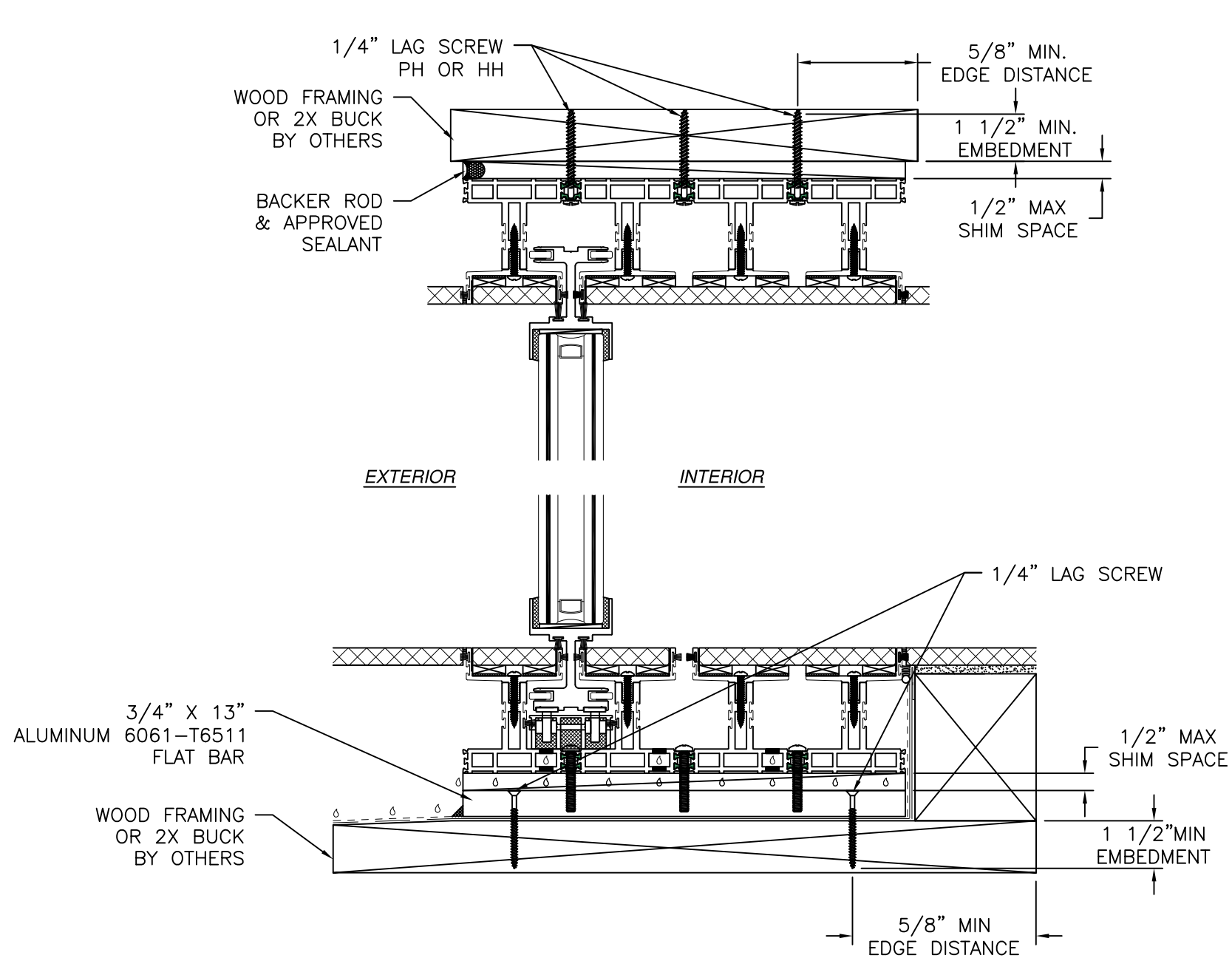
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TITONI WINDOWS 145 ARENA STREET EL SEGUNDO, CA 90245		
HS50 FIXED FACADE IMPACT – HVHZ CROSS SECTIONS & GLAZING DETAILS		
DRAWN: A.R.	DWG NO. 08-04119	REV -
SCALE NTS	DATE 01/09/2025	SHEET 4 OF 8
L. ROBERTO LOMAS P.E. 208 7th Ave, INDIALANTIC, FL 32903 434-688-0609 rllomas@lrlomaspe.com		



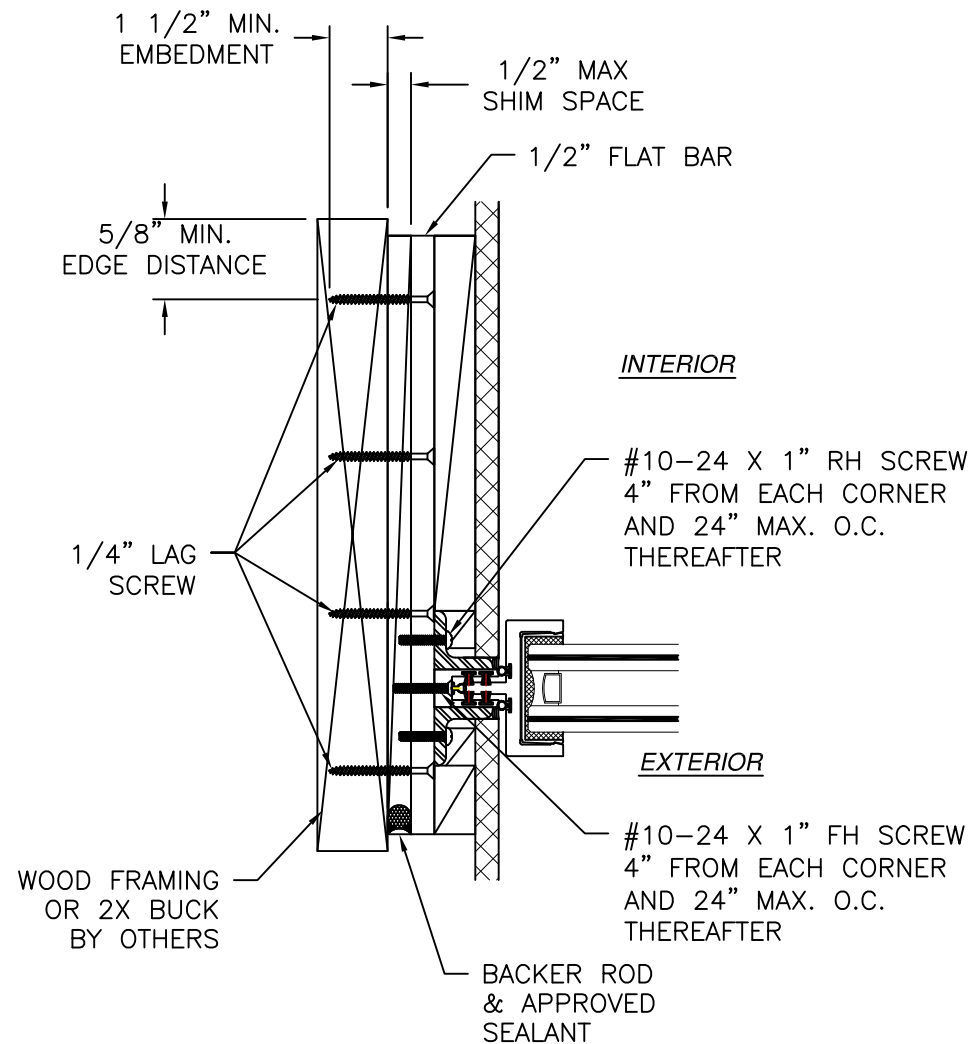
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FL No.: 62514

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VERTICAL INSTALLATION DETAIL
CONCRETE/MASONRY INSTALLATION

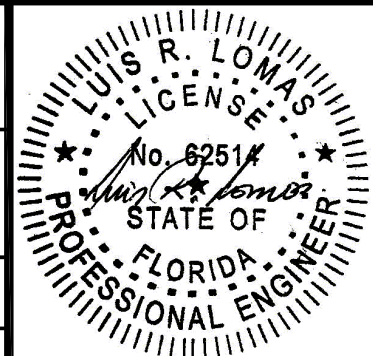
- NOTES:
1. INTERIOR AND EXTERIOR FINISHES, BY OTHERS, NOT SHOWN FOR CLARITY.
 2. PERIMETER AND JOINT SEALANT BY OTHERS TO BE DESIGNED IN ACCORDANCE WITH ASTM E2112



JAMB INSTALLATION DETAIL
WOOD FRAMING OR 2X BUCK INSTALLATION

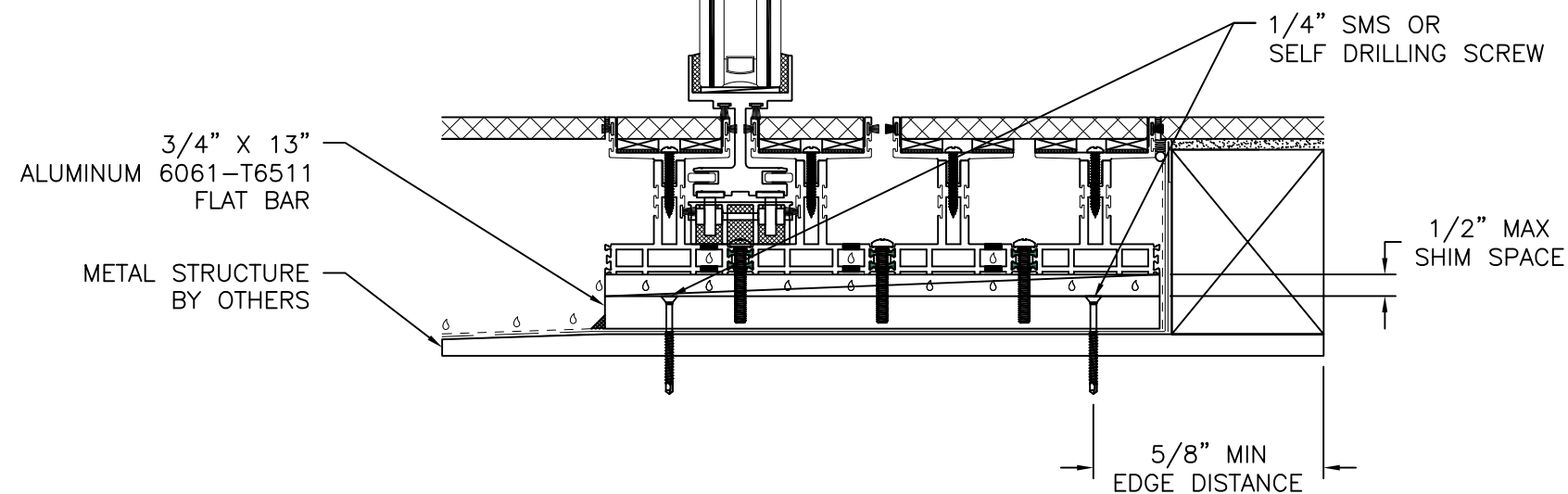
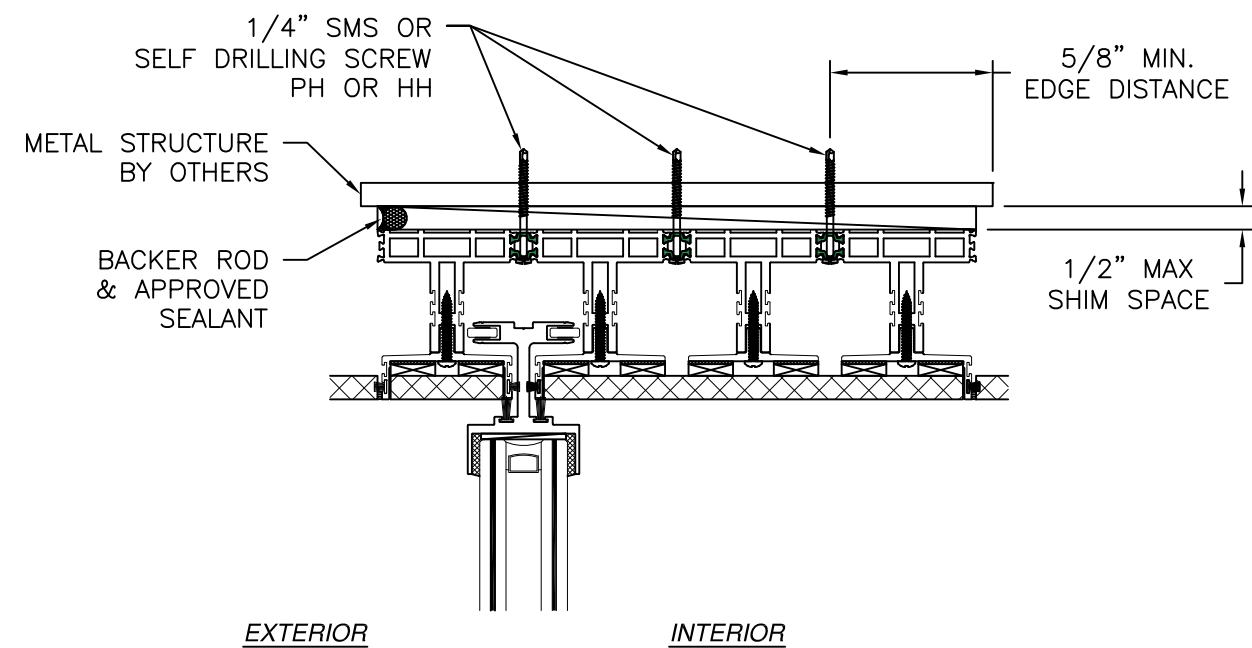
TITONI WINDOWS 145 ARENA STREET EL SEGUNDO, CA 90245		
HS50 FIXED FACADE IMPACT – HVHZ INSTALLATION DETAILS		
DRAWN: A.R.	DWG NO. 08-04119	REV -
SCALE NTS	DATE 01/09/2025	SHEET 5 OF 8
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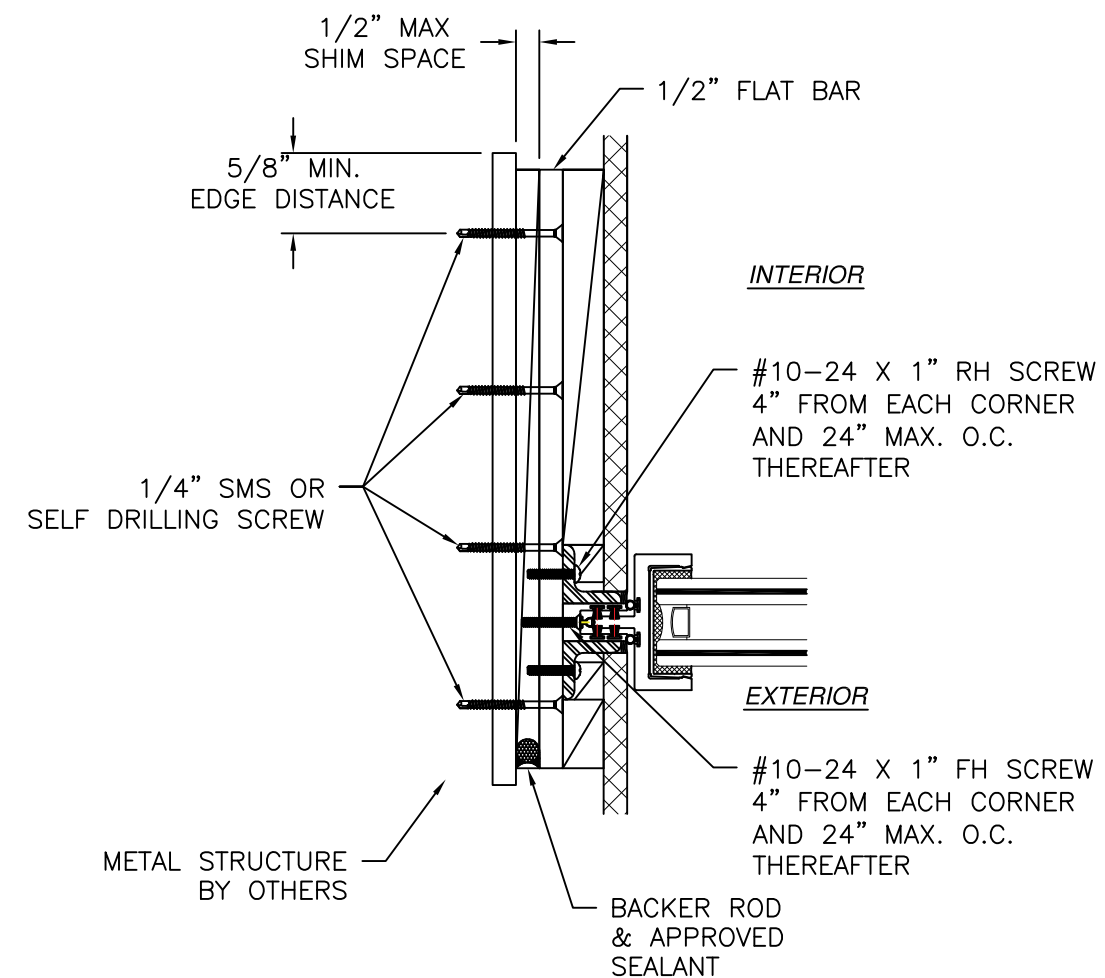
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FL No.: 62514

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VERTICAL INSTALLATION DETAIL
METAL STRUCTURE INSTALLATION

- NOTES:
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JAMB INSTALLATION DETAIL
METAL STRUCTURE INSTALLATION

TITONI WINDOWS

145 ARENA STREET
EL SEGUNDO, CA 90245

HS50 FIXED FACADE
IMPACT – HVHZ
INSTALLATION DETAILS

DRAWN:
A.R.

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08-04119

REV
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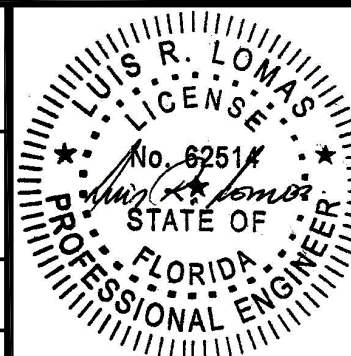
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DATE
01/09/2025

SHEET
6 OF 8

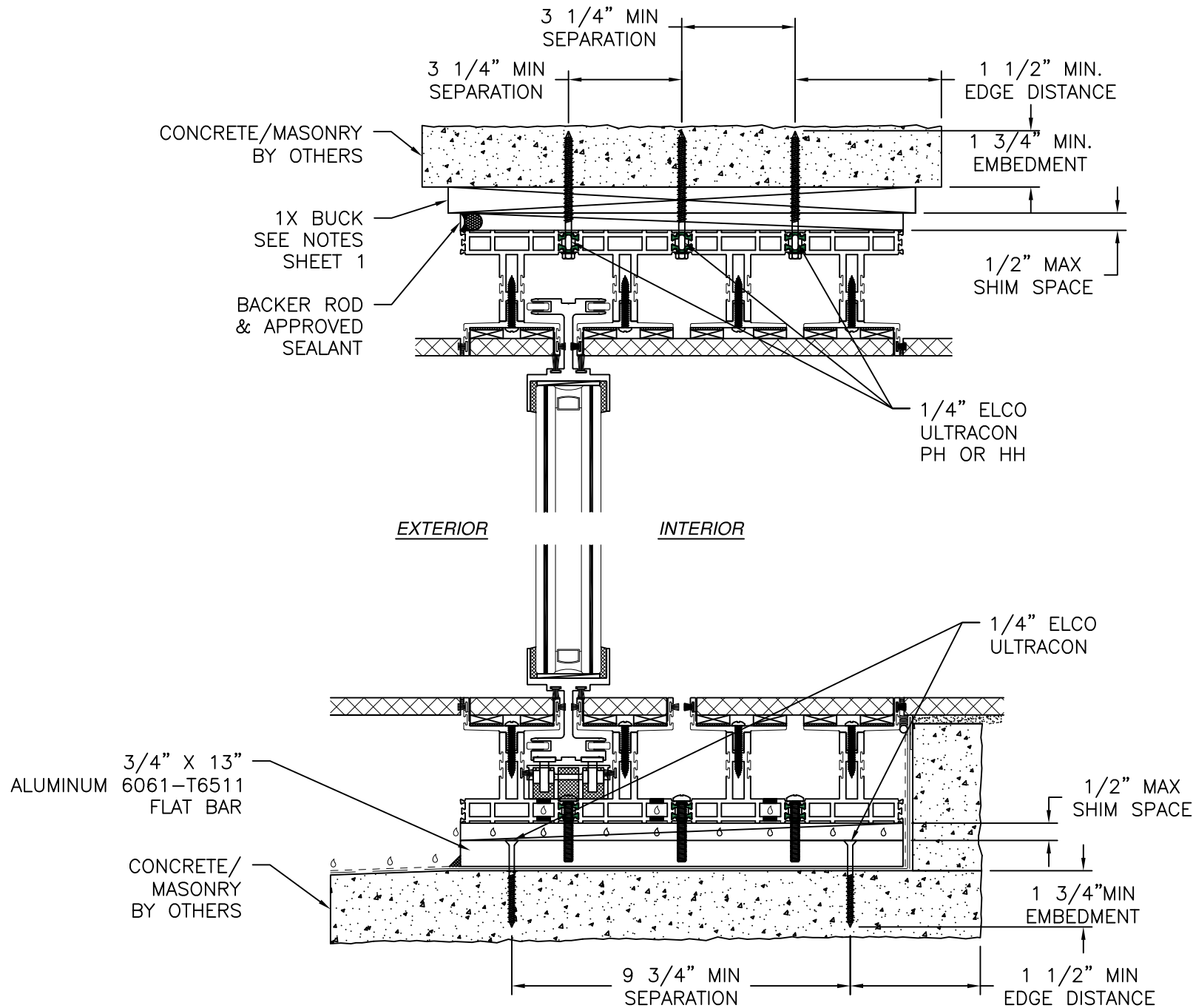
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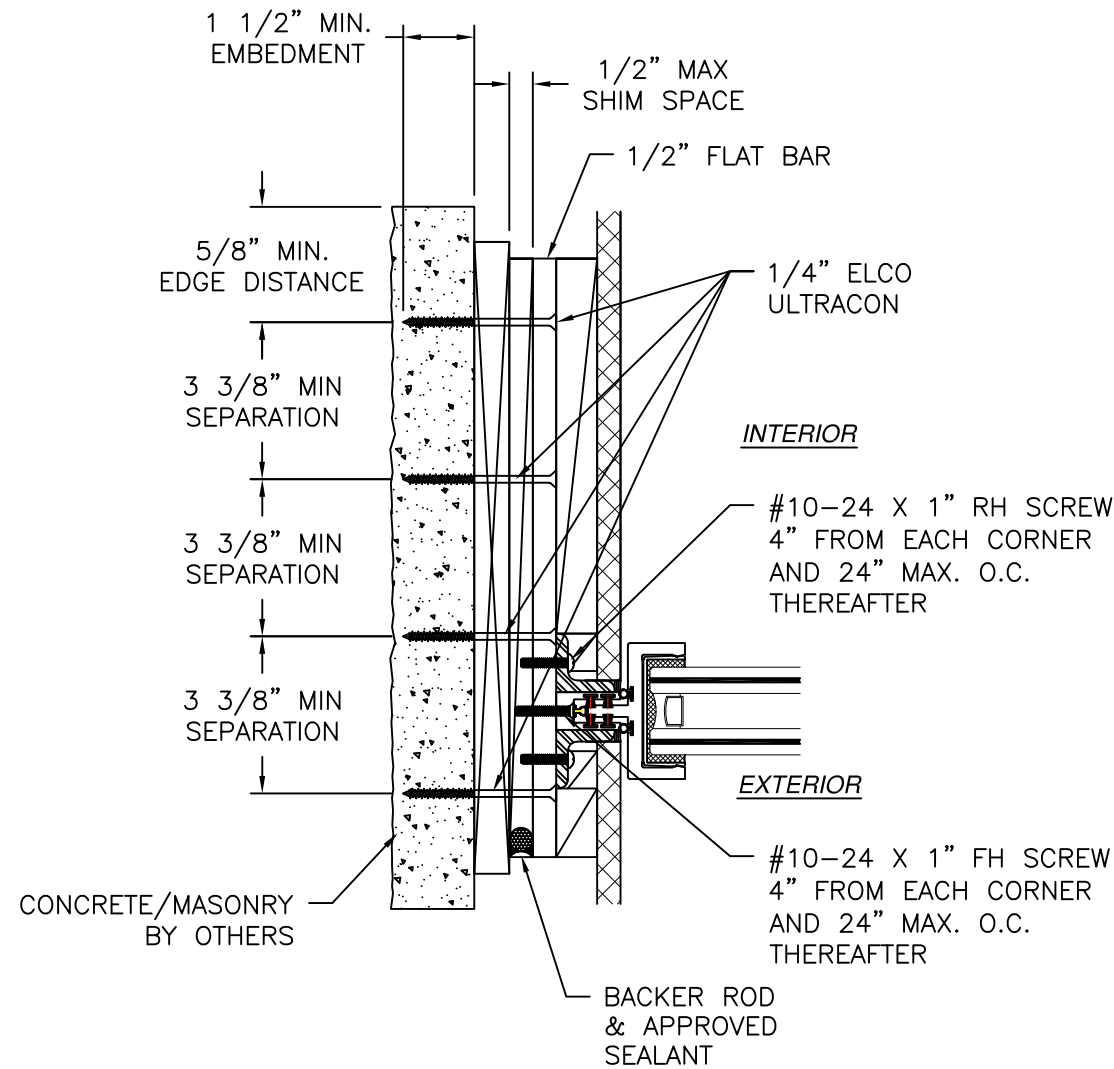
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REV	DESCRIPTION	DATE	APPROVED



VERTICAL INSTALLATION DETAIL
CONCRETE/MASONRY INSTALLATION

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



JAMB INSTALLATION DETAIL
CONCRETE/MASONRY INSTALLATION

SIGNED: 02/06/2025

TITONI WINDOWS

145 ARENA STREET
EL SEGUNDO, CA 90245

HS50 FIXED FACADE

IMPACT – HVHZ

INSTALLATION DETAILS

DRAWN: A.R.

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REV -

SCALE NTS

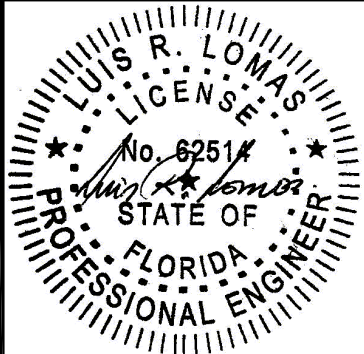
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SHEET 7 OF 8

L. ROBERTO LOMAS P.E.

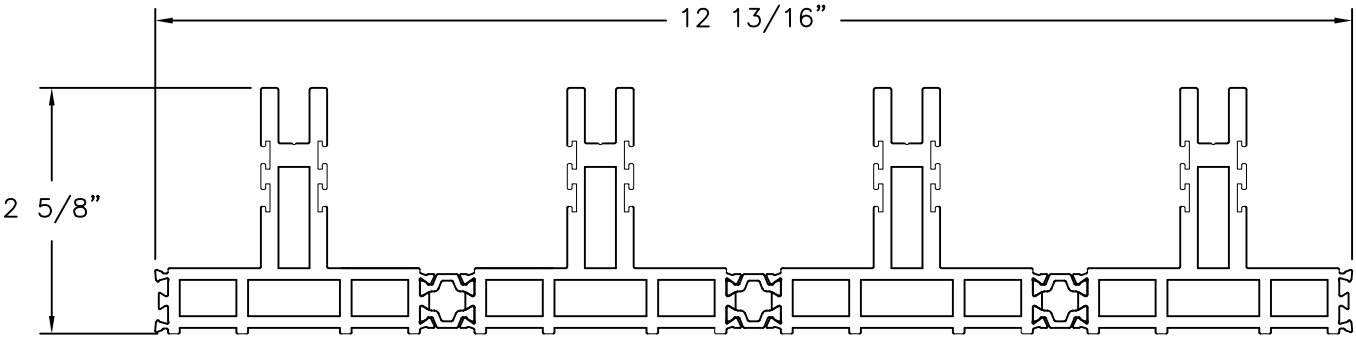
208 7th Ave, INDIALANTIC, FL 32903

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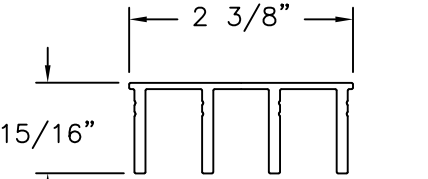


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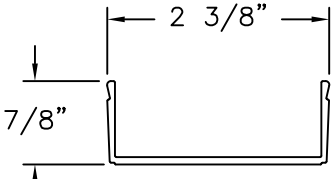
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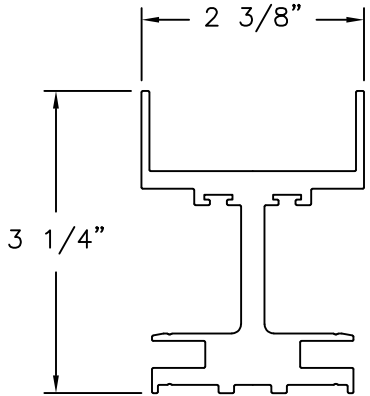
HEAD AND SILL
ALUMINUM 6063-T6, POLYAMIDE PA66



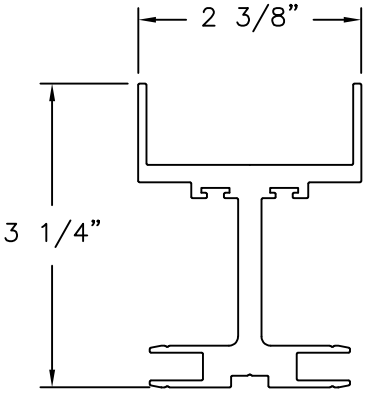
BOTTOM RAIL SUPPORT
ALUMINUM 6063-T6



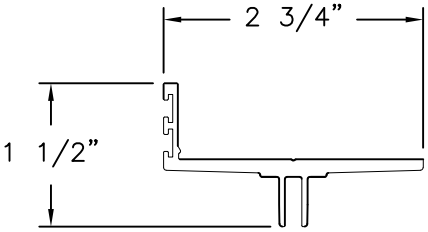
VERTICAL STILE
ALUMINUM 6063-T6



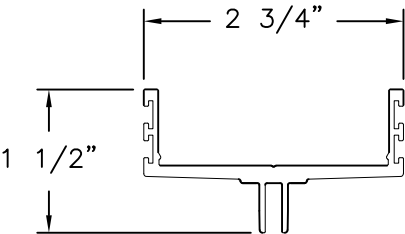
BOTTOM RAIL
ALUMINUM 6063-T6



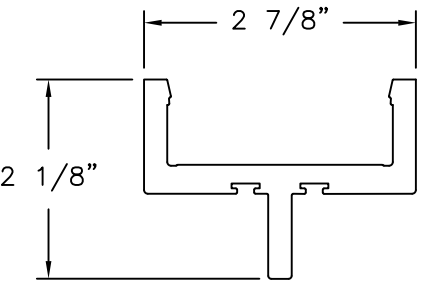
TOP RAIL
ALUMINUM 6063-T6



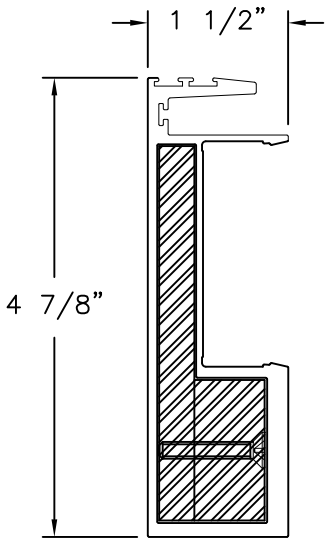
SILL INSERT
ALUMINUM 6063-T6



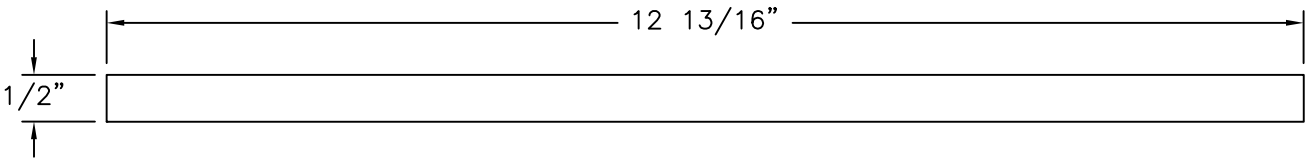
SILL INSERT
ALUMINUM 6063-T6



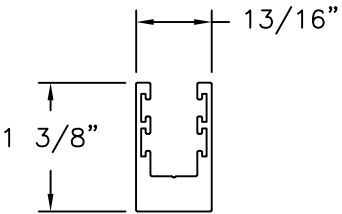
JAMB
ALUMINUM 6063-T6



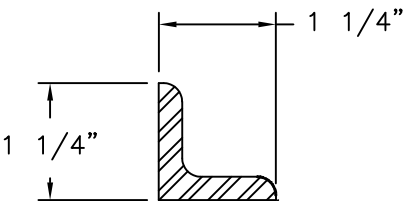
HAMMER INTERLOCK
ALUMINUM 6063-T6
WITH STEEL REINFORCEMENT



FLAT BAR
ALUMINUM 6061-T6



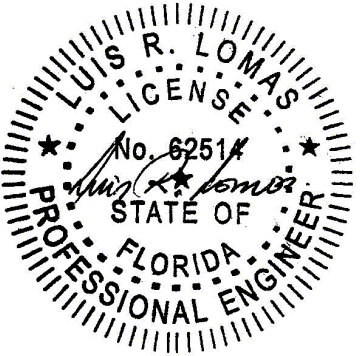
JAMB TRACK
ALUMINUM 6063-T6



SUPPORT ANGLE
STEEL A36 1/4" THICK

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HS50 FIXED FACADE IMPACT – HVHZ COMPONENTS		
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