

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED PER TDI COMMENTS	07/16/19	R.L.

NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE 2006 IBC AND 2006 IRC WITH STATE OF TEXAS MODIFICATIONS, AND WITH THE 2009 IBC, 2009 IRC, 2012 IBC, 2012 IRC, 2015 IBC AND 2015 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. FOR FIN INSTALLATION SHIM AS NEEDED. 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 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 E1300-04/09.
13. APPROVED IMPACT PROTECTIVE SYSTEM IS REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.
14. FOR ANCHORING THROUGH FIN INTO WOOD FRAMING OR 2X BUCK USE #8 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 THROUGH FRAME 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.
16. FOR ANCHORING THROUGH FRAME INTO MASONRY/CONCRETE USE 3/16" 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.
17. FOR ANCHORING THROUGH FRAME 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.
18. ALL FASTENERS TO BE CORROSION RESISTANT.
19. 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: HOLLOW/FILLED BLOCK PER ASTM C90 WITH f'm=2,000PSI MINIMUM.
  - D. METAL STRUCTURE: STEEL 18GA (.048") FY=33KSI/FU=52KSI OR ALUMINUM 6063-T5 FU=30KSI .048" THICK MINIMUM.

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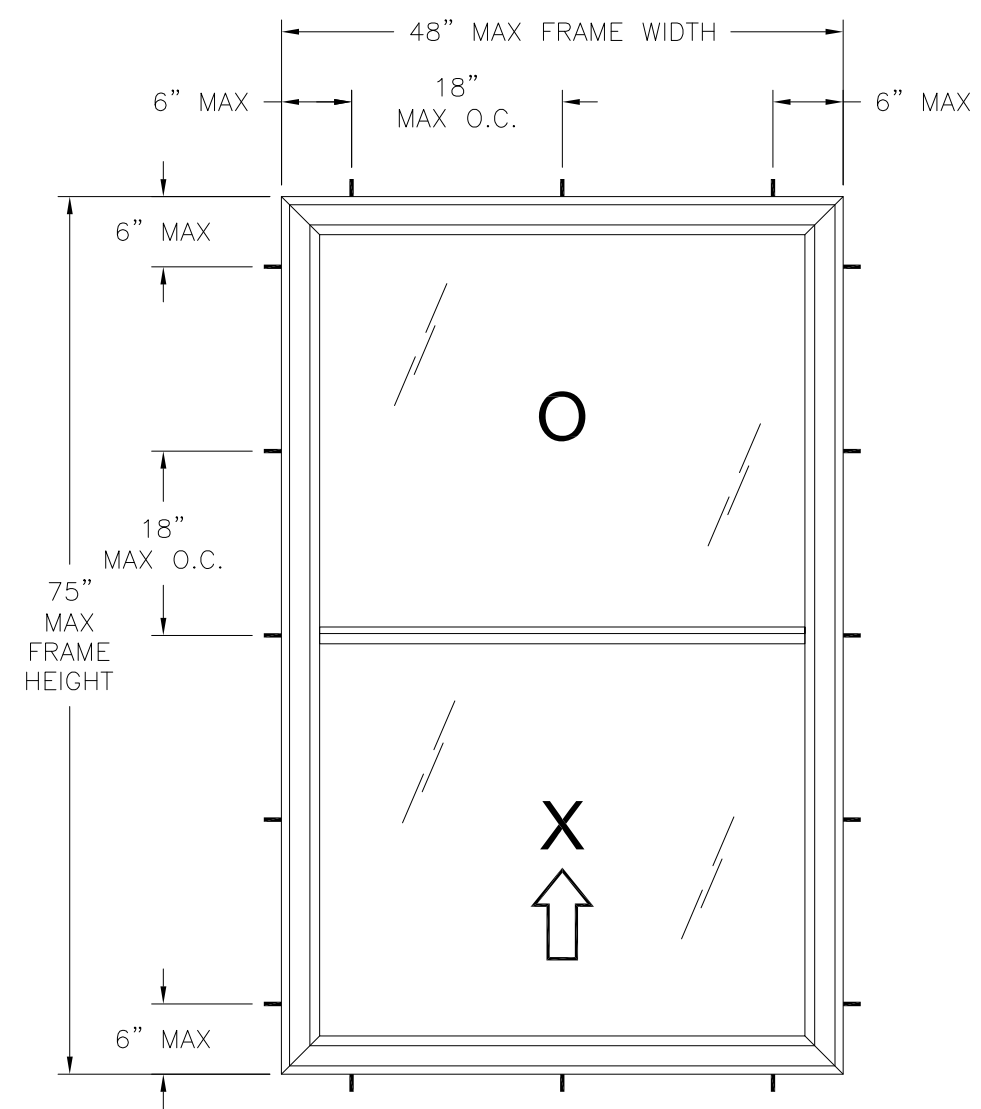
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VISTAMARK ENTERPRISES, LLC 3637 N HIGHWAY 77, SUITE C WAXAHACHIE, TX 75165		
SERIES ENDURA 110 PVC SINGLE HUNG REINFORCED NON-IMPACT NOTES		
DRAWN: R.L.	DWG NO. 08-02763	REV A
SCALE NTS	DATE 07/31/15	SHEET 1 OF 10
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@rlomaspe.com		

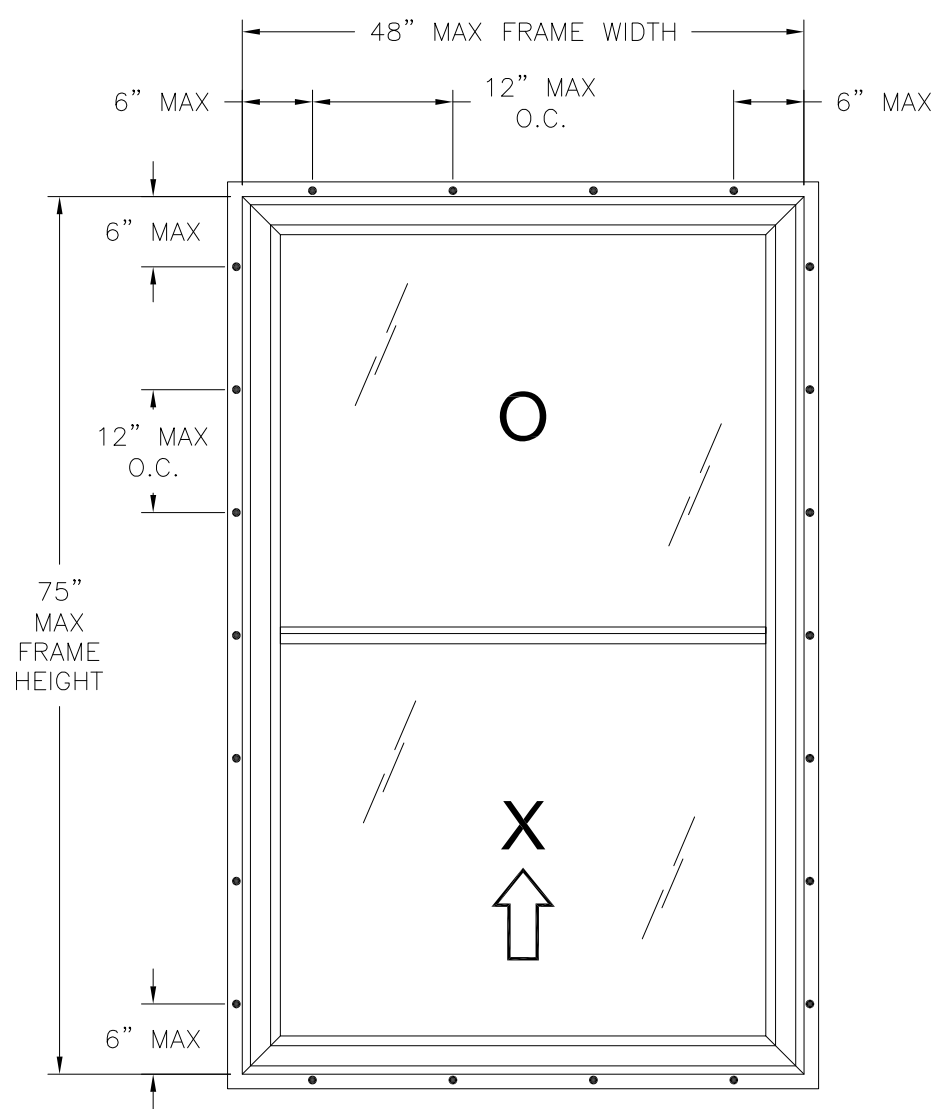


Luis R. Lomas P.E.  
TX No.: 101889

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**SERIES ENDURA 110 SINGLE HUNG WINDOW**  
EXTERIOR VIEW  
FRAME INSTALLATION



**SERIES ENDURA 110 SINGLE HUNG WINDOW**  
EXTERIOR VIEW  
FIN INSTALLATION

DESIGN PRESSURE RATING	IMPACT RATING
+40.0/-45.0PSF	NONE

- NOTES:
1. MAXIMUM SASH SIZE: 45 3/8" X 36 1/2"
  2. MAXIMUM D.L.O.: 43 1/8" X 33 3/8"

HARDWARE SCHEDULE	
A.	(2) COMPOSITE LOCK AT 8 1/2" FROM EACH END OF LOCK RAIL
B.	(2) CONSTANT FORCE BALANCE SYSTEM WITH LOCKING TILT SHOE ONE PER JAMB
C.	(2) MOLDED TILT LATCH AT EACH END OF LOCK RAIL
D.	(2) METAL PIVOT BAR AT EACH END OF BOTTOM RAIL
E.	EXTRUDED ALUMINUM REINFORCEMENT (10300278) AT FIXED MEETING RAIL
F.	EXTRUDED ALUMINUM REINFORCEMENT (10300277) AT LOCK RAIL
G.	EXTRUDED ALUMINUM REINFORCEMENT (10300276) AT STILES

VISTAMARK ENTERPRISES, LLC  
3637 N HIGHWAY 77, SUITE C  
WAXAHACHIE, TX 75165

SERIES ENDURA 110 PVC SINGLE HUNG  
REINFORCED NON-IMPACT  
48" X 75" EQUAL LEG ELEVATION

DRAWN: R.L.	DWG NO. 08-02763	REV A
SCALE NTS	DATE 07/31/15	SHEET 2 OF 10

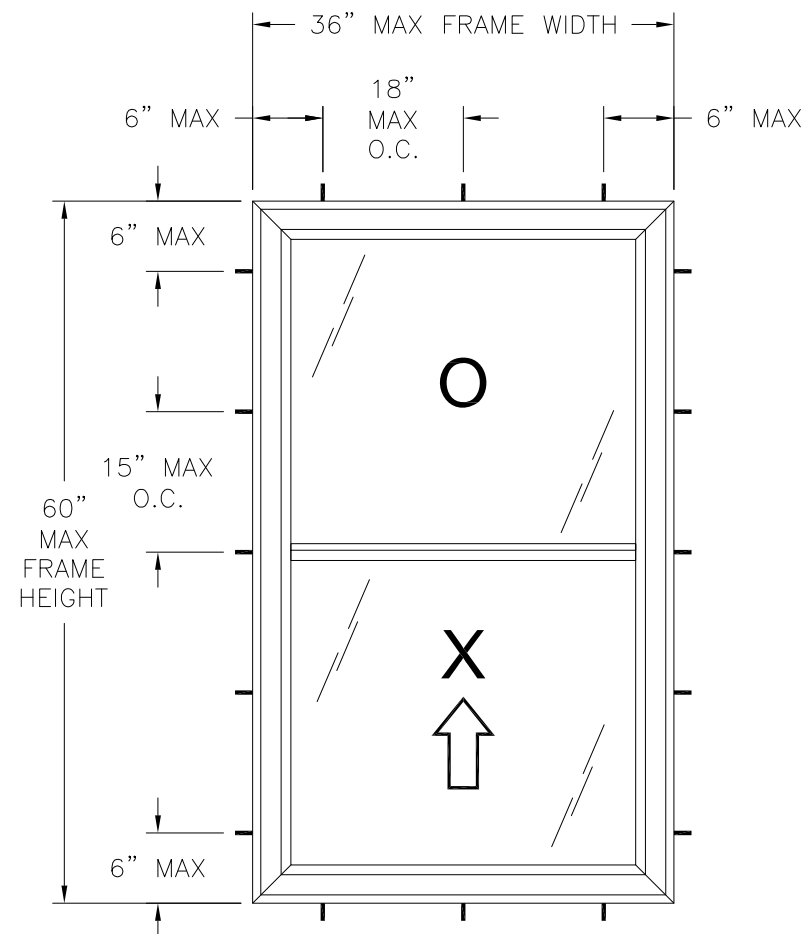
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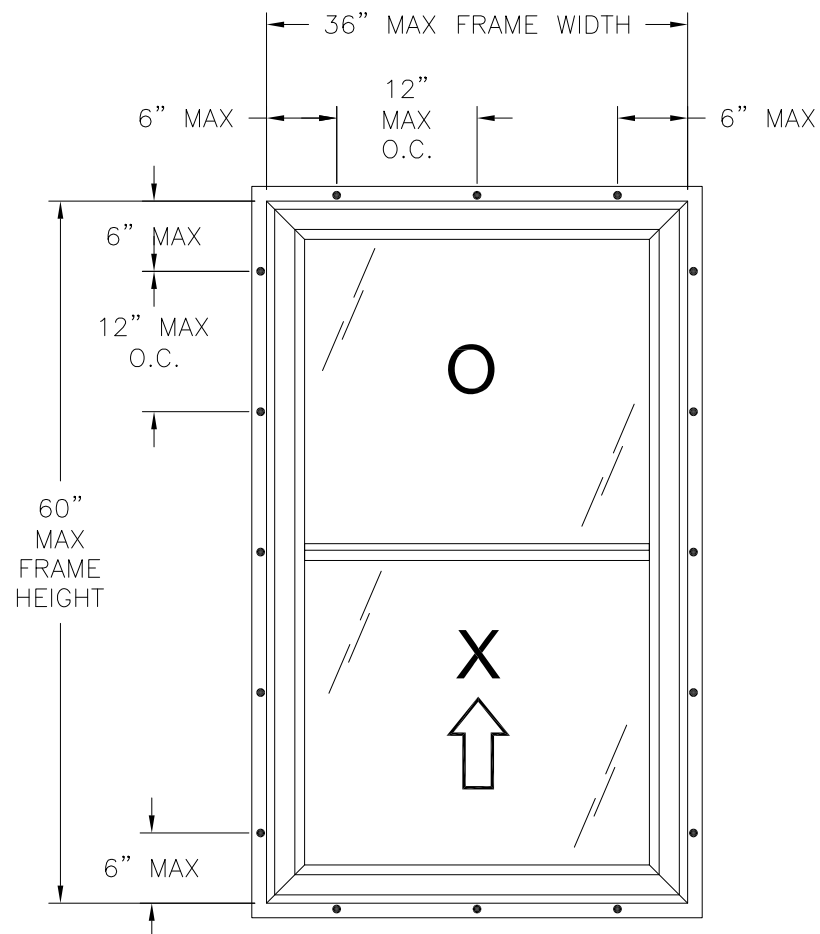


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EXTERIOR VIEW  
FRAME INSTALLATION



**SERIES ENDURA 110 SINGLE HUNG WINDOW**  
EXTERIOR VIEW  
FIN INSTALLATION

DESIGN PRESSURE RATING	IMPACT RATING
+50.0/-75.0PSF	NONE

NOTES:

1. MAXIMUM SASH SIZE: 33 1/4" X 29 3/8"
2. MAXIMUM D.L.O.: 30 1/2" X 26"

HARDWARE SCHEDULE	
A.	(2) COMPOSITE LOCK AT 8 1/2" FROM EACH END OF LOCK RAIL
B.	(2) CONSTANT FORCE BALANCE SYSTEM WITH LOCKING TILT SHOE ONE PER JAMB
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SERIES ENDURA 110 PVC SINGLE HUNG  
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36" X 60" EQUAL LEG ELEVATION

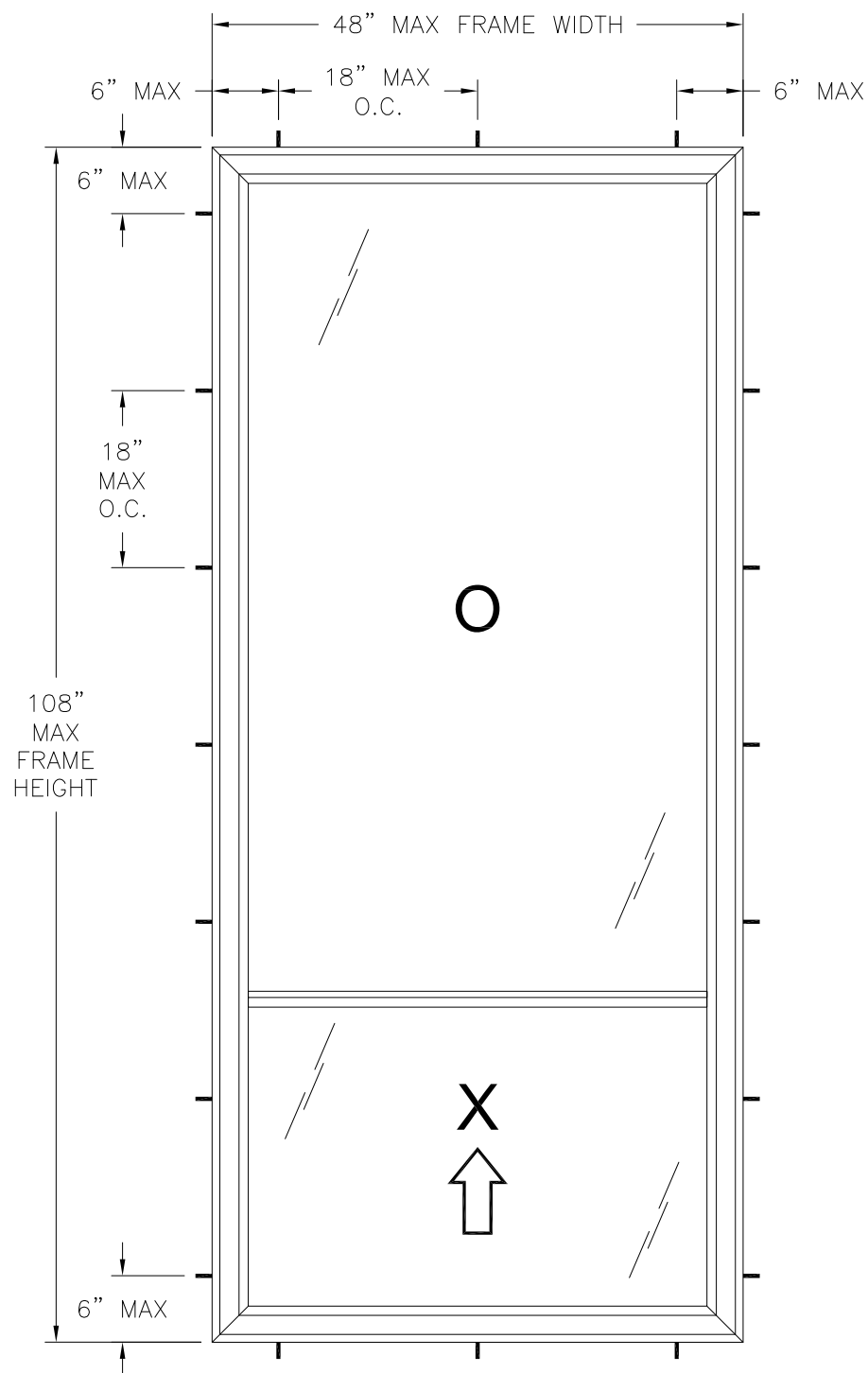
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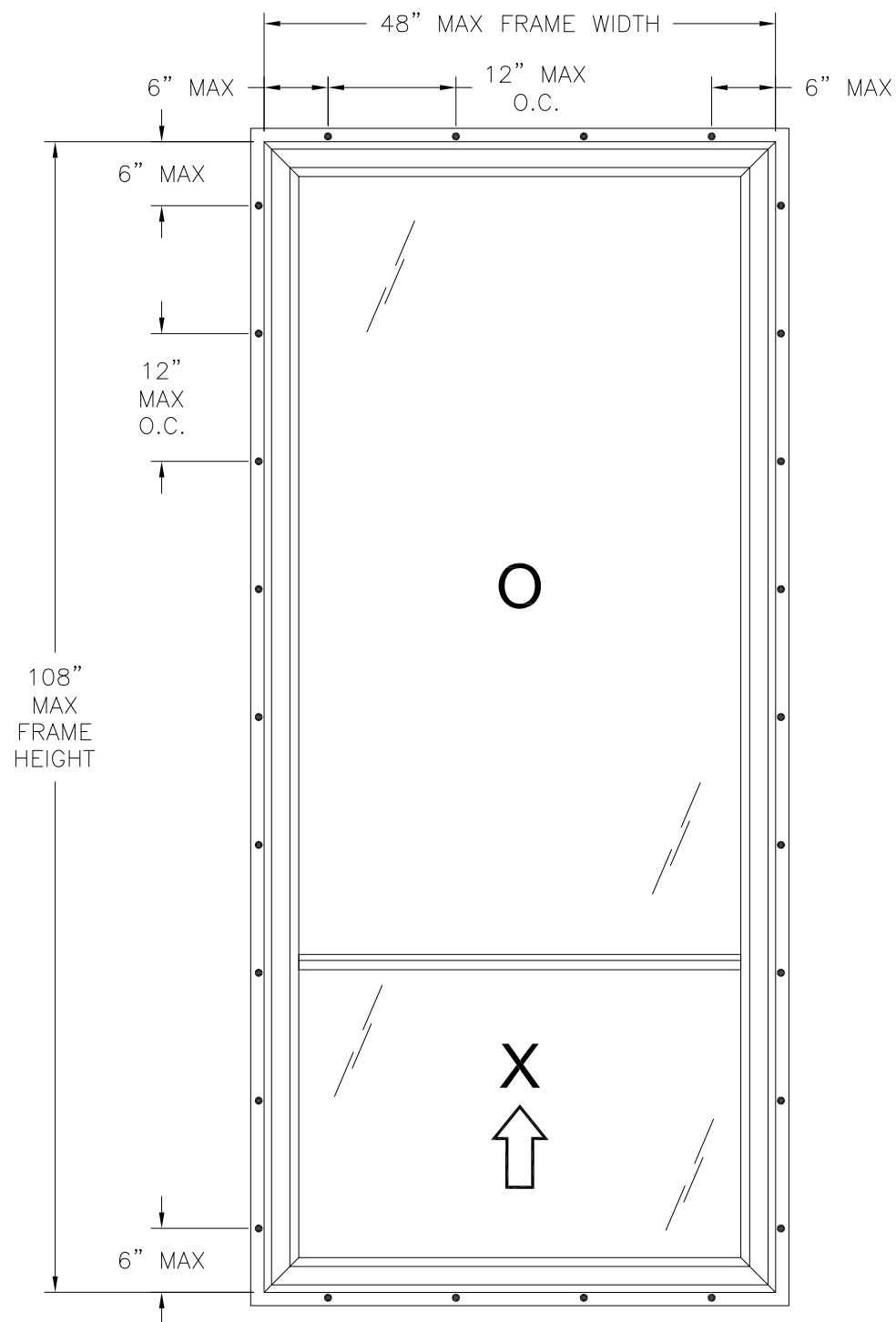
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**SERIES ENDURA 110 ORIEL  
SINGLE HUNG WINDOW**  
EXTERIOR VIEW  
FRAME INSTALLATION



**SERIES ENDURA 110 ORIEL  
SINGLE HUNG WINDOW**  
EXTERIOR VIEW  
FIN INSTALLATION

DESIGN PRESSURE RATING	IMPACT RATING
+35.0/-40.0PSF	NONE

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NOTES:

1. MAXIMUM SASH SIZE: 45 13/16" X 29 5/8"
2. MAXIMUM D.L.O.: 43 1/8" X 74 1/8"

HARDWARE SCHEDULE	
A.	(2) COMPOSITE LOCK AT 8 1/2" FROM EACH END OF LOCK RAIL
B.	(2) CONSTANT FORCE BALANCE SYSTEM WITH LOCKING TILT SHOE ONE PER JAMB
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SERIES ENDURA 110 PVC SINGLE HUNG  
REINFORCED NON-IMPACT  
48" X 108" ORIEL ELEVATION

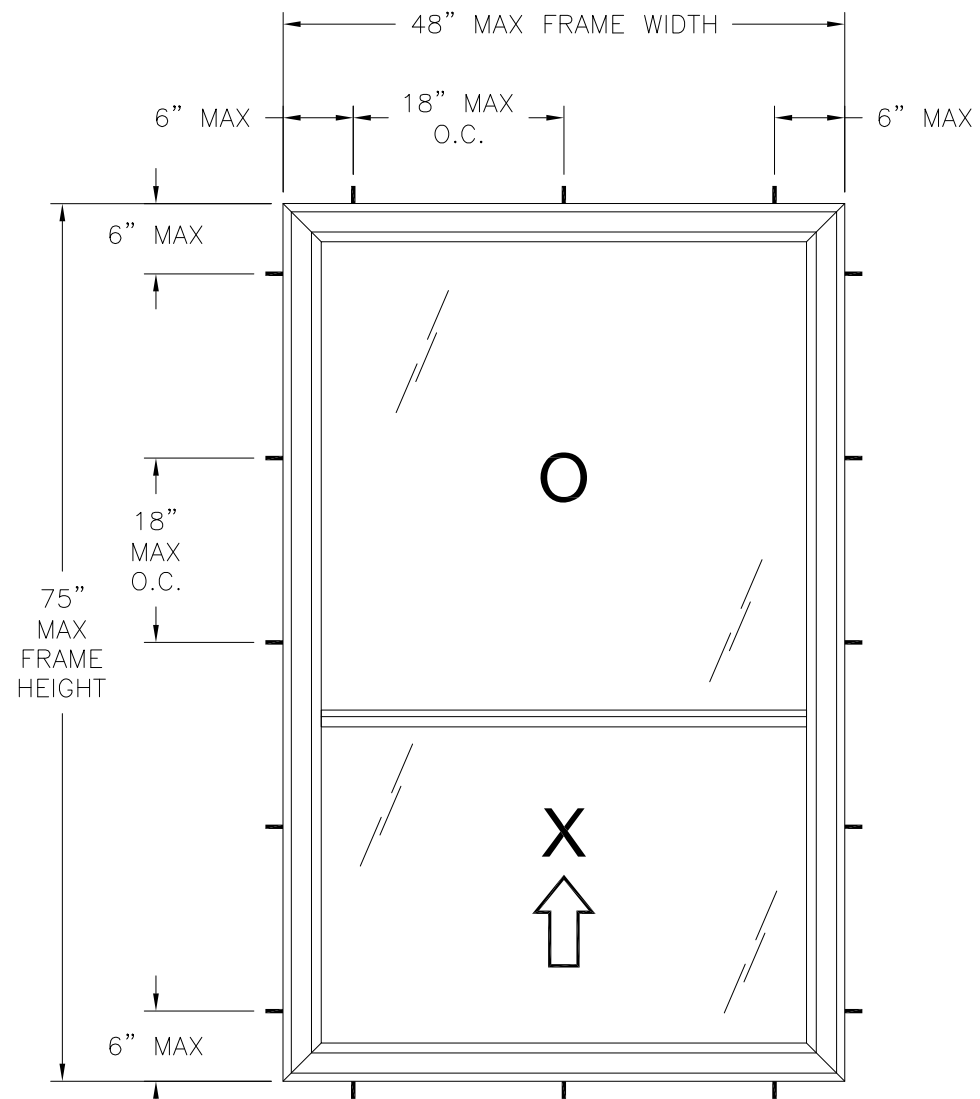
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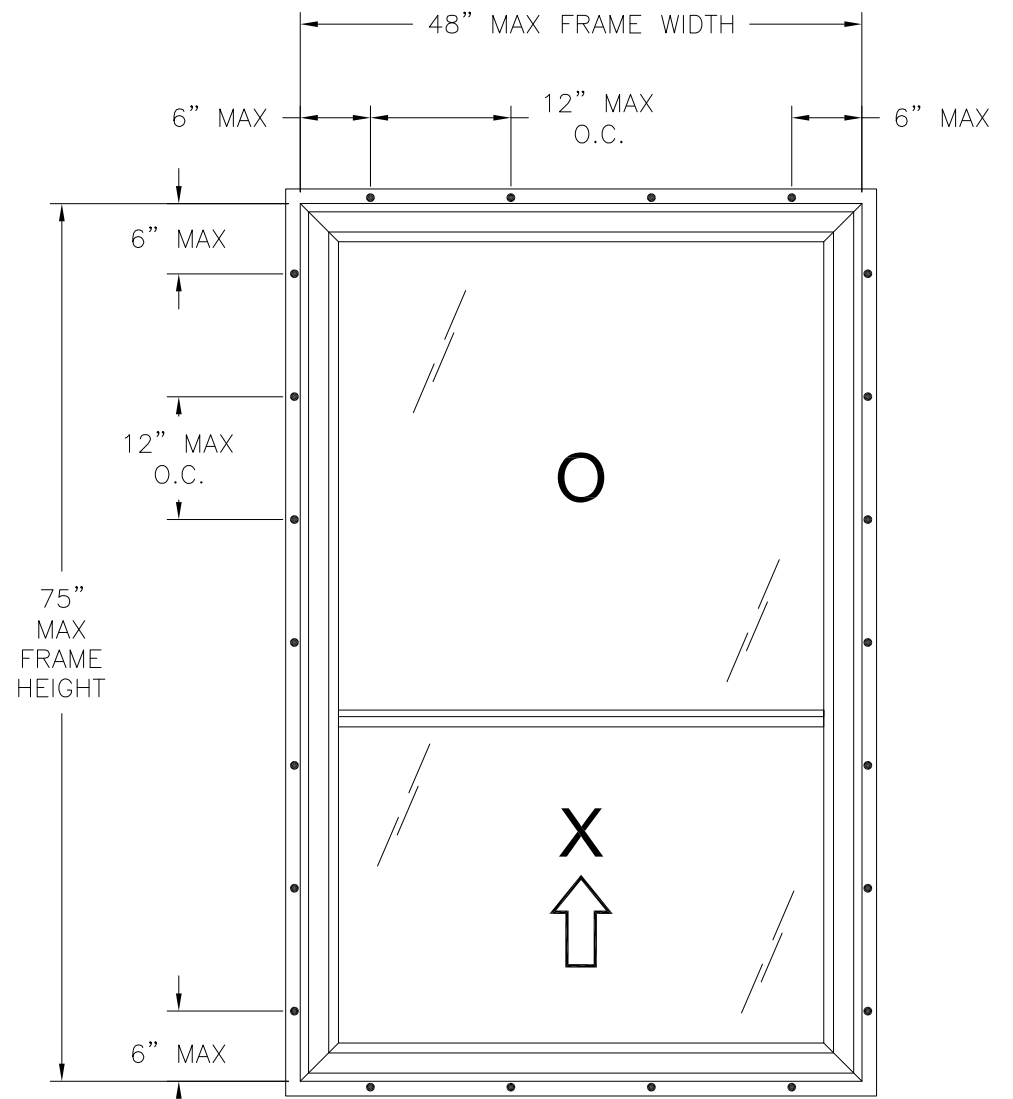


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EXTERIOR VIEW  
FRAME INSTALLATION



**SERIES ENDURA 110 ORIEL SINGLE HUNG WINDOW**  
EXTERIOR VIEW  
FIN INSTALLATION

DESIGN PRESSURE RATING	IMPACT RATING
+50.0/-55.0PSF	NONE

- NOTES:
1. MAXIMUM SASH SIZE: 45 3/4" X 29 3/4"
  2. MAXIMUM D.L.O.: 43" X 41 1/4"

HARDWARE SCHEDULE	
A.	(2) COMPOSITE LOCK AT 8 1/2" FROM EACH END OF LOCK RAIL
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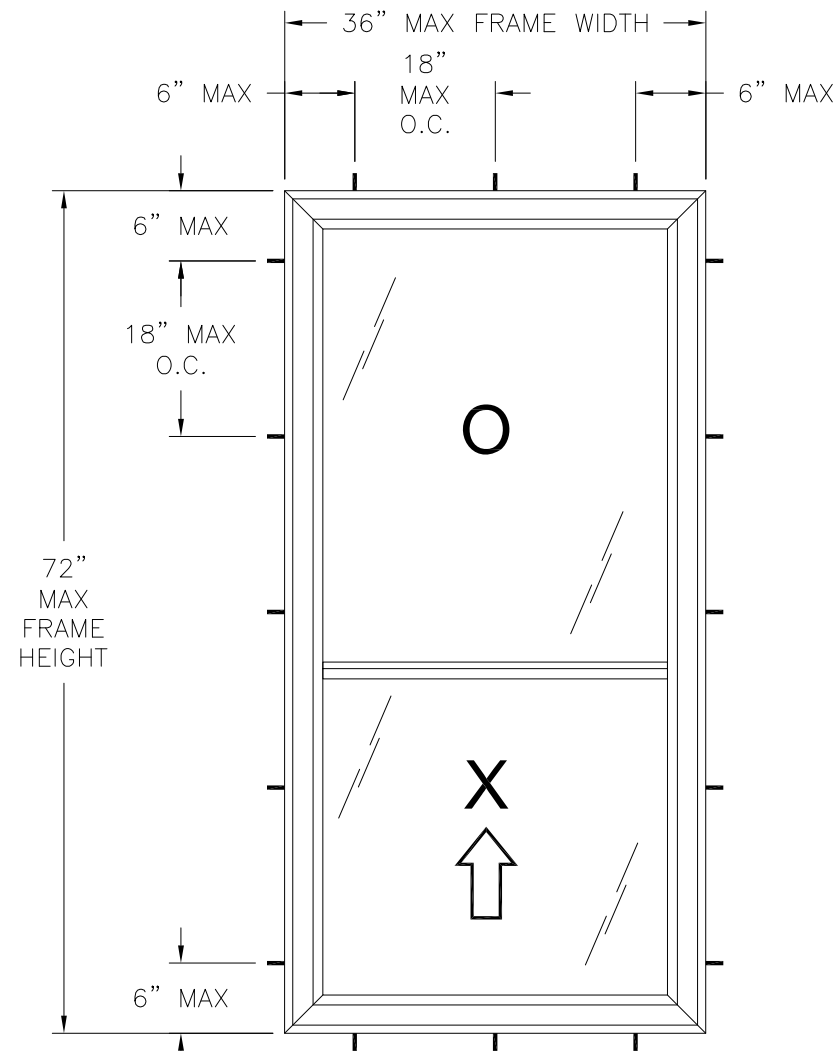
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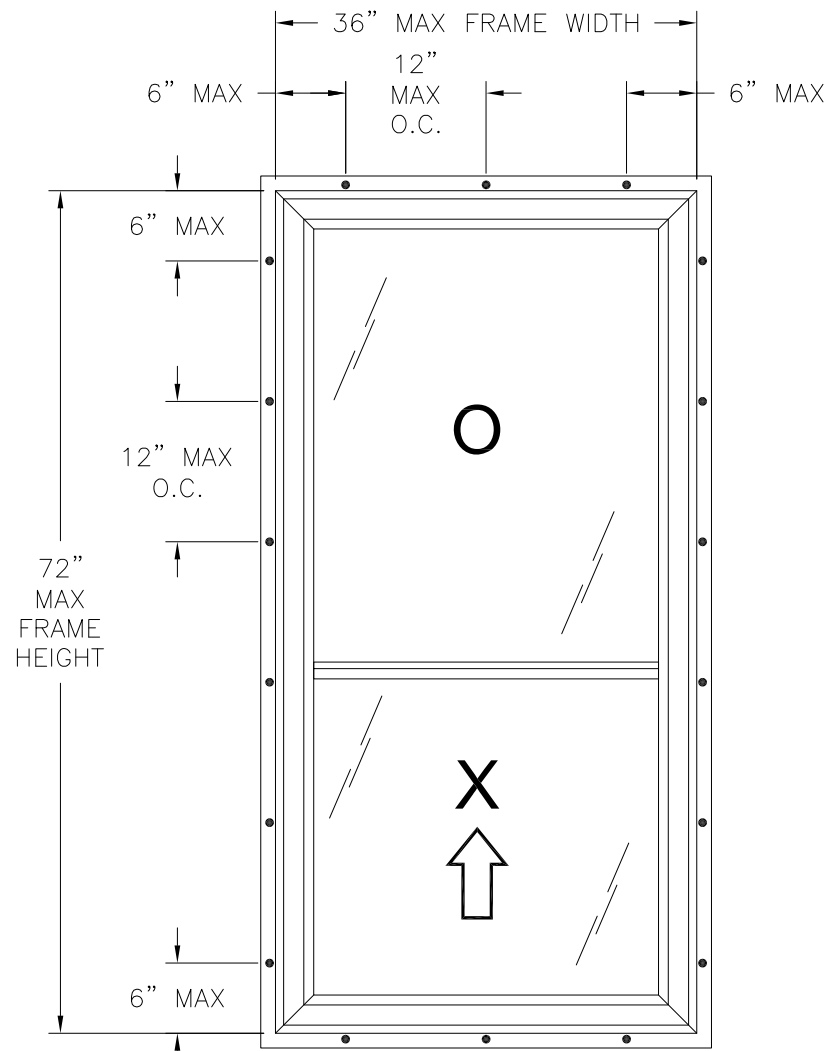


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**SERIES ENDURA 110 ORIEL SINGLE HUNG WINDOW**  
EXTERIOR VIEW  
FRAME INSTALLATION



**SERIES ENDURA 110 ORIEL SINGLE HUNG WINDOW**  
EXTERIOR VIEW  
FIN INSTALLATION

DESIGN PRESSURE RATING	IMPACT RATING
+50.0/-65.0PSF	NONE

NOTES:

1. MAXIMUM SASH SIZE: 33 3/4" X 29 5/8"
2. MAXIMUM D.L.O.: 30 1/2" X 26 3/8"

**HARDWARE SCHEDULE**

A.	(2) COMPOSITE LOCK AT 8 1/2" FROM EACH END OF LOCK RAIL
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36" X 72" ORIEL ELEVATION

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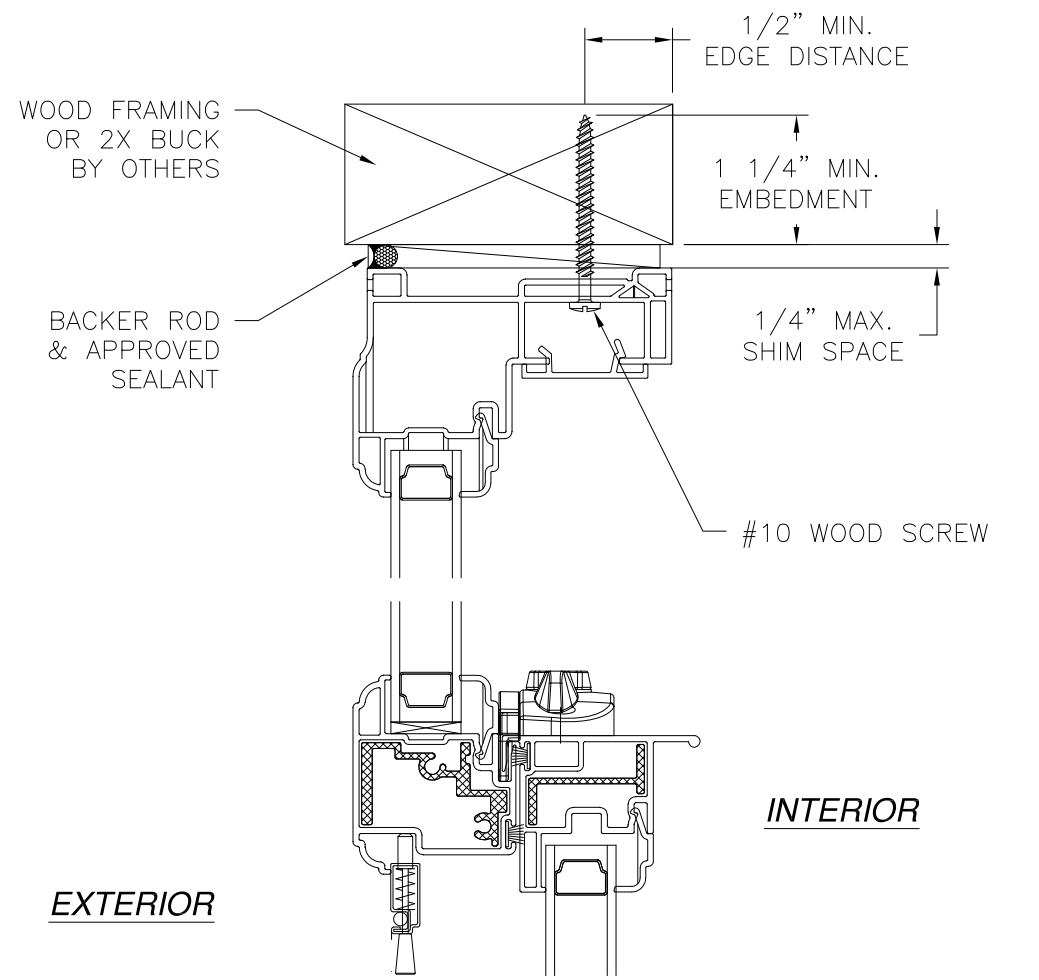
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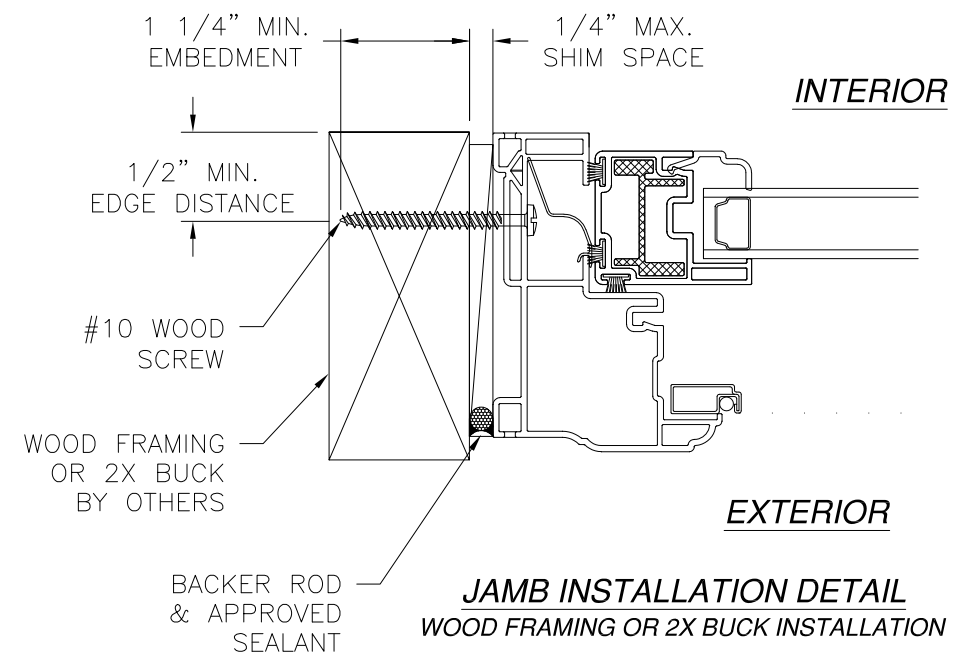


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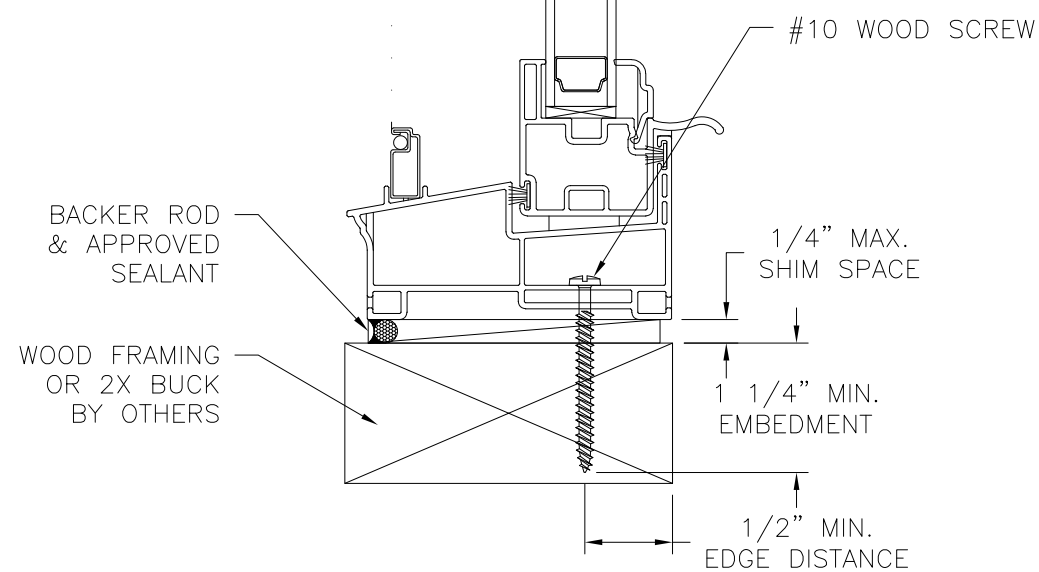
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**VERTICAL CROSS SECTION**  
WOOD FRAMING OR 2X BUCK INSTALLATION



**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

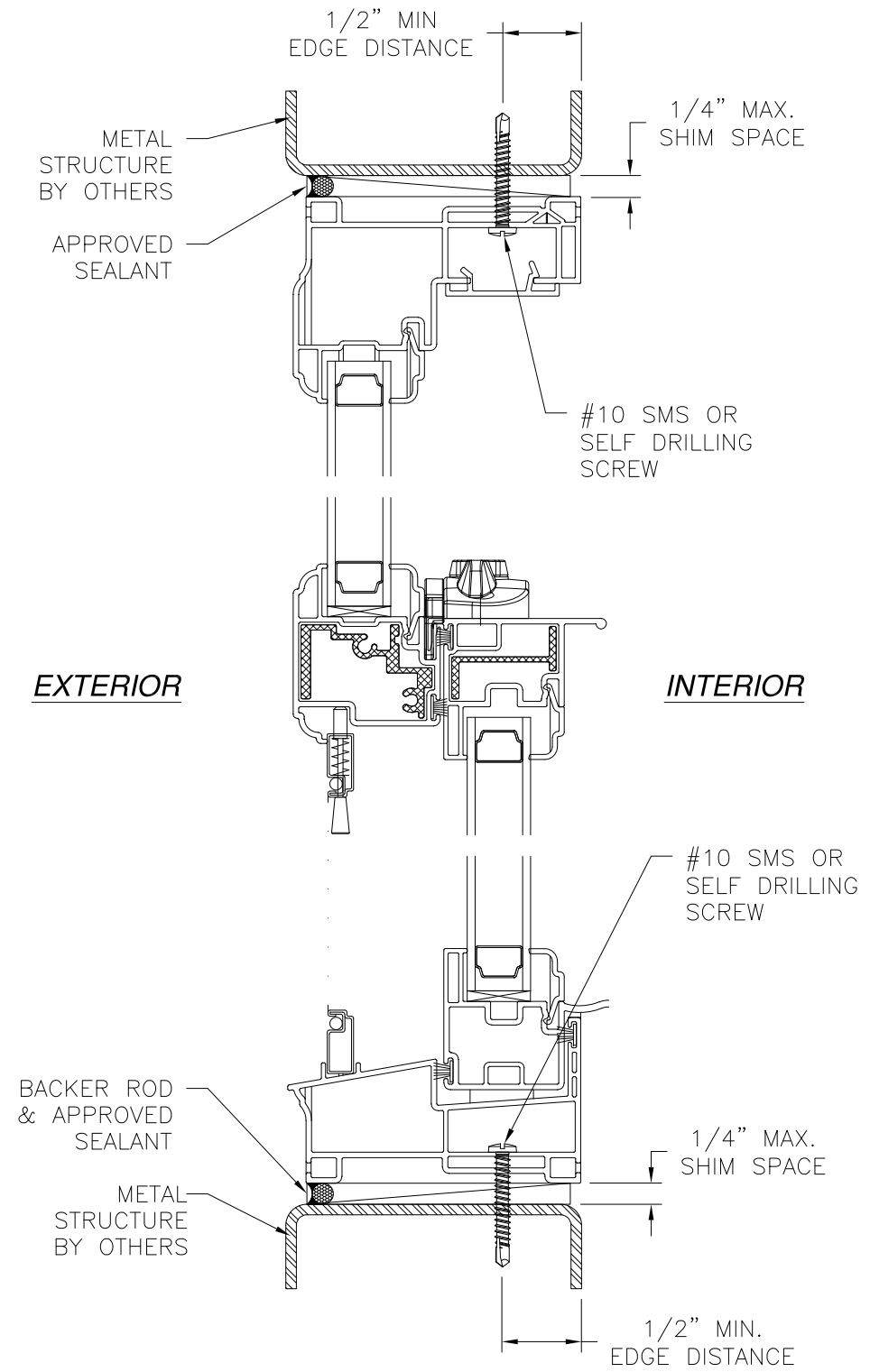
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SERIES ENDURA 110 PVC SINGLE HUNG REINFORCED NON-IMPACT INSTALLATION DETAILS		
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L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@rlomaspe.com		

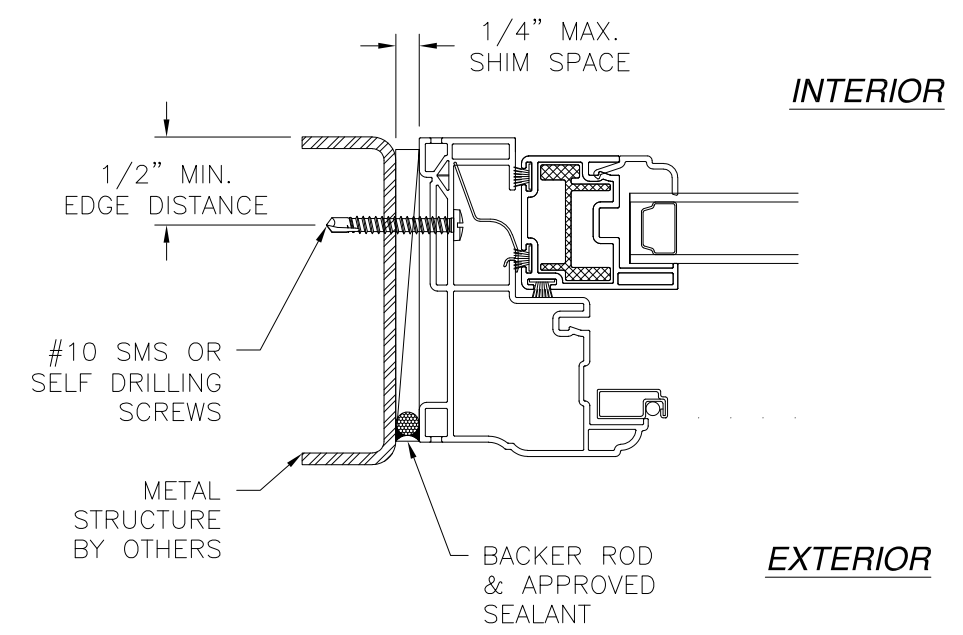


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**VERTICAL CROSS SECTION**  
METAL STRUCTURE INSTALLATION



**JAMB INSTALLATION DETAIL**  
METAL STRUCTURE INSTALLATION

- NOTES:**
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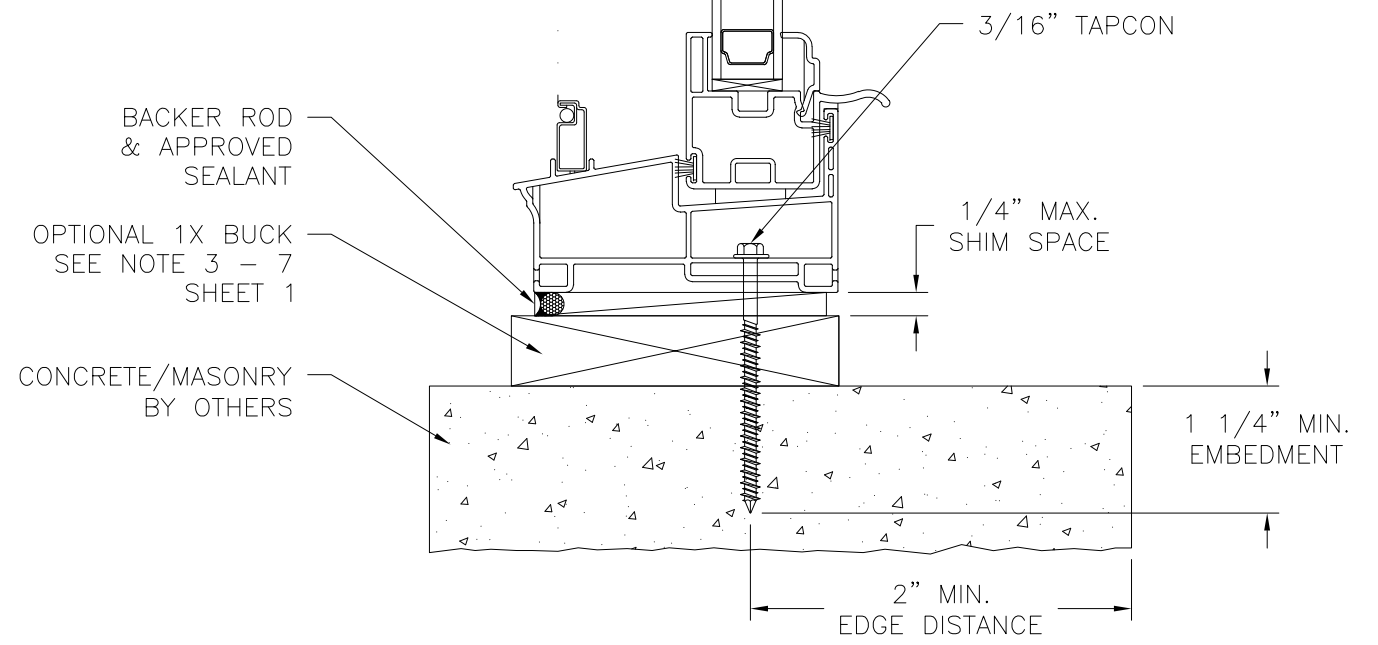
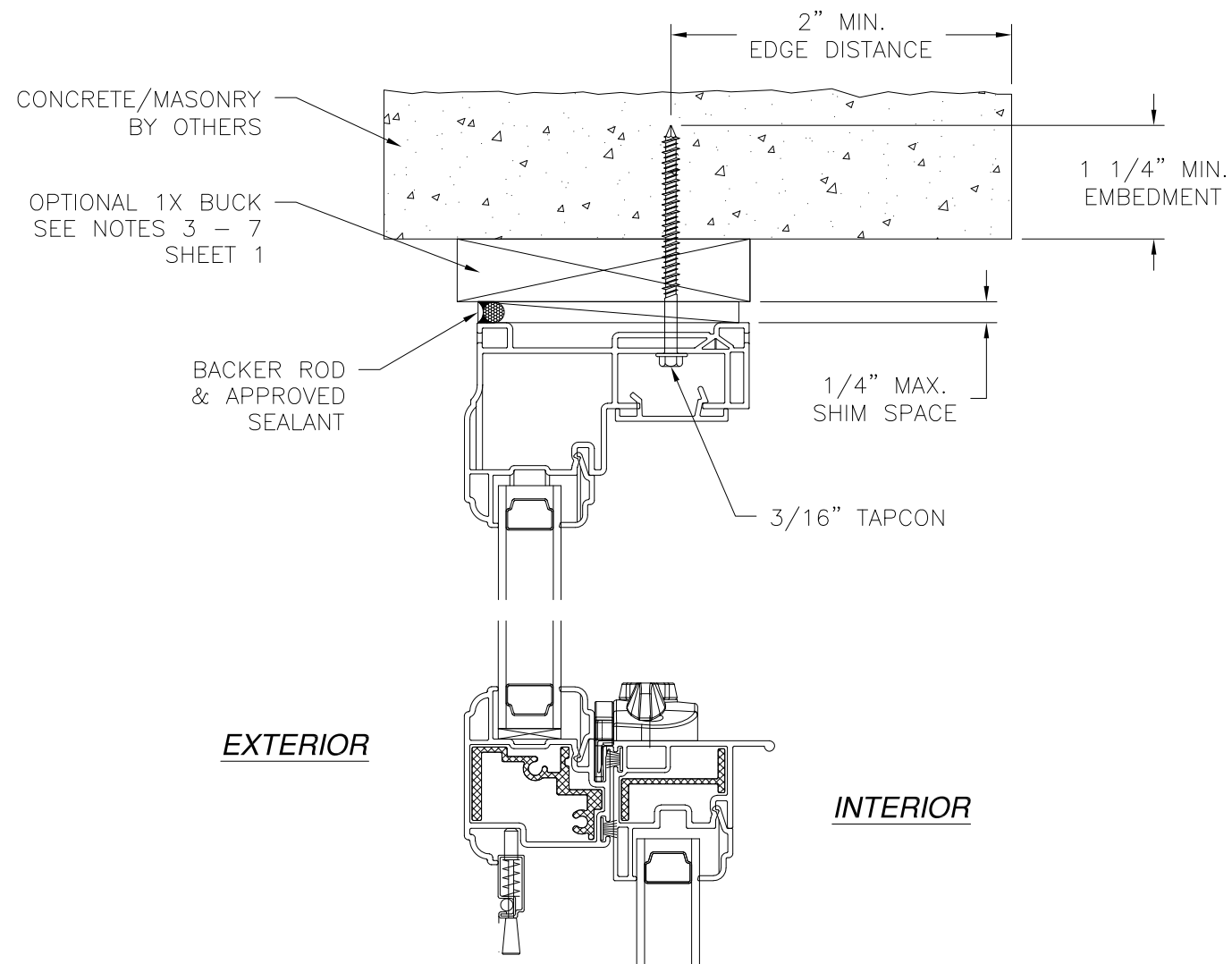
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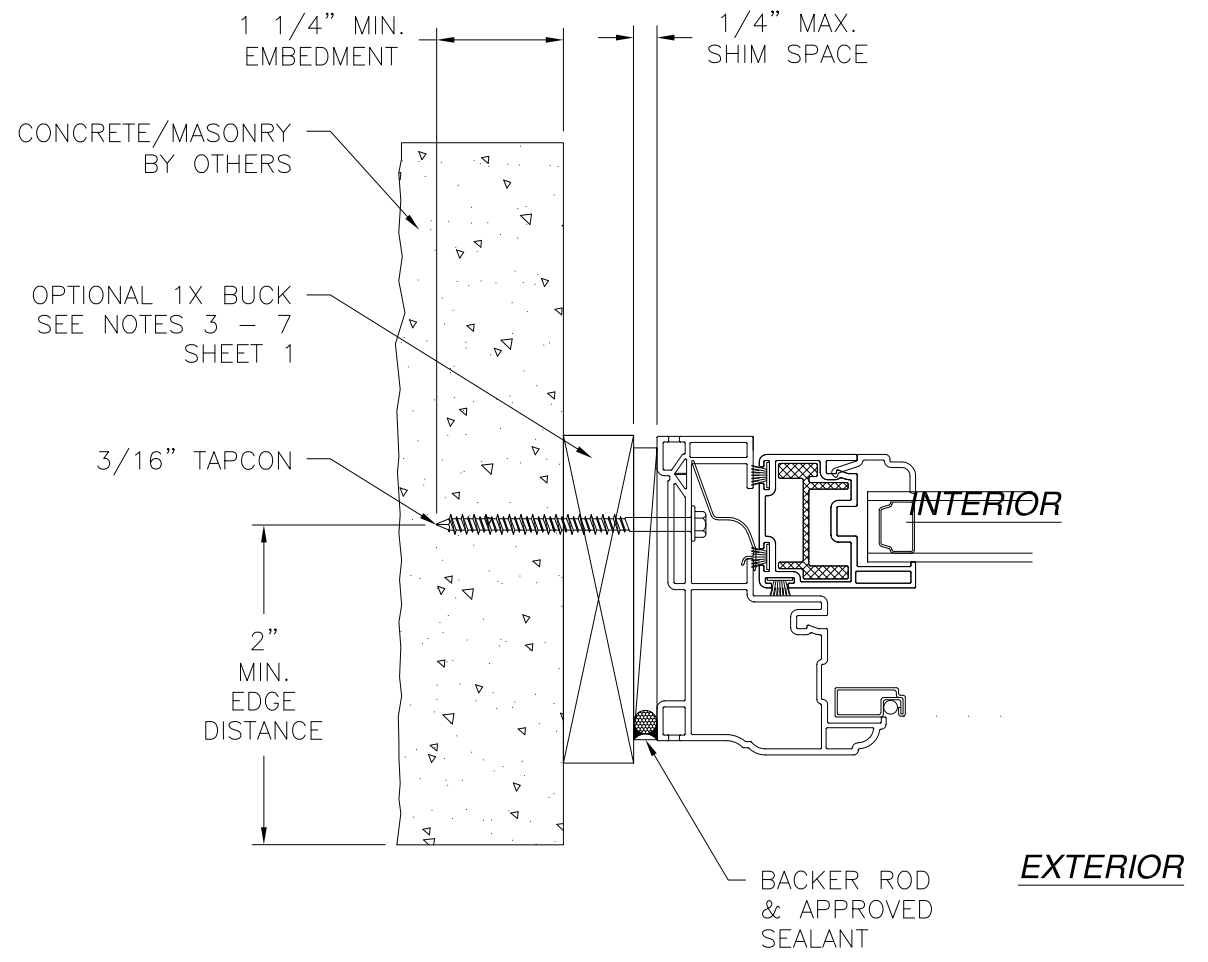
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**VERTICAL CROSS SECTION  
CONCRETE/MASONRY INSTALLATION**



**JAMB 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

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REINFORCED NON-IMPACT  
INSTALLATION DETAILS

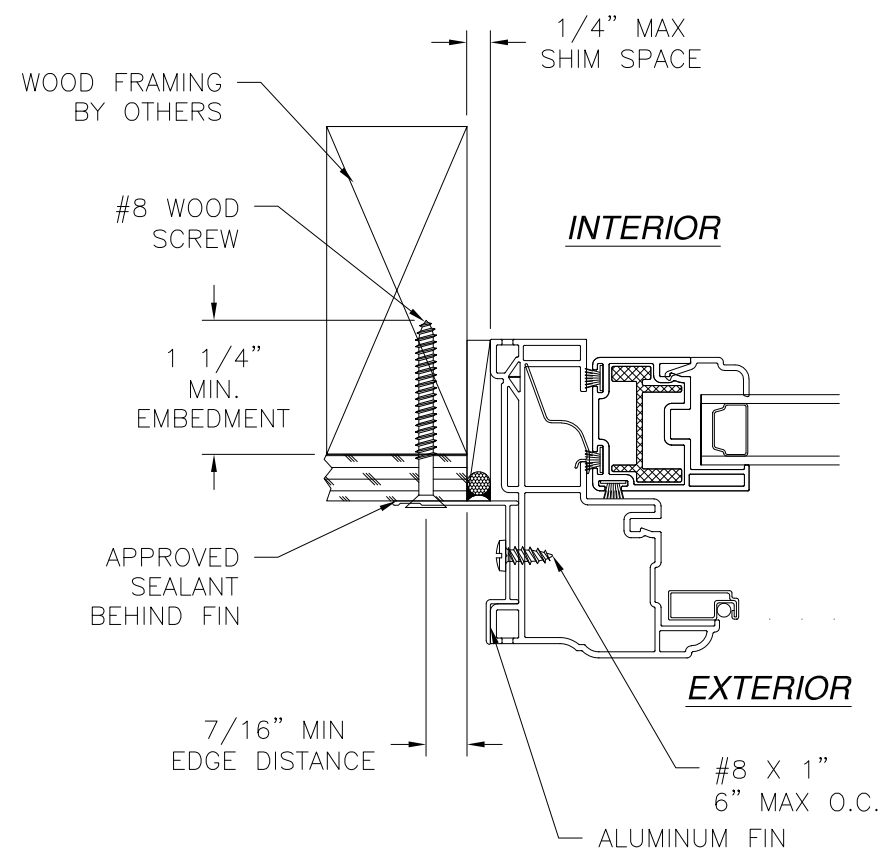
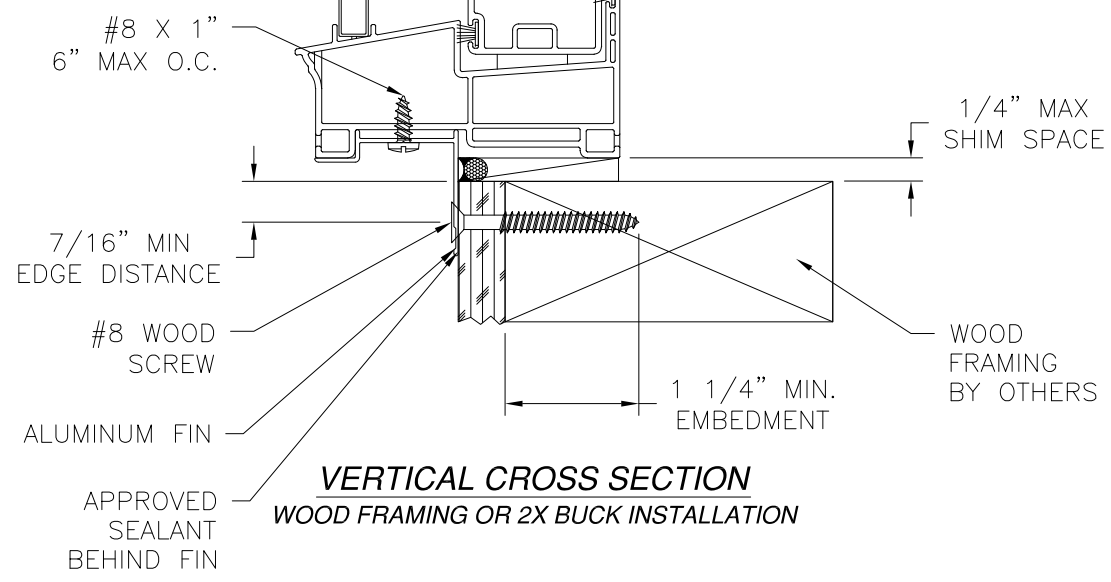
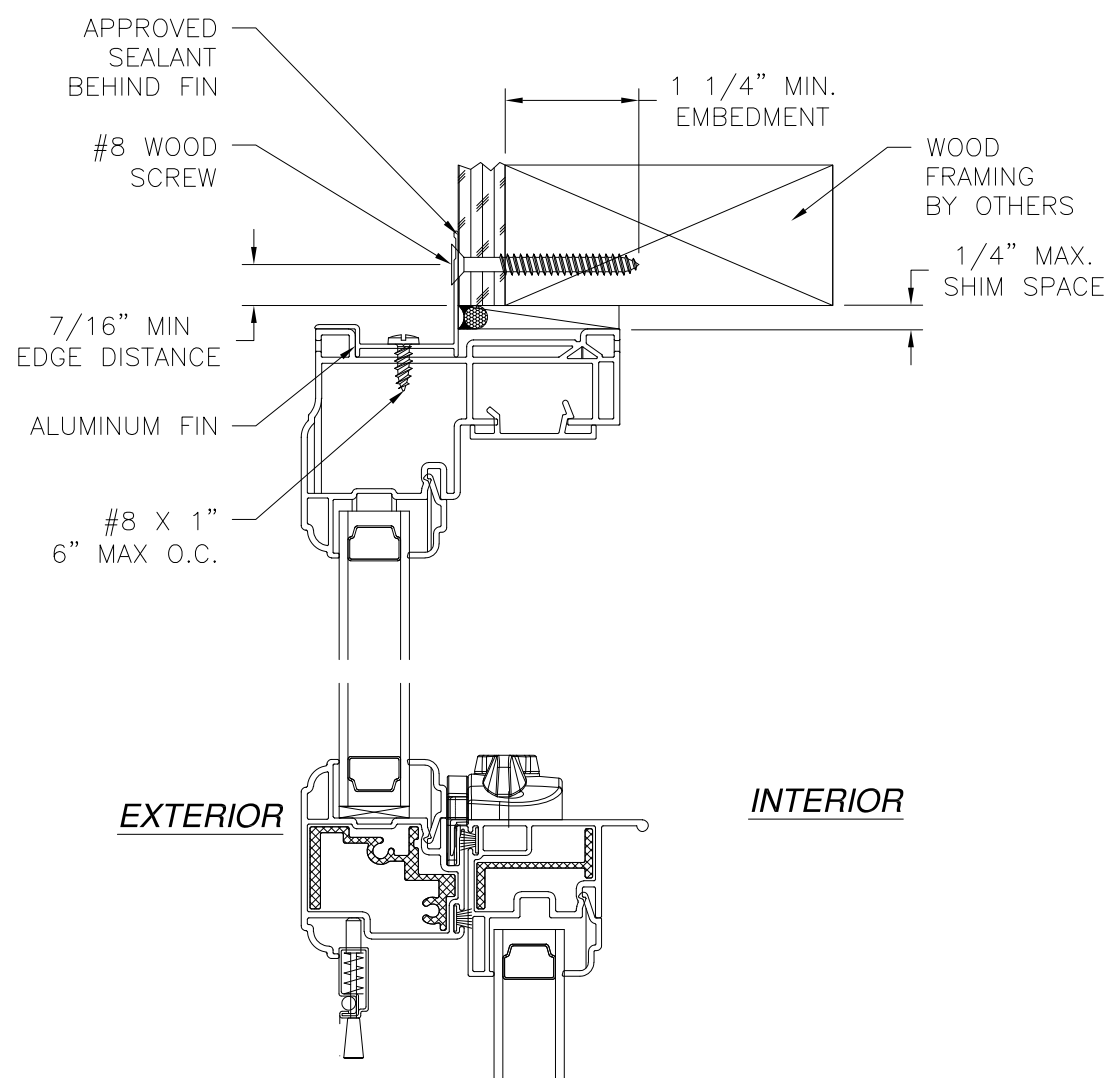
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**JAMB INSTALLATION DETAIL**  
WOOD FRAMING OR 2X BUCK INSTALLATION

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

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