REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REMOVED CHARTS	09/12/12	R.L.
B	REVISED PER NEW TESTING	01/06/14	R.L.

NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE 2006 INTERNATIONAL BUILDING CODE AND THE 2006 INTERNATIONAL RESIDENTIAL CODE WITH THE STATE OF TEXAS MODIFICATIONS.
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 INSTALLATION ANCHOR 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 CAPABLE OF SUSTAINING APPLICABLE LOADS.
10. WIND LOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
11. FRAME MATERIAL: ALUMINUM 6063–T6.
12. UNITS MUST BE GLAZED PER ASTM E1300–04, SEE SHEET 6 FOR GLASS OPTIONS.
13. APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS WHEN INSTALLED ABOVE 30FT HEIGHT.
14. FOR ANCHORING INTO WOOD FRAMING OR 2X BUCK USE #12 WOOD SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 5/8" MINIMUM EMBEDMENT INTO SUBSTRATE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
15. FOR ANCHORING 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.
16. FOR ANCHORING INTO METAL STRUCTURE USE #12 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 3,192 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 1/8" THICK MINIMUM

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TABLE OF CONTENTS	
SHEET NO.	DESCRIPTION
1	NOTES
2 – 3	ELEVATIONS
4 – 5	B.O.M. AND CROSS SECTIONS
6 – 7	INSTALLATION DETAILS
8	COMPONENTS

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9020 PICTURE WINDOW
SMALL MISSILE IMPACT
NOTES

DRAWN:	DWG NO.	REV
A.P.	08–01647	B
SCALE NTS	DATE 06/25/2012	SHEET 1 OF 8

Luis R. Lomas P.E.
Texas No. 101889

REVISIONS			
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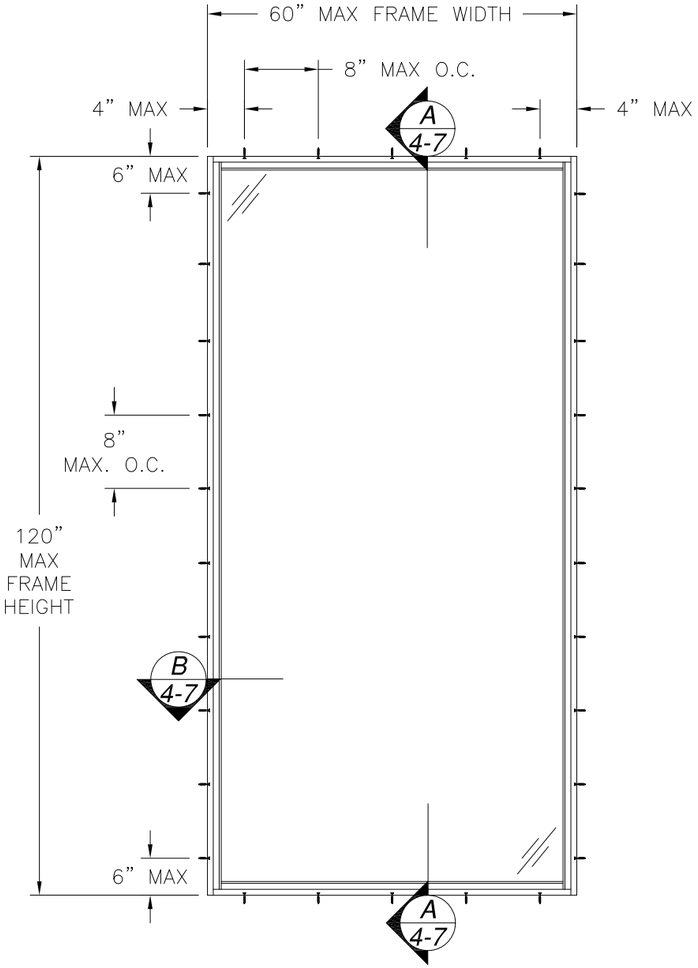


9020 PICTURE WINDOW

EXTERIOR VIEW

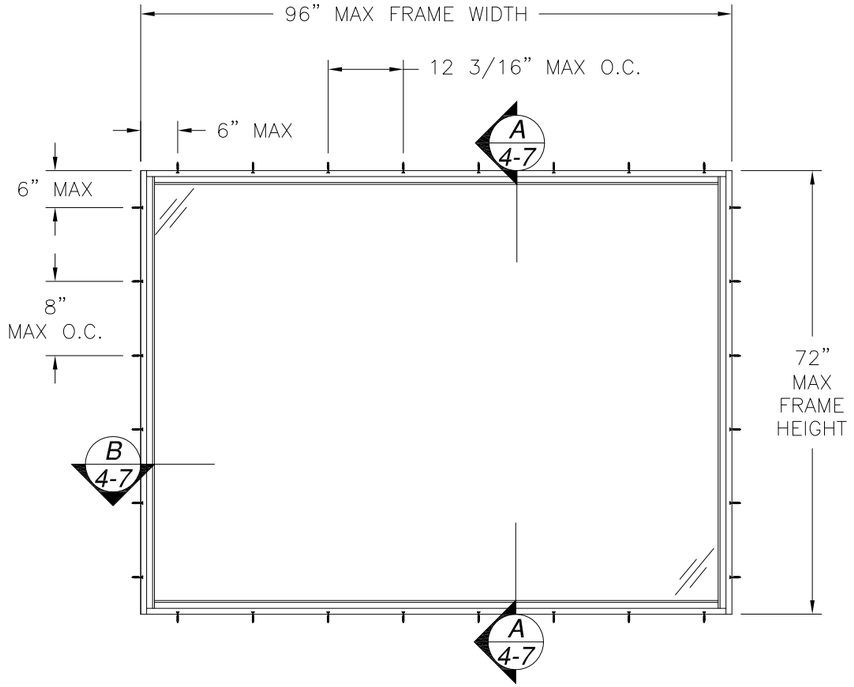
REFER TO CHARTS #1 AND #2 IN SHEET 3 FOR OTHER UNITS RATINGS

DESIGN PRESSURE RATING	*IMPACT RATING*
±100.0PSF	*SMALL MISSILE IMPACT*

MISSILE LEVEL A, WIND ZONE 4 WITH GLAZING A

DESIGN PRESSURE RATING	*IMPACT RATING*
±90.0PSF	*SMALL MISSILE IMPACT*

MISSILE LEVEL A, WIND ZONE 4 WITH GLAZING B AND C



9020 PICTURE WINDOW

EXTERIOR VIEW

REFER TO CHARTS #1 AND #2 IN SHEET 3 FOR OTHER UNITS RATINGS

DESIGN PRESSURE RATING	*IMPACT RATING*
±110.0PSF	*SMALL MISSILE IMPACT*

MISSILE LEVEL A, WIND ZONE 4 WITH GLAZING A

DESIGN PRESSURE RATING	*IMPACT RATING*
±100.0PSF	*SMALL MISSILE IMPACT*

MISSILE LEVEL A, WIND ZONE 4 WITH GLAZING B AND C

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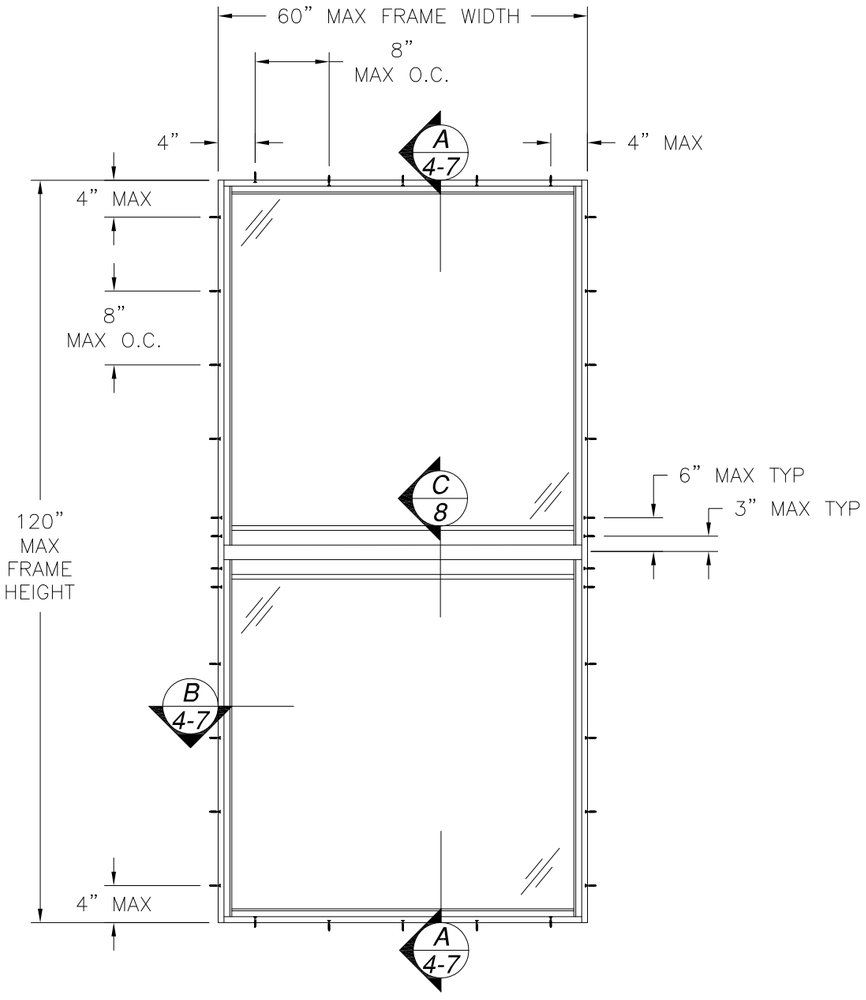
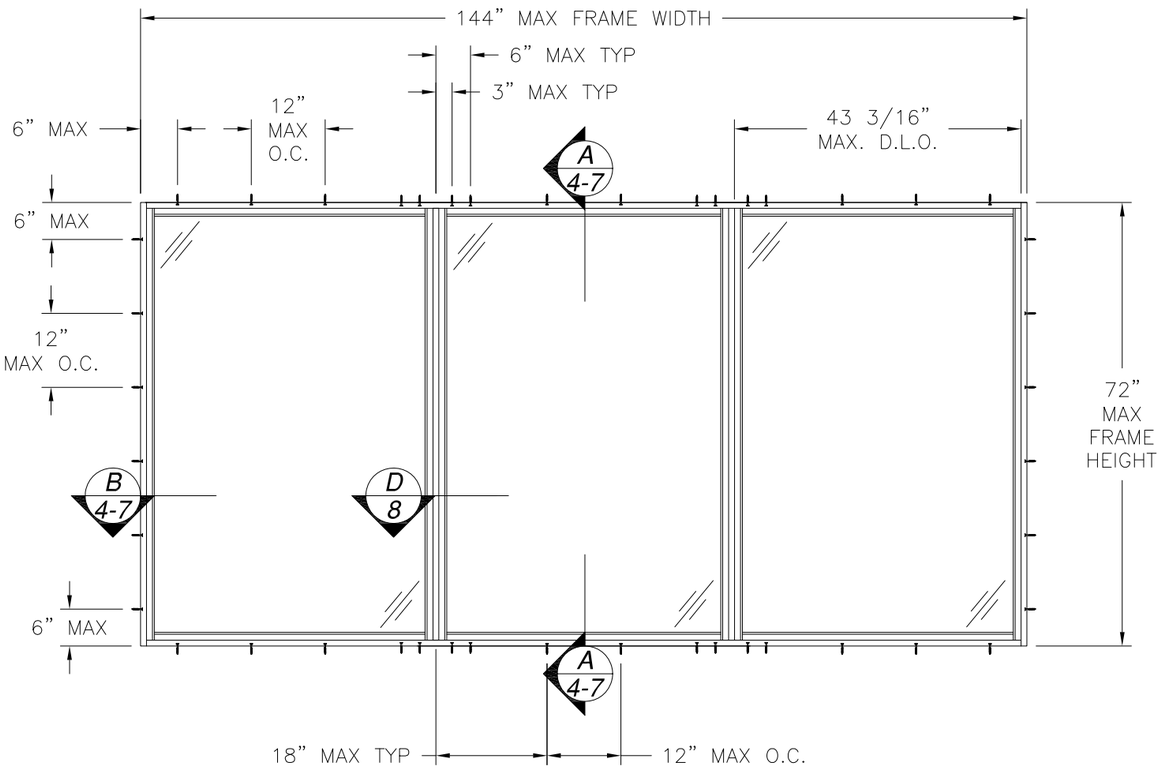


9020 PICTURE WINDOW

EXTERIOR VIEW

DESIGN PRESSURE RATING	*IMPACT RATING*
±100.0PSF	*SMALL MISSILE IMPACT*

MISSILE LEVEL A, WIND ZONE 4
WITH GLAZING A AND B



9020 TRIPLE PICTURE WINDOW

EXTERIOR VIEW

DESIGN PRESSURE RATING	*IMPACT RATING*
+70.0/-75.0PSF	*SMALL MISSILE IMPACT*

MISSILE LEVEL A, WIND ZONE 4
WITH GLAZING A, B AND C

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101889
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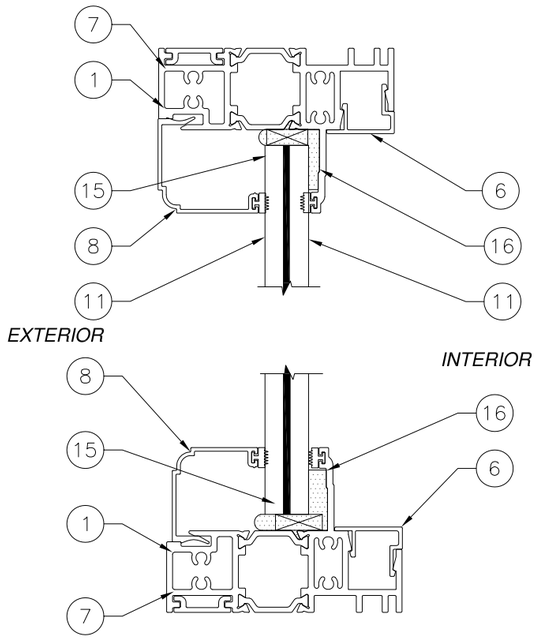
PROFESSIONAL ENGINEER

Luis R. Lomas P.E.
Texas No. 101889

PARTS LIST				
NO.	PART NUMBER	DESCRIPTION	MANUFACTURER	MATERIAL
1	S-9020A1-WDI	FRAME HEAD AND SILL ASSEMBLY	KEYMARK	ALUMINUM 6063-T6
2	S-9020A2-WDI	FRAME JAMB ASSEMBLY	KEYMARK	ALUMINUM 6063-T6
3	S-9020A3-WDI	MULL ASSEMBLY	KEYMARK	ALUMINUM 6063-T6
4	FH-06559	MULL INTERIOR REINFORCEMENT	KEYMARK	ALUMINUM 6005-T61
5	FS-06558	MULL EXTERIOR REINFORCEMENT	KEYMARK	ALUMINUM 6005-T61
6	S-49328	SCREW COVER	KEYMARK	ALUMINUM 6063-T6
7	S-49330	FLUSH ADAPTOR	KEYMARK	ALUMINUM 6063-T6
8	S-49329	9/16" GLASS STOP	KEYMARK	ALUMINUM 6063-T6
9	S-46084	1" GLASS STOP	KEYMARK	ALUMINUM 6063-T6
10	S-46083	1 3/8" GLASS STOP	KEYMARK	ALUMINUM 6063-T6
11	GSVN-07A	GLAZING VINYL	TEAM PLASTICS	80 DUROMETER
12	131014	#8x1" SCREW		STAINLESS STEEL
13		#8x1 3/4" SCREW		STAINLESS STEEL
14		#12x1" SCREW		STAINLESS STEEL
15	121000-12100E1	RUBBER SETTING BLOCK		85 DUROMETER
16	SIKA 552	URETHANE SEALANT	SIKA	
17	S-9020A8-WDI	CA RAIL ASSEMBLY	KEYMARK	ALUMINUM 6063-T6
18	S-9020A5-WDI	MEDIUM RAIL ASSEMBLY	KEYMARK	ALUMINUM 6063-T6
19	S-9020A6-WDI	TALL RAIL ASSEMBLY	KEYMARK	ALUMINUM 6063-T6
20	2206	INSULBAR	ENSINGER	TECATHERM 66GF



A/4 VERTICAL SECTION

STANDARD/STANDARD RAILS

FOR APPROVED RAILS COMBINATIONS SEE SHEET 7

REVISIONS			
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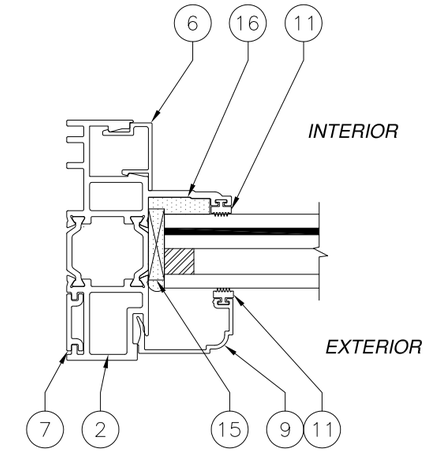

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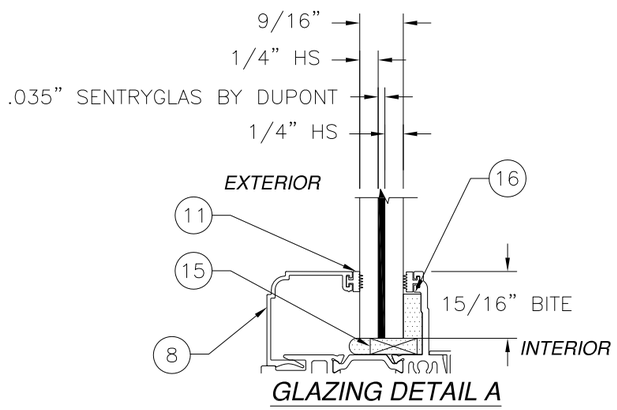
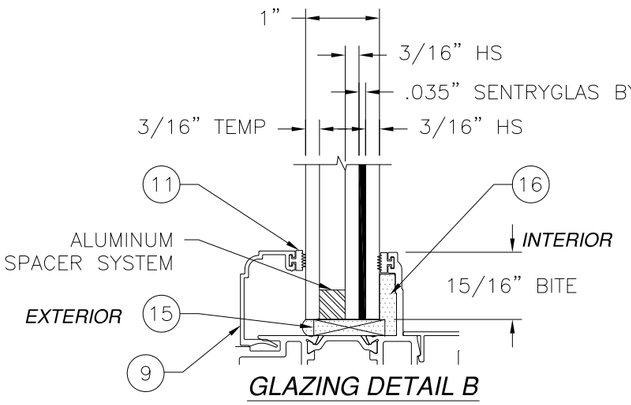
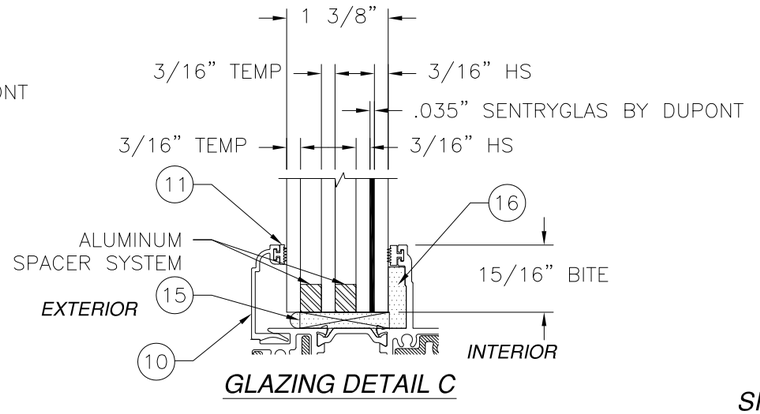


GLAZING DETAIL A



GLAZING DETAIL B



GLAZING DETAIL C

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STATE OF TEXAS
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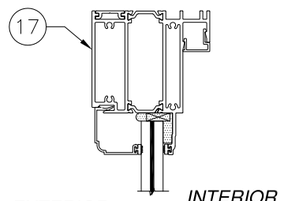
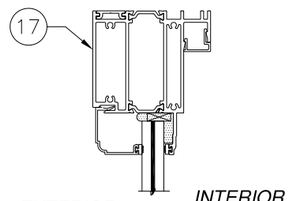
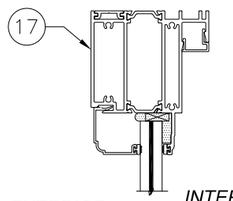


CA/TALL RAILS



CA/MEDIUM RAILS



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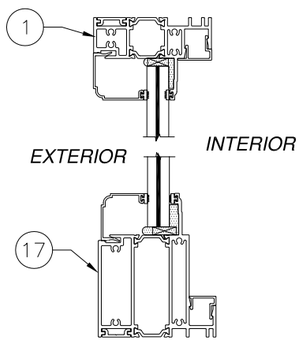

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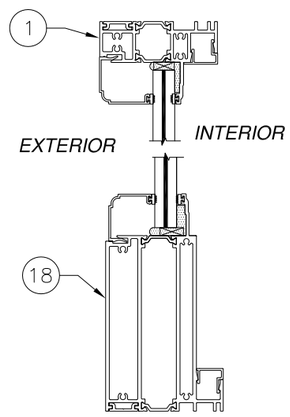

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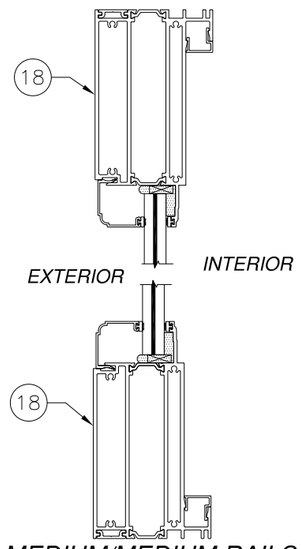

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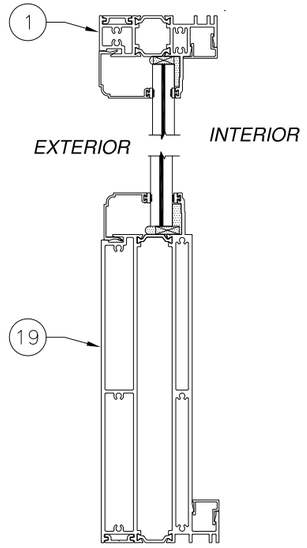

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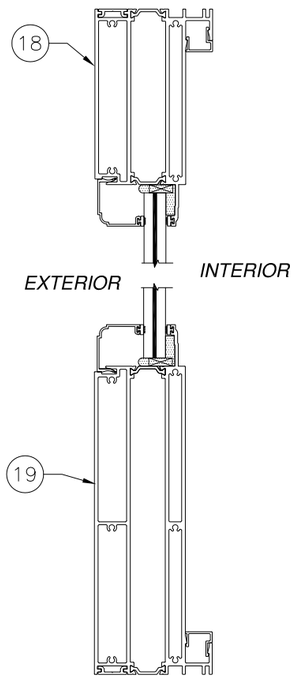
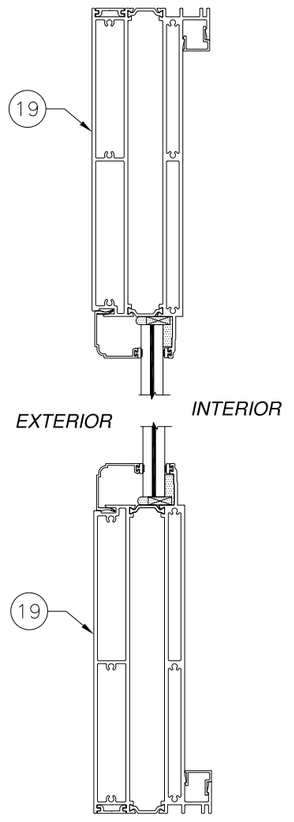


MEDIUM/TALL RAILS



TALL/TALL RAILS

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APPROVED RAIL COMBINATIONS

FOR OTHER ITEMS SEE VERTICAL CROSS SECTION SHEET 4

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9020 PICTURE WINDOW
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APPROVED RAIL COMBINATIONS

DRAWN:	DWG NO.	REV
A.P.	08-01647	B
SCALE NTS	DATE 06/25/2012	SHEET 5 OF 8

STATE OF TEXAS
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PROFESSIONAL ENGINEER

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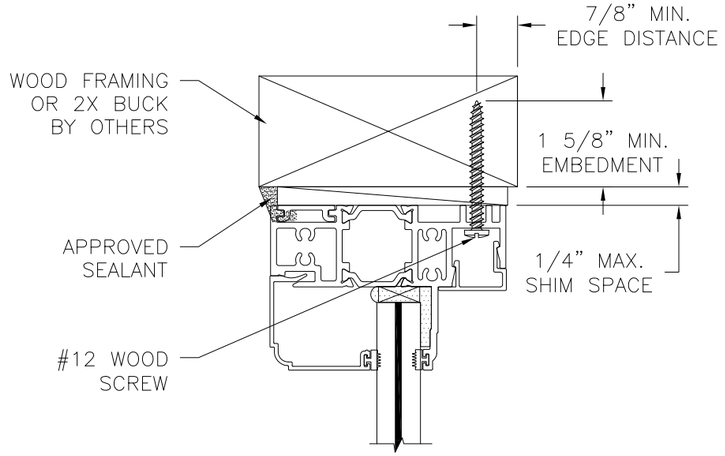
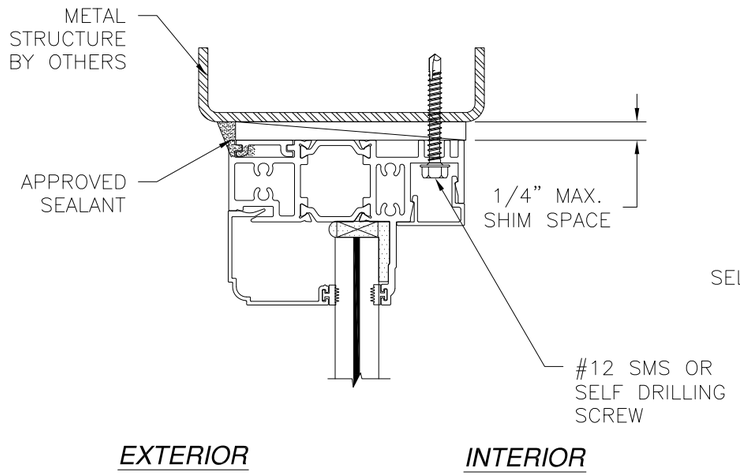
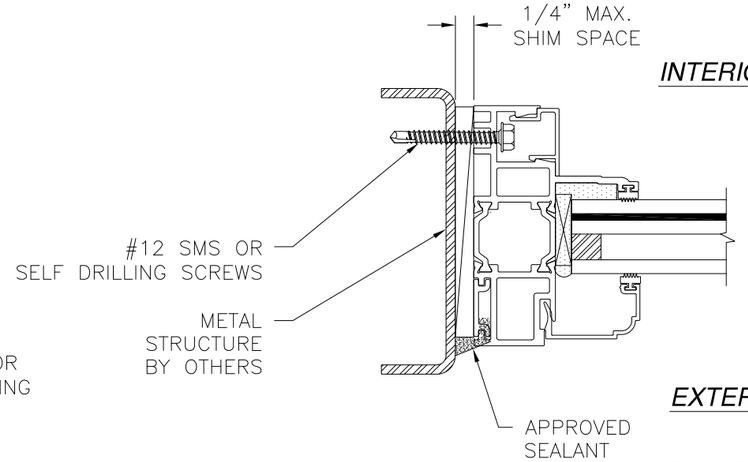
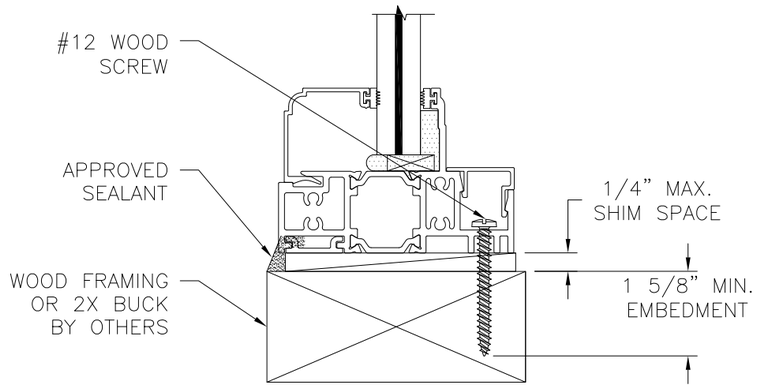


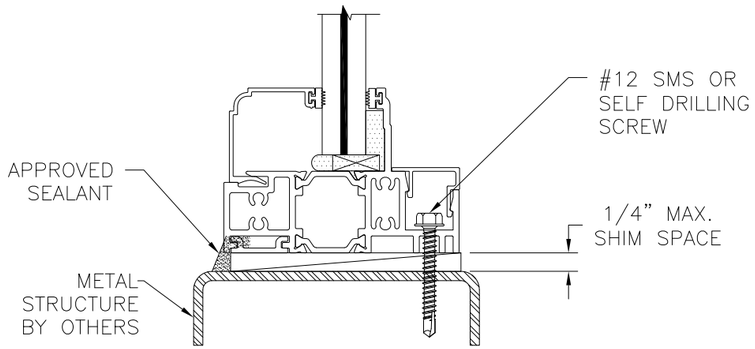




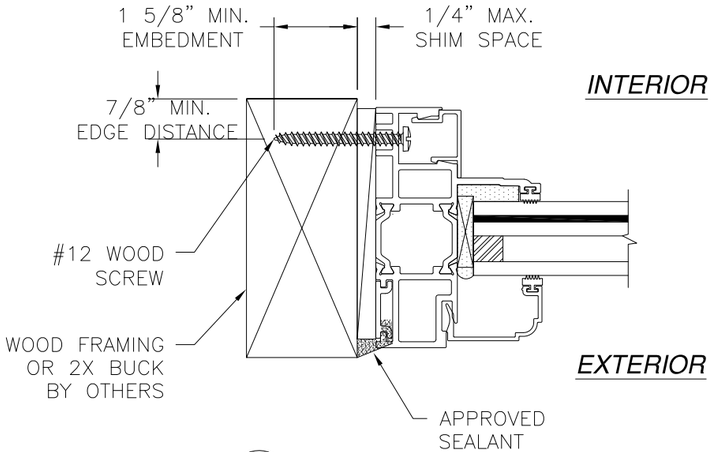
B/6 JAMB INSTALLATION DETAIL
METAL STRUCTURE INSTALLATION



A/6 VERTICAL CROSS SECTION
WOOD FRAMING OR 2X BUCK INSTALLATION



A/6 VERTICAL CROSS SECTION
METAL STRUCTURE INSTALLATION



B/6 JAMB INSTALLATION DETAIL
WOOD FRAMING OR 2X BUCK INSTALLATION

NOTE:
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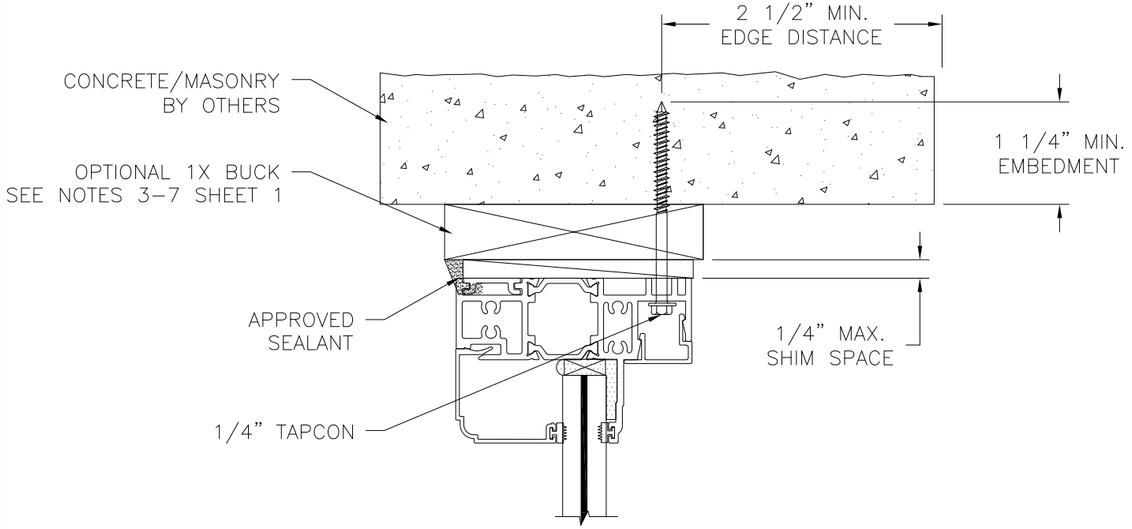
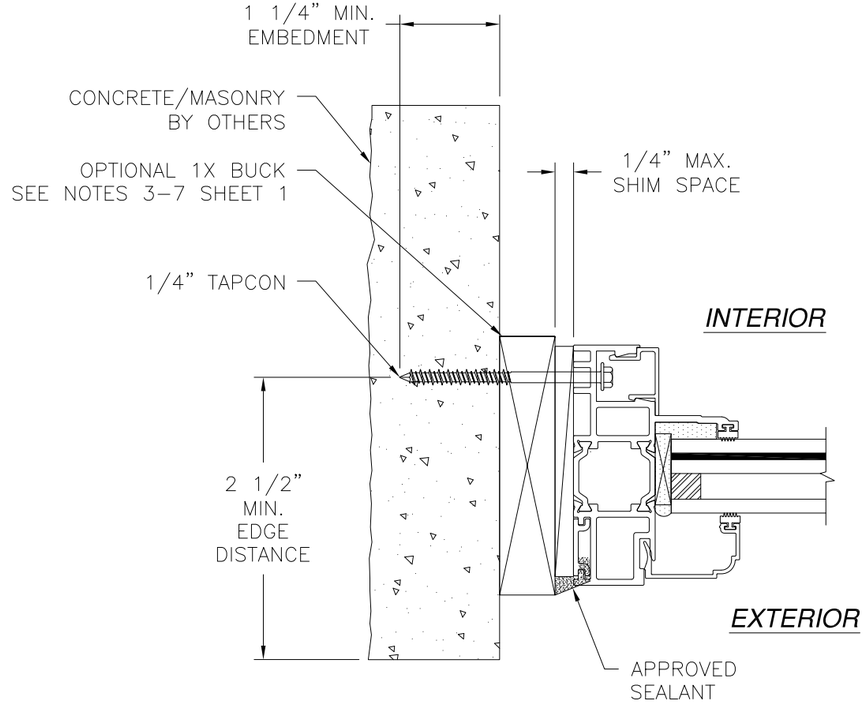
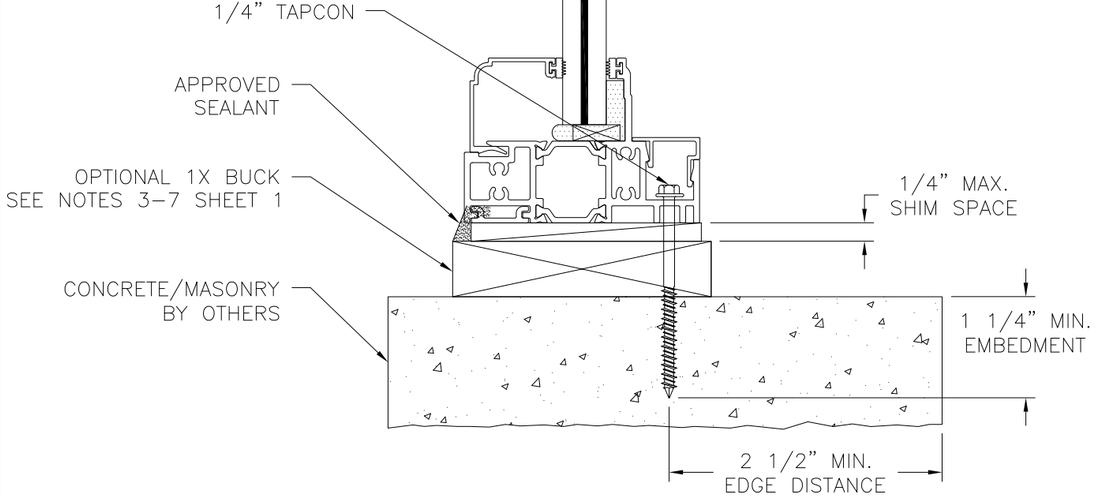




B/7 *JAMB INSTALLATION DETAIL*
CONCRETE/MASONRY INSTALLATION



A/7 *VERTICAL CROSS SECTION*
CONCRETE/MASONRY INSTALLATION

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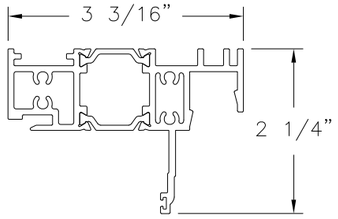
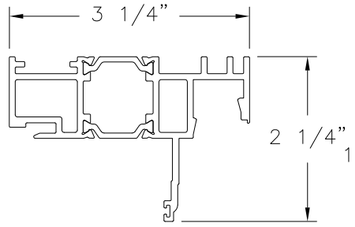
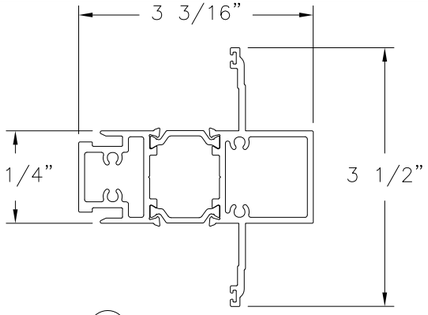


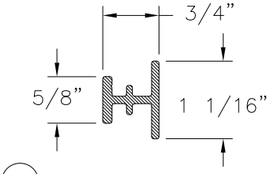
1 **FRAME**
ALUMINUM 6063-T6 .080" THICK



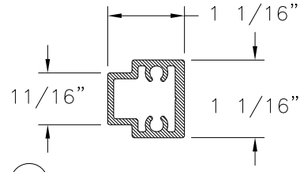
2 **FRAME**
ALUMINUM 6063-T6 .080" THICK



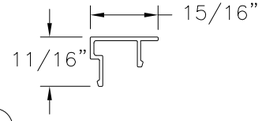
3 **MULL ASSEMBLY**
ALUMINUM 6063-T6 .080" THICK



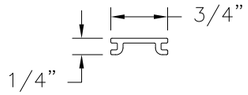
4 **REINFORCEMENT**
ALUMINUM 6063-T6 .100" THICK



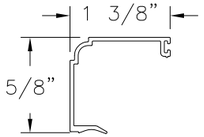
5 **REINFORCEMENT**
ALUMINUM 6063-T6 .080" THICK



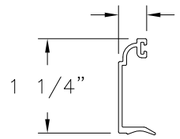
6 **SCREW COVER**
ALUMINUM 6063-T6 .050" THICK



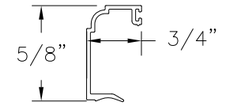
7 **FLUSH ADAPTOR**
ALUMINUM 6063-T6 .065" THICK



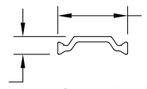
8 **9/16" GLASS STOP**
.063" THICK



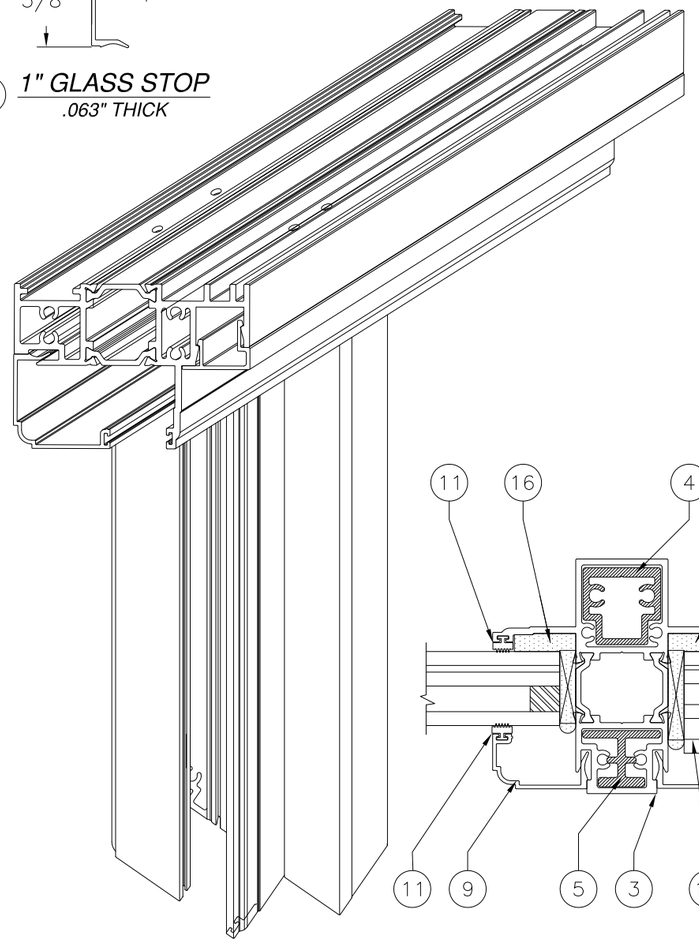
10 **1 3/8" GLASS STOP**
.063" THICK

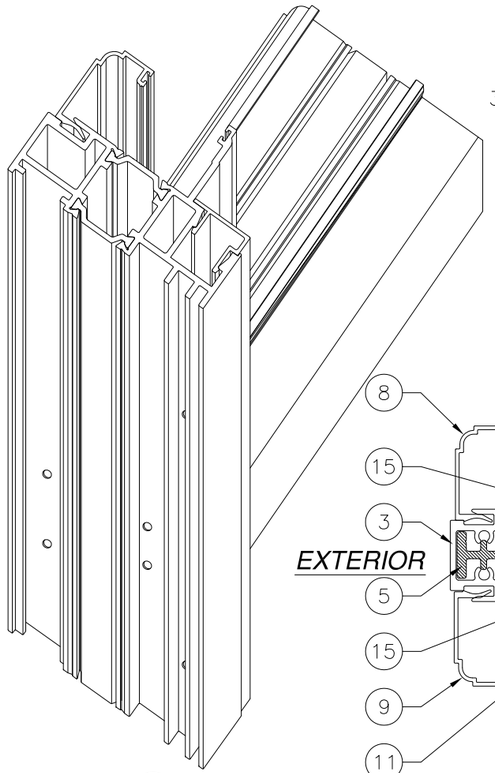


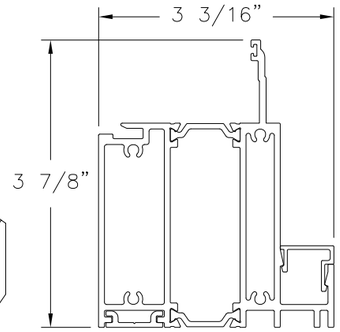
9 **1" GLASS STOP**
.063" THICK



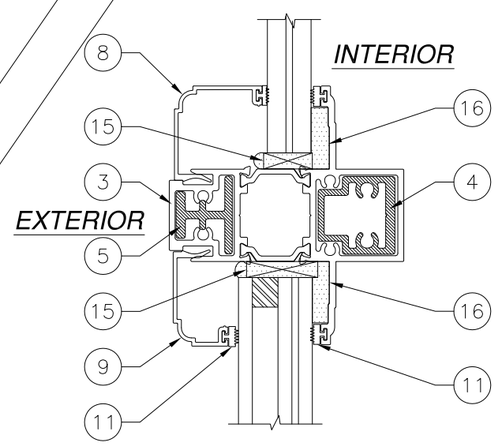
20 **INSULBAR**
TECATHERM 66GF .075" THICK



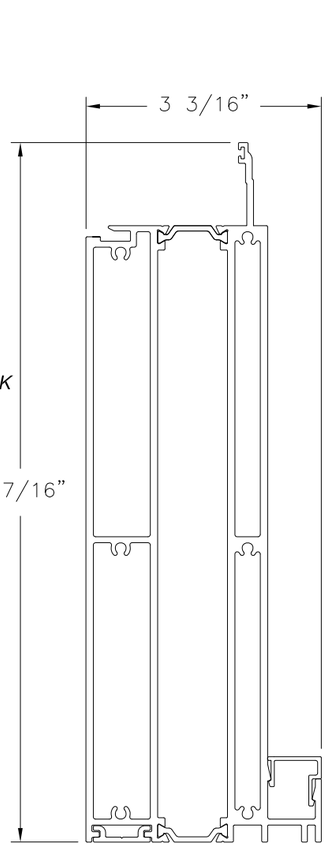




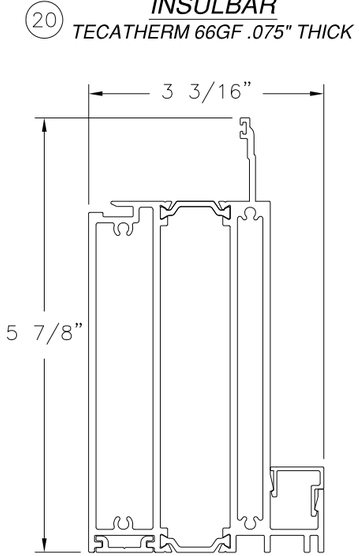
17 **CA RAIL**
ALUMINUM 6063-T6 .100" THICK



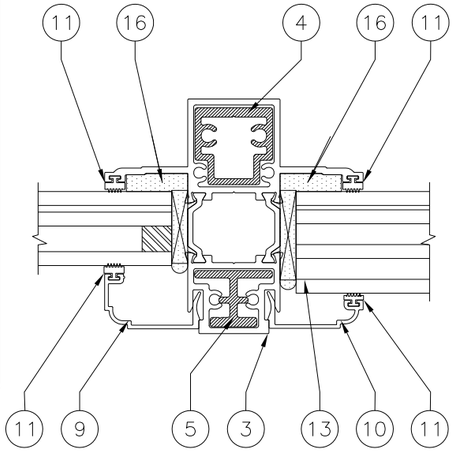
C/8 **HORIZONTAL INTEGRAL MULLION**



19 **TALL RAIL**
ALUMINUM 6063-T6 .100" THICK



18 **MIDDLE RAIL**
ALUMINUM 6063-T6 .100" THICK



D/8 **VERTICAL INTEGRAL MULLION**

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