

# EASTERN ARCHITECTURAL SYSTEMS

## SERIES FWI 1000 HORIZONTAL ROLLER (SLIDER), OX AND XO, IMPACT, HVHZ INSTALLATION ANCHORAGE DETAILS

EASTERN ARCHITECTURAL SYSTEMS  
A DIVISION OF  
CORNERSTONE BUILDING BRANDS  
16341 DOMESTIC AVENUE  
FORT MYERS, FL33912

### GENERAL NOTES:

- THE PRODUCT DETAILS CONTAINED HEREIN ARE BASED UPON SIGNED AND SEALED TEST REPORT BY BLACKWATER TECHNICAL SERVICES, INC. TEST REPORT NO. BT-EAS-20-002, SIGNED AND SEALED BY CONSTANTIN BORTES, FL PE NO. 77915 AND ASSOCIATED LABORATORY DRAWINGS. PERFORMANCE STANDARDS USED IN TESTING ARE:
  - ASTM E283-04
  - ASTM E331-09
  - ASTM E1886-13a
  - ASTM E1996-14a
  - TAS 201-94
  - TAS 202-94
  - TAS 203-94
- THIS PRODUCT CAN BE USED IN THE HIGH VELOCITY HURRICANE ZONE (HVHZ).
- ADEQUACY OF THE EXISTING STRUCTURAL CONCRETE / MASONRY AND 2X FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE STRUCTURE IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
- 1X AND 2X BUCKS (WHEN USED) SHALL BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO THE STRUCTURE. BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
- THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, SITE SPECIFIC DOCUMENTS SHALL BE PREPARED FOR USE WITH THIS DOCUMENT.
- THIS PRODUCT COMPLIES WITH THE REQUIREMENTS OF THE HIGH VELOCITY HURRICANE ZONE (HVHZ) FOR OPENING PROTECTION OF THE CURRENT EDITION OF THE FLORIDA BUILDING CODE AND DOES NOT REQUIRE AN IMPACT RESISTANT COVERING.
  - FOR INSTALLATIONS 30 FT. ABOVE GRADE, THE EXTERIOR LITE OF GLASS ON ALL UNITS MUST BE SAFETY GLAZED OR COVERED BY AN IMPACT PROTECTIVE SYSTEM MEETING THE REQUIREMENTS OF THE CURRENT EDITION OF THE FLORIDA BUILDING CODE.
  - NOTE 6.1 ABOVE CAN BE MET BY USING TEMPERED GLASS OF THE SAME THICKNESS AS THAT SHOWN IN THE GLAZING DETAIL 2 ON SHEET 6.
- WHEN USED IN AREAS OUTSIDE OF THE HIGH VELOCITY HURRICANE ZONE (HVHZ) REQUIRING WIND BORNE DEBRIS PROTECTION, THE OPENING PROTECTION REQUIREMENTS OF THE CURRENT EDITION OF THE FLORIDA BUILDING CODE ARE MET. AN IMPACT RESISTANT COVERING IS NOT REQUIRED. THIS PRODUCT MEETS MISSILE LEVEL "D" AND INCLUDES WIND ZONE 4 AS DEFINED IN ASTM E 1996 AS MODIFIED BY THE CURRENT EDITION OF THE FLORIDA BUILDING CODE.
- MATERIALS
  - WINDOW FRAME MATERIAL: EXTRUDED ALUMINUM 6063-T6 0.062" THICK.
  - WINDOW SASH MATERIAL: EXTRUDED ALUMINUM 6063-T6 0.062" THICK.
- GLAZING:
  - GLASS MEETS THE REQUIREMENTS OF ASTM E1300-12AE1.
  - SEE GLAZING DETAIL ON SHEET 6 OF 7.
  - GLASS SHALL MEET SAFETY GLAZING REQUIREMENTS PER CURRENT EDITION OF THE FLORIDA BUILDING CODE.
  - INTERLAYER: EASTMAN CHEMICAL COMPANY SAFLEX PER CURRENT MIAMI DADE NOTICE OF ACCEPTANCE (N.O.A.)
  - ALL SETTING BLOCKS AND GASKET MATERIALS SHALL BE IN COMPLIANCE WITH THE CURRENT EDITION OF THE FLORIDA BUILDING CODE.
  - SETTING BLOCKS SHALL BE NEOPRENE WITH A 70 TO 90 SHORE A DUROMETER. GASKET MATERIALS SHALL BE EDPM WITH A MINIMUM 60 SHORE A DUROMETER.
- DESIGNATIONS "X" AND "O" STAND FOR THE FOLLOWING (AS APPLICABLE):
  - X: OPERABLE SASH
  - O: FIXED SASH

### INSTALLATION NOTES:

- ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EACH ANCHOR LOCATION SHOWN.
- THE NUMBER OF INSTALLATION ANCHORS DEPICTED IS THE MINIMUM NUMBER OF ANCHORS TO BE USED FOR PRODUCT INSTALLATION.
- ANCHORS ARE TO MATCH TYPE, SIZE, EDGE DISTANCE AND EMBEDMENT OF THOSE SHOWN IN THE INSTALLATION ANCHOR SCHEDULE SHOWN ON SHEET 3 FOR THE RESPECTIVE SUBSTRATE.
- SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH LOAD BEARING SHIM(S). MAXIMUM ALLOWABLE SHIM SIZE IS 1/4 INCH. SHIM WHERE SPACE OF 1/16 INCH OR GREATER OCCURS. SHIM(S) SHALL BE CONSTRUCTED OF HIGH DENSITY PLASTIC OR BETTER.
- MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDE WALL FINISHES (INCLUDING BUT NOT LIMITED TO STUCCO, FOAM, BRICK VENEER, AND SIDING).
- INSTALLATION ANCHORS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING. DISSIMILAR METALS INCLUDING FASTENERS THAT MAY COME INTO CONTACT WITH ALUMINUM FRAMING SHALL HAVE BEEN PROTECTED.
- FOR HOLLOW BLOCK AND GROUT FILLED BLOCK, DO NOT INSTALL INSTALLATION ANCHORS INTO MORTAR JOINTS. EDGE DISTANCE IS MEASURED FROM FREE EDGE OF BLOCK OR EDGE OF MORTAR JOINT INTO FACE SHELL OF BLOCK.
- INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS. ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED IN THE INSTALLATION ANCHOR SCHEDULE ON SHEET 3.

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6	COMPONENT ID AND GLAZING DETAILS
7	BILL OF MATERIALS AND COMPONENTS

PERFORMANCE RATING

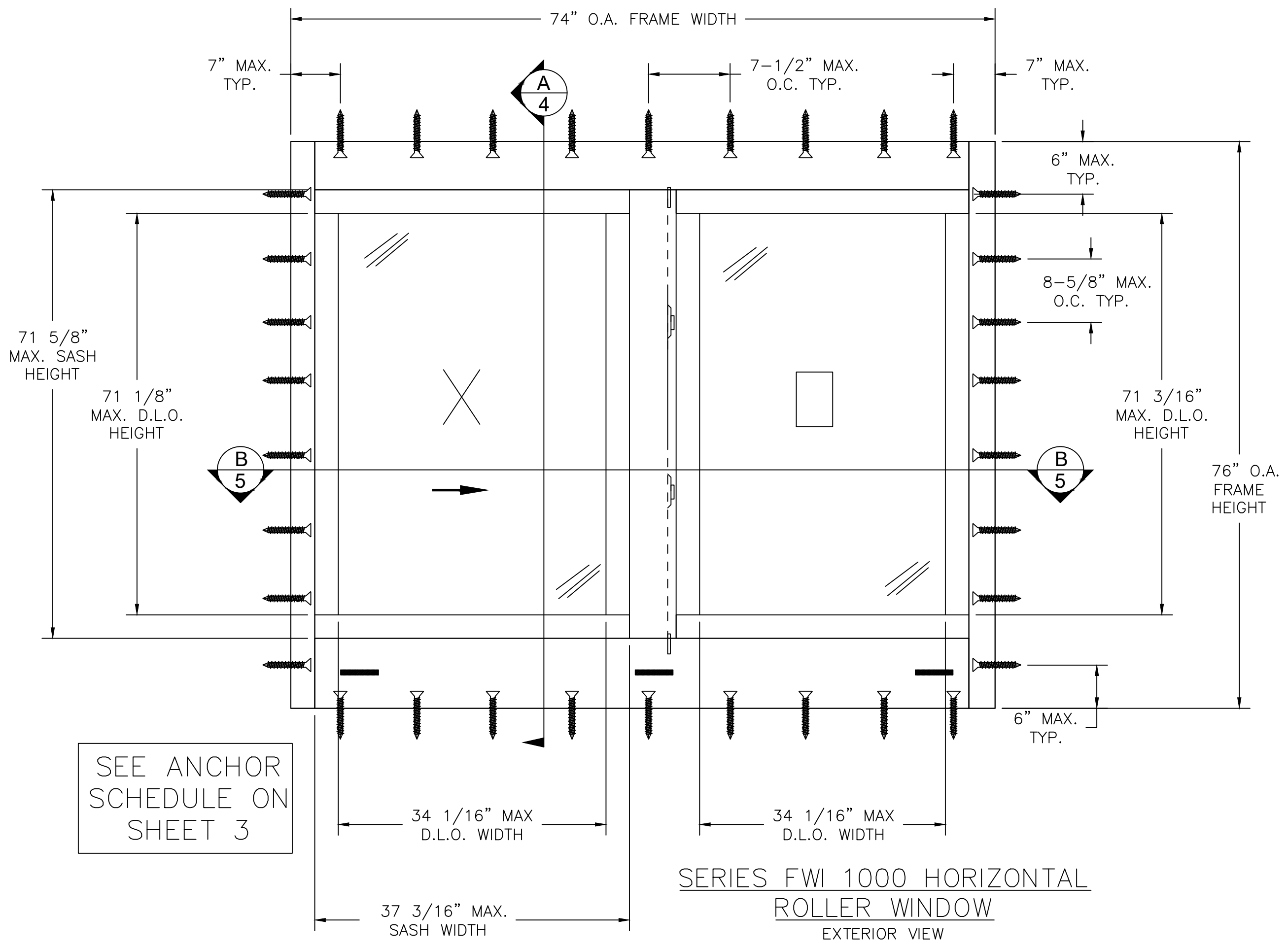
CONFIGURATION	MAXIMUM FRAME AND PANEL SIZE	GLAZING DETAIL (SEE SHEET 6)	DESIGN PRESSURE (PSF)	IMPACT RATING	
				MISSILE LEVEL	TEST STANDARD
OX or XO	74" x 76"	A or B	+/-60	LARGE MISSILE IMPACT	TAS 201 TAS 203
				WIND ZONE 4 MISSILE LEVEL D	ASTM E1886 ASTM E1996

SERIES FWI 1000 HORIZONTAL ROLLER, OX & XO, IMPACT, HVHZ INSTALLATION ANCHORAGE DETAILS	DATE	BY	REVISION DESCRIPTION	NO.

DATE: 06/05/2024	DWN BY: RJA	CHK BY: n/a	SCALE: NONE
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FL#:	15970
PROJECT#:	ACE-2024-119
DWG/REV:	EAS2300, Rev 0
SHT:	1 of 7



SERIES FWI 1000 HORIZONTAL ROLLER WINDOW  
 EXTERIOR VIEW

**SERIES FWI 1000 HORIZONTAL ROLLER, OX & XO, IMPACT, HVHZ INSTALLATION ANCHORAGE DETAILS**

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**ANCHOR SCHEDULE**

SUBSTRATE	INSTALLATION TYPE	SCREW HEAD TYPE	SCREW SIZE	MANUFACTURER AND/OR SPECIFICATION	EMBEDMENT (IN) <sup>(2)</sup> <sub>(3)</sub>	EDGE DISTANCE (IN) <sup>(2)</sup> <sub>(3)</sub>	ANCHOR CAPACITIES BASED ON
CONCRETE	THRU-FRAME	FLAT OR PAN HEAD	3/16"	ITW TAPCONS <sup>(1)</sup>	1-1/2"	1-1/8"	MIN. 2000 PSI CONCRETE
MASONRY (BLOCK/CMU)	THRU-FRAME	FLAT OR PAN HEAD	3/16"	ITW TAPCONS <sup>(1)</sup>	1"	2"	STRENGTH CONFORMANCE TO ASTM C-90, MEDIUM WEIGHT
WOOD	THRU-FRAME	FLAT OR PAN HEAD	NO. 10	ANSI B18.6.1 (WOOD SCREW)	1-3/8"	3/4"	WOOD WITH A MINIMUM SPECIFIC GRAVITY OF 0.55.
		FLAT OR PAN HEAD	No. 10	ASME B18.6.4 (TAPPING SCREW)			
6063-T5 ALUMINUM or equivalent strength of Ftu = 22 ksi Fty = 16 ksi	THRU-FRAME	FLAT OR PAN HEAD	No. 10	ASME B18.6.4 (GRADE 5 TAPPING SCREW) Type AB Threads (requires pilot hole) or Self-Drilling (drill shaped point)	At least three full threads protrude into the interior of the aluminum tube.	3/8"	Aluminum Substrate Ftu = 22 ksi Fty = 16 ksi
ASTM A-653 Grade 33 Steel Stud Substrate 20 ga.	THRU-FRAME	FLAT OR PAN HEAD	No. 10	ASME B18.6.4 (GRADE 5 TAPPING SCREW) Type AB Threads (requires pilot hole) or Self-Drilling (drill shaped point)	At least three full threads protrude into the interior of the steel stud.	3/8"	ASTM A-653 Grade 33 Steel Stud Substrate 20 ga.

**NOTES:**  
1) ITW (ADVANCED THREADFARM TECHNOLOGY) TAPCONS WILL BE USED FOR CONCRETE/MASONRY INSTALLATION.  
2) FOR WOOD SCREWS IF SPLITTING IS A CONCERN, DRILL 0.112" (34 DRILL SIZE) PILOT HOLE FOR NO. 10 WOOD SCREW.  
3) FOR TAPPING SCREWS IF SPLITTING IS A CONCERN, DRILL 0.121" (31 DRILL SIZE) PILOT HOLE FOR NO. 10 TAPPING SCREW.

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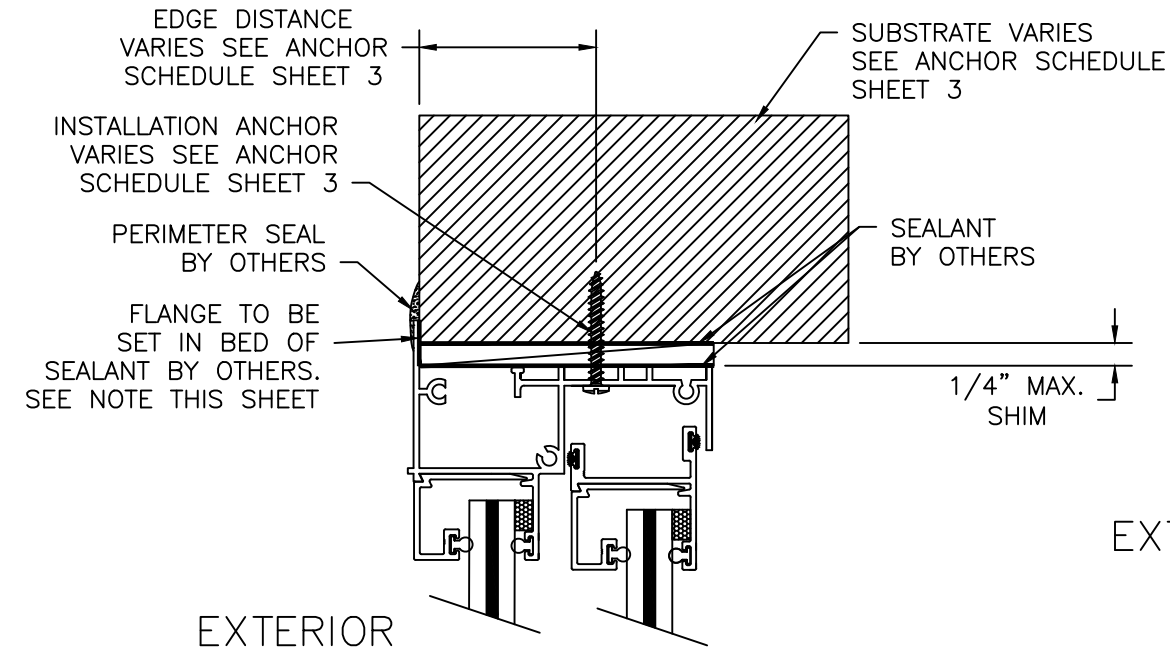
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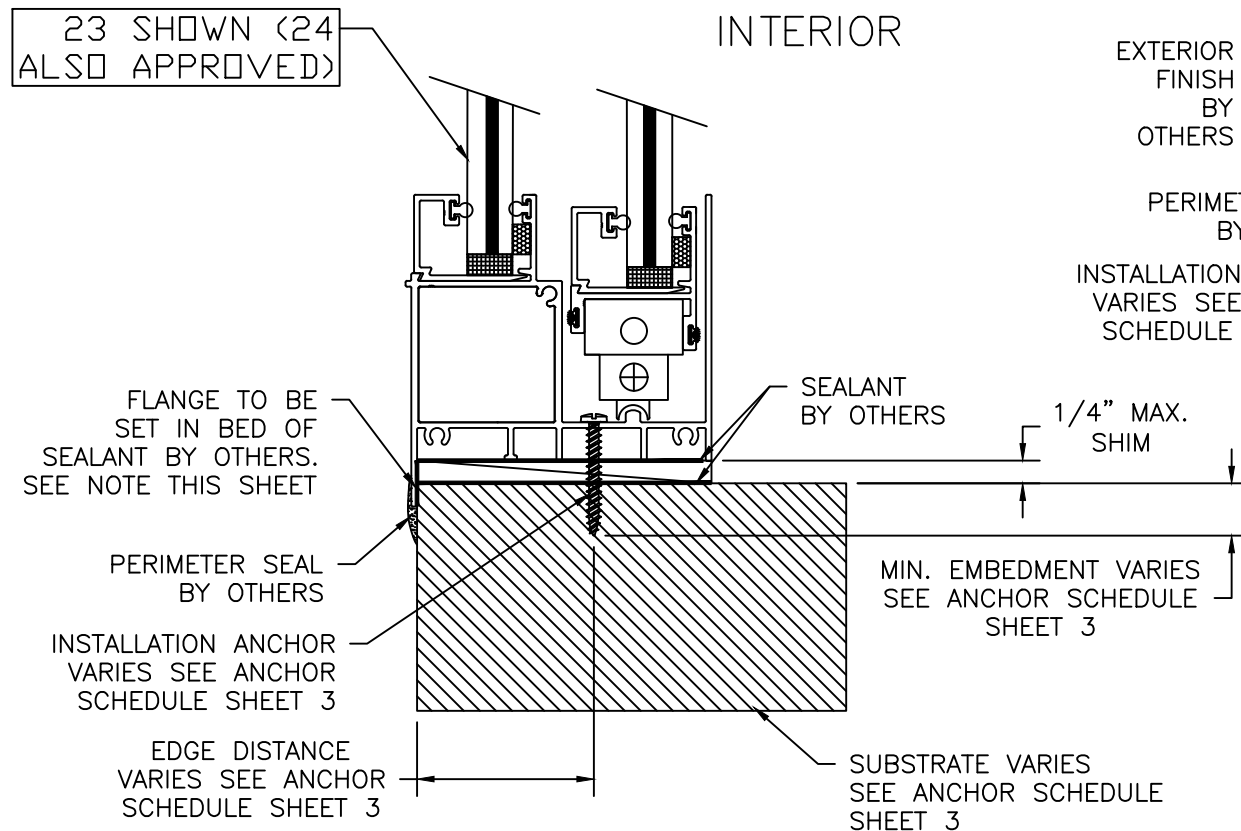
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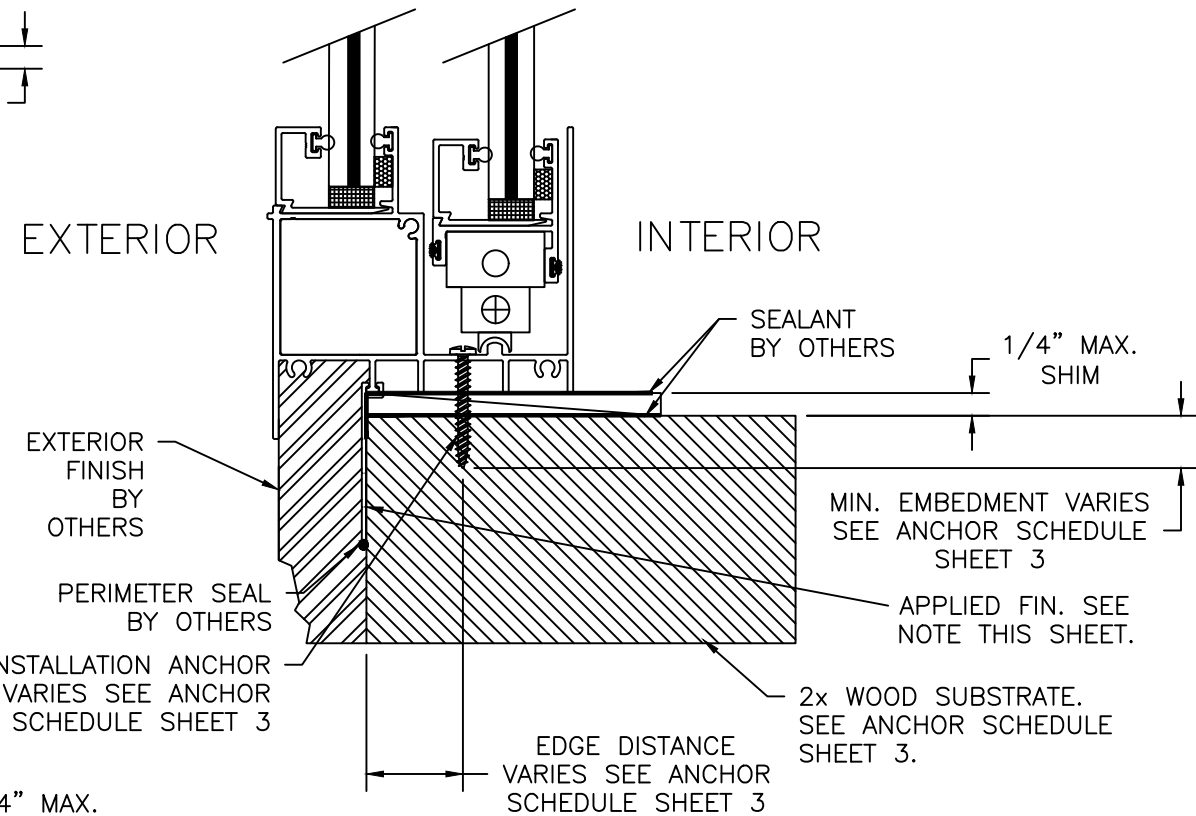
SHT: 3 of 7



23 SHOWN (24 ALSO APPROVED)



**A**  
4  
VERTICAL CROSS SECTION  
INSTALLATION



**A**  
4

**ALTERNATE VERTICAL CROSS SECTION USING APPLIED FIN**  
 SILL SHOWN – HEAD SIMILAR INSTALLATION

FLANGE AND APPLIED FIN NOTE:  
 THE FLANGE IS A NON-STRUCTURAL PART. IT MAY BE TRIMMED SHORT OR REMOVED ALL TOGETHER DEPENDING ON INSTALLATION REQUIREMENTS. APPLIED FIN IS A NON-STRUCTURAL PART NORMALLY USED FOR FIN-FRAME INSTALLATION.

SERIES FWI 1000 HORIZONTAL ROLLER, OX & XO, IMPACT, HVHZ  
 INSTALLATION ANCHORAGE DETAILS

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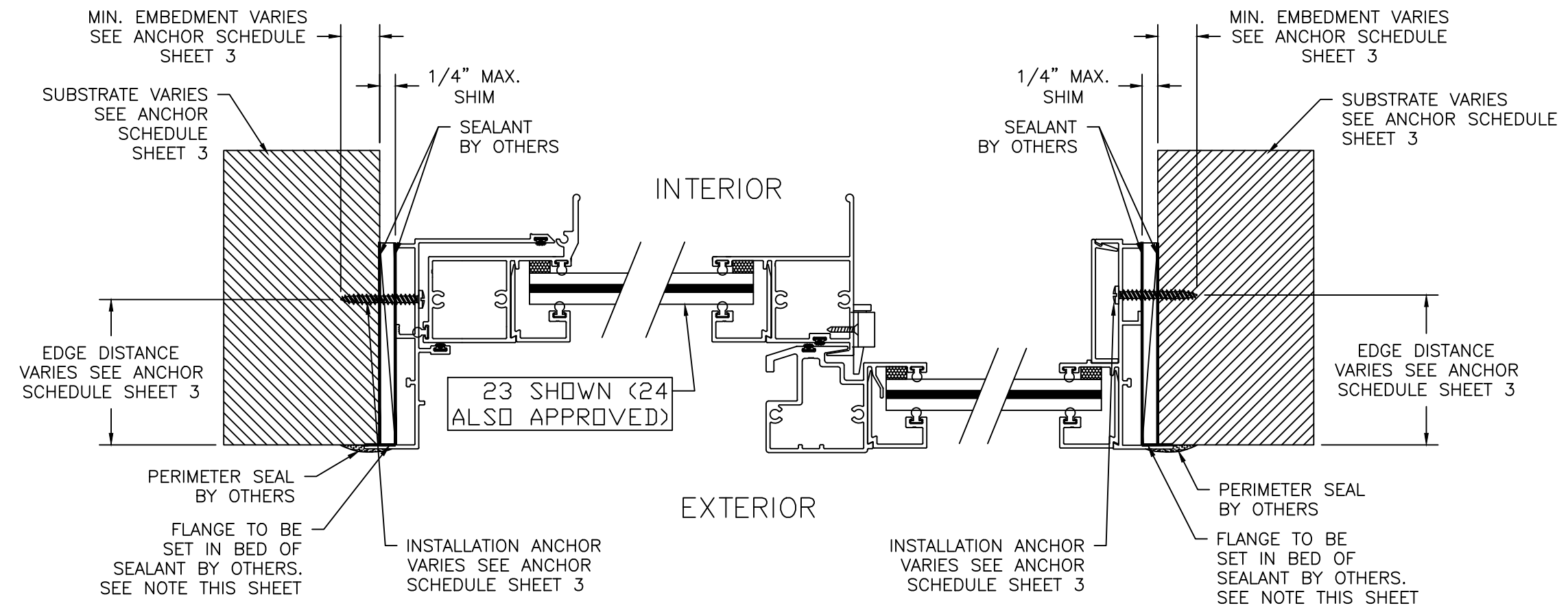
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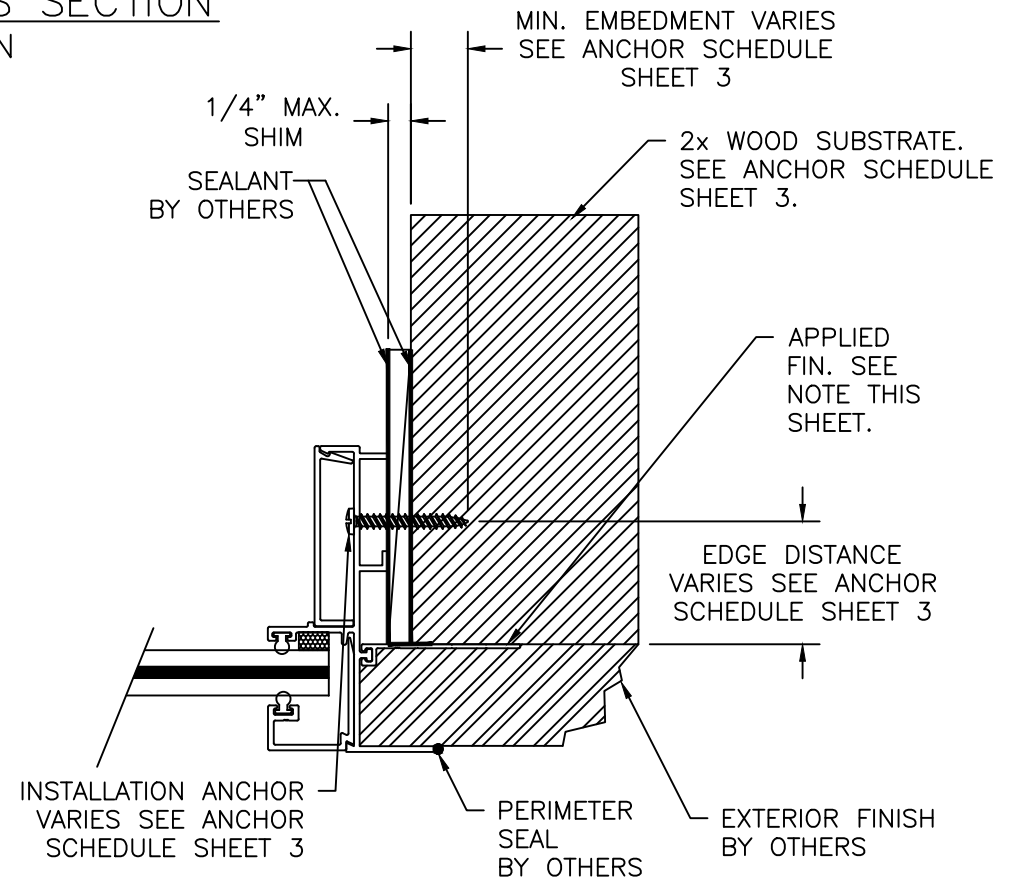
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**B**  
5  
HORIZONTAL CROSS SECTION  
INSTALLATION

FLANGE AND APPLIED FIN NOTE:  
 THE FLANGE IS A NON-STRUCTURAL PART. IT MAY BE TRIMMED SHORT OR REMOVED ALL TOGETHER DEPENDING ON INSTALLATION REQUIREMENTS. APPLIED FIN IS A NON-STRUCTURAL PART NORMALLY USED FOR FIN-FRAME INSTALLATION.



**B**  
5  
ALTERNATE HORIZONTAL CROSS SECTION USING APPLIED FIN  
RIGHT JAMB SHOWN - LEFT JAMB SAME  
INSTALLATION

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 INSTALLATION ANCHORAGE DETAILS

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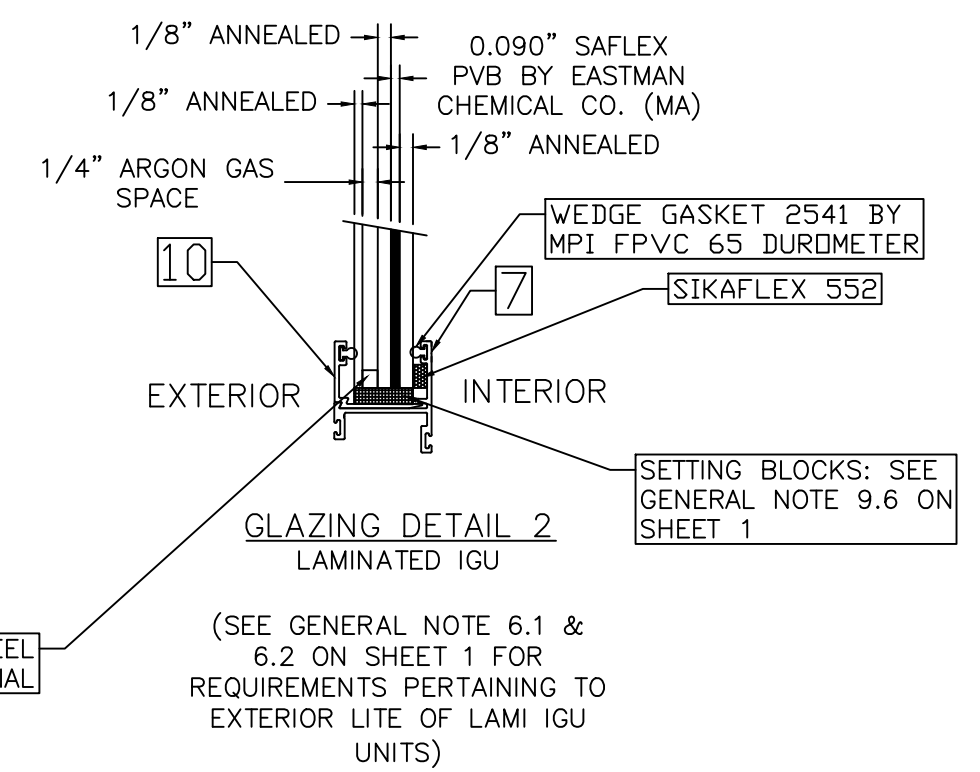
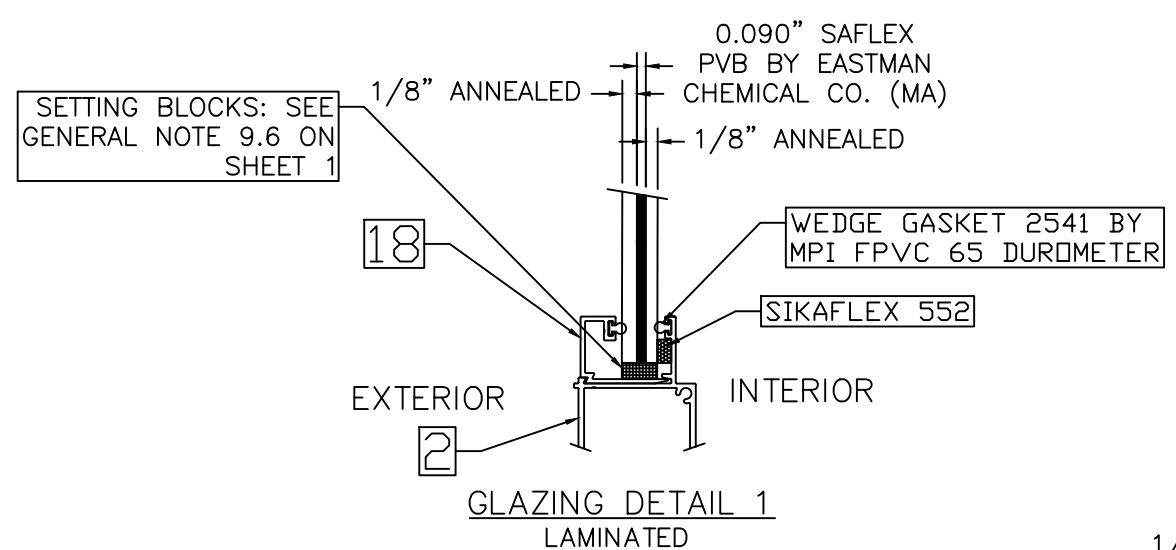
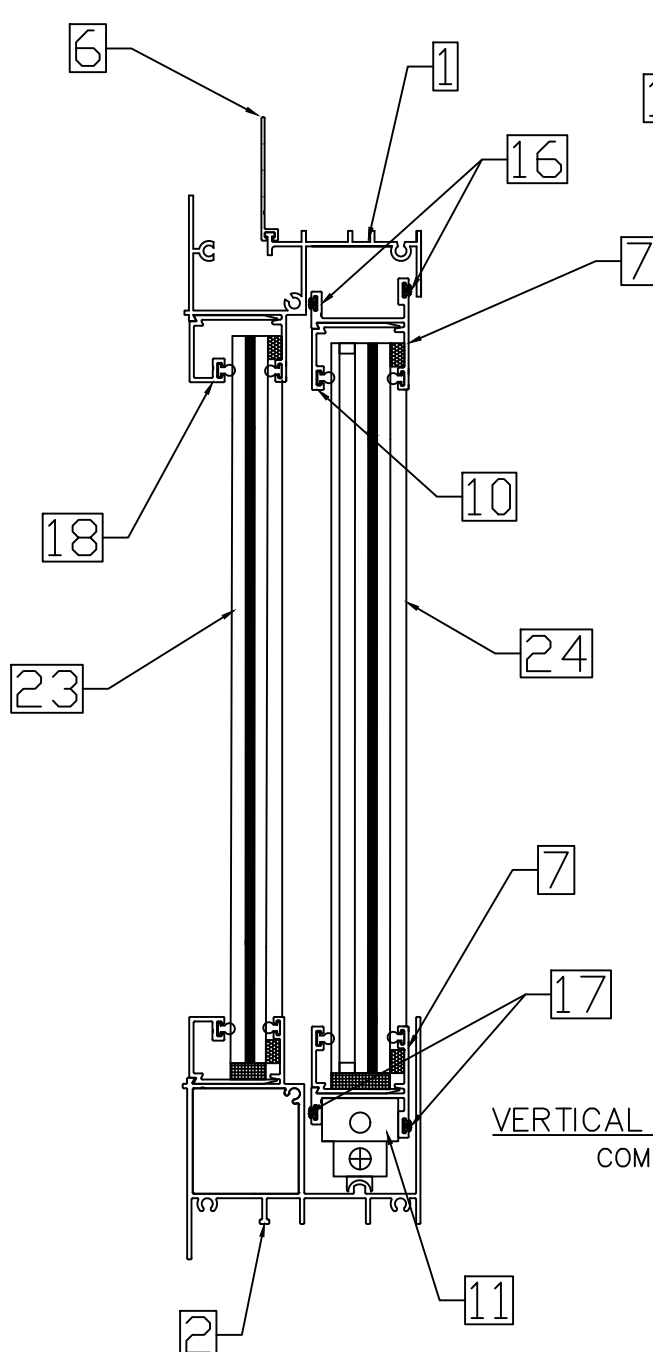
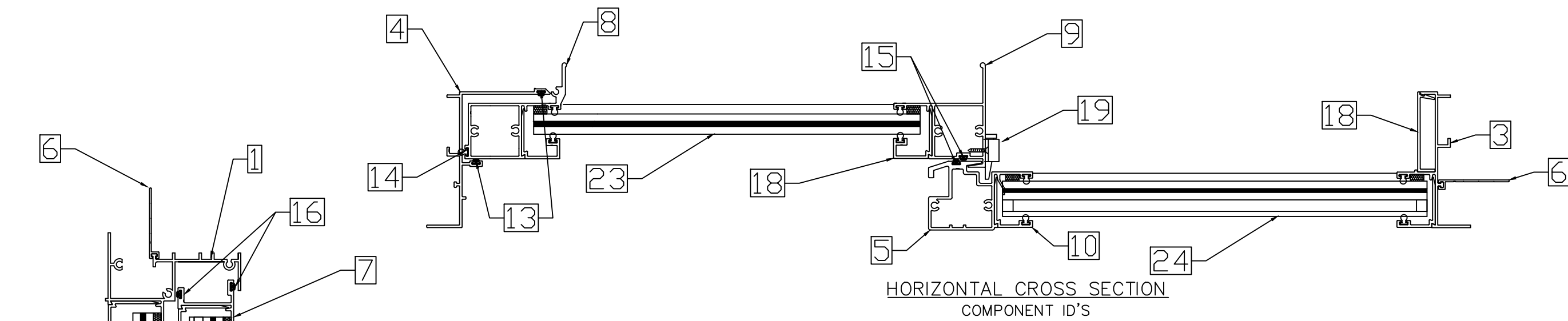
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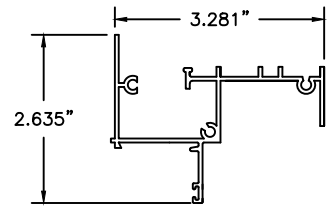
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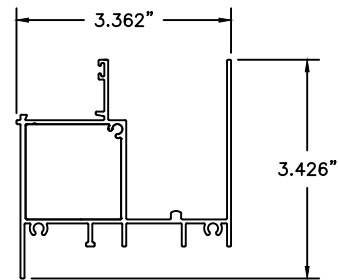
SHT: 6 of 7



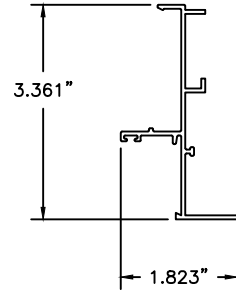
① FRAME HEAD  
0.062" TYP WALL THICKNESS



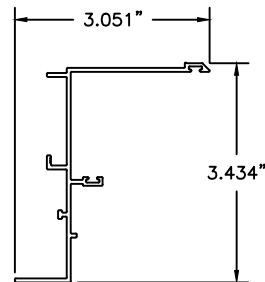
② FRAME SILL  
0.062" TYP WALL THICKNESS



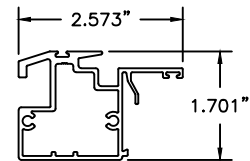
③ FIXED FRAME JAMB  
0.062" TYP WALL THICKNESS



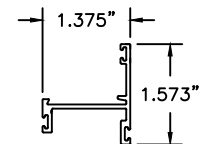
④ FRAME LOCK JAMB  
0.062" TYP WALL THICKNESS



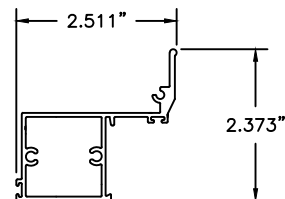
⑤ FIXED RAIL  
0.062" TYP WALL THICKNESS



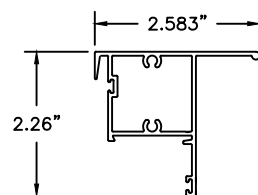
⑦ VENT SILL  
0.062" TYP WALL THICKNESS



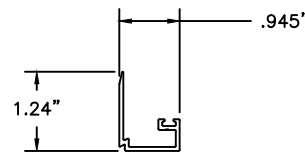
⑧ VENT JAMB STILE  
0.062" TYP WALL THICKNESS



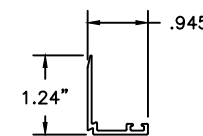
⑨ VENT MEETING RAIL  
0.062" TYP WALL THICKNESS



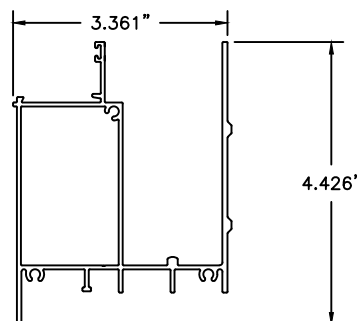
⑱ GLAZING BEAD  
0.062" TYP WALL THICKNESS



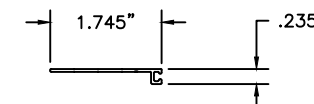
⑩ GLAZING BEAD  
0.062" TYP WALL THICKNESS



②① HI RISE FRAME SILL  
0.062" TYP WALL THICKNESS



⑥ APPLIED FIN  
0.045" TYP WALL THICKNESS



BILL OF MATERIALS			
ITEM NO	DESCRIPTION	MATERIAL	MANUFACTURER
1	FRAME HEAD	6063-T6	EAS, INC
2	FRAME SILL	6063-T6	EAS, INC
3	FIXED FRAME JAMB	6063-T6	EAS, INC
4	FRAME LOCK JAMB	6063-T6	EAS, INC
5	FIXED RAIL	6063-T6	EAS, INC
6	APPLIED FIN	6063-T6	EAS, INC
7	VENT HEAD/SILL	6063-T6	EAS, INC
8	VENT JAMB STILE	6063-T6	EAS, INC
9	MEETING RAIL	6063-T6	EAS, INC
10	IMPACT INSULATED GLAZING BEAD	6063-T6	EAS, INC
11	ROLLER ASSEMBLY		
12	WEEP COVERS		
13	FRAME JAMB BULB VINYL		
14	VENT STILE BULB VINYL		
15	MEETING RAIL WOOL PILE		
16	VENT HEAD WOOL PILE		
17	VENT SILL WOOL PILE		
18	IMPACT GLAZING BEAD	6063-T6	EAS, INC
19	SASH LOCK	6063-T6	EAS, INC
20	HIGH RISE FRAME SILL	6063-T6	EAS, INC
21	8 x 1" FRAME ASSEMBLY SCREW		
22	8 x 3-1/2" MEETING RAIL ATTACHMENT SCREW		
23	1/8" AN CLR X .090 SAFLEX PVB X 1/8" AN CLR (DETAIL 1)	IMPACT	CARDINAL
24	1/8" AN CLR X 1/4" ARGON X 1/8" AN CLR X .090 SAFLEX PVB X 1/8" AN CLR (DETAIL 2)	IMPACT INSUL	CARDINAL

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