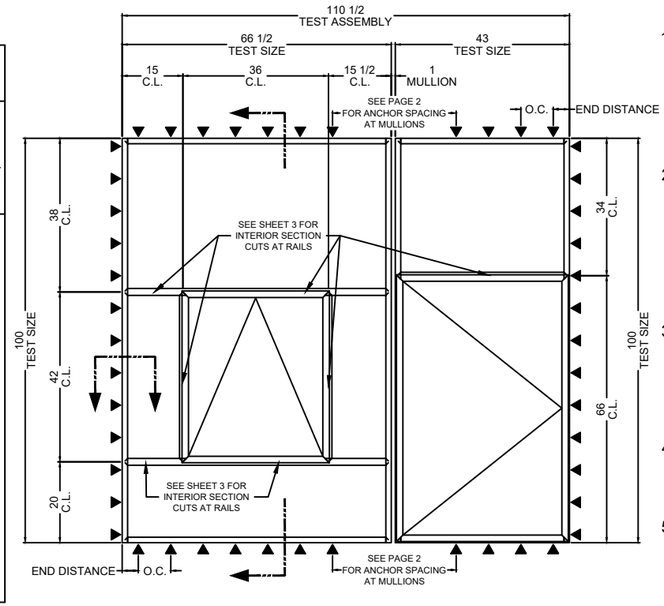
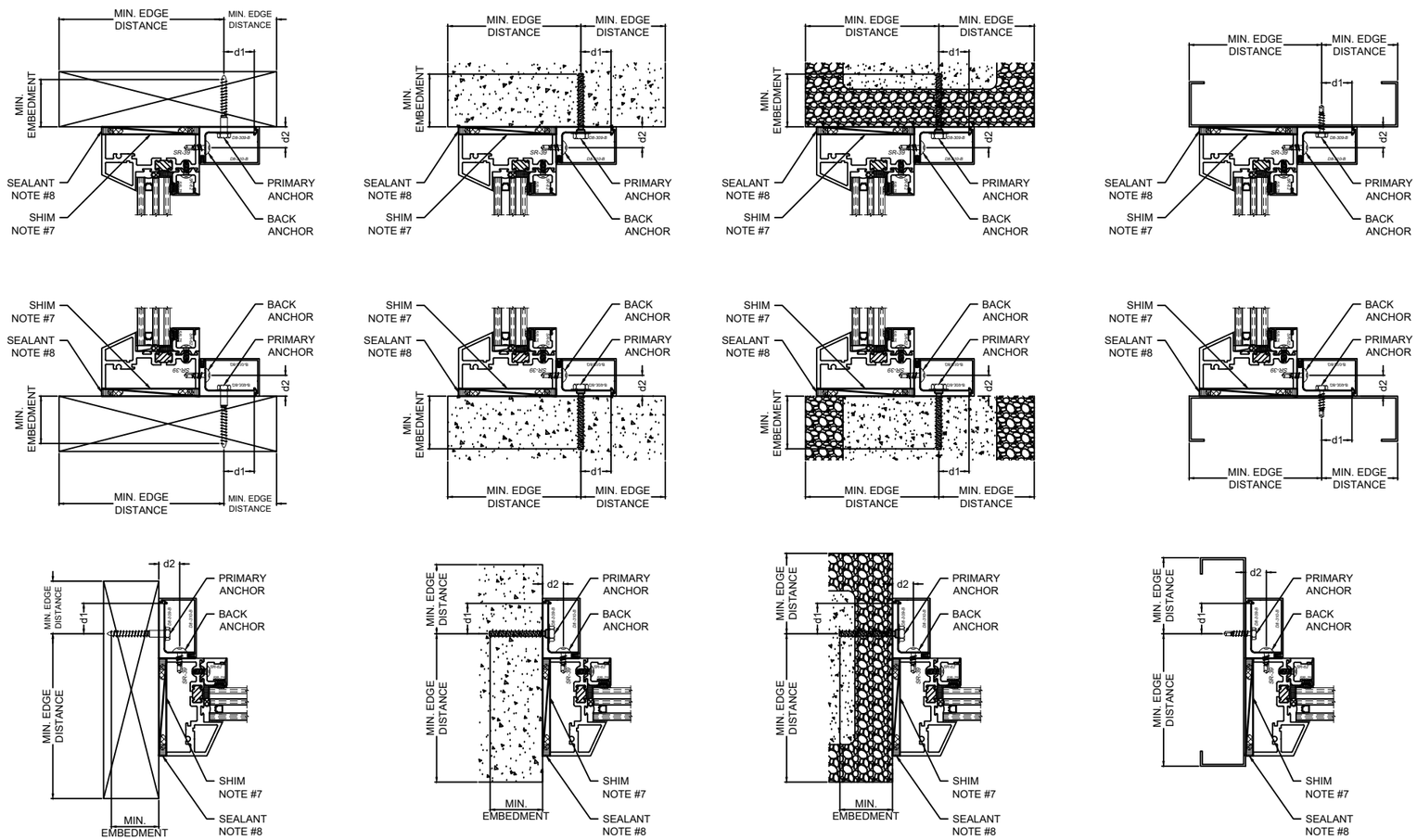
		PRIMARY ANCHOR (TO SUBSTRATE CONDITION)						*"BACK" ANCHOR (TRIM TO FRAME)*				
SUBSTRATE	LOCATION	HARDWARE (ACCEPTABLE TRADE NAME OR EQUIVALENT)	O.C. SPACING (MAX)	END DISTANCE (MAX)	EMBEDMENT (MIN)	SUBSTRATE EDGE DISTANCE (MIN)	d1 INSTALL DIMENSION	*HARDWARE (ACCEPTABLE TRADE NAME OR EQUIVALENT)*	*O.C. SPACING (MAX)*	*END DISTANCE (MAX)*	*EMBEDMENT (MIN)*	*d2 FRAME EDGE DISTANCE (MAX)*
WOOD SG = 0.42	HEAD	1/4" Ø LAG SCREW, FULL BODY	6"	4"	1-1/2"	1"	9/16"	*#10-16 OR -24 S.S. CONDITION CW OR SAE GR. 5 STEEL PAN OR HEX WASHER HEAD SCREW*	*8"*	*4"*	*3 THREADS*	*9/16"*
	SILL											
	JAMB											
CONCRETE 3,000 PSI	HEAD	1/4" Ø HILTI KWIK HUS-EZ (KH-EZ)	8"	4"	2-1/2"	1-3/4"	9/16"					
	SILL											
	JAMB											
CONCRETE 4,000 PSI	HEAD	1/4" Ø HILTI KWIK HUS-EZ (KH-EZ)	8"	4"	2-1/2"	1-3/4"	9/16"					
	SILL											
	JAMB											
CMU (GROUT FILLED) f'm = 1,500 PSI	HEAD	1/4" Ø HILTI KWIK HUS-EZ (KH-EZ)	8"	4"	2-1/2"	3-1/4"	9/16"					
	SILL		4"									
	JAMB		8"									
STEEL STUD (18 ga. 33ksi)	HEAD	1/4"-14 SAE GR. 5 HEX/HWH HILTI KWIK FLEX OR DEWALT DRIL-FLEX	4"	4"	3 THREADS	1"	9/16"					
	SILL											
	JAMB											



1. Installations depicted comply with:
   Florida Building Code - 8th Ed. (FBC 2023)
   International Building Code (IBC 2021)
   National Design Specifications (ANSI/AWC NDS 2018)
   Aluminum Design Manual (ADM 2020)
   Cold-Formed Steel Design Manual (AISI-S100 2020)
2. The installation depicted in this drawing and all calculations are based on a maximum size and design wind pressure rating listed below. The products **have** been proven for resistance to Large Missile Impact per ASTM E1886 / E1996 Missile Level E.

   Test Assembly Size: **110-1/2" x 100"** Design pressure: **+/- 90 psf**
   Awning Test Size: **36" x 42"**
   Casement Test Size: **43" x 66"**
3. Lag screws shall be used for wood substrates. Screw materials and dimensions shall meet the requirements of ANSI / ASME Standard B18.2.1. All lag screw conditions must be pre-drilled with hole diameters of 40-70% of the fastener diameter. Wood buck installations are assumed to use 2 X S-P-F (G= 0.42) or denser. Tapered or partial bucks are not allowed.
4. Approved screw anchors shall be used for concrete substrate. Anchor embedment shall be as indicated herein. Install per ESR-3027 requirements. Concrete installations are assumed to be at least f'c = 3,000 (or 4,000) psi, normal weight concrete.
5. Approved screw anchors shall be used for CMU substrate. Anchor materials and dimensions shall meet the requirements of ICC-ES AC106 - Acceptance Criteria for Predrilled Fasteners (Screw Anchors) in masonry elements. Anchor embedment shall be as indicated herein. Install per ESR-3056 requirements. Concrete masonry installations are assumed at least ASTM C90, Type II, Grade N, with f'm = 1,500 psi, and type M or S mortar.
6. Approved self-drilling screws shall be used for steel stud substrate. All fasteners installed in steel studs shall be SAE grade 5 or better. Steel stud installations assume 18 gauge, 33 ksi studs and follow AISI-S100 rules and procedures.
7. Maximum shim thickness of 1/4" permitted at each fastener location. Shims shall be non-compressible and load-bearing type.
8. Drawings depict details necessary to meet structural load requirements, but do not address air infiltration, water penetration, intrusion or thermal performance requirements of the installation. See manufacturer's Installation Instructions for sealing, flashing, drainage and other requirements.
9. Minimum fastener on center spacing to be coordinated with fastener manufacturer's technical data for the expected substrate.
10. All substrate types shall be secured to the building structure to resist all design loads, and shall have widths that exceed the window frame widths.



HEAD

SILL

RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com

Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

JAMBS

LEFT JAMBS SHOWN
RIGHT JAMBS ARE SIMILAR

Wayne K Helmila

Digitally signed by Wayne K Helmila
DN: CN=Wayne K Helmila, dnQualifier=A01410C0000018CDB8F4AFB001A652B, O=Wisconsin, C=US
Reason: This item has been digitally signed and sealed by Wayne K Helmila on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.
Date: 2025.06.03 13:18:05-05'00'

WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

06/03/2025
COA: 9090

Rev.	Description	Date
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△		
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Scale: NONE
Drawn by: B. FOOTE

Winco Window Co.
6200 Maple Ave.
St. Louis, MO 63130

PHONE: 314-725-8088

WINCO Product:
3250 COMBO AWNING - E MISSILE

Installation:
ANCHORAGE: SNAP TRIM (SHT 1 OF 4)

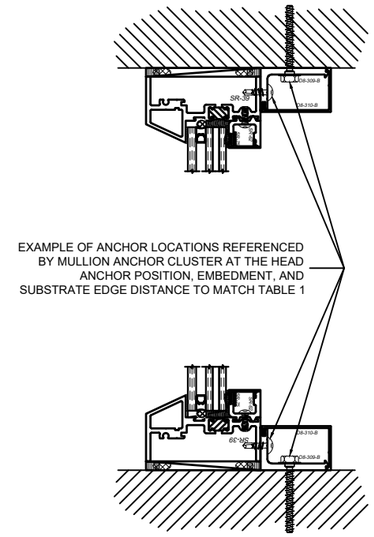
Certification:
LMI 3250

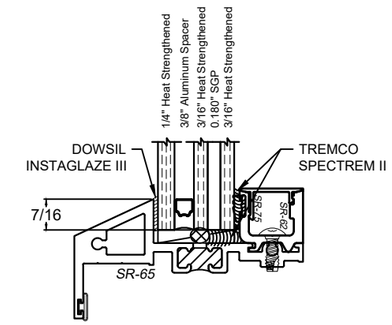
TABLE 2: ANCHOR CLUSTER CENTERED ON MULLION SUPERCEDES NORMAL O.C. SPACING WHERE CLUSTER OCCURS							
PRIMARY ANCHOR (TO SUBSTRATE CONDITION)					*"BACK" ANCHOR (TRIM TO FRAME)*		
SUBSTRATE	LOCATION	HARDWARE (ACCEPTABLE TRADE NAME OR EQUIVALENT)	NUMBER OF ANCHORS IN CLUSTER	O.C. SPACING (MAX)	*HARDWARE (ACCEPTABLE TRADE NAME OR EQUIVALENT)*	NUMBER OF ANCHORS IN CLUSTER	O.C. SPACING (MAX)
WOOD SG = 0.42	HEAD	1/4" Ø LAG SCREW, FULL BODY	9	3"	*#10-16 OR -24 S.S. CONDITION CW OR SAE GR. 5 STEEL PAN HEAD SCREW*	7	4"
	SILL						
CONCRETE 3,000 PSI	HEAD	1/4" Ø HILTI KWIK HUS-EZ (KH-EZ)	6	6"			
	SILL						
CONCRETE 4,000 PSI	HEAD	1/4" Ø HILTI KWIK HUS-EZ (KH-EZ)	6	6"			
	SILL						
CMU (GROUT FILLED) f'm = 1,500 PSI	HEAD	1/4" Ø HILTI KWIK HUS-EZ (KH-EZ)	5	6"			
	SILL		8	4"			
STEEL STUD (18 ga. 33ksi)	HEAD	1/4"-14 SAE GR. 5 HEX/HWH HILTI KWIK FLEX OR DEWALT DRIL-FLEX	10	2-1/2"			
	SILL						

NOTE 1:
For additional anchor requirements such as position, embedment, substrate edge distance and anchor position dimensions, see **TABLE 1** for the same anchor type and location.

NOTE 2:
Anchor cluster requirements are based on maximum size and design pressure and may not be required for lower pressures and/or smaller sizes pending project specific P.E. analysis.

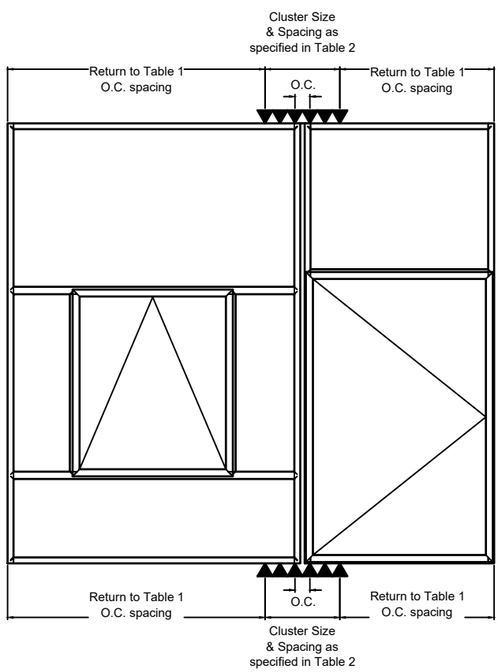
SEE SHEET 1 FOR GENERAL NOTES.

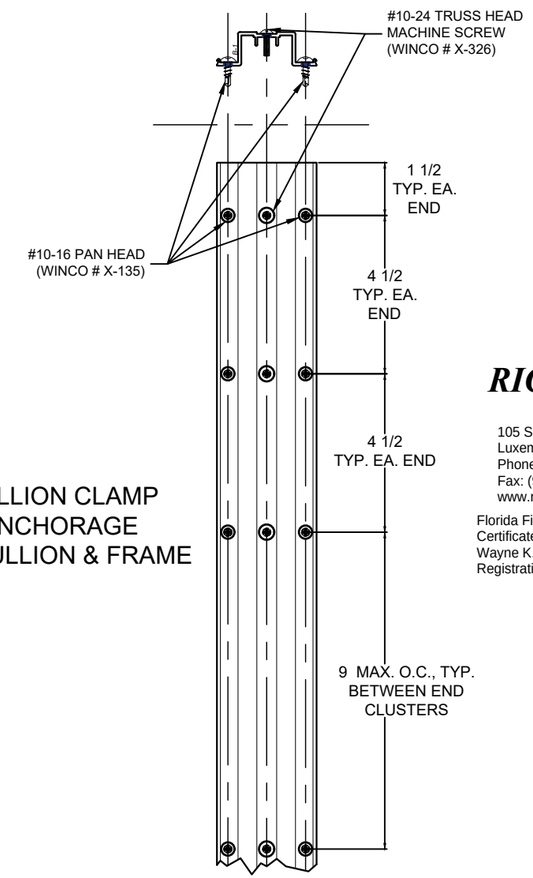




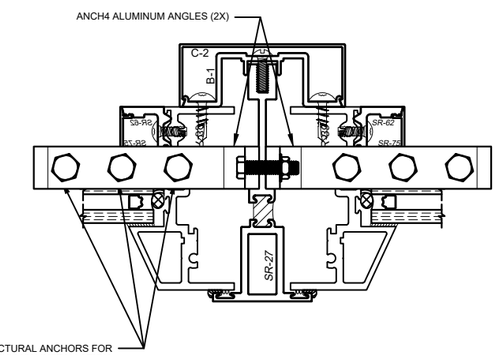
E MISSILE
GLAZING DETAIL

ANCHOR CLUSTERS AT MULLIONS
HEAD & SILL





MULLION CLAMP
ANCHORAGE
TO MULLION & FRAME



SECTION AT HEAD
(SILL SIMILAR)

RICE
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Winco Window Co.
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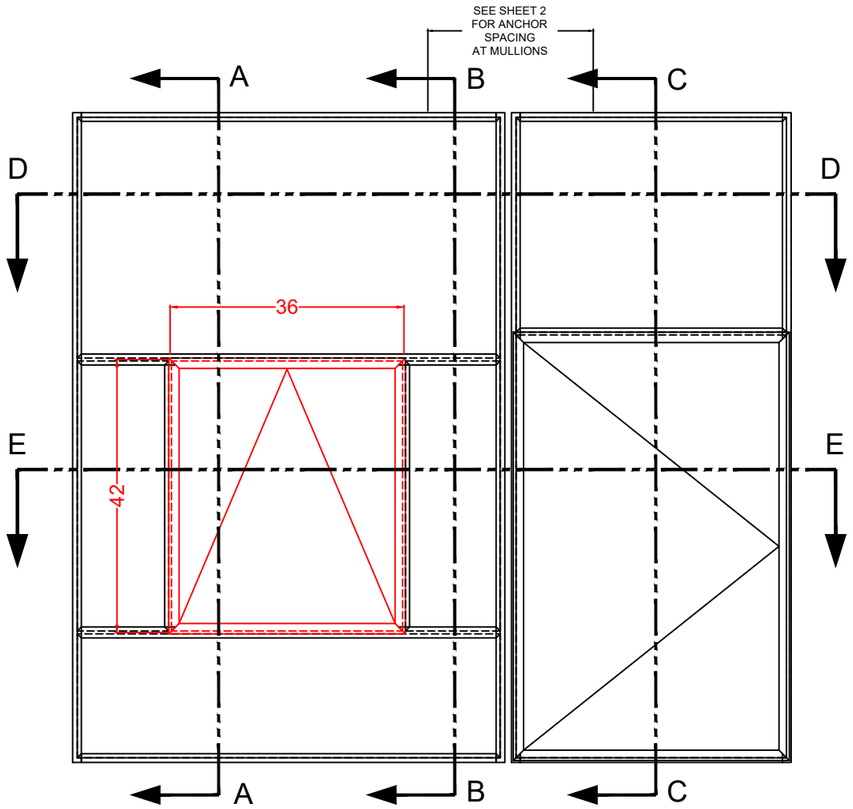
PHONE: 314-725-8088

WINCO Product:
3250 COMBO AWNING - E MISSILE

Installation:
ANCHORAGE: SNAP TRIM (SHT 2 OF 4)

Certification:
LMI 3250



SEE SHEET 1 FOR SECTIONS & ANCHOR DETAILS
AT PERIMETER AND KEY DIMENSIONS

RICE
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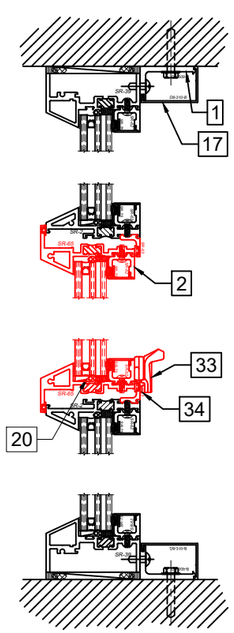
WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

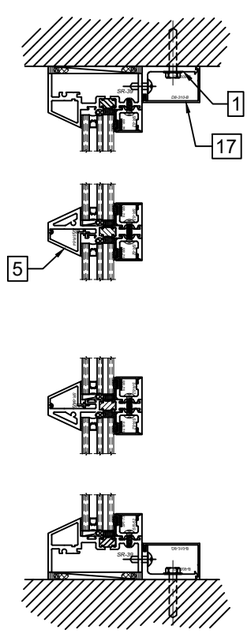
06/03/2025
COA: 9090

NOTE:
Details shown in red indicate the primary focus of this approval. In this case, the floating awning. Floating vents are the typical use case for an awning with this product (the Winco 3250 Series) as a steel replica window for replacing old steel windows where floating vents are commonly found.

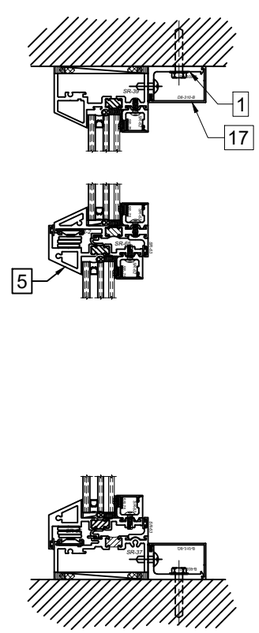
SECTION A-A



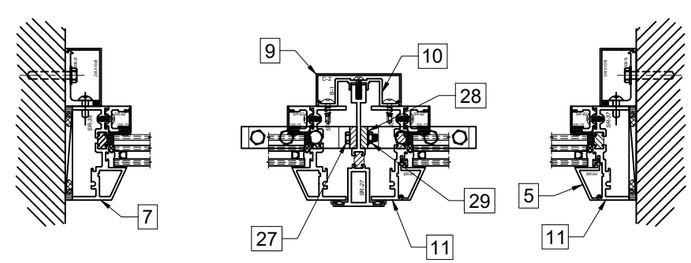
SECTION B-B



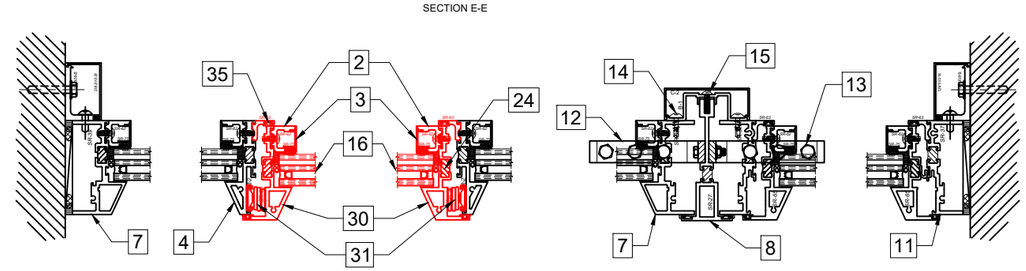
SECTION C-C



SECTION D-D



SECTION E-E



BILL OF MATERIALS		
	PART NO.	DESCRIPTION
1	D8-309-B	BASE, SNAP TRIM, 1-1/4" X 2"
2	SR-62	GLAZING BEAD
3	SR-75	COVER, GLAZING BEAD
4	SR-2	RAIL, NEUTRAL - FX/AWN & FX/CASEMENT
5	SR-64	INSERT, SLOPE - FX/AWN & FX/CASEMENT
6	SR-10	FRAME, NEUTRAL - FX/CASEMENT
7	SR-39	FRAME, FIXED, EXT. LEG AT MULLION - FX/AWN
8	SR-27	MULLION - FX/AWN & FX/CASEMENT
9	C-2	COVER, MULLION CLAMP
10	B-1	CLAMP, MULLION
11	SR-37	FRAME, NEUTRAL, EXT. LEG - FX/CASEMENT
12	ANCH4	ANGLE, ALUMINUM, 4" X 4" X 1/4"
13		Ø1/4 x 2-1/2" HEX HEAD LAG SCREWS W/ SAE FLAT WASHER
14	X-135	SCREW, MULL. CLAMP TO FRAME
15	X-326	SCREW, MULL. CLAMP TO MULLION
16		D MISSILE IMPACT GLAZING - SEE SHEET 2 FOR DETAILS
17	D8-310-B	COVER, SNAP TRIM
18	HTB-33	SASH SNUBBER (NS)
19	X-203, X-323	SCREWS FOR HARDWARE - (NS)
20	TPVSB-187X1	SETTING BLOCK, TPV, 3/16 X 1 X 4
21	X-955-S	SCREWS, SASH ASSEMBLY, 2" #10 QUAD DRIVE, S.S. (NS)
22	SPECTRUM 2	SILICONE GLAZING SEALANT
23	INSTANT GLAZE	SILICONE ADHESIVE, HOT-MELT
24		POLYURETHANE THERMAL BREAK
25	X-944 / X-944-S	SCREWS, FRAME ASSEMBLY, 1-1/4" #10 QUAD DRIVE, S.S. (NS)
26	SEAM SEALER-S	ACRYLIC JOINT SEALANT (NS)
27	X-308	SCREW, ANCH4 TO MULLION
28	W-1-4-20	LOCK WASHER
29	X-602	HEX NUT
30	SR-65	SASH, DEEP FRAME
31	MAG-20	HINGE, MULTI-BAR
32	SR-63	SASH STOP
33	H8-52HR	CAM LOCK, DEEP SASH, HURRICANE, RH
34	H16-7	STRIKE, FOR CAM LOCK
35	H11-31	WEATHER SEAL, SASH

NOTES:
A. (NS) = ITEM NOT SHOWN, THOUGH ITS GENERAL LOCATION MAY BE INDICATED.

Rev.	Description	Date
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Scale: NONE
Drawn by: B. FOOTE

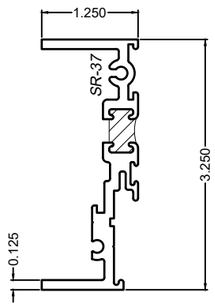
Winco Window Co.
6200 Maple Ave.
St. Louis, MO 63130

PHONE: 314-725-8088

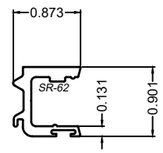
WINCO Product:
3250 COMBO AWNING - E MISSILE

Installation:
ANCHORAGE: SNAP TRIM (SHT 3 OF 4)

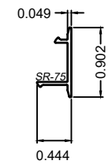
Certification:
LMI 3250



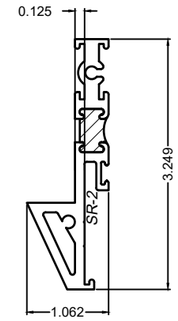
FRAME, NEUTRAL, EXT. LEG - FX/CASEMENT
SR-37



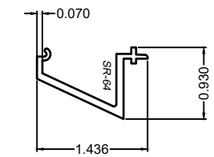
GLAZING BEAD
SR-62



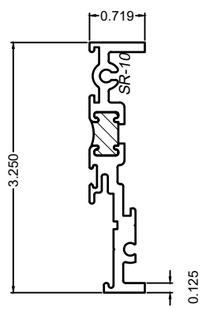
COVER, GLAZING BEAD
SR-75



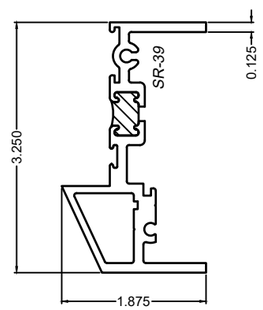
RAIL, NEUTRAL - FX/AWN &
FX/CASEMENT
SR-2



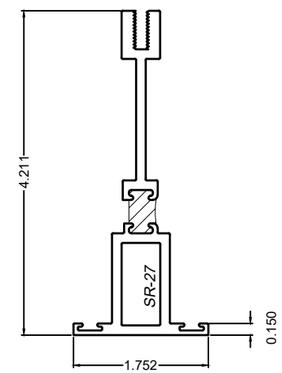
INSERT, SLOPE - FX/AWN &FX/CASEMENT
SR-64



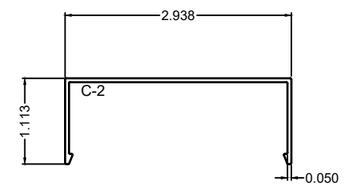
FRAME, NEUTRAL - FX/CASEMENT
SR-10



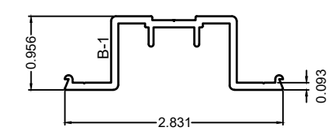
FRAME, HEAD, SILL, JAMBS - FX/AWN
FRAME, HEAD - FX/CASEMENT
SR-39



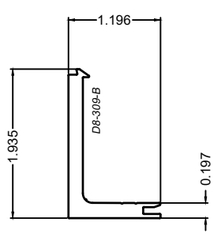
MULLION - FX/AWN & FX/CASEMENT
SR-27



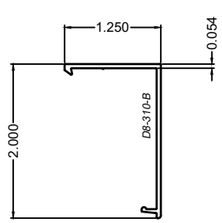
COVER, MULLION CLAMP
C-2



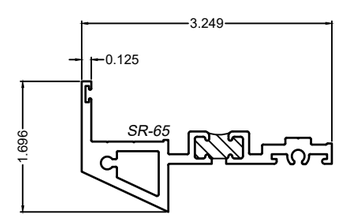
CLAMP, MULLION
B-1



BASE, SNAP TRIM
D8-309-B



COVER, SNAP TRIM
D8-310-B



SASH, DEEP FRAME
SR-65

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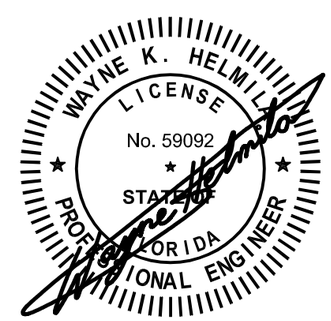

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