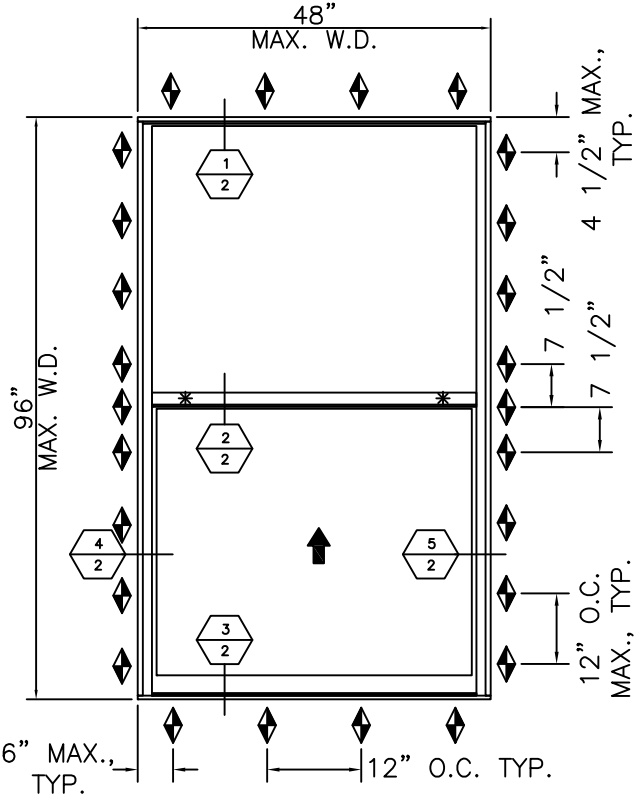


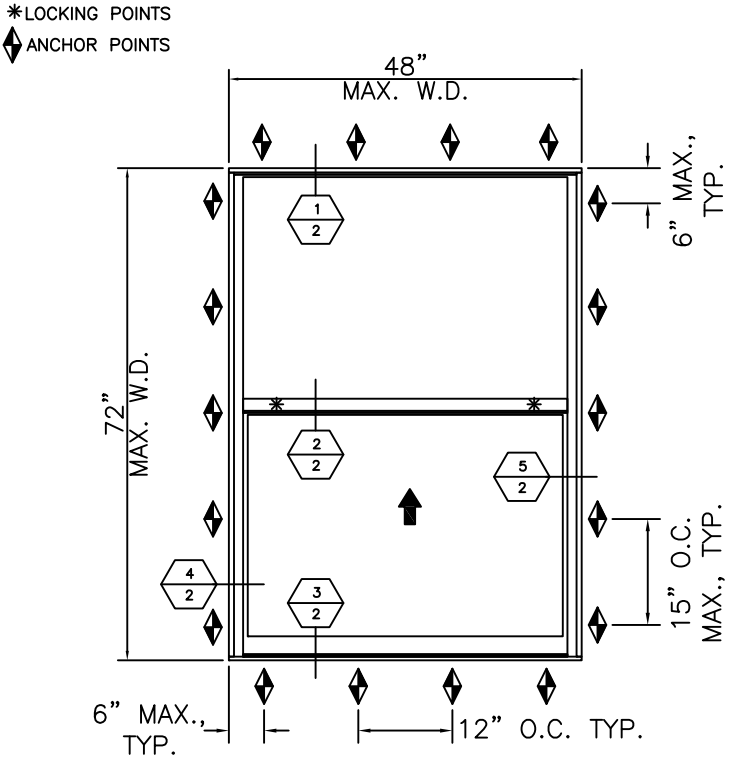
GENERAL NOTES

1. THIS PRODUCT, FABRICATED AND ANCHORED AS DETAILED IN THIS DRAWING, IS LARGE MISSILE IMPACT RESISTANT, AND DOES NOT REQUIRE THE USE OF IMPACT PROTECTIVE DEVICES (SHUTTERS).
2. THIS PRODUCT HAS BEEN TESTED TO TAS 201/202/203, AND MEETS THE REQUIREMENTS OF THE 8TH ED. (2023) FLORIDA BUILDING CODE INCLUDING THE HIGH VELOCITY HURRICANE ZONE.
3. TESTED CONFIGURATION IS AS NOTED IN THIS DRAWING.
4. THE DESIGN PRESSURE RATINGS IN THIS DRAWING ARE AS LIMITED BY ASTM E-1300 GLASS TABLES, AND TESTED STRUCTURAL AND CYCLIC PRESSURES.
5. THE 4/3 ALLOWABLE STRESS INCREASE FACTOR (SHORT-TERM INCREASE FACTOR) HAS NOT BEEN USED IN THE ANCHOR ANALYSIS FOR THIS SYSTEM. THE 1.6 Cd FACTOR WAS USED IN THE ANALYSIS OF ANCHORAGE INTO WOOD SUBSTRATE.
6. 1X WOOD BUCKS ARE OPTIONAL, AND IF USED, INSTALLATION OF WOOD BUCKS TO THE SUBSTRATE TO BE ENGINEERED BY OTHERS OR AS APPROVED BY THE AUTHORITY HAVING JURISDICTION (A.H.J.). BUCKING, OPENINGS, & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED BY OTHERS IN ACCORDANCE WITH THE FBC TO TRANSFER SUPERIMPOSED LOADS TO THE STRUCTURE. ADEQUACY OF THE STRUCTURE TO RECEIVE THESE LOADS SHALL BE VERIFIED BY THE CONTRACTOR OR A.H.J. ANCHOR EMBEDMENT SHALL BE FULLY INTO THE SUBSTRATE BEYOND THE WOOD BUCKS.
7. ANCHORAGE NOTES: ALL ANCHORS AND FASTENERS USED SHALL BE OF A MATERIAL OR HAVE A COATING COMPATIBLE WITH PRESSURE TREATED WOOD BUCKS AND ALL OTHER WINDOW MATERIALS. F-ANCHORS ARE CONTINUOUS WITH TWO INSTALLATION FASTENERS PER EACH LOCATION SHOWN IN THE ELEVATION. INSTALL 1/4" MAX. SHIMS AT EACH ANCHOR LOCATION WHERE A GAP OF 1/16" OR GREATER EXISTS BETWEEN F-ANCHOR AND SUBSTRATE. SHIMS SHALL BE LOAD-BEARING (PLASTIC OR METALLIC) AND CAPABLE OF TRANSFERRING LOADS TO THE SUBSTRATE. SPECIFIED FASTENER EMBEDMENT TO SUBSTRATE SHALL BE BEYOND WALL FINISH OR STUCCO. ON-CENTER DISTANCE BETWEEN ANY TWO INSTALLATION FASTENERS OF 1-1/2" MINIMUM SHALL BE MAINTAINED.
8. DISSIMILAR MATERIALS THAT COME INTO CONTACT SHALL BE COATED OR OTHERWISE PROTECTED TO PREVENT GALVANIC REACTIONS. WOOD BUCKS, IF USED, SHALL BE PRESSURE TREATED, WITH EITHER A TREATMENT OR COATING COMPATIBLE WITH THIS PRODUCT.
9. ALL INSTALLATIONS & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS, OR AS APPROVED, SIGNED, AND SEALED BY A FLORIDA-REGISTERED PROFESSIONAL ENGINEER ON A SITE-SPECIFIC BASIS.
10. SEALING AND FLASHING STRATEGIES FOR OVERALL WATER INFILTRATION RESISTANCE OF THE INSTALLED PRODUCT SHALL BE THE RESPONSIBILITY OF OTHERS AND ARE NOT ADDRESSED BY THIS DOCUMENT.

SERIES 663 IMPACT SINGLE HUNG WINDOW



48X96 ELEVATION



48X72 ELEVATION

TABLE 1. DESIGN PRESSURES
ALL GLAZING TYPES LARGE MISSILE IMPACT RESISTANT

MAX. SIZE	GLAZING TYPE	DESIGN PRESSURE RATING
48" X 96"	A	+73.5/-120 PSF
48" X 96"	B	+73.5/-90 PSF
48" X 96"	C	+73.5/-100 PSF
48" X 72"	D	+73.5/-95 PSF
48" X 72"	E	+73.5/-120 PSF

Lucas Turner
2023.10.12
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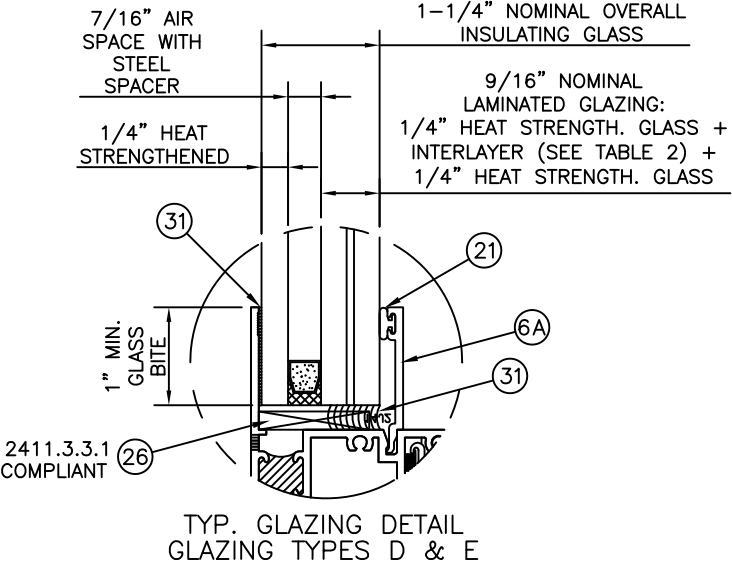
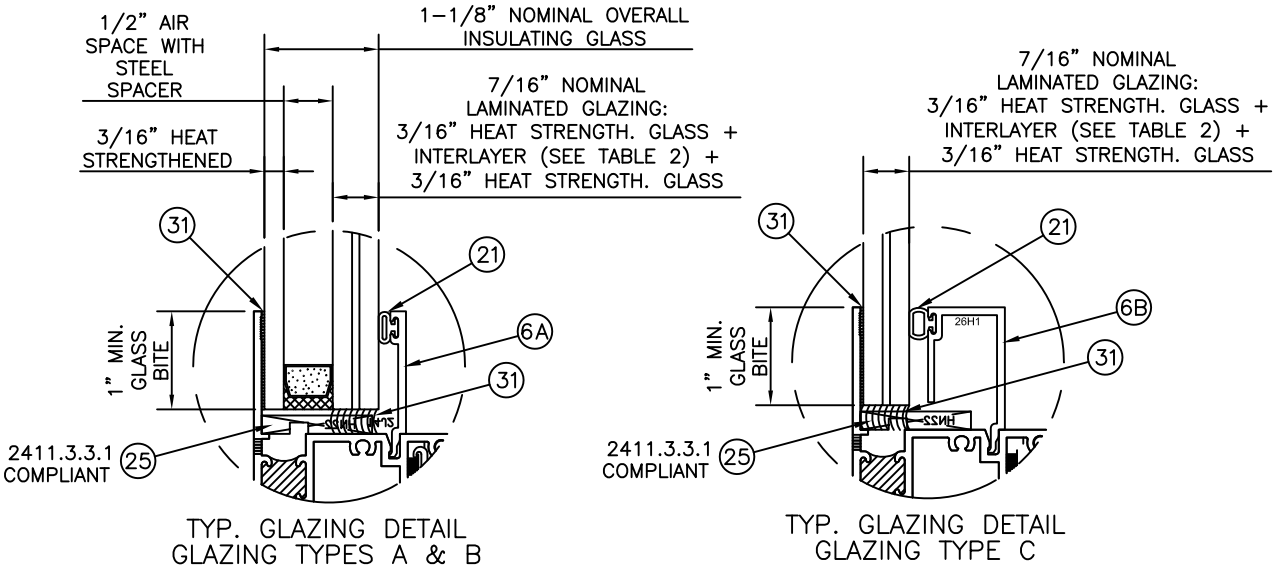


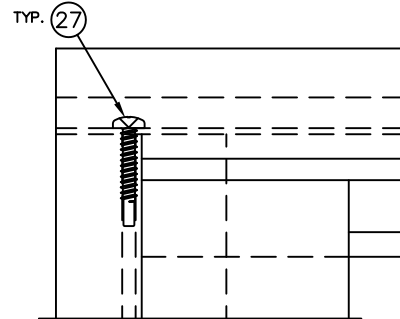
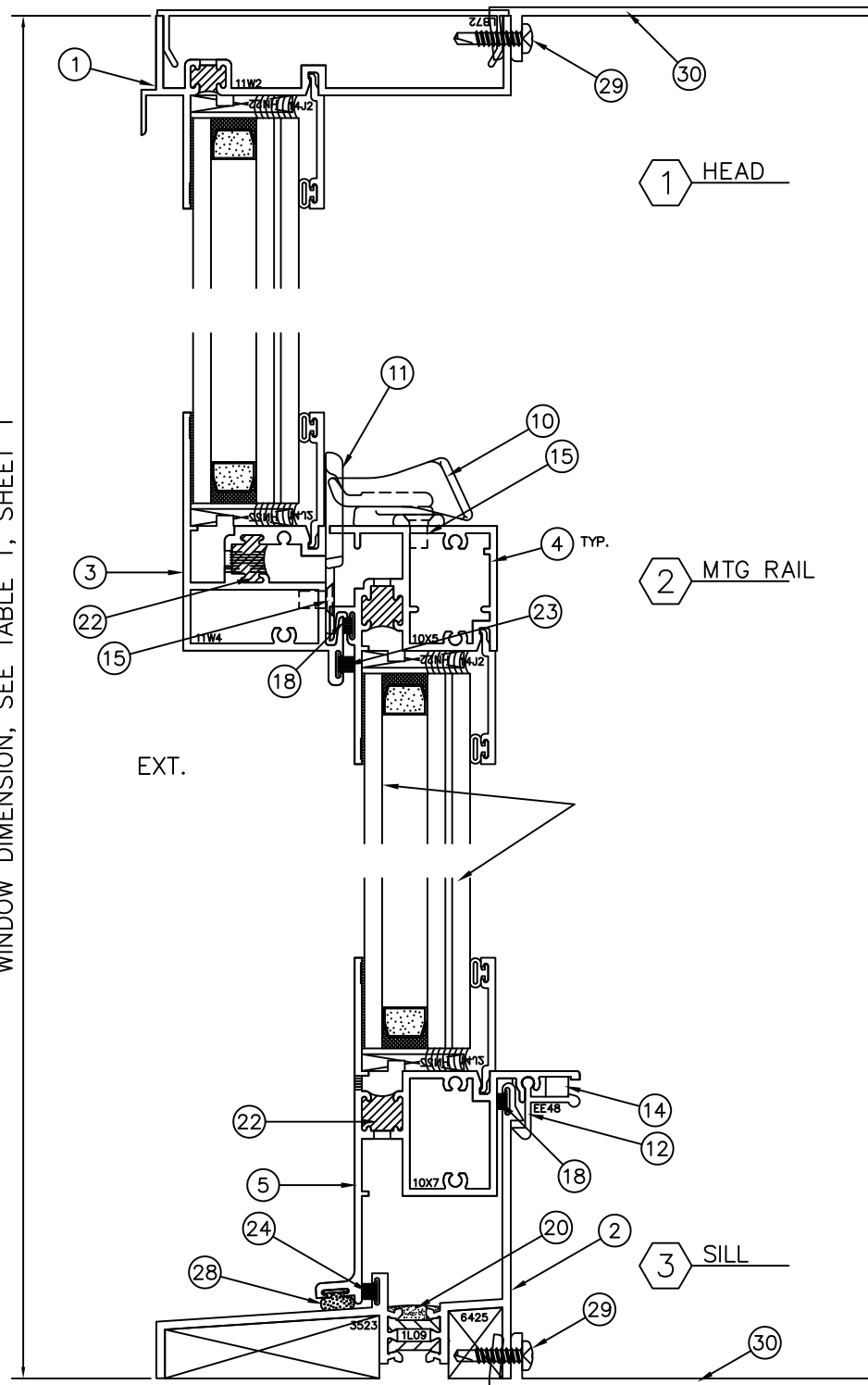
TABLE 2. INTERLAYER TYPES

GLAZING TYPE	LAMINATED GLASS INTERLAYER
A	0.077 SAFLEX STORM
B	0.090 SAFLEX PVB
C	0.090 SAFLEX PVB
D	0.090 SAFLEX PVB
E	0.075 SAFLEX STORM

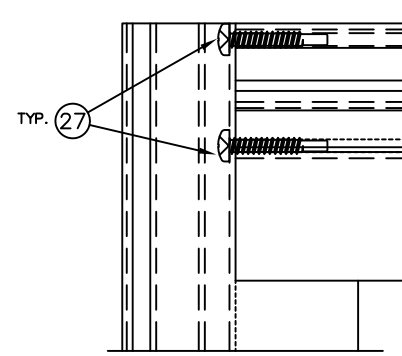
10/11/2023
LUCAS A. TURNER, P.E.
FL PE # 58201
TURNER ENGINEERING
& CONSULTING, INC.
2428 OLD NATCHEZ TRC TRL
CAMDEN, TN 38320
PH. 941-380-1574



WINDOW DIMENSION, SEE TABLE 1, SHEET 1

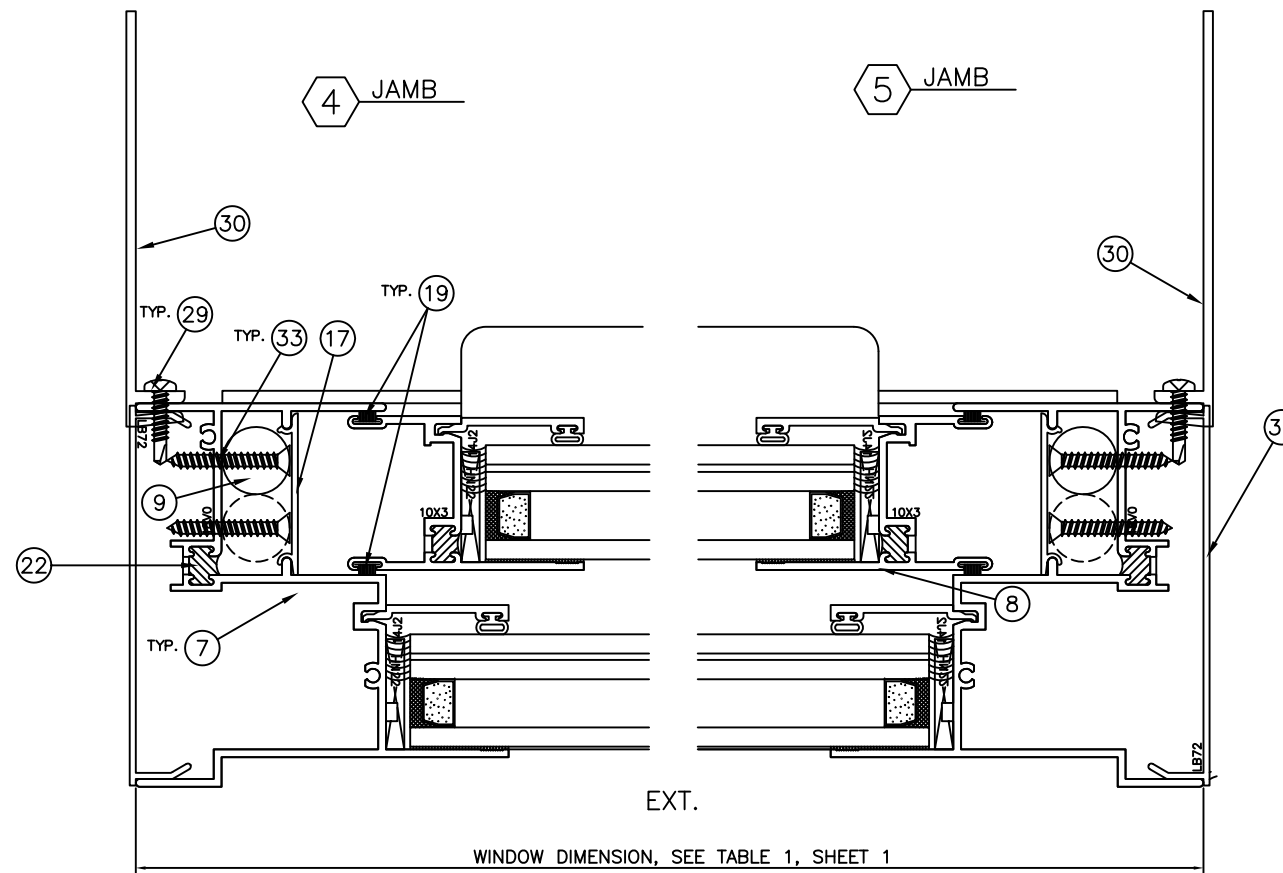


FRAME CORNER ASSEMBLY – MILLED
AND MECHANICALLY ASSEMBLED.



SASH CORNER ASSEMBLY – MILLED
AND MECHANICALLY ASSEMBLED.

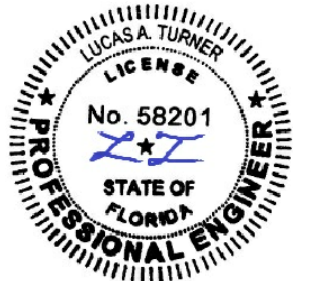
DETAILS THIS SHEET SHOWN WITH I.G. GLAZING,
SEE GLAZING DETAILS SHEET 1 FOR ALL OPTIONS



ITEM	# REQD	PART #	DESCRIPTION	MFG.
1	1	11W2	.080 HEAD	EFCO
2	1	1L09	.094 H.P. SILL	EFCO
3	1	11W4	FRAME MTG RAIL	EFCO
4	1	10X5	SASH MTG RAIL	EFCO
5	1	10X7	SASH HANDLE RAIL	EFCO
6A	8	14J2	IG GLAZING BEAD	EFCO
6B	8	26H1	MONO GLAZING BEAD	EFCO
7	1/1	18V0	.080 FRAME JAMBS	EFCO
8	1/1	10X3	LOWER SASH SIDE RAILS	EFCO
9	4	AS REQD	SASH BALANCES(CL5)	BALANCE SYSTEMS
10	1/1	HL86/HL89	SWEEP LOCKS	BRONZE CRAFT
11	2	HK88	KEEPER	BRONZE CRAFT
12	2	F125	AUTO SILL LOCK	EFCO
13	2	KS31	SASH STOP (NOT SHOWN)	EFCO
14	2	HS17	AUTO SILL LOCK SPRING	INDUSTRIAL SPRING
15	8	STU8	LOCK ATTACHMENT SCREWS	PRODUCTION FASTENER PRODUCTS
16	AS REQD	LAA3	THERMAL STRUT	
17	2	LB13	VINYL CAVITY COVER	
18	AS REQD	WF08	PILE WEATHER STRIPPING	SCHLEGEL
19	AS REQD	WF01	PILE WEATHER STRIPPING	SCHLEGEL
20	AS REQD		SILICONE	
21	AS REQD	WA04	GLAZING BEAD VINYL	CENTRAL PLASTICS
22	AS REQD		2 PART POLYURETHANE	BASF
23	AS REQD	WF04	PILE WEATHER STRIPPING	SCHLEGEL
24	AS REQD	WF05	PILE WEATHER STRIPPING	SCHLEGEL
25	4	HN17	SETTING BLOCKS	EPG
26	12	HN22	GLAZING BLOCKS	EPG
27	16	SLQ2	SASH & FRAME ASSY SCREWS	PRODUCTION FASTENER PRODUCTS
28	AS REQD	WQ06	Q-LON WEATHER STRIPPING	SCHLEGEL
29	AS REQD	STK0	#8 "F" ANCHOR SCREWS	PRODUCTION FASTENER PRODUCTS
30	4	1880	CONTINUOUS "F" ANCHOR	EFCO
31	AS REQD		BONDAFLEX SIL 295	
32	AS REQ'D		VINYL FRAME FILLER	CENTRAL PLASTICS
33	AS REQD	SFZ4	BALANCE RETAINER SCREW	PRODUCTION FASTENER PRODUCTS

NOTE: ALL EXTRUSIONS ARE 6063-T6

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DRAWN BY Messer/LT
DATE 52-29-2008

SCALE
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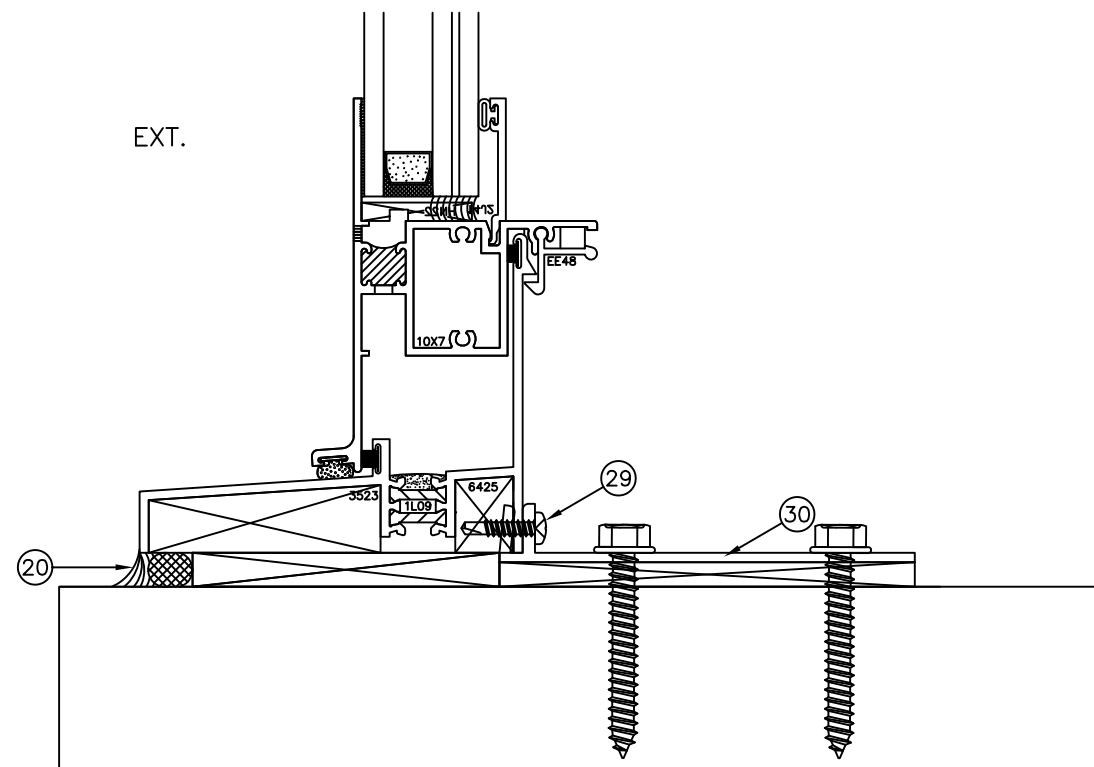
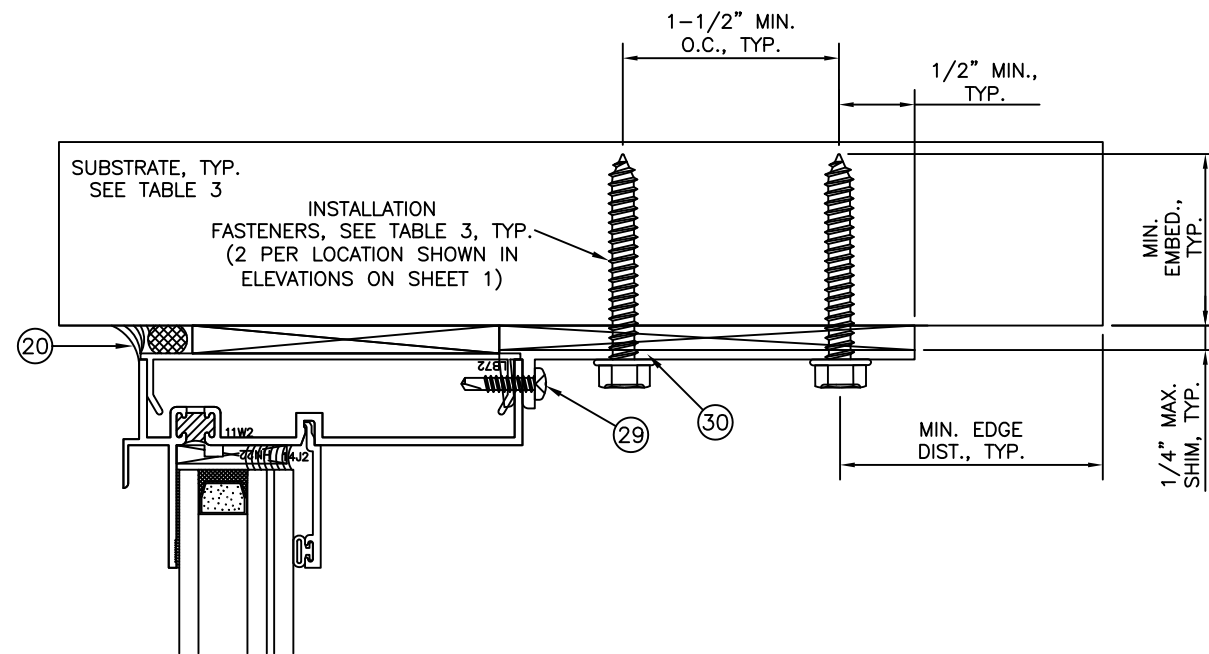


EFCO CORPORATION
1000 County Road - Monett, Missouri 65708

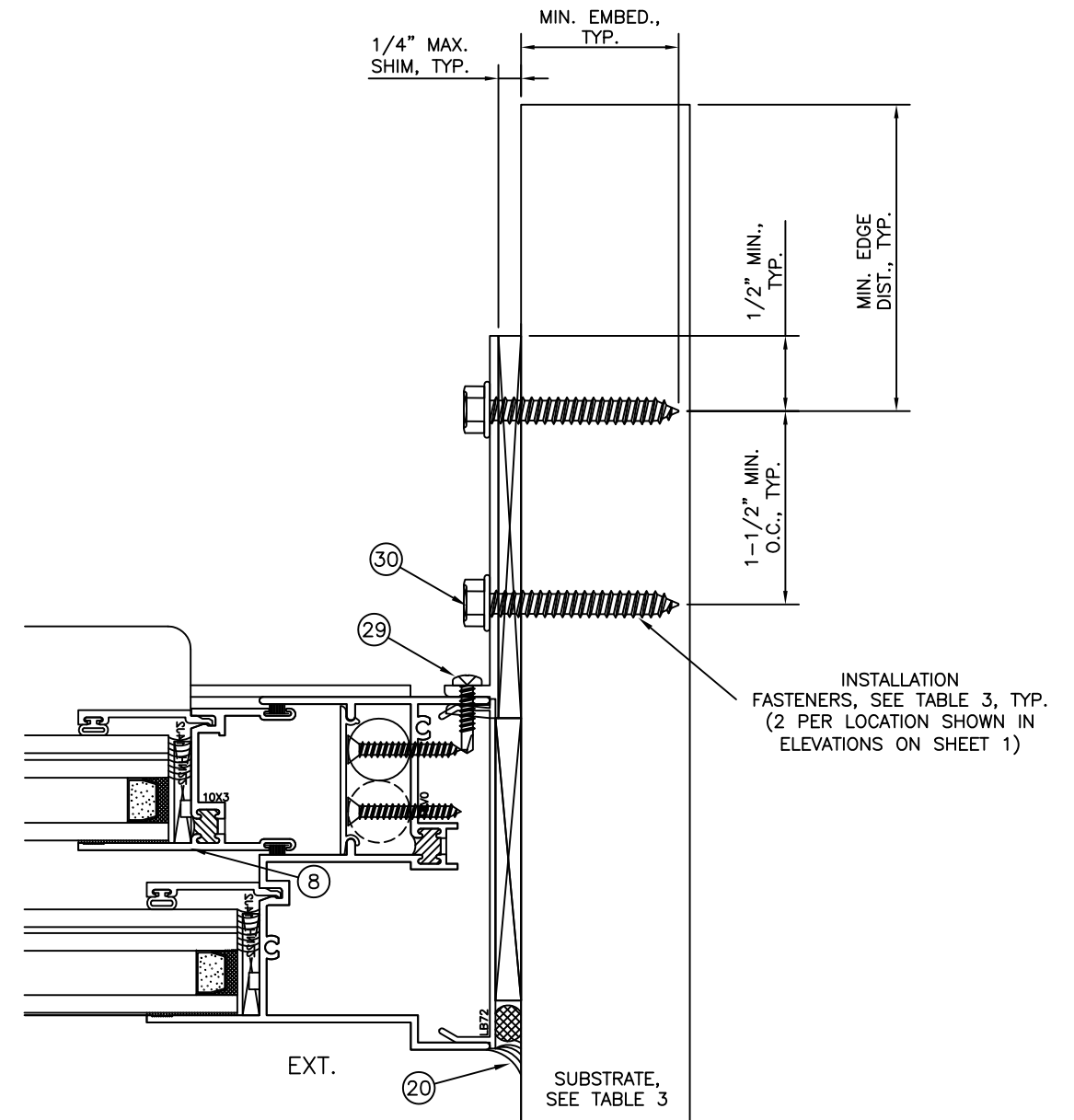
S-663 LARGE MISSILE IMPACT

DWG#
663-SH-LM

SHEET
2 of 3



TYPICAL HEAD/SILL INSTALLATION



TYPICAL JAMB INSTALLATION

TABLE 3: INSTALLATION FASTENER REQUIREMENTS TABLE

SUBSTRATE BY OTHERS:	FASTENER TYPE:	MIN. EMBED.	MIN. EDGE DIST.
CONCRETE (3.05 KSI MIN.)	1/4" DEWALT ULTRACON+	1-3/4"	2-1/2"
CMU MASONRY (ASTM C-90)	1/4" DEWALT ULTRACON+	1-3/4"	2-1/2"
2X MIN. SOUTHERN PINE WOOD (G=0.55)	#14 GRADE 5 WOOD SCREW	1-1/2"	1"
16 GAUGE (0.060") MIN. STEEL STUD, 33KSI YIELD MIN., OR 1/8" ALUM. 6063-T5 MIN.	1/4" HILTI KWIK-FLEX OR ITW TEKS SELF-DRILLING SCREW	FULL, PLUS 3 THREADS BEYOND	1/2"

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