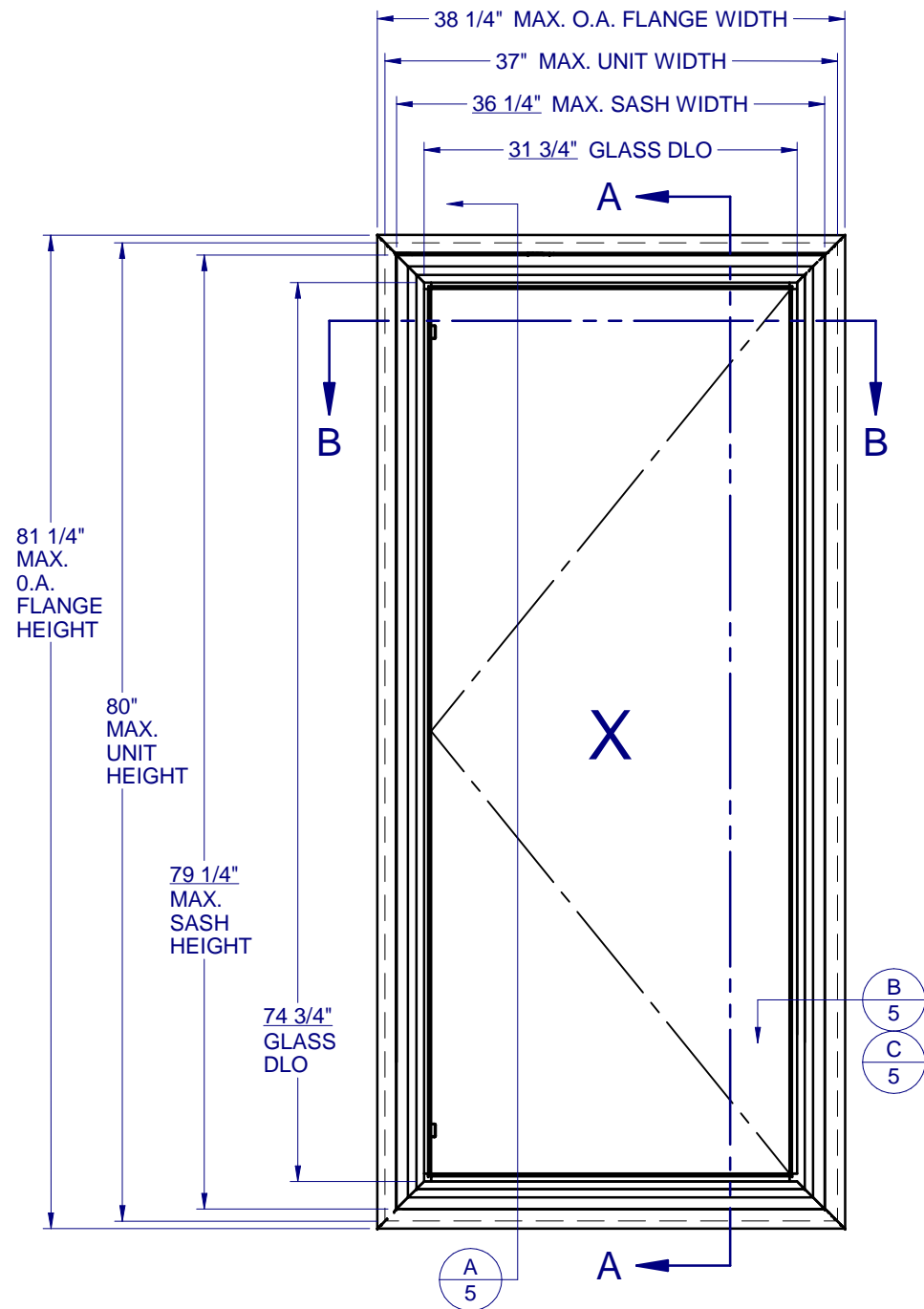


CASEMENT - LARGE MISSILE IMPACT



LEFT HINGED - SHOWN
(CAR 138-538/138-1302)
MAXIMUM ALLOWABLE DESIGN PRESSURE: +70/-70 PSF
RIGHT HINGED - OPPOSITE

GENERAL NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE REQUIREMENTS OF THE 2018 INTERNATIONAL BUILDING CODE (IBC) AND 2018 INTERNATIONAL RESIDENTIAL CODE (IRC).
2. GLAZING OPTIONS: (SEE SHEET 2)
3. CONFIGURATIONS: ALL WINDOWS ARE OPEN TO OUTSIDE LEFT OR RIGHT.
4. ANCHORAGE: THE 33 1/3% STRESS INCREASE HAS NOT BEEN USED IN THE DESIGN OF THIS PRODUCT. SEE SHEET 5 FOR INSTALLATION DETAIL. WIND LOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
5. PRODUCTS APPROVED FOR IMPACT RESISTANCE. SHUTTERS ARE NOT REQUIRED.
6. ALL FRAMES AND VENTS FULLY WELDED.
7. SERIES/MODEL DESIGNATION CA-8400.
8. THE DESIGNATION X STANDS FOR THE FOLLOWING:
X = OPERABLE SASH
9. SECTION CALLOUTS APPLY TO ALL ELEVATIONS IN A SIMILAR LOCATION.



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8400 PVC CASEMENT IMPACT

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B	IBC/IRC REF. 2018 UPDATE	JLD	05/06/20
A	REVISED TO TDI REQUEST	JML	3/29/17



2/28/2023

LUCAS A. TURNER, P.E.
TX PE # 115094
TBPE REG. #FL-18075
2428 OLD NATCHEZ TRC TRL
CAMDEN, TN 38320
PH. 941-380-1574

SHEET DESCRIPTION:

GENERAL NOTES AND ELEVATIONS

DRAWN BY:	DATE:
EMK	11/12/15
DWG #:	REV.:
TDI-999	C
SCALE:	SHEET
1:15	1 OF 5

TABLE OF CONTENTS

GENERAL NOTES & ELEVATIONS.....1
SECTION VIEWS & GLAZING.....2
EXTRUSIONS & B.O.M.....3
ANCHOR SCHEDULE & NOTES.....4
INSTALLATION DETAILS.....5

8400 PVC CASEMENT IMPACT

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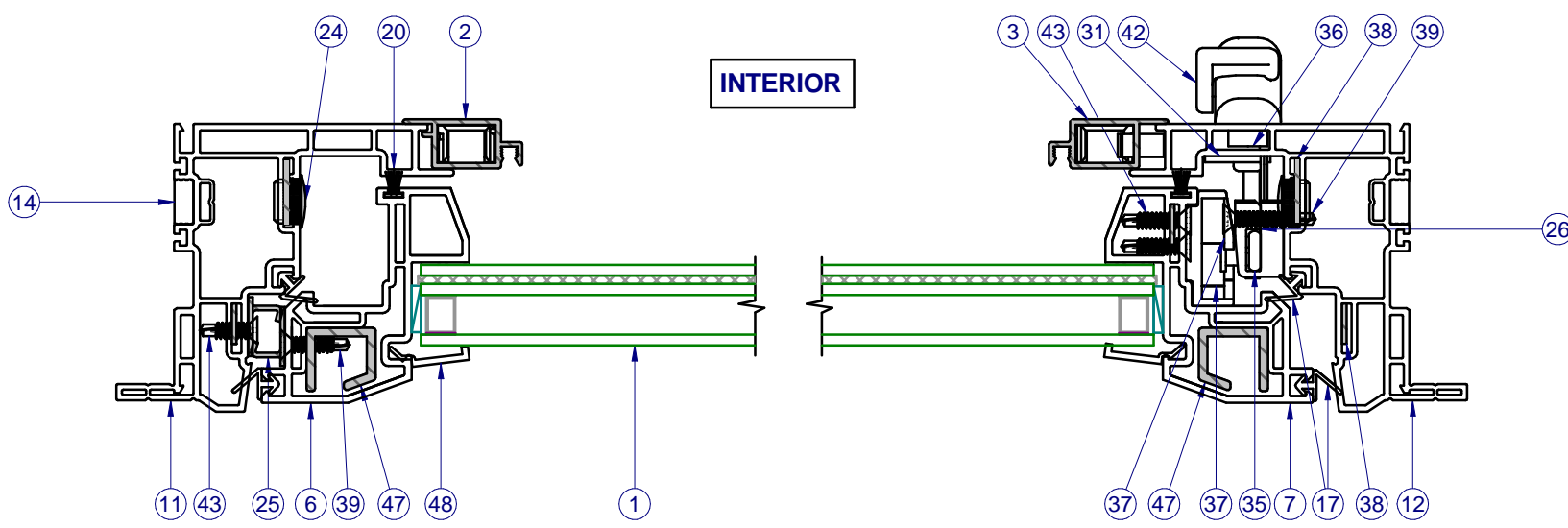
STATE OF TEXAS
LUCAS A. TURNER
115094
LICENSED PROFESSIONAL ENGINEER

2/28/2023

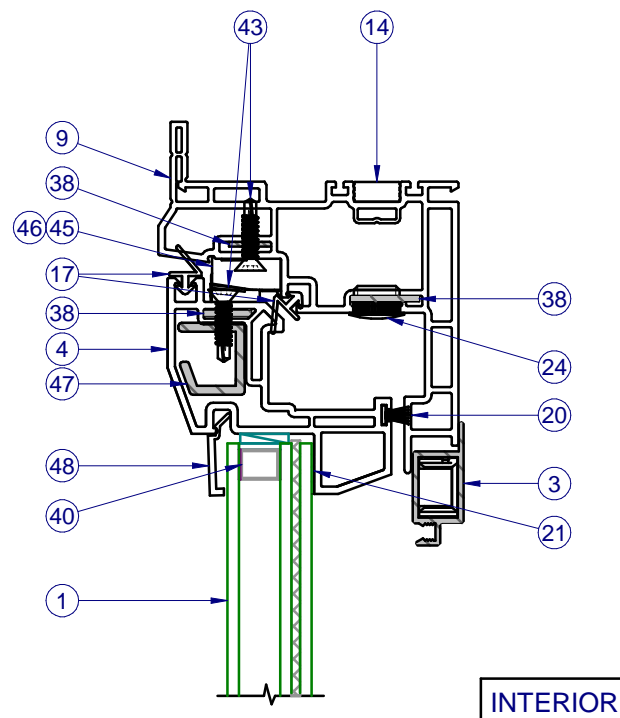
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SHEET DESCRIPTION:
SECTION VIEWS AND GLAZING DETAIL

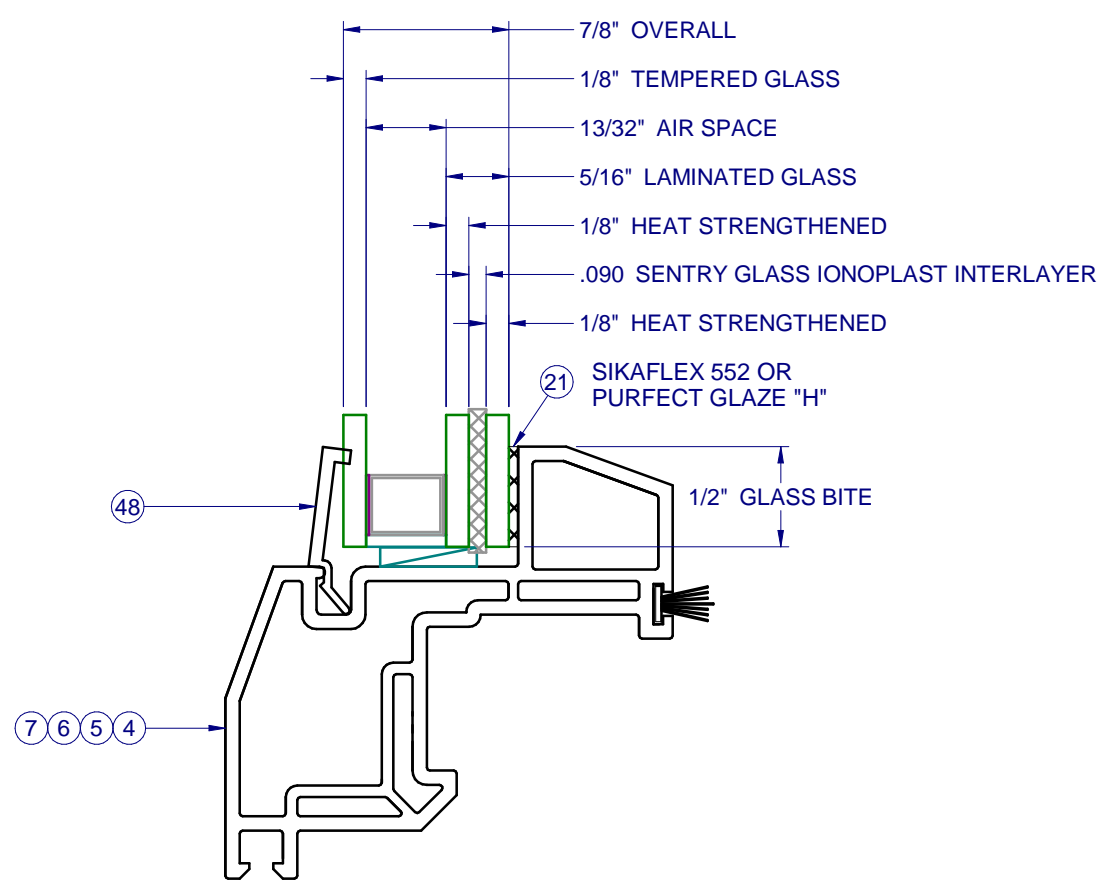
DRAWN BY:	DATE:
EMK	11/12/15
DWG #:	REV.:
TDI-999	C
SCALE:	SHEET
1:2	2 OF 5



SECTION VIEW B-B



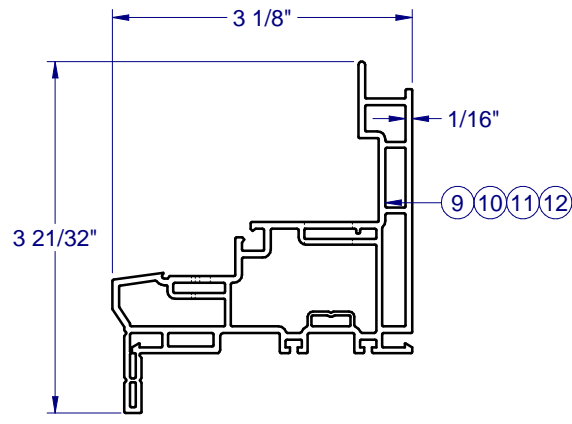
SECTION VIEW A-A



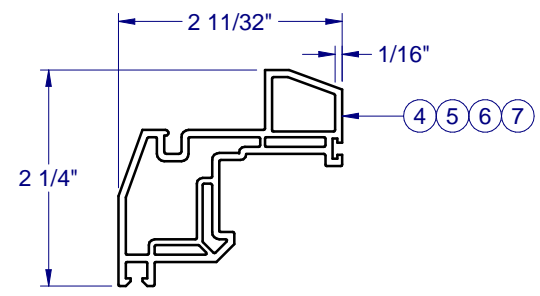
1:1

ITEMS NOT SHOWN FOR CLARITY:
13, 15, 16, 18, 22, 23, 27-29, 31, 33-37, 44, 46

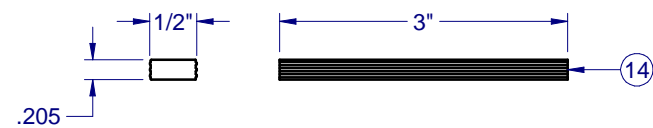
ITEM	PART #	DESCRIPTION	VENDOR	MATERIAL
1	GLASS	SEE SHEET 2		
2	H-1592	SCREEN RAIL, SIDE/BTM.	KEYMARK	ALUM
3	H-1593	SCREEN RAIL, TOP/SIDE	KEYMARK	ALUM
4	H-6008	SASH, CASEMENT, TOP RAIL	MIKRON	PVC
5	H-6008	SASH, CASEMENT, BTM. RAIL	MIKRON	PVC
6	H-6008	SASH, CASEMENT, SIDE RAIL, HINGE	MIKRON	PVC
7	H-6008	SASH, CASEMENT, SIDE RAIL, LOCK	MIKRON	PVC
9	H-6030	FRAME, CASEMENT, MAIN, HEAD	MIKRON	PVC
10	H-6030	FRAME, CASEMENT, MAIN, SILL	MIKRON	PVC
11	H-6030	FRAME, CASEMENT, MAIN, L. JAMB	MIKRON	PVC
12	H-6030	FRAME, CASEMENT, MAIN, R. JAMB	MIKRON	PVC
13	P-3029	SCREEN LIFT-OUT	SUMMIT	
14	P-3113	SCREW SUPPORTS	TEAM PLASTICS	RUBBER
15	P-3195	SCREEN SPRING, NO HOLE TENSION		
16	P-3197	SCREEN CORNER KEY	M&M	NYLON
17	P-3217	WSTP., WHITE LEAF SEAL, FRAME	AMESBURY	RUBBER
18	P-3228	SCREEN SPLINE, 0.155 DIA., BLACK	DAPA	
19	P-3352	SET. BLK., 85 DUR., 1/8" X 5/8" X 2" LG.	FRANK LOWE	RUBBER
20	P-3429	WSTP., .270" x .187" BACK, ULTRA FIN, BLACK, SASH	ULTRAFAB	
21	P-3438	HOT MELT, TRU SEAL, "H" OR SIKAFLEX 552	TRUSEAL / SIKA	SILICONE
22	P-3581	SCREEN CLOTH, 18 x 16 FIBERGLASS	PHIFER	
23	P-3587	#8 X 1" PH FH TEK 2, ZINC, SCREW	FASTENAL	SS
24	P-3752	CAP PLUG, 1/2" HOLE	M&M	NYLON
25	P-3940	SNUBBER, SS, PVC		SS
26	P-4003	TIE BAR GUIDE, ROTO. HDWE.	ROTO	SS
27	P-4004	#8-32 X 1/2" PH PH, MS, SS (ROTO HDWE. LOCK)	FASTENAL	SS
28	P-4005	SUPPORT PLATE, LOCK, SS, ROTO HDWE. (Use w/ P-4006)	ROTO	NYLON
29	P-4006	LOCK, MULTI-POINT, ROTO HDWE., WHITE	ROTO	ZINC
30	P-4009	TRACK & SLIDER ASSM., ROTO OPER., ROTO HDWE., (13")	ROTO	SS
31	P-4011	STUD BRKT., ROTO OPER., R.H., ROTO HDWE.	ROTO	SS
32	P-4012	SHIM, ROTO OPERATOR, ROTO HDWE. (4.8mm)	ROTO	NYLON
33	P-4020	SUPPORT WASHER, ROTO OPER, ROTO HDWE. (SS)	ROTO	SS
34	P-4024	GASKET, ROTO OPER., ROTO HDWE., 1/16"	HO PRODUCTS	CLIP FOAM
35	P-4038	TIE-BARS, ROTO HDWE. 1-5 LOCKPOINTS, SS (BY OA HGT.)	ROTO	SS
36	P-4042	GASKET, FOR MULTI-POINT LOCK (P-4006), ROTO HDWE.	HO PRODUCTS	CLIP FOAM
37	P-4043	STRIKE, MULTI-POINT	M&M	NYLON
38	P-4050	REINF. COIL-ALUMINUM, 5052-H32 (.050" x .437") HD	PRECISION STEEL	ALUM
39	P-4146	#8 X 3/4" PHIL FLAT TEK	FASTENAL	SS
40	P-4361	SPACER, DURASEAL	TRUSEAL	
41	P-4502	ROTO. OPERATORS (FOR LEFT/RIGHT OPEN CASEMENT)	ROTO	SS
42	P-4503	ROTO OPER., DUAL ARM, R.H., ROTO HDWE. (X-Drive SS)	ROTO	SS
43	P-4641	#8 X 5/8" PHIL FLAT TEK	FASTENAL	SS
44	P-4658	SASH LIMITER, CASEMENT, SS	TRUTH HARDWARE	SS
45	P-5040/1	HINGES (LEFT/RIGHT FOR CASEMENT)	ROTO	SS
46	P-5046/7	TRACK, HINGE	ROTO	SS
47	S-1505	REINF. CASE.	KEYMARK	ALUM
48	S-6064	GLAZING BEAD	MIKRON	PVC



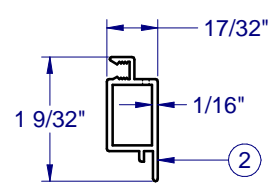
PVC FRAME FLANGE - H-6030



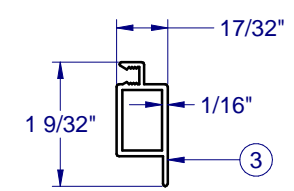
PVC SASH - H-6008



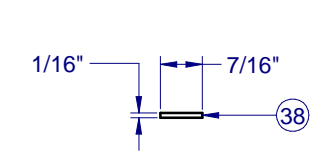
SCREW SUPPORT - P-3113



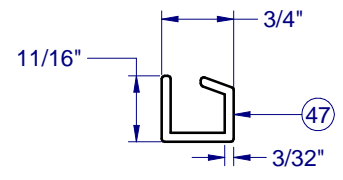
SCREEN RAIL, SIDE/BTM - H-1592
ALUMINUM 6063-T6



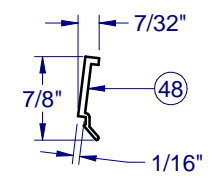
SCREEN RAIL, TOP/SIDE - H-1593
ALUMINUM 6063-T6



REINF. COIL, .05 X .437 - P-4050
ALUMINUM 5052-H32

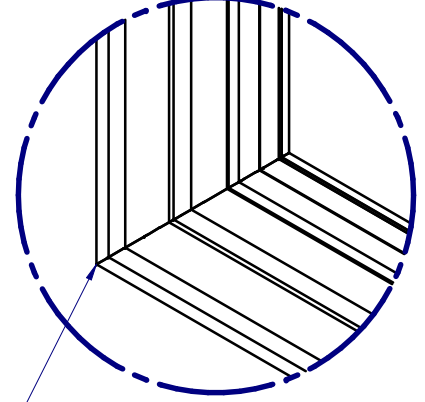


SASH REINF. - S-1505
ALUMINUM 6063-T6



PVC GLAZING BEAD - S-6064

FRAME & SASH CORNER CONSTRUCTION



CORNER WELD - ALL SIDES
FRAME SHOWN
SCALE 1:4



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8400 PVC CASEMENT IMPACT

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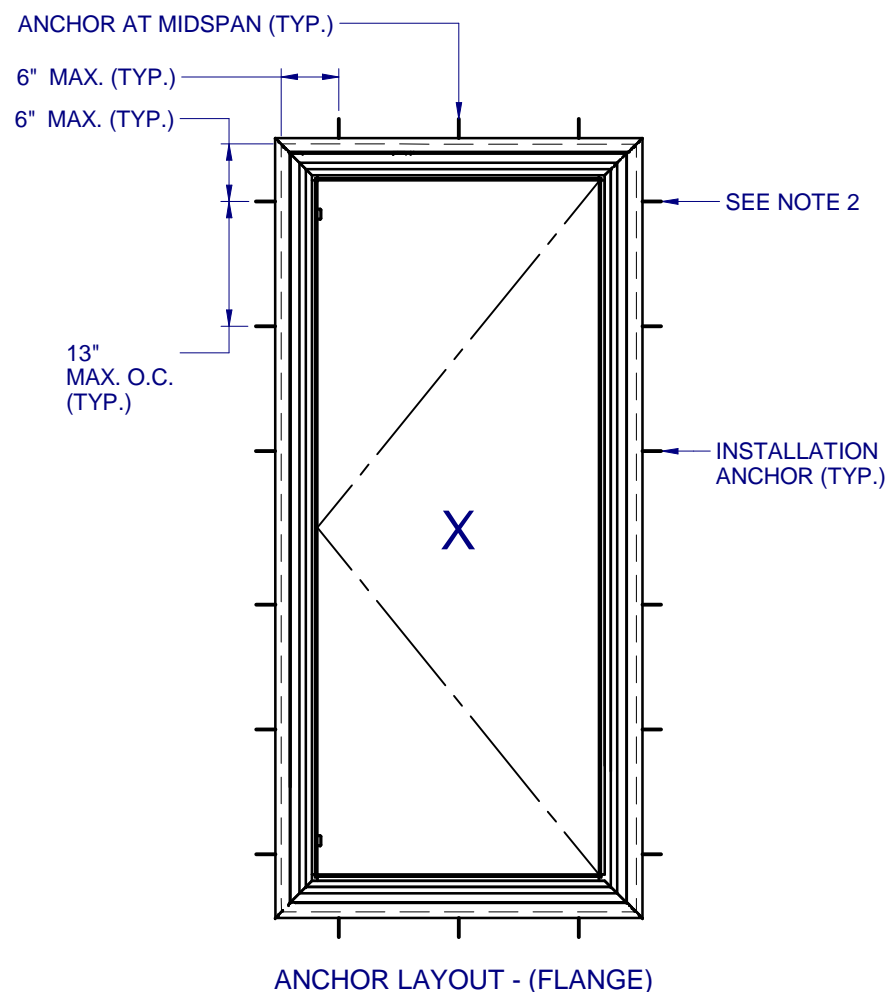
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TBPE REG. #FL-18075
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PH. 941-380-1574

SHEET DESCRIPTION:

BOM AND EXTRUSIONS

DRAWN BY:	DATE:
EMK	11/12/15
DWG #:	REV.:
TDI-999	C
SCALE:	SHEET
2:1	3 OF 5

**8400 PVC
CASEMENT
IMPACT**



ANCHOR LAYOUT - (FLANGE)

NOTES:

1. INSTALL ONE ANCHOR AT EACH INSTALLATION LOCATION. SILL ANCHOR SPACING SAME AS HEAD.
2. SHIM AS REQ AT EACH INSTALLATION ANCHOR USING LOAD BEARING SHIMS. MAX. ALLOWABLE SHIM STACK TO BE 1/4". USE SHIMS WHERE SPACE GREATER THAN 1/16" IS PRESENT. LOAD BEARING SHIMS SHALL BE CONSTRUCTED OF HIGH DENSITY PLASTIC OR BETTER. WOOD SHIMS ARE NOT ALLOWED.
3. ANCHOR TYPE, SIZE, SPACING AND EMBEDMENT SHALL BE AS SPECIFIED IN THESE DRAWINGS, SEE TABLE 1, SHEET 5.
4. ALL INSTALLATION ANCHORS MUST BE MADE OF OR PROTECTED WITH A CORROSION RESISTANT MATERIAL OR COATING. DISSIMILAR METALS OR MATERIALS IN CONTACT WITH PRESSURE TREATED WOOD MUST BE PROTECTED TO PREVENT REACTION.
5. INSTALLATION ANCHORS SHALL BE IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM SPECIFIED IN TABLE 1, SHEET 5.
6. ANCHOR EMBEDMENT TO SUBSTRATE SHALL BE BEYOND WALL DRESSING OR STUCCO. FOR CONCRETE/CMU OPENINGS, EMBEDMENT SHALL BE BEYOND WOOD BUCKS, IF USED, INTO SUBSTRATE. INSTALLATIONS TO SOLID CONCRETE OR GROUT-FILLED CMU MAY INCLUDE BUT DO NOT REQUIRE 1X WOOD BUCKS BETWEEN THE PRODUCT AND THE SUBSTRATE. INSTALLATIONS TO HOLLOW CMU REQUIRE THE USE OF 1X BUCKS BETWEEN THE PRODUCT AND SUBSTRATE.
7. A MINIMUM CENTER-TO-CENTER SPACING SHALL BE MAINTAINED BETWEEN ALL FASTENERS: 3" FOR MASONRY, 1" FOR WOOD AND METAL.
8. WOOD OR MASONRY OPENINGS, BUCKS AND BUCK FASTENERS SHALL BE PROPERLY DESIGNED BY THE ARCHITECT OR ENGINEER OF RECORD AND INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE. SUBSTRATES SHALL MEET THE MINIMUM STRENGTH REQUIREMENTS AS SHOWN IN TABLE 1, SHEET 5. CONCRETE AND MASONRY SUBSTRATES MAY NOT BE CRACKED.
9. SEALING AND FLASHING STRATEGIES FOR OVERALL WATER RESISTANCE OF INSTALLATION SHALL BE DONE BY OTHERS FOLLOWING THE CURRENT VERSION OF THE REFERENCE DOCUMENTS:
FMA/AAMA 100(FIN WINDOWS), FMA/AAMA 200(FLANGE WINDOWS), FMA/WDMA 250(BOX WINDOWS), FMA/AAMA/WDMA 300(EXTERIOR DOORS)

				01/11/23	
				05/06/20	
				3/29/17	
				DATE:	
				BY:	
				JML	
				JLD	
				MS	
				REMOVED SYSTEM NUMBERS	
				BC/IRC REF. 2018 UPDATE	
				REVIS TO TDI REQUEST	
				NO.:	
				DESCRIPTION:	
					REVISIONS



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SHEET DESCRIPTION:
ANCHOR SCHEDULE AND NOTES

DRAWN BY:	DATE:
EMK	11/12/15
DWG #:	REV.:
TDI-999	C
SCALE:	SHEET
1:20	4 OF 5

**8400 PVC
CASEMENT
IMPACT**

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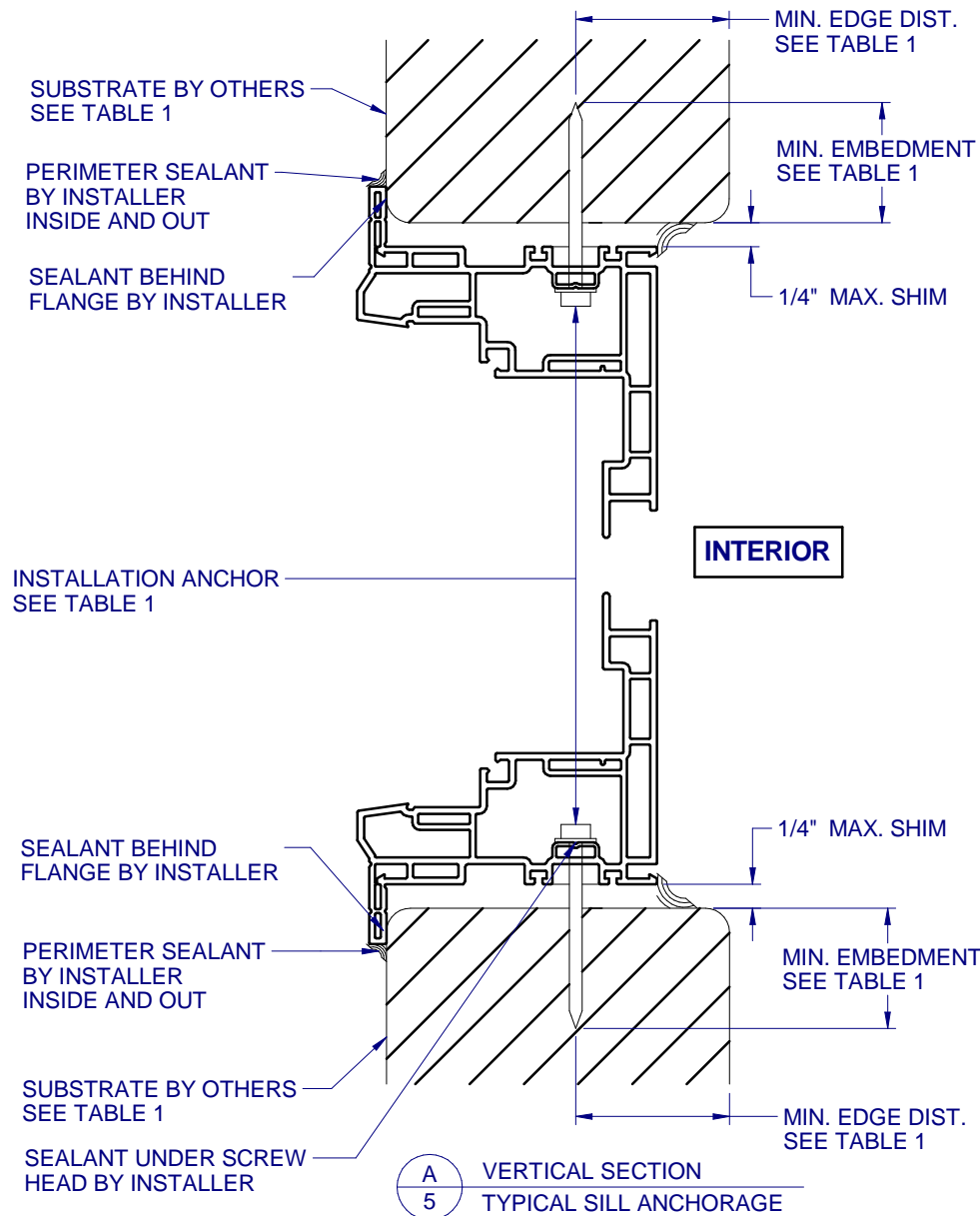
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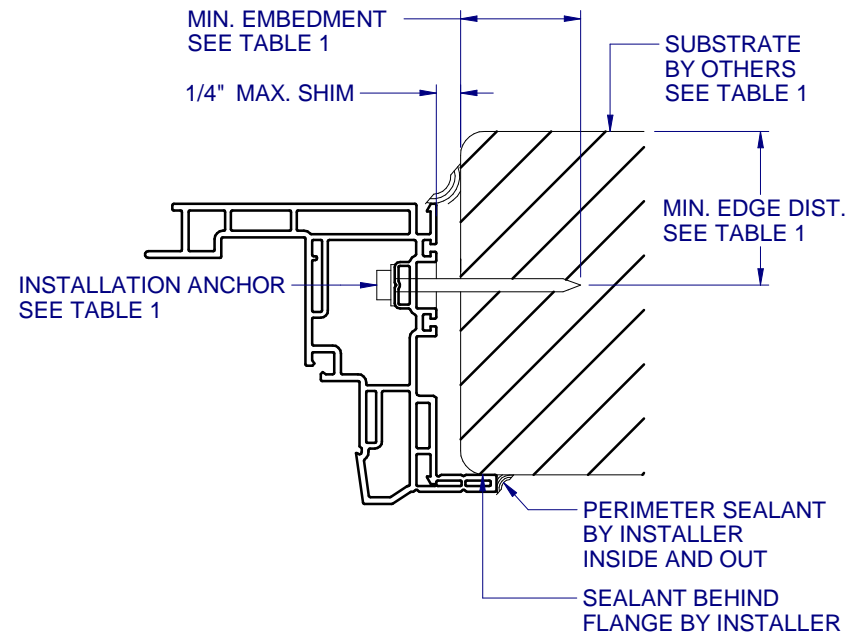
INSTALLATION DETAILS

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EMK	11/12/15
DWG #:	REV.:
TDI-999	C
SCALE:	SHEET
1:2	5 OF 5

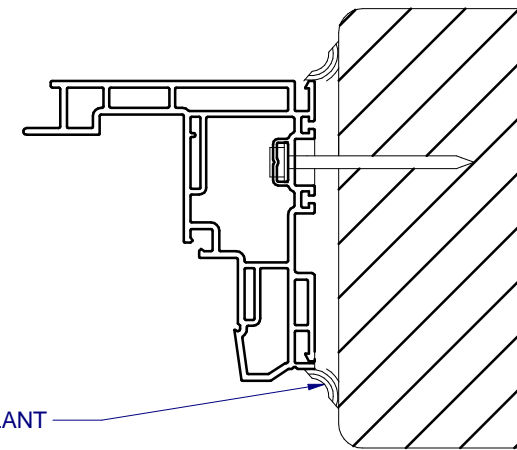
TYPICAL HEAD ANCHORAGE



A
5 VERTICAL SECTION
TYPICAL SILL ANCHORAGE



B
5 HORIZONTAL SECTION
TYPICAL JAMB ANCHORAGE



C
5 HORIZONTAL SECTION
BOX FRAME INSTALLATION
HEAD AND SILL SIMILAR FOR BOX INSTALLATION

FLANGE REMOVAL NOTE: PARTIALLY OR FULLY REMOVING THE FLANGE, UP TO AND INCLUDING A BOX-FRAME APPLICATION IS ACCEPTABLE PROVIDED:

- MIN. 1/4" FILLET OF CONSTRUCTION-GRADE ADHESIVE CAULK IS APPLIED INSIDE AND OUT, FULL PERIMETER, BY INSTALLER.
- PRODUCT ANCHORAGE IS IN ACCORDANCE WITH REQUIREMENTS AS SHOWN FOR FLANGE WINDOWS.

TABLE 1: APPROVED INSTALLATION FASTENERS

SUBSTRATE TYPE	ANCHOR TYPE	MIN. EMBEDMENT	MIN. EDGE DIST.
CONCRETE (2.0 KSI MIN.)	3/16" ITW TAPCON	1-1/2"	1-1/8"
HOLLOW OR GROUT-FILLED CMU (117 PCF MIN.)	3/16" ITW TAPCON	1"	2"
CONCRETE (2.85 KSI MIN.)	3/16" ELCO ULTRACON	1"	1"
GROUT-FILLED CMU (ASTM C-90)	3/16" ELCO ULTRACON	1-1/4"	2-1/2"
2X MIN. SOUTHERN PINE (G=0.55)	3/16" ITW TAPCON OR ELCO ULTRACON	1-3/8"	7/8"
2X MIN. SOUTHERN PINE (G=0.55)	#10 PHILLIPS PH SHEET METAL SCREW W/ WASHER COMBO	1-1/2"	7/8"
16 GAUGE (0.060") MIN. STEEL STUD (33 KSI YIELD MIN)	#10-16 HILTI KWIK-FLEX OR ITW TEKS SELF-DRILLING SCREW	FULL THREAD THRU 0.060"	7/16"
1/8" ALUM. (6063-T5 MIN.) OR 1/8" STEEL (33 KSI MIN.)	#10 GRADE 5 SELF-TAPPING / DRILLING SCREW	FULL THREAD THRU 0.125"	7/16"