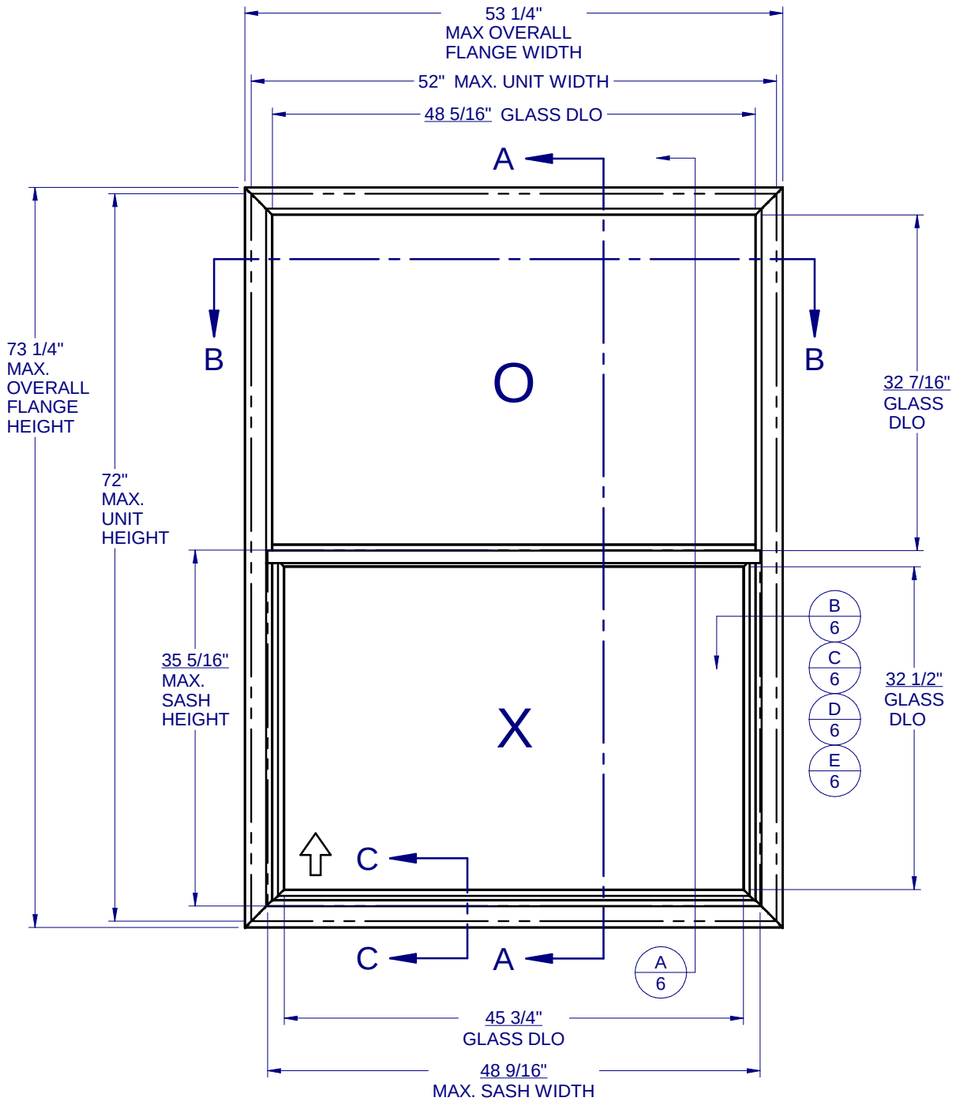
SINGLE HUNG - LARGE MISSILE IMPACT



GENERAL NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE FLORIDA BUILDING CODE (FBC), CURRENT EDITION INCLUDING THE HIGH VELOCITY HURRICANE ZONE (HVHZ) AND IS RATED FOR WIND ZONE 4 MISSILE LEVEL D IMPACT USE AS DEFINED IN ASTM E 1996 PER THE FBC.

2. GLAZING OPTIONS: (SEE SHEET 2)

3. CONFIGURATIONS: "O/X".

4. DESIGN PRESSURE RATING:
   -NEGATIVE DESIGN LOADS BASED ON, TESTED PRESSURE AND GLASS TABLES ASTM E-1300-04e01/09.
   -POSITIVE DESIGN LOADS BASED ON, TESTED PRESSURE, WATER INFILTRATION TEST PRESSURE AND GLASS TABLES ASTM E-1300-04e01/09.

5. ANCHORAGE: THE 33 1/3% STRESS INCREASE HAS NOT BEEN USED IN THE DESIGN OF THIS PRODUCT. SEE SHEET 6 FOR ANCHOR DETAILS. WINDLOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.

6. PRODUCT APPROVED FOR IMPACT RESISTANCE. SHUTTERS ARE NOT REQUIRED.

7. ALL FRAMES AND VENTS FULLY WELDED. SMALL JOINT SEAM SEALANT USED AT FIXED MEETING RAIL AND JAMB.

8. SERIES / MODEL DESIGNATION SH-8100.

9. THE DESIGNATION X AND O STAND FOR THE FOLLOWING:
   X = OPERABLE SASH, O = FIXED SASH

10. SECTION CALLOUTS APPLY TO ALL ELEVATIONS IN A SIMILAR LOCATION.

11. EXTERNAL WEEP SLOT = 1/4" x 1-1/4" LOCATED 4" FROM BOTH ENDS.

Lucas Turner
2023.09.26
14:39:04
-05'00'

TABLE OF CONTENTS

MAX. UNIT SIZE	DESIGN PRESSURE RATING	IMPACT RATING
52" x 72"	+67.5 / -100 PSF	LARGE MISSILE IMPACT

Pella Corporation
102 Main Street
Pella, IA 50219
www.pella.com

510 PVC SINGLE HUNG IMPACT

FLORIDA APPROVAL NO.:
33530

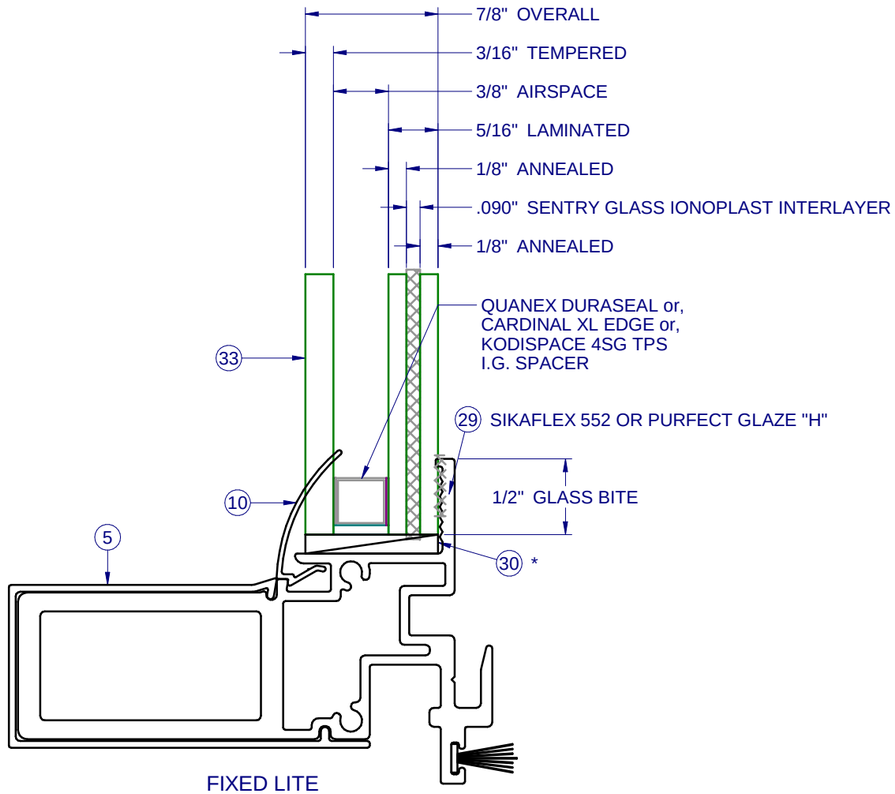
LUCAS A. TURNER LICENSE No. 58201 STATE OF FLORIDA PROFESSIONAL ENGINEER

9/26/2023

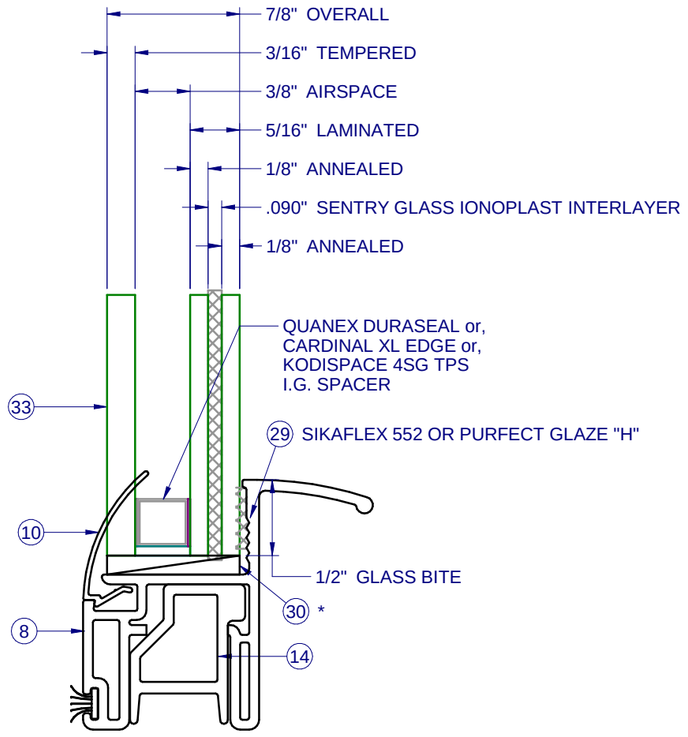
LUCAS A. TURNER, P.E.
FL PE # 58201
Turner Engineering & Consulting, Inc.
2428 Old Natchez Trc Trl
Camden, TN 38320
PH. 941-380-1574

SHEET DESCRIPTION:
GENERAL NOTES AND ELEVATIONS

DRAWN BY:	DATE:
MCS	9/19/2023
DWG #:	REV.:
PEL-369	B
SCALE:	SHEET
1:15	1 OF 6



FIXED LITE



SASH LITE

* SETTING BLOCKS PER FBC 2411.3.3.1

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510 PVC SINGLE HUNG IMPACT

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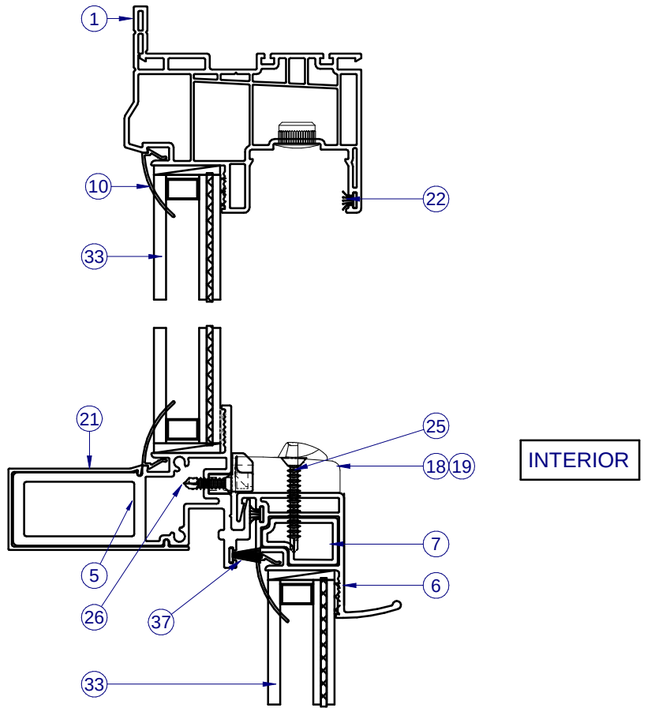
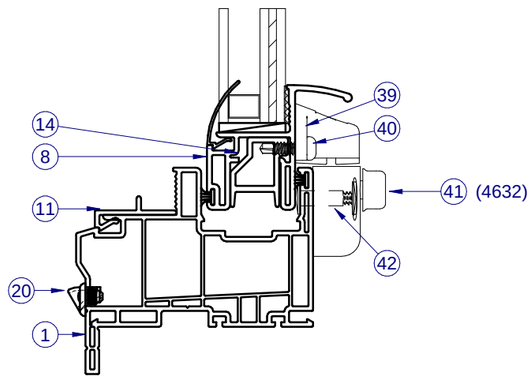
SHEET DESCRIPTION:
GLAZING DETAILS

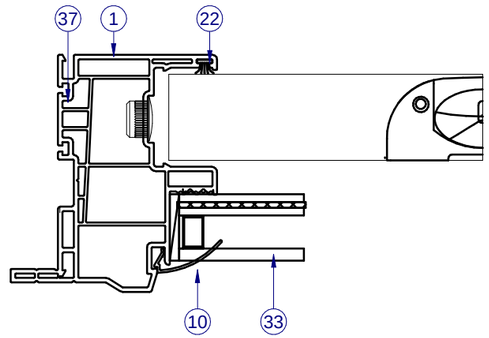
DRAWN BY:	DATE:
MCS	9/19/2023
DWG #: PEL-369	REV.: B
SCALE: 1:1	SHEET 2 OF 6

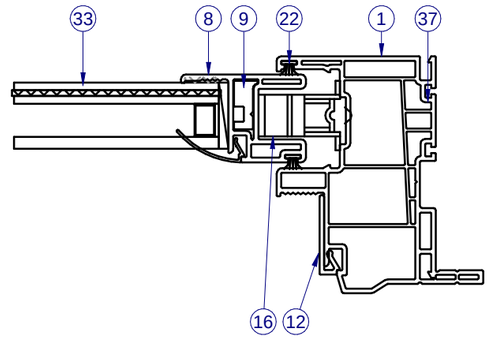


INTERIOR



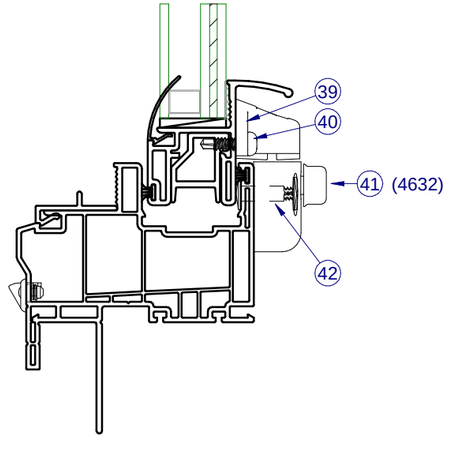
SECTION A-A



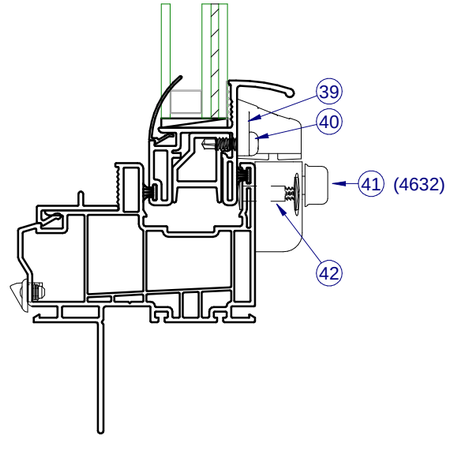


SECTION B-B

NOTE: LEFT SIDE SHOWS FIXED SECTION VIEW,
RIGHT SIDE SHOWS SASH SECTION VIEW.



SECTION C-C
ALT. FIN FRAME



SECTION C-C
ALT. FIN FRAME

NOTES:

1. ITEMS 13, 15, 17, 21, 23, 27, 28, 31, 32, 36 ARE NOT SHOWN FOR CLARITY.

2. SWEEP LOCKS (4632) ARE REQUIRED. SWEEP LOCKS MAY BE USED ON FIN OR FLANGE APPLICATIONS.

Pella Corporation
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Pella, IA 50219
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510 PVC SINGLE HUNG IMPACT

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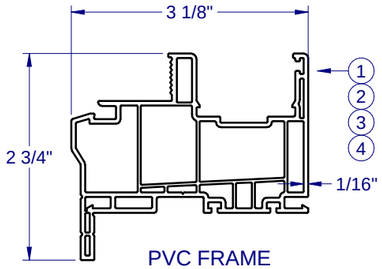
2428 Old Natchez Trc Trl
Camden, TN 38320
PH. 941-380-1574

SHEET DESCRIPTION:
SECTION VIEWS

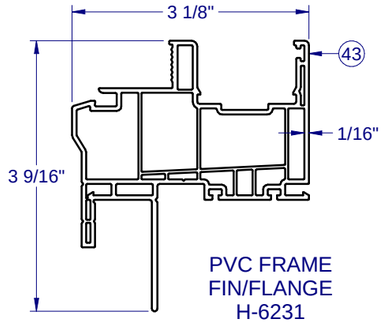
DRAWN BY:	DATE:
MCS	9/19/2023
DWG #: PEL-369	REV.: B
SCALE: 1:2	SHEET 3 OF 6

PARTS LIST			
ITEM	PART #	DESCRIPTION	MATERIAL
1	H-6222	Main Frame, SH, w/Flg., PVC	PVC
5	H-2122	Heavy Duty, Meet. Rail, Fxd. Aluminum	ALUM
6	H-6224	Sash Meet. Rail, PVC	PVC
7	H-2124	Reinf. Sash Meet. Rail	ALUM
8	H-6225	Sash Bottom Rail/Side Rail PVC	PVC
9	S-2129	Reinf. S.B.R./S.S.R	ALUM
10	S-6237	Glazing Bead, 7/8"	PVC
11	S-6226	Scrn. Adapt., w/Nib, PVC, Horiz.	PVC
12	S-6227	Scrn. Adapt., PVC, Vert.	PVC
13	S-6025	Sash Stop / Filler, PVC, Vert.	PVC
14	H-2123	Reinforcement, SBR	ALUM
15		SASH BALANCE	
16	P-4056	Sash Cam, PVC	NYLON
17	P-3295	Take Out Clip	
18	P-3783	Spring Lock, Impact, PVC	
19	P-4069	Keeper, Impact, PVC	
20	P-4479	WEEP HOLE COVER	NYLON
21	S-6229	Fixed Mtg Rail Cover, Heavy	PVC
22	P-3305	Wstp., .270 x .187 High Density	
23	P-4638	#8 x 2-1/2 PH Mod. Truss, Type A, TEK 2	STEEL
25	P-4051W	#8 x 1.250 Ph FH TEK, Wht.	STEEL
26	P-3539	#8 x 3/4" Phillips Square SMS	STEEL
27	P-3342	Seam Sealer, SM-5504	
28	P-5588	Cap Plug, 1/2" Hole	NYLON
29		Sikaflex 552 or Purfect Glaze "H"	
30	P-5612	Setting Block, .12 x 1 x 2	RUBBER
33	GLASS	SEE SHEET 2	
37	P-4959	Wstp., 0.420 x .187 back FinSeal, Gray	TEAM
39	P-4952	SWEEP KEEPER	STEEL
40	P-3541	#8 x 1/2, Pan Head, TEK	ZINC
41	P-4951	SWEEP LOCK	ZINC
42	P-4633	#8-32 X 1/2" BINDING POST & SCREW	STEEL
43	H-6231	Main Fr., SH, w/Fin, PVC	PVC
44	H-6223	Sash, Bottom Rail	PVC

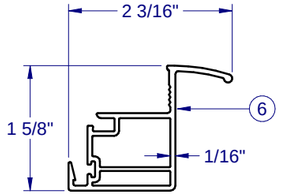
LINE ITEMS NOT USED:
24, 31-32, 34-36



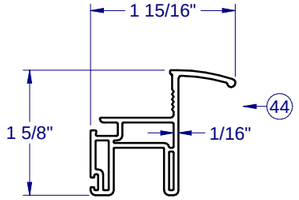
PVC FRAME
FLANGE
H-6222



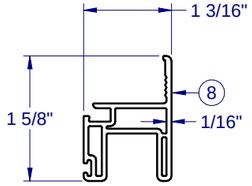
PVC FRAME
FIN/FLANGE
H-6231



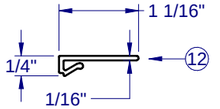
PVC SASH MTG
RAIL
H-6224



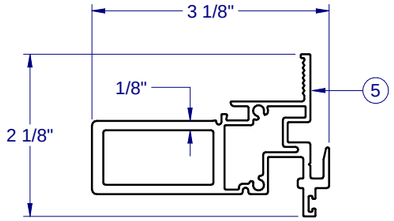
PVC SASH PULL
RAIL/STILE H-6223



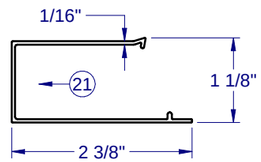
PVC SASH
RAIL/STILE
H-6225



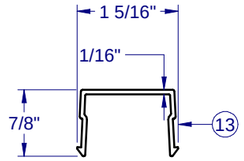
PVC SCREEN
SUPPORT
S-6227



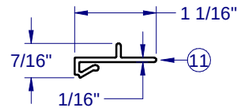
HD MTG
RAIL
H-2122



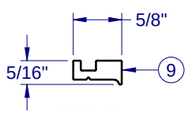
PVC HD MTG RAIL
COVER
S-6229



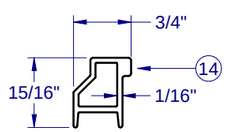
PVC SASH
STOP
S-6025



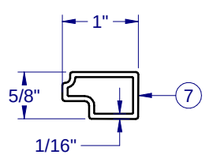
PVC SCREEN
CATCH
S-6226



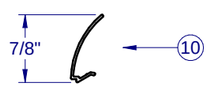
REINF.
S-2129



REINF.
H-2123



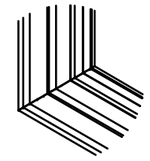
REINF. SASH MTG
RAIL
H-2124

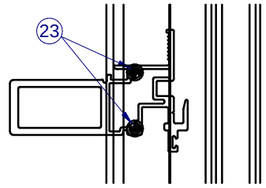


PVC GLAZING
BEAD
S-6237

NOTE: ALL ALUMINUM EXTRUSIONS ARE 6063-T6 UNLESS OTHERWISE NOTED.

FRAME CORNER CONSTRUCTION


CORNER WELD
(ALL SIDES)
1:8



FIXED MEETING RAIL
SCREWED TOGETHER WITH
OUTERFRAME
1:8

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FLORIDA APPROVAL NO.:
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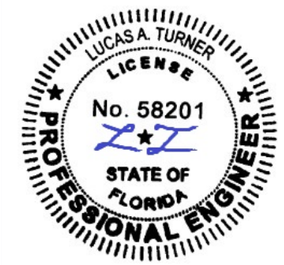

9/26/2023

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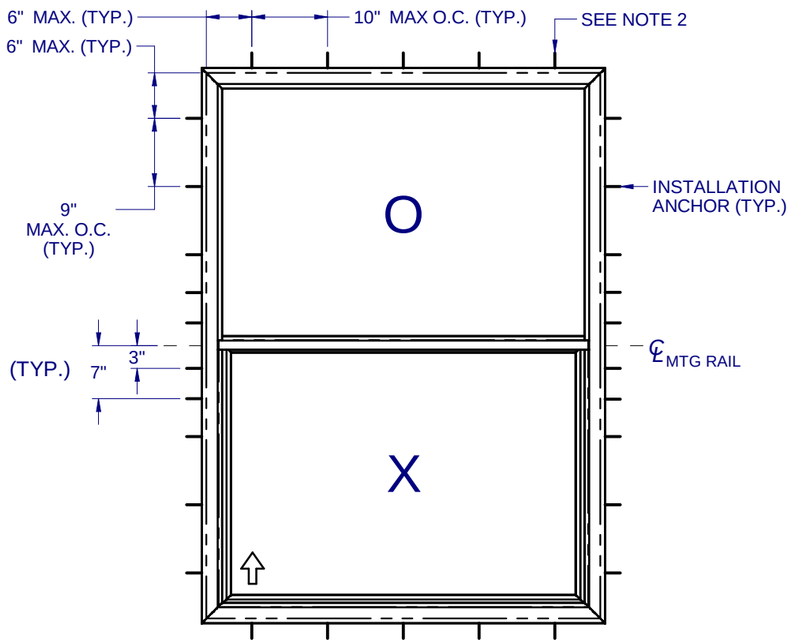
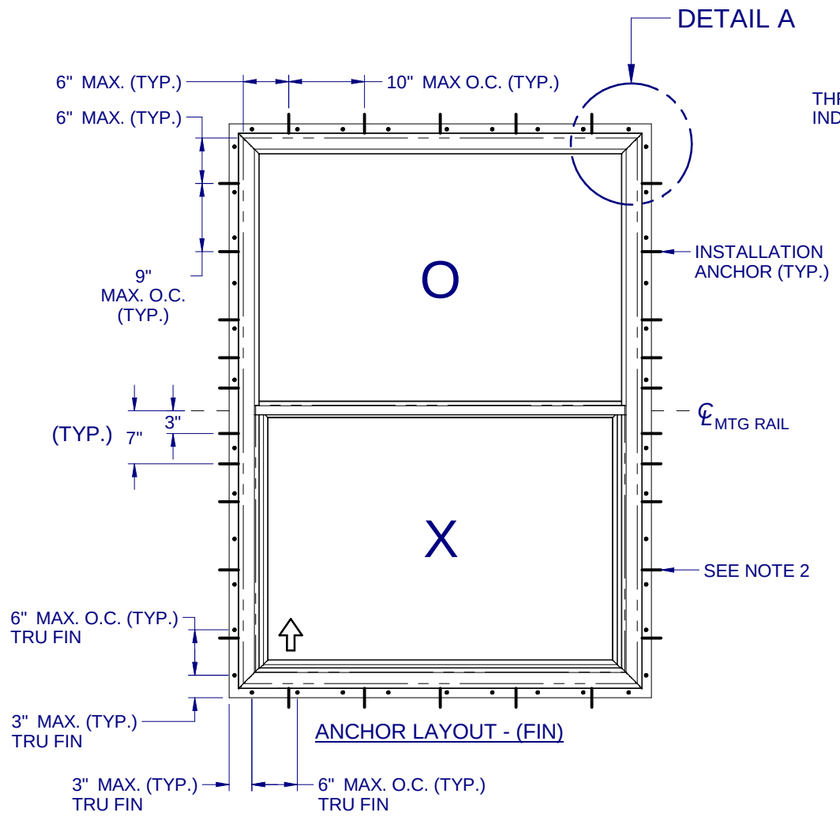
SHEET DESCRIPTION:
BOM AND EXTRUSIONS

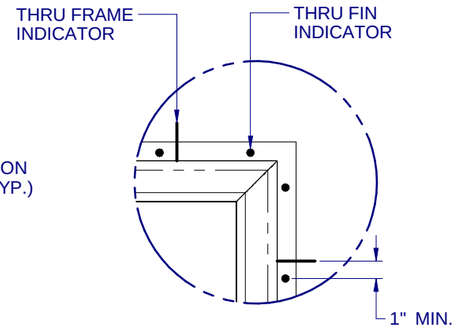
DRAWN BY:	DATE:
MCS	9/19/2023
DWG #:	REV.:
PEL-369	B
SCALE:	SHEET
1:2	4 OF 6



ANCHOR LAYOUT - (FLANGE)



ANCHOR LAYOUT - (FIN)



DETAIL A
1:10

NOTES:

1. INSTALL ONE ANCHOR AT EACH INSTALLATION LOCATION. NO ANCHORS REQUIRED IN SILL.

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 6.

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 6.

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 TABLE1, SHEET 6. 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)

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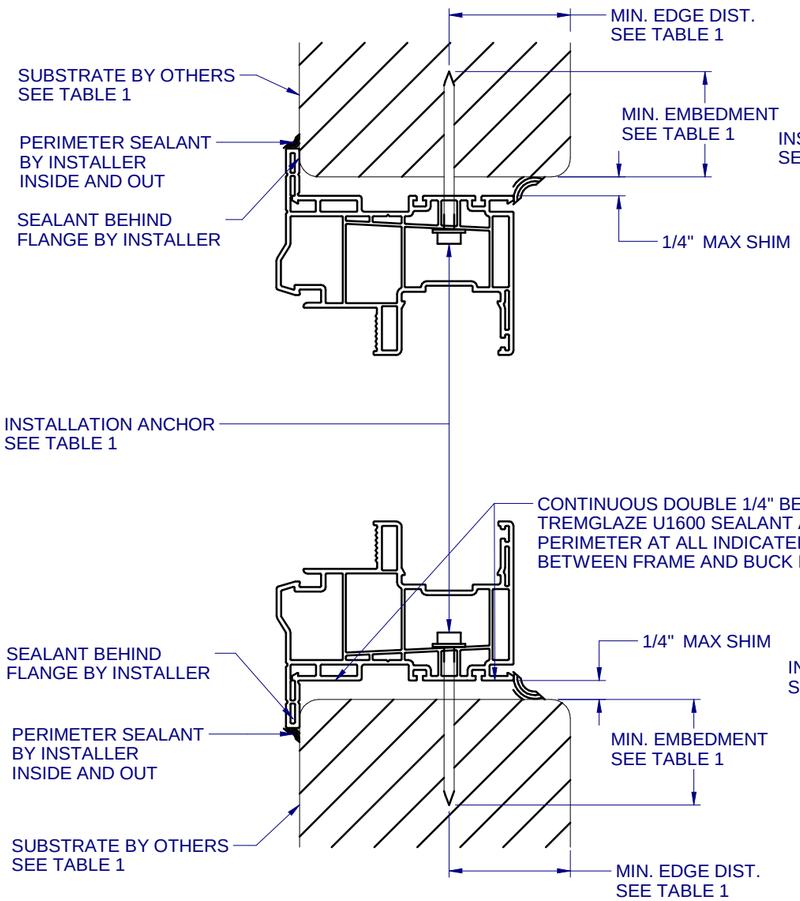
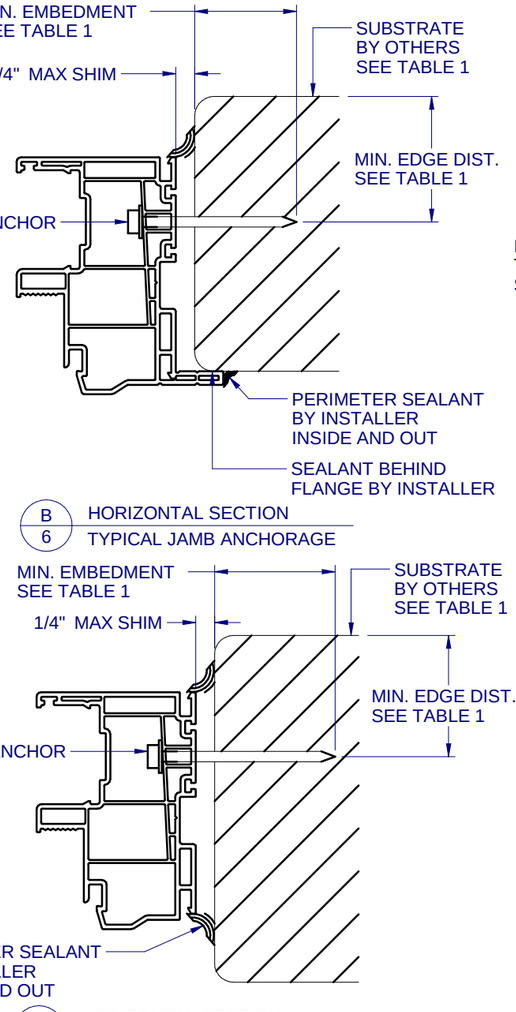
SHEET DESCRIPTION:
ANCHOR SCHEDULE AND NOTES

DRAWN BY:	DATE:
MCS	9/19/2023
DWG #:	REV.:
PEL-369	B
SCALE:	SHEET
1:20	5 OF 6

TYPICAL HEAD ANCHORAGE

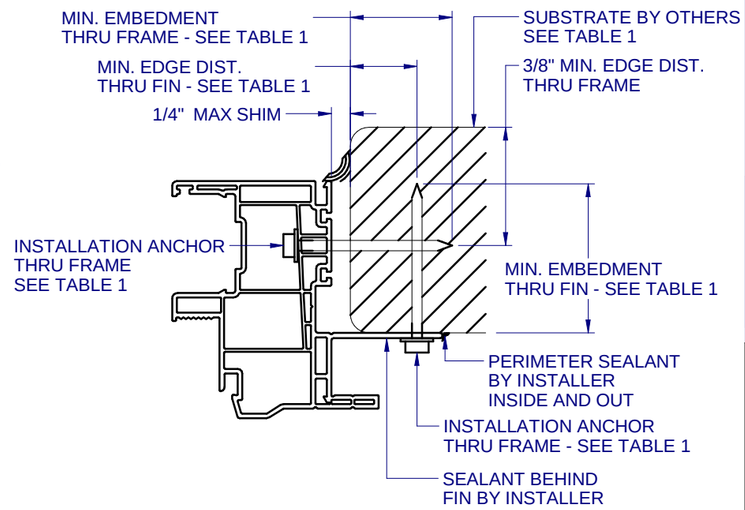


A/6 VERTICAL SECTION
TYPICAL SILL ANCHORAGE



B/6 HORIZONTAL SECTION
TYPICAL JAMB ANCHORAGE

D/6 HORIZONTAL SECTION
BOX FRAME INSTALLATION
HEAD AND SILL SIMILAR FOR BOX INSTALLATION



C/6 HORIZONTAL SECTION
TYPICAL FIN ANCHORAGE
HEAD AND SILL SIMILAR FOR FIN INSTALLATION

NOTE: ADDITIONAL THRU-FRAME ANCHORS (AS SHOWN IN DET. A/6 & B/6) REQ'D, SEE SHEET 5 ANCHOR LAYOUT

E/6 HORIZONTAL SECTION
TYPICAL FIN ANCHORAGE
HEAD AND SILL SIMILAR FOR FIN INSTALLATION

TABLE 1: APPROVED INSTALLATION FASTENERS

THRU	SUBSTRATE TYPE	ANCHOR TYPE	MIN. EMBEDMENT	MIN. EDGE DIST.
FRAME	CONCRETE (2.0 KSI MIN.)	3/16" ITW TAPCON	1-1/2"	1-1/8"
FRAME	HOLLOW OR GROUT-FILLED CMU (117 PCF MIN.)	3/16" ITW TAPCON	1"	2"
FRAME	CONCRETE (3.05 KSI MIN.)	3/16" DEWALT ULTRACON+	1-3/4"	1"
FRAME	HOLLOW OR GROUT-FILLED CMU (ASTM C-90)	3/16" DEWALT ULTRACON+	1-1/4"	2-1/2"
FRAME	2X MIN. SOUTHERN PINE (G=0.55)	3/16" ITW TAPCON OR DEWALT ULTRACON+	1-3/8"	7/8"
FRAME	2X MIN. SOUTHERN PINE (G=0.55)	#10 WOOD SCREW	1-3/8"	7/8"
FRAME	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"
FRAME	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"
FIN	2X MIN. SOUTHERN PINE (G=0.55)	#8 WOOD SCREW	1-3/8"	7/16"
FIN	2X MIN. SOUTHERN PINE (G=0.55)	#10 WOOD SCREW	1-3/8"	1/2"

NOTE: 3/8" MIN. EDGE DIST. FOR THRU FRAME ANCHORS ON FIN UNITS. ALL OTHERS FOLLOW TABLE 1 ABOVE.

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.

Pella Corporation
102 Main Street
Pella, IA 50219
www.pella.com

510 PVC SINGLE HUNG IMPACT

FLORIDA APPROVAL NO.:
33530

LICENSE No. 58201 STATE OF FLORIDA PROFESSIONAL ENGINEER LUCAS A. TURNER

9/26/2023

LUCAS A. TURNER, P.E.
FL PE # 58201
Turner Engineering & Consulting, Inc.
2428 Old Natchez Trc Trl
Camden, TN 38320
PH. 941-380-1574

SHEET DESCRIPTION:
INSTALLATION DETAILS

DRAWN BY:	DATE:
MCS	9/19/2023
DWG #:	REV.:
PEL-369	B
SCALE:	SHEET
1:2	6 OF 6