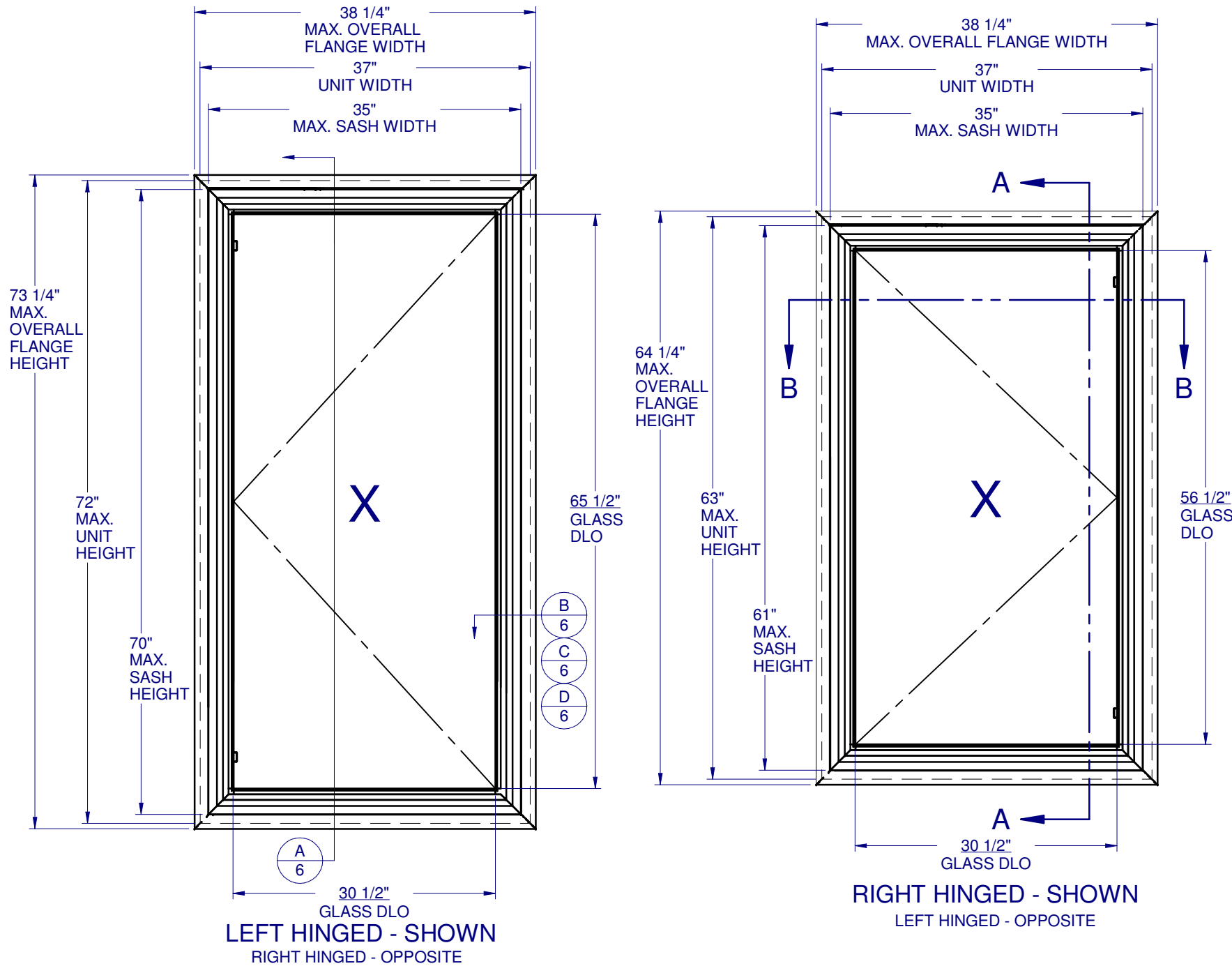


# CASEMENT - LARGE MISSILE IMPACT



## 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: ALL WINDOWS ARE OPEN TO OUTSIDE LEFT OR RIGHT.
4. DESIGN PRESSURES:
  - NEGATIVE DESIGN LOADS BASED ON TESTED PRESSURE AND GLASS TABLES ASTM E-1300-04.
  - POSITIVE DESIGN LOADS BASED ON TESTED PRESSURE, WATER INFILTRATION TEST PRESSURE, AND GLASS TABLES ASTM E-1300-04.
5. ANCHORAGE: THE 33 1/3% STRESS INCREASE HAS NOT BEEN USED IN THE DESIGN OF THIS PRODUCT. SEE SHEET 6 FOR INSTALLATION DETAIL. WIND LOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
6. PRODUCTS APPROVED FOR IMPACT RESISTANCE. SHUTTERS ARE NOT REQUIRED.
7. ALL FRAMES AND VENTS FULLY WELDED.
8. SERIES/MODEL DESIGNATION CA-8400.
9. THE DESIGNATION X STANDS FOR THE FOLLOWING:
  - X = OPERABLE SASH
10. SECTION CALLOUTS APPLY TO ALL ELEVATIONS IN A SIMILAR LOCATION.



1900 SW 44TH AVE.  
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## 8400 PVC CASEMENT IMPACT

NO.:	DESCRIPTION:	BY:	DATE:
C	UPDATED PER 2014 FBC	TEF	03/18/15
B	UPDATED PER 2010 FBC	ADE	12/05/11
A	FBC UPDATE	ADE	03/17/08



LUCAS A. TURNER, P.E.  
FL PE # 58201  
1239 JABARA AVE.  
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PH. 941-380-1574

SHEET DESCRIPTION:  
GENERAL NOTES AND ELEVATIONS

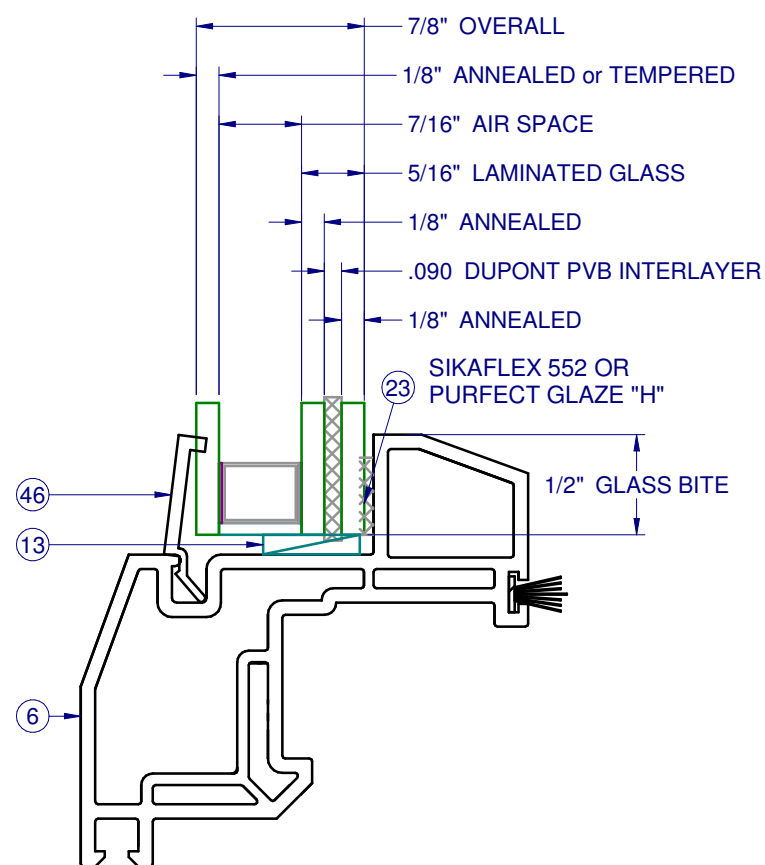
DRAWN BY:	DATE:
ADE	05/05/07
DWG #:	REV.:
CWS-161	C
SCALE:	SHEET
1:15	1 OF 6

### TABLE OF CONTENTS

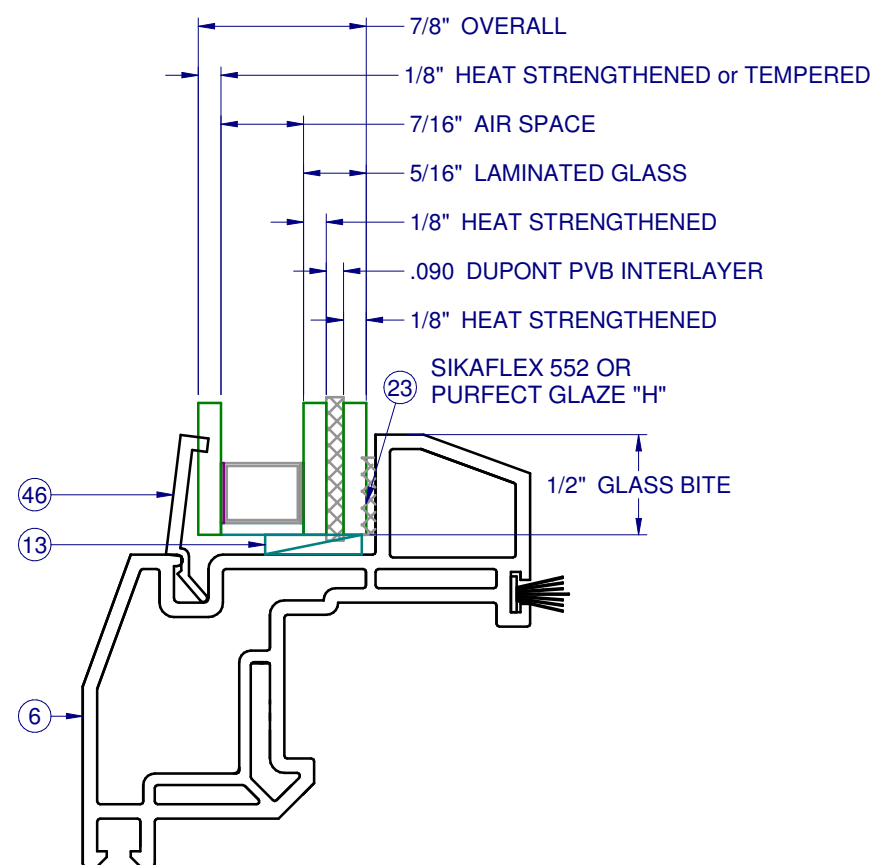
- GENERAL NOTES & ELEVATIONS.....1
- GLAZING DETAILS.....2
- SECTION VIEWS.....3
- EXTRUSIONS & B.O.M.....4
- ANCHOR SCHEDULE & NOTES.....5
- INSTALLATION DETAILS.....6

LOCATION	MAX. UNIT SIZE	DESIGN PRESSURE RATING	IMPACT RATING
NON-HVHZ	37" x 63"	+/- 65 PSF	LARGE MISSILE IMPACT
HVHZ		+/- 67.5 PSF	
NON-HVHZ	37" x 72"	+/- 65 PSF	
HVHZ		+/- 67.5 PSF	

**8400 PVC  
CASEMENT  
IMPACT**




GLASS TYPE A



GLASS TYPE B

MAX. UNIT SIZE	MAX. POS. DP	GLASS TYPE
37" x 63"	+67.5	A
37" x 72"	+67.5	B

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B	UPDATED PER 2010 FBC	ADE	12/05/11
A	FBC UPDATE	ADE	03/17/08

  
*LT*  
 4/18/2015

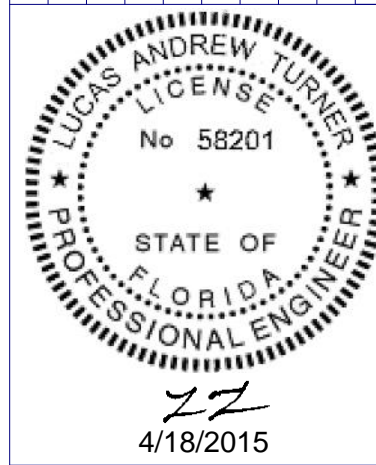
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FL PE # 58201  
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PH. 941-380-1574

SHEET DESCRIPTION:  
**GLAZING DETAILS**

DRAWN BY: ADE	DATE: 05/05/07
DWG #: CWS-161	REV.: C
SCALE: 1:1	SHEET 2 OF 6

**8400 PVC  
CASEMENT  
IMPACT**

NO.:	DESCRIPTION:	BY:	DATE:
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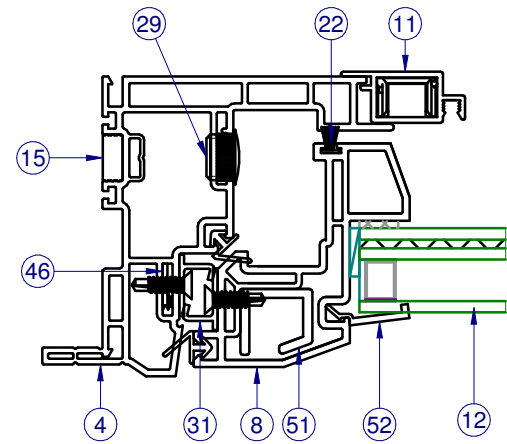


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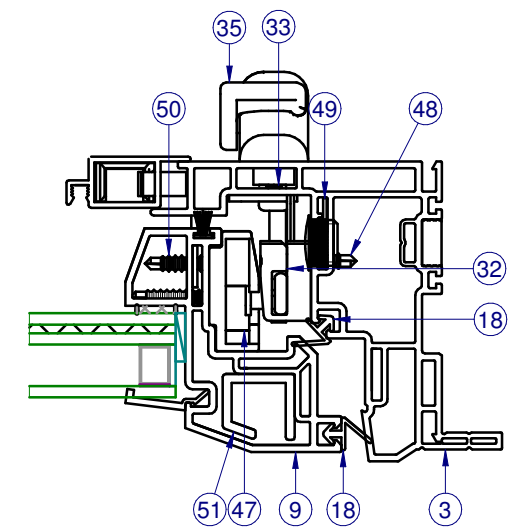
SHEET DESCRIPTION:  
**SECTION VIEWS**

DRAWN BY: <b>ADE</b>	DATE: <b>05/05/07</b>
DWG #: <b>CWS-161</b>	REV.: <b>C</b>
SCALE: <b>1:2</b>	SHEET <b>3 OF 6</b>

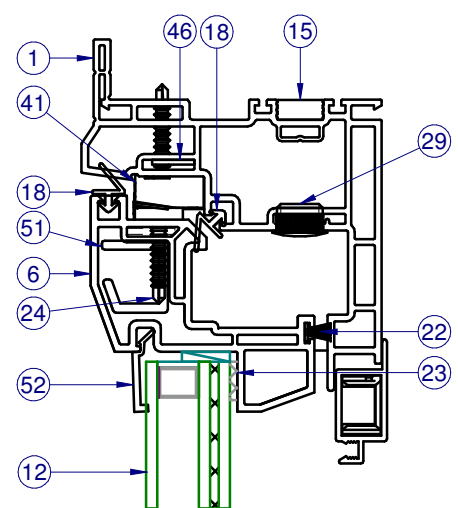
INTERIOR



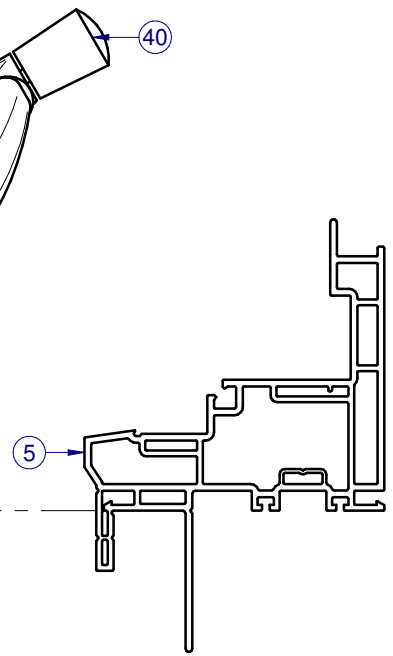
SECTION VIEW B-B



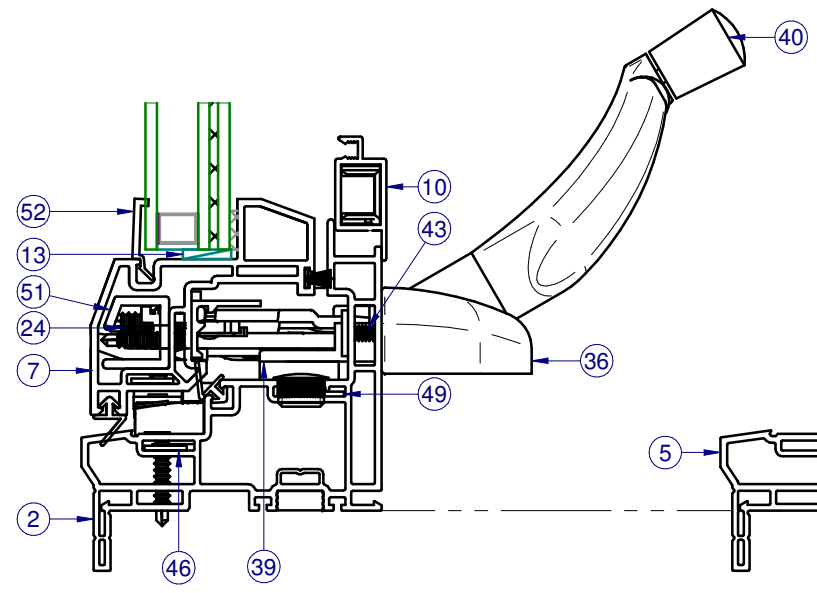
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SECTION VIEW A-A



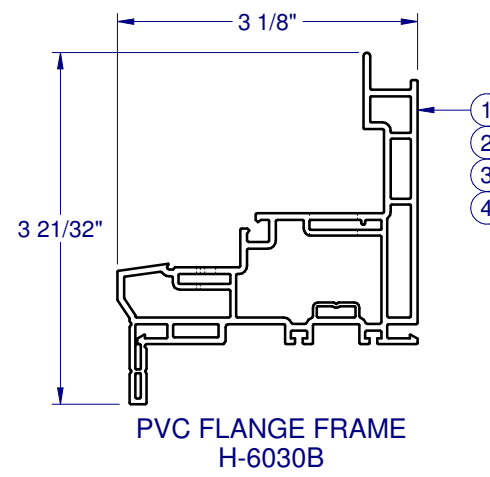
ALTERNATE FIN FRAME



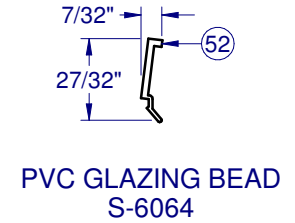
ITEMS NOT SHOWN FOR CLARITY:  
14, 16-17, 19-20, 25, 27, 32, 34, 37-38, 42, 44-45, 50

**PARTS LIST**

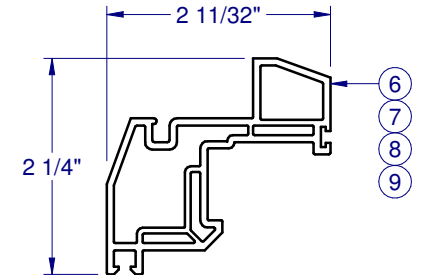
ITEM	PART #	DESCRIPTION	VENDOR	MATERIAL
1	H-6030B	FR., CASE., MAIN, HEAD	MIKRON	PVC
2	H-6030B	FR., CASE., MAIN, SILL	MIKRON	PVC
3	H-6030B	FR., CASE., MAIN, JB., RIGHT	MIKRON	PVC
4	H-6030B	FR., CASE., MAIN, JB., LEFT	MIKRON	PVC
5	H-6030A	FR., CASE., W/ FIN	MIKRON	PVC
6	H-6008	SASH, CASE., TOP RAIL	MIKRON	PVC
7	H-6008	SASH, CASE., BOT. RAIL	MIKRON	PVC
8	H-6008	SASH, CASE., SIDE RAIL, HINGE	MIKRON	PVC
9	H-6008	SASH, CASE., SIDE RAIL, LOCK	MIKRON	PVC
10	H-1592	SCREEN RAIL, SIDE/BTM	KEYMARK	ALUM
11	H-1593	SCREEN RAIL, TOP/SIDE	KEYMARK	ALUM
12	GLASS	SEE SHEET 2		
13	P-3028	SET. BLK., 85 DUR., 1/8" X 7/8" X 2" LG.	FRANK LOWE	RUBBER
14	P-3029	SCREEN LIFT-OUT	SUMMIT	
15	P-3113	SCREW SUPPORT FOR PVC	TEAM PLASTICS	RUBBER
16	P-3195	SCREEN SPRING, NO HOLE TENSION		
17	P-3197	SCREEN CORNER KEY	M&M	NYLON
18	P-3217	WSTP., WHITE LEAF SEAL, FRAME	AMESBURY	RUBBER
19	P-3228	SCREEN SPLINE, .155 DIA, BLK	DAPA	
20	P-3281	SPACER, DURASEAL, SEE SHEET 3	DURASEAL	TRUSEAL
21	P-3342	SEAM SEALER, SM-5504	SCHNEE	SILICONE
22	P-3429	WSTP., .270 X .187 BACK, ULTRA FIN, BLACK, SASH	ULTRAFAB	
23		PURFECT GLAZE "H" , SIKAFLEX 552	HENKEL, SIKA	
24	P-3539	#8 X 3/4" QUAD PH TEK, ZINC, SCREW		
25	P-3581	SCREEN CLOTH, 18 X 16 FIBERGLASS	PHIFER	
26	P-3587	#8 X 1" PH FH TEK 2, SS, SCREW	FASTENAL	SS
27	P-3613	CWS LBL. (LOGO)		
28	P-3685	CS-8400 GOLD CERT. LABEL, NFRC TAB		
29	P-3752	CAP PLUG, 1/2" HOLE	M&M	NYLON
30	P-3881	TEMPORARY LBL. (NFRC/DP)		
31	P-3940	SNUBBER, SS, PVC		
32	P-4003	TIE BAR GUIDE, ROTO. HDWE.	ROTO	SS
33	P-4004	#8-32 X 1/2" PH PH, MS, SS (ROTO HDWE. LOCK)	FASTENAL	SS
34	P-4005	SUPPORT PLATE, LOCK, SS, ROTO HDWE. (Use w/ P-4006)	ROTO	SS
35	P-4006	LOCK, MULTI-POINT, ROTO HDWE., WHITE	ROTO	SS
36	P-4007	ROTO. OPERATORS (FOR LEFT/RIGHT OPEN CASEMENT)	ROTO	SS
37	P-4009	TRACK & SLIDER ASSM., ROTO OPER., ROTO HDWE., (13")	ROTO	SS
38	P-4010	STUD BRKT., ROTO OPER., L.H., ROTO HDWE.	ROTO	SS
39	P-4012	SHIM, ROTO OPERATOR, ROTO HDWE. (4.8mm)	ROTO	NYLON
40	P-4014	HANDLE, STD, ROTO OPER, ROTO HDWE. (WHITE)	ROTO	ZINC
41	P-4018	HINGES (LEFT/RIGHT FOR LEFT OR RIGHT OPEN CASEMENT)	ROTO	SS
42	P-4020	SUPPORT WASHER, ROTO OPER, ROTO HDWE. (SS)	ROTO	SS
43	P-4021	#8-32 x 3/4" Quad FH W/ 1/16" Lead, MS, SS, ROTO OP., ROTO	FASTENAL	SS
44	P-4024	GASKET, ROTO OPER., ROTO HDWE., 1/16"	HOP	
45	P-4031-P-4040	TIE-BARS, ROTO HDWE. 1-5 LOCKPOINTS, SS (BY OA HGT.)	ROTO	SS
46	P-4050	REINF. COIL-ALUMINUM, 5052-H32 (.050 X .437), HD	PRECISION STEEL	ALUM
47	P-4043	STRIKE, MULTIPOINT	M&M	NYLON
48	P-4146	#8 x 3/4" PH FLAT TEK, SS	FASTENAL	SS
49	P-4491	REINF. COIL-ALUMINUM, 5052-H32 (.062 X .656), HD	PRECISION STEEL	ALUM
50	P-4641	#8 x 5/8" PH FLAT TEK, #7 HEAD, SS	FASTENAL	SS
51	S-1505	REINF. CASE. SASH	KEYMARK	ALUM
52	S-6064	GLZ. BD., 7/8"	MIKRON	PVC



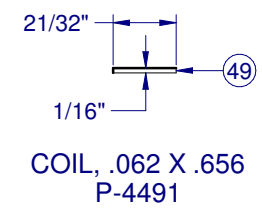
PVC FLANGE FRAME  
H-6030B



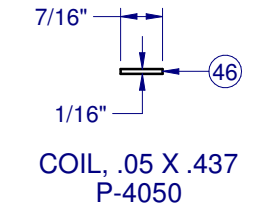
PVC GLAZING BEAD  
S-6064



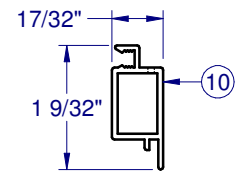
PVC SASH  
H-6008



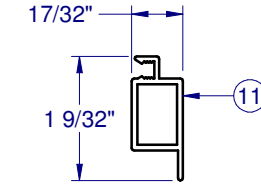
COIL, .062 X .656  
P-4491



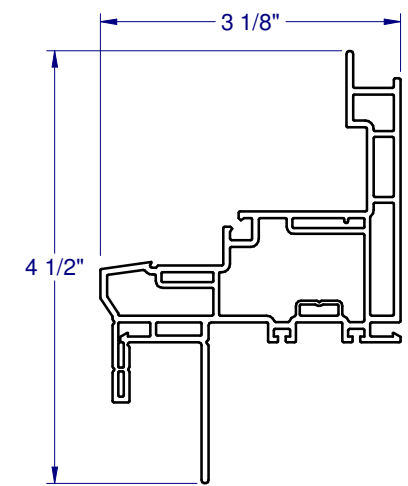
COIL, .05 X .437  
P-4050



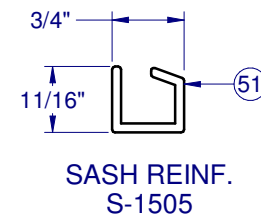
SCREEN RAIL SIDE/BTM  
H-1592



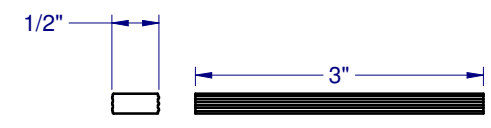
SCREEN RAIL TOP/SIDE  
H-1593



PVC FIN FRAME  
H-6030A



SASH REINF.  
S-1505

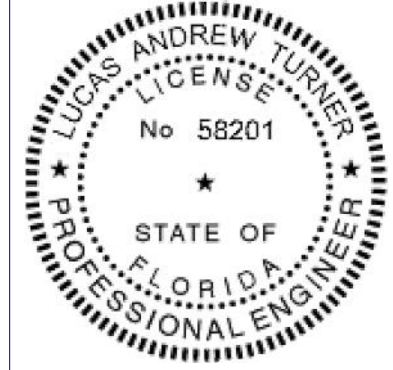


SCREW SUPPORT  
P-3113

**Custom**  
**WINDOW SYSTEMS**  
1900 SW 44TH AVE.  
OCALA, FLORIDA 34474  
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**8400 PVC  
CASEMENT  
IMPACT**

NO.	DESCRIPTION	BY	DATE
C	UPDATED PER 2014 FBC	TEF	03/18/15
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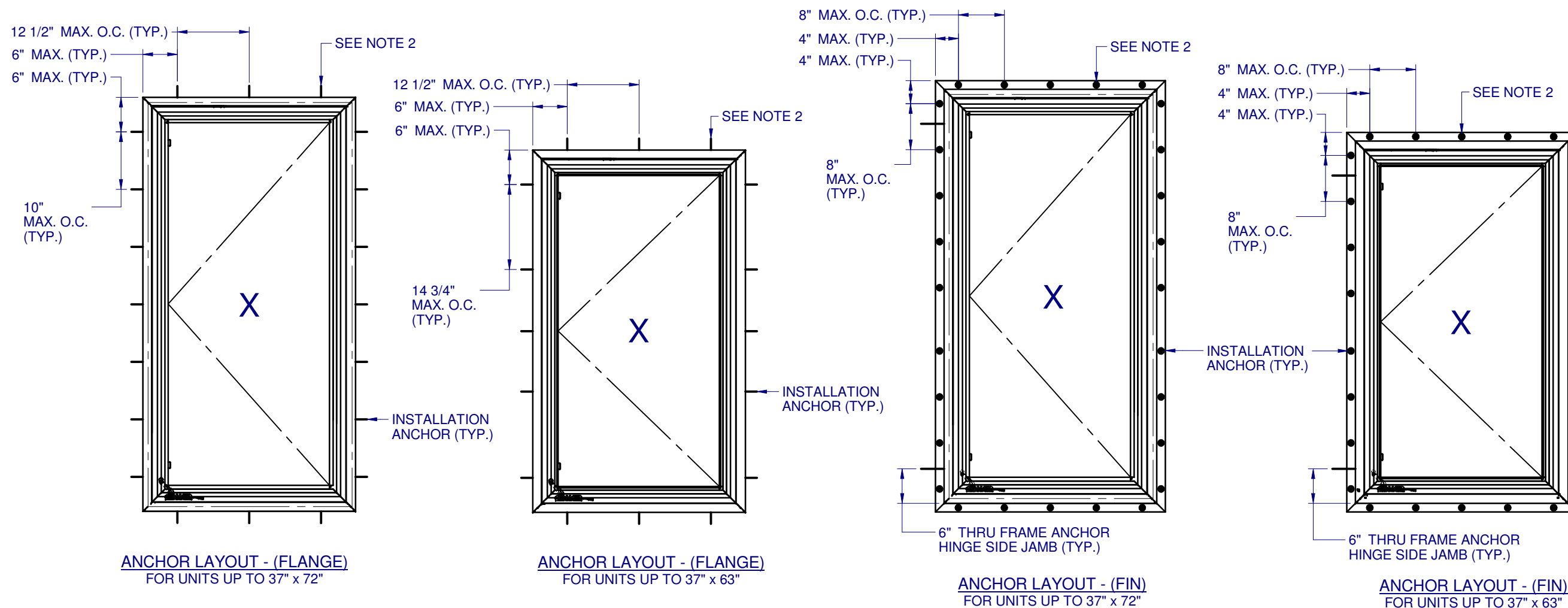


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SHEET DESCRIPTION:	
DRAWN BY:	DATE:
ADE	05/05/07
DWG #:	REV.:
CWS-161	C
SCALE:	SHEET
2:1	4 OF 6

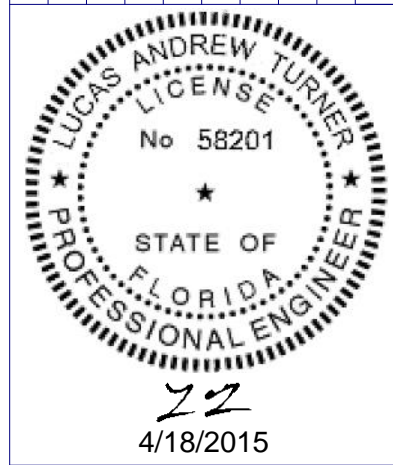


**8400 PVC  
CASEMENT  
IMPACT**



- 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 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 TABLE 1, 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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NORTH PORT, FL 34288  
PH. 941-380-1574

SHEET DESCRIPTION:  
**ANCHOR SCHEDULE & NOTES**

DRAWN BY:	DATE:
ADE	05/05/07
DWG #:	REV.:
CWS-161	C
SCALE:	SHEET
1:20	5 OF 6

**8400 PVC  
CASEMENT  
IMPACT**

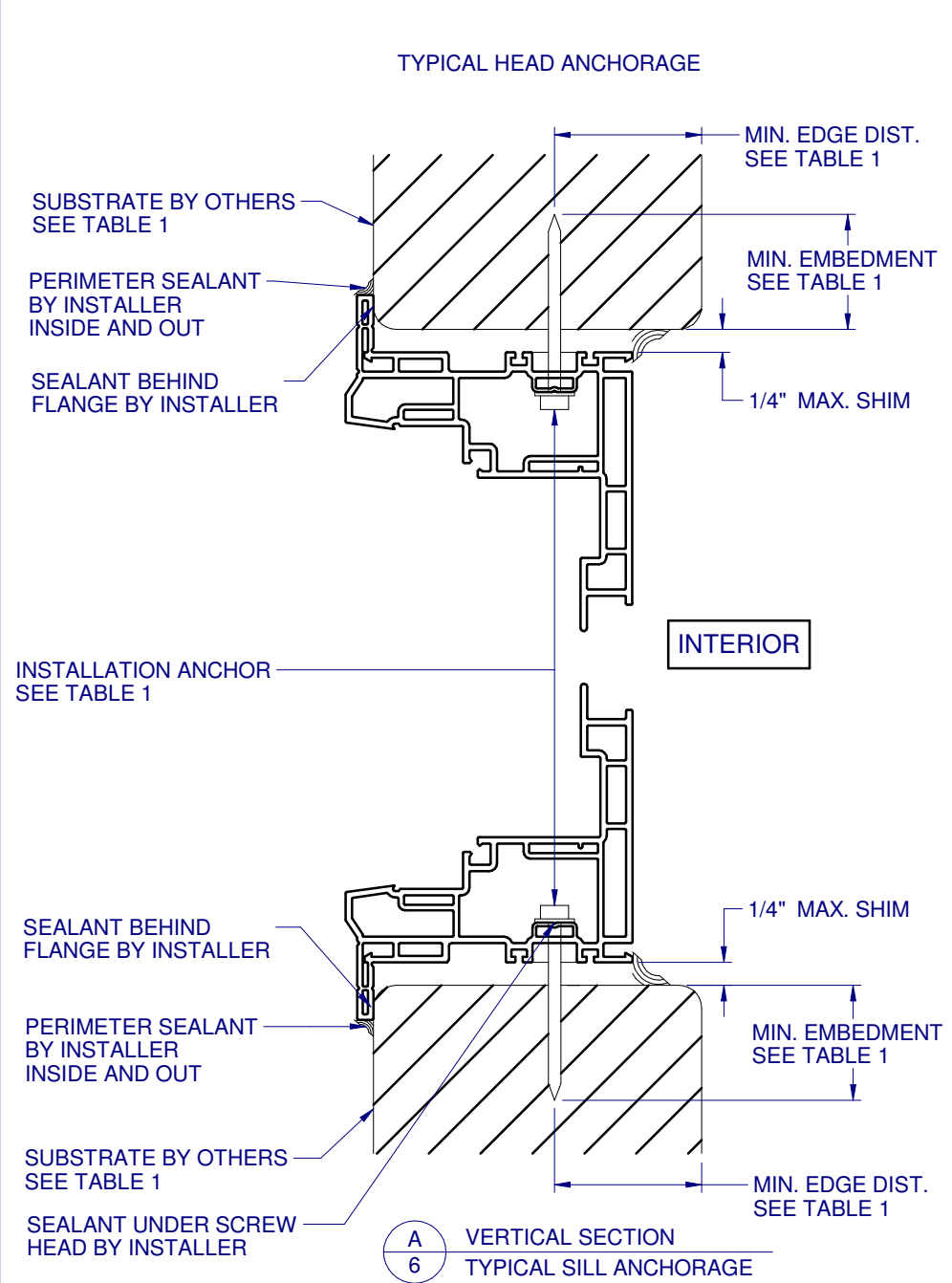
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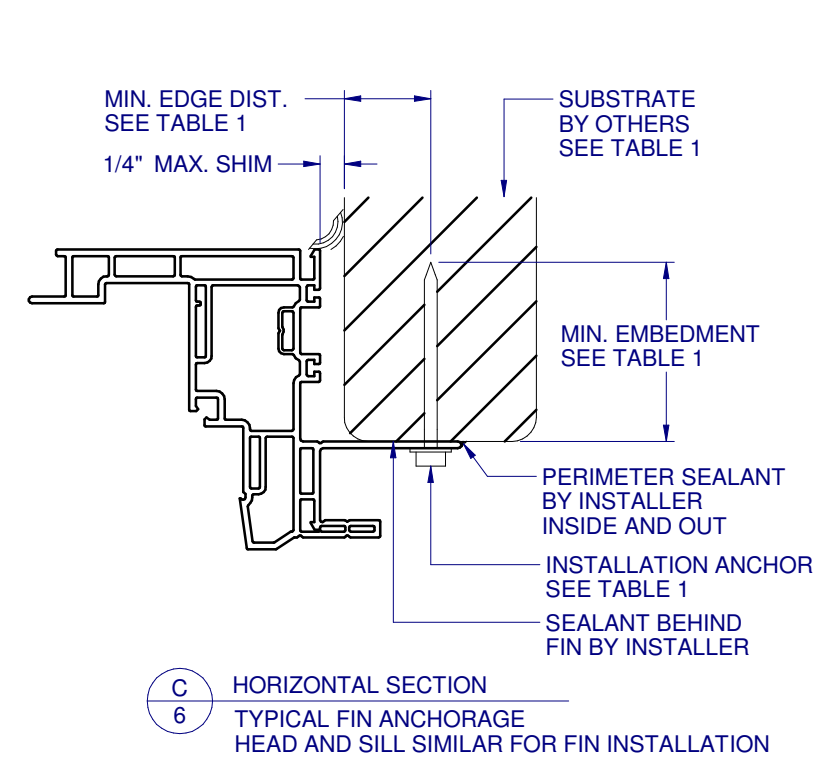
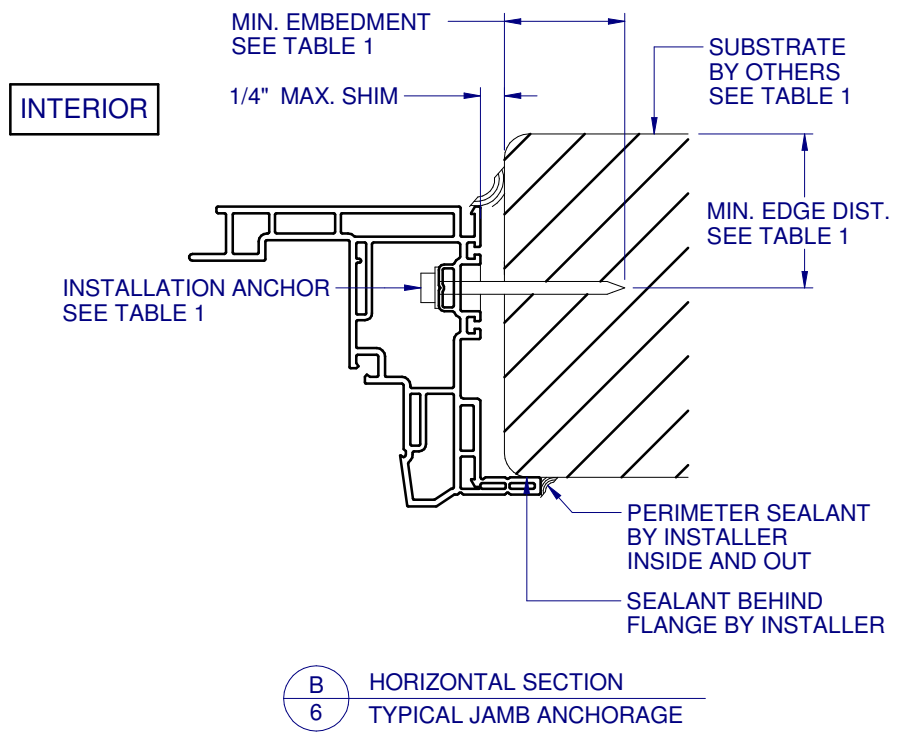
LUCAS A. TURNER, P.E.  
FL PE # 58201  
1239 JABARA AVE.  
NORTH PORT, FL 34288  
PH. 941-380-1574

SHEET DESCRIPTION:  
**INSTALLATION DETAILS**

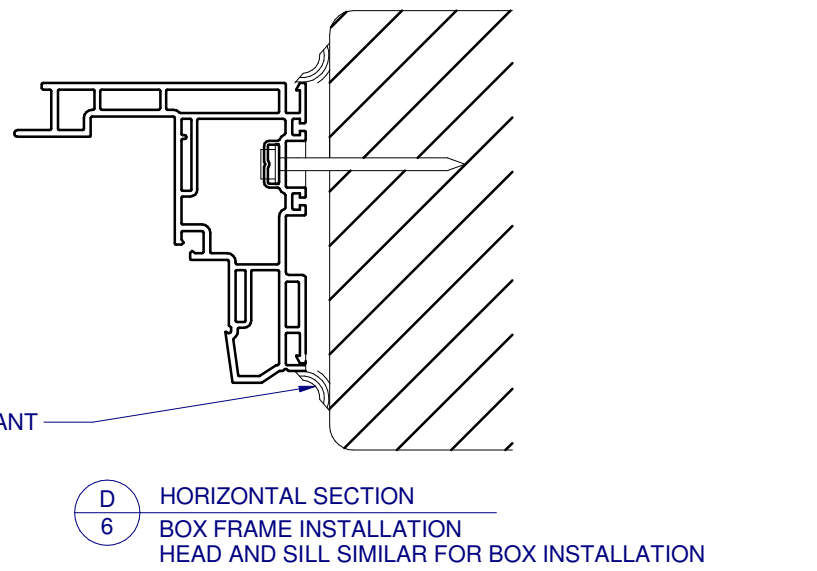
DRAWN BY:	DATE:
ADE	05/05/07
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CWS-161	C
SCALE:	SHEET
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FRAME TYPE	SUBSTRATE TYPE	ANCHOR TYPE	MIN. EMBEDMENT	MIN. EDGE DIST.
FLANGE	CONCRETE (2.0 KSI MIN.)	3/16" ITW TAPCON	1-1/2"	1-1/8"
FLANGE	HOLLOW OR GROUT-FILLED CMU (117 PCF MIN.)	3/16" ITW TAPCON	1"	2"
FLANGE	CONCRETE (2.85 KSI MIN.)	3/16" ELCO ULTRACON	1"	1"
FLANGE	GROUT-FILLED CMU (ASTM C-90)	3/16" ELCO ULTRACON	1-1/4"	2-1/2"
FLANGE	2X MIN. SOUTHERN PINE (G=0.55)	3/16" ITW TAPCON OR ELCO ULTRACON	1-3/8"	7/8"
FLANGE	2X MIN. SOUTHERN PINE (G=0.55)	#10 WOOD SCREW	1-3/8"	7/8"
FLANGE	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"
FLANGE	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. SPRUCE-PINE-FIR (G=0.42)	#8 WOOD SCREW	1-1/2"	7/16"



NOTE: ADDITIONAL THRU-FRAME ANCHORS (AS SHOWN IN DET. B/6) REQ'D AT THE HINGE SIDE JAMB, SEE SHEET 5 ANCHOR LAYOUT.



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.